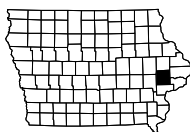


LETTING DATE
 XX-XX-XXXX
PCC PVT WIDENING / HMA RESURFACING
IM-080-7(132)266--13-16
CEDAR CO.

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
* A.2	Location Map Sheet
A.3 - 4	Field Exam Checklist & Notes
A.5 - 11	Design Criteria Sheets
A.12	Interchange Design Year ADT
A.13 - 14	Design Decision Logs
A.15 - 20	Project Concept Statement
B Sheets	Typical Cross Sections and Details
B.1 - 15	Typical Cross Sections
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 47	I-80
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 2	306th St
* E.3 - 4	307th St
* E.5 - 6	Moscow Rd
* E.7 - 8	Pine Ave/Old Muscatine Rd
* E.9	306th St (B)
* E.10	East St
* E.11	Old Muscatine Rd
* E.12	Rose Ave
* E.13	Taylor Ave
* E.14	Vermont Ave
* E.15	Yankee Ave
G Sheets	Survey Sheets
G.1	Survey Information
G.2	Control Point Vicinity Map
G.3	Horizontal Control Tab.
J Sheets	Traffic Control and Staging Sheets
J.1 - 2	Staging Notes
* J.3	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.4 - 9	Staging and Traffic Control Typical Section Sheets
* J.10 - 13	Bridge Reconstruction Detour Routes
K Sheets	Interchange Sheets
* K.1 - 2	Moscow Rd Interchange Layout
* K.3	Moscow Rd Ramp A
* K.4	Moscow Rd Ramp B
* K.5	Moscow Rd Ramp C
* K.6	Moscow Rd Ramp D
* K.7	Truck Parking Interchange Layout
* K.8	Truck Parking Ramp A
* K.9	Truck Parking Ramp B
* K.10	Truck Parking Ramp C
* K.11	Truck Parking Ramp D
* K.12 - 13	Rest Area Interchange Layout
* K.14	Rest Area Ramp A
* K.15	Rest Area Ramp B
* K.16	Rest Area Ramp C
* K.17	Rest Area Ramp D
* K.18 - 19	Rose Ave Interchange Layout
* K.20	Rose Ave Ramp A
* K.21	Rose Ave Ramp B
* K.22	Rose Ave Ramp C
* K.23	Rose Ave Ramp D
* K.24 - 25	Yankee Ave Interchange Layout
* K.26	Yankee Ave Ramp A
* K.27	Yankee Ave Ramp B
* K.28	Yankee Ave Ramp C
* K.29	Yankee Ave Ramp D
V Sheets	Bridge and Culvert Situation Plans
V.1 - 10	Bridge Situation Plans
V.11 - 23	Culvert Situation Plans



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM

CEDAR COUNTY

PCC PVT WIDENING / HMA RESURFACING

E of the Cedar River to approx 0.5 mi W of Co Rd Y26

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.



For Project Location Map
Refer to Sheet A.2

DESIGN DATA RURAL			
2020	AADT	20,819	V.P.D.
2040	AADT	38,304	V.P.D.
2040	DHV	--	V.P.H.
	TRUCKS	37	%
	Total		
	Design ESALs	--	

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

REVISIONS

TOTAL

1168

PROJECT IDENTIFICATION NUMBER

14-16-080-020

PROJECT NUMBER

IM-080-7(132)266--13-16

R.O.W. PROJECT NUMBER

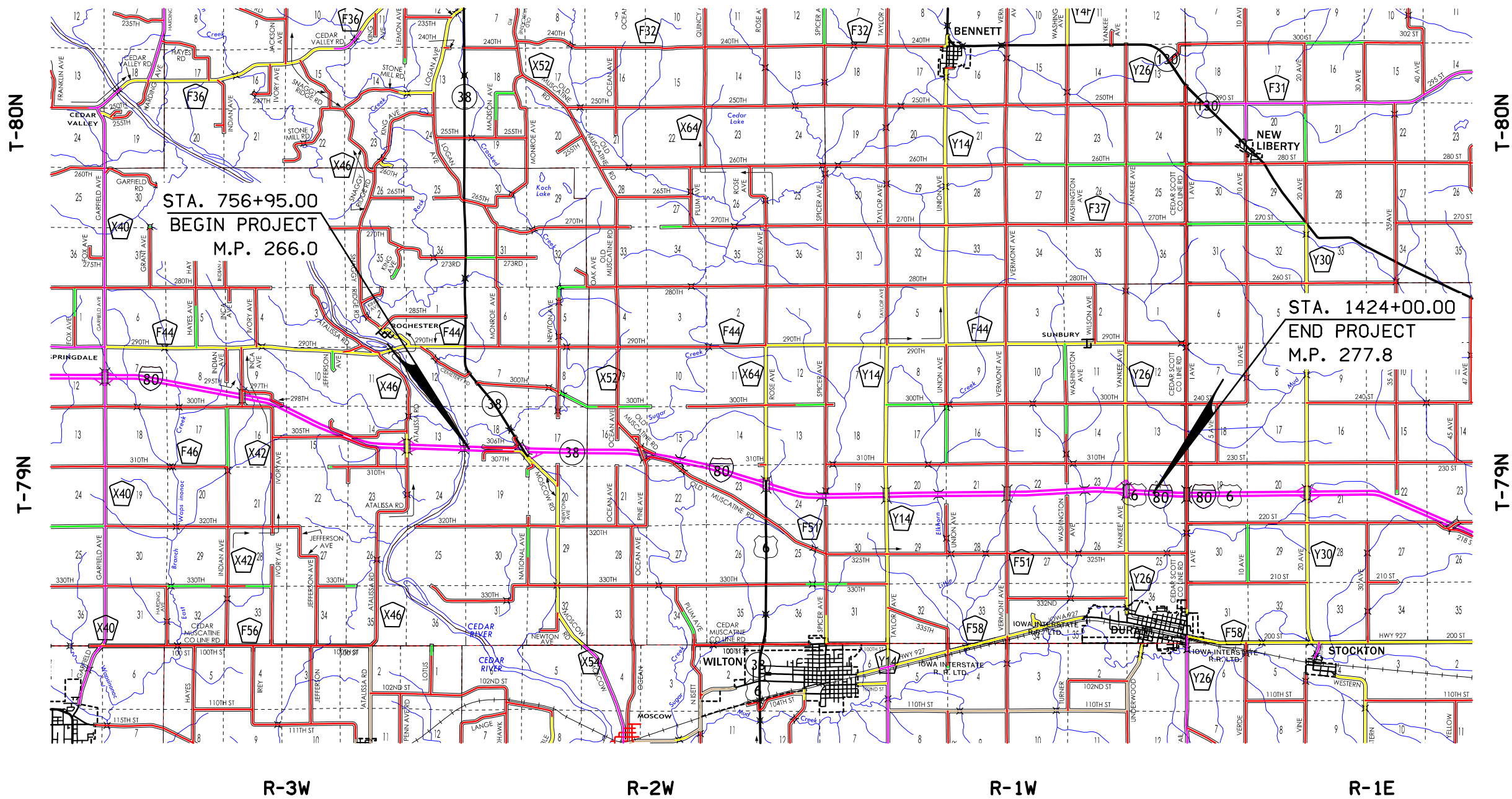
INDEX OF SHEETS

No.	DESCRIPTION
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 354	I-80 Westbound
W.355 - 710	I-80 Eastbound
X Sheets	Side Road Cross Sections
X.1 - 18	306th St
X.19 - 46	307th St
X.47 - 65	Moscow Rd
X.66 - 88	Pine Ave/Old Muscatine Rd
X.89 - 90	306th St (B)
X.91 - 96	East St
X.97 - 115	Old Muscatine Rd
X.116 - 130	Rose Ave
X.131 - 143	Taylor Ave
X.144 - 158	Vermont Ave
X.159 - 177	Yankee Ave
Y Sheets	Ramp Cross Sections
Y.1 - 11	Moscow Rd Ramp A
Y.12 - 23	Moscow Rd Ramp B
Y.24 - 30	Moscow Rd Ramp C
Y.31 - 36	Moscow Rd Ramp D
Y.37 - 39	Truck Parking Ramp A
Y.40 - 42	Truck Parking Ramp B
Y.43 - 44	Truck Parking Ramp C
Y.45 - 47	Truck Parking Ramp D
Y.48 - 51	Rest Area Ramp C
Y.52 - 53	Rest Area Ramp D
Y.54 - 64	Rose Ave Ramp A
Y.65 - 75	Rose Ave Ramp B
Y.76 - 81	Rose Ave Ramp C
Y.82 - 88	Rose Ave Ramp D
Y.89 - 96	Yankee Ave Ramp A
Y.97 - 103	Yankee Ave Ramp B
Y.104 - 110	Yankee Ave Ramp C
Y.111 - 116	Yankee Ave Ramp D
	* Color Plan Sheets

PRELIMINARY PLANS

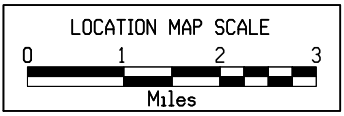
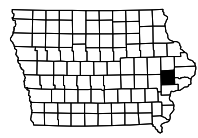
Subject to change by final design.

D2 PLAN - Date: 6-18-19



STA. 756+95.00
BEGIN PROJECT
M.P. 266.0

STA. 1424+00.00
END PROJECT
M.P. 277.8



- Bench information for foreslopes and/or backslopes.
- Cut and fill quantities with borrow or waste circled.

Plan Review Prior to Field Exam

The Field Exam Engineer will review the plans to become familiar with the scope of the project and the proposed design. The following checklist is provided for this review:

- Are plans complete enough to conduct the field exam and are they legible?
- Check the typical section. Are L, R, and BW correct for the assumed pavement thickness?
- Review the disposition shown for all drainage areas, whether diversion of water appears possible, and if the outlets for drainage areas are being cut out.
- Is the proposed profile grade high enough for adequate snow storage or is it too high requiring too much borrow?
- Do taper lengths, spirals, vertical curves, etc. conform to current design standards?
- What are the right-of-way impacts? Are "line shifts" necessary to minimize excess right-of-way? Are right-of-way "need" lines shown on the plans?
- Is design year traffic for the mainline and side roads shown on the plans?
- Is/are detour route(s) required for construction? If so, have any recommendations been made by Design? Does the map on the title sheet cover the detour area?
- Review the proposals made for the disposition of waste.
- Review the proposals made for the disposition of removal items.
- Review whether the class of access control has been shown.

Checklist for the Field Examination

- Review the preliminary plans for any new items that should be included and/or any old items that should be removed since the preliminary data was obtained.
- Review the profile grades and horizontal alignment to determine if it fits the terrain. Also, do the proposed horizontal and vertical geometrics provide a good economical design to accomplish the intended need?
- Review drainage in regard to the following aspects:
 - Does the proposed grade line provide adequate positive drainage?
 - What relationship does drainage have with adjacent property?
 - Are the proposed drainage structures satisfactory, is there a diversion of water, and what is the condition of the structures being extended?
 - Do structures in drainage channels need provisions for the future lowering of the channel (this is of particular importance in regard to river bottoms and Northern Iowa flatland); attention should be given to established drainage ditches?
 - Are ditches, as proposed, going to satisfactorily drain the road without excessive erosion problems or diversion of water?
 - Are there areas which appear to need intercepting ditches or are there any proposed which appear to be unnecessary?

- Determine if any "letdown" structures are needed in backslopes or side ditches.
- Examine channel changes to determine if they are warranted.
- Review the traffic management assessment provided by the Office of Traffic and Safety, or the traffic control/staging concept developed in the project concept or by the Project Management Team. Examine whether or not additional measures are required for traffic management to mitigate traffic congestion and whether or not the project is constructible as staged. While on the field exam, discuss and document the traffic control measures decided on. Measures may include modifying contract periods to accelerate project completion, use of lane rental or incentives/disincentives for timely contract completion, extra law enforcement, special traffic control details, additional motorist warning devices, etc.
- Review whether sideroads/interchanges need to be kept open to maintain access or if closures are necessary. Discuss detour/runarounds in regard to surfacing, potential improvements to the detour route for capacity, or other safety measures. Determine if a county agreement is necessary. Document the additional Traffic Control measures requested in the field exam letter in the paragraph on staging/traffic control.
- Review if there are areas that may need to involve possible winter carry over of traffic control in the construction zone. Determine who will be responsible for maintaining the traffic control during this time period.
- Review whether proposed drives and field entrances give satisfactory access and whether there is adequate sight distance on the side roads for entering the primary road. In addition, the team will determine whether there are any proposed drives or entrances which appear unneeded and unwarranted.
- Review whether the abutments of two span bridges over the mainline encroach on sight distance on horizontal curves.
- The indication of needed horizontal line shifts will be reviewed by the team and a determination made of the apparent effect of the proposed road on the adjacent right-of-way. Review damage to farmsteads; see if minimum ditches are possible. Can we provide mowable backslopes either in our design or in the ROW agreement?
- Do entrances provide access to every part of the property?
- Can entrances with steep grades be adjusted or moved in order to reduce the grade?
- The team will review soils from the following aspects:
 - Determine if there are areas that appear unstable and need special attention for grade or alignment.
 - Determine whether there is an estimate of "boulders" required for bid item. If so, this will normally be proposed by the Soils Engineer with District Office concurrence.
 - Determine whether there appears to be changes needed in the "shrink factors." If so, this will normally be proposed by the Soils Engineer with District Office concurrence.
- The team will make proposals for borrow considering the following aspects:
 - Are there any particularly desirable areas for borrow?
 - Can excess right-of-way serve as borrow area?
 - Can the selected borrow improve either snow, aesthetics, or wetland mitigation?
 - If the borrow needs to be drained is there a suitable drainage channel? Who owns the drainage channel?
 - Consider oversize ditches and widened backslopes for borrow.

Field Exam Checklist (Design Manual)

FIELD EXAM NOTES

Chapter 1—General Information

- The following aspects of roadside development and erosion control should be considered by the team:
 - Are there any areas requiring special erosion control work during grading?
 - Are there areas which might be considered scenic or historic which can be preserved or enhanced?
 - Can inlets of ditches be raised to help upstream erosion conditions?
 - Are proposed ditches going to satisfactorily drain the road without erosion problems or diversion of water?
 - Are there trees or similar environmentally sensitive areas which can be saved?
 - Are there any areas that appear to be wetlands and could line shifts minimize impacts to these areas? If line shifts cannot minimize the impacts, what type of mitigation is needed? Are there impacts to any ponds or ponds that need to be drained?
- Review the need for shielding obstacles, steep embankments, or other areas of concern. Review flattening foreslopes and extending culverts to eliminate the use of guardrail.
- Review the proposals for disposition of removal items such as pavement (will it be used as subbase?), bridges, culverts, guardrail, etc.
- Ascertain the stations of locating tile lines.
- Review the fencing requirements on fully controlled access roads with particular attention given to culvert areas and special ditch areas for livestock control.
- Review existing lighting at secondary and minor roads and determine who owns these and is responsible if they are disturbed. The location and construction of these should be noted.

Field Exam Plan Notes

- The Field Exam Engineer should list all people participating in a field examination and their identification on the title sheet of the plans.
- The Field Exam Engineer will have the responsibility of obtaining notes documenting all decisions made during the field examination.
- The Field Exam Engineer should check each sheet of the plans to make sure all questions are answered and that all proposals are accounted for, approved, changed, or further courses of action indicated. General notes affecting the whole project should be on the title sheet.

Post Field Exam

- The field exam plans will be reviewed with the Assistant Design Engineer, Design Projects Engineer, the designer, and the Field Exam Engineer following the field exam. After discussion of the plans, the Assistant Design Engineer initials and dates the field exam plan.
- A detailed post field exam letter will be written by the Field Exam Engineer covering all of the major areas of discussion, decisions made, and any requests for additional information, survey, or unanswered questions. All items of discussion and differing opinions must be resolved and documented in the letter.
- The field exam letter should be addressed to the District Office Design Engineer.
- Copies of the field exam letter should be sent to the following (use the applicable individual names in place of the position titles):

Field Exam Checklist (Design Manual)

Roadway	Interstate 80		
PIN Number	14-16-080-020	Submittal Date	
Project Number	M-080-7(132)266--13-16	Approval Date	
District	District 6	Assistant District Engineer	
County	CEDAR	or	
Route	I-80	Office Director	
Location	East of the Cedar River to approximately 0.5 miles east of County Road Y26		
Work Type	Overlay, widening		
Segment Manager			
Designer			

Rural Interstates (Rural Freeways)			
Design Element	Preferred	Acceptable	Project Values
Design speed (mph)	75	70	75 (1)
Maximum superelevation rate (%) (Refer to Section 2A-2)	6	8	6
Design lane width (ft)	12	12	12
Full depth paved width (ft)	Outside lane	12	12
	Inside lane(s)	12	12
Auxiliary-lane width (ft)	12	12	12
Pavement cross-slope (on tangent sections)	Through lanes	2%. However, when adjacent lanes slope in the same direction, increase slope by 0.5% per lane up to 3%	1.5% minimum, 3% maximum +2%/ -2%/ -2.5%
	Auxiliary lanes	3%	3% maximum 3%
	Crown break at centerline	4%	4% maximum 4%
Shoulder cross-slope (on tangent sections)	Interstates	4%	6% max, but not less than the cross slope of the adjacent lane 4% (2)
	Freeways	4%	6% max, but not less than the cross slope of the adjacent lane --
Curb type (Refer to Section 3C-2)	Interstates	4-inch sloped	4-inch sloped None Anticipated
	Freeways	4-inch sloped	4-inch sloped --
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	4:1 for Interstates, 3:1 for Freeways* 10:1 for 4' then 6:1 (3)
	Beyond standard ditch depth and design clear zone	3.5:1	3:1 3.5:1
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)	Curbed roadways	2%	4:1 for Interstates, 3:1 for Freeways* --
		3:1	2.5:1 2.5:1 (4)
Transverse Slopes	w/ drainage structures	8:1	6:1 8:1
	w/o drainage structures	10:1	6:1 10:1
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	-- 5x10
	Median ditch depth (ft)	4	2 3
Median width (ft) (Refer to Section 3E-1)	Interstates	82	36 50
	Freeways	64	50 --
Bridge width--new***	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths	design lane widths + effective shoulder widths --
	Bridge length > 200 ft	design lane widths + effective shoulder widths	design lane width + 4' right and left of the design lane widths Design lane width + shoulder widths
Bridge width--existing***	Bridge length ≤ 200 ft	design lane widths + no less than 10' right and 3.5' left	design lane widths + 10' right shoulder and 3.5' left shoulder --
	Bridge length > 200 ft	design lane widths + no less than 3.5' right and left	design lane widths + 3.5' right and left of the design lane widths --
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16 16.5
	Over non-primary	16.5 at interchange locations, 15 ft at all other locations	14 16.5
	Over railroad	23.3	23.3 23.3
Structural Capacity	Sign trusses and pedestrian crossings	17.5	17 17.5
		Contact Office of Bridges and Structures	Contact Office of Bridges and Structures HL-93
Level of Service	Freeway segments	B	B B
	Auxiliary facilities	B	B** B

*Design Exception not required for Freeways
 **LOS C may be acceptable in spot locations with FHWA approval
 ***FHWA notification via email is required if acceptable criteria is not met on the Interstate or NHS systems (No formal design exception required)

- Notes:**
 (1) Overlay and widening construction areas will UAC existing Design Speed. New reconstruction areas will use 75mph wherever feasible.
 (2) Median foreslopes will be as steep as 4:1 to maintain existing median ditch grades and reduce impacts within the wide median area.
 (3) 3% full depth shoulders used when they are to become the future 4th lane.
 (4) Backslopes will be as steep as 2.5:1 to reduce impacts within the wide median area.

Roadway Design Speed (mph) =		75		Design Criteria for High Speed Roadways											
Design Element		Preferred Criteria Design Speed, mph						Acceptable Criteria Design Speed, mph						Project Values	
		50	55	60	65	70	75	50	55	60	65	70	75		
Stopping sight distance (ft) (Refer to Section 6D-1)		425	495	570	645	730	820	425	495	570	645	730	820	820 (1)	
Minimum horizontal curve radius (ft) (Refer to Sections 2A-2 and 2A-3)	Method 5 superelevation and side friction distribution	833	1060	1330	1660	2040	2500	833	1060	1330	1660	2040	2500	2500	
	$e_{max} = 6\%$ $e_{max} = 8\%$	--	--	--	--	--	--	758	960	1200	1480	1810	2210	--	
Minimum vertical curve length (ft) (Refer to Section 2B-1)		150	165	180	195	210	225	150	165	180	195	210	225	225	
Minimum rate of vertical curvature (K) (Refer to Section 2B-1)	crest vertical curves	84	114	151	193	247	312	84	114	151	193	247	312	312 (2)	
	sag vertical curves	96	115	136	157	181	206	96	115	136	157	181	206	206 (3)	
Minimum gradient (%) (Refer to Section 2B-1)		0.5						0.3% with a curb, 0.0% without a curb						0.132%	
Maximum gradient (%) (Refer to Section 2B-1)	Urban roadways	4		3				7	6	6	--	--	--	--	
	Rural roadways	4		3				5	5	4	4	4	4	3.08	
	Interstates	4		3				5	5	4	4	4	4	3.08	
Clear zone		See "Preferred Clear Zone" table in Section 8A-2						See "Acceptable Clear Zone" table in Section 8A-2						34 (4)	

- Notes:**
 (1) Overlay and widening construction areas will UAC existing Stopping Sight Distance. New reconstruction areas will use 820' wherever feasible.
 (2) Overlay and widening construction areas will UAC existing Crest K Values (minimum=263). New reconstruction areas will use 312.
 (3) Overlay and widening construction areas will UAC existing Sag K Values (minimum=149). One new reconstructed sag curve will have a K value of 176 due to the proximity to an existing bridge. All other reconstruction areas will use 206.
 (4) Clear Zone measured from the edge of pavement will vary at auxiliary lanes as follows: Moscow Ramps A & D, Rose Ramp C = 30'; Moscow Ramp B & D, Welcome Center Ramps A, B, C, & D, Rose Ramp B, Yankee Ramp A & D = 24'; Truck Stop Ramps A, B, C, & D, Rose Ramp A & D, Yankee Ramps = 22'

Directional Design Hourly Volume (DDHV) for Trucks =	425
---	------------

Effective Shoulder Width and Type for Interstates (Freeways)					
Auxiliary Lanes	Preferred (values shown in feet)		Acceptable (values shown in feet)		Project Values
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	
	6	6	6	6	6

Design Year Traffic	4-Lane Sections								Project Values
	Outside		Median Side		Outside		Median Side		
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	
Less than or equal to 250 DDHV	10	10	6	6	10	10	4	4	--
Greater than 250 DDHV	12	12	6	6	12	12	4	4	--

Design Year Traffic	Sections with 6 or more lanes								Project Values
	Outside		Median Side		Outside		Median Side		
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	
Less than or equal to 250 DDHV	10	10	10	10	10	10	10	10	--
Greater than 250 DDHV	12	12	12	12	12	12	12	12	12 Outside 10 Median Side (1)

Curbs should be located beyond the outer edge of the paved shoulder

- Notes:**
 (1) Recently accepted guidance allows for a 10' median shoulder.

Design Criteria
Mainline I-80

Roadway	Moscow Rd & Rose Ave		
PIN Number	14-16-080-020	Submittal Date	
Project Number	IM-080-7(132)266--13-16	Approval Date	
District	District 6	Assistant District Engineer	
County	Cedar	or	
Route	IA 38, US 6	Office Director	
Location	X54, X64		
Work Type	Reconstruction		
Segment Manager			
Designer			
<small>Design Manual Section 1C-1 Last Updated: 04-29-19</small>	Rural Two-Lane Highways (Rural Arterials)		
Design Element	Preferred	Acceptable	Project Values
Design speed (mph)	60	50	60
Maximum superelevation rate (Refer to Section 2A-2)	6%	8%	6%
Design lane width (ft)	12	12	12
Full depth paved width (ft)	12	12	12
Right turn lane (ft)	12	10	12
Climbing Lane (ft)	12	12	12
Left turn lane (ft)	12	10	12
Pavement cross-slope (on tangent sections)	Through lanes	1.5% minimum, 2% maximum	2%
	Auxiliary and turn lanes	3% maximum	3%
	Crown break at centerline	4% maximum	4%
Shoulder cross-slope (on tangent sections)	4%	Shoulder cross-slope cannot be less than the adjacent lane, 6% max for paved or granular shoulders, 8% max for earth shoulders	4%
Curb type (Refer to Section 3C-2)	Design speed = 50 or 55 mph	6-inch sloped	6-inch standard
	Design speed ≥ 60 mph	4-inch sloped	6-inch sloped
Foreslope (For fill areas greater than 40 ft, contact the Soils Design Section for assistance)	Adjacent to shoulder	10:1 for 4' then 6:1	10:1 for 4' then 6:1
	Beyond standard ditch depth and design clear zone	3.5:1	3:1
Backslope (For cut areas greater than 25 feet, contact the Soils Design Section for assistance with backslope benches.)	Curbed roadways	2%	not steeper than 3:1
		3:1	2.5:1
Transverse Slopes	w/ drainage structures	8:1	6:1
	w/o drainage structures	10:1	6:1
Ditches (Refer to Section 3G-1)	Outside ditch (depth x width) (ft)	5 x 10	5 x 10
Bridge width—new*	Bridge length ≤ 200 ft	design lane widths + effective shoulder widths	design lane widths + effective shoulder widths
	Bridge length > 200 ft	design lane widths + effective shoulder widths	design lane width + 4' right and left of the design lane widths
Bridge width—existing*		design lane widths + no less than 2 ft left and right	design lane widths + 2 ft. offset left and right
Vertical clearance (ft) (above lanes, shoulders and 25 feet left and right of the center of railroad tracks)	Over primary	16.5	16
	Over non-primary	16.5 at interchange locations, 15 at all other locations	14
	Over railroad	23.3	23.3
	Sign trusses and pedestrian bridges	17.5	17
Structural Capacity	Contact Office of Bridges and Structures	Contact Office of Bridges and Structures	
Level of Service	B	B	B

*FHWA notification via email is required if acceptable criteria is not met on the NHS system (No formal design exception is required)

Design year ADT = 3290		Effective Shoulder Width and Type for Two-Lane Highways			
<small>Design Manual Section 1C-1 Last Updated: 04-29-19</small>					
Preferred (values shown in feet)		Acceptable (values shown in feet)			
	Rural Roadways	Urban Roadways	Rural Roadways	Urban Roadways	Project Values
Turn lanes with shoulders	6	6	Turn lanes with shoulders	6	0
Turn lanes with curbs	6	See Section 3C-2	Turn lanes with curbs	6	0
	Effective Shoulder Width	Paved Width	Effective Shoulder Width	Paved Width	
Climbing Lanes	6	4	Climbing Lanes	4	0
Two-Lane Highways	Effective Shoulder Width	Paved Width	Two-Lane Highways	Effective Shoulder Width	Paved Width
Routes where bicycles are to be accommodated	10	10			
On roadways approaching urban areas (due to increased bike traffic)	10	10	Design year ADT > 2000 vpd	8	0*
On all curves with a superelevation rate of 7.0% or greater	10	10			
On roadways with design year ADT > 5000	10	6	Design year ADT between 400 - 2000 vpd	6	0*
On all other NHS	10	6			
On non-NHS routes with design year ADT > 3000	10	6	Design year ADT < 400 vpd	4	0*
On non-NHS routes with design year ADT < 3000	8	0*			
*Requires safety edge-Refer to Section 3C-6 Curbs should be located beyond the outer edge of the effective shoulder width in rural areas Refer to Section 3C-2 for curb offsets in urban areas					
Notes:					

Roadway Design Speed (mph) = 60		Design Criteria for High Speed Roadways															
<small>Design Manual Section 1C-1 Last Updated: 04-29-19</small>																	
Design Element		Preferred Criteria					Acceptable Criteria					Project Values					
		Design Speed, mph					Design Speed, mph										
		50	55	60	65	70	75	50	55	60	65	70	75				
Stopping sight distance (ft) (Refer to Section 6D-1)		425	495	570	645	730	820	425	495	570	645	730	820	570			
Minimum horizontal curve radius (ft)	Method 5 superelevation $e_{max} = 6\%$	833	1060	1330	1660	2040	2500	833	1060	1330	1660	2040	2500	1330			
	and side friction $e_{max} = 8\%$	--	--	--	--	--	--	758	960	1200	1480	1810	2210	--			
Minimum vertical curve length (ft) (Refer to Section 2B-1)		150	185	180	195	210	225	150	165	180	195	210	225	180			
Minimum rate of vertical curvature (K)	crest vertical curves	84	114	151	193	247	312	84	114	151	193	247	312	151			
	sag vertical curves	96	115	136	157	181	206	96	115	136	157	181	206	136			
(Refer to Section 2B-1)	roadways without fixed-source lighting roadways with fixed-source lighting	96	115	136	157	181	206	54	66	78	91	106	121	--			
Minimum gradient (%)	(Refer to Section 2B-1)	0.5					0.3% with a curb, 0.0% without a curb					0.1					
Maximum gradient (%)	Urban roadways						7	6	6	--	--	--	--	--			
	Rural roadways	4					3					5	5	4	4	4	3
	Interstates						5	5	4	4	4	4	4	4	--		
Clear zone		See "Preferred Clear Zone" table in Section 8A-2					See "Acceptable Clear Zone" table in Section 8A-2					30					

Design Criteria
Moscow Rd. &
Rose Ave.

Roadway	Muscatine/Pine - Local Minor Collector		
PIN Number	14-16-080-020	Submittal Date	
Project Number	IM-080-7(132)266--13-16	Revision Date	
District	District 6		
County	Cedar		
Route			
Location	Over I-80		
Work Type	Reconstruction		
Segment Manager			
Designer			
Design year ADT =	55		
<p>Design Manual Section 1C-1 Last Updated: 04-29-19</p>			

Secondary Roads

Design Elements	Project value	Local Systems I.M. 3.210 value (1)	Remarks
Design speed (mph)	50	45	
Design lane width (ft.)	14	10	
Shoulder width (ft.)	0	4	
Bridge width - new (ft.)	30	24	
Bridge width - existing (ft.)	22	22	
Maximum super elevation rate (%)	6	8	
Minimum radius (ft.)	833	587	
Stopping sight distance (ft.)	425	360	
Vertical curve length (ft.)	180 min.		
Minimum rate of vertical curvature (K)	Crest	84	
	Sag	96	
Minimum gradient (%)	0.5		
Maximum gradient (%)	6	8	
Foreslope	3 to 1	3 to 1	
Backslope	3 to 1		
Traverse slopes	6 to 1		
Clearzone	14'		

Notes:
Horizontal curves minimum will match existing conditions
(1) Using Rolling Base Criteria. Increased Project Values wherever feasible

Roadway	Rural Local Road - East St		
PIN Number	14-16-080-020	Submittal Date	
Project Number	IM-080-7(132)266--13-16	Revision Date	
District	District 6		
County	Cedar		
Route			
Location			
Work Type	Reconstruction		
Segment Manager			
Designer			
Design year ADT =	Under 50		
<p>Design Manual Section 1C-1 Last Updated: 04-29-19</p>			

Secondary Roads

Design Elements	Project value	Local Systems I.M. 3.210 value (1)	Remarks
Design speed (mph)	30	30	
Design lane width (ft.)	12	12	
Shoulder width (ft.)	0	0	
Bridge width - new (ft.)	N/A	22	
Bridge width - existing (ft.)	N/A	N/A	
Maximum super elevation rate (%)	0 (2)	8	
Minimum radius (ft.)	355 (2)	105	
Stopping sight distance (ft.)	165	165	
Vertical curve length (ft.)	150 min.		
Minimum rate of vertical curvature (K)	Crest	19	
	Sag	37	
Minimum gradient (%)	0.5		
Maximum gradient (%)	6	UAC	
Foreslope	3 to 1	UAC	
Backslope	3 to 1		
Traverse slopes	6 to 1		
Clearzone	10'		

Notes:
(1) Using Table "AASHTO Guidelines for Rural Local Roads" (pg. 5) - Under 400 ADT, Agricultural Access
(2) Using AASHTO method 2 for minimum radii and superelevation

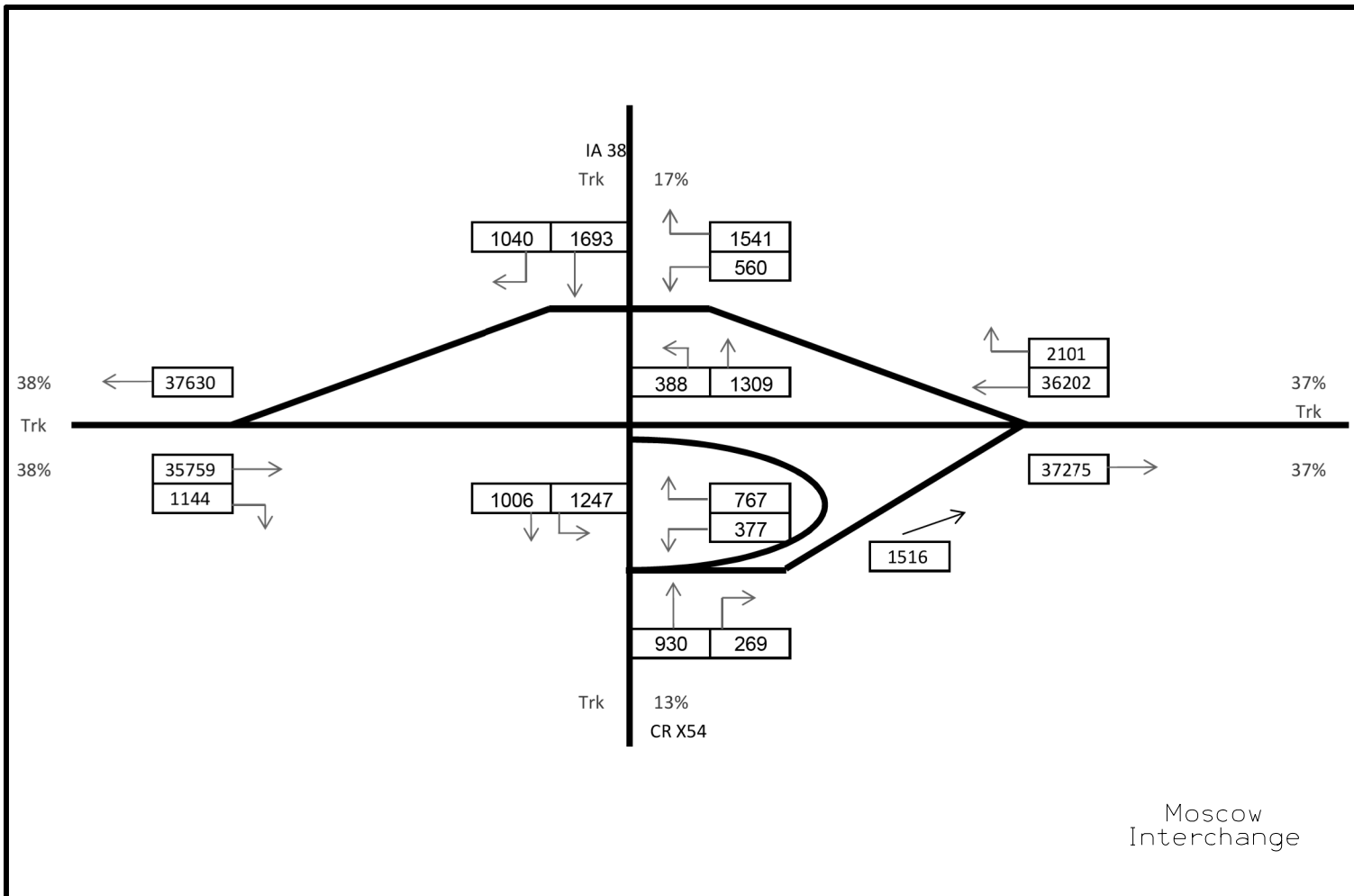
Design Criteria
Old Muscatine Rd./
Pine Ave. &
East St.

Roadway			
Rural Local Road - 306th St (Granular)			
PIN Number	14-16-080-020	Submittal Date	
Project Number	IM-080-7(132)266--13-16	Revision Date	
District	District 6		
County	Cedar		
Route			
Location			
Work Type	Reconstruction		
Segment Manager			
Designer			
Design year ADT =	119		
Design Manual Section 1C-1 Last Updated: 04-29-19			
Secondary Roads			
Design Elements	Project value	Local Systems I.M. 3.210 value	Remarks
Design speed (mph)	50 ⁽¹⁾	50	
Design lane width (ft.)	14	10	
Shoulder width (ft.)	0	3	
Bridge width - new (ft.)	N/A	24	
Bridge width - existing (ft.)	N/A	20	
Maximum super elevation rate (%)	4 ⁽²⁾	8	
Minimum radius (ft.)	371 ⁽²⁾	758	
Stopping sight distance (ft.)	425 ⁽¹⁾	425	
Vertical curve length (ft.)	150 min.		
Minimum rate of vertical curvature (K)	Crest	44 ⁽¹⁾	
	Sag	64 ⁽¹⁾	
Minimum gradient (%)	0.32		
Maximum gradient (%)	6	6	
Foreslope	3 to 1	3 to 1	
Backslope	3 to 1		
Traverse slopes	6 to 1		
Clearzone	10'		
Notes:			
(1) Horizontal curves will be designed at 35mph with vertical curve design matching through those areas.			
(2) Based on use of "Table 10: Minimum Radii for Low Speed Roadways" within Iowa DOT Design Manual Section 2A-3			
* Use of I.M. 3.210 "Design Aids For Rural Local Roads" table			

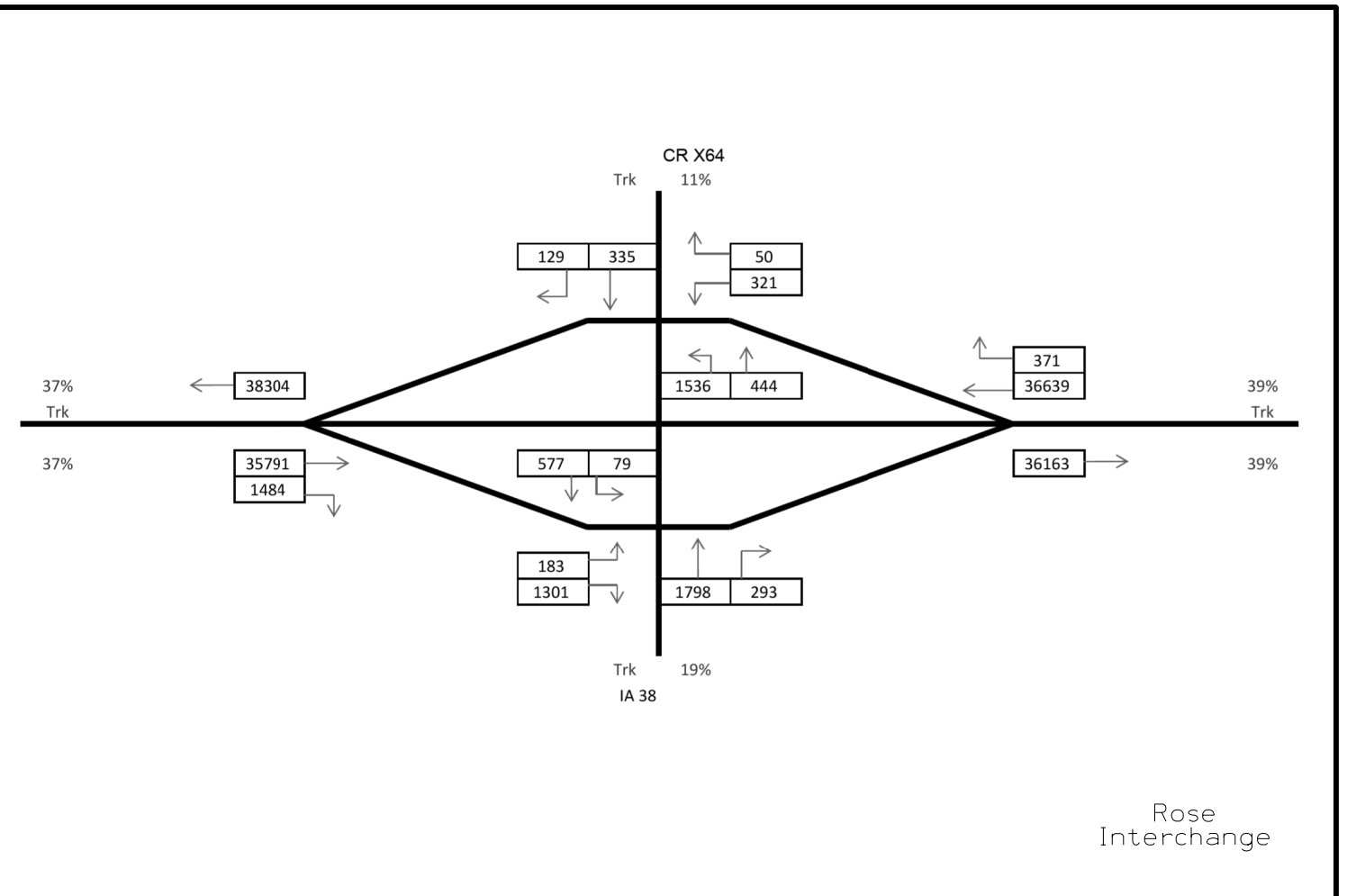
Roadway			
Rural Local Road - 307th St (Paved)			
PIN Number	14-16-080-020	Submittal Date	
Project Number	IM-080-7(132)266--13-16	Revision Date	
District	District 6		
County	Cedar		
Route			
Location			
Work Type	Reconstruction		
Segment Manager			
Designer			
Design year ADT =	Under 50 ⁽¹⁾		
Design Manual Section 1C-1 Last Updated: 04-29-19			
Secondary Roads			
Design Elements	Project value	Local Systems I.M. 3.210 value	Remarks
Design speed (mph)	40	40	
Design lane width (ft.)	11	10	
Shoulder width (ft.)	2	2	
Bridge width - new (ft.)	N/A	24	
Bridge width - existing (ft.)	N/A	20	
Maximum super elevation rate (%)	4 ⁽²⁾	8	
Minimum radius (ft.)	533 ⁽²⁾	444	
Stopping sight distance (ft.)	305	305	
Vertical curve length (ft.)	150 min.		
Minimum rate of vertical curvature (K)	Crest	44	
	Sag	64	
Minimum gradient (%)	0.5		
Maximum gradient (%)	7	7	
Foreslope	3 to 1	3 to 1	
Backslope	3 to 1		
Traverse slopes	6 to 1		
Clearzone	10'		
Notes:			
(1) Value based on removal of Implement Dealer business traffic			
(2) Based on use of "Table 10: Minimum Radii for Low Speed Roadways" within Iowa DOT Design Manual Section 2A-3			
* Use of I.M. 3.210 "Design Aids For Rural Local Roads" table			

Roadway			
Rural Local Road - 307th St (Granular)			
PIN Number	14-16-080-020	Submittal Date	
Project Number	IM-080-7(132)266--13-16	Revision Date	
District	District 6		
County	Cedar		
Route			
Location			
Work Type	Reconstruction		
Segment Manager			
Designer			
Design year ADT =	Under 50 ⁽¹⁾		
Design Manual Section 1C-1 Last Updated: 04-29-19			
Secondary Roads			
Design Elements	Project value	Local Systems I.M. 3.210 value	Remarks
Design speed (mph)	40	40	
Design lane width (ft.)	12	10	
Shoulder width (ft.)	0	2	
Bridge width - new (ft.)	N/A	24	
Bridge width - existing (ft.)	N/A	20	
Maximum super elevation rate (%)	4 ⁽²⁾	8	
Minimum radius (ft.)	533 ⁽²⁾	444	
Stopping sight distance (ft.)	305	305	
Vertical curve length (ft.)	150 min.		
Minimum rate of vertical curvature (K)	Crest	44	
	Sag	64	
Minimum gradient (%)	0.5		
Maximum gradient (%)	7	7	
Foreslope	3 to 1	3 to 1	
Backslope	3 to 1		
Traverse slopes	6 to 1		
Clearzone	10'		
Notes:			
(1) Value based on removal of Implement Dealer business traffic			
(2) Based on use of "Table 10: Minimum Radii for Low Speed Roadways" within Iowa DOT Design Manual Section 2A-3. Curve Radius to tie to existing uses the existing radius of 315' and a Design Speed of 25mph.			
* Use of I.M. 3.210 "Design Aids For Rural Local Roads" table			

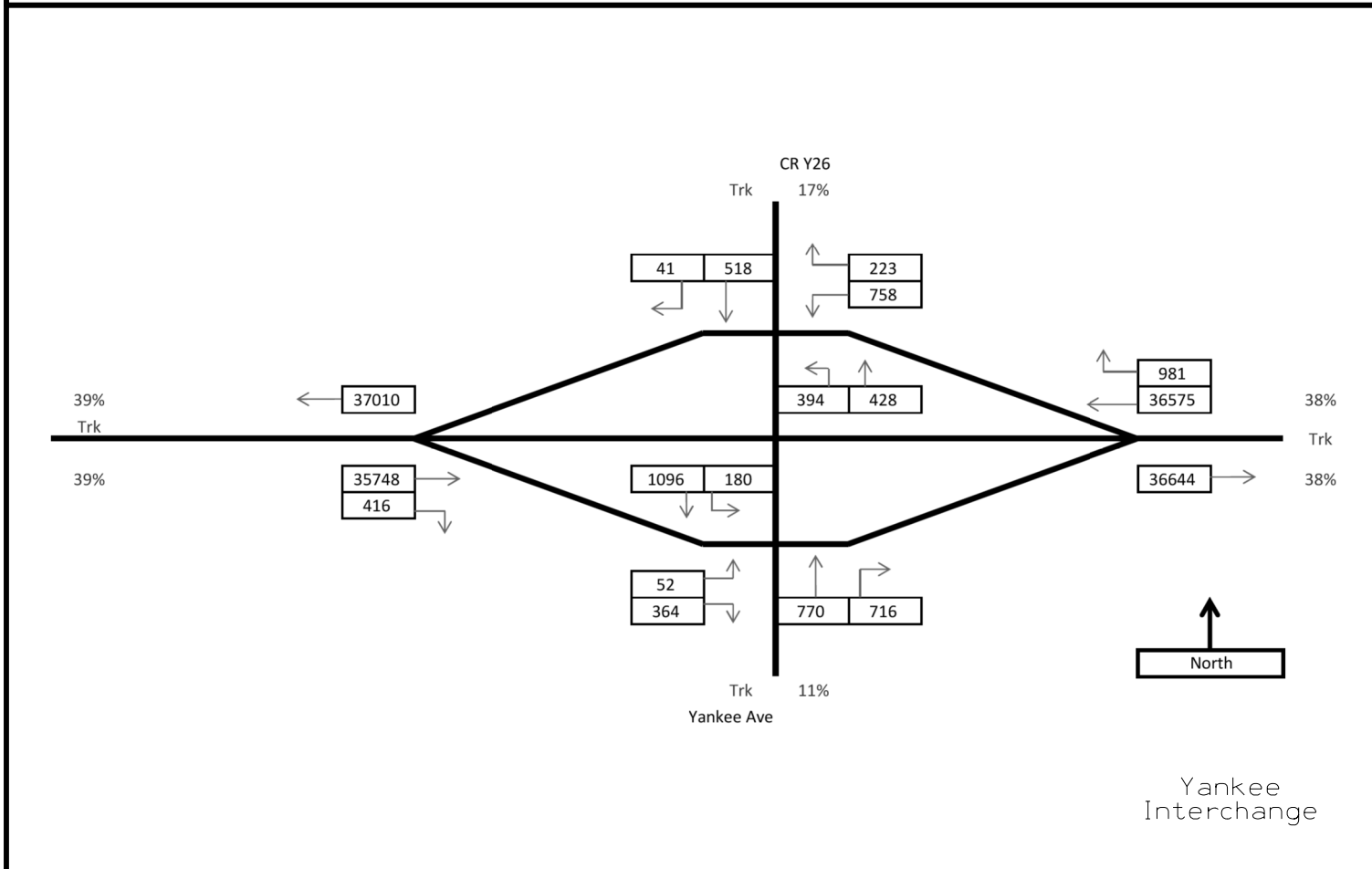
Design Criteria
306th St. &
307th St.



Moscow Interchange



Rose Interchange



Yankee Interchange

Design Year
2040 ADT

HRG DECISION LOG 5-15-2019

IADOT Decision Number	HRG Decision #	Date	Discipline/Element	Topic	Decision Description	Decision-Made Link	Decision-Support Link	Open / Decided
Iowa DOT Section								
1	See HRG # 1 for revision	20181030	Roadway	Ramp Design Speed, taper design	Proposed ramps should be based on 60 mph and use 1,000' parallel lanes for both the entrance and exits	Cedar180_DecisionRec ord_Working.xltm	Also see Ramp Design Speed below	Decided
2	See HRG # 29 for revision	20181030	Bridge	Sugar Creek bridges	Both bridges at Sugar Creek on I-80 will get reconstructed	Cedar180_DecisionRec ord_Working.xltm		Decided
3		20180228	Roadway	Wide median area reconstruction	The wide median area where the rest area (Welcome Center) is located will be reconstructed. This area of I-80 will be a total reconstruction to replace the wide/variable median width with the preferred alternative's constant median width, based on a control line that would be somewhat centered within the existing median.	Cedar180_DecisionRec ord_Working.xltm		Decided
4		20180228	Bridge	Bridge construction sequence	Overpass bridges will be reconstructed prior to mainline.	Cedar180_DecisionRec ord_Working.xltm		Decided
5		20180328	Roadway	I-80 centerline alignment	The existing centerline will be used as the alignment for I-80.	Cedar180_DecisionRec ord_Working.xltm		Decided
6			Roadway	Moscow ramp intersections design	Cedar County does NOT support the use of roundabouts at the Moscow Road interchange	Cedar180_DecisionRec ord_Working.xltm		Decided
7		20180424	Roadway, Bridge	Bridge construction sequence	Excluding Moscow Road, Cedar County will allow the remaining overhead bridges to be closed during construction in a staggered fashion to keep "every-other" bridge open for access purposes	Cedar180_DecisionRec ord_Working.xltm		Decided
8		20180424	Roadway, Bridge	Moscow Road interchange construction	The Moscow Road Interchange will be staged to minimize closures	Cedar180_DecisionRec ord_Working.xltm		Decided
9		20180424	Roadway	Side road construction sequence	Cedar County would like to keep ramps open, even if the bridge crossing itself is closed, so access to each side is maintained at the X64 and Y26 interchanges	Cedar180_DecisionRec ord_Working.xltm		Decided
10		20180627	Roadway, Bridge	Bridge construction	All county road overpass bridges will be reconstructed	Cedar180_DecisionRec ord_Working.xltm		Decided
11		20181030	Roadway	Moscow Road interchange type/configuration	The diamond configuration was selected as the preferred alternative at the Moscow Road interchange. Approved by PMT and Cedar County BOS.	Cedar180_DecisionRec ord_Working.xltm	link to email	Decided
12		20181030	Roadway	Pine Ave / Old Muscatine Road / 306th St. design	The Pine Ave/Old Muscatine Rd and 306th Street intersection near Lime City will be reconstructed as Option 1 (Curve Correction)	Cedar180_DecisionRec ord_Working.xltm	link to email	Decided
13	See HRG # 28 for revision	20181030	Typicals	I-80 typical section	The typical section for I-80 mainline will be Option 6 as presented at the 10/30/2018 PMT (UAC existing pavement, 50' median, 10' inside shoulder, widen to outside, HMA overlay)	Cedar180_DecisionRec ord_Working.xltm		Decided
14			Typicals	Granular Sideroads	Granular sideroad typical section should be 28' finished top surface; 3:1 foreslopes; 10' ditch bottom; 4% crowned cross slope; 6" Class A material on surface; 8" modified subbase beneath Class A	Cedar180_DecisionRec ord_Working.xltm		Decided
15	See HRG # 17	20190206	Typicals	Wide Median widening typical section	The wide median area will be "widen 1-lane in". The inside shoulder will be constructed to a full 12' width and full depth to become the future 4th lane. Typical section will minimize median tree impacts and will NOT grade for future 4th lane at this time. Sugar Creek bridges will be widened to the inside for both the 6 and 8 lane sections.	Cedar180_DecisionRec ord_Working.xltm	Link to email	Decided
16	See HRG # 17	20190206	Roadway	Lateral lane / crown transitions	Reconstruct all proposed lateral lane/crown transition locations rather than variable depth HMA	Cedar180_DecisionRec ord_Working.xltm	Link to email	Decided
17	See HRG # 12	20190116	Roadway	Typical Section transitions at west project limits	The area between the Cedar River bridges and Moscow Rd will be constructed as a 6 lane section. Pavement will be striped for 2lanes coming off the Cedar River Bridges and the 3rd lane will be added/dropped within the interchange. Modifications to go from 6 to 8 lane section will be deferred to a future project.	Cedar180_DecisionRec ord_Working.xltm	Link to email	Decided
HRG Section								
See IADOT # 1	1	20181211	Roadway	Ramp Design Speed	Ramp Design Speed to be 60 mph (at the free-flow terminal) and 40 mph (at the other terminal), following usual practice	MtgMin_RdwyDesignF ocus_20181211.docx	Decision to use 60 mph / 40 mph confirmed	Decided
	2	20181211	Roadway, Bridge	Auxiliary lane at I-80 WB over Sugar Creek bridge	The decision was made to carry the WB parallel-lane auxiliary lane across the bridge before its taper begins, due to the safety benefits and its relatively small cost compared to other items on the project, therefore adding an additional lane on the bridge	MtgMin_RdwyDesignF ocus_20181211.docx	Discussion shifted to whether the Sugar Creek bridges are to	Decided
	3		Roadway	I-80 third lane add/drop	At the west end, the ideal location to add the 3rd lane for EB and drop the 3rd lane	MtgMin_RdwyDesignF	Reverse curve	Open
	4	20181219	Bridge	Bridge Span selection	Moscow: 4 Span BTE Beams, 386' Length Pine: 2 Span BTE Beams, 312' Length Rose: 2 Span BTE Beams, 292' Length Taylor: 2 Span BTE Beams, 277' Length Vermont: 2 Span BTD Beams, 272' Length Yankee: 2 Span BTE Beams, 282' Length	Link to email		Decided
See IADOT #14	5	20190102	Typicals	Granular roadway typical section	Granular roadway typical section to be 28' Finished Top Surface (driving surface), 3:1 foreslopes, 10' ditch bottom, 4% cross slopes (center down) (applies to subgrade surface, modified subbase, and granular surface), 6" Granular (Class A) material on surface, 8" Modified Subbase beneath Granular (acts as a drainage layer), and 3:1 foreslopes extending upward through modified and granular material (meeting the 4% driving surface) (there are enough fines in both materials to hold the 3:1 slope). At bridges (using a cross-slope of 2%), the typical will match with 2% through the length of the guardrail, then transition to the 4% typical section.	Link to email	20190102_Fangmann-CedarCounty	Decided
	6	20190104	Typicals	I-80 inside shoulder	Inside shoulder (50' median area) to be 9.5" HMA or 8" PCC on top of 6" special	20190104_Brakke_PC		Open
	7	20190107	Typicals	Overlay Thickness	Proceed with a 4" HMA overlay for the I-80 EB and WB lanes, for the D2 plans.	Link to email		Decided
	8	20190107	Roadway, Bridge	Side Road/Bridge:	Use side road profiles based on a 4" overlay thickness (on I-80) a 16' 9" clearance	Link to email		Decided
	9		Roadway, Bridge	Roadway and Bridge widths	Moscow: Bridge 44' without turn lanes or 60' with left-turn lanes. Roadway 12' lanes with 10' shoulder Rose: Bridge 44'. Roadway 14' lane with 8' shoulder (granular) from south of I-80 and through the interchange	Link to email	2/10/19 meeting minutes when compiled	Open

	10	20190108	Roadway, Bridge	Inside shoulder width on Sugar Creek bridges	Bridge width should be set so as to include a 12' wide median shoulder even if the roadway median shoulder width will be based on a 10' shoulder	Link to email		Decided
	11	20190110	Roadway, Bridge	Sugar Creek bridges width	Sugar creek bridges to be constructed for 4-lane section	(insert link to 1/10/19 PMT meeting minutes here)	Garret: We are building Sugar Creek bridges for 4 lanes	Decided
See IADOT # 17	12	20190116	Roadway	I-80 third lane add/drop at beginning/end of project	Pave 1 80 ML for 6 lanes up to the Cedar River Bridge The Moscow west interchange ramps will tie to a 6 lane section The Moscow east interchange ramps will tie to the future fourth lane The two-to-three-lane transition will be painted on the interior of the Moscow interchange Defer modifications to go from 6 lane to 8 lane section for future project, for area	Link to email		Decided
	13	20190114	Ramps	Interim aux lane on Ramps	The future 12' aux lane will be built and used as the current aux lane shoulder instead of the standard 6' shoulder.	Link to email 1 Link to email 2		Decided
	14	20190122	Plan Set	Potential use of color sheets for more sheet sets than is standard	Proceed with use of color sheet sets only on those that are standard	Jim: Proceed with standard B&W sheets as the Design		Decided
	15	20190122	Roadway	Mainline Chain / Alignment	Use the survey alignment as the mainline roadway chain, aside from within the wide median area and other possible transition areas	Use survey chain for mainline everywhere except		Decided
	16	20190206	Culvert / Bridge	Culvert & Bridge Deliverables	All RCBs, regardless of size, need TS&L, EXCEPT RCBs 6x6 and smaller be extended with pipes Pipes with Flumes or Drop Intakes need TS&L All Bridge-Size RCBs (greater than 20' span along CL of road) need White Sheets (form 621004) Show length calcs on separate sheet; pinks not required. All pipes and non-bridge size RCBs need Pink Sheets (form 621001) Valley sections are NOT required for all RCBs - - only required if drainage area greater than 10 sq mi. D02 submittal does NOT include Pink Sheets, pipe plats, or non-bridge size RCB TS&Ls D02 submittal DOES include preliminary TS&L for Bridges and Bridge-Size RCBs	20190206_Mulholland	Decided	
	17	20190206	Roadway	Wide Median area Widening Typical Section	Proceed with the "Widen 1-Lane-In" option for the wide median area. Use typical sections that minimize impacts to median trees. Defer 4th lane grading decision (in or out) until future construction. Construct Sugar Creek Bridges 3rd and 4th lanes to the inside. Reconstruct horizontal transition areas rather than using varying thickness overlay.	Link to email		Decided
	18	20190211	Roadway	Transitions at Cedar River Bridges	Use reconstruction rather than varying thickness overlay to accomplish lateral transitions at east side of Cedar River Bridges (both EB and WB lanes)	Lane/Crown Transitions - We understood that those		Decided
	19	20190218	Roadway	Wide Median area -	Within the wide median area, use 12' wide, full depth inside shoulder (for use as	For inside shoulders		Decided
	20	20190222	Roadway	Superelevation	The existing superelevation rate of change (X value) will be applied to the additional lanes. New lanes will transition at the same rate and distance as the existing lanes.	2/22/2019 phone call with Elijah Gansen		Open
	21	20190227	Concept	8-lane Grading and ROW	After reevaluation, decision was made to proceed with concept to grade and acquire ROW for 8 lanes, as opposed to only 6 lanes	Link to email		
	22	20190301	Bridge	Vermont and Pine/OMR Bridge Widths	Vermont Ave. and Pine Ave / Old Muscatine Road Bridges to be 30' widths	Proceed with 30' width design on both Vermont Ave. and		Decided
	23	20190304	Concept	Reconstruct all Overhead Bridges	Iowa DOT is satisfied that they need to replace all bridges with this widening project.	Link to email		Decided
	24	20190306	Roadway	Acceptance of 10' inside shoulder	Because the FHWA has adopted new guidance, no Design Exception would be required for the 10' inside shoulder	The FHWA has adopted new guidance, as suspected		Open
	25	20190306	Roadway	Acceptance of Median slopes steeper than 6:1	Because the proposed median slopes are within the Interstate guidelines referenced in linked email, we shouldn't need a design exception.	Link to email		Decided
	26	20190308	Bridge	CL location of Overpass Bridges with LTL	For overpass bridges with a left turn lane between opposing lanes, crown / CL of the roadway would be placed at the center of the bridge / center of the LTL	Link to email		
	27	20190308	Bridge	Sugar Creek Bridge lane cross slopes	Sugar Creek Bridges' lane cross slopes should match the roadway except that the shoulder cross slopes on the bridge should continue the slope of the adjacent lane	Link to email		
See IADOT # 13	28	20190308	Concept	Mainline Typical Section Alt. Selection	PMT selected Alternative 6 for the mainline typical section on this project. This alternative includes reusing existing mainline lanes, a 50' median width, composite widening pavement, grading and ROW acquisition for 8 lanes	Final-R_MtgMin_PMT_20181030.pdf	20181030_ML_Alt_Typicals-Costs.pdf	Decided
See IADOT # 2	29	20190308	Roadway	Sugar Creek Reconstruction Profile	Reconstruct mainline profile at Sugar Creek Bridges; maintain existing horizontal alignment, but revise the sag curves to meet criteria. Limit reconstruction limits by maintaining existing profile tangent grades	Final-R_MtgMin_PMT_20181030.pdf		Decided

Design Decision Logs

D00 Planning Concept Statement

I-80 Cedar County
 East of Cedar River to Approximately 0.5 Miles West of County Road Y26

Cedar County
 IM-080-7(132)266--13-16
 PIN: 14-16-080-020

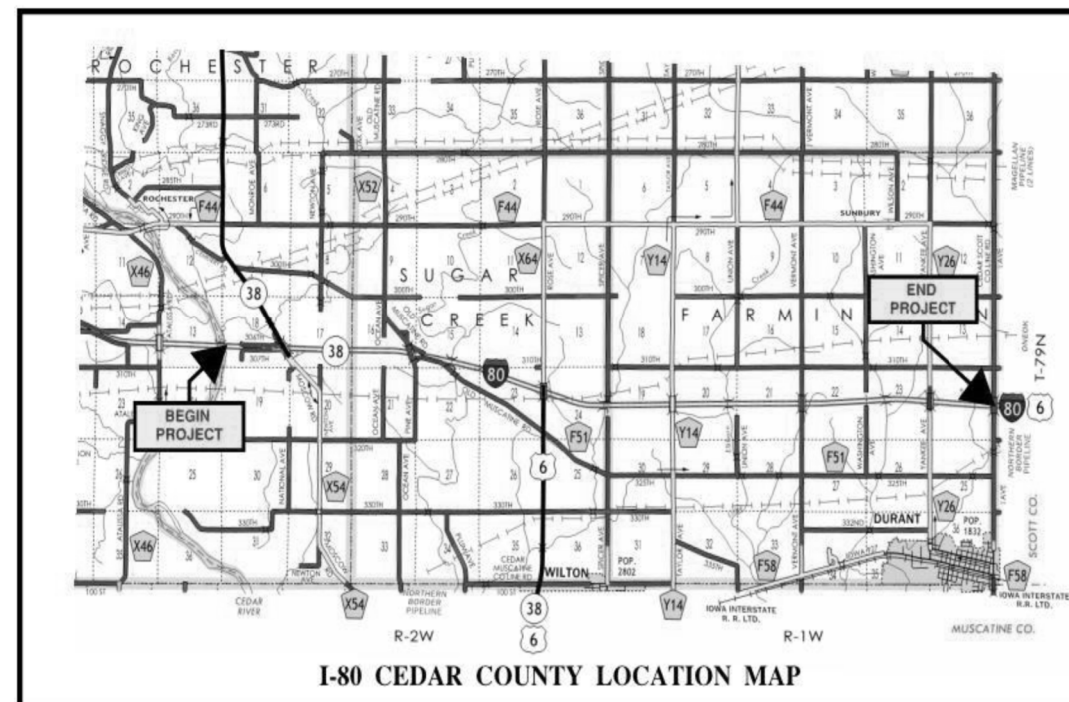
Highway Division
 Office of Location & Environment

February 2019

I. PROJECT DESCRIPTION AND HISTORY

A. Project Description

This project will upgrade a portion of Interstate 80 from a four-lane to a six-lane facility and provide the potential for an eight lane configuration in the future. The project area contains approximately 12 miles of the I-80 corridor starting from the Cedar River at the west and ending just west of the Cedar/Scott County border to the east as shown in the figure below.



There are multiple bridges, sideroads / overpasses, and interchanges / rest areas within the project limits.

I-80 Bridges, in order from west to east include:

- Dual Bridges over the Cedar River – these bridges are immediately adjacent to the beginning of the project and were previously constructed to accommodate a six-lane facility. They will be used as previously constructed.
- Dual Bridges over Sugar Creek – these bridges will be replaced by this project.

Sideroads that have bridges over I-80 are listed below, in order from west to east. Coordination with Cedar County in 2018 indicated that permanent removal and closure of any of the overpass bridges was not an option. Accordingly, all overpass bridges listed below will be replaced by this project. The one exception is the 1st Avenue (Cedar / Scott County) overpass, which is outside the project's construction limits, and is not included in this project at this time.

- Moscow Road, also known as Iowa Highway 38 (IA 38) and County Road X54 – a paved two-lane road
 - IA 38 is concurrent with Moscow Road approaching I-80 from the north, and joins I-80 east of Moscow Road, until it leaves I-80 at Rose Avenue to continue to the south
- Pine Avenue, also known as Old Muscatine Road and County Road X52 – a granular two-lane road
- Rose Avenue, also known as US Highway 6 (US 6), IA 38, and County Road X64 – a paved two-lane road
 - IA 38 is concurrent with I-80 west of Rose Avenue, until it exits to join Rose Avenue to the south
 - US 6 is concurrent with Rose Avenue approaching I-80 from the south, until it joins I-80 east of Rose Avenue, through the remainder of the project's limits
- Taylor Avenue, also known as County Road Y14 – a paved two-lane road
- Vermont Avenue – a granular two-lane road
- Yankee Avenue, also known as County Road Y26 – a paved two-lane road
- 1st Avenue, at the Cedar / Scott County Line – a granular two-lane road (just outside the project limits)

Sideroads that are adjacent and/or quasi-parallel to I-80, that have potential for realignment due to their proximity are listed below from west to east and include:

- 306th Street, north of I-80, west of Moscow Road – a granular two-lane road
- 307th Street, south of I-80, west of Moscow Road – a two-lane road, a portion of which is paved and a portion is granular
- East Street, north of I-80, east of Pine Avenue, forming a joint intersection with Pine Avenue and 306th Street – a one-lane granular road
- 306th Street, north of I-80, east of Pine Avenue, forming a joint intersection with East Street and Pine Avenue – a one-lane granular road

Concept Statement

- Old Muscatine Road, also known as County Road F51, where it diverges to become an “east / west” alignment, from its concurrent “north / south” alignment with Pine Avenue, south of I-80, east of Pine Avenue – a granular two-lane road

There are five interchanges within the project limits, in order from west to east:

- Moscow Road (IA 38) Interchange
- Truck Parking Interchange, a “No Facilities” parking lot at a former Weigh Station Site, approximately one-half mile west of the Pine Avenue Overpass
- Iowa Welcome Center Rest Area Interchange, approximately one mile east of Pine Avenue / one mile west of Rose Avenue
- Rose Avenue (US 6 / IA 38) Interchange
- Yankee Avenue Interchange

B. Project History

A project to design replacements for the Sugar Creek bridges on I-80 in Cedar County began in 2014. In 2015, the project entered the field exam (D02) stage, when the Iowa Department of Transportation (DOT) put the project on hold as the corridor’s long-range plan was re-evaluated. By then, a Planning and Environmental Linkage (PEL) Corridor Study for the entire rural I-80 corridor in Iowa was underway. The PEL Study was completed in January 2018.

PEL Study:

<https://iowadot.gov/interstatestudy/pel-study-report>

C. Need for Project

The purpose of this project is to widen the I-80 corridor to a six-lane facility (three lanes in each direction) and prepare for a potential future widening to an eight lane facility. To accommodate this widening, three I-80 interchange bridges, three county road overpass bridges, and two mainline stream crossing bridges must be replaced. The Iowa DOT’s I-80 PEL Corridor Study produced a series of technical memorandums which describe the guiding principles for the interstate system, analyze the existing interstate conditions, evaluate existing overhead bridge structures, examine the viability of restricted vehicle lanes and automated technologies, and propose a vision for infrastructure investments. As the portion of rural I-80 with the highest traffic volumes and lowest levels of service in the state, the rural section between Iowa City and Davenport was chosen as a priority for widening. The widening should decrease travel times and congestion for both freight and recreational traffic to and from the I-380 corridor, from Des Moines and Omaha in the west, and from Chicago and the Great Lakes in the east.

D. Environmental Status

The Federal Highway Administration (FHWA) concurred with the Categorical Exclusion (CE) classification on July 10, 2018. A Preliminary Wetlands Review (W00) was conducted and documented on January 29, 2018. Due to the size of the project wetland and stream mitigation will be needed and an Individual Section 404 permit is likely needed.

The project will be permitted as one complete project regardless of how the corridor is broken into construction packages. It is anticipated that this project will use a newly developed combined concurrence point process, known as CP Express, where all four concurrence points are discussed at one meeting.

FHWA Classification:

20180711_001_Project Classification Concurrence - IM-080-7(132)266--13-16

Preliminary Wetlands Review Memo:

W00memo(132).pdf

E. Public Involvement Summary

The Iowa DOT conducted one online meeting each in July 2016, July 2017, and February 2018 discussing the I-80 Planning Study. These meetings were for discussion of general concerns that the public may have for the statewide corridor widening.

A Public Information Meeting for this specific project area was held on May 17, 2017 at the Iowa DOT garage near the I-80 interchange at Moscow Road. The meeting was held to inform the local residents of the Iowa DOT’s intent to add capacity to I-80 in the eastern half of Cedar County and to collect comments and concerns about the plan.

A Public Information Meeting was held on September 19, 2018 to discuss alternatives for the Moscow Interchange. The meeting was held at the Durant Community Center.

I-80 PEL Study Public Info Meetings Summaries:

<https://iowadot.gov/interstatestudy/public-meetings>

I-80 Cedar County 5/17/17 Public Info Meeting Summary:

PIM_Summary_Booklet_I80_Cedar_County.pdf

I-80 Cedar County 9/19/18 Public Info Meeting Summary:

PIM_Summary_Booklet_I80_Cedar_County.pdf

II. EXISTING CONDITIONS

A. Present Facility

The development of I-80 in the project area started with a grading project in the year 1959 and a paving project in 1961. A roadway reconstruction occurred in 1991. Additional minor improvement projects have occurred since 1991, including installation of high tension cable guardrail in the median and re-grading projects in 2010 and 2011.

The existing mainline typical section consists of a four lane facility with paved shoulders and a grassed median. Each set of travel lanes has a pavement width of 40 feet. This includes two 12-foot travel lanes consisting of PCC pavement, an outside shoulder consisting of two-feet of PCC pavement with an additional eight-feet of HMA, and a six-foot wide HMA inside median shoulder. The depressed median width from inside to

Concept Statement

inside of the travel way is 50-foot. Approximately 1.5-miles of the corridor has an atypical cross section with a widened, forested median of up to 450-foot wide between a pair of full-service rest stops.

Results of a review of the existing geometrics of I-80 against design criteria indicated that the horizontal alignment meets Preferred Criteria. For the vertical alignment, there are twenty locations where the grades are above or below Preferred Criteria (but all are within Acceptable Criteria), and eighteen vertical curves that don't meet Preferred or Acceptable Criteria. Additional details can be found in the Existing Conditions Technical Memo, linked below.

Existing Conditions Technical Memo:
[Rpt_I80_Existing_Conditions_Tech_Memo_05-15-2018.pdf](#)

B. Traffic Estimates

The 2016 traffic counts show volumes of roughly 17,000 vehicles per day and 35% trucks on this section of I-80. The volumes of the county and state roads at the three interchanges vary from 1,000 to 2,000 vehicles per day with 10-20% trucks.

The traffic volumes for the interstate mainline were estimated to be around 17% greater in 2020 than those in 2016, while the volumes for the county and state roads were estimated to be 3% greater. Furthermore, the traffic volumes for the mainline in 2040 were estimated to be more than double those in 2016, and the volumes for the minor roads in 2040 were estimated to be about 20% greater than in 2016.

Traffic Volume Forecast:
[Traffic Forecast 2016-2040.pdf](#)

C. Capacity and Traffic Analysis

Although no capacity analysis has been completed for this project, a capacity analysis was completed by the Iowa DOT for a segment of I-80 just west of the project area as part of the I-80 PEL Existing Systems Needs Analysis report. The segment from Exit 259 West Liberty to Exit 265 Atalissa currently sits on the threshold between level of service (LOS) B and LOS C during the worst-case peak hour (this project covers the range from milepost 266 to milepost 278). For the 2040 no-build condition, it was projected that the LOS of the same segment would be on the threshold between LOS C and LOS D during the worst-case peak hour. A drop in LOS to C or lower is generally not acceptable on rural interstate segments, as it requires drivers to drive slower than their preferred free-flow speed. The studied segment, which is representative of the whole rural I-80 corridor between Iowa City and Davenport, was determined to have more urgent need for improvements out of all the segments studied across the state due to its LOS deficiencies.

An Interchange Justification Report (IJR) will be completed at the Moscow Interchange. In addition, two Interchange Operation Reports (IOR) will be completed, one for the Rose Interchange and one for the Yankee Interchange.

DOT Existing Conditions Report:
[IADOT-PEL-ExistingConditions.pdf](#)

D. Pavement Sufficiency Ratings

The pavement was constructed in 1991-92, making it nearly 30 years old. A three-inch Hot Mix Asphalt (HMA) shoulder overlay with milling was placed within the last three years. The minimum Pavement Condition Index (PCI) rating on this stretch of I-80 is 86¹.

E. Bridge Sufficiency Ratings

The sufficiency ratings of the eight bridges in the project area are listed below. None of the bridges are classified as structurally deficient.

Road / Bridge Type	Sufficiency Rating*	Construction Year	Functionally Obsolete?
Moscow Rd. / Interchange	48.3	1960	Yes
Pine Ave. / Overhead	64.9	1960	
EB I-80 over Sugar Creek	71.0	1960	
WB I-80 over Sugar Creek	76.5	1960	
Rose Ave. / Interchange	69.8	1959	Yes
Taylor Ave. / Overhead	58.9	1959	
Vermont Ave. / Overhead	76.2	1959	
Yankee Ave. / Interchange	86.0	1959	Yes

* Indicates Unofficial Sufficiency Ratings from the Existing Bridge Inspection Reports.

Existing Structures Summary:
[I-80 Structures Summary.pdf](#)

Existing Bridge Inspection Reports:
[Bridge Inspection Reports](#)

F. Access Control

The existing I-80 corridor has Priority I access control, and the proposed design will maintain the Priority I classification. The side roads which intersect I-80 are classified as either Priority V or Priority VI with little to no access control. Access control will be established along the sideroads, the required distances from the point of the ramp bifurcation tie to the sideroad. It is important to ensure that all interchanges in the project area are designed to Iowa DOT access standards to minimize negative operational effects.

G. Crash History

In the five-year study period from January 1, 2012 through December 31, 2016, there were a total of 401 crashes in the study area, including 4 fatal crashes, 55 personal injury crashes, and 342 property damage only crashes.

¹ Pavement Condition Index (PCI) Range is from 0 to 100 where 100 is the best.

Concept Statement

Full Study Area Crash History Technical Memo:
[FINAL I80 Crash History Technical Memo - Full Study Area.pdf](#)

III. ALTERNATIVES ANALYSIS

Three alternatives were considered. These include a shift of the alignment to the north, a shift of the alignment to the south, and an alternative that maintains the existing lane alignments in each direction. Alternative design details such as median widths, the possibility of overlays versus total reconstruction, widening to the median versus widening to the outside, and other sub-alternatives, were discussed at PMT meetings occurring throughout 2018. The three alternatives are summarized below.

Alternative A: North Shift

The existing right-of-way line along the south side would be maintained where possible, and the centerline of I-80 would be shifted toward the north to provide for the widening necessary for the typical section. Total reconstruction of the roadways would allow the horizontal and vertical alignments to be improved to meet current design criteria. This alternative would require major realignment of 306th Street on the northwest side of the Moscow Road interchange.

Alternative B: South Shift

The existing right-of-way line along the north side would be maintained where possible, and the centerline of I-80 would be shifted toward the south to provide for the widening necessary for the typical section. This alternative would preserve the backslope vegetation on the north side that is currently used as a living snow fence. Similar to Alternative A, this alternative would reconstruct the roadway to allow for the horizontal and vertical alignments to be improved to meet current design criteria. This Alternative would require major realignment of 307th Street on the southwest side of the Moscow Road interchange as well as realignment of Old Muscatine Road southeast of the Pine Avenue overpass.

Alternative C: Maintain Existing Lane Alignments

Alternative C would maintain the existing lane alignments in each direction (both through the areas of the existing 50-foot median and through the widened median area at the Iowa Welcome Center Rest Areas) throughout the majority of the project and would require right-of-way acquisition on both the north and south sides to accommodate the additional travel lanes. The majority of the widening would be completed to the outside with the possibility of the wide median area needing to be widened to the inside.

In addition, this alternative would reuse as much of the existing pavement as feasibly possible. By maintaining the existing lane alignments, Alternative C would allow for faster overhead bridge construction, since the proposed piers would be constructed in the existing median. Alternative C would require realignment of both 306th Street and 307th Street near the Moscow Road interchange and may require realignment of Old Muscatine Road southeast of the Pine Avenue overpass.

IV. RECOMMENDED ALTERNATIVES

A. Preferred Alternative - Alternative C: Maintain Existing Lane Alignments

Alternative C would maintain the existing lane alignments throughout the majority of the project and would require right-of-way acquisition on both the north and south sides to accommodate the additional travel lanes. By maintaining the existing lane alignments, Alternative C would allow for much faster overhead bridge construction, since the proposed piers would be constructed in the existing median. Alternative C has fewer impacts to the natural environment and lower costs compared to Alternatives A and B.

Some design elements of the Preferred Alternative:

- Pave six lanes but grade for eight lanes to allow for future pavement, except in the wide median area where six lanes would be graded and paved.
- Incorporate the existing pavement, with overlay, for four of the six proposed lanes.
- Median shoulder will be expanded from six feet to ten feet which may require a design exception.

Typical Section (refer to page 6):

[20181030_ML_Alt_Typicals-Costs.pdf](#)

B. Interchange Alternatives

The interchanges at Rose Avenue and Yankee Avenue have one alternative each. The current standard diamond interchange configuration is to be maintained in each case, though both will require realignment due to the widening of the interstate. It was determined that the interchanges' overhead bridges along with the county road overpasses should be constructed on alignment with the bridges closed during construction.

Two different styles of interchanges were considered for the Moscow Interchange including a diamond style and a partial clover leaf style interchange. Four different configurations of the diamond style interchange and two different configurations of the partial clover leaf interchange were evaluated. They are described below:

- Diamond with Bridge Shifted East
- Diamond with Bridge Shifted West
- Partial Cloverleaf with Bridge Shifted West
- Partial Cloverleaf with Roundabouts and Bridge Shifted East
- Diamond with Roundabouts and Bridge Shifted East
- Diamond with Roundabouts and Bridge Shifted West

The PMT decided to select the Diamond with Bridge Shifted East as the preferred alternative for Moscow. The majority of the public was in favor of this alternative per the comments from the September 19, 2018 public information meeting. The Cedar County Board of Supervisors and the Secondary Roads Department are also in favor of this interchange style for the Moscow location.

Concept Statement

This alternative, with the reconfiguration to a diamond ramp for EB Exist from the existing loop ramp, will require acquisition and potential relocation costs for businesses and residences, along with the need for extensive relocation of 307th Street, west of Moscow Road.

Rose and Yankee Interchanges (Scroll Plot of Corridor) as of August 2018 PMT:
[Scroll_red.pdf](#)

Moscow Alternative Display as of April 2018 PMT:
[DSP_MoscowAlternatives.pdf](#)

Moscow Alternative Matrix as of April 2018 PMT:
[ProConMoscowInterchangeAlignmentsWNotes.pdf](#)

C. Explanation for Alternatives Not Carried Forward

Alternatives A and B were not carried forward because they include total reconstruction of the interstate alignment. Regardless of whether the shift was to the north or to the south, both alternatives required regrading and reconstructing all four lanes and the median of the interstate. Additionally, with these Alternatives, the median piers for new overpass bridges would be horizontally located within one of the existing lanes, which would make the staging and travel more complicated by the requirement for on-site detours through each bridge location. Alternatives A and B would have greater impacts to the natural environment and higher costs compared to Alternative C.

D. Schedule and Cost Estimate

D02 is scheduled for Spring of 2019. As of January 7, 2019, the Opinion of Probable Costs (OPC) for the project was estimated at \$108.9M including \$91.6M for roadway and \$17.3M for bridge.

E. Design Decisions

Bridge Span Configuration

When deliberating the reconstruction of the overhead bridges, two alternative span configurations were considered including a two span (one pier in the median) and a four span (three piers, one in the median and one outside, each direction, beyond the clear zone of the traveled way). Ultimately the decision was made to use the two span configuration as long as concrete girders could be used. If a two span configuration would require the use of steel girders, then a four span configuration using concrete girders would be used.

Interchange Ramp Design

The DOT expressed interest from the beginning of the design process in providing parallel lanes for both entrance and exit ramps. Because this was an evolving new design approach, neither criteria nor standard road plans had yet been developed.

Initial criteria of 2,500 feet for entrance ramps and 1,500 feet for exit ramps were proposed, but were found to produce overlapping entrance and exit lanes in some

locations. Ultimately, the lengths were both modified to 1,000 feet, in accordance with the final versions of the design criteria and standard road plans.

F. Project File Documentation

The Iowa DOT ProjectWise (PW) system is being used to house all project files. The links provided in this document are to the Iowa DOT's PW system. The originals of the linked files may reside in various folders on the PW system, and are subject to change as the project and design continues to evolve.

G. Staging / Construction Sequence

There are three interchange bridges and three overpass bridges in the project corridor that need to be constructed in a sequence that allows traffic to be maintained. Two lanes of traffic in each direction must be maintained on I-80 during construction. Local traffic on the three overpass bridges and the three interchange bridges must be maintained in a way that reduces out of distance travel and disruption to emergency services during construction.

The proposed sequencing for the replacement of any overpass bridge is based on constructing "every other bridge." This means when one bridge is closed for construction, whether it's an overpass bridge or an interchange bridge, the adjacent bridges in each direction will remain open. For example, when the Rose Avenue interchange bridge is being replaced, the crossing can be closed during construction, but the Pine Avenue and the Taylor Avenue overpass bridges will remain open for that construction duration. Similarly, when an interchange is closed for construction, the adjacent interchanges in each direction shall remain open. The Cedar County Board of Supervisors and the Secondary Roads Department is in agreement with the "every other bridge" sequencing approach.

It has been determined that the replacement of bridges should be staged over two years, with the first year's set of replacements being constructed before any major roadway grading and paving is started.

Due to the Moscow Interchange's importance for system performance, it was determined that it must remain open to traffic for the majority of its construction. To accomplish this, Moscow Road will be realigned to cross I-80 east of the existing bridge. The width of the offset will be established for constructability needs and will be based on the buffer space necessary for construction between the existing bridge and the new bridge width. Short-term closure will be allowed for final tie-in to the new relocated alignment and ramps.

For the Rose and Yankee Interchanges, while it is acceptable to close the crossings over I-80 while the bridges are being replaced, the Cedar County Board of Supervisors requested that the ramps be allowed to function during construction, if feasible, to continue to provide some access to adjoining properties and roadways.

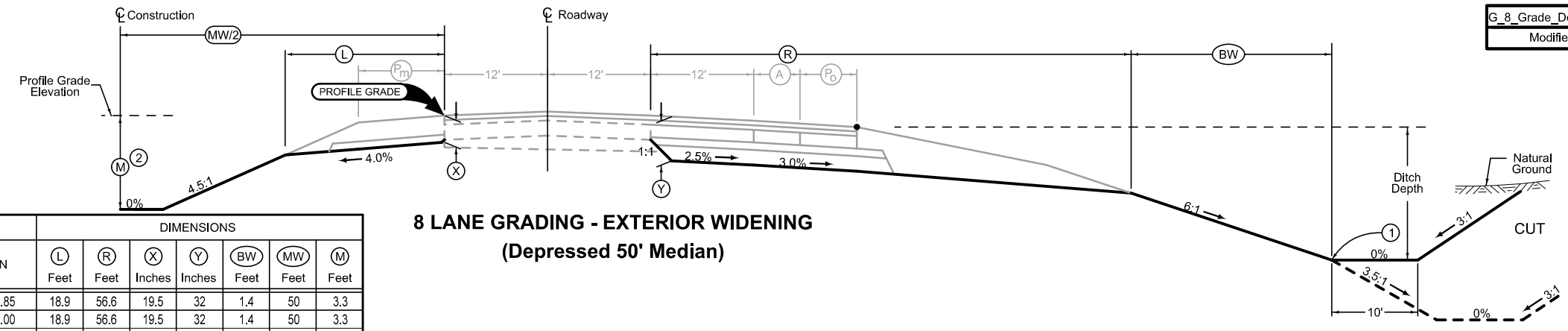
Concept Statement

The project will include detour routes. Any route on paved surfaces that requires a detour will be rerouted on paved surfaces. Similarly, any route on granular surfaces that requires a detour will be allowed to be rerouted on granular surfaces.

H. Special Considerations

A cell tower is located south of I-80, east of the Moscow interchange. Preliminary costs of relocation of the cell tower is in the \$300,000 range. The Iowa DOT wants to avoid this cell tower and maintain at minimum distance of 60 feet of clearance between the roadway and the tower's anchor point.

Concept Statement



**8 LANE GRADING - EXTERIOR WIDENING
(Depressed 50' Median)**

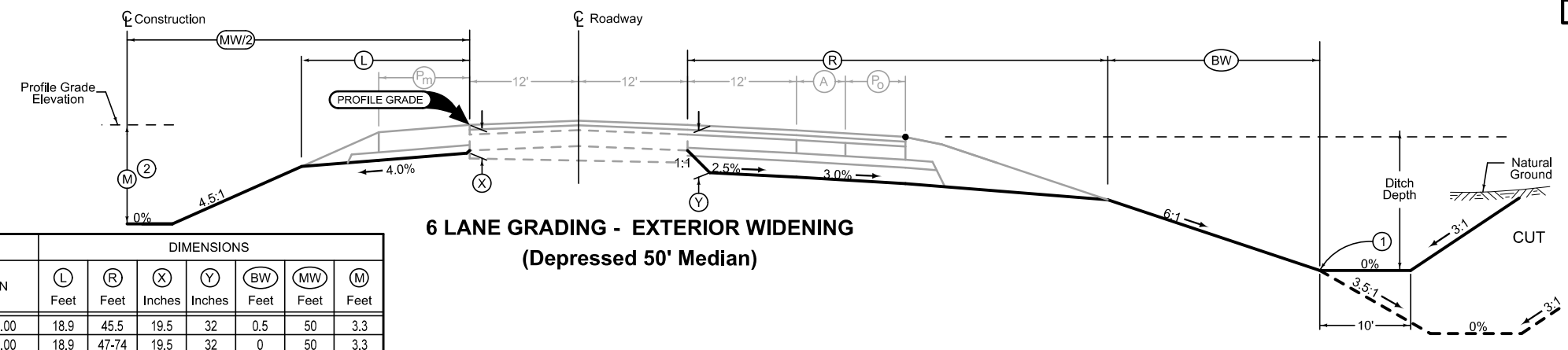
LOCATION		DIMENSIONS							
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	Y Inches	BW Feet	MW Feet	M Feet	
I-80 EASTBOUND	790+25.00	815+89.85	18.9	56.6	19.5	32	1.4	50	3.3
I-80 WESTBOUND	791+60.15	819+25.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 EASTBOUND	815+89.85	835+00.00	18.9	89.4-51	19.5	32	0-7	50	3.3
I-80 WESTBOUND	819+25.00	836+45.00	18.9	93.5-56.6	19.5	32	0-1.4	50	3.3
I-80 EASTBOUND	835+00.00	852+80.00	18.9	51	19.5	32	7	50	3.3
I-80 WESTBOUND	836+45.00	853+94.53	18.9	56.6	19.5	32	1.4	50	3.3
I-80 EASTBOUND	852+80.00	870+00.00	18.9	51-88	19.5	32	7-0	50	3.3
I-80 WESTBOUND	853+94.53	873+04.68	18.9	56.6-91.9	19.5	32	1.4-0	50	3.3
I-80 EASTBOUND	870+00.00	884+98.84	18.9	56.6	19.5	32	1.4	50	3.3
I-80 WESTBOUND	873+04.68	886+00.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 EASTBOUND	884+98.84	892+47.27	18.9	89-60.9	19.5	32	0	50	3.3
I-80 WESTBOUND	886+00.00	892+65.12	18.9	96.8-60.7	19.5	32	0	50	3.3
I-80 EASTBOUND	5892+47.27	5904+09.21	18.9	60.9-56.6	19.5	32	0-1.4	50	3.3
I-80 WESTBOUND	4892+65.12	4903+19.78	18.9	68.6-56.6	19.5	32	0-1.4	50	3.3
I-80 WESTBOUND	4903+19.78	4918+00.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 EASTBOUND	5904+09.21	5906+00.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 WESTBOUND	1005+50.00	1011+10.15	18.9	63-89.5	19.5	32	9.3-0	50	3.3
I-80 EASTBOUND	1004+96.21	1007+00.00	18.9	56.6-81	19.5	32	1.4-0	50	3.3
I-80 EASTBOUND	1007+00.00	1033+39.85	18.9	56.6	19.5	32	1.4	50	3.3
I-80 WESTBOUND	1011+10.15	1035+00.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 EASTBOUND	1033+39.85	1052+50.00	18.9	86.6-56.6	19.5	32	0-1.4	50	3.3
I-80 WESTBOUND	1035+00.00	1052+20.00	18.9	89.9-56.6	19.5	32	0-1.4	50	3.3
I-80 WESTBOUND	1052+20.00	1354+75.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 EASTBOUND	1052+50.00	1356+55.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 WESTBOUND	1354+75.00	1373+85.15	18.9	56.6-89.4	19.5	32	1.4	50	3.3
I-80 EASTBOUND	1356+55.00	1373+75.00	18.9	56.6-88	19.5	32	1.4-0	50	3.3
I-80 EASTBOUND	1373+75.00	1395+89.85	18.9	56.6	19.5	32	1.4	50	3.3
I-80 WESTBOUND	1373+85.15	1400+00.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 EASTBOUND	1395+89.85	1417+00.00	18.9	85.5-56.6	19.5	32	0-1.4	50	3.3
I-80 WESTBOUND	1400+00.00	1417+20.00	18.9	93-56.6	19.5	32	0-1.4	50	3.3
I-80 EASTBOUND	1417+00.00	1424+00.00	18.9	56.6	19.5	32	1.4	50	3.3
I-80 WESTBOUND	1417+20.00	1424+00.00	18.9	56.6	19.5	32	1.4	50	3.3

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

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

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

② Nominal Dimension. Varies due to split profile grades and split horizontal alignment.



**6 LANE GRADING - EXTERIOR WIDENING
(Depressed 50' Median)**

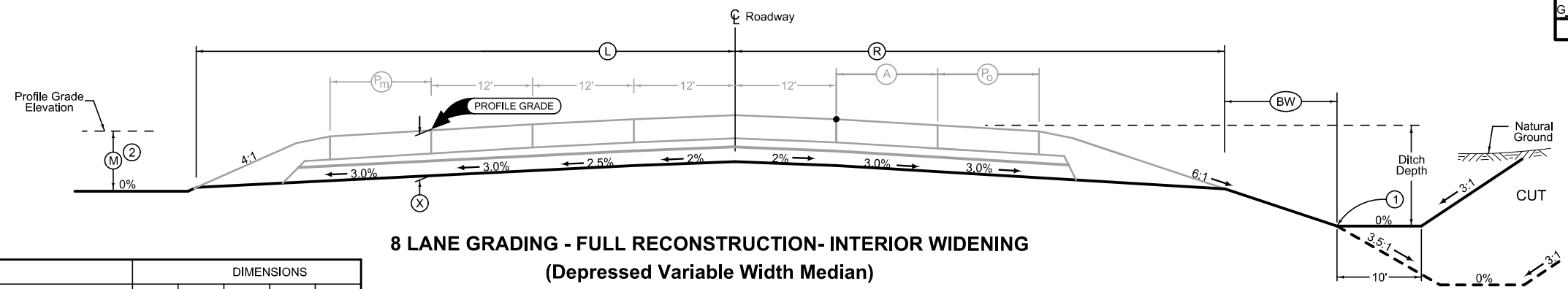
LOCATION		DIMENSIONS							
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	Y Inches	BW Feet	MW Feet	M Feet	
I-80 WESTBOUND	766+00.00	772+50.00	18.9	45.5	19.5	32	0.5	50	3.3
I-80 EASTBOUND	774+99.08	790+25.00	18.9	47-74	19.5	32	0	50	3.3
I-80 WESTBOUND	772+50.00	791+60.15	18.9	45.5-77.4	19.5	32	0.5-0	50	3.3

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

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

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

② Nominal Dimension. Varies due to split profile grades and split horizontal alignment.



**8 LANE GRADING - FULL RECONSTRUCTION- INTERIOR WIDENING
(Depressed Variable Width Median)**

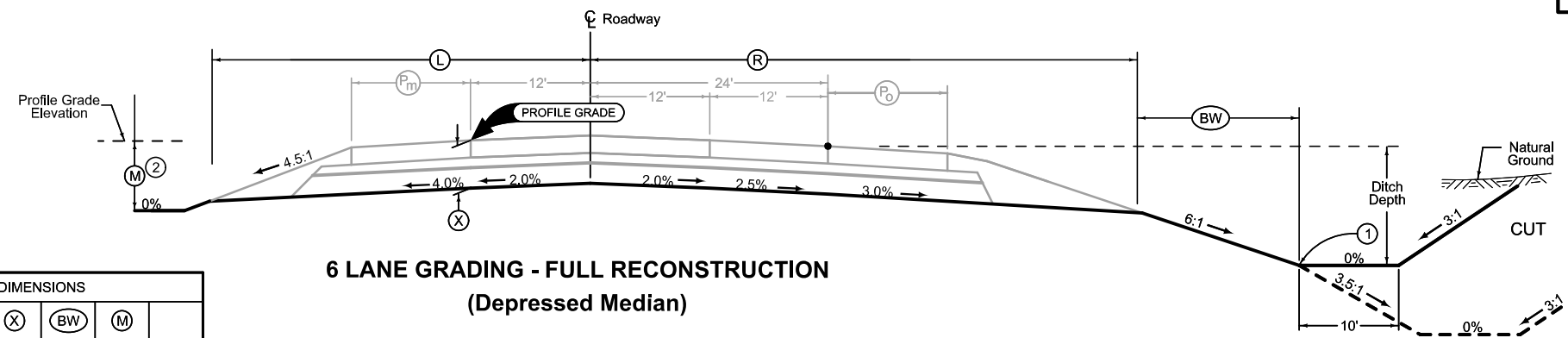
LOCATION		DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	BW Feet	M Feet
I-80 WESTBOUND	4938+75.00 - 4940+08.76	50.9	45.5	32	0.5	3
I-80 WESTBOUND	4942+96.77 - 4951+75.00	50.9	45.5	32	0.5	3
I-80 EASTBOUND	5939+00.00 - 5941+29.22	50.9	45.5	32	0.5	3
I-80 EASTBOUND	5944+38.25 - 5953+00.00	50.9	45.5	32	0.5	3

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

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

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

② Nominal Dimension. Varies due to split profile grades and split horizontal alignment.



**6 LANE GRADING - FULL RECONSTRUCTION
(Depressed Median)**

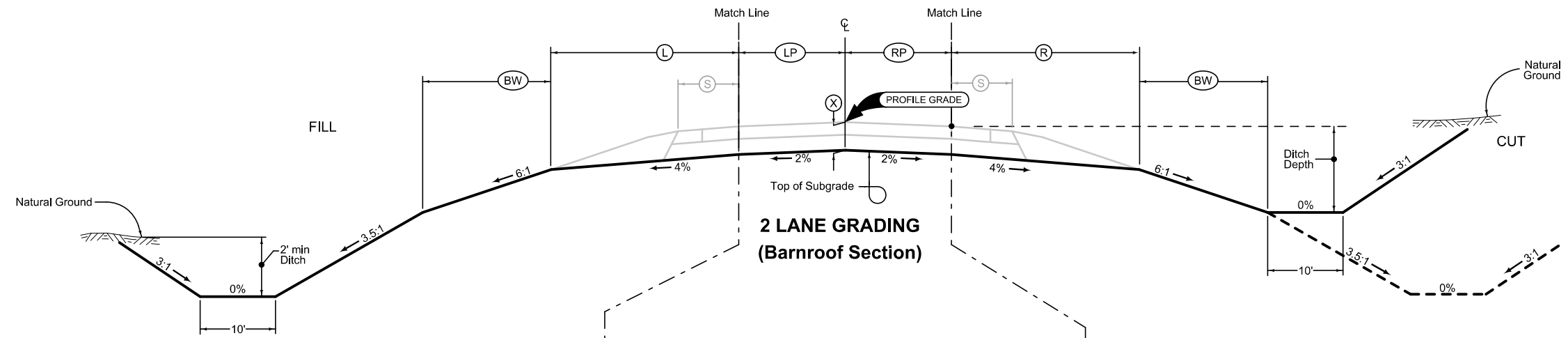
LOCATION		DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	BW Feet	M Feet
I-80 WESTBOUND	56+95.00 - 66+00.09	28.4-36.7	57.5	32	0.5	3
I-80 EASTBOUND	57+62.00 - 73+05.93	26.6-38.5	57.5	32	0.5	3
I-80 EASTBOUND	73+08.93 - 75+00.00	28.5-30.7	57.5	32	0.5	3
I-80 EASTBOUND	5906+00.00 - 5920+50.00	37.6	57.5	32	12.5-0.5	3
I-80 WESTBOUND	4918+00.00 - 4926+40.09	37.6	57.5	32	12.5-0.5	3
I-80 EASTBOUND	5992+44.74 - 6004+76.96	36.9	63.5	32	3.5-6.9	3
I-80 WESTBOUND	4993+02.00 - 5005+92.76	50.9	51.5	32	0.5	3

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

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

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

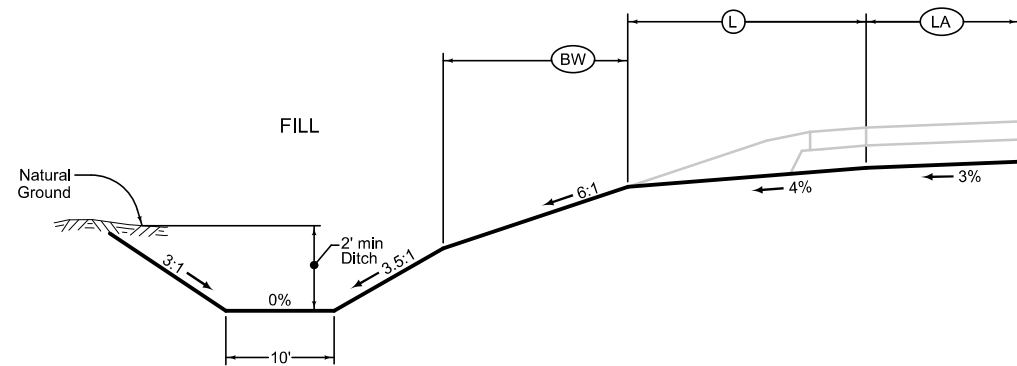
② Nominal Dimension. Varies due to split profile grades and split horizontal alignment.



LOCATION		DIMENSIONS	
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(BW) Feet
Moscow Rd	1781+75.00 - 1796+13.90	21.2	8.8
	1798+02.18 - 1800+72.92	21.2	8.8
	1804+68.38 - 1807+10.14	21.2	8.8
Rose Ave	165+20.00 - 171+32.30	23.0	7.0
	173+31.68 - 175+95.86	23.0	7.0
	178+90.99 - 181+65.75	23.0	7.0
	184+25.00 - 187+81.17	19.7	10.3

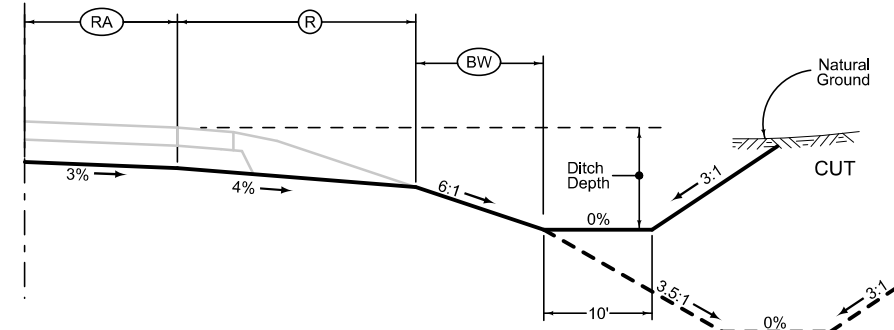
ROAD IDENTIFICATION	LOCATION		DIMENSIONS		
	STATION TO STATION	(LP) Feet	(RP) Feet	(X) Inches	
Moscow Rd	1781+75.00 - 1792+40.00	12	12	22	
	1792+40.00 - 1797+20.00	12-20	12-20	22	
	1797+20.00 - 1807+45.00	20	20	22	
	1807+45.00 - 1812+25.00	20-12	20-12	22	
Rose Ave	1812+25.00 - 1815+45.00	12	12	22	
	165+00.00 - 167+35.00	12	12	22	
	167+35.00 - 172+61.11	12-20	12-20	22	
	172+61.11 - 182+33.15	20	20	22	
	182+33.15 - 187+81.17	20-12	20-12	22	

LOCATION		DIMENSIONS	
ROAD IDENTIFICATION	STATION TO STATION	(R) Feet	(BW) Feet
Moscow Rd	1781+75.00 - 1793+20.00	21.2	8.8
	1797+86.77 - 1800+26.56	21.2	8.8
	1804+21.93 - 1806+92.49	21.2	8.8
Rose Ave	1809+67.66 - 1812+30.00	21.2	8.8
	165+00.00 - 165+20.00	23.0	7.0
	173+30.41 - 175+78.05	23.0	7.0
	178+73.18 - 181+72.97	23.0	7.0
	184+65.93 - 187+81.17	19.7	10.3



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

See Plan & Profile sheets for additional details of ditches and backlopes.

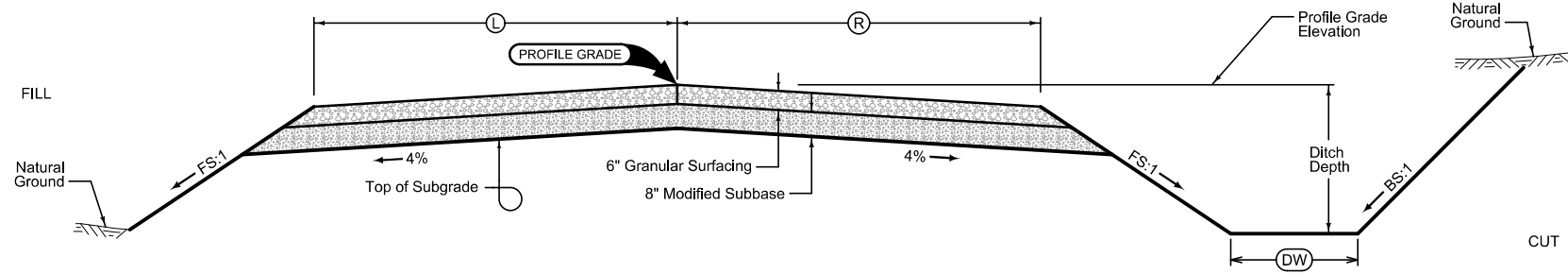


LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	(LA) Feet	(L) Feet	(BW) Inches
Moscow Rd		12	19.8	12.2
		12-0	19.8-23.3	12.2-8.7

LOCATION		DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION	(RA) Feet	(R) Feet	(BW) Feet
Moscow Rd	1793+20.00 - 1794+40.00	0-12	23.3-19.8	8.7-12.2
	1794+40.00 - 1795+88.25	12	19.8	12.2
	1812+30.00 - 1830+50.00	0-12	23.3-19.8	8.7-12.2
Rose Ave	1830+50.00 - 1815+50.00	12	19.8	12.2
	165+20.00 - 167+00.00	0-12	23.0-19.5	7.0-10.5
	167+00.00 - 171+78.91	12	19.5	10.5

LOCATION		DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION	FS	BS	DW Feet	L Feet	R Feet	
306th St. at Moscow Rd.	11767+55.00 11802+05.00	3:1	3:1	10	14	14	
307th St.	10771+40.00 10796+45.63	3:1	3:1	6	12	12	
Old Muscatine Rd./Pine Ave.	1892+25.00 1921+00.00	3:1	3:1	10	14	14	
306th St. at Old Muscatine Rd.	50+79.01 52+08.25	3:1	3:1	10	14	14	
East St.	35+20.00 42+65.00	3:1	3:1	6	12	12	
Old Muscatine Rd.	60+24.42 88+75.00	3:1	3:1	10	14	14	
Vermont Ave.	2119+25.00 2139+25.00	3:1	3:1	10	14	14	

G_2_GradeGran
Modified



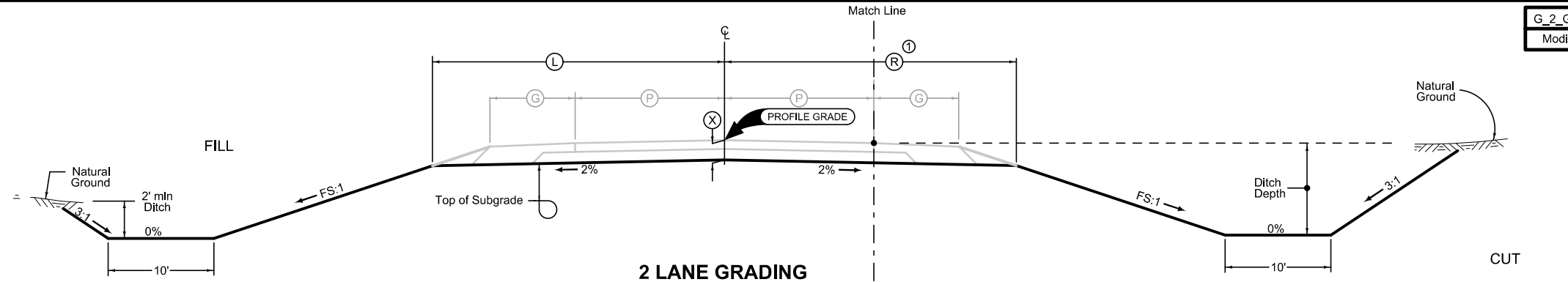
GRADING AND GRANULAR SURFACING

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

See plan & profile sheets and cross sections for additional details of ditches and backslopes.

LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	FS
307th St.	10796+45.63 10815+75.00	18.2	18.2	20	3:1
307th St.	10820+50.00 10821+74.26	18.2	18.2	20	3:1
Taylor Ave.	11+75.00 27+75.00	22.9	22.9	20	3:1
Yankee Ave.	2374+00.00 2402+00.00	26.6	26.6	20	4:1

G_2_Grade
Modified



2 LANE GRADING

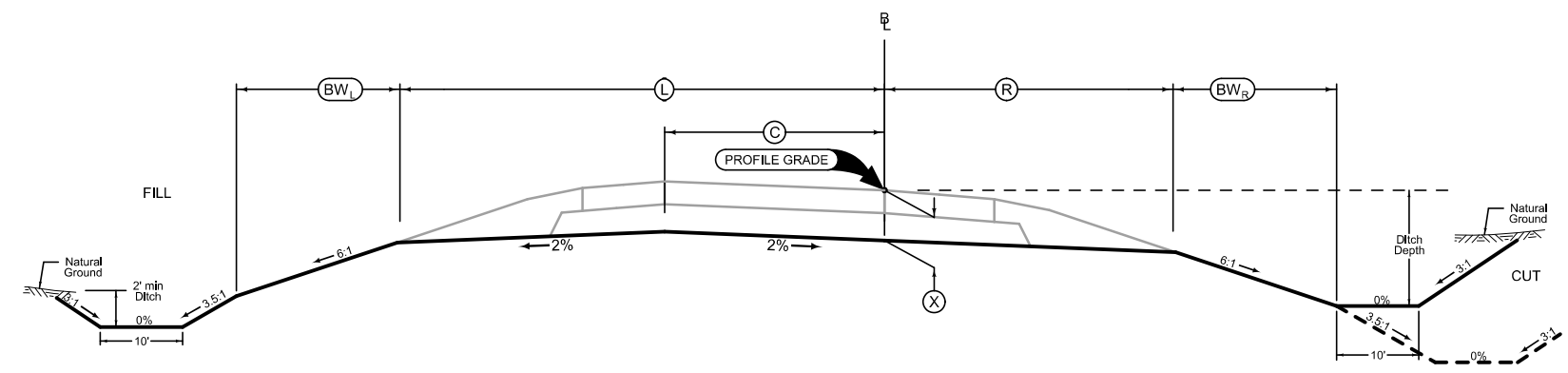
Normal section shown may be modified appropriately in areas of super-elevated curves or other locations specifically designated by the Engineer.

See plan & profile sheets and cross sections for additional details of ditches and backslopes.

① R measurement is to the end of 2% subgrade slope. This measurement ends at the foreslope tie in for normal typical sections and at the edge of through travel way in areas of auxiliary lanes.

LOCATION		DIMENSIONS	
ROAD IDENTIFICATION	STATION TO STATION	R Feet	RA Feet
Yankee Ave.	2374+20.00 2376+00.00	0-12	16.1-14.2
	2376+00.00 2380+59.36	12	14.2

LOCATION				DIMENSIONS					
INTERCHANGE	RAMP	STATION TO STATION		(L) Feet	(R) Feet	(C) Feet	(X) Inches	(BW _L) Feet	(BW _R) Feet
Moscow Rd.	A	1599+86.21	1619+23.94	33.8	19.5	16	22	12.2	10.5
Moscow Rd.	B	2590+25.00	2608+09.87	33.8	19.5	16	22	6.2	4.5
Moscow Rd.	C	3545+58.92	3551+14.69	33.8	19.5	16	22	6.2	4.5
Moscow Rd.	D	4506+70.16	4515+91.09	33.8	19.5	16	22	12.2	10.5
I-80 P.O. Rest Area	A	1581+75.00	1586+00.00	33.8	19.5	16	22	0.2	0
I-80 P.O. Rest Area	B	2570+00.00	2576+75.00	33.8	19.5	16	22	0.2	0
I-80 P.O. Rest Area	C	3573+04.68	3575+00.00	33.8	19.5	16	22	.2	0
I-80 P.O. Rest Area	D	4580+50.00	4584+98.84	33.8	19.5	16	22	0.2	0
I-80 W.C. Rest Area	C	3557+54.38	3560+25.00	33.8	19.5	16	22	6.2	4.5
I-80 W.C. Rest Area	D	4580+25.00	4584+98.84	33.8	19.5	16	22	6.2	4.5
Rose Ave.	A	1519+74.35	1535+00.00	33.8	19.5	16	22	0.2	0
Rose Ave.	B	2507+00.00	2523+27.69	33.8	19.5	16	22	6.2	4.5
Rose Ave.	C	3511+08.92	3520+80.67	33.8	19.5	16	22	12.2	10.5
Rose Ave.	D	4522+61.74	4533+41.09	33.8	19.5	16	22	0.2	0
Yankee Ave.	A	1585+45.75	1600+00.00	33.8	19.5	16	22	6.2	4.5
Yankee Ave.	B	2573+75.00	2587+07.88	33.8	19.5	16	22	0.2	0
Yankee Ave.	C	3573+83.92	3586+43.32	33.8	19.5	16	22	0.2	0
Yankee Ave.	D	4586+03.35	4595+91.08	33.8	19.5	16	22	6.2	4.5



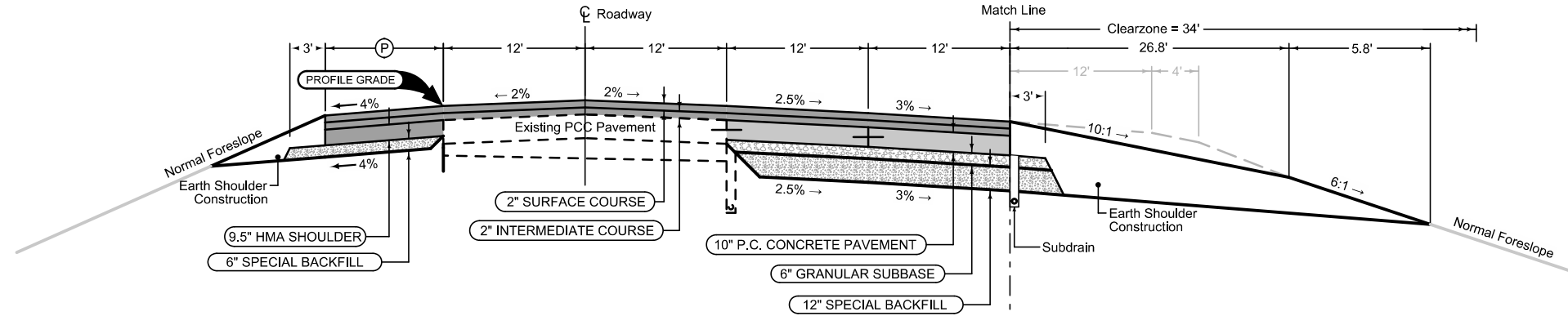
RAMP GRADING

Section view is in direction of traffic.
Normal sections shown may be appropriately modified for areas specifically designated by the Engineer such as intersections or superelevated curves.

Full Depth HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

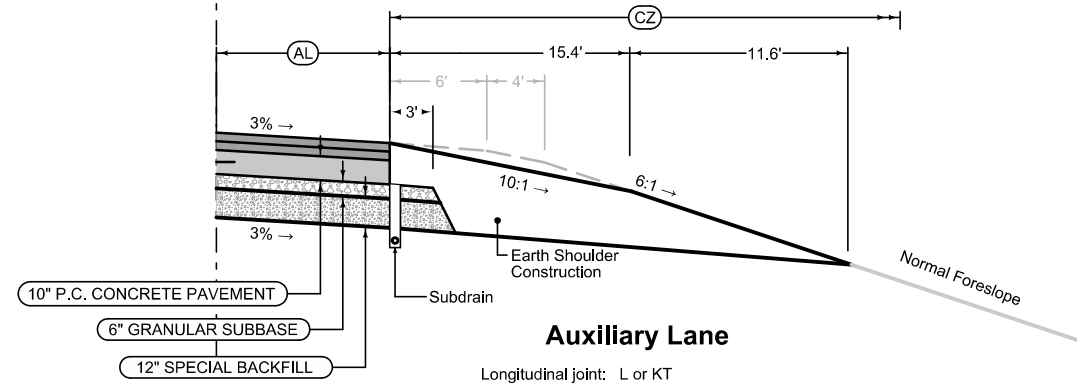
4_P_FullHMA_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	790+25.00	892+47.27	10
EB	5892+47.27	5906+00.00	10
EB	1004+96.21	1424+00.00	10
WB	791+60.15	892+65.12	10
WB	4892+65.12	4918+00.00	10
WB	1005+50.00	1424+00.00	10



6 LANE PAVING - EXTERIOR WIDENING FOR FUTURE 8 LANE (Depressed 50' Median)

Section shown in the direction of traffic.
Mainline Jointing:
Transverse joints: CD at 20' spacing

8DP_Dprs_Modified		
Direction of Travel	BEGIN STATION	END STATION
EB	790+25.00	892+47.27
EB	5892+47.27	5906+00.00
EB	1004+96.21	1424+00.00
WB	791+60.15	892+65.12
WB	4892+65.12	4918+00.00
WB	1005+50.00	1424+00.00



Auxiliary Lane

Longitudinal joint: L or KT
Transverse joint: Match Mainline

2_AuxLane_PCC_10-18-16				
Direction of Travel	STATION TO STATION		(AL) Feet	(CZ) Feet
	EB	815+89.85	835+00.00	36.2-0
	852+80.00	870+00.00	0-40	22
	884+98.84	892+47.27	35-12	22
	5892+47.27	5904+09.21	12-0	22
	1004+96.21	1007+00.00	26.4-40	24
	1033+39.85	1052+50.00	36.2-0	22
	1356+55.00	1373+75.00	0-40	22
	1395+89.85	1415+00.00	36.2-0	24
WB	819+23.94	836+45.00	40-0	30
	853+94.53	873+04.68	0-35	22
	886+00.00	892+65.12	40-12	22
	4892+65.12	4903+19.78	12-0	22
	1005+50.00	1011+10.15	12-36.2	30
	1035+00.00	1052+20.00	40-0	22
	1354+75.00	1373+85.15	0-36.2	22
	1400+00.00	1417+20.00	40-0	24

Full Depth PCC Shoulder

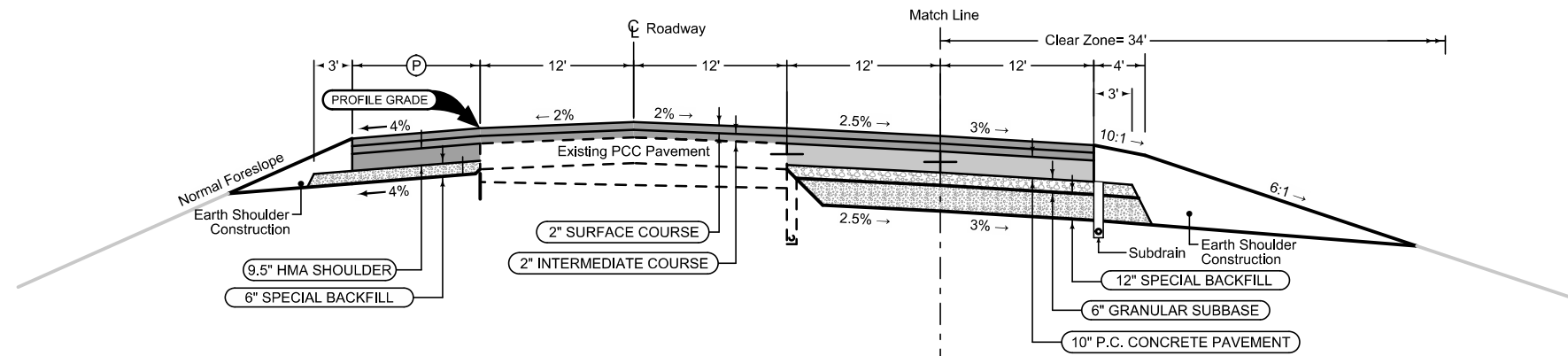
Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing

6D_Closed_P_FullPCC_04-19-11		
Direction of Travel	BEGIN STATION	END STATION
EB	790+25.00	815+89.85
	835+00.00	852+80.00
	870+00.00	884+98.84
	5904+09.21	5906+00.00
	1007+00.00	1033+39.85
	1052+50.00	1356+55.00
	1373+75.00	1395+89.85
	1415+00.00	1424+00.00
WB	791+60.15	819+23.94
	836+45.00	853+94.53
	873+04.68	886+00.00
	4903+19.78	4918+00.00
	1011+10.15	1035+00.00
	1052+20.00	1354+75.00
	1373+85.15	1400+00.00
	1417+20.00	1424+00.00

Full Depth HMA Shoulder

Shoulder Jointing:
Longitudinal joint: B

4_P_FullHMA_10-19-10			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	774+99.08	790+25.00	10
WB	766+00.00	791+60.15	10

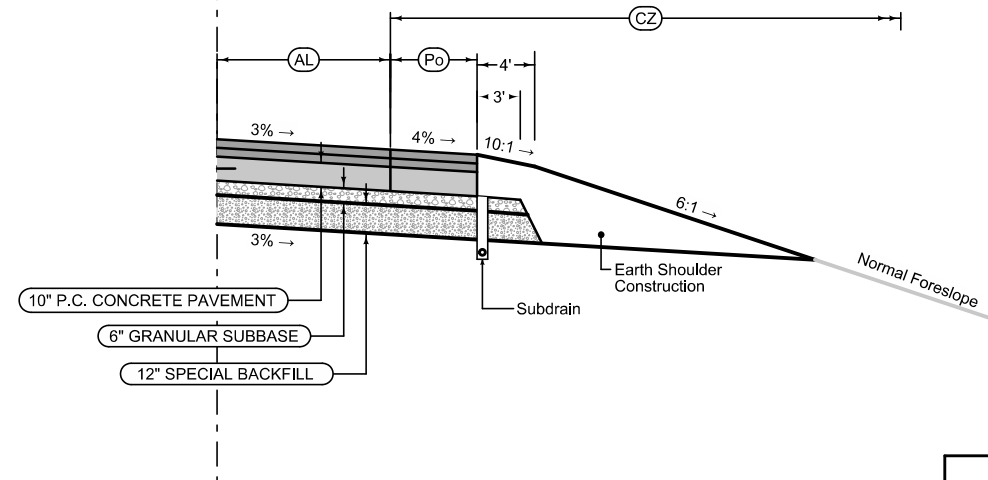


6 LANE PAVING - EXTERIOR WIDENING (Depressed 50' Median)

Section shown in the direction of traffic.

Mainline Jointing:
Transverse joints: CD at 20' spacing

8DP_Dprs_Modified		
Direction of Travel	BEGIN STATION	END STATION
EB	774+99.08	790+25.00
WB	766+00.00	791+60.15



Auxiliary Lane

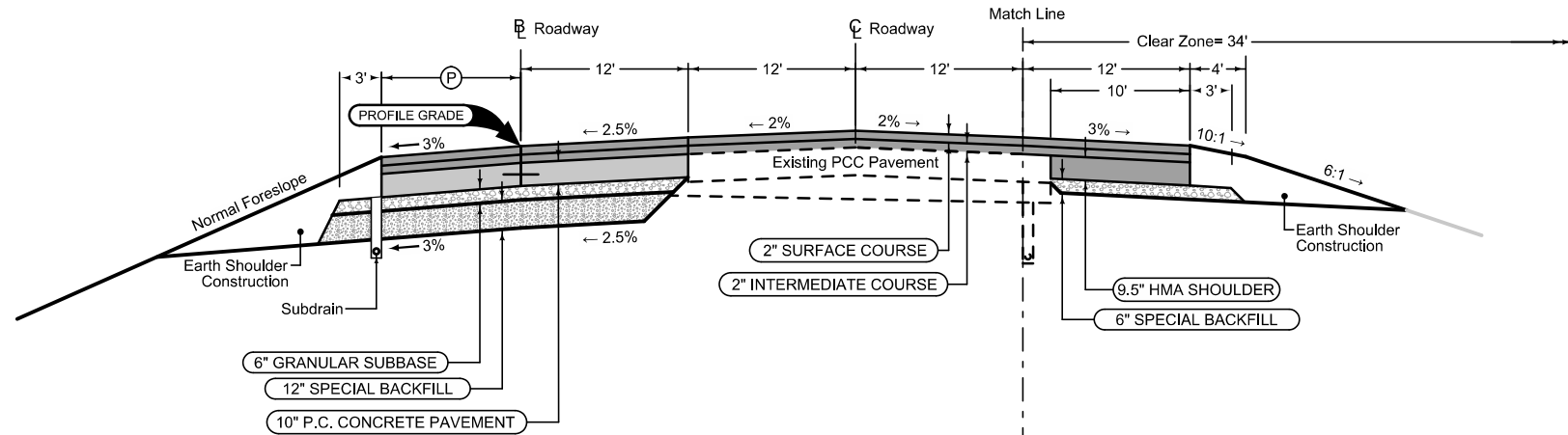
Longitudinal joint: L or KT
Transverse joint: Match Mainline

2_AuxLane_PCC_10-18-16				
Direction of Travel	STATION TO STATION		(AL) Feet	(CZ) Feet
	EB	774+99.08	776+05.00	7.8-12
776+05.00		786+05.00	12	24
WB	786+05.00	790+25.00	12-40	24
	772+49.89	778+50.00	0-12	34-24
	778+50.00	788+50.00	12	24
	788+50.00	791+60.15	12-36.2	24

Full Depth PCC Shoulder

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

6D_P_FullPCC_ Modified			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	5920+50.00	5939+00.00	12
WB	4926+40.09	4938+75.00	12
WB	4951+75.00	4993+02.00	12
EB	5953+00.00	5992+44.74	12

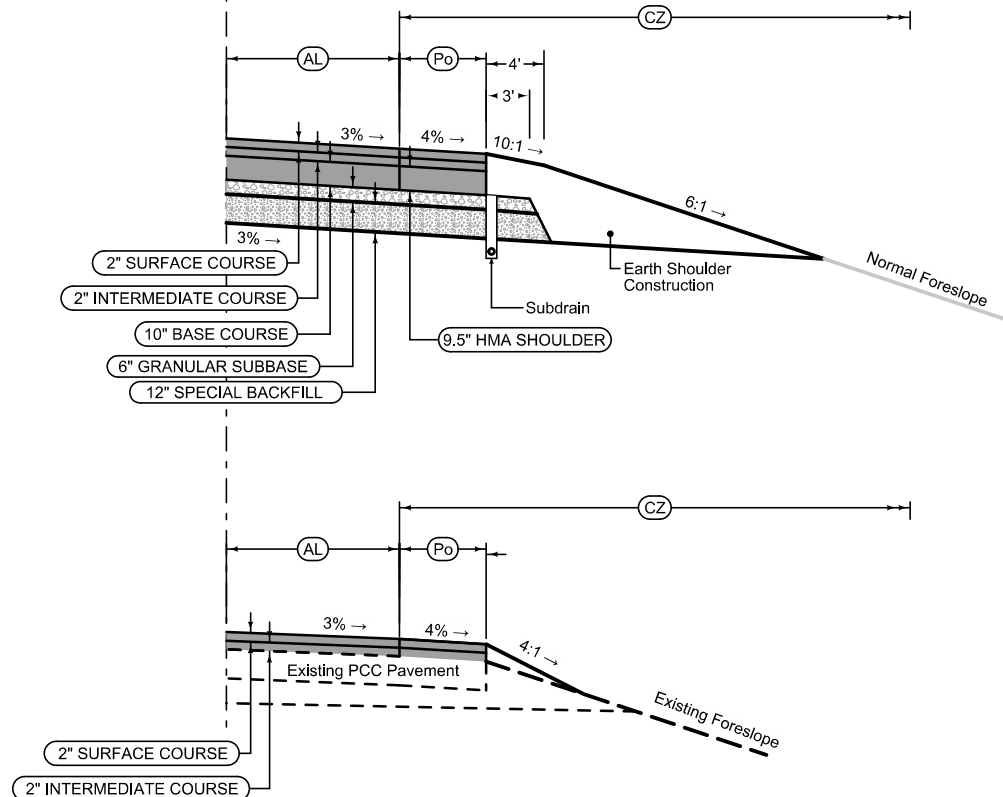


6 LANE PAVING - INTERIOR WIDENING (Depressed Variable Width Median)

Section shown in the direction of traffic.

Mainline Jointing:
 Transverse joints: CD at 20' spacing

8DP_Dprs_ Modified		
Direction of Travel	BEGIN STATION	END STATION
EB	5920+50.00	5939+00.00
WB	4926+40.09	4938+75.00
WB	4951+75.00	4993+02.00
EB	5953+00.00	5992+44.74



Full Depth PCC Shoulder

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

6D_P_FullPCC_ Modified		
Direction of Travel	BEGIN STATION	END STATION
EB	5920+50.00	5939+00.00
WB	4926+40.00	4933+50.00
WB	4957+55.61	4976+86.47
EB	5960+60.59	5979+89.63

Auxiliary Lane

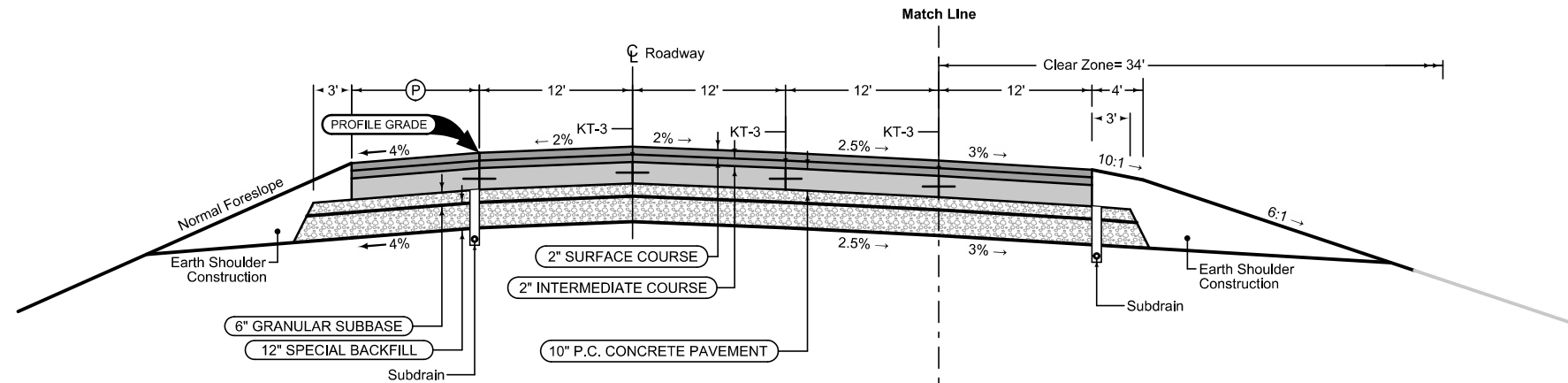
Longitudinal joint: L or KT
 Transverse joint: Match Mainline

2_AuxLane_HMA_ Modified				
Direction of Travel	STATION TO STATION	(AL) Feet	(CZ) Feet	
WB	4933+50.00	4938+75.00	2-10.5	34-24
WB	4951+75.00	4954+45.46	12	24
WB	4954+45.46	4957+55.61	12-36.2	24
EB	5953+00.00	5956+24.63	12	24
EB	5979+89.63	5982+99.78	36.2-12	24
EB	5982+99.78	5992+44.74	12	24
WB	4981+39.40	4993+02.00	12	24

Auxiliary Lane Resurfacing

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

_AuxLane_Overlay_ New				
Direction of Travel	STATION TO STATION	(AL) Feet	(CZ) Feet	
EB	5956+24.63	5960+60.59	12-40	24
WB	4976+86.47	4981+39.40	40-12	24



**6 LANE PAVING - FULL RECONSTRUCTION
(Depressed 50' Median)**

Section shown in the direction of traffic.
Mainline Jointing:
Transverse joints: CD at 20' spacing

Full Depth PCC Shoulder

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

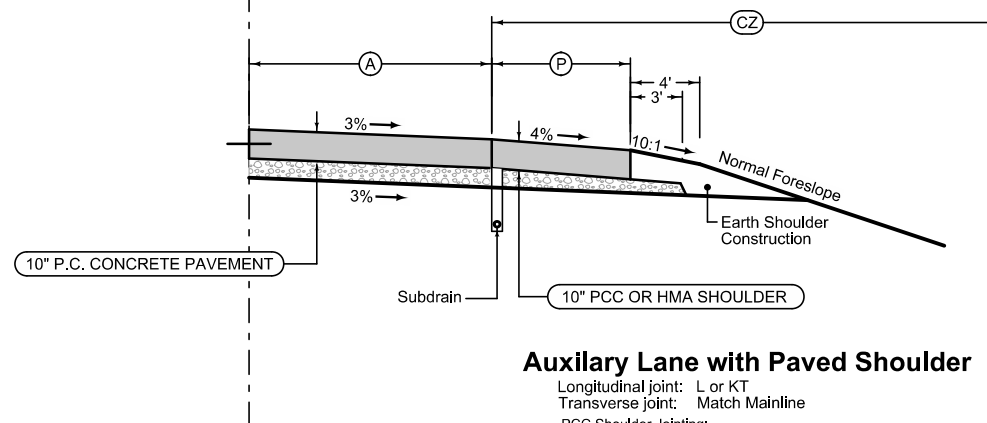
6D_Closed_P_FullPCC_04-19-11			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
EB	57+62.00	75+00.00	10
WB	56+95.00	66+00.09	10
EB	5906+00.00	5920+50.00	12
EB	5992+44.74	6004+76.96	12
WB	4918+00.00	4926+40.09	12
WB	4993+02.00	5005+92.76	12

8DP_Dprs Modified		
Direction of Travel	BEGIN STATION	END STATION
EB	57+62.00	75+00.00
WB	56+95.00	66+00.09
EB	5906+00.00	5920+50.00
EB	5992+44.74	6004+76.96
WB	4918+00.00	4926+40.09
WB	4993+02.00	5005+92.76

Full Depth PCC Shoulder

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

6D_Closed_P_FullPCC_04-19-11		
Direction of Travel	BEGIN STATION	END STATION
EB	57+62.00	73+05.93
WB	56+95.00	66+00.09
EB	5906+00.00	5920+50.00
WB	4918+00.00	4926+40.09

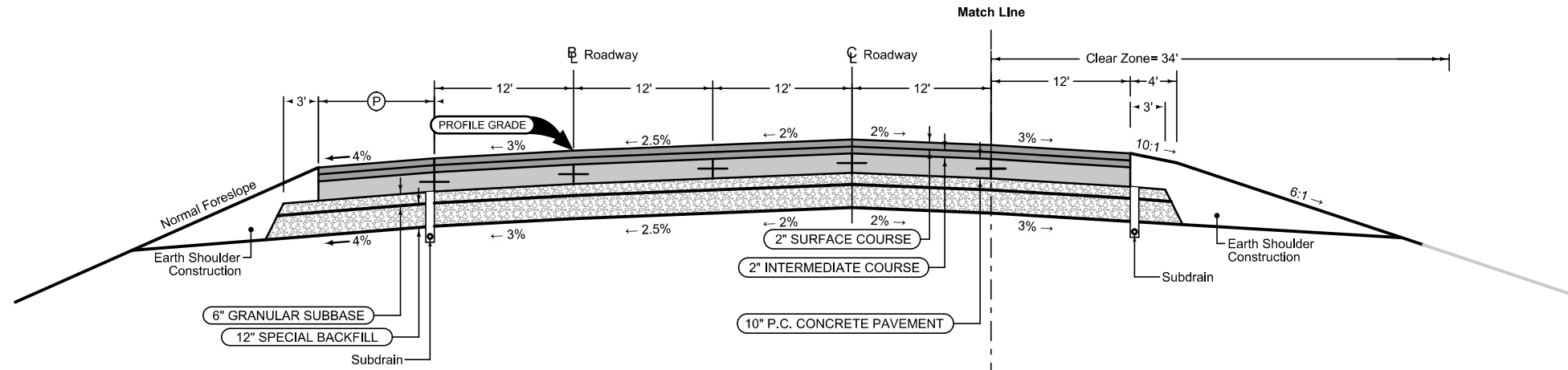


Auxiliary Lane with Paved Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline
PCC Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_AuxLane_PCC Modified					
ROAD IDENTIFICATION	STATION TO STATION	(A) Feet	(P) Feet	(CZ) Feet	
Eastbound I-80	73+05.93 - 73+54.78	2	10	24	
Eastbound I-80	73+54.78 - 75+00.00	2-7.8	10-6	24	
Eastbound I-80	5992+44.74 - 6000+80.74	12	6	24-34	
Eastbound I-80	6000+80.74 - 6004+76.96	14-38.4	6	34-24	
Westbound I-80	4993+02.00 - 5005+92.76	12	6	24	

I-80



**8 LANE PAVING - FULL RECONSTRUCTION - INTERIOR WIDENING
(Depressed Variable Width Median)**

Section shown in the direction of traffic.
Mainline Jointing:
Transverse joints: CD at 20' spacing

Full Depth PCC Shoulder

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

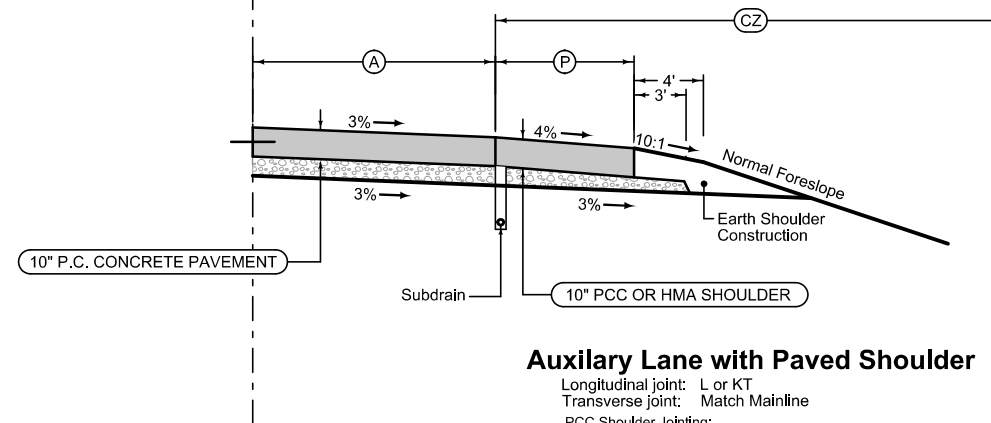
6D_Closed_P_FullPCC_04-19-11			
Direction of Travel	BEGIN STATION	END STATION	(P) Feet
WB	4938+75.00	4951+75.00	12
EB	5939+00.00	5953+00.00	12

8DP_Dprs_Modified			
Direction of Travel	BEGIN STATION	END STATION	
WB	4938+75.00	4951+75.00	
EB	5939+00.00	5953+00.00	

Full Depth PCC Shoulder

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

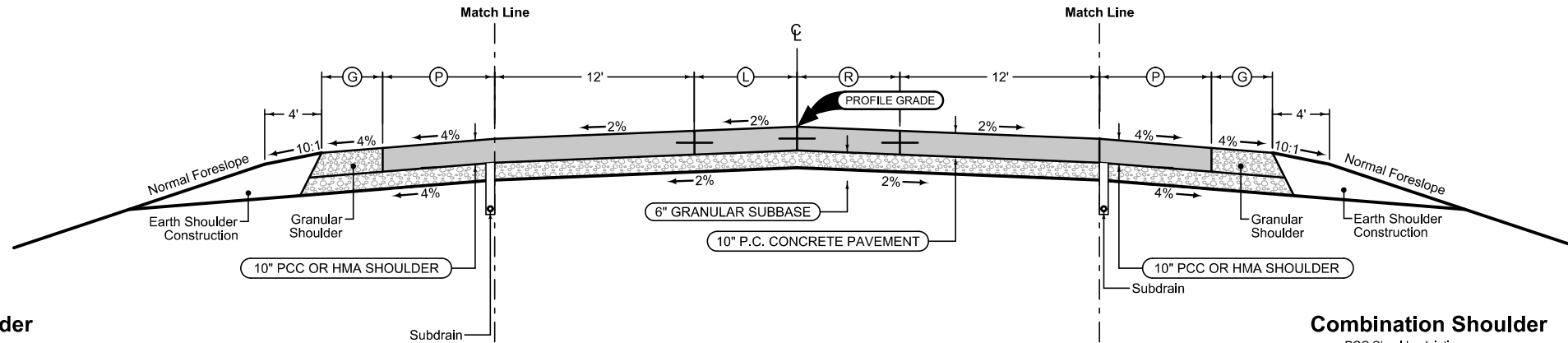
6D_Closed_P_FullPCC_04-19-11			
Direction of Travel	BEGIN STATION	END STATION	
EB	5939+00.00	5943+24.63	



Auxiliary Lane with Paved Shoulder

Longitudinal joint: L or KT
Transverse joint: Match Mainline
PCC Shoulder Jointing:
Longitudinal joint: L-2 or KT-2
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

2_AuxLane_PCC_Modified						
ROAD IDENTIFICATION	STATION TO STATION	(A) Feet	(P) Feet	(CZ) Feet		
WB	4938+75.00 - 4939+50.00	10.5-12	6	24		
WB	4939+50.00 - 4951+75.00	12	6	24		
EB	5943+24.63 - 5946+24.63	2-12	10-6	34-24		
EB	5946+24.63 - 5953+00.00	12	6	24		



Combination Shoulder

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

ROAD IDENTIFICATION		STATION TO STATION		2_C_ Modified	
		G	P	Feet	Feet
Moscow Rd.	1781+75.00	1796+13.90	4	6	
	1798+02.18	1800+72.92	4	6	
	1804+68.38	1807+10.14	4	6	
Rose Ave.	165+20.00	171+32.30	4	6	
	173+31.68	175+95.86	4	6	
	178+90.99	181+65.75	4	6	
	184+25.00	187+81.17	4	6	

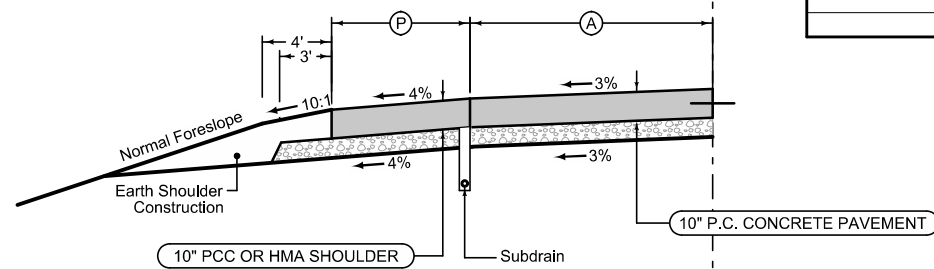
Mainline Jointing:
 Transverse joints: CD at 20' spacing
 Longitudinal joint: L-2

ROAD IDENTIFICATION		STATION TO STATION		2P_ Modified	
		L	R	Feet	Feet
Moscow Rd.	1781+75.00	1792+40.00	0	0	
	1792+40.00	1797+20.00	0-8	0-8	
	1797+20.00	1807+45.00	8	8	
	1807+45.00	1812+25.00	8-0	8-0	
Rose Ave.	1812+25.00	1815+45.00	0	0	
	165+00.00	167+35.00	0	0	
	167+35.00	172+61.11	0-8	0-8	
	172+61.11	182+33.15	8	8	
	182+33.15	187+81.17	8-0	8-0	

Combination Shoulder

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

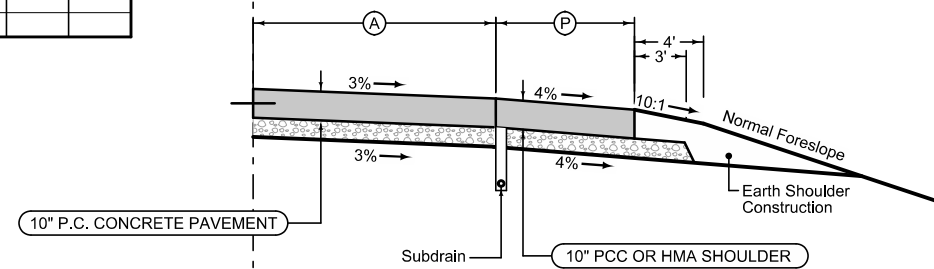
ROAD IDENTIFICATION		STATION TO STATION		2_C_ Modified	
		G	P	Feet	Feet
Moscow Rd.	1781+75.00	1793+20.00	4	6	
	1797+86.77	1800+26.56	4	6	
	1804+21.93	1806+92.49	4	6	
	1809+67.66	1812+30.00	4	6	
Rose Ave.	165+00.00	165+20.00	4	6	
	173+30.41	175+78.05	4	6	
	178+73.18	181+72.97	4	6	
	184+65.93	187+81.17	4	6	



Auxiliary Lane with Paved Shoulder

Longitudinal joint: L or KT
 Transverse joint: Match Mainline
 PCC Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

ROAD IDENTIFICATION		STATION TO STATION		2_AuxLane_PCC_ Modified	
		A	P	Feet	Feet
Moscow Rd.	1809+01.61	1813+65.00	0-12	6	
	1813+65.00	1815+45.00	12	6	

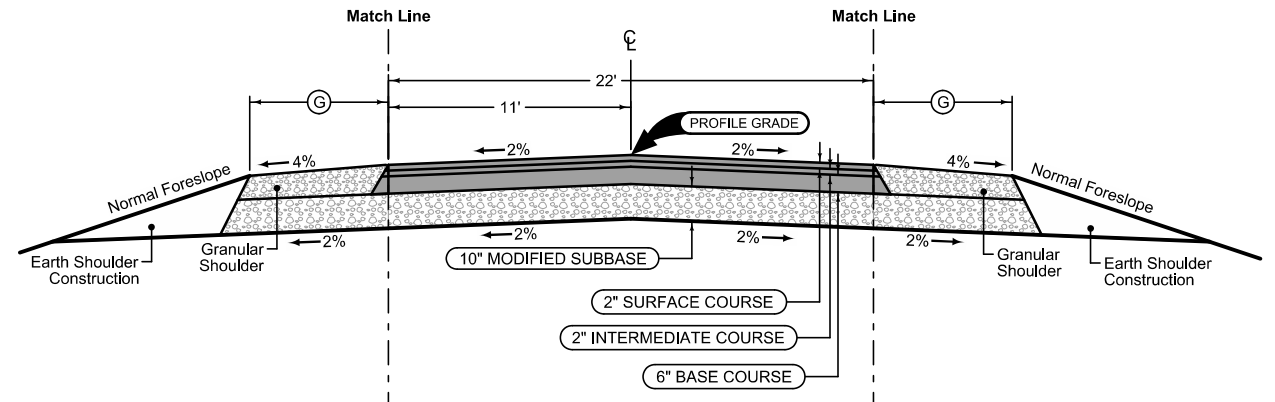


Auxiliary Lane with Paved Shoulder

Longitudinal joint: L or KT
 Transverse joint: Match Mainline
 PCC Shoulder Jointing:
 Longitudinal joint: L-2 or KT-2
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

ROAD IDENTIFICATION		STATION TO STATION		2_AuxLane_PCC_ Modified	
		A	P	Feet	Feet
Moscow Rd.	1793+20.00	1794+40.00	0-12	6	
	1794+40.00	1795+88.25	12	6	
	1812+30.00	1830+50.00	0-12	6	
Rose Ave.	1830+50.00	1815+50.00	12	6	
	165+20.00	167+00.00	0-12	6	
	167+00.00	171+78.91	12	6	

Moscow Rd.
 Rose Ave.



Granular Shoulder

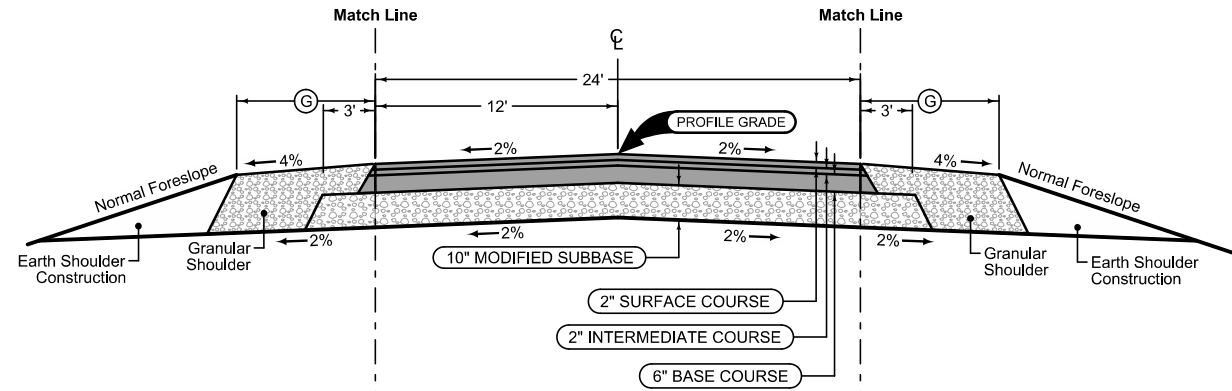
			2_G_ Modified
ROAD IDENTIFICATION	STATION TO STATION		Ⓞ Feet
307th St	10796+45.63	10815+75.00	2
307th St	10820+50.00	10821+74.26	2

			2H_ Modified
ROAD IDENTIFICATION	STATION TO STATION		
307th St	10796+45.63	10815+75.00	
307th St	10820+50.00	10821+74.26	

Granular Shoulder

			2_G_ Modified
ROAD IDENTIFICATION	STATION TO STATION		Ⓞ Feet
307th St	10796+45.63	10815+75.00	2
307th St	10820+50.00	10821+74.26	2

307th St.



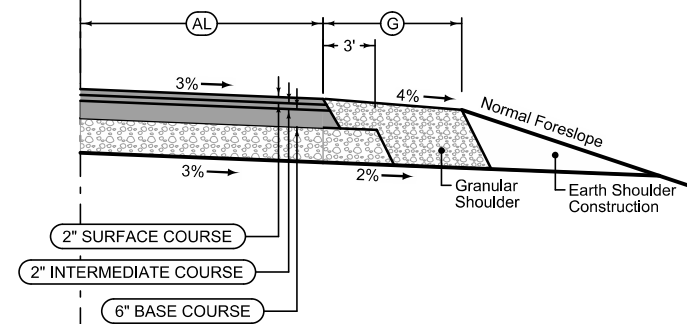
Granular Shoulder

2_G Modified			
ROAD IDENTIFICATION	STATION TO STATION		Ⓞ Feet
Taylor Ave.	11+75.00	27+75.00	6
Yankee Ave.	2374+00.00	2402+00.00	8

2H Modified			
ROAD IDENTIFICATION	STATION TO STATION		
Taylor Ave.	11+75.00	27+75.00	
Yankee Ave.	2374+00.00	2402+00.00	

Granular Shoulder

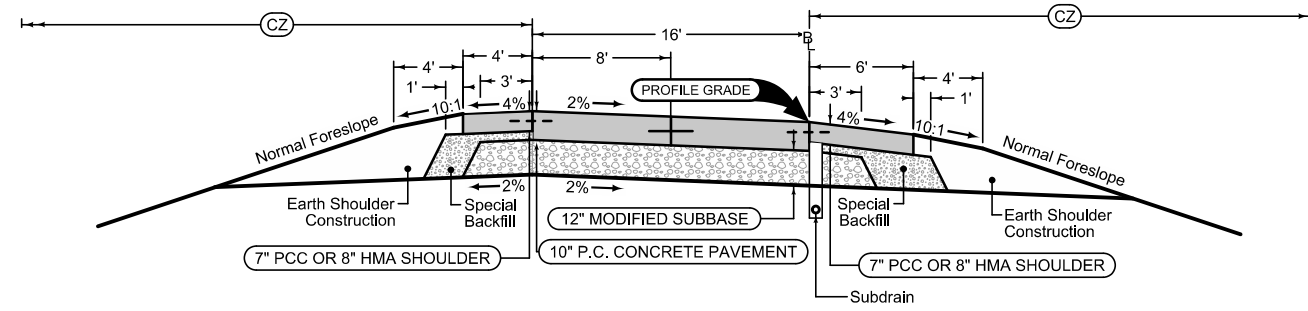
2_G Modified			
ROAD IDENTIFICATION	STATION TO STATION		Ⓞ Feet
Taylor Ave.	11+75.00	27+75.00	6
Yankee Ave.	2374+00.00	2374+20.00	8
	2380+59.36	2402+00.00	8



Auxiliary Lane with Granular Shoulder

2_G Modified				
ROAD IDENTIFICATION	STATION TO STATION		Ⓞ Feet	Ⓞ Feet
Yankee Ave.	2374+20.00	2376+00.00	0-12	4
	2376+00.00	2380+59.36	12	4

**Taylor Ave.
Yankee Ave.**



Section shown in the direction of traffic.

Ramp Jointing:
 Transverse joints: CD at 15' spacing.
 Longitudinal joints: L-2
 PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-5
 Transverse joints: C at 15' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

1RP_1L_P_ALT_ Modified			
ROAD IDENTIFICATION	BEGIN STATION	END STATION	(CZ) Feet
Moscow Rd. Ramp A	1599+86.21	1619+23.94	30
Moscow Rd. Ramp B	2590+25.00	2608+09.87	24
Moscow Rd. Ramp C	3545+58.92	3551+14.69	24
Moscow Rd. Ramp D	4506+70.16	4515+91.09	30
I-80 P.O. Rest Area Ramp A	1581+75.00	1586+00.00	18
I-80 P.O. Rest Area Ramp B	2570+00.00	2576+75.00	18
I-80 P.O. Rest Area Ramp C	3573+04.68	3575+00.00	18
I-80 P.O. Rest Area Ramp D	4580+50.00	4584+98.84	18
I-80 W.C. Rest Area Ramp C	3557+54.38	3560+25.00	24
I-80 W.C. Rest Area Ramp D	4580+25.00	4584+98.84	24
Rose Ave. Ramp A	1519+74.35	1535+00.00	18
Rose Ave. Ramp B	2507+00.00	2523+27.69	24
Rose Ave. Ramp C	3511+08.92	3520+80.67	30
Rose Ave. Ramp D	4522+61.74	4533+41.09	18
Yankee Ave. Ramp A	1585+45.75	1600+00.00	24
Yankee Ave. Ramp B	2573+75.00	2587+07.88	18
Yankee Ave. Ramp C	3573+83.92	3586+43.32	18
Yankee Ave. Ramp D	4586+03.35	4595+91.08	24

I-80 / Moscow Rd.
 I-80 Parking Only Rest Area
 I-80 Welcome Center Rest Area
 I-80 / Rose Ave.
 I-80 / Yankee Ave.

Interchange Ramps

SURVEY SYMBOLS

- FENO Control Monument
- + TOP Top of Bridge Piers
- + REF reference tie points
- SOP Size of pipe
- + SBR size of bridge
- ⊕ CP Control Point Generic
- UB UV Misc utility vault
- PIP pipes(cast iron,steel,tile,etc)
- STOP ST stop sign
- PRO profile-r.r. rail,swk,abut
- BM bench mark
- D cl of draw or stream
- TLNR tree line right
- x — FW fence wire
- ⊙ TDC tree deciduous
- GDL guard rails
- SIGN Sl sign
- ⊕ PPC power pole, Owner C
- ⊕ PPB power pole, Owner B
- * TEV evergreen tree
- ROW right of way rails
- ⊕ PPA power pole, Owner A
- ← DU cl of draw upstream
- ▲▲▲▲▲ RIP rip-rap
- ⊕ LUM luminaire
- + GR Ground Field Survey
- BNK stream bank
- TLNL tree line left
- ⊙ WC Wildcard
- TW Top of Water
- SP Stream Profile
- EG edge of gravel road
- CON concrete or a/c slab
- + BD Bridge Deck
- ⊕ BLS Bridge Low Steel
- BCL bridge centerline
- BRG bridge
- C center of roadway
- EB EB electrical box
- ✂ PL Photo Location
- CUL culvert
- ⊙ INB intake-beehive
- ⊙ OUT tile outlet
- STP stump
- GDC Cable Guardrail
- BB BB billboard or sign
- SIGN SL speed limit sign
- ⊙ MM MM mile marker post
- ⊙ TP TPD telephone pedestal
- ⊙ LC LC lot corner
- ⊙ MH Misc manhole
- ⊙ UE utility elevation
- IN intake-grate, curb,umbrella
- LIN miscellaneous line
- CMP corrugated metal pipes
- WH WHD water hydrant
- BLD foundation or building
- ⊕ SEP septic tank
- ⊕ SHR shrub
- ⊙ MIS miscellaneous
- ⊕ LP L.P. tank
- ⊕ TR Telephone Riser Pole
- — — — — ENU edge of unpaved entrance&parking
- CU curb or center island
- GU gutter
- UB UB Misc utility box
- CS concrete slab
- RET retaining walls
- FWD wood fence
- ROC rock outcropping
- TV tv dish
- ⊙ WV WW water valve
- EW edge of water
- # — FCL security & chain link
- GP GP guard post / Bollard
- S Soil sampling site

UTILITY LEGEND

- ⊕ PPA power pole, Owner A
- E1(B) — EL1B UG electric, Eastern Iowa Light & Power - Quality B
- E1(C) — EL1C UG electric, Eastern Iowa Light & Power - Quality C
- F0(B) — FO1B fiber optics, Iowa Communications Network - Quality B
- F0(C) — FO1C fiber optics, Iowa Communications Network - Quality C
- F02(B) — FO2B fiber optics, Aureon Network Services (INS) - Quality B
- F02(C) — FO2C fiber optics, Aureon Network Services (INS) - Quality C
- F03(B) — FO3B fiber optics, Windstream Communications - Quality B
- F03(C) — FO3C fiber optics, Windstream Communications - Quality C
- F04(C) — FO4C fiber optics, WTC Communications - Quality C
- F05(C) — FO5C fiber optics, HWH Corporation - Quality C
- G(B) — GL1B gas line, OneOK North System - Quality B
- G(C) — GL1C gas line, OneOK North System - Quality C

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 PCC Pavement with HMA Surfacing Shading
Gray, Med	(80)	Proposed Granular Shading
Gray, Dark	(112)	Proposed HMA Resurfacing Shading
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

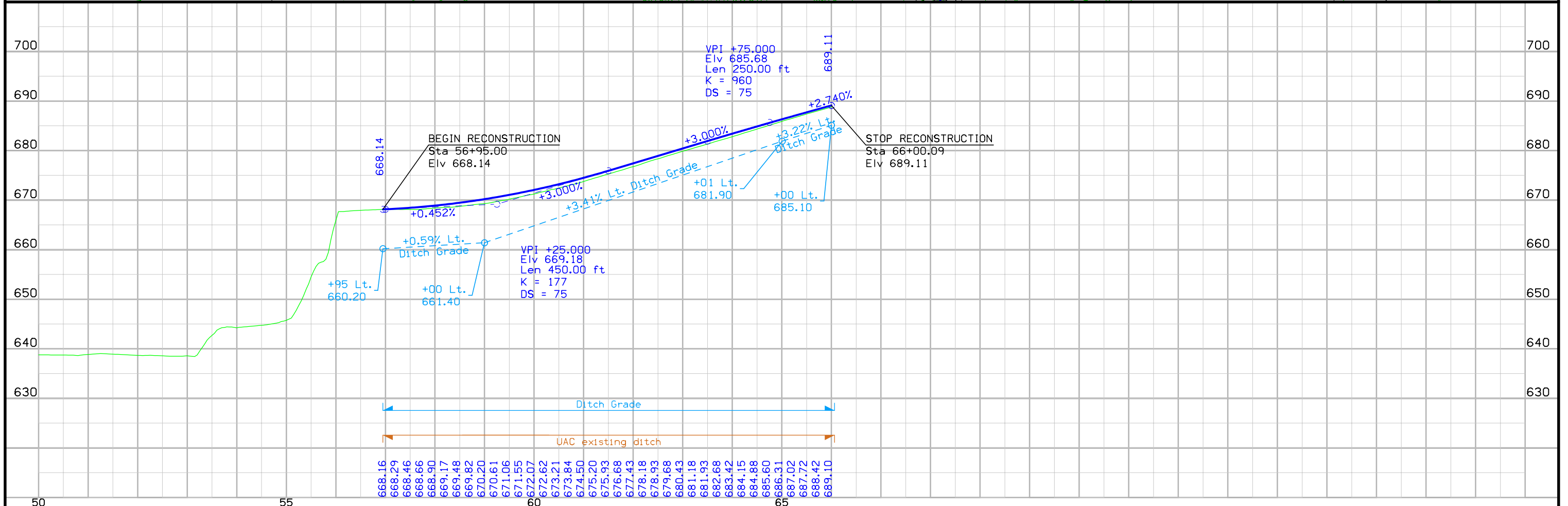
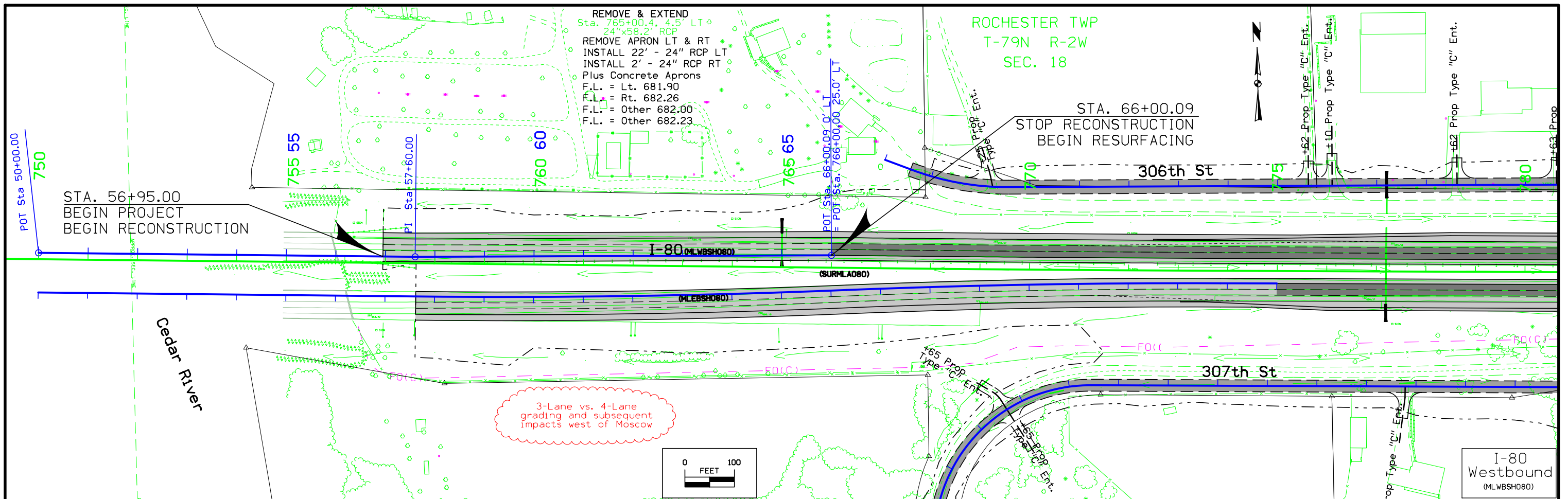
LINEWORK	Design Color No.	
Green	(2)	Existing Ground Line Profile
Blue	(1)	Proposed Profile and Annotation
Magenta	(5)	Existing Utilities
Blue, Light	(230)	Proposed Ditch Grades, Left
Black	(0)	Proposed Ditch Grades, Median
Rust	(14)	Proposed Ditch Grades, Right

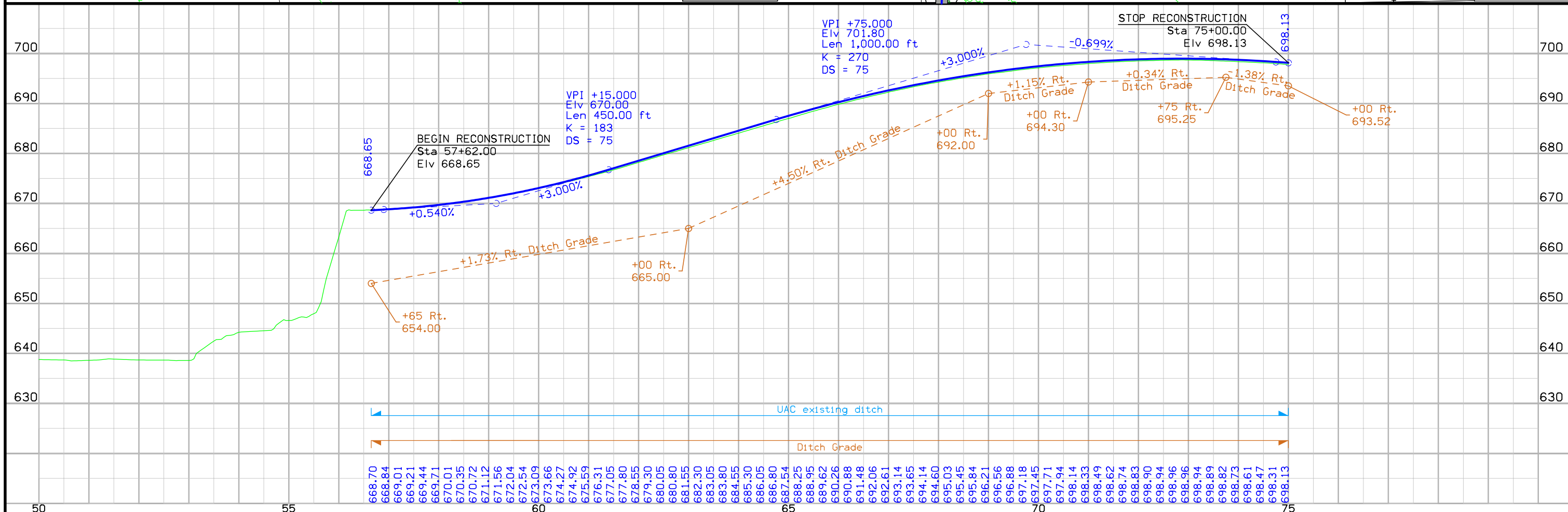
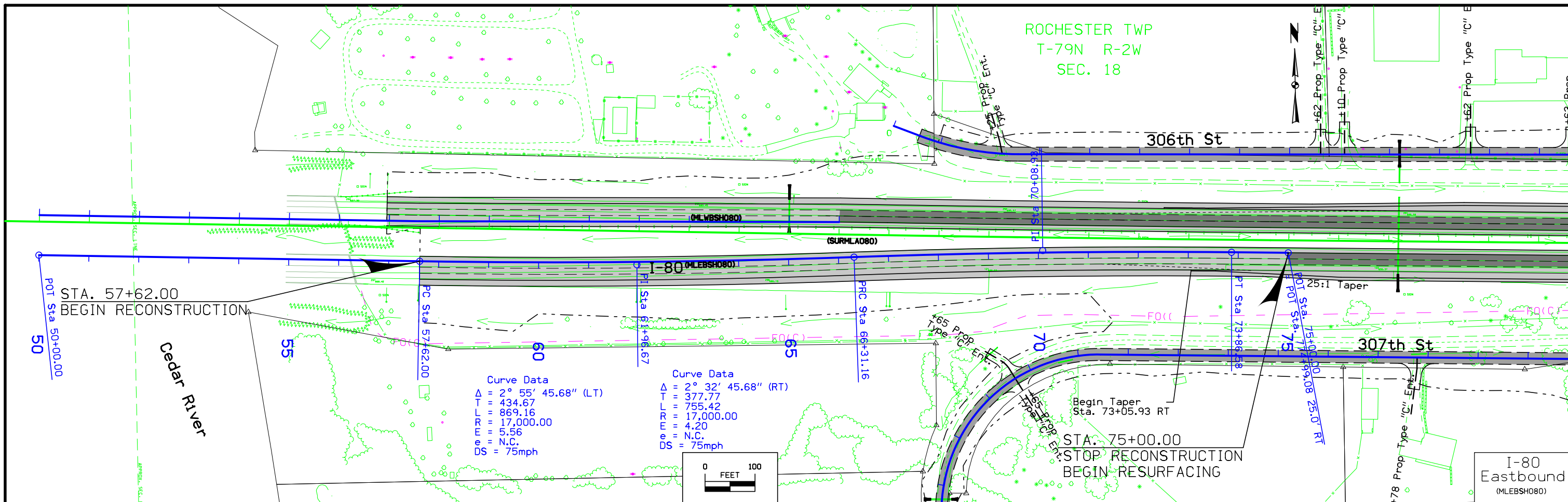
- Reference Point
- Station
 - Survey Line
 - Section Corner
 - Ground Line Intercept
 - Saw Cut
 - Guardrail
 - Trench Drain
 - HighTension Cable Guardrail
 - Sheet Pile
 - Pavement Removal
 - Clearing & Grubbing Area

- ### RIGHT-OF-WAY LEGEND
- ▲ Proposed Right-of-Way
 - △ Existing Right of Way
 - ▲ Existing and Proposed Right-of-Way
 - ▲ Easement and Existing Right-of-Way
 - Easement (Temporary)
 - ⊕ Easement
 - C/A Access Control
 - Property Line

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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





ROCHESTER TWP
T-79N R-2W
SEC. 18

Curve Data
 $\Delta = 0^\circ 23' 00.00''$ (LT)
 $T = 383.36$
 $L = 766.72$
 $RI = 114,600.00$
 $E = 0.64$
 $e = N.C.$

REMOVE & EXTEND
TIE TO EXISTING
Sta. 777+19.3
24" x 155.1' RCP
D.A. = 2.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 22' - 24" RCP LT
TIE TO EXISTING
INSTALL 28' - 24" RCP RT
Plus Concrete Apron
F.L. = Lt. 684.12
F.L. = Rt. 692.23
F.L. = Other 691.06

+92 Lt. Prop. Silt Berm

STA. 766+00.00
STOP WB RECONSTRUCTION
BEGIN WB WIDENING
AND RESURFACING

STA. 774+99.08
STOP EB RECONSTRUCTION
BEGIN EB WIDENING
AND RESURFACING

STA. 756+95.00
BEGIN CONSTRUCTION

750

755

760

765

770

775

306th St

50:1 Taper

(MLWB)SH080

I-80 (SUR)LA080

(MLWB)SH080

25:1 Taper

307th St

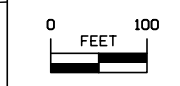
End Taper
Sta. 776+05.00 RT

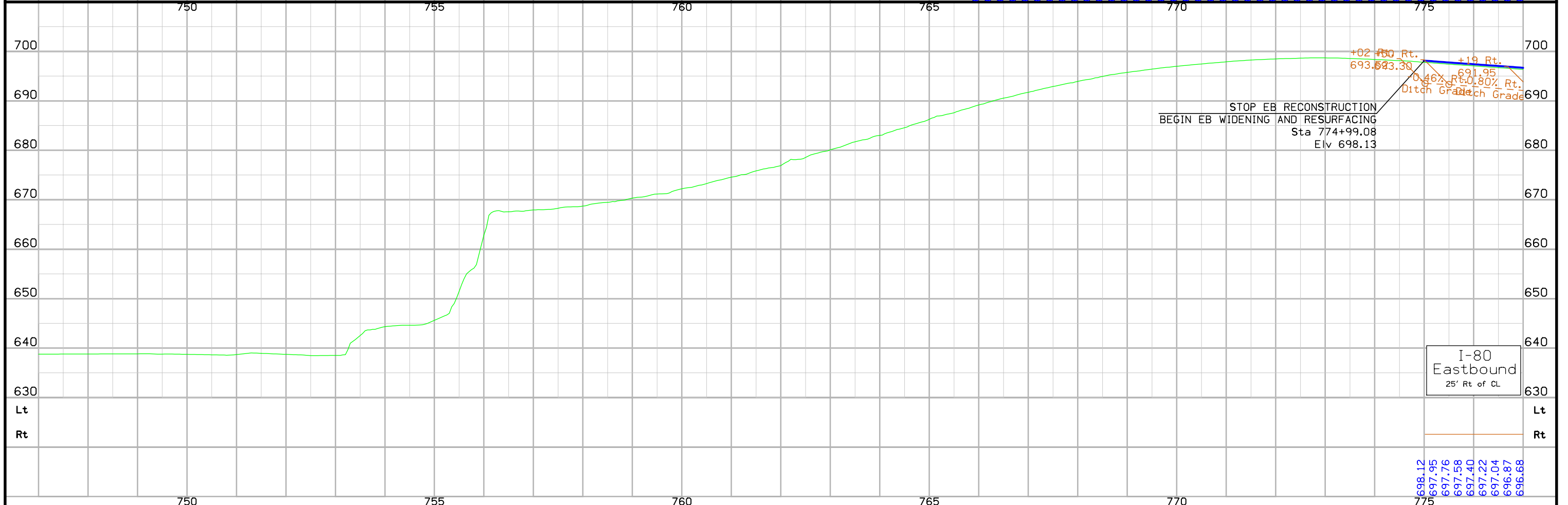
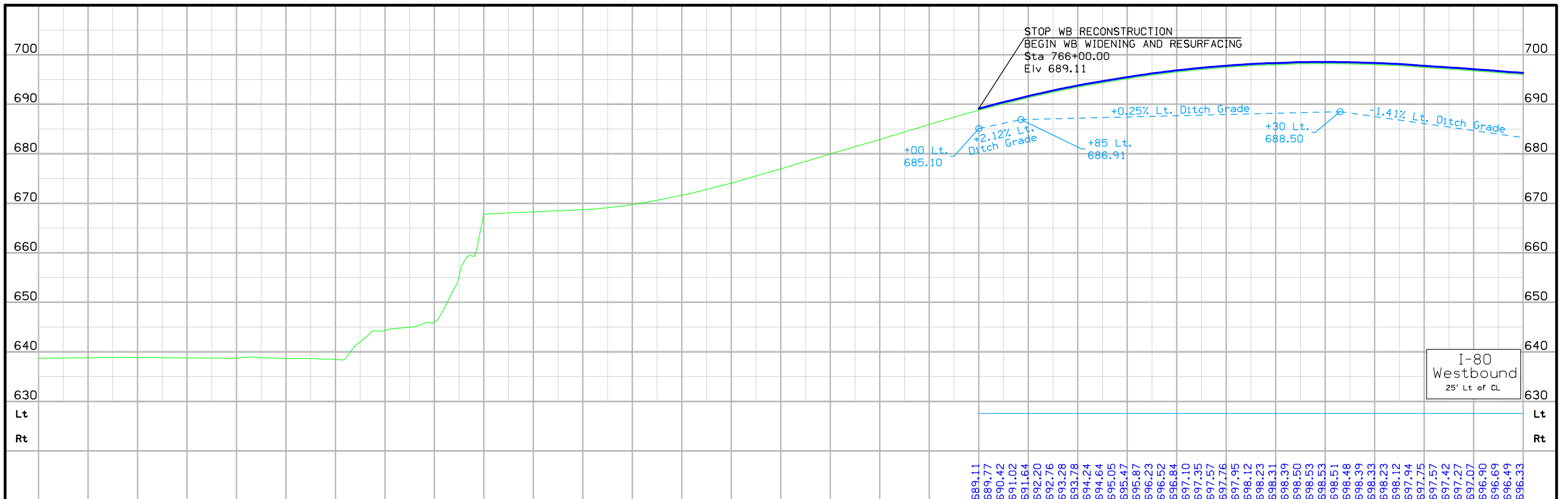
Cedar River

+65 Prop Type "C" Ept.

+62 Prop Type "C" Ept.

+78 Prop Type "C" Ept.





ROCHESTER TWP
T-79N R-2W
SEC. 18

+54 Prop.
Type "M" DiKE
Elev. + _____

REMOVE
Sta. 788+99.9, 110.0' LT
30"x28.1' RCP
REMOVE APRON RT
(REFER TO OTHER NOTE FOR
PROPOSED EXTENSION TIE)

REMOVE & EXTEND
TIE TO EXISTING
Sta. 788+99.9
30"x170.4' RCP
D.A.=8.0 A-R (Plans)
REMOVE APRON LT & RT
EXTEND 19' - 30" RCP LT
TIE TO EXISTING
EXTEND 24' - 30" RCP RT
Plus Concrete Apron
F.L. = Lt. 677.91
F.L. = Rt. 682.40
F.L. = Other 681.86

REMOVE
Sta. 803+66.3
24"x72.0' RCP

Sta. 804+65.0
INSTALL 24"x106.9' RCP
Plus Concrete Aprons
F.L. = Lt. 678.00
F.L. = Rt. 680.69

+52 Rt. Prop. Silt Berm

+07 Lt. Prop. Silt Berm

POT Sta 803+90.39 (SURMLA080)
= POT Sta 1802+49.94 (SRMOS)

POT Sta 3538+50.00 (RPCMOS)
POT 788+50.00 (SURMLA080)

End Tapent.
Sta. 778+50.00

306th St

I-80 (SURMLA080)

307th St

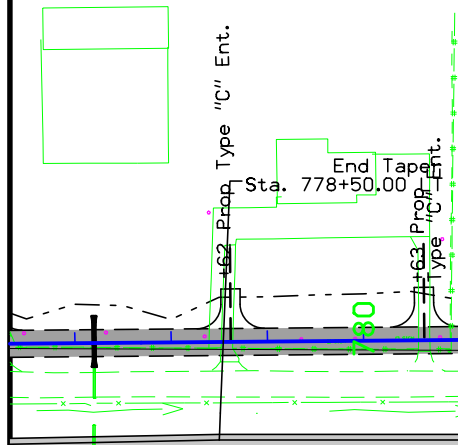
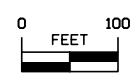
POT Sta 2590+25.00 (RPBMOS)
POT Sta 790+23.94 (SURMLA080)

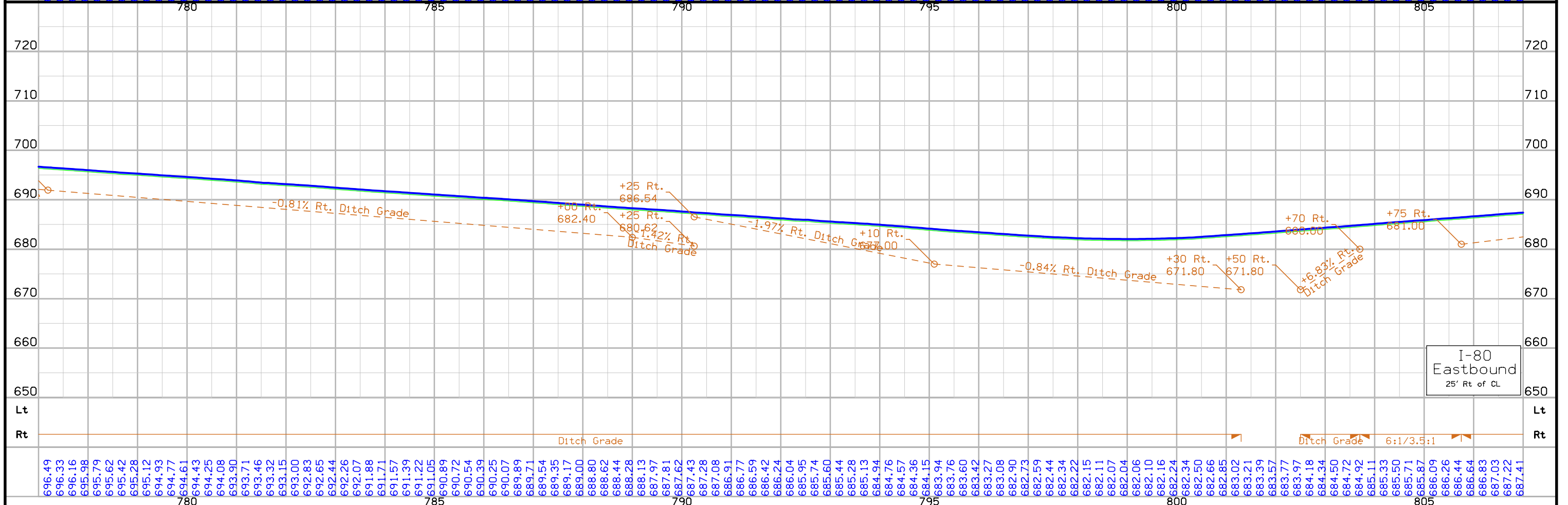
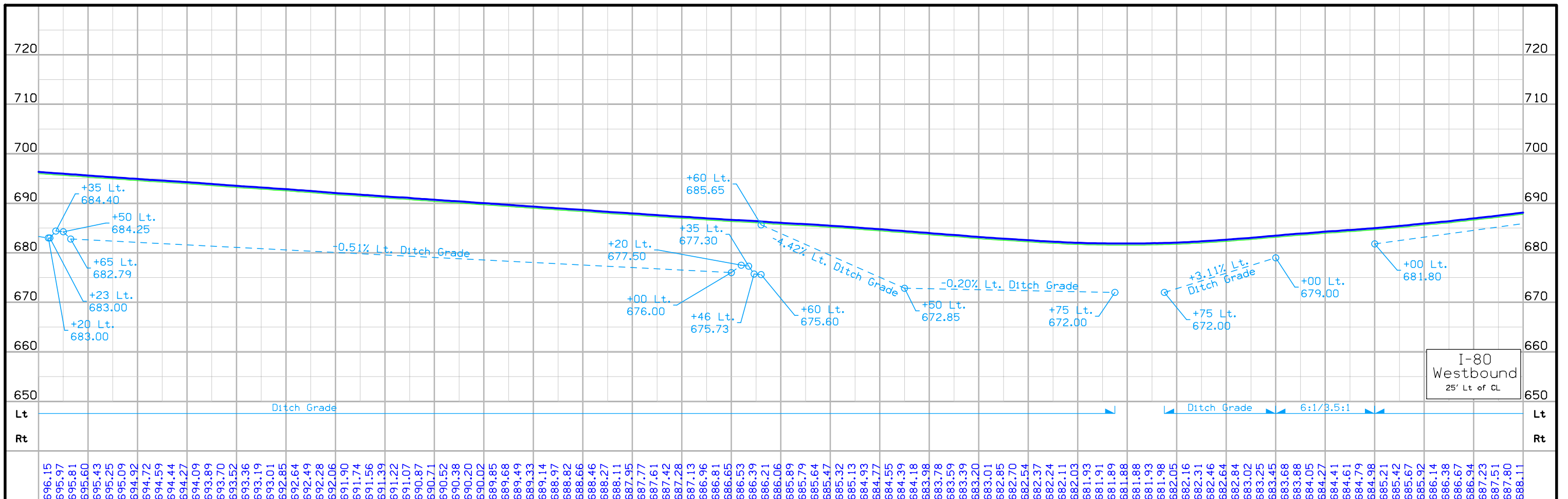
+35 Rt. Prop. Silt Berm

+32 Prop.
Type "M" DiKE
Elev. + _____

REMOVE & EXTEND
Sta. 791+99.8, 1.4' RT
24"x64.9' RCP
REMOVE APRON RT
EXTEND 38' - 24" RCP RT
Plus Concrete Apron
F.L. = Rt. 678.39
F.L. = Other 679.91

REMOVE & INSTALL
Sta. 800+57.59, SKEW 45°
TWIN 8'x8'x226.1' RCB CULVERT
Install TWIN 12'x7'x325'
Precast Concrete Box





ROCHESTER TWP
T-79N R-2W
SEC. 17

REMOVE & EXTEND
Sta. 824+00.5, 1.0' RT
24"x70.7' RCP
REMOVE APRON LT
INSTALL 28' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 695.29
F.L. = Other 695.96

POT Sta 1619+25.00 (RPAMOS)
POT 819+26.06 112.93' LT (SURMLA080)

Begin Taper
Sta. 836+45.00 LT

End Taper
Sta. 833+45.00 LT

835

25:1 Taper

I-80 (SURMLA080)

50:1 Taper

PT Sta 4519+00.00 (RPDMOS)
POT Sta 819+00.00 85.00' RT (SURMLA080)

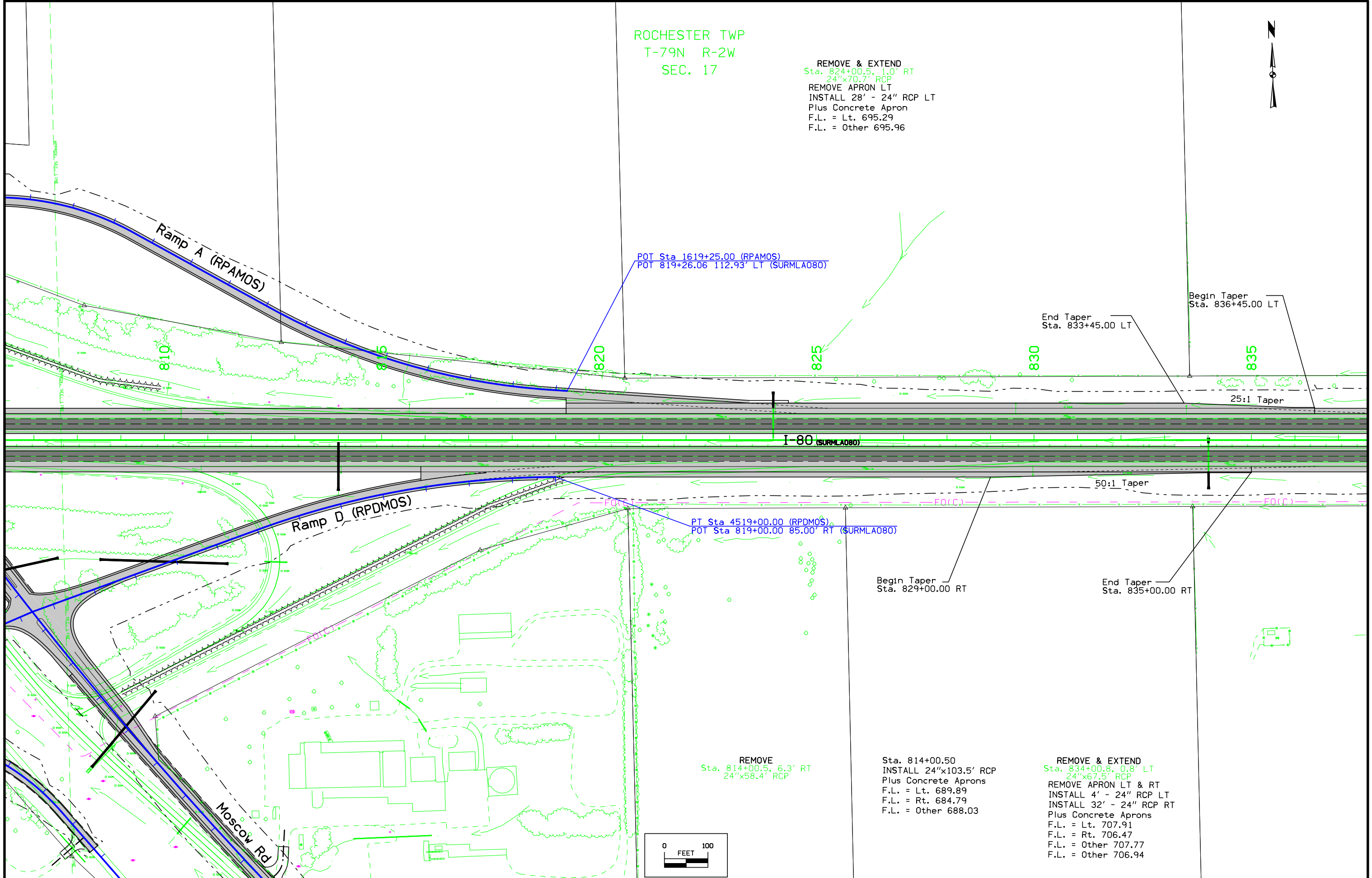
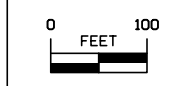
Begin Taper
Sta. 829+00.00 RT

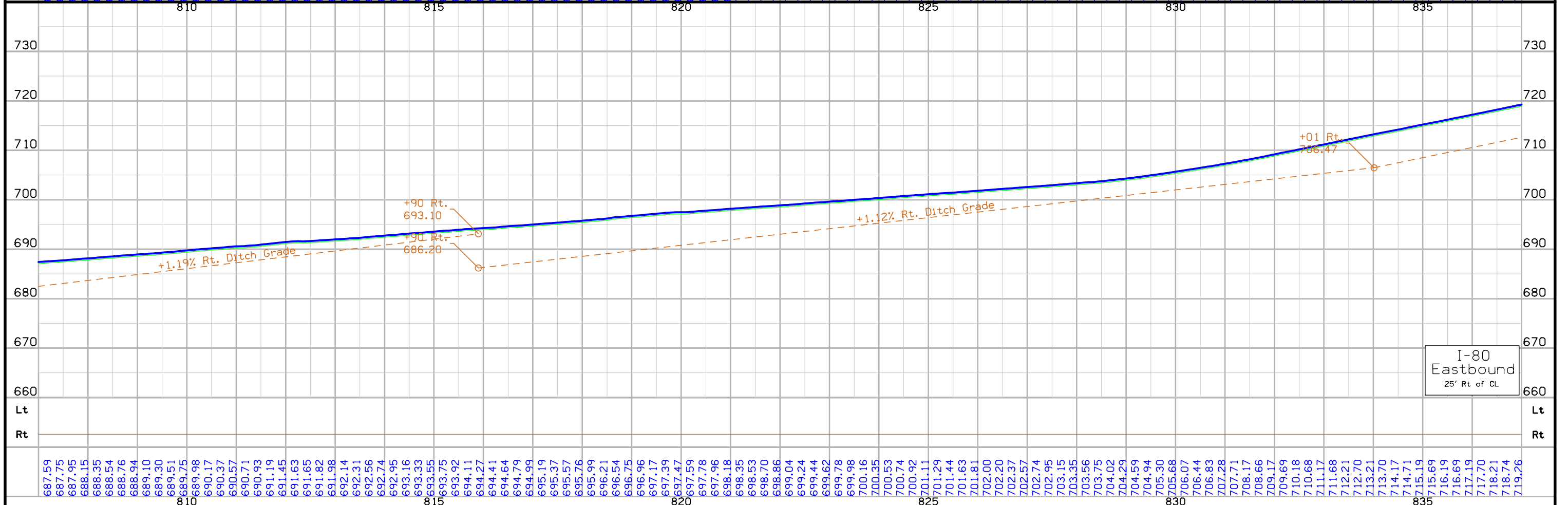
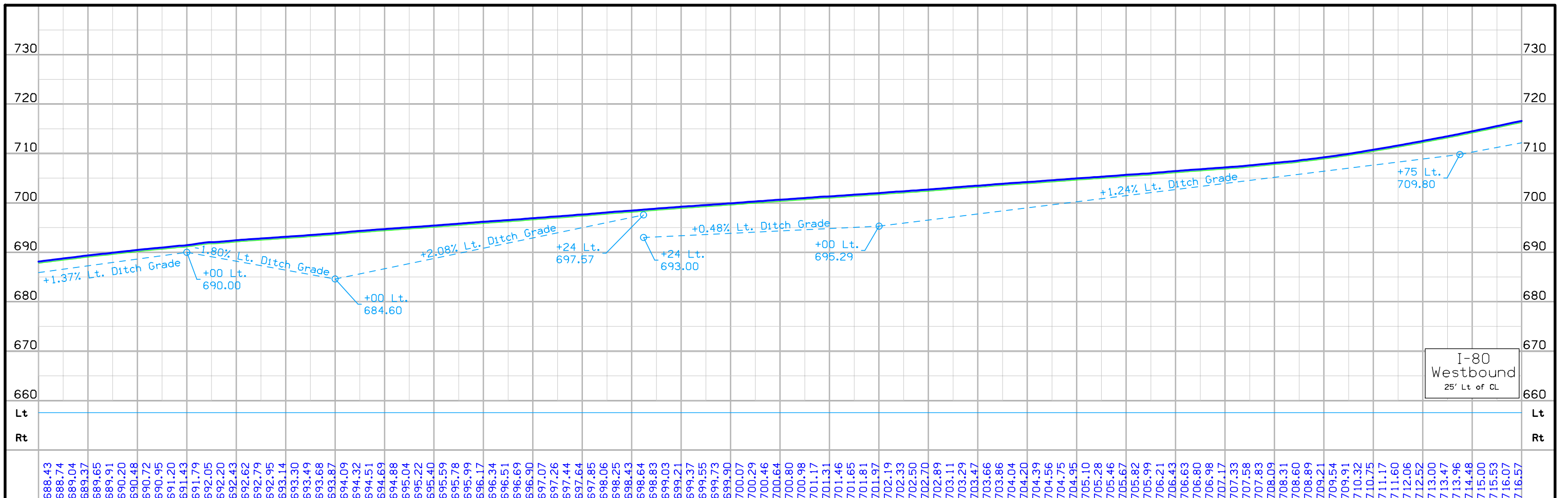
End Taper
Sta. 835+00.00 RT

REMOVE
Sta. 814+00.5, 6.3' RT
24"x58.4' RCP

Sta. 814+00.50
INSTALL 24"x103.5' RCP
Plus Concrete Aprons
F.L. = Lt. 689.89
F.L. = Rt. 684.79
F.L. = Other 688.03

REMOVE & EXTEND
Sta. 834+00.8, 0.8' LT
24"x67.5' RCP
REMOVE APRON LT & RT
INSTALL 4' - 24" RCP LT
INSTALL 32' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 707.91
F.L. = Rt. 706.47
F.L. = Other 707.77
F.L. = Other 706.94



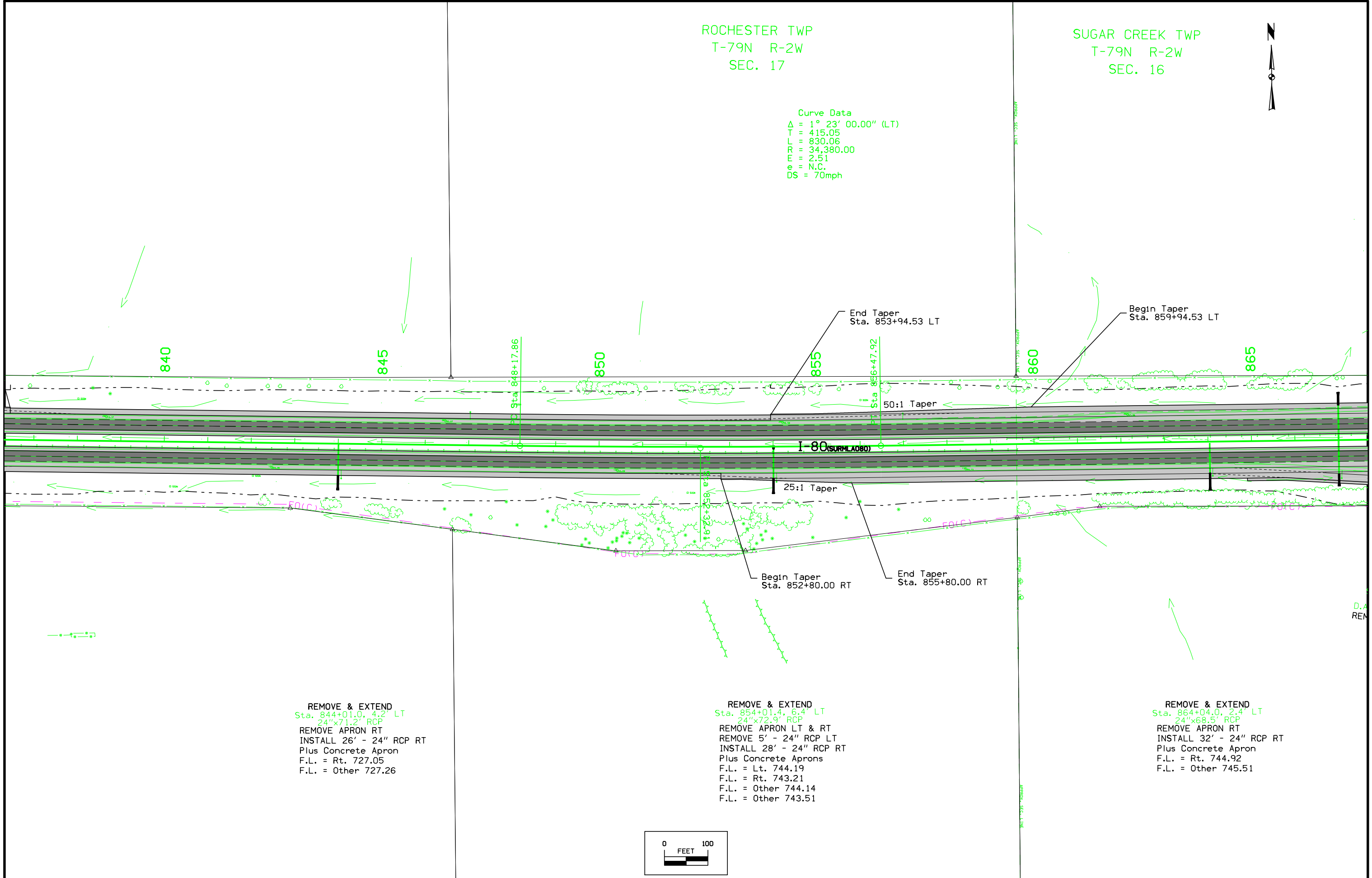


ROCHESTER TWP
T-79N R-2W
SEC. 17

SUGAR CREEK TWP
T-79N R-2W
SEC. 16



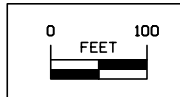
Curve Data
 $\Delta = 1^\circ 23' 00.00''$ (LT)
T = 415.05
L = 830.06
R = 34,380.00
E = 2.51
e = N.C.
DS = 70mph

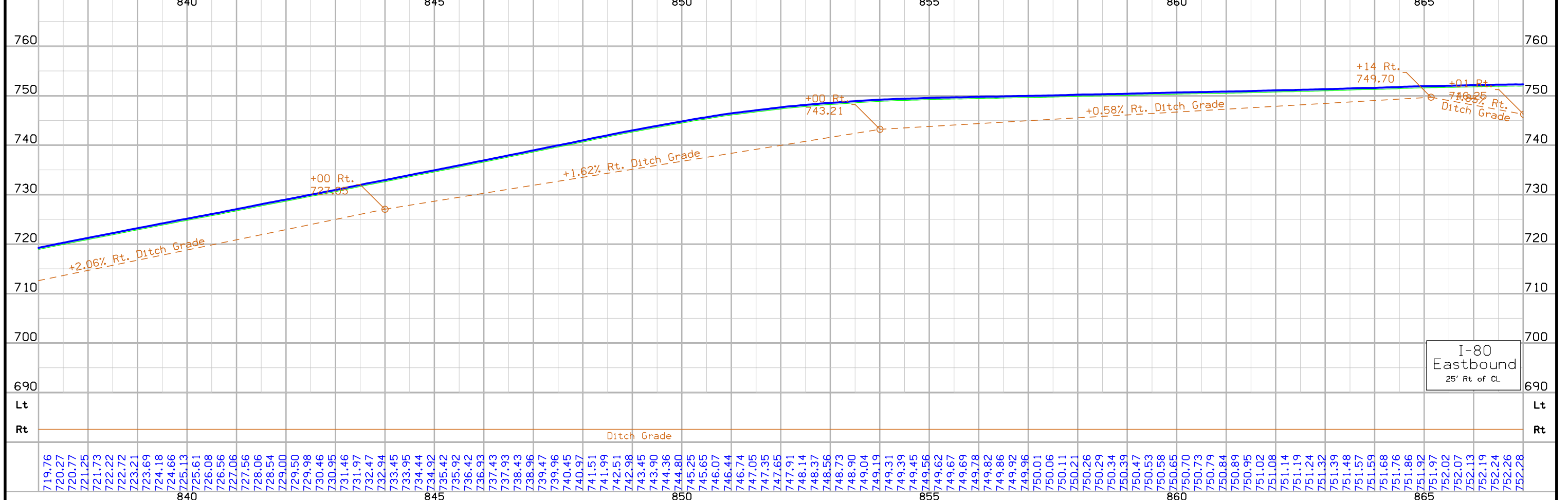
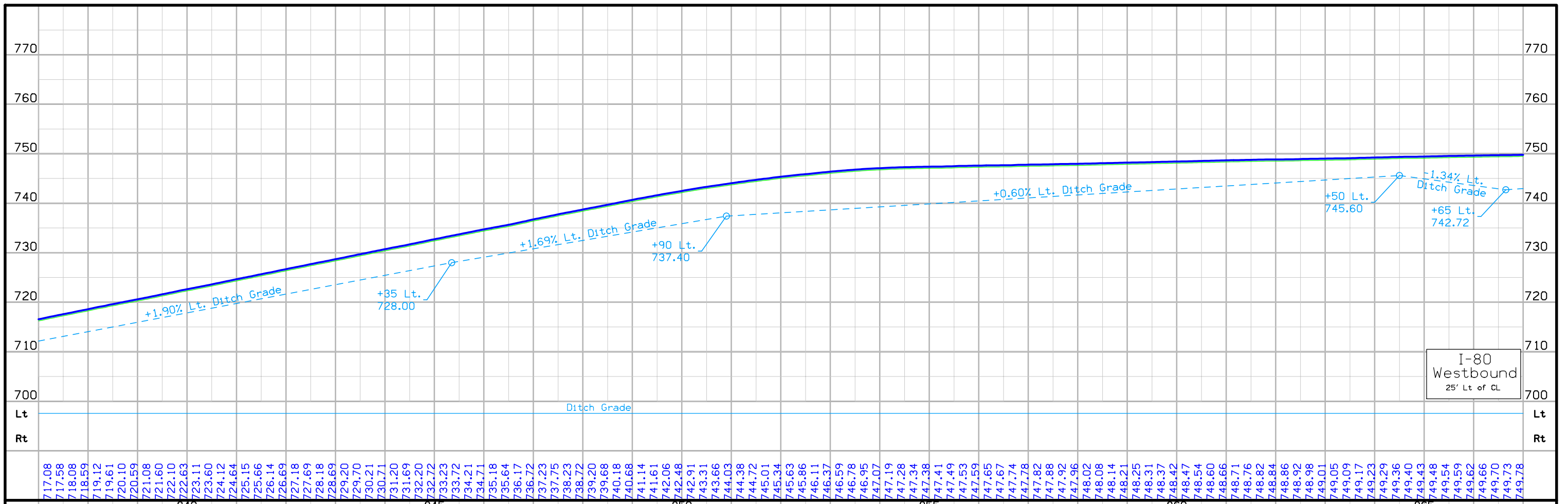


REMOVE & EXTEND
Sta. 844+01.0, 4.2' LT
24"x71.2" RCP
REMOVE APRON RT
INSTALL 26' - 24" RCP RT
Plus Concrete Apron
F.L. = Rt. 727.05
F.L. = Other 727.26

REMOVE & EXTEND
Sta. 854+01.4, 6.4' LT
24"x72.9" RCP
REMOVE APRON LT & RT
REMOVE 5' - 24" RCP LT
INSTALL 28' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 744.19
F.L. = Rt. 743.21
F.L. = Other 744.14
F.L. = Other 743.51

REMOVE & EXTEND
Sta. 864+04.0, 2.4' LT
24"x68.5" RCP
REMOVE APRON RT
INSTALL 32' - 24" RCP RT
Plus Concrete Apron
F.L. = Rt. 744.92
F.L. = Other 745.51





REMOVE & EXTEND
TIE TO EXISTING
Sta. 874+75.9
Skew 10°
42"x227.0' RCP
D.A.=30.0 A-R (Plans)
REMOVE APRON RT
INSTALL 43.0' - 42" RCP RT
TIE TO EXISTING
F.L. = Lt. 739.30
F.L. = Rt. 744.14

Sta. 878+15.5, 229.7' LT
8"x109.3' CMP
(U.A.C.)

REMOVE & EXTEND
Sta. 882+01.3, 4.9' LT
24"x60.6' RCP
REMOVE APRON LT & RT
INSTALL 32' - 24" RCP LT
INSTALL 4' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 742.98
F.L. = Rt. 745.67
F.L. = Other 743.92
F.L. = Other 745.41

SUGAR CREEK TWP
T-79N R-2W
SEC. 16

Sta. 881+31.5, 308.3' LT
8"x101.7' CMP
(U.A.C.)

REMOVE & EXTEND
Sta. 883+82.2
Skew 30°
24"x165.7' RCP
D.A.=3.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 26' - 24" RCP LT
INSTALL 36' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 744.21
F.L. = Rt. 744.12
F.L. = Other 744.17
F.L. = Other 744.13

REMOVE & EXTEND
Sta. 888+22.1, 4.3' LT
24"x70.8' RCP
REMOVE APRON RT
INSTALL 18' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 745.32
F.L. = Other 745.76

PC Sta 3569+94.53 (RPCTRU)
POT Sta 869+94.54 85.00' LT (SURMLA080)

18"x21.0' RCP (U.A.C.)
24"x8.8' RCP (U.A.C.)
24"x5.3' RCP (U.A.C.)

POT Sta 892+65.12 25.01' LT (SURMLA080)
= PC Sta 4892+65.12 (MLWB080)

Sta. 892+65.12 (SURMLA080) BK
= Sta. 4892+65.12 (MLWB080) AHD
CONTINUE WB WIDENING
AND RESURFACING

POT Sta 1586+00.00 (RPATRU)
POT Sta 886+00.79 112.95' LT (SURMLA080)

POT Sta 2570+00.00 (RPBTRU)
POT Sta 869+98.94 112.93' RT (SURMLA080)

PT Sta 4588+08.99 (RPDTRU)
POT Sta 888+08.99 85.00' RT (SURMLA080)

Sta. 892+47.27 (SURMLA080) BK
= Sta. 5892+47.27 (MLEB080) AHD
CONTINUE EB WIDENING AND RESURFACING

POT Sta 892+47.27 26.26' RT (SURMLA080)
= PC Sta 5892+47.27 (MLEB080)

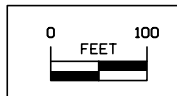
REMOVE & EXTEND
Sta. 867+00.7
30"x159.8' RCP
D.A.=7.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 22' - 30" RCP LT
INSTALL 20' - 30" RCP RT
Plus Concrete Aprons
F.L. = Lt. 742.98
F.L. = Rt. 746.25
F.L. = Other 743.41
F.L. = Other 745.84

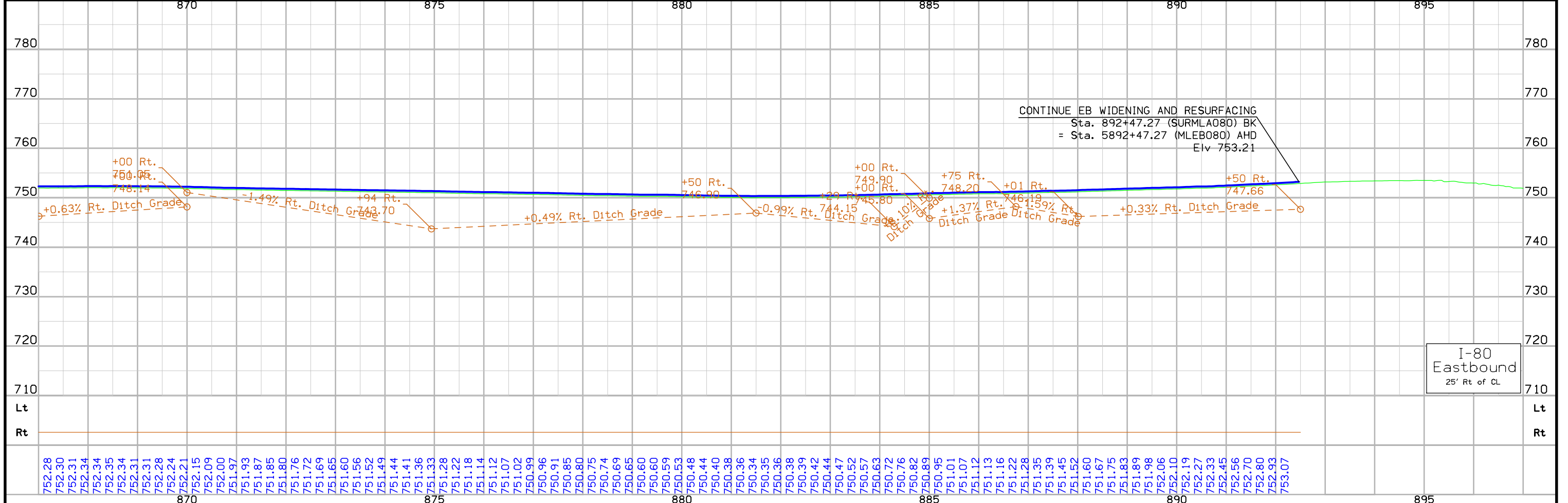
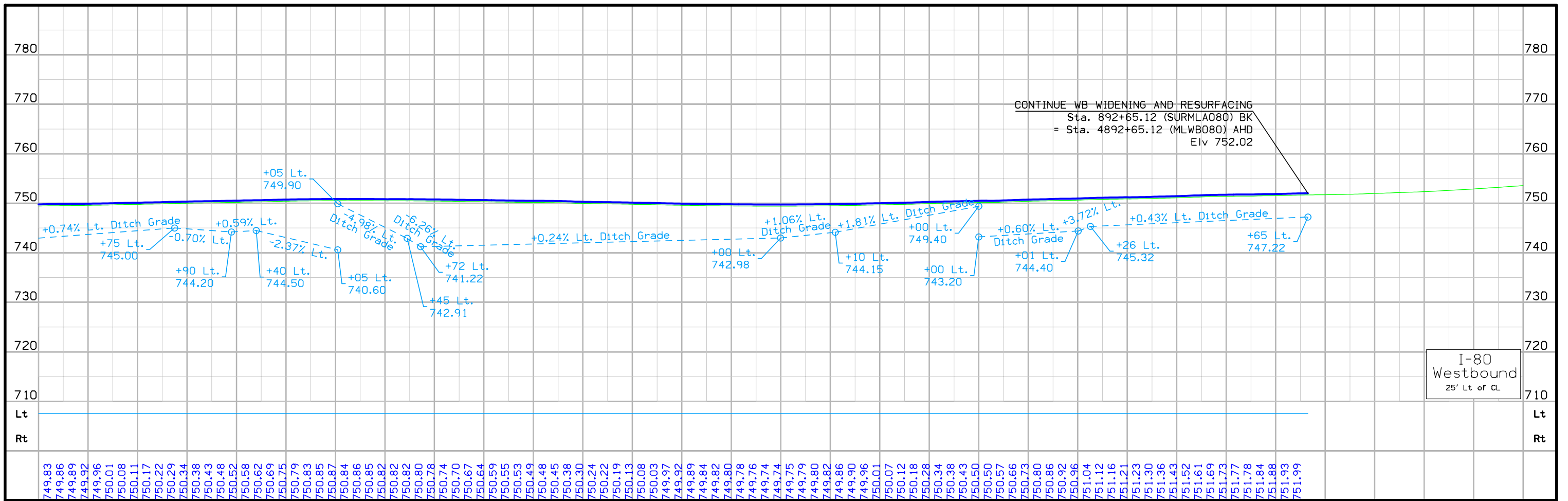
REMOVE & EXTEND
Sta. 871+90.6
Skew 30°
24"x248.6' RCP
D.A.=4.0 A-R (Plans)
REMOVE APRON RT
INSTALL 10' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 744.43
F.L. = Other 744.49

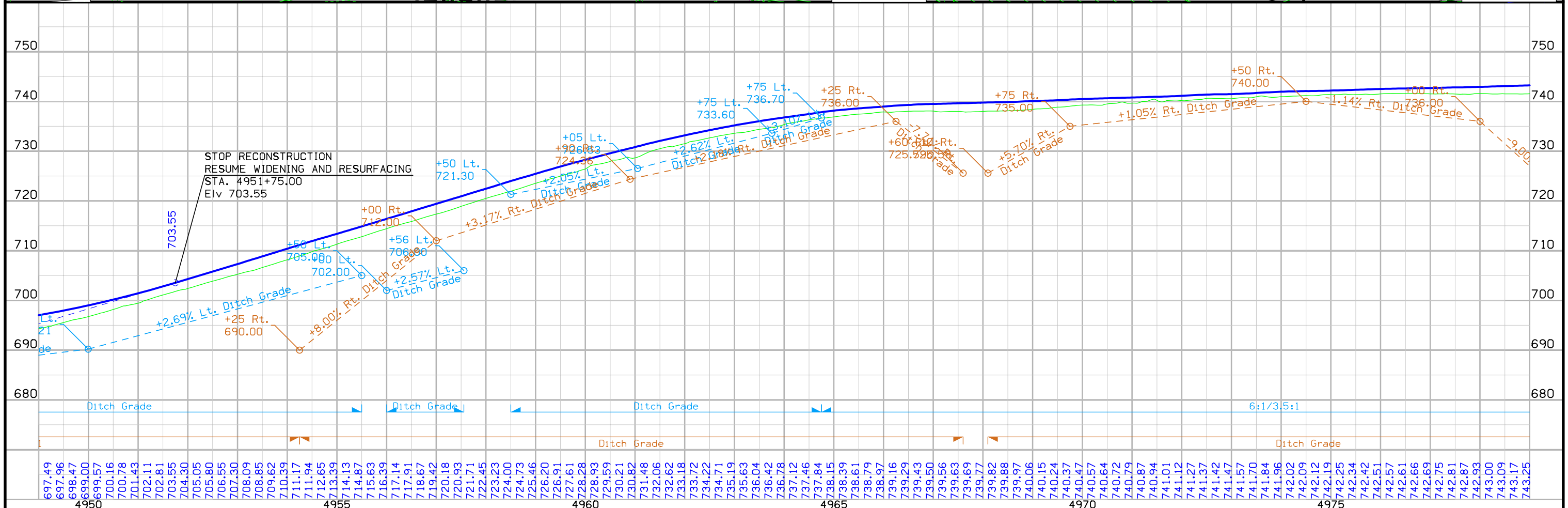
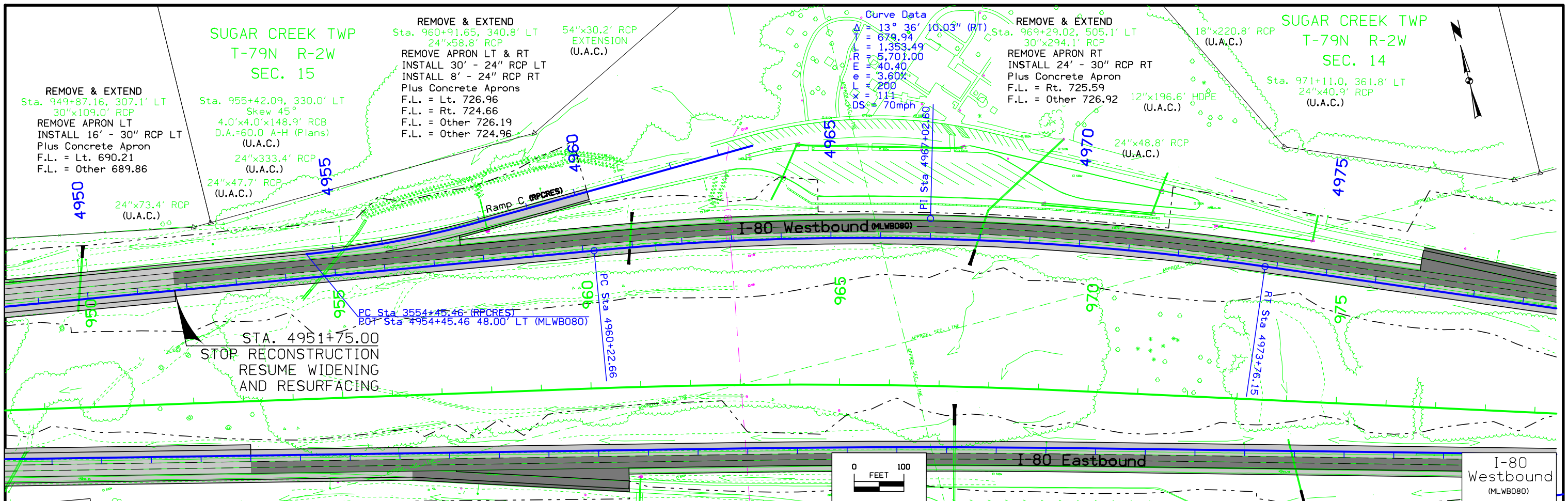
Sta. 879+85.1,
231.1' RT
8"x104.5' CMP
(U.A.C.)

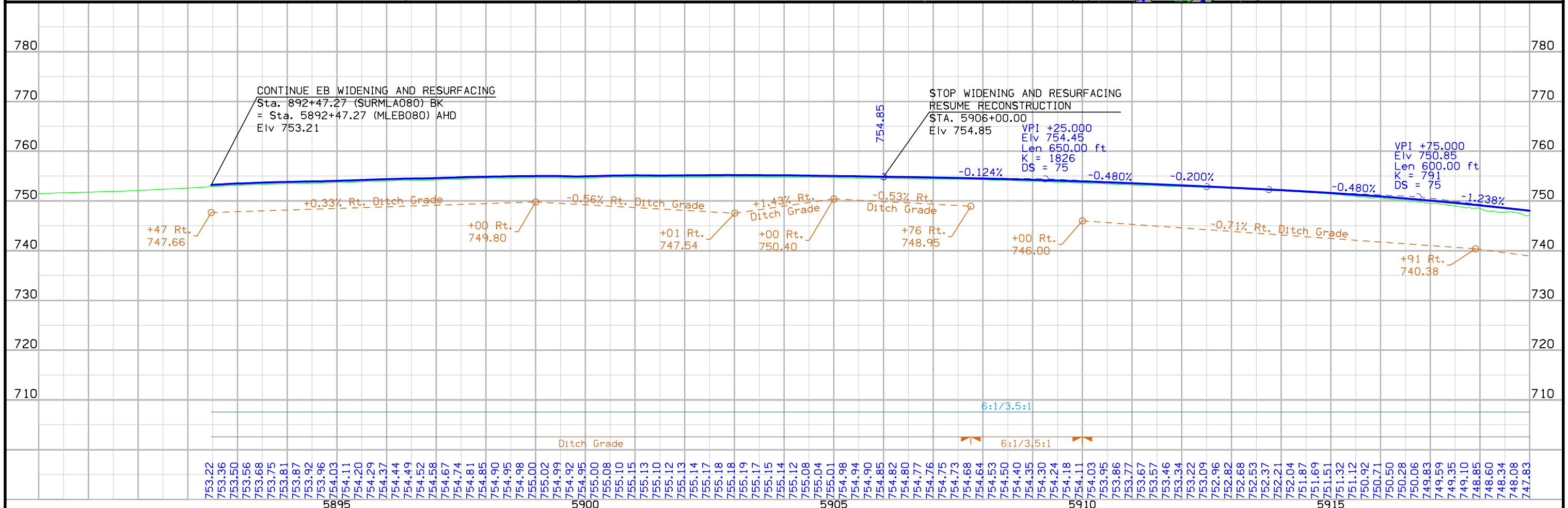
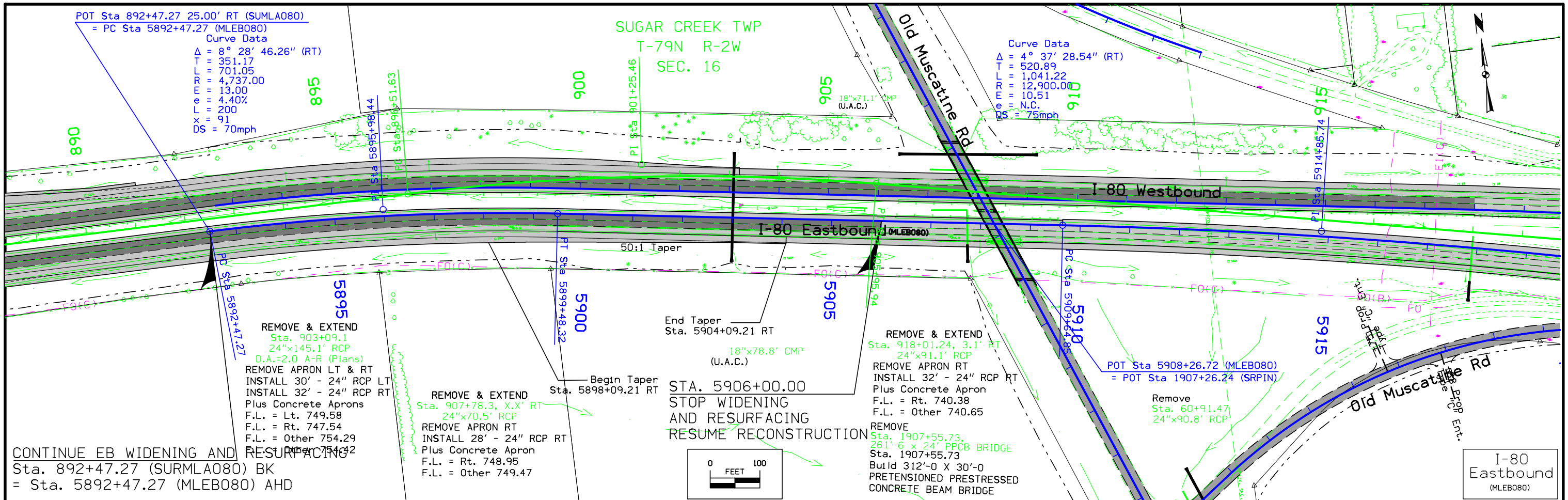
18"x19.9' RCP
(U.A.C.)

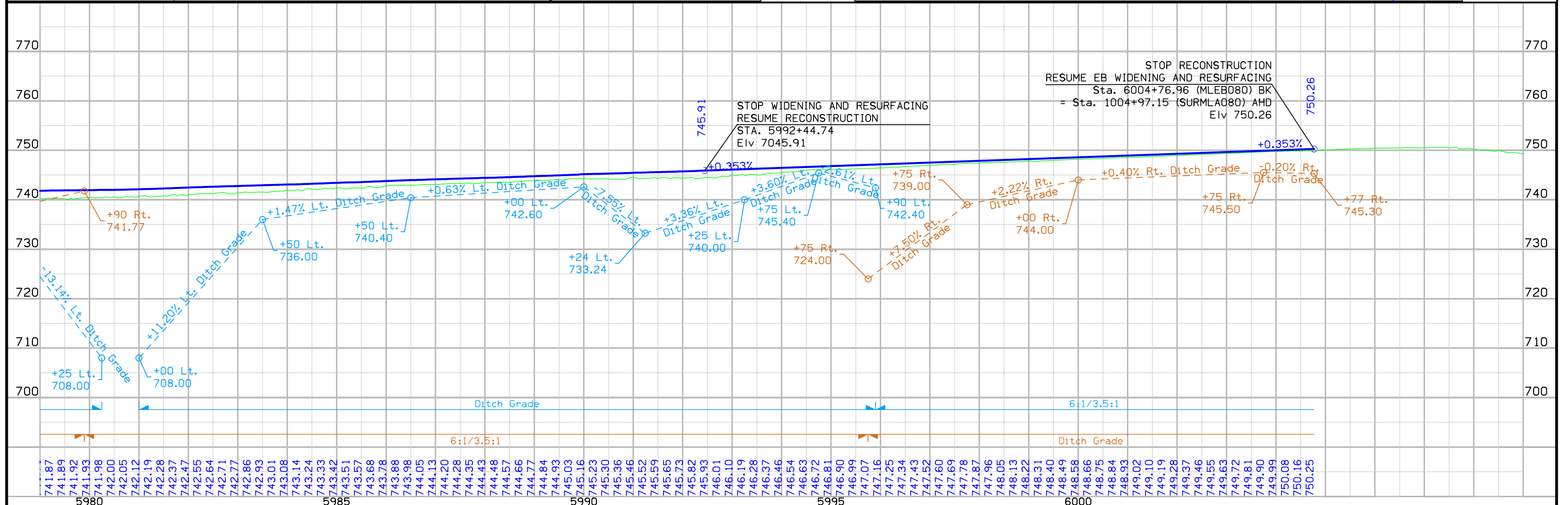
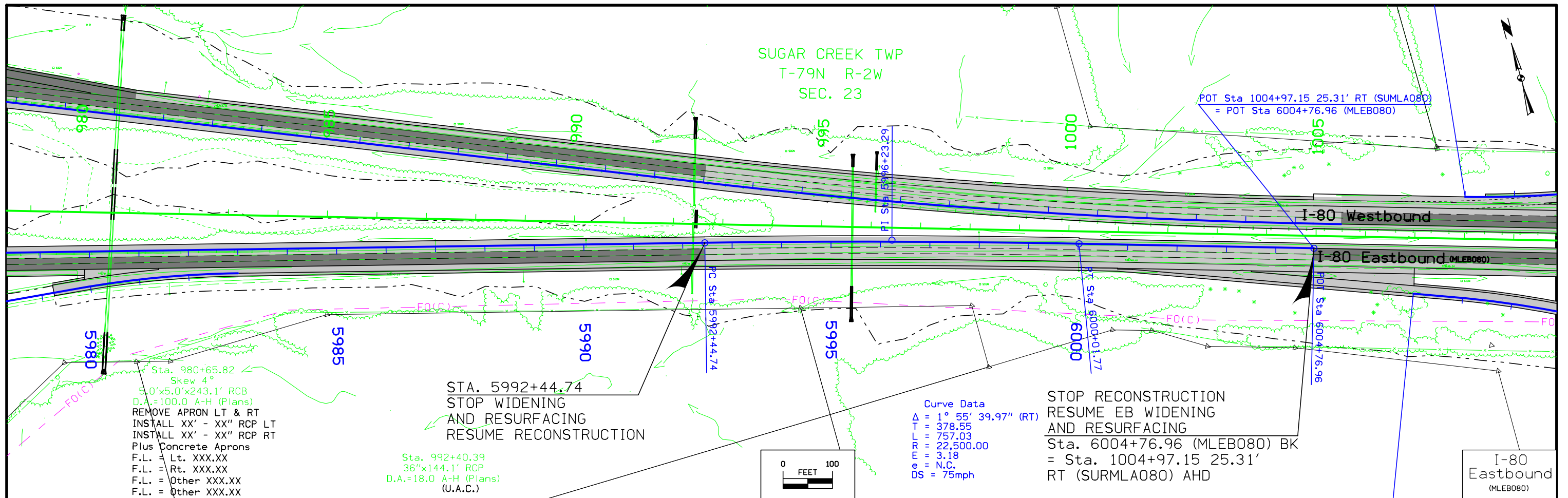
REMOVE & EXTEND
Sta. 888+01.1
30"x164.2' RCP
D.A.=30.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 14' - 30" RCP LT
INSTALL 14' - 30" RCP RT
Plus Concrete Aprons
F.L. = Lt. 744.86
F.L. = Rt. 746.19
F.L. = Other 744.95
F.L. = Other 746.05











SUGAR CREEK TWP
T-79N R-2W
SEC. 23

SUGAR CREEK TWP
T-79N R-2W
SEC. 24

REMOVE
Sta. 1018+02.0
36"x129.4' RCP
D.A.=2.0 A-H (Plans)
Sta. 1018+02.0
INSTALL 36"x222.0' RCP
Plus Concrete Aprons
F.L. = Lt. 733.94
F.L. = Rt. 732.77

REMOVE
Sta. 1020+50.1
24"x146.8' RCP
Sta. 1020+25.0
INSTALL 24"x213.8' RCP
Plus Concrete Aprons
F.L. = Lt. 732.08
F.L. = Rt. 729.97

REMOVE
Sta. 177+34.52
215'-5 x 30' PPCB BRIDGE

Sta. 177+34.52
Build 292'-0 X 60'-0
PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGE

Sta. 1026+00.0,
1.7' RT
24"x79.2' RCP
(Disposition)

Sta. 1026+99.42
6.0'x8.0'x326.5' RCB
(Disposition)

POT Sta 1021+64.78 (SURMLA080)
= POT Sta 177+34.52 (SRROS)

PC Sta 3508+00.00 (RPCROS)
POT Sta 1008+00.00 85.00' LT (SURMLA080)

STOP RECONSTRUCTION
RESUME WB WIDENING AND RESURFACING
Sta. 5005+92.76 (MLWB080) BK
= Sta. 1005+50.02 25.40'
LT (SURMLA080) AHD

1000
1005

1040

1020

1025

1030

I-80 (SURMLA080)

Rose Ave

Ramp A (RPBROS)

Ramp C (RPCROS)

Ramp B (RPBROS)

Ramp D (RPBROS)

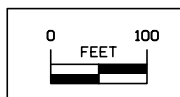
STOP RECONSTRUCTION
RESUME EB WIDENING AND RESURFACING
Sta. 6004+76.96 (MLEB080) BK
= Sta. 1004+97.15 25.31'
RT (SURMLA080) AHD

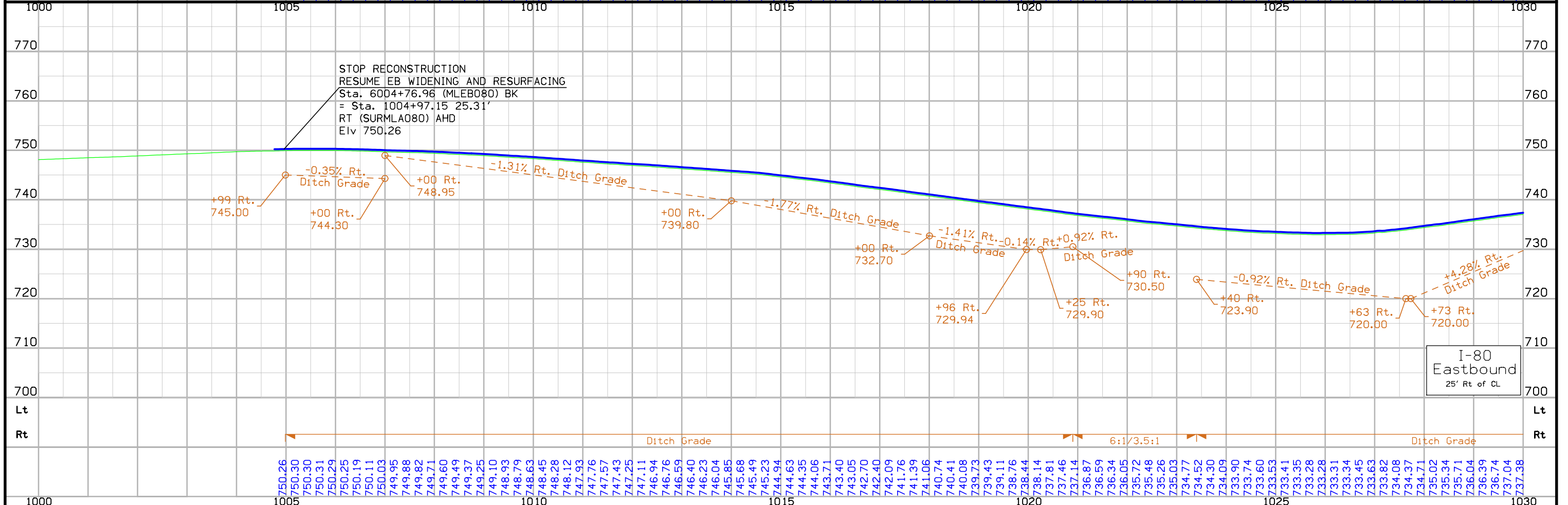
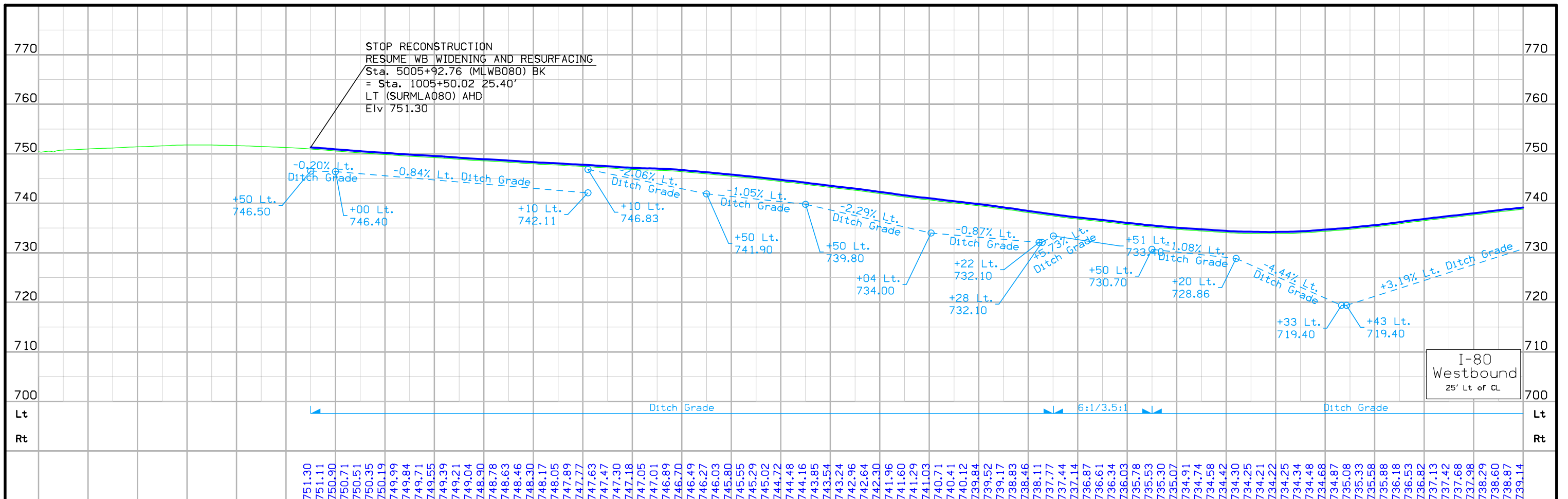
POT Sta 2507+00.00 (RPBROS)
POT Sta 1006+98.94 112.93' RT (SURMLA080)

Sta. 1019+51.81, 316.1' RT
42"x109.6' RCP

24"x19.9' RCP
(U.A.C.)

REMOVE & EXTEND
Sta. 1019+96.7,
4.6' RT
18"x79.6' RCP
REMOVE APRON LT & RT
INSTALL 2' - 18" RCP LT
INSTALL 26' - 18" RCP RT
Plus Concrete Aprons
F.L. = Lt. 734.87
F.L. = Rt. 729.94
F.L. = Other 734.53
F.L. = Other 731.27





SUGAR CREEK TWP
T-79N R-2W
SEC. 24

Curve Data
 $\Delta = 17^\circ 07' 01.39''$ (LT)
 $T = 862.34$
 $L = 1,711.83$
 $R = 5,730.00$
 $E = 64.53$
 $e = 3.60\%$
 $L = 200$
 $x = 111$
 $DS = 70$



Sta. 1034+70.7
 INSTALL 24"X259.0' RCP
 Plus Concrete Aprons
 F.L. = Lt. 736.89
 F.L. = Rt. 733.09

REMOVE
 Sta. 1034+70.7
 24"X137.2' RCP
 D.A.=2.0 A-H (Plans)

REMOVE & EXTEND
 Sta. 1041+00.0, 3.8' LT
 24"X56.7' RCP
 REMOVE APRON LT & RT
 INSTALL 32' - 24" RCP LT
 INSTALL 4' - 24" RCP RT
 Plus Concrete Aprons
 F.L. = Lt. 744.84
 F.L. = Rt. 745.40
 F.L. = Other 745.04
 F.L. = Other 745.35

REMOVE & EXTEND
 Sta. 1055+00.5, 0.5' RT
 24"X59.8' RCP
 REMOVE APRON RT
 INSTALL 18' - 24" RCP LT
 Plus Concrete Apron
 F.L. = Lt. 742.86
 F.L. = Other 742.94

18"X13.3' RCP
(U.A.C.)

POT Sta 1535+00.00 (RPAR05)
 POT Sta 1035+01.06 112.93' LT (SURMLA080)

End Taper
 Sta. 1049+20.00 LT

Begin Taper
 Sta. 1052+20.00 LT

25:1 Taper

50:1 Taper

Begin Taper
 Sta. 1046+50.00 RT

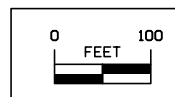
End Taper
 Sta. 1052+50.00 RT

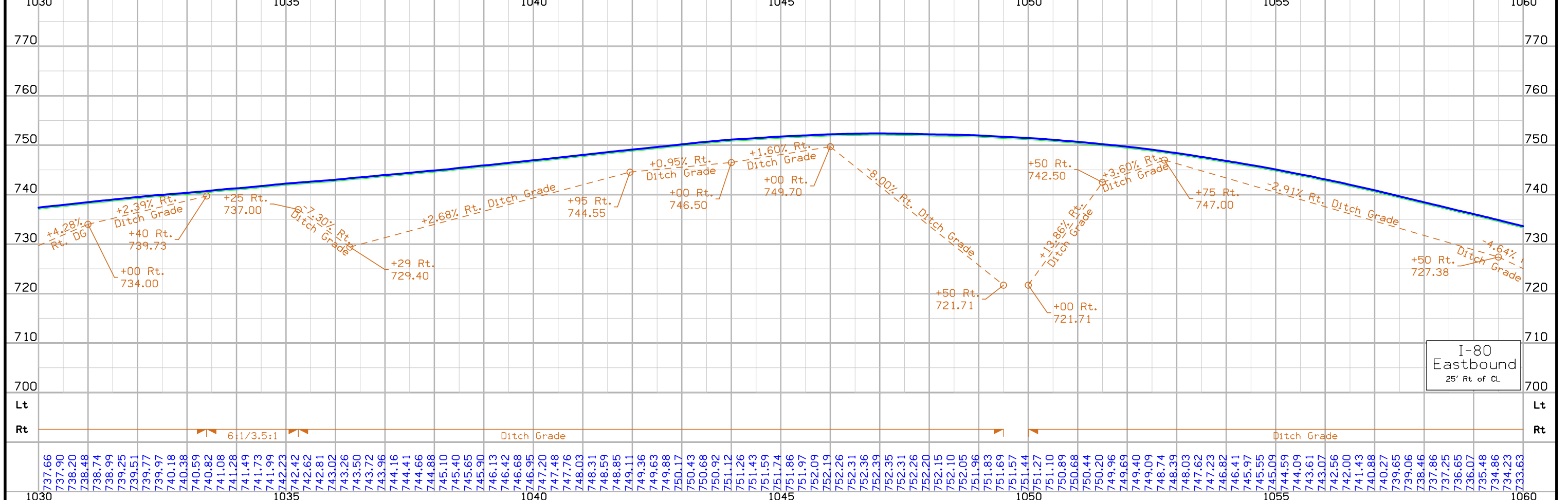
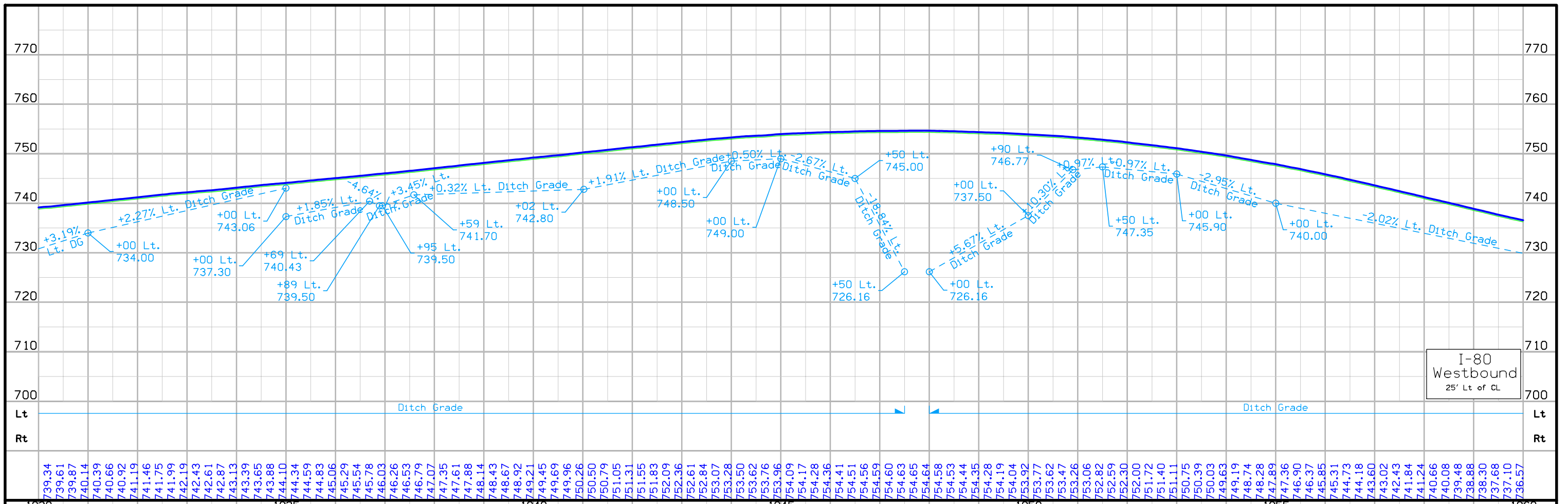
PT Sta 4536+50.00 (RPDR05)
 POT Sta 1036+50.00 85.00' RT (SURMLA080)

REMOVE
 Sta. 1036+60.3
 Skew 13°
 24"X170.6' RCP
 D.A.=3.0 A-H (Plans)

Sta. 1036+60.3
 INSTALL 24"X269.9' RCP
 Plus Concrete Aprons
 F.L. = Lt. 739.43
 F.L. = Rt. 729.45

Sta. 1048+70.3
 Skew 30°
 3.0'X4.0'X274.8' RCB
 (Disposition)





SUGAR CREEK TWP
T-79N R-2W
SEC. 24

FARMINGTON TWP
T-79N R-1W
SEC. 19



REMOVE
Sta. 1061+19.0
24"x144.7' RCP
Sta. 1061+19.0
INSTALL 24"x232.9' RCP
Plus Concrete Aprons
F.L. = Lt. 727.45
F.L. = Rt. 721.59

REMOVE & EXTEND
Sta. 1064+11.38, 0.7' RT
24"x59.1' RCP
REMOVE APRON LT & RT
INSTALL 36' - 24" RCP LT
INSTALL 2' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 720.04
F.L. = Rt. 721.14
F.L. = Other 720.47
F.L. = Other 721.06

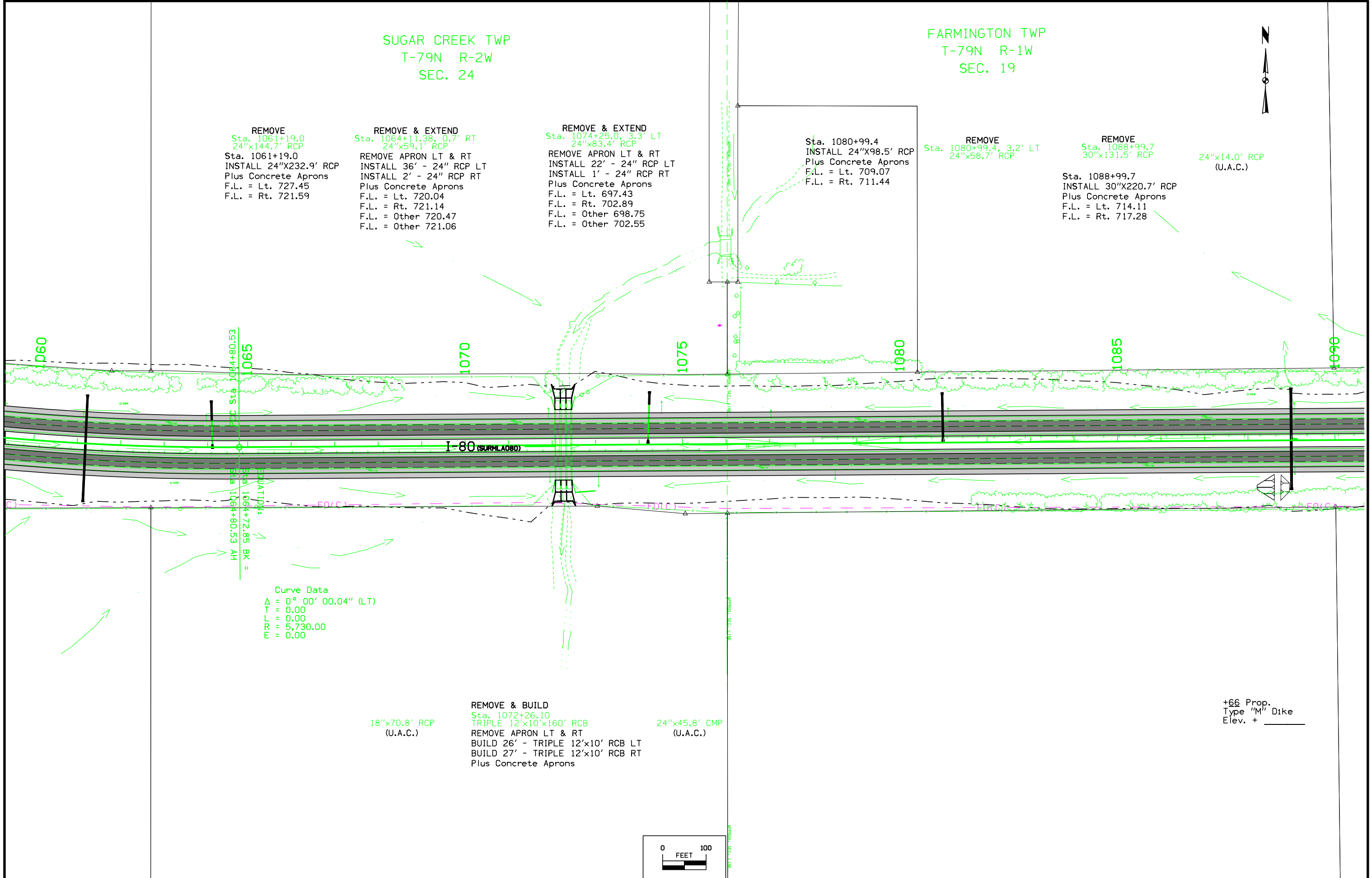
REMOVE & EXTEND
Sta. 1074+25.0, 3.3' LT
24"x83.4' RCP
REMOVE APRON LT & RT
INSTALL 22' - 24" RCP LT
INSTALL 1' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 697.43
F.L. = Rt. 702.89
F.L. = Other 698.75
F.L. = Other 702.55

Sta. 1080+99.4
INSTALL 24"x98.5' RCP
Plus Concrete Aprons
F.L. = Lt. 709.07
F.L. = Rt. 711.44

REMOVE
Sta. 1080+99.4, 3.2' LT
24"x58.7' RCP

REMOVE
Sta. 1088+99.7
30"x131.5' RCP
Sta. 1088+99.7
INSTALL 30"x220.7' RCP
Plus Concrete Aprons
F.L. = Lt. 714.11
F.L. = Rt. 717.28

24"x14.0' RCP
(U.A.C.)



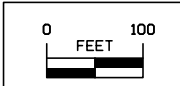
Curve Data
Δ = 0° 00' 00.04" (LT)
T = 0.00
L = 0.00
eR = 5,730.00
eL = 0.00

18"x70.8' RCP
(U.A.C.)

REMOVE & BUILD
Sta. 1072+26.10
TRIPLE 12"x10'x160' RCB
REMOVE APRON LT & RT
BUILD 26' - TRIPLE 12"x10' RCB LT
BUILD 27' - TRIPLE 12"x10' RCB RT
Plus Concrete Aprons

24"x45.8' CMP
(U.A.C.)

+66 Prop.
Type "M" Dike
Elev. + _____

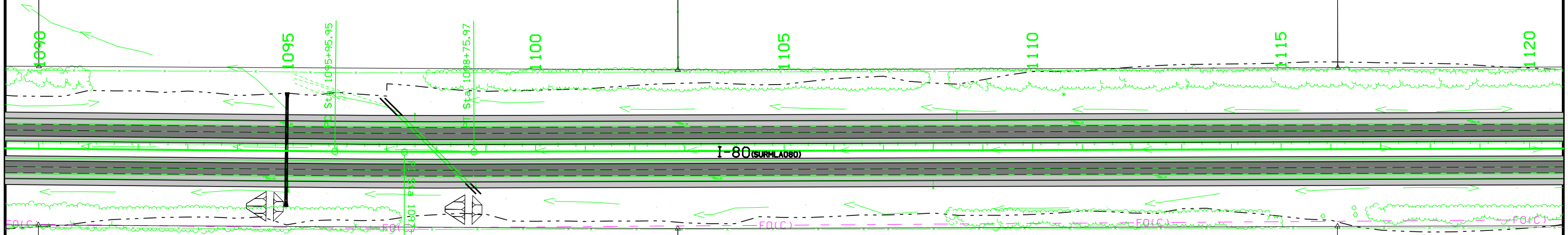


FARMINGTON TWP
T-79N R-1W
SEC. 19



REMOVE
Sta. 1094+98.8
24"x144.9' RCP
D.A.=5.0 A-R (Plans)

Sta. 1094+98.8
INSTALL 36"x211.9' RCP
Plus Concrete Aprons
F.L. = Lt. 714.41
F.L. = Rt. 717.85

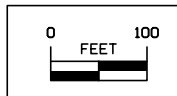


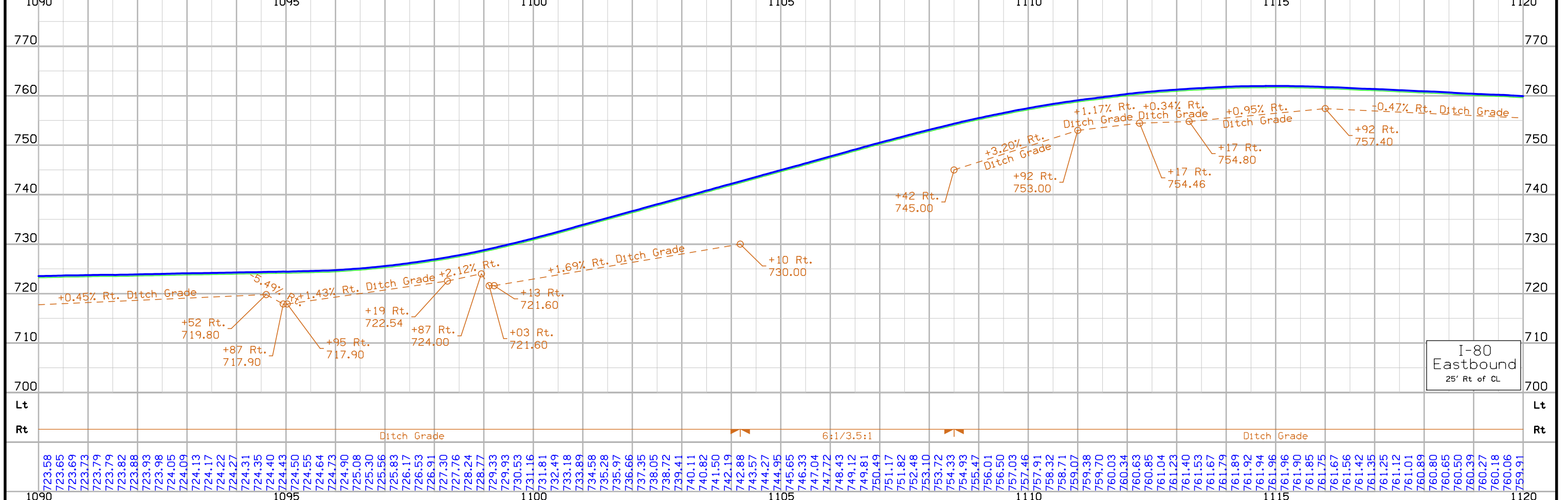
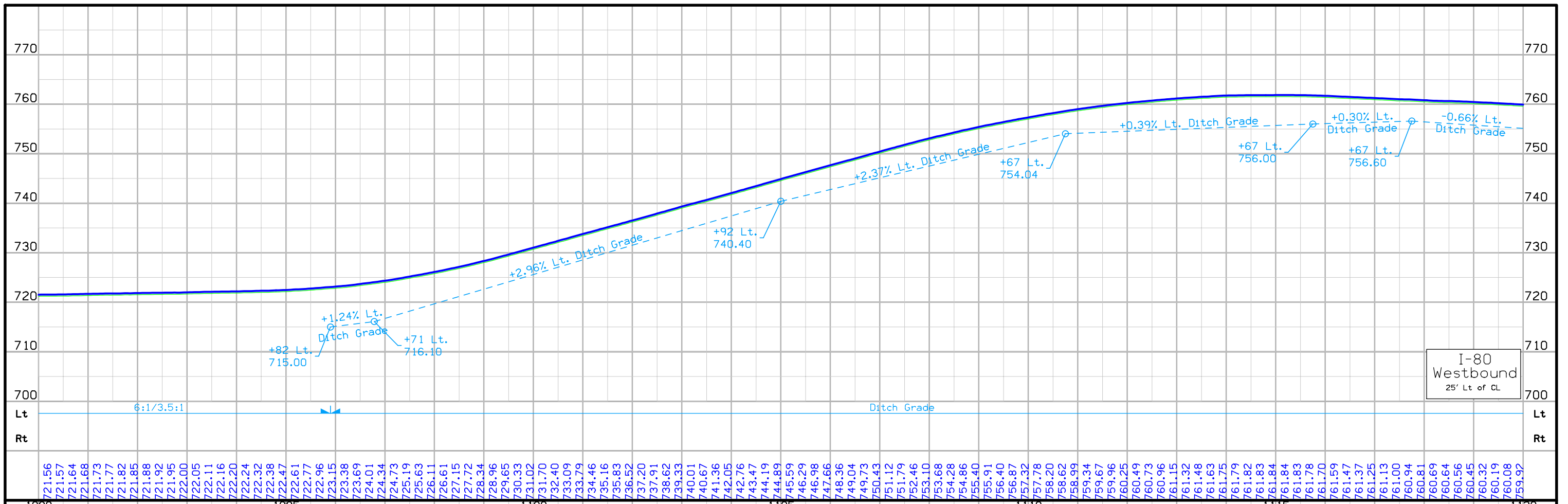
Curve Data
 $\Delta = 0^\circ 42' 00.00''$ (LT)
 T = 140.01
 L = 280.02
 R = 22,920.00
 E = 0.43
 e = N.C.
 DS = 70

+65 Prop.
Type "M" Dike
Elev. + _____

+64 Prop.
Type "M" Dike
Elev. + _____

Sta. 1098+00.0
Skew 45
6.0'x3.0'x195.9' RCB
D.A.=8.0 A-R (Plans)
(Disposition)





FARMINGTON TWP
T-79N R-1W
SEC. 19

FARMINGTON TWP
T-79N R-1W
SEC. 20



REMOVE & EXTEND
Sta. 1125+09.8, 3.3' LT
24"x82.6" RCP
REMOVE APRON LT
INSTALL 32' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 745.25
F.L. = Other 745.89

Sta. 1144+40.0, 3.0' LT
24"x81.9" RCP
(Disposition)

POT Sta 1129+36.01 (SURMLA080)
= POT Sta 21+60.84 (SRROS)

24"x77.5' CMP
(U.A.C.)

24"x26.6' RCP
(U.A.C.)

24"x7.2' RCP
(U.A.C.)

Taylor Ave

1120

1125

1130

1135

1140

1145

1150

I-80 (SURMLA080)

REMOVE
Sta. 21+62.34,
211'-3" x 24' PPCB BRIDGE
Sta. 21+63.34
Build 277'-0" X 30'-0"
PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGE

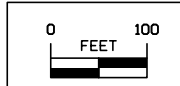
REMOVE & EXTEND
Sta. 1125+62.1
36"x175.5' RCP
D.A.=23.0' A-R (Plans)
REMOVE APRON LT & RT
INSTALL 28' - 36" RCP LT
INSTALL 44' - 36" RCP RT
Plus Concrete Aprons
F.L. = Lt. 746.61
F.L. = Rt. 742.10
F.L. = Other 745.97
F.L. = Other 742.98

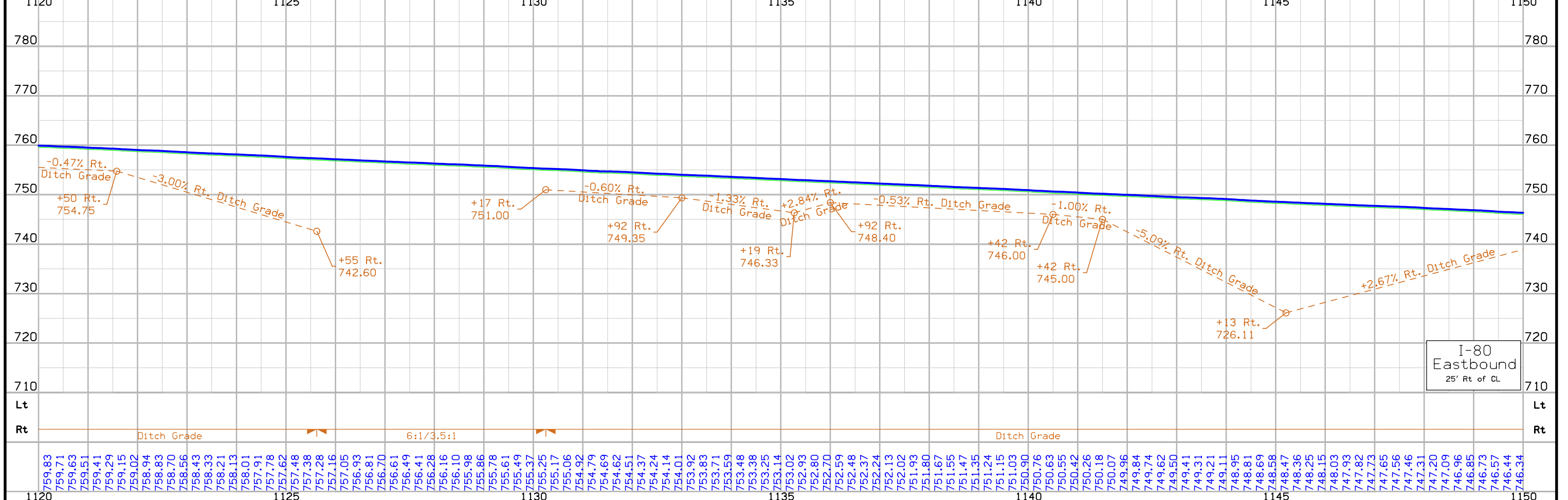
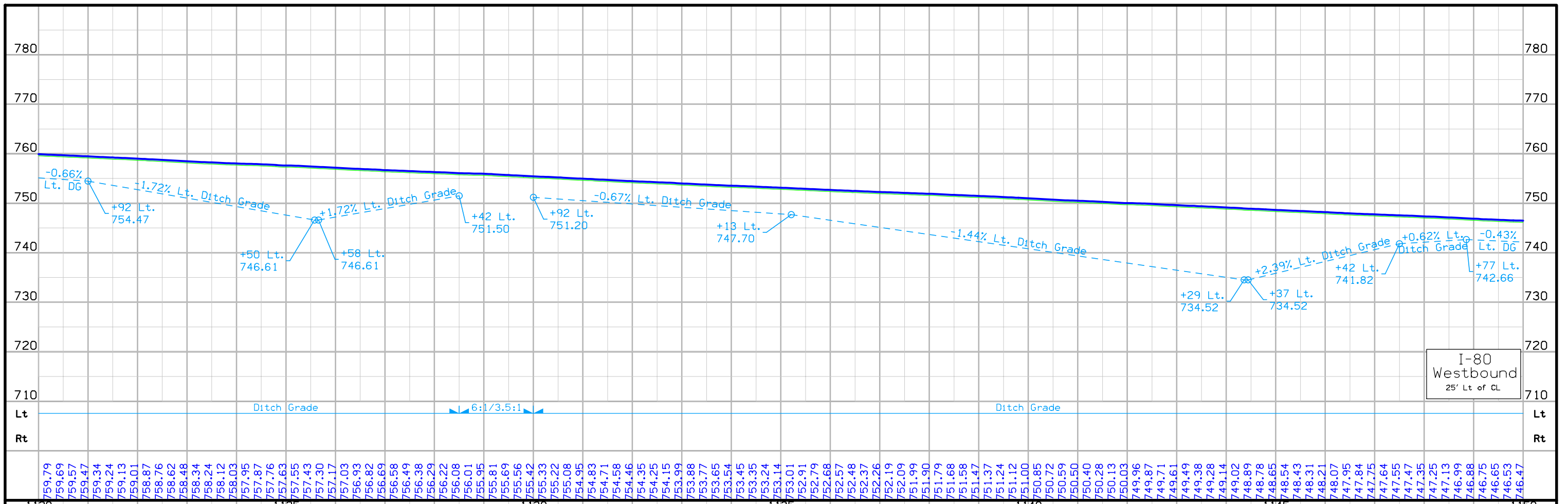
Sta. 1135+27.0
INSTALL 24"x212.0' RCP
Plus Concrete Aprons
F.L. = Lt. 747.68
F.L. = Rt. 746.33

REMOVE
Sta. 1135+27.0
24"x225.3' RCP
D.A.=10.0' A-R (Plans)

REMOVE & EXTEND
Sta. 1144+76.9
Skew 15°
42"x199.2' RCP
D.A.=35.0' A-R (Plans)
REMOVE APRON LT & RT
INSTALL 40' - 42" RCP LT
INSTALL 52' - 42" RCP RT
Plus Concrete Aprons
F.L. = Lt. 734.52
F.L. = Rt. 726.11
F.L. = Other 733.19
F.L. = Other 727.72

+81 Prop Type "C" Emt.





FARMINGTON TWP
T-79N R-1W
SEC. 20



18"x25.9' RCP
(U.A.C.)

REMOVE & EXTEND
Sta. 1205+02.5, 3.3' LT
24"x57.9' RCP
REMOVE APRON LT
INSTALL 32' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 723.99
F.L. = Other 724.79

REMOVE & EXTEND
Sta. 1213+00.0, 3.6' LT
24"x56.4' RCP
REMOVE APRON LT
INSTALL 30' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 706.85
F.L. = Other 707.49

REMOVE & EXTEND
Sta. 1221+40.8, 1.6' LT
24"x82.6' RCP
REMOVE APRON LT
INSTALL 36' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 690.25
F.L. = Other 692.31

24"x48.2' CMP
(U.A.C.)

24"x40.4' CMP
(U.A.C.)

1150

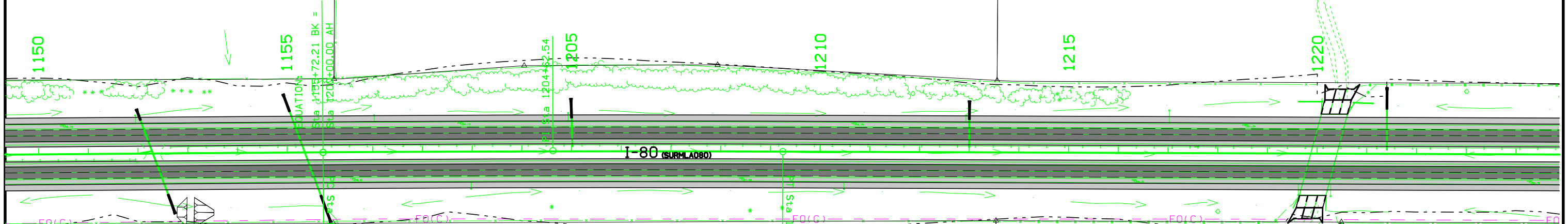
1155

1205

1210

1215

1220



I-80 (SURMLA080)

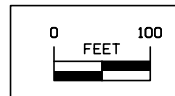
Curve Data
 $\Delta = 0^\circ 37' 00.00''$ (RT)
 T = 462.54
 L = 925.07
 R = 85,950.00
 E = 1.24
 e = N.C.
 DS = 70mph

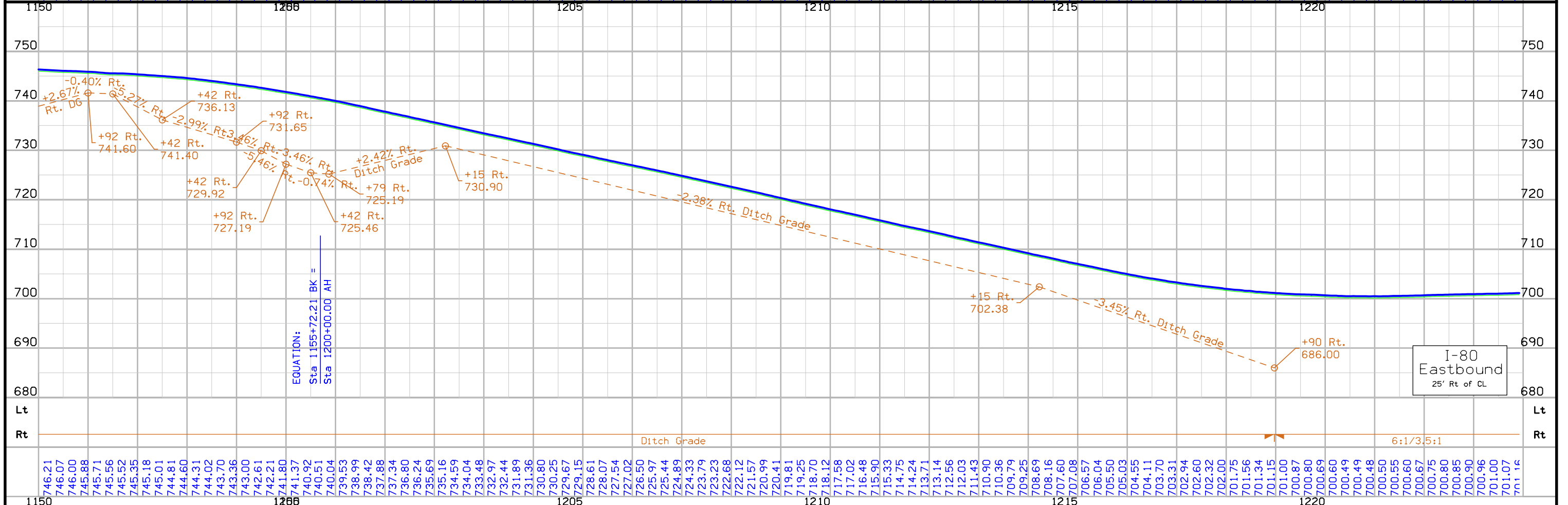
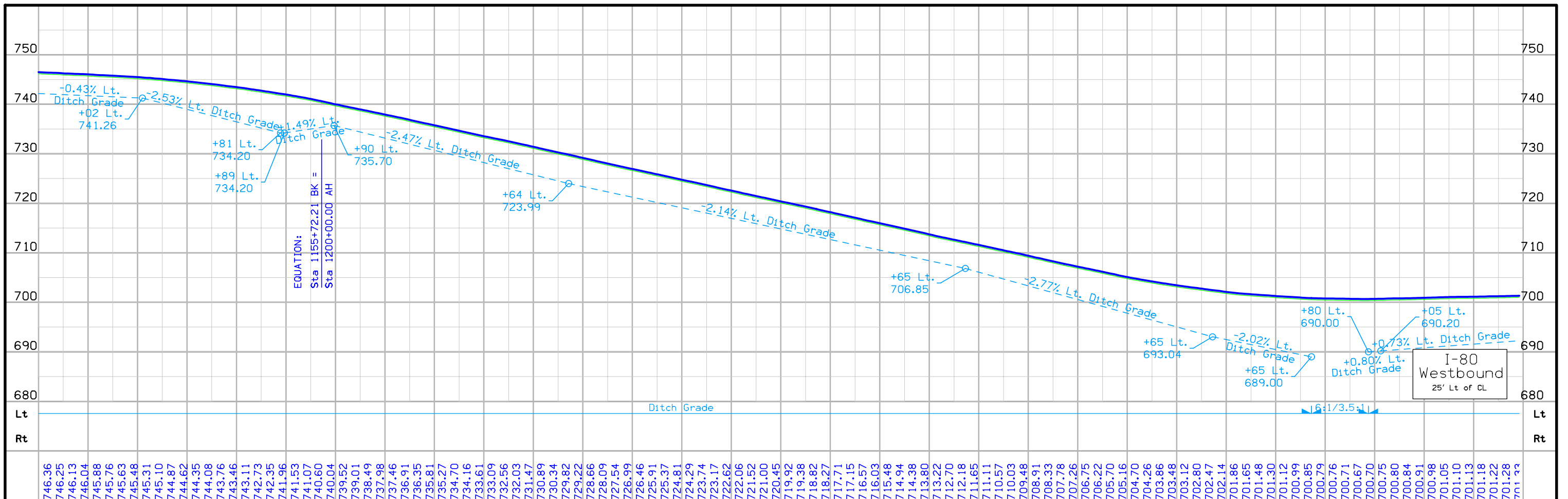
+06 Prop.
Type "M" Dike
Elev. +

REMOVE & EXTEND
Sta. 1152+29.9
Skew 20°
24"x160.6' RCP
D.A.=5.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 16' - 24" RCP LT
INSTALL 34' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 741.84
F.L. = Rt. 736.01
F.L. = Other 741.19
F.L. = Other 737.03

REMOVE & EXTEND
Sta. 1155+35.6
Skew 20°
24"x181.2' RCP
D.A.=8.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 30' - 24" RCP LT
INSTALL 50' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 734.18
F.L. = Rt. 725.19
F.L. = Other 732.98
F.L. = Other 727.04

REMOVE & BUILD
Sta. 1220+13.82
SKEW 15°
TRIPLE 15'-18'-15'x10.0'x166' RCB
D.A. = 4877 AC
REMOVE APRON LT & RT
BUILD 29' - 15'-18'-15'x10.0' RCB LT
BUILD 25' - 15'-18'-15'x10.0' RCB RT
Plus Concrete Aprons





FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	D.33
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	------

FARMINGTON TWP
T-79N R-1W
SEC. 21



REMOVE & EXTEND
Sta. 1228+98.7, 3.4' LT
24"x60.2' RCP
REMOVE APRON LT
INSTALL 32' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 695.70
F.L. = Other 696.72

REMOVE & EXTEND
Sta. 1238+98.3, 3.5' LT
24"x60.3' RCP
REMOVE APRON LT
INSTALL 32' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 698.71
F.L. = Other 699.64

REMOVE & EXTEND
Sta. 1248+99.2, 3.4' LT
24"x66.2' RCP
REMOVE APRON LT
INSTALL 38' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 710.82
F.L. = Other 712.70

1225

1230

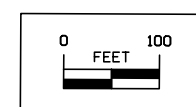
1235

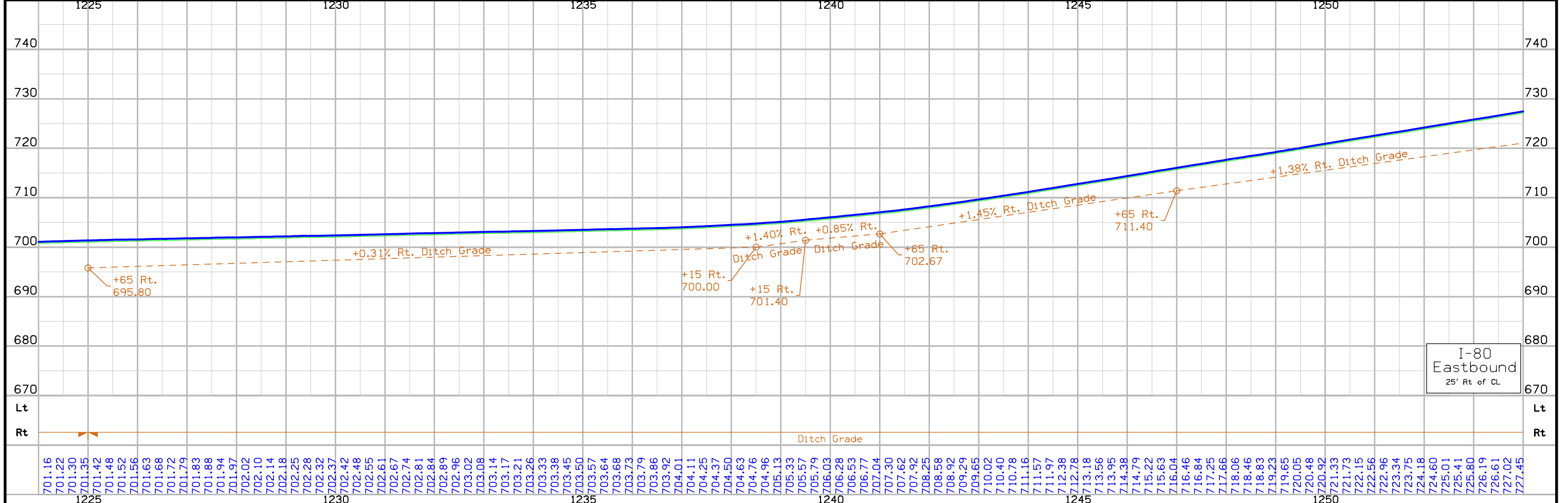
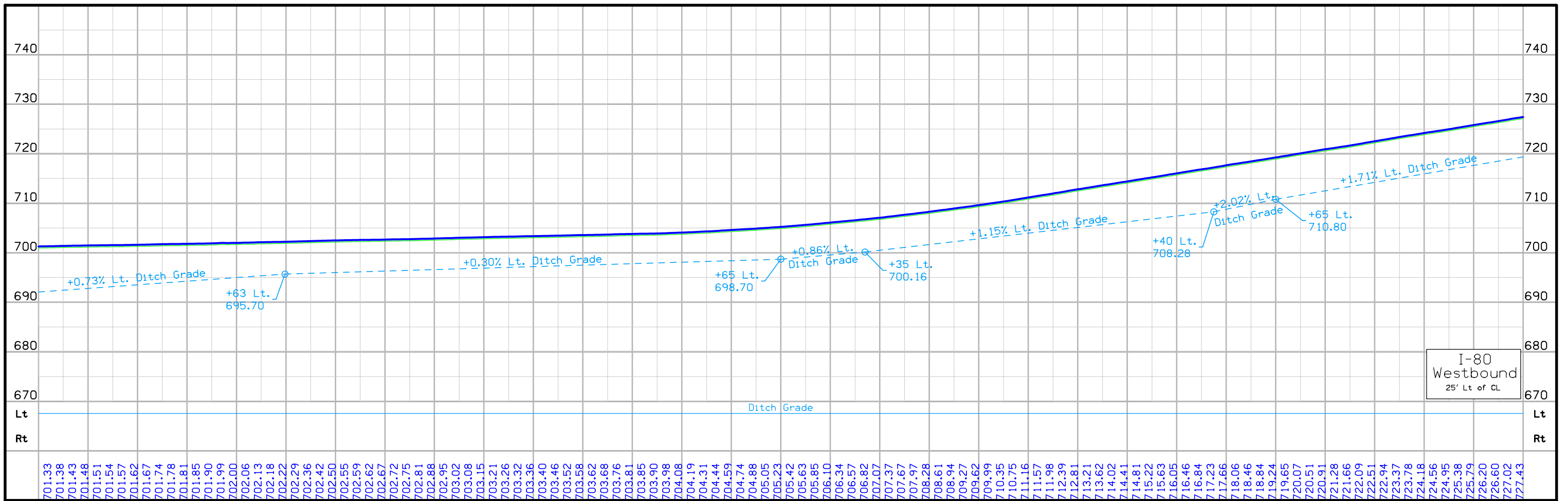
1240

1245

1250

I-80 (SURMLA080)





FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	D.35
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	------

FARMINGTON TWP
T-79N R-1W
SEC. 21



REMOVE
Sta. 1256+99.3, 3.6' LT
24"x60.0' RCP
Sta. 1256+99.3
INSTALL 24"x104.4' RCP
Plus Concrete Apron
F.L. = Lt. 724.50
F.L. = Rt. 728.00

REMOVE & EXTEND
Sta. 1271+99.6, 3.3' LT
24"x60.5' RCP
REMOVE APRON LT
INSTALL 32' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 729.01
F.L. = Other 729.97

REMOVE
Sta. 1282+20.0, 7.1' LT
18"x63.3' RCP
Sta. 1282+20.0
INSTALL 18"x95.8' RCP
Plus Concrete Apron
F.L. = Lt. 718.50
F.L. = Rt. 720.60

POT Sta 1280+57.52 (SURMLA080)
= POT Sta 2129+39.12 (SRVER)

1255

1260

1265

1270

1275

1280

Vermont Ave

I-80 (SURMLA080)

FO(C)

FO(C)

FO(C)

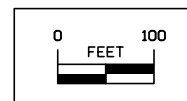
FO(C)

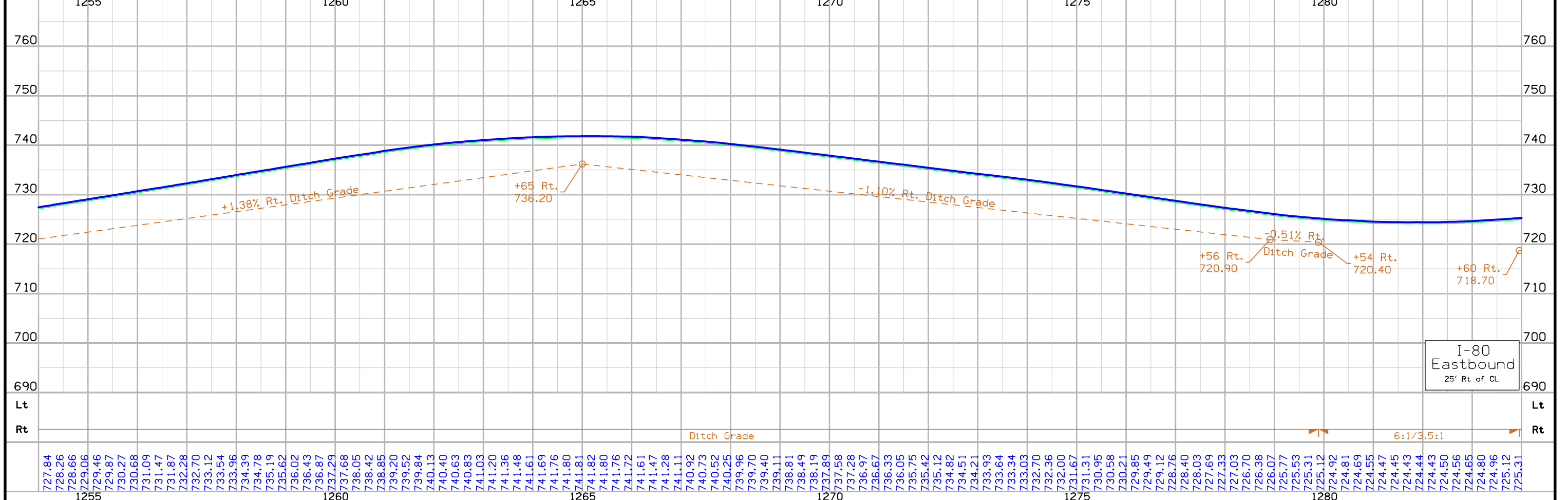
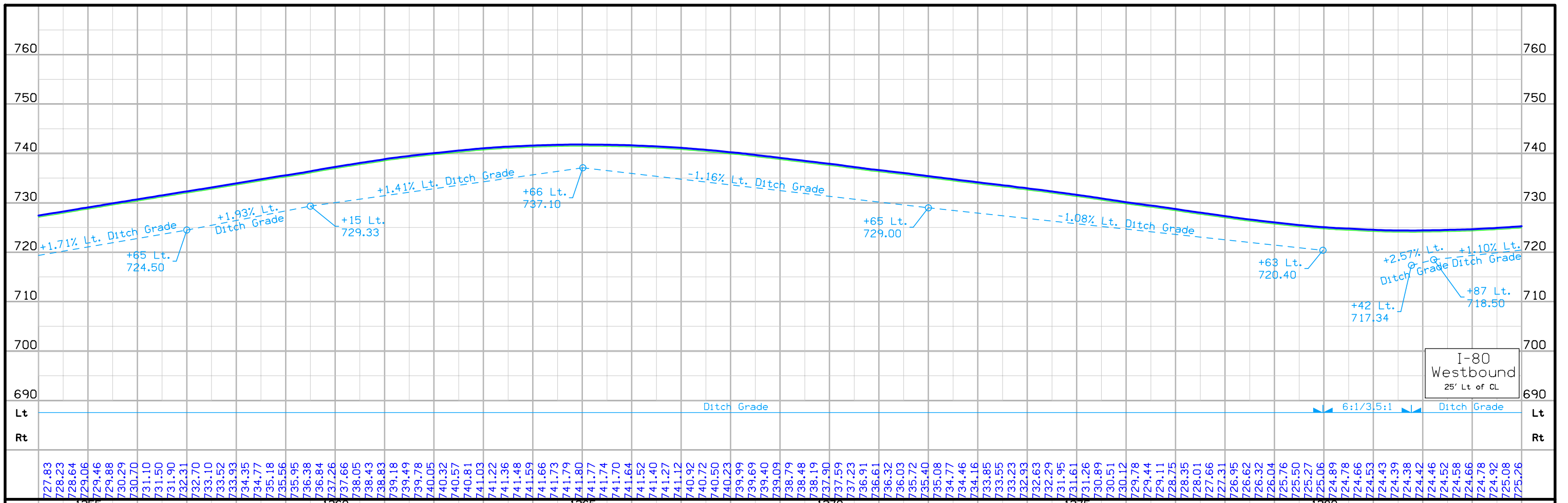
FO(C)

REMOVE & EXTEND
Sta. 1278+92.0, 0.7' LT
18"x71.1' RCP
REMOVE APRON RT
INSTALL 22' - 18" RCP RT
Plus Concrete Apron
F.L. = Rt. 720.95
F.L. = Other 721.33

REMOVE
Sta. 1281+48.4
ARCH 54"x88"x153.2' RCP
Sta. 1281+90.0
INSTALL ARCH 54"x88"x232.5' RCP
Plus Concrete Aprons
F.L. = Lt. 715.50
F.L. = Rt. 715.15

REMOVE
Sta. 2129+39.12,
207'-1" x 24' PPCB BRIDGE
Sta. 2129+39.12
Build 272'-0" X 30'-0"
PRETENSIONED PRESTRESSED
CONCRETE BEAM BRIDGE





FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	D.37
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	------

FARMINGTON TWP
T-79N R-1W
SEC. 22



Sta. 1287+79.0
Skew 30°
8.0'x5.0'x173.1' RCB
(Disposition)

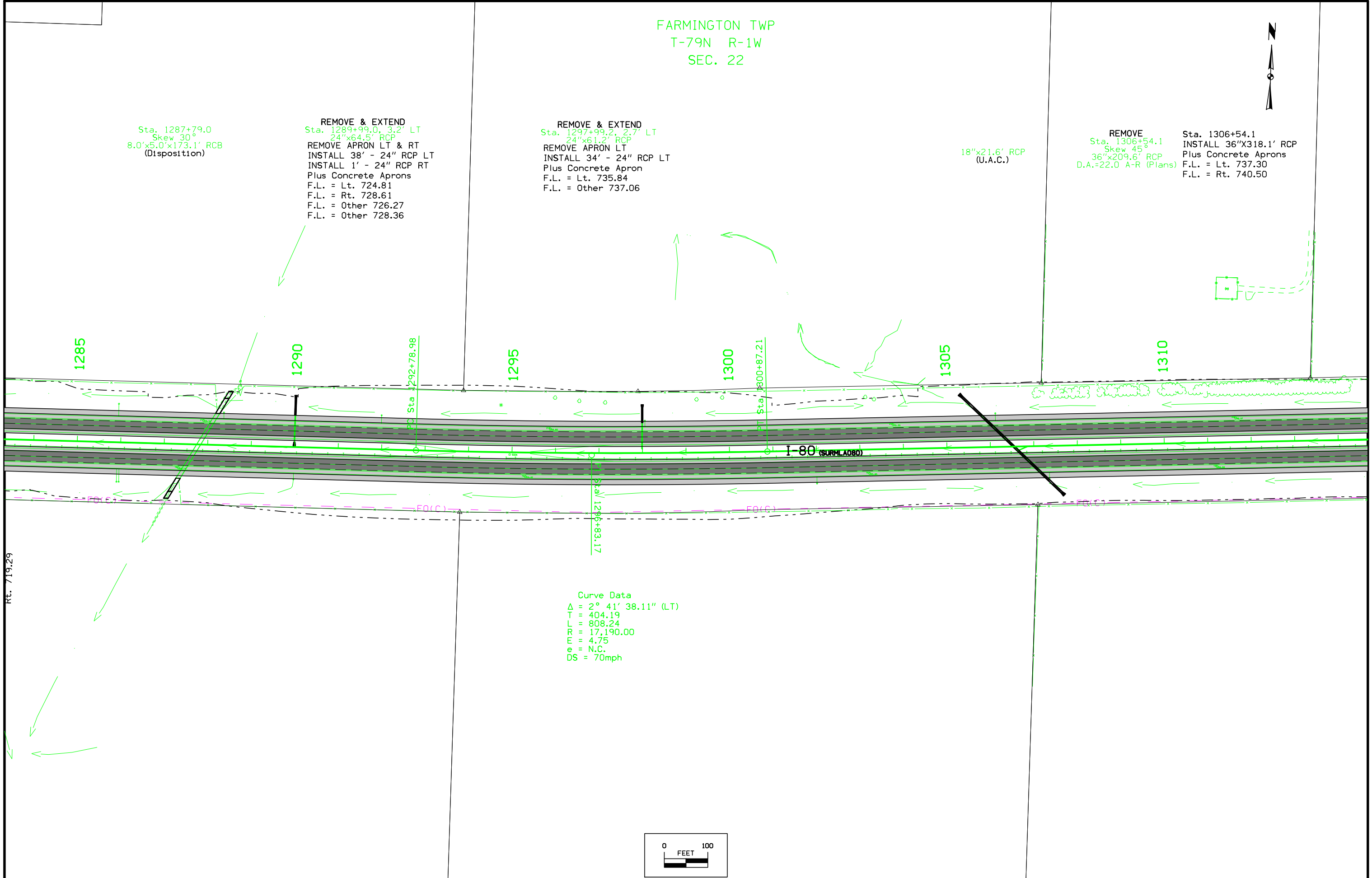
REMOVE & EXTEND
Sta. 1289+99.0, 3.2' LT
24"x64.5" RCP
REMOVE APRON LT & RT
INSTALL 38' - 24" RCP LT
INSTALL 1' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 724.81
F.L. = Rt. 728.61
F.L. = Other 726.27
F.L. = Other 728.36

REMOVE & EXTEND
Sta. 1297+99.2, 2.7' LT
24"x61.2" RCP
REMOVE APRON LT
INSTALL 34' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 735.84
F.L. = Other 737.06

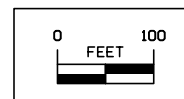
18"x21.6' RCP
(U.A.C.)

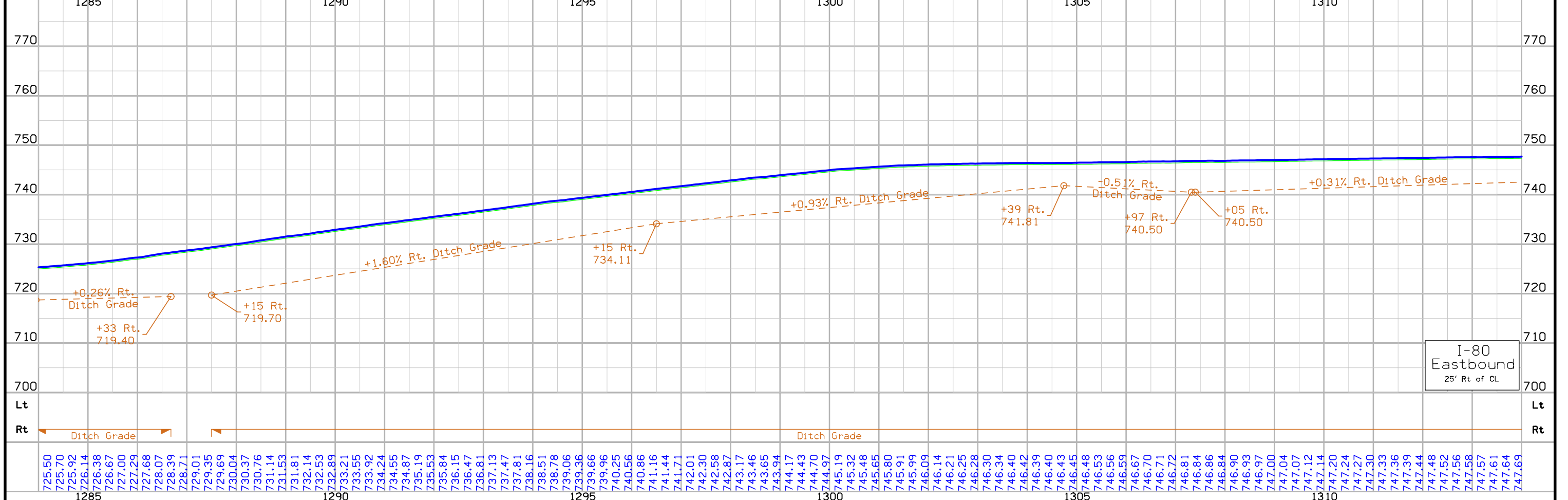
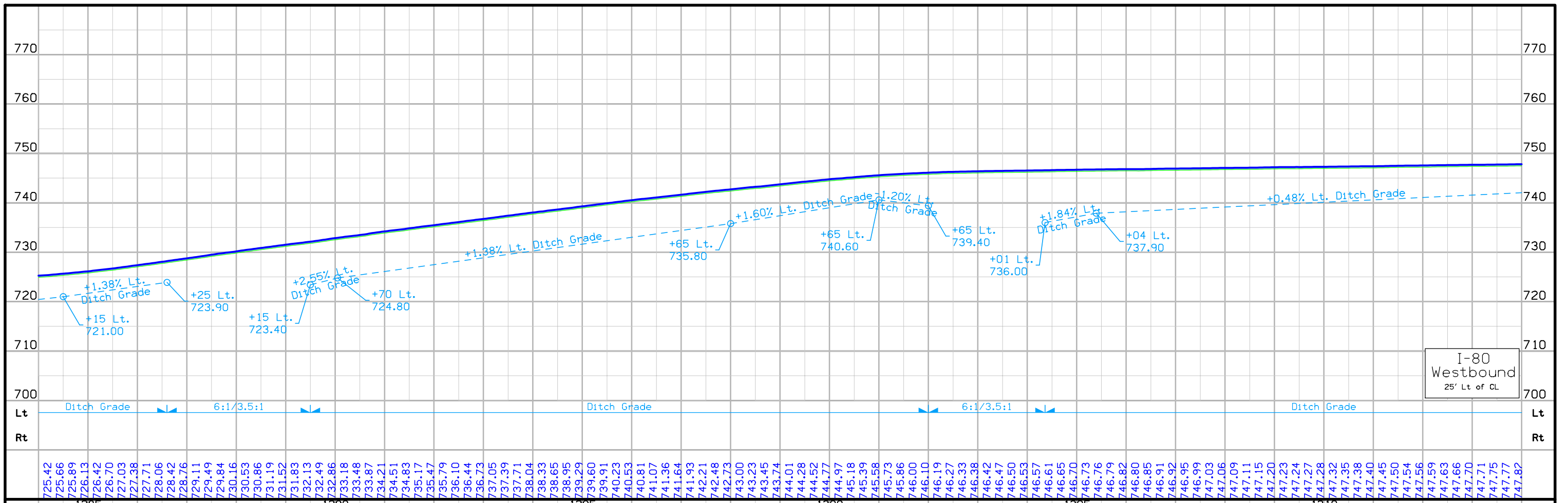
REMOVE
Sta. 1306+54.1
Skew 45°
36"x209.6' RCP
D.A.=22.0 A-R (Plans)

Sta. 1306+54.1
INSTALL 36"x318.1' RCP
Plus Concrete Aprons
F.L. = Lt. 737.30
F.L. = Rt. 740.50



Curve Data
Δ = 2° 41' 38.11" (LT)
T = 404.19
L = 808.24
R = 17,190.00
E = 4.75
e = N.C.
DS = 70mph





FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	D.39
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	------

FARMINGTON TWP
T-79N R-1W
SEC. 22

FARMINGTON TWP
T-79N R-1W
SEC. 23



REMOVE & EXTEND
Sta. 1321+99.7
Skew 10°
30"x181.6" RCP
D.A.=8.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 34' - 30" RCP LT
INSTALL 28' - 30" RCP RT
Plus Concrete Aprons
F.L. = Lt. 733.37
F.L. = Rt. 742.12
F.L. = Other 734.76
F.L. = Other 740.93

REMOVE & EXTEND
Sta. 1332+09.8
Skew 30°
30"x217.6" RCP
D.A.=7.0 A-R (Plans)
REMOVE APRON LT & RT
INSTALL 38' - 30" RCP LT
INSTALL 32' - 30" RCP RT
Plus Concrete Aprons
F.L. = Lt. 721.42
F.L. = Rt. 733.85
F.L. = Other 723.21
F.L. = Other 732.25

1315

1320

1325

1330

1335

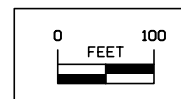
1340

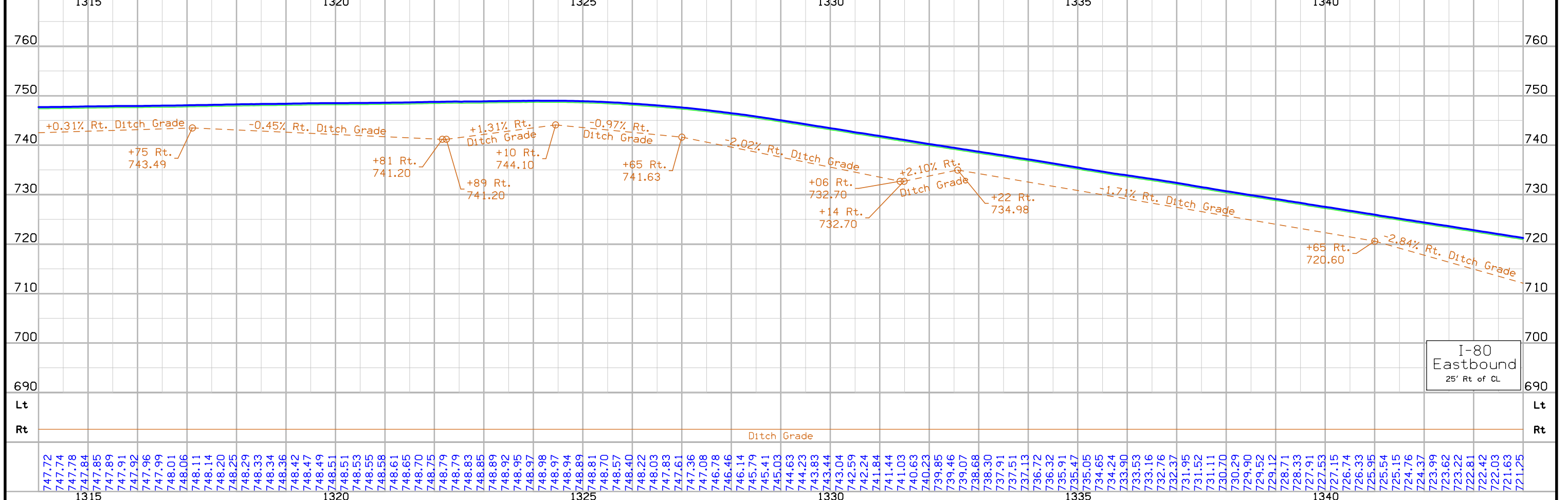
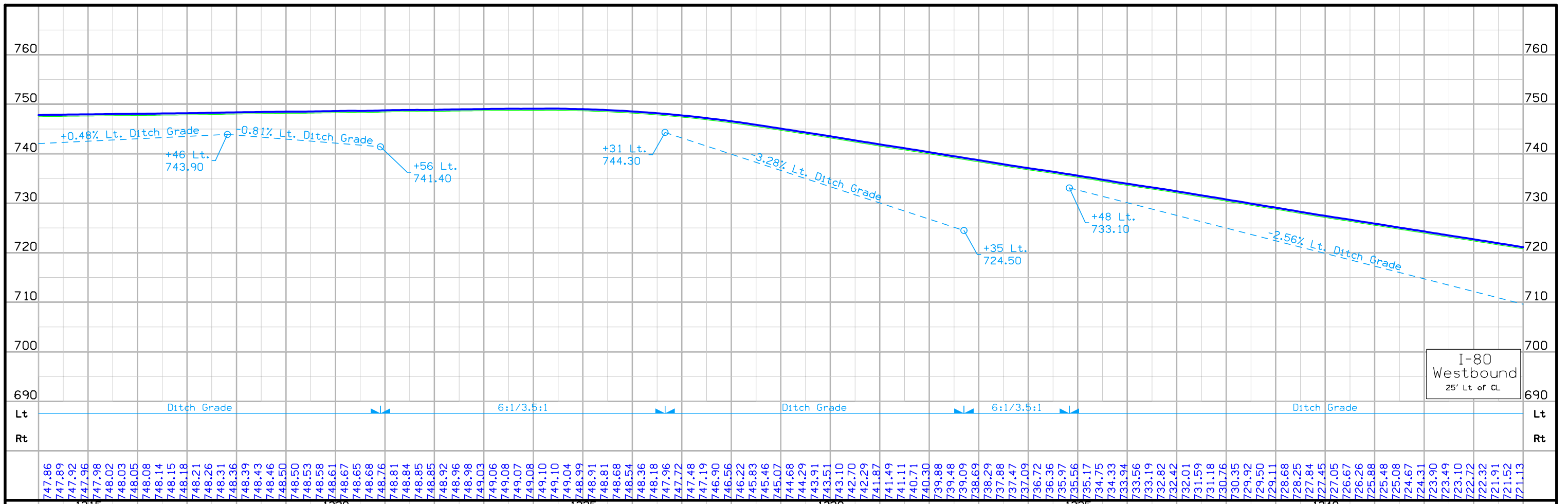
I-80 (SURMLA080)

REMOVE & EXTEND
Sta. 1314+99.8, 2.8' RT
24"x63.7' RCP
REMOVE APRON RT
INSTALL 32' - 24" RCP RT
Plus Concrete Apron
F.L. = Rt. 741.00
F.L. = Other 742.15

REMOVE & EXTEND
Sta. 1331+51.0, 1.0' RT
24"x71.1' RCP
REMOVE APRON RT
INSTALL 54' - 24" RCP RT
Plus Concrete Apron
F.L. = Rt. 729.61
F.L. = Other 732.93

REMOVE & EXTEND
Sta. 1341+00.0, 3.2' RT
24"x56.3' RCP
REMOVE APRON RT
INSTALL 30' - 24" RCP RT
Plus Concrete Apron
F.L. = Rt. 720.61
F.L. = Other 721.35





FARMINGTON TWP
T-79N R-1W
SEC. 23

Curve Data
 $\Delta = 6^\circ 50' 21.32''$ (RT)
 T = 456.53
 L = 911.97
 R = 7,640.00
 E = 13.63
 e = 2.80%
 L = 200
 x = 143
 DS = 70

24"x64.2' CMP
(U.A.C.)

REMOVE
Sta. 1350+18.6, 3.7' LT
24"x92.1' RCP

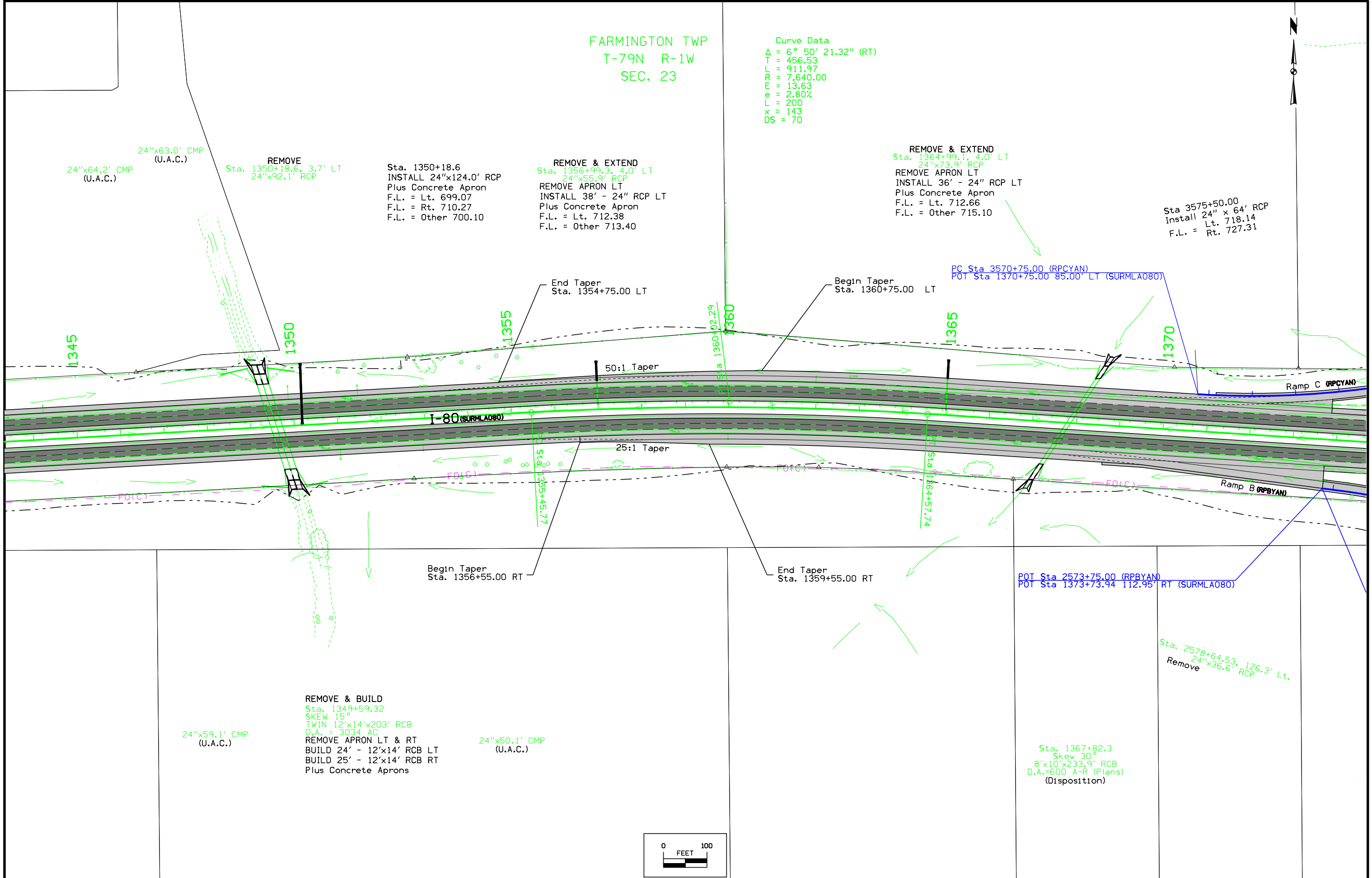
Sta. 1350+18.6
INSTALL 24"x124.0' RCP
Plus Concrete Apron
F.L. = Lt. 699.07
F.L. = Rt. 710.27
F.L. = Other 700.10

REMOVE & EXTEND
Sta. 1356+99.3, 4.0' LT
24"x55.9' RCP
REMOVE APRON LT
INSTALL 38' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 712.38
F.L. = Other 713.40

REMOVE & EXTEND
Sta. 1364+99.1, 4.0' LT
24"x73.9' RCP
REMOVE APRON LT
INSTALL 36' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 712.66
F.L. = Other 715.10

Sta 3575+50.00
Install 24" x 64' RCP
Lt. 718.14
F.L. = Rt. 727.31

PC Sta 3570+75.00 (RPCYAN)
POT Sta 1370+75.00 85.00' LT (SURMLA080)



End Taper
Sta. 1354+75.00 LT

Begin Taper
Sta. 1360+75.00 LT

50:1 Taper

25:1 Taper

Begin Taper
Sta. 1356+55.00 RT

End Taper
Sta. 1359+55.00 RT

POT Sta 2573+75.00 (RPBYAN)
POT Sta 1373+73.94 112.95' RT (SURMLA080)

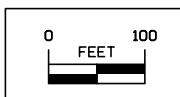
Sta. 2578+64.53, 126.3' Lt.
Remove
24"x36.6' RCP

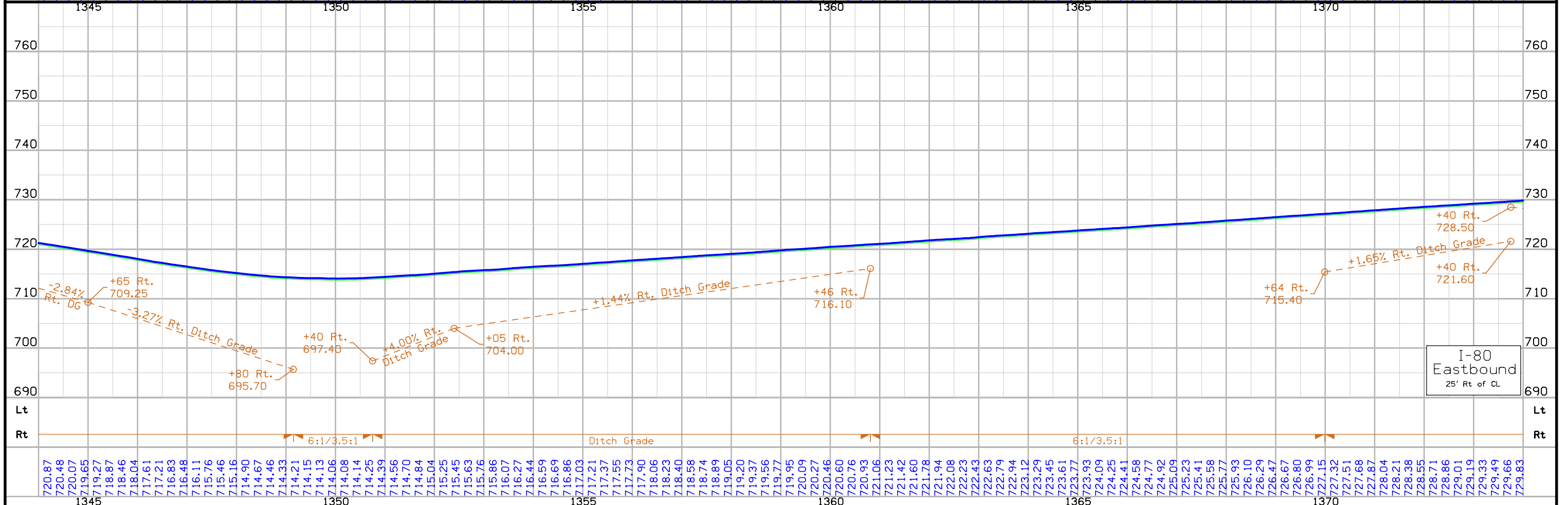
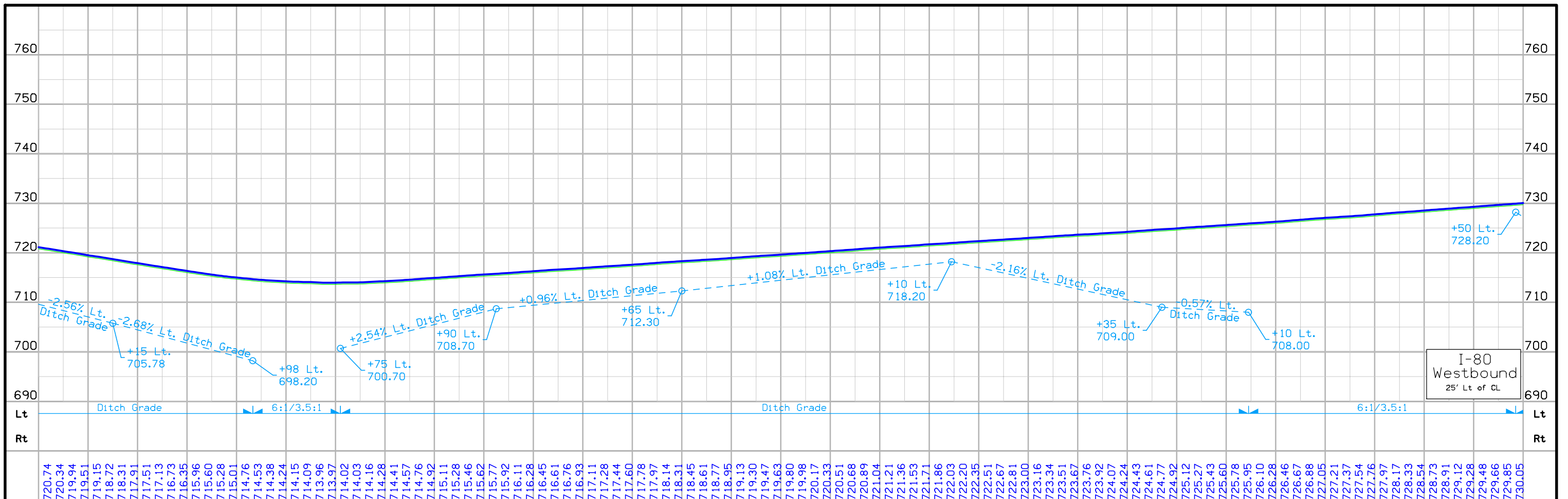
24"x59.1' CMP
(U.A.C.)

REMOVE & BUILD
Sta. 1349+59.32
SKEW 15°
TWIN 12'x14'x203' RCB
D.A. = 3034 AC
REMOVE APRON LT & RT
BUILD 24' - 12'x14' RCB LT
BUILD 25' - 12'x14' RCB RT
Plus Concrete Aprons

24"x50.1' CMP
(U.A.C.)

Sta. 1367+82.3
Skew 30°
8'x10'x233.9' RCB
D.A.=600 A-R (Plans)
(Disposition)





FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	D.43
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	------

FARMINGTON TWP
T-79N R-1W
SEC. 23

FARMINGTON TWP
T-79N R-1W
SEC. 24



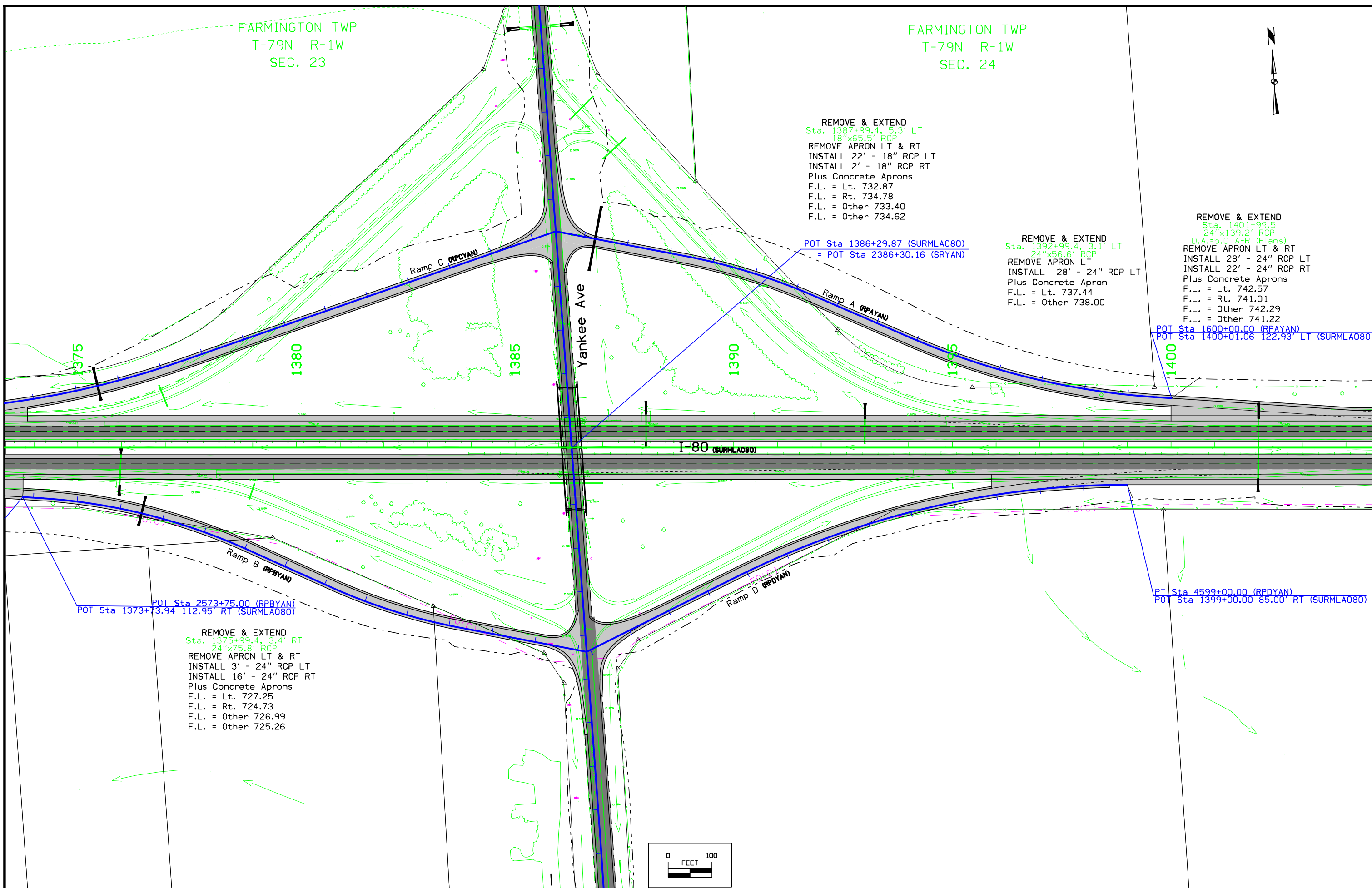
REMOVE & EXTEND
Sta. 1387+99.4, 5.3' LT
18"x65.5' RCP
REMOVE APRON LT & RT
INSTALL 22' - 18" RCP LT
INSTALL 2' - 18" RCP RT
Plus Concrete Aprons
F.L. = Lt. 732.87
F.L. = Rt. 734.78
F.L. = Other 733.40
F.L. = Other 734.62

REMOVE & EXTEND
Sta. 1392+99.4, 3.1' LT
24"x56.6' RCP
REMOVE APRON LT
INSTALL 28' - 24" RCP LT
Plus Concrete Apron
F.L. = Lt. 737.44
F.L. = Other 738.00

REMOVE & EXTEND
Sta. 1401+99.5
24"x139.2' RCP
D.A.=5.0' A-R (Plans)
REMOVE APRON LT & RT
INSTALL 28' - 24" RCP LT
INSTALL 22' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 742.57
F.L. = Rt. 741.01
F.L. = Other 742.29
F.L. = Other 741.22

POT Sta 1386+29.87 (SURMLA080)
= POT Sta 2386+30.16 (SRYAN)

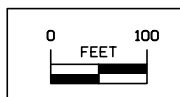
POT Sta 1600+00.00 (RPAYAN)
POT Sta 1400+01.06 122.93' LT (SURMLA080)

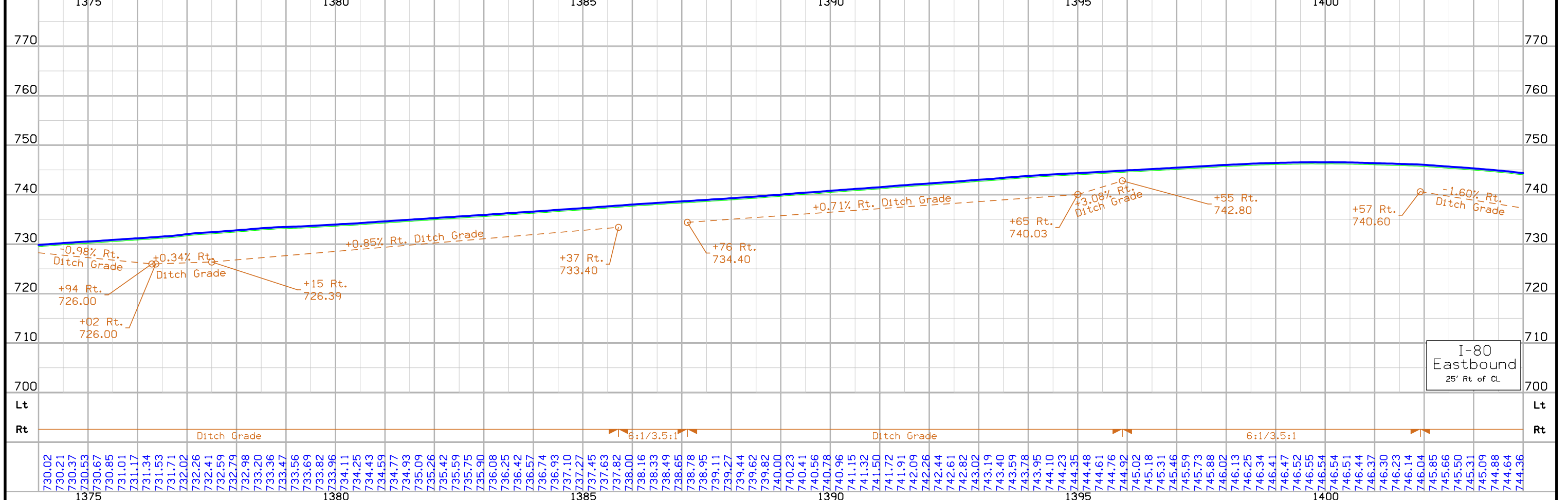
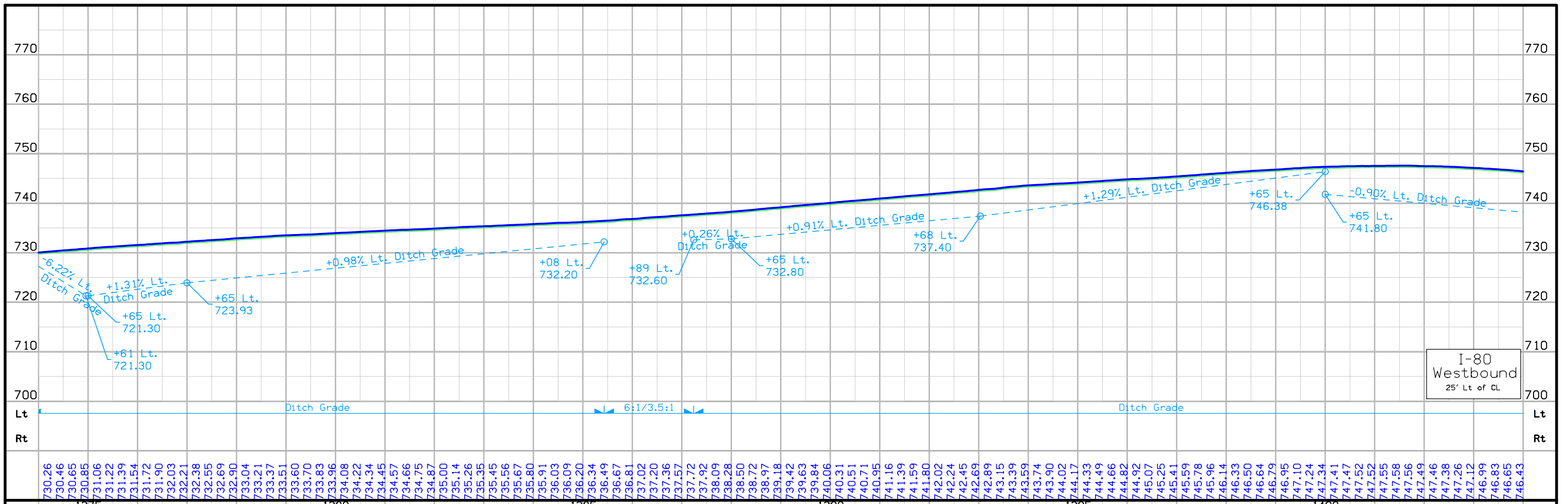


POT Sta 2573+75.00 (RPBYAN)
POT Sta 1373+73.94 112.95' RT (SURMLA080)

REMOVE & EXTEND
Sta. 1375+99.4, 3.4' RT
24"x75.8' RCP
REMOVE APRON LT & RT
INSTALL 3' - 24" RCP LT
INSTALL 16' - 24" RCP RT
Plus Concrete Aprons
F.L. = Lt. 727.25
F.L. = Rt. 724.73
F.L. = Other 726.99
F.L. = Other 725.26

PT Sta 4599+00.00 (RPDYAN)
POT Sta 1399+00.00 85.00' RT (SURMLA080)





FARMINGTON TWP
T-79N R-1W
SEC. 24



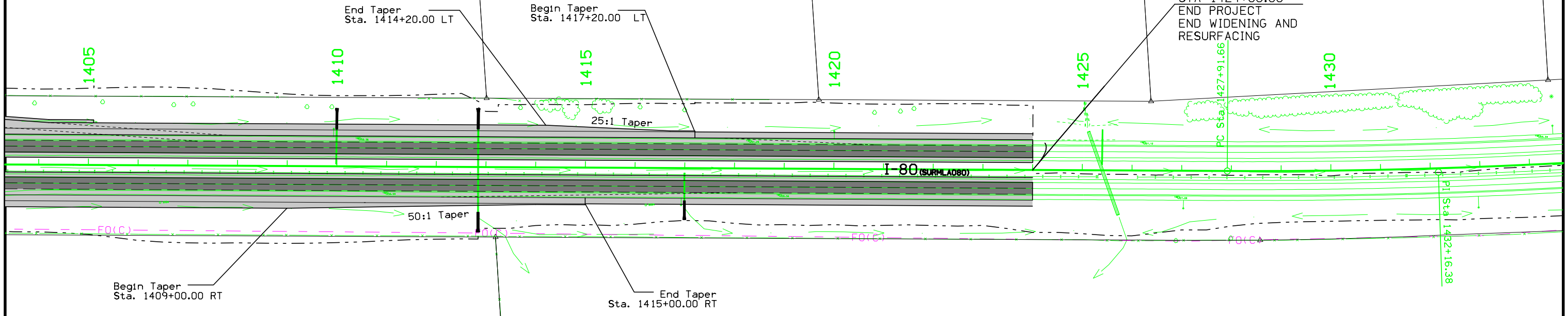
Curve Data
 $\Delta = 4^\circ 14' 41.66''$ (LT)
 T = 424.72
 L = 849.04
 R = 11,460.00
 E = 7.87
 e = 2.00%
 L = 200
 x = 200
 DS = 70mph

REMOVE & EXTEND
 Sta. 1409+98.7, 1.5' RT
 24"x70.8' RCP
 REMOVE APRON LT
 INSTALL 34' - 24" RCP LT
 Plus Concrete Apron
 F.L. = Lt. 732.89
 F.L. = Other 733.63

REMOVE & EXTEND
 Sta. 1412+84.4
 30"x168.90' RCP
 D.A.=15.0 A-R (Plans)
 REMOVE APRON LT & RT
 INSTALL 34' - 30" RCP LT
 INSTALL 32' - 30" RCP RT
 Plus Concrete Aprons
 F.L. = Lt. 729.48
 F.L. = Rt. 722.45
 F.L. = Other 728.32
 F.L. = Other 723.54

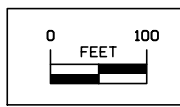
REMOVE & EXTEND
 Sta. 1425+39.5, 4.6' LT
 24"x70.6' RCP
 REMOVE APRON LT & RT
 INSTALL 40' - 24" RCP LT
 INSTALL 4' - 24" RCP RT
 Plus Concrete Aprons
 F.L. = Lt. 715.89
 F.L. = Rt. 723.68
 F.L. = Other 718.74
 F.L. = Other 723.05

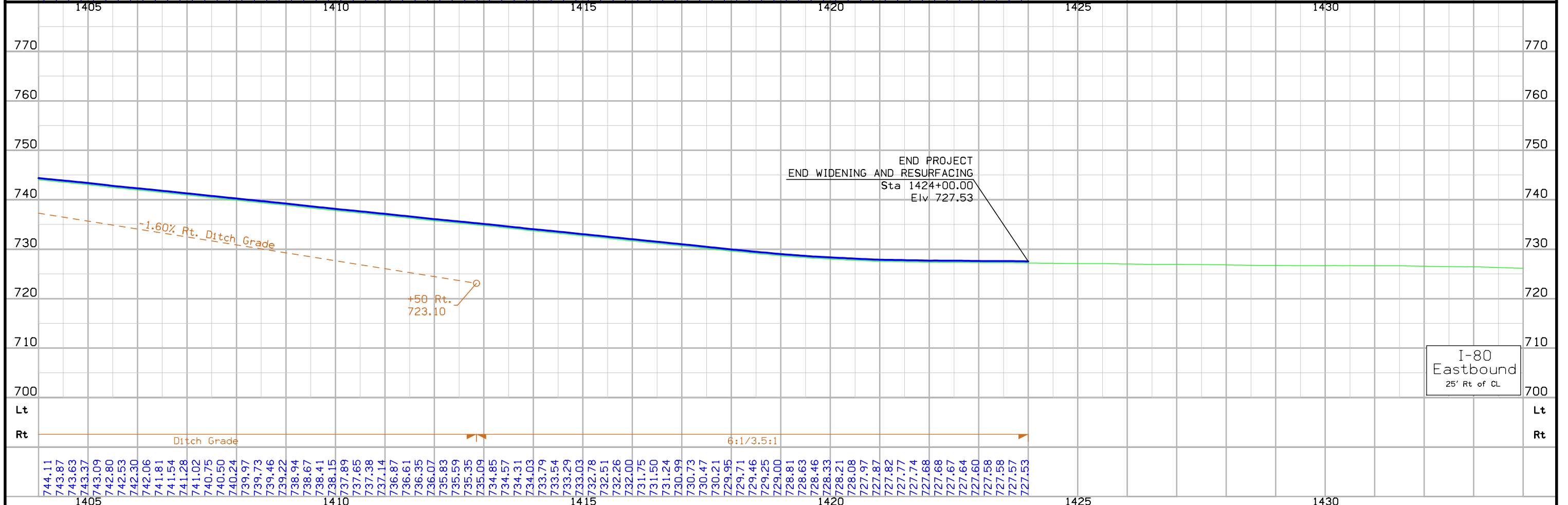
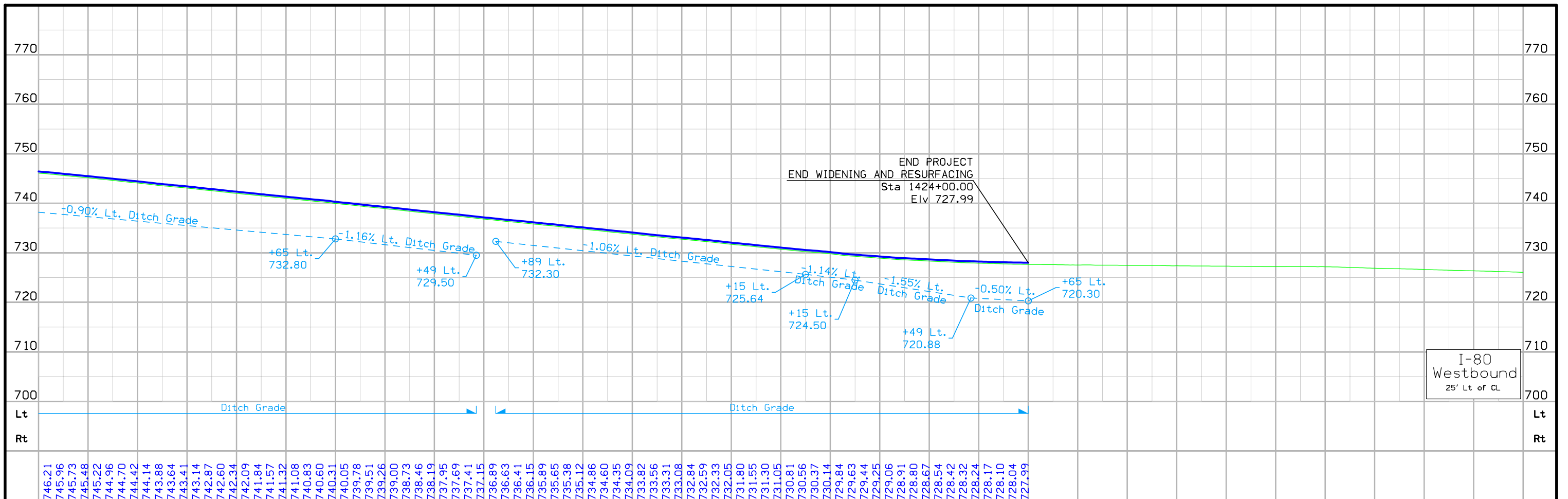
STA 1424+00.00
 END PROJECT
 END WIDENING AND
 RESURFACING



REMOVE & EXTEND
 Sta. 1416+99.2, 3.5' RT
 24"x56.4' RCP
 REMOVE APRON RT
 INSTALL 30' - 24" RCP RT
 Plus Concrete Apron
 F.L. = Rt. 725.70
 F.L. = Other 726.29

REMOVE & EXTEND
 Sta. 1425+40.2
 60"x177.4' RCP
 D.A.=105.0 A-R (Plans)
 REMOVE APRON LT & RT
 INSTALL 32' - 60" RCP LT
 INSTALL 26' - 60" RCP RT
 Plus Concrete Aprons
 F.L. = Lt. 717.57
 F.L. = Rt. 714.99
 F.L. = Other 717.20
 F.L. = Other 715.39





FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	D.47
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	------

ROCHESTER TWP
T-79N R-2W
SEC. 18

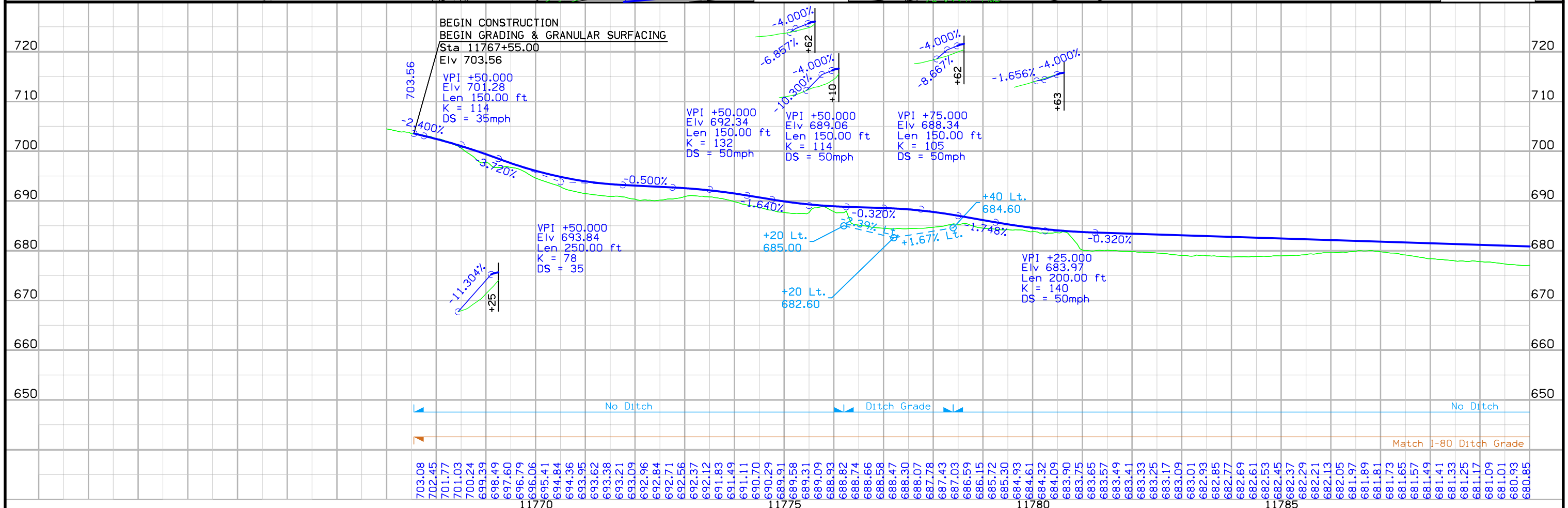
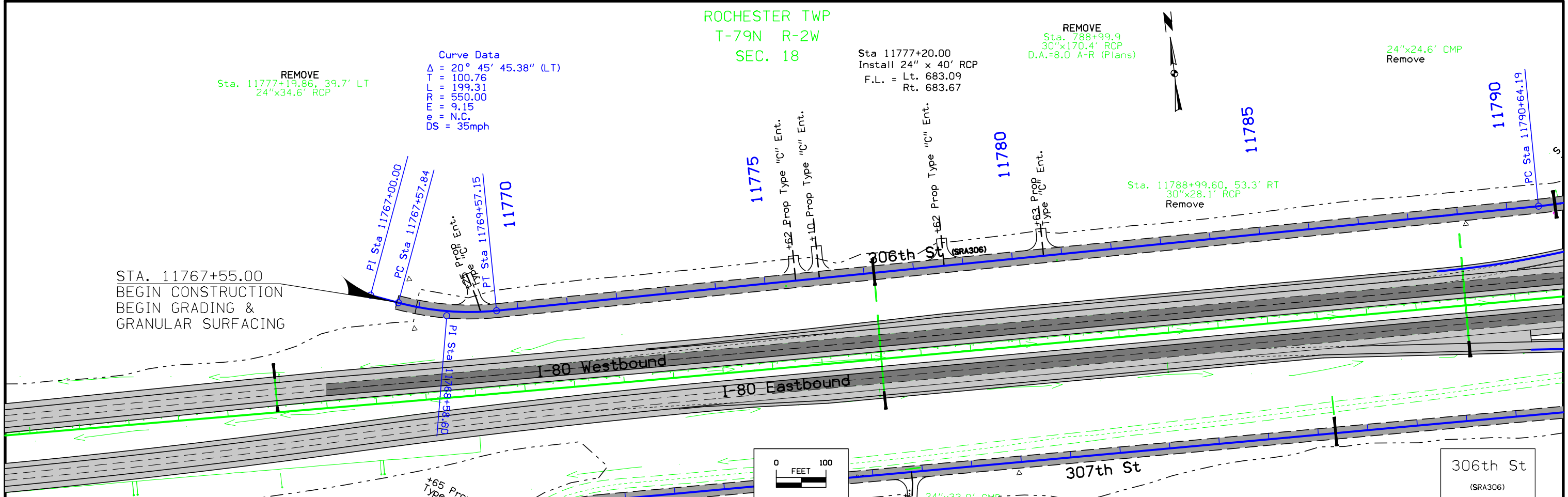
REMOVE
Sta. 11777+19.86, 39.7' LT
24"x34.6' RCP

Curve Data
Δ = 20° 45' 45.38" (LT)
T = 100.76
L = 199.31
R = 550.00
e = 9.15
e = N.C.
DS = 35mph

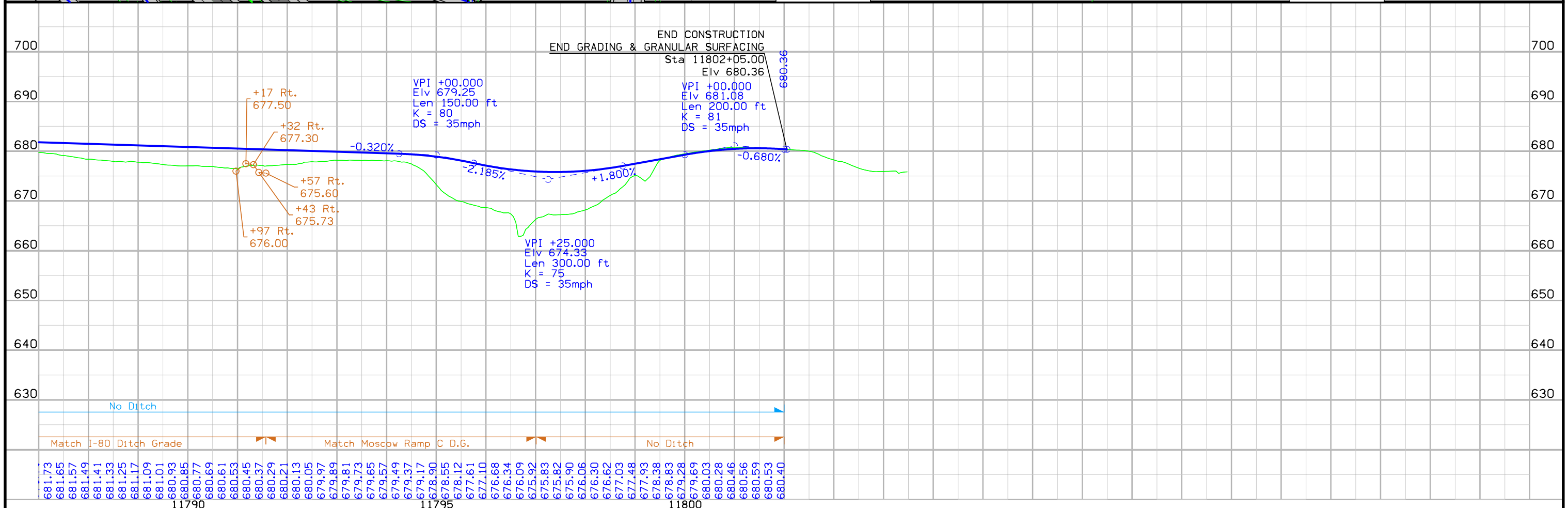
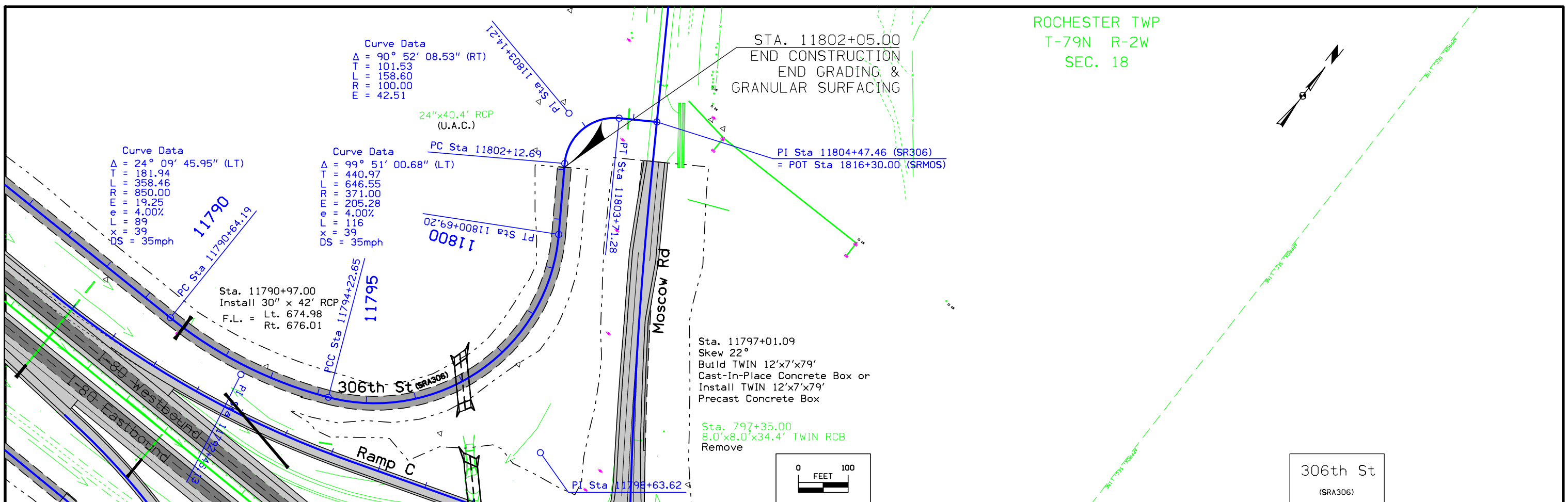
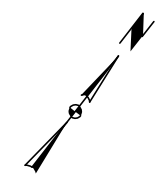
Sta 11777+20.00
Install 24" x 40' RCP
F.L. = Lt. 683.09
Rt. 683.67

REMOVE
Sta. 788+99.9
30"x170.4' RCP
D.A.=8.0 A-R (Plans)

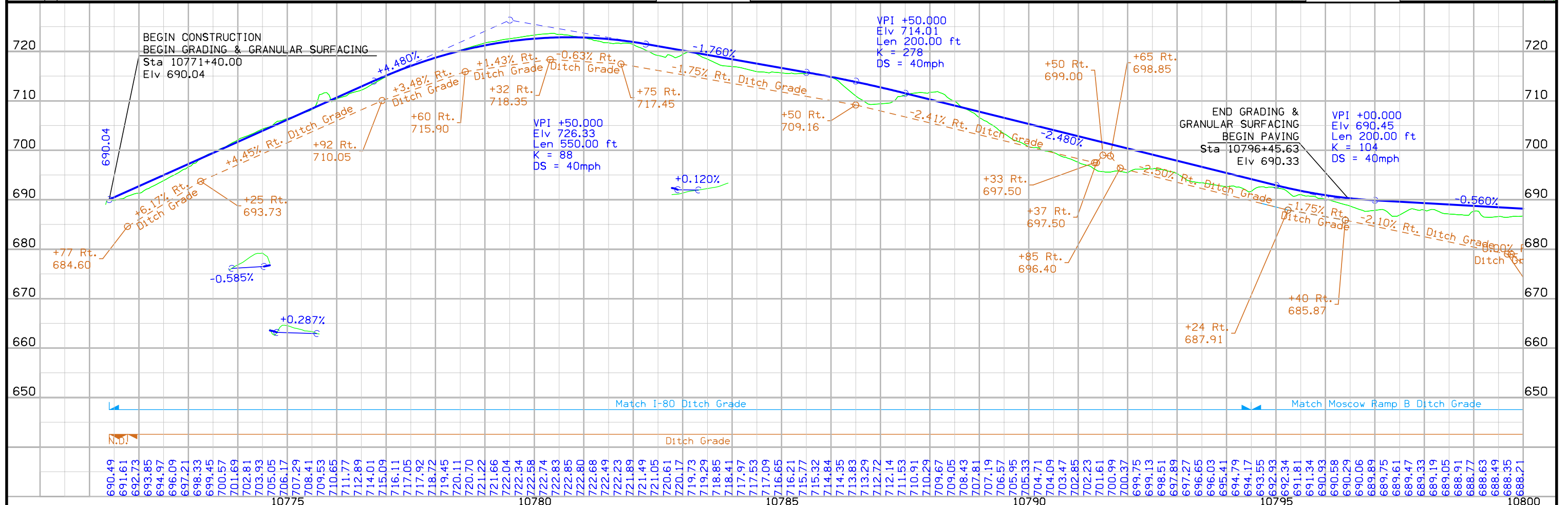
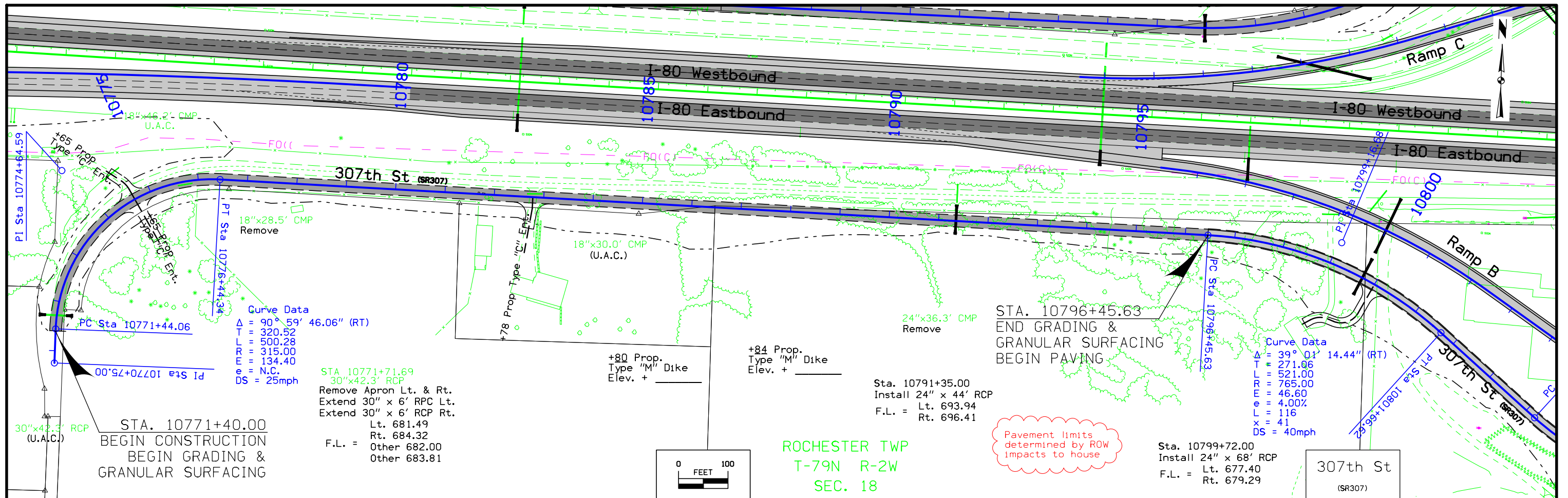
24"x24.6' CMP
Remove



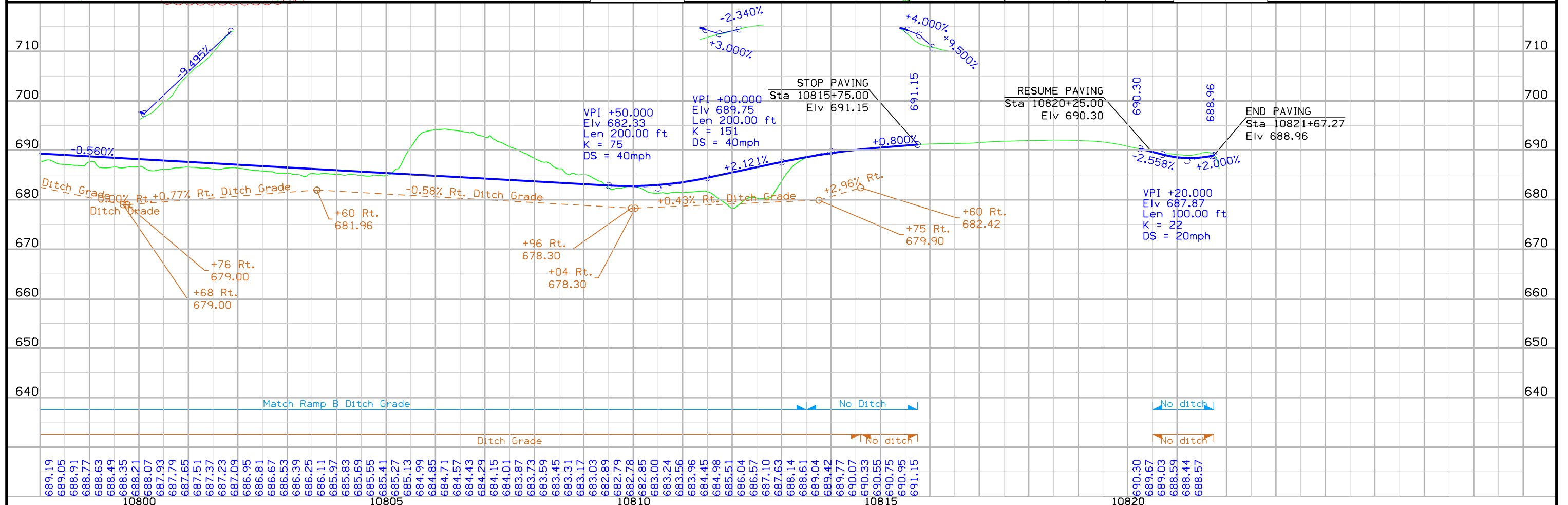
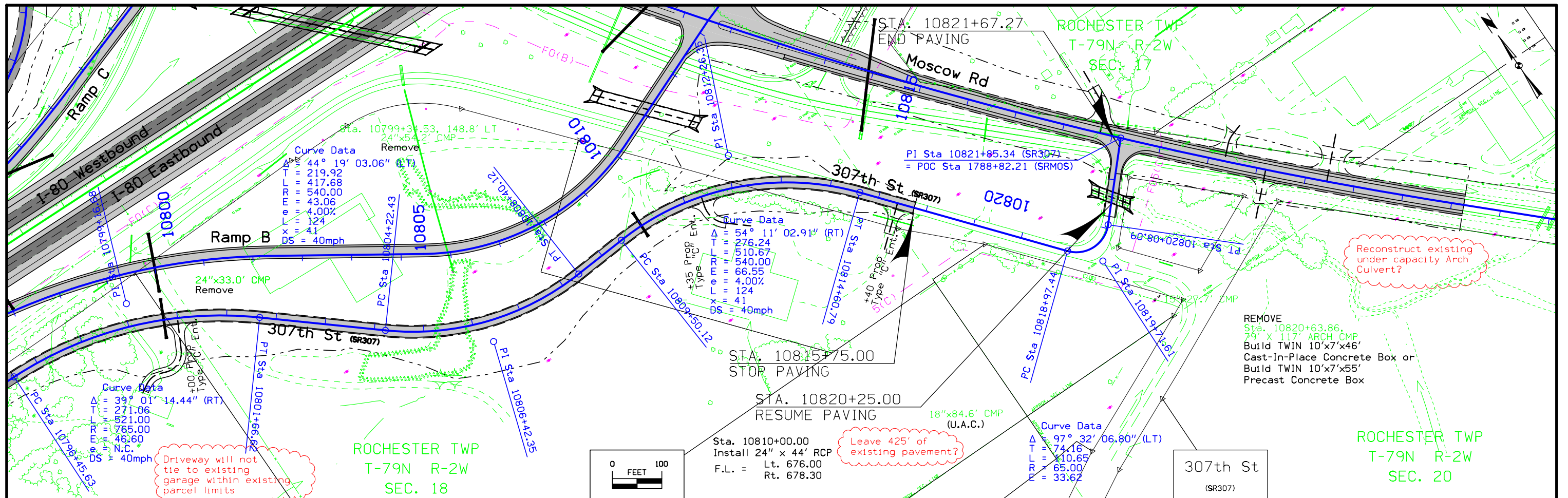
ROCHESTER TWP
T-79N R-2W
SEC. 18



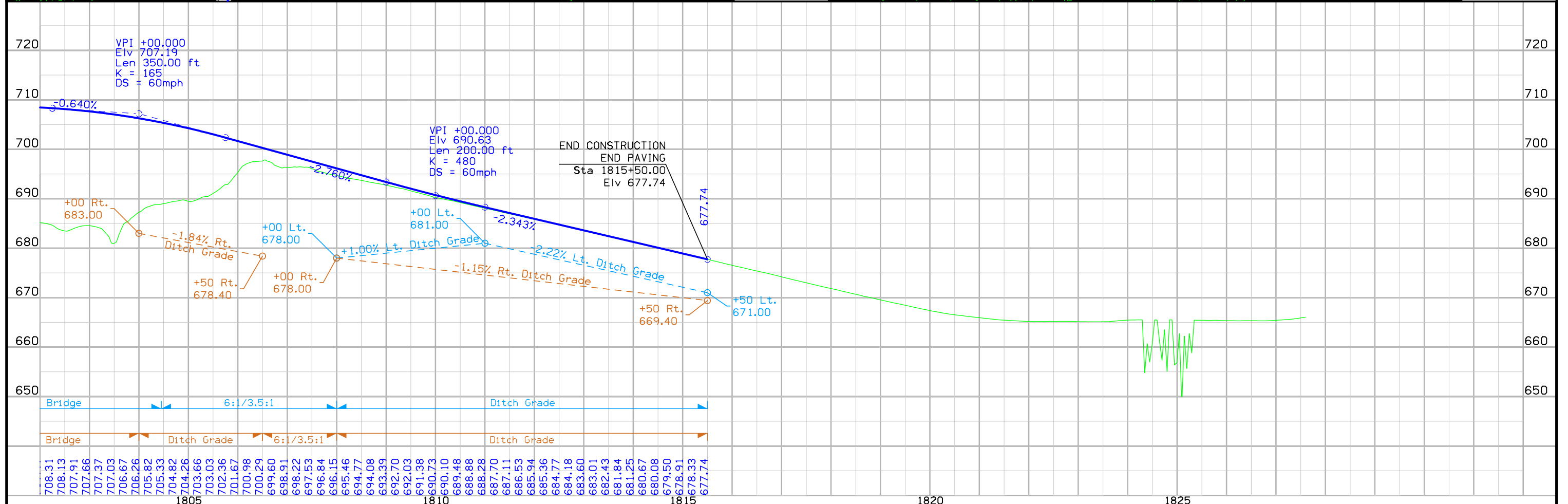
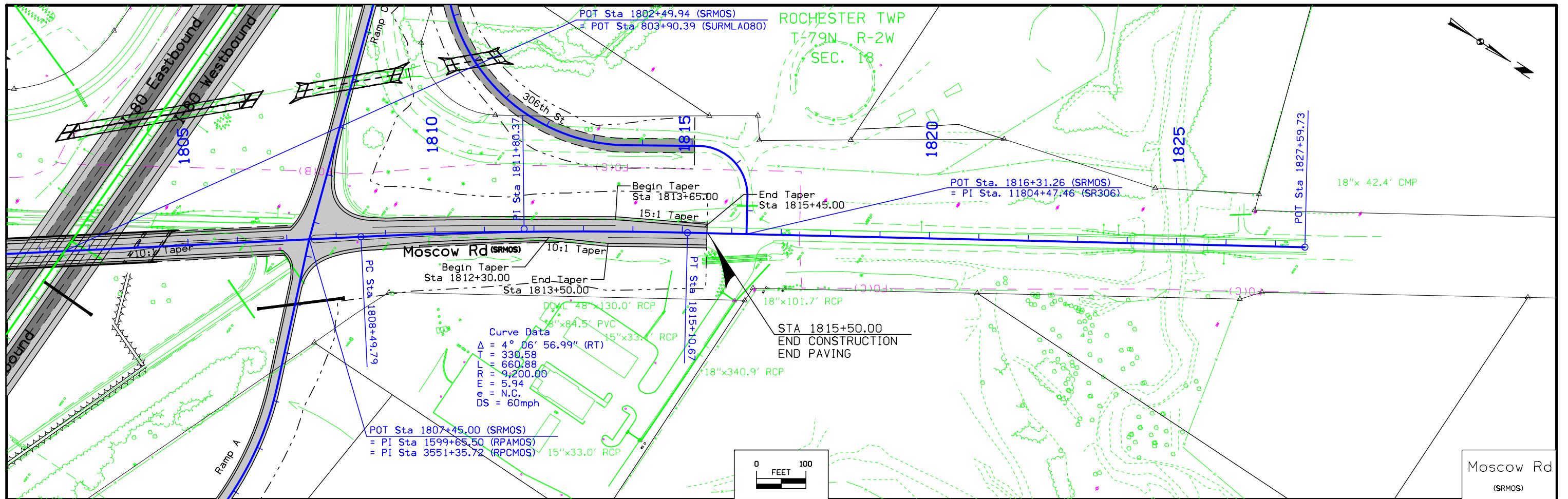
FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	E.2
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	-----

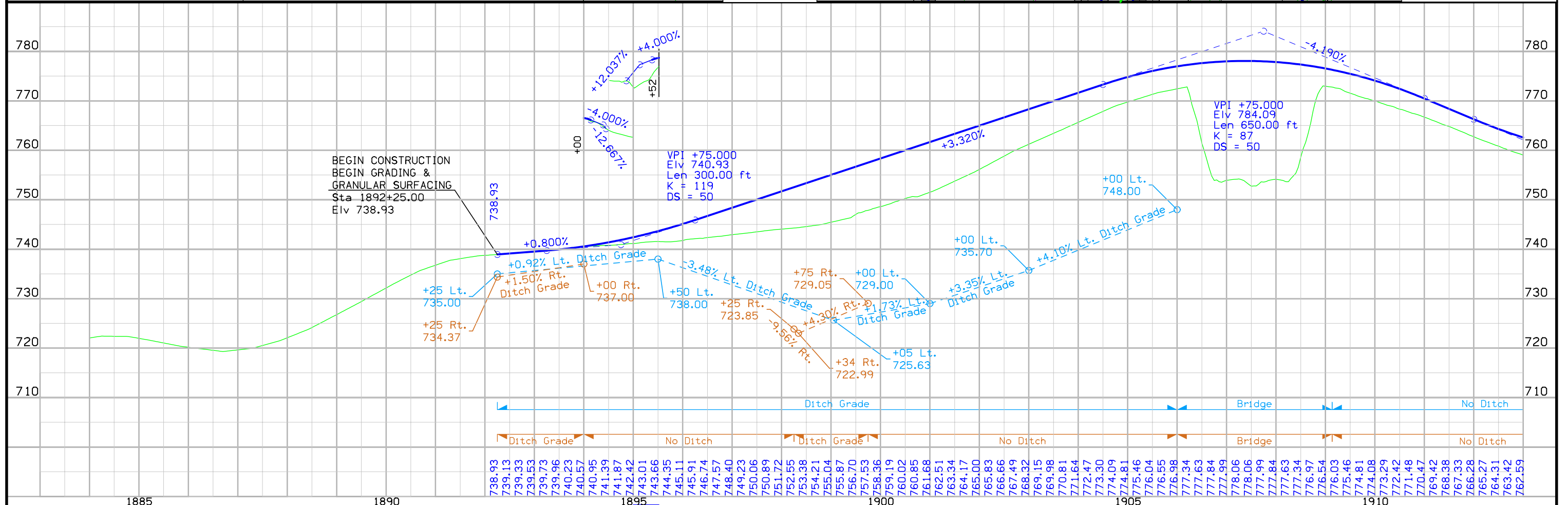
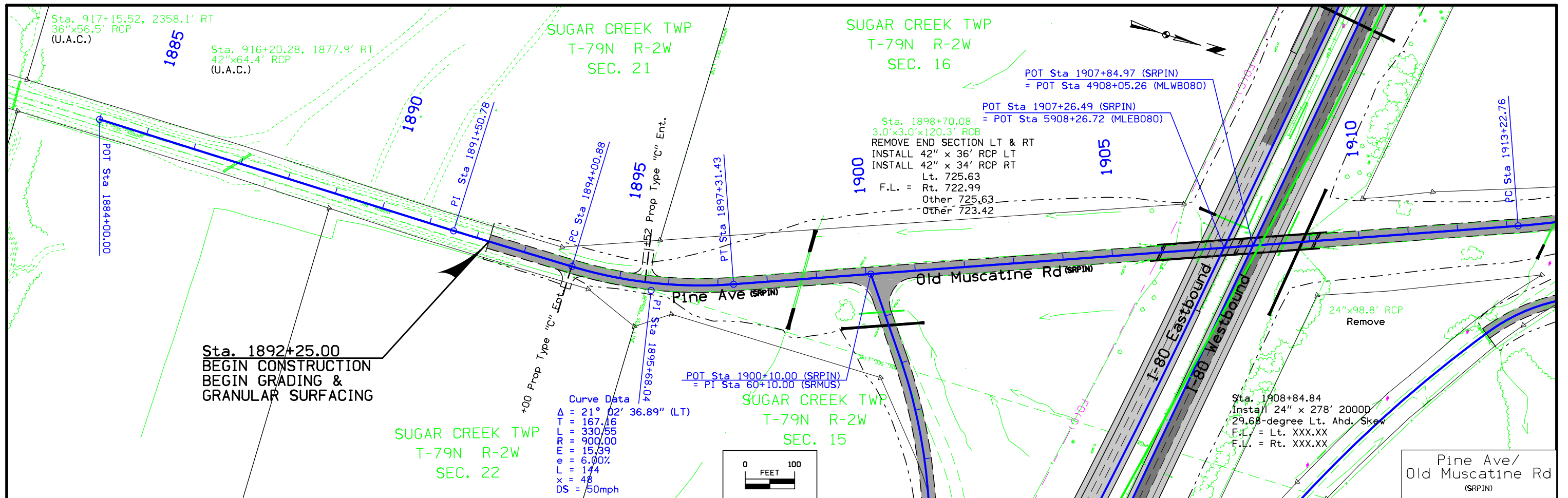


FILE NO.	ENGLISH	DESIGN TEAM	COUNTY	PROJECT NUMBER	SHEET NUMBER
					E.3

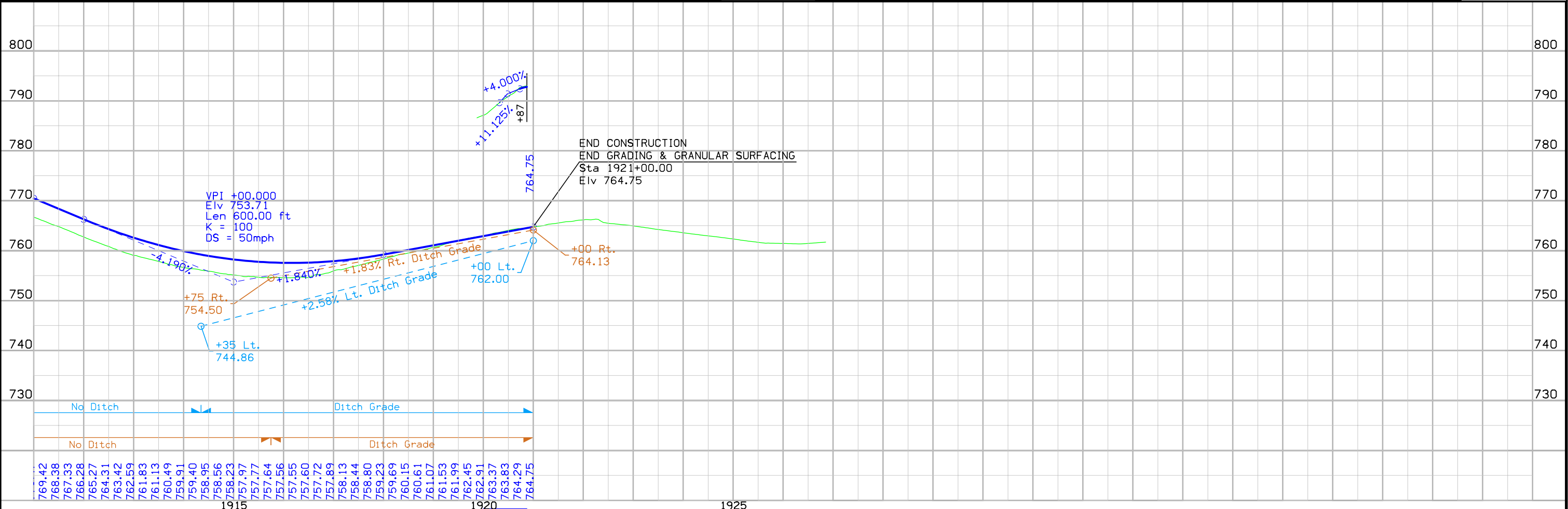
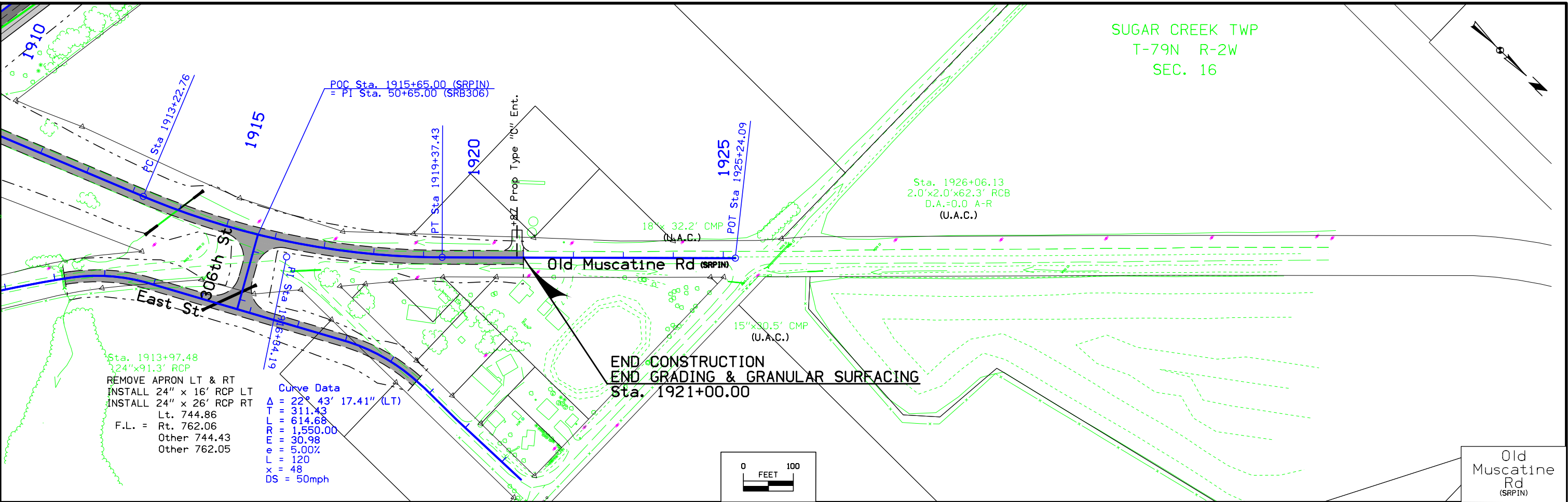


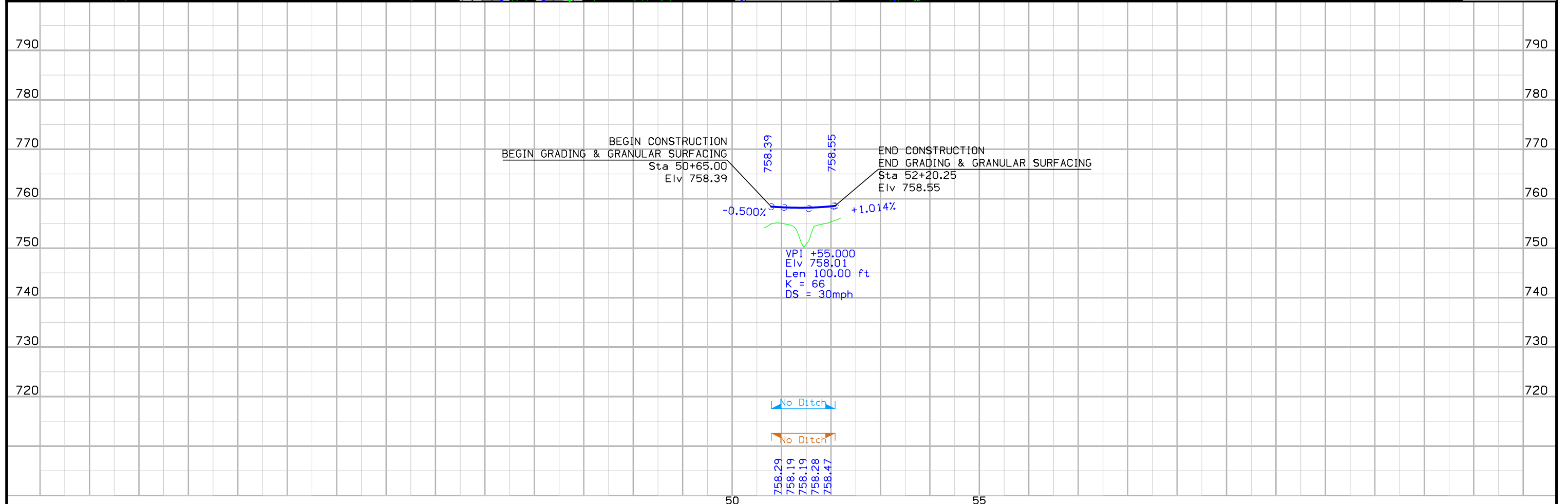
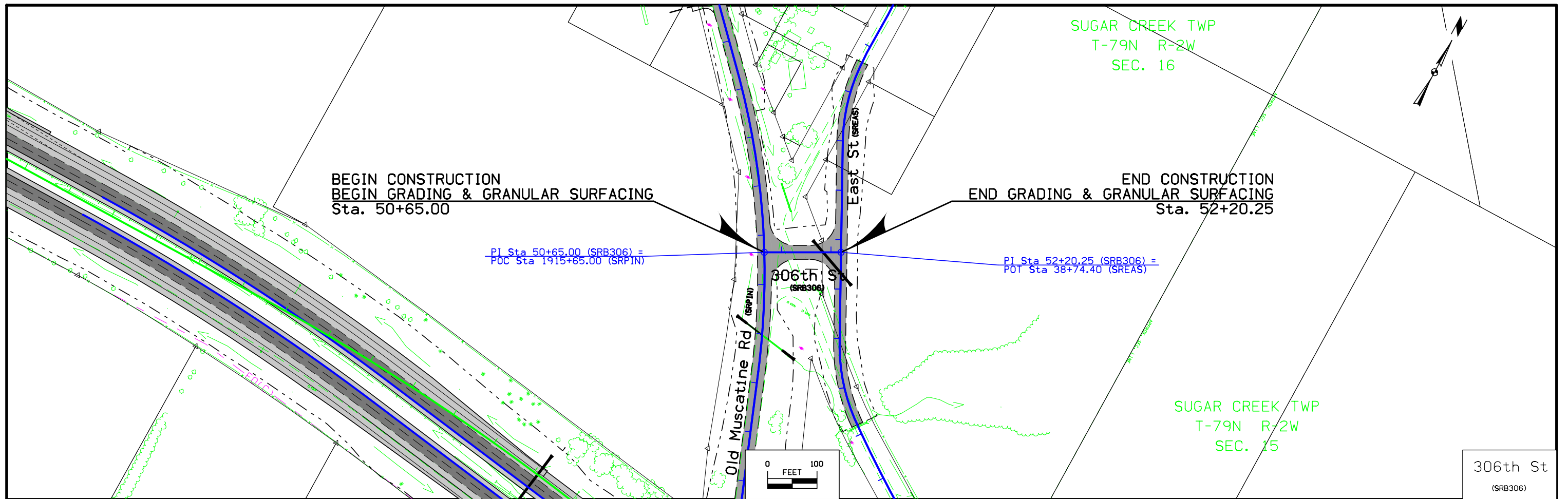
FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	E.4
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	-----

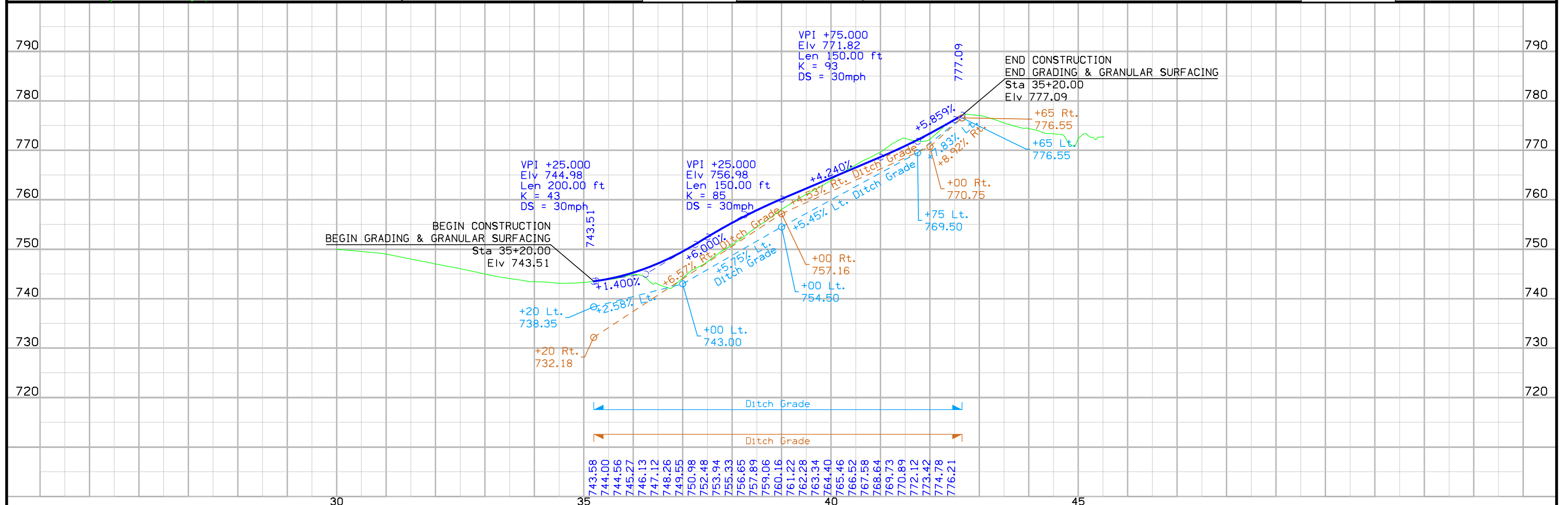
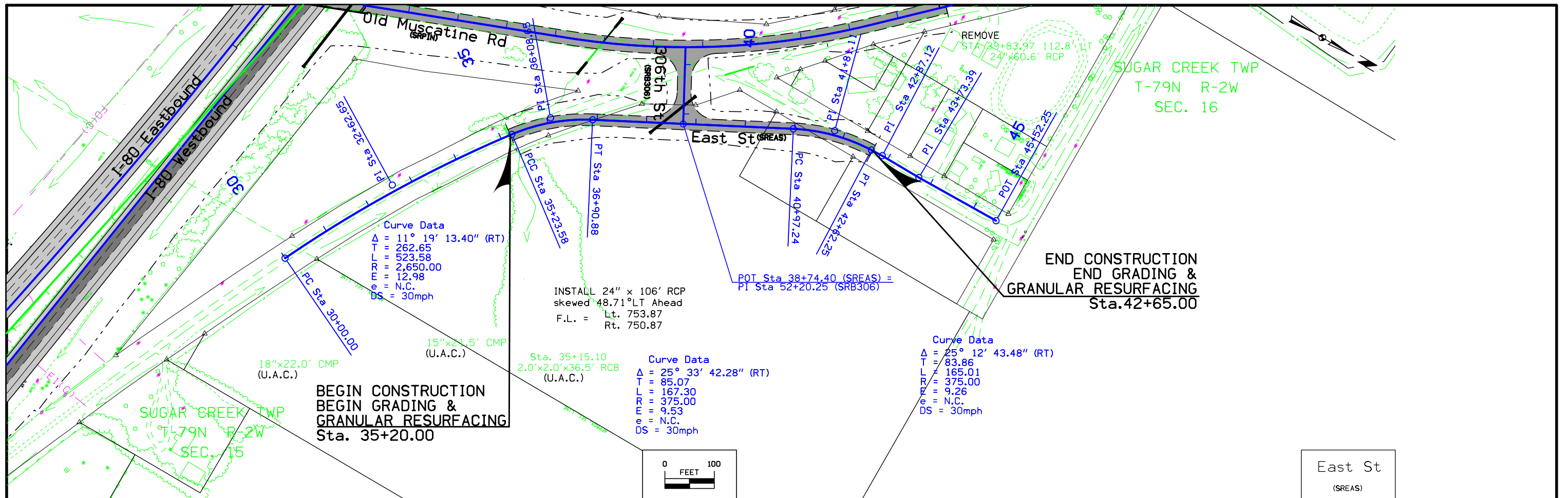


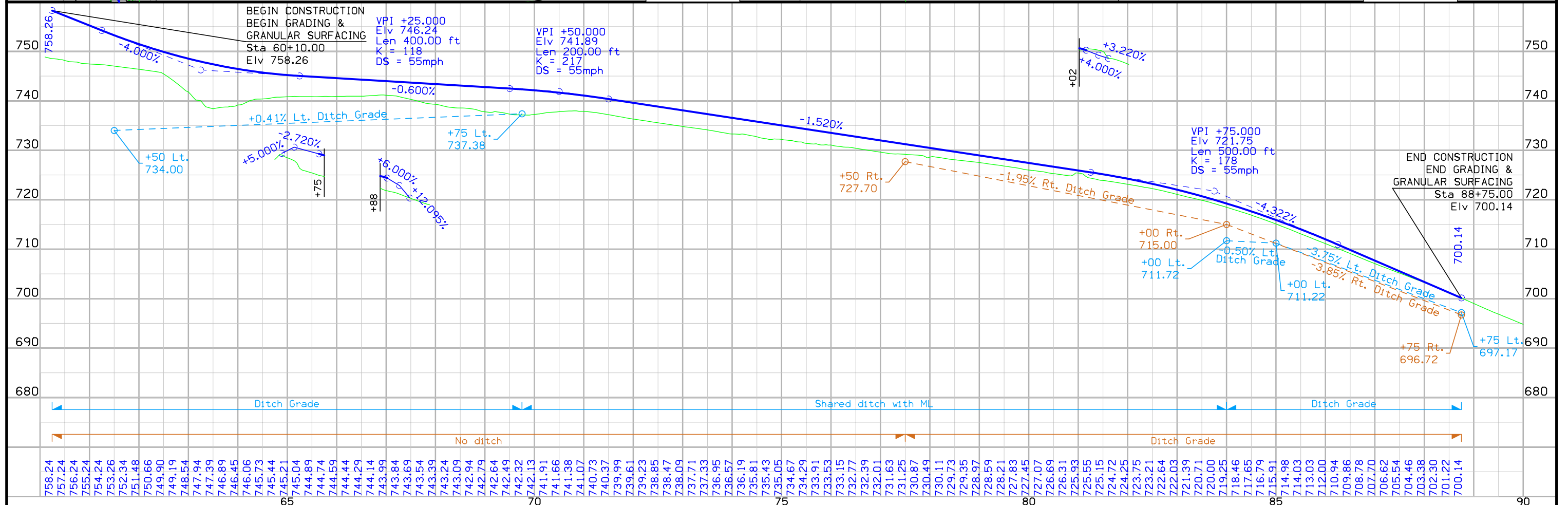
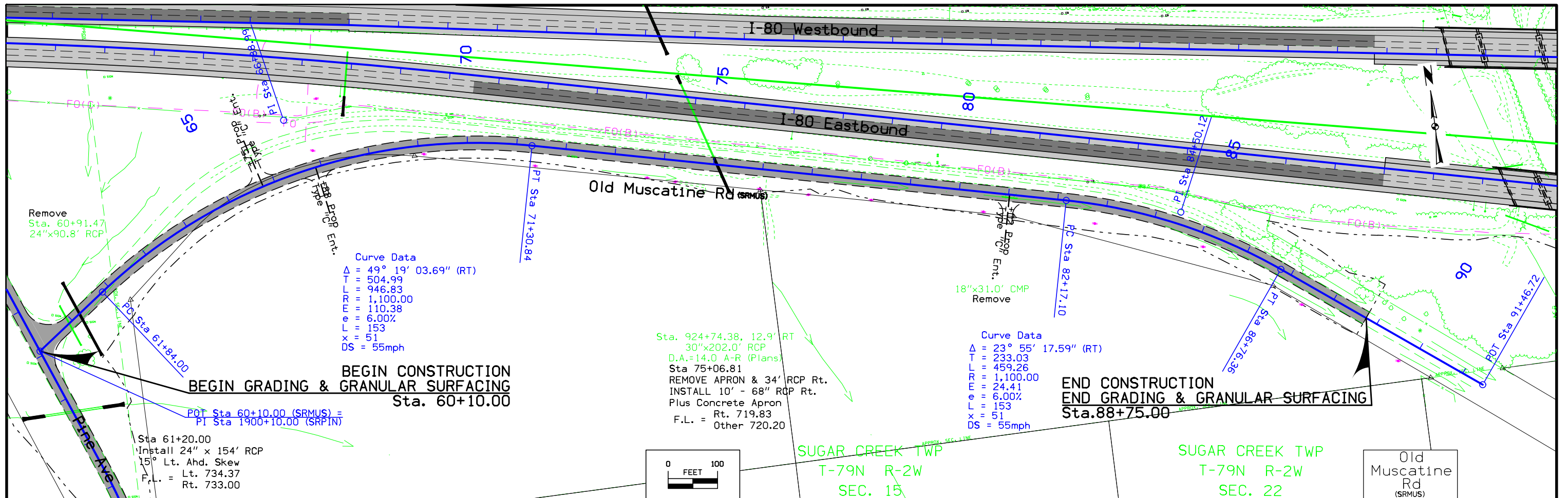


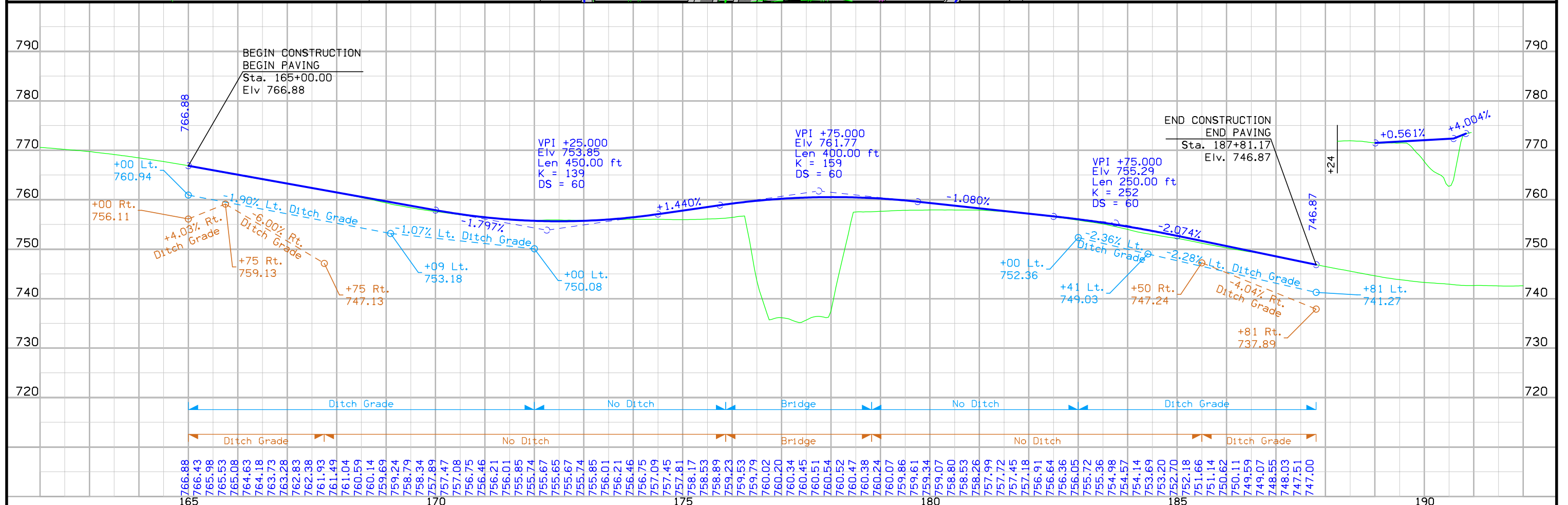
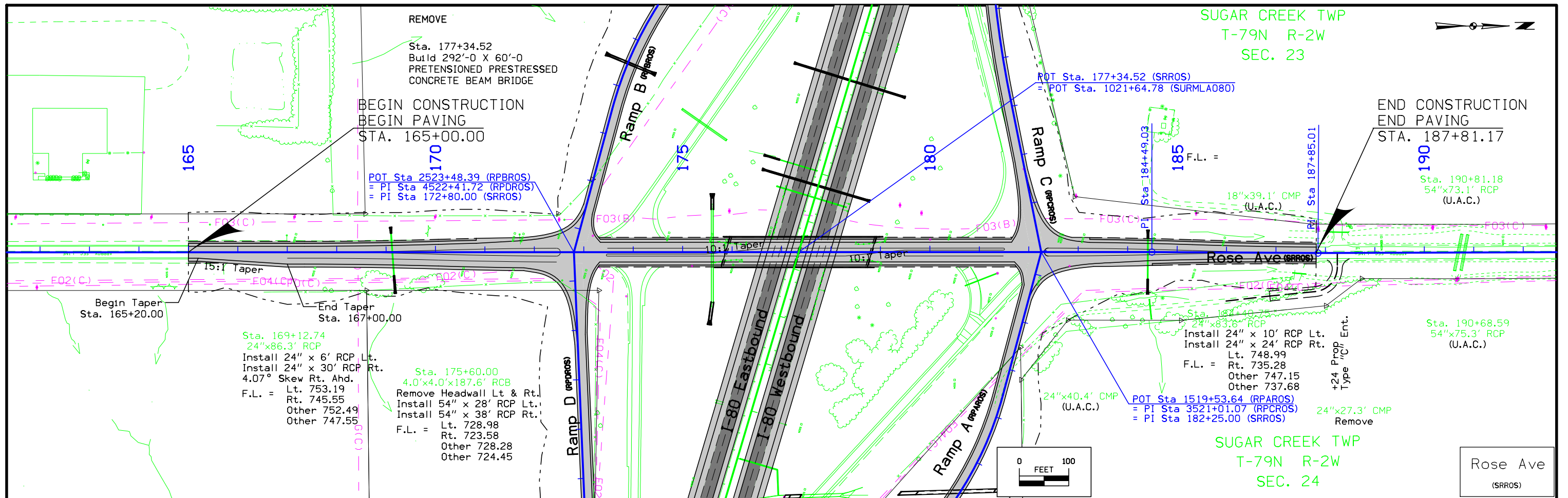
SUGAR CREEK TWP
T-79N R-2W
SEC. 16

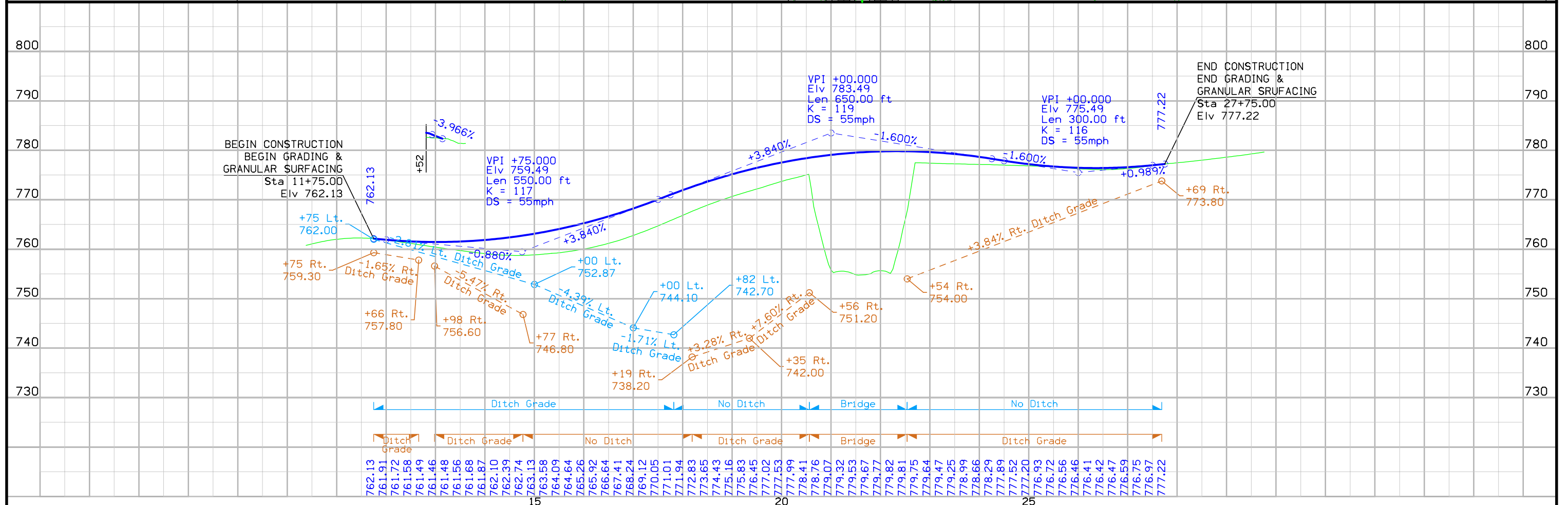
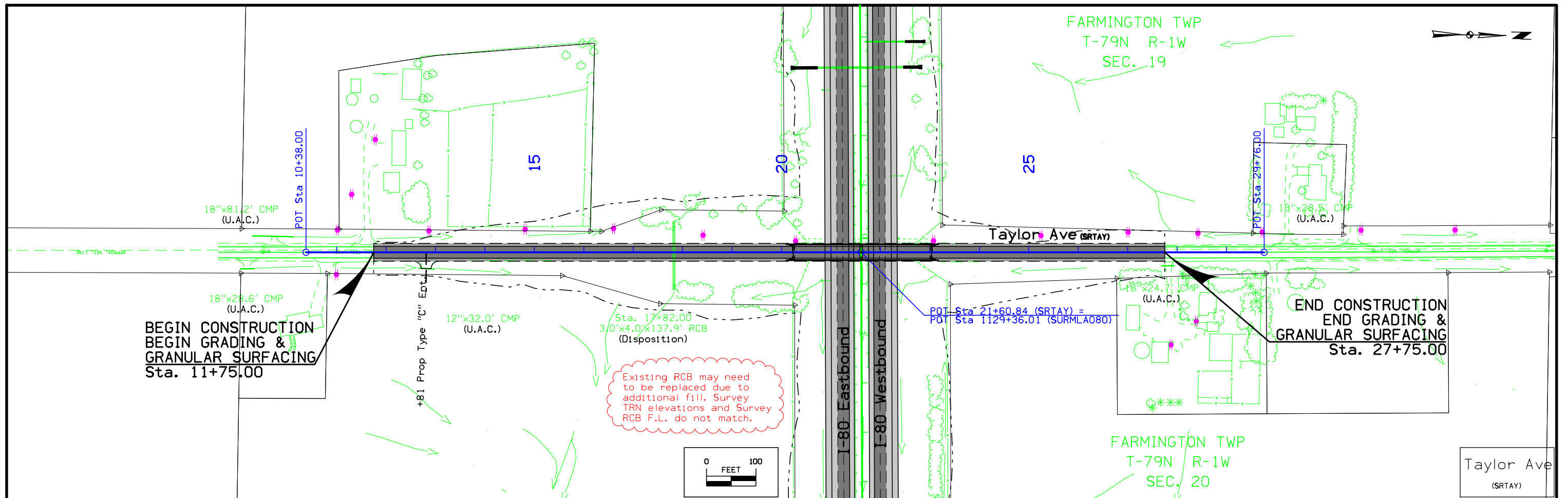


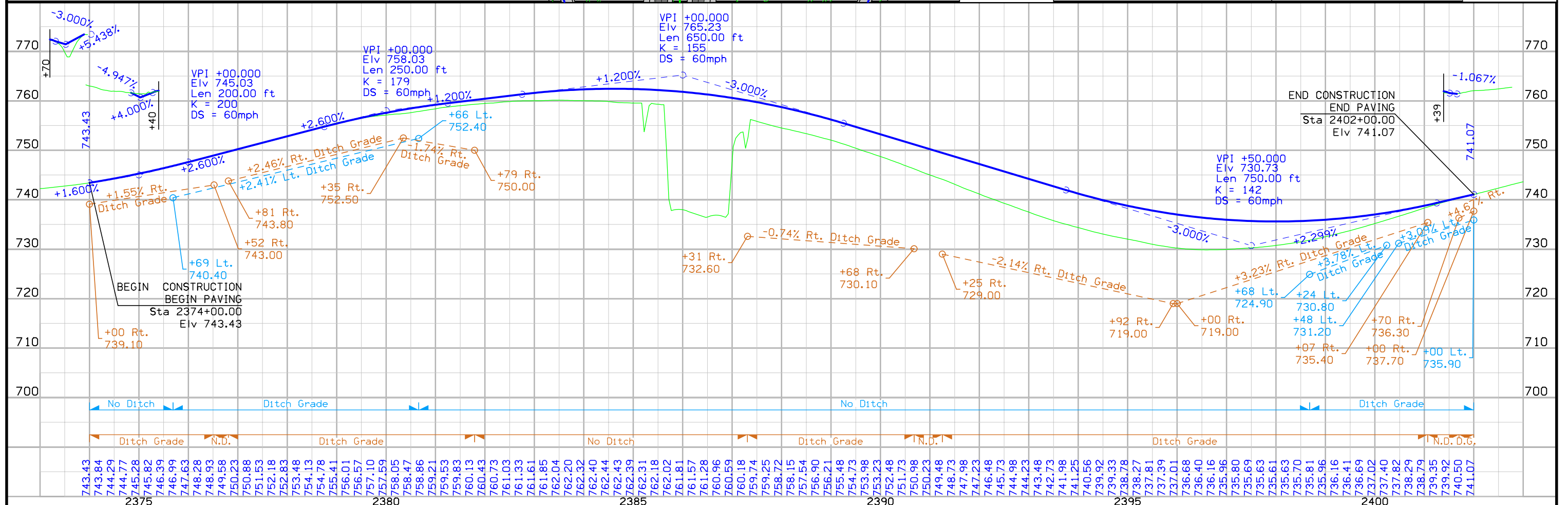
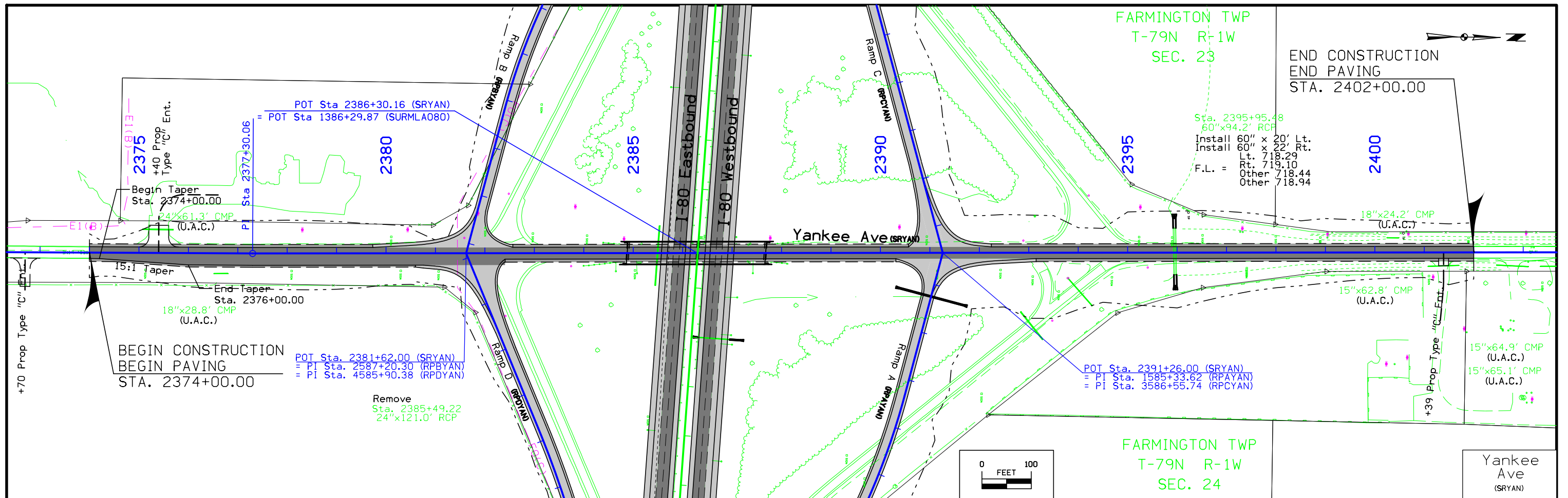












FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	E.15
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	------

Survey Information

Cedar County
IM-080-7(132)266--13-16
E of Cedar River to approx
0.5 mi W of Co Rd Y26
PIN 04-16-080-020

General Information

Measurement units for this survey are US survey feet. This survey is for the preliminary design for the section of I-80 from Cedar River to the Cedar/Scott County line in Cedar County, Iowa. Project datum and control information is provided by Design Survey Office. This project is a Partial DTM with Photo control. This survey request was for the I-80 corridor only. Project horizontal datum is NAD83(2011), Iowa RCS Zone 10 (Cedar Rapids).

Vertical Control

Vertical datum for this survey is relative to NAVD88 (computed using Geoid12B for the derived orthometric elevations listed). This survey consisted of observing 13 new FENO 1-meter rod monuments using minimum 2hr initial static observations along with data from 5 Iowa RTN CORS sites: Coralville (IACI), Muscatine (IAMU), Maquoketa (IAMQ), Davenport (IADA) and Tipton (IATI).

Additionally, 5 local existing county GPS monuments with published NAVD88 elevations were observed and used that are located in proximity to the I-80 corridor area: Scott County GPS 2005-624 along with Cedar County GPS points 2007-28, 2007-35, 2007-42 and 2007-48.

Scott County GPS Pt 2005-624 has a published Elv of: 726.41 usft
Survey Elv = 726.4 usft

Cedar County GPS Pt 2007-28 has a published Elv of 718.04 usft
Survey Elv = 718.03 usft

Cedar County GPS Pt 2007-35 has a published Elv of 737.79 usft
Survey Elv = 737.80 usft

Cedar County GPS Pt 2007-42 has a published Elv of 731.74 usft
Survey Elv = 731.74 usft

Cedar County GPS Pt 2007-48 has a published Elv of 748.57 usft
Survey Elv = 748.57 usft

The final vertical adjustment results show standard deviations were less than 0.04 ft. at 95% confidence level (2 sigma) for the new FENO monuments.

Horizontal Control

The project coordinate system for this survey is NAD83(2011) Iowa RCS Zone 10 (Cedar Rapids) us survey feet. This survey control is relative to IARTN reference stations. IARTN Reference Station coordinates are relative to the National Reference Station network datum: NAD83 (2011) for Epoch 2010.00. Coordinates were determined by averaging a minimum of two IARTN observations of 120 minutes minimum session length for the first observation, and 120 minutes minimum for the second observation with appropriate time spans between each session. The horizontal standard deviation of these adjusted observations was less than 0.02 ft. at 95% confidence level (2 sigma).

Alignment Information

The horizontal alignment for this survey is a retrace of As-built Plans No. IR-80-7(57)256--12-16. Survey stationing was equated to the plan PI at STA 770+79.75 and run back and ahead with two station equations throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PI STA 852+32.6 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 852+32.91

PI STA 901+28.40 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 901+25.46

PI STA 964+80.8 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 964+82.07

PI STA 1056+26.06 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 1056+23.36

PI STA 1097+36.09 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 1097+35.96

Equation
PC STA 1155+72.21 (Back) =
PC STA 1200+00.00 (Ahead)

PI STA 1204+62.50 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 1204+62.54

PI STA 1296+83.1 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 1296+83.17

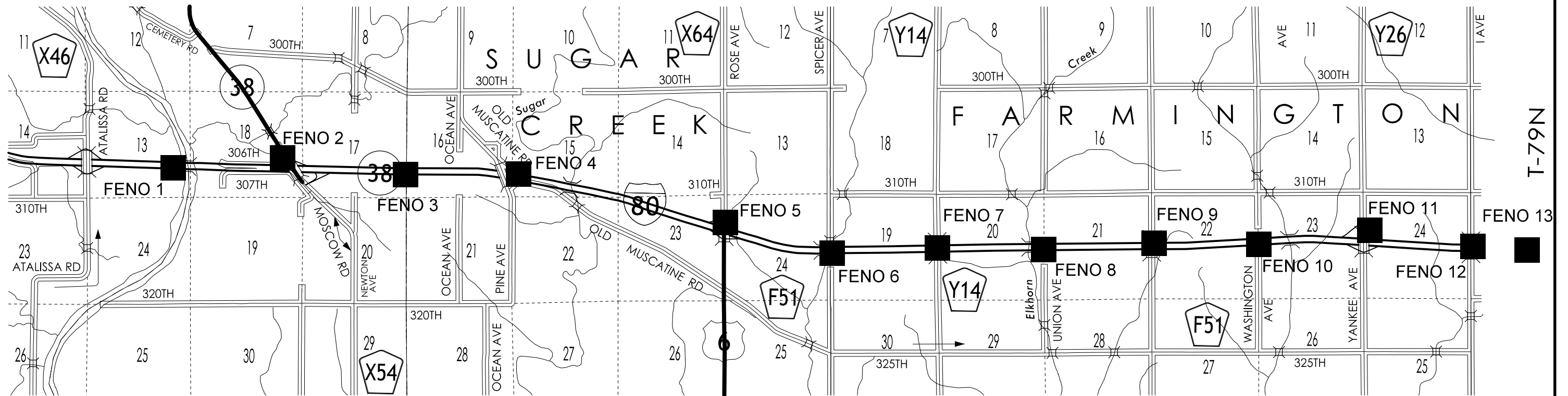
PI STA 1359+99.7 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 1360+02.29

PI STA 1432+18.5 As-built Plans Project No. IR-80-7(57)256--12-16
Survey PI STA 1432+16.38

Equation
STA 1439+81.54 (Back) =
STA 0+00.00 (Ahead)

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points
 Primary control is for use with RTK base stations and for RTN validation.
 Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

1a. Regional Coordinate System Zone 10

Coordinate listing from next sheet will be used with 1aRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 10

Point Name	Northing	Easting	Elevation	Feature
FENO1	7931903.988	20645032.90	660.792	FENO
FENO2	7932401.155	20650487.31	675.723	FENO
FENO3	7931576.605	20656608.15	750.540	FENO
FENO4	7931615.375	20662241.43	745.228	FENO
FENO5	7929177.084	20672559.46	755.379	FENO
FENO6	7927658.057	20677873.71	707.123	FENO
FENO7	7928042.512	20683236.53	764.044	FENO
FENO8	7927833.998	20688433.39	696.149	FENO
FENO9	7928143.386	20693929.25	723.017	FENO
FENO10	7928103.960	20699161.29	736.667	FENO
FENO11	7928788.784	20704684.46	735.398	FENO
FENO12	7927995.048	20709822.03	721.353	FENO
FENO13	7927804.629	20712523.29	702.864	FENO

STAGING NOTES

GENERAL NOTES:

For the purpose of this submittal, construction sequencing shall be split into phases and stages. Phases are defined as larger construction packages of the overall project and may span over more than one construction season. Stages are defined as stages of construction within each phase and are derived from either specific traffic configuration requirements or specific locations of construction. Phase and Stage definitions and sequencing are subject to further refinement as design, construction packaging, and spending plans evolve.

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

Traffic access to the Rest Area and Welcome Center shall be maintained throughout the project.

PHASE 1

Summary:

- This phase is primarily intended for construction of the Sugar Creek Bridges, Old Muscatine Road and overpass, Taylor Avenue and overpass, Yankee Avenue interchange, interior shoulder and median work within the 50 ft median area, exterior shoulder within the wide median area, and temporary pavement at horizontal transition reconstruction areas.
- Stage 3 may occur concurrently with stages 1 and 2.

Stage 1

Traffic:

- Stage 1A: I-80 traffic will operate on existing mainline pavement within 50 ft median area. Existing two lanes will be shifted towards outside shoulder and temporary barrier shall be installed along inside lane.
- Stage 1B: I-80 traffic will operate on existing mainline pavement within 50 ft median area. Close inside lane for construction of pavement for proposed shoulder. Lane closure shall occur during night hours.
- I-80 traffic will operate on existing mainline pavement within Sugar Creek Bridge reconstruction area. Existing two lanes will be shifted towards outside shoulder and temporary barrier shall be installed along inside lane.
- Maintain existing traffic in all other areas of project.

Construction:

- Paving of interior shoulder and median grading within 50 ft median area along I-80.
- Paving and bridge construction of interior lanes within Sugar Creek Bridge reconstruction area.
- Work associated with and necessary for said paving construction. This will include, but is not limited to, grading, paving, striping, barrier, clearing and grubbing, and temporary erosion control.

Stage 2

Traffic:

- I-80 traffic will operate on existing mainline pavement within Cedar River transition area. Existing two lanes traveling EB will maintain existing route where possible and temporary barrier shall be installed along outside shoulder. Existing two lanes traveling WB and existing two lanes traveling EB, where it is not possible to maintain existing route, will be shifted towards inside shoulder and temporary barrier shall be installed along outside lane.
- I-80 traffic will operate on existing mainline pavement within widening transition areas. Existing two lanes will be shifted towards inside shoulder and temporary barrier shall be installed along outside lane.
- Stage 2A: I-80 traffic will operate on existing mainline pavement within wide median area. Existing two lanes will be shifted towards inside shoulder and temporary barrier shall be installed along outside lane.
- Stage 2B: I-80 traffic will operate on existing mainline pavement within wide median area. Close outside lane for construction of pavement for proposed shoulder. Lane closure shall occur during night hours.
- Open I-80 traffic to previously constructed pavement within Sugar Creek Bridge reconstruction area. Temporary barrier shall be installed along outside lane.
- Maintain existing traffic in all other areas of project.

Construction:

- Paving of exterior shoulder within wide median area along I-80.
- Paving temporary pavement at widening transition reconstruction area.
- Paving temporary pavement at Cedar River transition reconstruction area.
- Paving and bridge construction of exterior lanes within Sugar Creek Bridge reconstruction area.
- Reconstruction of Old Muscatine Road.
- Paving ramps and auxiliary lanes at the Welcome Center and Rest area.
- Work associated with and necessary for said paving construction. This will include, but is not limited to, grading, paving, striping, signing, barrier, clearing and grubbing, and temporary erosion control.

Stage 3

Traffic:

- Apply "Pine Avenue Detour" and temporarily close Pine Avenue bridge and sideroad.
- Apply "Taylor Avenue Detour" and temporarily close Taylor Avenue bridge and sideroad.
- Apply "Yankee Avenue Detour" and temporarily close Yankee Avenue bridge and ramps.
- Maintain existing traffic in all other areas of project.

Construction:

- Construction and paving of Pine Avenue bridge and sideroad.
- Construction and paving of Taylor Avenue bridge and sideroad.
- Construction and paving of Yankee Avenue interchange.
- Work associated with and necessary for said paving construction. This will include, but is not limited to, grading, paving, striping, signing, barrier, clearing and grubbing, and temporary erosion control.

STAGING NOTES

PHASE 2

Summary:

- This phase is primarily intended for the exterior grading within the 50 ft median area and interior grading within the wide median area, as well as construction of 306th Street, 307th Street, Moscow Road interchange, Rose Avenue interchange, and Vermont Avenue overpass.
- Stage 3B cannot be started until the completion of Stage 3A construction.

Stage 1

Traffic:

- Open I-80 traffic to previously constructed interior pavement within 50 ft median area. I-80 traffic will shift 8 ft towards the median operating on existing and previously constructed pavement. Temporary barrier shall be installed along outside lane.
- Maintain existing traffic in all other areas of project.

Construction:

- Grading along exterior shoulder within 50 ft median area along I-80.
- Reconstruction of 306th Street.
- Reconstruction and paving of 307th Street.
- Work associated with and necessary for said grading construction. This will include, but is not limited to, grading, paving, striping, signing, barrier, clearing and grubbing, and temporary erosion control.

Stage 2

Traffic:

- Open I-80 traffic to previously constructed exterior pavement within wide median area. I-80 traffic will shift 10 ft towards the outside shoulder operating on existing and previously constructed pavement. Temporary barrier shall be installed along inside lane.
- Maintain existing traffic in all other areas of project.

Construction:

- Grading along interior shoulder and median area within wide median area along I-80.
- Work associated with and necessary for said grading construction. This will include, but is not limited to, grading, signing, barrier, clearing and grubbing, and temporary erosion control.

Stage 3A

Traffic:

- Apply "Rose Avenue Detour" and temporarily close Rose Avenue bridge, sideroad, and ramps.
- Apply "Vermont Avenue Detour" and temporarily close Vermont Avenue bridge and sideroad.
- Maintain traffic access on Moscow Road.
- Maintain existing traffic in all other areas of project.

Construction:

- Construction of Moscow Road Bridge.
- Construction and paving of Rose Avenue bridge, sideroad.
- Construction and paving of Vermont Avenue bridge, sideroad, and ramps.
- Work associated with and necessary for said paving construction. This will include, but is not limited to, grading, paving, striping, signing, barrier, clearing and grubbing, and temporary erosion control.

Stage 3B

Traffic:

- Open Rose Avenue traffic to previously constructed pavement.
- Open Vermont Avenue traffic to previously constructed pavement.
- Apply "Moscow Road Detour" and temporarily close Moscow Road sideroad and ramps.
- Maintain existing traffic in all other areas of project.

Construction:

- Paving along Moscow Road ramps and sideroad.
- Work associated with and necessary for said paving construction. This will include, but is not limited to, grading, paving, striping, signing, barrier, clearing and grubbing, and temporary erosion control.

STAGING NOTES

PHASE 3

Summary:

- This phase is primarily intended for the exterior paving within the 50 ft median area, interior paving within the wide median area, construction of the transition reconstruction areas, construction of the Truck Stop ramp and auxiliary lanes, and overlaying the entirety of the project.

Stage 1

Traffic:

- I-80 traffic will operate on existing and temporary mainline pavement within Cedar River transition area. Existing two lanes will be shifted and temporary barrier shall be installed along inside lane.
- I-80 traffic will operate on existing and temporary mainline pavement within widening transition areas. Existing two lanes will be shifted to 2 ft from outside edge of temporary pavement and temporary barrier shall be installed along outside lane.
- Maintain existing traffic in all other areas of project.

Construction:

- Paving interior widening within wide median area along I-80.
- Paving interior pavement along widening transition reconstruction areas.
- Paving interior pavement along Cedar River transition reconstruction area.
- Work associated with and necessary for said paving construction. This will include, but is not limited to, grading, paving, striping, signing, barrier, clearing and grubbing, and temporary erosion control.

Stage 2

Traffic:

- Open I-80 traffic to previously constructed pavement within Cedar River transition area. Existing traffic will be shifted towards inside shoulder and temporary barrier shall be installed along outside of previously constructed lane.
- Stage 2A: Open I-80 traffic to previously constructed pavement within widening transition reconstruction area. Existing traffic will be shifted to 1 ft from edge of inside lane and temporary barrier shall be installed along outside previously constructed lane.
- Stage 2B: Open I-80 traffic to previously constructed pavement within the widening transition reconstruction area. Existing traffic will be shifted to 2 ft from edge of outside shoulder and temporary barrier shall be installed along centerline of road.
- Maintain existing traffic in all other areas of project.

Construction:

- Paving exterior widening within 50 ft median area along I-80.
- Paving exterior pavement along widening transition reconstruction areas.
- Paving exterior pavement along Cedar River transition reconstruction area.
- Paving ramps and auxiliary lanes at the Truck Stop.
- Work associated with and necessary for said paving construction. This will include, but is not limited to, grading, paving, striping, signing, barrier, clearing and grubbing, and temporary erosion control.

Assume full closure of side under construction (no staging to keep operational)

Stage 3












Traffic:

- Single lane closures to occur during night hours.








Construction:











- Paving overlay throughout entirety of project; including existing pavement, previously constructed shoulders and widening, and reconstructed areas.

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS




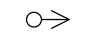



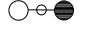












SHADING	Design Color No.		
Green, Light	(225)		Existing Pavement Shading
Gray, Light	(48)		Previously Constructed Pavement Shading
Gray, Med	(80)		Previously Constructed Granular Surface Shading
Blue, Light	(230)		Proposed Pavement Shading
Lavender	(9)		Temporary Pavement Shading
Red	(3)		Proposed Bridge Shading
Brown, Med	(237)		Proposed Grading
Green, Dashed	(10)		Existing Grading
Green, Solid	(237)		Previously Constructed Grading
Violet	(15)		Temporary Barrier Rail, Unpinned
Flush Orange	(228)		Temporary Barrier Rail, Pinned

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
Black w/Gray, Light Fill	(0,48)	 Previously Constructed Structure

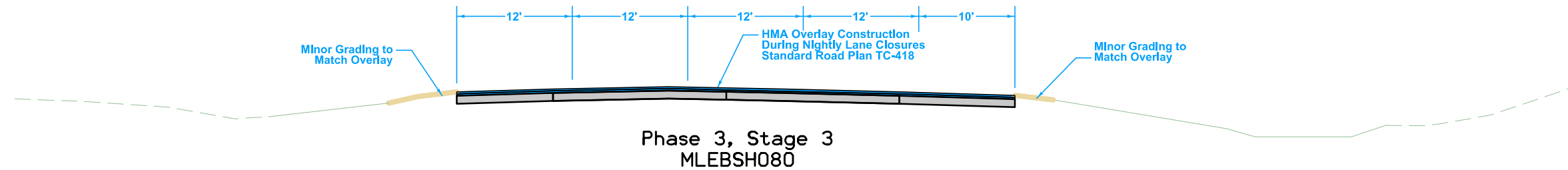
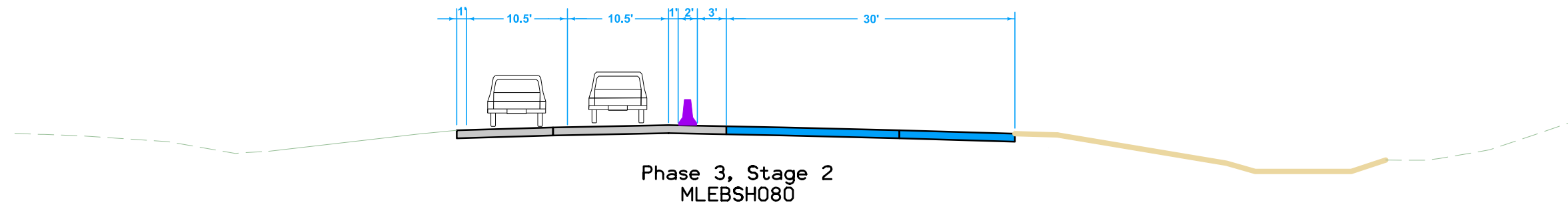
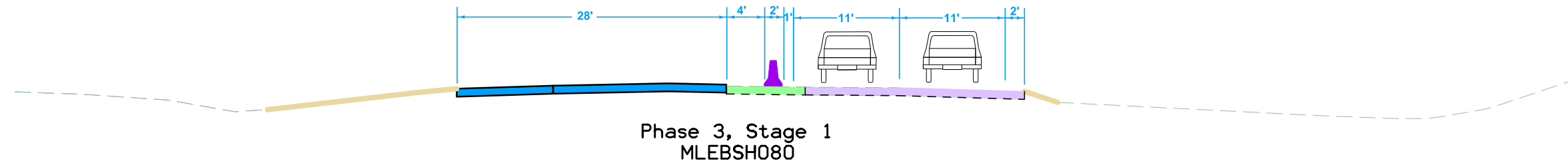
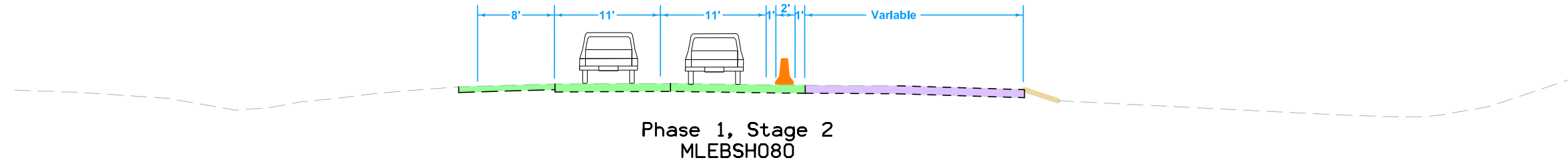
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

	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

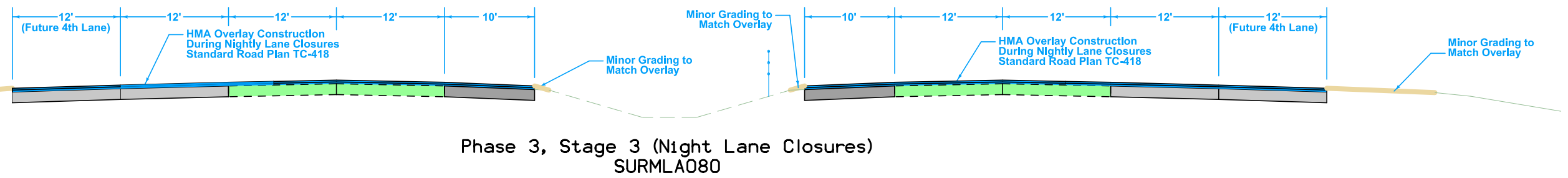
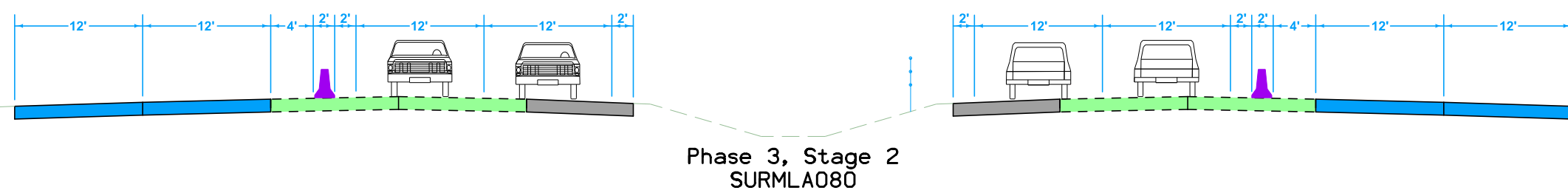
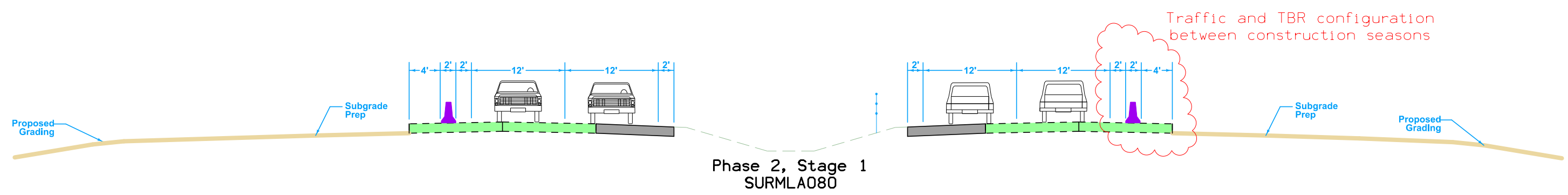
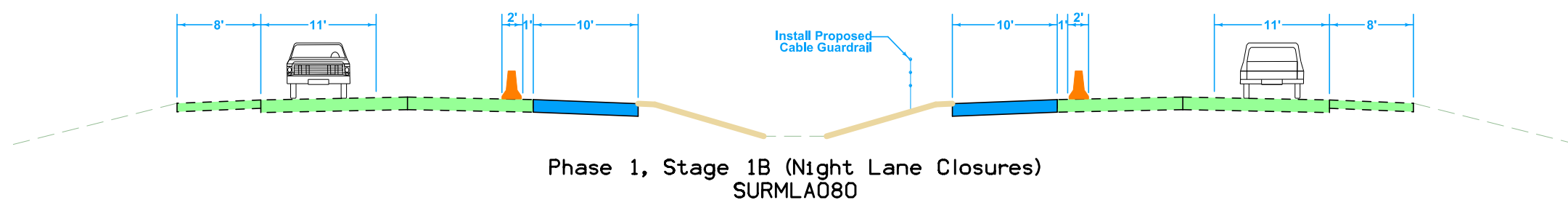
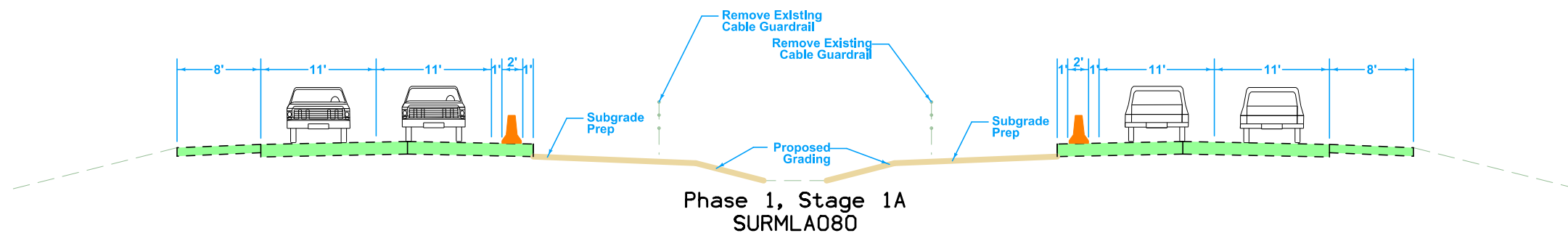
NOTE: Device spacing according to Standard Road Plans unless specifically dimensioned.

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

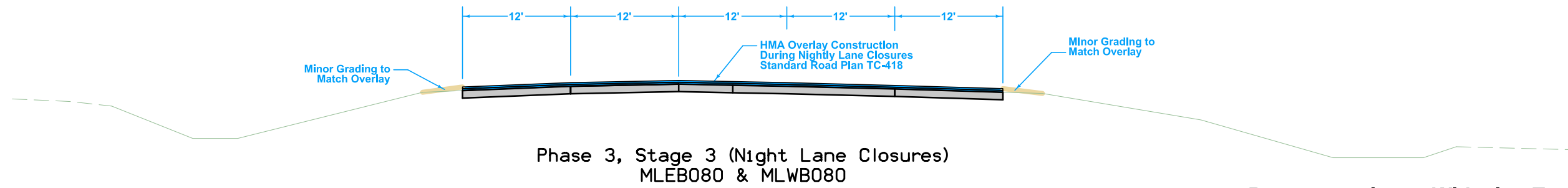
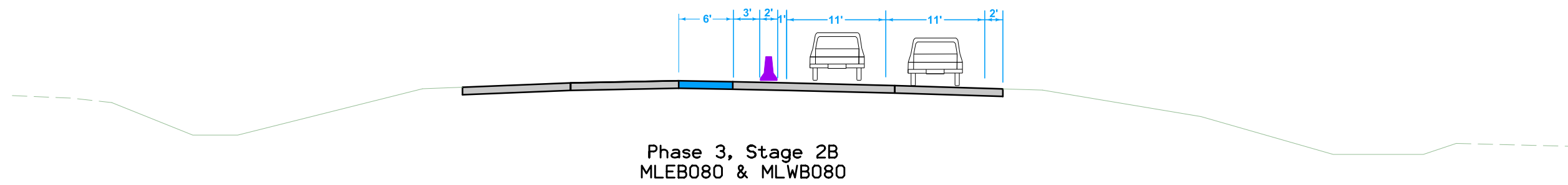
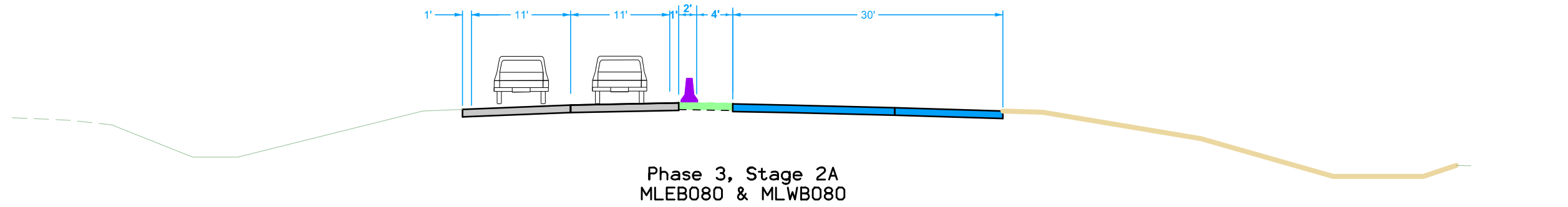
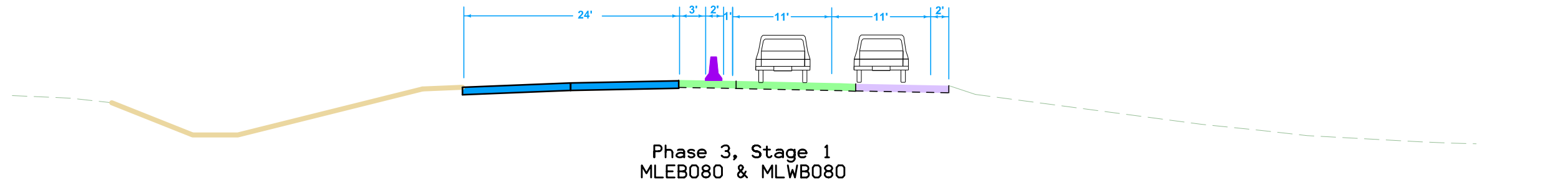
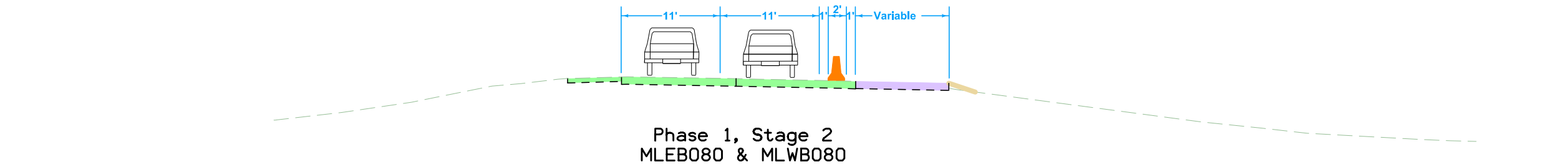
(COVERS SHEET SERIES J)



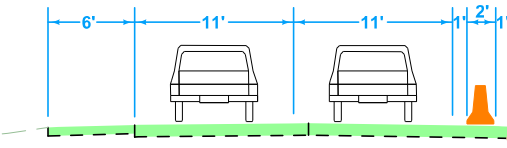
Reconstruction at Cedar River Transitions



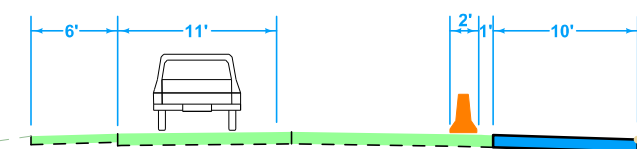
50 ft Median / Exterior Widening



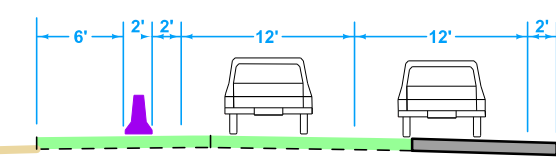
Reconstruction at Widening Transitions



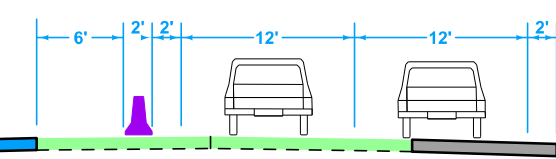
Phase 1, Stage 2A
MLEB080 & MLWB080



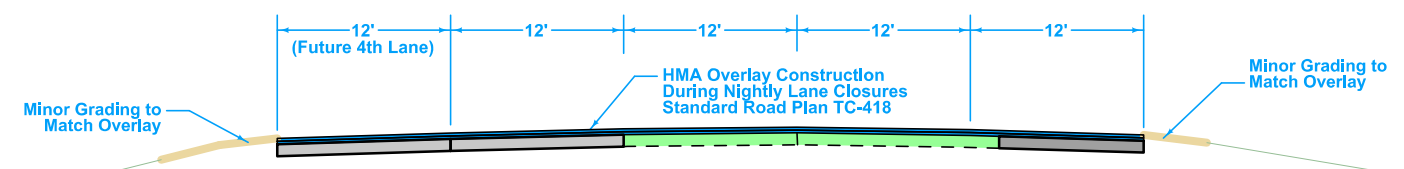
Phase 1, Stage 2B (Night Lane Closures)
MLEB080 & MLWB080



Phase 2, Stage 2
MLEB080 & MLWB080

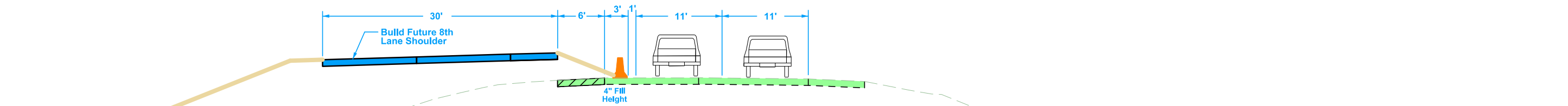


Phase 3, Stage 1
MLEB080 & MLWB080

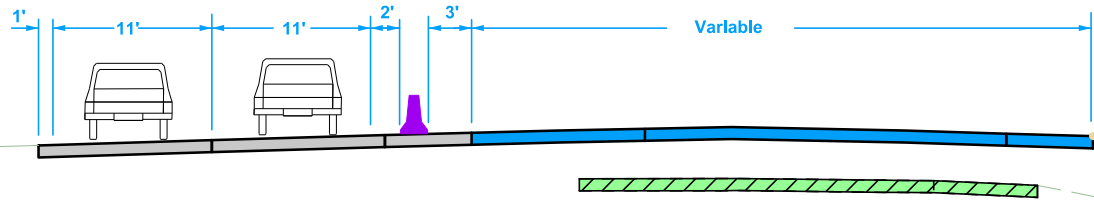


Phase 3, Stage 3 Night Lane Closures
MLEB080 & MLWB080

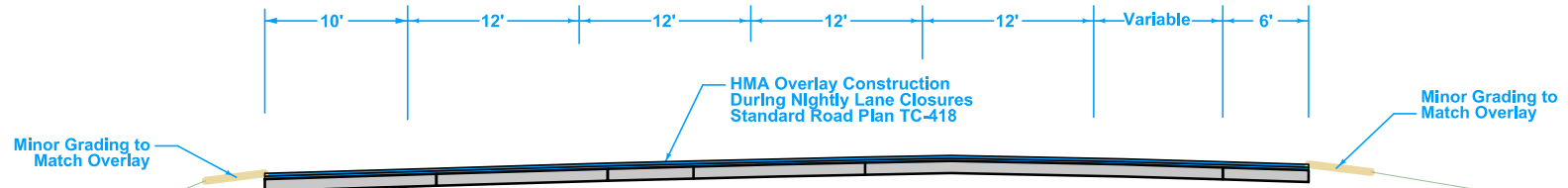
Wide Median / Interior Widening



Phase 1, Stage 1
MLEB080 & MLWB080

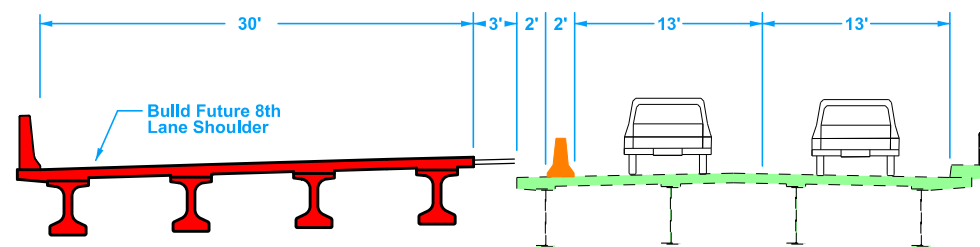


Phase 1, Stage 2
MLEB080 & MLWB080

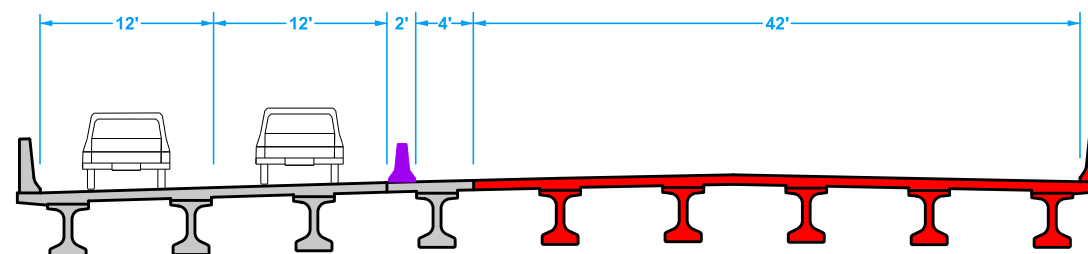


Phase 3, Stage 3
MLEB080 & MLWB080

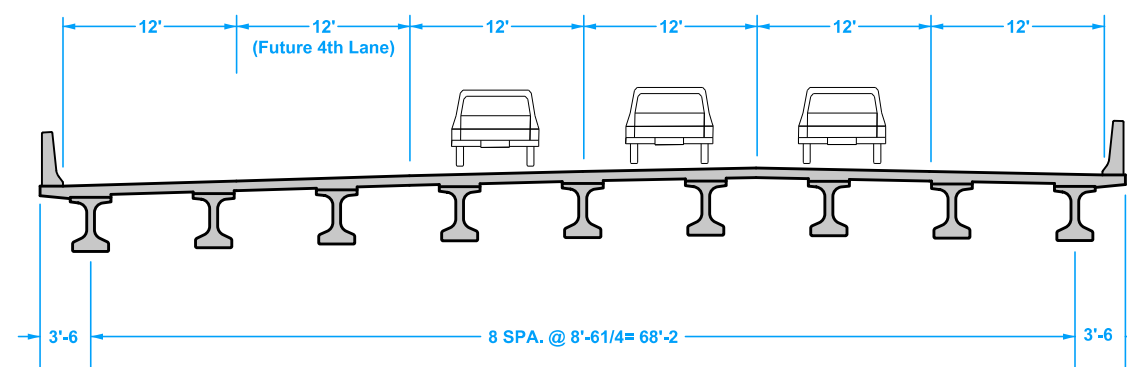
Sugar Creek Reconstruction



Phase 1, Stage 1
MLEB080 & MLWB080
(EB SHOWN)



Phase 1, Stage 2
MLEB080 & MLWB080
(EB SHOWN)



Phase 1 Final
MLEB080 & MLWB080
(EB SHOWN)

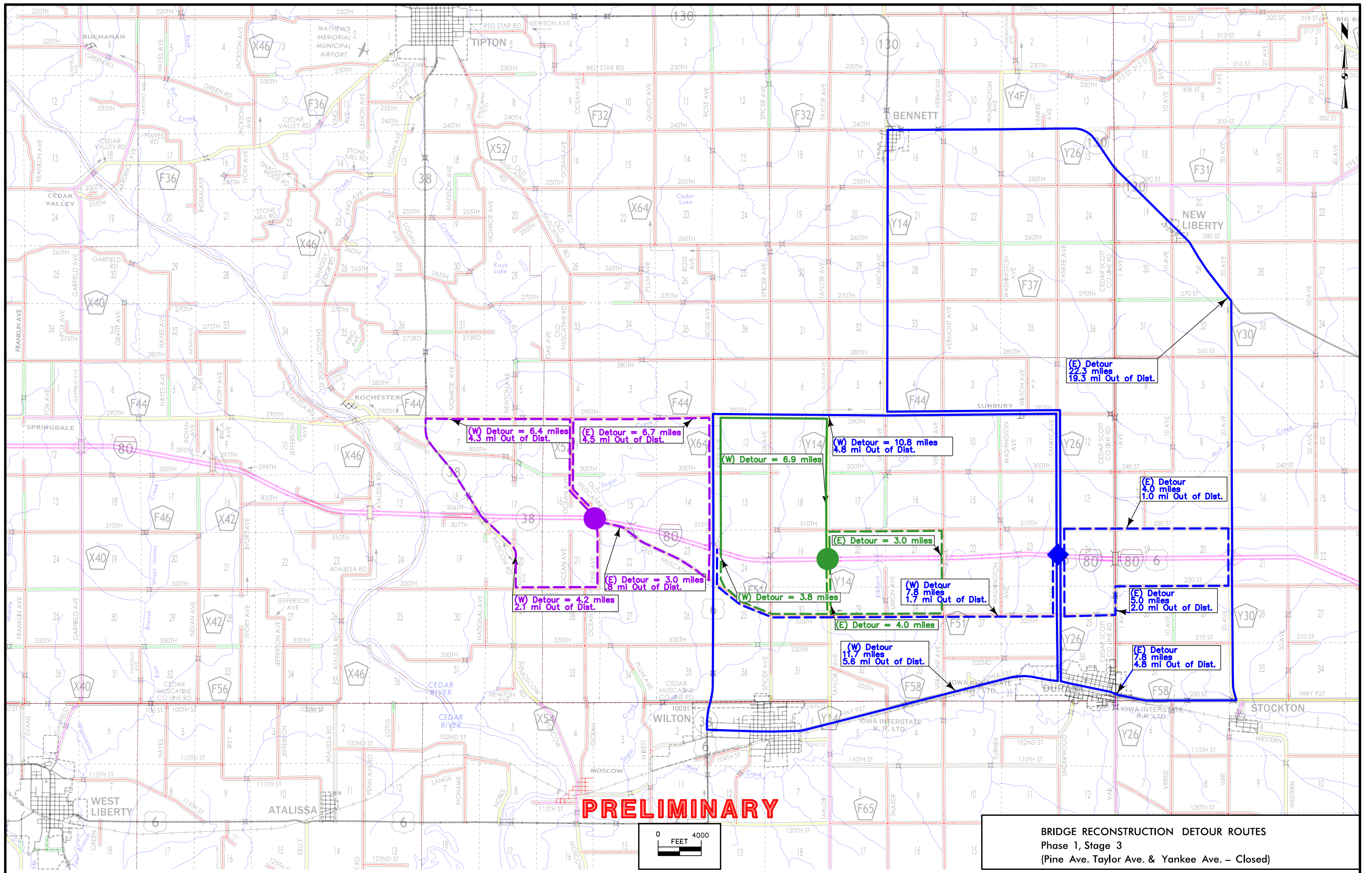
Sugar Creek Bridge Reconstruction

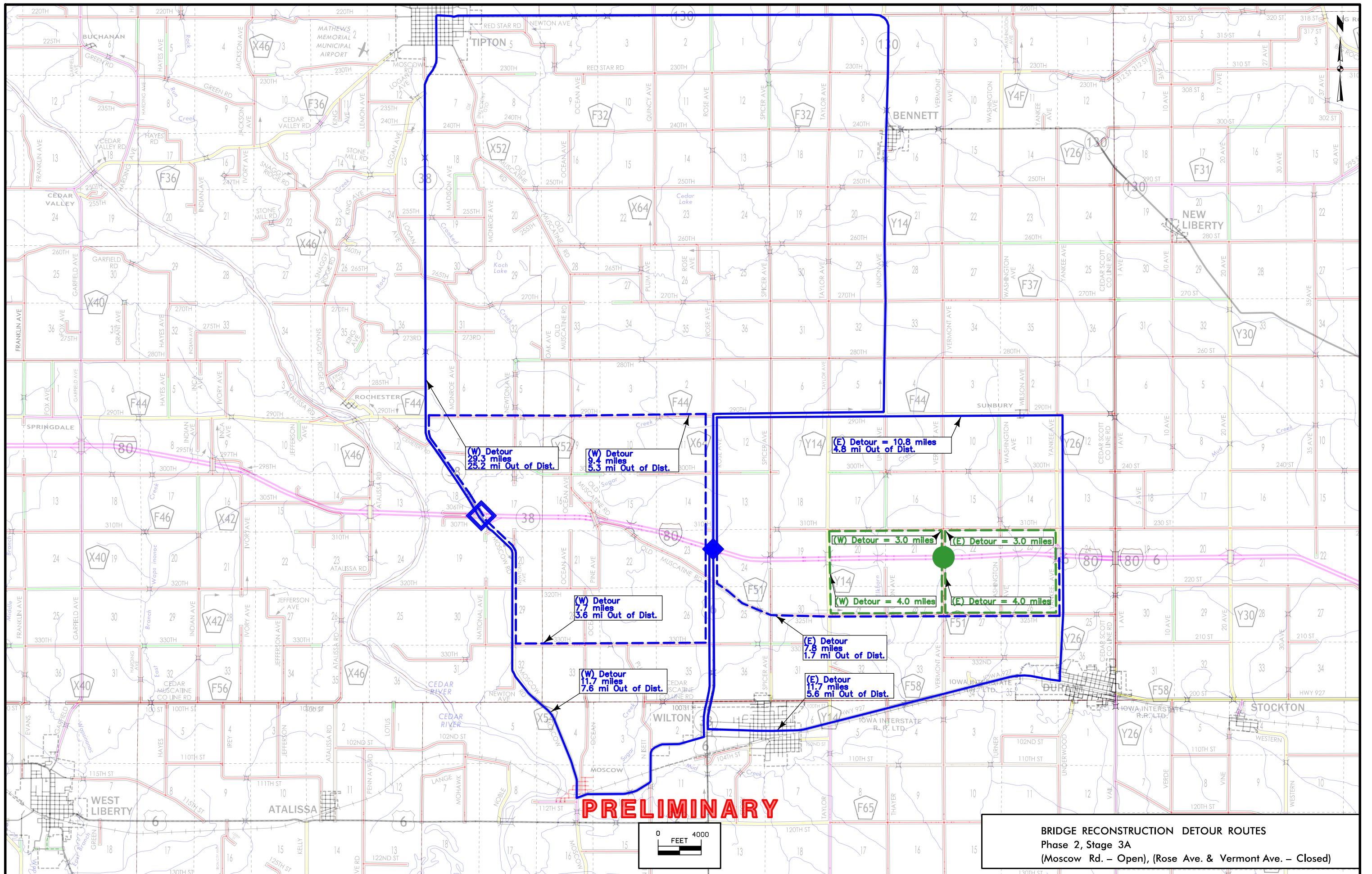
LEGEND

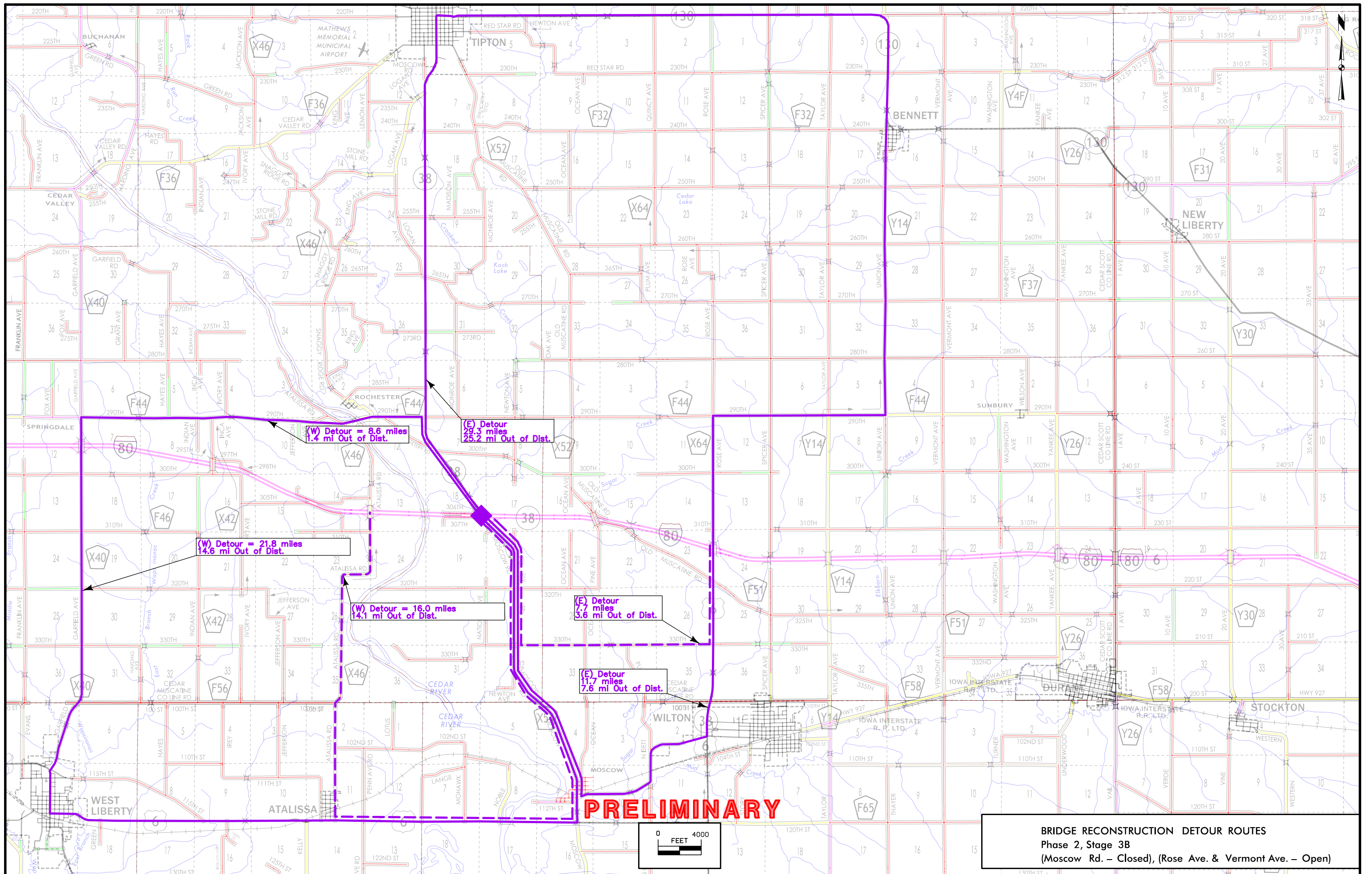
INTERSTATE HIGHWAY	
PRIMARY HIGHWAY-DIVIDED	
PRIMARY HIGHWAY	
PORTLAND CEMENT CONCRETE ROAD	
ASPHALT ROAD	
BITUMINOUS ROAD	
GRAVEL ROAD	
EARTHEN ROAD	
CITY STREET MAJOR	
CITY STREET MINOR	
INTERSTATE HIGHWAY	
UNITED STATES HIGHWAY	
STATE HIGHWAY	
COUNTY HIGHWAY	
RAILROAD	
AIRPORT	
HYDROLOGY	
BRIDGE	
STATE BOUNDARY	
COUNTY BOUNDARY	
CORPORATE BOUNDARY	
TOWNSHIP LINE	
SECTION LINE	
ROAD NAMES	ABBHEY ROAD
UNINCORPORATED PLACE	ELWOOD

BRIDGE RECONSTRUCTION (MULTIPLE COLORS) INTERCHANGE (FULL CLOSURE)	
BRIDGE RECONSTRUCTION (MULTIPLE COLORS) INTERCHANGE (PARTIAL CLOSURE)	
BRIDGE RECONSTRUCTION (MULTIPLE COLORS) OVERPASS (FULL CLOSURE)	
PAVED DETOUR ROUTE (MULTIPLE COLORS)	
GRAVEL DETOUR ROUTE (MULTIPLE COLORS)	

BRIDGE RECONSTRUCTION DETOUR ROUTES Legend







BRIDGE RECONSTRUCTION DETOUR ROUTES
 Phase 2, Stage 3B
 (Moscow Rd. – Closed), (Rose Ave. & Vermont Ave. – Open)

ROCHESTER TWP
T-79N R-2W
SEC. 18

Curve Data
 $\Delta = 19^\circ 40' 16.06''$ (LT)
 $T = 346.74$
 $L = 686.65$
 $R = 2,000.00$
 $E = 29.83$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60$ mph

Ramp A Δ (RPAMOS)
 Curve Data
 $\Delta = 51^\circ 35' 44.68''$ (RT)
 $T = 314.19$
 $L = 585.34$
 $R = 650.00$
 $E = 71.95$
 $e = 5.80\%$
 $L = 140$
 $x = 48$
 $DS = 40$ mph

Ramp B Δ (RPBMS)
 Curve Data
 $\Delta = 55^\circ 38' 06.41''$ (LT)
 $T = 263.82$
 $L = 485.51$
 $R = 500.00$
 $E = 65.33$
 $e = 6.00\%$
 $L = 144$
 $x = 48$
 $DS = 40$ mph

Curve Data
 $\Delta = 28^\circ 35' 29.78''$ (RT)
 $T = 344.01$
 $L = 673.67$
 $R = 1,350.00$
 $E = 43.14$
 $e = 6.00\%$
 $L = 186$
 $x = 62$
 $DS = 60$ mph

PC Sta 3538+50.00 (RPCMOS)
 POT 788+50.00 73.00' LT (SURMLA080)

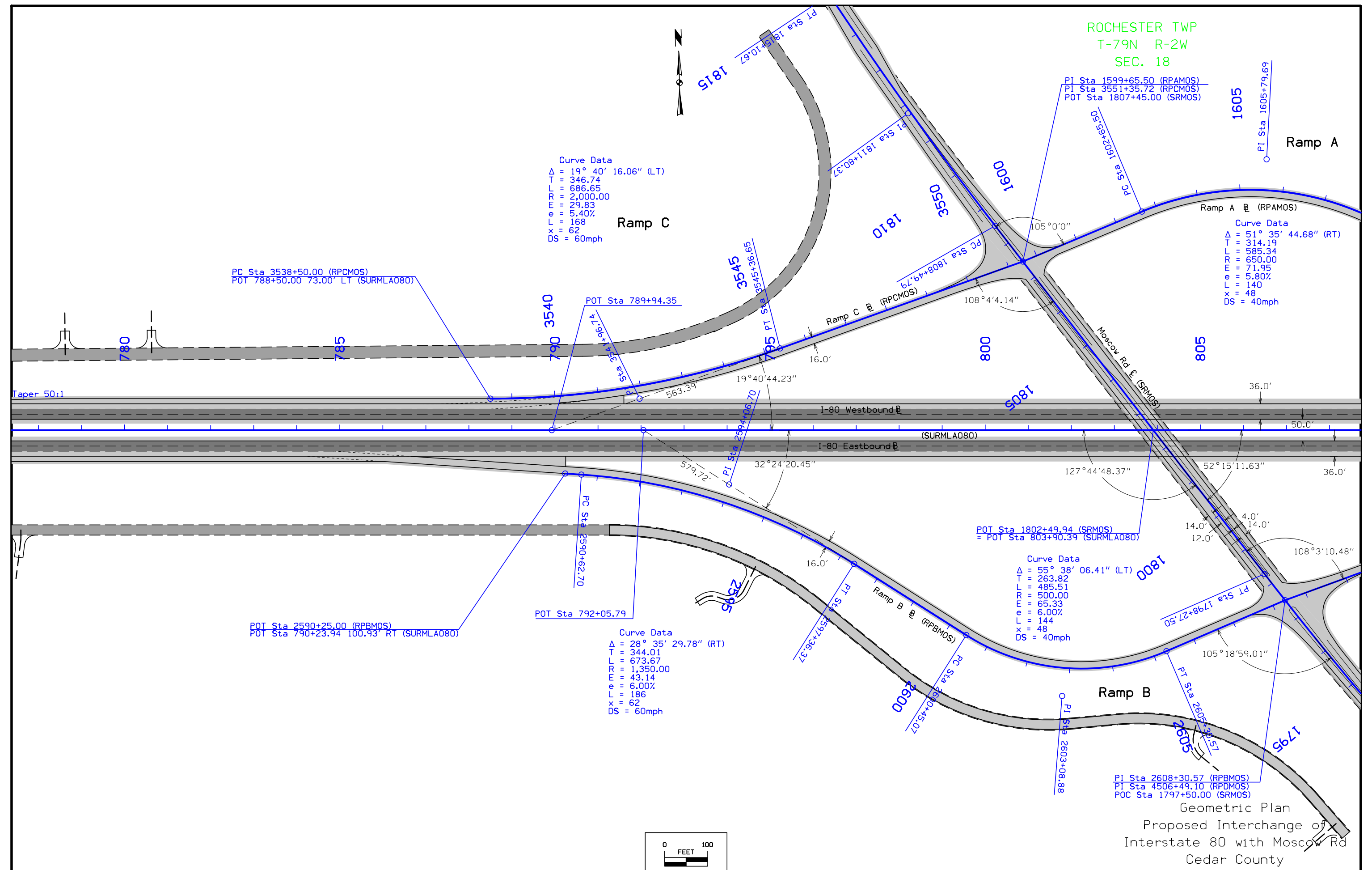
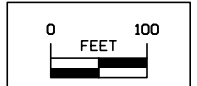
POT Sta 2590+25.00 (RPBMS)
 POT Sta 790+23.94 100.93' RT (SURMLA080)

PI Sta 1599+65.50 (RPAMOS)
 PI Sta 3551+35.72 (RPCMOS)
 POT Sta 1807+45.00 (SRMOS)

POT Sta 1802+49.94 (SRMOS)
 = POT Sta 803+90.39 (SURMLA080)

PI Sta 2608+30.57 (RPBMS)
 PI Sta 4506+49.10 (RPDMOS)
 POC Sta 1797+50.00 (SRMOS)

Geometric Plan
 Proposed Interchange of
 Interstate 80 with Moscow Rd
 Cedar County



ROCHESTER TWP
T-79N R-2W
SEC. 18

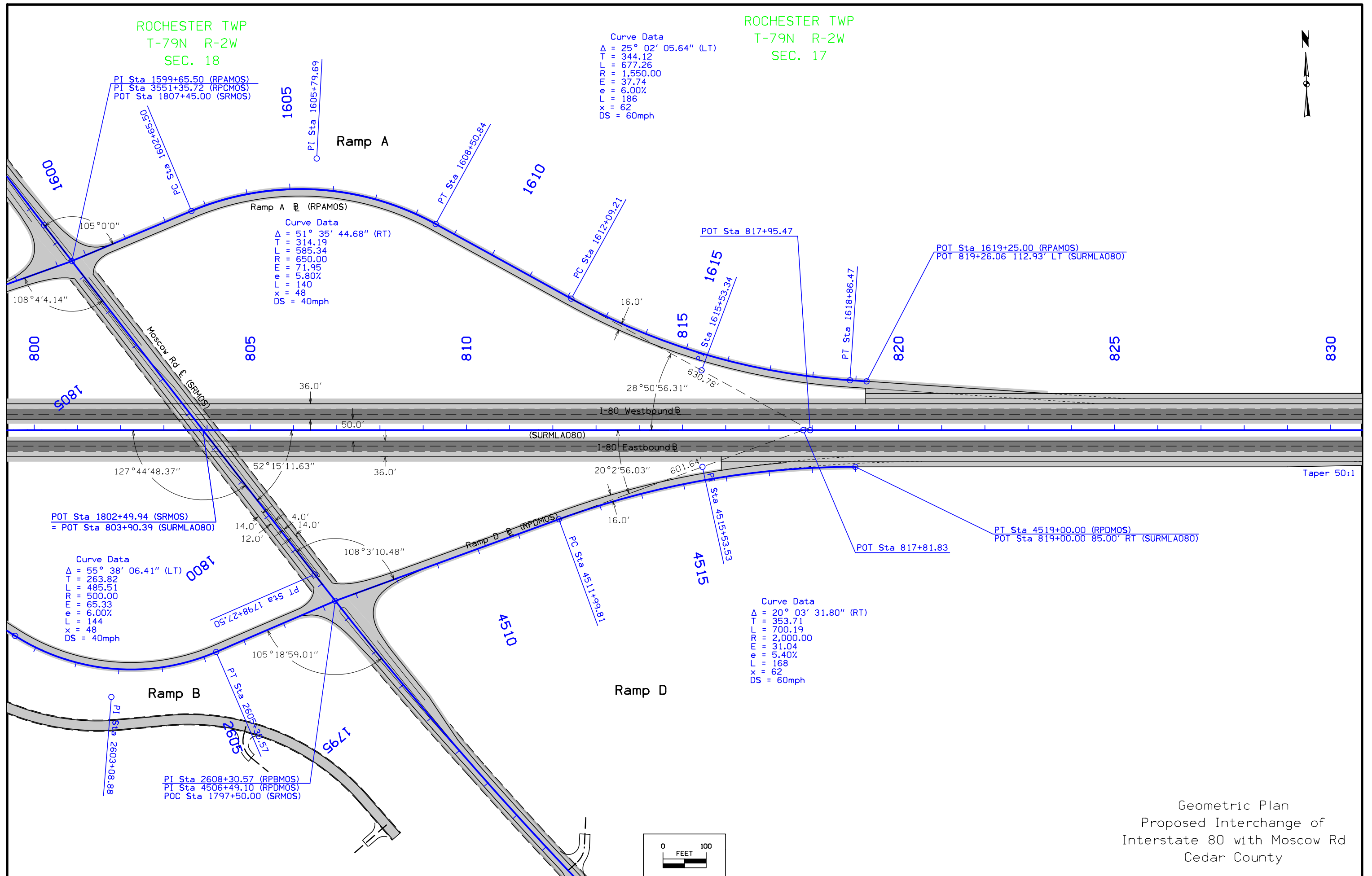
ROCHESTER TWP
T-79N R-2W
SEC. 17

Curve Data
 $\Delta = 25^\circ 02' 05.64''$ (LT)
 T = 344.12
 L = 677.26
 R = 1,550.00
 E = 37.74
 e = 6.00%
 L = 186
 x = 62
 DS = 60mph

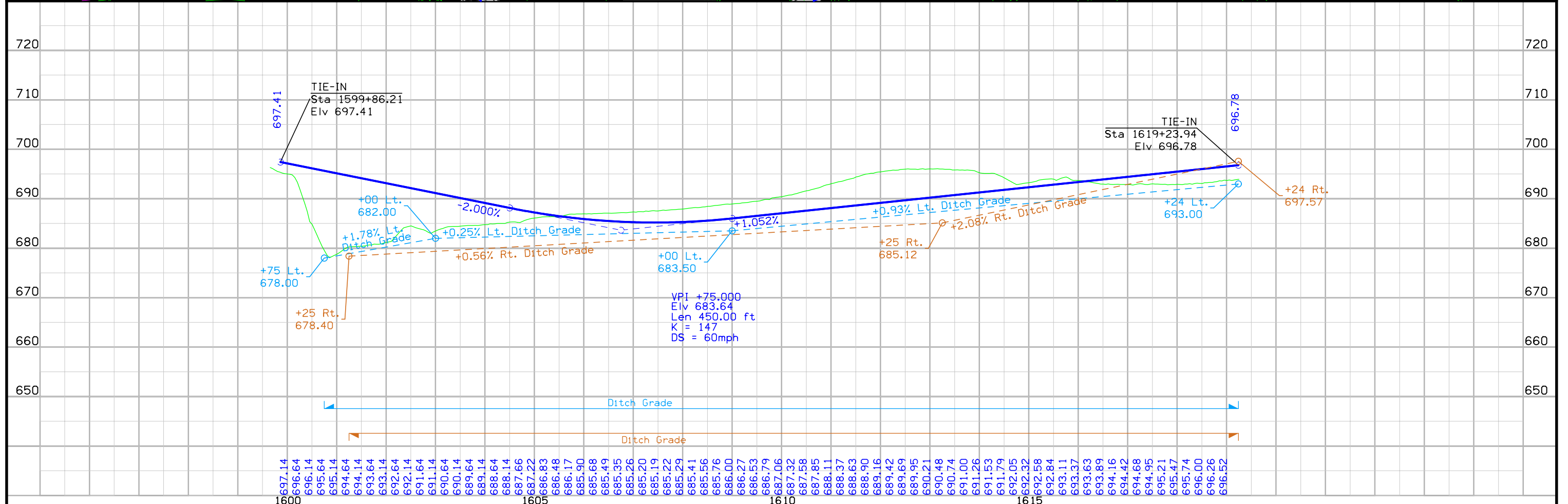
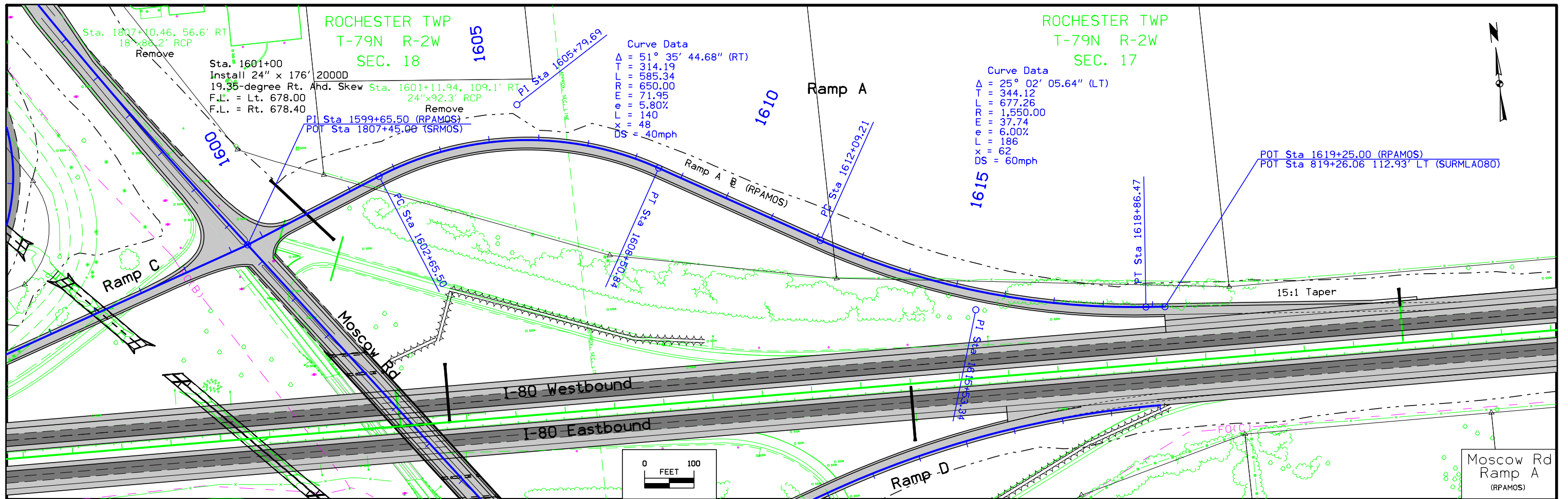
Curve Data
 $\Delta = 51^\circ 35' 44.68''$ (RT)
 T = 314.19
 L = 585.34
 R = 650.00
 E = 71.95
 e = 5.80%
 L = 140
 x = 48
 DS = 40mph

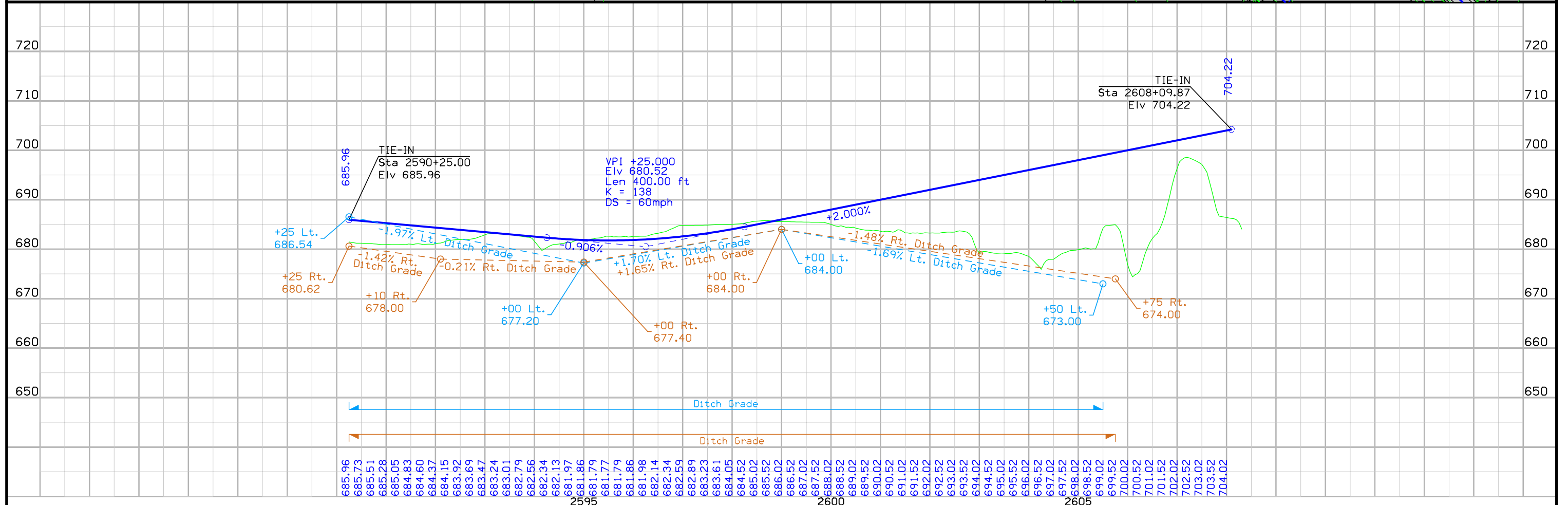
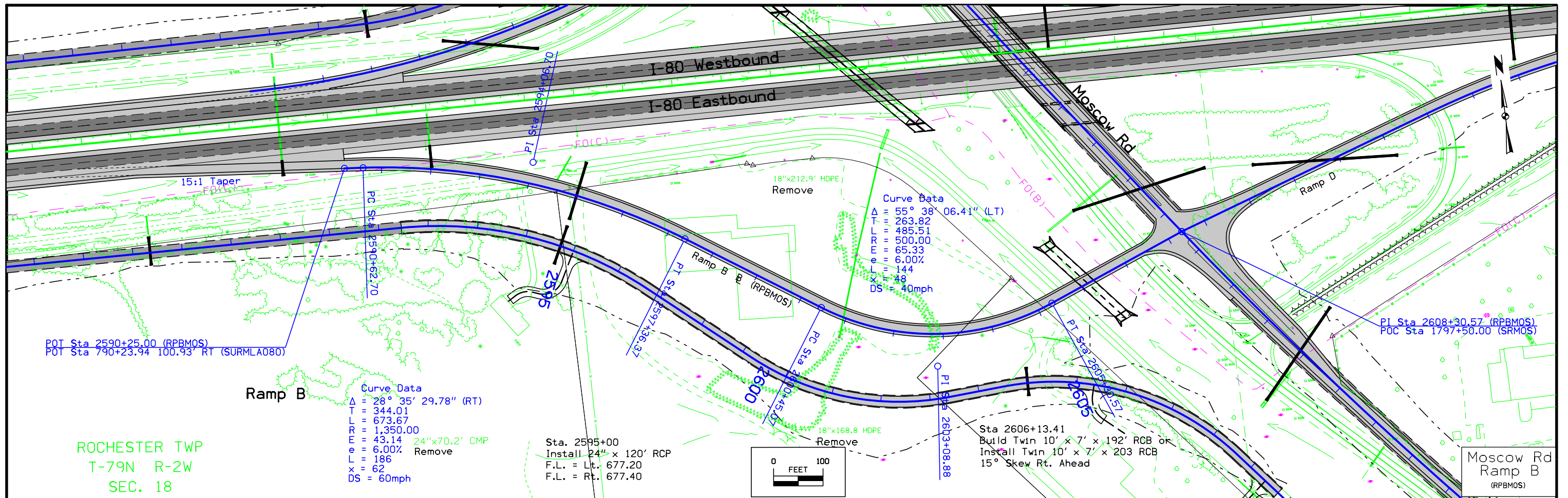
Curve Data
 $\Delta = 55^\circ 38' 06.41''$ (LT)
 T = 263.82
 L = 485.51
 R = 500.00
 E = 65.33
 e = 6.00%
 L = 144
 x = 48
 DS = 40mph

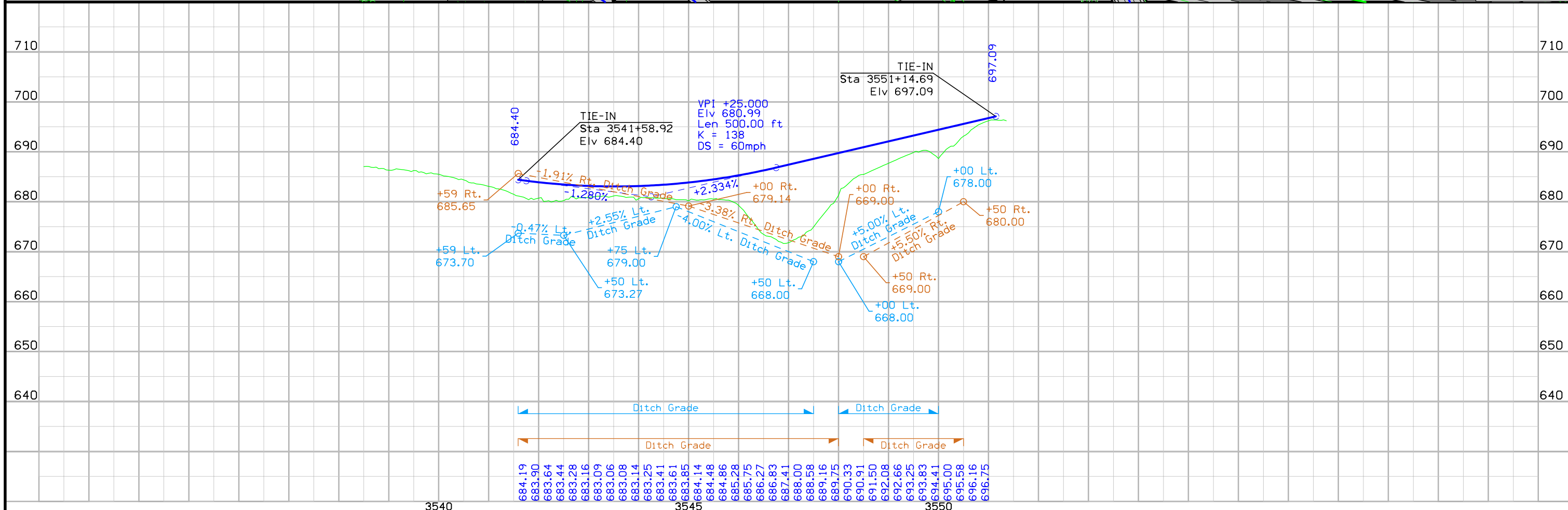
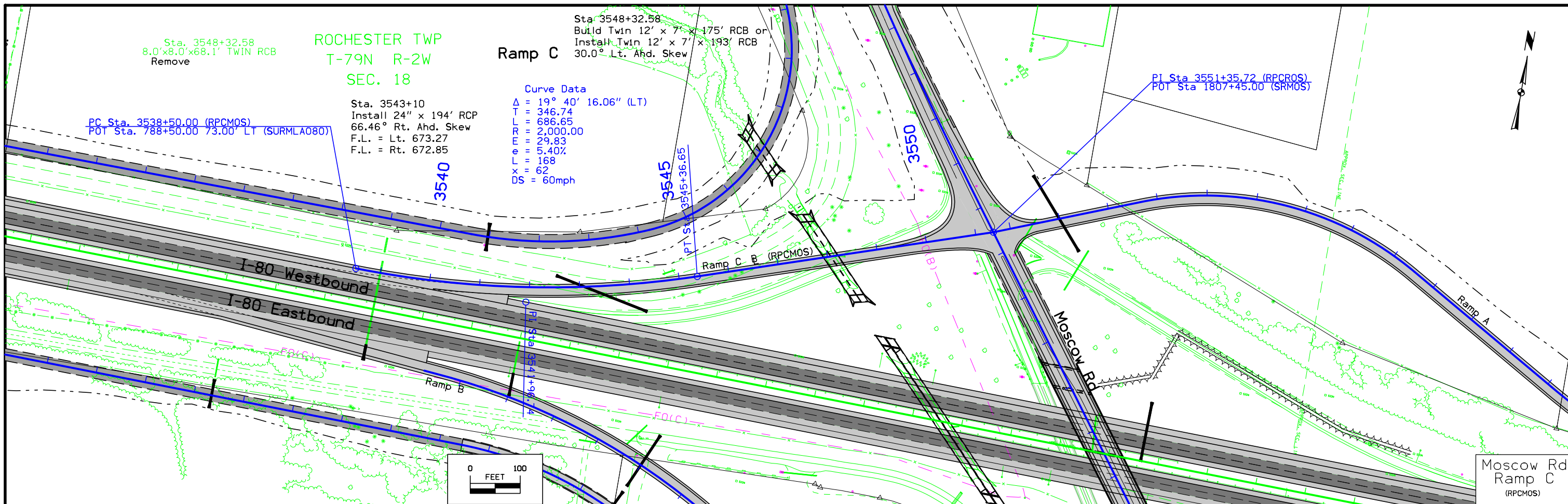
Curve Data
 $\Delta = 20^\circ 03' 31.80''$ (RT)
 T = 353.71
 L = 700.19
 R = 2,000.00
 E = 31.04
 e = 5.40%
 L = 168
 x = 62
 DS = 60mph

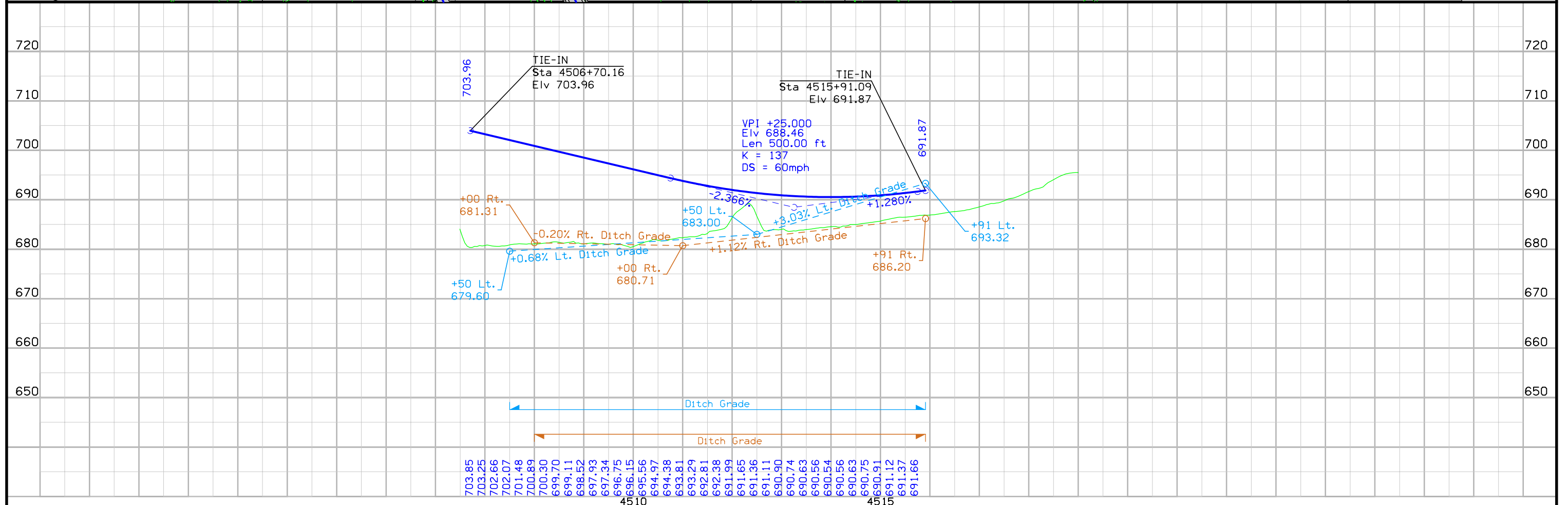
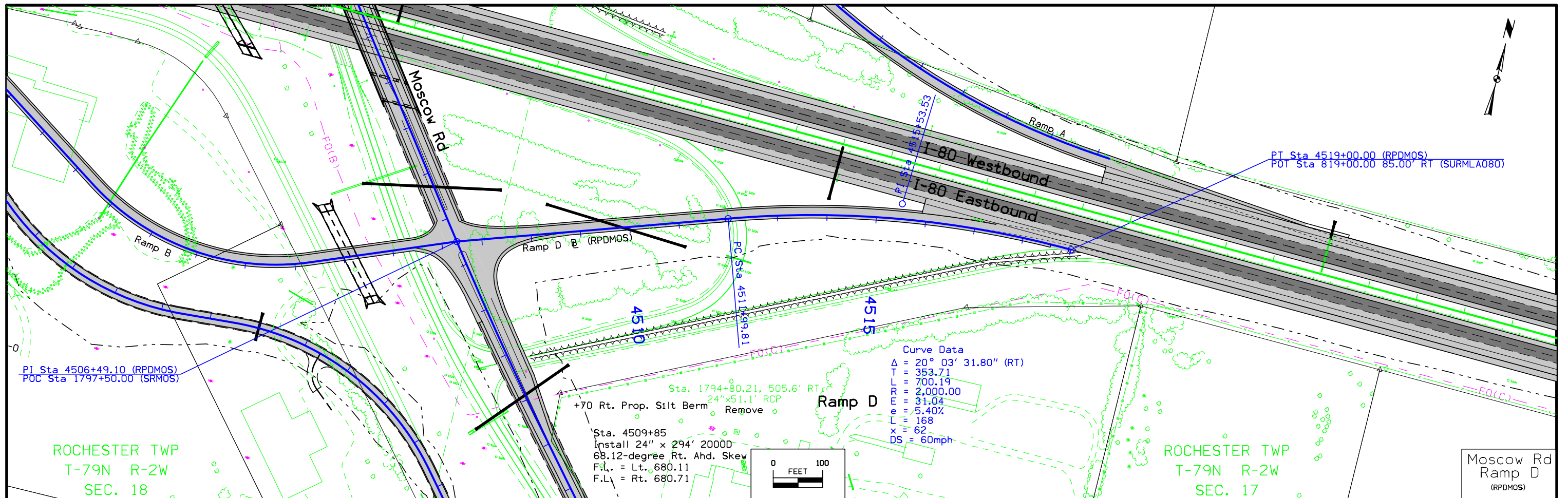


Geometric Plan
 Proposed Interchange of
 Interstate 80 with Moscow Rd
 Cedar County







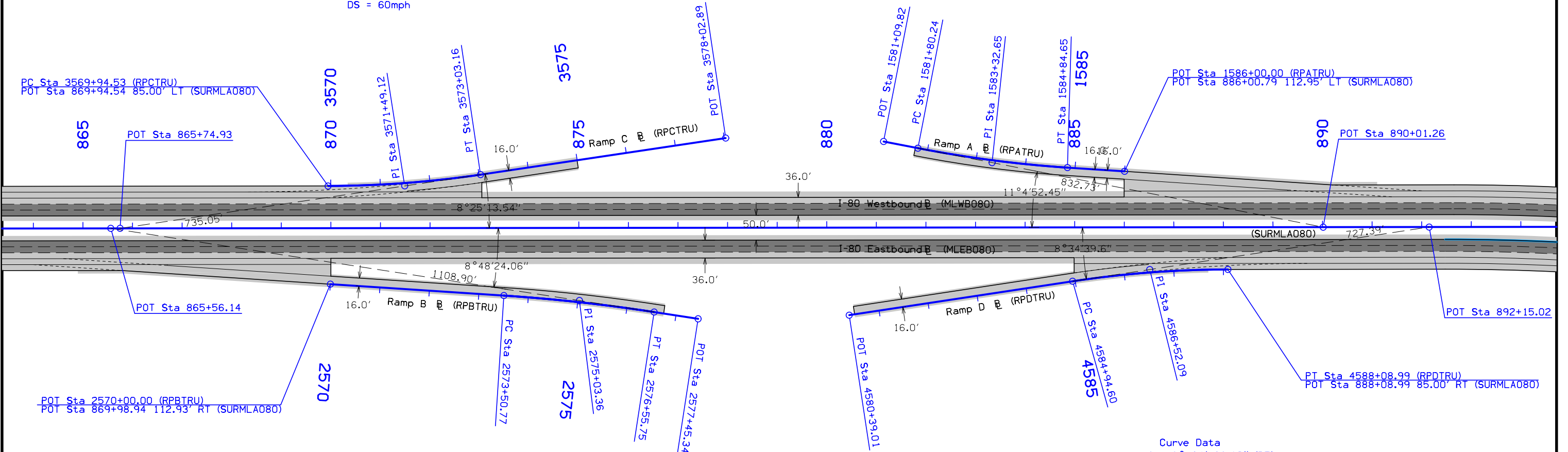


SUGAR CREEK TWP
T-79N R-2W
SEC. 16



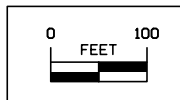
Curve Data
 $\Delta = 8^\circ 25' 14.18''$ (LT)
 $T = 154.59$
 $L = 308.63$
 $R = 2,100.00$
 $E = 5.68$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60\text{mph}$

Curve Data
 $\Delta = 7^\circ 16' 01.78''$ (LT)
 $T = 152.41$
 $L = 304.41$
 $R = 2,400.00$
 $E = 4.83$
 $e = 5.00\%$
 $L = 72$
 $x = 48$
 $DS = 40\text{mph}$



Curve Data
 $\Delta = 4^\circ 59' 33.39''$ (RT)
 $T = 152.59$
 $L = 304.98$
 $R = 3,500.00$
 $E = 3.32$
 $e = 4.00\%$
 $L = 84$
 $x = 56$
 $DS = 40\text{mph}$

Curve Data
 $\Delta = 8^\circ 34' 39.60''$ (RT)
 $T = 157.49$
 $L = 314.39$
 $R = 2,100.00$
 $E = 5.90$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60\text{mph}$



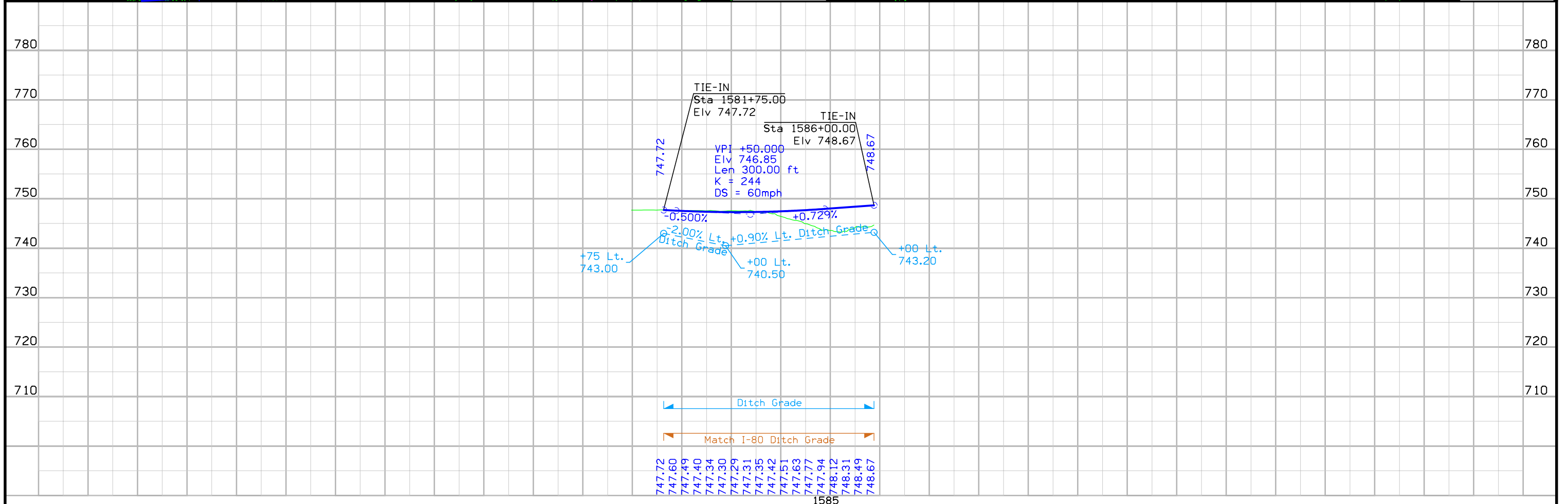
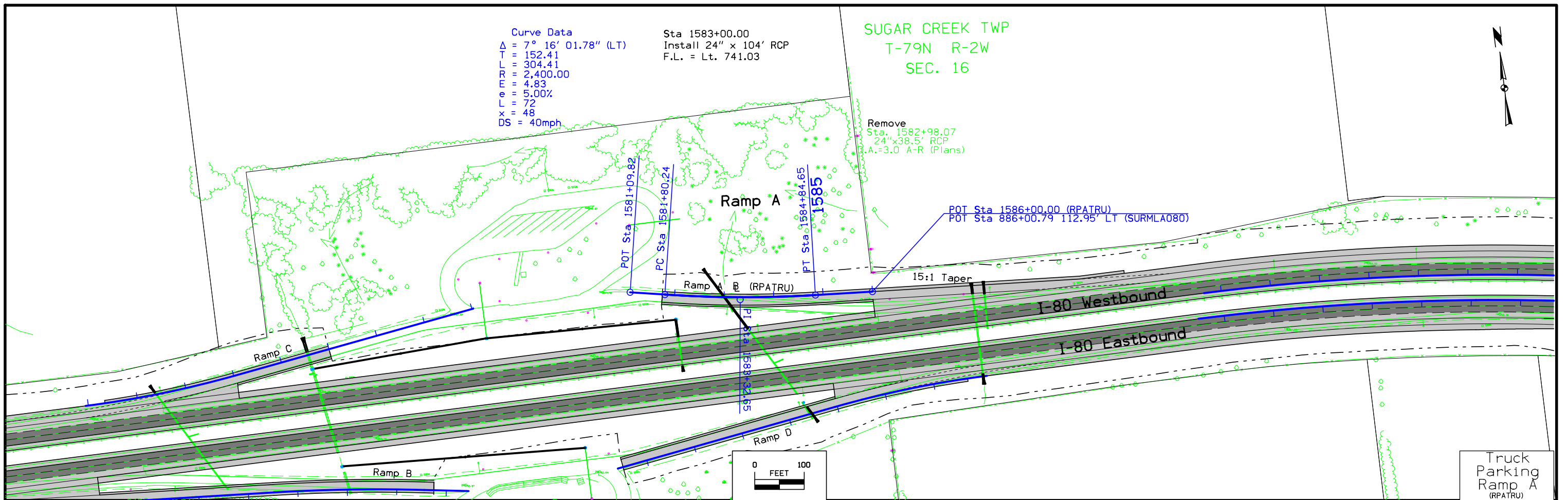
Geometric Plan
 Proposed Ramps of
 Interstate 80 at Truck Parking Area
 Cedar County

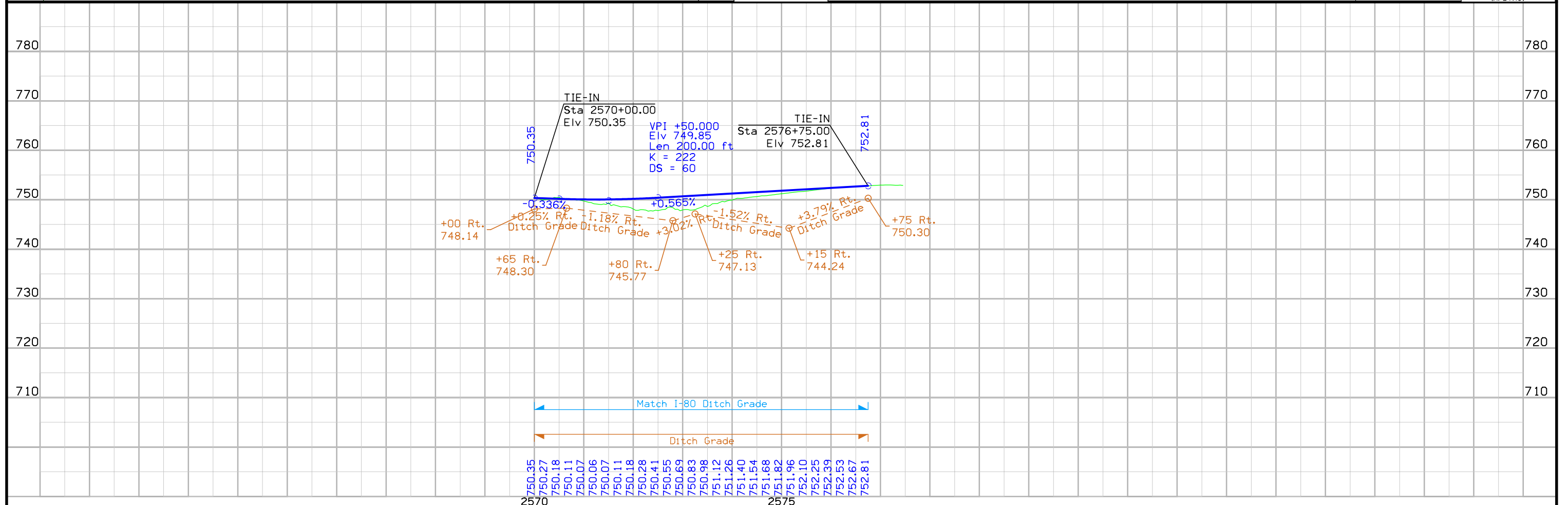
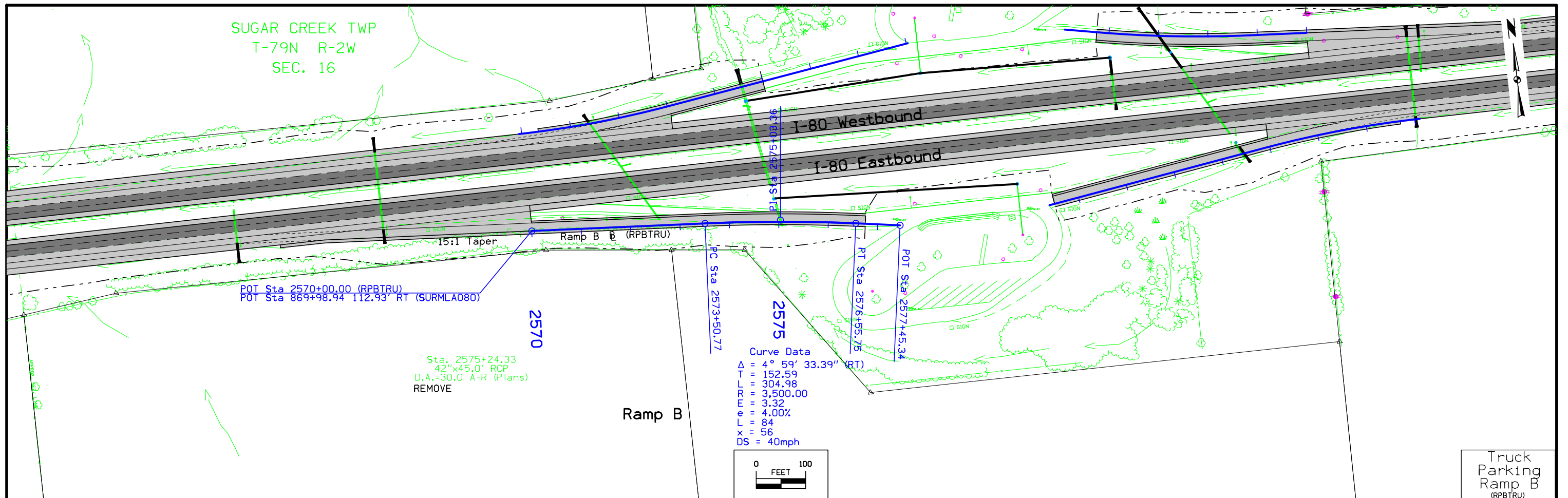
Curve Data
 $\Delta = 7^\circ 16' 01.78''$ (LT)
 $T = 152.41$
 $L = 304.41$
 $R = 2,400.00$
 $E = 4.83$
 $e = 5.00\%$
 $L = 72$
 $x = 48$
 $DS = 40\text{mph}$

Sta 1583+00.00
 Install 24" x 104' RCP
 F.L. = Lt. 741.03

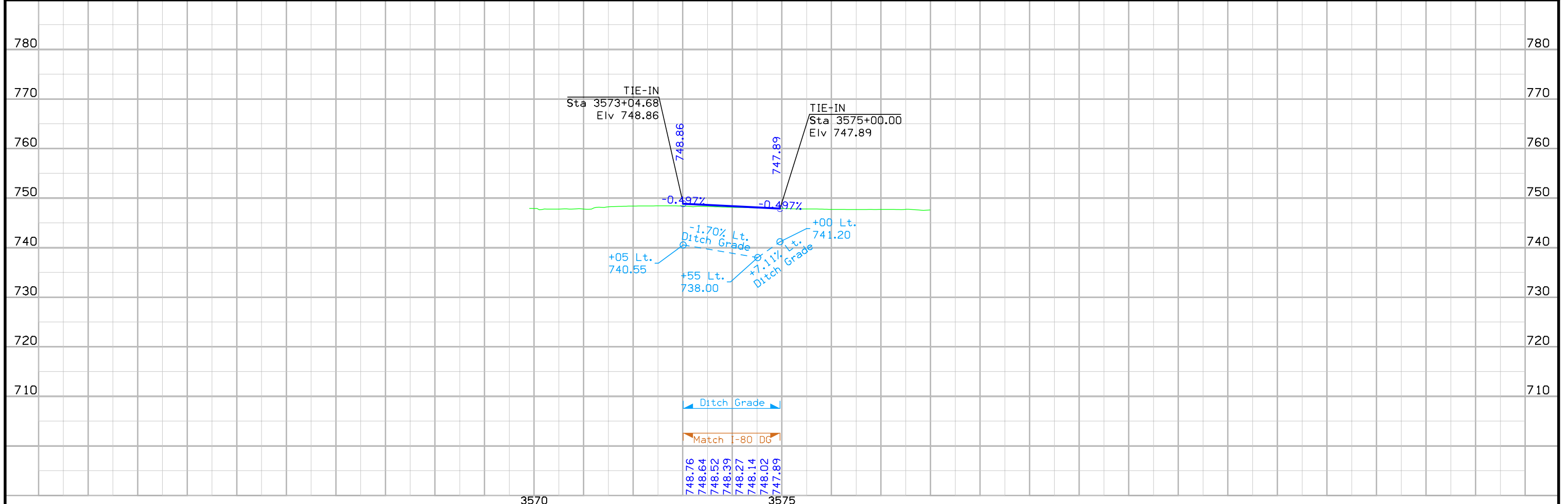
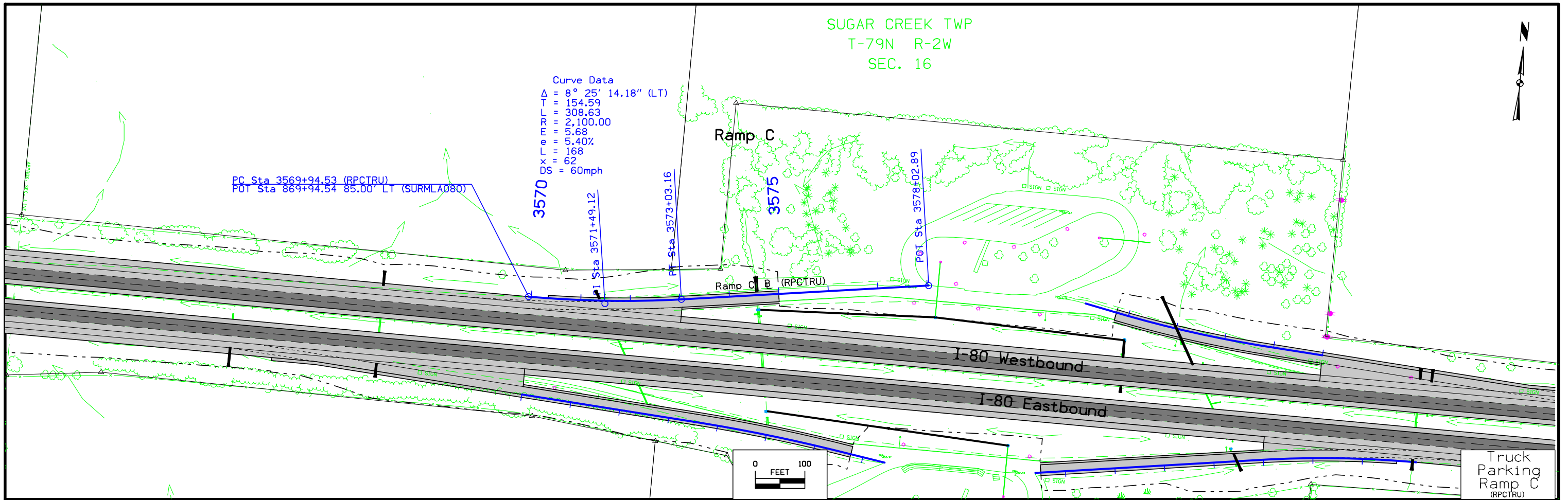
SUGAR CREEK TWP
 T-79N R-2W
 SEC. 16

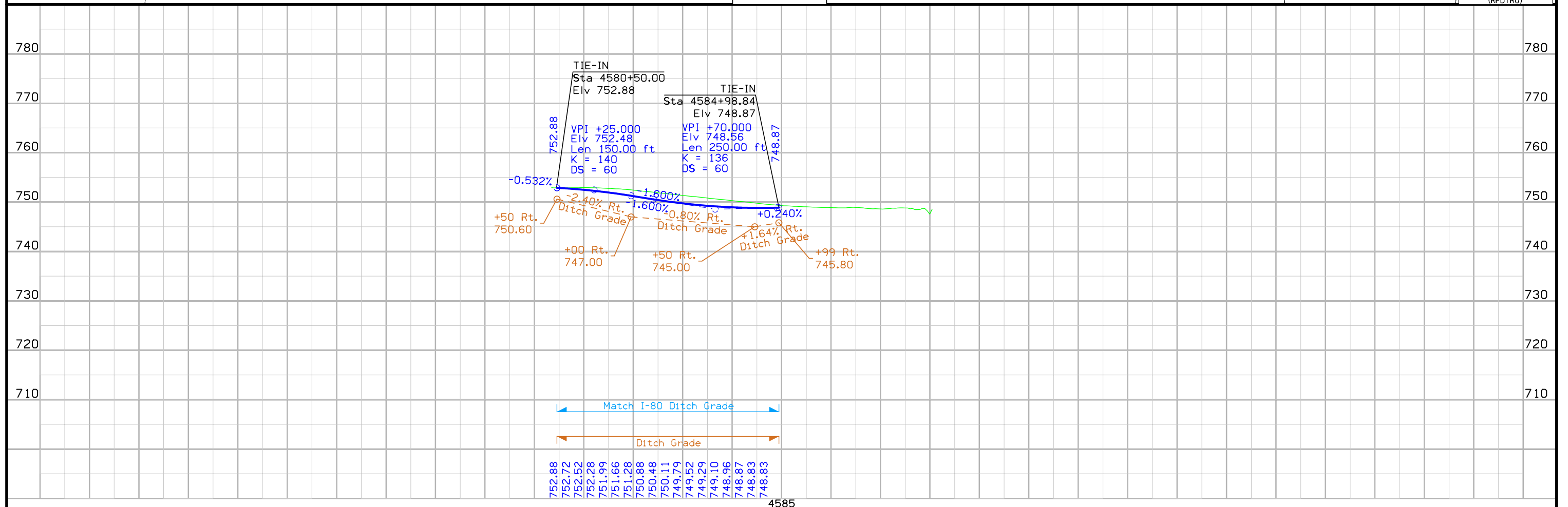
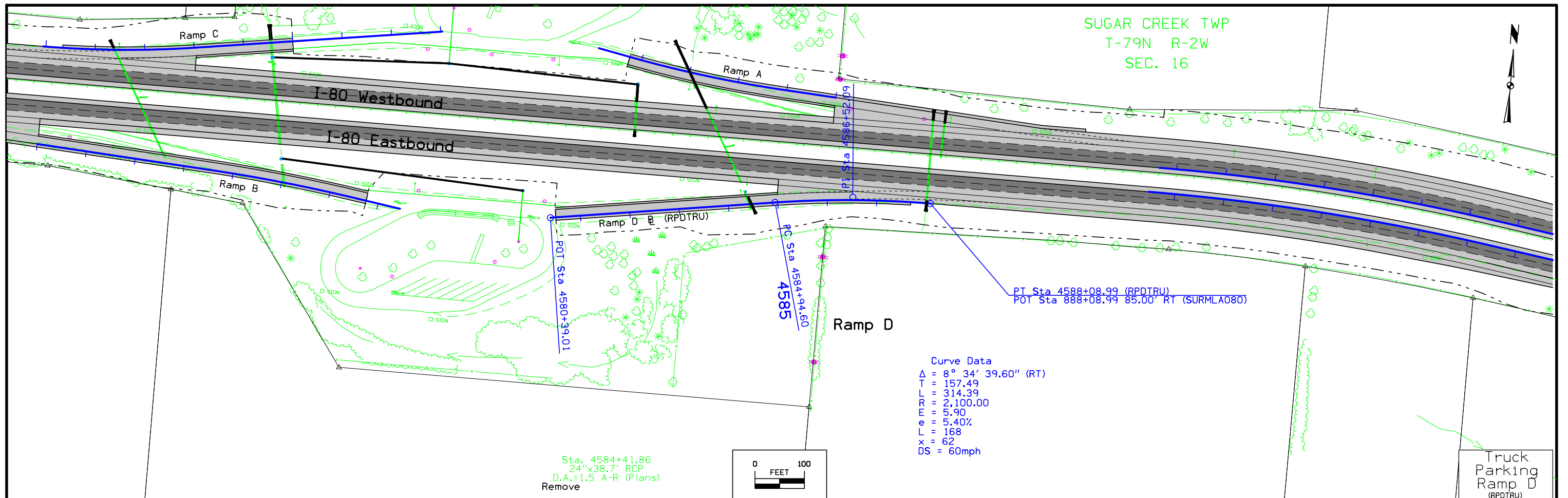
Remove
 Sta. 1582+98.07
 24"x38.5' RCP
 A=3.0 A-R (Plans)





SUGAR CREEK TWP
T-79N R-2W
SEC. 16



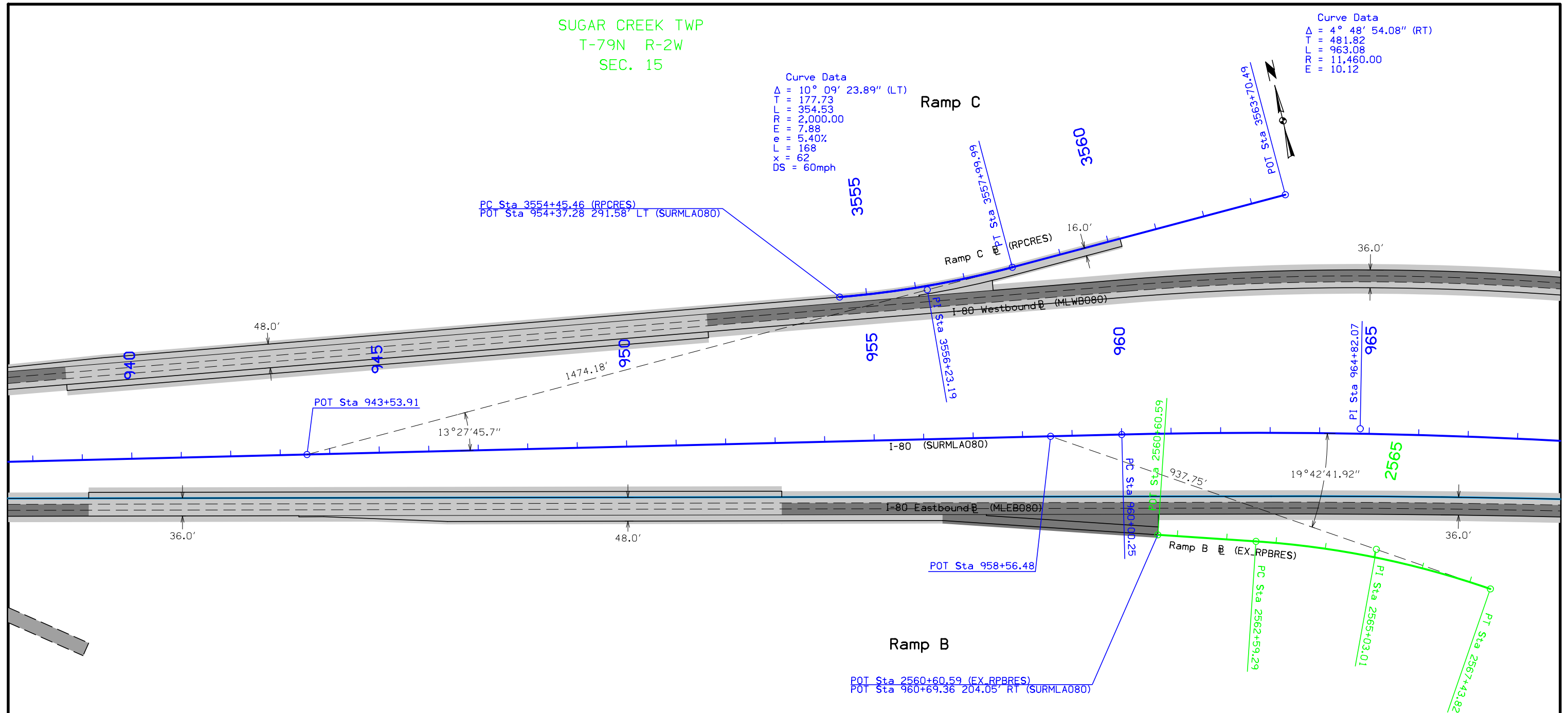


SUGAR CREEK TWP
T-79N R-2W
SEC. 15

Curve Data
 $\Delta = 4^\circ 48' 54.08''$ (RT)
 T = 481.82
 L = 963.08
 R = 11,460.00
 E = 10.12

Curve Data
 $\Delta = 10^\circ 09' 23.89''$ (LT)
 T = 177.73
 L = 354.53
 R = 2,000.00
 E = 7.88
 e = 5.40%
 L = 168
 x = 62
 DS = 60mph

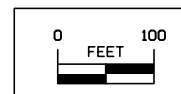
PC Sta 3554+45.46 (RPCRES)
 POT Sta 954+37.28 291.58' LT (SURMLA080)



POT Sta 2560+60.59 (EX_RPBRES)
 POT Sta 960+69.36 204.05' RT (SURMLA080)

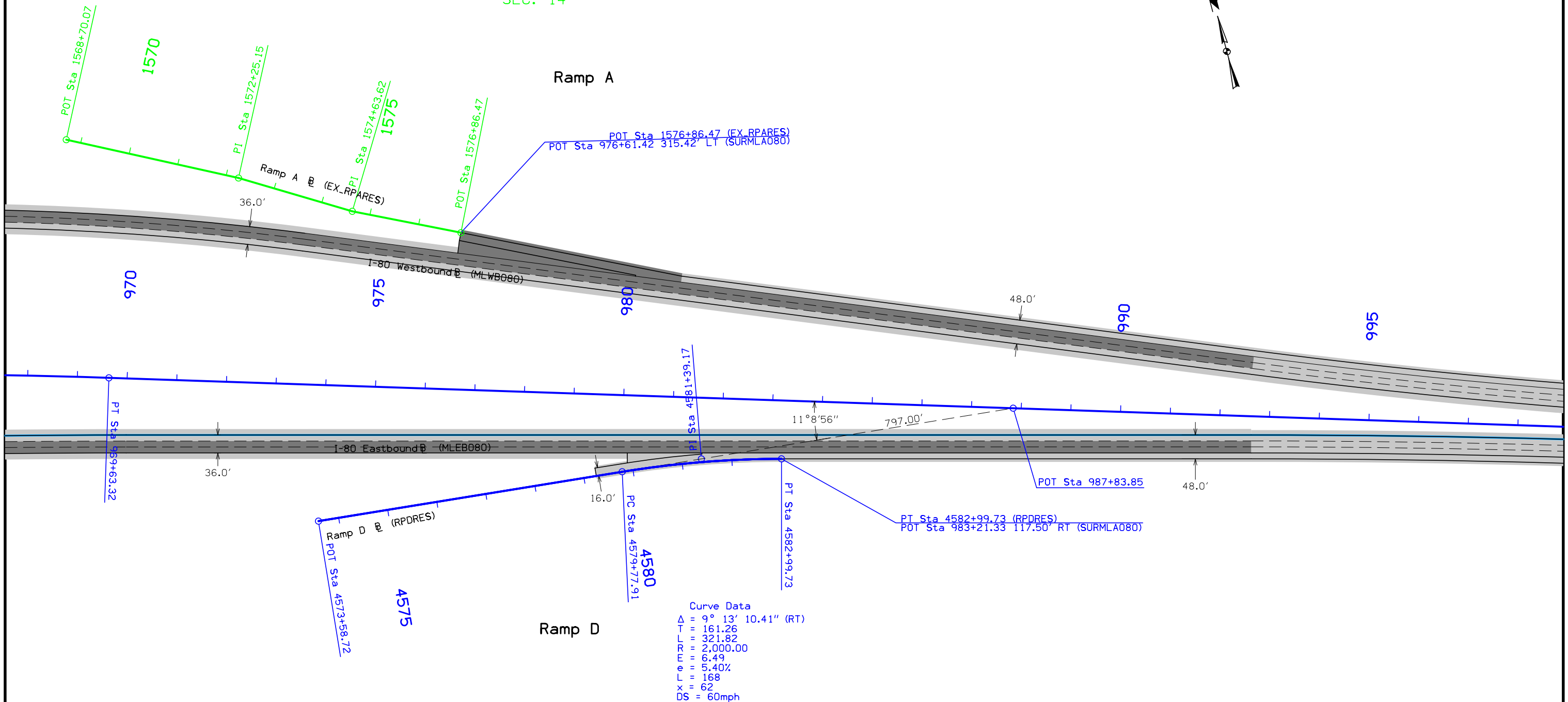
Curve Data
 $\Delta = 15^\circ 20' 15.93''$ (RT)
 T = 243.72
 L = 484.53
 R = 1,810.00
 E = 16.34
 DS = 60mph

SUGAR CREEK TWP
T-79N R-2W
SEC. 22



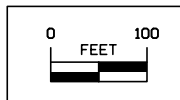
Geometric Plan
Proposed Ramps of
Interstate 80 at Rest Area
Cedar County

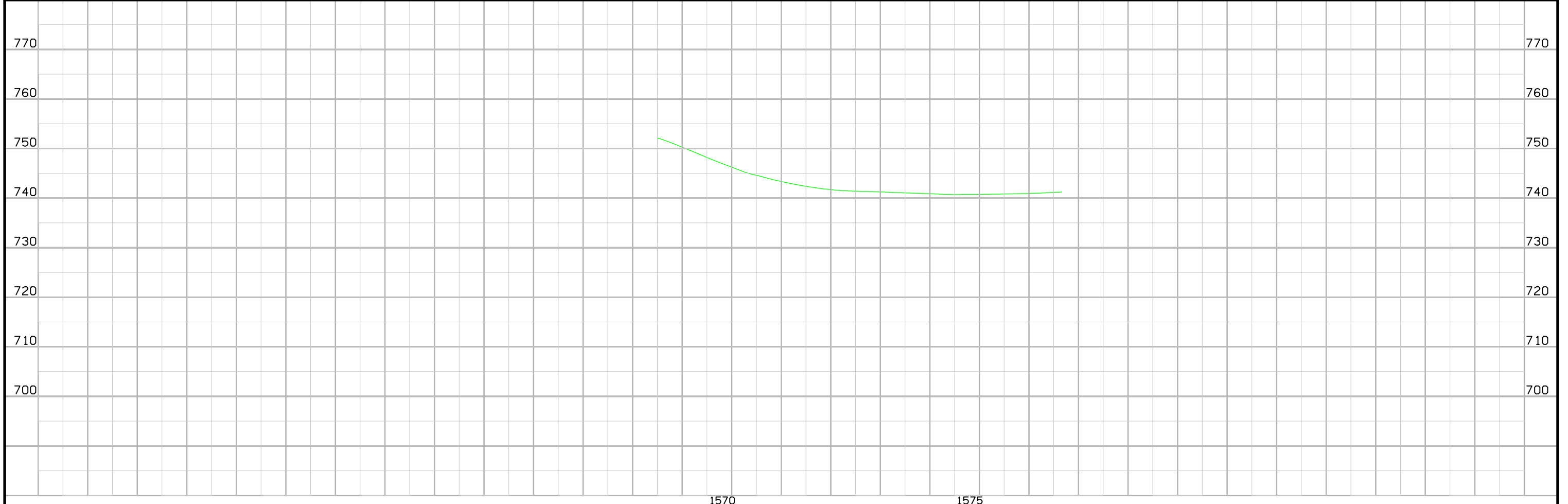
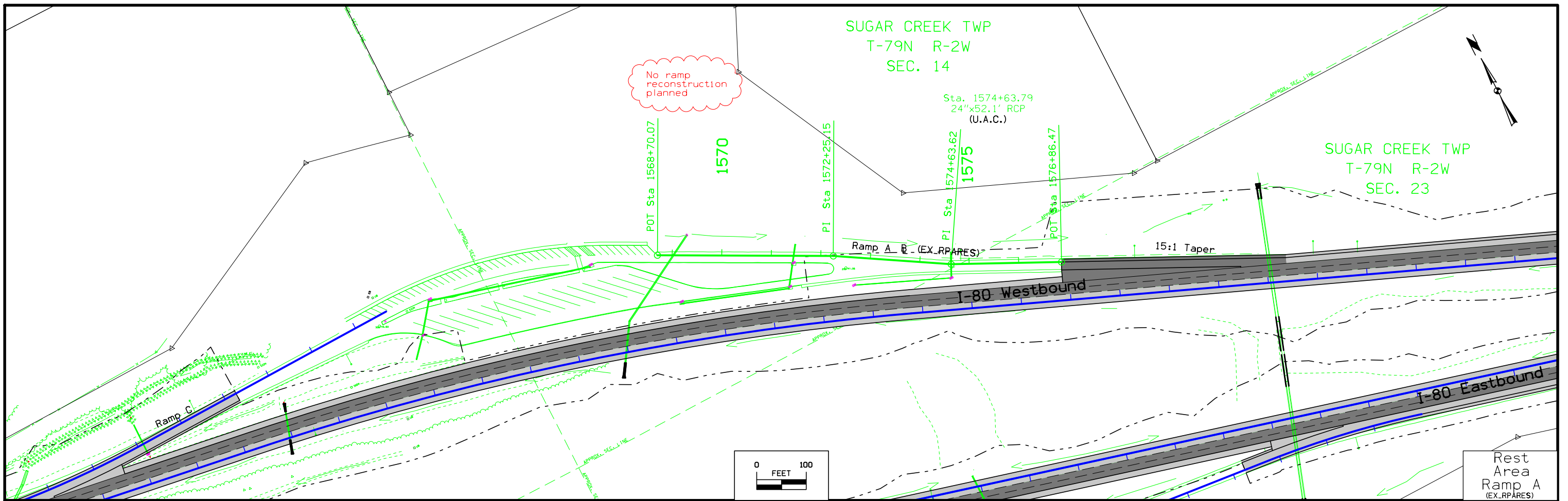
SUGAR CREEK TWP
T-79N R-2W
SEC. 14

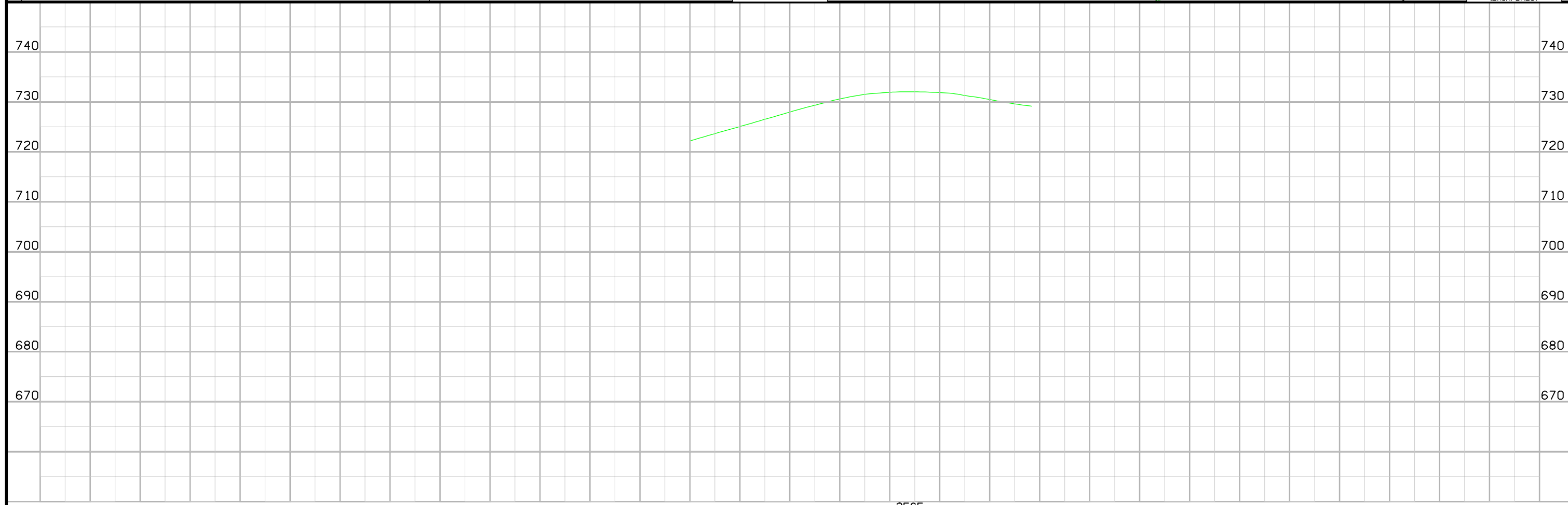
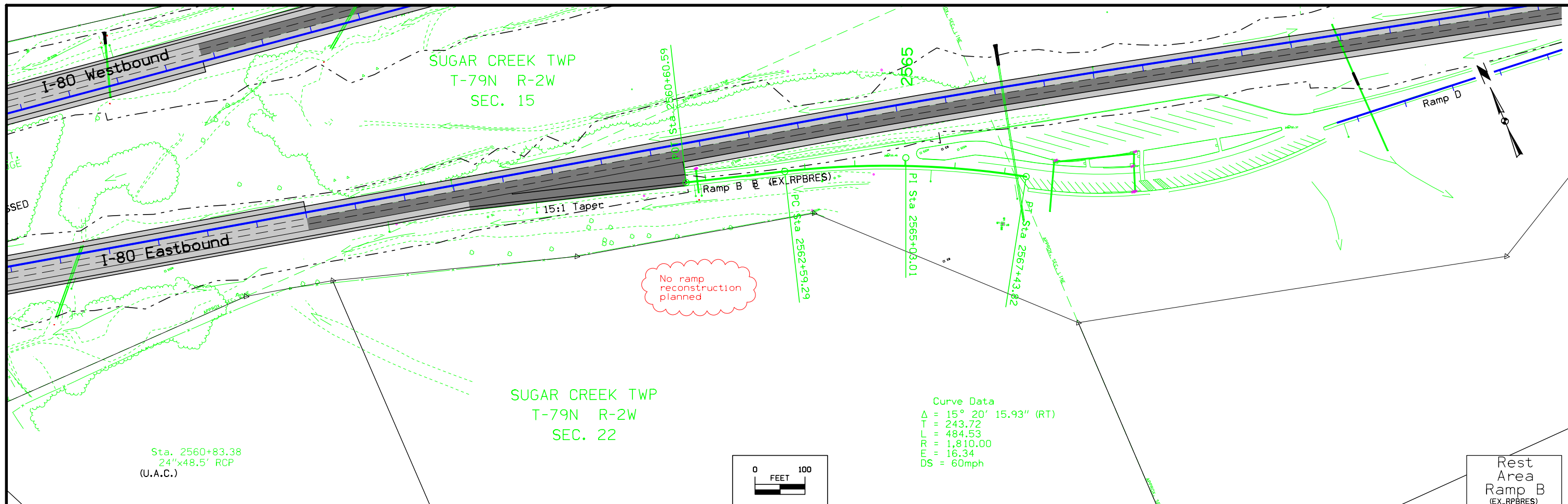


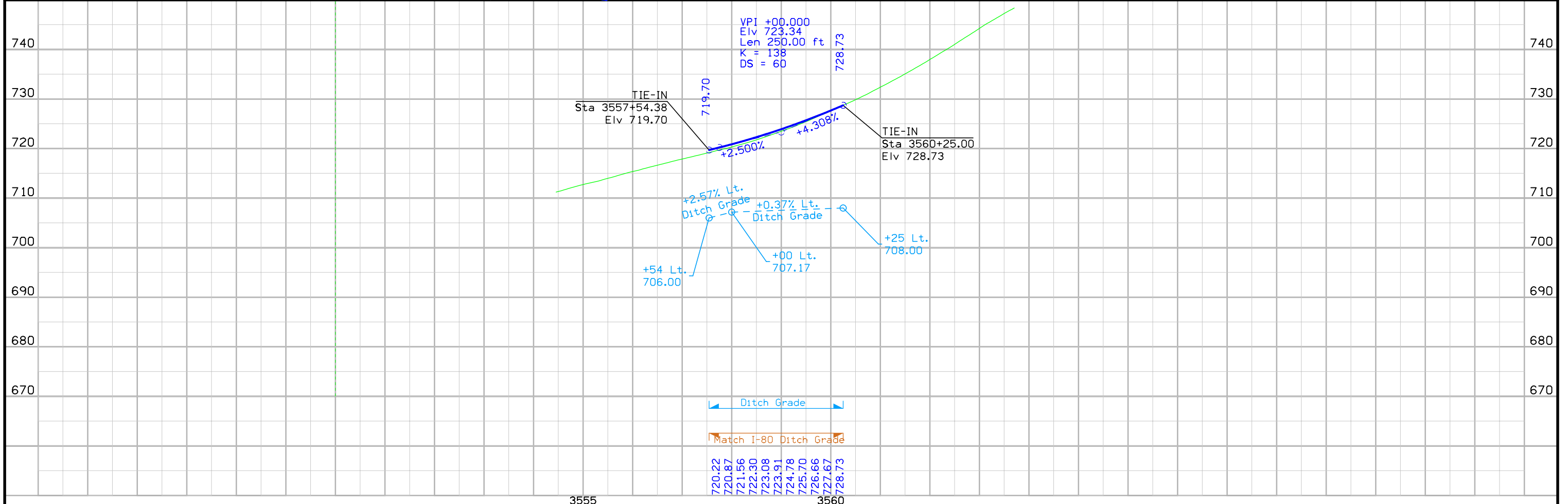
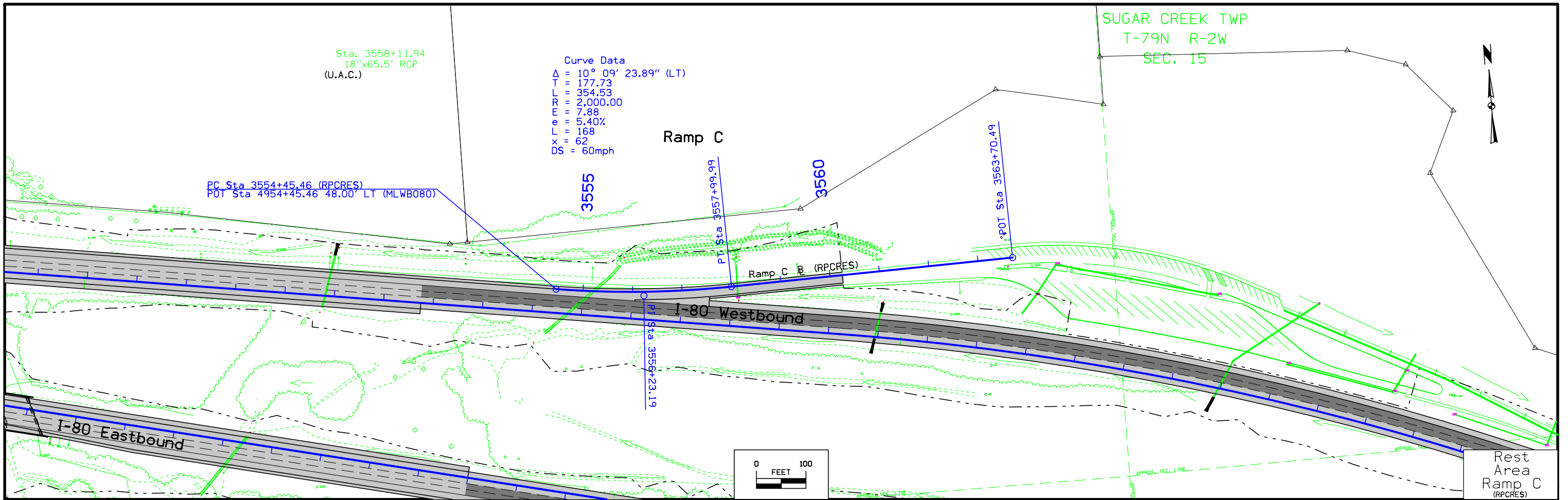
SUGAR CREEK TWP
T-79N R-2W
SEC. 23

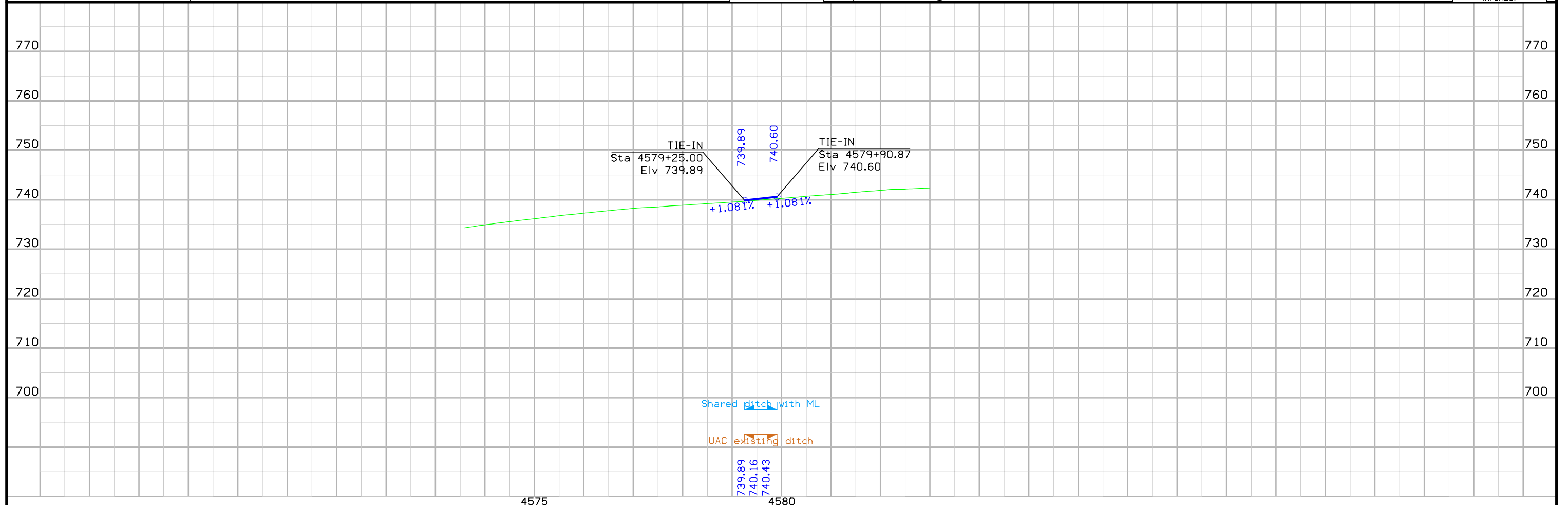
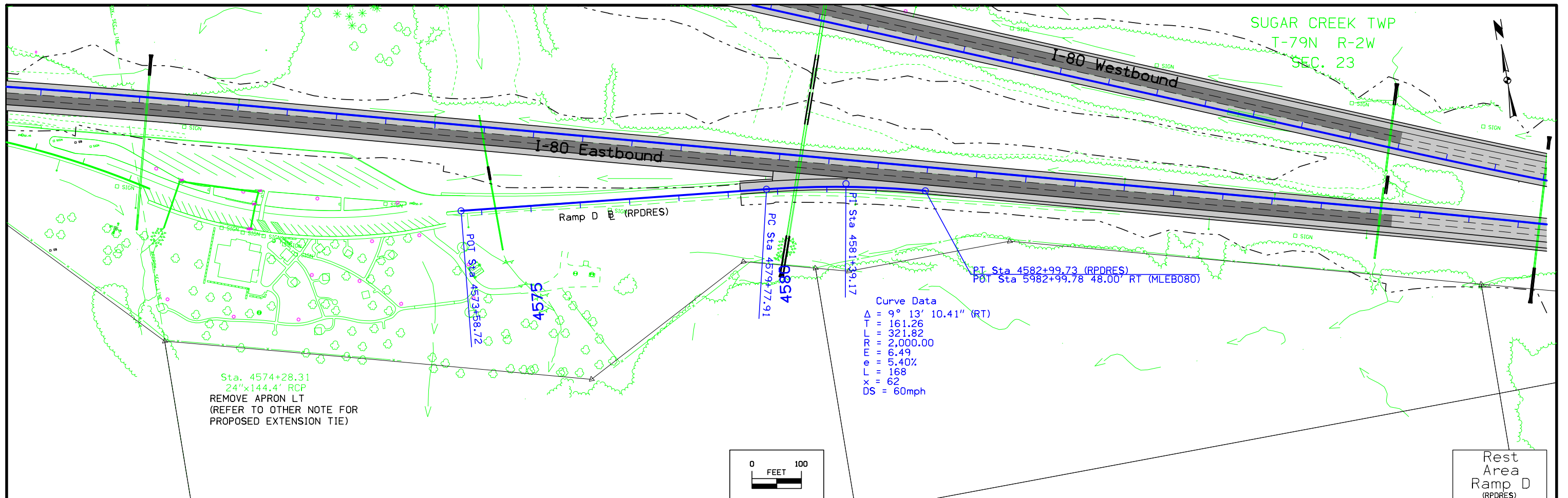
Geometric Plan
Proposed Ramps of
Interstate 80 at Rest Area
Cedar County











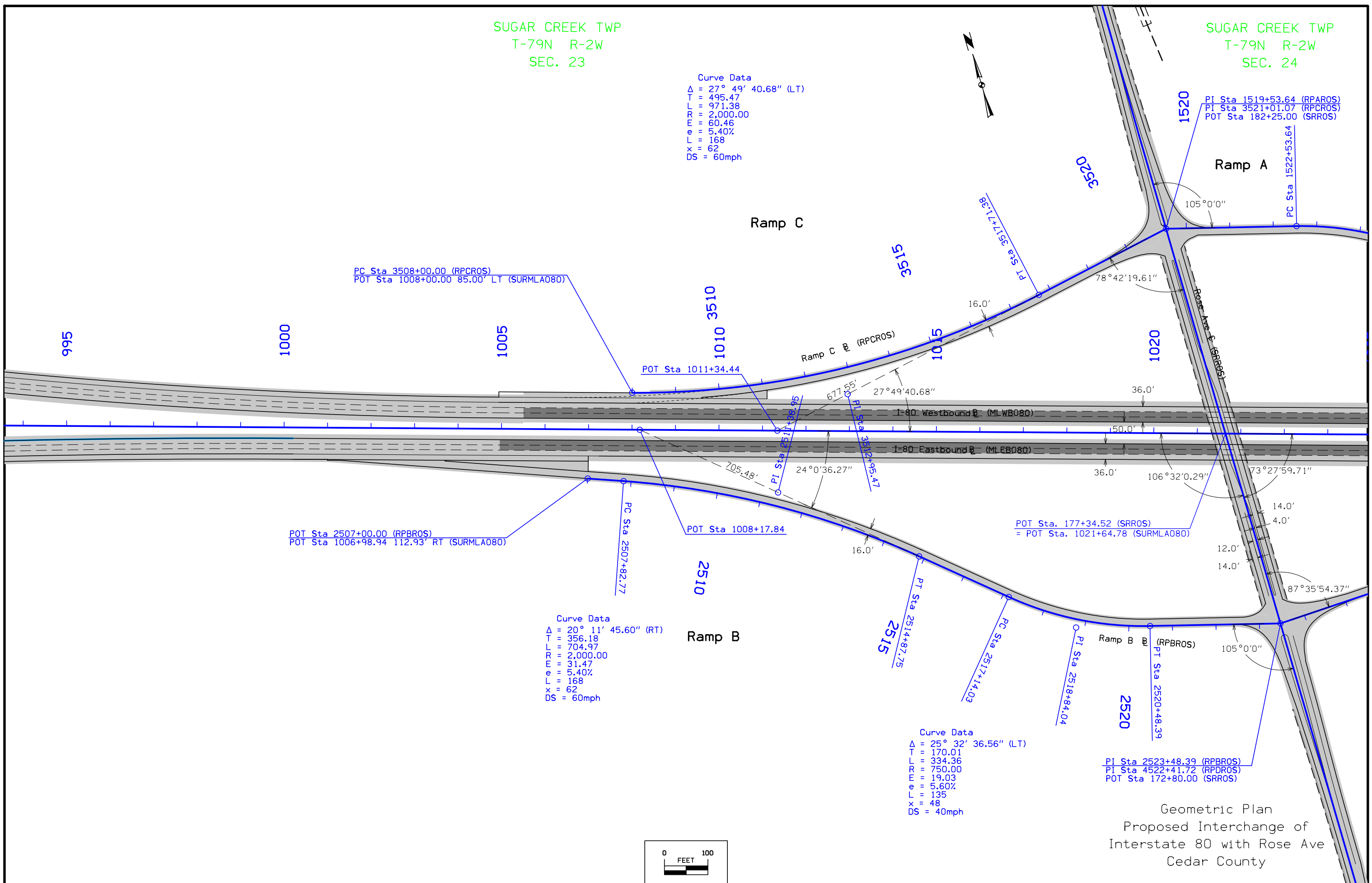
SUGAR CREEK TWP
T-79N R-2W
SEC. 23

SUGAR CREEK TWP
T-79N R-2W
SEC. 24

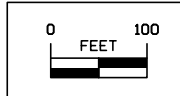
Curve Data
 $\Delta = 27^\circ 49' 40.68''$ (LT)
 $T = 495.47$
 $L = 971.38$
 $R = 2,000.00$
 $E = 60.46$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60\text{mph}$

Curve Data
 $\Delta = 20^\circ 11' 45.60''$ (RT)
 $T = 356.18$
 $L = 704.97$
 $R = 2,000.00$
 $E = 31.47$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60\text{mph}$

Curve Data
 $\Delta = 25^\circ 32' 36.56''$ (LT)
 $T = 170.01$
 $L = 334.36$
 $R = 750.00$
 $e = 19.03$
 $e = 5.60\%$
 $L = 135$
 $x = 48$
 $DS = 40\text{mph}$



Geometric Plan
Proposed Interchange of
Interstate 80 with Rose Ave
Cedar County



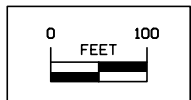
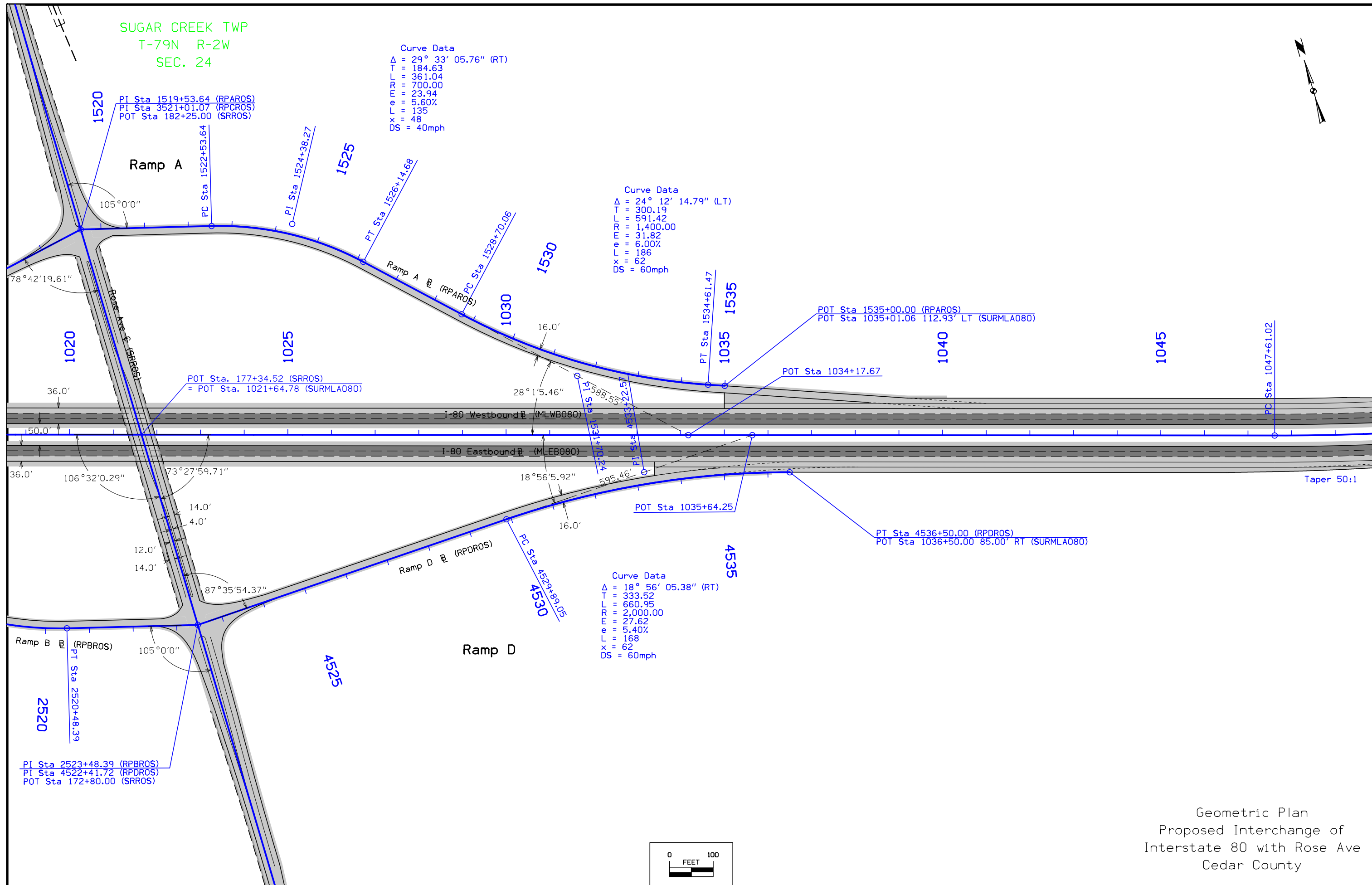
SUGAR CREEK TWP
T-79N R-2W
SEC. 24



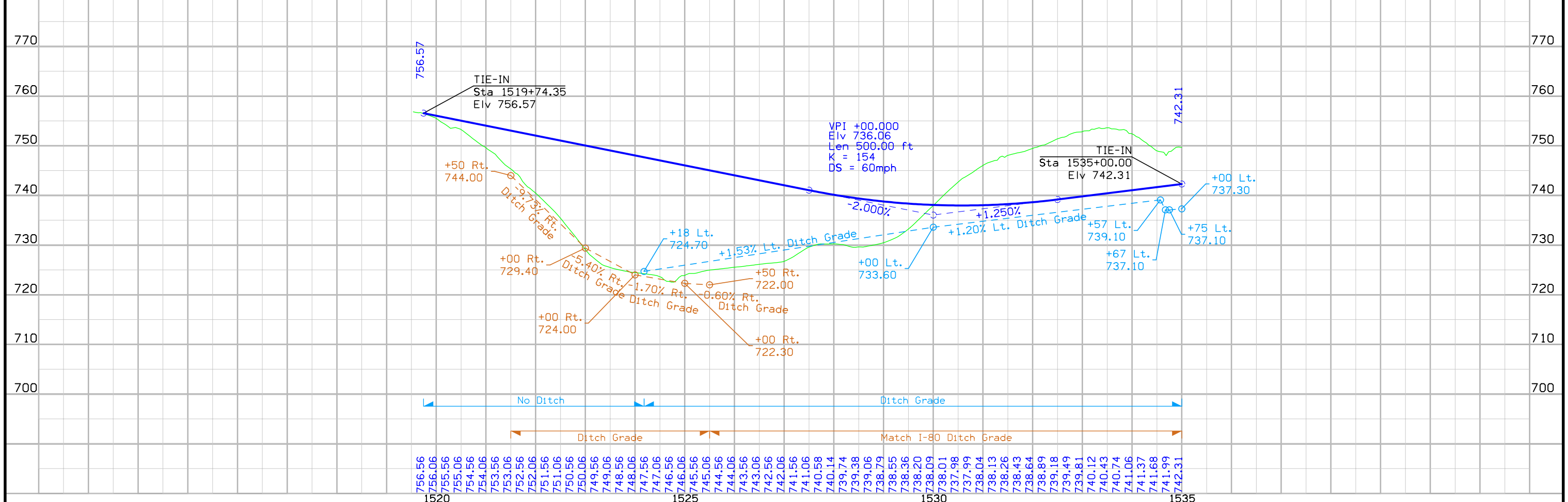
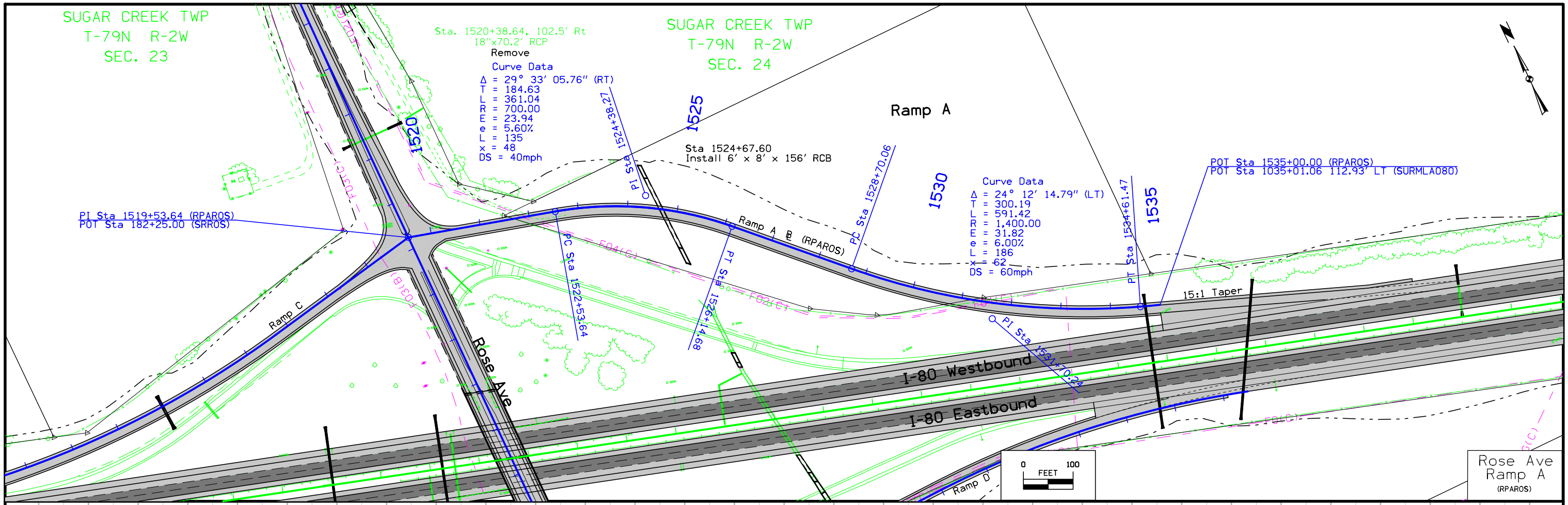
Curve Data
 $\Delta = 29^\circ 33' 05.76''$ (RT)
 $T = 184.63$
 $L = 361.04$
 $RR = 700.00$
 $E = 23.94$
 $e = 5.60\%$
 $L = 135$
 $x = 48$
 $DS = 40\text{mph}$

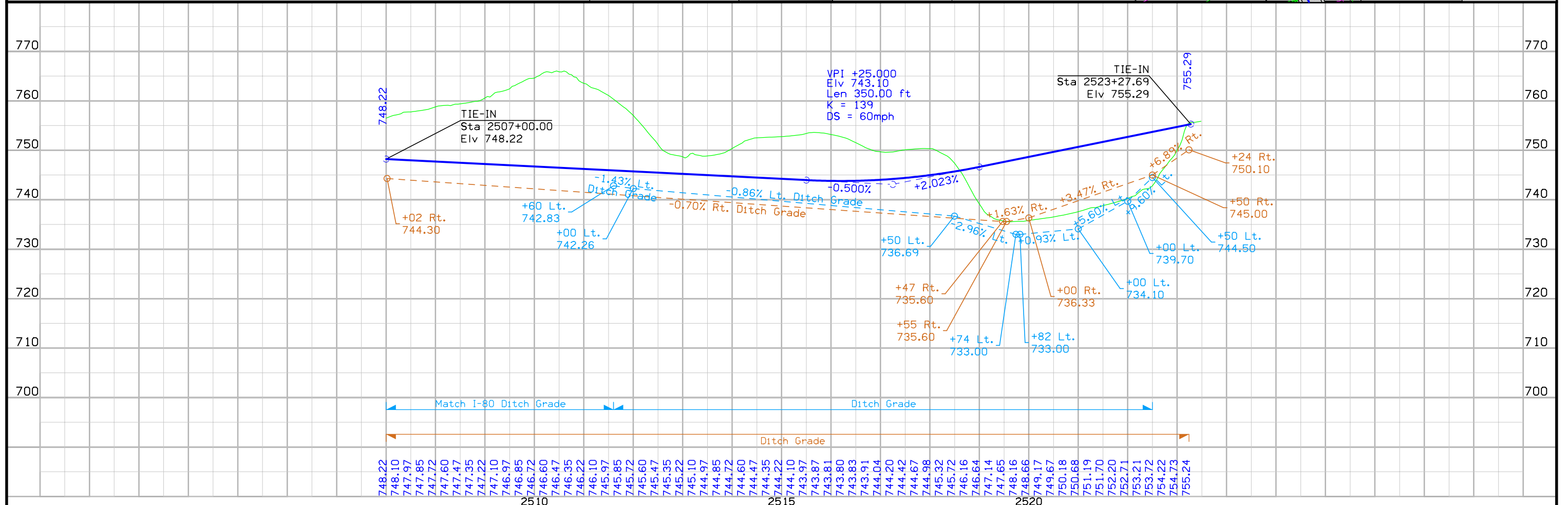
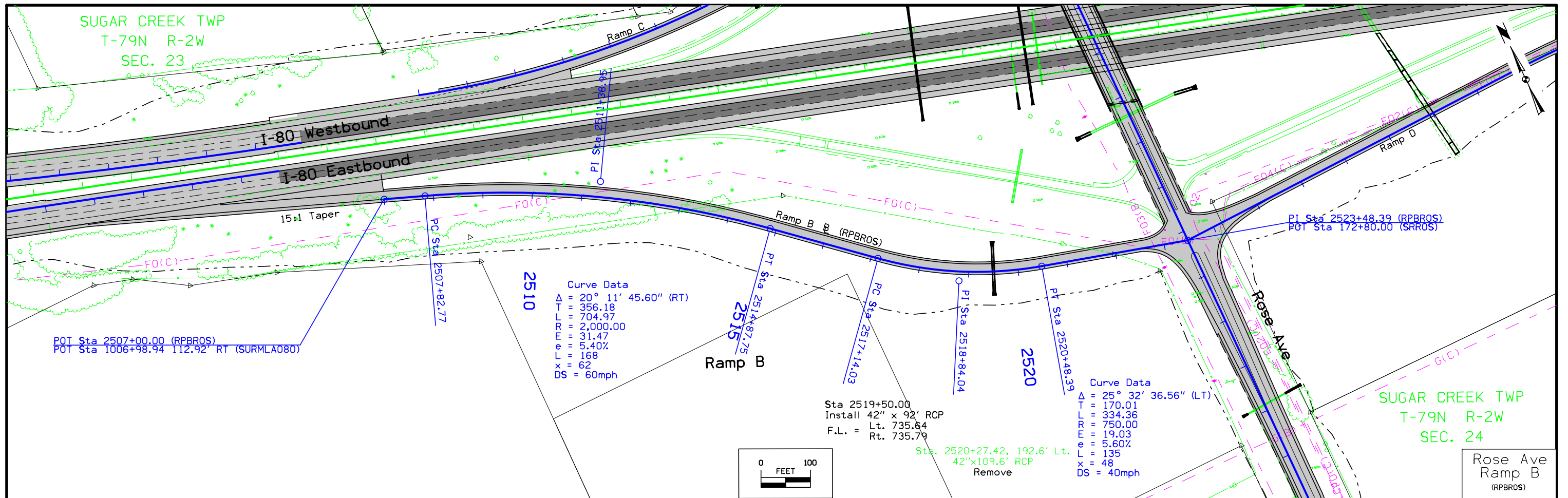
Curve Data
 $\Delta = 24^\circ 12' 14.79''$ (LT)
 $T = 300.19$
 $L = 591.42$
 $RR = 1,400.00$
 $E = 31.82$
 $e = 6.00\%$
 $L = 186$
 $x = 62$
 $DS = 60\text{mph}$

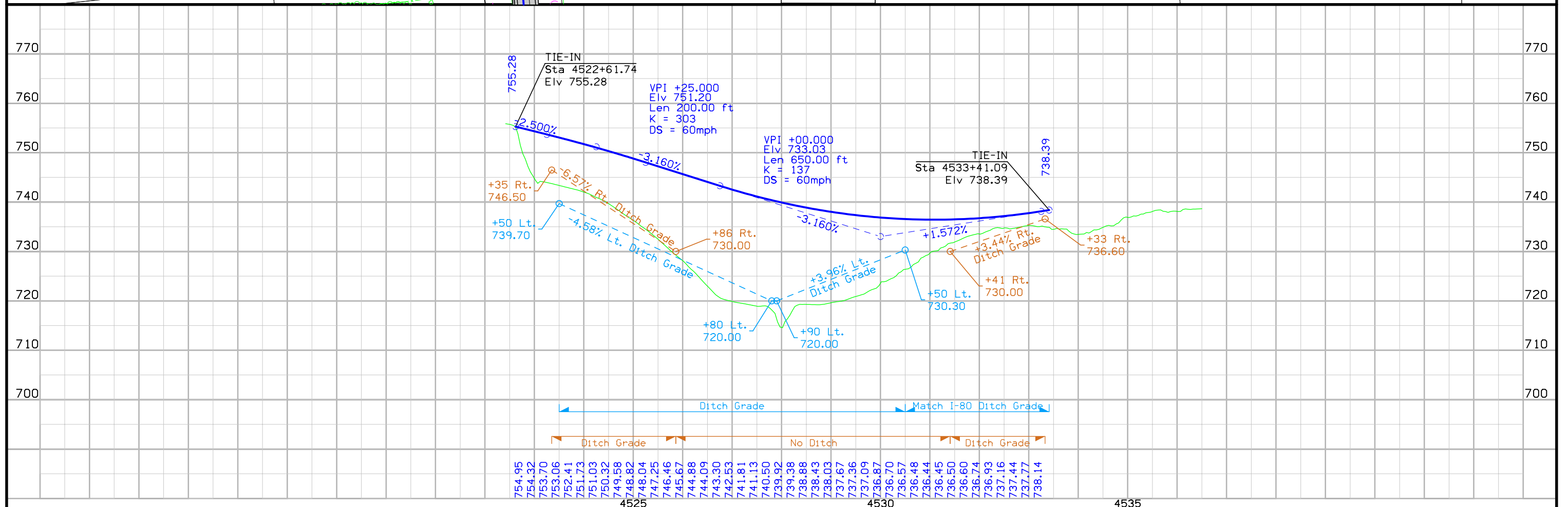
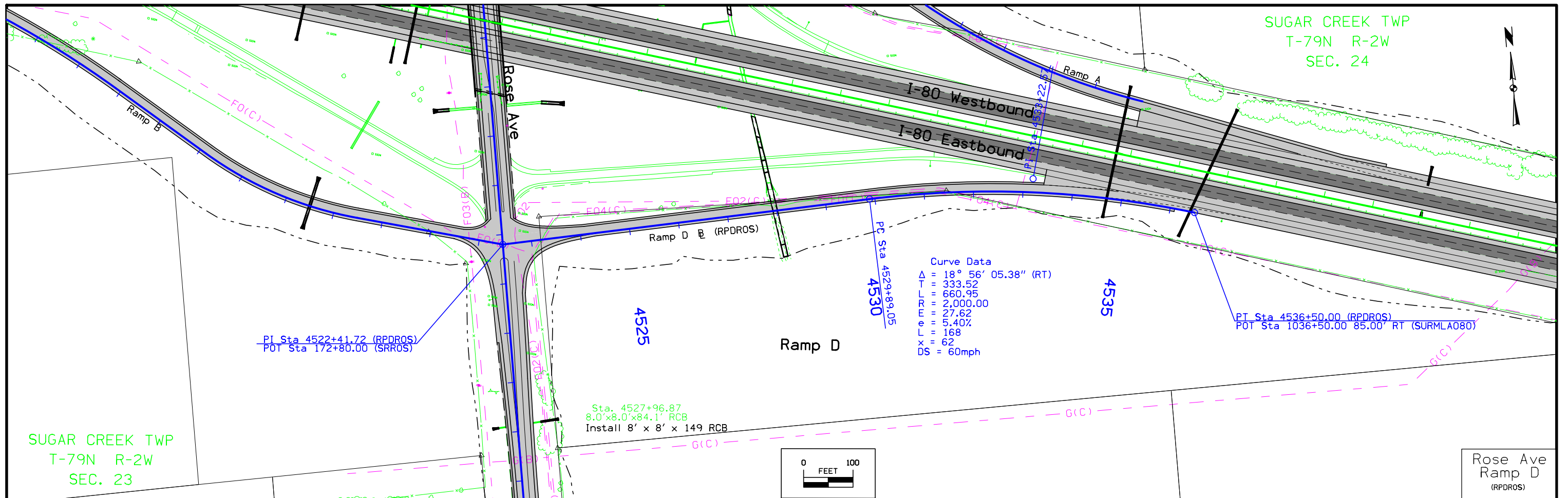
Curve Data
 $\Delta = 18^\circ 56' 05.38''$ (RT)
 $T = 333.52$
 $L = 660.95$
 $RR = 2,000.00$
 $E = 27.62$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60\text{mph}$



Geometric Plan
Proposed Interchange of
Interstate 80 with Rose Ave
Cedar County







FARMINGTON TWP
T-79N R-1W
SEC. 23



Ramp C

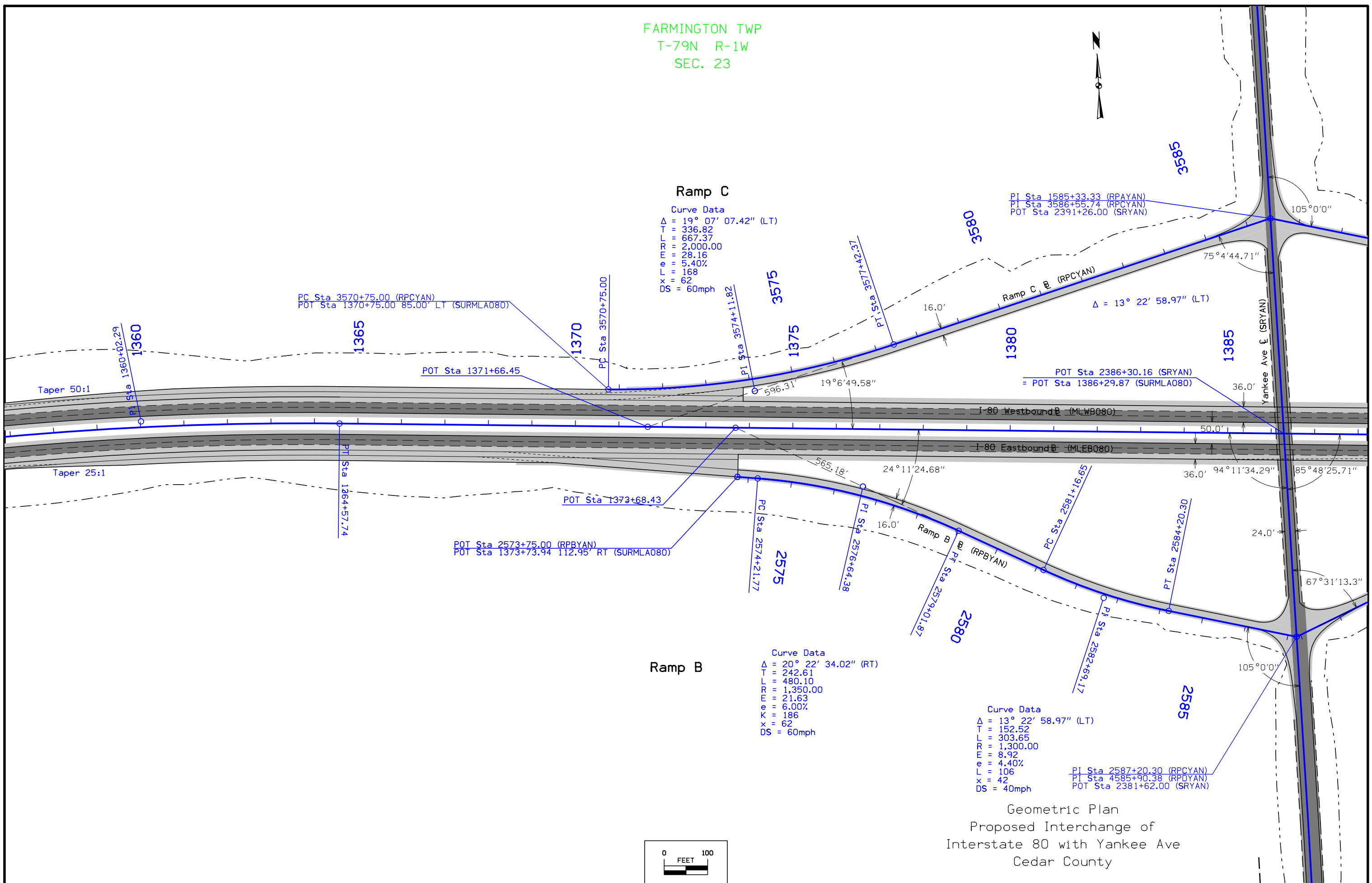
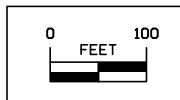
Curve Data
 $\Delta = 19^\circ 07' 07.42''$ (LT)
 $T = 336.82$
 $L = 667.37$
 $RR = 2,000.00$
 $E = 28.16$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60\text{mph}$

Ramp B

Curve Data
 $\Delta = 20^\circ 22' 34.02''$ (RT)
 $T = 242.61$
 $L = 480.10$
 $RR = 1,350.00$
 $E = 21.63$
 $e = 6.00\%$
 $L = 186$
 $x = 62$
 $DS = 60\text{mph}$

Curve Data
 $\Delta = 13^\circ 22' 58.97''$ (LT)
 $T = 152.52$
 $L = 303.65$
 $RR = 1,300.00$
 $E = 8.92$
 $e = 4.40\%$
 $L = 106$
 $x = 42$
 $DS = 40\text{mph}$

Geometric Plan
Proposed Interchange of
Interstate 80 with Yankee Ave
Cedar County



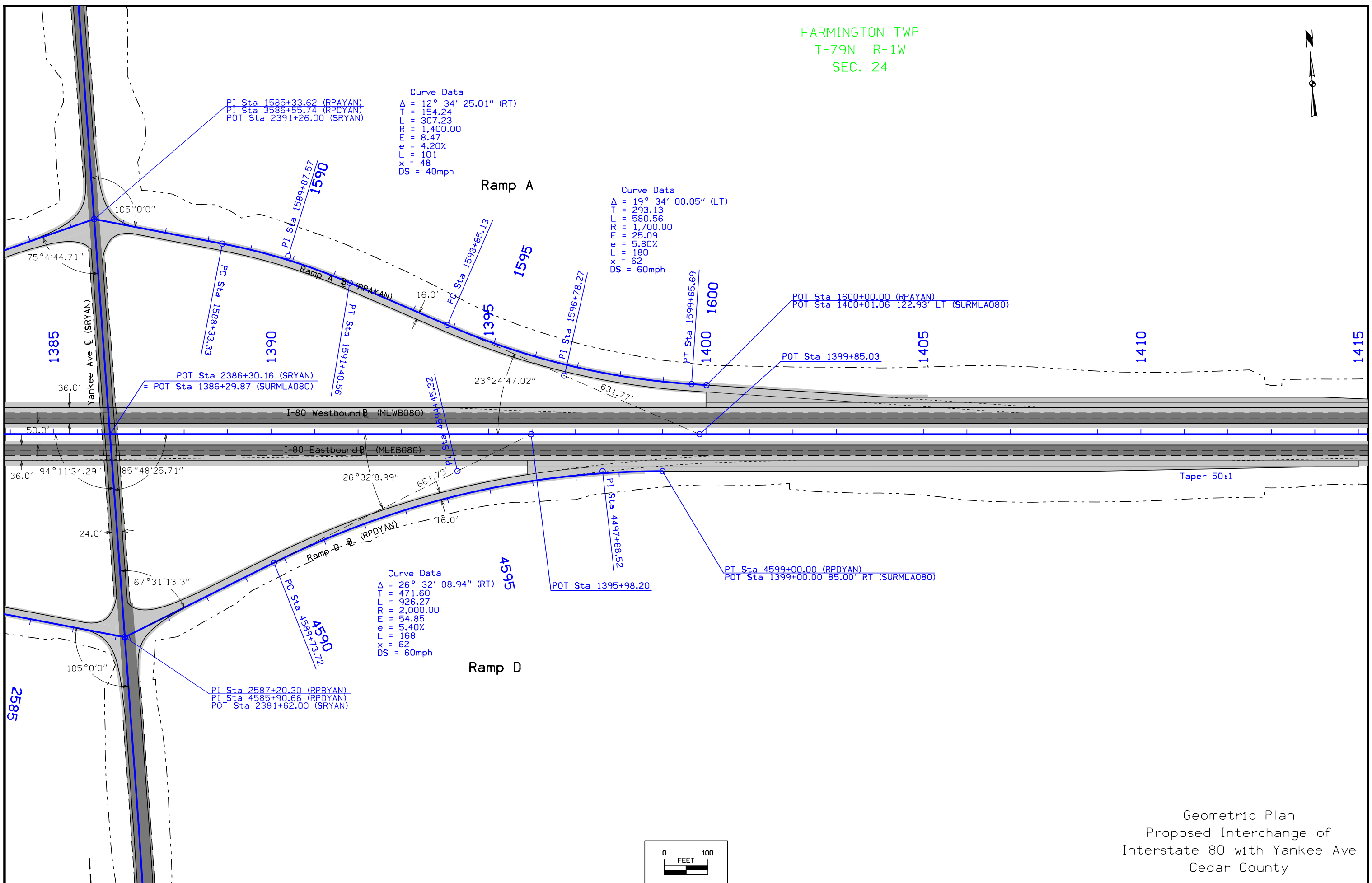
FARMINGTON TWP
T-79N R-1W
SEC. 24



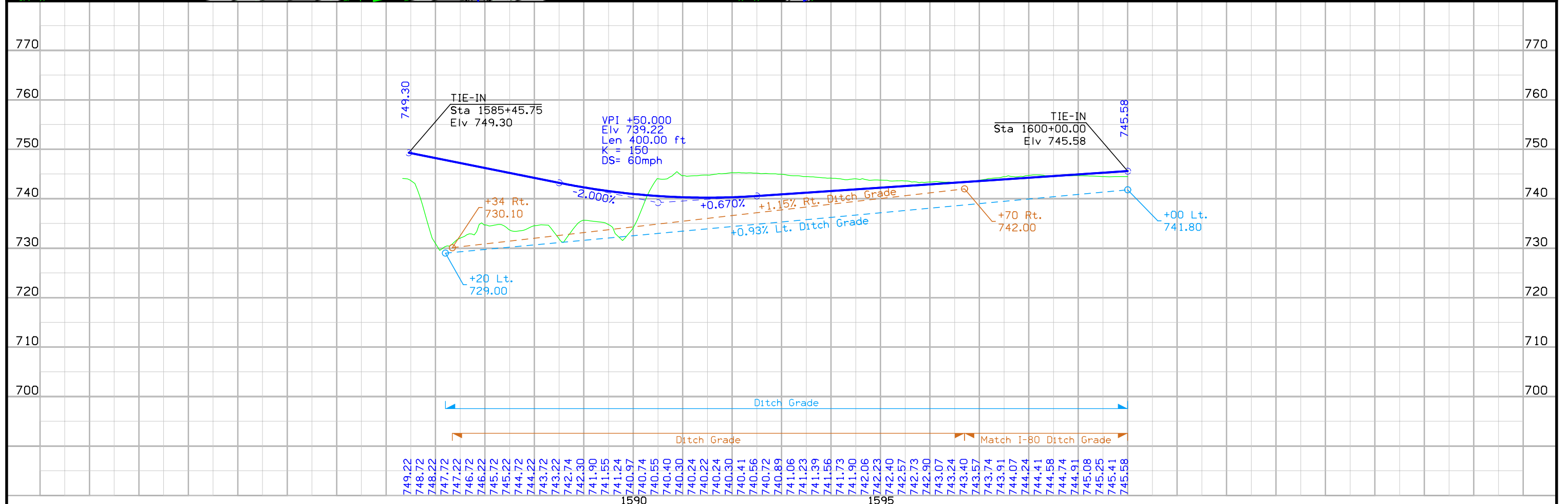
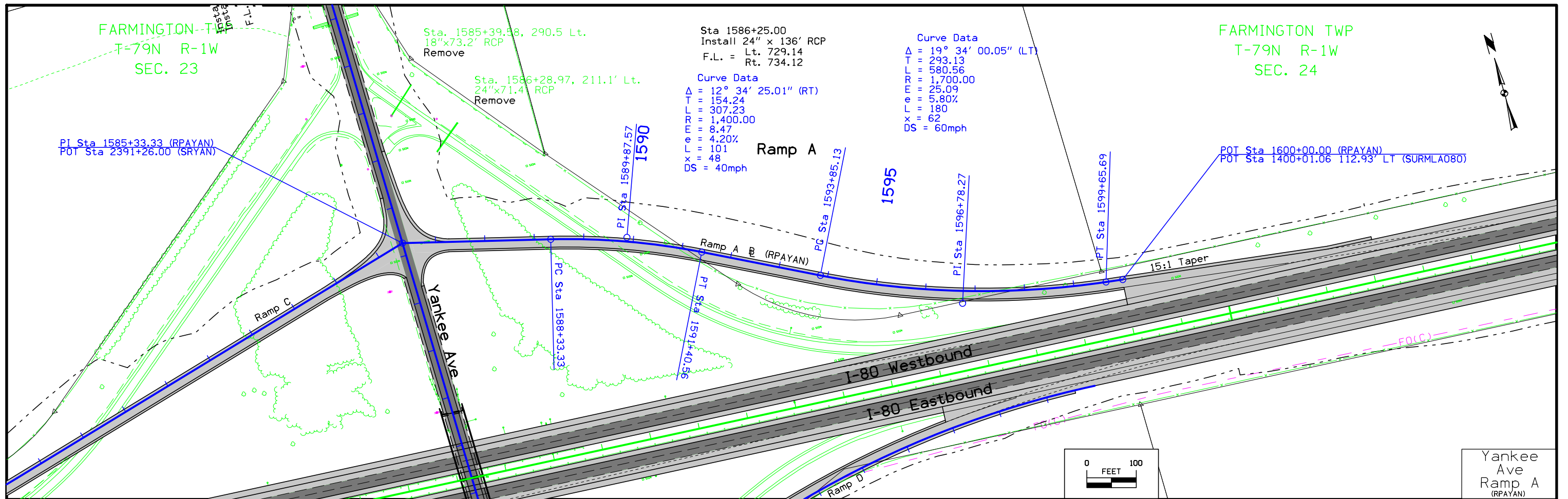
Curve Data
 $\Delta = 12^\circ 34' 25.01''$ (RT)
 $T = 154.24$
 $L = 307.23$
 $R = 1,400.00$
 $E = 8.47$
 $e = 4.20\%$
 $L = 101$
 $x = 48$
 $DS = 40\text{mph}$

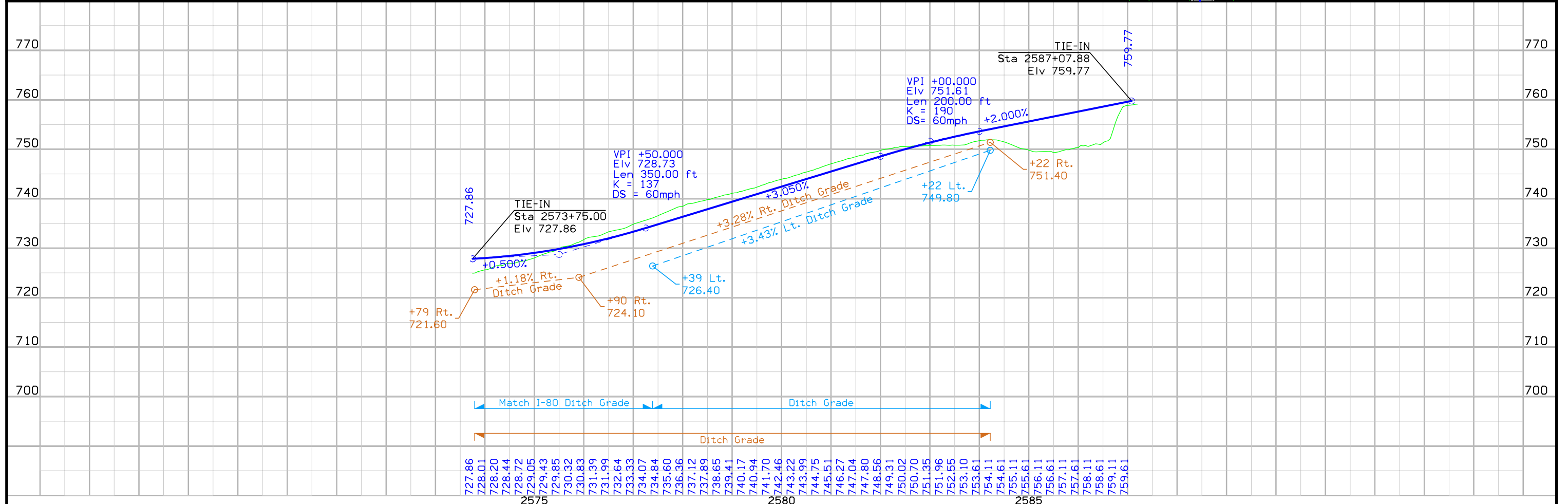
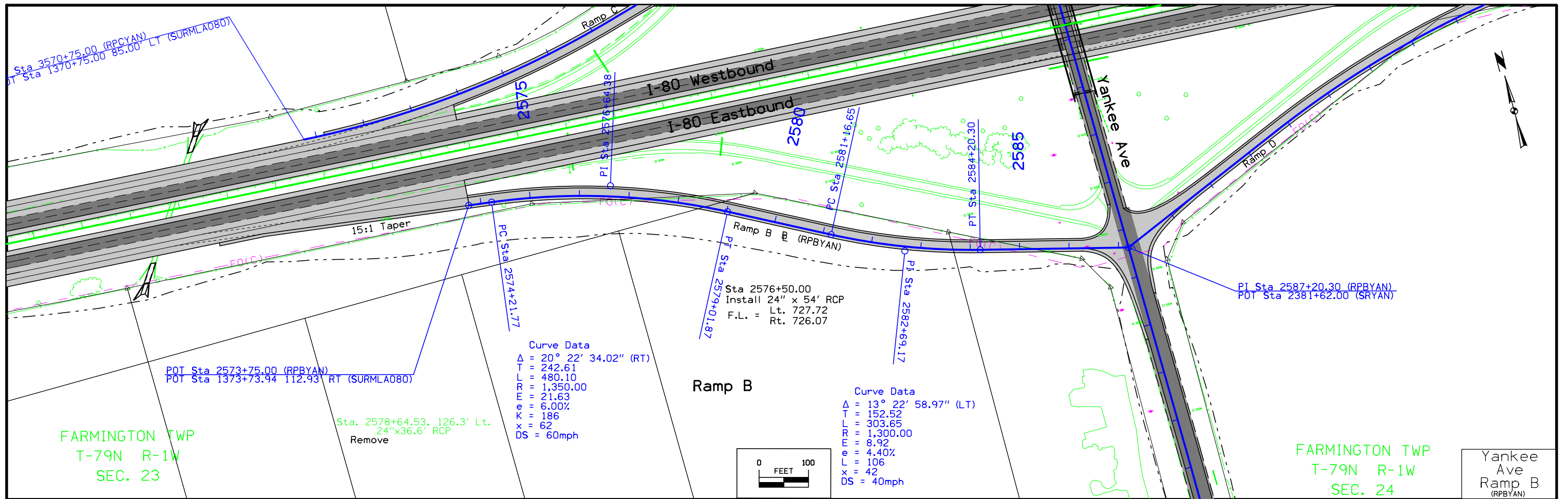
Curve Data
 $\Delta = 19^\circ 34' 00.05''$ (LT)
 $T = 293.13$
 $L = 580.56$
 $R = 1,700.00$
 $e = 25.09$
 $e = 5.80\%$
 $L = 180$
 $x = 62$
 $DS = 60\text{mph}$

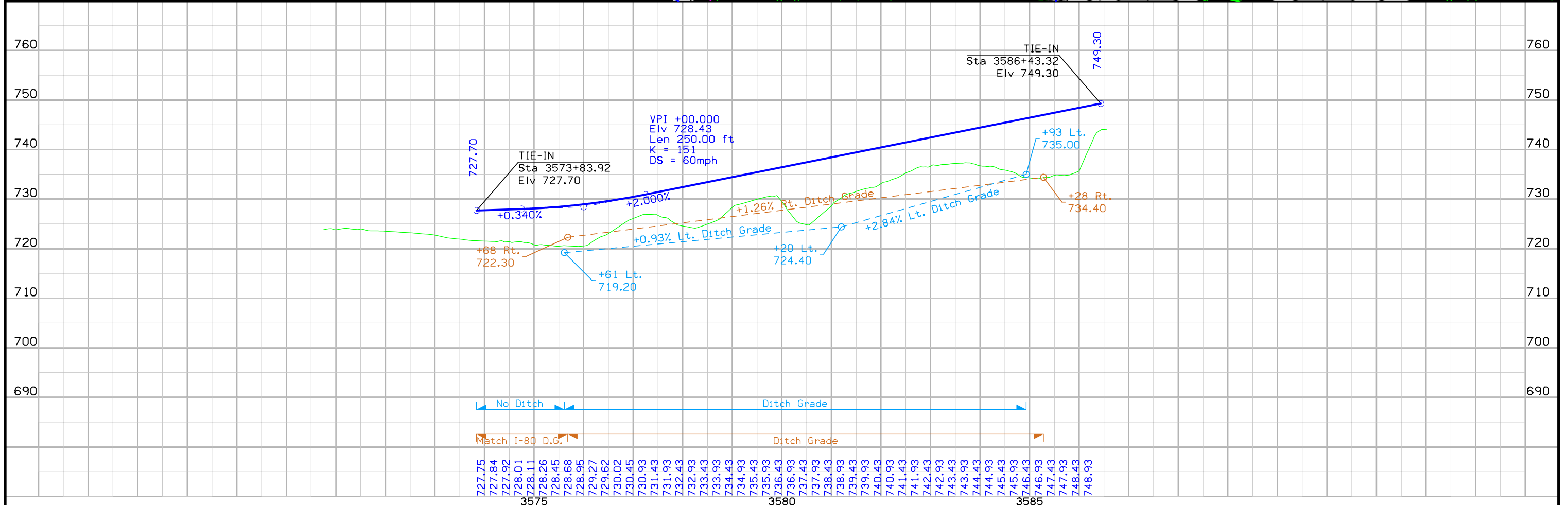
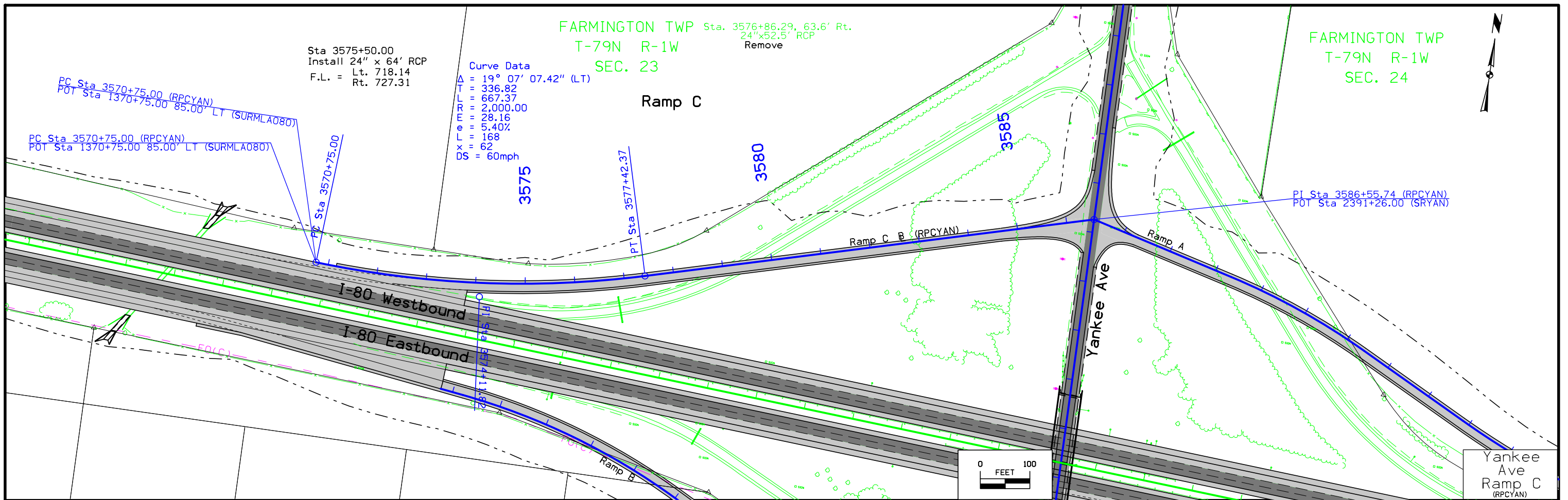
Curve Data
 $\Delta = 26^\circ 32' 08.94''$ (RT)
 $T = 471.60$
 $L = 926.27$
 $R = 2,000.00$
 $E = 54.85$
 $e = 5.40\%$
 $L = 168$
 $x = 62$
 $DS = 60\text{mph}$

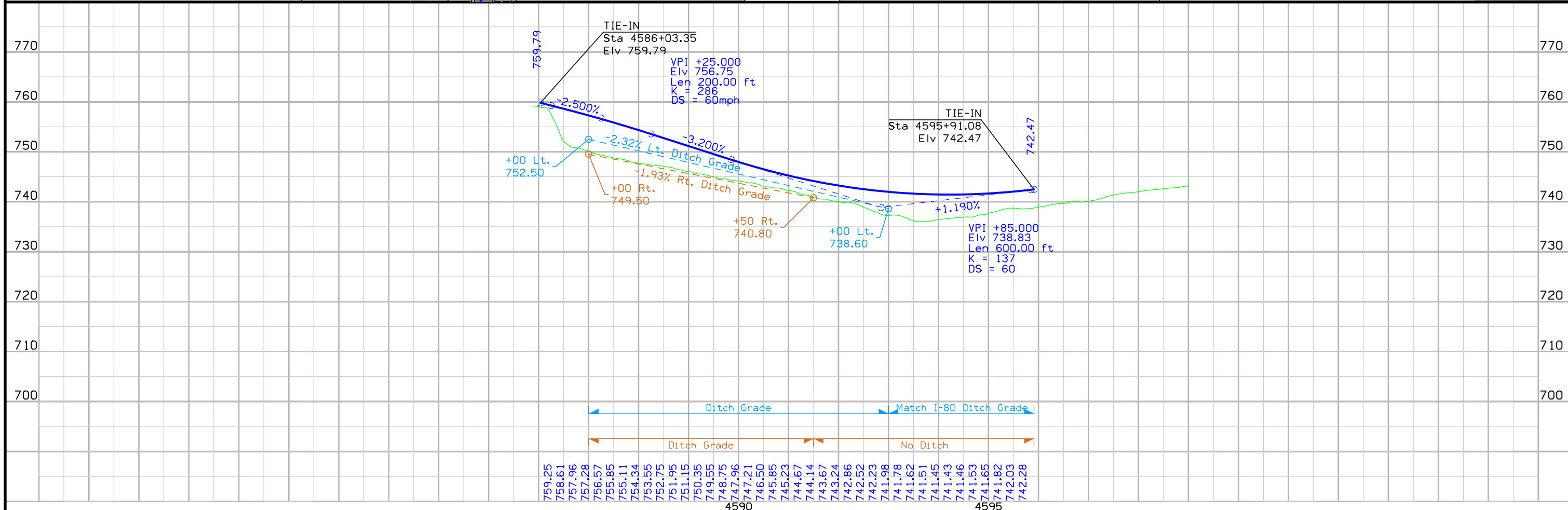
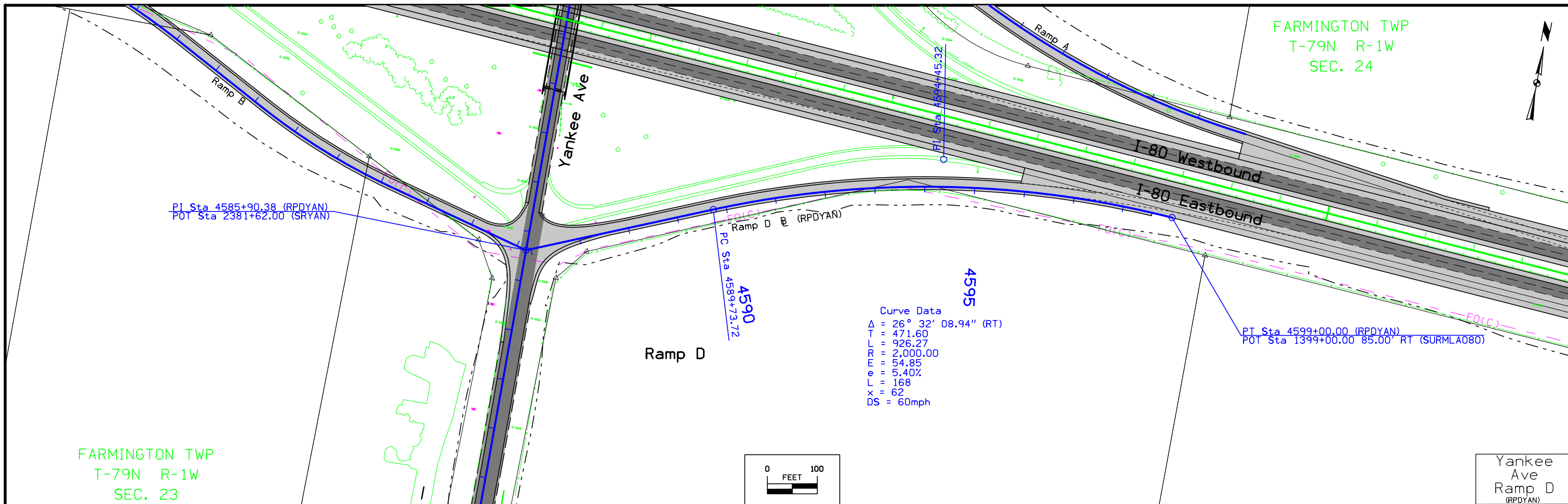


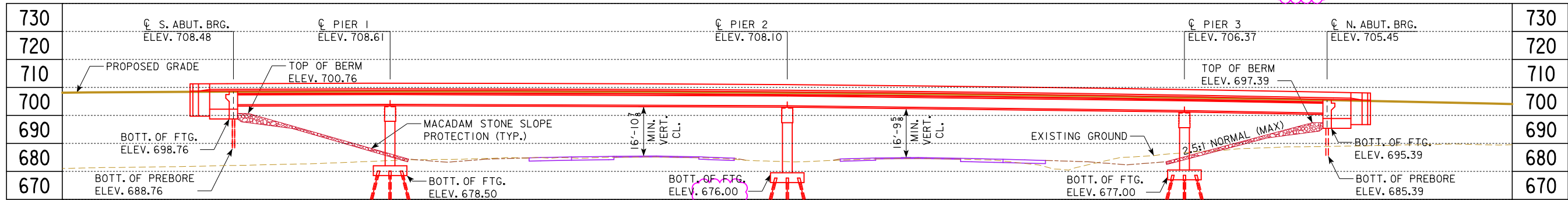
Geometric Plan
 Proposed Interchange of
 Interstate 80 with Yankee Ave
 Cedar County



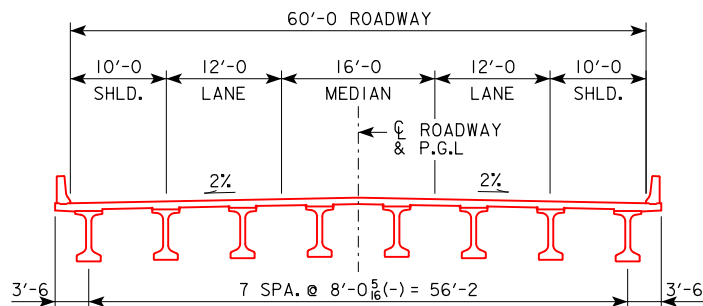








LONGITUDINAL SECTION ALONG CL MOSCOW RD.



TYPICAL BRIDGE SECTION

POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	1801+41.40	34.58' LT	684.24	1804+12.03	34.58' RT	682.93
A2	1800+87.84	34.58' RT	684.85	1803+58.48	34.58' RT	683.53
B1	1800+84.72	34.58' LT	700.76	1804+63.71	34.58' LT	697.39
B2	1800+31.17	34.58' RT	700.76	1804+10.16	34.58' RT	697.39
W1	1800+59.67	34.58' LT	707.79	1804+81.67	34.58' LT	703.92
W2	1800+13.21	34.58' RT	707.55	1804+35.21	34.58' RT	704.88

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

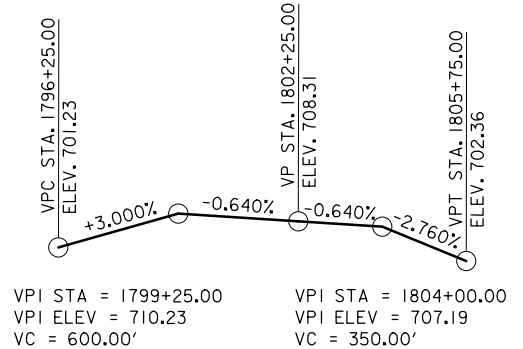
LOCATION

MOSCOW RD. OVER I-80
T-79N R-02W
SECTION 18
ROCHESTER TOWNSHIP
CEDAR COUNTY
FHWA NO. ?
BRIDGE MAINT. NO. ?
LATITUDE 41.644998
LONGITUDE -91.113729°

MINIMUM VERTICAL CLEARANCE

E.B. ROADWAY
OVERHEAD STATION = 1801+81.41, OFFSET 28.08' RT
OVERHEAD ELEVATION = 707.97
DEPTH OF SUPERSTRUCTURE = 5.33'
UNDERPASS STATION = 804+54.55, OFFSET 37.00' RT
UNDERPASS ELEVATION = 685.74
MINIMUM VERTICAL CLEARANCE = 16.90'

W.B. ROADWAY
OVERHEAD STATION = 1802+74.99, OFFSET 28.08' RT
OVERHEAD ELEVATION = 707.35
DEPTH OF SUPERSTRUCTURE = 5.33'
UNDERPASS STATION = 803+97.26, OFFSET 37.00' LT
UNDERPASS ELEVATION = 685.22
MINIMUM VERTICAL CLEARANCE = 16.80'



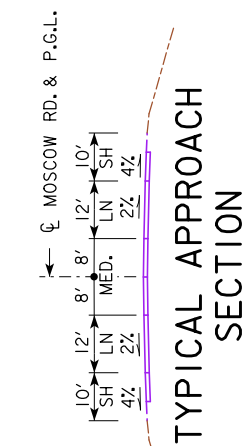
PROPOSED PROFILE GRADE MOSCOW RD.

TRAFFIC ESTIMATE

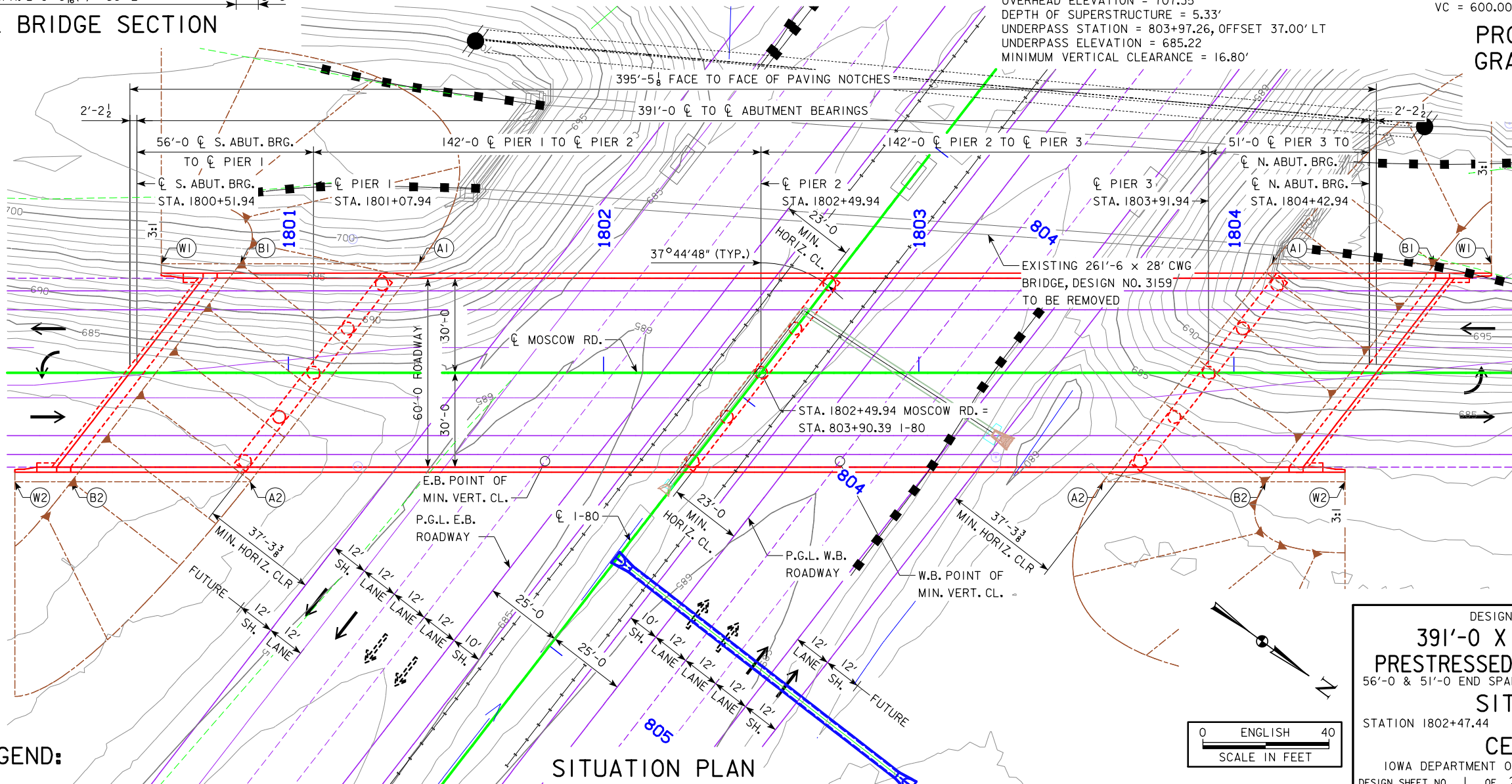
2020 AADT	3,221	V.P.D.
2040 AADT	3,950	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALS	--	

NOTES:

- TOP OF BRIDGE DECK CROWN IS 0.03' BELOW PROFILE GRADE.
 - NON-STANDARD 3'-6" INTEGRAL ABUTMENTS AND 4'-6" PIER CAPS.
 - NON-STANDARD 8'-6" WING EXTENSION REQUIRED, MEASURED FROM CL ABUT. BRG.
 - MASH TL-4 (38") BRIDGE RAILING PROPOSED.
 - PIER TYPE-FRAME.
 - PIER 2 COLUMNS DESIGNED FOR VEHICULAR COLLISION FORCE. PIERS 1 & 3 ARE EXEMPT.
 - BEAM TYPE-BTD.
 - MACADAM STONE.
 - PROP. VERTICAL DATUM IS APPROX. 8.34' HIGHER THAN USED ON EXISTING PLANS.
 - 1-80 ELEVATIONS BASED ON EXISTING RDWY. SURVEY PLUS 4" PROPOSED OVERLAY.
 - NON-STANDARD BTD140 BEAMS USED. DESIGN TO BE DONE BY FINAL DESIGNER.
- PRELIMINARY



TYPICAL APPROACH SECTION

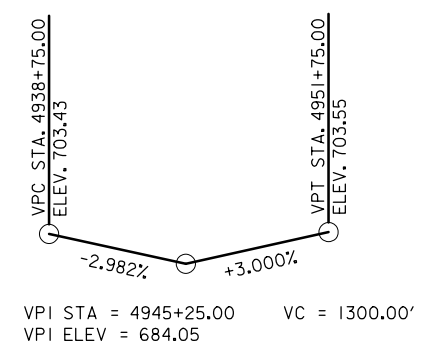
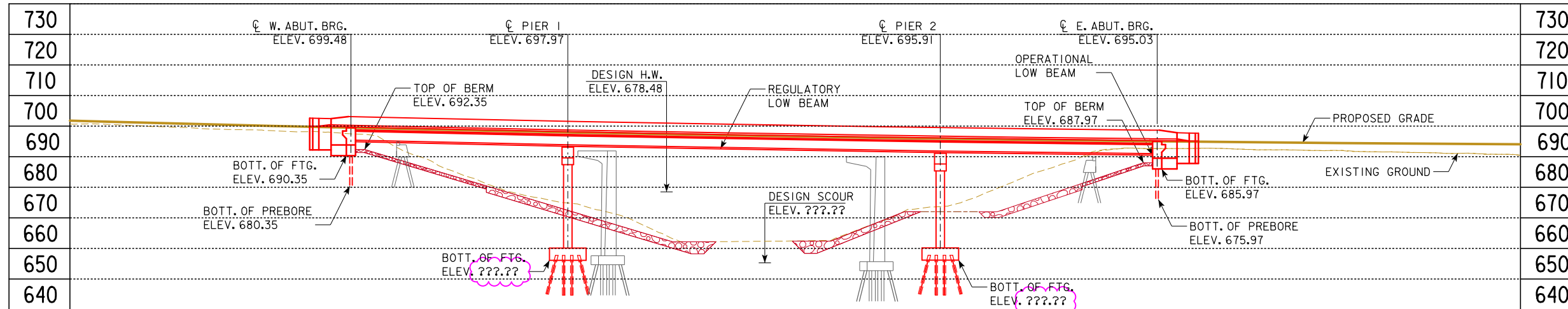


SITUATION PLAN

UTILITIES LEGEND:

?? - AERIAL POWER LINE

DESIGN FOR 37°44'48" SKEW (L.A.)
391'-0" X 60'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 56'-0" & 51'-0" END SPANS (BTD BEAMS) 142'-0" INTERIOR SPANS
SITUATION PLAN
 STATION 1802+47.44 (CL MOSCOW RD.) JUNE 2019
CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG PROP. W.B. I-80 & P.G.L.

PROPOSED PROFILE GRADE WB I-80

HYDRAULIC DATA

DRAINAGE AREA = 92.3 SQ. MI.
 STREAM SLOPE = 2.0 FT./MI.
 AVG. LOW WATER STAGE = EL. 661.36

Q₂ = 2,350 CFS
 STAGE = 670.87
 CHANNEL VELOCITY = 4.2 FPS

Q₅₀ = 11,600 CFS
 STAGE = 678.48
 BACKWATER = (+)1.03/(-)0.05 FT.
 AVG. BRIDGE VELOCITY = 8.5 FPS
 REGULATORY LOW BEAM EL. 691.51

Q₁₀₀ = 13,500 CFS
 STAGE = 679.94
 BACKWATER = (+)1.23/(-)0.08 FT.
 AVG. BRIDGE VELOCITY = 8.6 FPS
 OPERATIONAL LOW BEAM EL. 689.73

Q₂₀₀ = 17,300 CFS
 STAGE = 681.07
 CALCULATED DESIGN SCOUR = ????

Q₅₀₀ = 18,700 CFS
 STAGE = 681.53
 AVG. BRIDGE VELOCITY = 10.3 FPS
 CALCULATED CHECK SCOUR = ????



LOCATION

WESTBOUND I-80 OVER SUGAR CREEK
 T-79N R-02W
 SECTION 15
 SUGAR CREEK TOWNSHIP
 CEDAR COUNTY
 FHWA NO. 18661
 BRIDGE MAINT. NO. 1669.5L080
 LATITUDE 41.642579°
 LONGITUDE -91.063756°

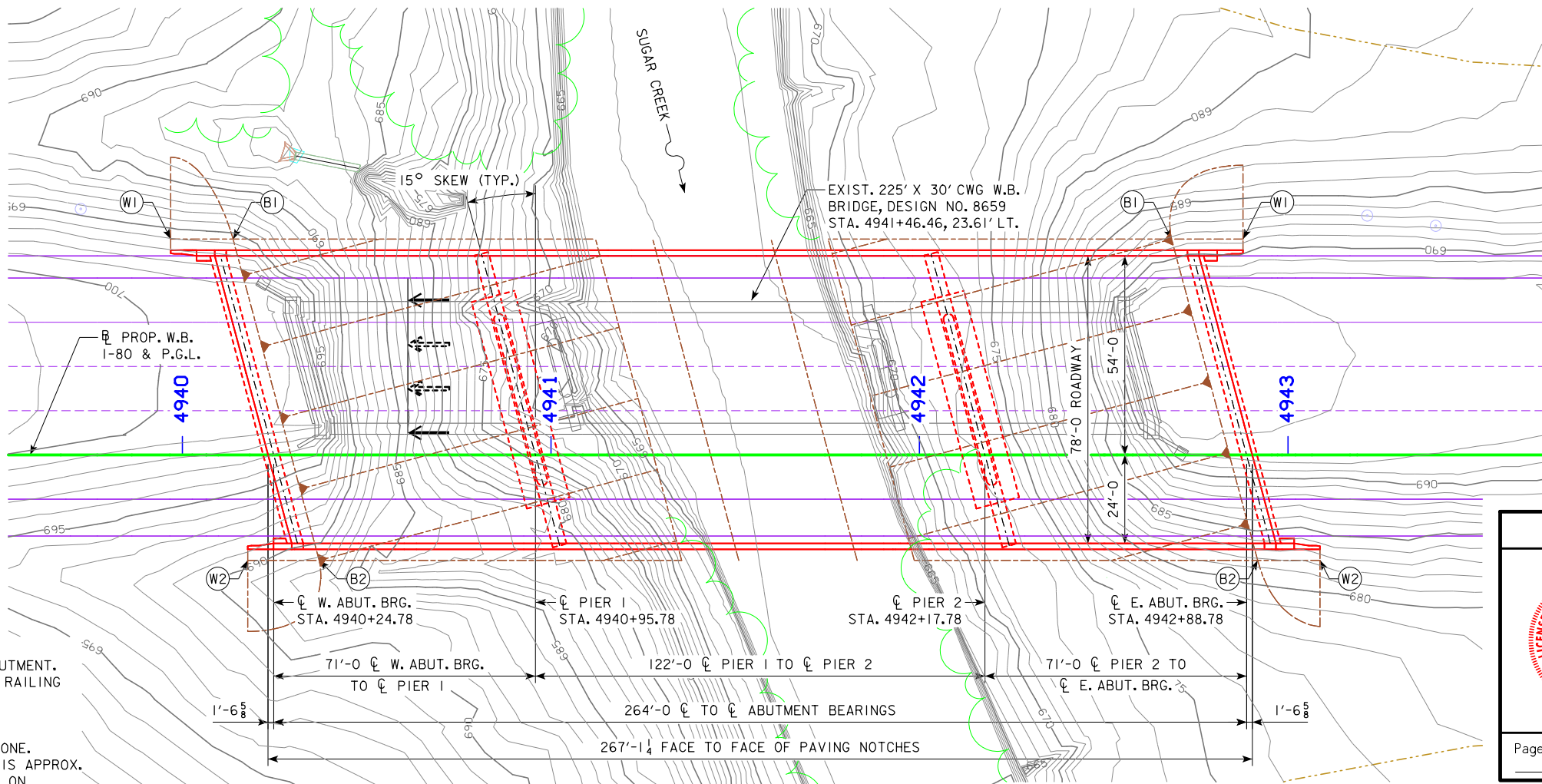
HYDRAULIC DESIGN

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



Signature: Teresa H. Stadelmann
 Printed or Typed Name
 My license renewal date is December 31, 2019

Pages or sheets covered by this seal: V3



SITUATION PLAN

- NOTES:
- STANDARD INTEGRAL ABUTMENT.
 - MASH TL-4 (38") BRIDGE RAILING PROPOSED.
 - PIER TYPE-T PIER.
 - BEAM TYPE-BTC.
 - CLASS E REVETMENT STONE.
 - PROP. VERTICAL DATUM IS APPROX. 8.54' HIGHER THAN USED ON EXISTING PLANS.

BERM SLOPE LOCATION TABLE

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	XXXX+XX.XX	58.58' LT	XXX.XX	XXXX+XX.XX	58.58' LT	XXX.XX
A2	XXXX+XX.XX	28.58' RT	XXX.XX	XXXX+XX.XX	28.58' RT	XXX.XX
B1	4940+13.74	58.58' LT	692.35	4942+68.43	58.58' LT	687.97
B2	4940+37.10	28.58' RT	692.35	4942+91.78	28.58' RT	687.97
W1	4939+96.81	58.58' LT	699.75	4942+87.81	58.58' LT	694.65
W2	4940+17.71	28.58' RT	698.77	4943+08.71	28.58' RT	693.96

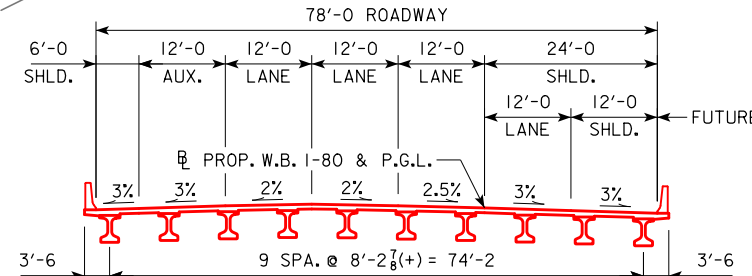
BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

UTILITIES LEGEND:

NO KNOWN UTILITIES

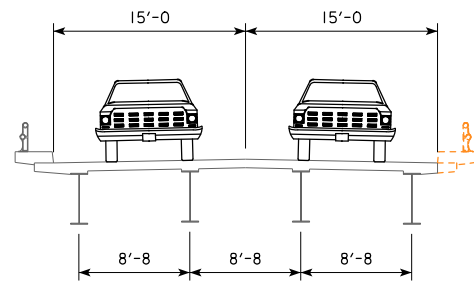
TRAFFIC ESTIMATE

2020 AADT 20,819 V.P.D.
 2040 AADT 38,304 V.P.D.
 2040 DHV V.P.H.
 TRUCKS 37%
 TOTAL DESIGN ESALS

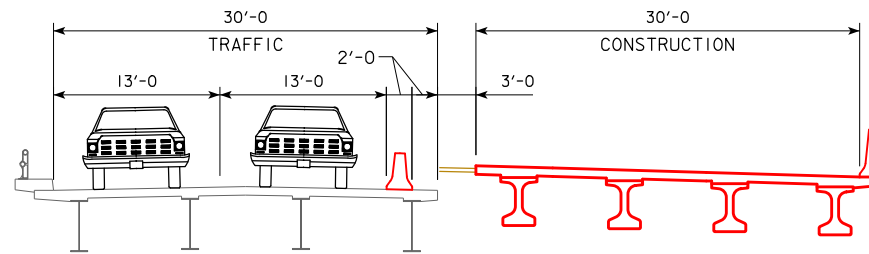


TYPICAL BRIDGE SECTION

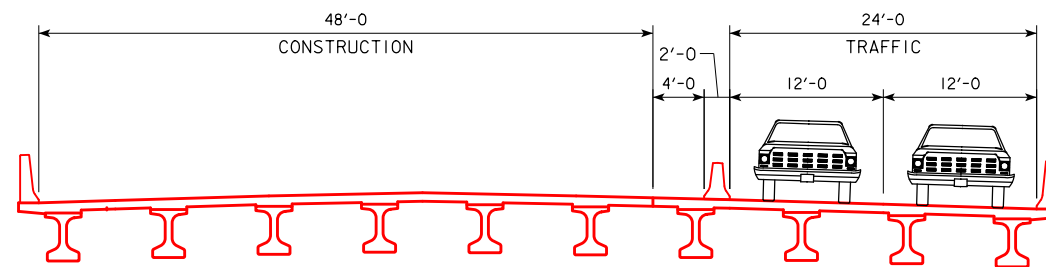
PRELIMINARY
 DESIGN FOR 15° SKEW
**264'-0" X 78'-0" PRETENSIONED
 PRESTRESSED CONCRETE BEAM BRIDGE**
 71'-0" END SPANS (BTC BEAMS) 122'-0" INTERIOR SPAN
SITUATION PLAN
 STATION 4941+56.78 (WB I-80 OVER SUGAR CREEK) JUNE 2019
CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



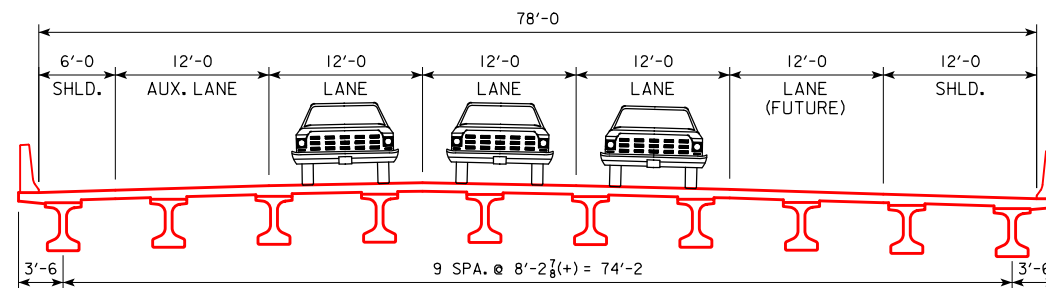
EXISTING CROSS SECTION



STAGE I

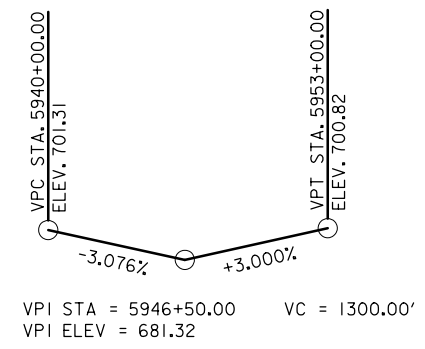
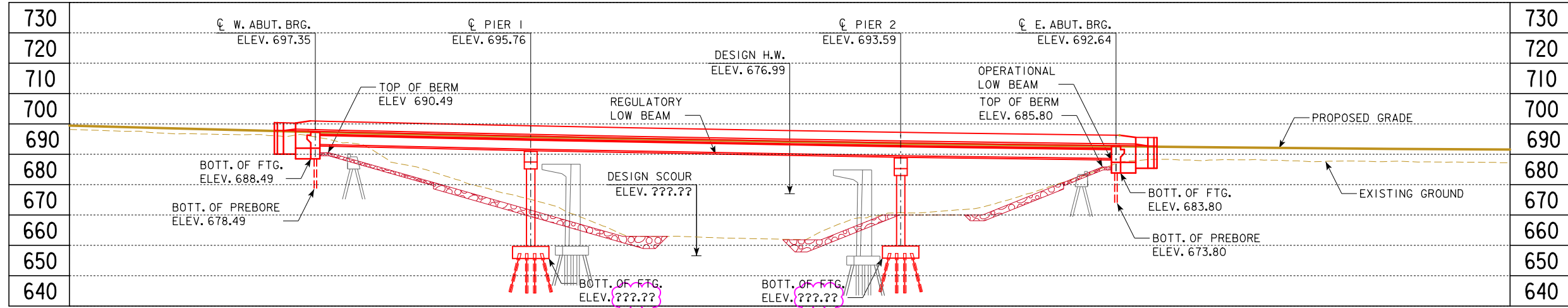


STAGE II

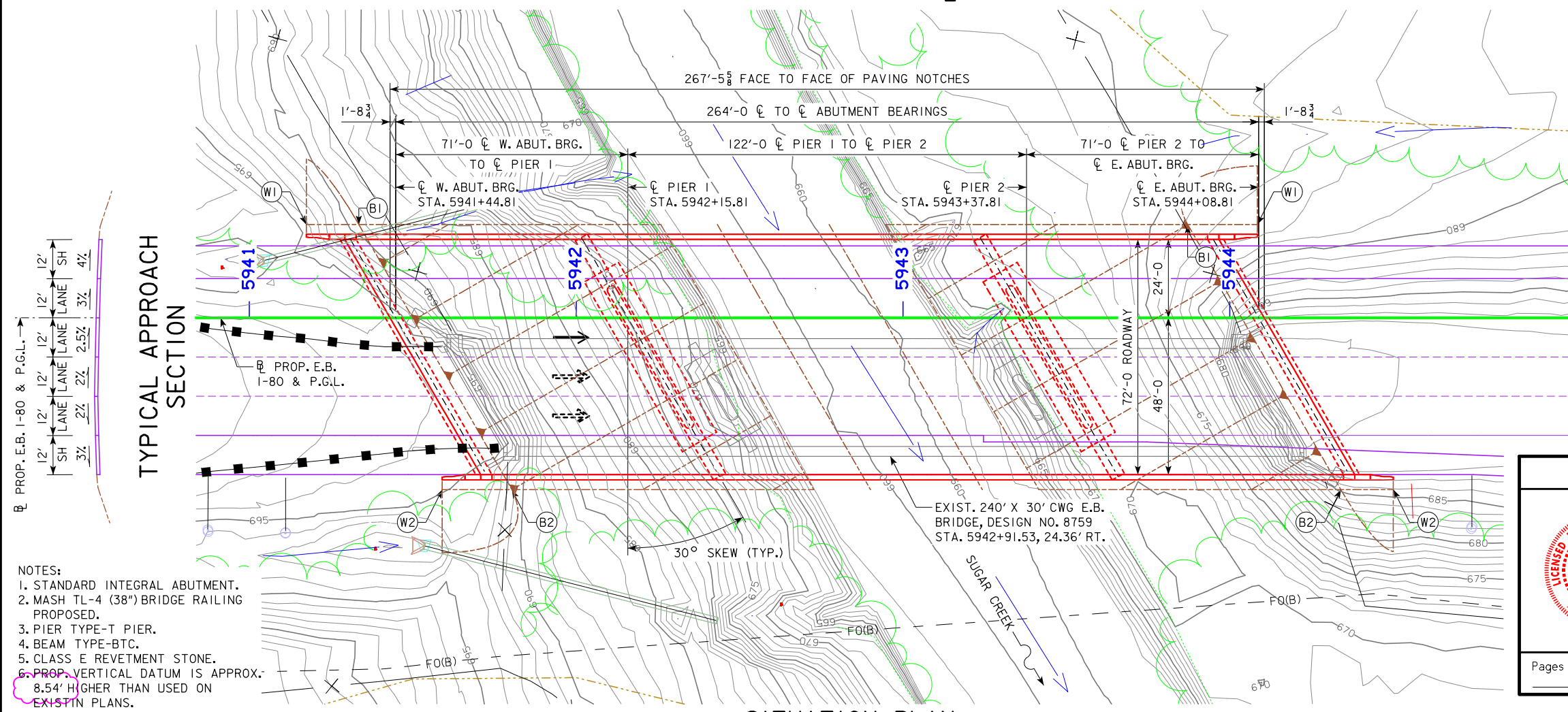


FINAL CROSS SECTION - W.B. I-80
(LOOKING EAST)

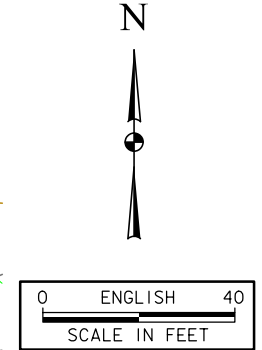
PRELIMINARY
 DESIGN FOR 15° SKEW
**264'-0 X 78'-0 PRETENSIONED
 PRESTRESSED CONCRETE BEAM BRIDGE**
 71'-0 END SPANS (BTC BEAMS) 122'-0 INTERIOR SPAN
STAGE CONSTRUCTION
 STATION 4941+56.78 (WB I-80 OVER SUGAR CREEK) JUNE 2019
CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 2 OF 2 FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG CL PROP. E.B. I-80 & P.G.L.



- NOTES:
- STANDARD INTEGRAL ABUTMENT.
 - MASH TL-4 (38") BRIDGE RAILING PROPOSED.
 - PIER TYPE-T PIER.
 - BEAM TYPE-BTC.
 - CLASS E REVETMENT STONE.
 - PROP. VERTICAL DATUM IS APPROX. 8.54' HIGHER THAN USED ON EXISTING PLANS.



HYDRAULIC DATA

DRAINAGE AREA = 92.3 SQ. MI.
 STREAM SLOPE = 2.0 FT./MI.
 AVG. LOW WATER STAGE = EL. 660.41

Q₂₅ = 2,350 CFS
 STAGE = 669.72
 CHANNEL VELOCITY = 3.9 FPS

Q₅₀ = 11,600 CFS
 STAGE = 676.99
 BACKWATER = (+)1.44/(-)0.02 FT.
 AVG. BRIDGE VELOCITY = 7.4 FPS
 REGULATORY LOW BEAM EL. 689.56

Q₁₀₀ = 13,500 CFS
 STAGE = 678.50
 BACKWATER = (+)1.37/(-)0.01 FT.
 AVG. BRIDGE VELOCITY = 7.5 FPS
 OPERATIONAL LOW BEAM EL. 687.55

Q₂₀₀ = 17,300 CFS
 STAGE = 679.45
 CALCULATED DESIGN SCOUR = ????

Q₅₀₀ = 18,700 CFS
 STAGE = 679.86
 AVG. BRIDGE VELOCITY = 9.2 FPS
 CALCULATED CHECK SCOUR = ????

LOCATION

EASTBOUND I-80 OVER SUGAR CREEK
 SECTION 15
 SUGAR CREEK TOWNSHIP
 CEDAR COUNTY
 FHWA NO. 18651
 BRIDGE MAINT. NO. 1669.5R080
 LATITUDE 41.641815°
 LONGITUDE -91.063476°

HYDRAULIC DESIGN

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

Signature: Teresa H. Stadelmann Date: ??-??-2016

Printed or Typed Name: Teresa H. Stadelmann

My license renewal date is December 31, 2019

Pages or sheets covered by this seal: V5

BERM SLOPE LOCATION TABLE

POINTS	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	XXXX+XX.XX	28.58' LT	XXX.XX	XXXX+XX.XX	28.58' LT	XXX.XX
A2	XXXX+XX.XX	52.58' RT	XXX.XX	XXXX+XX.XX	52.58' RT	XXX.XX
B1	5941+33.50	28.58' LT	690.49	5943+87.11	28.58' LT	685.80
B2	5941+80.36	52.58' RT	690.49	5944+33.97	52.58' RT	685.80
W1	5941+17.45	28.58' LT	697.15	5944+08.45	28.58' LT	691.78
W2	5941+59.02	52.58' RT	696.92	5944+50.02	52.58' RT	692.11

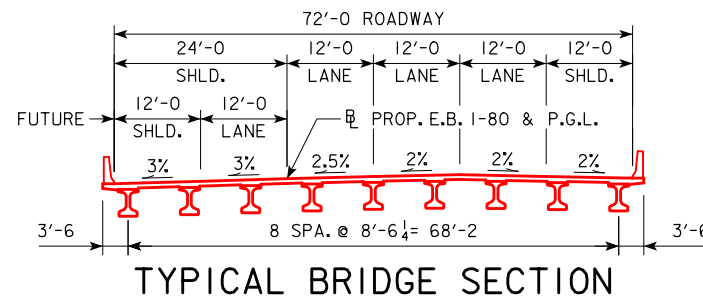
BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

UTILITIES LEGEND:

FO(B) - IOWA COMMUNICATIONS NETWORK

TRAFFIC ESTIMATE

2020 AADT	20,367	V.P.D.
2040 AADT	37,275	V.P.D.
20 DHV		V.P.H.
TRUCKS	37%	%
TOTAL DESIGN ESALS		



PRELIMINARY

DESIGN FOR 30° SKEW

264'-0" X 72'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

71'-0" END SPANS (BTC BEAMS) 122'-0" INTERIOR SPAN

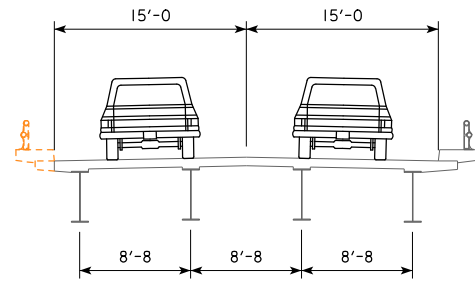
SITUATION PLAN

STATION 5942+76.81 (EB I-80 OVER SUGAR CREEK) JUNE 2019

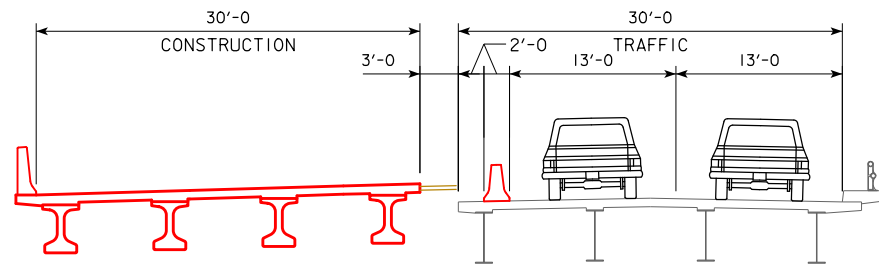
CEDAR COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

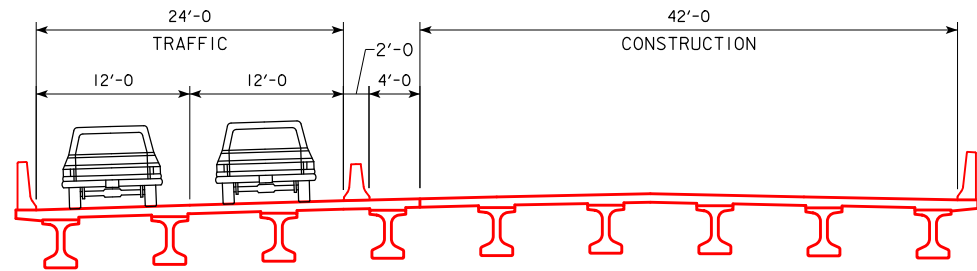
DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



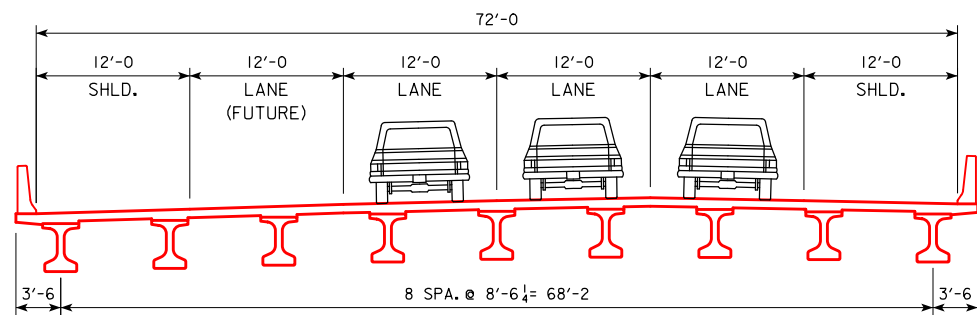
EXISTING CROSS SECTION



PHASE I, STAGE I



PHASE I, STAGE 2



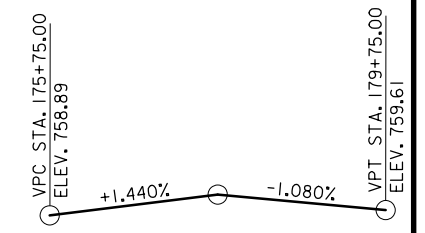
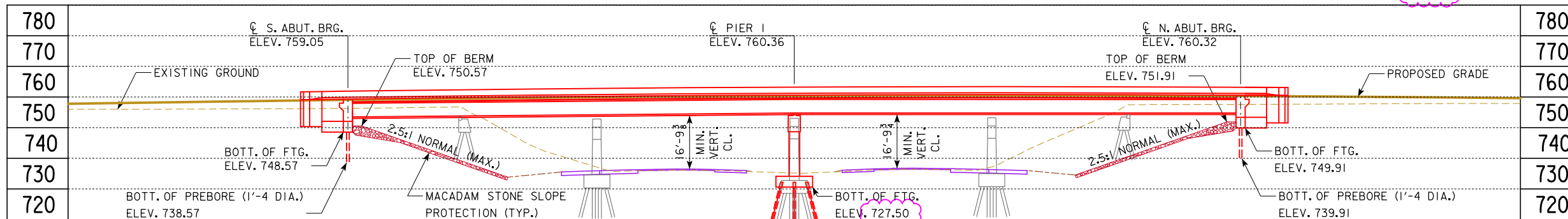
FINAL CROSS SECTION - E.B. I-80
(LOOKING EAST)

PRELIMINARY
DESIGN FOR 30° SKEW

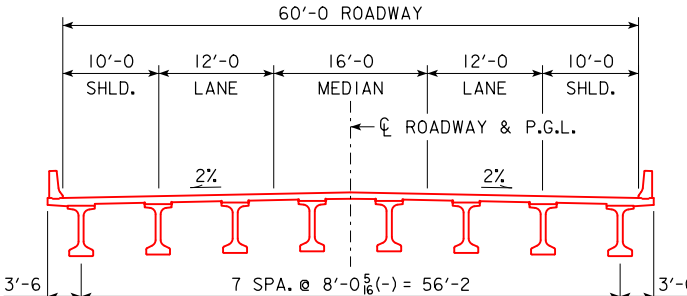
**264'-0 X 72'-0 PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE**
(BTC BEAMS) (BTC BEAMS) (BTC BEAMS)

STAGE CONSTRUCTION
71'-0 END SPANS (BTC BEAMS) 122'-0 INTERIOR SPAN

STATION 5942+76.81 (EB I-80 OVER SUGAR CREEK) JUNE 2019
CEDAR COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 2 OF 2 FILE NO. ? DESIGN NO. ?



PROPOSED PROFILE GRADE ROSE AVE.



TYPICAL BRIDGE SECTION

BERM SLOPE LOCATION TABLE						
POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	176+50.91	34.58' LT	735.19	178+38.67	34.58' LT	735.77
A2	176+30.37	34.58' RT	734.43	178+18.19	34.58' RT	734.97
B1	176+03.48	34.58' LT	750.57	178+86.09	34.58' LT	751.91
B2	175+82.95	34.58' RT	750.57	178+65.56	34.58' RT	751.91
W1	175+81.93	34.58' LT	758.24	179+04.93	34.58' LT	759.46
W2	175+64.11	34.58' RT	757.98	178+87.11	34.58' RT	759.57

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

RECOVERABLE BERM LOCATION TABLE						
PTS.	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
C1	176+75.17	116.33' LT	736.20	177+93.87	116.33' RT	734.07
C2	176+81.21	161.25' LT	736.48	177+87.84	161.25' RT	733.39
C3	177+05.45	200.77' LT	737.57	177+63.59	200.77' RT	733.56
B	176+03.48	34.58' LT	750.57	178+65.56	34.58' RT	751.91

POINTS C1, C2 AND C3 FOR THE ABUTMENTS ARE BEYOND THE LIMITS OF THIS SHEET. SEE THE RECOVERABLE BERM LOCATION TABLE FOR THEIR LOCATIONS, OFFSETS AND ELEVATIONS. REFER TO EW-203 OR EW-204 FOR TYPICAL LOCATIONS.

MINIMUM VERTICAL CLEARANCE

E.B. ROADWAY
 OVERHEAD STATION = 177+04.26, OFFSET 28.08' LT
 OVERHEAD ELEVATION = 759.66
 DEPTH OF SUPERSTRUCTURE = 6.08'
 UNDERPASS STATION = 1021+46.46, OFFSET 37.00' RT
 UNDERPASS ELEVATION = 736.80
 MINIMUM VERTICAL CLEARANCE = 16.78'

W.B. ROADWAY
 OVERHEAD STATION = 177+81.45, OFFSET 28.08' LT
 OVERHEAD ELEVATION = 759.96
 DEPTH OF SUPERSTRUCTURE = 6.08'
 UNDERPASS STATION = 1021+24.50, OFFSET 37.00' LT
 UNDERPASS ELEVATION = 737.07
 MINIMUM VERTICAL CLEARANCE = 16.81'

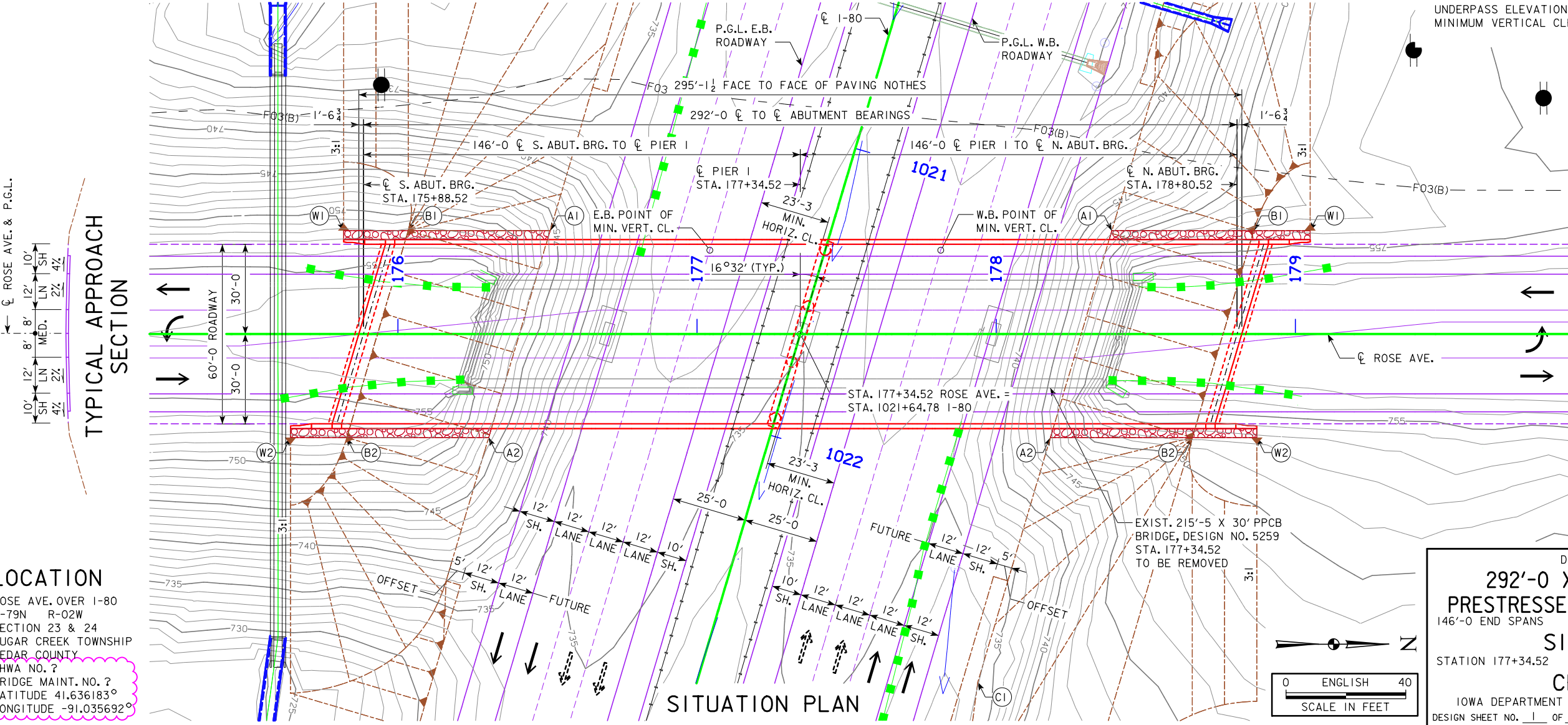
UTILITIES LEGEND:

- F03(B) WINDSTREAM COMMUNICATIONS
- ?? - AERIAL POWERLINE

TRAFFIC ESTIMATE

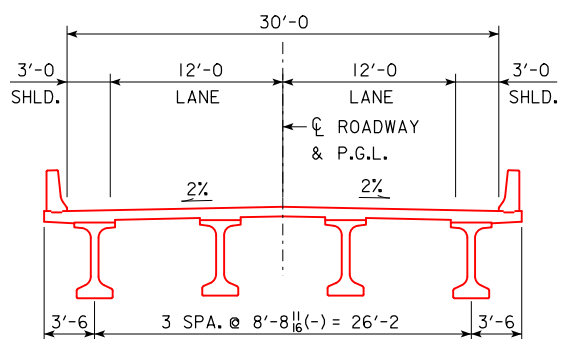
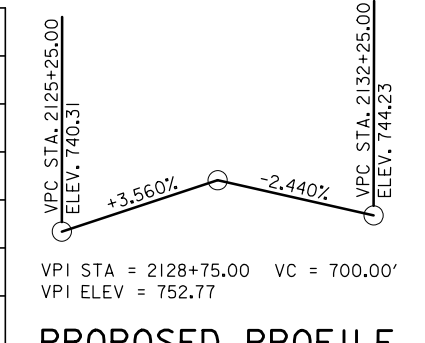
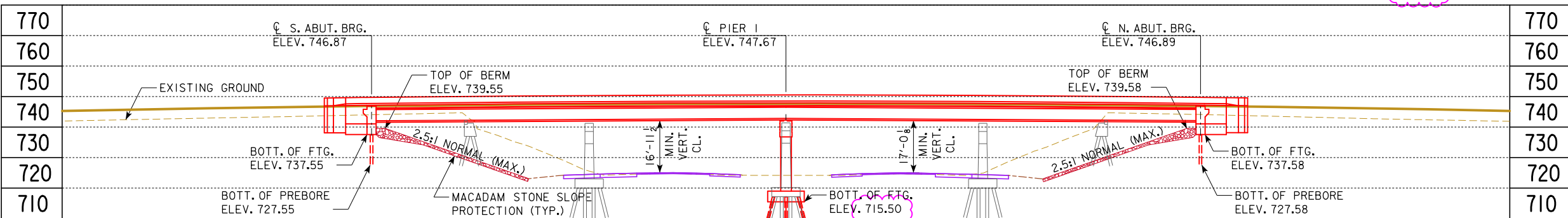
2020 AADT	2,322	V.P.D.
2040 AADT	2,636	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	19	%
TOTAL DESIGN ESALS	--	

- NOTES:
- TOP OF BRIDGE DECK CROWN IS 0.03' BELOW PROFILE GRADE.
 - STANDARD INTEGRAL ABUTMENT.
 - MASH TL-4 (38") BRIDGE RAILING PROPOSED.
 - PIER TYPE-FRAME.
 - PIERS COLUMNS DESIGNED FOR VEHICULAR COLLISION FORCE.
 - BEAM TYPE-BTE.
 - MACADAM STONE.
 - PROP. VERTICAL DATUM IS APPROX. 8.59' HIGHER THAN USED ON EXISTING PLANS.
 - 1-80 ELEVATIONS BASED ON EXISTING RDWY, SURVEY PLUS 4" PROPOSED OVERLAY.



LOCATION
 ROSE AVE. OVER I-80
 T-79N R-02W
 SECTION 23 & 24
 SUGAR CREEK TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.636183°
 LONGITUDE -91.035692°

PRELIMINARY
 DESIGN FOR 16°32'0" SKEW
**292'-0" X 60'-0" PRETENSIONED
 PRESTRESSED CONCRETE BEAM BRIDGE**
 146'-0" END SPANS (BTE BEAMS)
SITUATION PLAN
 STATION 177+34.52 (CL ROSE AVE.)
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



BERM SLOPE LOCATION TABLE						
POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	2128+49.00	19.58' LT	723.63	2130+29.00	19.58' LT	723.54
A2	2128+49.23	19.58' RT	723.45	2130+29.23	19.58' RT	723.35
B1	2128+07.62	19.58' LT	739.55	2130+70.62	19.58' LT	739.58
B2	2128+07.62	19.58' RT	739.55	2130+70.62	19.58' RT	739.58
W1	2127+89.62	19.58' LT	746.28	2130+88.62	19.58' LT	746.31
W2	2127+89.62	19.58' RT	746.28	2130+88.62	19.58' RT	746.31

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

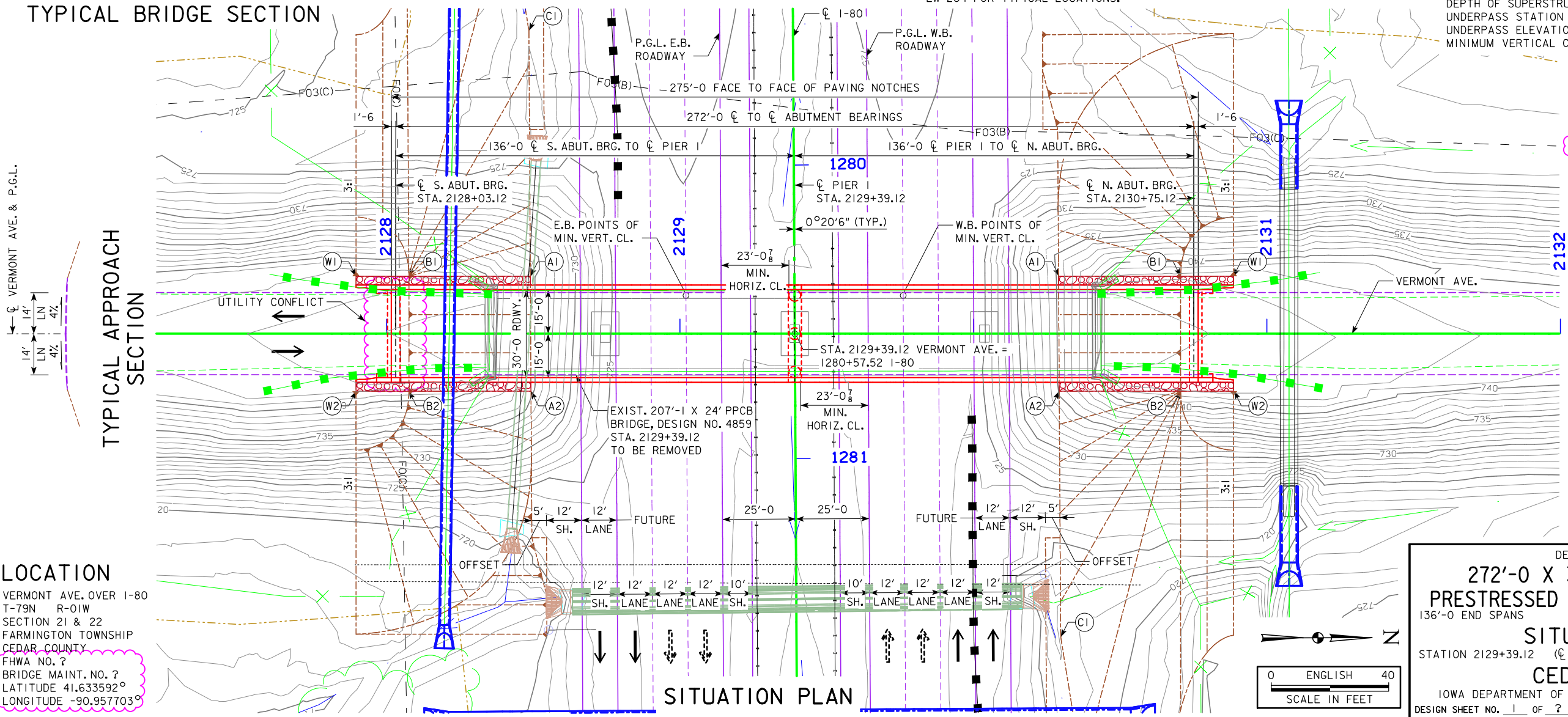
RECOVERABLE BERM LOCATION TABLE						
PTS.	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
C1	2128+48.51	103.36' LT	724.24	2130+29.72	103.36' RT	723.13
C2	2128+41.25	148.10' LT	724.42	2130+36.98	148.10' RT	722.90
C3	2128+52.99	192.96' LT	725.43	2130+25.25	192.96' RT	723.45
B	2128+07.62	19.58' LT	739.55	2130+70.62	19.58' RT	739.58

POINTS (C1), (C2) AND (C3) FOR THE ABUTMENTS ARE BEYOND THE LIMITS OF THIS SHEET. SEE THE RECOVERABLE BERM LOCATION TABLE FOR THEIR LOCATIONS, OFFSETS AND ELEVATIONS. REFER TO EW-203 OR EW-204 FOR TYPICAL LOCATIONS.

MINIMUM VERTICAL CLEARANCE

E.B. ROADWAY
 OVERHEAD STATION = 2129+02.04, OFFSET 13.08' LT
 OVERHEAD ELEVATION = 747.38
 DEPTH OF SUPERSTRUCTURE = 5.33'
 UNDERPASS STATION = 1280+44.22, OFFSET 37.00' RT
 UNDERPASS ELEVATION = 725.09
 MINIMUM VERTICAL CLEARANCE = 16.96'

W.B. ROADWAY
 OVERHEAD STATION = 2129+76.04, OFFSET 13.08' LT
 OVERHEAD ELEVATION = 747.39
 DEPTH OF SUPERSTRUCTURE = 5.33'
 UNDERPASS STATION = 1280+44.65, OFFSET 37.00' LT
 UNDERPASS ELEVATION = 725.04
 MINIMUM VERTICAL CLEARANCE = 17.01'



UTILITIES LEGEND:

F03(C) - IOWA COMMUNICATIONS NETWORK
 F03(B) - WINDSTREAM COMMUNICATIONS
 F03(C) - WINDSTREAM COMMUNICATIONS
 ?? - AERIAL POWER LINE

TRAFFIC ESTIMATE

2014 AADT	50	V.P.D.
2040 AADT	-	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	-	%
TOTAL DESIGN ESALs	--	

- NOTES:**
- TOP OF BRIDGE DECK CROWN IS 0.03' BELOW PROFILE GRADE.
 - STANDARD INTEGRAL ABUTMENT.
 - MASH TL-4 (38") BRIDGE RAILING PROPOSED.
 - PIER TYPE-FRAME.
 - PIER COLUMNS DESIGNED FOR VEHICULAR COLLISION FORCE.
 - BEAM TYPE-BTD.
 - MACADAM STONE.
 - PROP. VERTICAL DATUM IS APPROX. 8.96' HIGHER THAN USED ON EXISTIN PLAN.
 - 1-80 ELEVATIONS BASED ON EXISTING RDWY. SURVEY PLUS 4" PROPOSED OVERLAY.

LOCATION

VERMONT AVE. OVER I-80
 T-79N R-01W
 SECTION 21 & 22
 FARMINGTON TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.633592°
 LONGITUDE -90.957703°

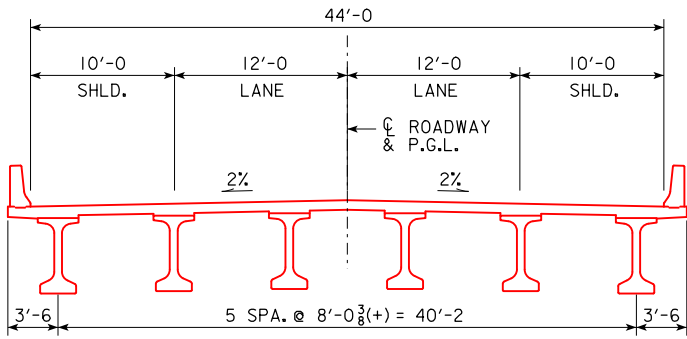
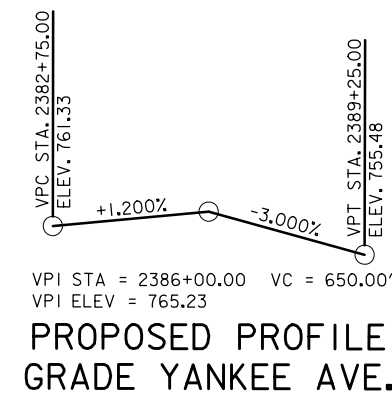
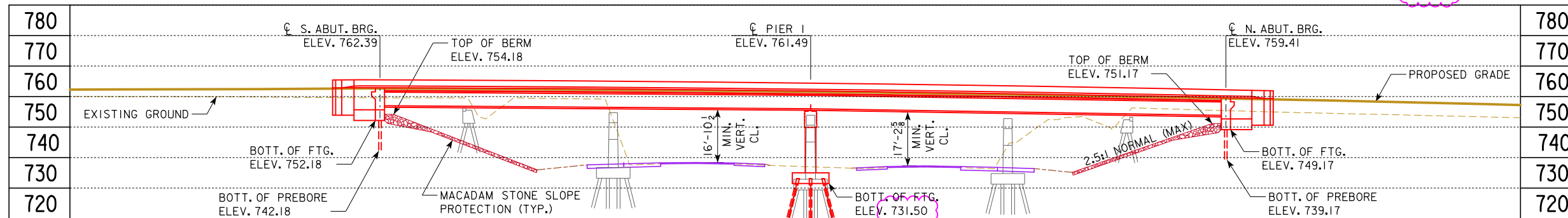
DESIGN FOR 0° SKEW

**272'-0" X 30'-0" PRETENSIONED
 PRESTRESSED CONCRETE BEAM BRIDGE**
 136'-0" END SPANS (BTD BEAMS)

SITUATION PLAN
 STATION 2129+39.12 (VERMONT AVE.)
 CEDAR COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?

JUNE 2019



BERM SLOPE LOCATION TABLE						
POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	2385+41.91	26.58' LT	736.72	2387+22.39	26.58' LT	735.52
A2	2385+38.01	26.58' RT	737.13	2387+18.50	26.58' RT	735.87
B1	2384+95.66	26.58' LT	754.18	2387+63.64	26.58' LT	751.17
B2	2384+91.77	26.58' RT	754.18	2387+59.74	26.58' RT	751.17
W1	2384+75.31	26.58' LT	761.85	2387+83.32	26.58' LT	758.49
W2	2384+72.09	26.58' RT	761.85	2387+80.09	26.58' RT	758.56

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

RECOVERABLE BERM LOCATION TABLE						
PTS.	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
C1	2385+49.07	124.22' LT	735.98	2387+12.68	105.97' RT	736.39
C2	2385+45.36	169.39' LT	735.42	2387+16.38	151.14' RT	736.49
C3	2385+60.60	213.18' LT	735.61	2387+01.14	194.93' RT	737.39
B	2384+95.66	26.58' LT	754.18	2387+59.74	26.58' RT	751.17

MINIMUM VERTICAL CLEARANCE

E.B. ROADWAY
OVERHEAD STATION = 2385+91.63, OFFSET 20.08' RT
OVERHEAD ELEVATION = 761.49
DEPTH OF SUPERSTRUCTURE = 6.08'
UNDERPASS STATION = 1386+52.14, OFFSET 37.00' RT
UNDERPASS ELEVATION = 738.54
MINIMUM VERTICAL CLEARANCE = 16.87'

W.B. ROADWAY
OVERHEAD STATION = 2386+65.83, OFFSET 20.08' RT
OVERHEAD ELEVATION = 760.68
DEPTH OF SUPERSTRUCTURE = 6.08'
UNDERPASS STATION = 1386+46.72, OFFSET 37.00' LT
UNDERPASS ELEVATION = 737.38
MINIMUM VERTICAL CLEARANCE = 17.22'

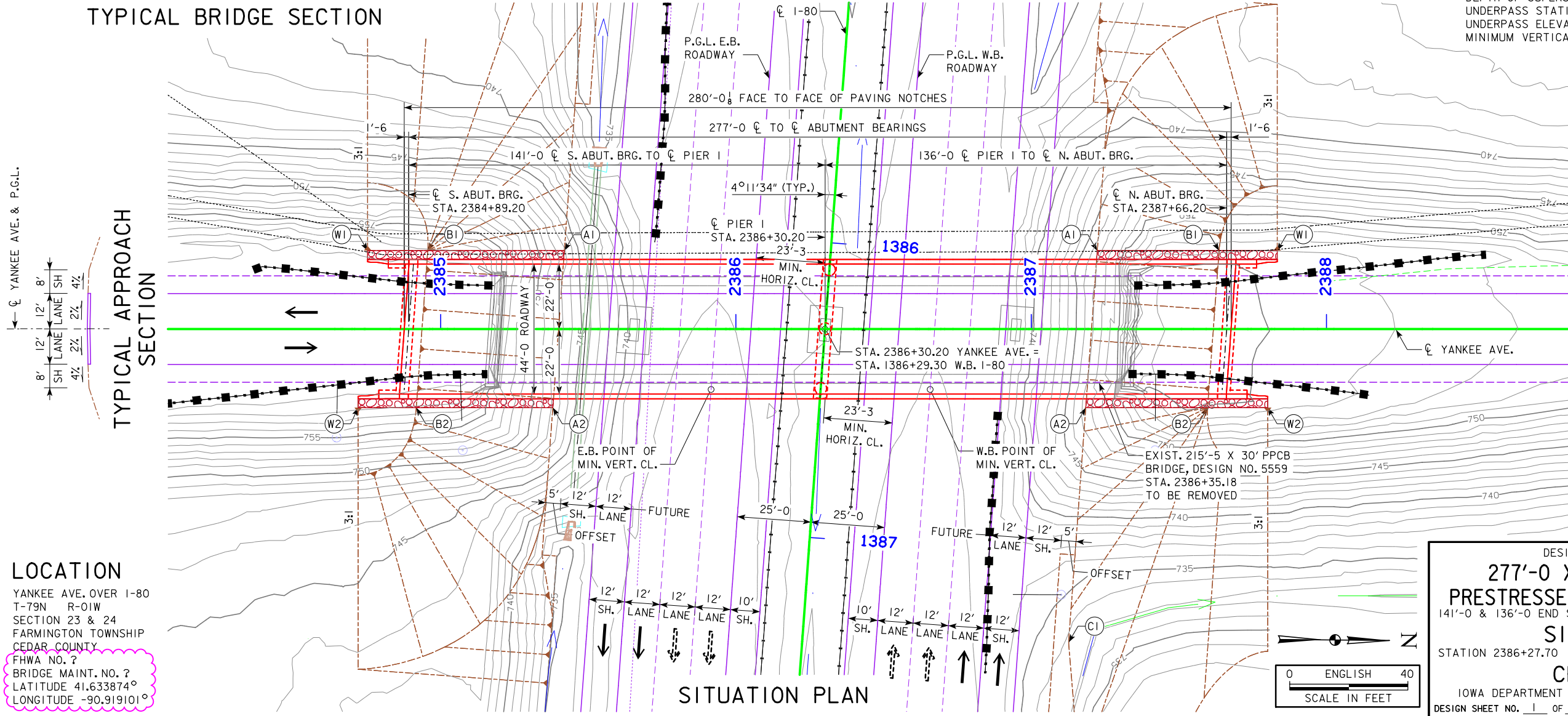
UTILITIES LEGEND:

?? - AERIAL POWER LINES

TRAFFIC ESTIMATE

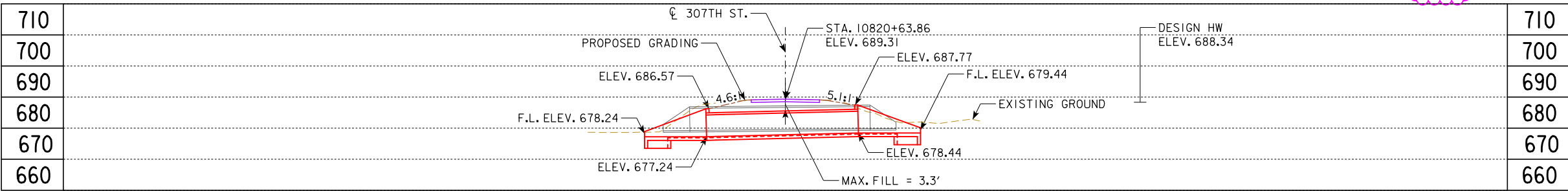
2020 AADT	1,846	V.P.D.
2040 AADT	2,098	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	17	%
TOTAL DESIGN ESALs	--	

- NOTES:
- TOP OF BRIDGE DECK CROWN IS 0.03' BELOW PROFILE GRADE.
 - STANDARD INTEGRAL ABUTMENT.
 - MASH TL-4 (38") BRIDGE RAILING PROPOSED.
 - PIER TYPE-FRAME.
 - PIER COLUMNS DESIGNED FOR VEHICULAR COLLISION FORCE.
 - BEAM TYPE-BTE.
 - MACADAM STONE.
 - PROP. VERTICAL DATUM IS APPROX. 8.54' HIGHER THAN USED ON EXISTING PLANS.
 - I-80 ELEVATIONS BASED ON EXISTING RDWY, SURVEY PLUS 4" PROPOSED OVERLAY.



LOCATION
YANKEE AVE. OVER I-80
T-79N R-01W
SECTION 23 & 24
FARMINGTON TOWNSHIP
CEDAR COUNTY
FHWA NO. ?
BRIDGE MAINT. NO. ?
LATITUDE 41.633874°
LONGITUDE -90.919101°

PRELIMINARY
DESIGN FOR 4°11'34" SKEW (L.A.)
**277'-0" X 44'-0" PRETENSIONED
PRESTRESSED CONCRETE BEAM BRIDGE**
141'-0" & 136'-0" END SPANS (BTE BEAMS)
SITUATION PLAN
STATION 2386+27.70 (\bar{C} YANKEE AVE.) JUNE 2019
CEDAR COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF ? FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG CL CULVERT

PROPOSED PROFILE GRADE 307TH ST.

HYDRAULIC DATA

DRAINAGE AREA = 0.8 SQ. MI.
 $Q_{50} = 996$ CFS
 HW ELEV. = 686.96
 EXIT VELOCITY = 8.30 FPS
 STREAM SLOPE = 7.425 FT./MI.
 $Q_{100} = 1,190$ CFS
 HW ELEV. = 688.34
 EXIT VELOCITY = 9.92 FPS

UTILITIES LEGEND:

F05(C) - HWH CORPORATION
 ?? - AERIAL POWER LINE

TRAFFIC ESTIMATE

2014 AADT 150 V.P.D.
 2040 AADT - V.P.D.
 2040 DHV - V.P.H.
 TRUCKS %
 TOTAL DESIGN ESALs -

LOCATION

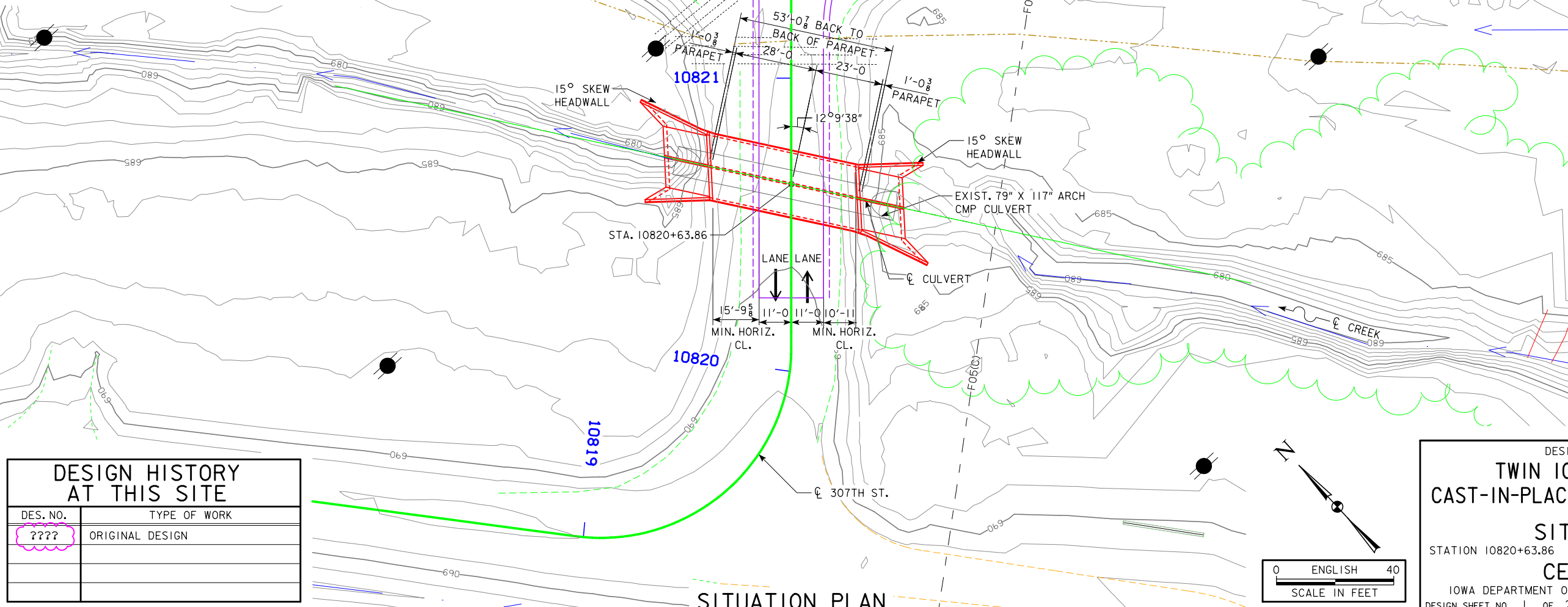
307TH ST. OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.641832°
 LONGITUDE -91.111106°

NOTES:
 1. CULVERT SUMPED 1'

TYPICAL CHANNEL PROTECTION

LOCATION	REVESTMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



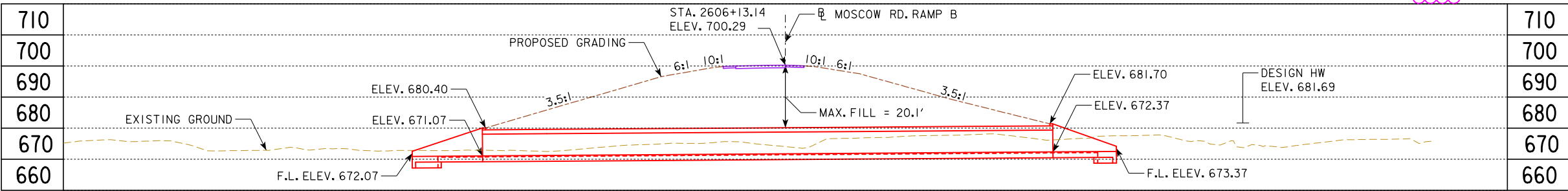
SITUATION PLAN

DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
????	ORIGINAL DESIGN

PRELIMINARY
 DESIGN FOR 15° SKEW (R.A.)
TWIN 10'-0 X 7'-0 X 51'-0
CAST-IN-PLACE CONCRETE BOX CULVERT
 SITUATION PLAN
 STATION 10820+63.86
 JUNE 2019
CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?





LONGITUDINAL SECTION ALONG \bar{C} CULVERT

PROPOSED PROFILE GRADE MOSCOW RD. RAMP B

HYDRAULIC DATA

DRAINAGE AREA = 1.03 SQ. MI.
 Q_{50} = 1,150 CFS
 HW ELEV. = 679.90
 EXIT VELOCITY = 9.16 FPS
 STREAM SLOPE = 48.95 FT./MI.
 Q_{100} = 1,370 CFS
 HW ELEV. = 681.69
 EXIT VELOCITY = 9.51 FPS

UTILITIES LEGEND:

FO(B) - IOWA COMMUNICATIONS NETWORK
 ?? - AERIAL POWER LINE

TRAFFIC ESTIMATE

2020 AADT	815	V.P.D.
2040 AADT	1144	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	13	%
TOTAL DESIGN ESALs	-	

LOCATION

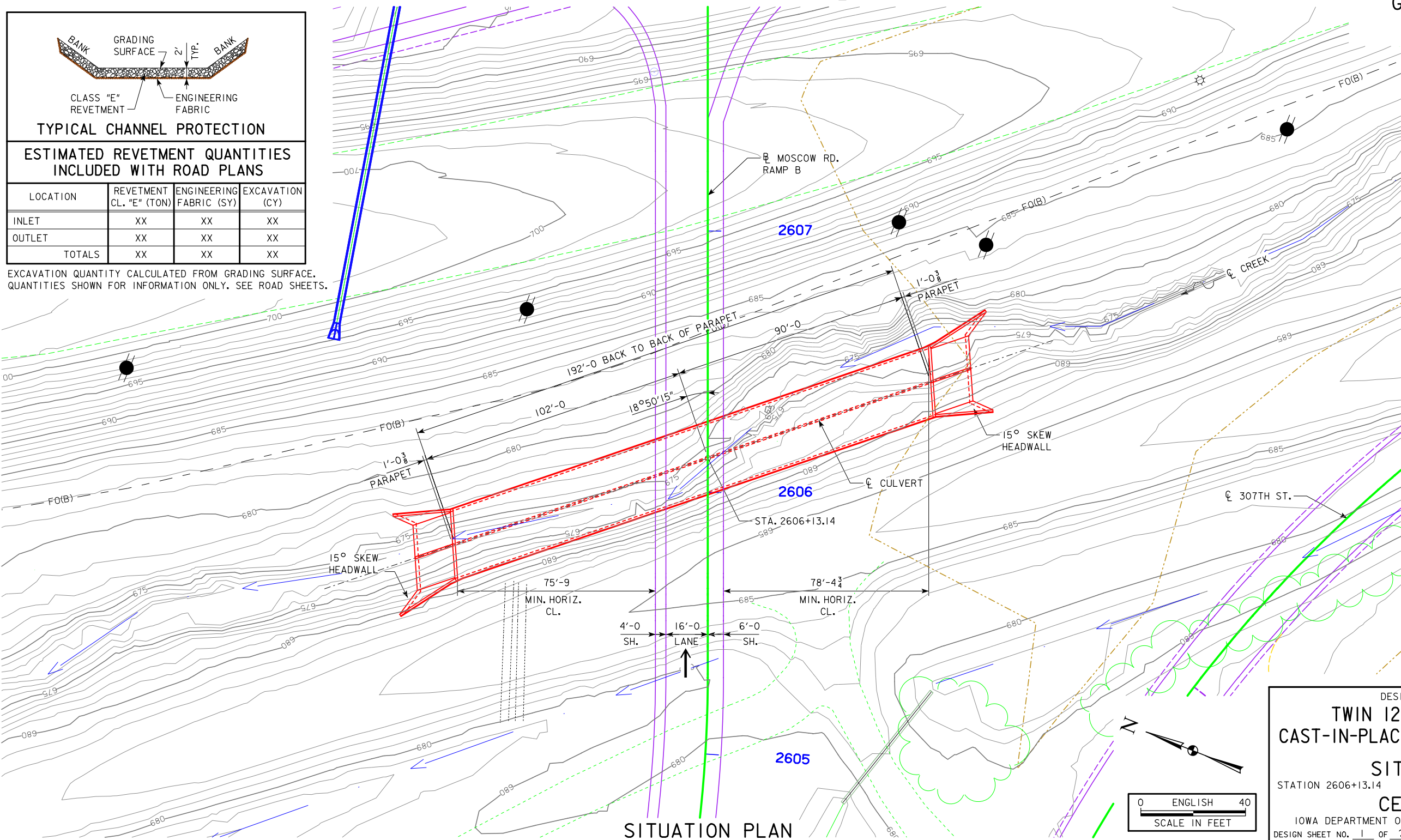
MOSCOW RD. RAMP B OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.643874°
 LONGITUDE -91.113805°

NOTES:
 1. CULVERT SUMPED 1'

TYPICAL CHANNEL PROTECTION

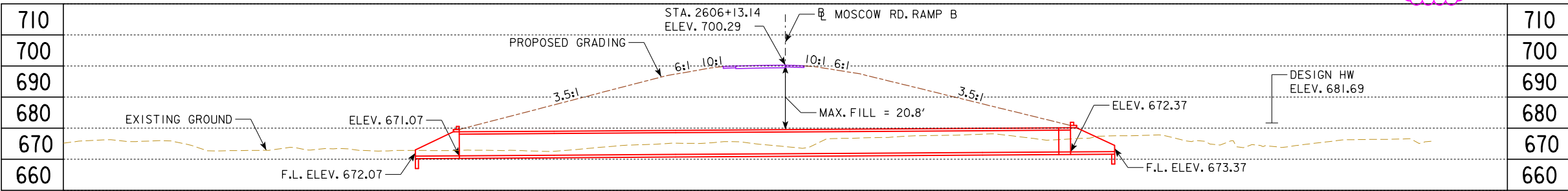
LOCATION	REVESTMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



SITUATION PLAN

PRELIMINARY
 DESIGN FOR 15° SKEW (L.A.)
TWIN 12'-0 X 7'-0 X 192'-0
CAST-IN-PLACE CONCRETE BOX CULVERT
 SITUATION PLAN
 STATION 2606+13.14
 JUNE 2019
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF ? FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG CL CULVERT

PROPOSED PROFILE GRADE MOSCOW RD. RAMP B

HYDRAULIC DATA

DRAINAGE AREA = 1.03 SQ. MI.
 $Q_{50} = 1,150$ CFS
 HW ELEV. = 679.90
 EXIT VELOCITY = 9.16 FPS
 STREAM SLOPE = 48.95 FT./MI.

$Q_{100} = 1,370$ CFS
 HW ELEV. = 681.69
 EXIT VELOCITY = 9.51 FPS

UTILITIES LEGEND:

FO(B) - IOWA COMMUNICATIONS NETWORK
 ?? - AERIAL POWER LINE

TRAFFIC ESTIMATE

2020 AADT	815	V.P.D.
2040 AADT	1144	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	13	%
TOTAL DESIGN ESALS	-	

LOCATION

MOSCOW RD. RAMP B OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.643874°
 LONGITUDE -91.113805°

NOTES:
 1. CULVERT - SUMPED 1'

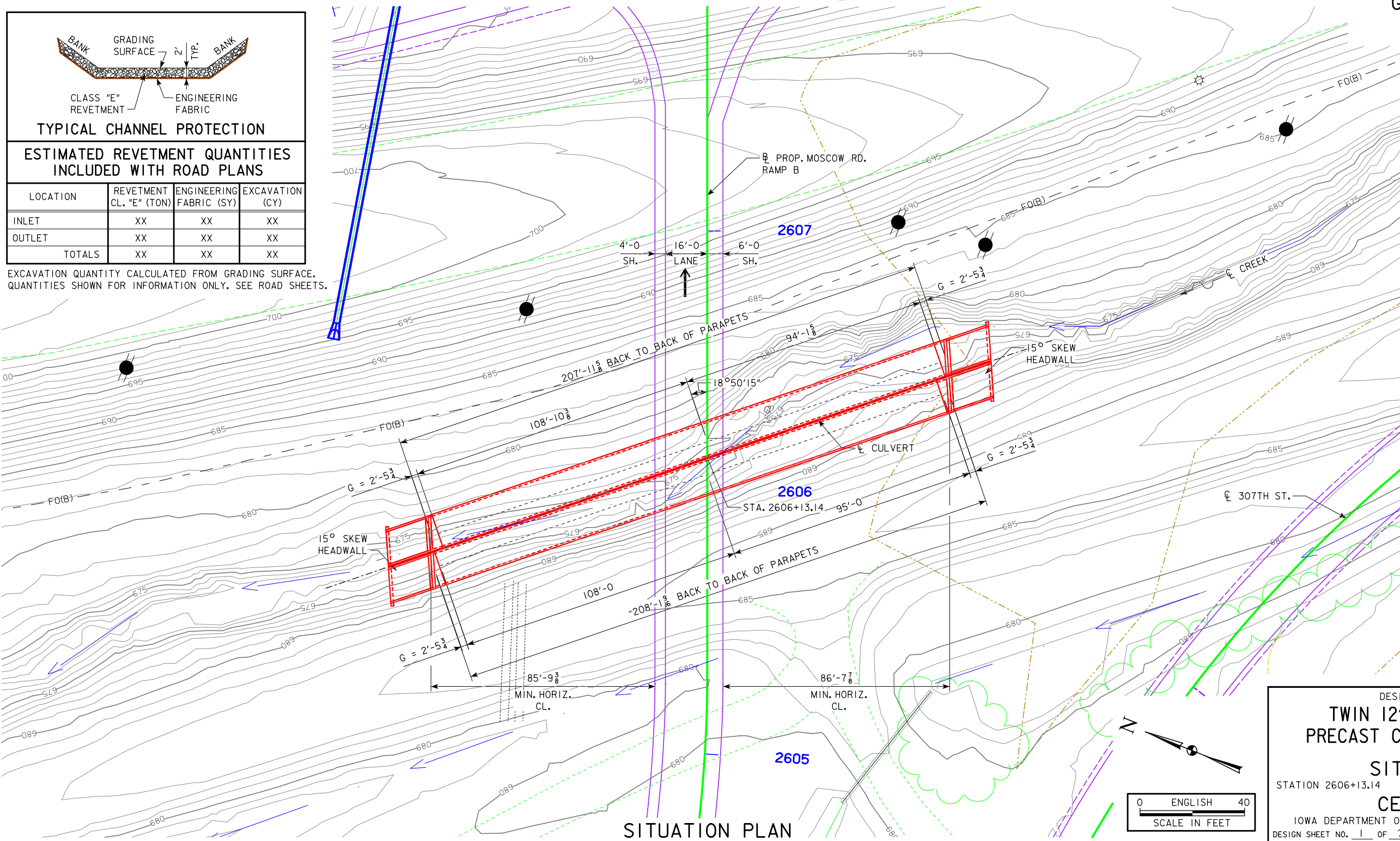
TYPICAL CHANNEL PROTECTION

CLASS "E" REVETMENT
 ENGINEERING FABRIC

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

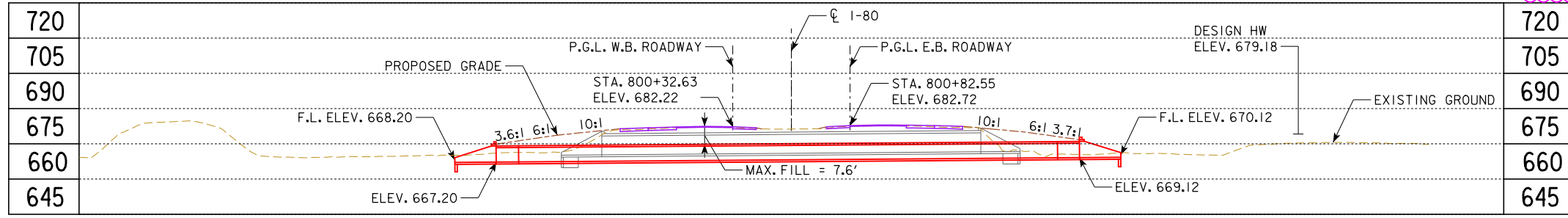
EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



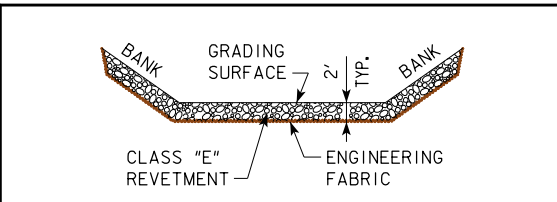
SITUATION PLAN

PRELIMINARY
 DESIGN FOR 15° SKEW (L.A.)
TWIN 12'-0 X 7'-0 X 203'-0
PRECAST CONCRETE BOX CULVERT
 SITUATION PLAN
 STATION 2606+13.14
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF ? FILE NO. ? DESIGN NO. ?





LONGITUDINAL SECTION ALONG CL CULVERT



TYPICAL CHANNEL PROTECTION

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

HYDRAULIC DATA

DRAINAGE AREA = 1.03 SQ. MI.
 $Q_{50} = 1,150$ CFS
 HW ELEV. = 677.18
 EXIT VELOCITY = 8.38 FPS
 STREAM SLOPE = 23.68 FT./MI.
 $Q_{100} = 1,370$ CFS
 HW ELEV. = 679.18
 EXIT VELOCITY = 9.51 FPS

UTILITIES LEGEND:

FO(B) - IOWA COMMUNICATIONS NETWORK
 FO(C) - IOWA COMMUNICATIONS NETWORK
 ?? AERIAL POWER LINE

TRAFFIC ESTIMATE

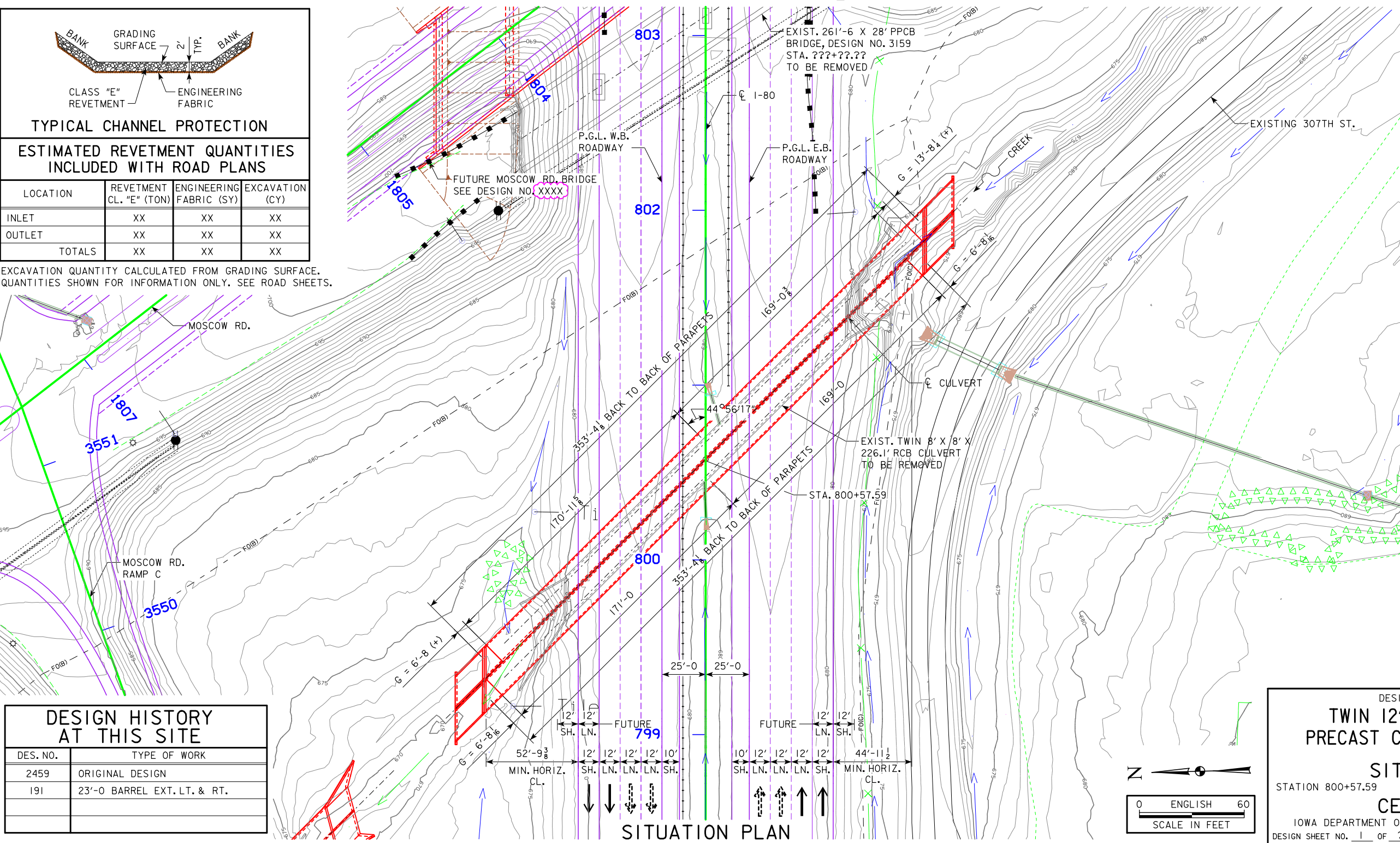
2020 AADT	40,383	V.P.D.
2040 AADT	74,533	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	38	%
TOTAL DESIGN ESALS	-	

LOCATION

I-80 OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.645061°
 LONGITUDE -91.115126°

NOTES:

1. PROP. VERTICAL DATUM IS APPROX. 8.40' HIGHER THAN USED ON EXISTING PLANS.
2. I-80 ELEVATIONS BASED ON EXISTING ROADWAY SURVEY PLUS 4" PROPOSED OVERLAY.
3. CULVERT SUMPED 1'

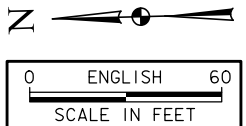


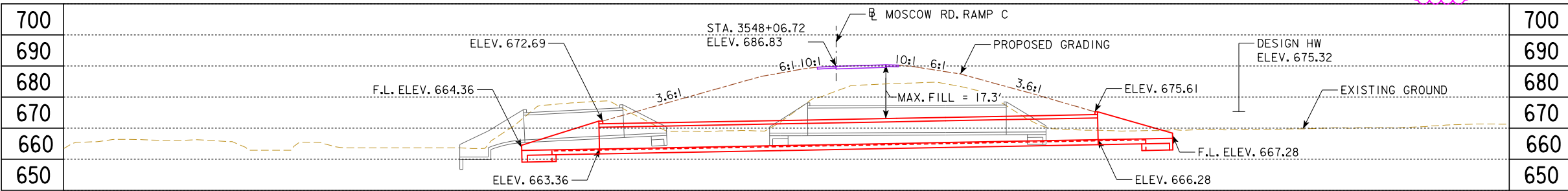
SITUATION PLAN

DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
2459	ORIGINAL DESIGN
191	23'-0 BARREL EXT. LT. & RT.

PRELIMINARY
 DESIGN FOR 45° SKEW (L.A.)
**TWIN 12'-0 X 7'-0 X 340'-0
 PRECAST CONCRETE BOX CULVERT**
 SITUATION PLAN
 STATION 800+57.59
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?





LONGITUDINAL SECTION ALONG \varnothing CULVERT

PROPOSED PROFILE GRADE MOSCOW RD. RAMP C

HYDRAULIC DATA

DRAINAGE AREA = 1.04 SQ. MI.
 $Q_{50} = 1,150$ CFS
 HW ELEV. = 673.89
 EXIT VELOCITY = 8.34 FPS
 STREAM SLOPE = 90.51 FT./MI.
 $Q_{100} = 1,370$ CFS
 HW ELEV. = 675.32
 EXIT VELOCITY = 9.51 FPS

UTILITIES LEGEND:

FO(C) - IOWA COMMUNICATIONS NETWORK

TRAFFIC ESTIMATE

2020 AADT 1,007 V.P.D.
 2040 AADT 1,428 V.P.D.
 2040 DHV - V.P.H.
 TRUCKS 17 %
 TOTAL DESIGN ESALs -

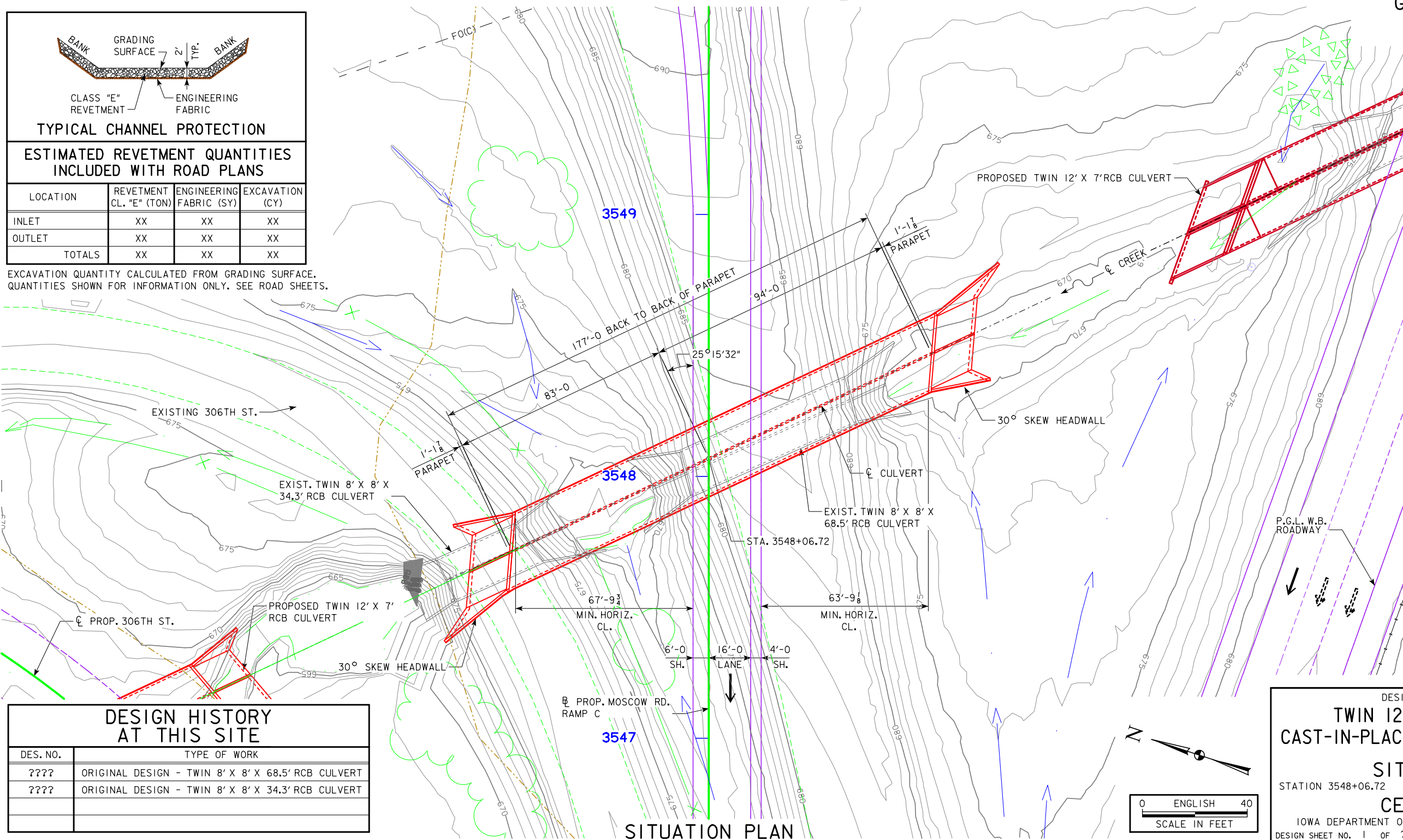
LOCATION

MOSCOW RD. RAMP C OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.645882°
 LONGITUDE -91.116122°

NOTES:
 1. CULVERT SUMPED 1'
 2. PROP. VERTICAL DATUM IS APPROX. X.XX' HIGHER THAN USED ON EXISTING PLANS.

TYPICAL CHANNEL PROTECTION			
ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS			
LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

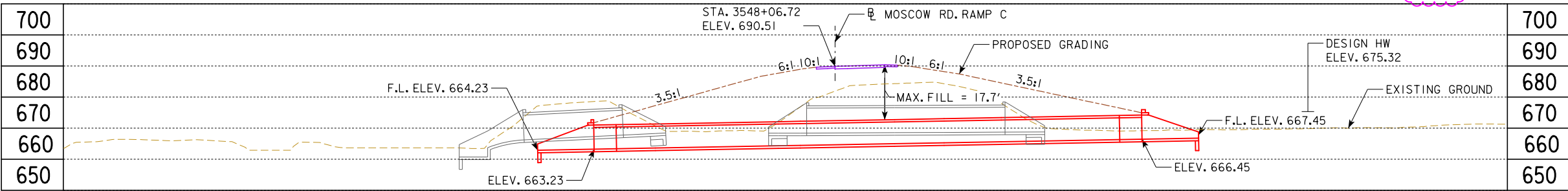
EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



SITUATION PLAN

DESIGN HISTORY AT THIS SITE	
DES. NO.	TYPE OF WORK
????	ORIGINAL DESIGN - TWIN 8' X 8' X 68.5' RCB CULVERT
????	ORIGINAL DESIGN - TWIN 8' X 8' X 34.3' RCB CULVERT

PRELIMINARY
 DESIGN FOR 30° SKEW (L.A.)
TWIN 12'-0 X 7'-0 X 175'-0
CAST-IN-PLACE CONCRETE BOX CULVERT
 SITUATION PLAN
 STATION 3548+06.72
 JUNE 2019
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG ϕ CULVERT

PROPOSED PROFILE GRADE MOSCOW RD. RAMP C

HYDRAULIC DATA

DRAINAGE AREA = 1.04 SQ. MI.
 $Q_{50} = 1,150$ CFS
 HW ELEV. = 673.89
 EXIT VELOCITY = 8.34 FPS
 STREAM SLOPE = 90.51 FT./MI.
 $Q_{100} = 1,370$ CFS
 HW ELEV. = 675.32
 EXIT VELOCITY = 9.51 FPS

UTILITIES LEGEND:

FO(C) - IOWA COMMUNICATIONS NETWORK

TRAFFIC ESTIMATE

2020 AADT 1,007 V.P.D.
 2040 AADT 1,428 V.P.D.
 2040 DHV - V.P.H.
 TRUCKS 17 %
 TOTAL DESIGN ESALS -

LOCATION

MOSCOW RD. RAMP C OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.645882°
 LONGITUDE -91.116122°

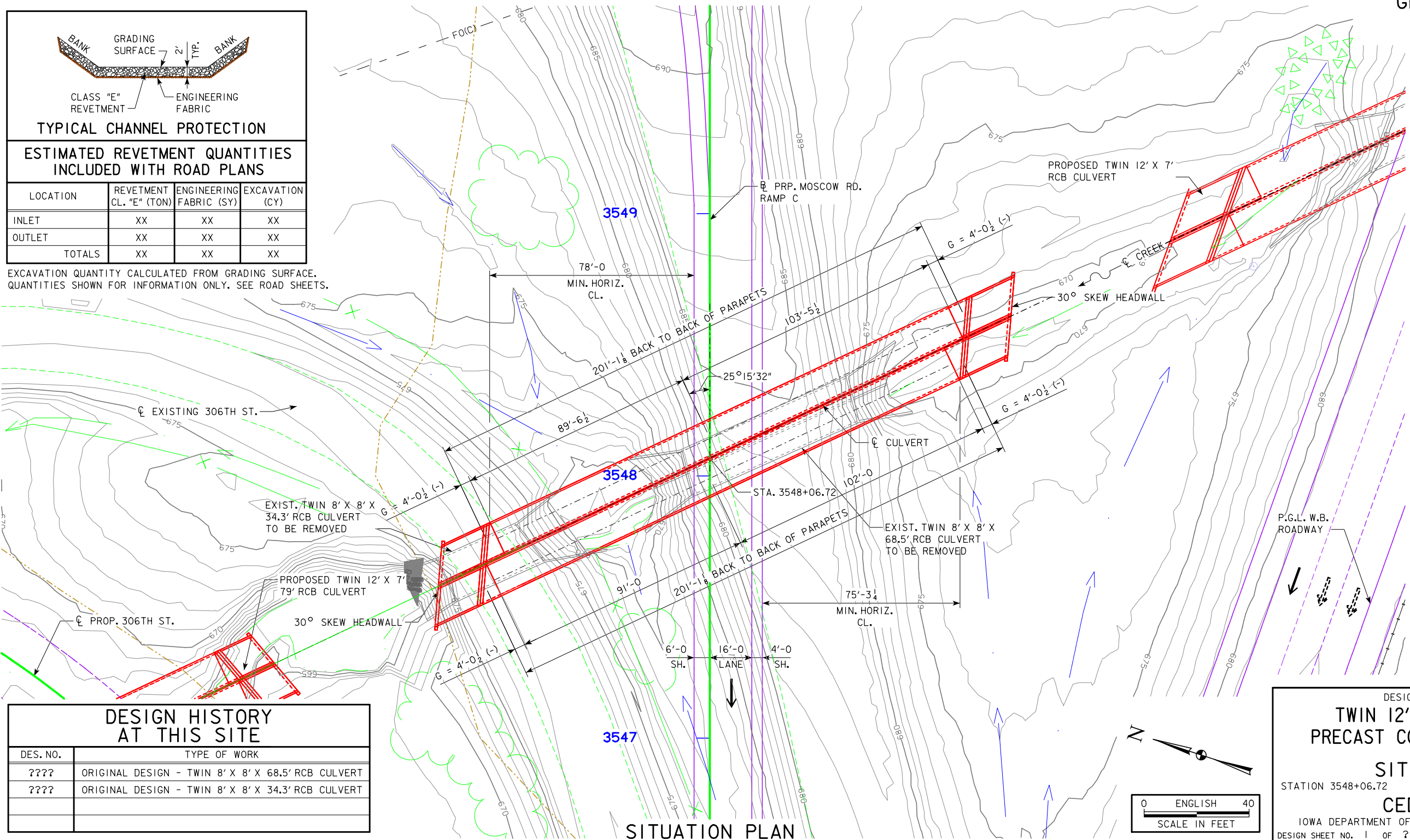
NOTES:

1. CULVERT SUMPED 1'
2. -
3. -
4. -
5. -

TYPICAL CHANNEL PROTECTION

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

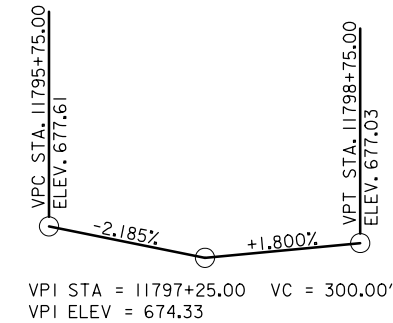
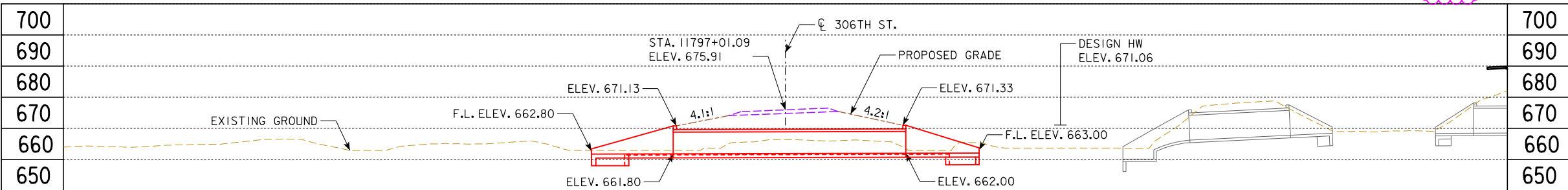
EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
????	ORIGINAL DESIGN - TWIN 8' X 8' X 68.5' RCB CULVERT
????	ORIGINAL DESIGN - TWIN 8' X 8' X 34.3' RCB CULVERT

PRELIMINARY
 DESIGN FOR 30° SKEW (L.A.)
TWIN 12'-0 X 7'-0 X 193'-0
PRECAST CONCRETE BOX CULVERT
 SITUATION PLAN
 STATION 3548+06.72
 JUNE 2019
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG ϕ CULVERT

PROPOSED PROFILE GRADE 306TH ST.

HYDRAULIC DATA

DRAINAGE AREA = 1.1 SQ. MI.

$Q_{50} = 1,150$ CFS
 HW ELEV. = 670.10
 EXIT VELOCITY = 11.55 FPS
 STREAM SLOPE = 43.41 FT./MI.

$Q_{100} = 1,370$ CFS
 HW ELEV. = 671.06
 EXIT VELOCITY = 12.25 FPS

UTILITIES LEGEND:

FO(C) - IOWA COMMUNICATIONS NETWORK

TRAFFIC ESTIMATE

2020 AADT	?	V.P.D.
2040 AADT	-	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	-	%
TOTAL DESIGN ESALS	-	

LOCATION

306TH ST. OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.646259°
 LONGITUDE -91.116664°

NOTES:

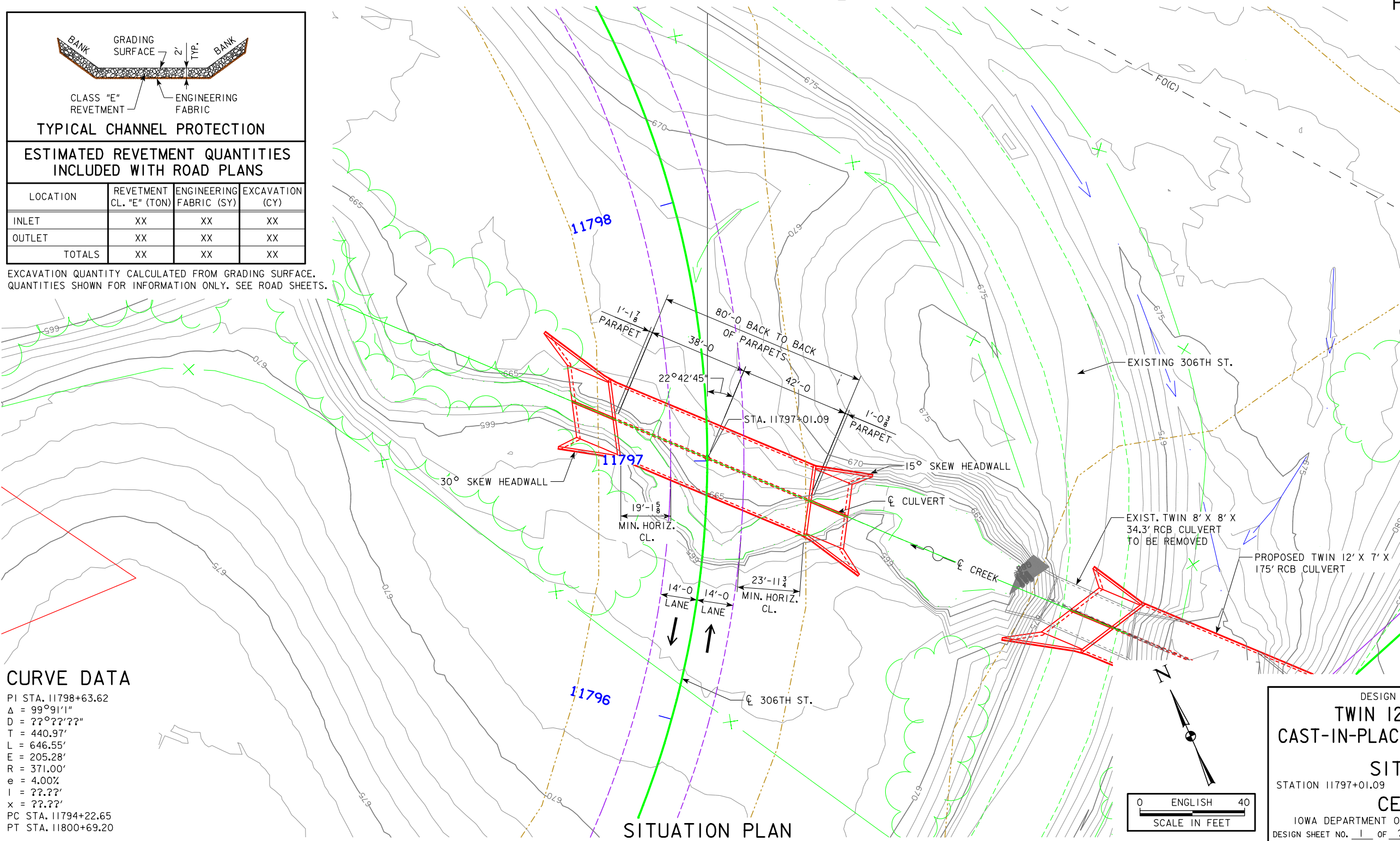
1. CULVERT SUMPED 1'
2. -
3. -
4. -
5. -

TYPICAL CHANNEL PROTECTION

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.



CURVE DATA

PI STA. 11798+63.62
 $\Delta = 99^\circ 91' 1''$
 $D = 77^\circ 22' 22''$
 $T = 440.97'$
 $L = 646.55'$
 $E = 205.28'$
 $R = 371.00'$
 $e = 4.00\%$
 $I = 77.77'$
 $x = 77.77'$
 PC STA. 11794+22.65
 PT STA. 11800+69.20

PRELIMINARY

DESIGN FOR VARIABLE ϕ SKEW (R.A.)

TWIN 12'-0 X 7'-0 X 79'-0
CAST-IN-PLACE CONCRETE BOX CULVERT

SITUATION PLAN

STATION 11797+01.09

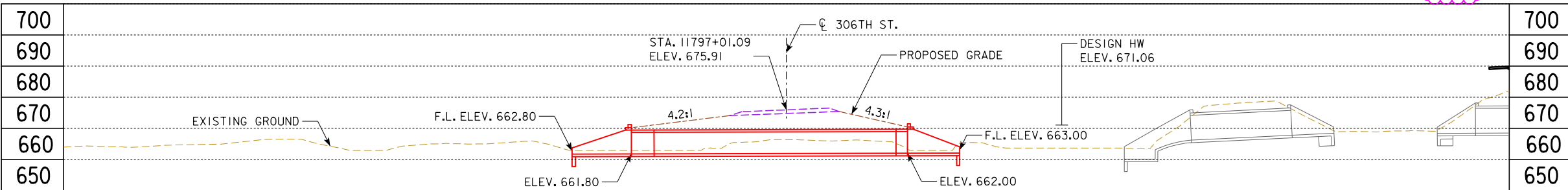
JUNE 2019

CEDAR COUNTY

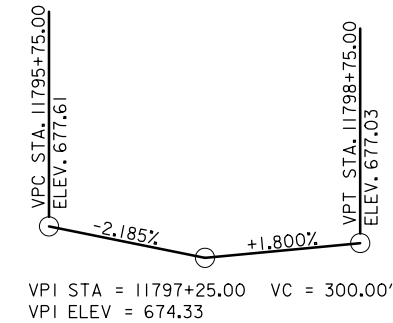
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?





LONGITUDINAL SECTION ALONG ϕ CULVERT



PROPOSED PROFILE GRADE 306TH ST.

TYPICAL CHANNEL PROTECTION

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

HYDRAULIC DATA

DRAINAGE AREA = 1.1 SQ. MI.
 $Q_{50} = 1,150$ CFS
 HW ELEV. = 670.10
 EXIT VELOCITY = 11.55 FPS
 STREAM SLOPE = 43.41 FT./MI.
 $Q_{100} = 1,370$ CFS
 HW ELEV. = 671.06
 EXIT VELOCITY = 12.25 FPS

UTILITIES LEGEND:

FO(C) - IOWA COMMUNICATIONS NETWORK

TRAFFIC ESTIMATE

2020 AADT	?	V.P.D.
2040 AADT	-	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	-	%
TOTAL DESIGN ESALS	-	

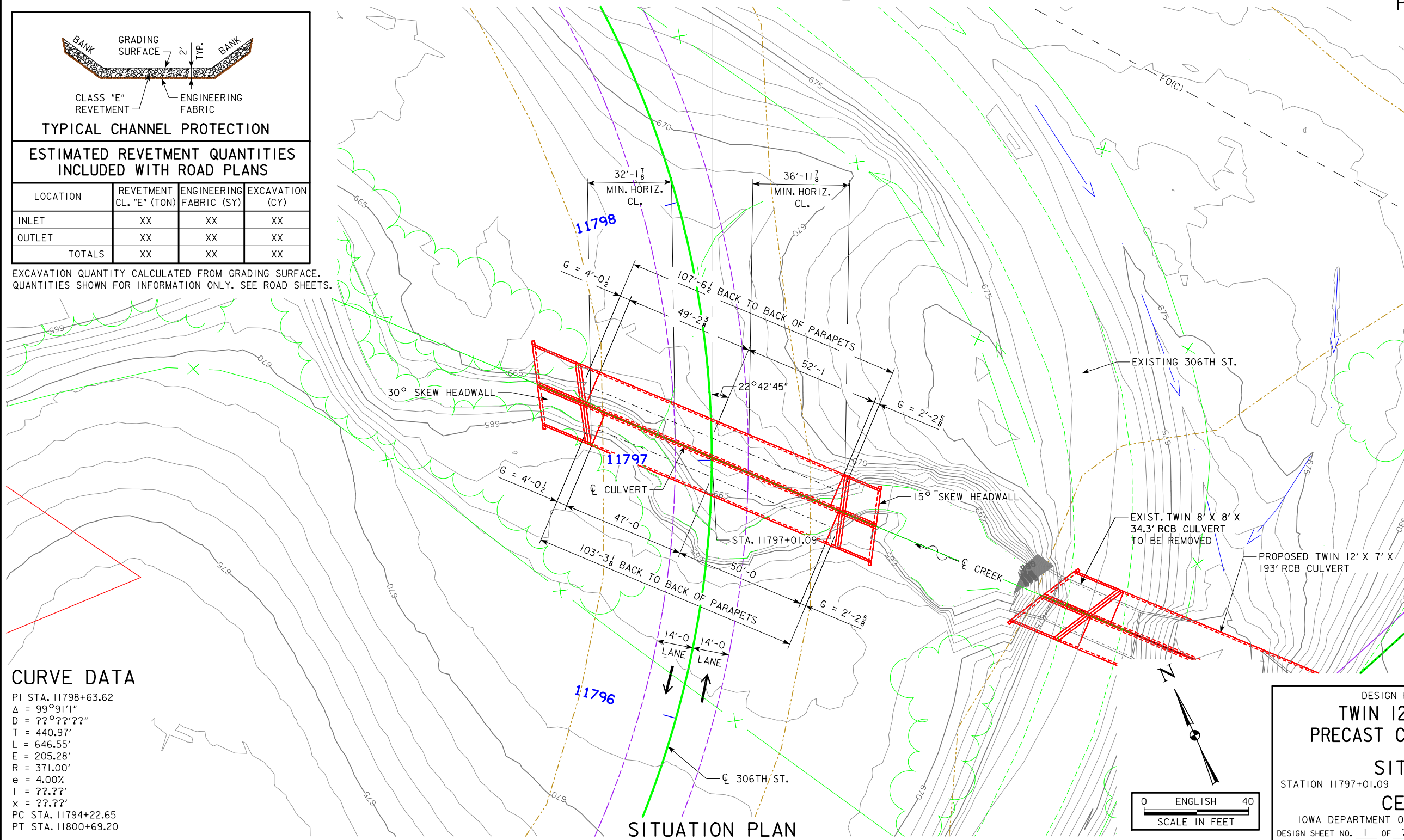
LOCATION

306TH ST. OVER CREEK
 T-79N R-02W
 SECTION 18
 ROCHESTER TOWNSHIP
 CEDAR COUNTY
 FHWA NO. ?
 BRIDGE MAINT. NO. ?
 LATITUDE 41.646259°
 LONGITUDE -91.116664°

NOTES:
 1. CULVERT SUMPED 1'

CURVE DATA

PI STA. 11798+63.62
 $\Delta = 99^{\circ}91'11''$
 $D = 22^{\circ}22'22''$
 $T = 440.97'$
 $L = 646.55'$
 $E = 205.28'$
 $R = 371.00'$
 $e = 4.00\%$
 $I = 22.22'$
 $x = 22.22'$
 PC STA. 11794+22.65
 PT STA. 11800+69.20



SITUATION PLAN

PRELIMINARY

DESIGN FOR VARIABLE ϕ SKEW (R.A.)

TWIN 12'-0 X 7'-0 X 97'-0

PRECAST CONCRETE BOX CULVERT

SITUATION PLAN

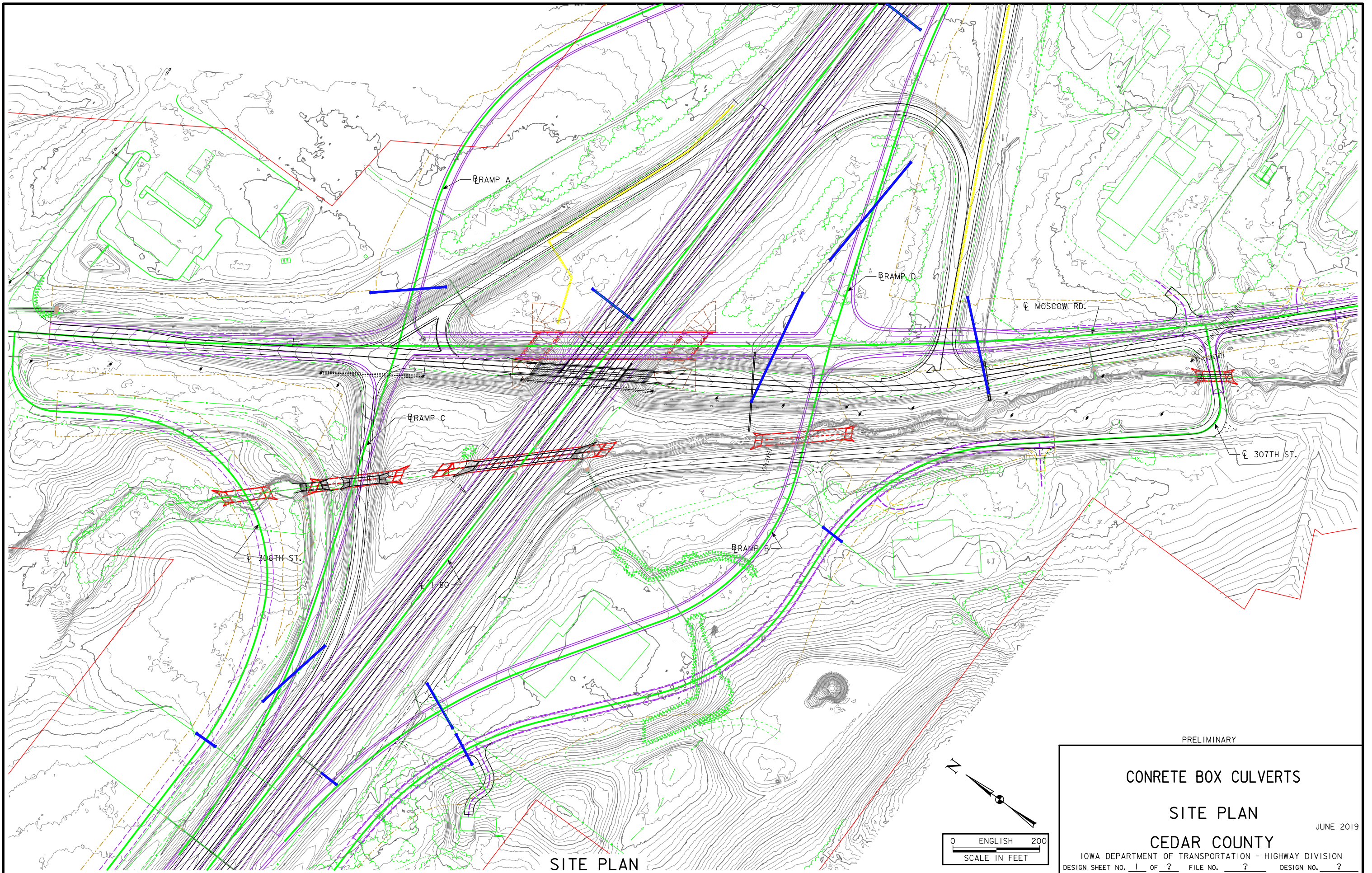
STATION 11797+01.09

JUNE 2019

CEDAR COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



SITE PLAN

PRELIMINARY

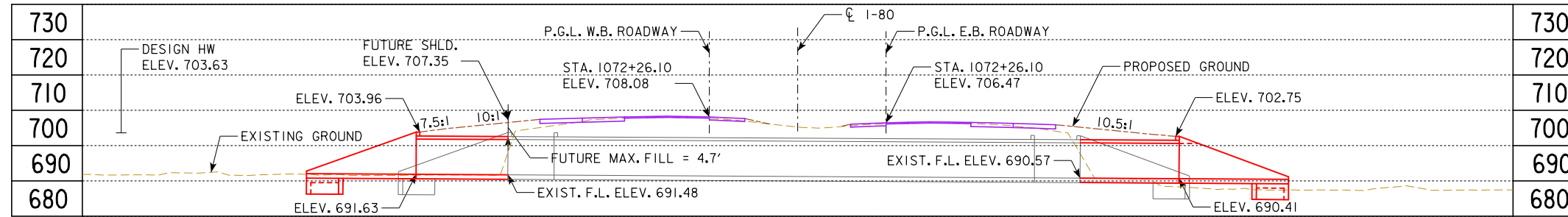
CONCRETE BOX CULVERTS

SITE PLAN

JUNE 2019

CEDAR COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG CL CULVERT

TYPICAL CHANNEL PROTECTION			
ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS			
LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

HYDRAULIC DATA

DRAINAGE AREA = 6.18 SQ. MI.
 $Q_{50} = 3,072$ CFS
 HW ELEV. = 702.25
 EXIT VELOCITY = 9.08 FPS
 STREAM SLOPE = 23.23 FT./MI.
 $Q_{100} = 3,708$ CFS
 HW ELEV. = 703.63
 EXIT VELOCITY = 10.30 FPS

UTILITIES LEGEND:

FO(C) - IOWA COMMUNICATION NETWORK

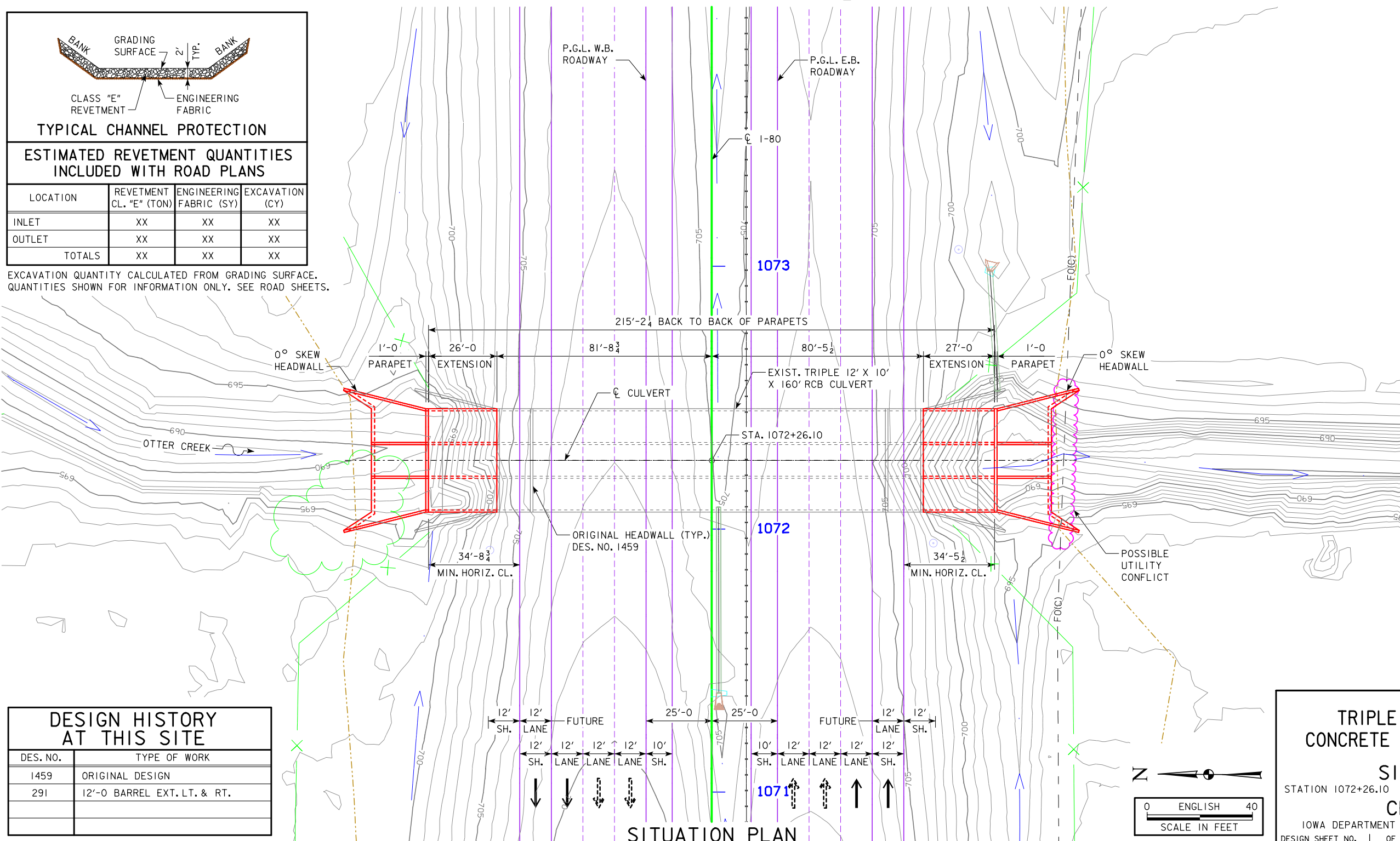
TRAFFIC ESTIMATE

2020 AADT	39,069	V.P.D.
2040 AADT	73,173	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	39	%
TOTAL DESIGN ESALS	-	

LOCATION

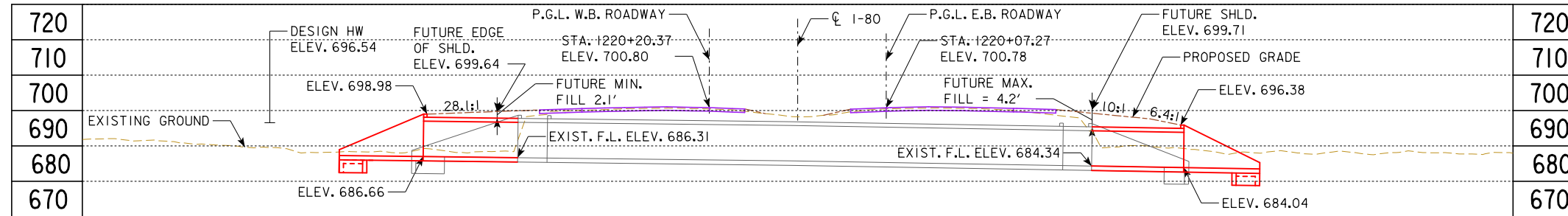
I-80 OVER OTTER CREEK
 T-79N R-02W
 SECTION 24
 SUGAR CREEK TOWNSHIP
 CEDAR COUNTY
 FHWA NO. 18680
 BRIDGE MAINT. NO. 1672.0S080
 LATITUDE 41.633377°
 LONGITUDE -91.017740°

- NOTES:
- ELEVATION ADJUSTMENT OF ±8.08' FROM EXISTING PLANS.
 - I-80 ELEVATIONS BASED ON EXISTING ROADWAY SURVEY PLUS PROPOSED 4" OVERLAY.
 - MAX FILL BASED ON FUTURE 4% SHLD.
 - EXISTING EXTENSION DES. NO. 291 DESIGNED FOR 3' OF FILL. PROPOSED FILL WOULD BE 5.4' OVER EXISTING CULVERT.



DESIGN HISTORY AT THIS SITE	
DES. NO.	TYPE OF WORK
1459	ORIGINAL DESIGN
291	12'-0 BARREL EXT. LT. & RT.

PRELIMINARY
 DESIGN FOR 0° SKEW
TRIPLE 12' X 10' REINFORCED CONCRETE BOX CULVERT EXTENSION
 SITUATION PLAN
 STATION 1072+26.10
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?



LONGITUDINAL SECTION ALONG CL CULVERT

TYPICAL CHANNEL PROTECTION

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS			
LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

HYDRAULIC DATA

DRAINAGE AREA = 7.62 SQ. MI.
 $Q_{50} = 3,250$ CFS
 HW ELEV. = 695.44
 EXIT VELOCITY = 19.09 FPS
 STREAM SLOPE = 19.01 FT./MI.
 $Q_{100} = 3,860$ CFS
 HW ELEV. = 696.54
 EXIT VELOCITY = 19.89 FPS

UTILITIES LEGEND:

FO(C) - IOWA COMMUNICATION NETWORK

TRAFFIC ESTIMATE

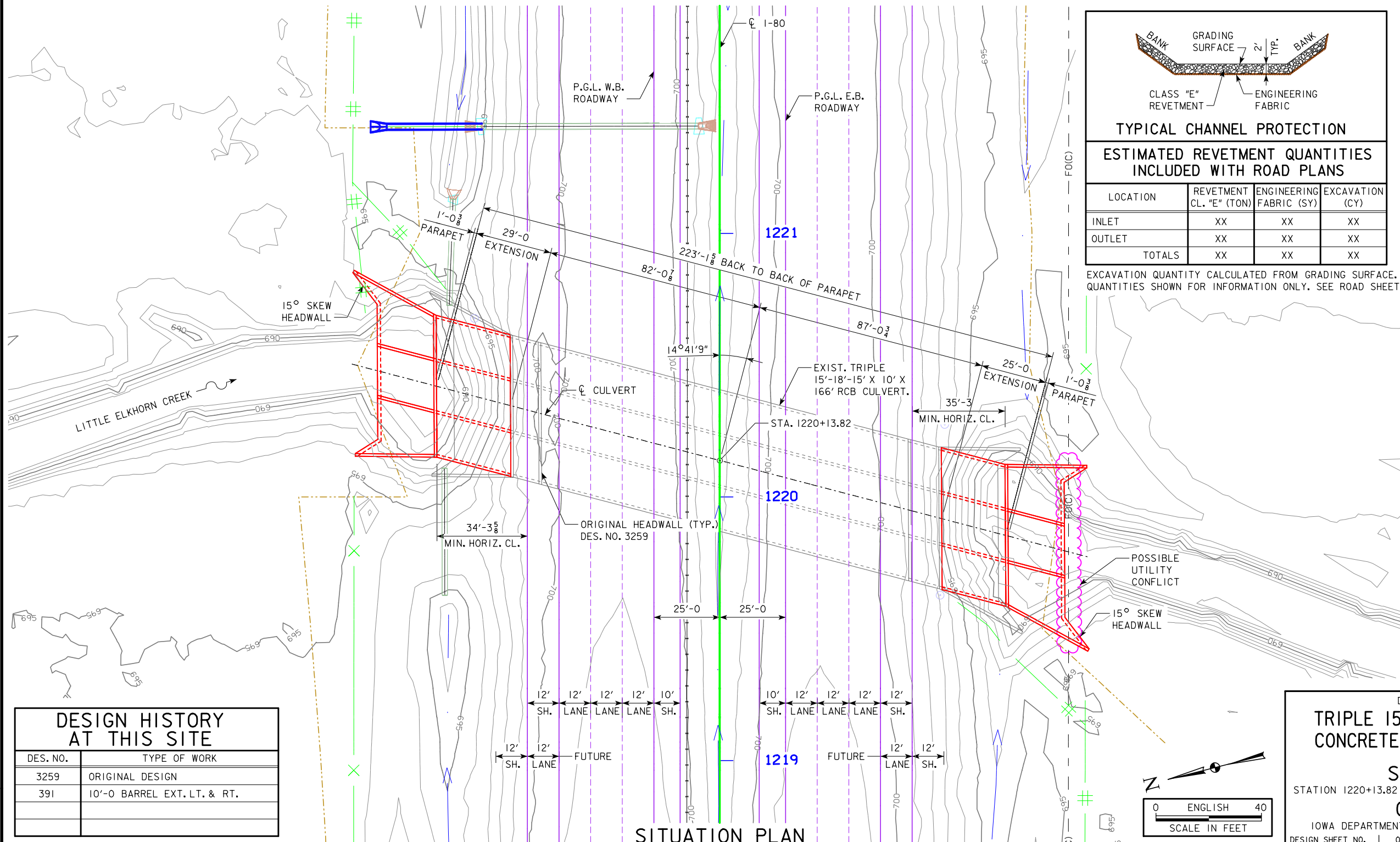
2020 AADT 39,069 V.P.D.
 2040 AADT 73,173 V.P.D.
 2040 DHV - V.P.H.
 TRUCKS 39 %
 TOTAL DESIGN ESALS -

LOCATION

I-80 OVER LITTLE ELKHORN CREEK
 T-79N R-01W
 SECTION 20
 FARMINGTON TOWNSHIP
 CEDAR COUNTY
 FHWA NO. 18700
 BRIDGE MAINT. NO. 1673.9S080
 LATITUDE 41.633575°
 LONGITUDE -90.979843°

NOTES:

- ELEVATION ADJUSTMENT OF 8.23' FROM EXISTING PLANS.
- I-80 ELEVATIONS BASED ON EXISTING ROADWAY SURVEY PLUS PROPOSED 4" OVERLAY.
- MAX. FILL BASED ON FUTURE 4% SHLD.
- EXISTING EXTENSION DES. NO. 391 WAS DESIGNED FOR 2' OF FILL. PROP. FILL WOULD BE 4.6'.
- NON STANDARD CULVERT DESIGN.

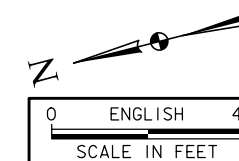


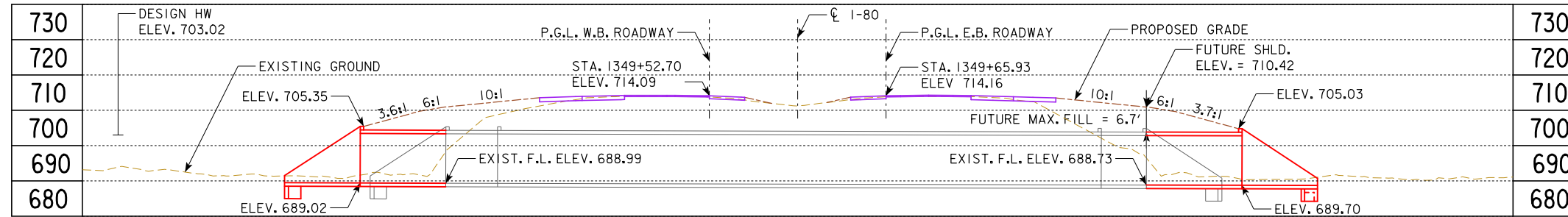
EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

DESIGN HISTORY AT THIS SITE

DES. NO.	TYPE OF WORK
3259	ORIGINAL DESIGN
391	10'-0 BARREL EXT. LT. & RT.

PRELIMINARY
 DESIGN FOR 15° SKEW (R.A.)
TRIPLE 15'-18'-15' X 10' REINFORCED CONCRETE BOX CULVERT EXTENSION
SITUATION PLAN
 STATION 1220+13.82 JUNE 2019
CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?





LONGITUDINAL SECTION ALONG CULVERT

TYPICAL CHANNEL PROTECTION			
ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS			
LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	XX	XX	XX
OUTLET	XX	XX	XX
TOTALS	XX	XX	XX

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE. QUANTITIES SHOWN FOR INFORMATION ONLY. SEE ROAD SHEETS.

HYDRAULIC DATA

DRAINAGE AREA = 4.74 SQ. MI.
 $Q_{50} = 2,510$ CFS
 HW ELEV. = 701.59
 EXIT VELOCITY = 11.53 FPS
 STREAM SLOPE = 22.70 FT./MI.
 $Q_{100} = 2,990$ CFS
 HW ELEV. = 703.02
 EXIT VELOCITY = 12.64 FPS

UTILITIES LEGEND:
 FOC - IOWA COMMUNICATION NETWORK

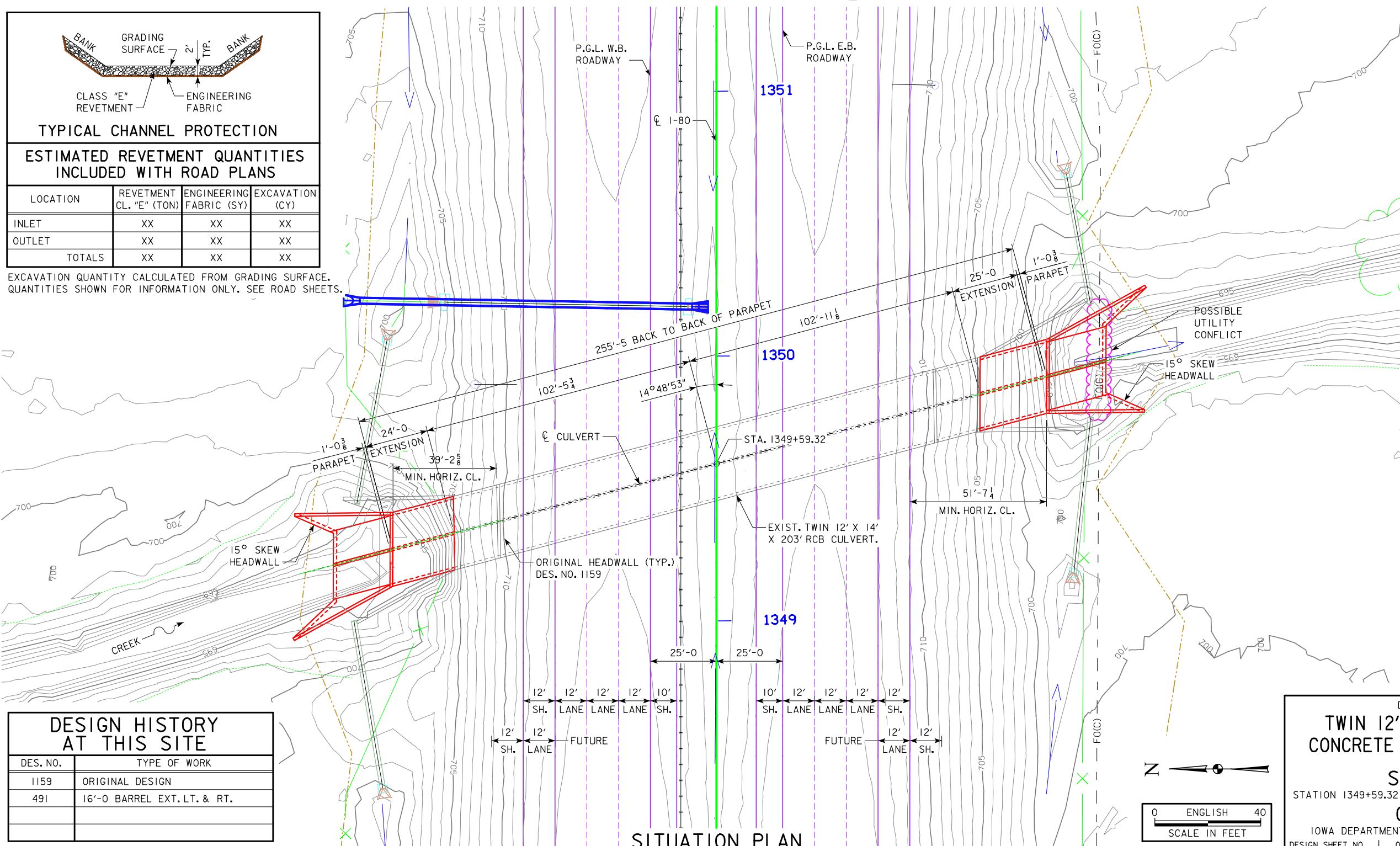
TRAFFIC ESTIMATE

2020 AADT	39,069	V.P.D.
2040 AADT	73,173	V.P.D.
2040 DHV	-	V.P.H.
TRUCKS	39	%
TOTAL DESIGN ESALS	-	

LOCATION

I-80 OVER CREEK
 T-79N R-01W
 SECTION 23
 FARMINGTON TOWNSHIP
 CEDAR COUNTY
 FHWA NO. 18720
 BRIDGE MAINT. NO. 1676.4S080
 LATITUDE 41.634278°
 LONGITUDE -90.932484°

- NOTES:**
- ELEVATION ADJUSTMENT OF ±8.06' FROM EXISTING PLANS.
 - I-80 ELEVATIONS BASED ON EXISTING ROADWAY SURVEY PLUS PROPOSED 4" OVERLAY.
 - MAX. FILL BASED ON FUTURE 4% SHLD.
 - EXISTING EXTENSION DES. NO. 491 WAS DESIGNED FOR 5' OF FILL. PROPOSED FILL WOULD BE 9.4'.
 - NONSTANDARD CULVERT DESIGN



DESIGN HISTORY AT THIS SITE	
DES. NO.	TYPE OF WORK
1159	ORIGINAL DESIGN
491	16'-0 BARREL EXT. LT. & RT.

PRELIMINARY
 DESIGN FOR 15° SKEW (L.A.)
TWIN 12'-0 X 14'-0 REINFORCED CONCRETE BOX CULVERT EXTENSION
 SITUATION PLAN
 STATION 1349+59.32
 CEDAR COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. ? DESIGN NO. ?

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\R/CB
- Proposed Pipe\R/CB
- Proposed Dike
- All Elements Associated with Proposed Entrances

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

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

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

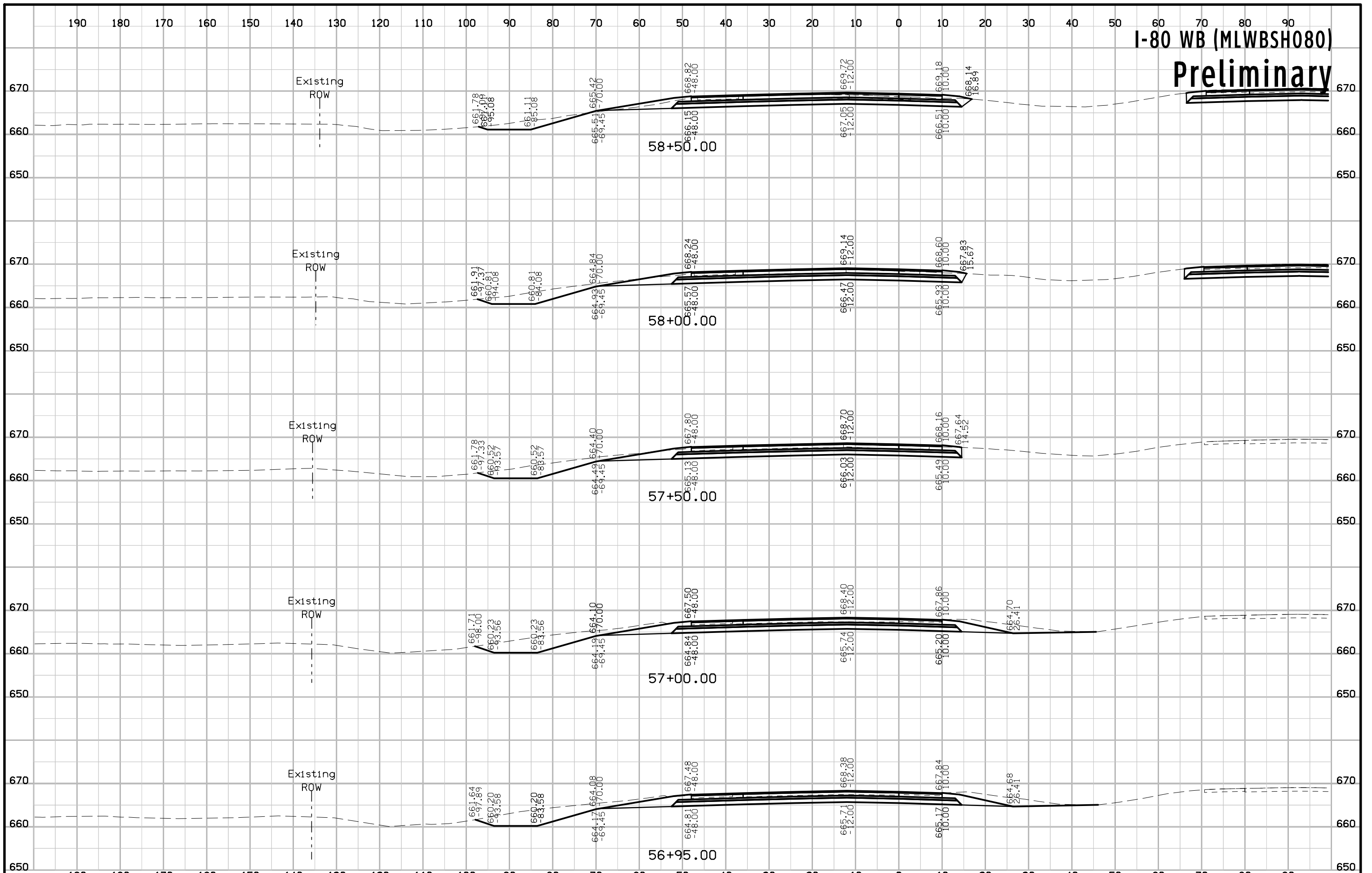
Note: Vertical or near vertical lines connecting soil layers at edges of cross sections are only for the purpose of calculating template quantities and do not depict soil stratification.

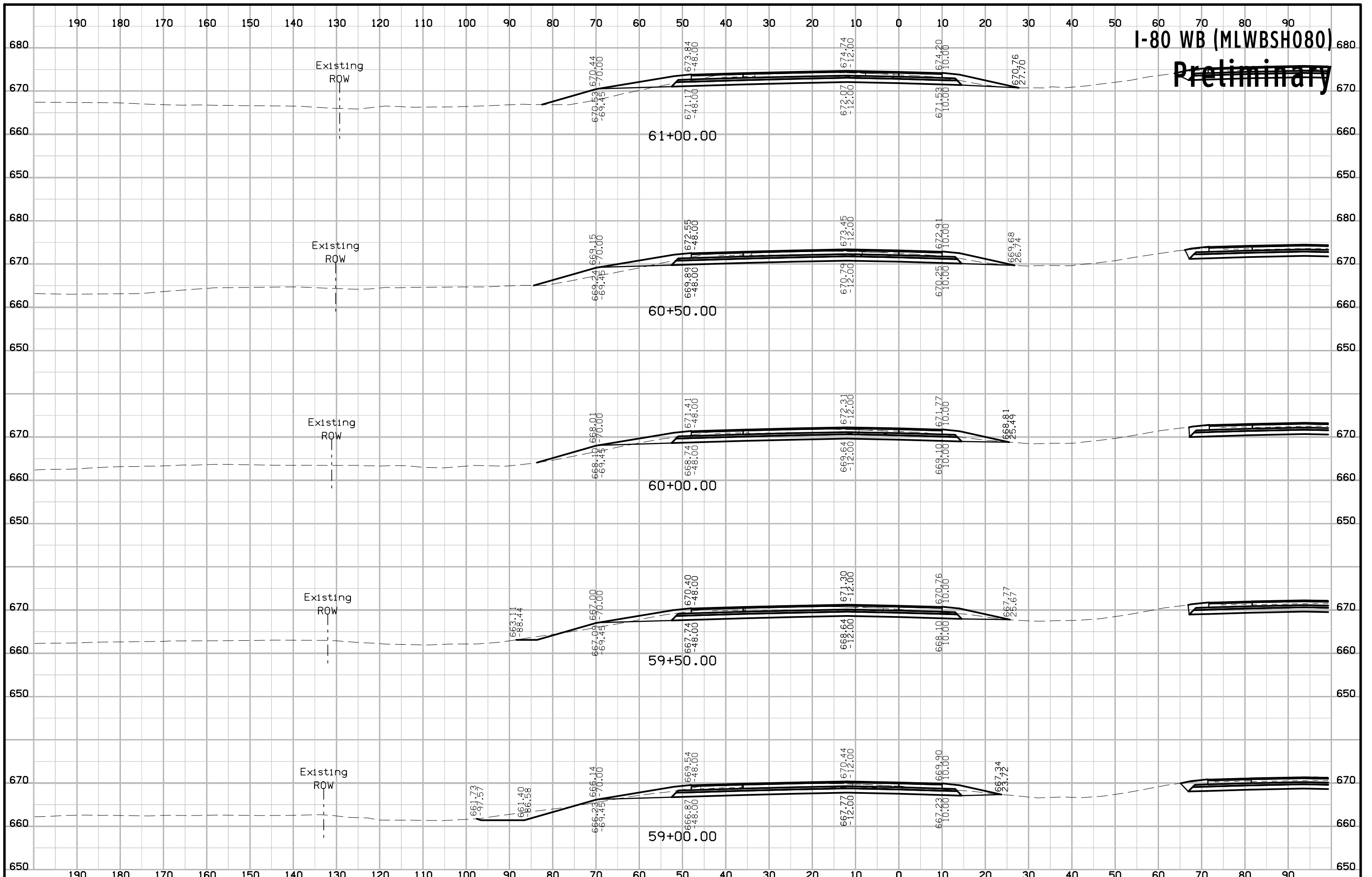
SYMBOL LEGEND OF CROSS SECTION SHEETS

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

**CROSS SECTION
LEGEND AND SYMBOL
INFORMATION SHEET**

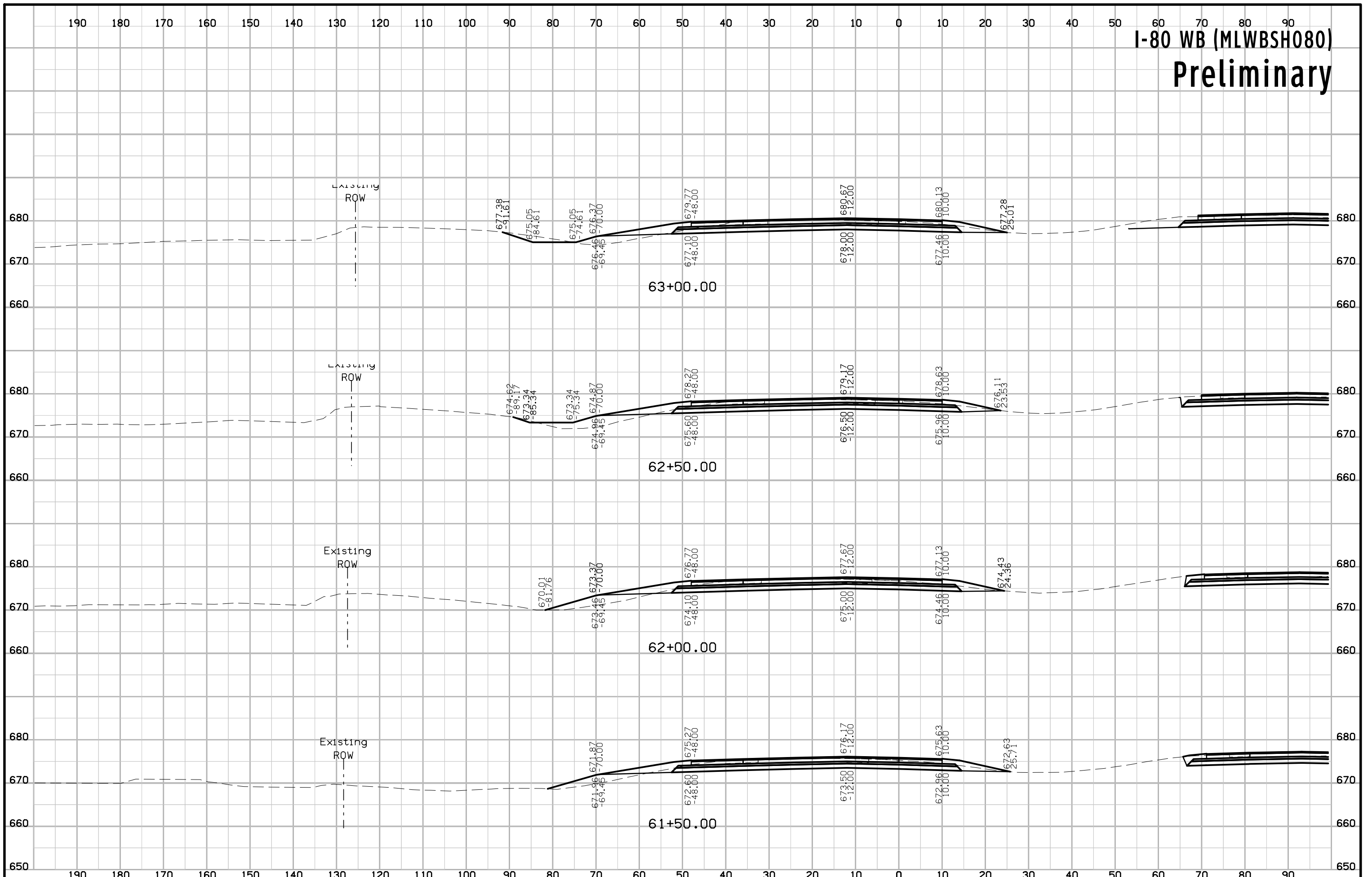
(COVERS SHEET SERIES W, X, Y, & Z)



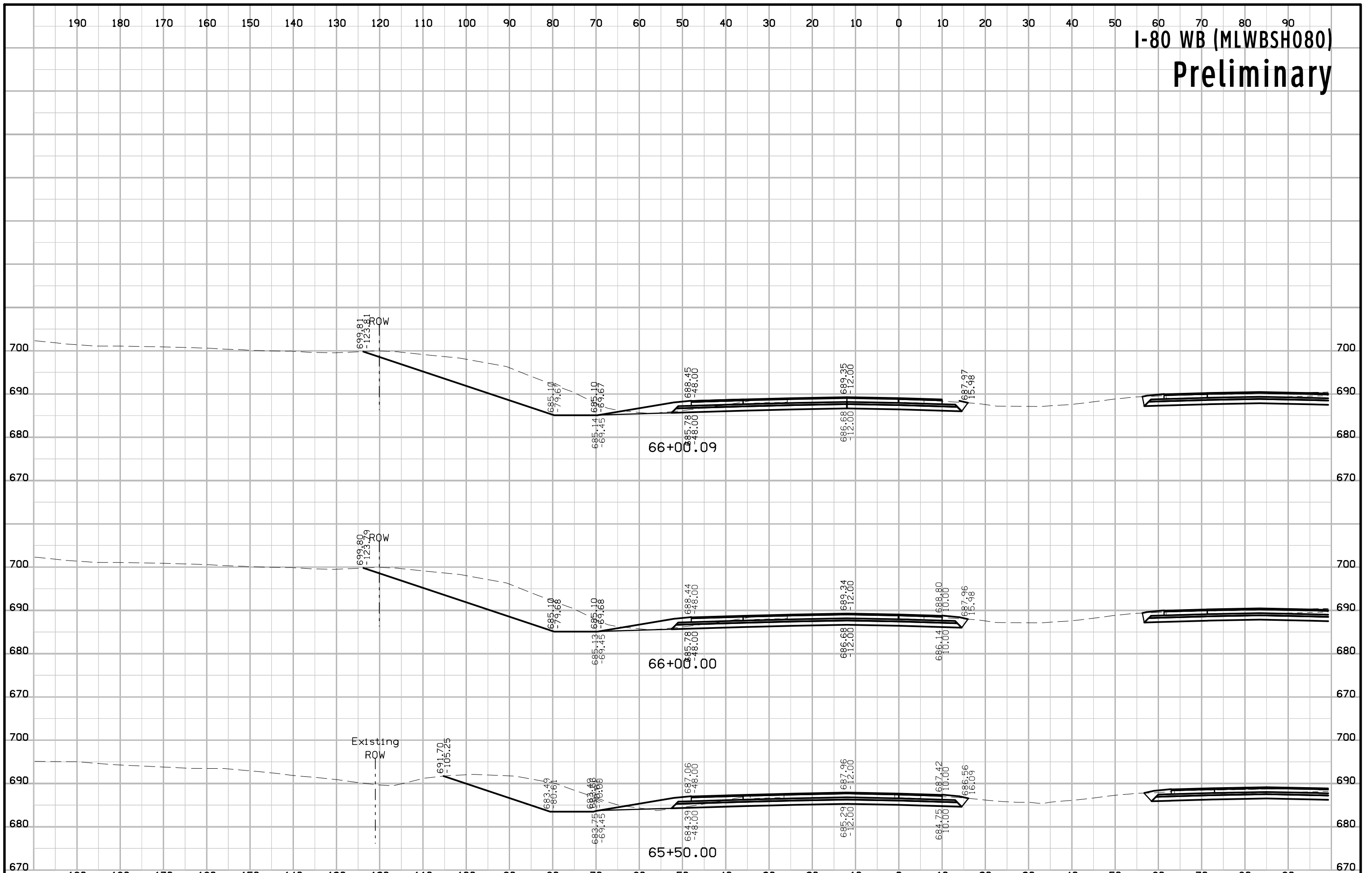


I-80 WB (MLWBSH080)
~~Preliminary~~

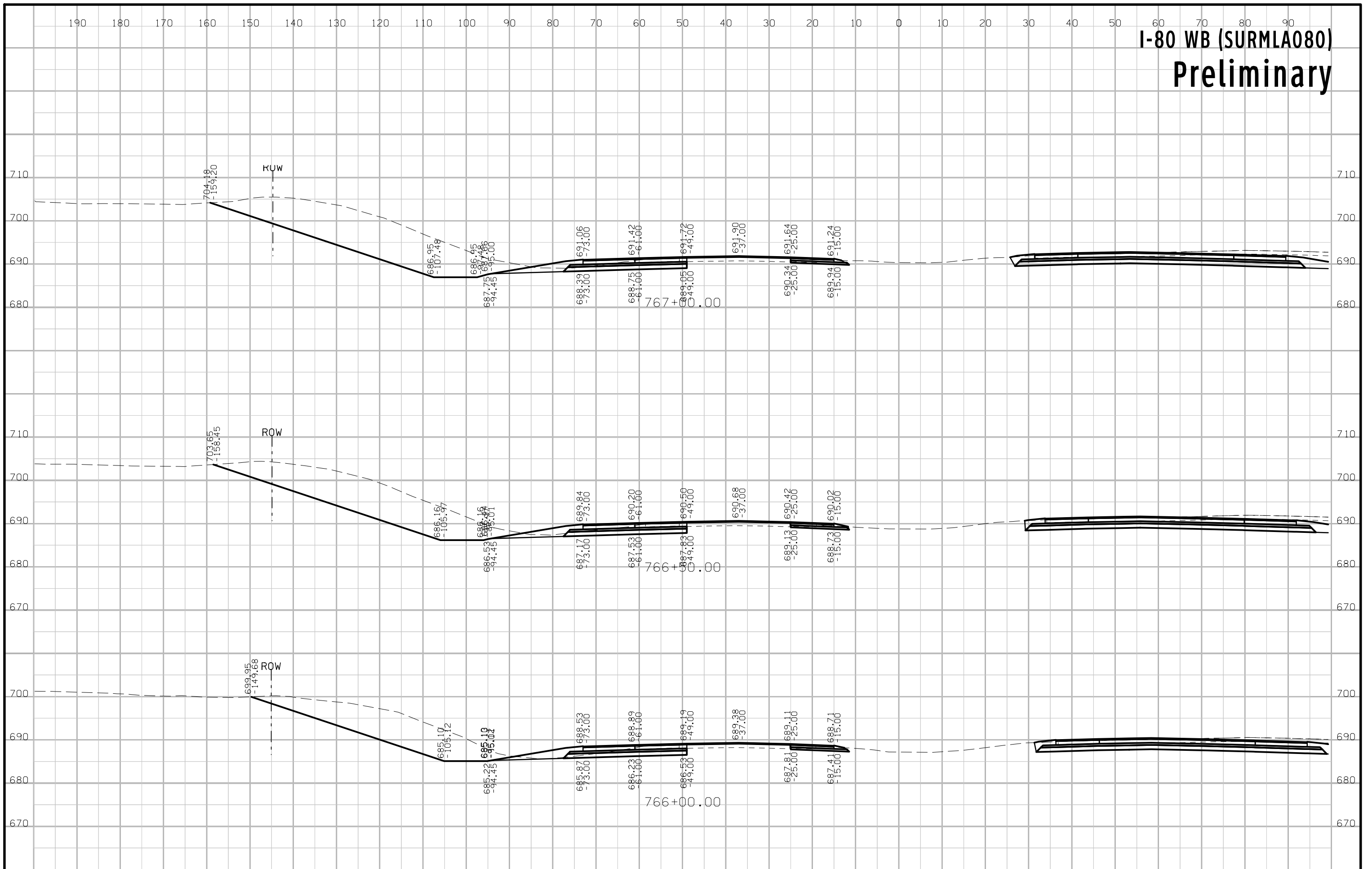
I-80 WB (MLWBSH080) Preliminary



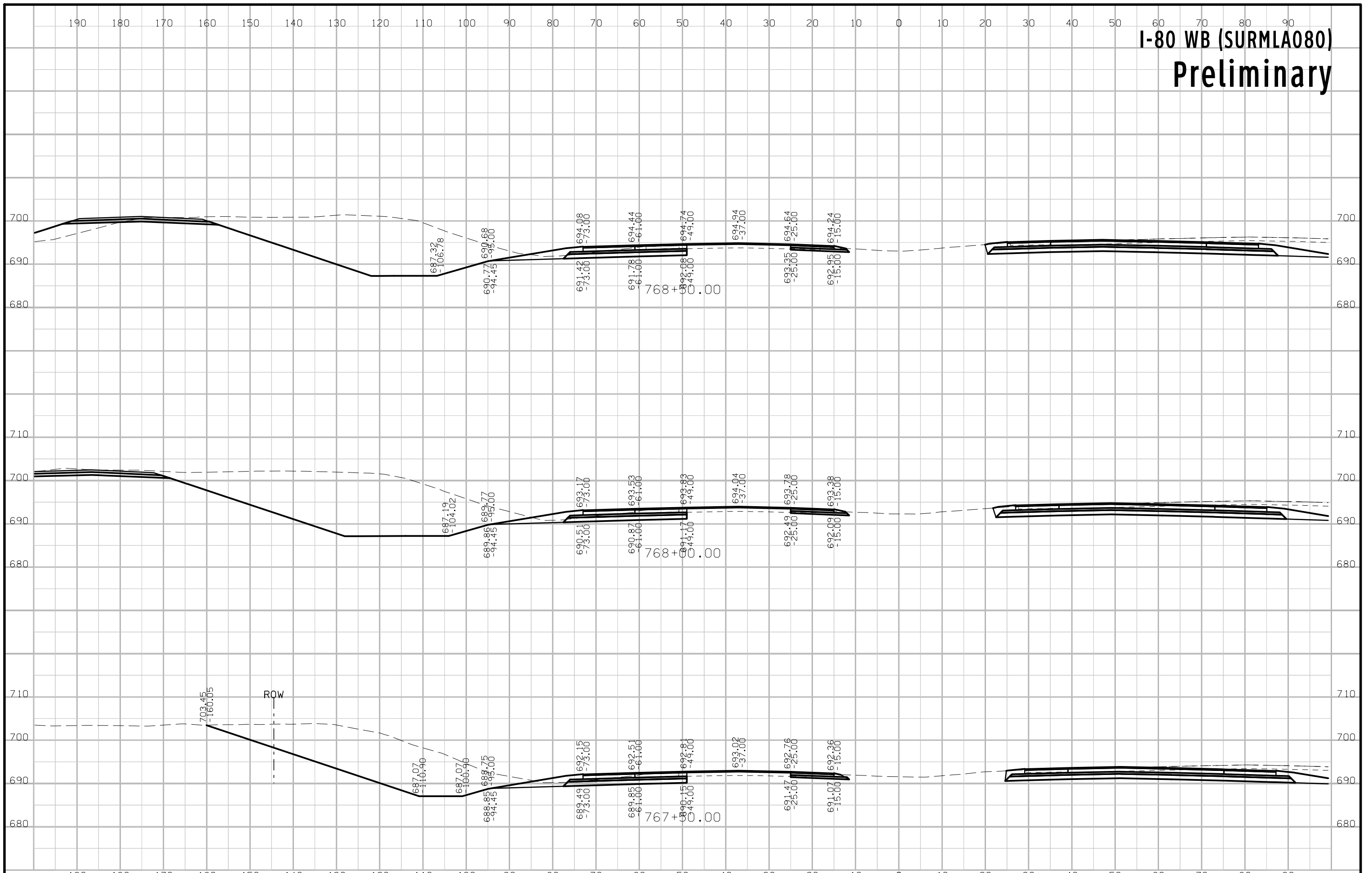
I-80 WB (MLWBSH080) Preliminary



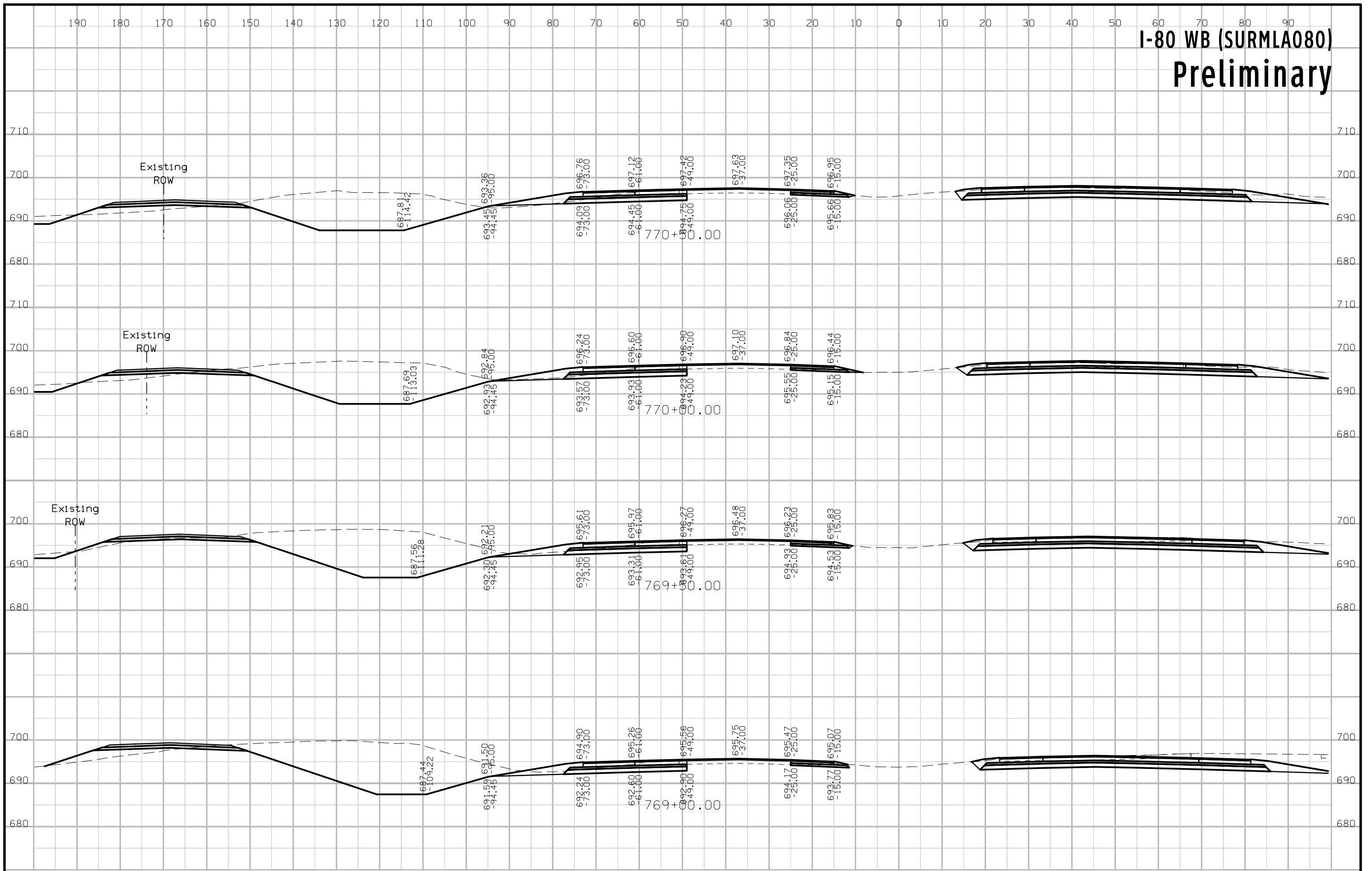
I-80 WB (SURMLA080) Preliminary



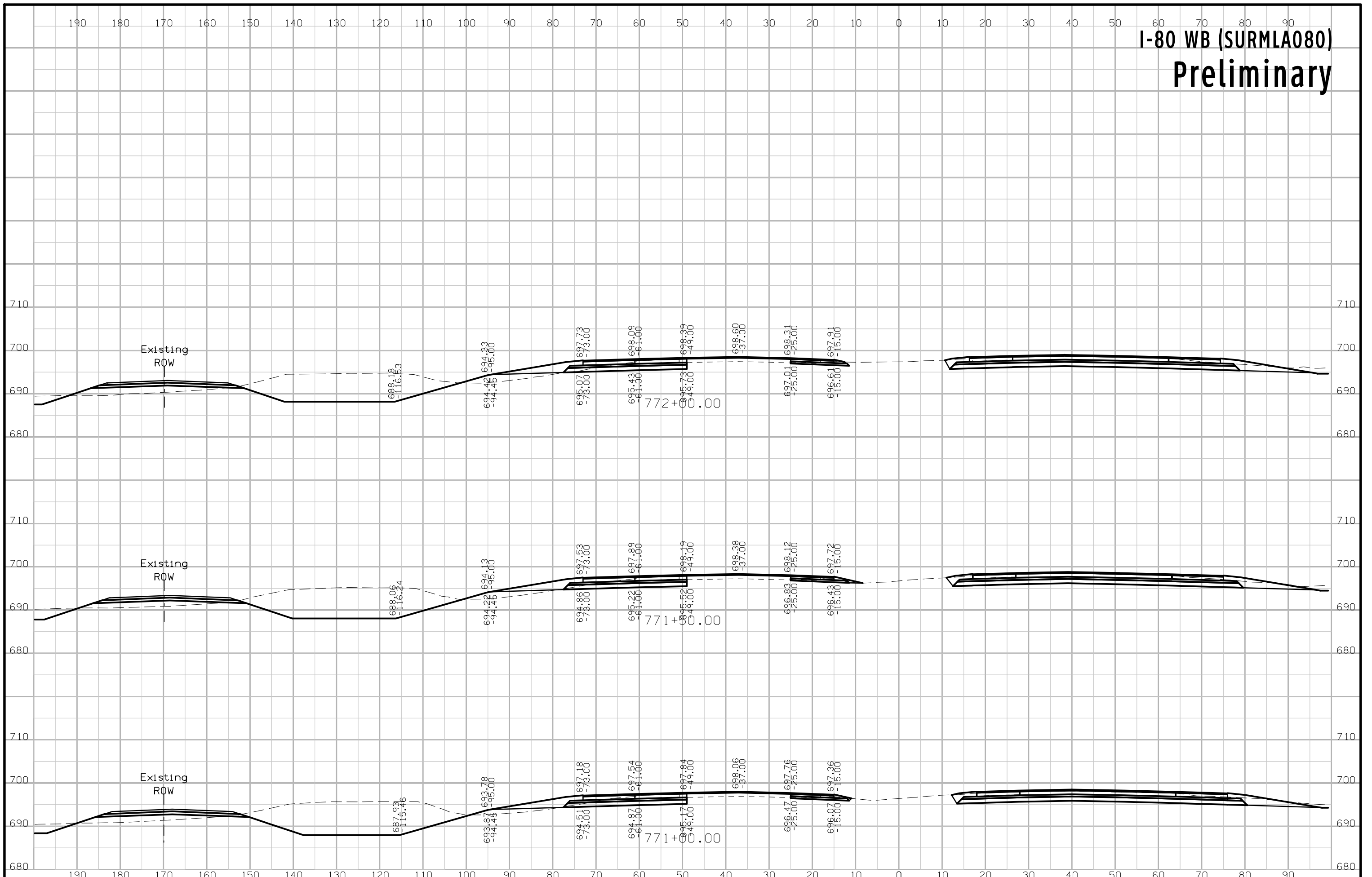
I-80 WB (SURMLA080) Preliminary



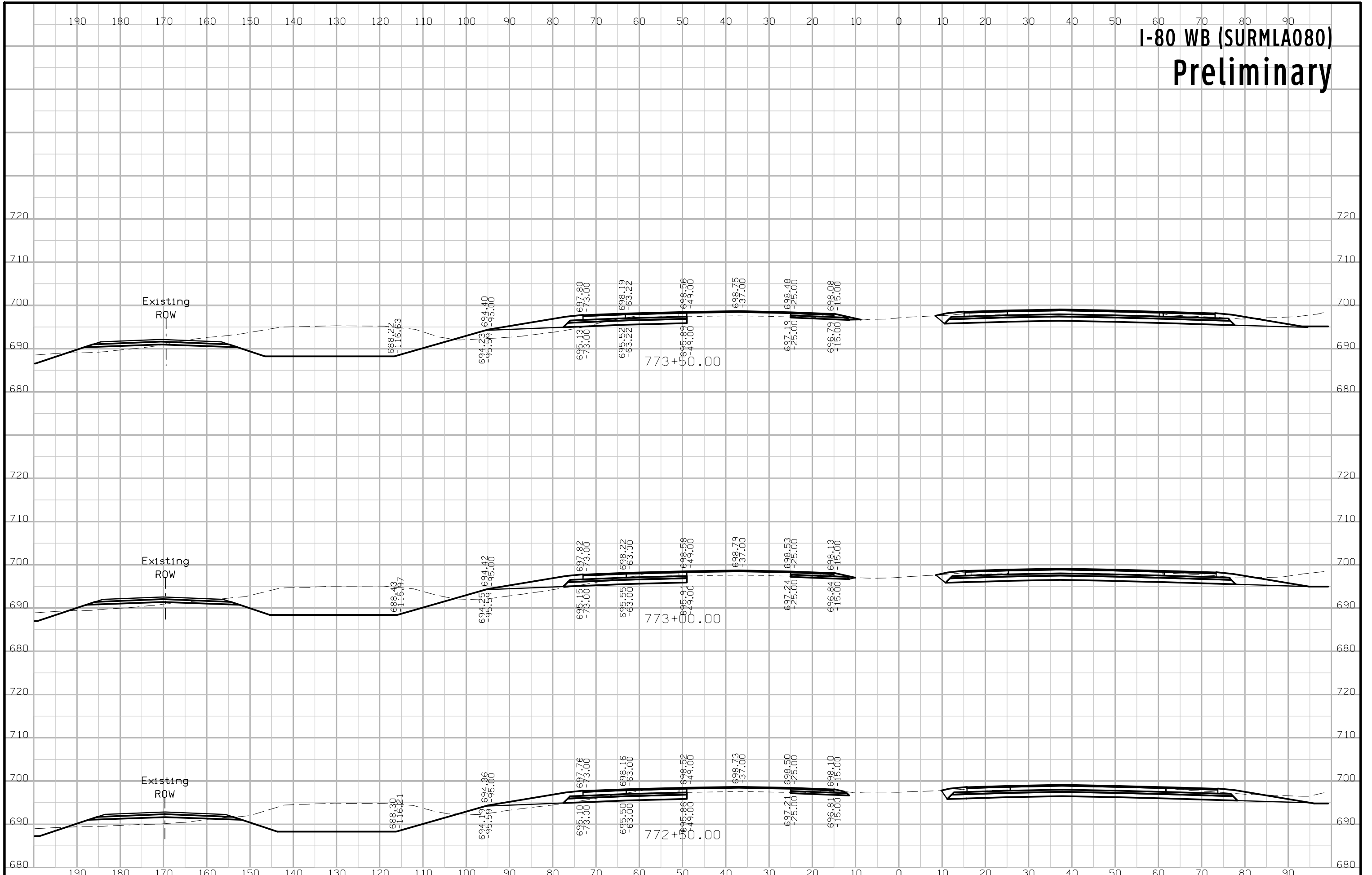
I-80 WB (SURMLA080) Preliminary



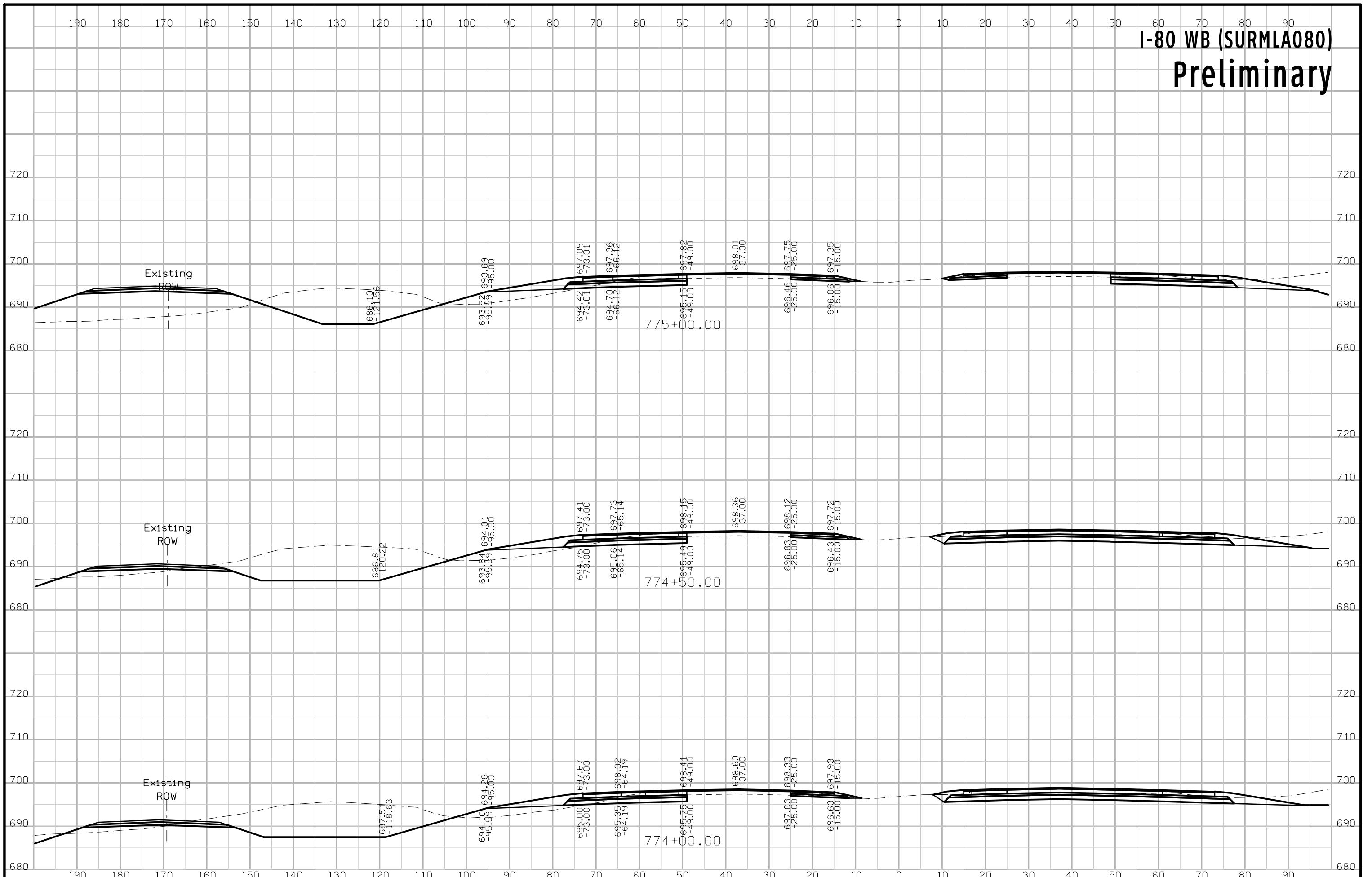
I-80 WB (SURMLA080) Preliminary



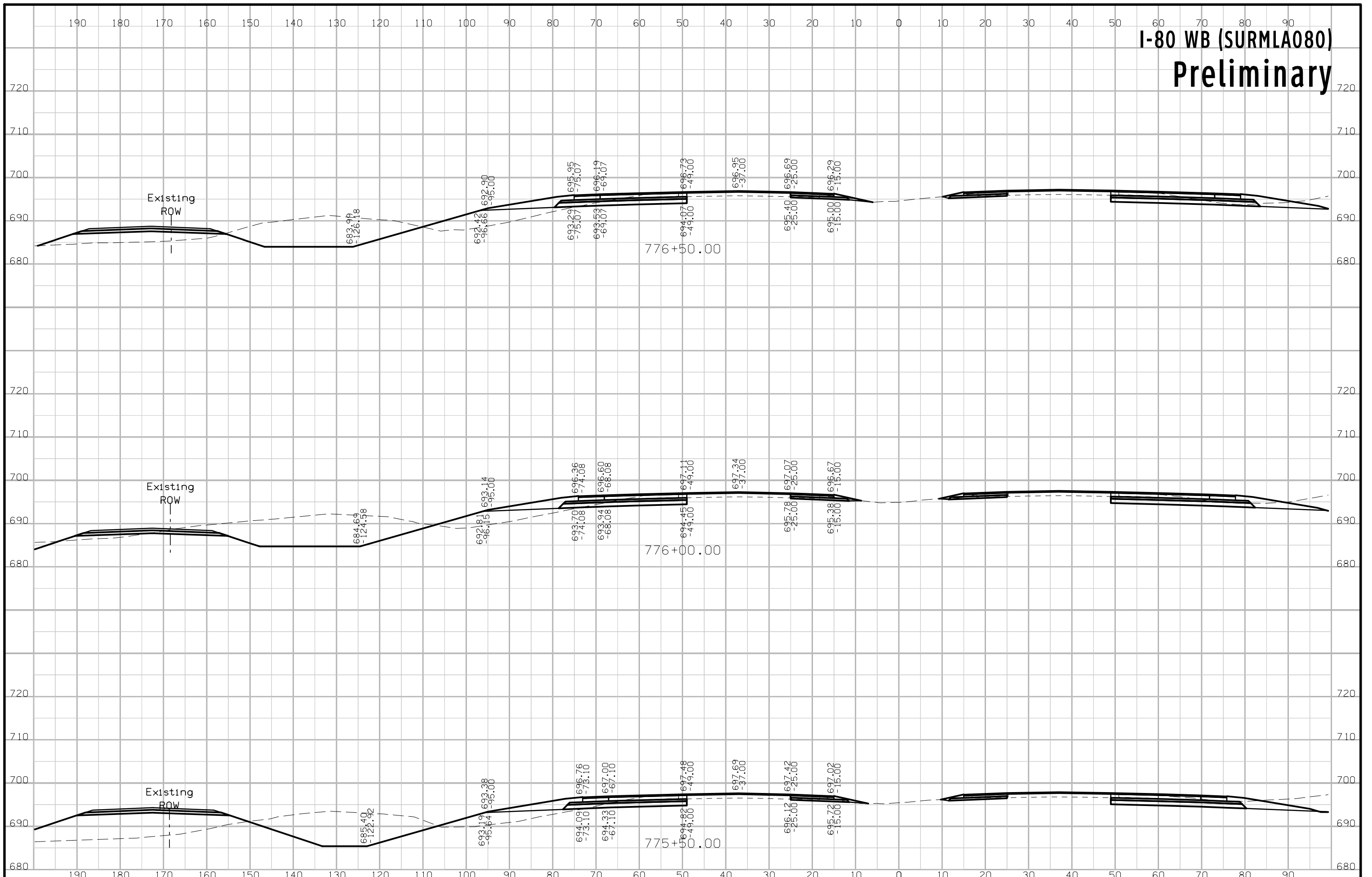
I-80 WB (SURMLA080) Preliminary



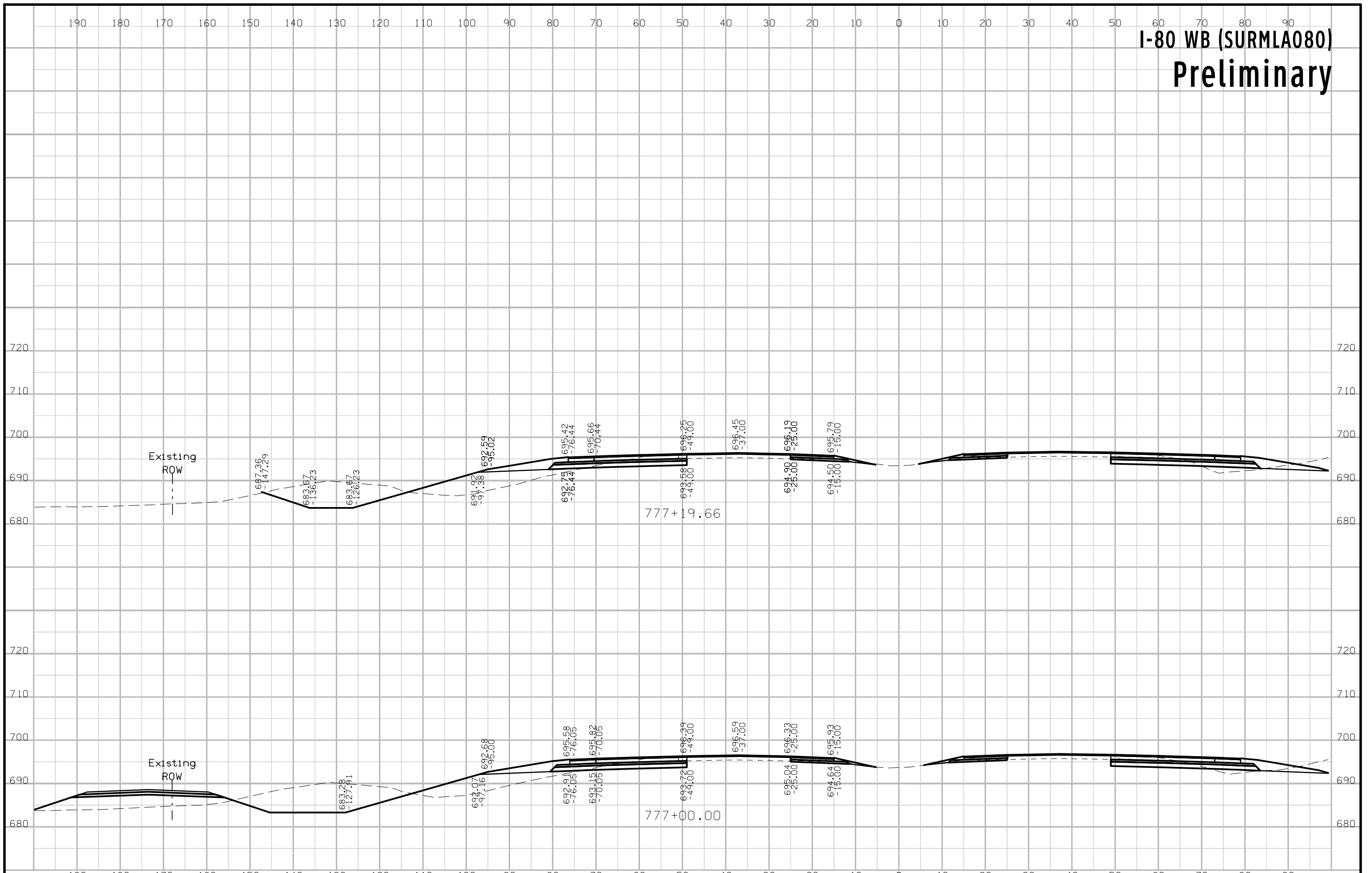
I-80 WB (SURMLA080) Preliminary



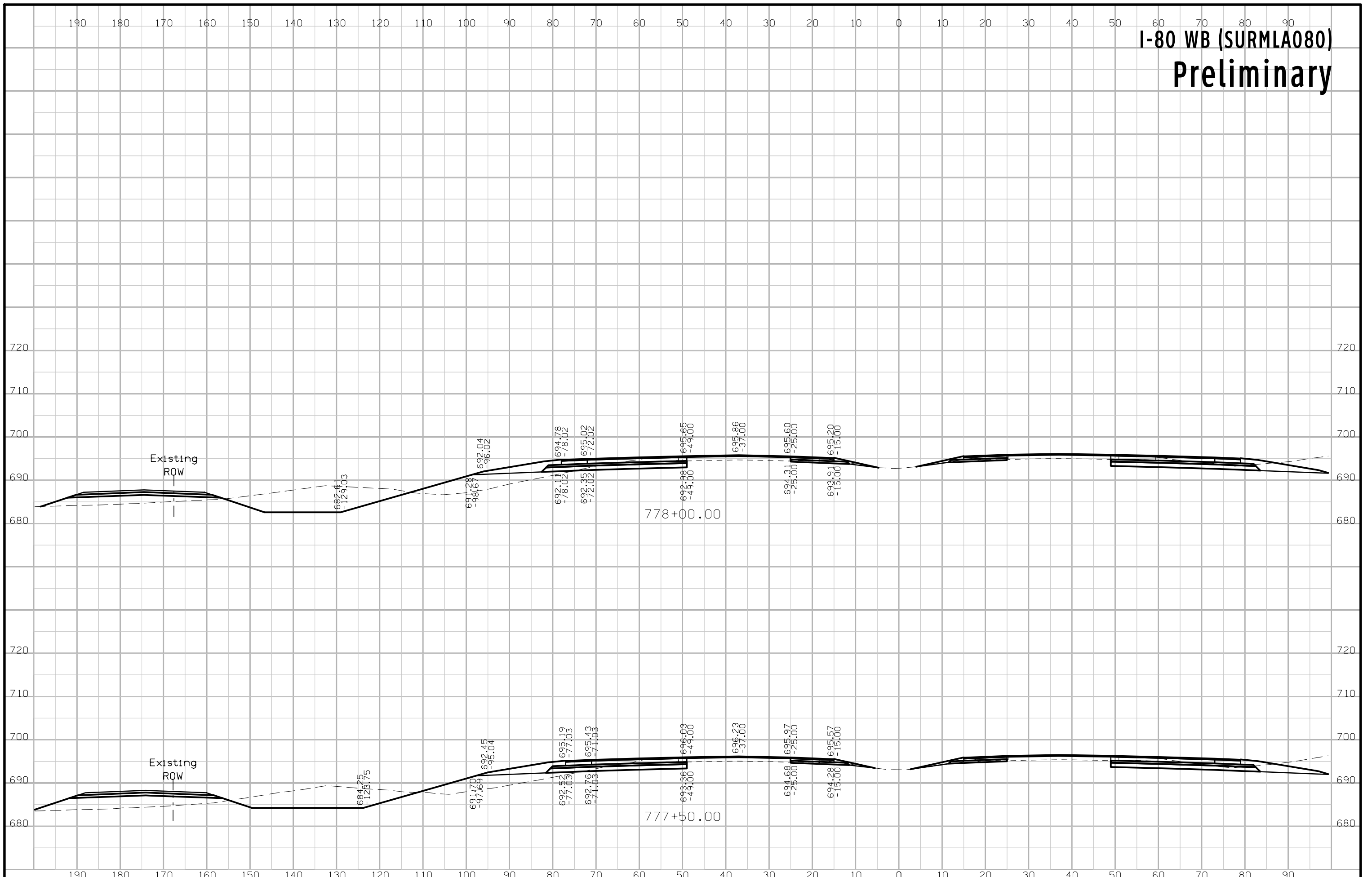
I-80 WB (SURMLA080) Preliminary



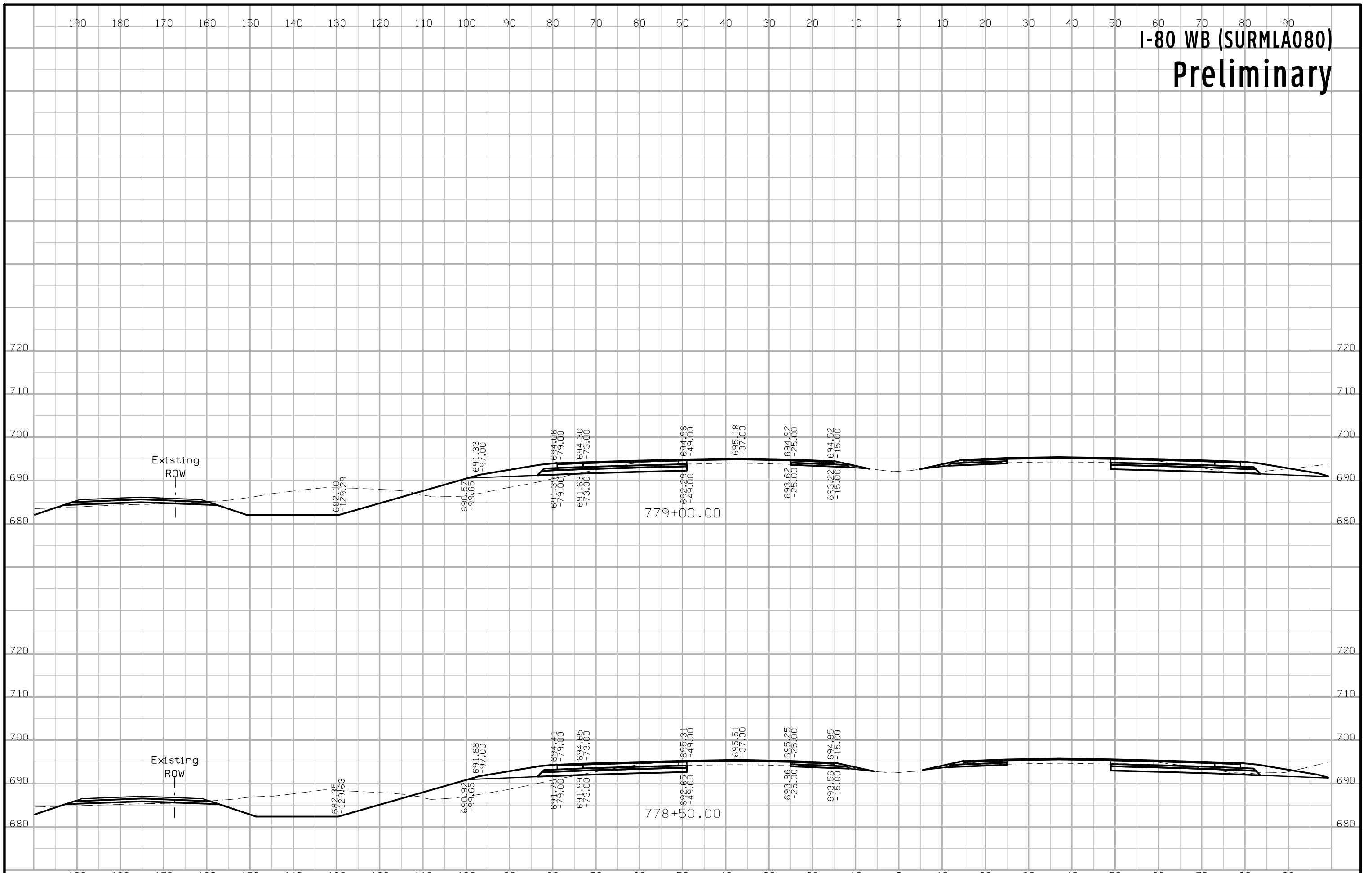
I-80 WB (SURMLA080) Preliminary



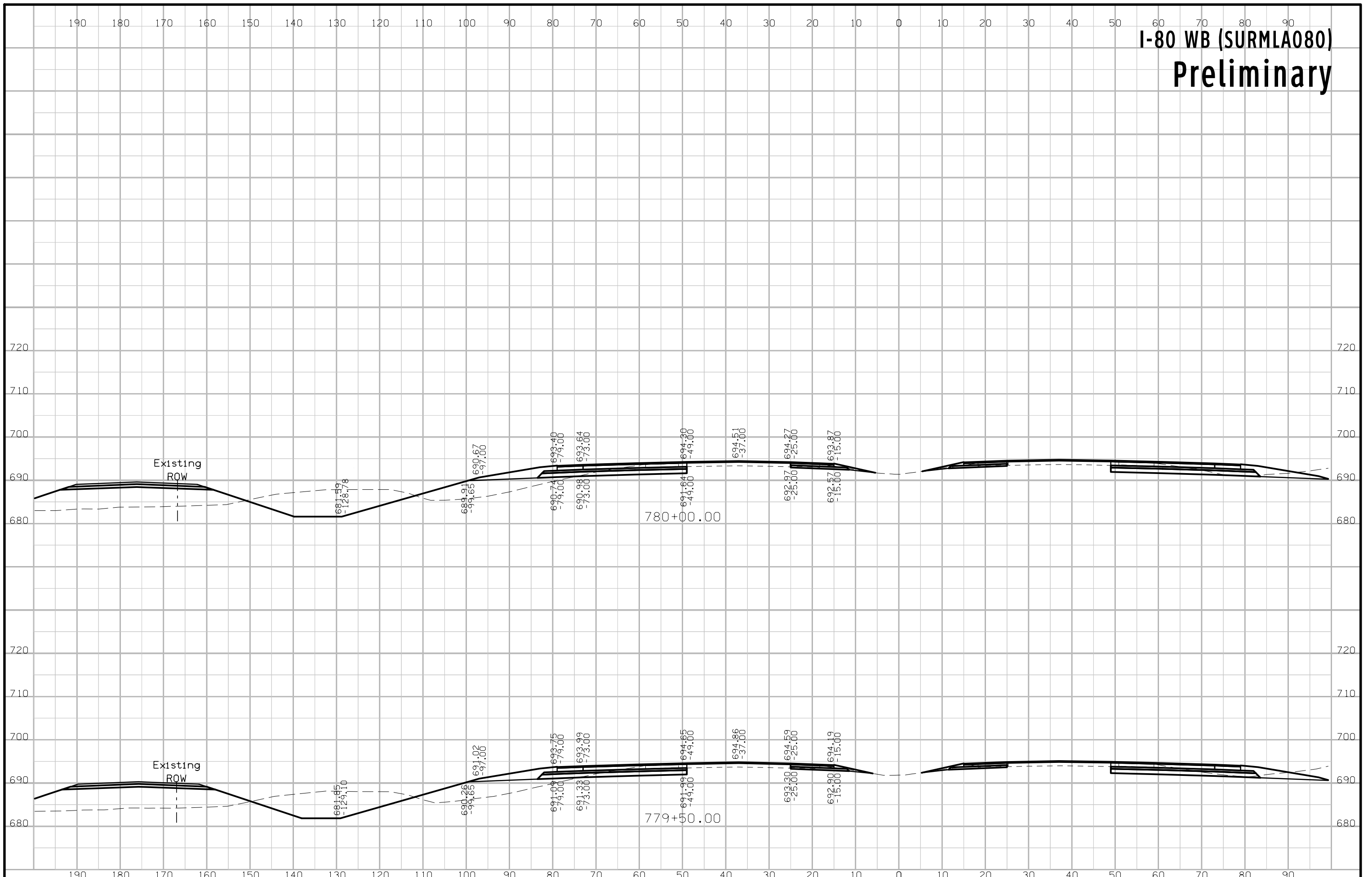
I-80 WB (SURMLA080) Preliminary



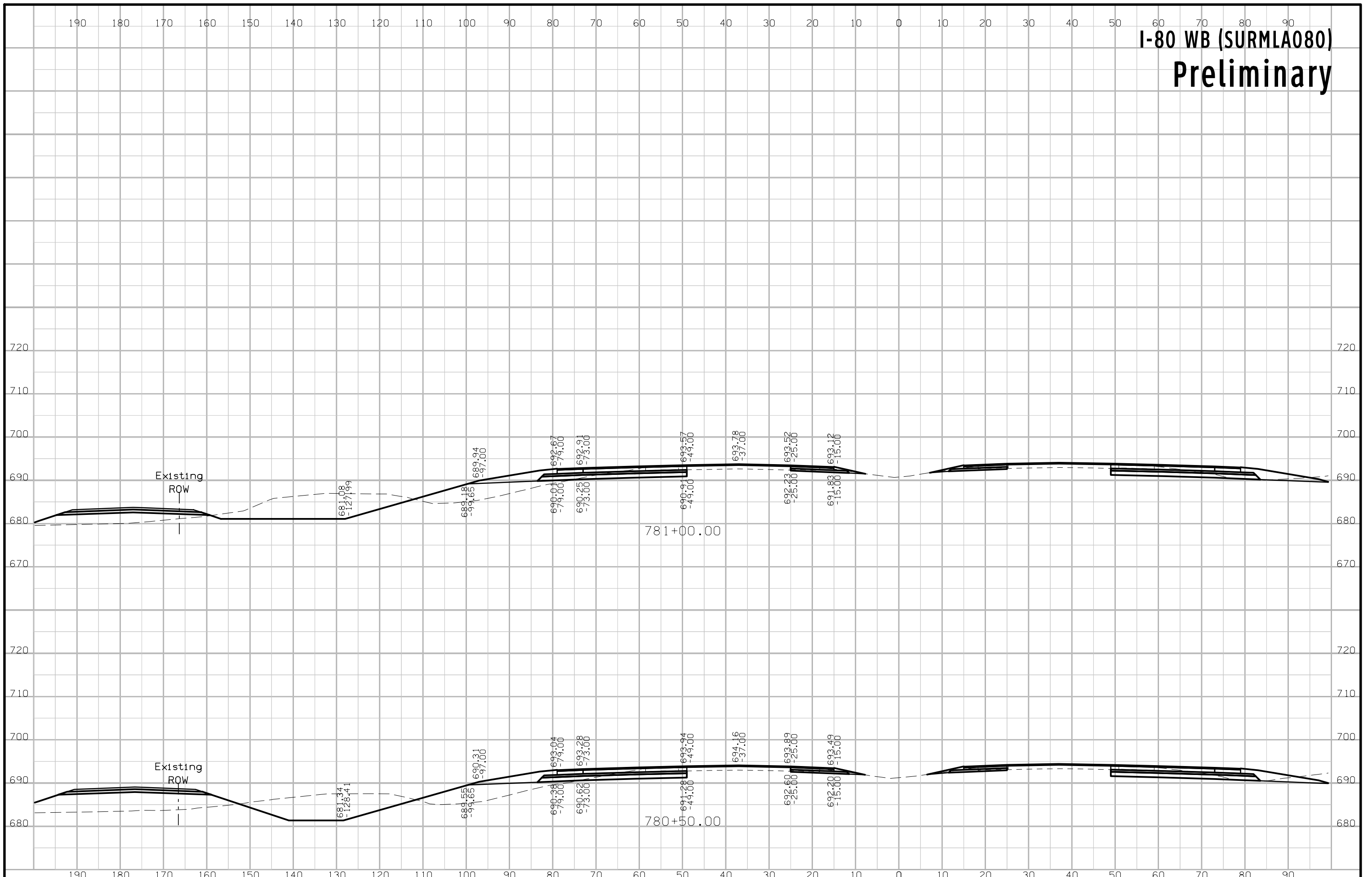
I-80 WB (SURMLA080) Preliminary



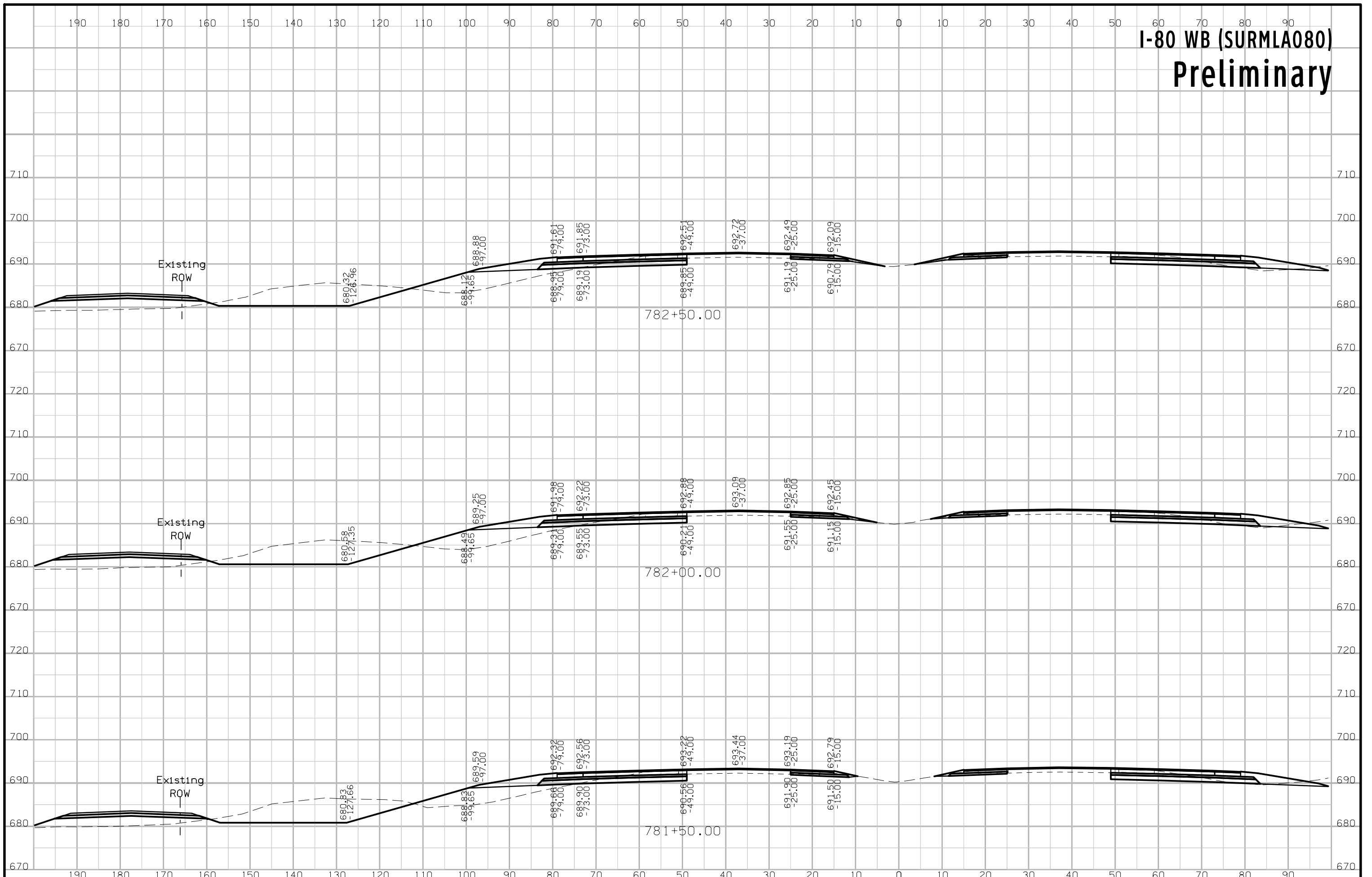
I-80 WB (SURMLA080) Preliminary



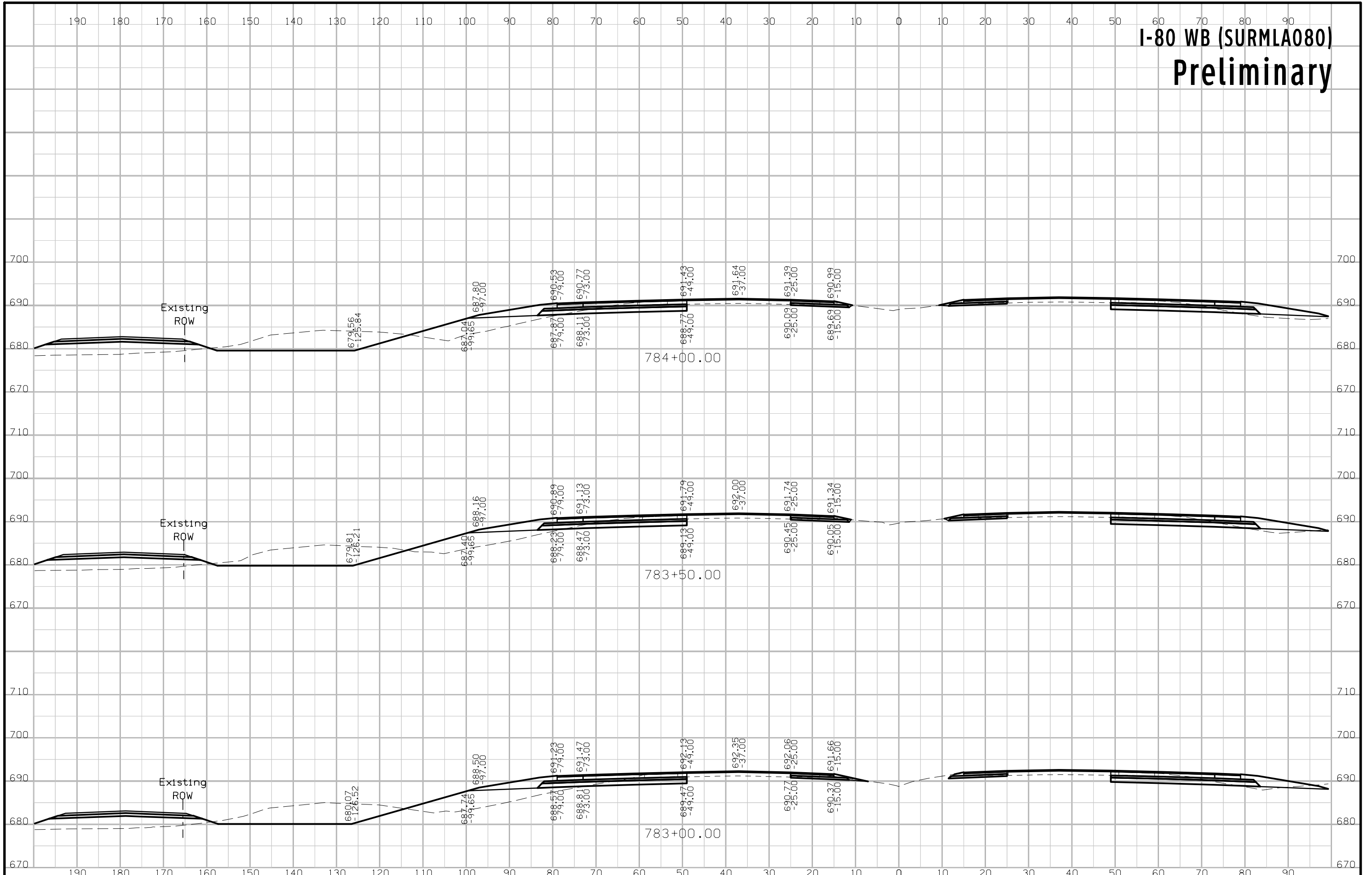
I-80 WB (SURMLA080) Preliminary



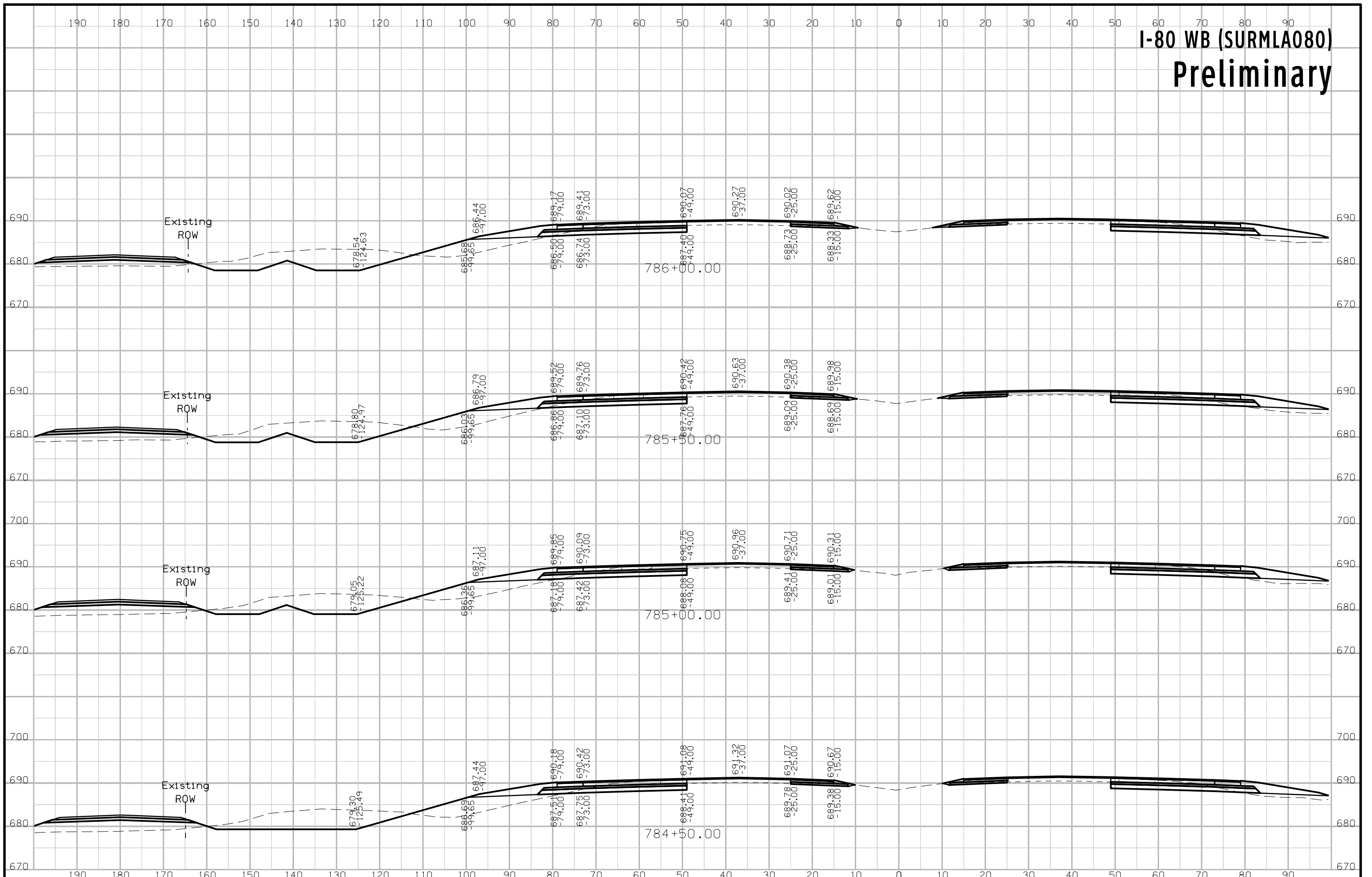
I-80 WB (SURMLA080) Preliminary



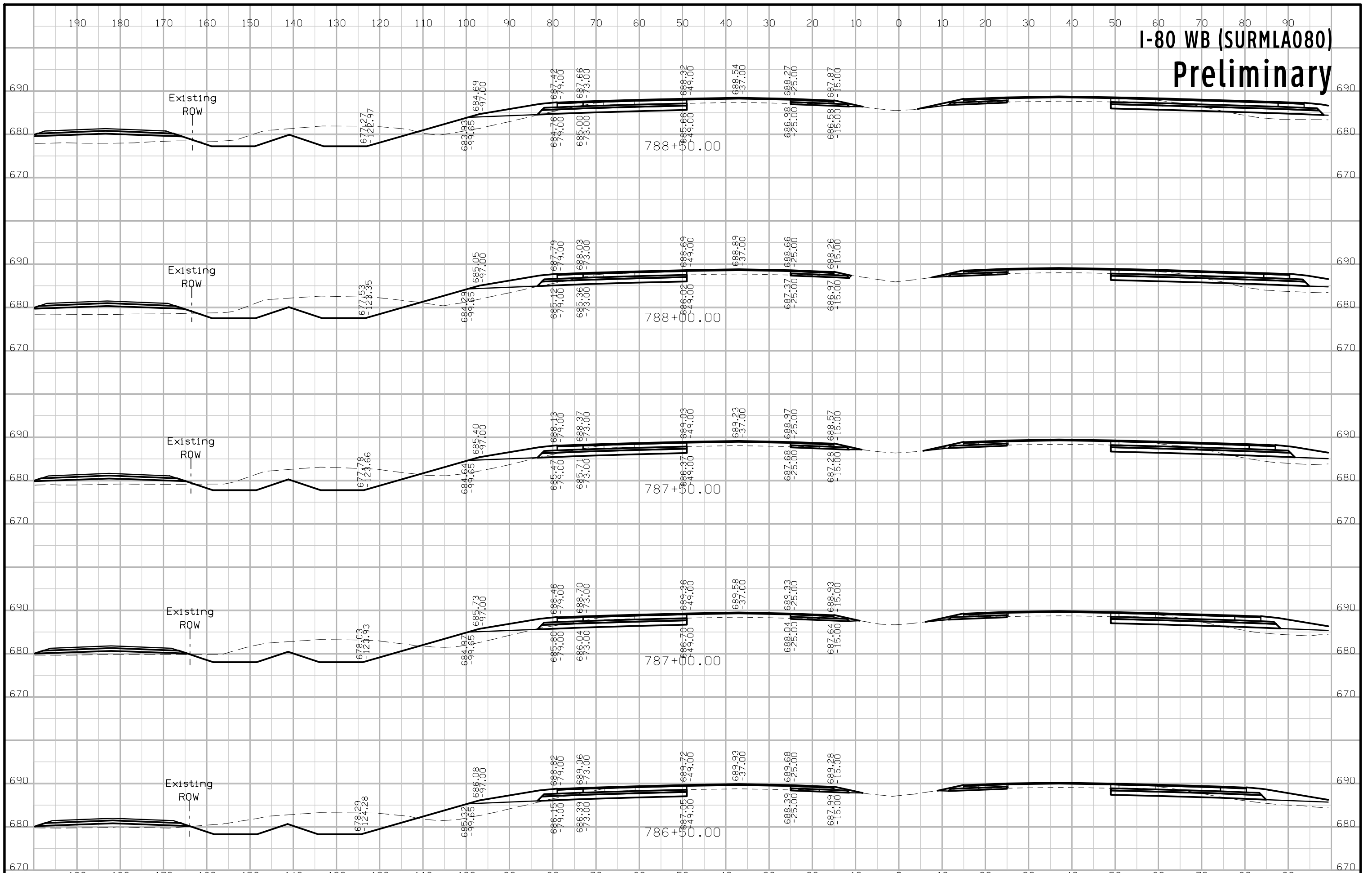
I-80 WB (SURMLA080) Preliminary



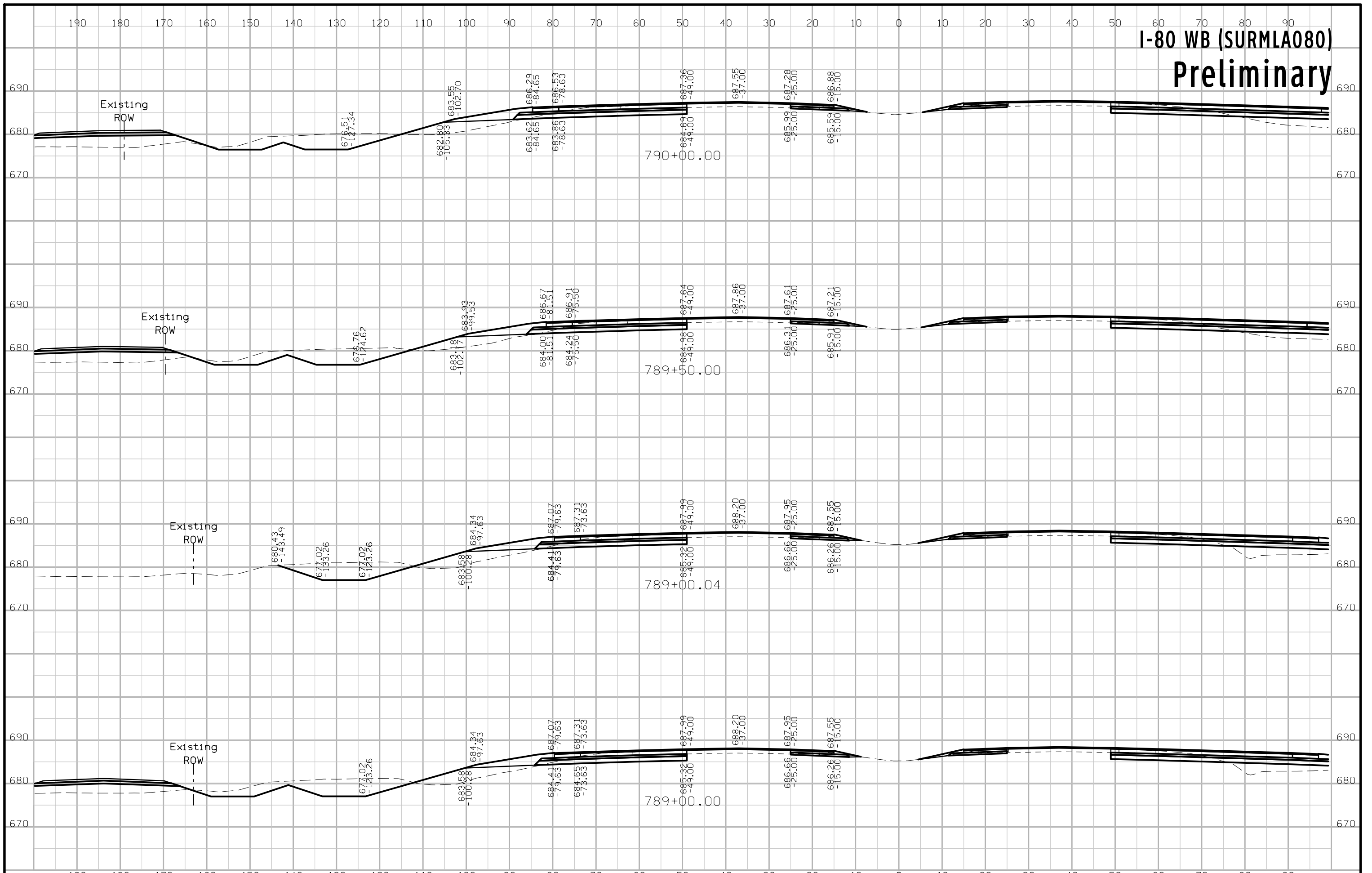
I-80 WB (SURMLA080) Preliminary



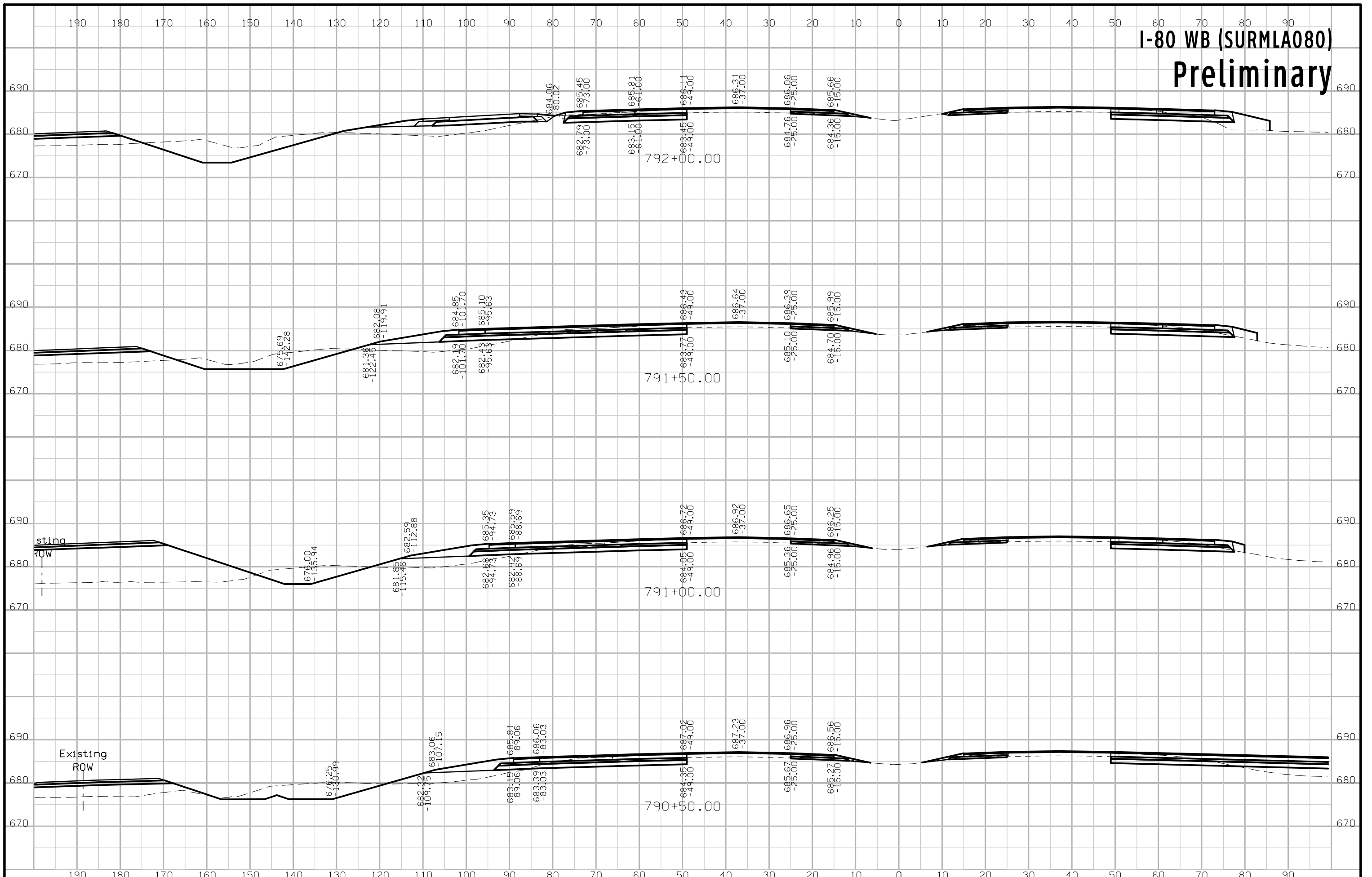
I-80 WB (SURMLA080) Preliminary



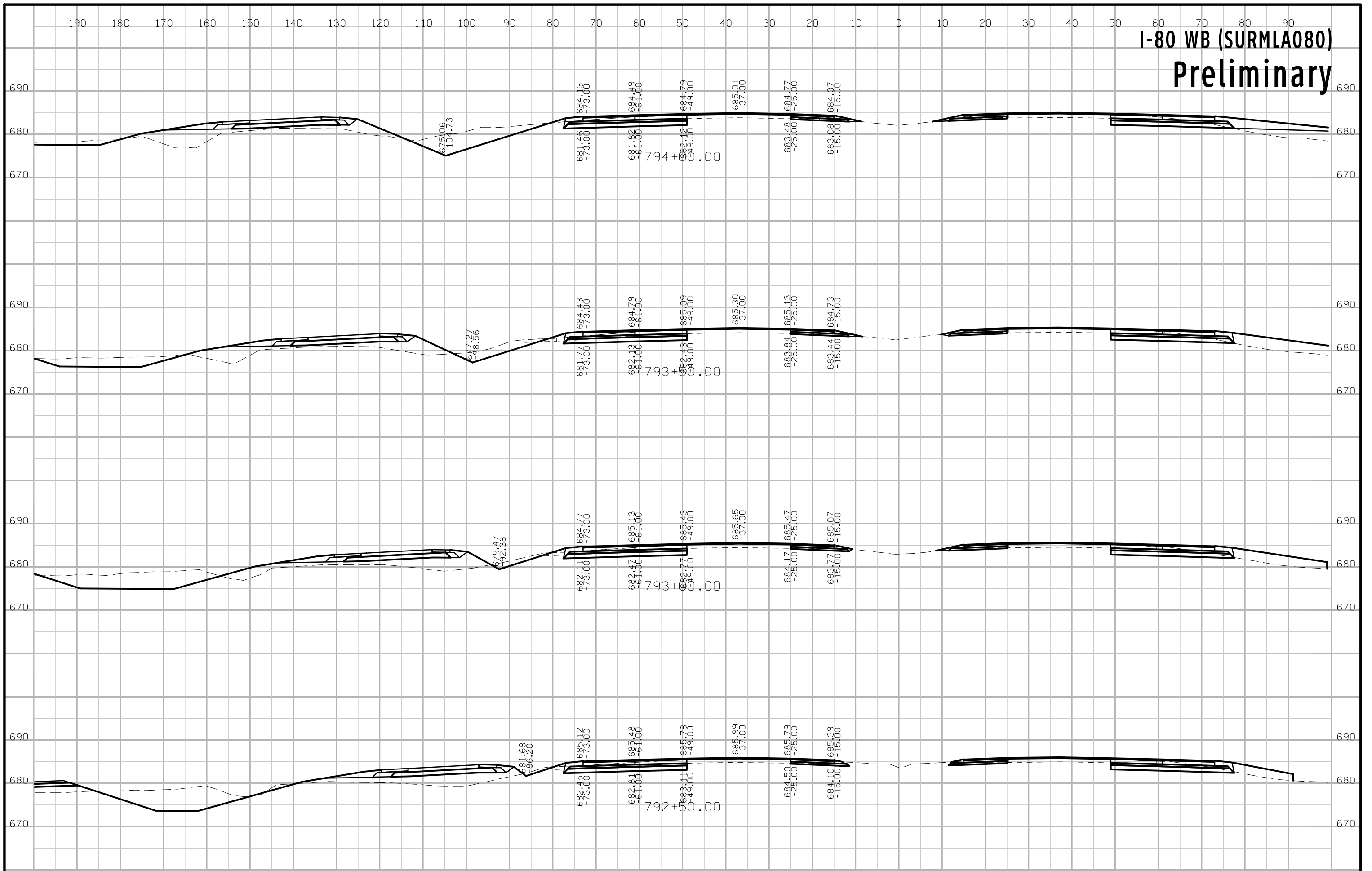
I-80 WB (SURMLA080) Preliminary



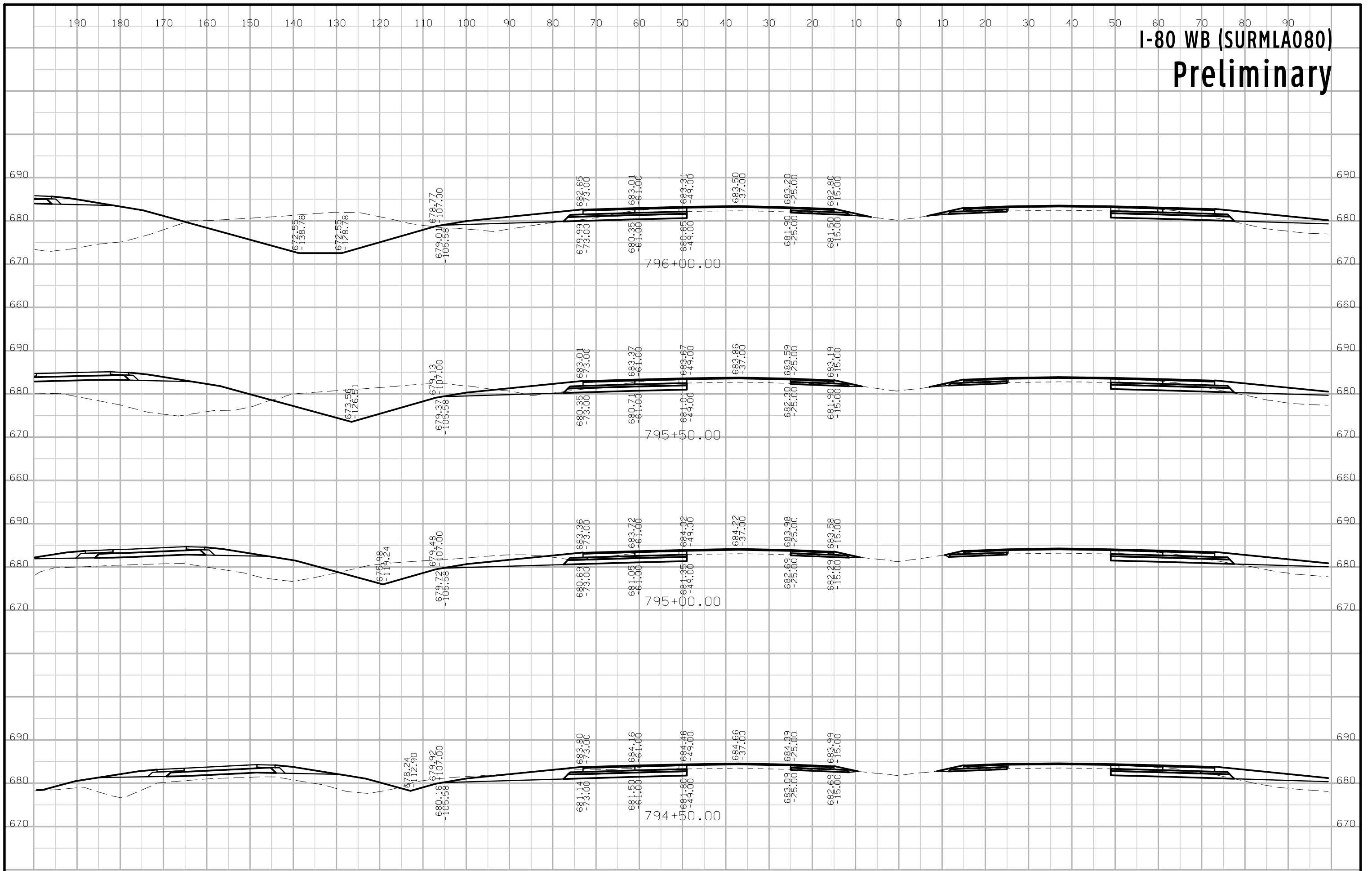
I-80 WB (SURMLA080) Preliminary



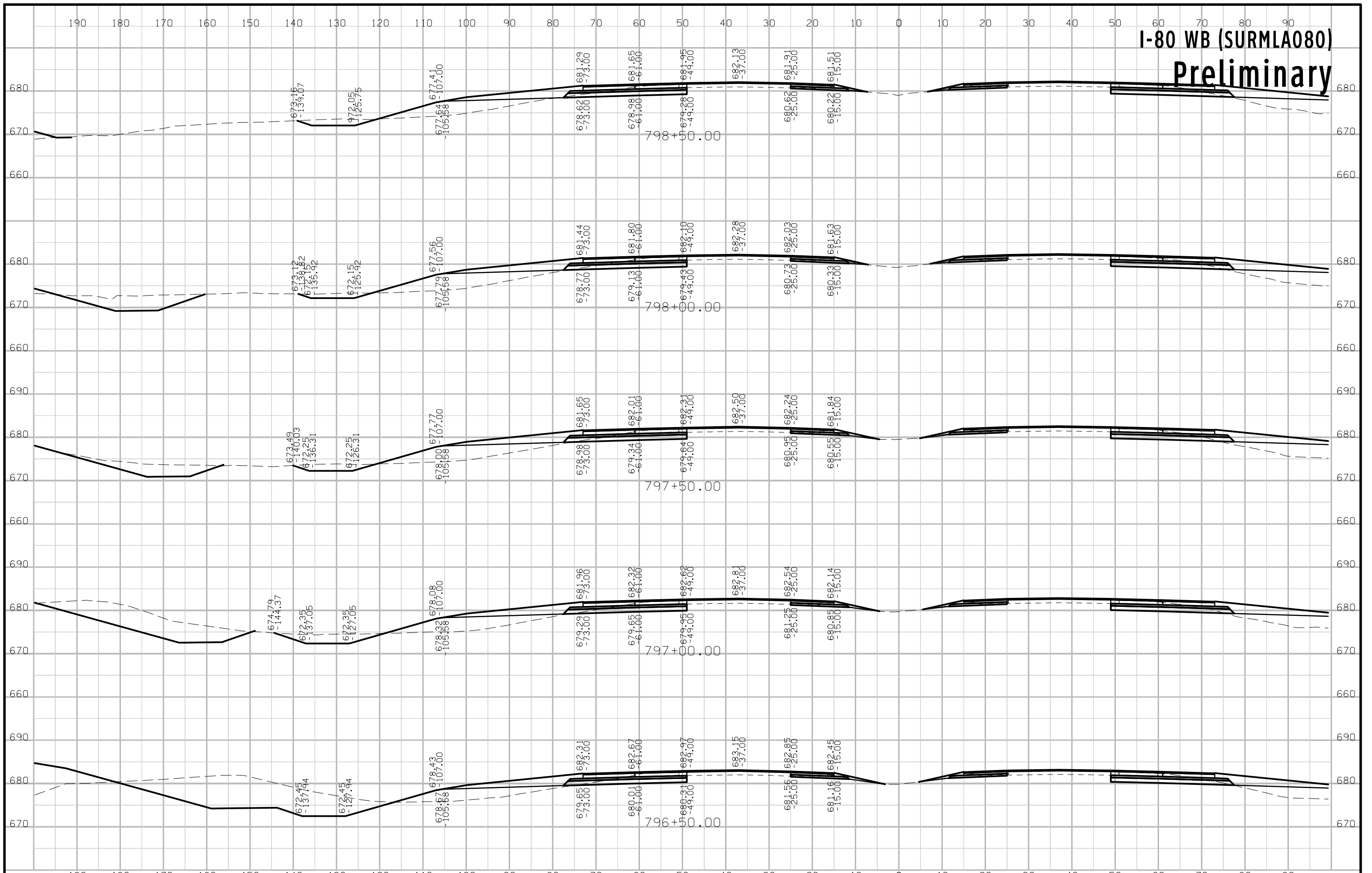
I-80 WB (SURMLA080) Preliminary



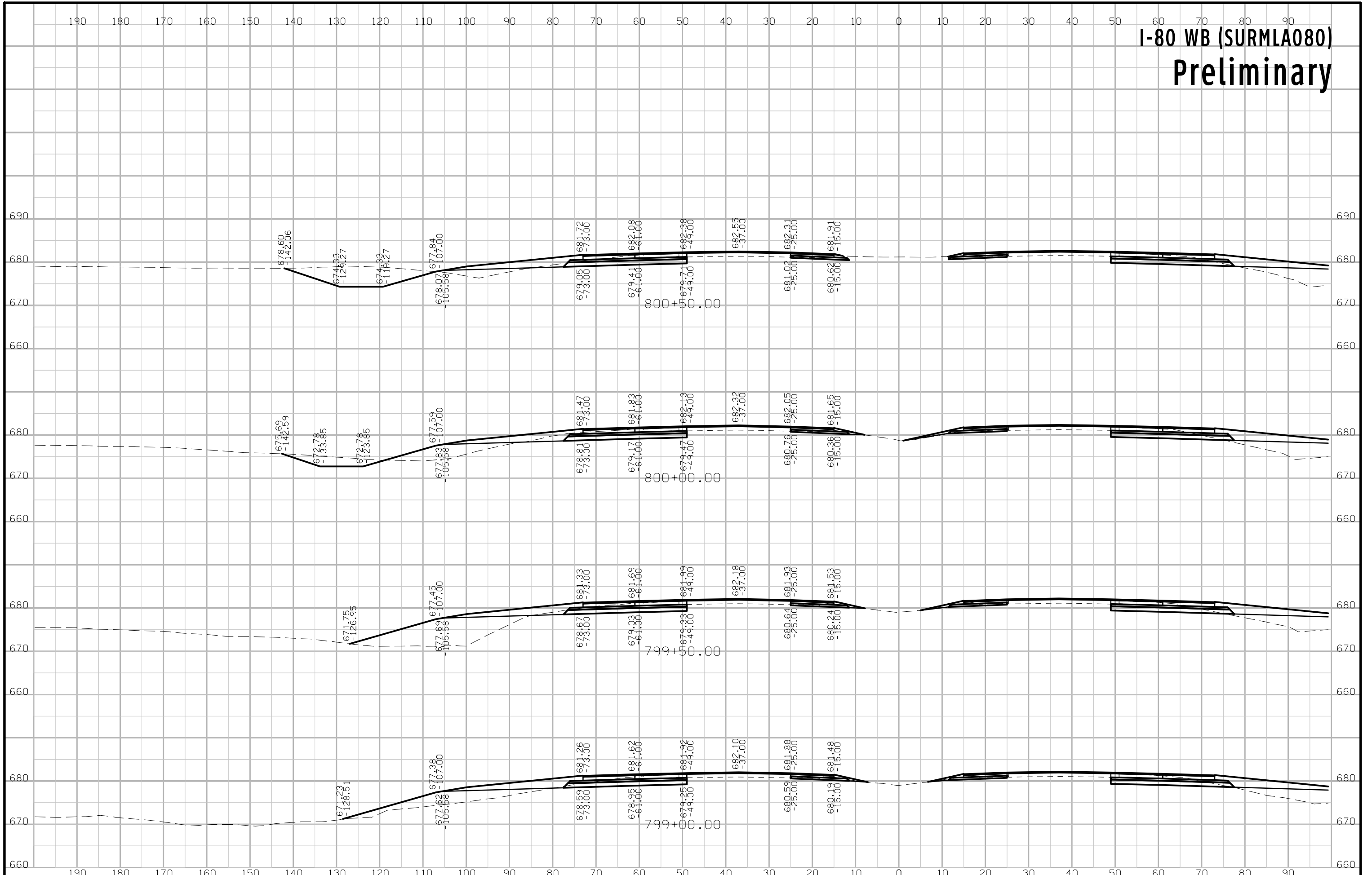
I-80 WB (SURMLA080) Preliminary



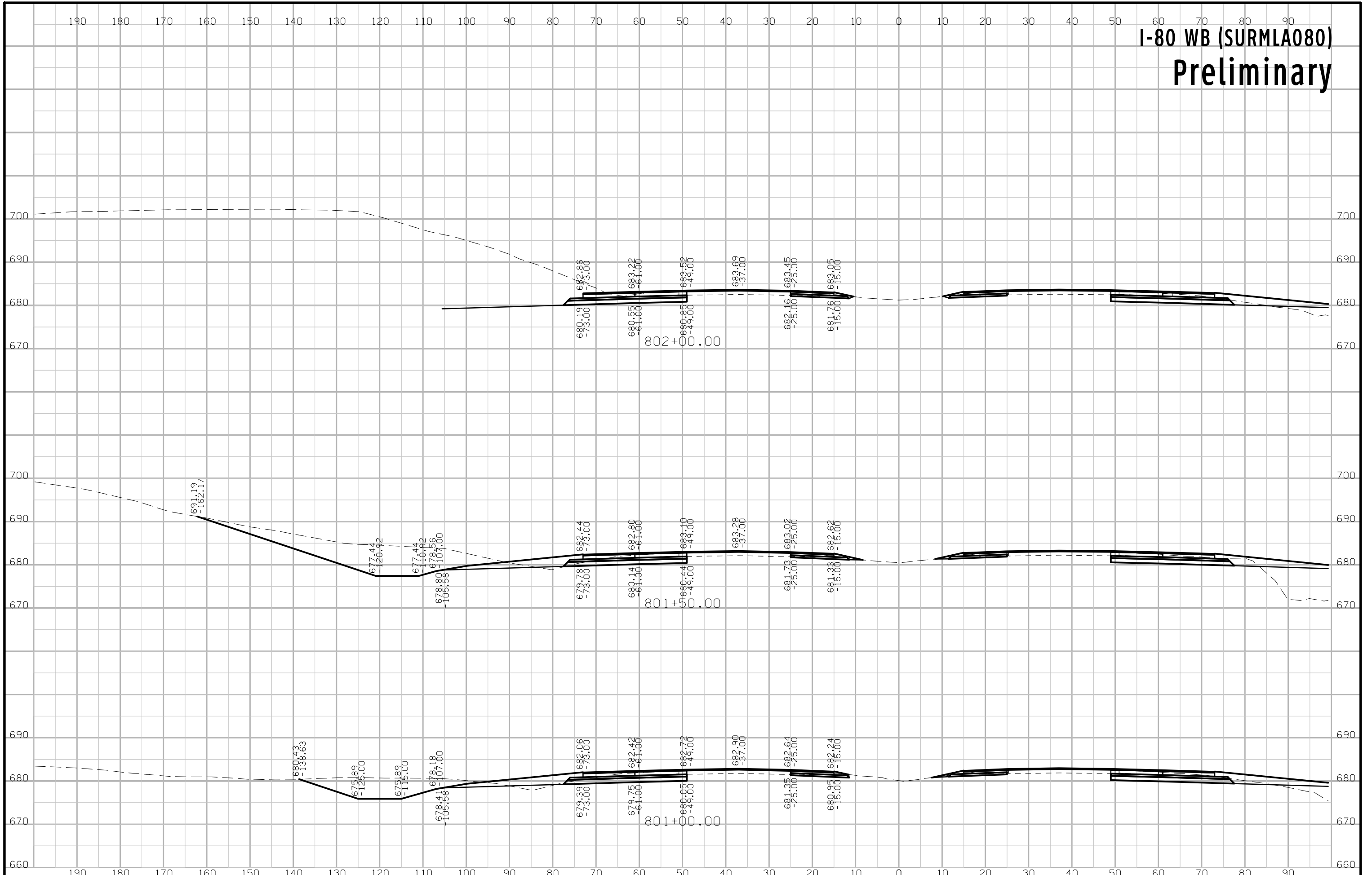
I-80 WB (SURMLA080) Preliminary



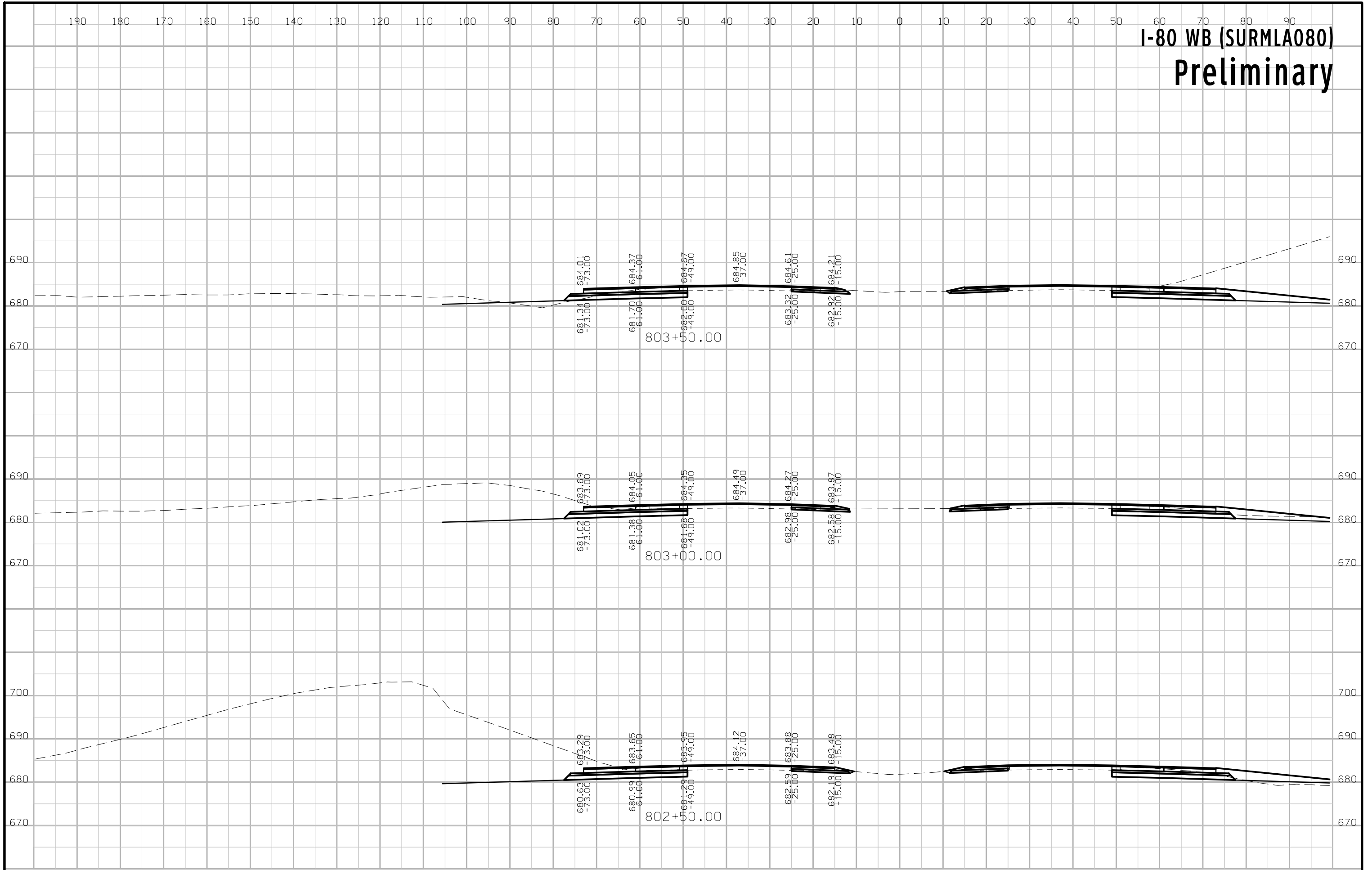
I-80 WB (SURMLA080) Preliminary



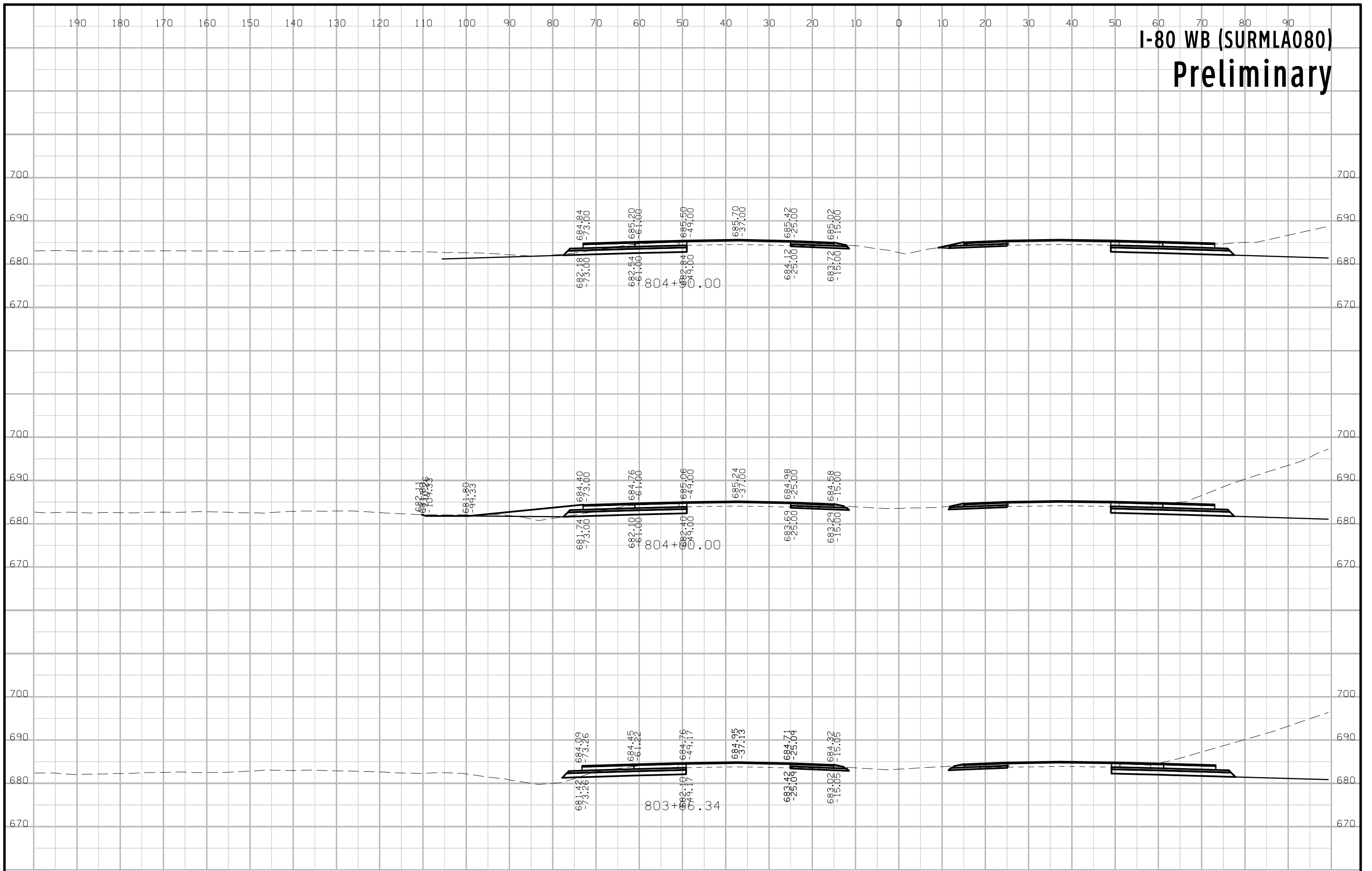
I-80 WB (SURMLA080) Preliminary



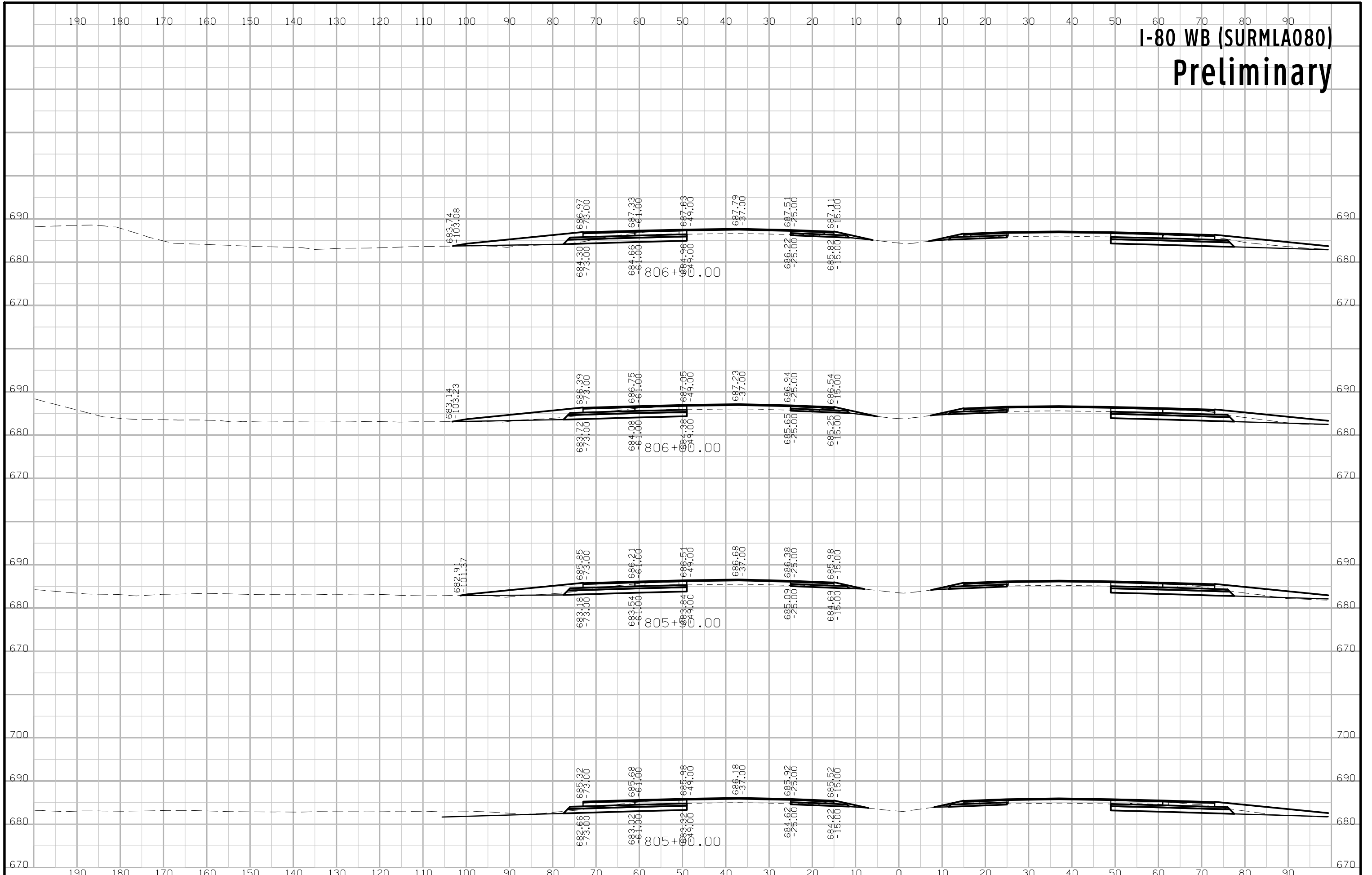
I-80 WB (SURMLA080) Preliminary



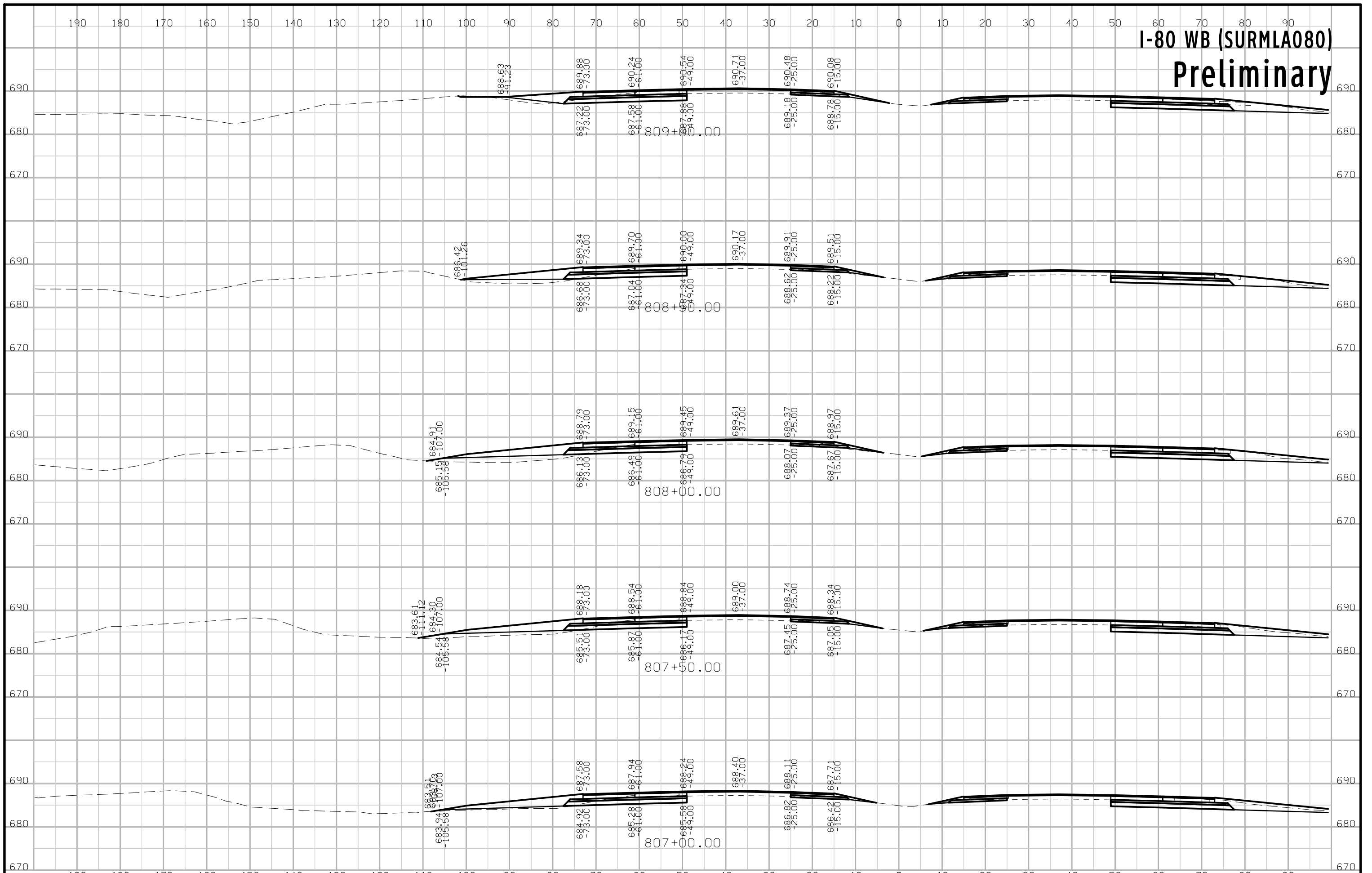
I-80 WB (SURMLA080) Preliminary



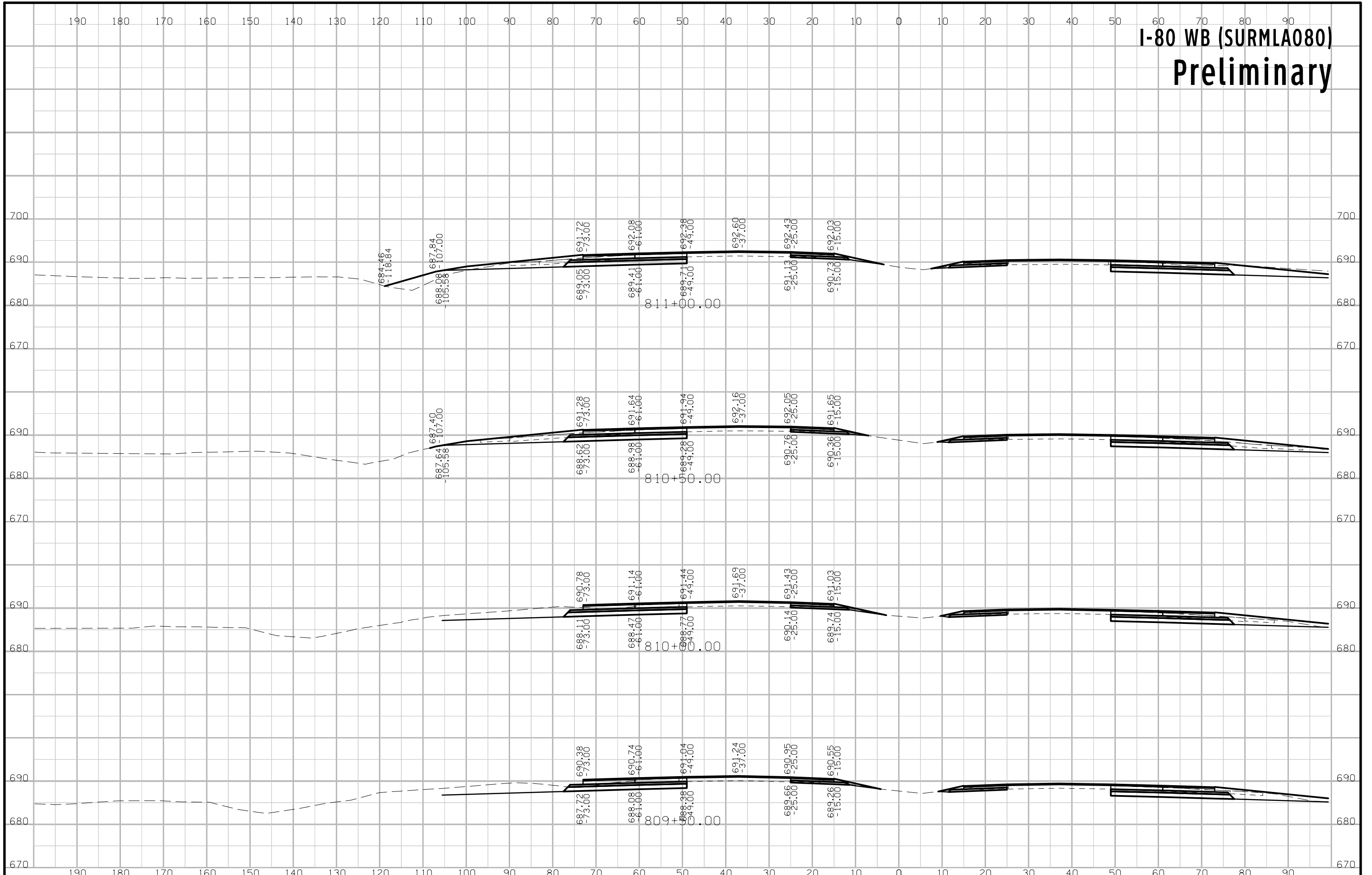
I-80 WB (SURMLA080) Preliminary



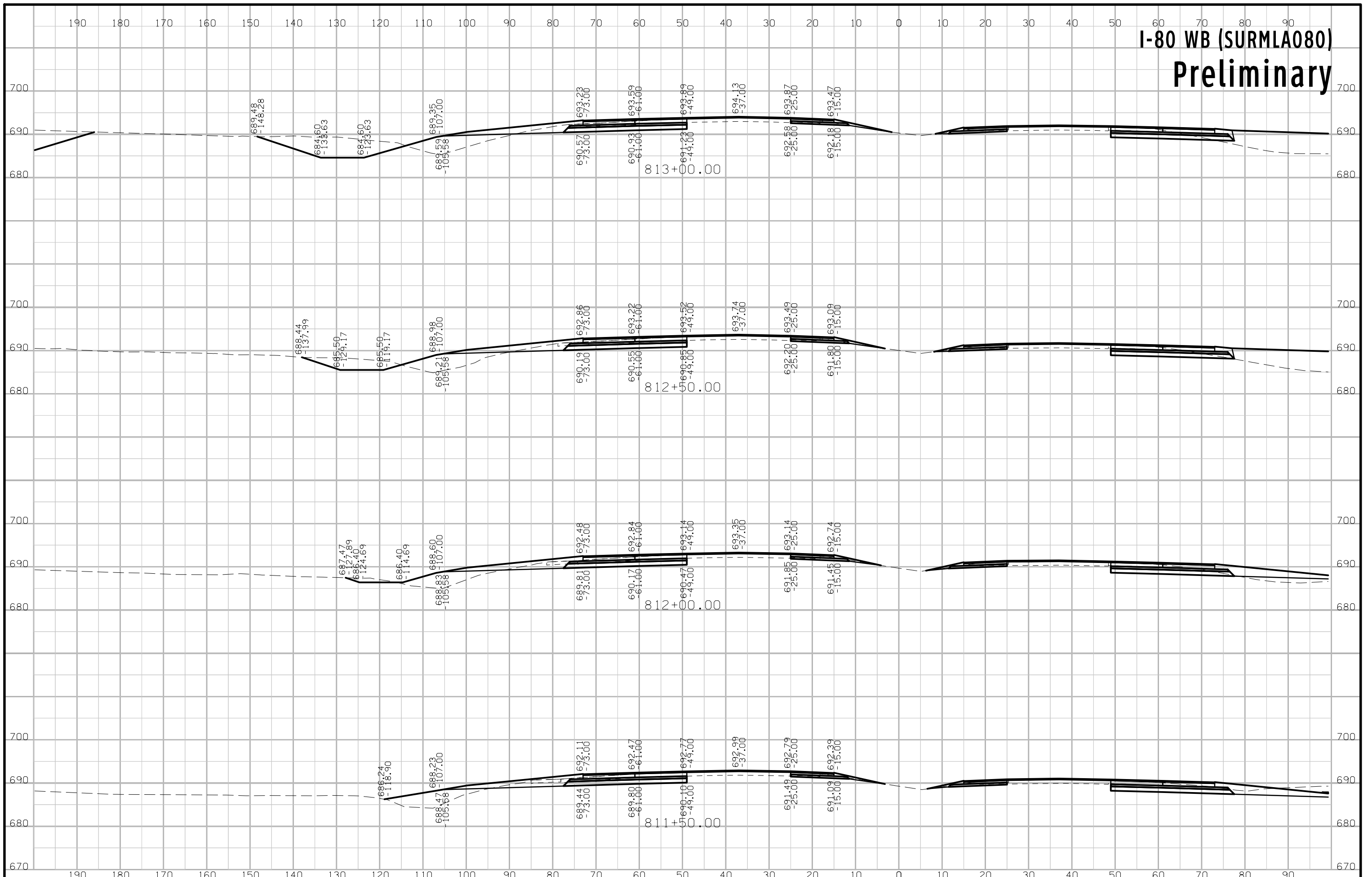
I-80 WB (SURMLA080) Preliminary



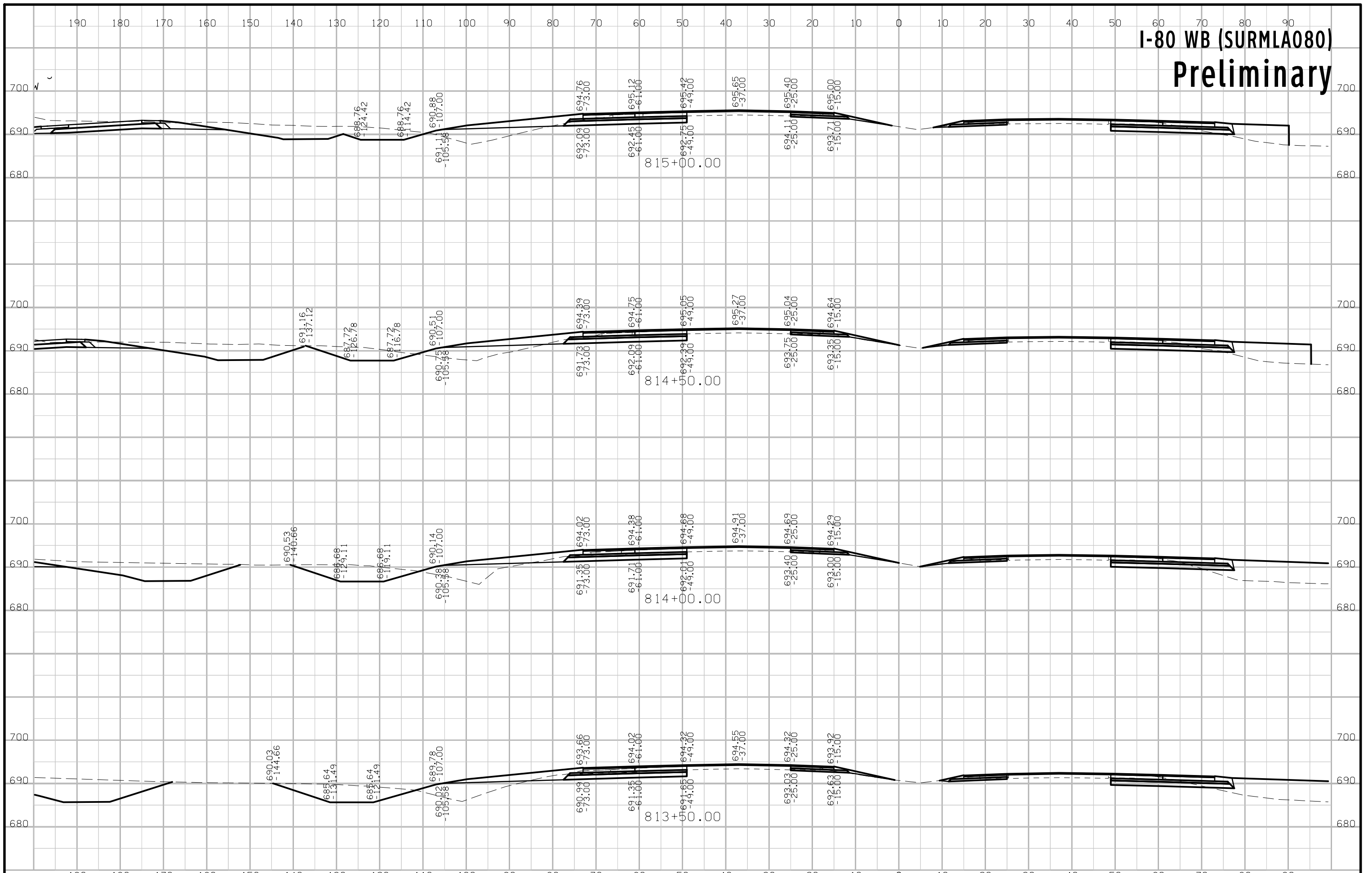
I-80 WB (SURMLA080) Preliminary



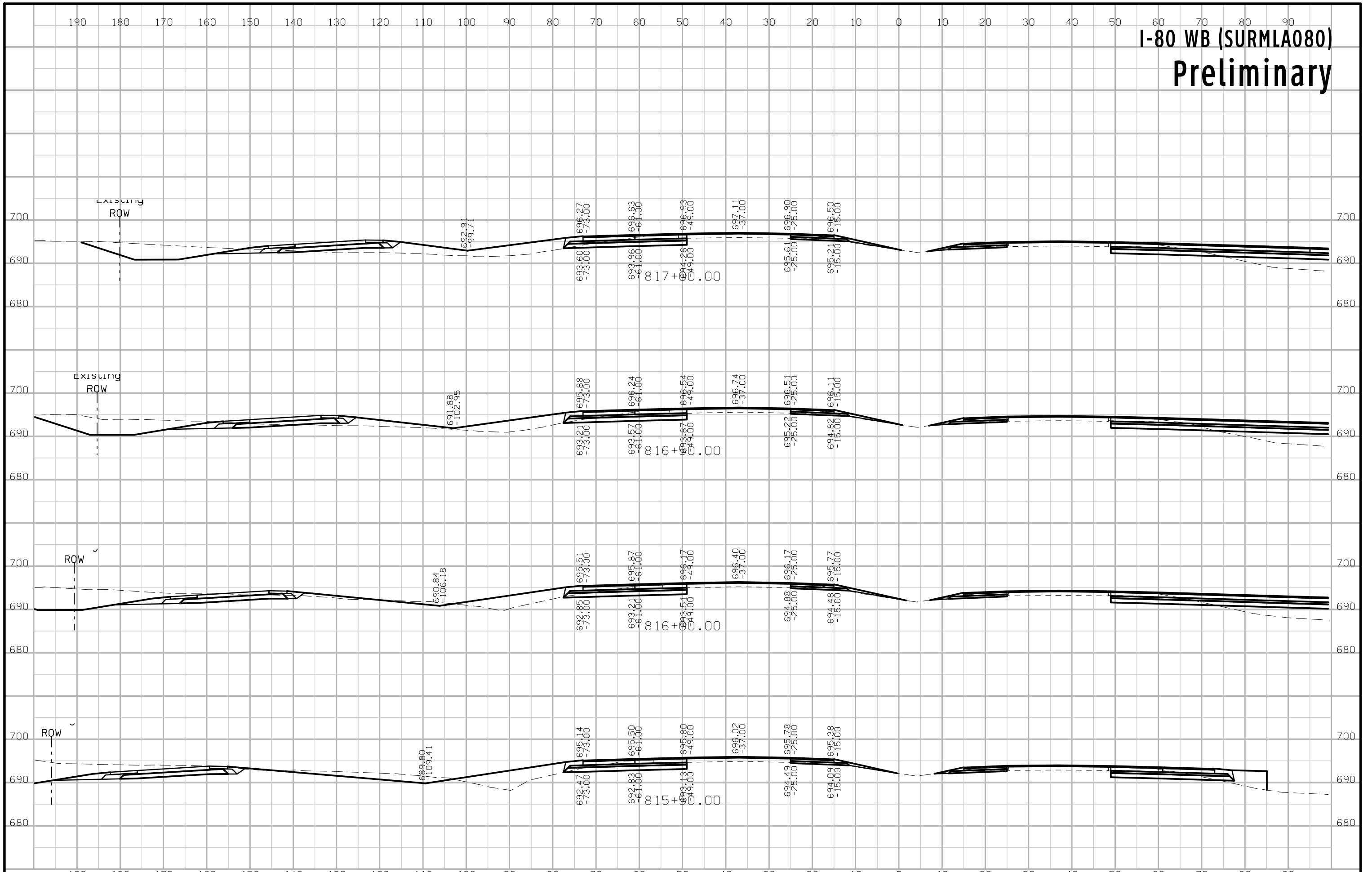
I-80 WB (SURMLA080) Preliminary



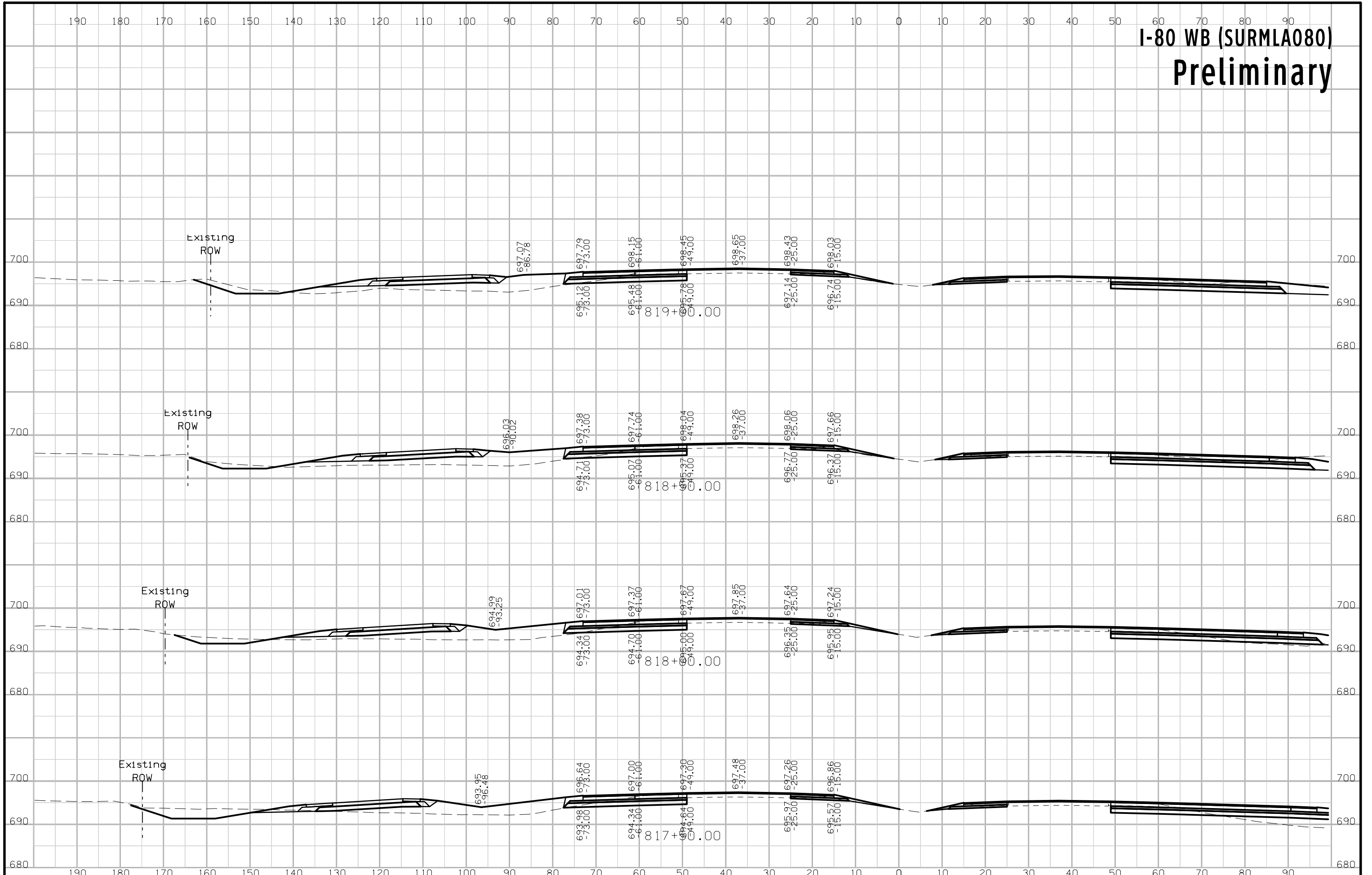
I-80 WB (SURMLA080) Preliminary



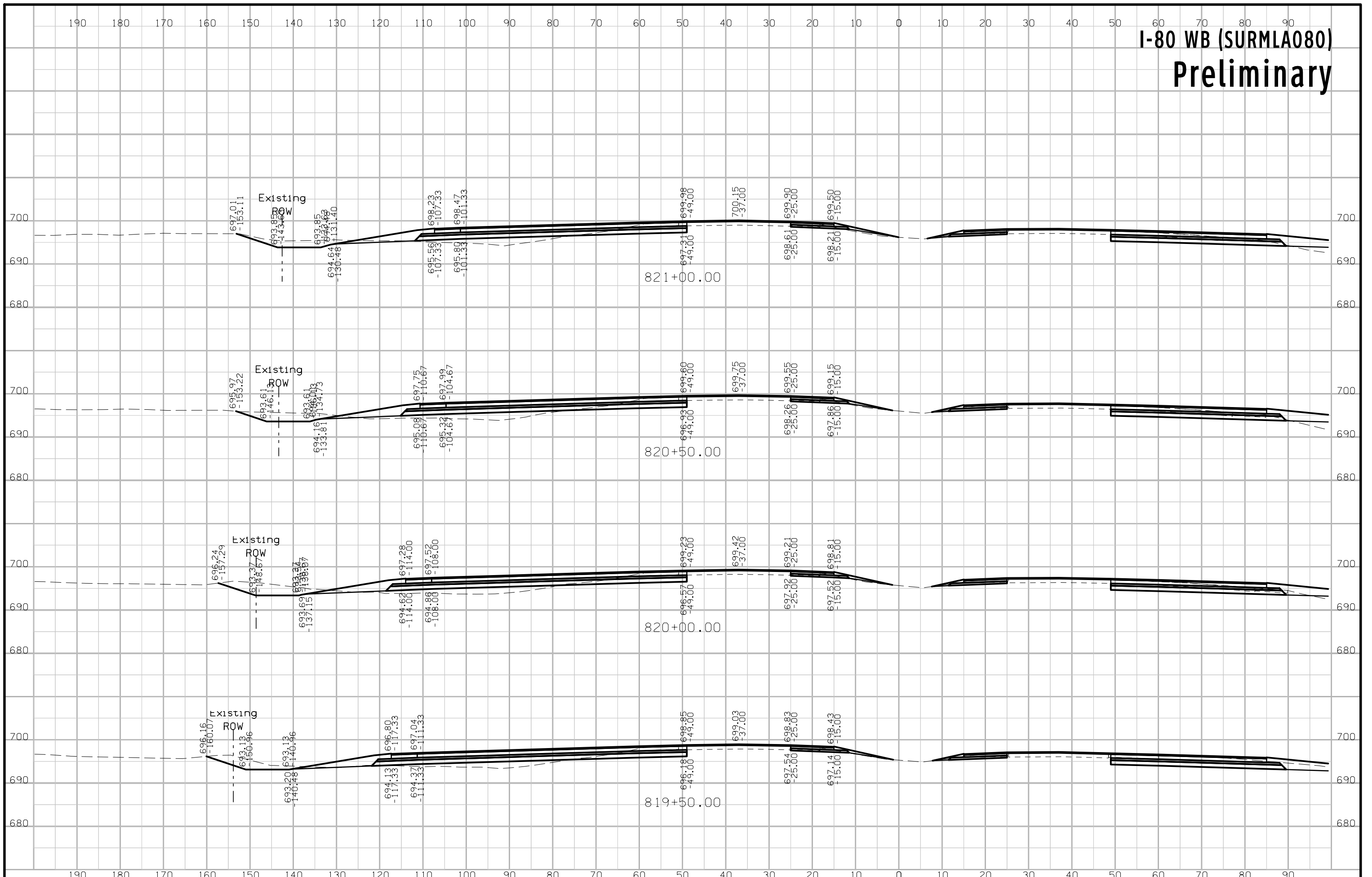
I-80 WB (SURMLA080) Preliminary



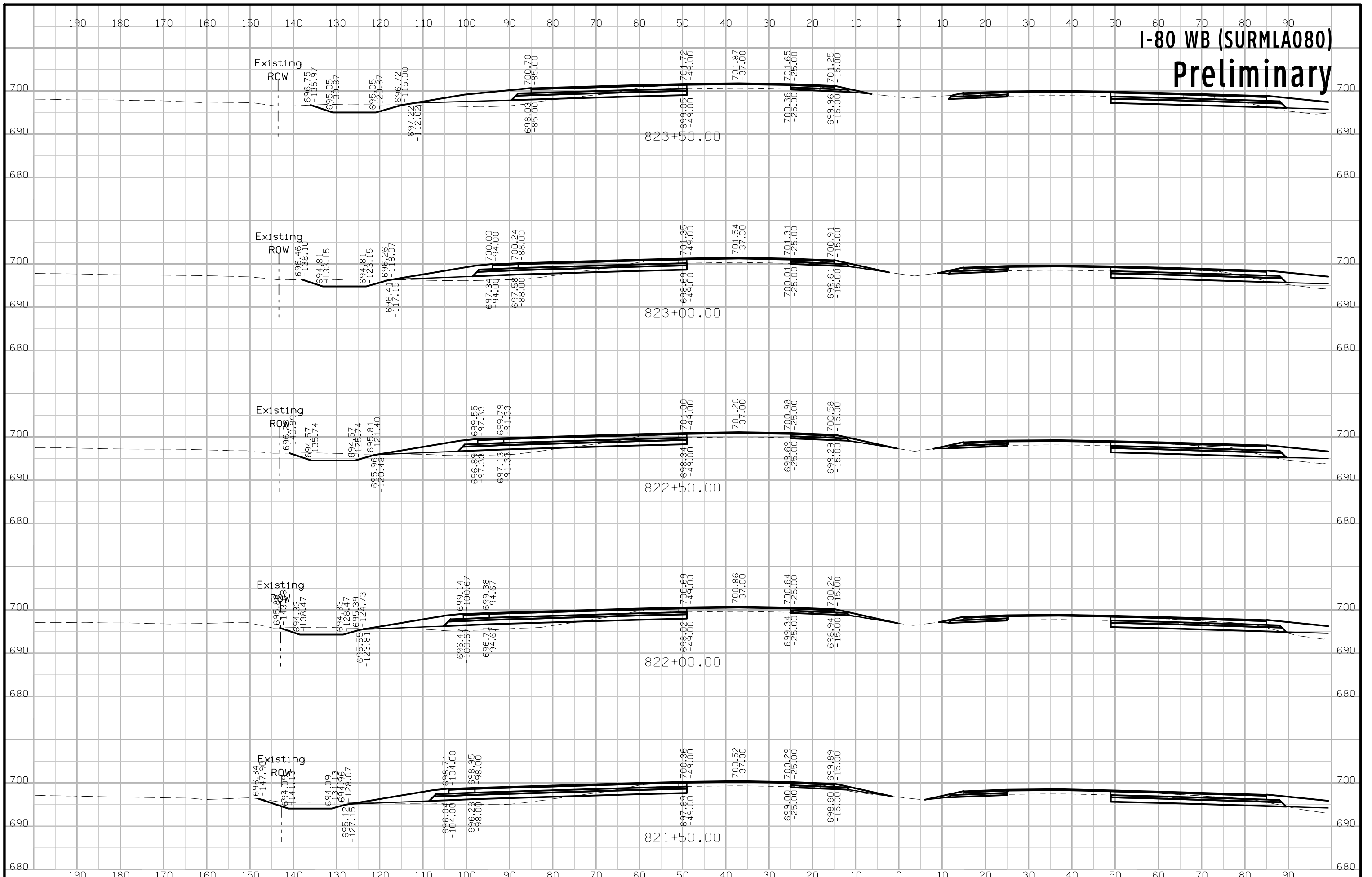
I-80 WB (SURMLA080) Preliminary



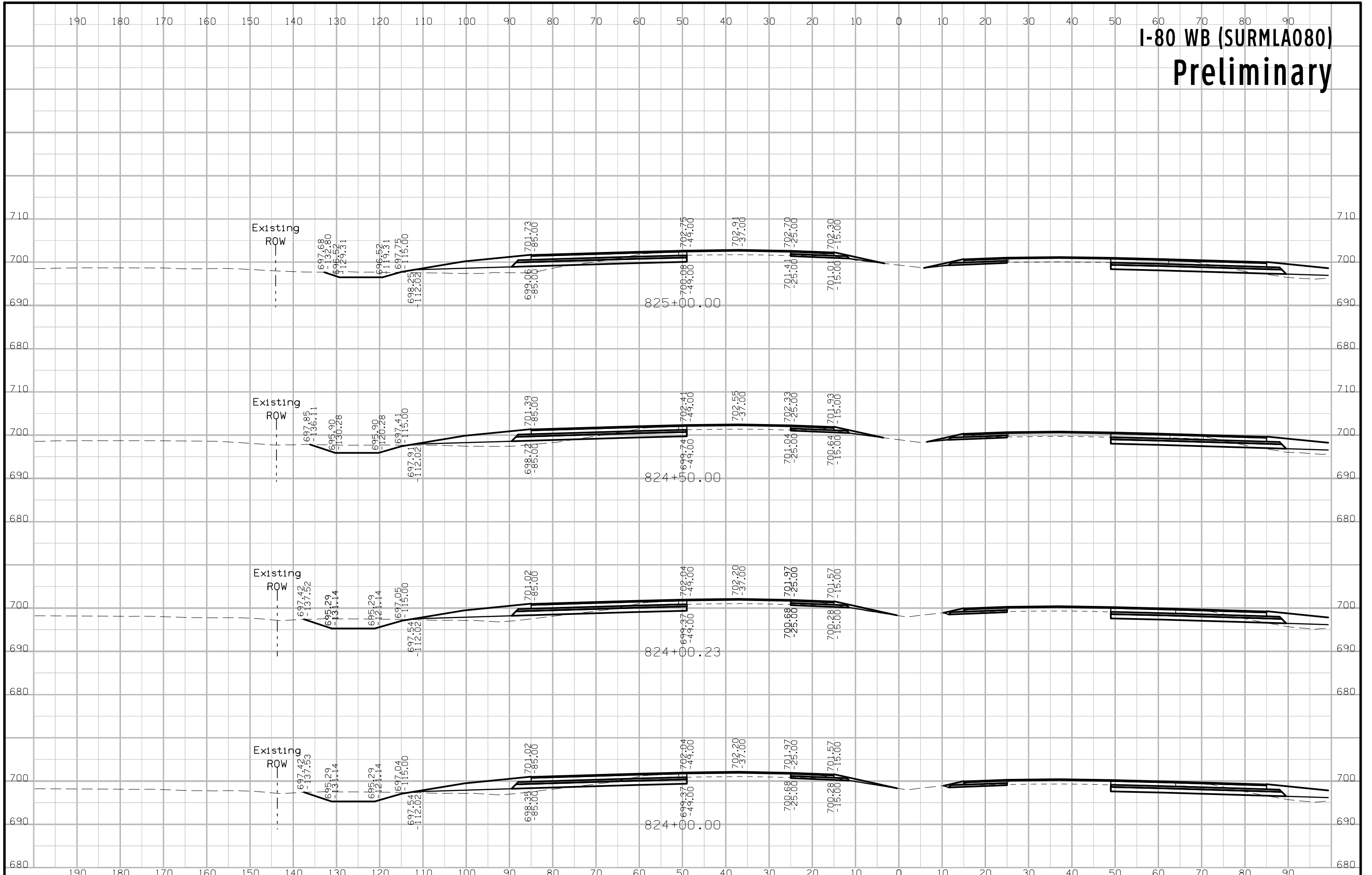
I-80 WB (SURMLA080) Preliminary



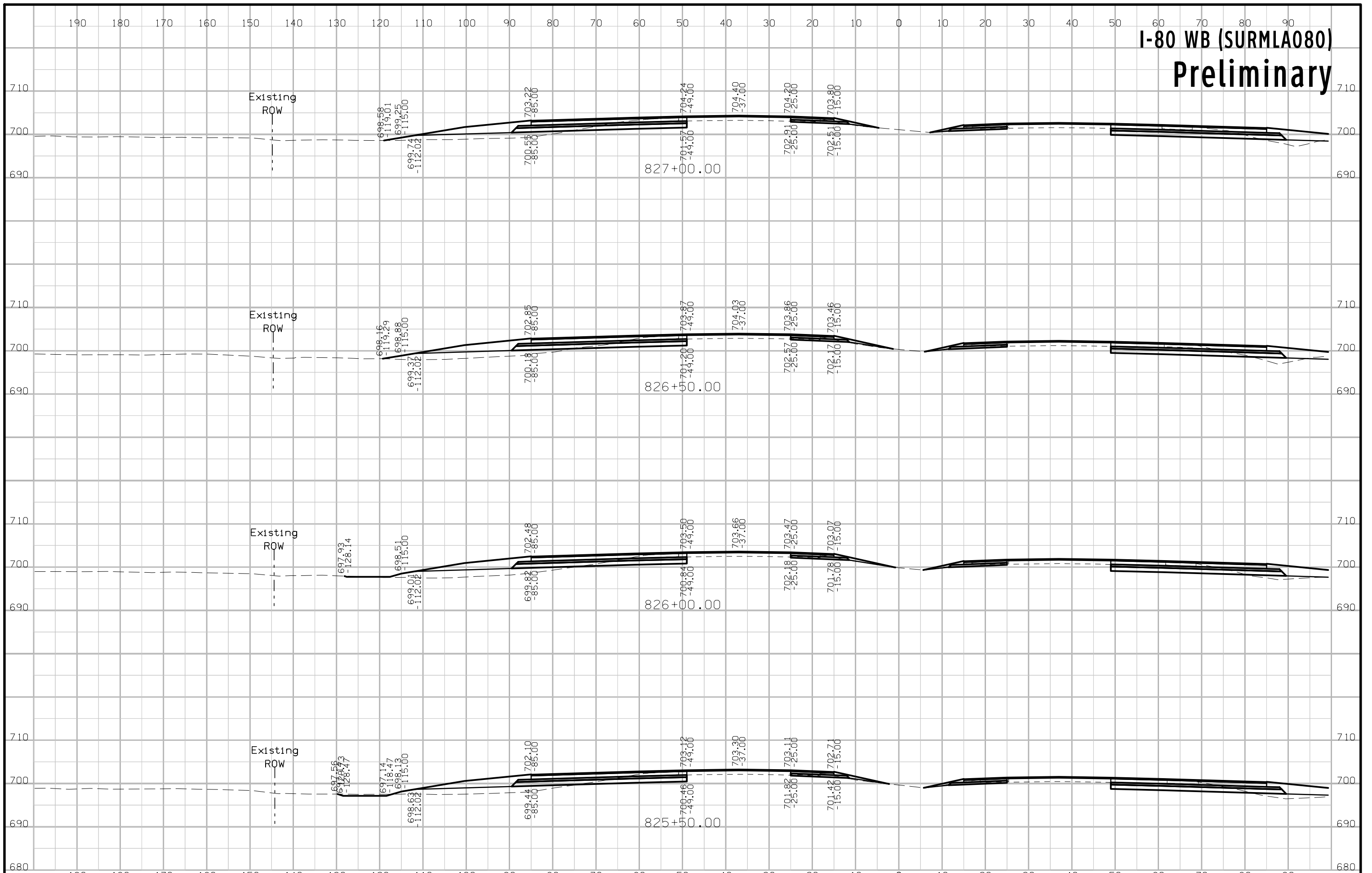
I-80 WB (SURMLA080) Preliminary



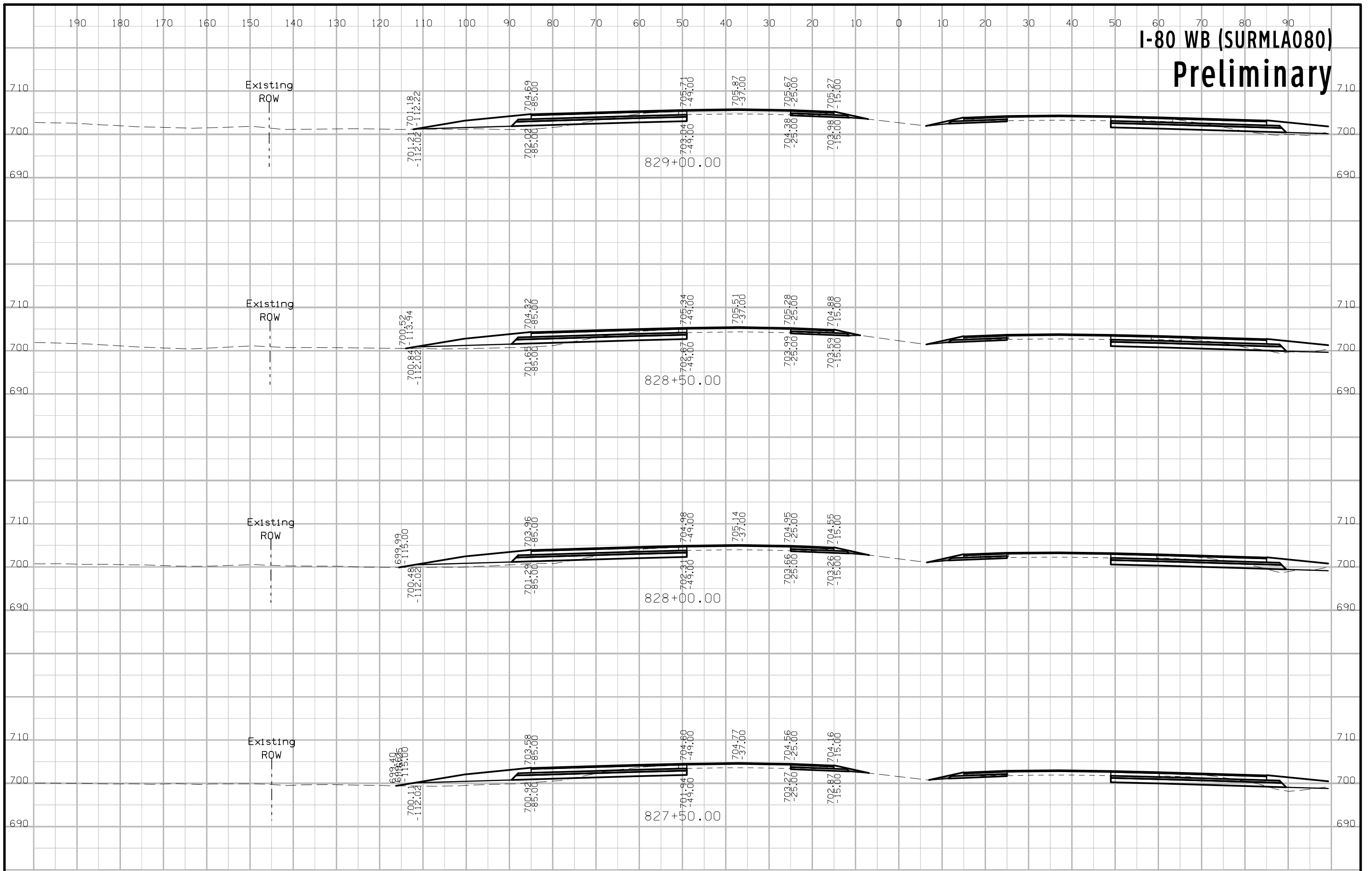
I-80 WB (SURMLA080) Preliminary



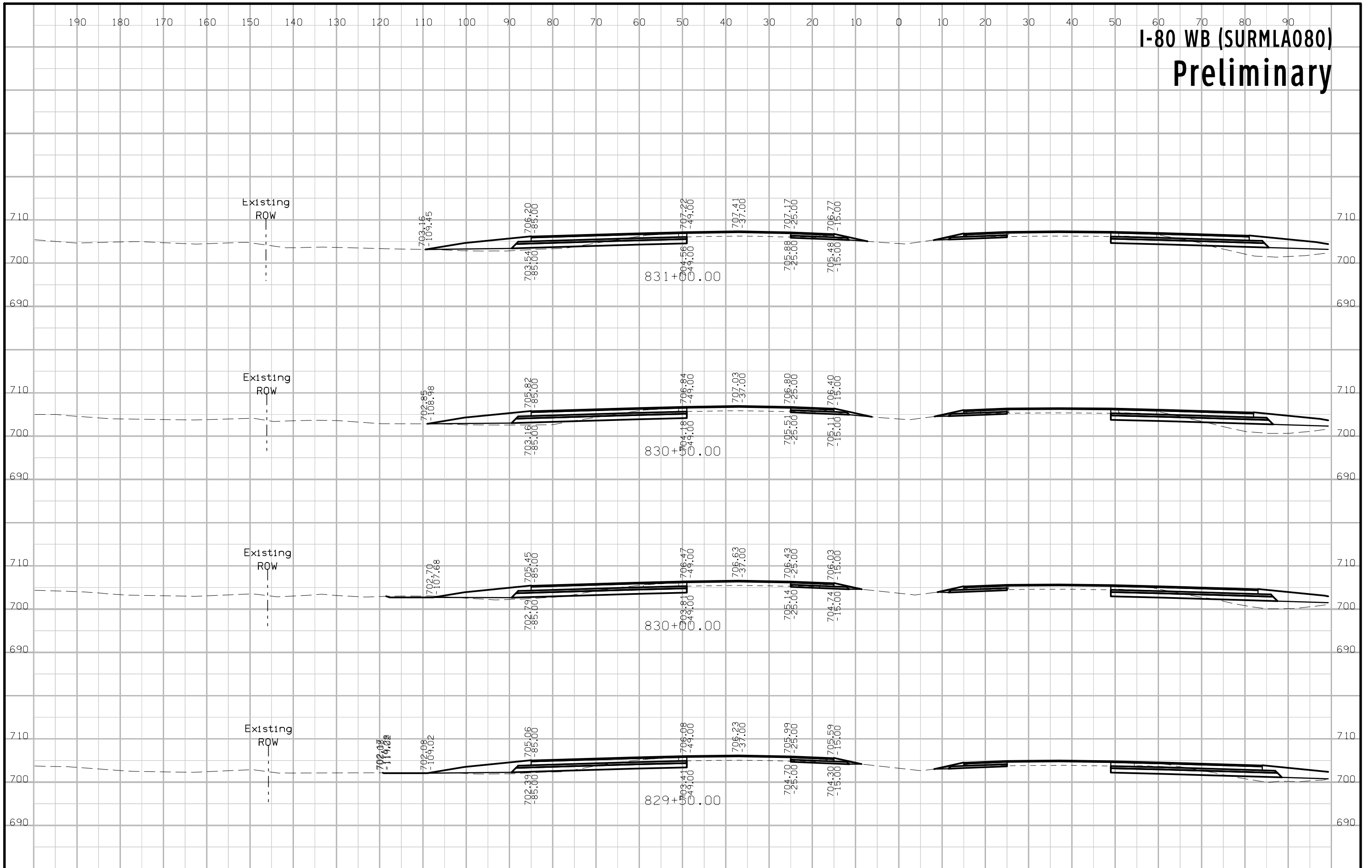
I-80 WB (SURMLA080) Preliminary



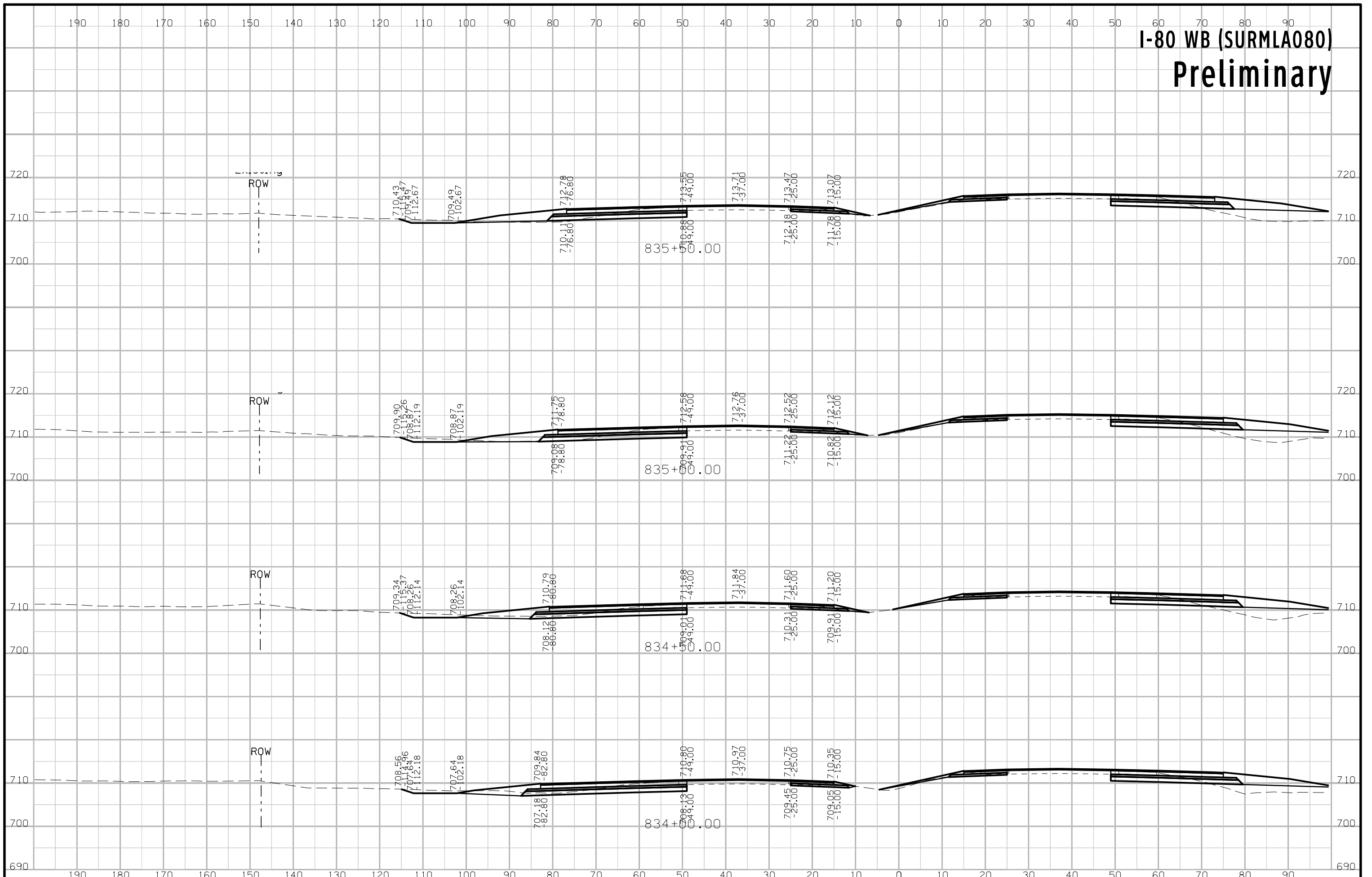
I-80 WB (SURMLA080) Preliminary



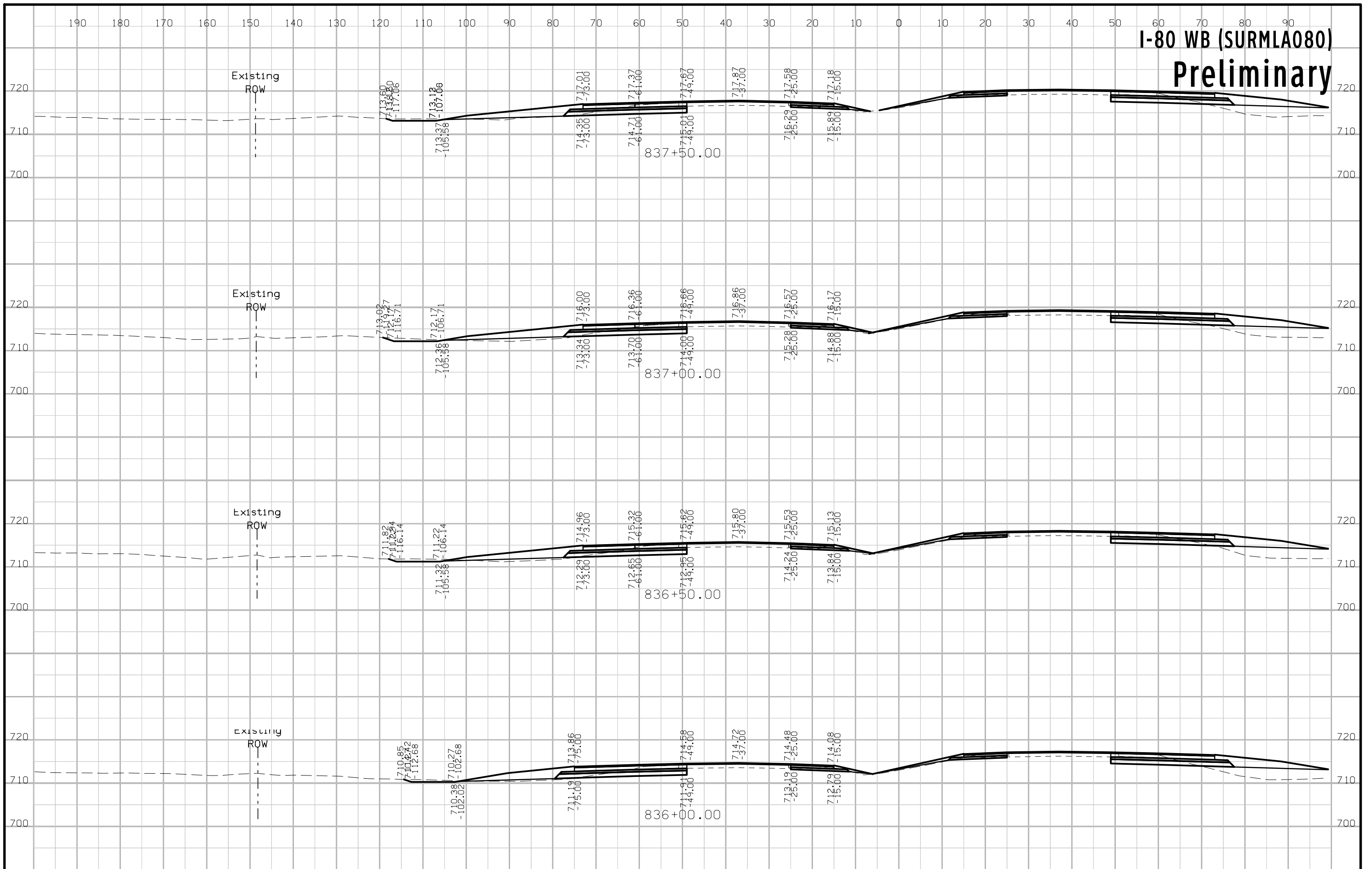
I-80 WB (SURMLA080) Preliminary



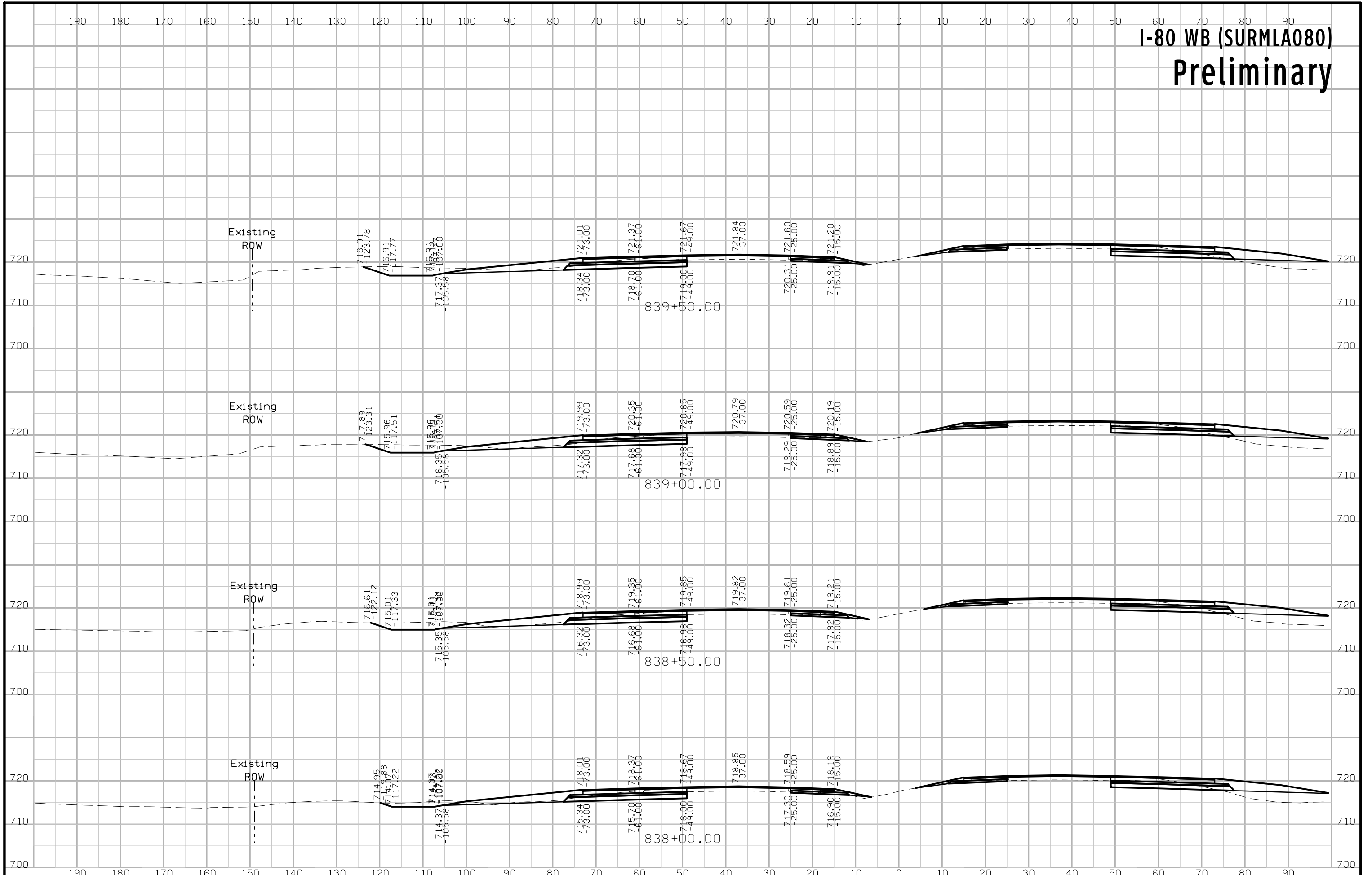
I-80 WB (SURMLA080) Preliminary



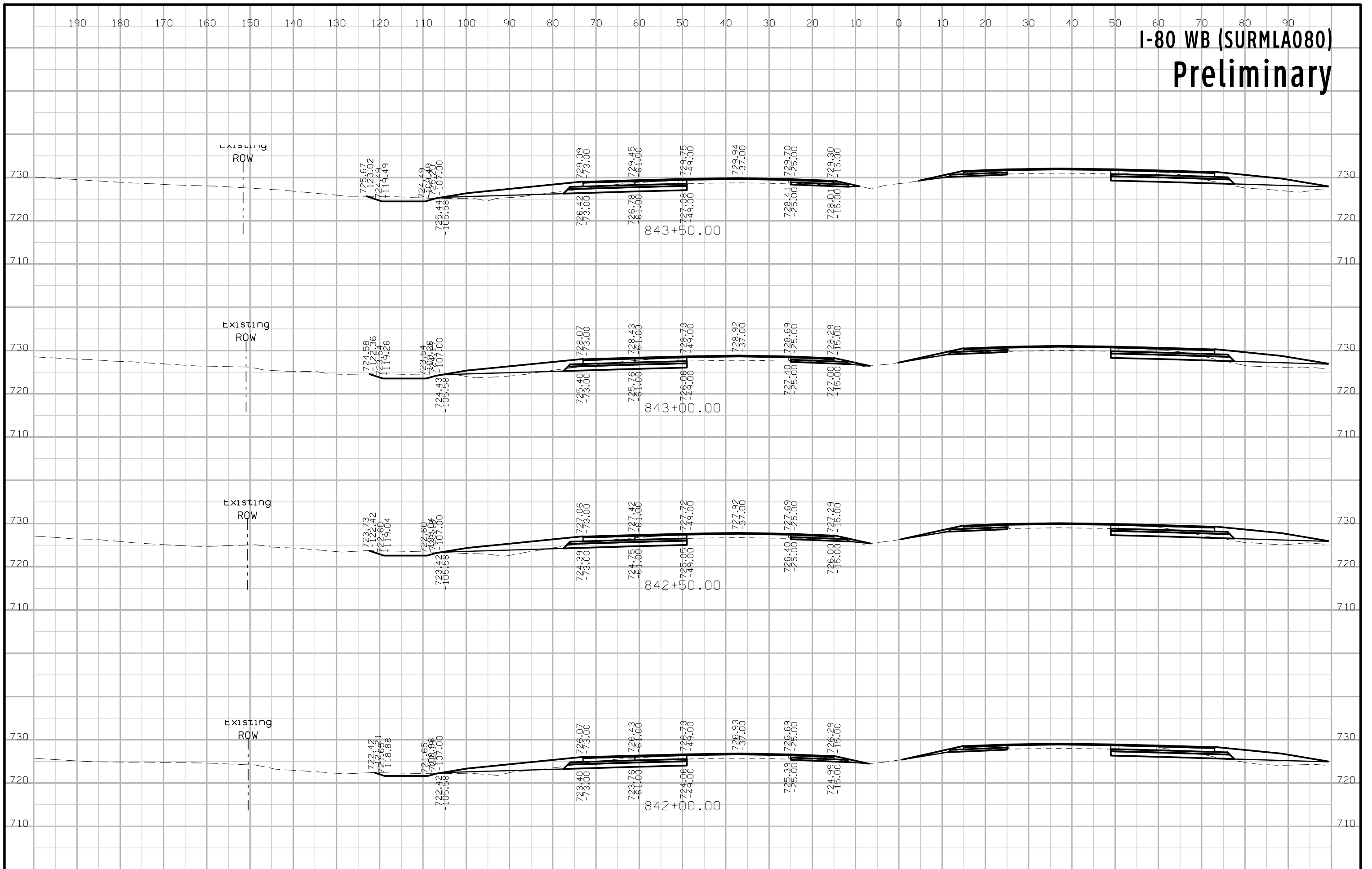
I-80 WB (SURMLA080) Preliminary



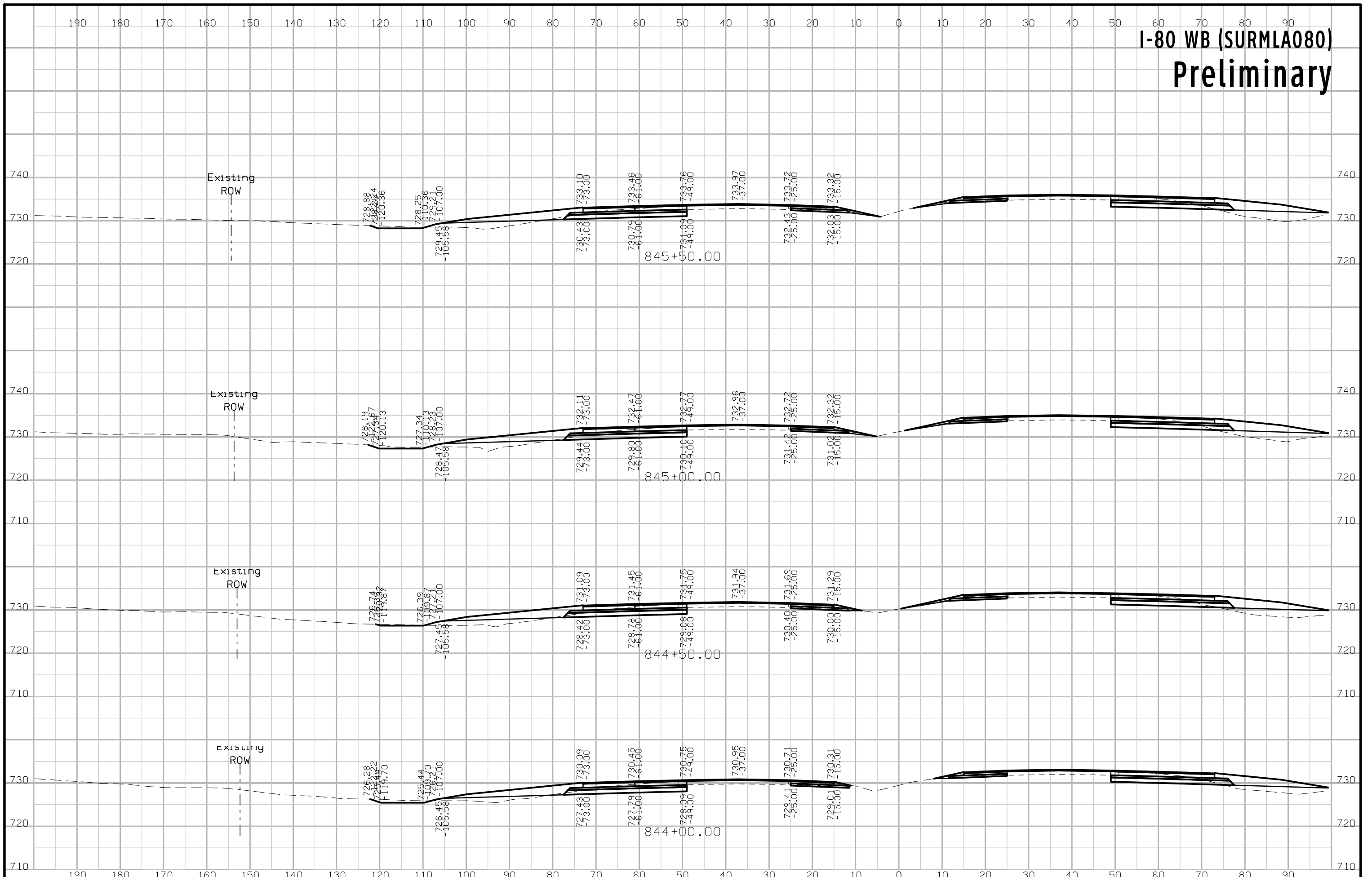
I-80 WB (SURMLA080) Preliminary



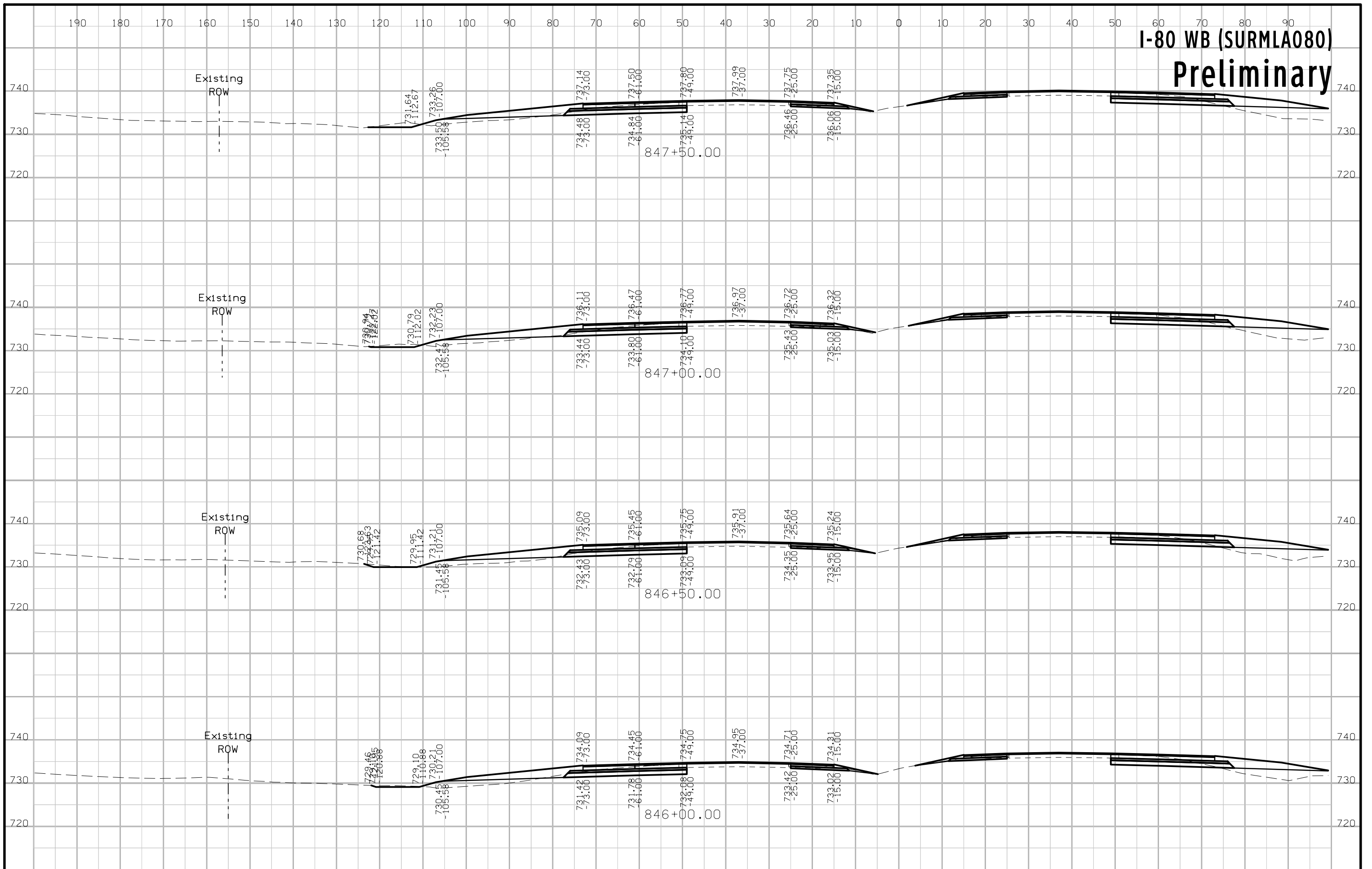
I-80 WB (SURMLA080) Preliminary



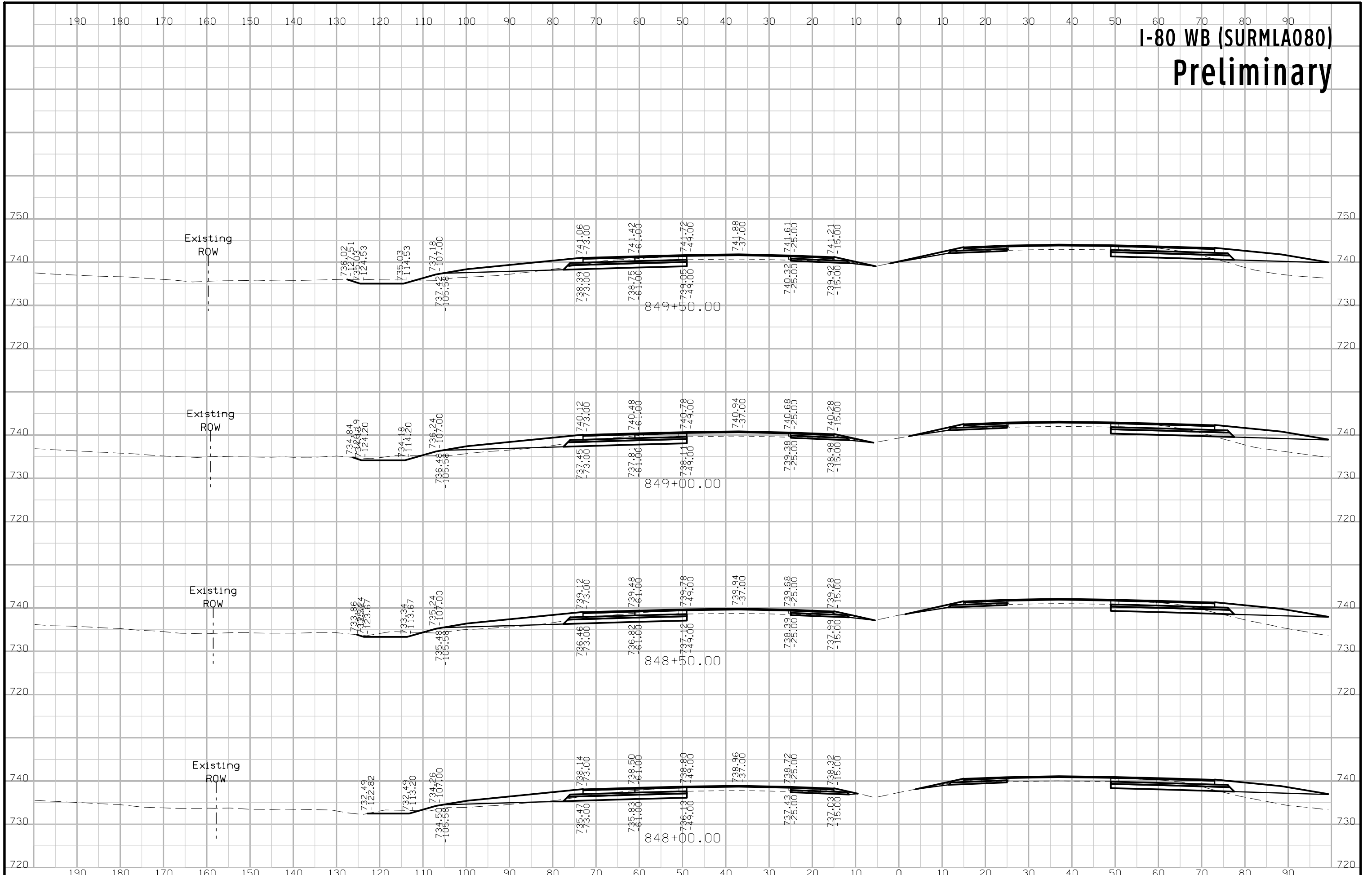
I-80 WB (SURMLA080) Preliminary



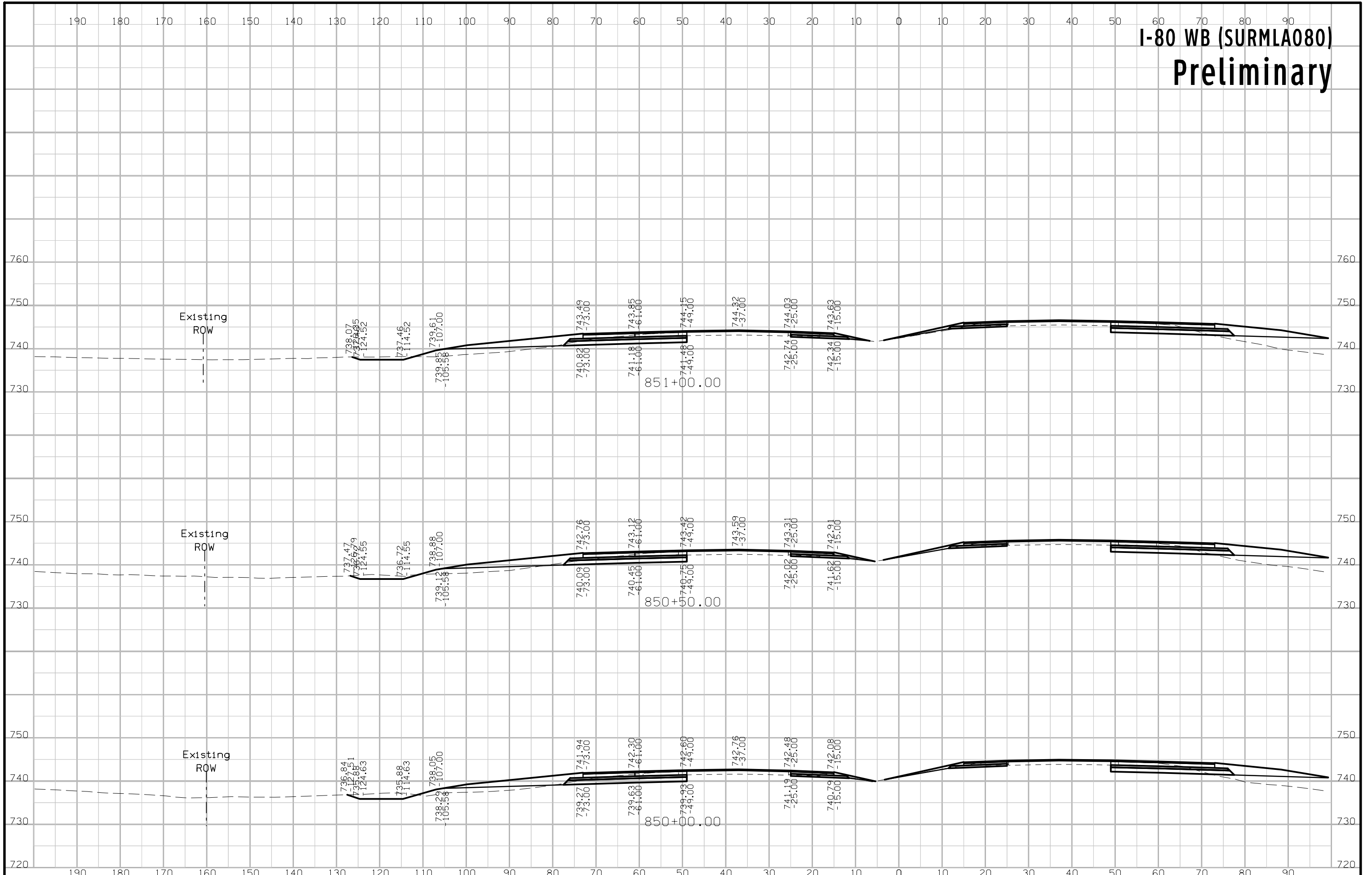
I-80 WB (SURMLA080) Preliminary



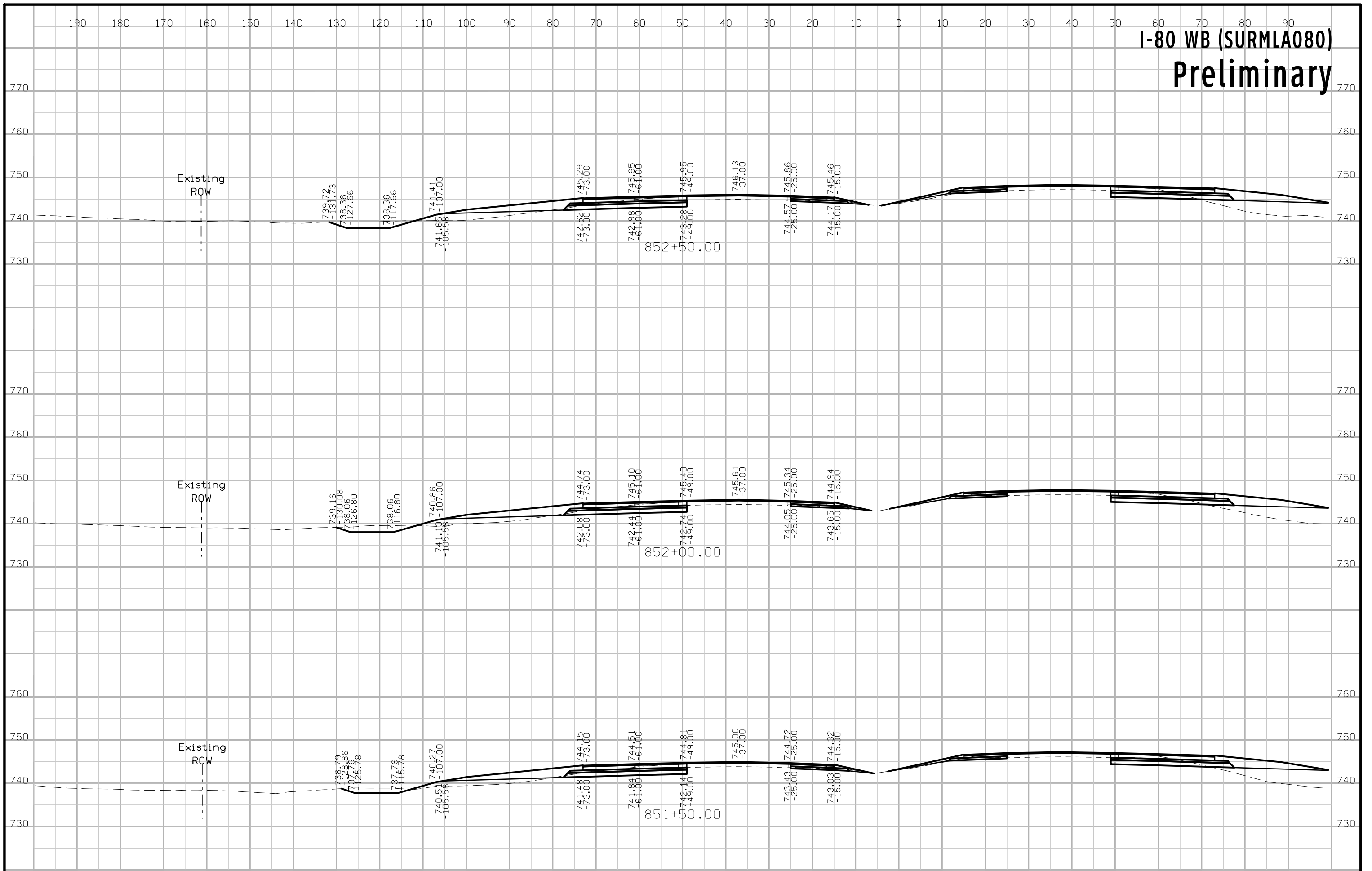
I-80 WB (SURMLA080) Preliminary



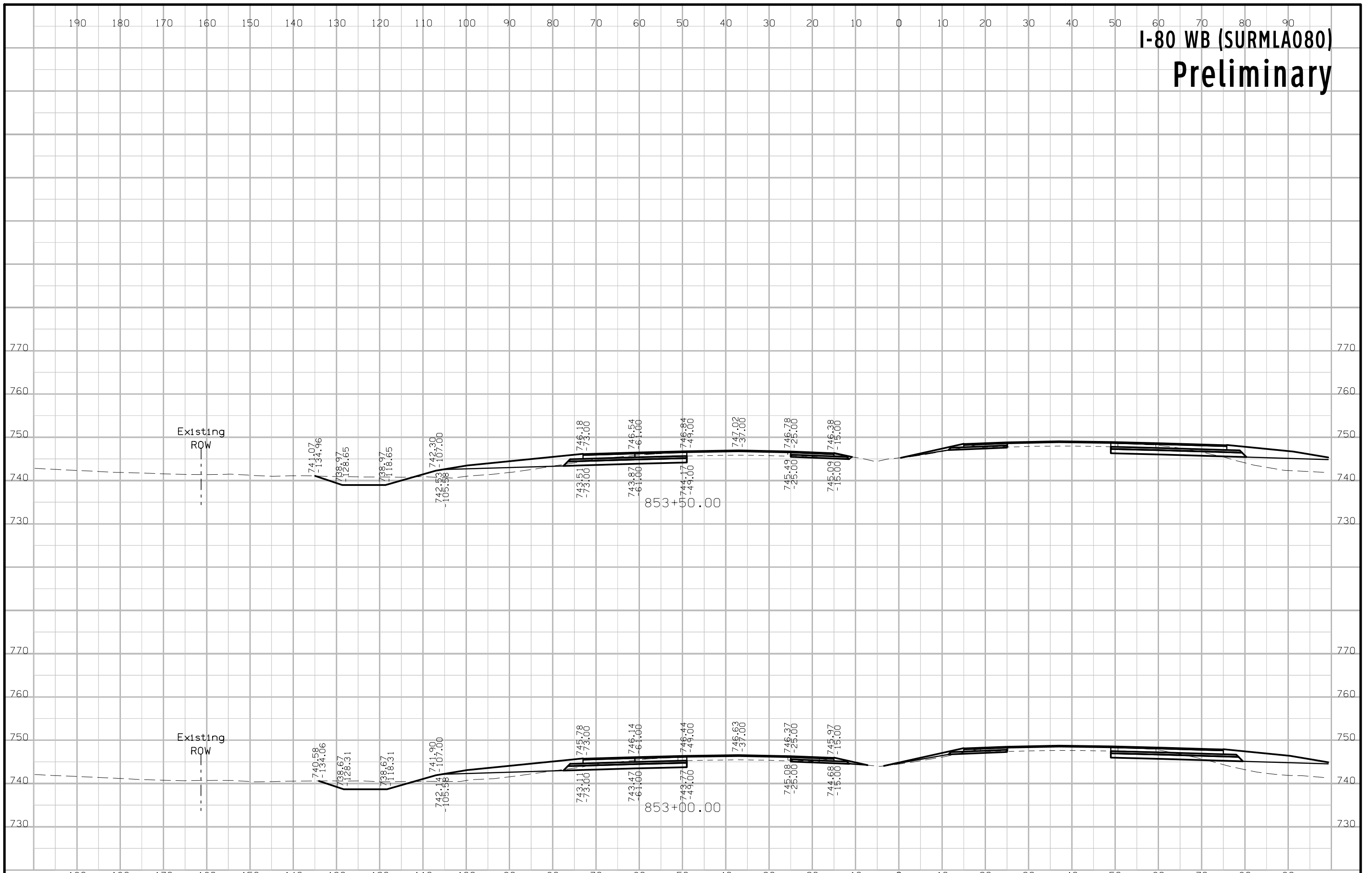
I-80 WB (SURMLA080) Preliminary



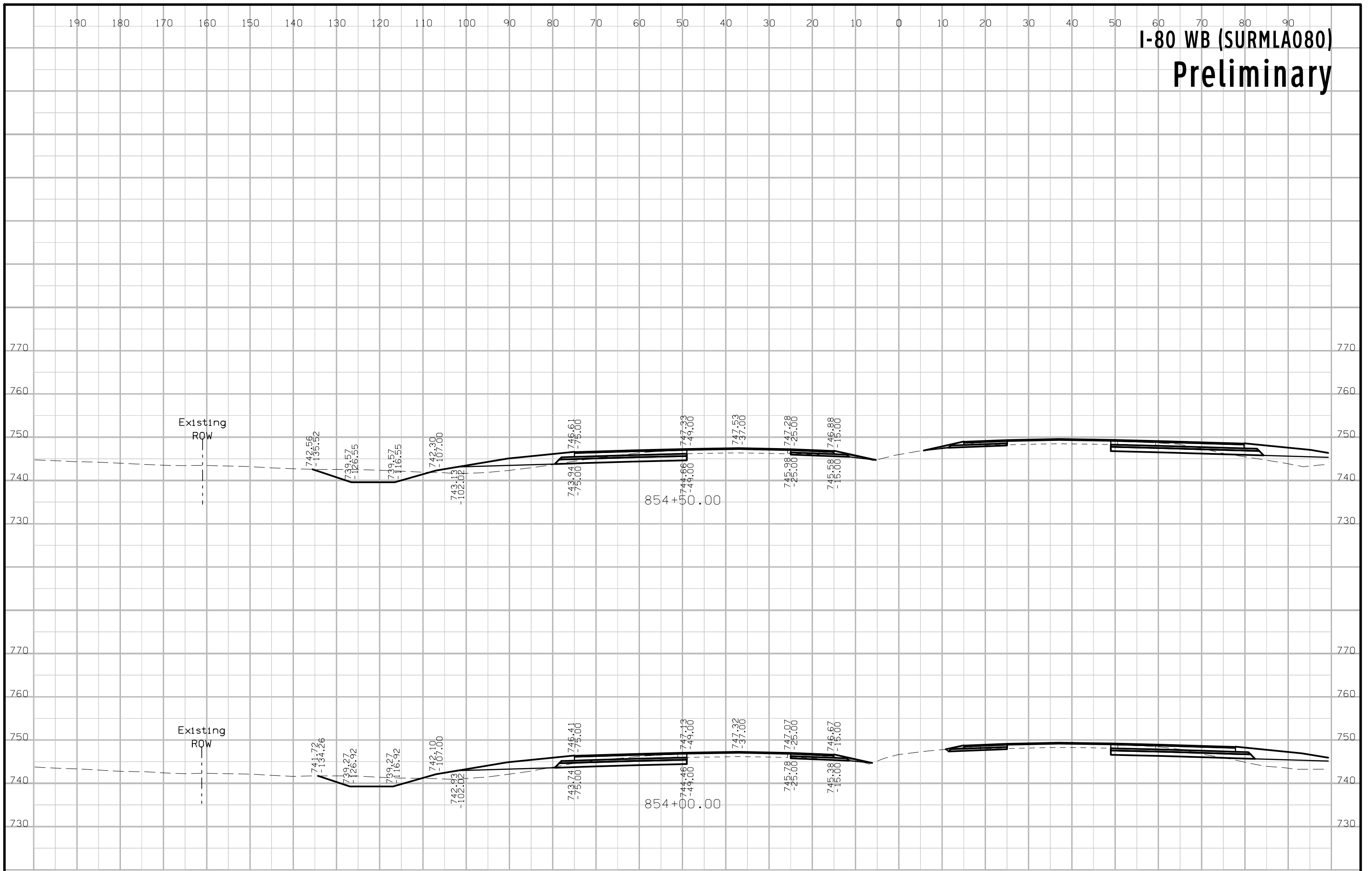
I-80 WB (SURMLA080) Preliminary



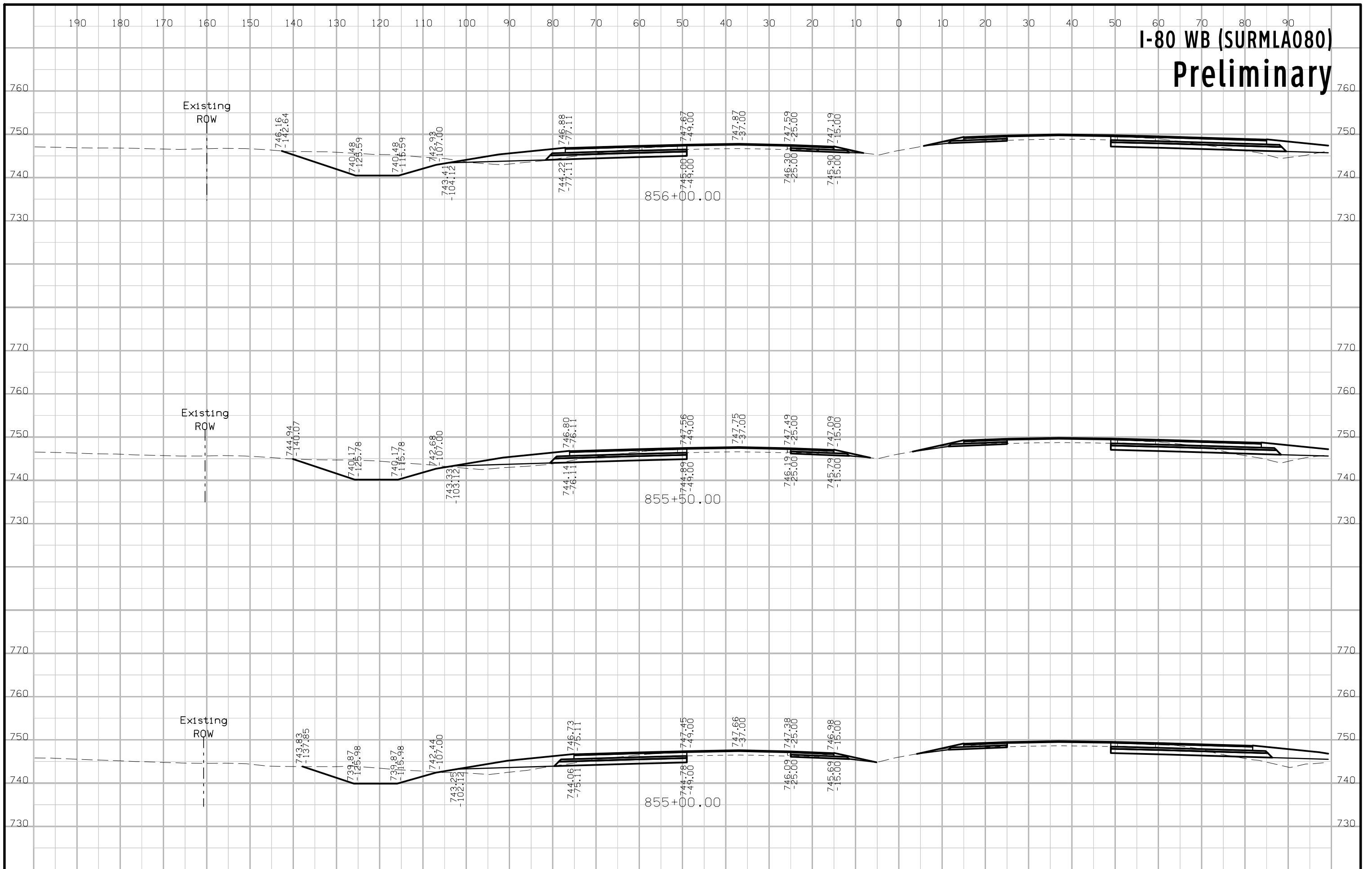
I-80 WB (SURMLA080) Preliminary



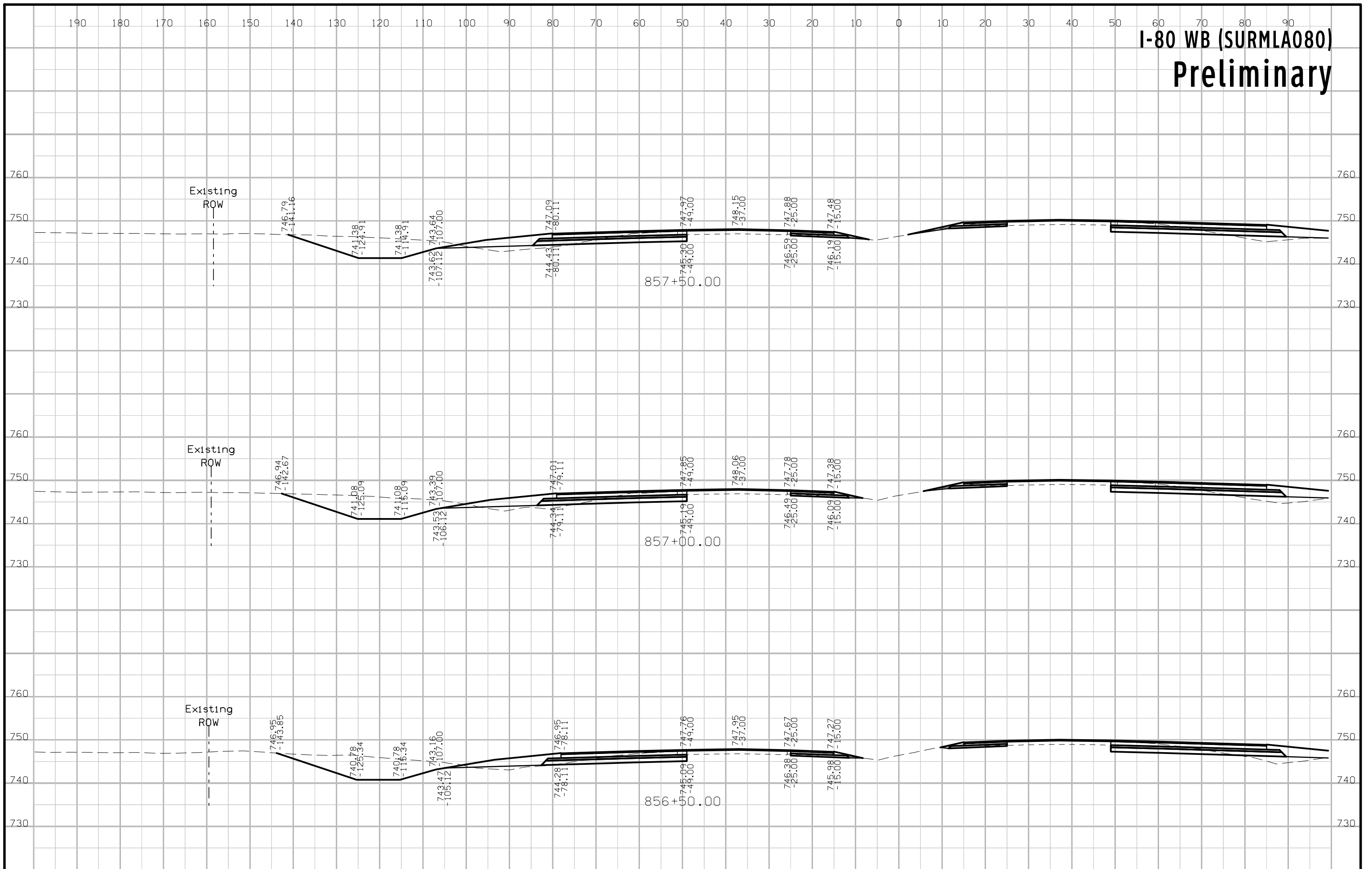
I-80 WB (SURMLA080) Preliminary



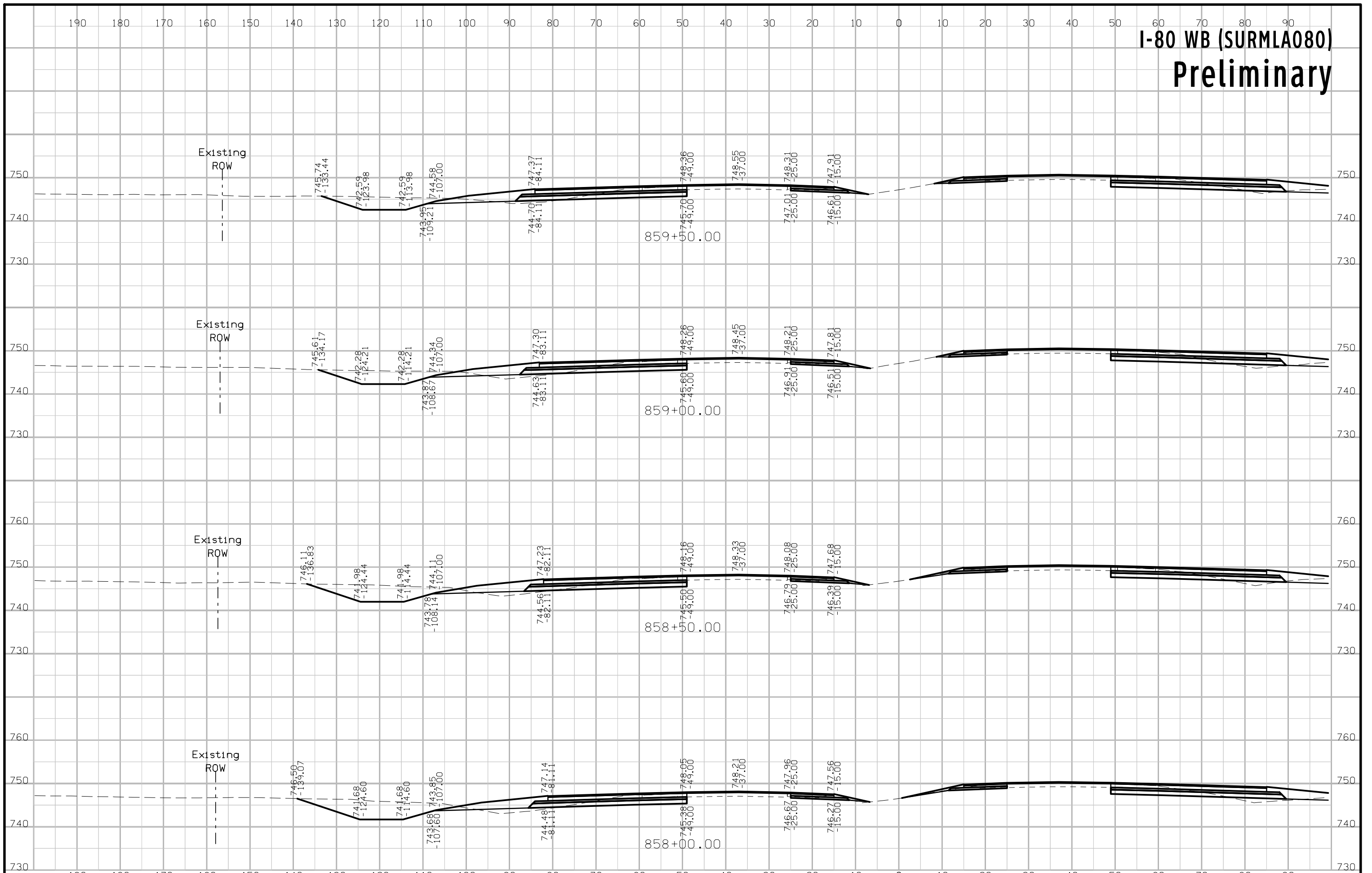
I-80 WB (SURMLA080) Preliminary



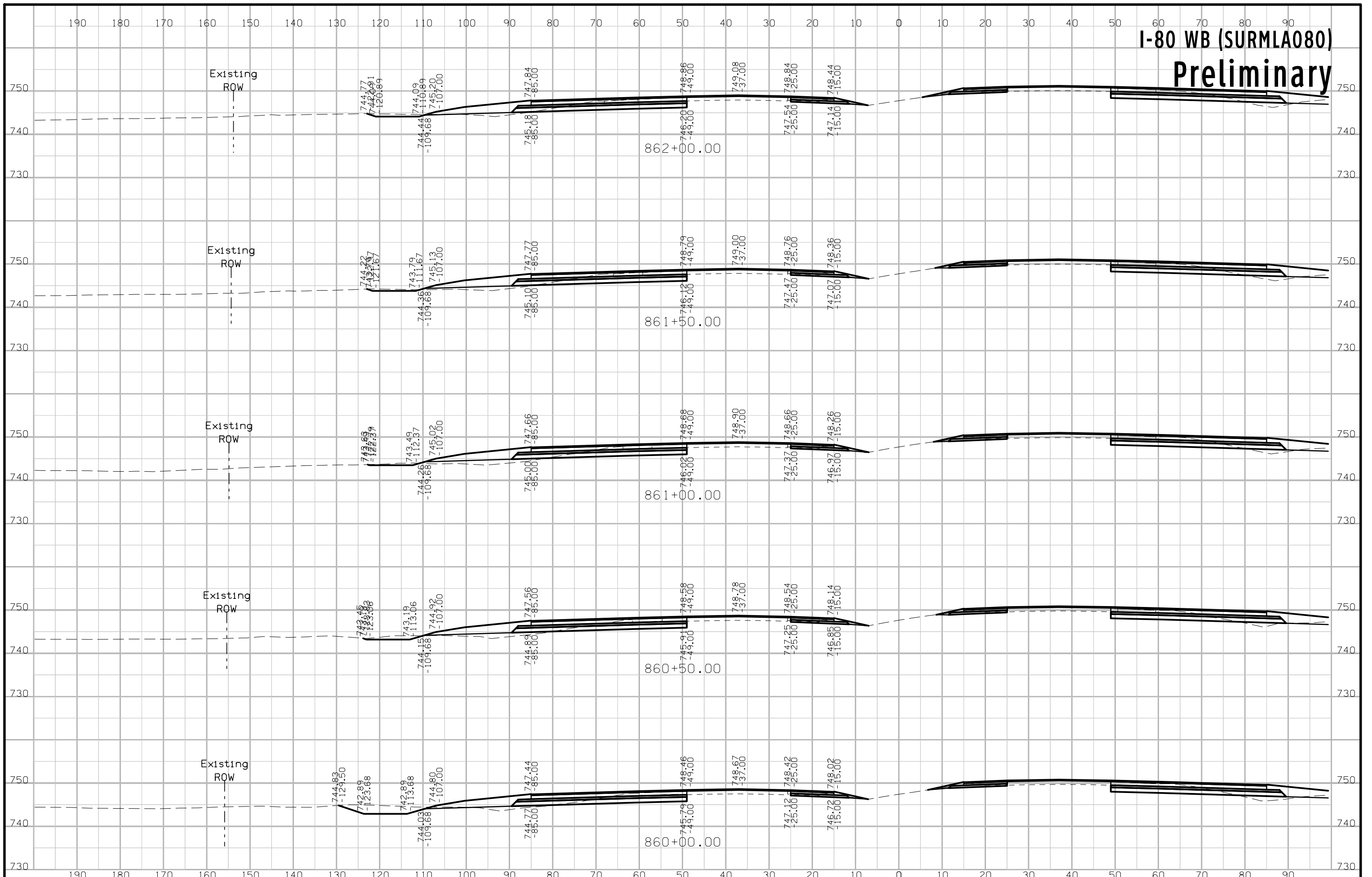
I-80 WB (SURMLA080) Preliminary



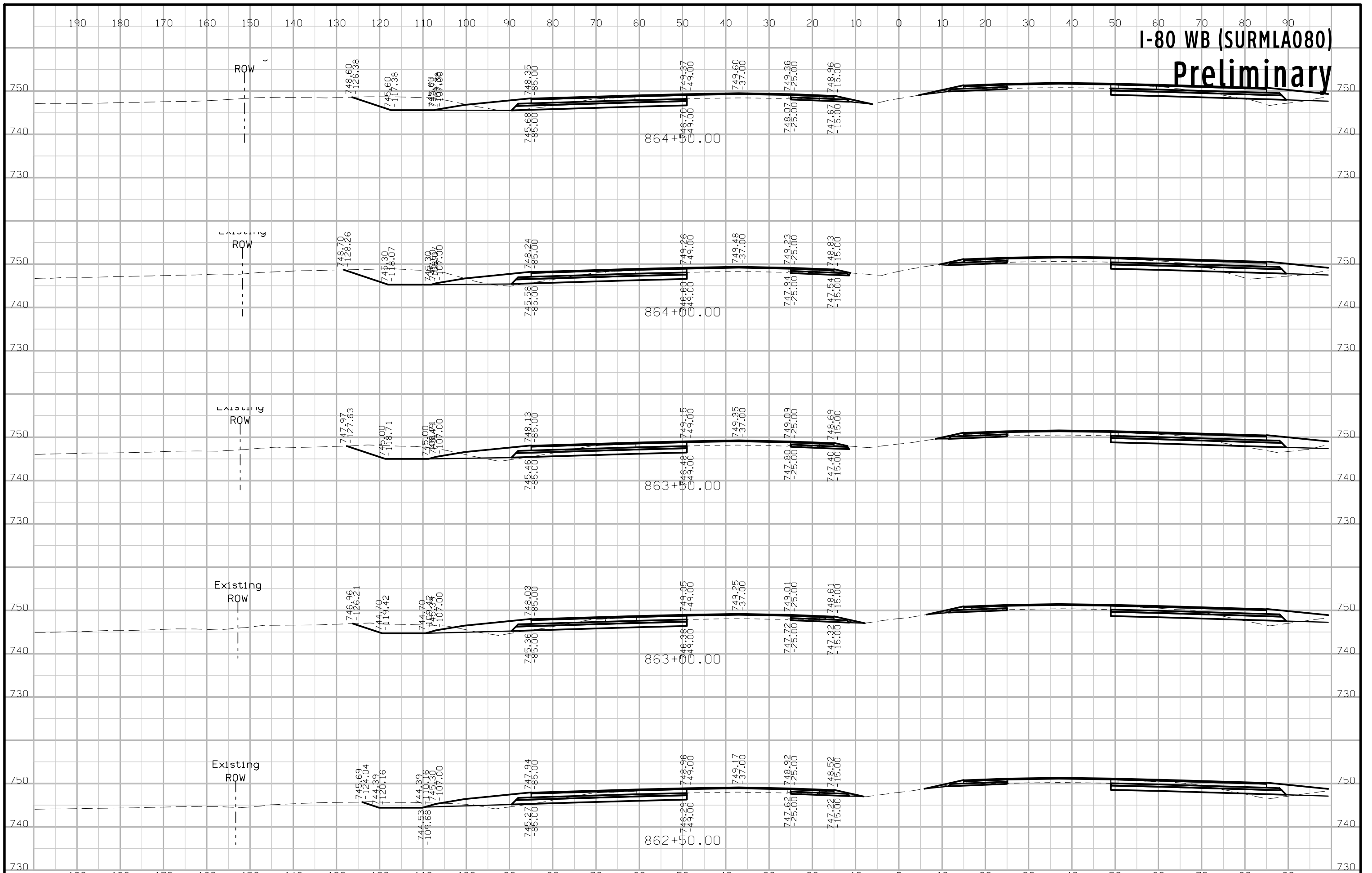
I-80 WB (SURMLA080) Preliminary



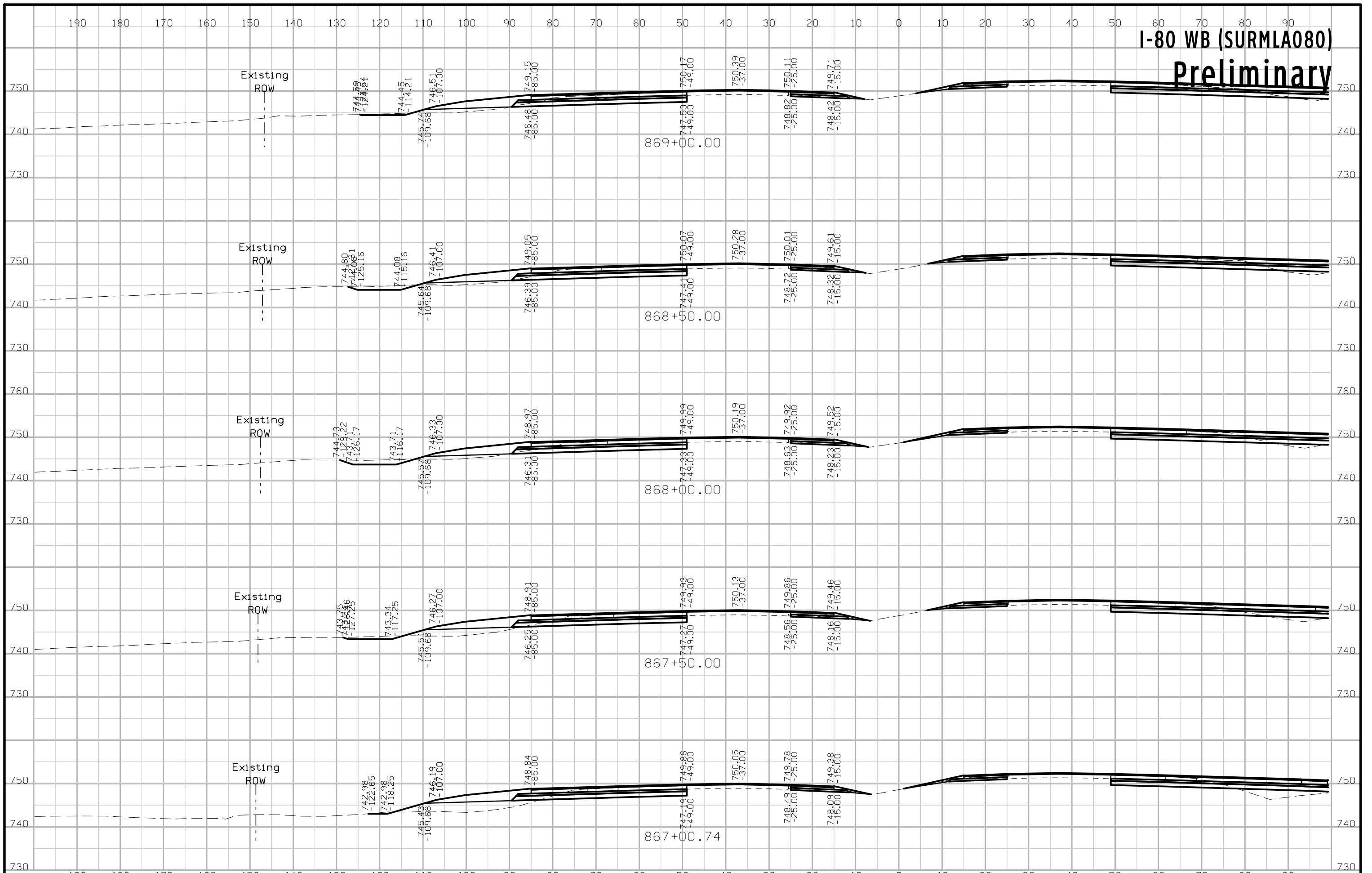
I-80 WB (SURMLA080) Preliminary



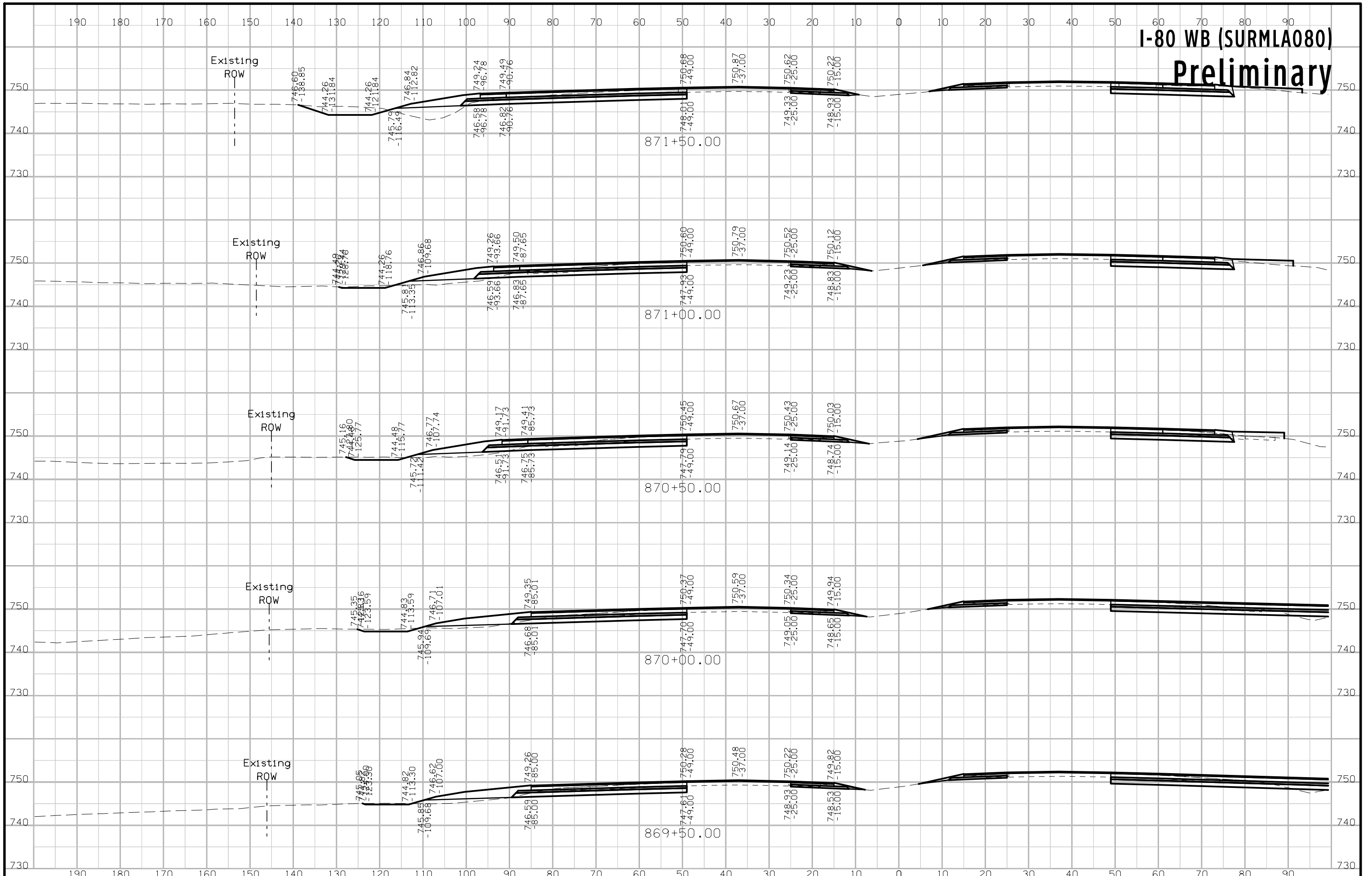
I-80 WB (SURMLA080) Preliminary



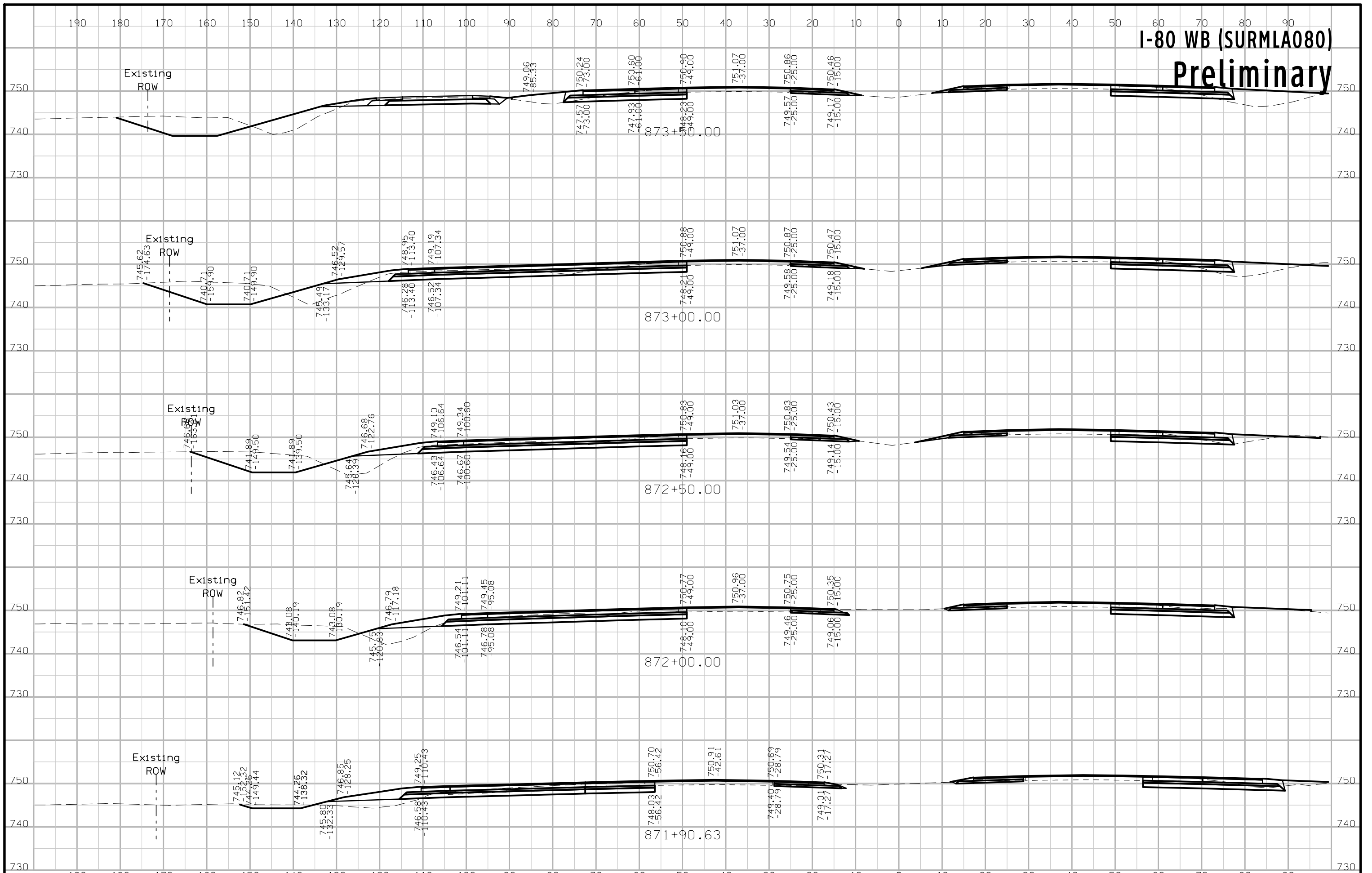
I-80 WB (SURMLA080) Preliminary



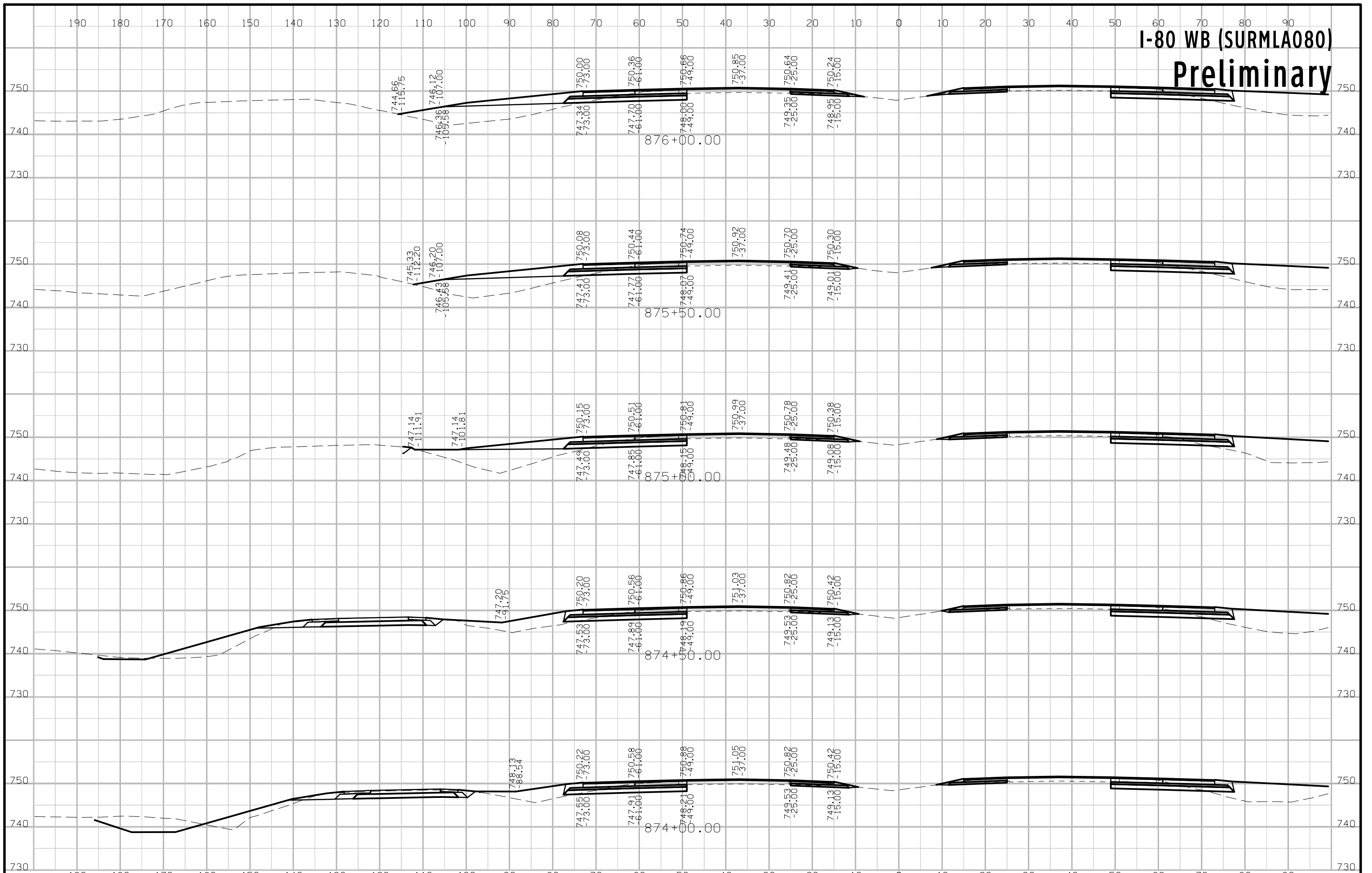
I-80 WB (SURMLA080) Preliminary



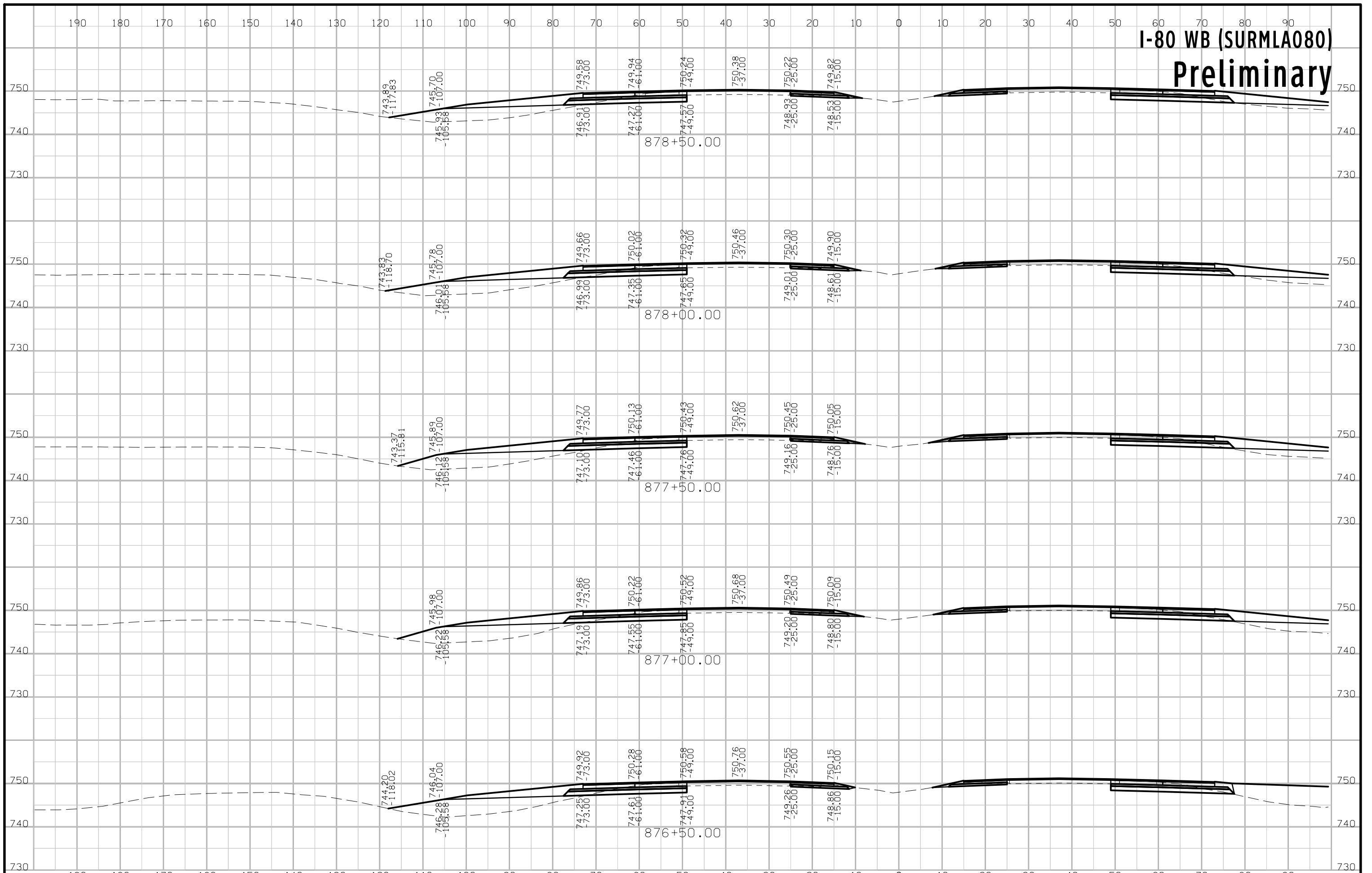
I-80 WB (SURMLA080)
Preliminary



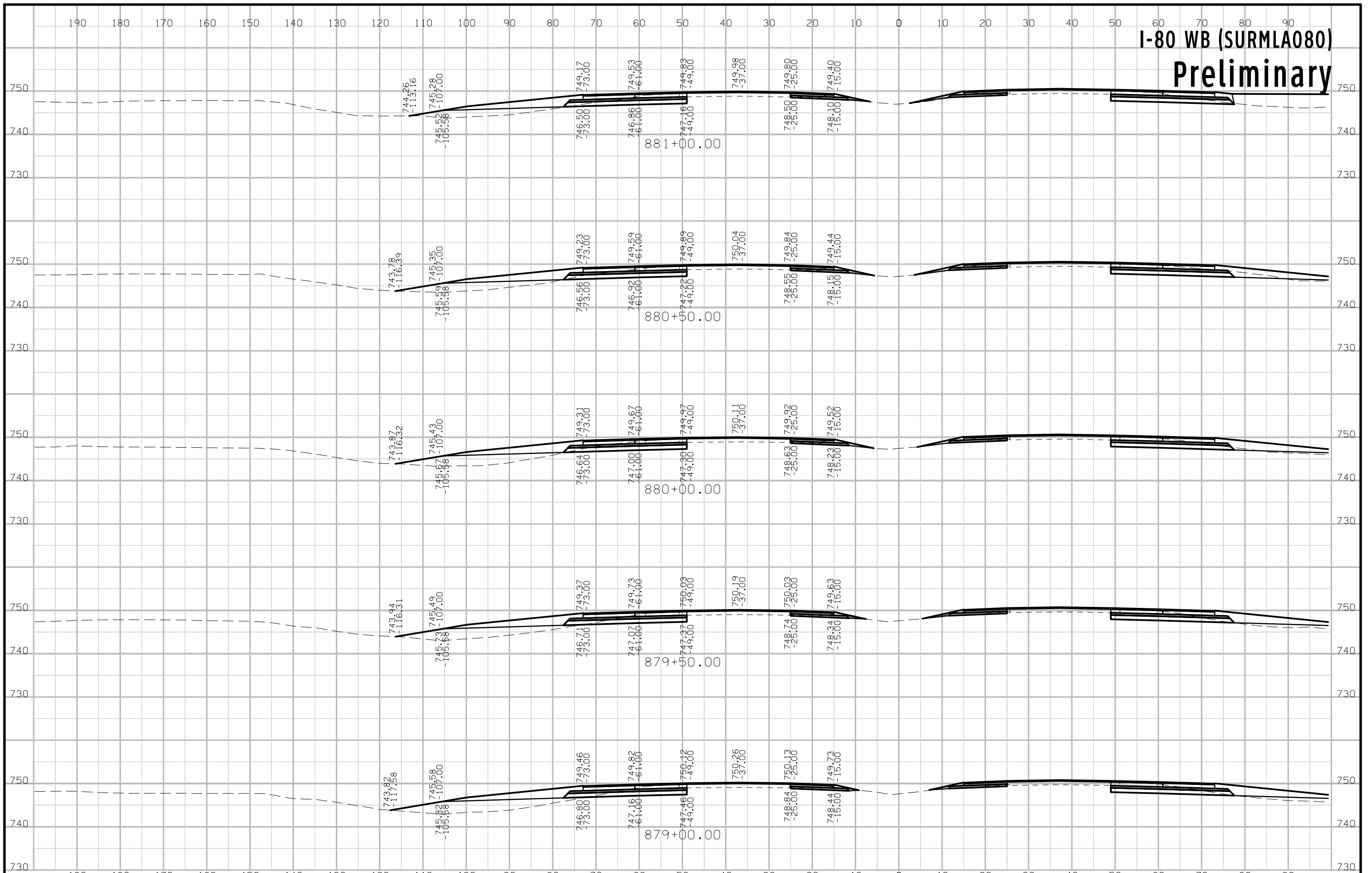
I-80 WB (SURMLA080) Preliminary



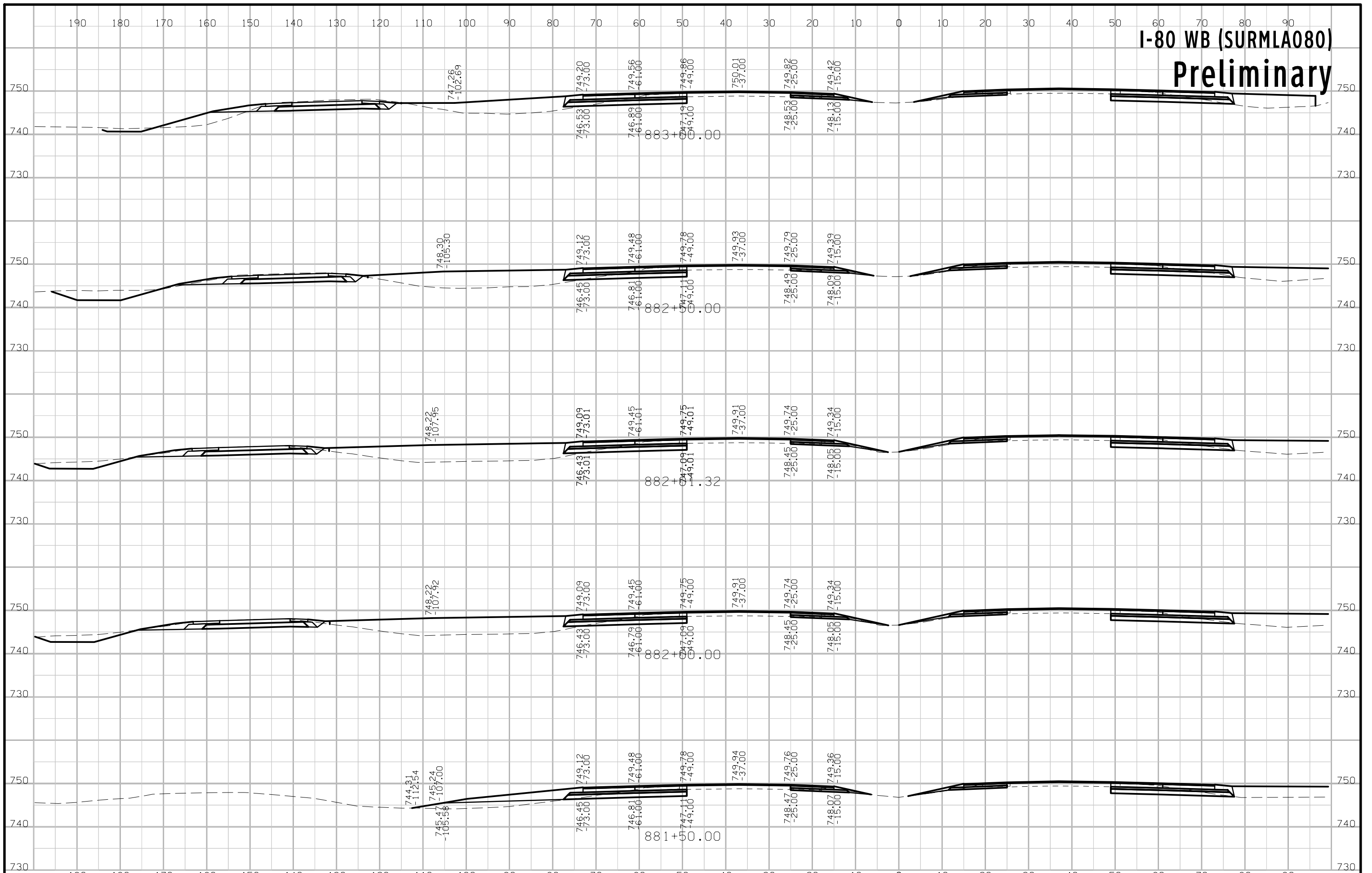
I-80 WB (SURMLA080) Preliminary



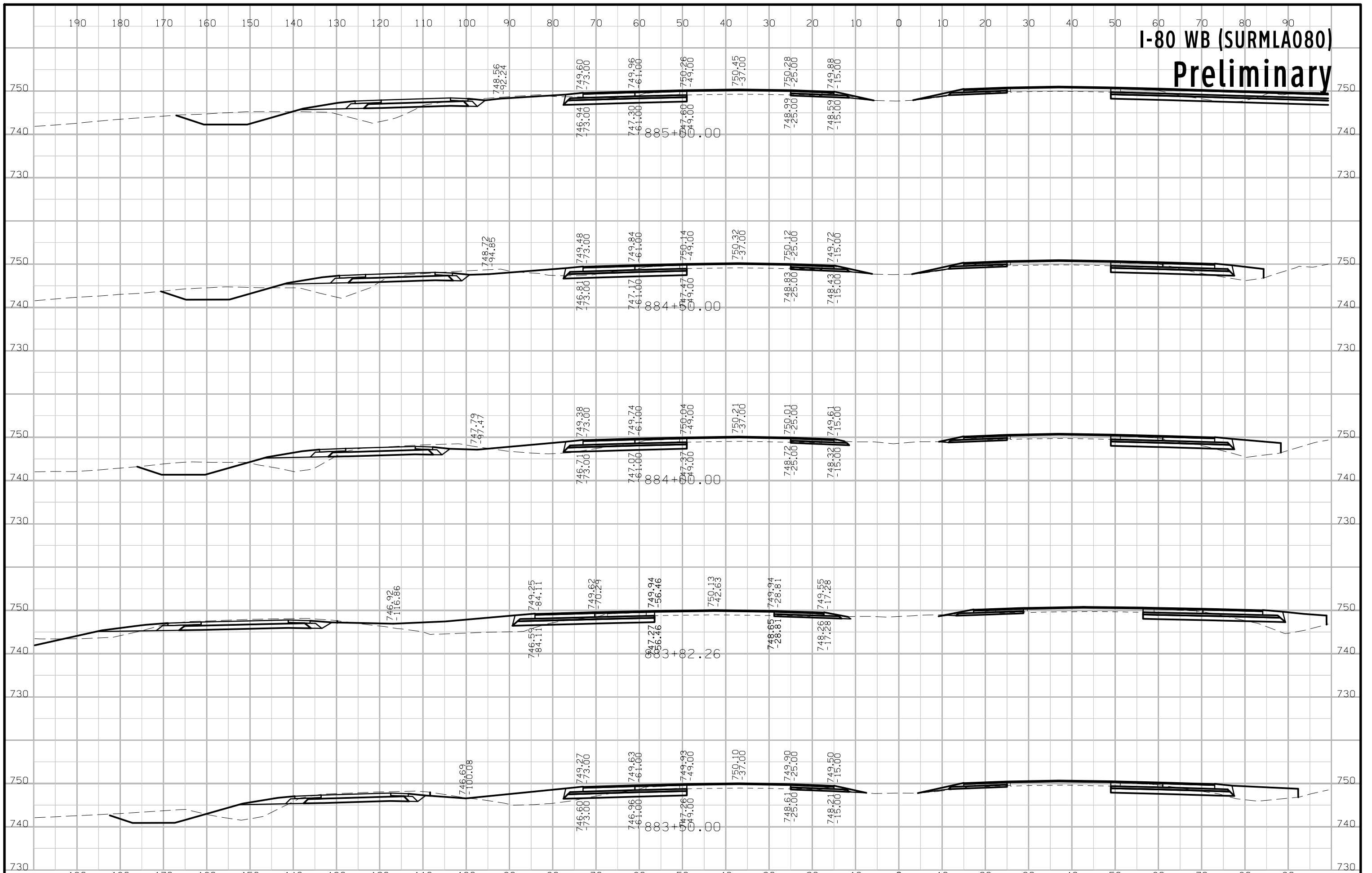
I-80 WB (SURMLA080) Preliminary



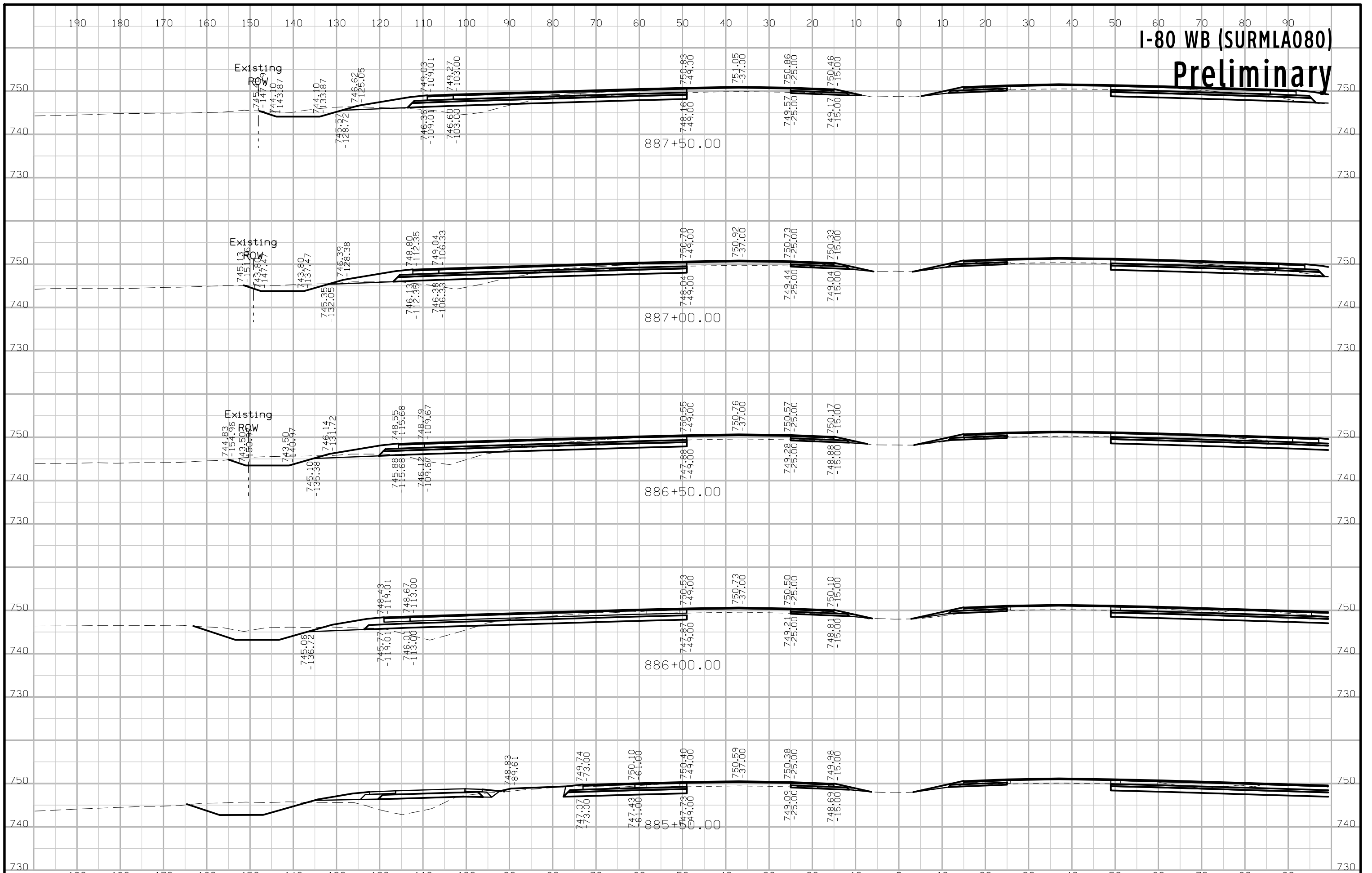
I-80 WB (SURMLA080) Preliminary



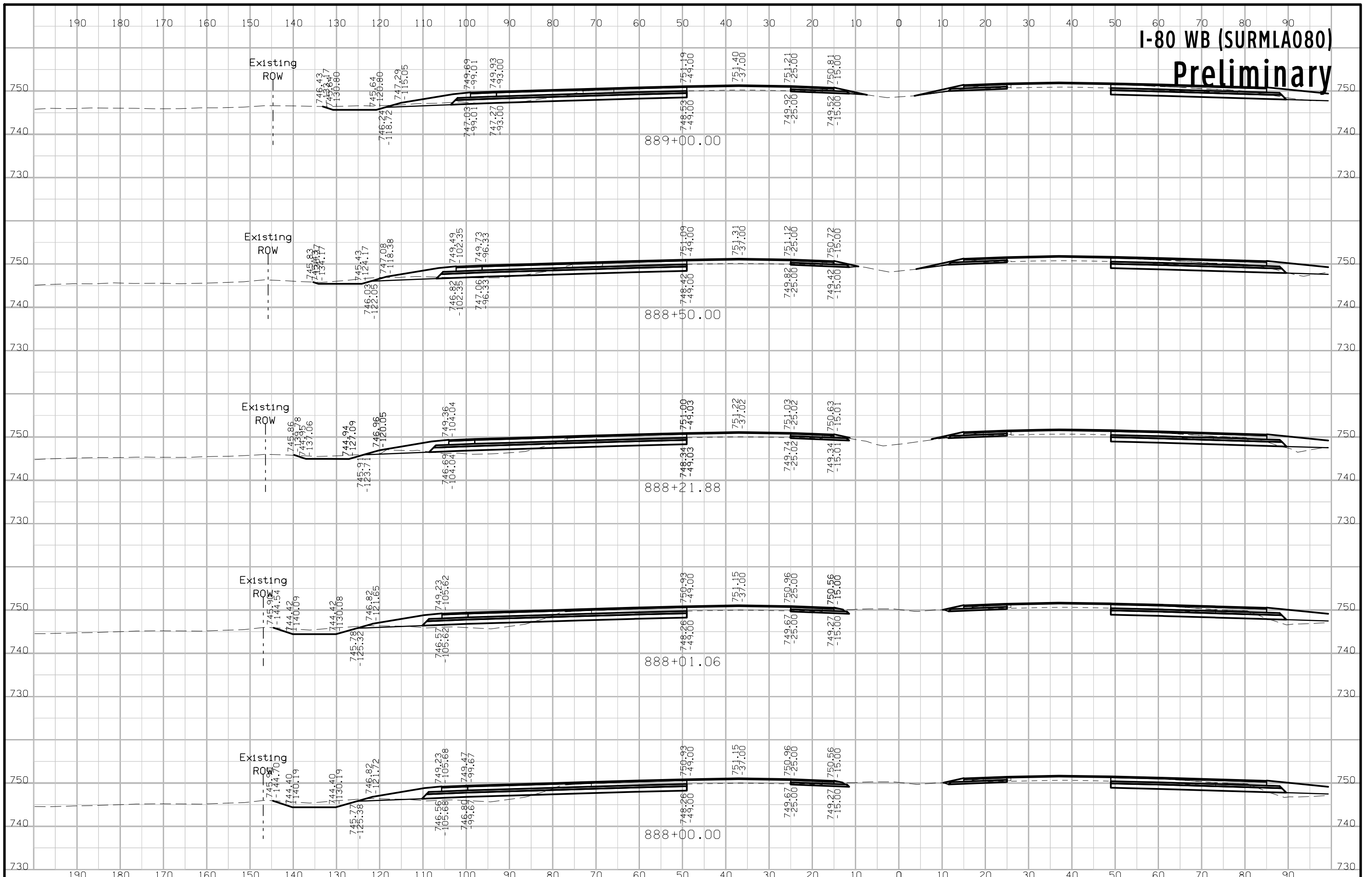
I-80 WB (SURMLA080) Preliminary



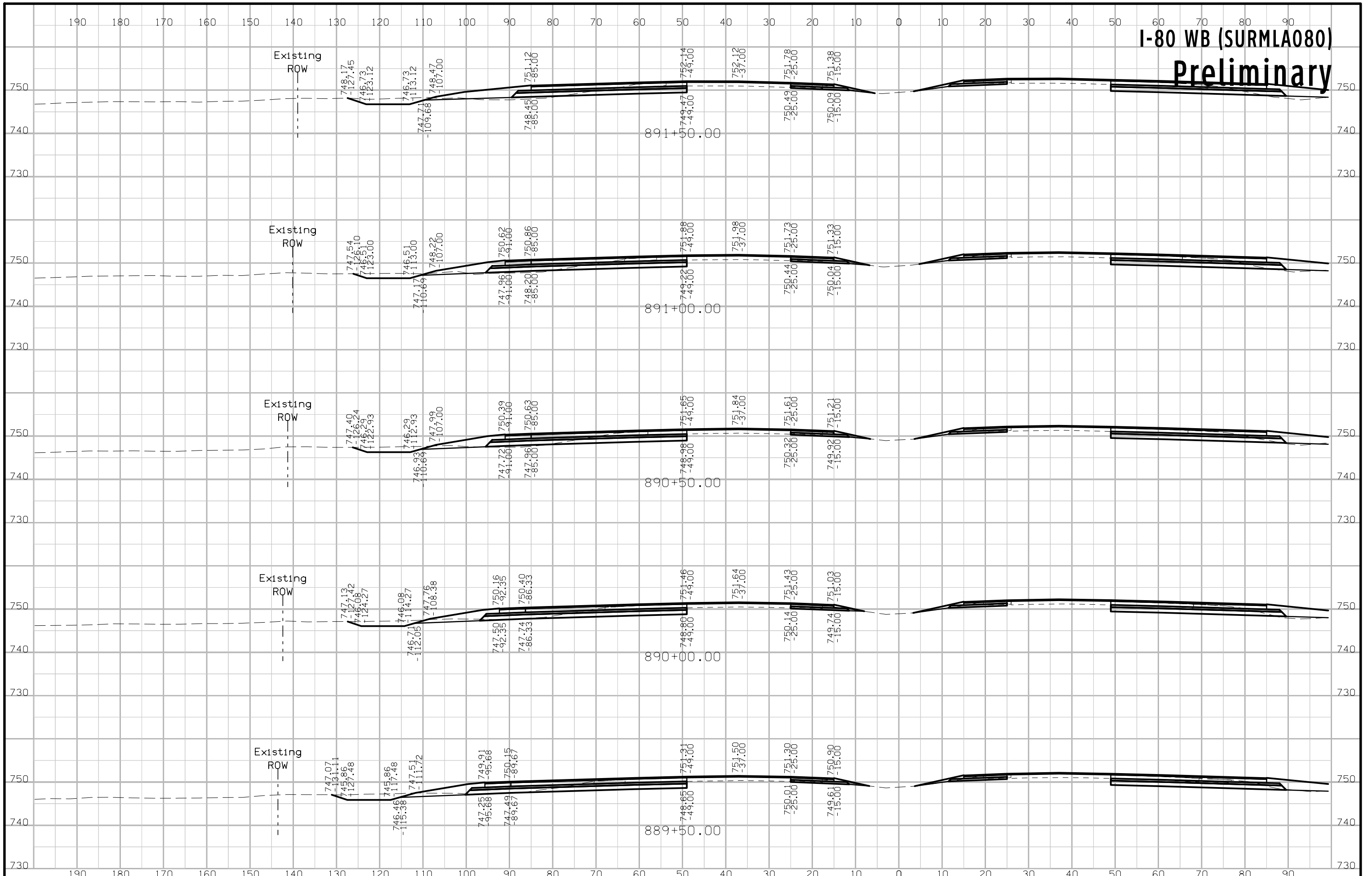
I-80 WB (SURMLA080) Preliminary



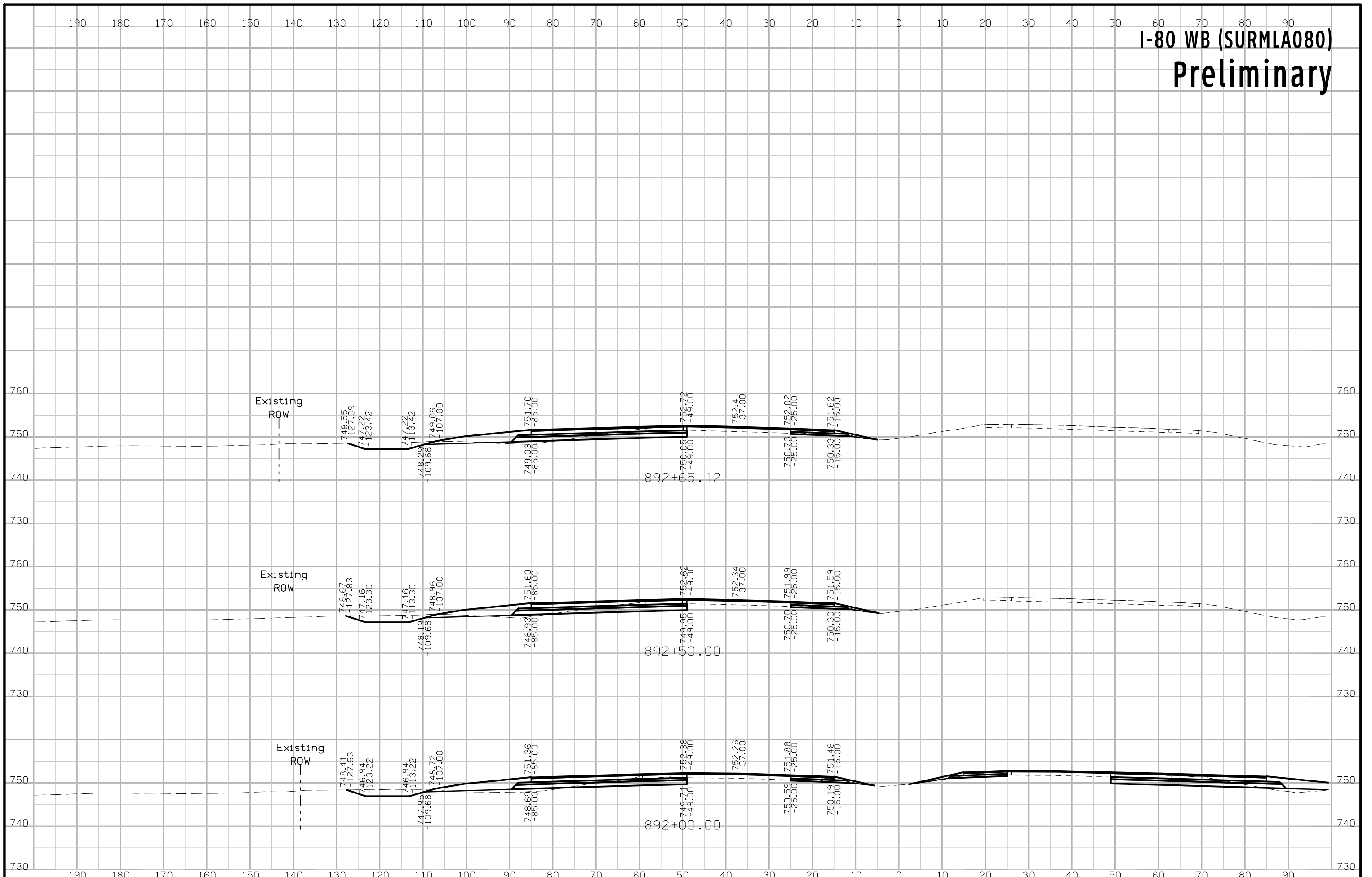
I-80 WB (SURMLA080) Preliminary



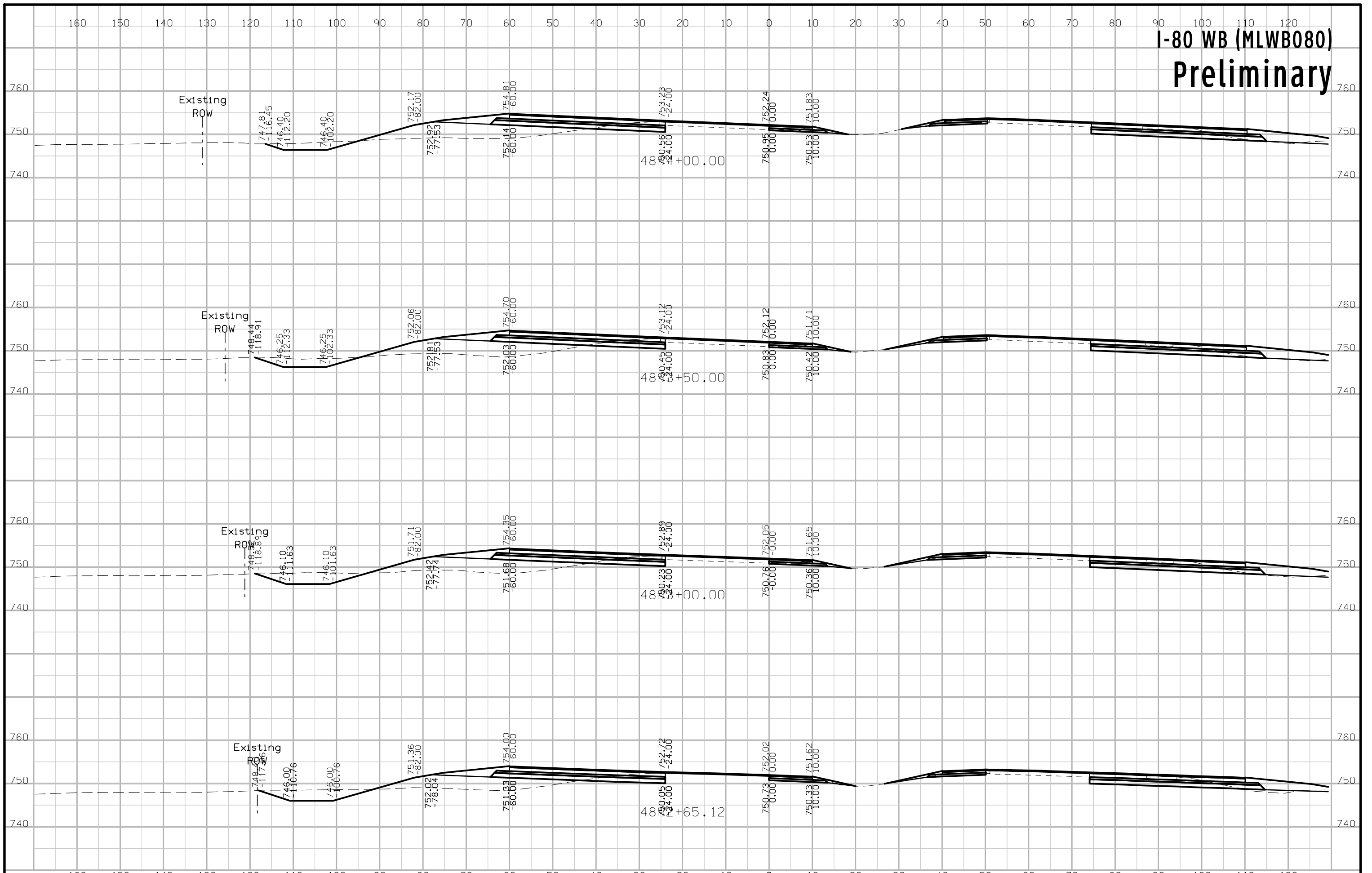
I-80 WB (SURMLA080) Preliminary



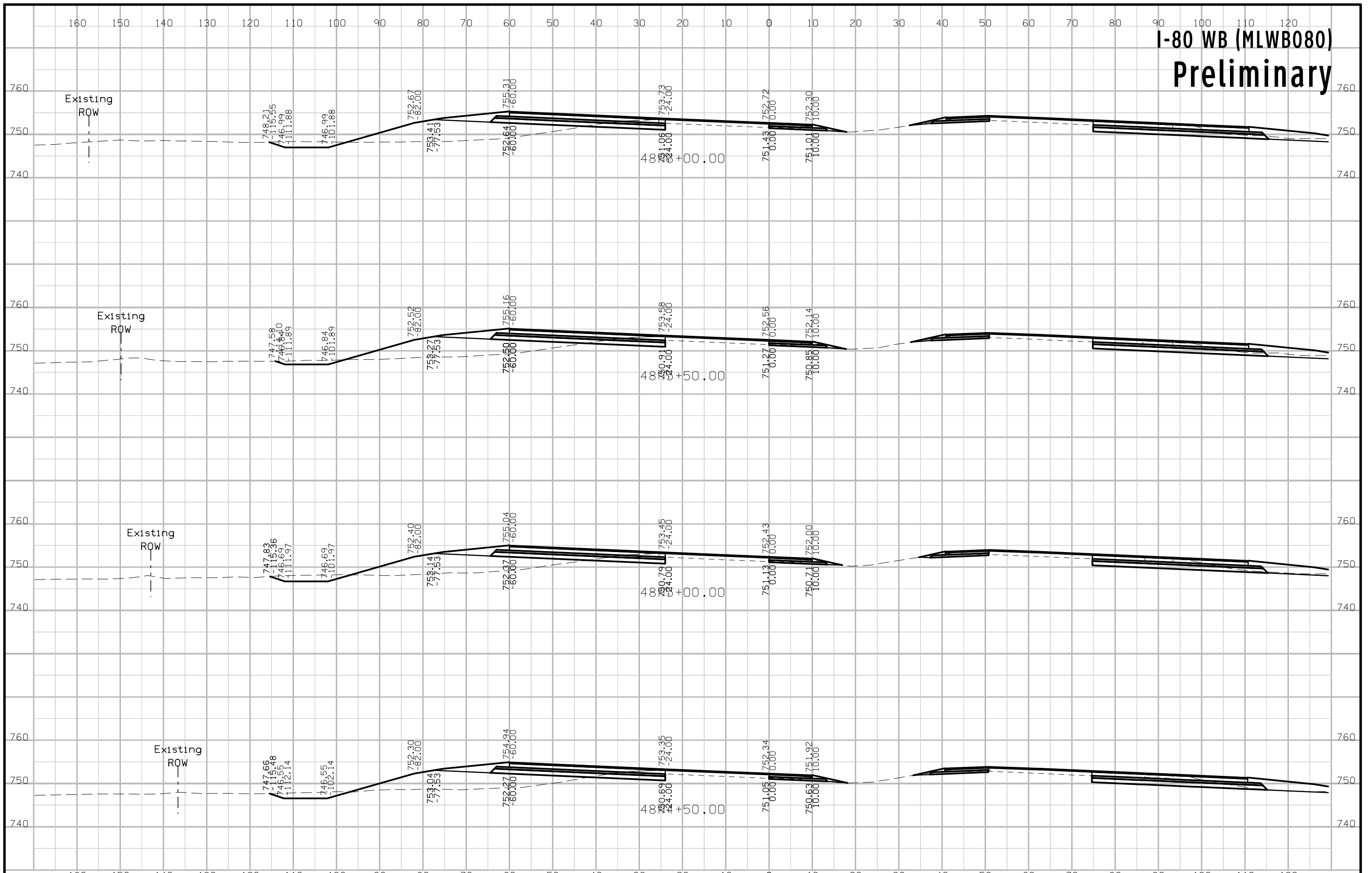
I-80 WB (SURMLA080) Preliminary



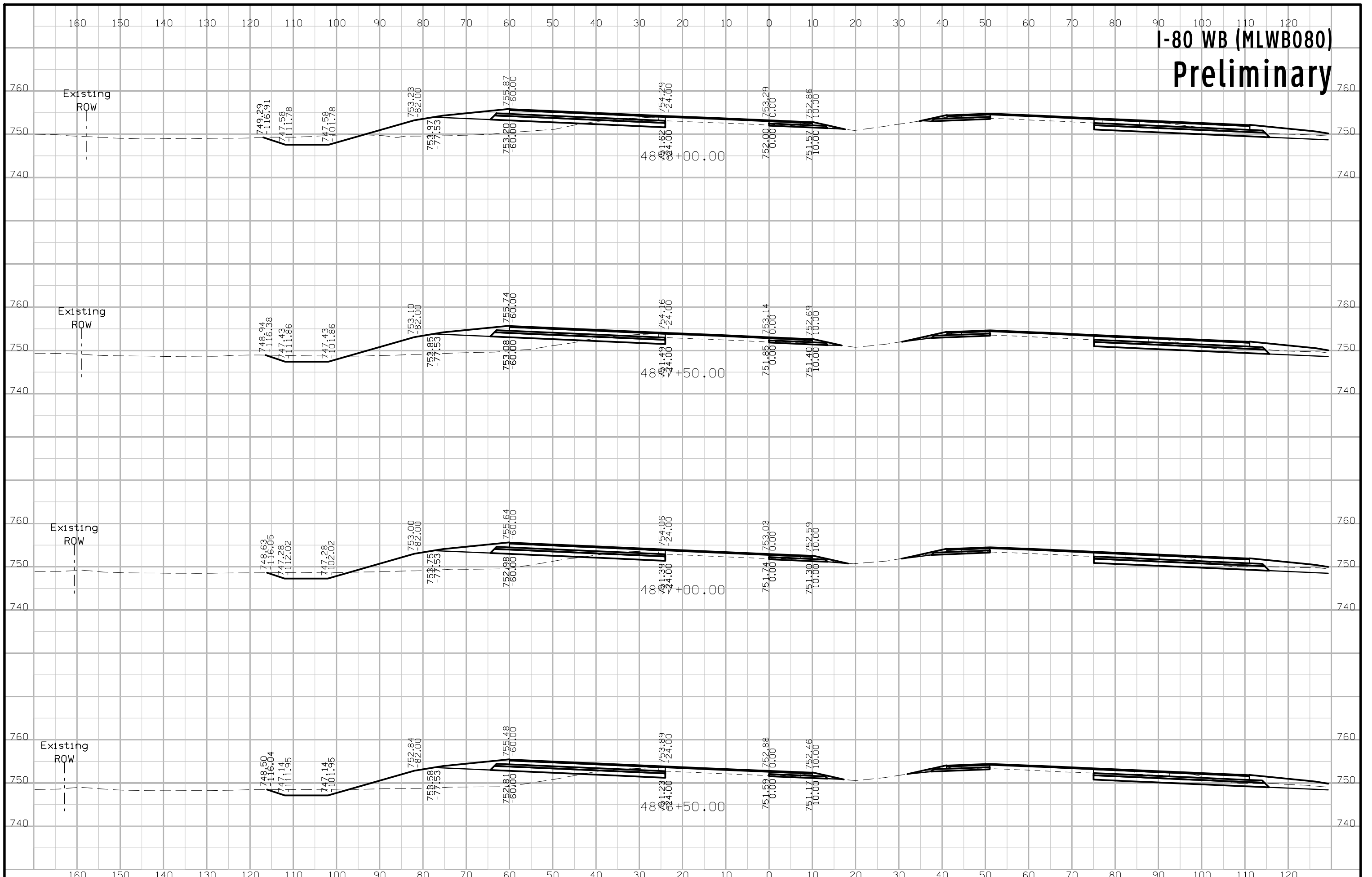
I-80 WB (MLWB080) Preliminary



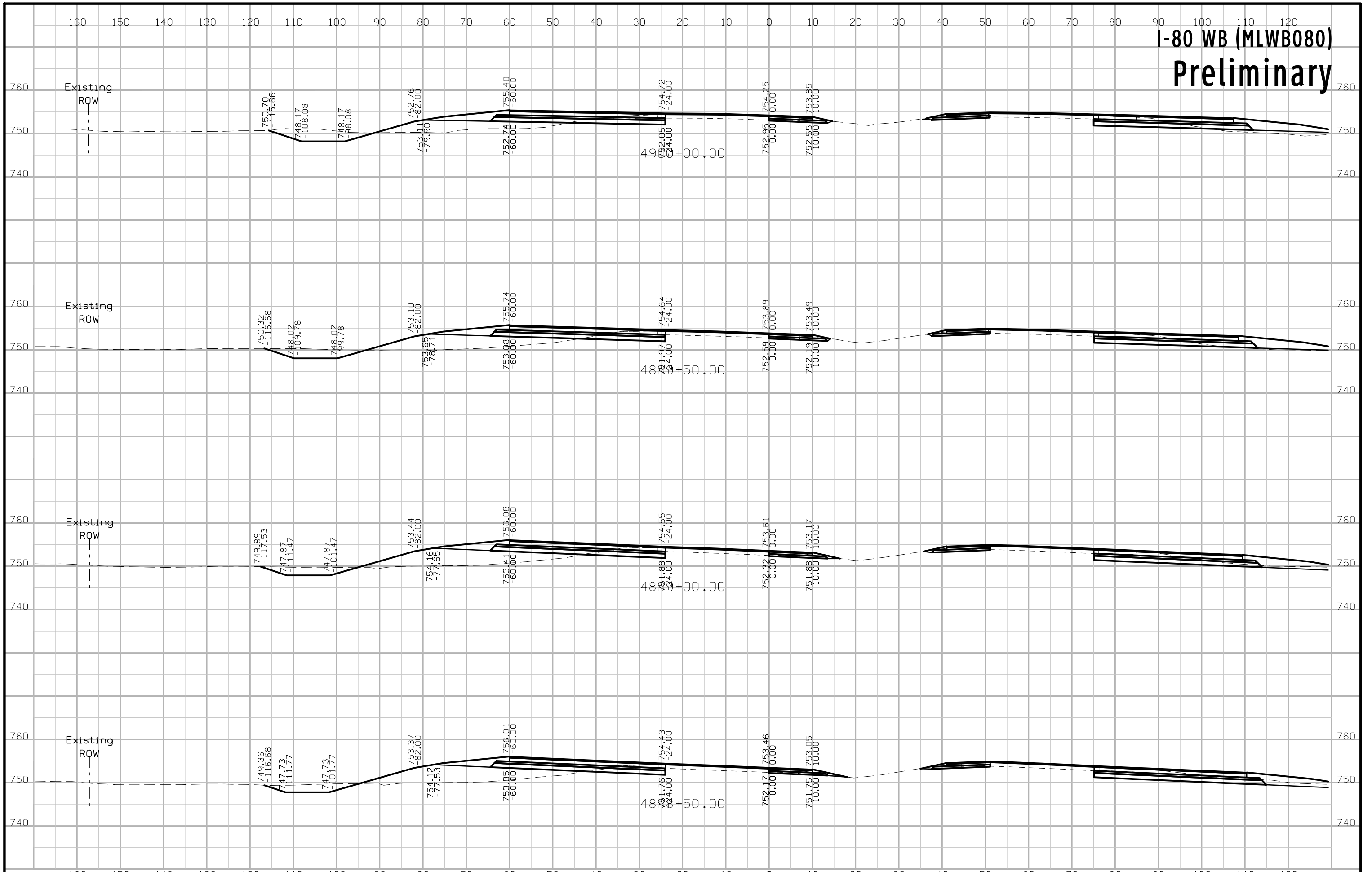
I-80 WB (MLWB080) Preliminary



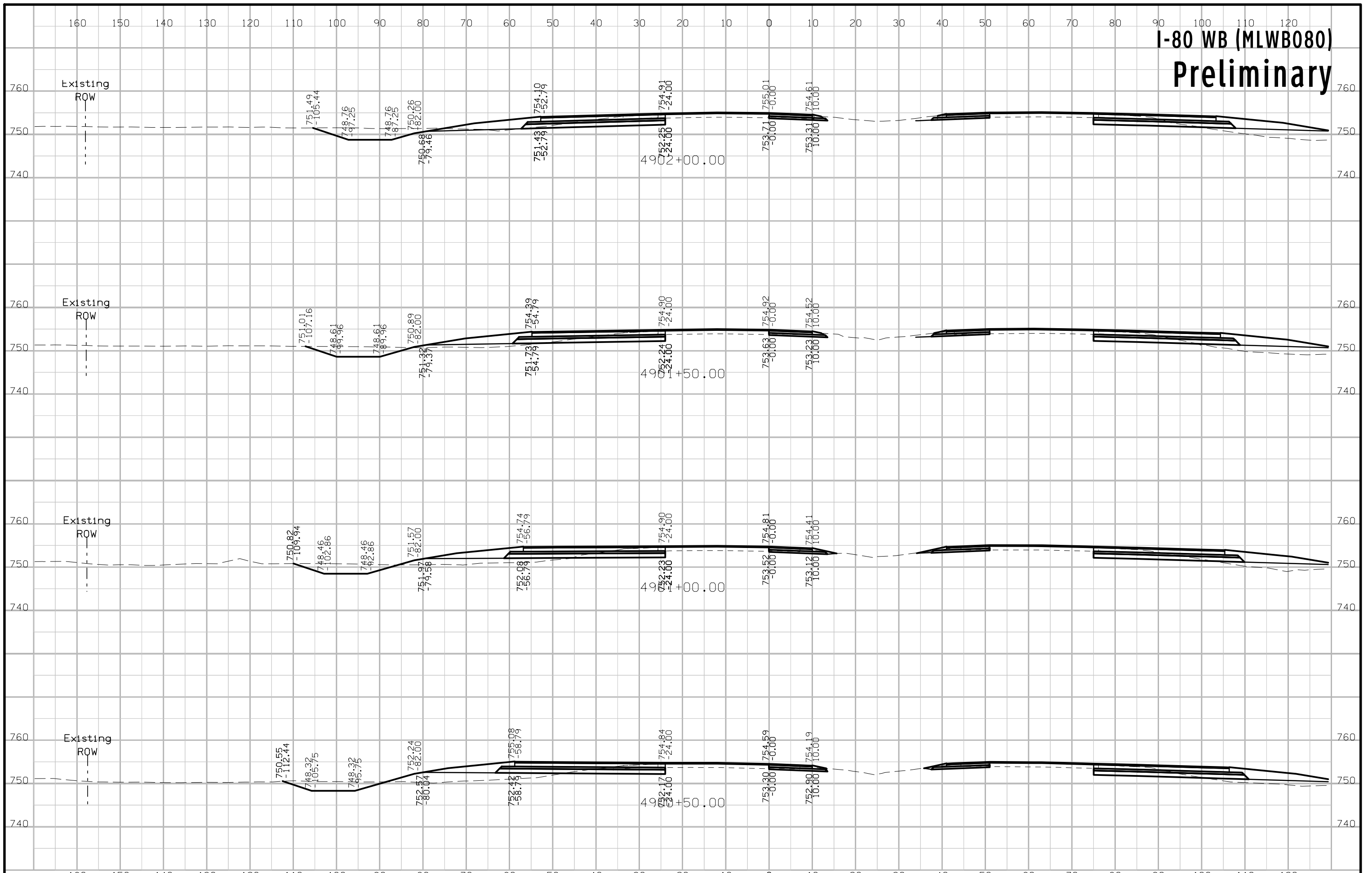
I-80 WB (MLWB080) Preliminary



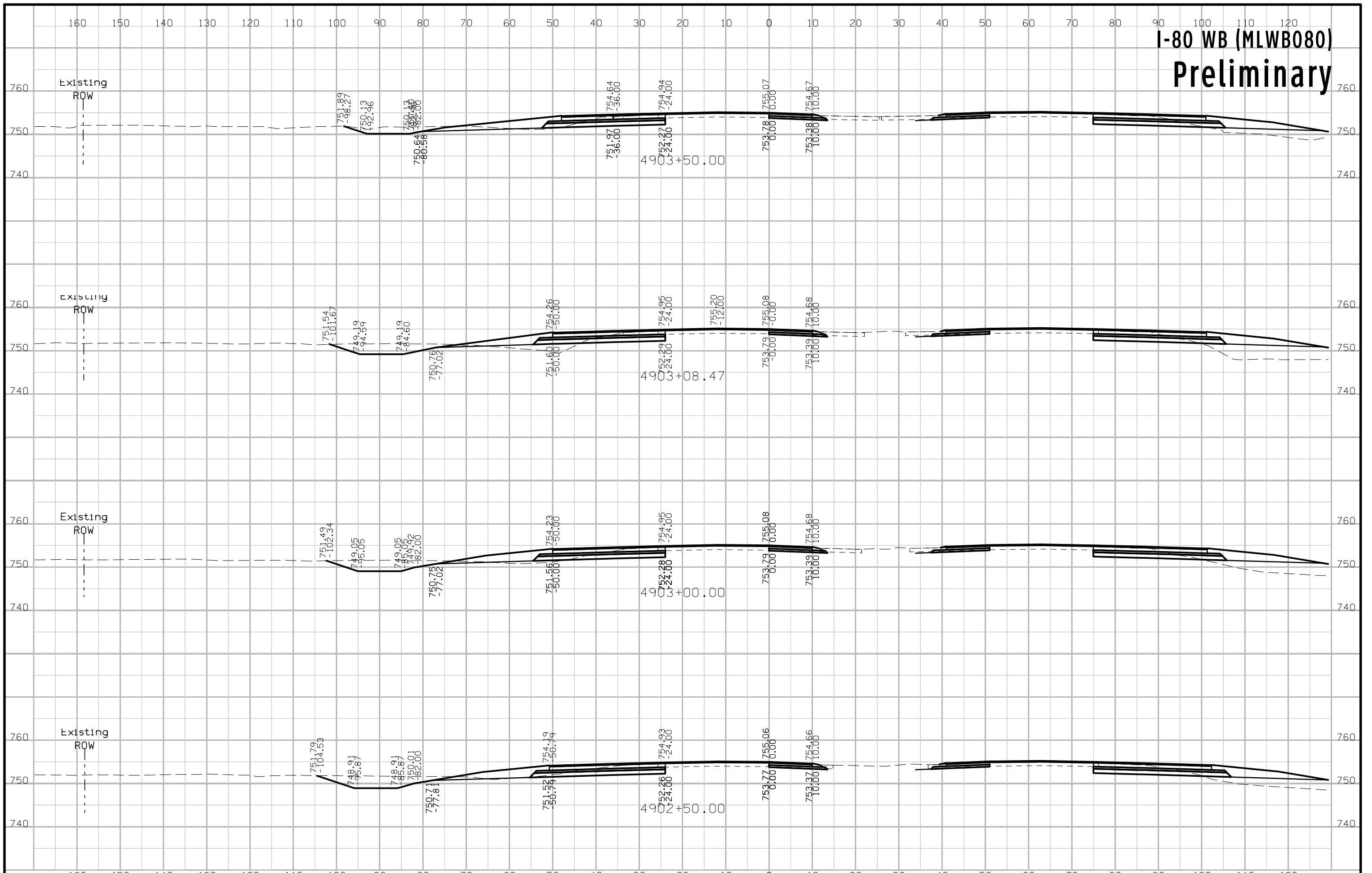
I-80 WB (MLWB080) Preliminary



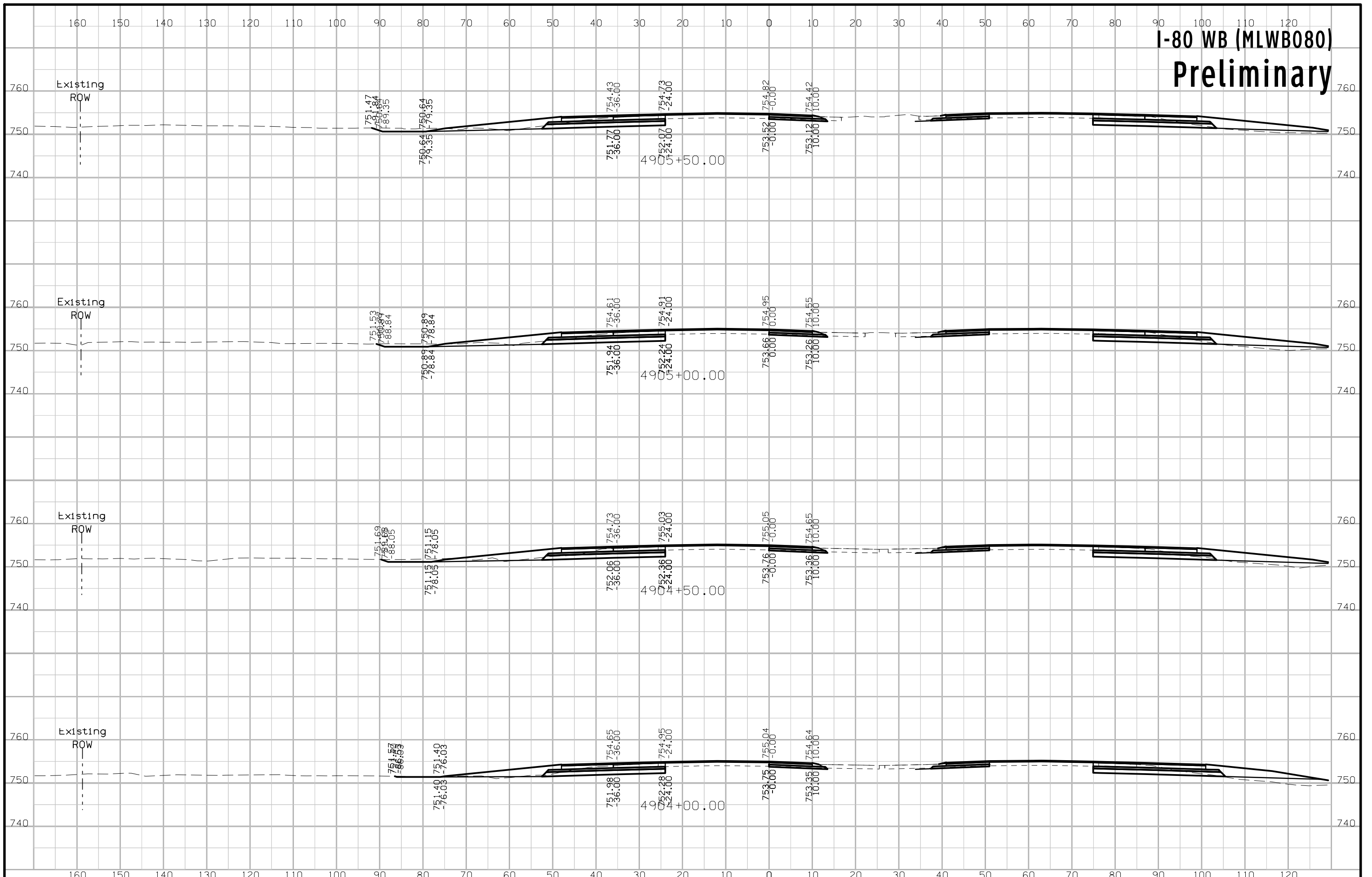
I-80 WB (MLWB080) Preliminary



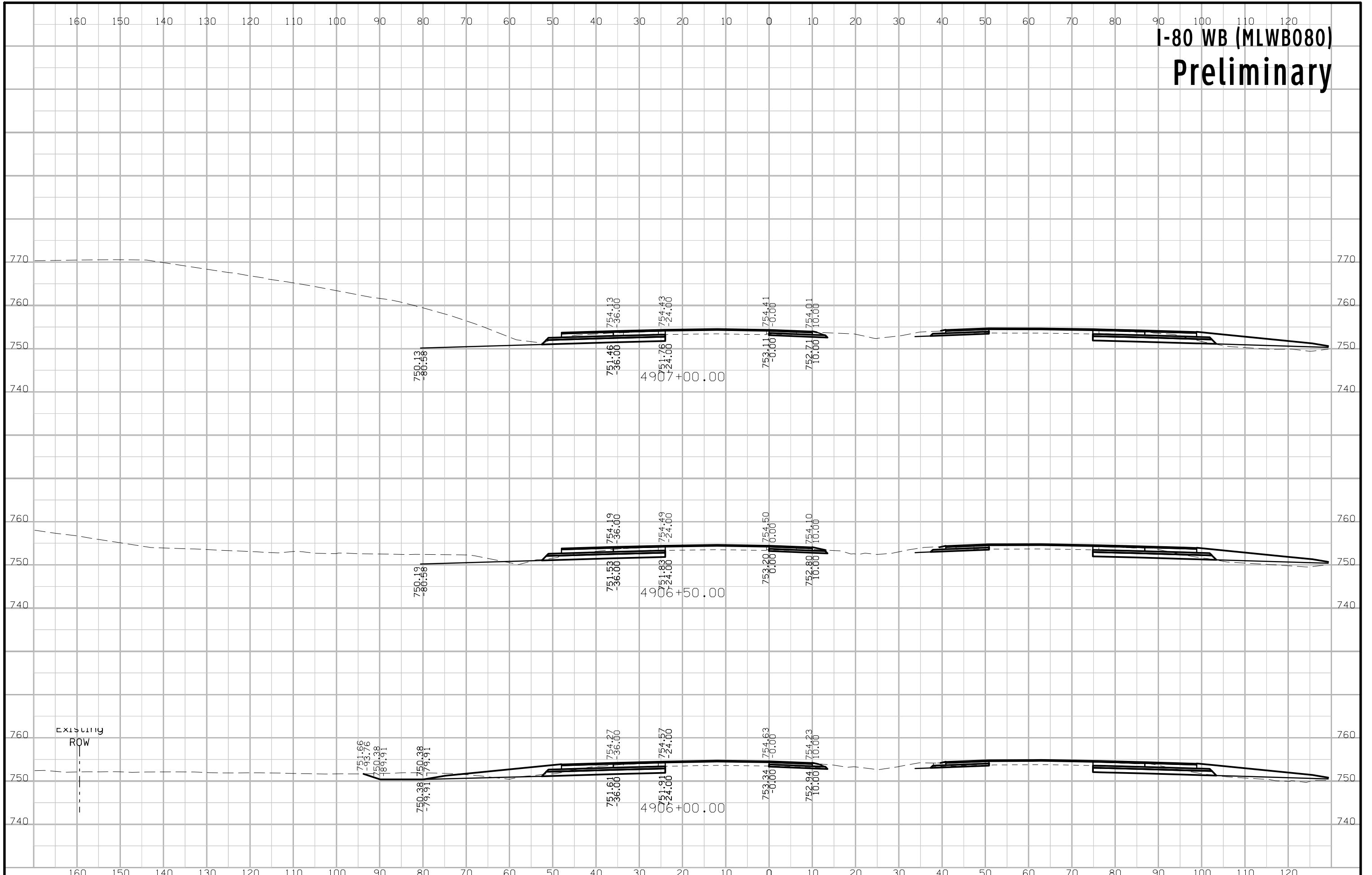
I-80 WB (MLWB080) Preliminary



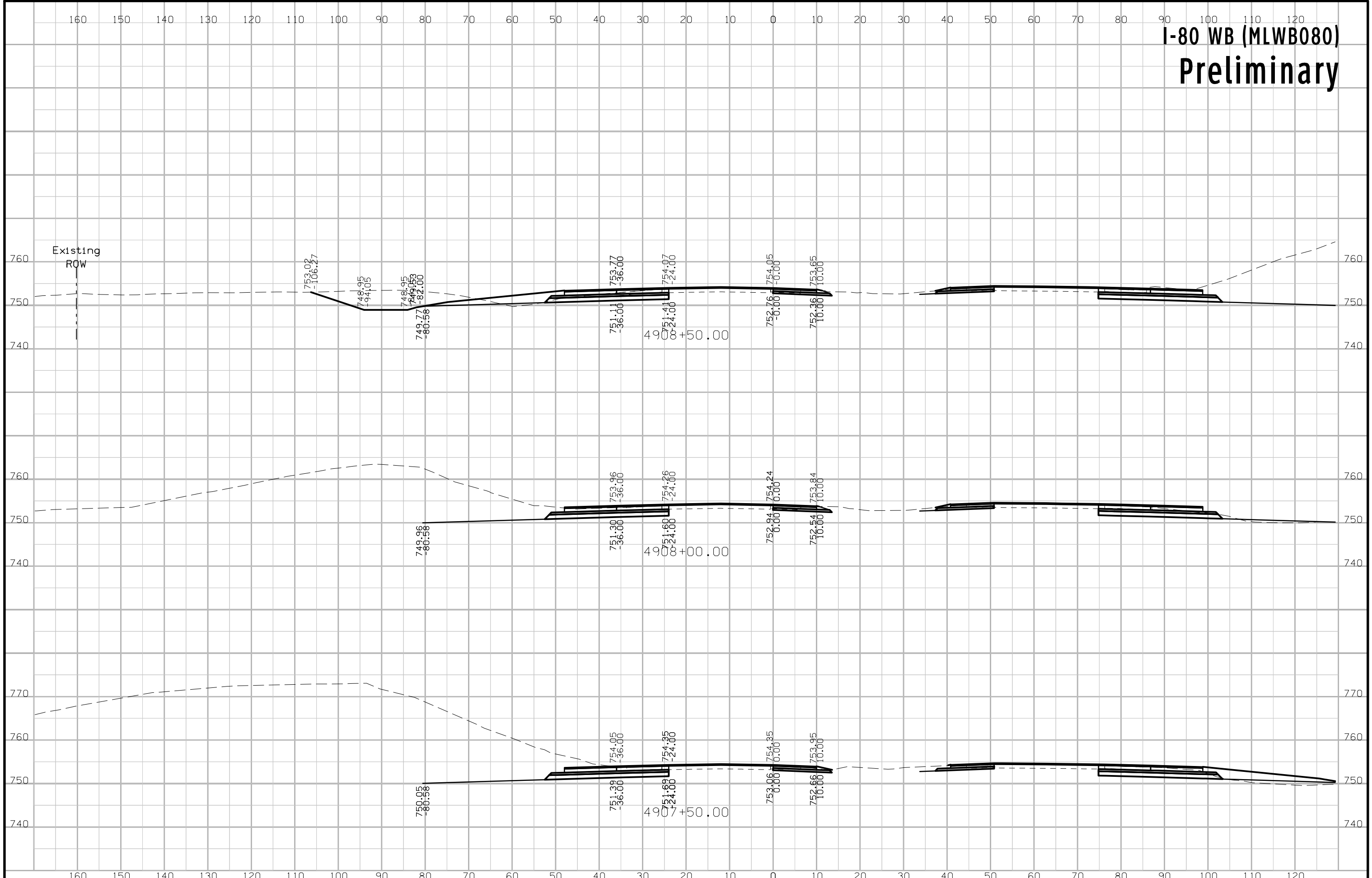
I-80 WB (MLWB080) Preliminary



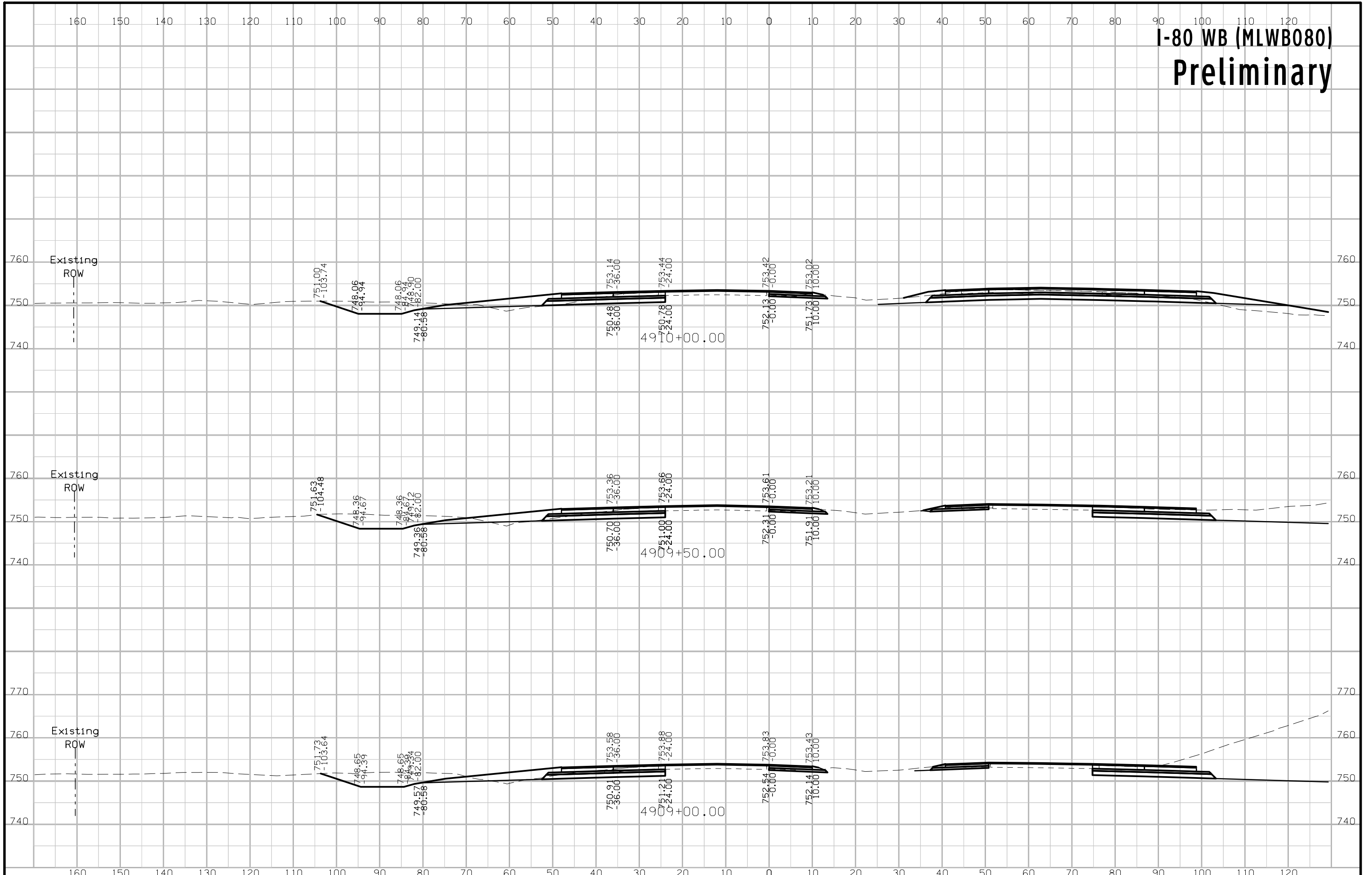
I-80 WB (MLWB080) Preliminary



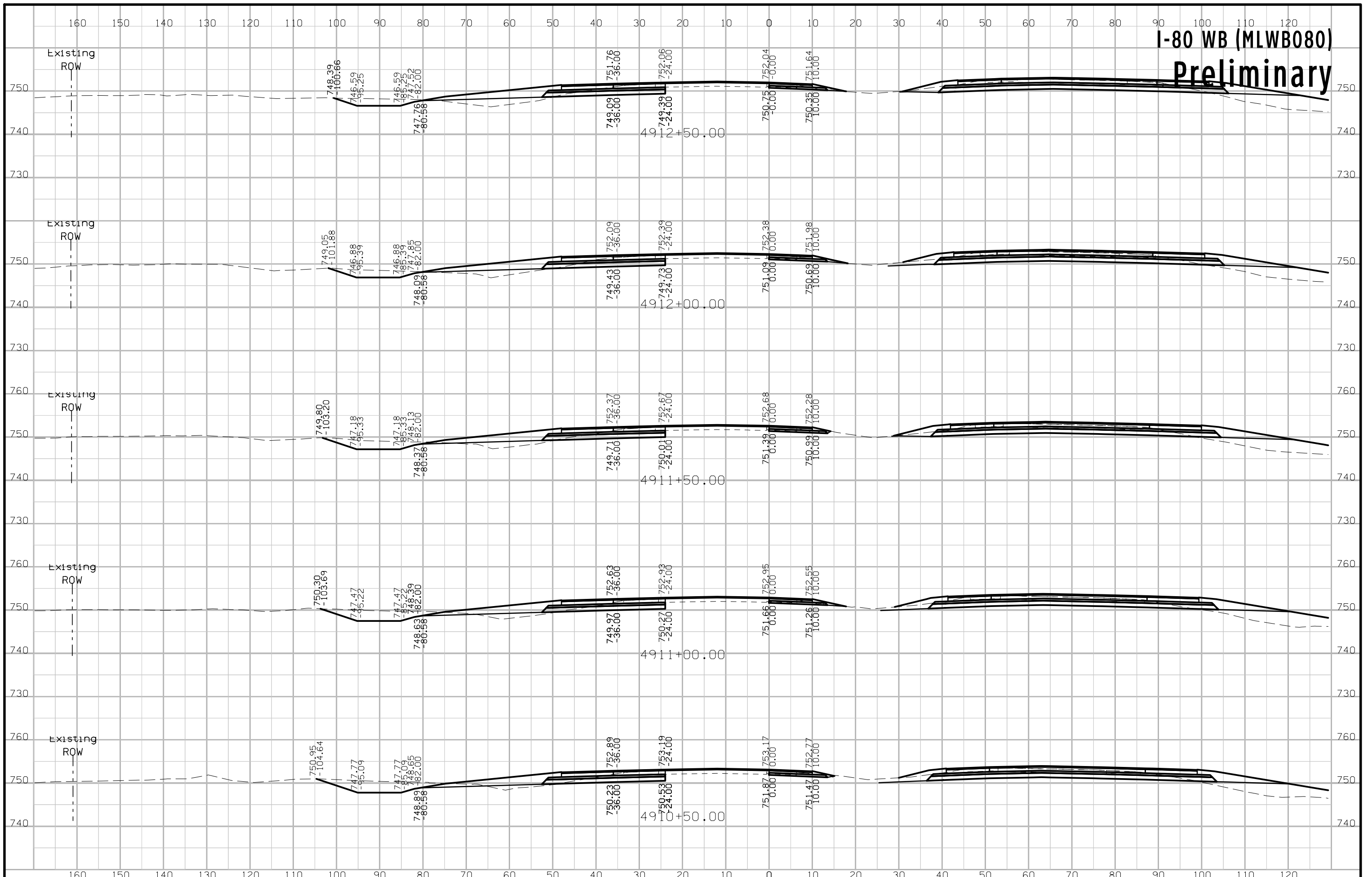
I-80 WB (MLWB080) Preliminary



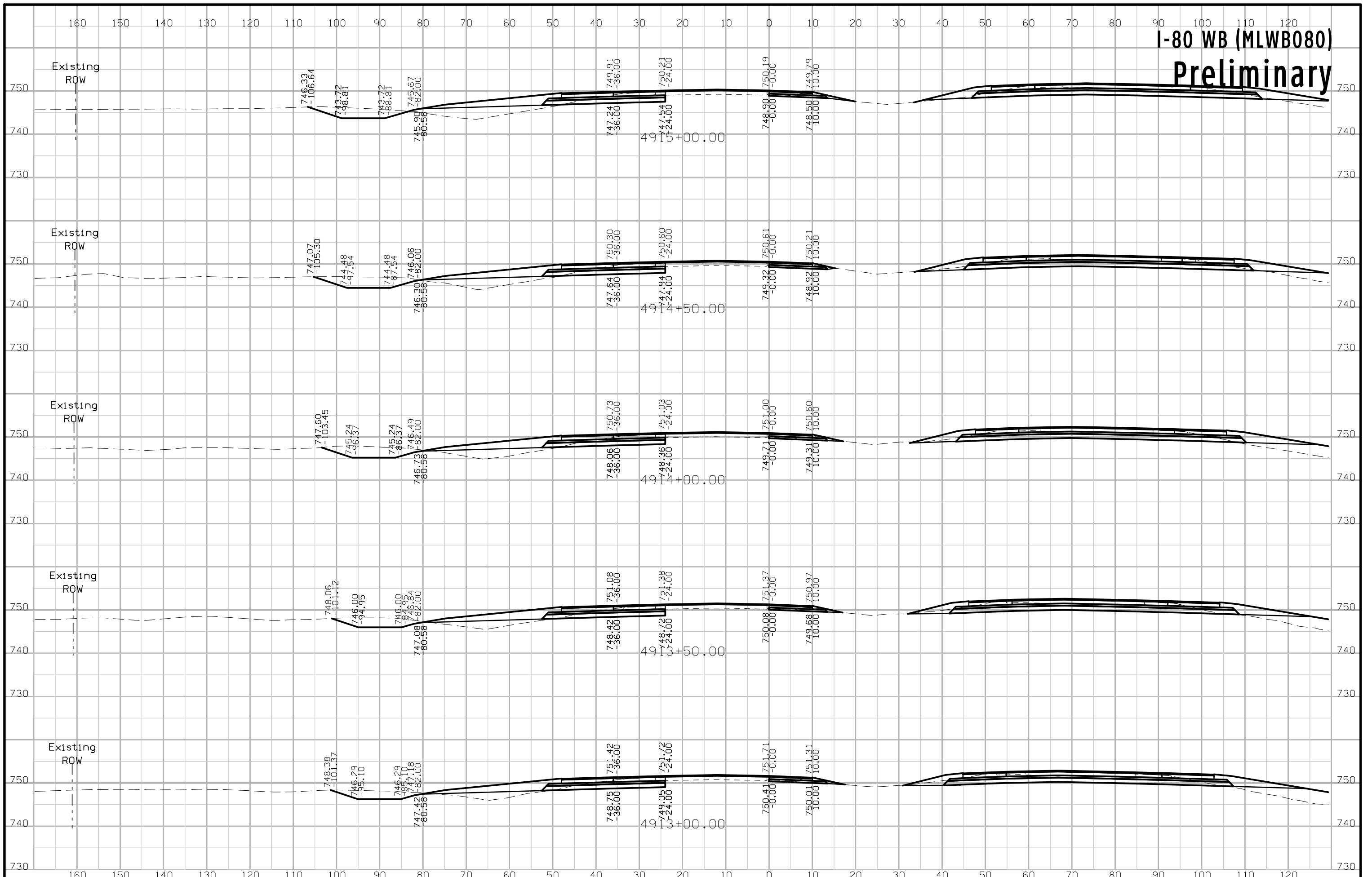
I-80 WB (MLWB080) Preliminary



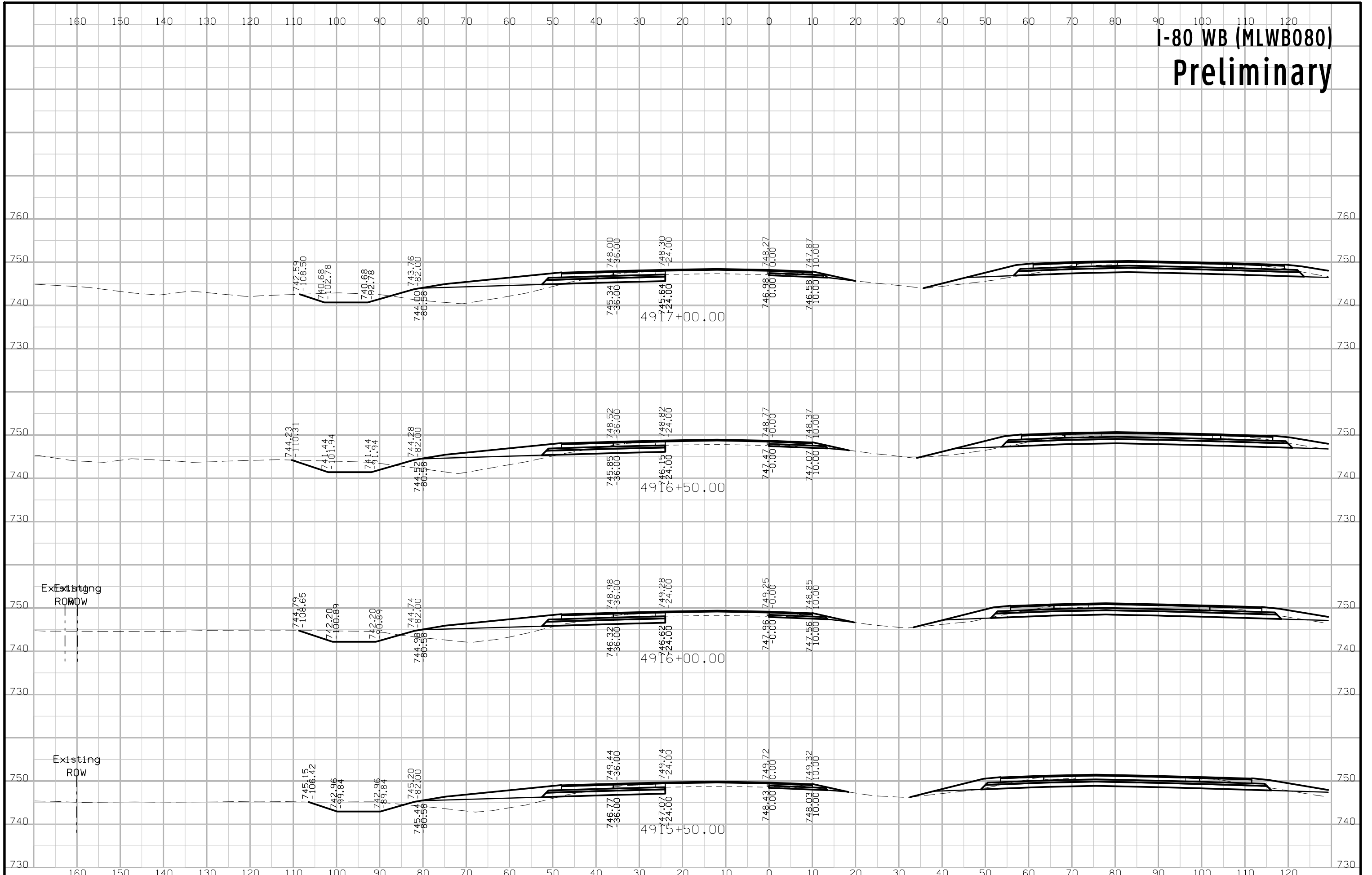
I-80 WB (MLWB080) Preliminary



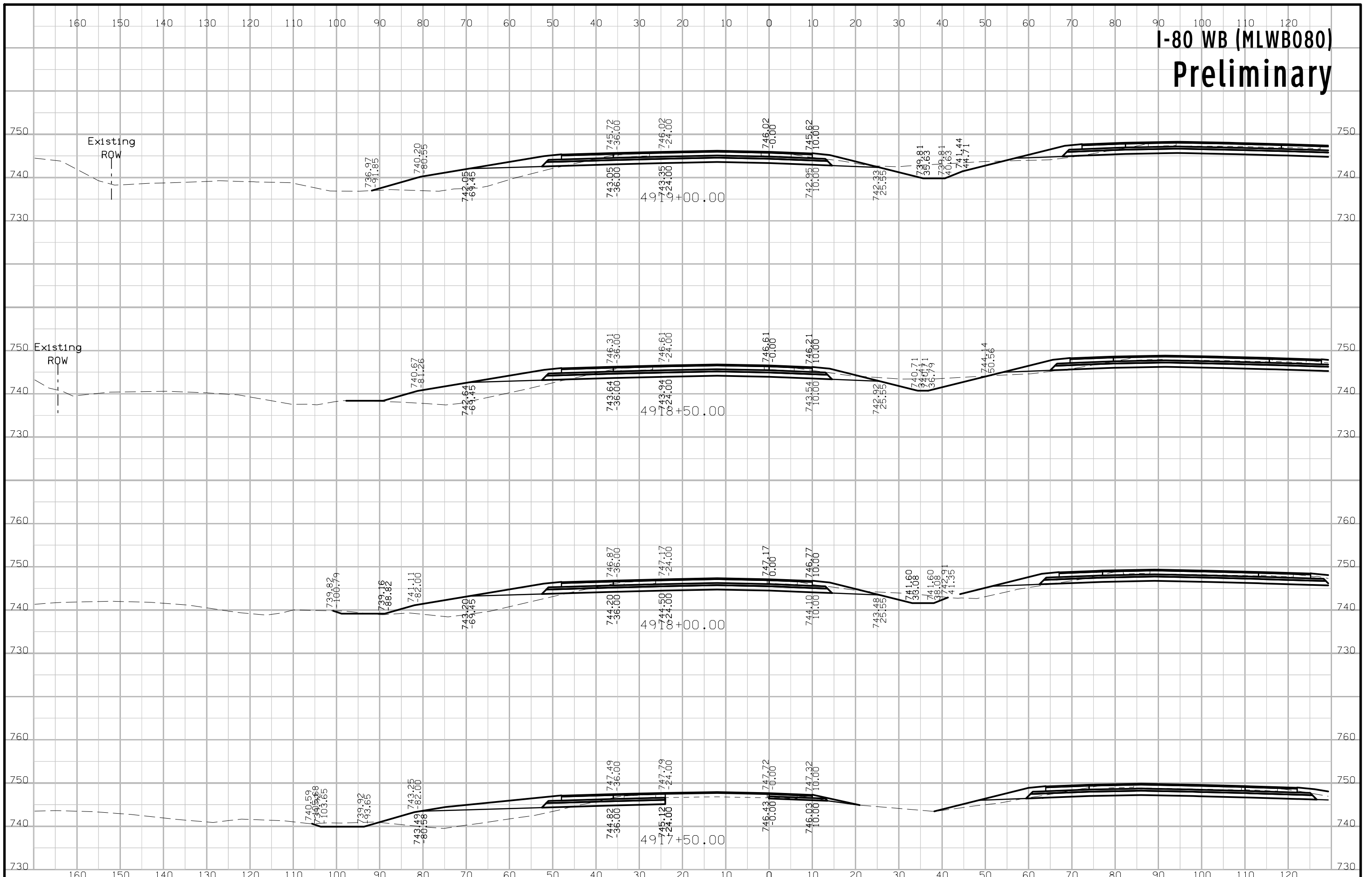
I-80 WB (MLWB080) Preliminary



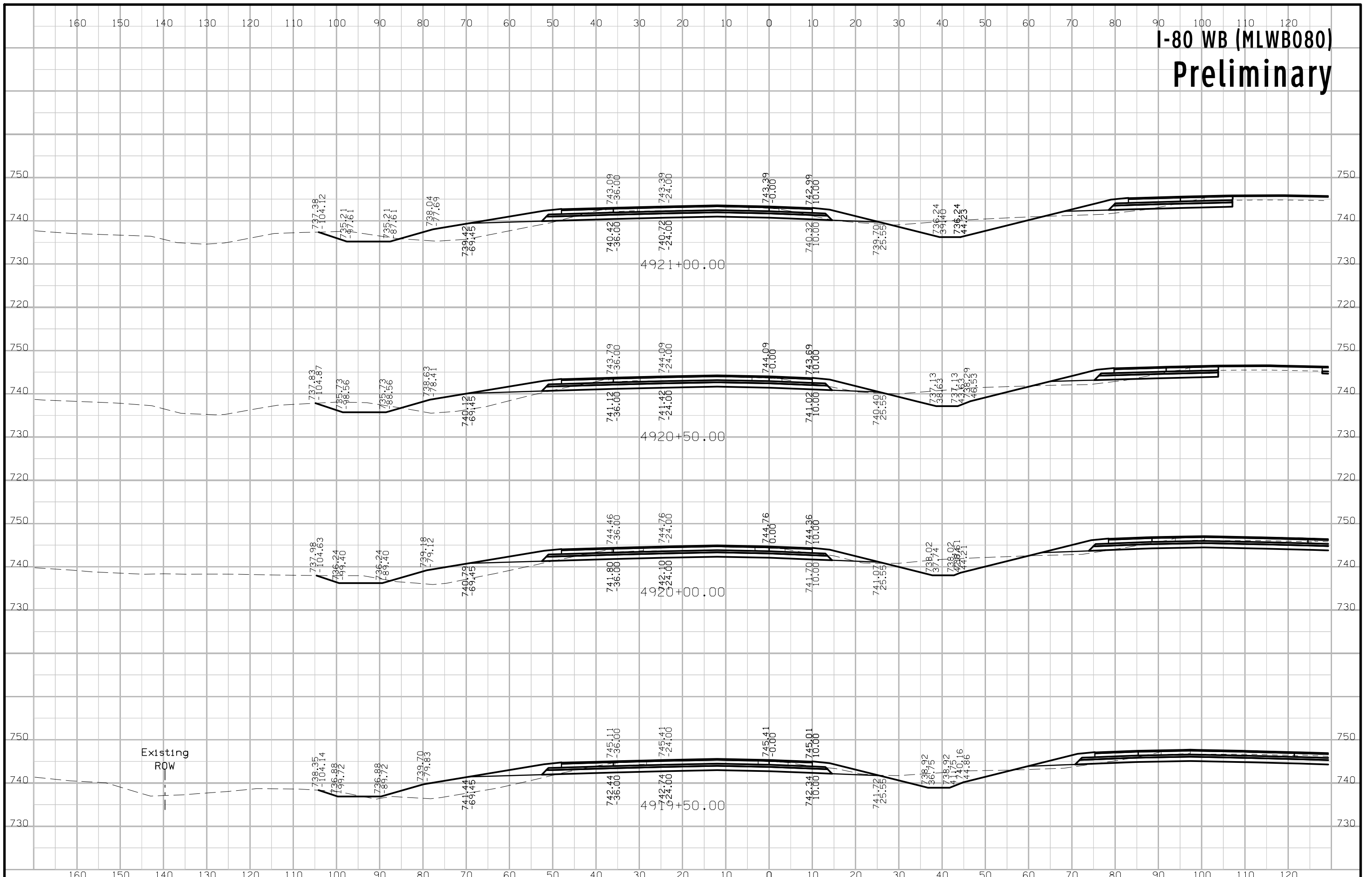
I-80 WB (MLWB080) Preliminary



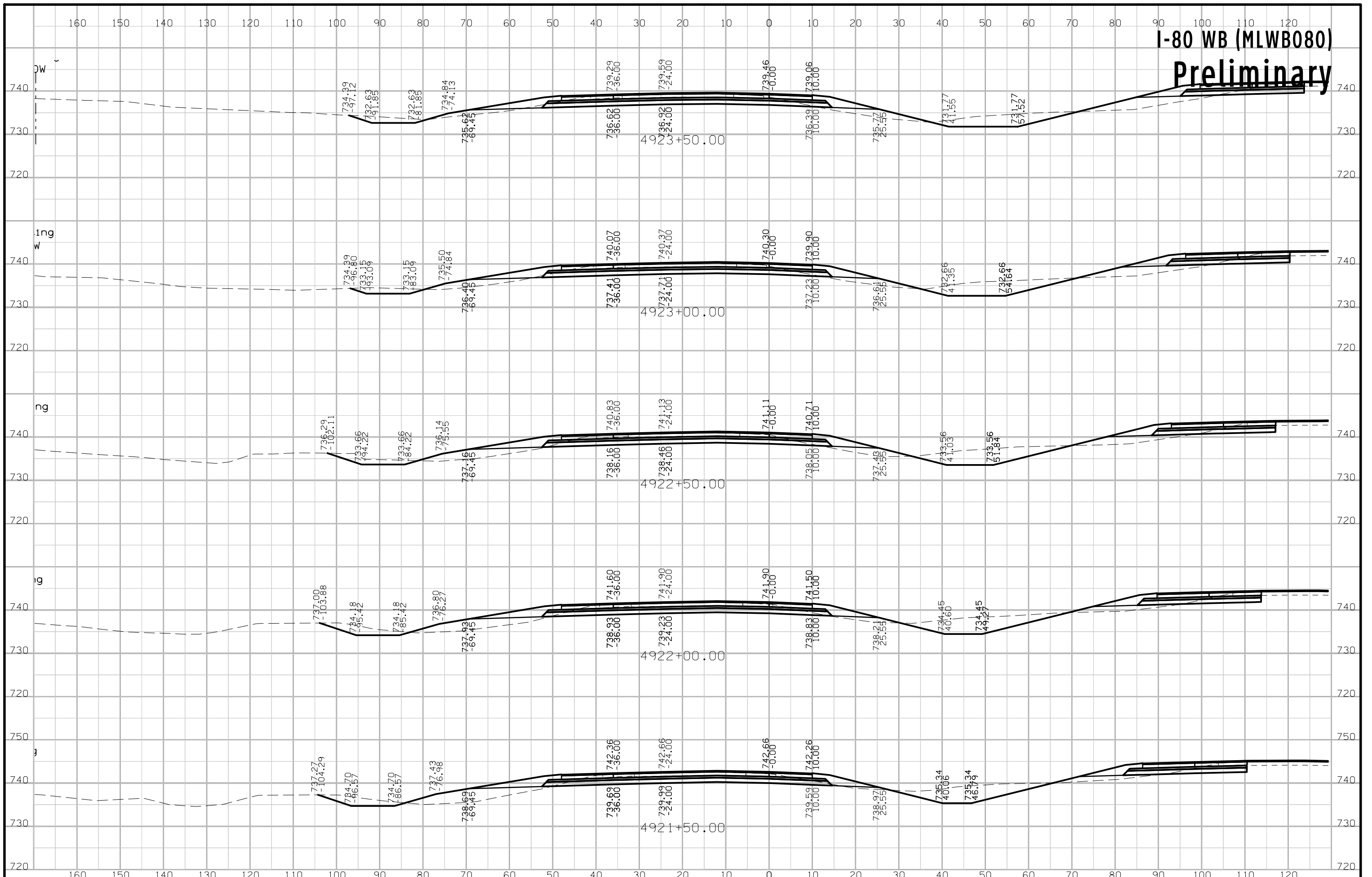
I-80 WB (MLWB080) Preliminary



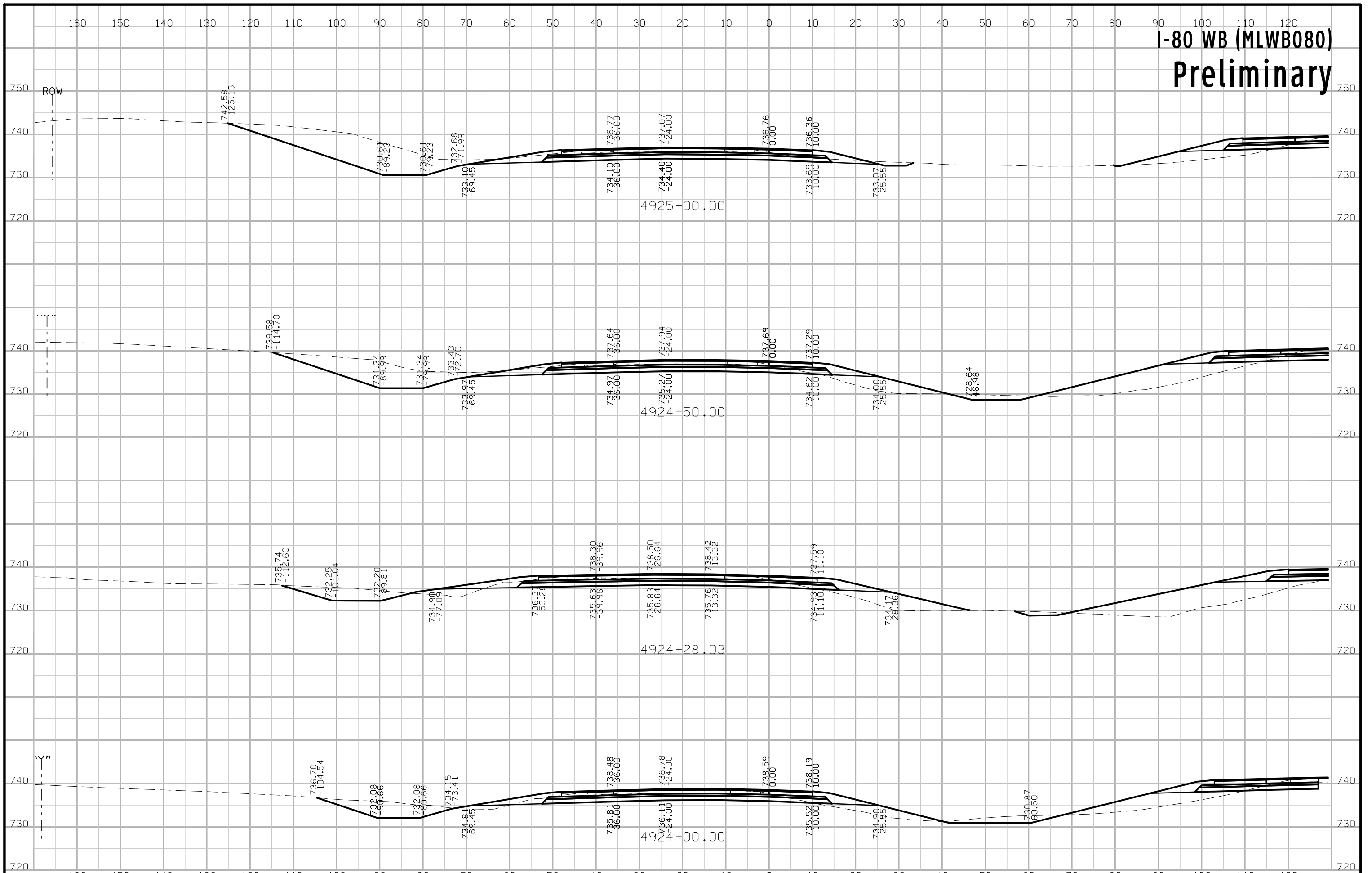
I-80 WB (MLWB080) Preliminary



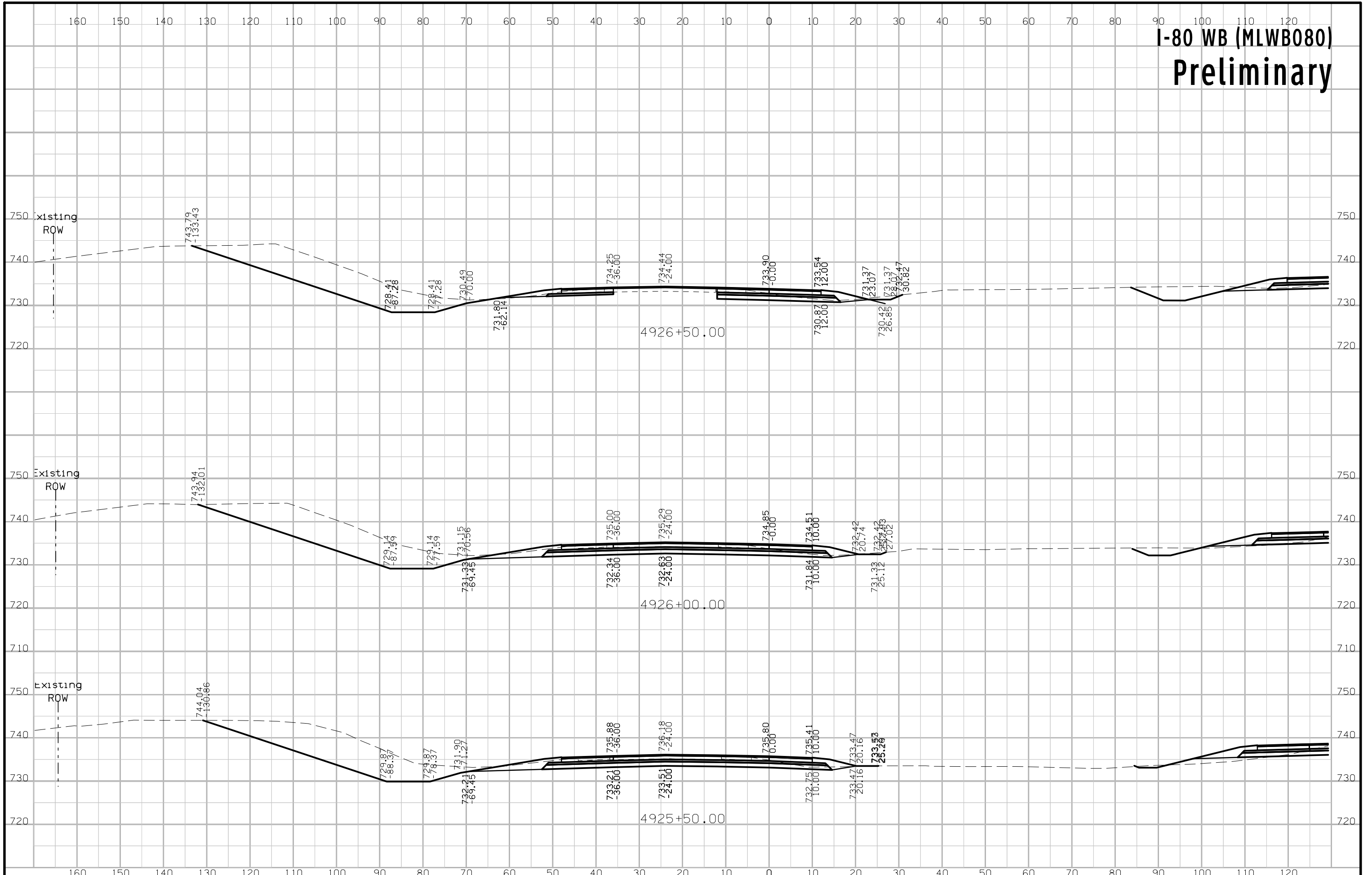
I-80 WB (MLWB080) Preliminary



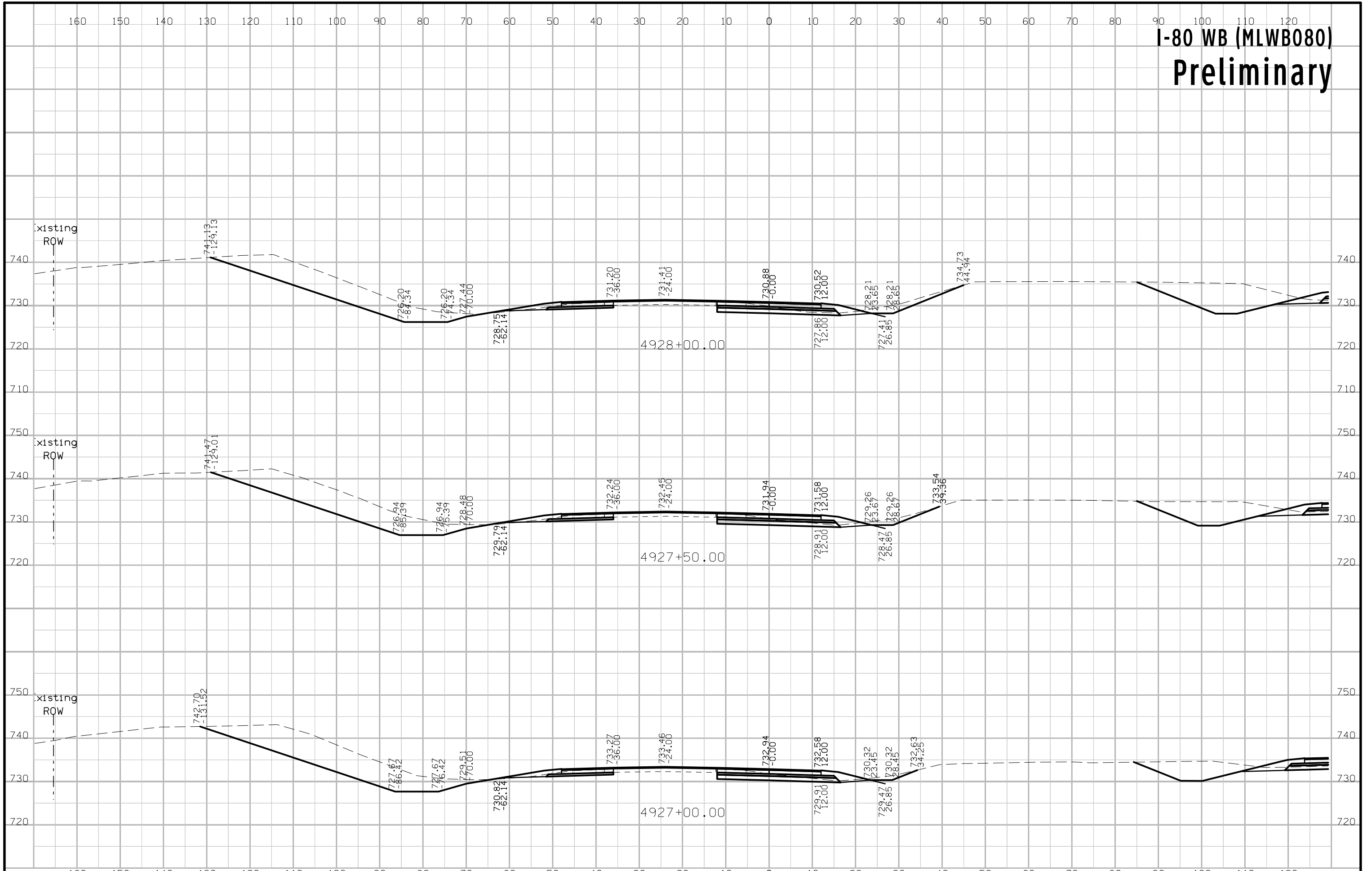
I-80 WB (MLWB080) Preliminary



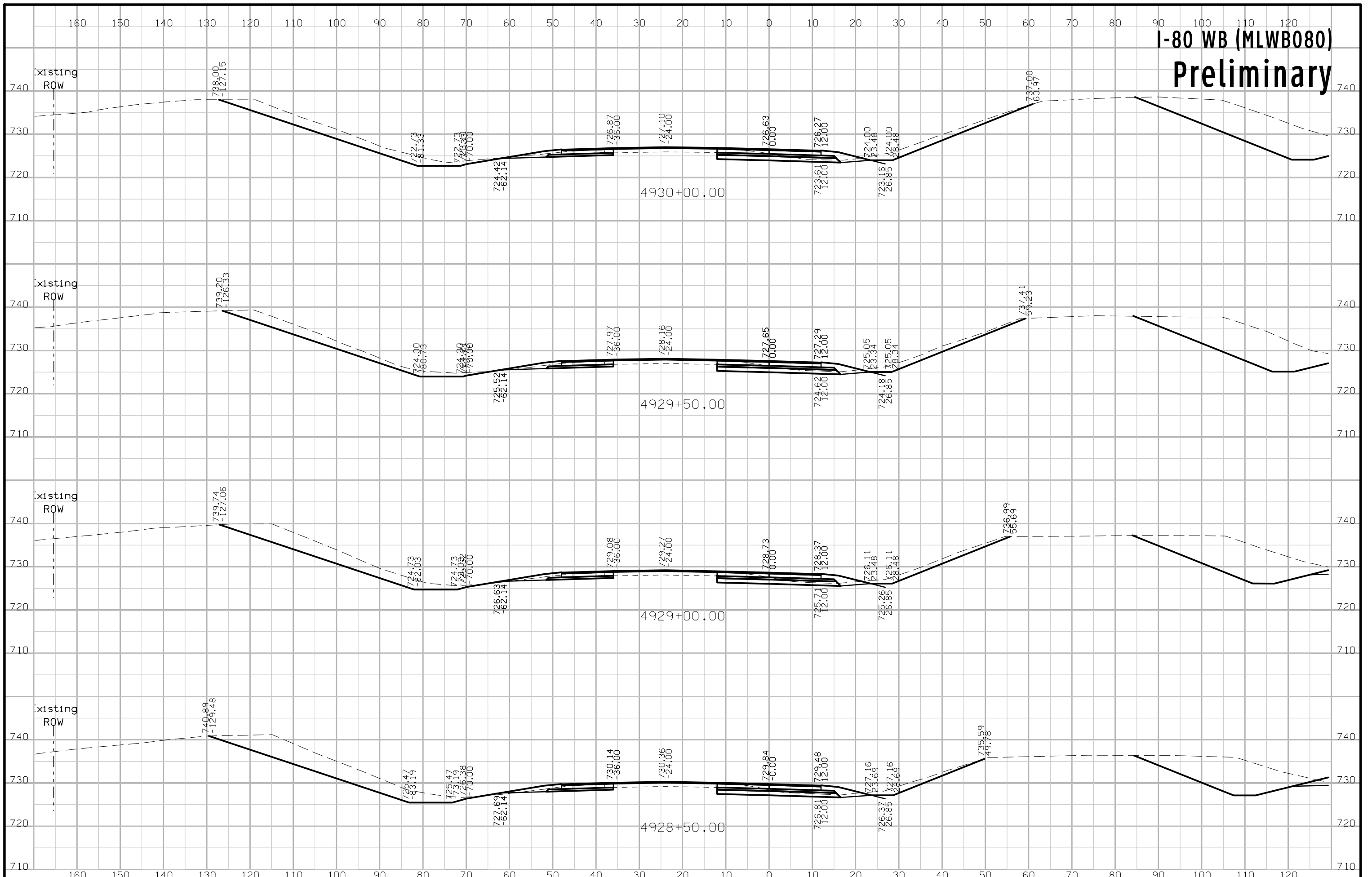
I-80 WB (MLWB080) Preliminary



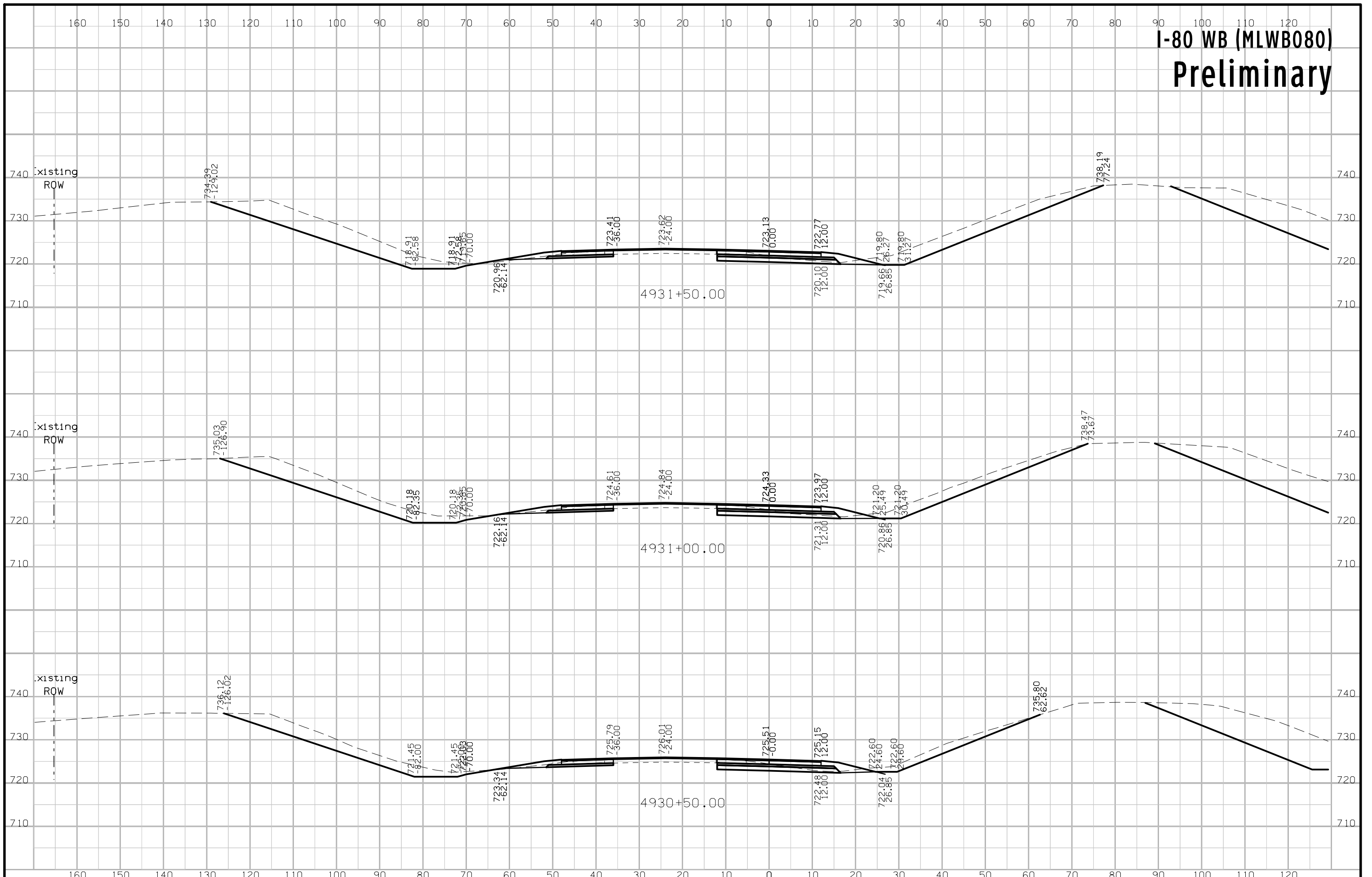
I-80 WB (MLWB080) Preliminary



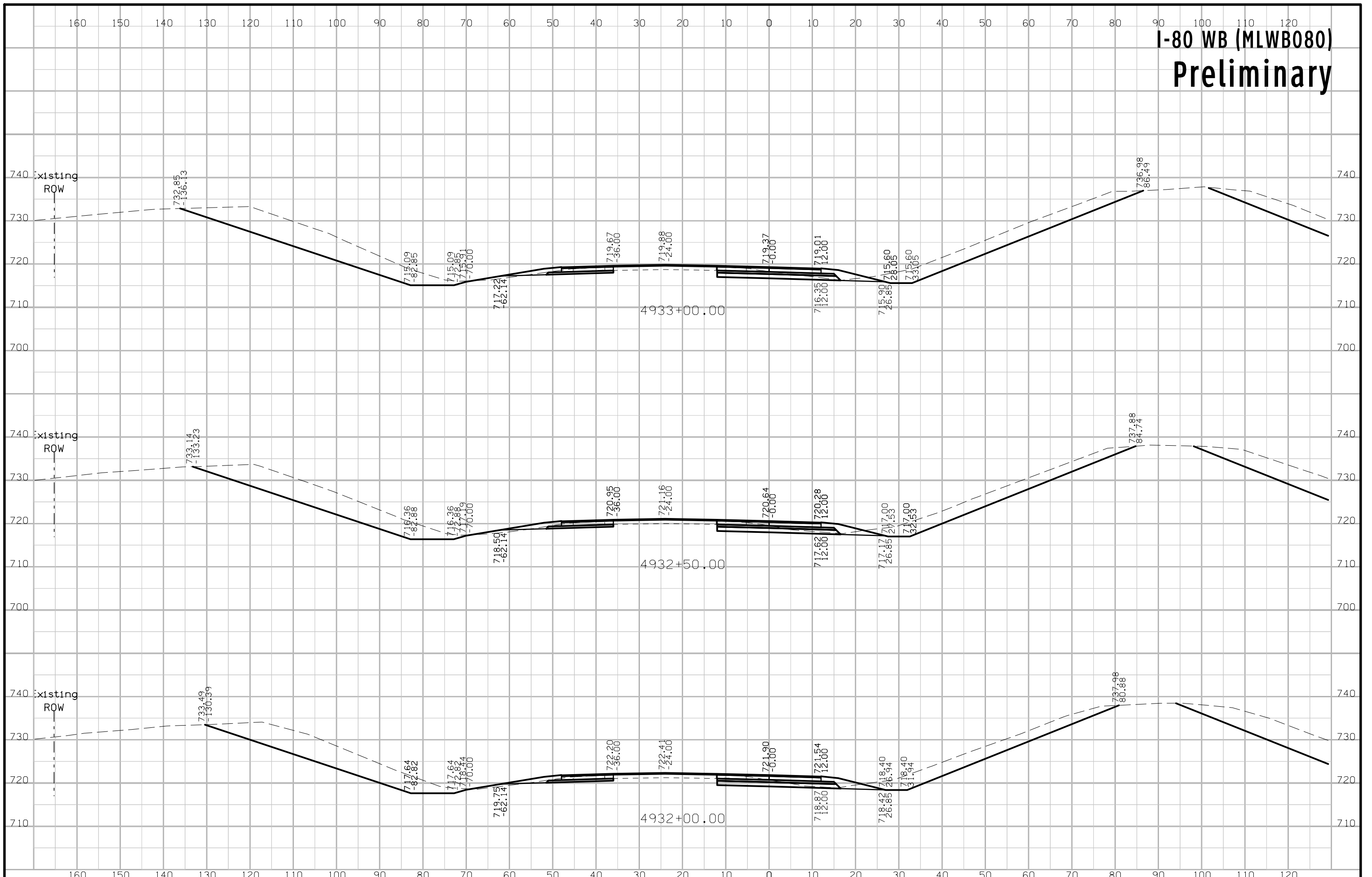
I-80 WB (MLWB080) Preliminary



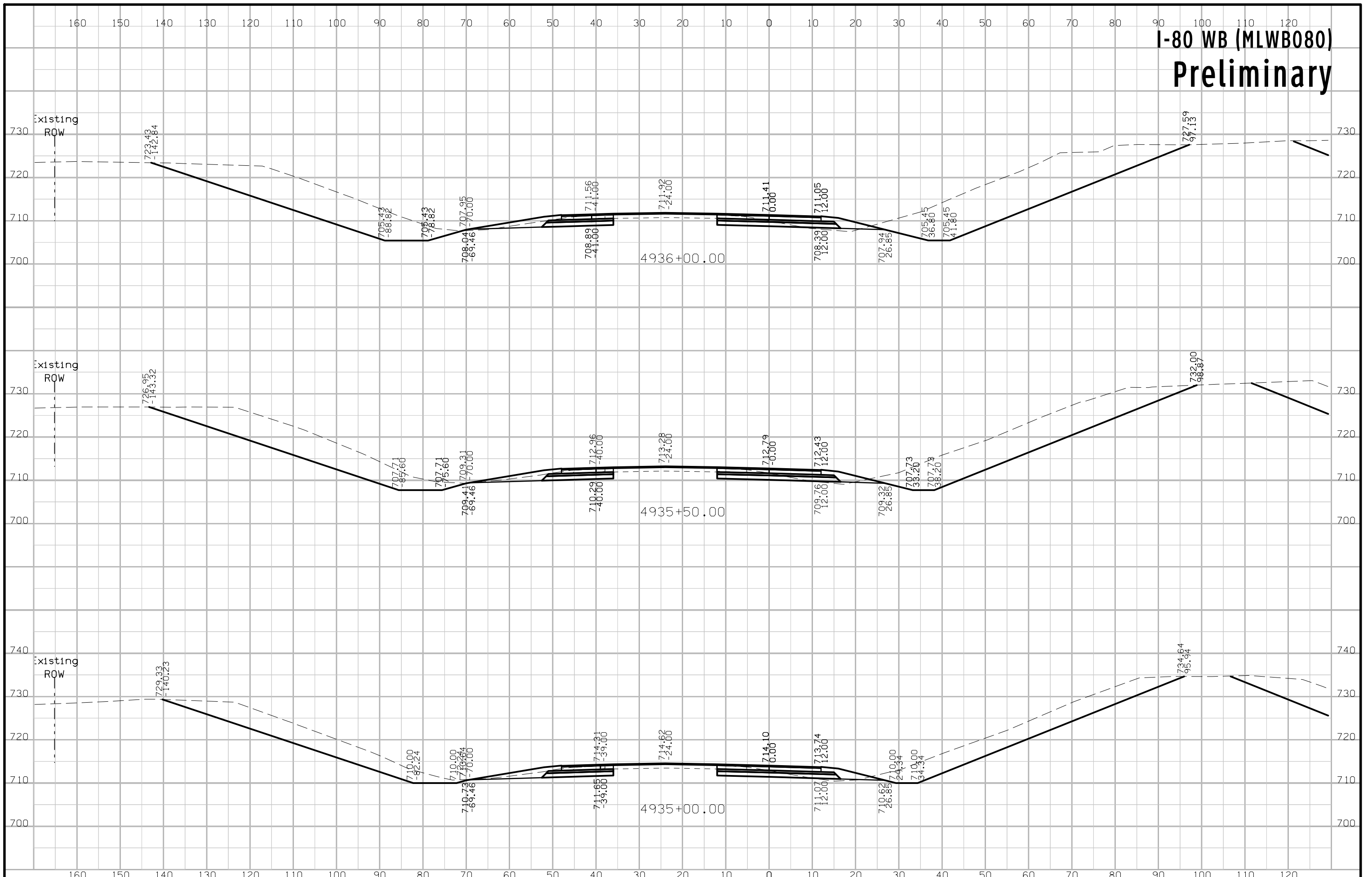
I-80 WB (MLWB080) Preliminary



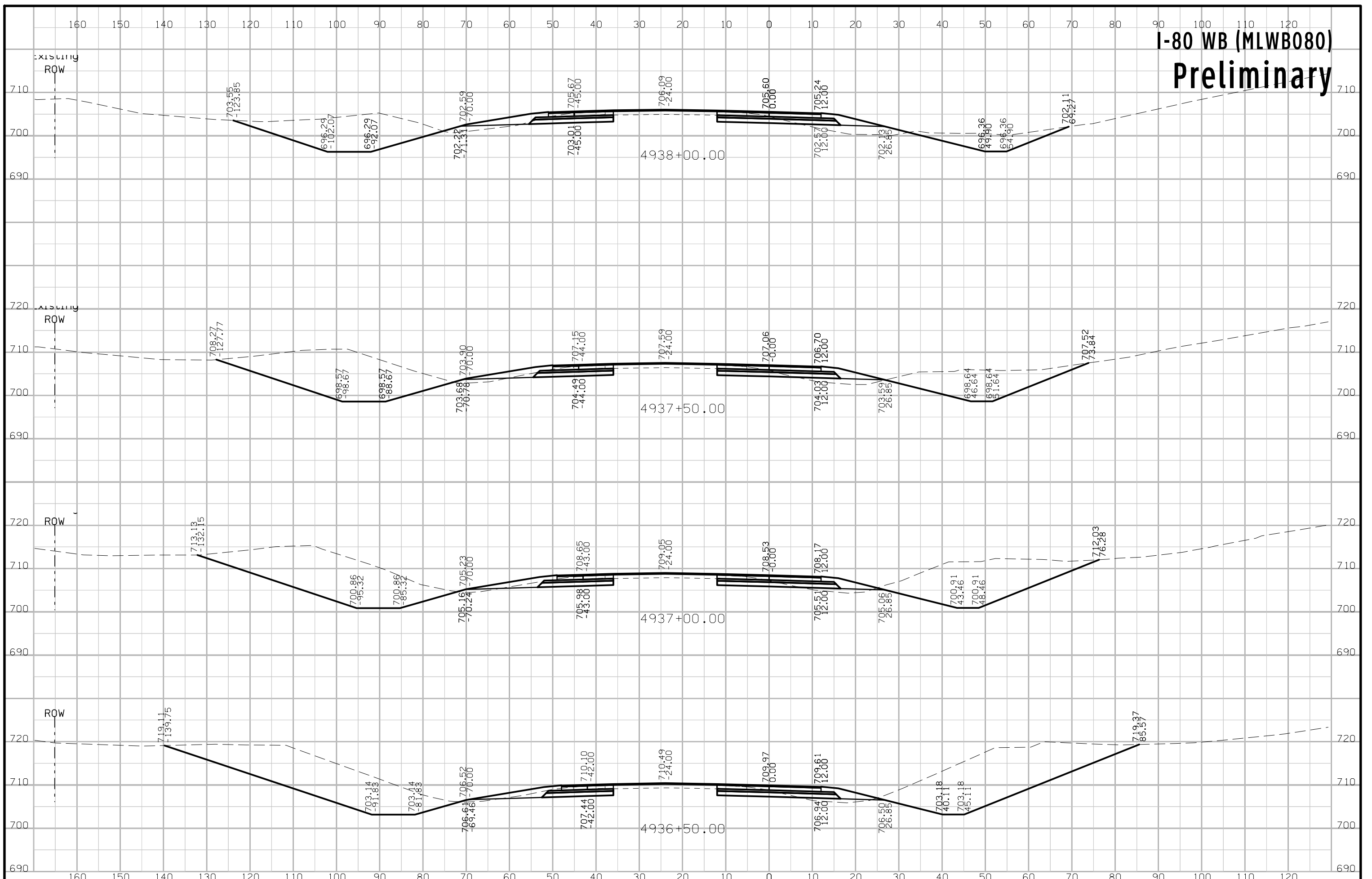
I-80 WB (MLWB080) Preliminary



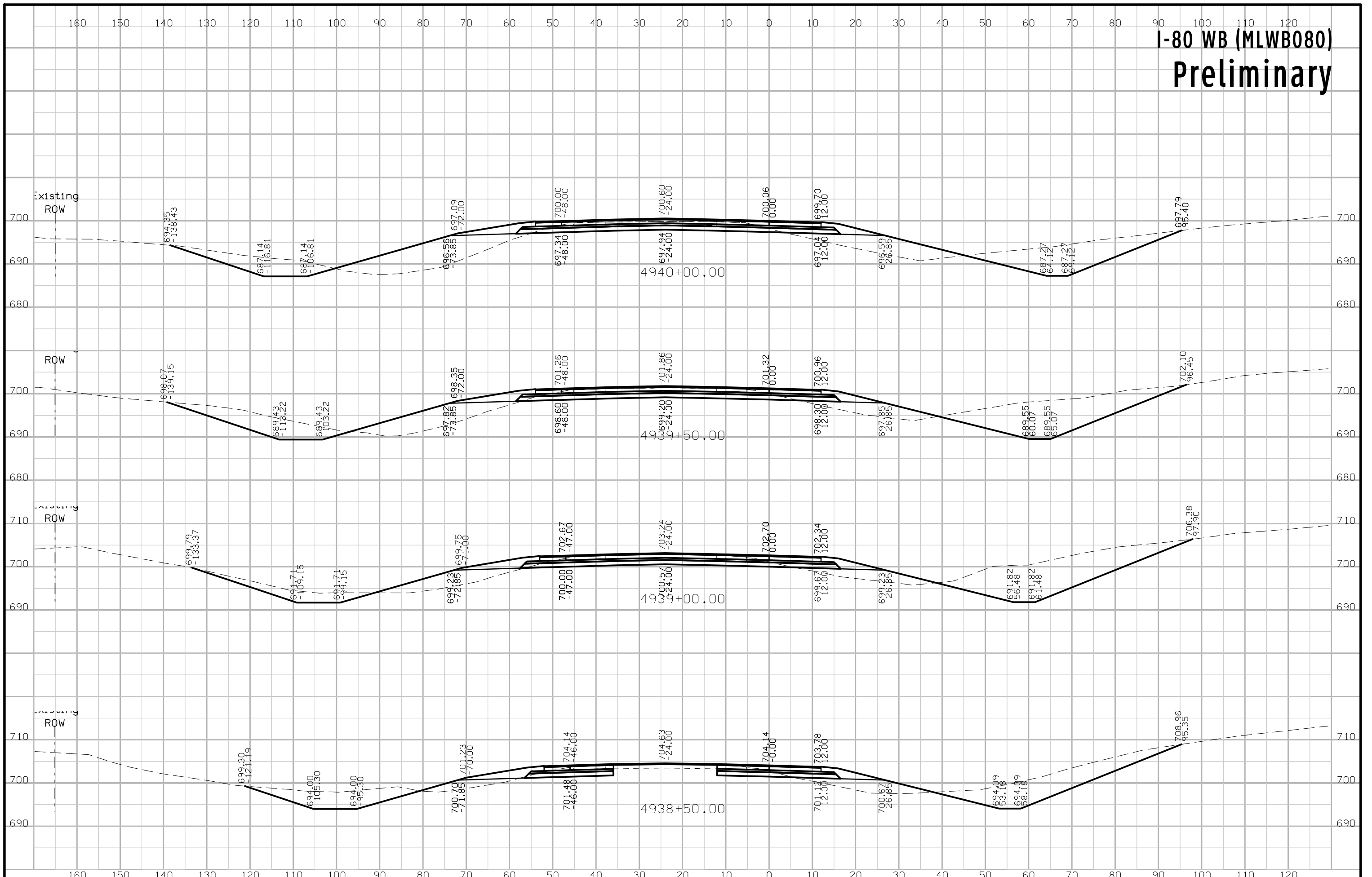
I-80 WB (MLWB080) Preliminary



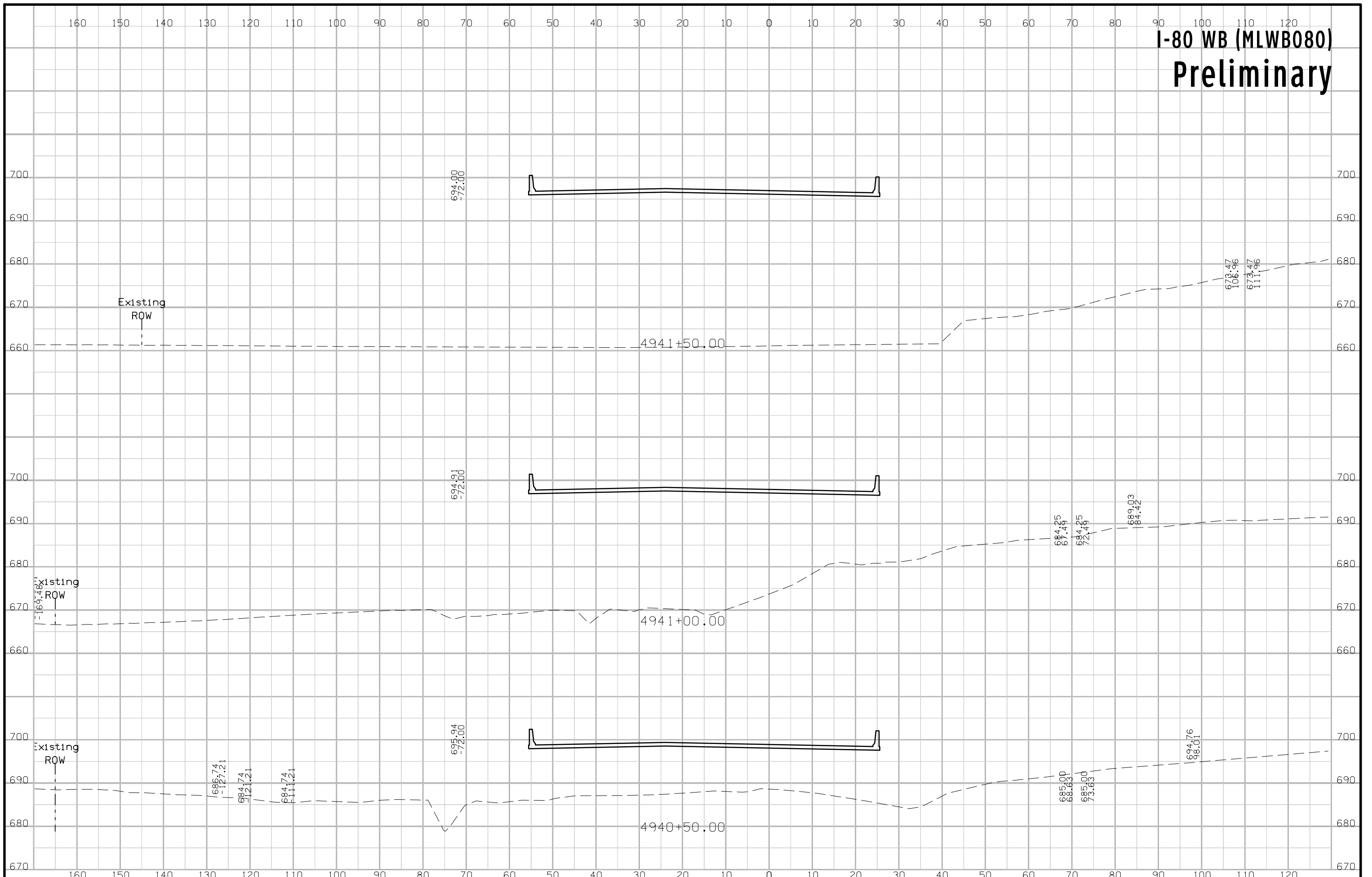
I-80 WB (MLWB080) Preliminary



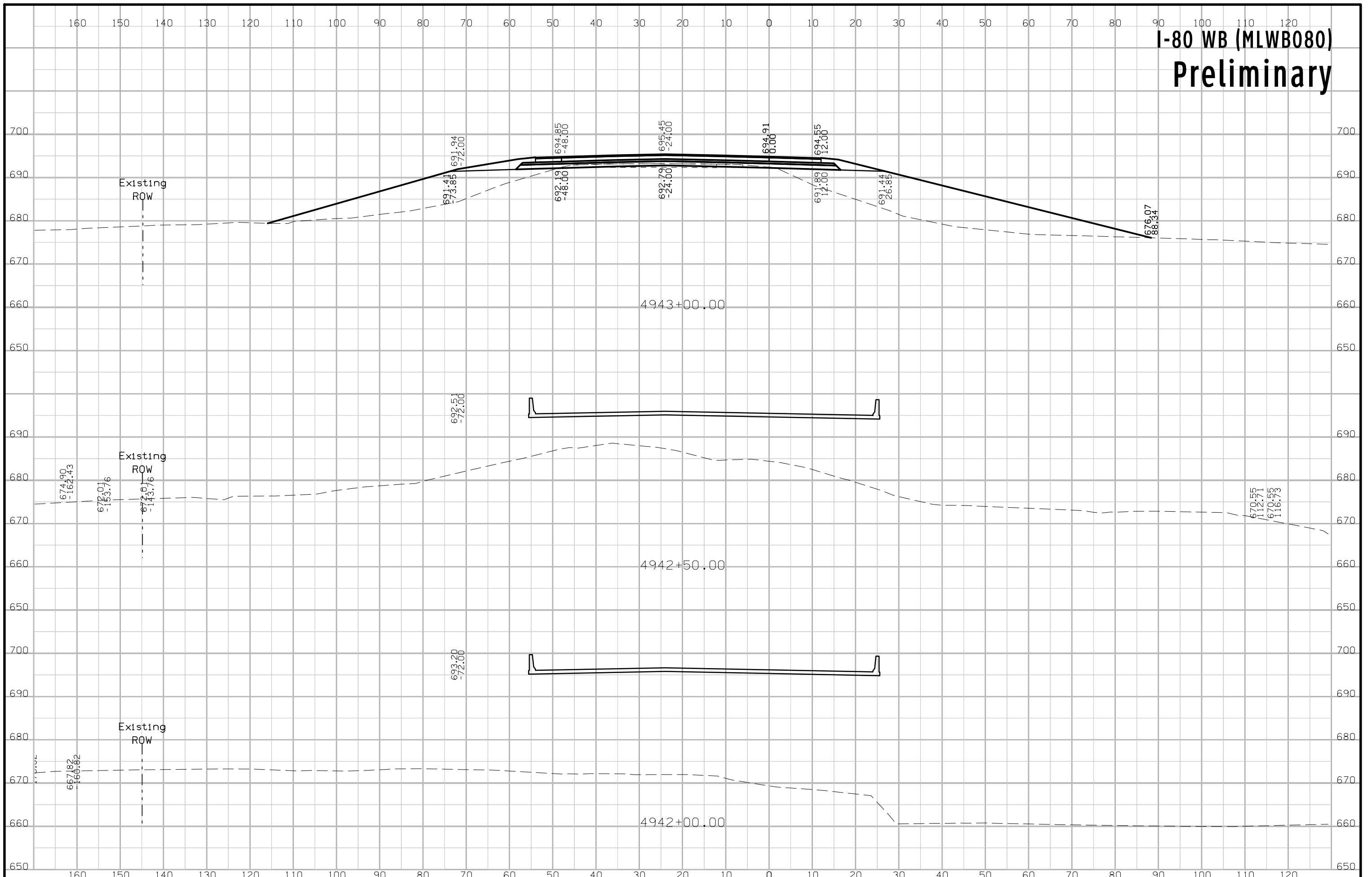
I-80 WB (MLWB080) Preliminary



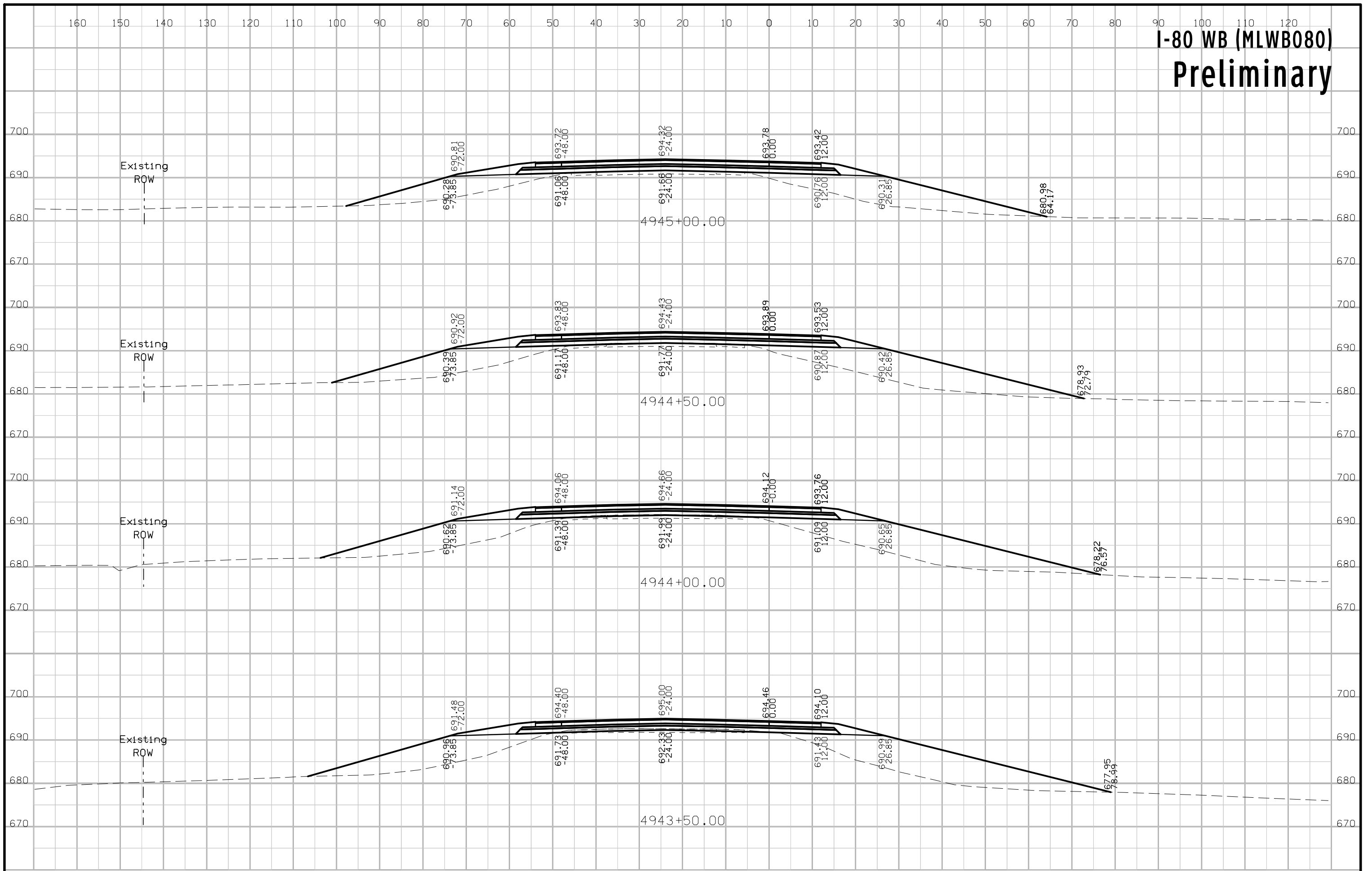
I-80 WB (MLWB080) Preliminary



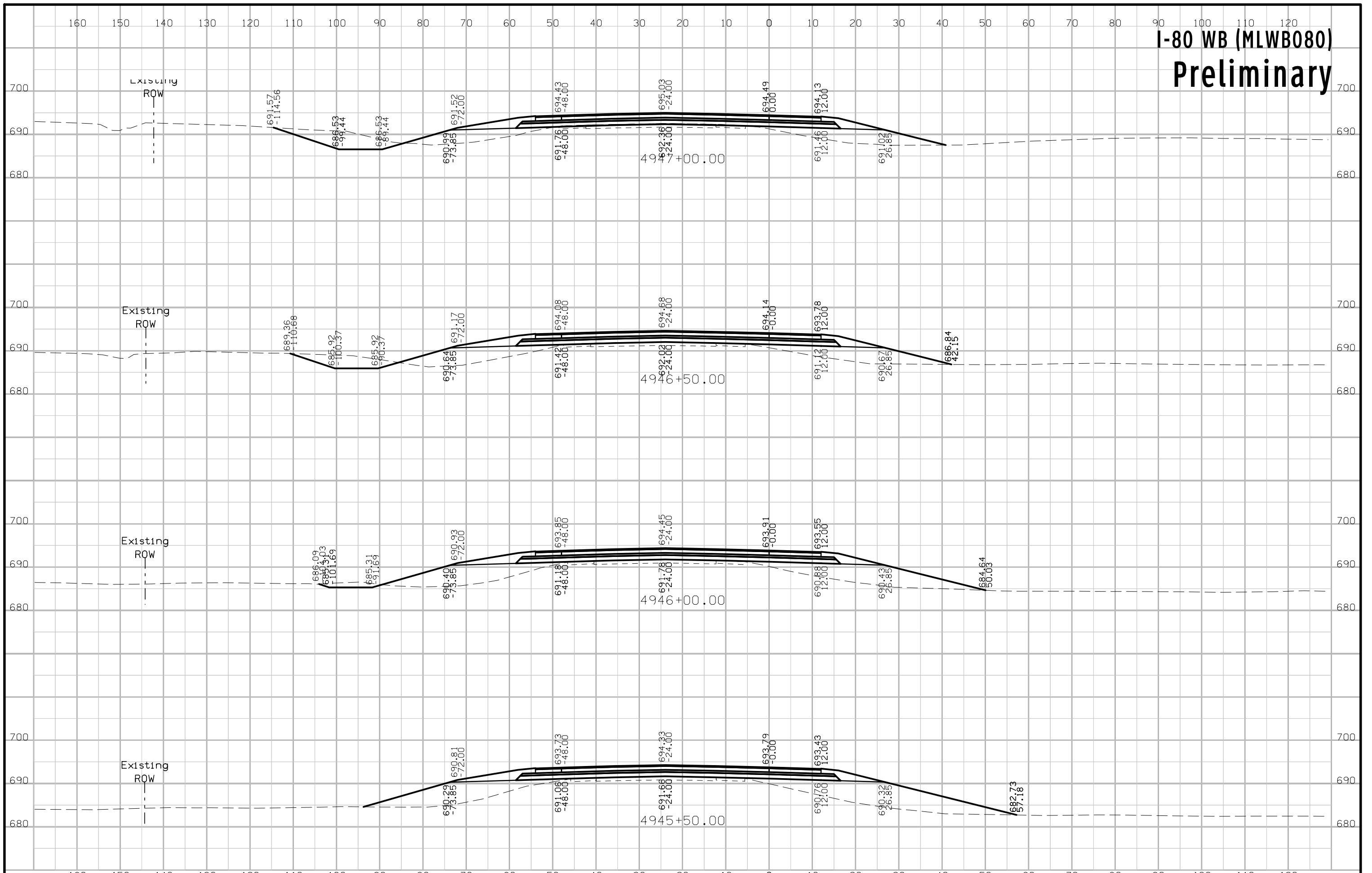
I-80 WB (MLWB080) Preliminary



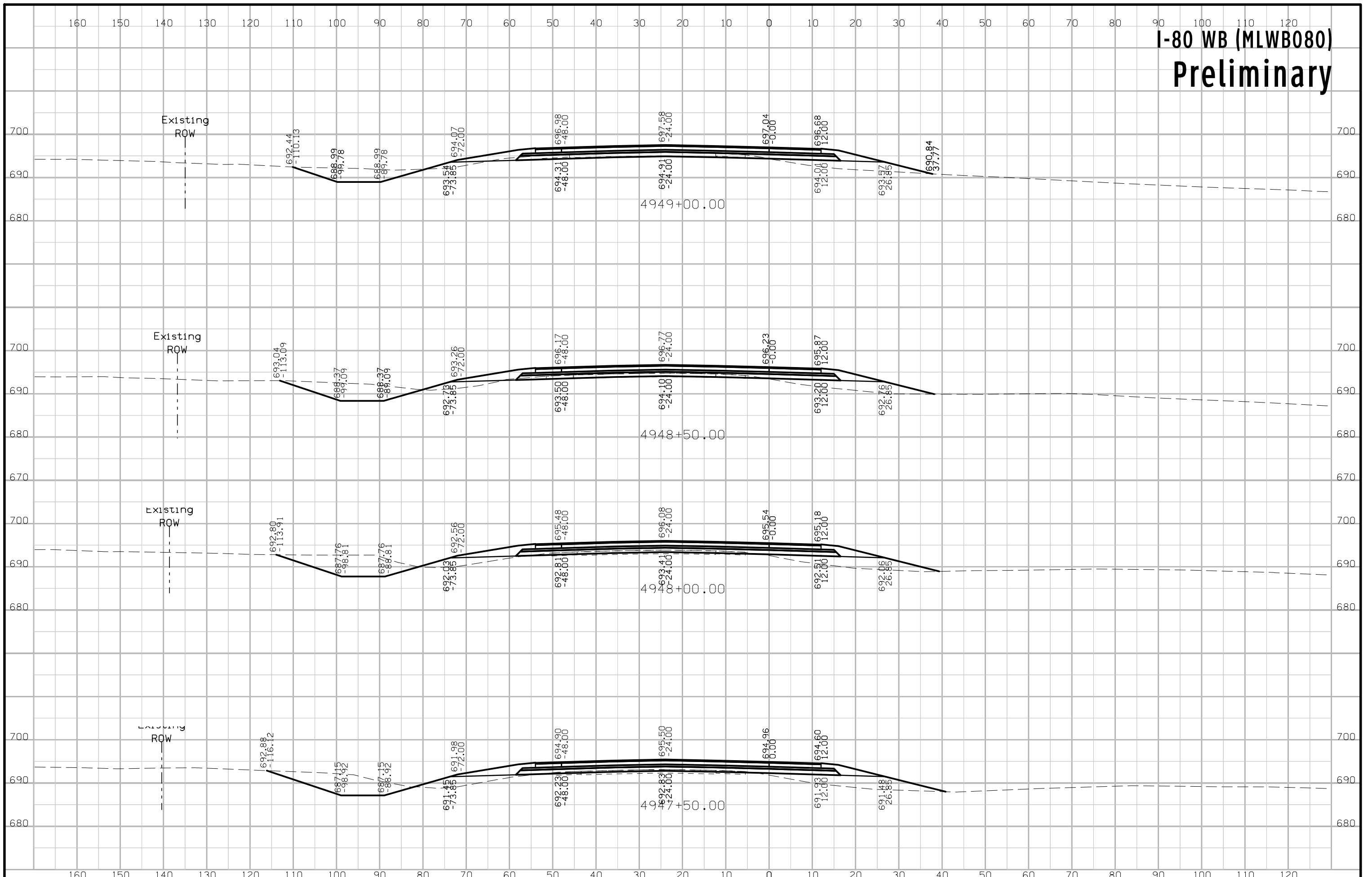
I-80 WB (MLWB080) Preliminary



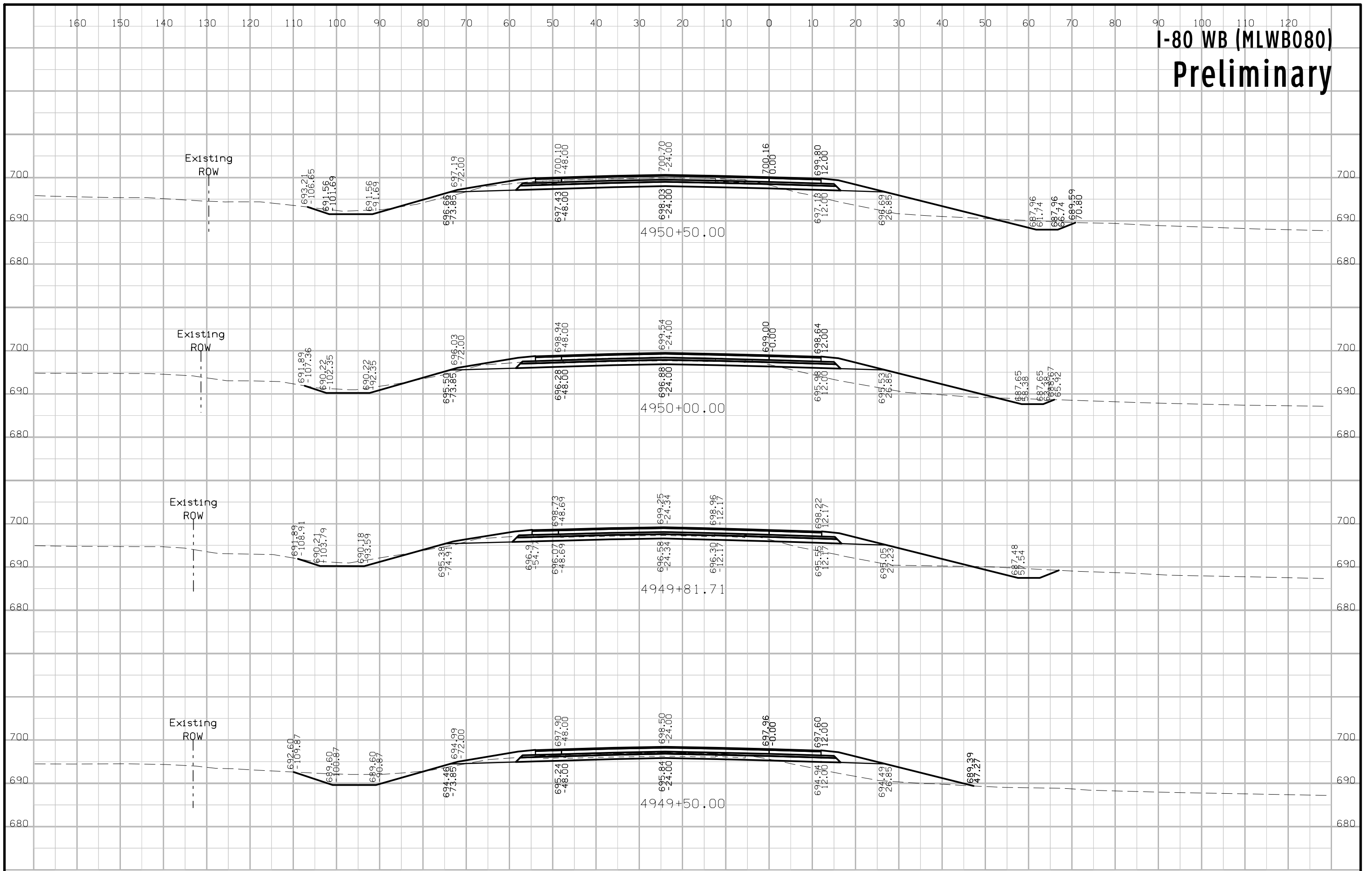
I-80 WB (MLWB080) Preliminary



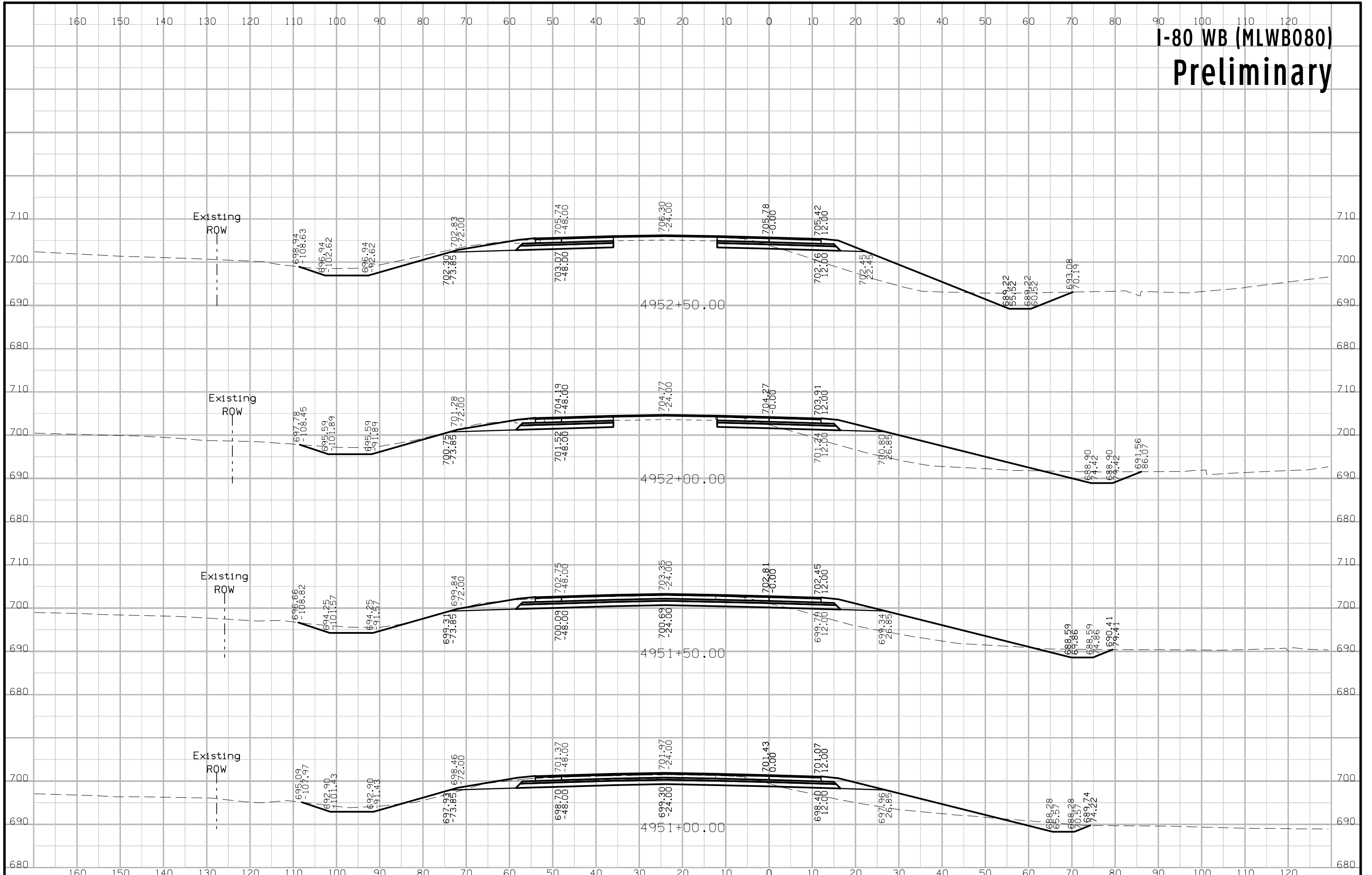
I-80 WB (MLWB080) Preliminary



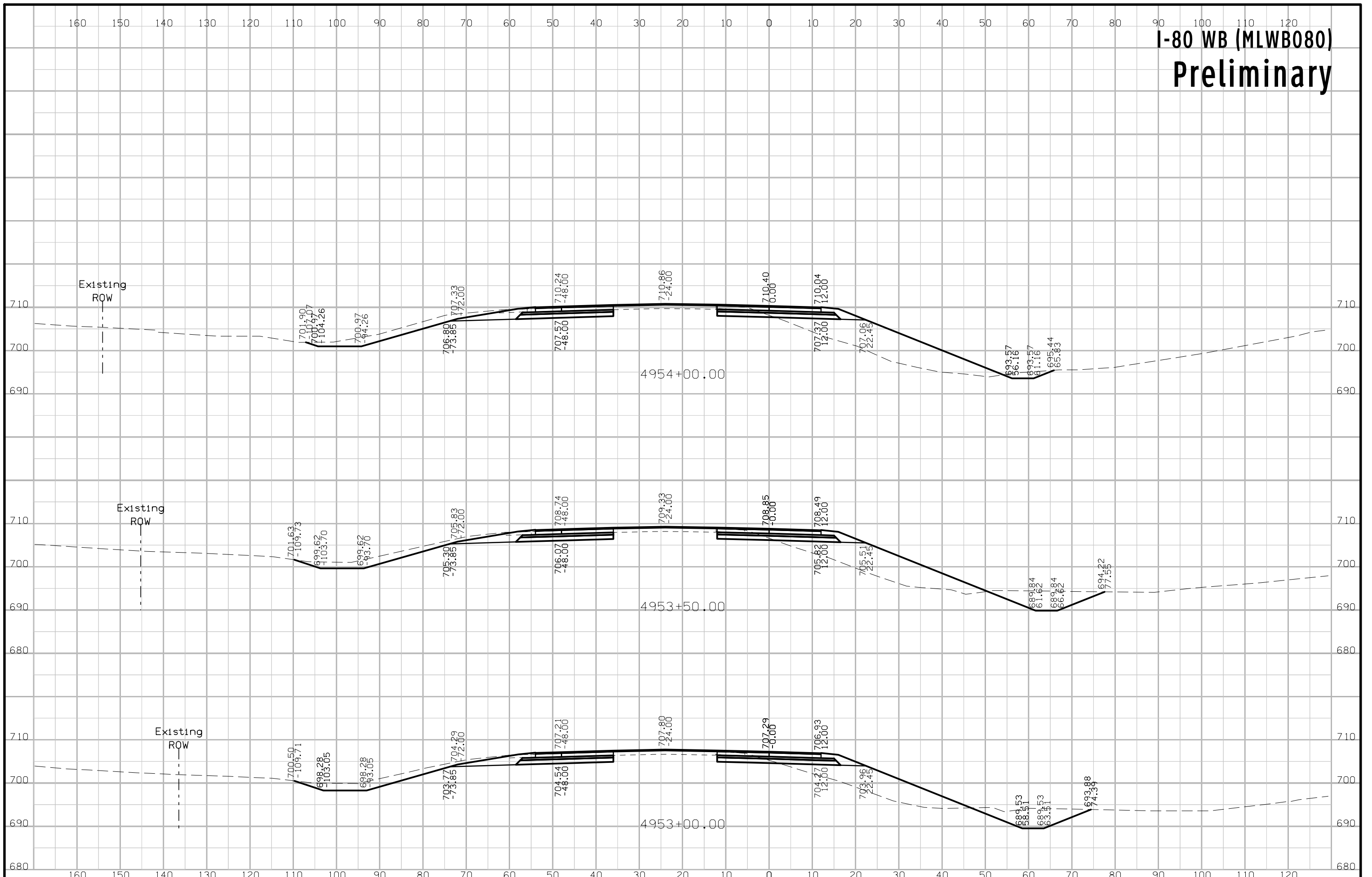
I-80 WB (MLWB080) Preliminary



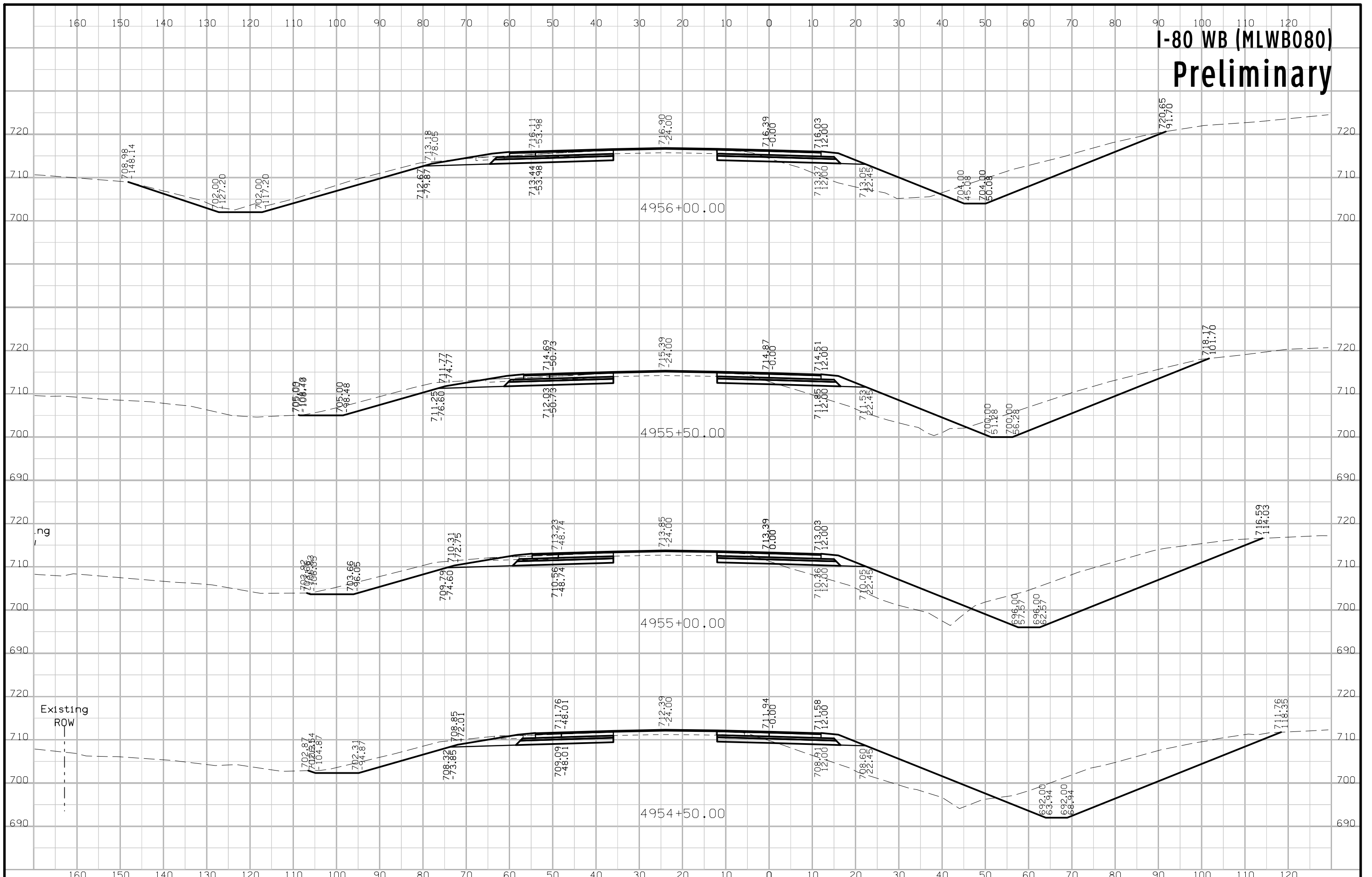
I-80 WB (MLWB080) Preliminary



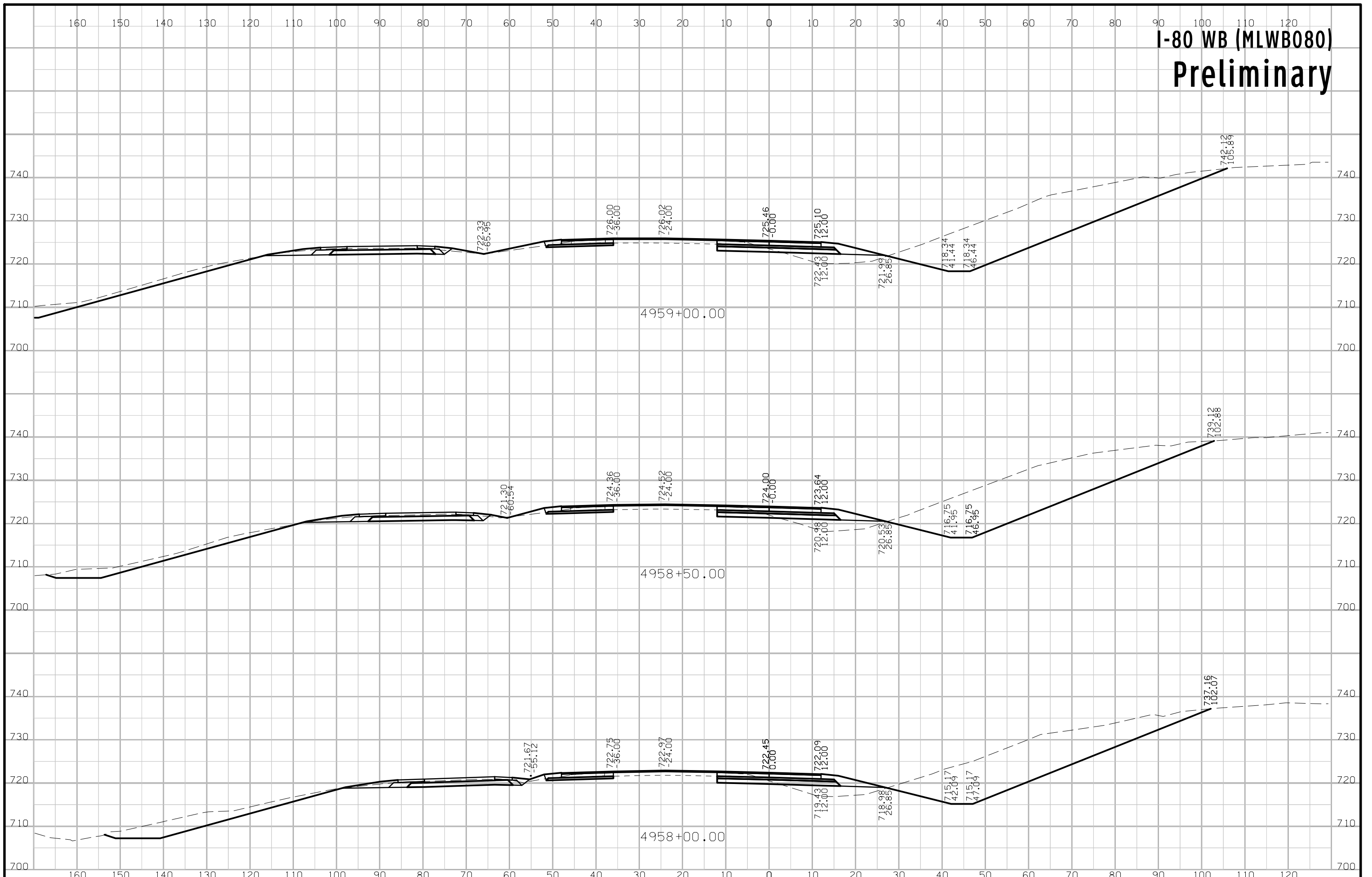
I-80 WB (MLWB080) Preliminary



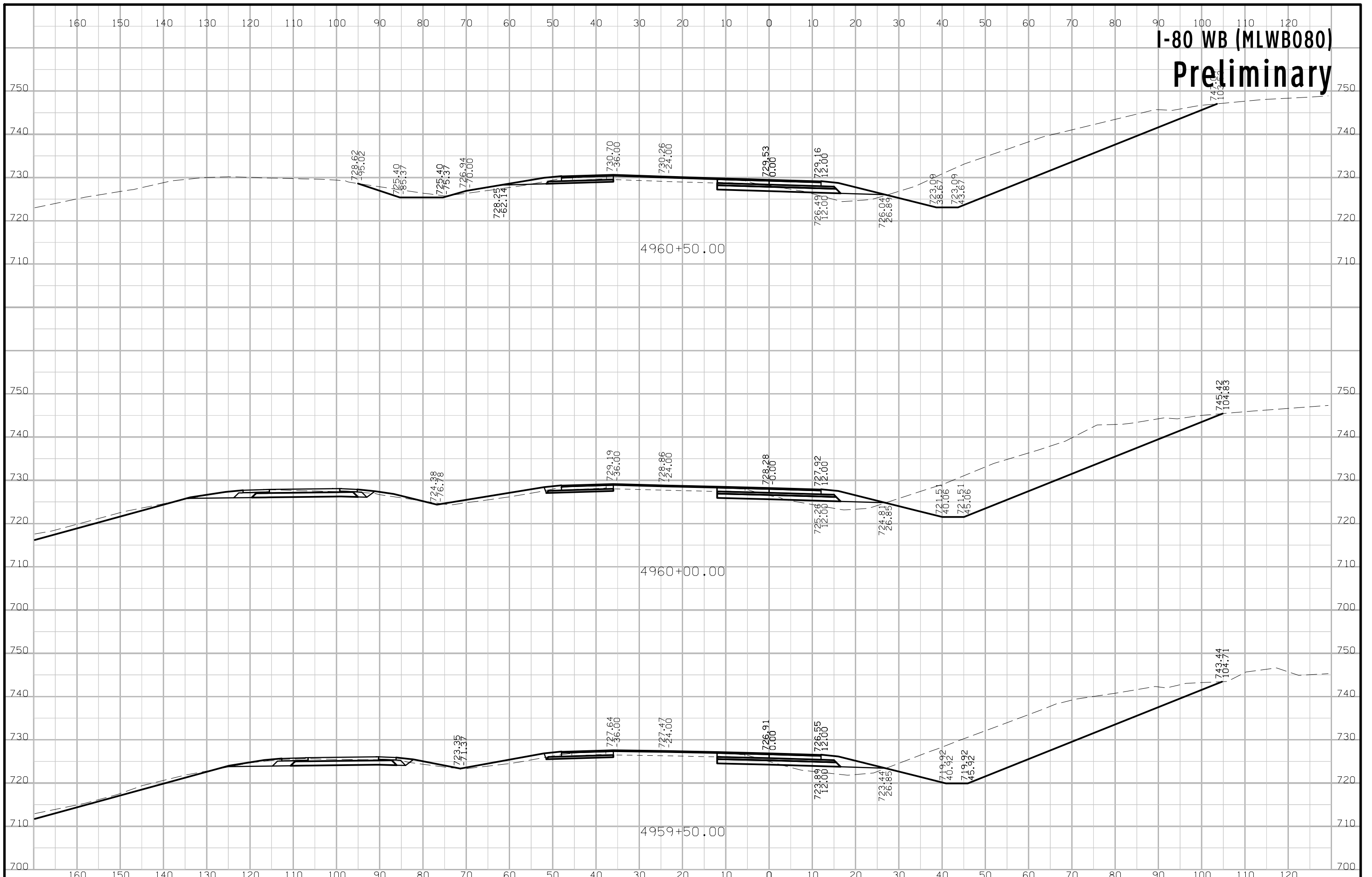
I-80 WB (MLWB080) Preliminary



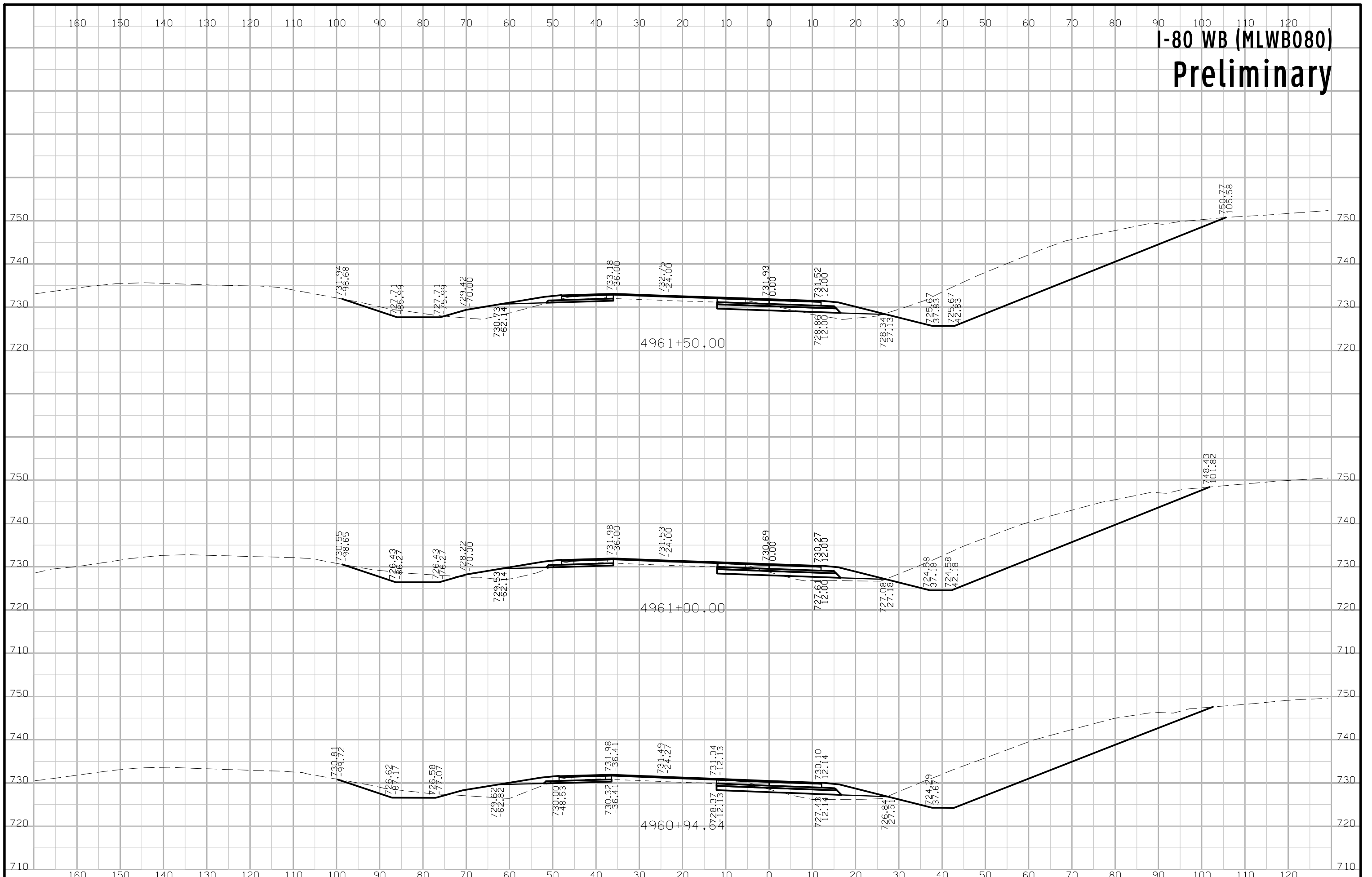
I-80 WB (MLWB080) Preliminary



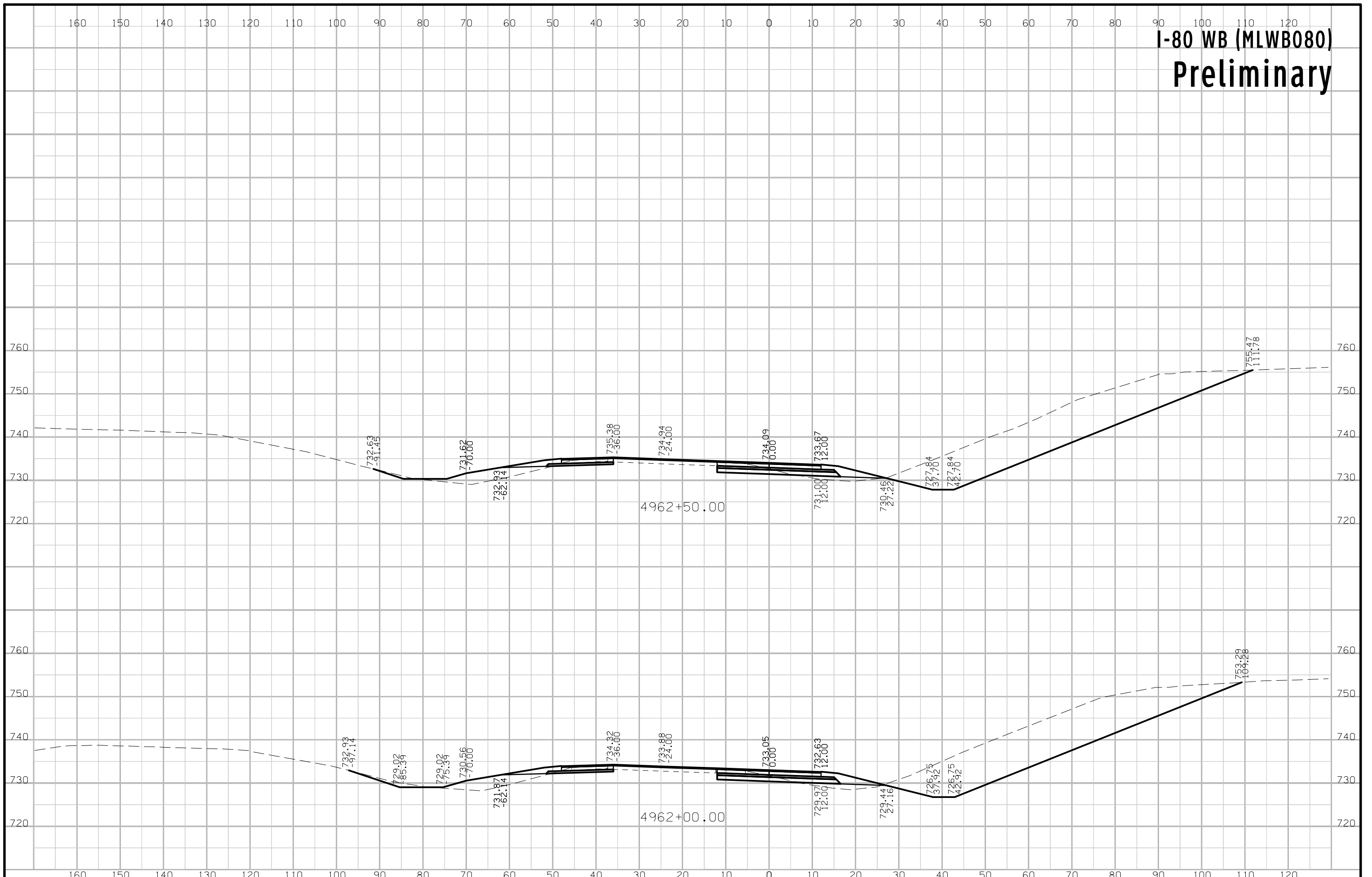
I-80 WB (MLWB080) Preliminary



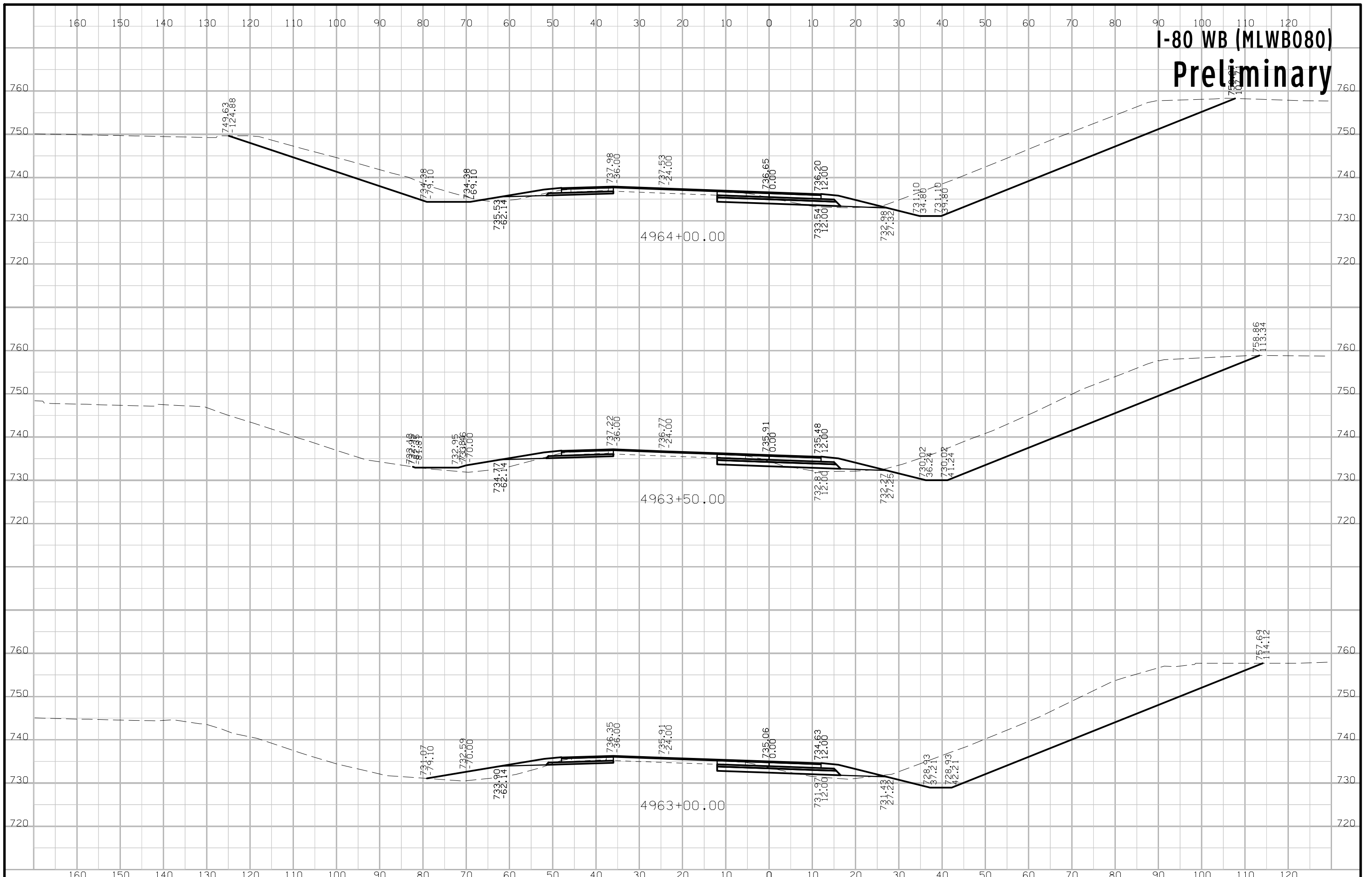
I-80 WB (MLWB080) Preliminary



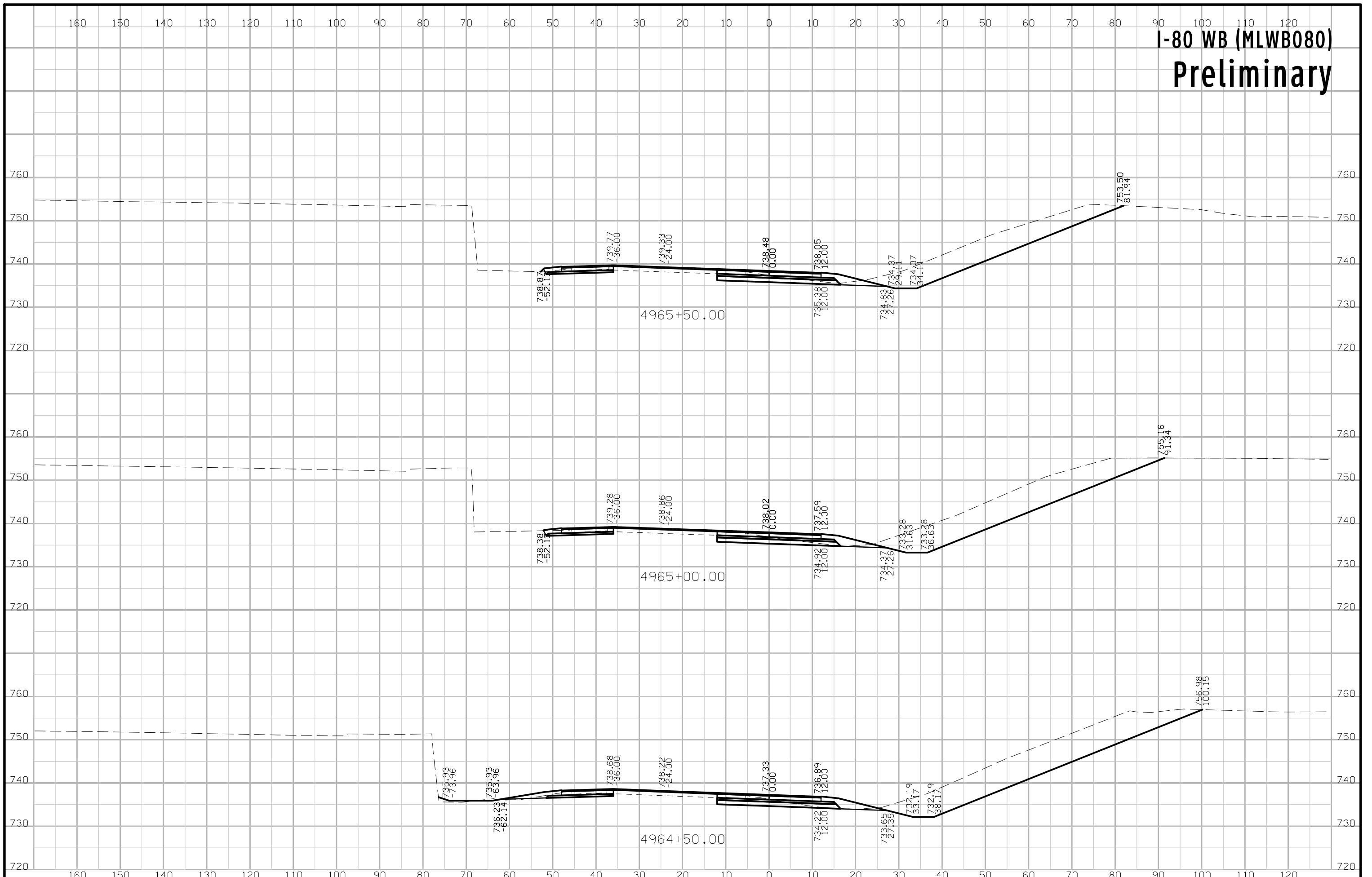
I-80 WB (MLWB080) Preliminary



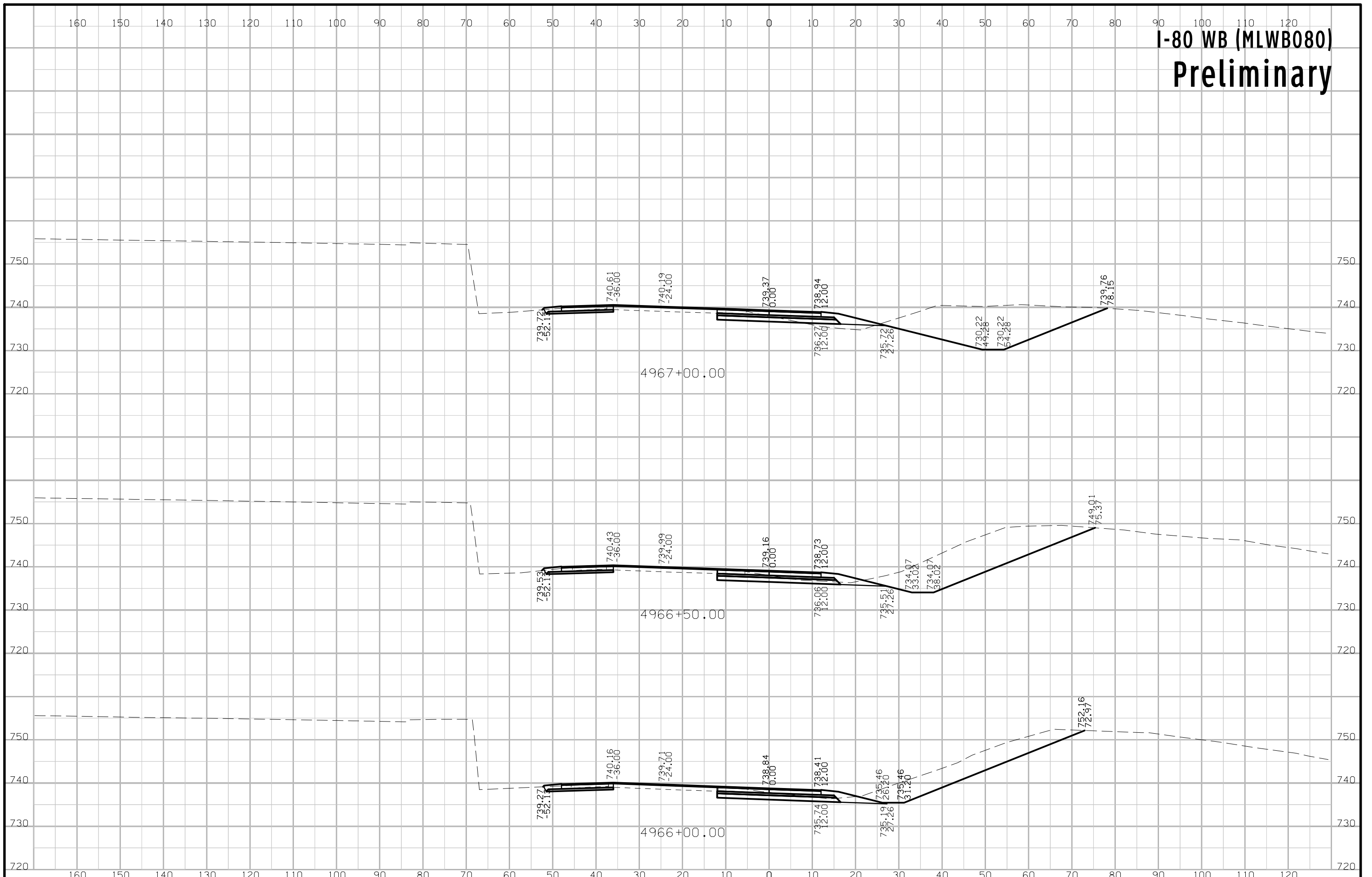
I-80 WB (MLWB080) Preliminary



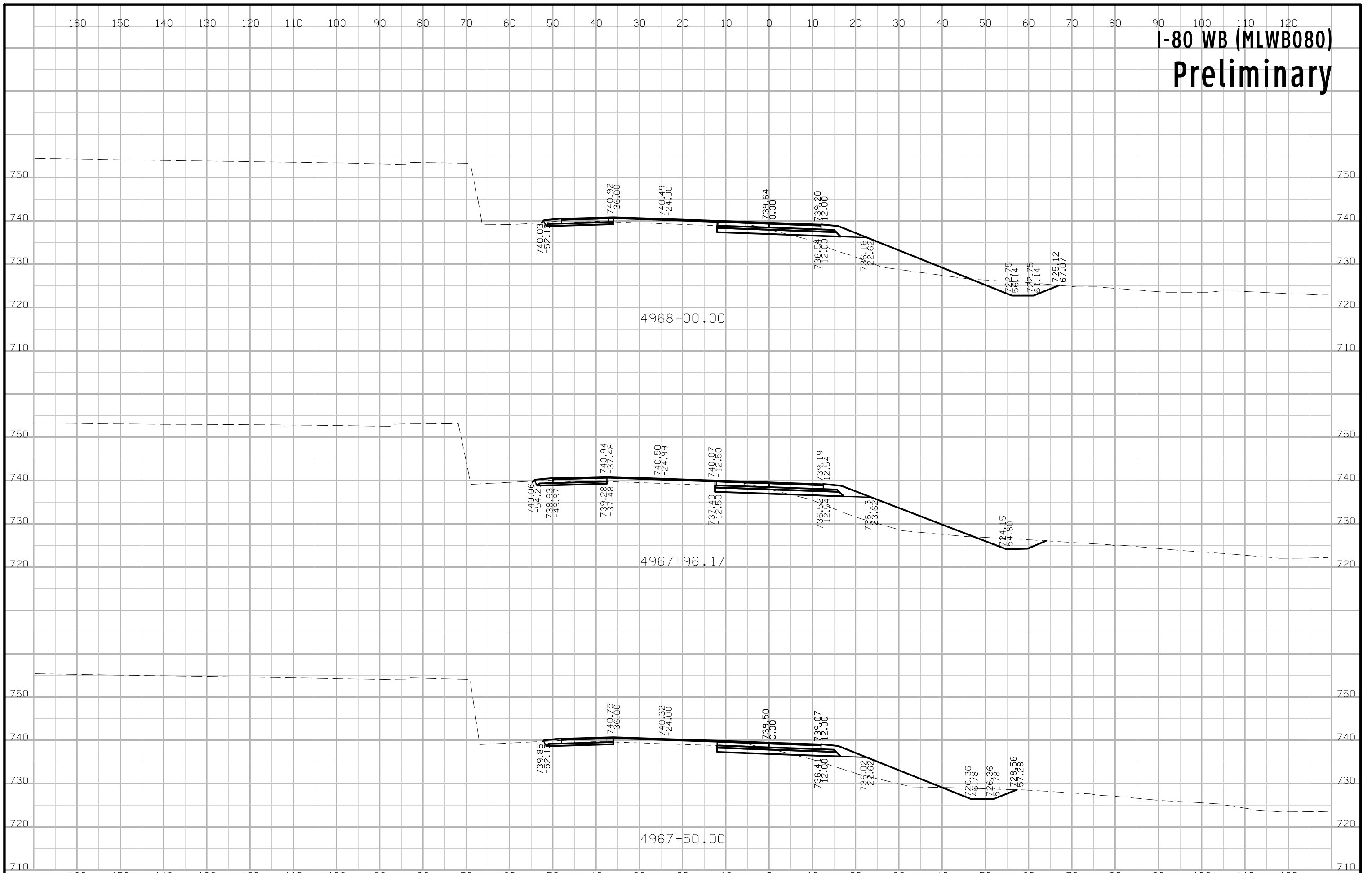
I-80 WB (MLWB080) Preliminary



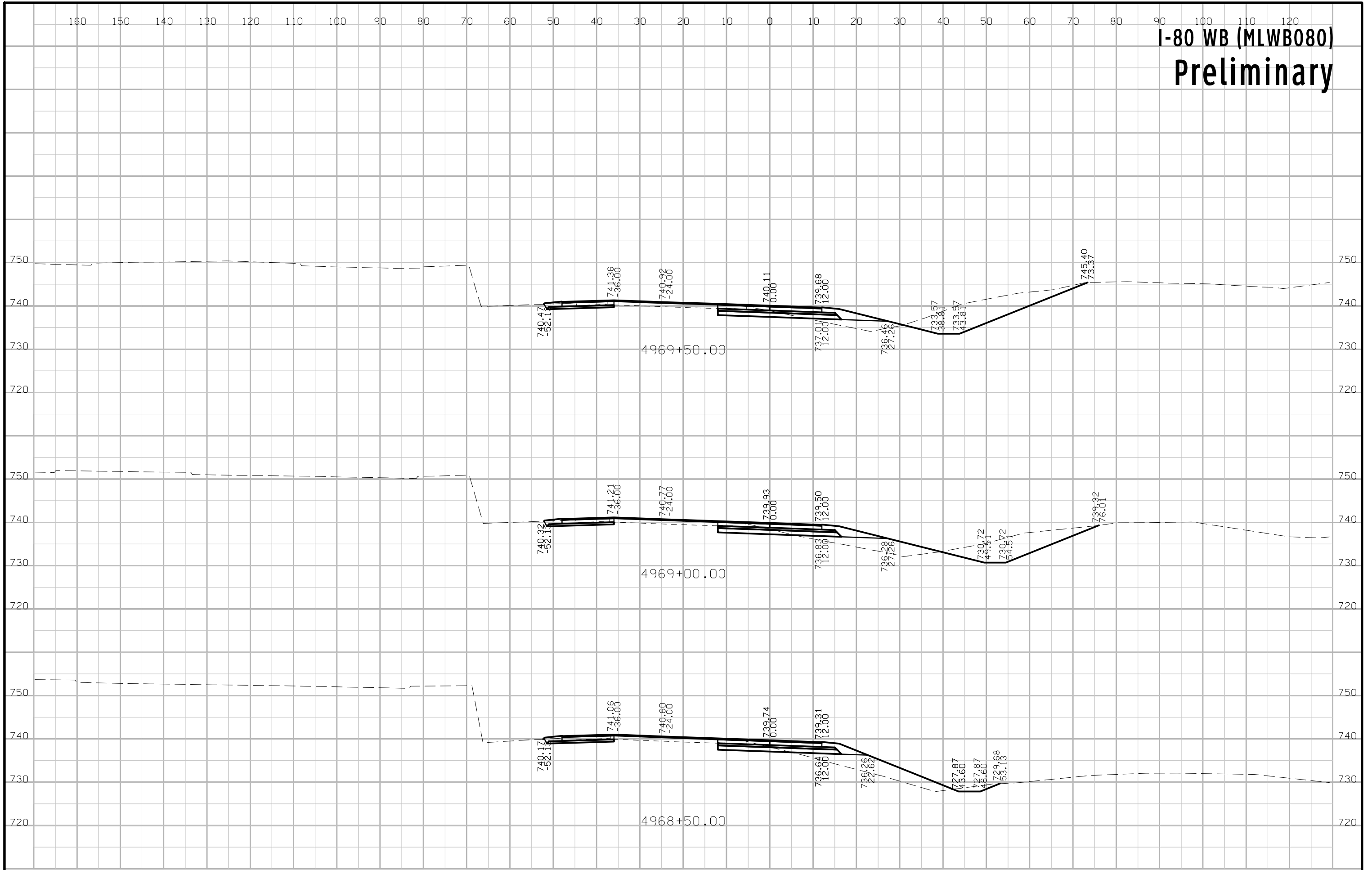
I-80 WB (MLWB080) Preliminary



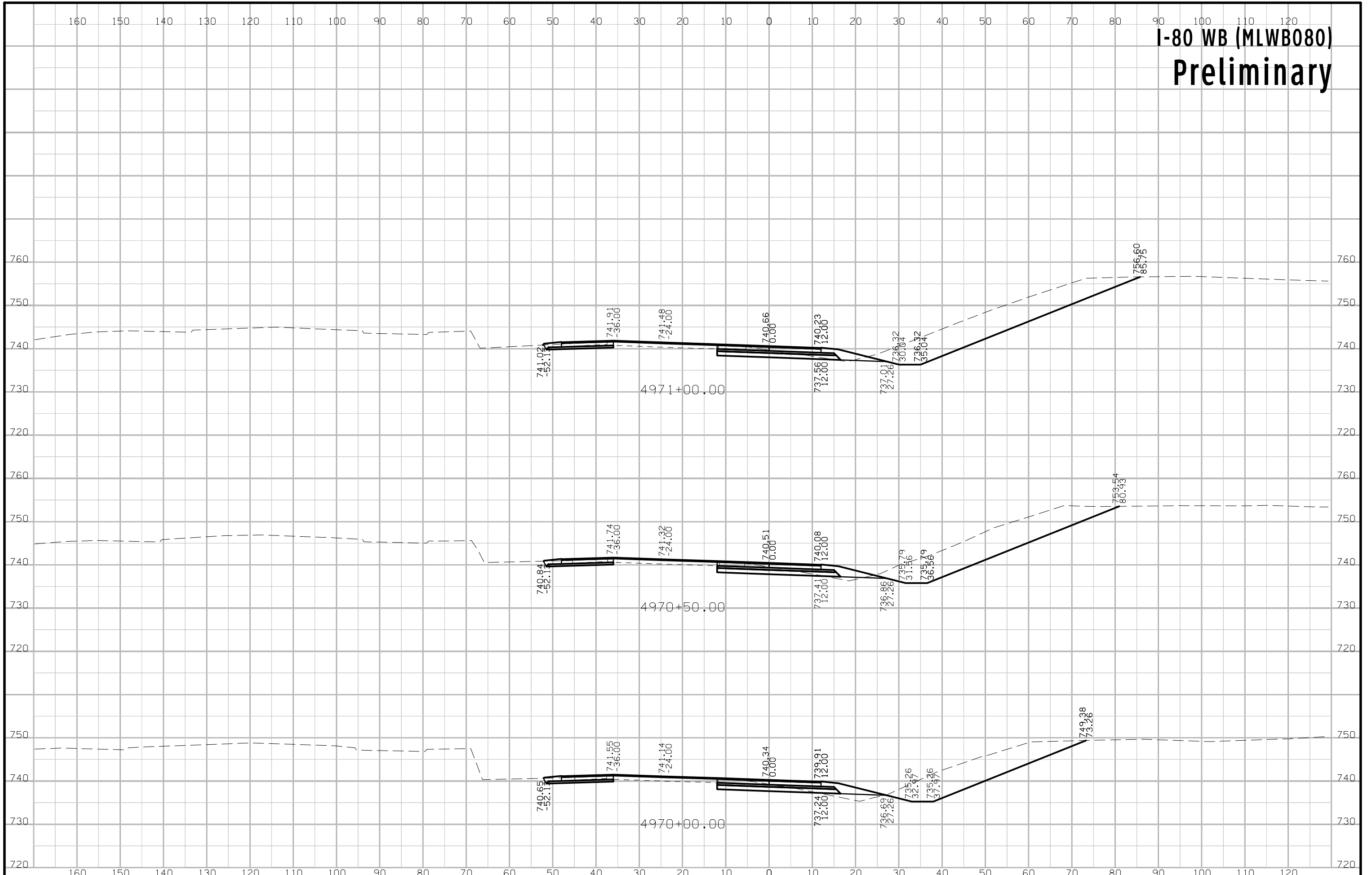
I-80 WB (MLWB080) Preliminary



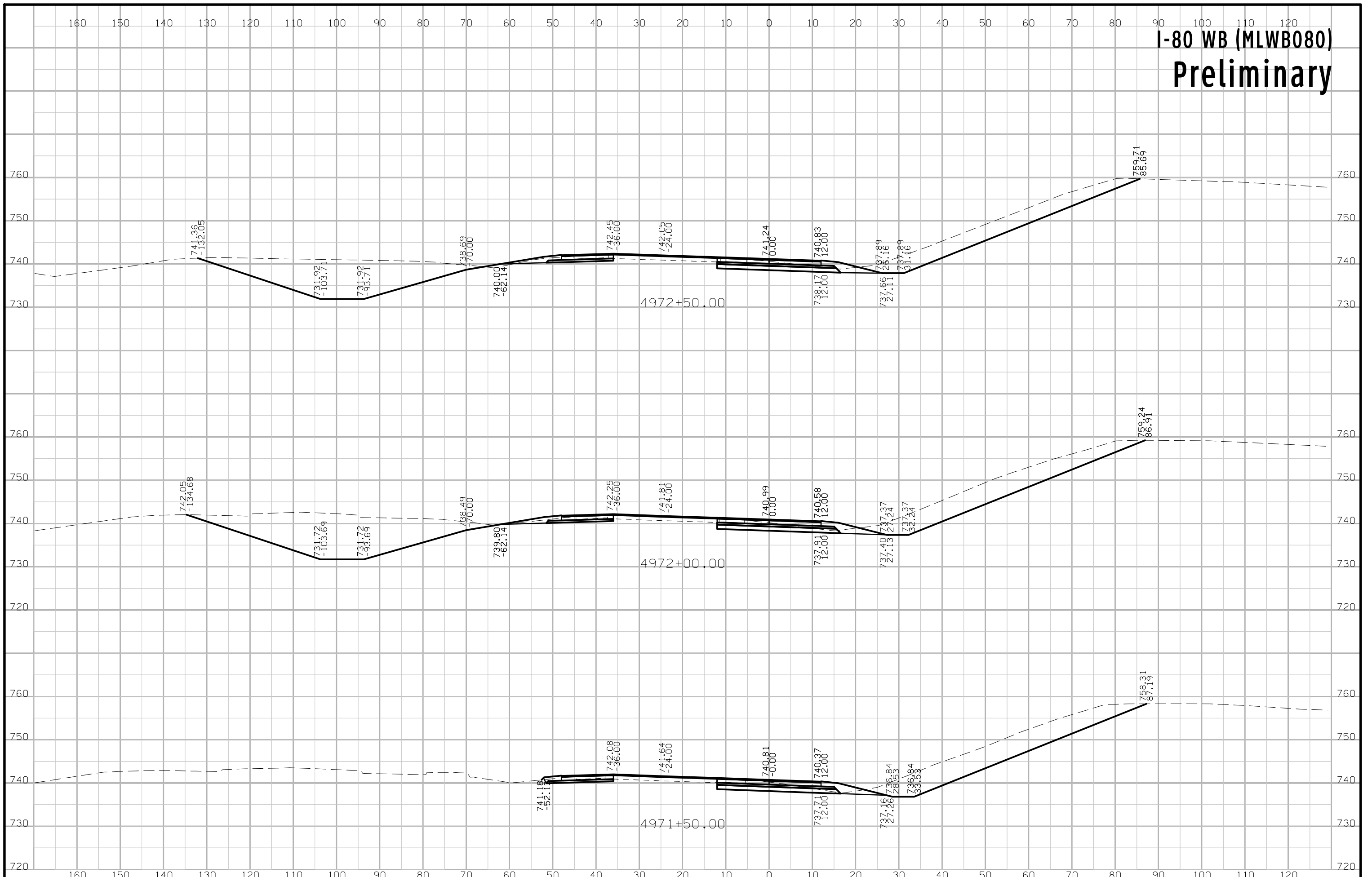
I-80 WB (MLWB080) Preliminary



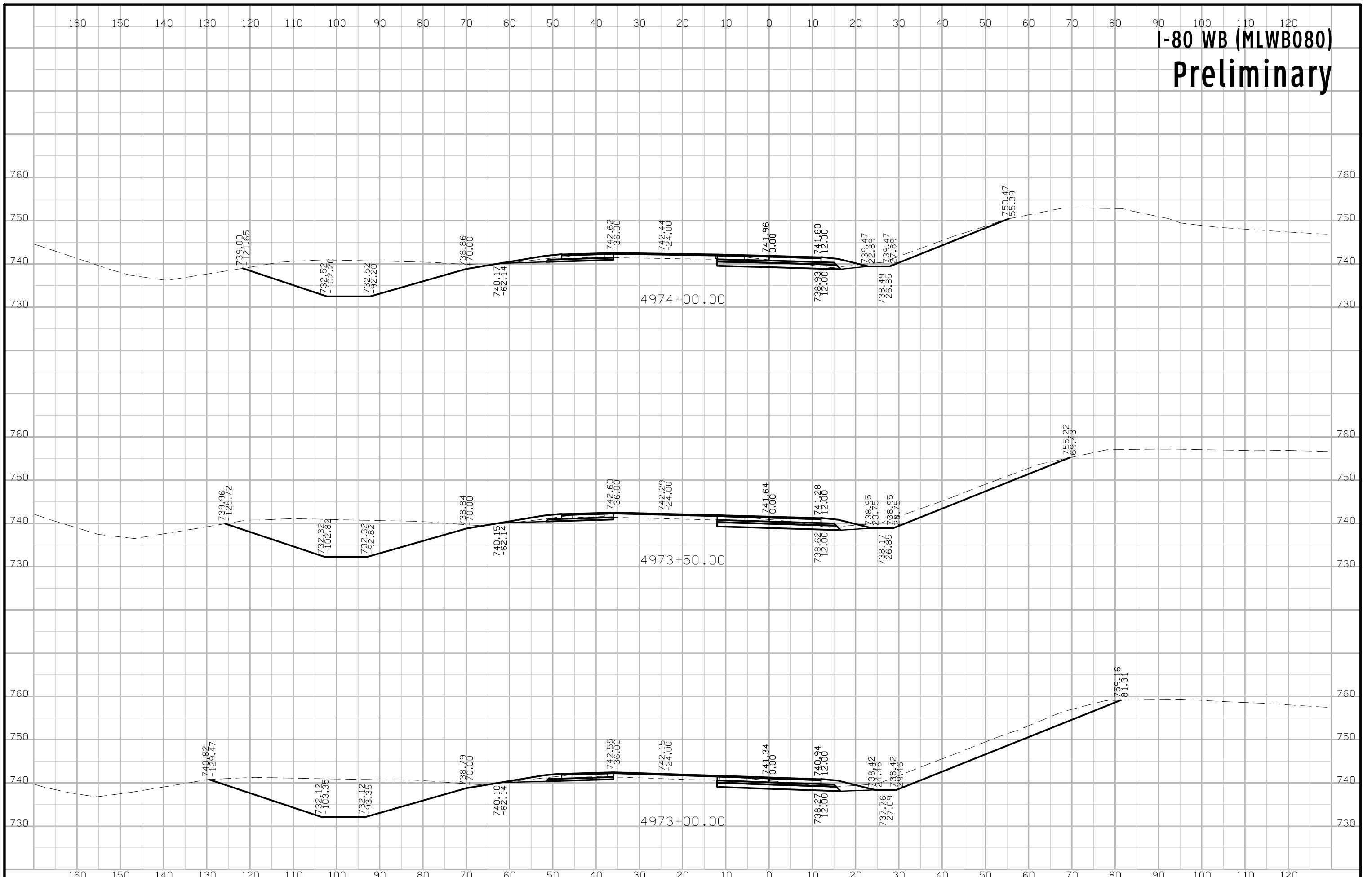
I-80 WB (MLWB080) Preliminary



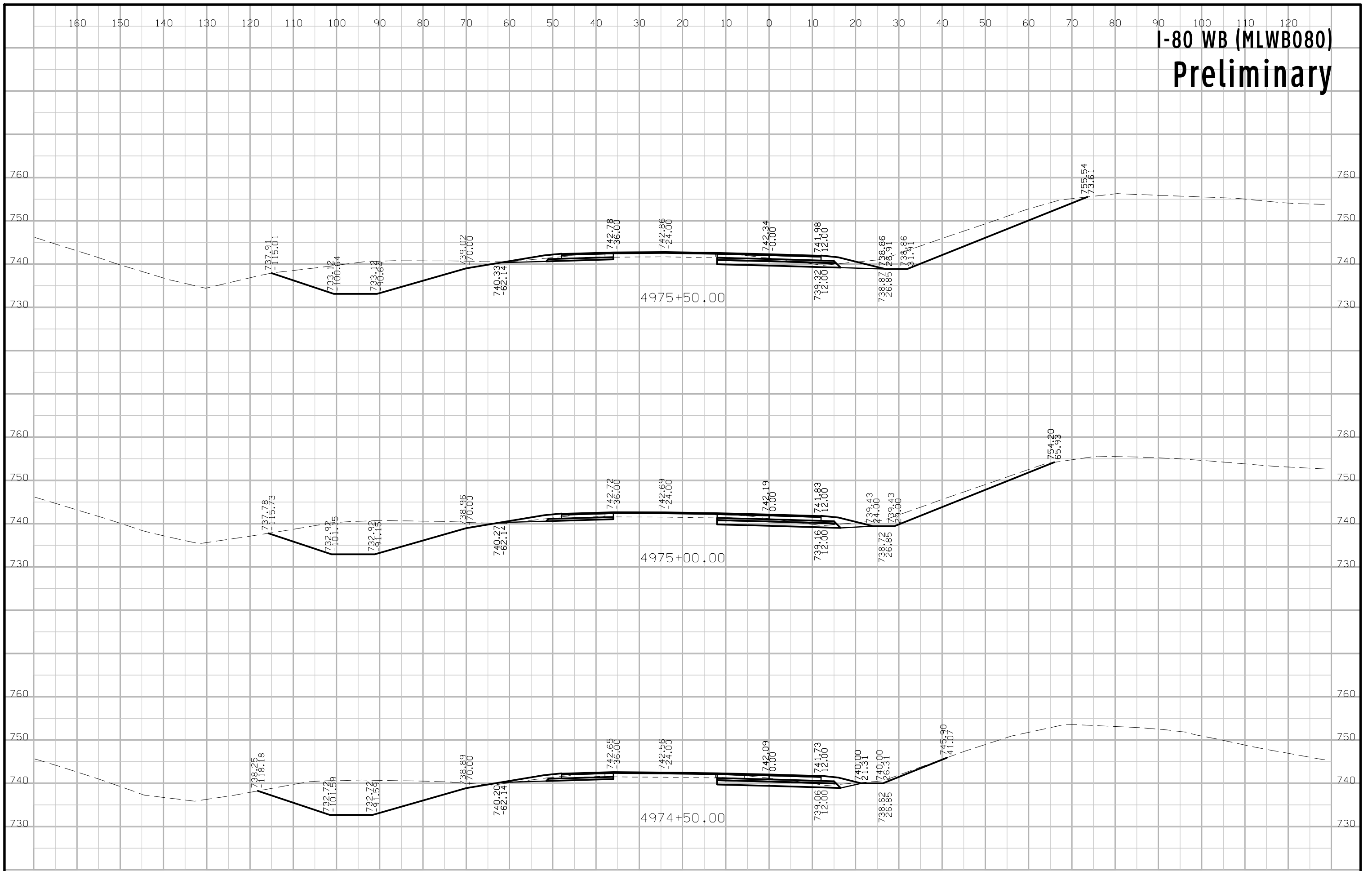
I-80 WB (MLWB080) Preliminary



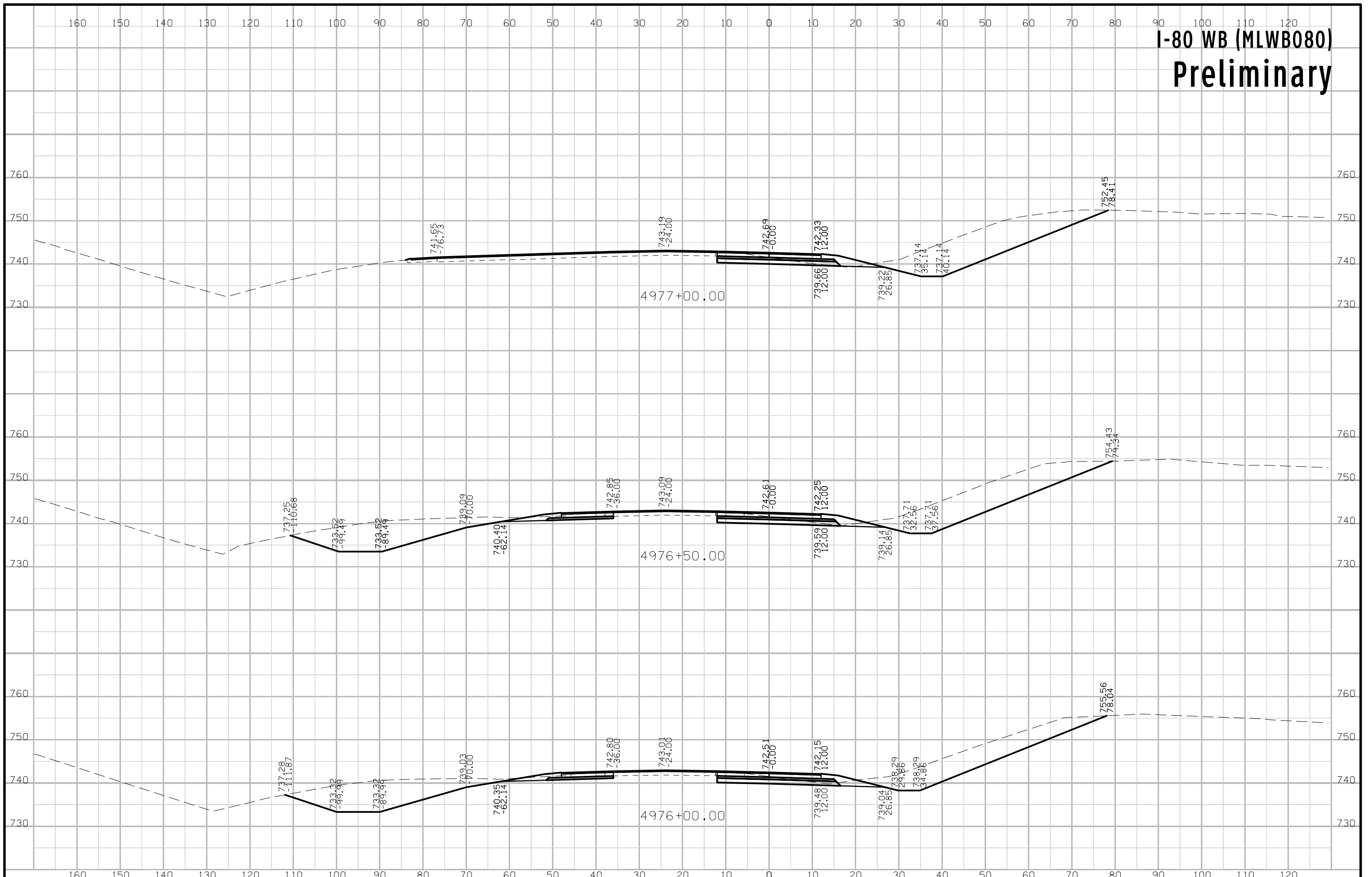
I-80 WB (MLWB080) Preliminary



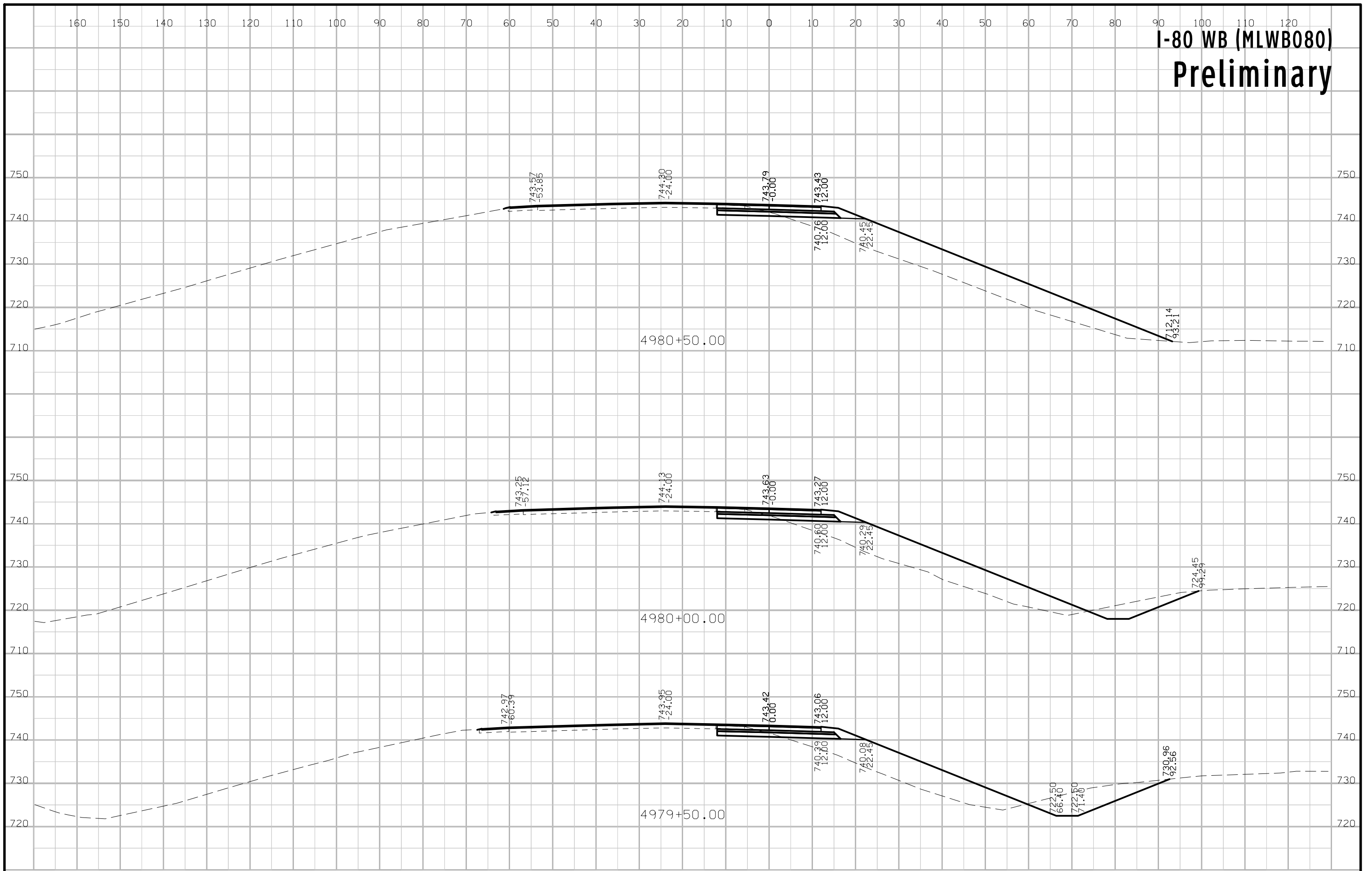
I-80 WB (MLWB080) Preliminary



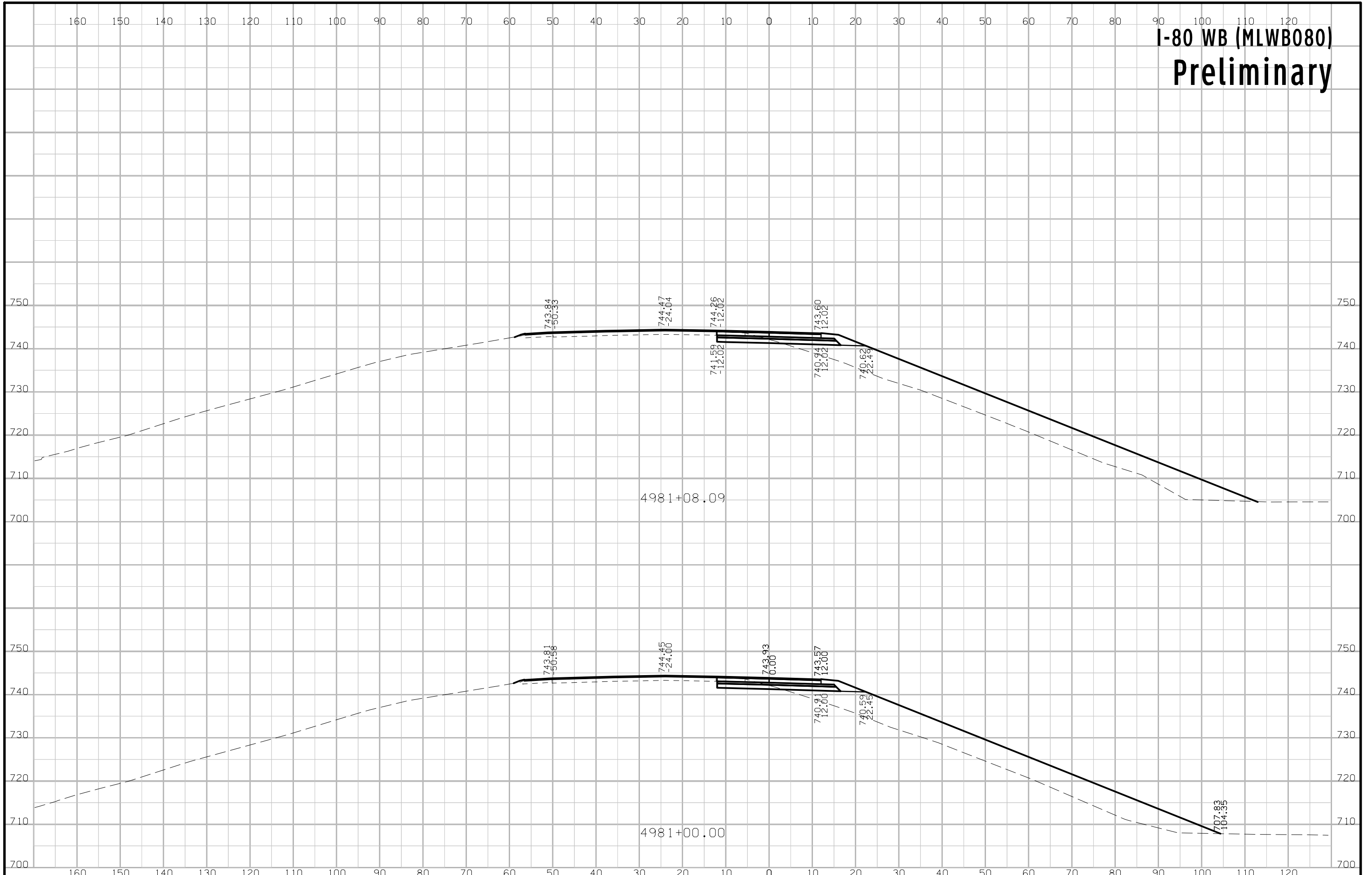
I-80 WB (MLWB080) Preliminary



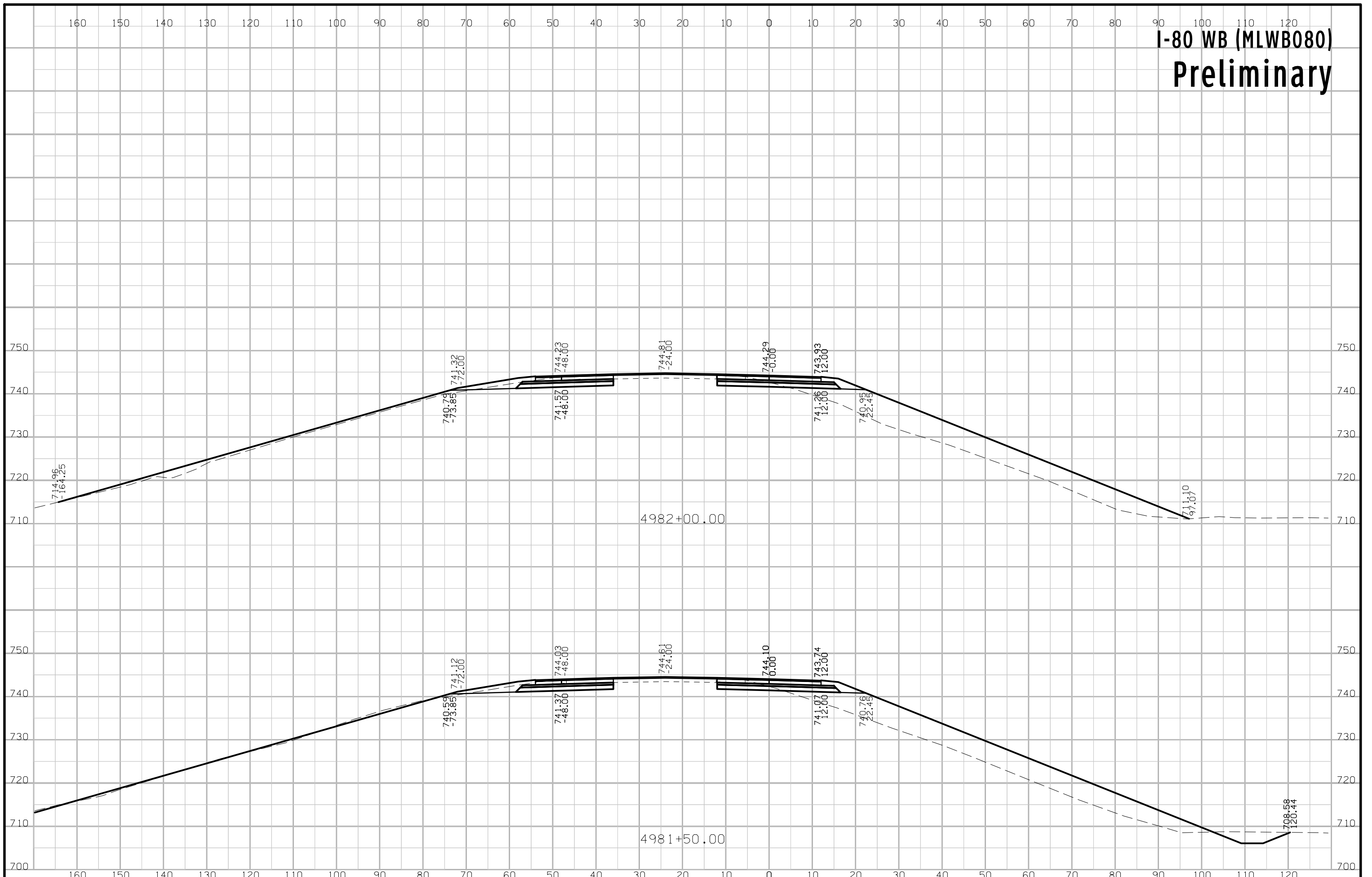
I-80 WB (MLWB080) Preliminary



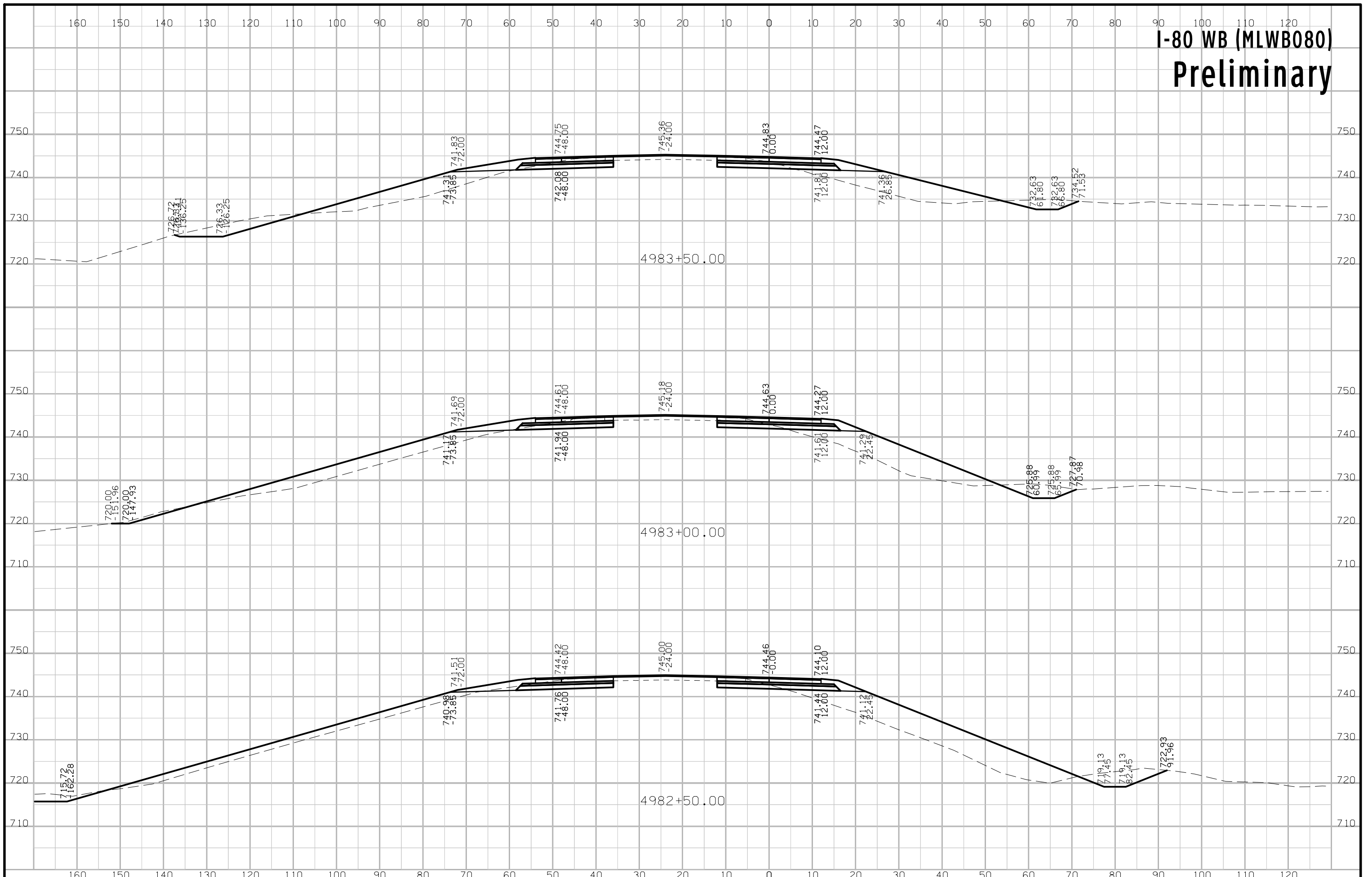
I-80 WB (MLWB080) Preliminary



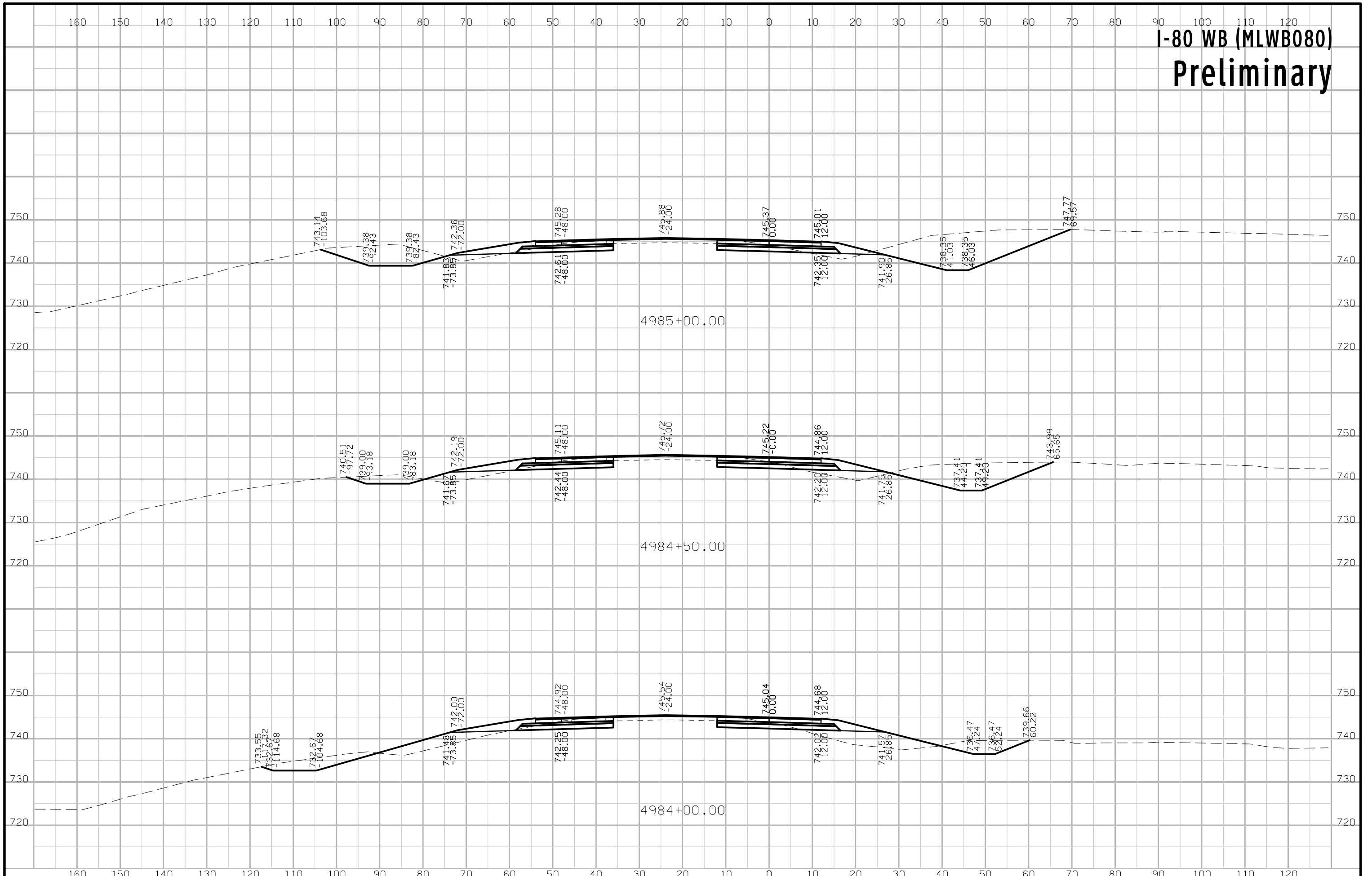
I-80 WB (MLWB080) Preliminary



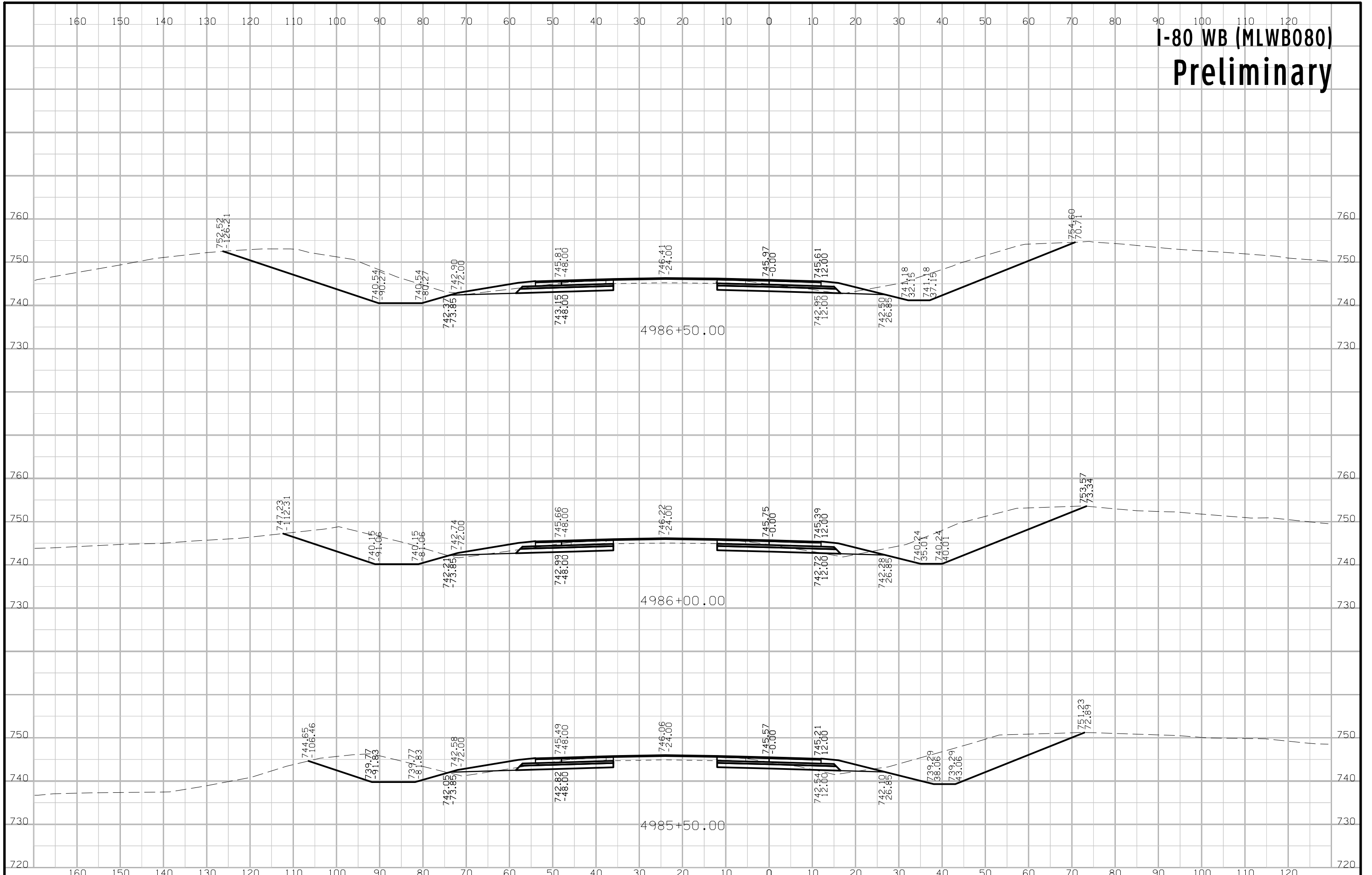
I-80 WB (MLWB080) Preliminary



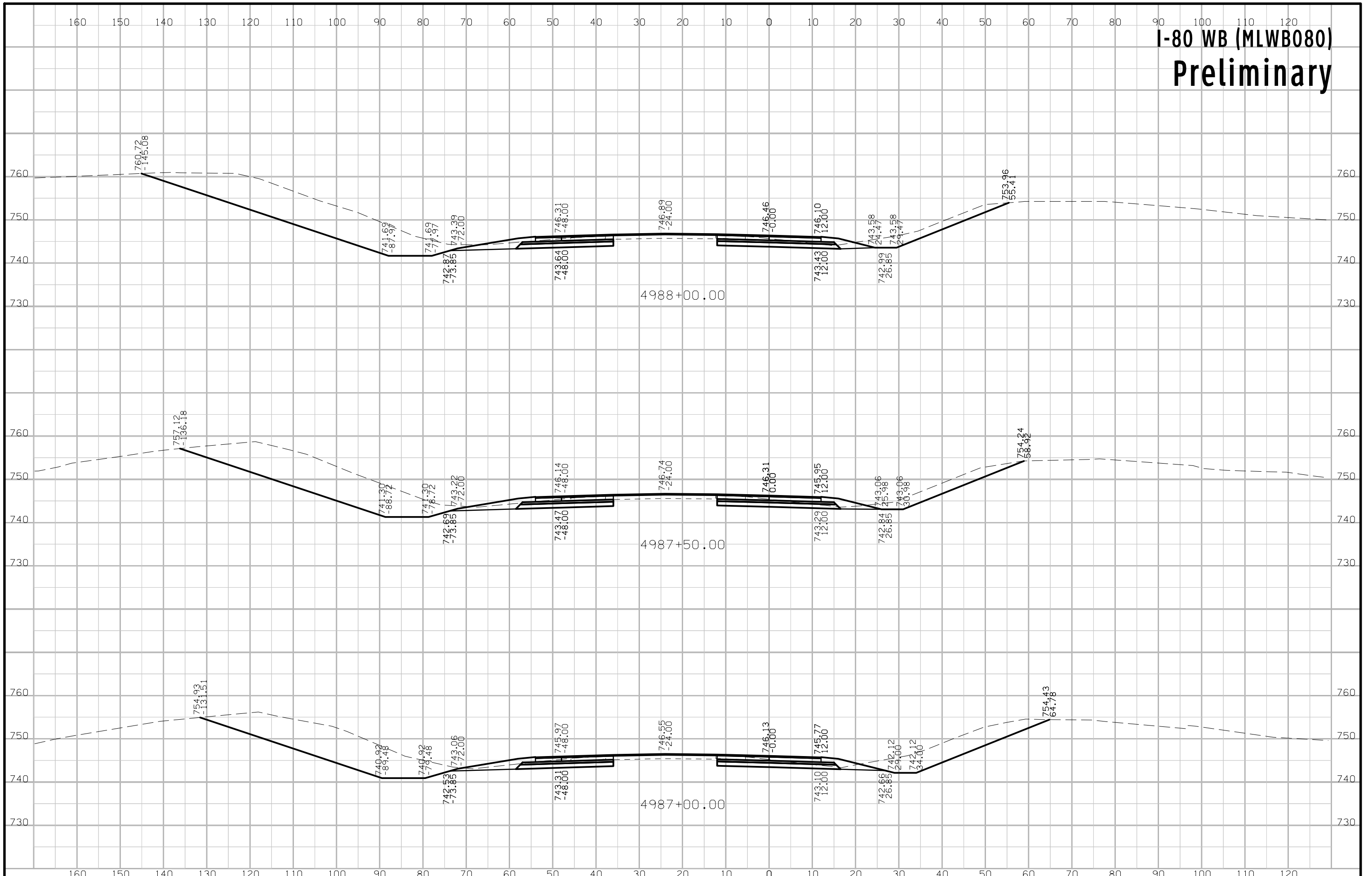
I-80 WB (MLWB080) Preliminary



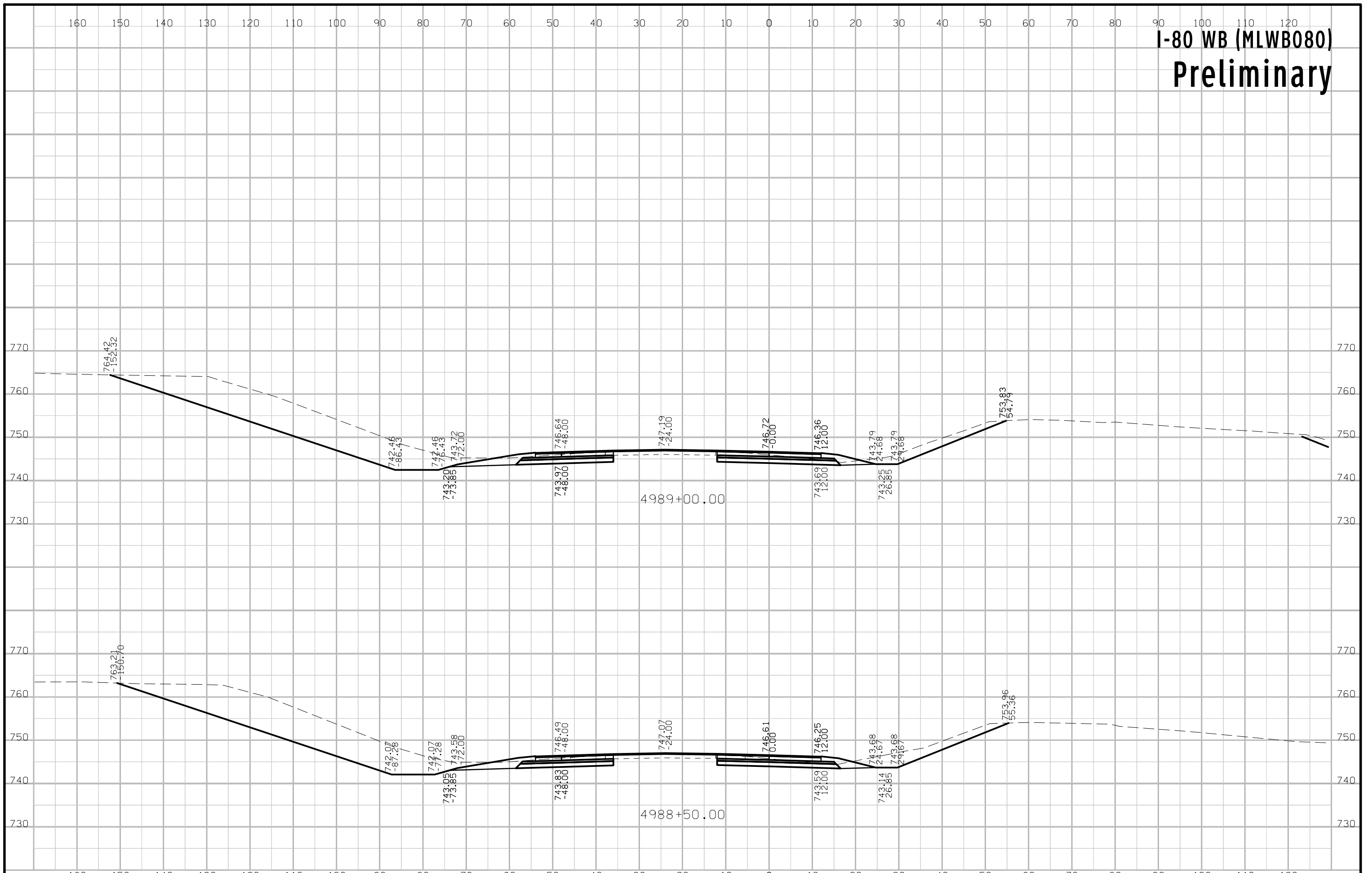
I-80 WB (MLWB080) Preliminary



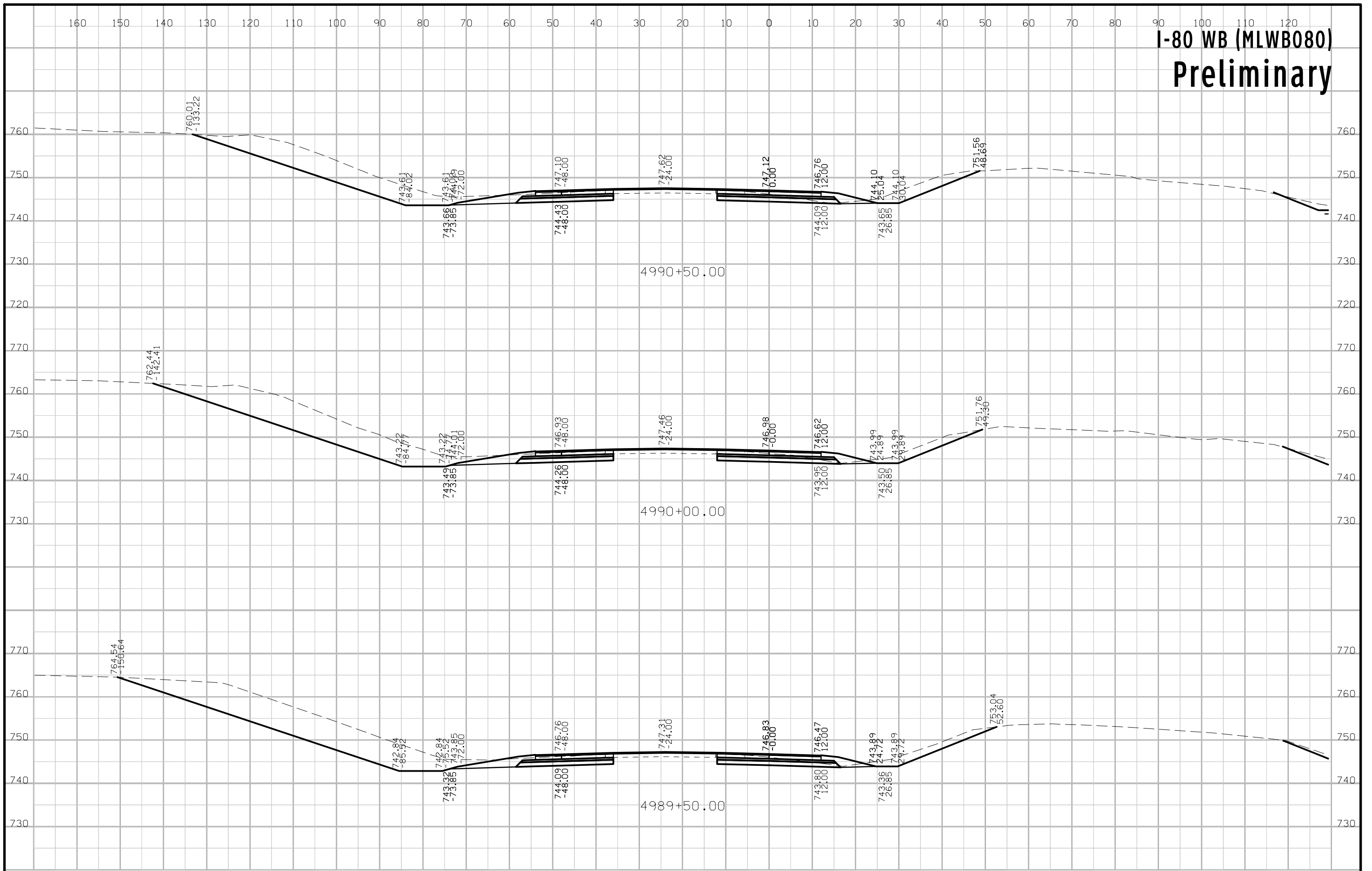
I-80 WB (MLWB080) Preliminary



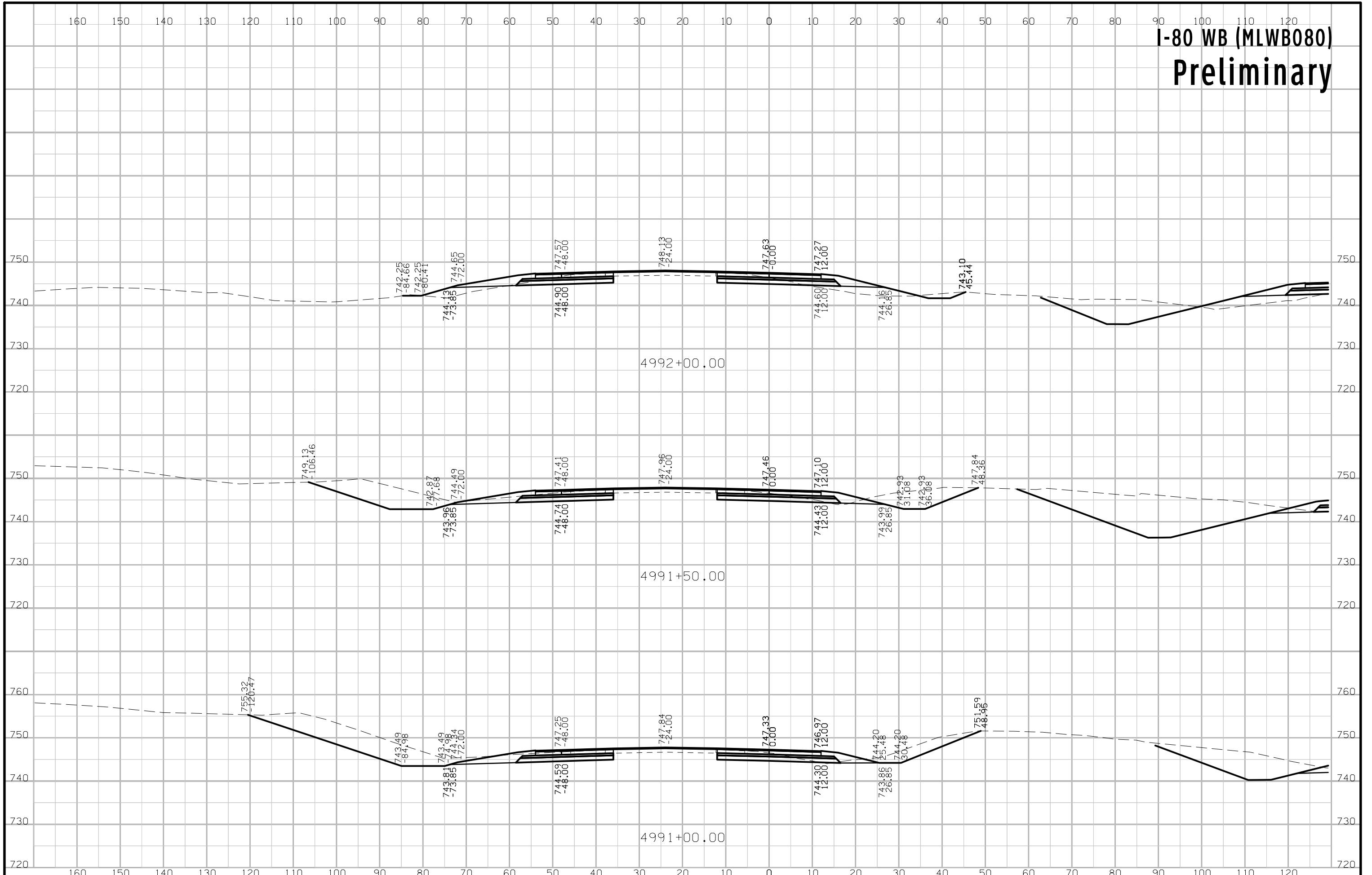
I-80 WB (MLWB080) Preliminary



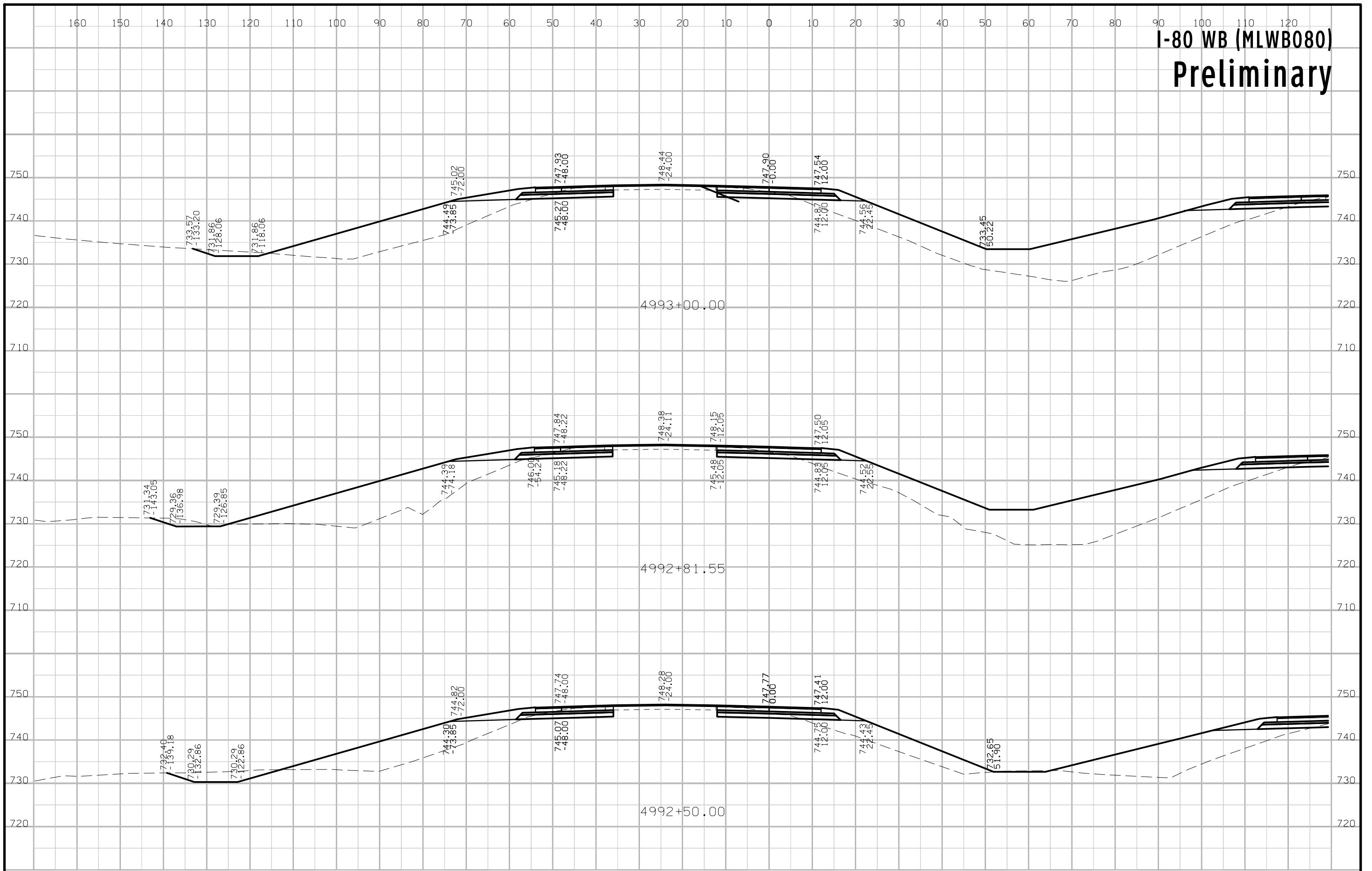
I-80 WB (MLWB080) Preliminary



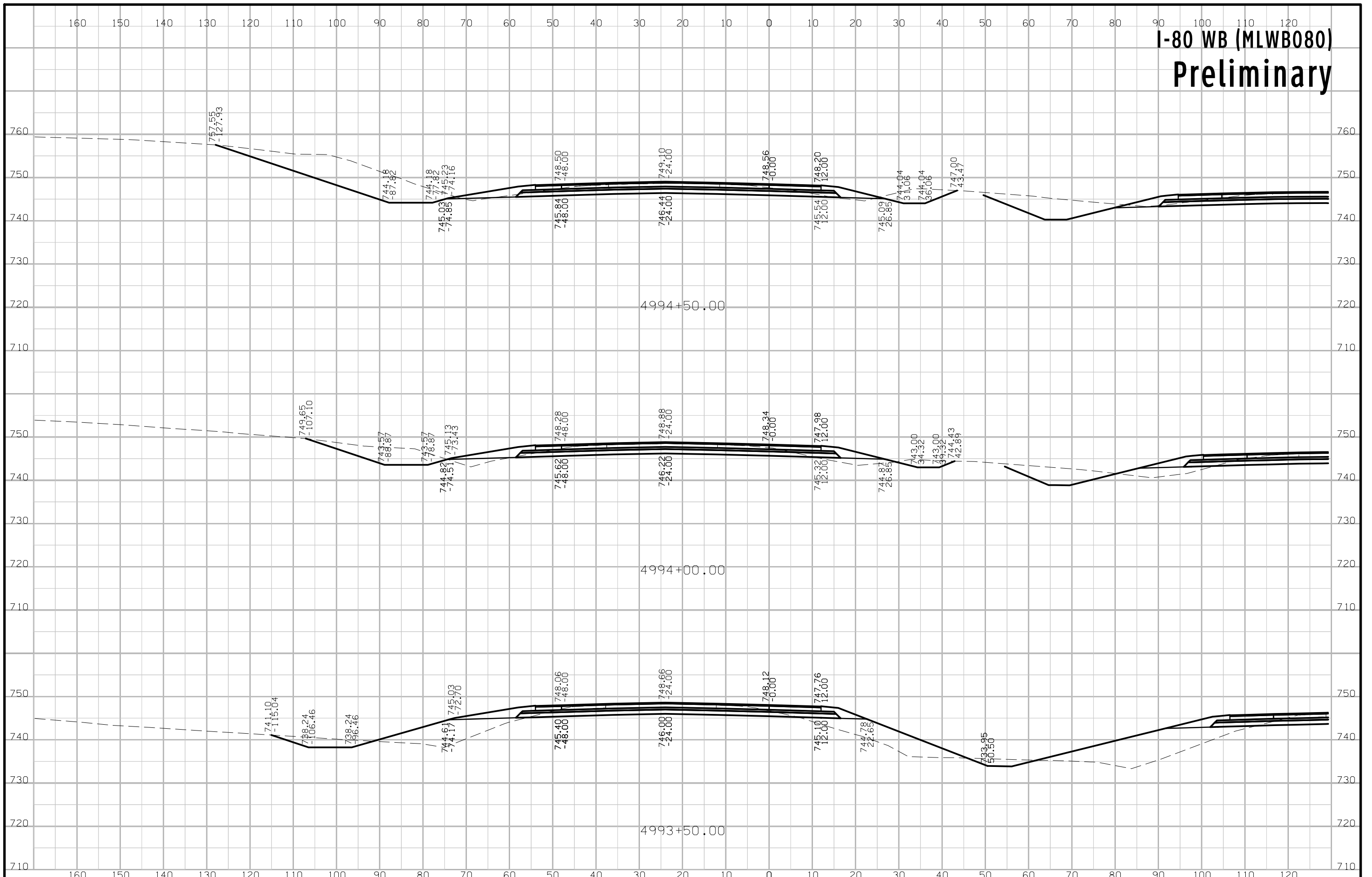
I-80 WB (MLWB080) Preliminary



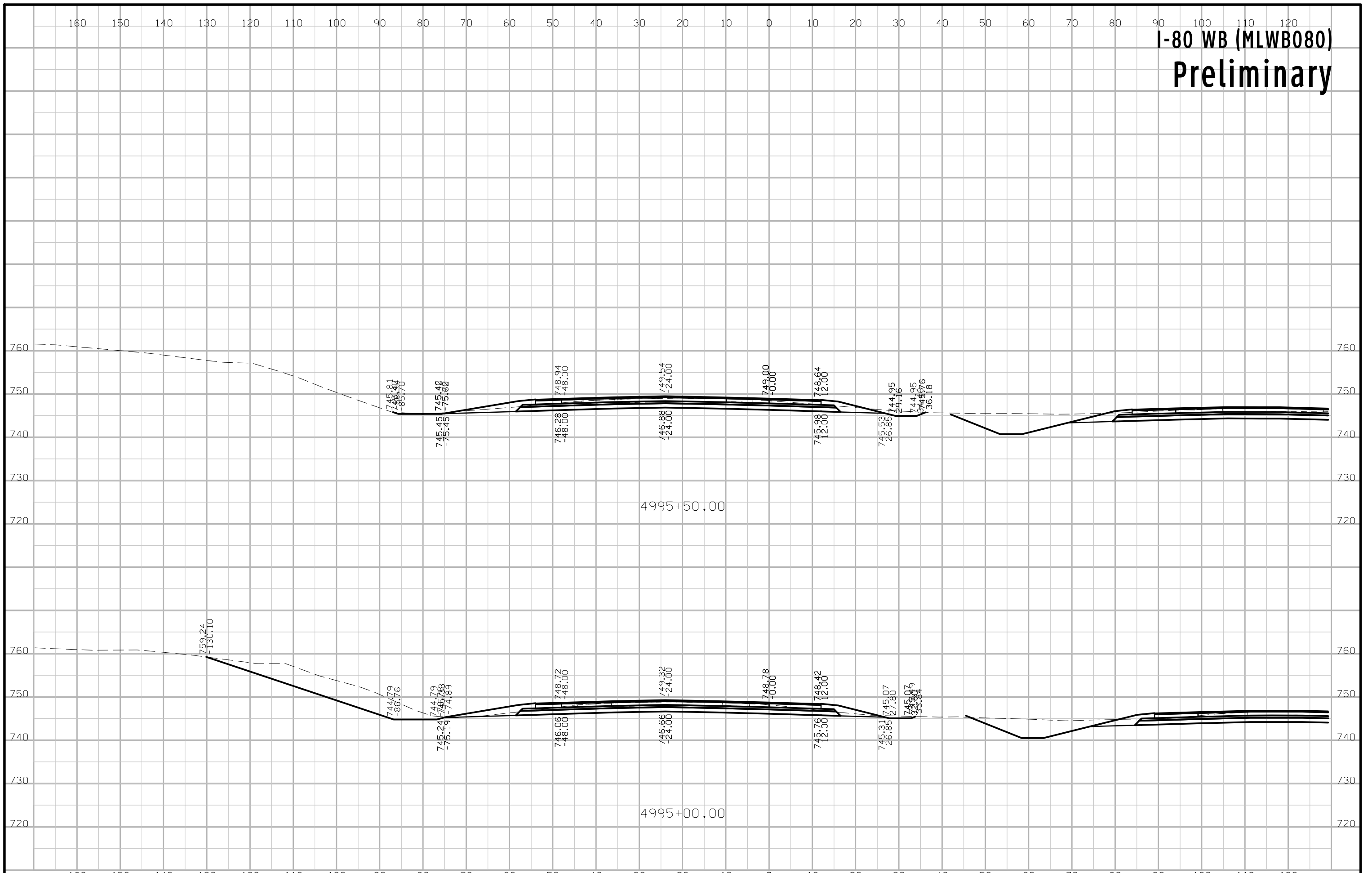
I-80 WB (MLWB080) Preliminary



I-80 WB (MLWB080) Preliminary



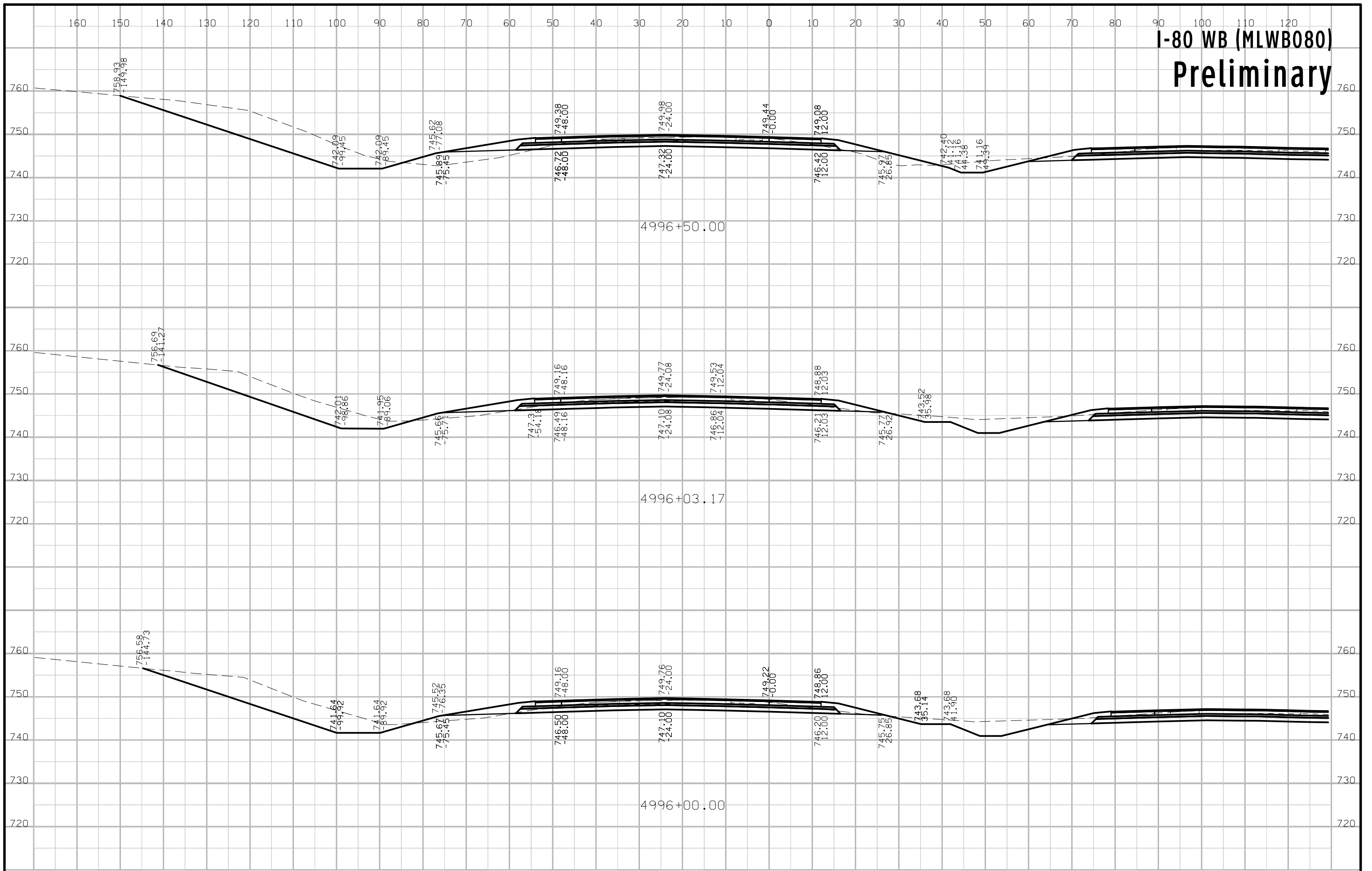
I-80 WB (MLWB080) Preliminary



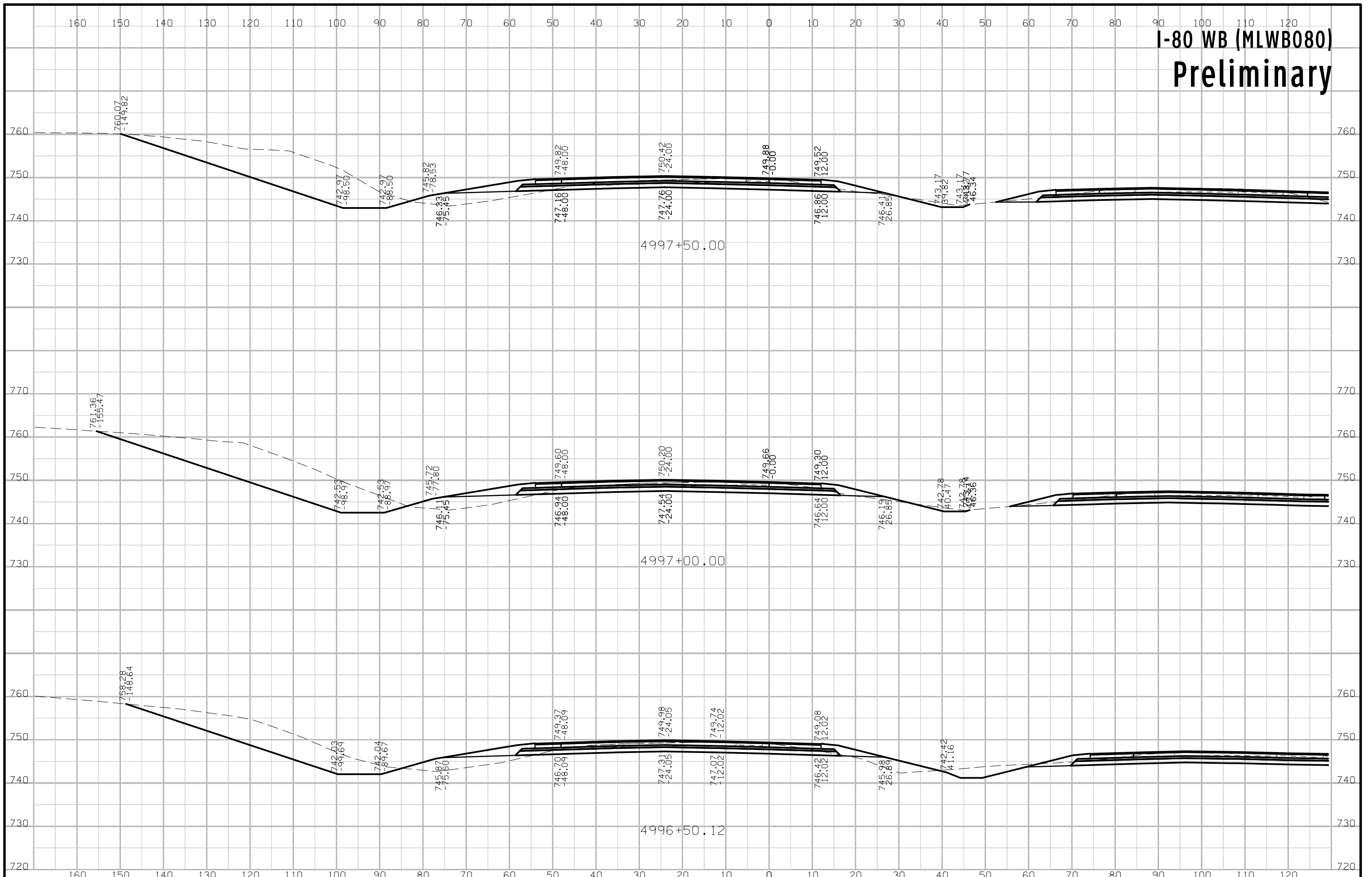
4995+50.00

4995+00.00

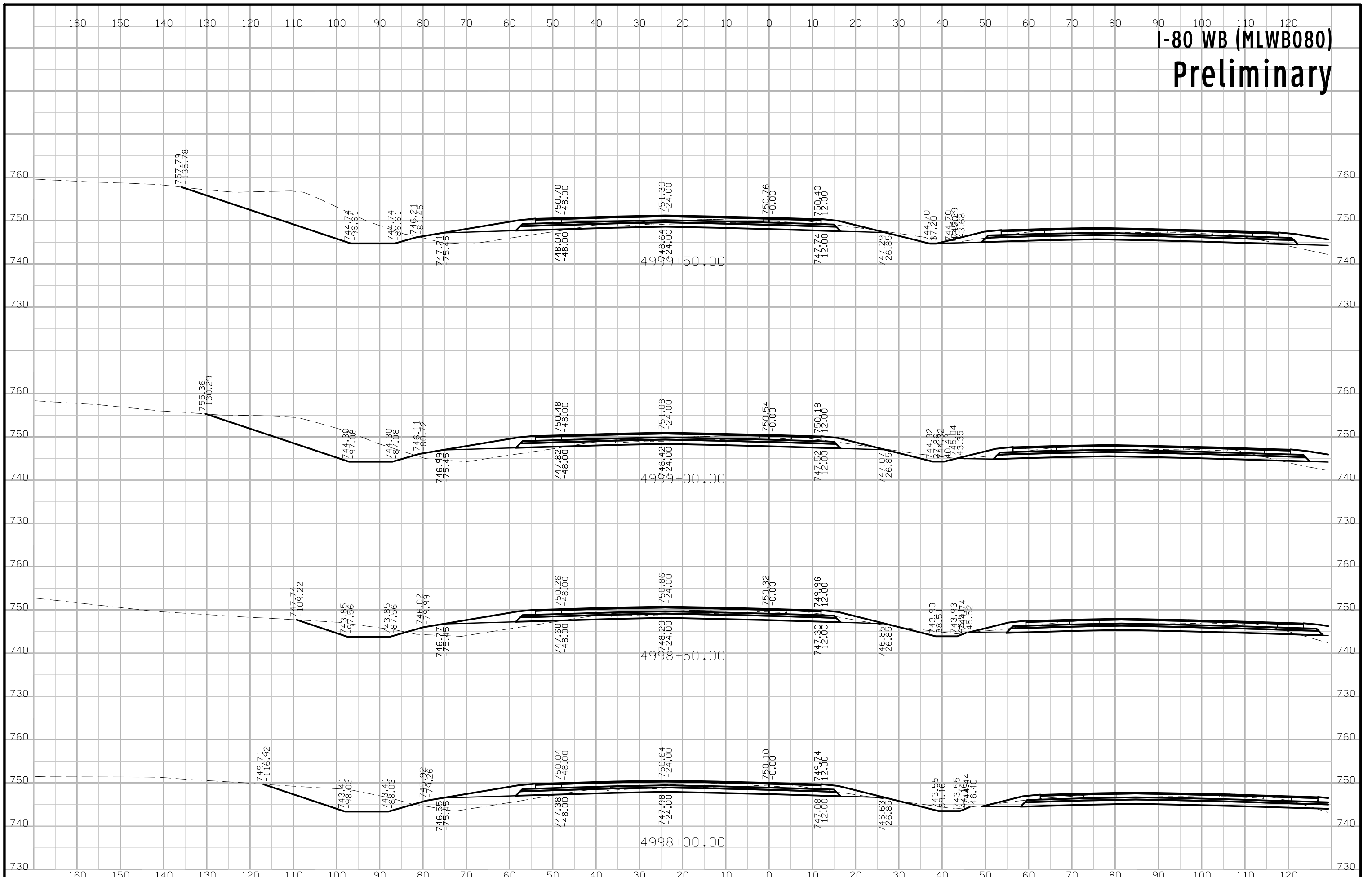
I-80 WB (MLWB080) Preliminary



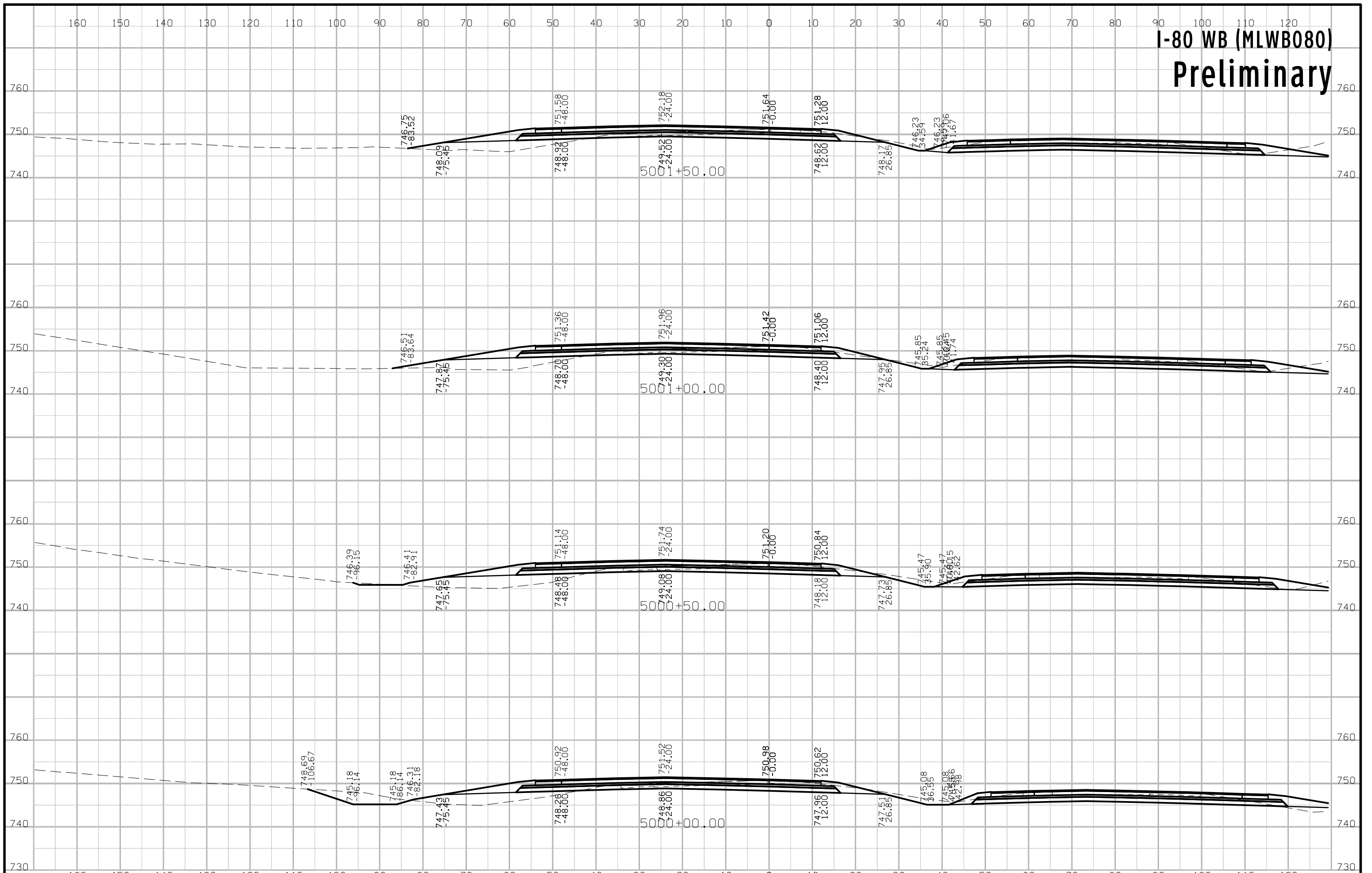
I-80 WB (MLWB080) Preliminary



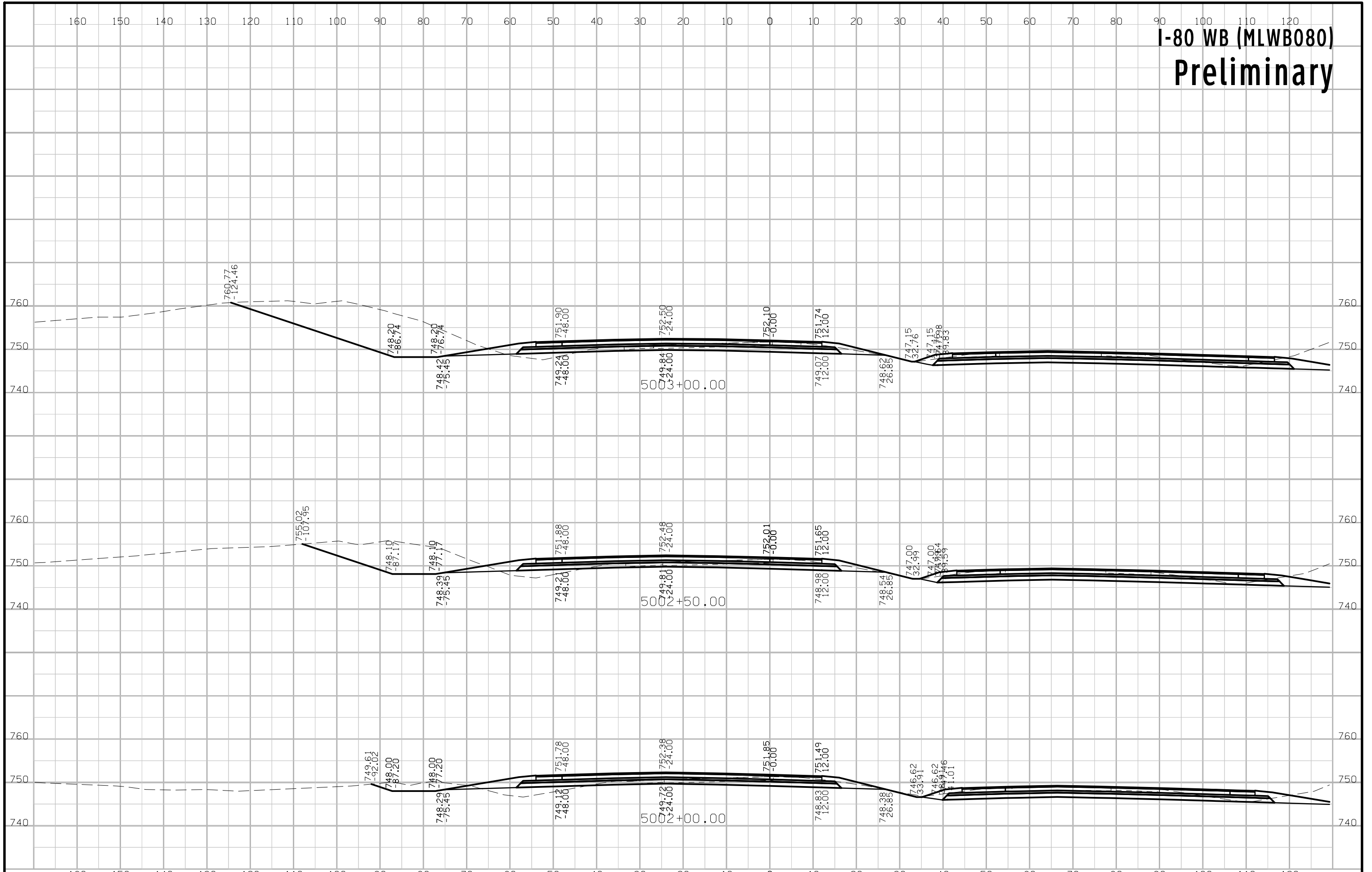
I-80 WB (MLWB080) Preliminary



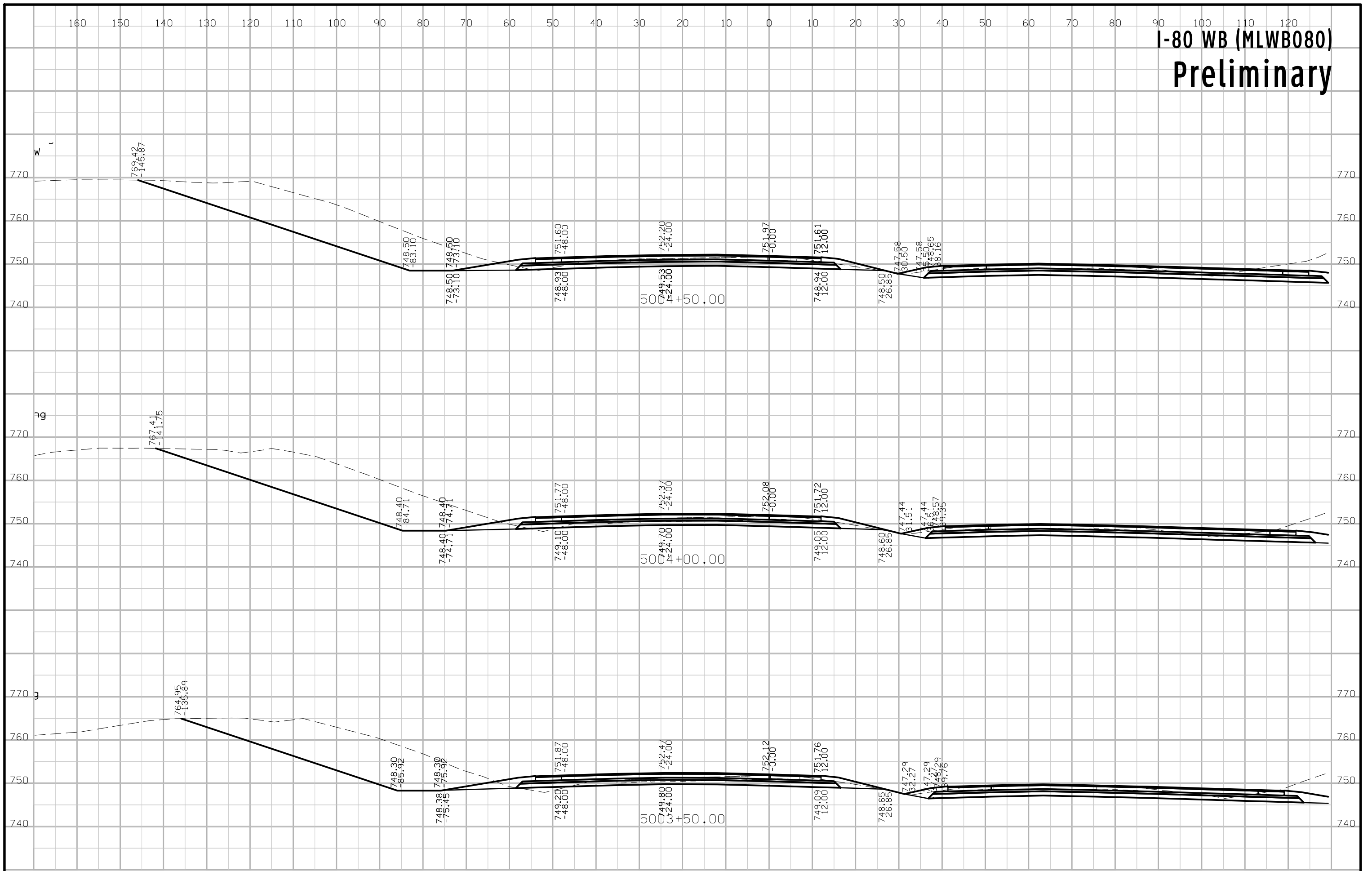
I-80 WB (MLWB080) Preliminary



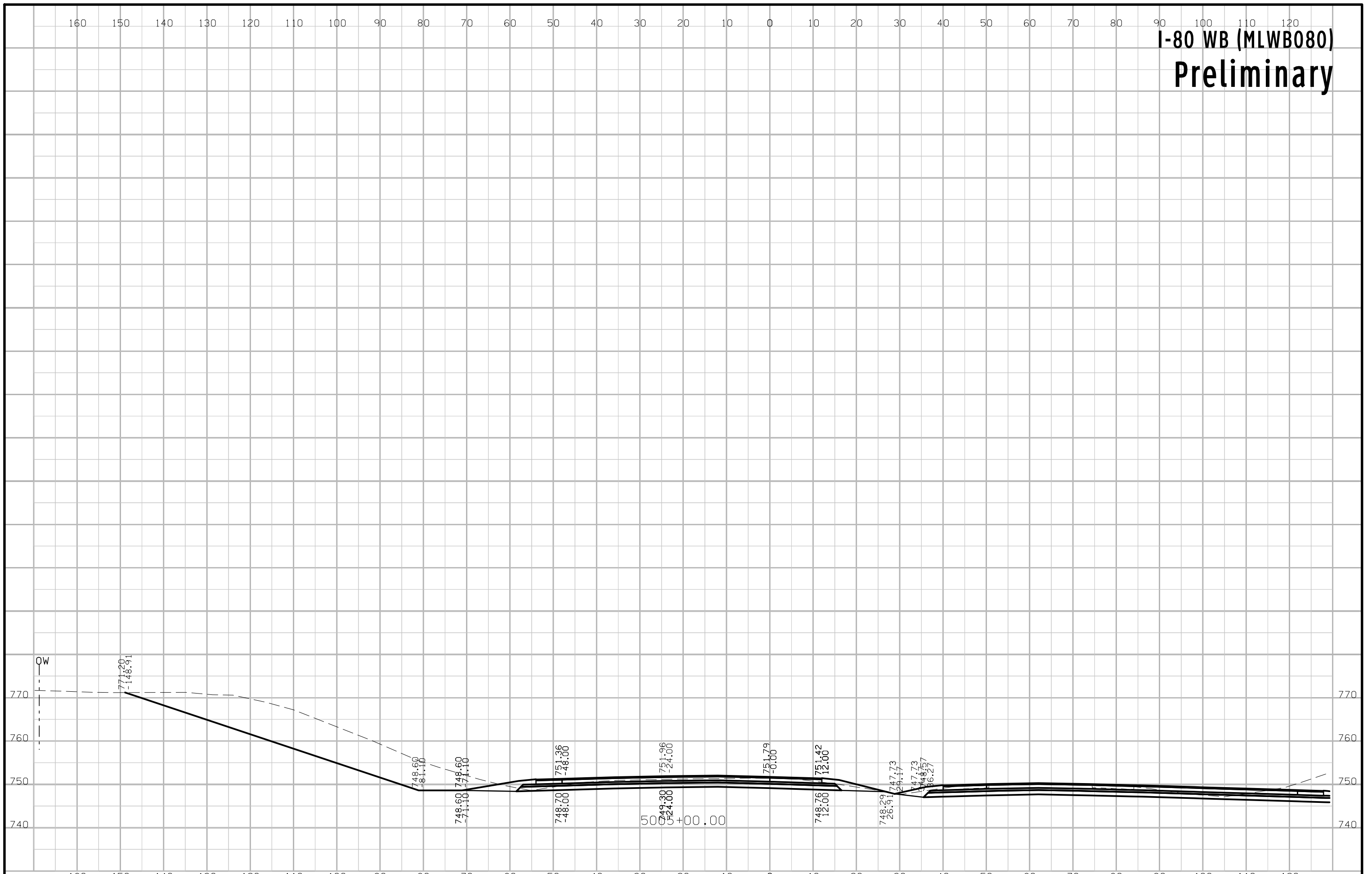
I-80 WB (MLWB080) Preliminary



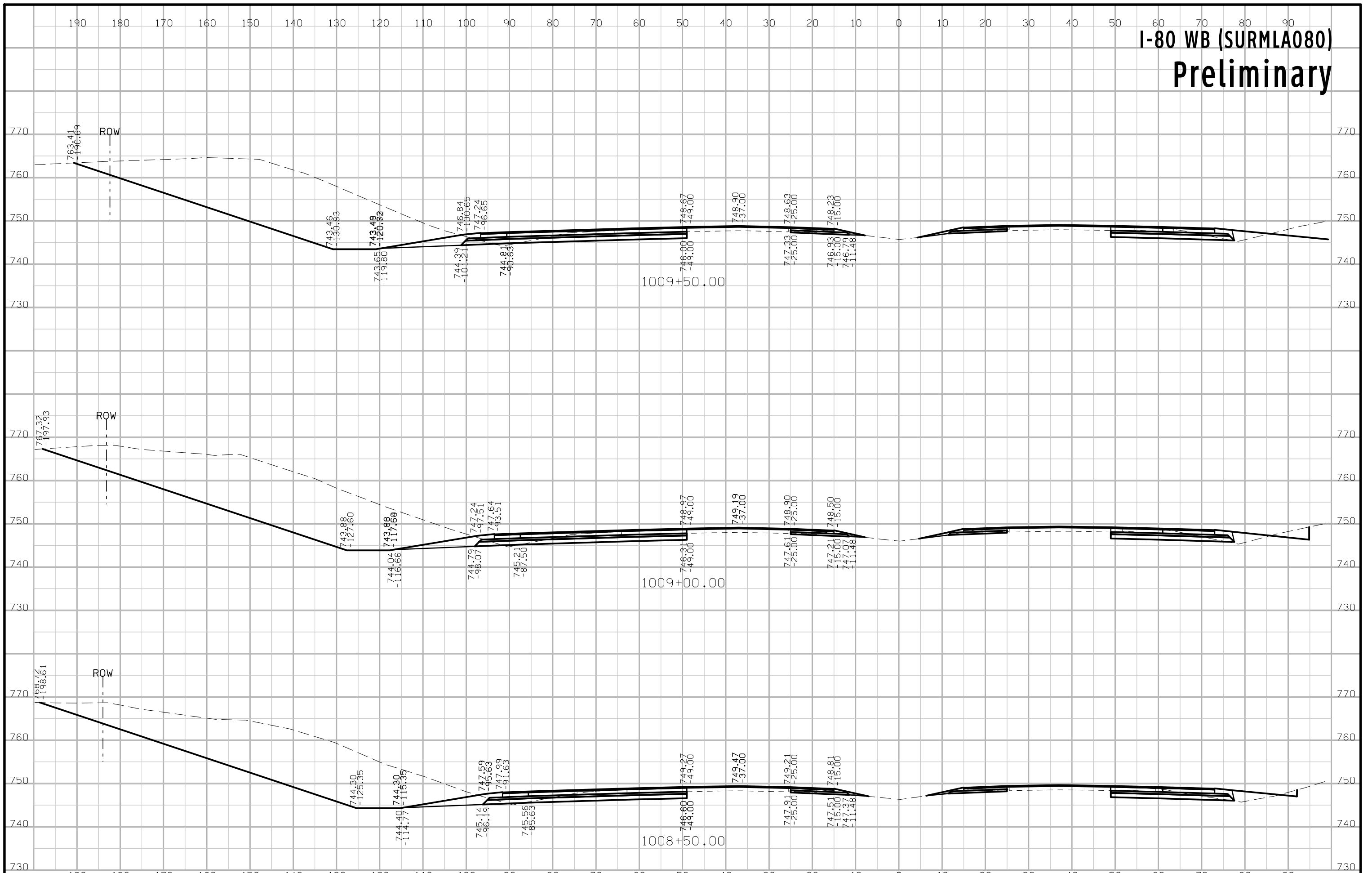
I-80 WB (MLWB080) Preliminary



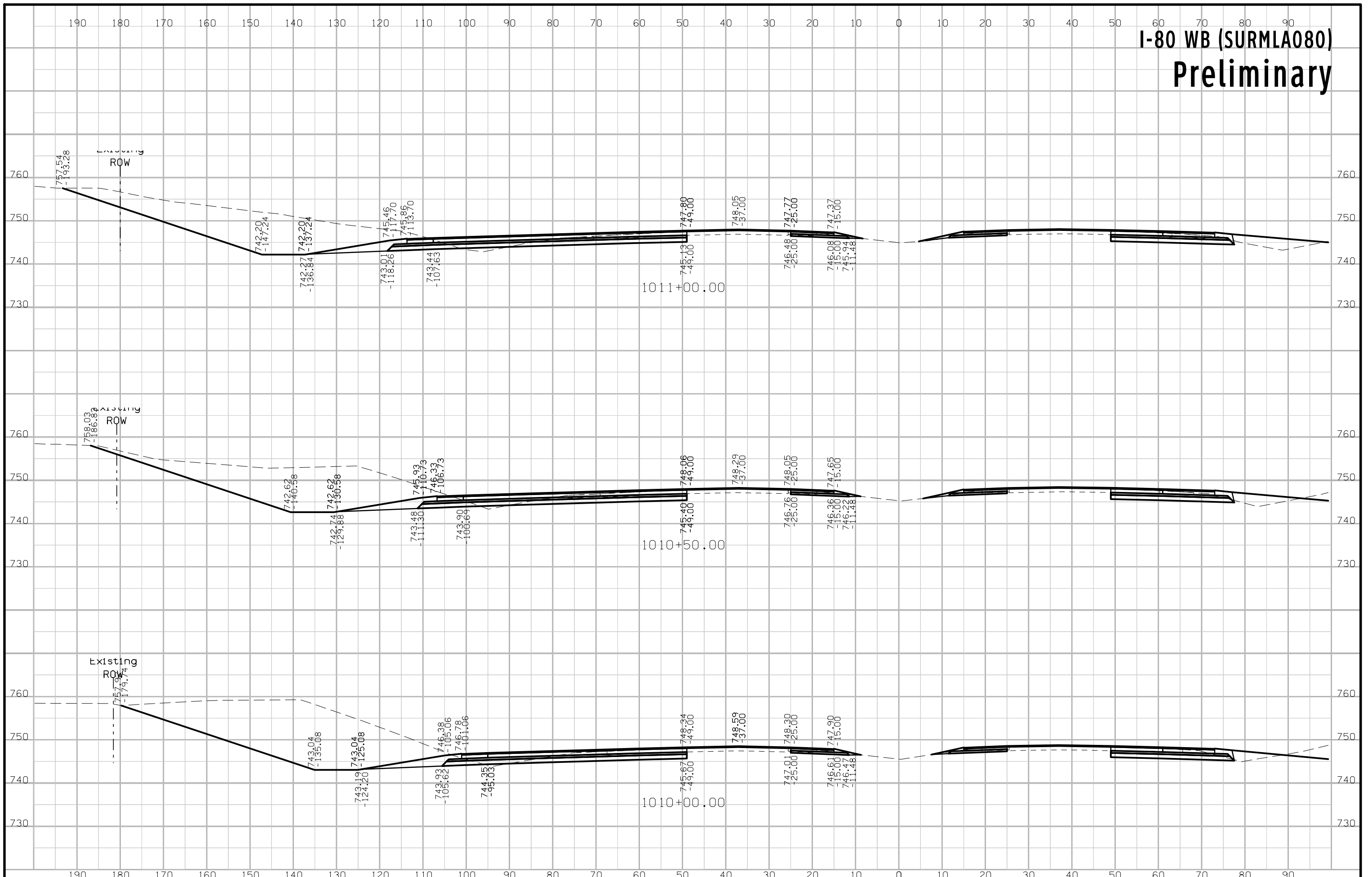
I-80 WB (MLWB080) Preliminary



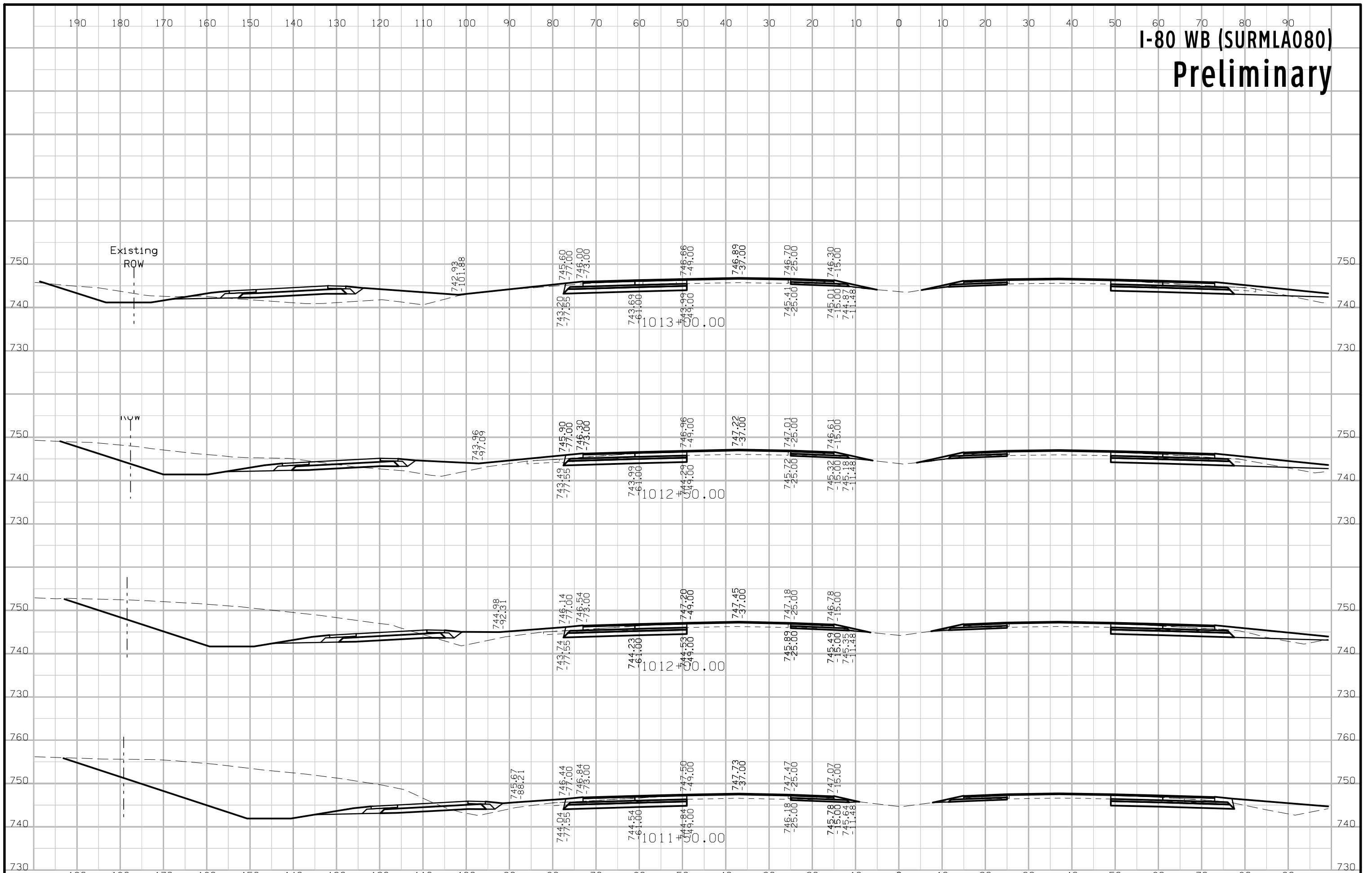
I-80 WB (SURMLA080) Preliminary



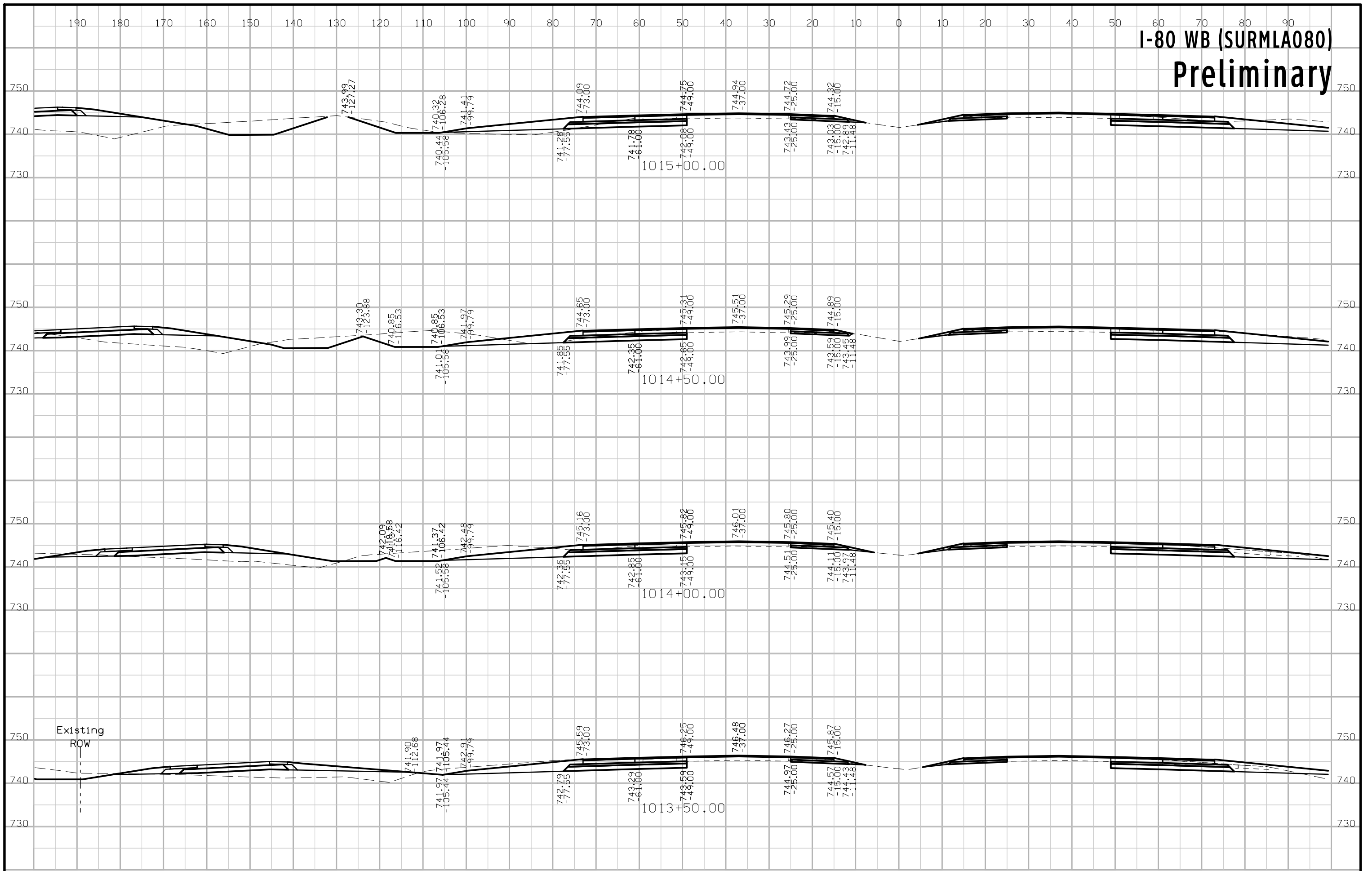
I-80 WB (SURMLA080) Preliminary



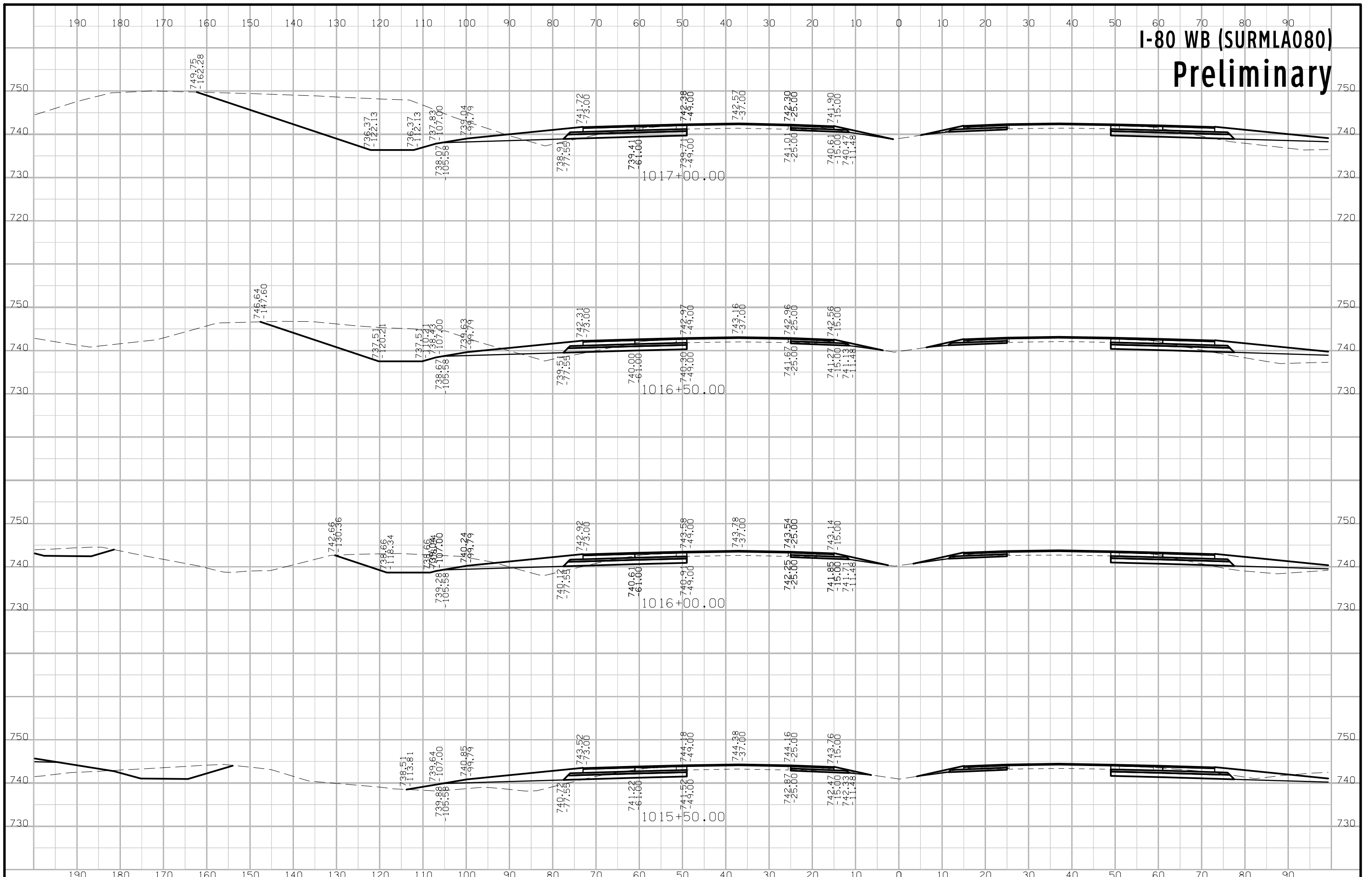
I-80 WB (SURMLA080) Preliminary



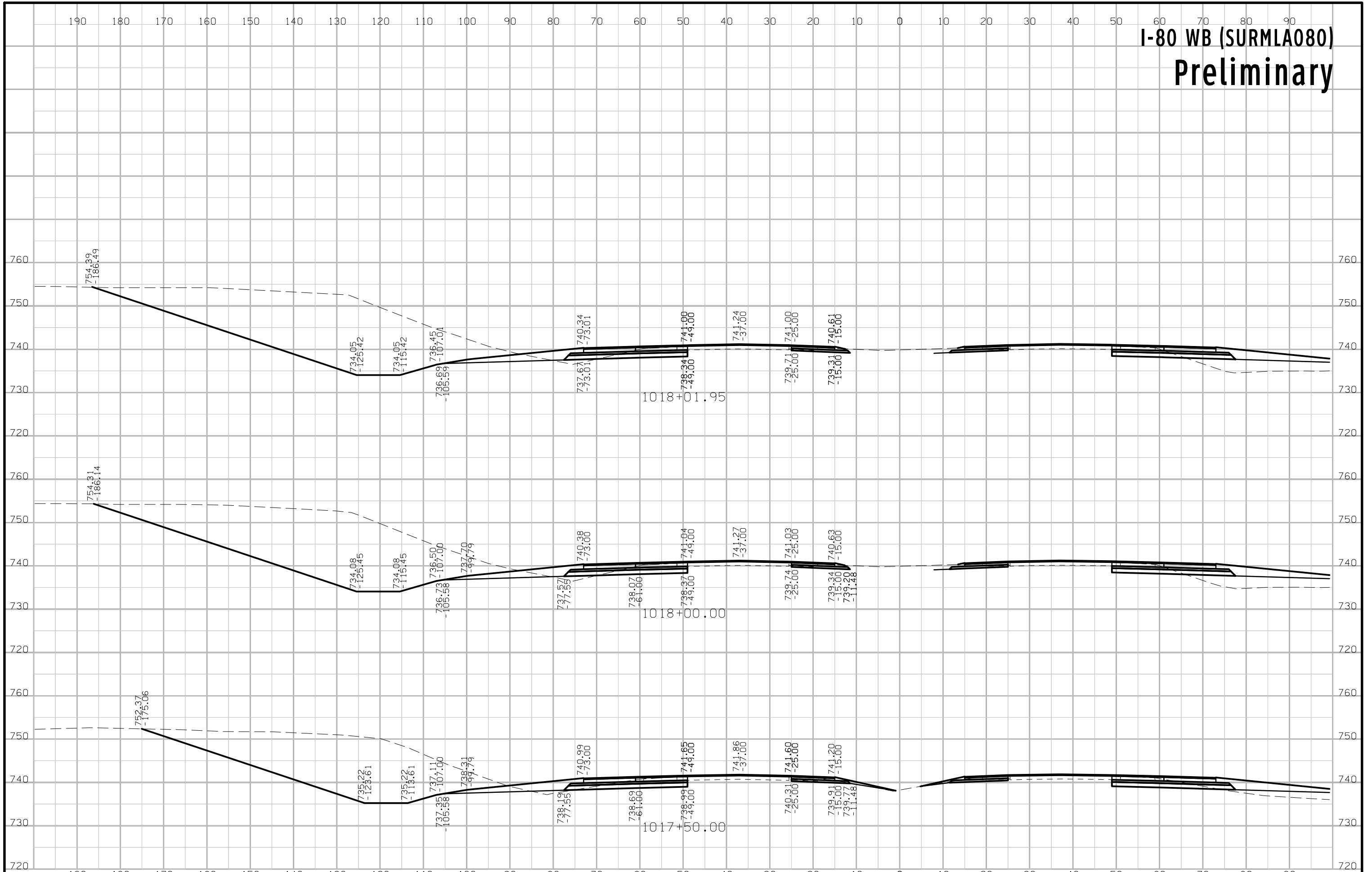
I-80 WB (SURMLA080) Preliminary



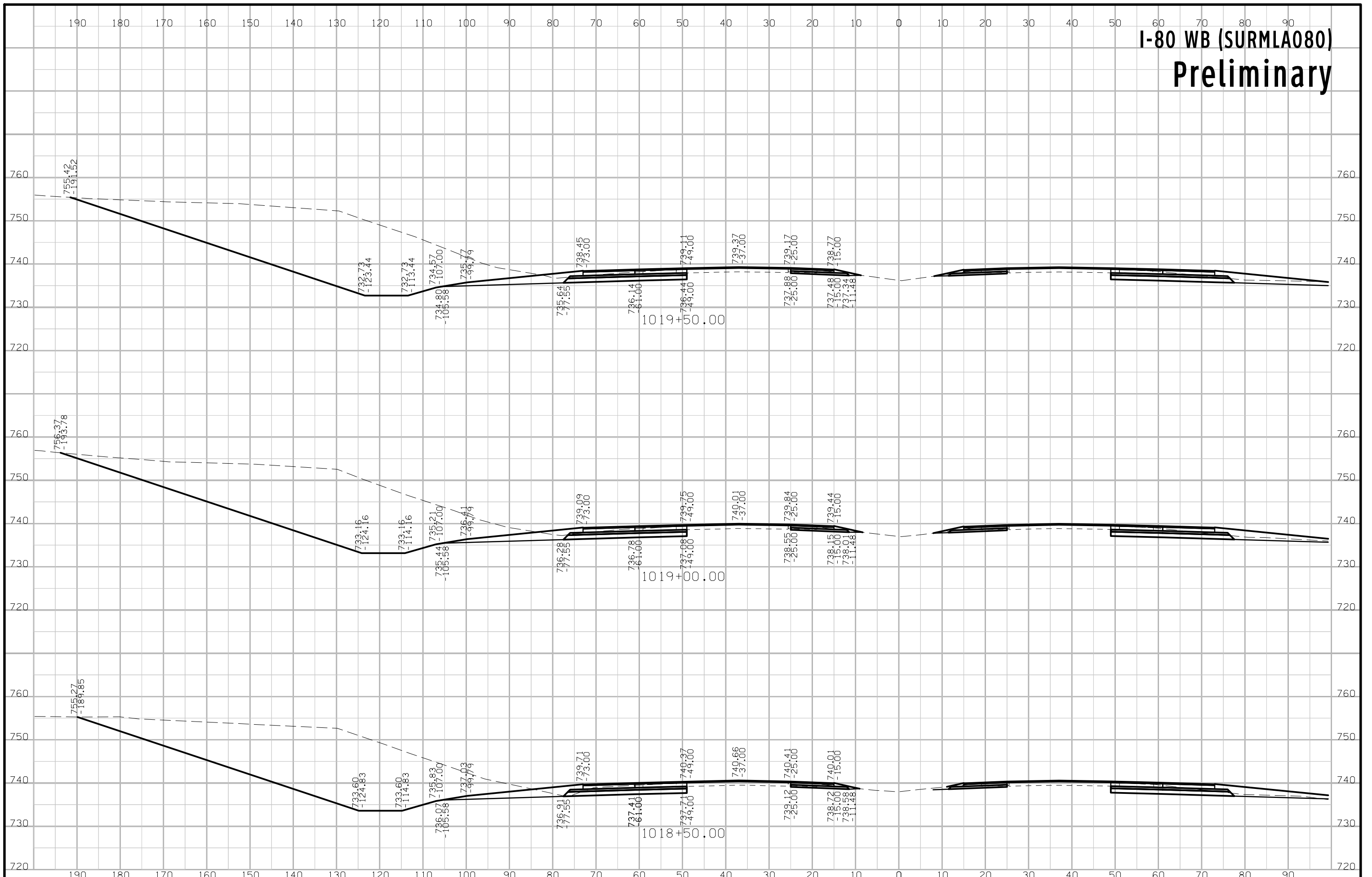
I-80 WB (SURMLA080) Preliminary



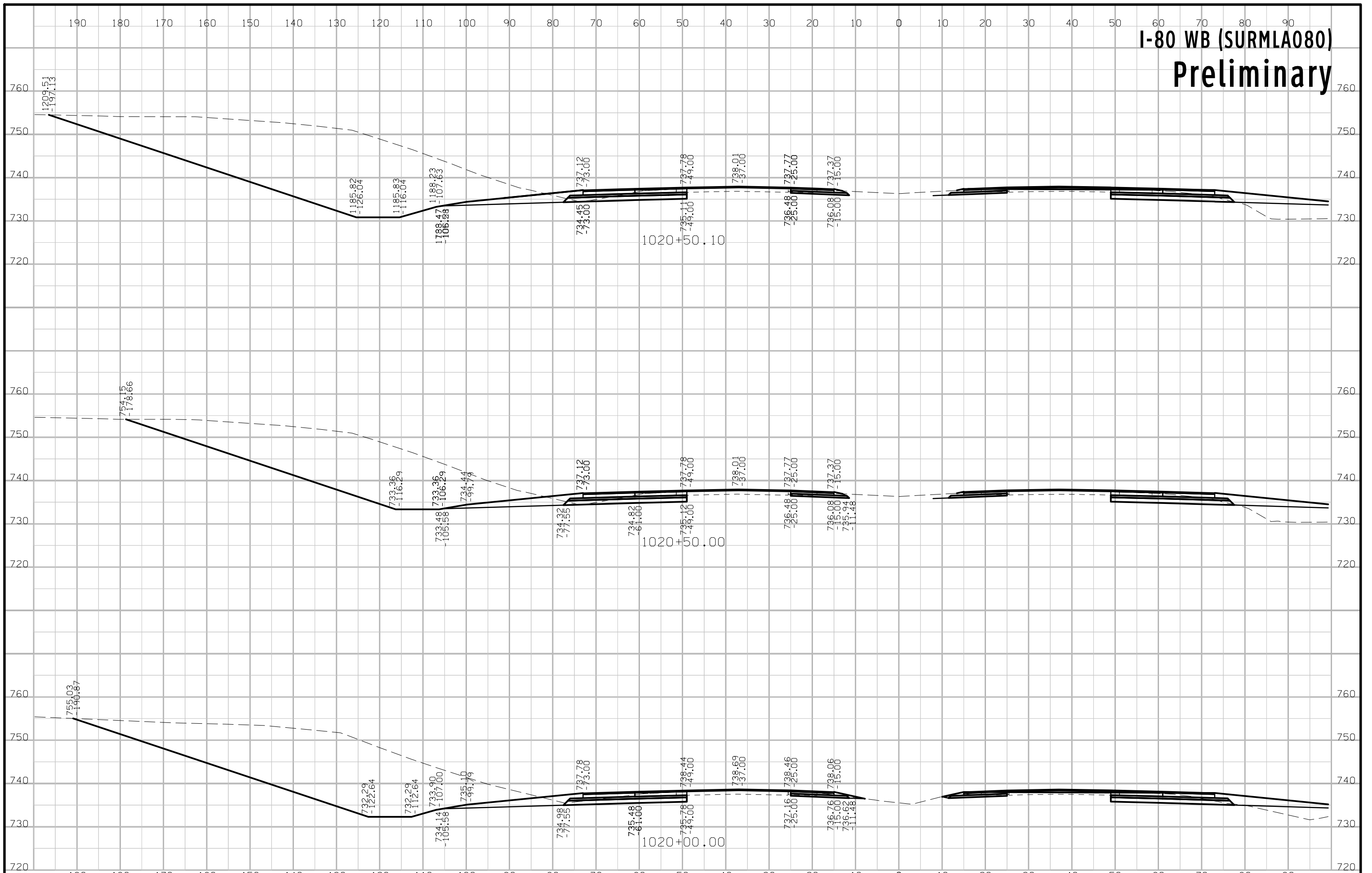
I-80 WB (SURMLA080) Preliminary



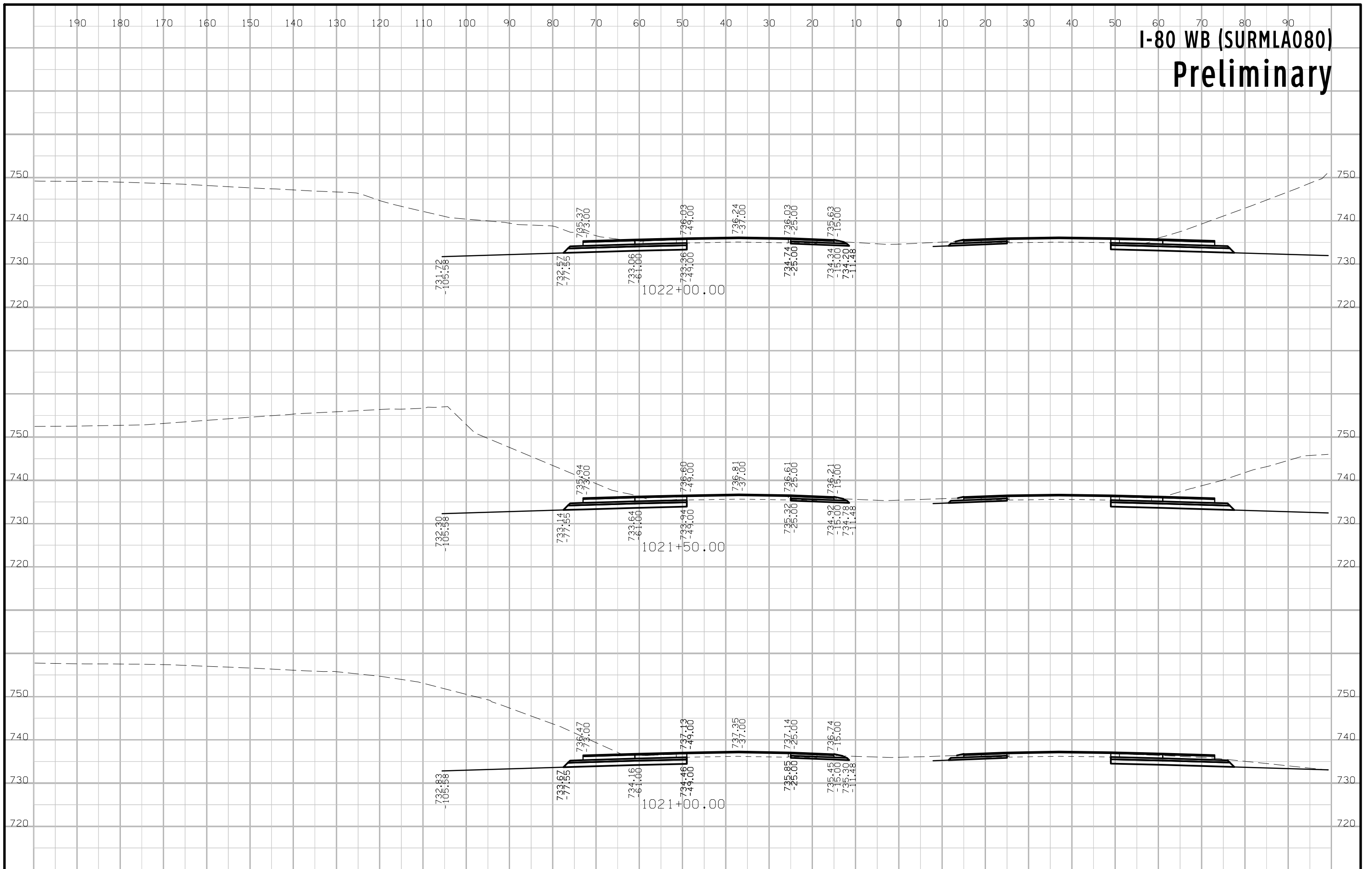
I-80 WB (SURMLA080) Preliminary



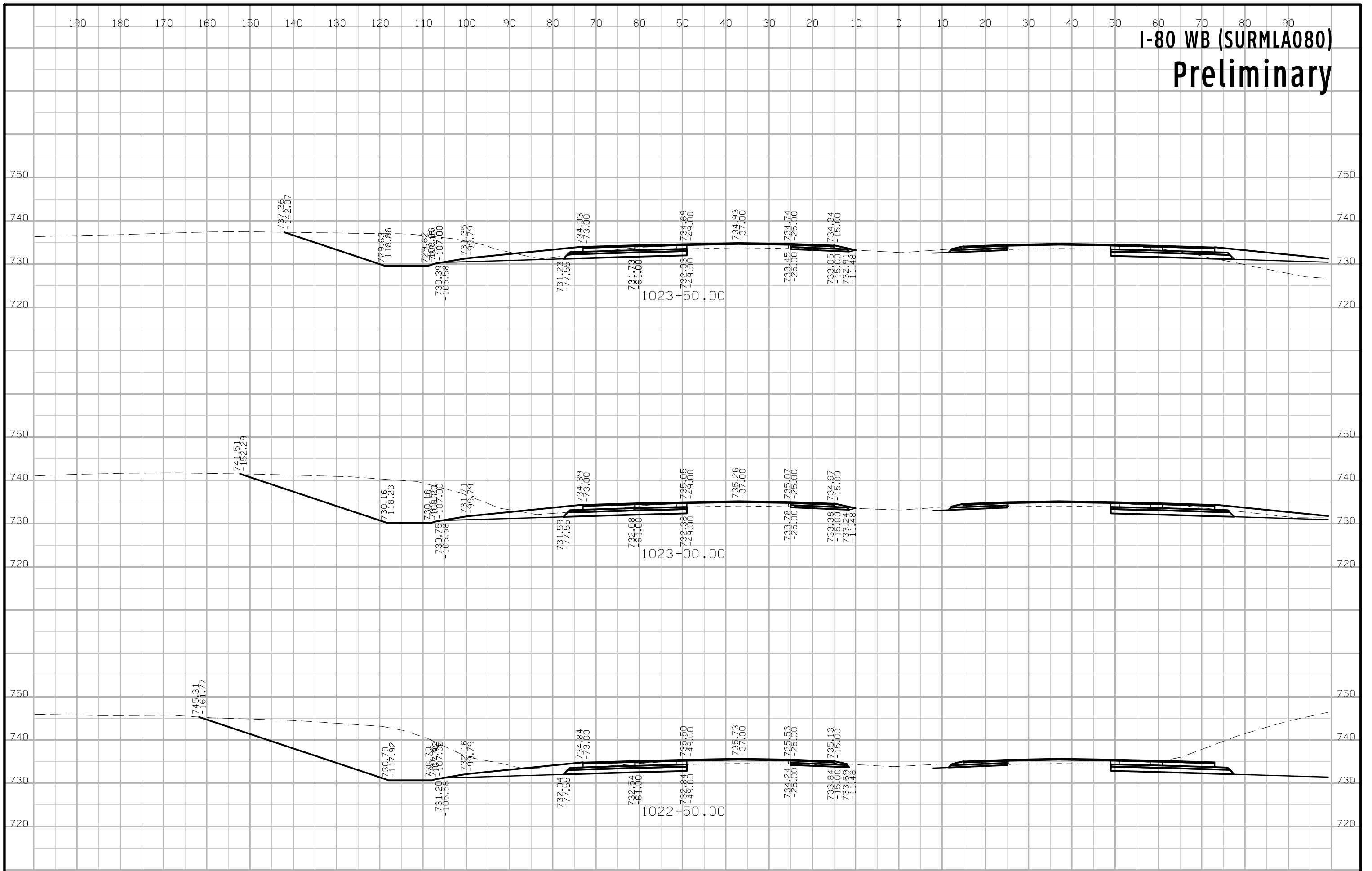
I-80 WB (SURMLA080) Preliminary



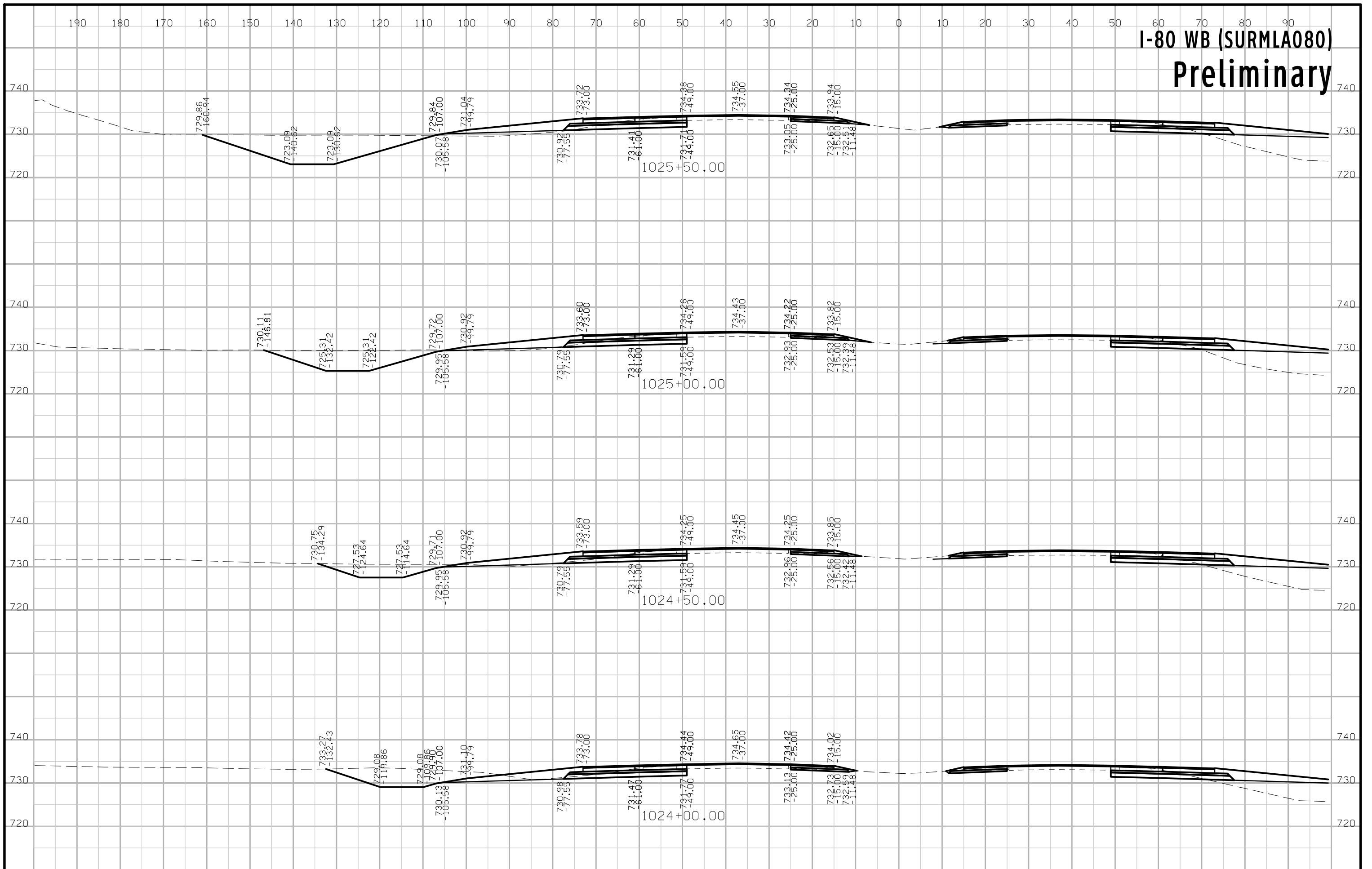
I-80 WB (SURMLA080) Preliminary



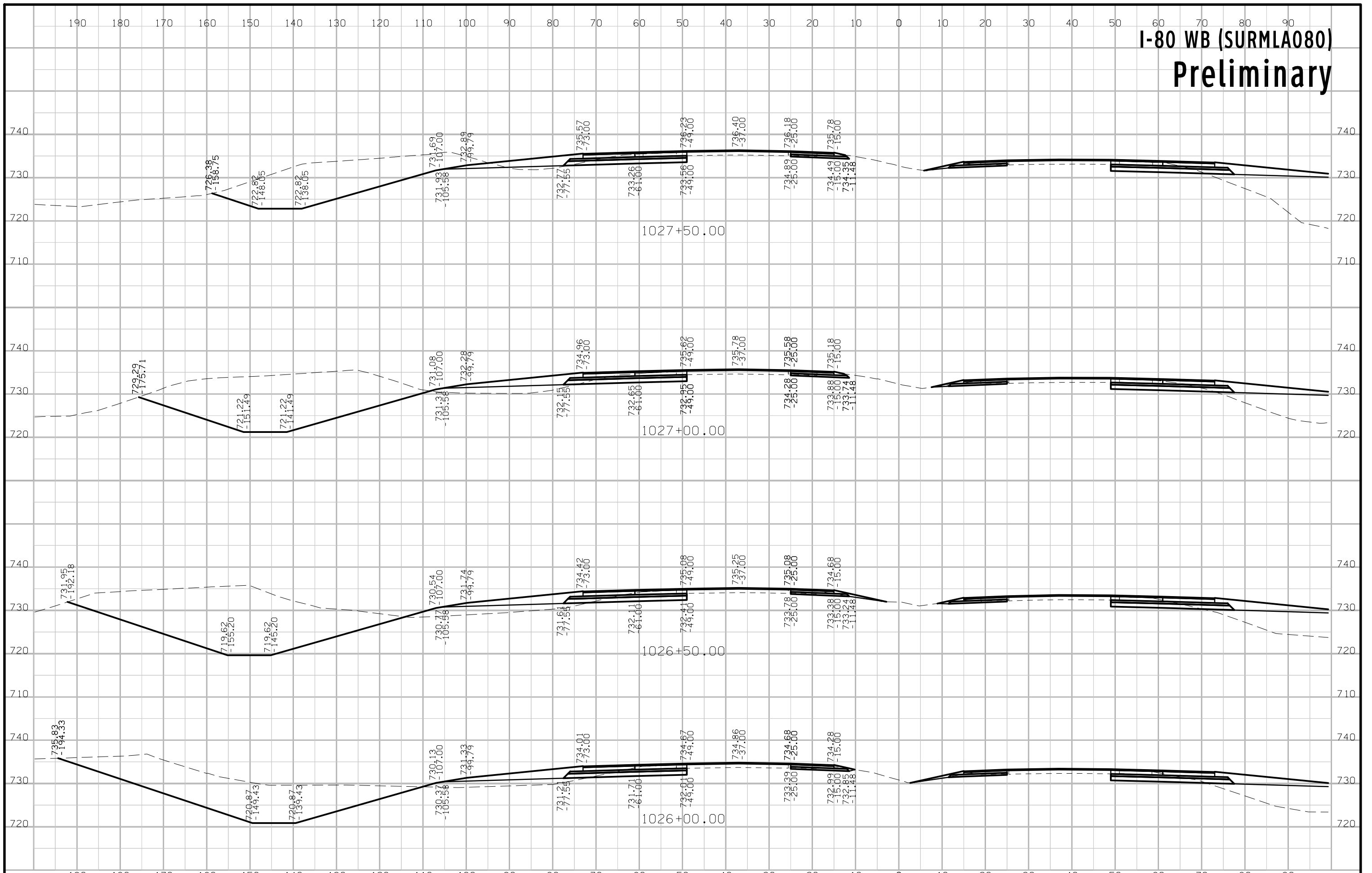
I-80 WB (SURMLA080) Preliminary



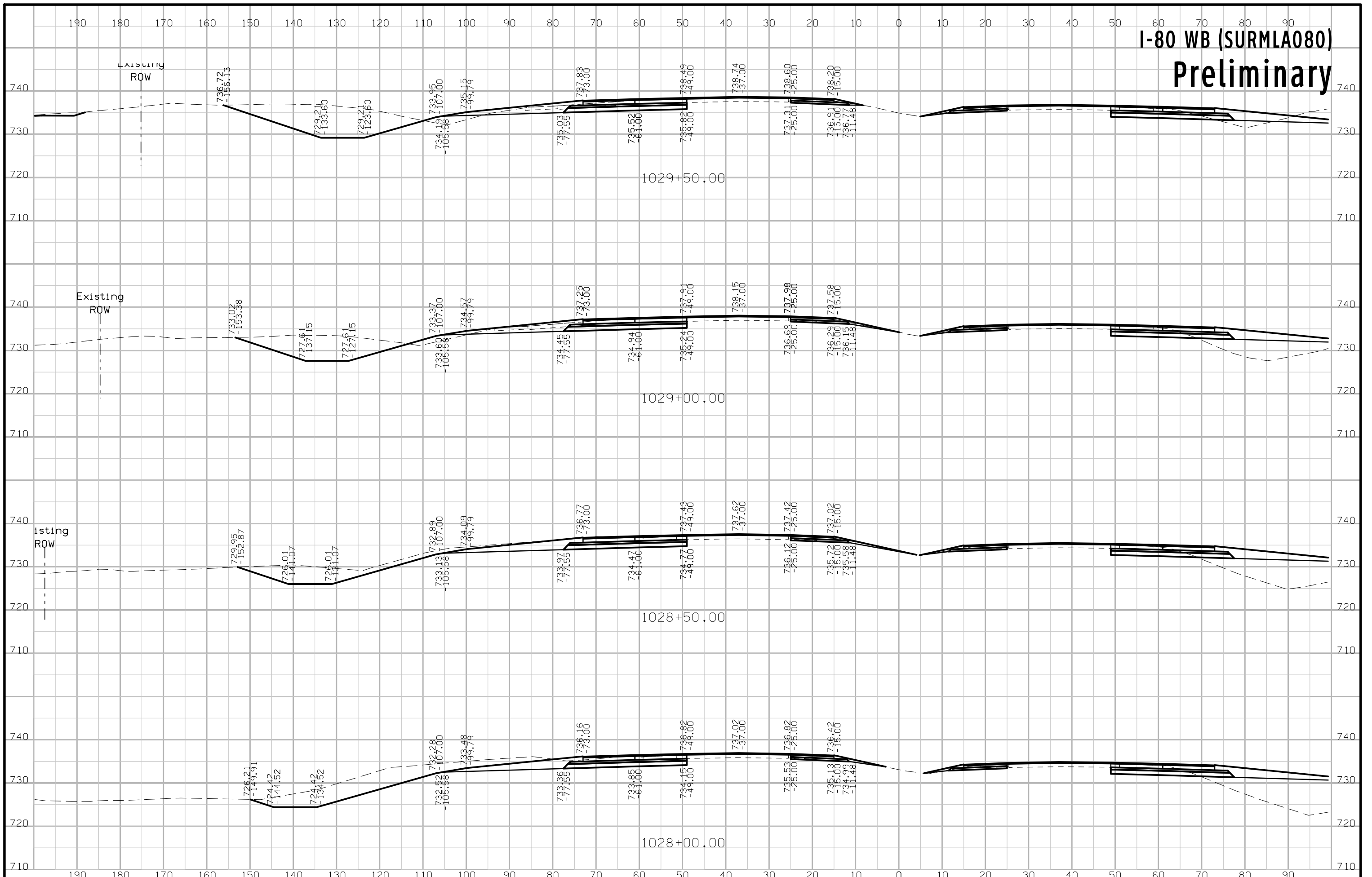
I-80 WB (SURMLA080) Preliminary



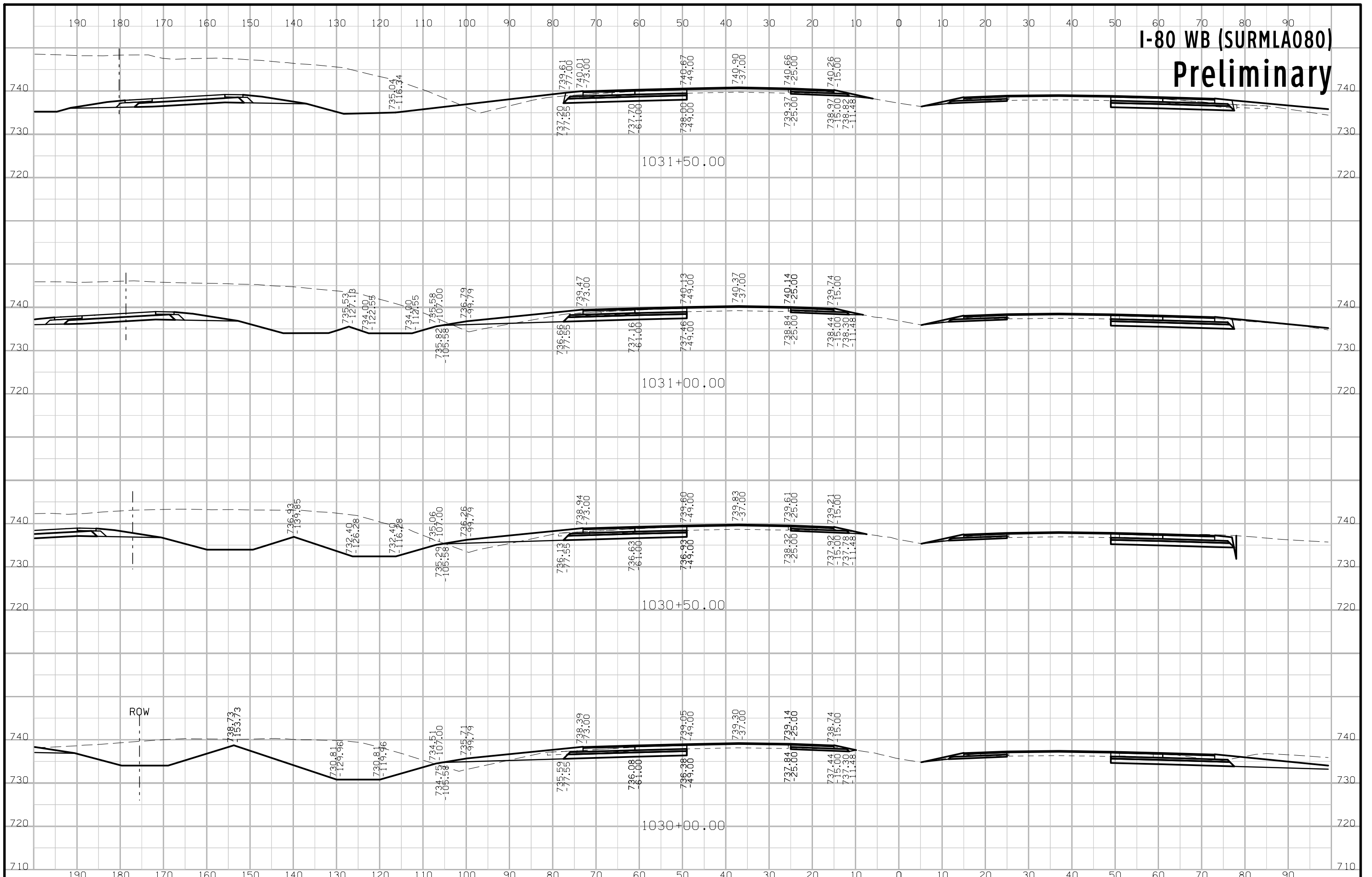
I-80 WB (SURMLA080) Preliminary



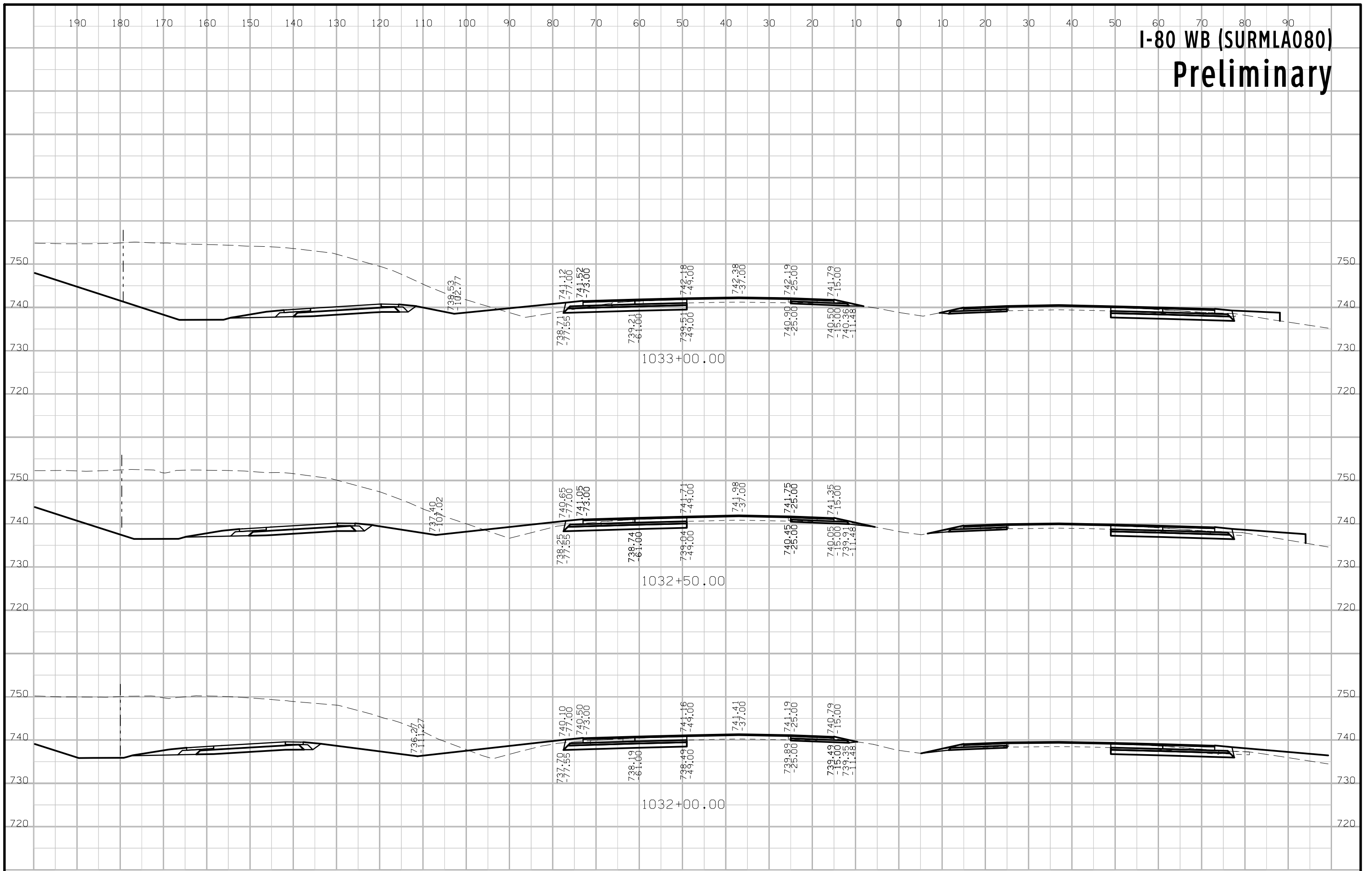
I-80 WB (SURMLA080) Preliminary



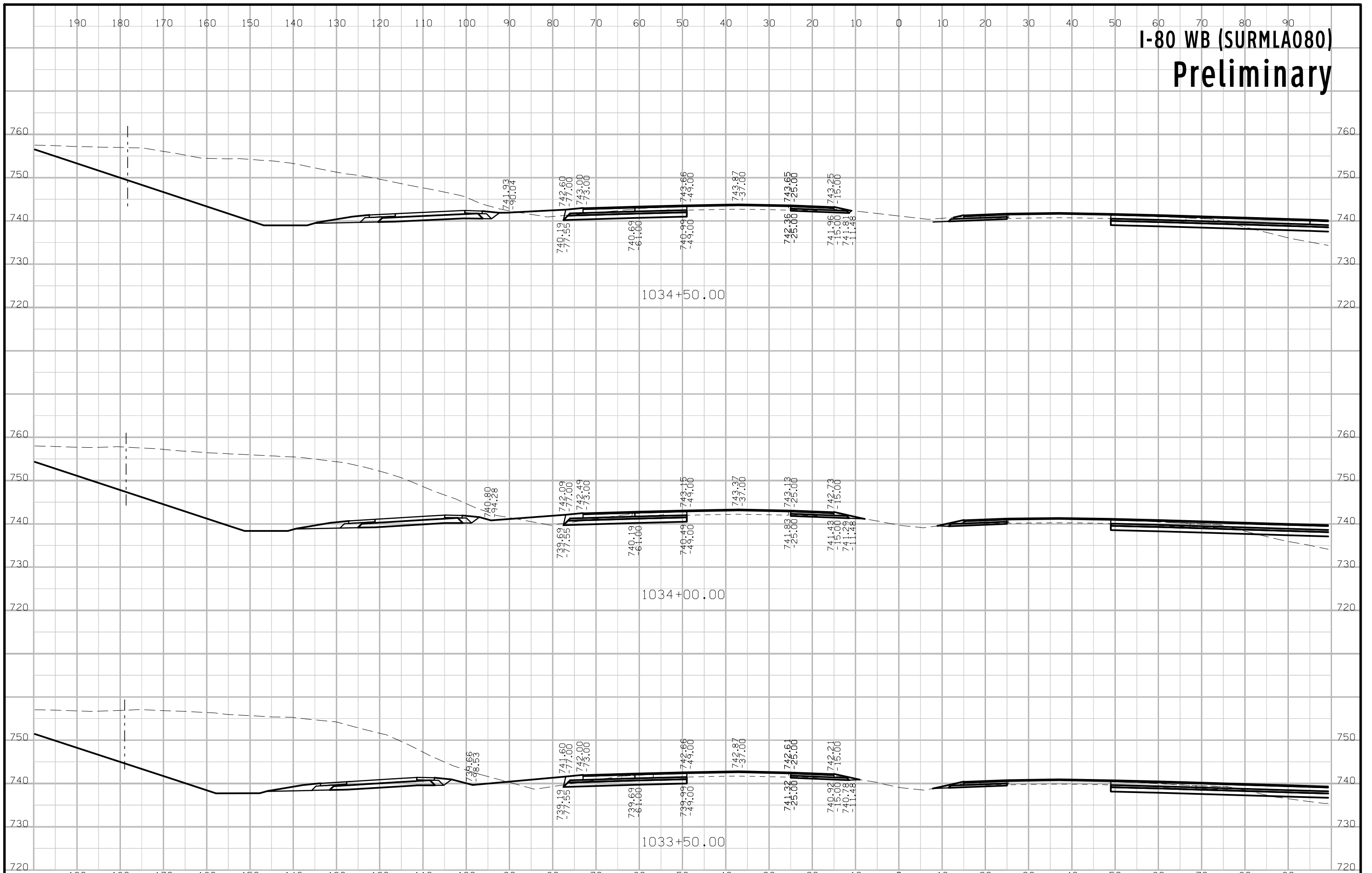
I-80 WB (SURMLA080) Preliminary



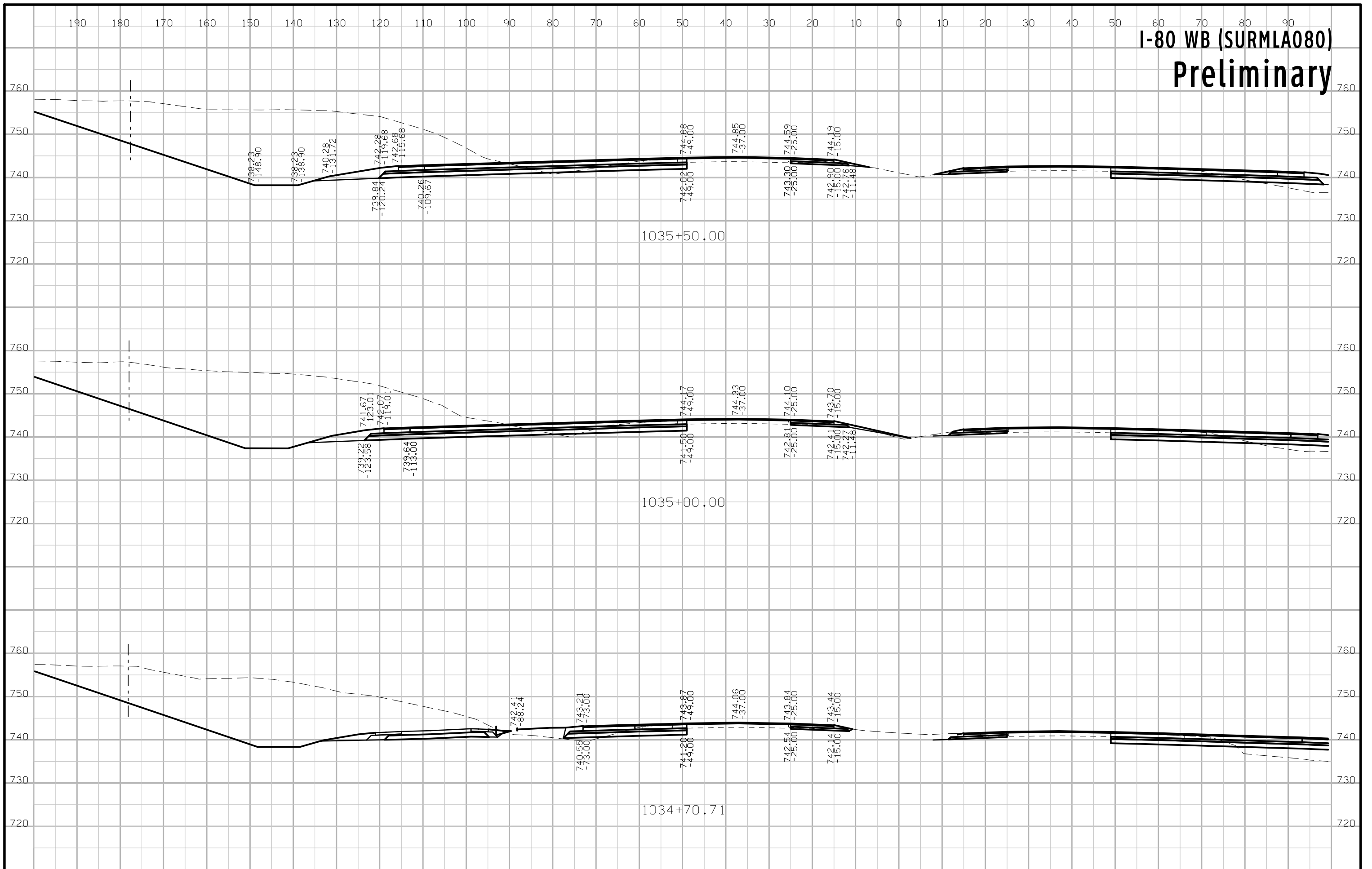
I-80 WB (SURMLA080) Preliminary



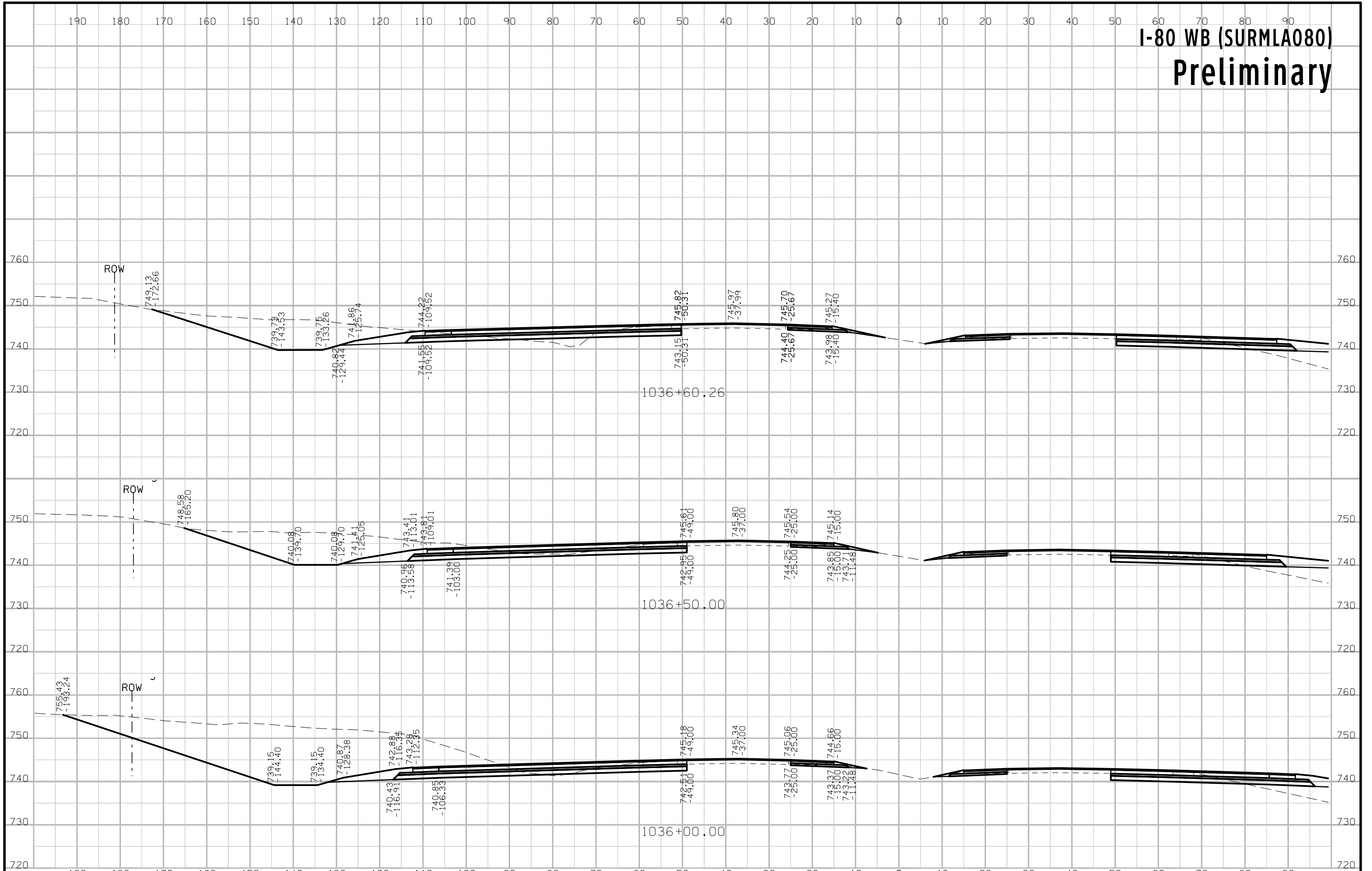
I-80 WB (SURMLA080) Preliminary



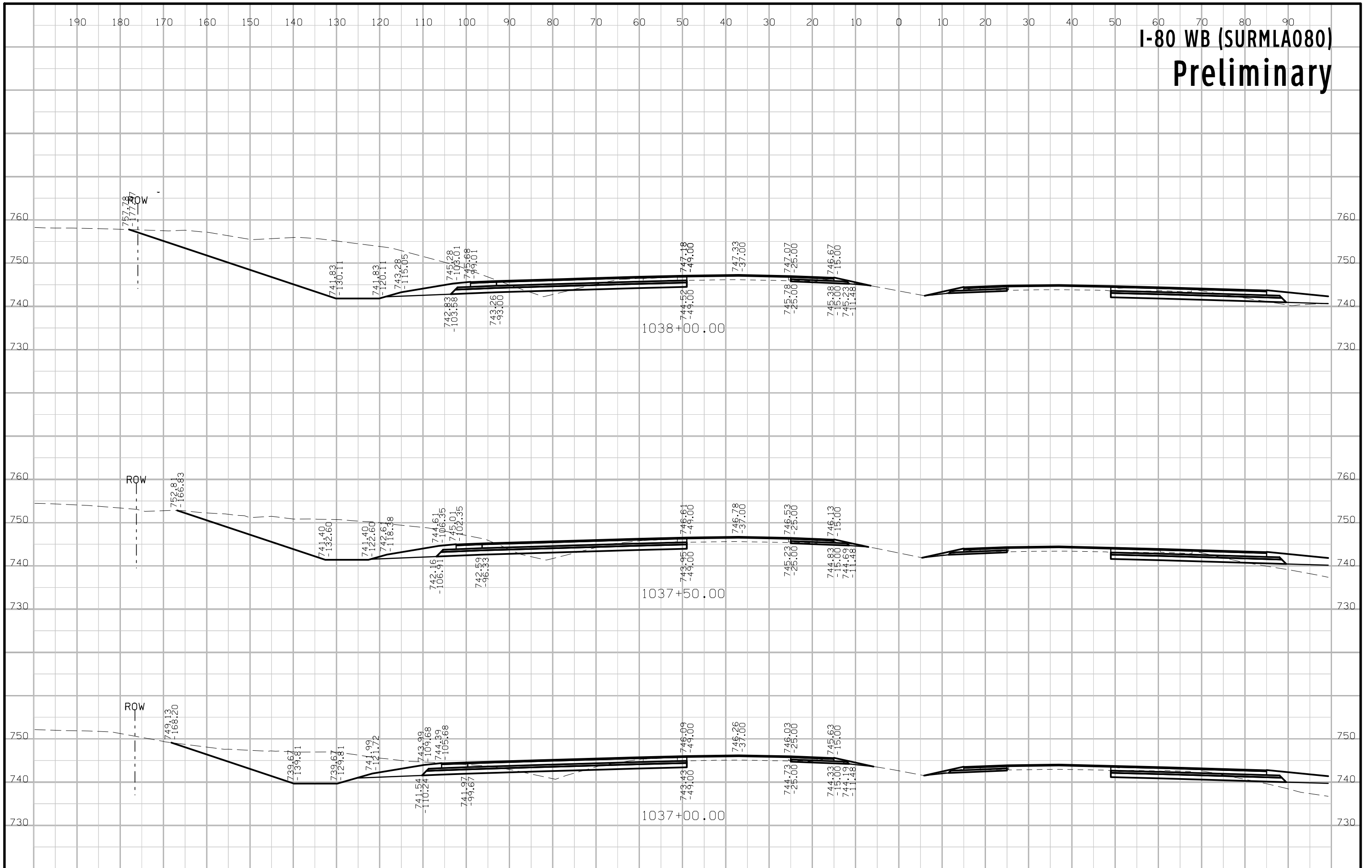
I-80 WB (SURMLA080) Preliminary



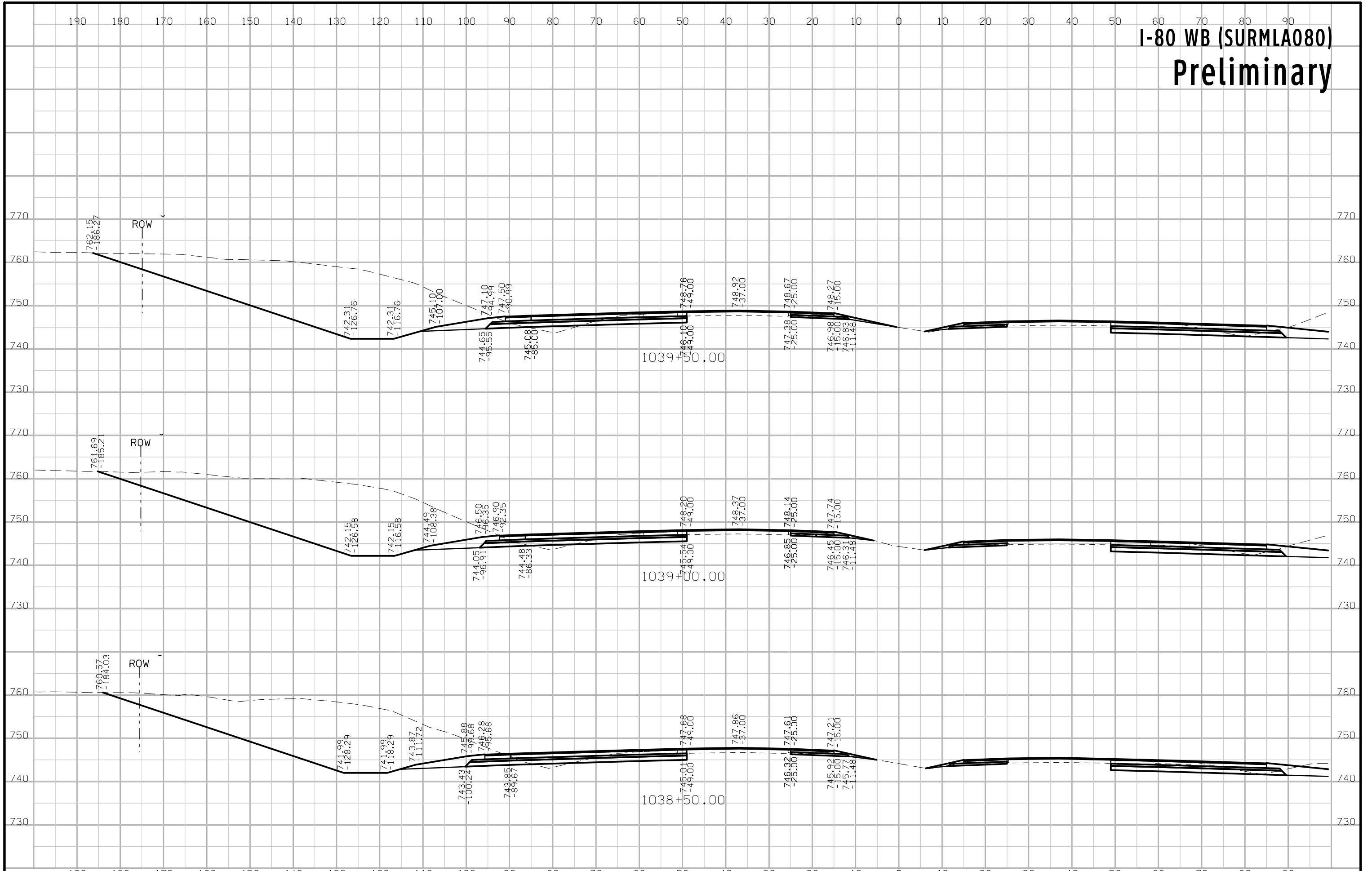
I-80 WB (SURMLA080) Preliminary



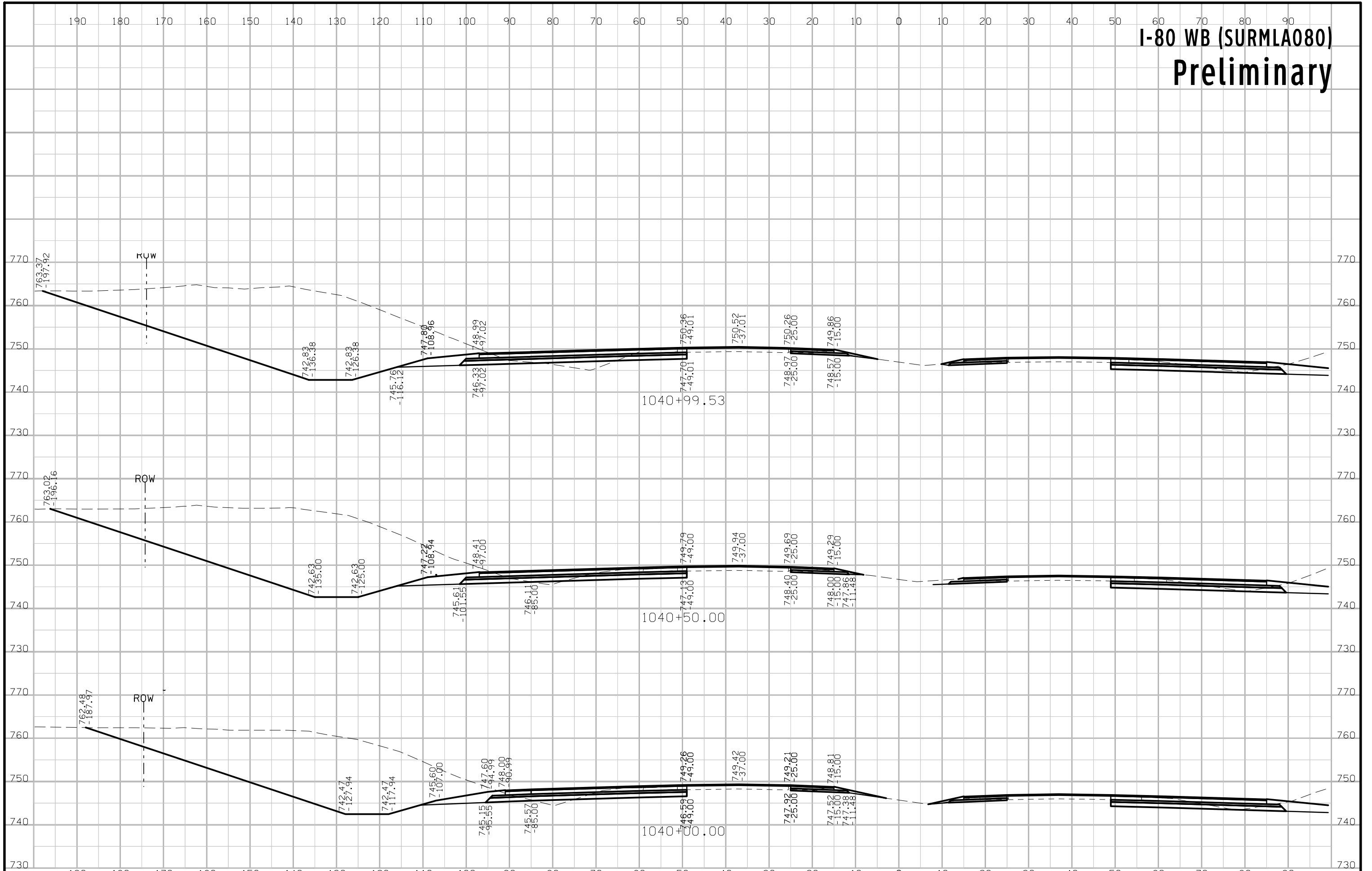
I-80 WB (SURMLA080) Preliminary



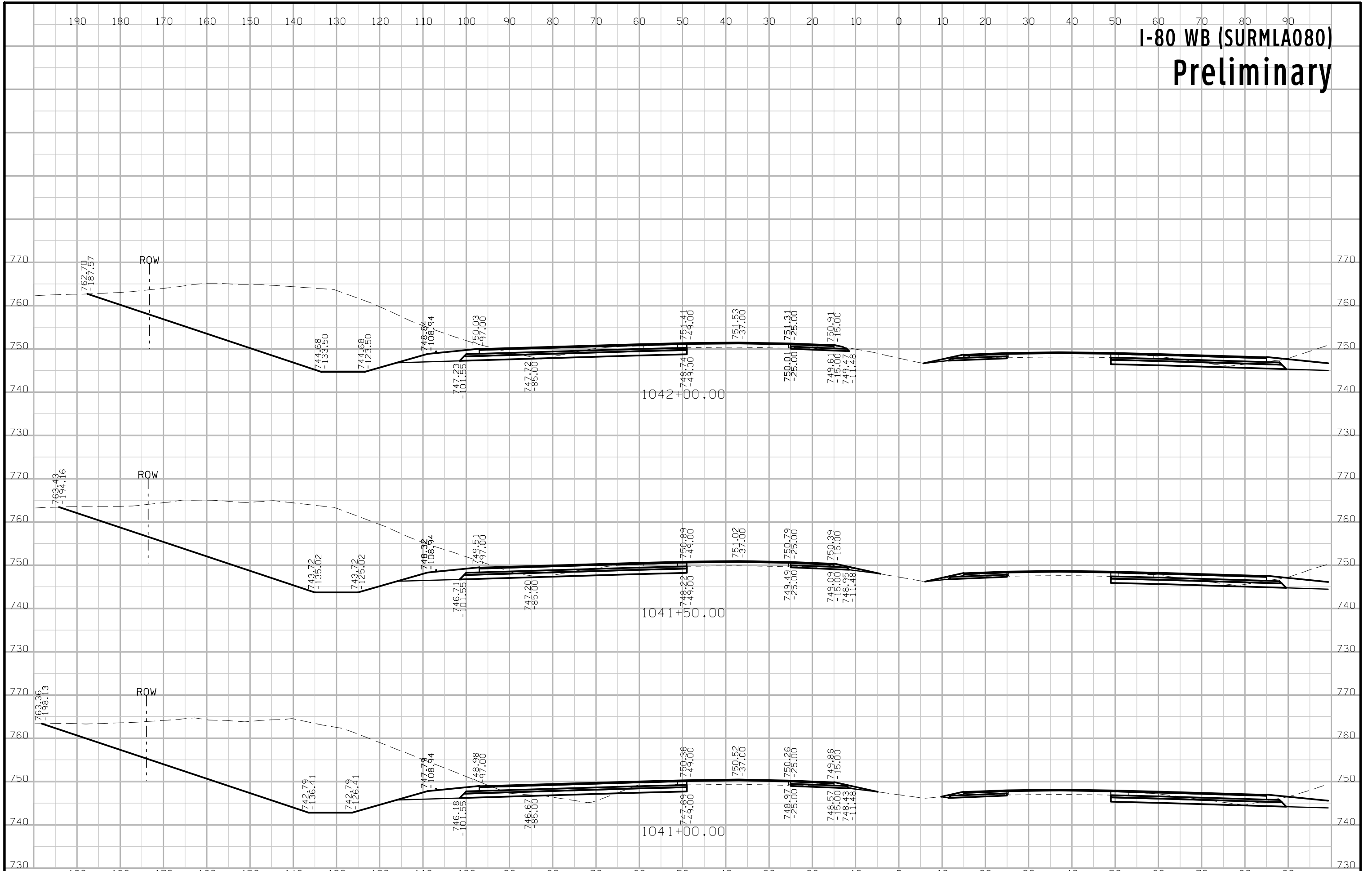
I-80 WB (SURMLA080) Preliminary



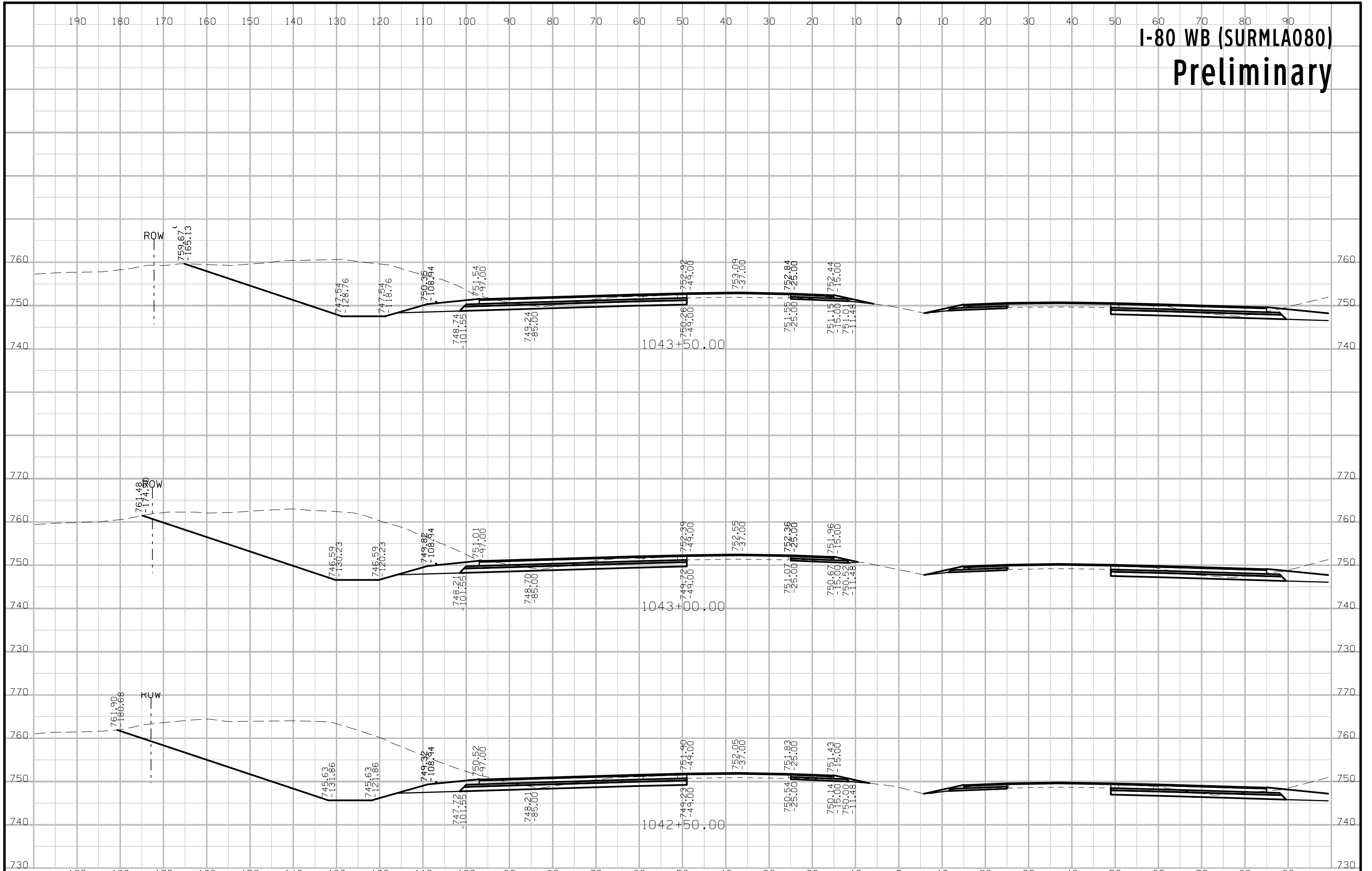
I-80 WB (SURMLA080) Preliminary



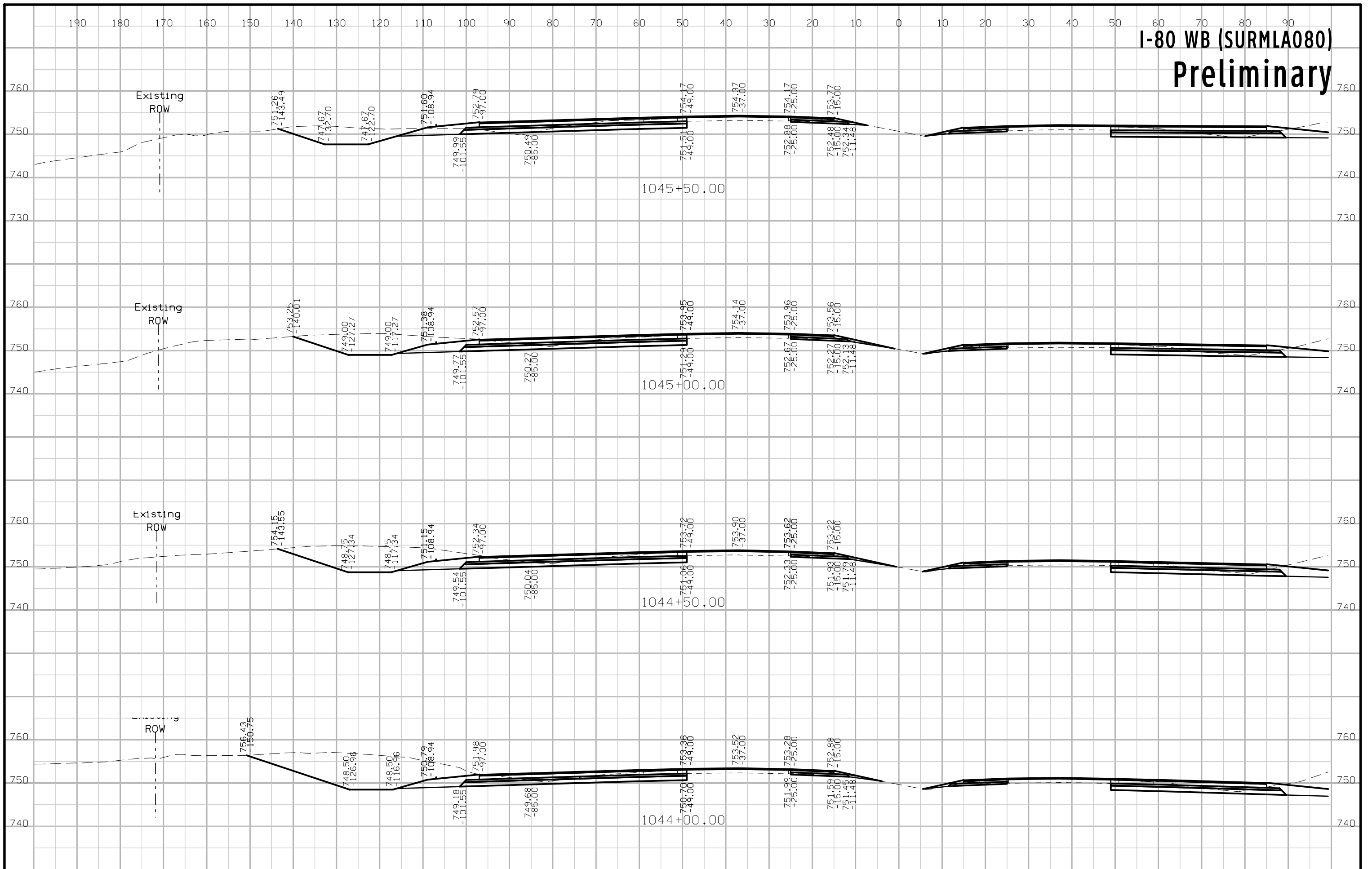
I-80 WB (SURMLA080) Preliminary



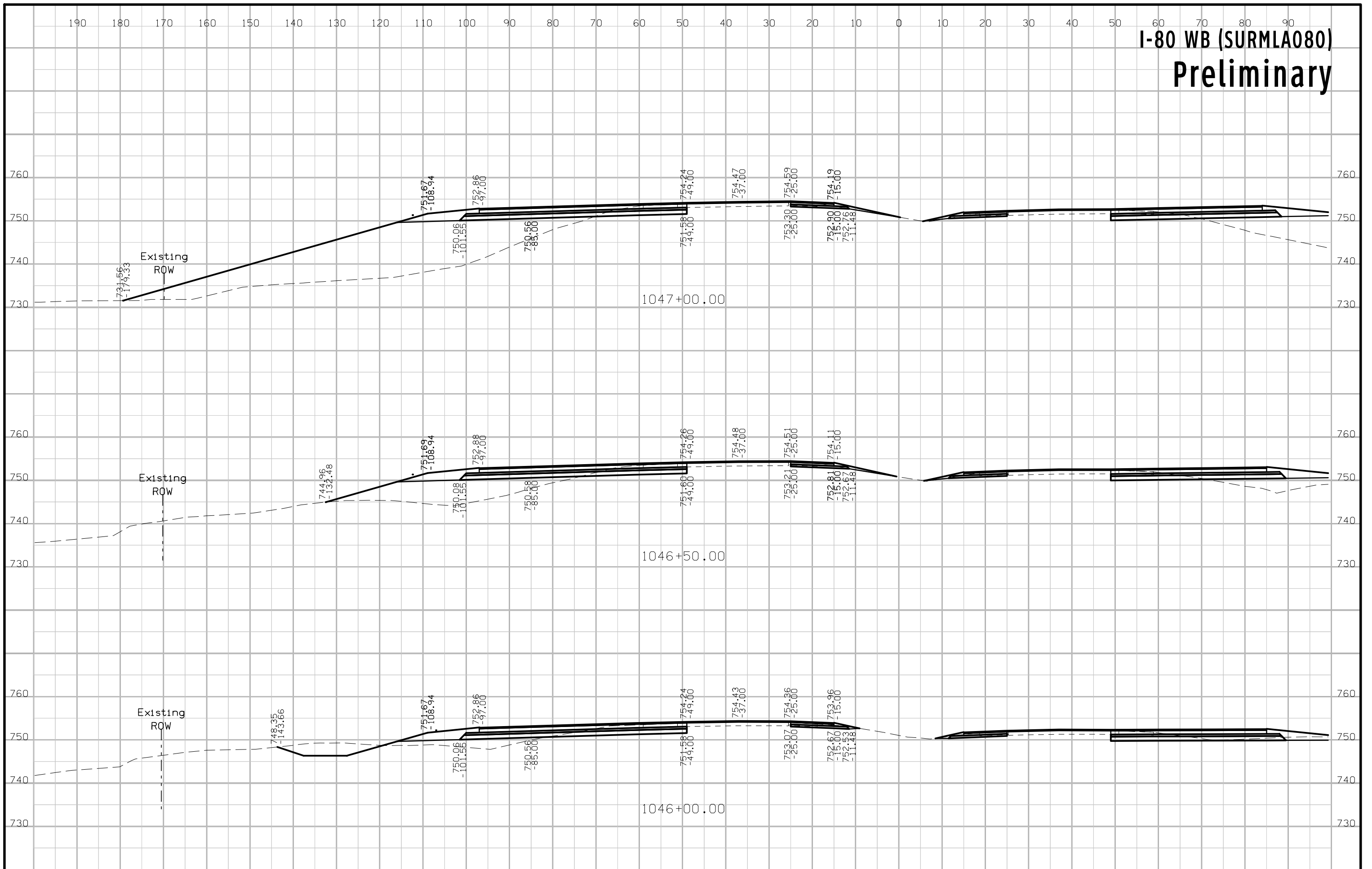
I-80 WB (SURMLA080) Preliminary



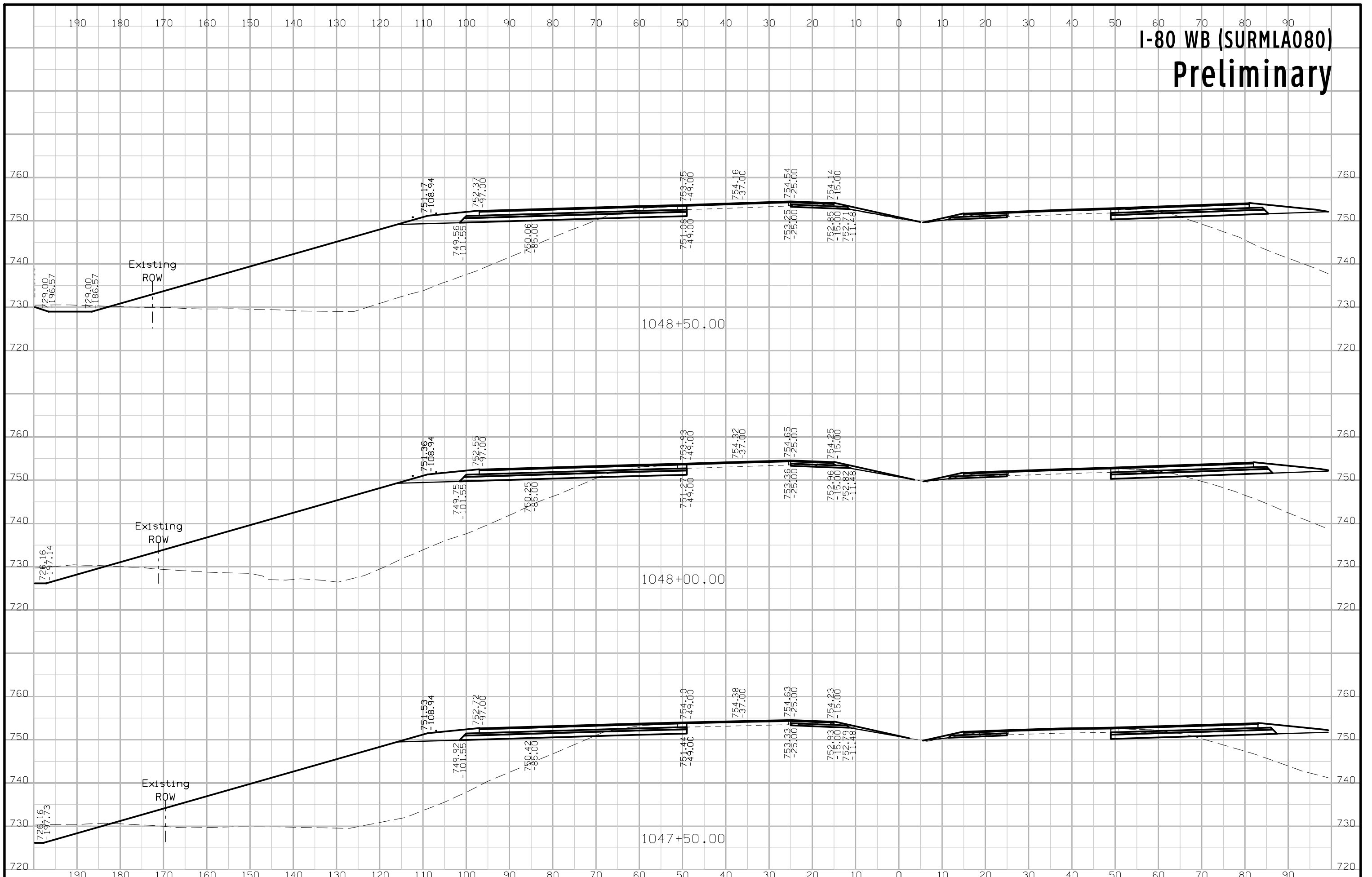
I-80 WB (SURMLA080) Preliminary



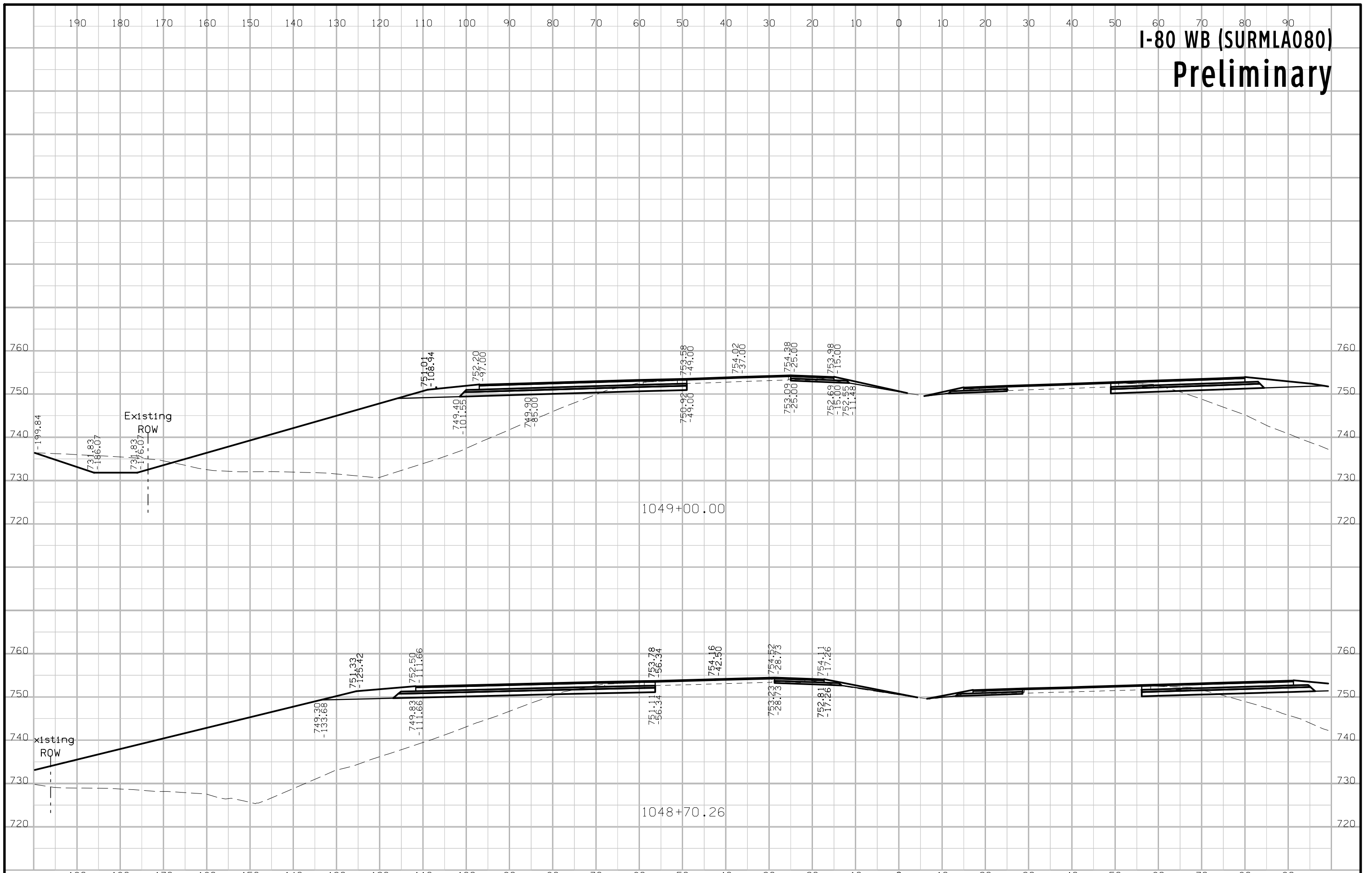
I-80 WB (SURMLA080) Preliminary



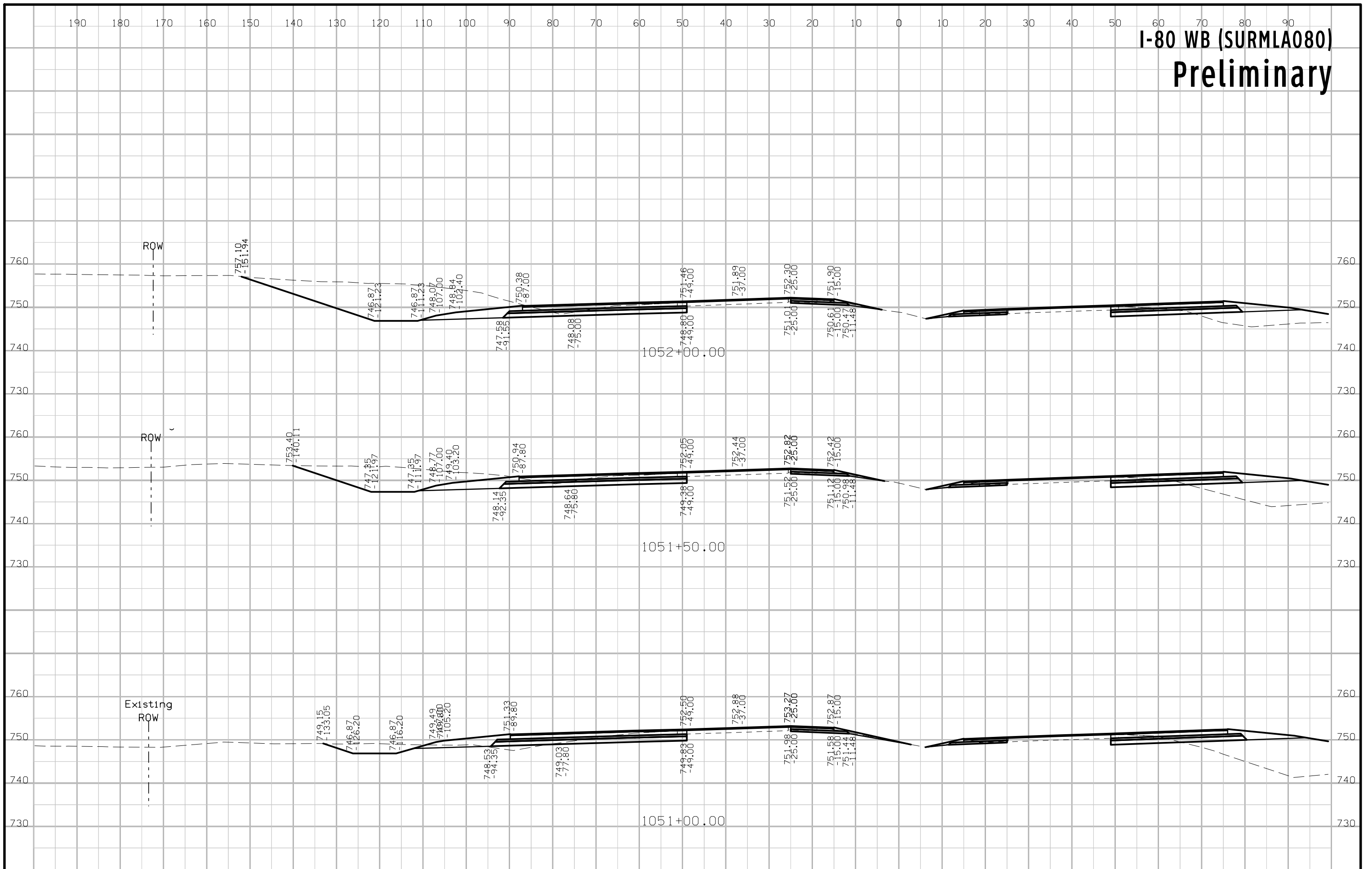
I-80 WB (SURMLA080) Preliminary



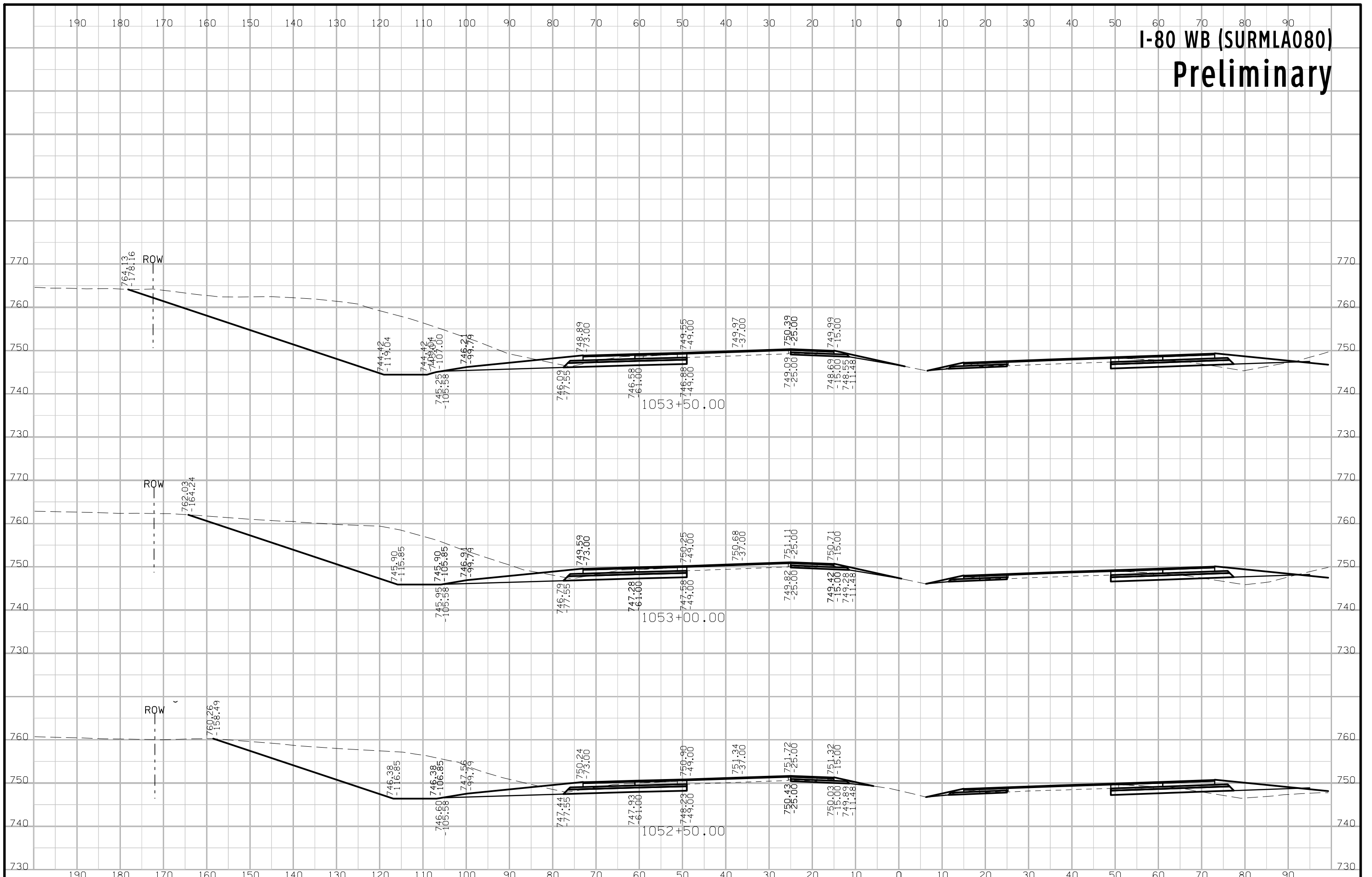
I-80 WB (SURMLA080) Preliminary



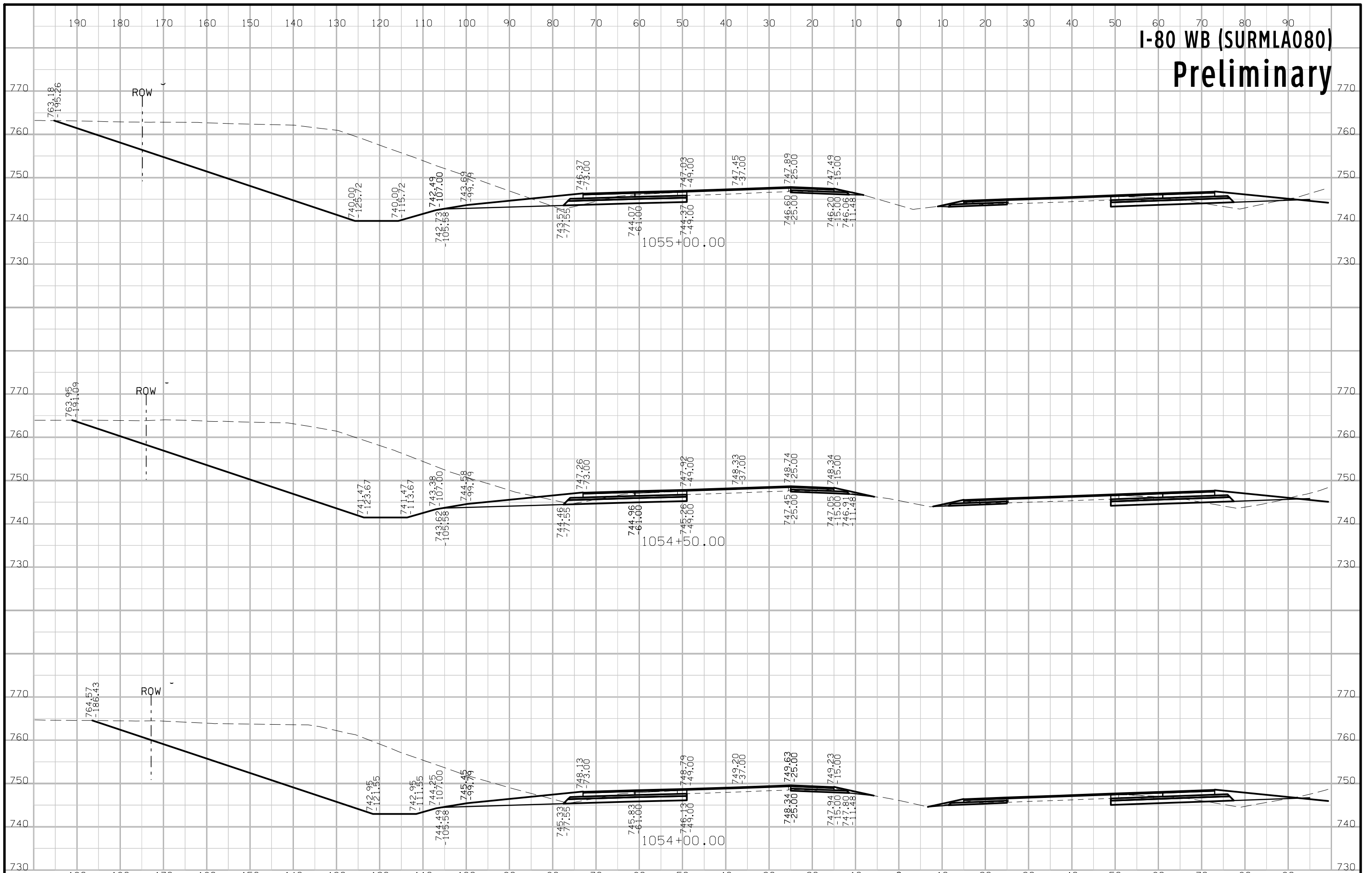
I-80 WB (SURMLA080) Preliminary



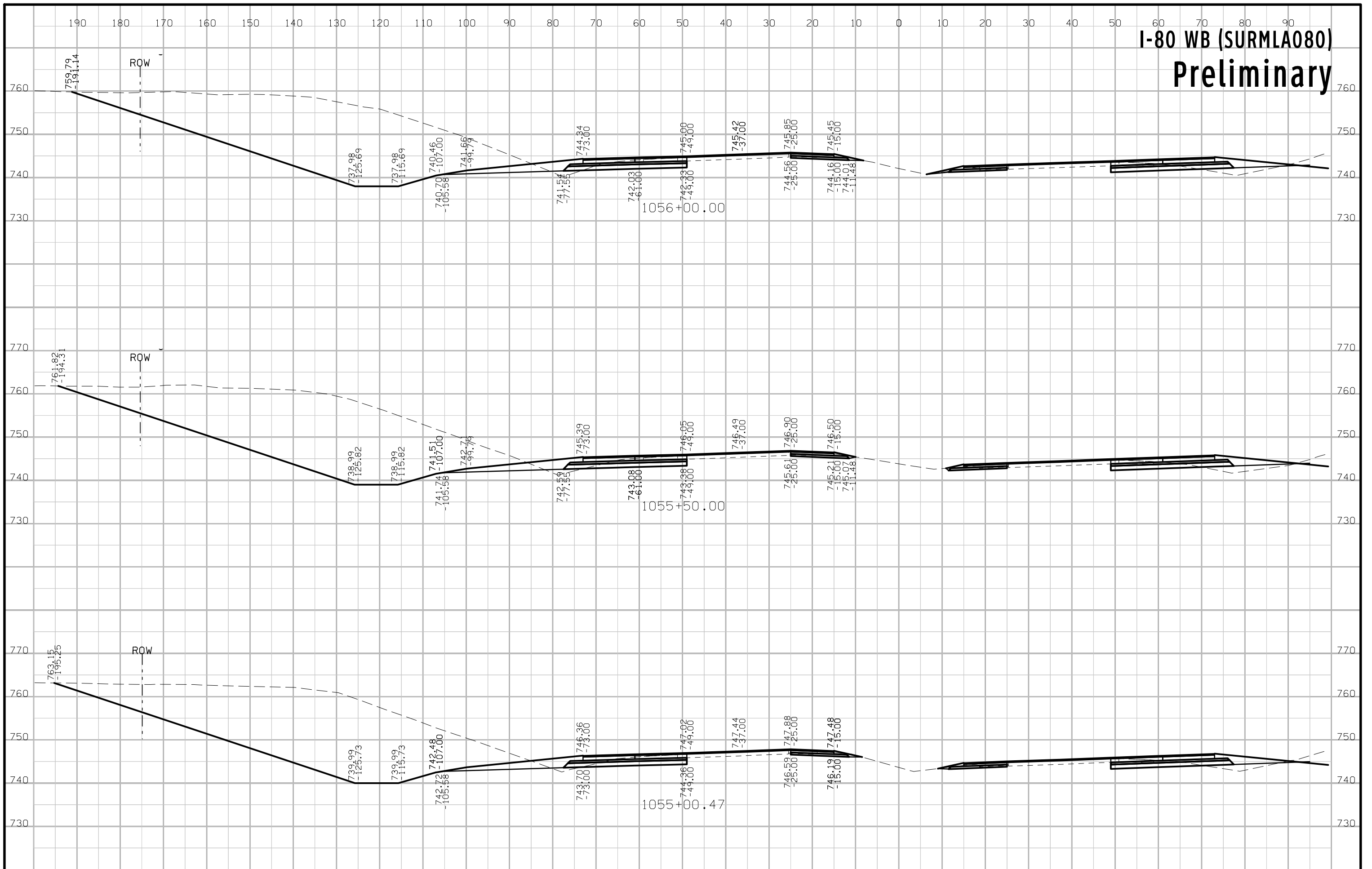
I-80 WB (SURMLA080) Preliminary



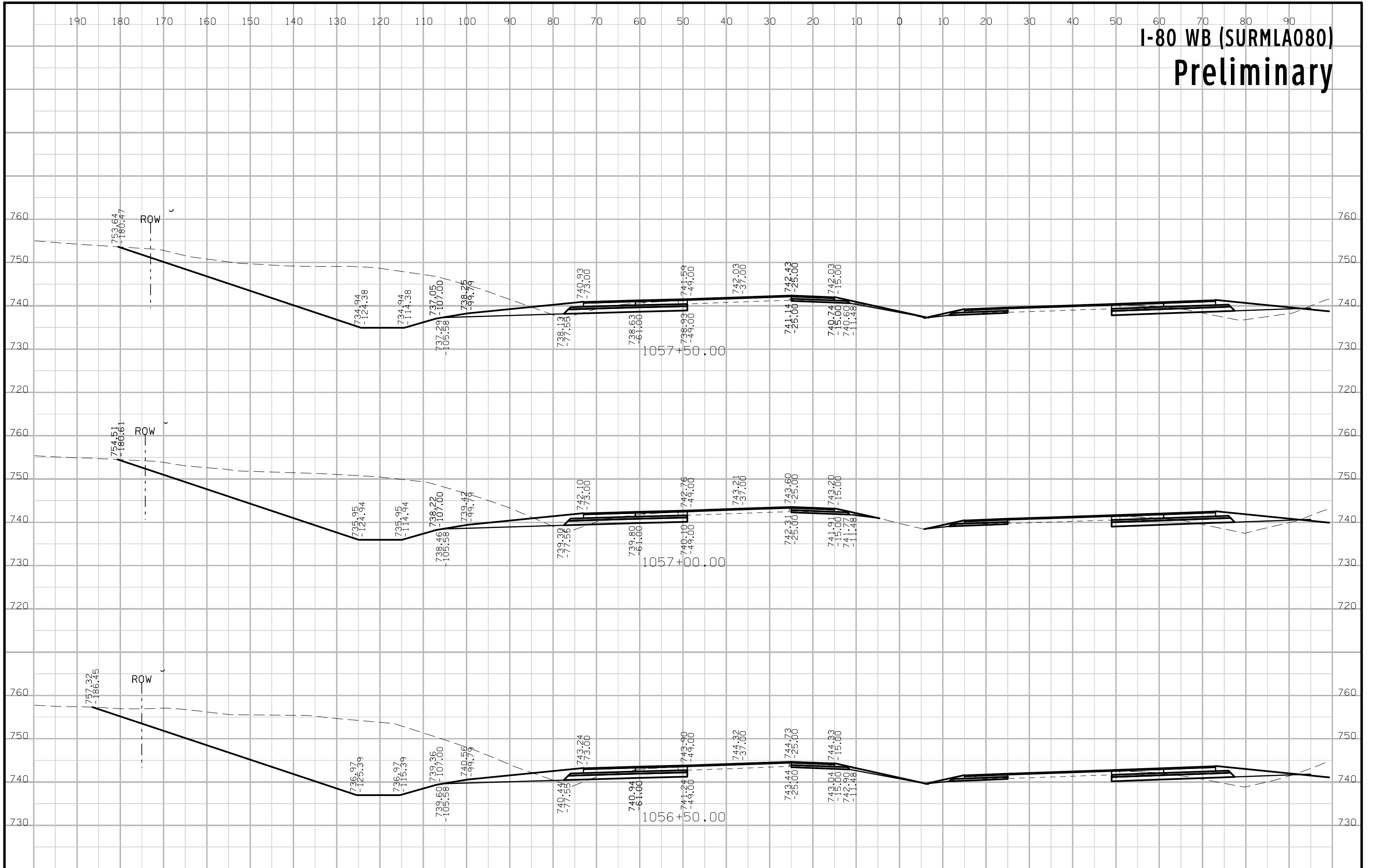
I-80 WB (SURMLA080) Preliminary



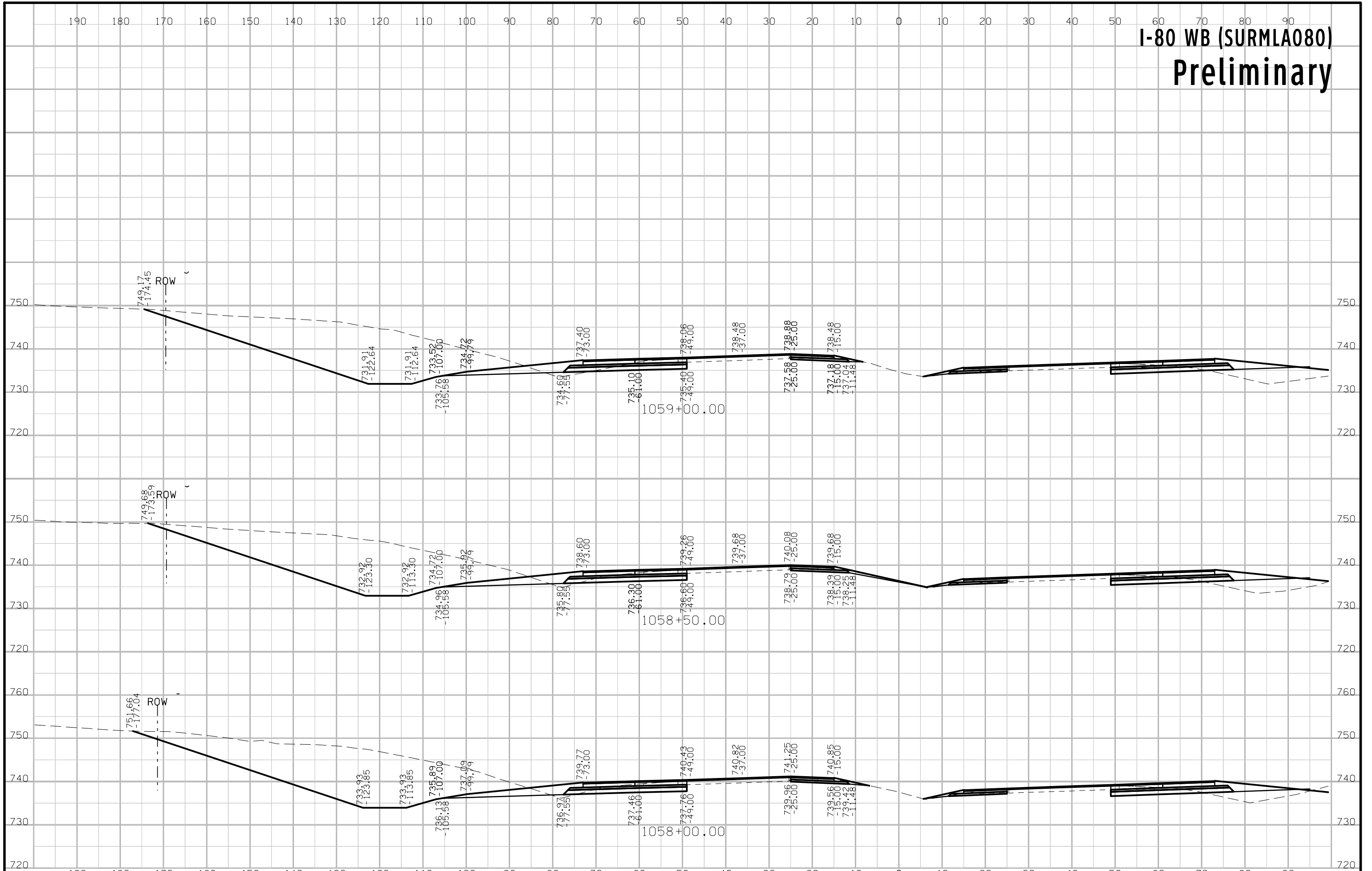
I-80 WB (SURMLA080) Preliminary



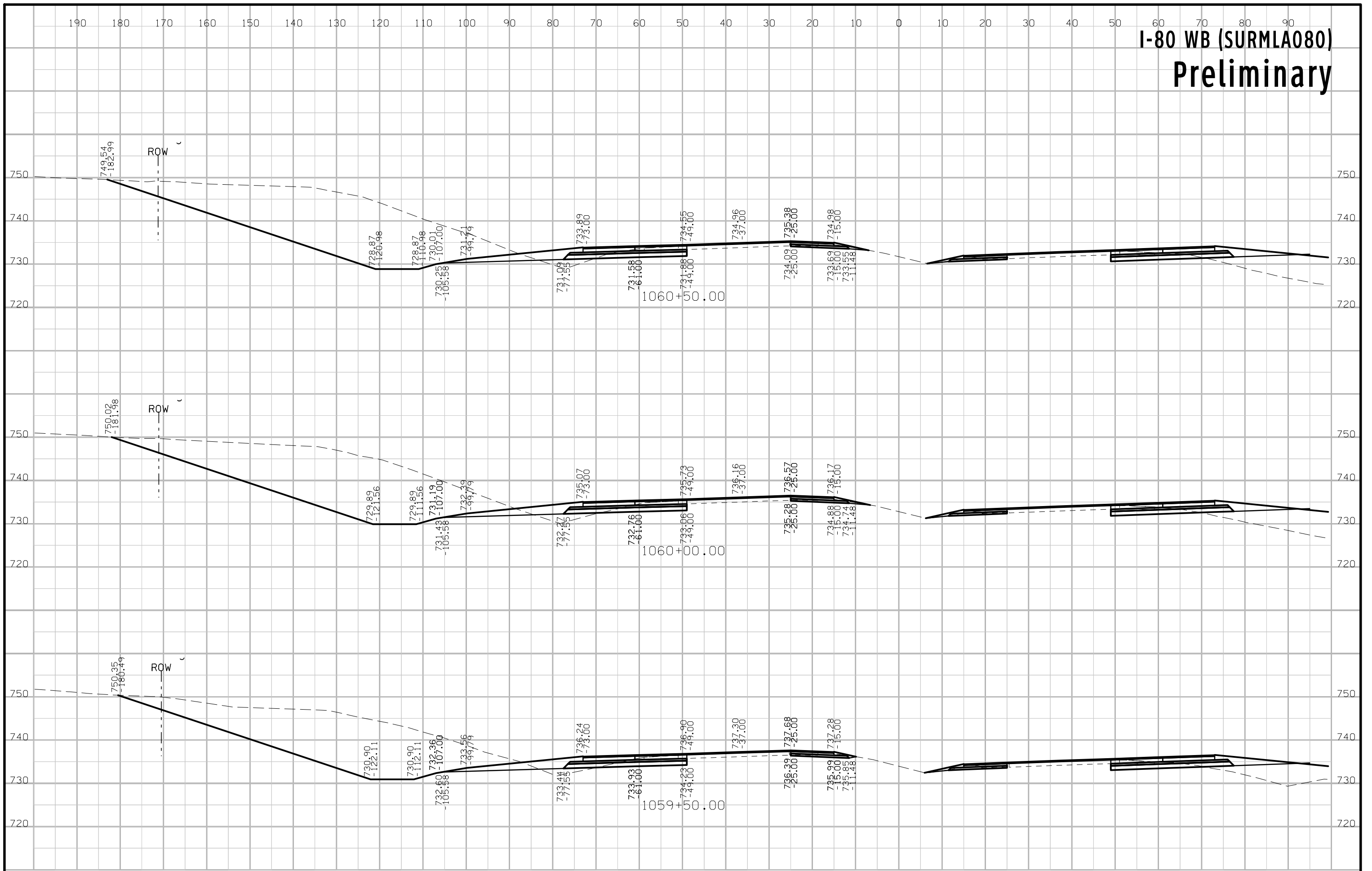
I-80 WB (SURMLA080) Preliminary



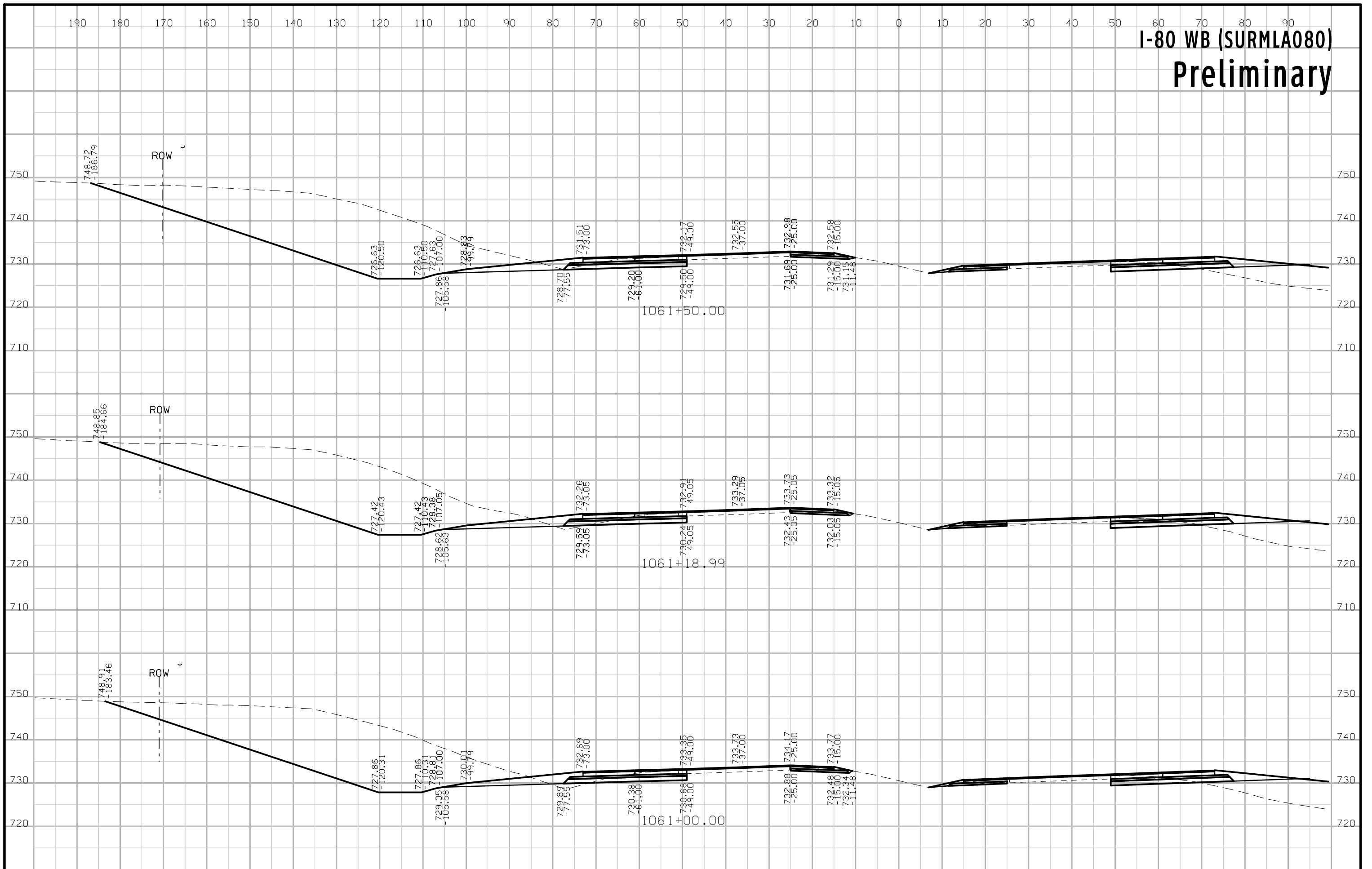
I-80 WB (SURMLA080) Preliminary



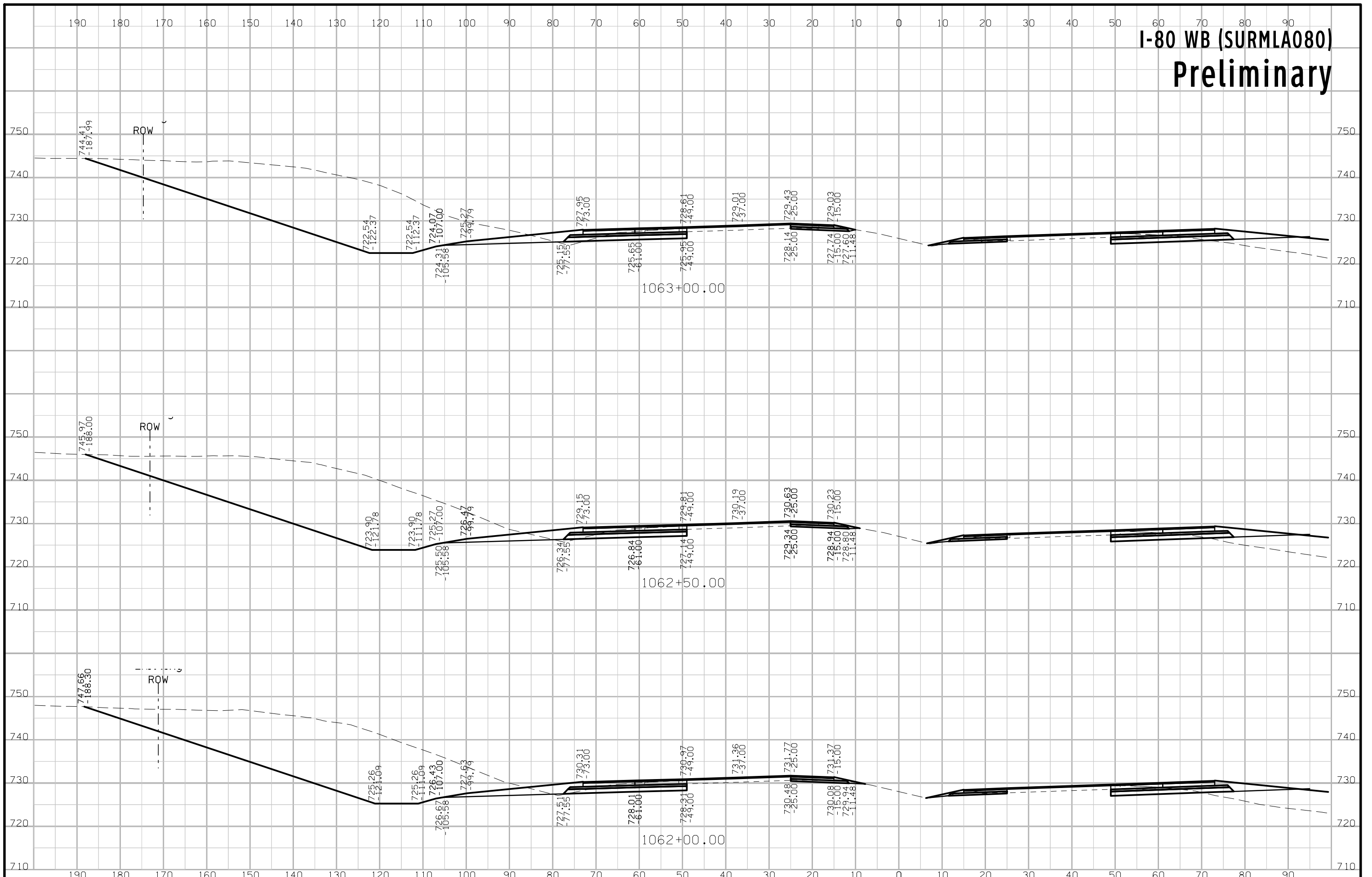
I-80 WB (SURMLA080) Preliminary



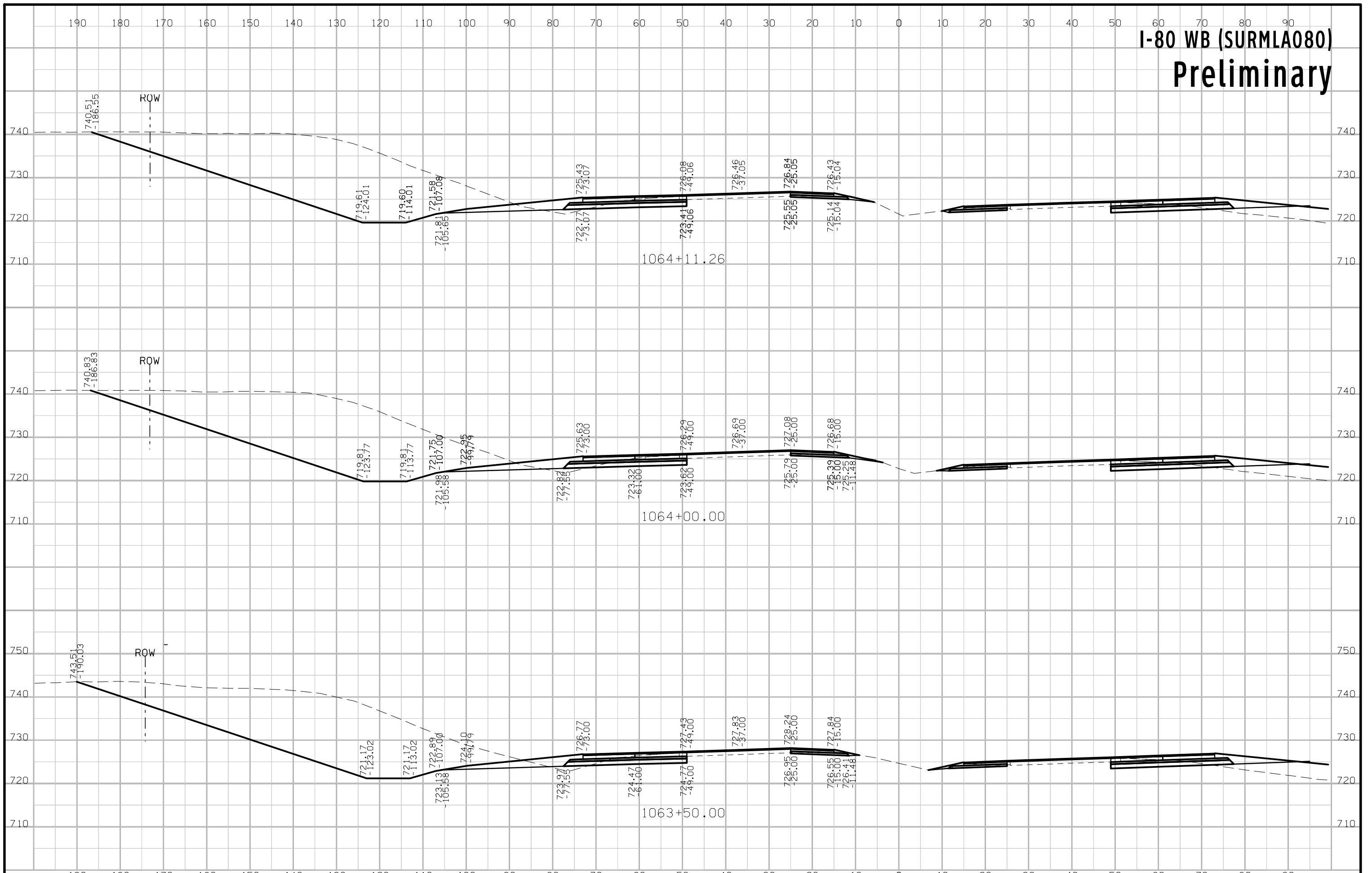
I-80 WB (SURMLA080) Preliminary



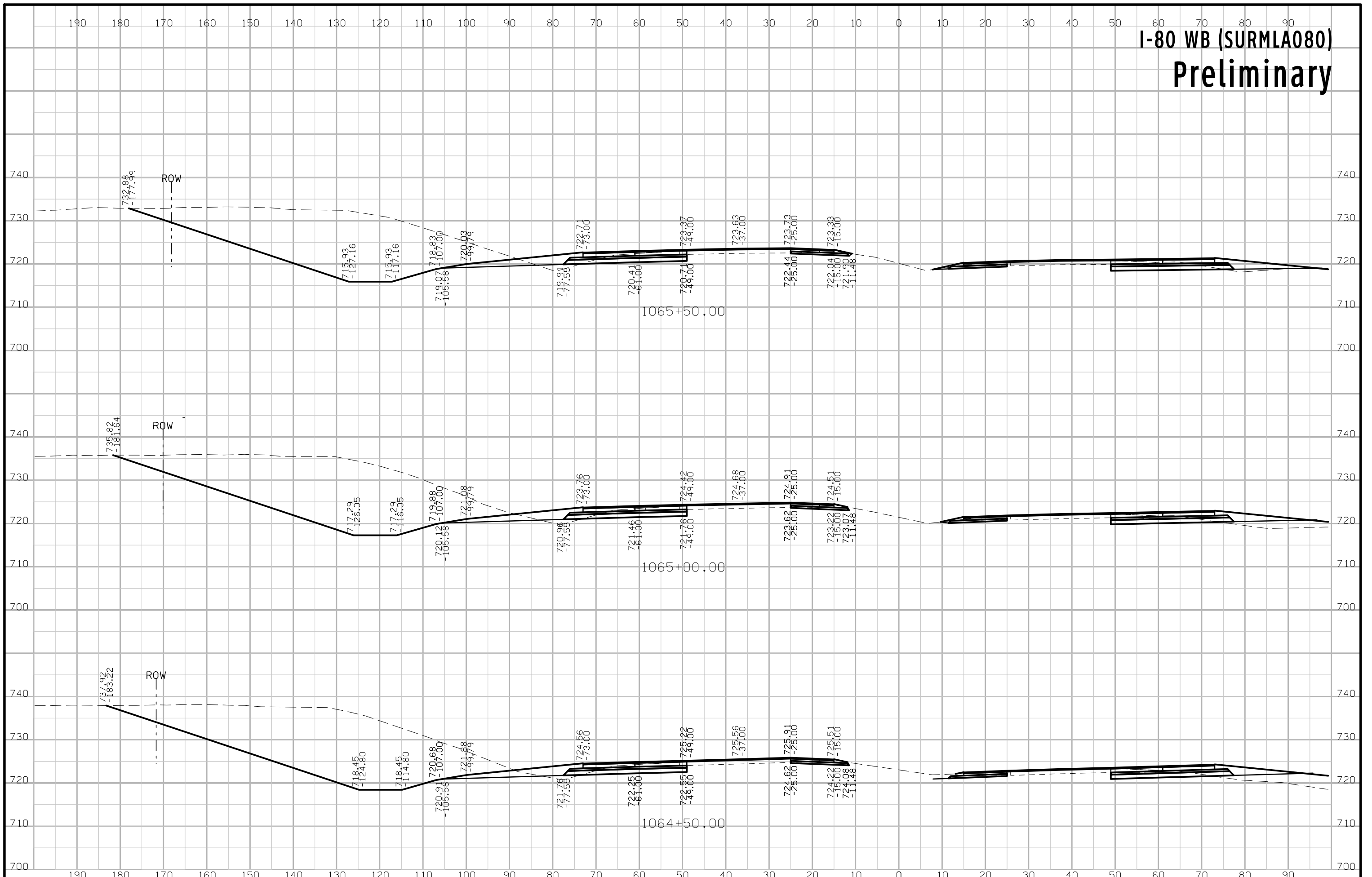
I-80 WB (SURMLA080) Preliminary



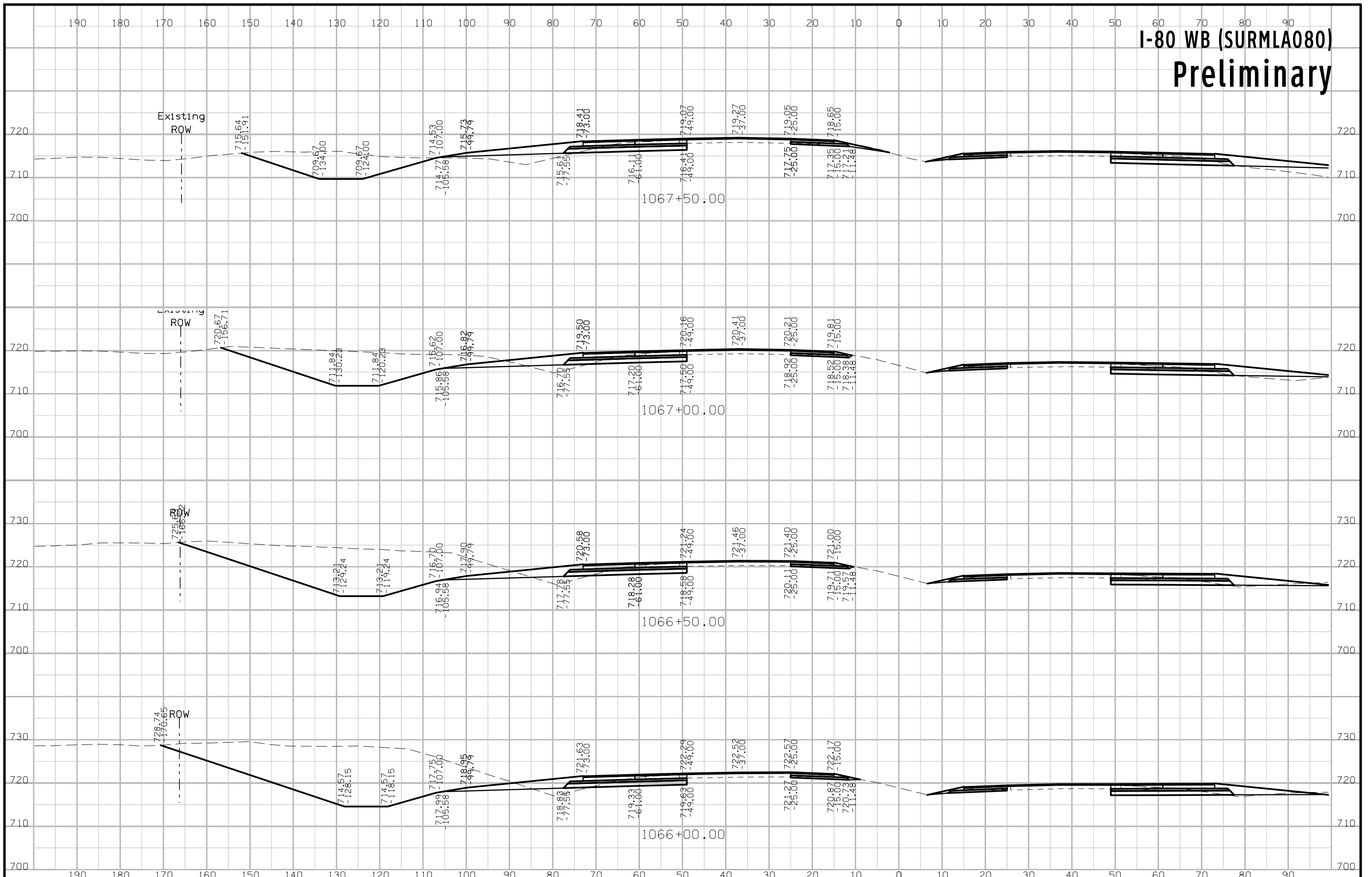
I-80 WB (SURMLA080) Preliminary



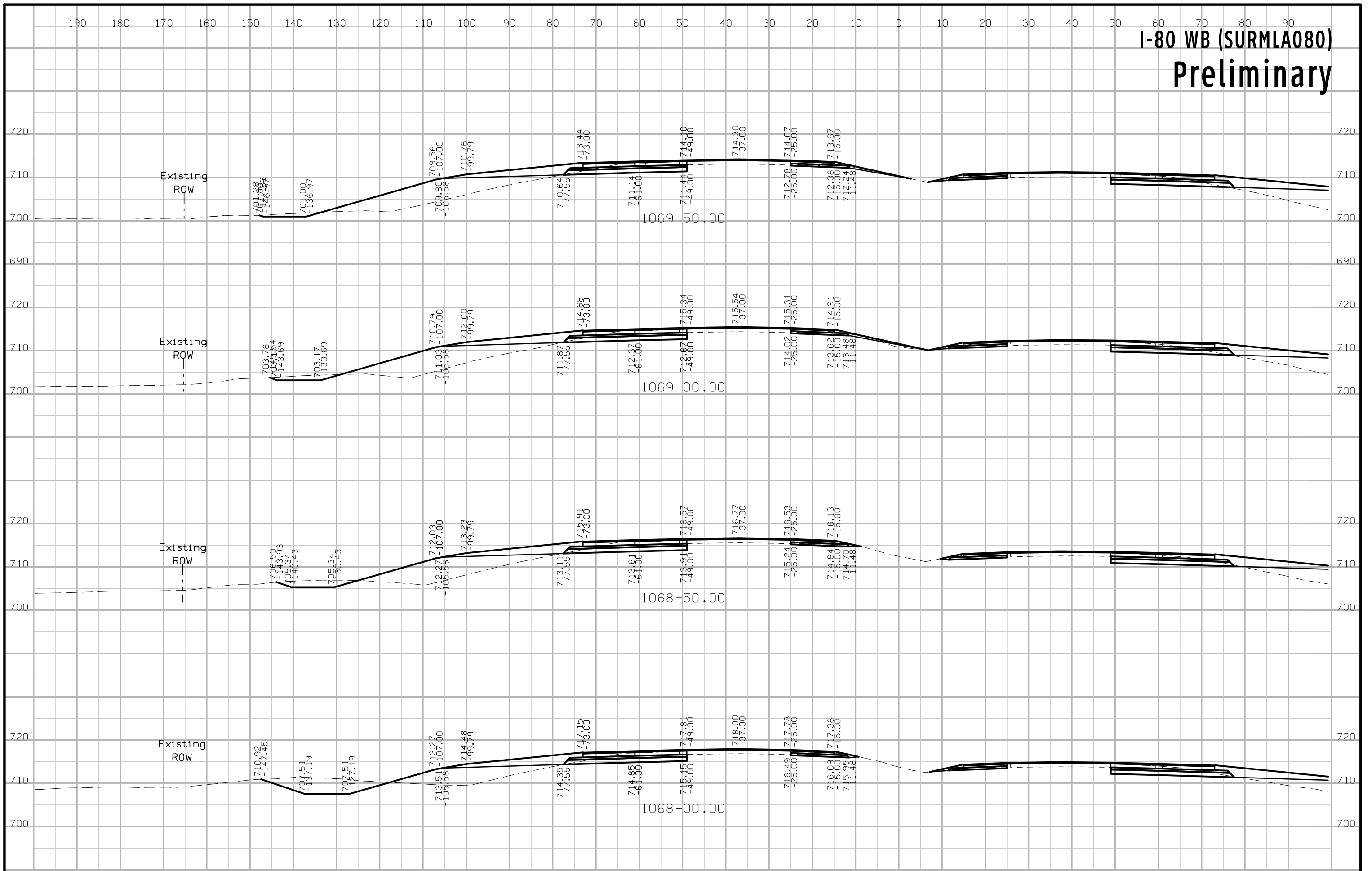
I-80 WB (SURMLA080) Preliminary



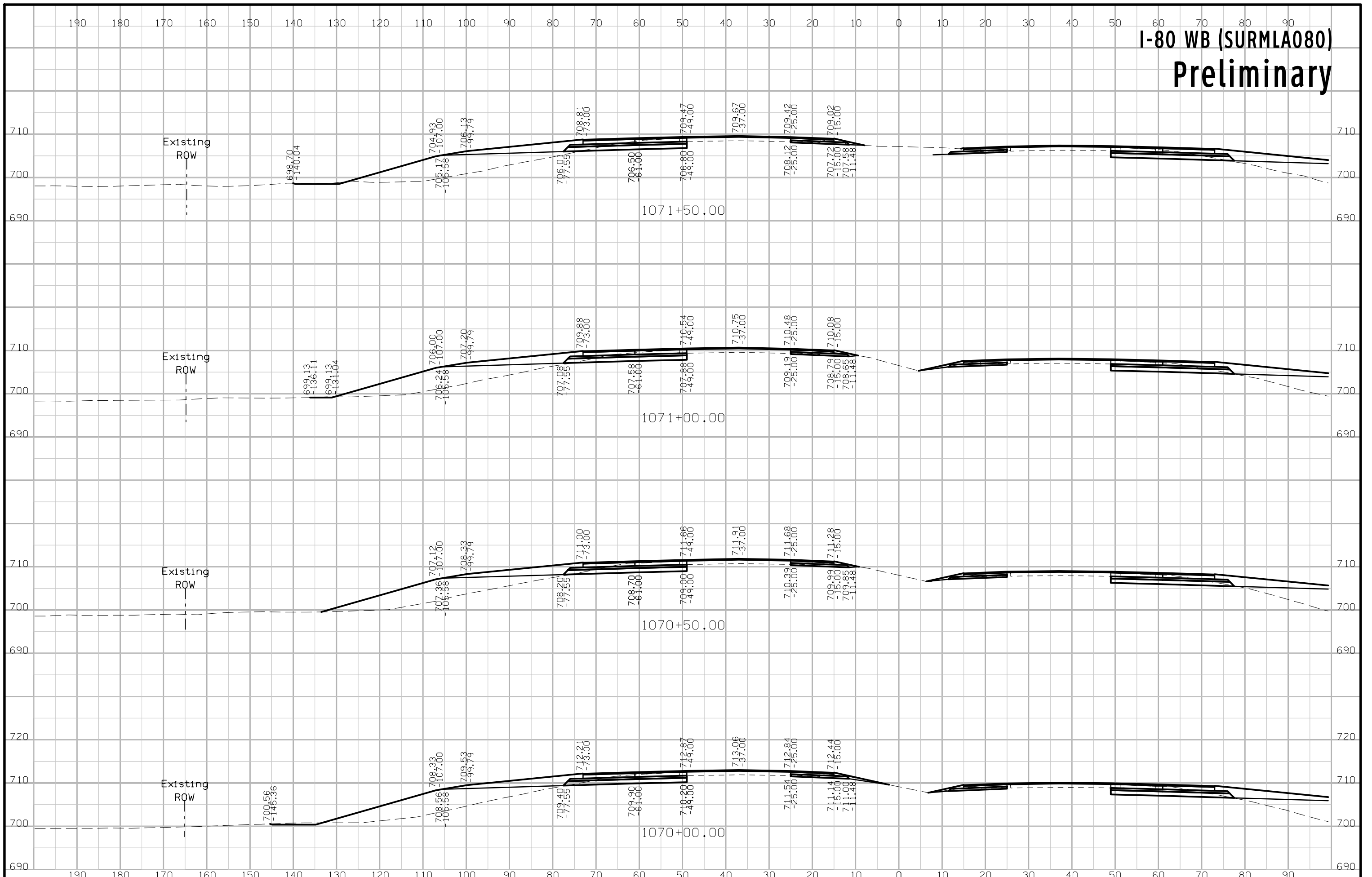
I-80 WB (SURMLA080) Preliminary



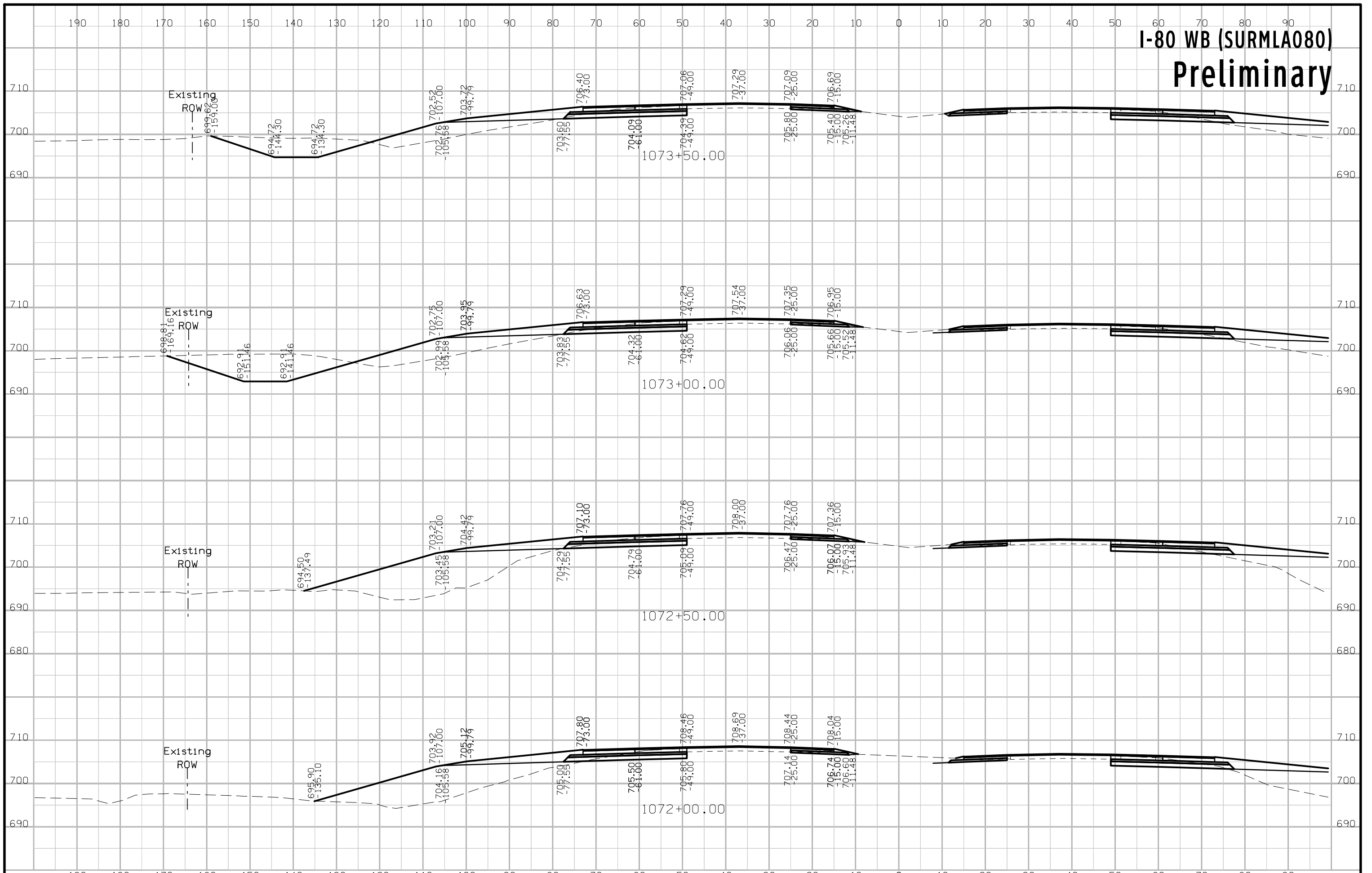
I-80 WB (SURMLA080) Preliminary



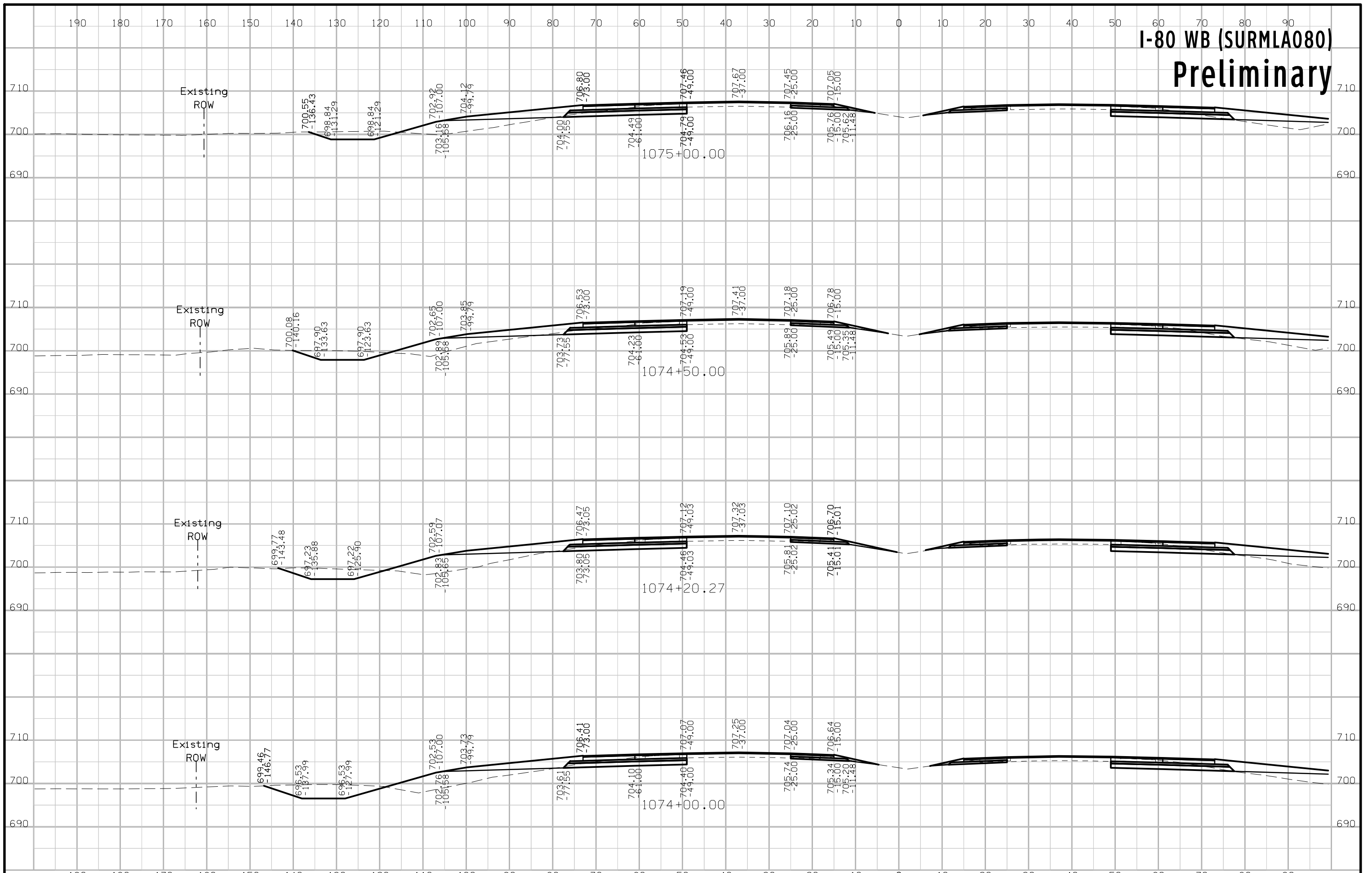
I-80 WB (SURMLA080) Preliminary



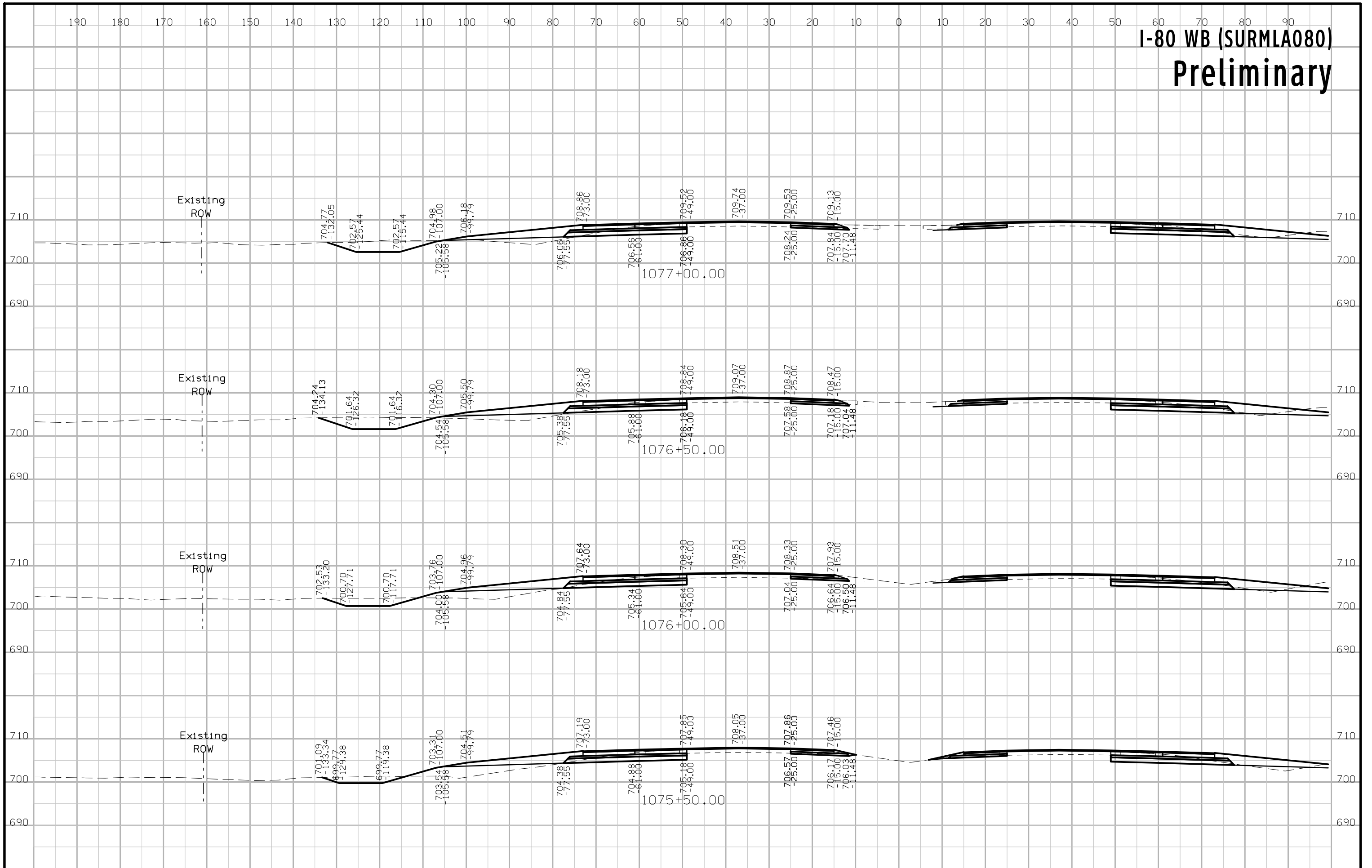
I-80 WB (SURMLA080) Preliminary



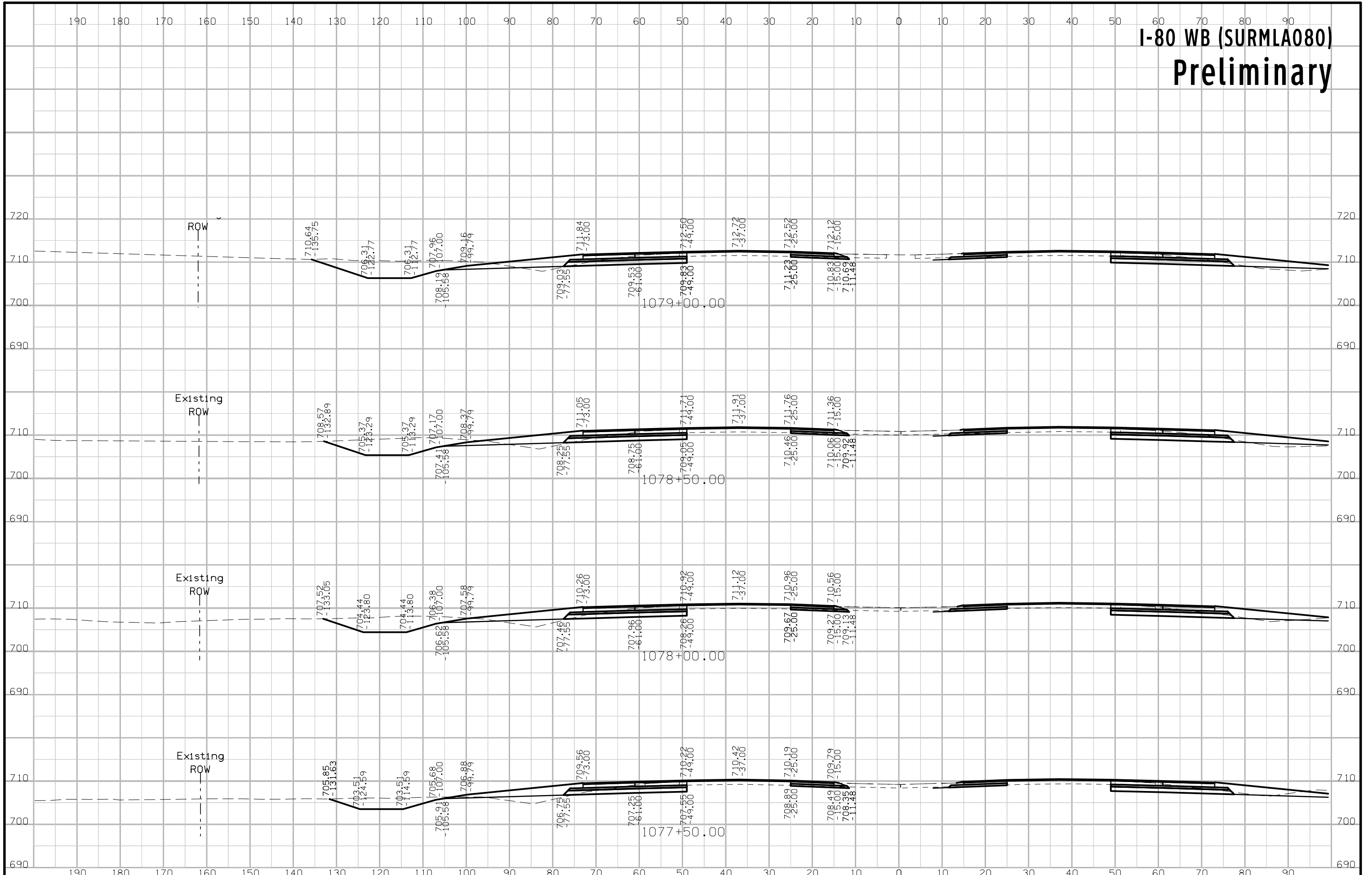
I-80 WB (SURMLA080) Preliminary



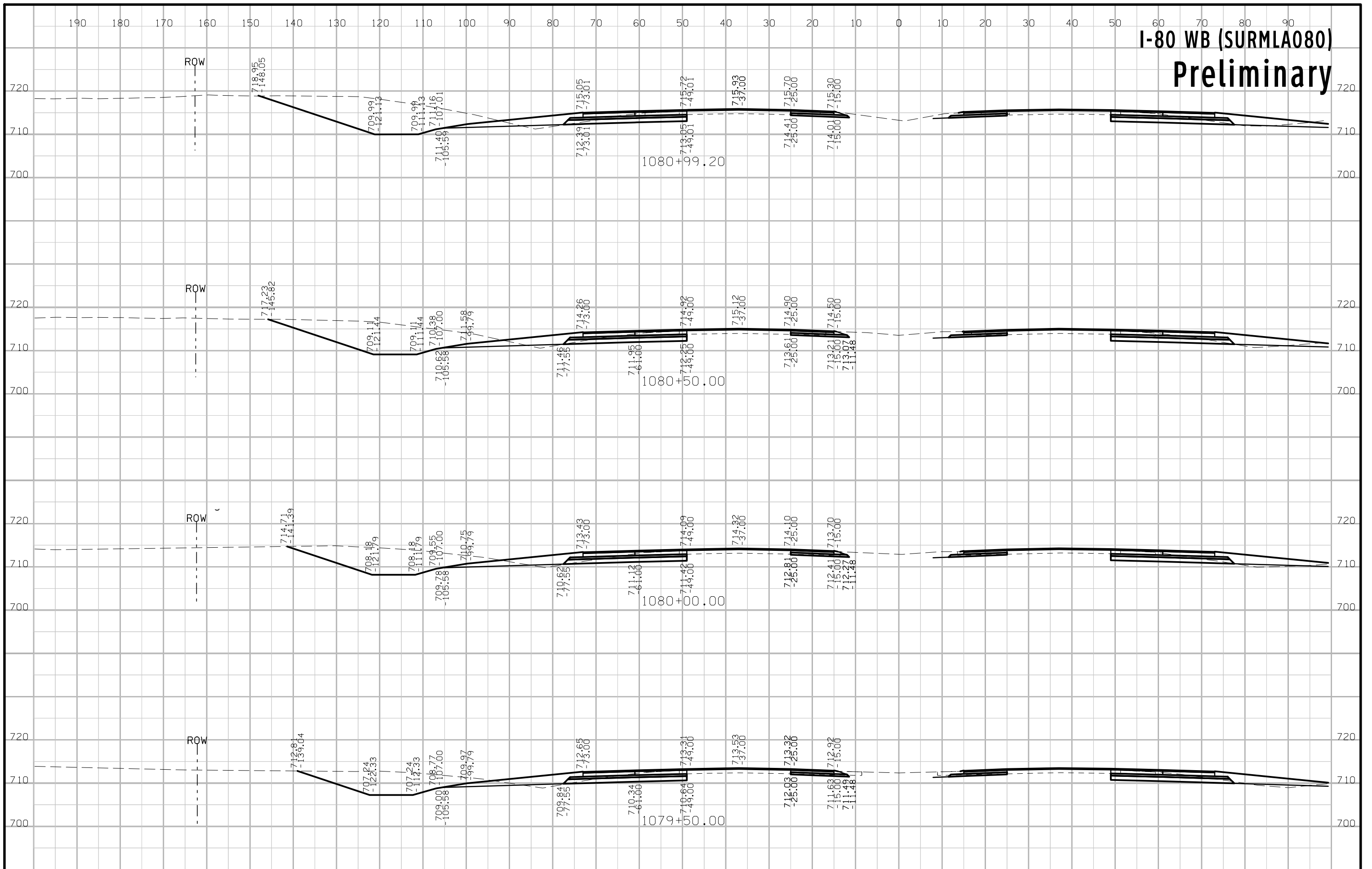
I-80 WB (SURMLA080) Preliminary



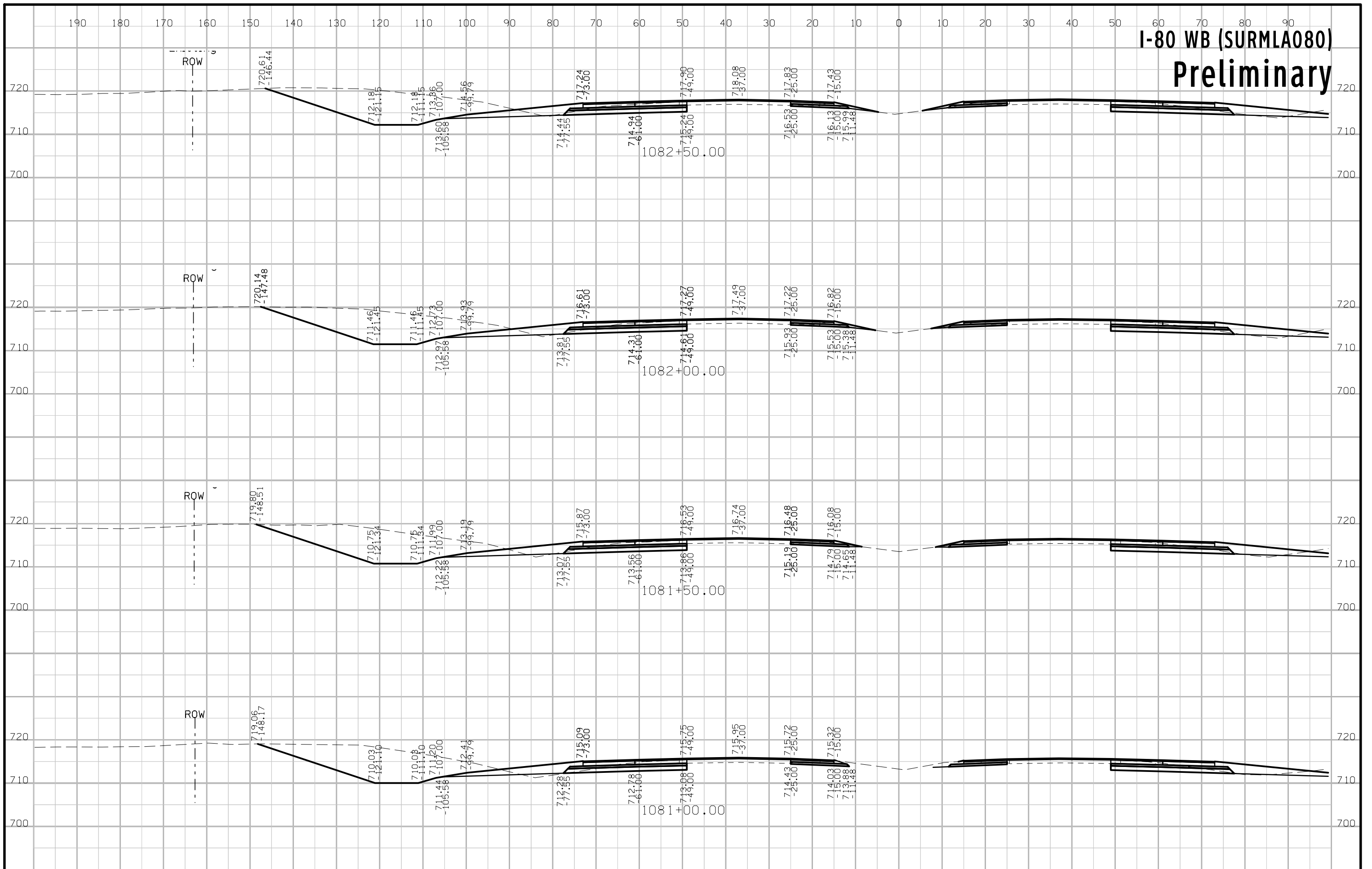
I-80 WB (SURMLA080) Preliminary



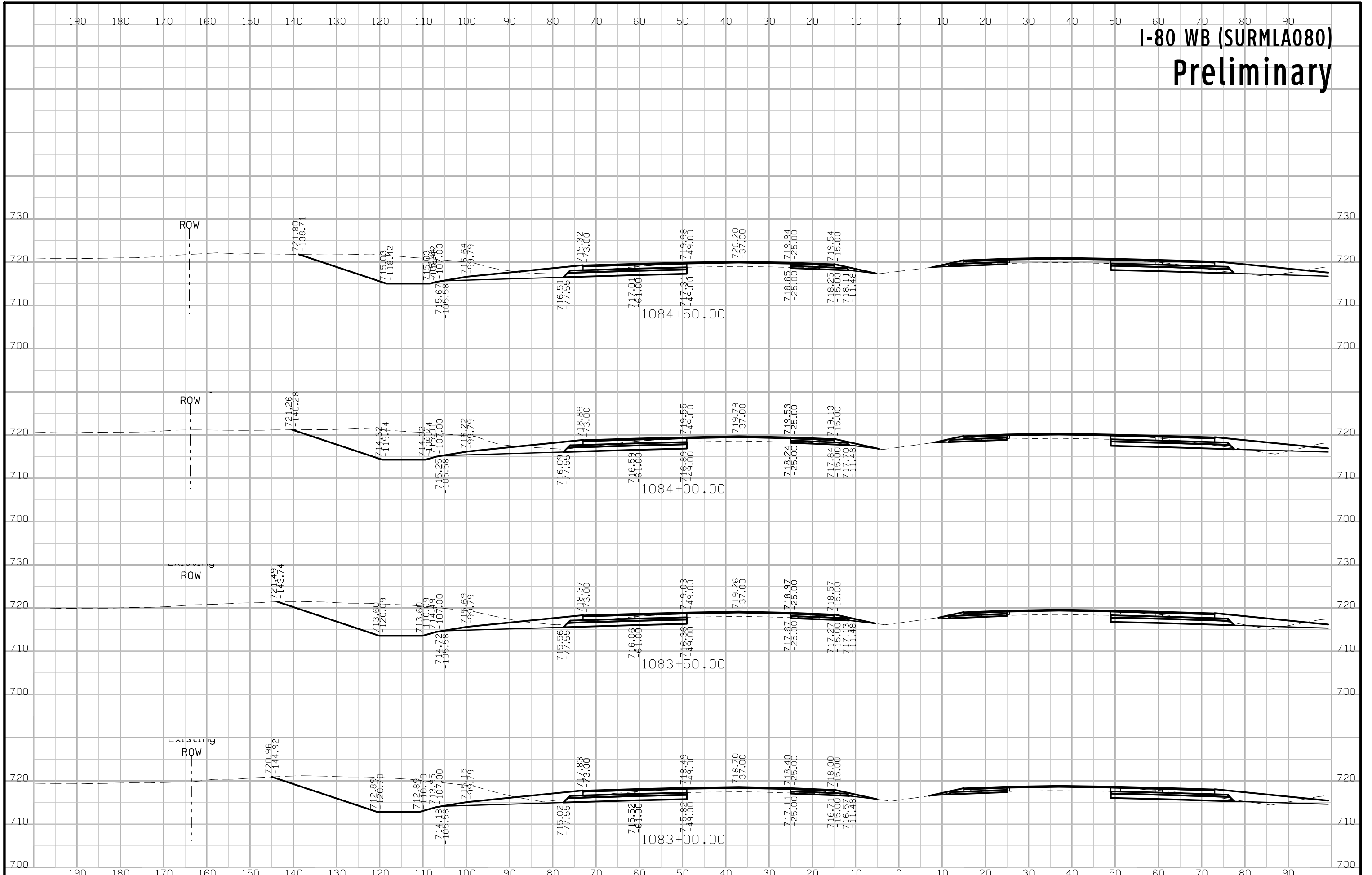
I-80 WB (SURMLA080) Preliminary



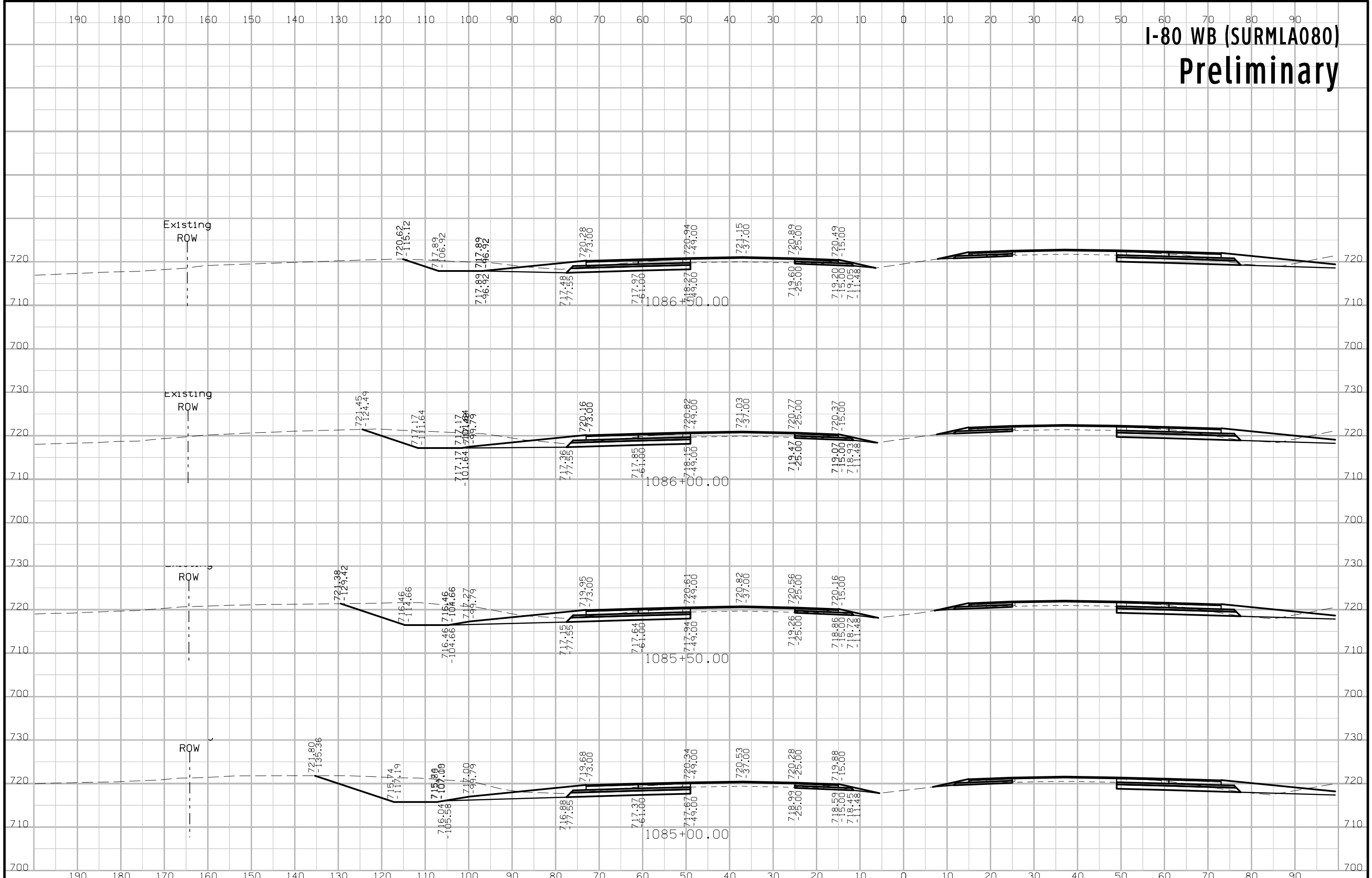
I-80 WB (SURMLA080) Preliminary



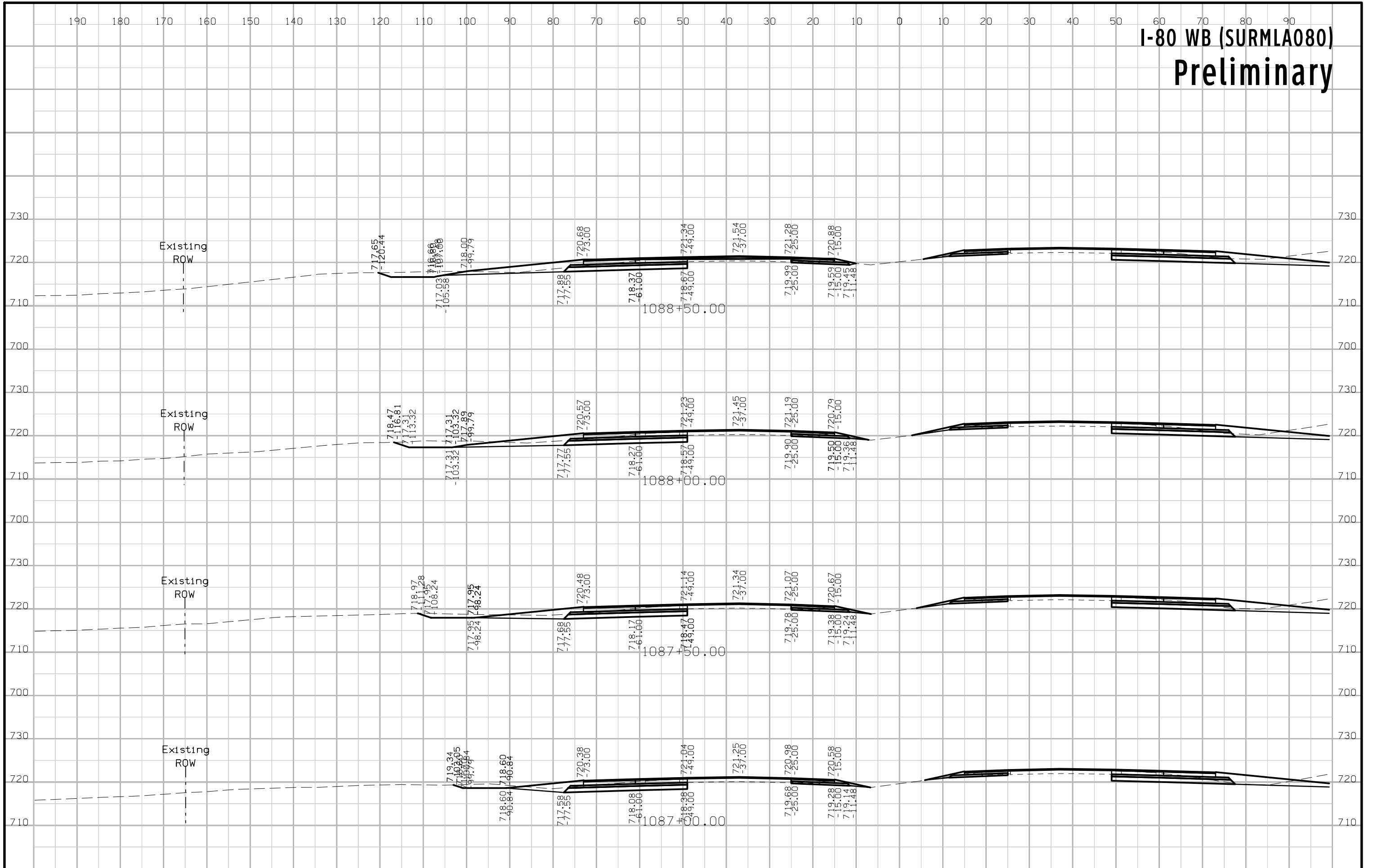
I-80 WB (SURMLA080) Preliminary



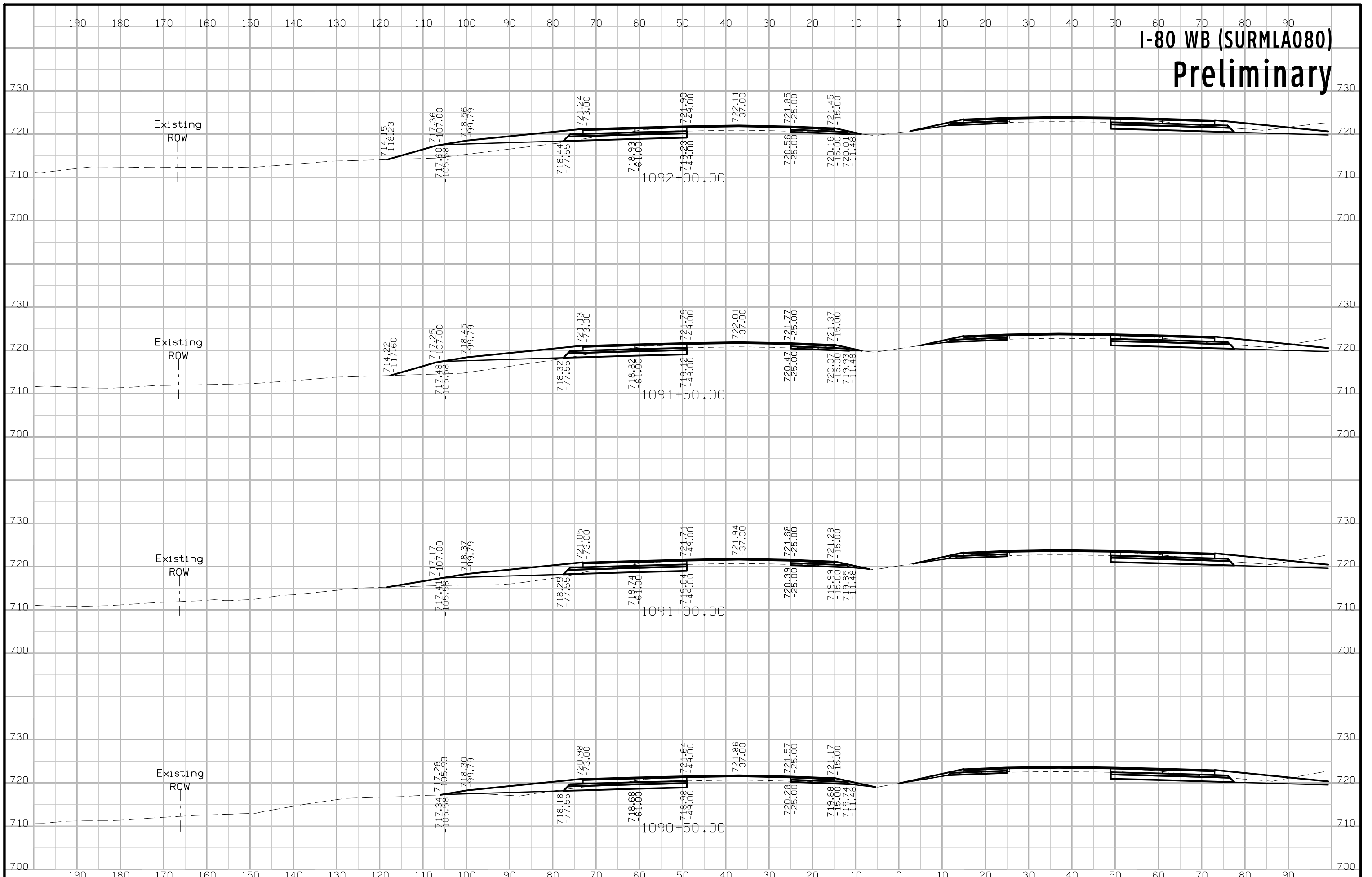
I-80 WB (SURMLA080) Preliminary



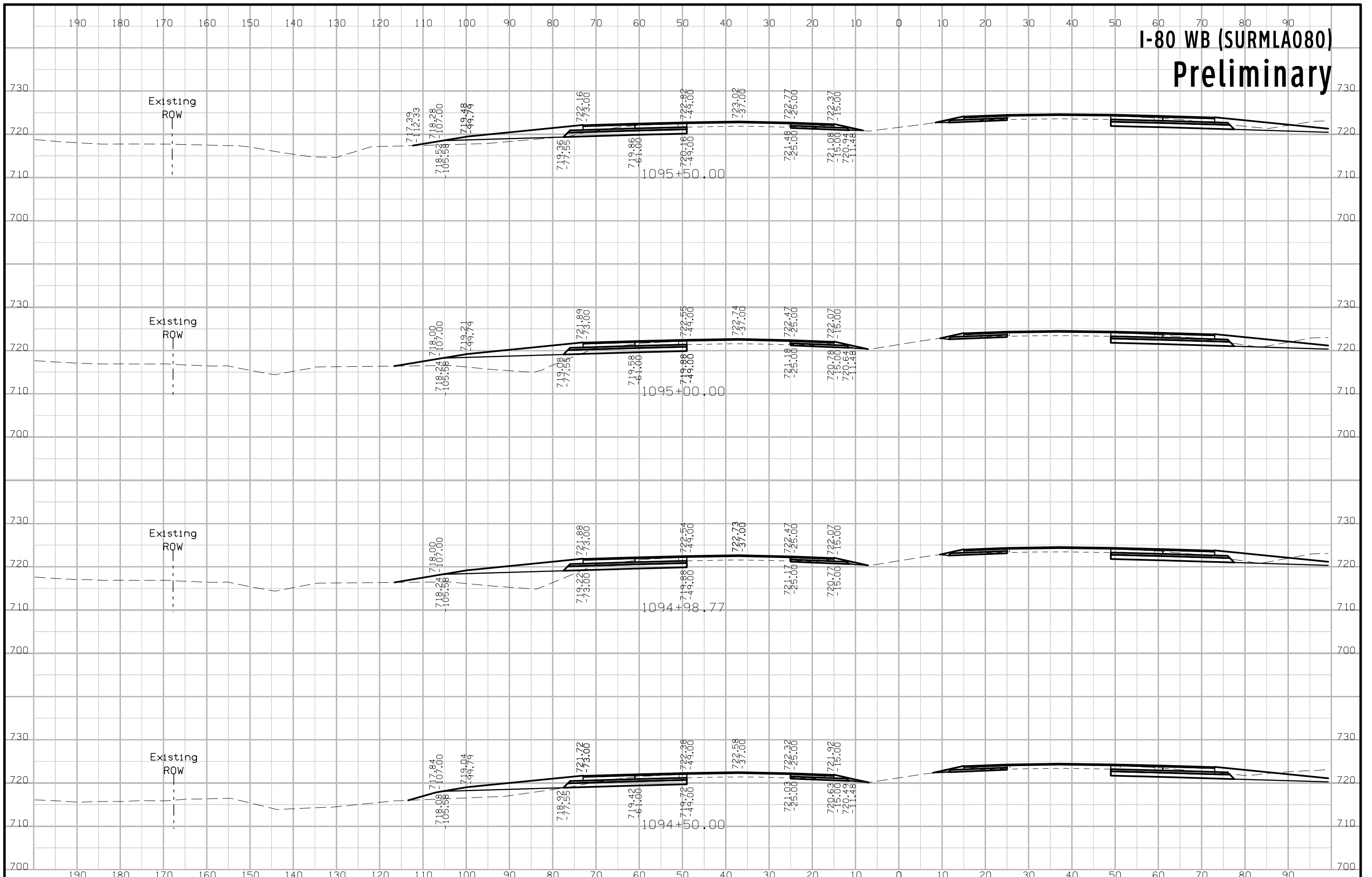
I-80 WB (SURMLA080) Preliminary



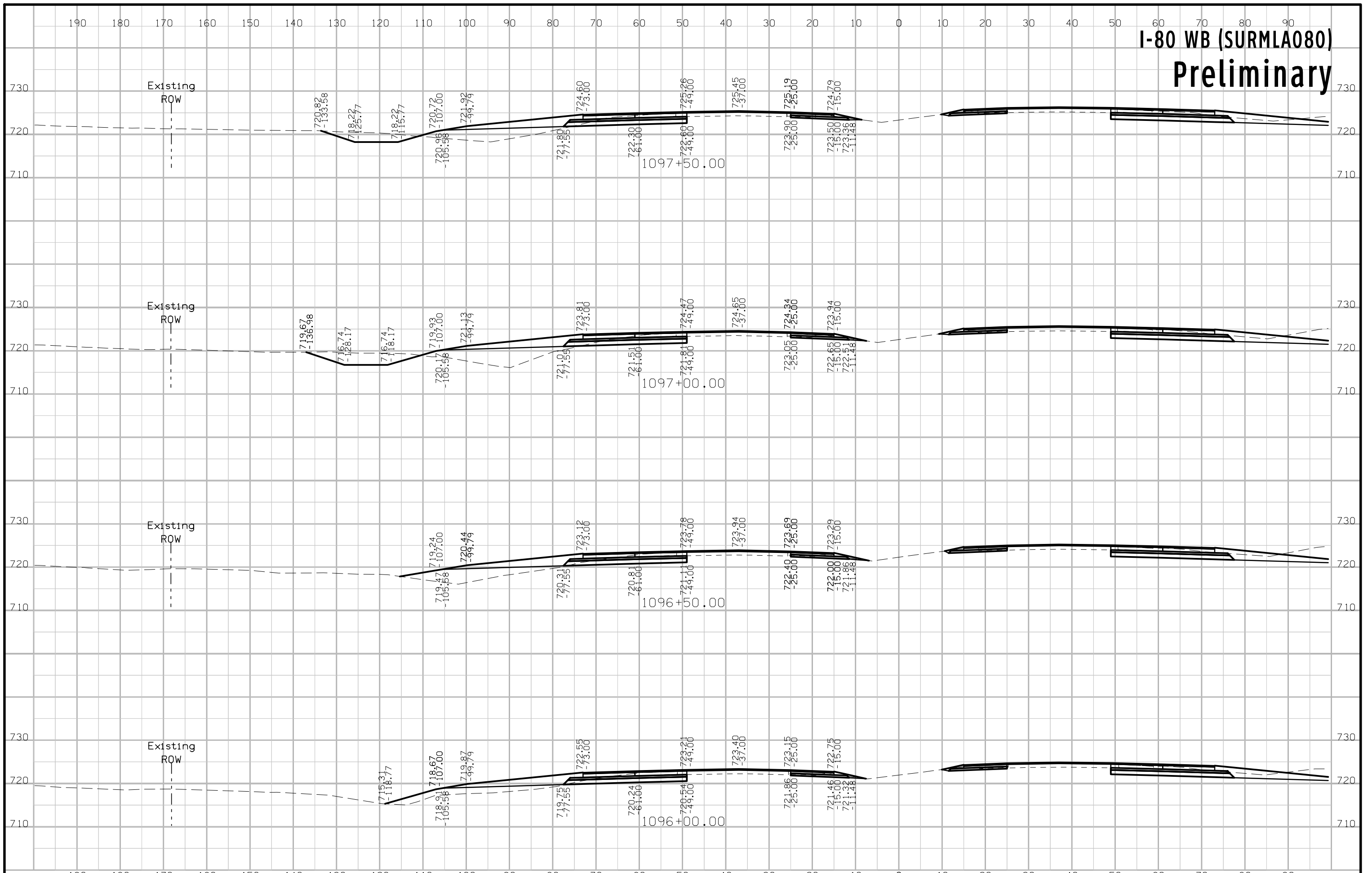
I-80 WB (SURMLA080) Preliminary



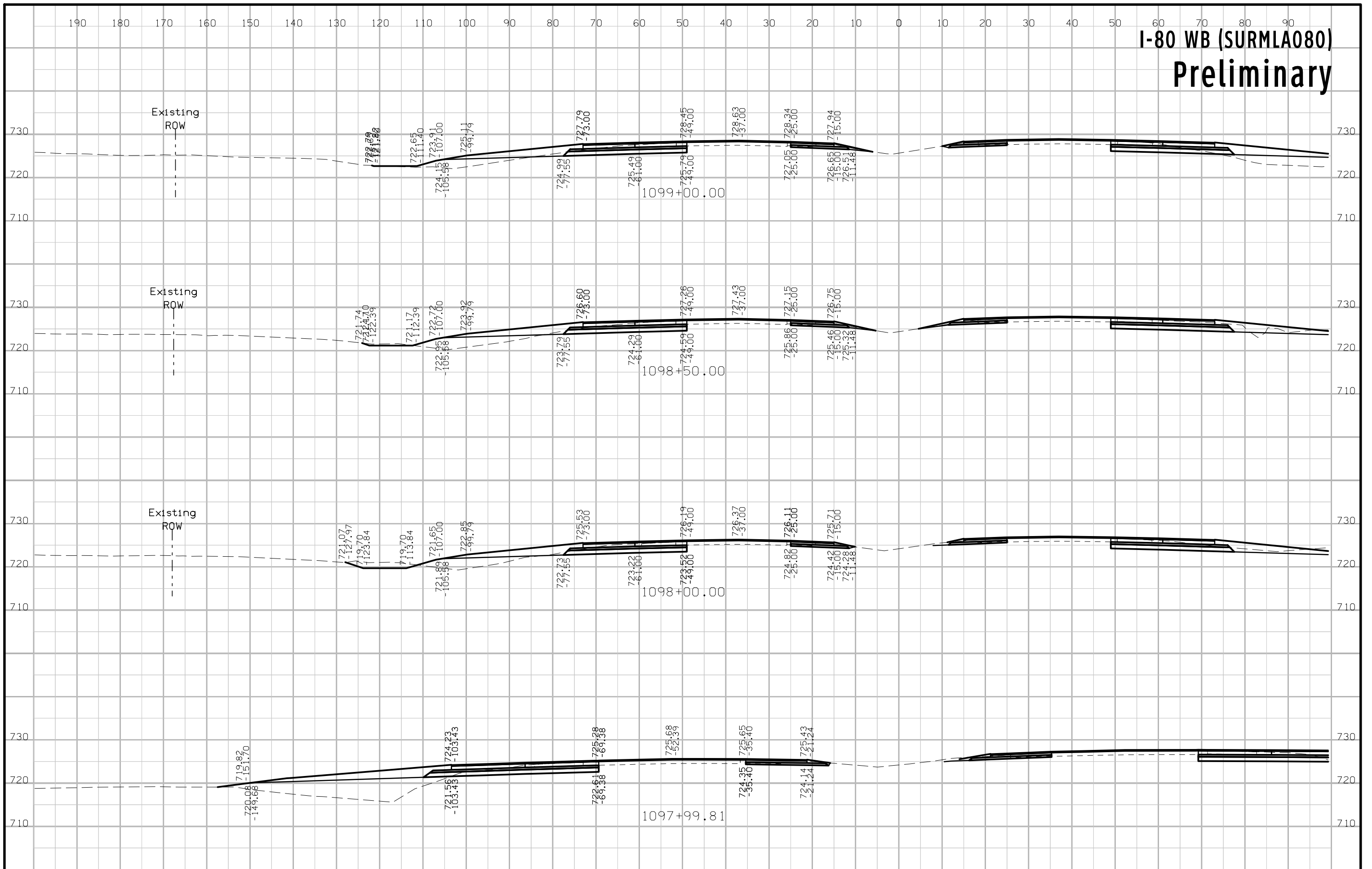
I-80 WB (SURMLA080) Preliminary



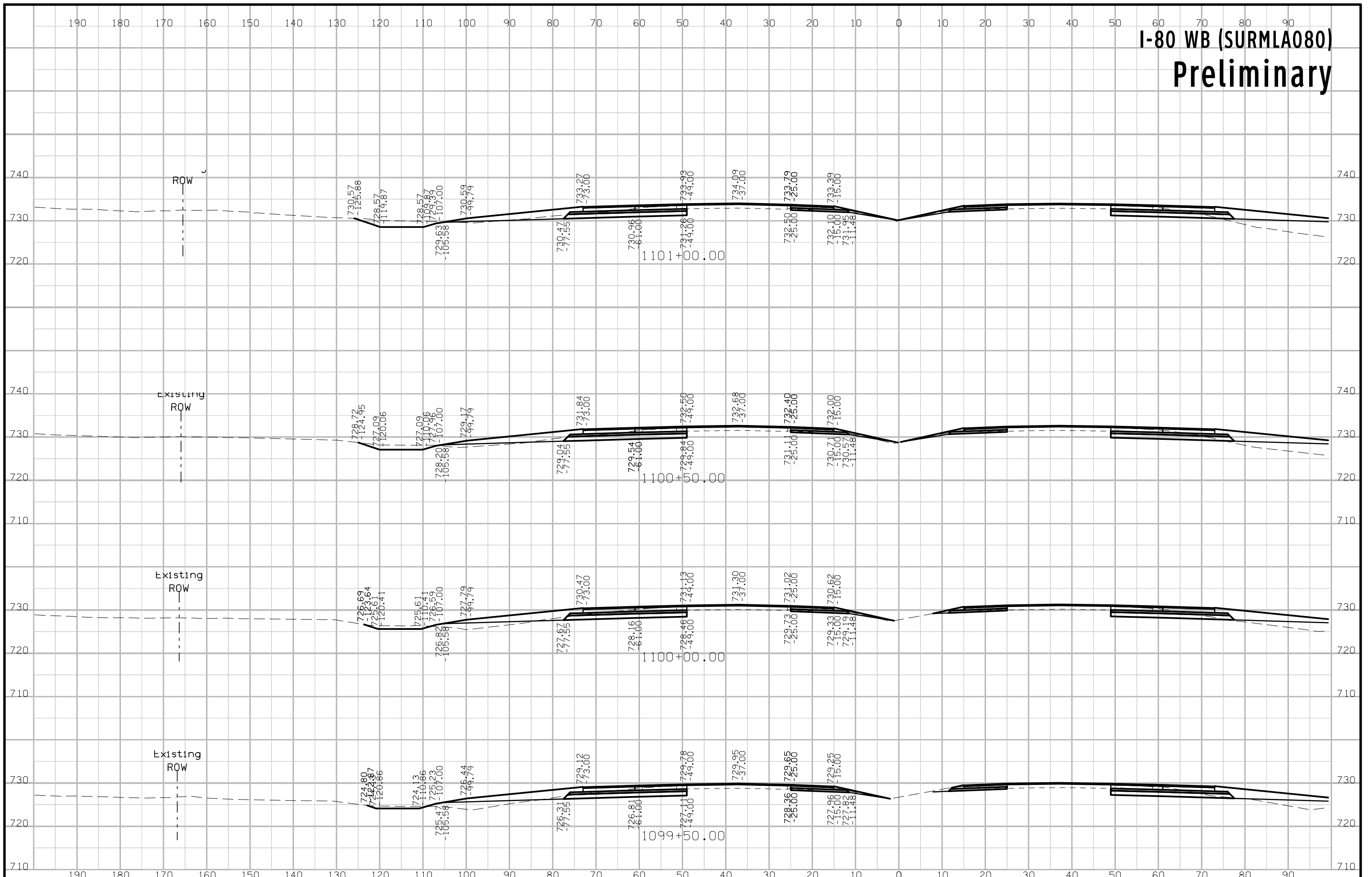
I-80 WB (SURMLA080) Preliminary



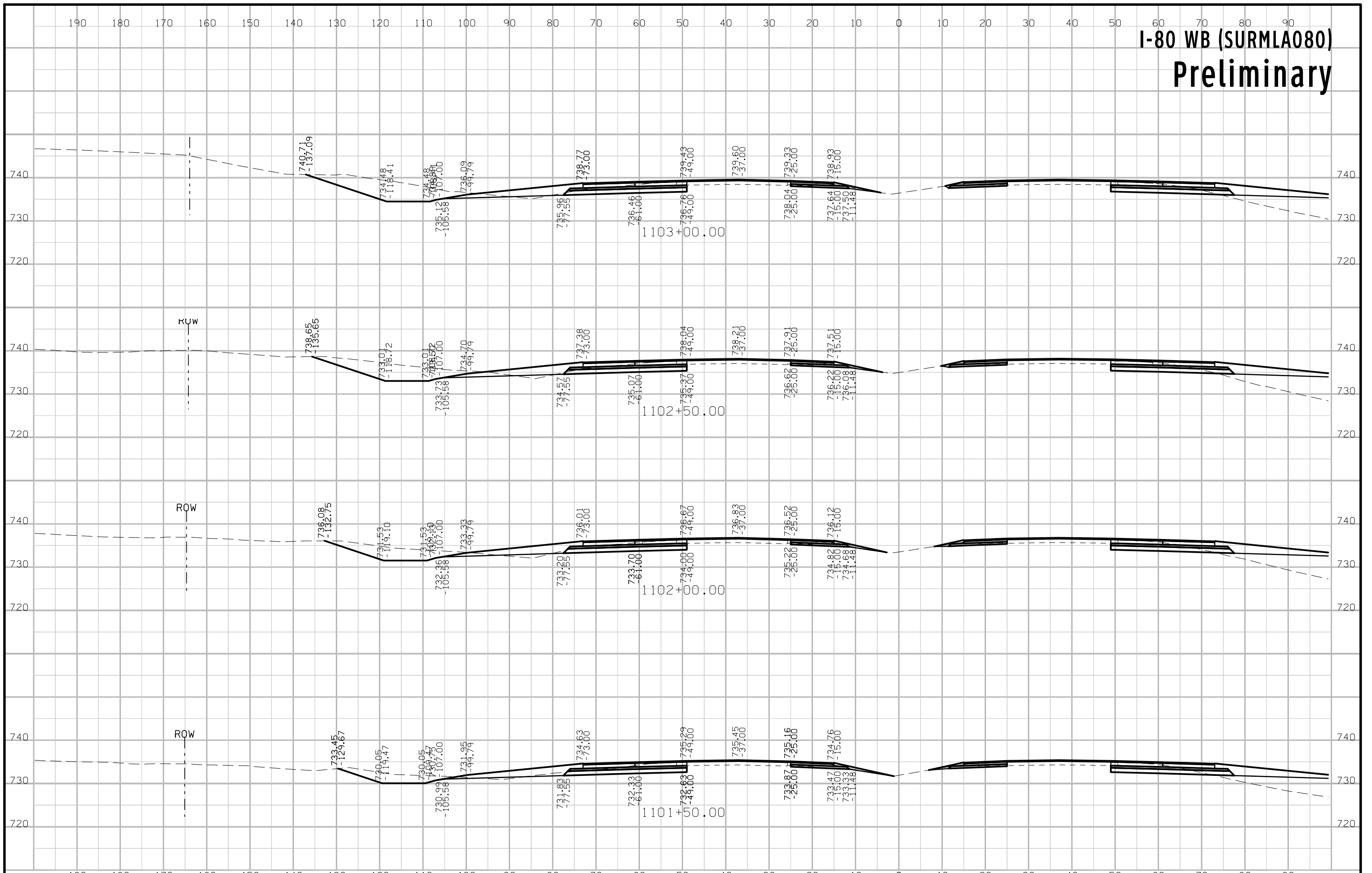
I-80 WB (SURMLA080) Preliminary



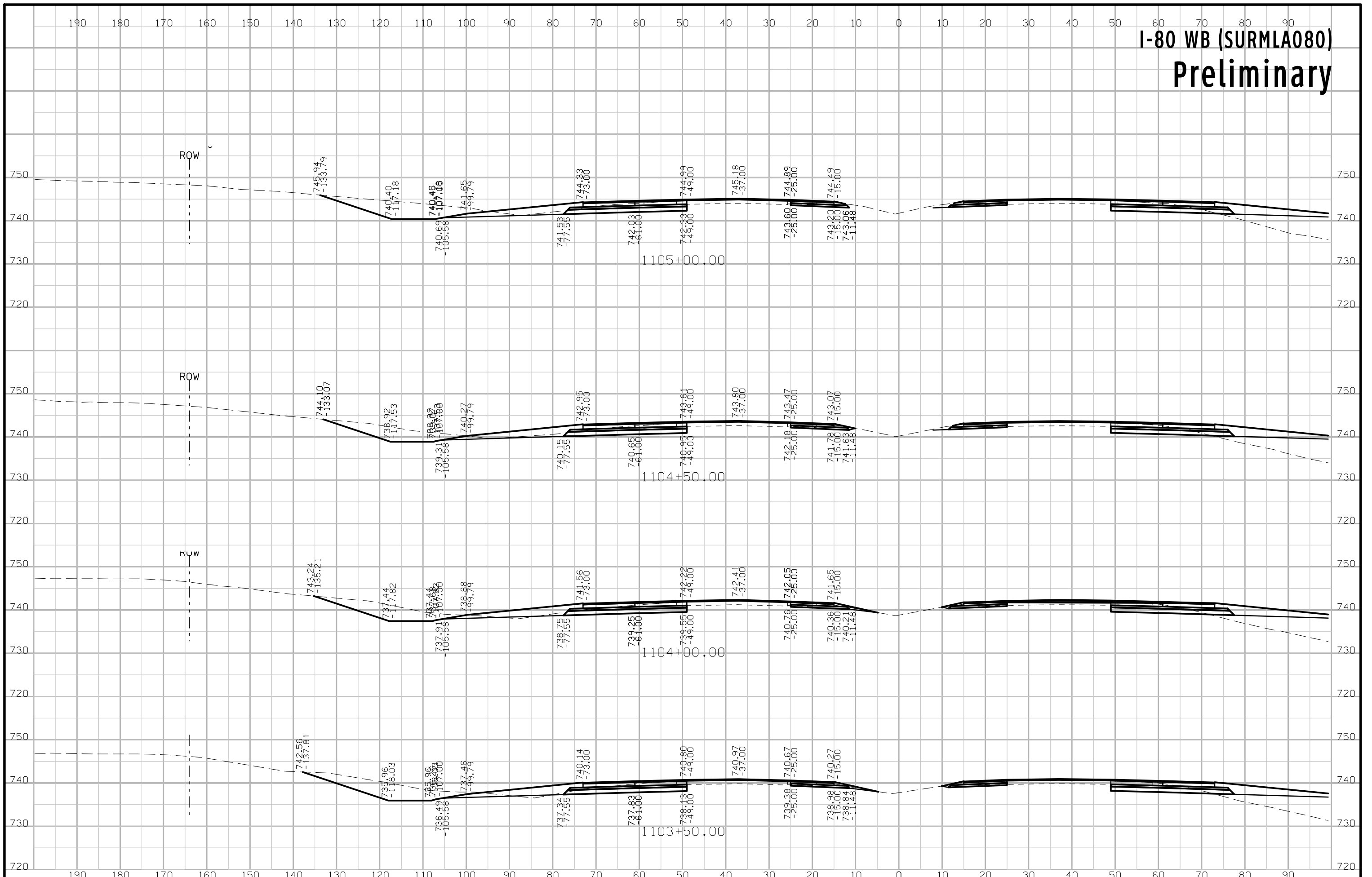
I-80 WB (SURMLA080) Preliminary



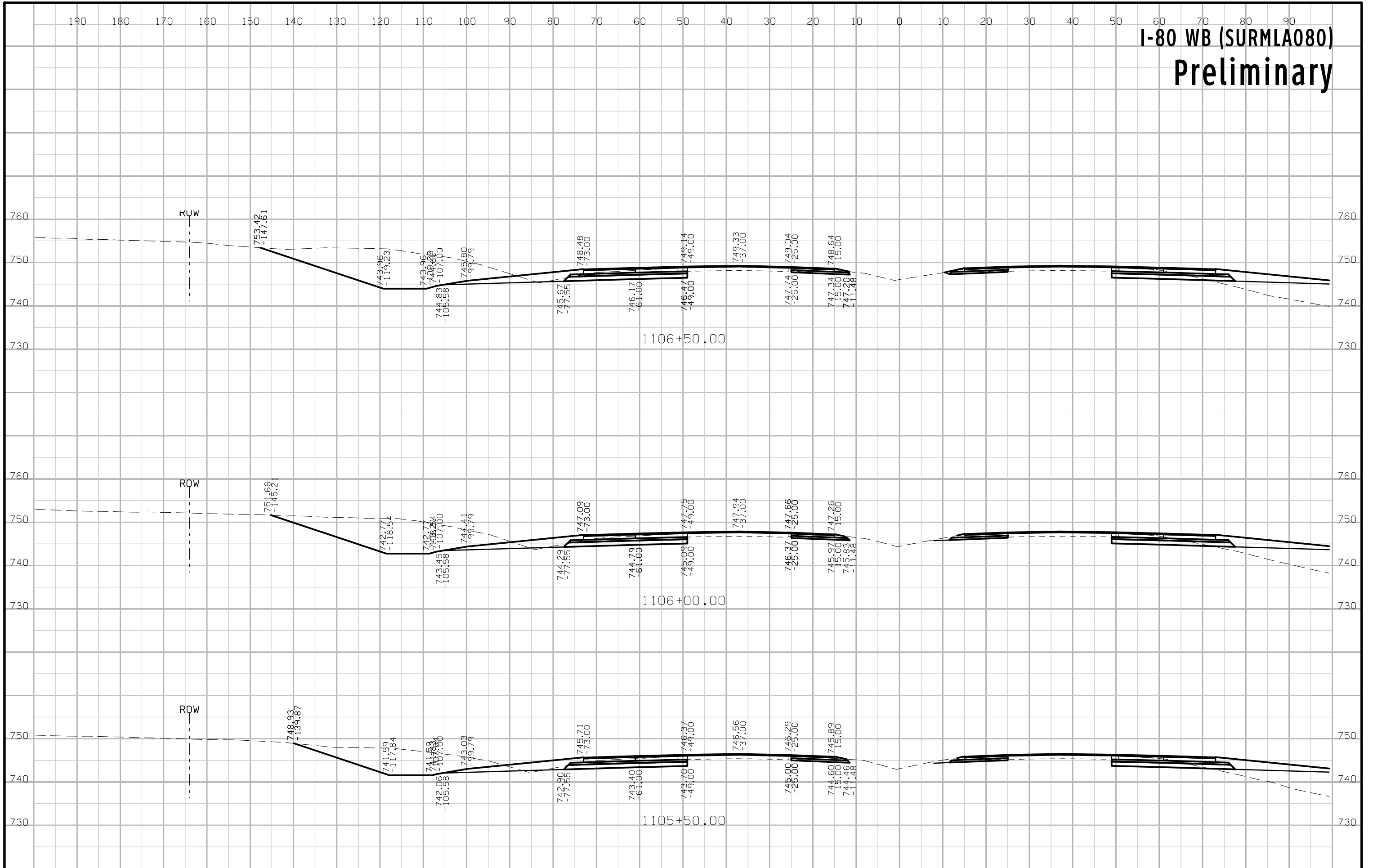
I-80 WB (SURMLA080) Preliminary



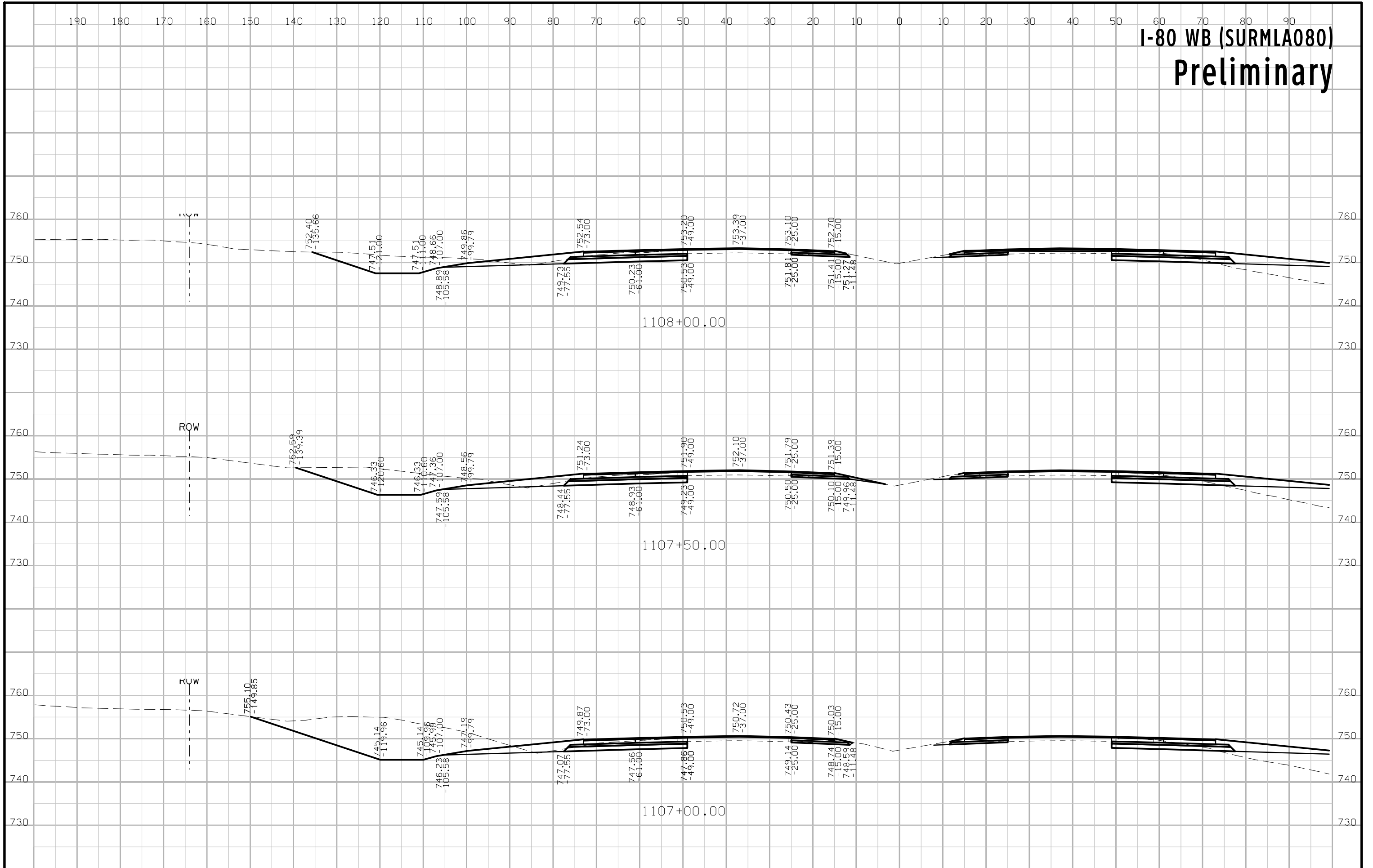
I-80 WB (SURMLA080) Preliminary



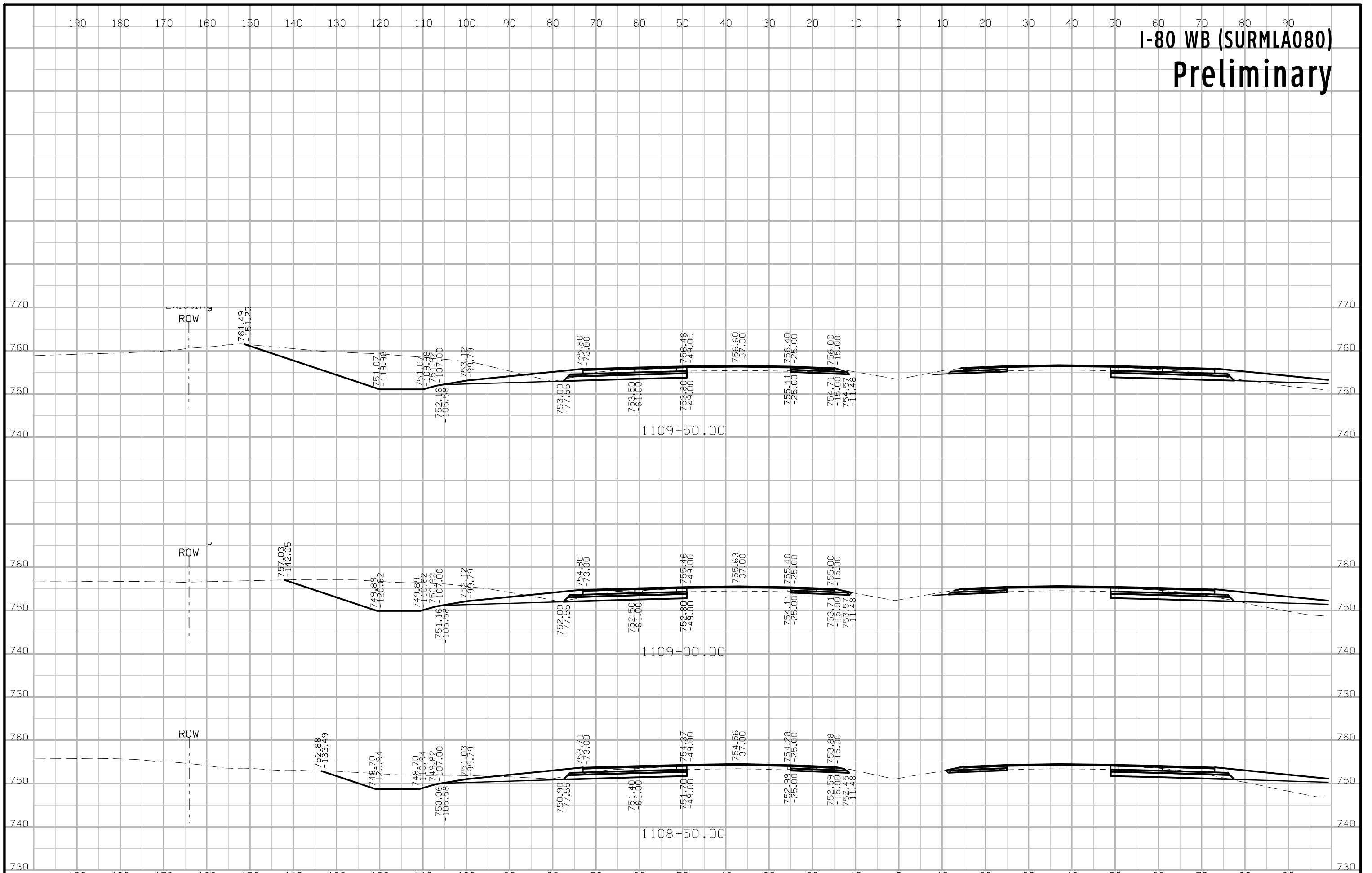
I-80 WB (SURMLA080) Preliminary



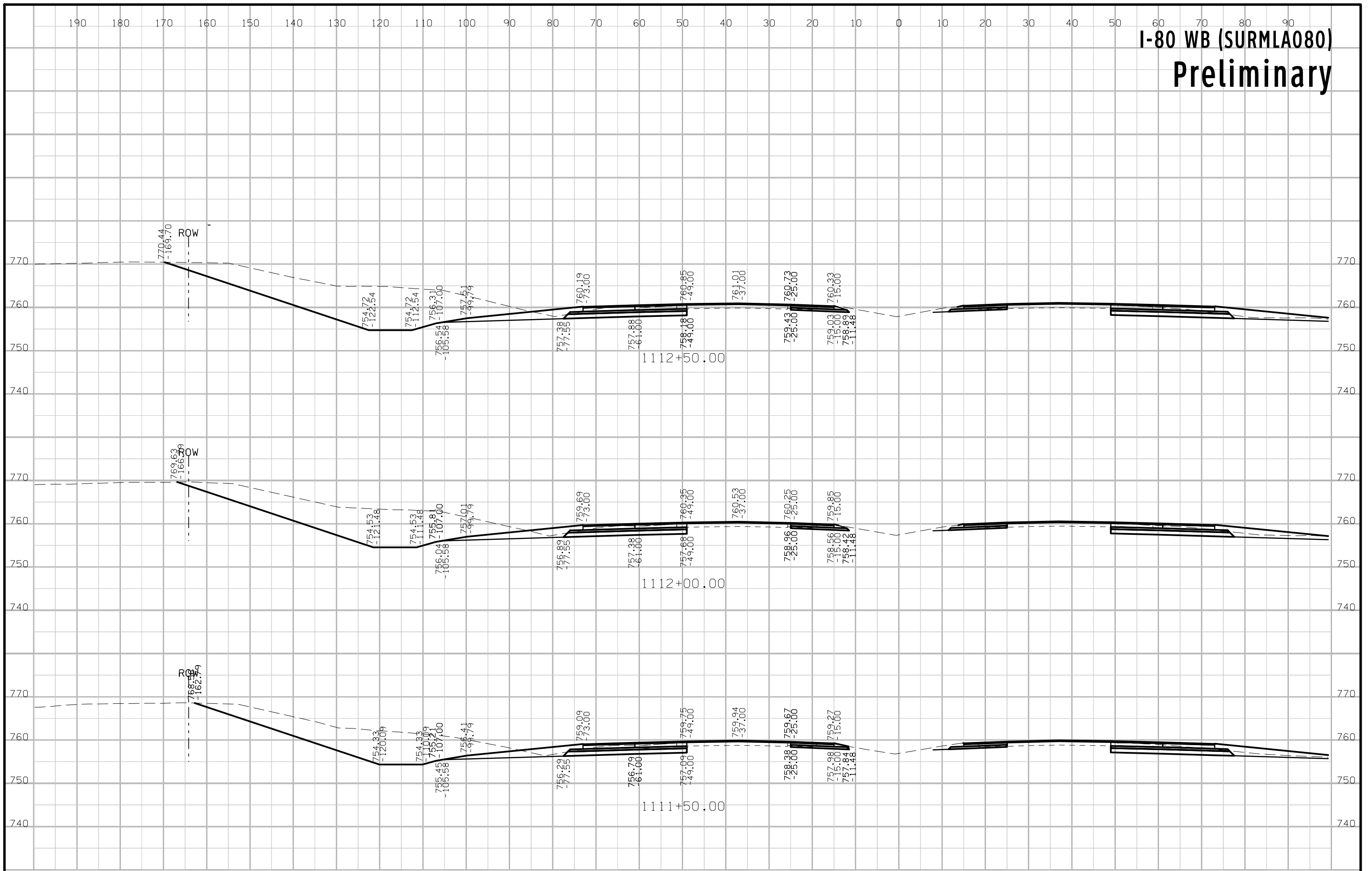
I-80 WB (SURMLA080) Preliminary



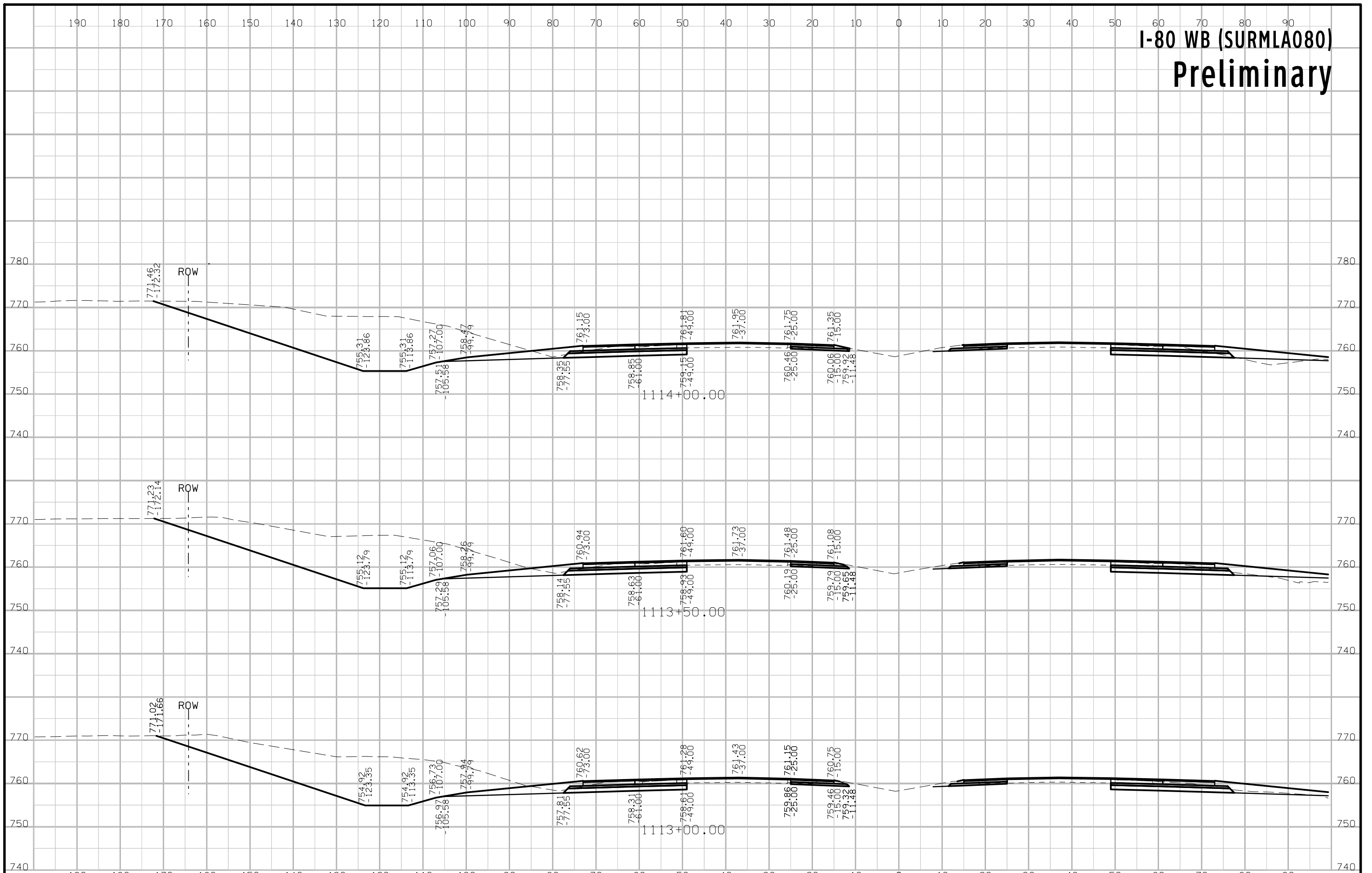
I-80 WB (SURMLA080) Preliminary



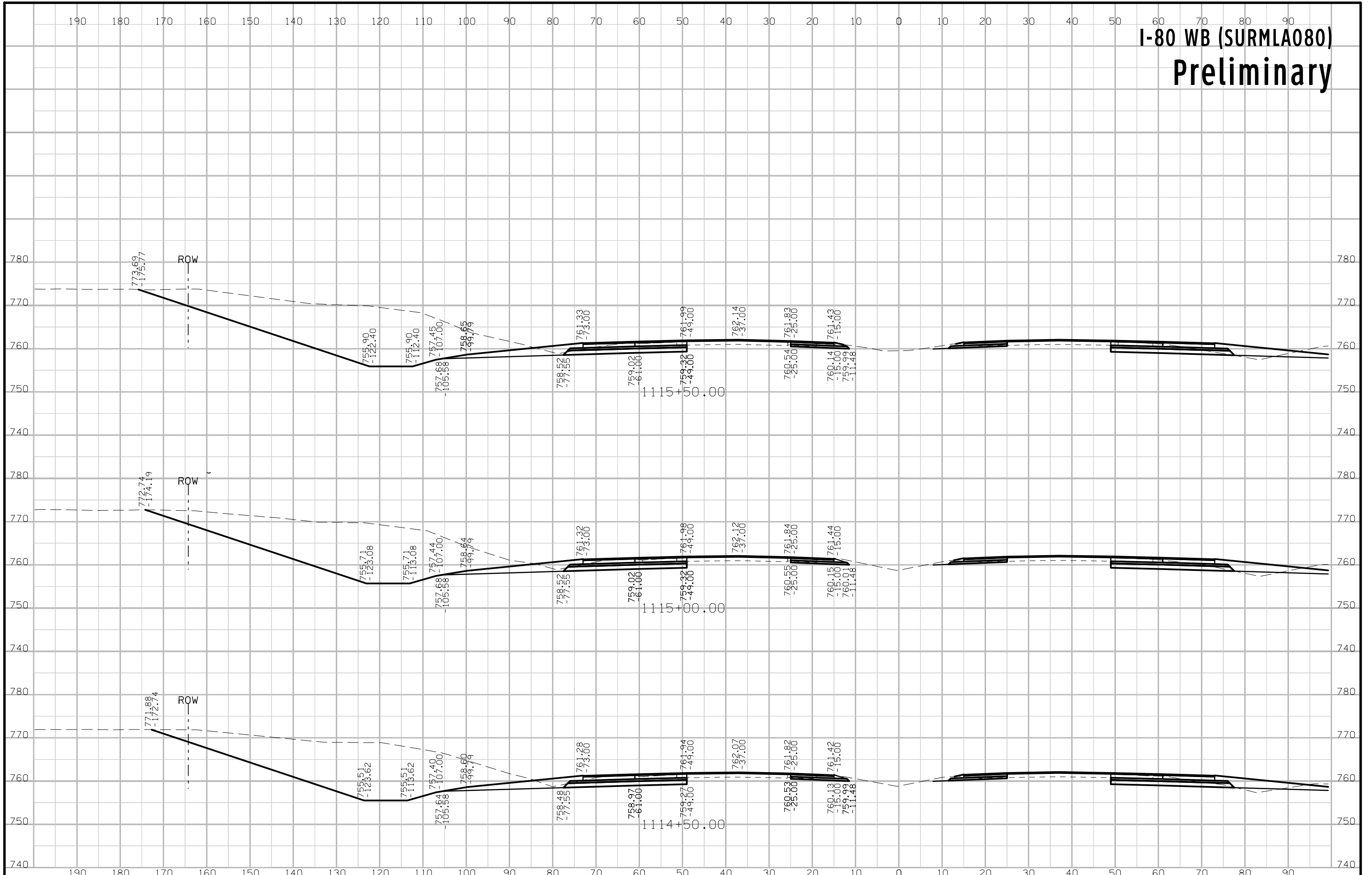
I-80 WB (SURMLA080) Preliminary



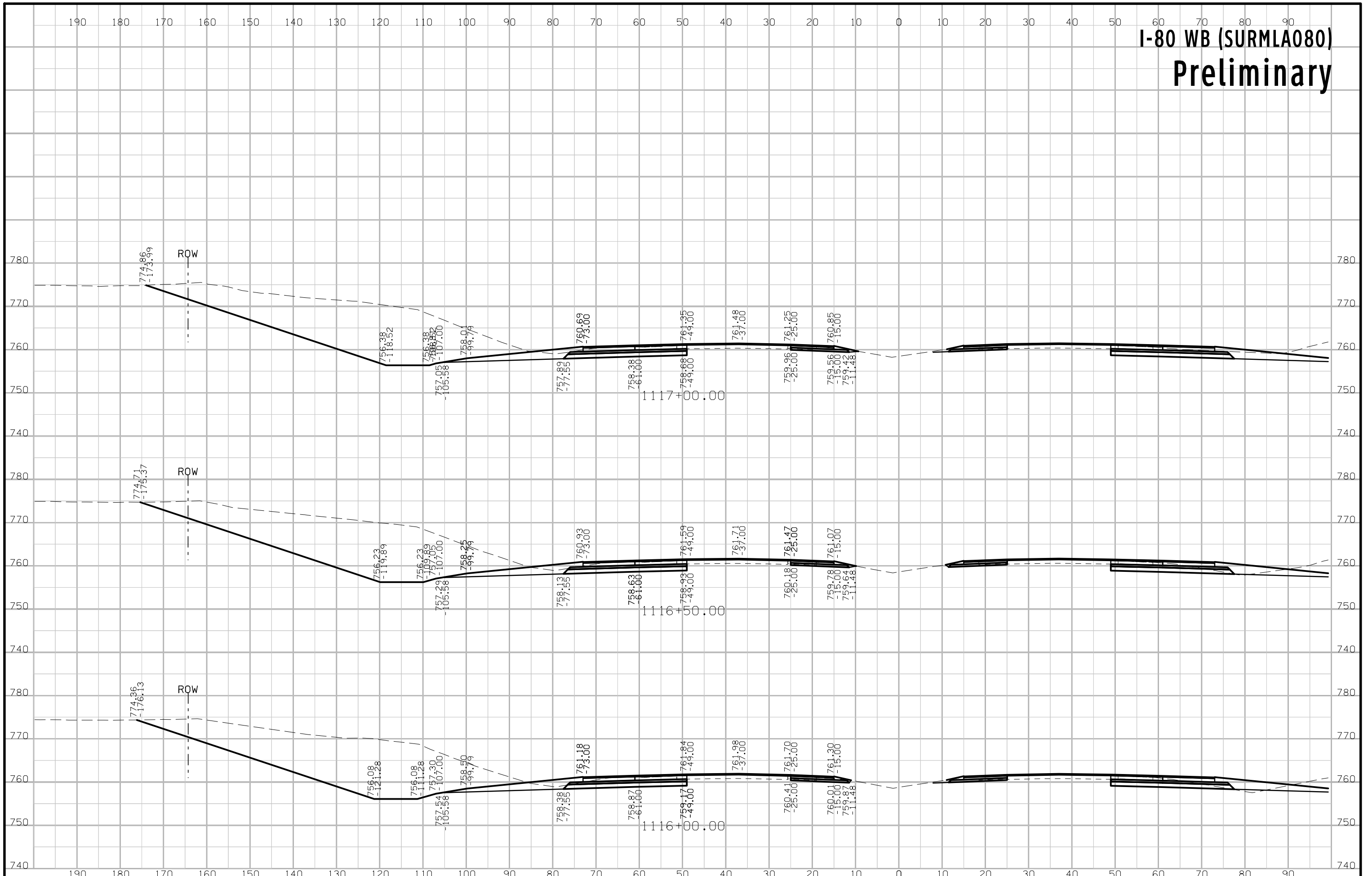
I-80 WB (SURMLA080) Preliminary



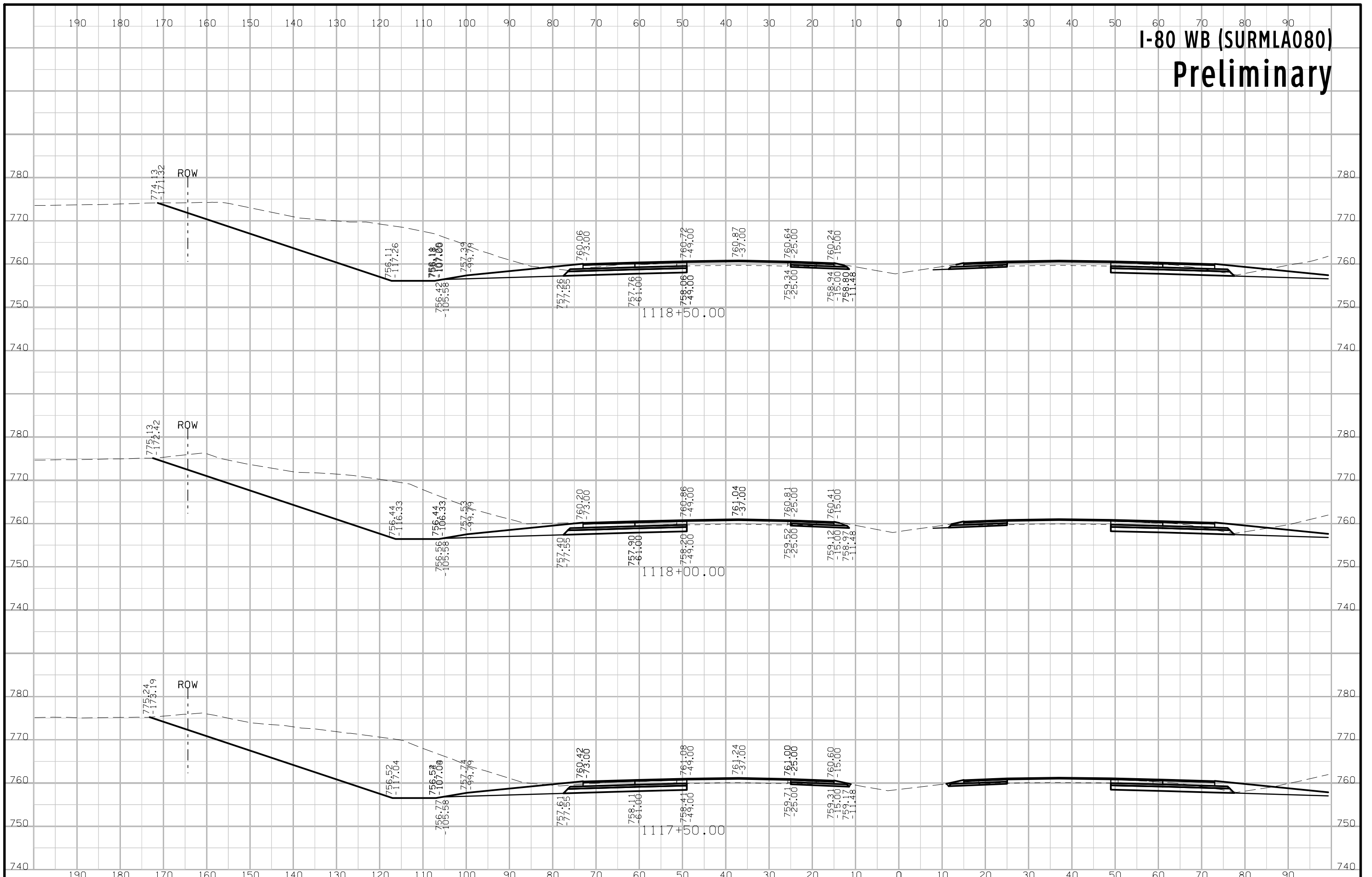
I-80 WB (SURMLA080) Preliminary



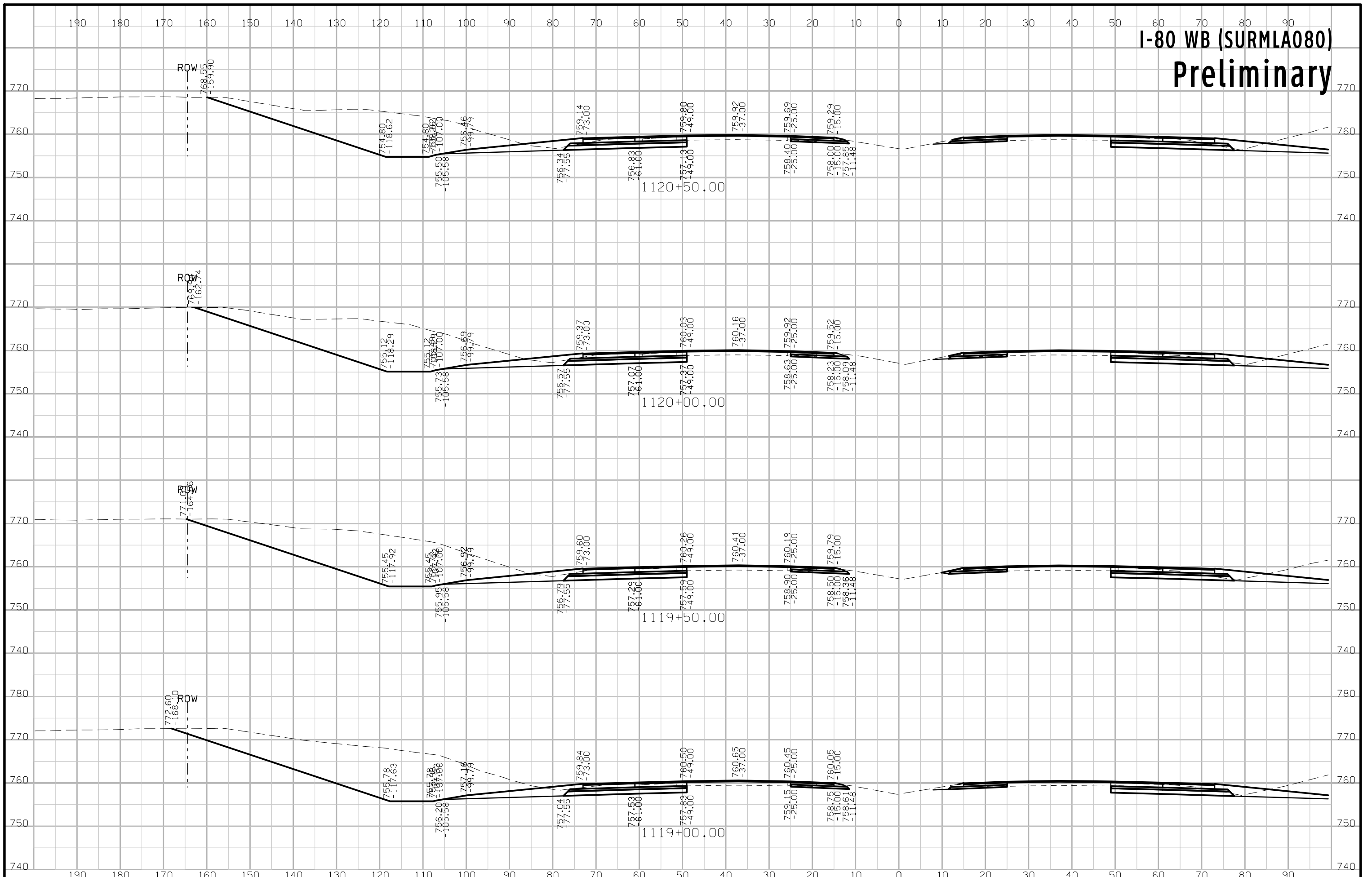
I-80 WB (SURMLA080) Preliminary



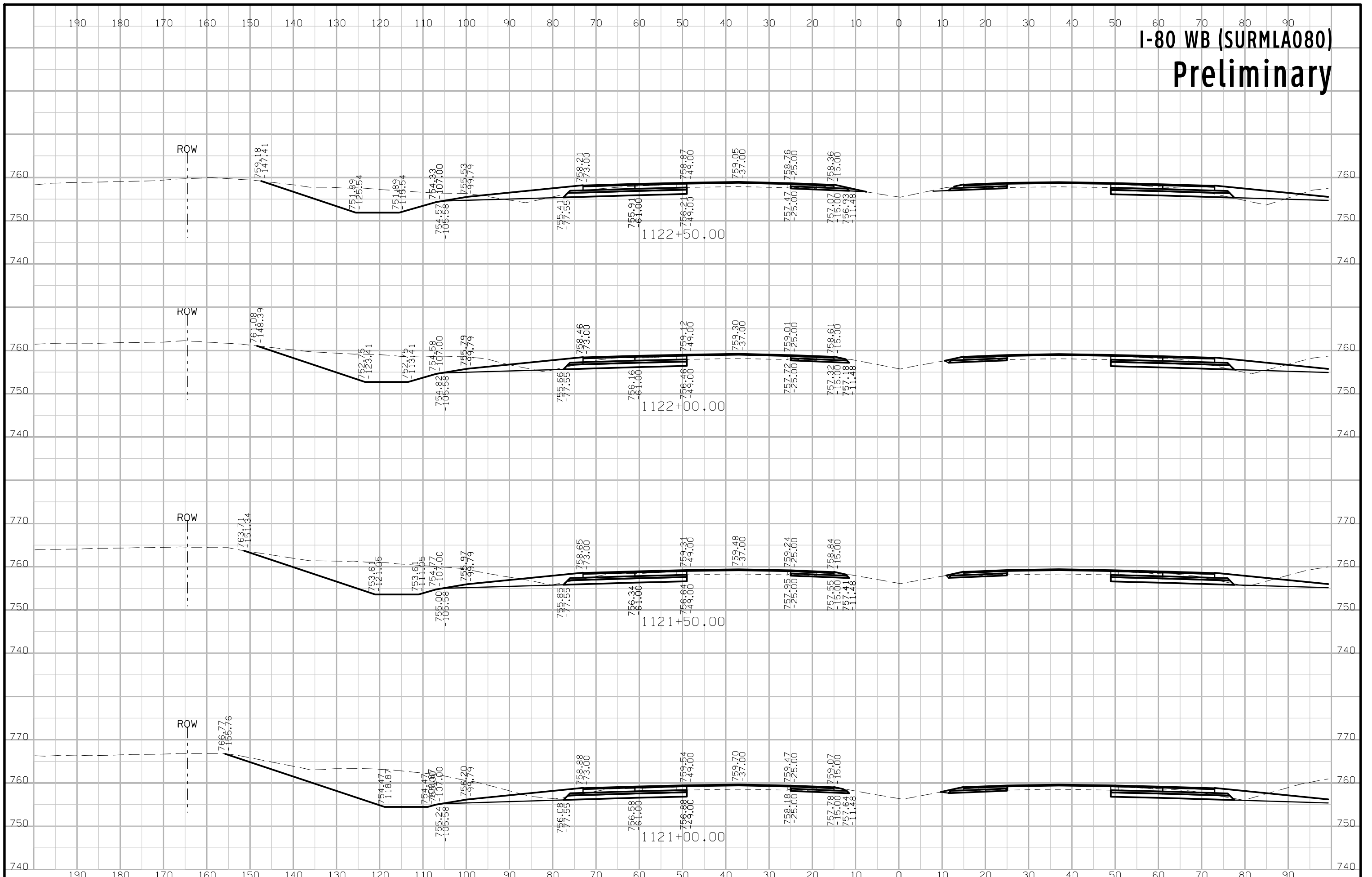
I-80 WB (SURMLA080) Preliminary



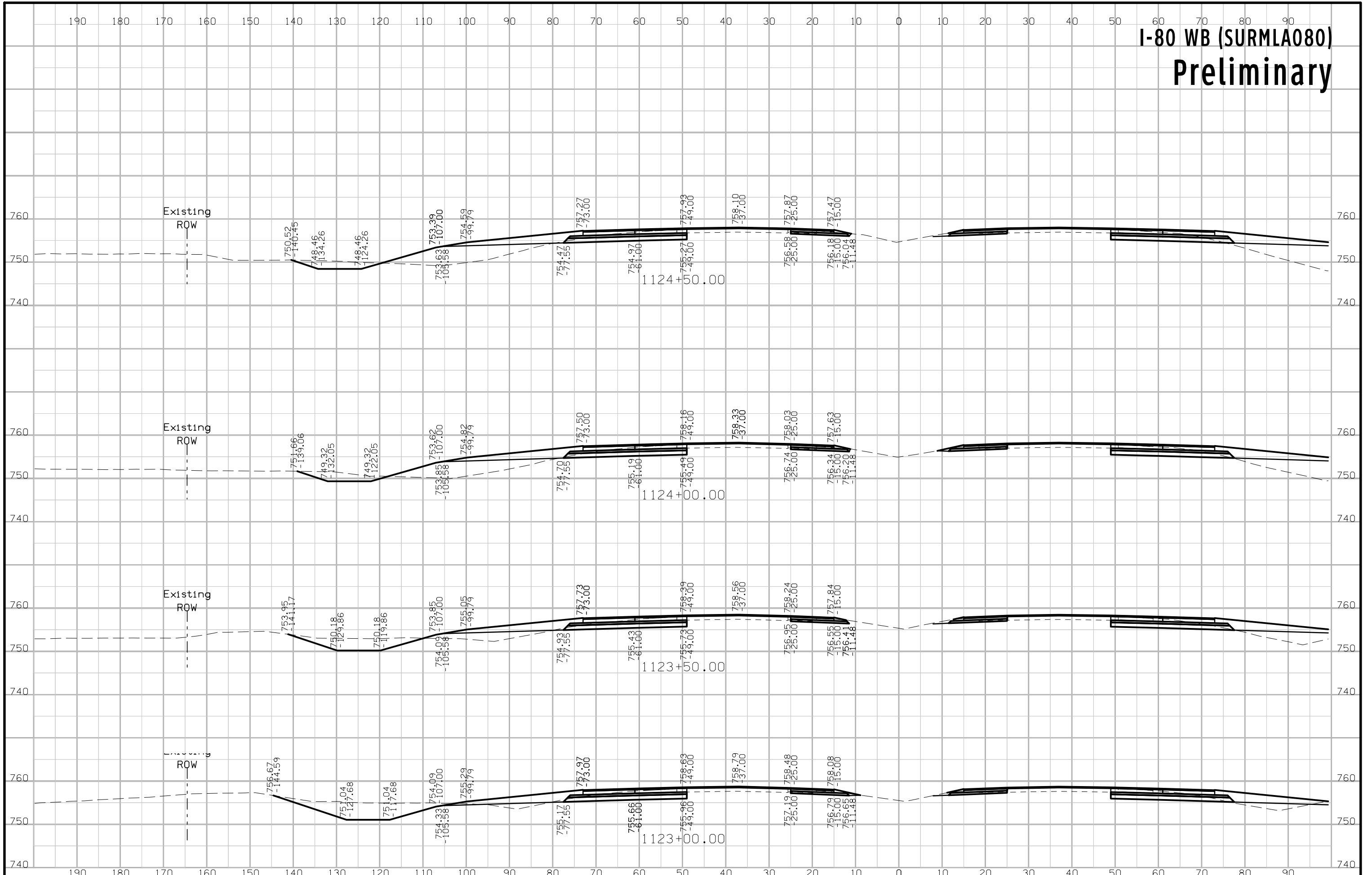
I-80 WB (SURMLA080) Preliminary



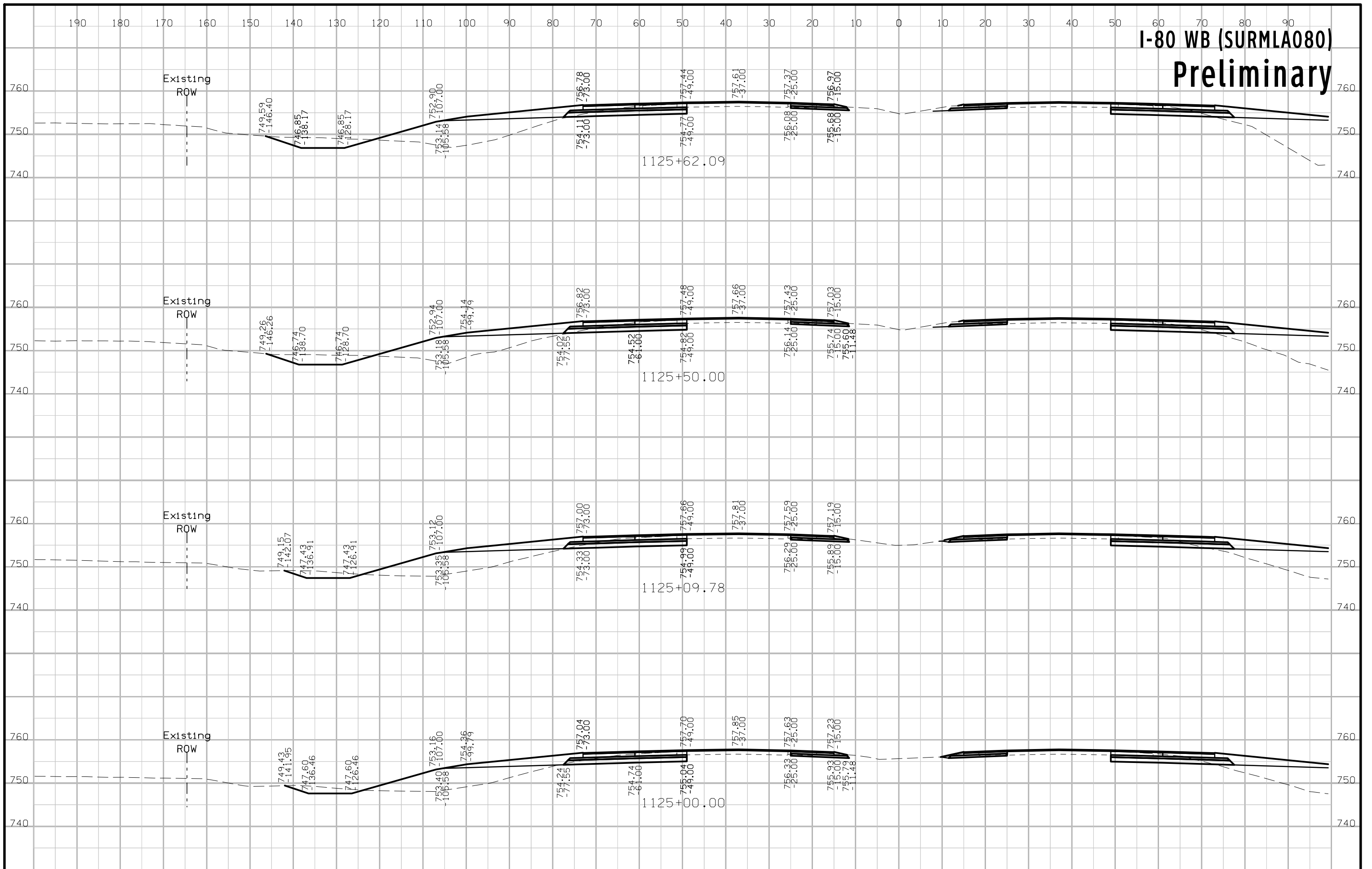
I-80 WB (SURMLA080) Preliminary



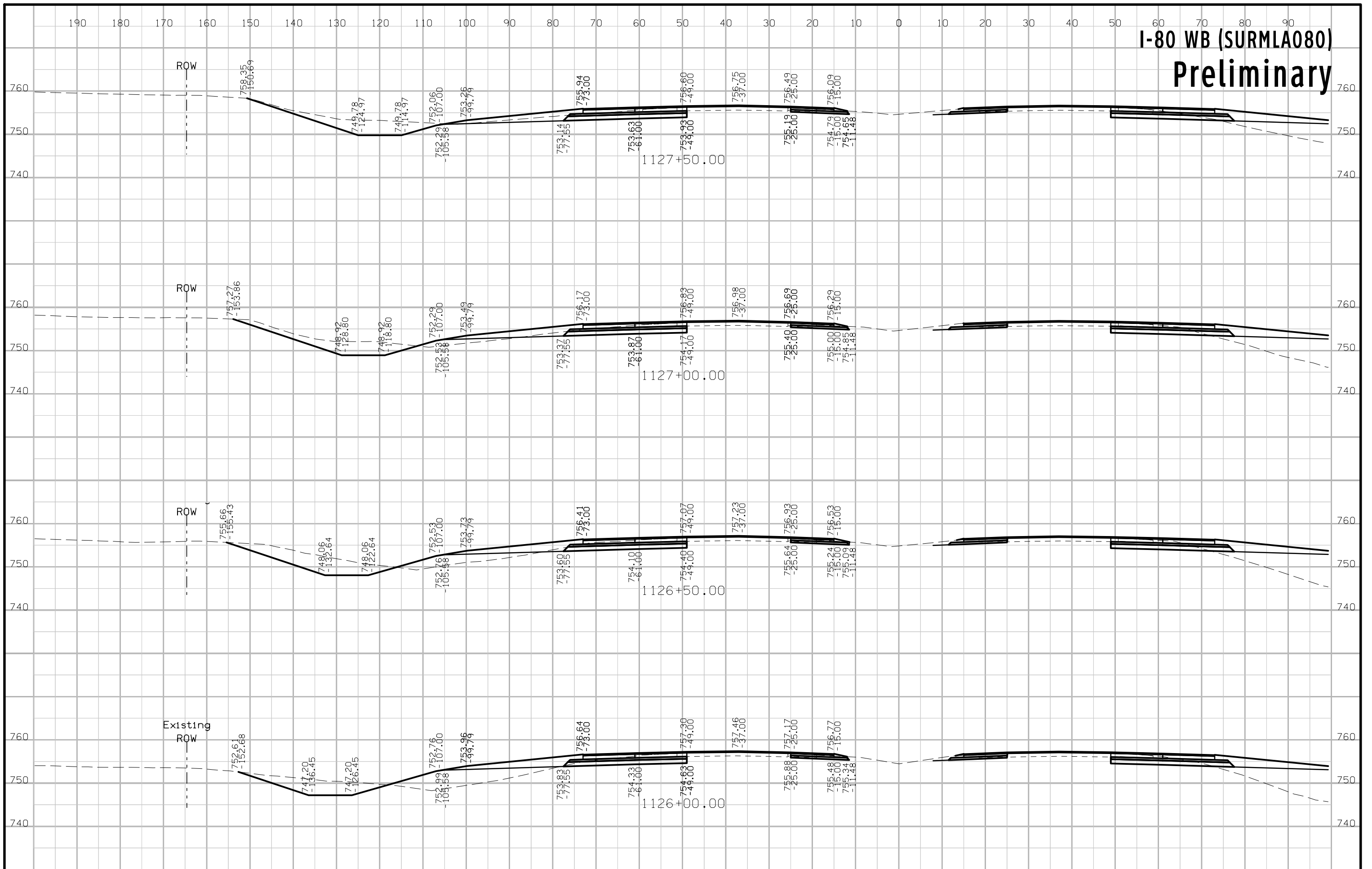
I-80 WB (SURMLA080) Preliminary



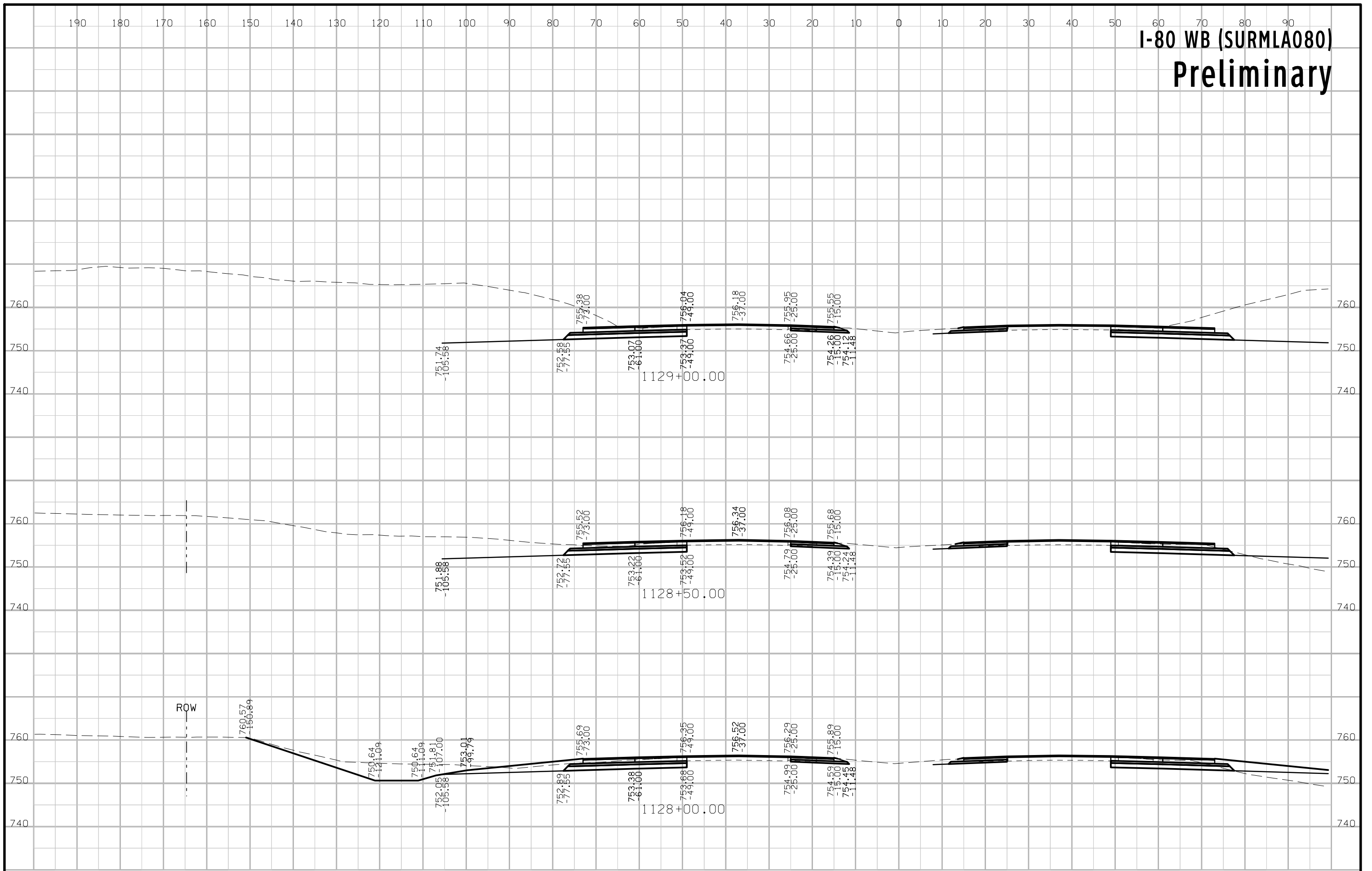
I-80 WB (SURMLA080) Preliminary



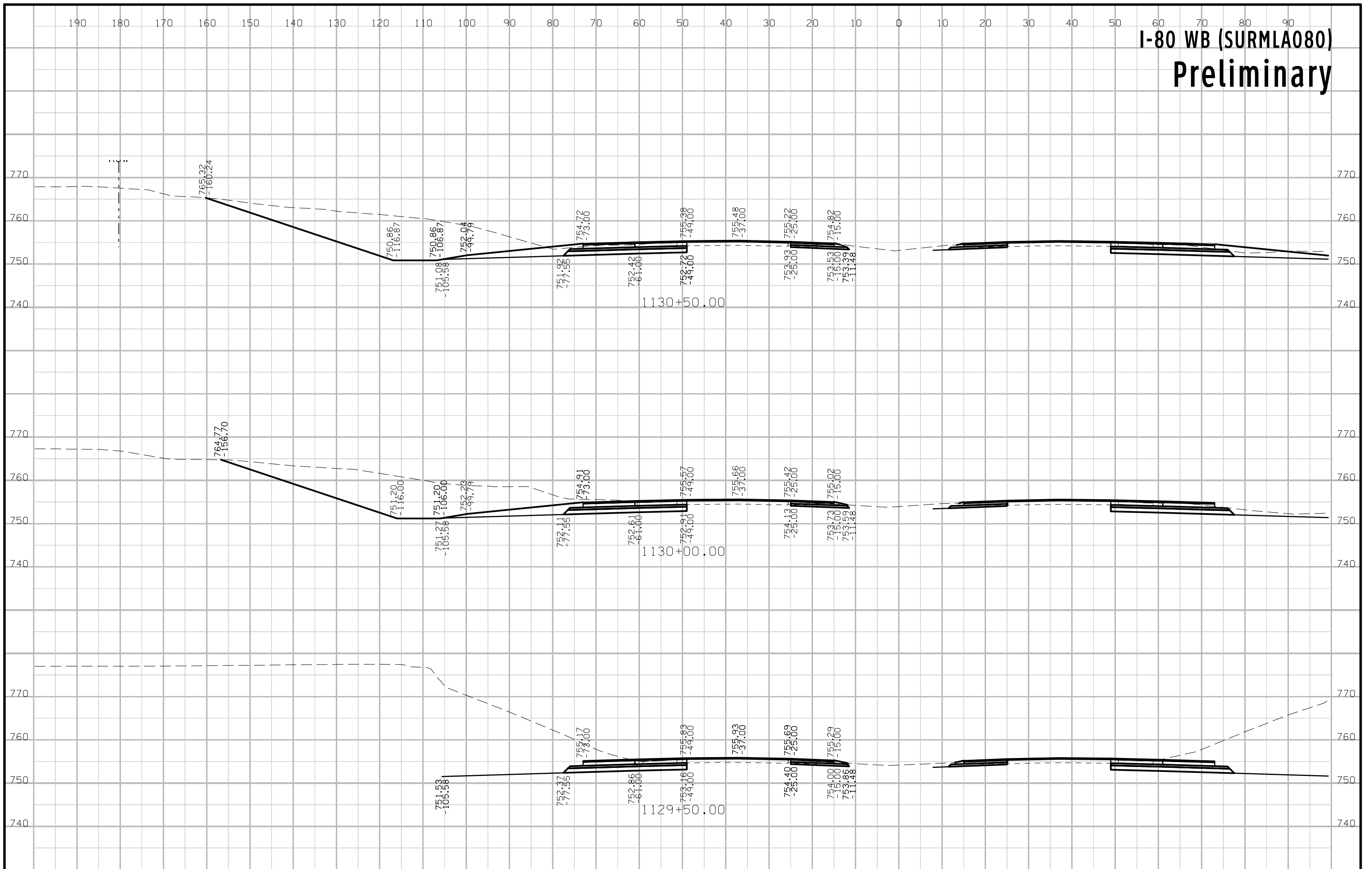
I-80 WB (SURMLA080) Preliminary



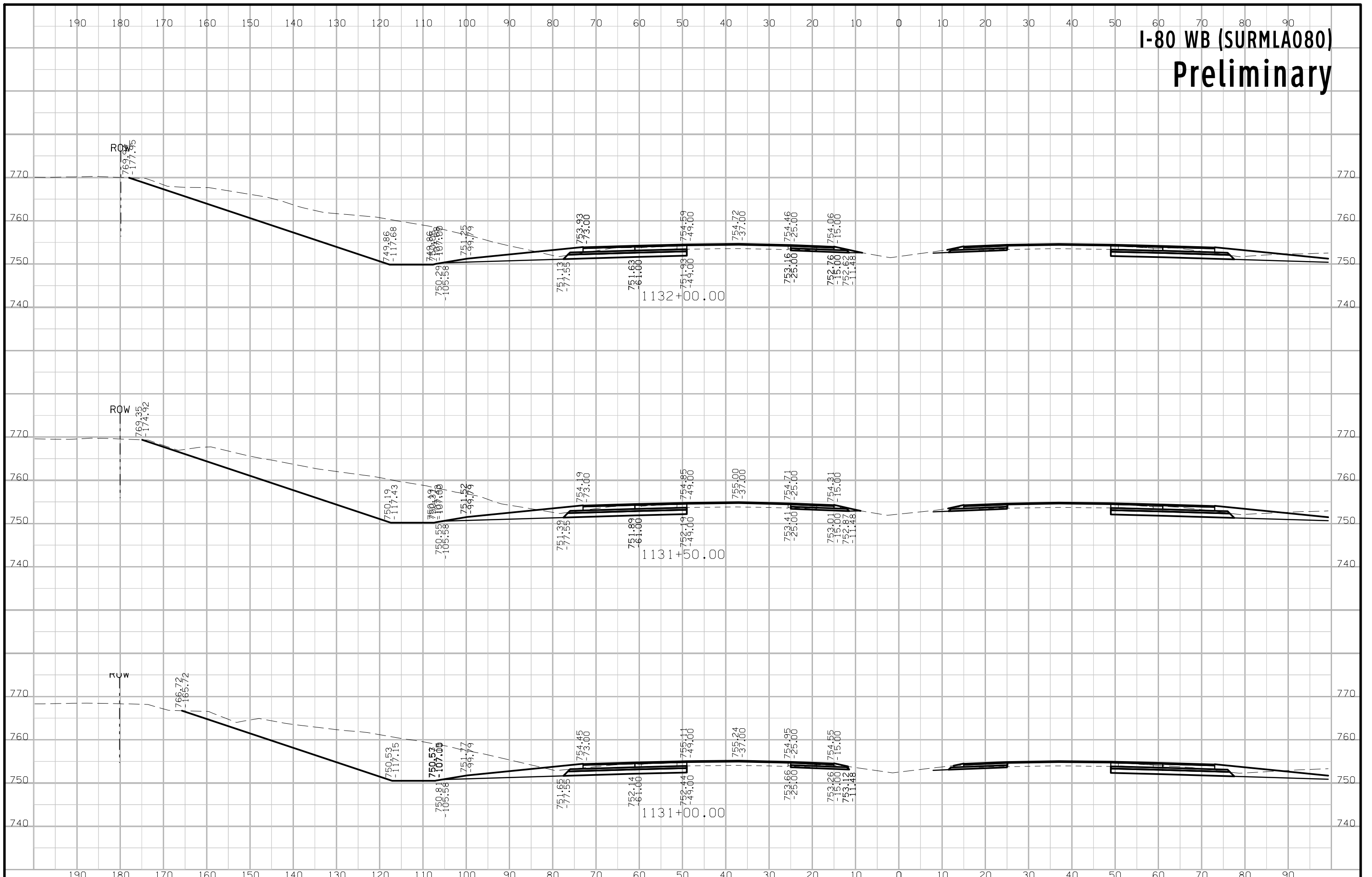
I-80 WB (SURMLA080) Preliminary



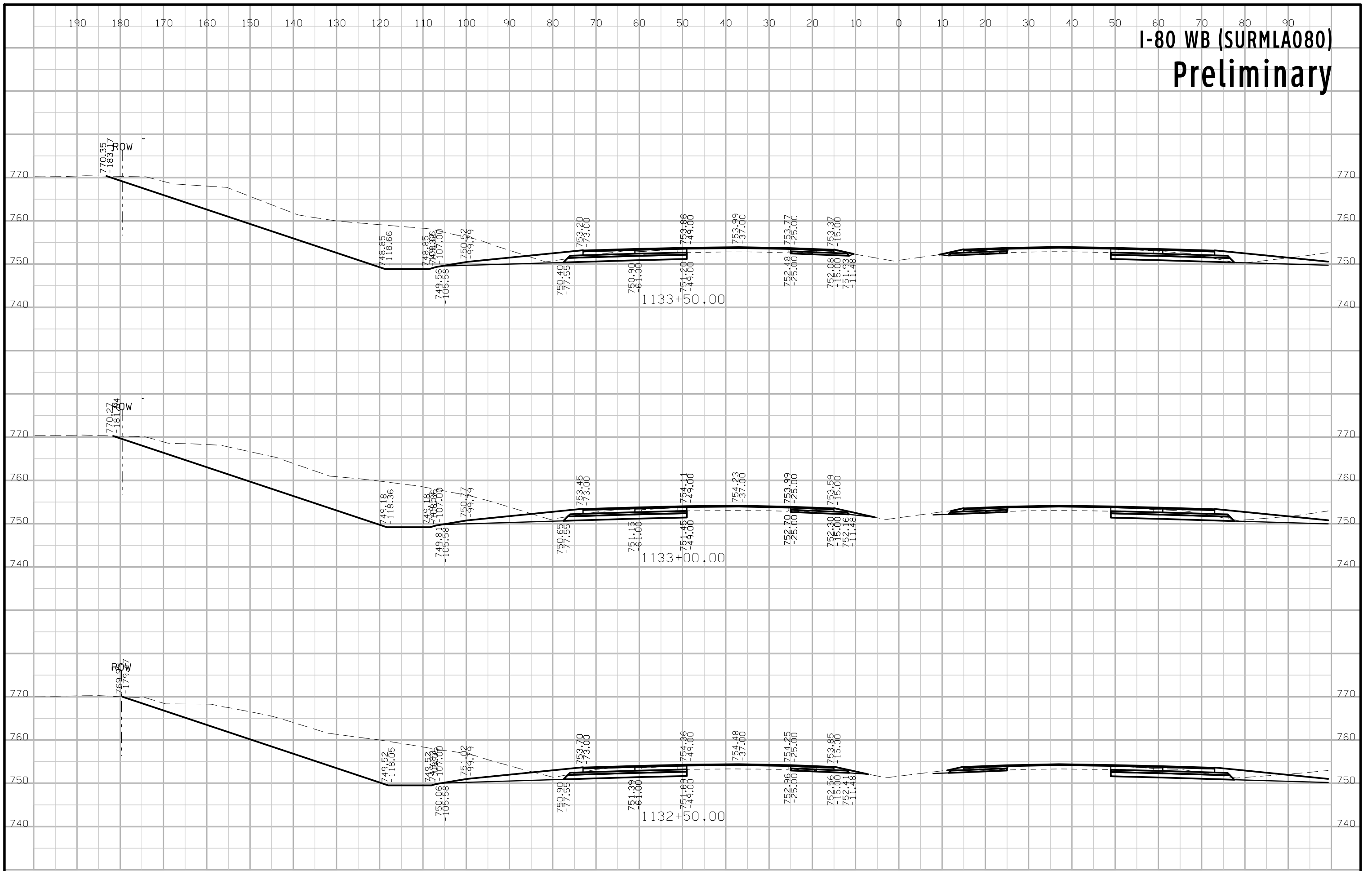
I-80 WB (SURMLA080) Preliminary



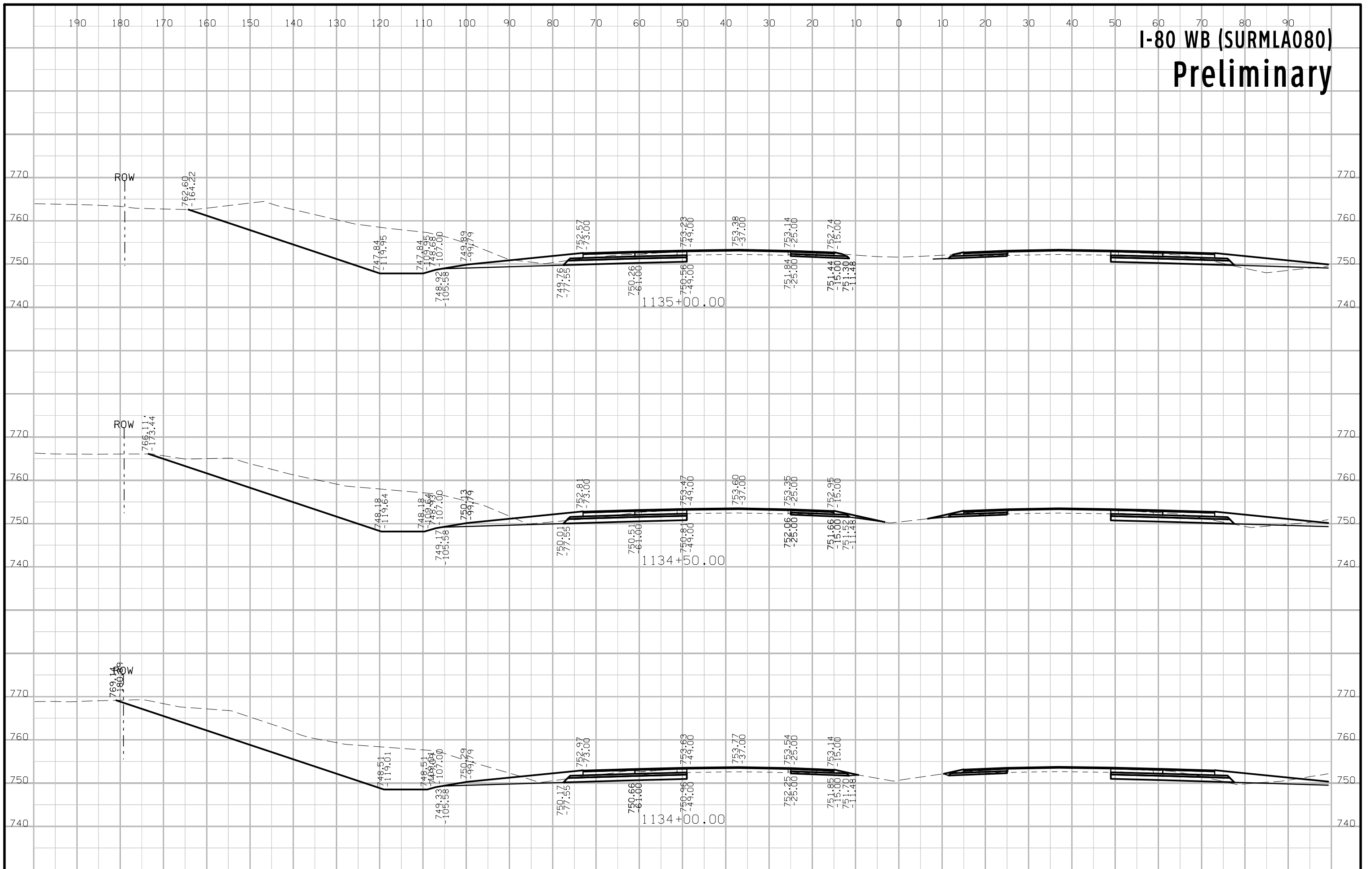
I-80 WB (SURMLA080) Preliminary



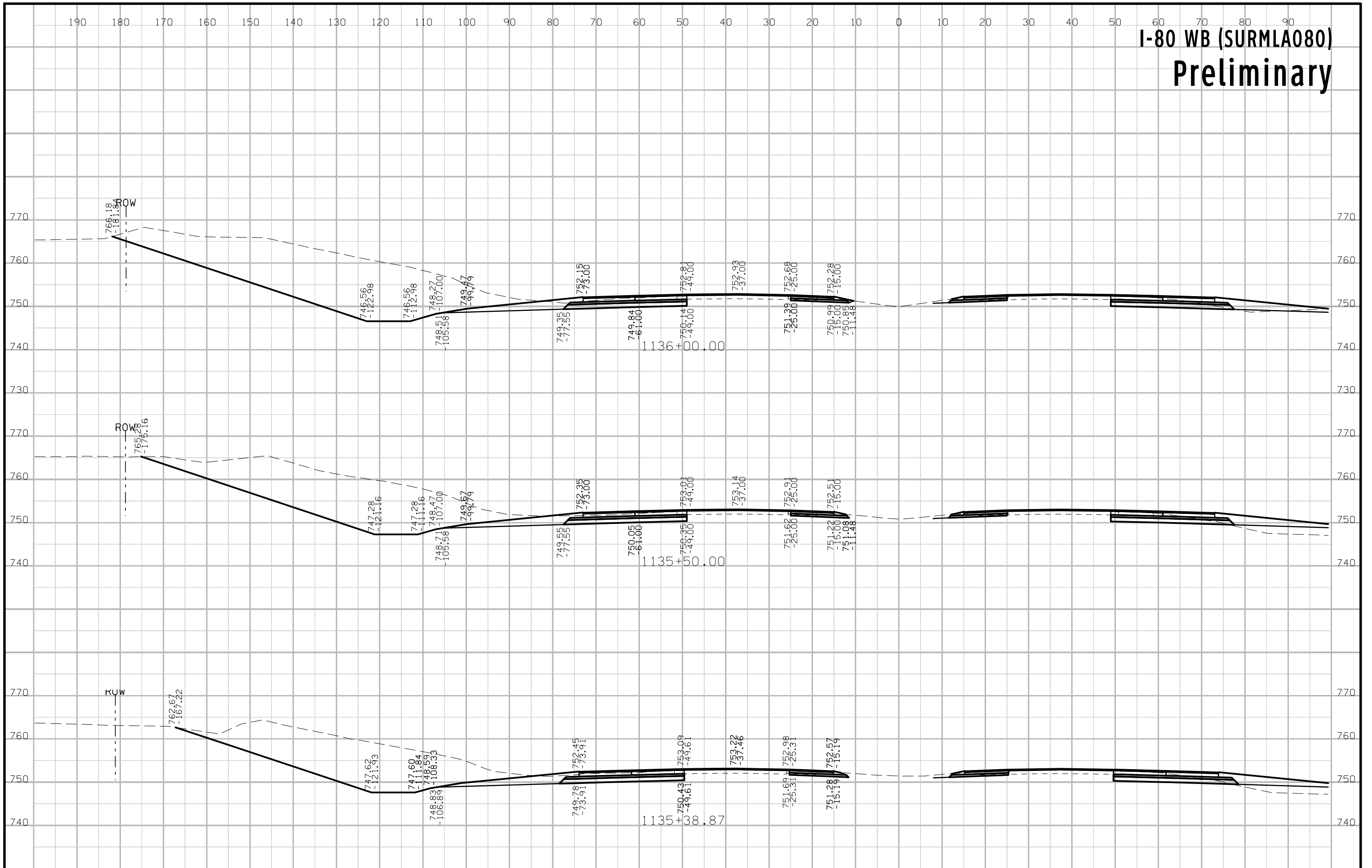
I-80 WB (SURMLA080) Preliminary



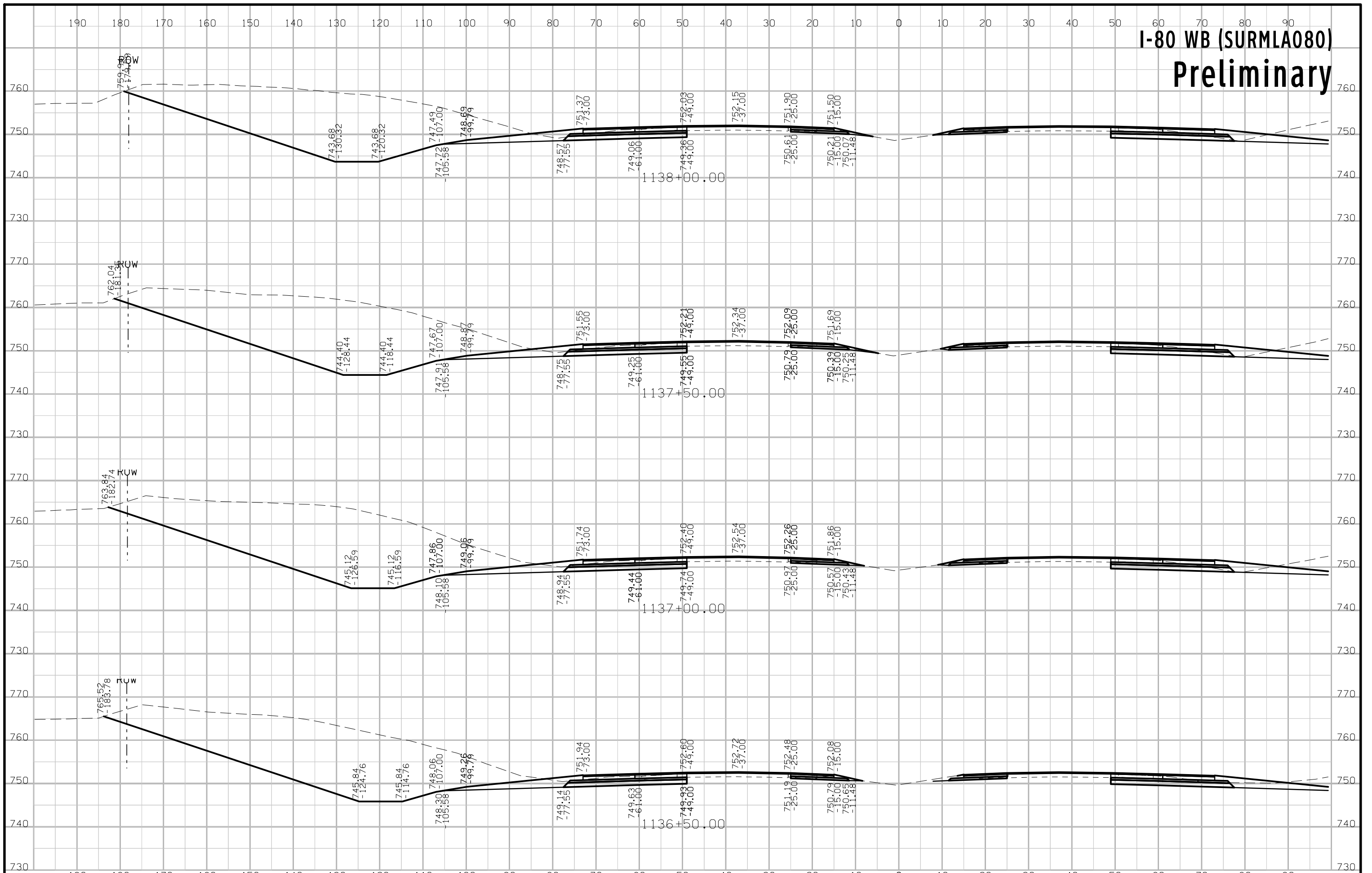
I-80 WB (SURMLA080) Preliminary



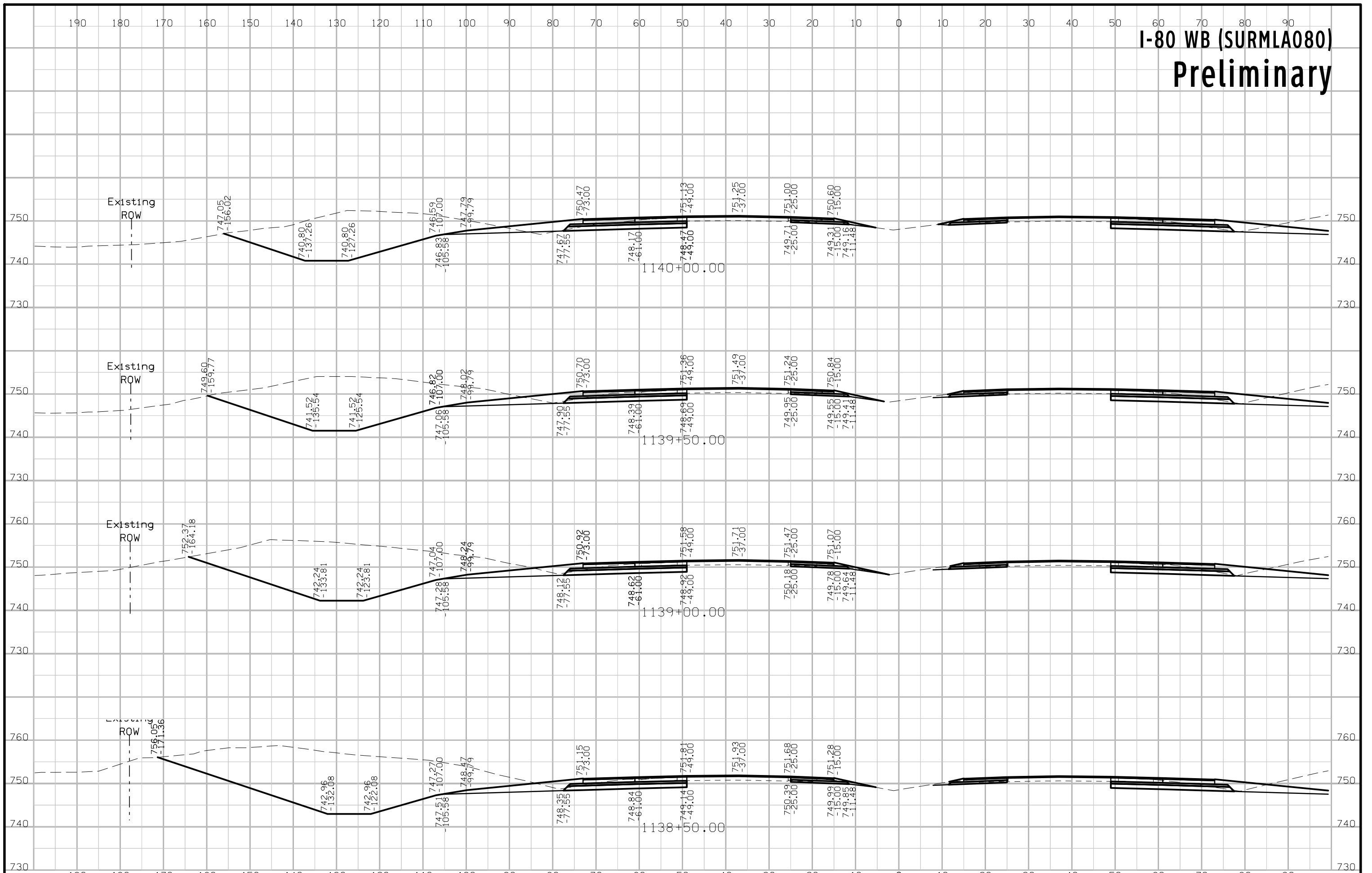
I-80 WB (SURMLA080) Preliminary



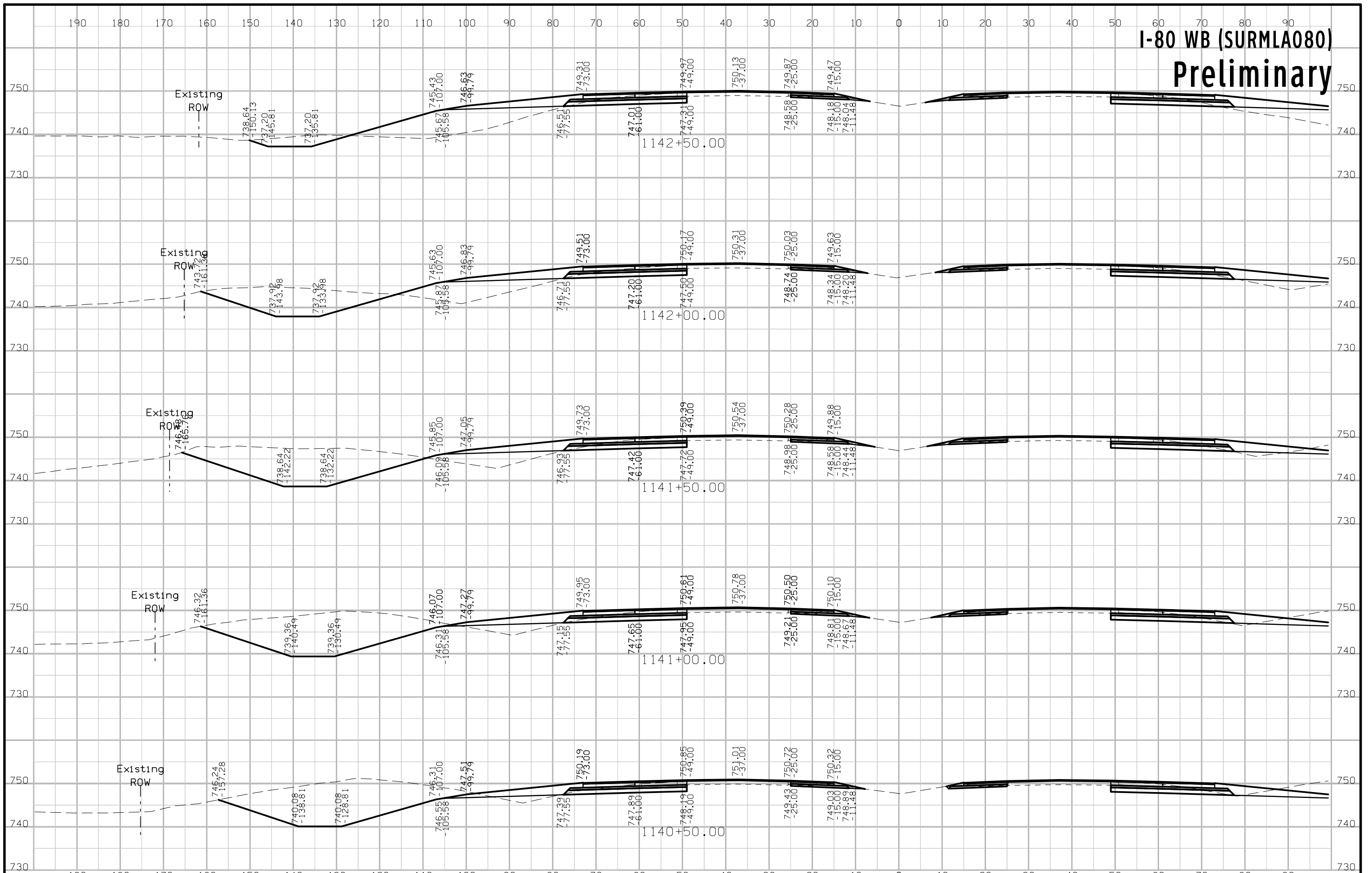
I-80 WB (SURMLA080) Preliminary



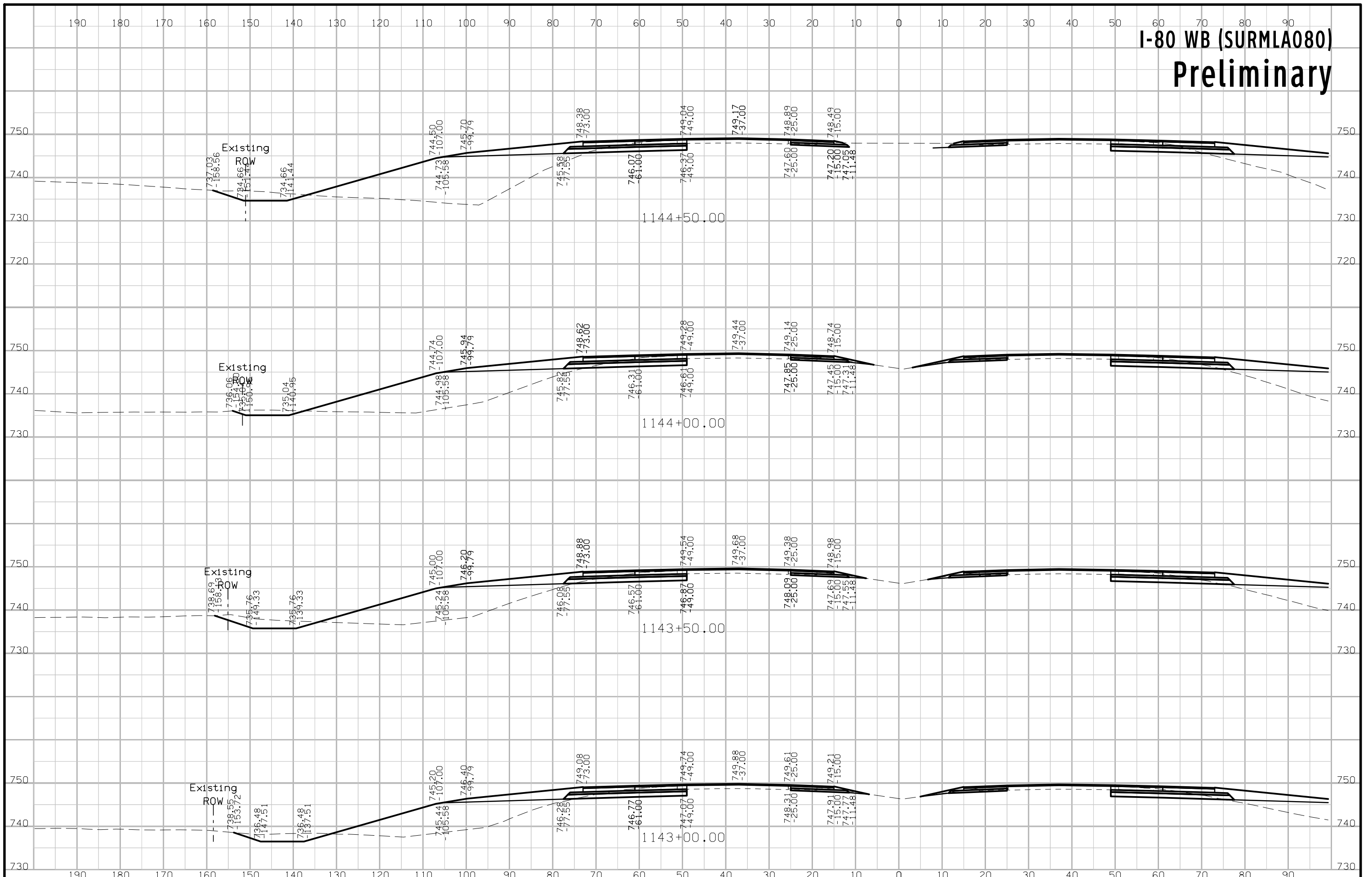
I-80 WB (SURMLA080) Preliminary



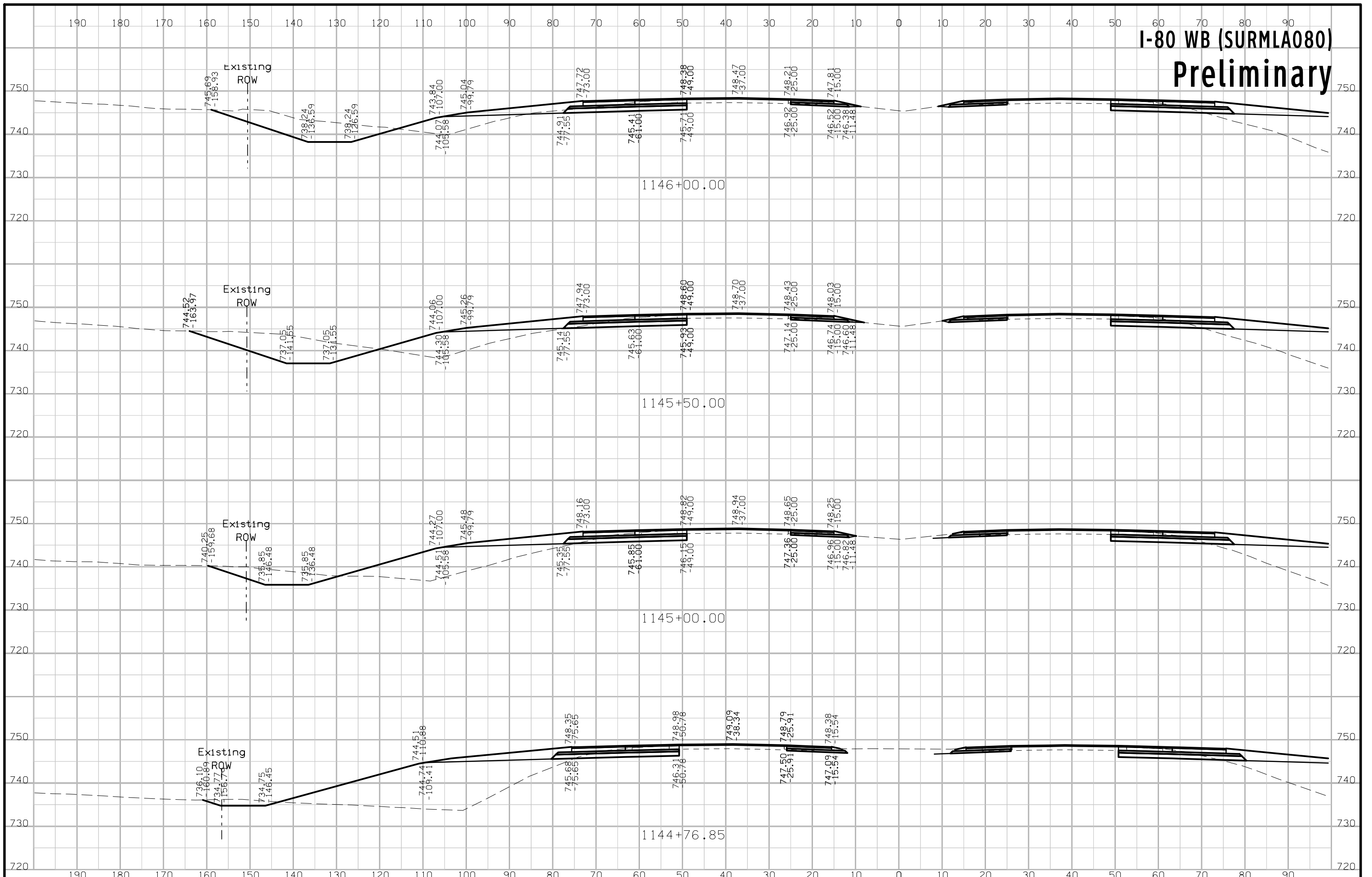
I-80 WB (SURMLA080) Preliminary



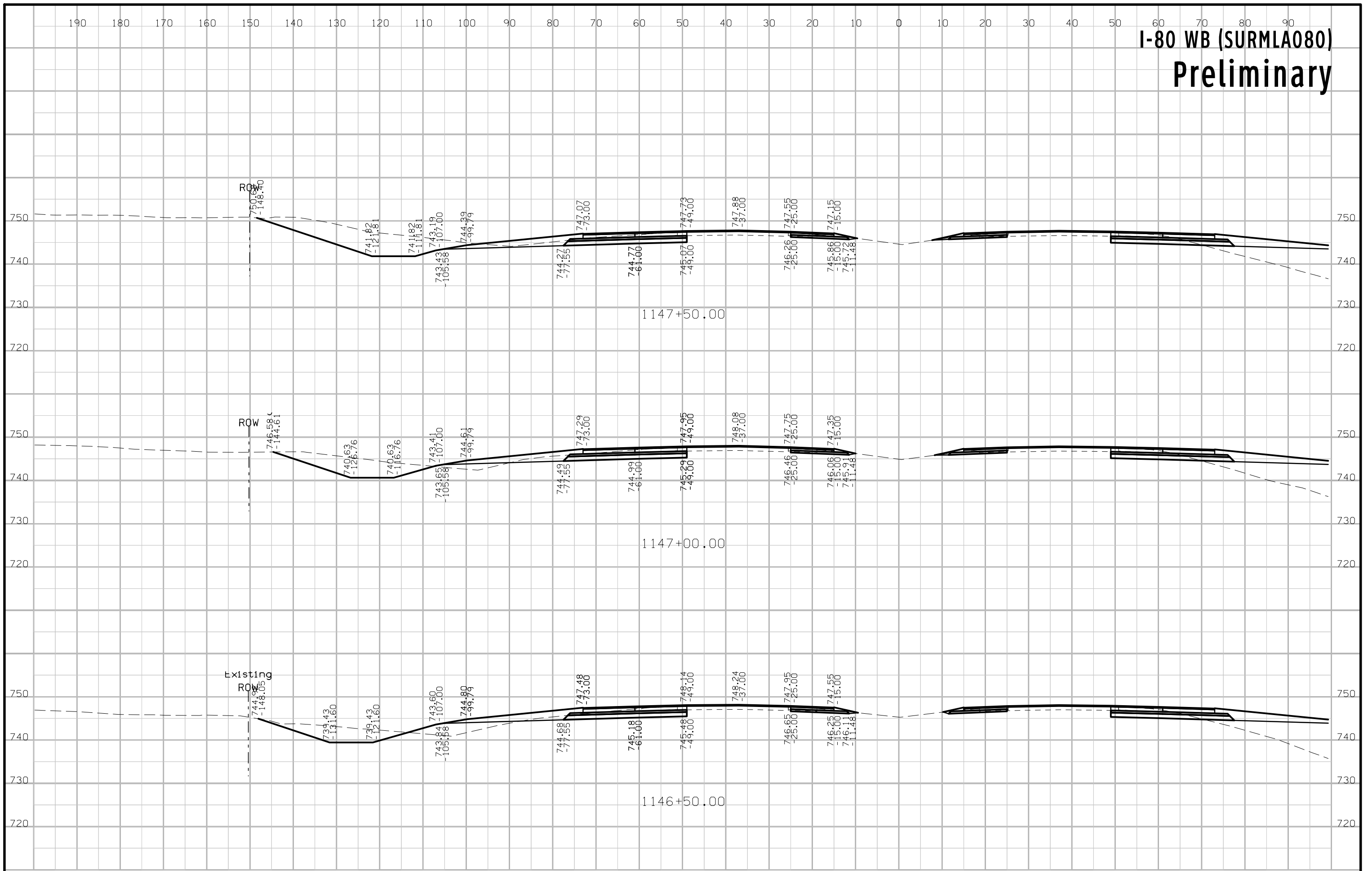
I-80 WB (SURMLA080) Preliminary



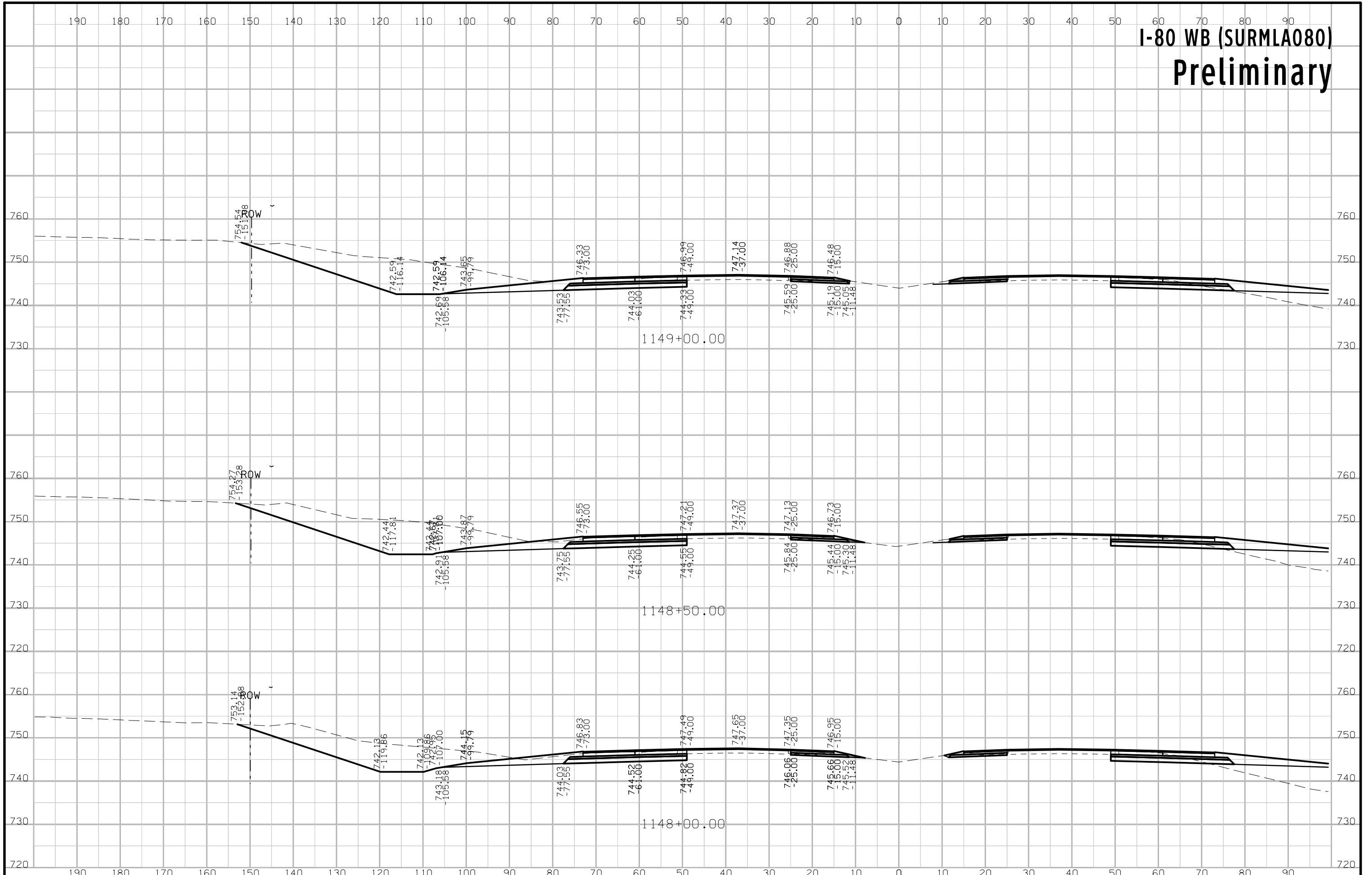
I-80 WB (SURMLA080) Preliminary



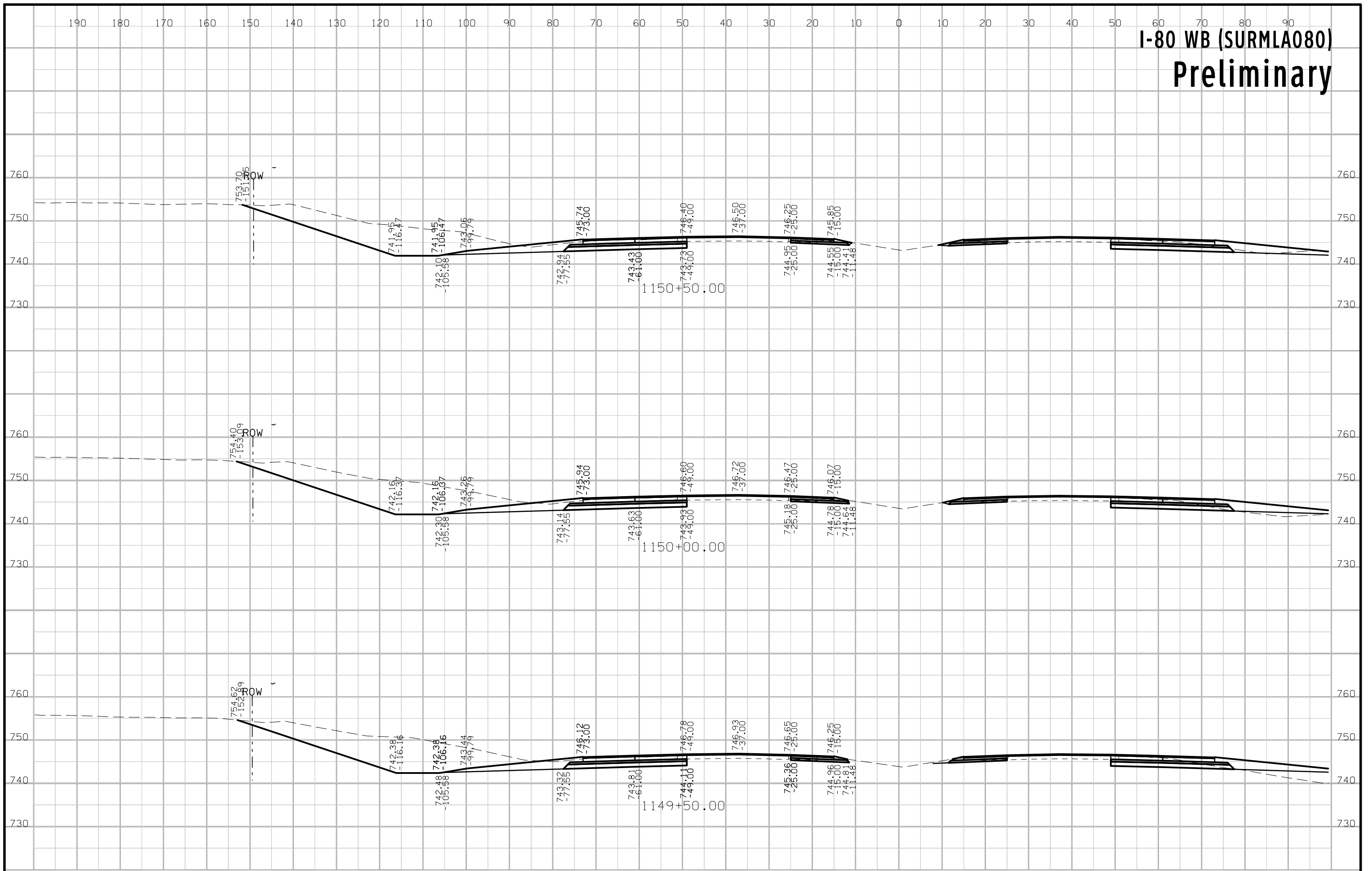
I-80 WB (SURMLA080) Preliminary



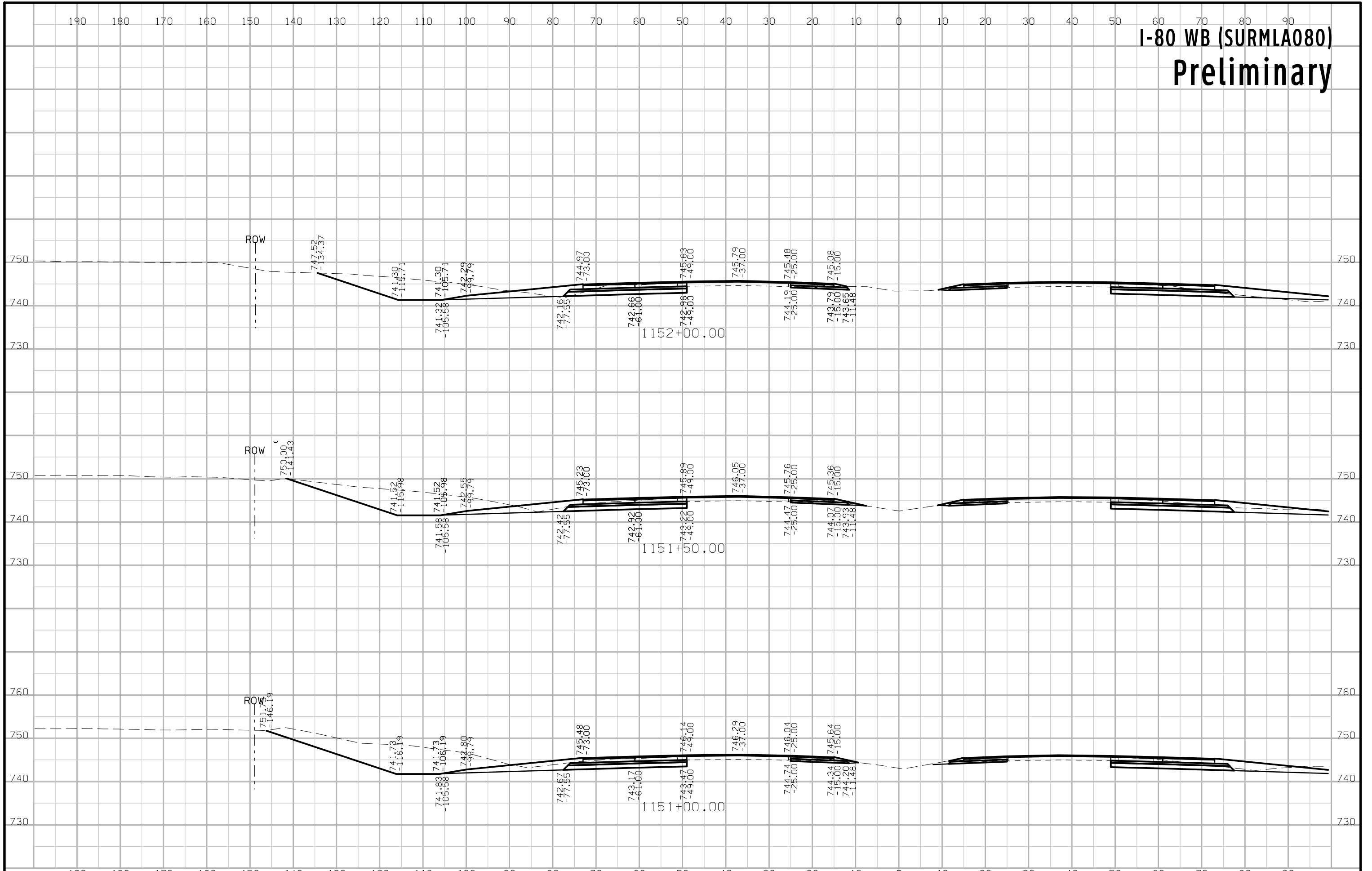
I-80 WB (SURMLA080) Preliminary



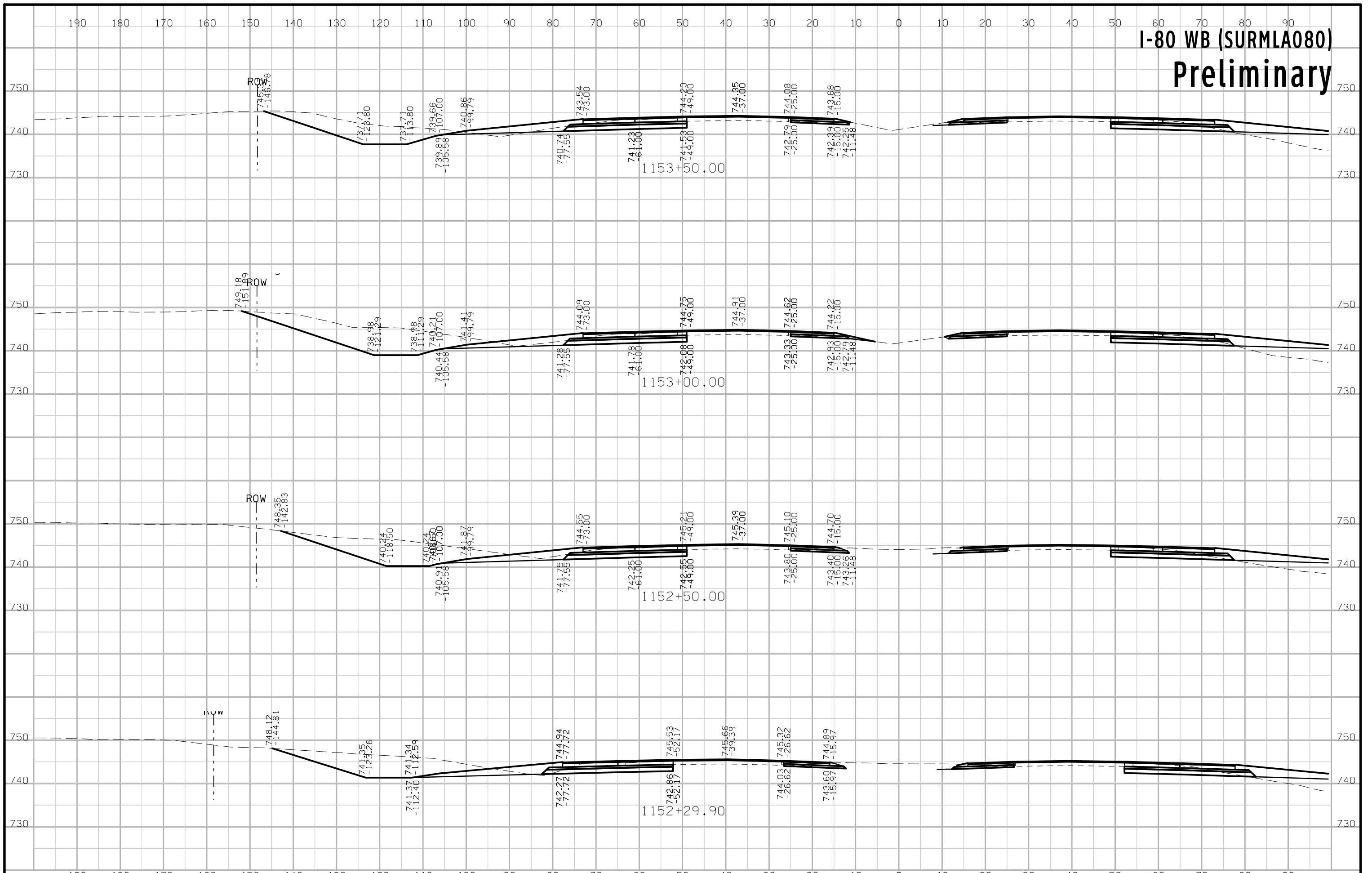
I-80 WB (SURMLA080) Preliminary



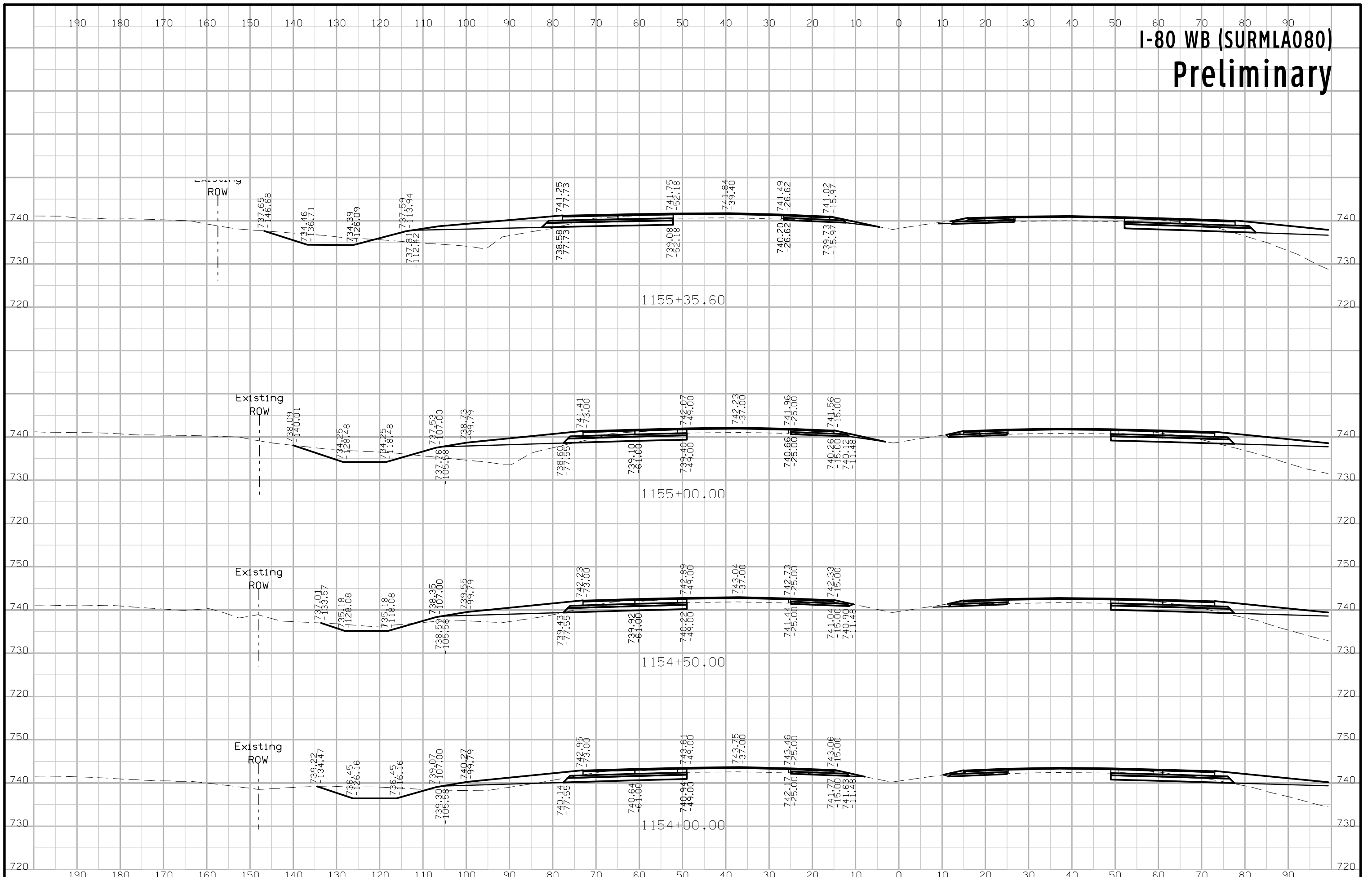
I-80 WB (SURMLA080) Preliminary



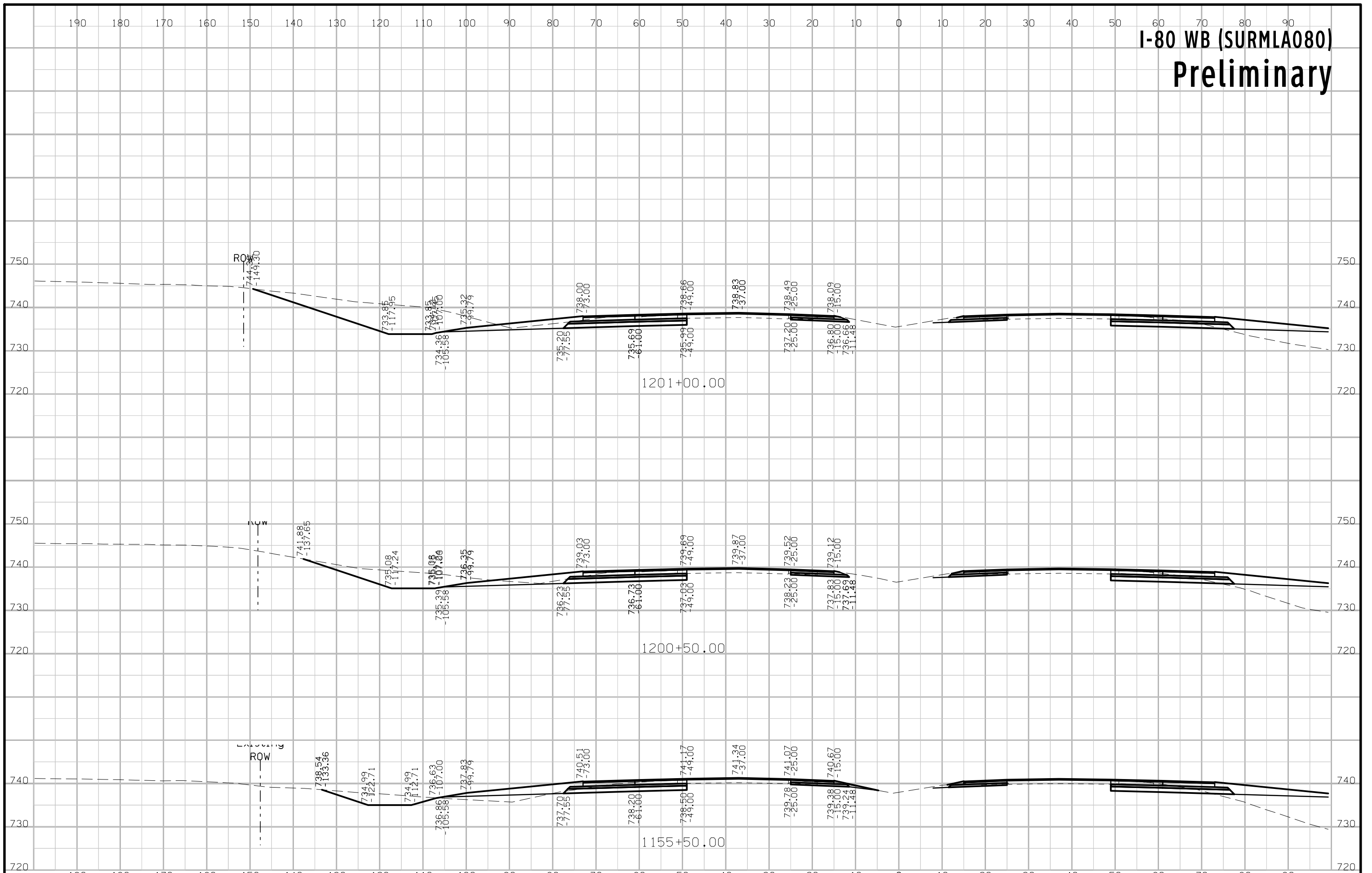
I-80 WB (SURMLA080) Preliminary



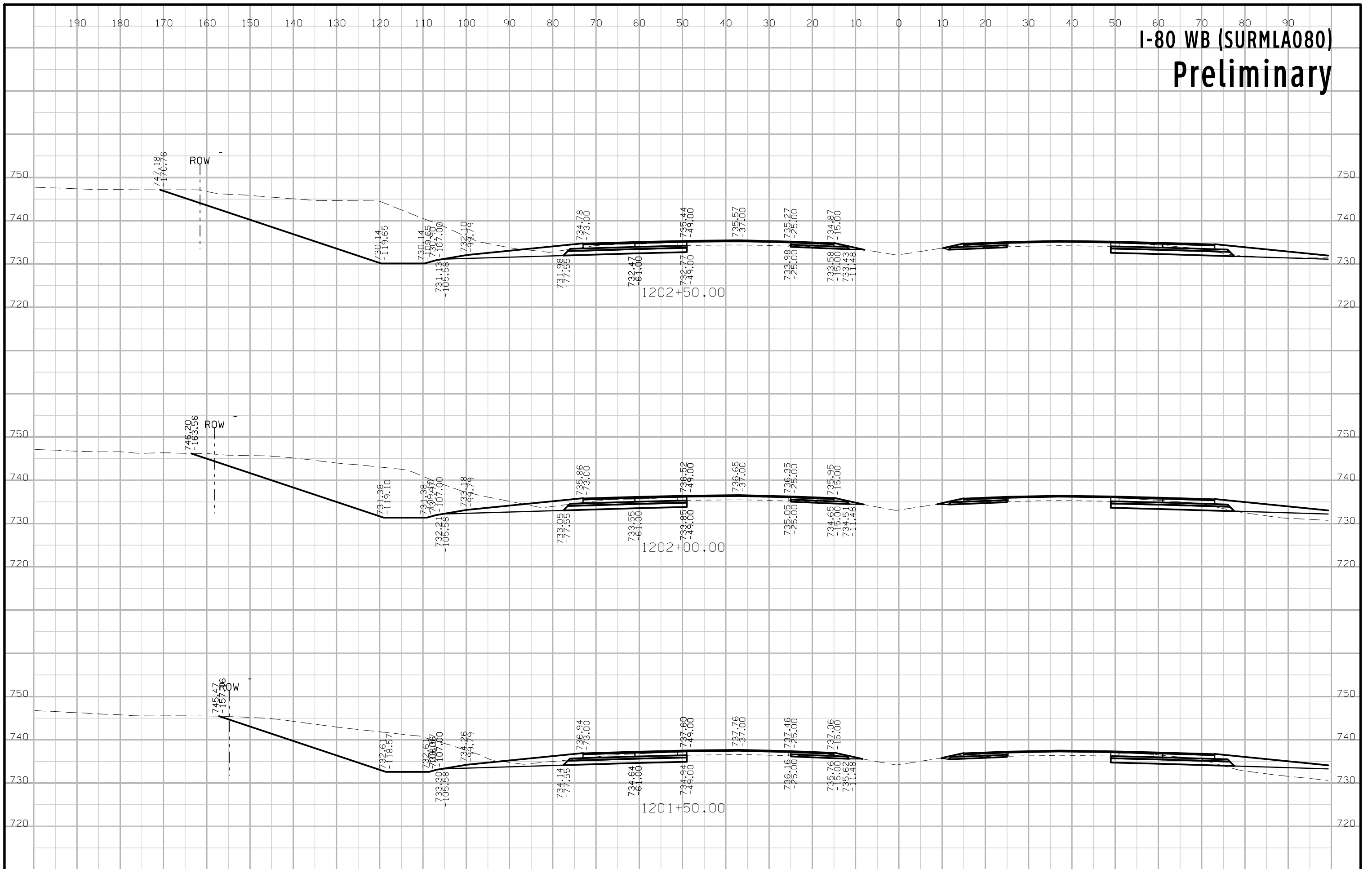
I-80 WB (SURMLA080) Preliminary



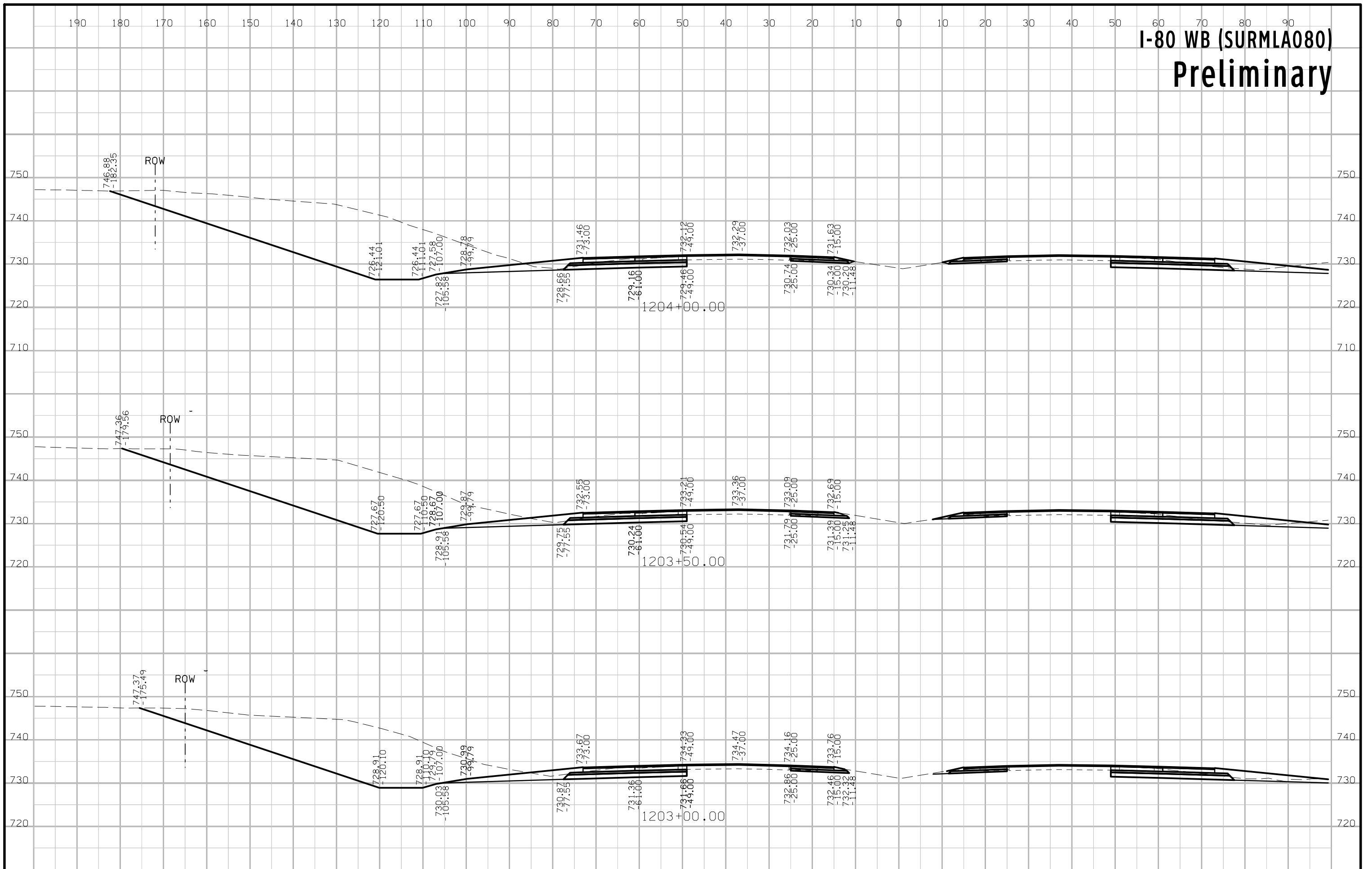
I-80 WB (SURMLA080) Preliminary



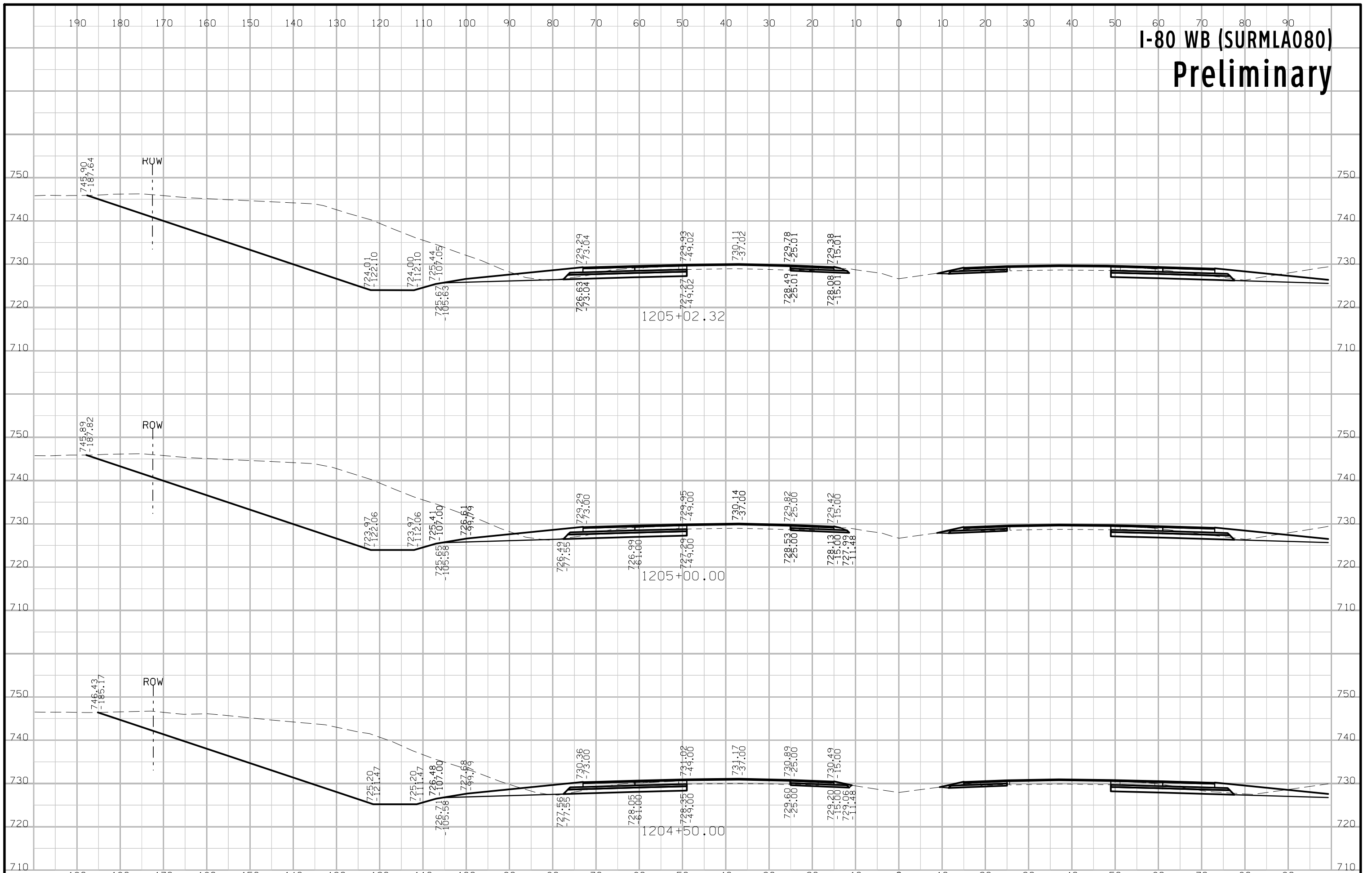
I-80 WB (SURMLA080) Preliminary



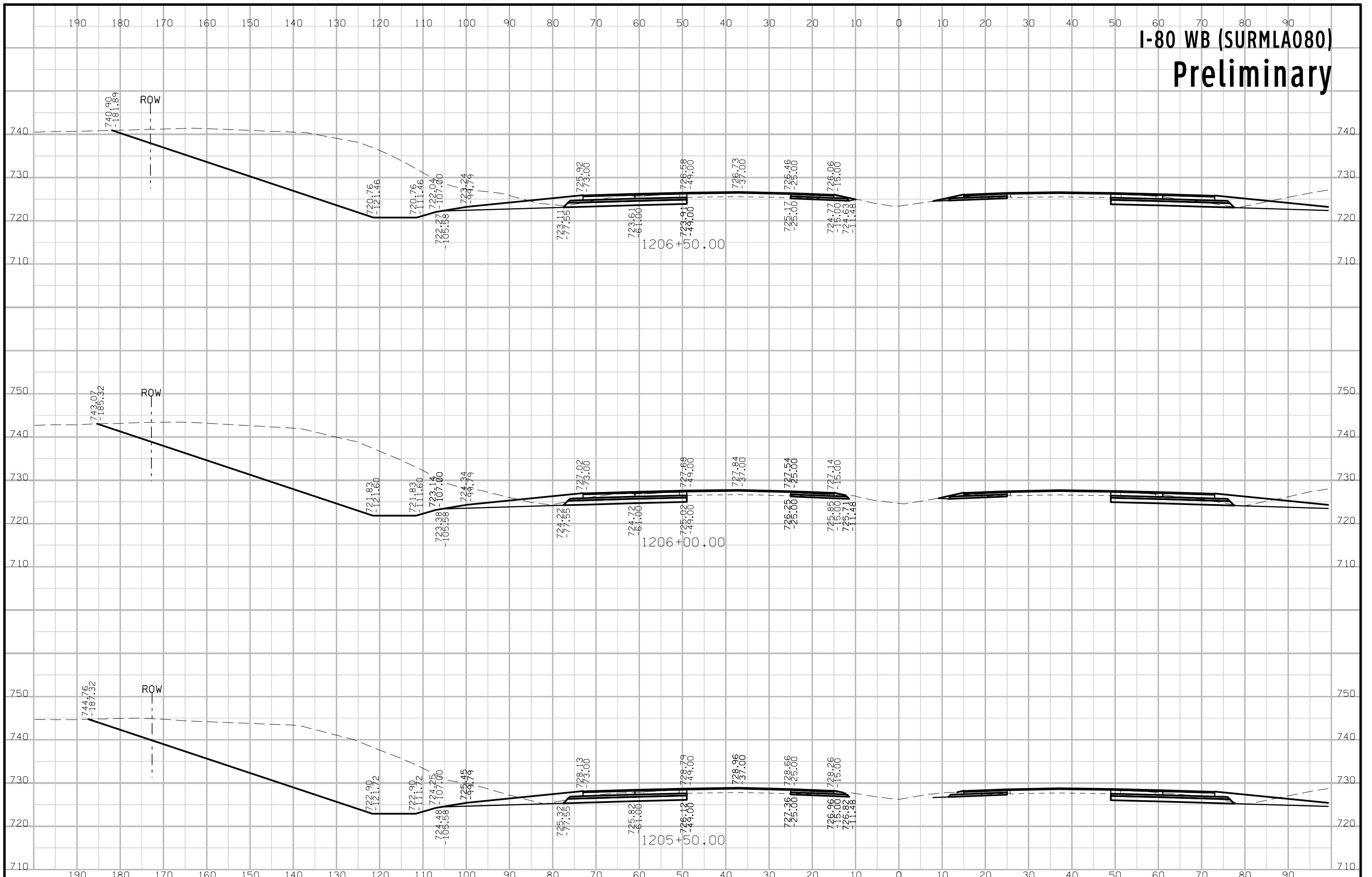
I-80 WB (SURMLA080) Preliminary



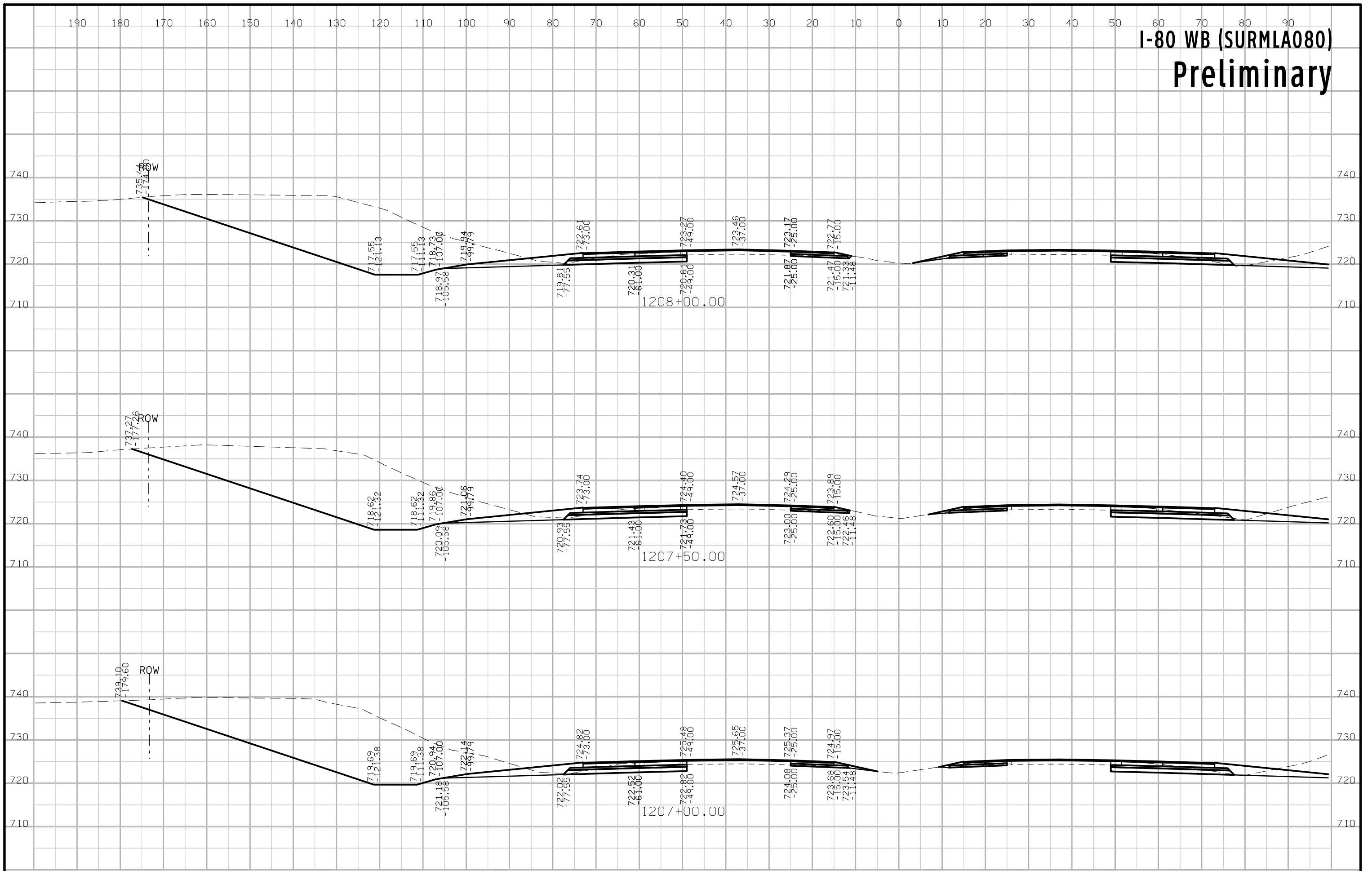
I-80 WB (SURMLA080) Preliminary



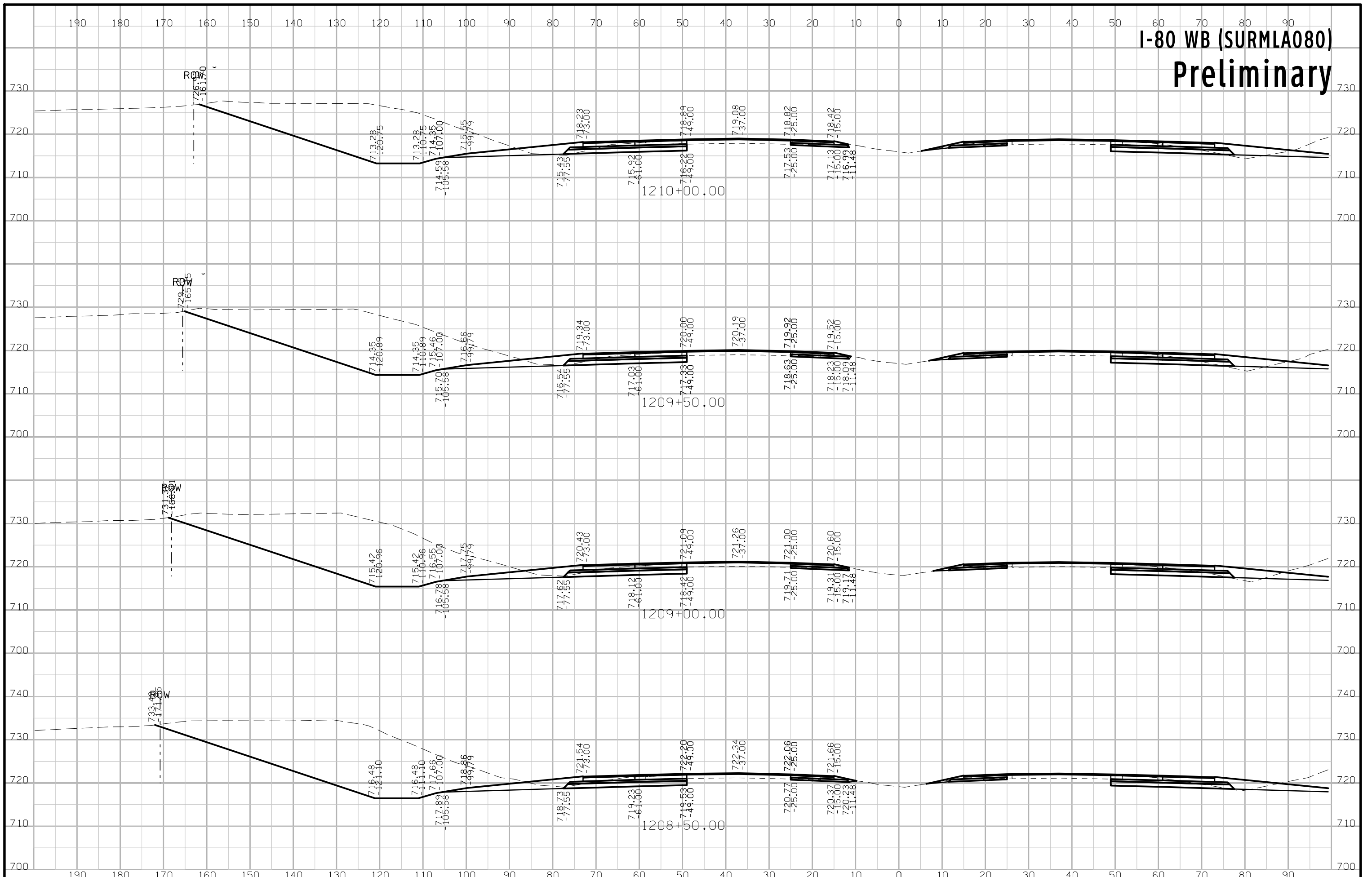
I-80 WB (SURMLA080) Preliminary



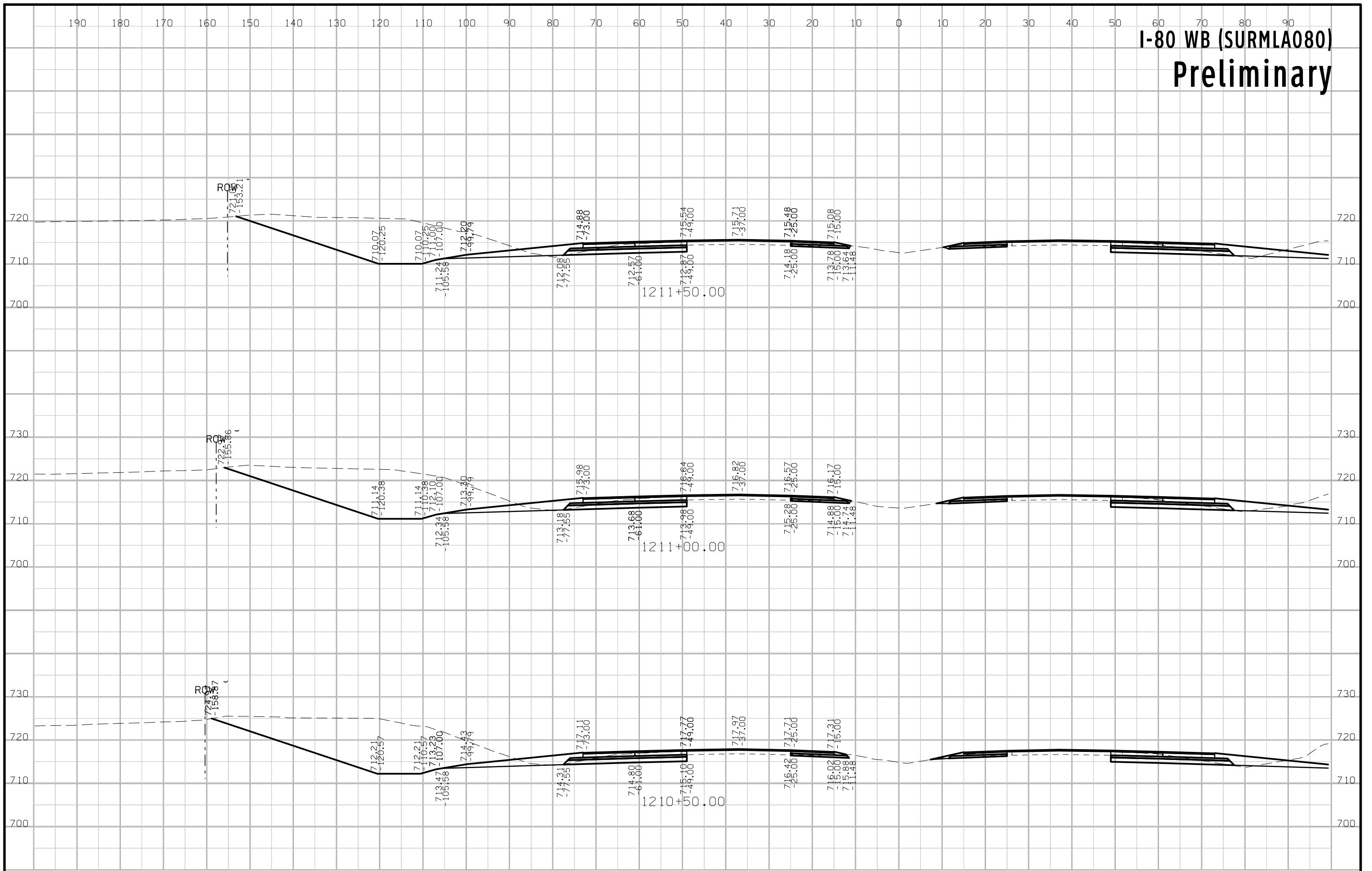
I-80 WB (SURMLA080) Preliminary



I-80 WB (SURMLA080) Preliminary



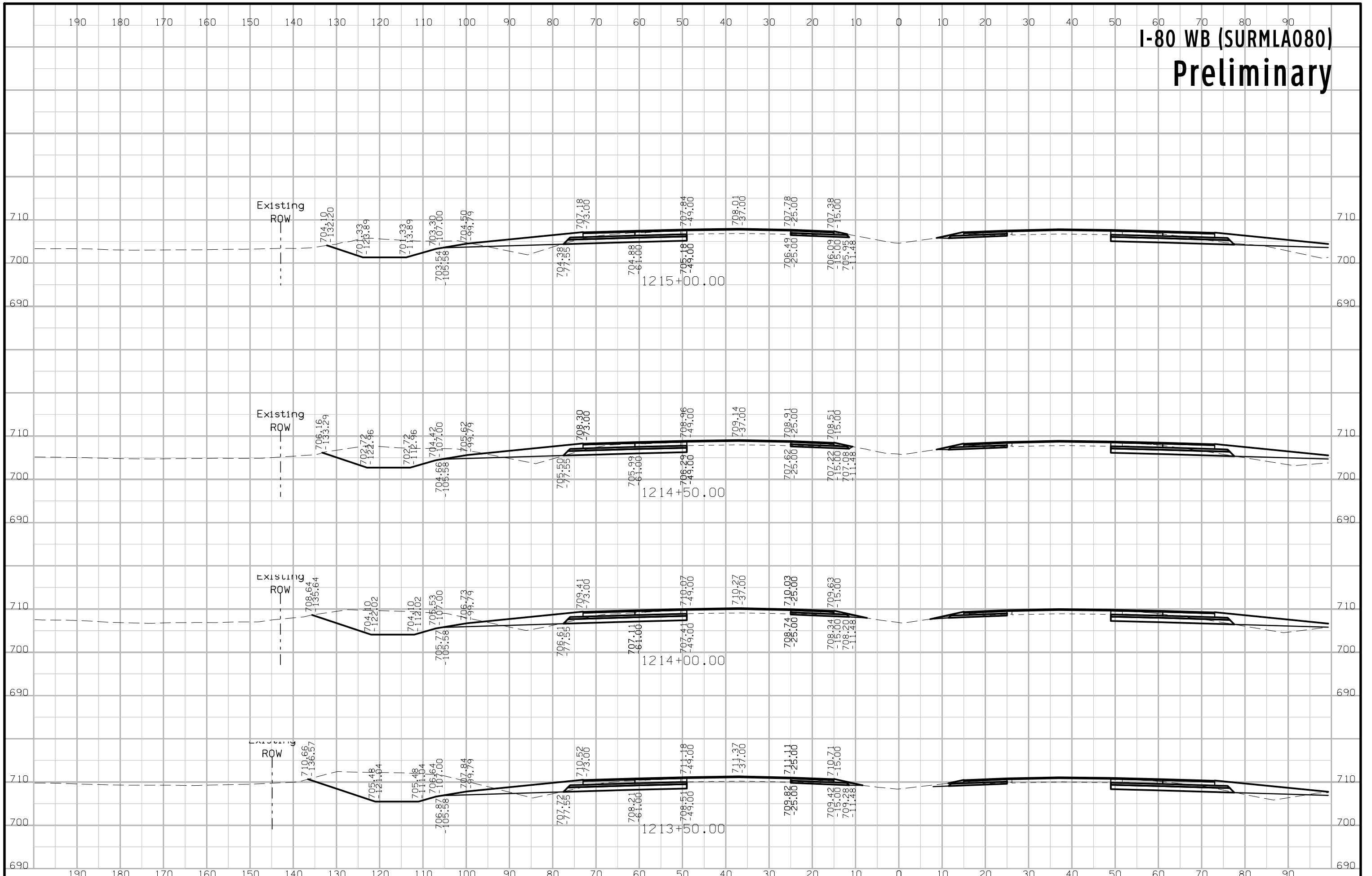
I-80 WB (SURMLA080) Preliminary



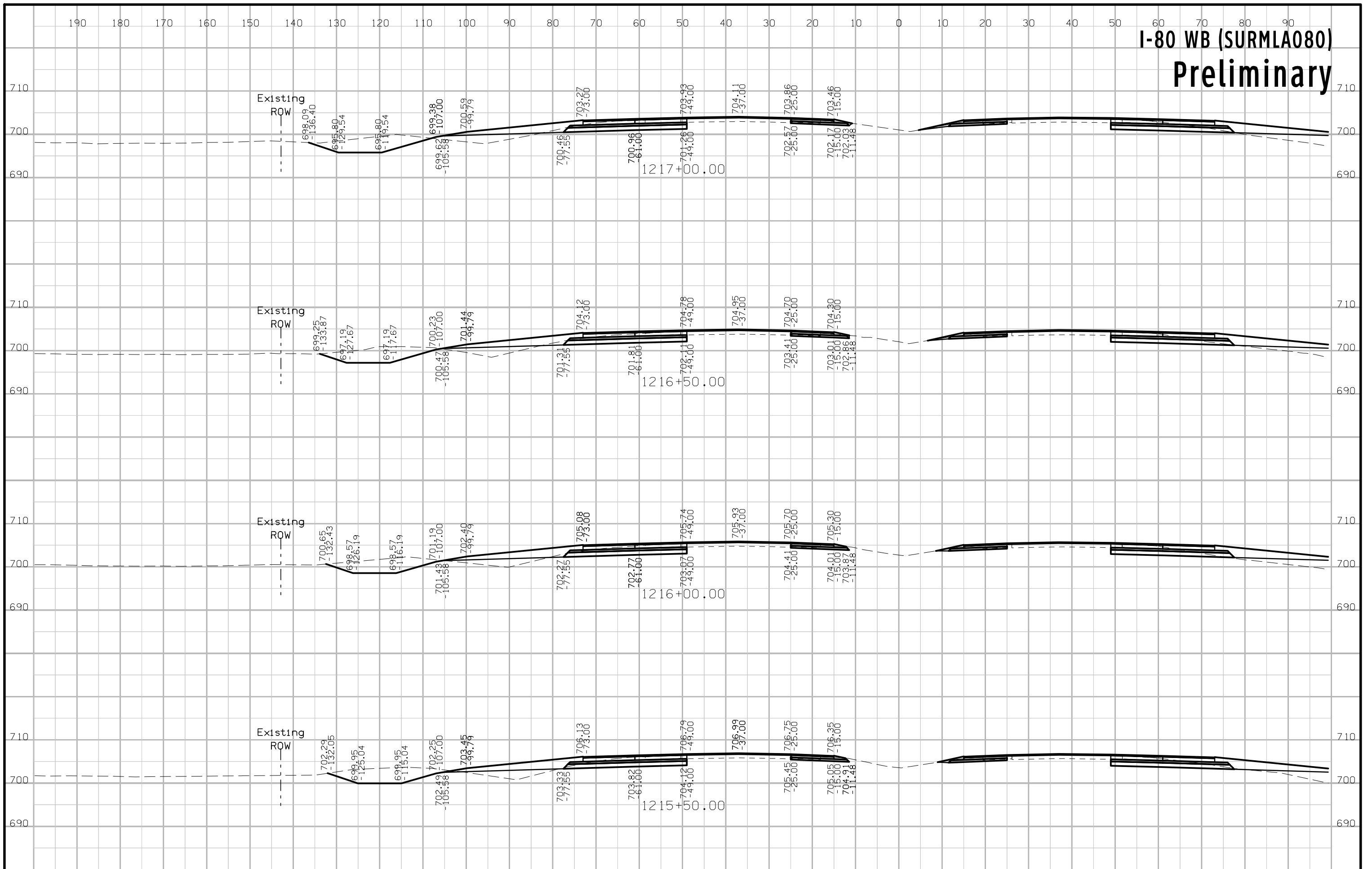
I-80 WB (SURMLA080) Preliminary



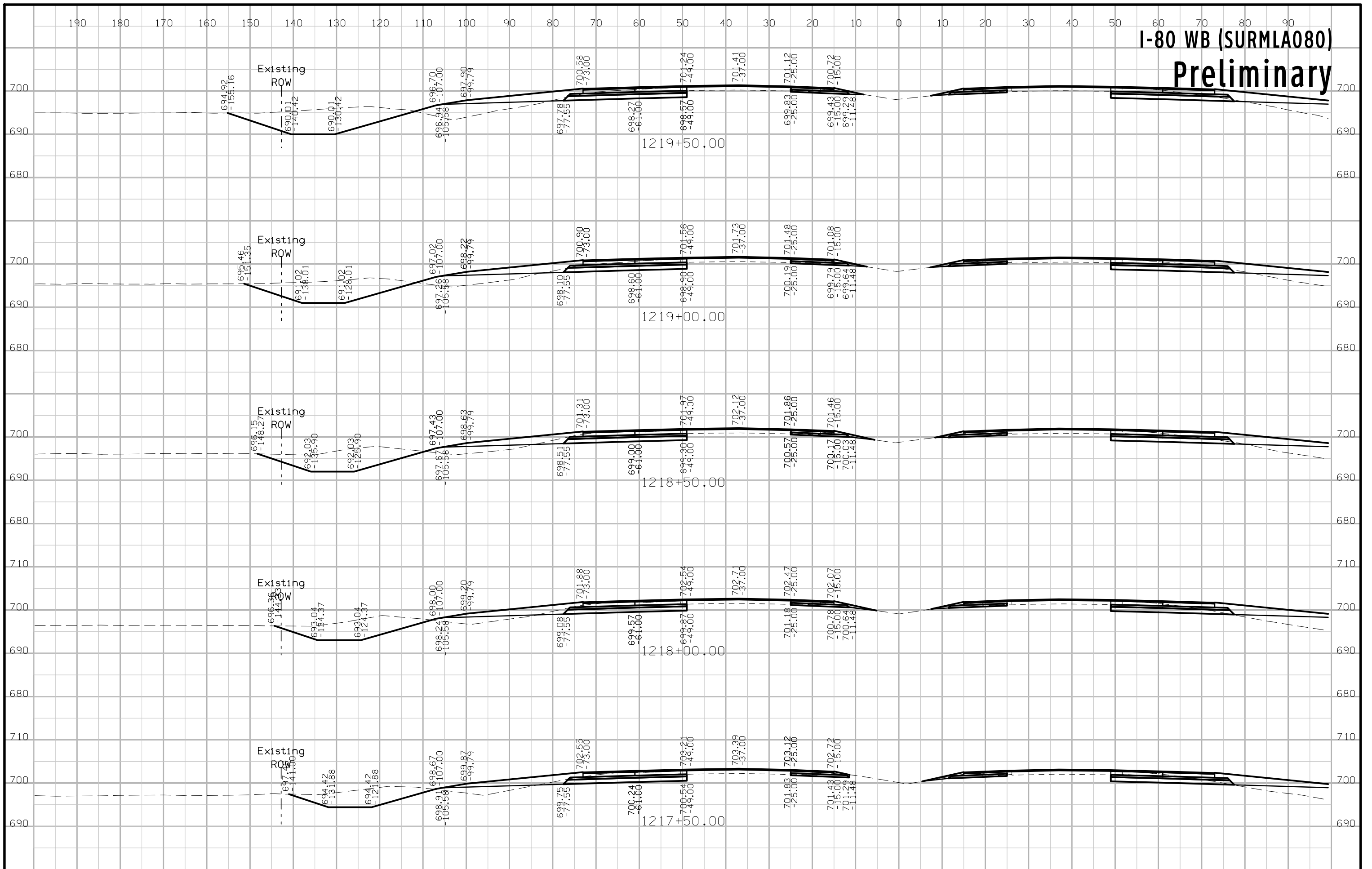
I-80 WB (SURMLA080) Preliminary



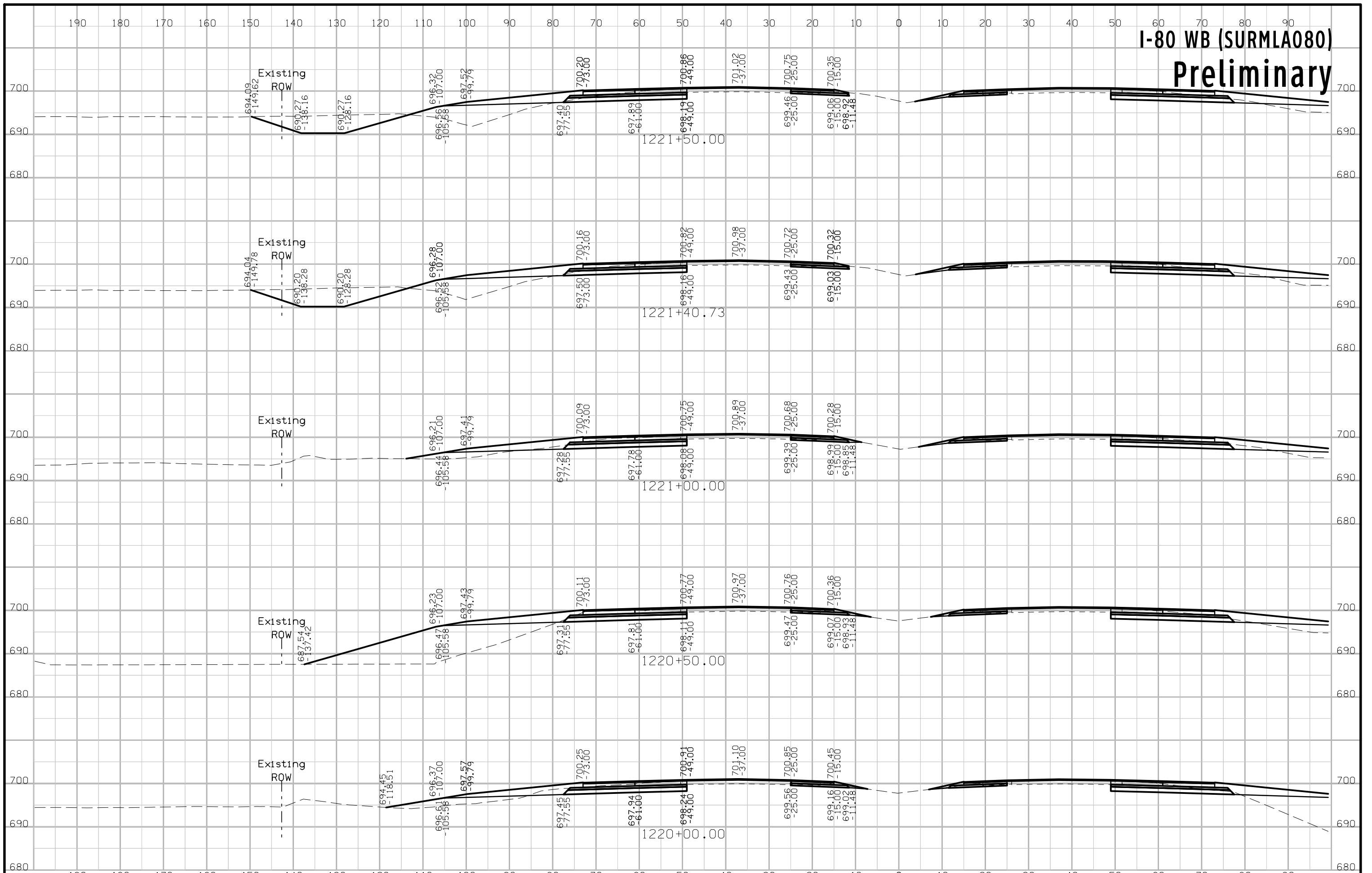
I-80 WB (SURMLA080) Preliminary



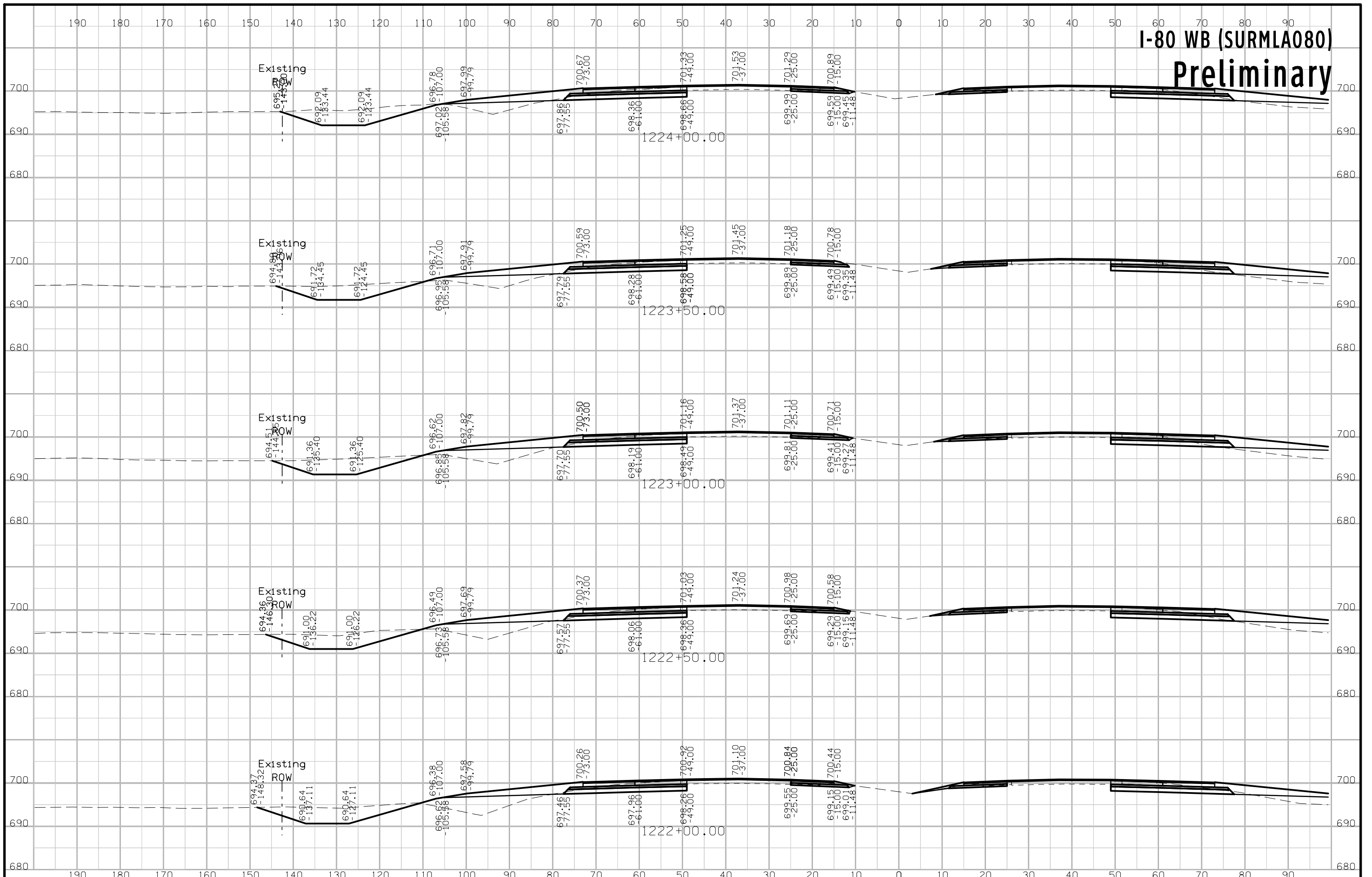
I-80 WB (SURMLA080) Preliminary



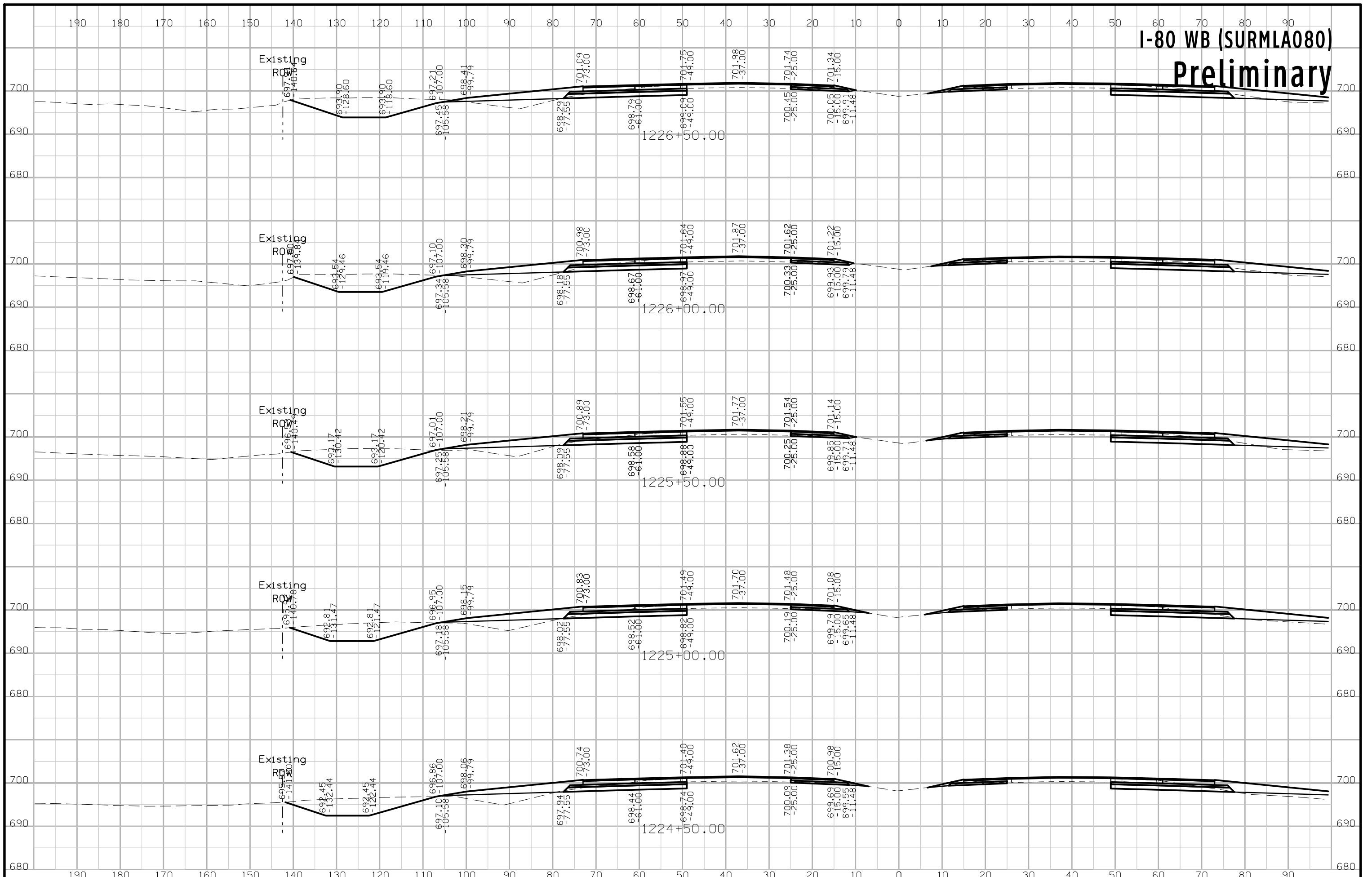
I-80 WB (SURMLA080) Preliminary



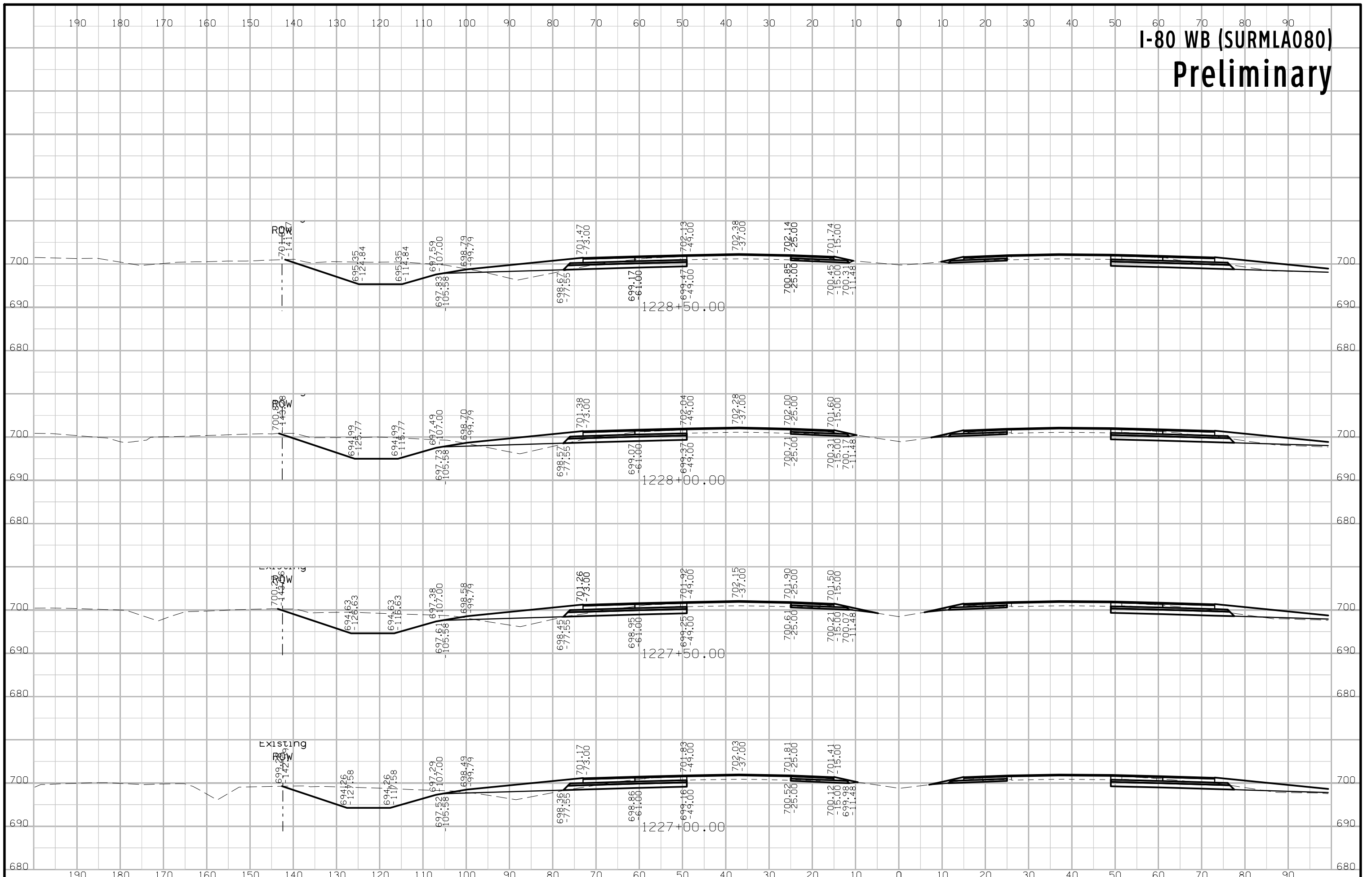
I-80 WB (SURMLA080) Preliminary



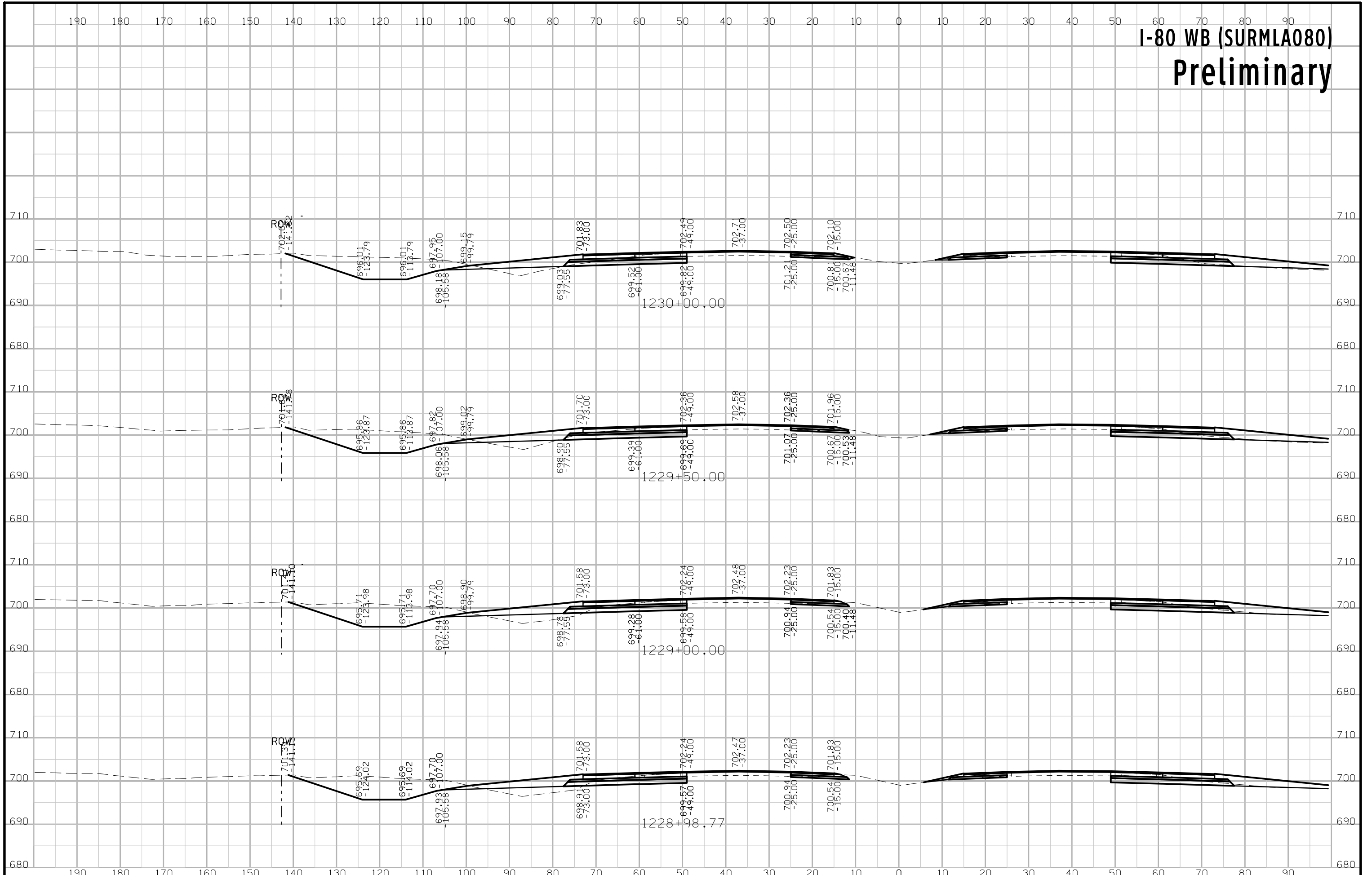
I-80 WB (SURMLA080) Preliminary



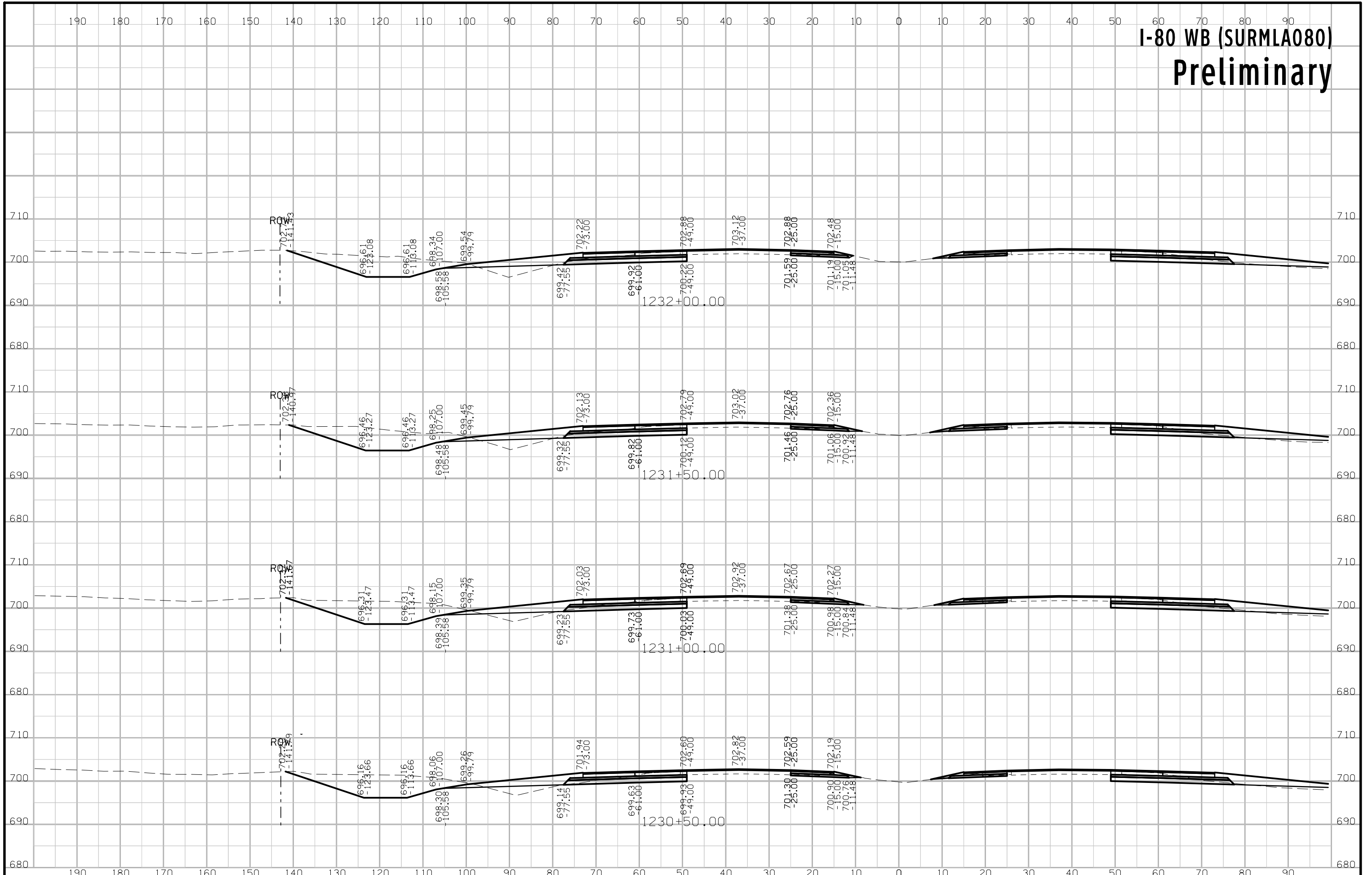
I-80 WB (SURMLA080) Preliminary



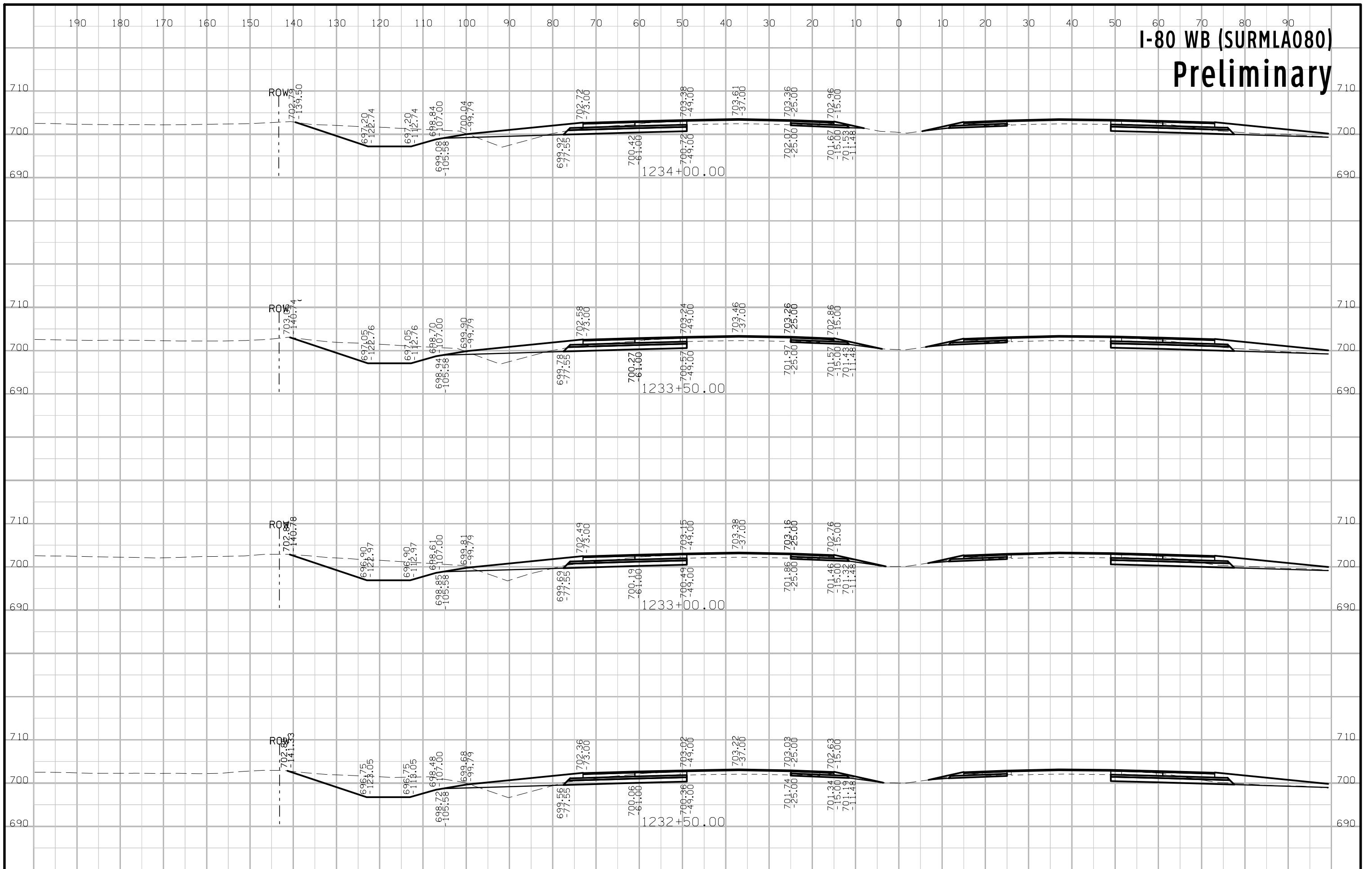
I-80 WB (SURMLA080) Preliminary



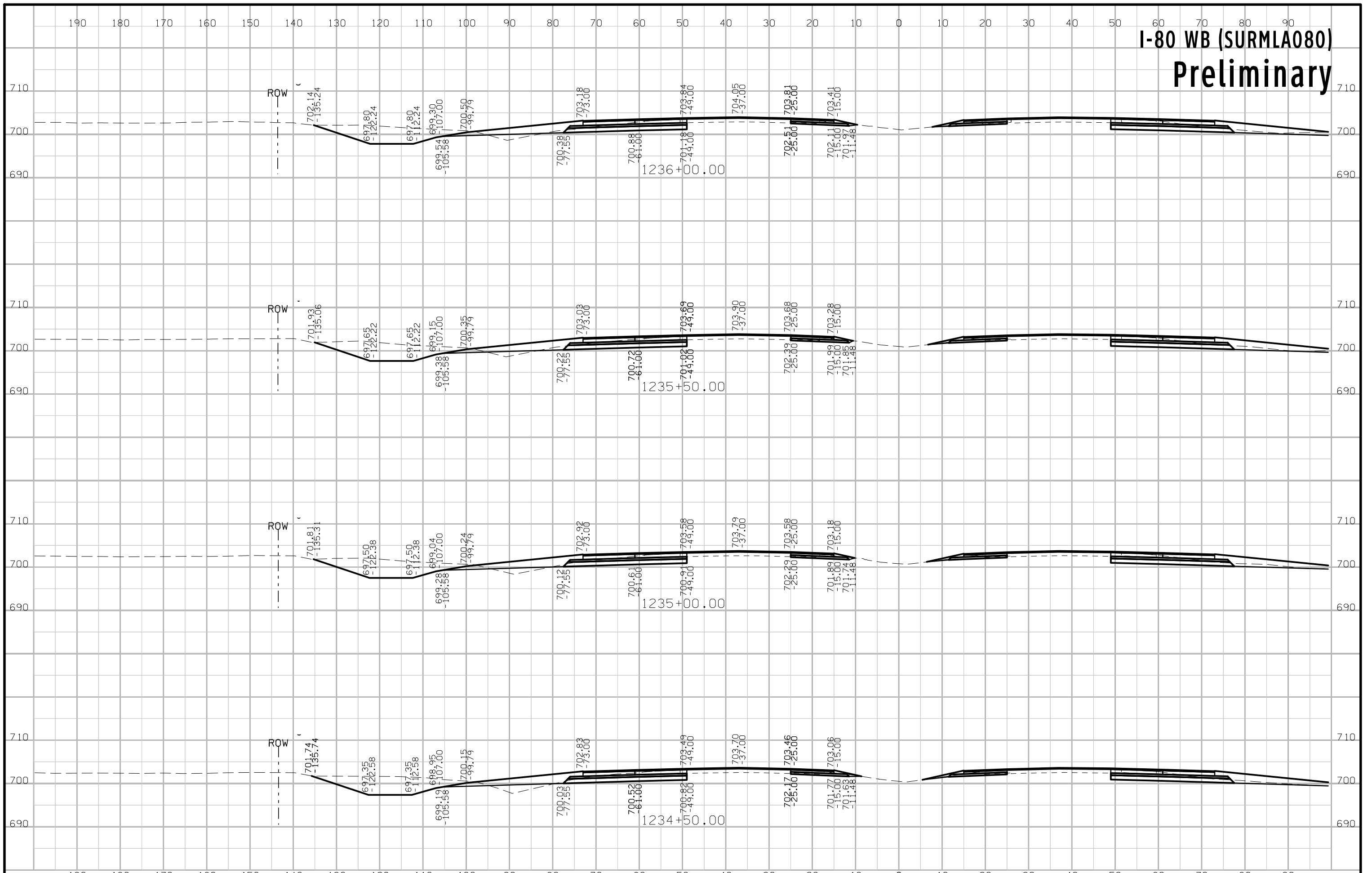
I-80 WB (SURMLA080) Preliminary



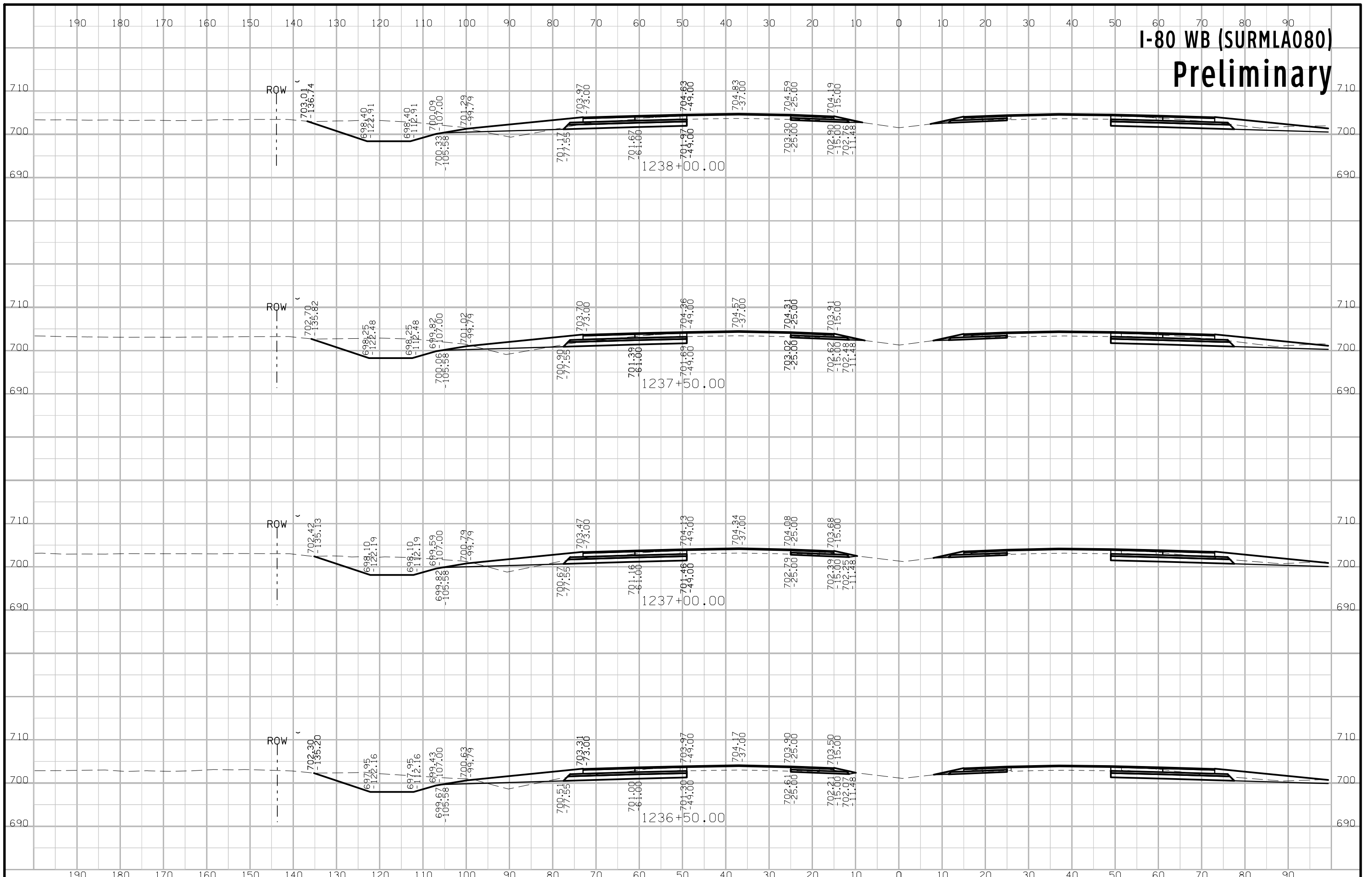
I-80 WB (SURMLA080) Preliminary



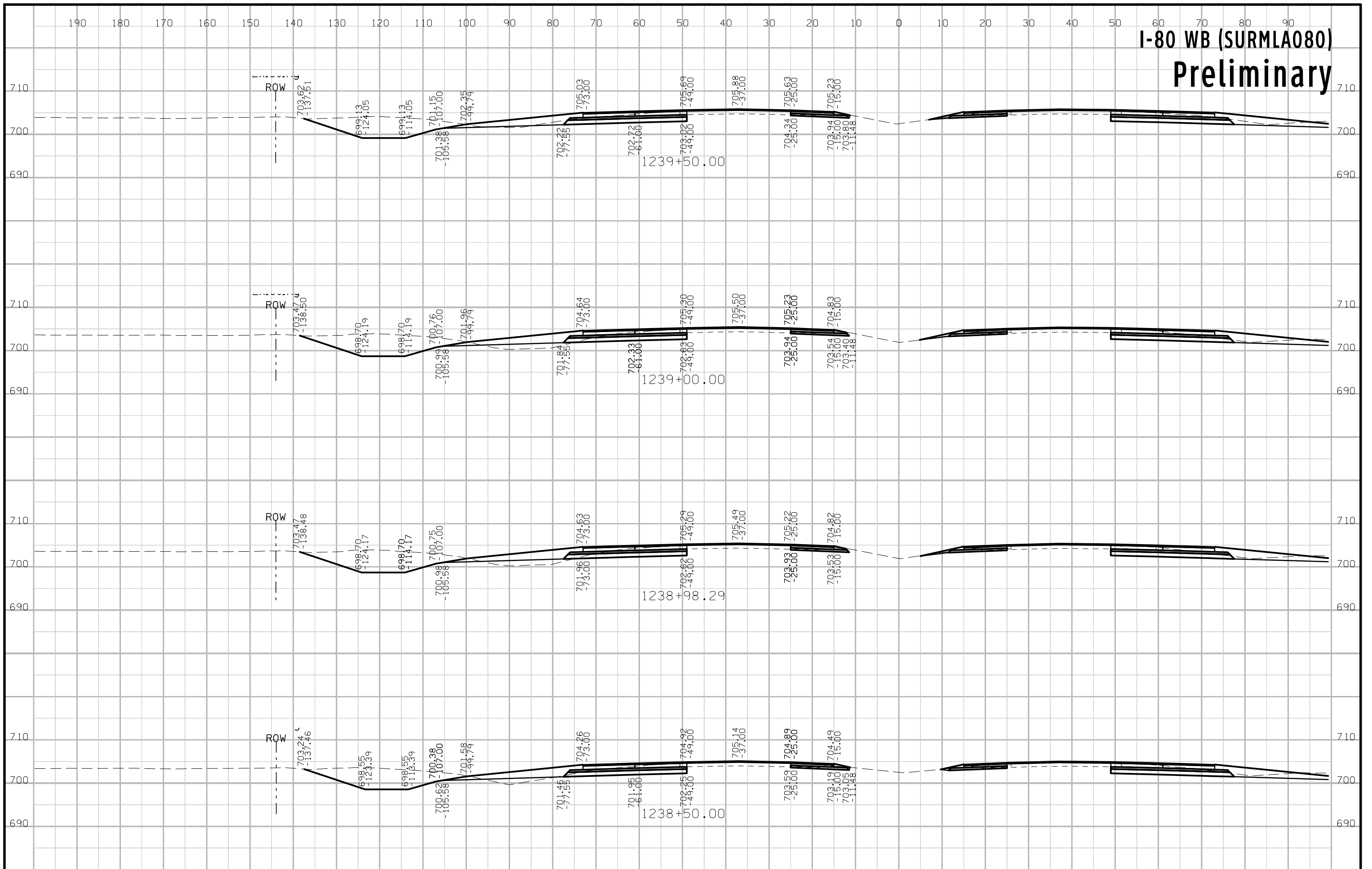
I-80 WB (SURMLA080) Preliminary



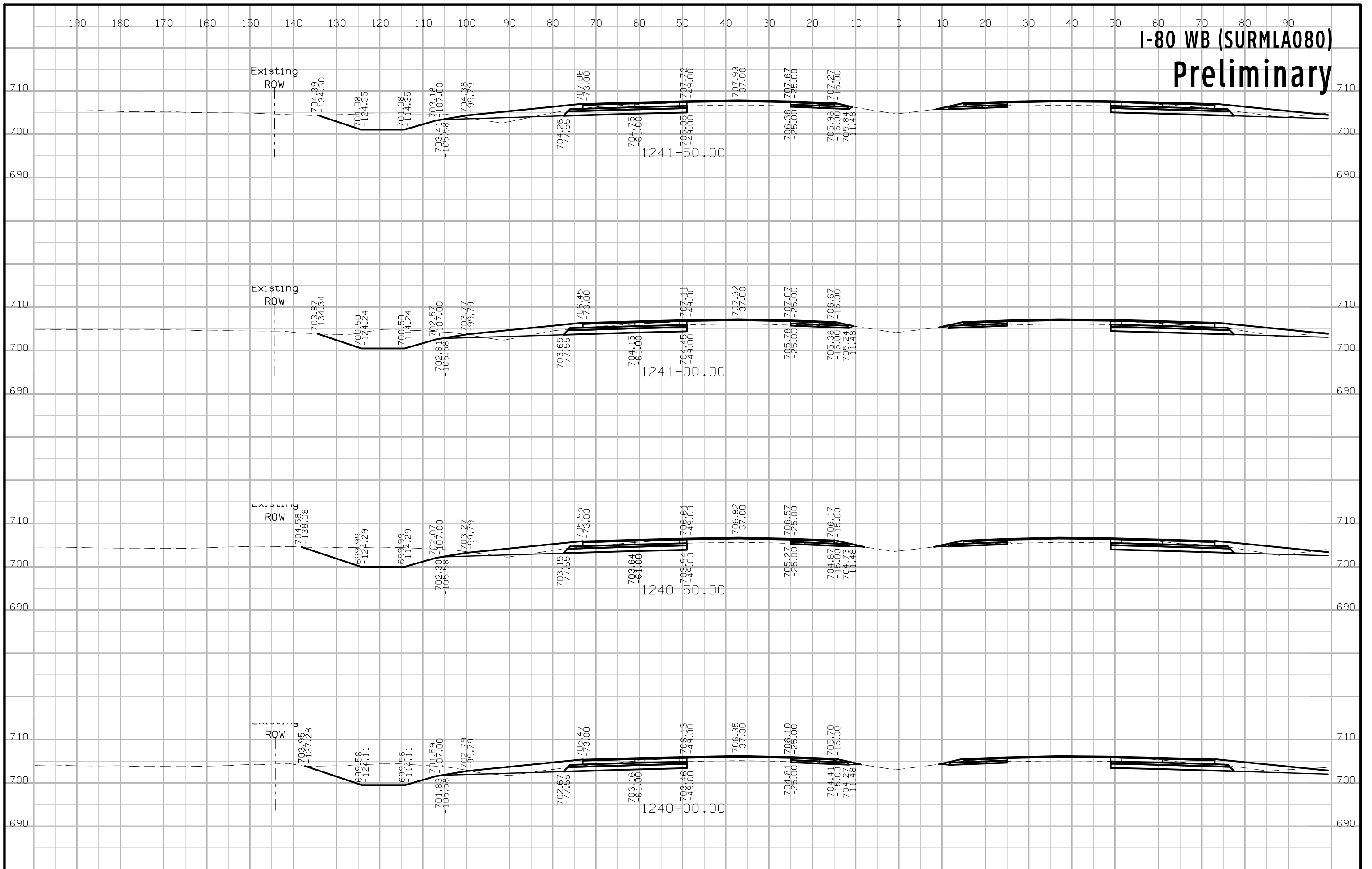
I-80 WB (SURMLA080) Preliminary



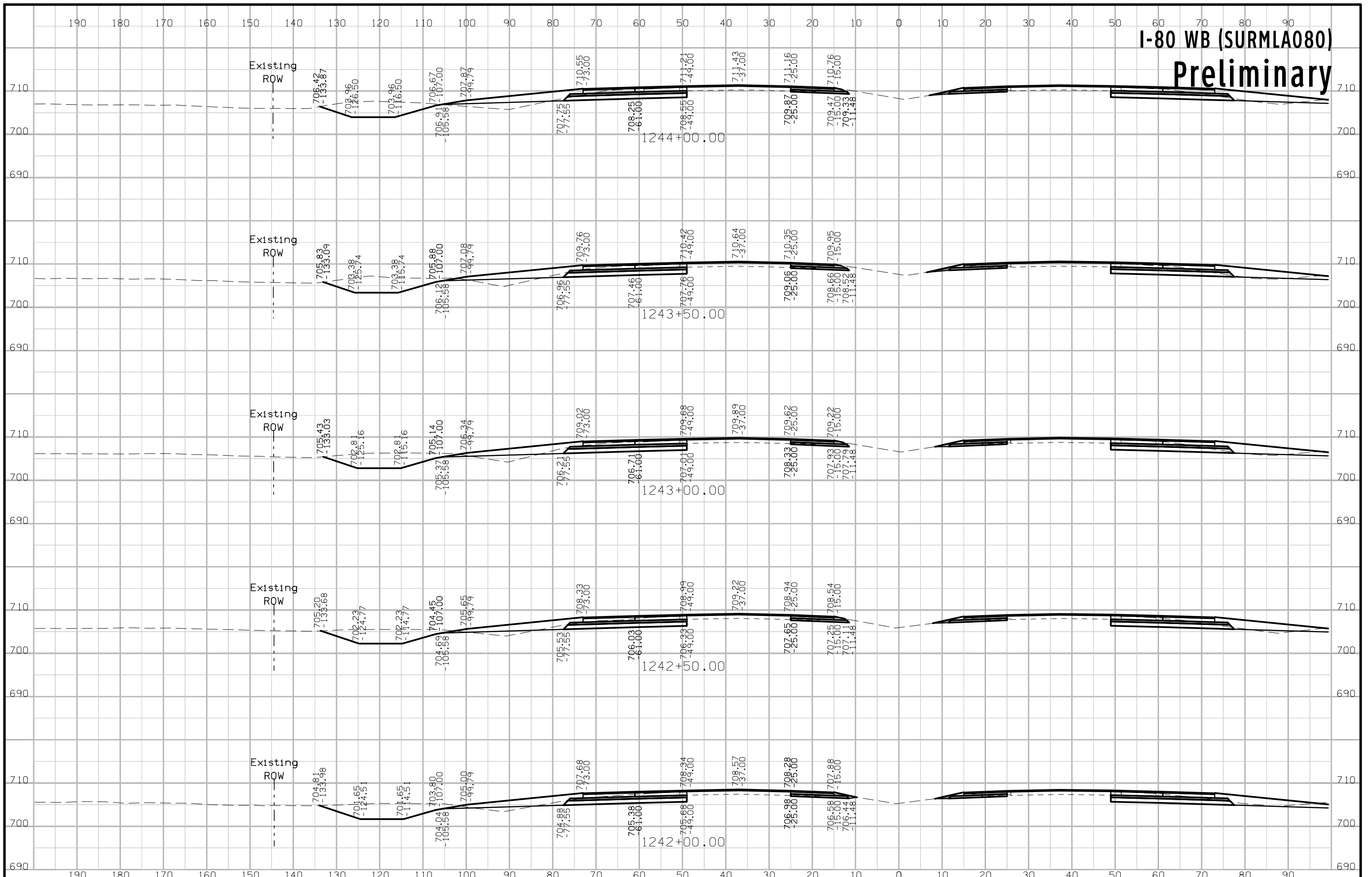
I-80 WB (SURMLA080) Preliminary



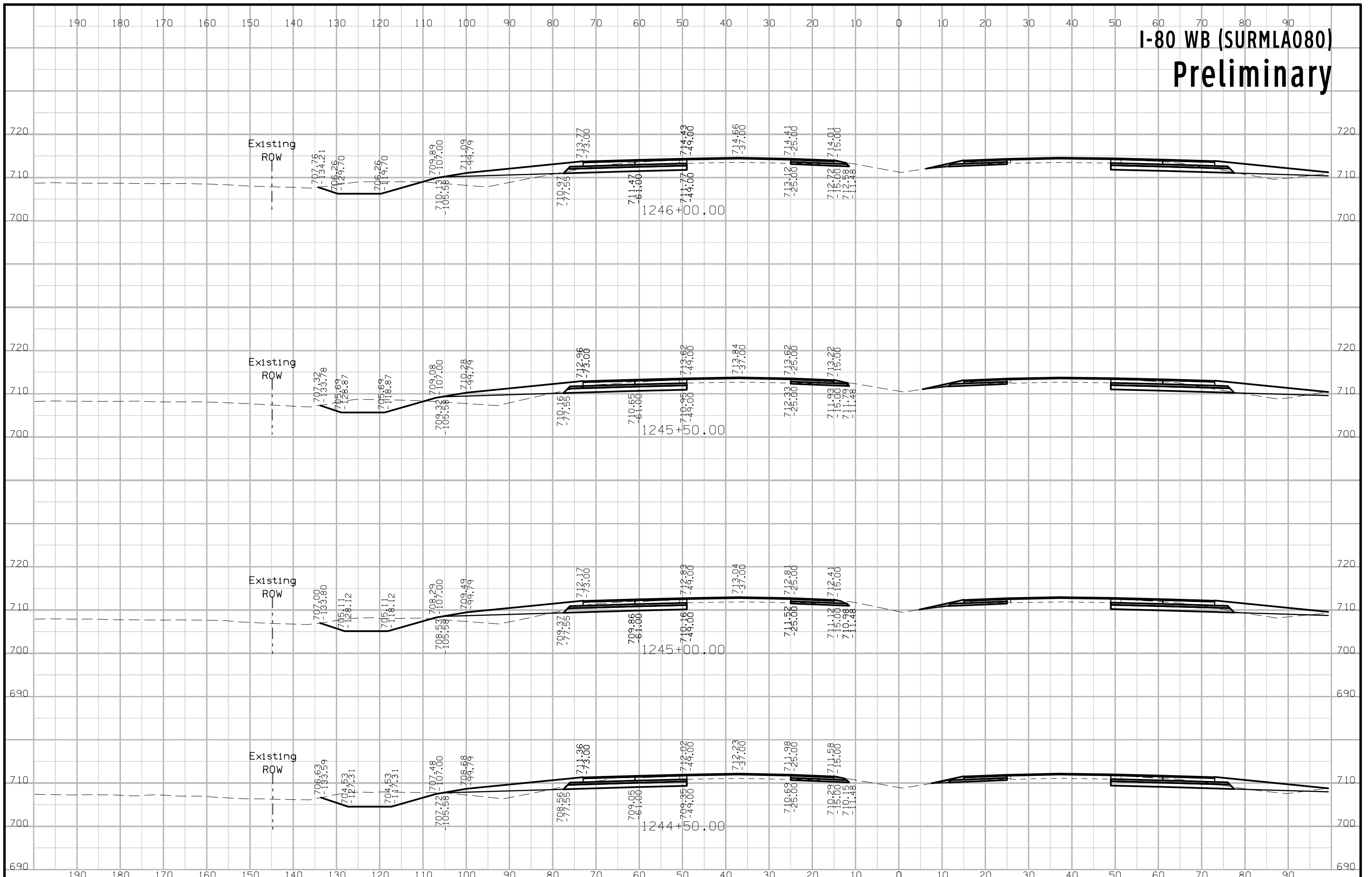
I-80 WB (SURMLA080) Preliminary



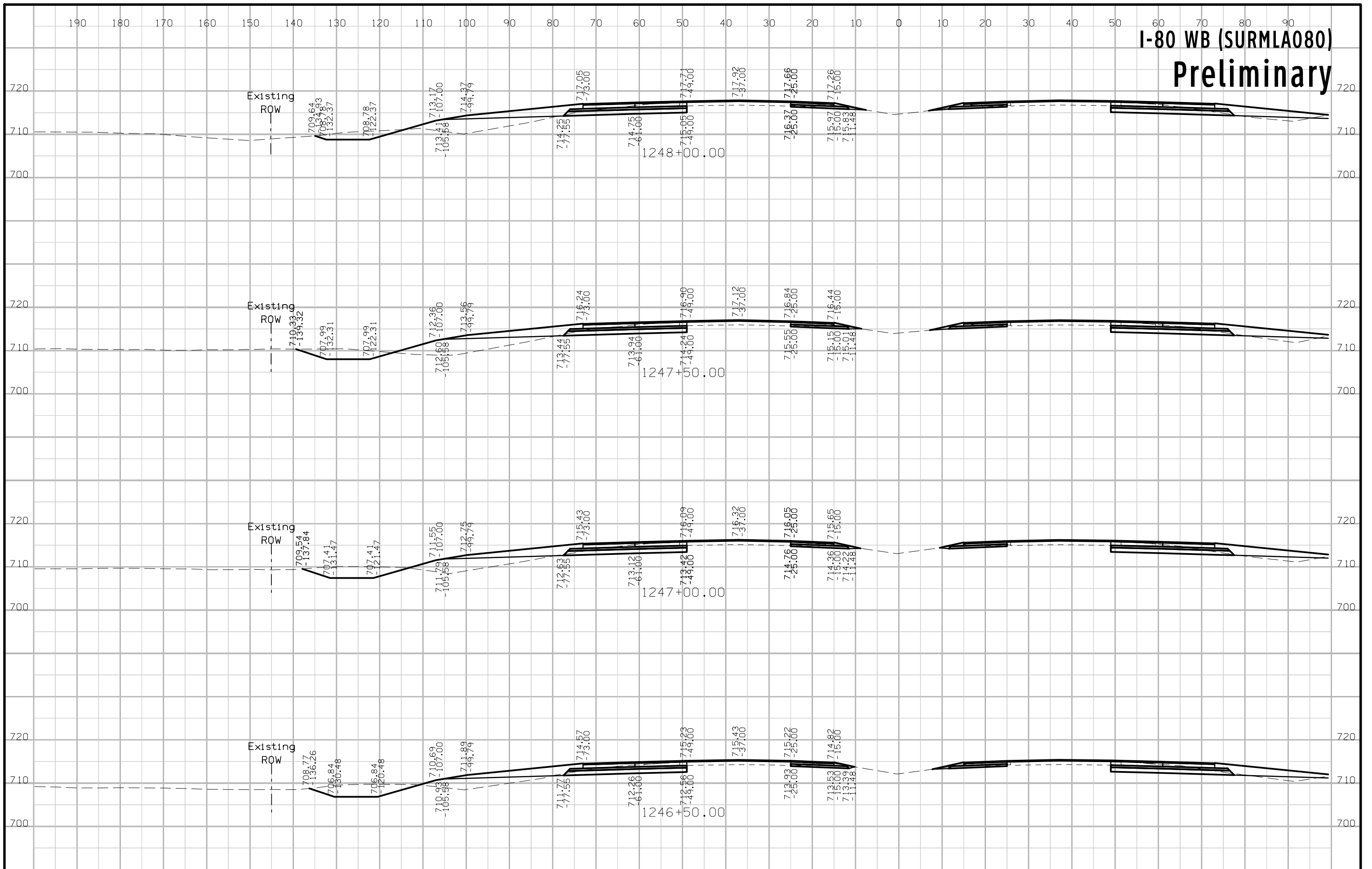
I-80 WB (SURMLA080) Preliminary



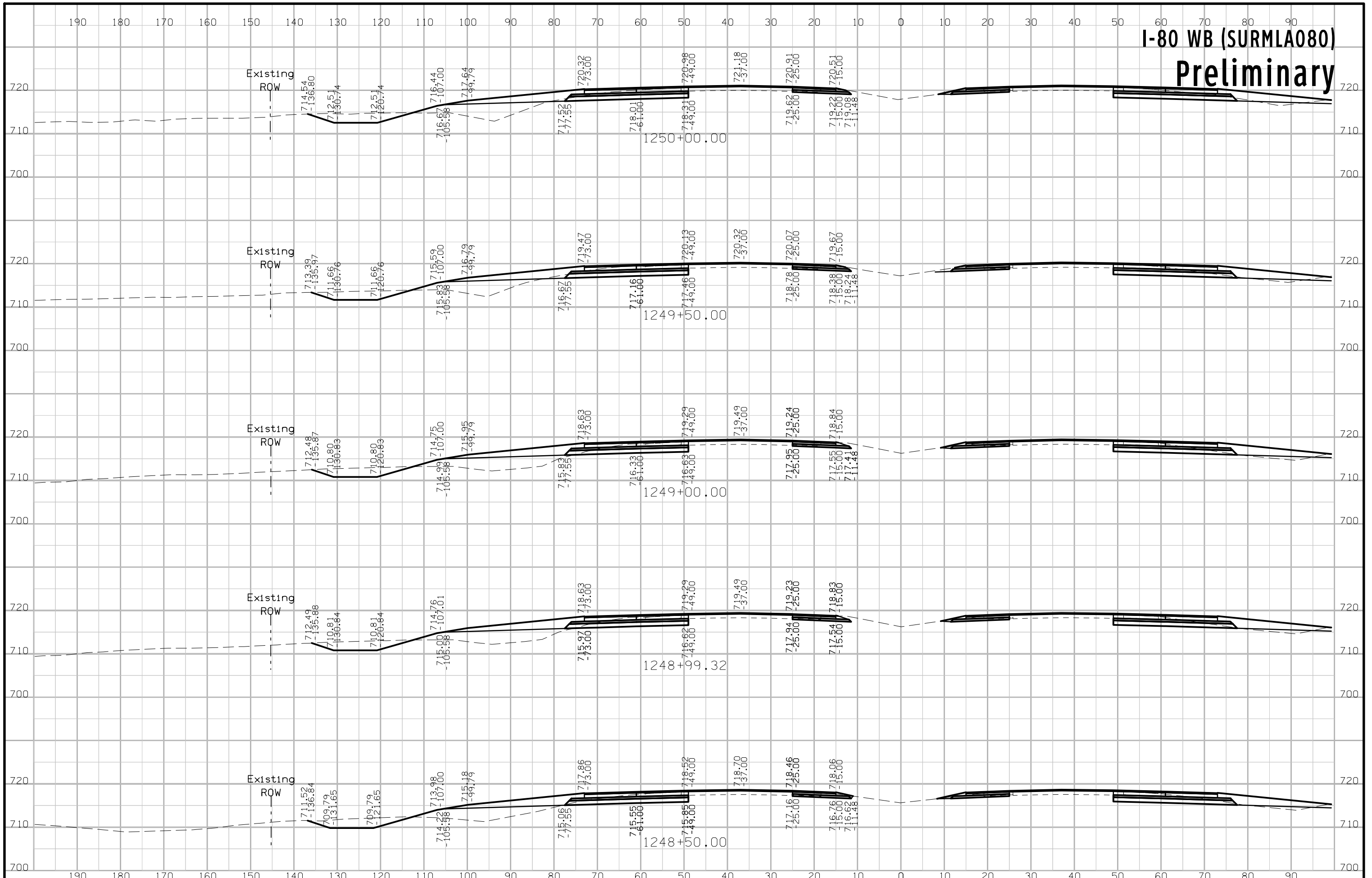
I-80 WB (SURMLA080) Preliminary



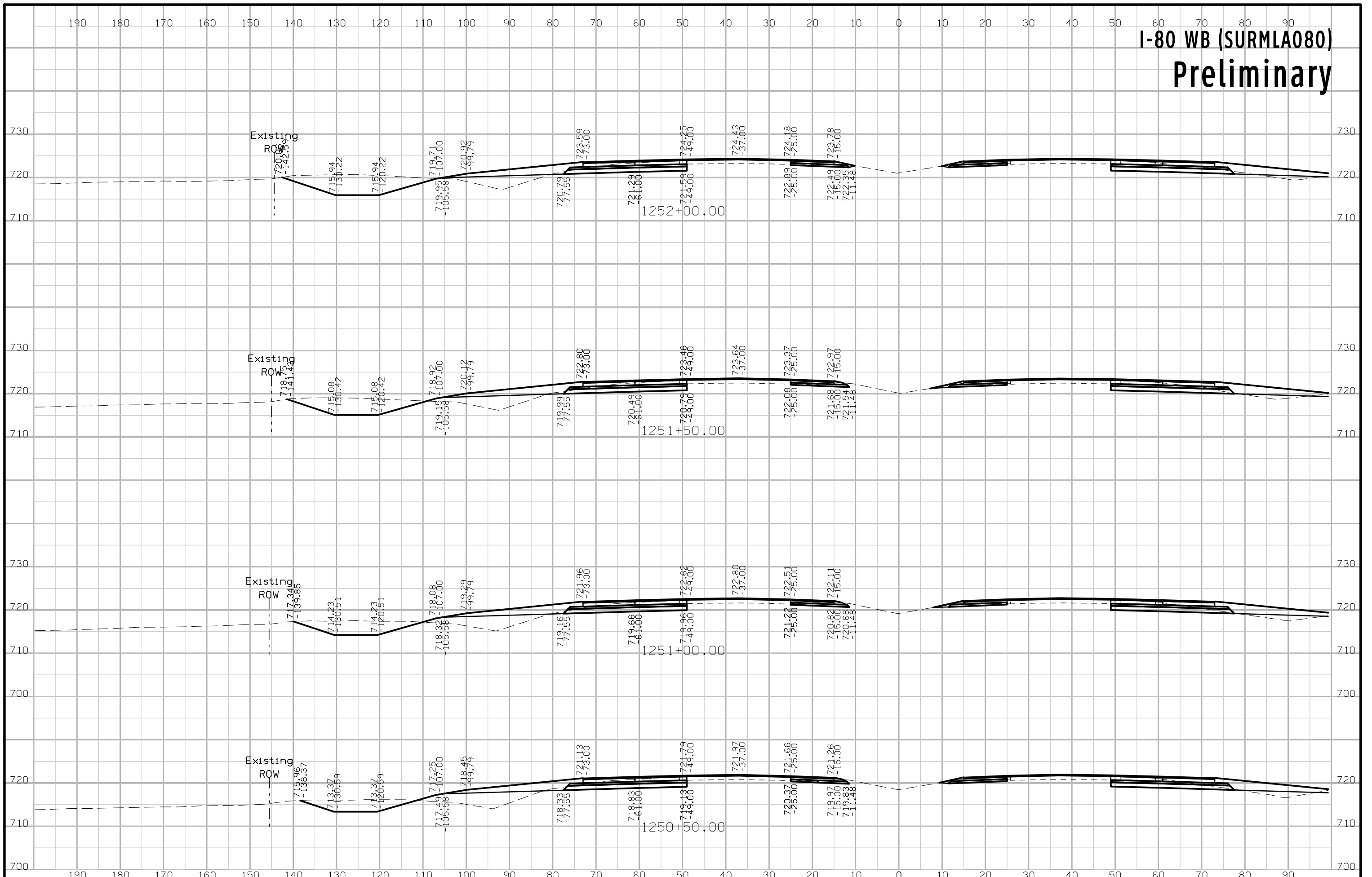
I-80 WB (SURMLA080) Preliminary



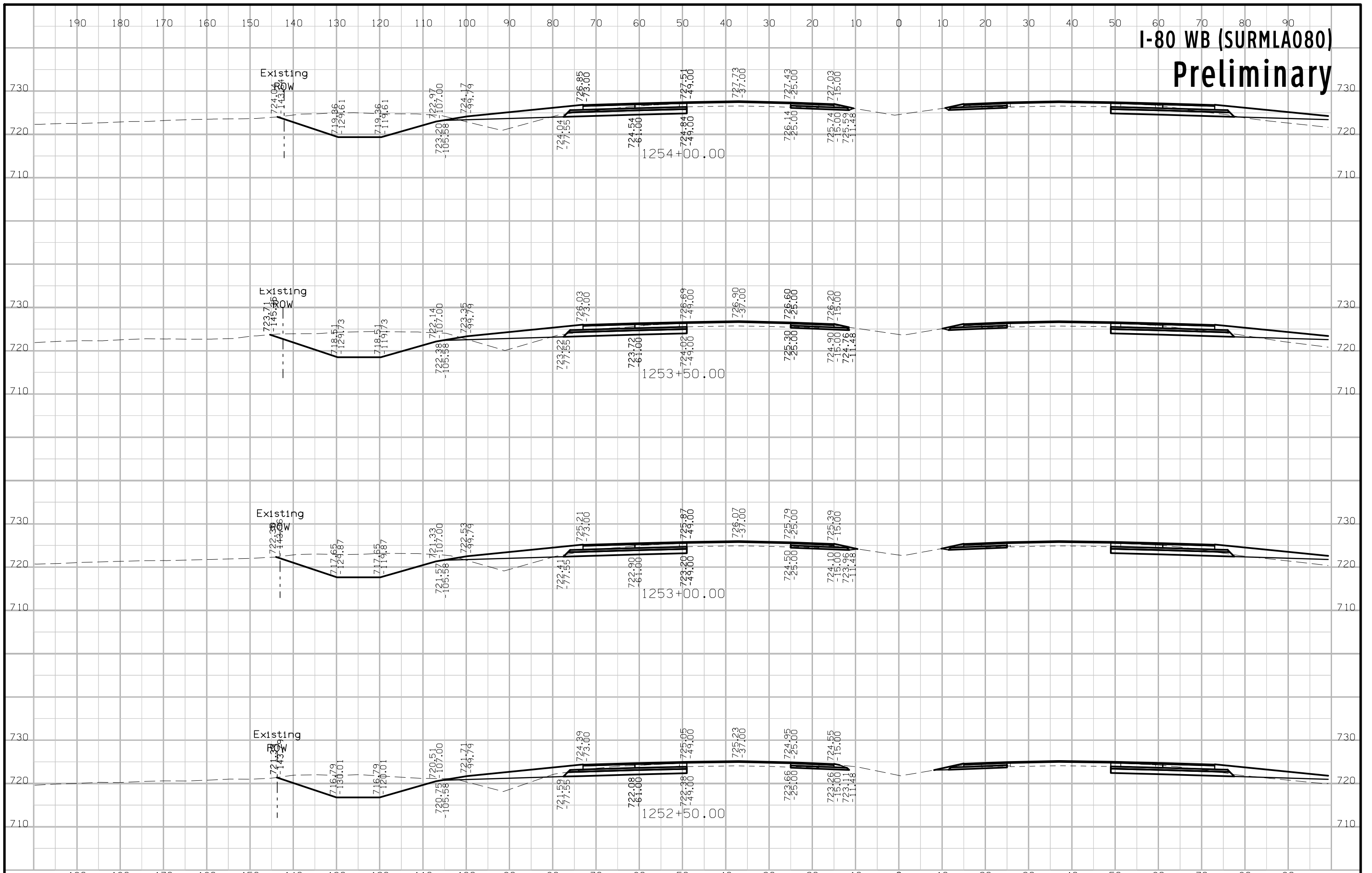
I-80 WB (SURMLA080) Preliminary



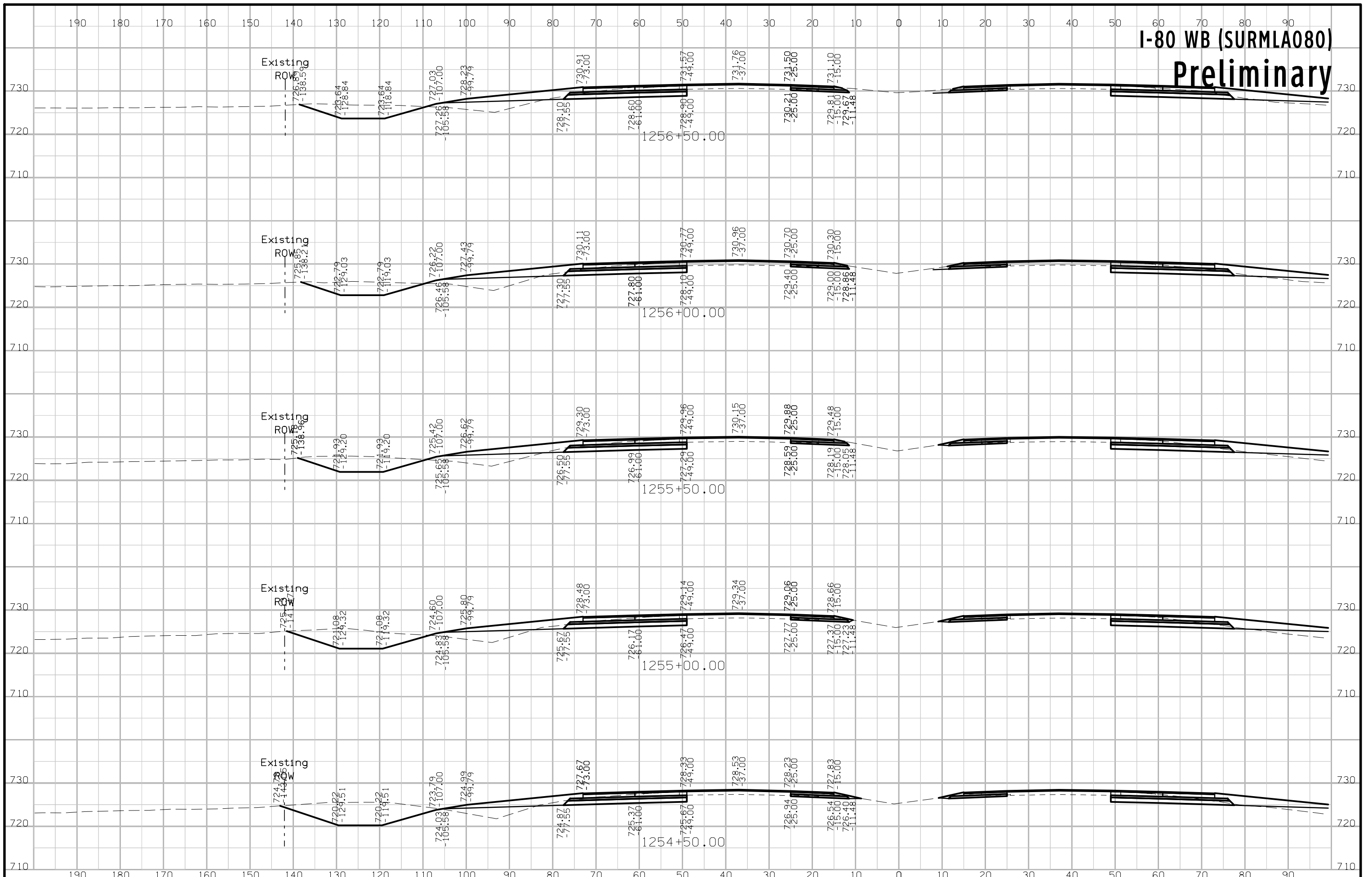
I-80 WB (SURMLA080) Preliminary



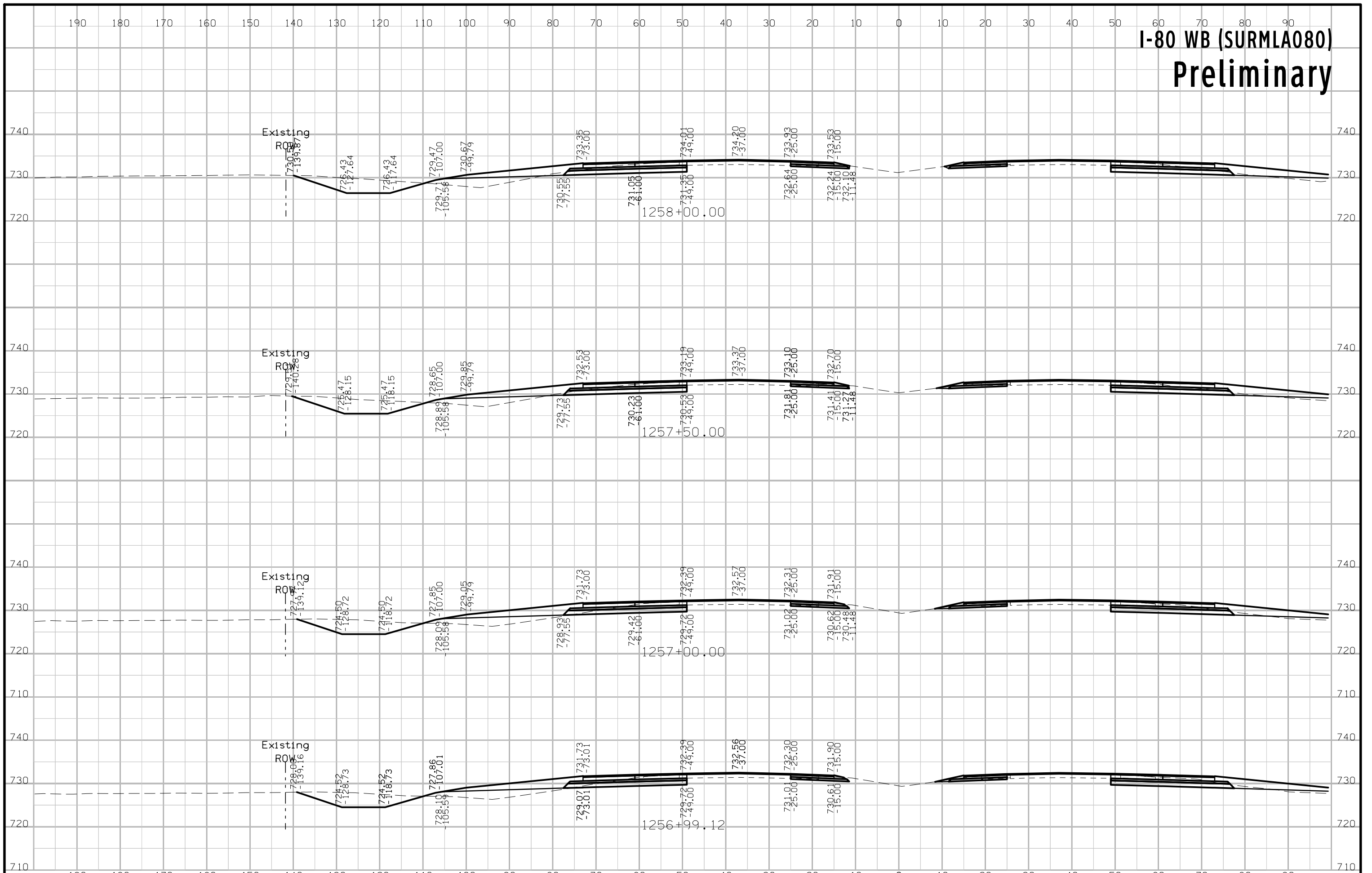
I-80 WB (SURMLA080) Preliminary



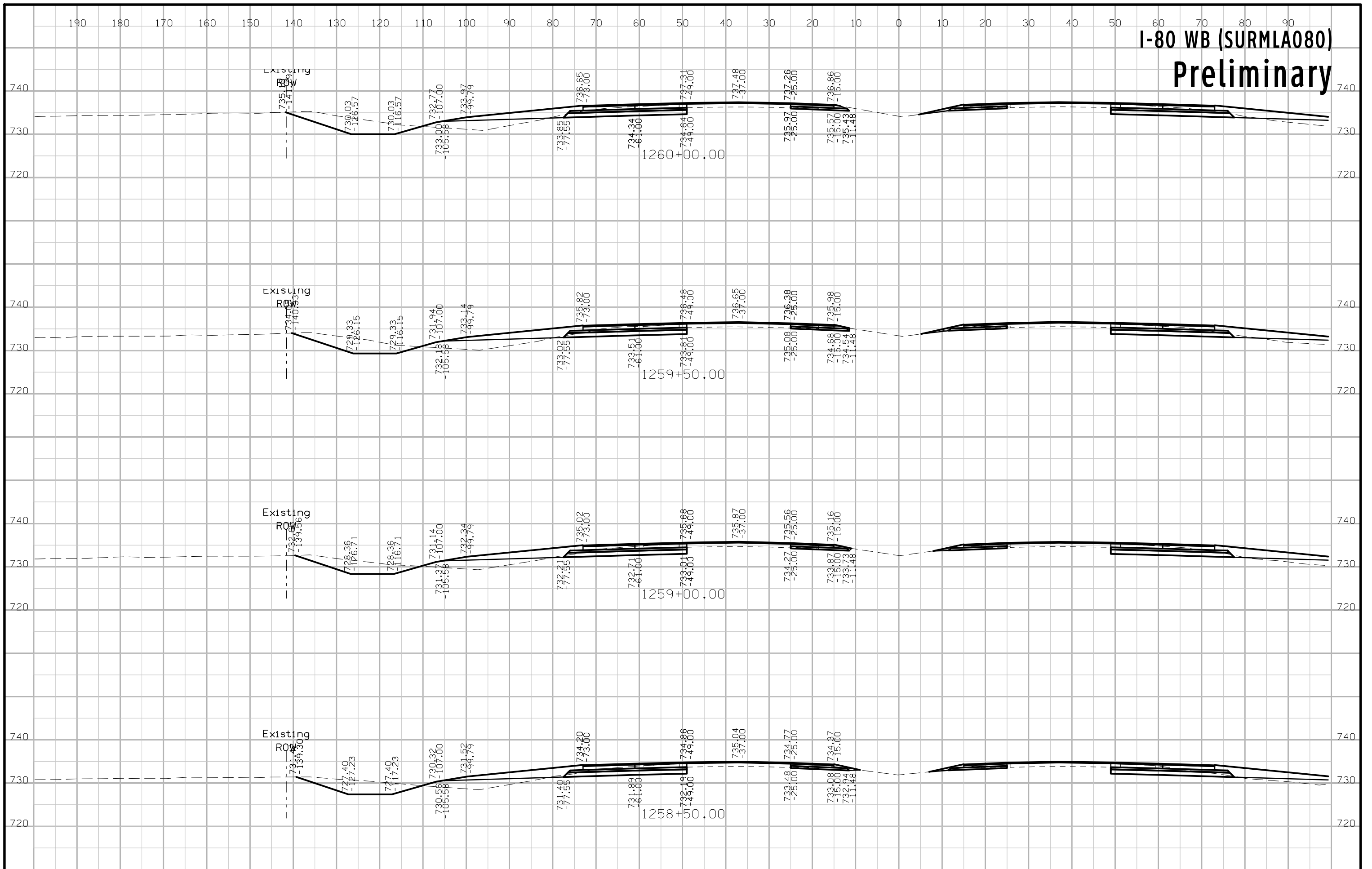
I-80 WB (SURMLA080) Preliminary



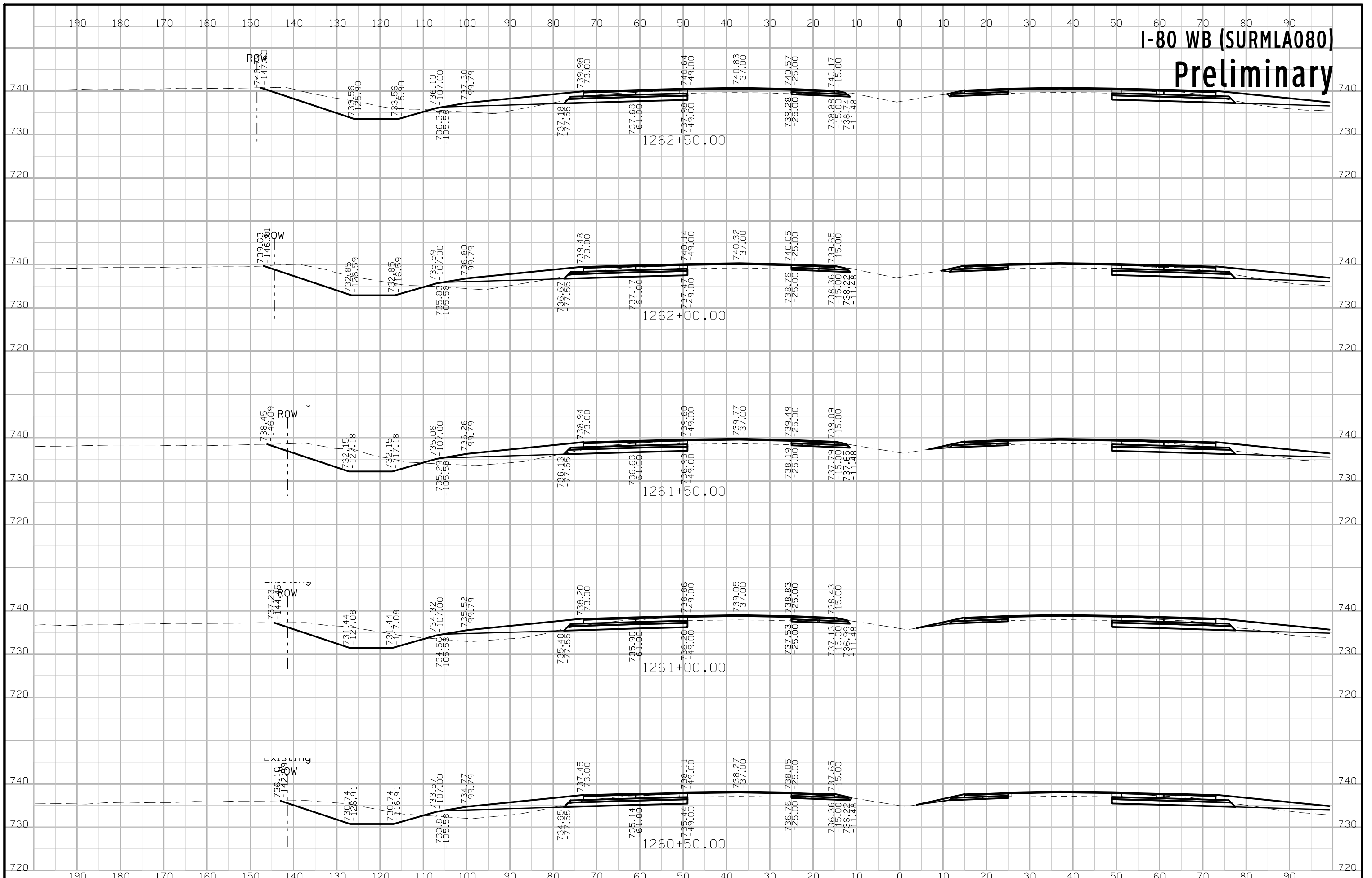
I-80 WB (SURMLA080) Preliminary



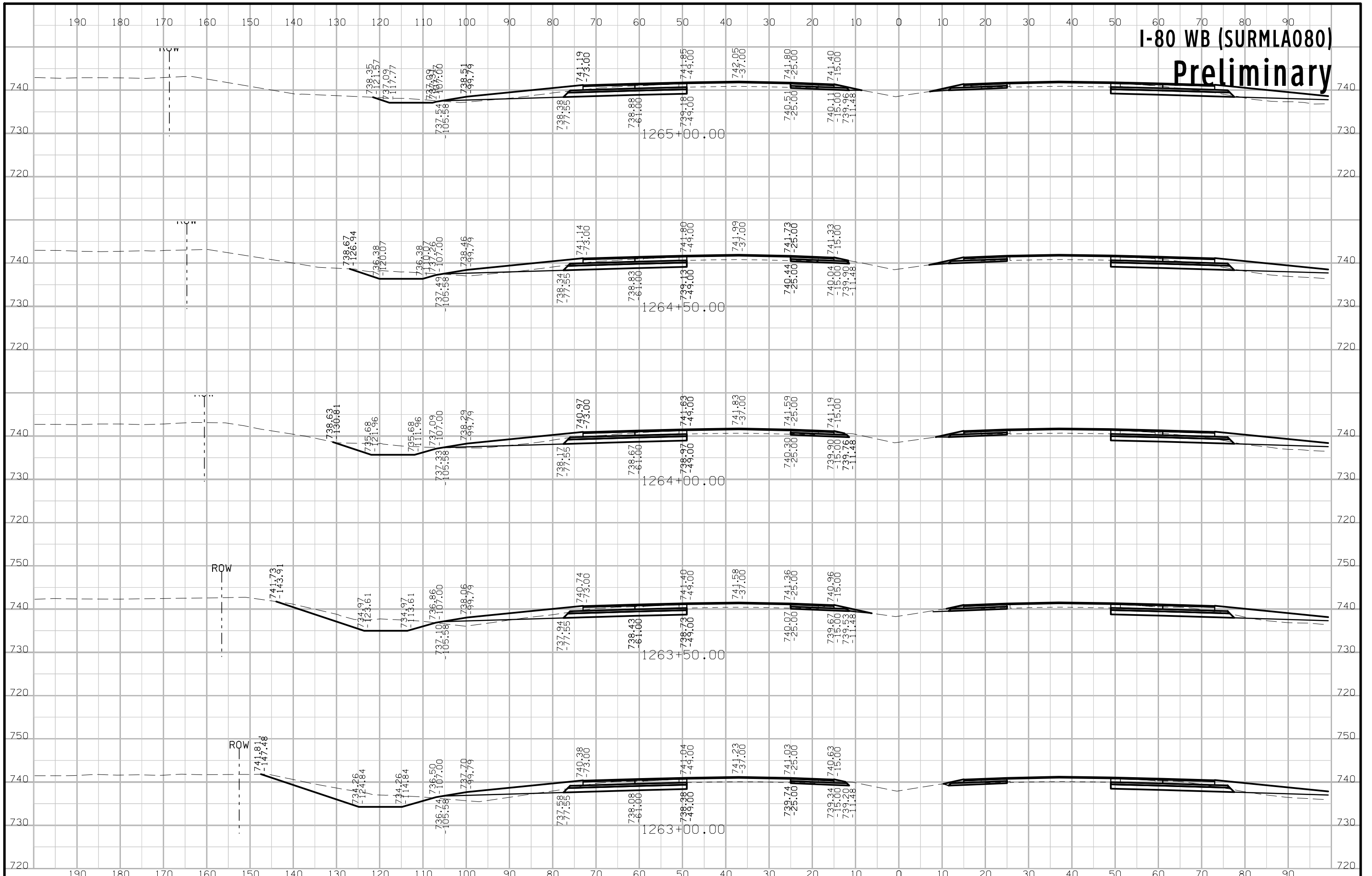
I-80 WB (SURMLA080) Preliminary



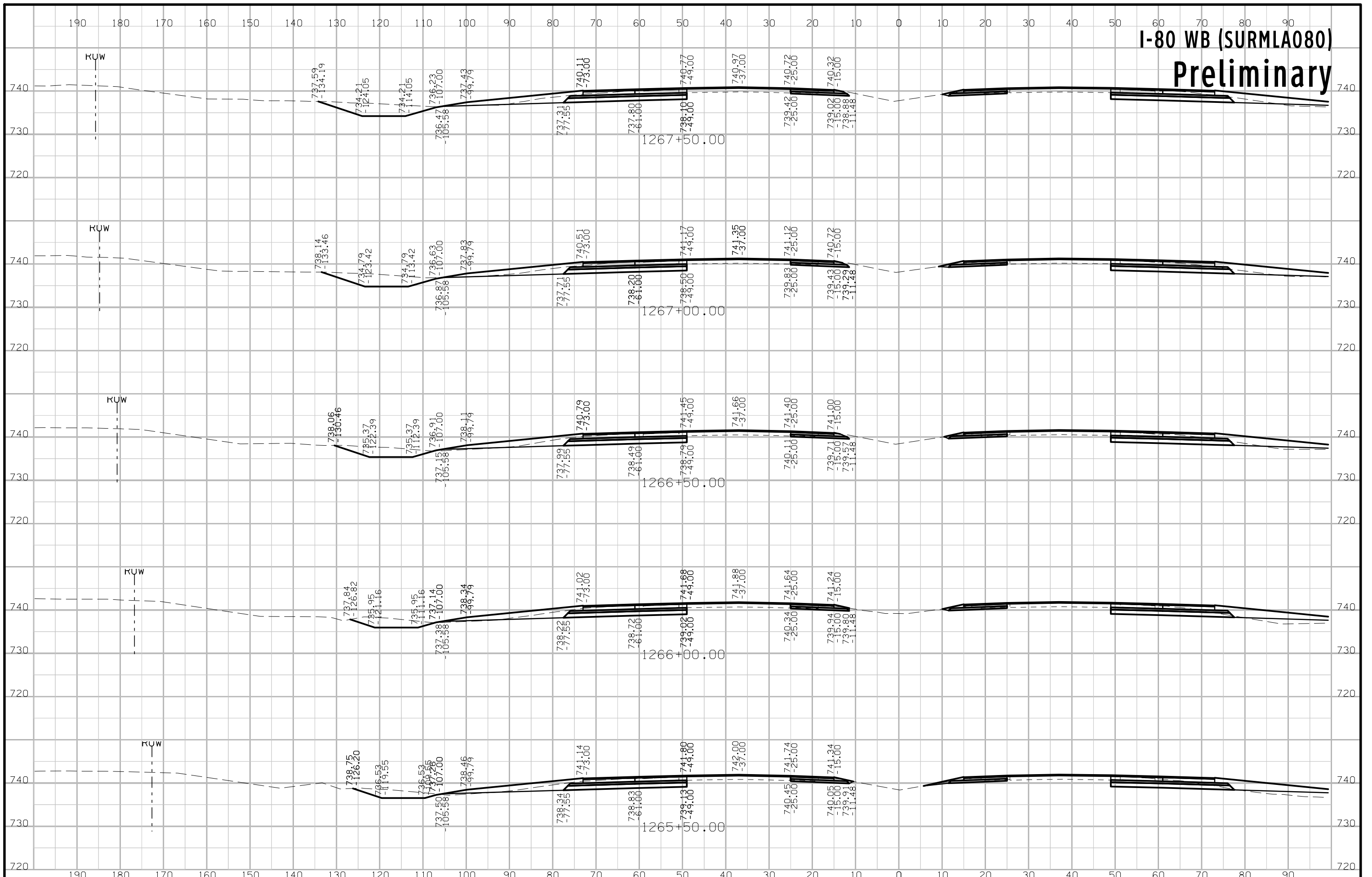
I-80 WB (SURMLA080) Preliminary



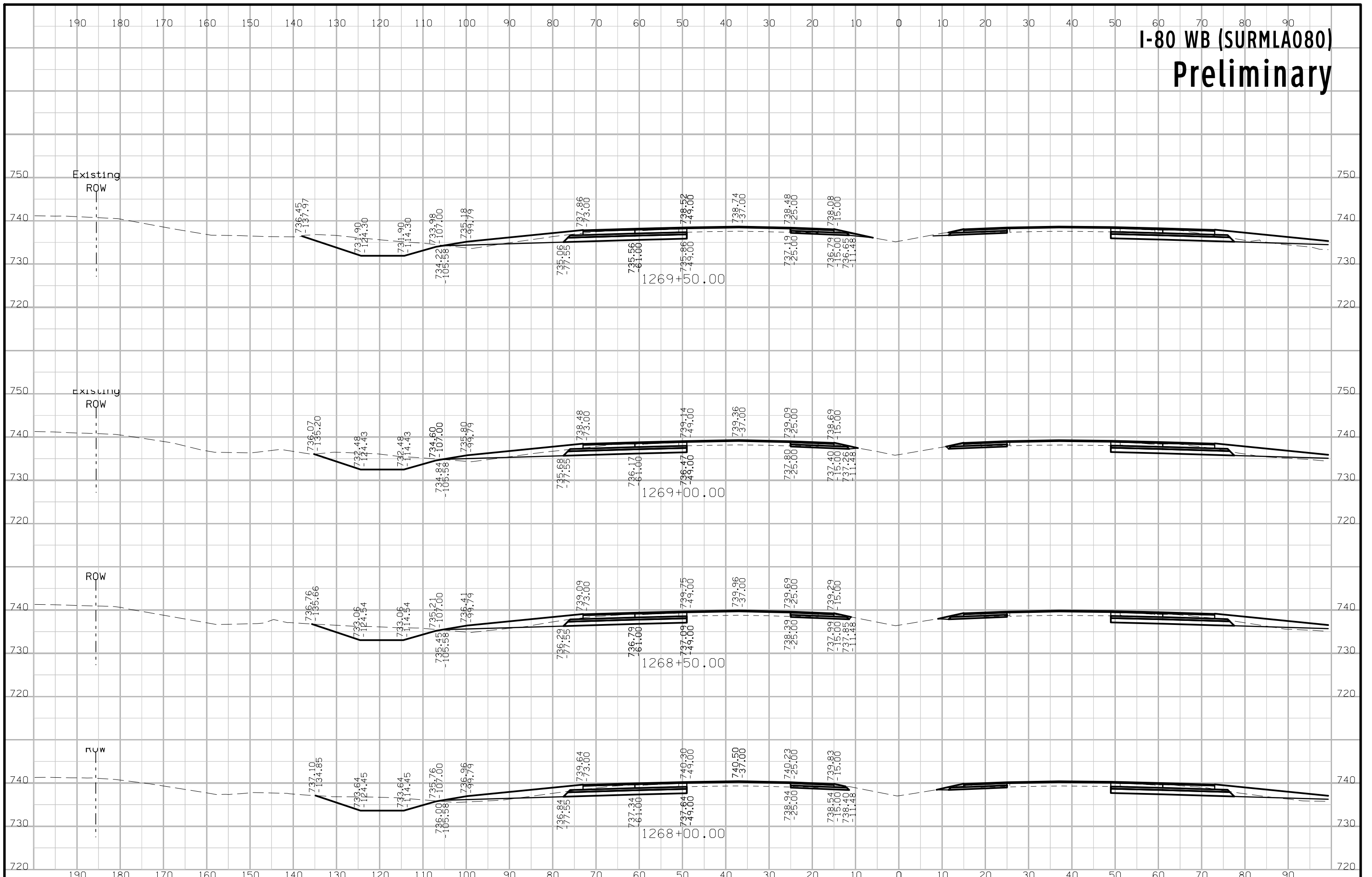
I-80 WB (SURMLA080) Preliminary



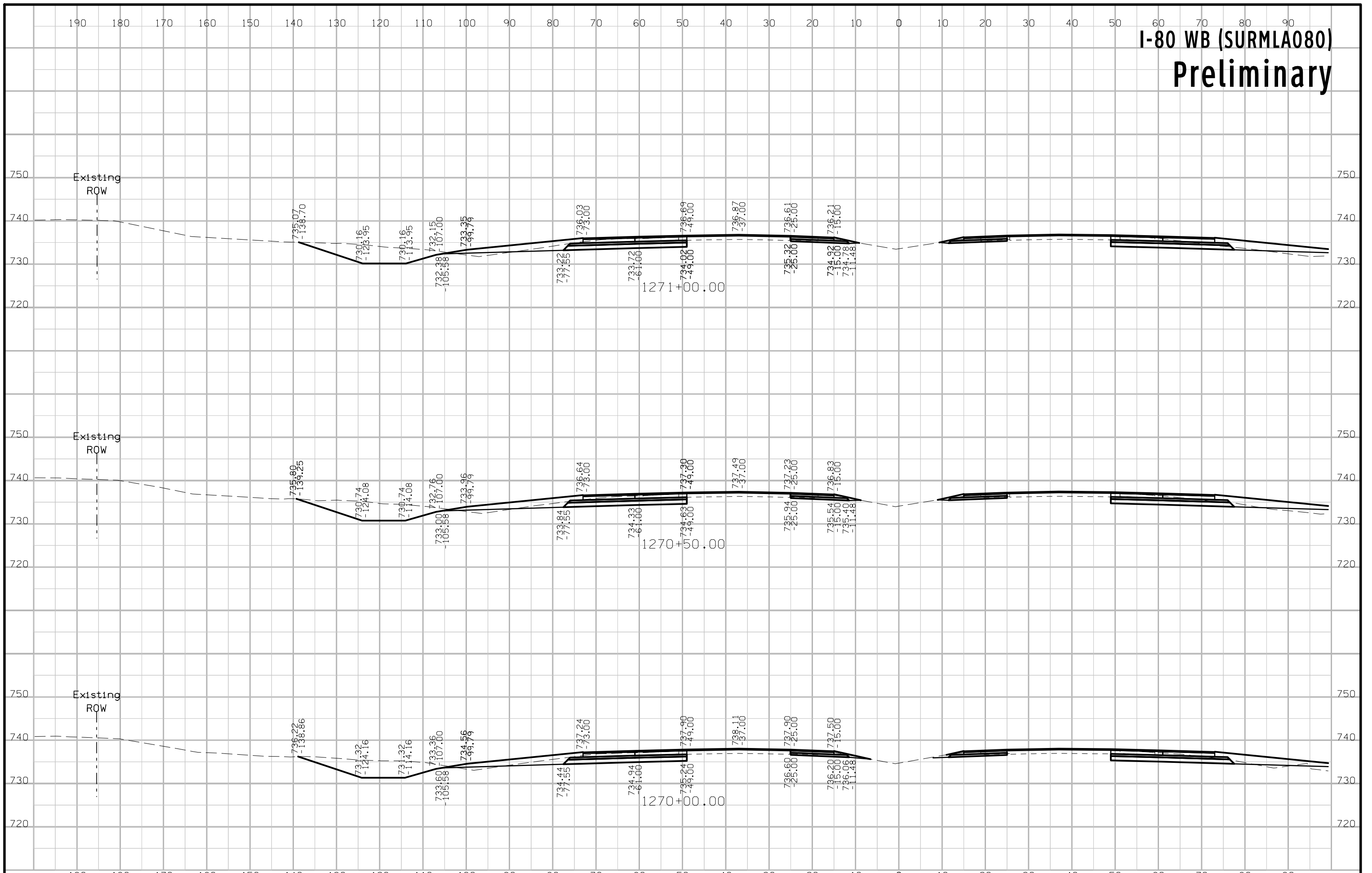
I-80 WB (SURMLA080) Preliminary



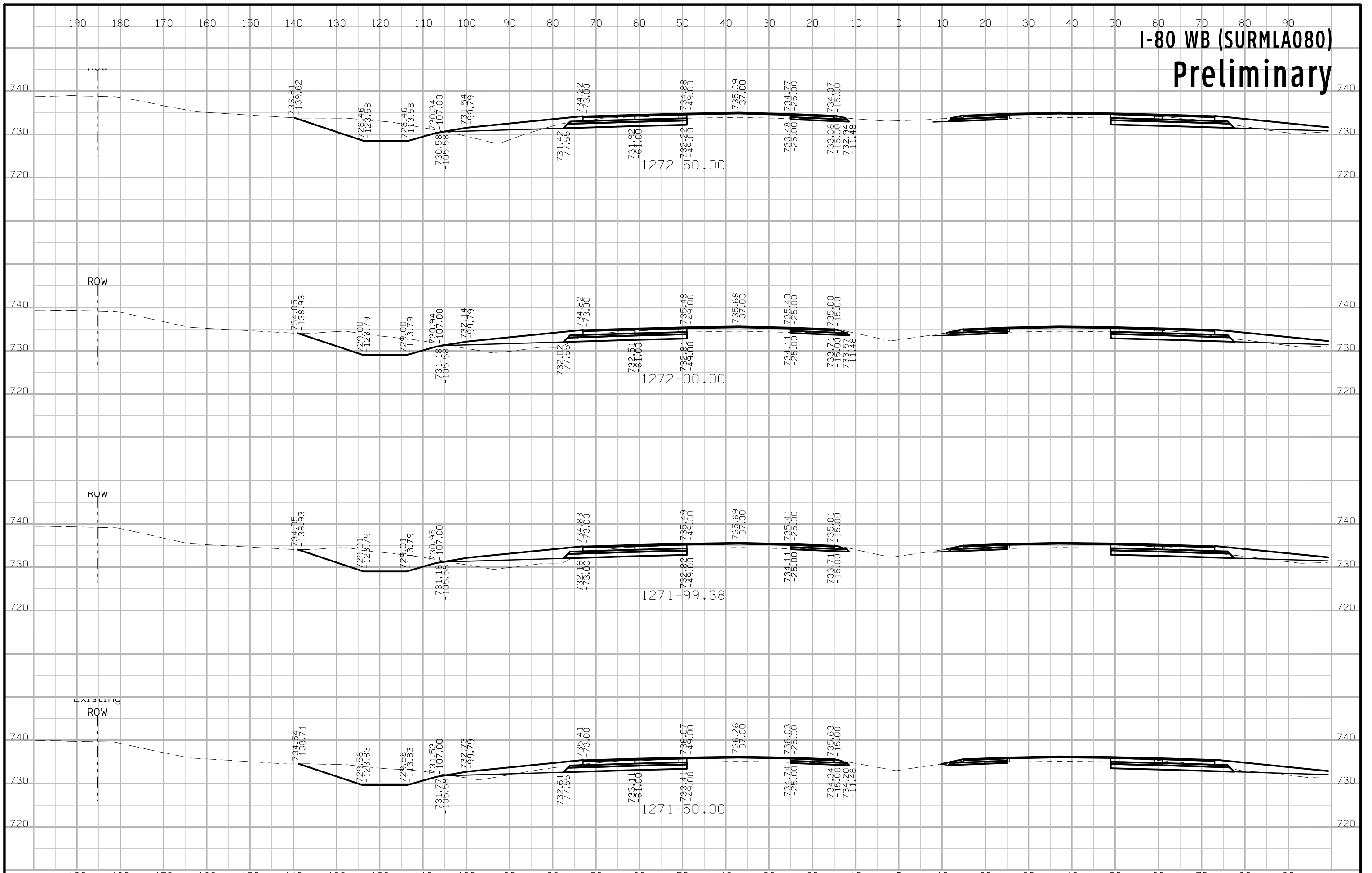
I-80 WB (SURMLA080) Preliminary



I-80 WB (SURMLA080) Preliminary



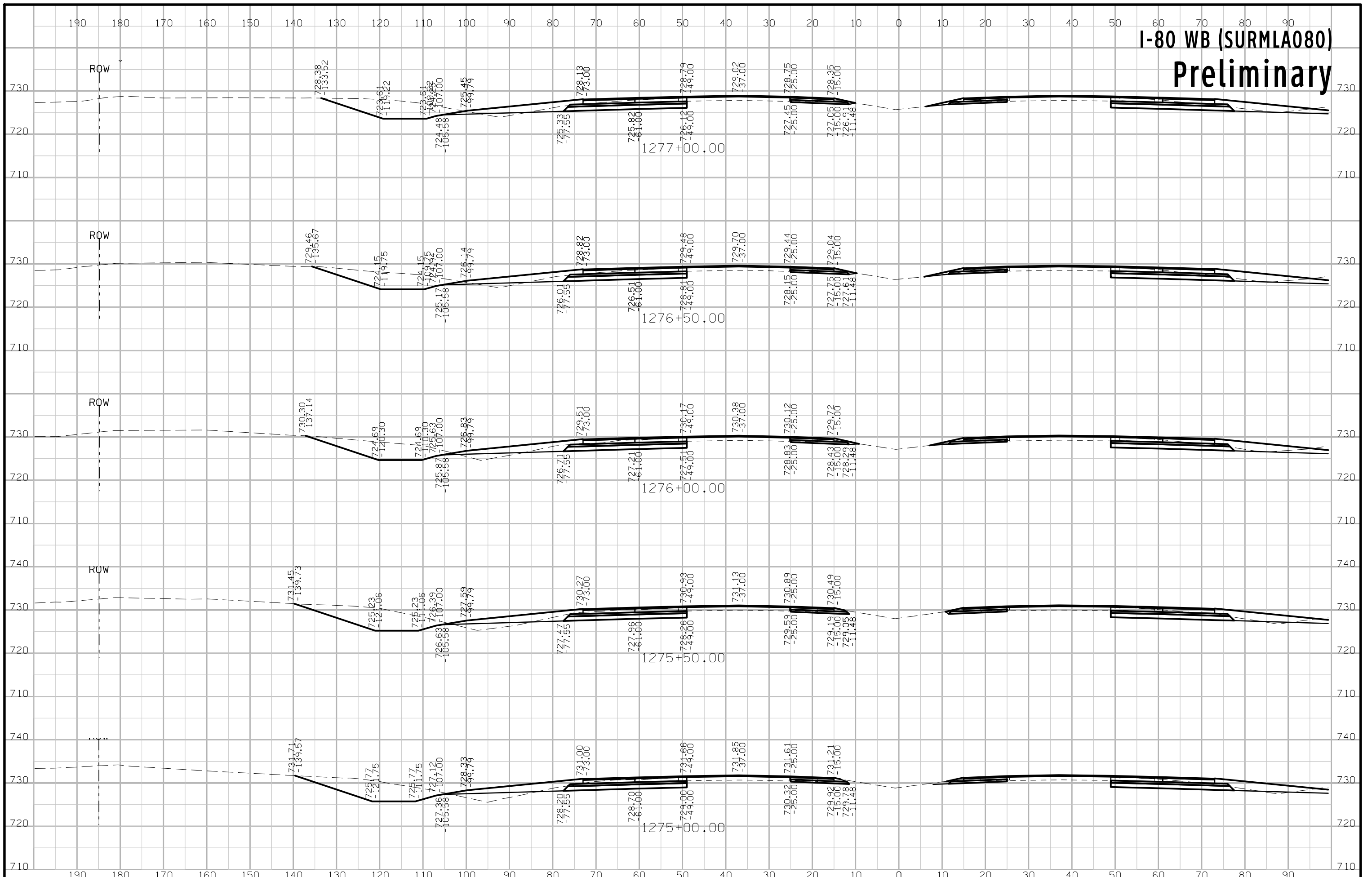
I-80 WB (SURMLA080) Preliminary



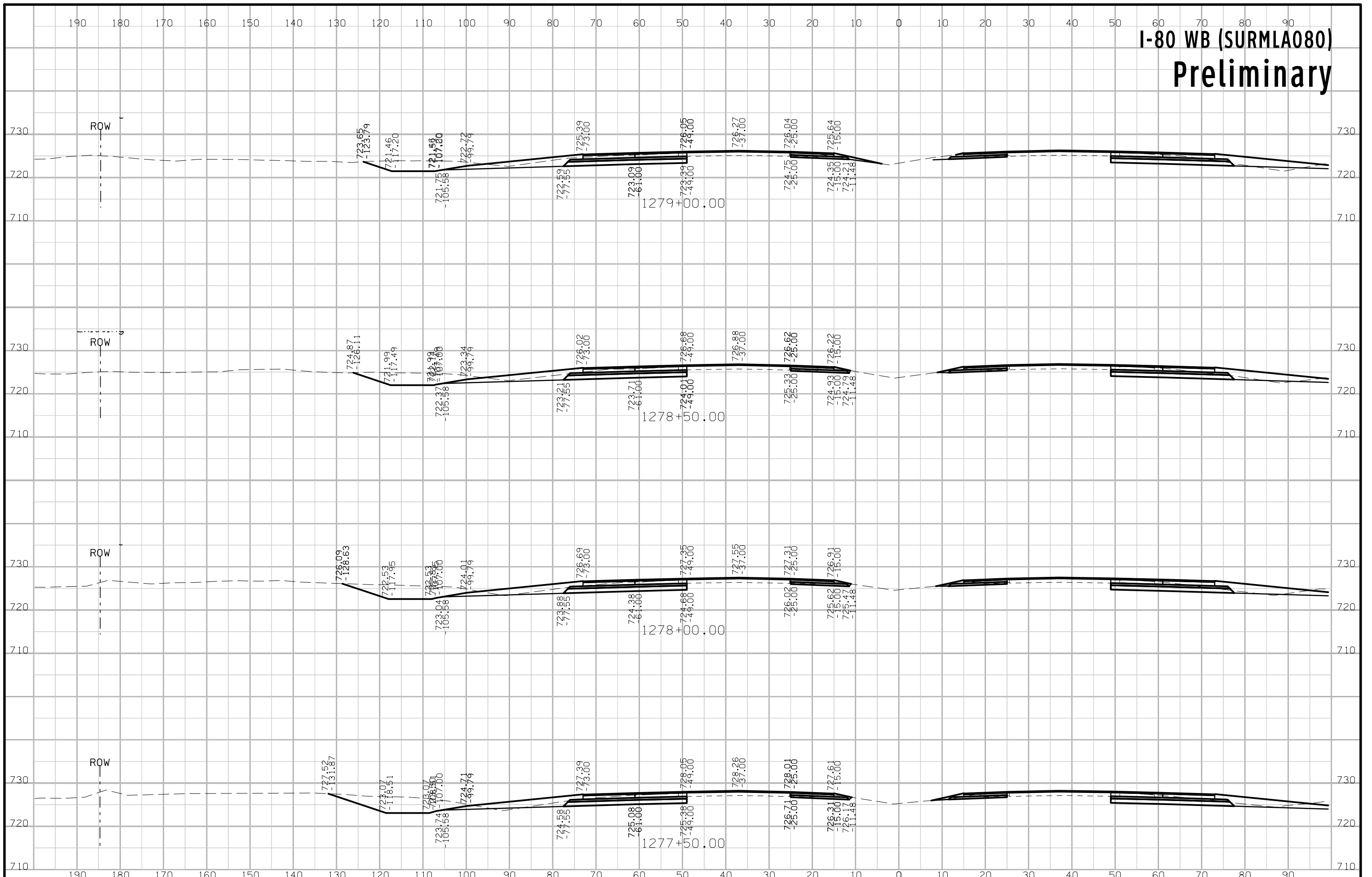
I-80 WB (SURMLA080) Preliminary



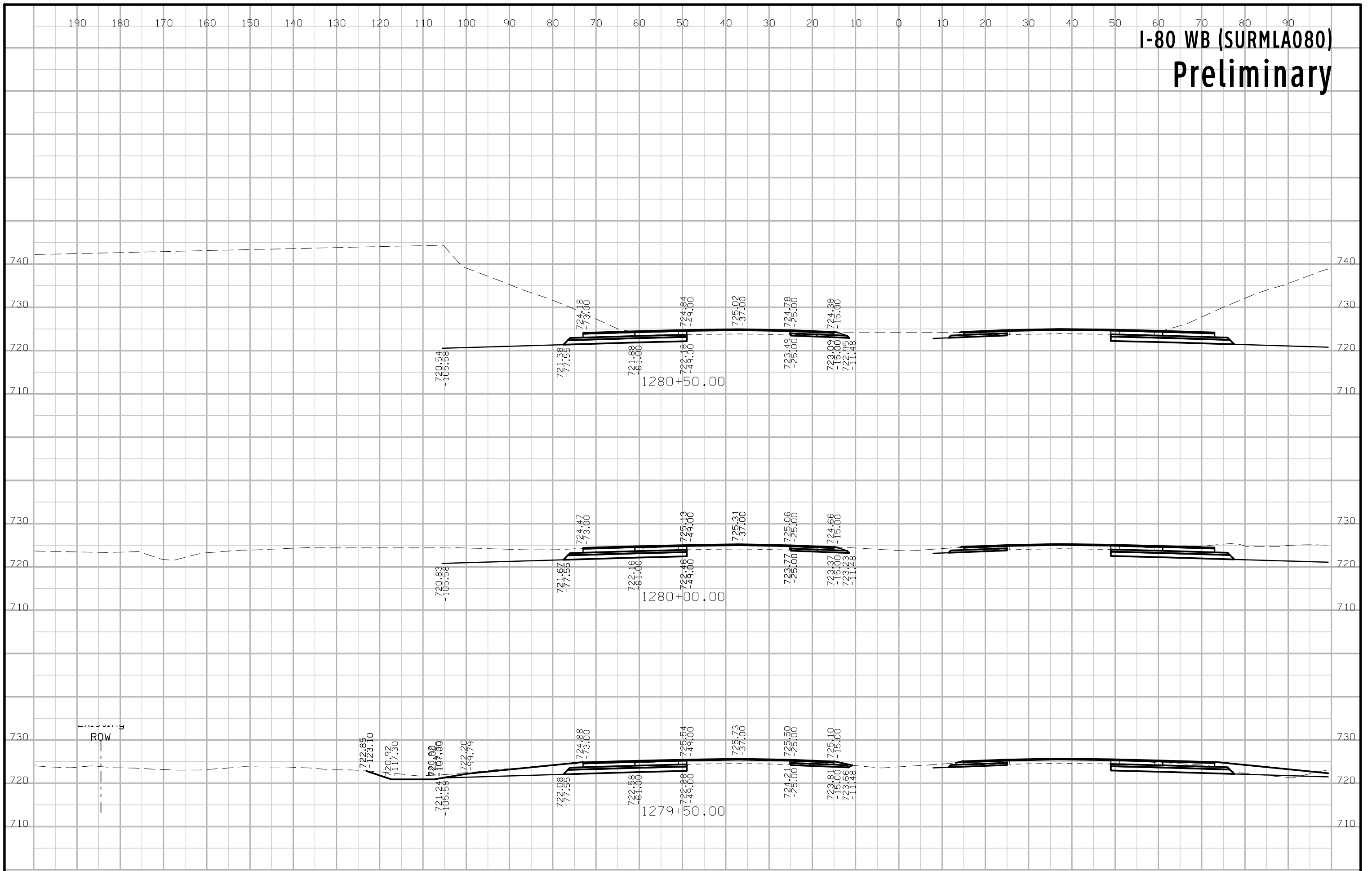
I-80 WB (SURMLA080) Preliminary



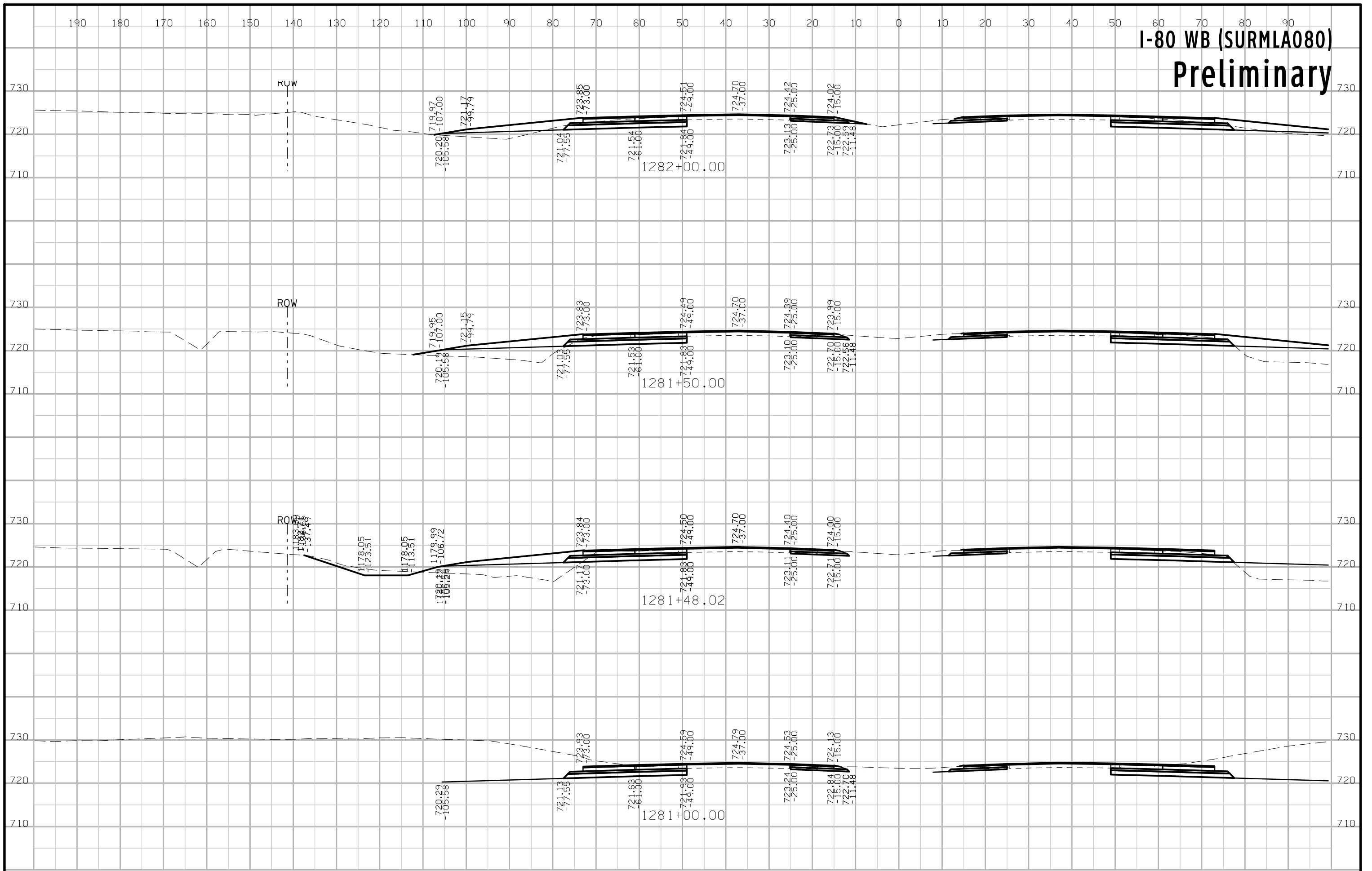
I-80 WB (SURMLA080) Preliminary



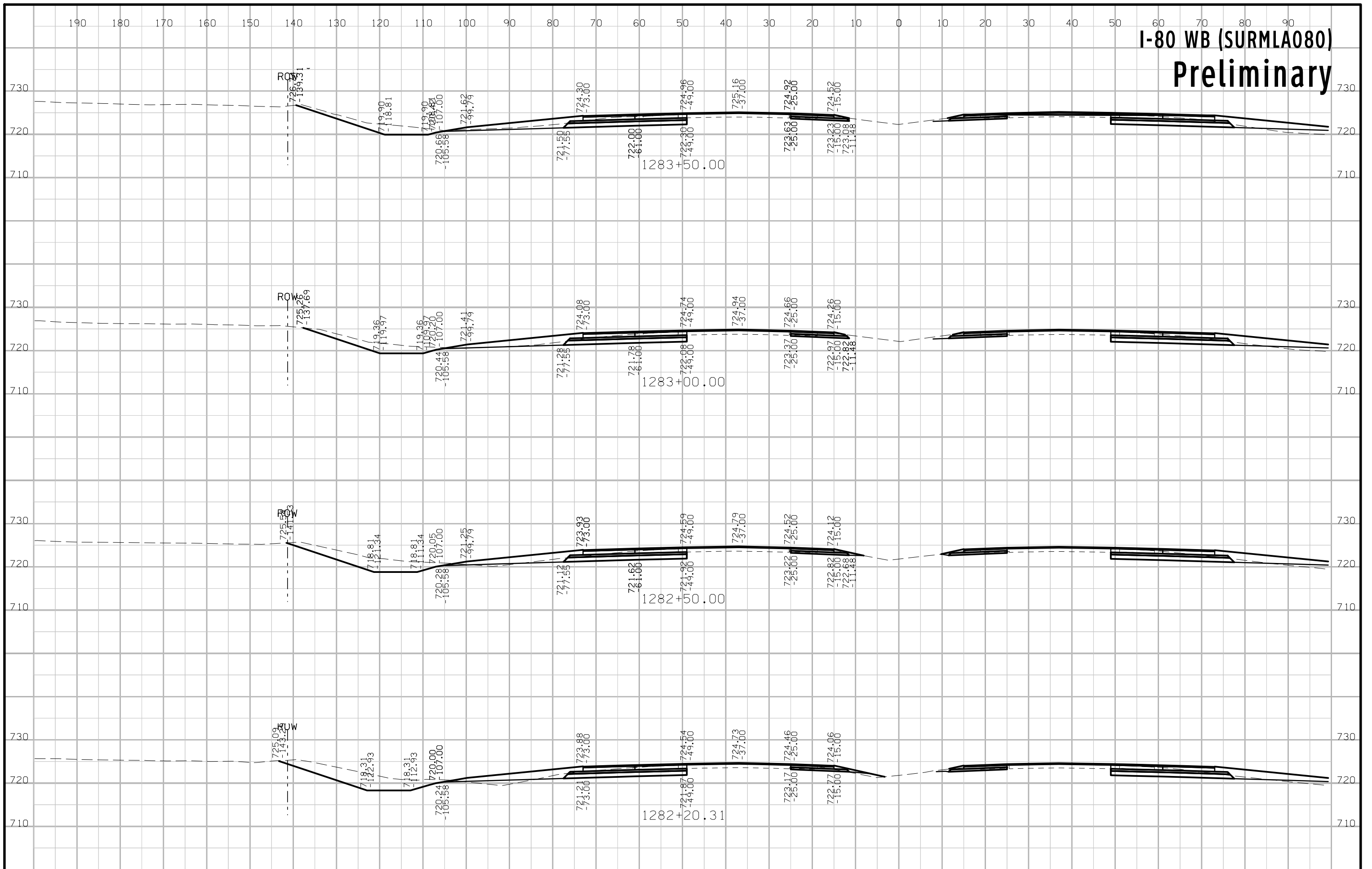
I-80 WB (SURMLA080) Preliminary



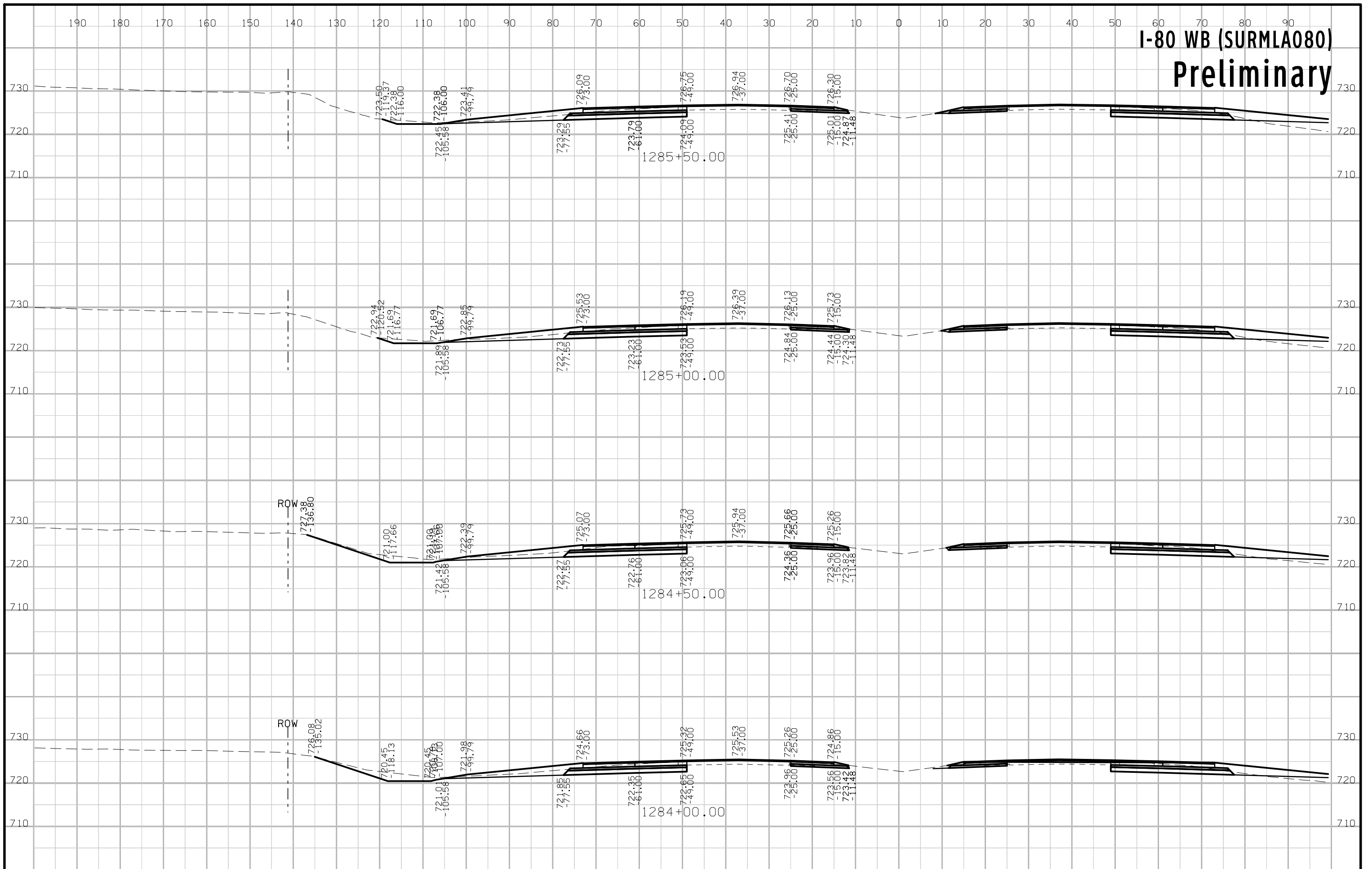
I-80 WB (SURMLA080) Preliminary



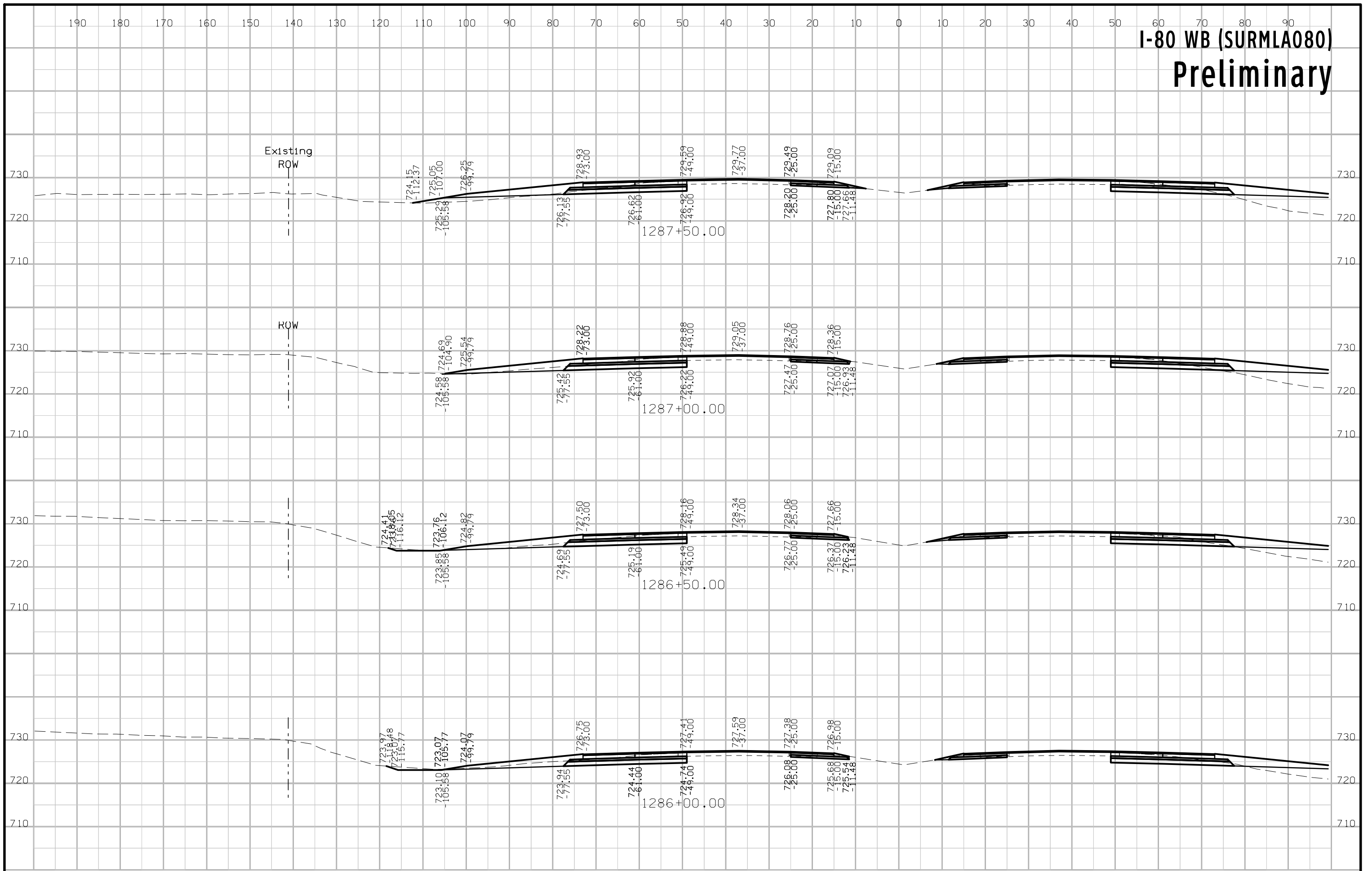
I-80 WB (SURMLA080) Preliminary



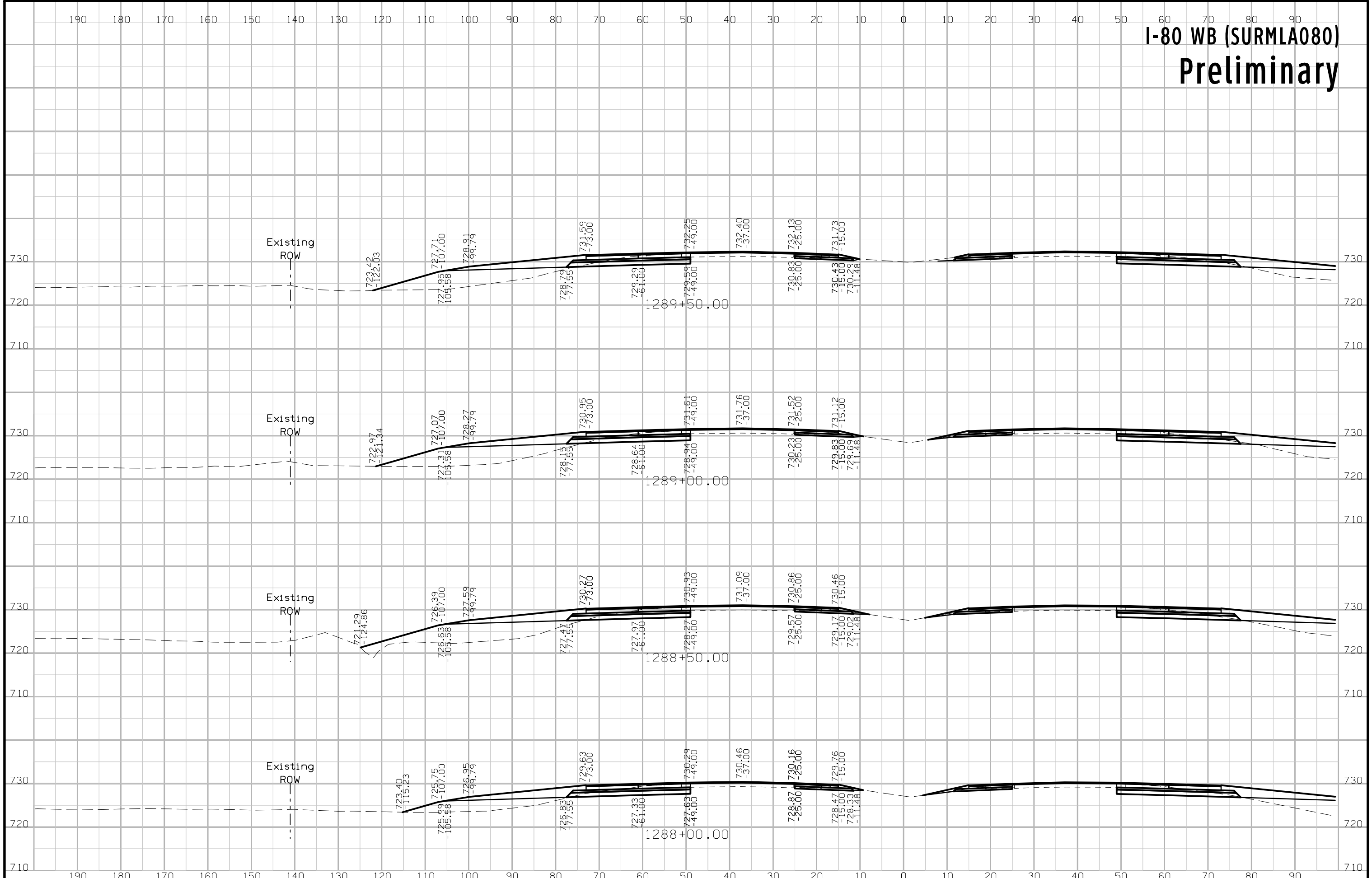
I-80 WB (SURMLA080) Preliminary



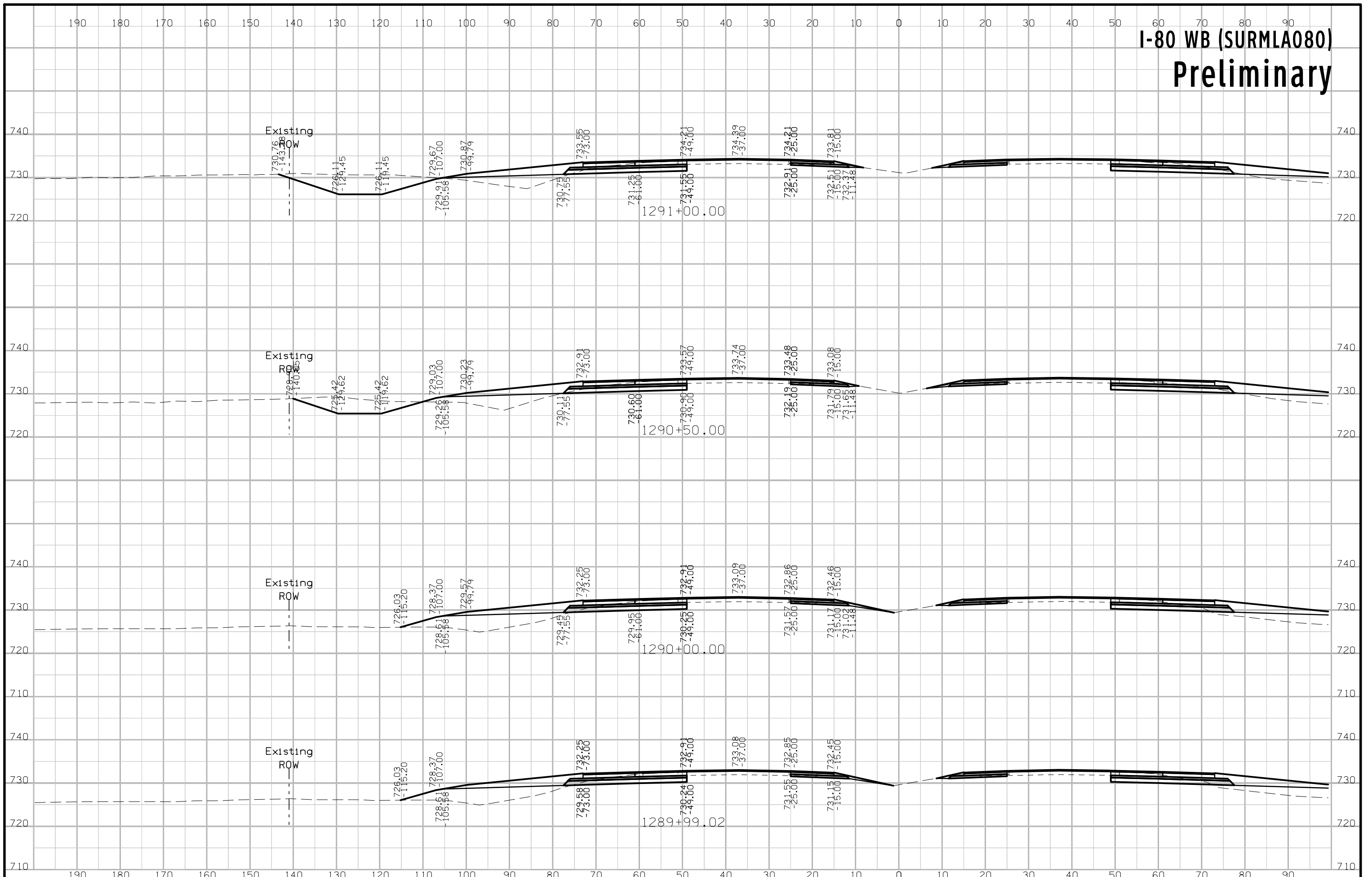
I-80 WB (SURMLA080) Preliminary



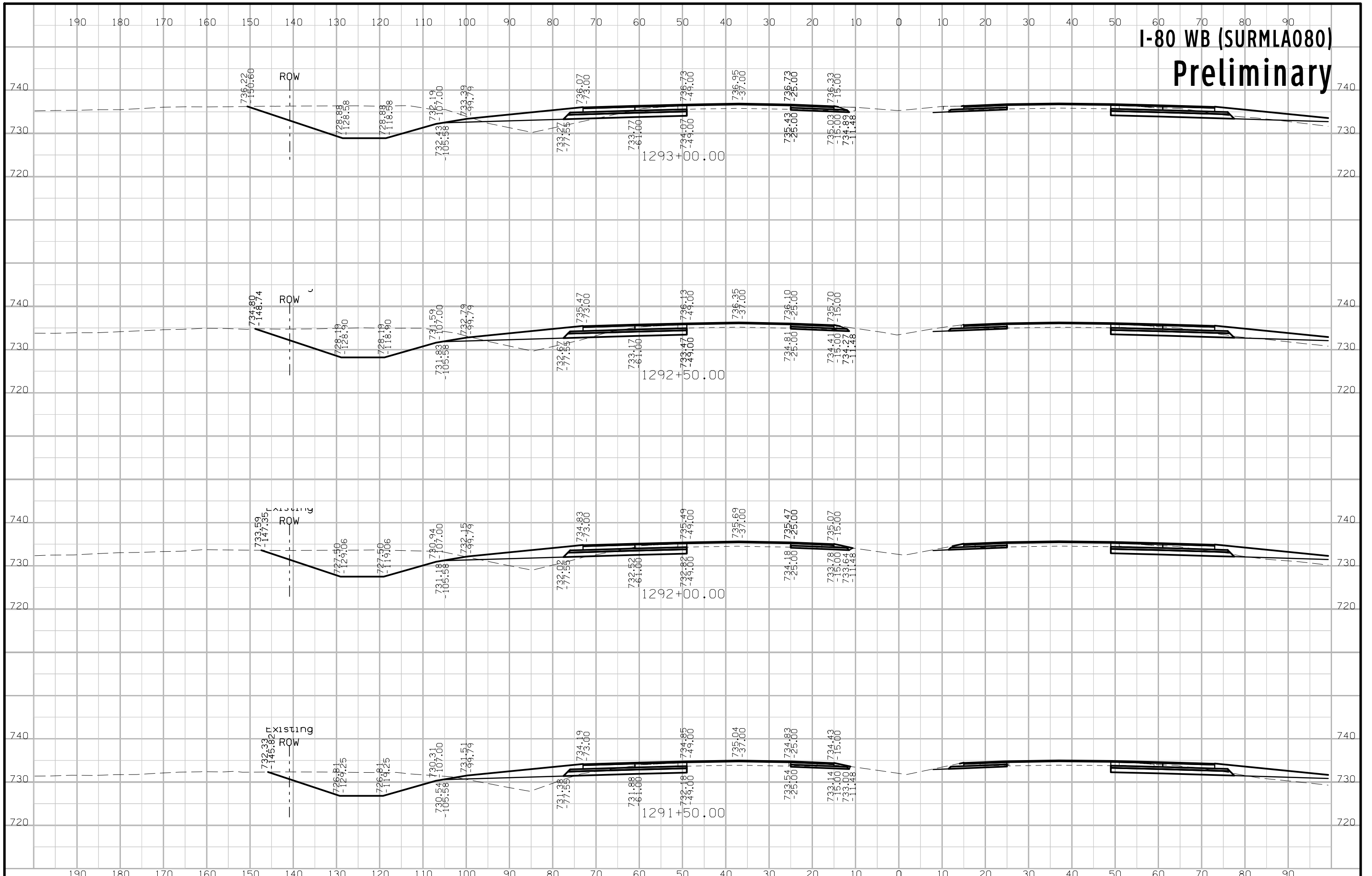
I-80 WB (SURMLA080) Preliminary



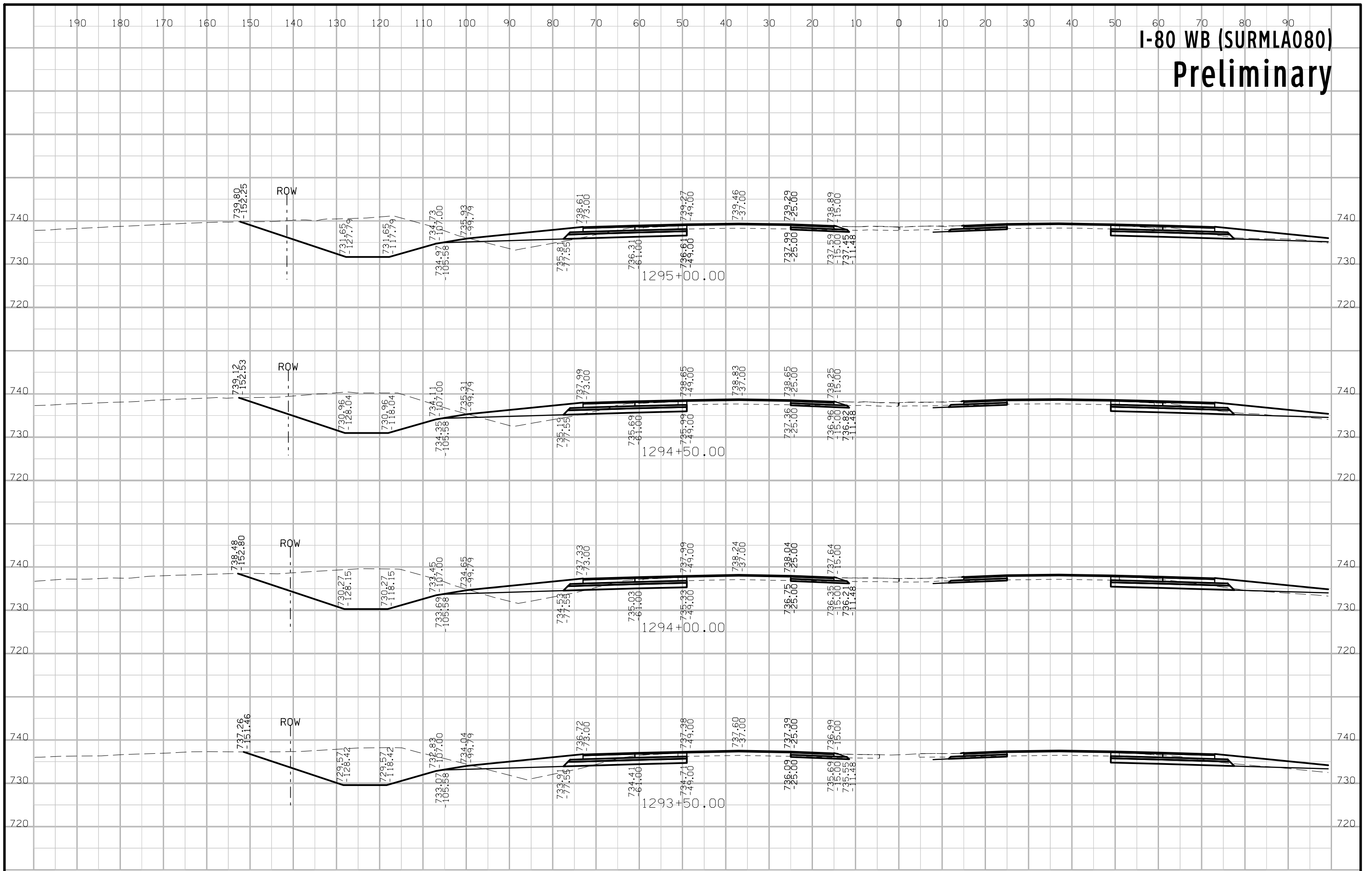
I-80 WB (SURMLA080) Preliminary



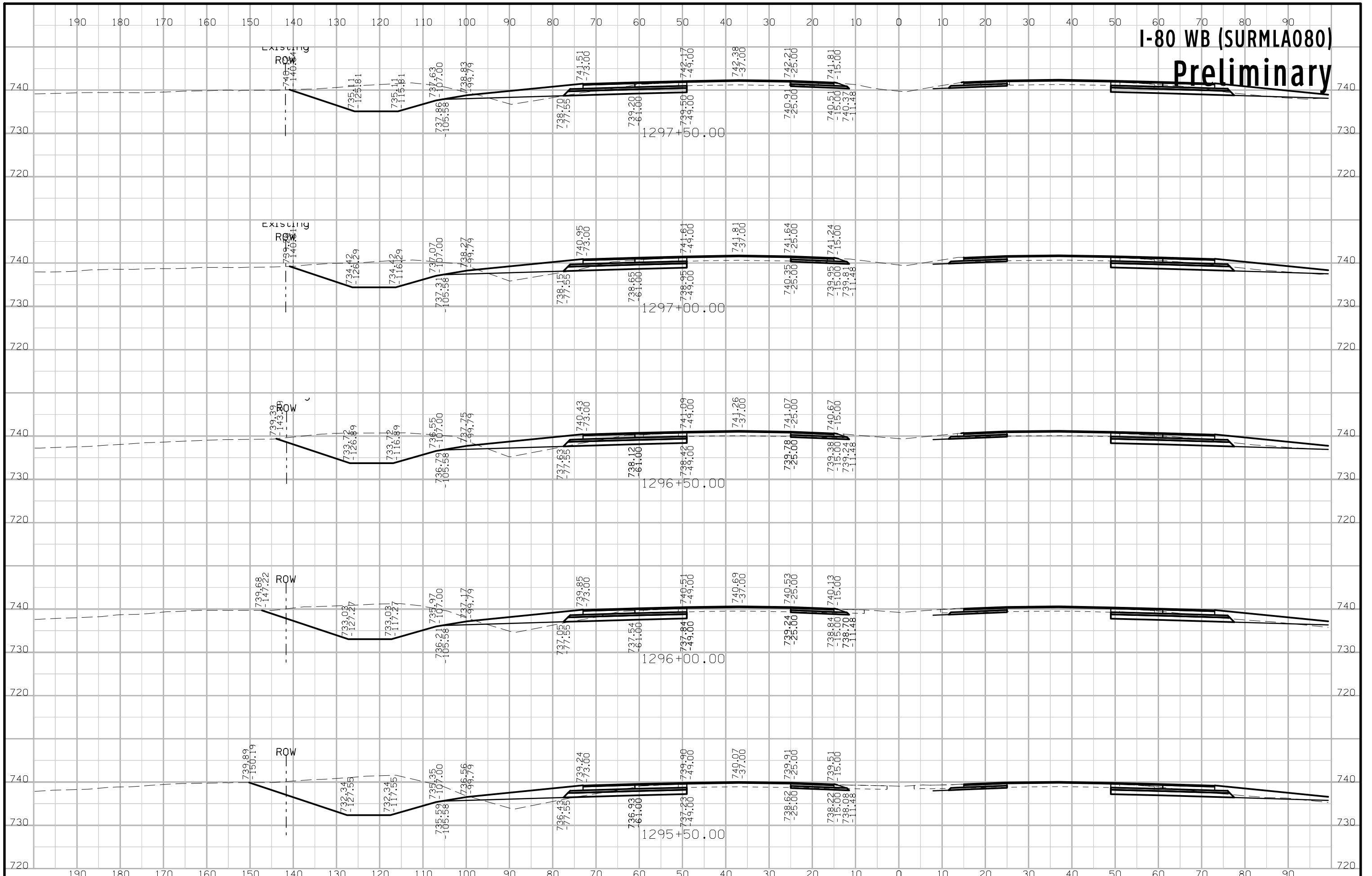
I-80 WB (SURMLA080) Preliminary



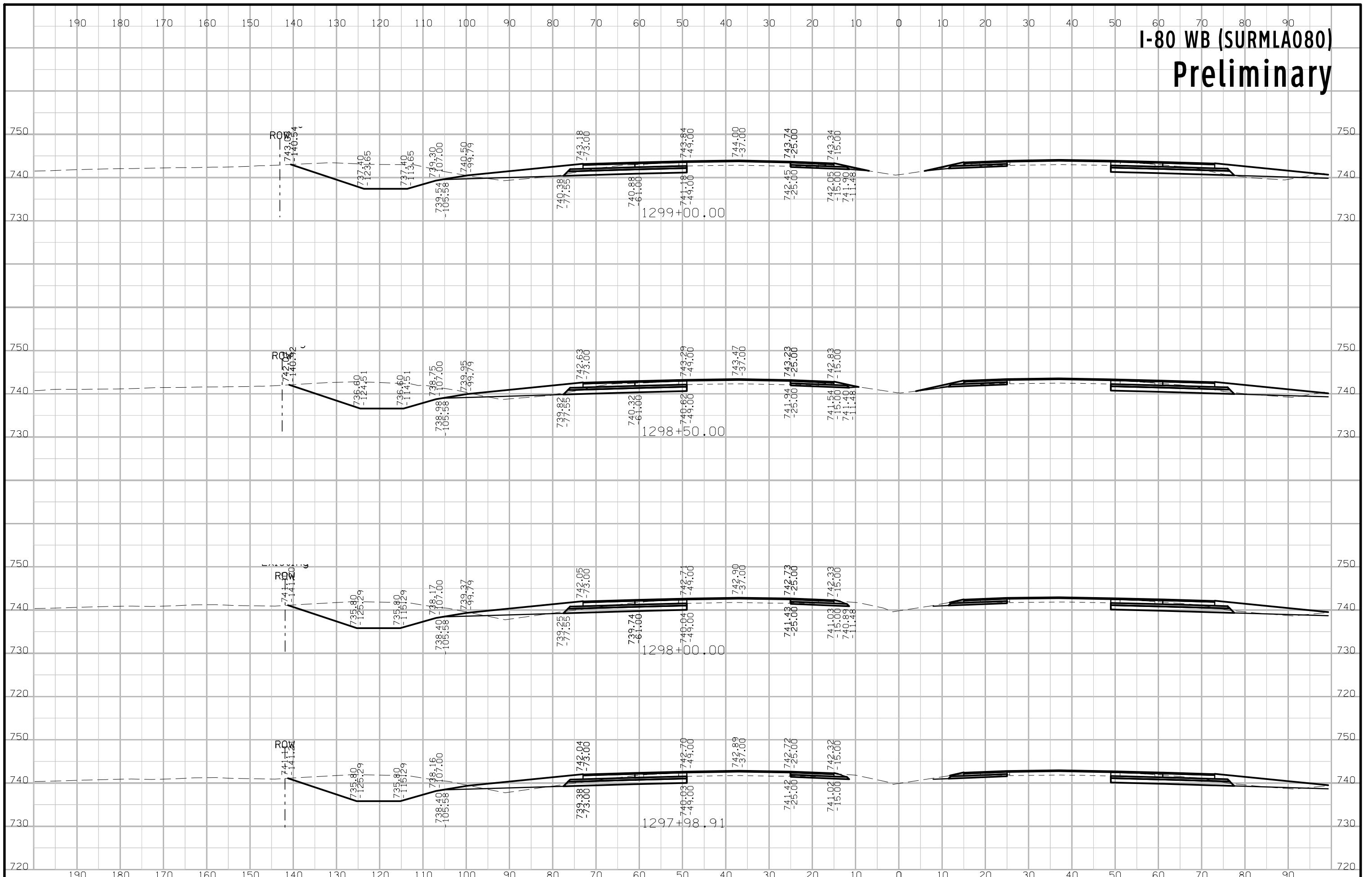
I-80 WB (SURMLA080) Preliminary



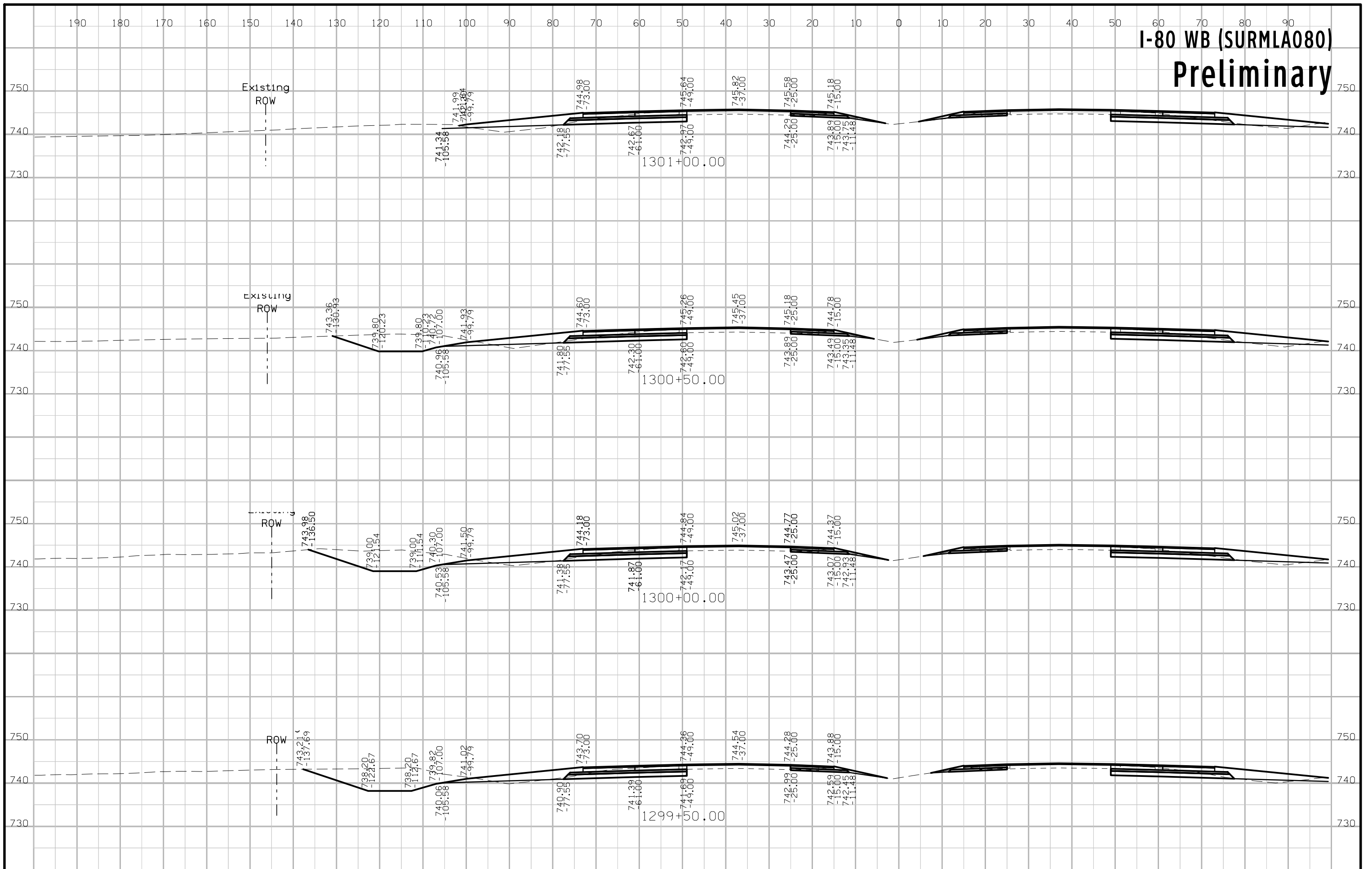
I-80 WB (SURMLA080) Preliminary



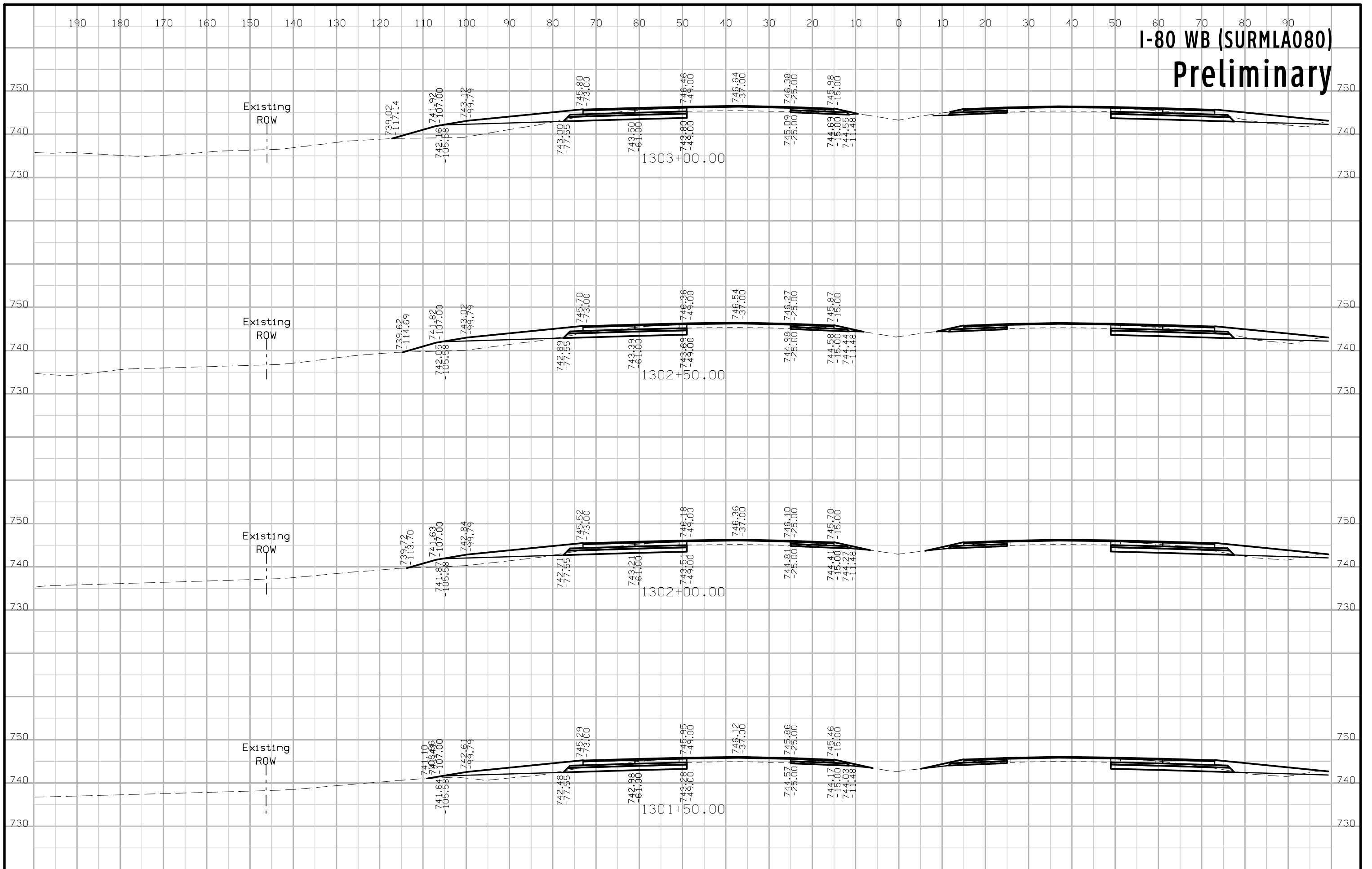
I-80 WB (SURMLA080) Preliminary



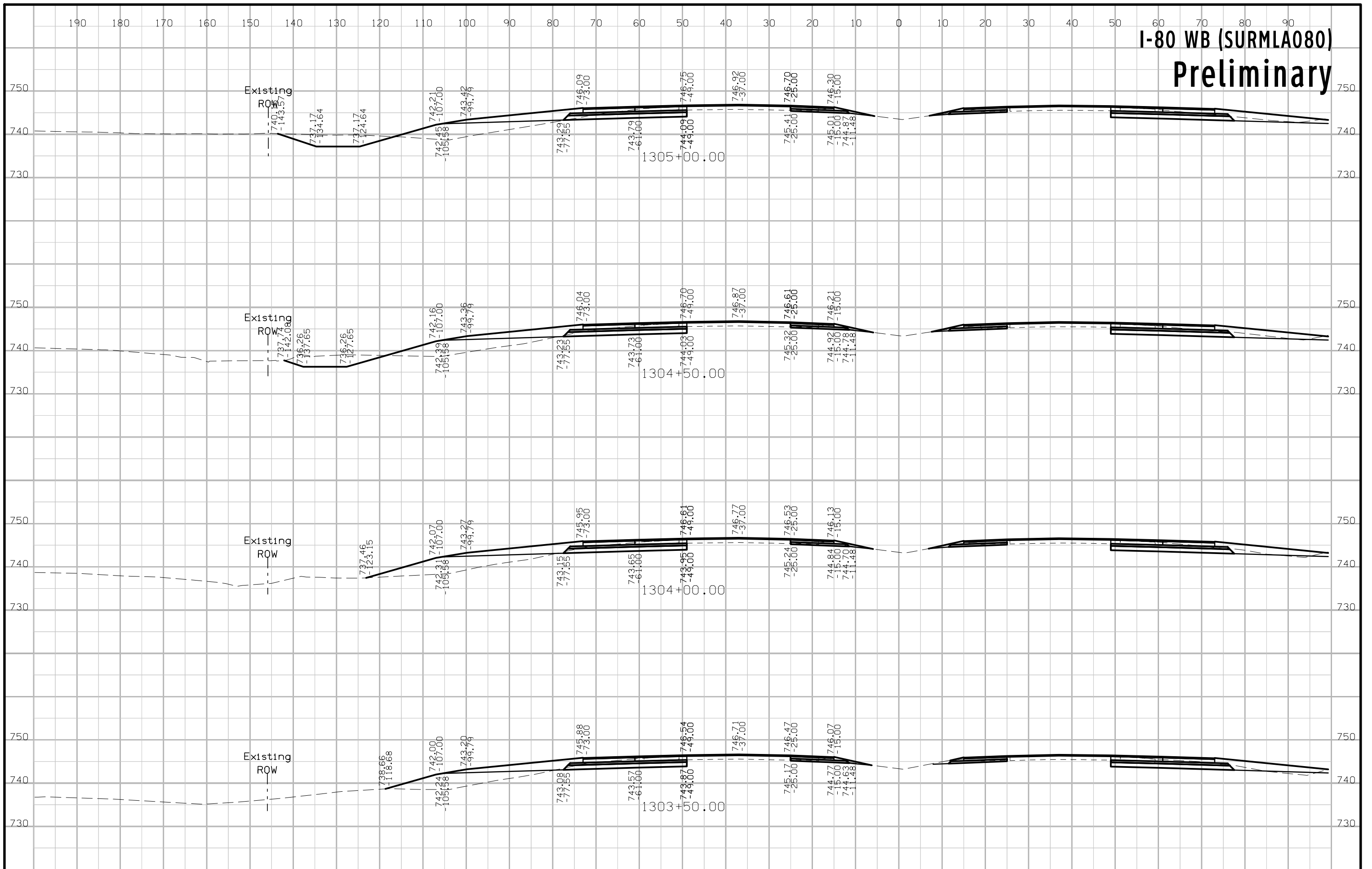
I-80 WB (SURMLA080) Preliminary



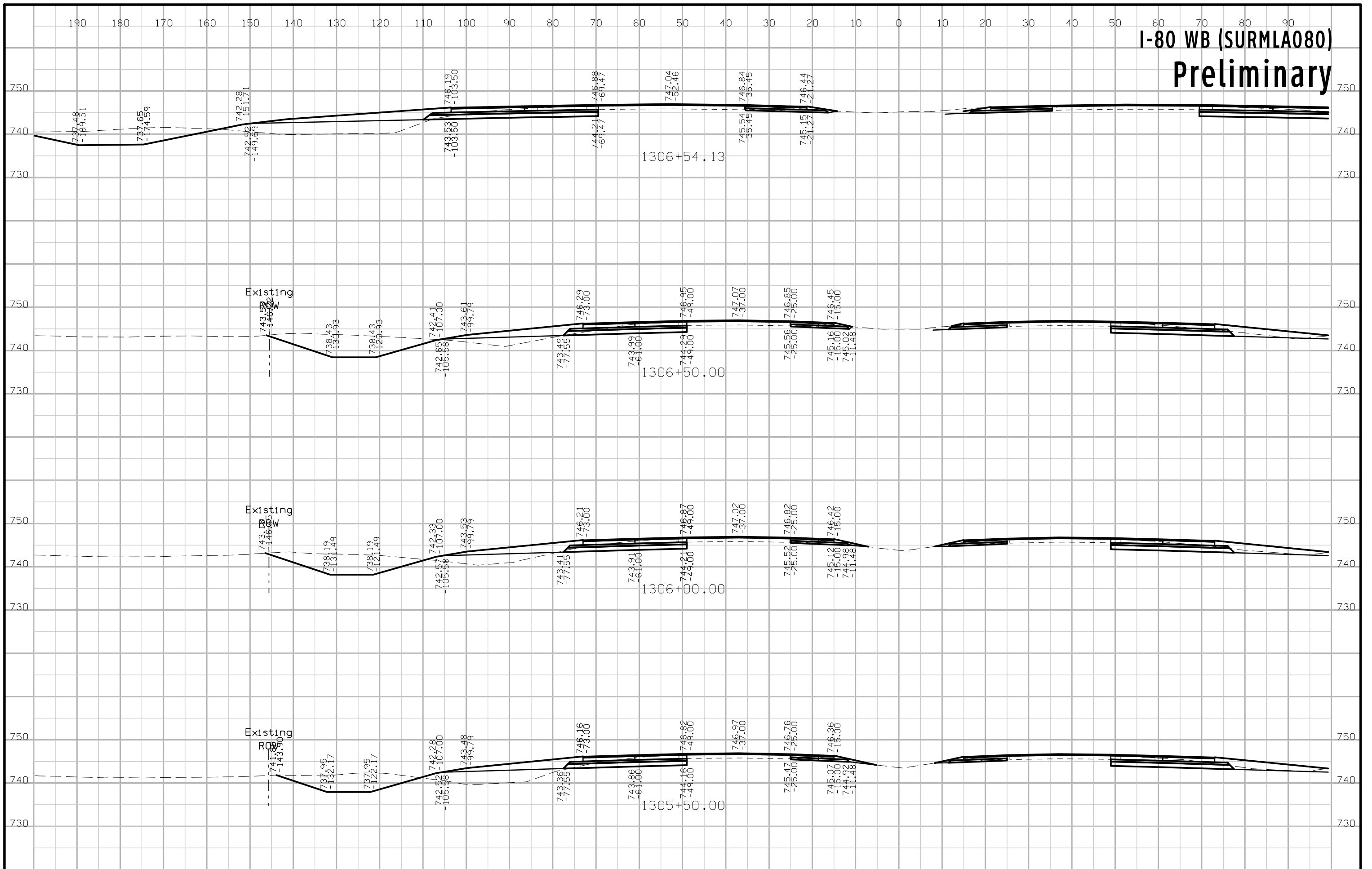
I-80 WB (SURMLA080) Preliminary



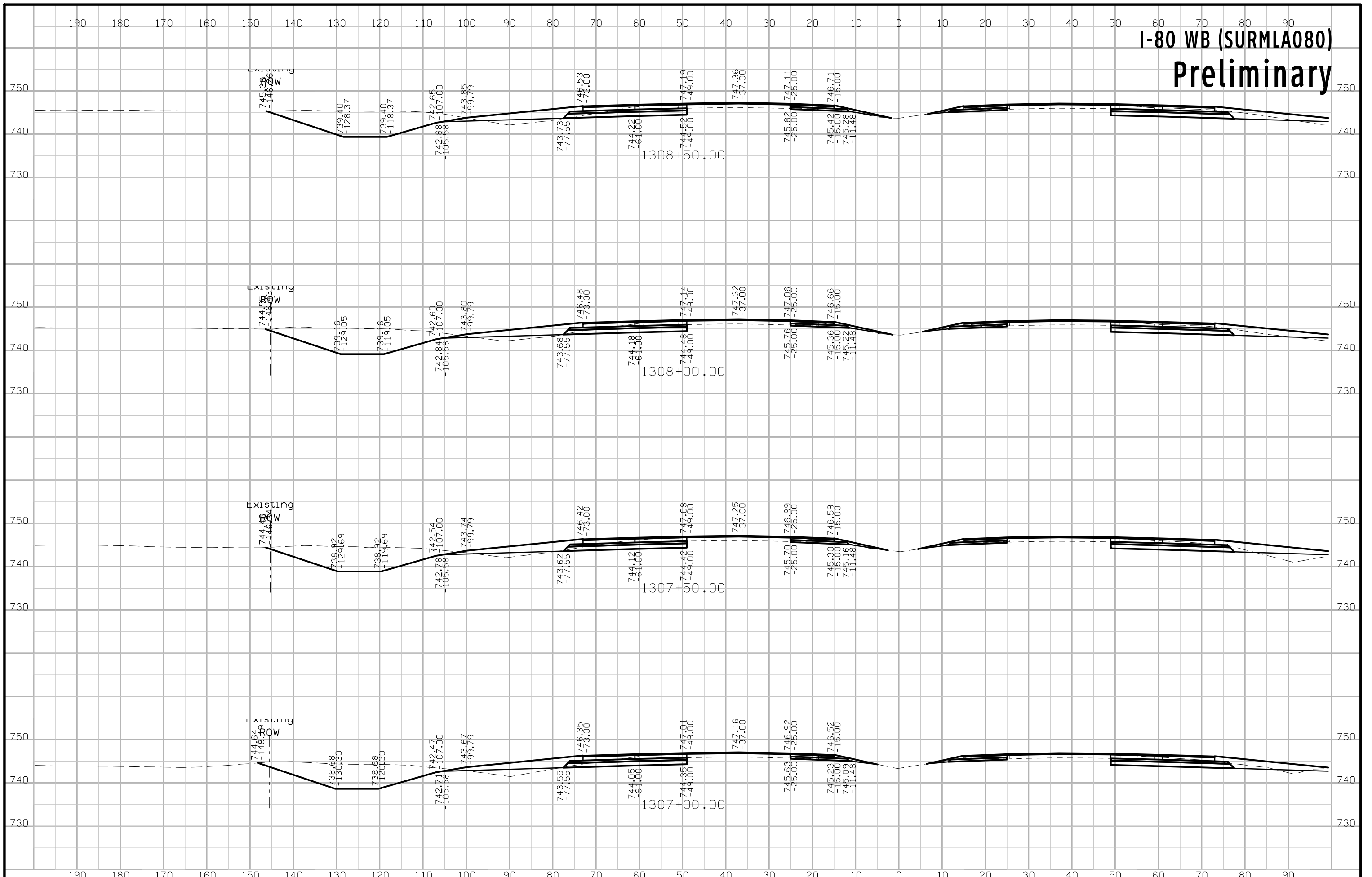
I-80 WB (SURMLA080) Preliminary



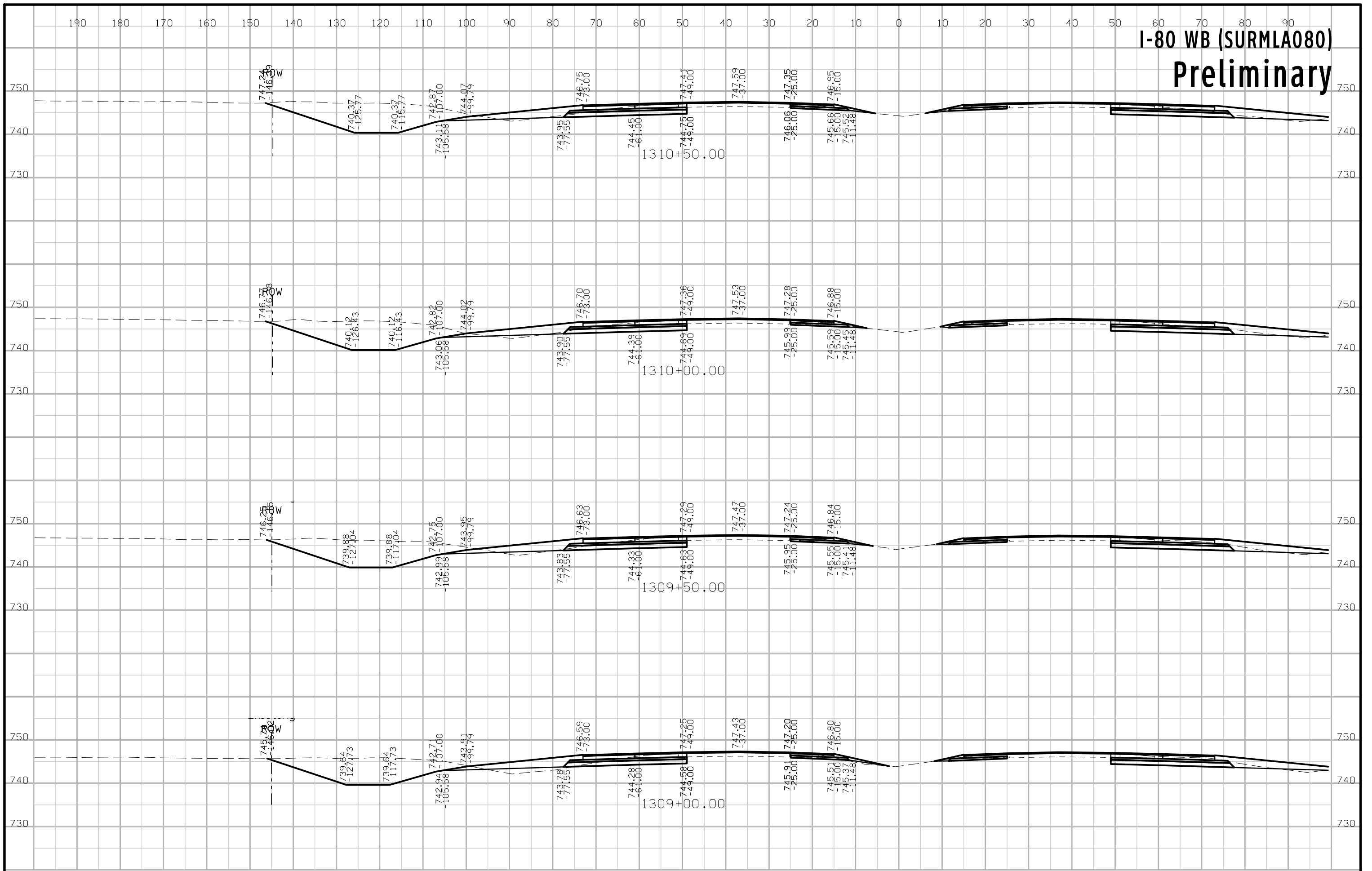
I-80 WB (SURMLA080) Preliminary



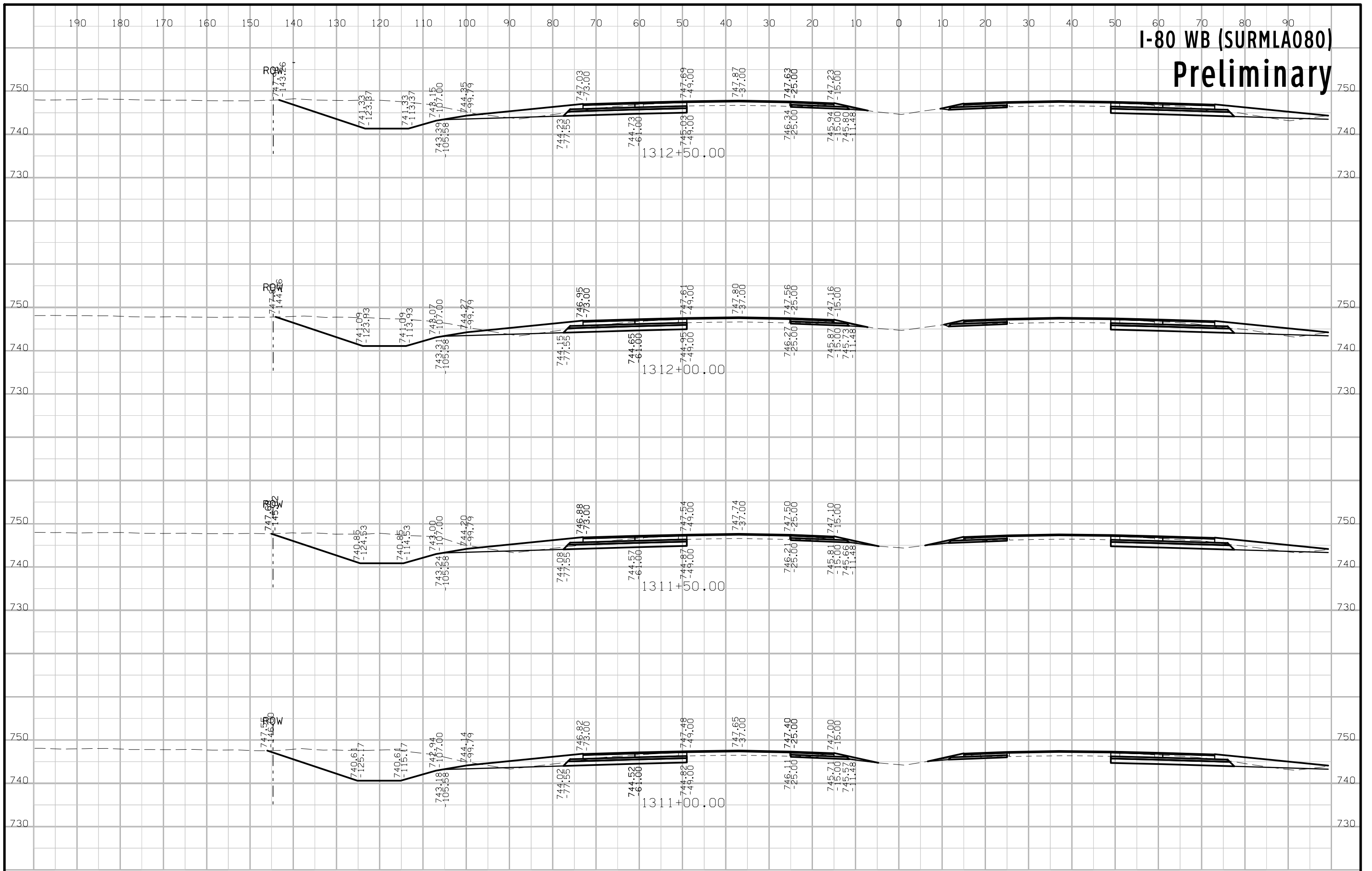
I-80 WB (SURMLA080) Preliminary



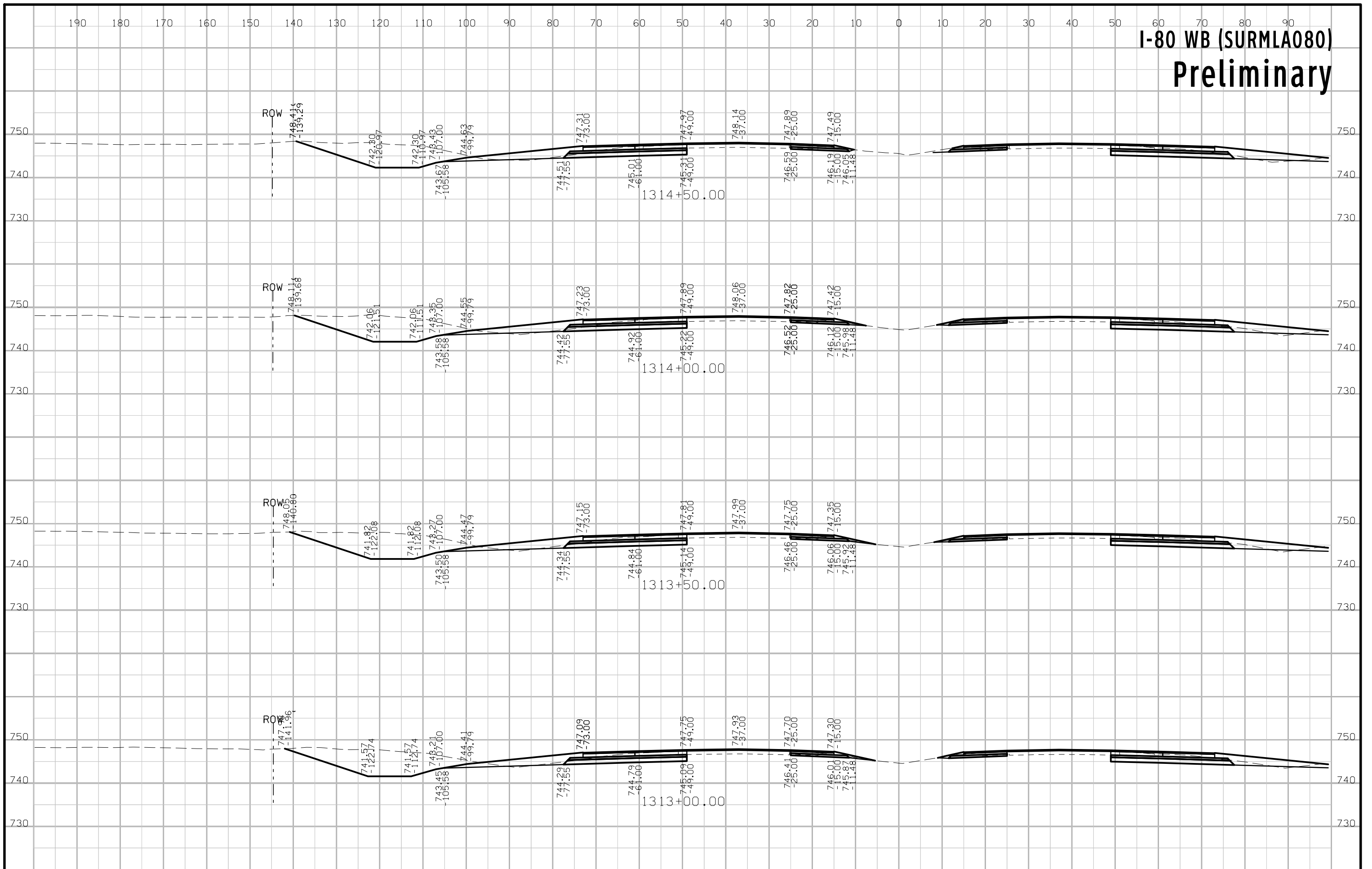
I-80 WB (SURMLA080) Preliminary



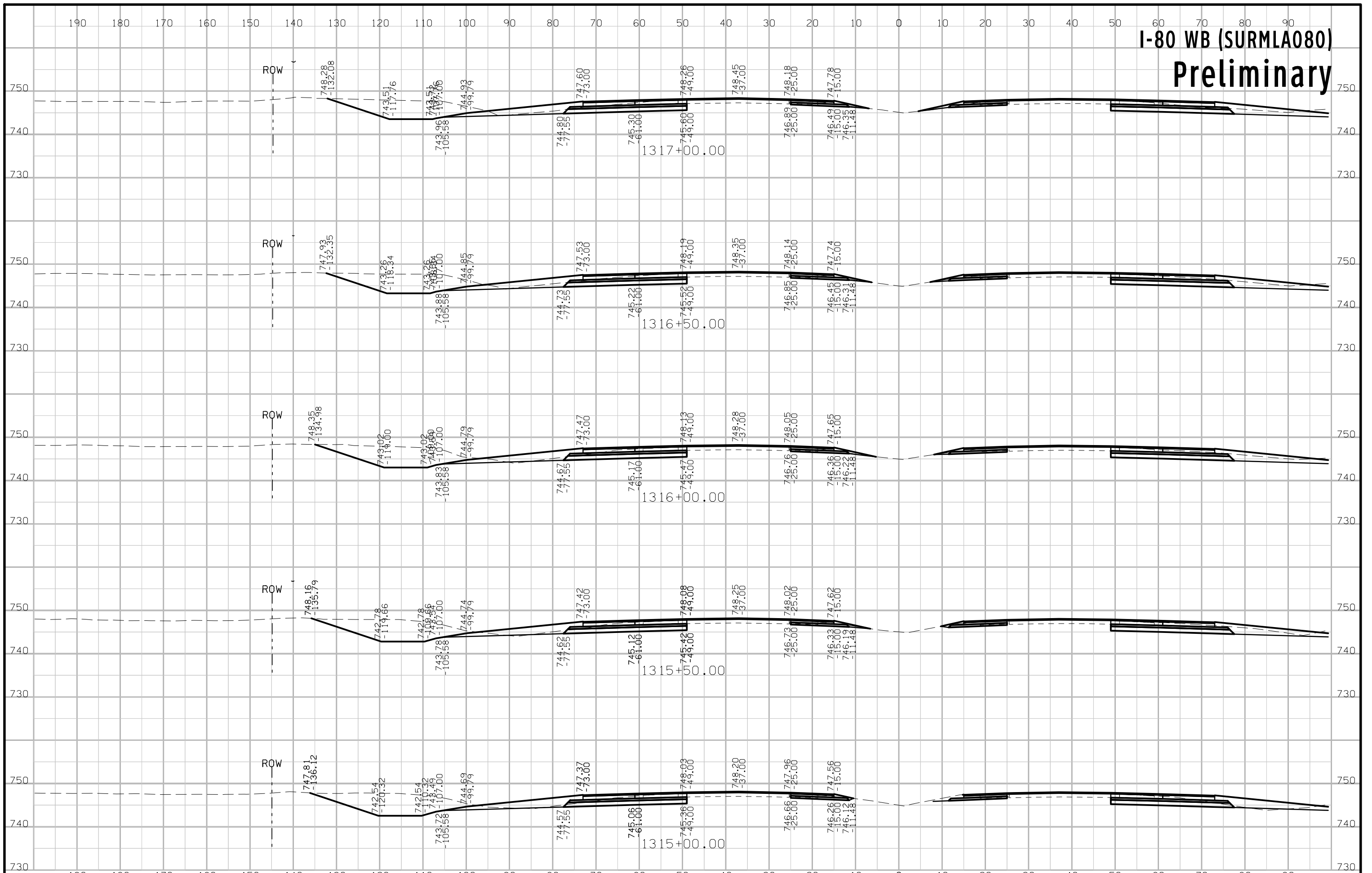
I-80 WB (SURMLA080) Preliminary



I-80 WB (SURMLA080) Preliminary

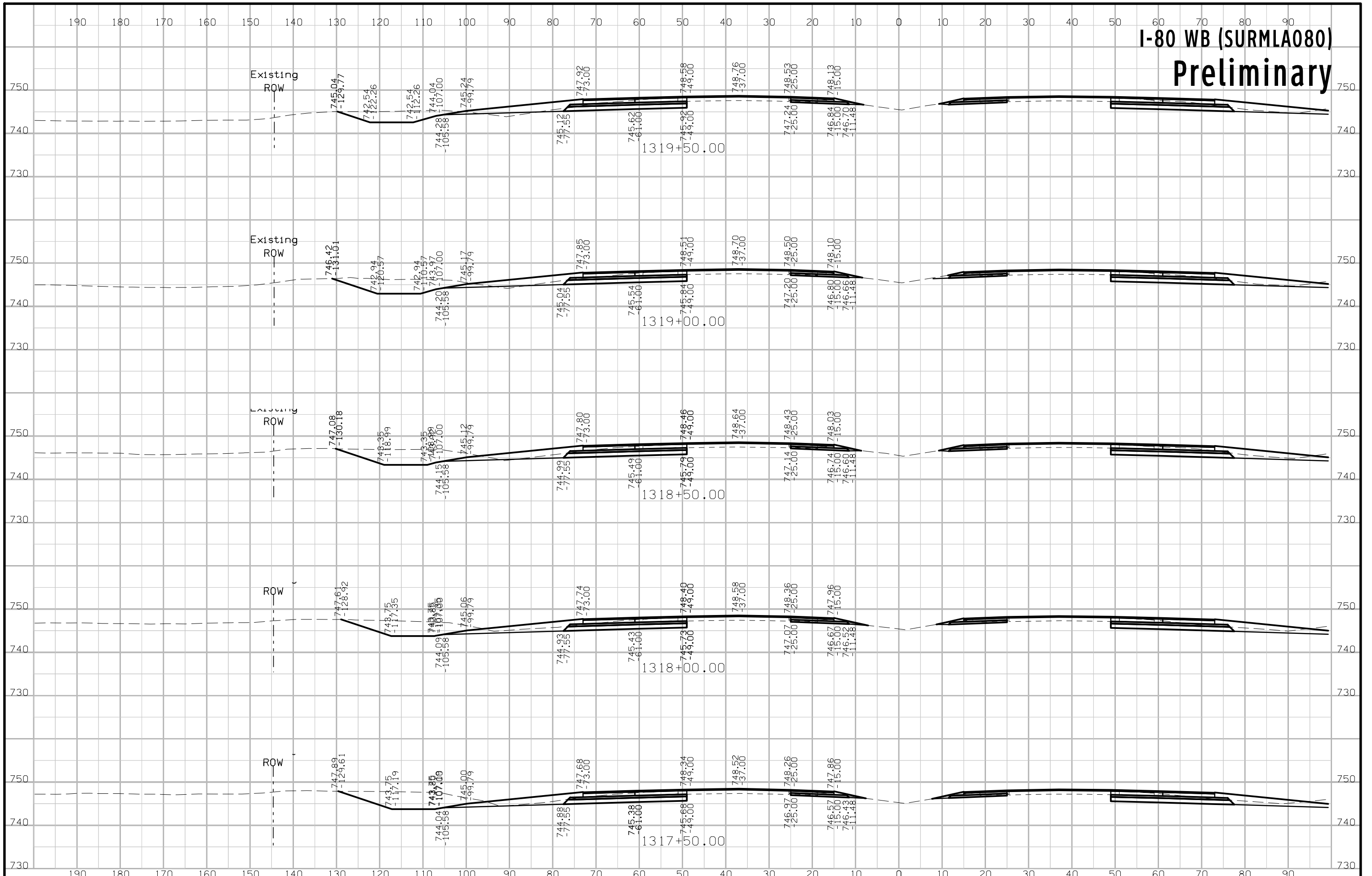


I-80 WB (SURMLA080) Preliminary

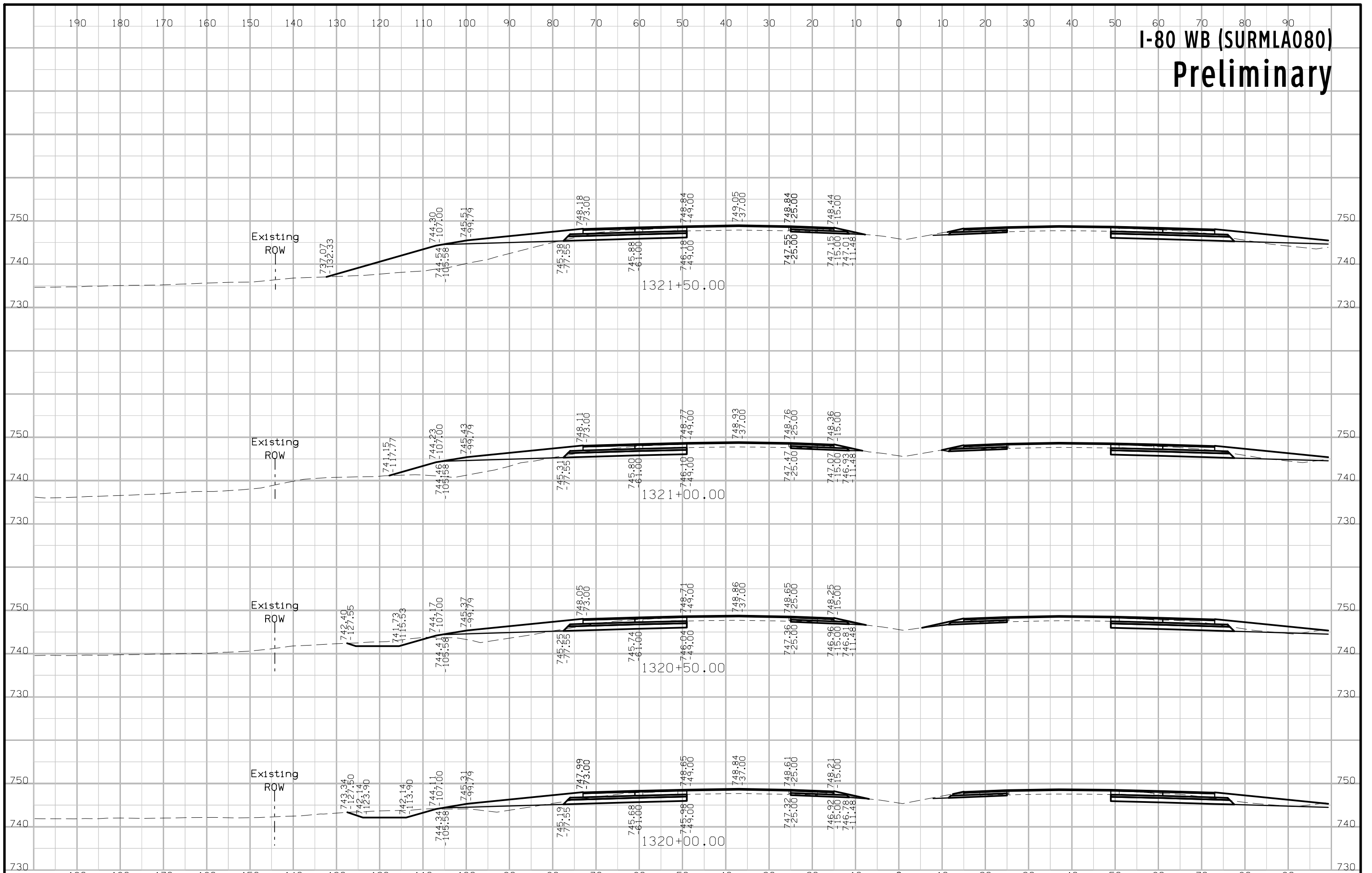


FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	W.298
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	-------

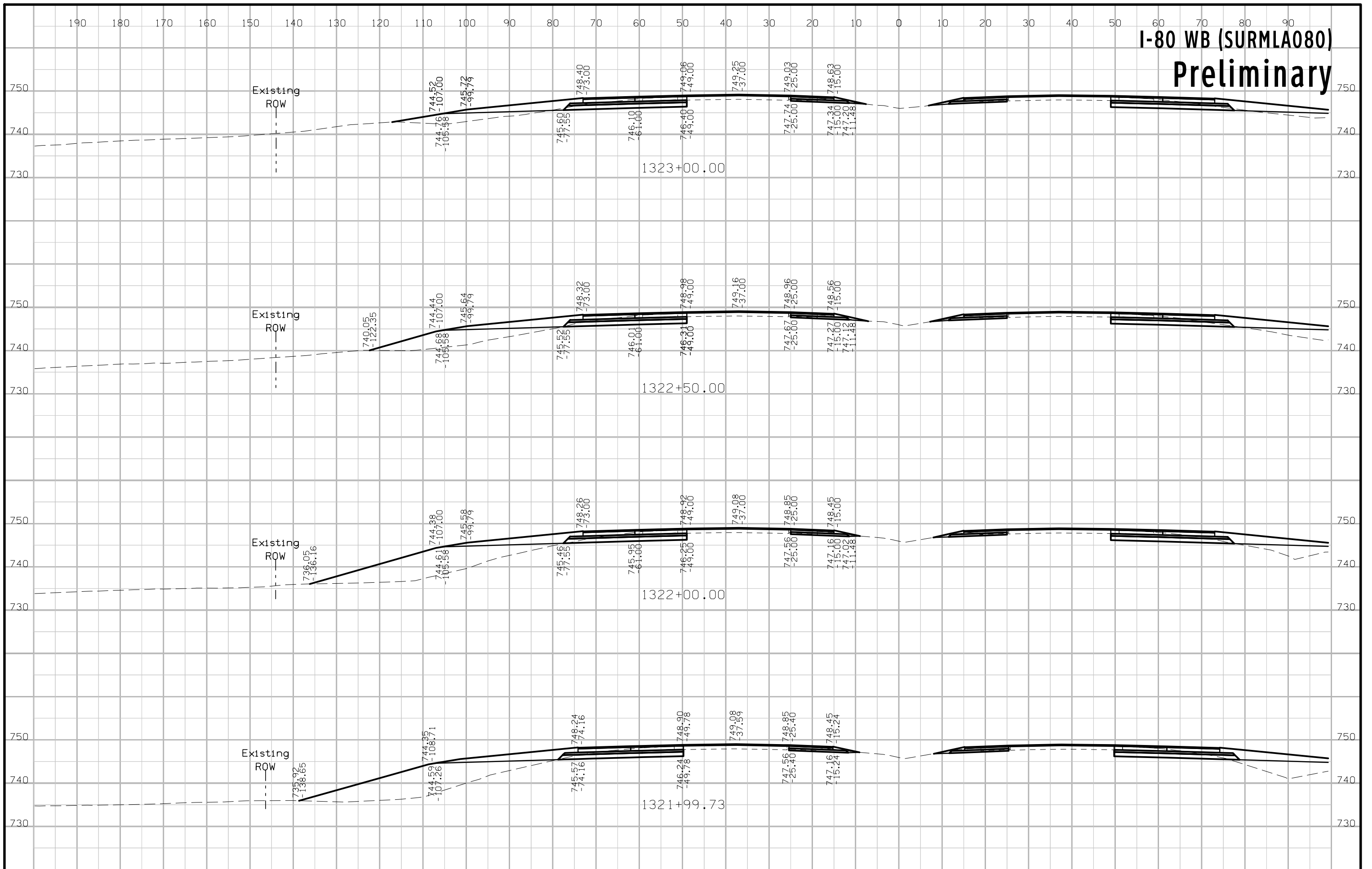
I-80 WB (SURMLA080) Preliminary



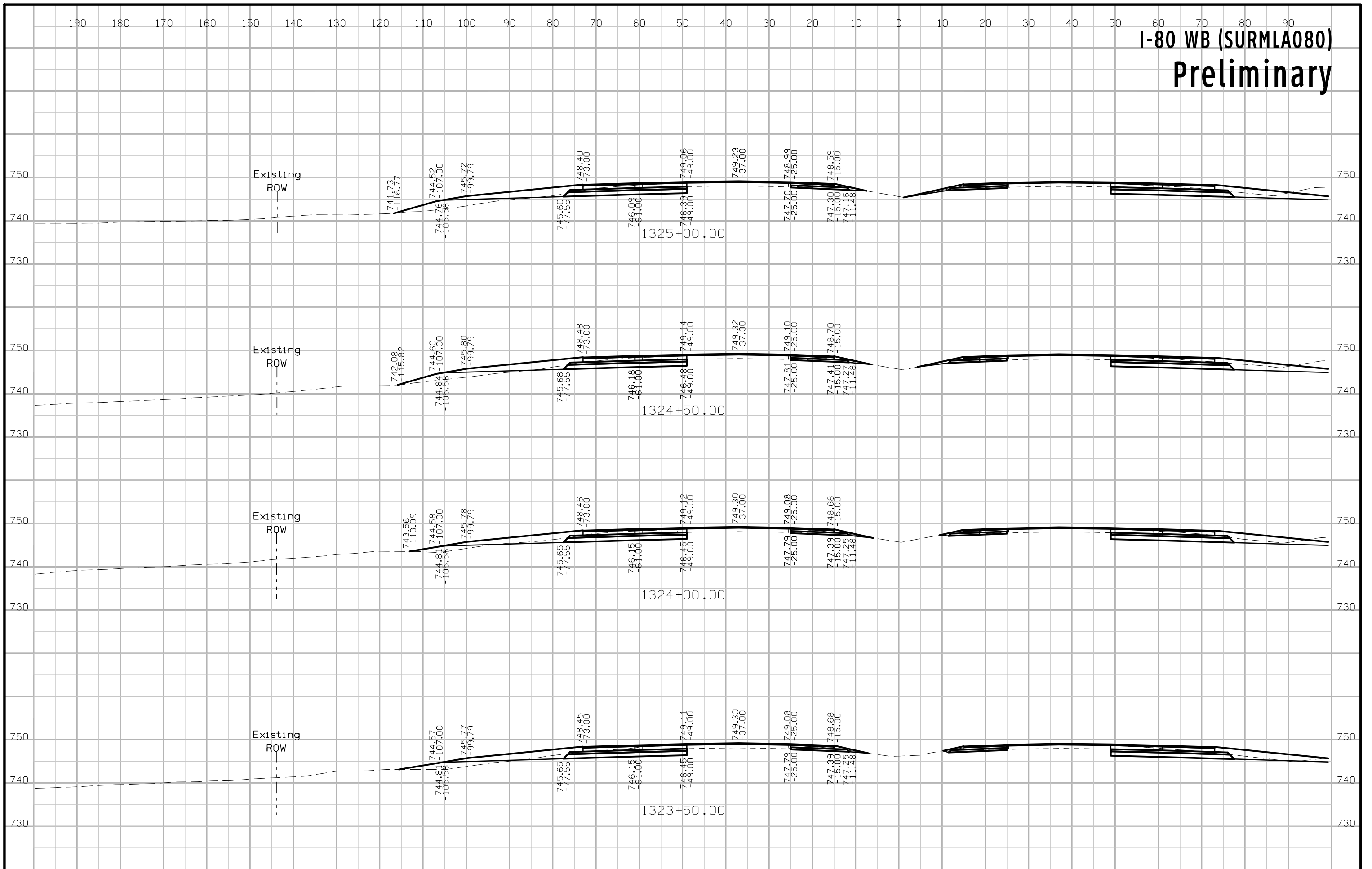
I-80 WB (SURMLA080) Preliminary



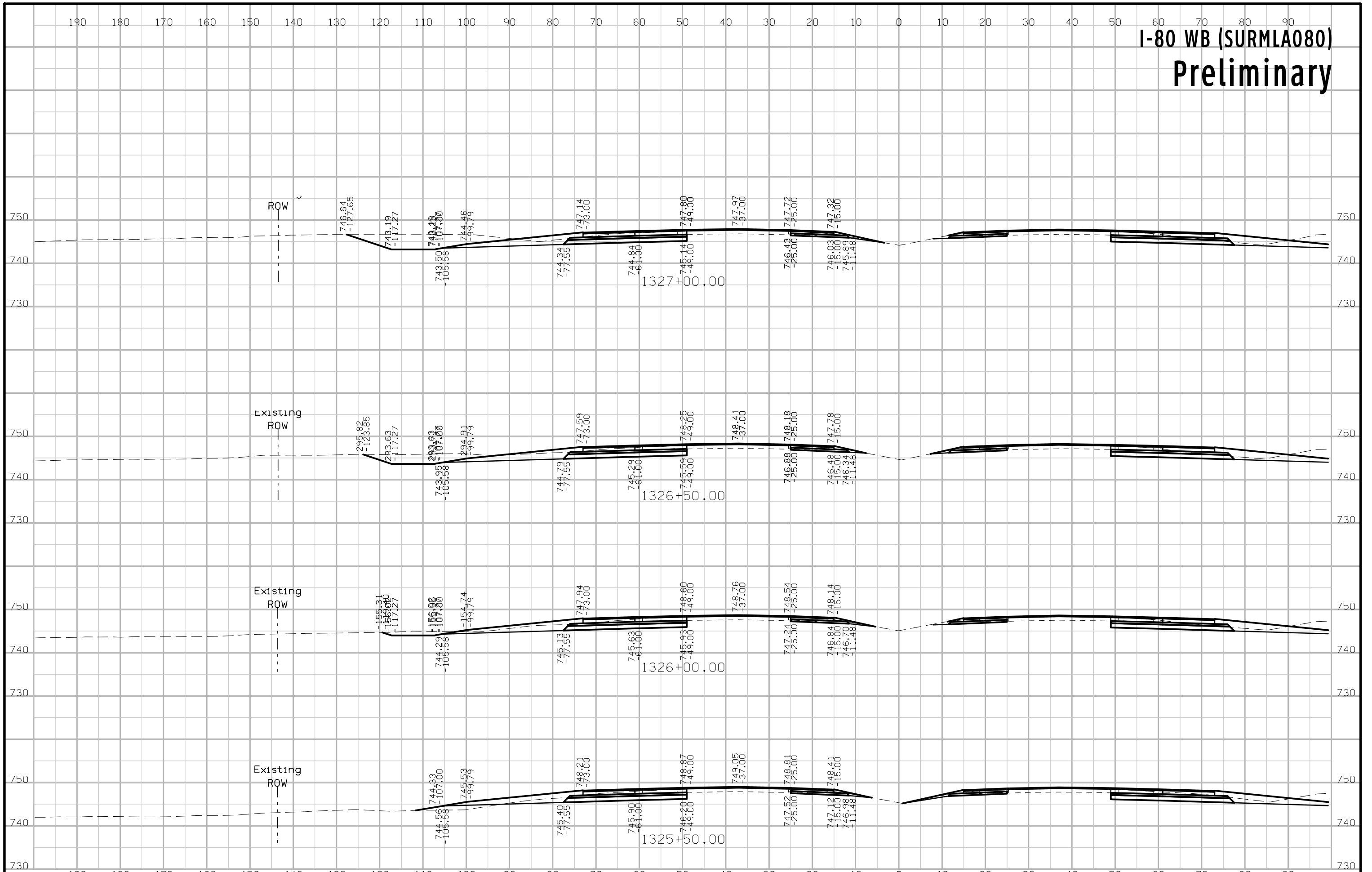
I-80 WB (SURMLA080) Preliminary



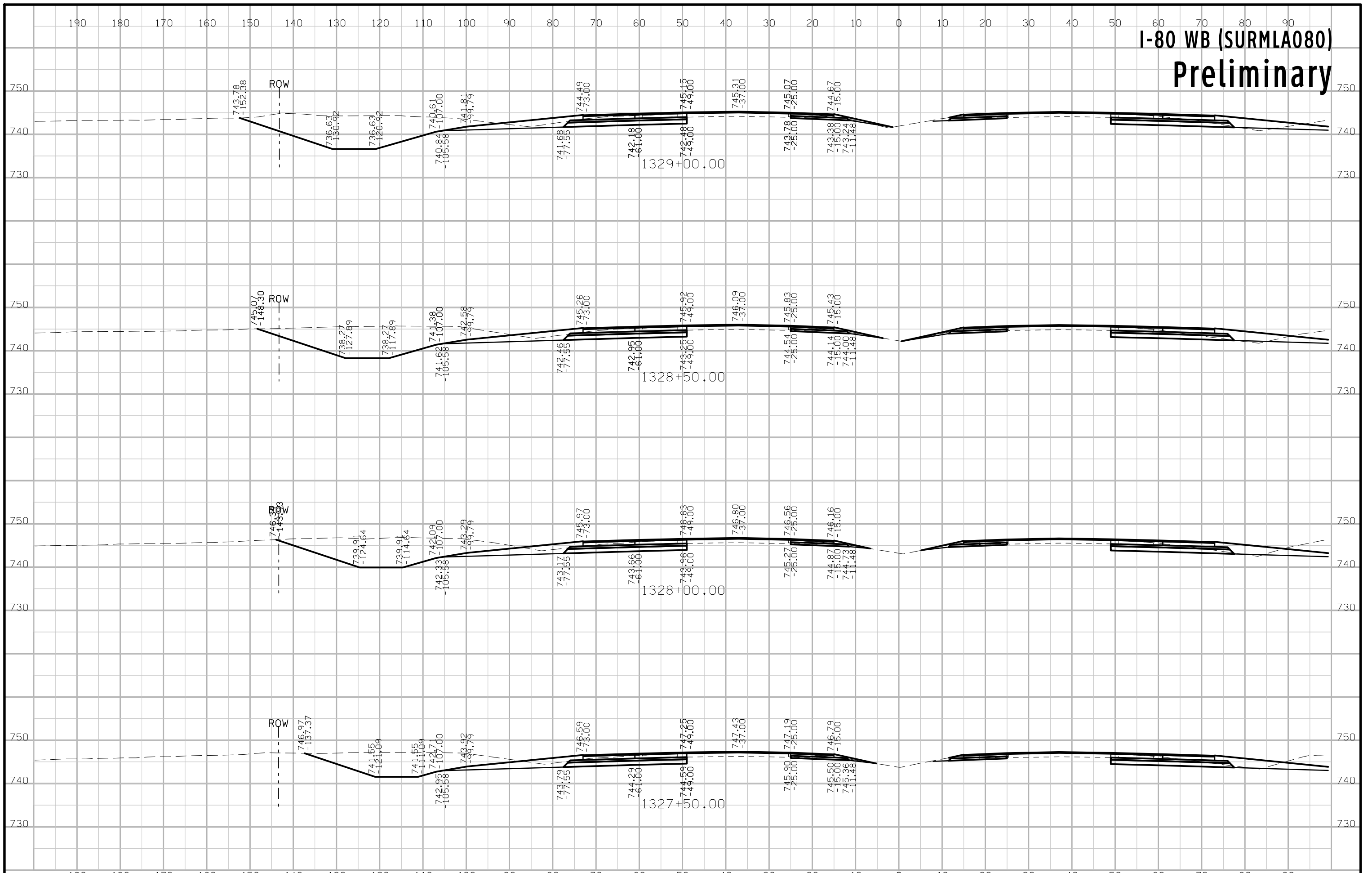
I-80 WB (SURMLA080) Preliminary



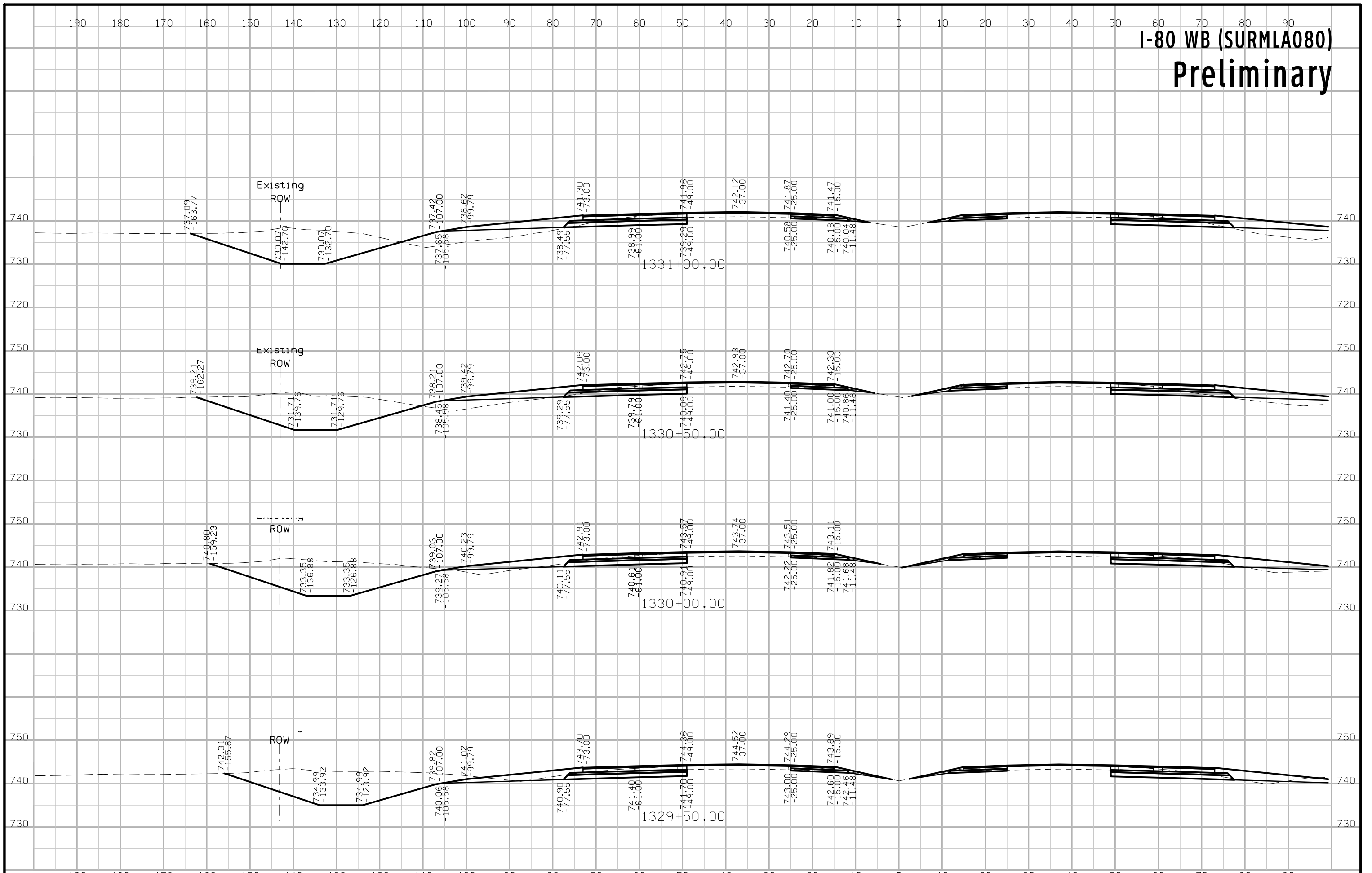
I-80 WB (SURMLA080) Preliminary



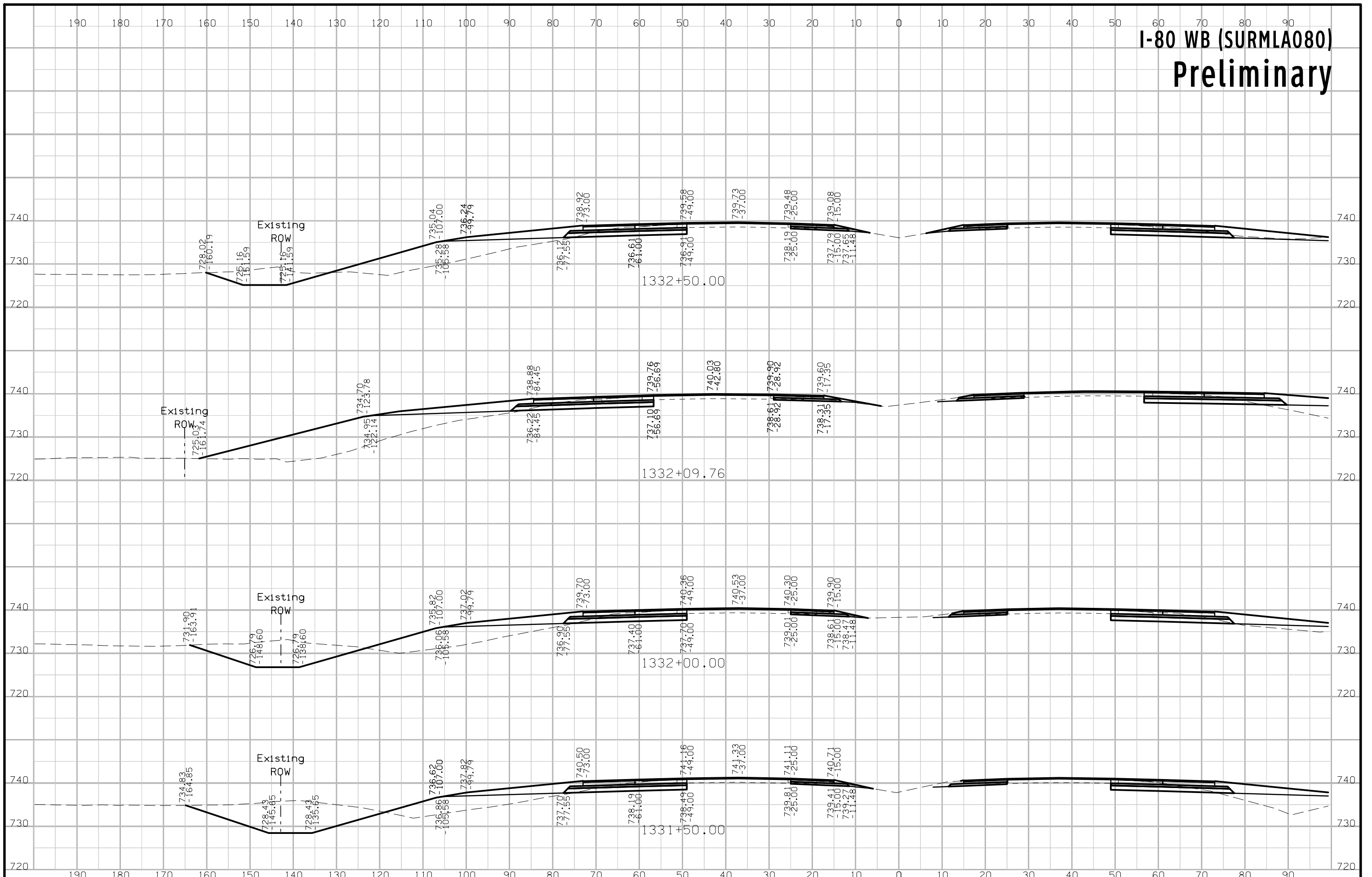
I-80 WB (SURMLA080) Preliminary



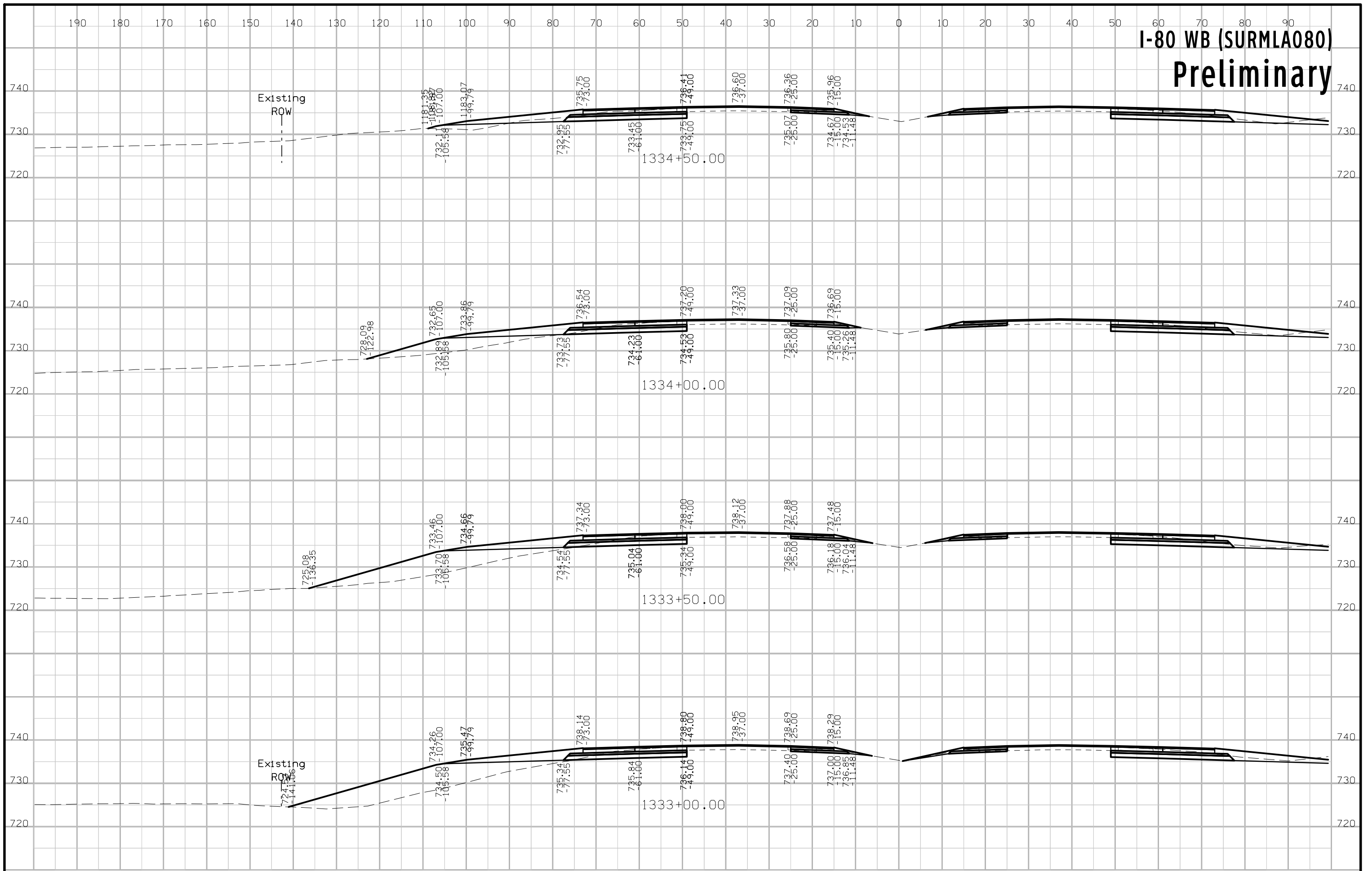
I-80 WB (SURMLA080) Preliminary



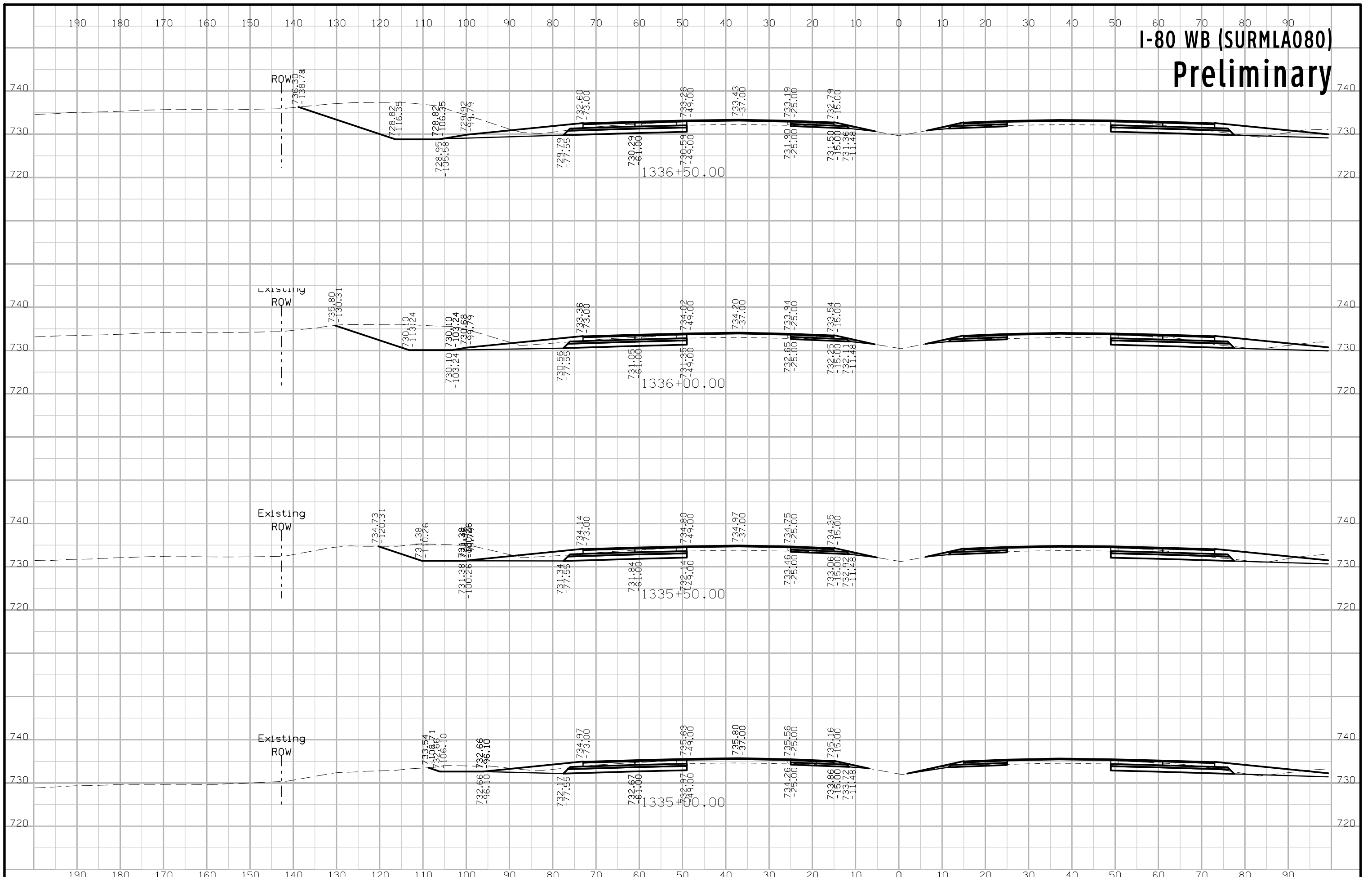
I-80 WB (SURMLA080) Preliminary



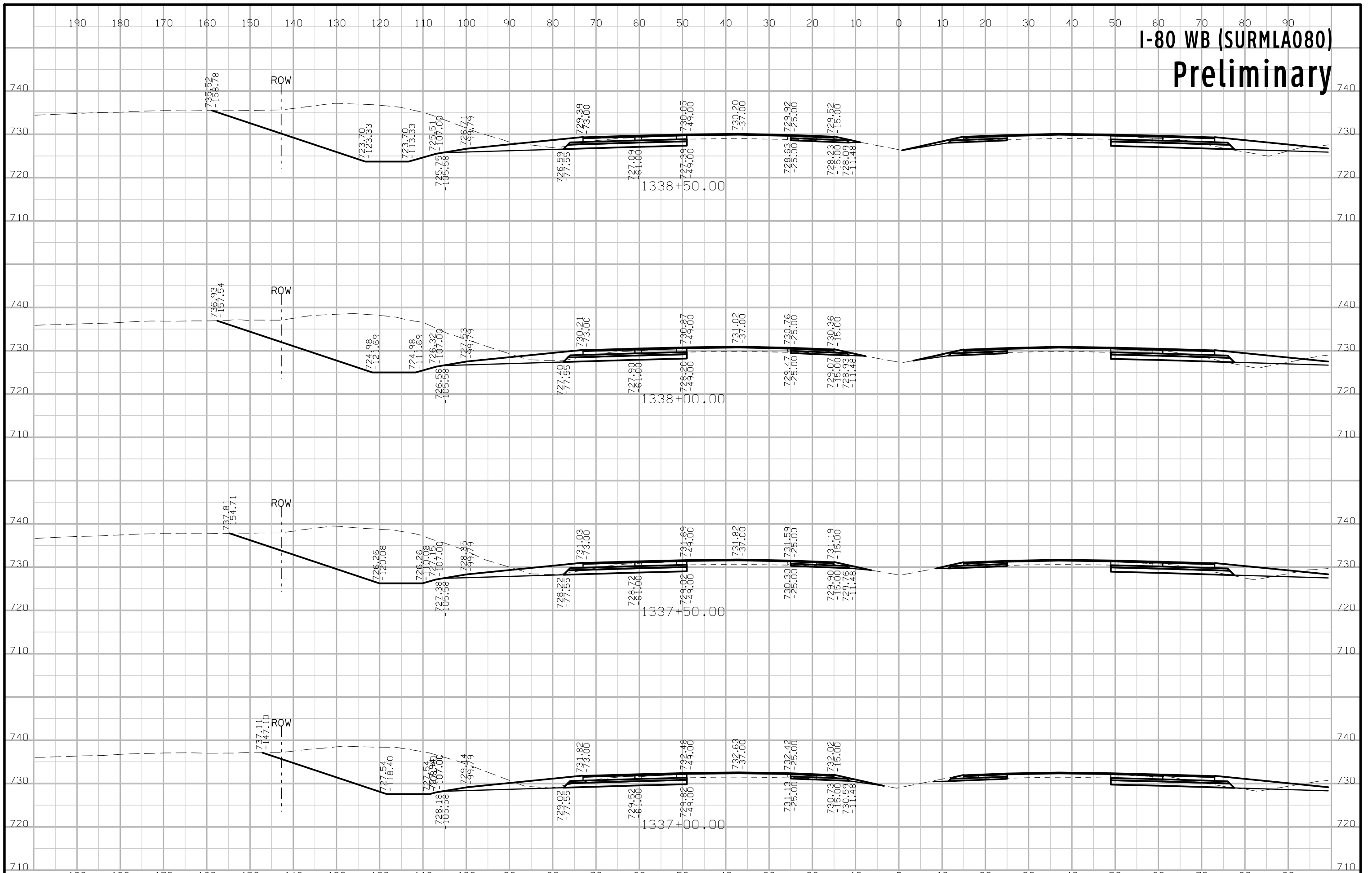
I-80 WB (SURMLA080) Preliminary



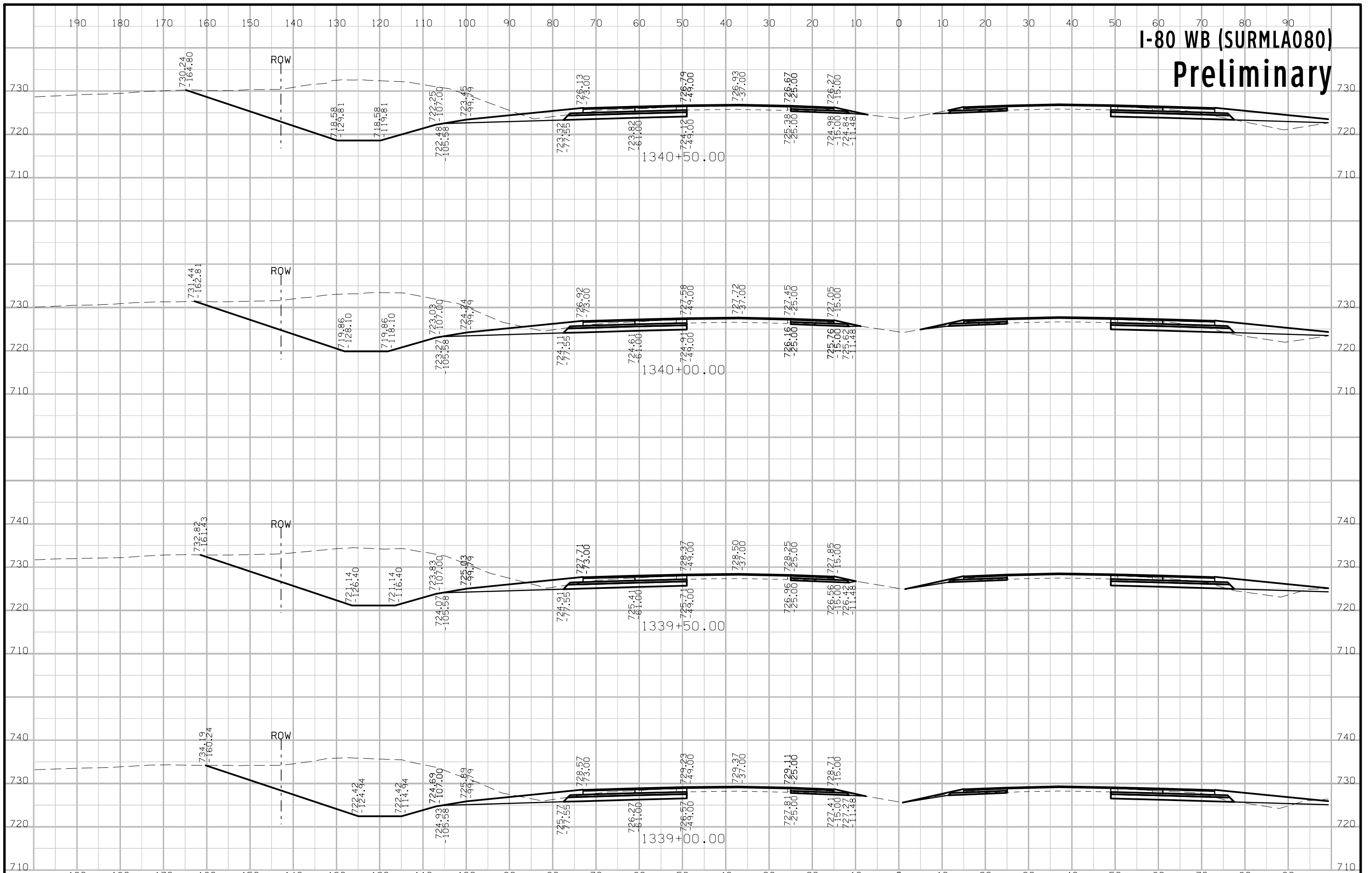
I-80 WB (SURMLA080) Preliminary



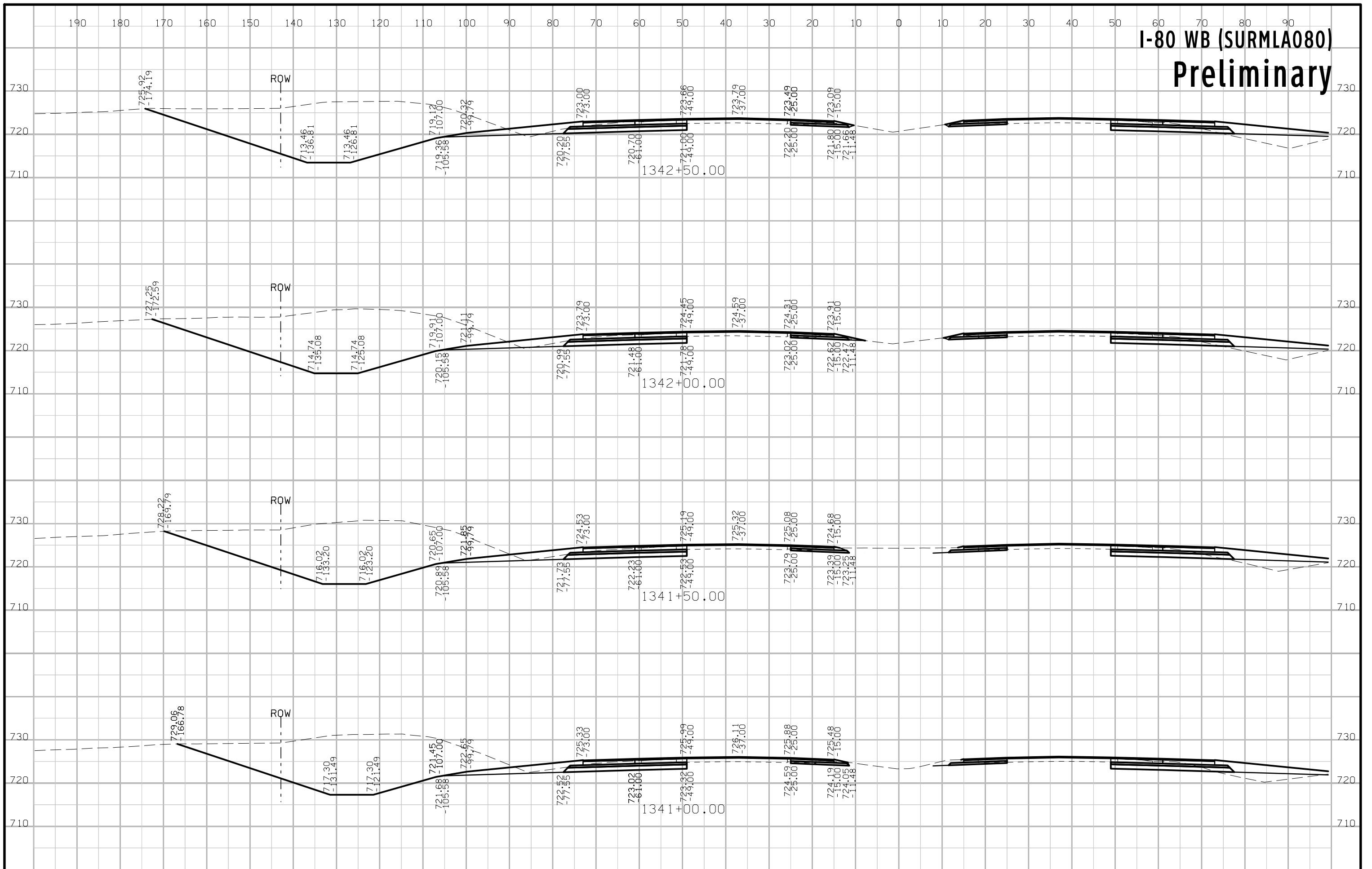
I-80 WB (SURMLA080) Preliminary



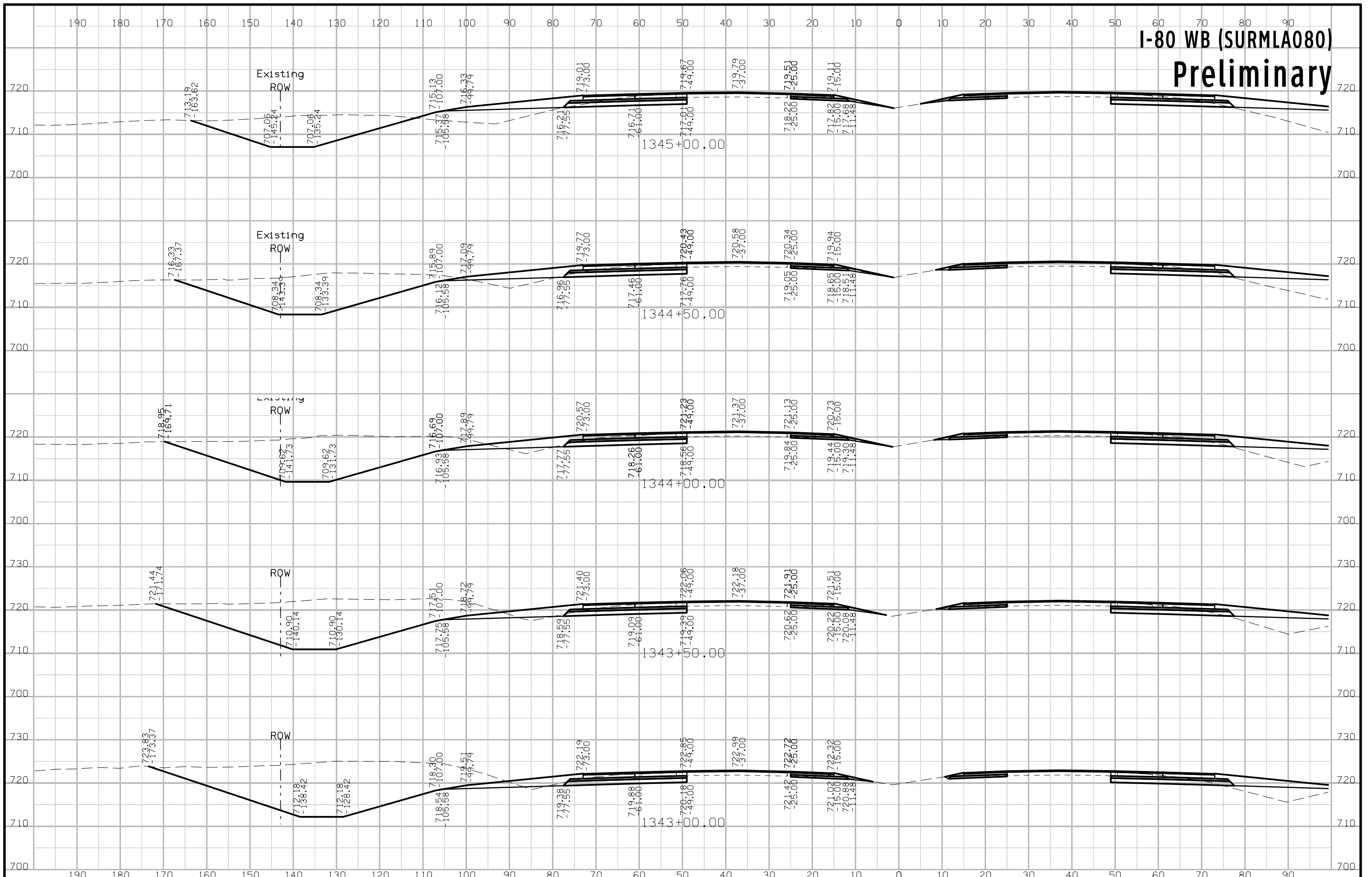
I-80 WB (SURMLA080) Preliminary



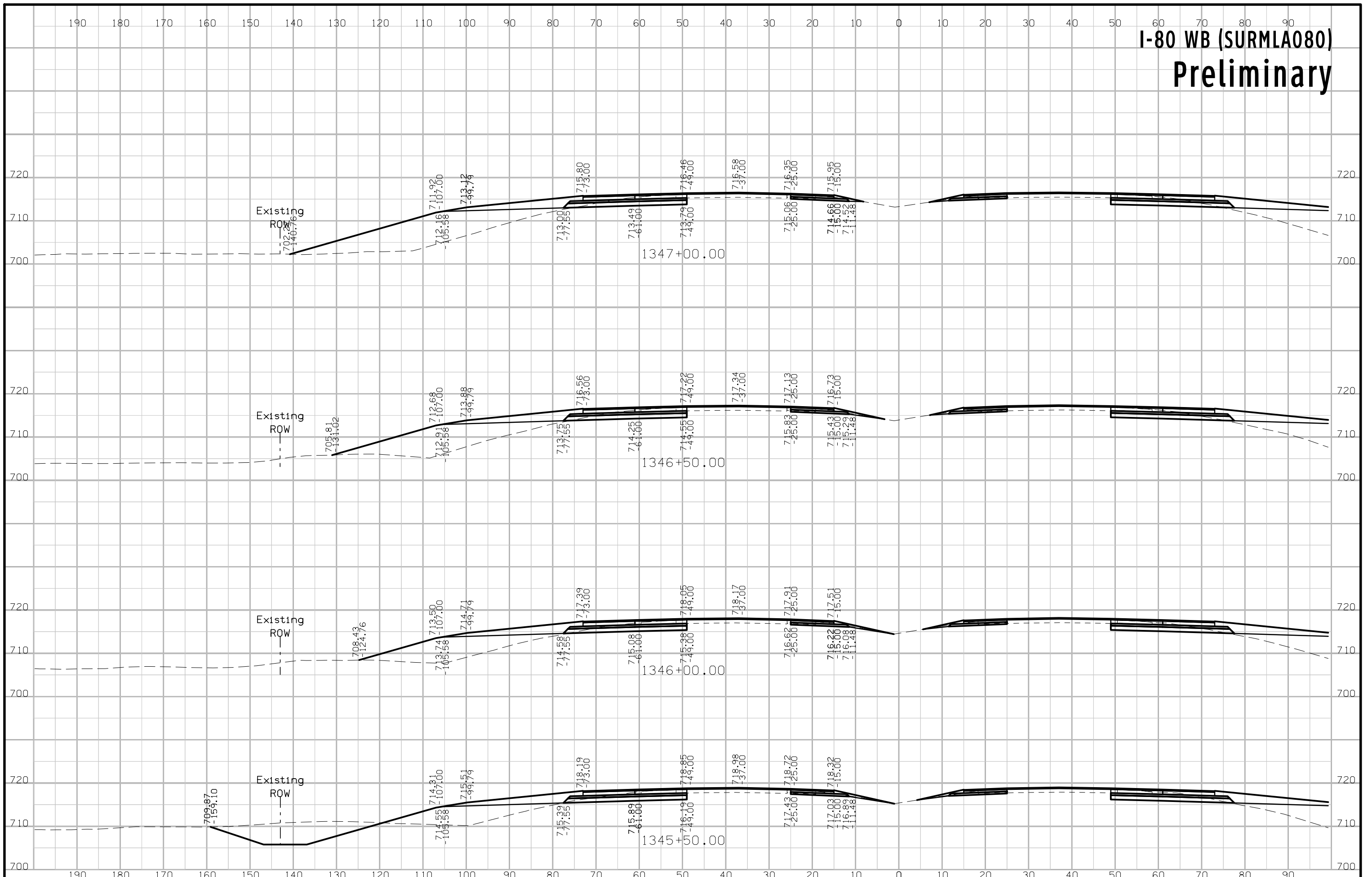
I-80 WB (SURMLA080) Preliminary



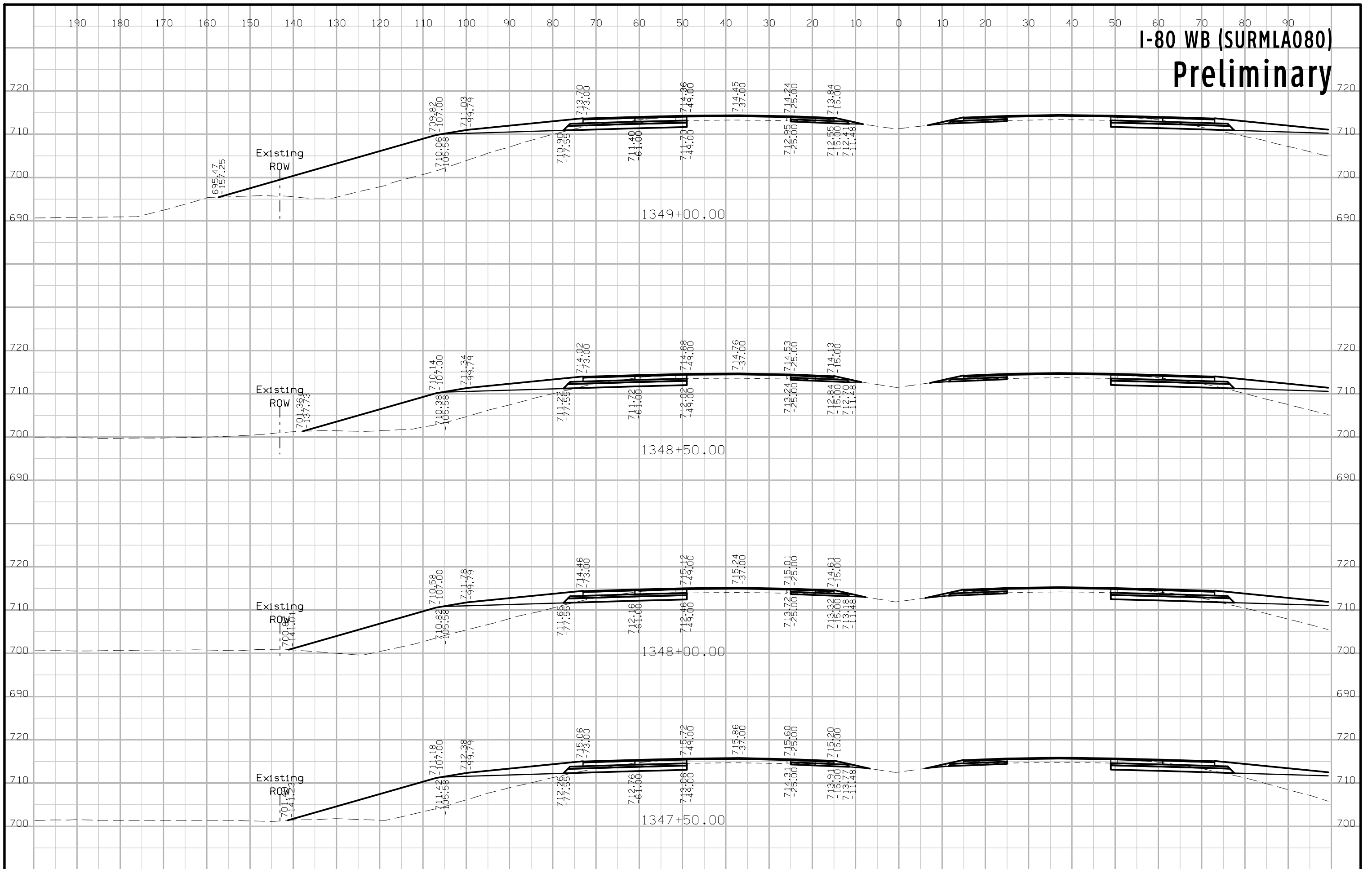
I-80 WB (SURMLA080) Preliminary



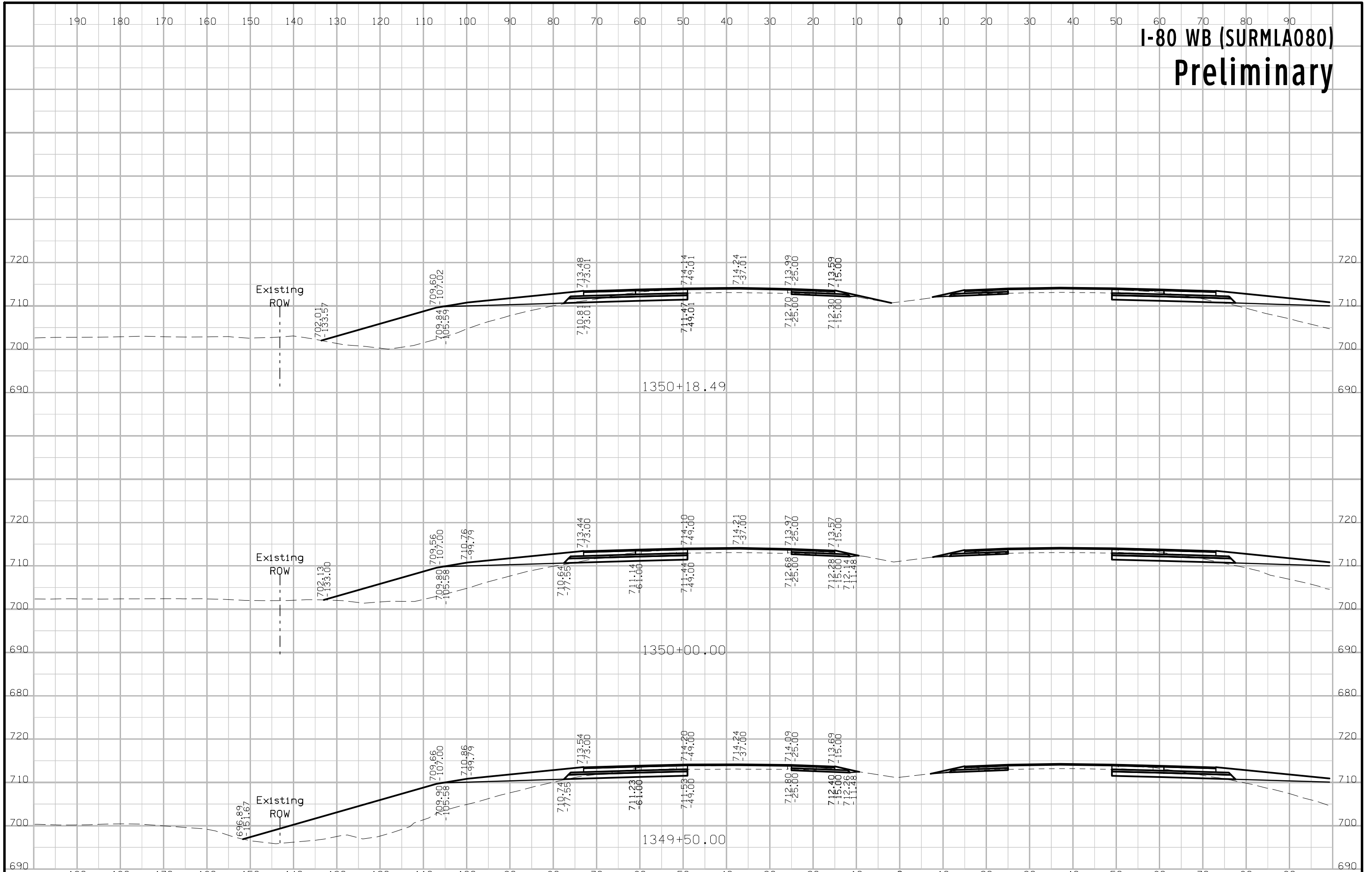
I-80 WB (SURMLA080) Preliminary



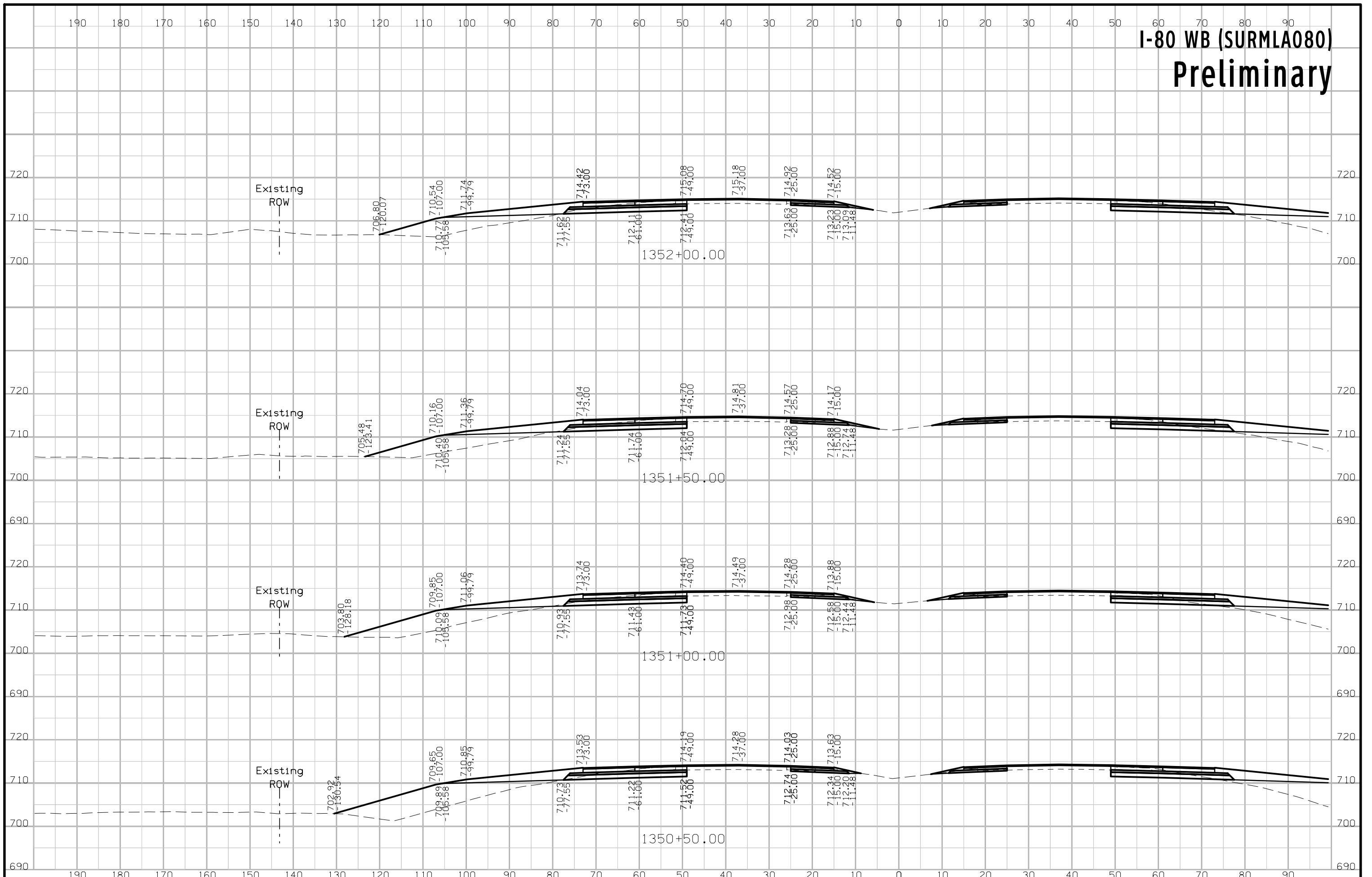
I-80 WB (SURMLA080) Preliminary



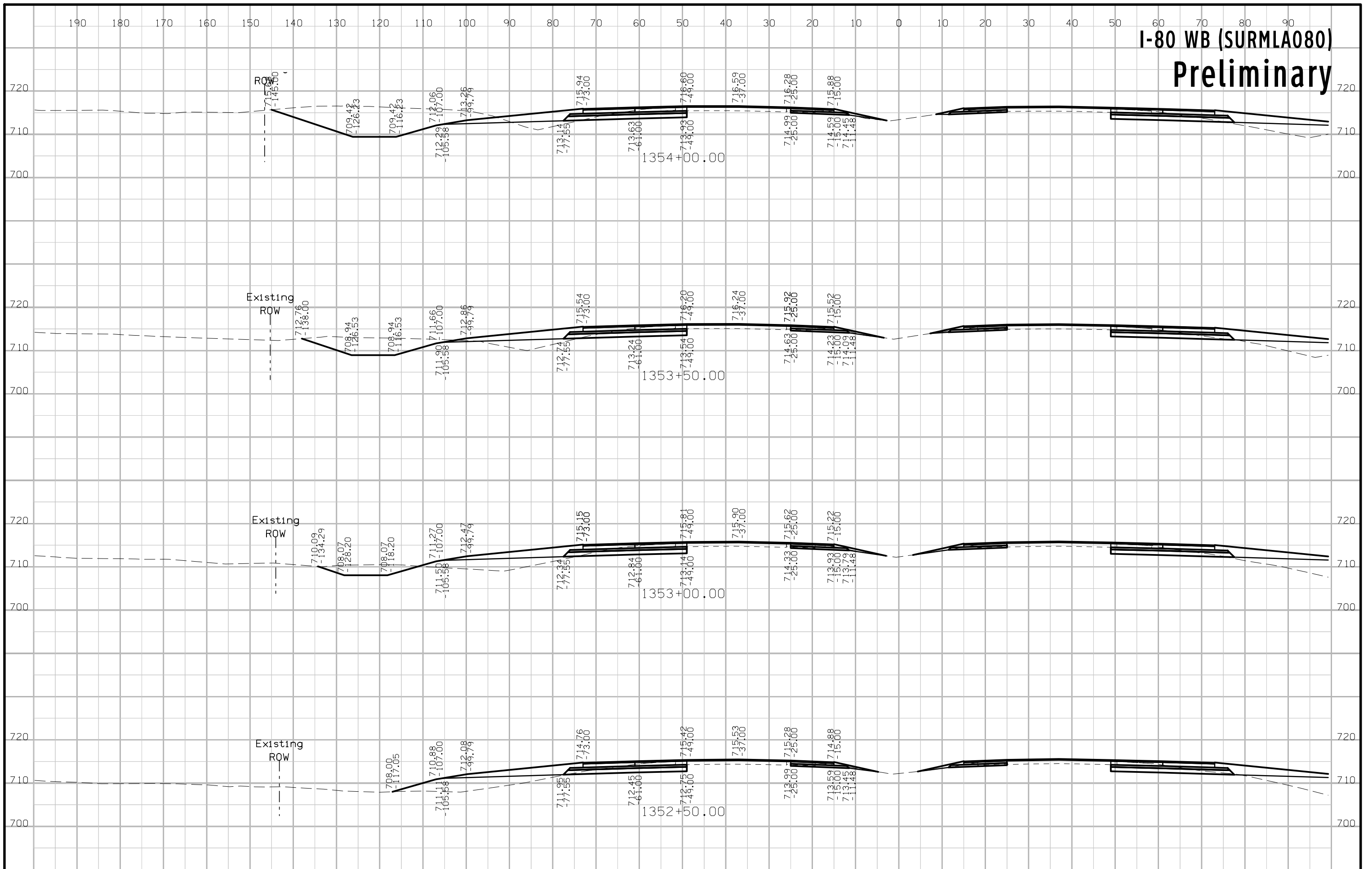
I-80 WB (SURMLA080) Preliminary



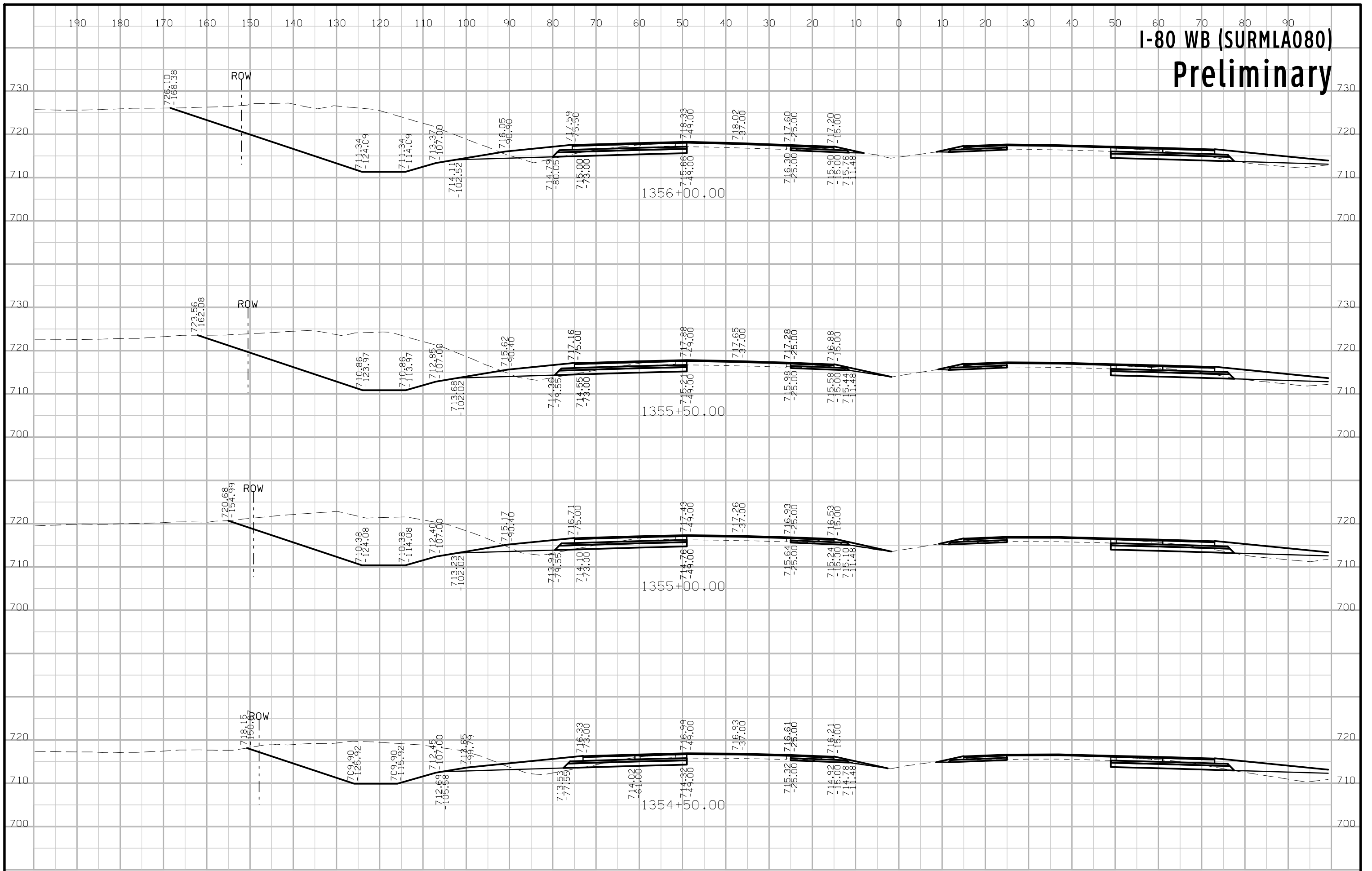
I-80 WB (SURMLA080) Preliminary



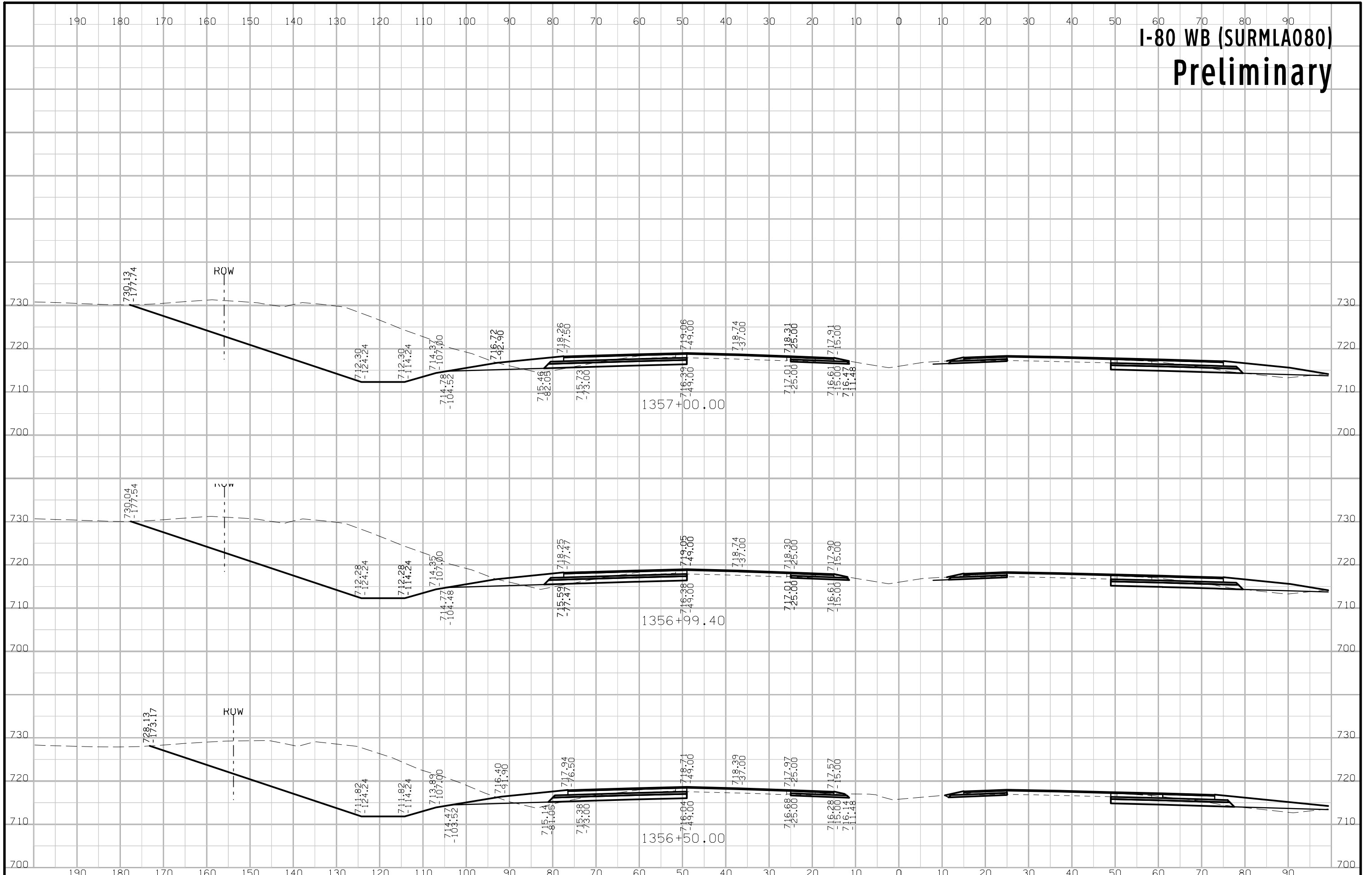
I-80 WB (SURMLA080) Preliminary



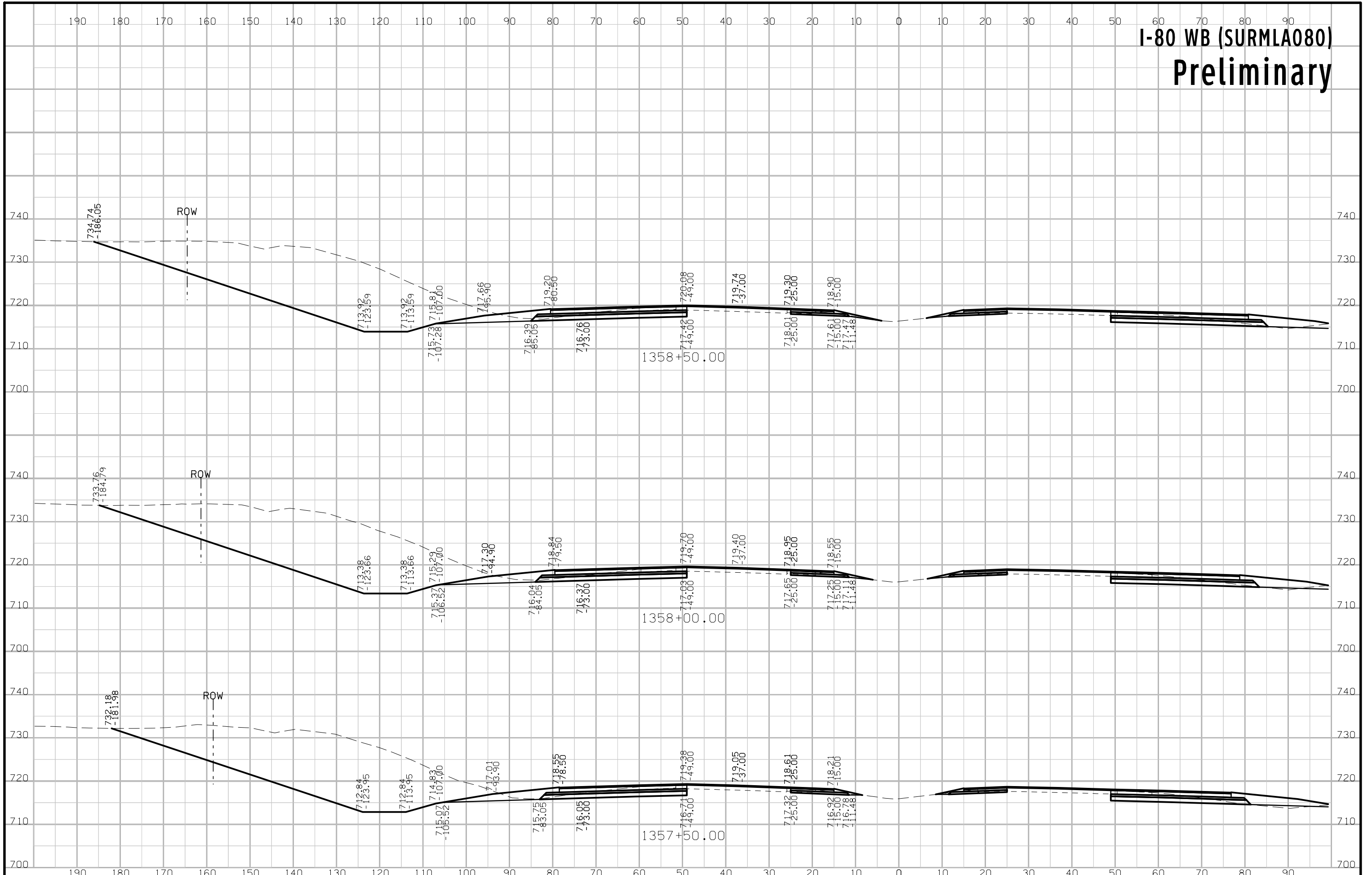
I-80 WB (SURMLA080) Preliminary



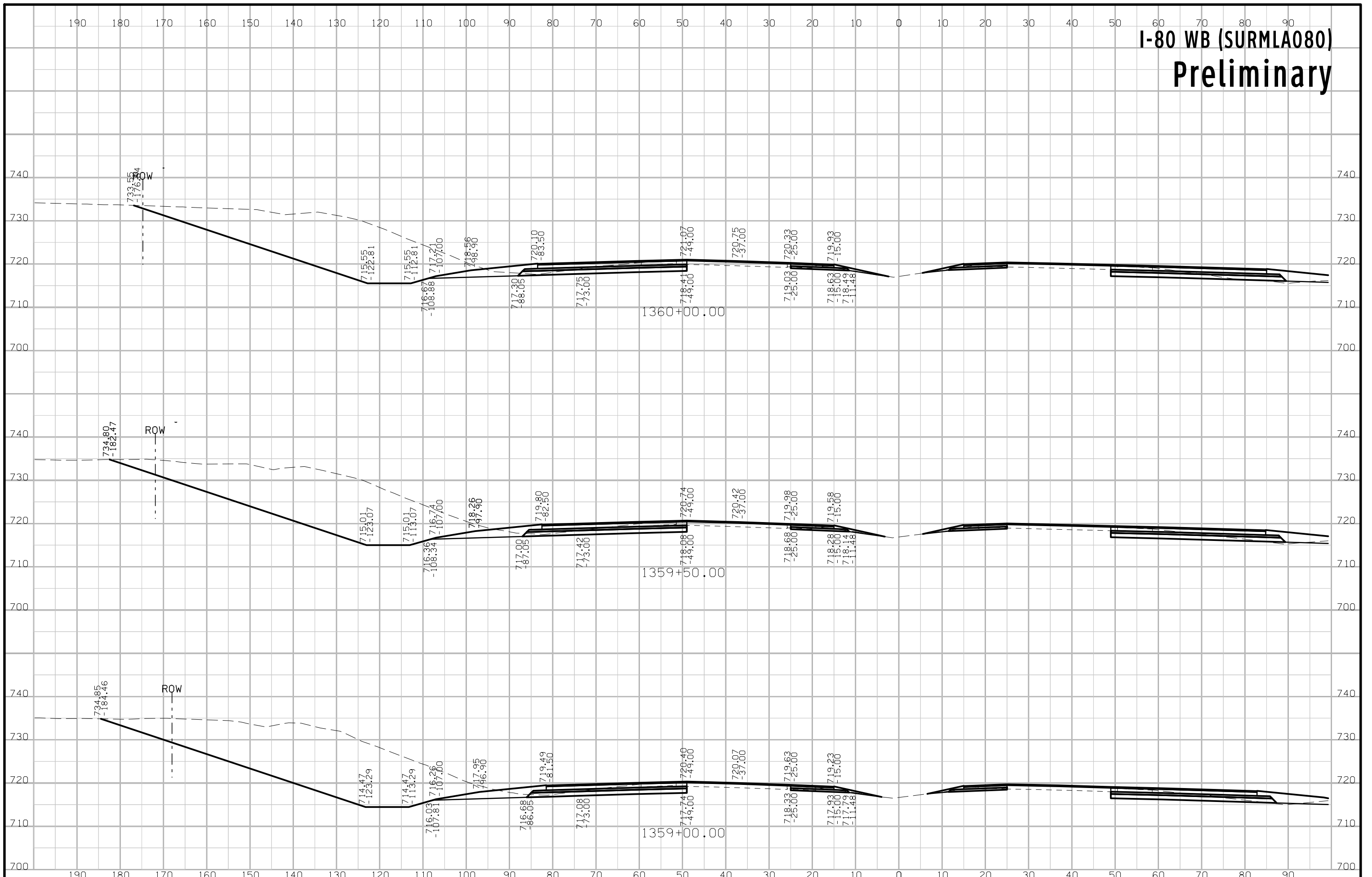
I-80 WB (SURMLA080) Preliminary



I-80 WB (SURMLA080) Preliminary



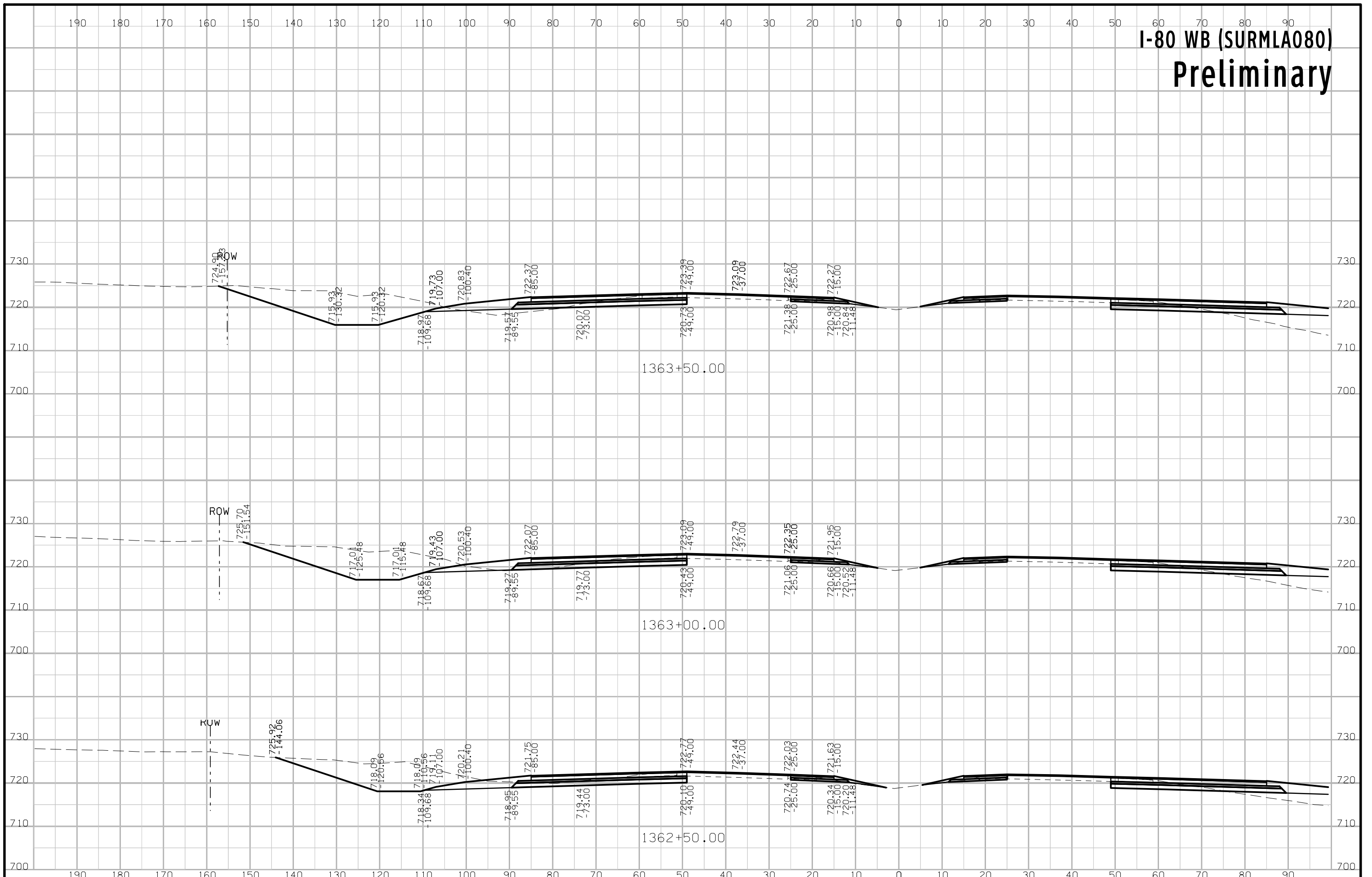
I-80 WB (SURMLA080) Preliminary



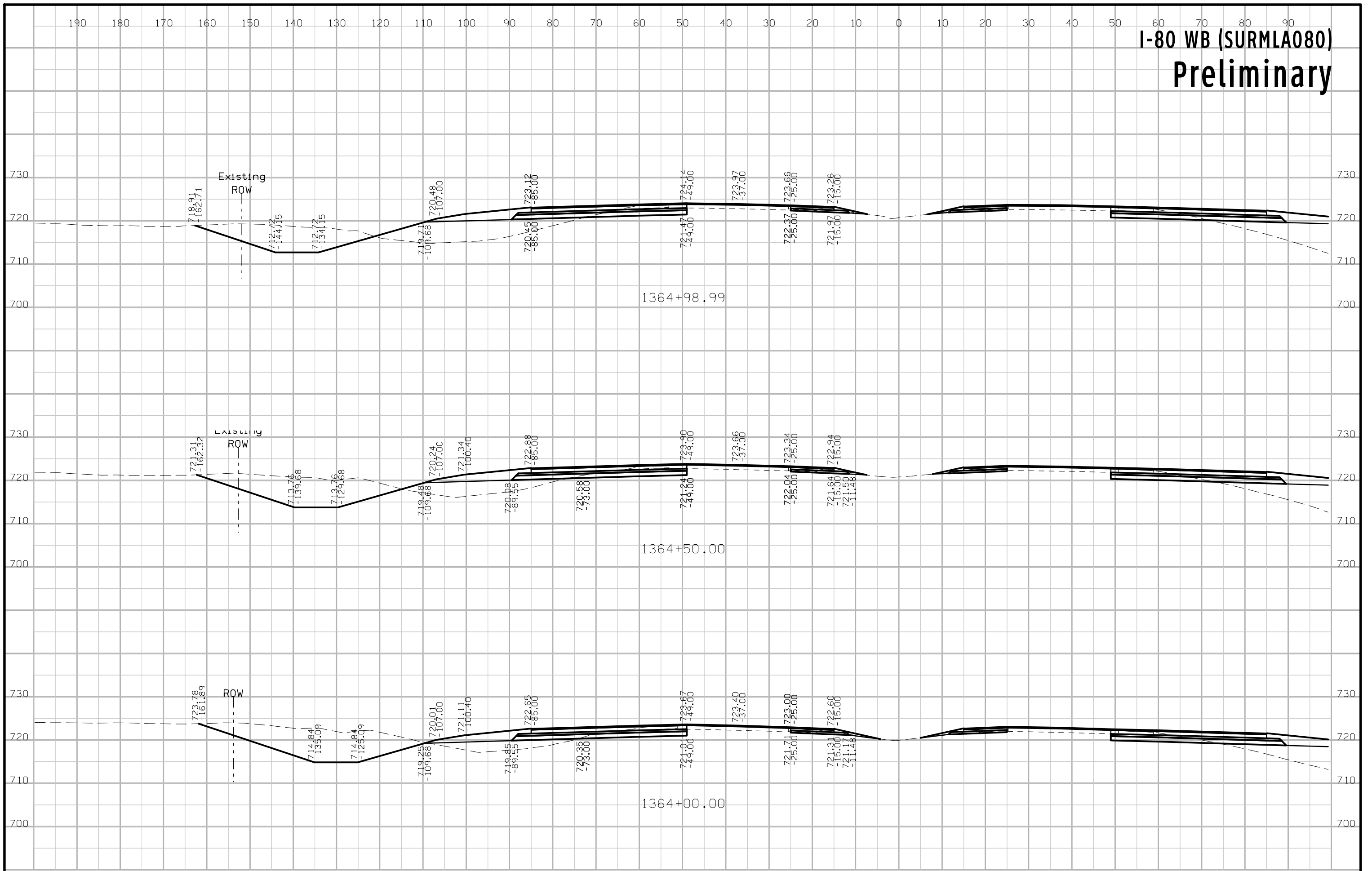
I-80 WB (SURMLA080) Preliminary



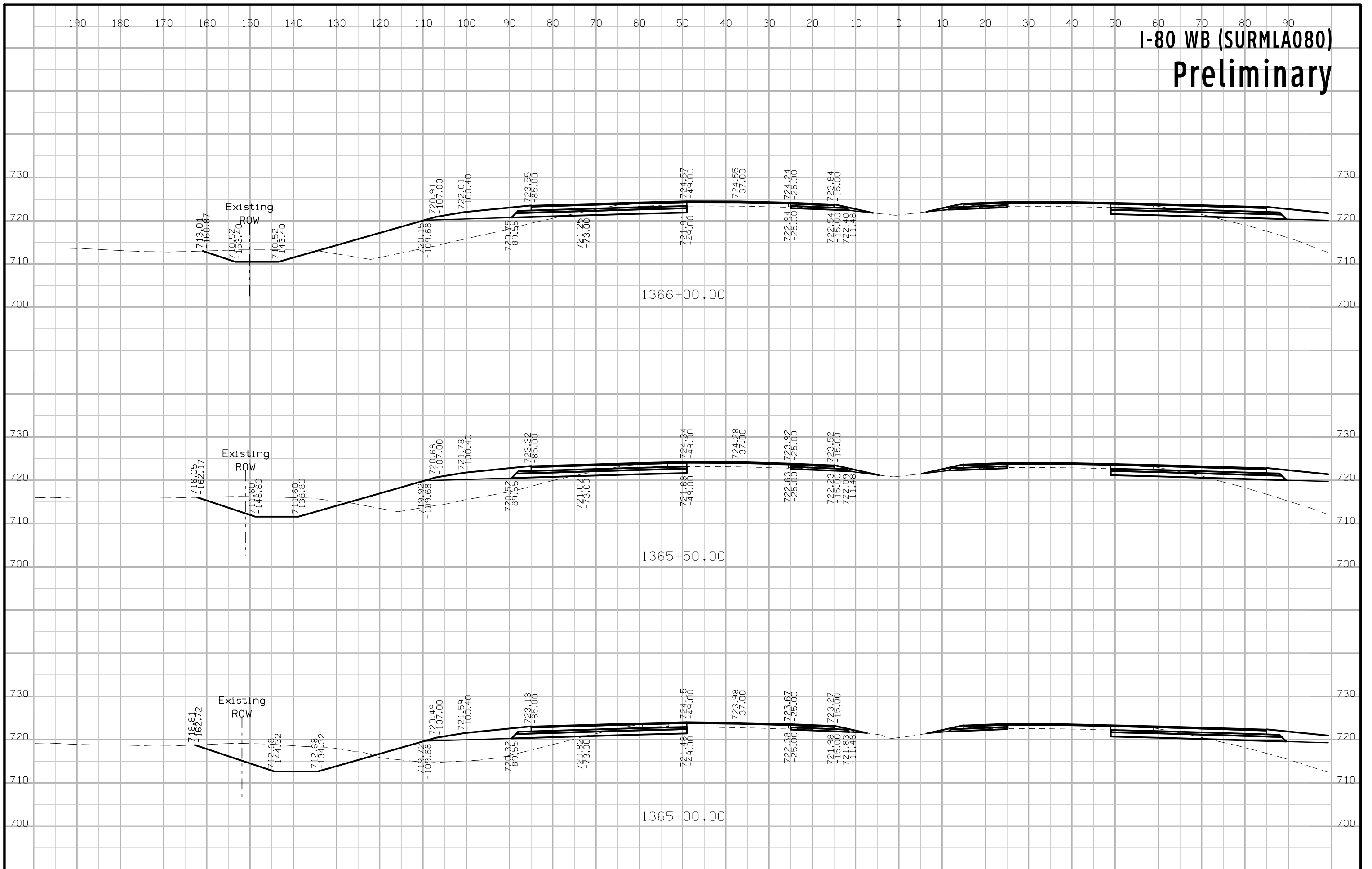
I-80 WB (SURMLA080) Preliminary



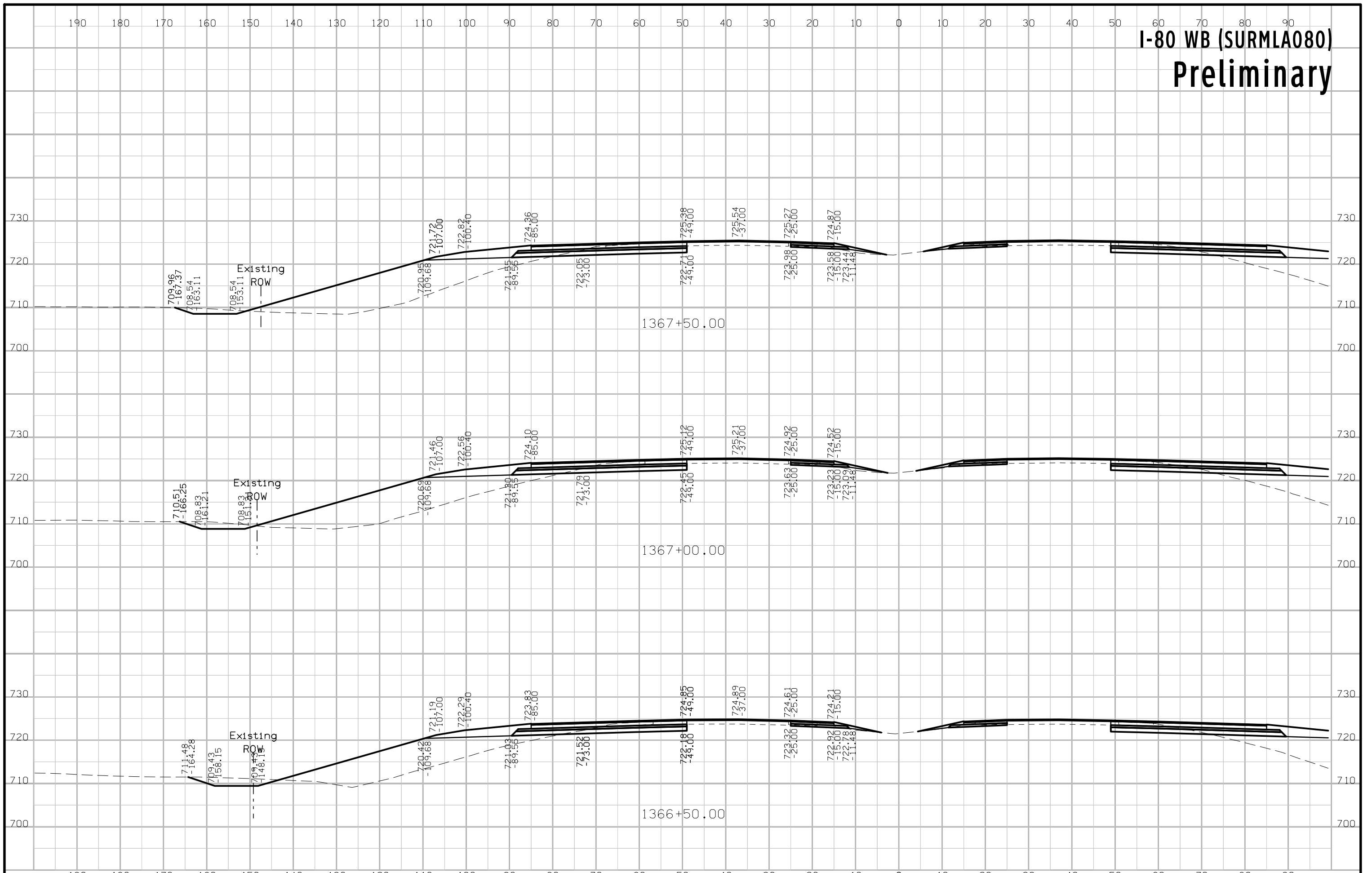
I-80 WB (SURMLA080) Preliminary



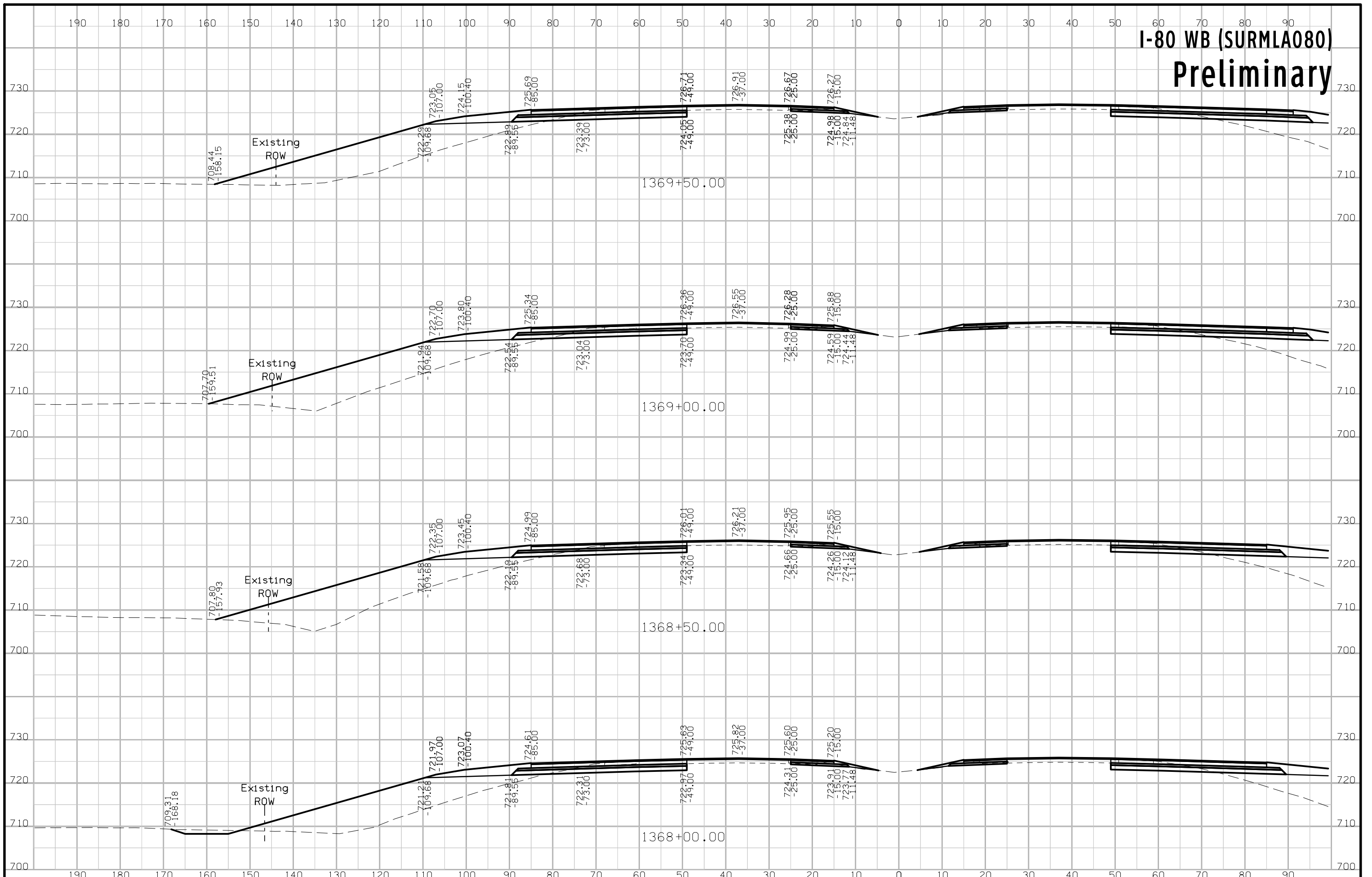
I-80 WB (SURMLA080) Preliminary



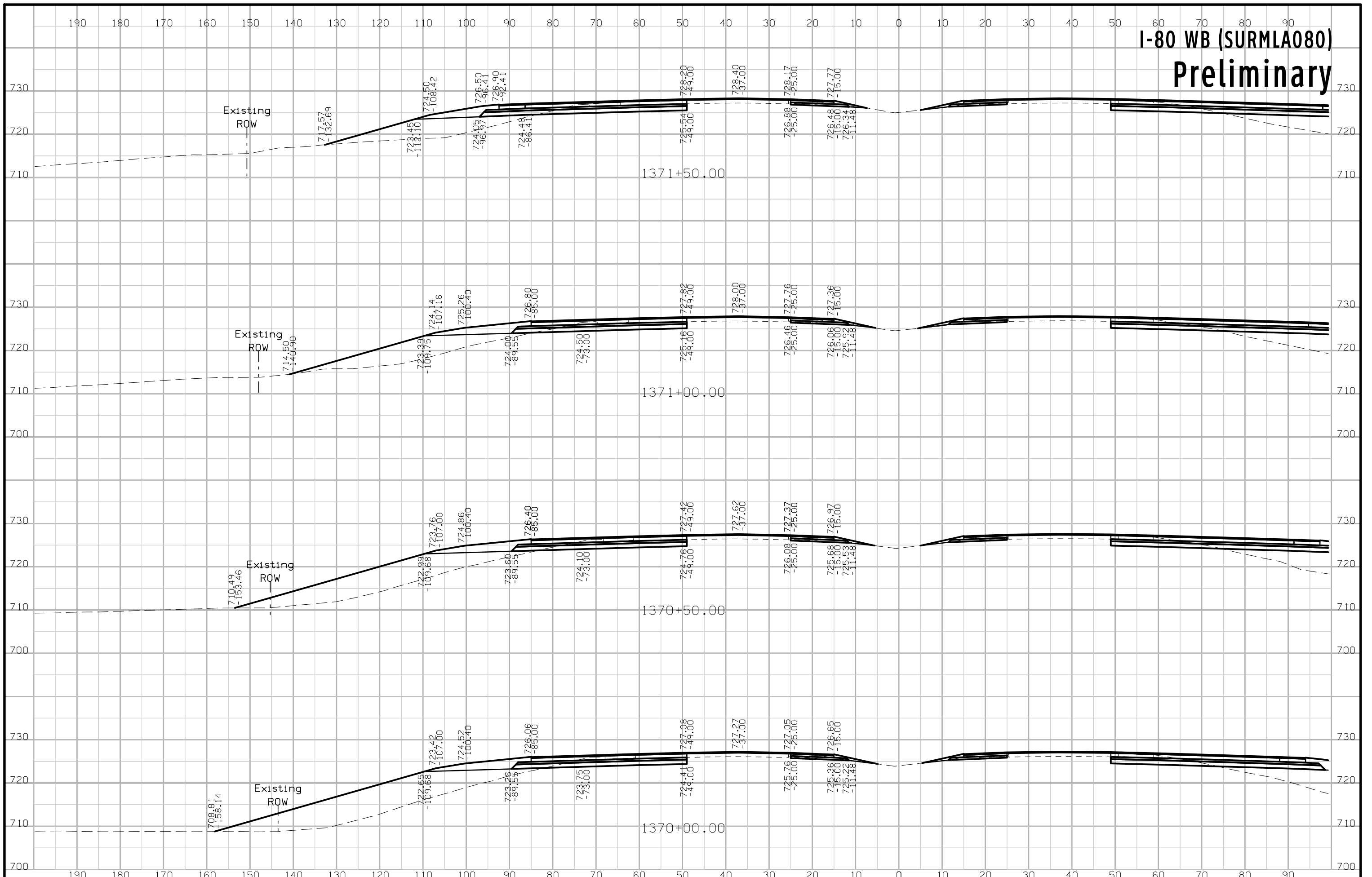
I-80 WB (SURMLA080) Preliminary



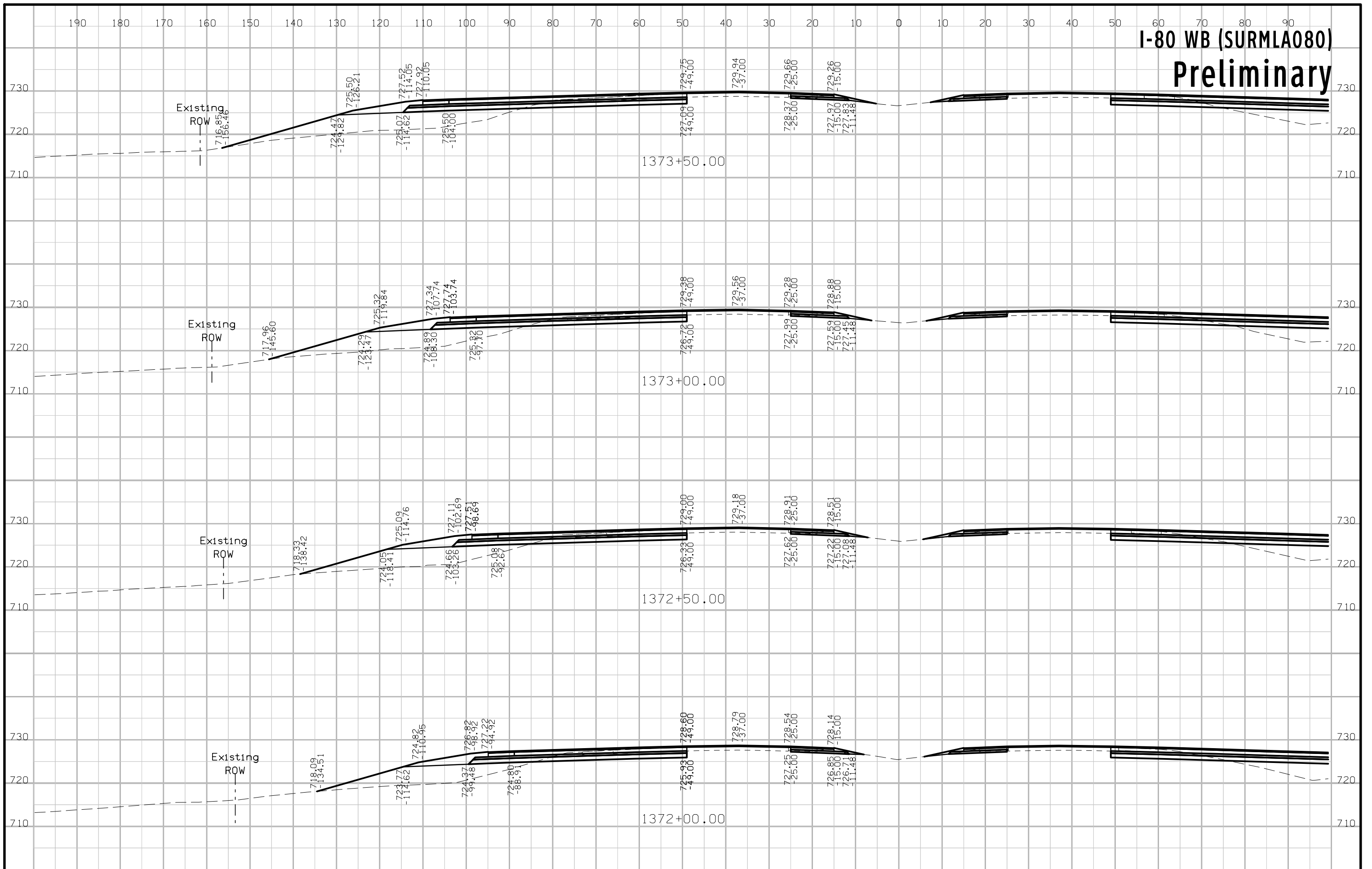
I-80 WB (SURMLA080) Preliminary



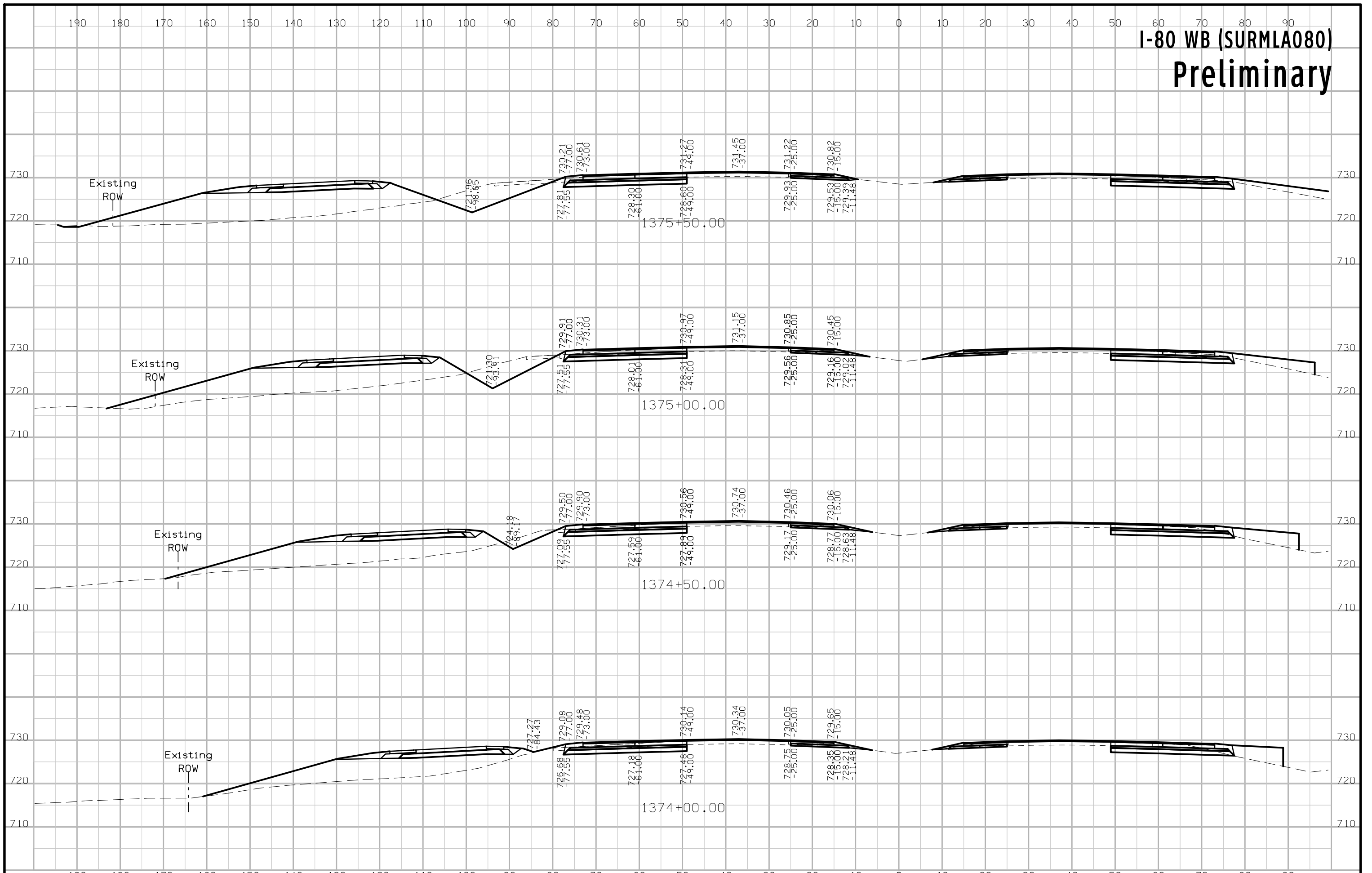
I-80 WB (SURMLA080) Preliminary



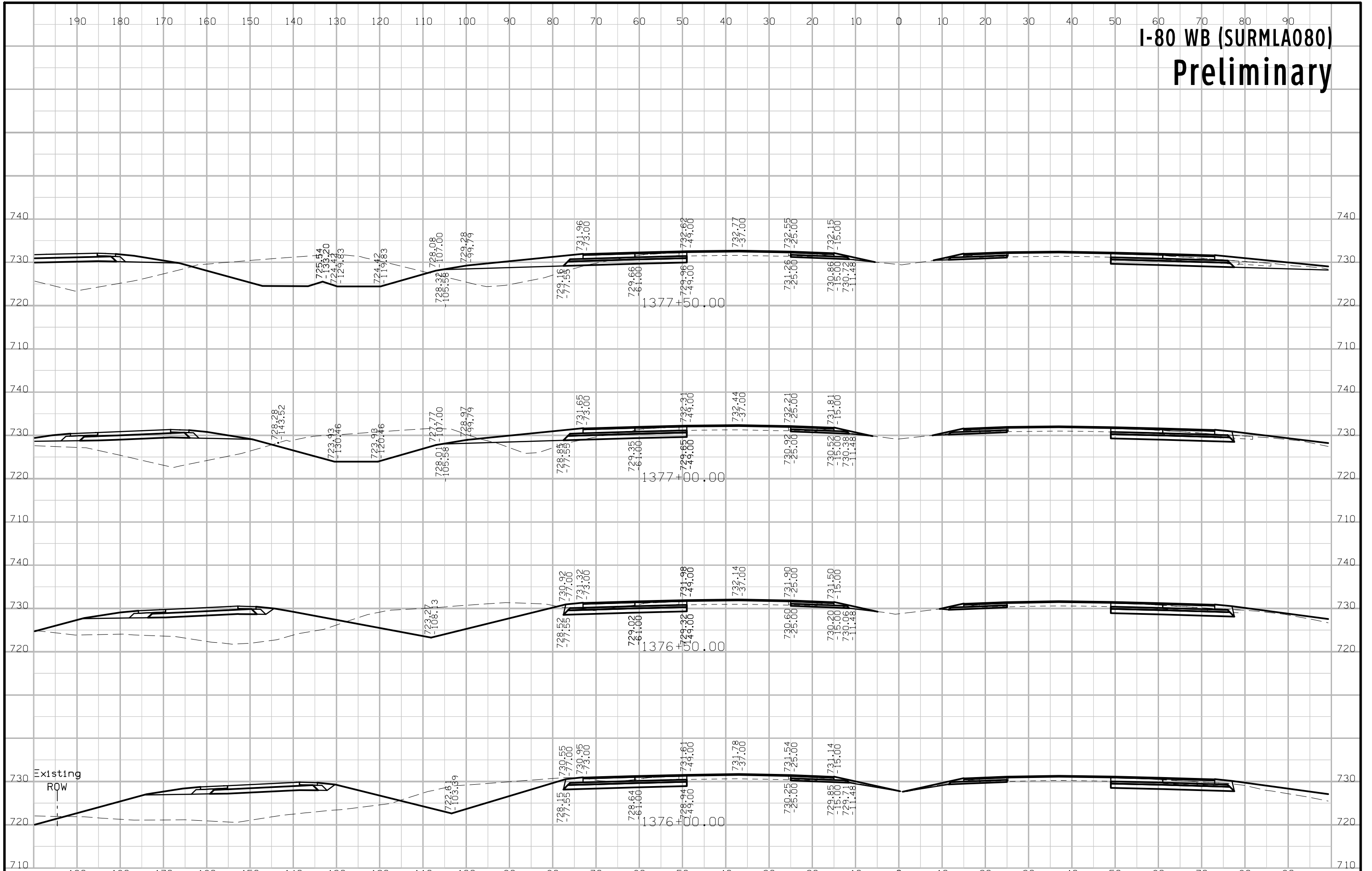
I-80 WB (SURMLA080) Preliminary



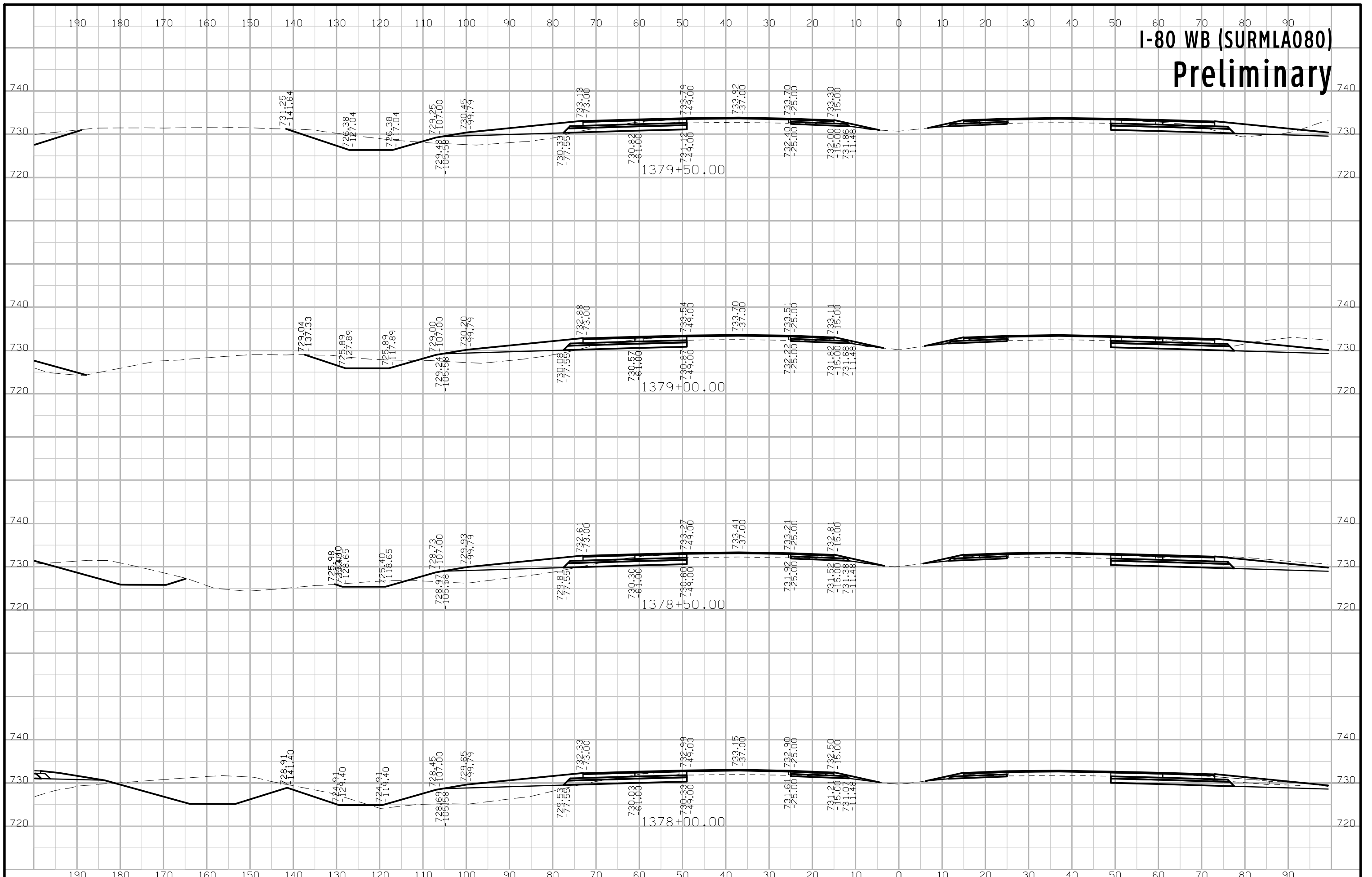
I-80 WB (SURMLA080) Preliminary



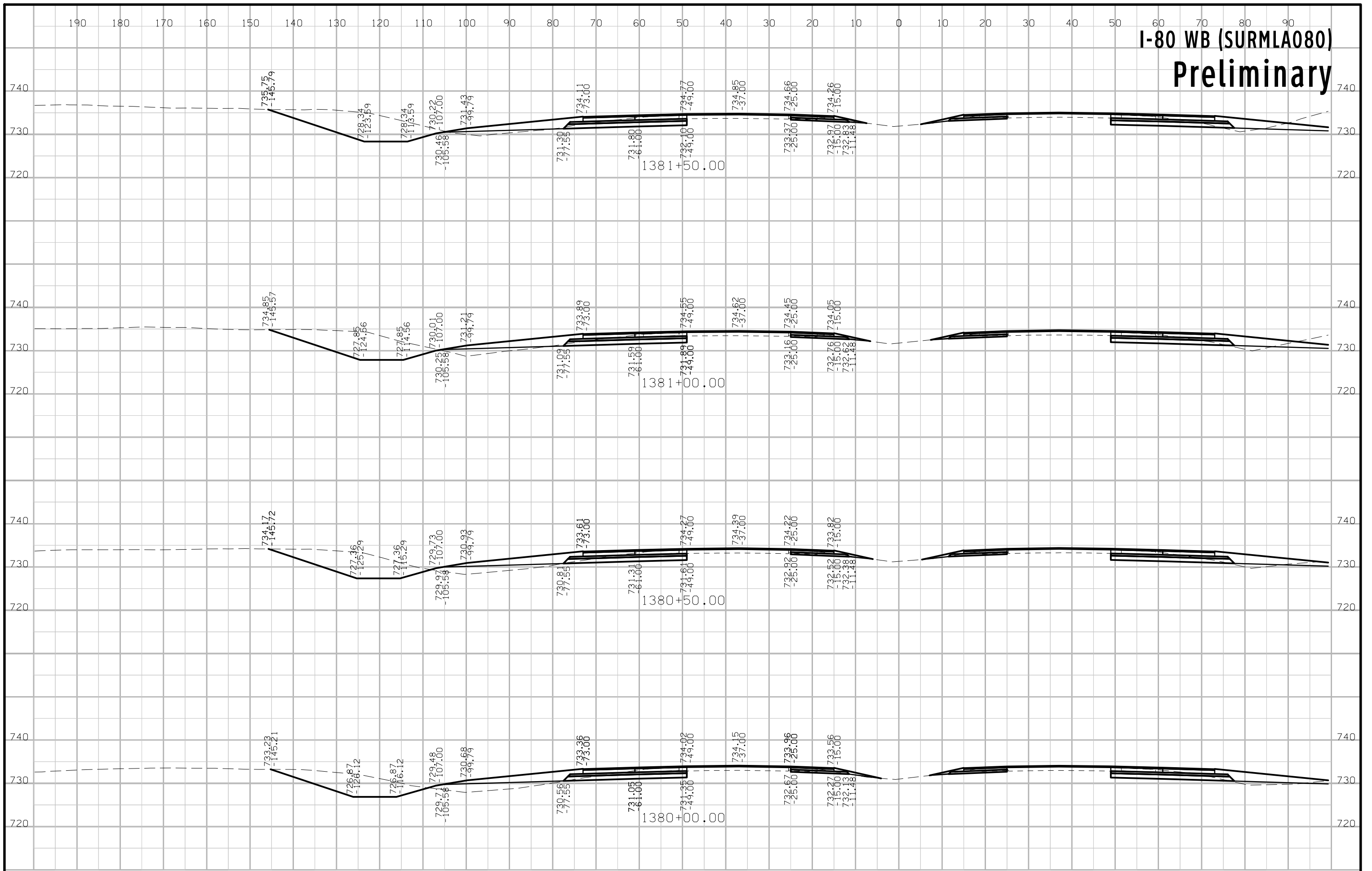
I-80 WB (SURMLA080) Preliminary



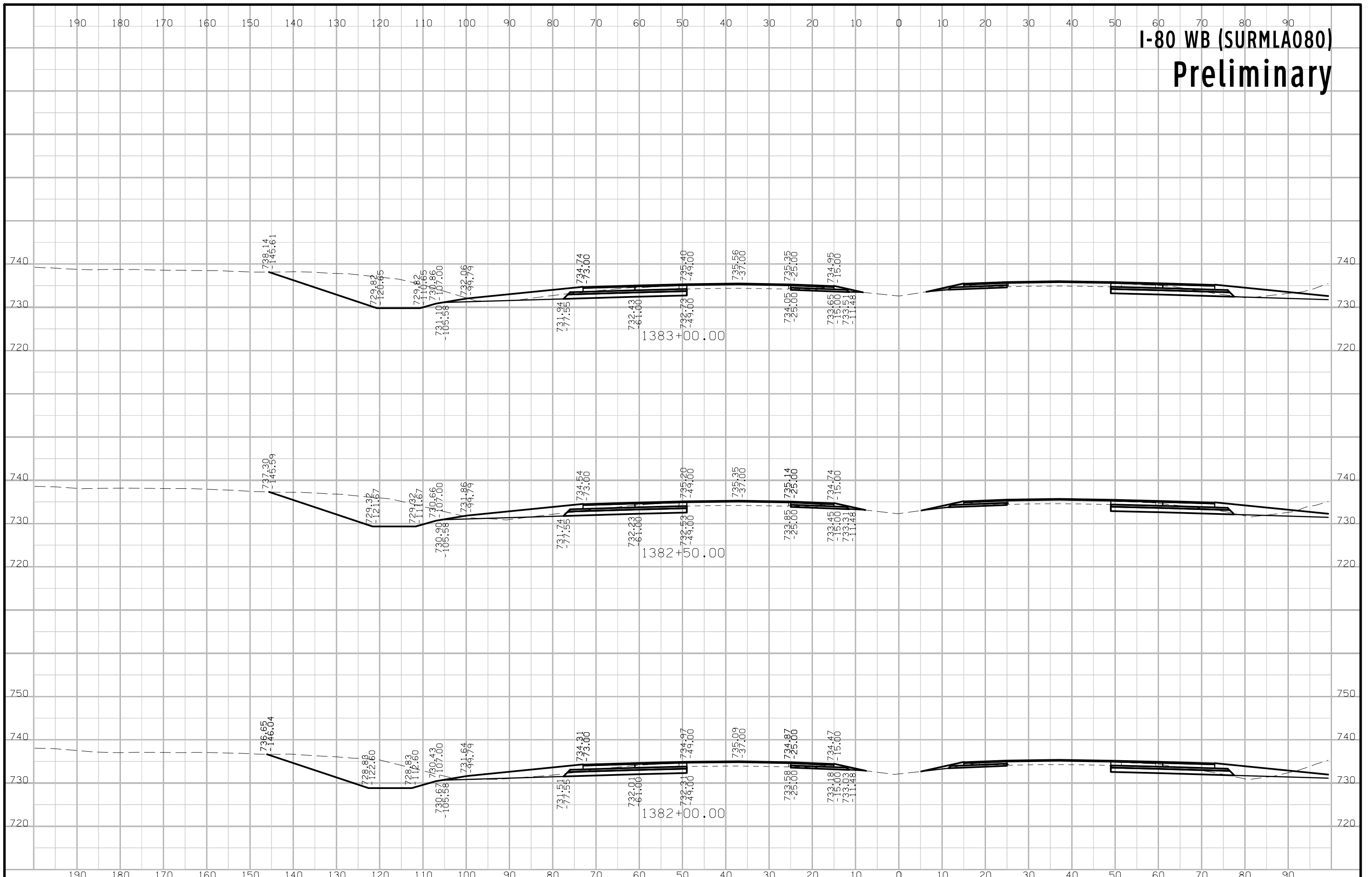
I-80 WB (SURMLA080) Preliminary



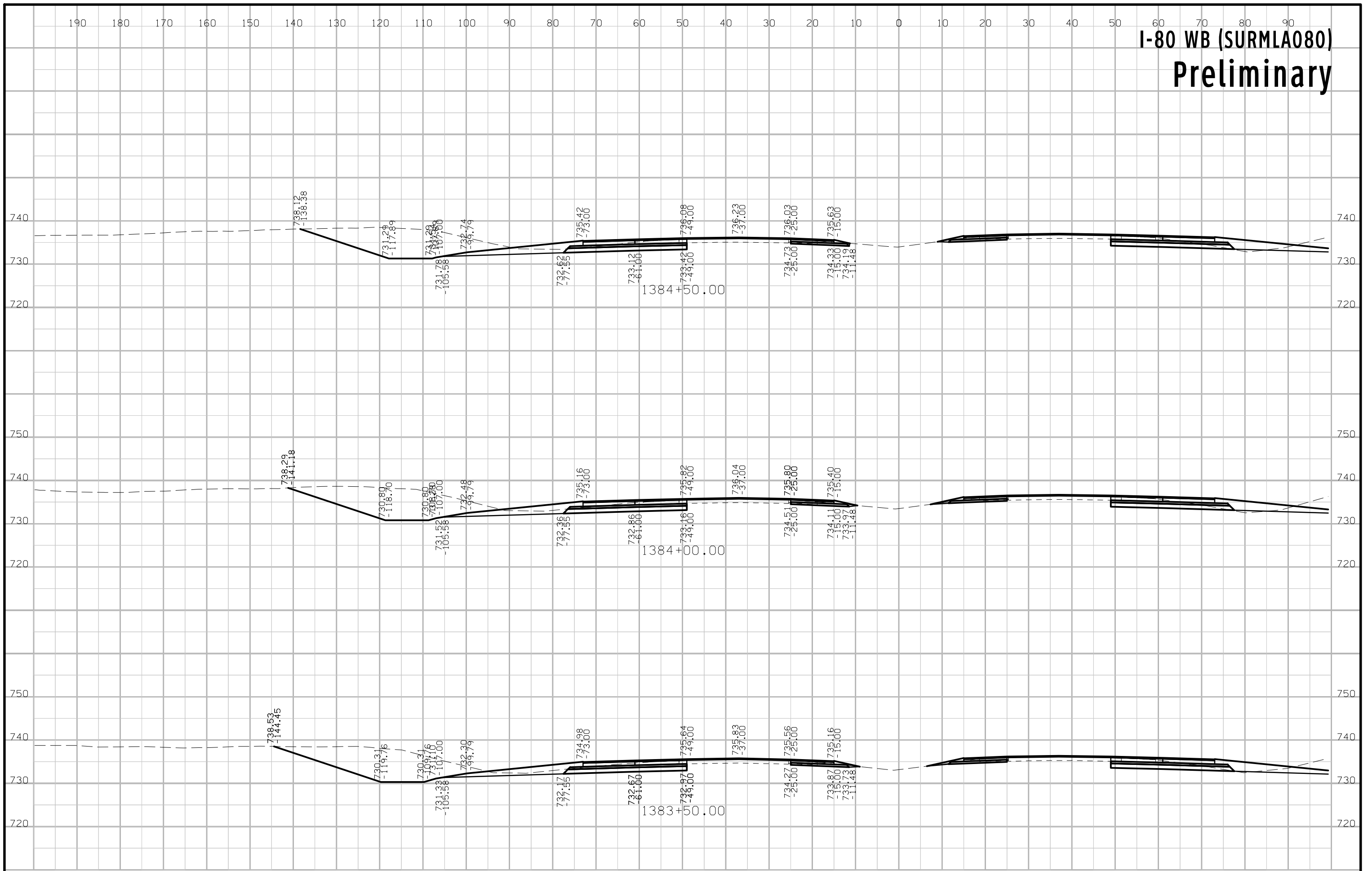
I-80 WB (SURMLA080) Preliminary



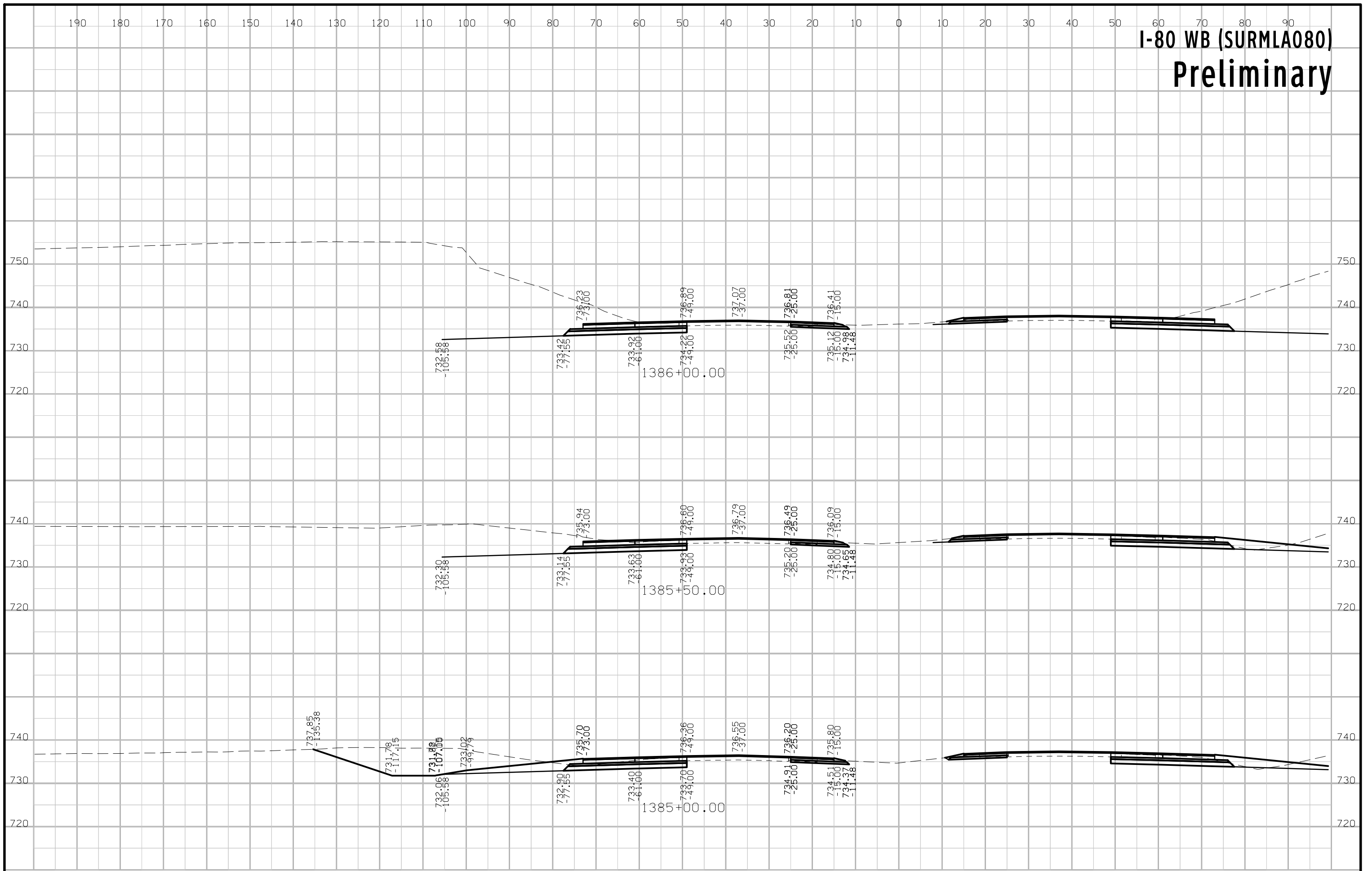
I-80 WB (SURMLA080) Preliminary



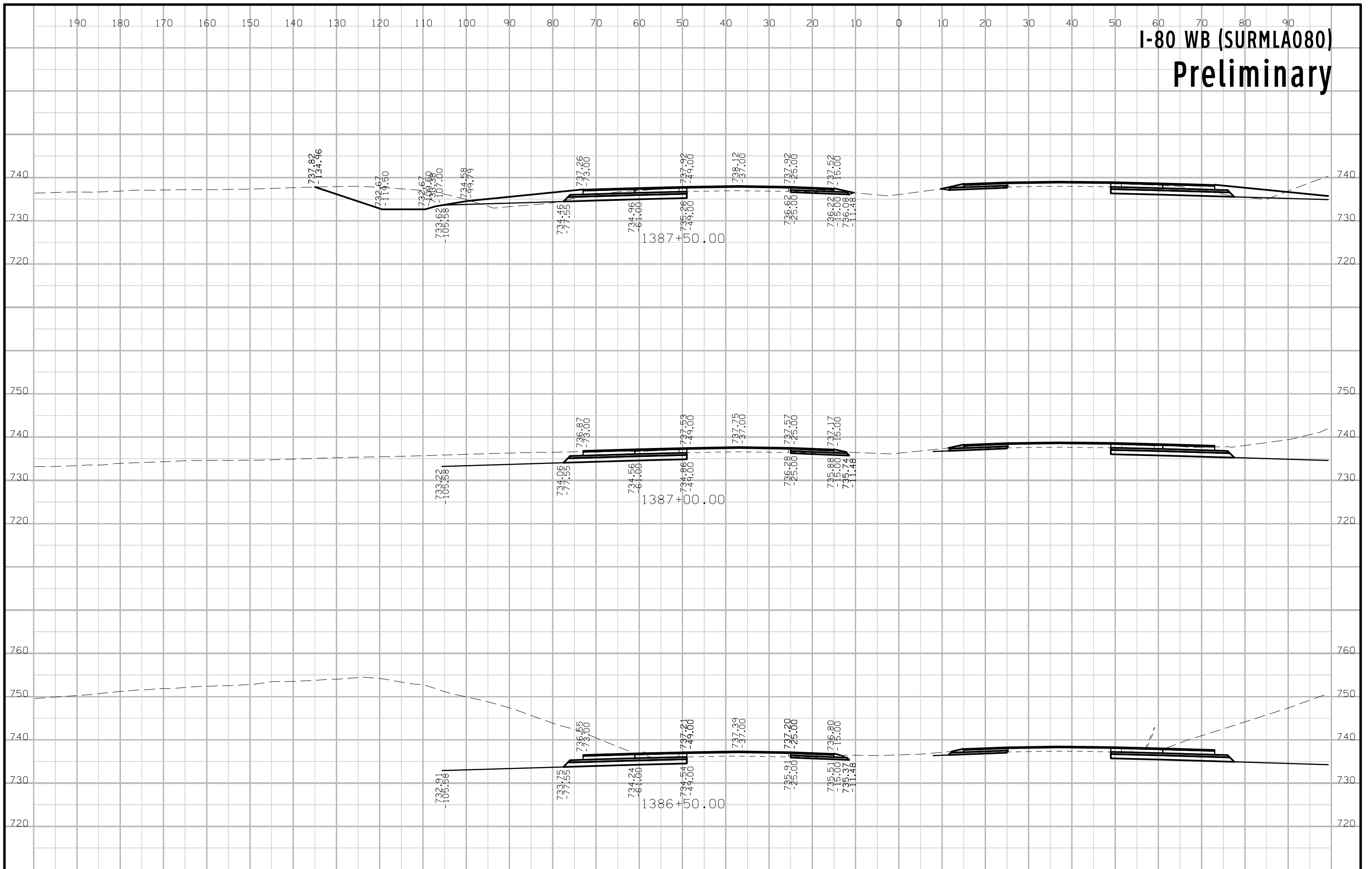
I-80 WB (SURMLA080) Preliminary



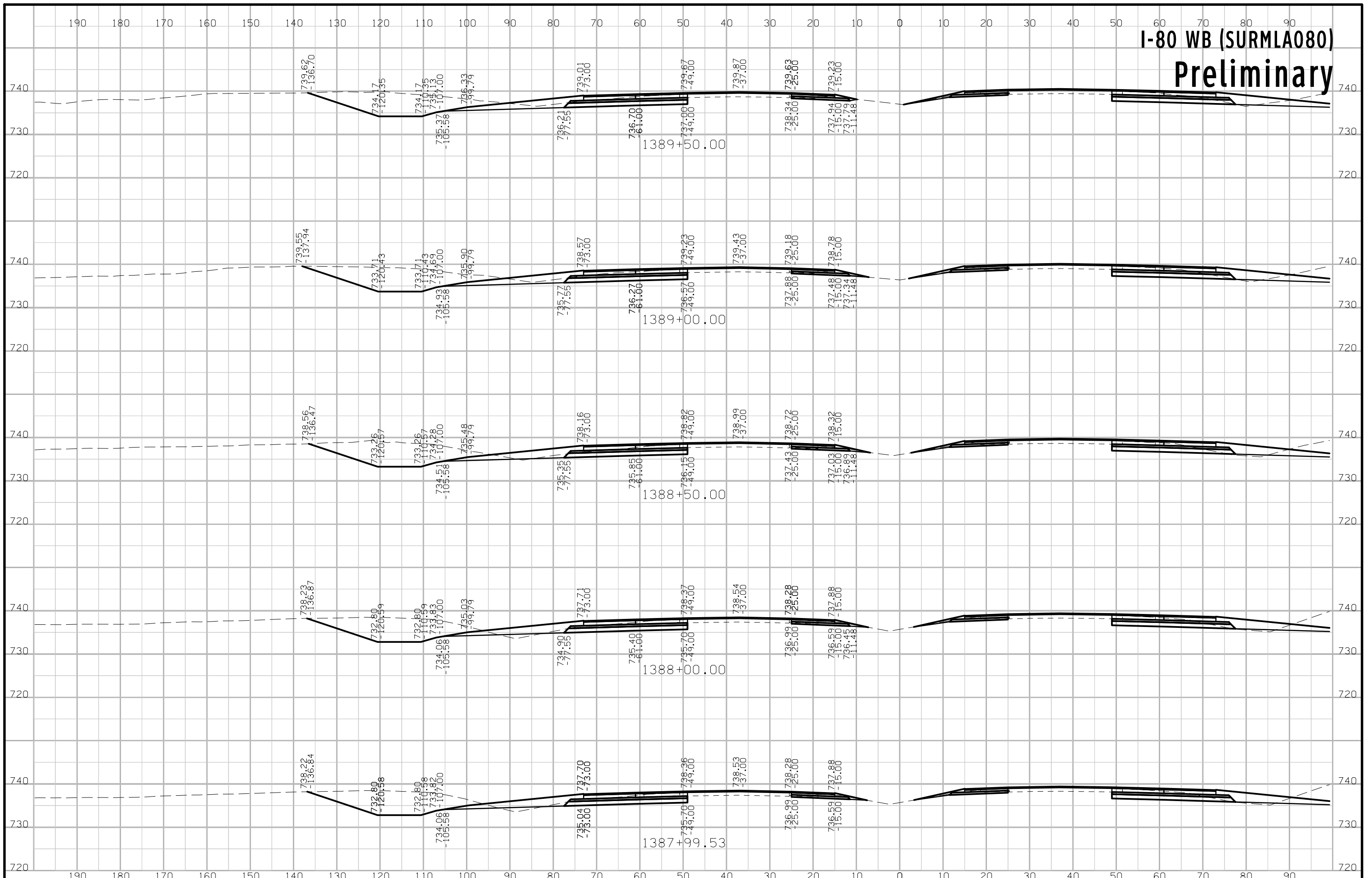
I-80 WB (SURMLA080) Preliminary



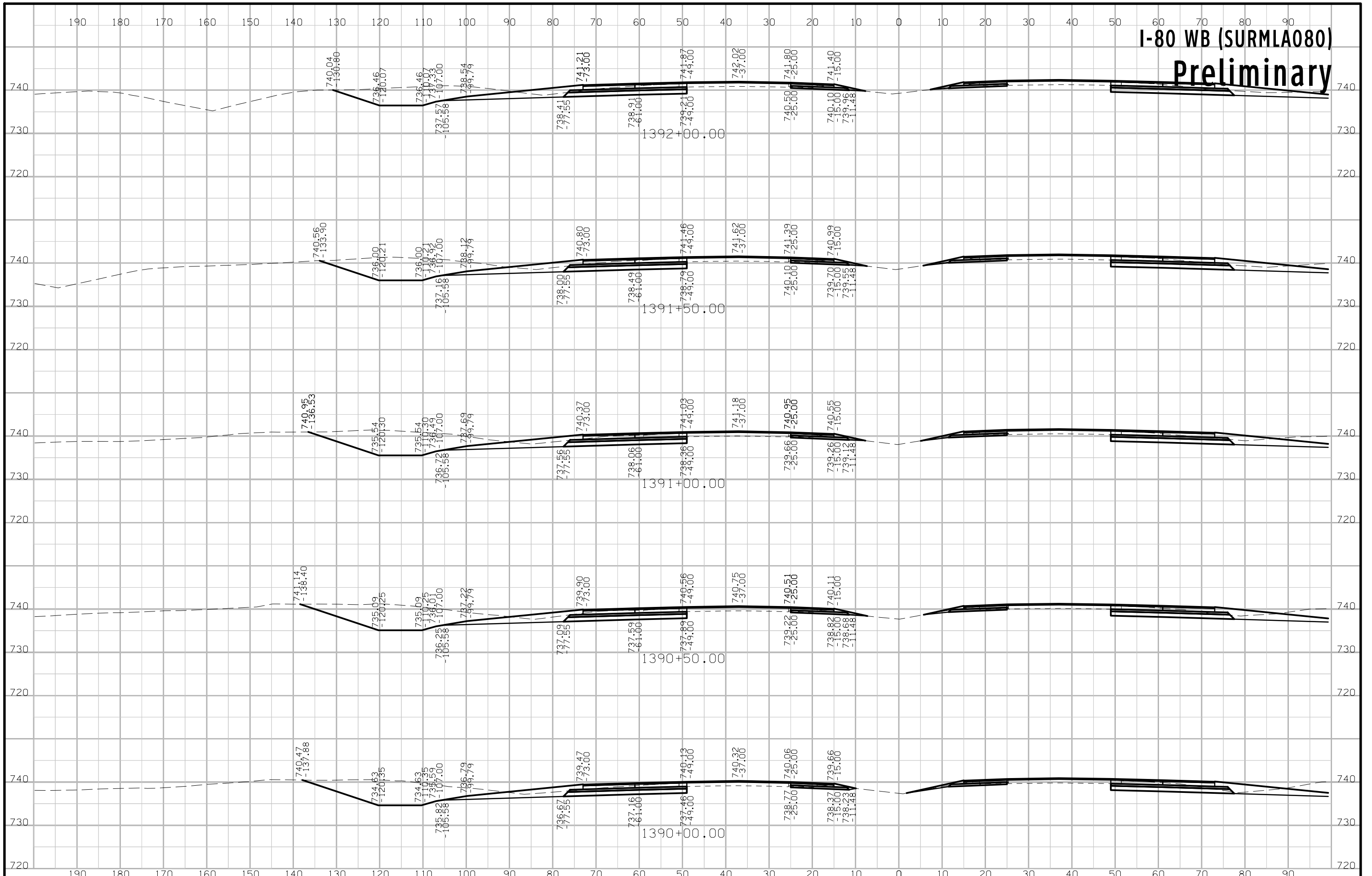
I-80 WB (SURMLA080) Preliminary



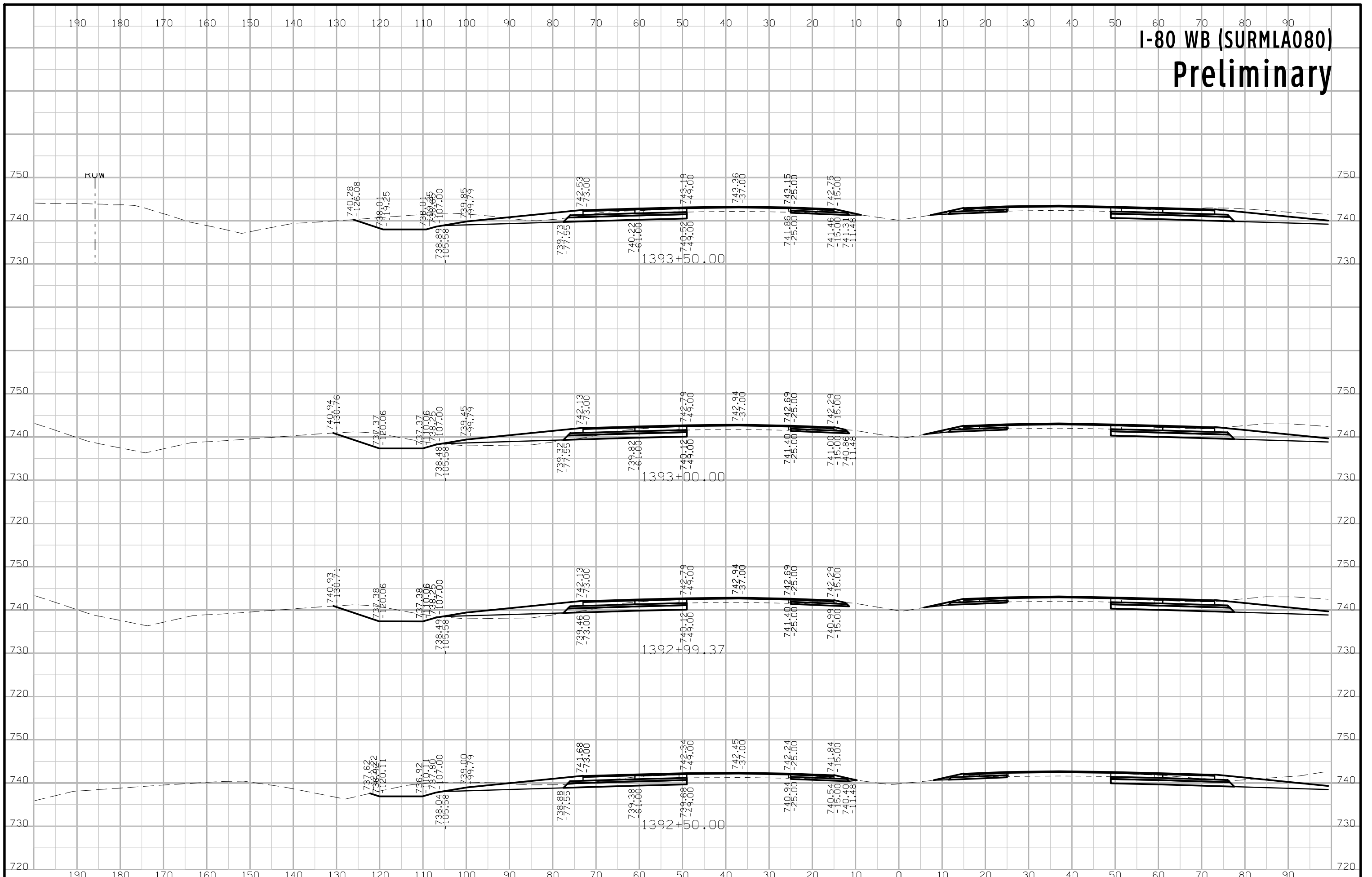
I-80 WB (SURMLA080) Preliminary



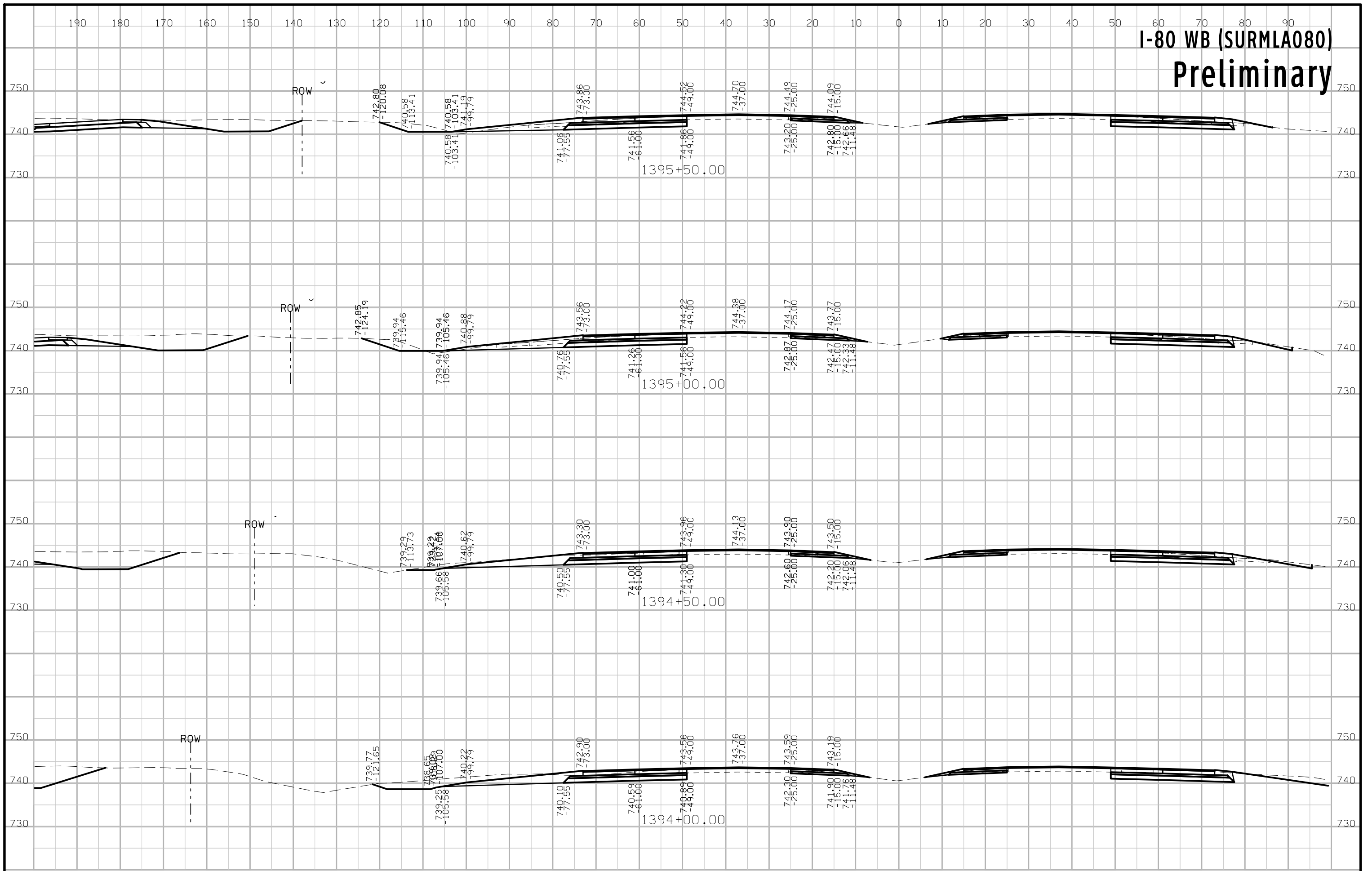
I-80 WB (SURMLA080) Preliminary



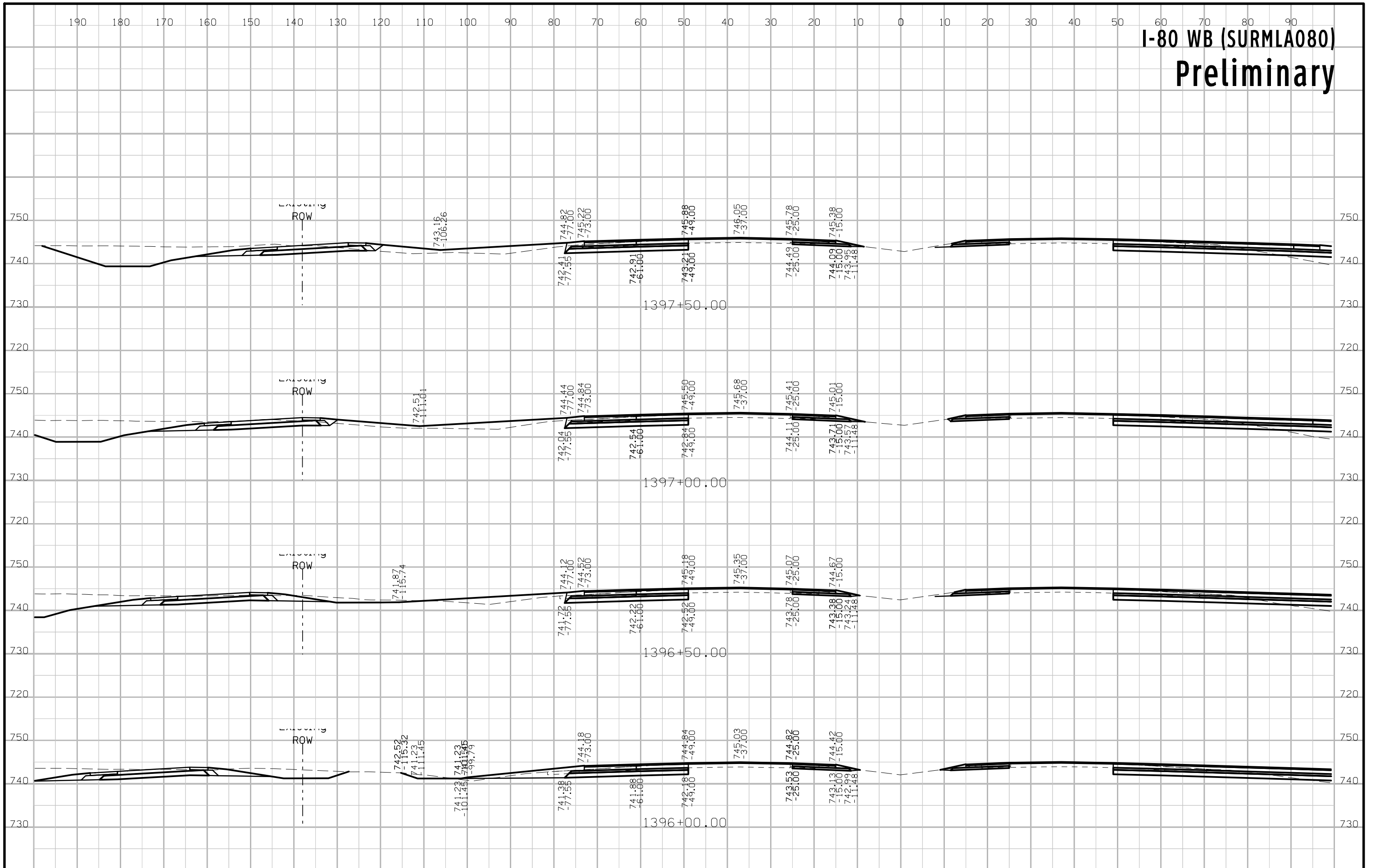
I-80 WB (SURMLA080) Preliminary



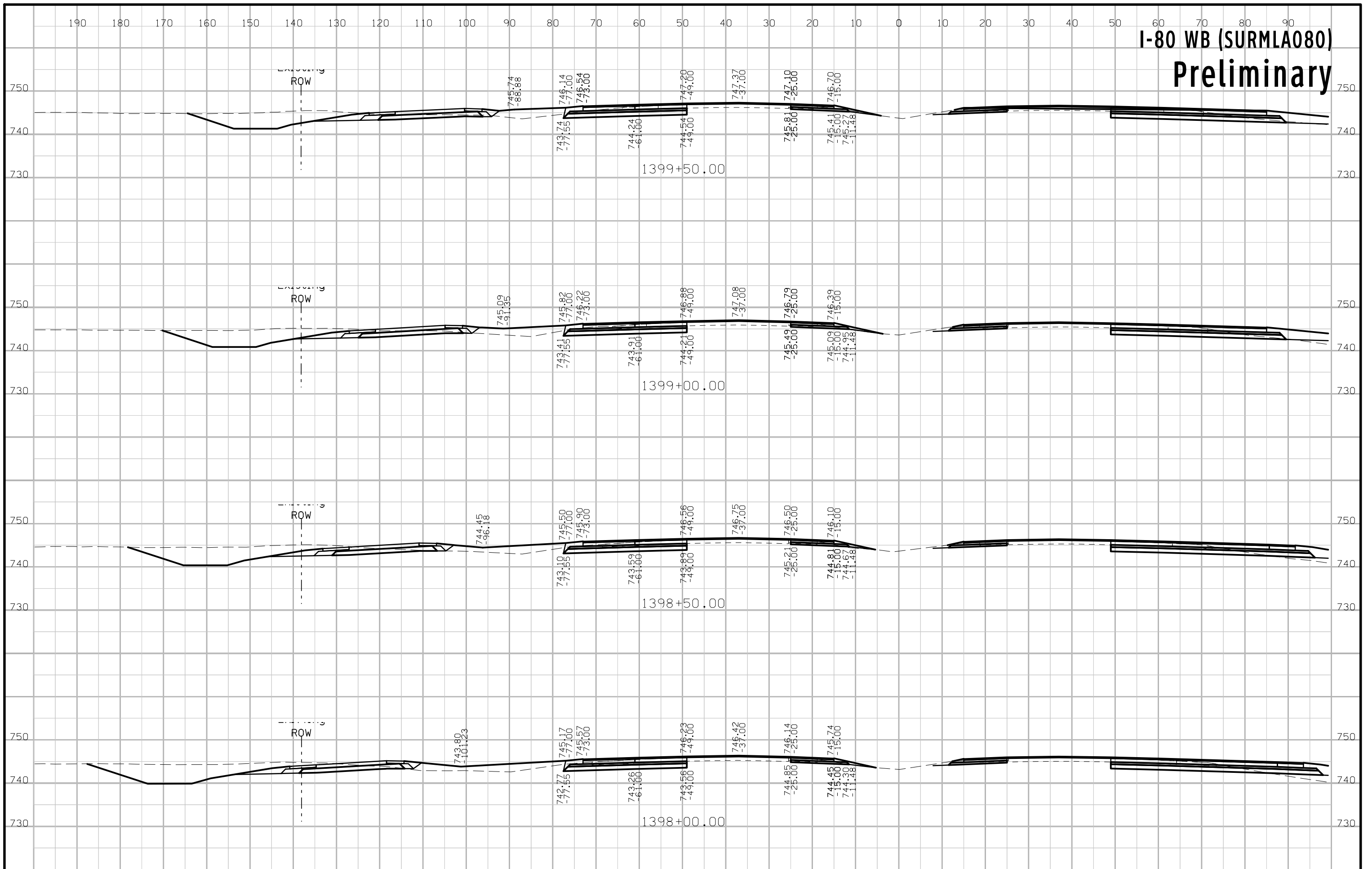
I-80 WB (SURMLA080) Preliminary



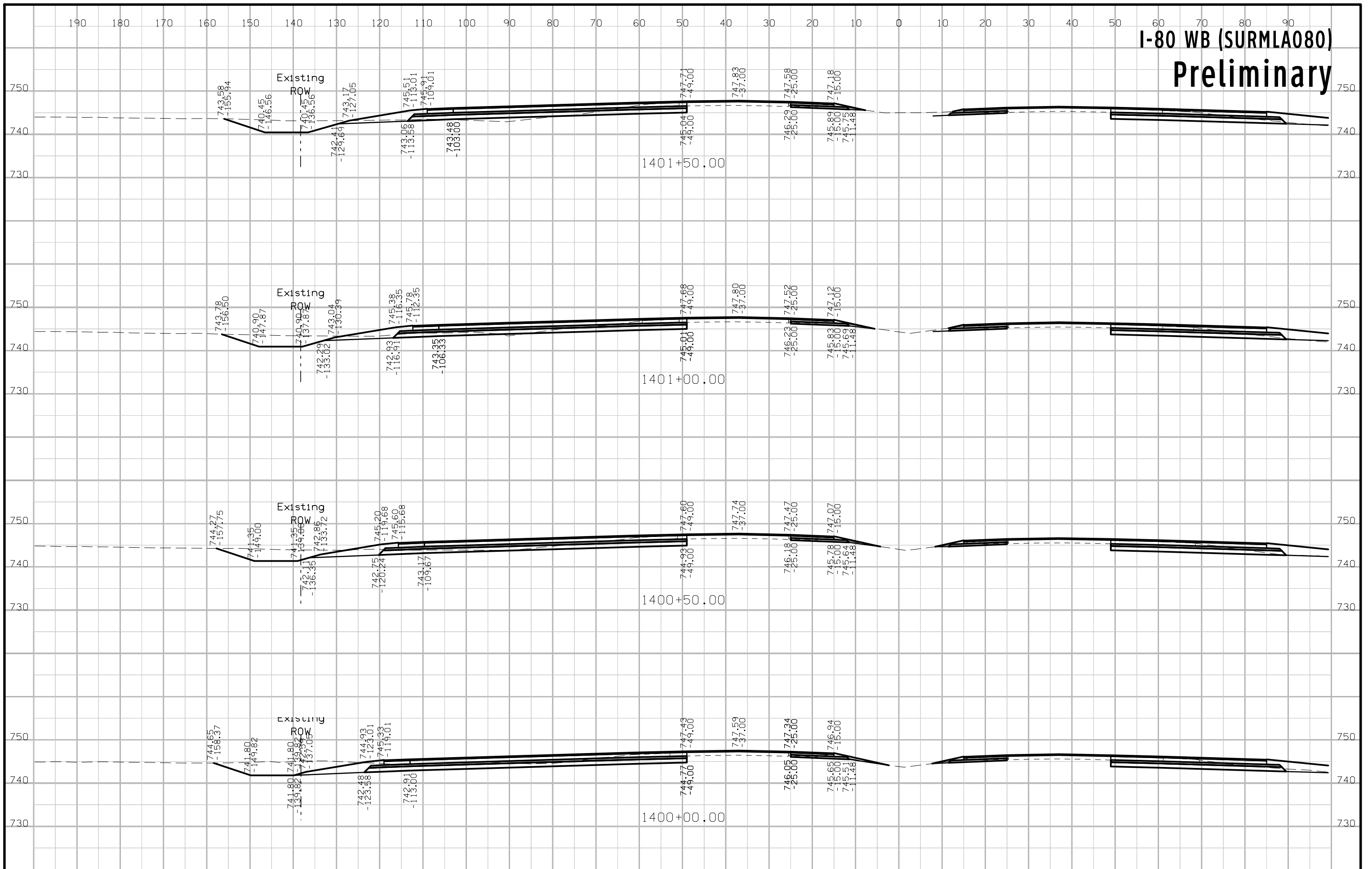
I-80 WB (SURMLA080) Preliminary



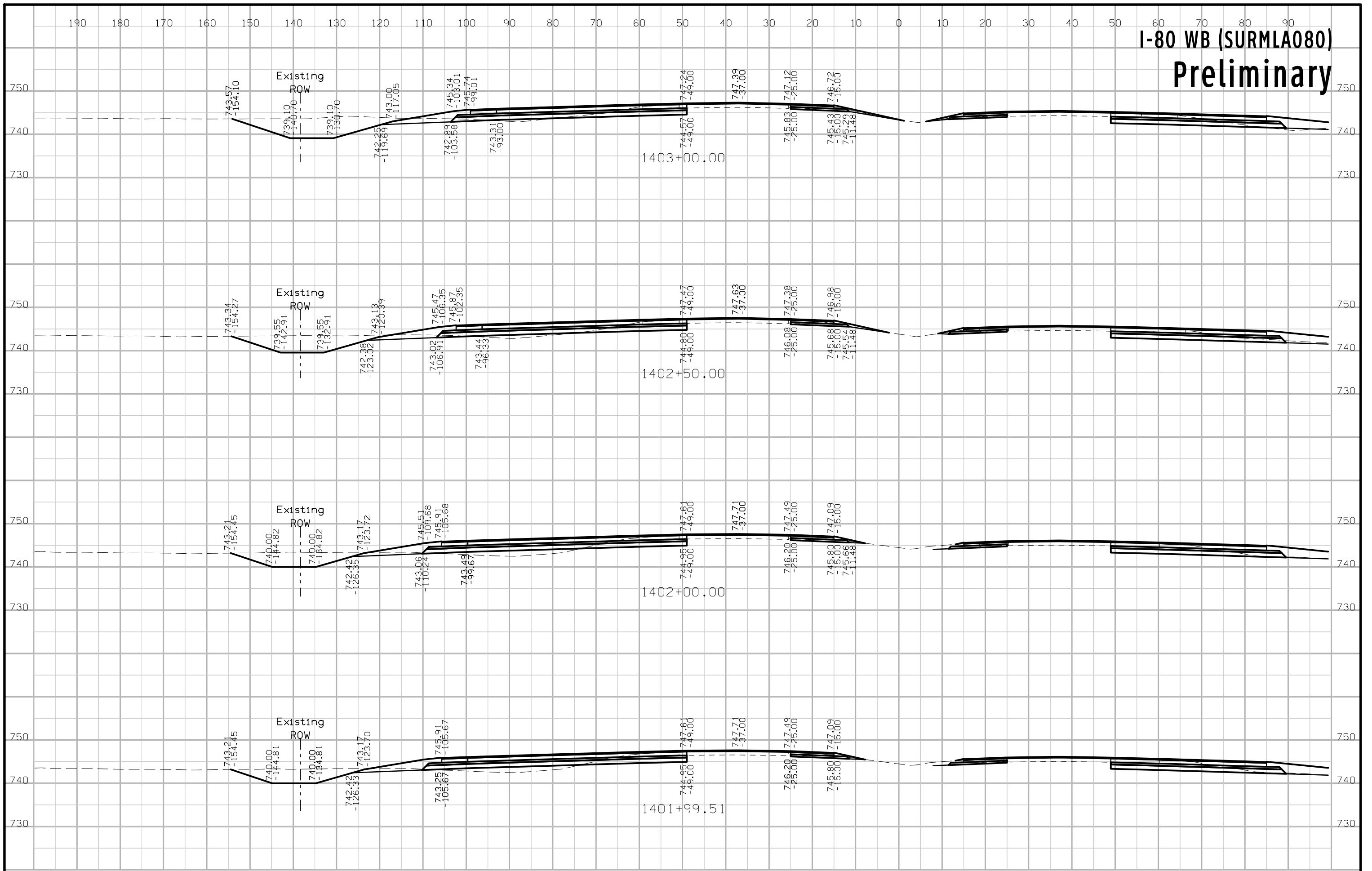
I-80 WB (SURMLA080) Preliminary



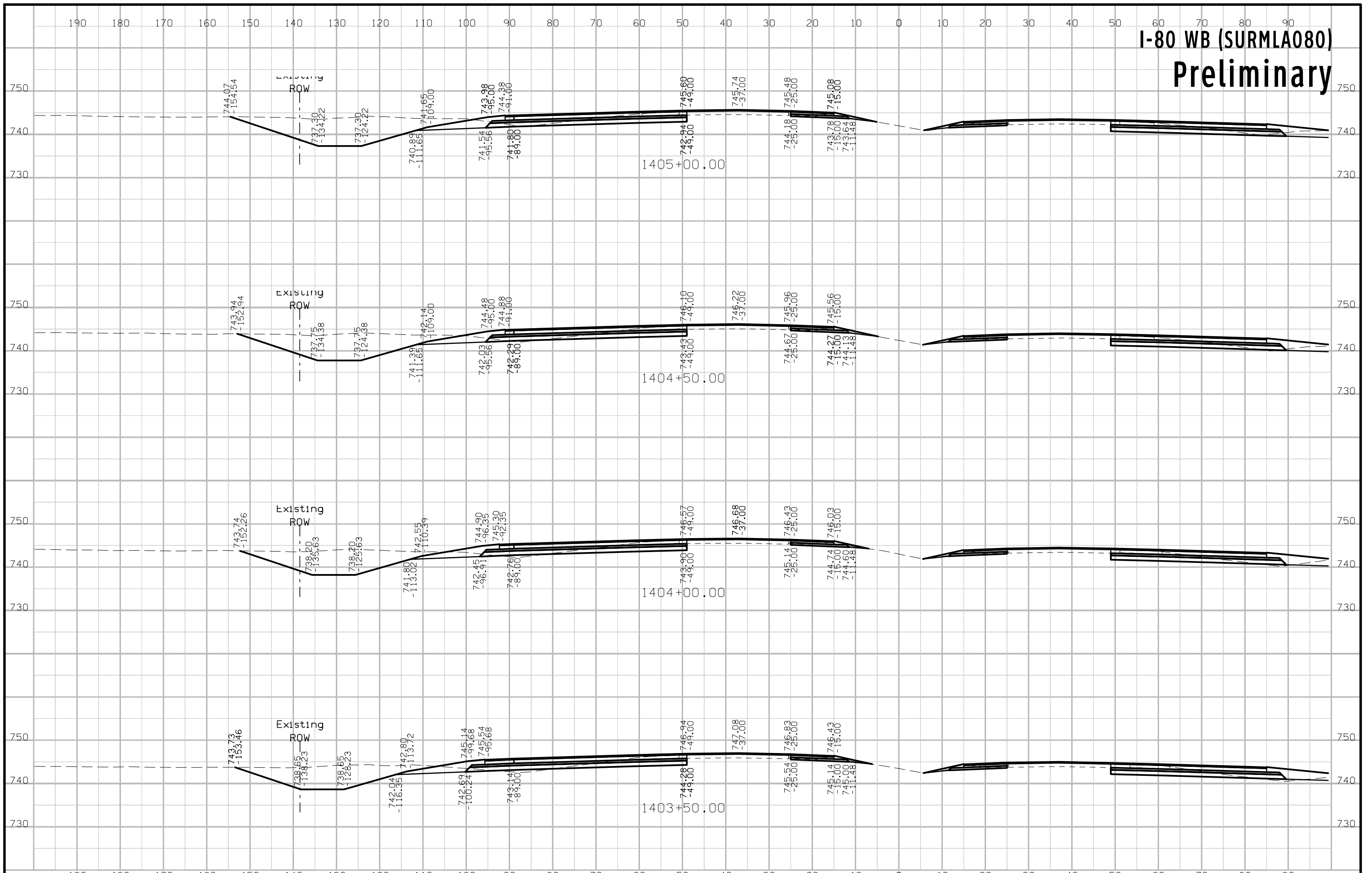
I-80 WB (SURMLA080) Preliminary



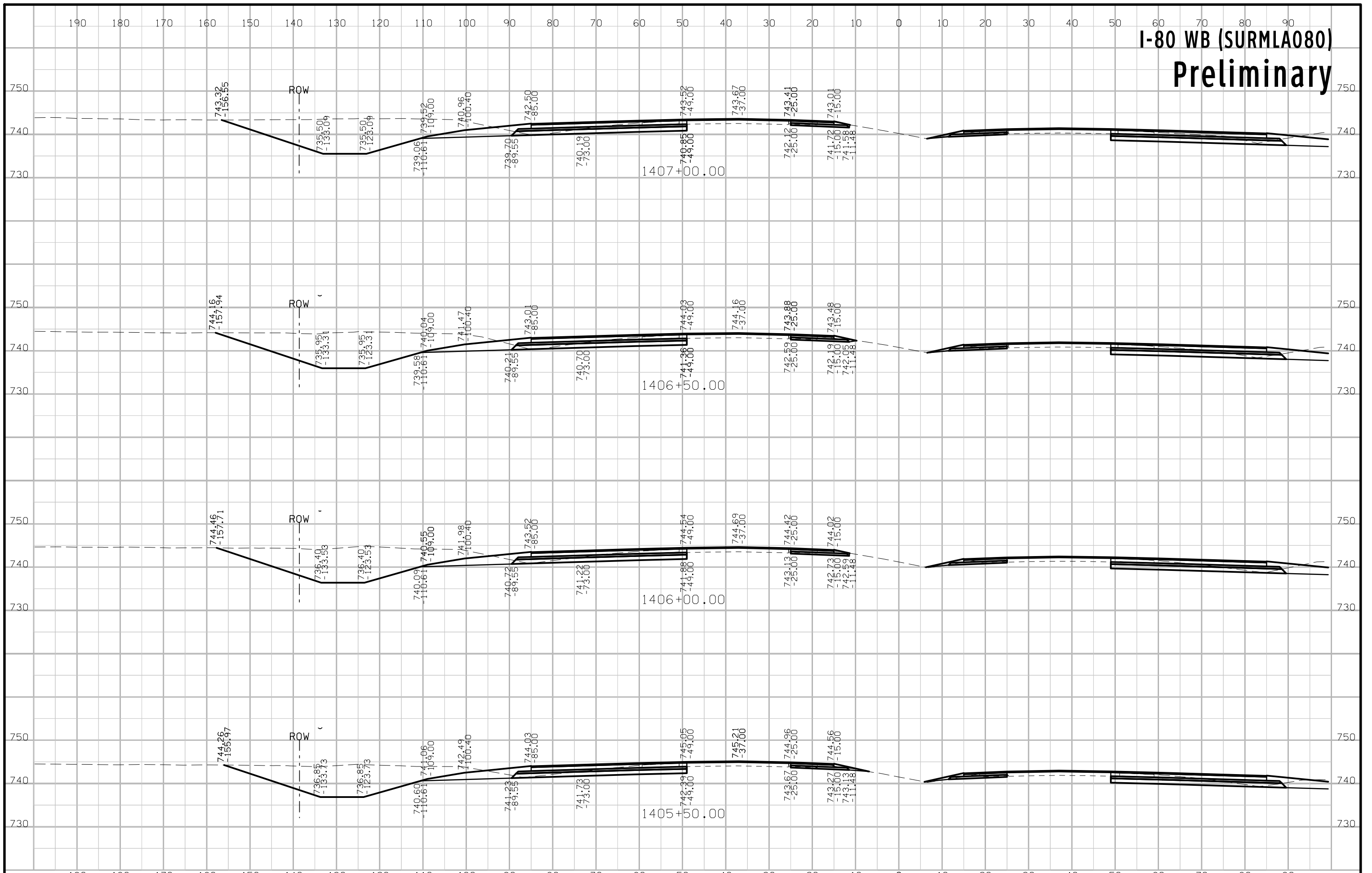
I-80 WB (SURMLA080) Preliminary



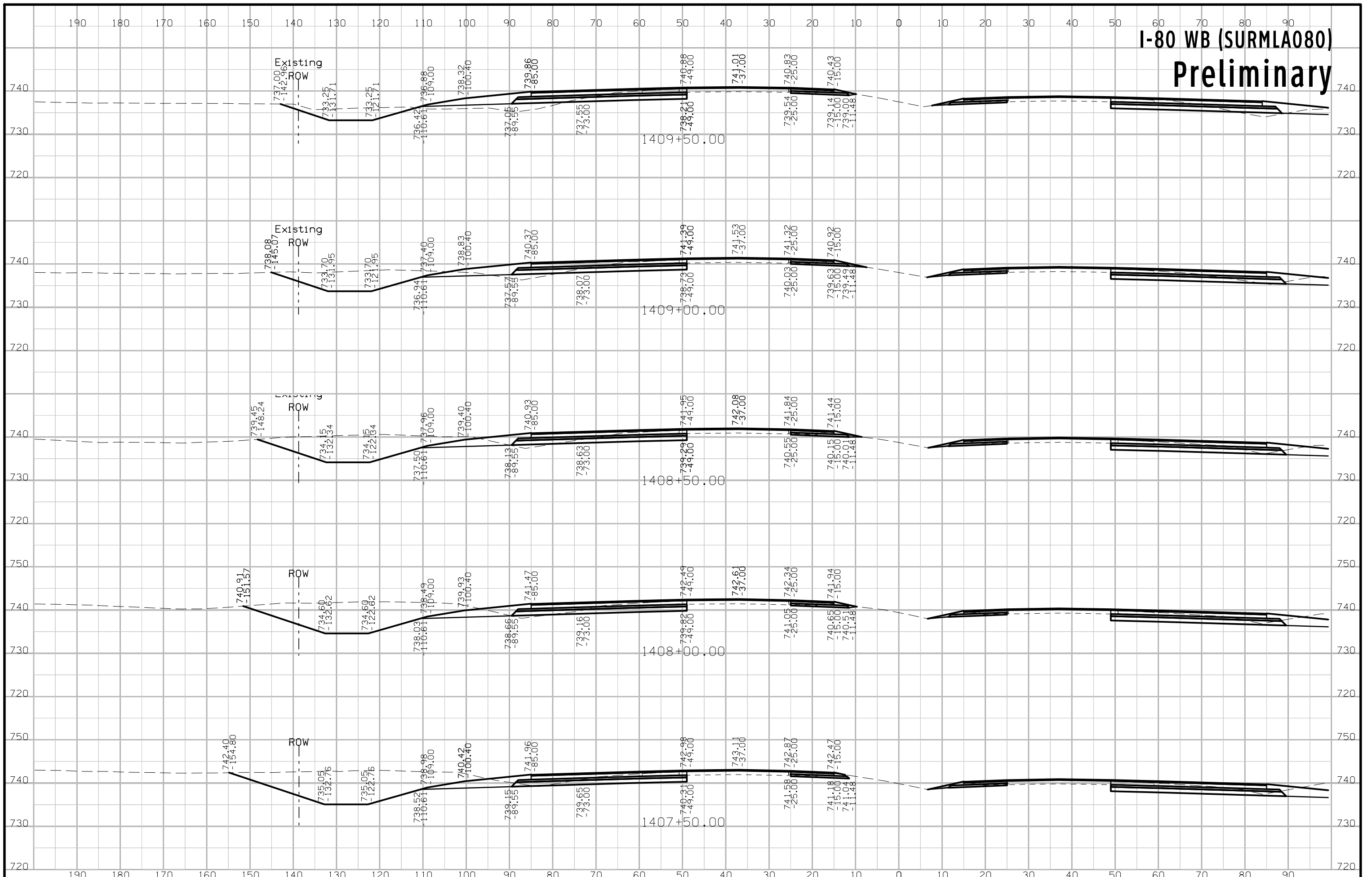
I-80 WB (SURMLA080) Preliminary



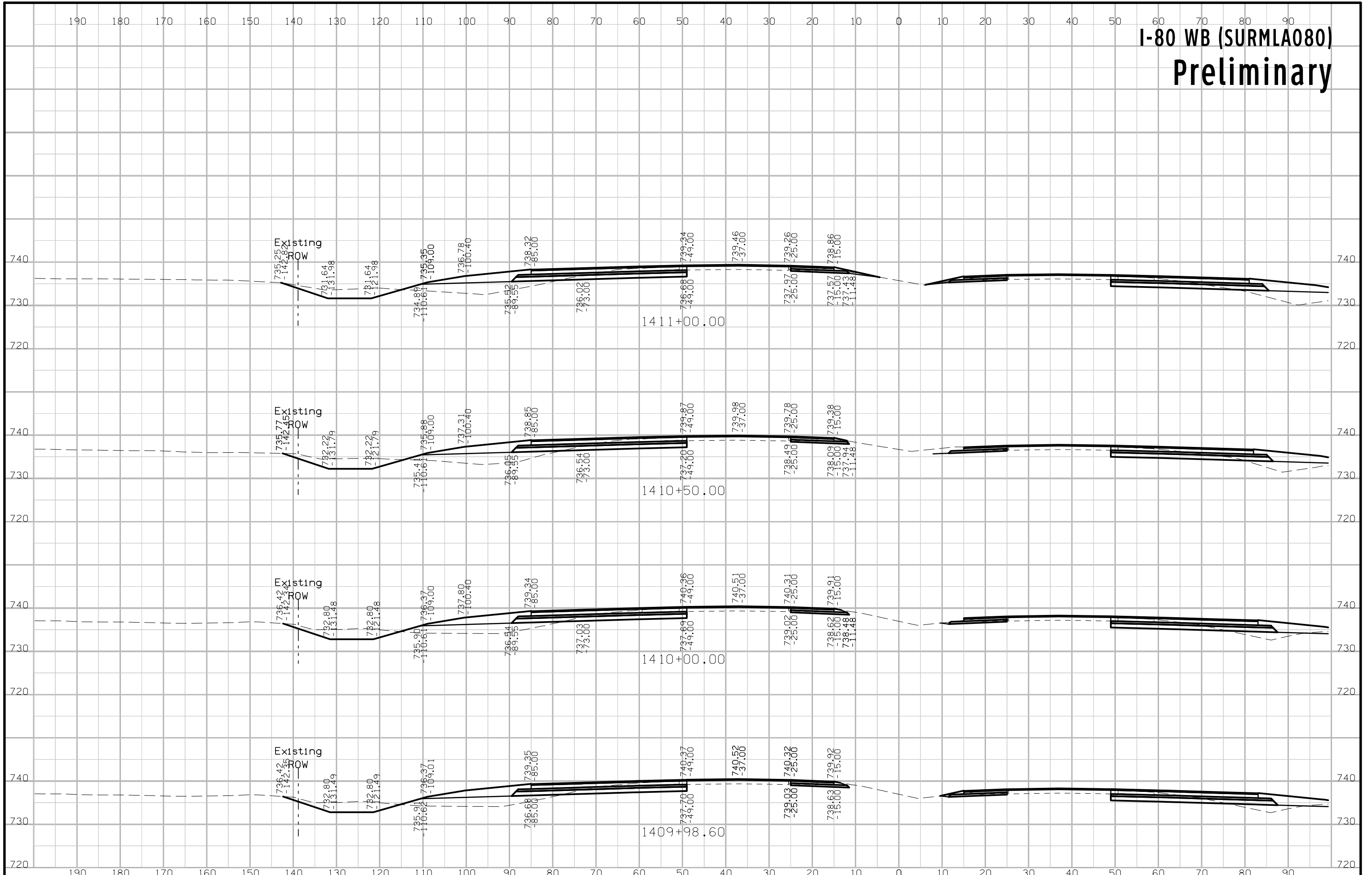
I-80 WB (SURMLA080) Preliminary



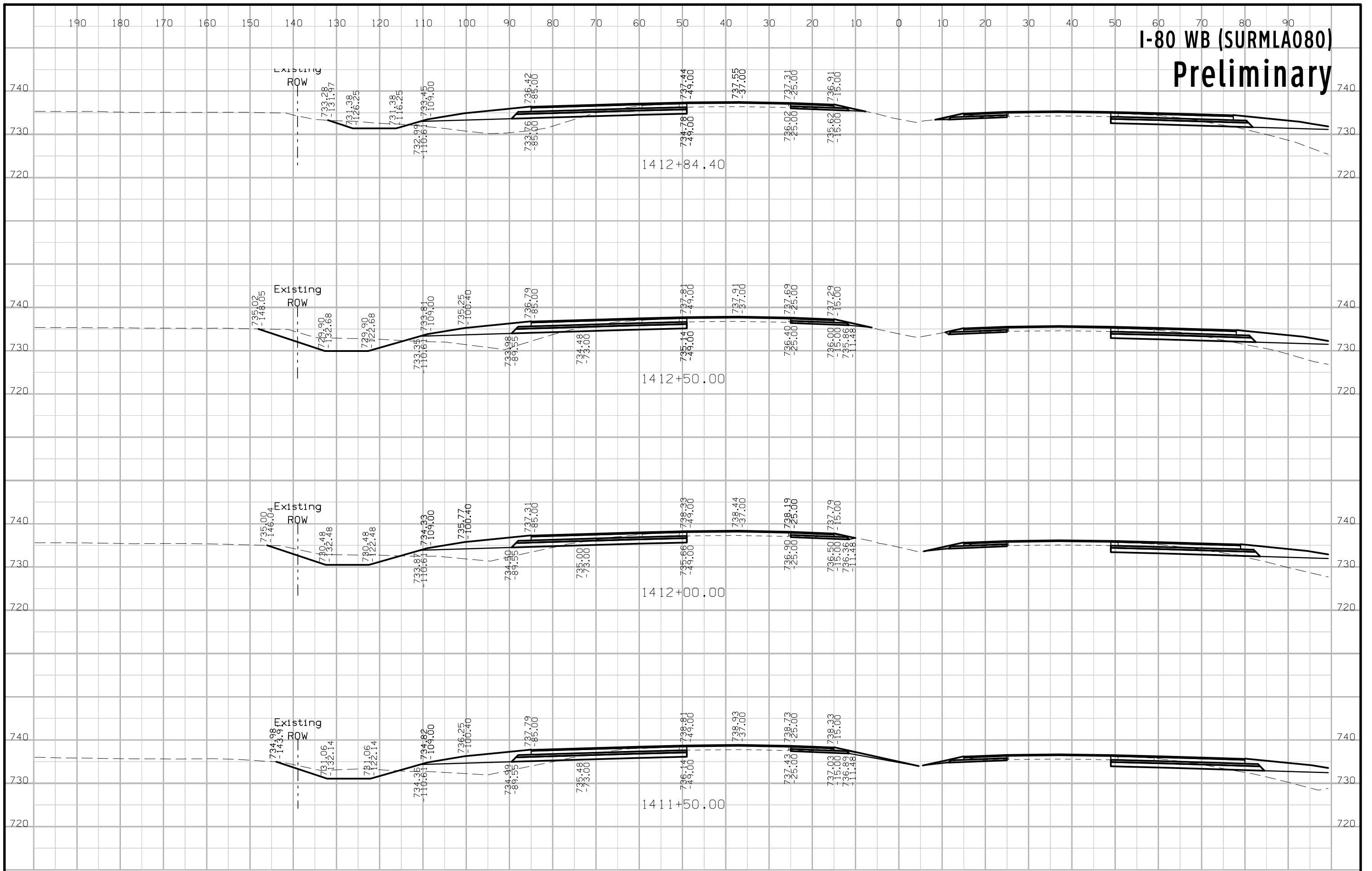
I-80 WB (SURMLA080) Preliminary



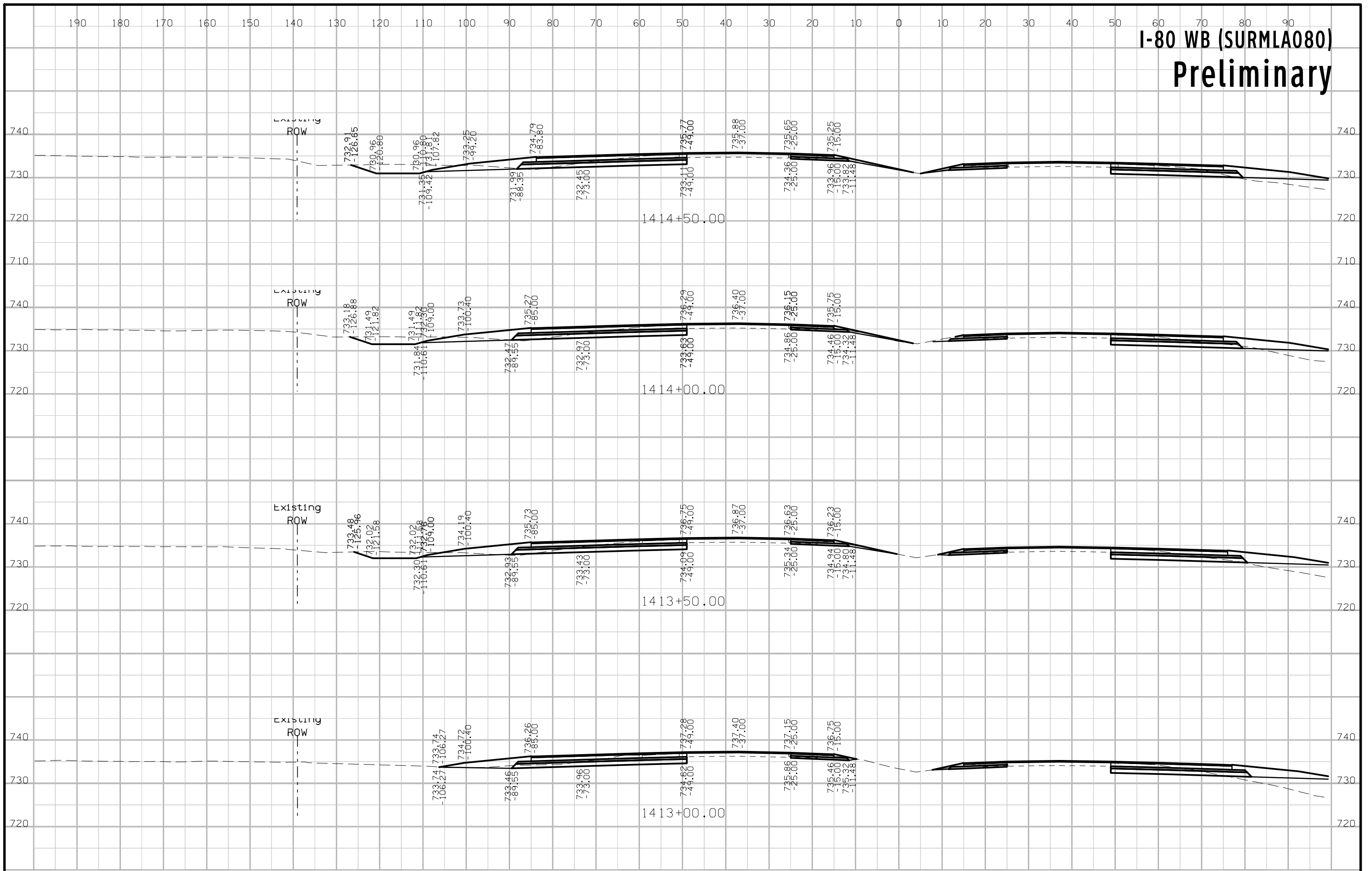
I-80 WB (SURMLA080) Preliminary



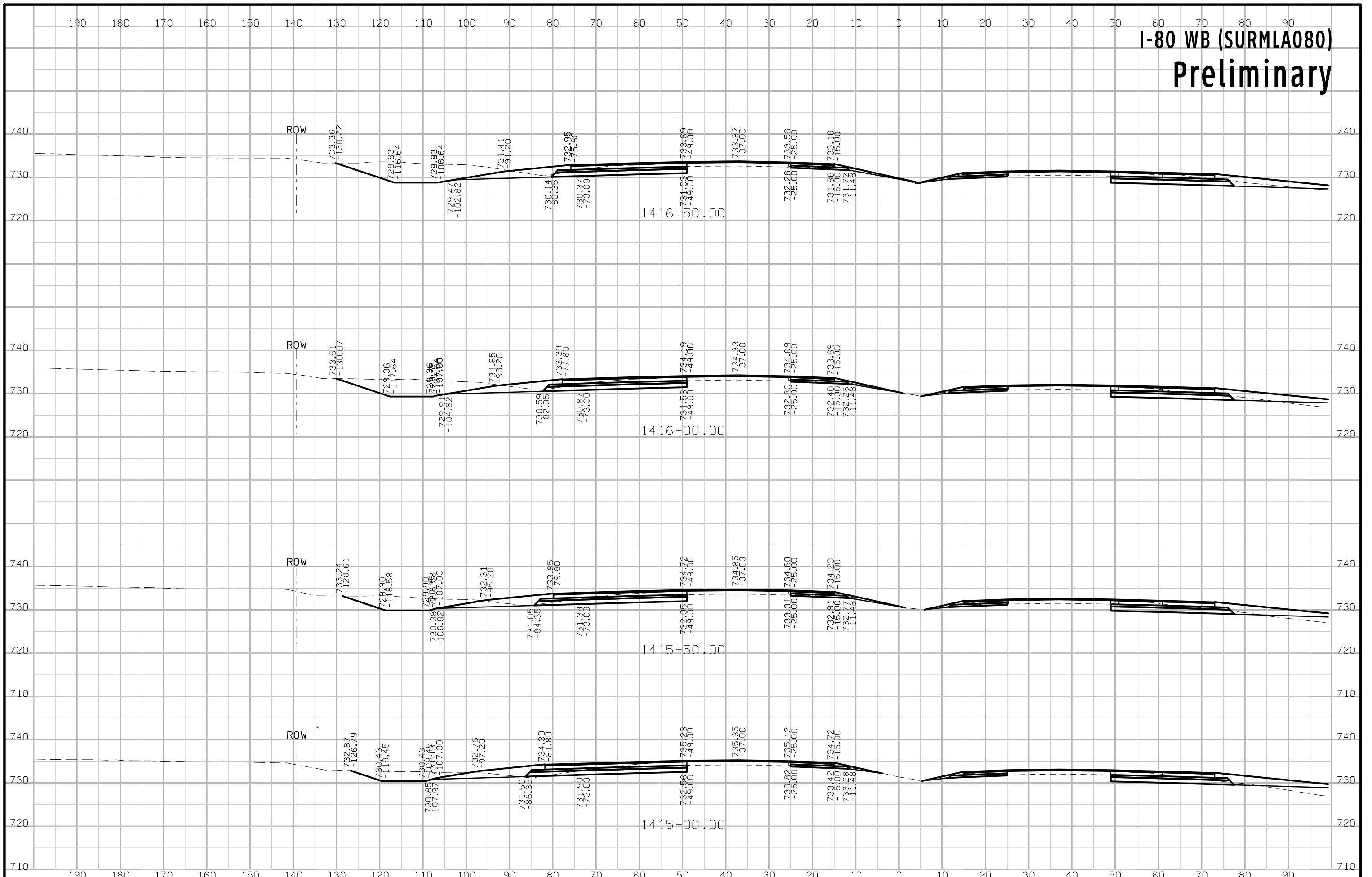
I-80 WB (SURMLA080) Preliminary



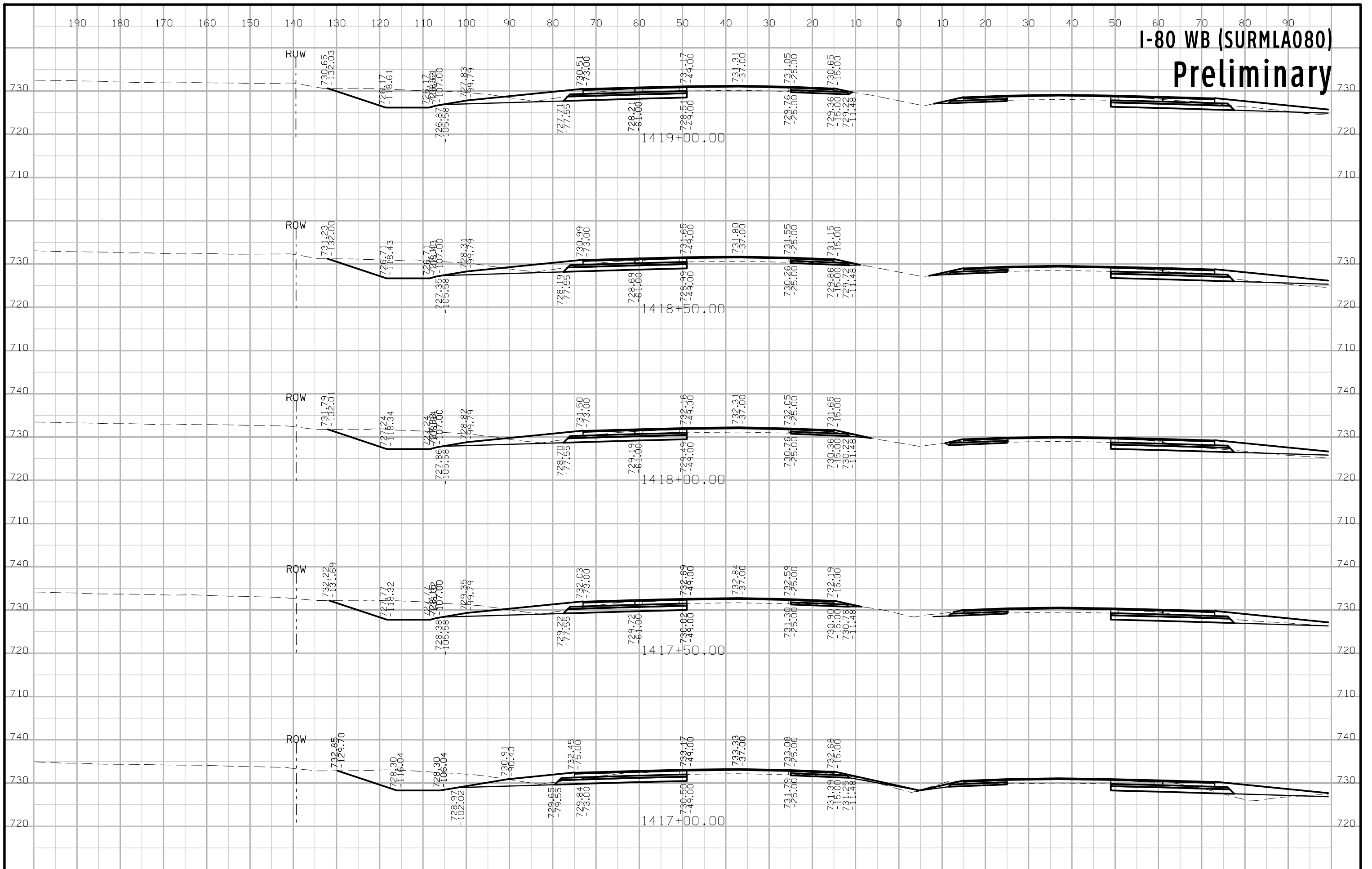
I-80 WB (SURMLA080) Preliminary



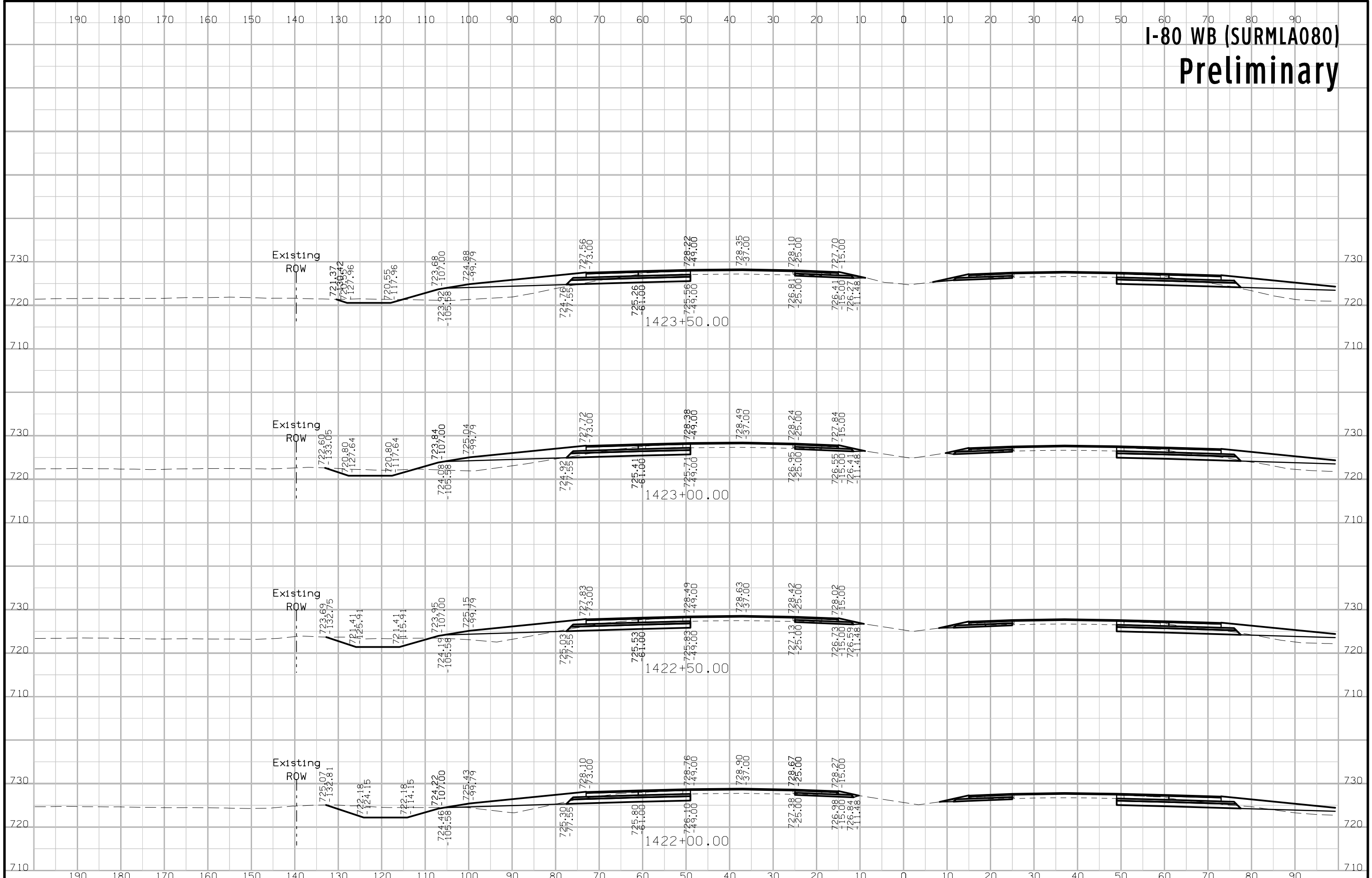
I-80 WB (SURMLA080) Preliminary



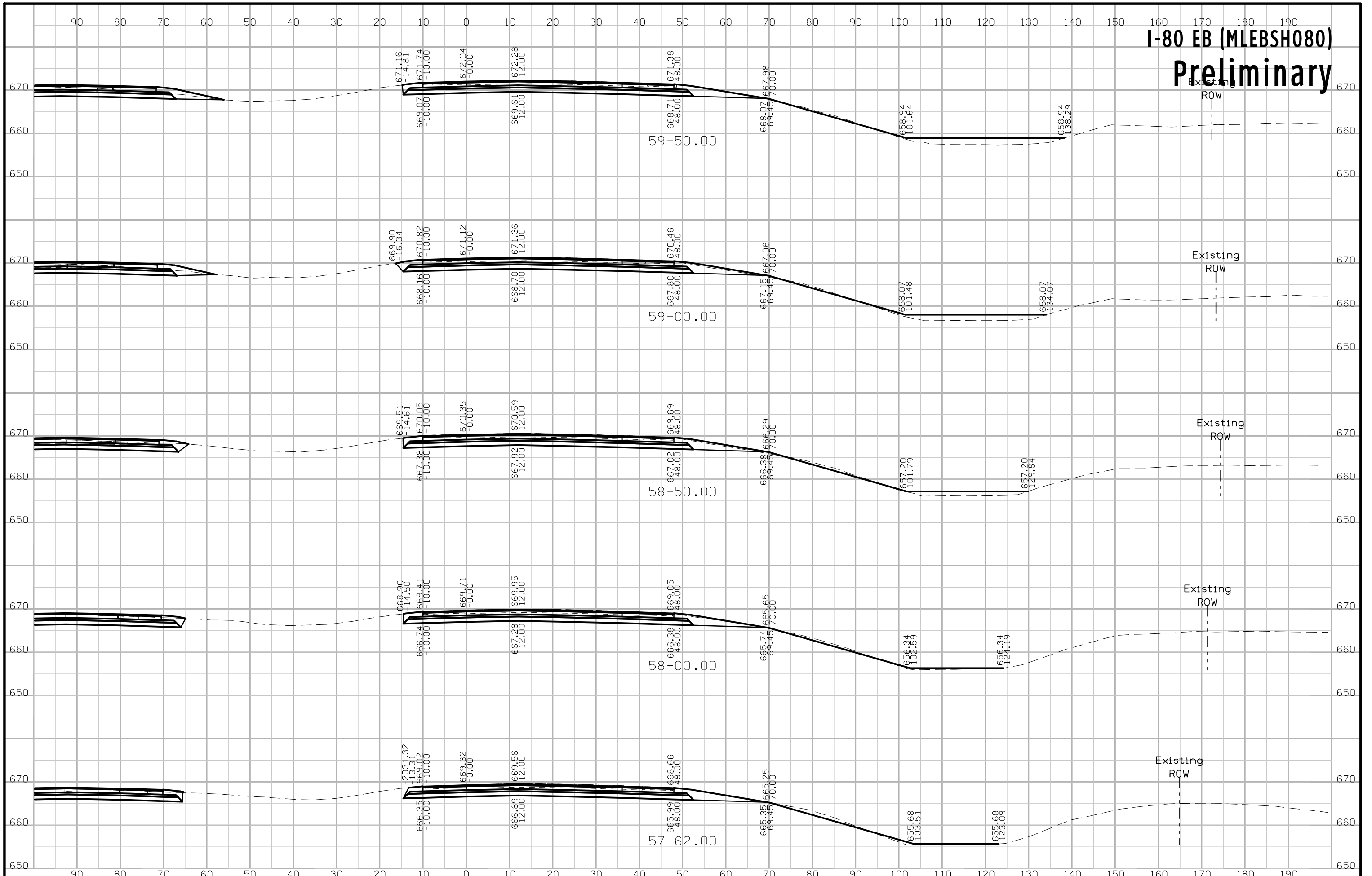
I-80 WB (SURMLA080) Preliminary



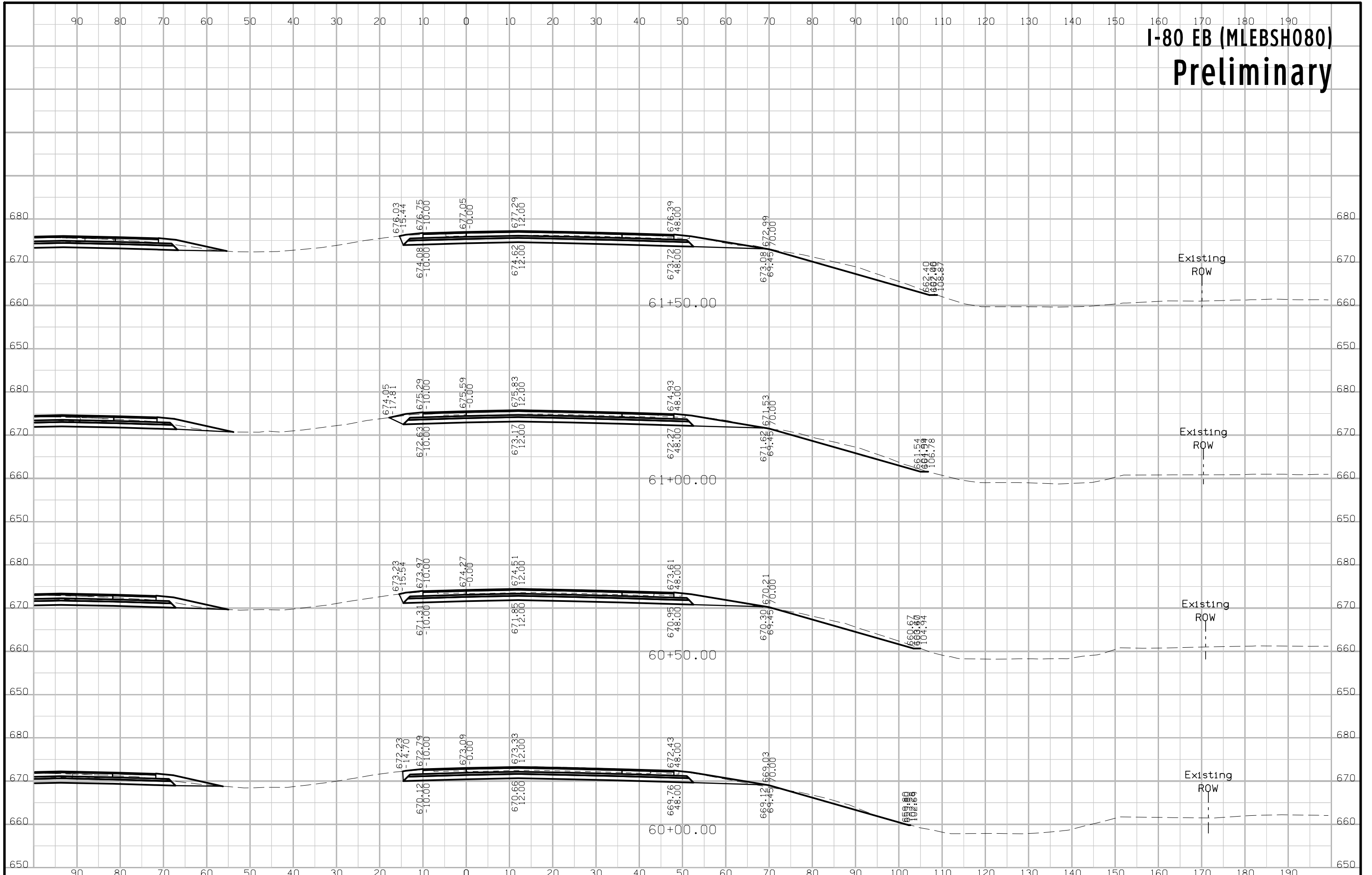
I-80 WB (SURMLA080) Preliminary



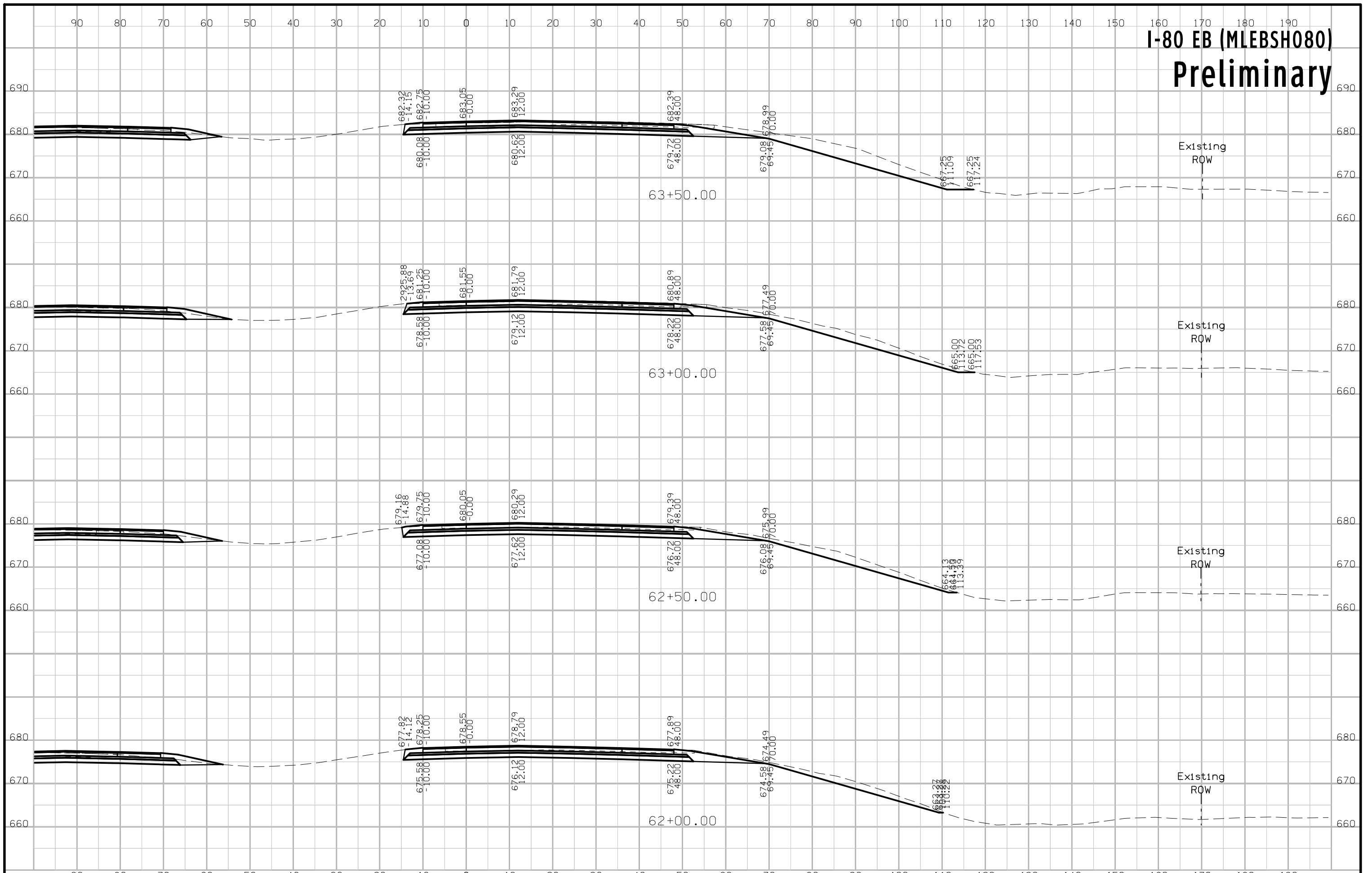
I-80 EB (MLEBSH080) Preliminary



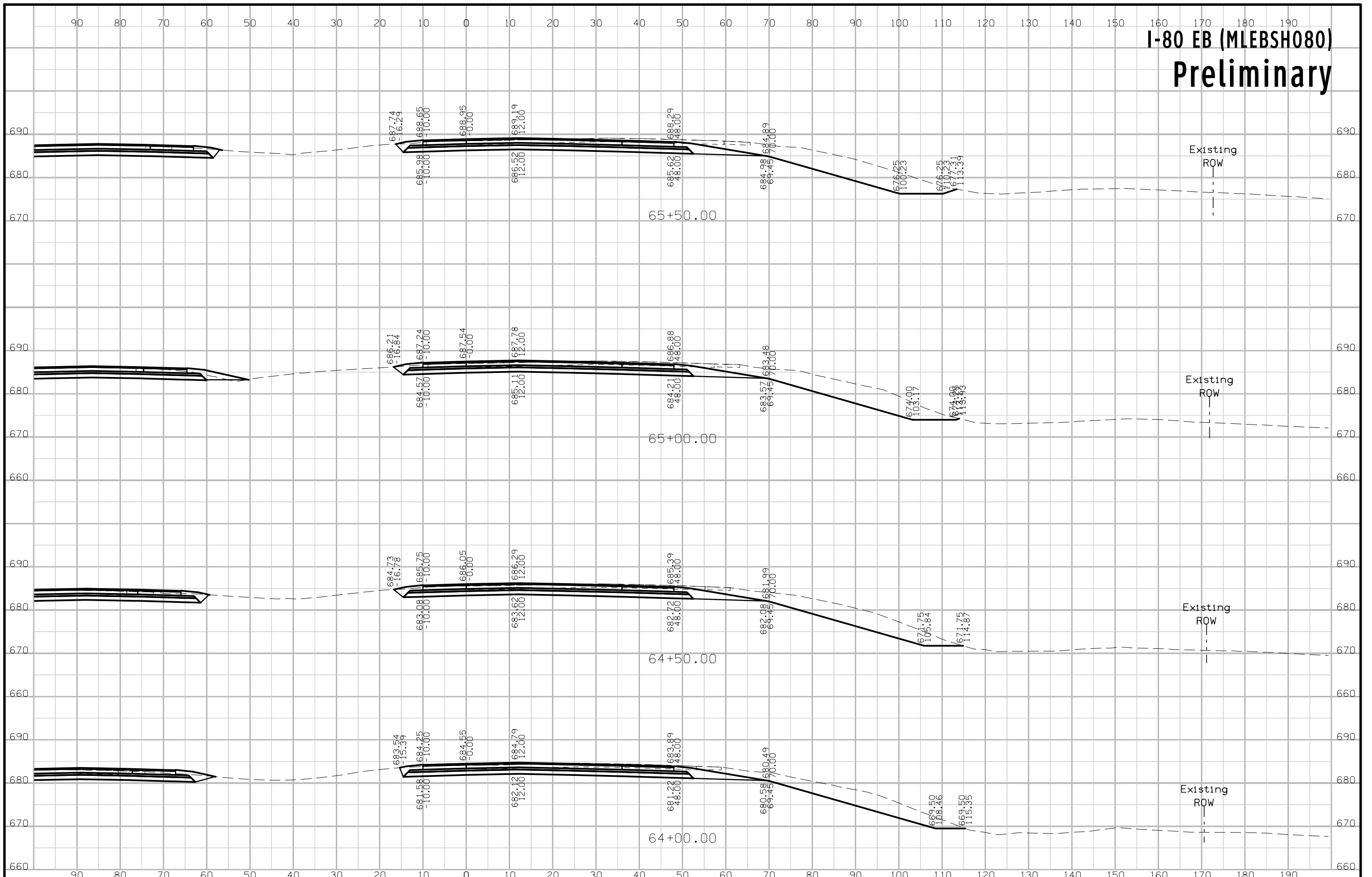
I-80 EB (MLEBSH080) Preliminary



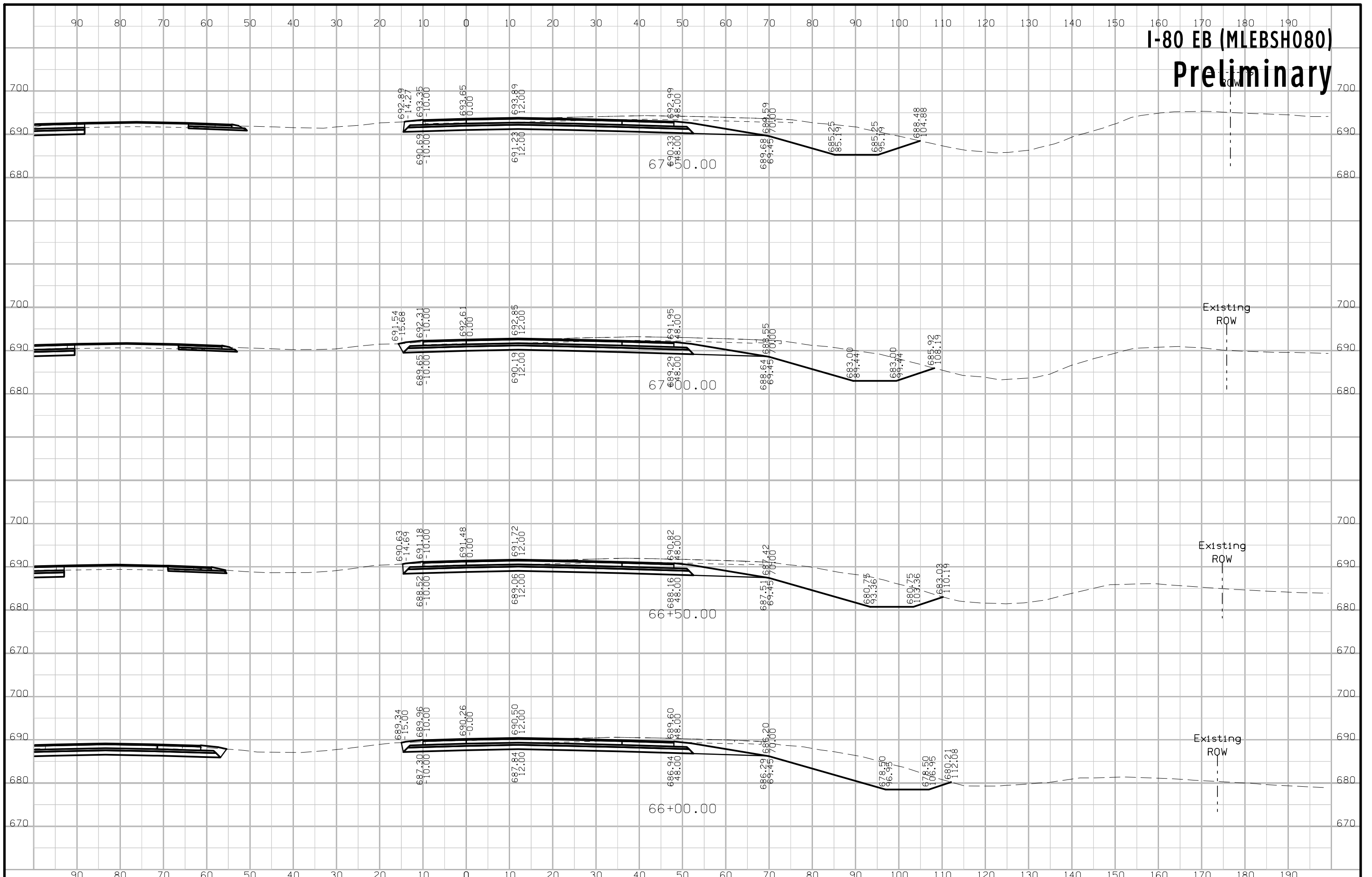
I-80 EB (MLEBSH080) Preliminary



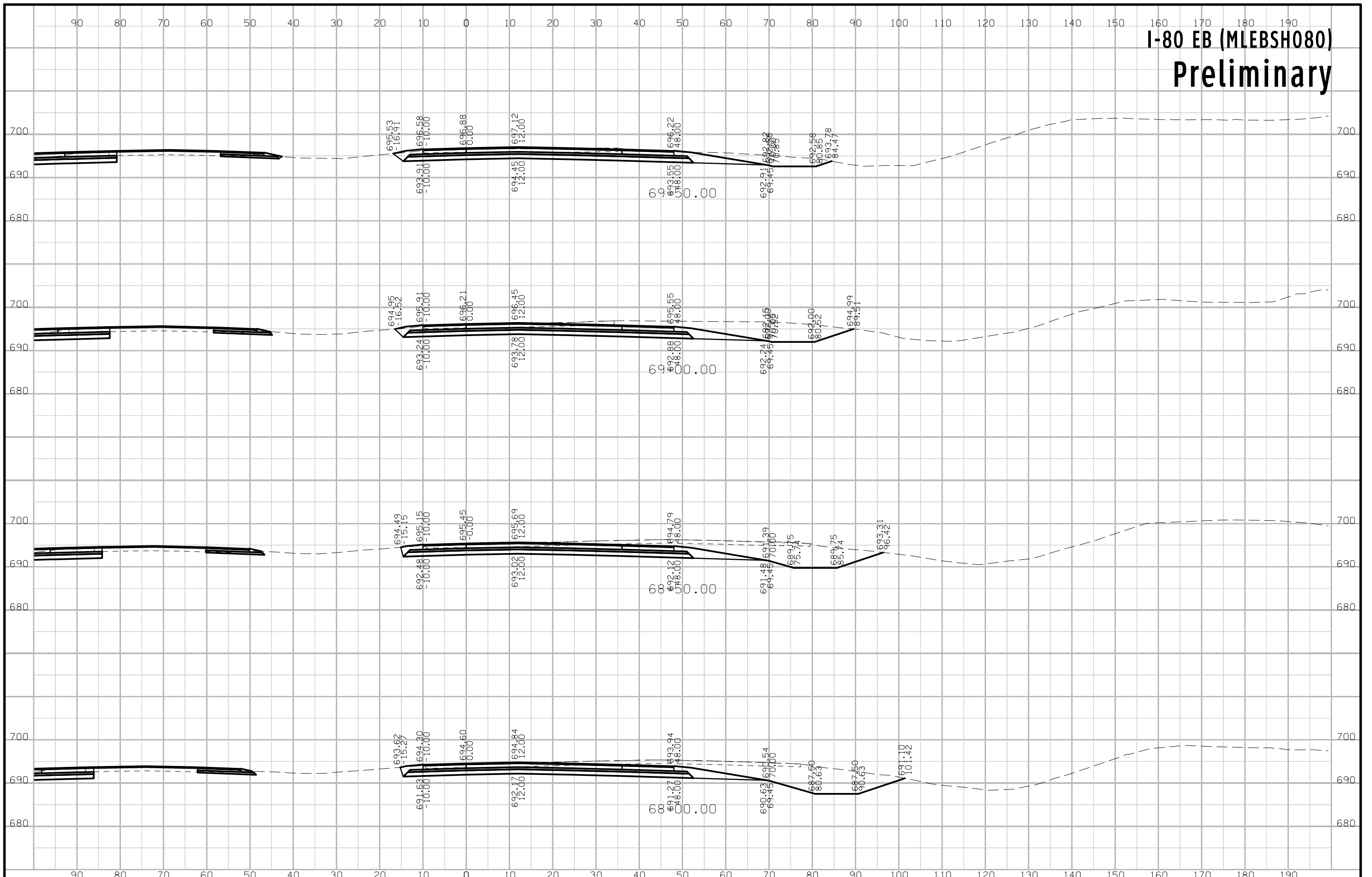
I-80 EB (MLEBSH080) Preliminary



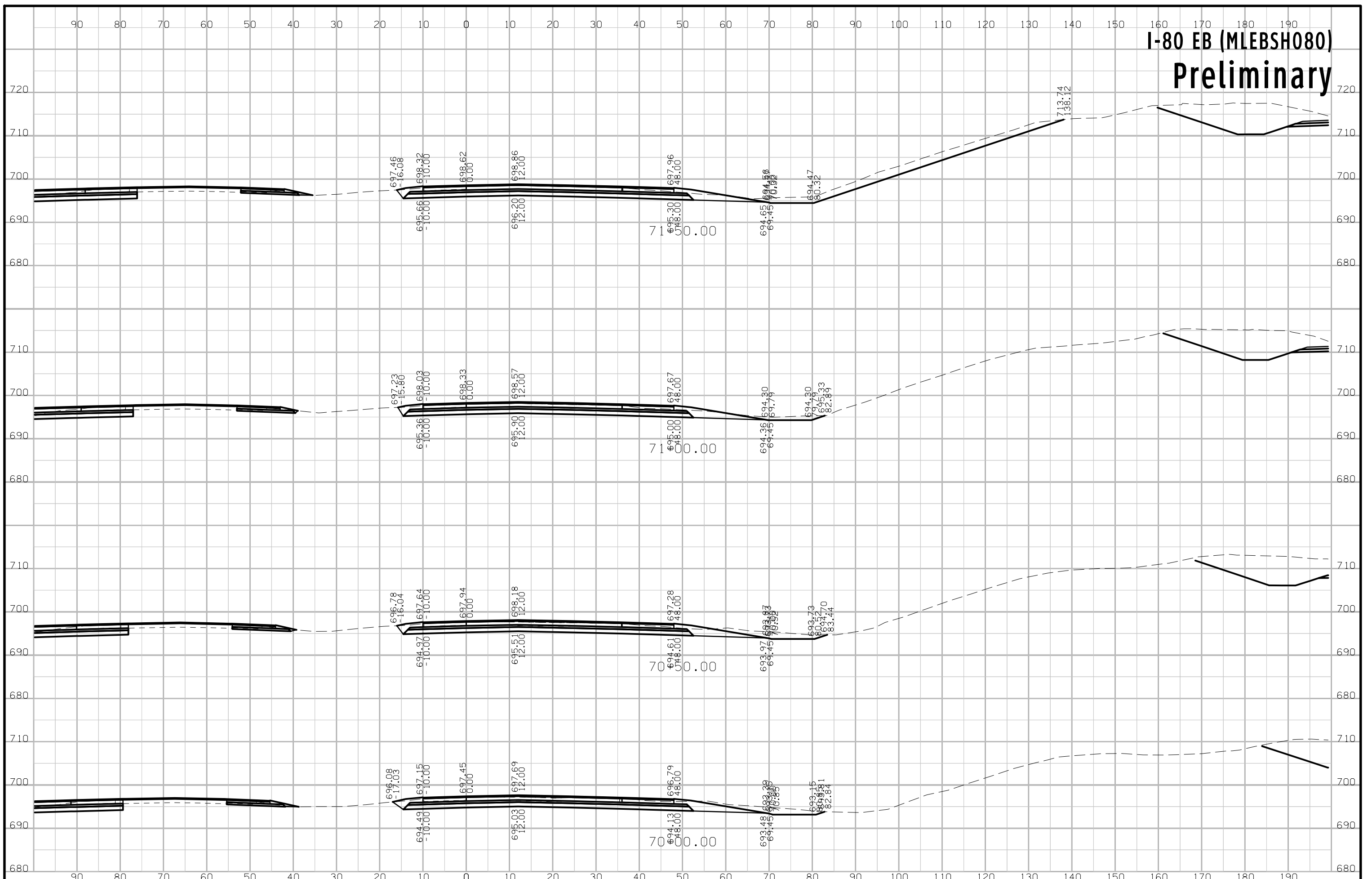
I-80 EB (MLEBSH080) Preliminary



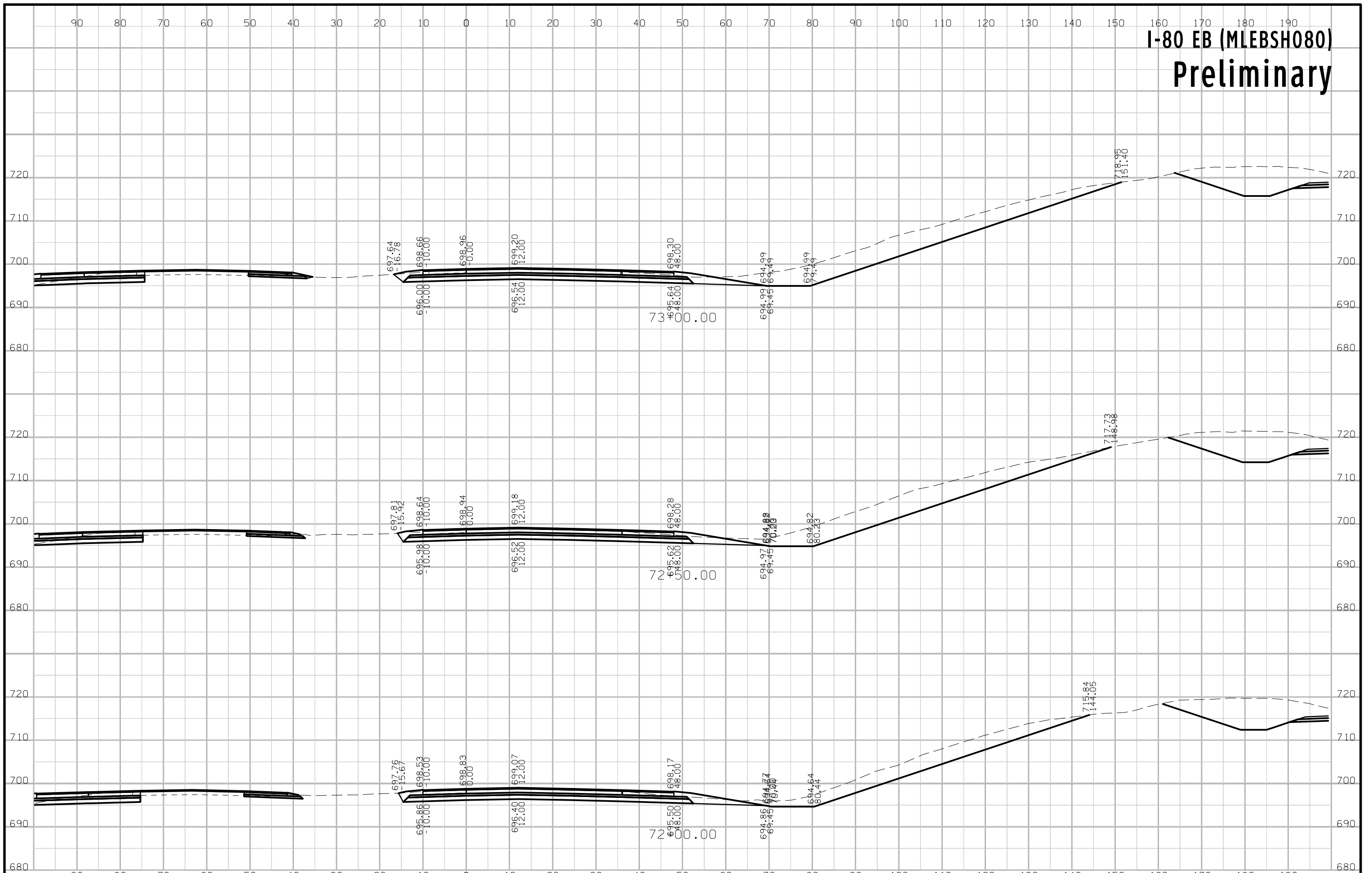
I-80 EB (MLEBSH080) Preliminary



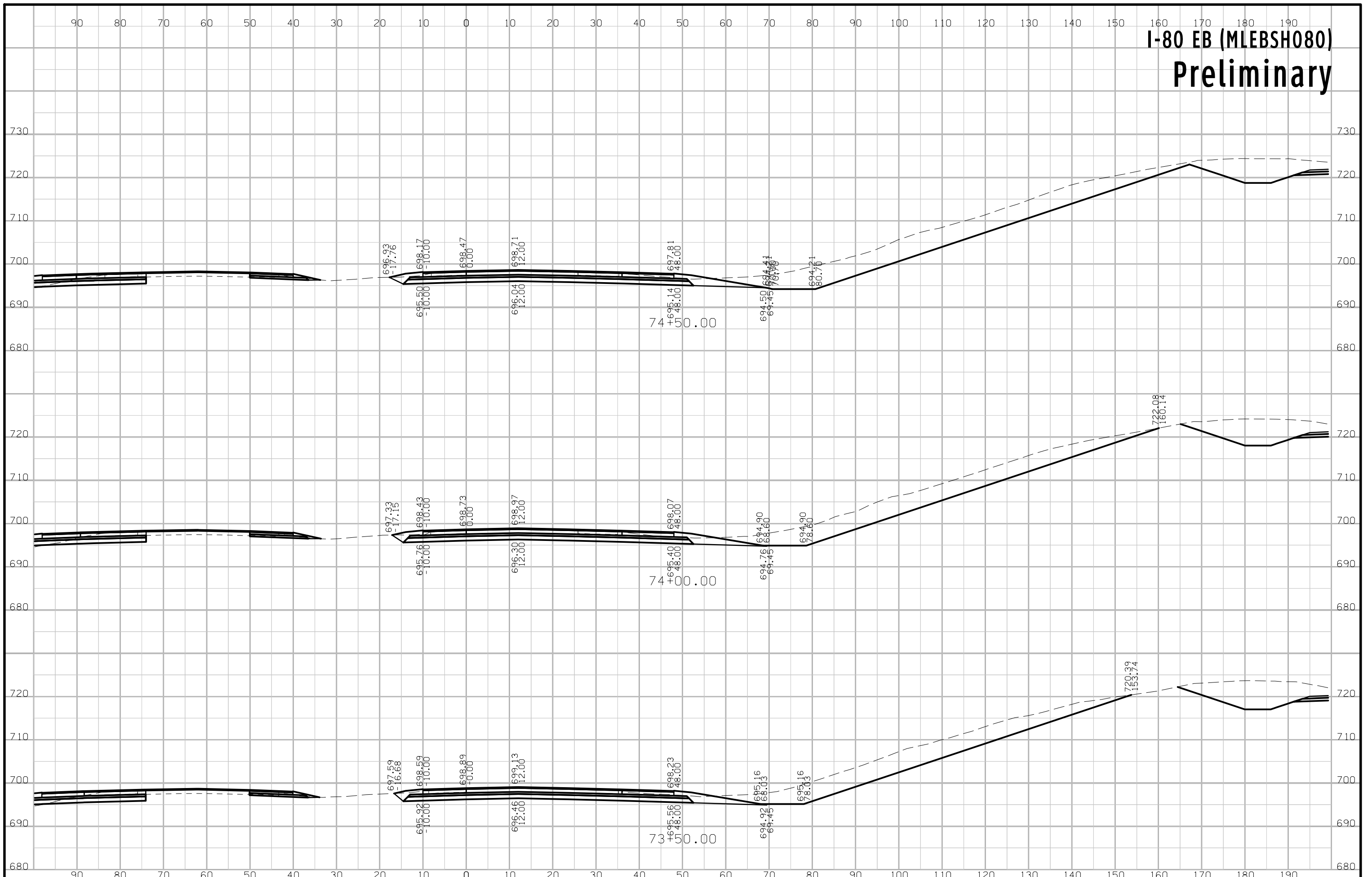
I-80 EB (MLEBSH080) Preliminary



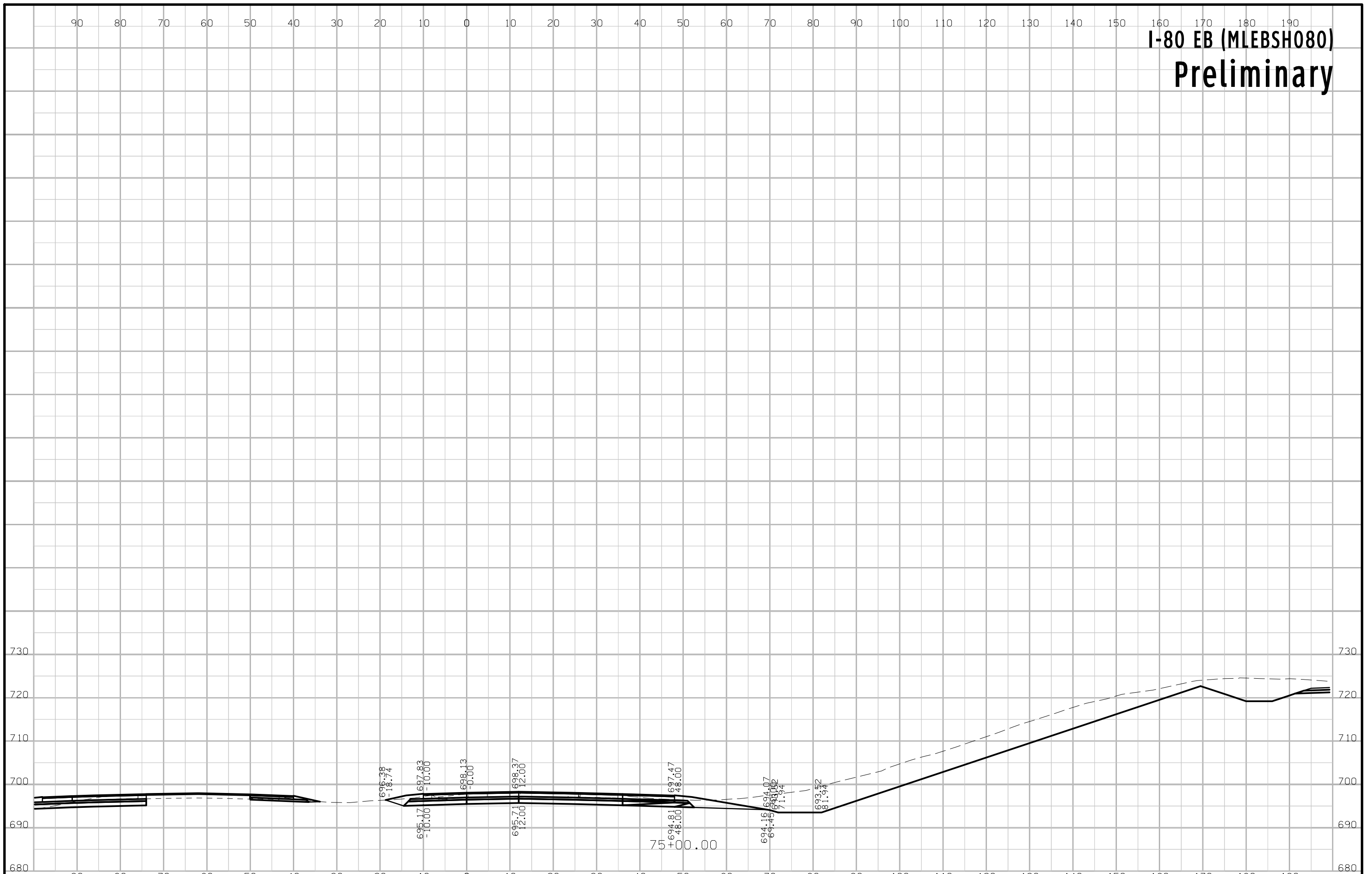
I-80 EB (MLEBSH080) Preliminary



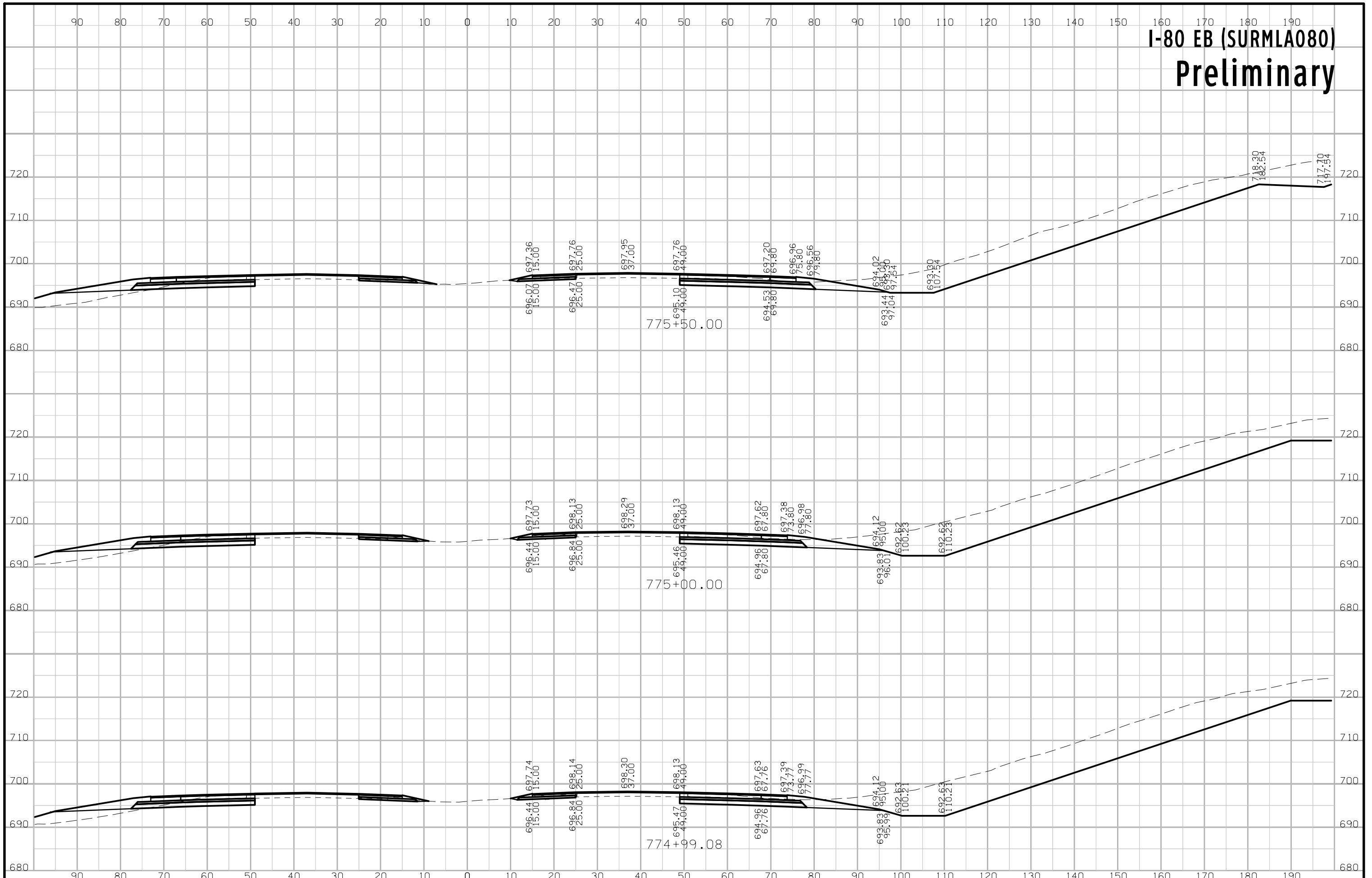
I-80 EB (MLEBSH080) Preliminary



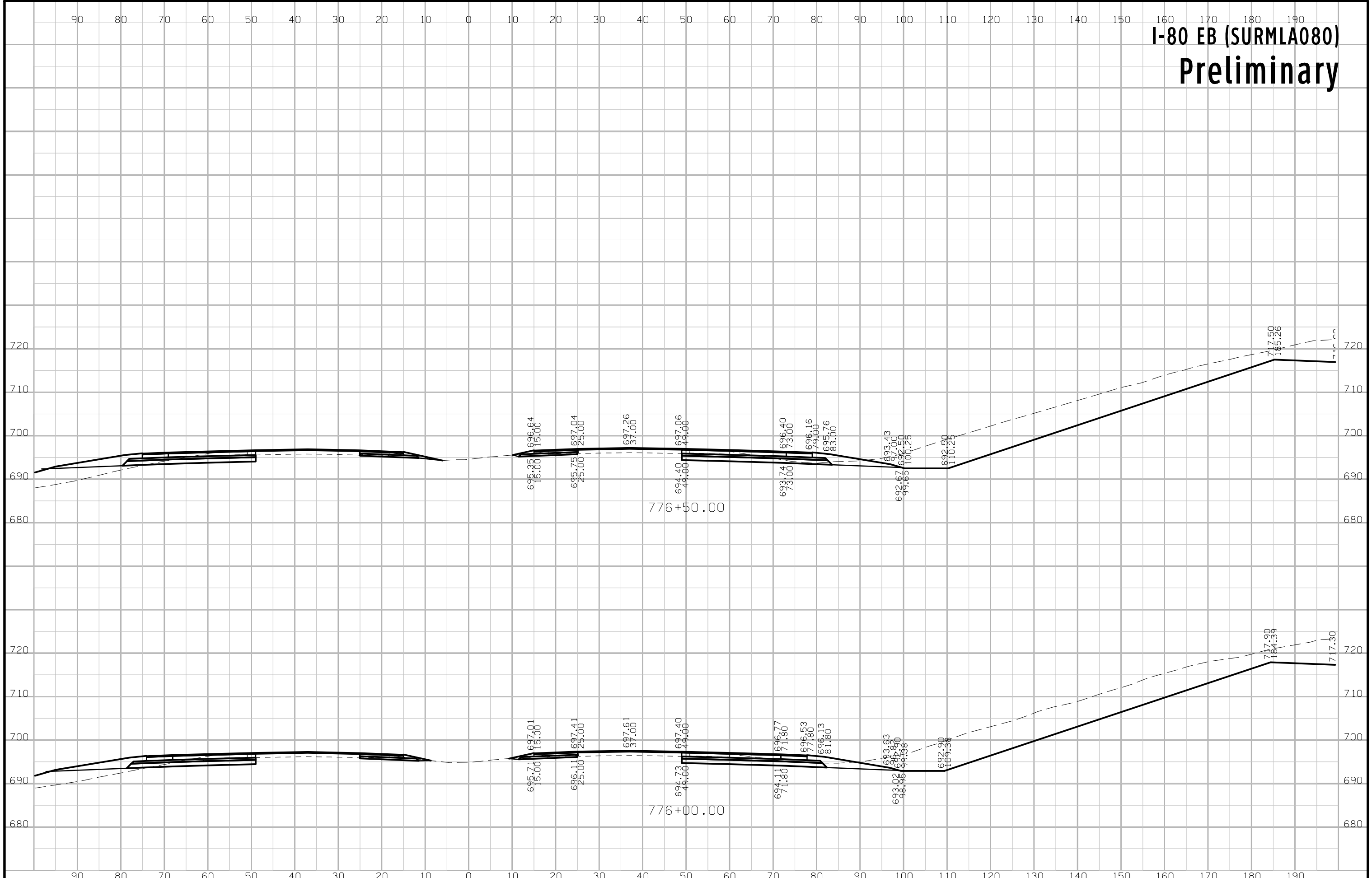
I-80 EB (MLEBSH080) Preliminary



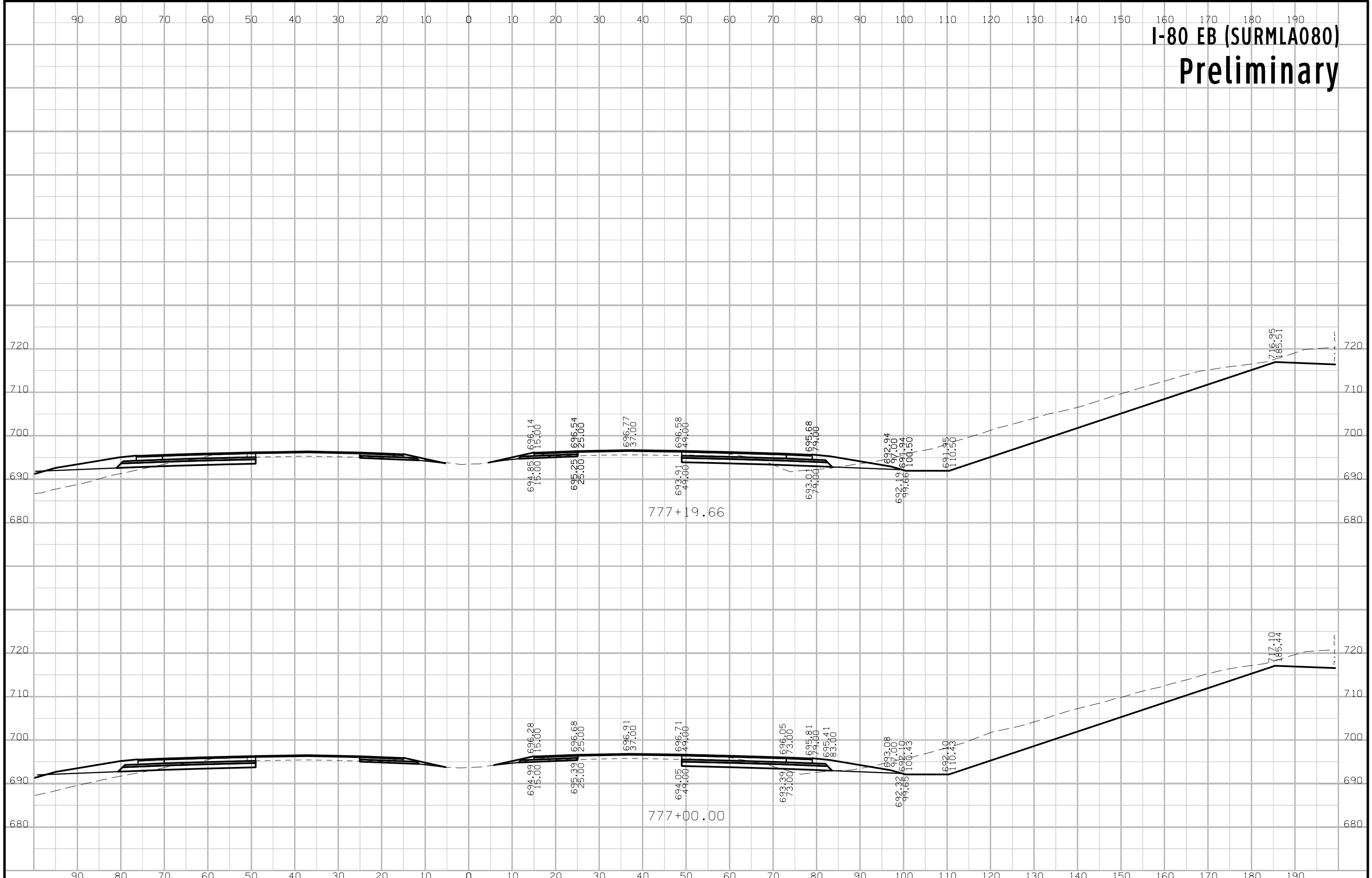
I-80 EB (SURMLA080) Preliminary



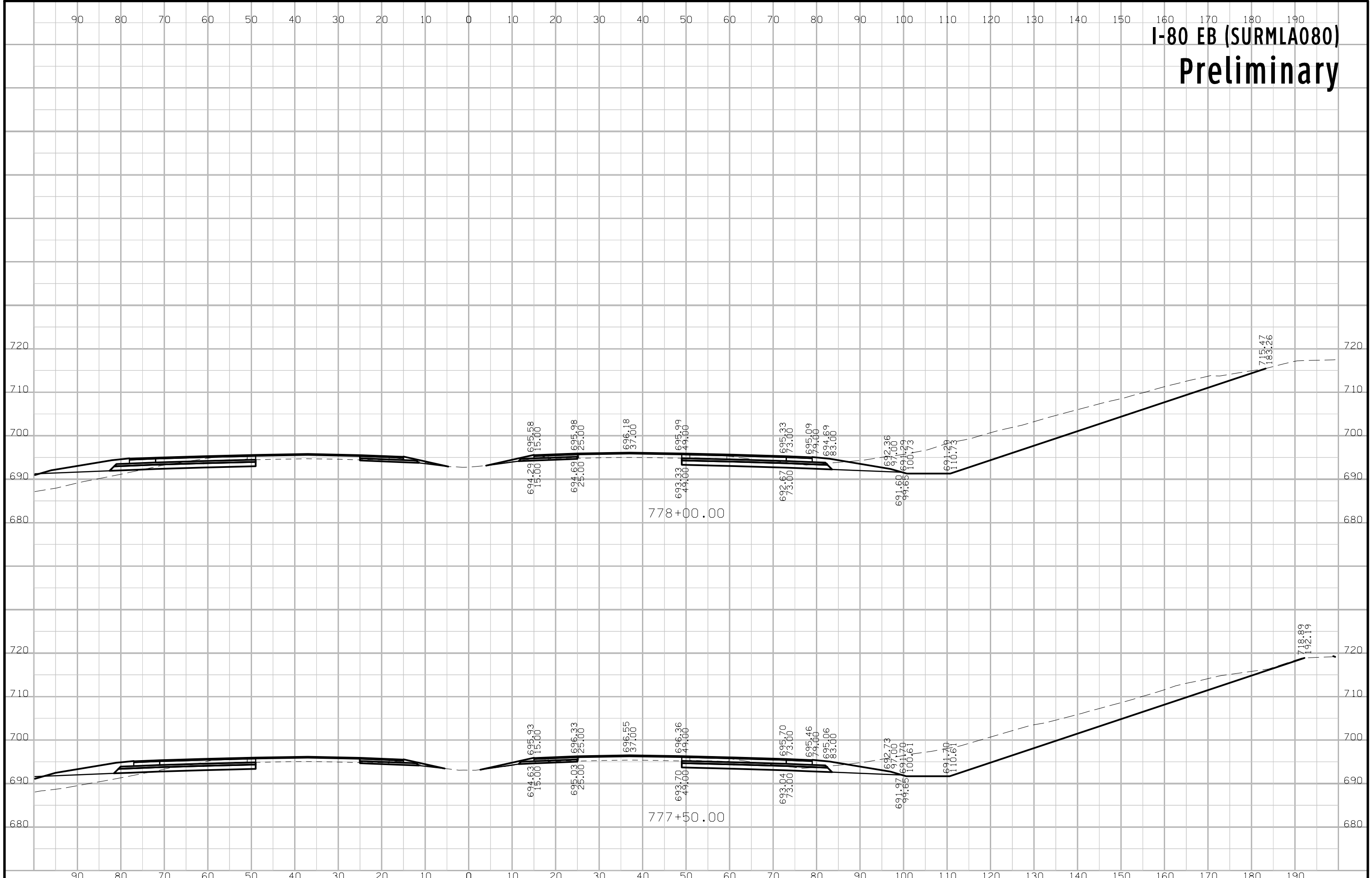
I-80 EB (SURMLA080) Preliminary



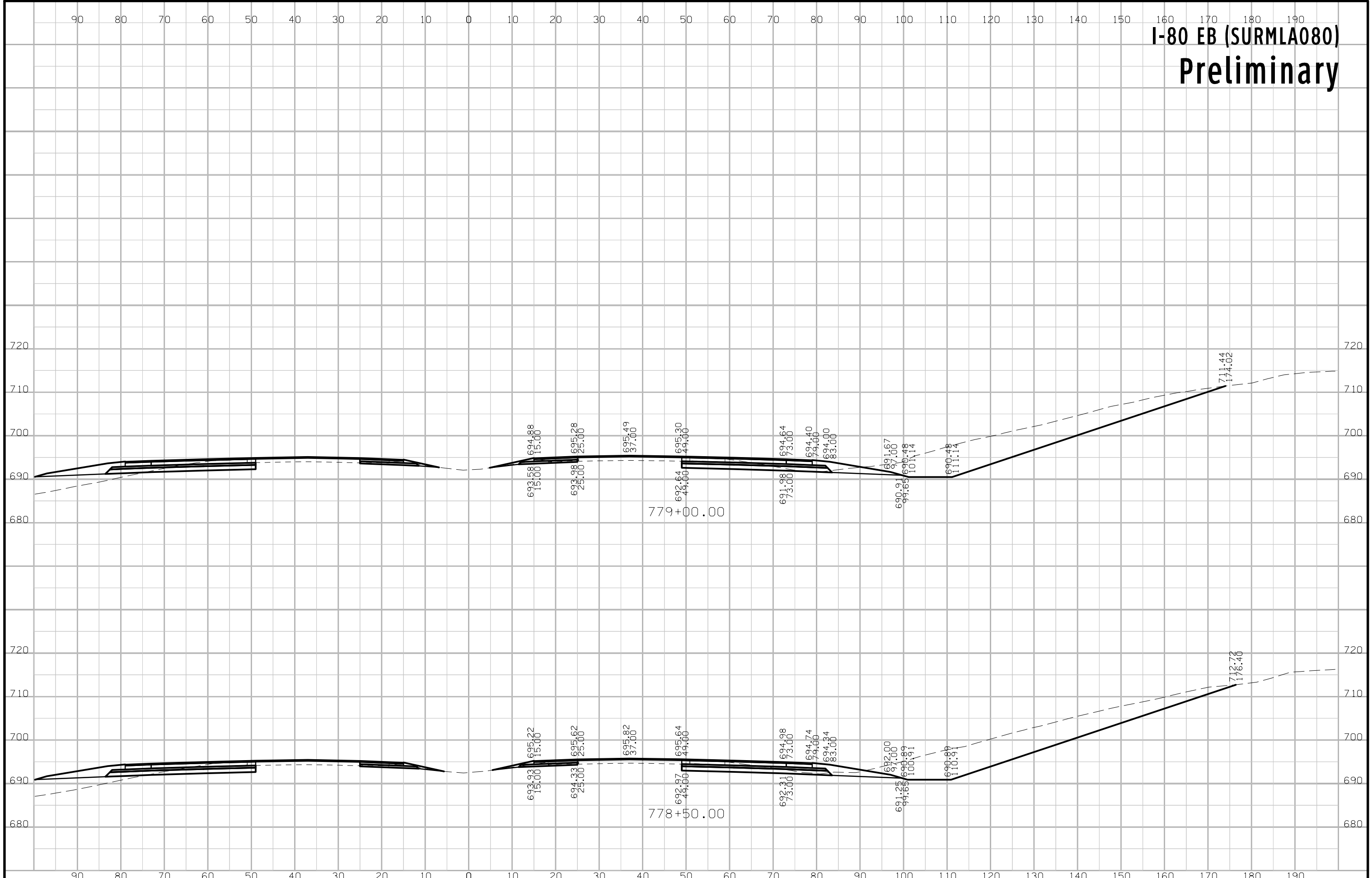
I-80 EB (SURMLA080) Preliminary



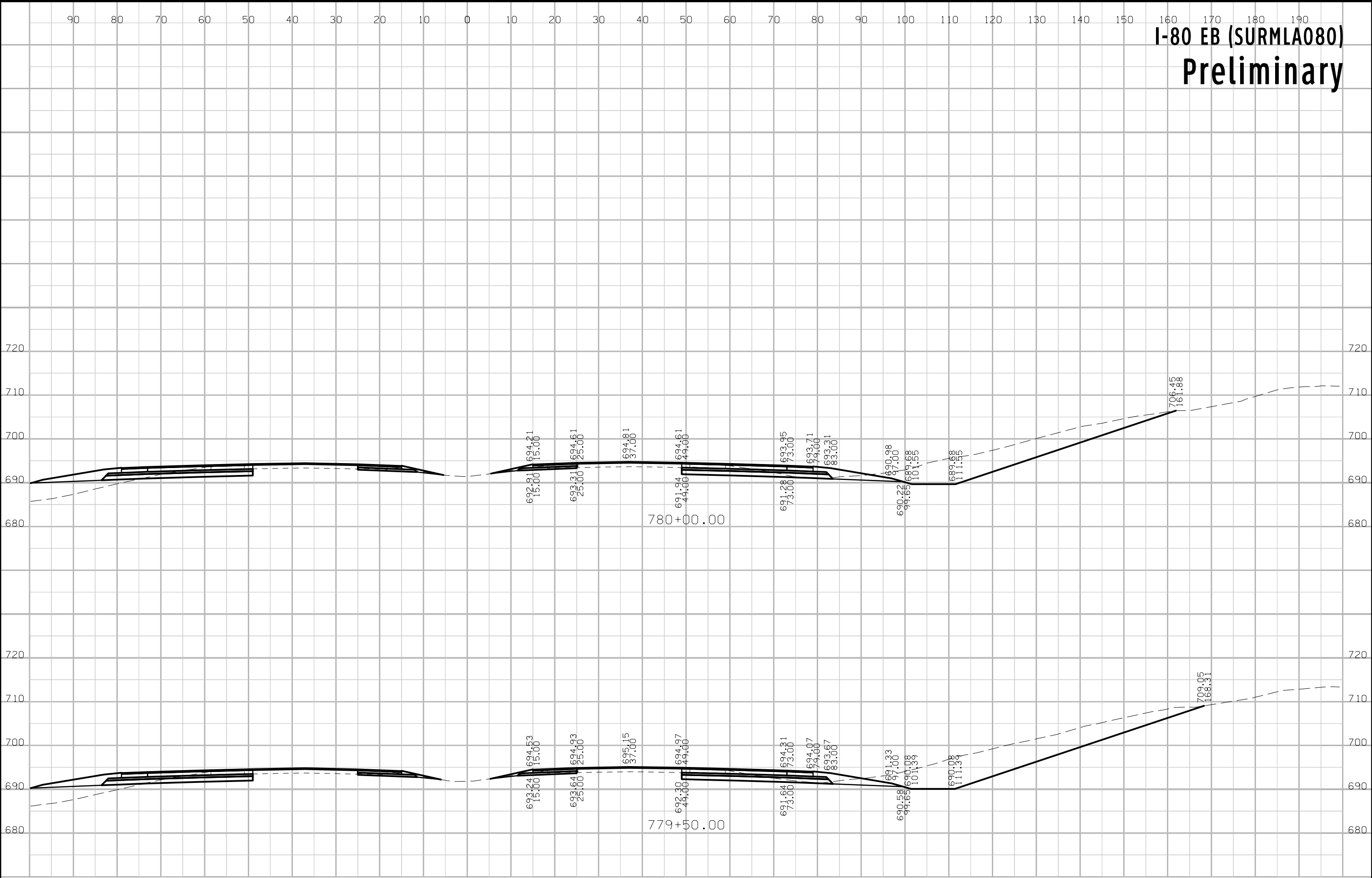
I-80 EB (SURMLA080) Preliminary



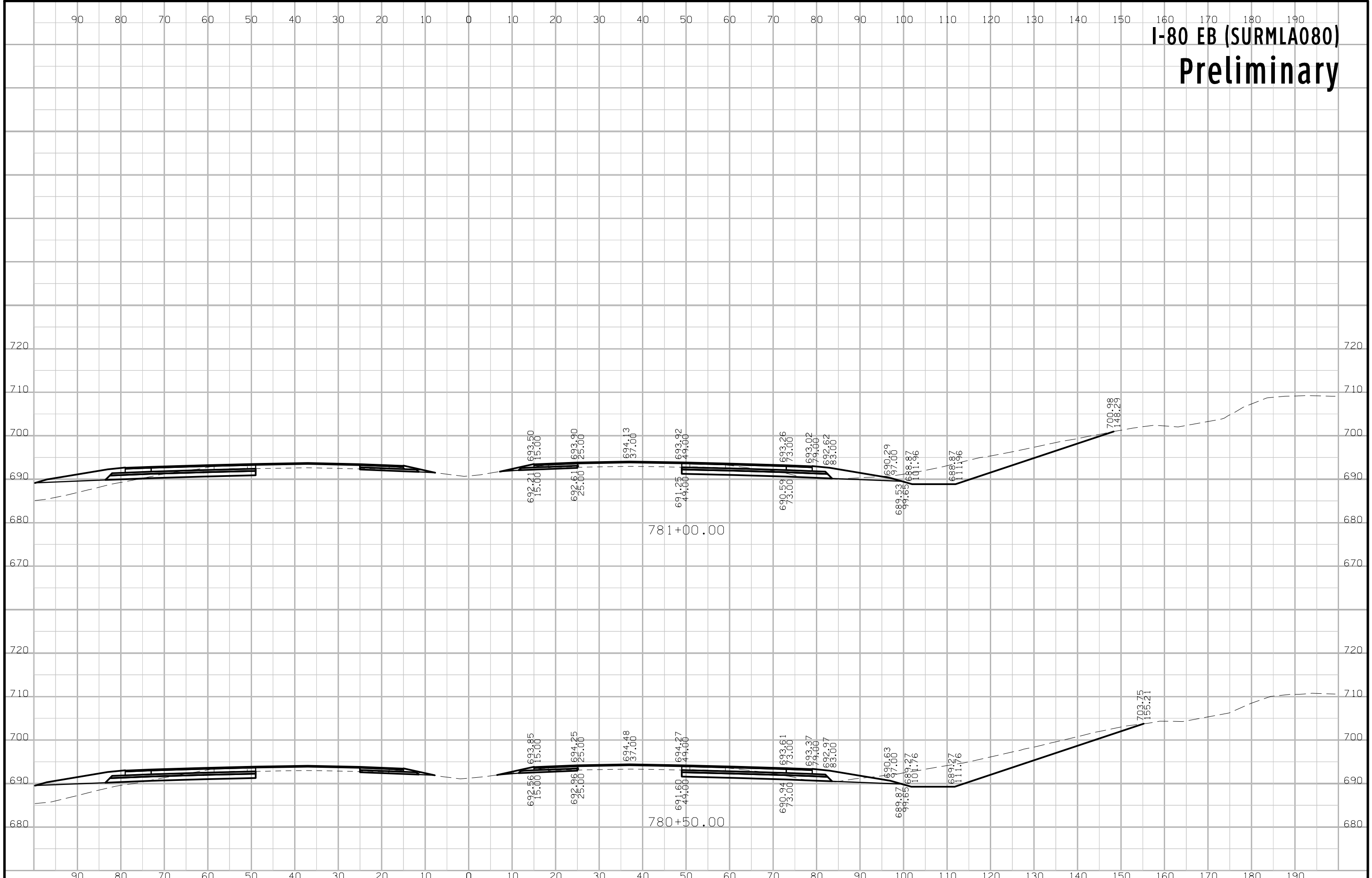
I-80 EB (SURMLA080) Preliminary



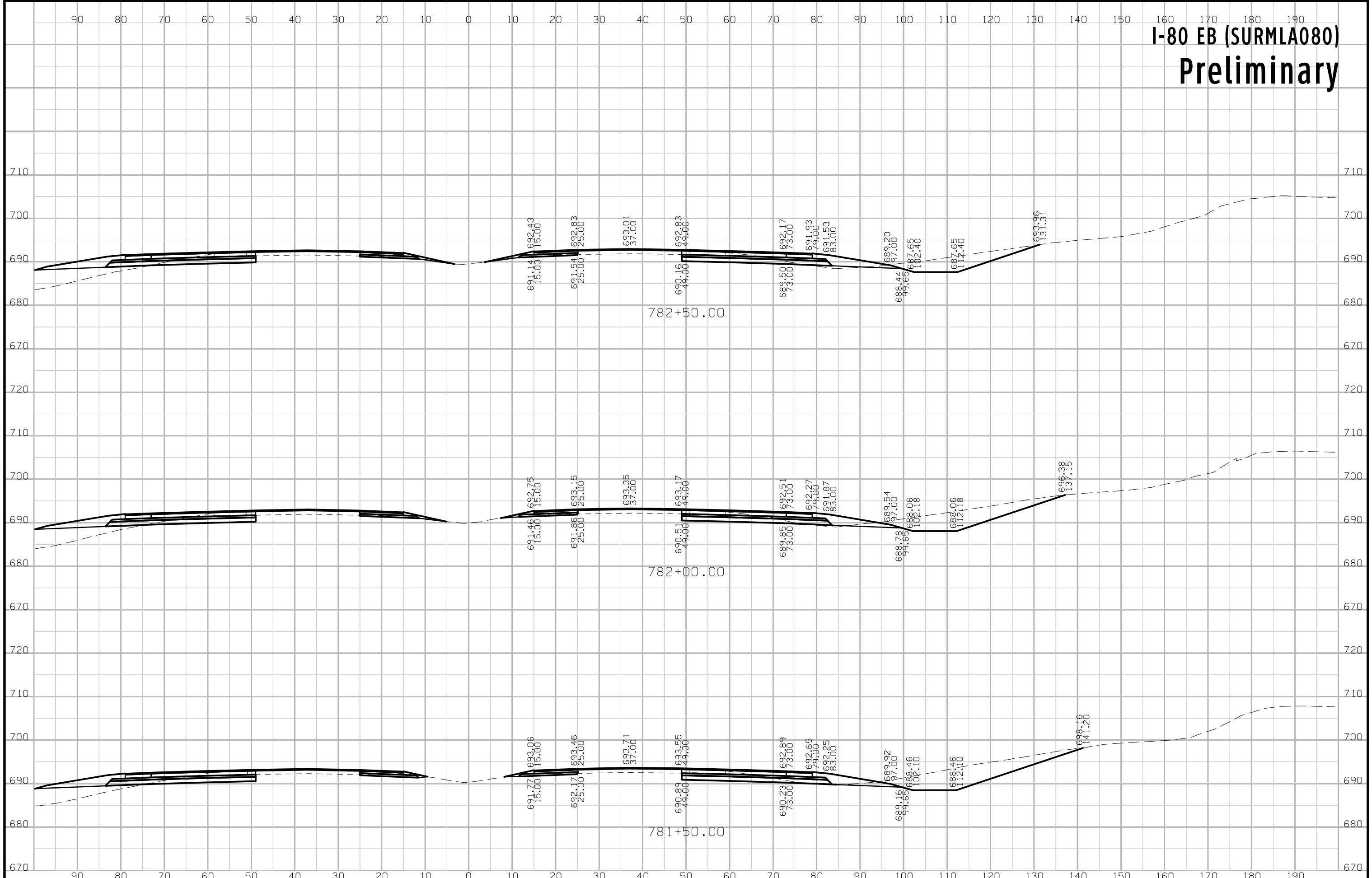
I-80 EB (SURMLA080) Preliminary



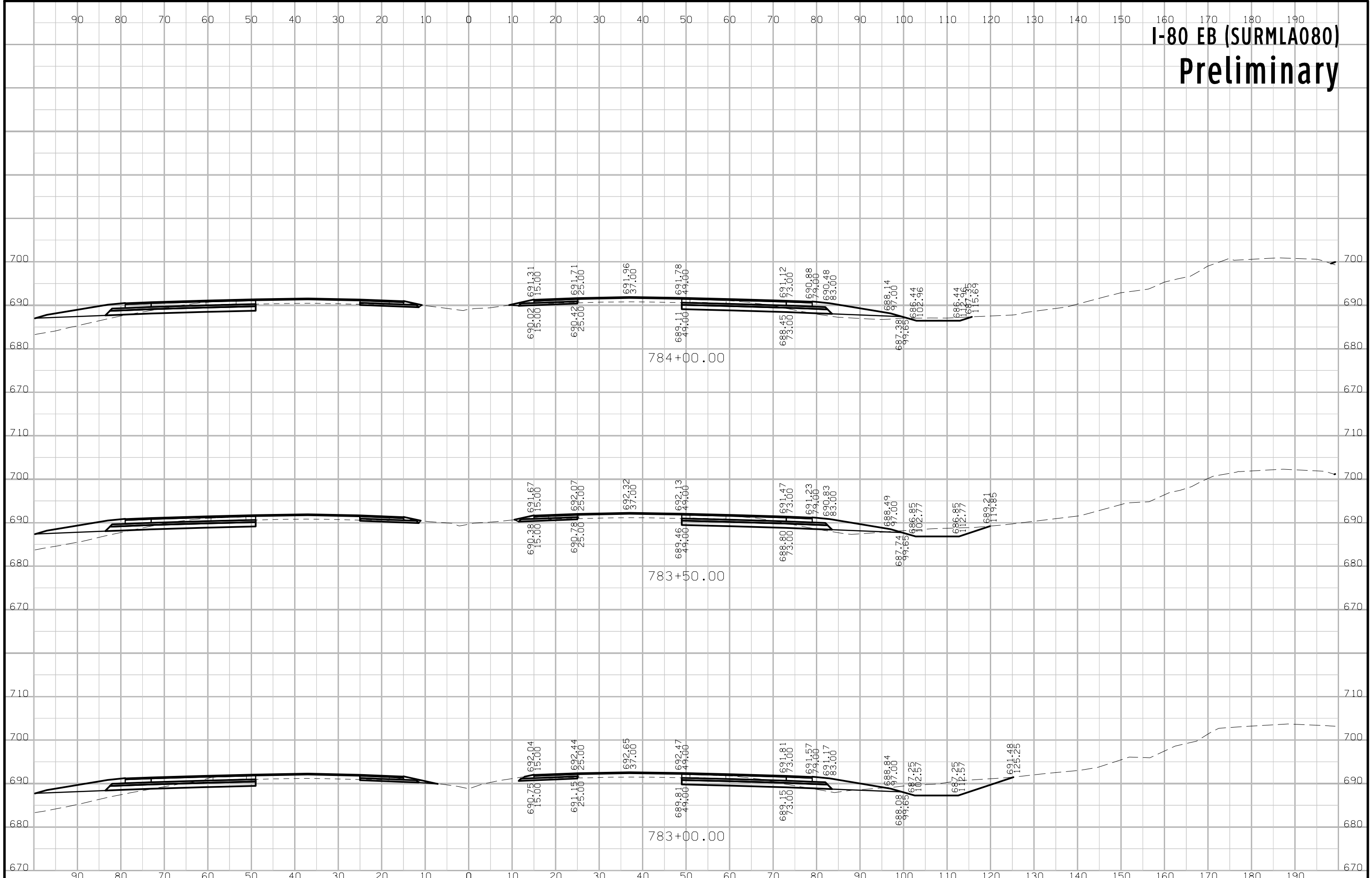
I-80 EB (SURMLA080) Preliminary



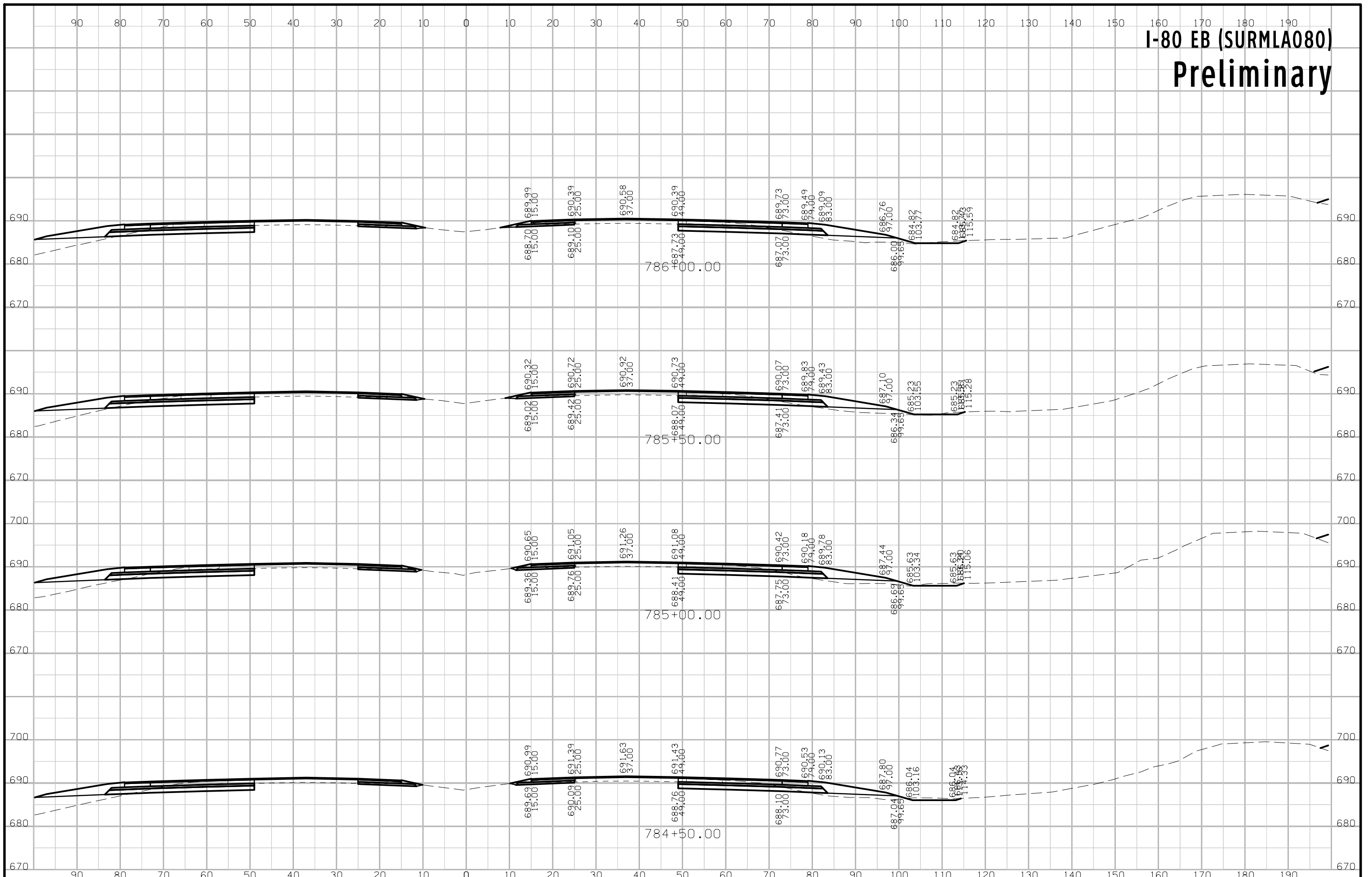
I-80 EB (SURMLA080) Preliminary



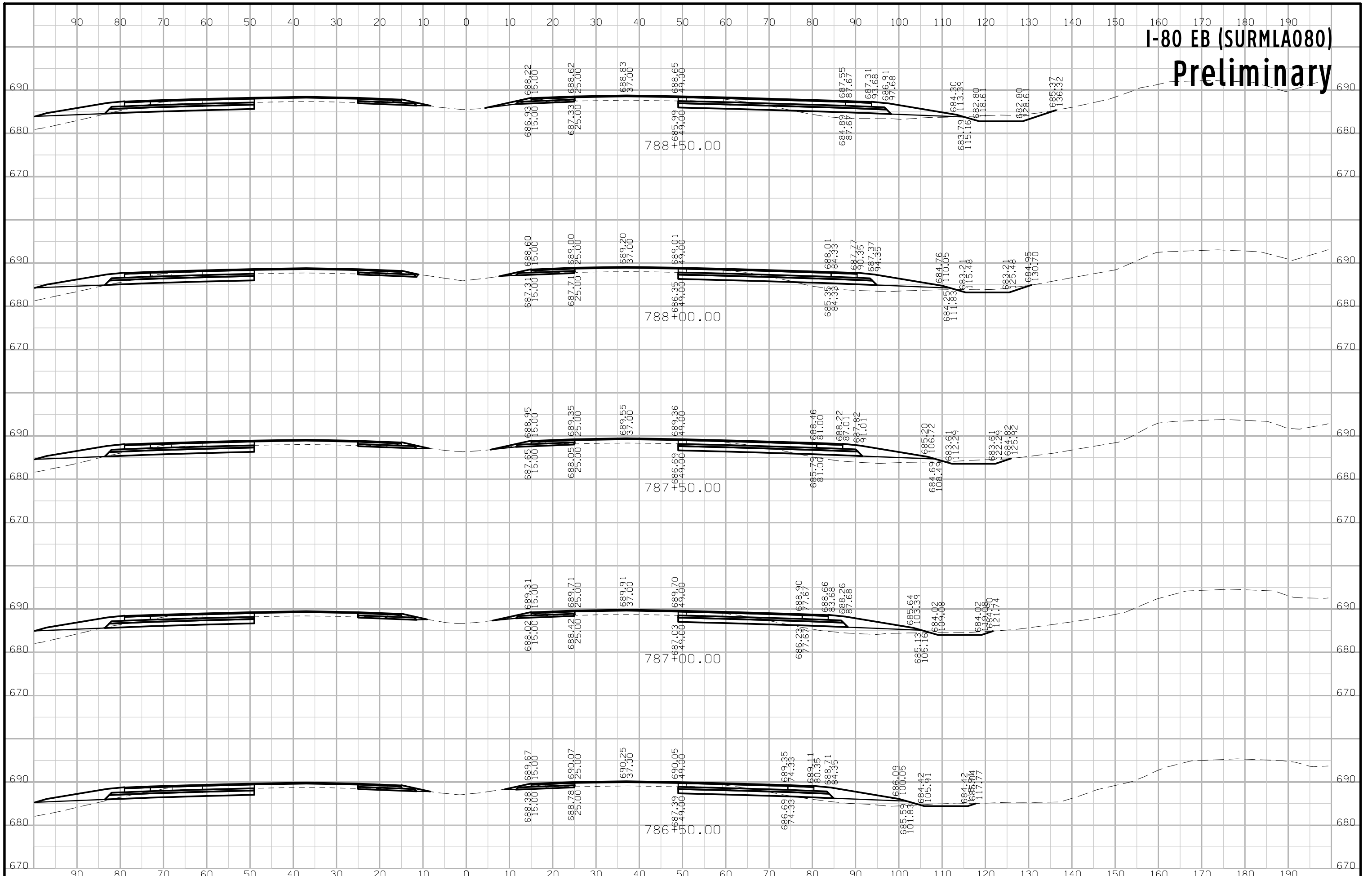
I-80 EB (SURMLA080) Preliminary



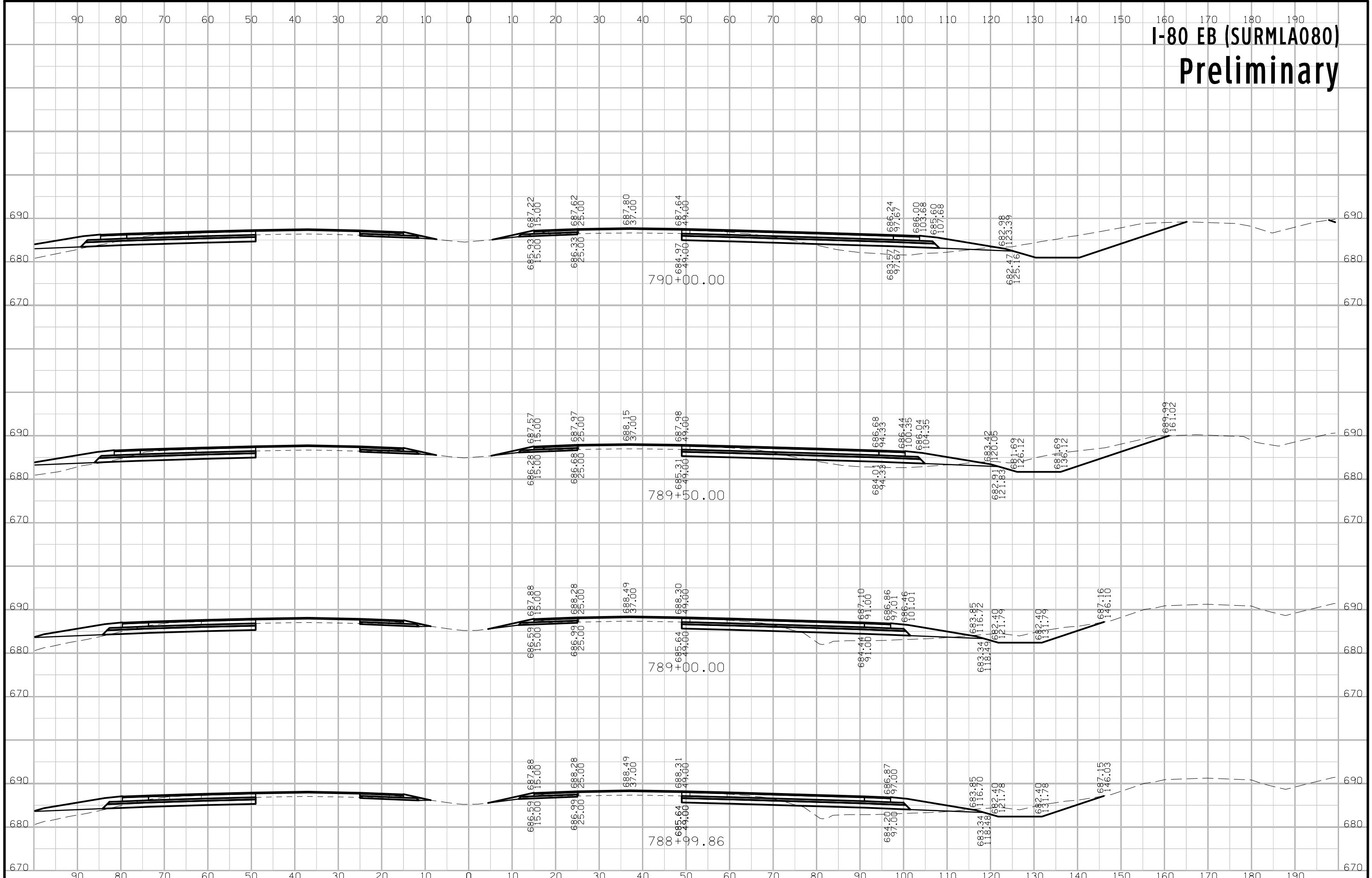
I-80 EB (SURMLA080) Preliminary



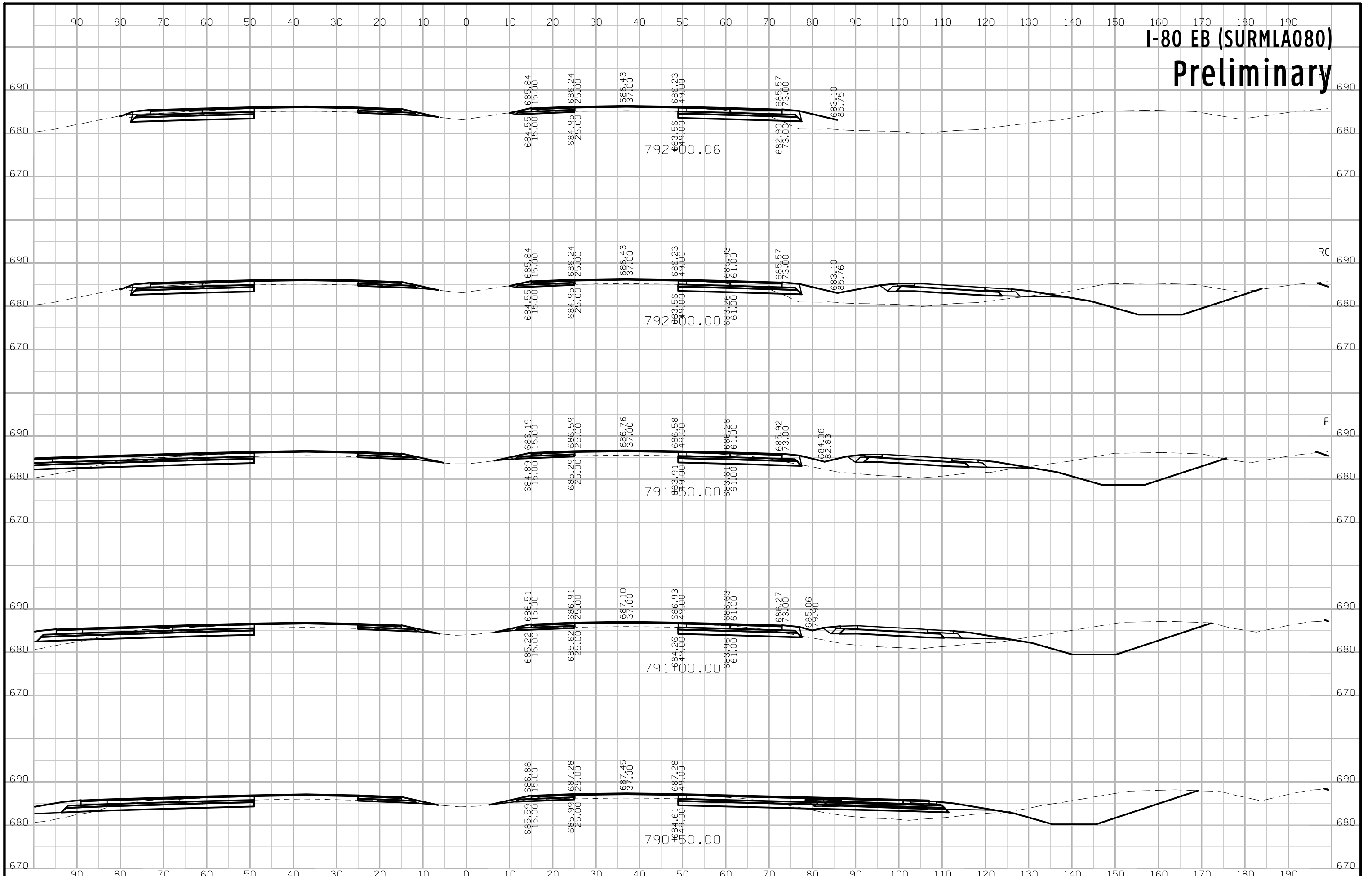
I-80 EB (SURMLA080) Preliminary



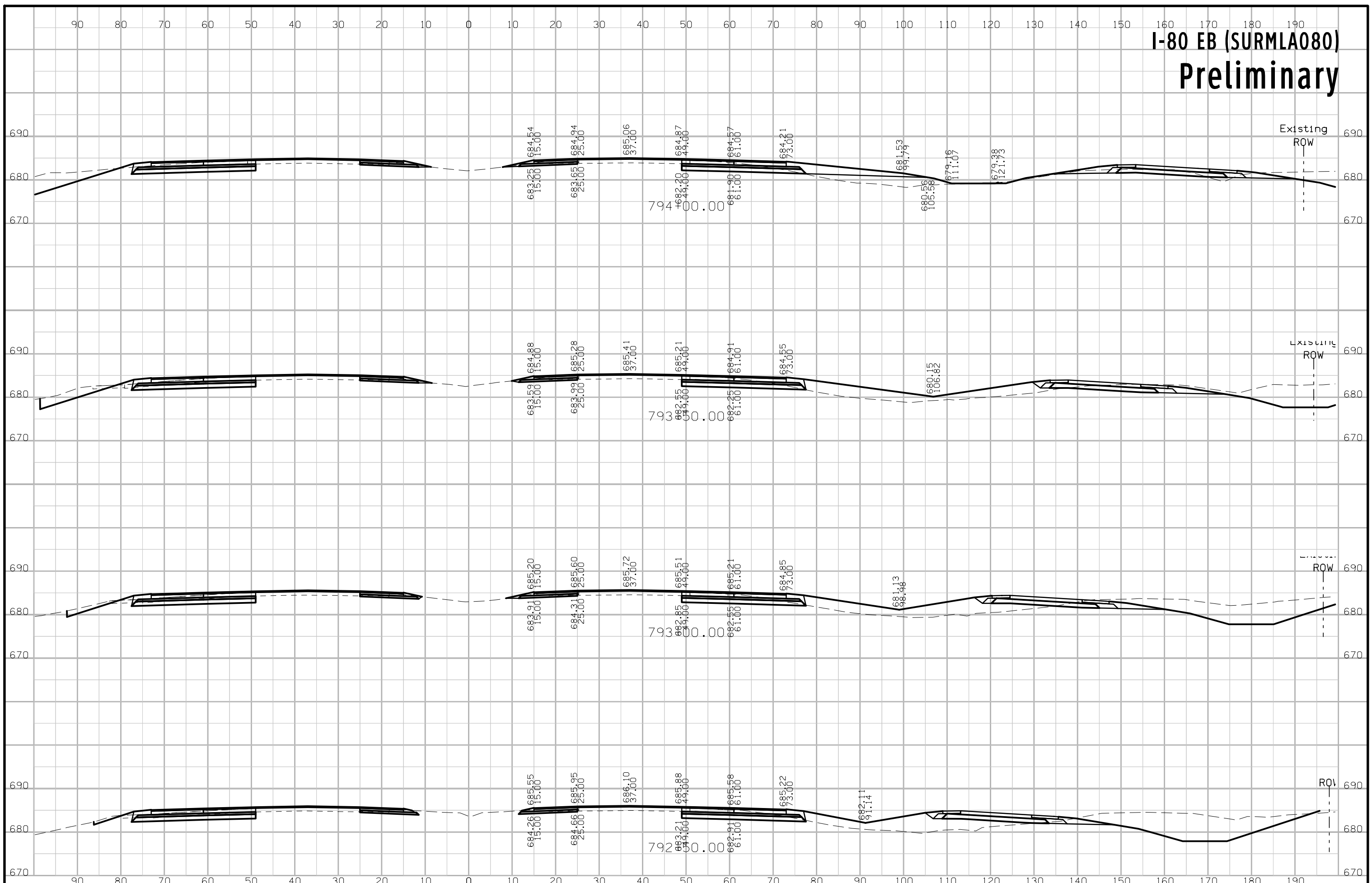
I-80 EB (SURMLA080) Preliminary



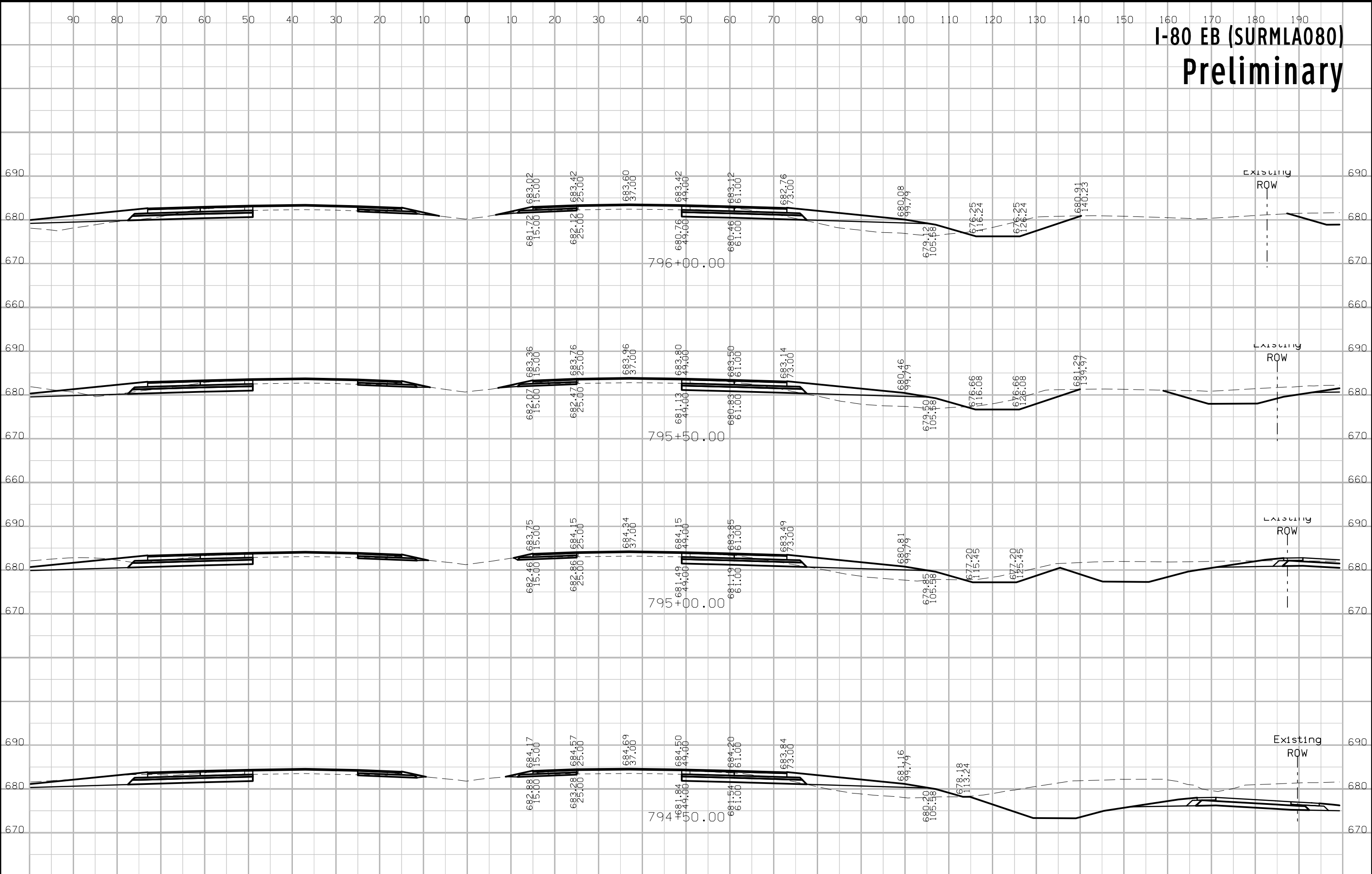
I-80 EB (SURMLA080) Preliminary



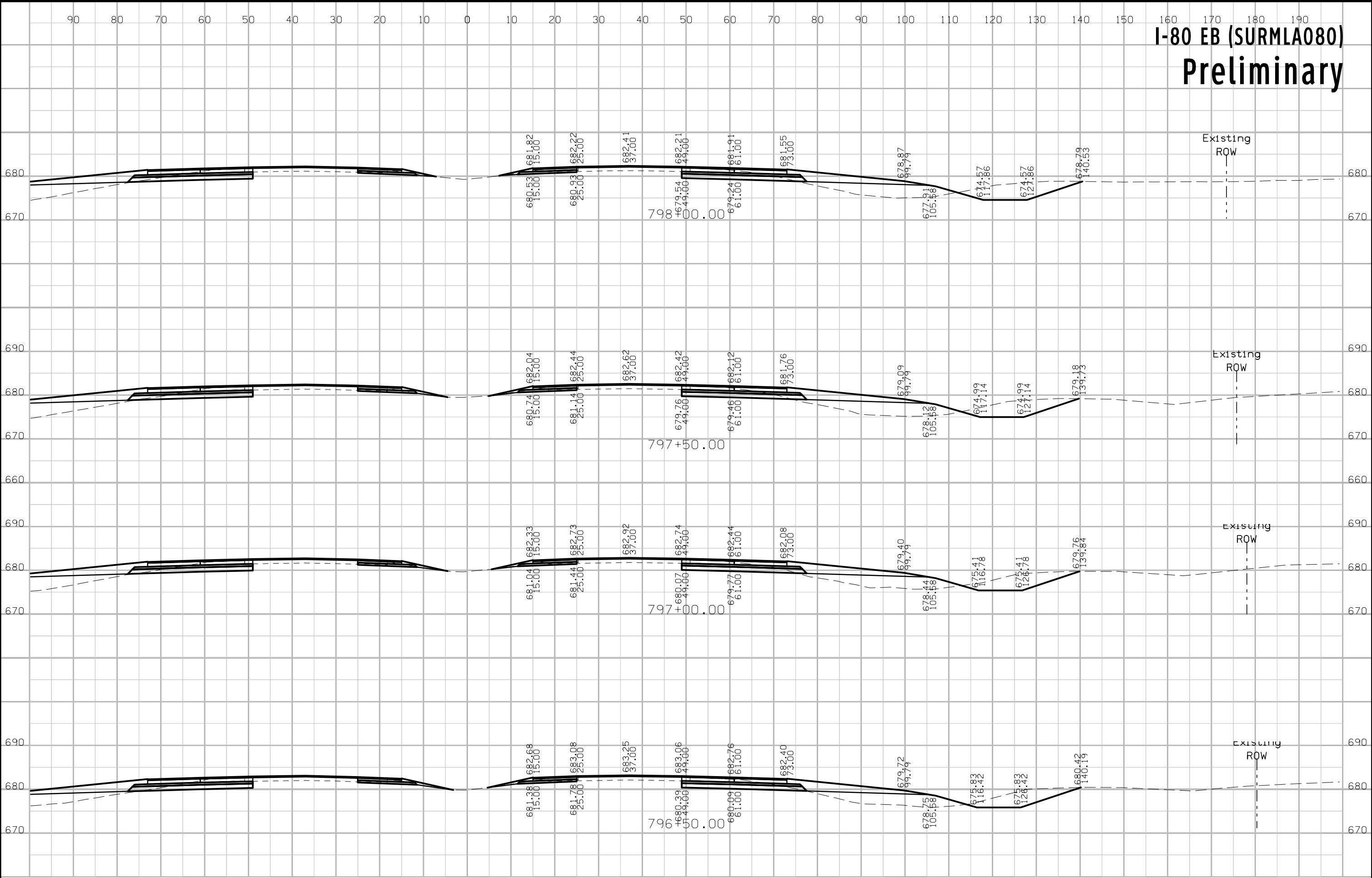
I-80 EB (SURMLA080) Preliminary



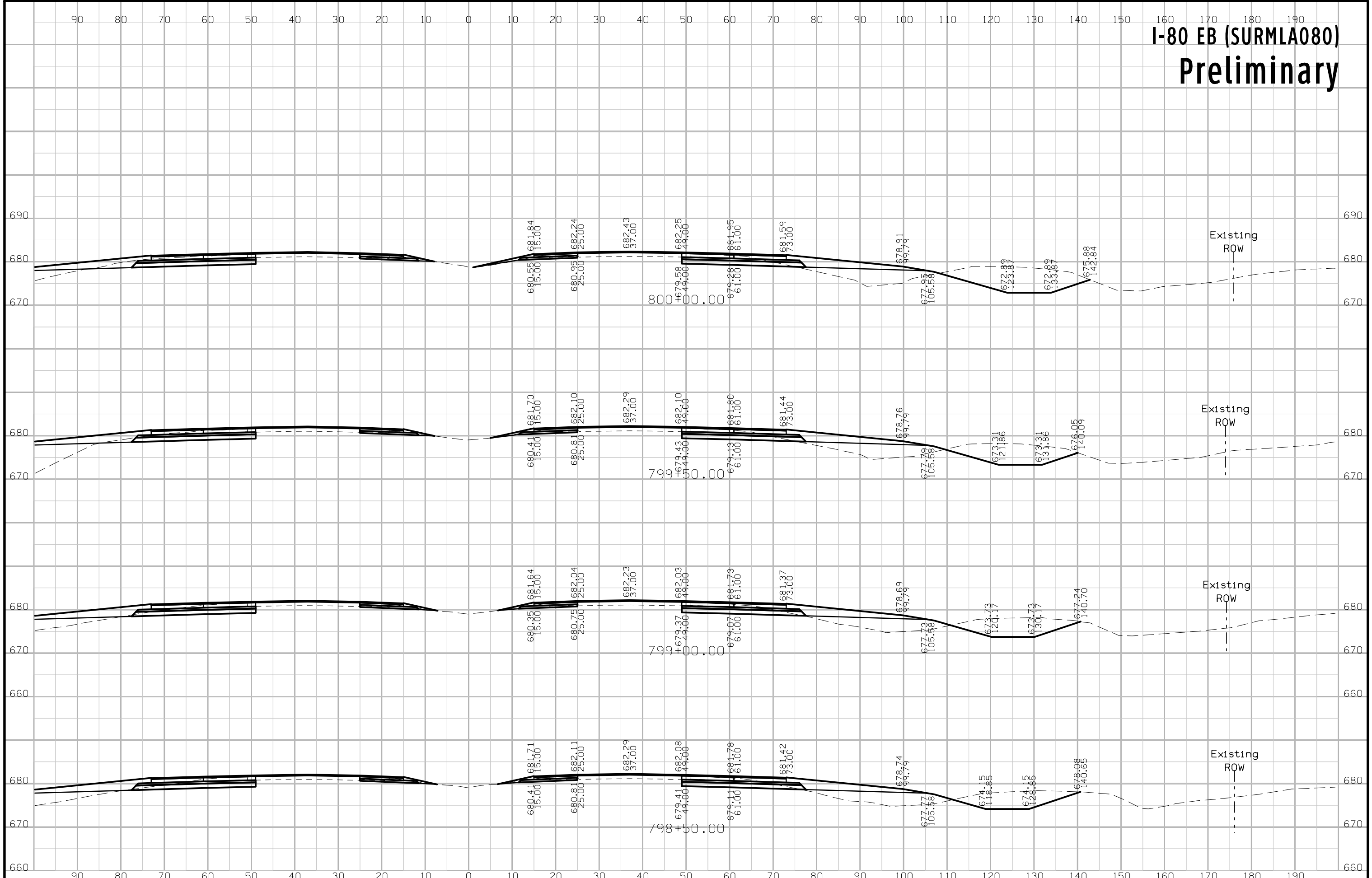
I-80 EB (SURMLA080) Preliminary



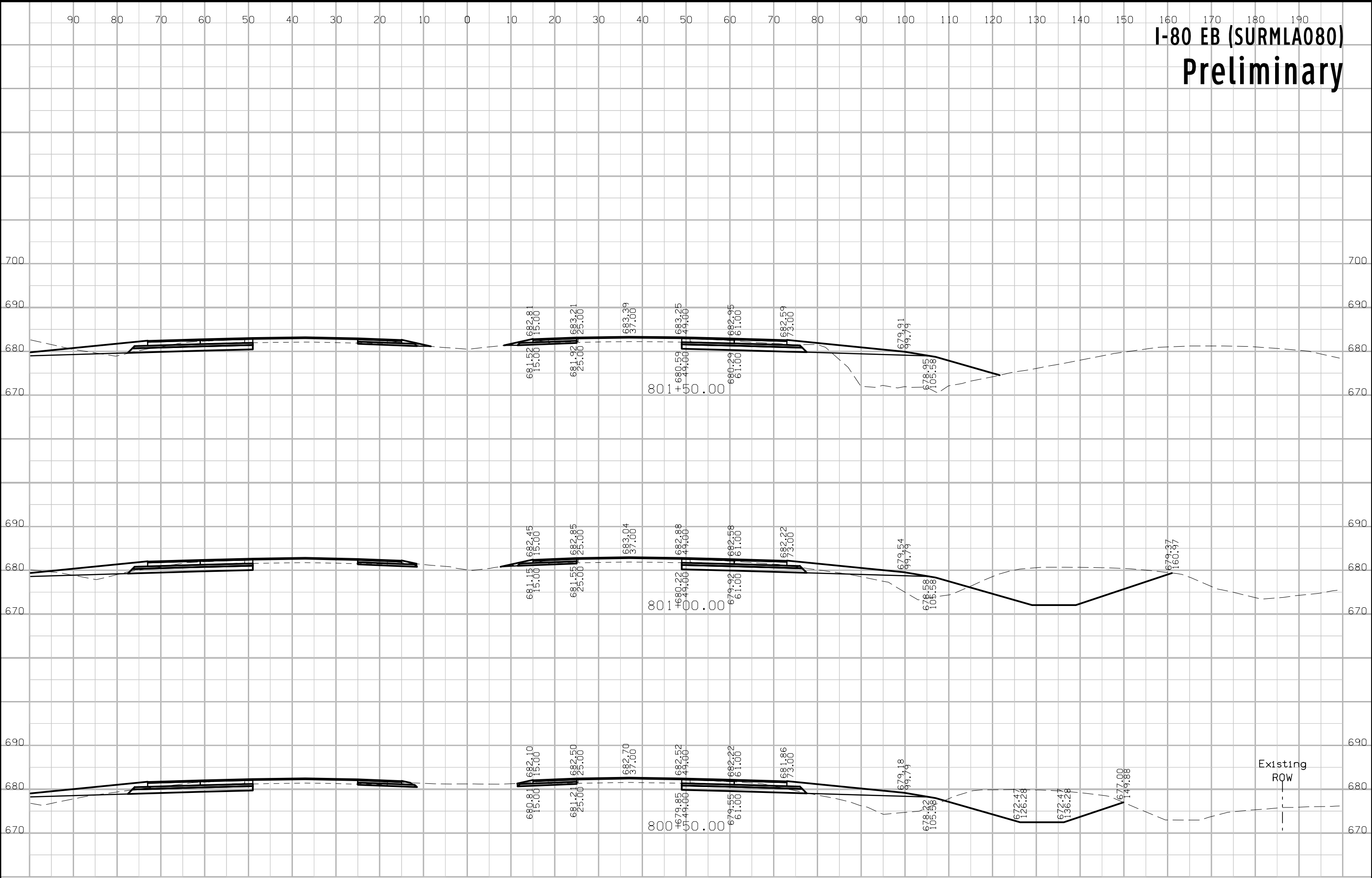
I-80 EB (SURMLA080) Preliminary



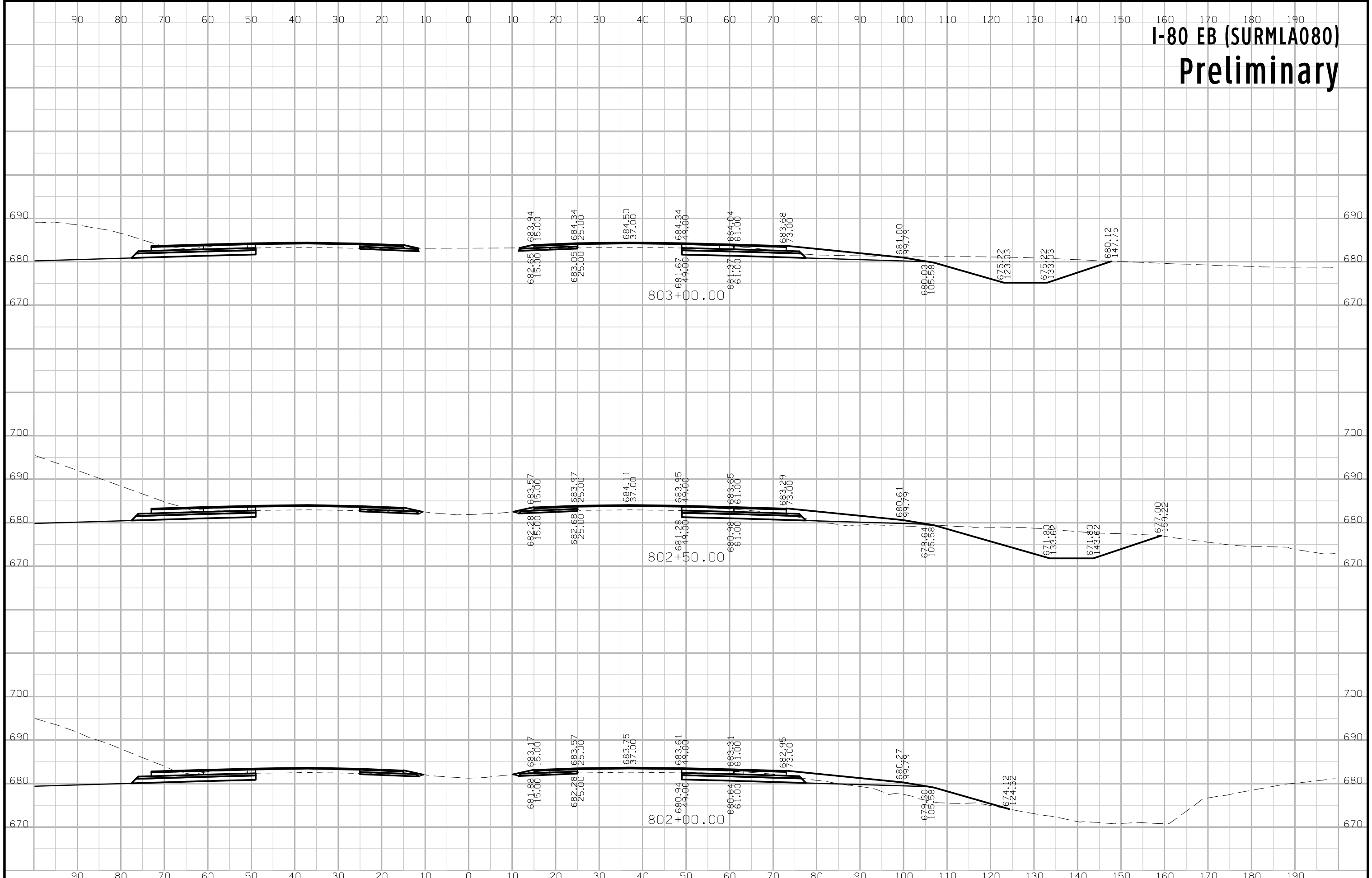
I-80 EB (SURMLA080) Preliminary



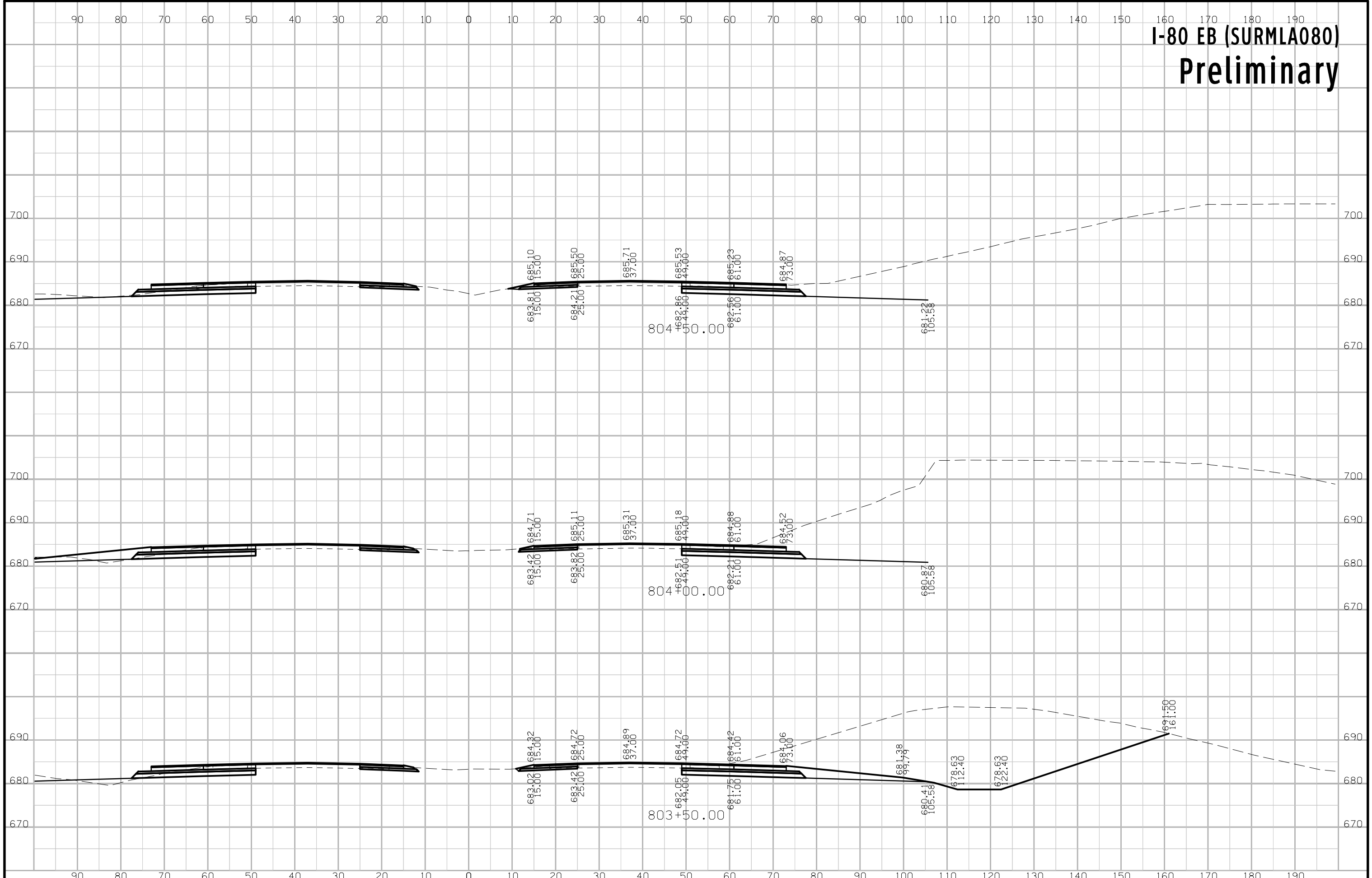
I-80 EB (SURMLA080) Preliminary



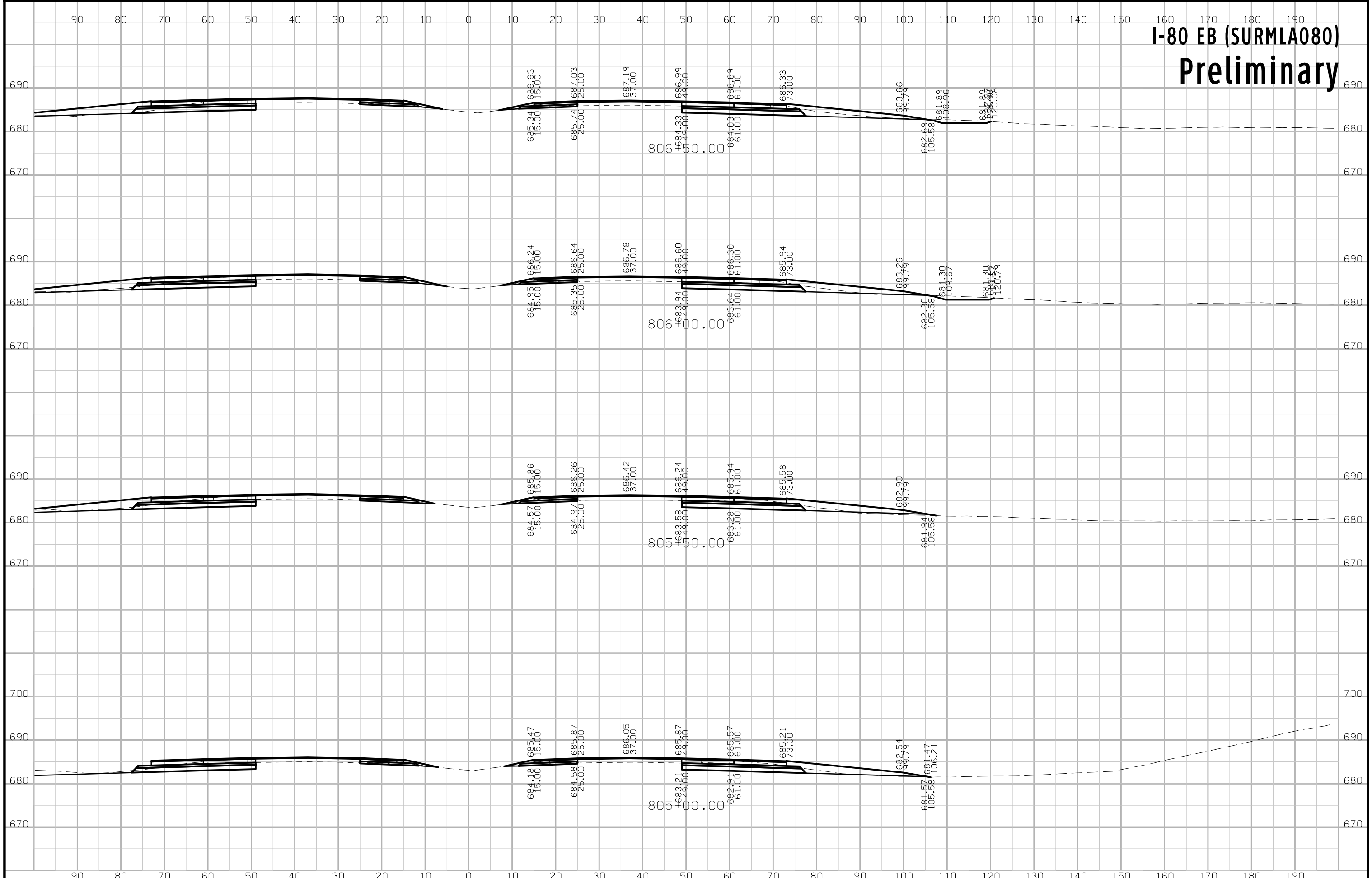
I-80 EB (SURMLA080) Preliminary



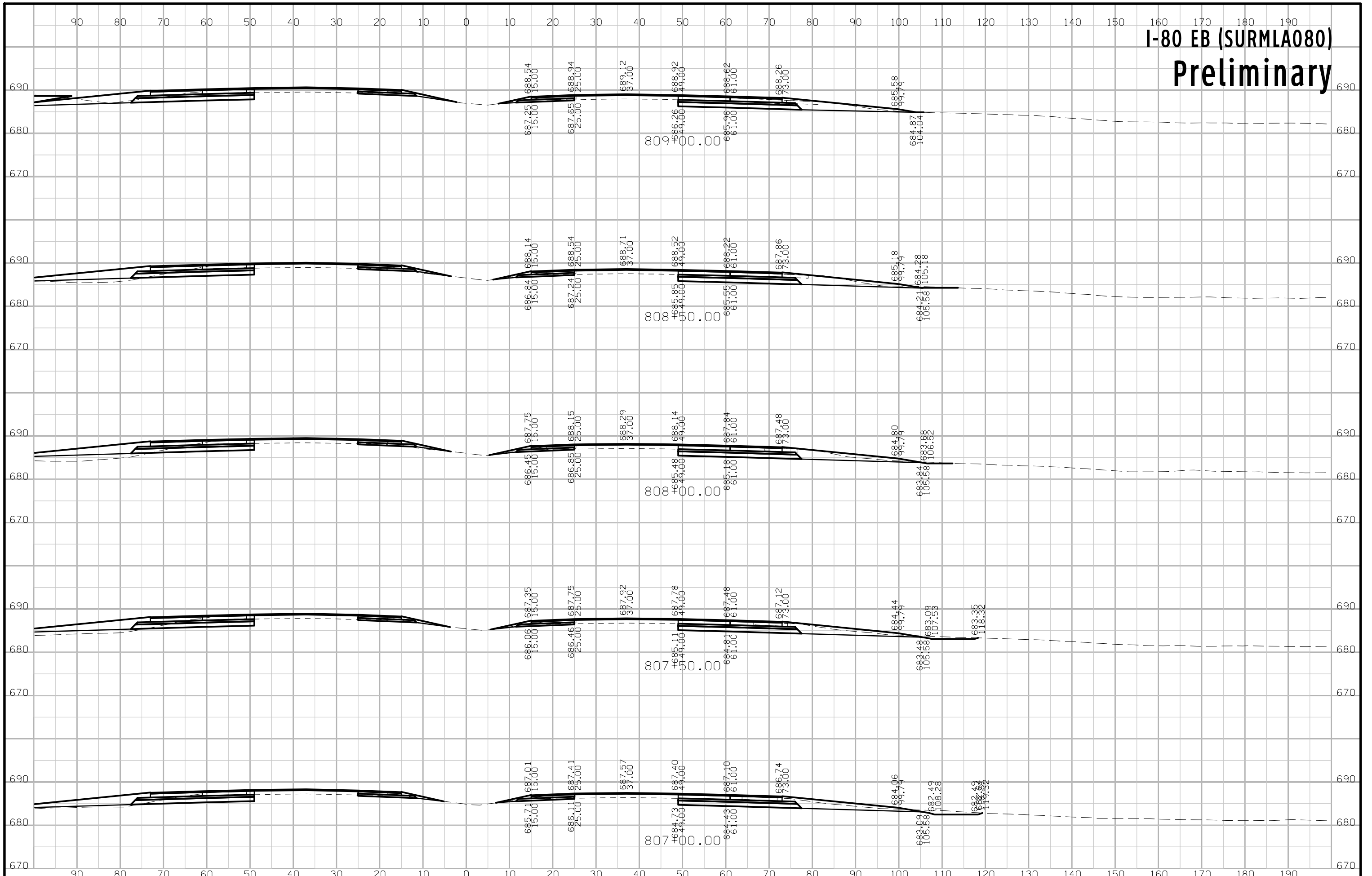
I-80 EB (SURMLA080) Preliminary



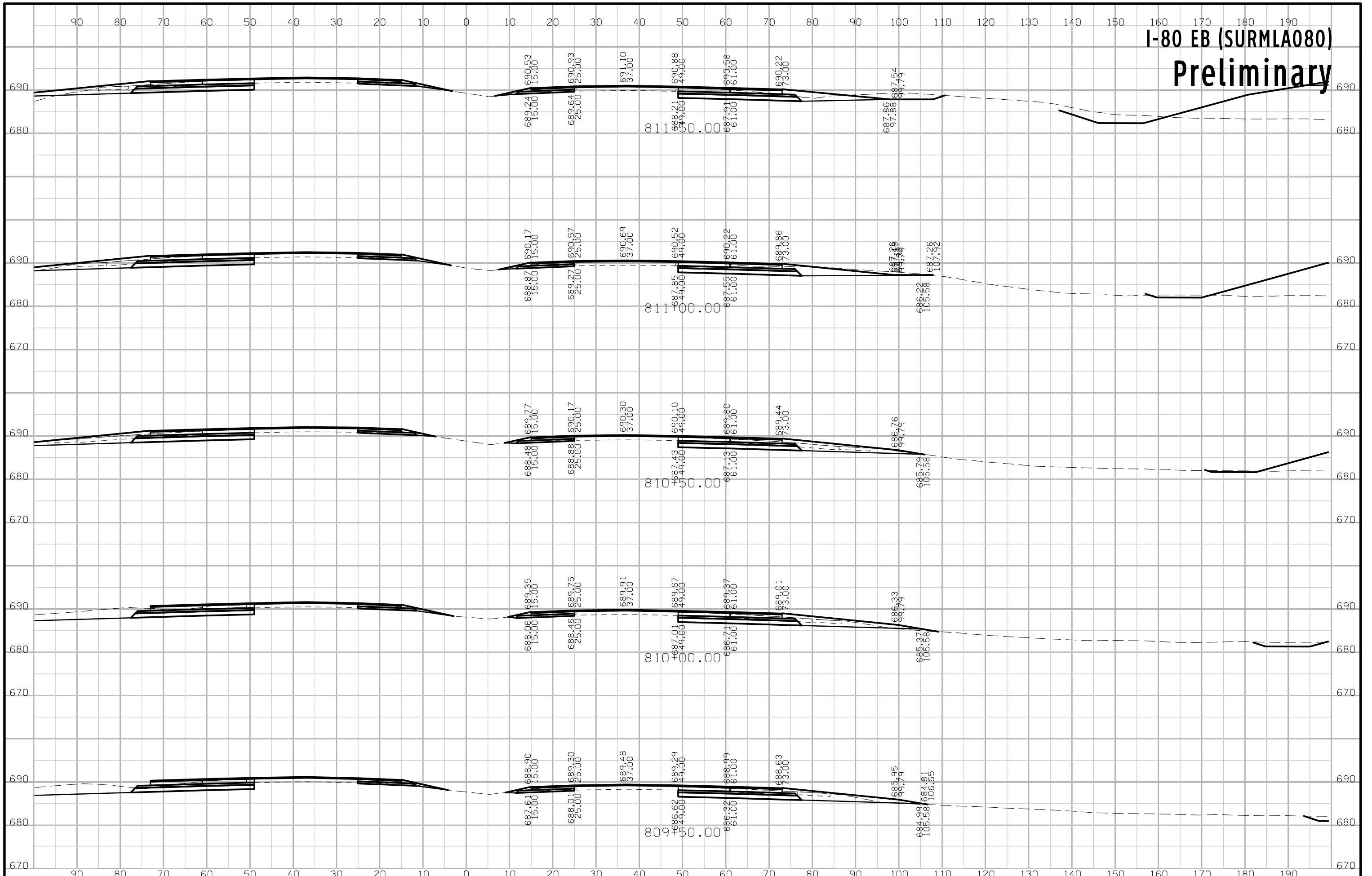
I-80 EB (SURMLA080) Preliminary



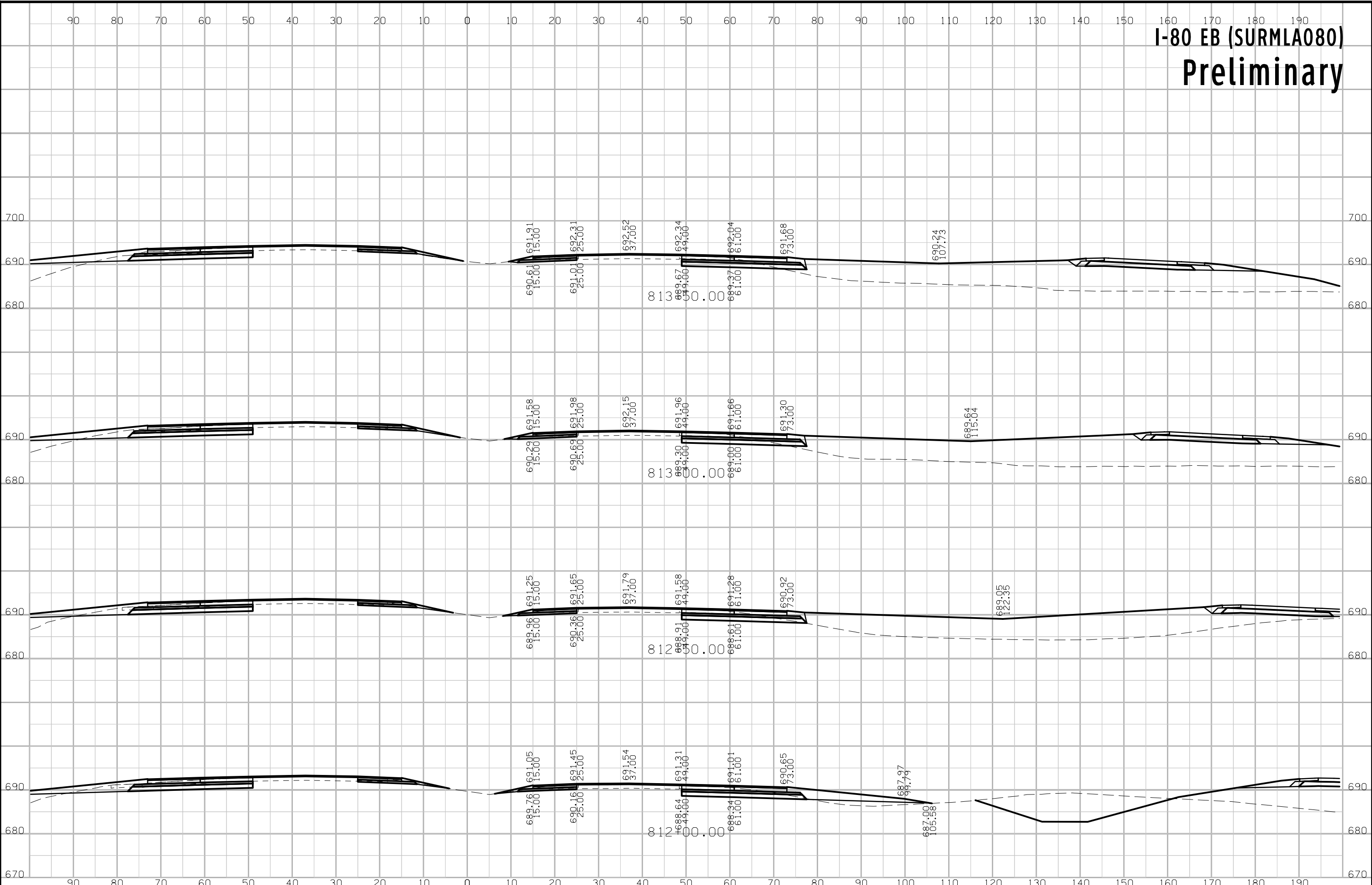
I-80 EB (SURMLA080) Preliminary



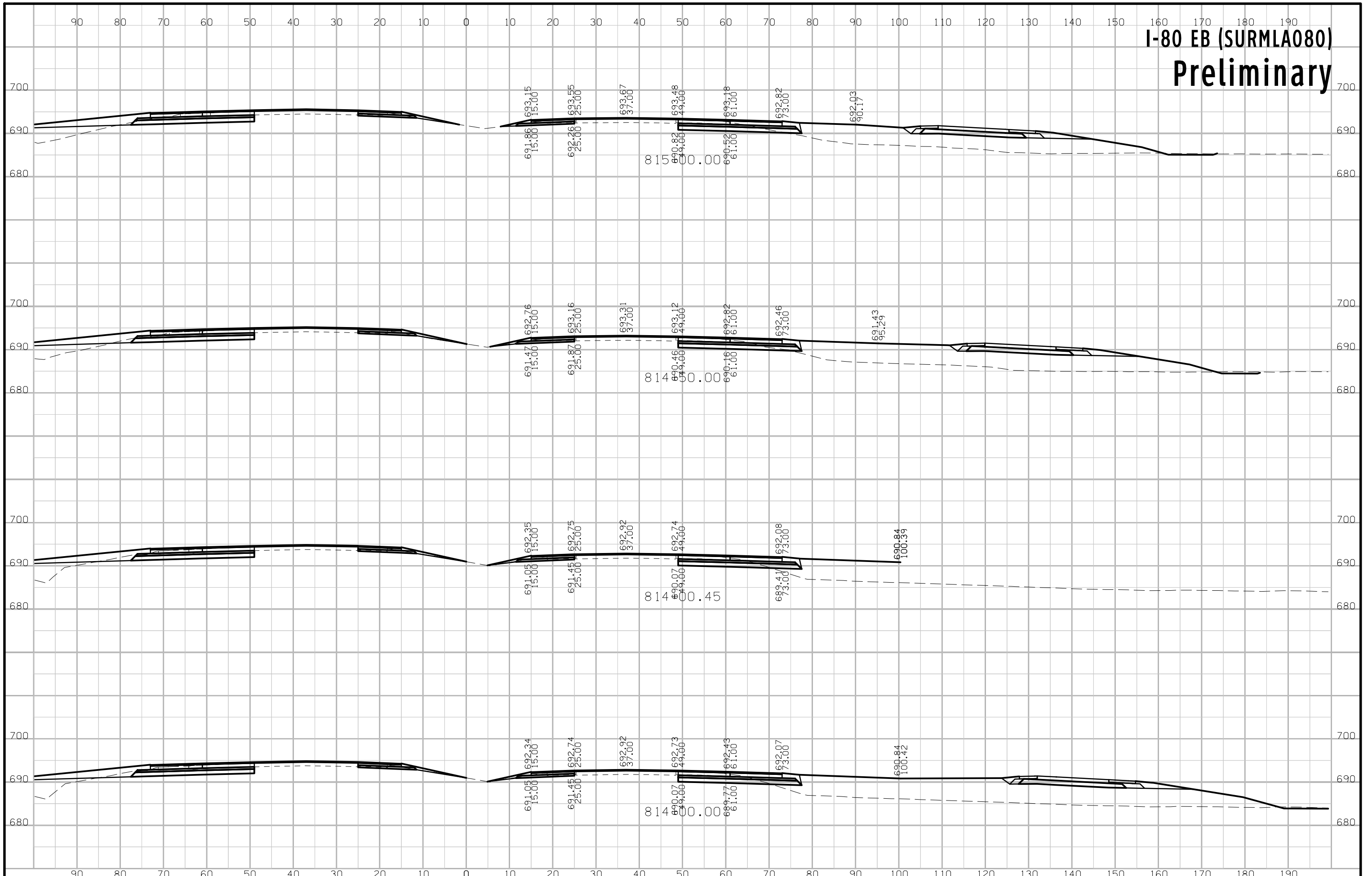
I-80 EB (SURMLA080) Preliminary



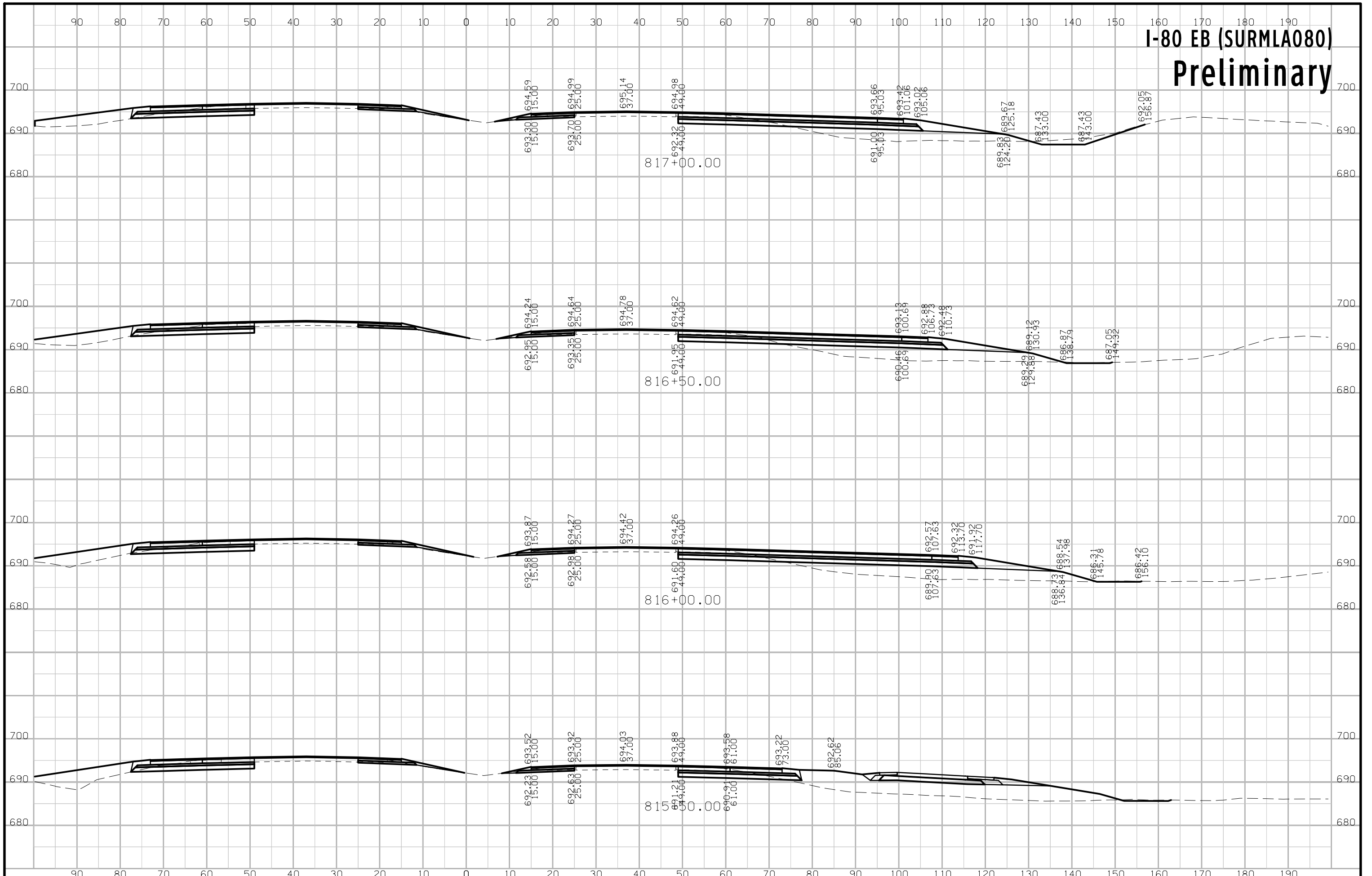
I-80 EB (SURMLA080) Preliminary



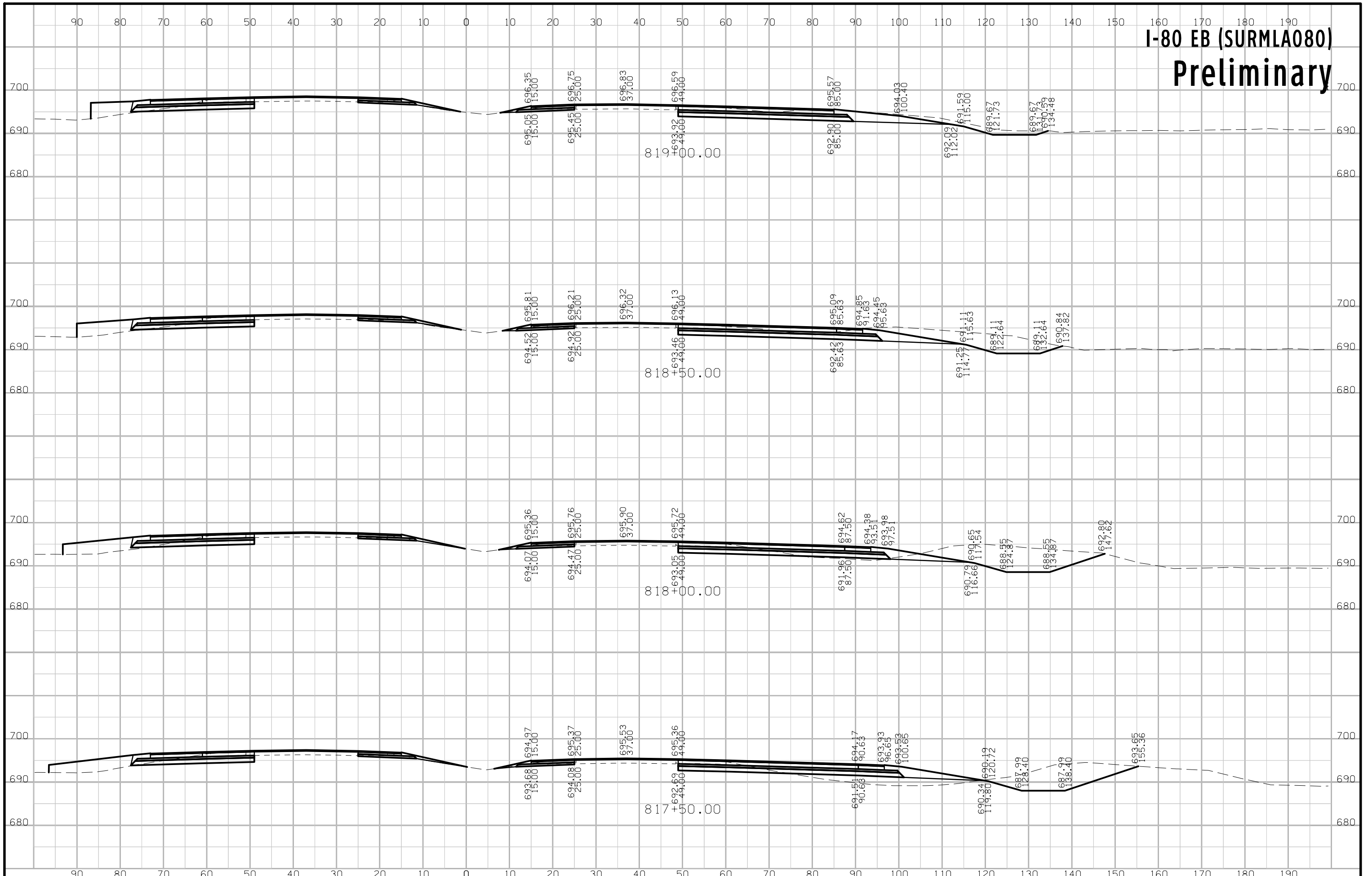
I-80 EB (SURMLA080) Preliminary



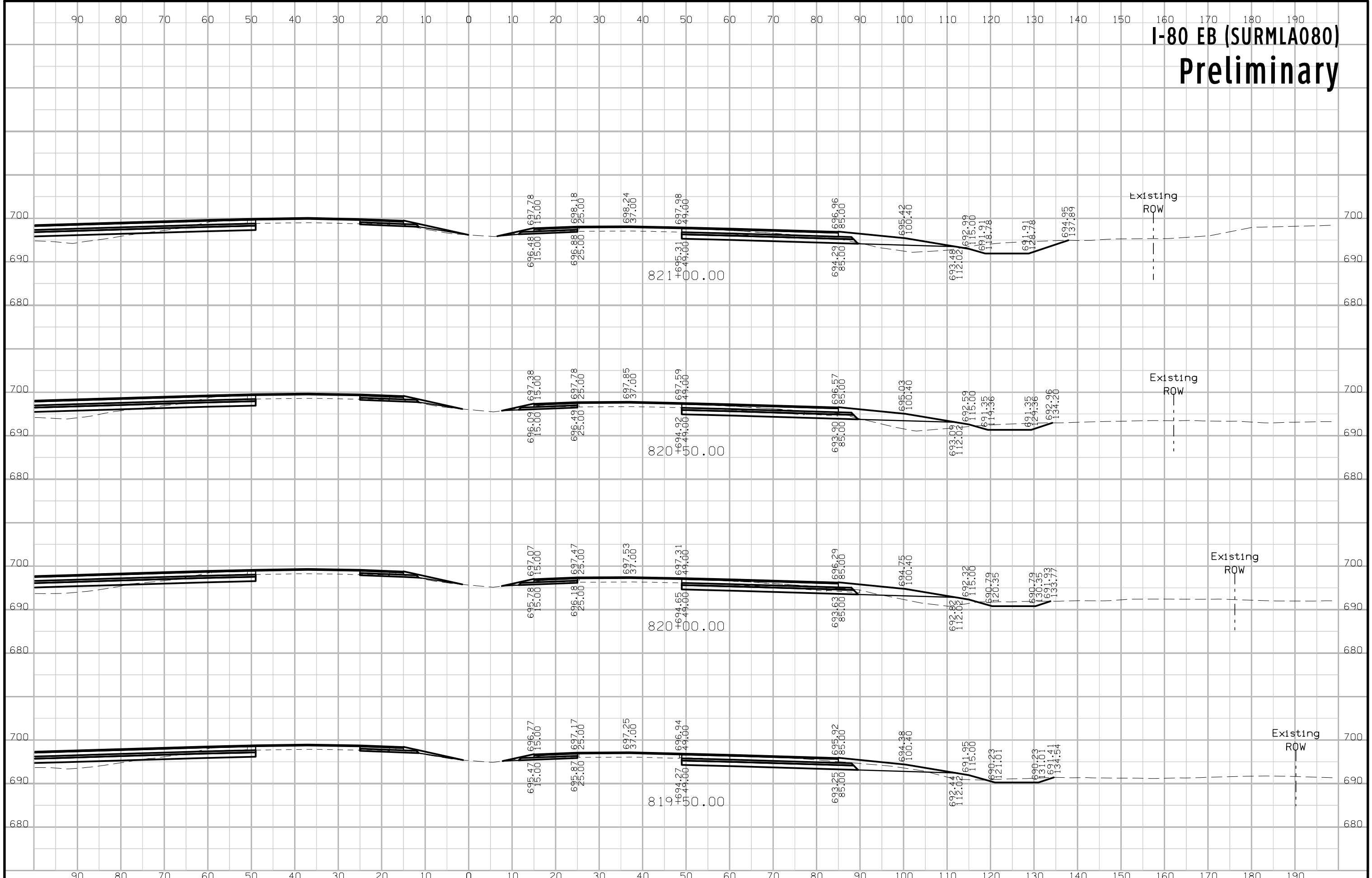
I-80 EB (SURMLA080) Preliminary



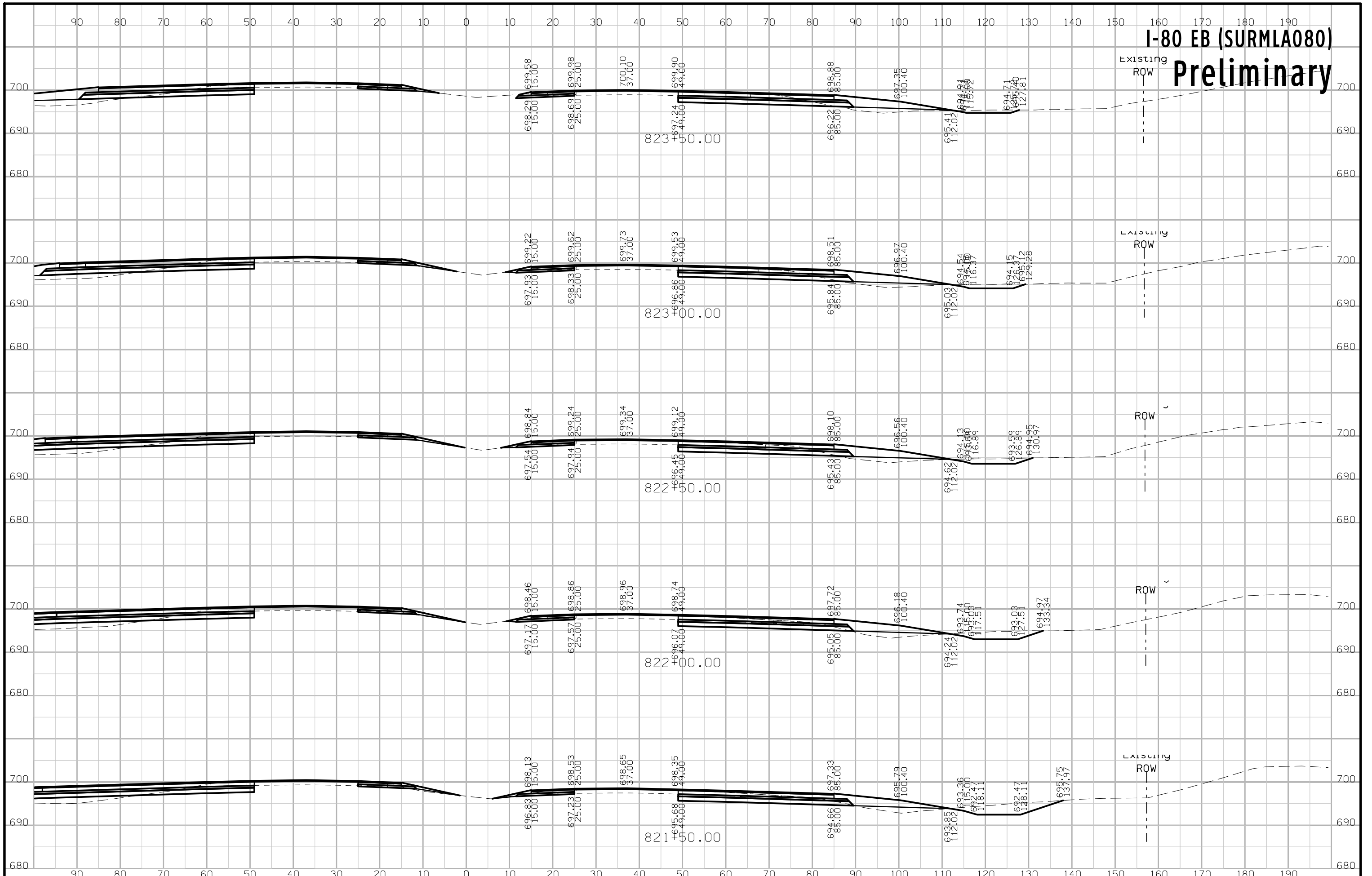
I-80 EB (SURMLA080) Preliminary



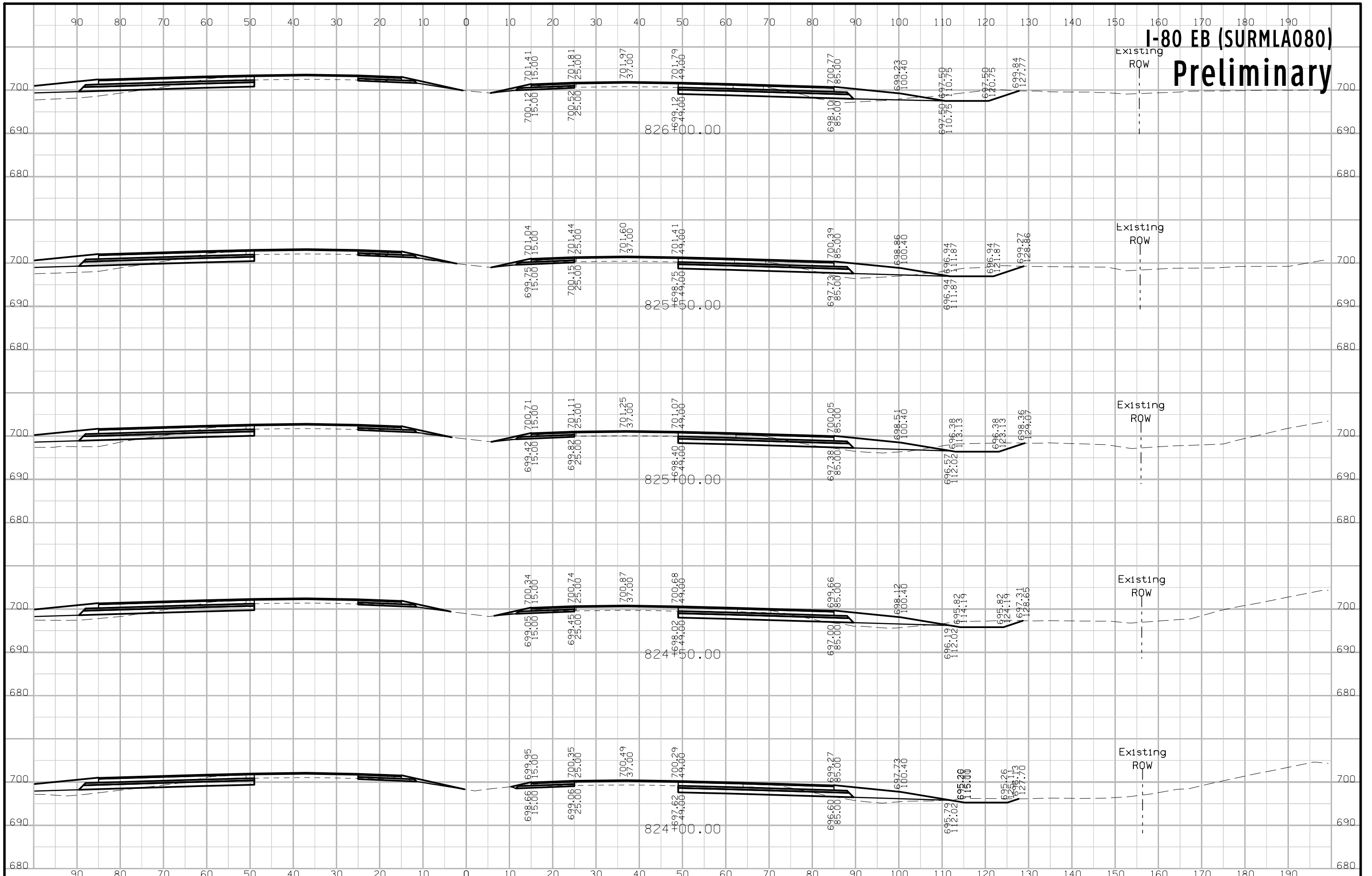
I-80 EB (SURMLA080) Preliminary



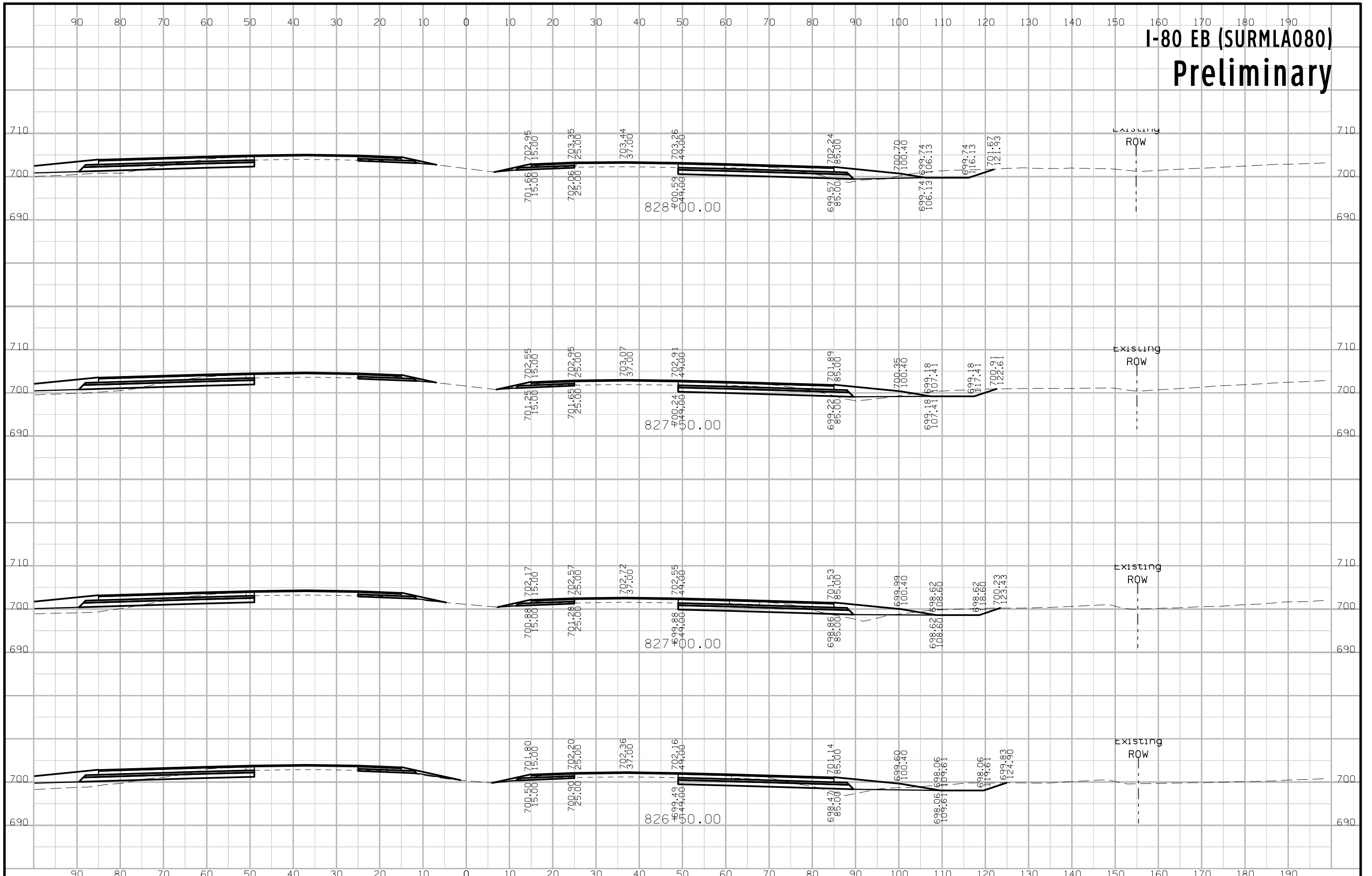
I-80 EB (SURMLA080) Preliminary



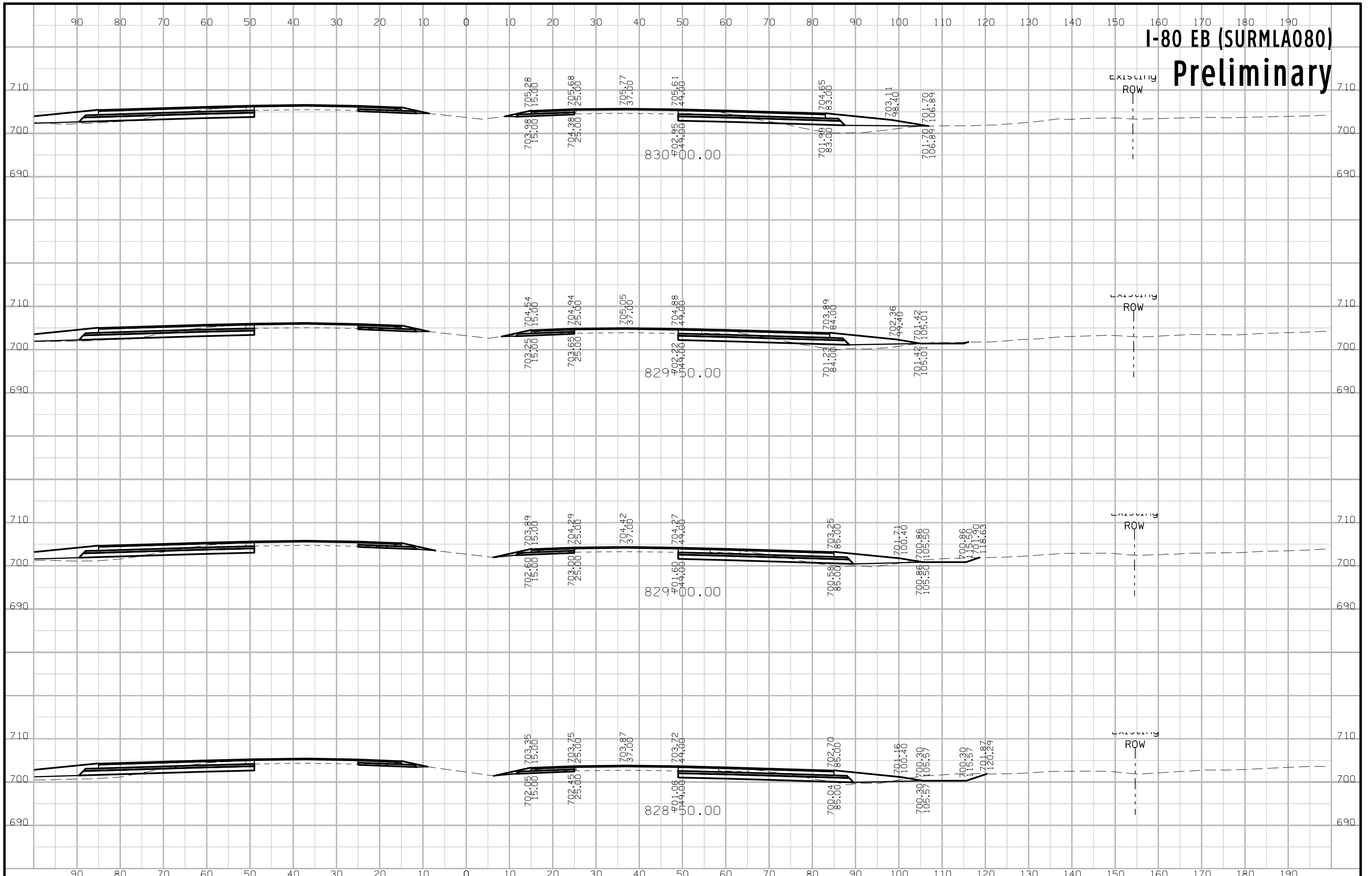
I-80 EB (SURMLA080) Preliminary



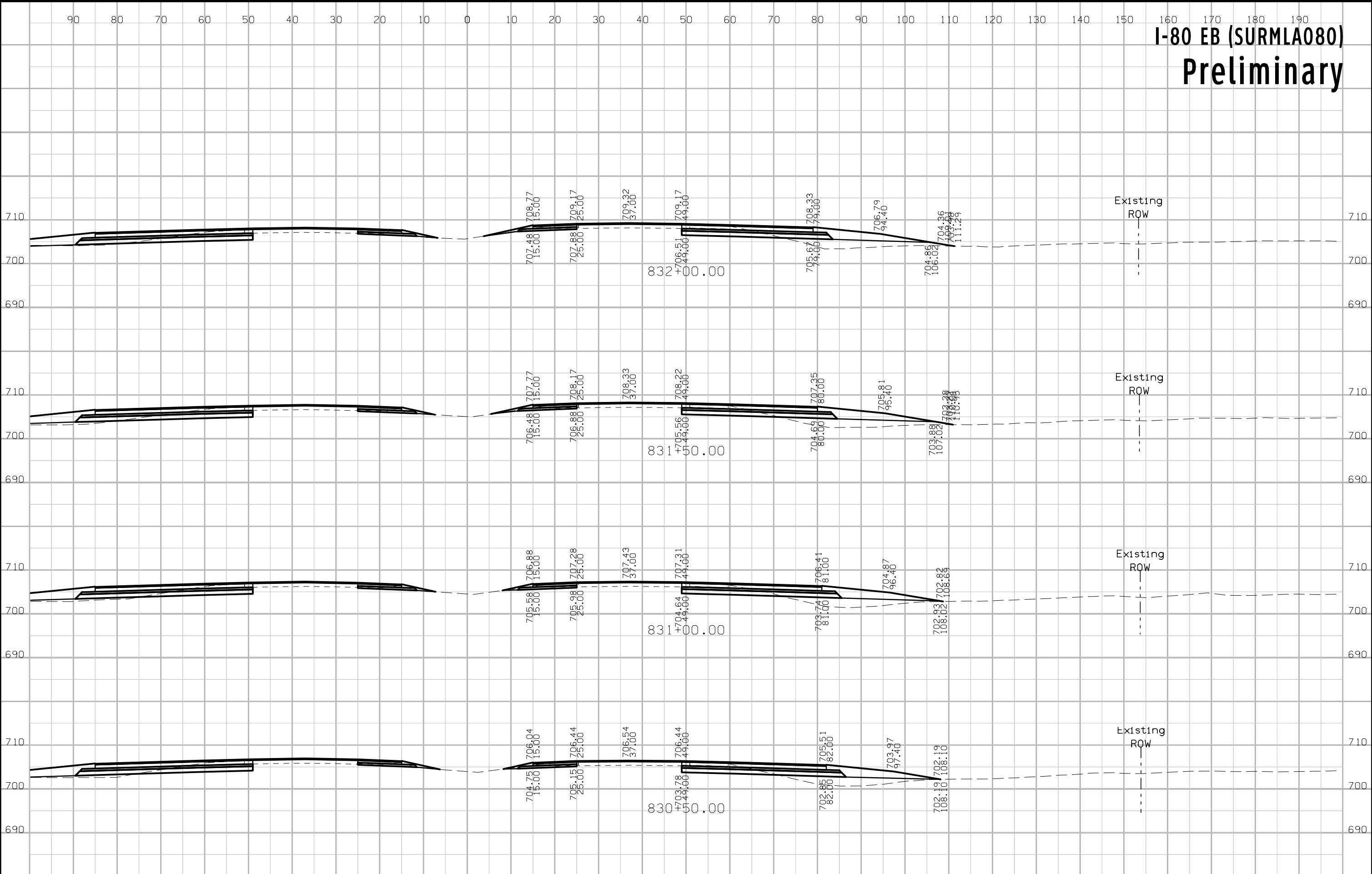
I-80 EB (SURMLA080) Preliminary



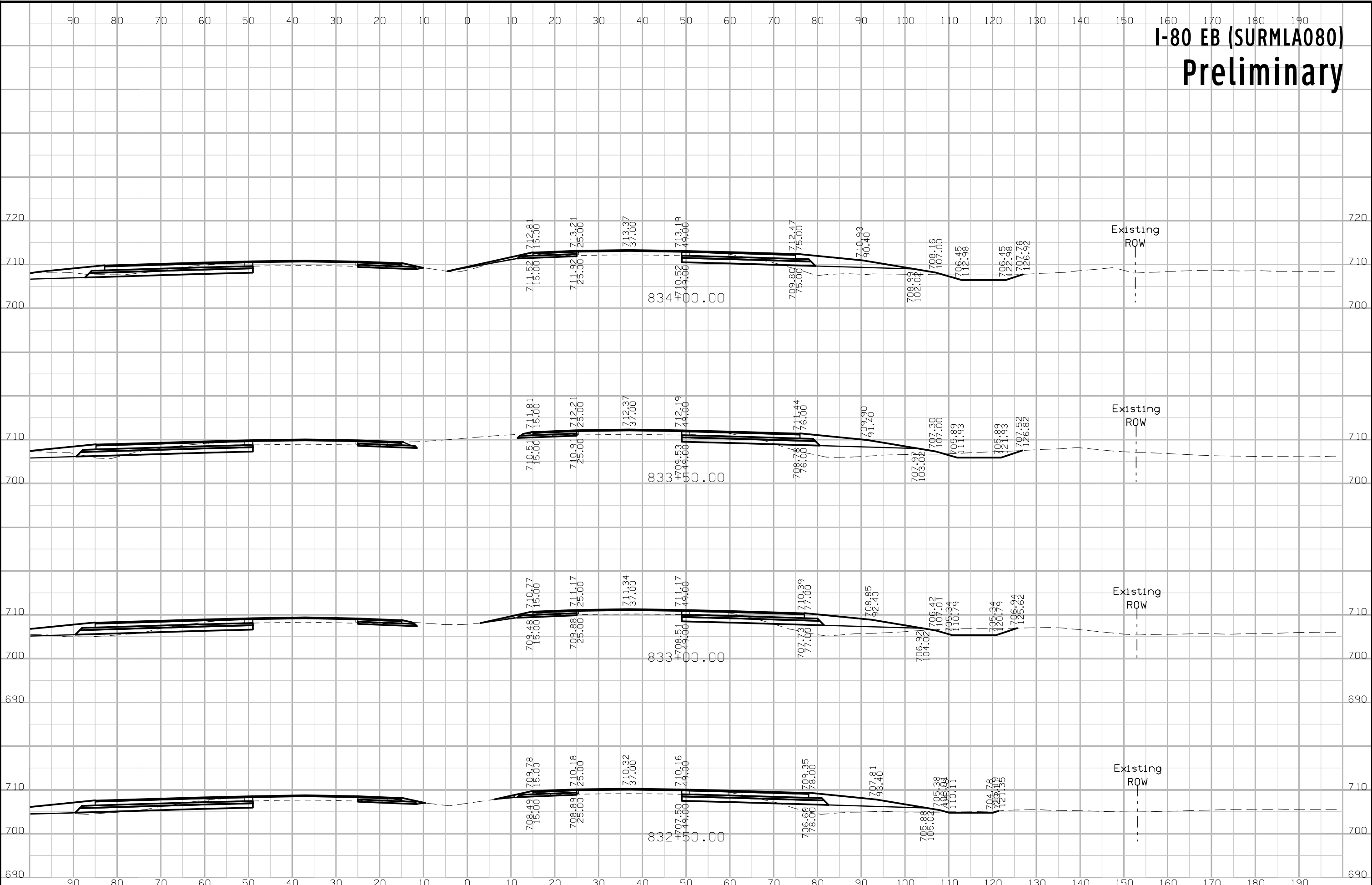
I-80 EB (SURMLA080) Preliminary



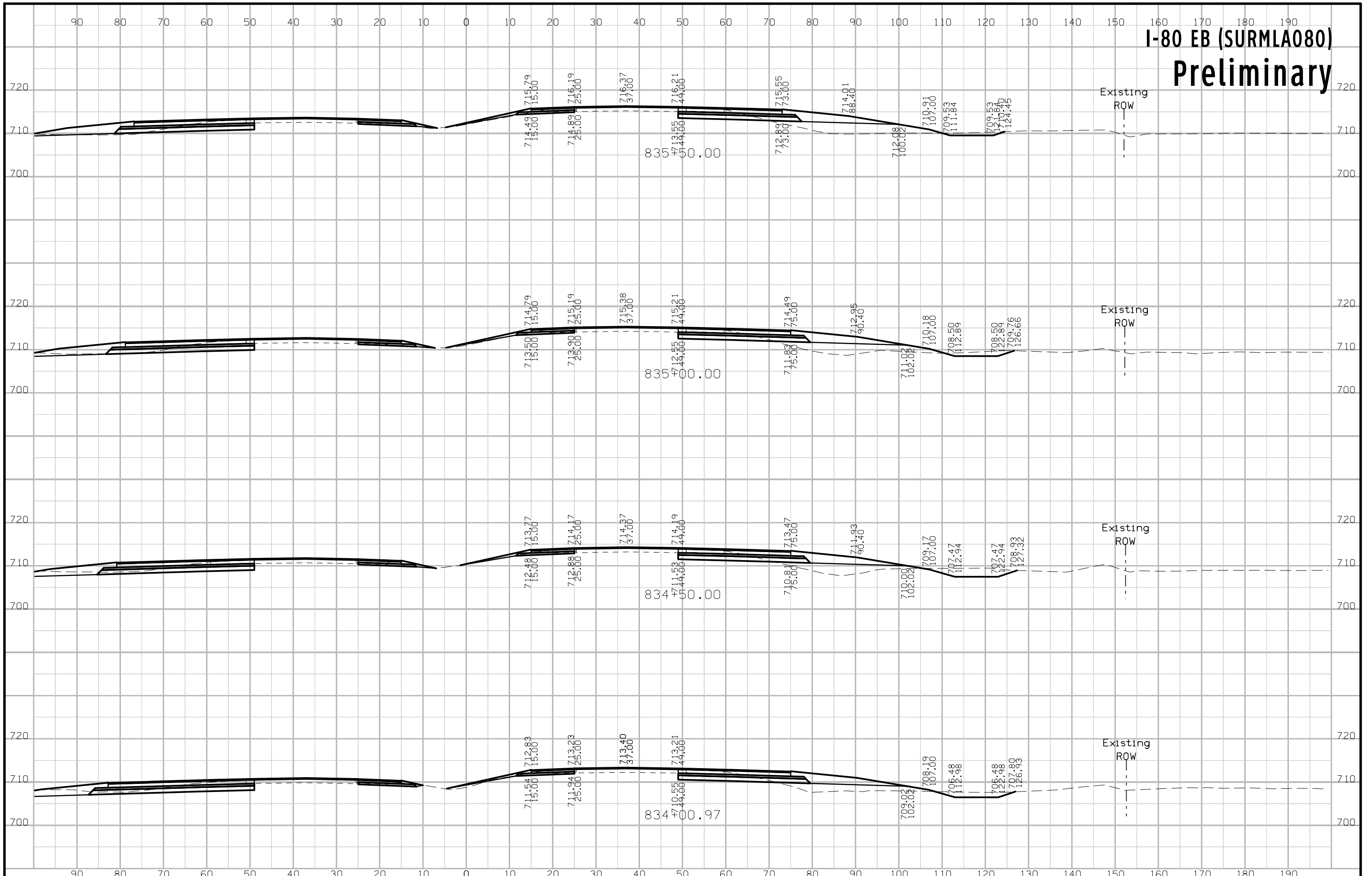
I-80 EB (SURMLA080) Preliminary



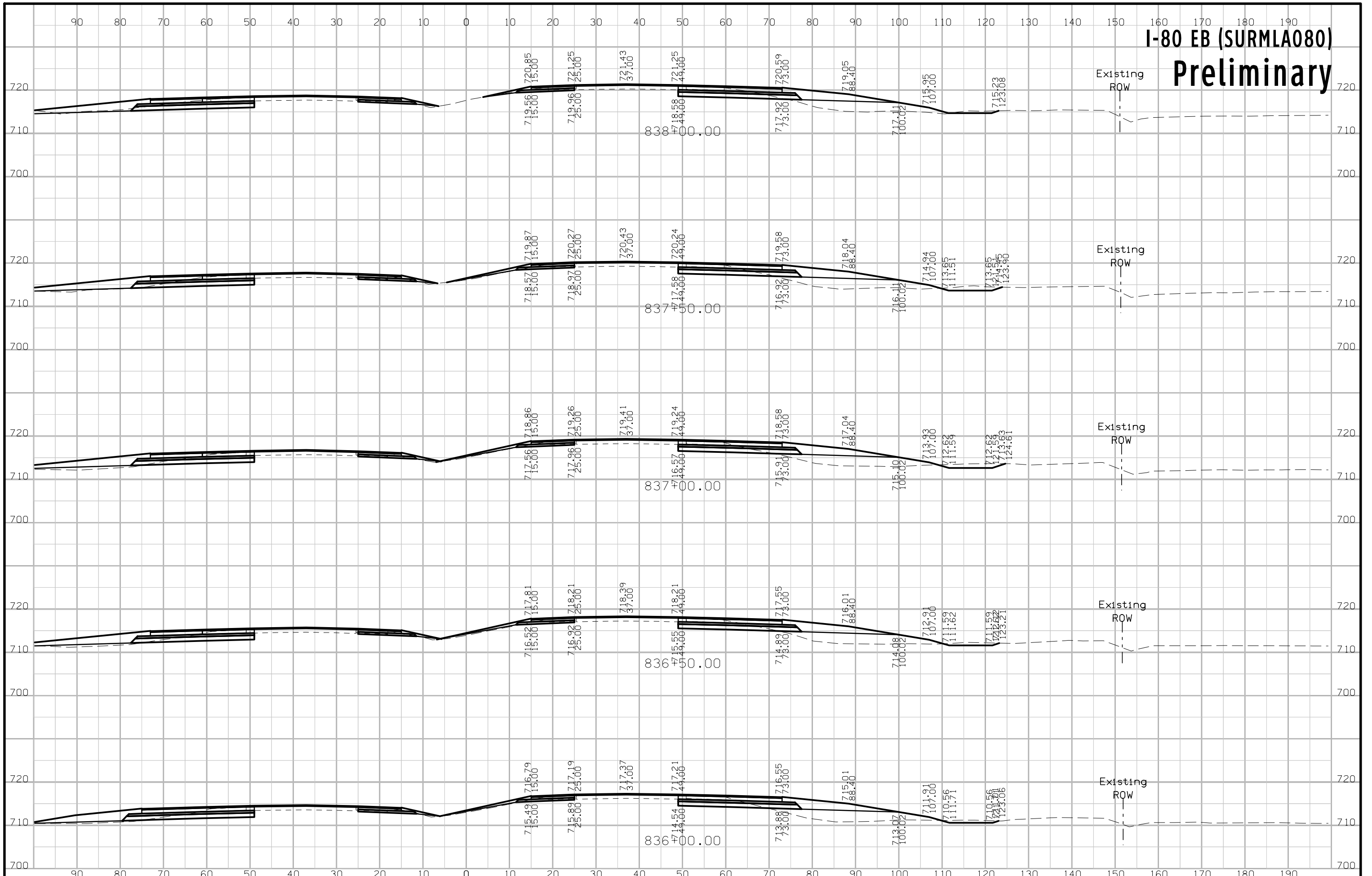
I-80 EB (SURMLA080) Preliminary



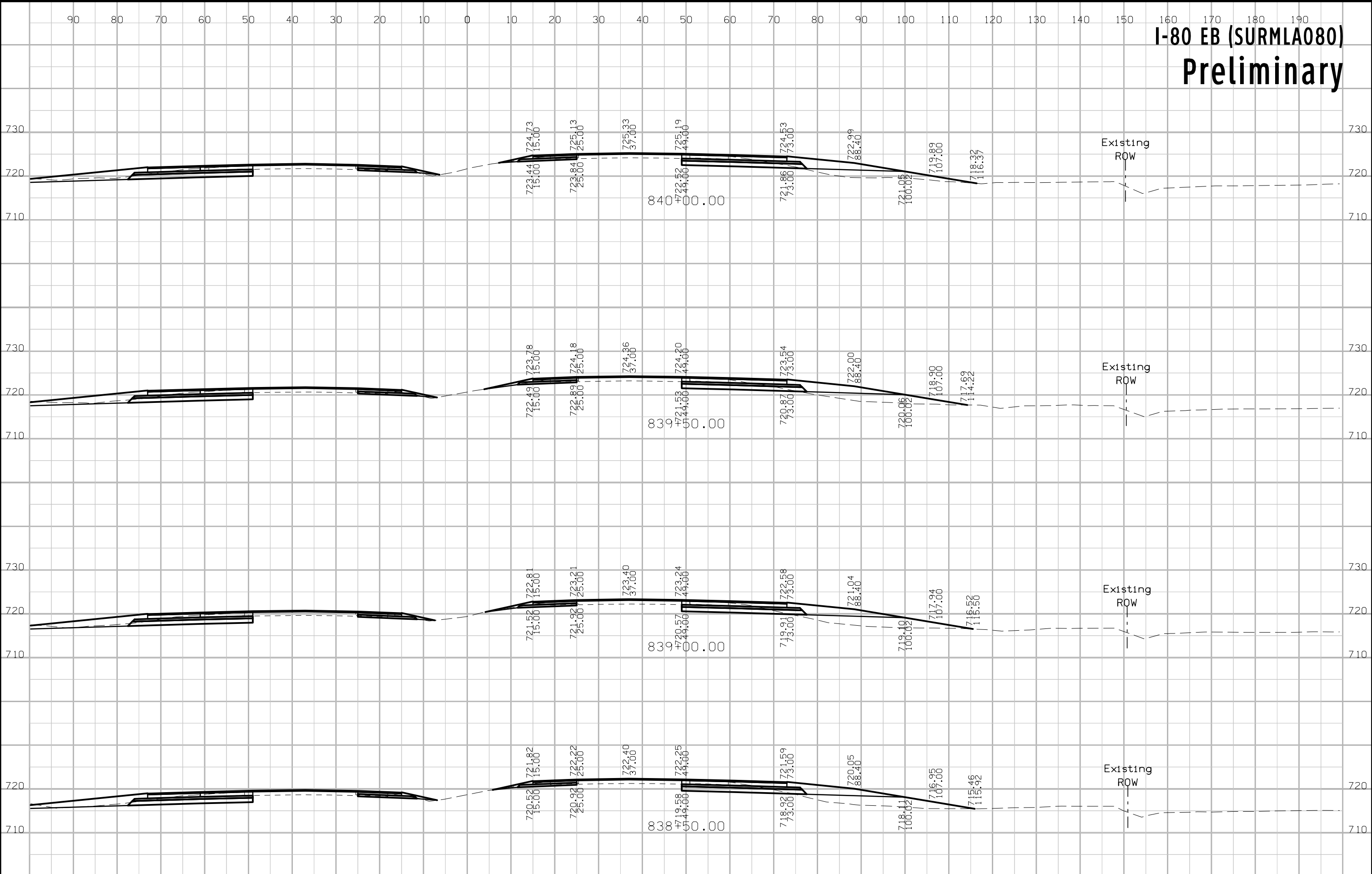
I-80 EB (SURMLA080) Preliminary



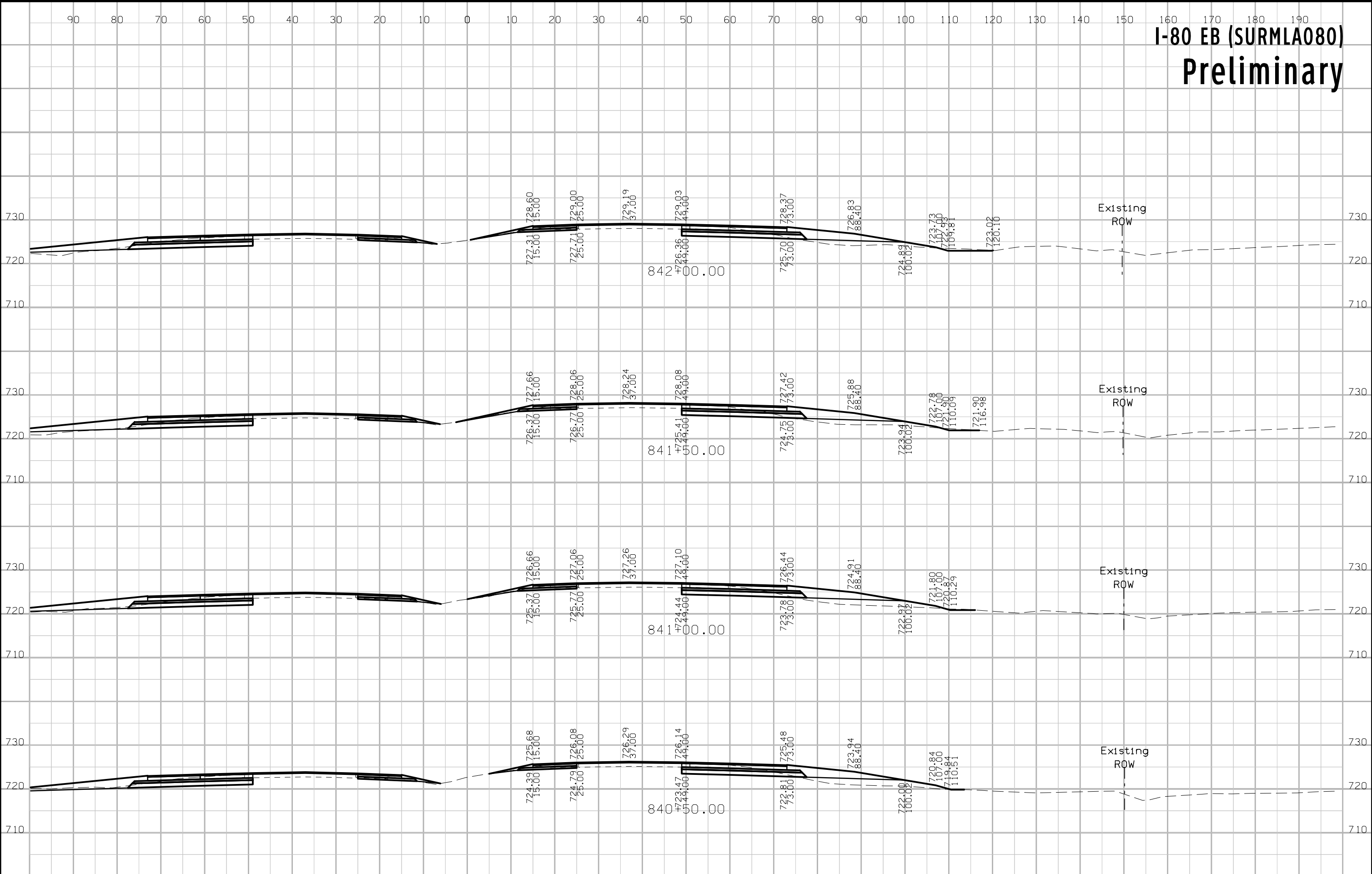
I-80 EB (SURMLA080) Preliminary



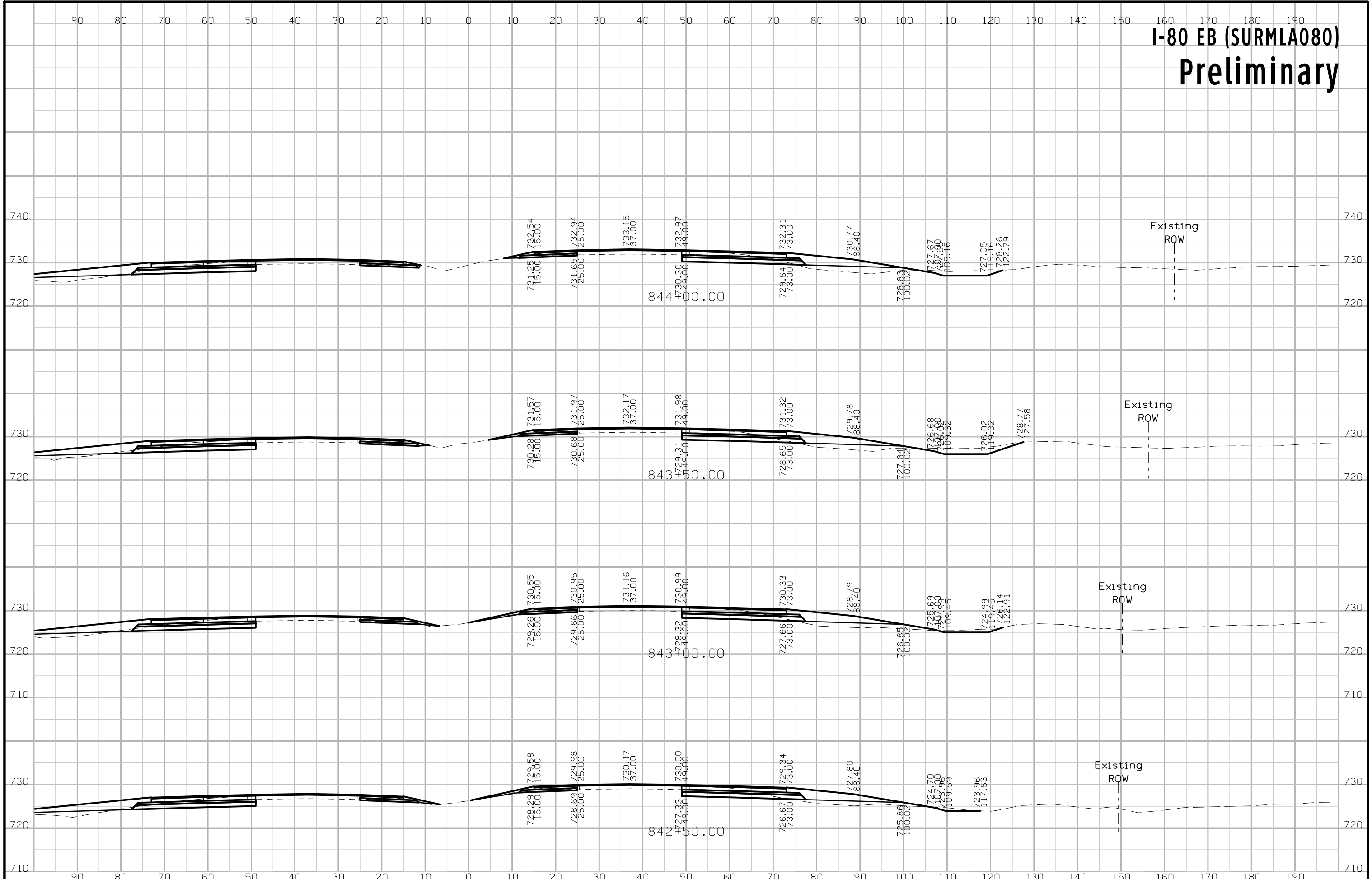
I-80 EB (SURMLA080) Preliminary



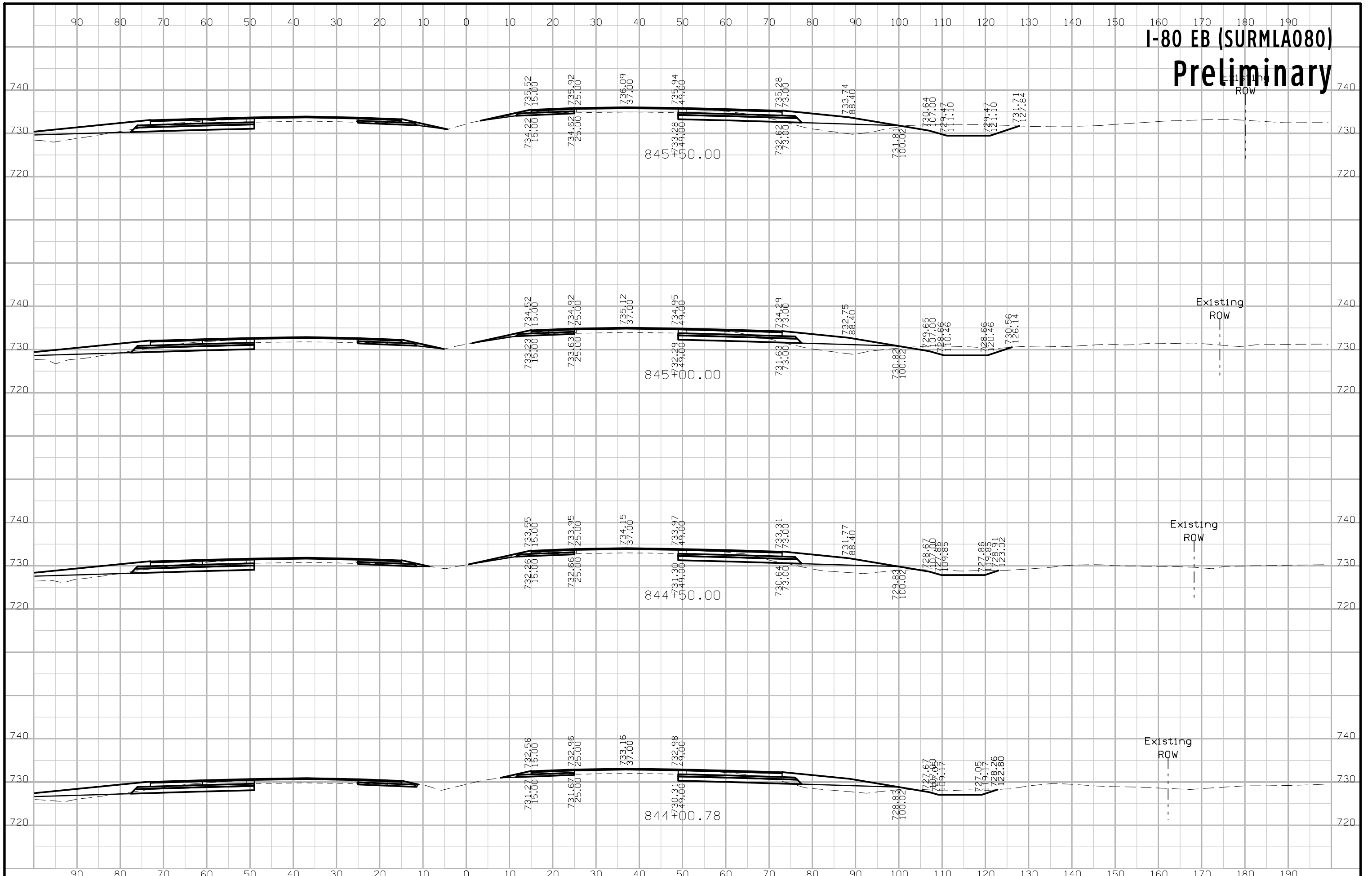
I-80 EB (SURMLA080) Preliminary



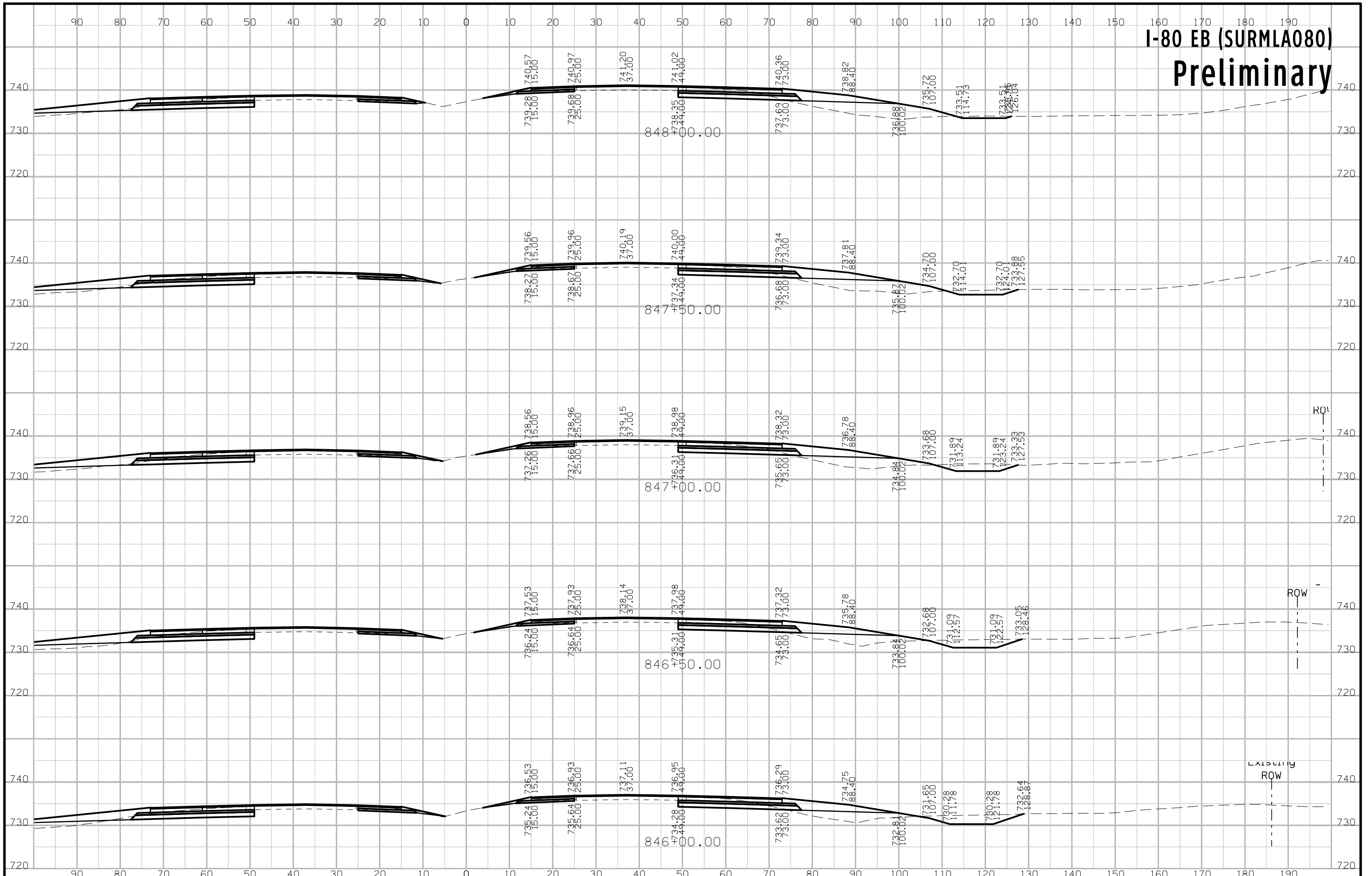
I-80 EB (SURMLA080) Preliminary



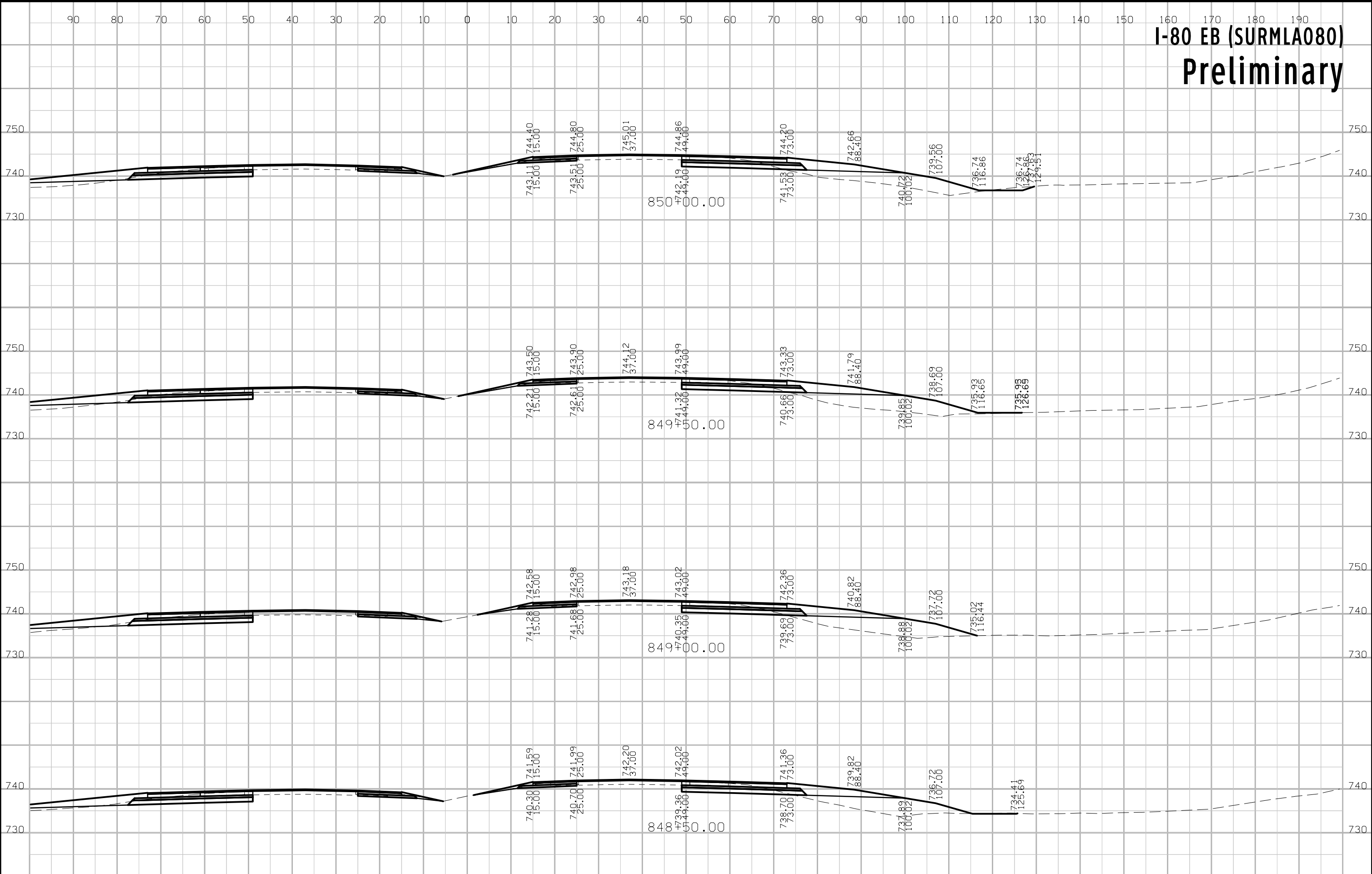
I-80 EB (SURMLA080) Preliminary



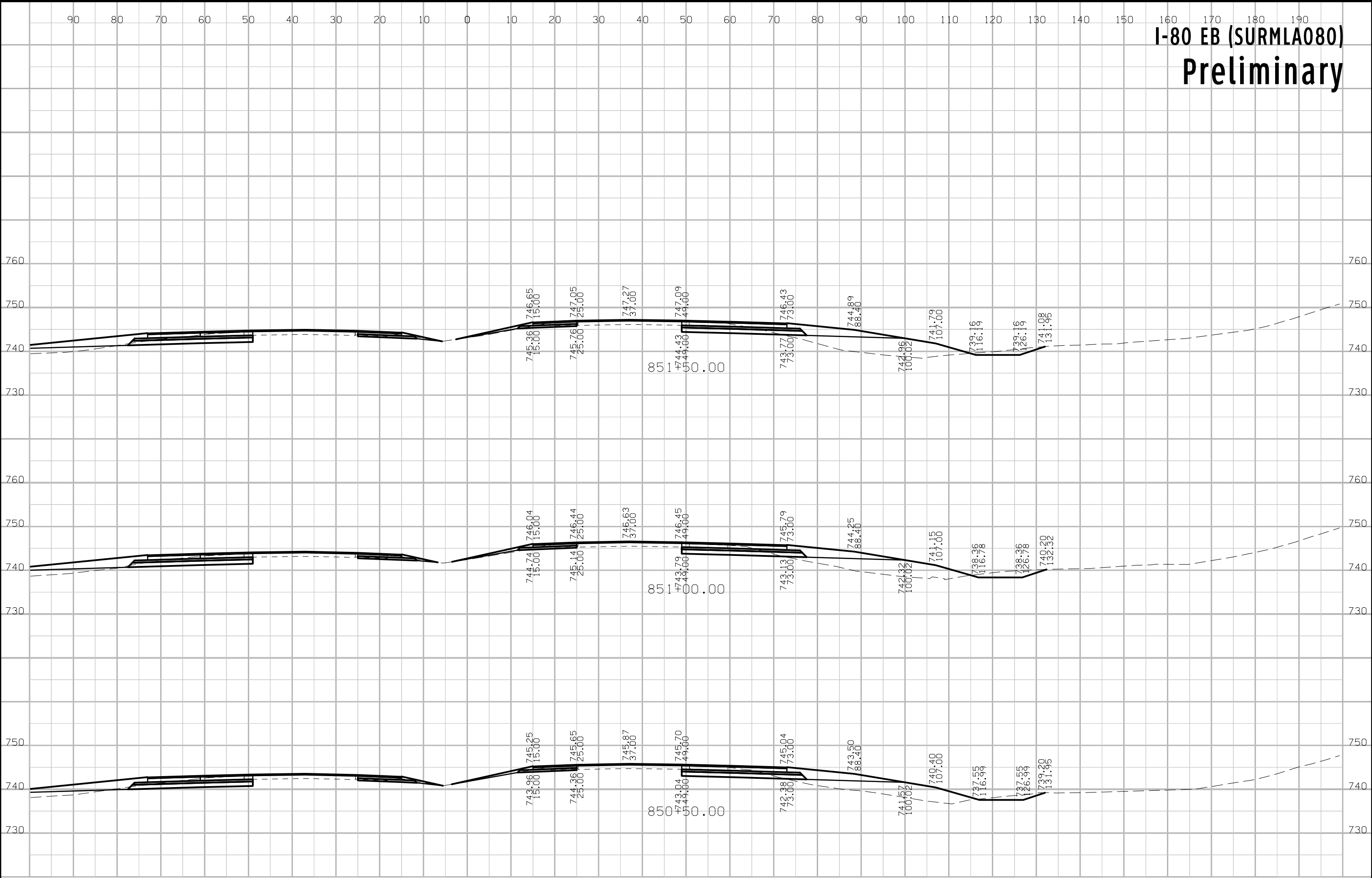
I-80 EB (SURMLA080) Preliminary



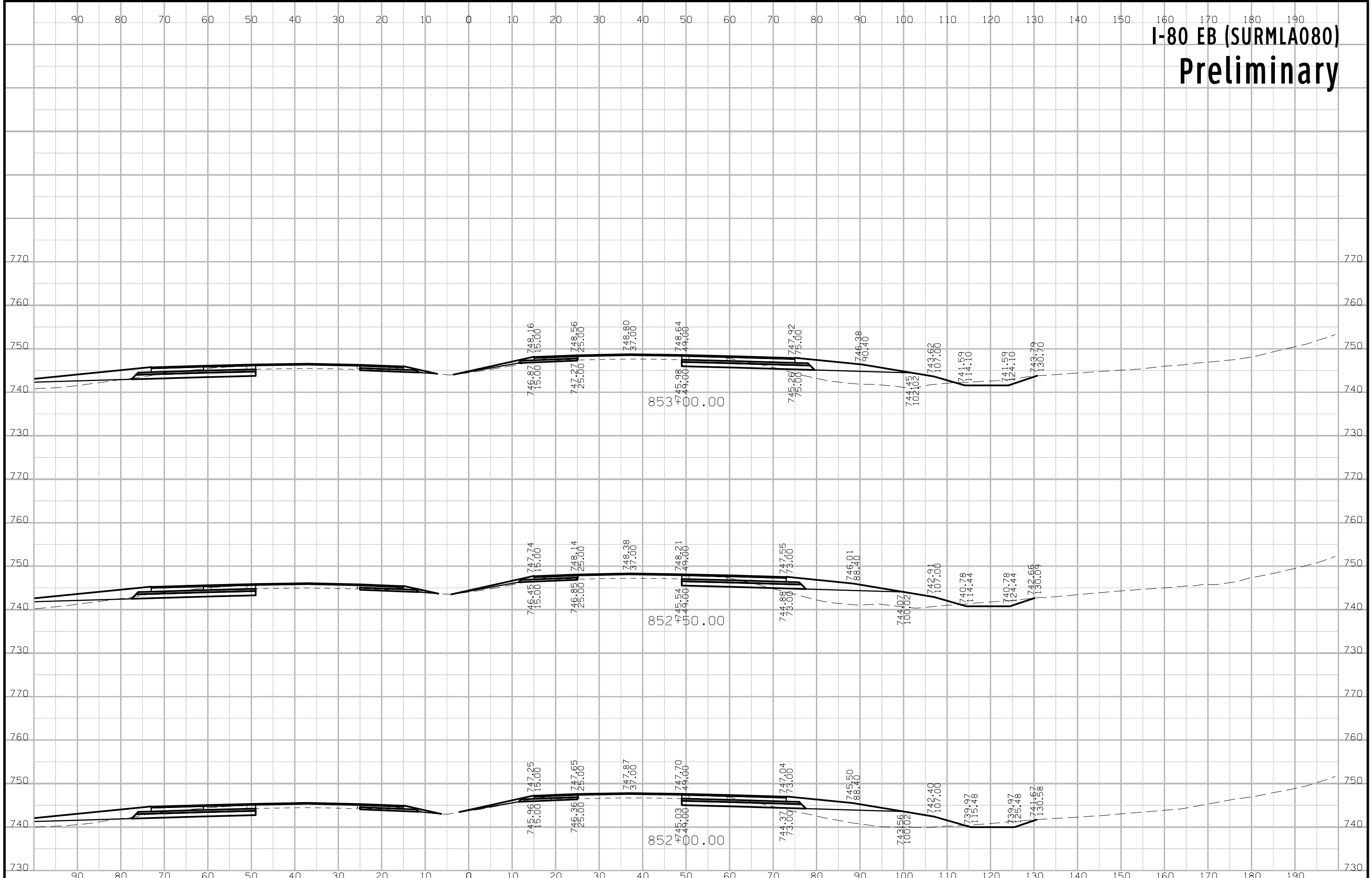
I-80 EB (SURMLA080) Preliminary



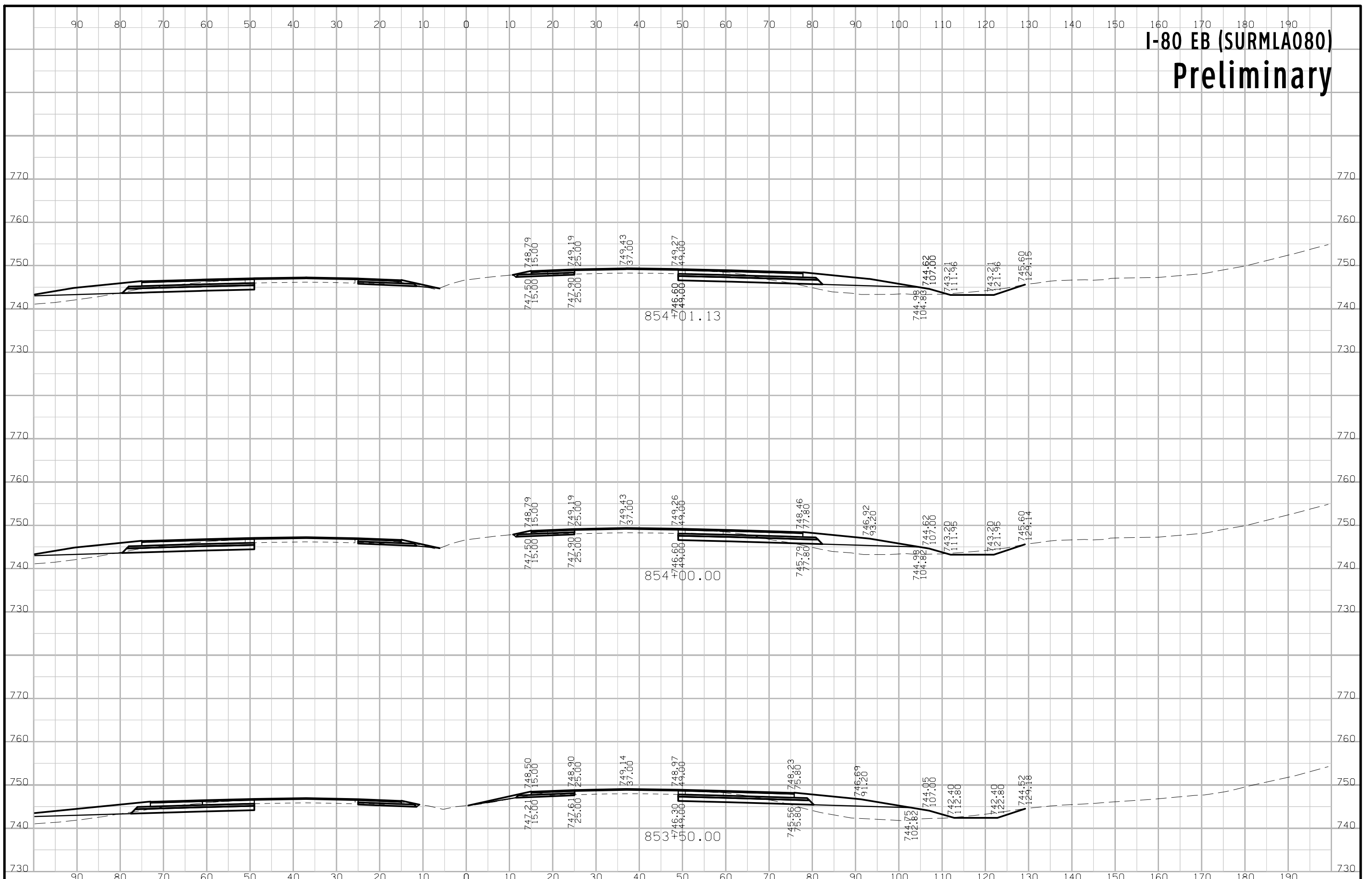
I-80 EB (SURMLA080) Preliminary



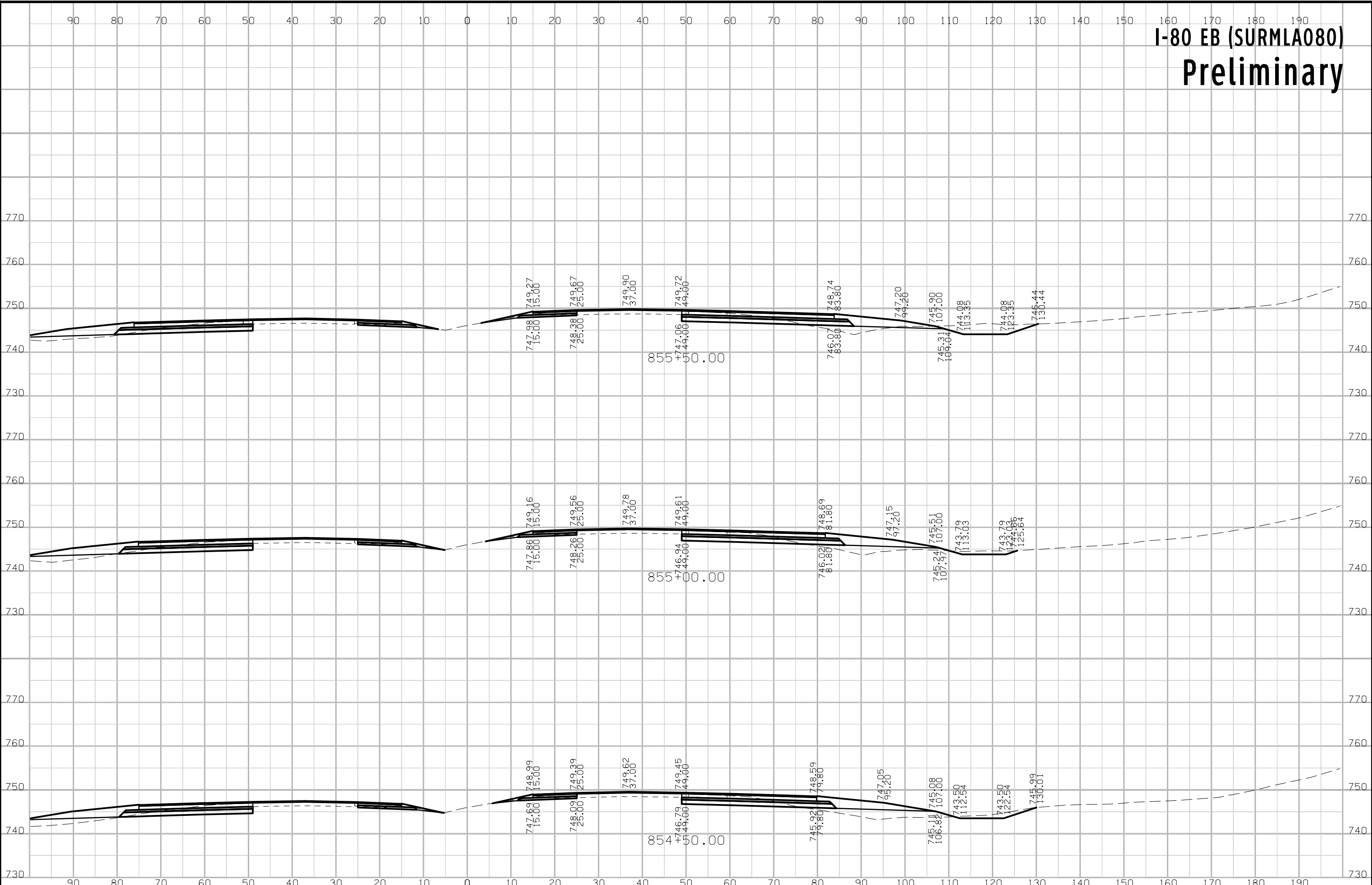
I-80 EB (SURMLA080) Preliminary



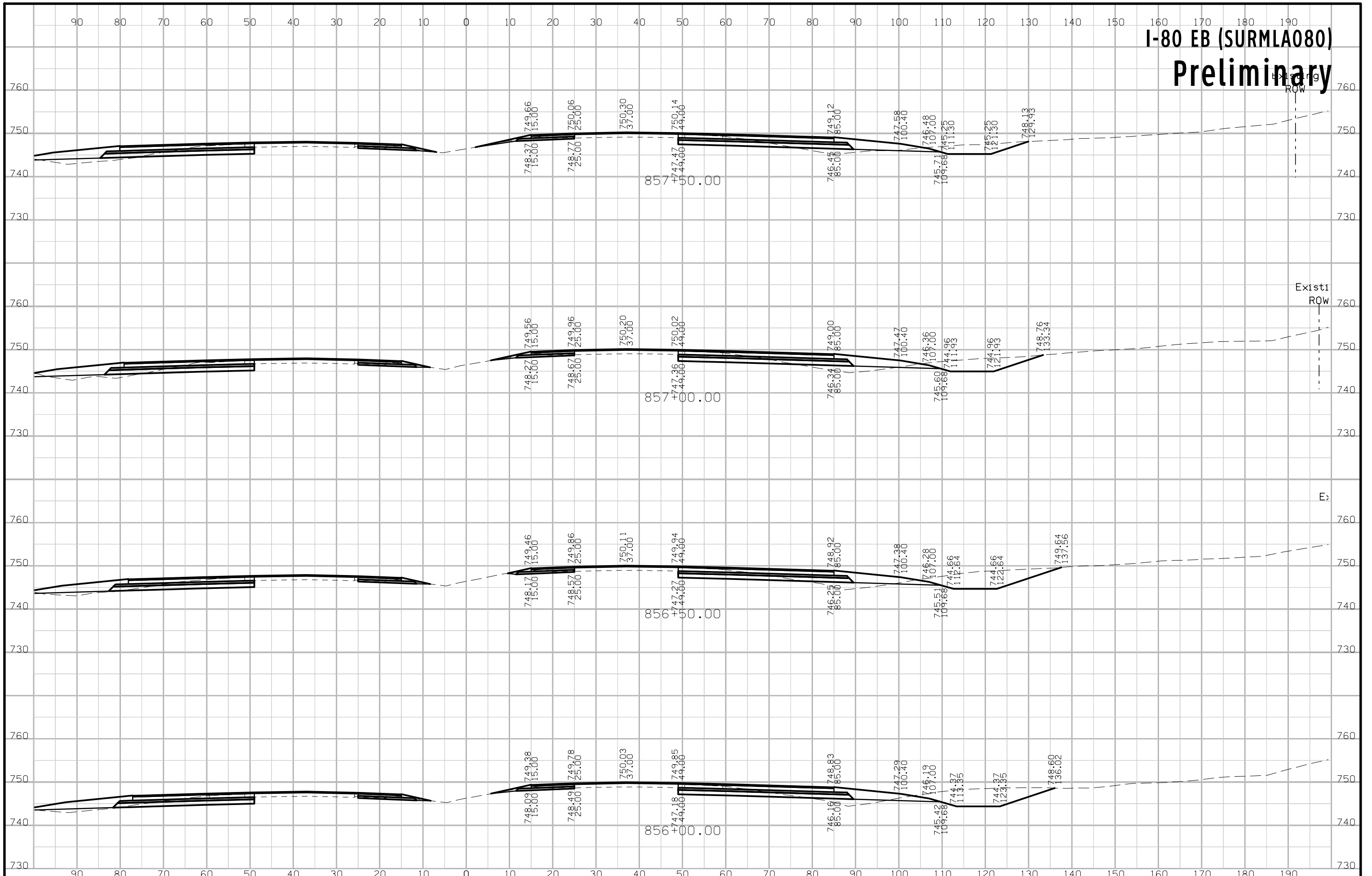
I-80 EB (SURMLA080) Preliminary



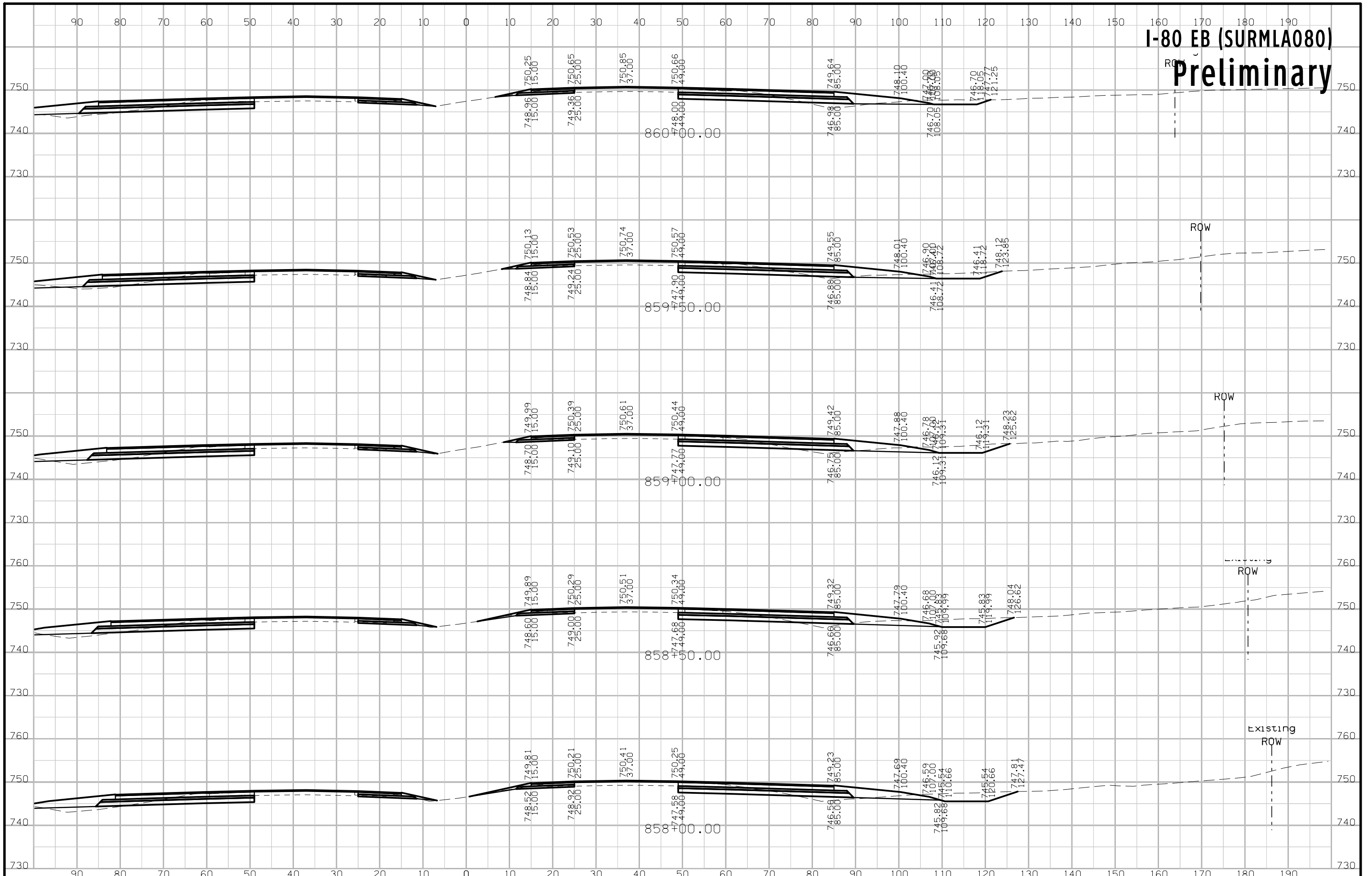
I-80 EB (SURMLA080) Preliminary



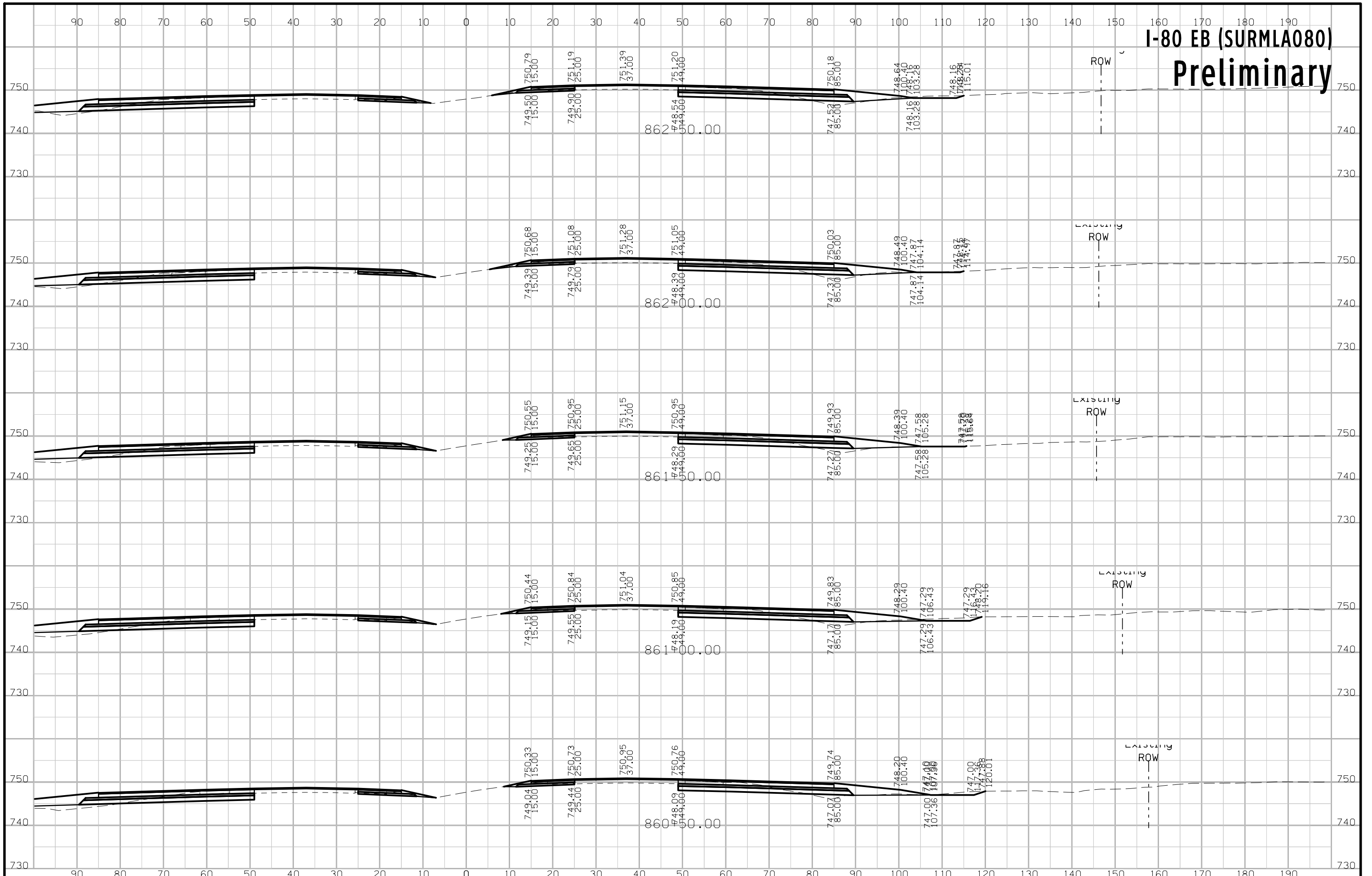
I-80 EB (SURMLA080) Preliminary



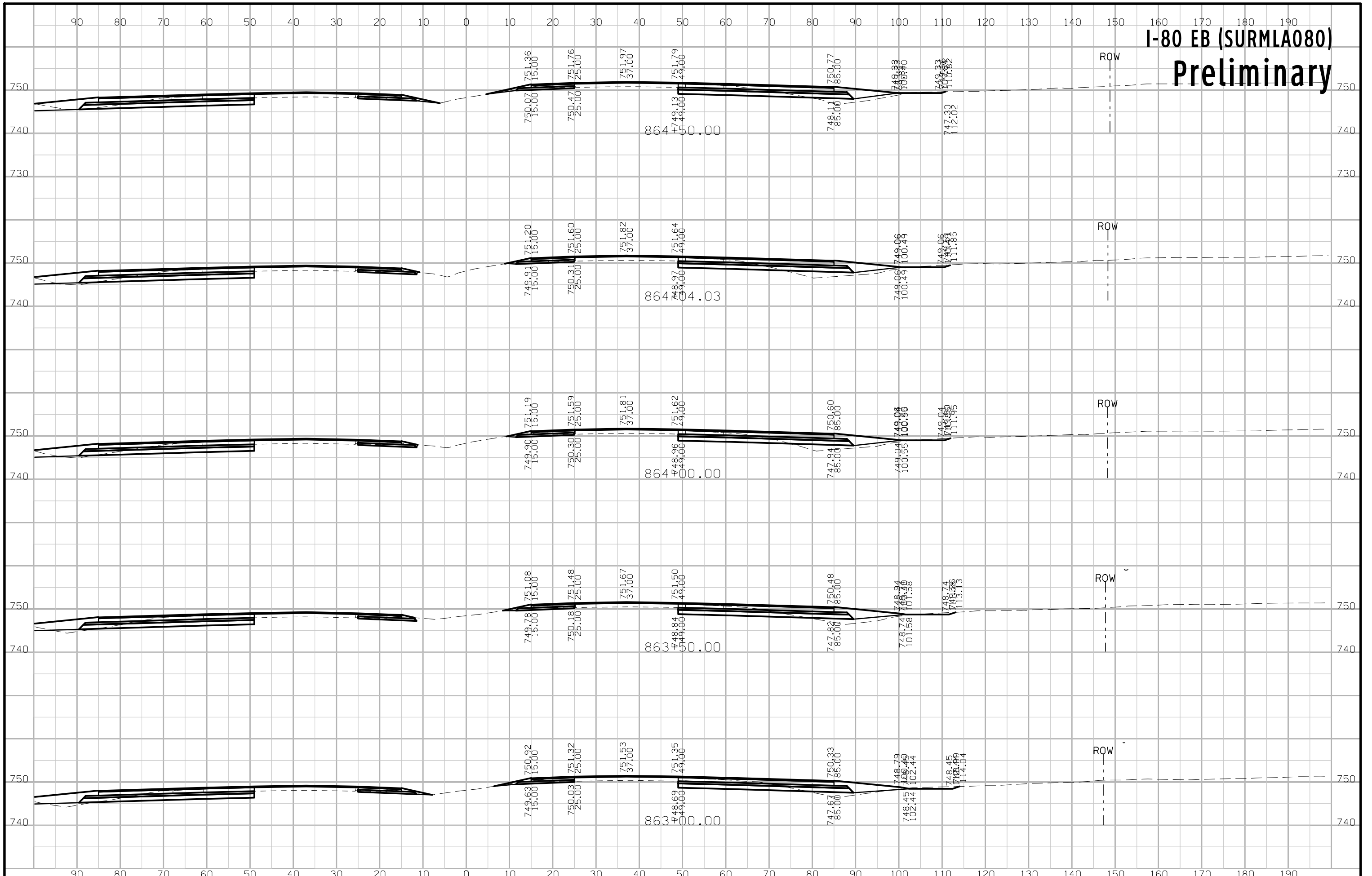
I-80 EB (SURMLA080) Preliminary



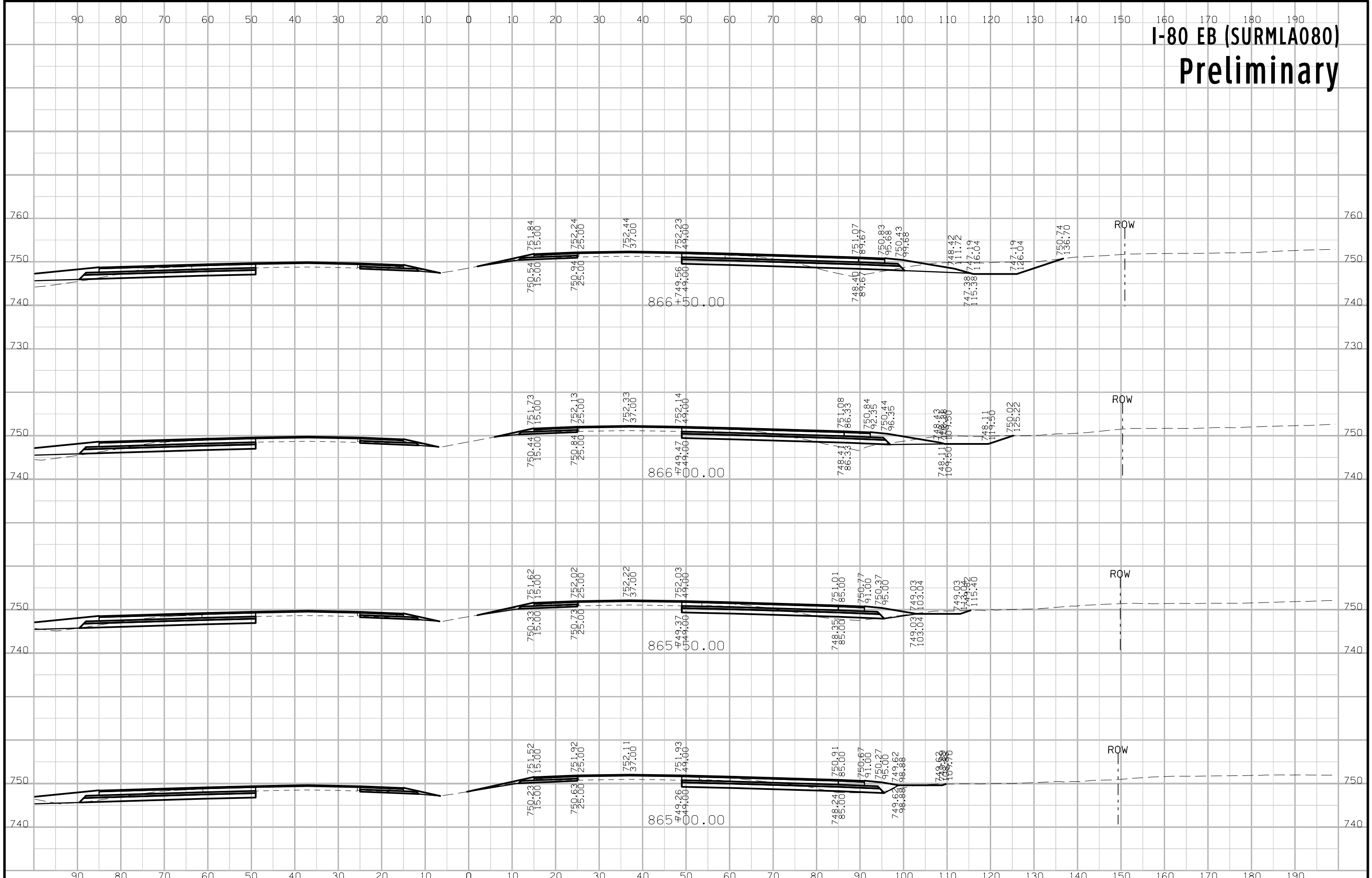
I-80 EB (SURMLA080) Preliminary



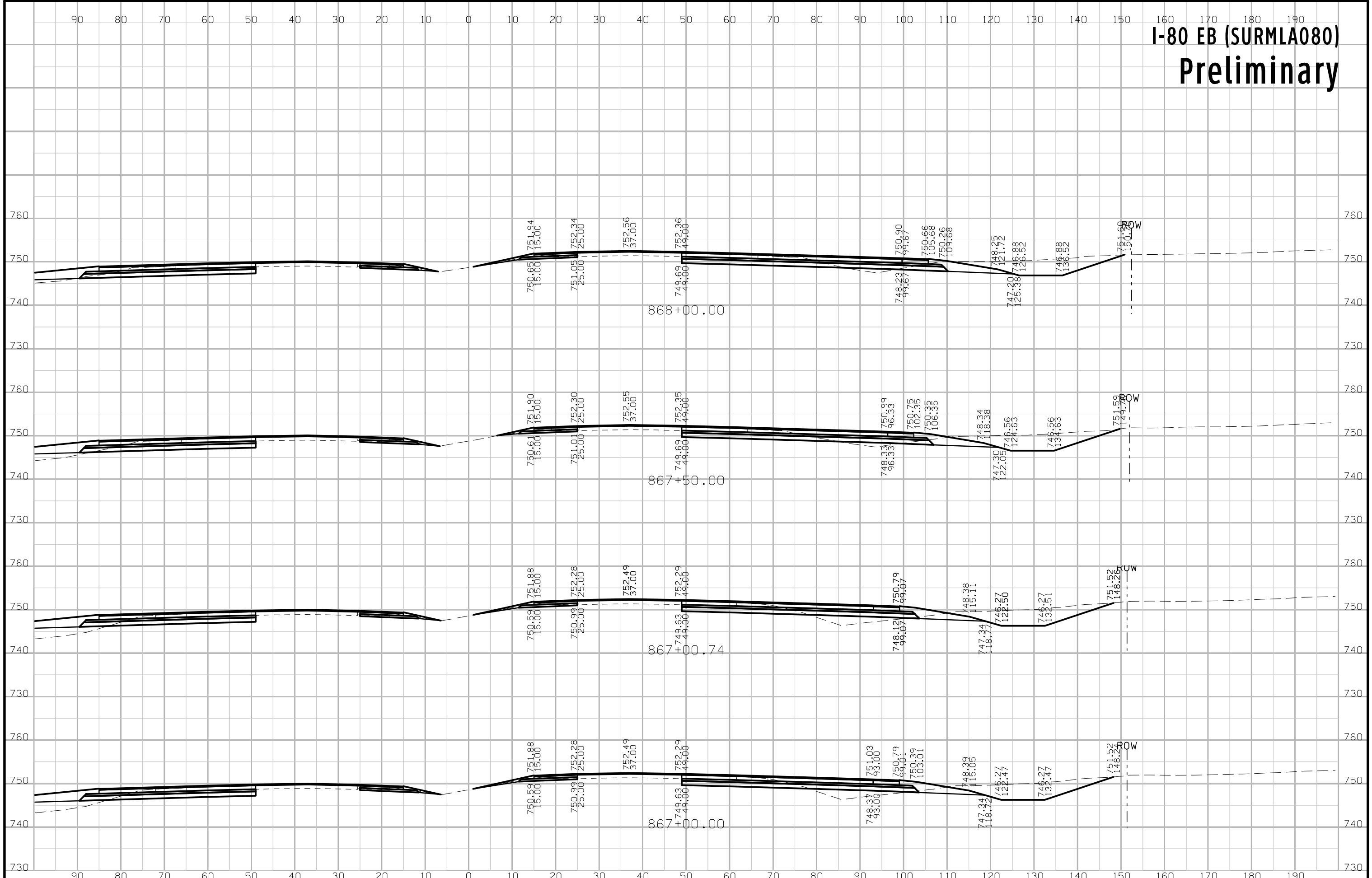
I-80 EB (SURMLA080) Preliminary



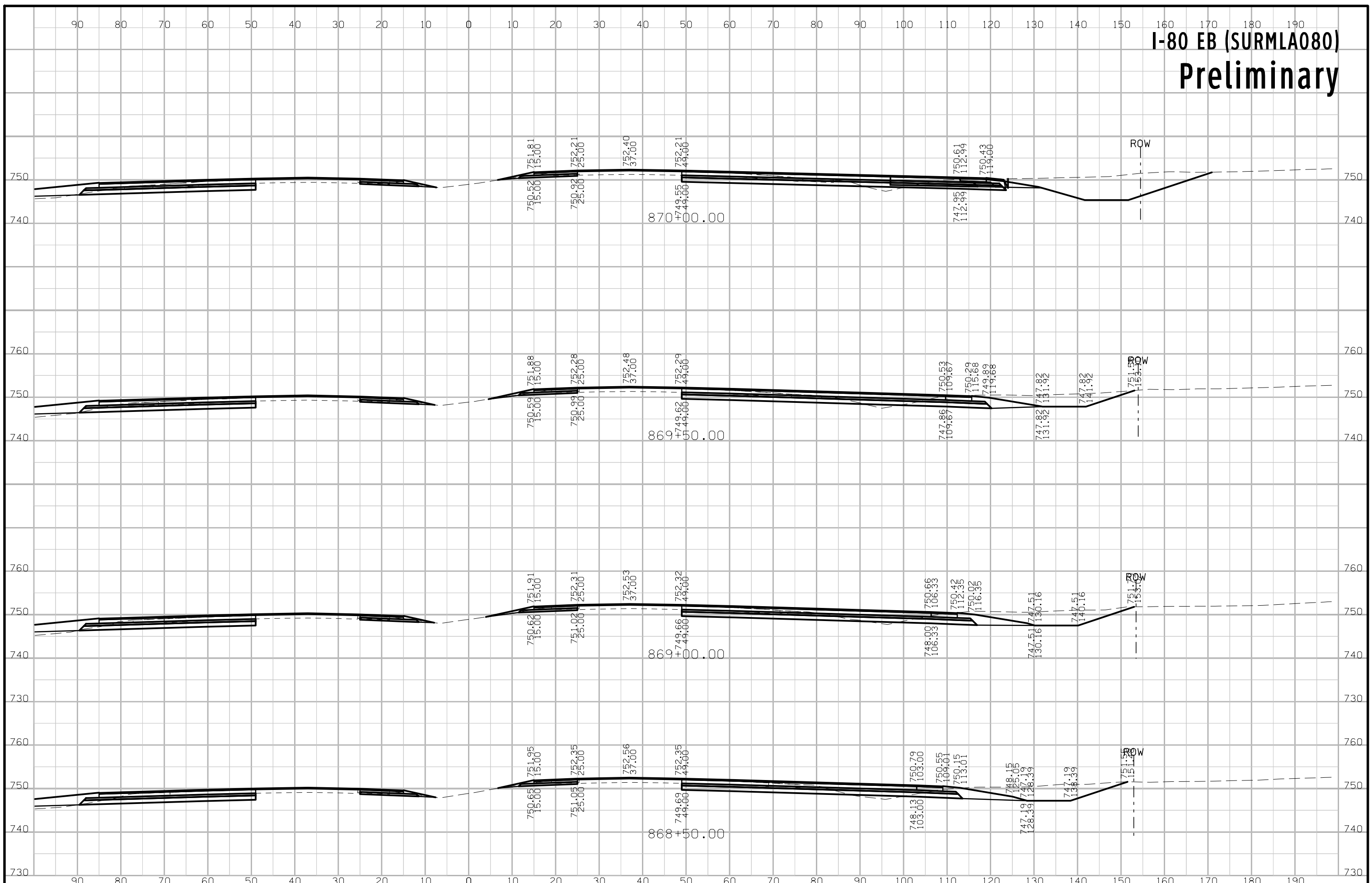
I-80 EB (SURMLA080) Preliminary



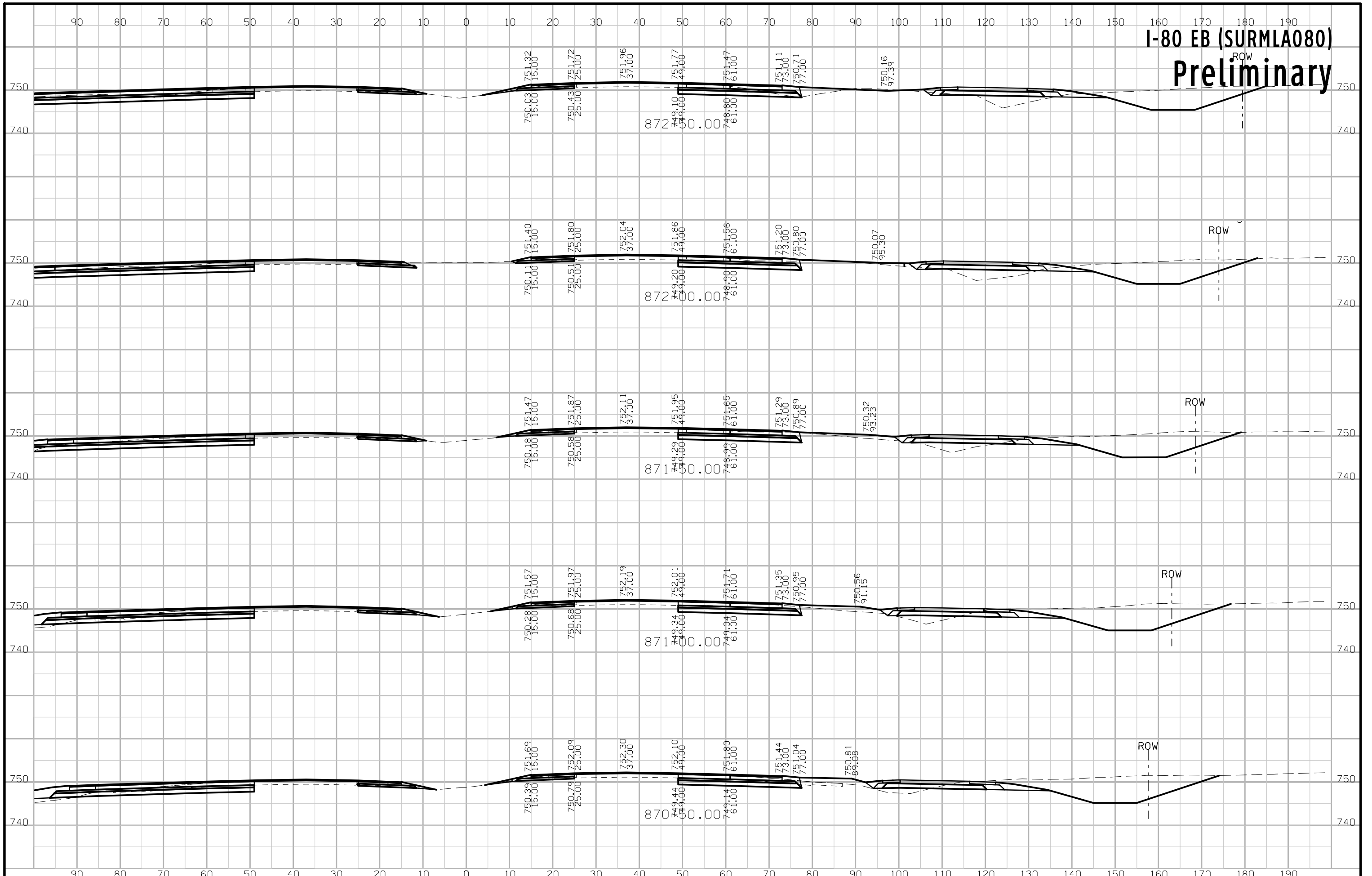
I-80 EB (SURMLA080) Preliminary



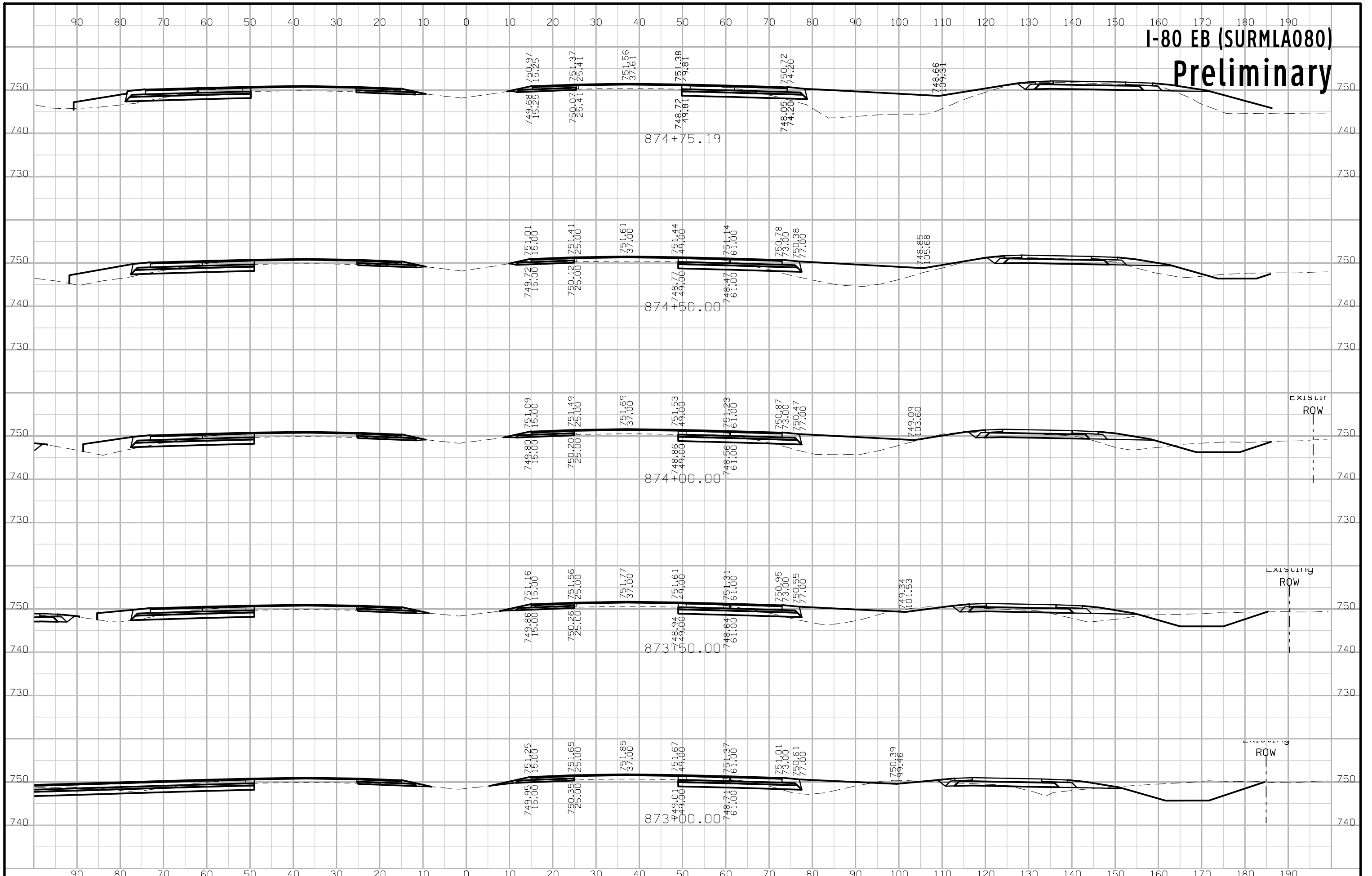
I-80 EB (SURMLA080) Preliminary



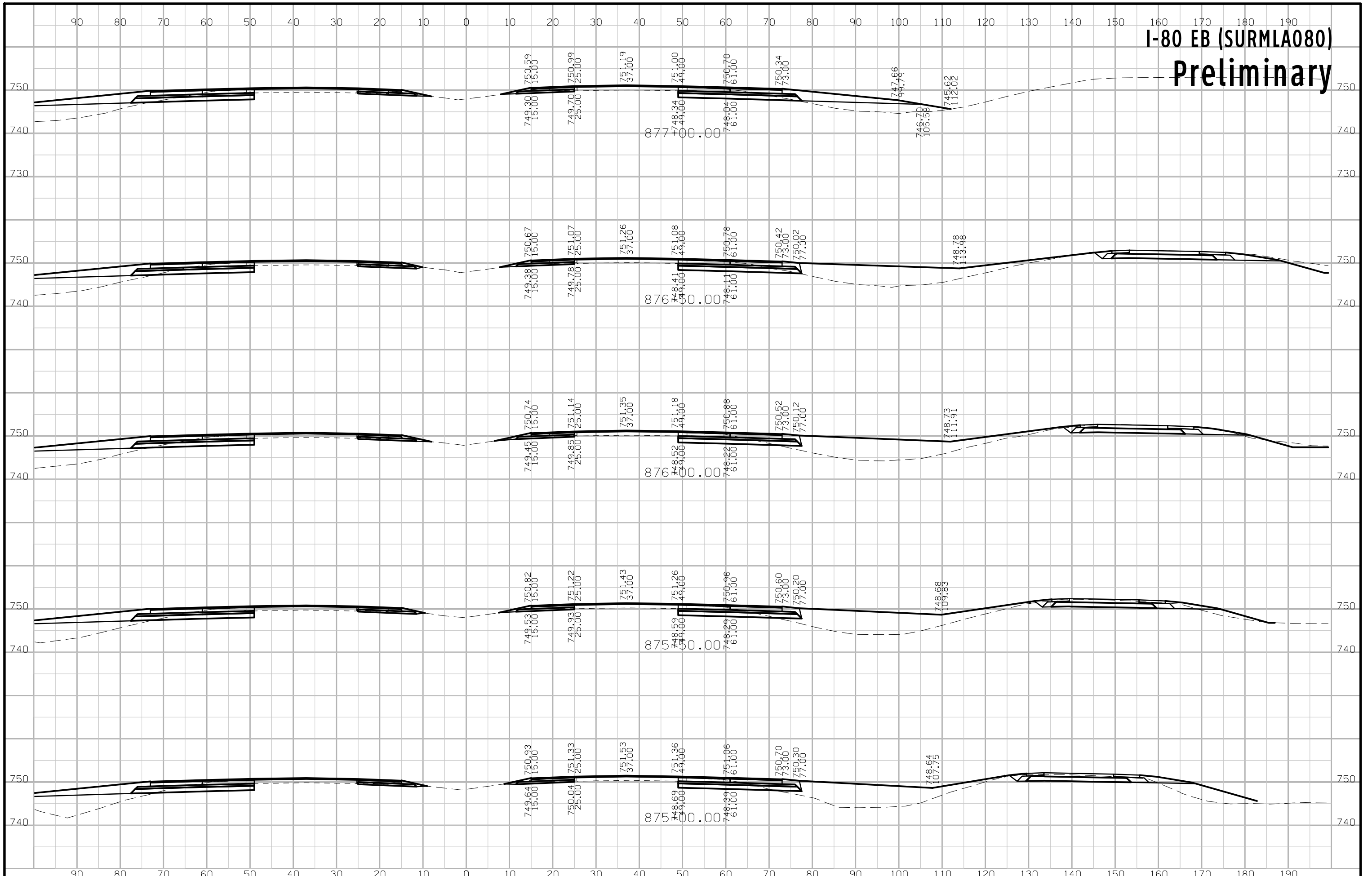
I-80 EB (SURMLA080) Preliminary



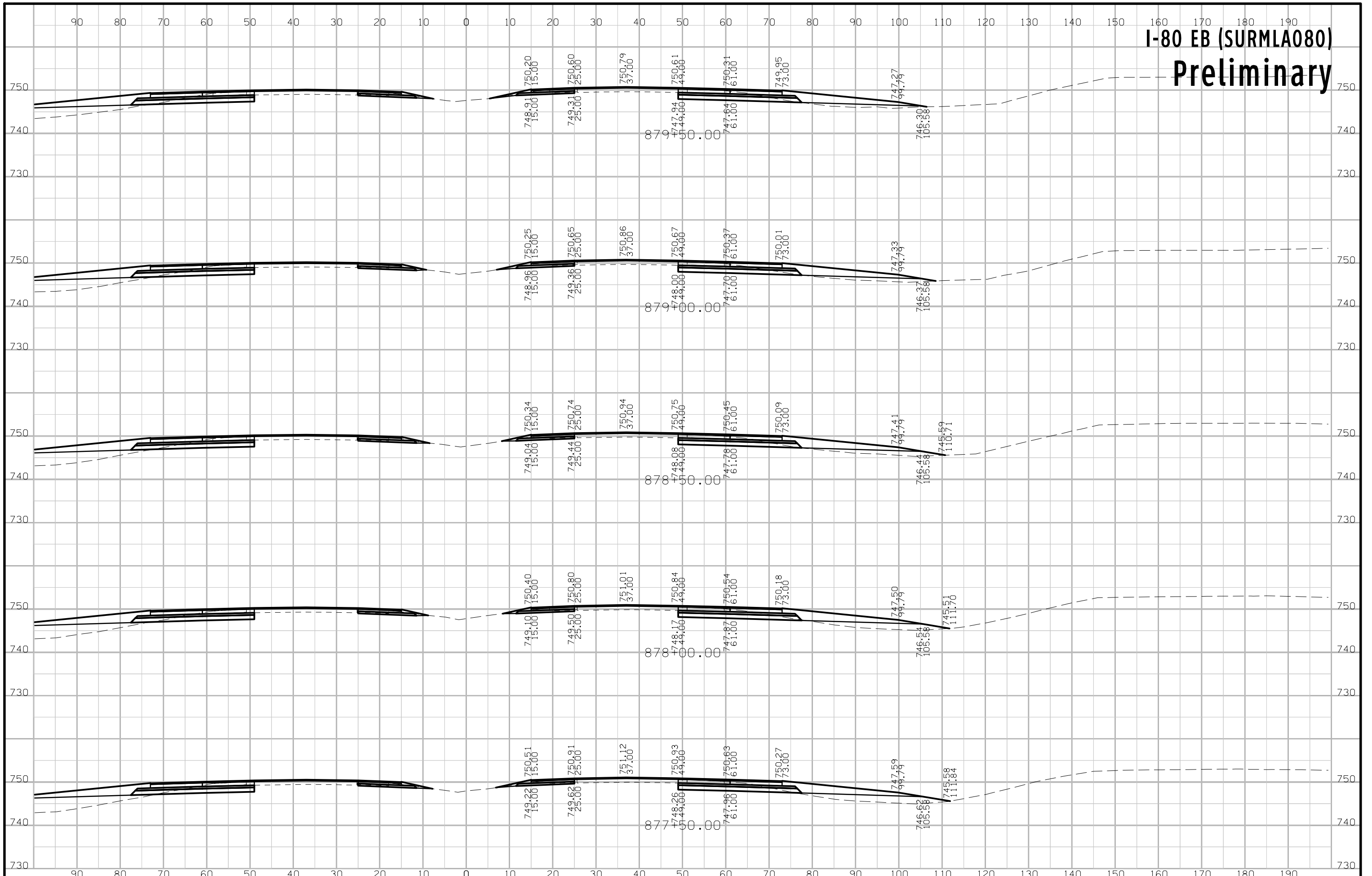
I-80 EB (SURMLA080)
Preliminary



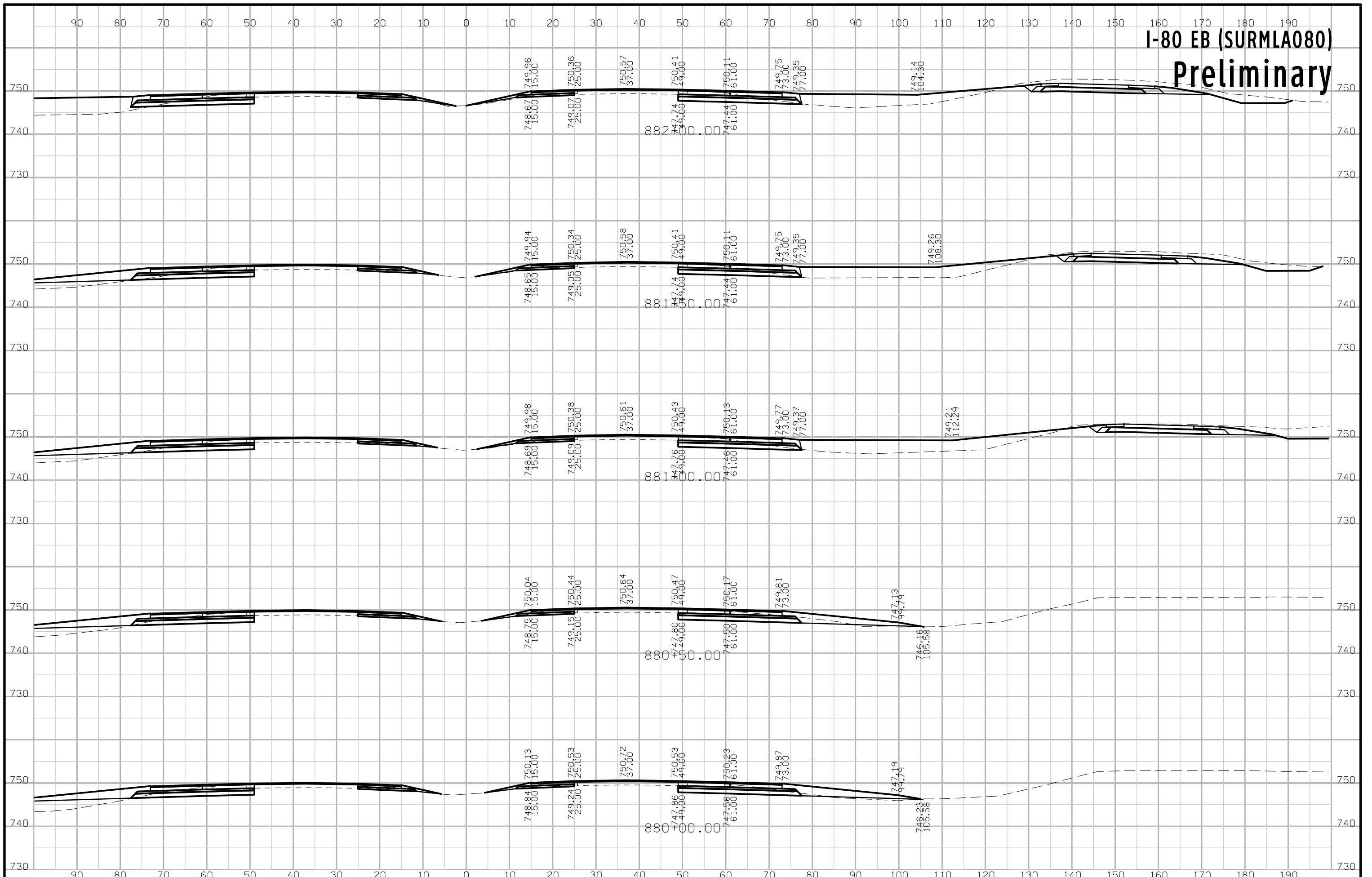
I-80 EB (SURMLA080) Preliminary



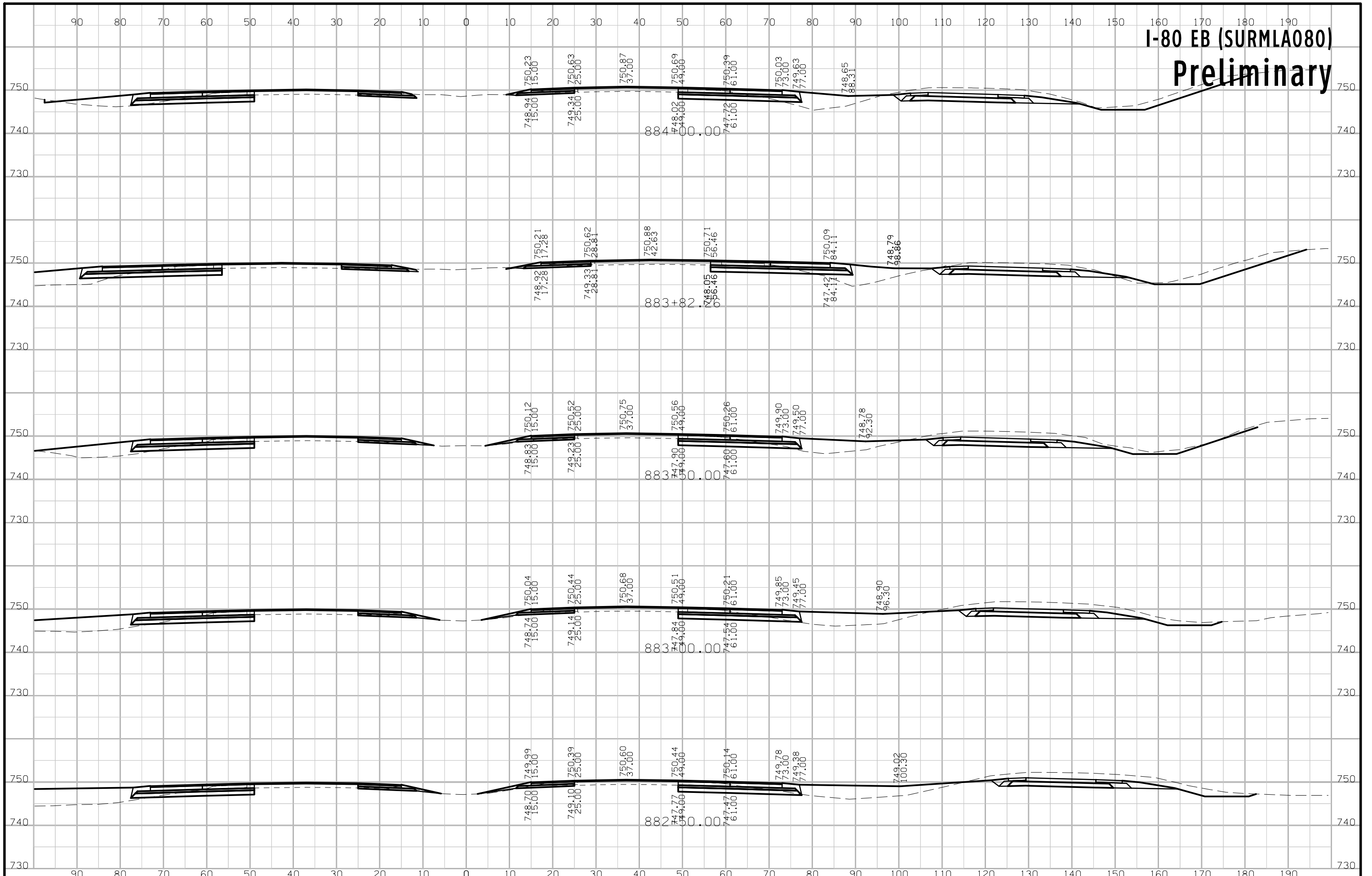
I-80 EB (SURMLA080) Preliminary



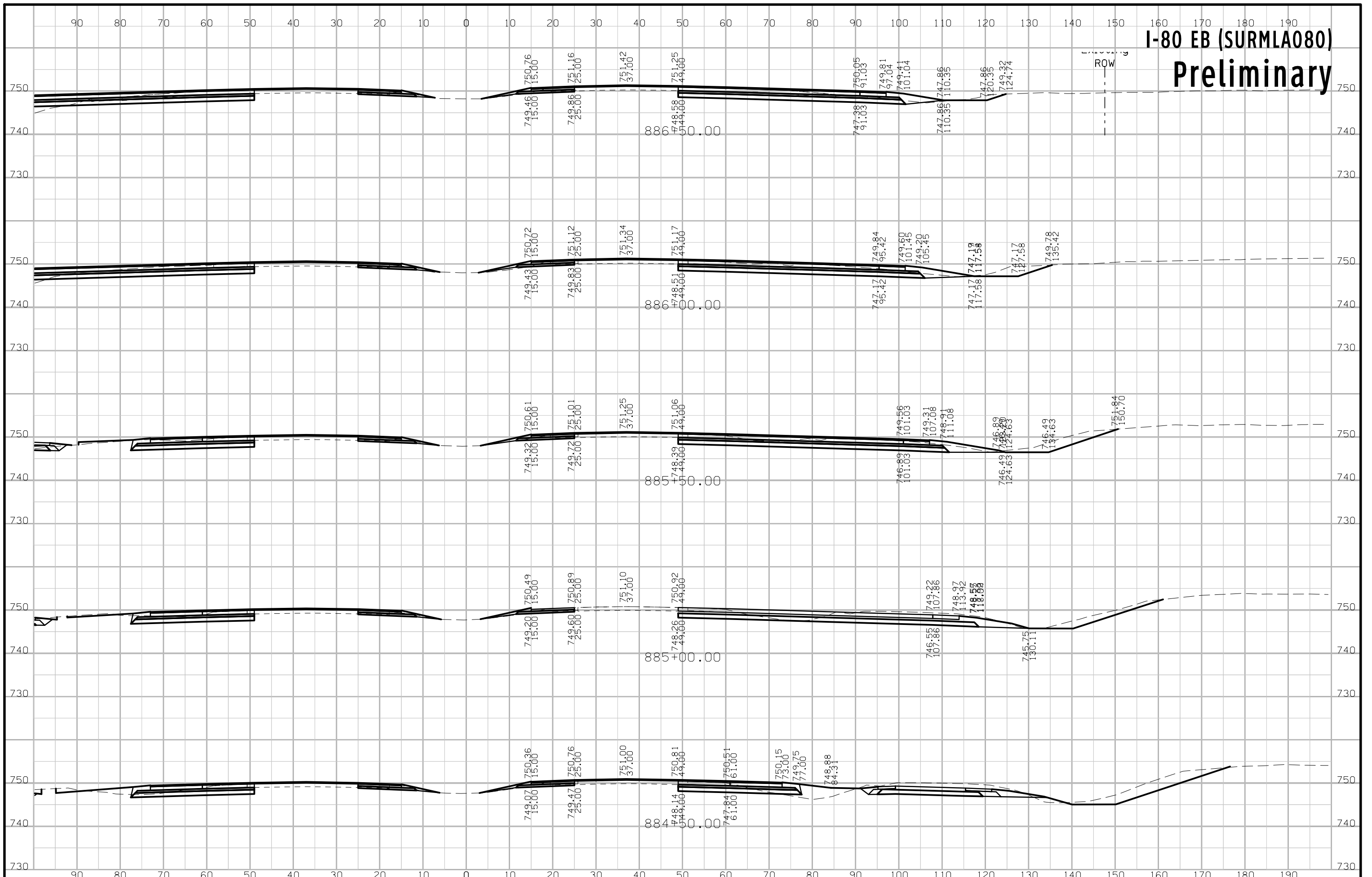
I-80 EB (SURMLA080) Preliminary



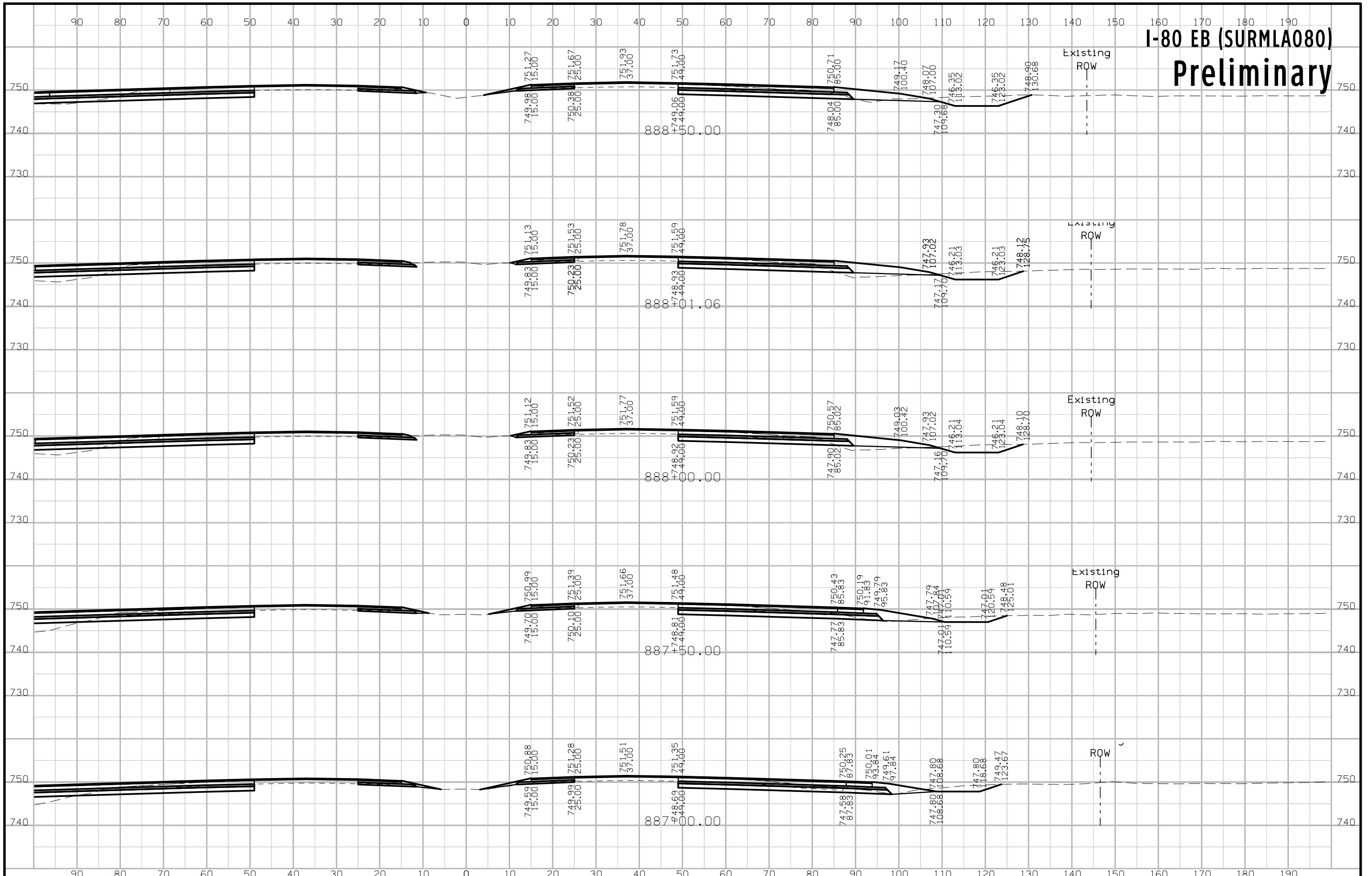
I-80 EB (SURMLA080)
Preliminary



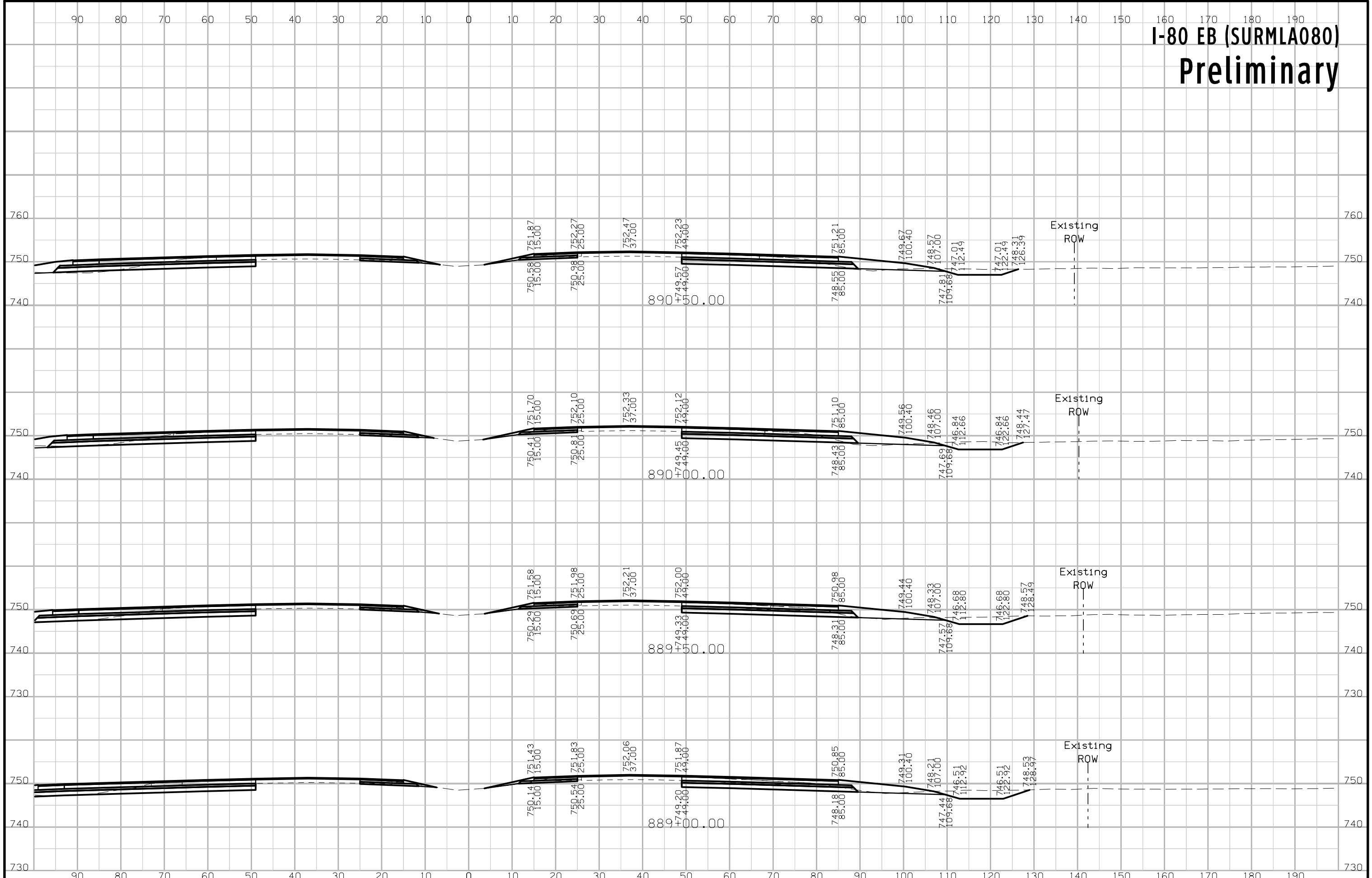
I-80 EB (SURMLA080) Preliminary



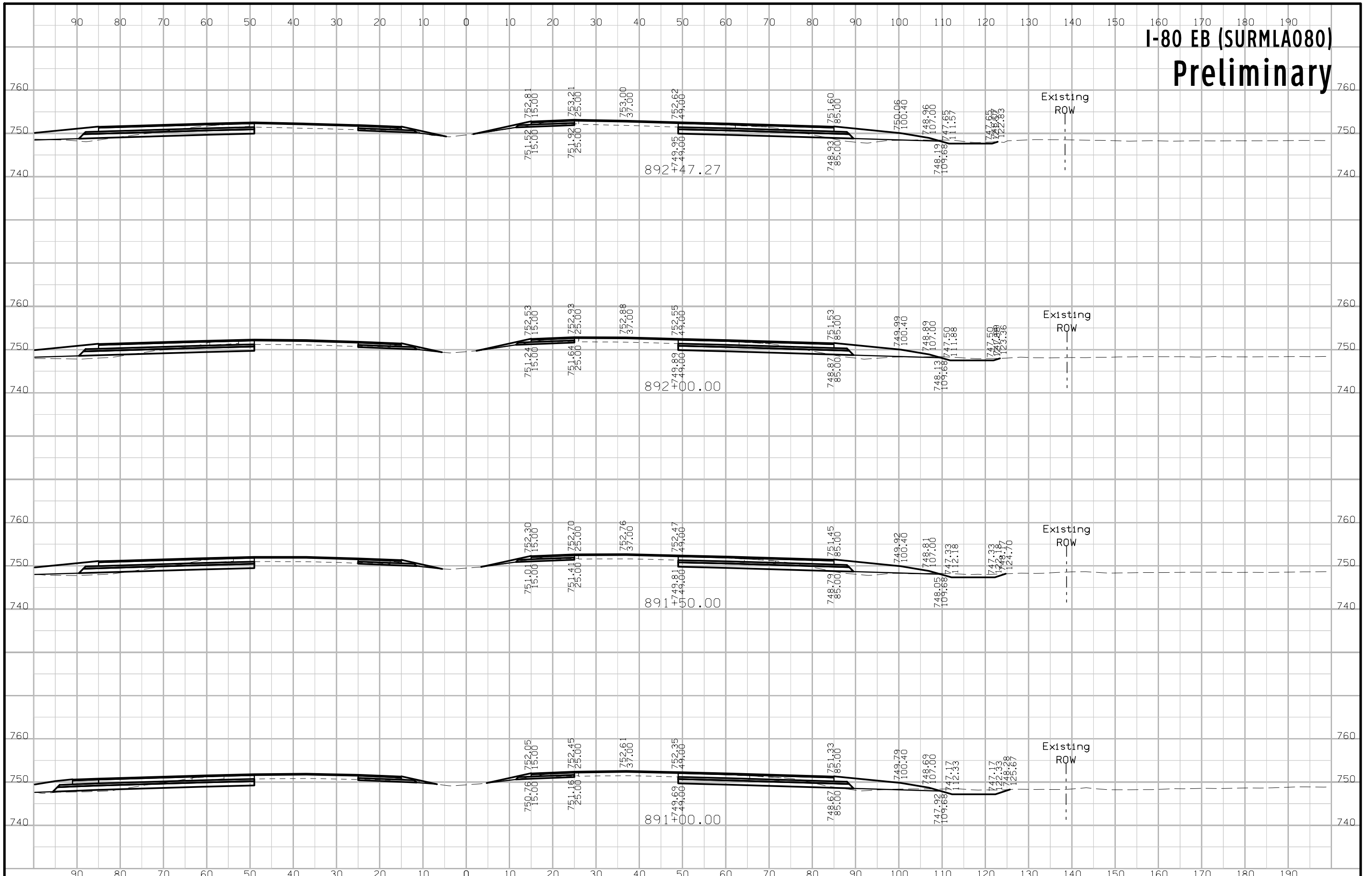
I-80 EB (SURMLA080) Preliminary



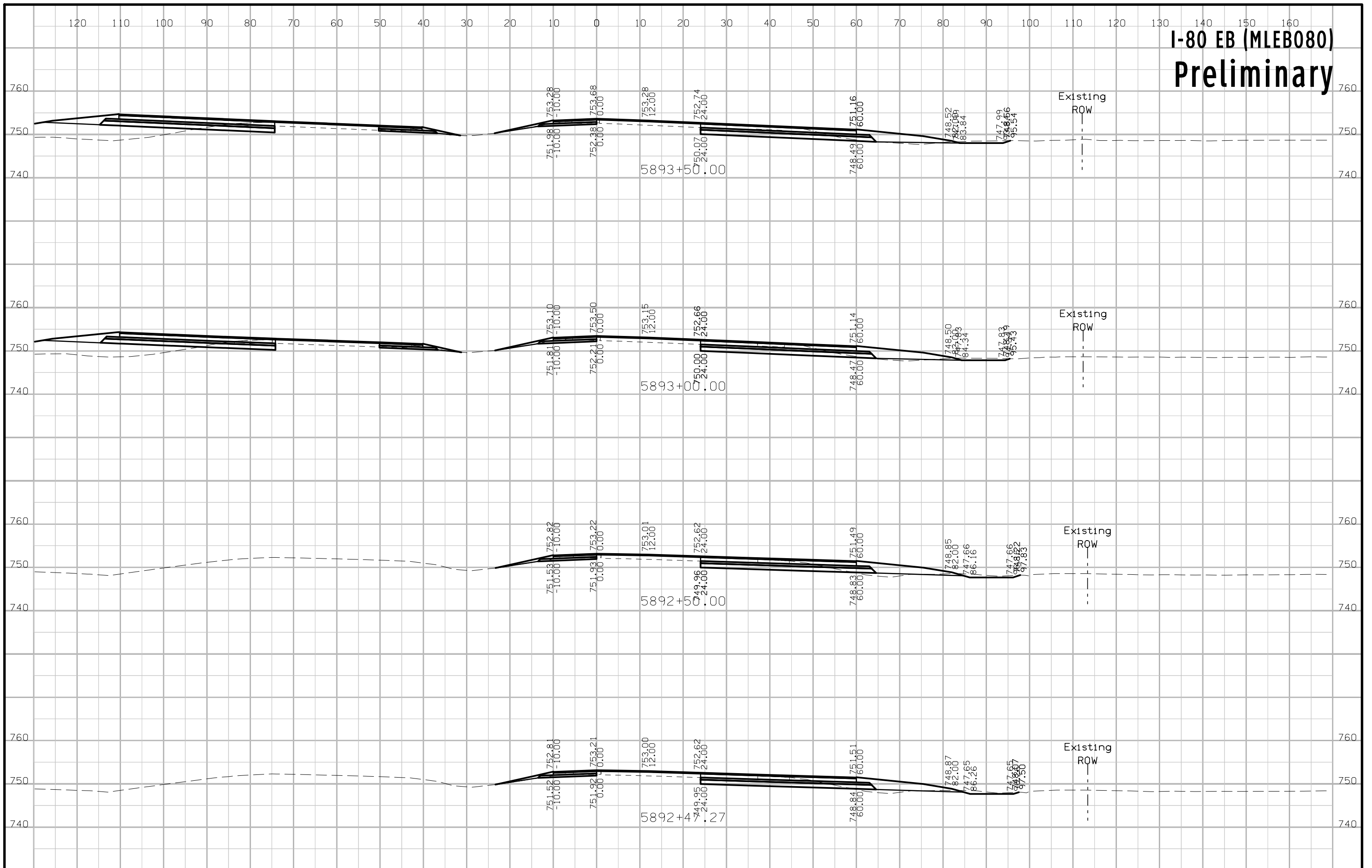
I-80 EB (SURMLA080) Preliminary



I-80 EB (SURMLA080) Preliminary

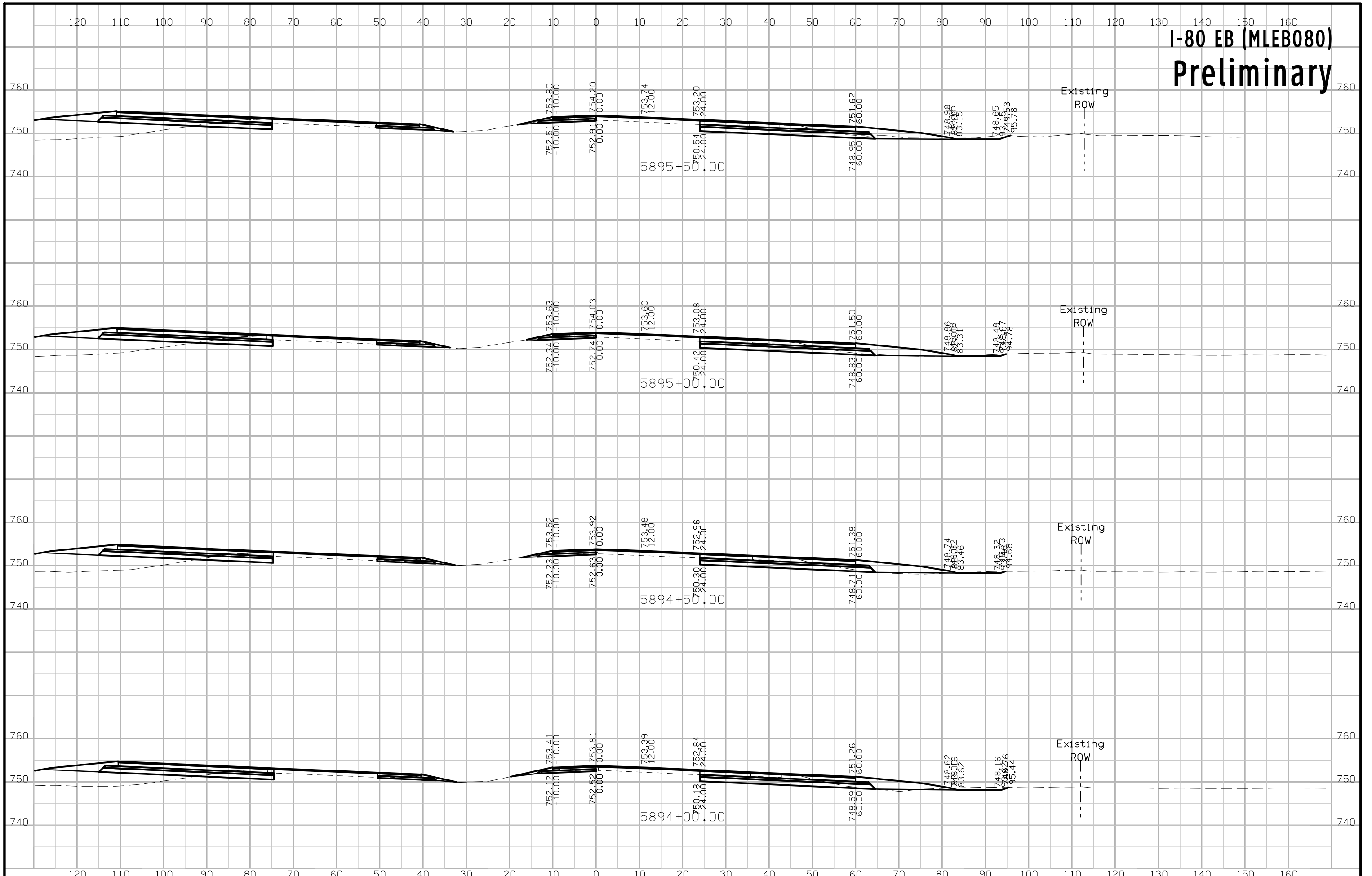


I-80 EB (MLEB080) Preliminary

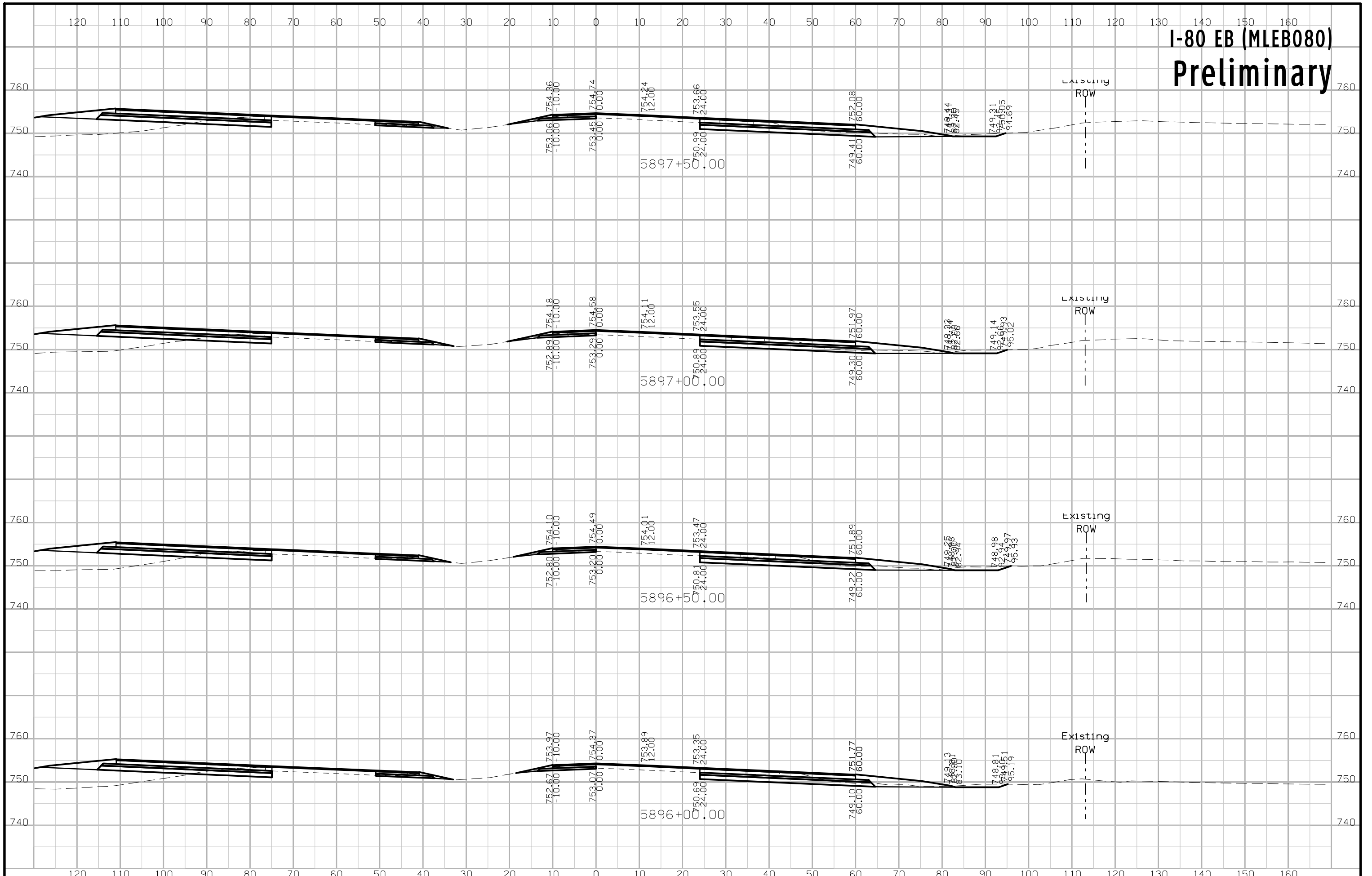


FILE NO.	ENGLISH	DESIGN TEAM Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER IM-080-7(132)266--13-16	SHEET NUMBER W.429
----------	---------	-------------------------------------	--------------	---	---------------------------

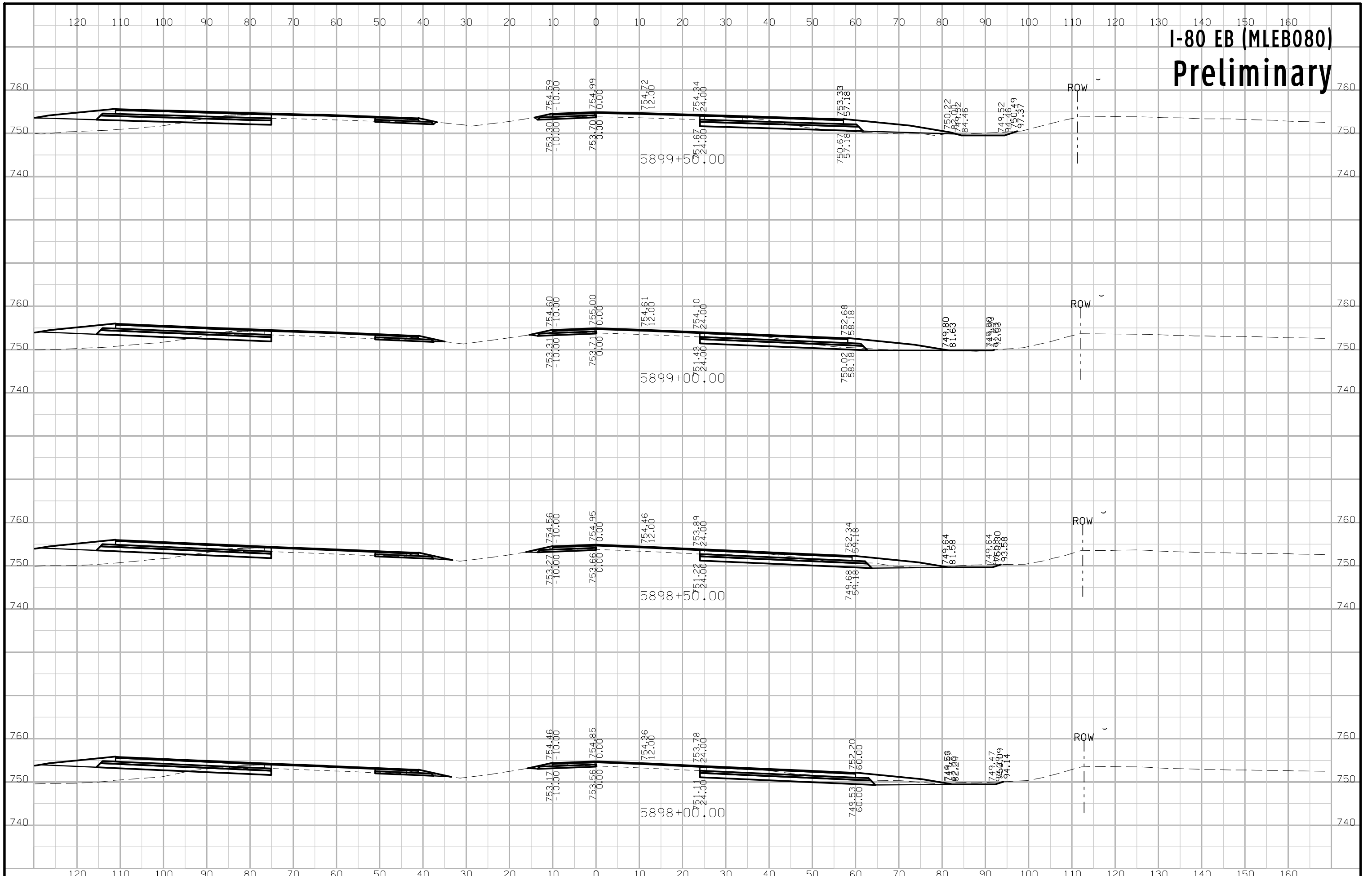
I-80 EB (MLEB080) Preliminary



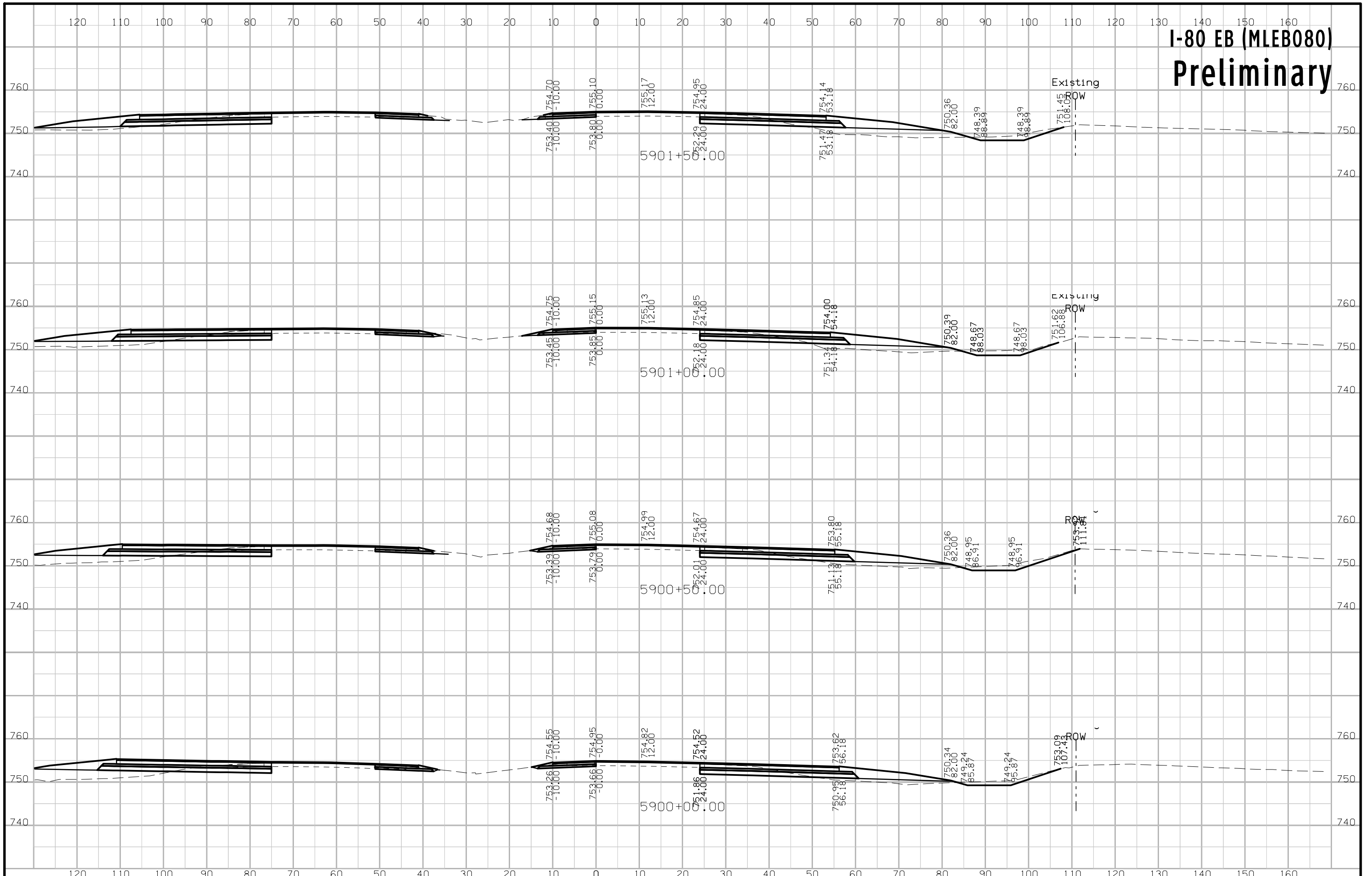
I-80 EB (MLEB080) Preliminary



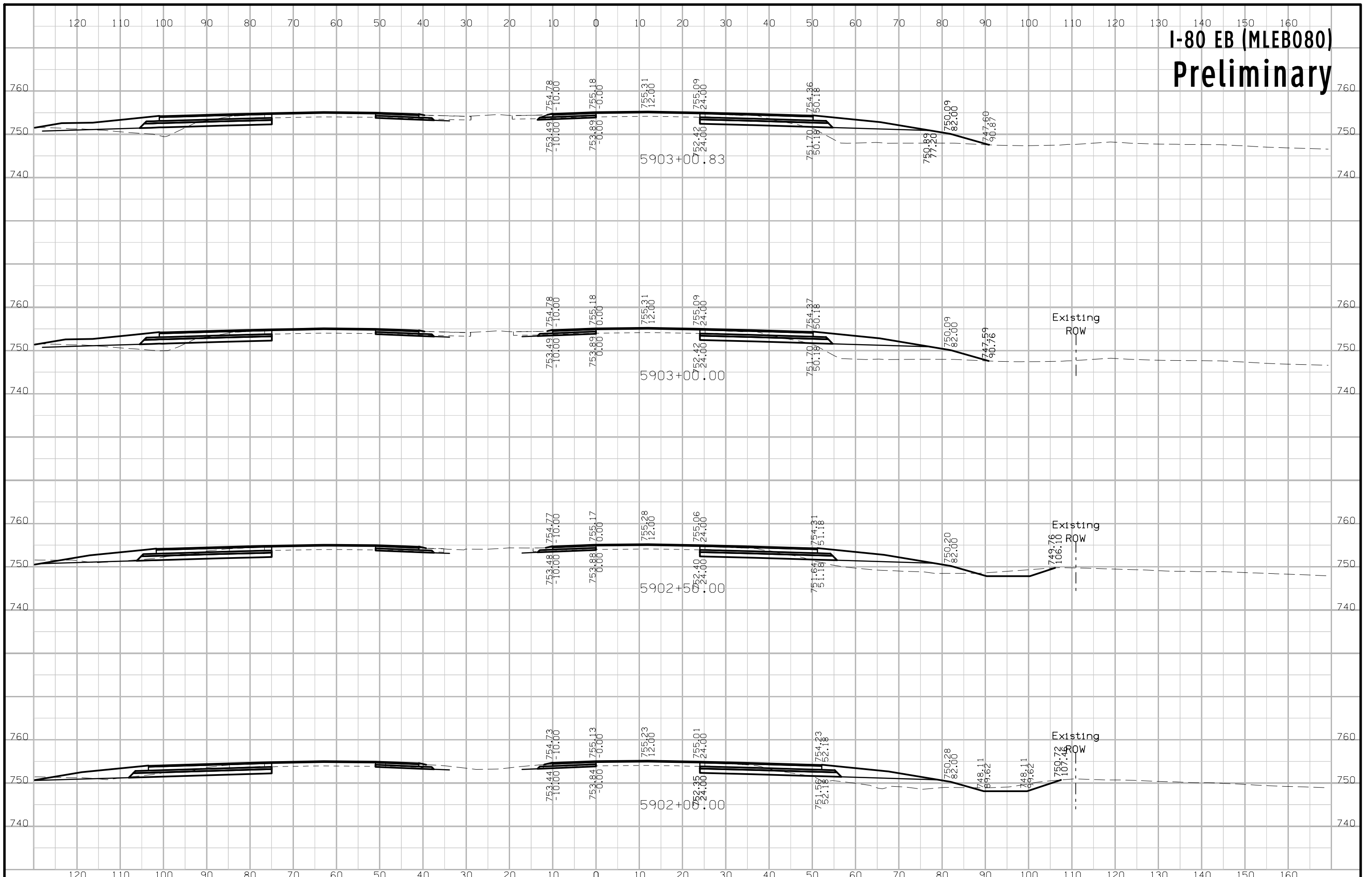
I-80 EB (MLEB080) Preliminary



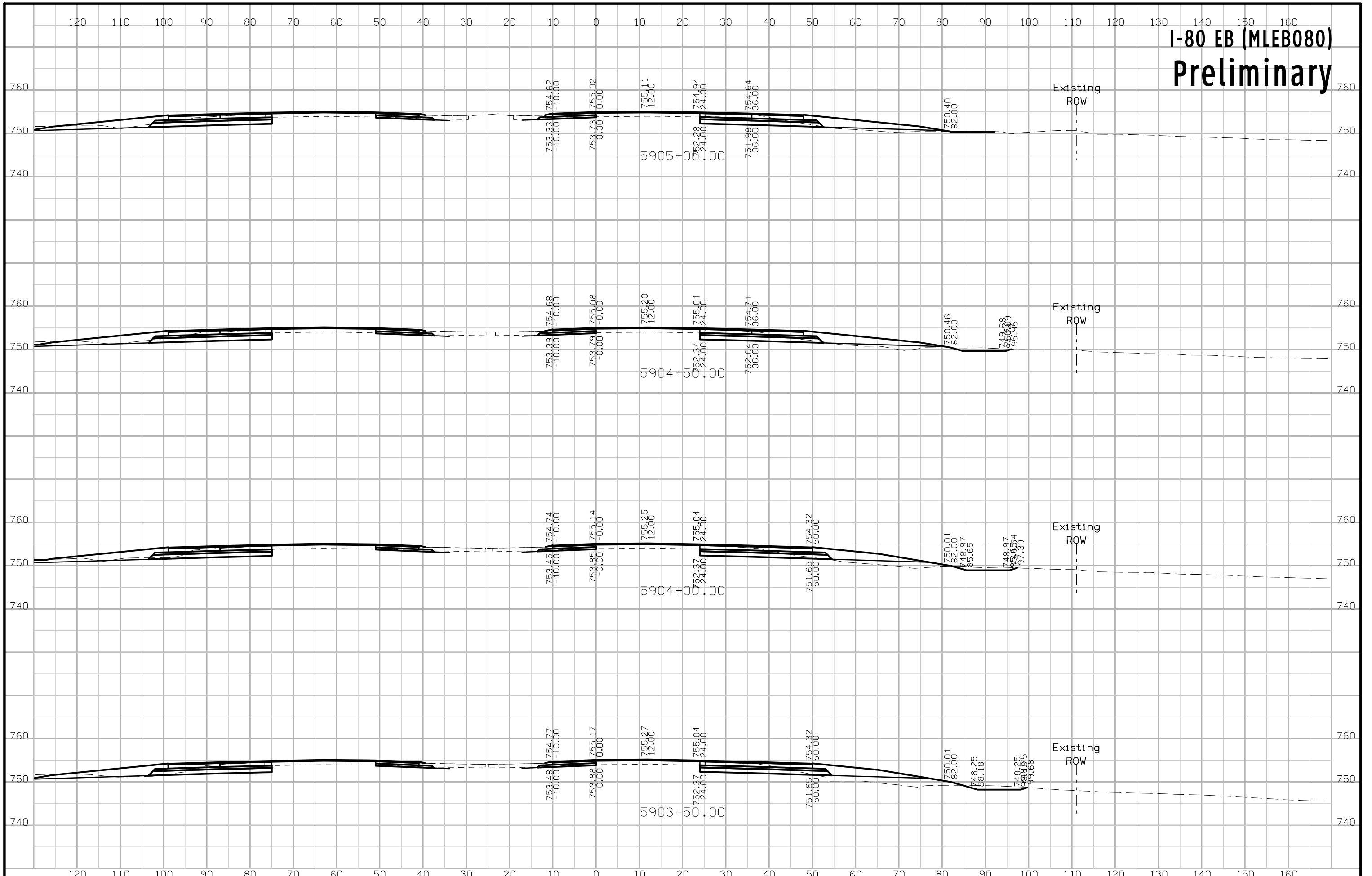
I-80 EB (MLEB080) Preliminary



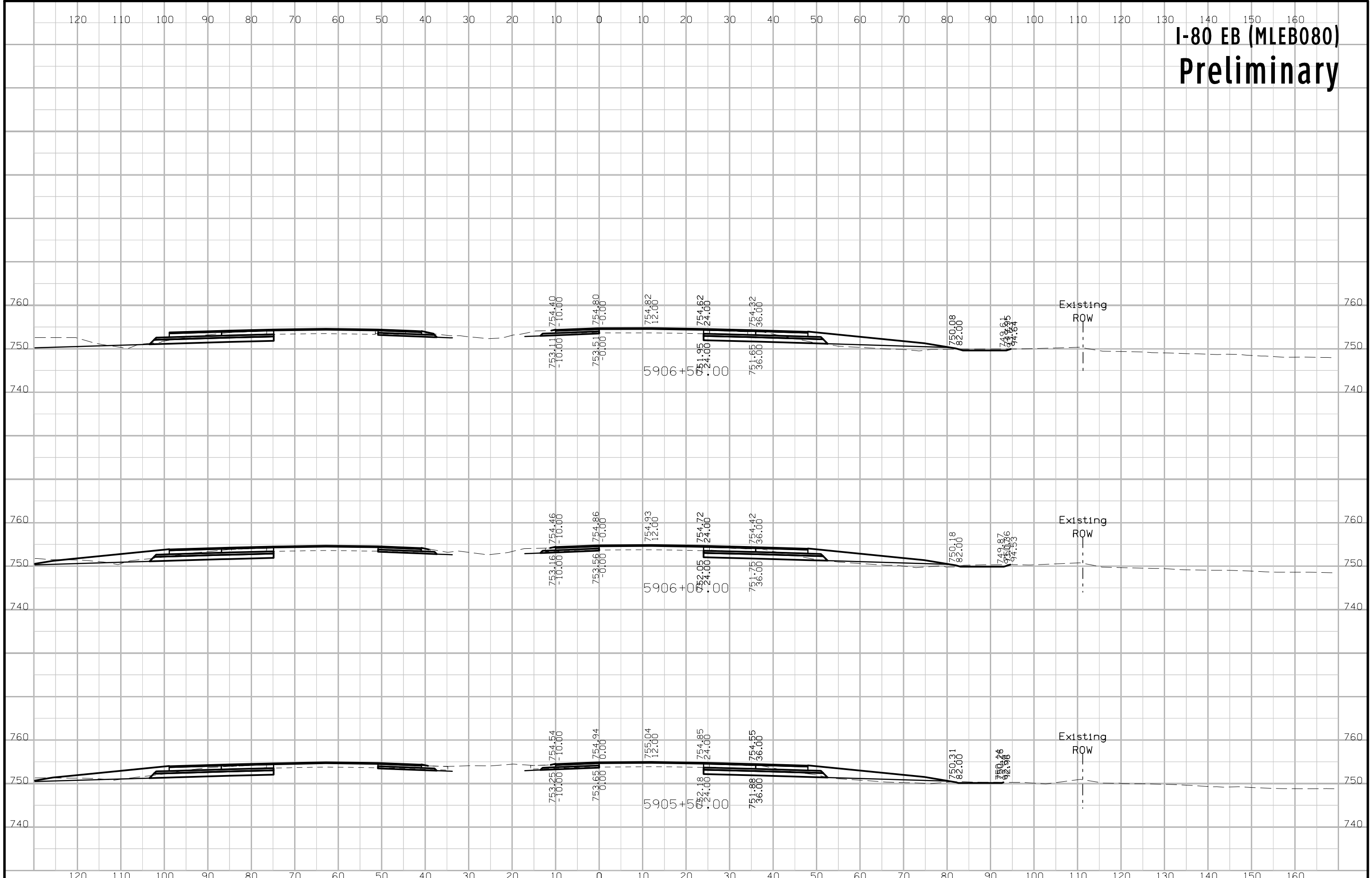
I-80 EB (MLEB080) Preliminary



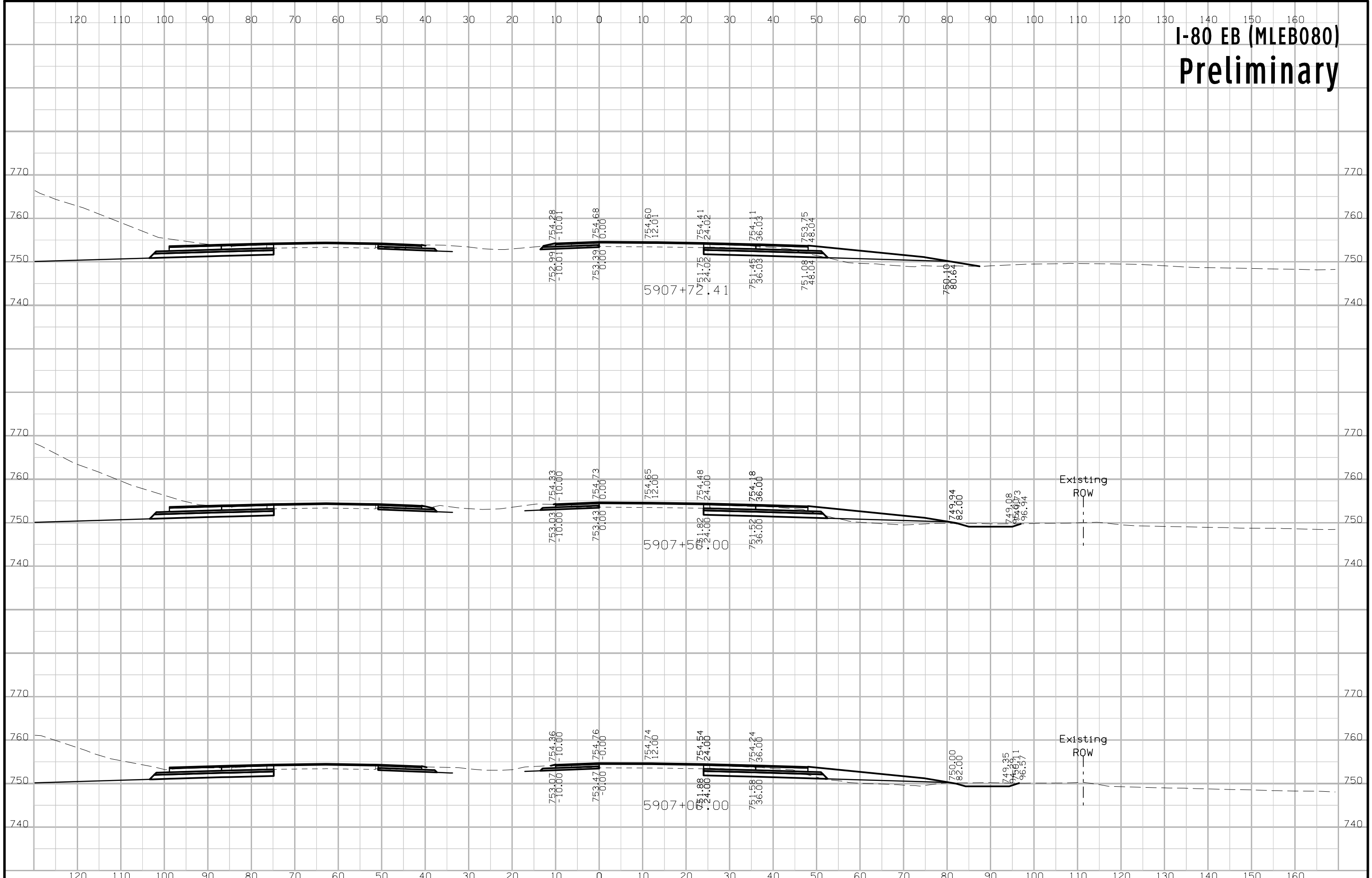
I-80 EB (MLEB080) Preliminary



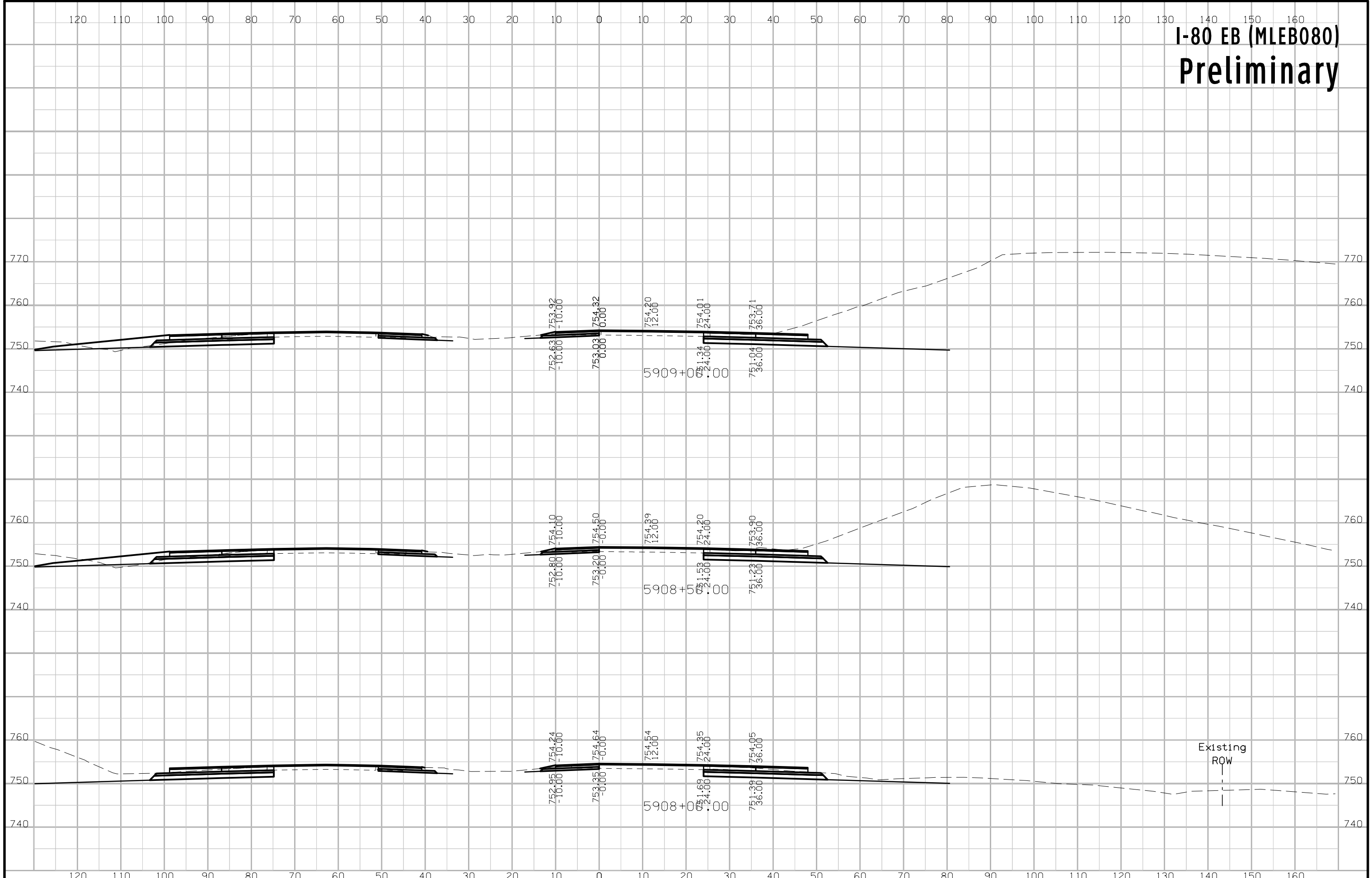
I-80 EB (MLEB080) Preliminary



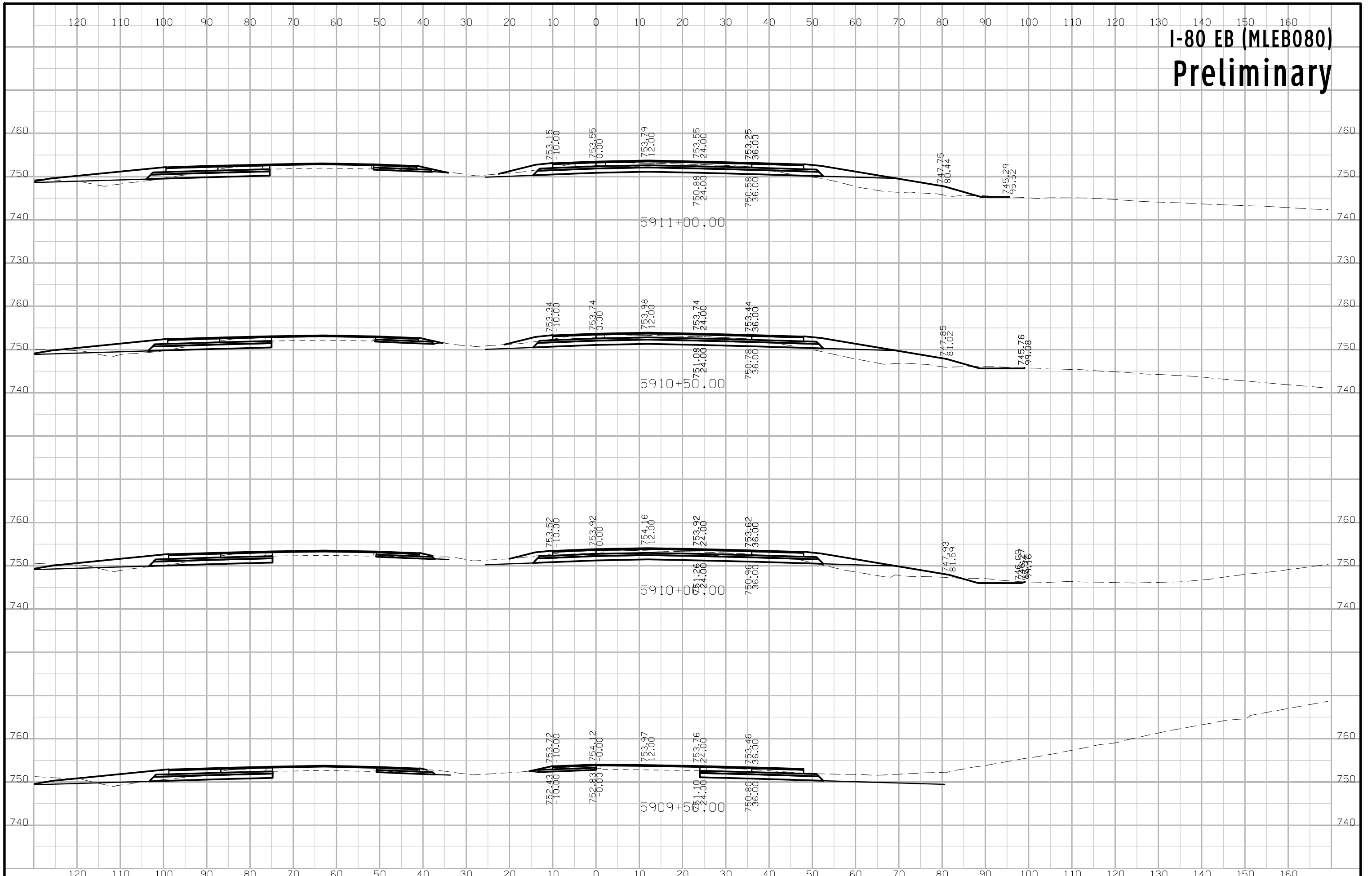
I-80 EB (MLEB080) Preliminary



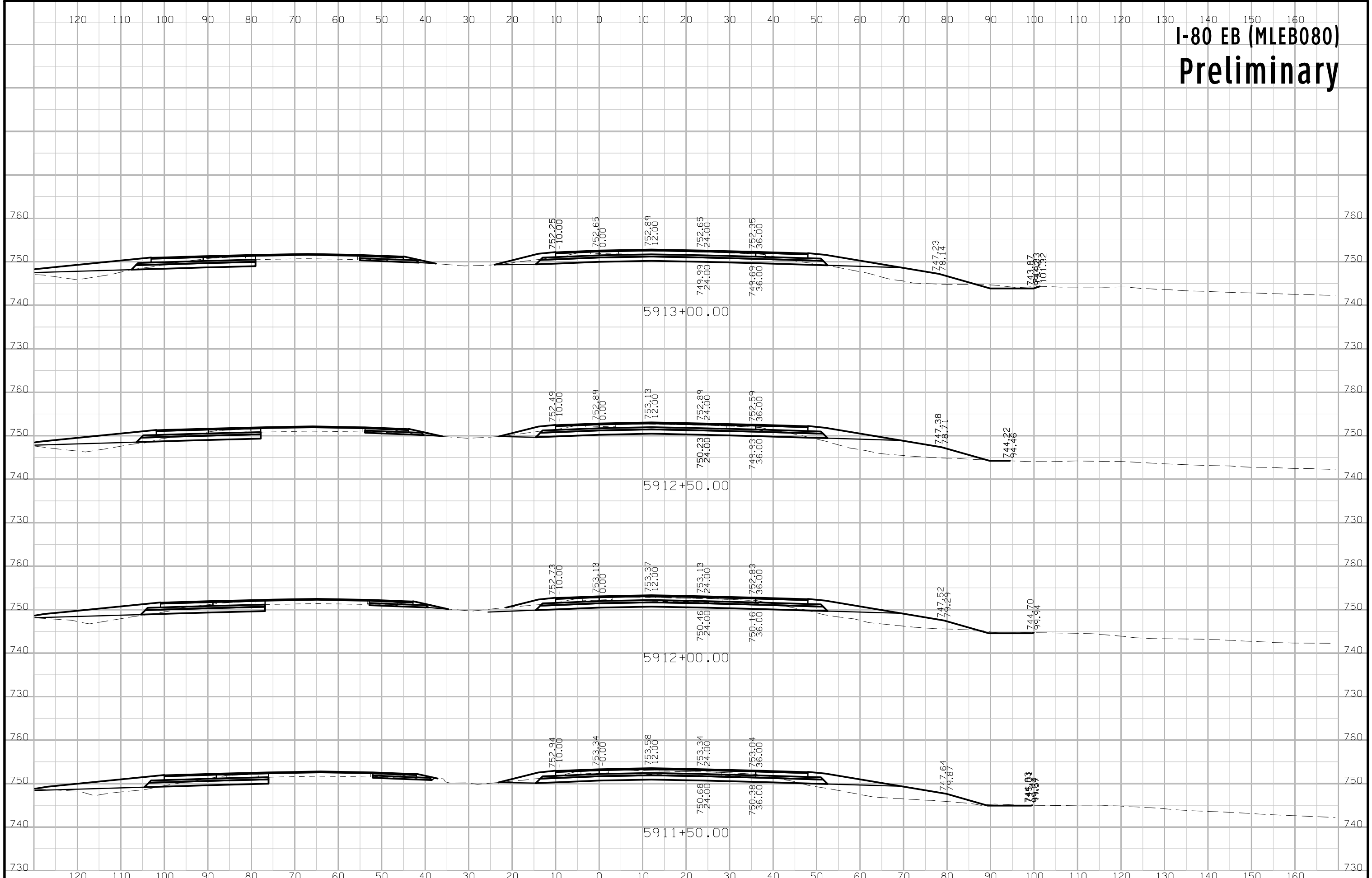
I-80 EB (MLEB080) Preliminary



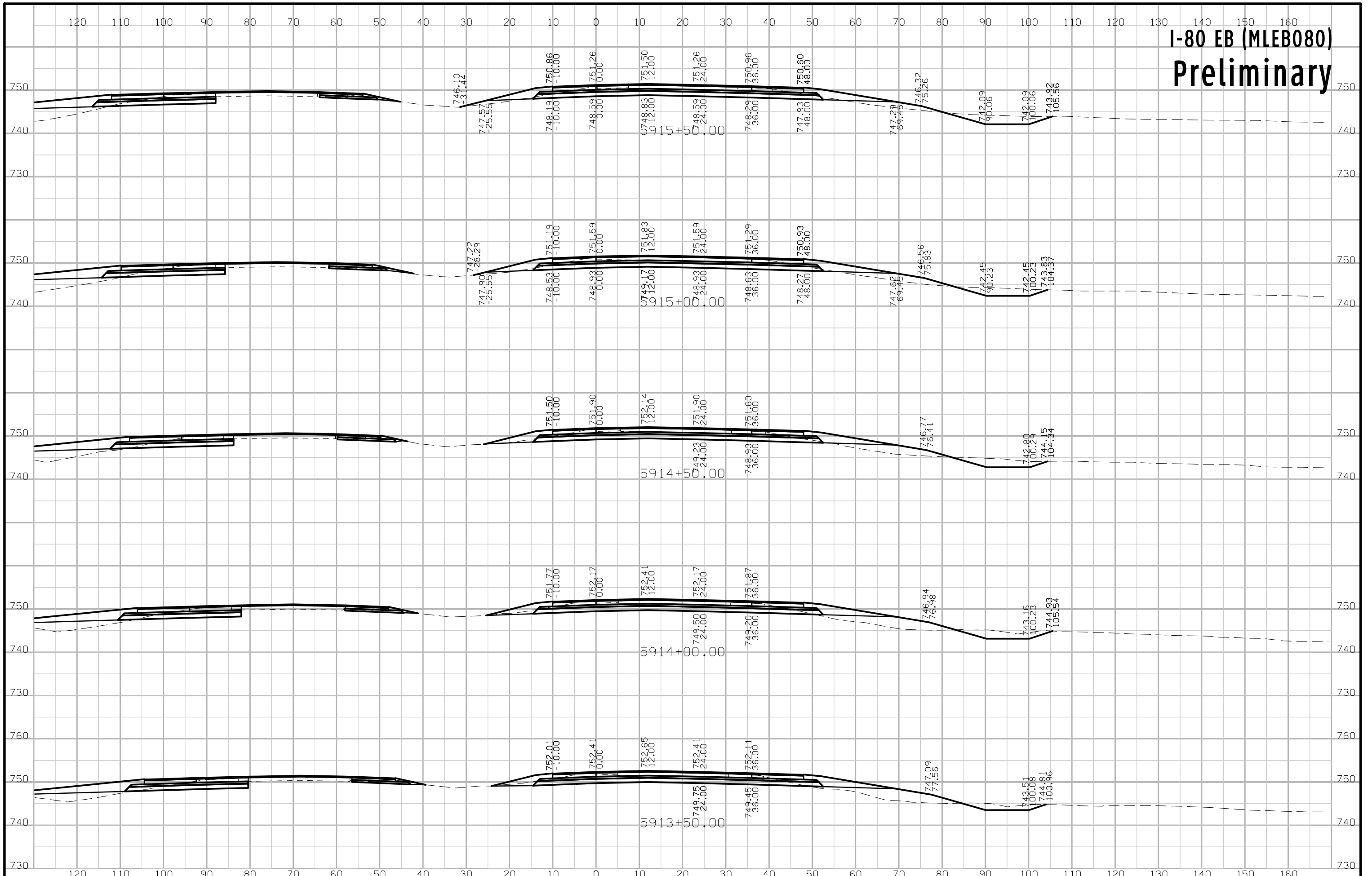
I-80 EB (MLEB080) Preliminary



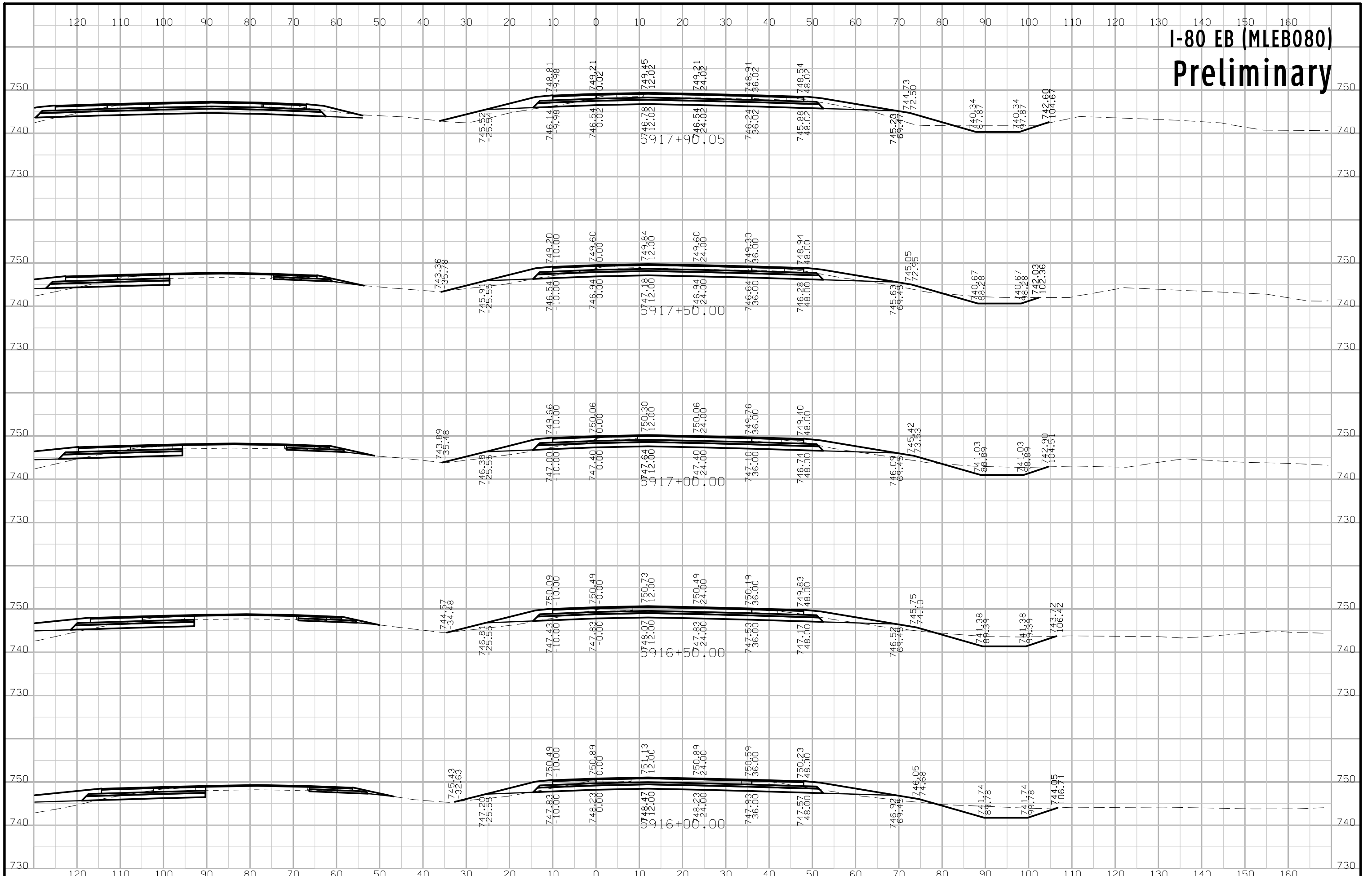
I-80 EB (MLEB080) Preliminary



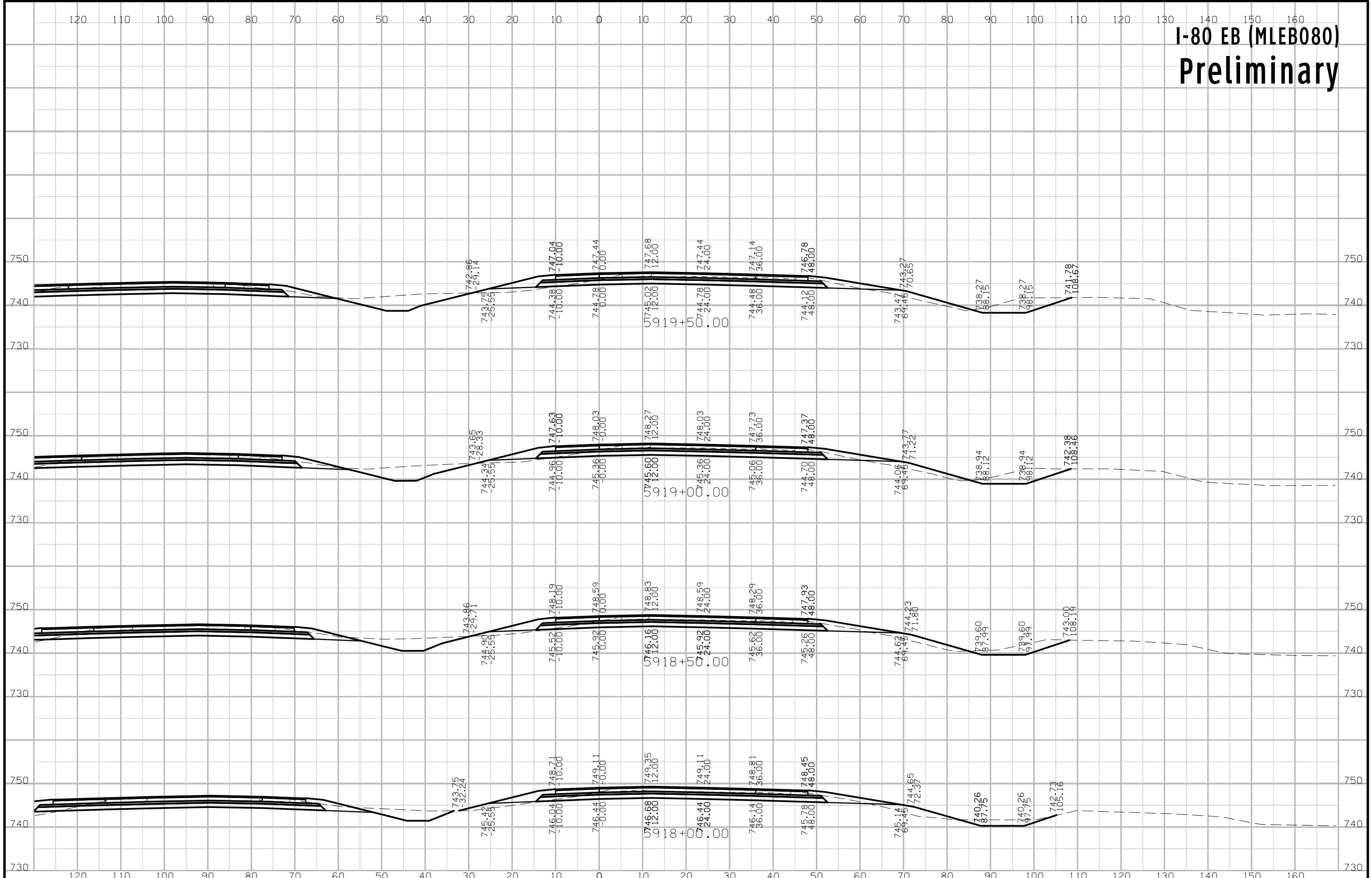
I-80 EB (MLEB080) Preliminary



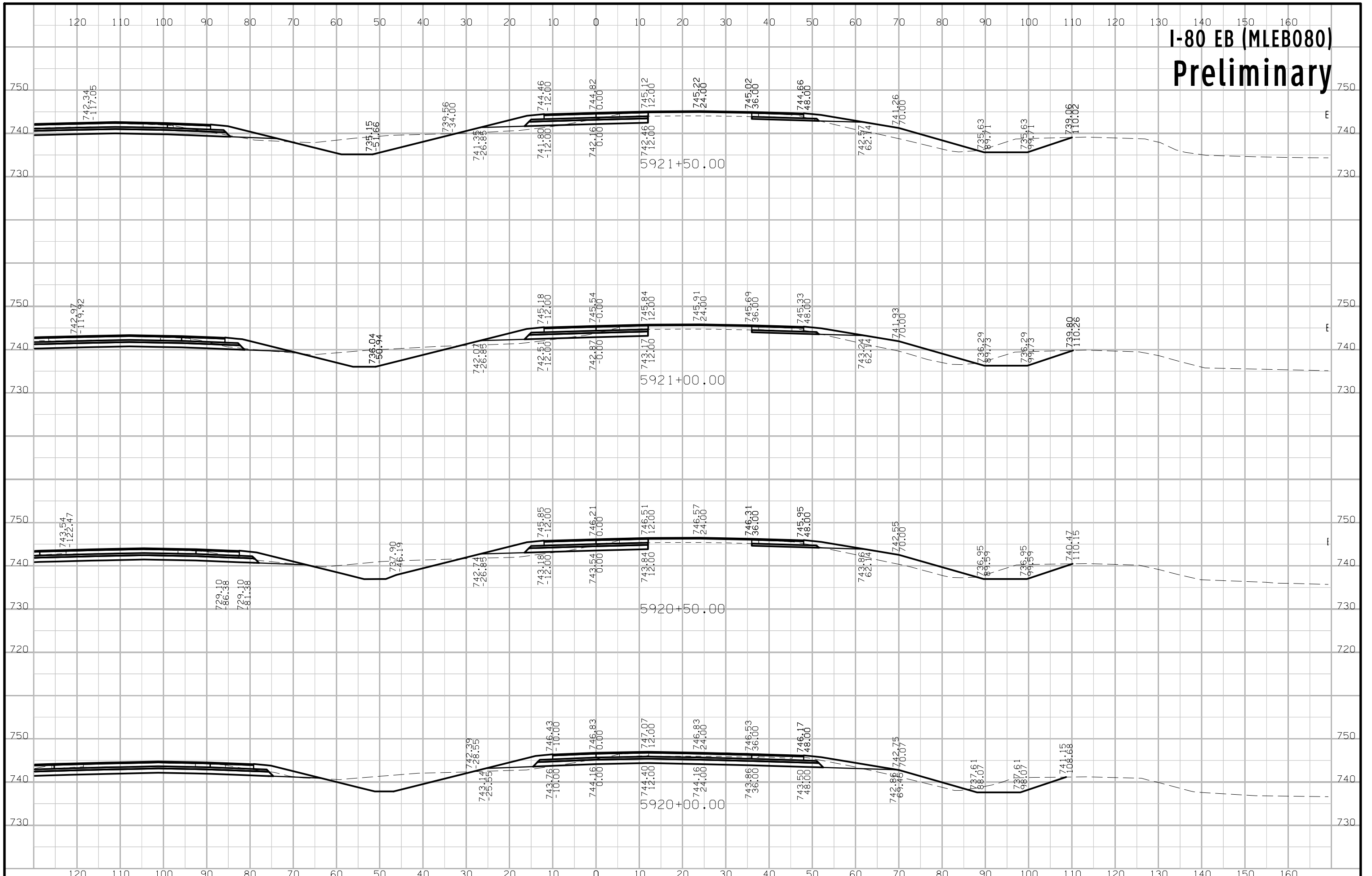
I-80 EB (MLEB080) Preliminary



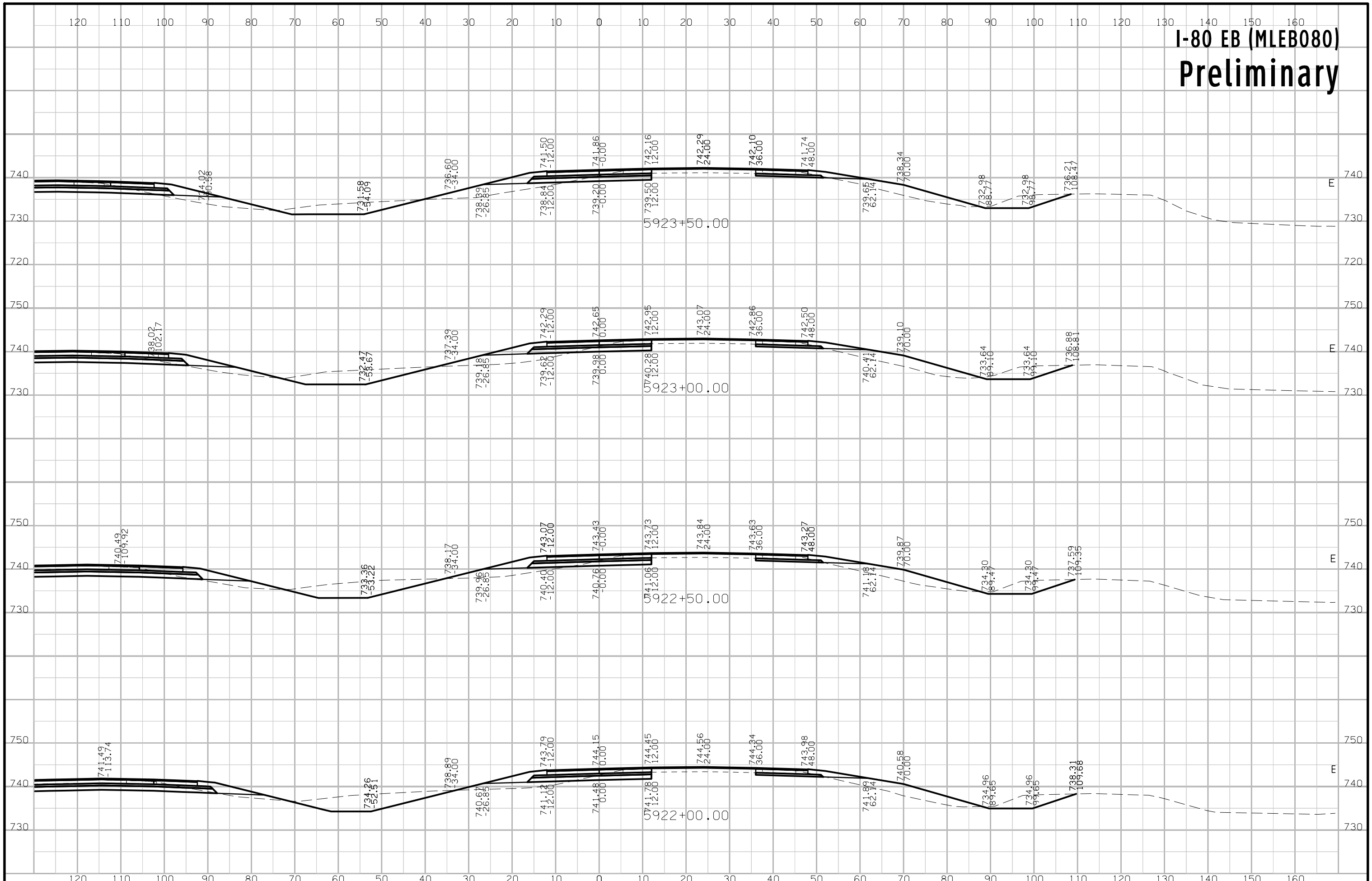
I-80 EB (MLEB080) Preliminary



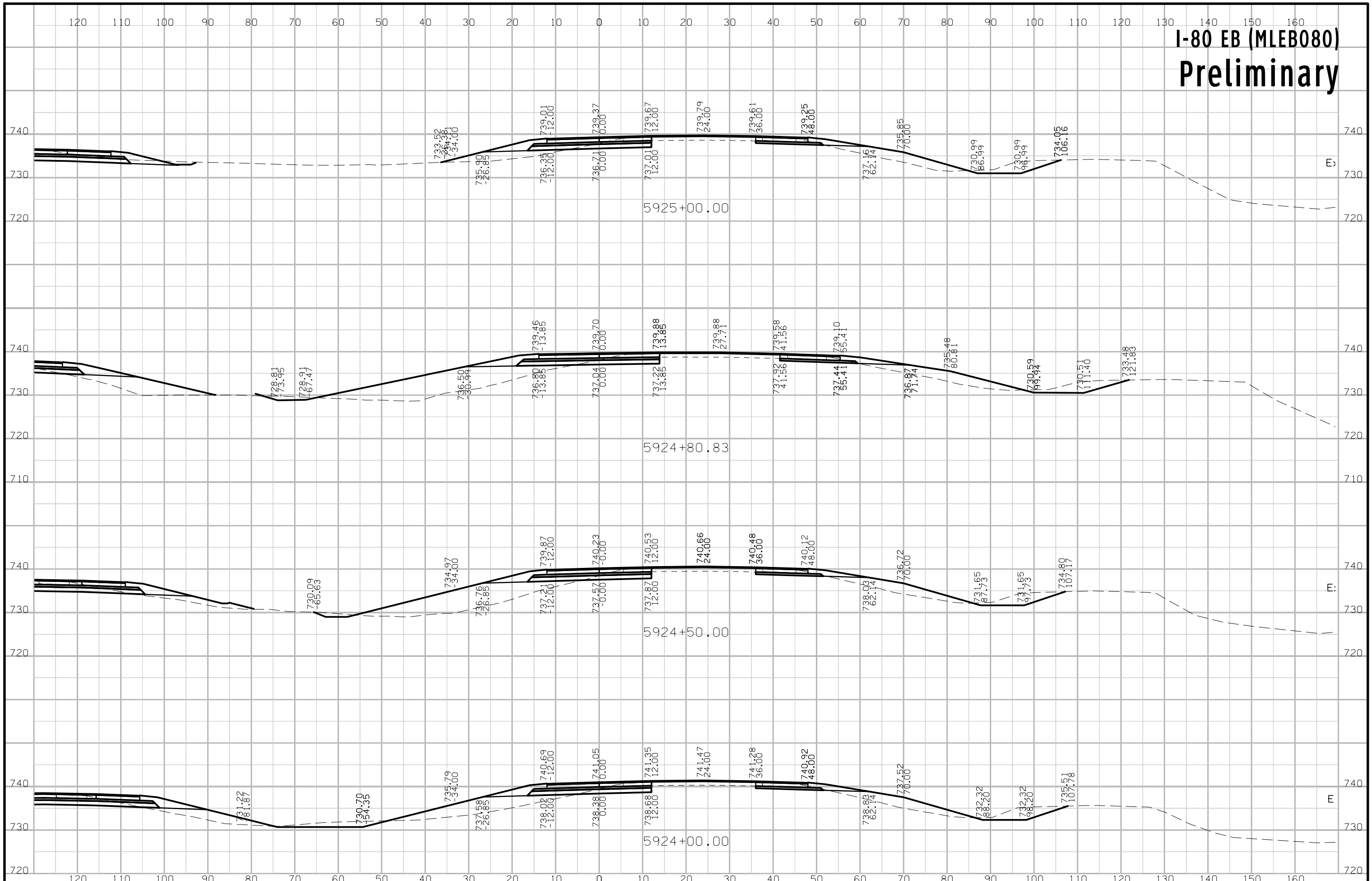
I-80 EB (MLEB080) Preliminary



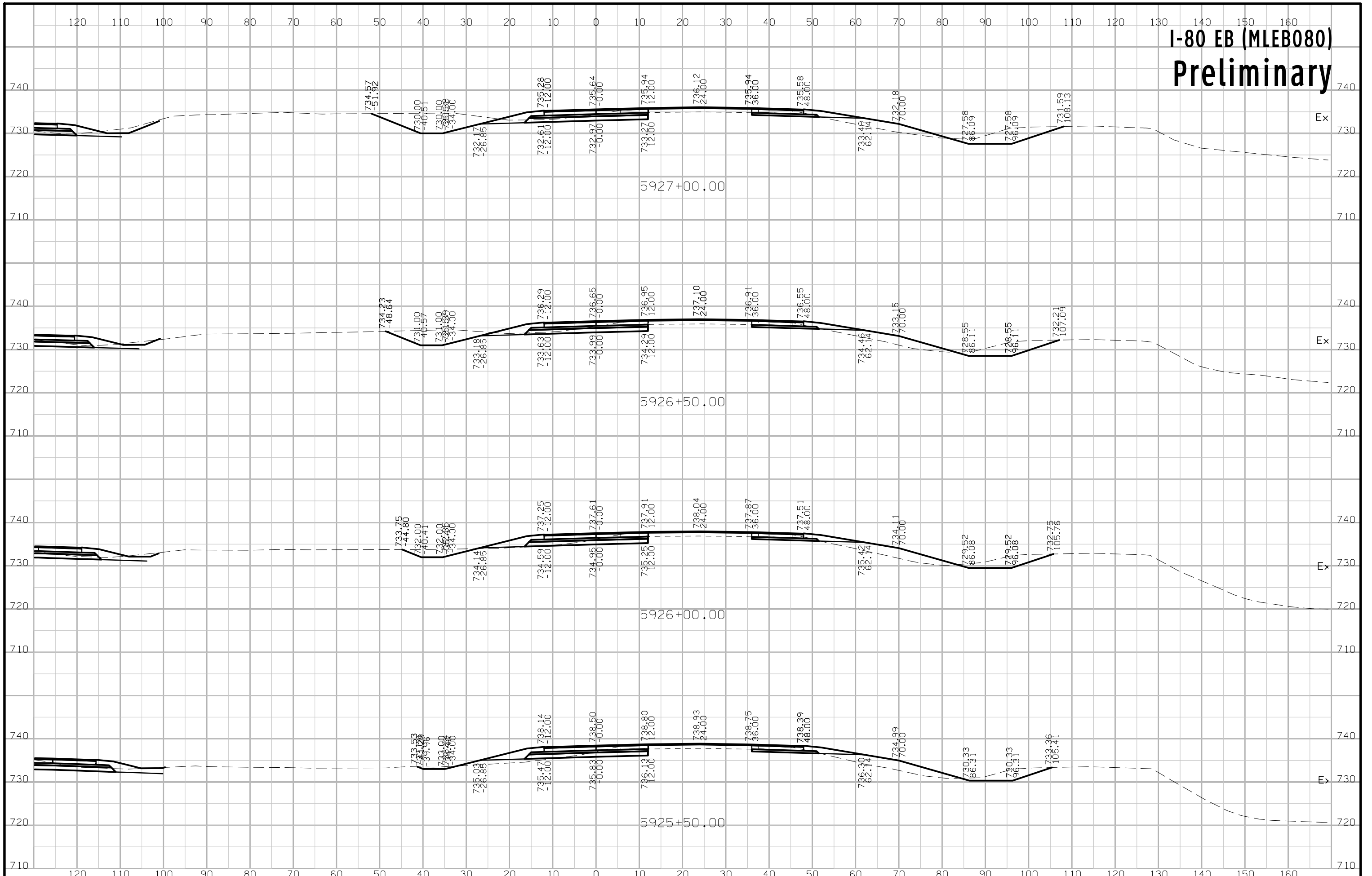
I-80 EB (MLEB080) Preliminary



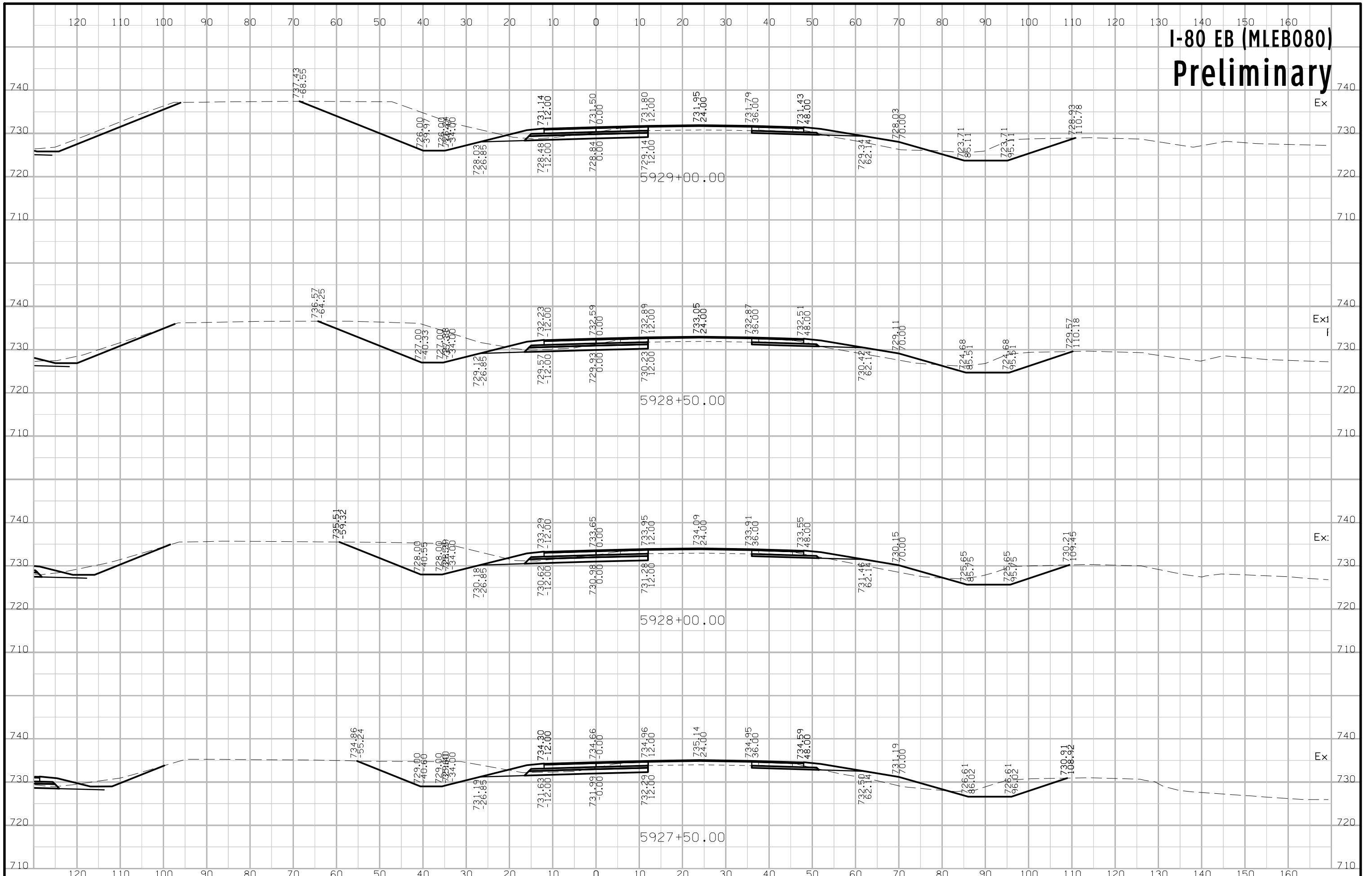
I-80 EB (MLEB080) Preliminary



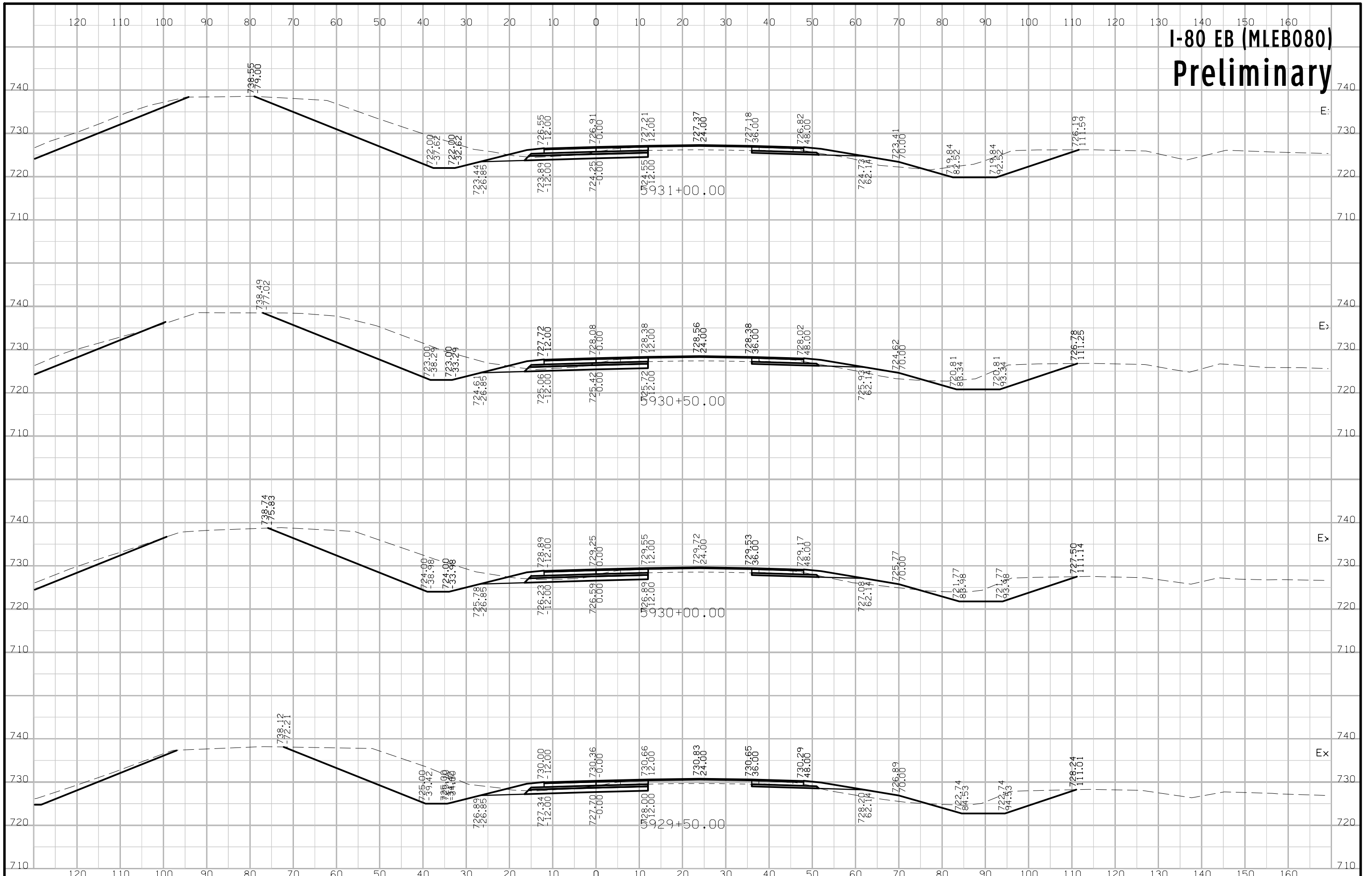
I-80 EB (MLEB080) Preliminary



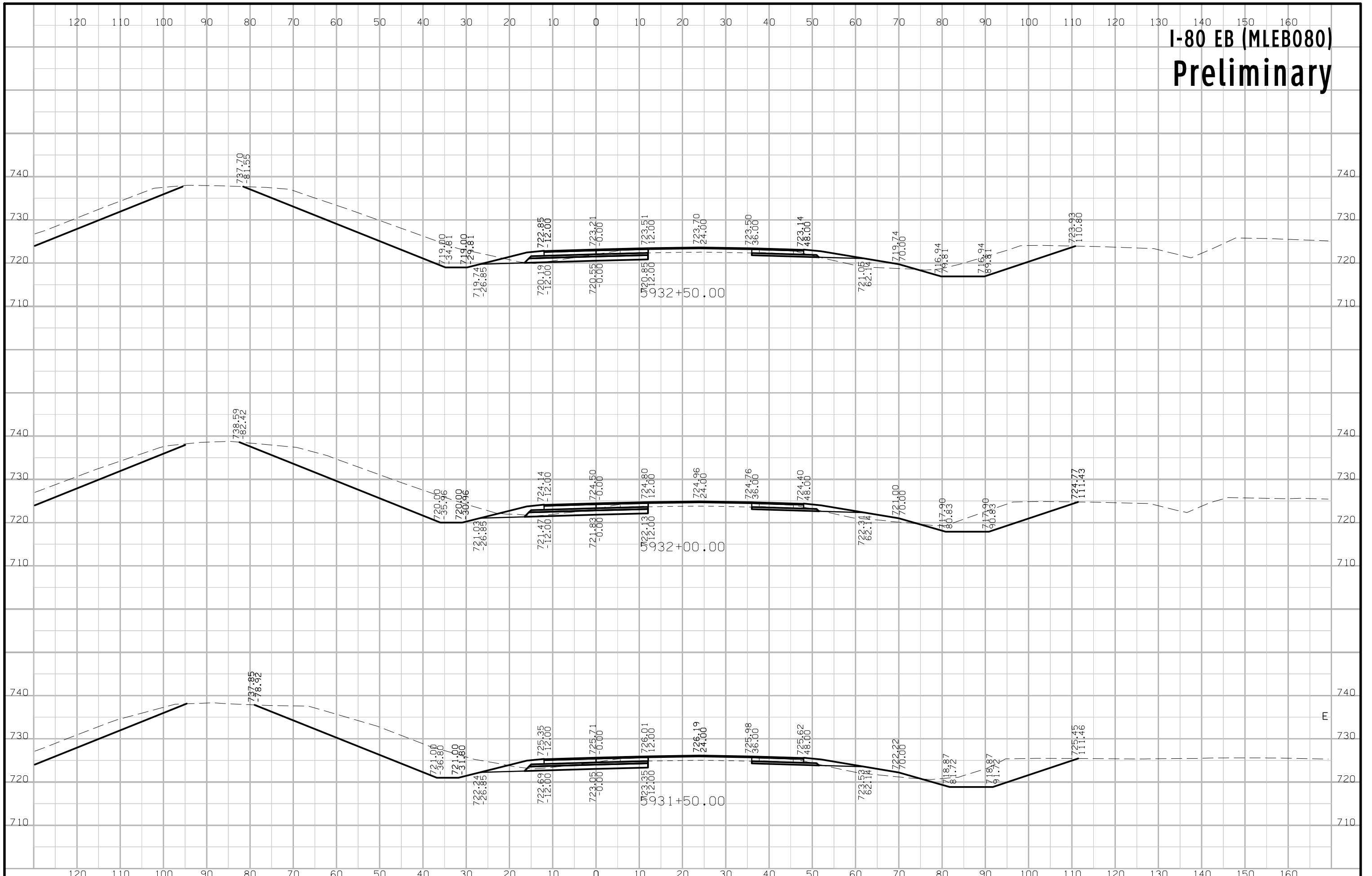
I-80 EB (MLEB080) Preliminary



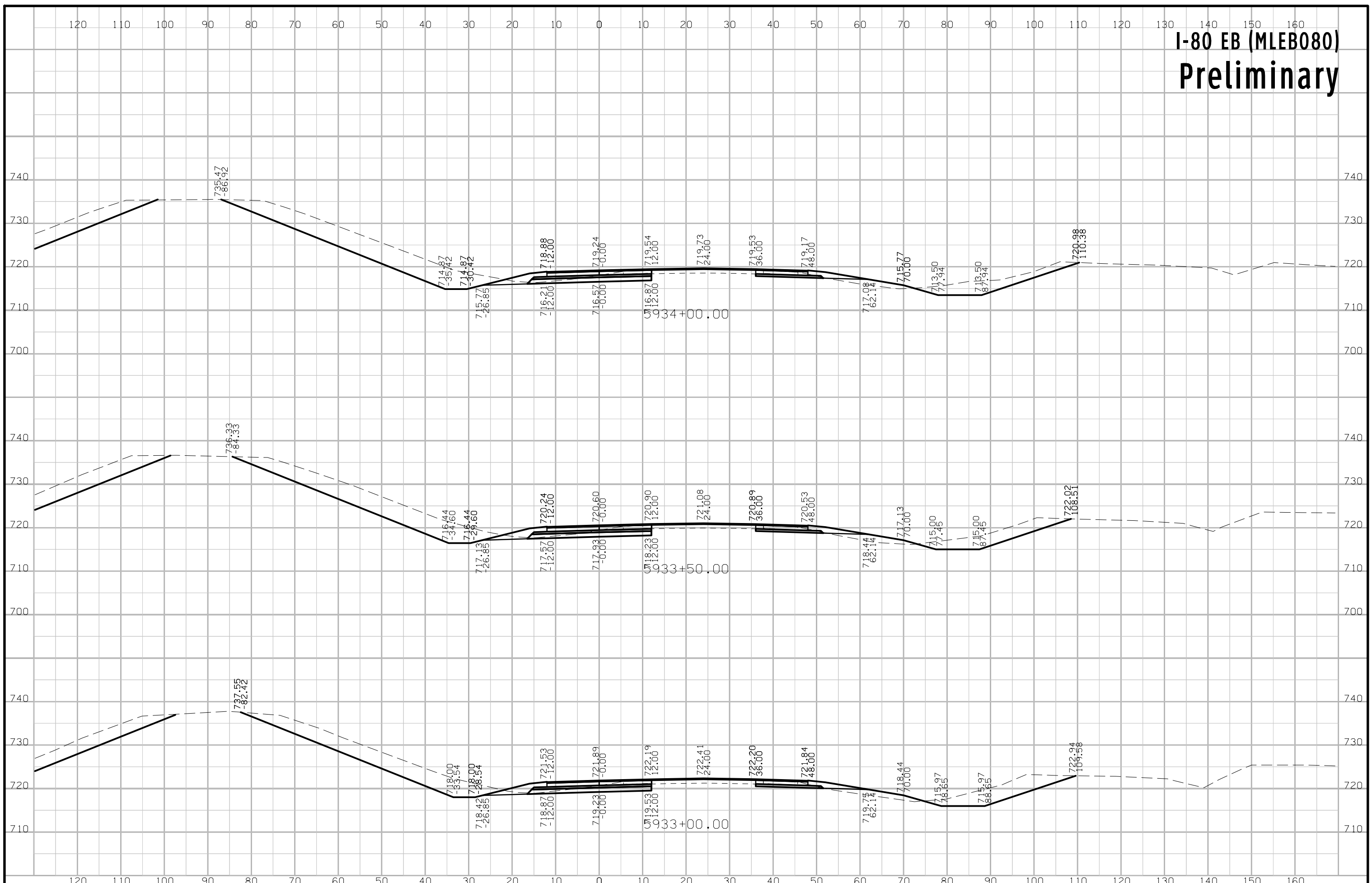
I-80 EB (MLEB080) Preliminary



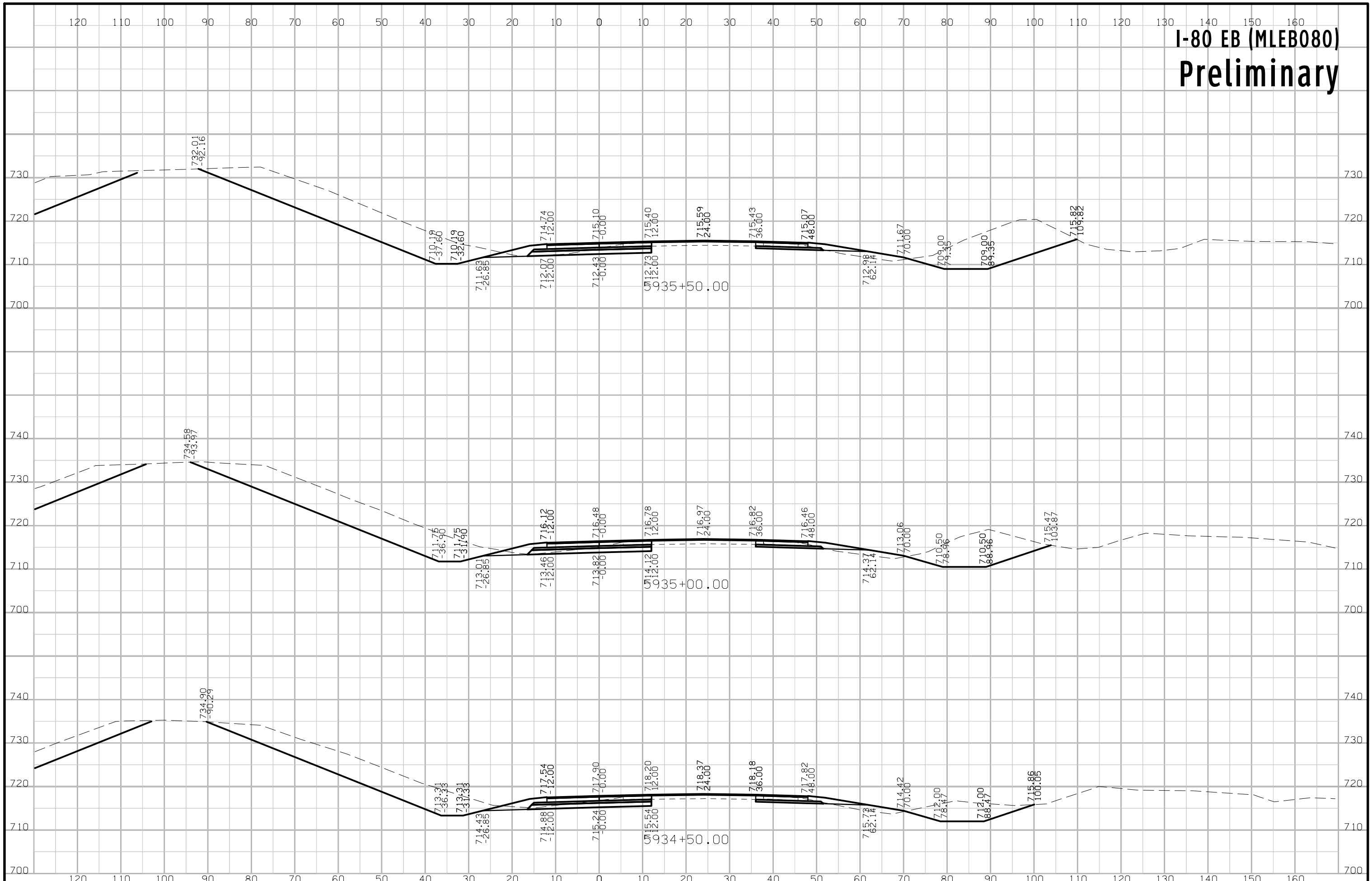
I-80 EB (MLEB080) Preliminary



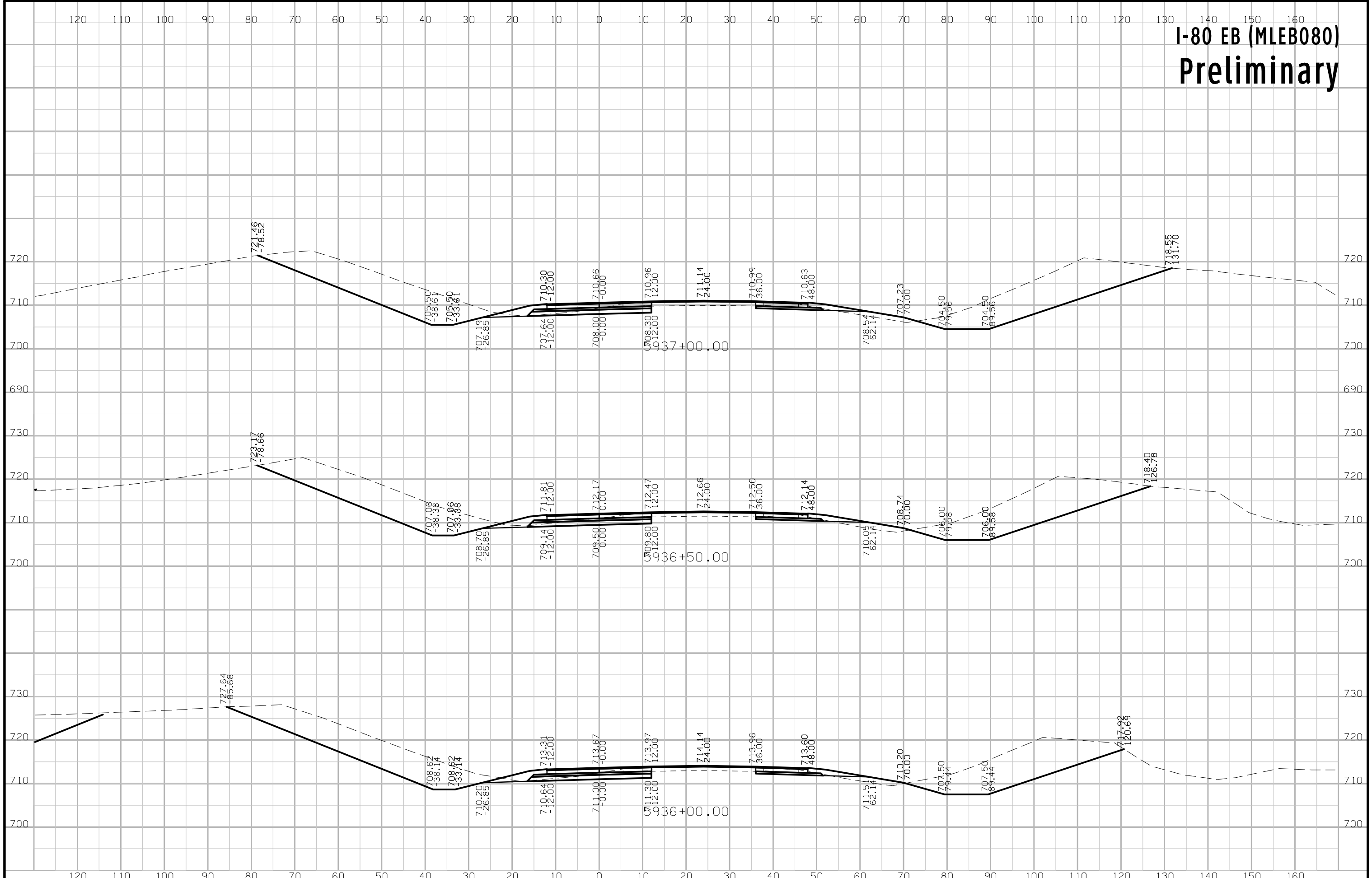
I-80 EB (MLEB080) Preliminary



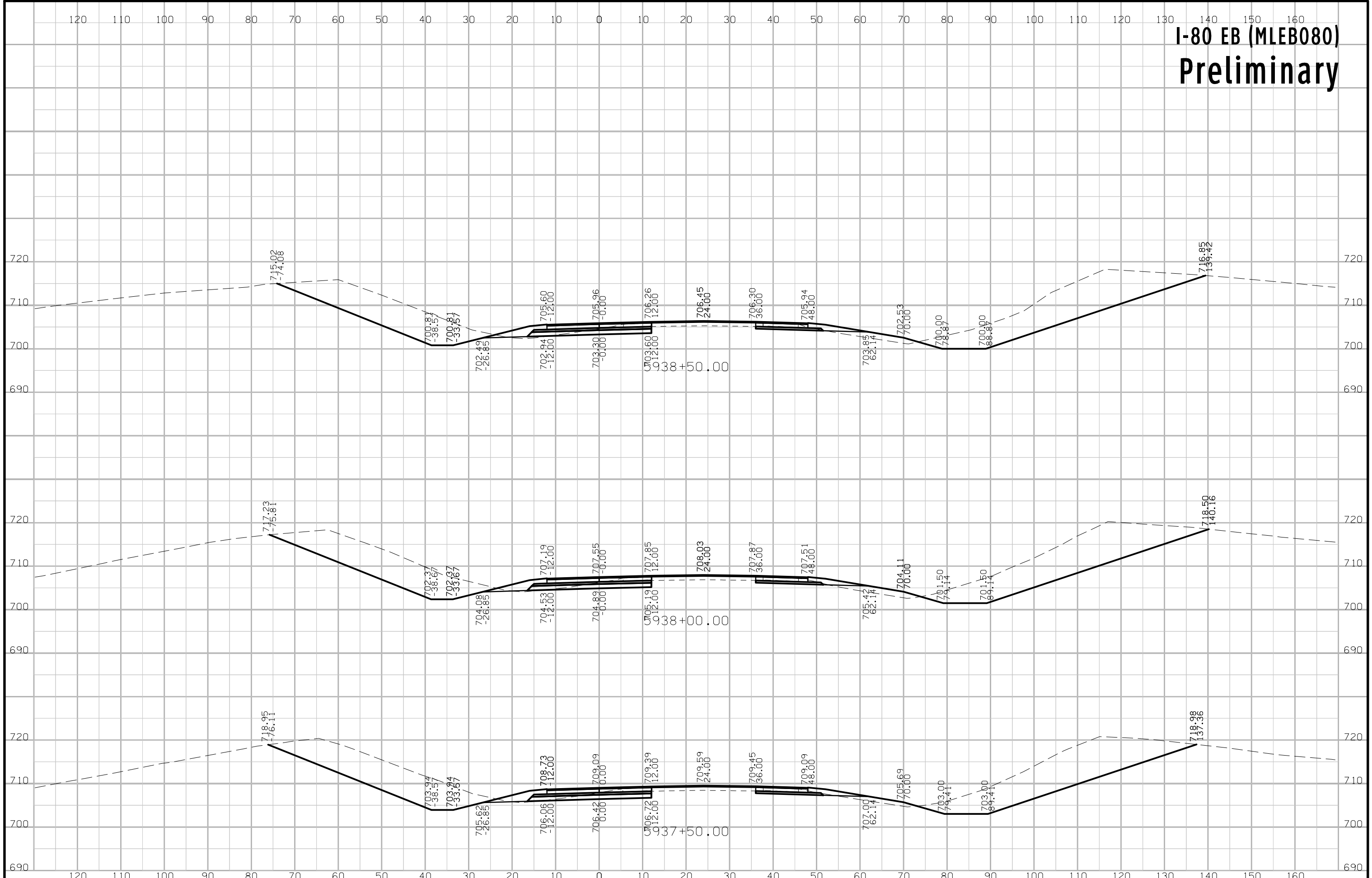
I-80 EB (MLEB080) Preliminary



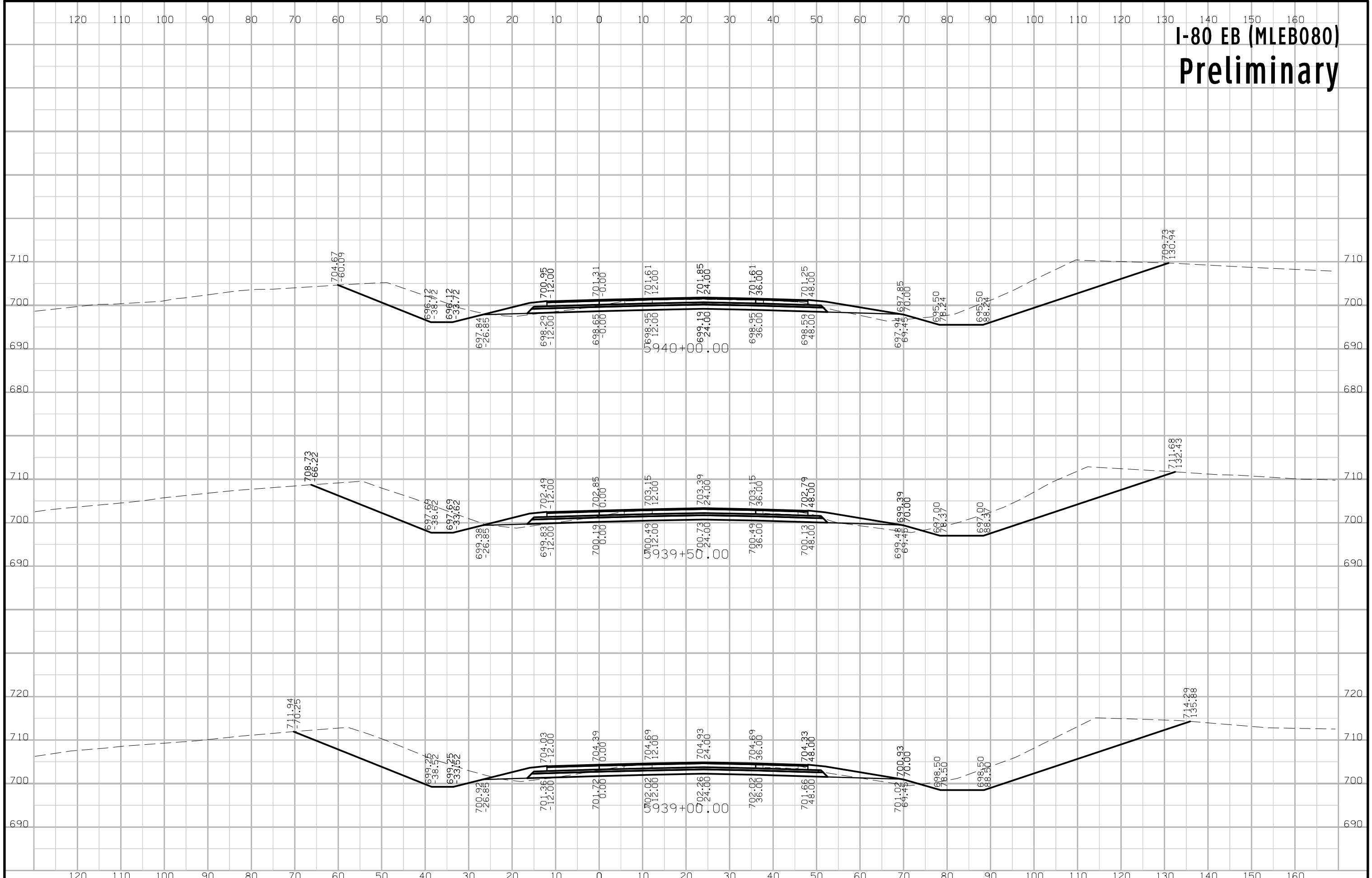
I-80 EB (MLEB080) Preliminary



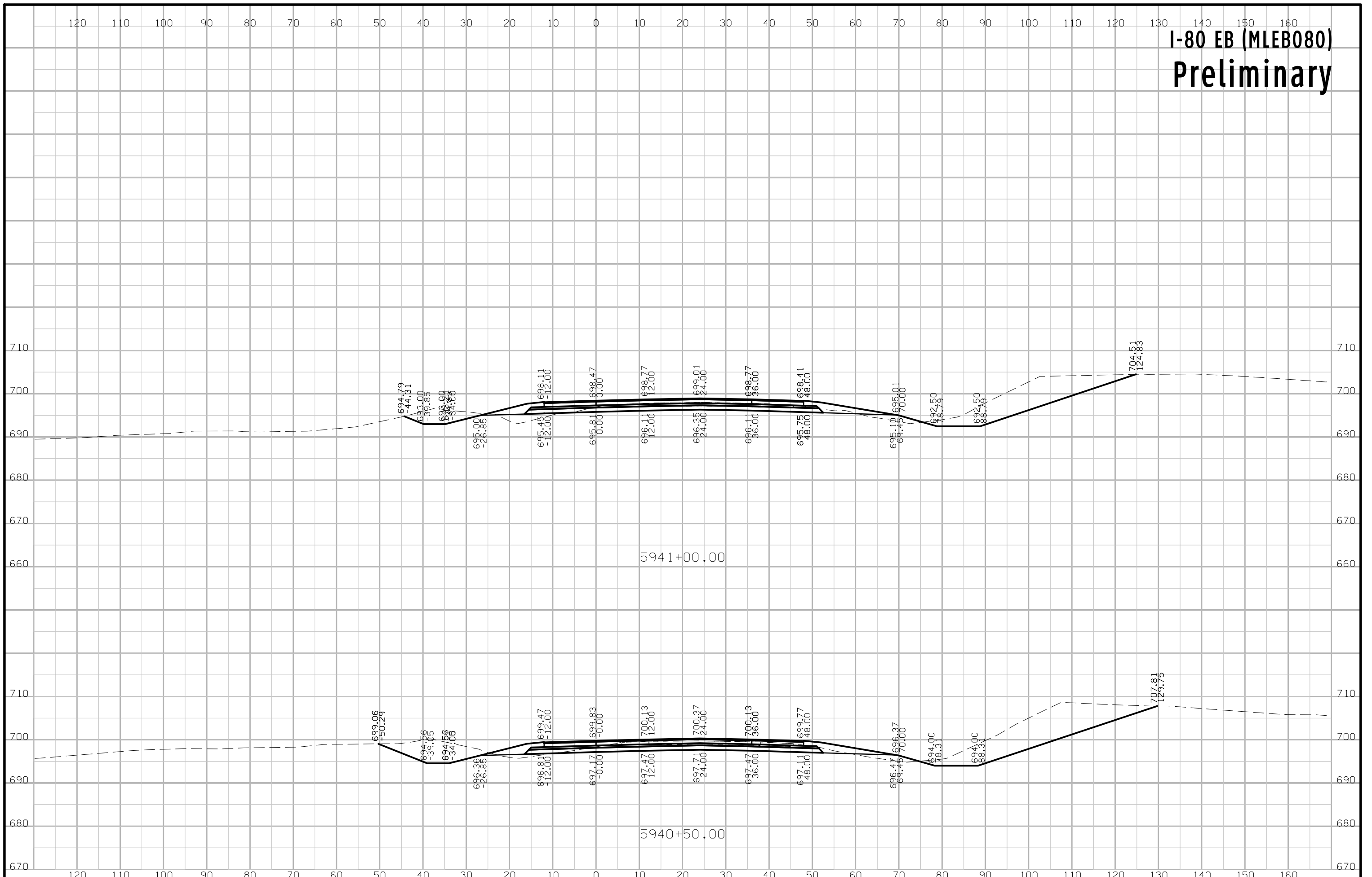
I-80 EB (MLEB080) Preliminary



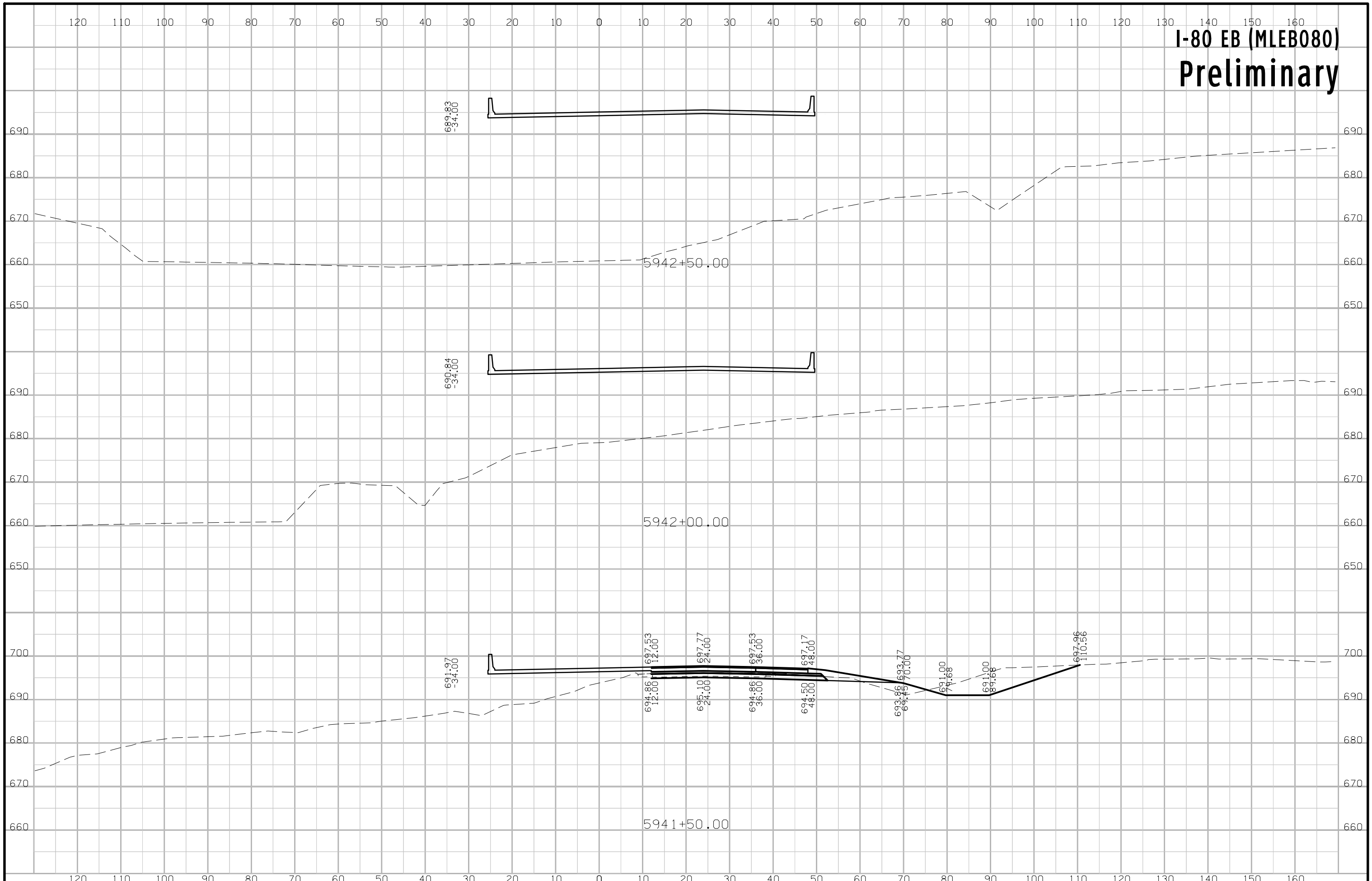
I-80 EB (MLEB080) Preliminary



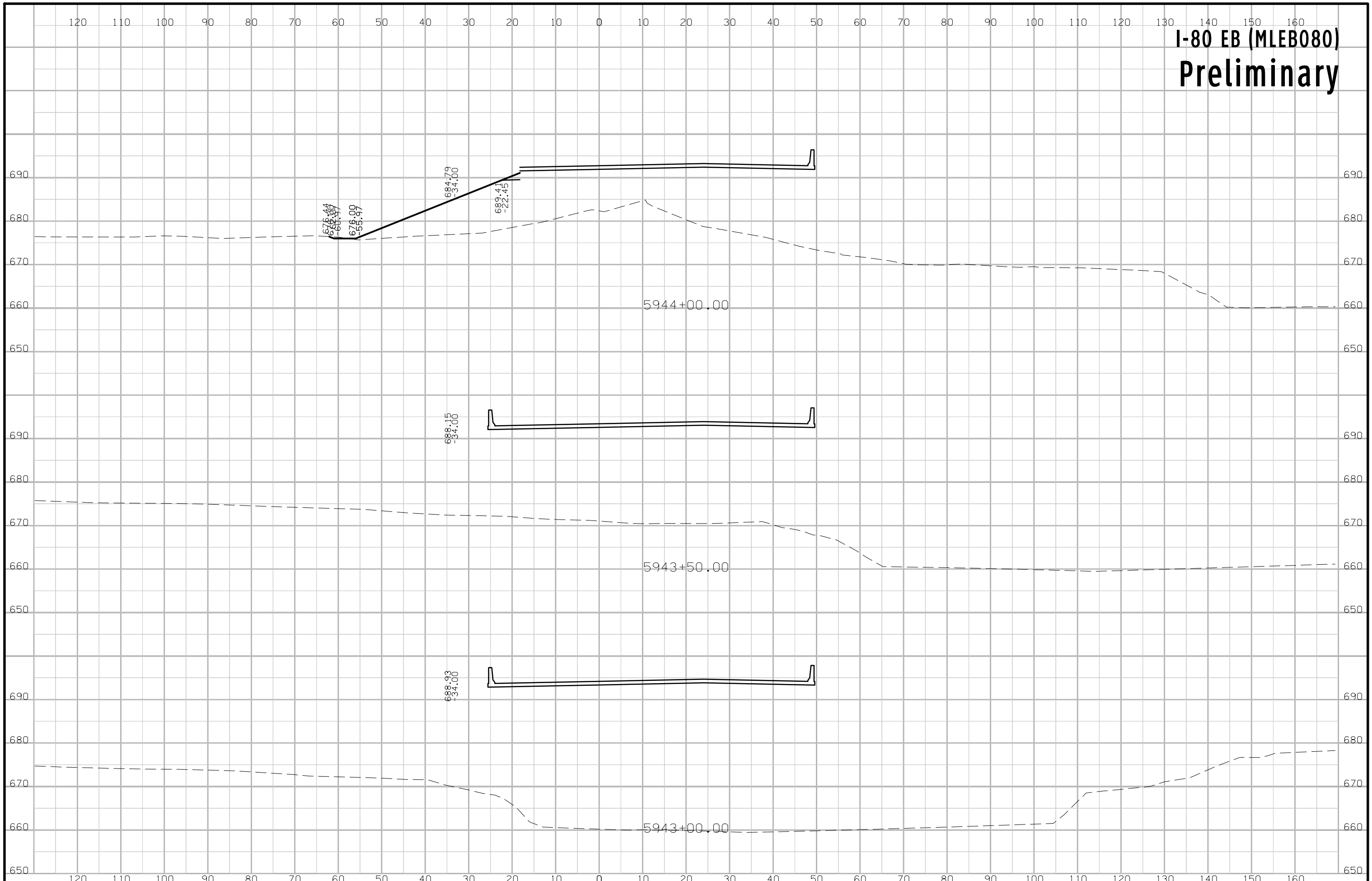
I-80 EB (MLEB080) Preliminary



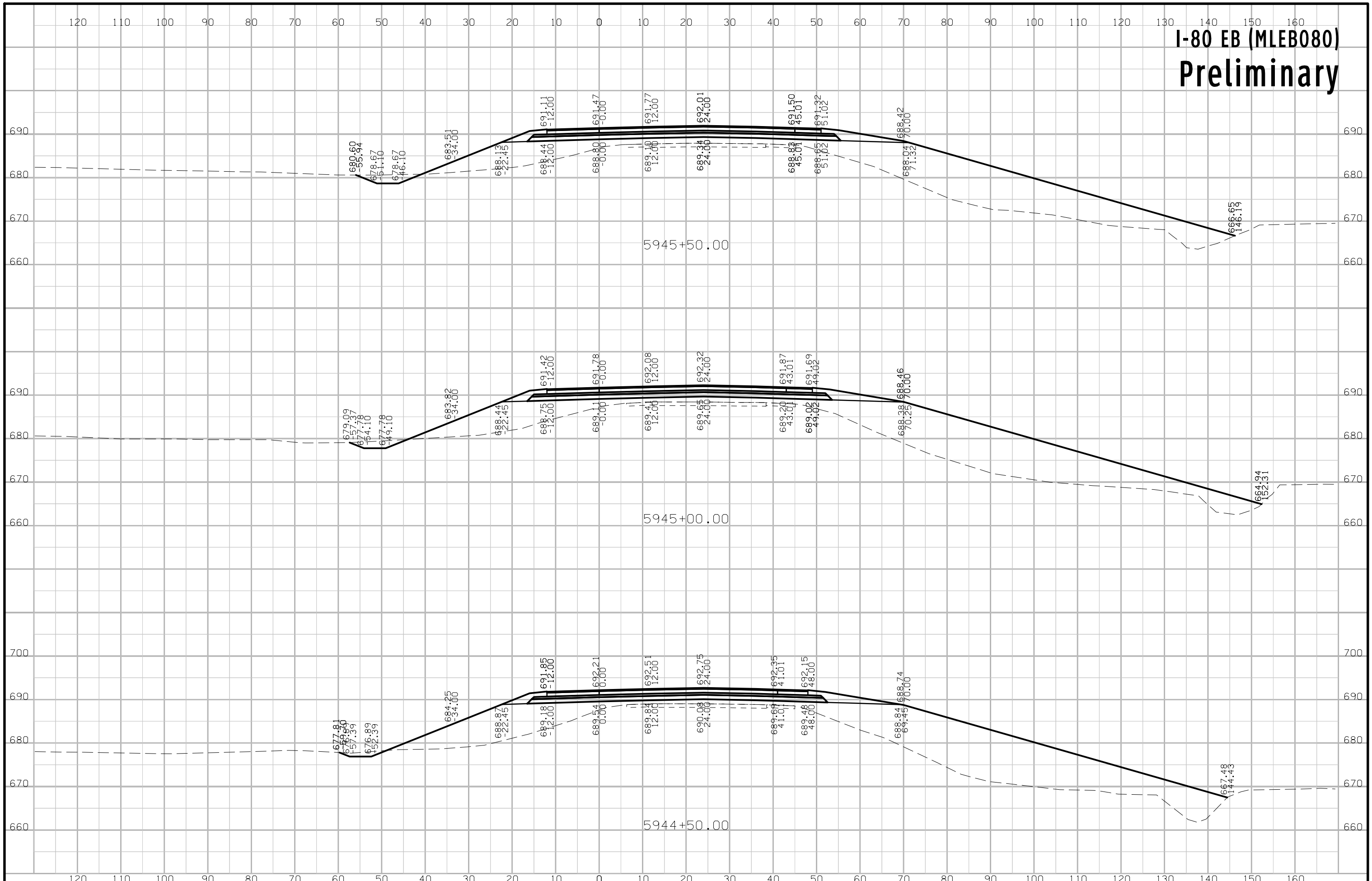
I-80 EB (MLEB080) Preliminary



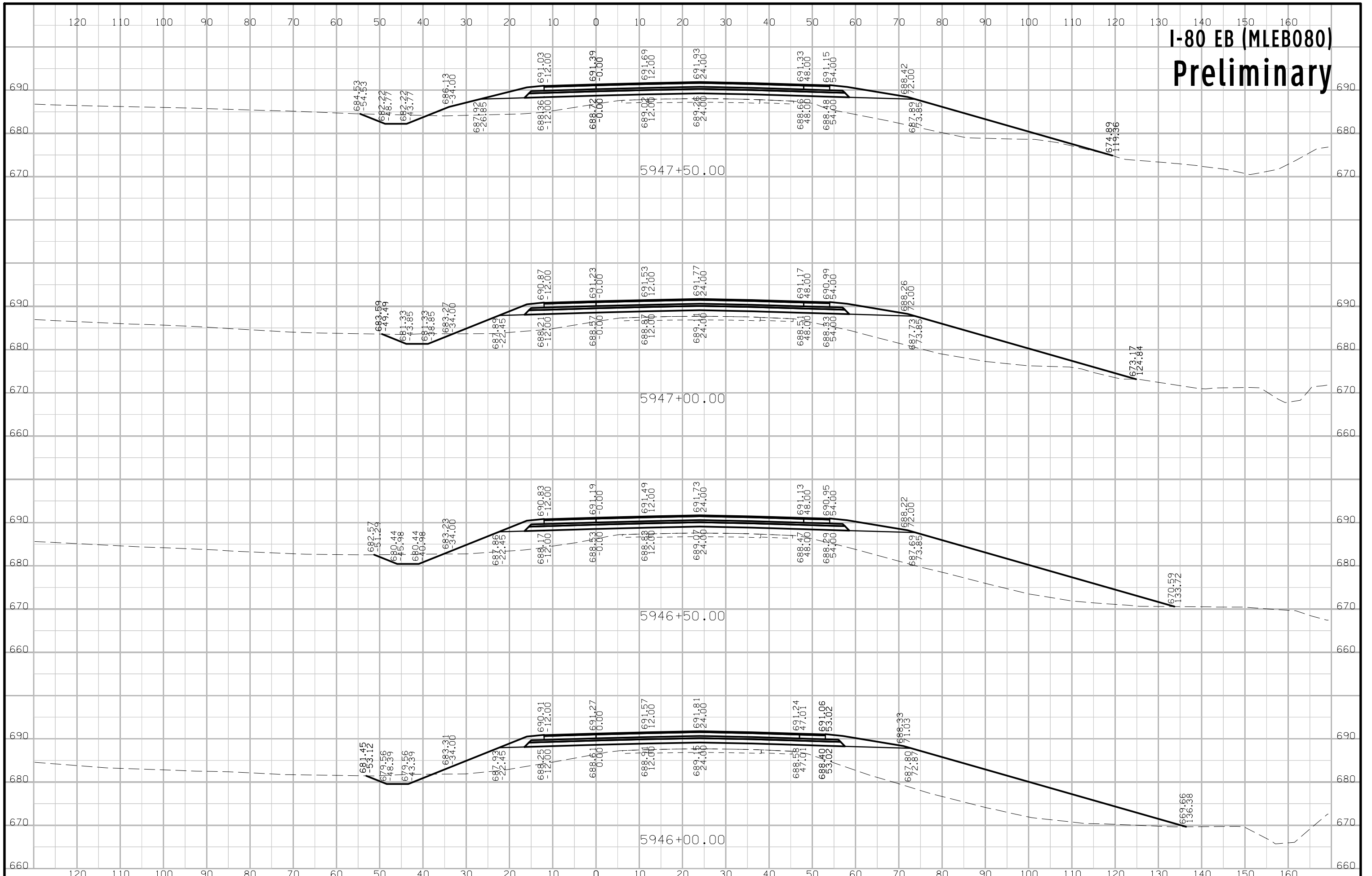
I-80 EB (MLEB080) Preliminary



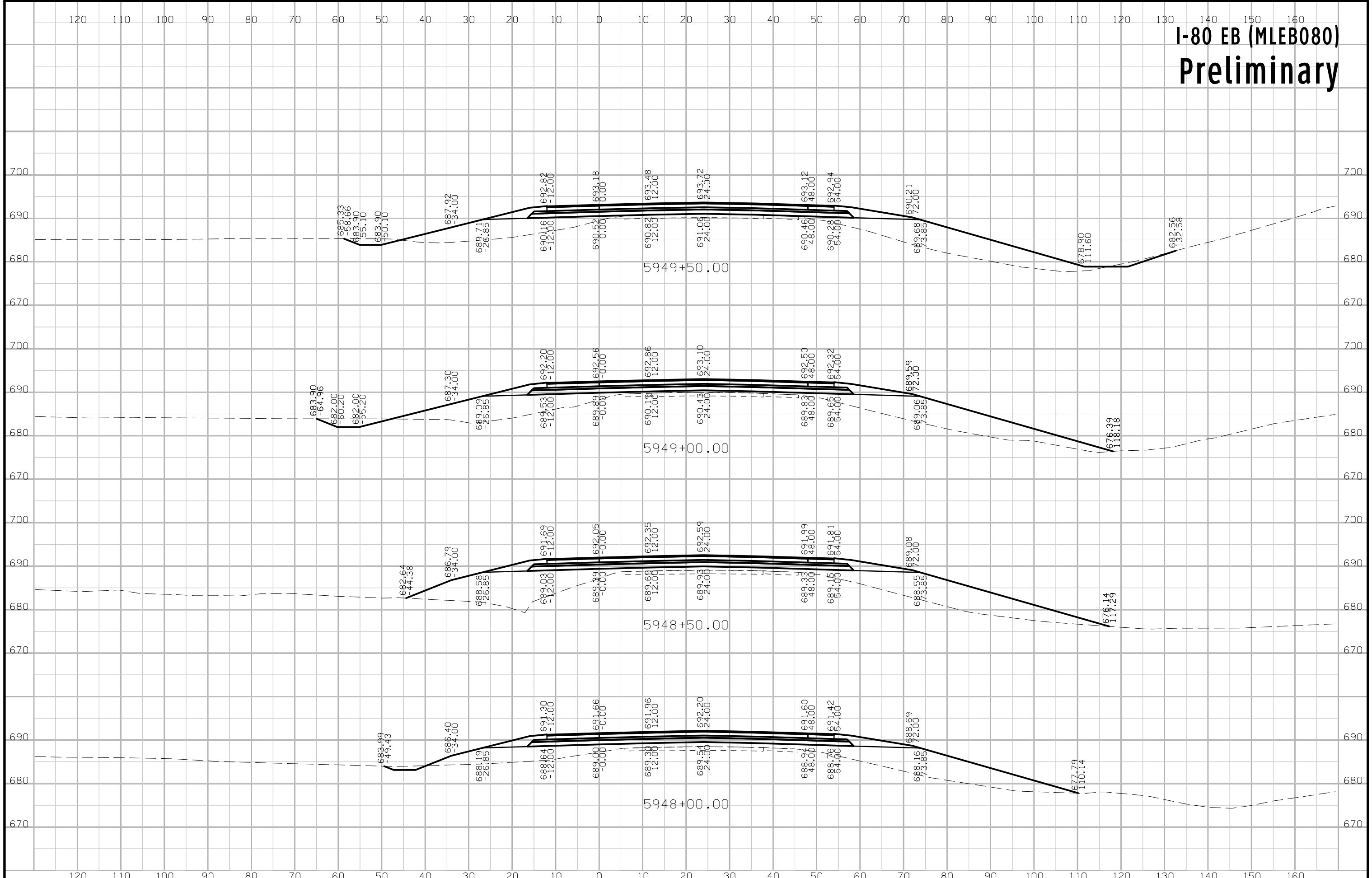
I-80 EB (MLEB080) Preliminary



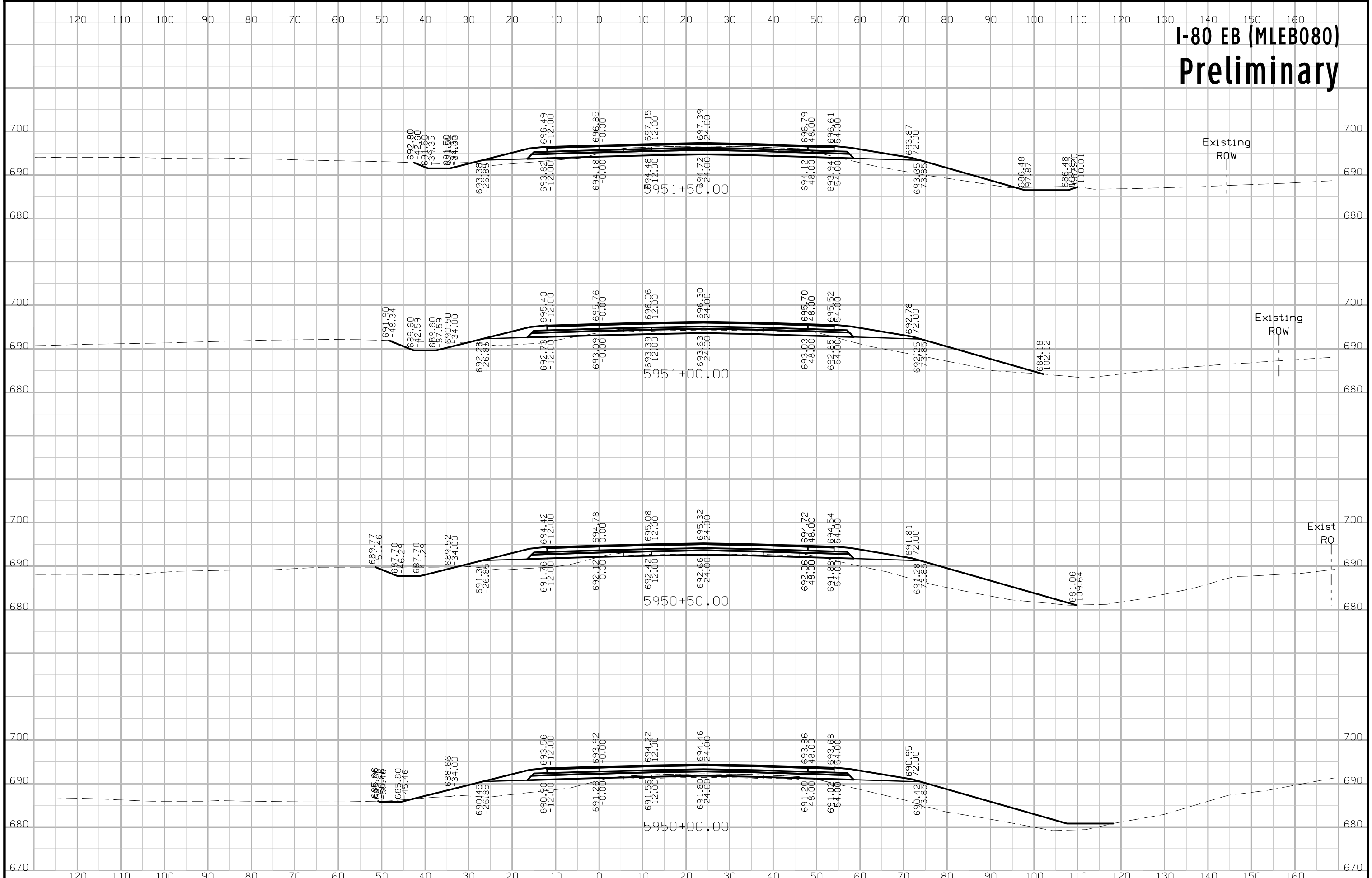
I-80 EB (MLEB080) Preliminary



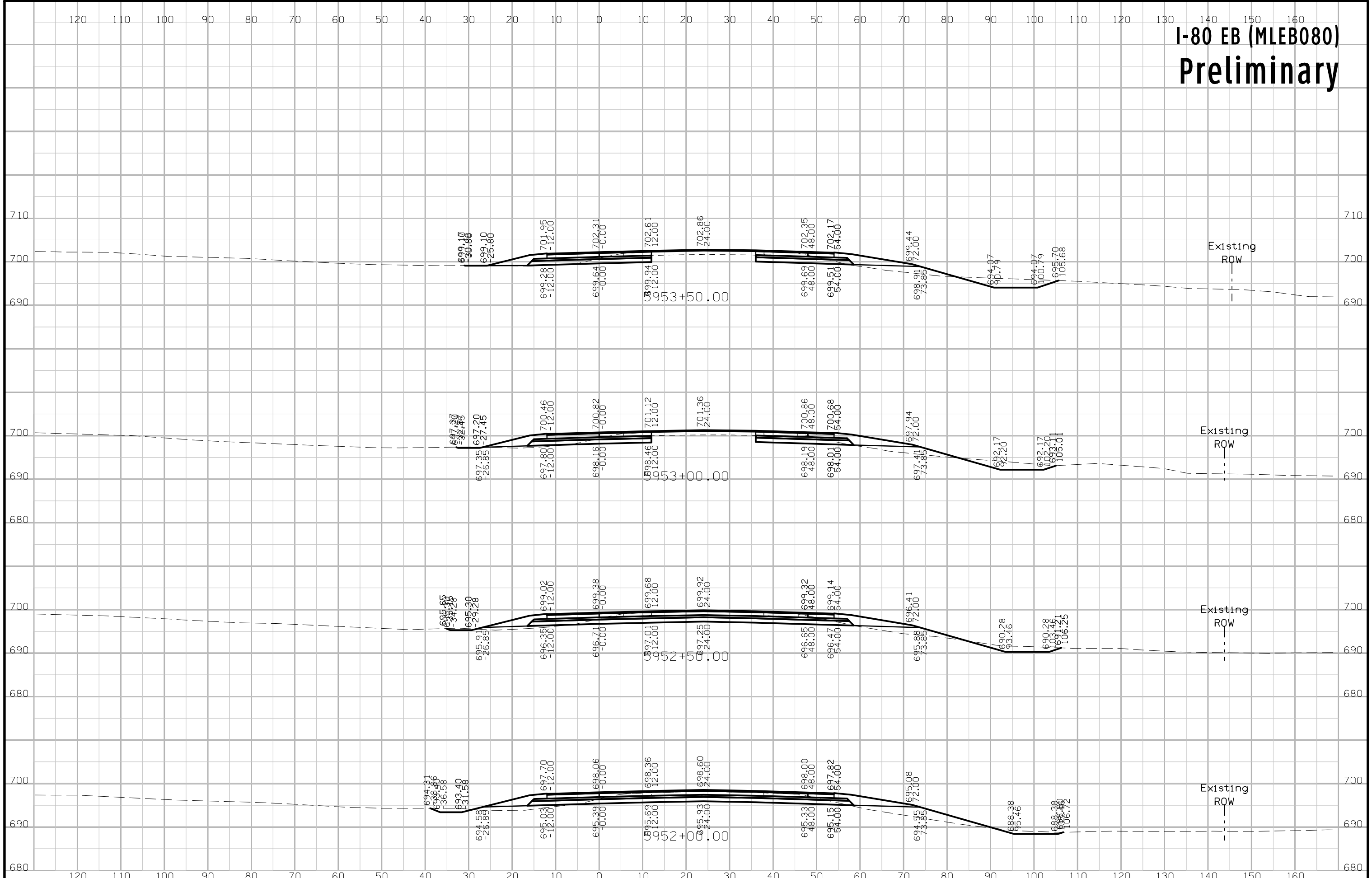
I-80 EB (MLEB080) Preliminary



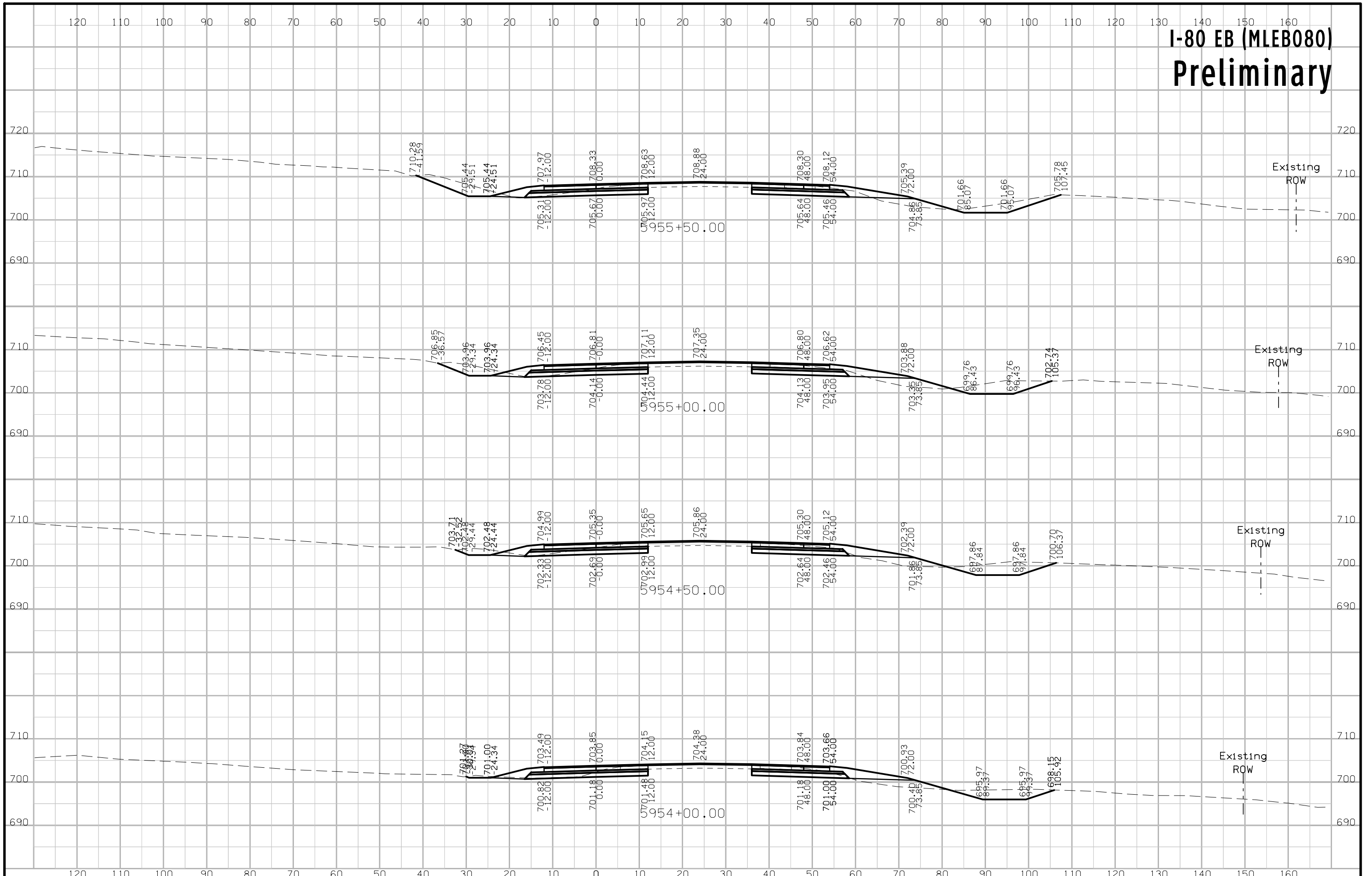
I-80 EB (MLEB080) Preliminary



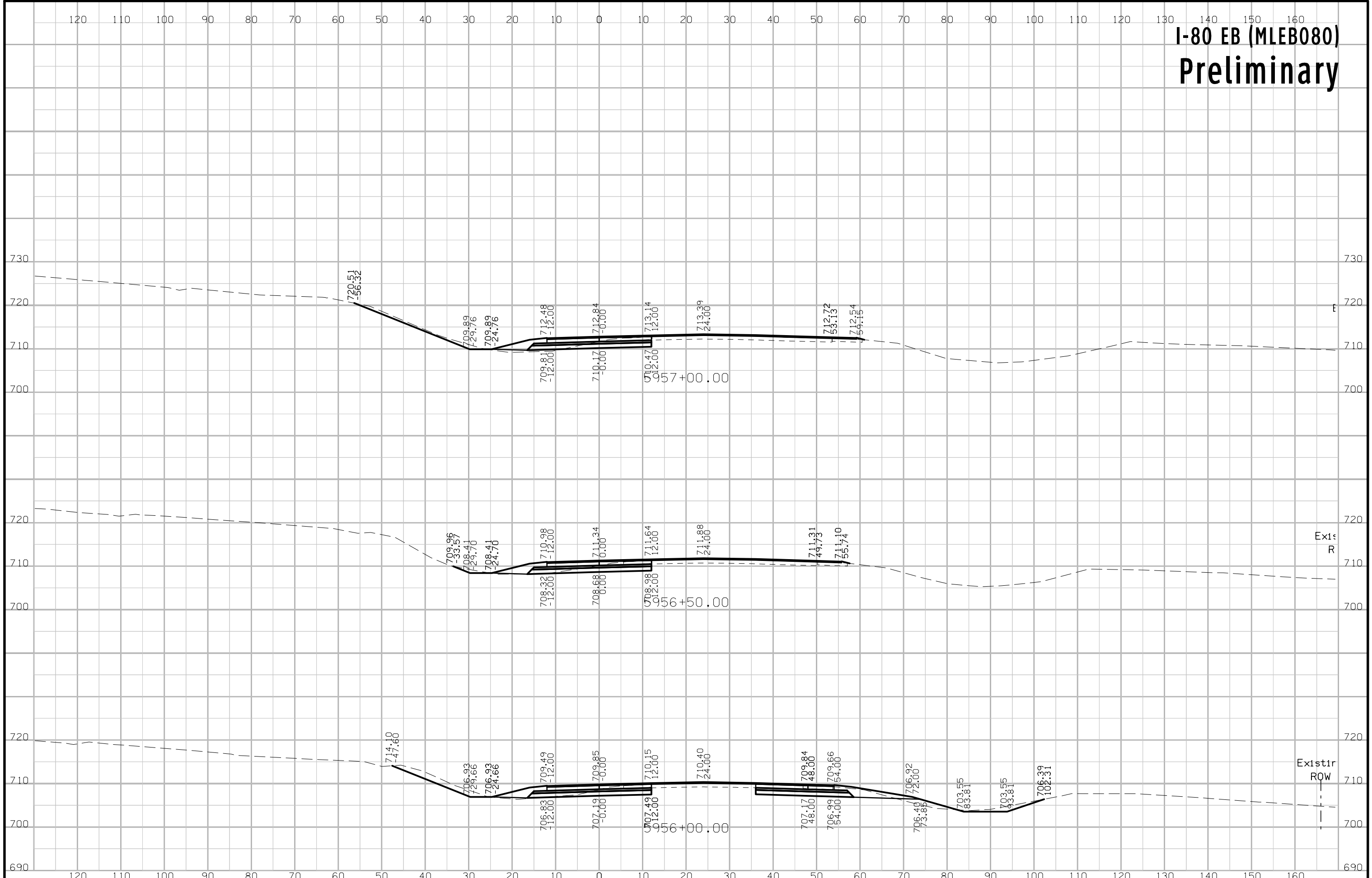
I-80 EB (MLEB080) Preliminary



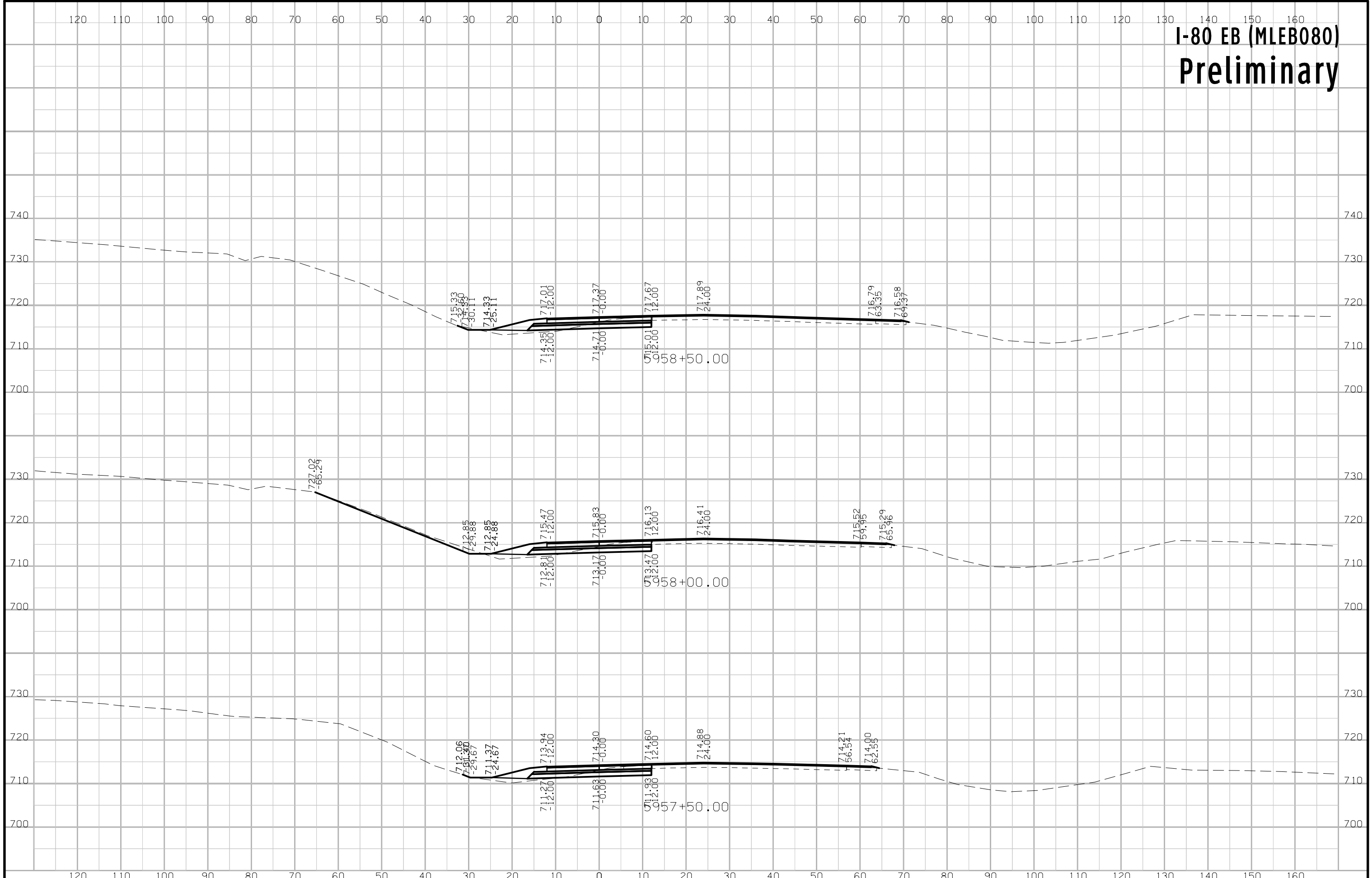
I-80 EB (MLEB080) Preliminary



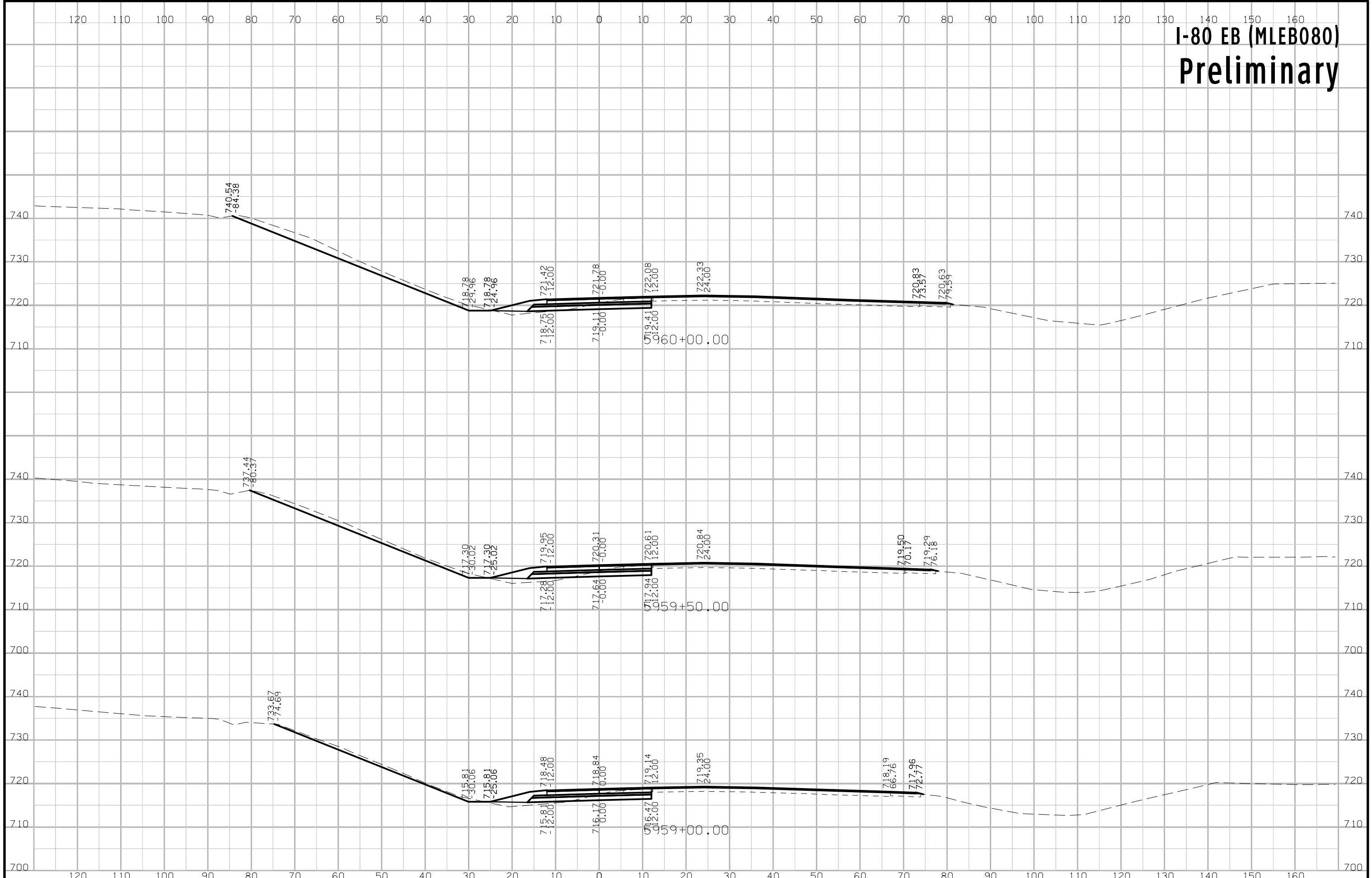
I-80 EB (MLEB080) Preliminary



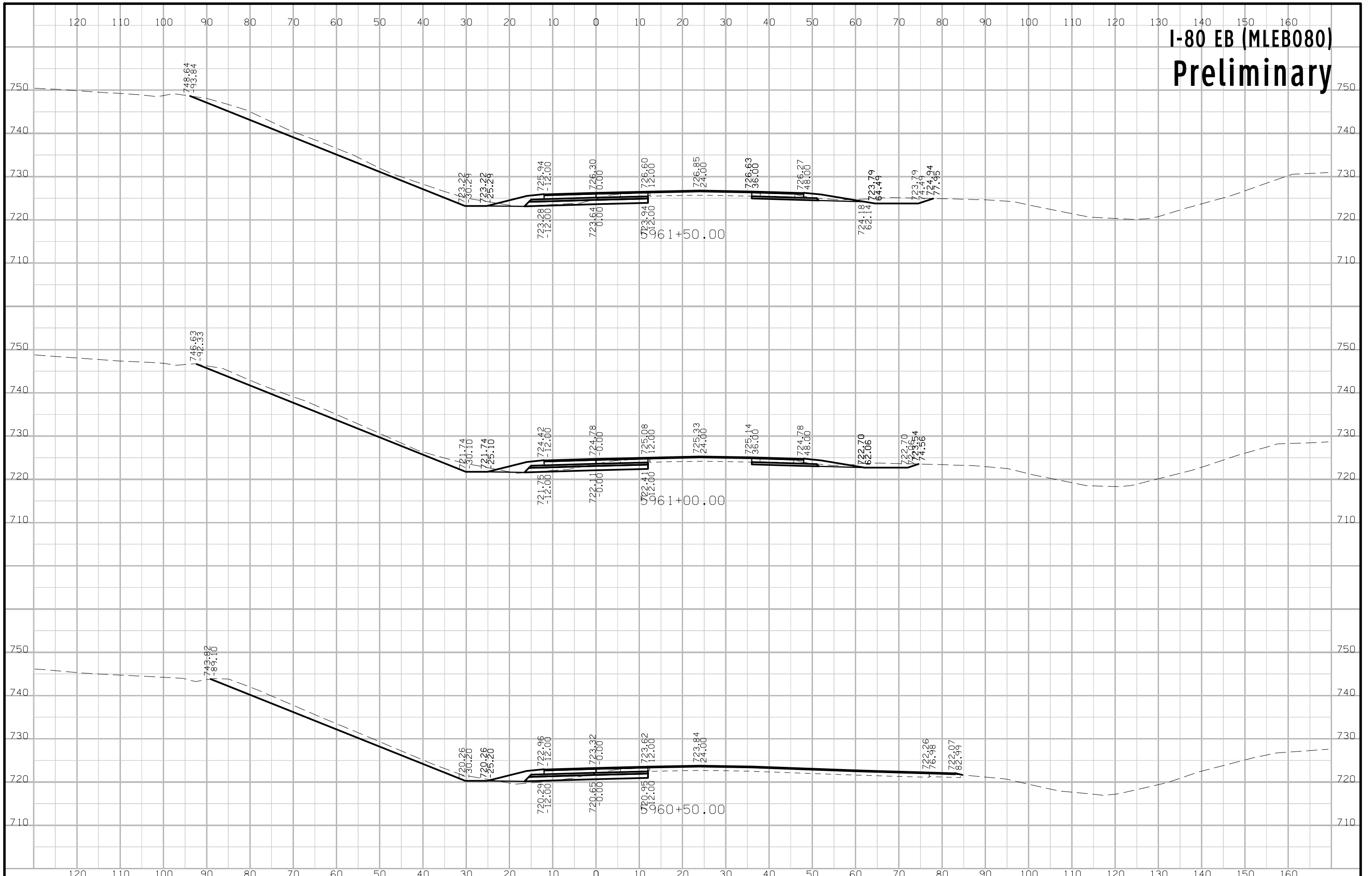
I-80 EB (MLEB080) Preliminary



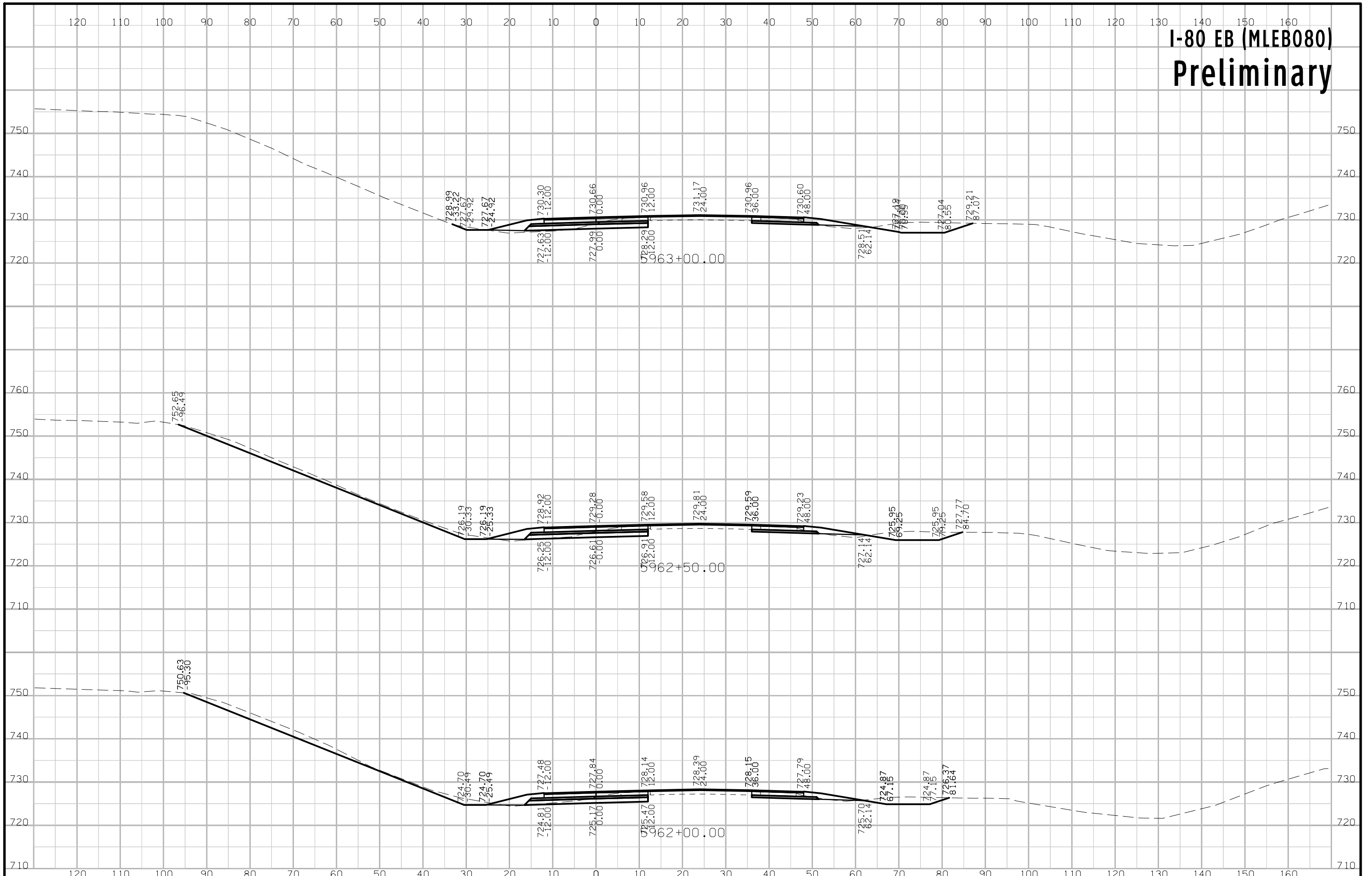
I-80 EB (MLEB080) Preliminary



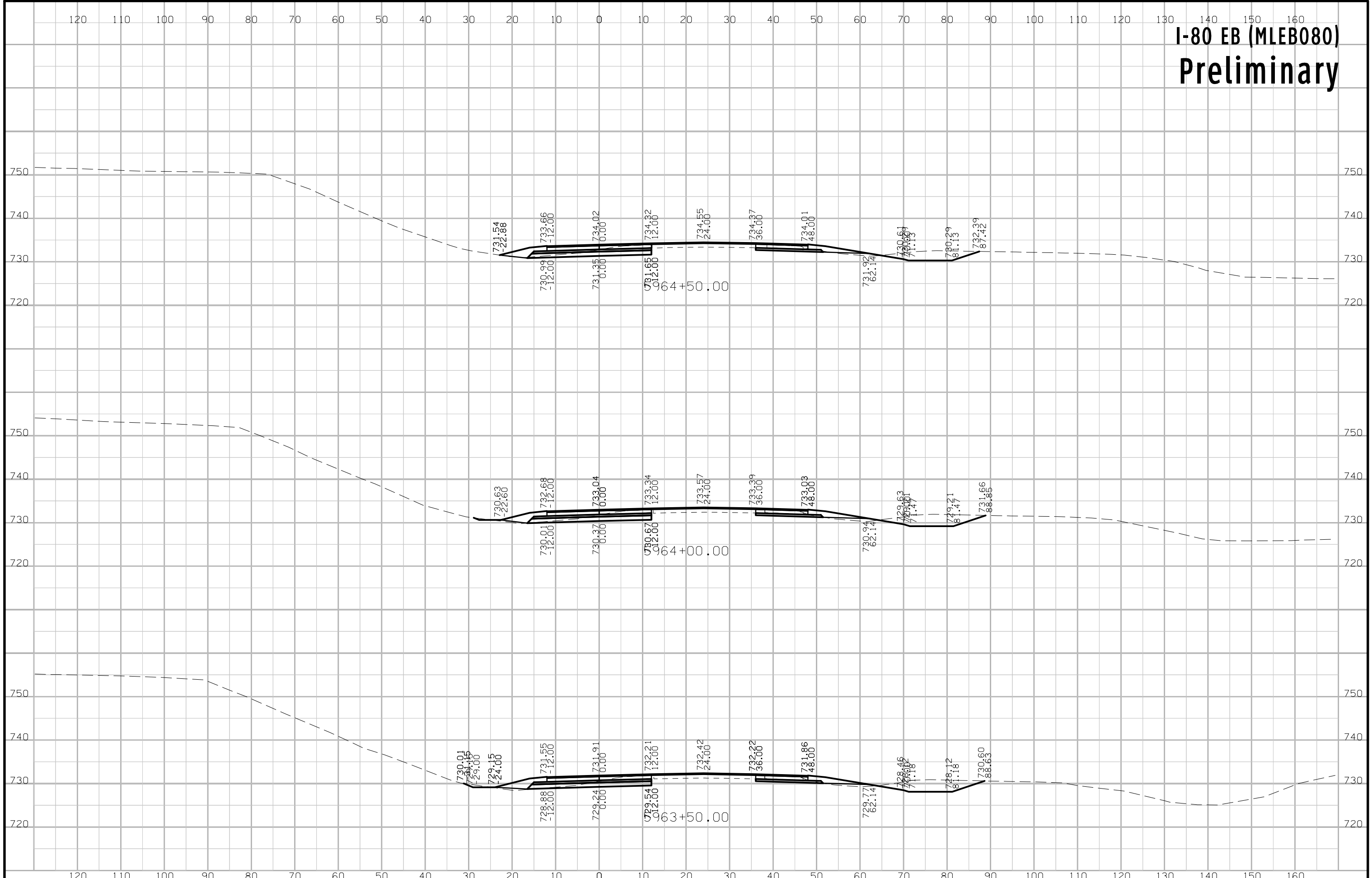
I-80 EB (MLEB080) Preliminary



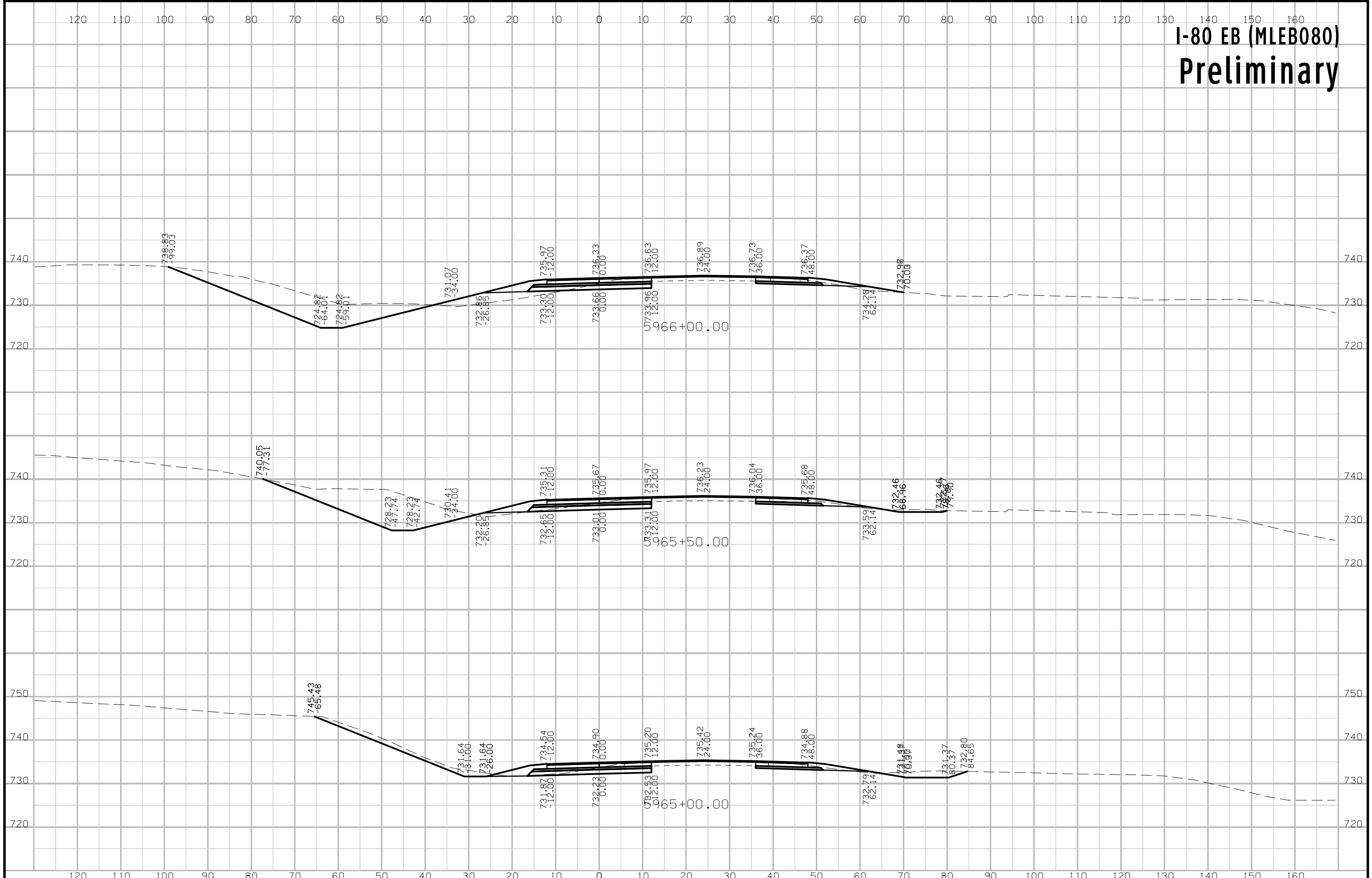
I-80 EB (MLEB080) Preliminary



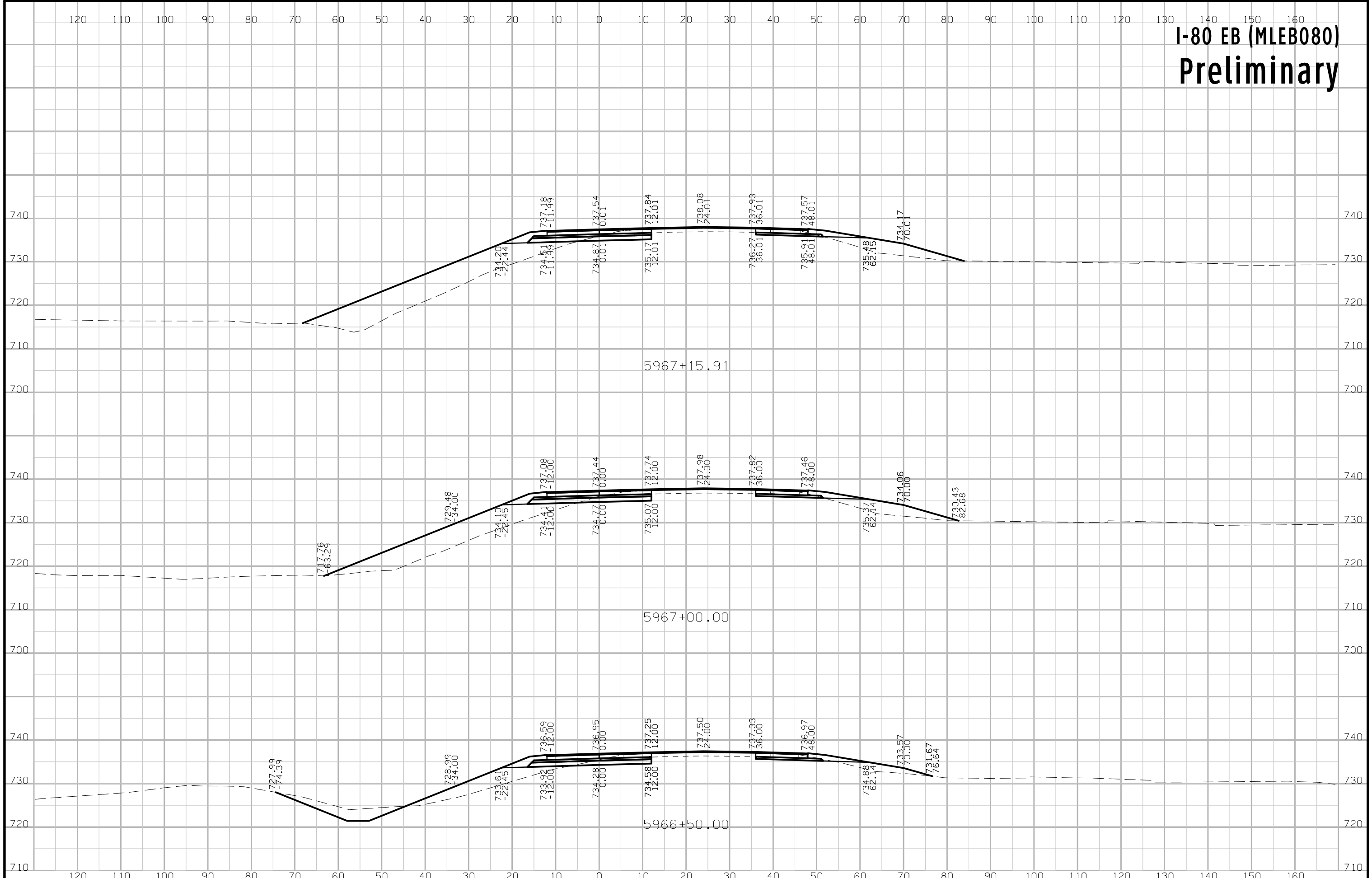
I-80 EB (MLEB080) Preliminary



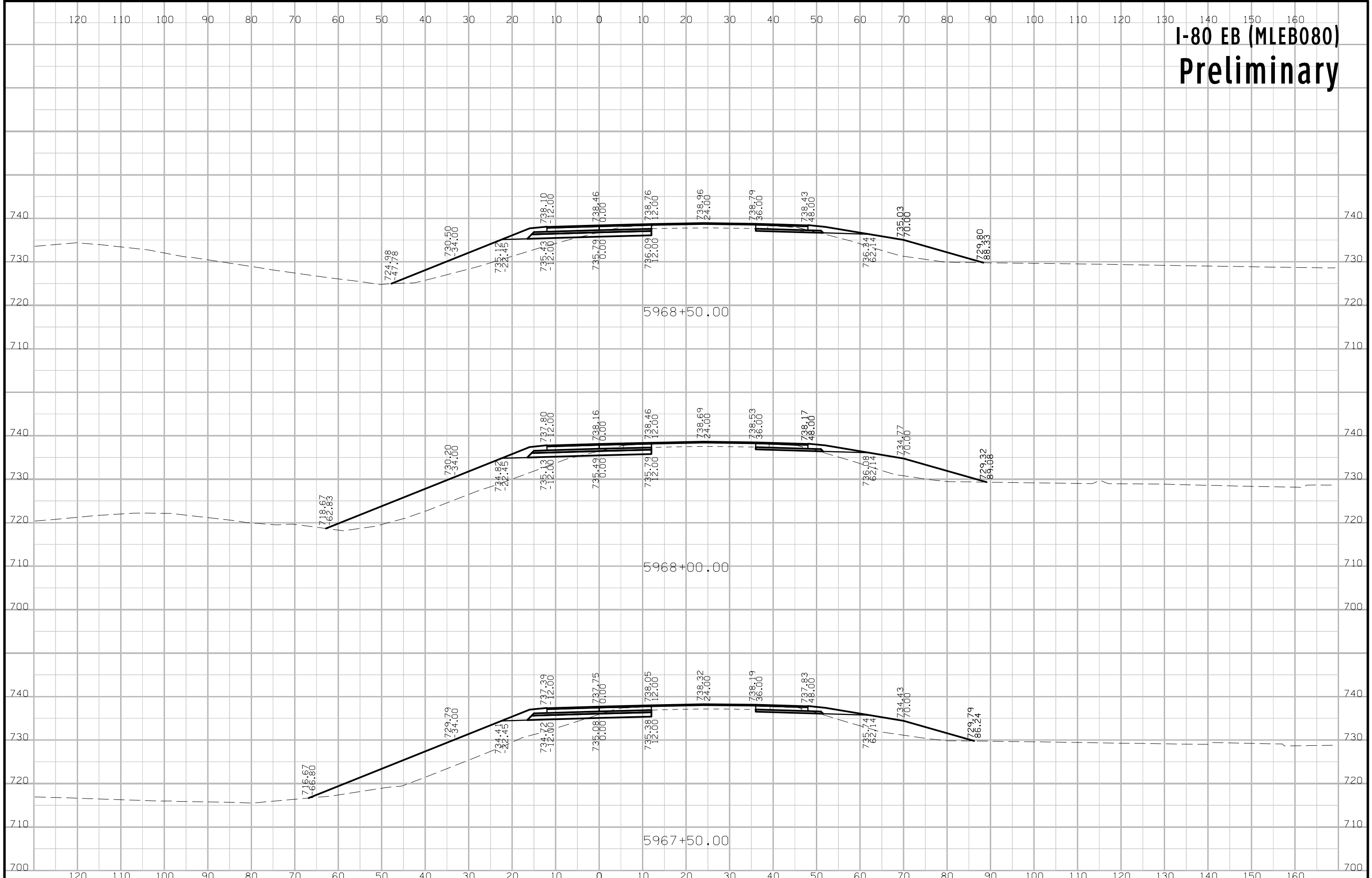
I-80 EB (MLEB080) Preliminary



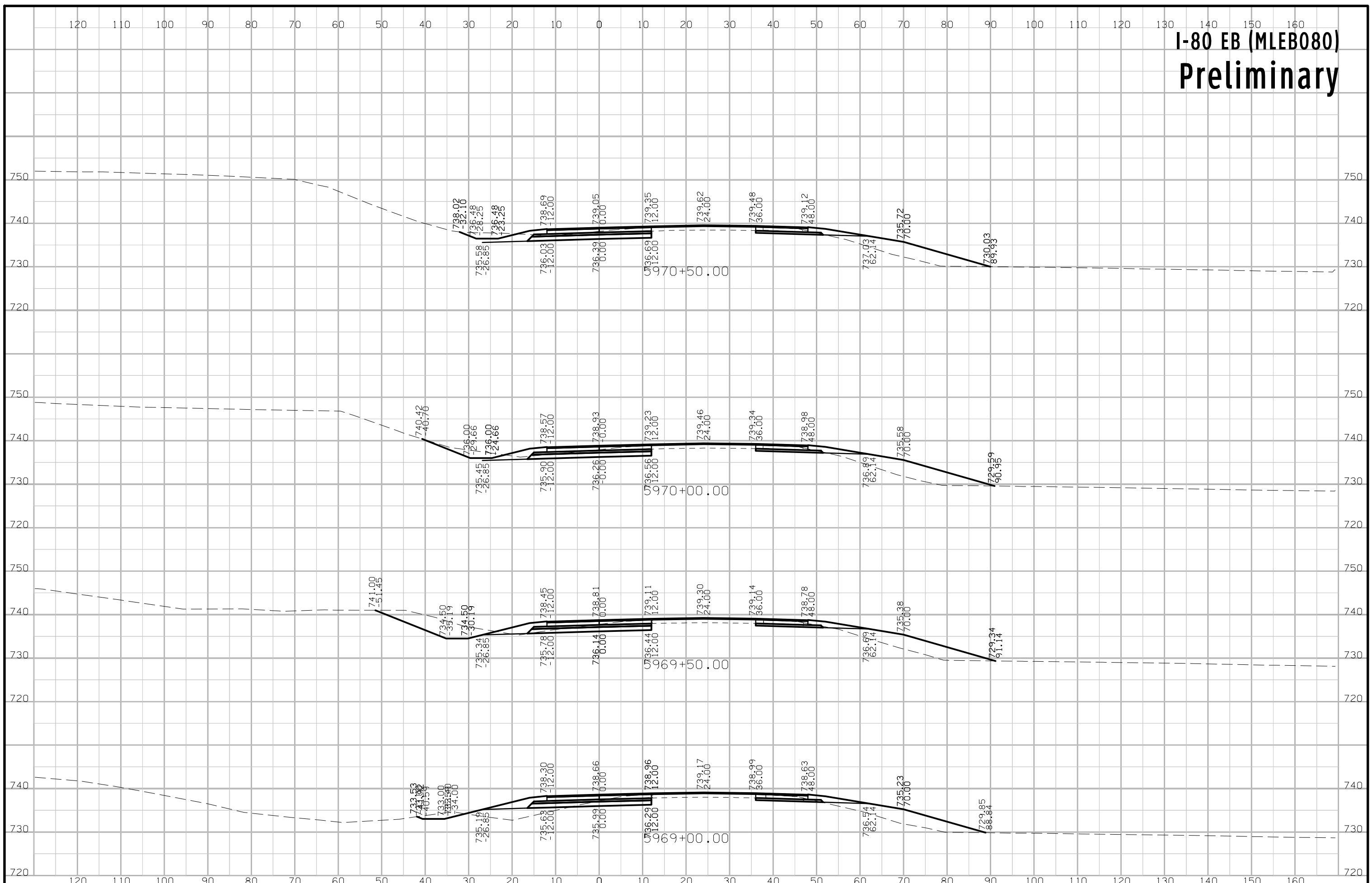
I-80 EB (MLEB080) Preliminary



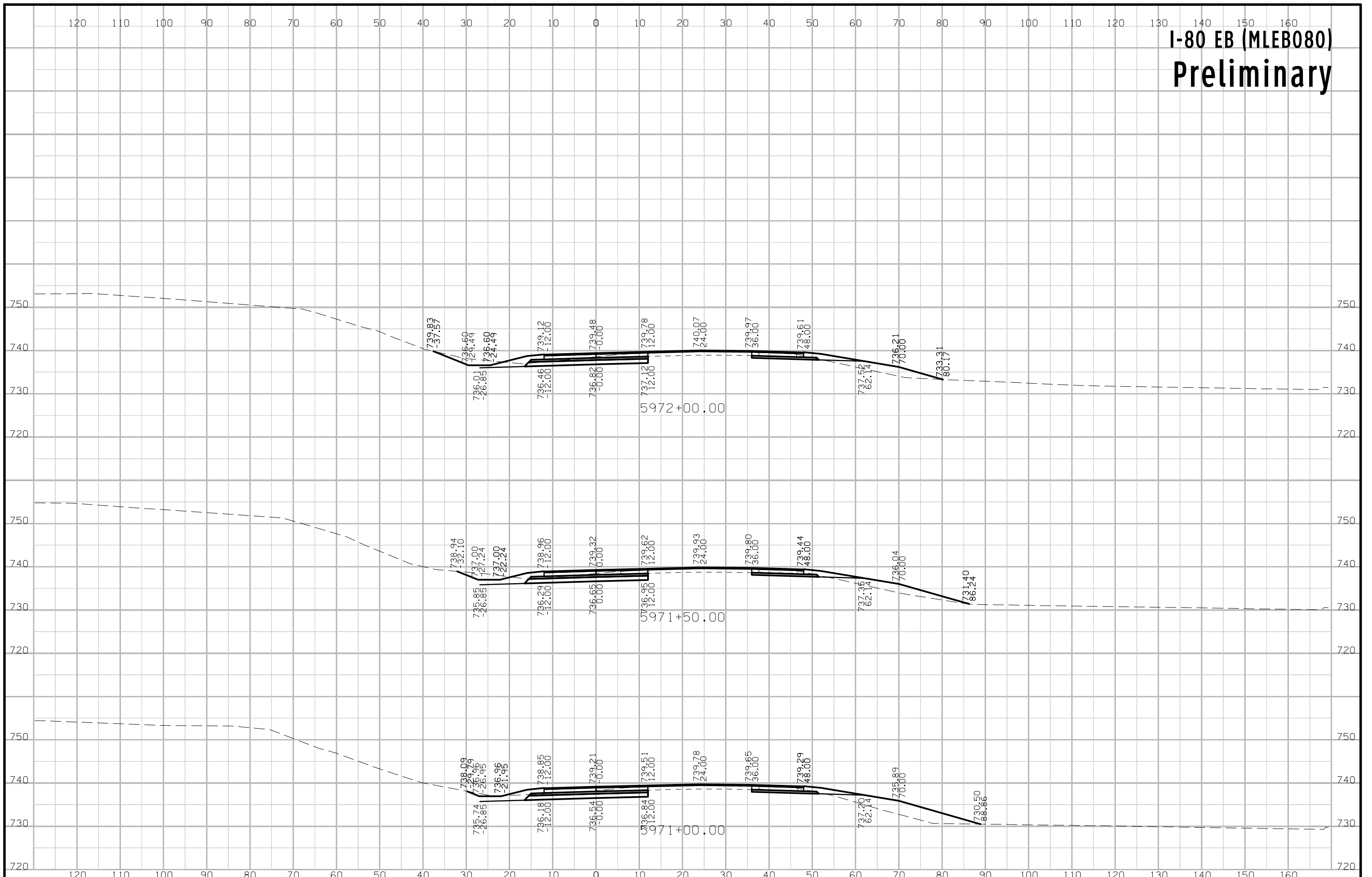
I-80 EB (MLEB080) Preliminary



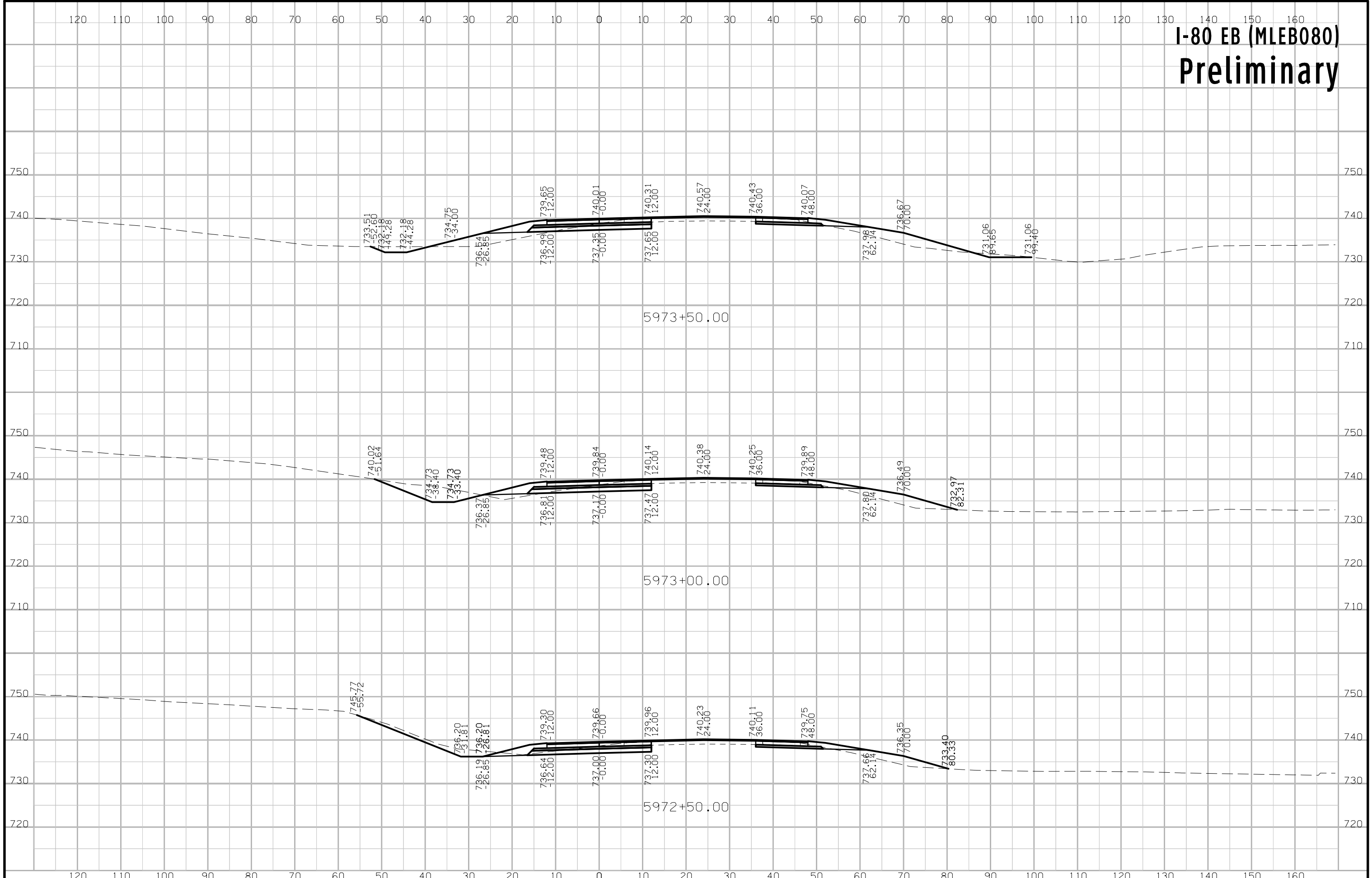
I-80 EB (MLEB080) Preliminary



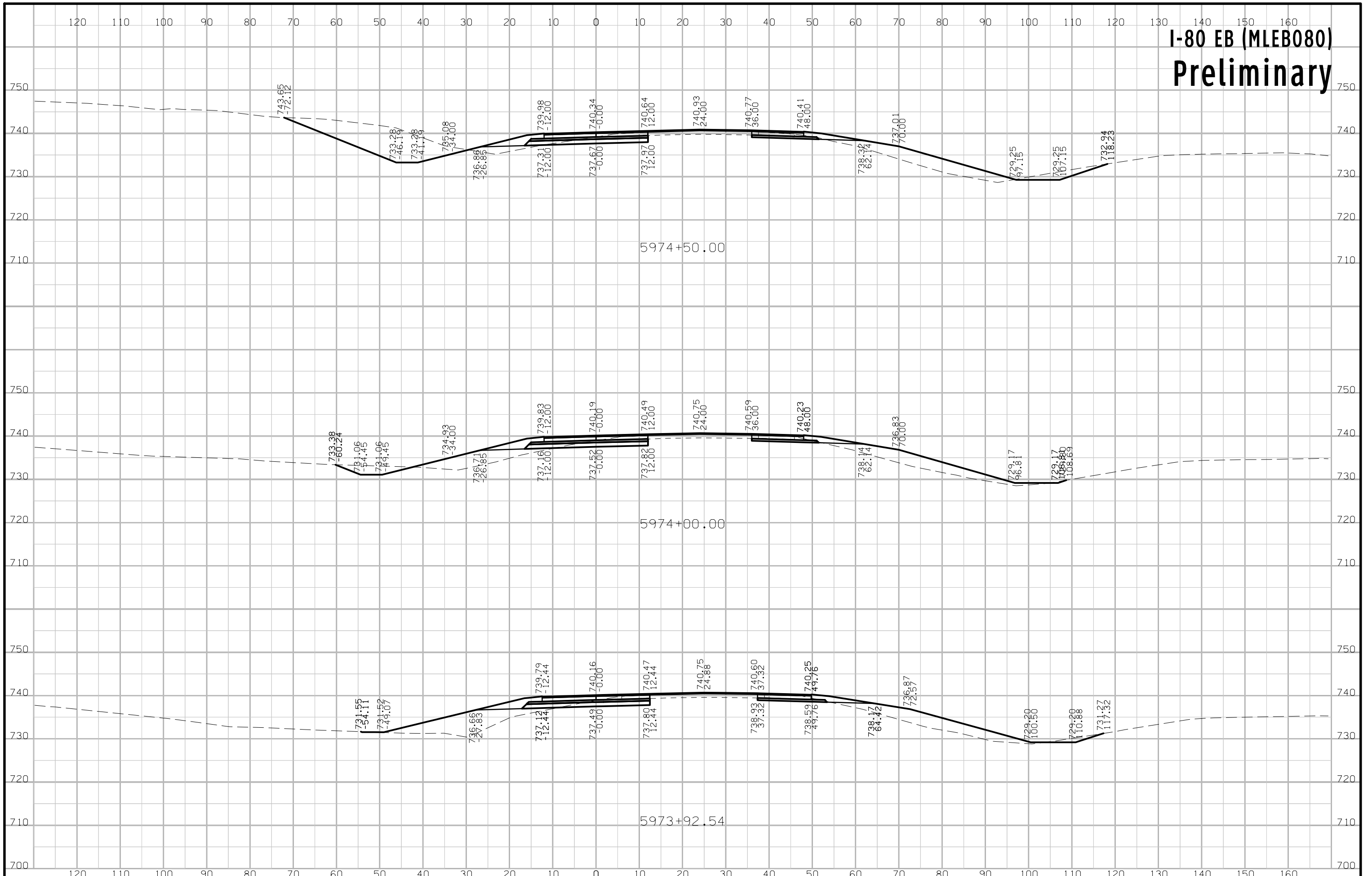
I-80 EB (MLEB080) Preliminary



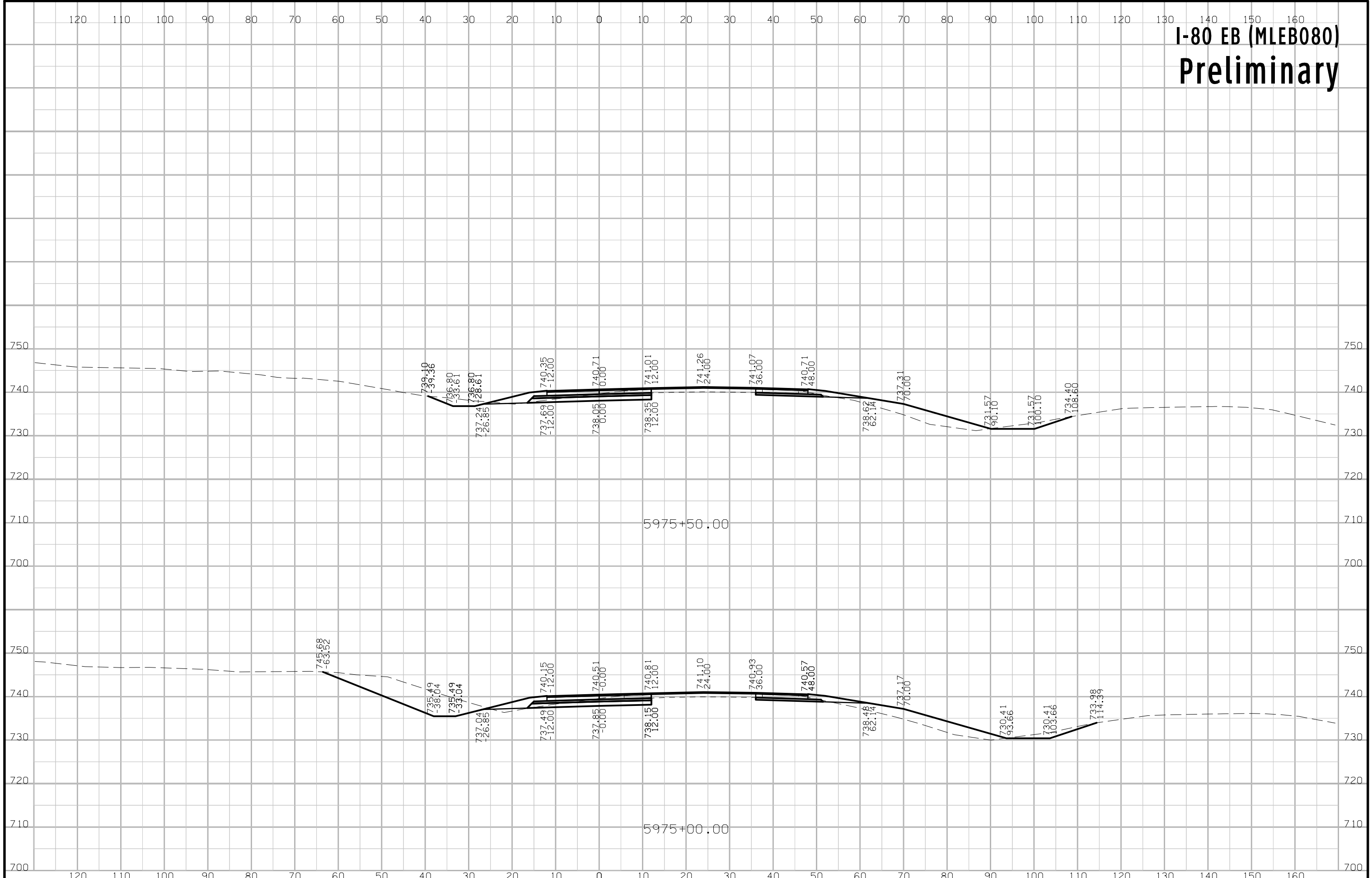
I-80 EB (MLEB080) Preliminary



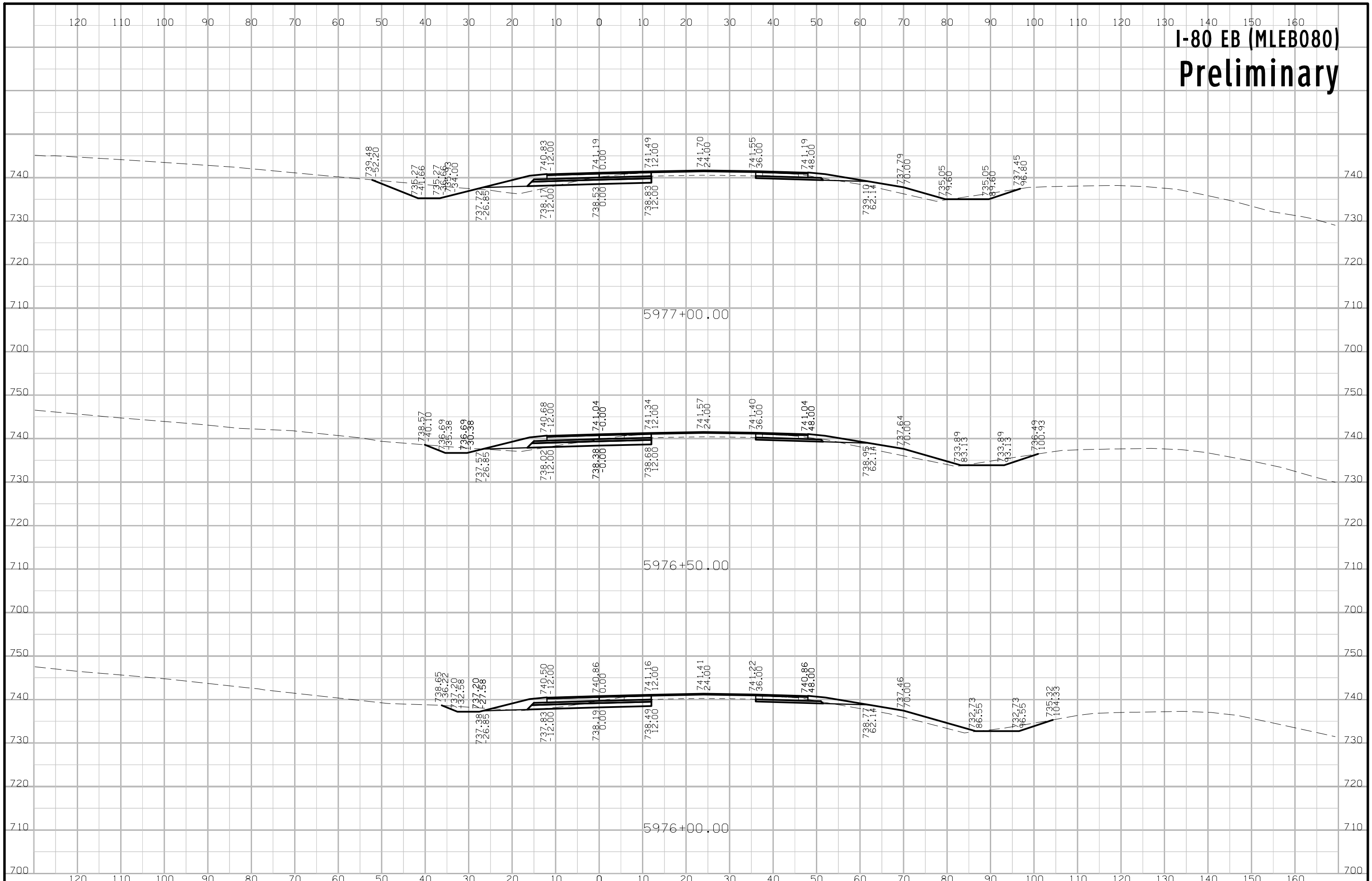
I-80 EB (MLEB080) Preliminary



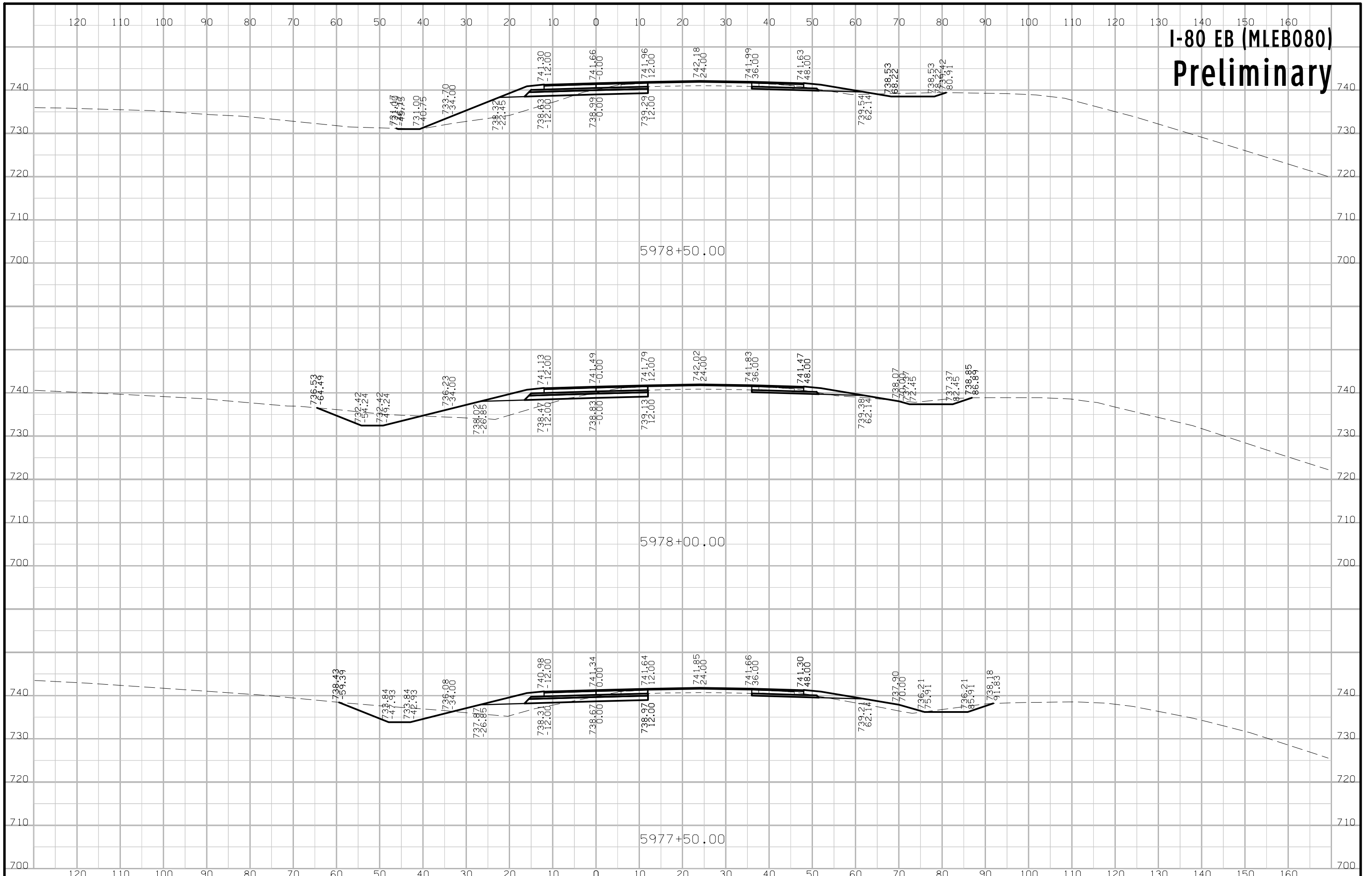
I-80 EB (MLEB080) Preliminary



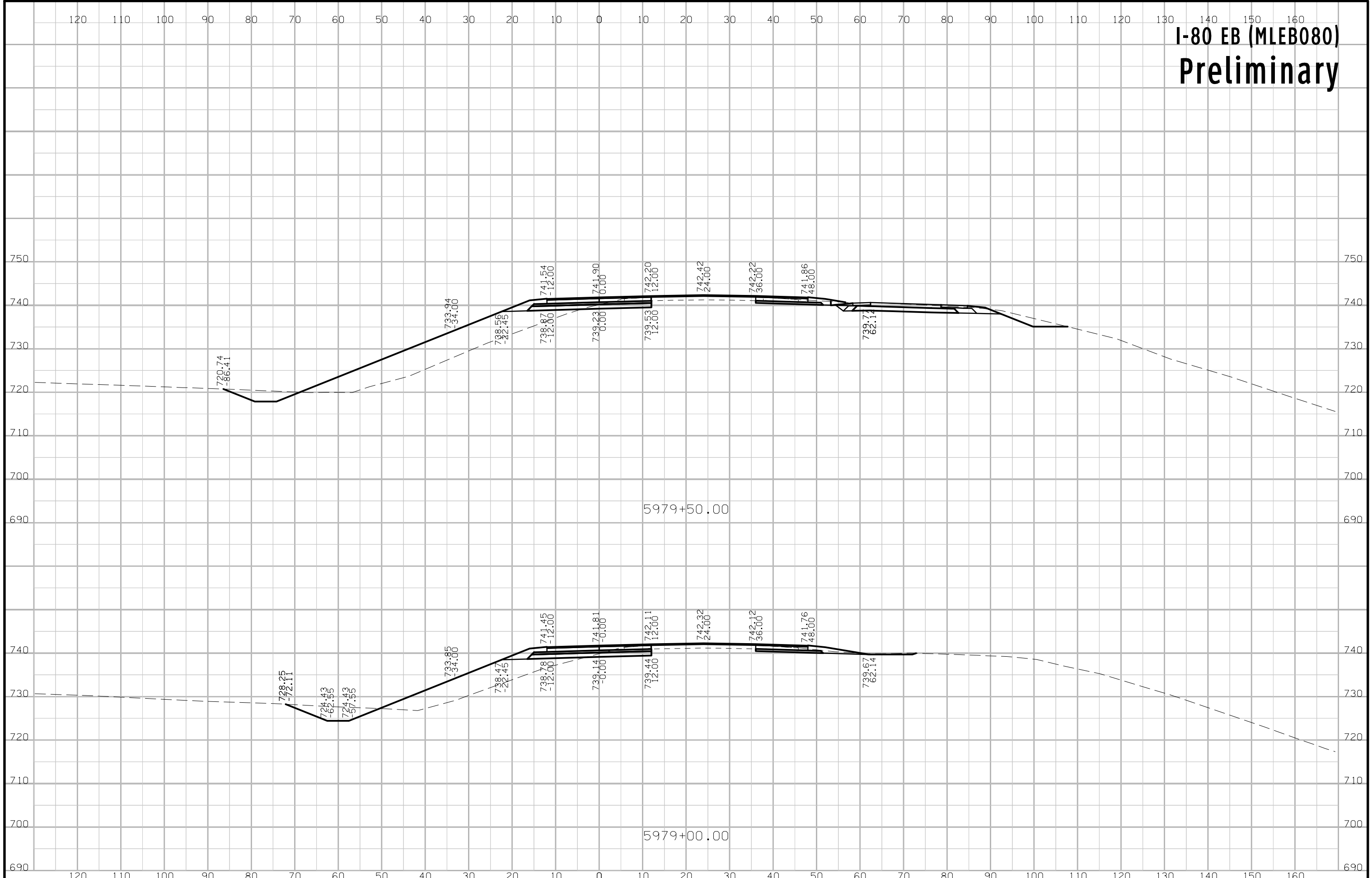
I-80 EB (MLEB080) Preliminary



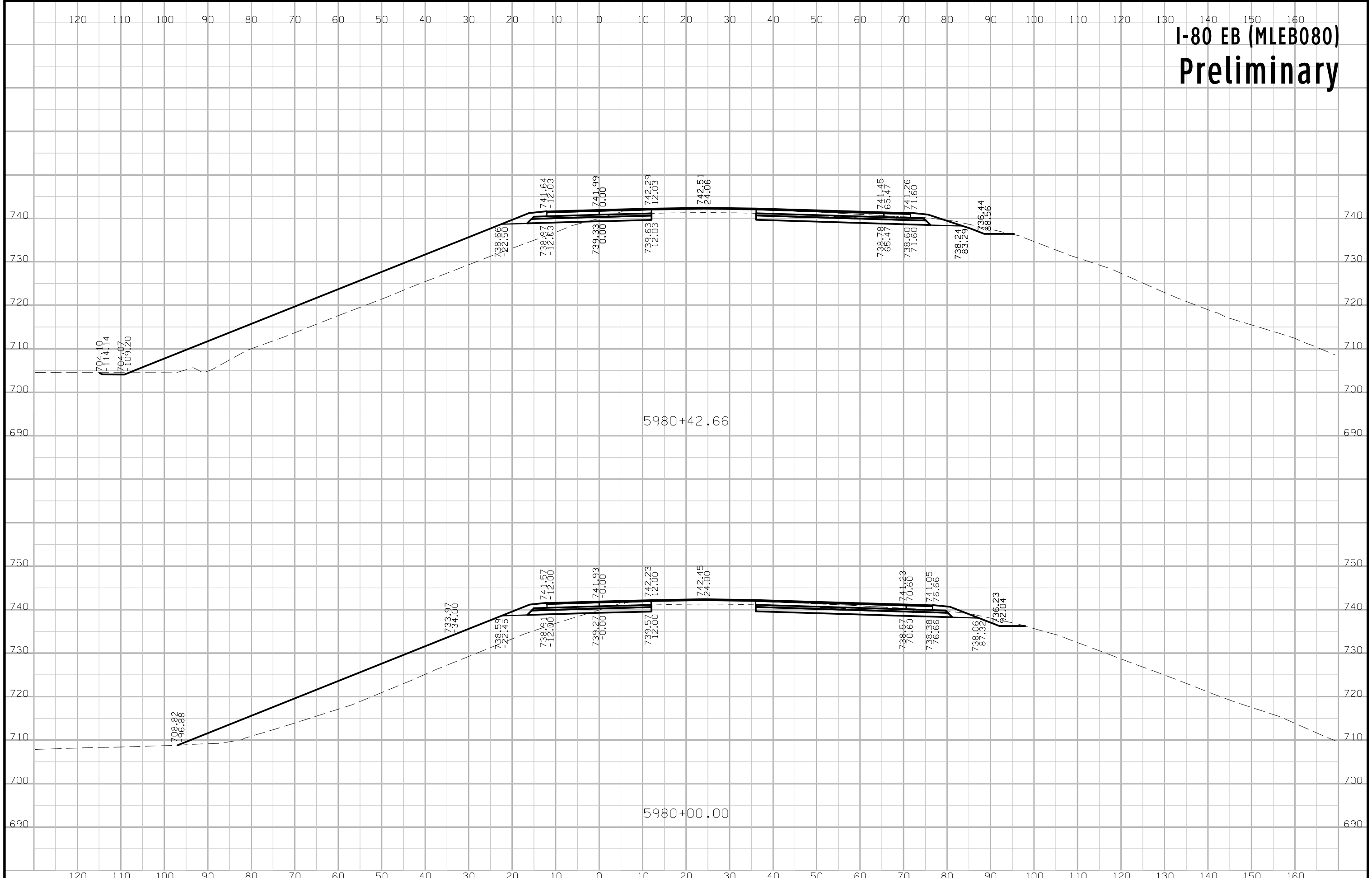
I-80 EB (MLEB080) Preliminary



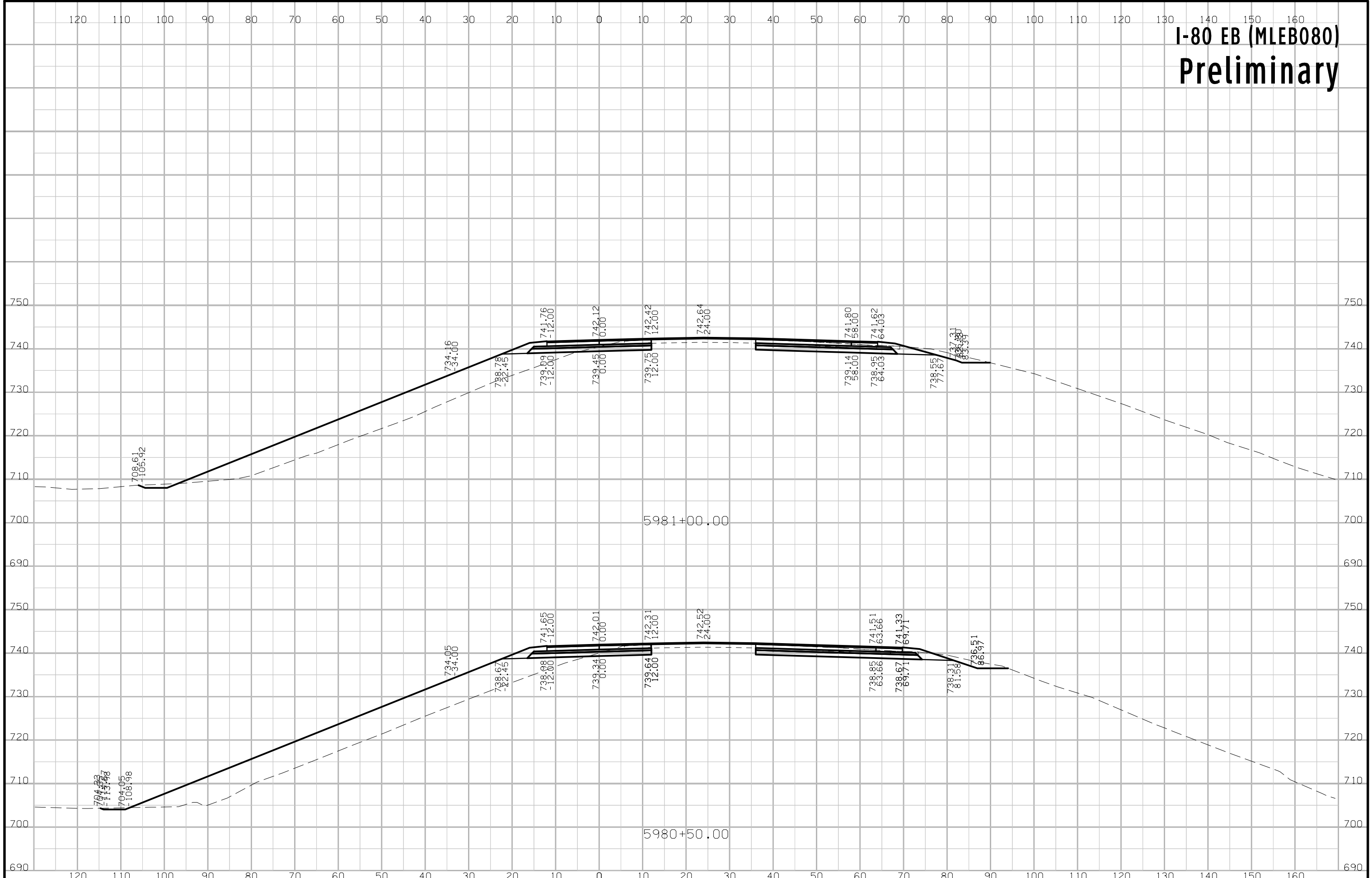
I-80 EB (MLEB080) Preliminary



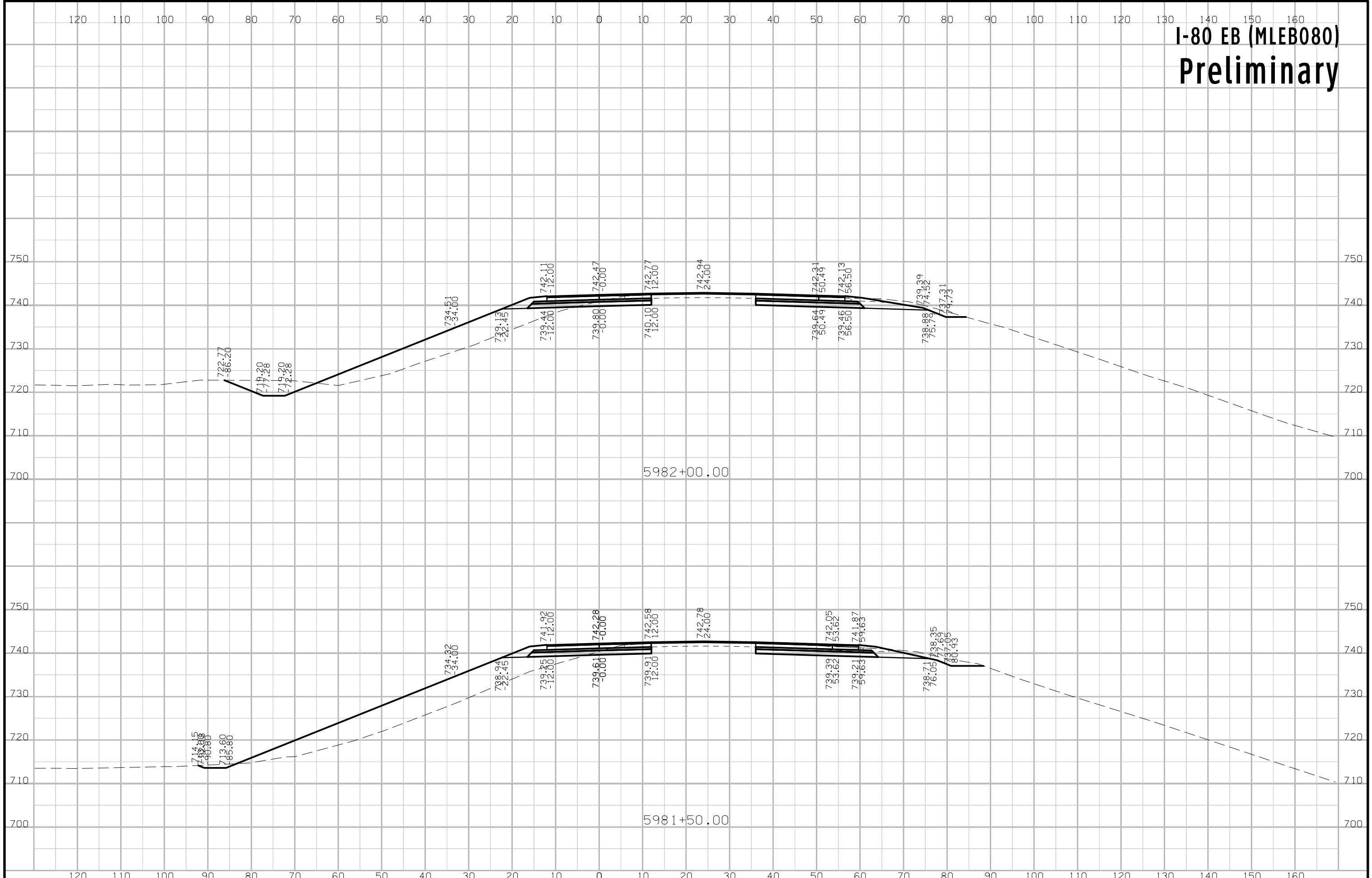
I-80 EB (MLEB080) Preliminary



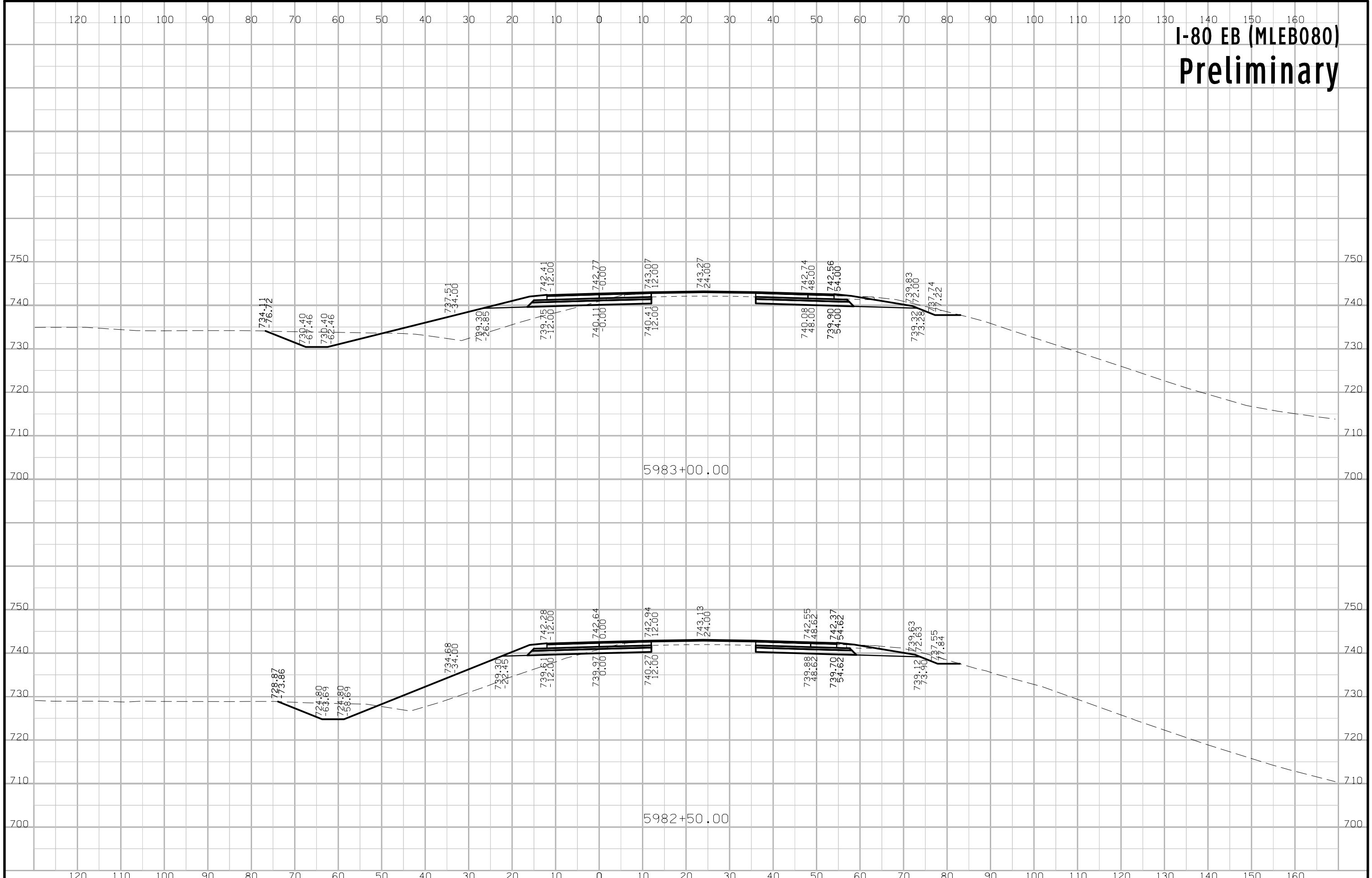
I-80 EB (MLEB080) Preliminary



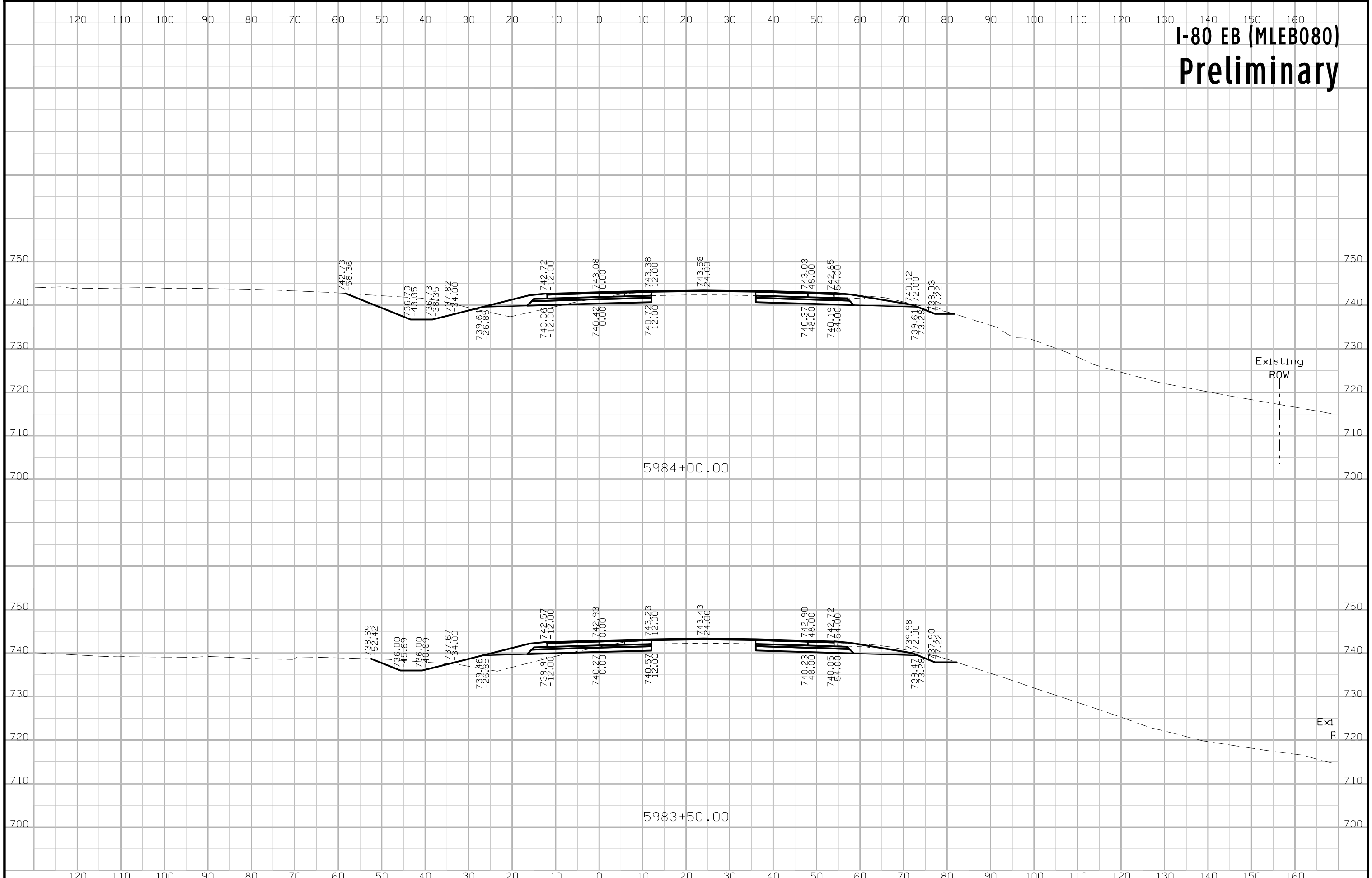
I-80 EB (MLEB080) Preliminary



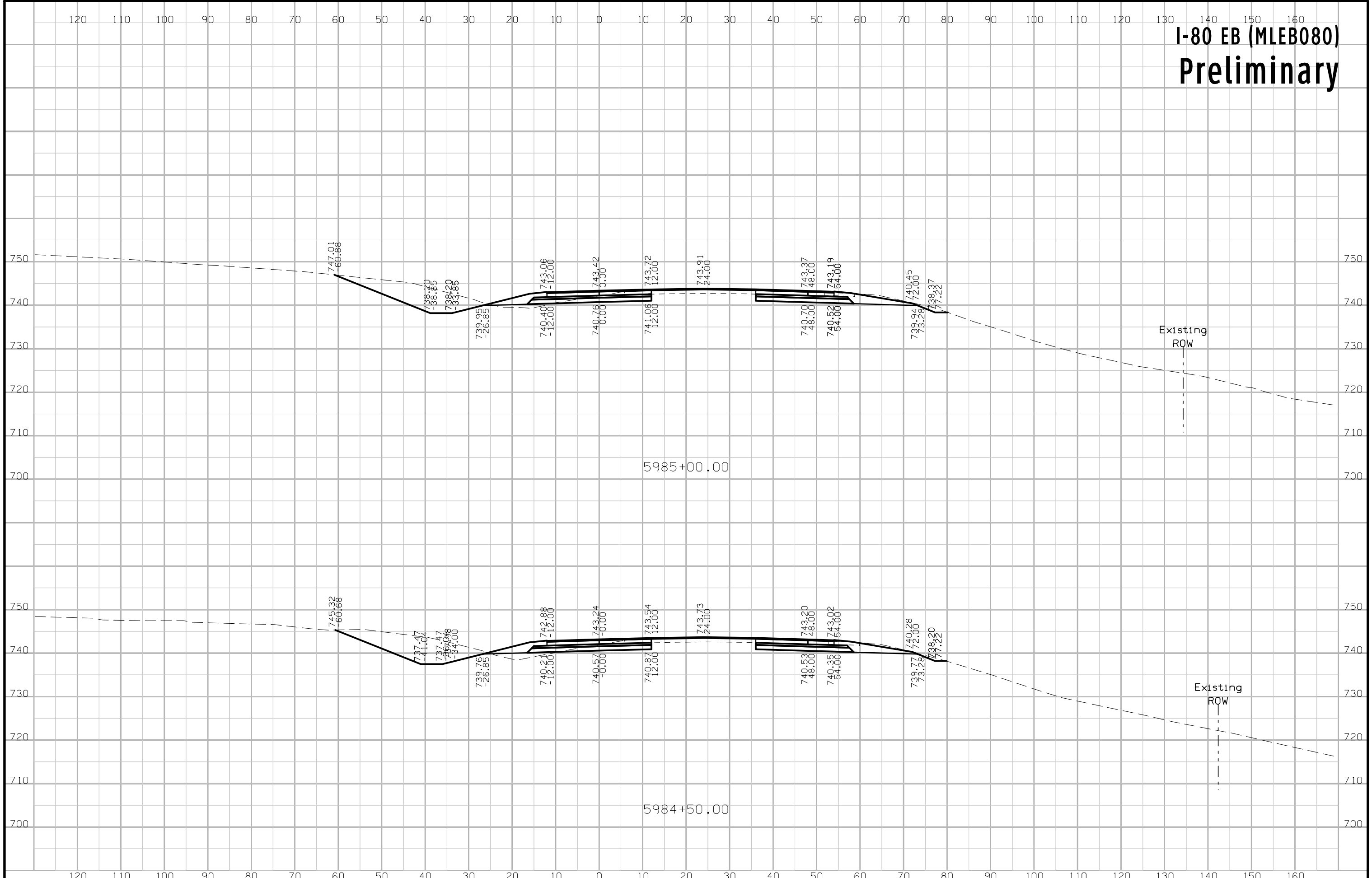
I-80 EB (MLEB080) Preliminary



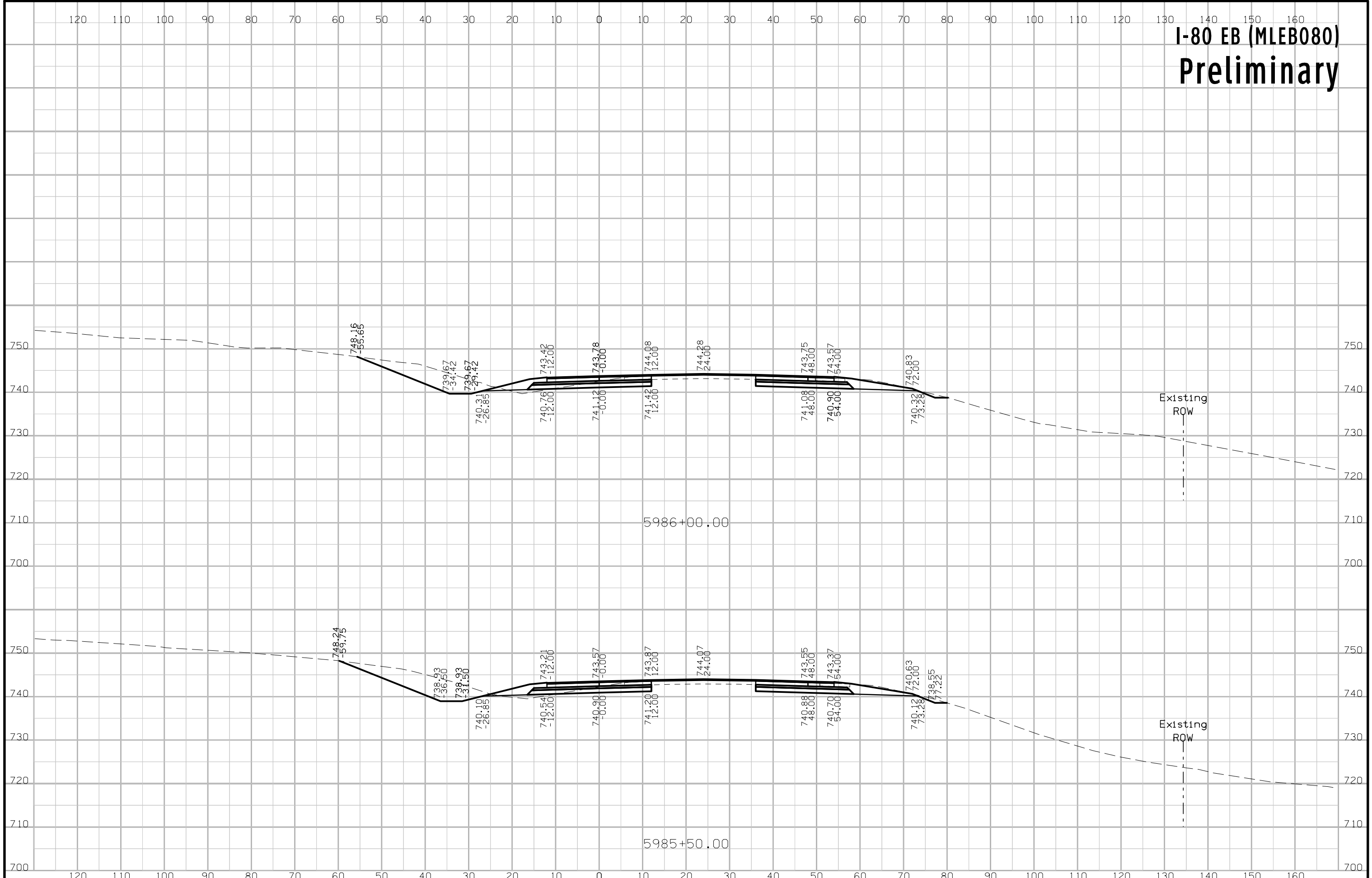
I-80 EB (MLEB080) Preliminary



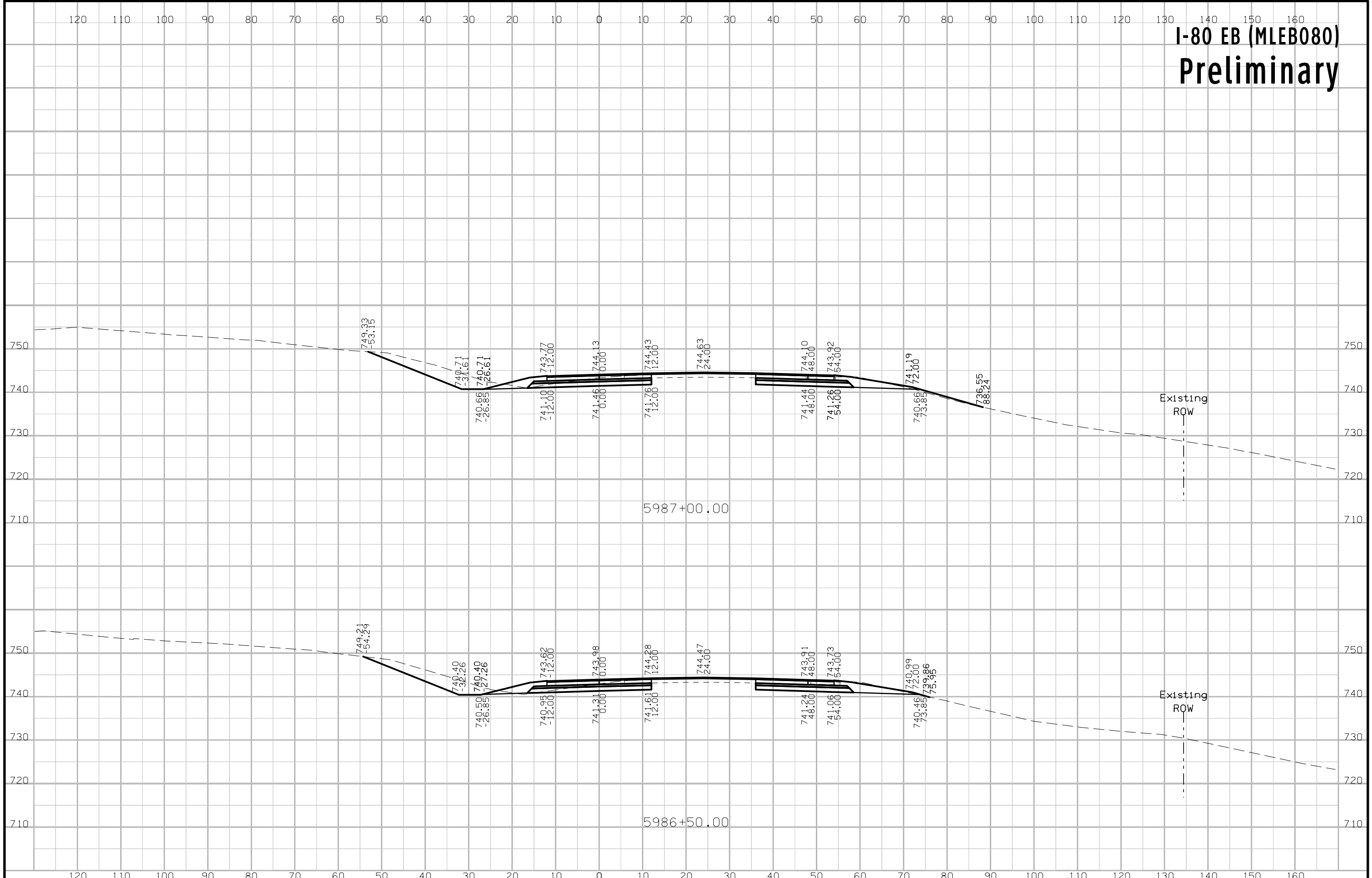
I-80 EB (MLEB080) Preliminary



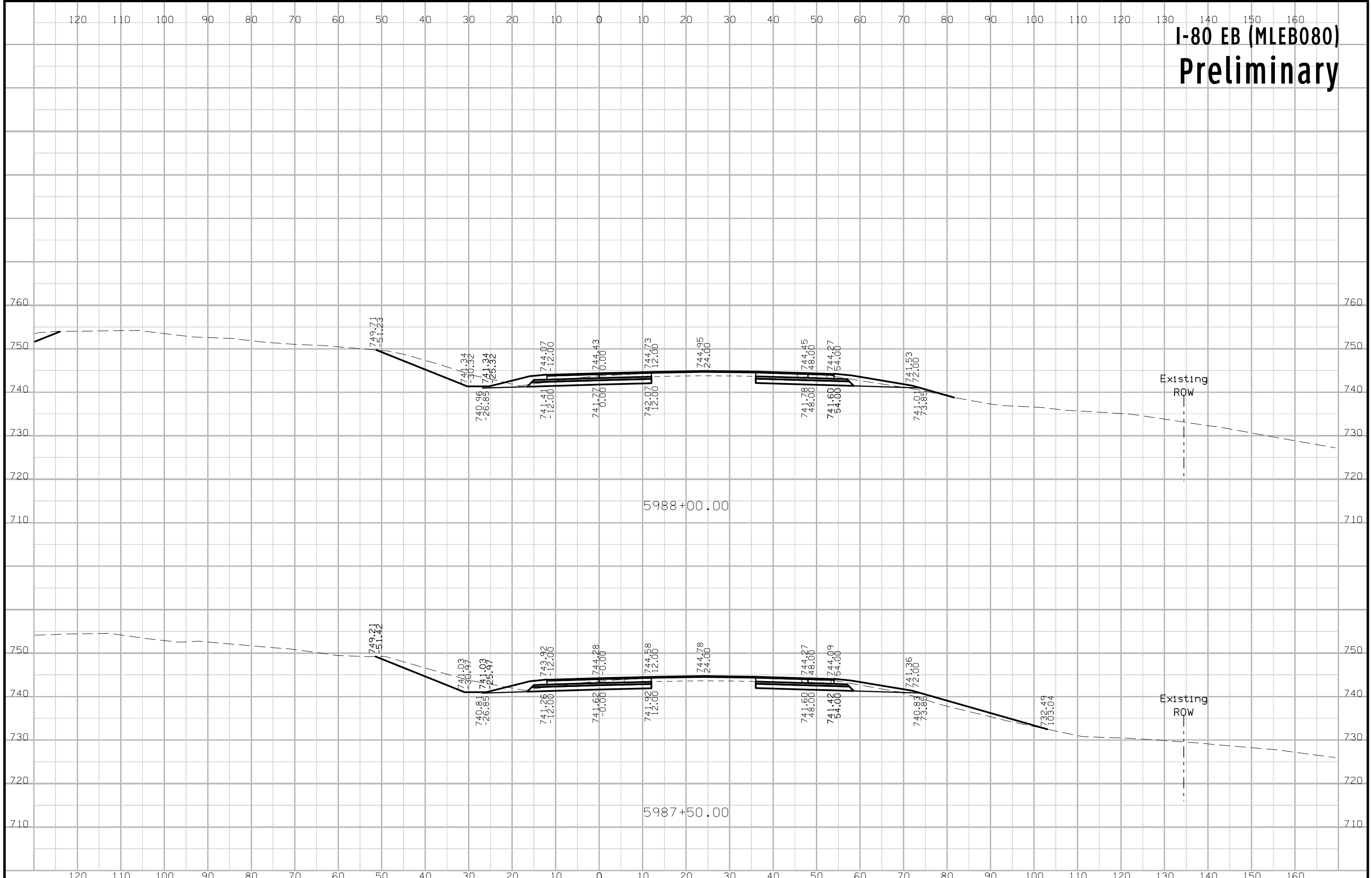
I-80 EB (MLEB080) Preliminary



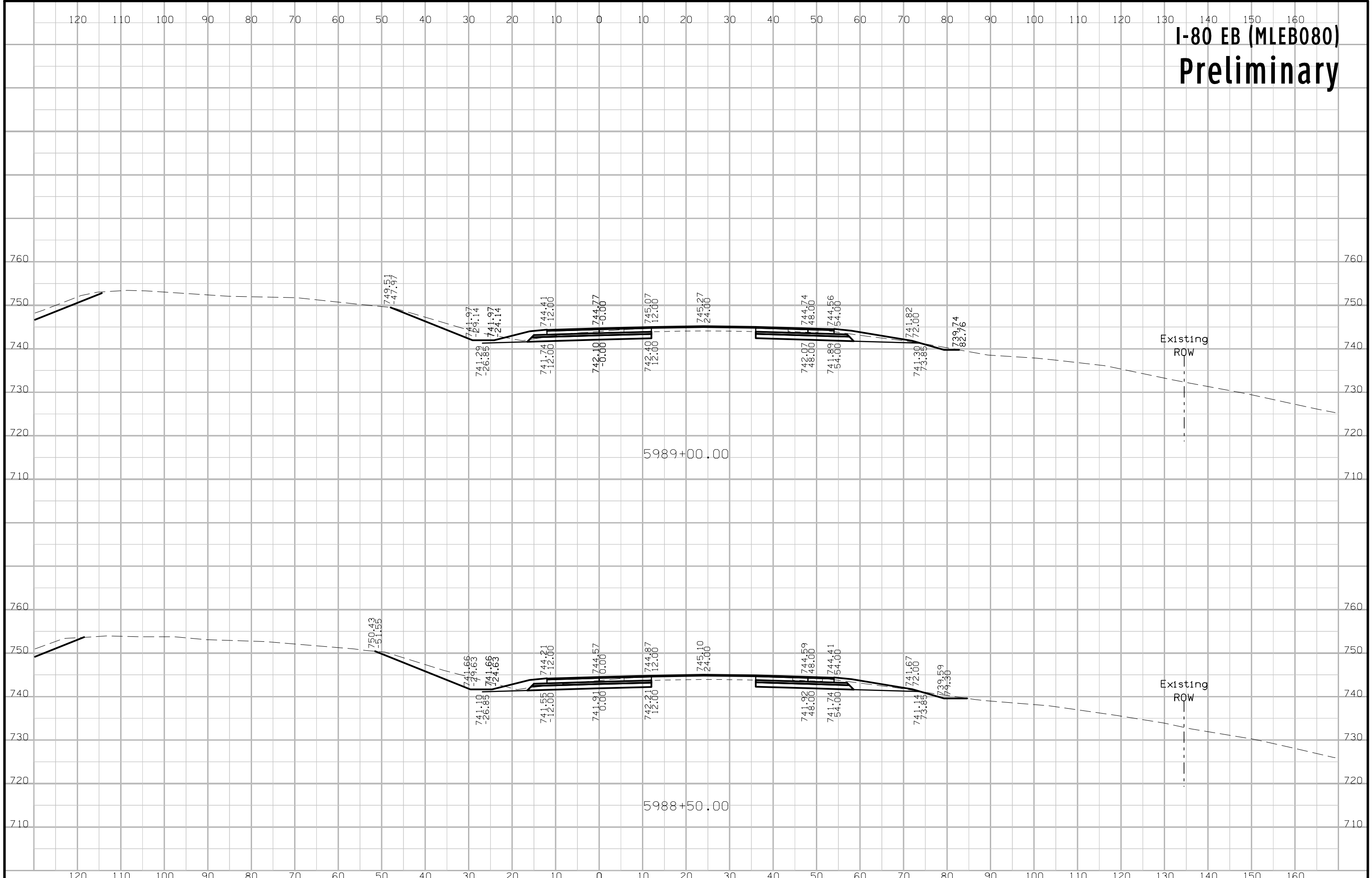
I-80 EB (MLEB080) Preliminary



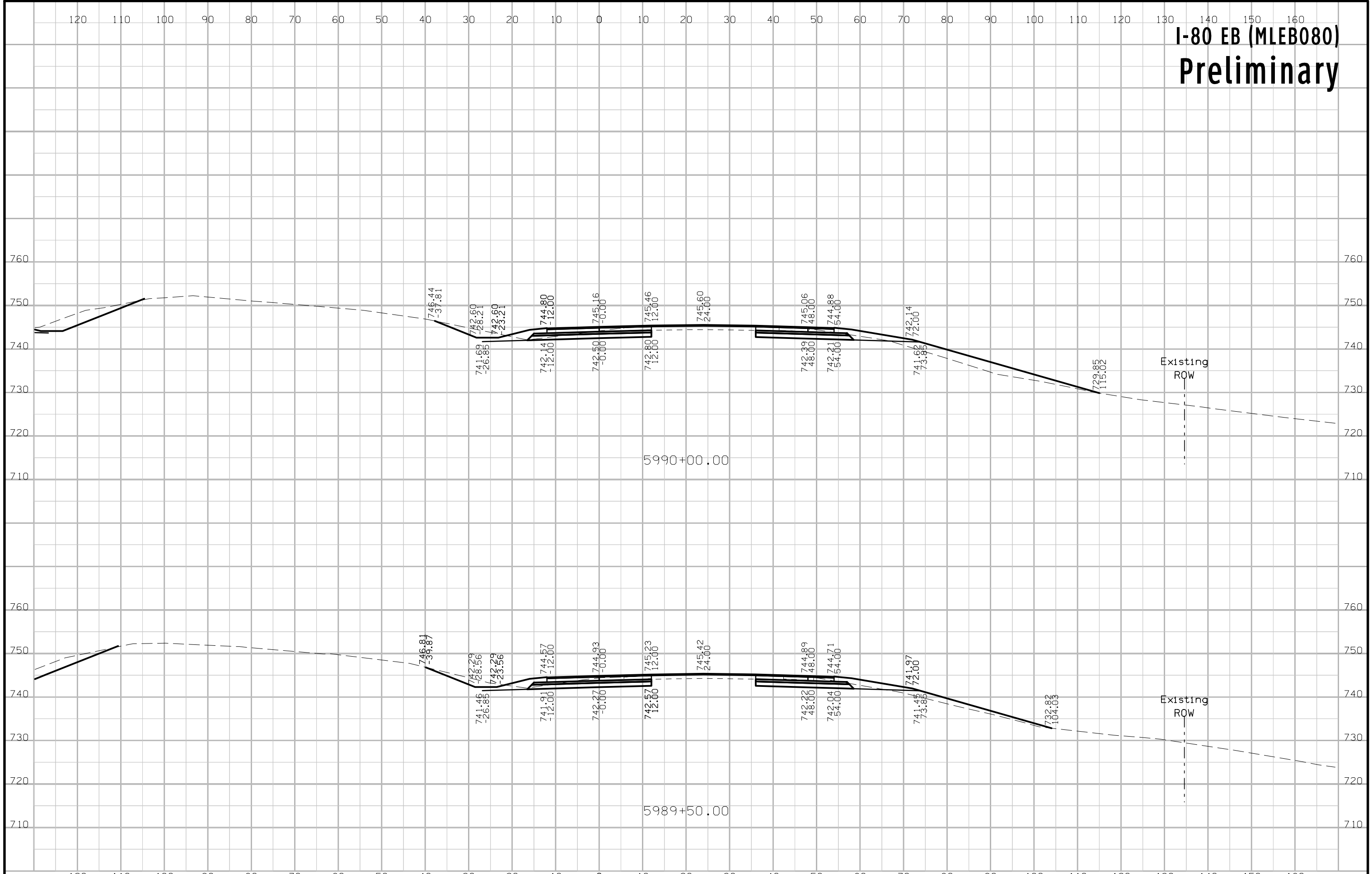
I-80 EB (MLEB080) Preliminary



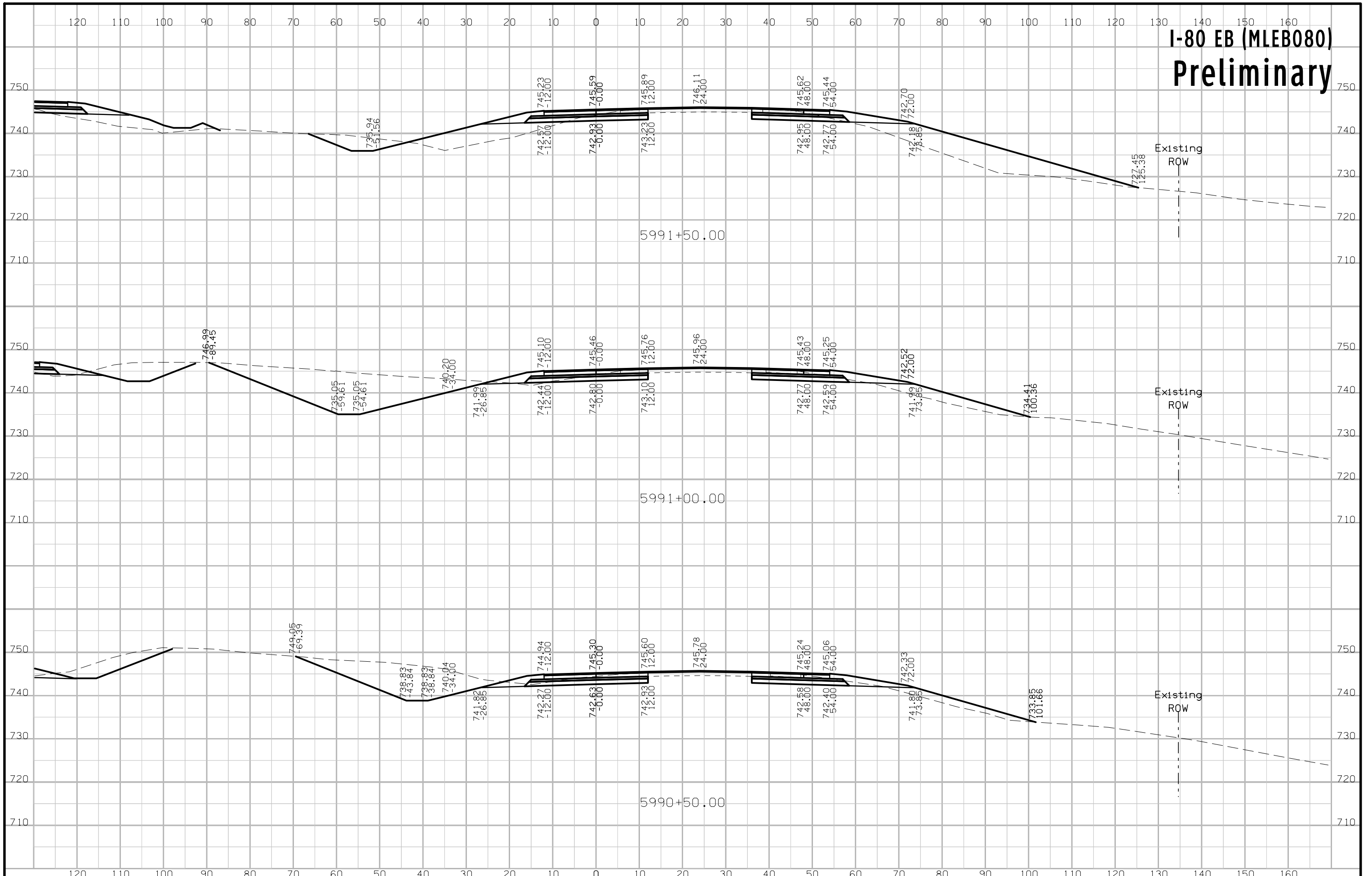
I-80 EB (MLEB080) Preliminary



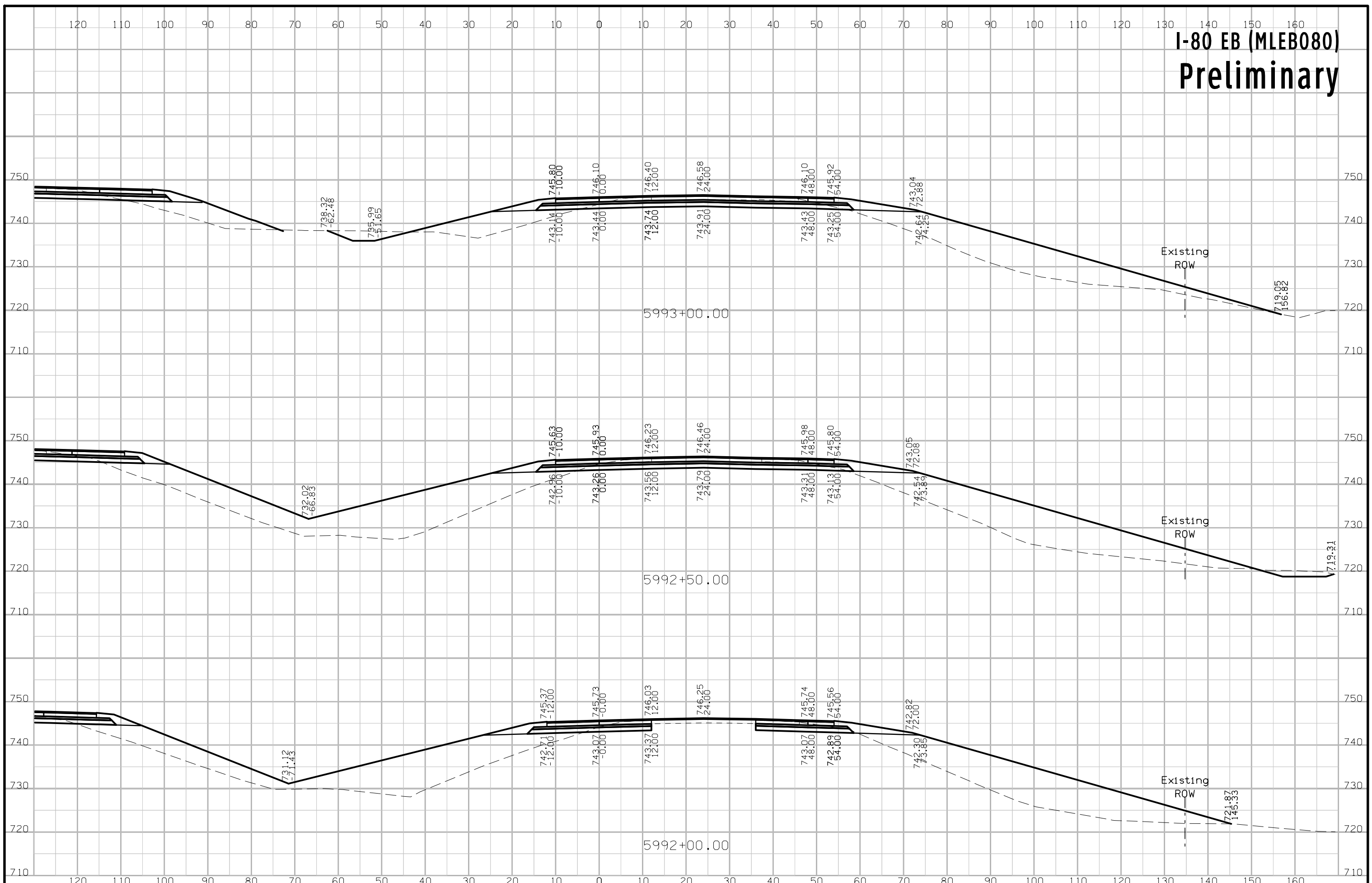
I-80 EB (MLEB080) Preliminary



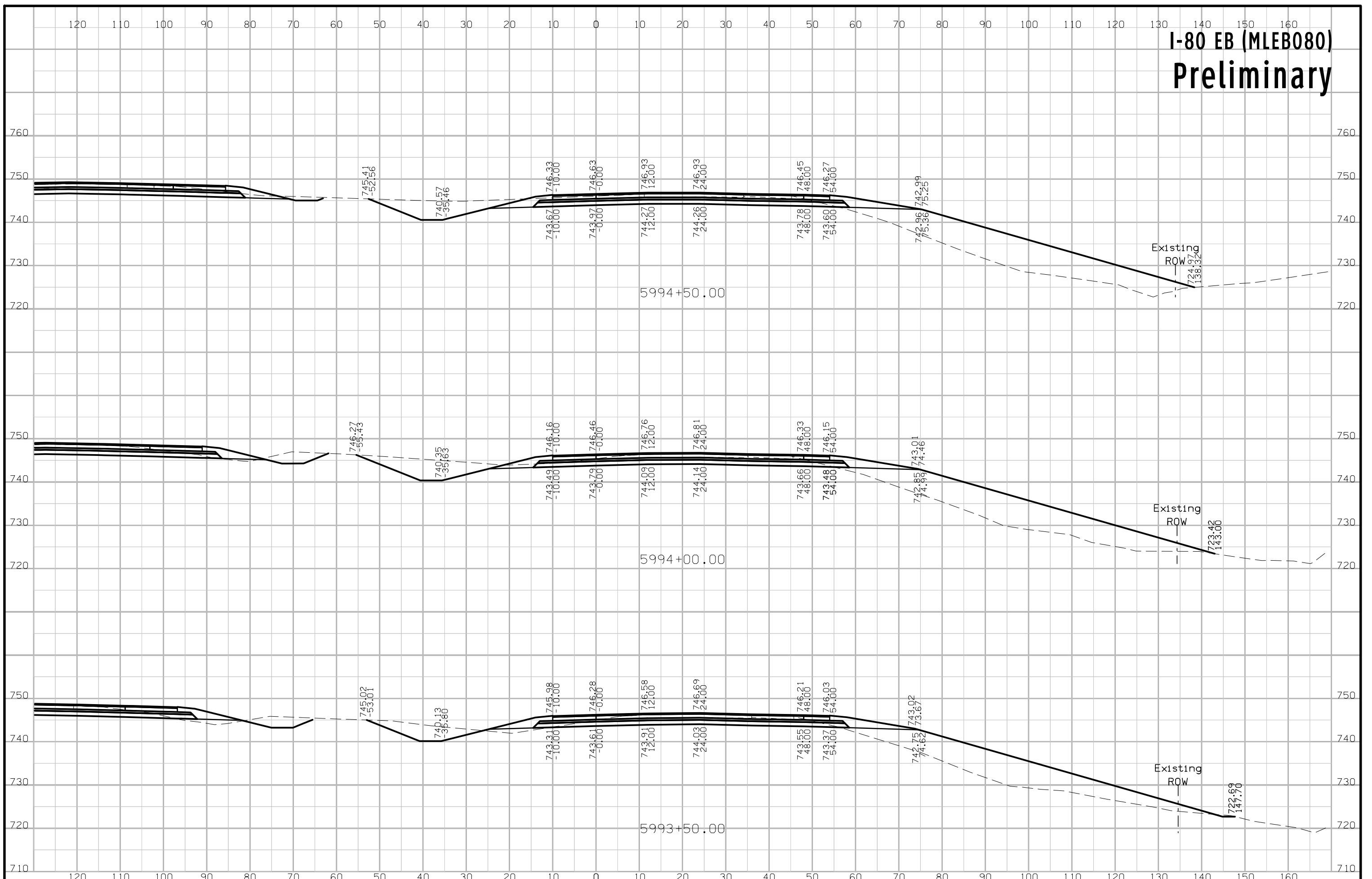
I-80 EB (MLEB080) Preliminary



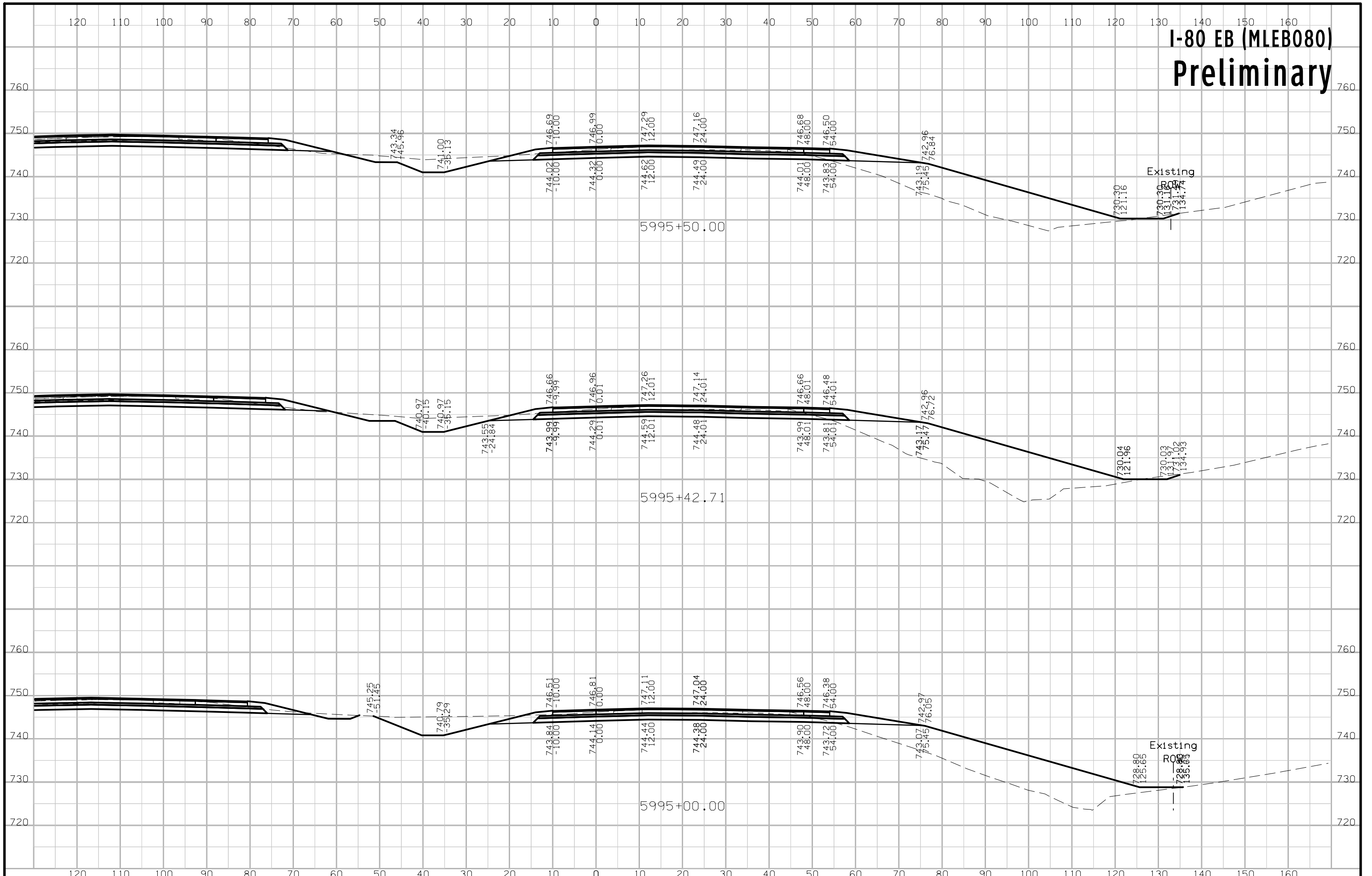
I-80 EB (MLEB080) Preliminary



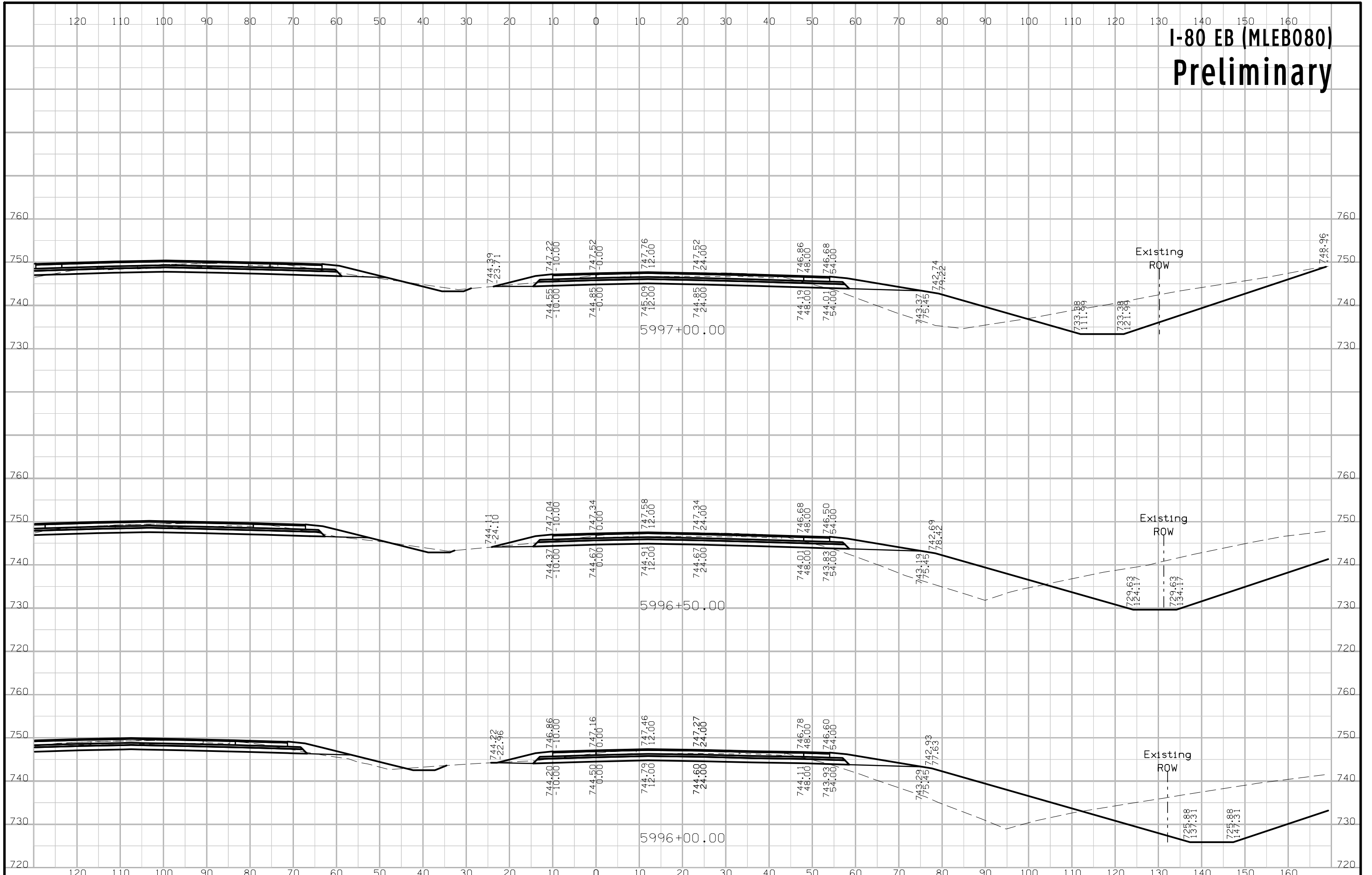
I-80 EB (MLEB080) Preliminary



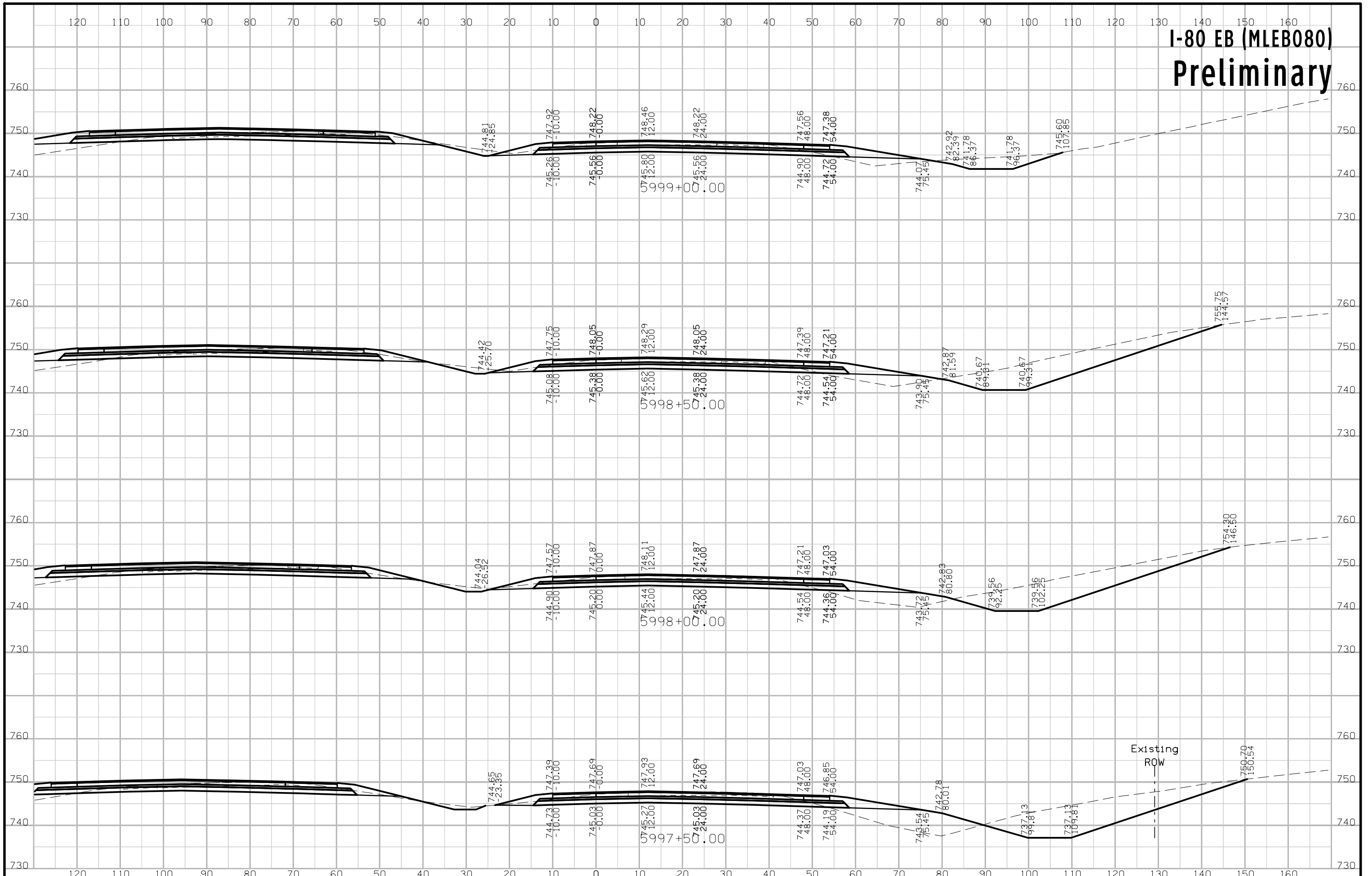
I-80 EB (MLEB080) Preliminary



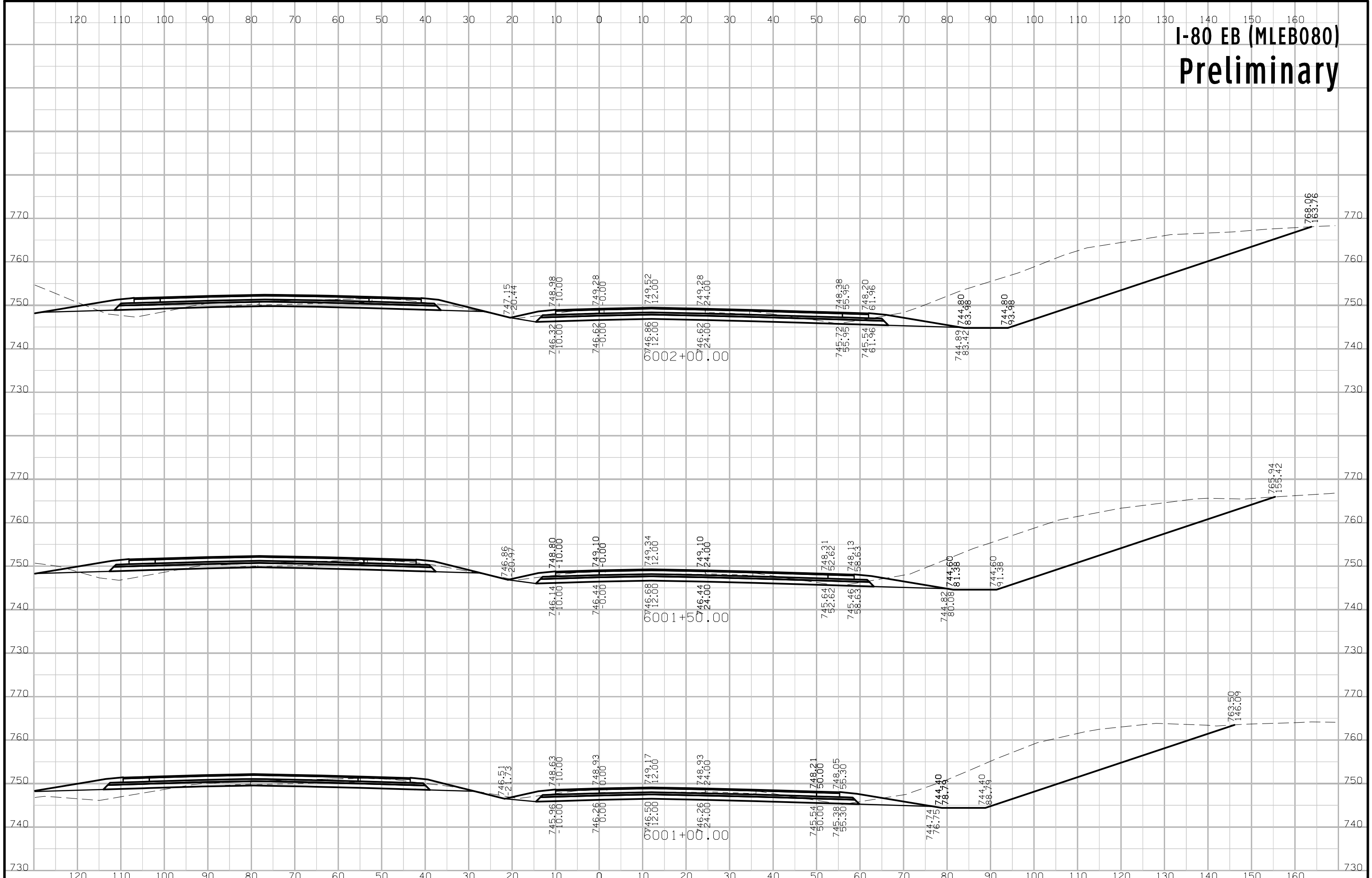
I-80 EB (MLEB080) Preliminary



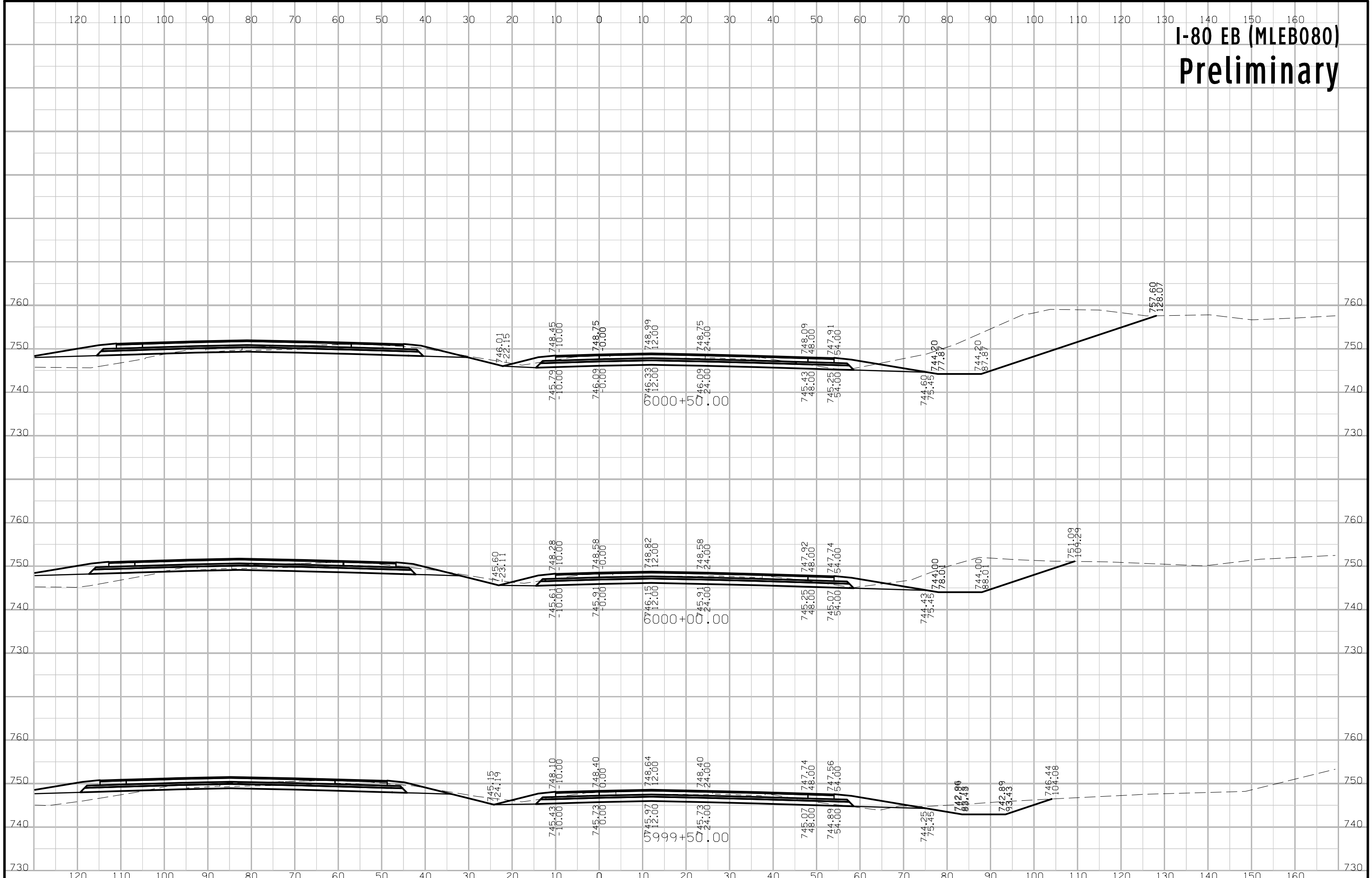
I-80 EB (MLEB080) Preliminary



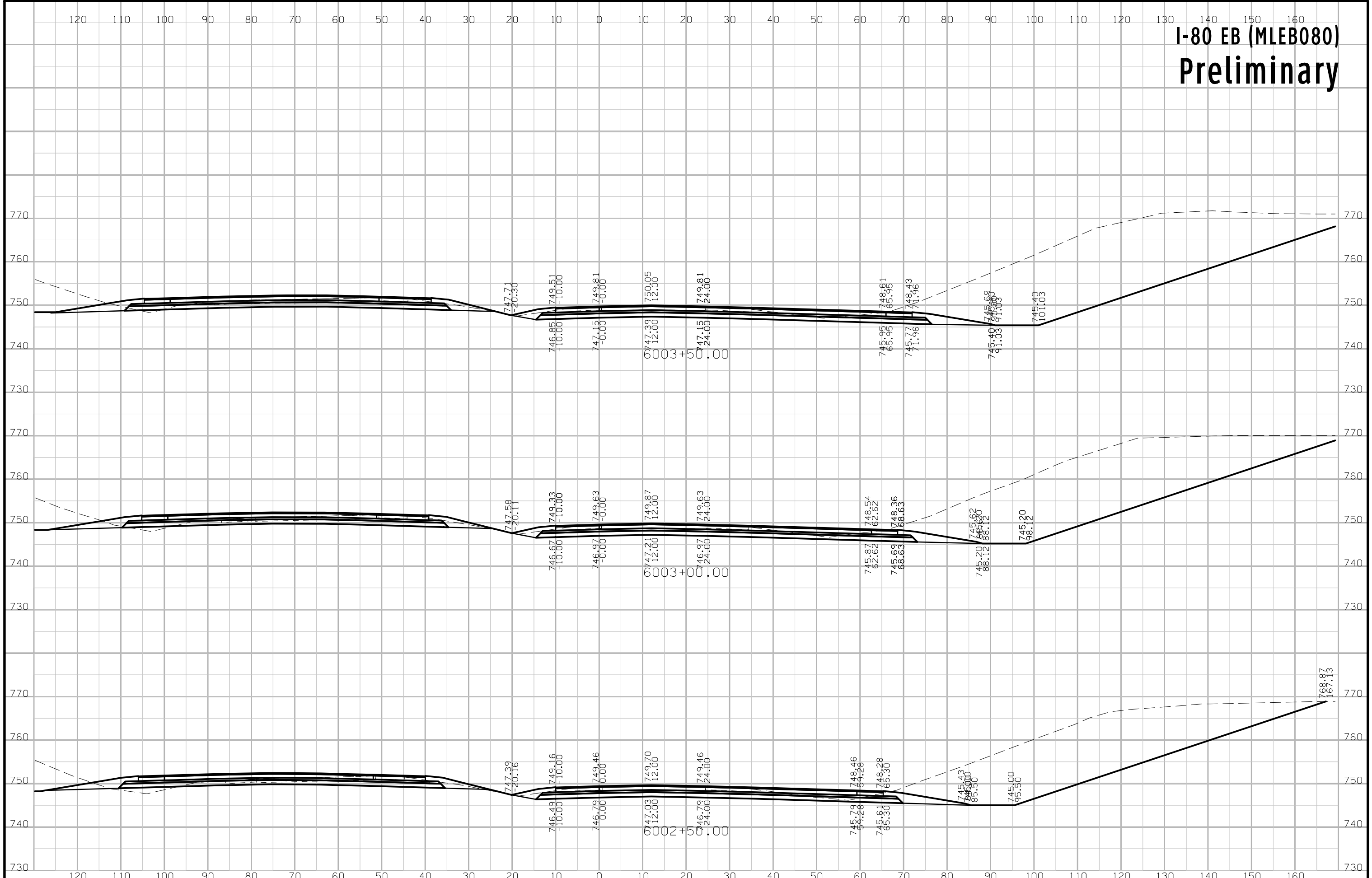
I-80 EB (MLEB080) Preliminary



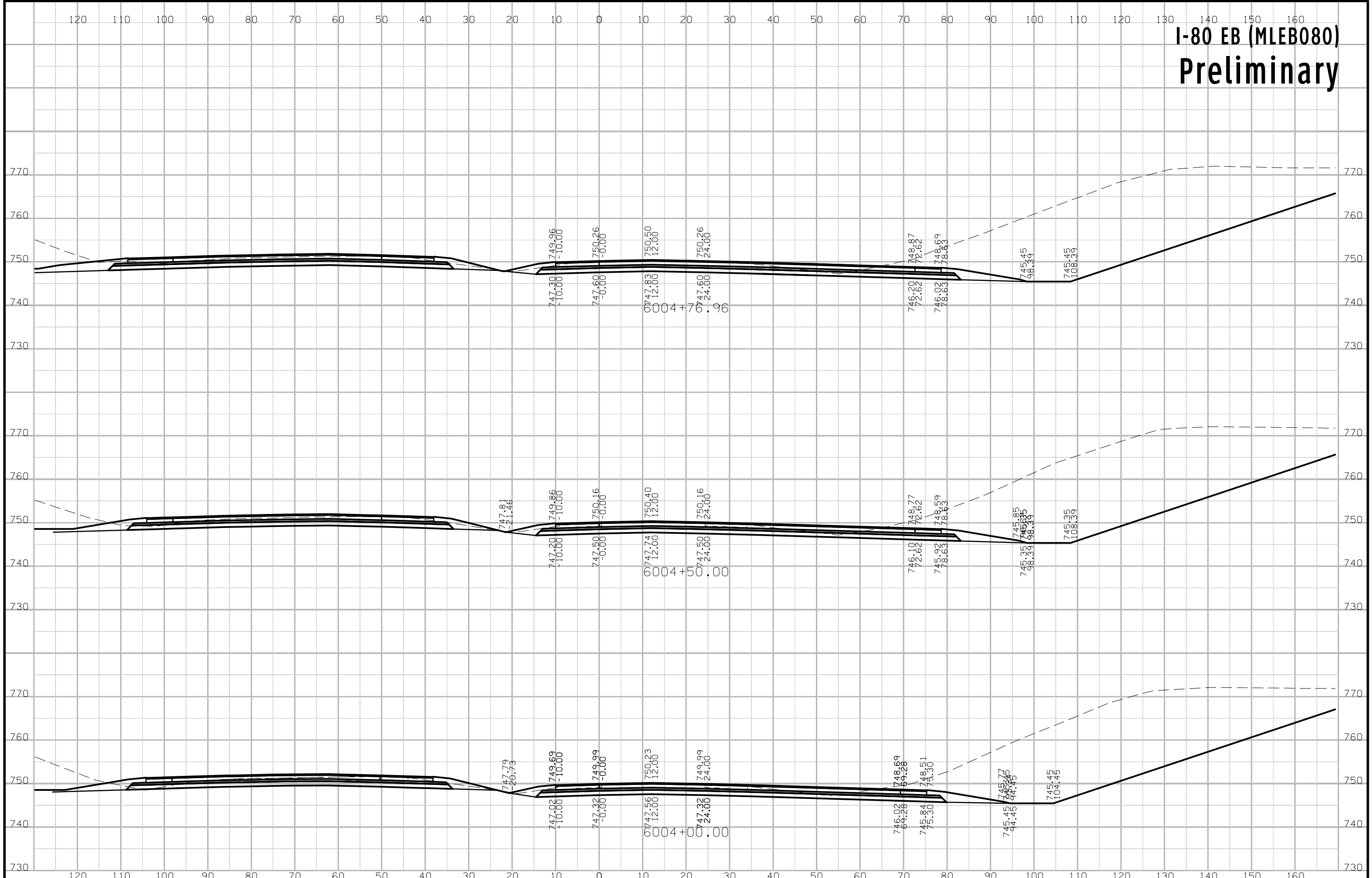
I-80 EB (MLEB080) Preliminary



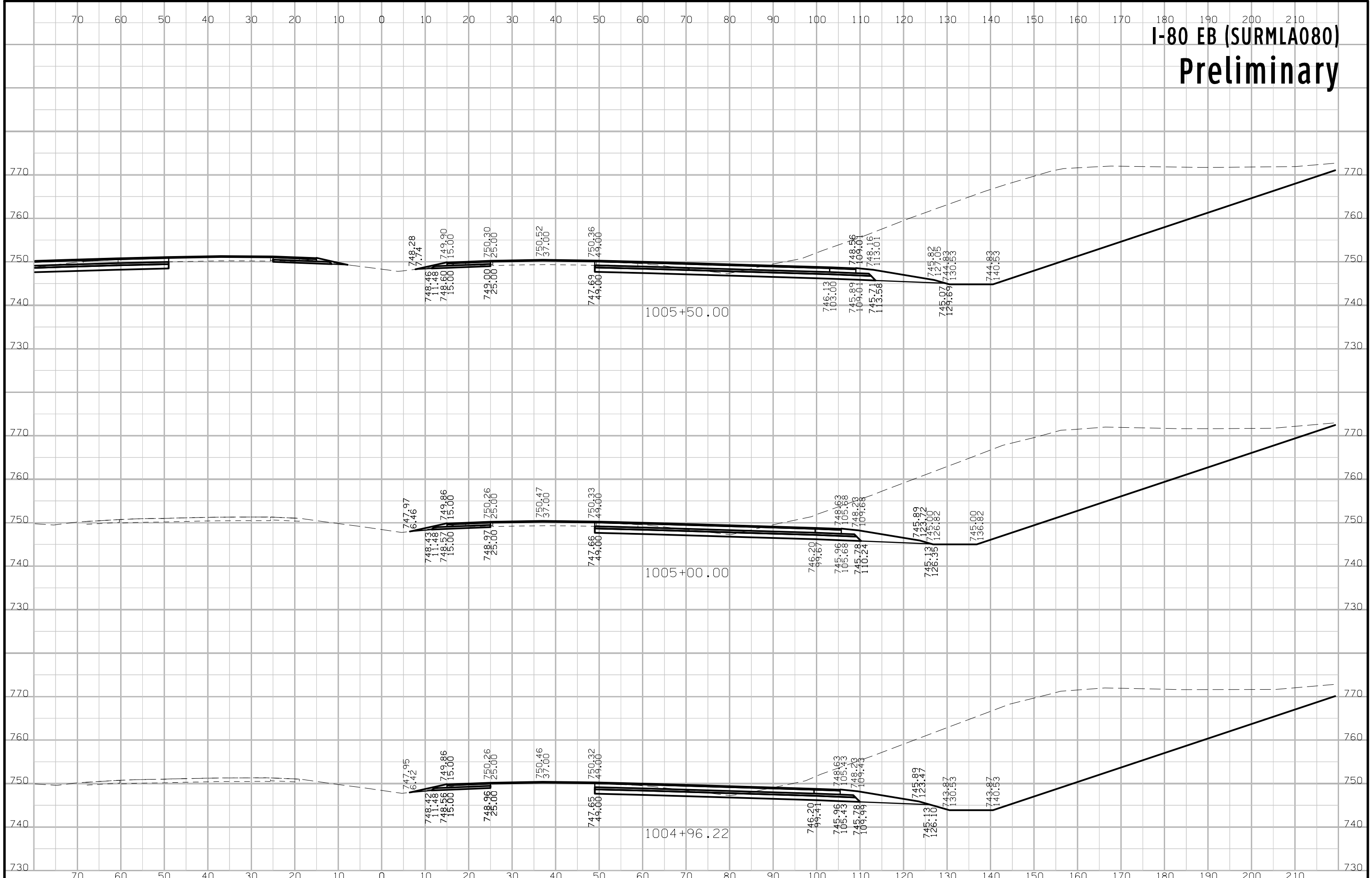
I-80 EB (MLEB080) Preliminary



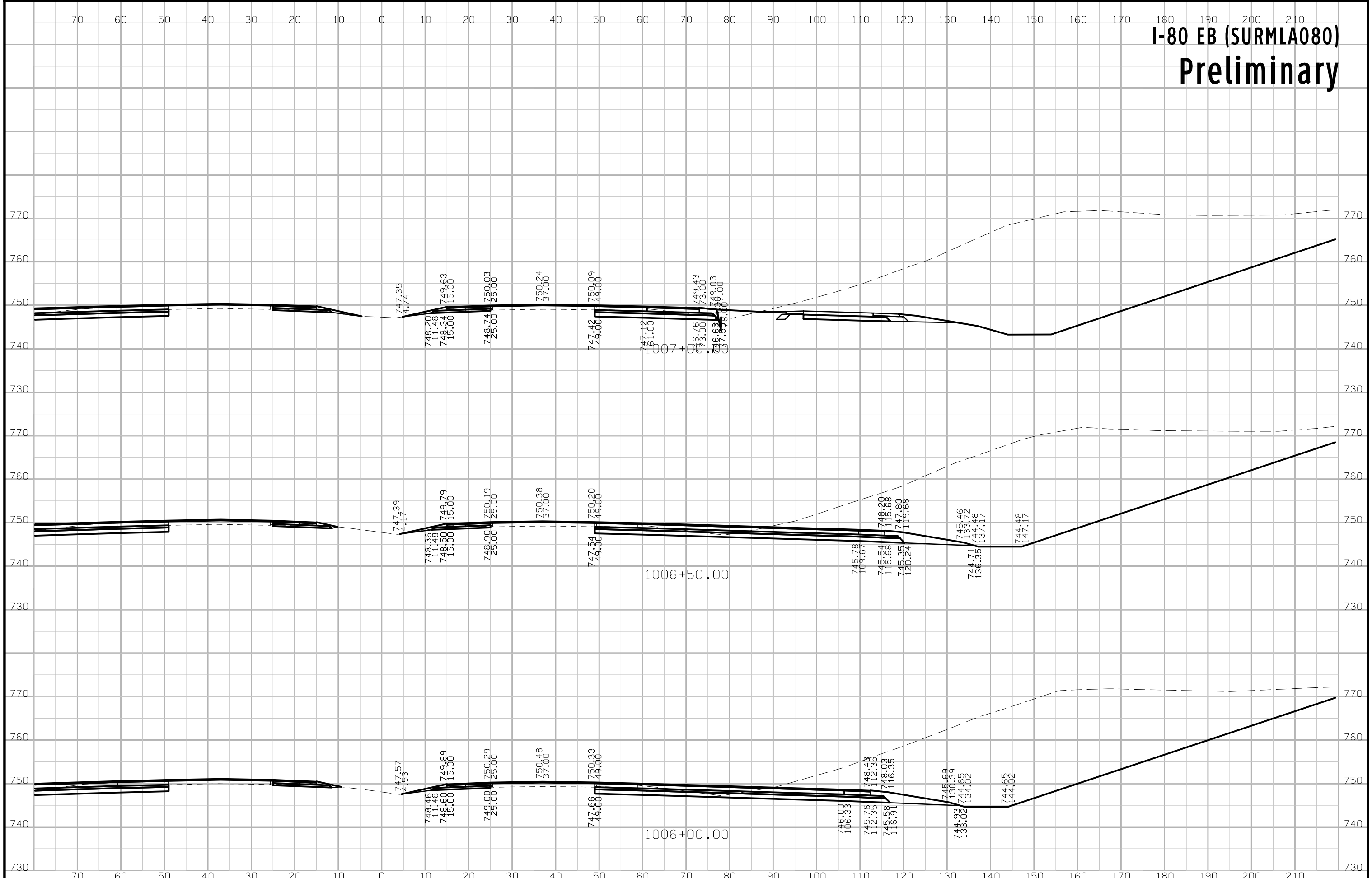
I-80 EB (MLEB080) Preliminary



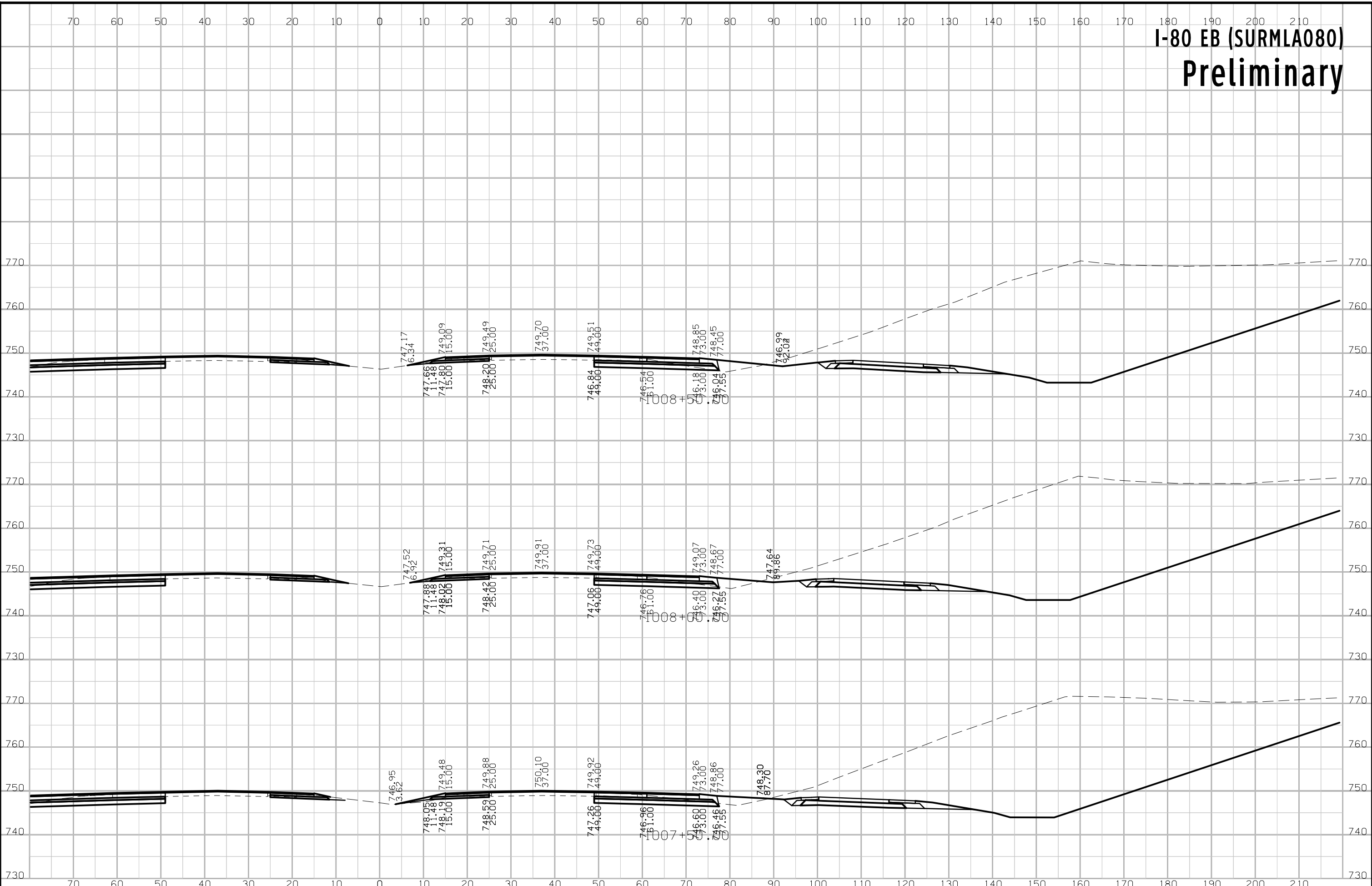
I-80 EB (SURMLA080) Preliminary



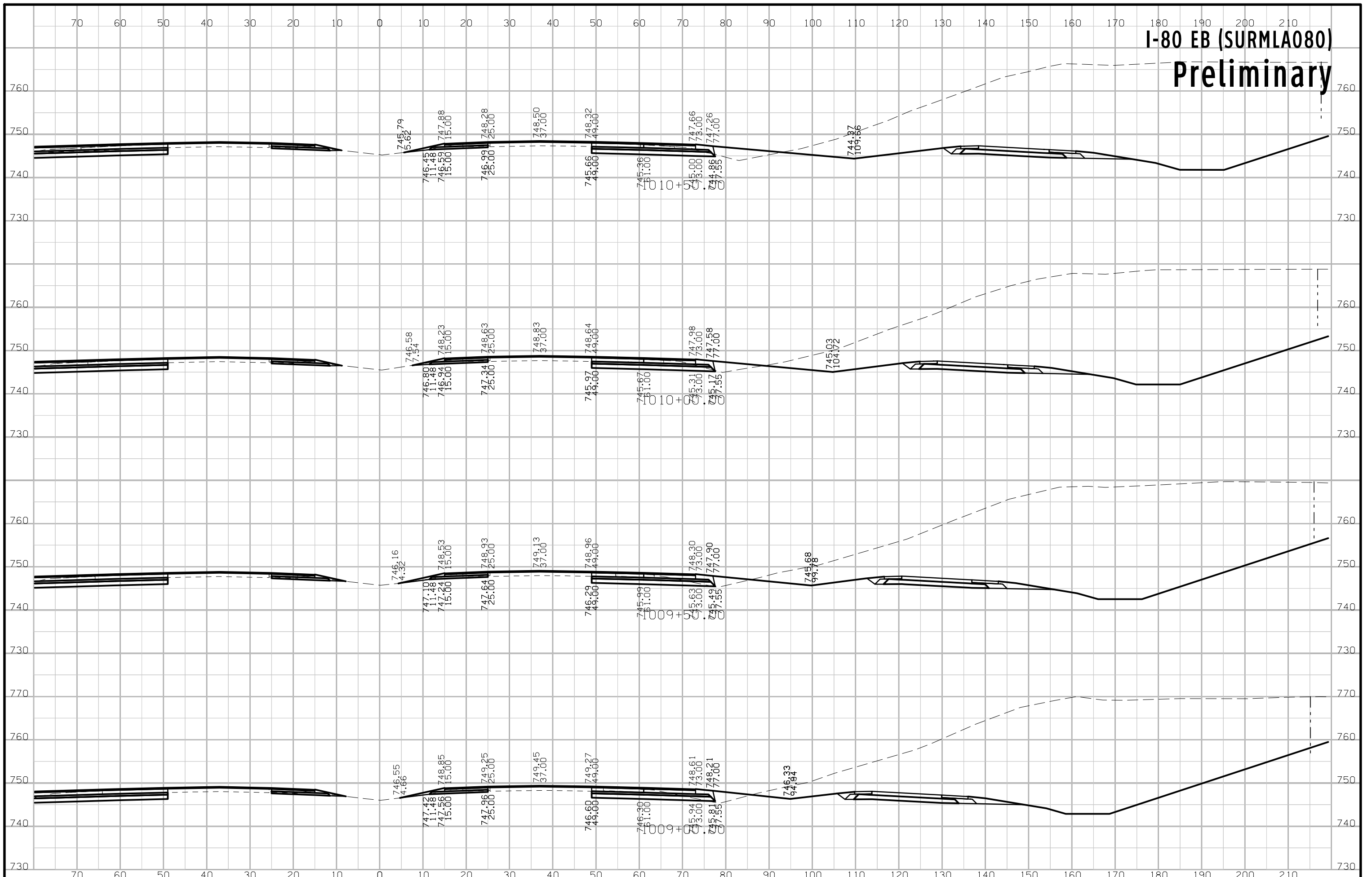
I-80 EB (SURMLA080) Preliminary



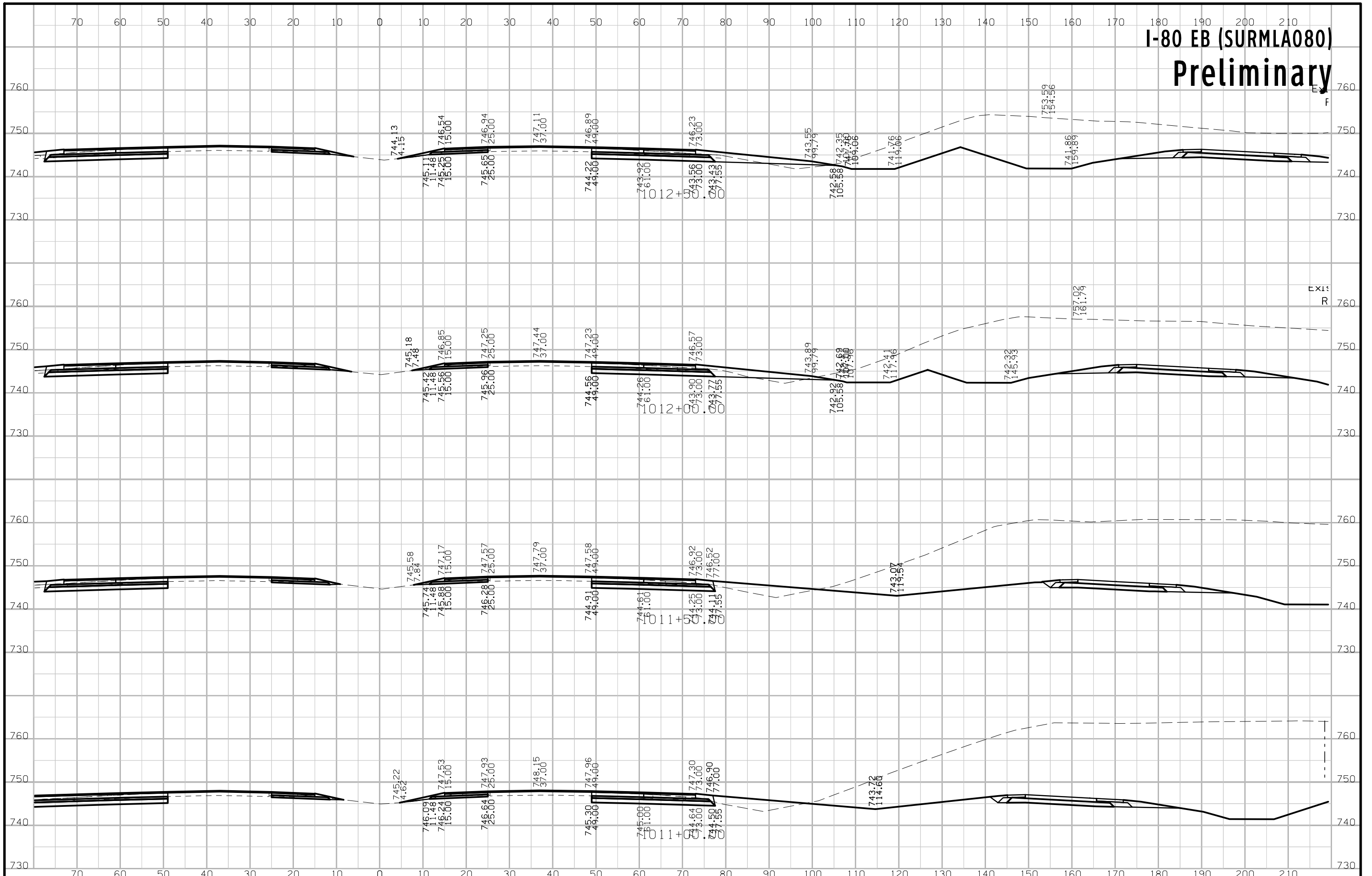
I-80 EB (SURMLA080) Preliminary



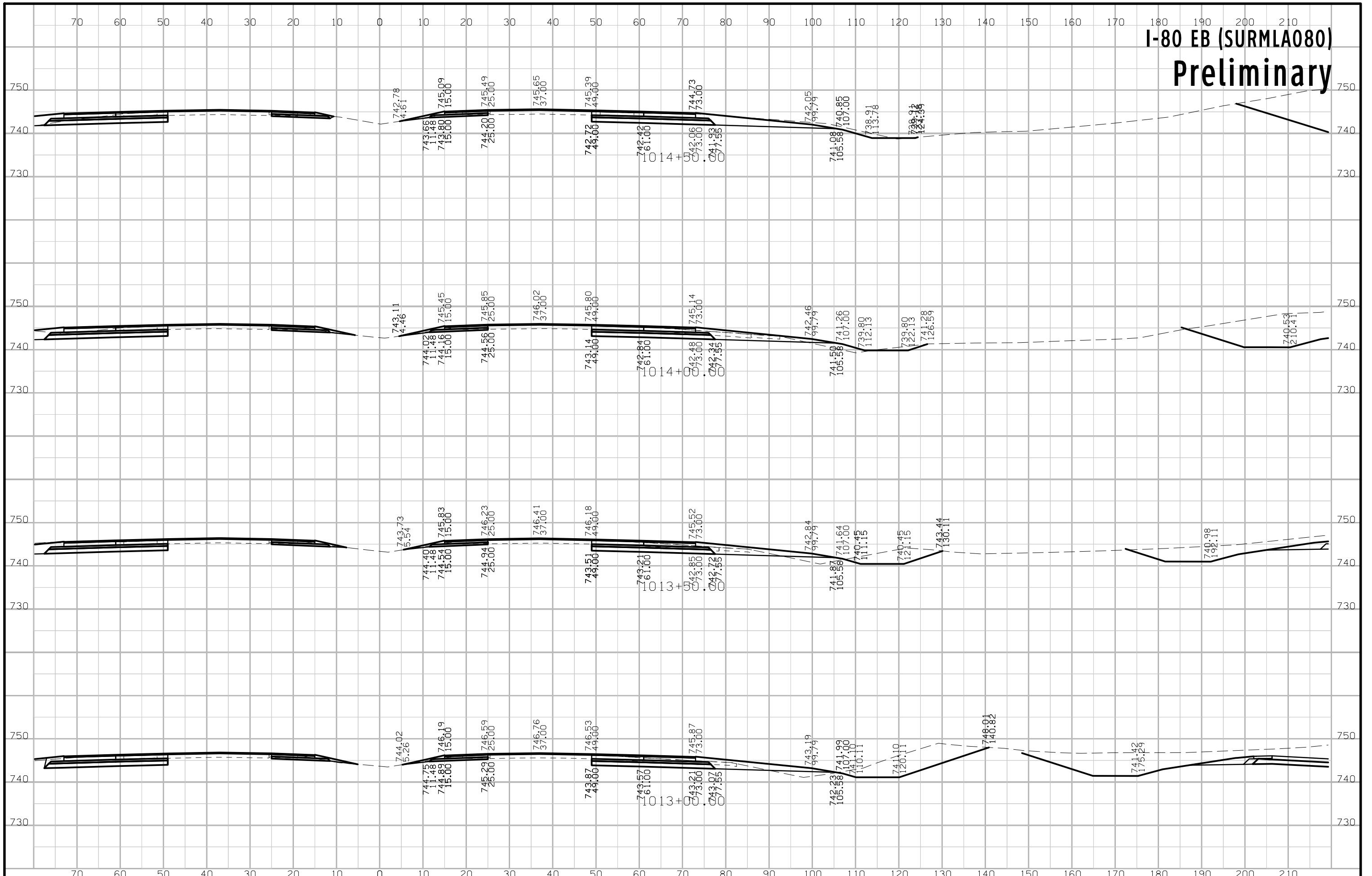
**I-80 EB (SURMLA080)
Preliminary**



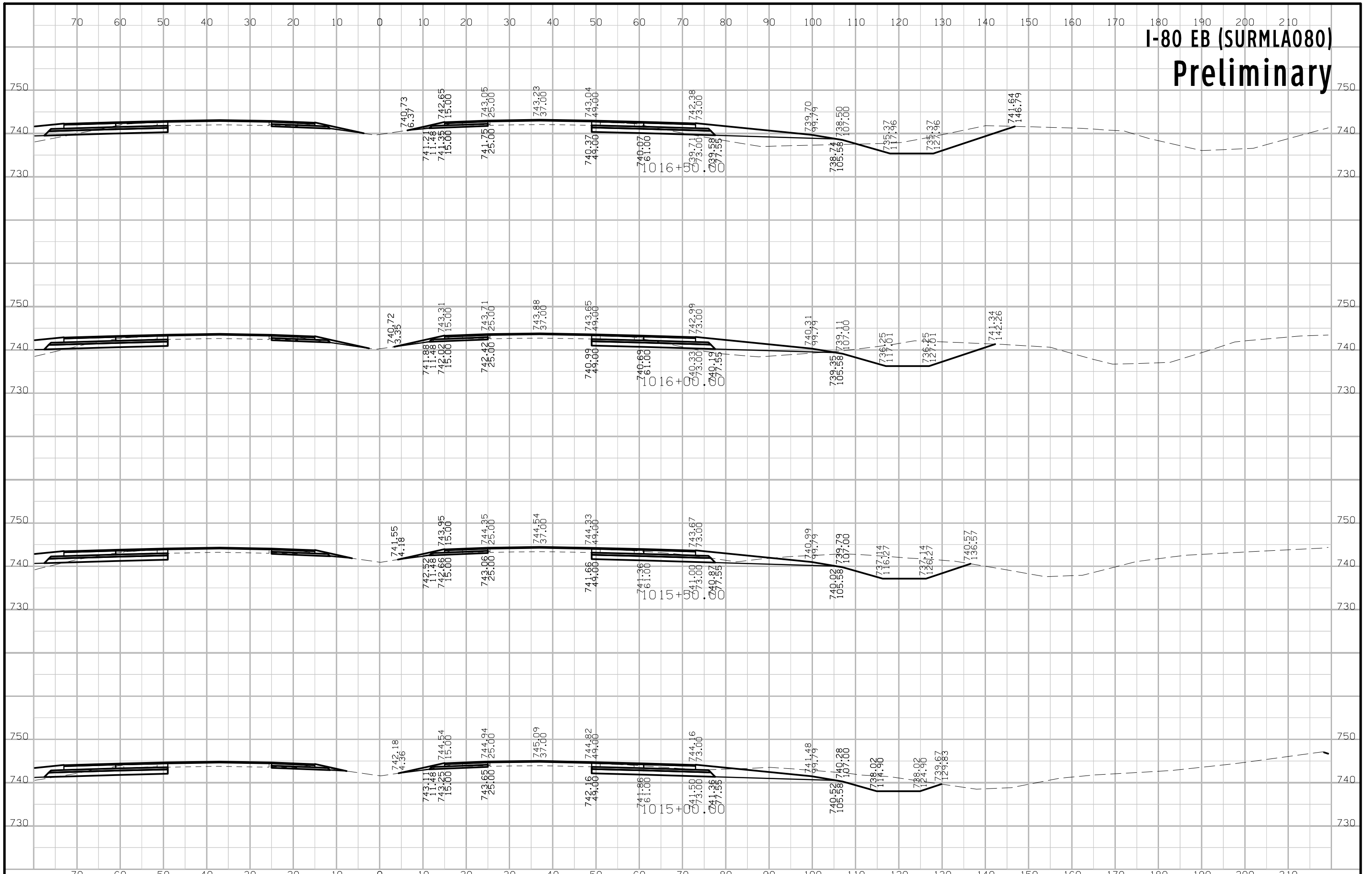
I-80 EB (SURMLA080) Preliminary



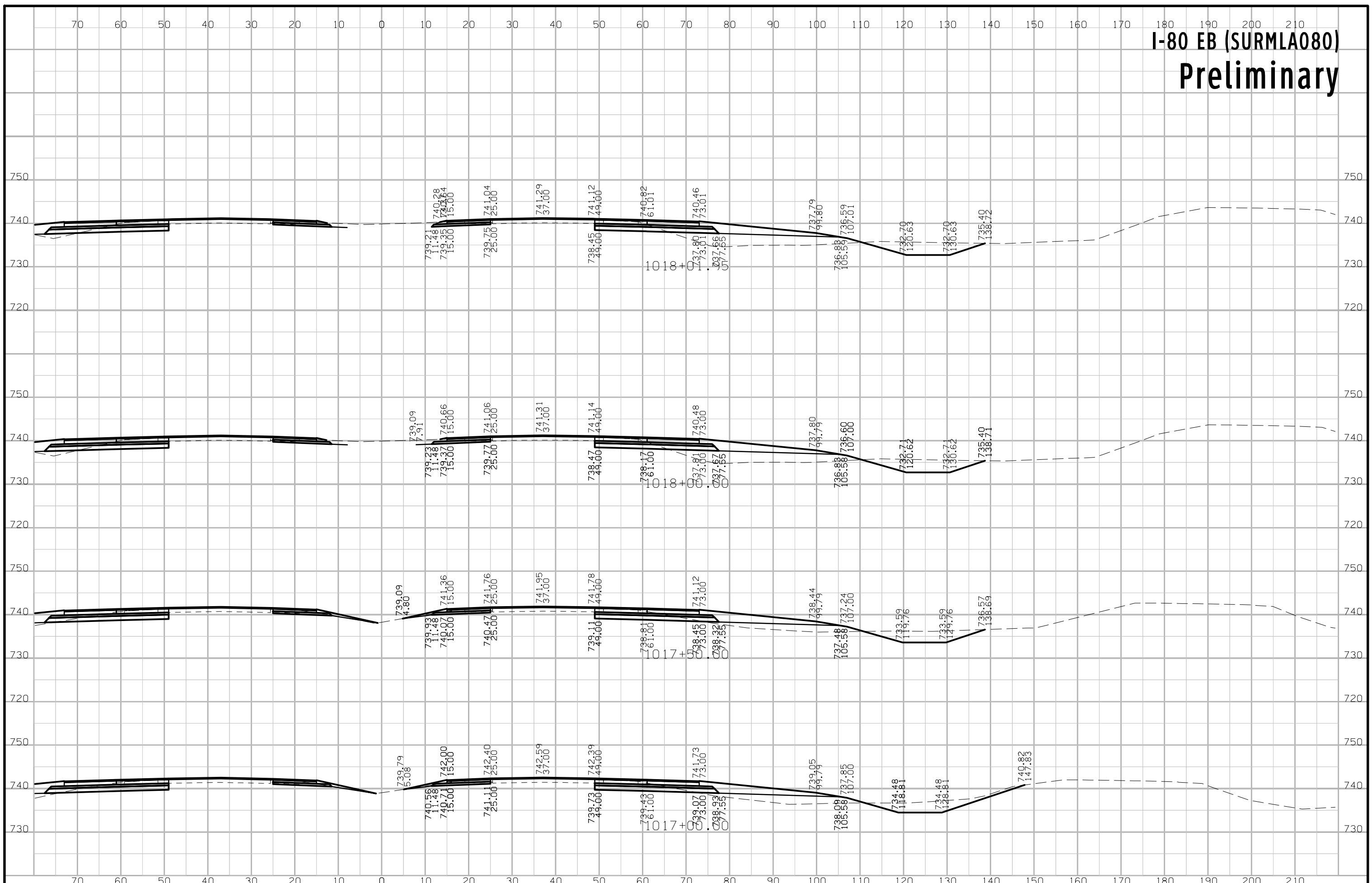
I-80 EB (SURMLA080) Preliminary



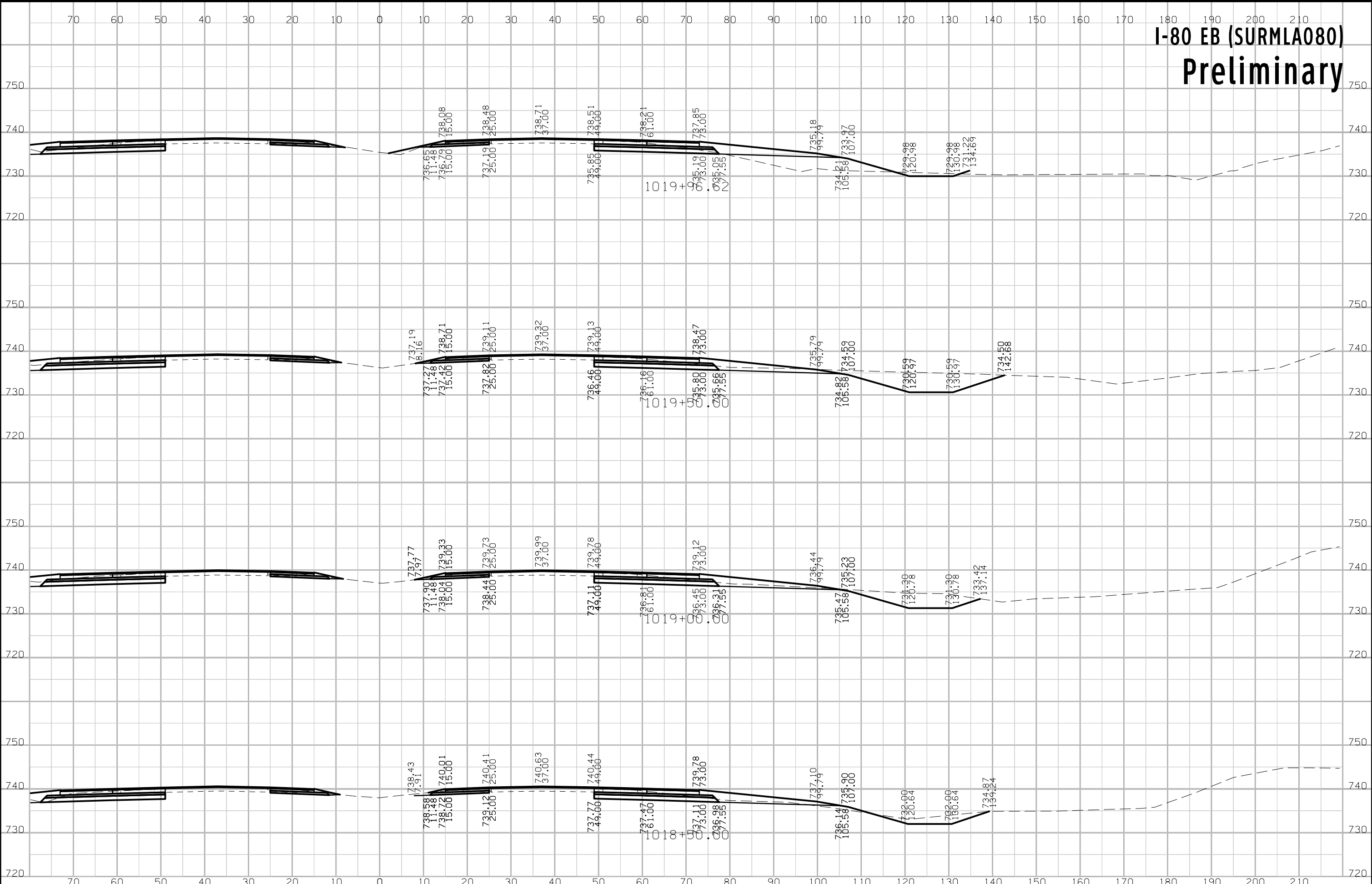
I-80 EB (SURMLA080)
Preliminary



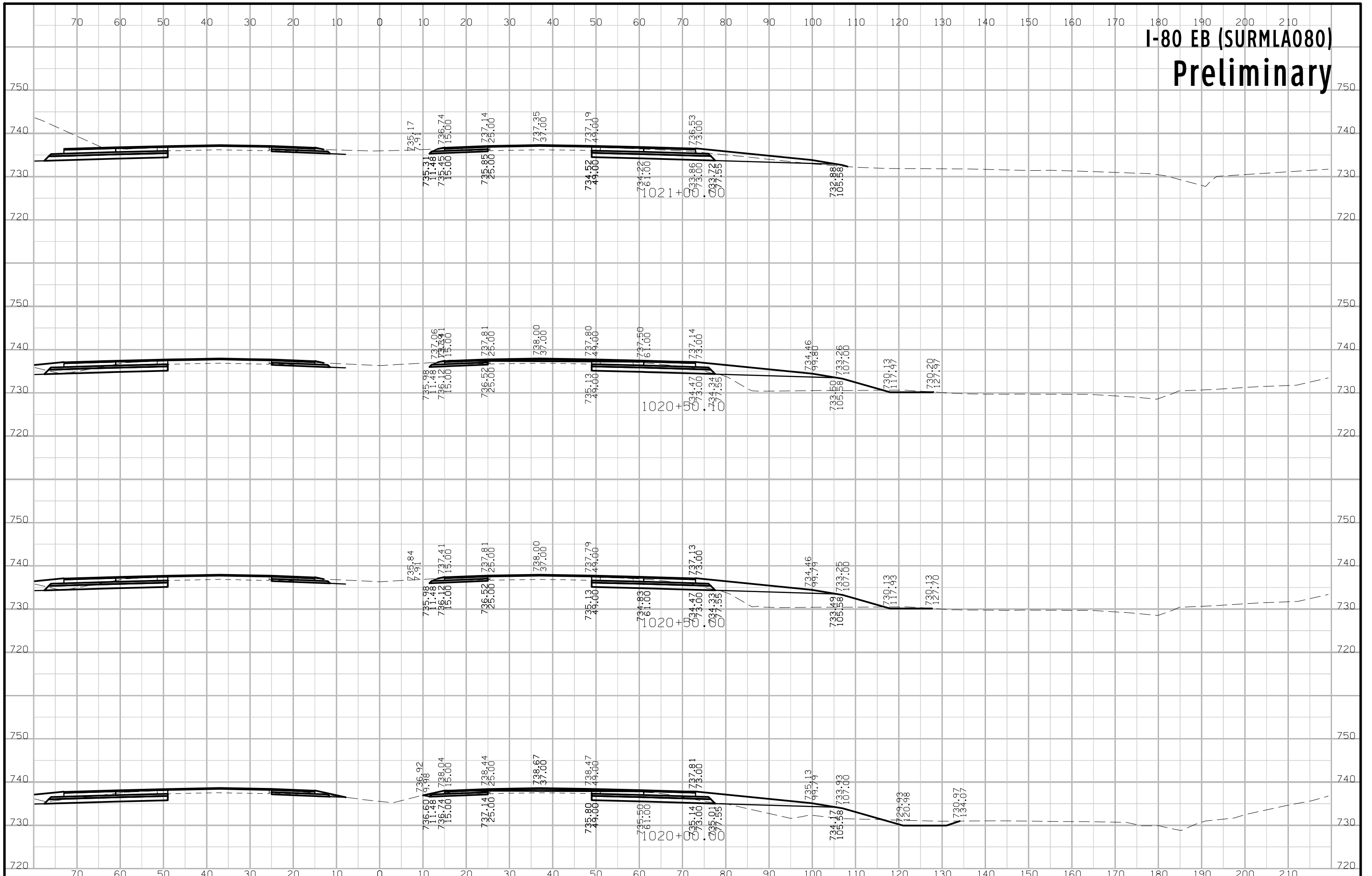
I-80 EB (SURMLA080) Preliminary



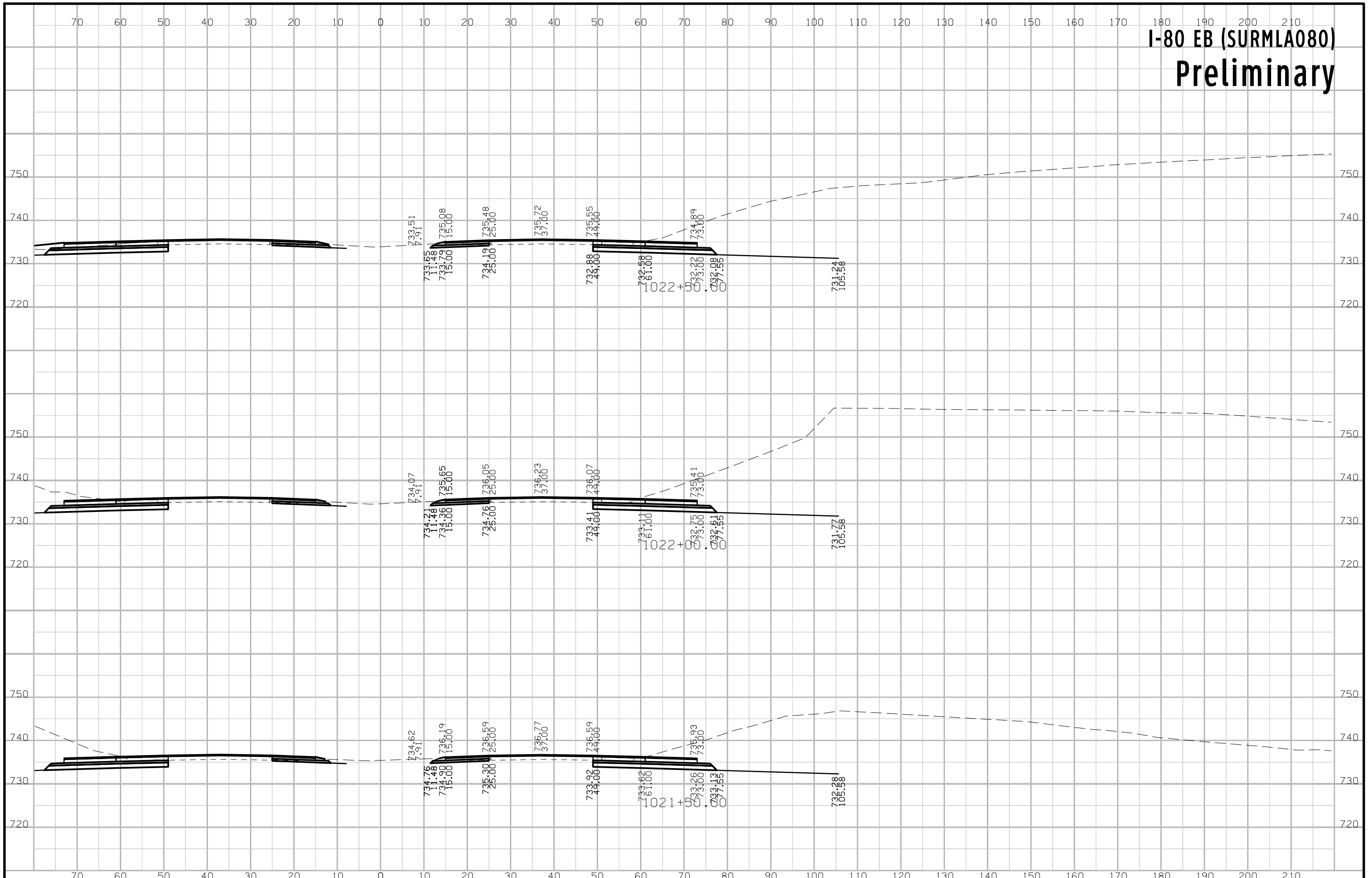
I-80 EB (SURMLA080) Preliminary



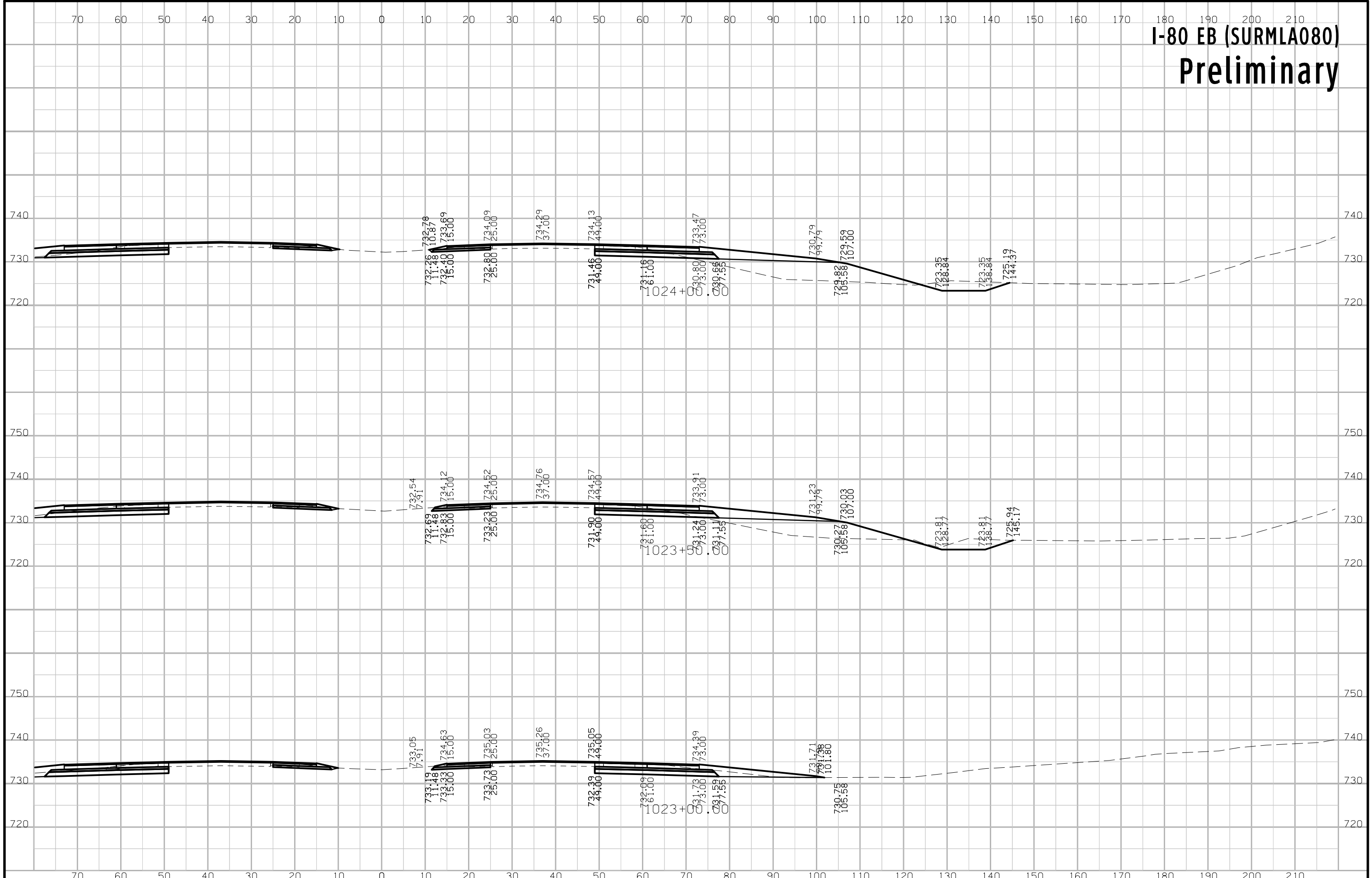
I-80 EB (SURMLA080) Preliminary



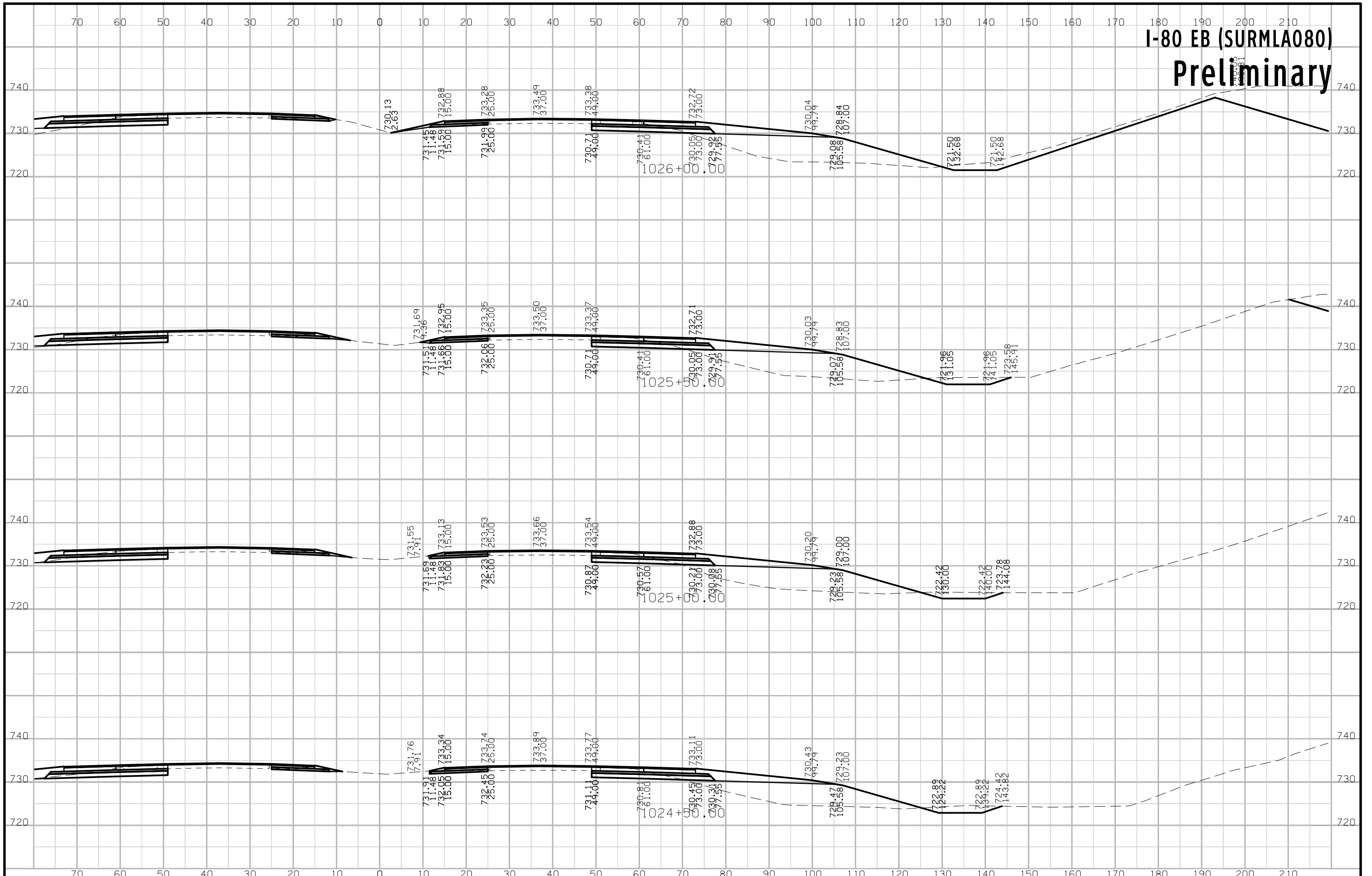
I-80 EB (SURMLA080) Preliminary



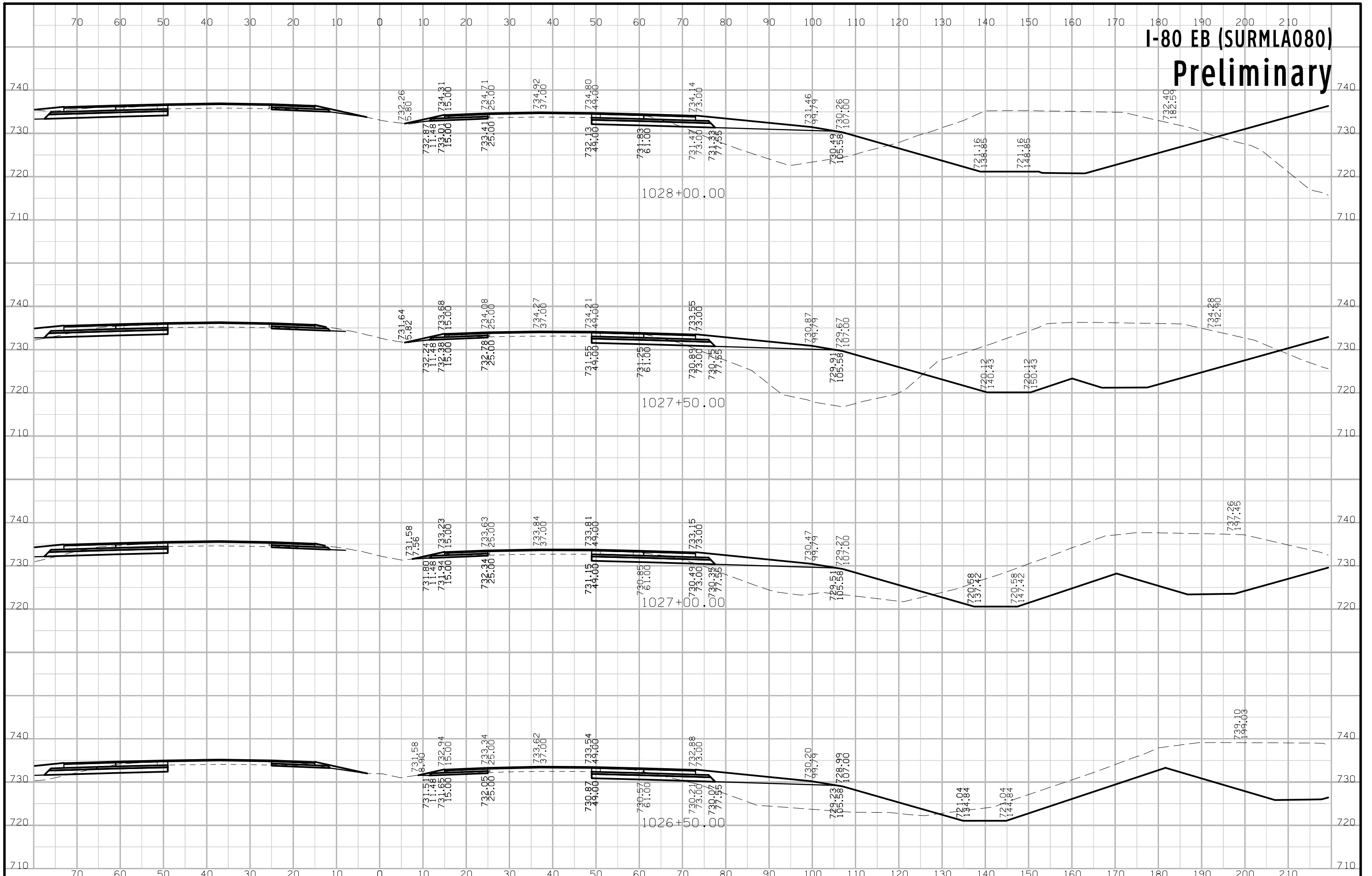
I-80 EB (SURMLA080) Preliminary



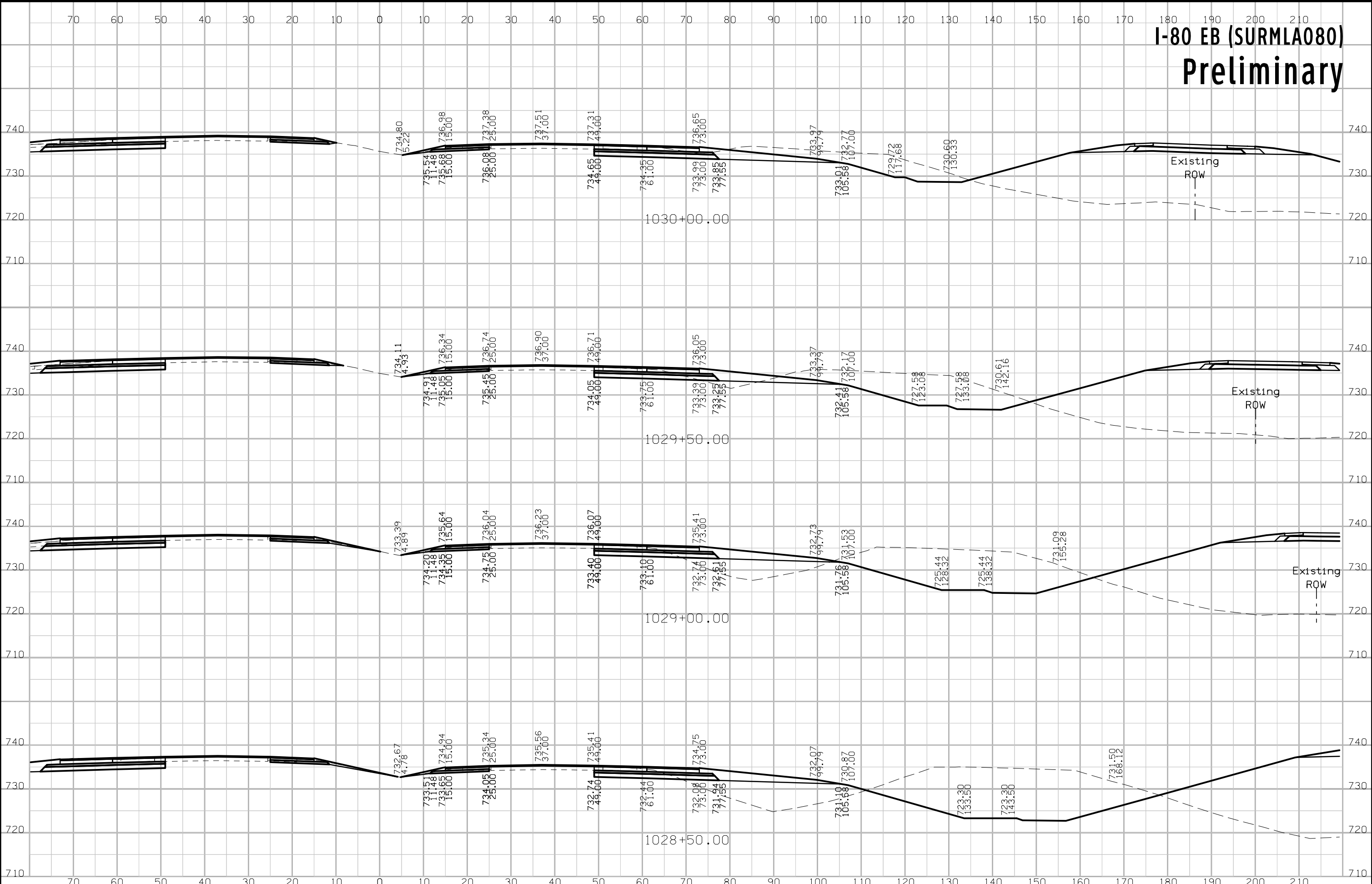
I-80 EB (SURMLA080) Preliminary



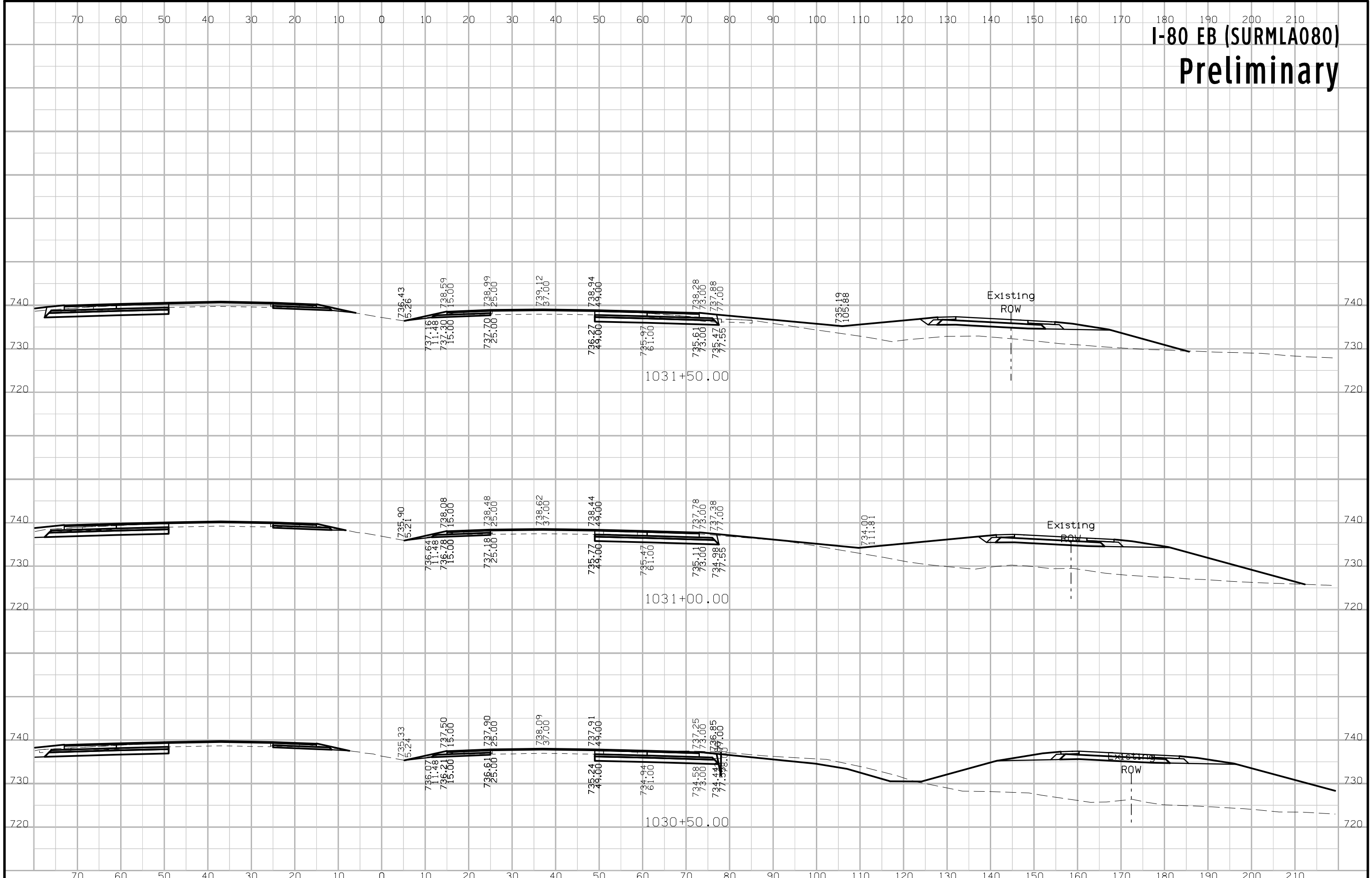
I-80 EB (SURMLA080) Preliminary



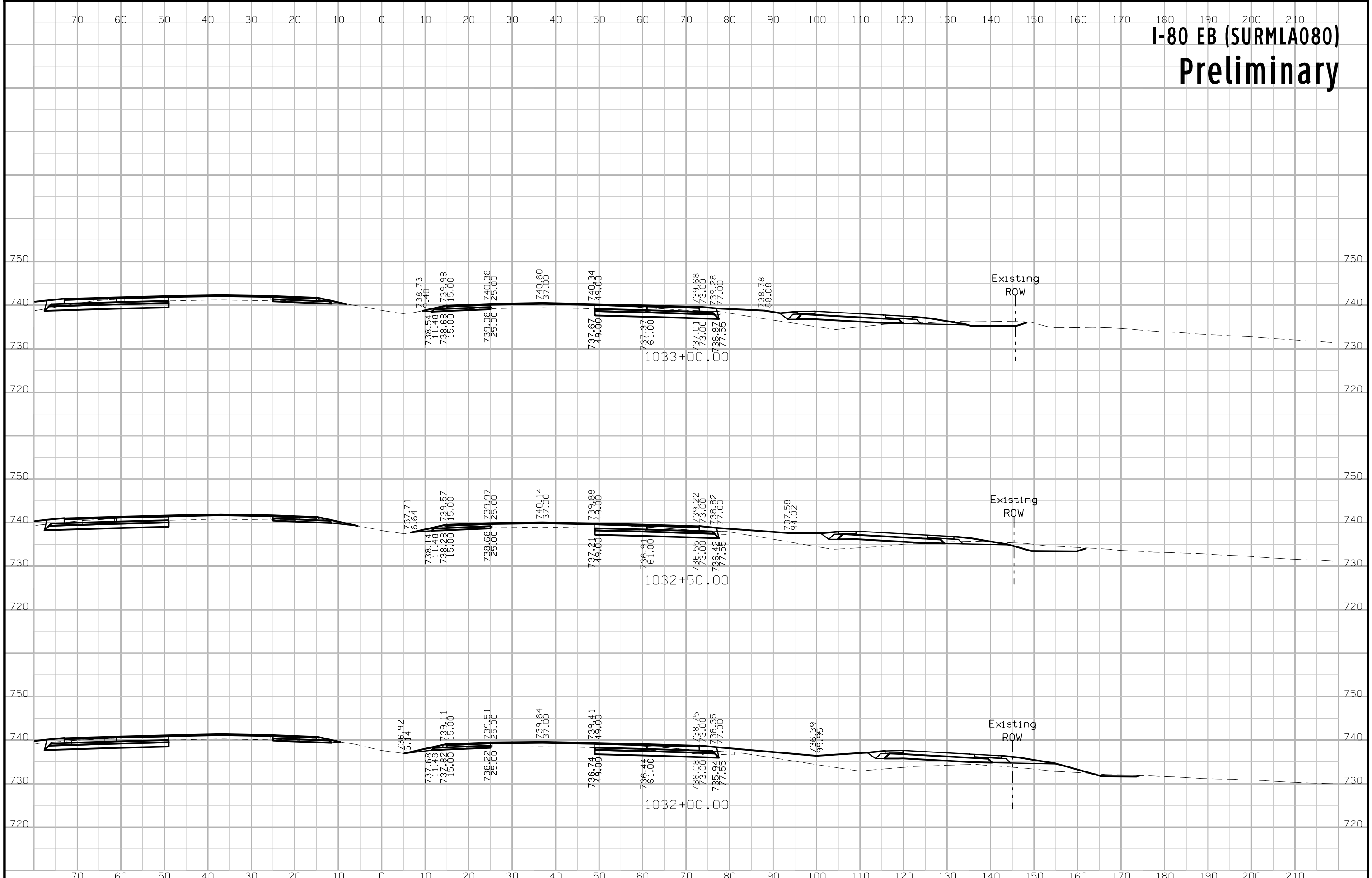
I-80 EB (SURMLA080) Preliminary



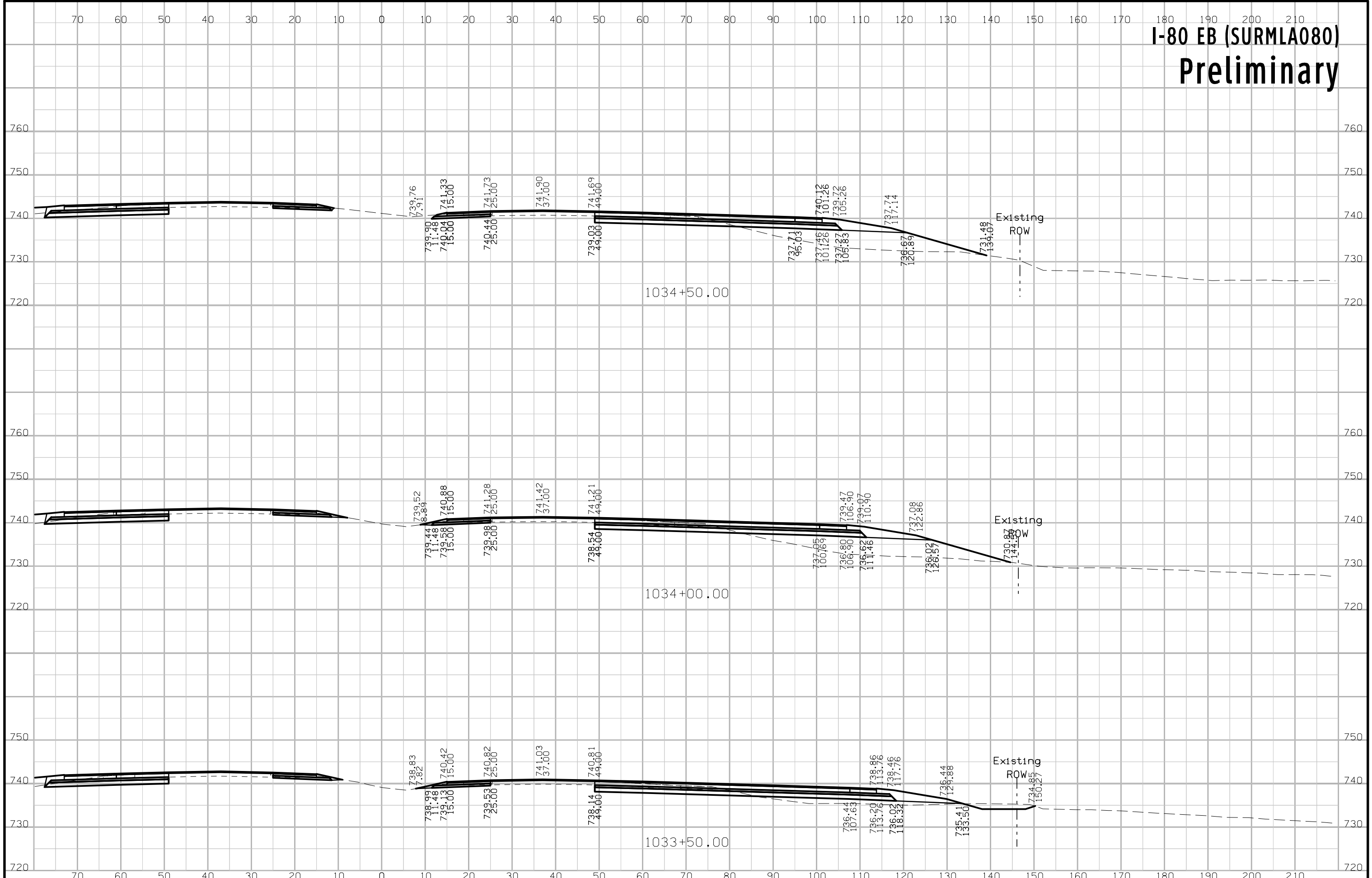
I-80 EB (SURMLA080) Preliminary



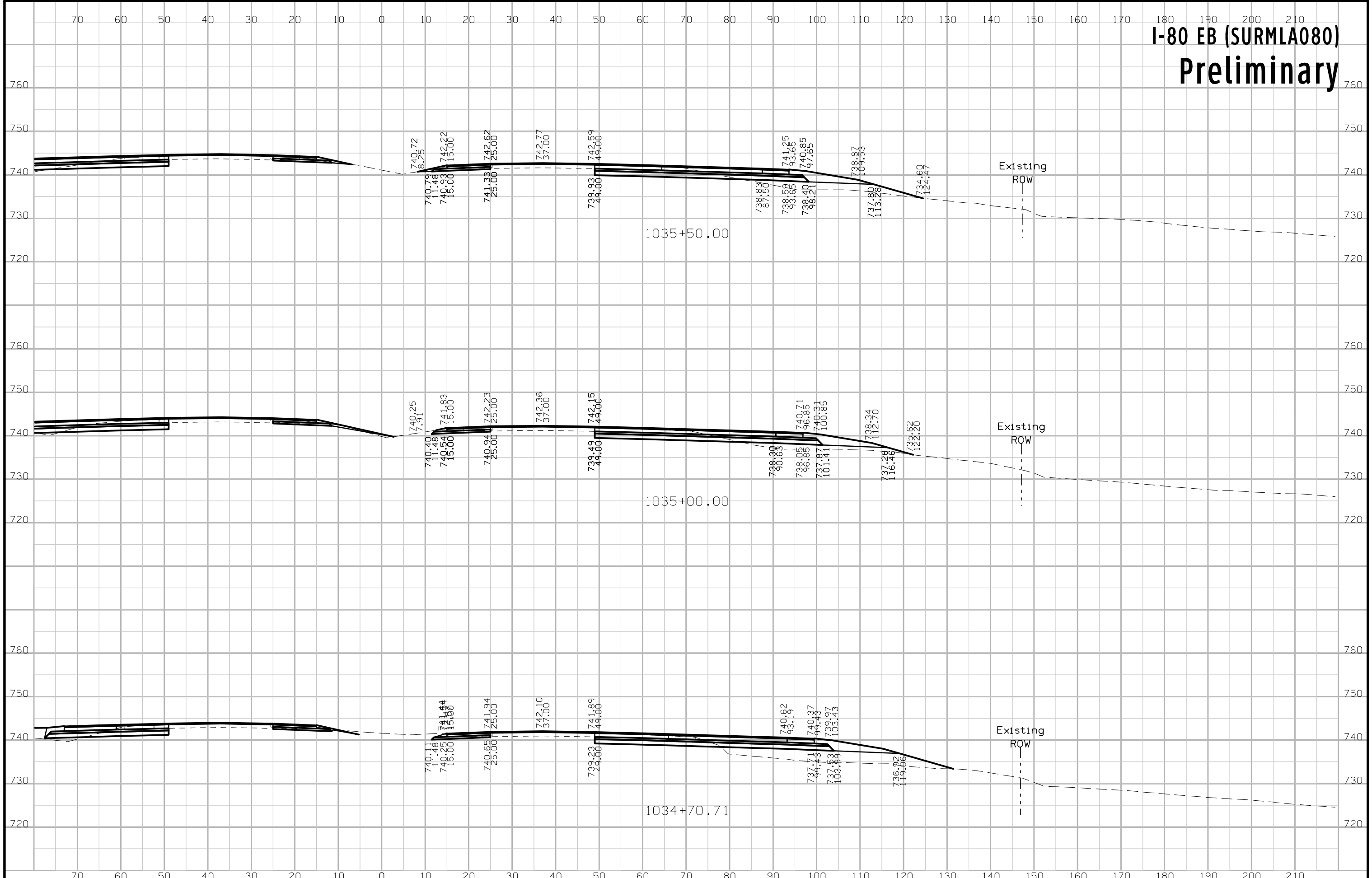
I-80 EB (SURMLA080) Preliminary



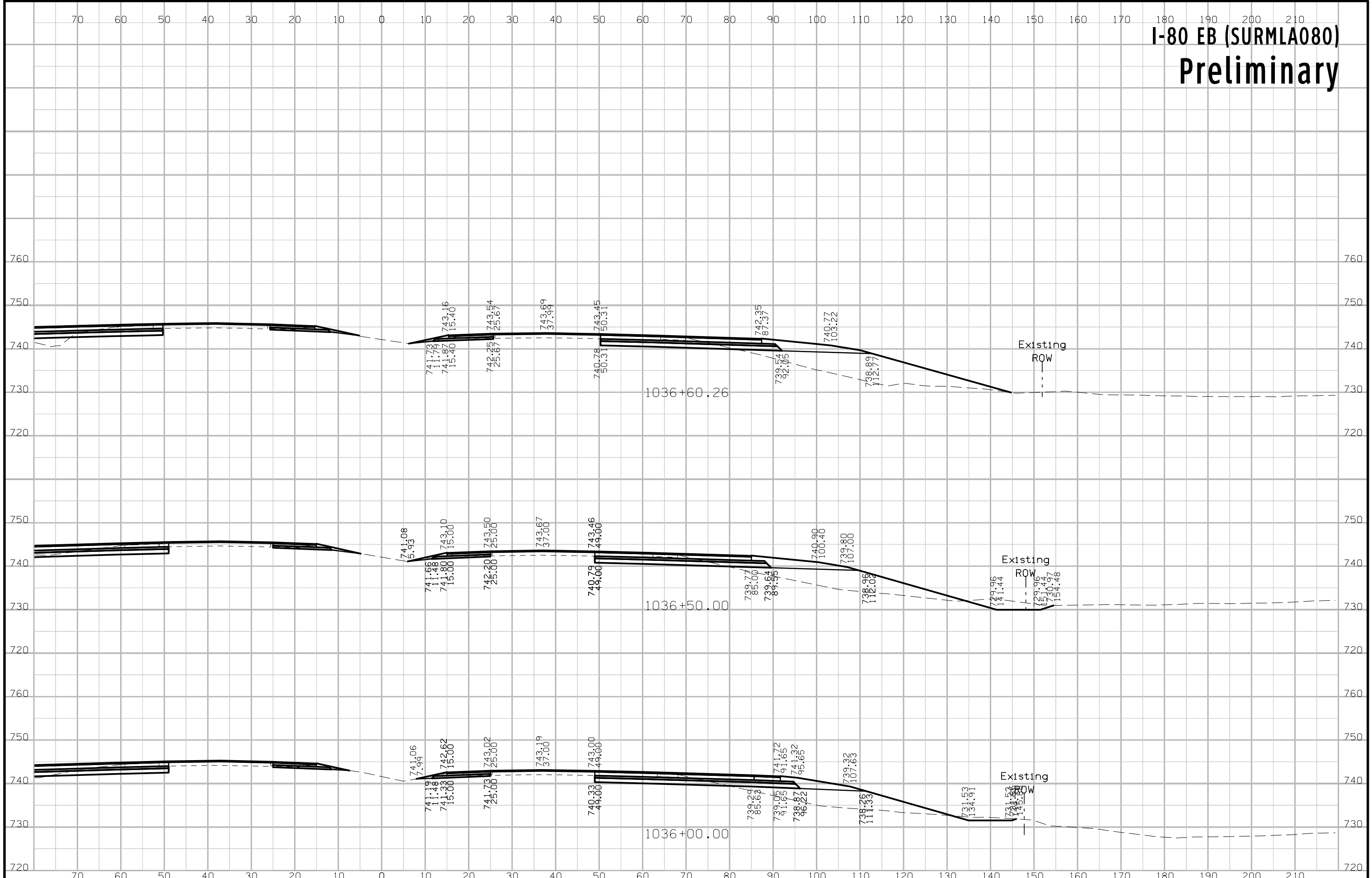
I-80 EB (SURMLA080) Preliminary



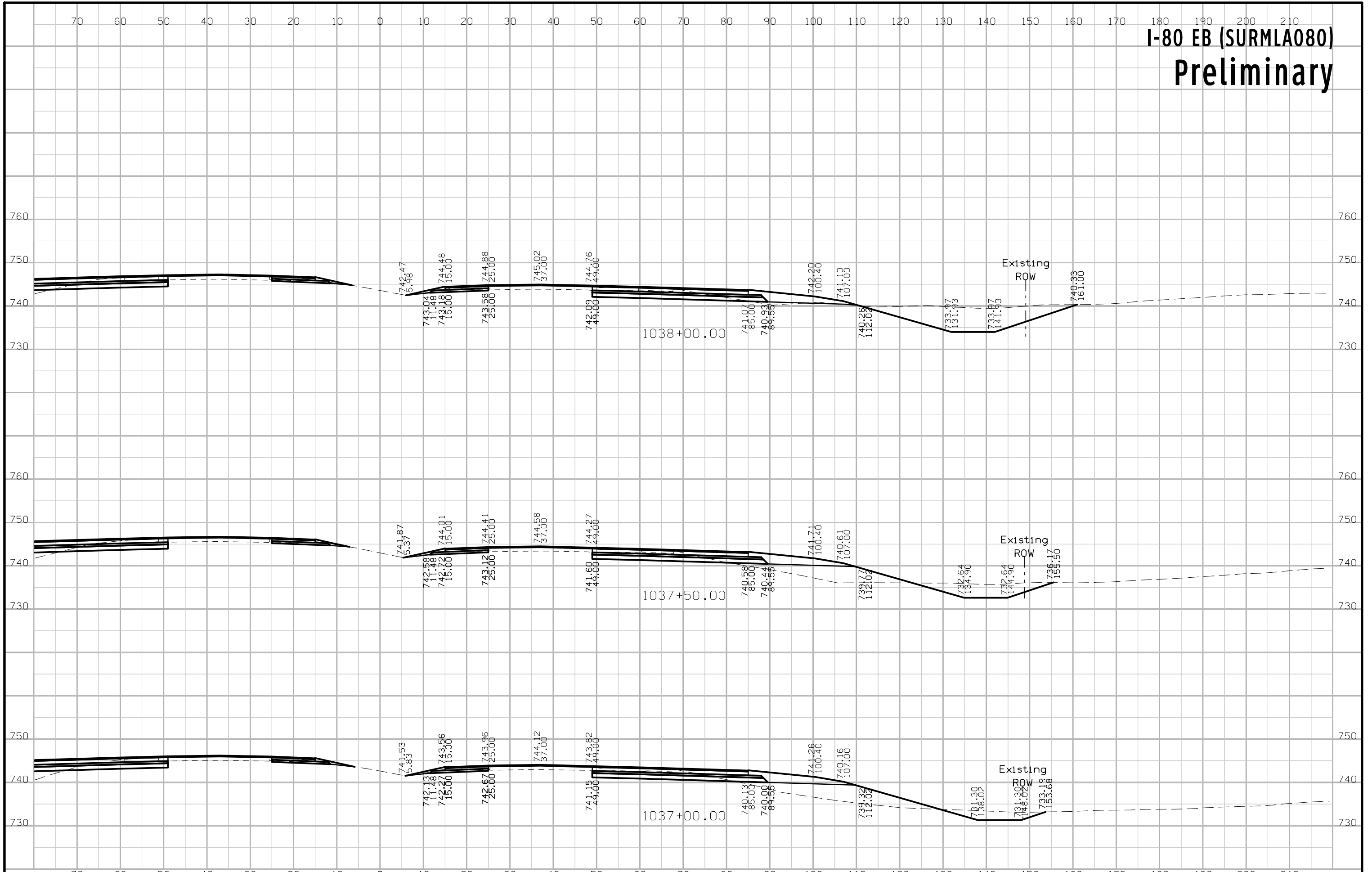
I-80 EB (SURMLA080) Preliminary



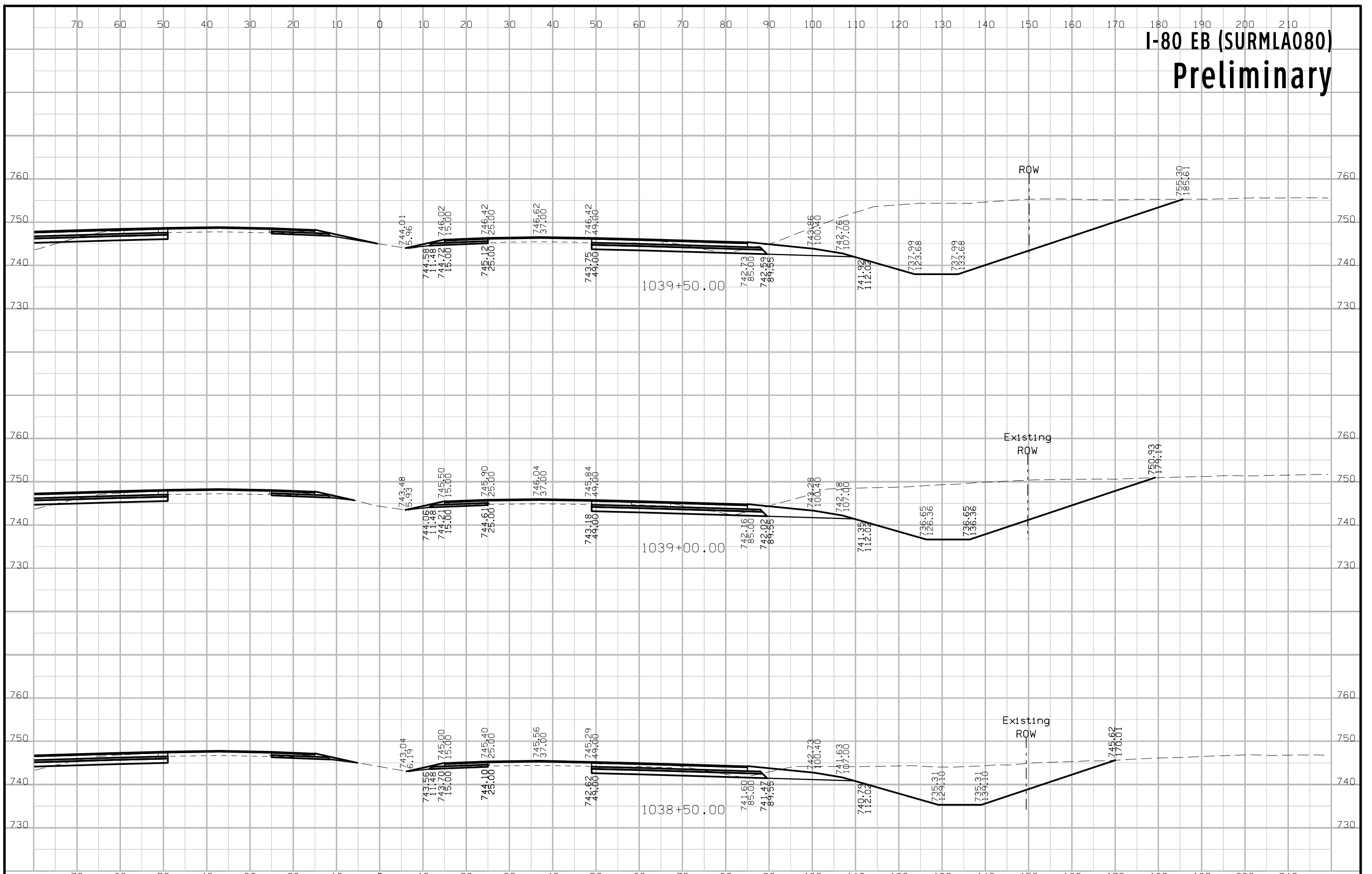
I-80 EB (SURMLA080) Preliminary



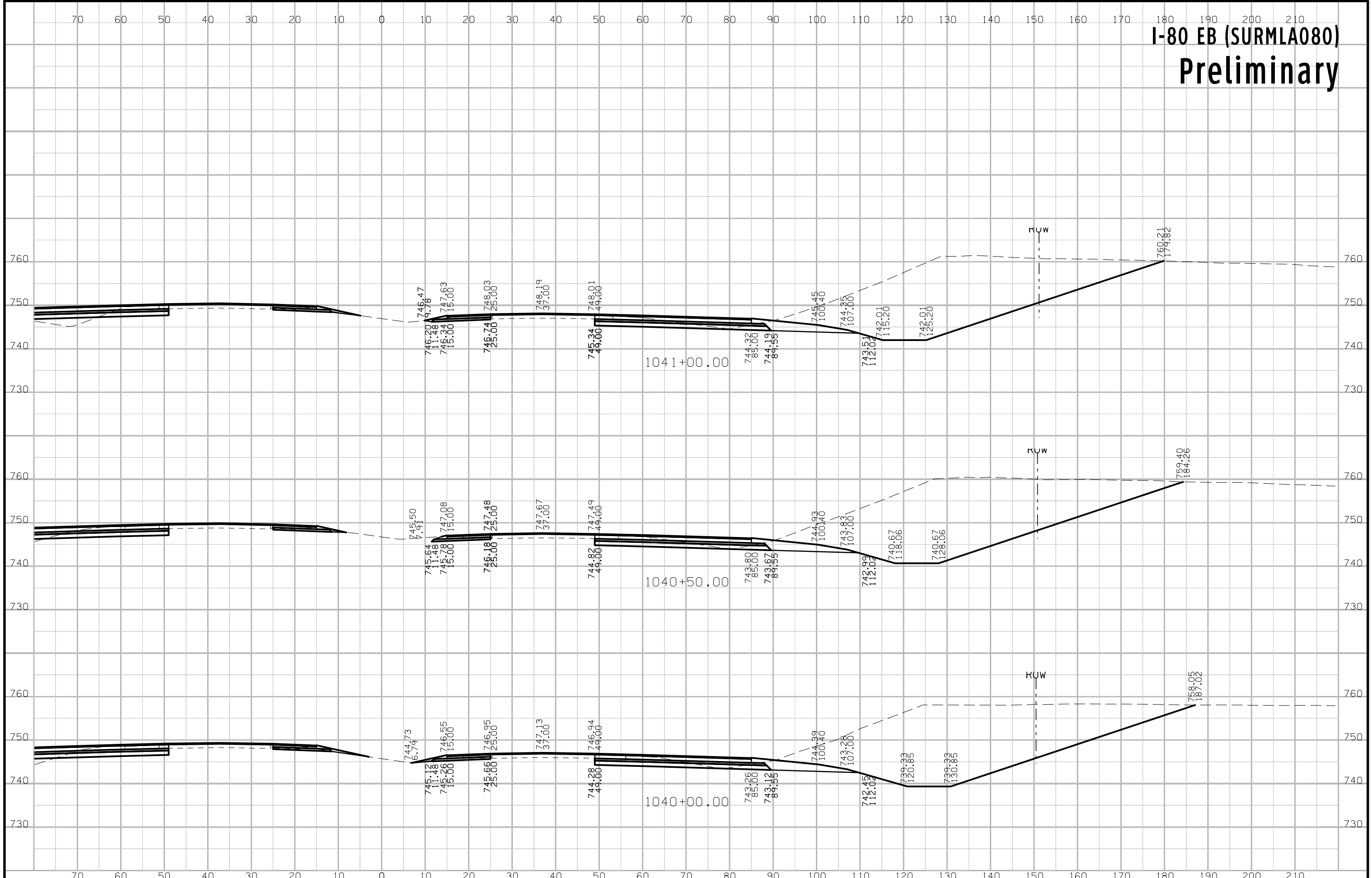
I-80 EB (SURMLA080) Preliminary



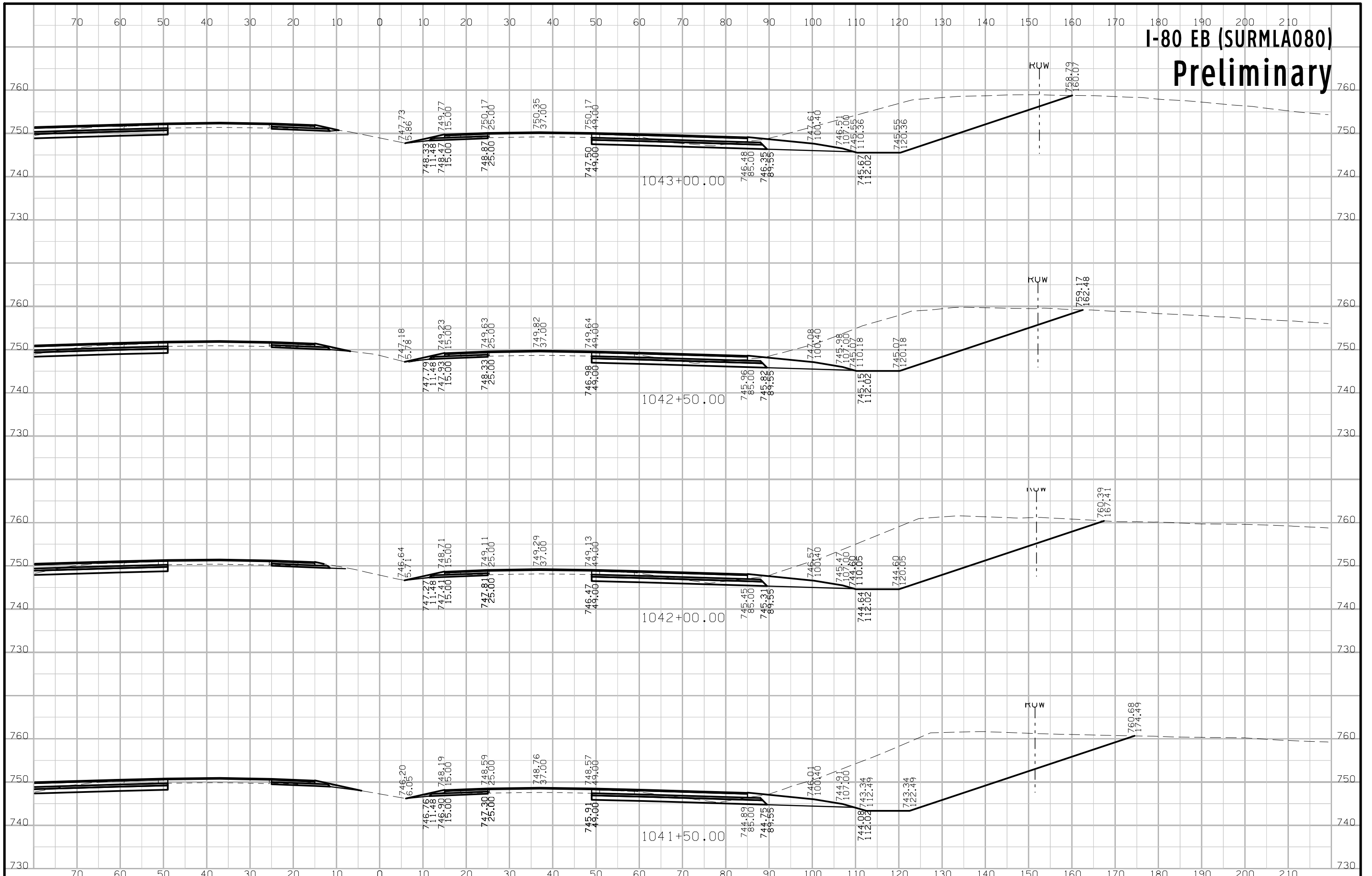
I-80 EB (SURMLA080) Preliminary



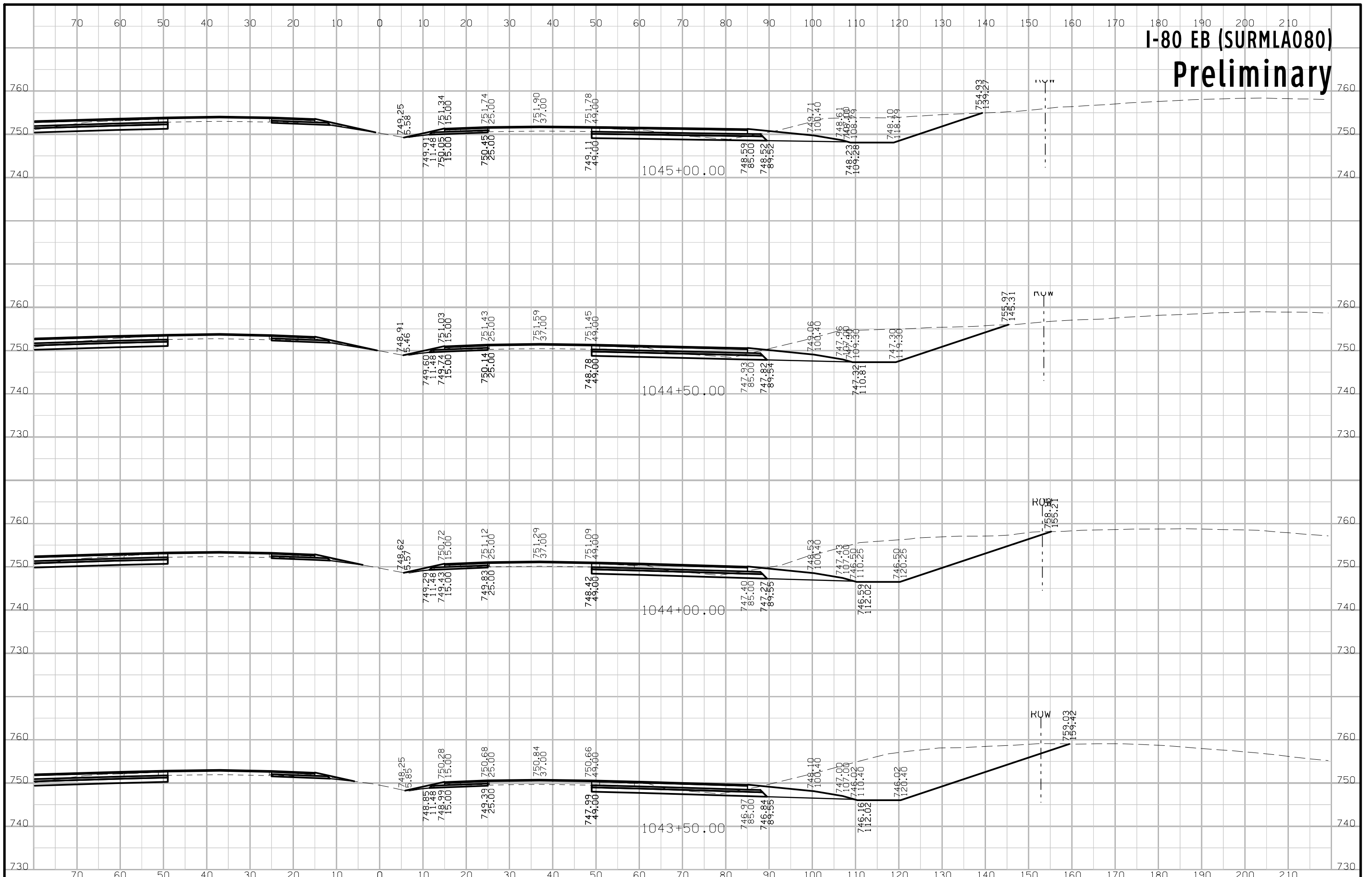
I-80 EB (SURMLA080) Preliminary



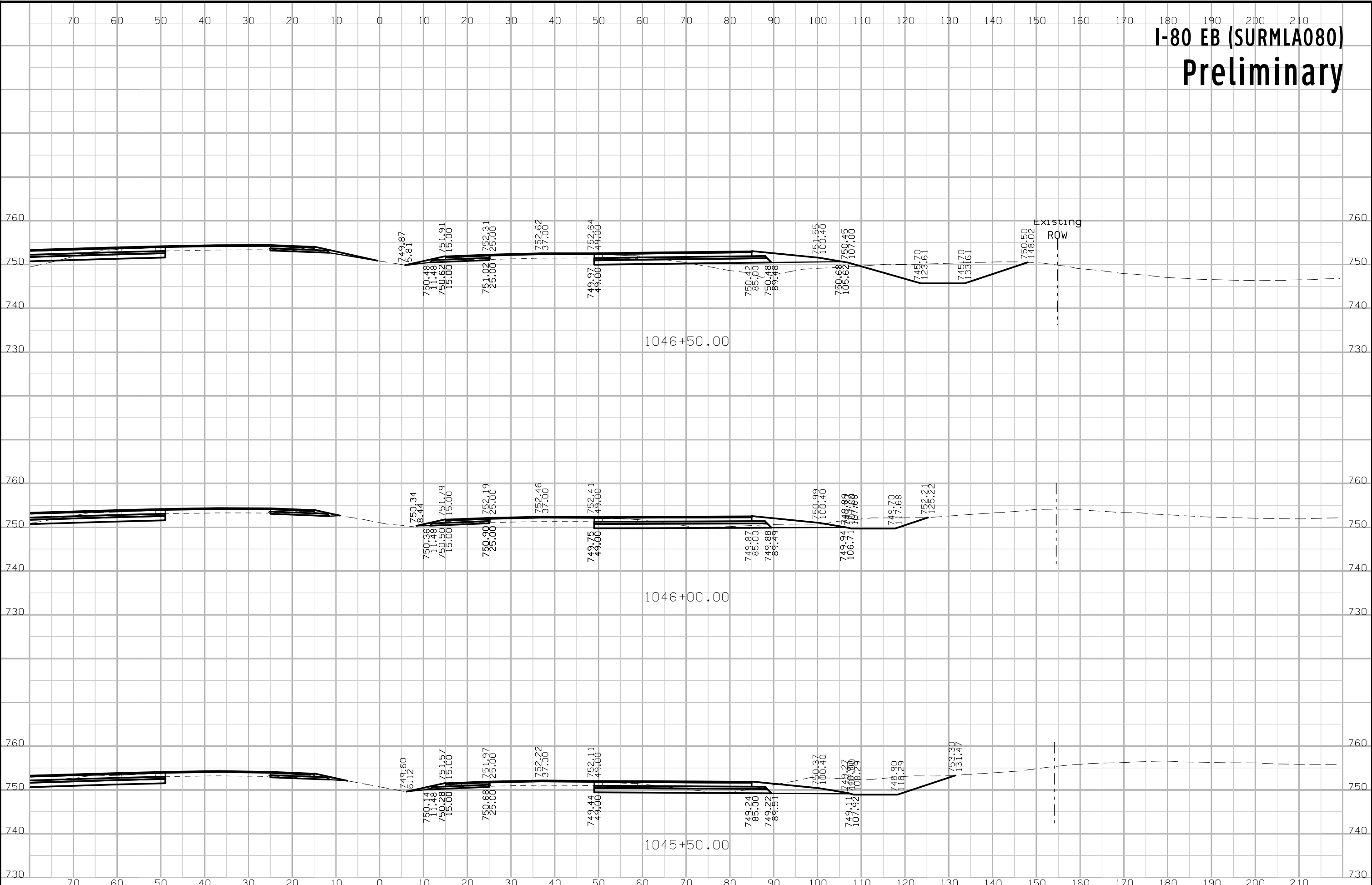
I-80 EB (SURMLA080) Preliminary



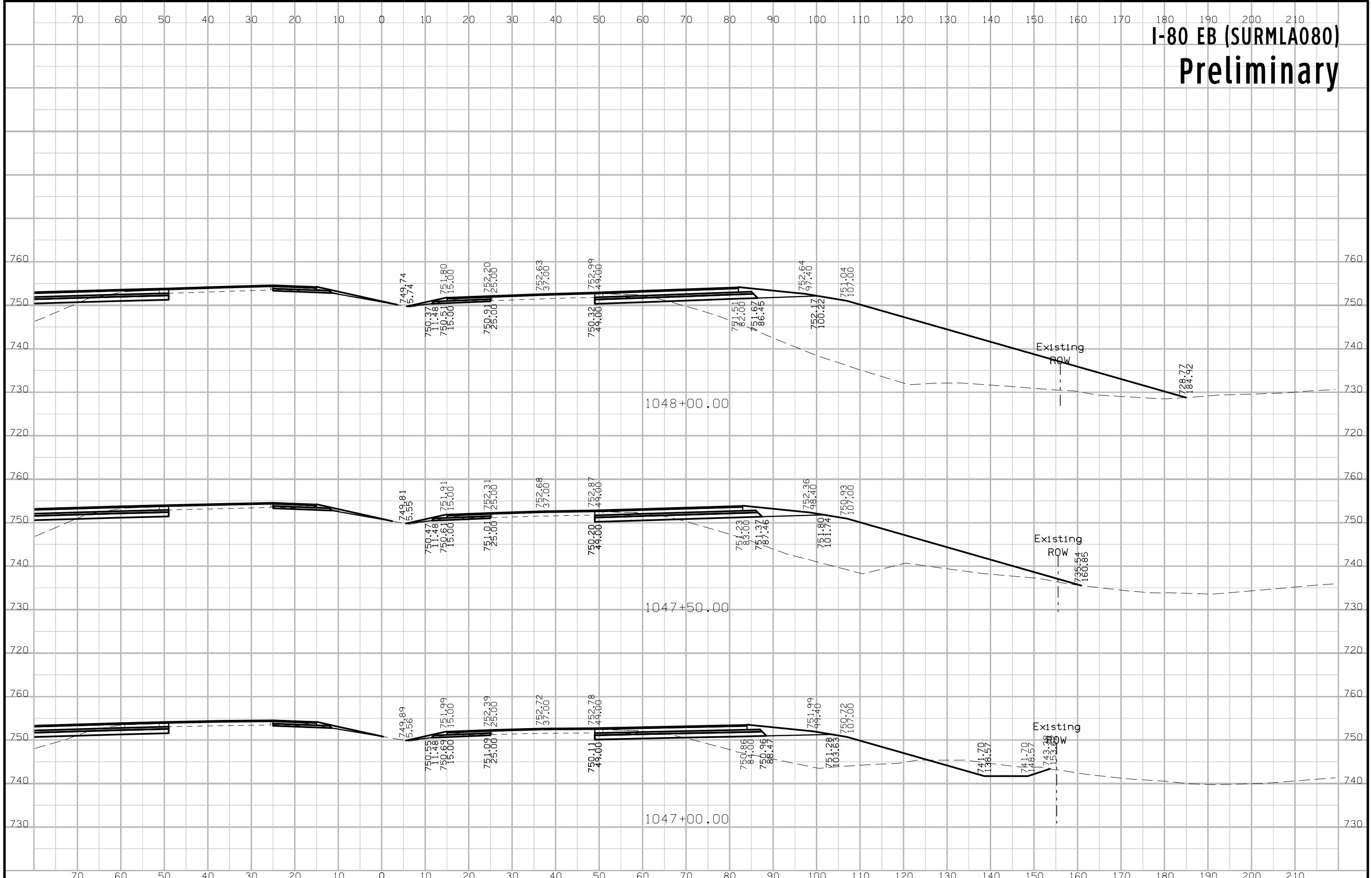
I-80 EB (SURMLA080) Preliminary



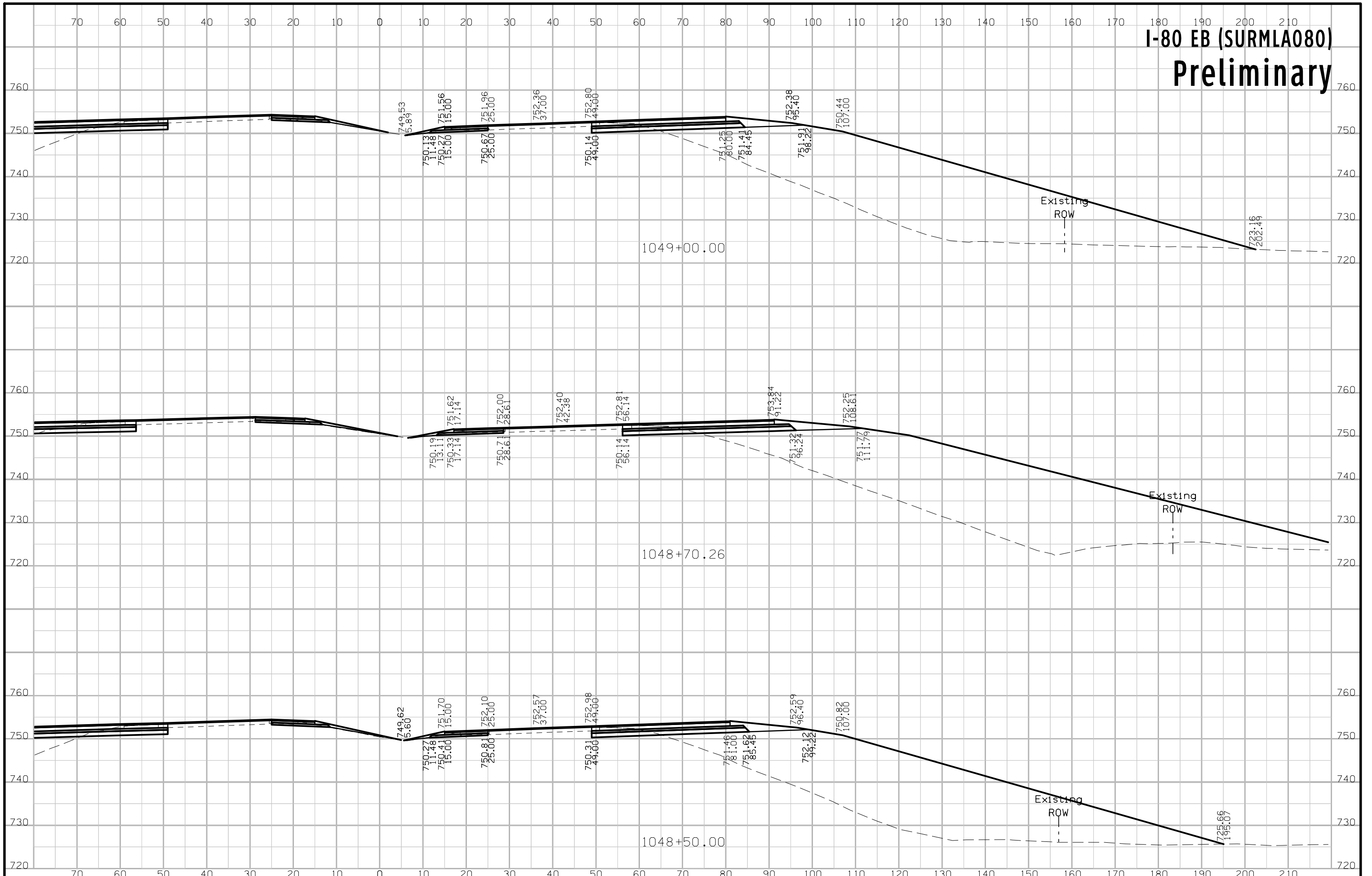
I-80 EB (SURMLA080) Preliminary



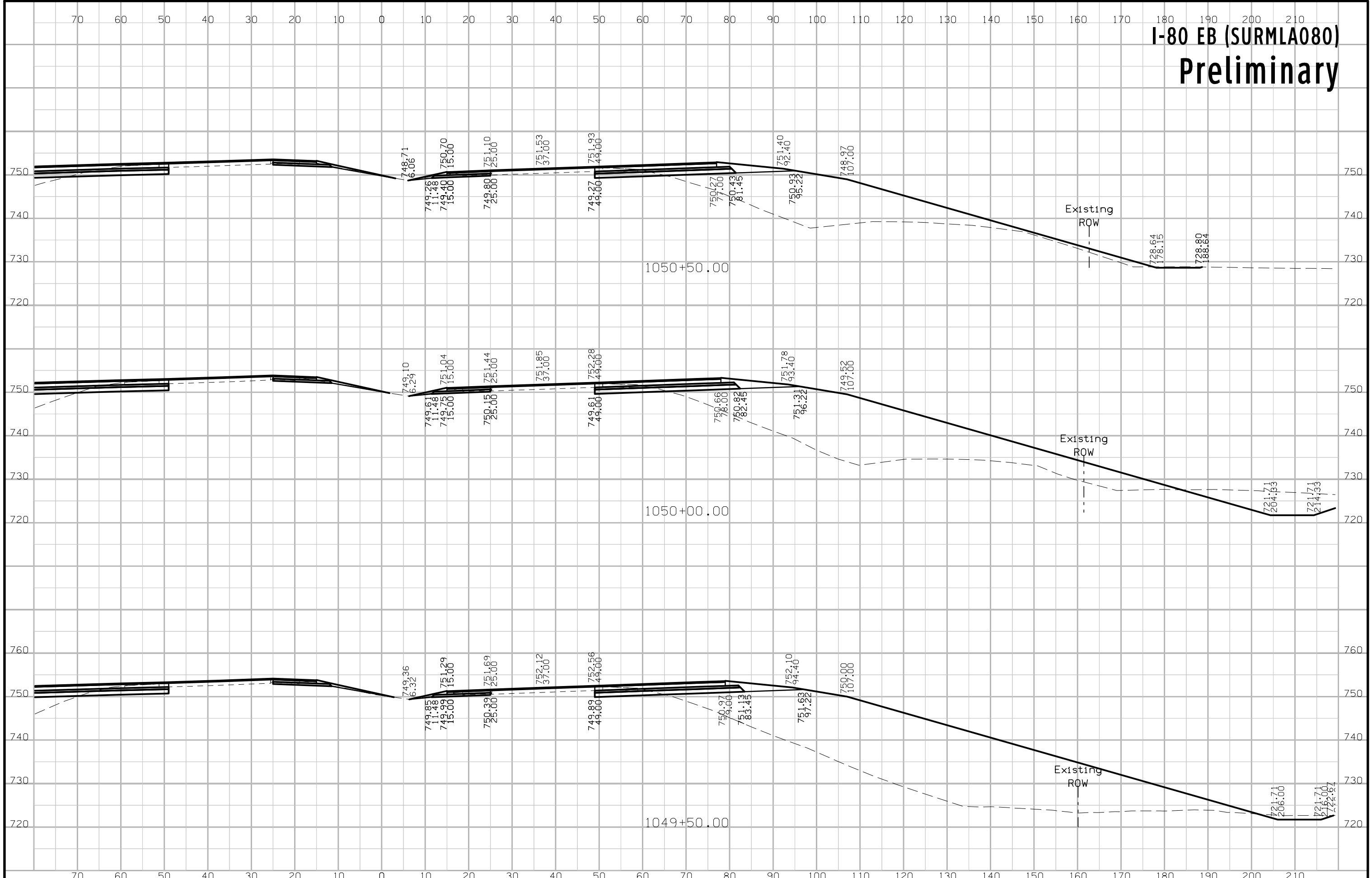
I-80 EB (SURMLA080) Preliminary



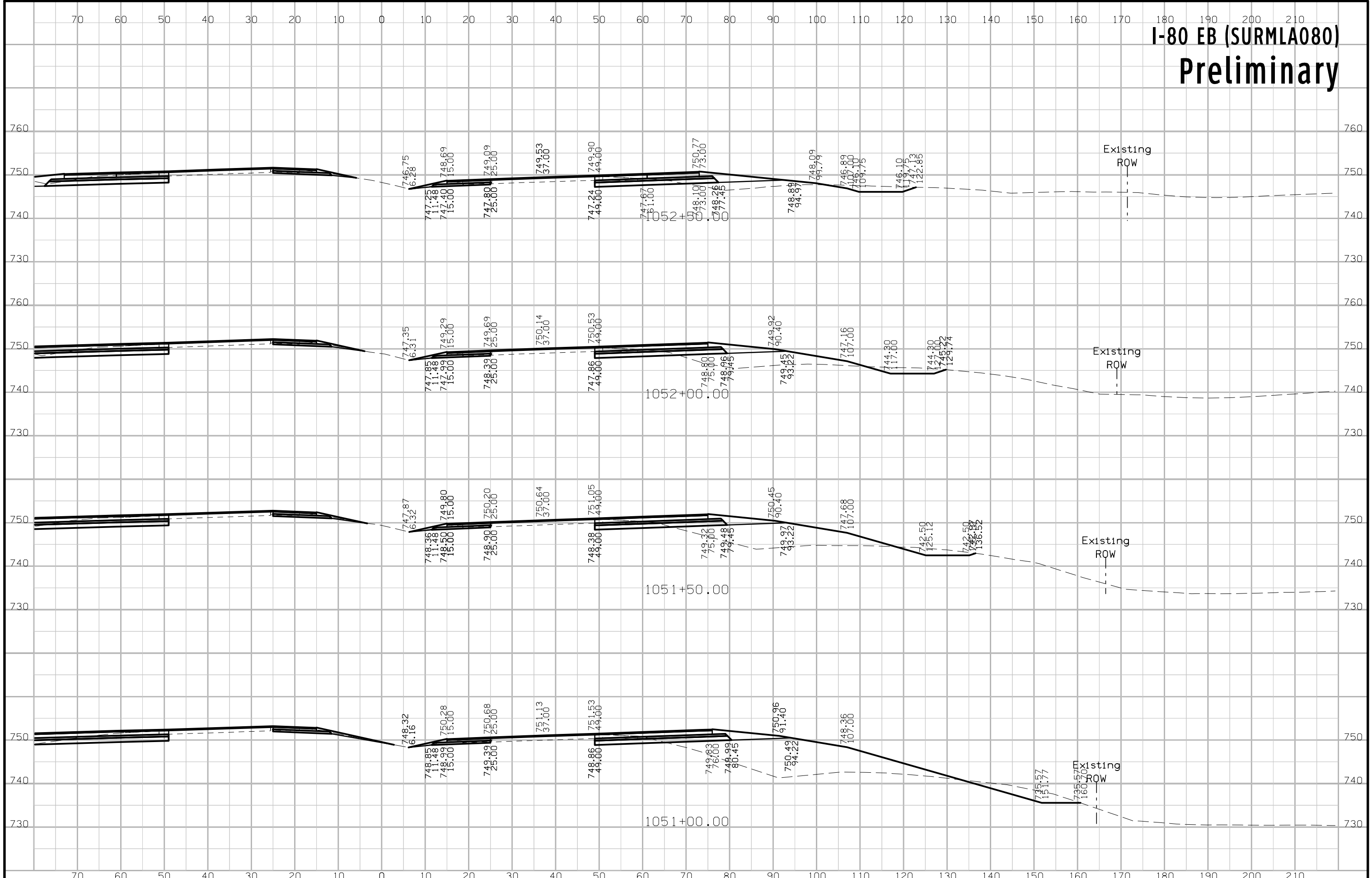
I-80 EB (SURMLA080) Preliminary



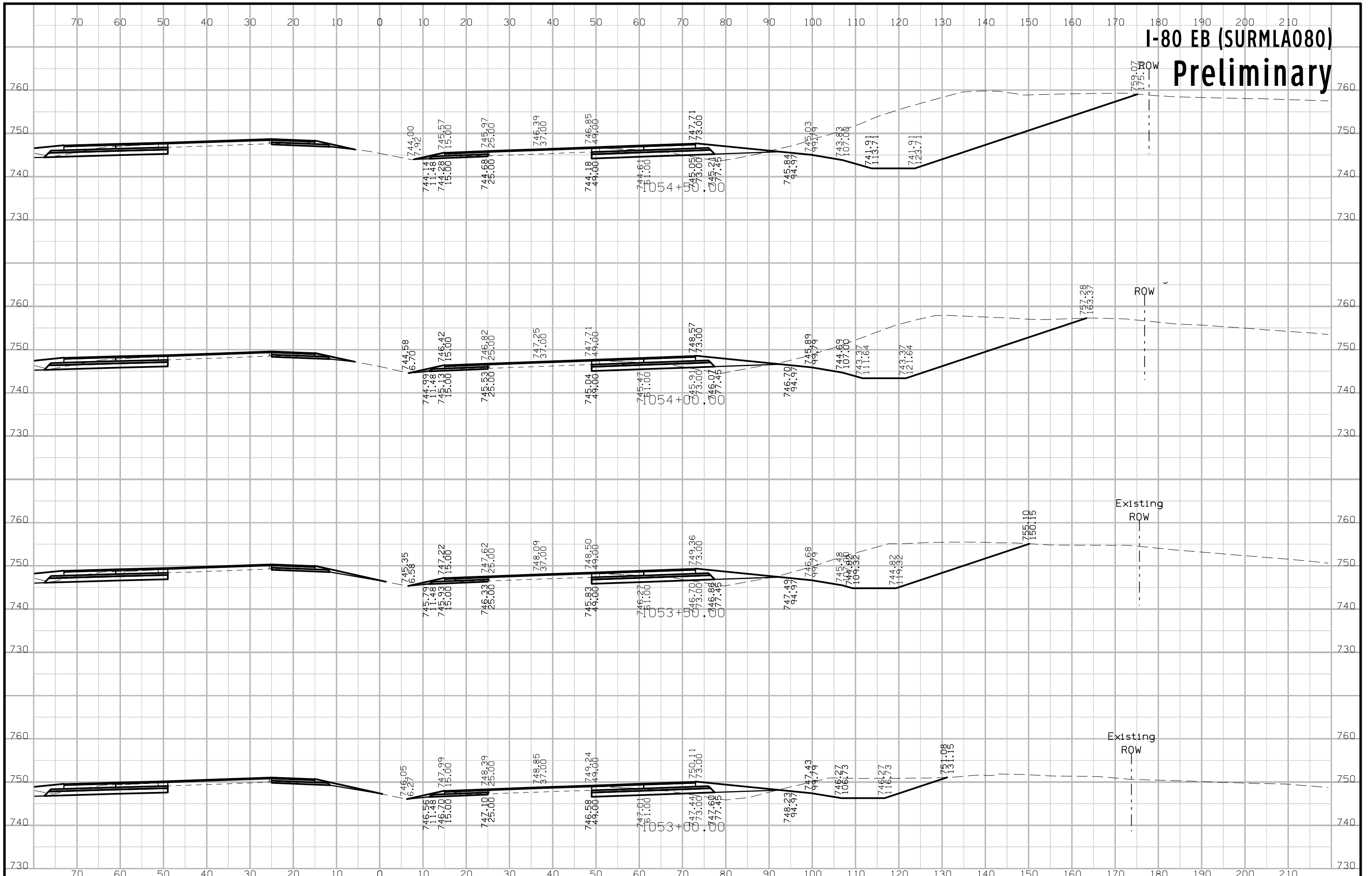
I-80 EB (SURMLA080) Preliminary



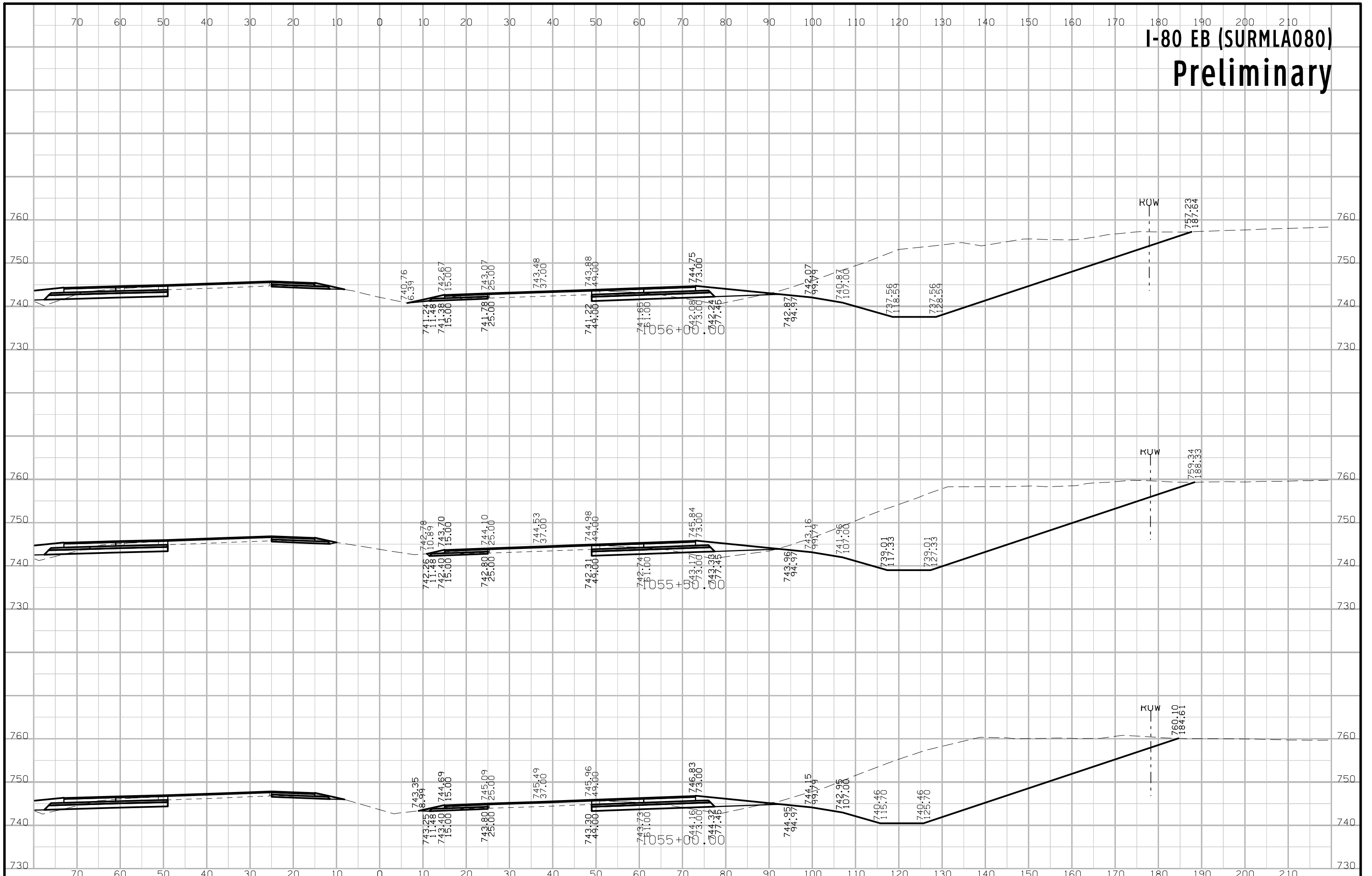
I-80 EB (SURMLA080) Preliminary



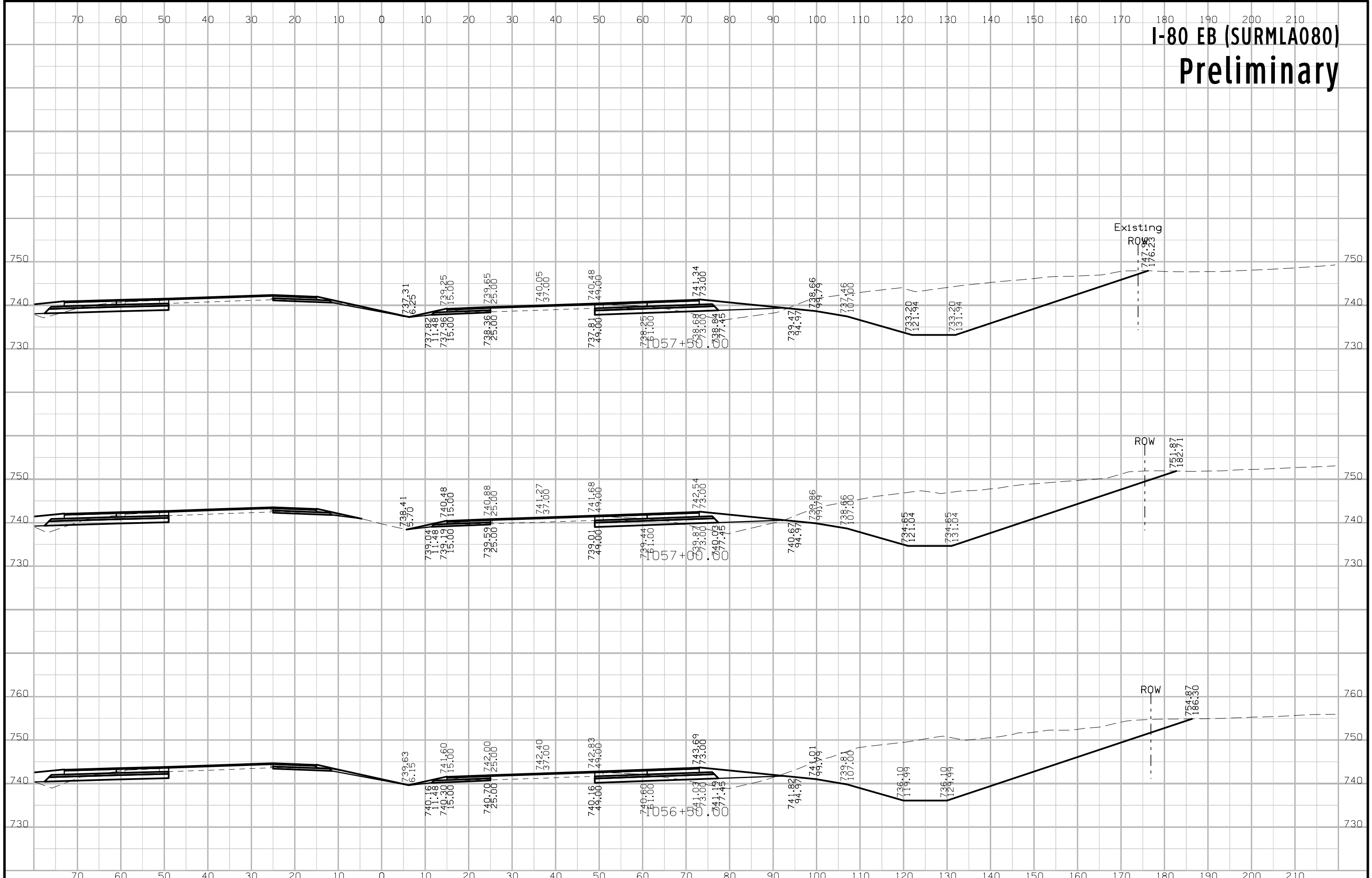
I-80 EB (SURMLA080) Preliminary



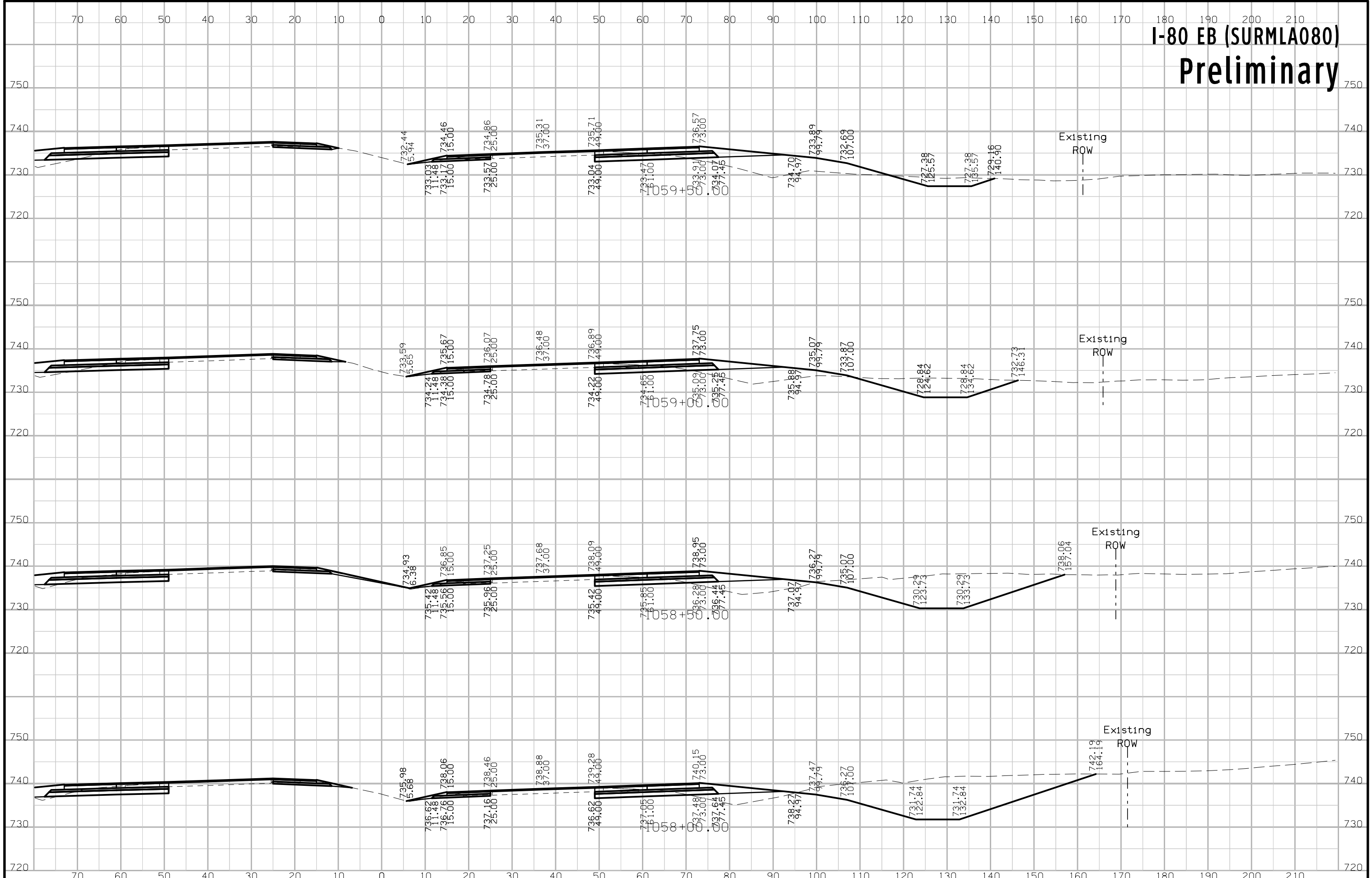
I-80 EB (SURMLA080) Preliminary



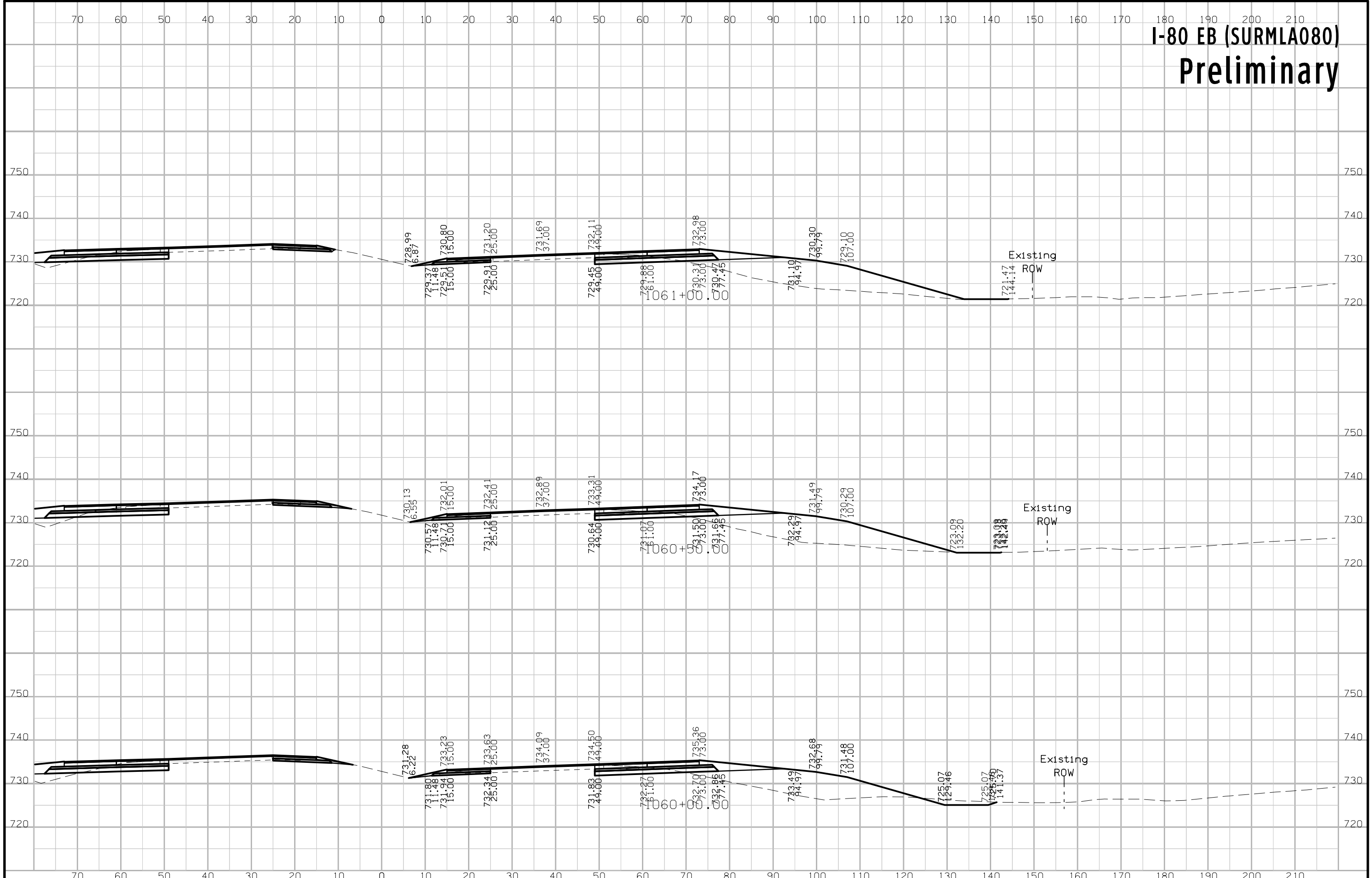
I-80 EB (SURMLA080) Preliminary



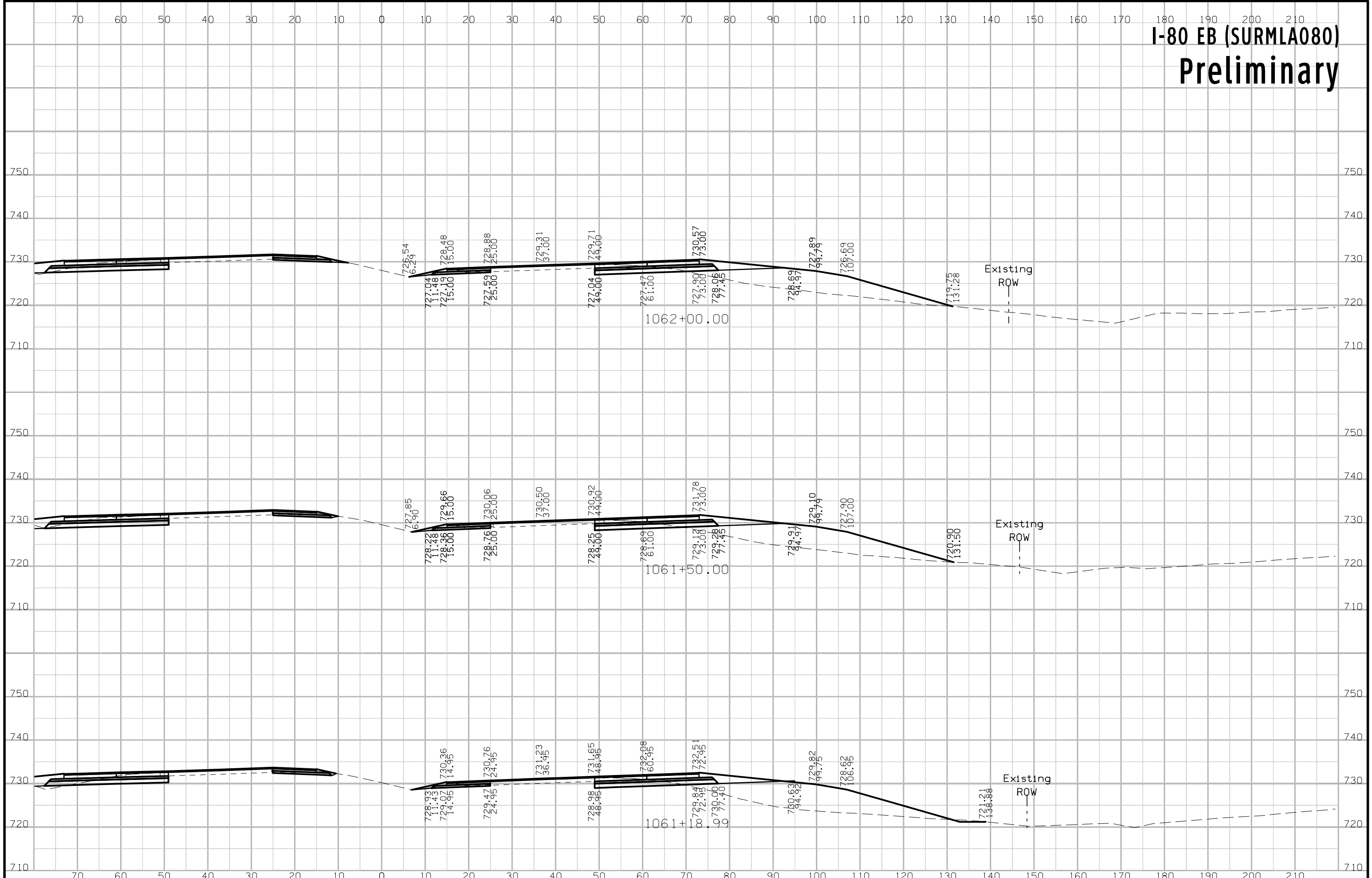
I-80 EB (SURMLA080) Preliminary



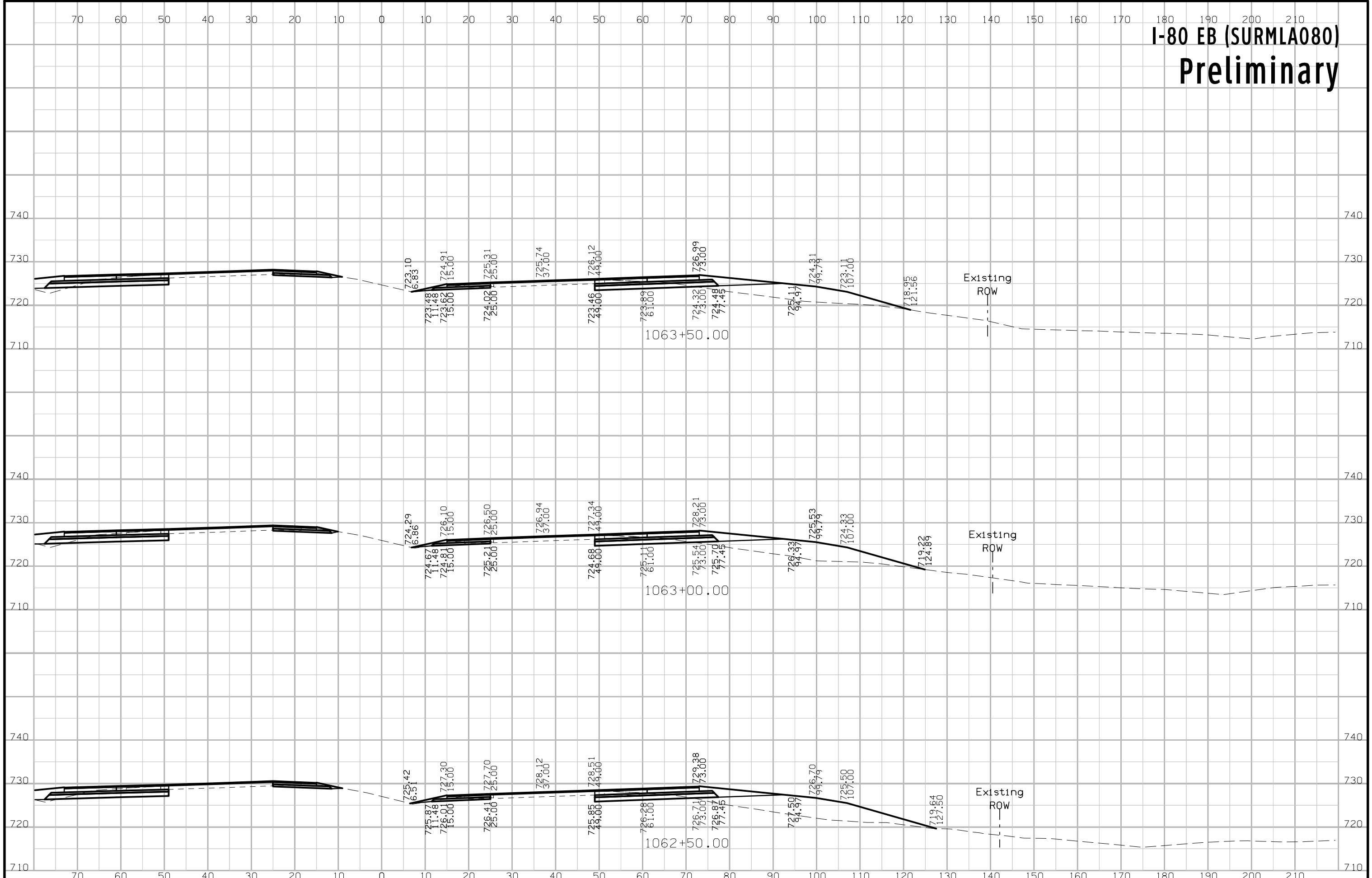
I-80 EB (SURMLA080) Preliminary



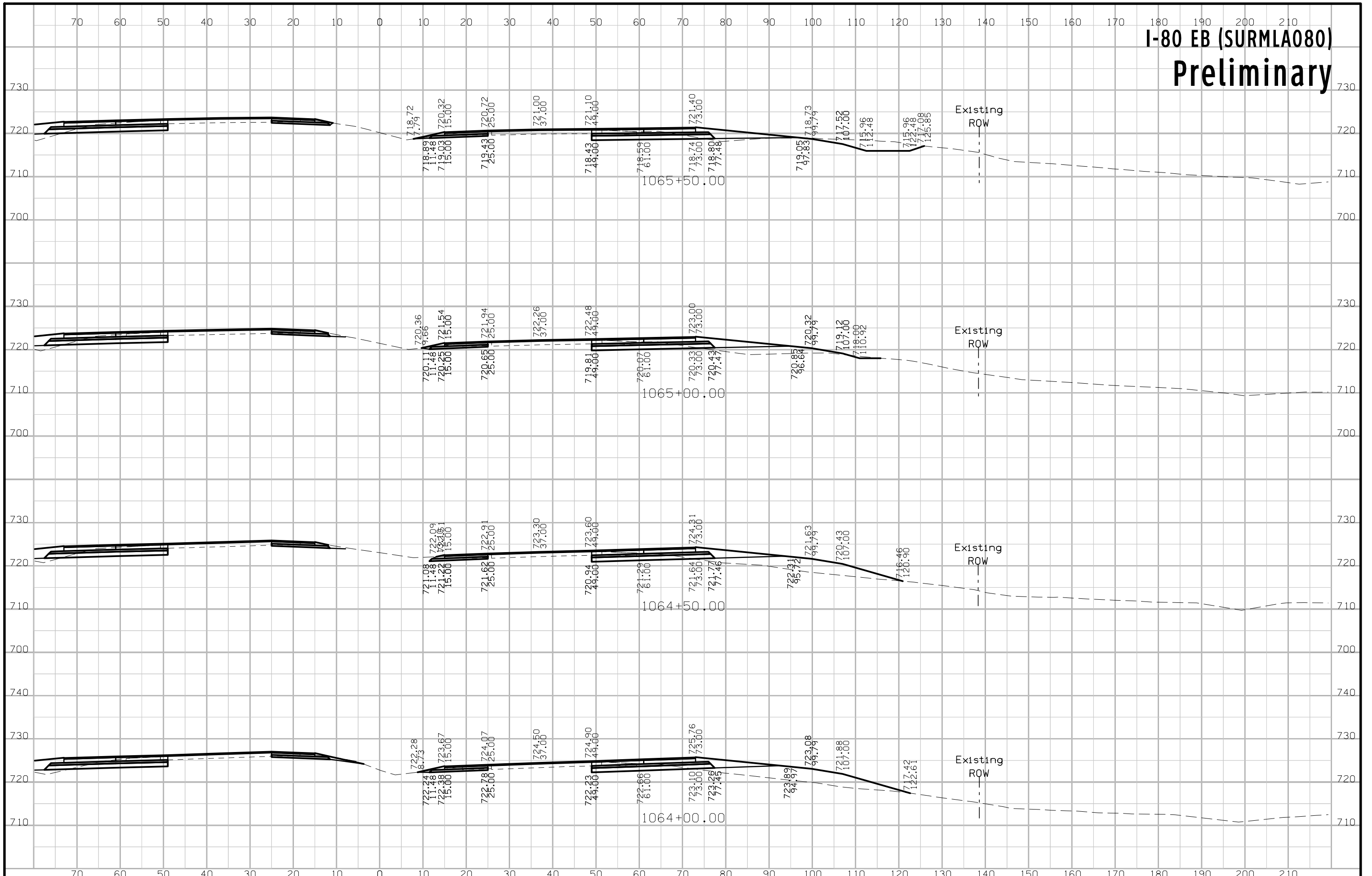
I-80 EB (SURMLA080) Preliminary



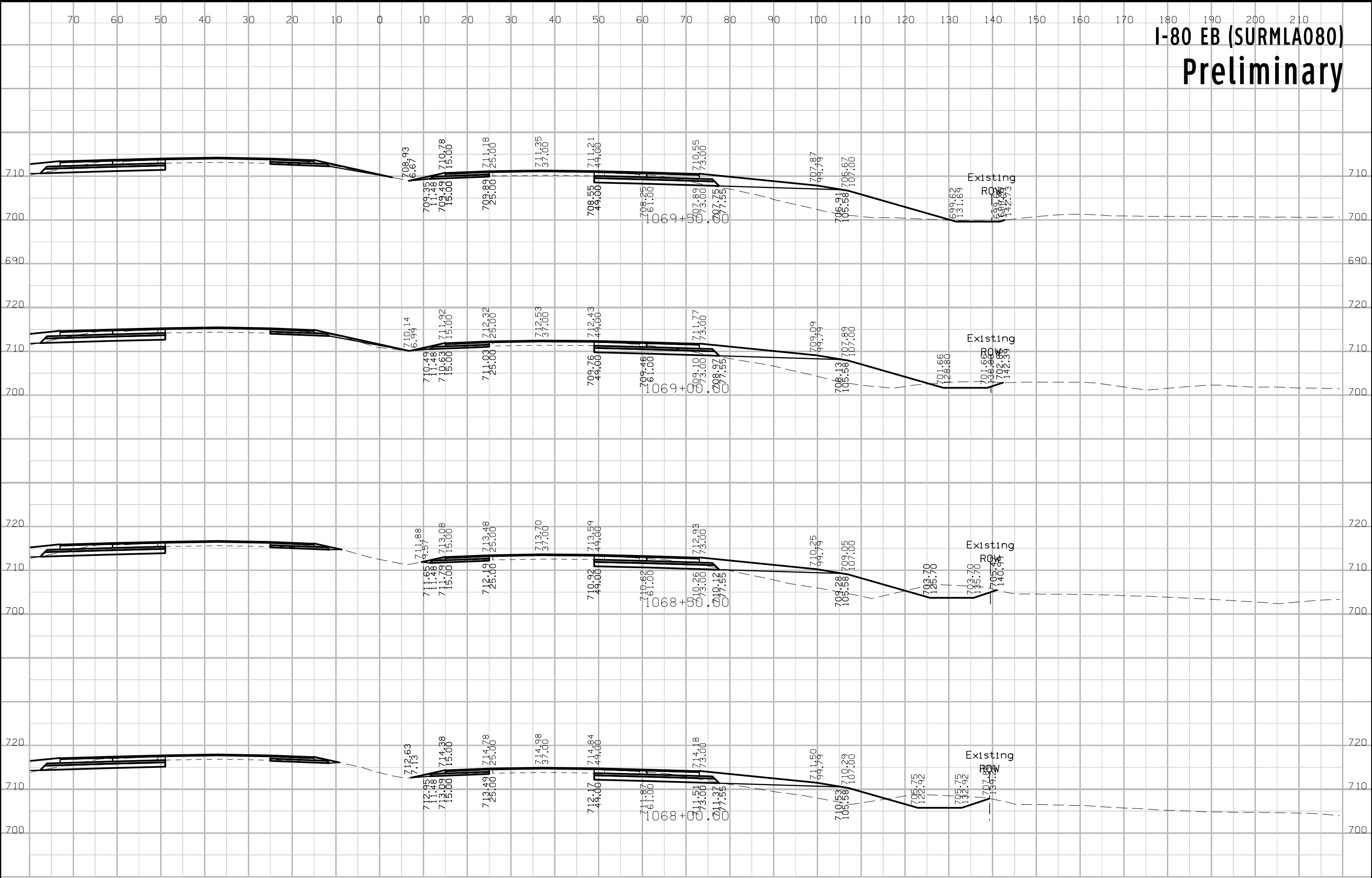
I-80 EB (SURMLA080) Preliminary



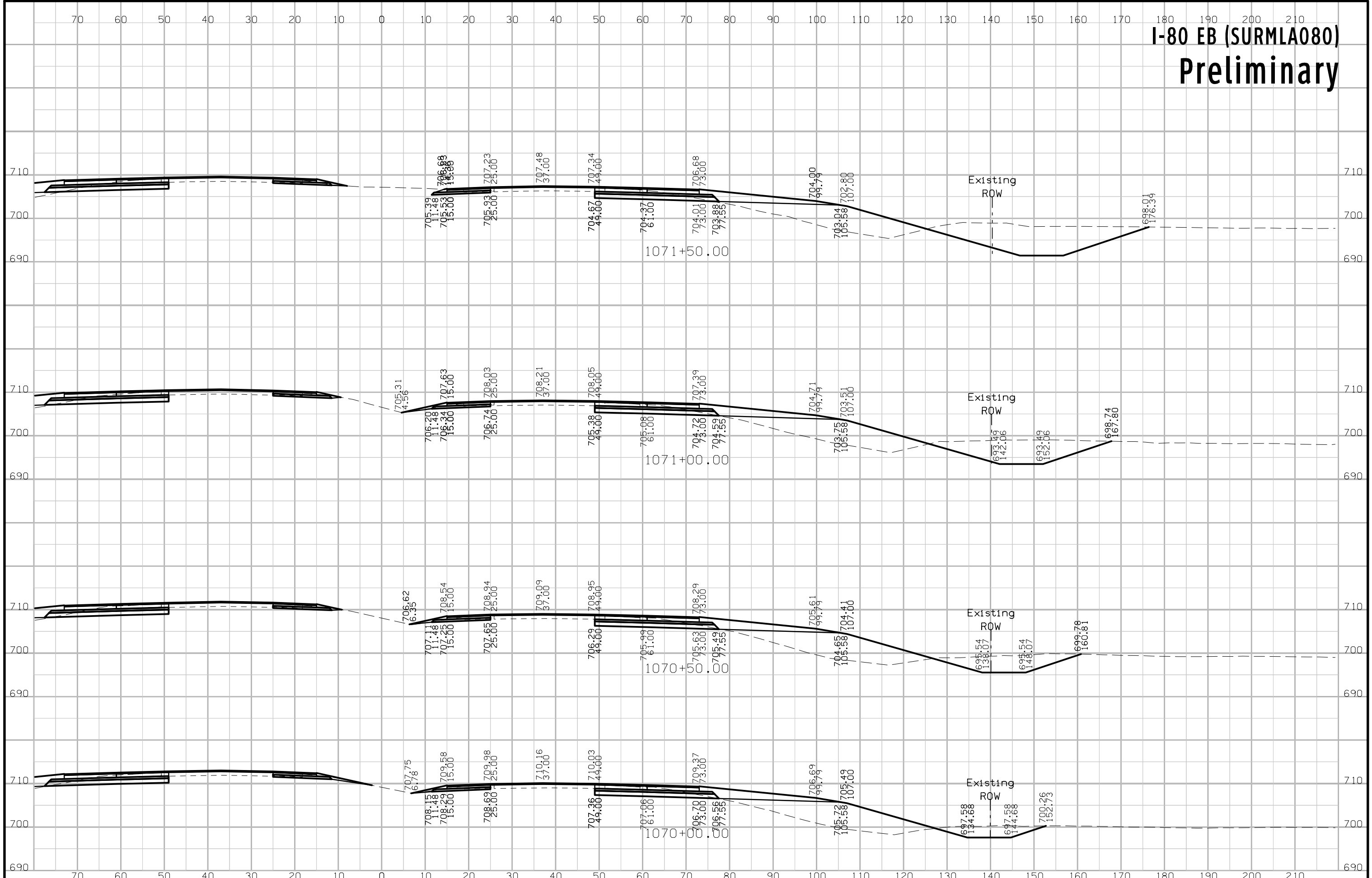
I-80 EB (SURMLA080) Preliminary



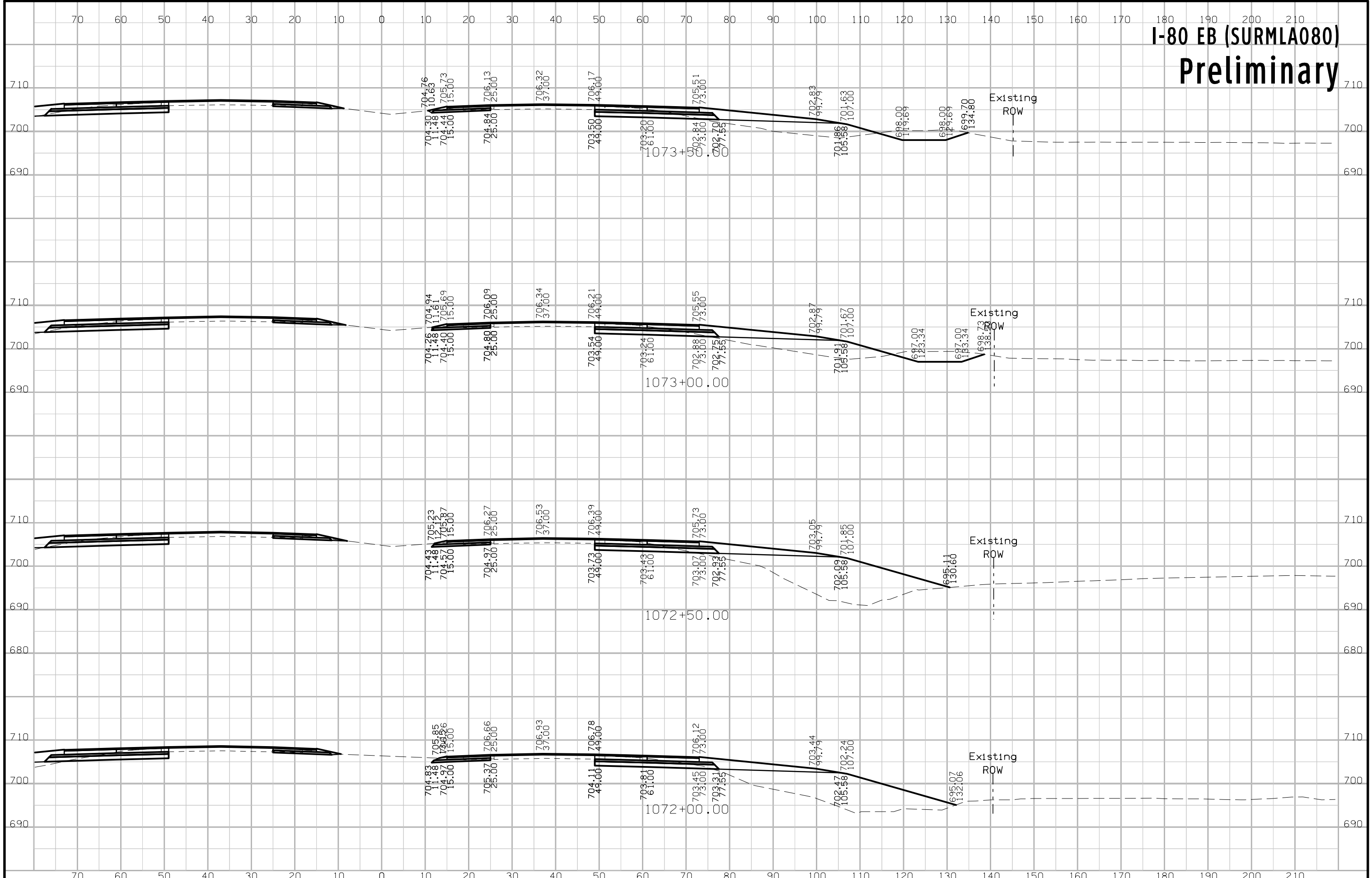
I-80 EB (SURMLA080) Preliminary



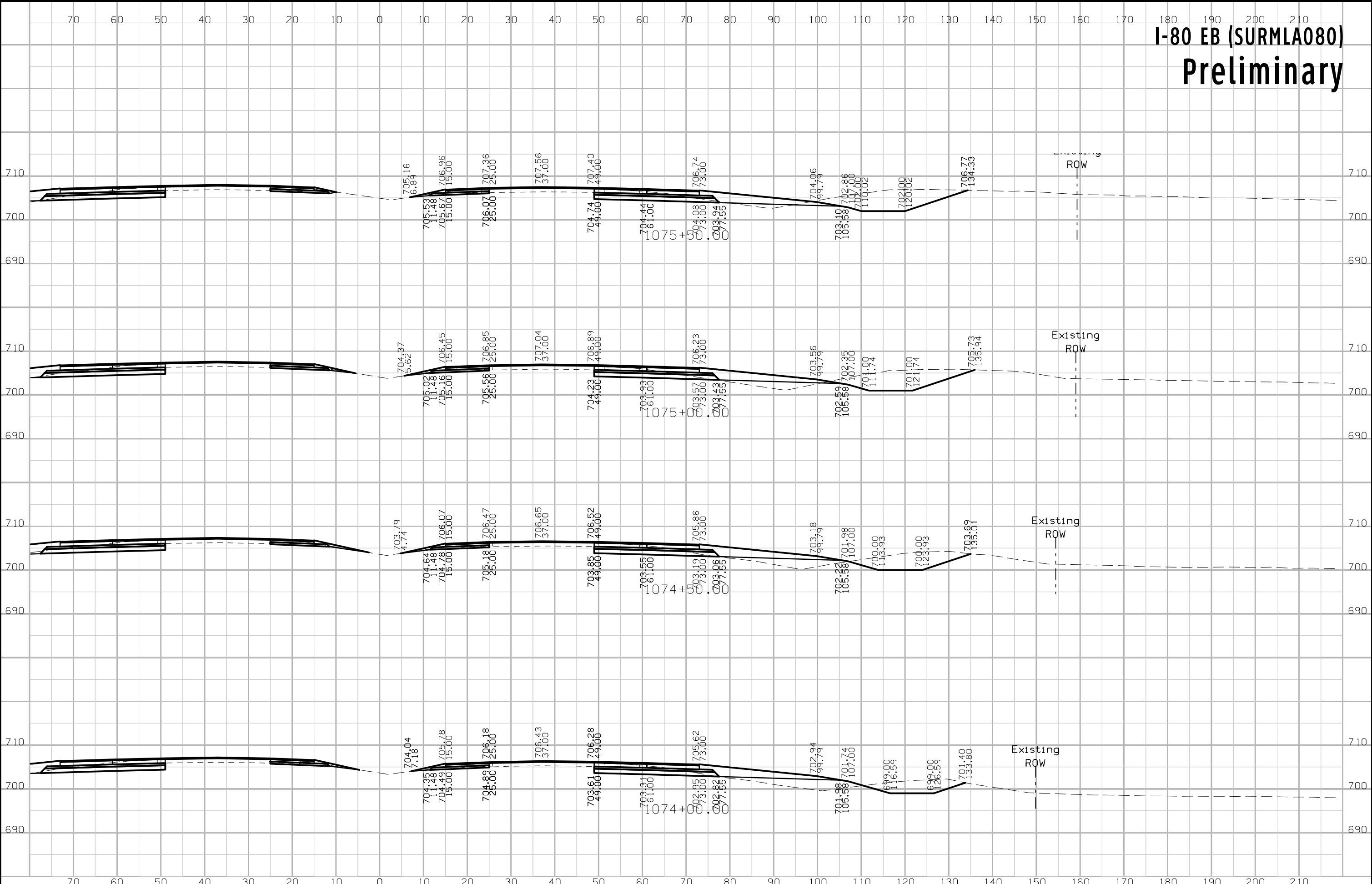
I-80 EB (SURMLA080) Preliminary



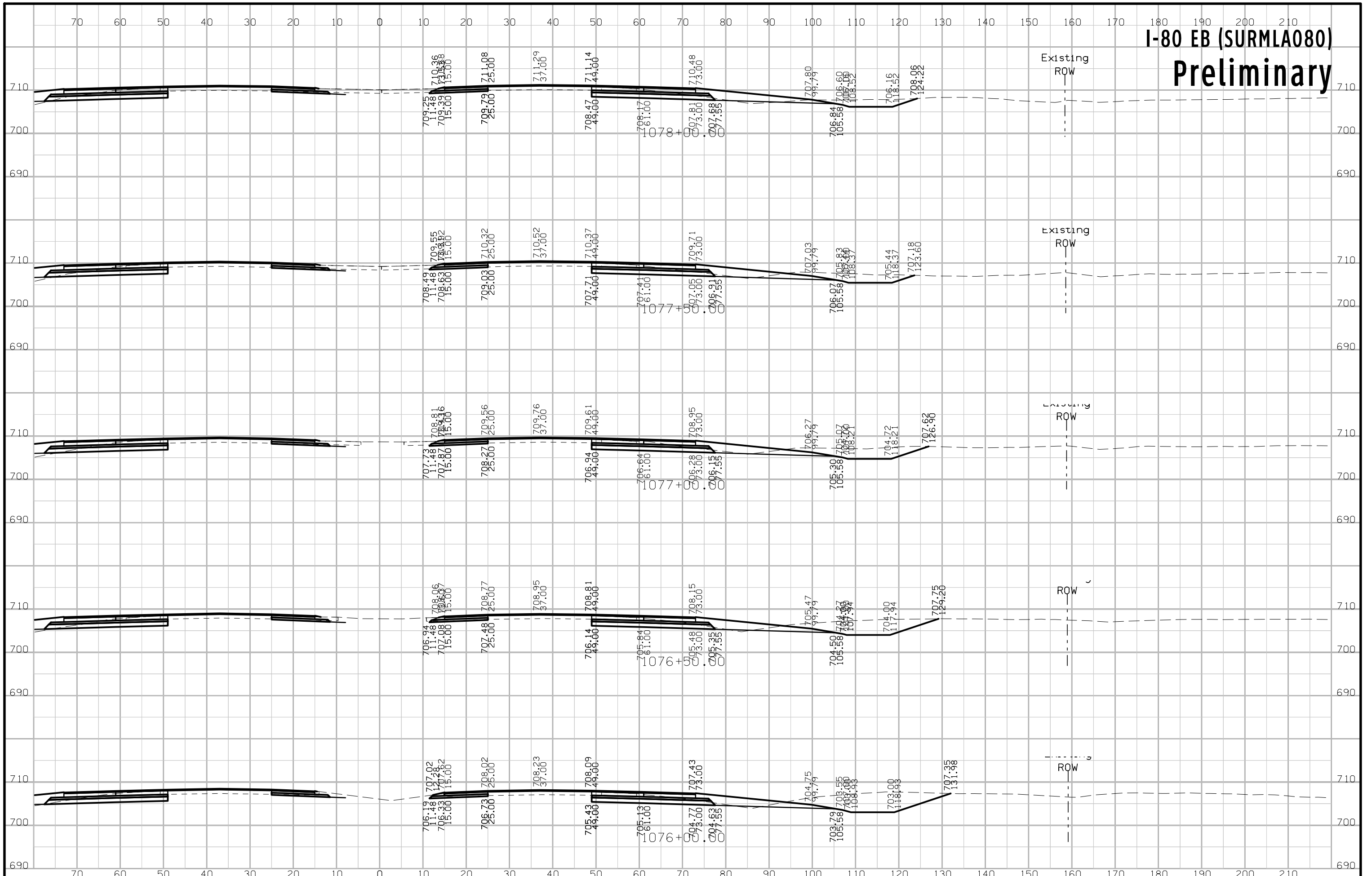
I-80 EB (SURMLA080) Preliminary



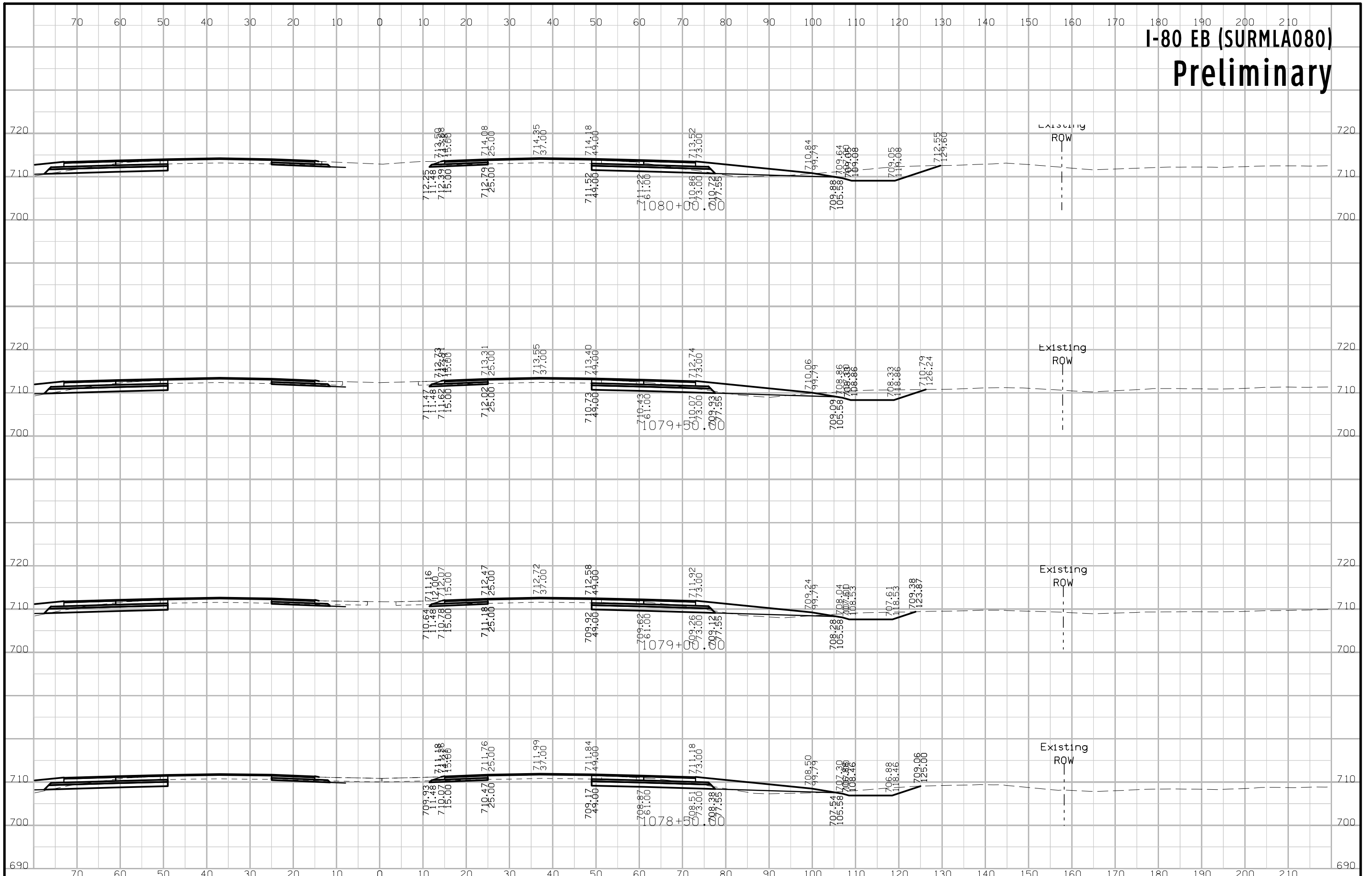
I-80 EB (SURMLA080) Preliminary



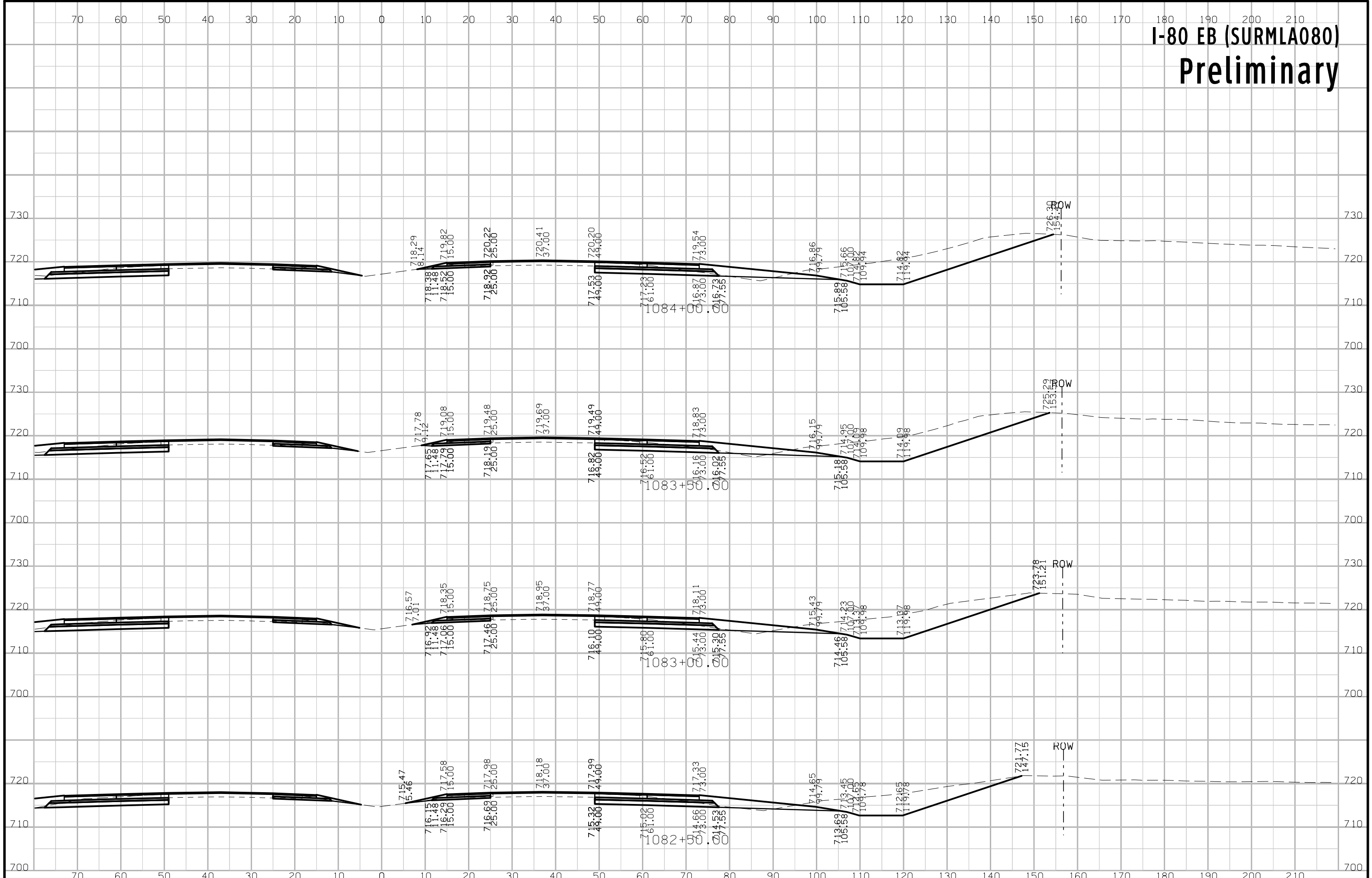
I-80 EB (SURMLA080) Preliminary



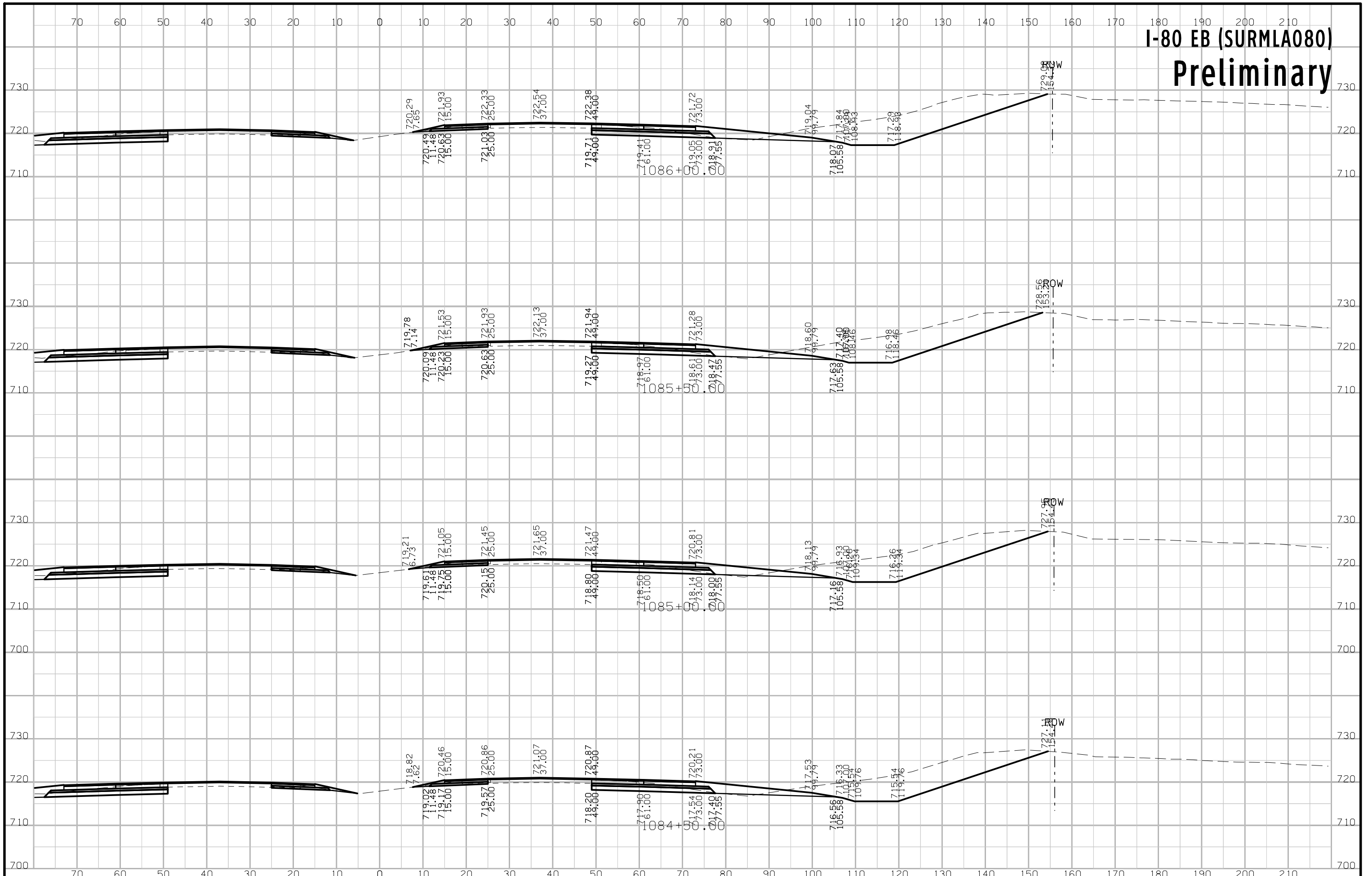
I-80 EB (SURMLA080) Preliminary



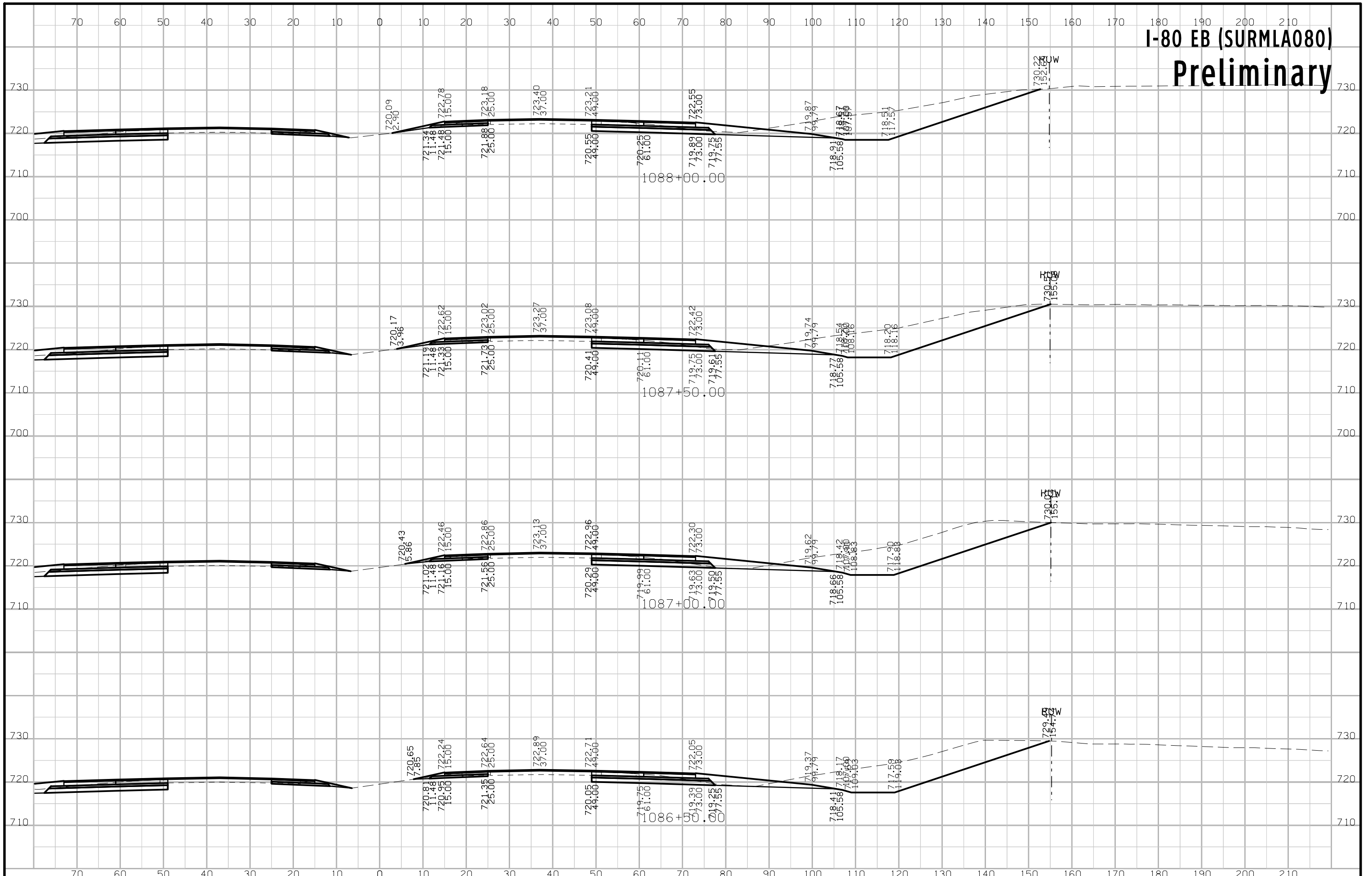
I-80 EB (SURMLA080) Preliminary



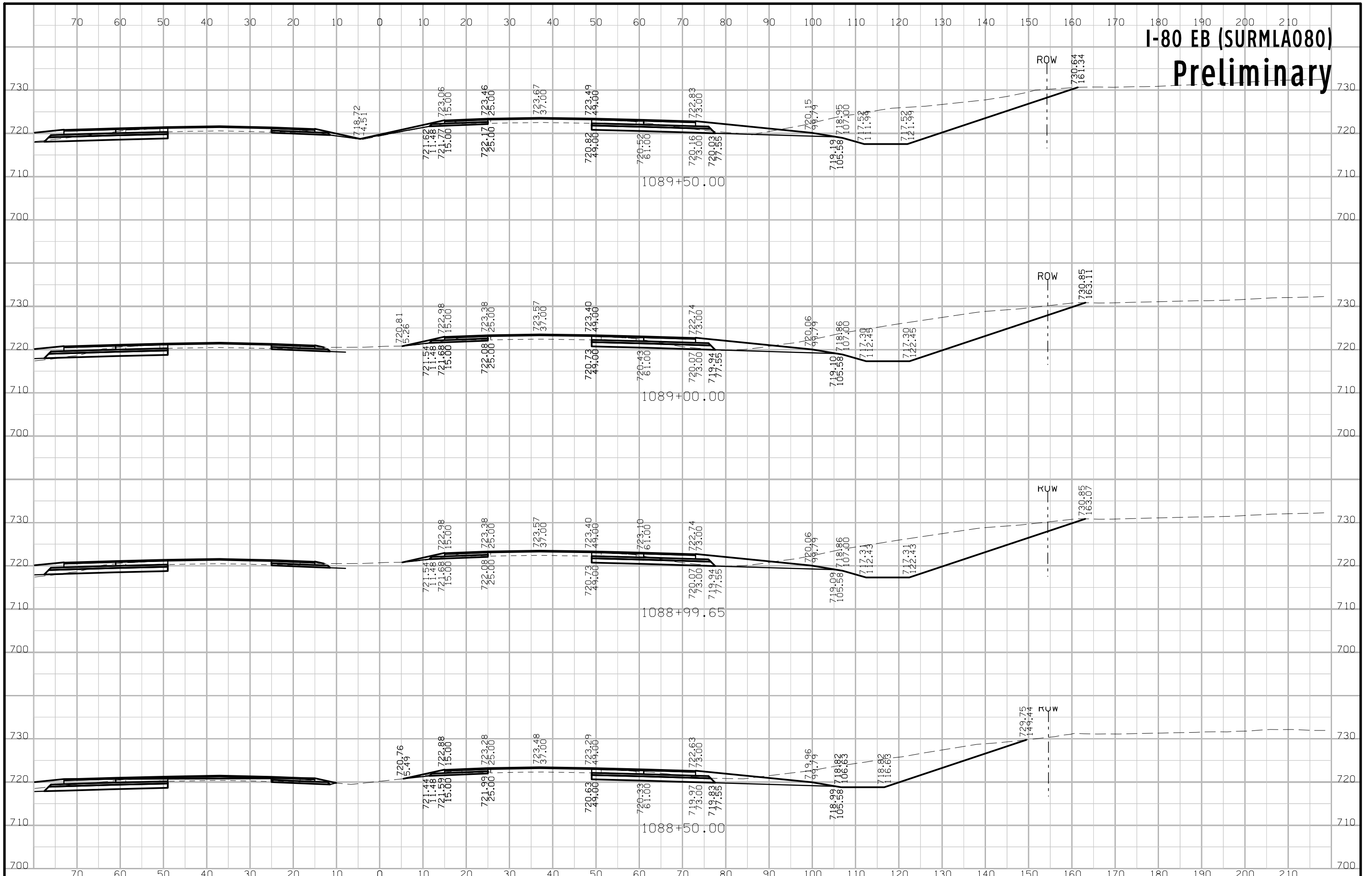
I-80 EB (SURMLA080) Preliminary



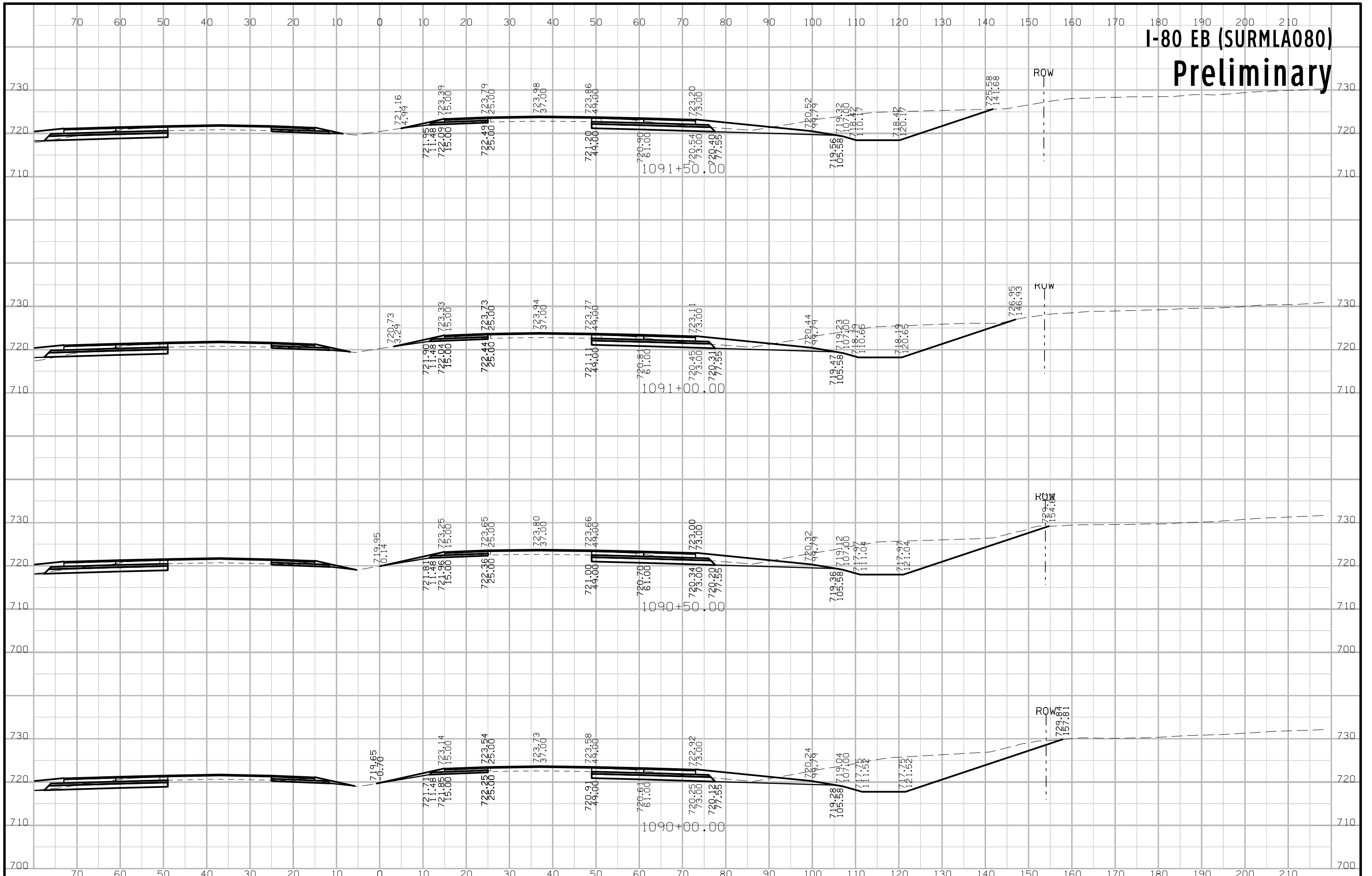
I-80 EB (SURMLA080) Preliminary



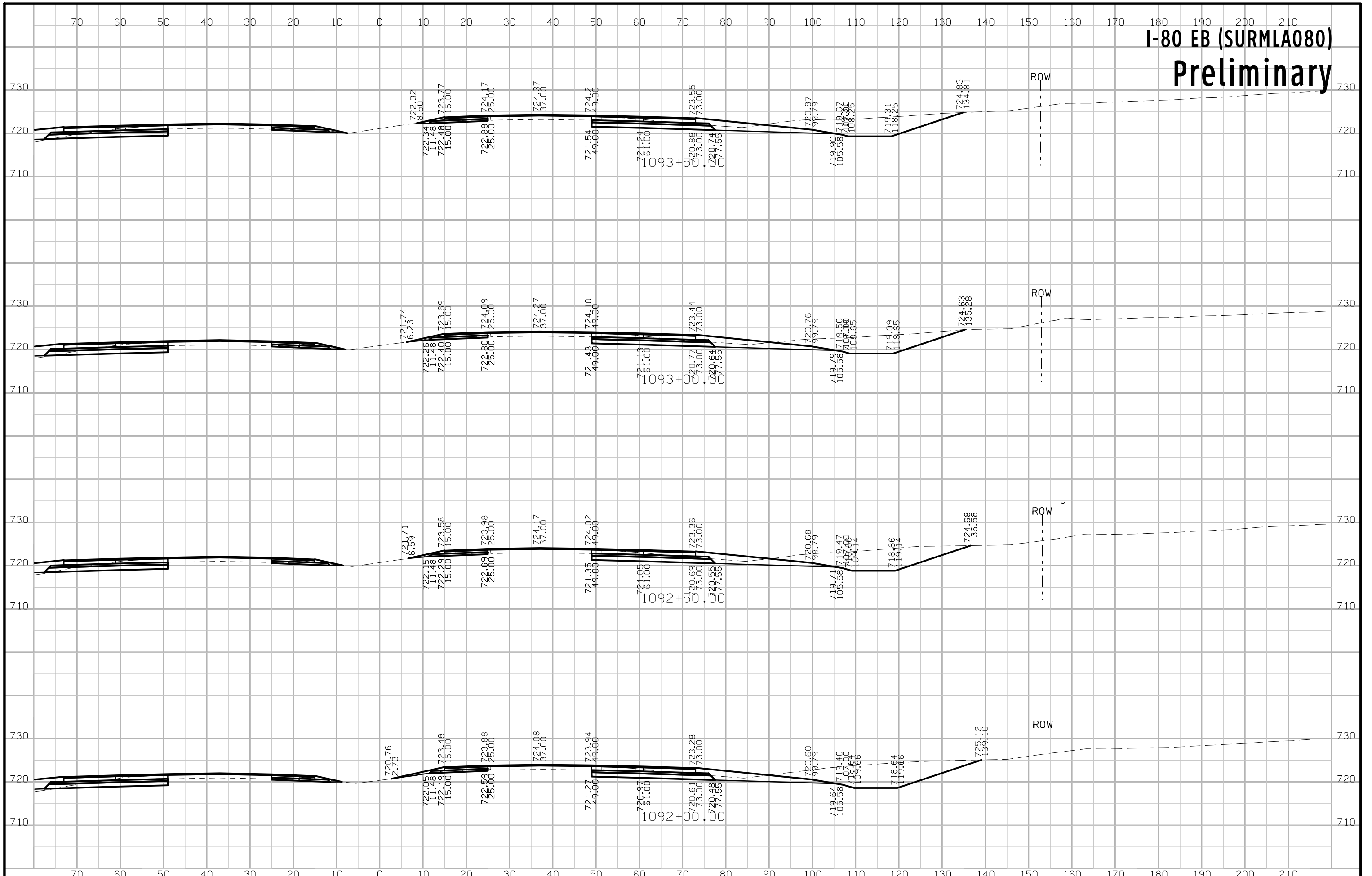
I-80 EB (SURMLA080) Preliminary



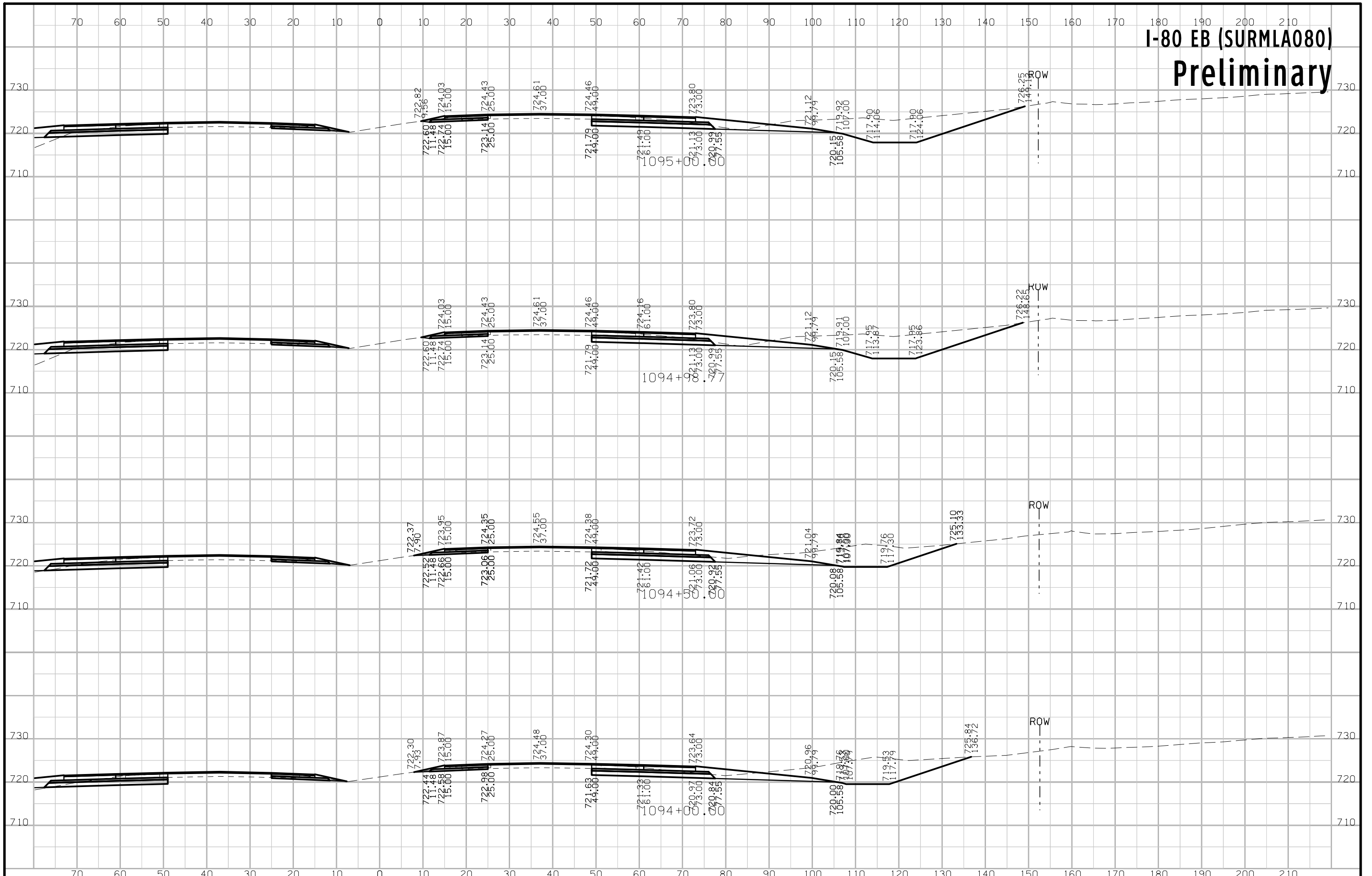
I-80 EB (SURMLA080) Preliminary



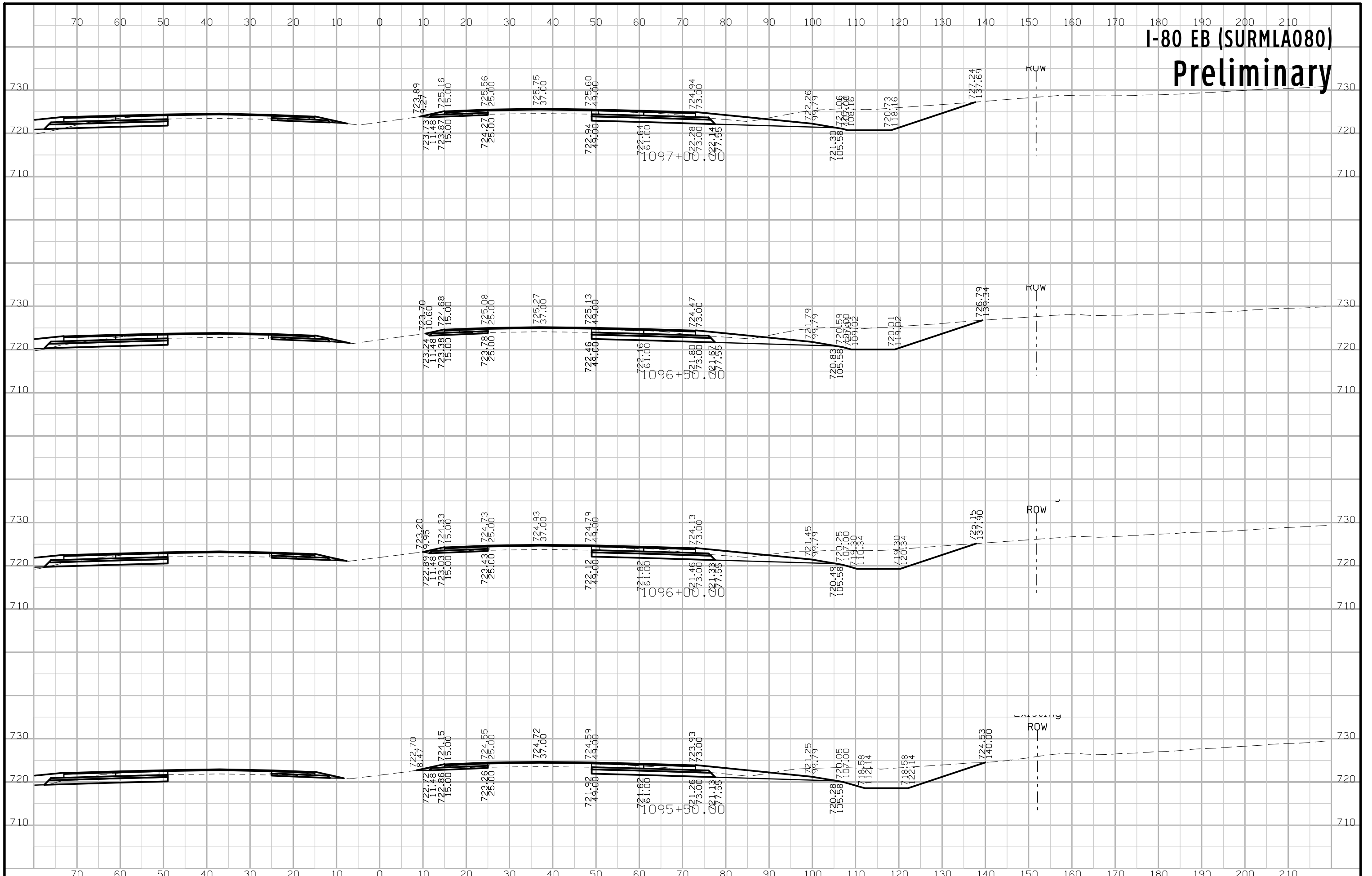
I-80 EB (SURMLA080) Preliminary



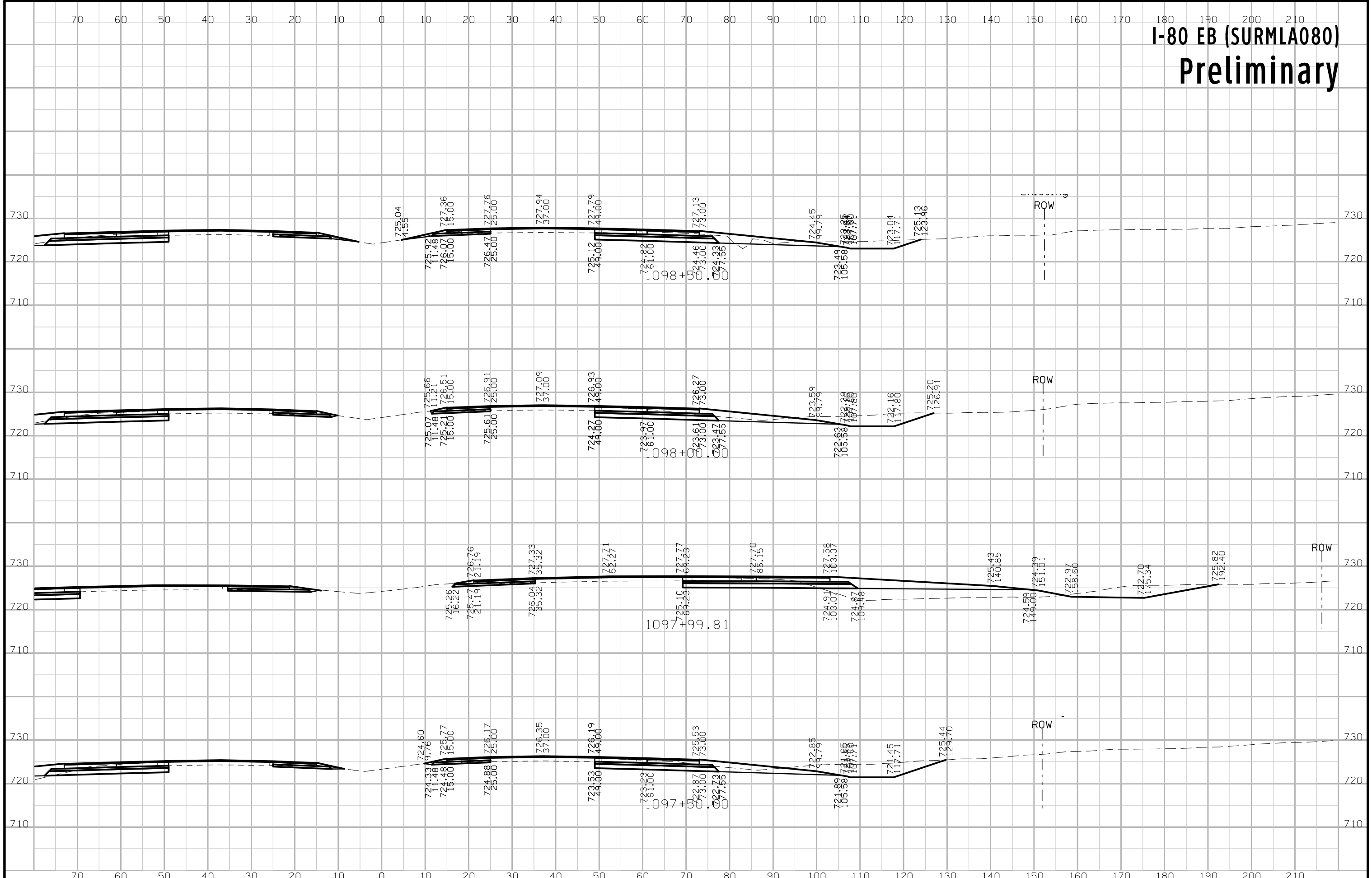
I-80 EB (SURMLA080) Preliminary



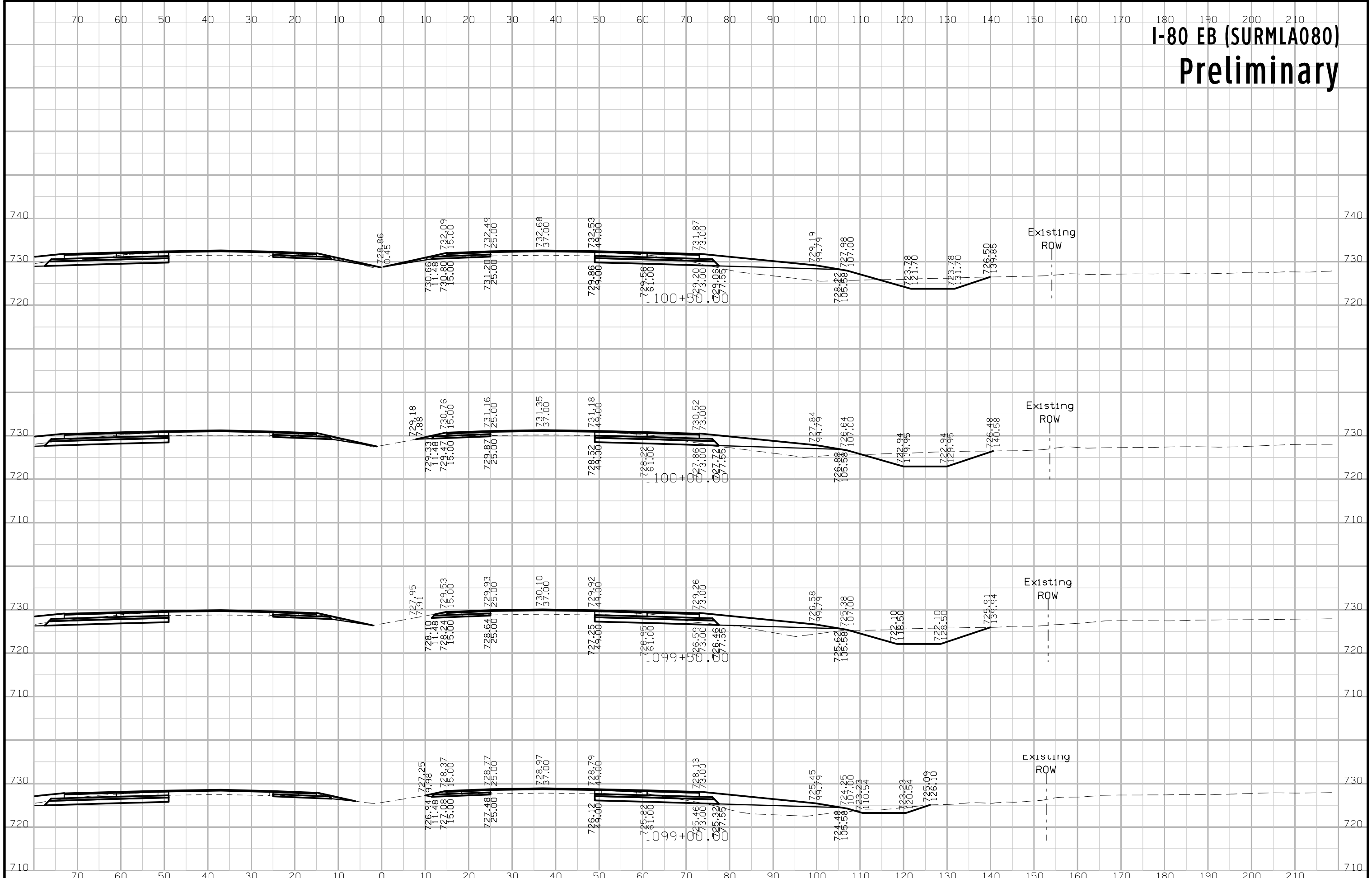
I-80 EB (SURMLA080) Preliminary



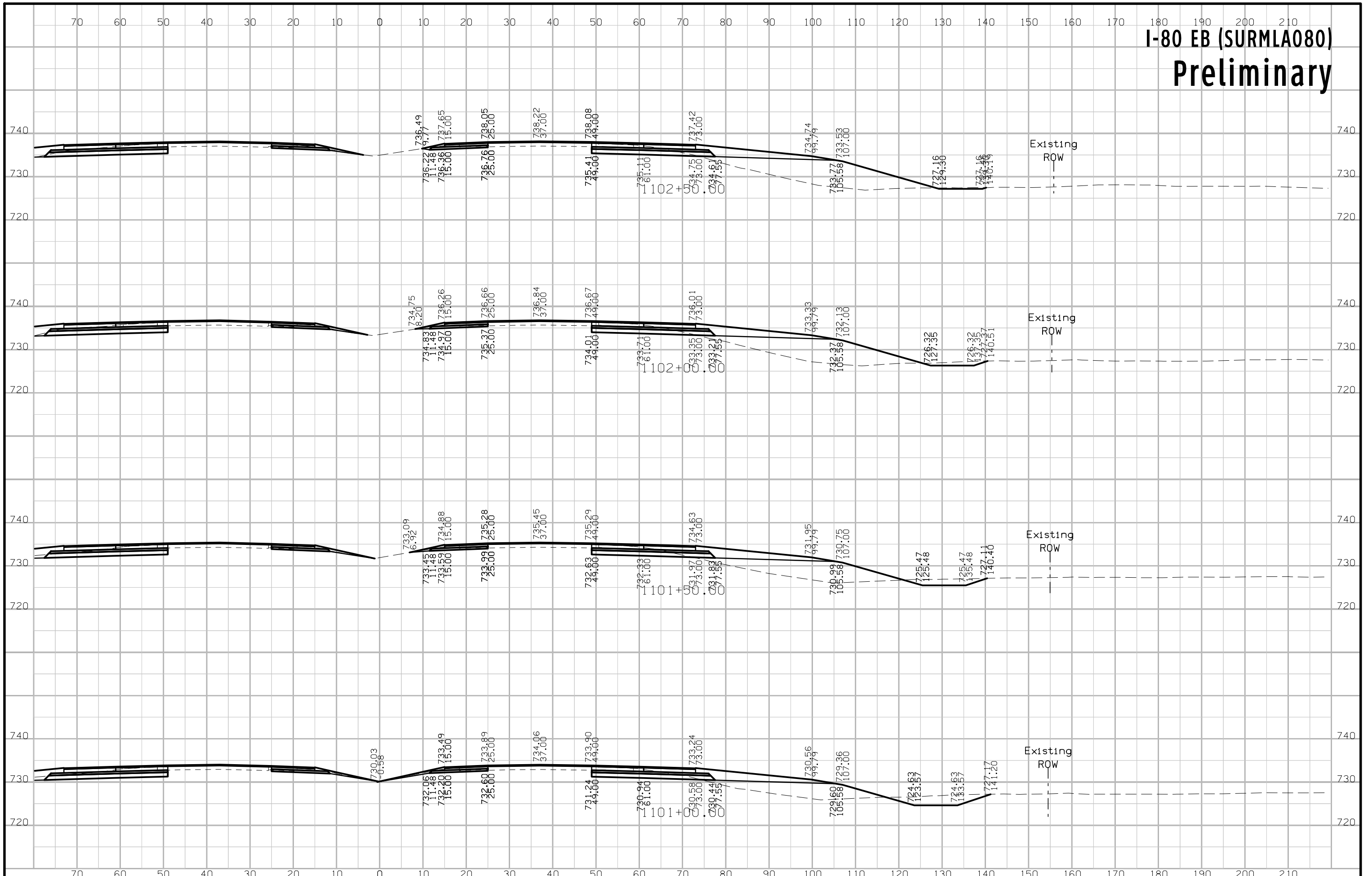
I-80 EB (SURMLA080) Preliminary



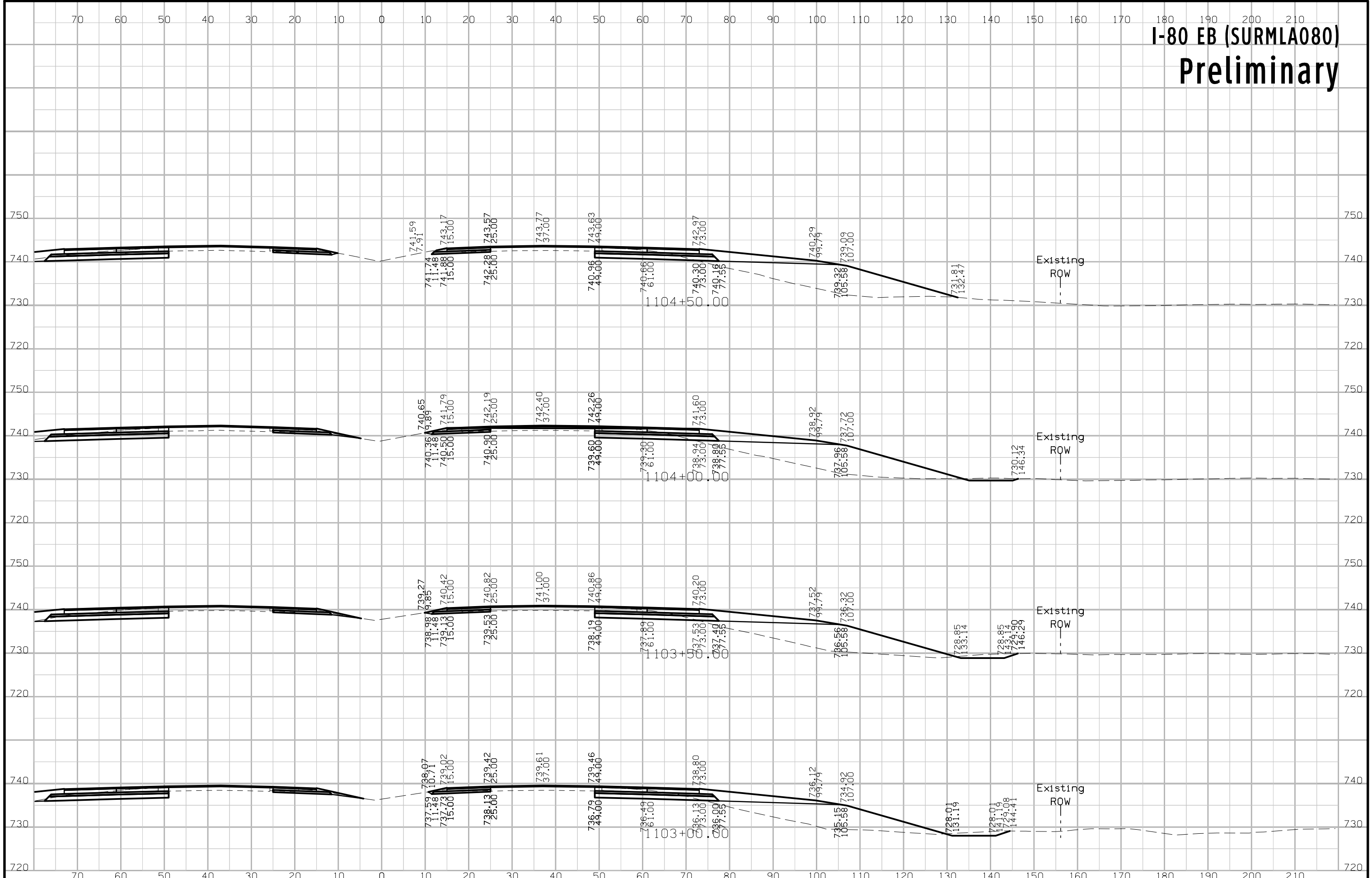
I-80 EB (SURMLA080) Preliminary



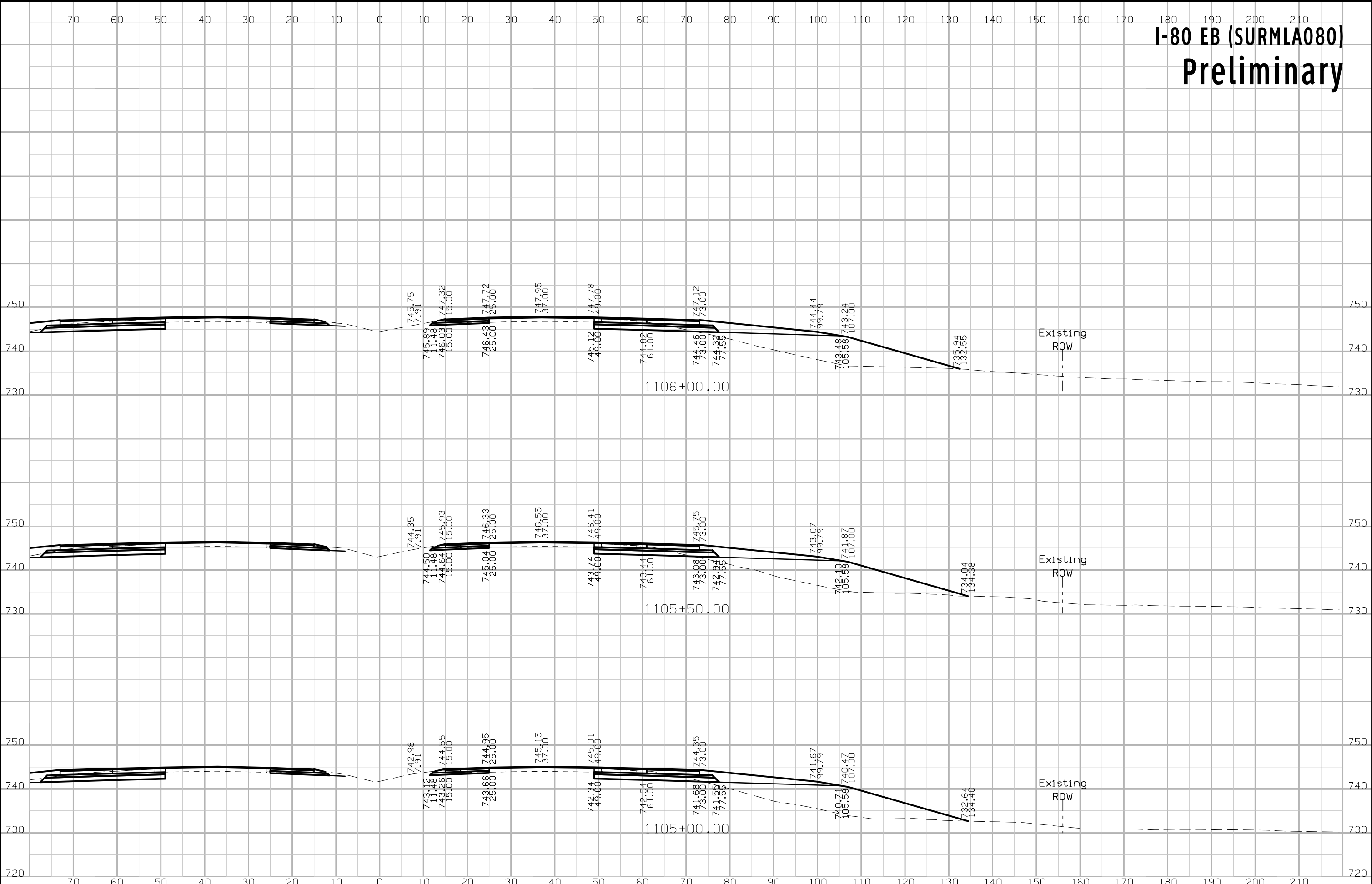
I-80 EB (SURMLA080) Preliminary



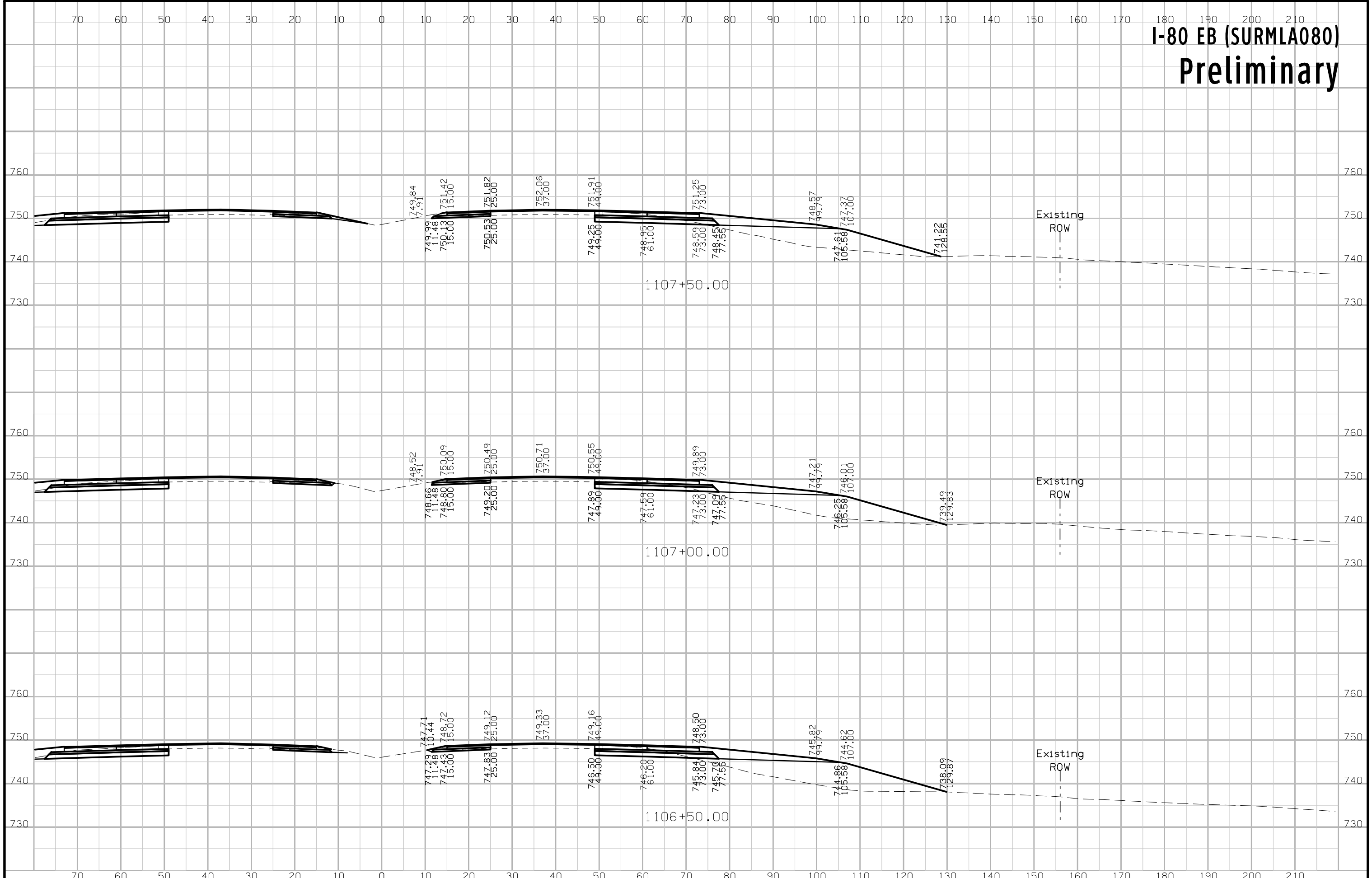
I-80 EB (SURMLA080) Preliminary



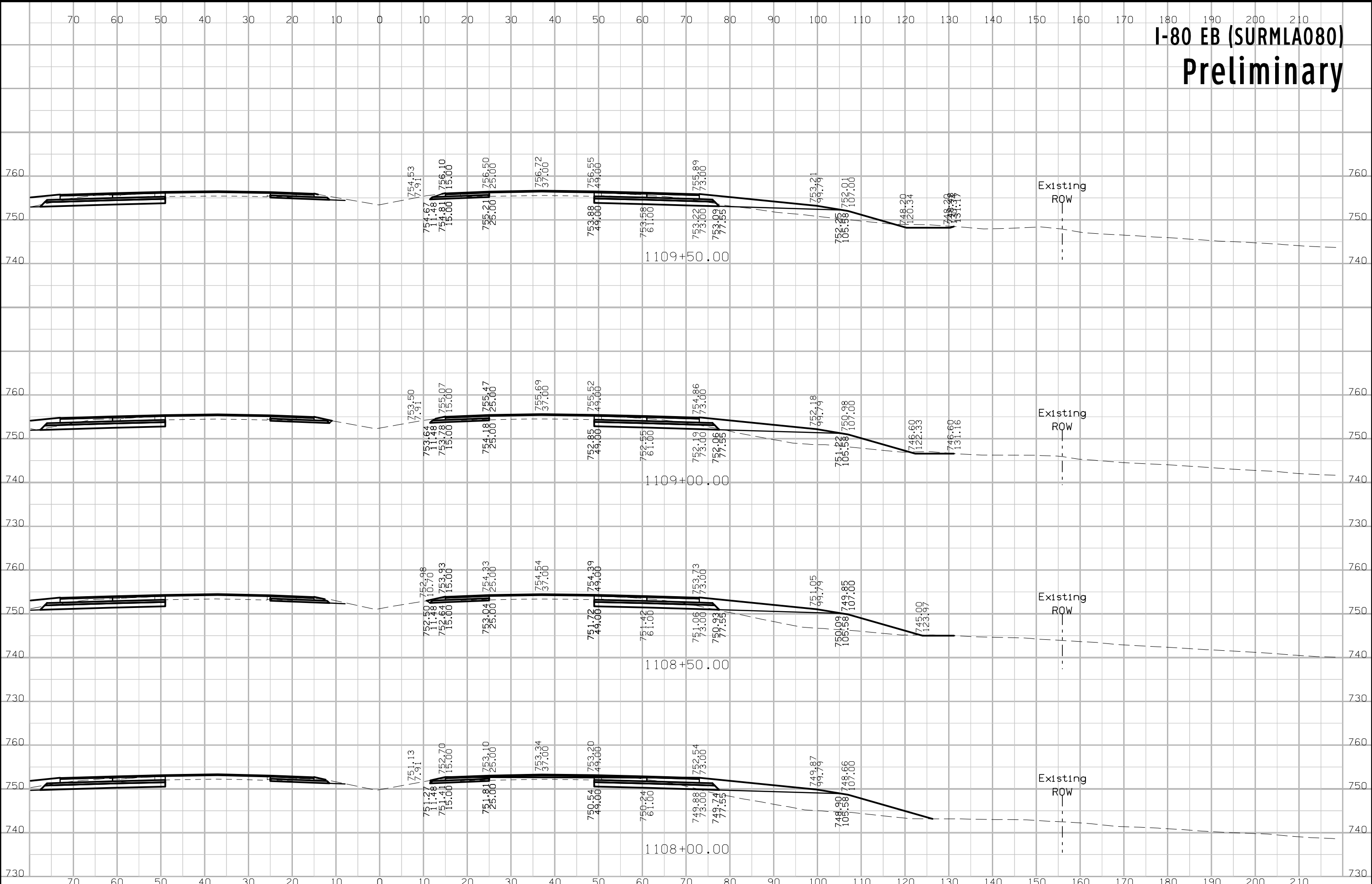
I-80 EB (SURMLA080) Preliminary



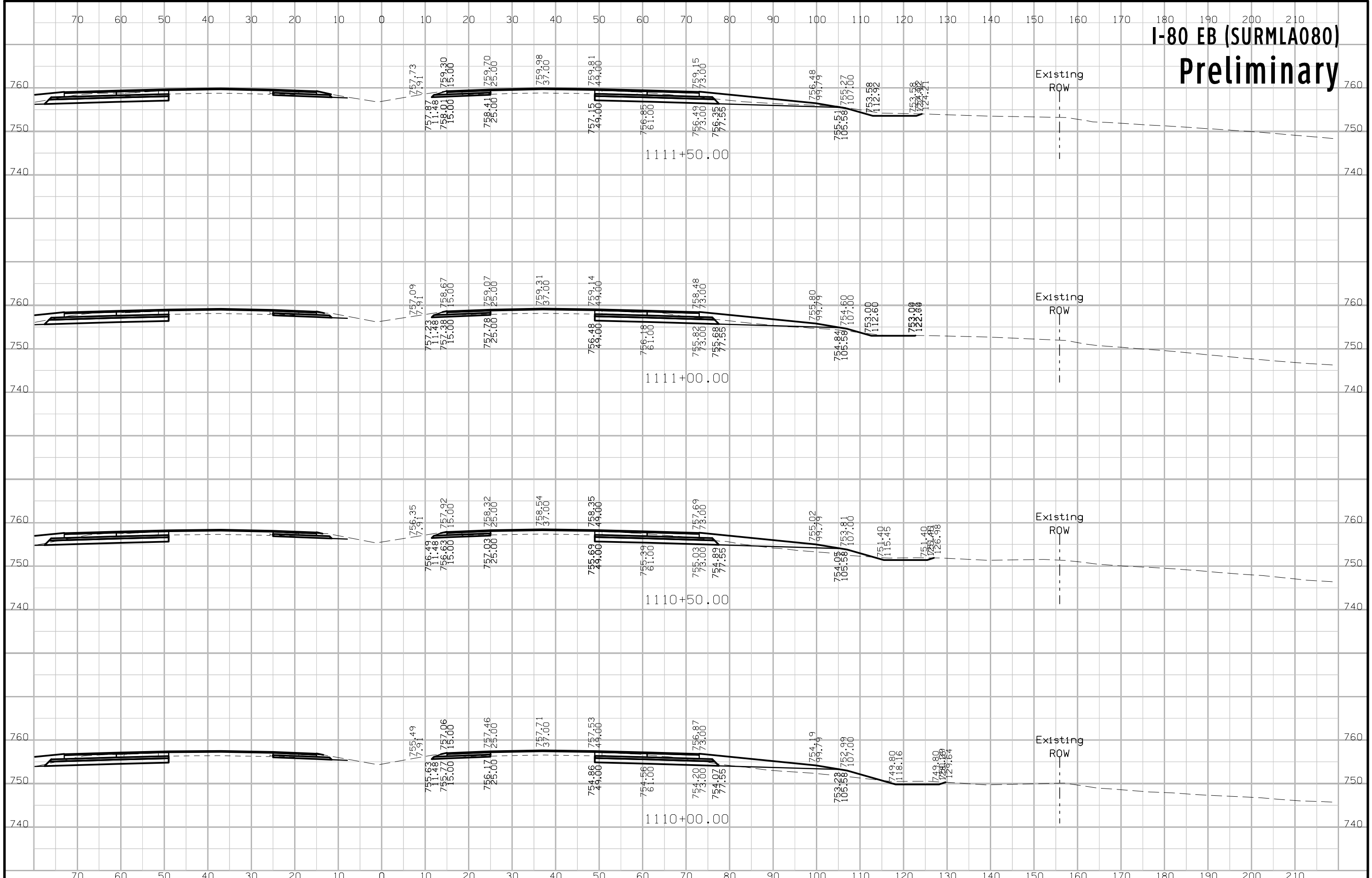
I-80 EB (SURMLA080) Preliminary



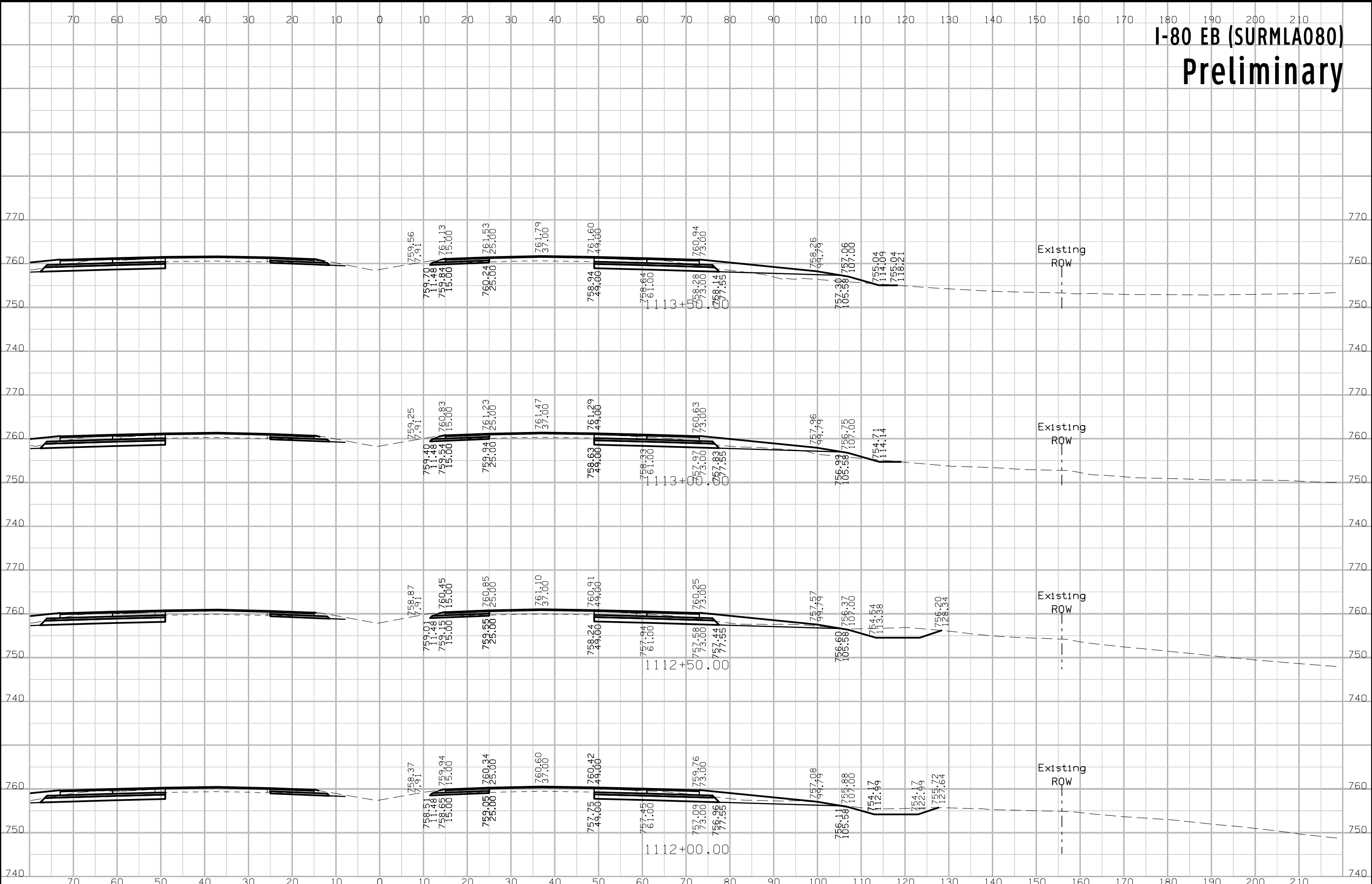
I-80 EB (SURMLA080) Preliminary



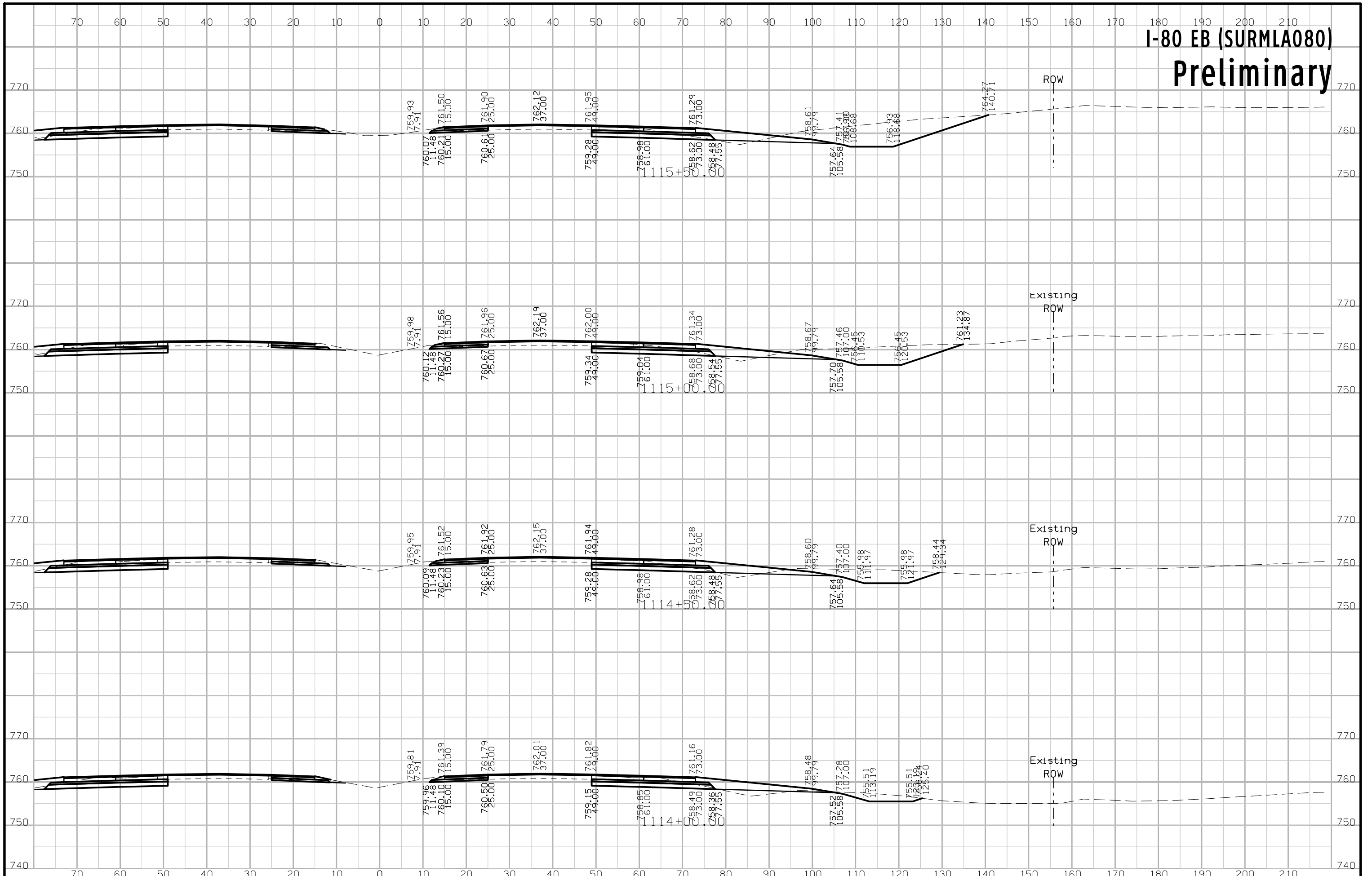
I-80 EB (SURMLA080) Preliminary



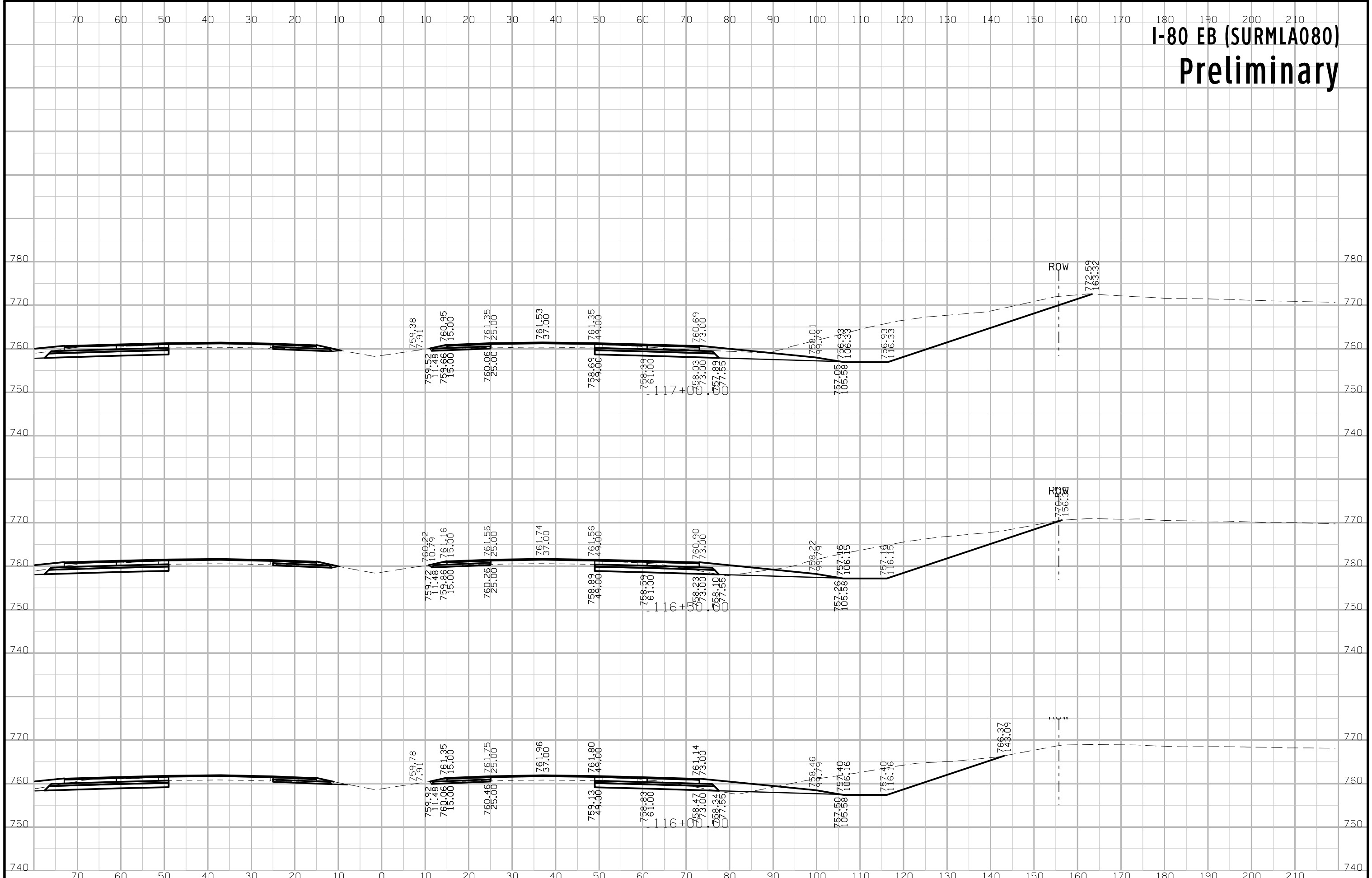
I-80 EB (SURMLA080) Preliminary



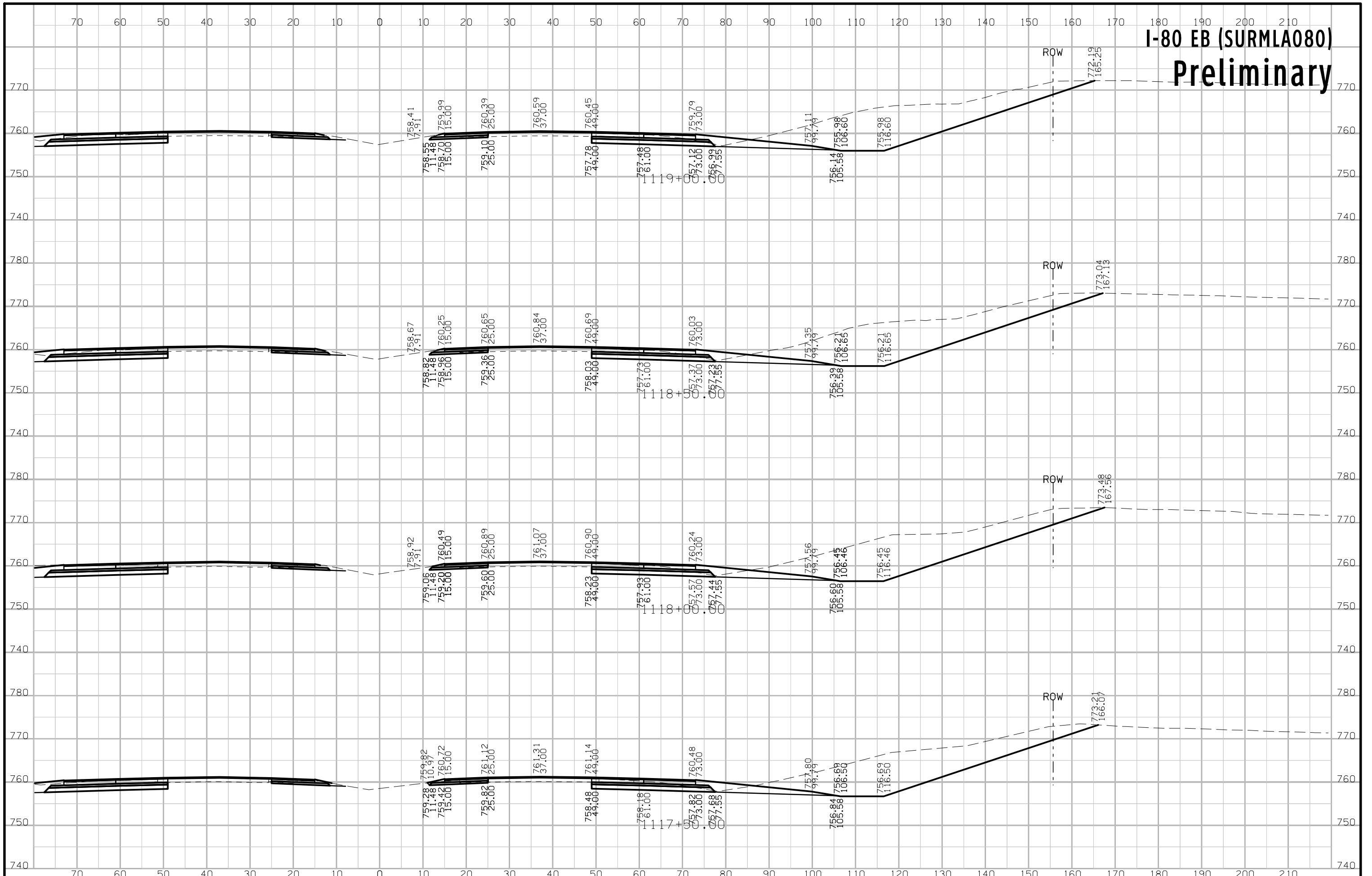
I-80 EB (SURMLA080) Preliminary



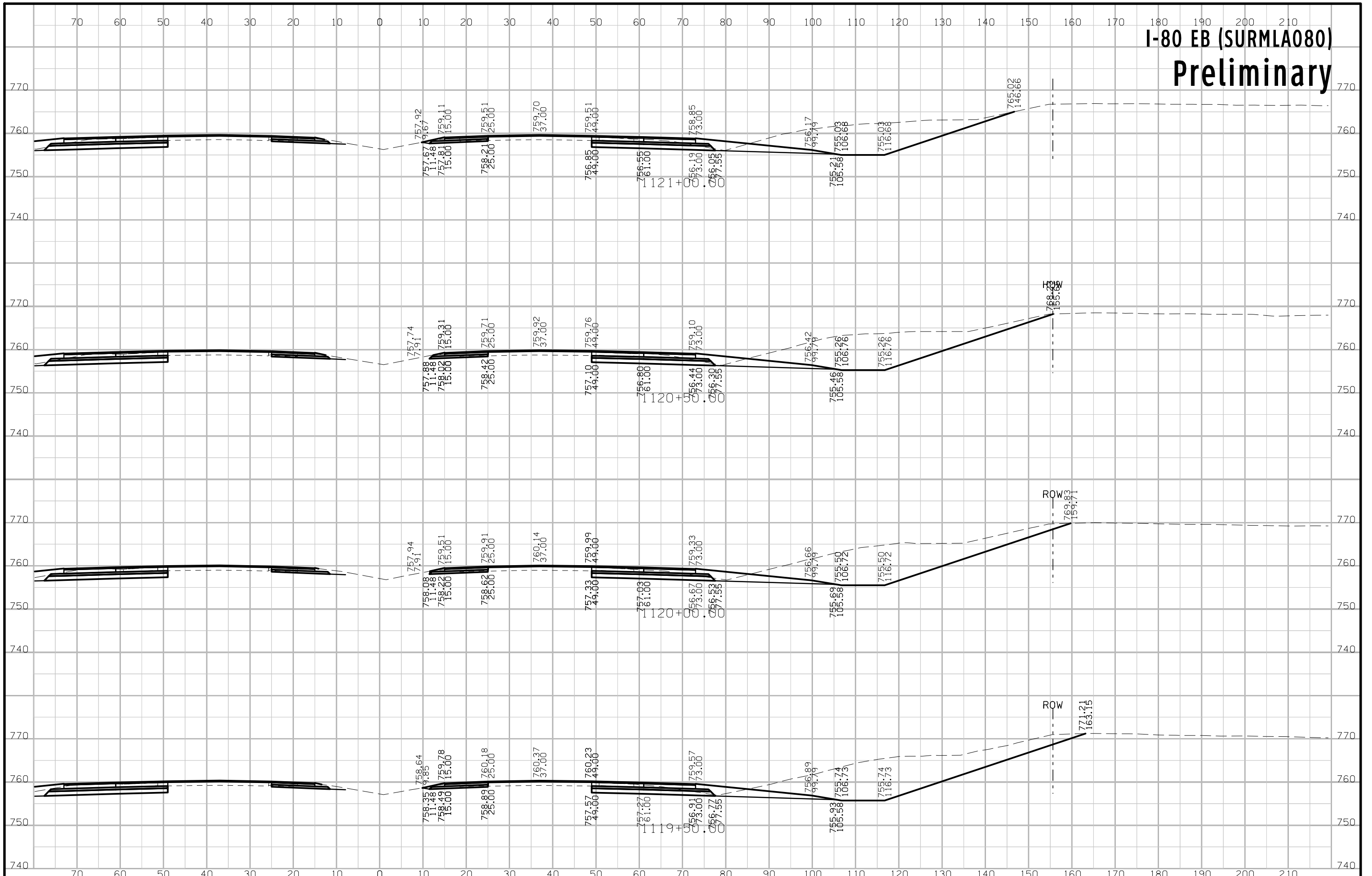
I-80 EB (SURMLA080) Preliminary



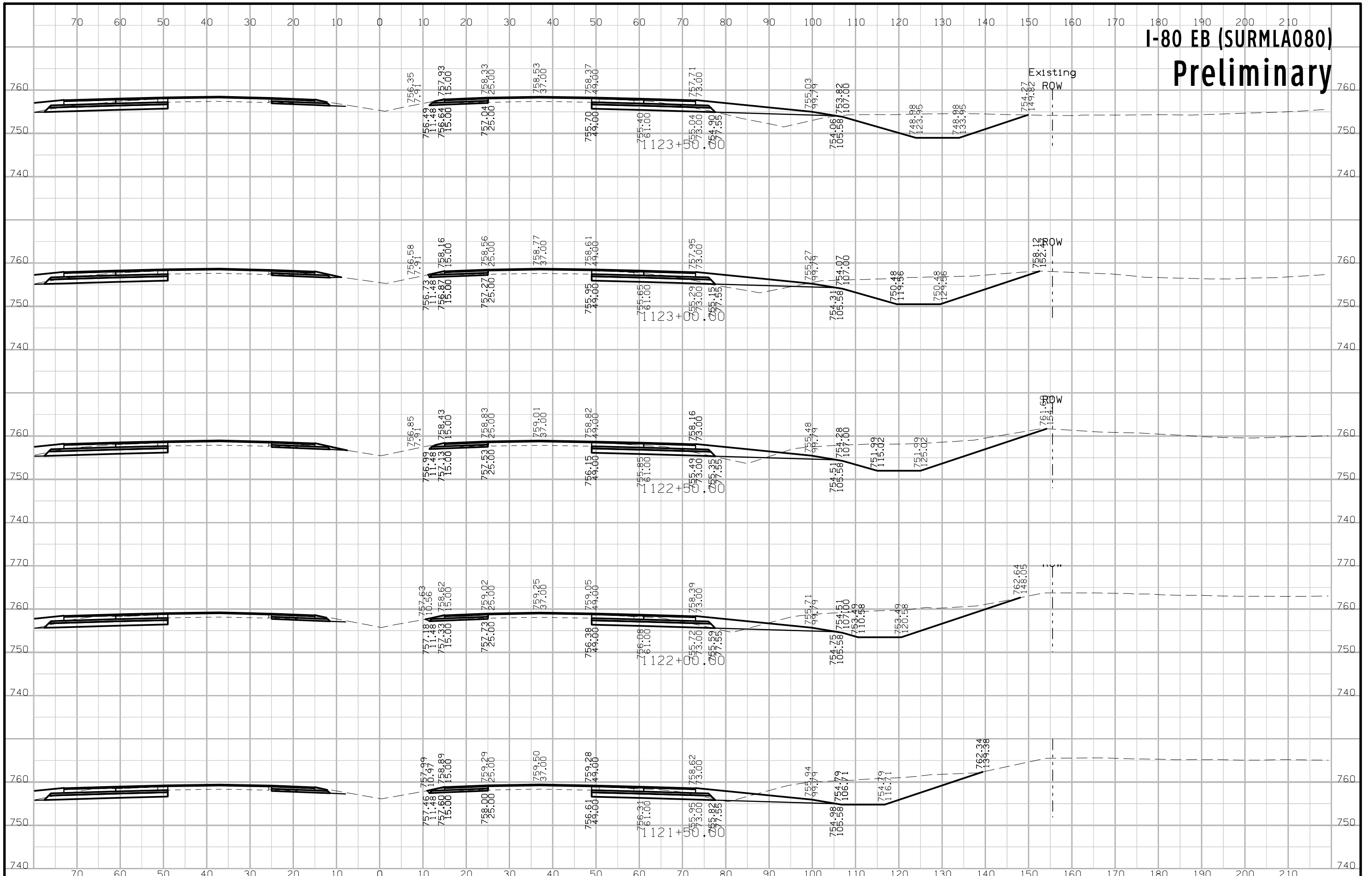
I-80 EB (SURMLA080) Preliminary



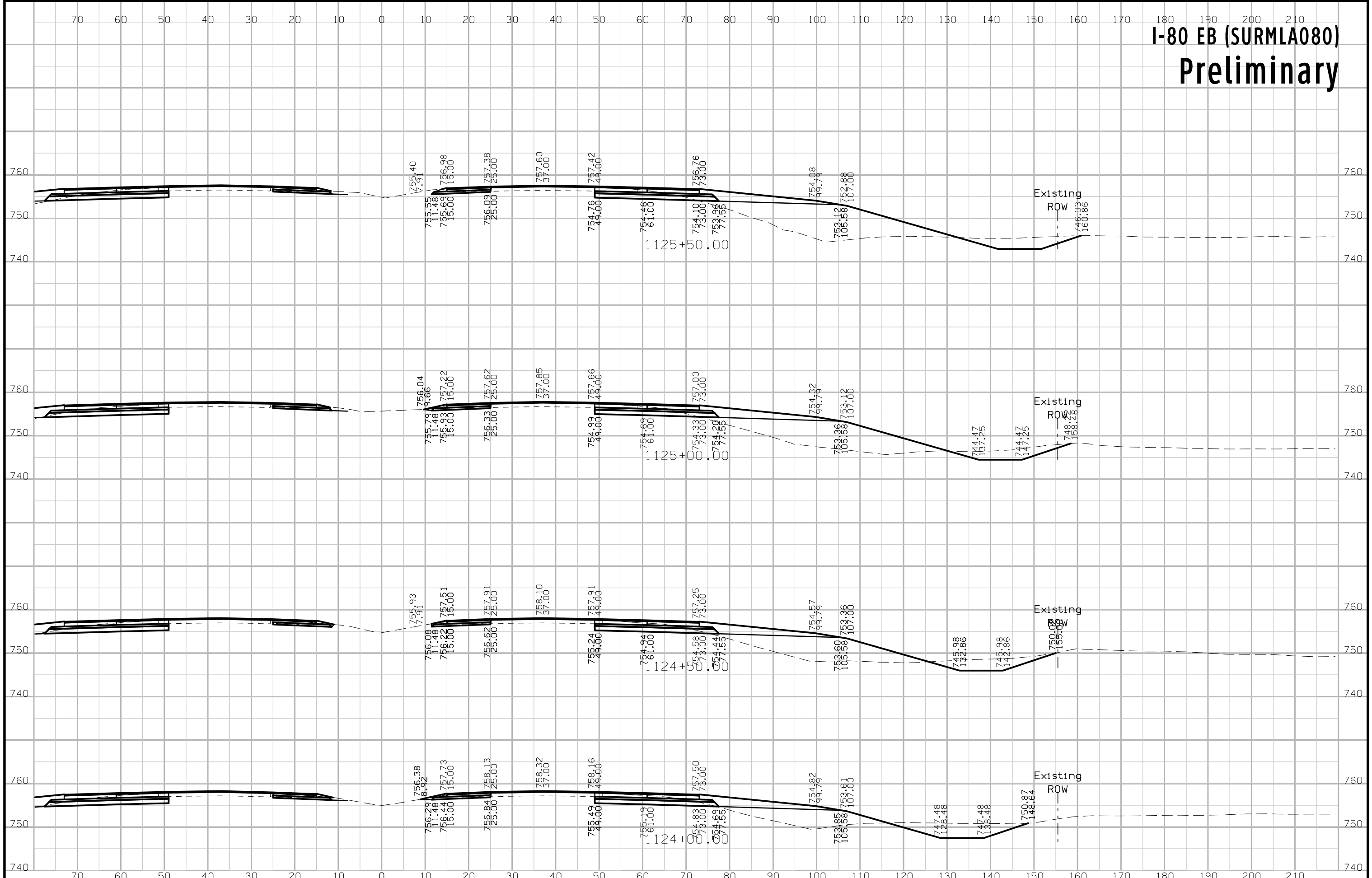
I-80 EB (SURMLA080) Preliminary



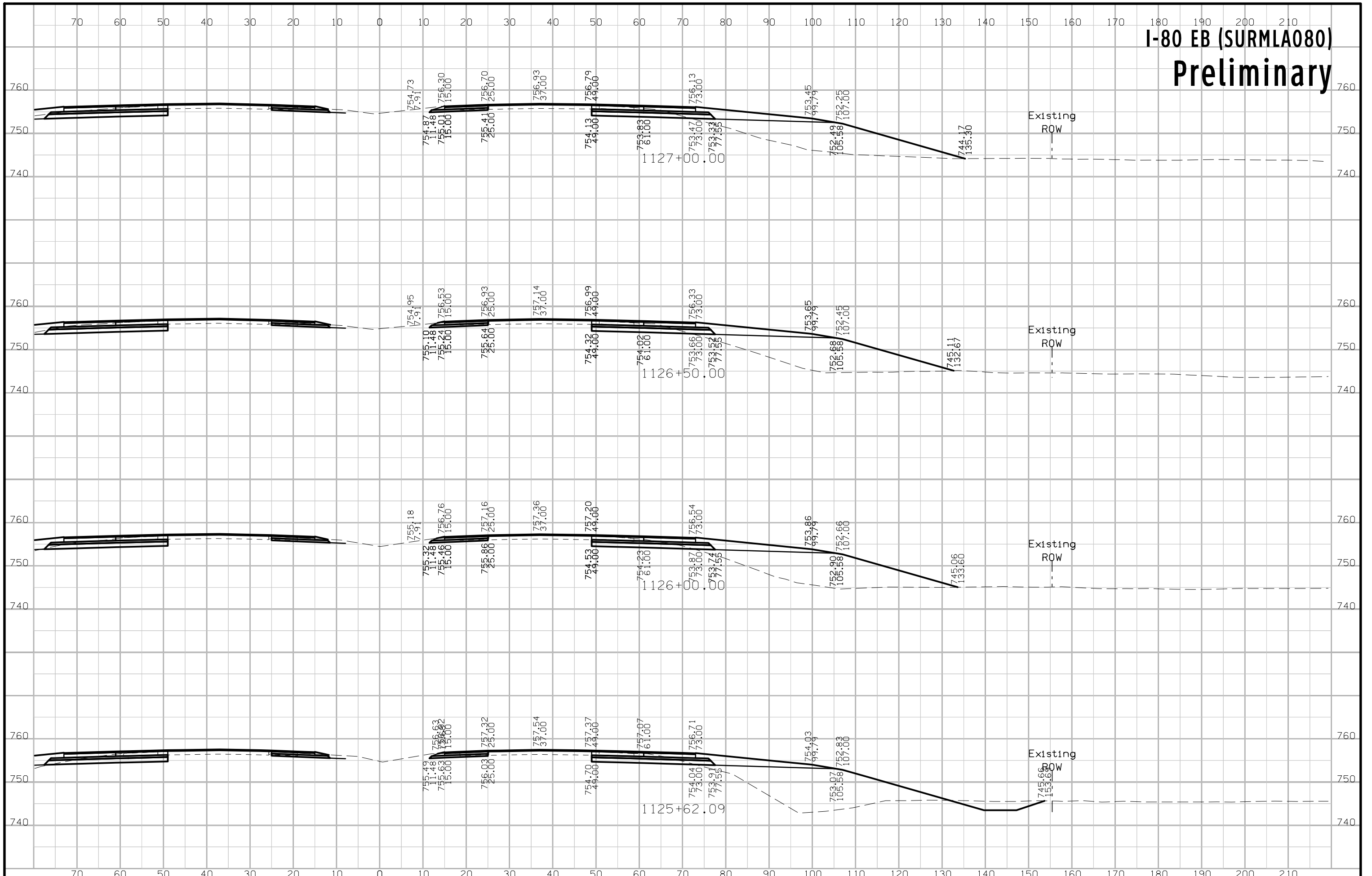
I-80 EB (SURMLA080) Preliminary



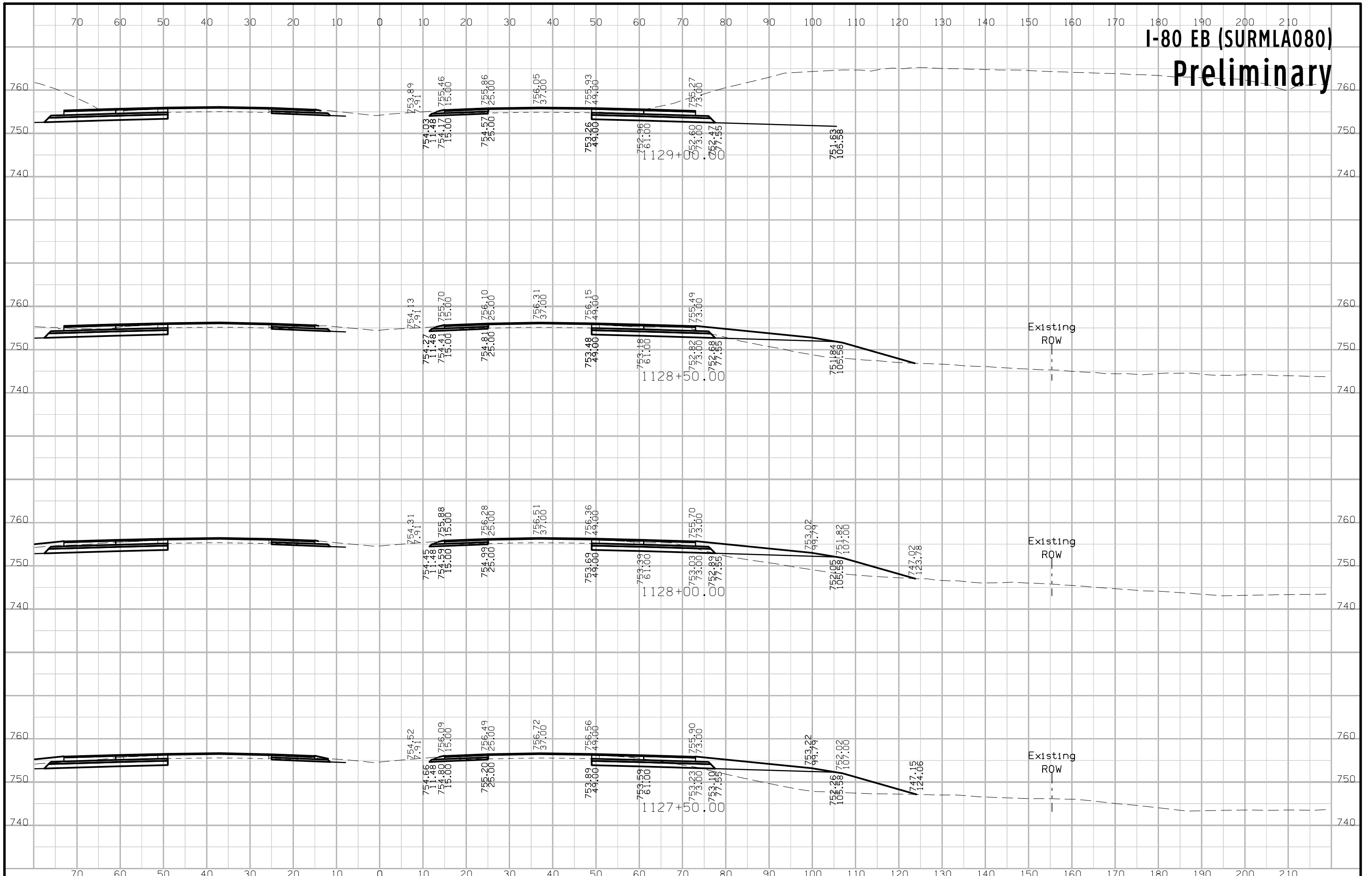
I-80 EB (SURMLA080) Preliminary



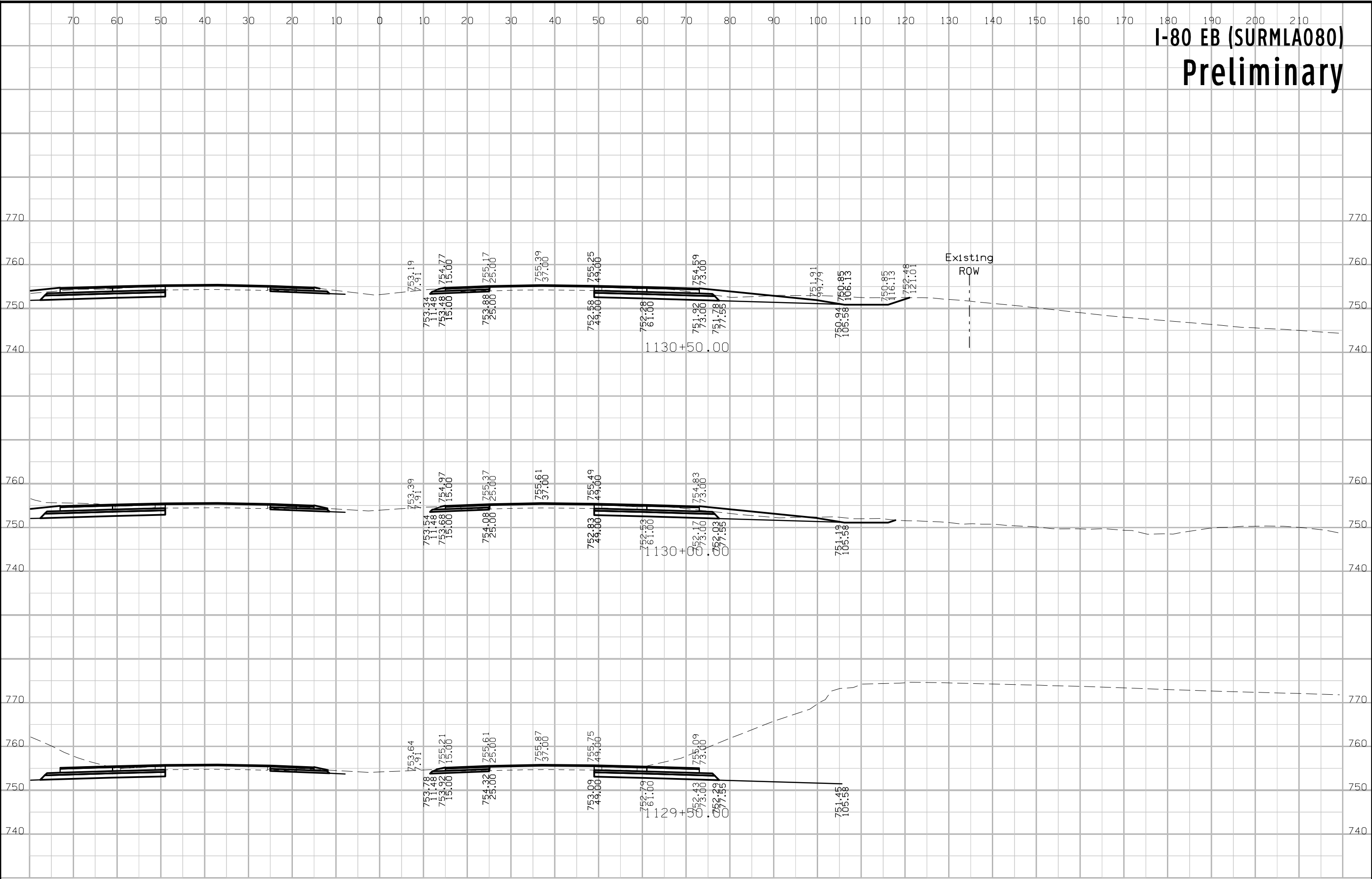
I-80 EB (SURMLA080) Preliminary



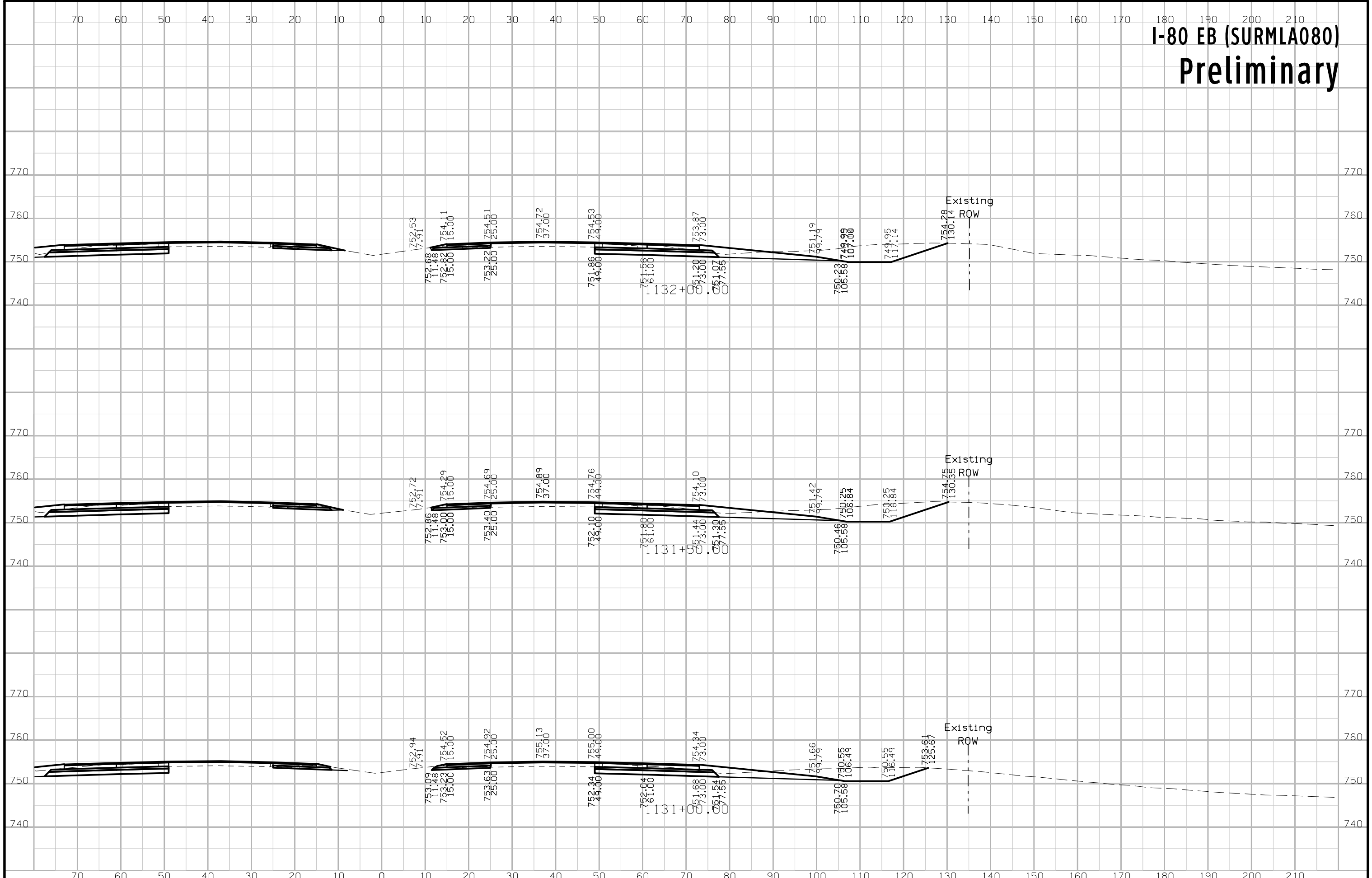
**I-80 EB (SURMLA080)
Preliminary**



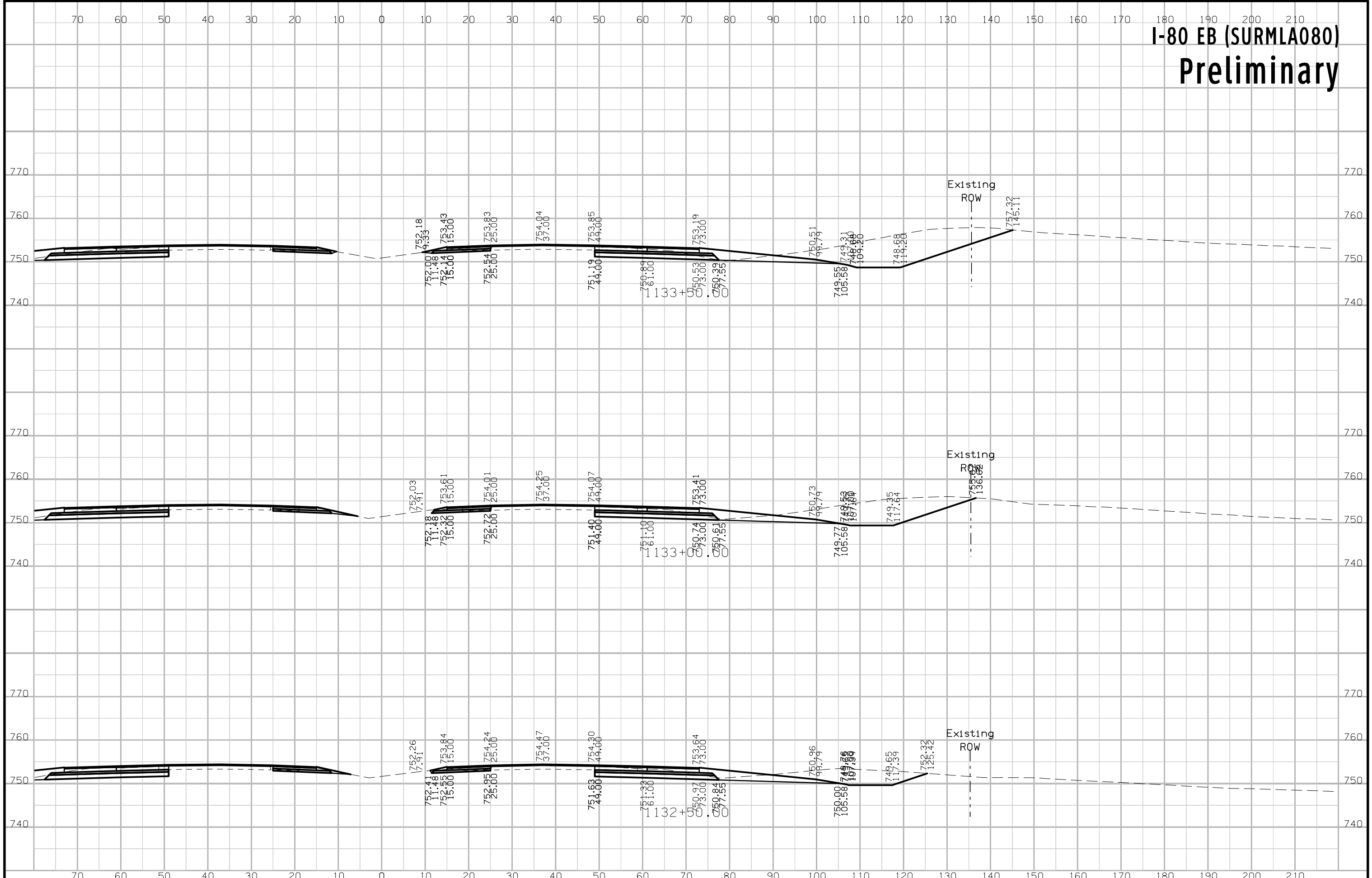
I-80 EB (SURMLA080) Preliminary



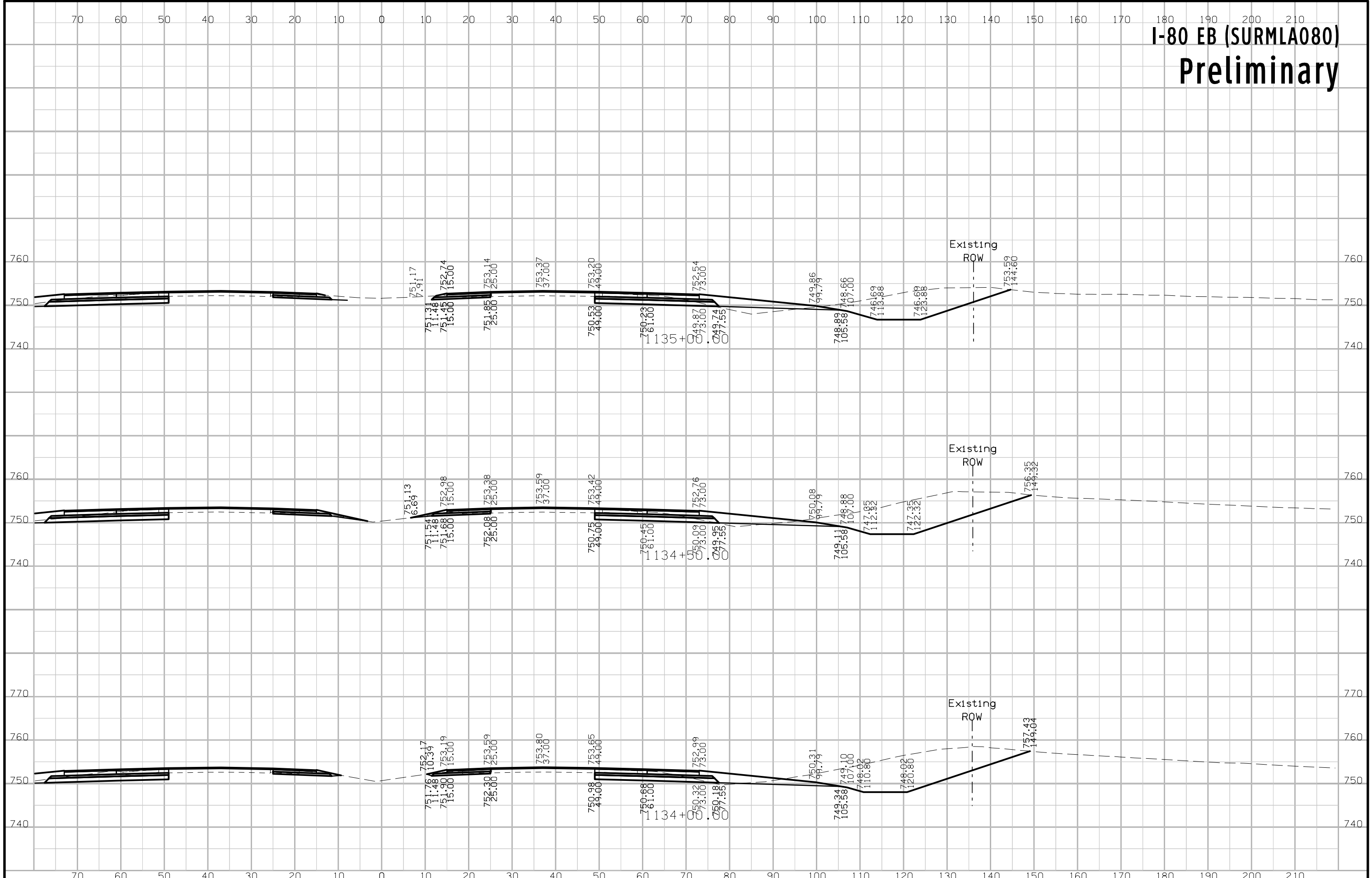
I-80 EB (SURMLA080) Preliminary



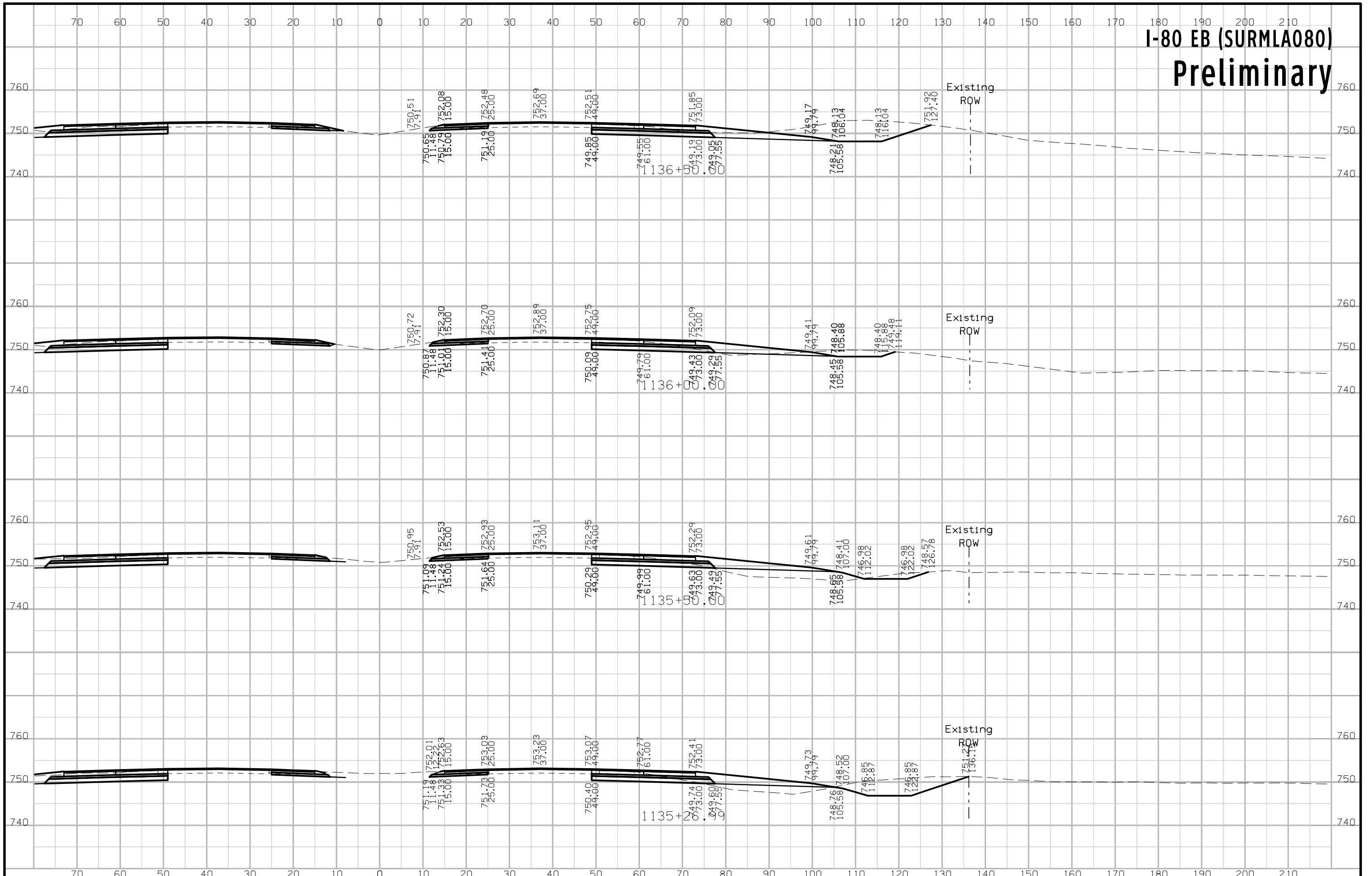
I-80 EB (SURMLA080) Preliminary



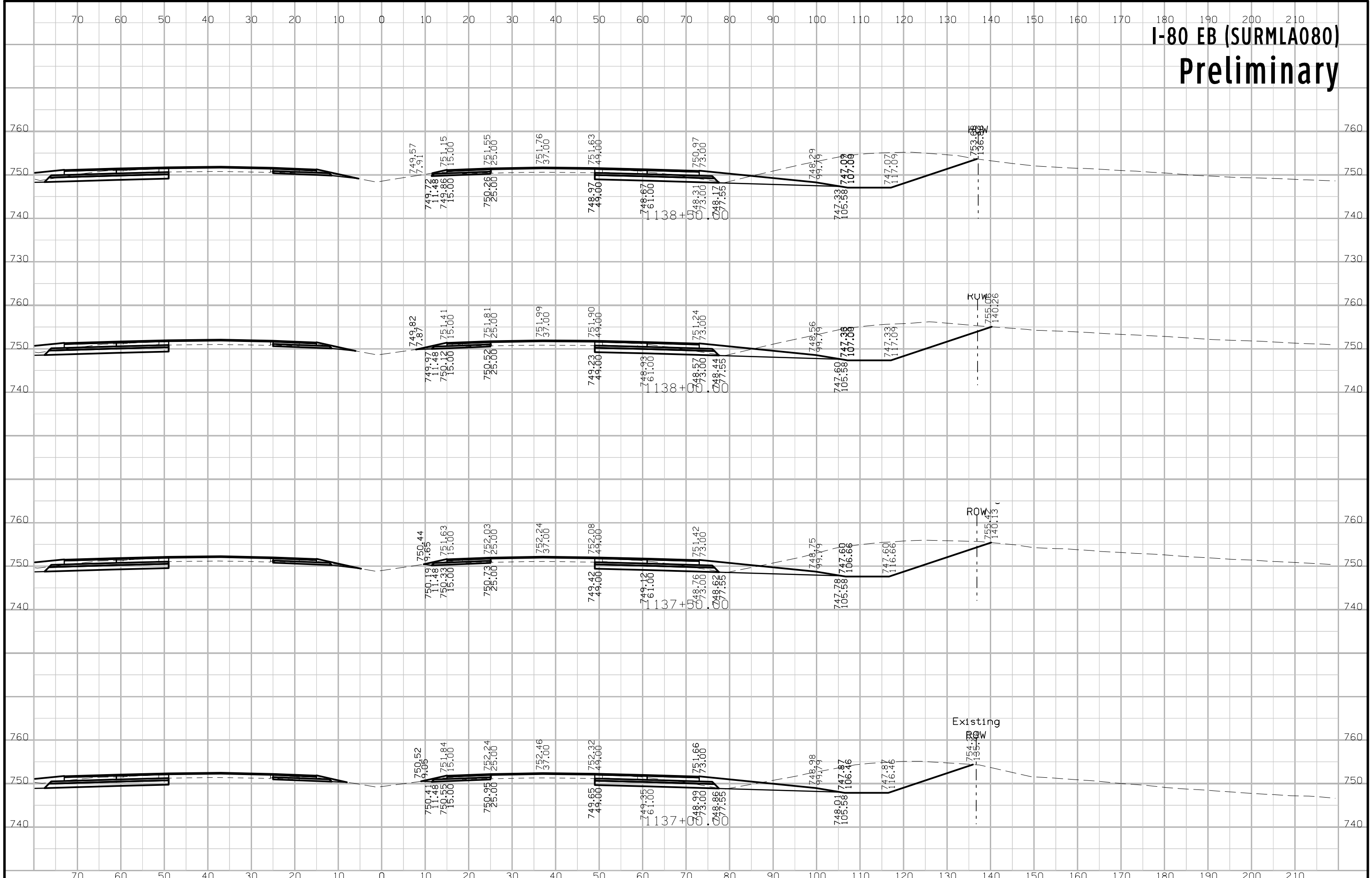
I-80 EB (SURMLA080) Preliminary



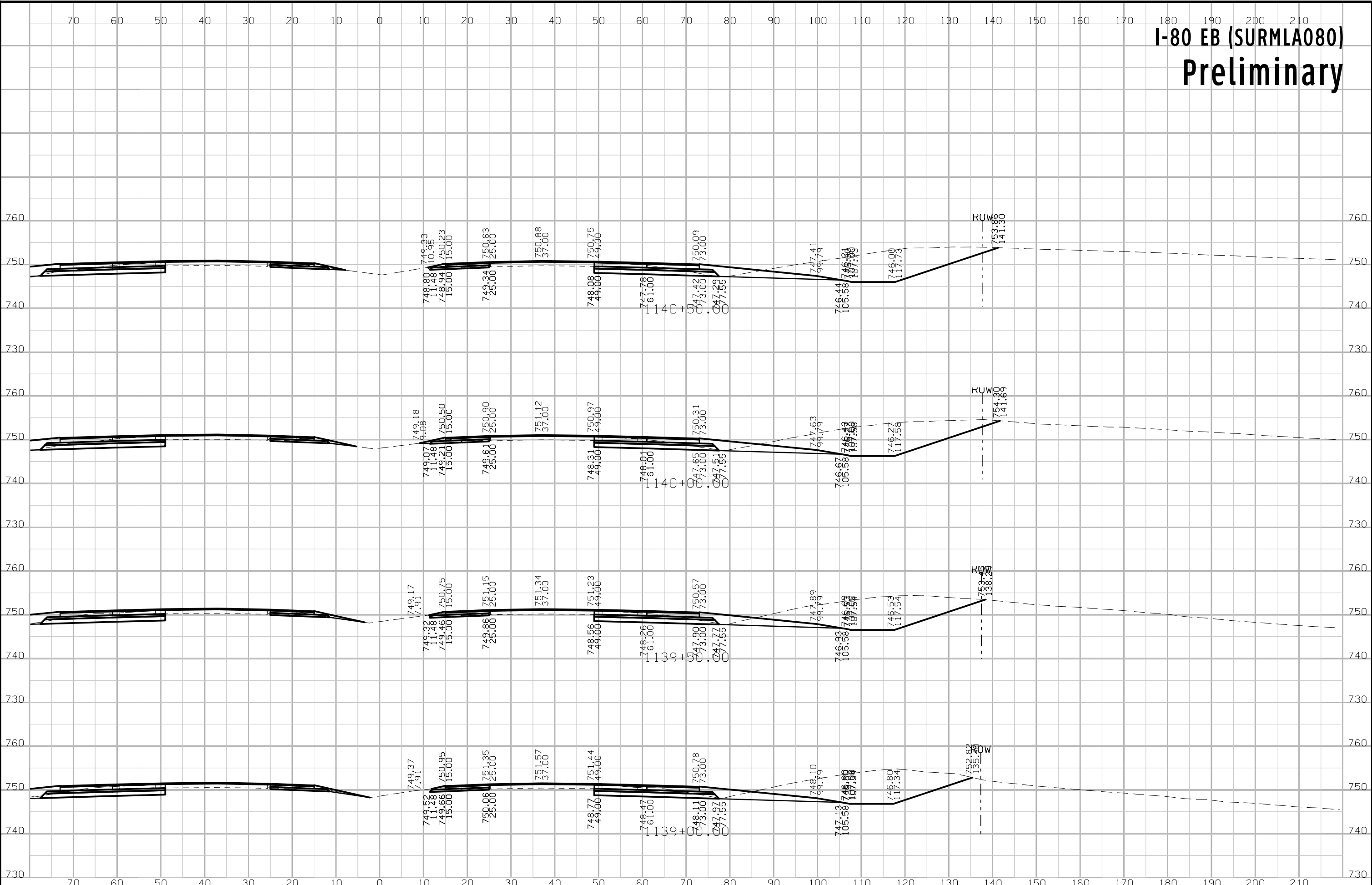
I-80 EB (SURMLA080) Preliminary



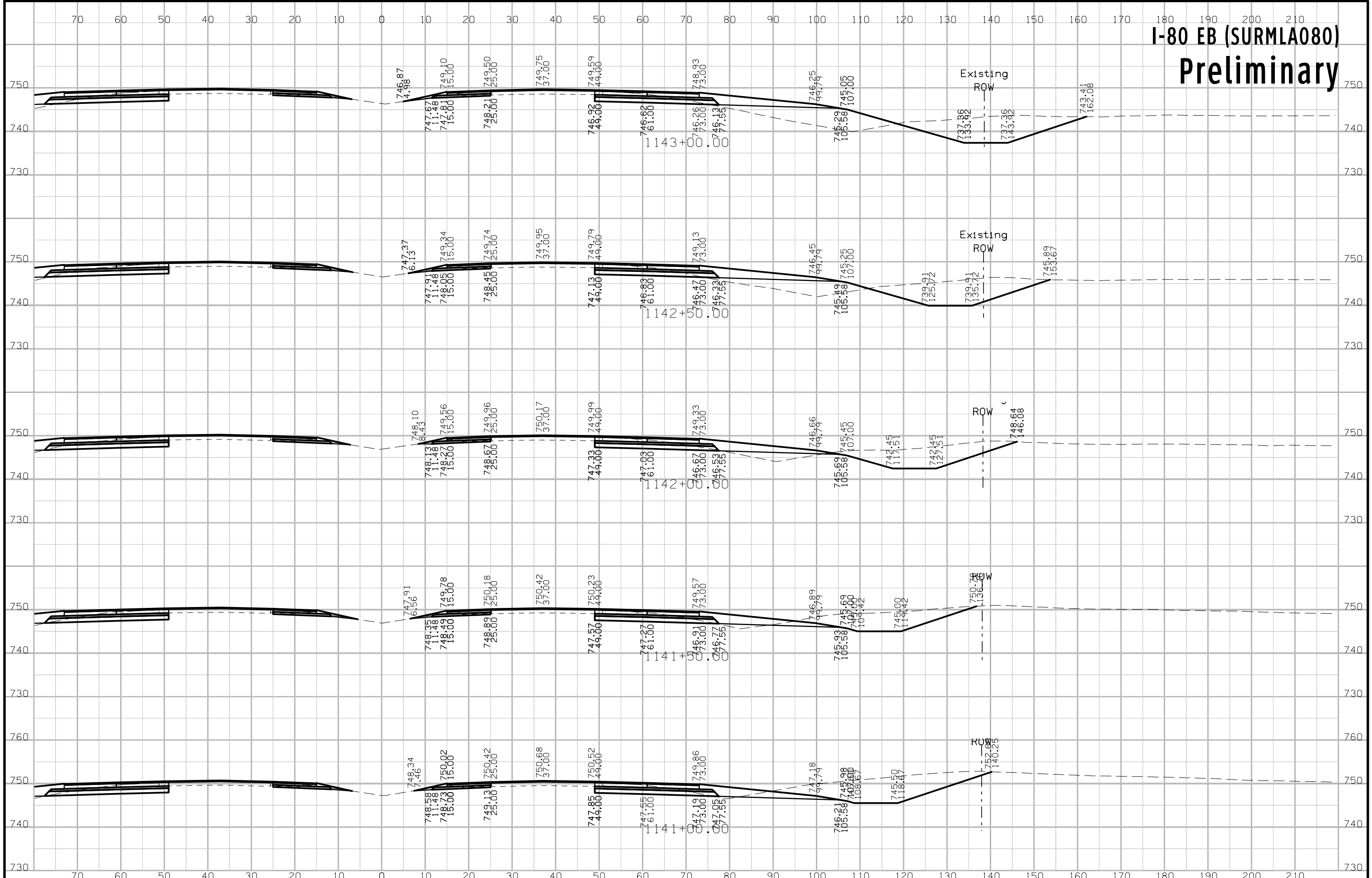
I-80 EB (SURMLA080) Preliminary



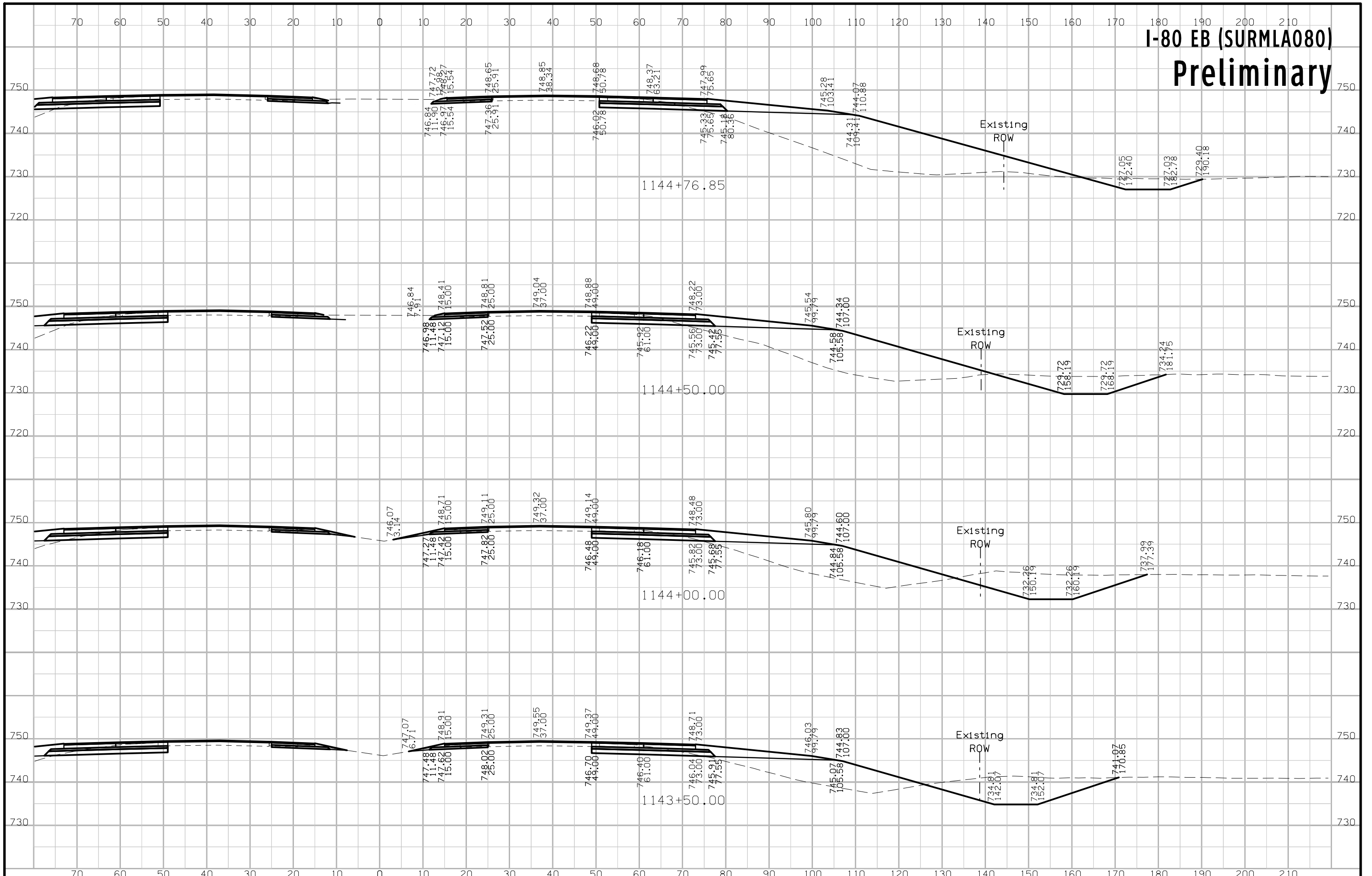
I-80 EB (SURMLA080) Preliminary



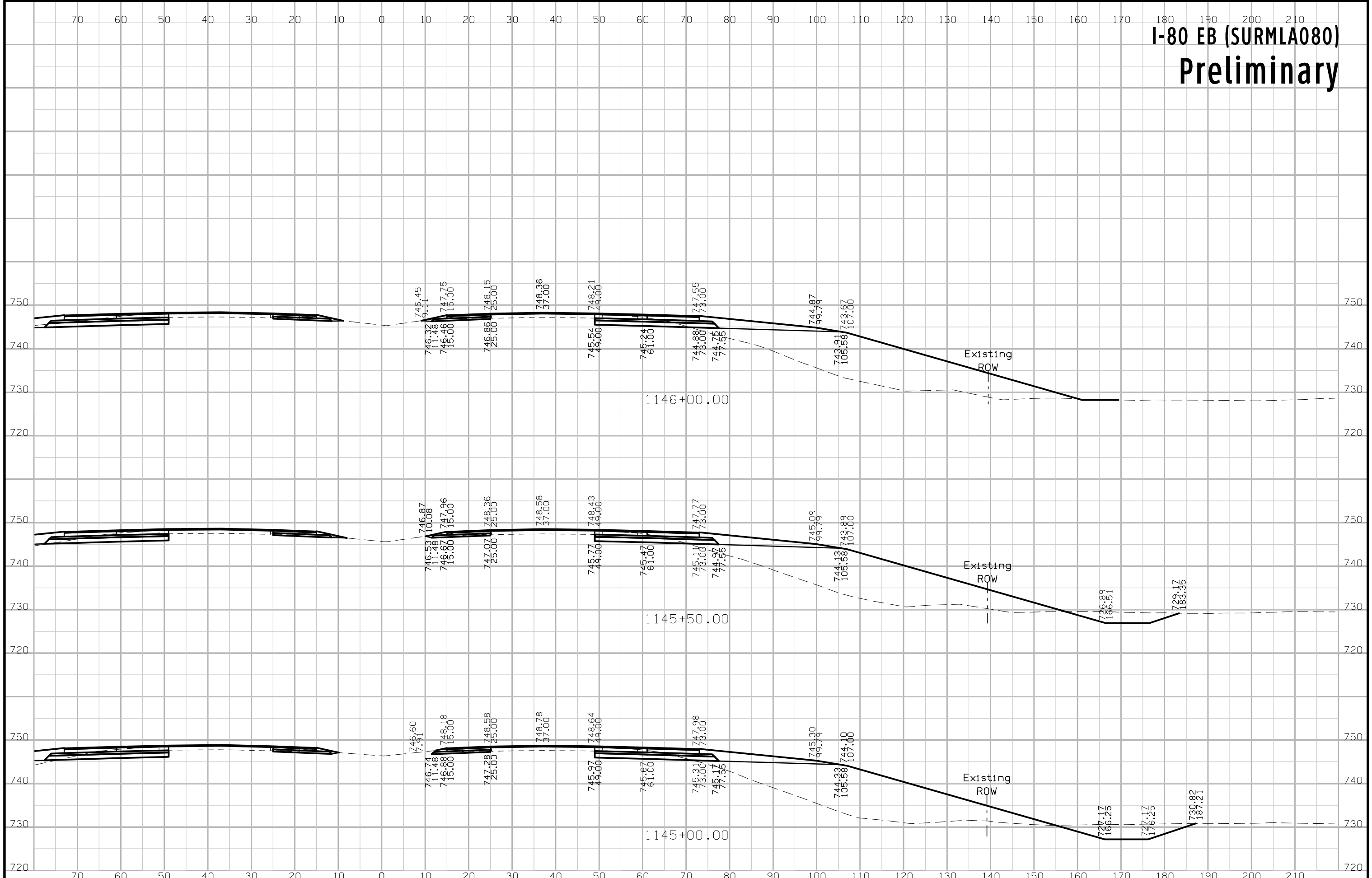
I-80 EB (SURMLA080) Preliminary



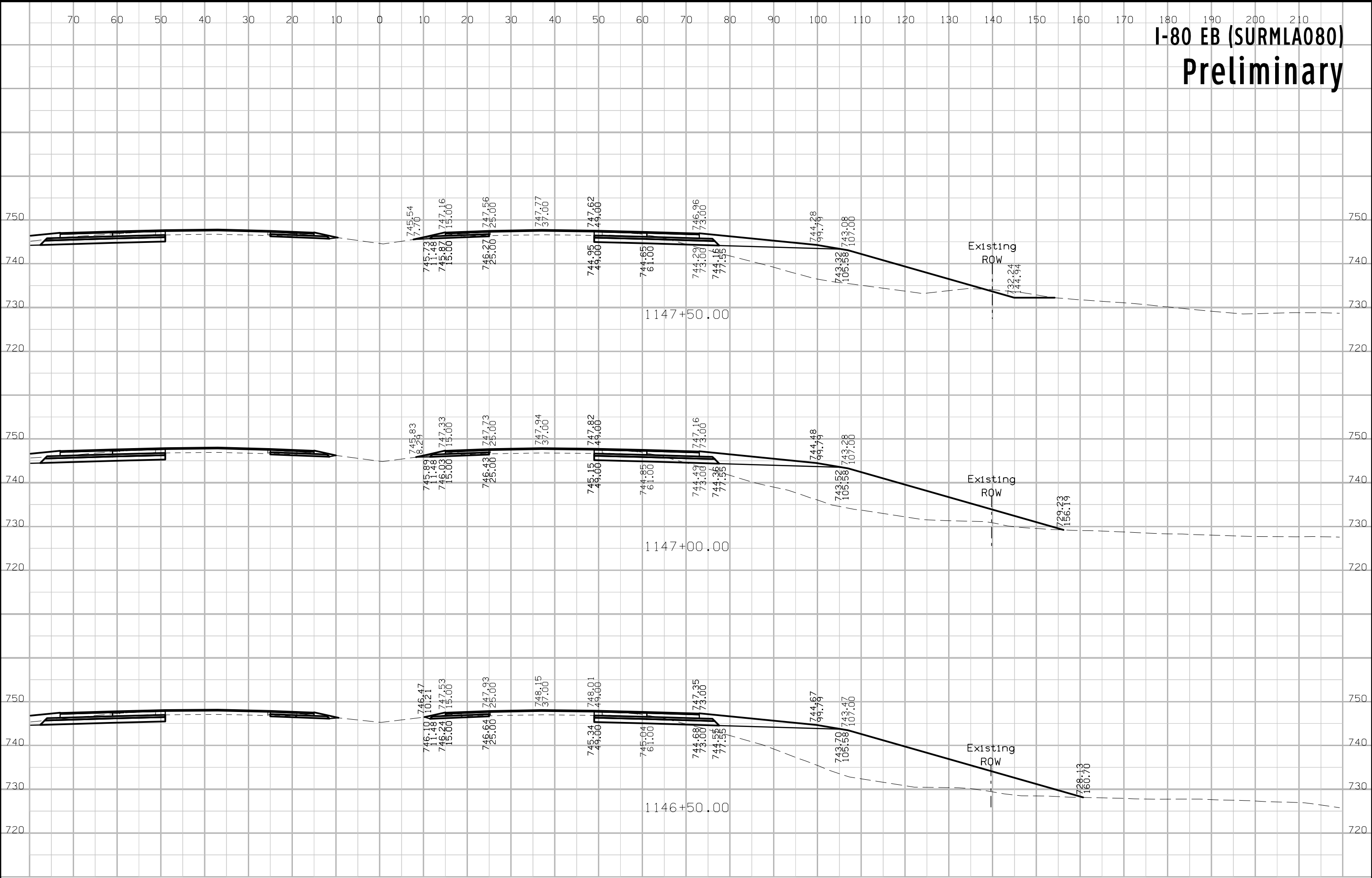
I-80 EB (SURMLA080) Preliminary



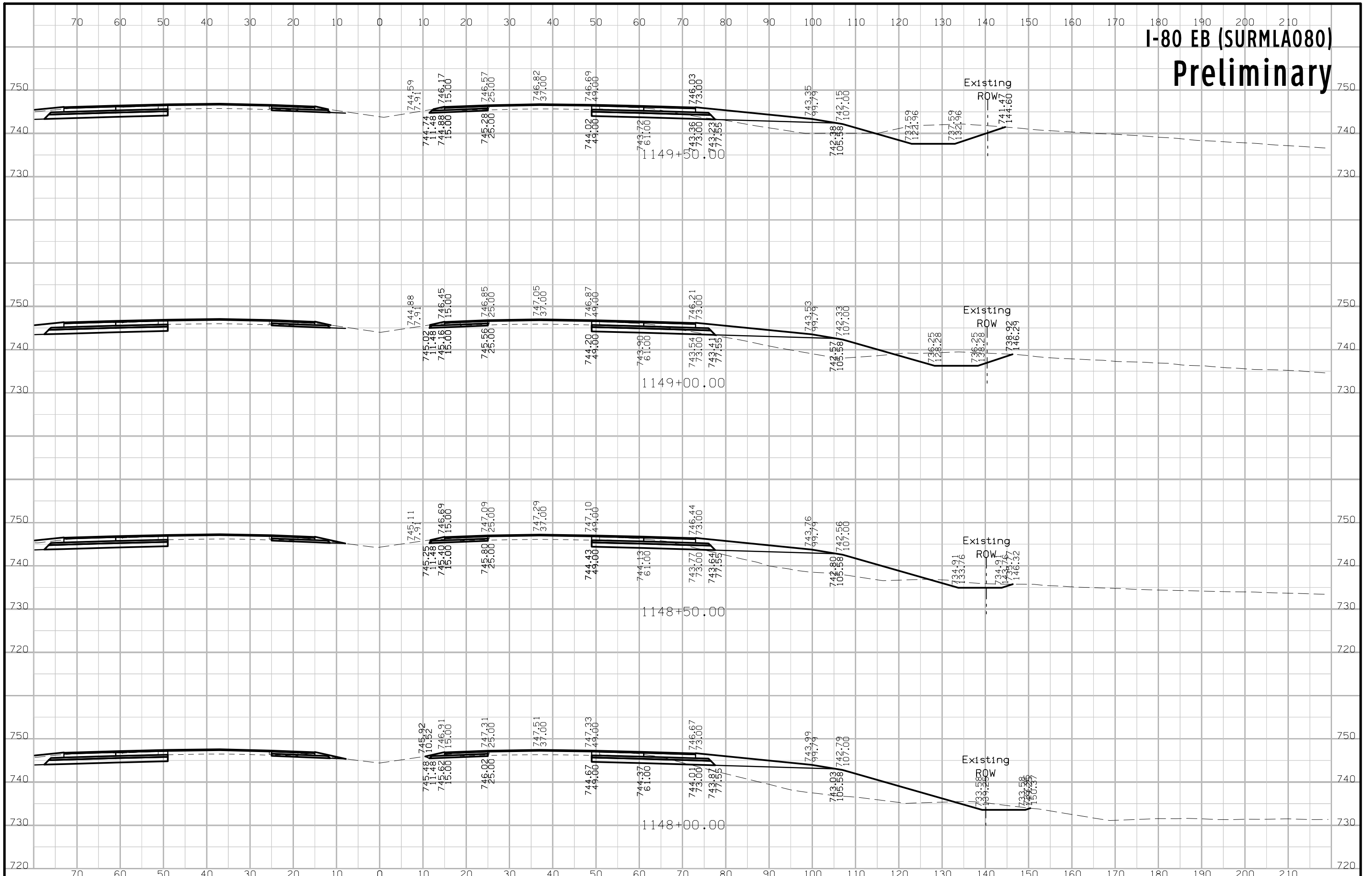
I-80 EB (SURMLA080) Preliminary



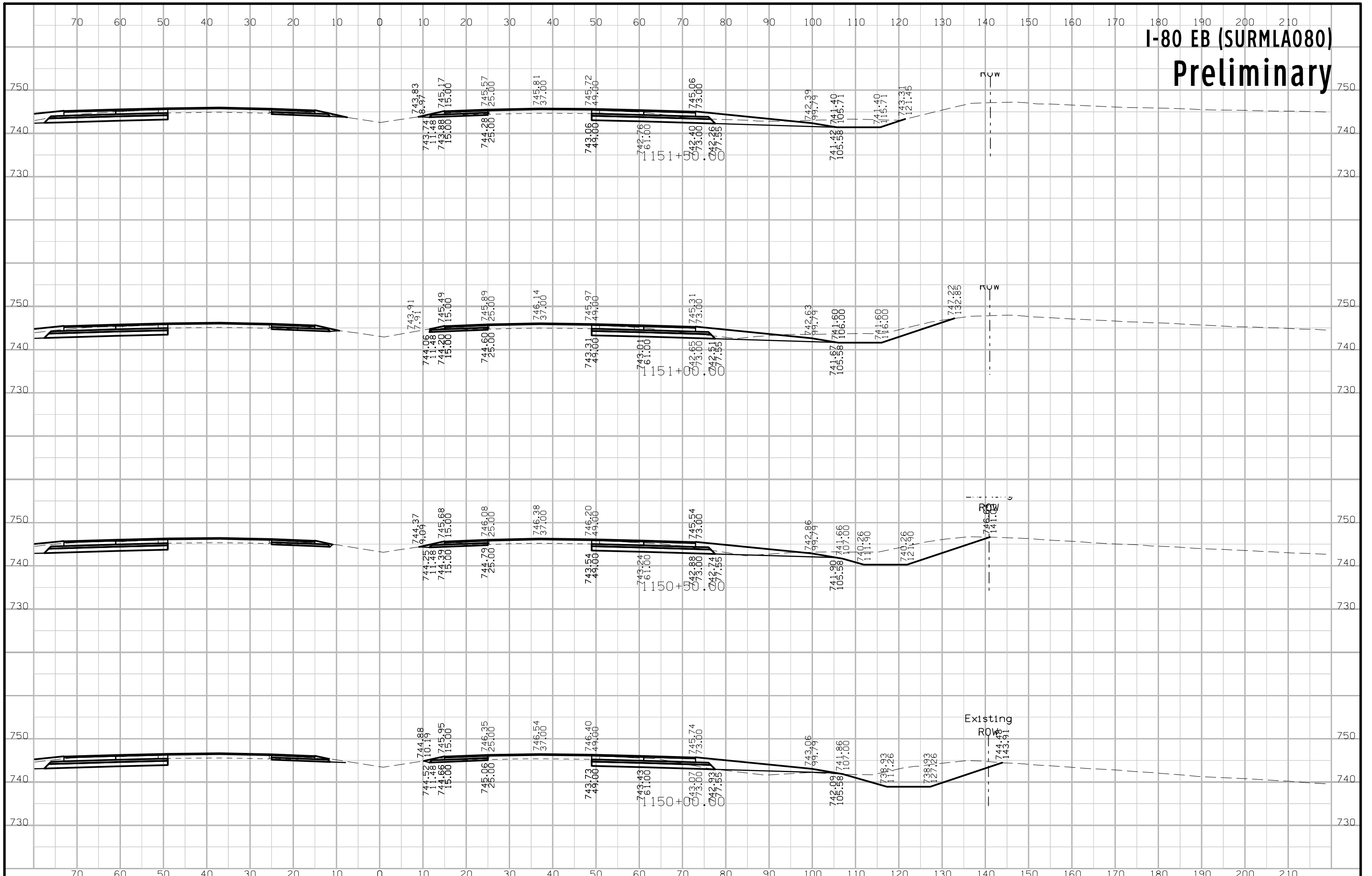
I-80 EB (SURMLA080) Preliminary



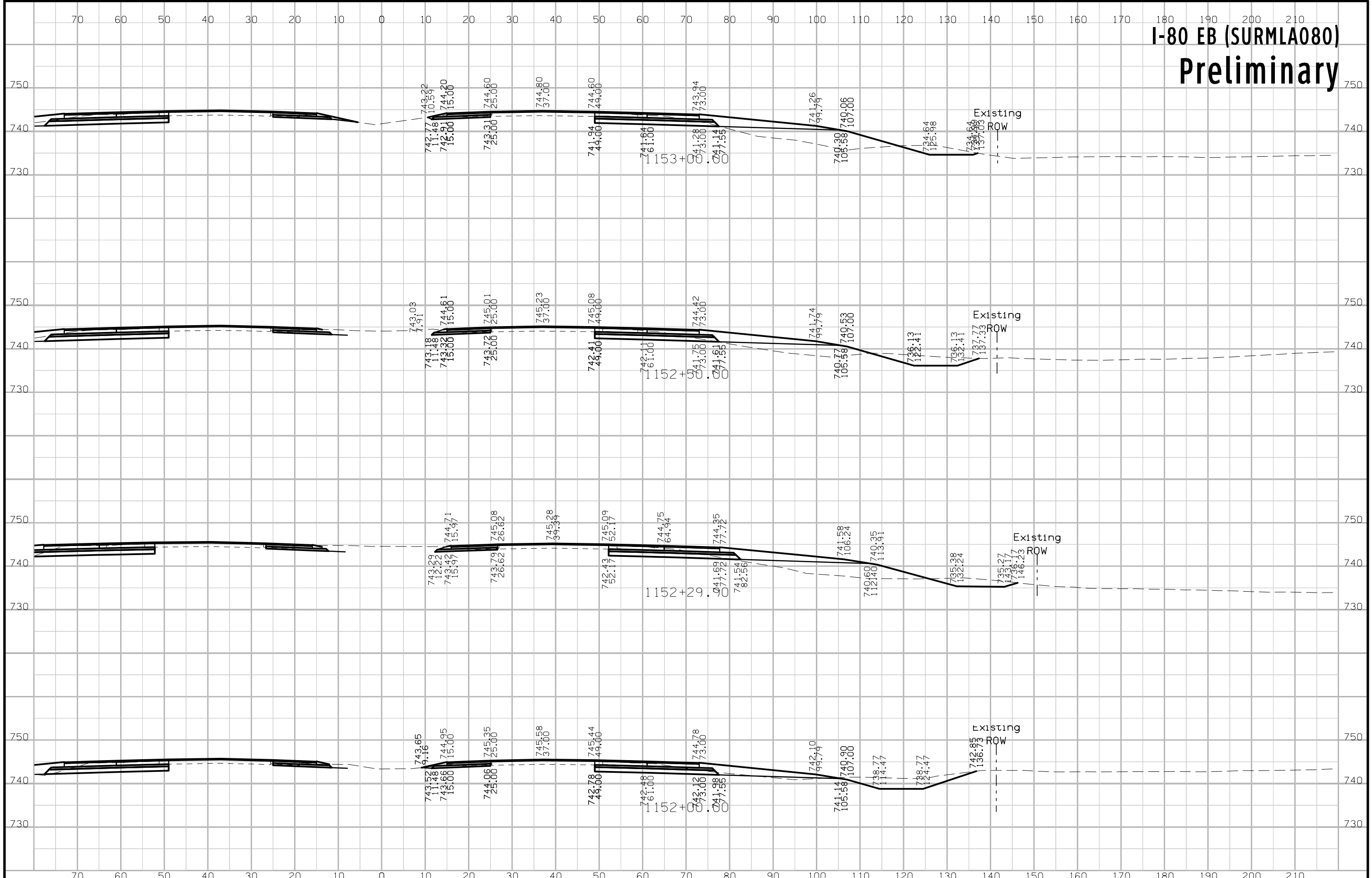
I-80 EB (SURMLA080) Preliminary



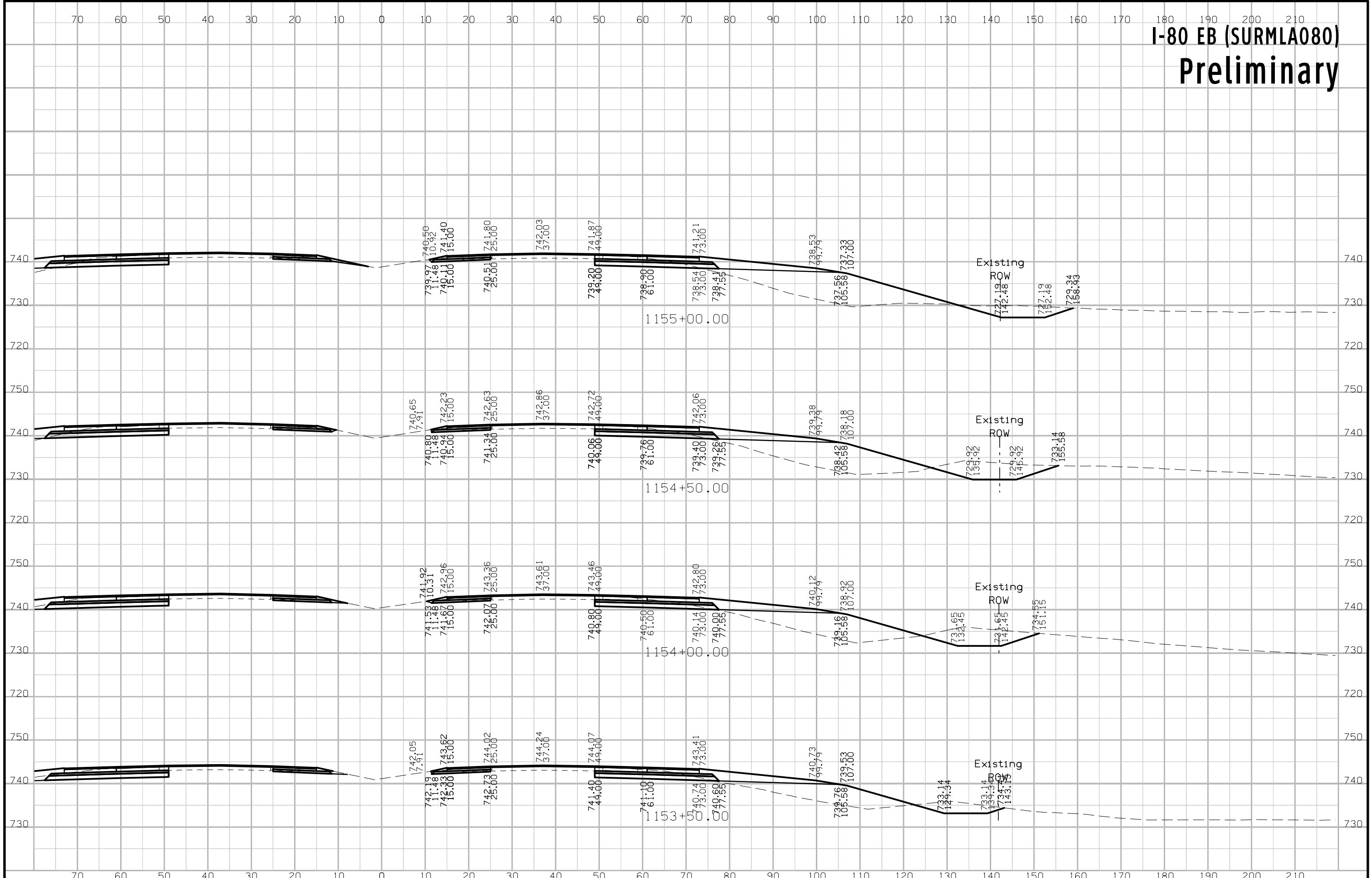
I-80 EB (SURMLA080) Preliminary



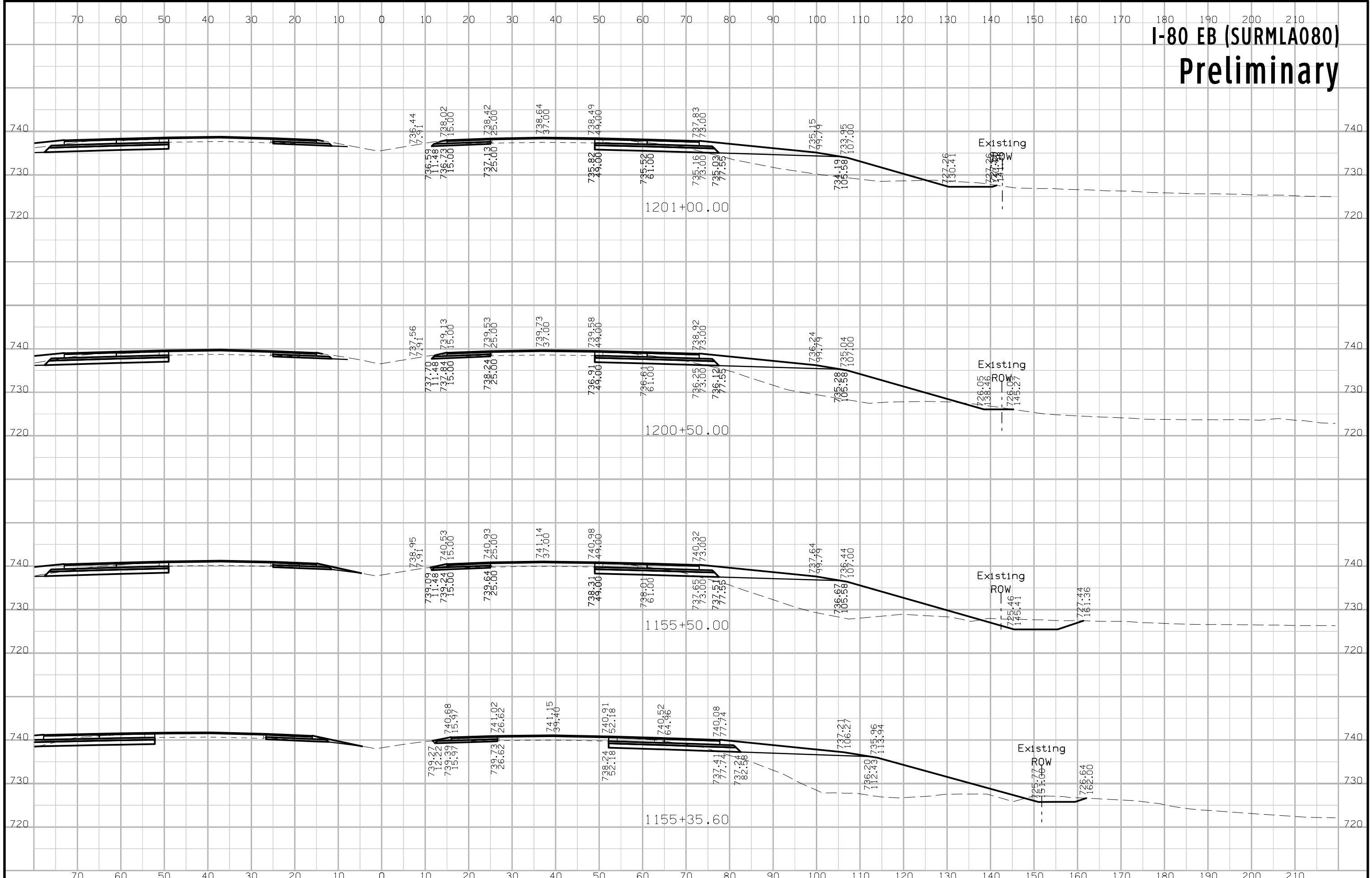
I-80 EB (SURMLA080) Preliminary



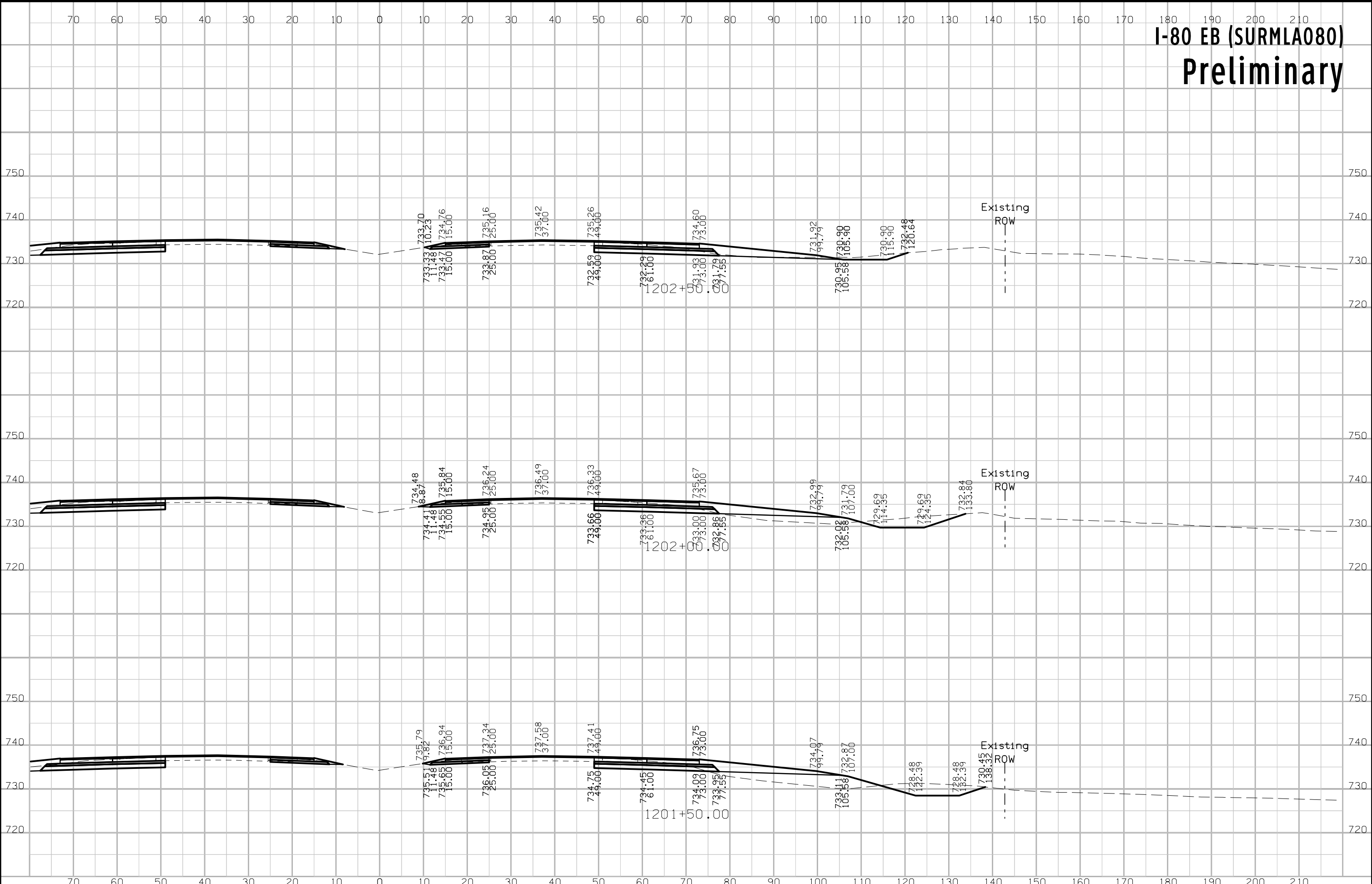
I-80 EB (SURMLA080) Preliminary



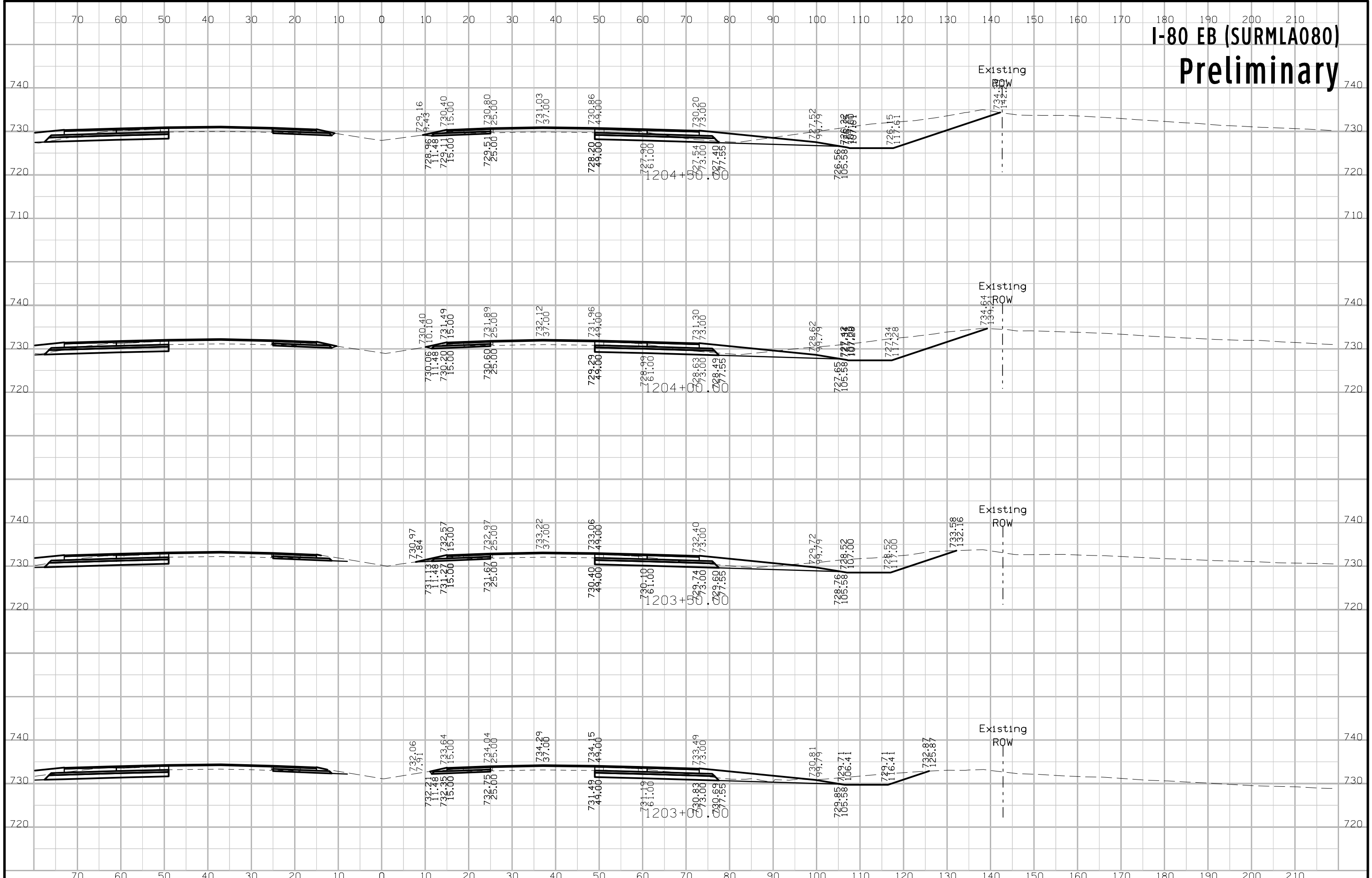
I-80 EB (SURMLA080) Preliminary



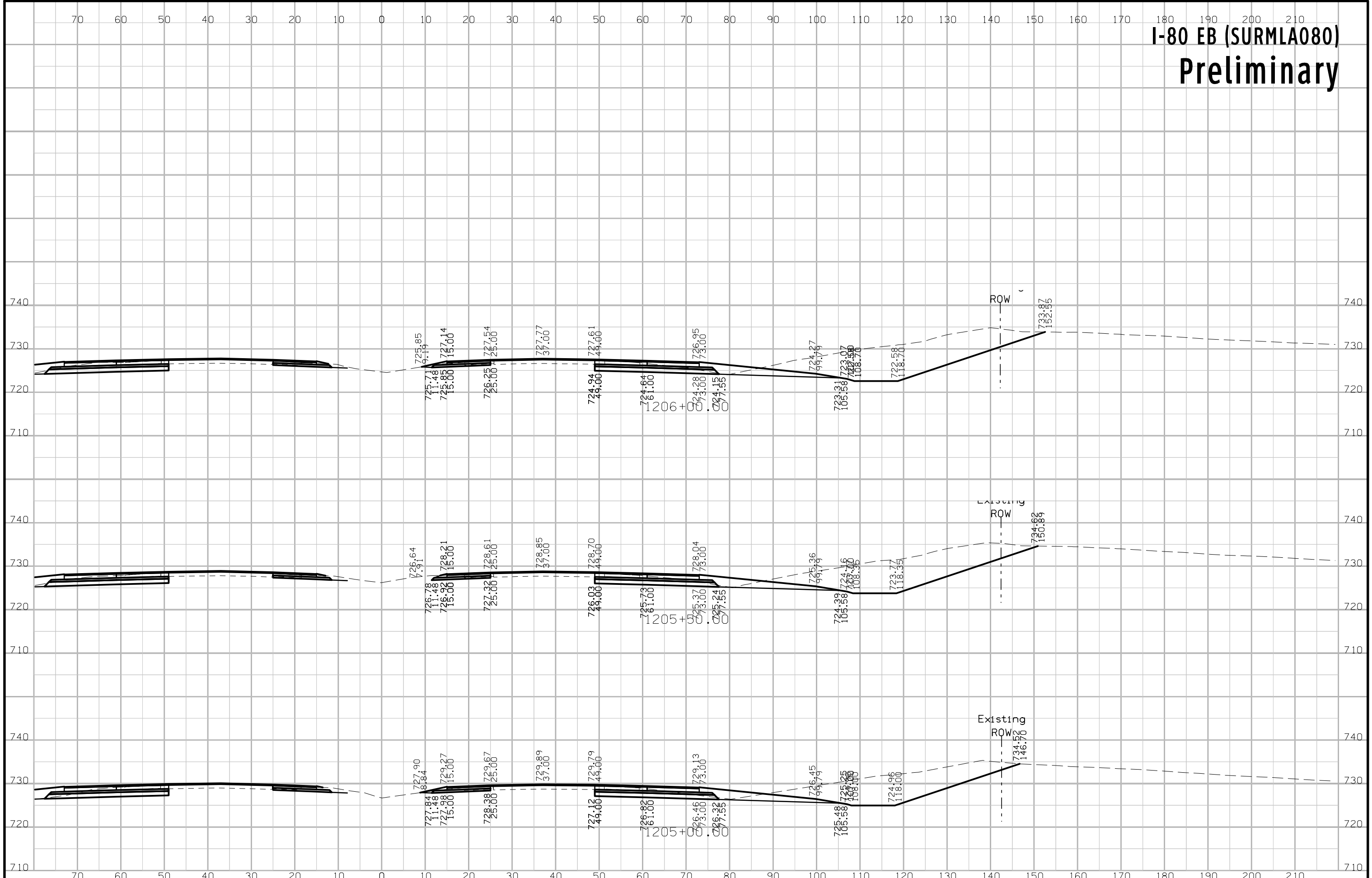
I-80 EB (SURMLA080) Preliminary



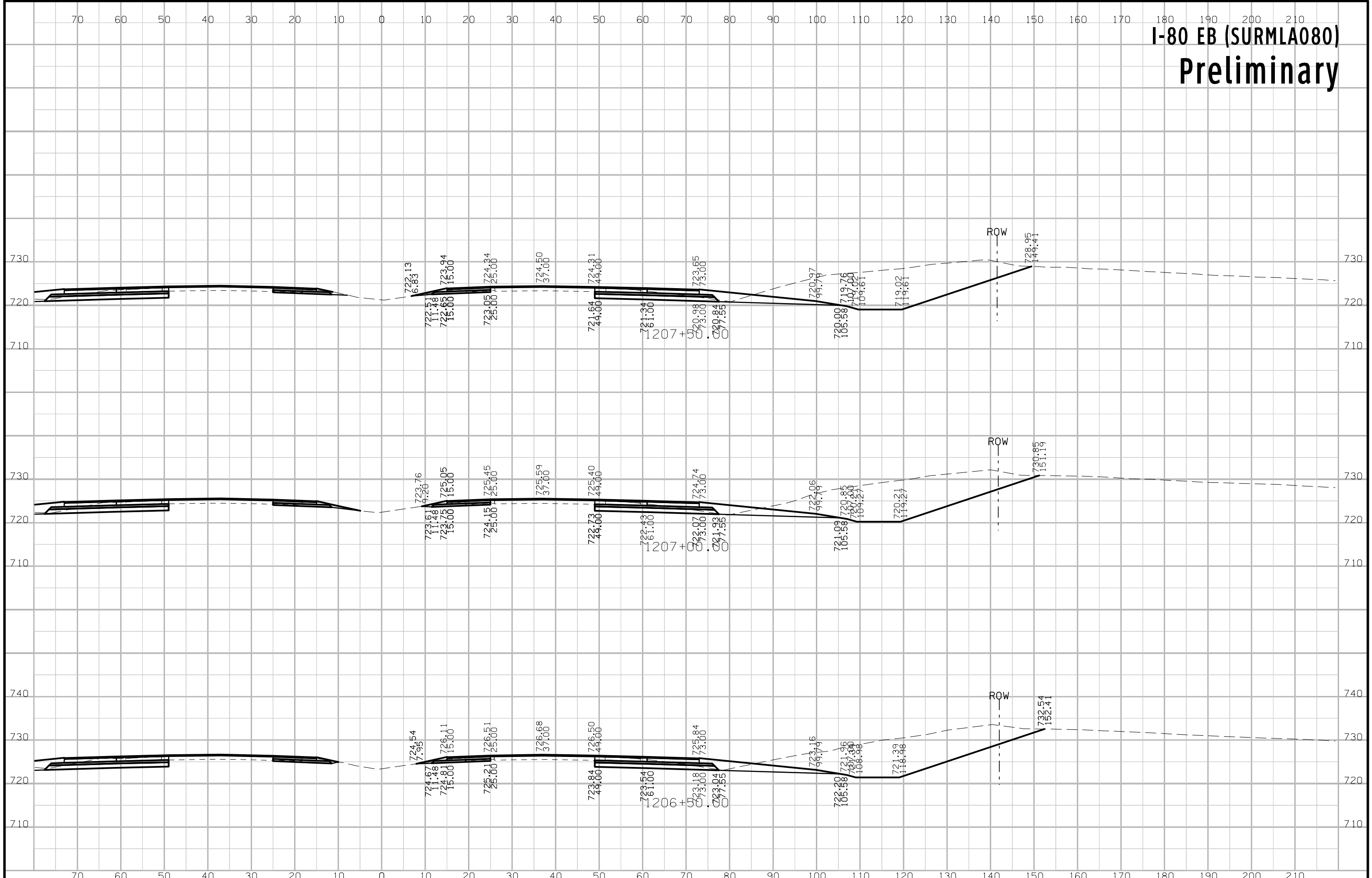
I-80 EB (SURMLA080) Preliminary



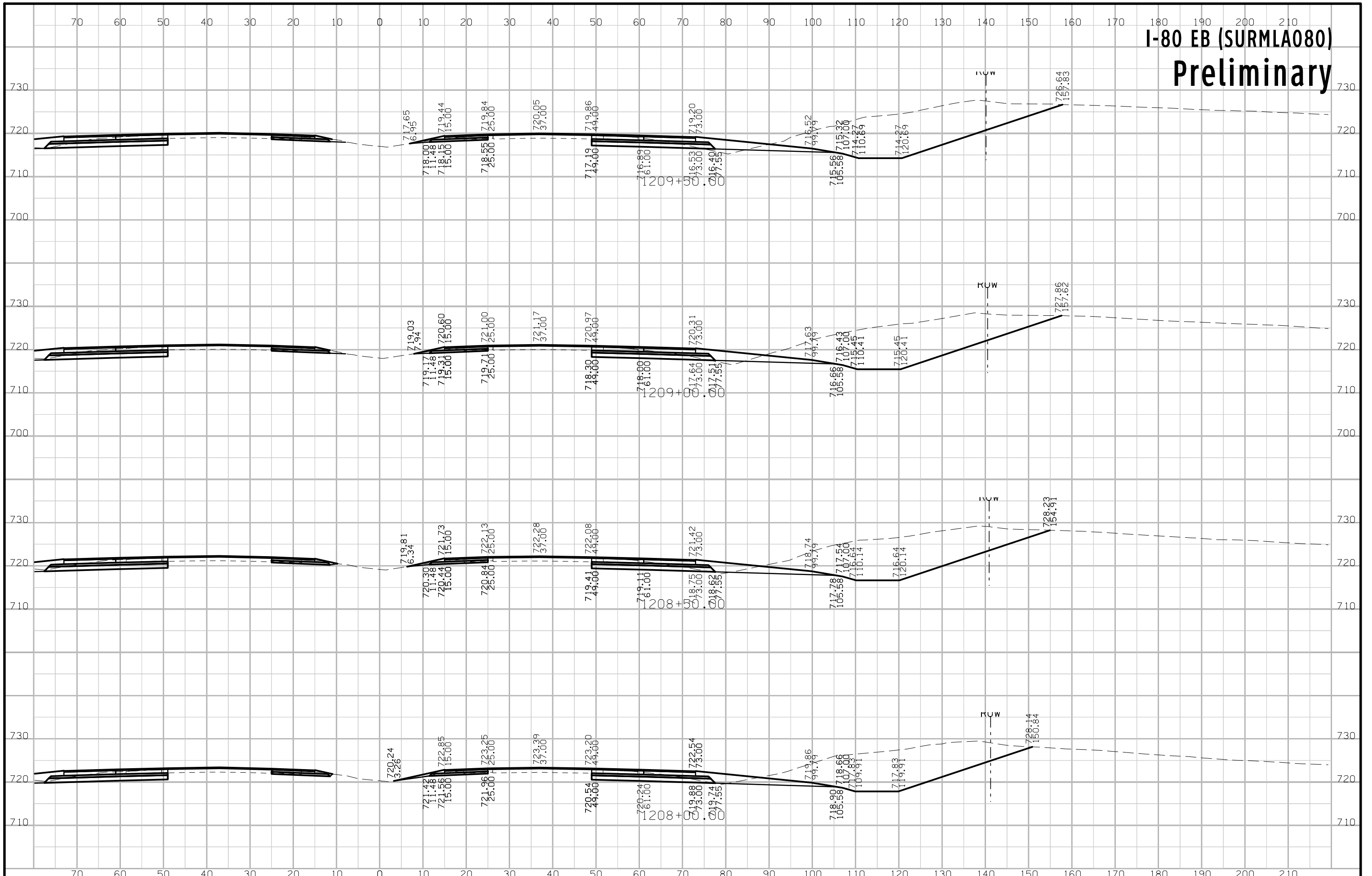
I-80 EB (SURMLA080) Preliminary



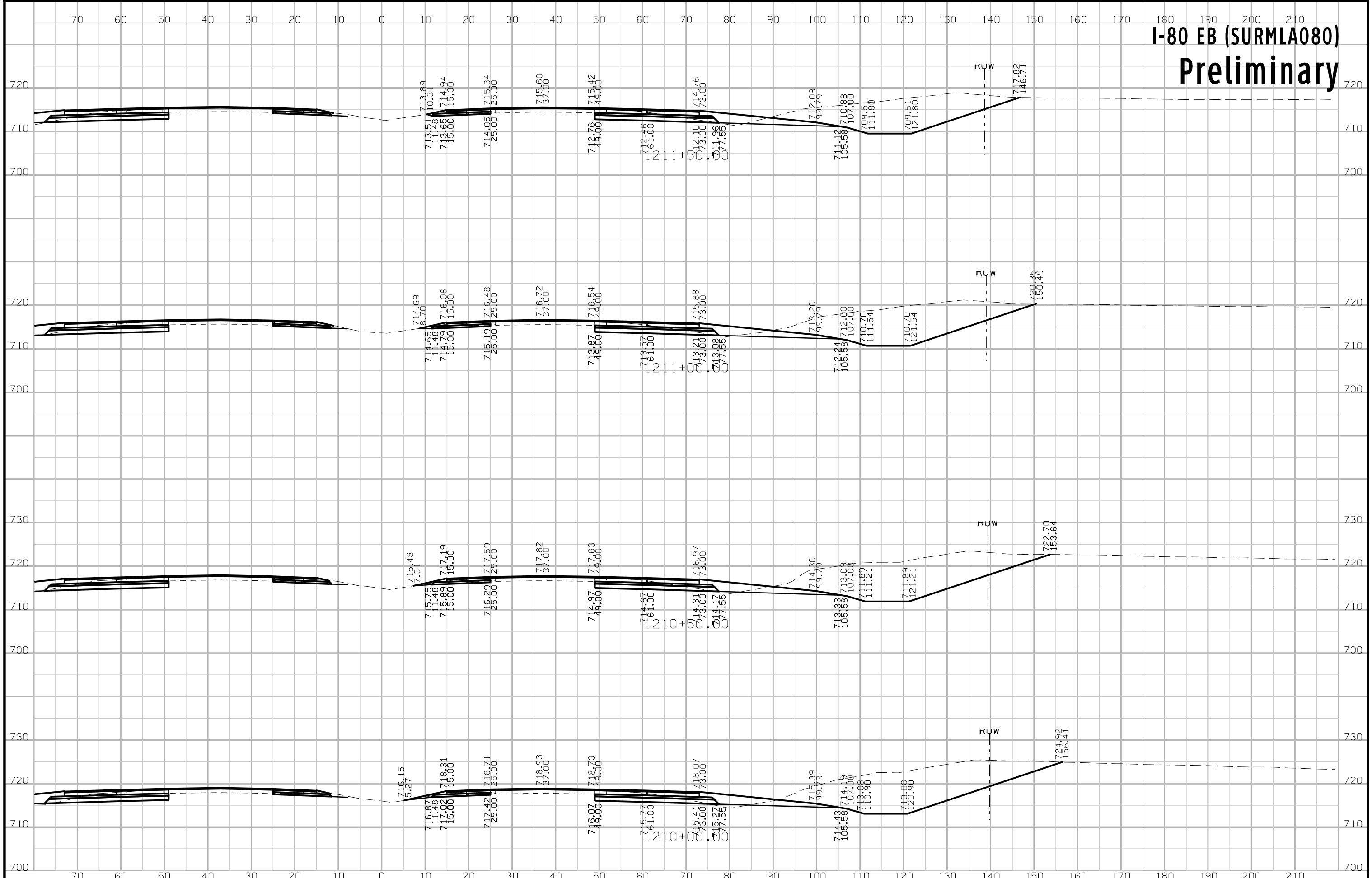
I-80 EB (SURMLA080) Preliminary



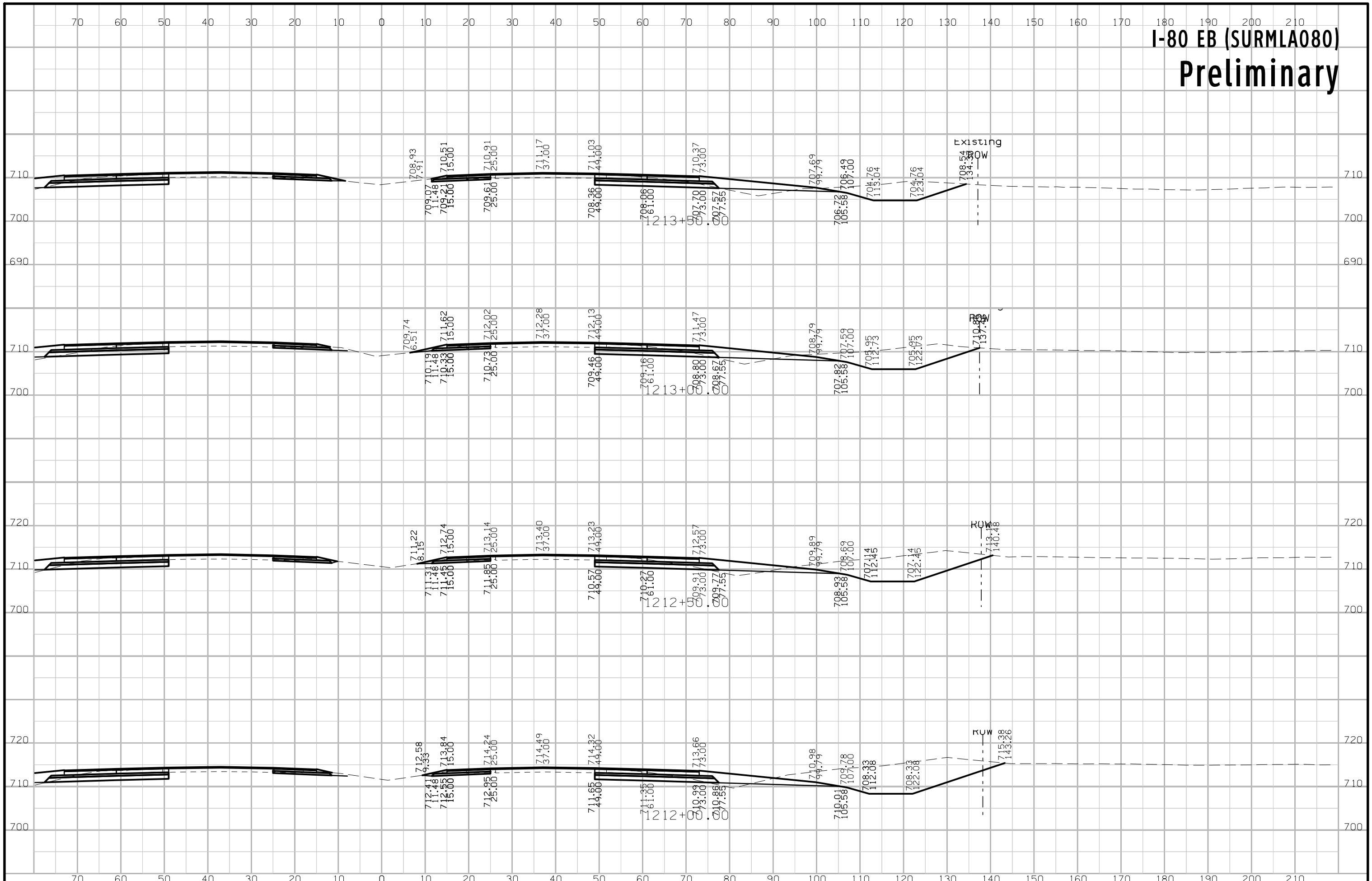
I-80 EB (SURMLA080) Preliminary



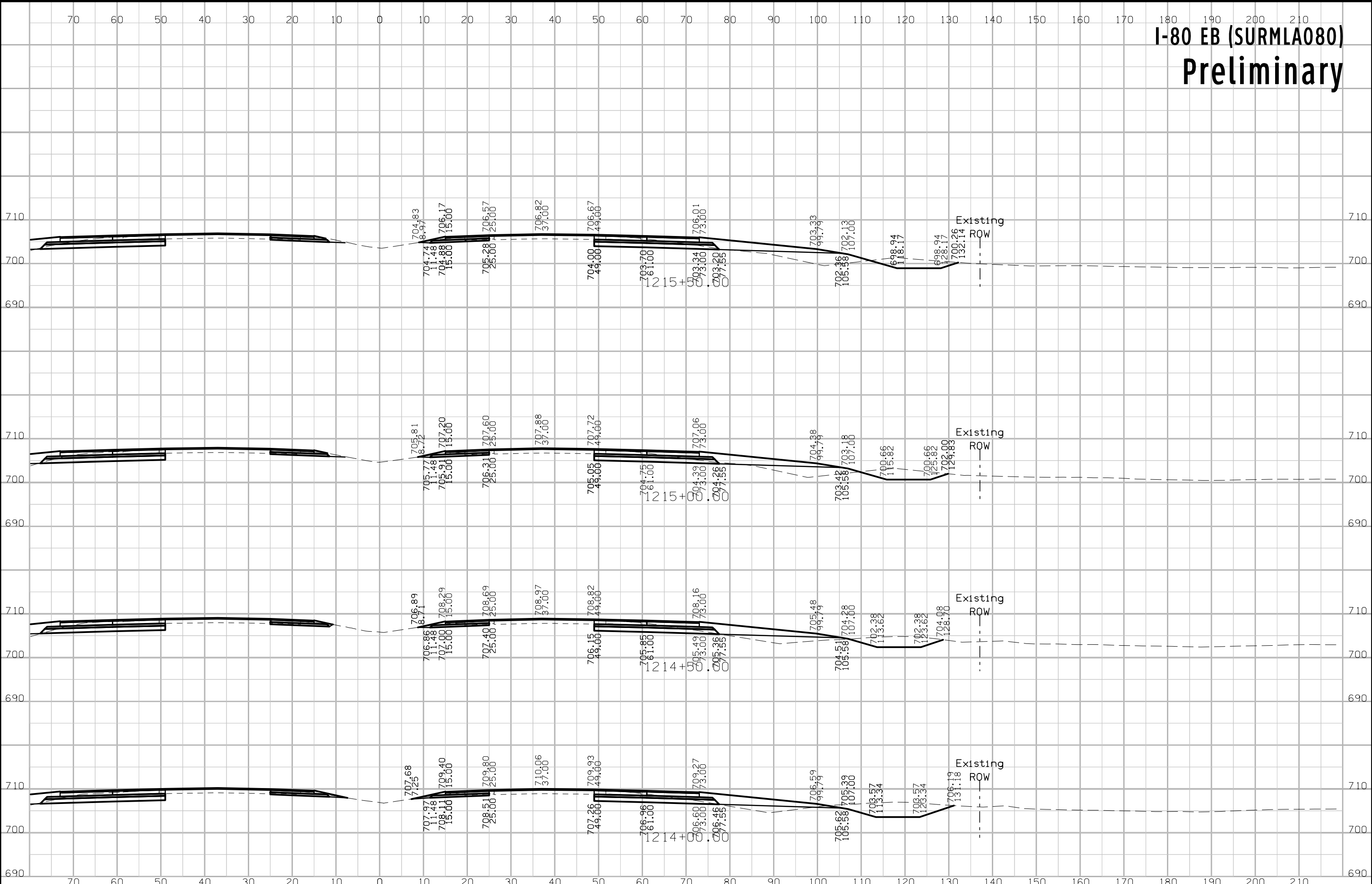
I-80 EB (SURMLA080) Preliminary



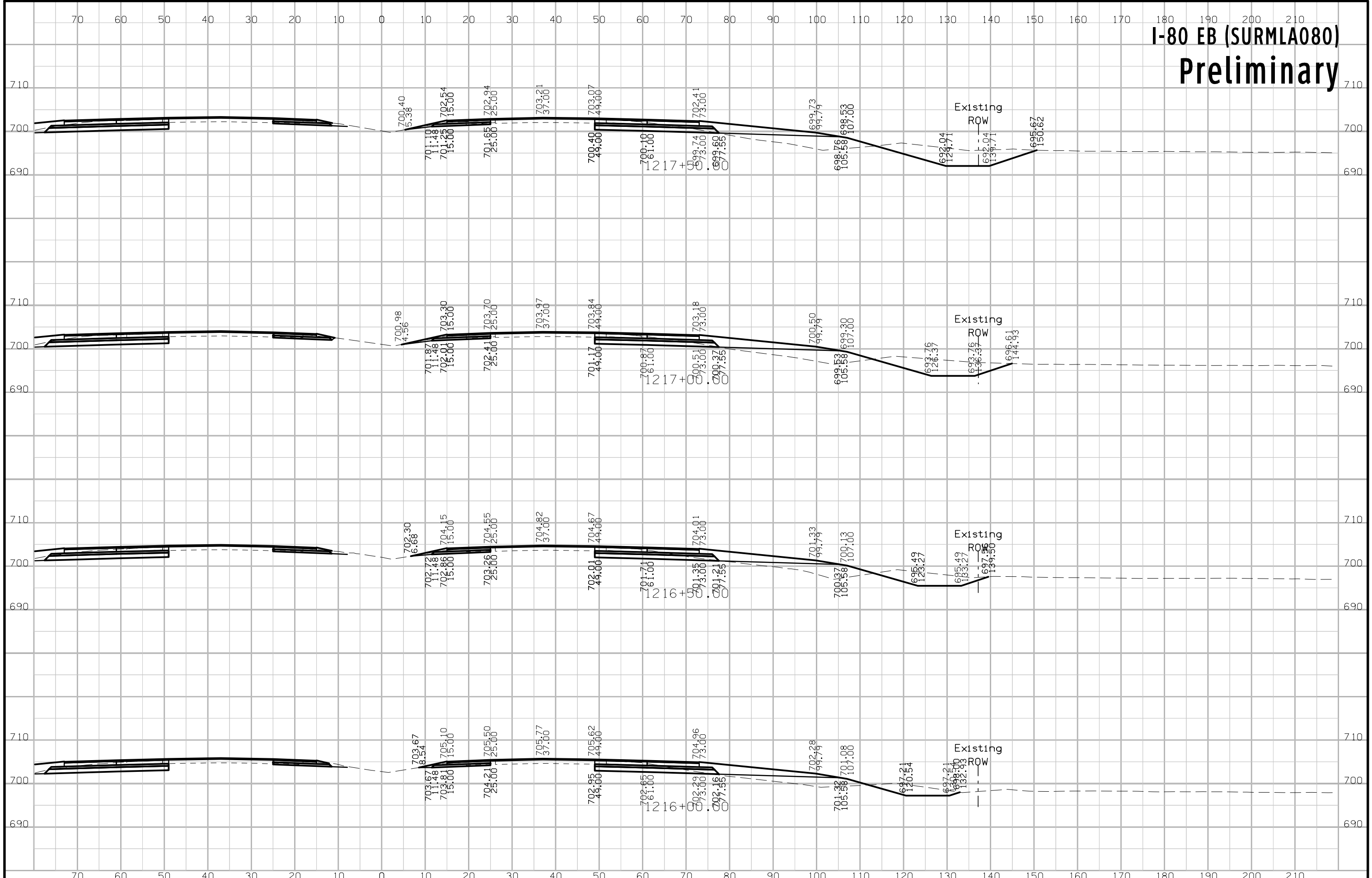
I-80 EB (SURMLA080) Preliminary



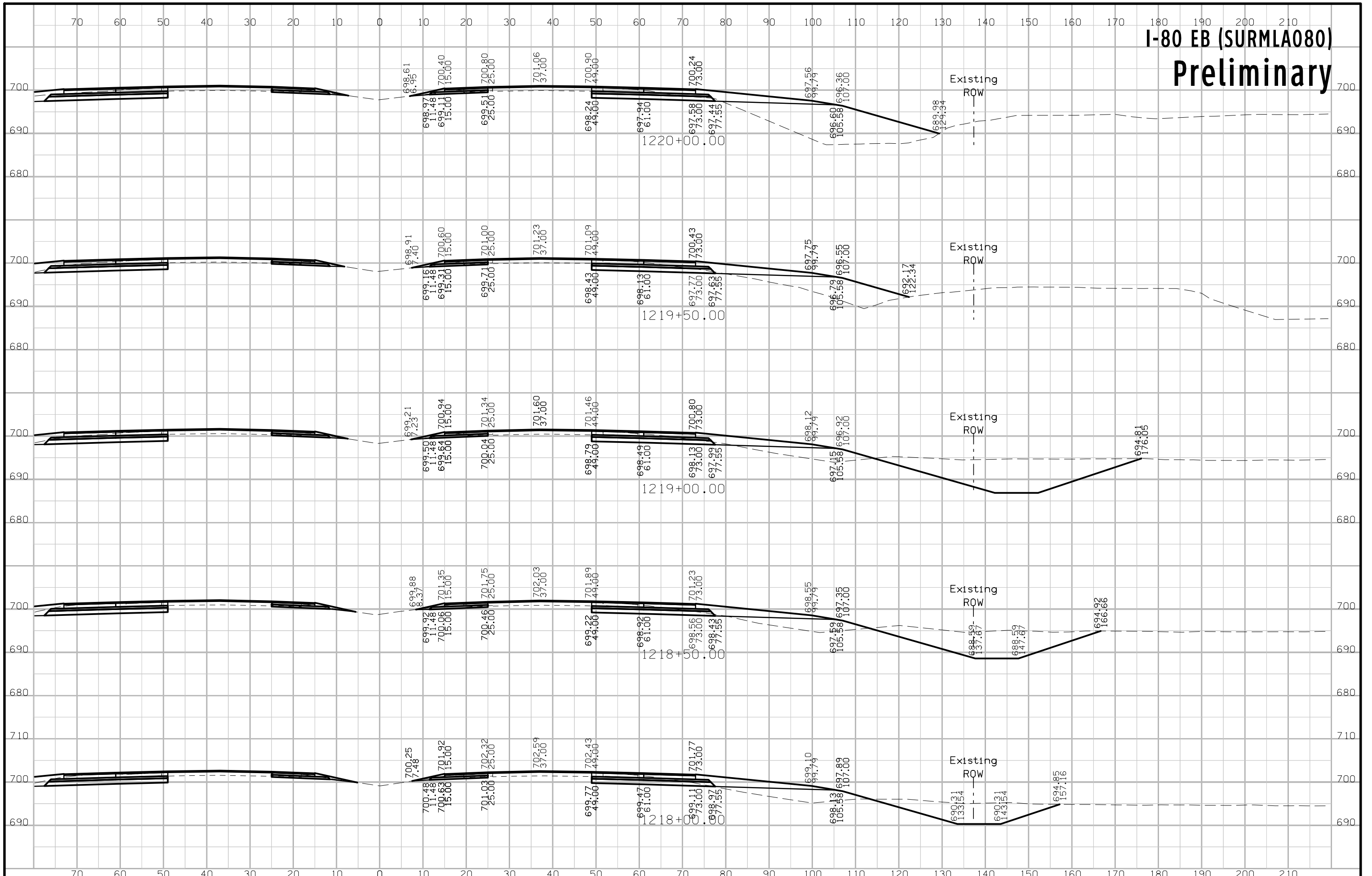
I-80 EB (SURMLA080) Preliminary



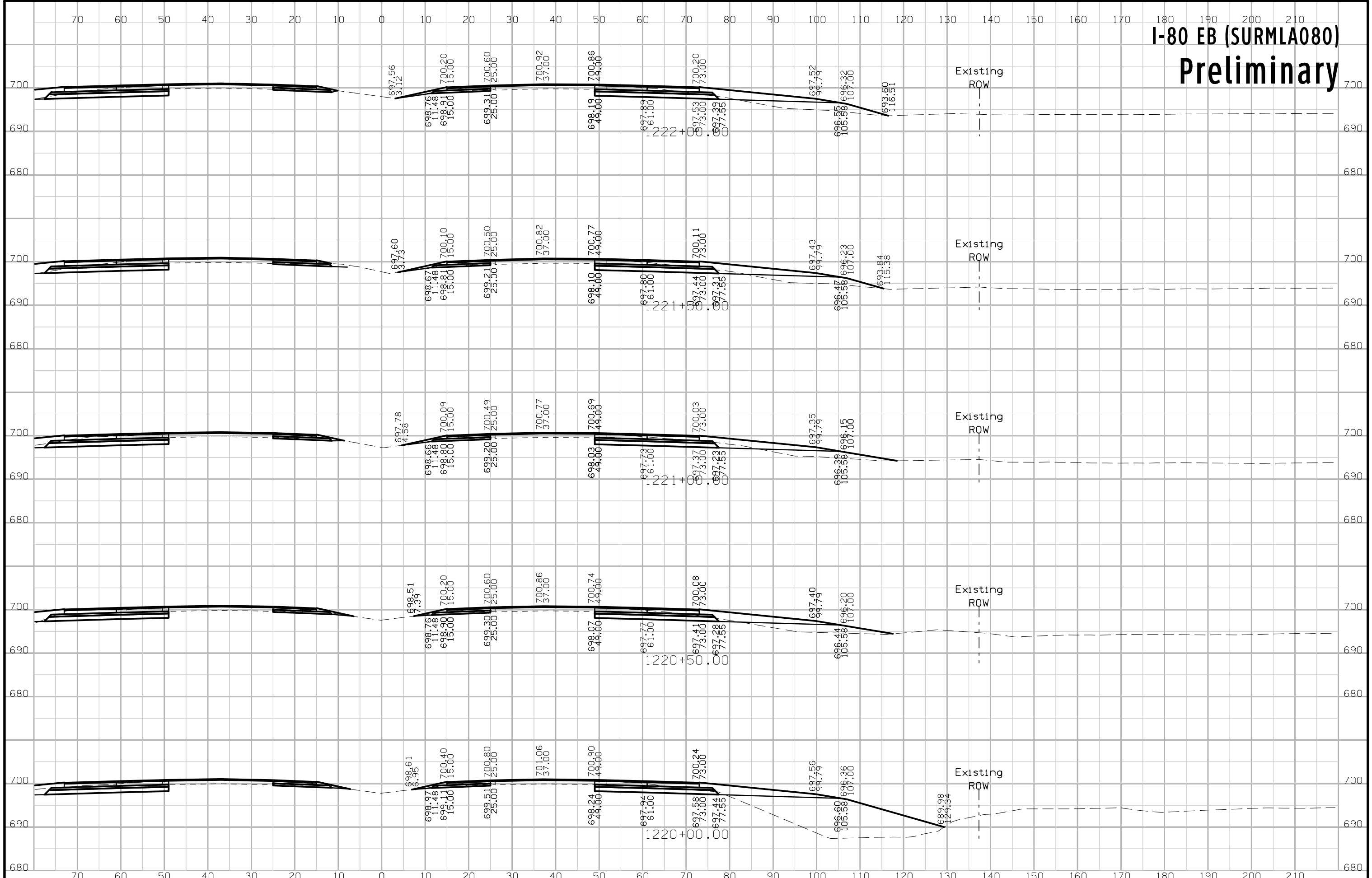
I-80 EB (SURMLA080) Preliminary



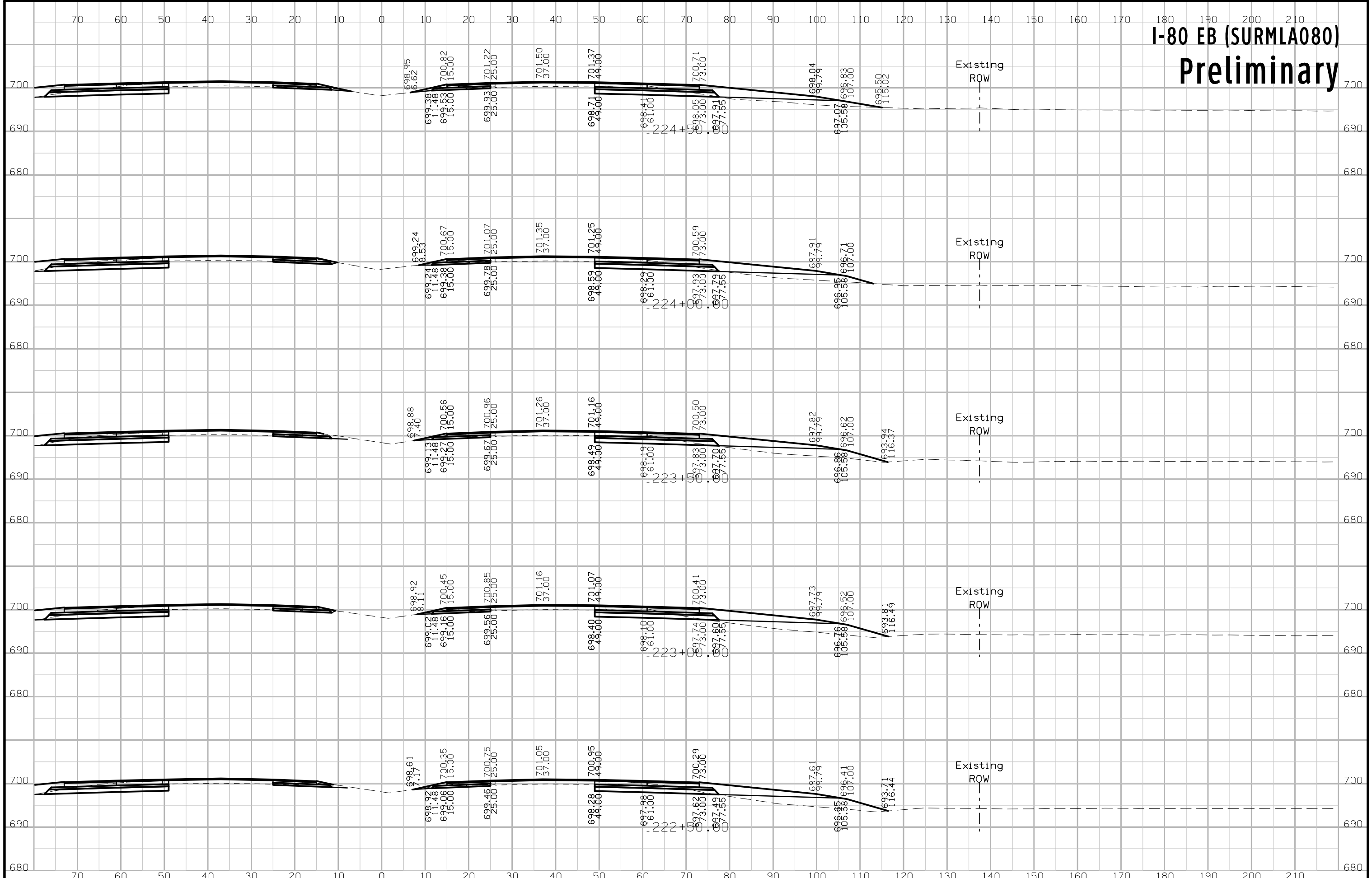
I-80 EB (SURMLA080) Preliminary



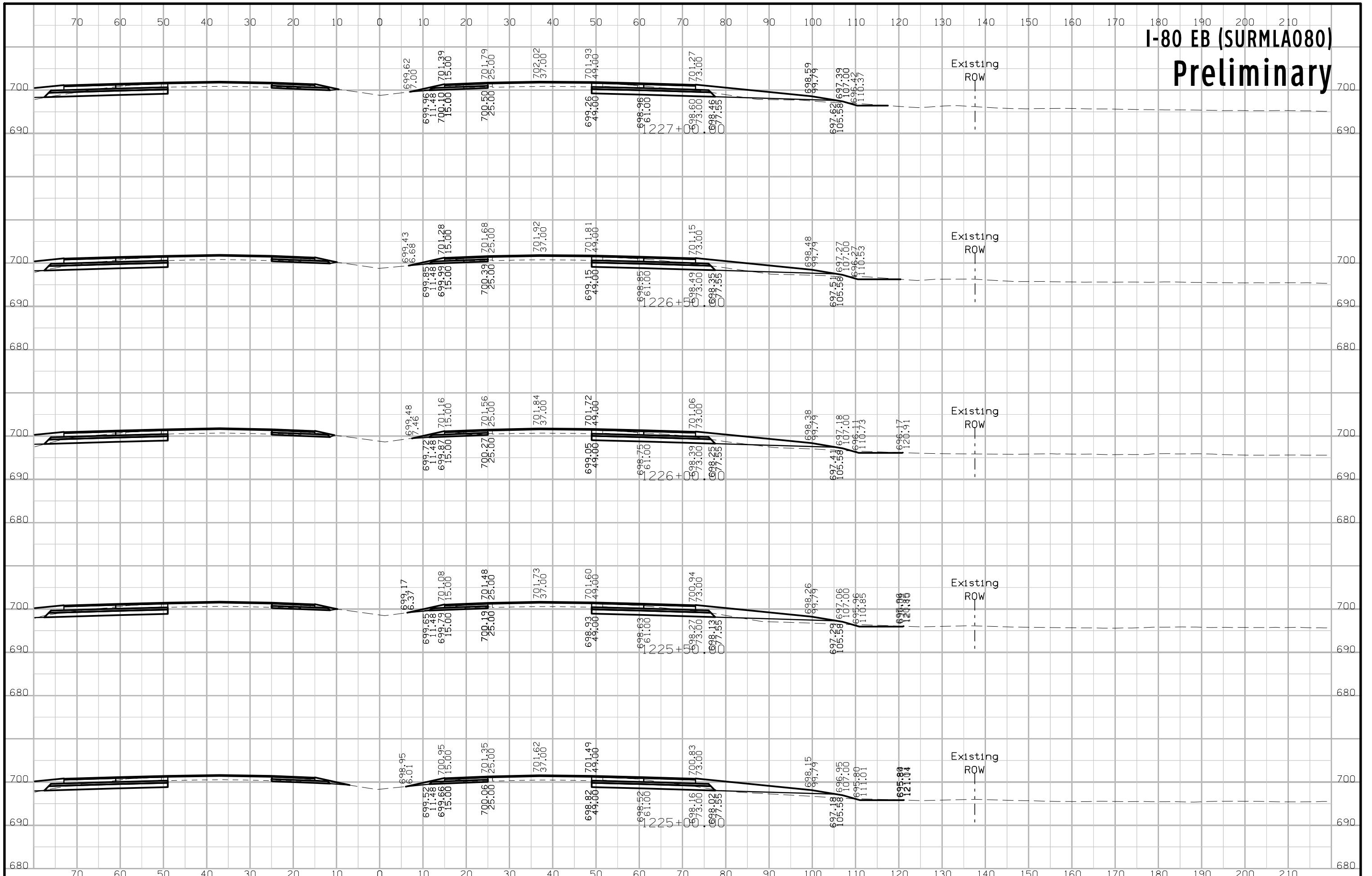
I-80 EB (SURMLA080) Preliminary



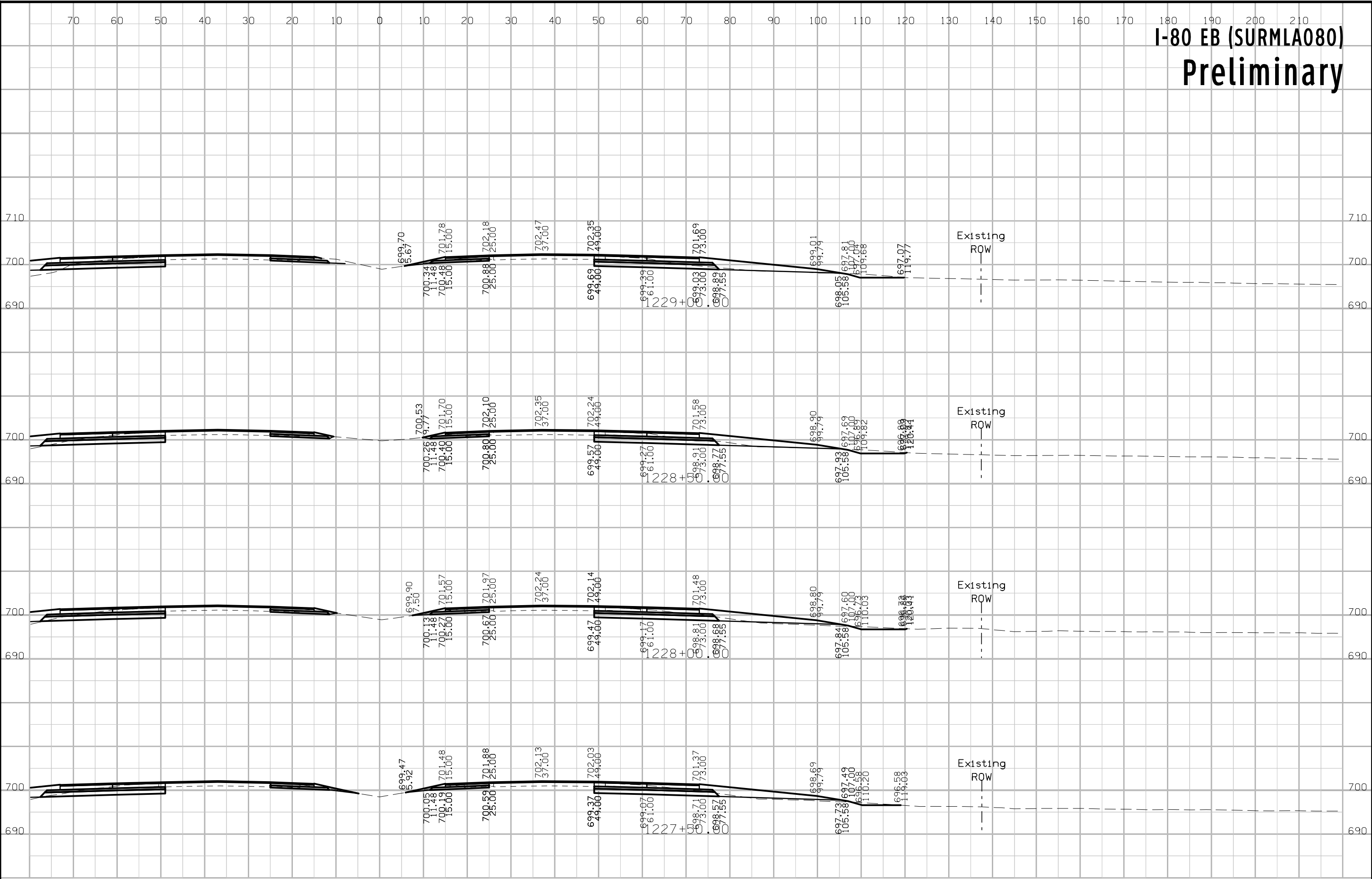
I-80 EB (SURMLA080) Preliminary



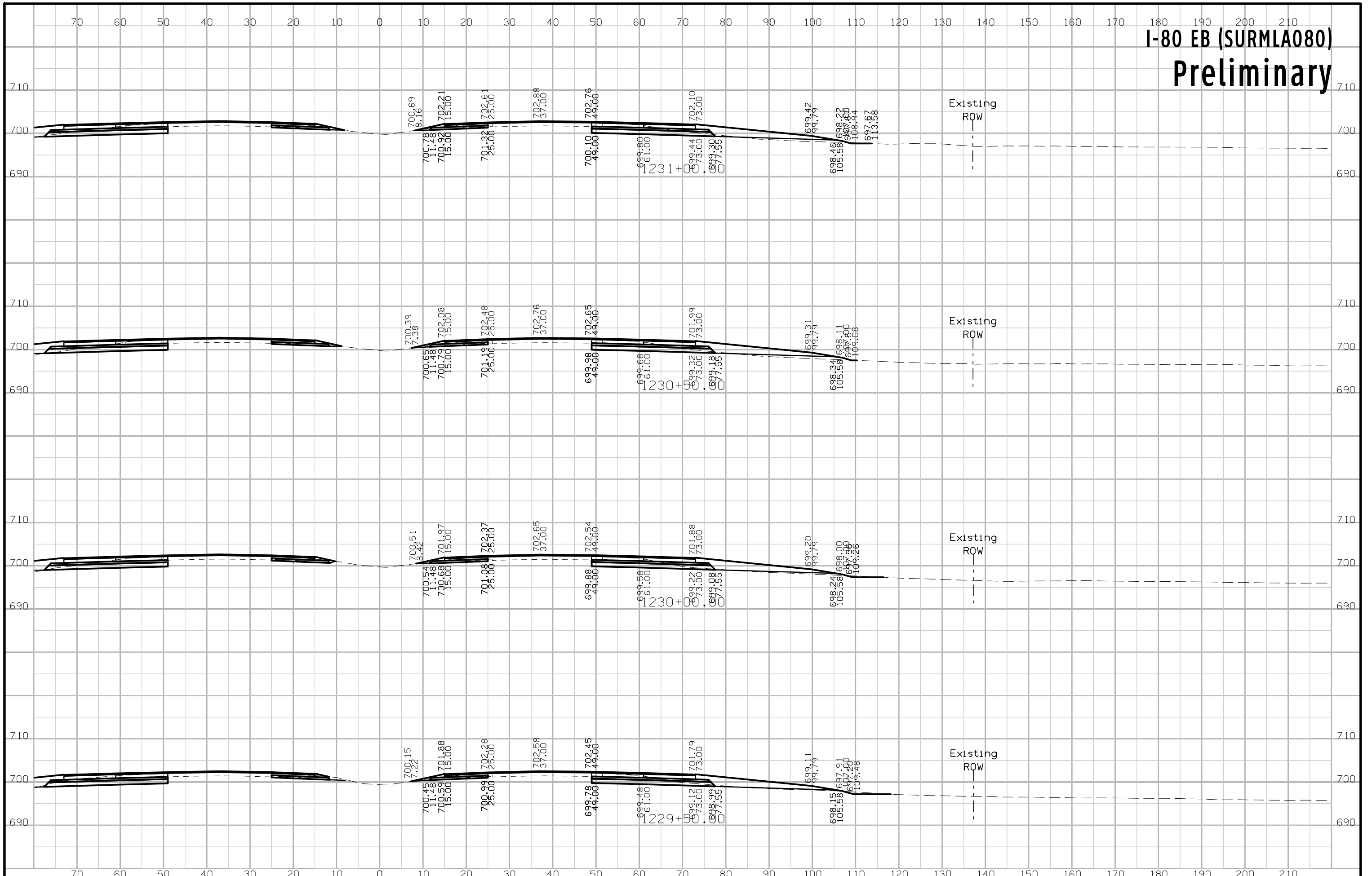
I-80 EB (SURMLA080) Preliminary



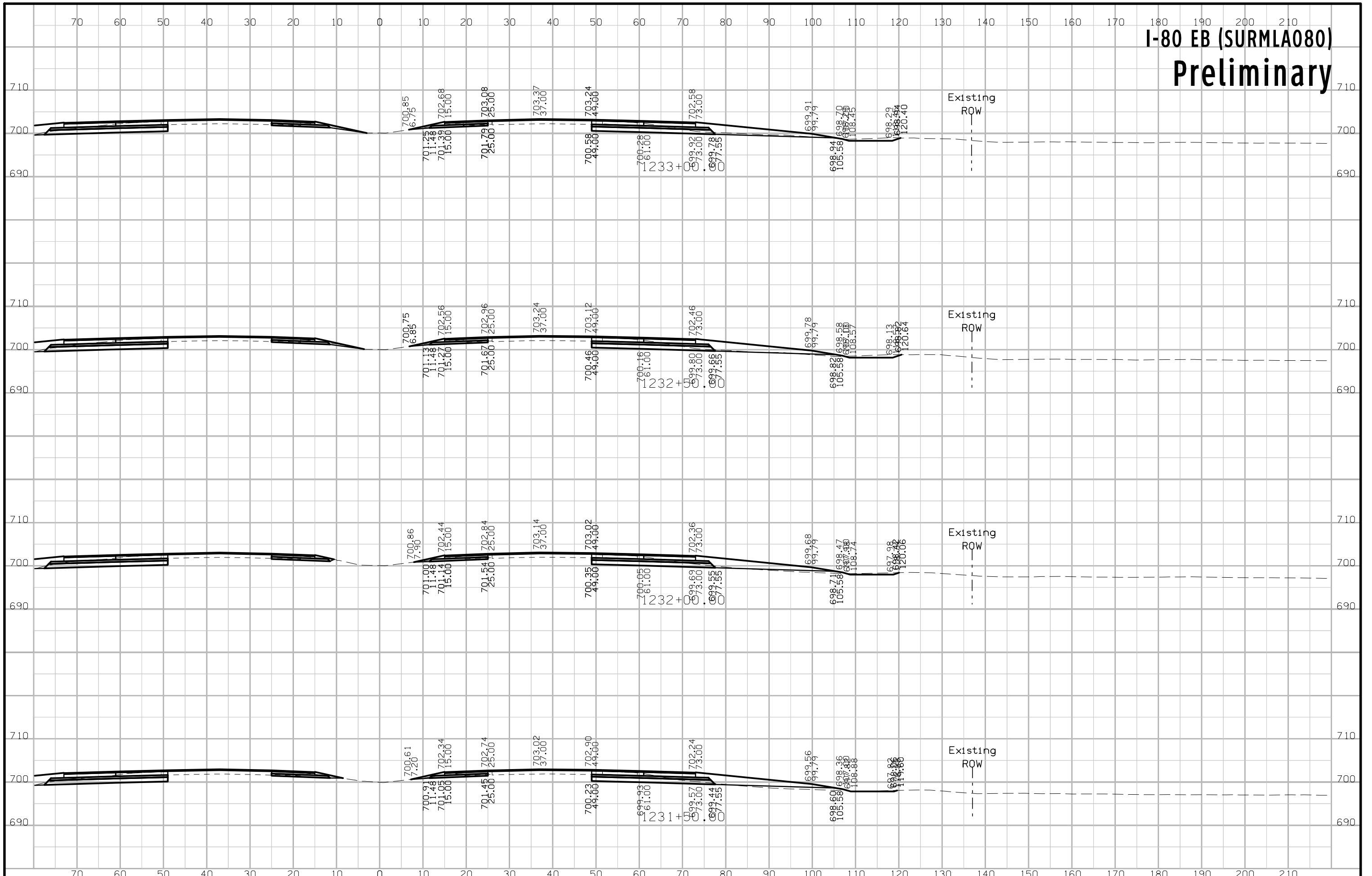
I-80 EB (SURMLA080) Preliminary



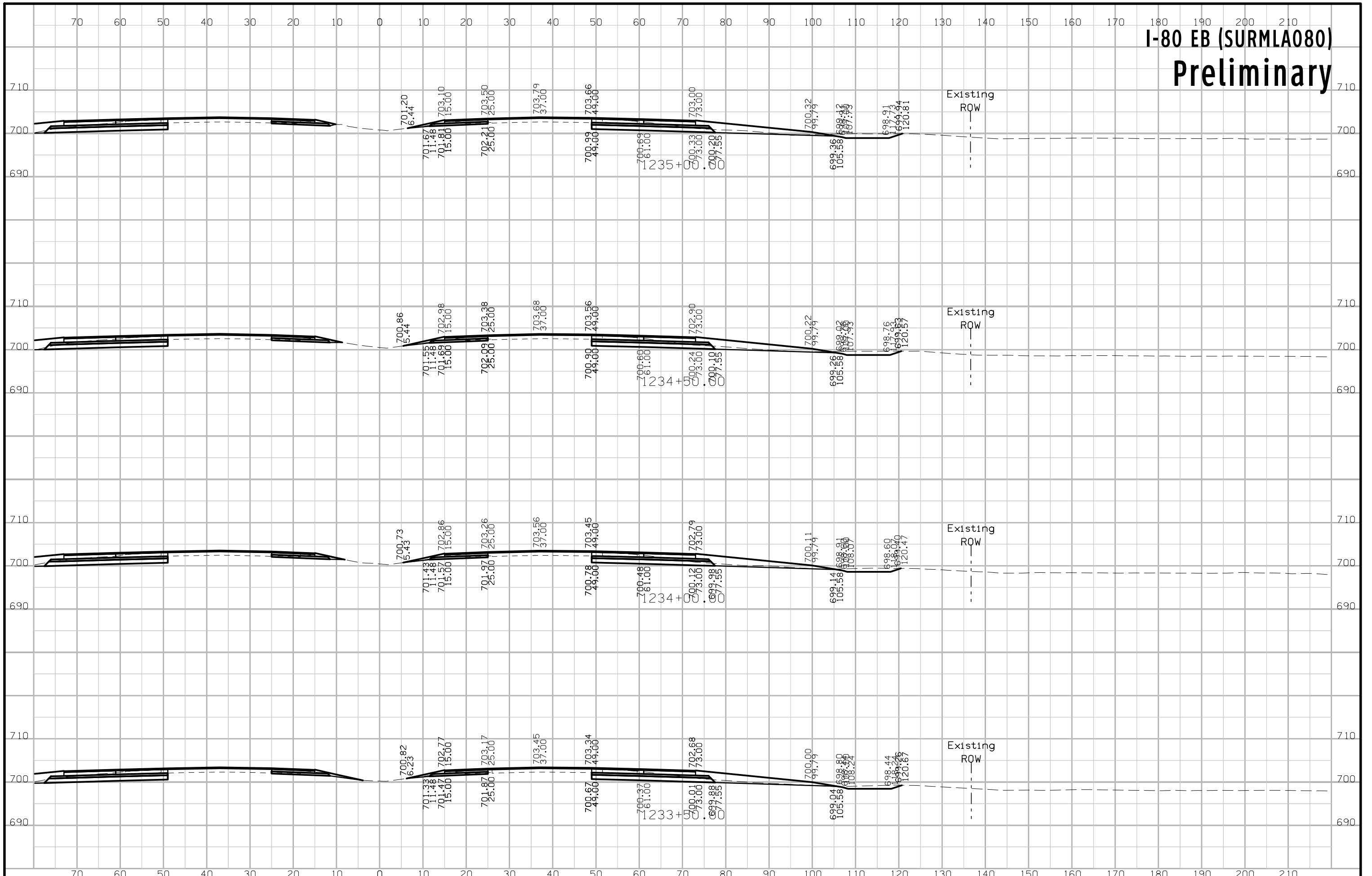
I-80 EB (SURMLA080) Preliminary



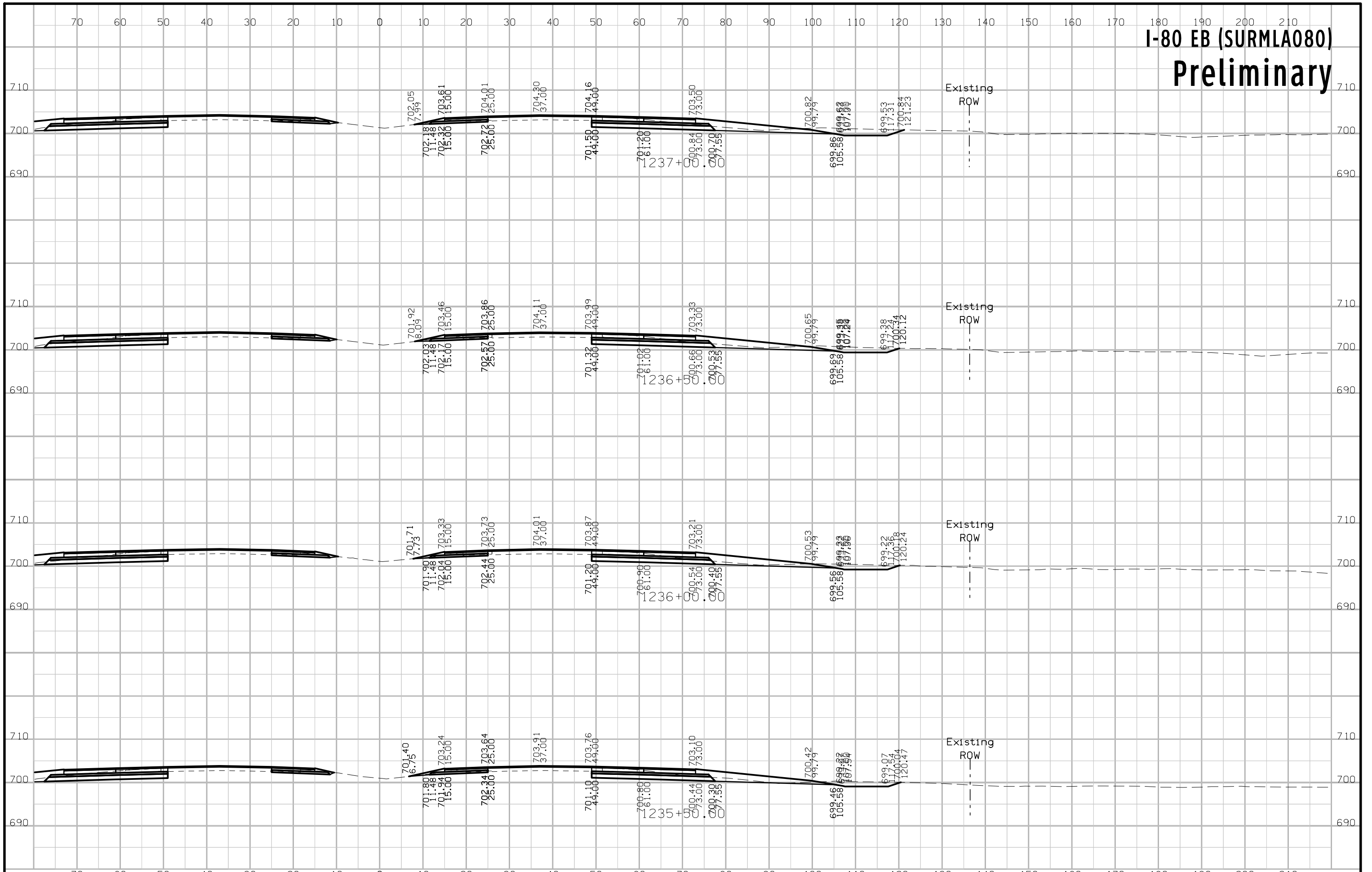
I-80 EB (SURMLA080) Preliminary



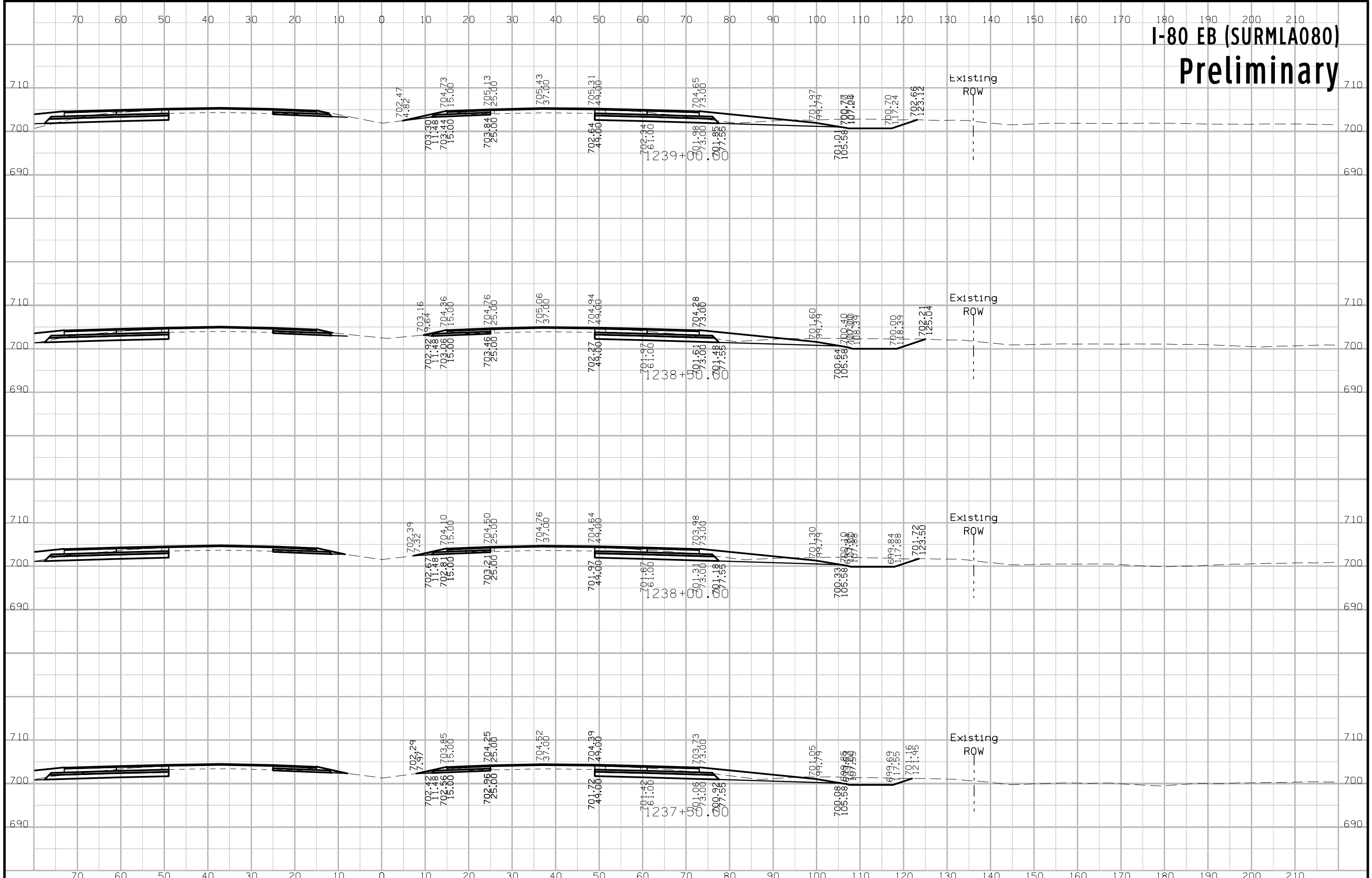
I-80 EB (SURMLA080) Preliminary



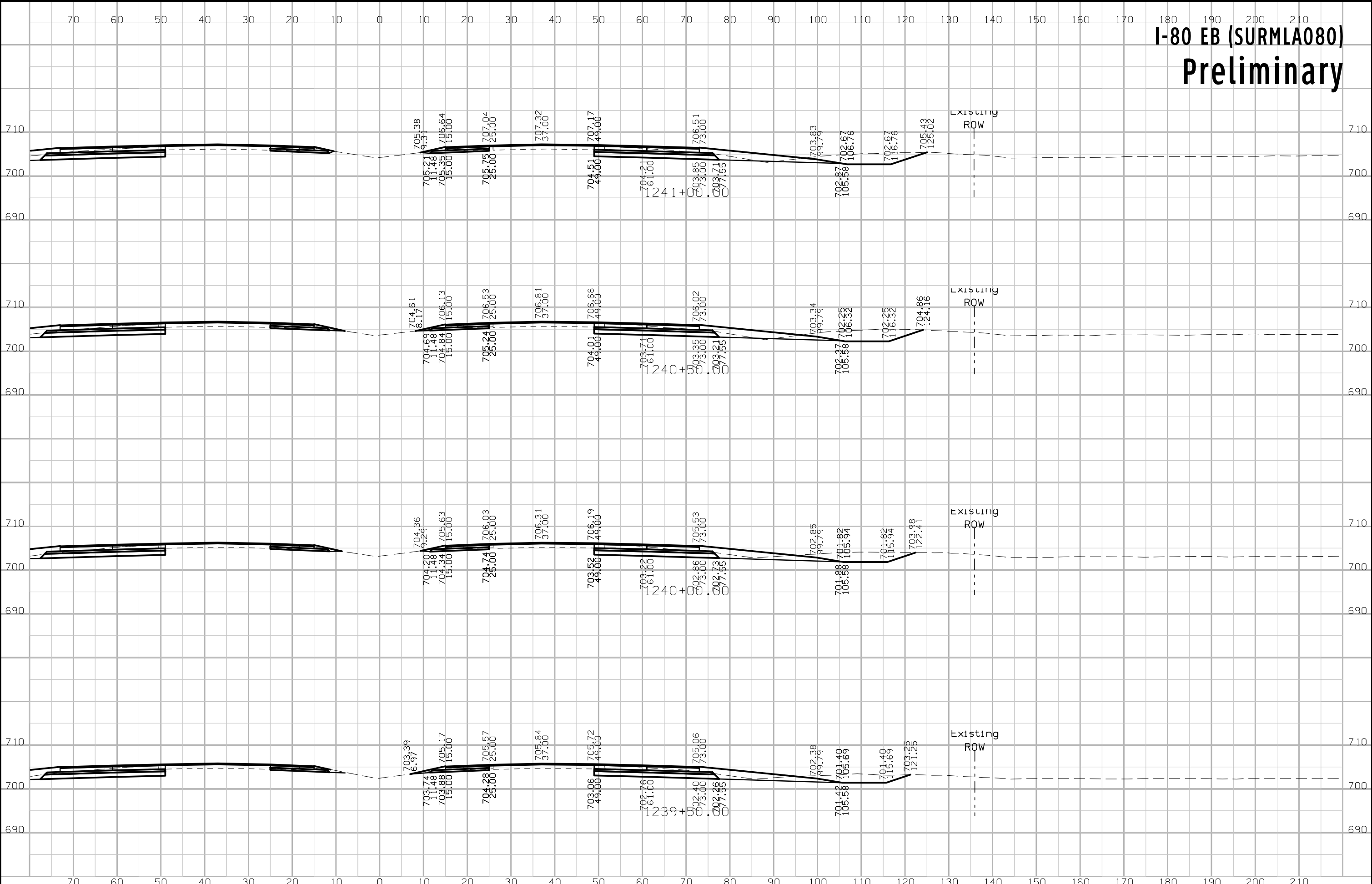
I-80 EB (SURMLA080) Preliminary



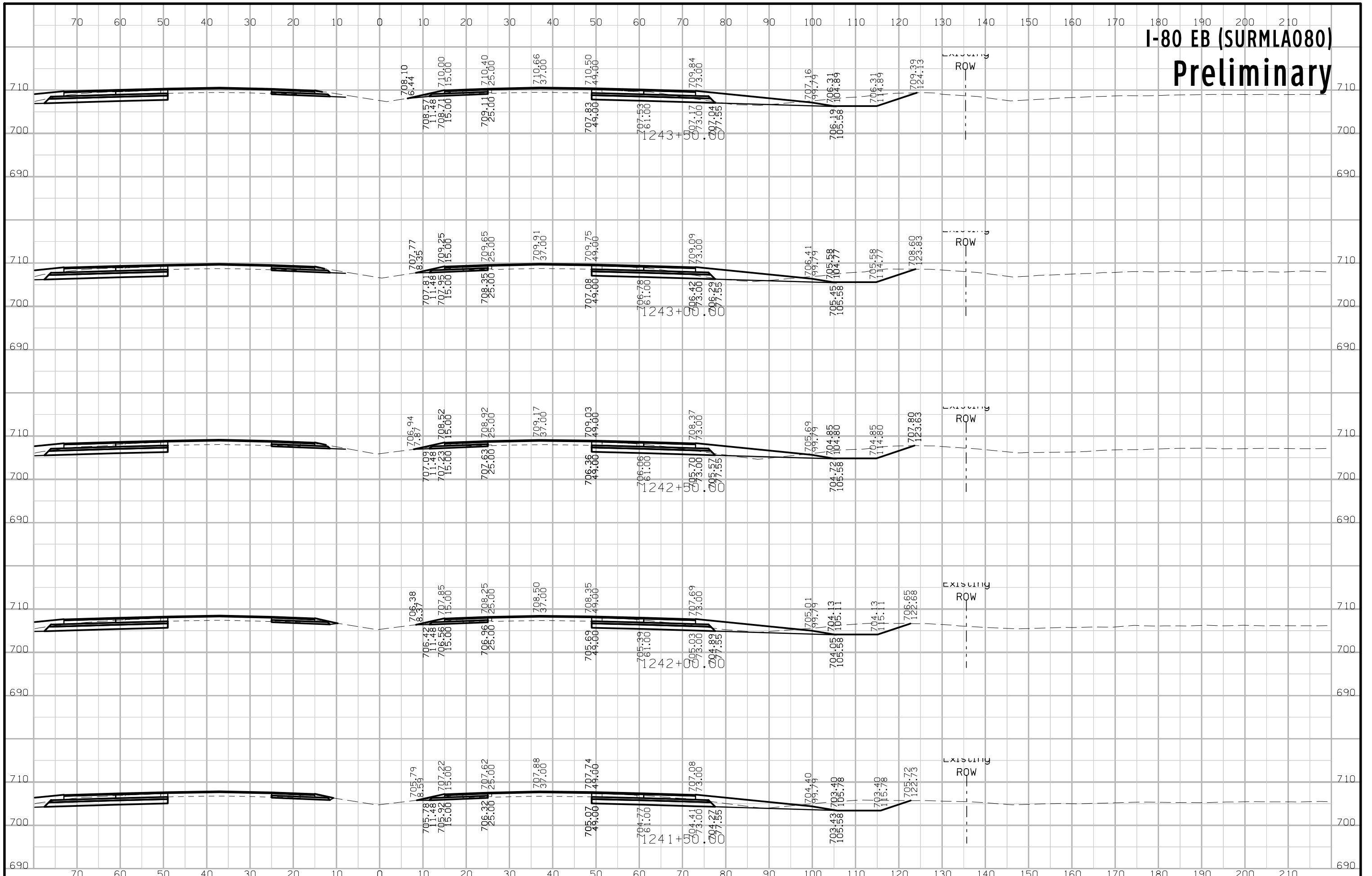
I-80 EB (SURMLA080) Preliminary



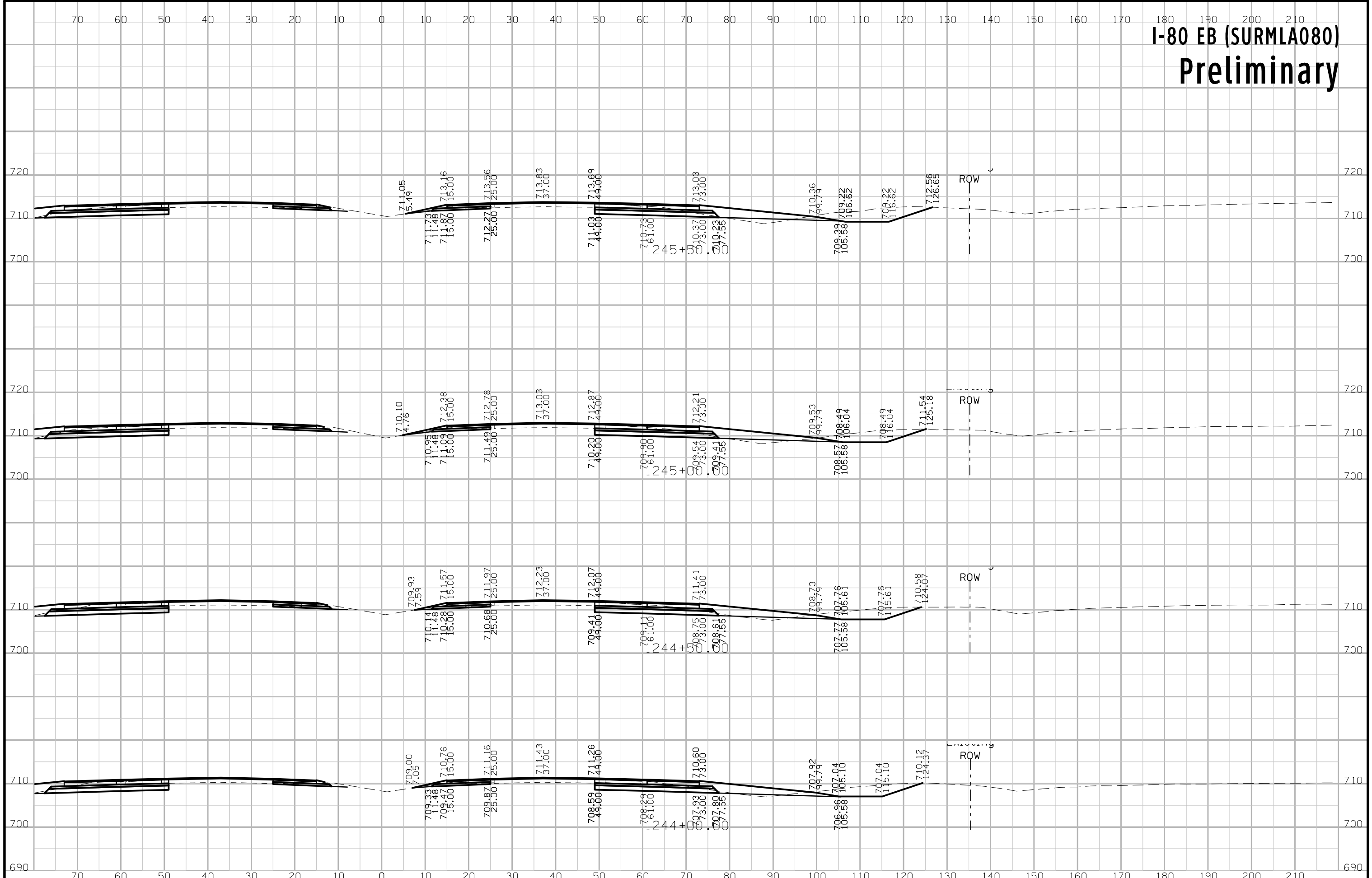
I-80 EB (SURMLA080) Preliminary



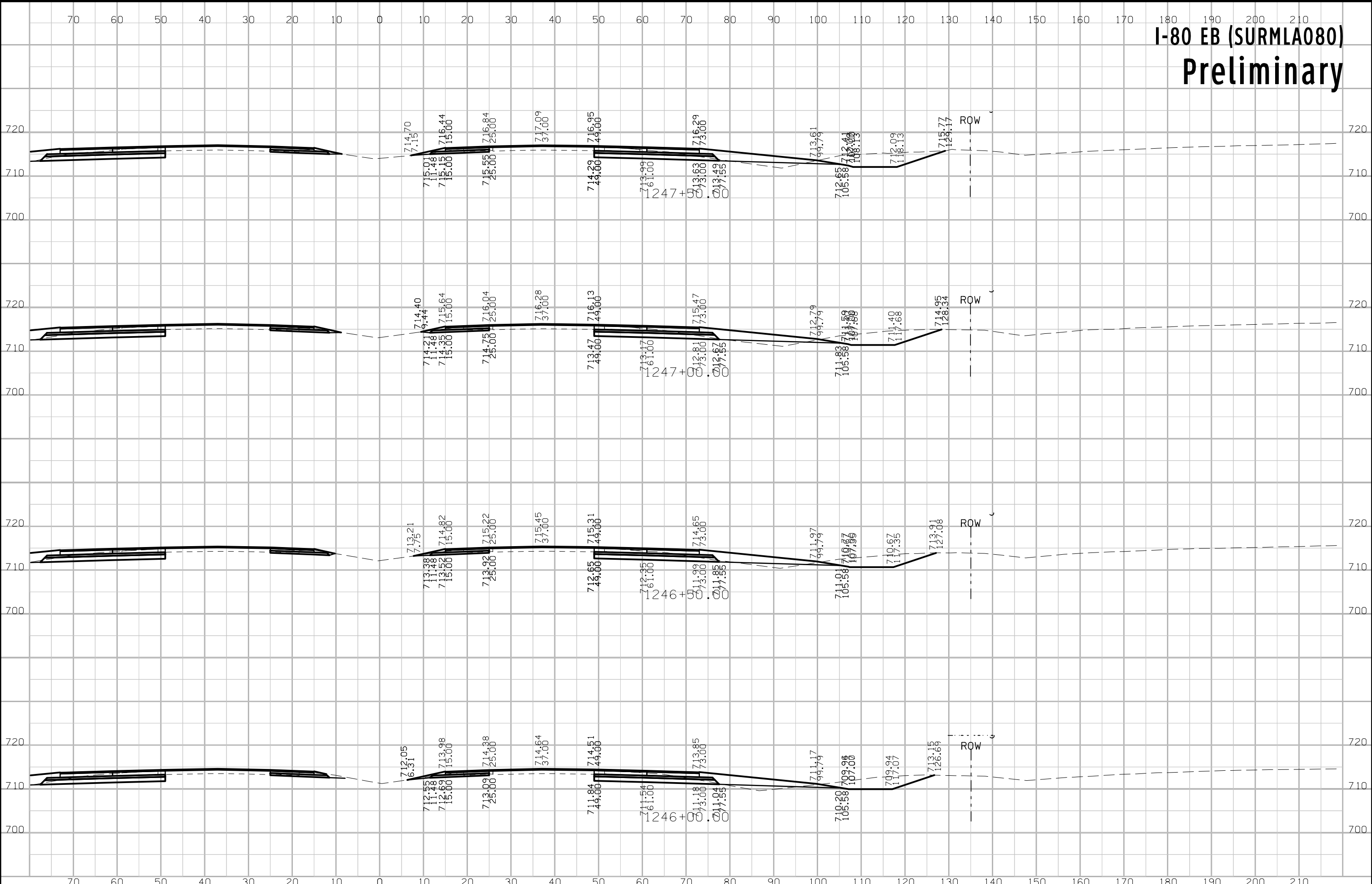
I-80 EB (SURMLA080) Preliminary



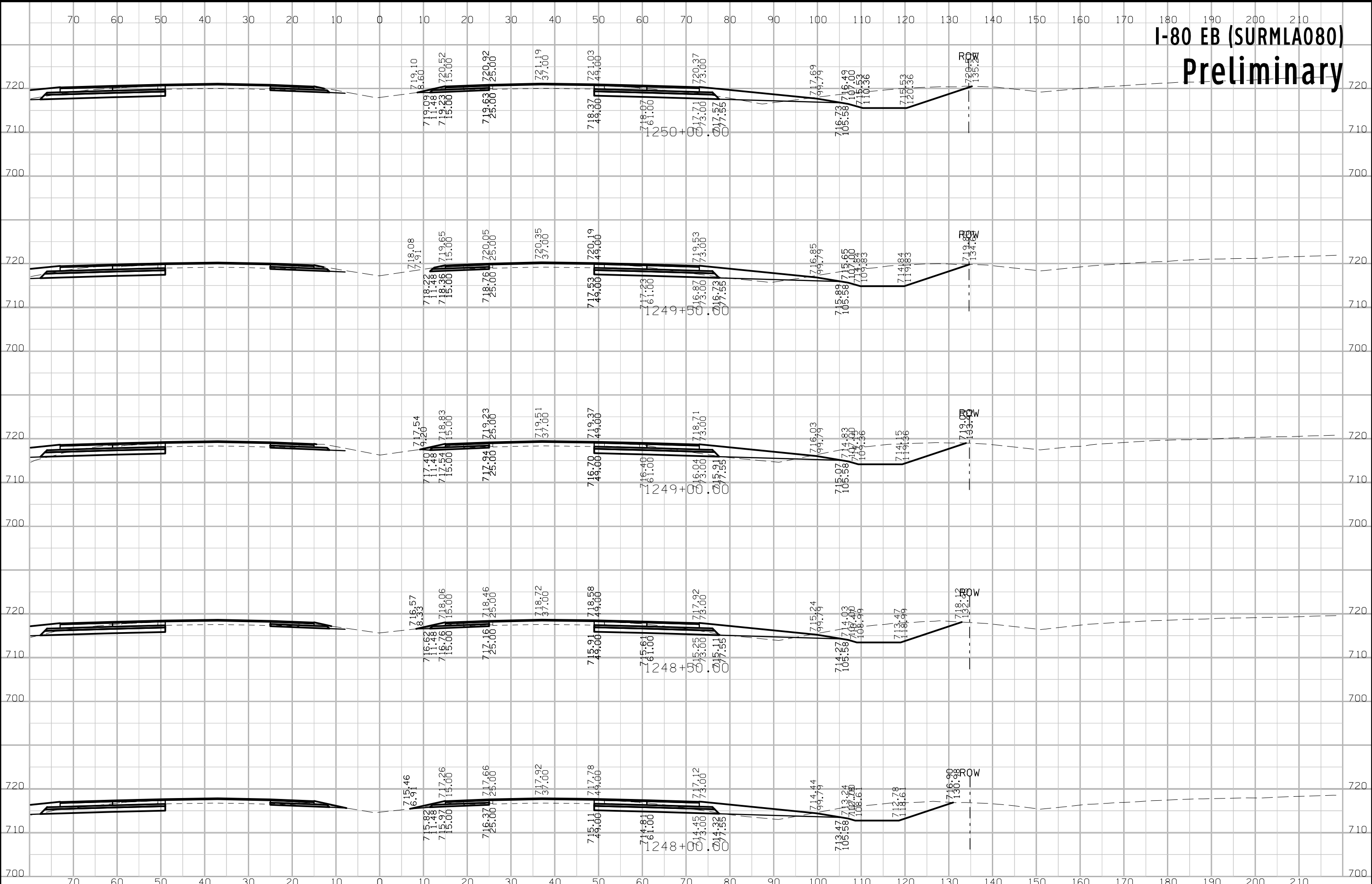
I-80 EB (SURMLA080) Preliminary



I-80 EB (SURMLA080) Preliminary

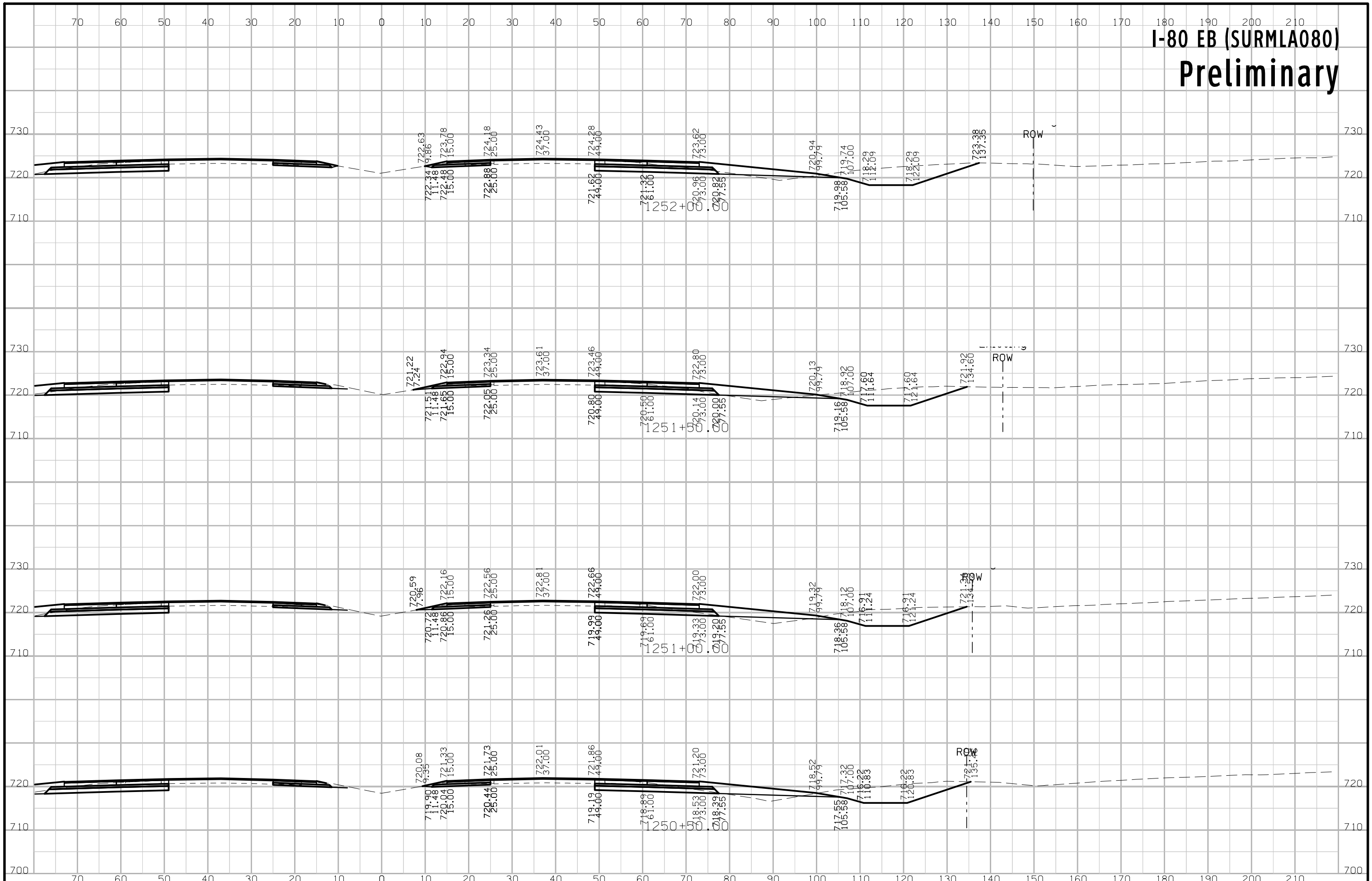


I-80 EB (SURMLA080)
Preliminary

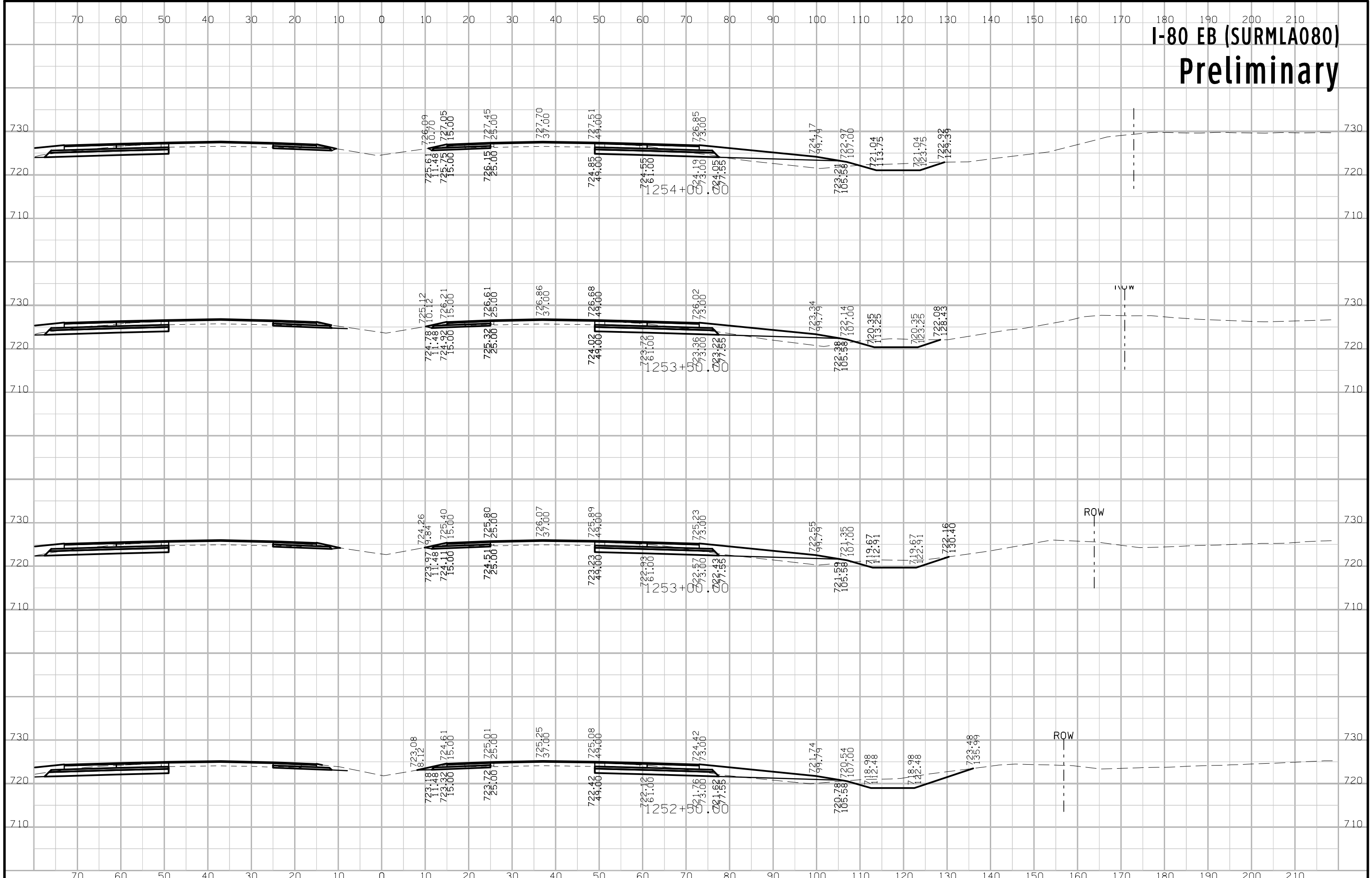


FILE NO.	ENGLISH	DESIGN TEAM	Yanna \ HR Green	CEDAR COUNTY	PROJECT NUMBER	IM-080-7(132)266--13-16	SHEET NUMBER	W.613
----------	---------	-------------	------------------	--------------	----------------	-------------------------	--------------	-------

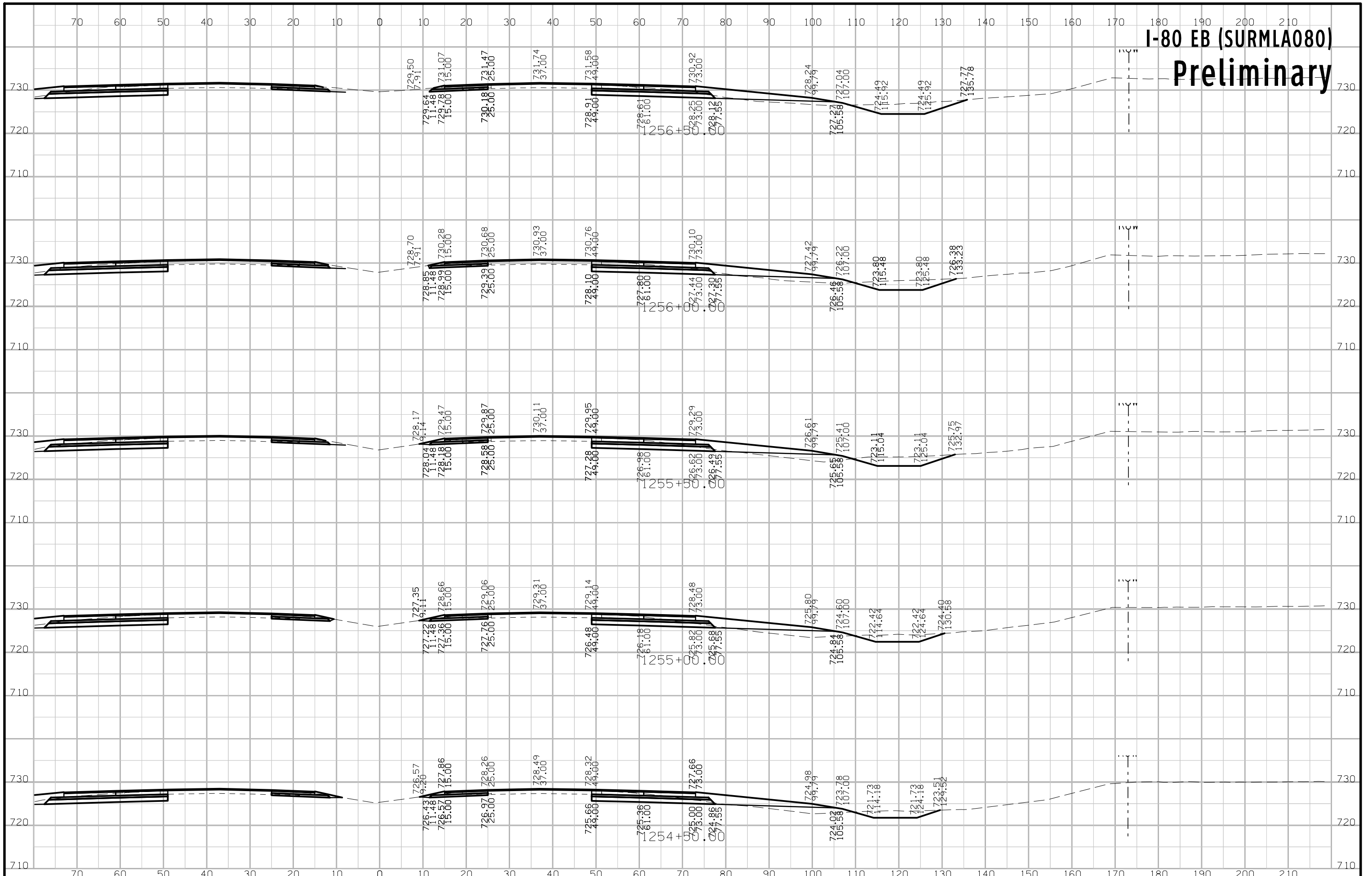
I-80 EB (SURMLA080) Preliminary



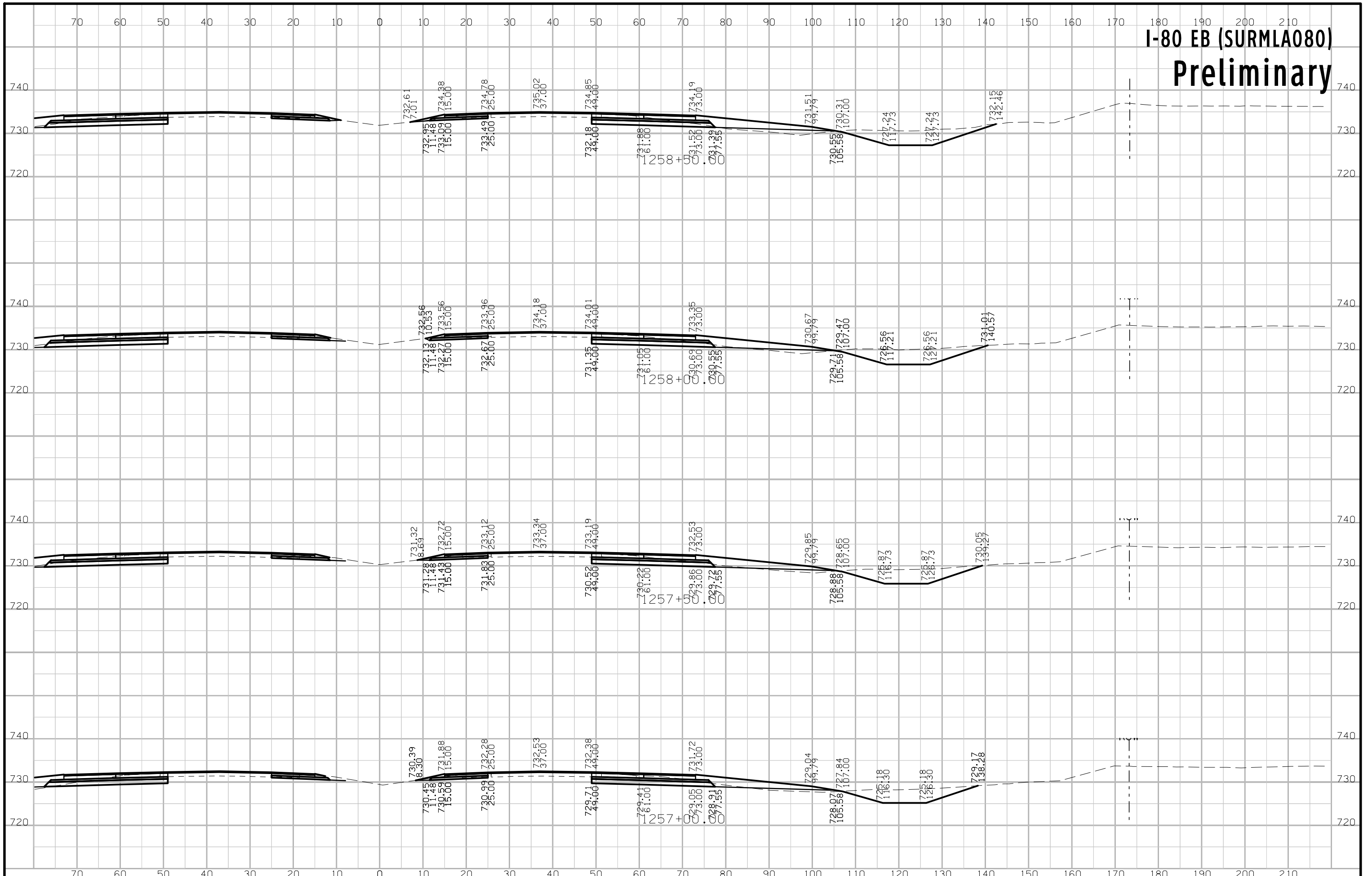
I-80 EB (SURMLA080) Preliminary



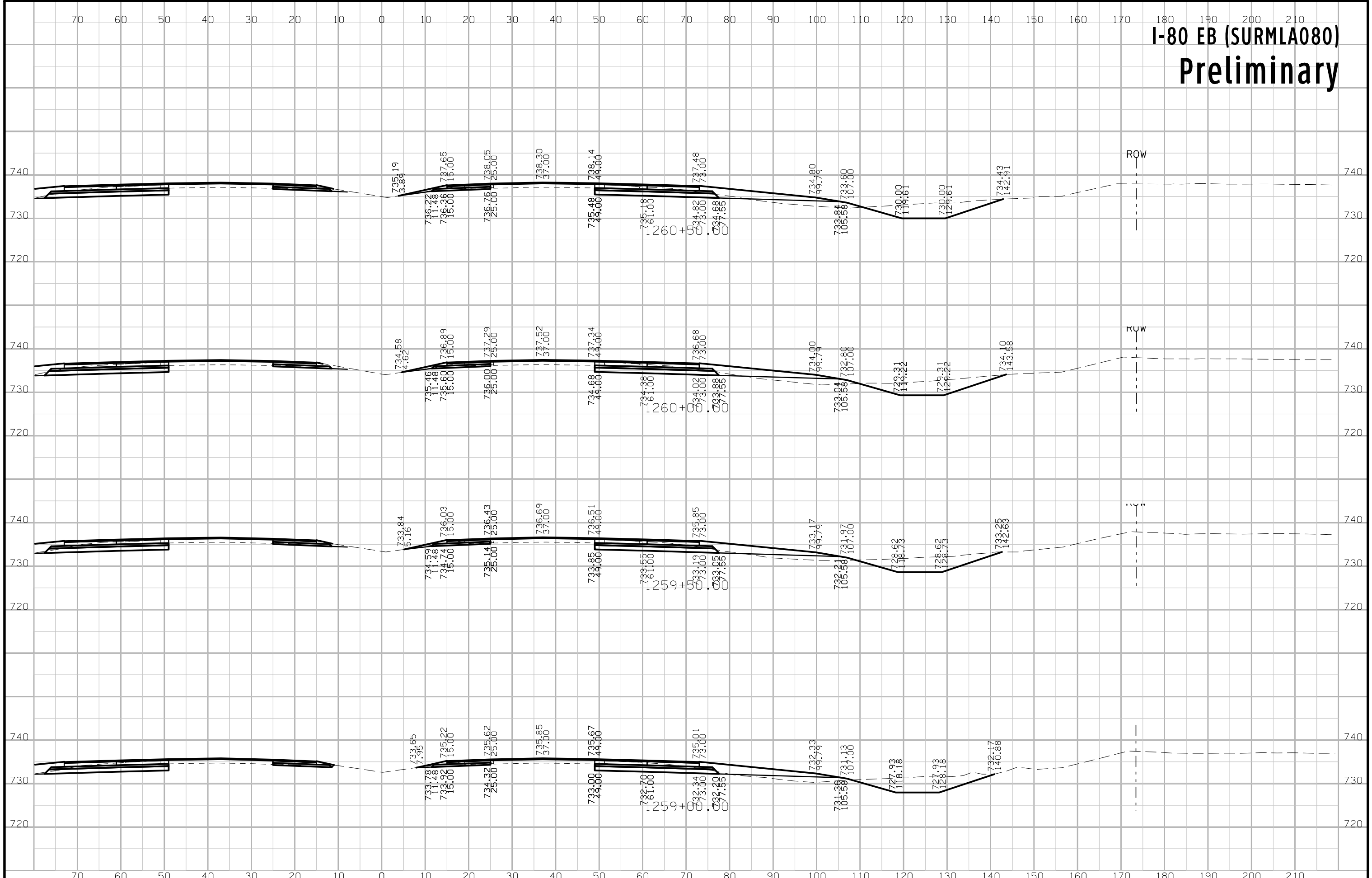
I-80 EB (SURMLA080) Preliminary



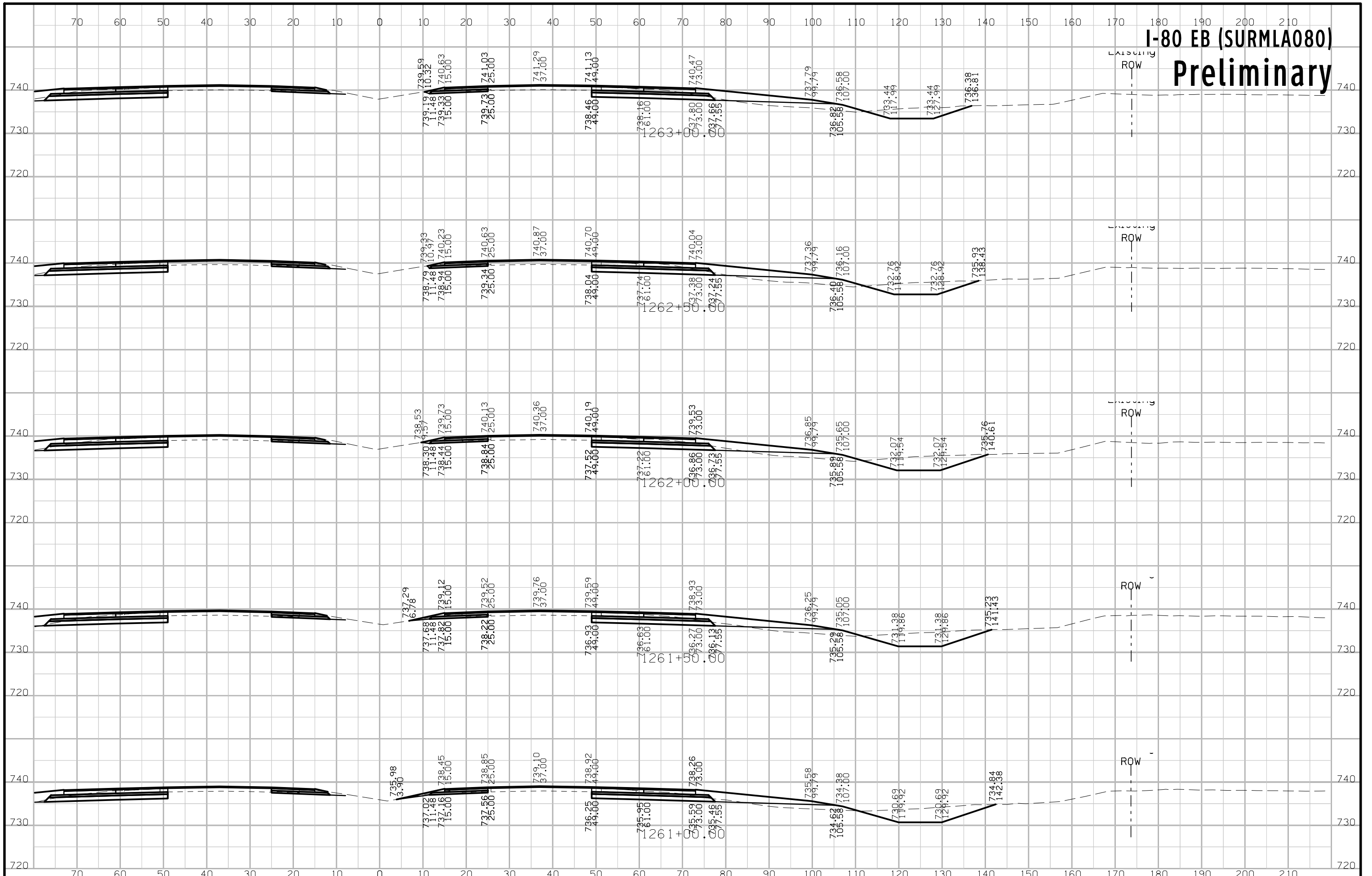
I-80 EB (SURMLA080) Preliminary



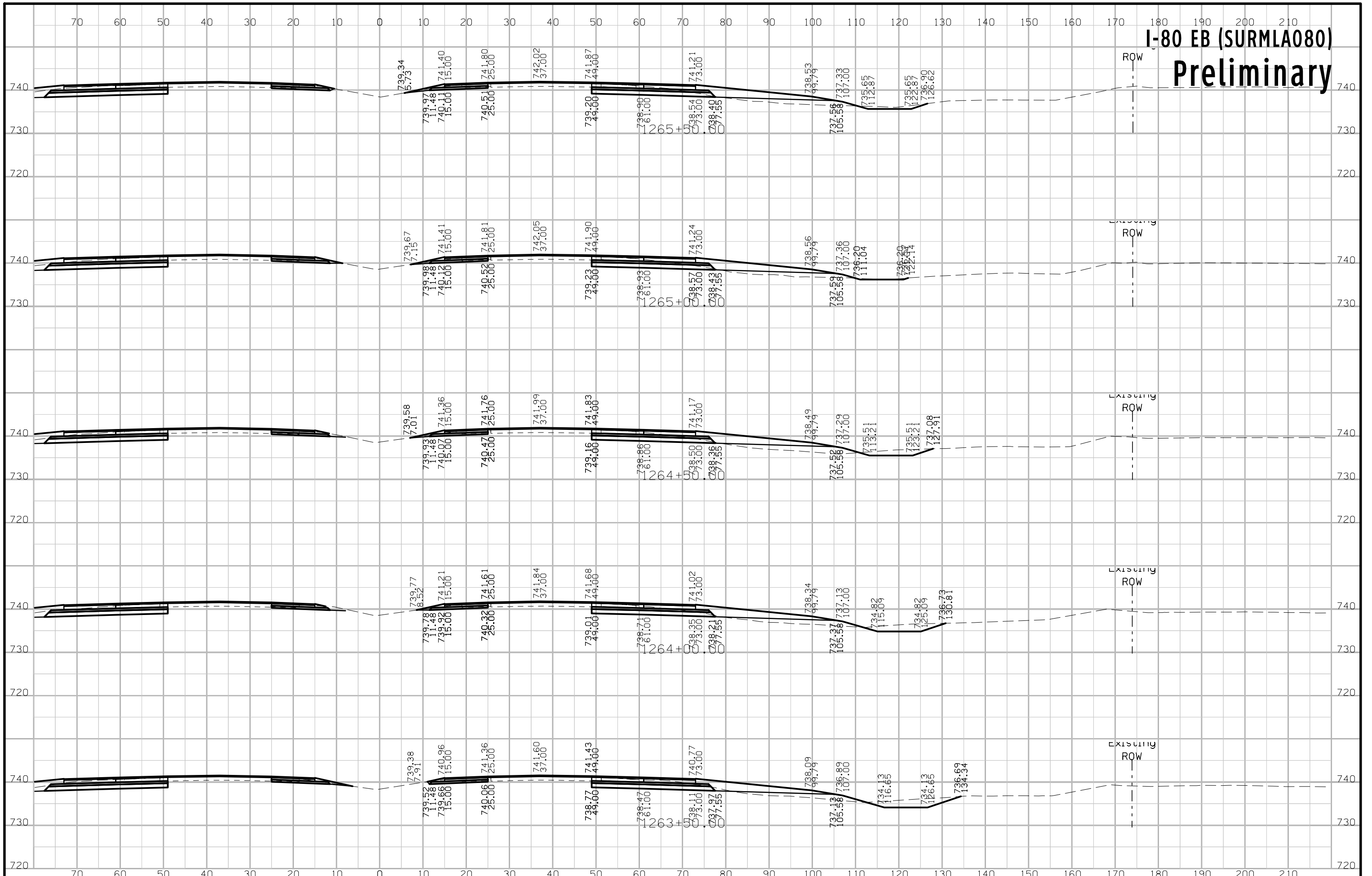
I-80 EB (SURMLA080) Preliminary



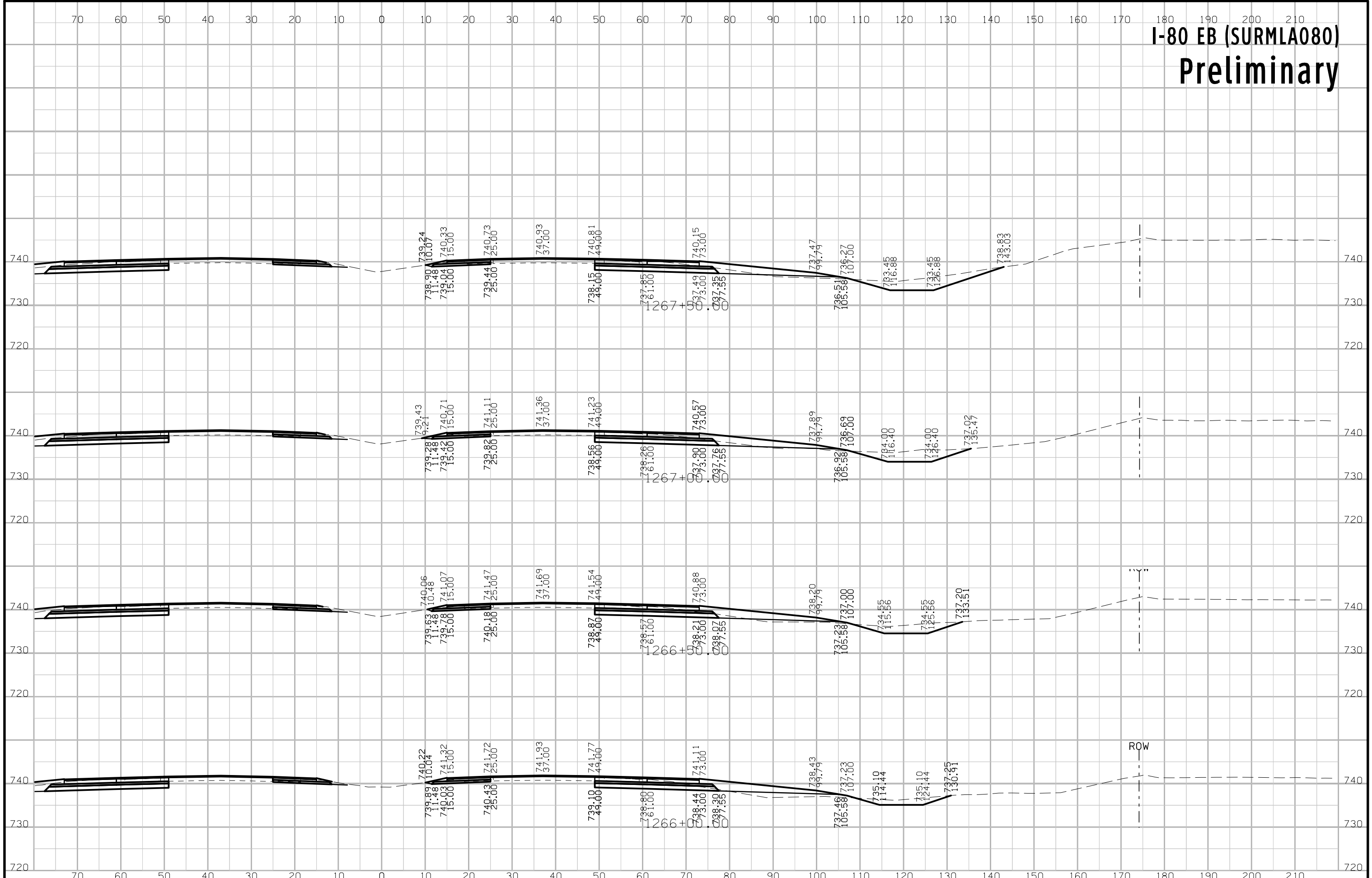
I-80 EB (SURMLA080) Preliminary

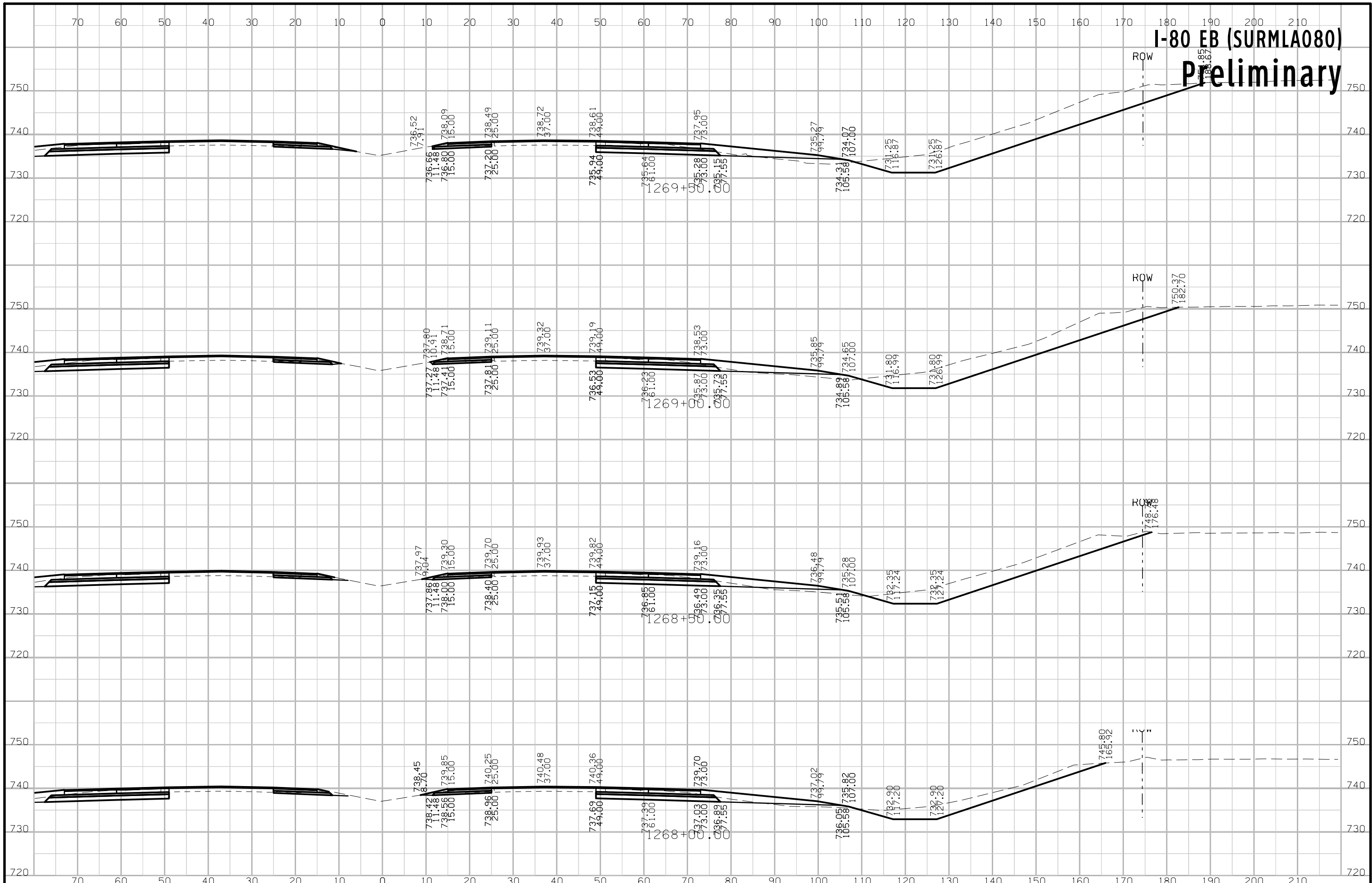


I-80 EB (SURMLA080) Preliminary

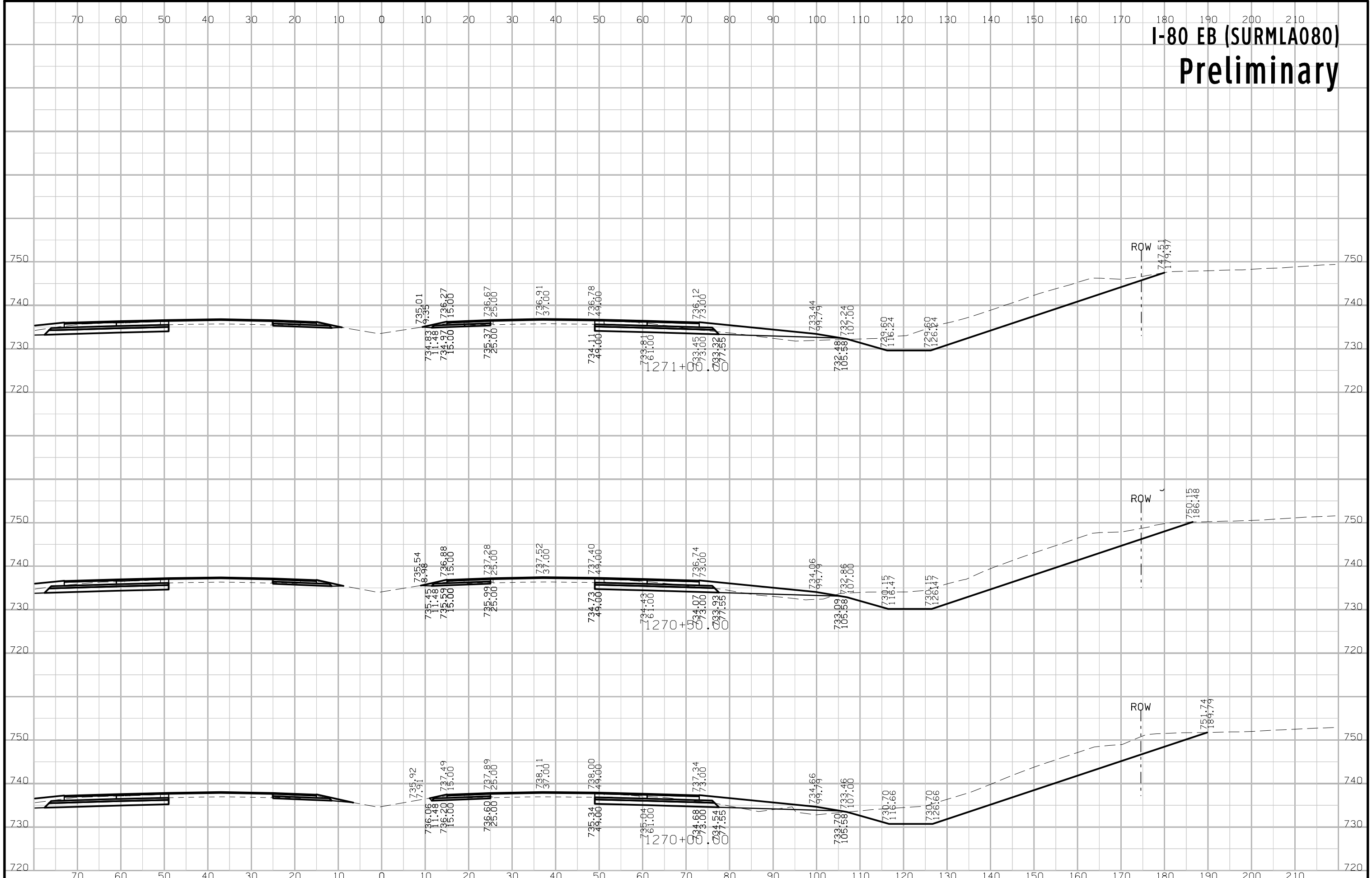


I-80 EB (SURMLA080) Preliminary

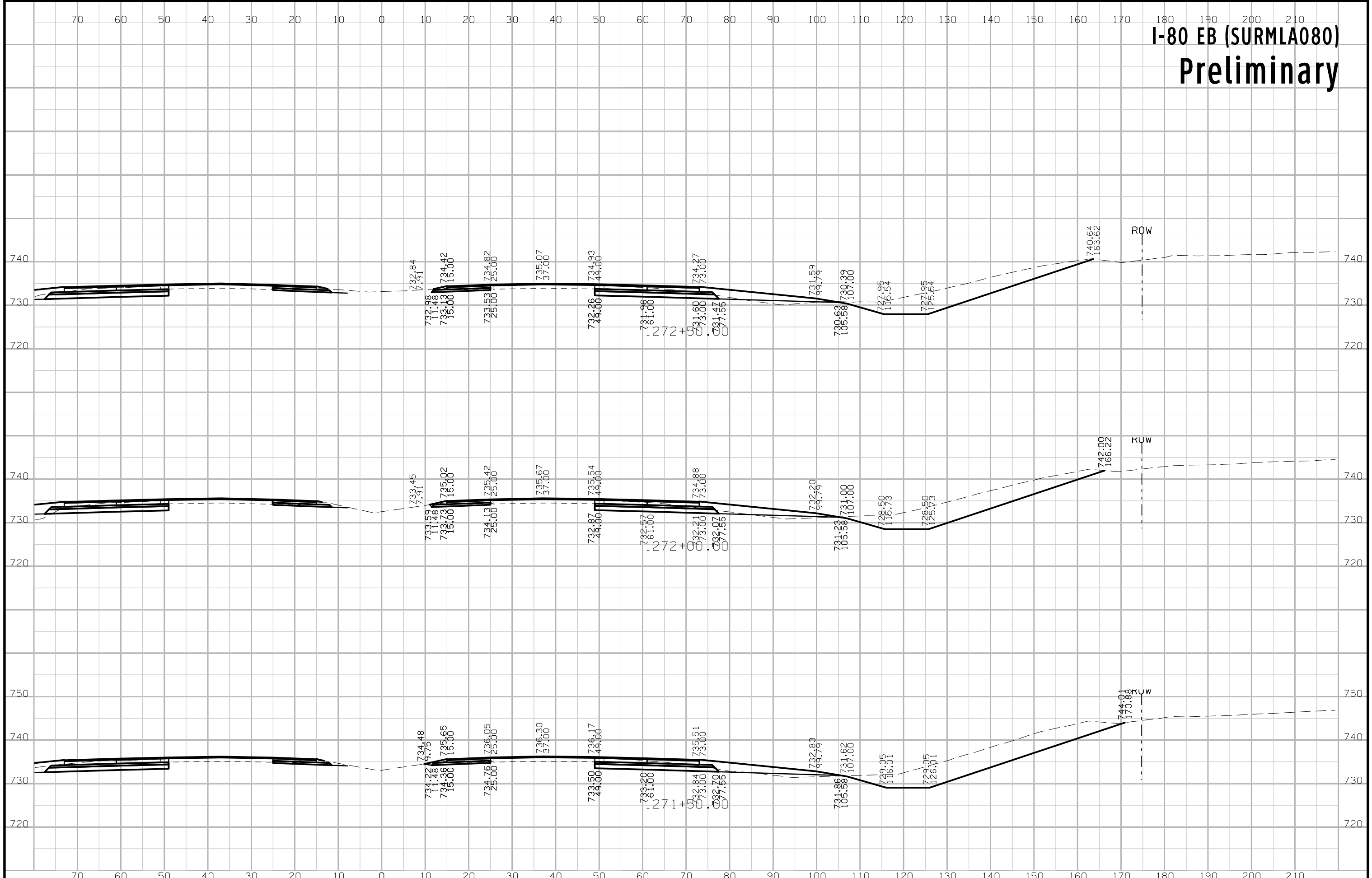




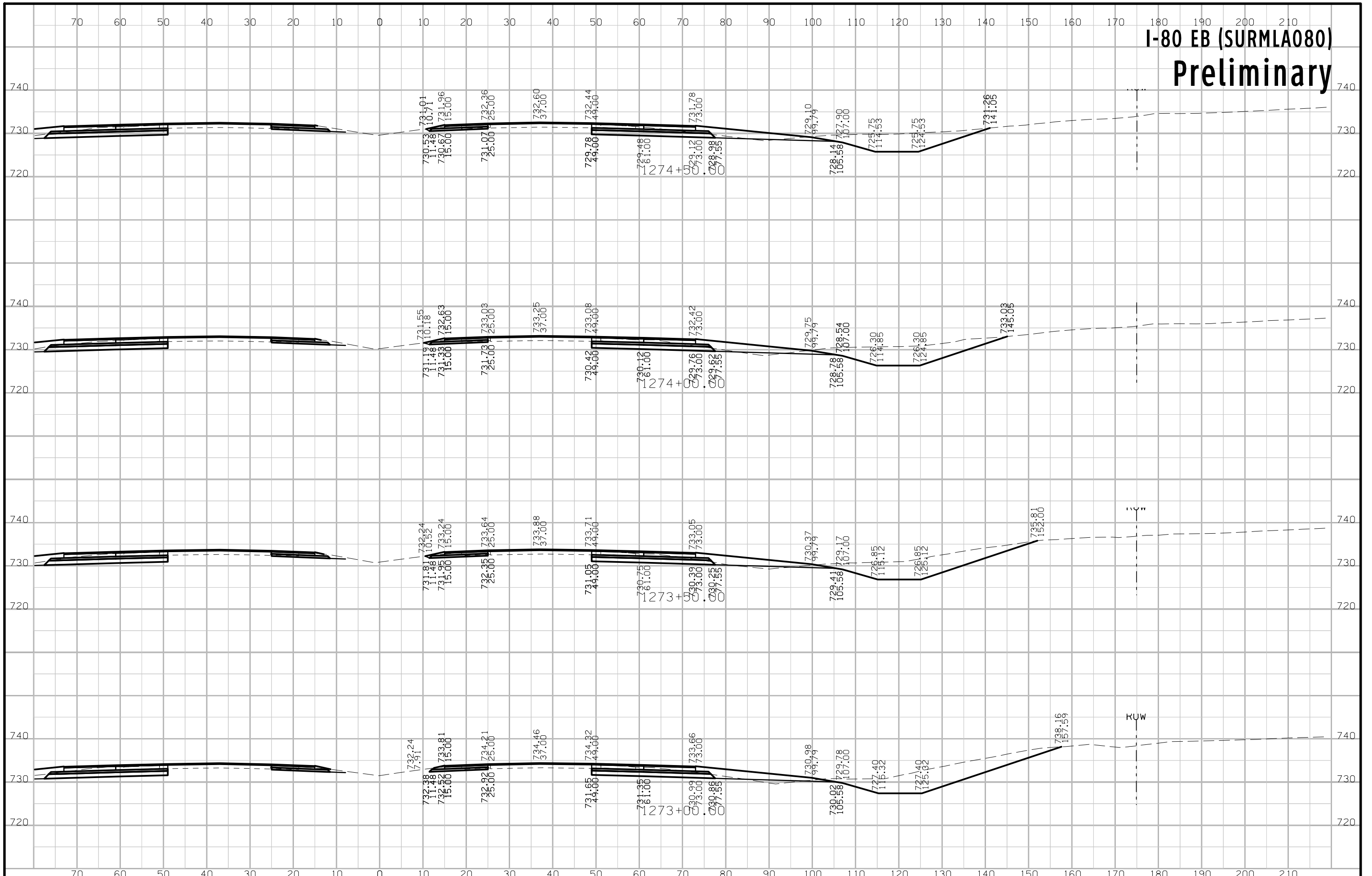
I-80 EB (SURMLA080) Preliminary



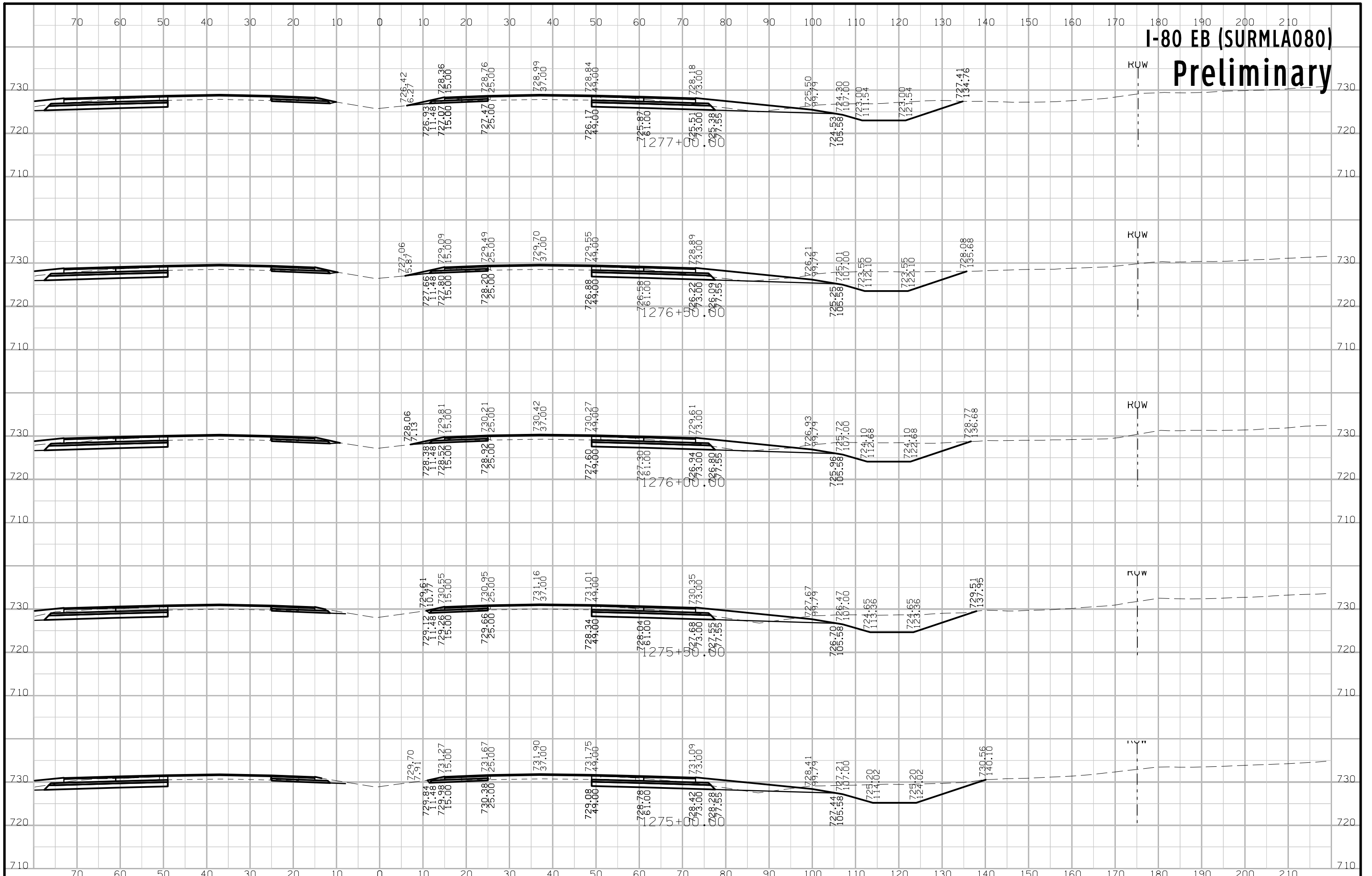
I-80 EB (SURMLA080) Preliminary



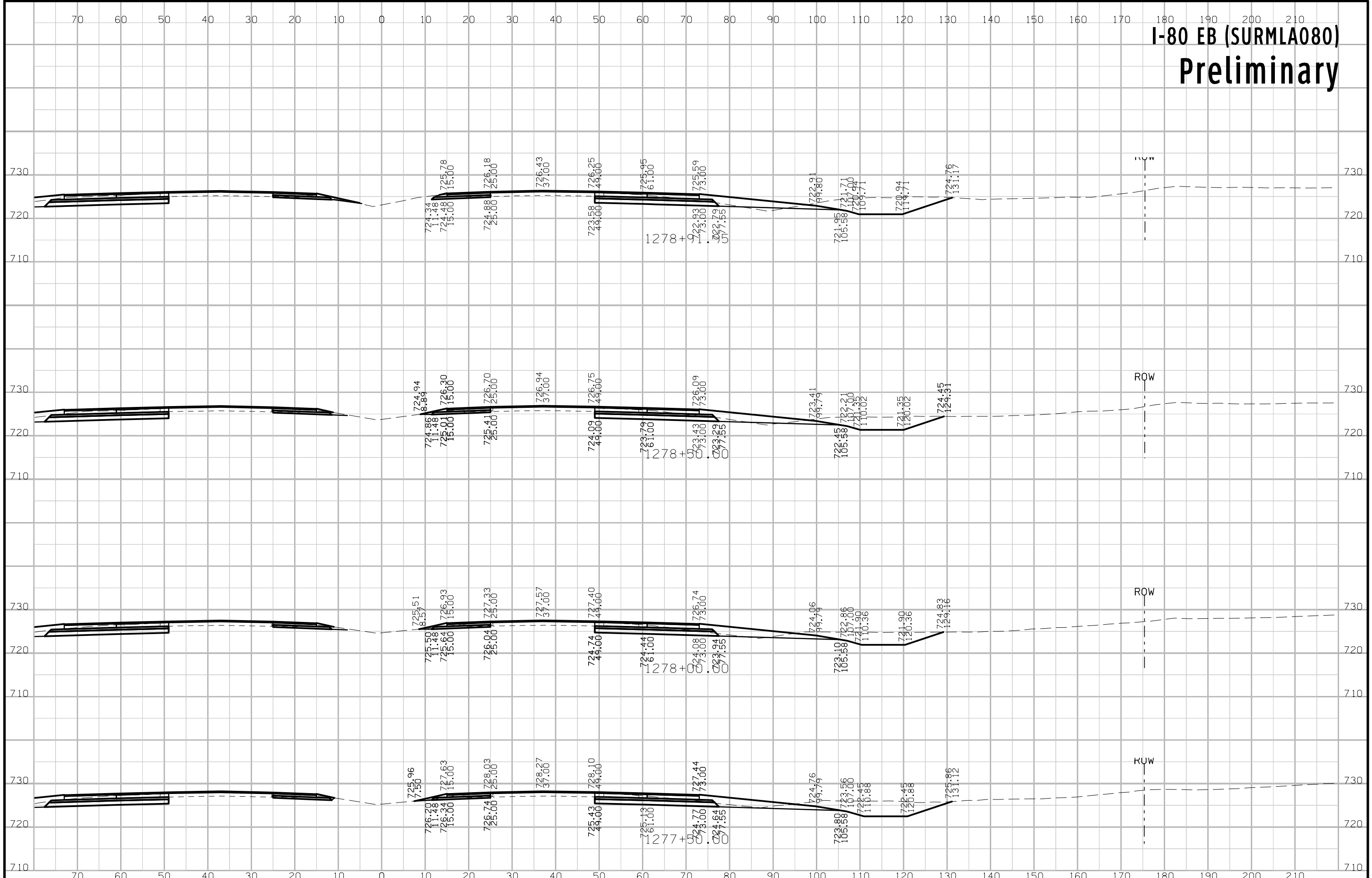
I-80 EB (SURMLA080) Preliminary



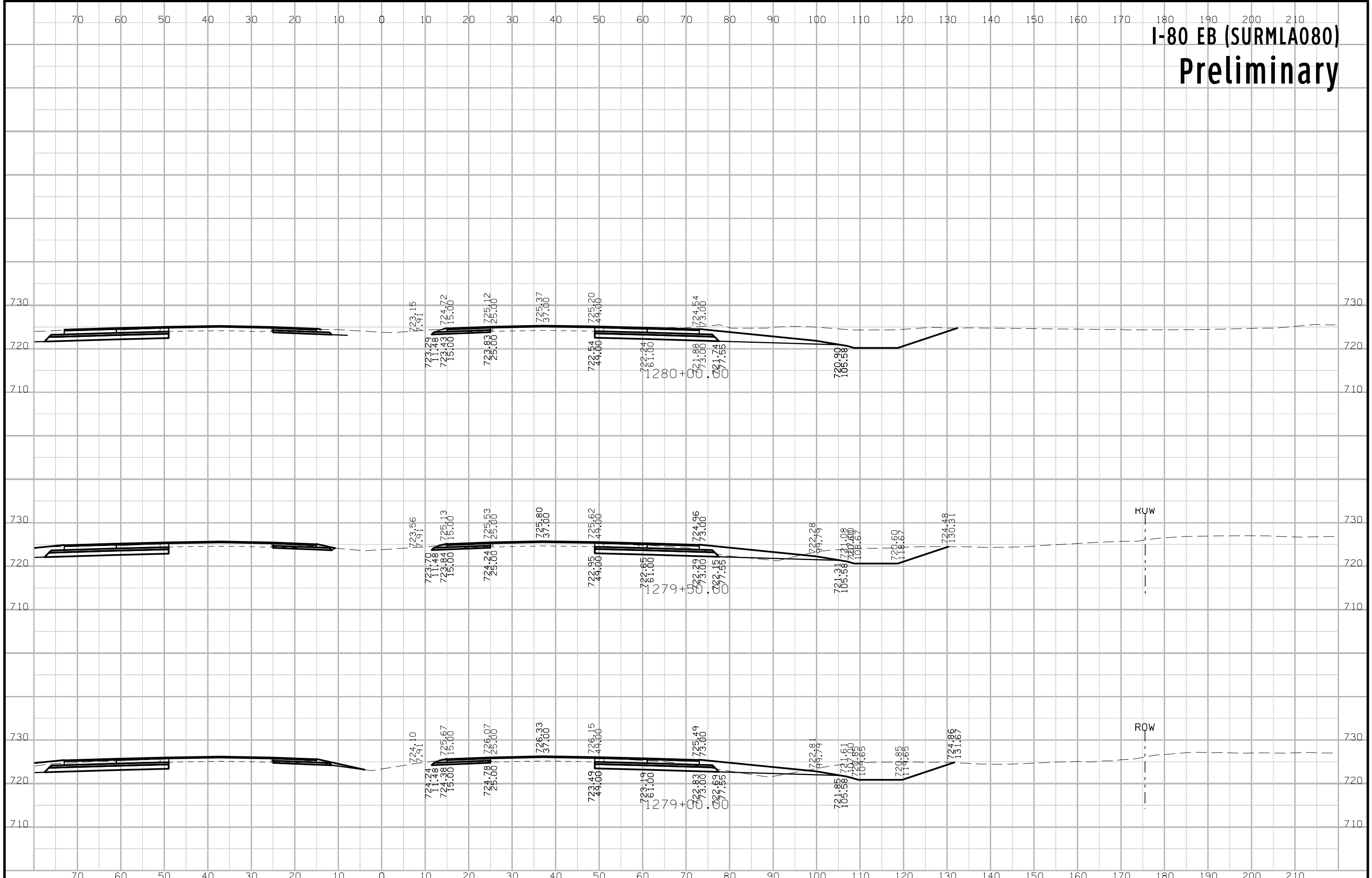
I-80 EB (SURMLA080) Preliminary



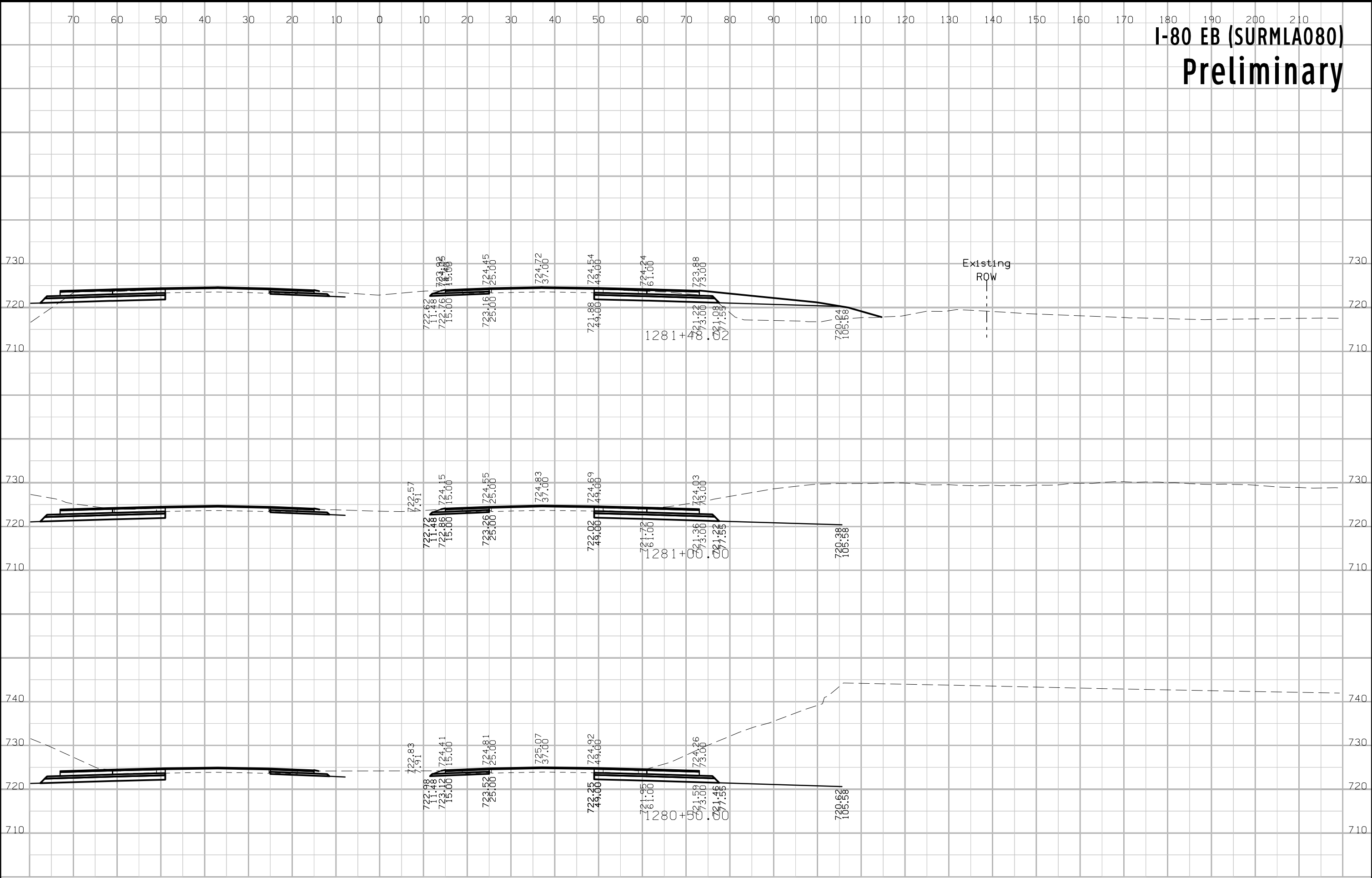
I-80 EB (SURMLA080) Preliminary



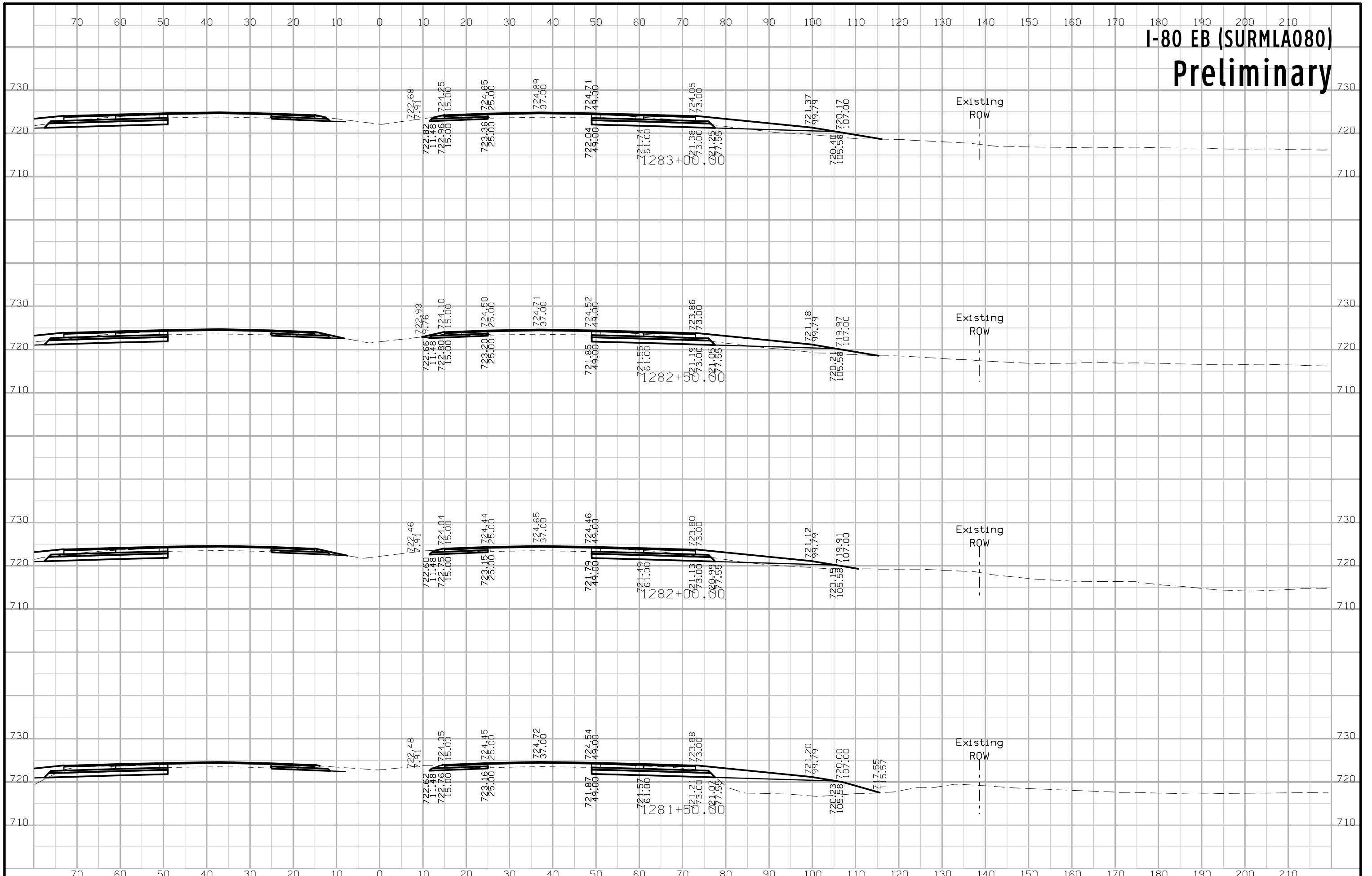
I-80 EB (SURMLA080) Preliminary



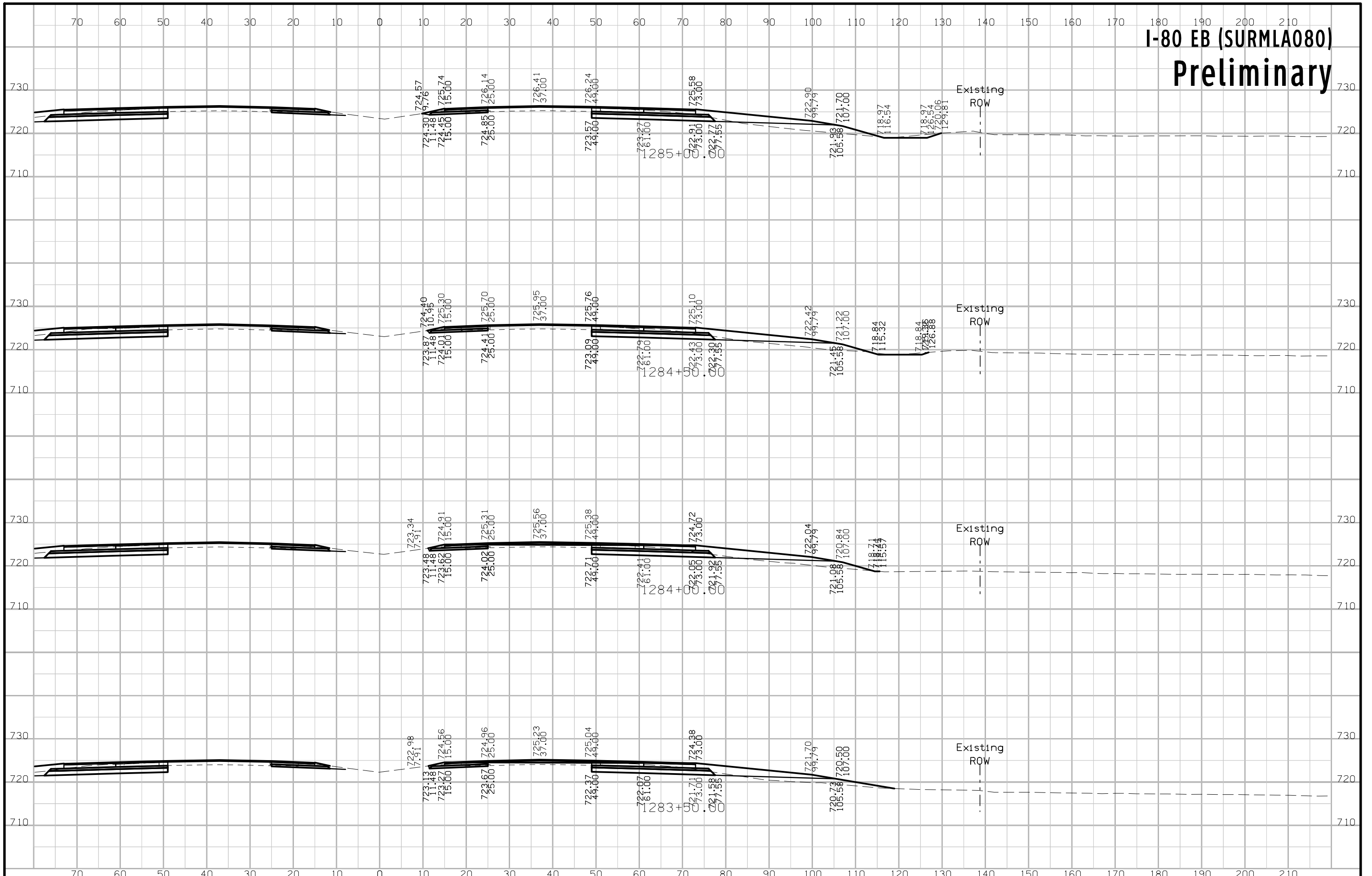
I-80 EB (SURMLA080) Preliminary



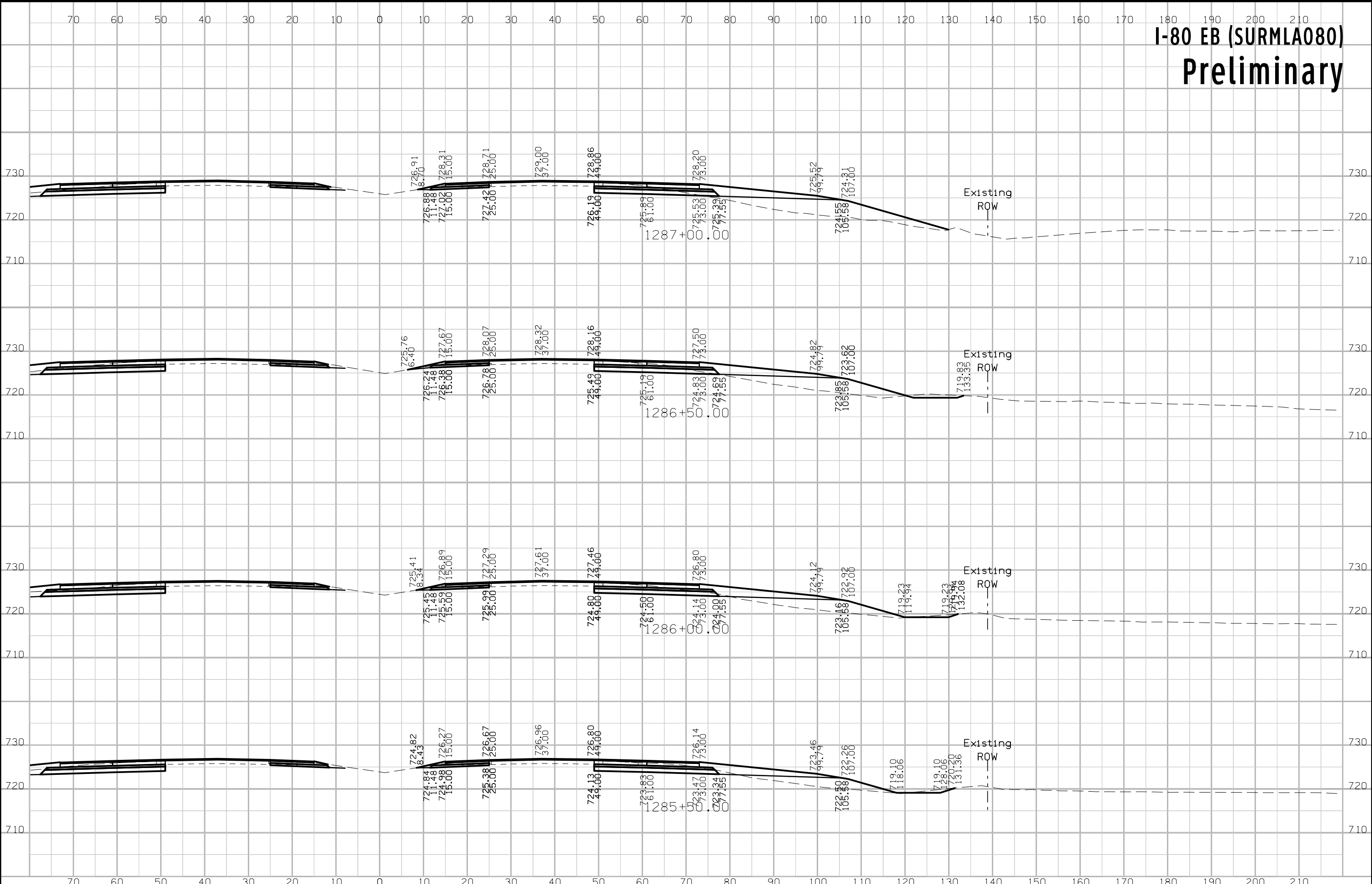
I-80 EB (SURMLA080) Preliminary



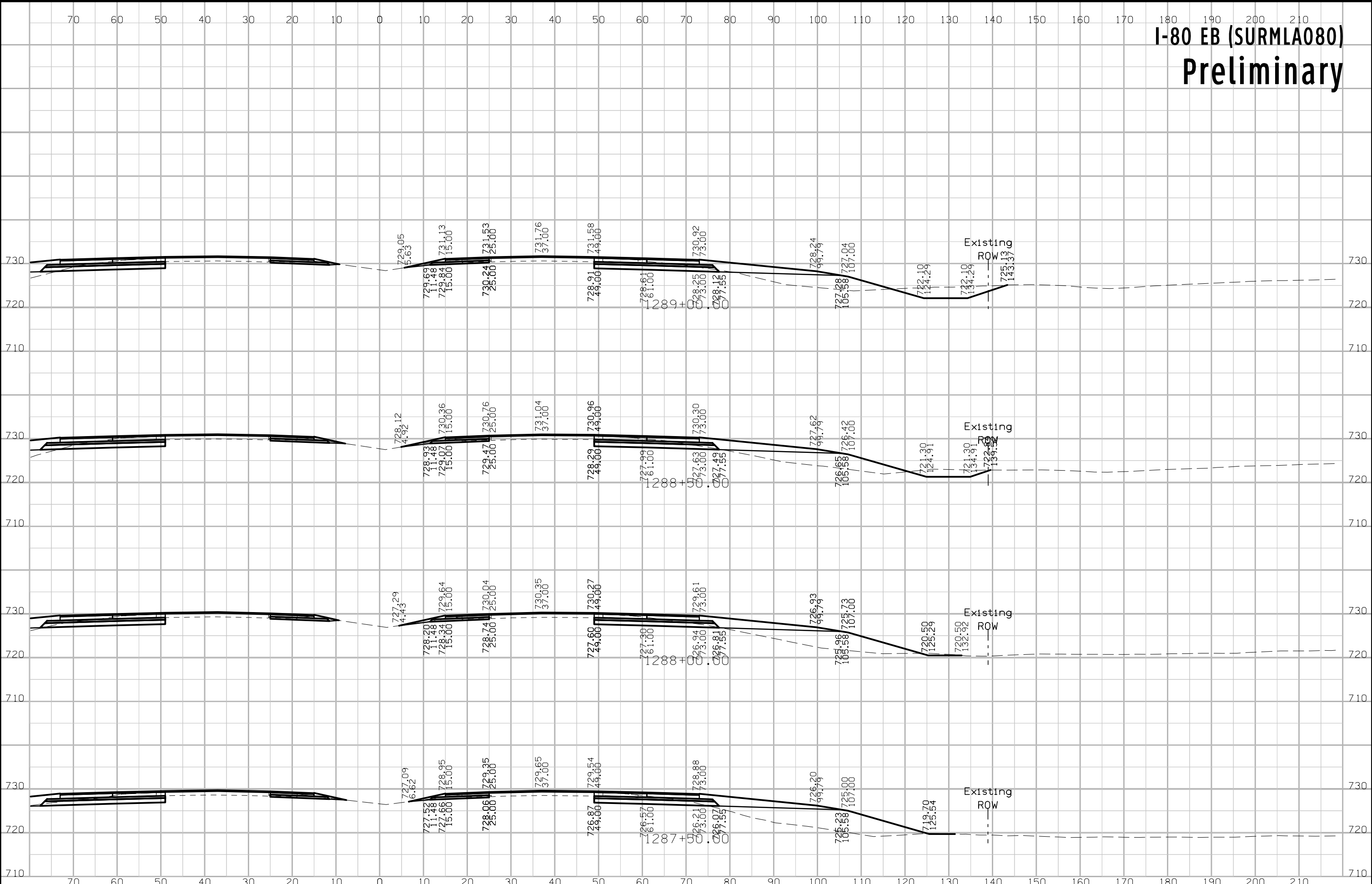
I-80 EB (SURMLA080) Preliminary



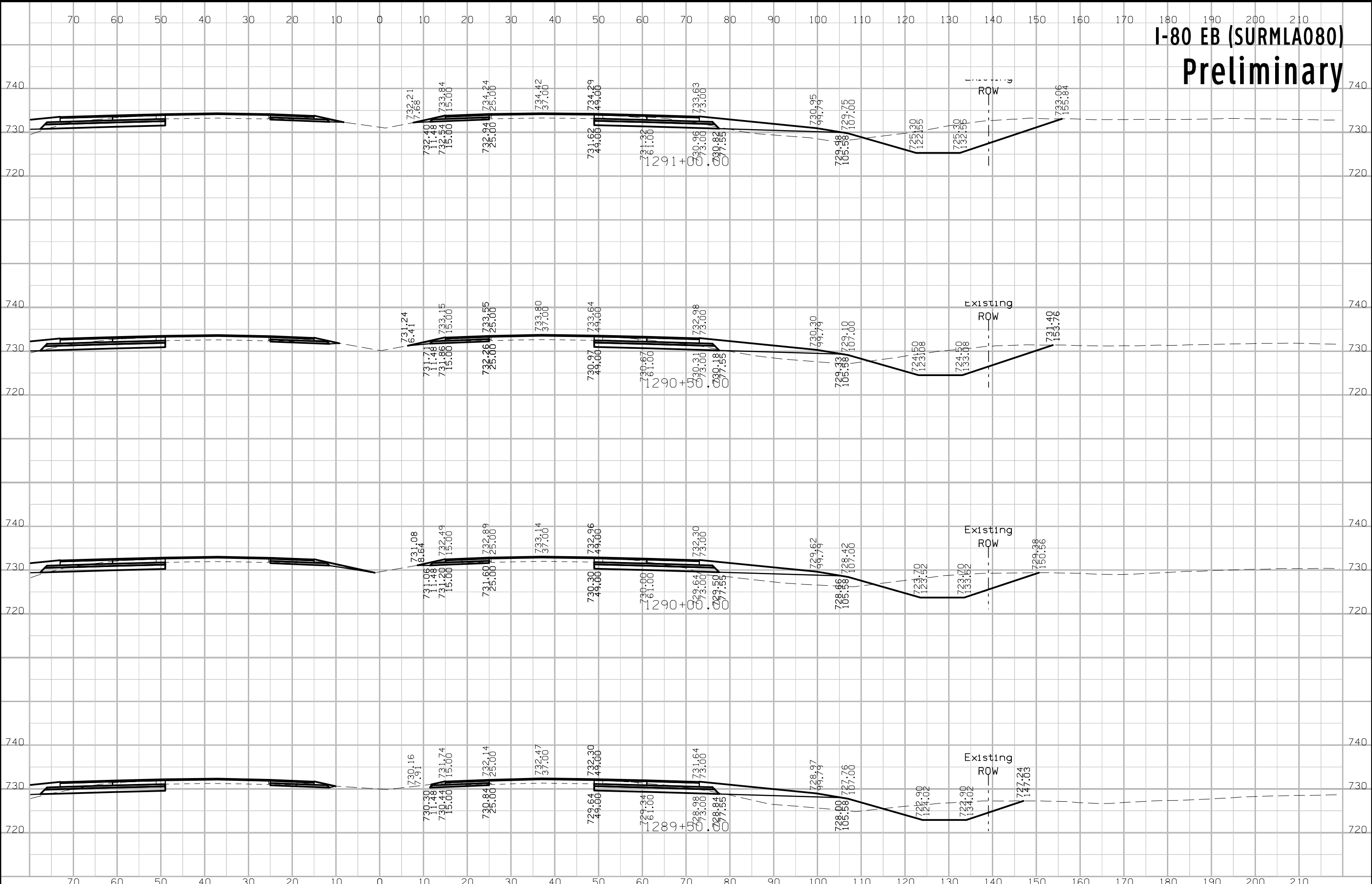
I-80 EB (SURMLA080) Preliminary



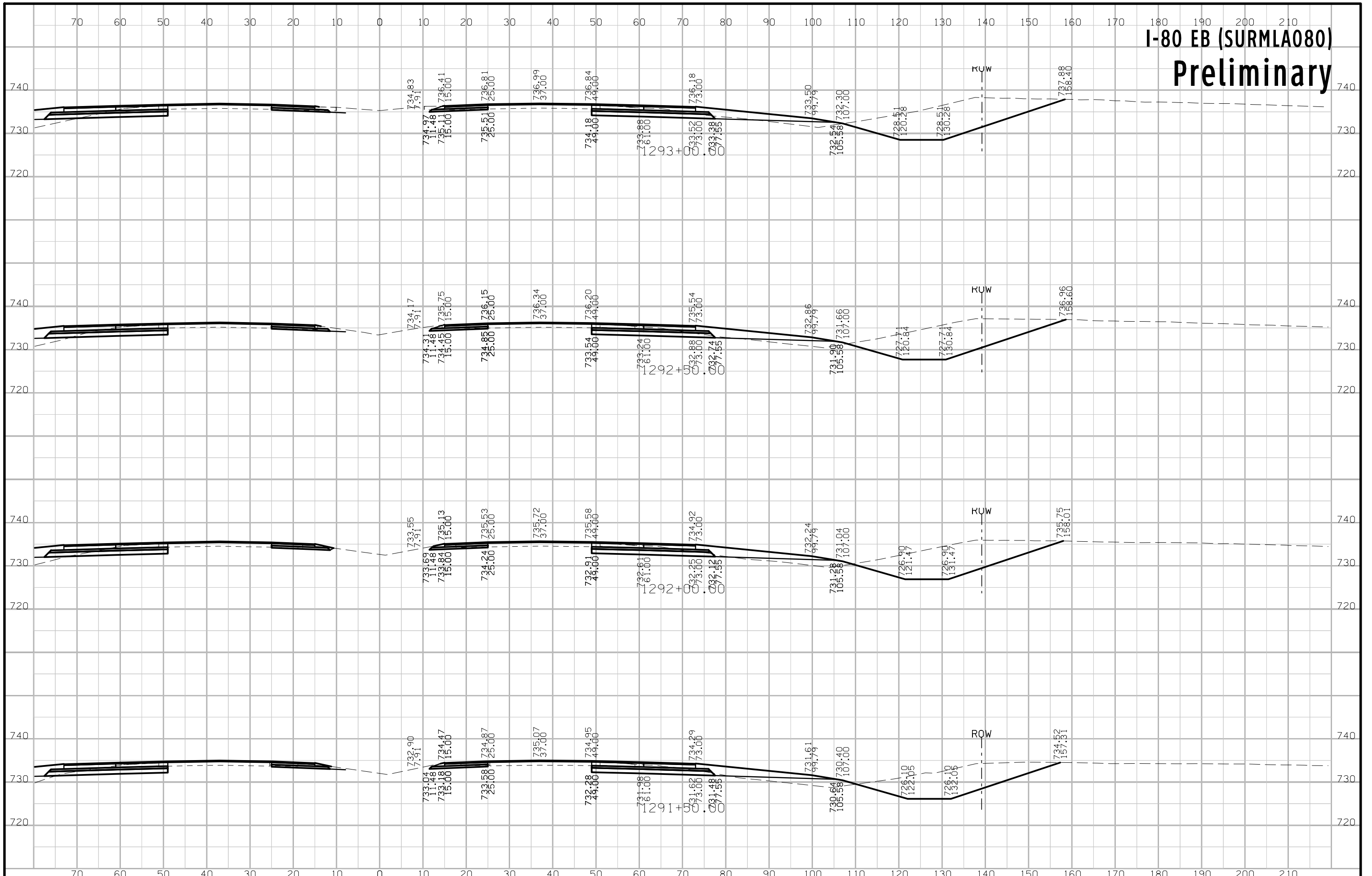
I-80 EB (SURMLA080) Preliminary



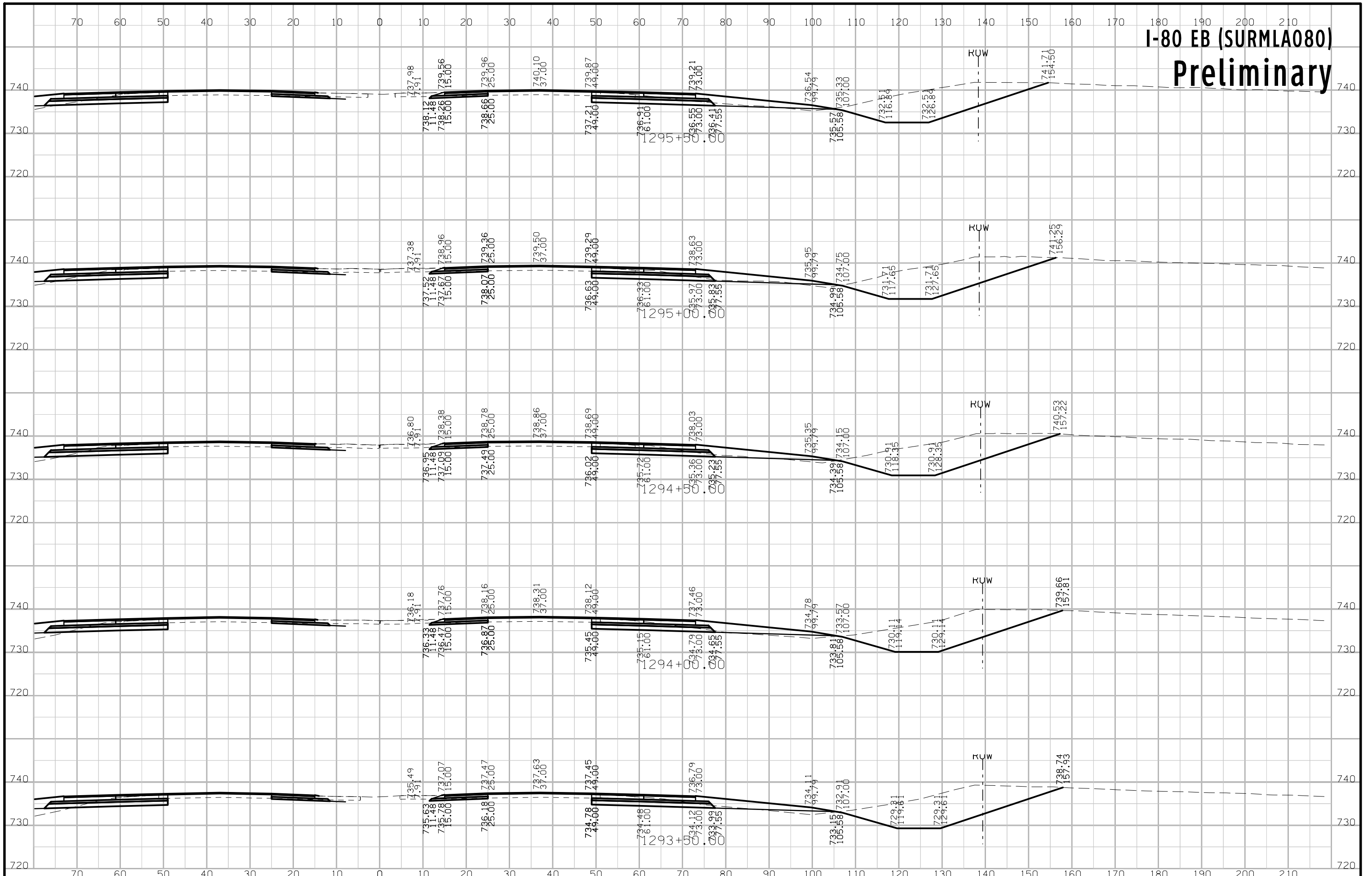
I-80 EB (SURMLA080) Preliminary



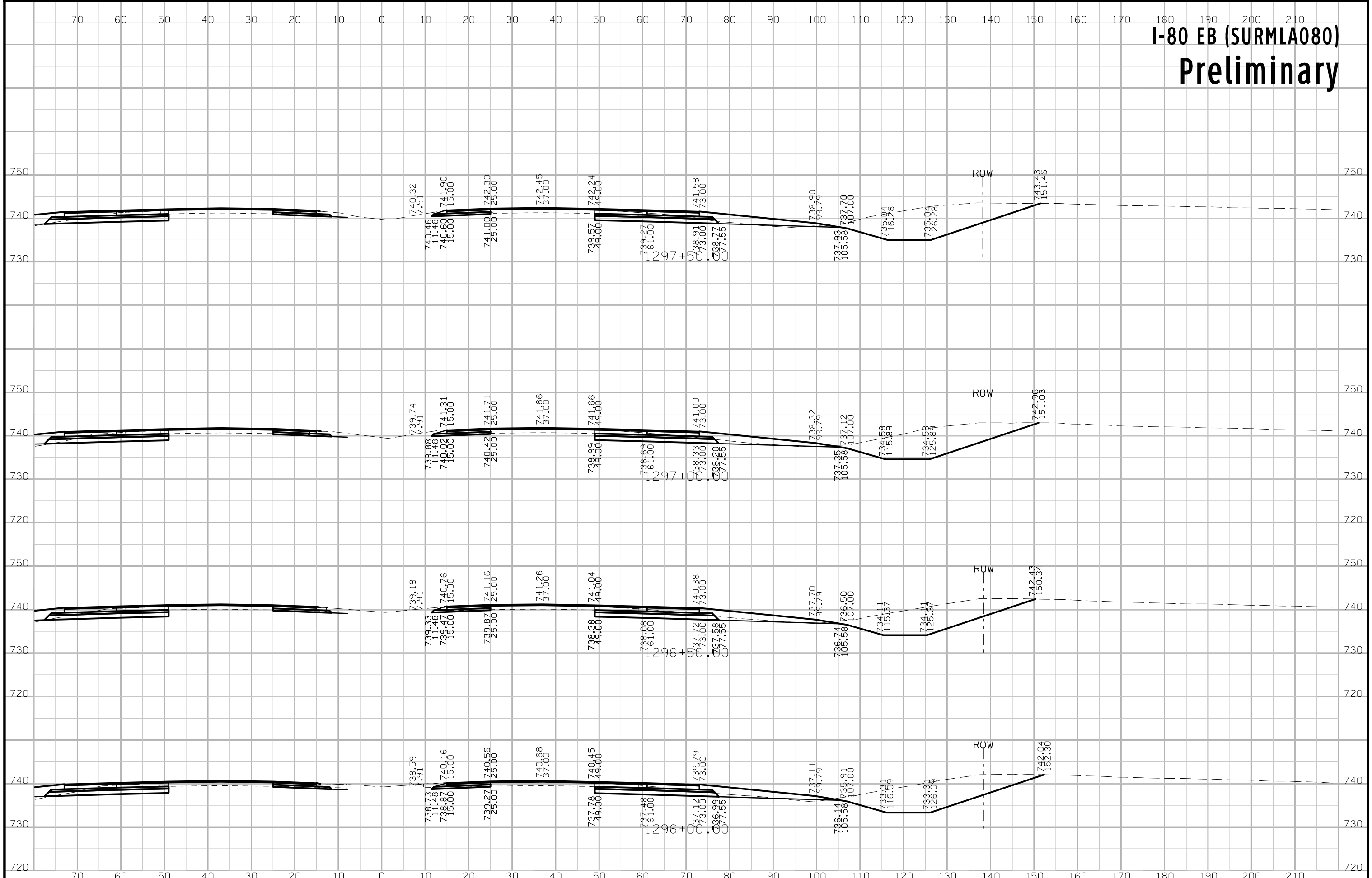
I-80 EB (SURMLA080) Preliminary



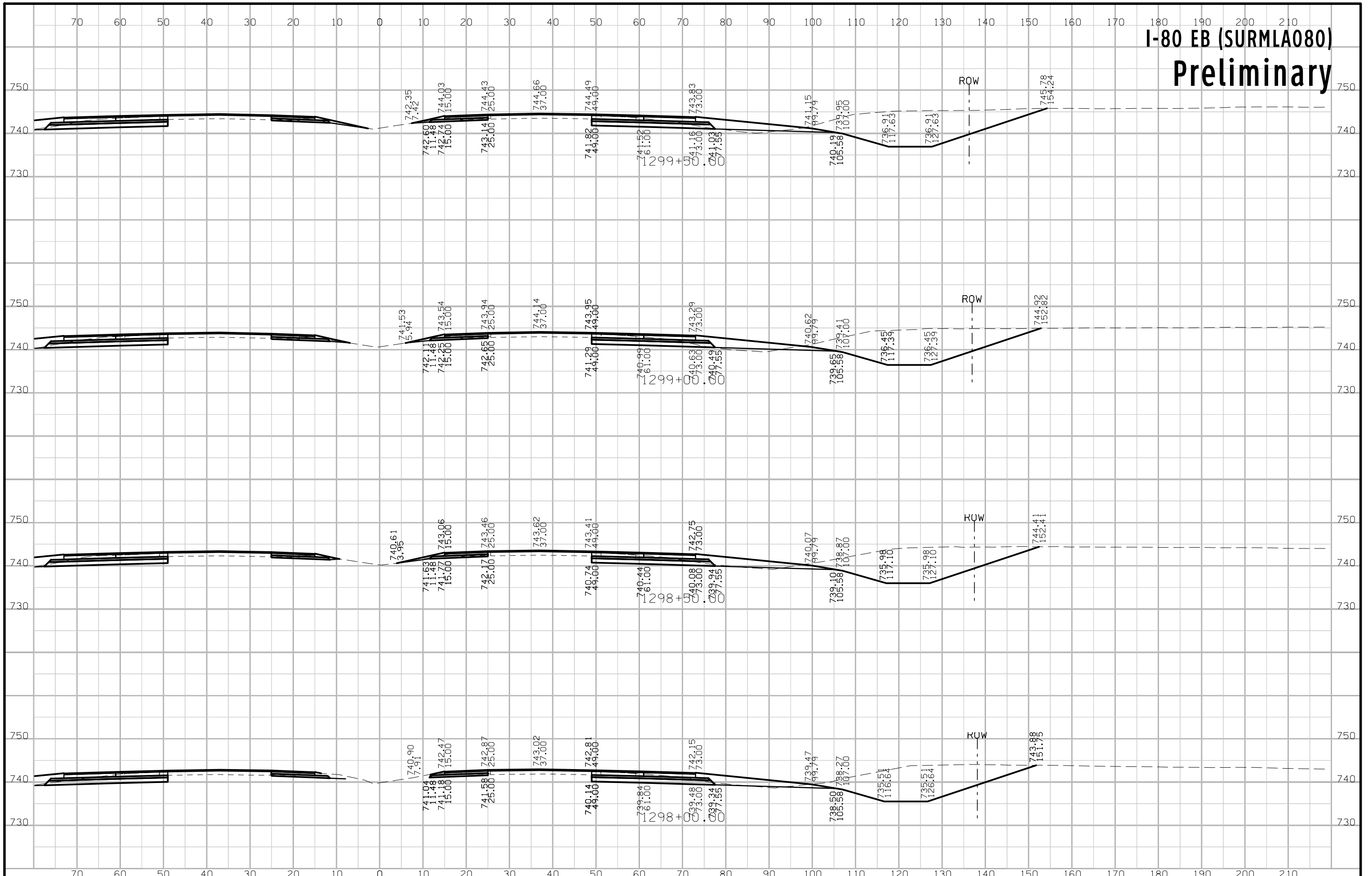
I-80 EB (SURMLA080) Preliminary



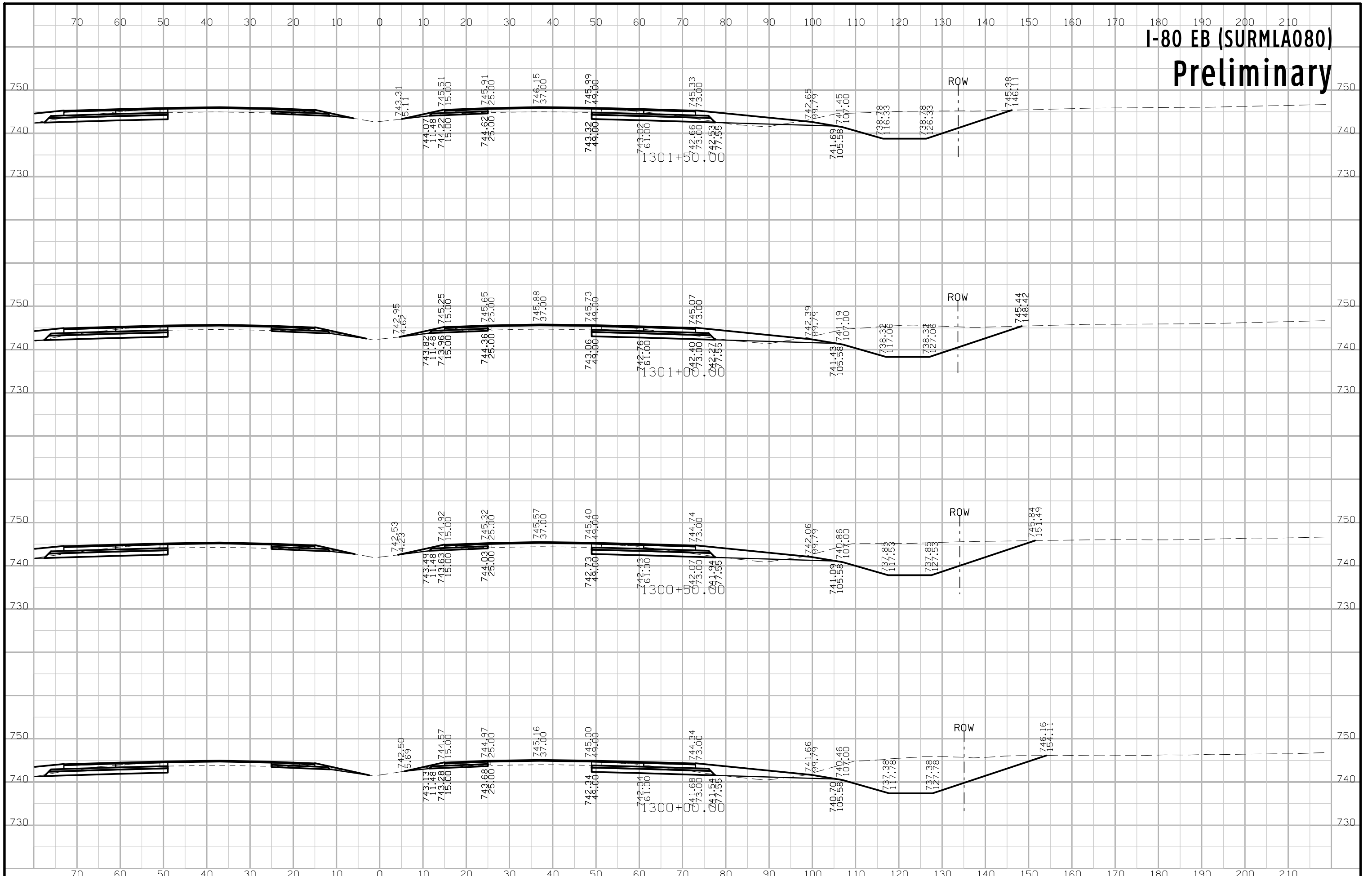
I-80 EB (SURMLA080) Preliminary



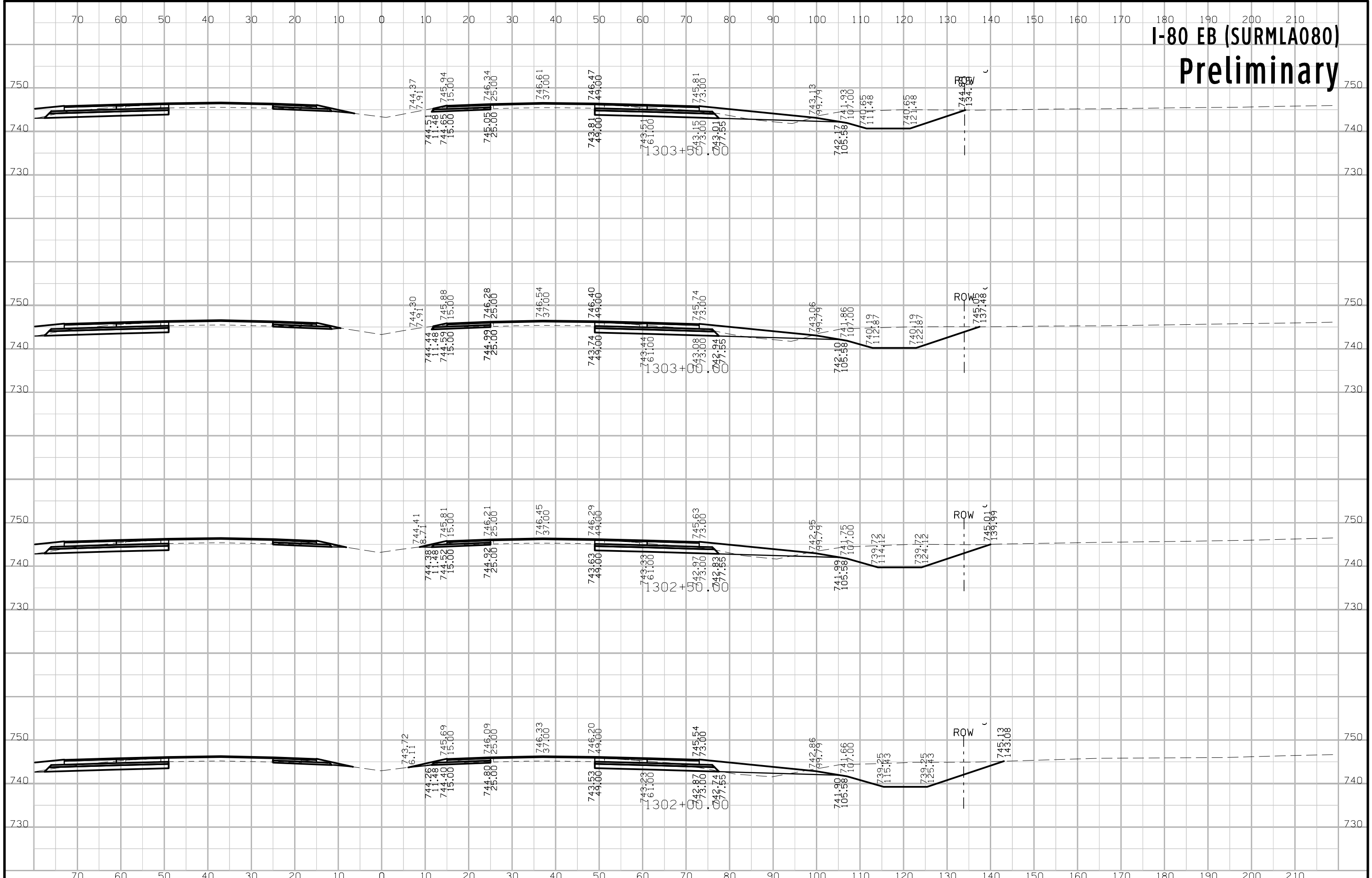
I-80 EB (SURMLA080) Preliminary



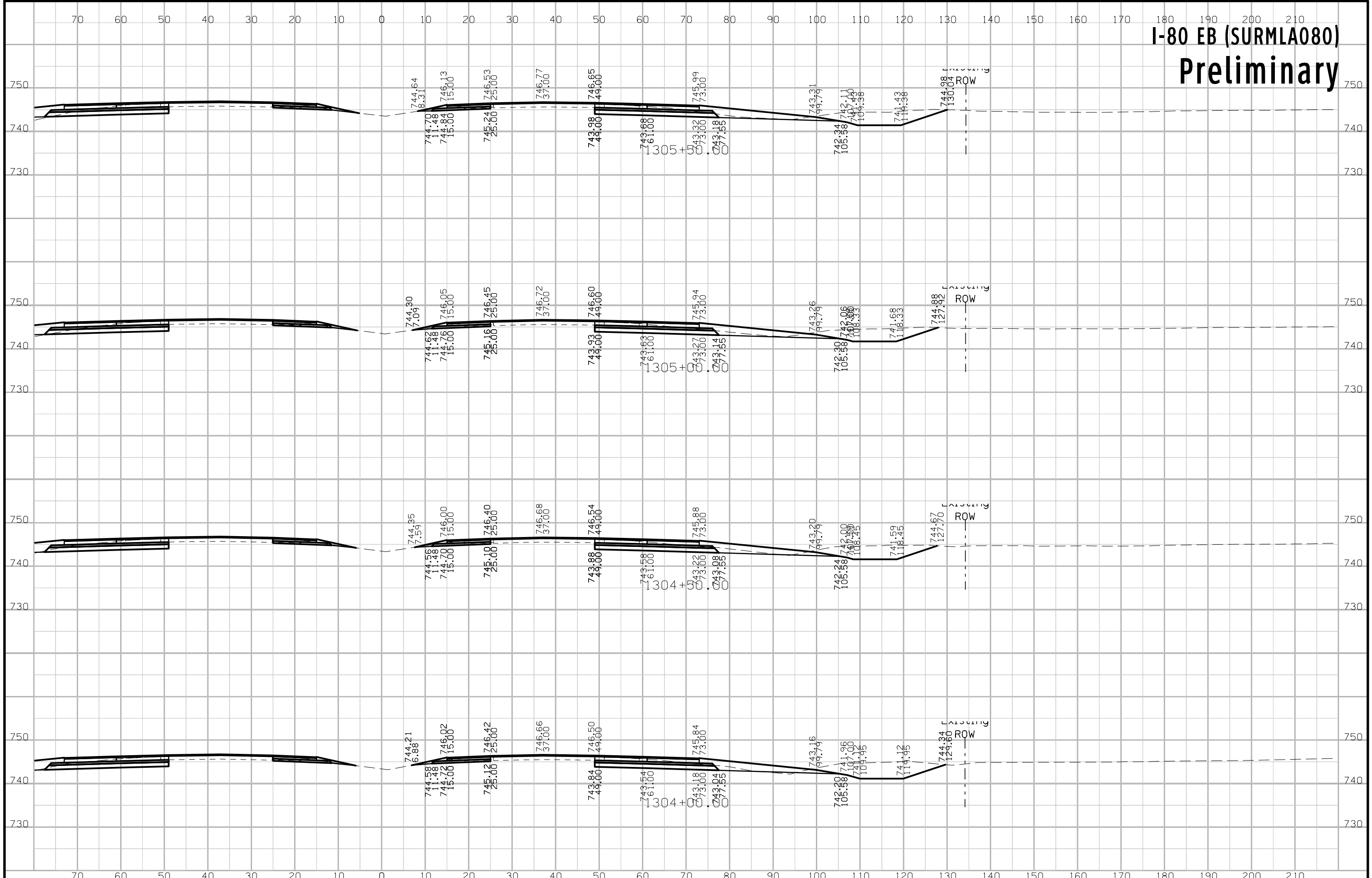
I-80 EB (SURMLA080) Preliminary



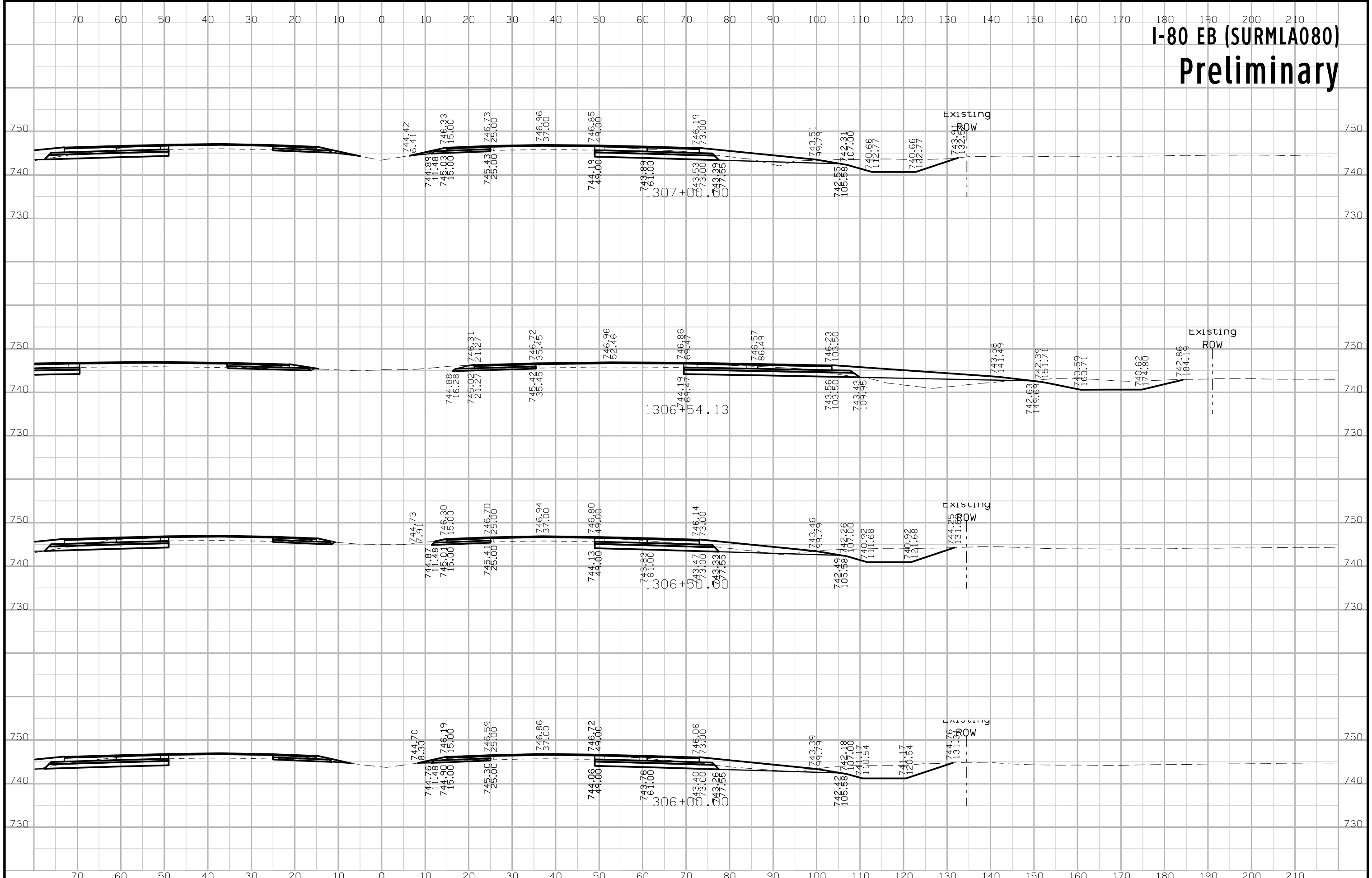
I-80 EB (SURMLA080) Preliminary



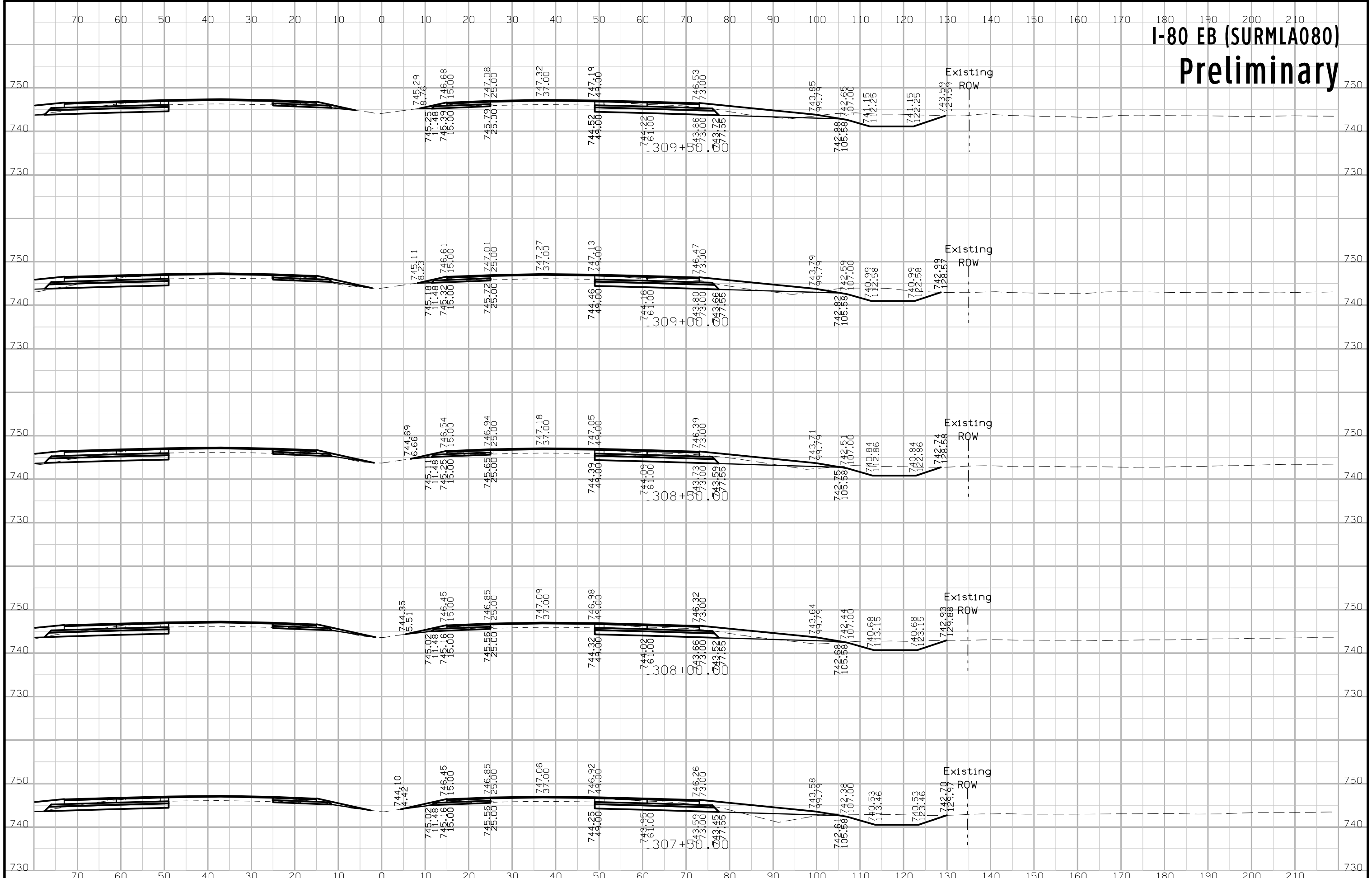
I-80 EB (SURMLA080) Preliminary



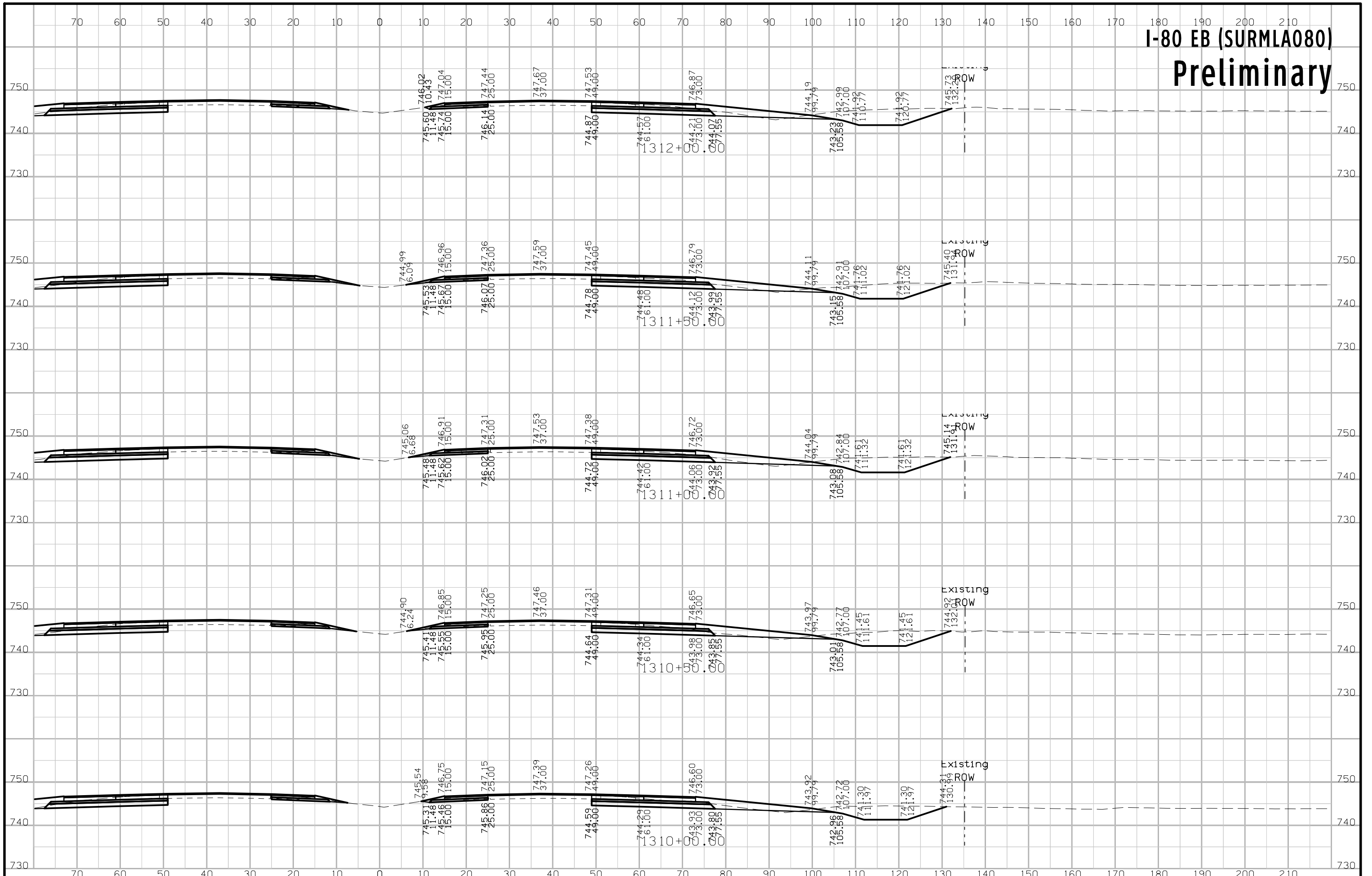
I-80 EB (SURMLA080) Preliminary



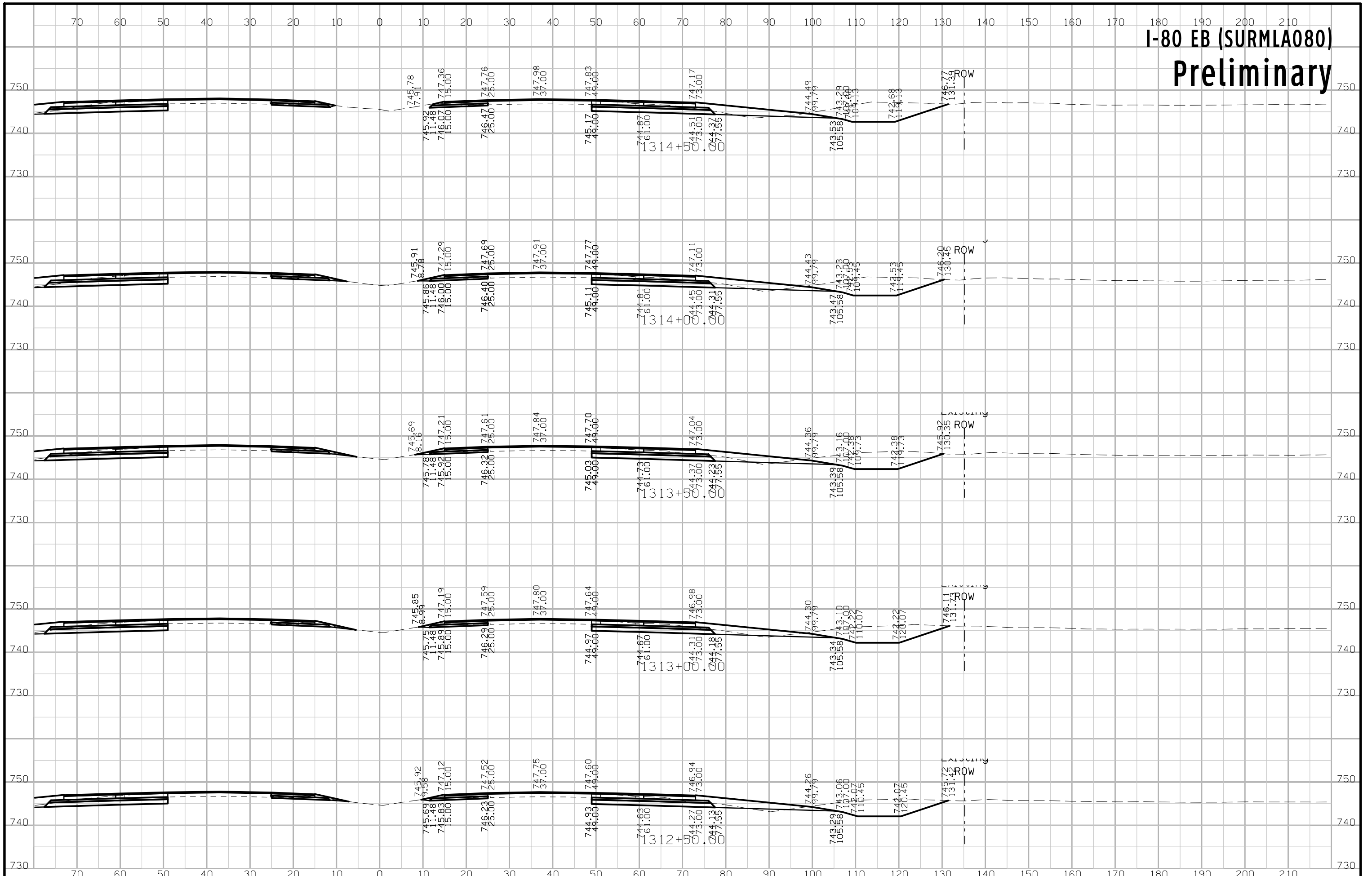
I-80 EB (SURMLA080) Preliminary



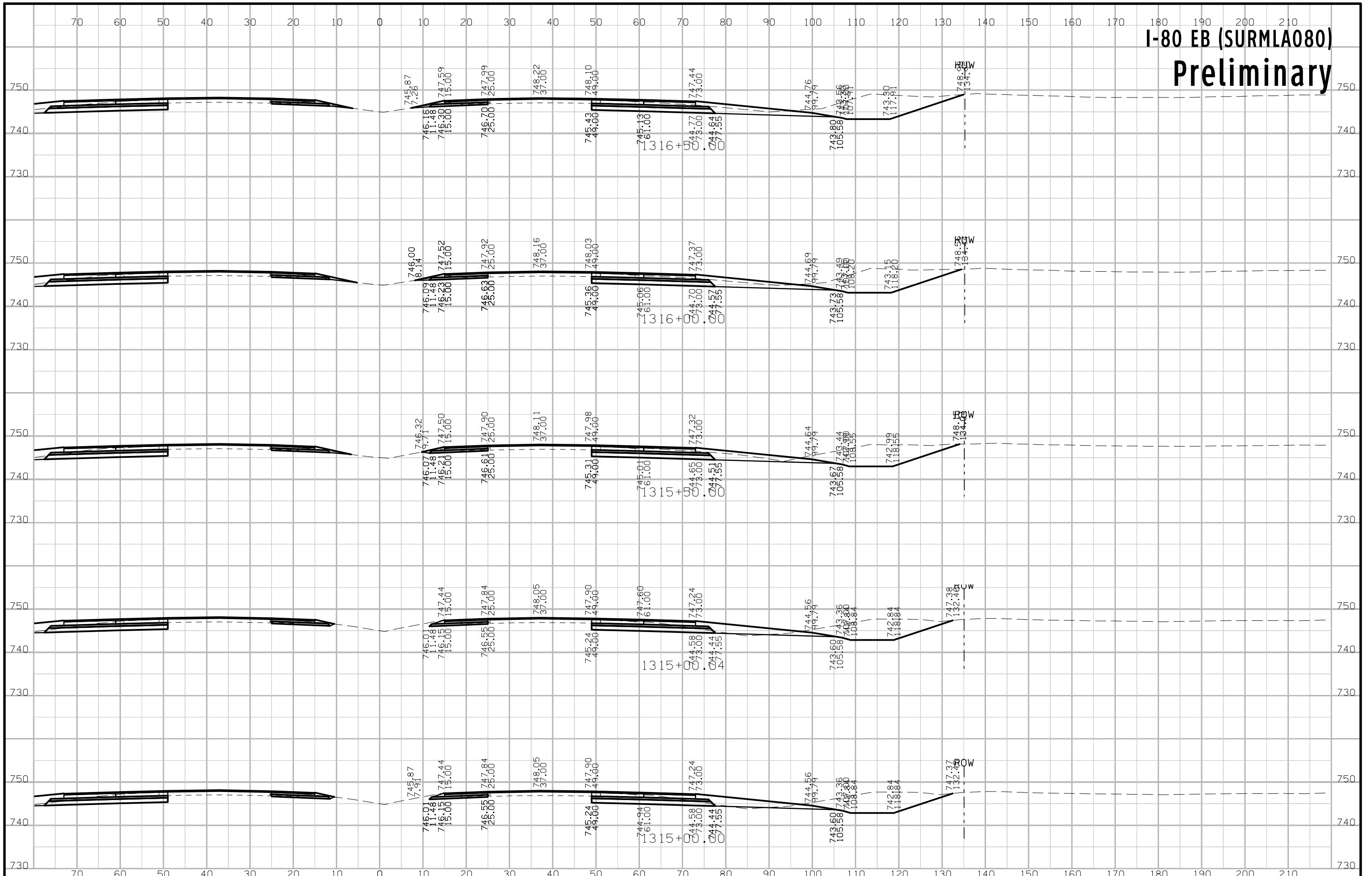
I-80 EB (SURMLA080) Preliminary



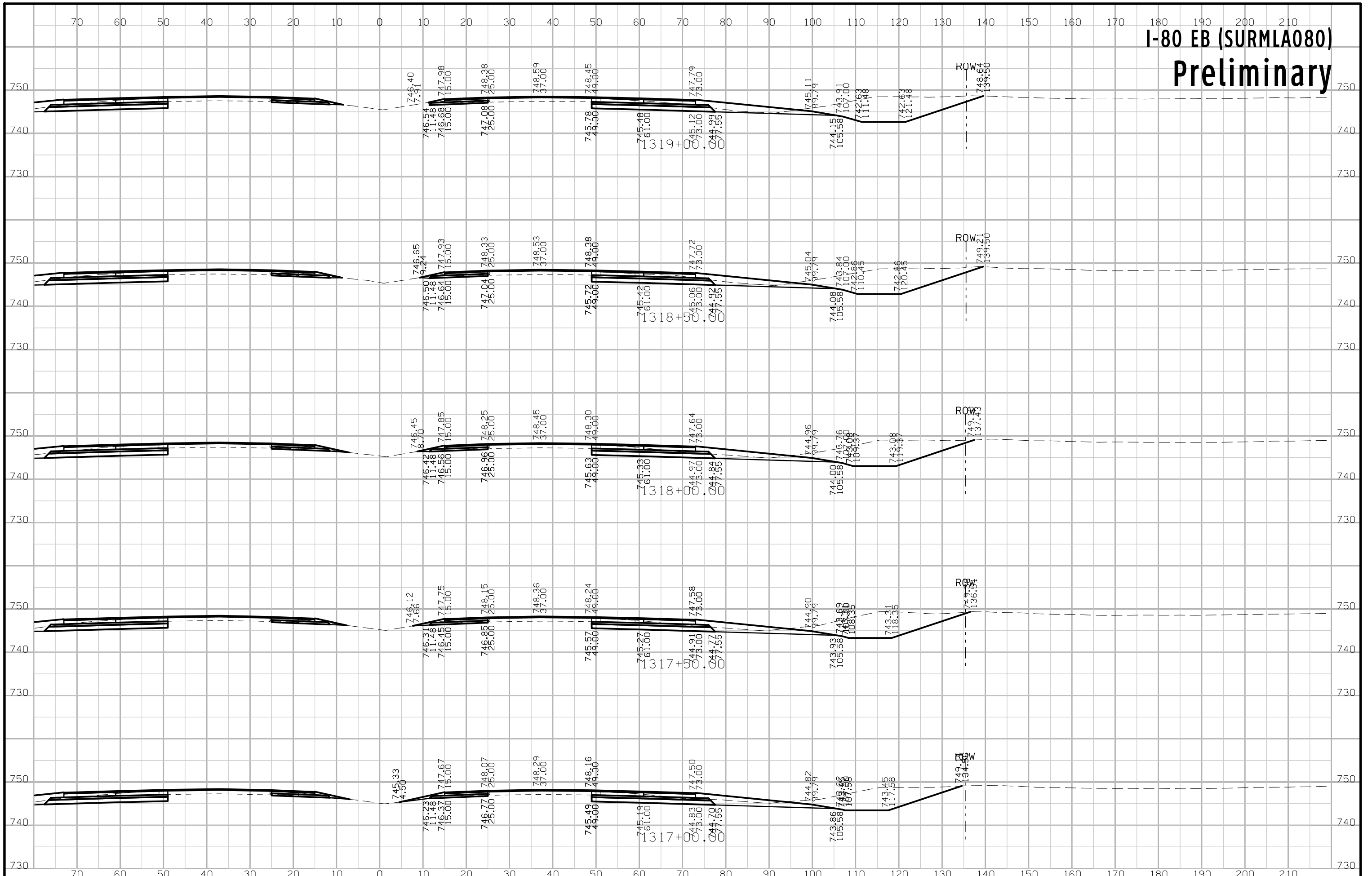
I-80 EB (SURMLA080) Preliminary



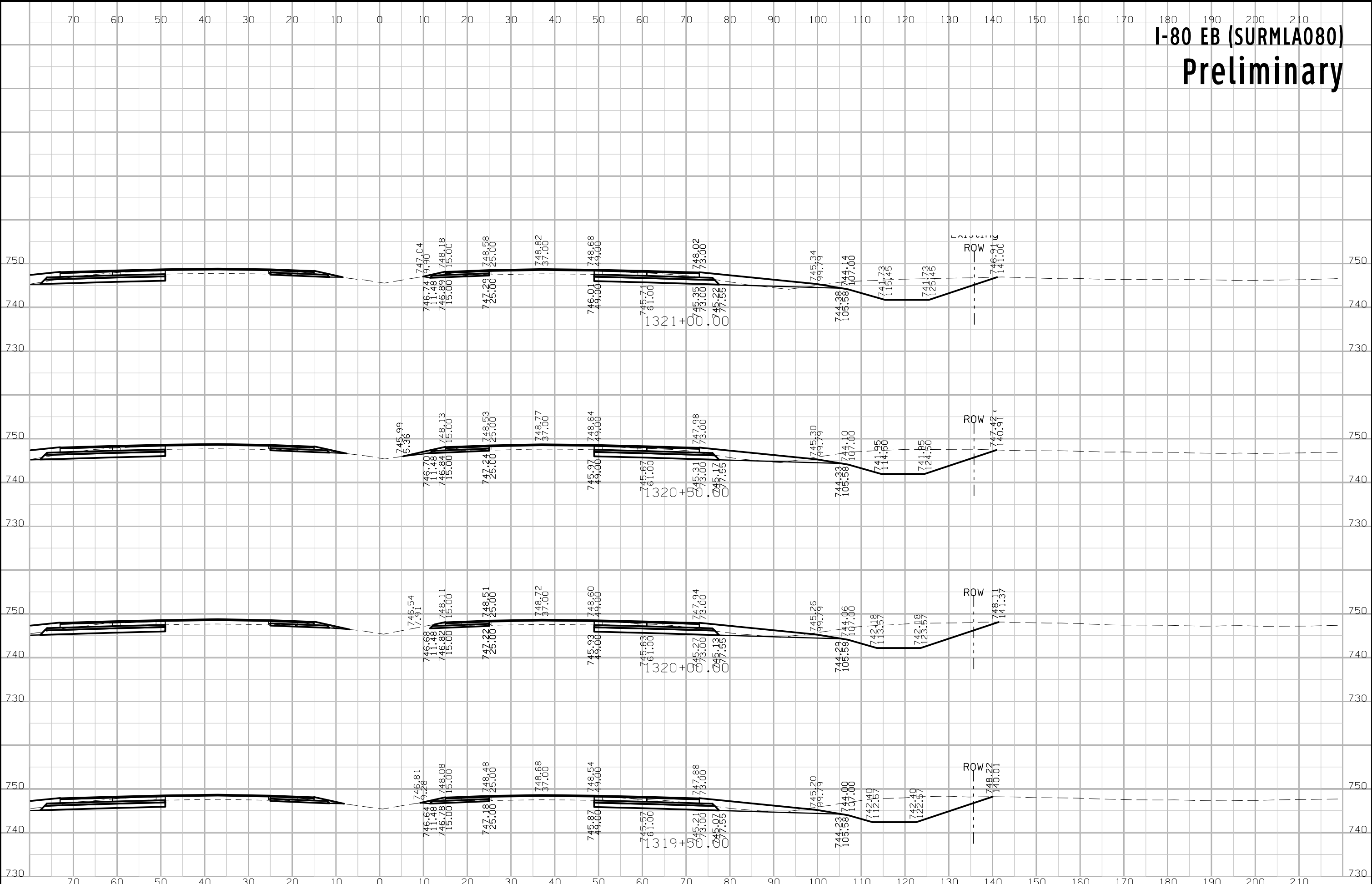
I-80 EB (SURMLA080) Preliminary



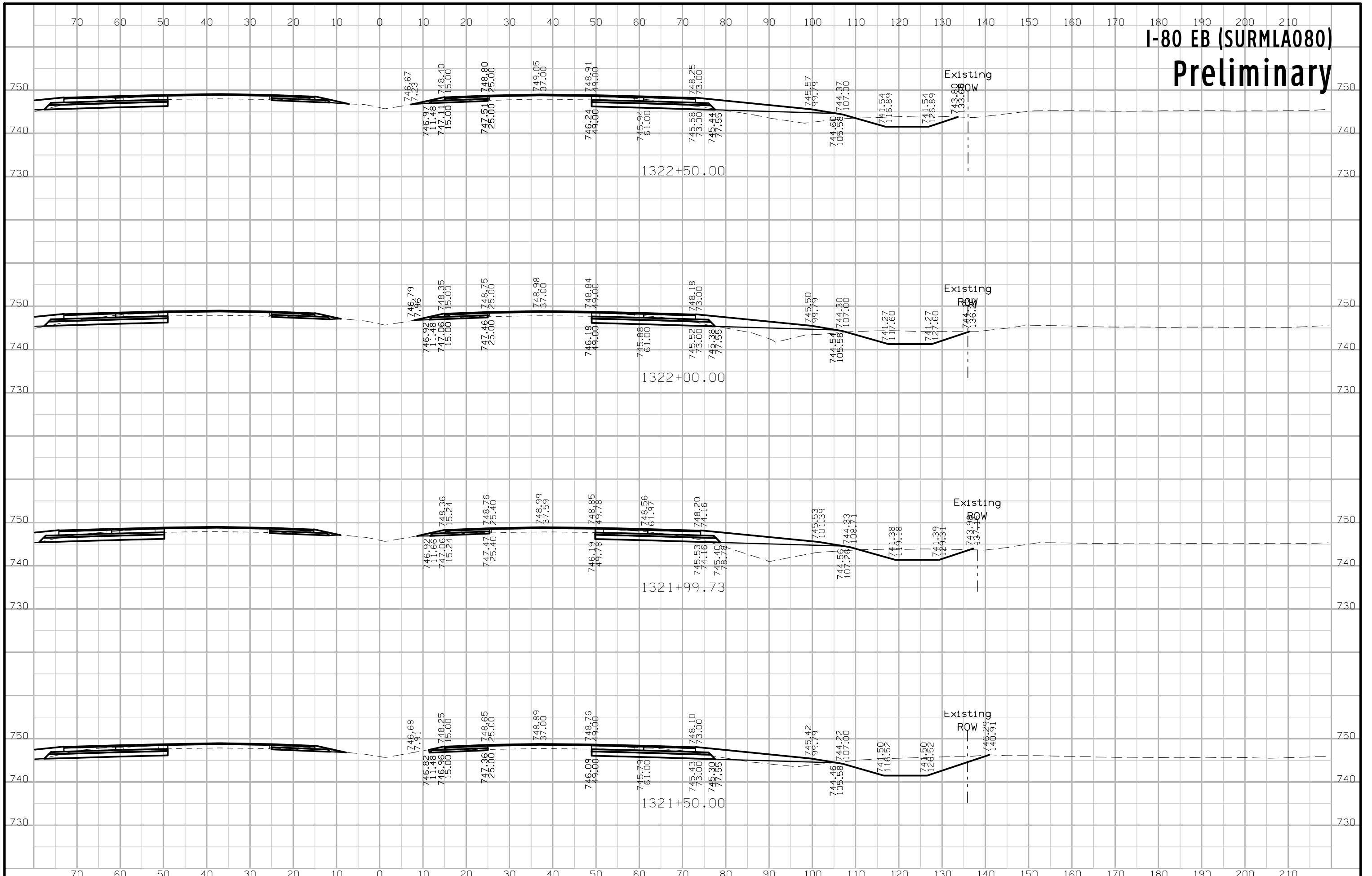
I-80 EB (SURMLA080) Preliminary



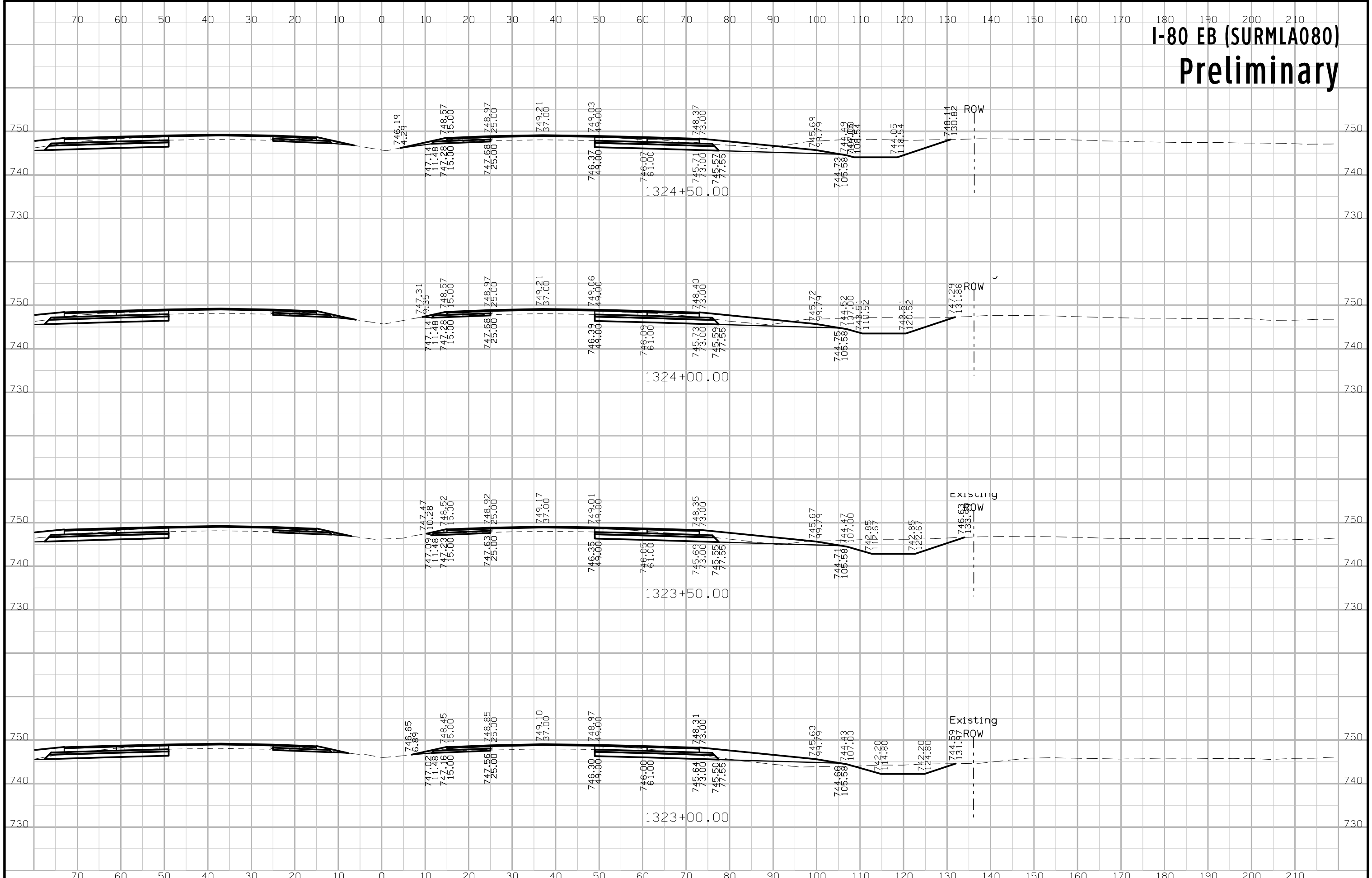
I-80 EB (SURMLA080) Preliminary



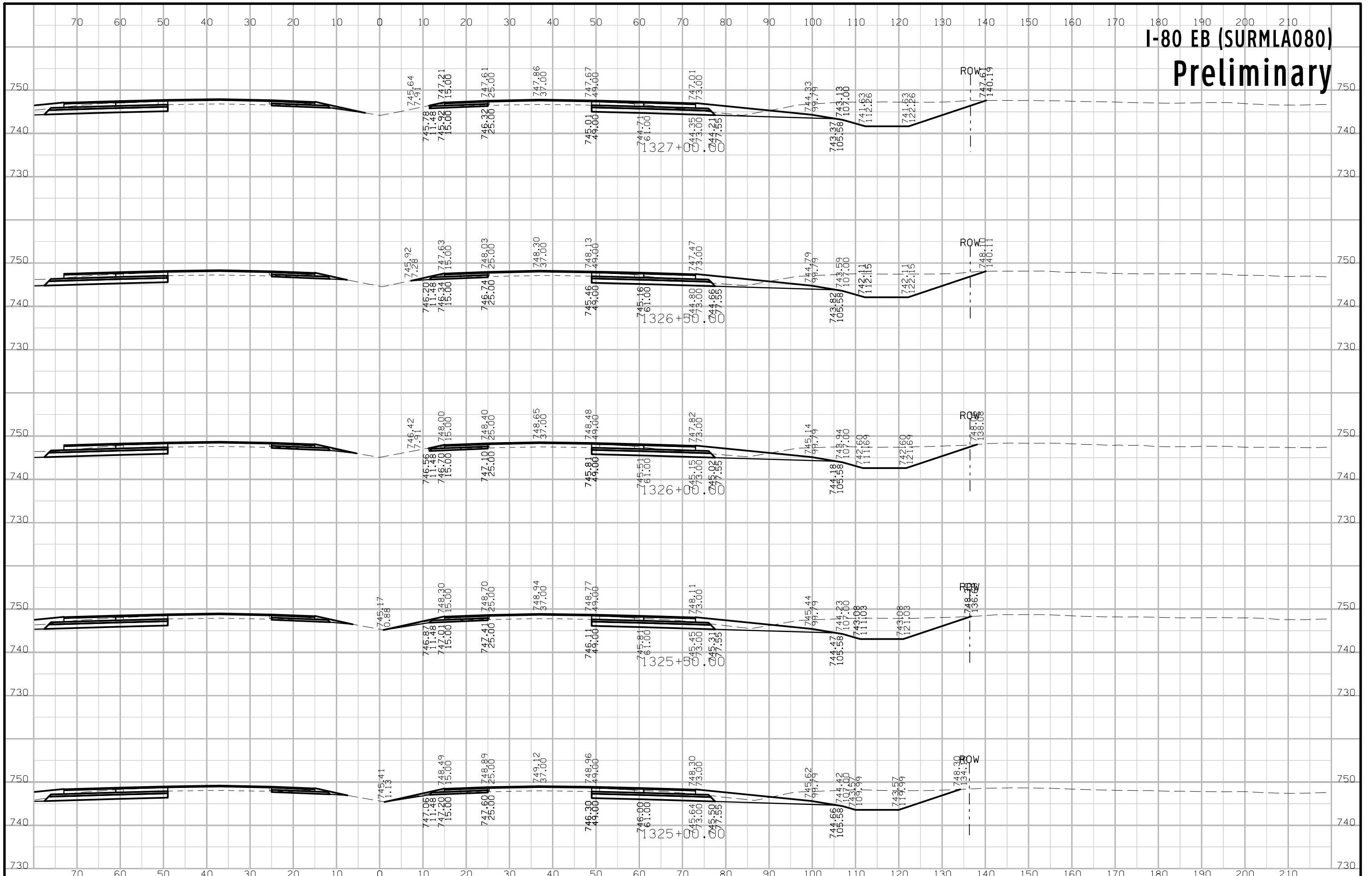
I-80 EB (SURMLA080) Preliminary



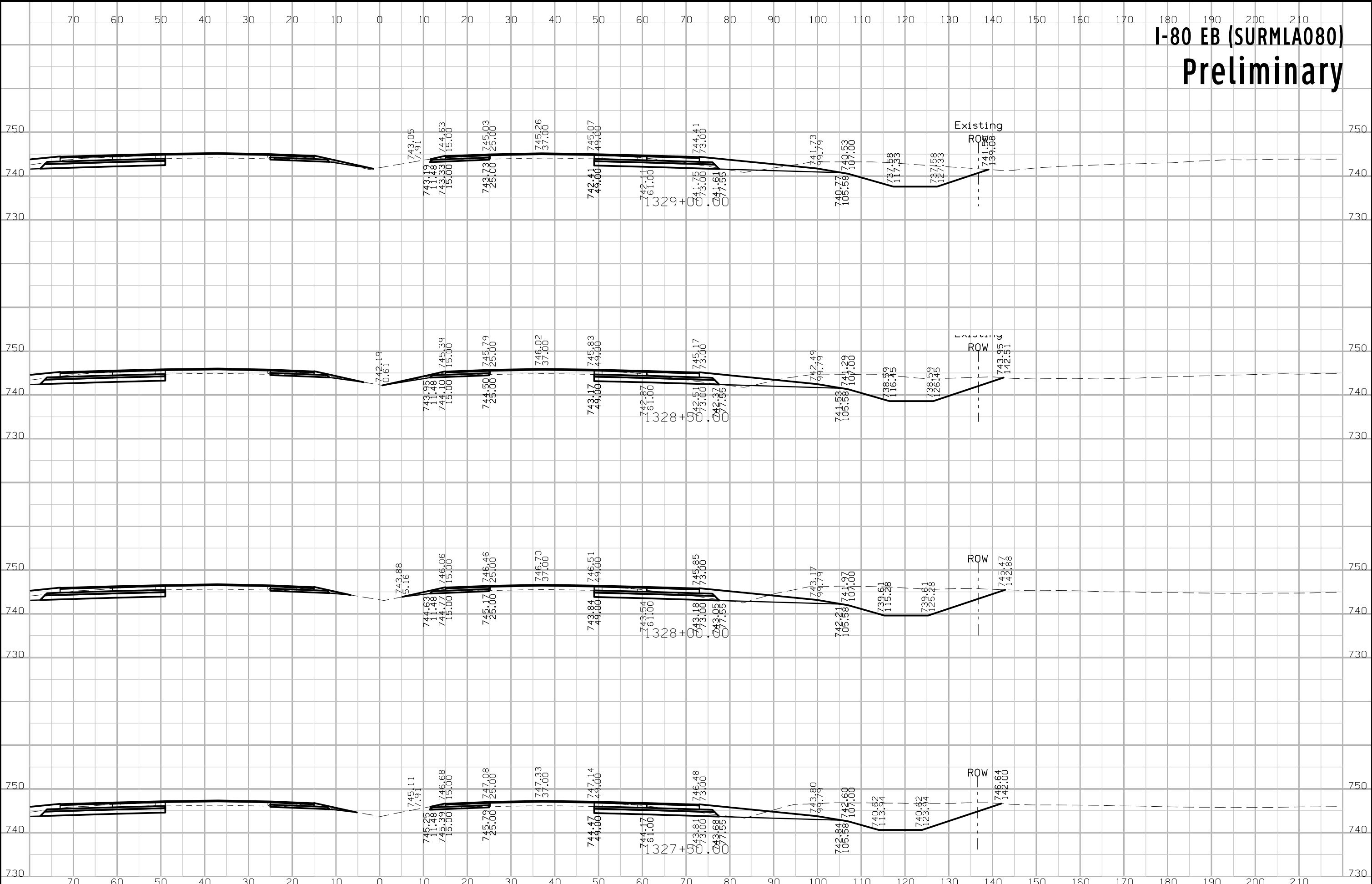
I-80 EB (SURMLA080) Preliminary



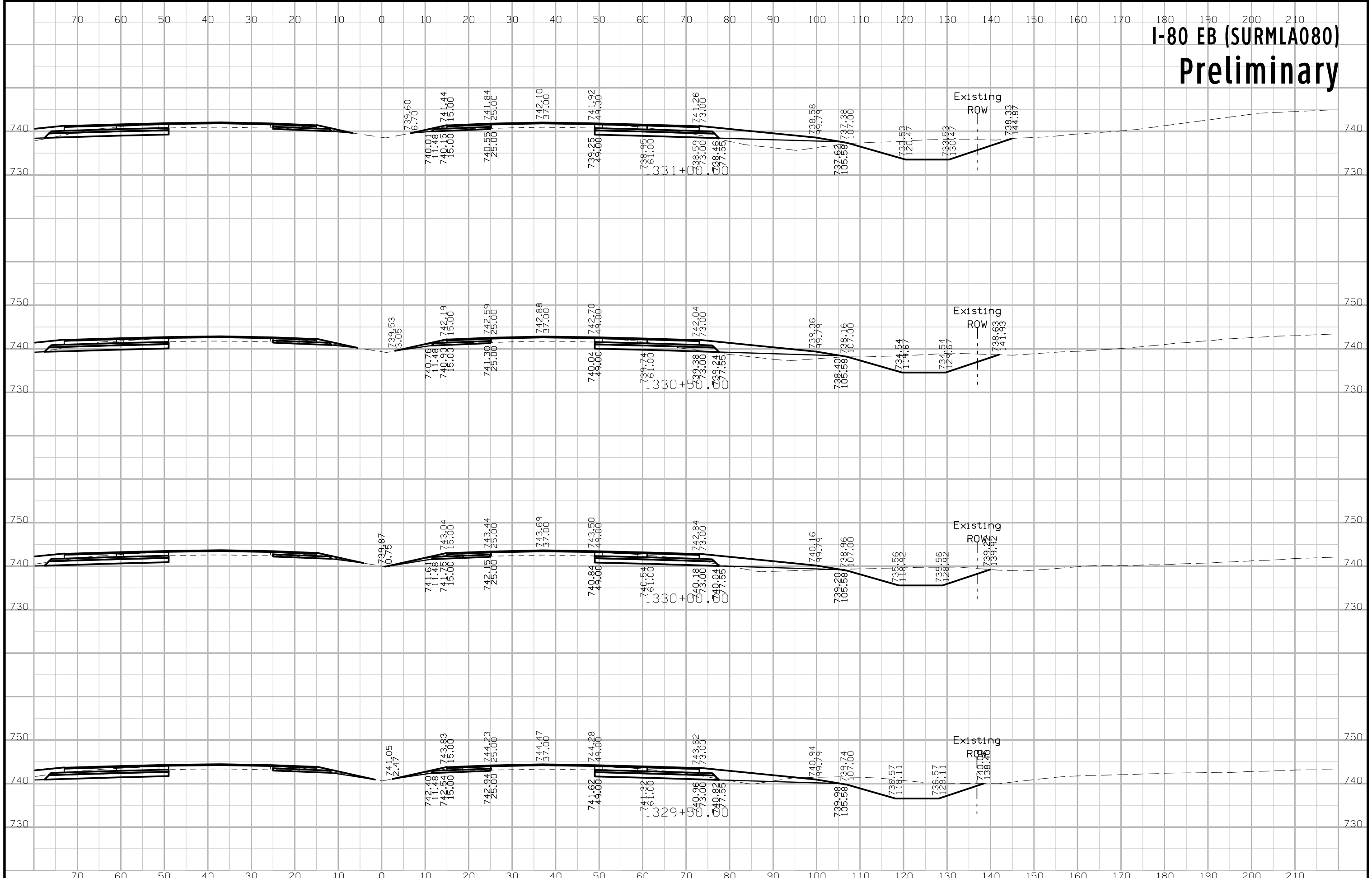
I-80 EB (SURMLA080) Preliminary



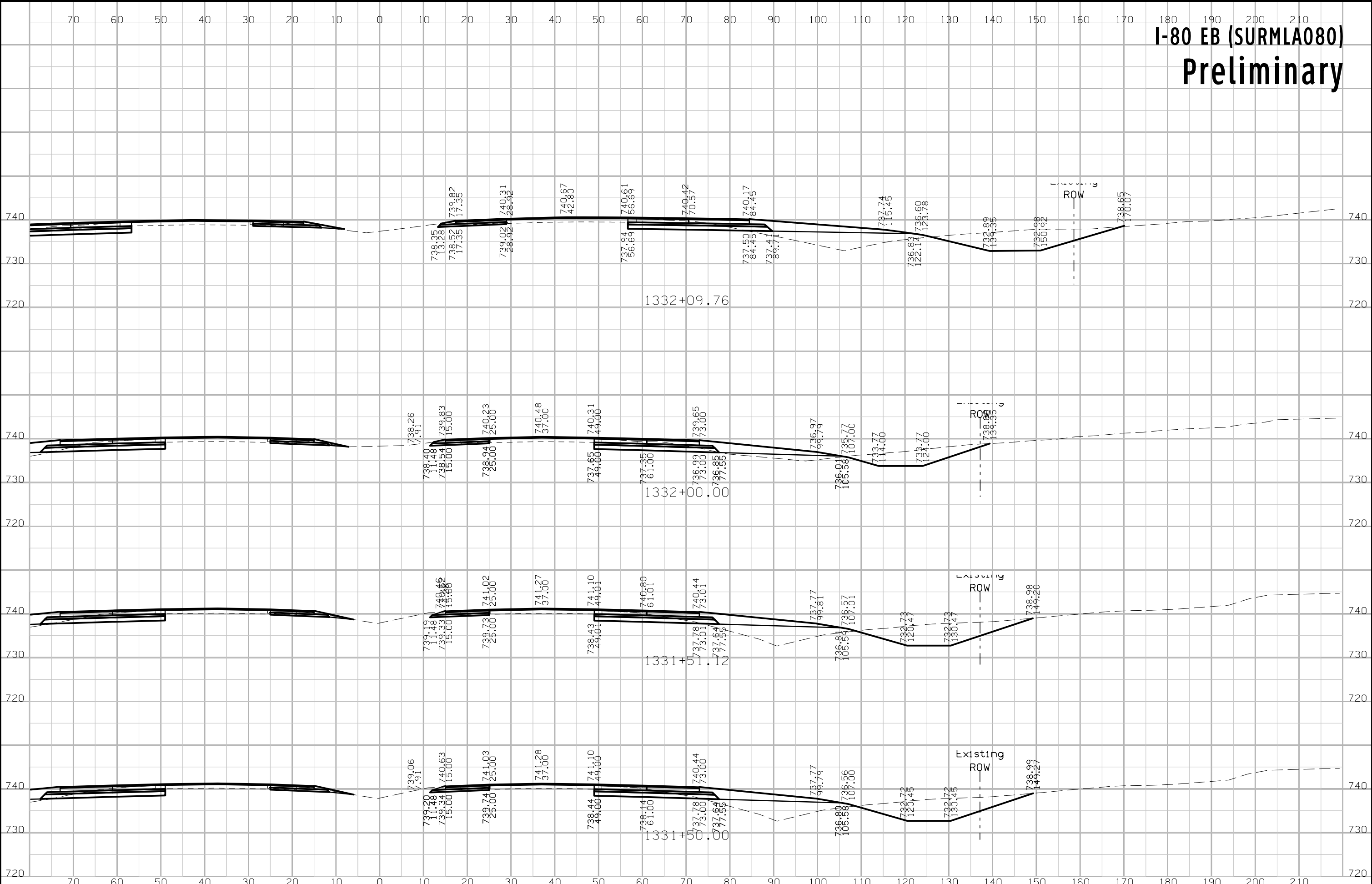
I-80 EB (SURMLA080) Preliminary



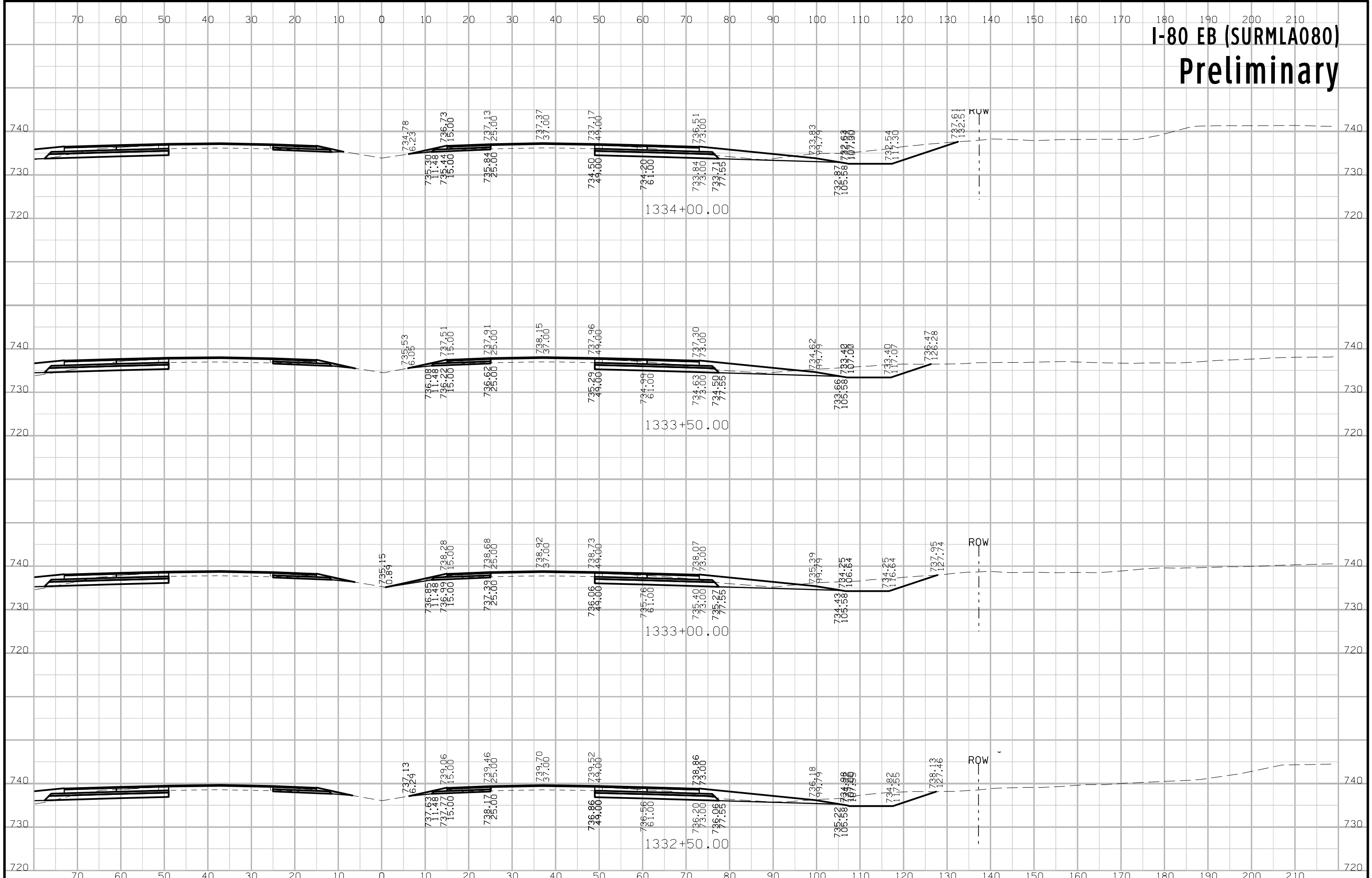
I-80 EB (SURMLA080) Preliminary



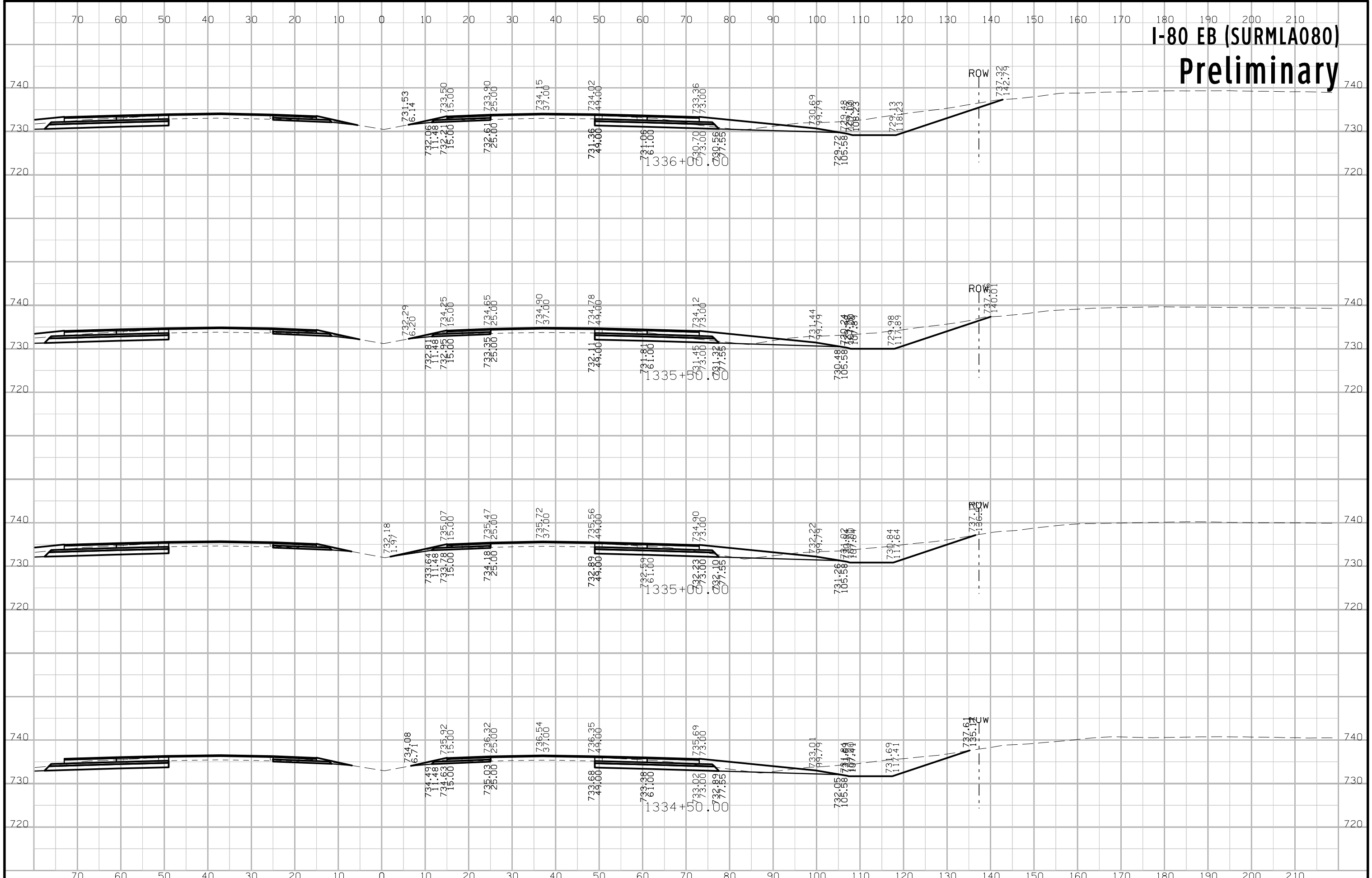
I-80 EB (SURMLA080) Preliminary



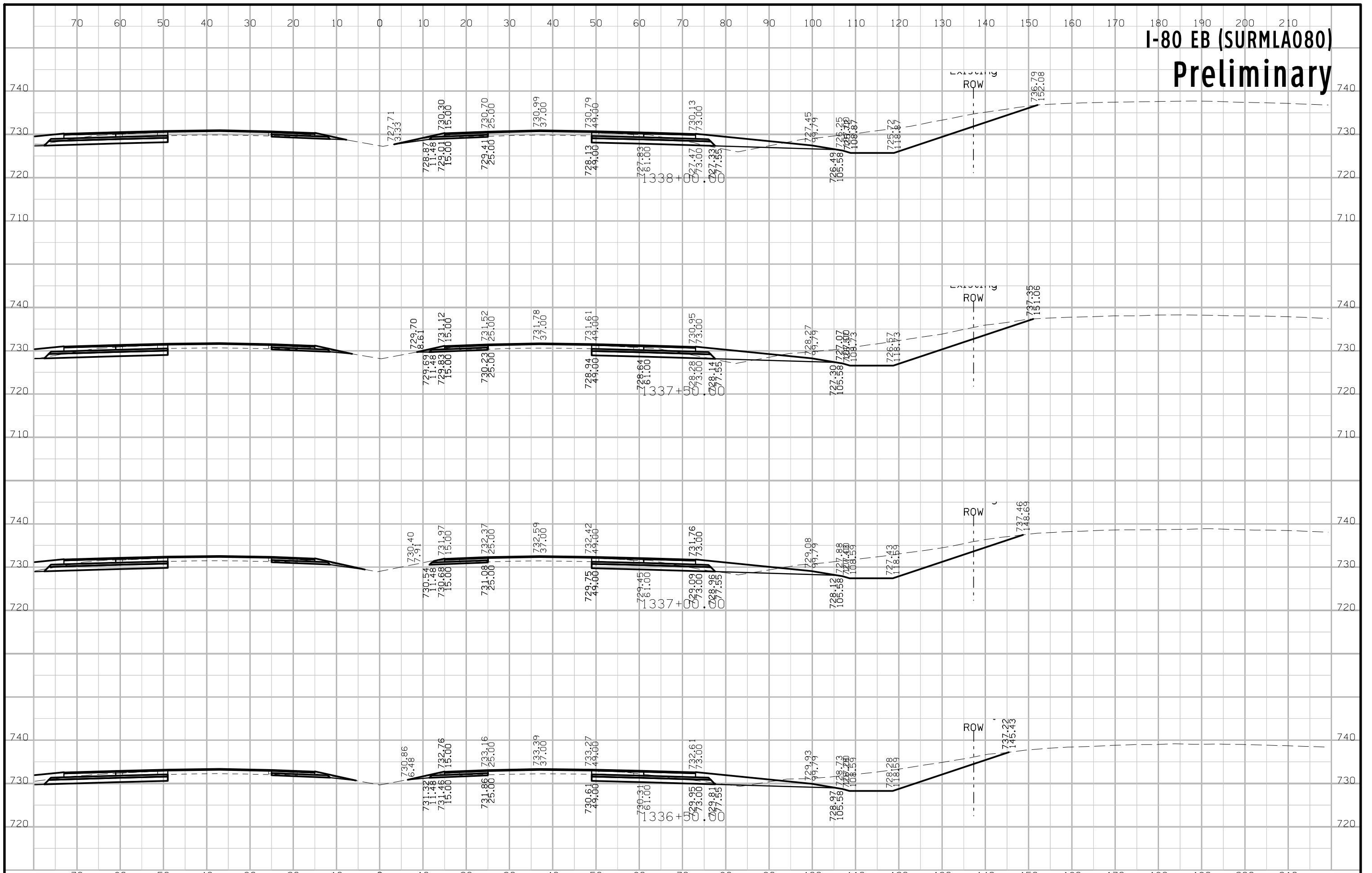
I-80 EB (SURMLA080) Preliminary



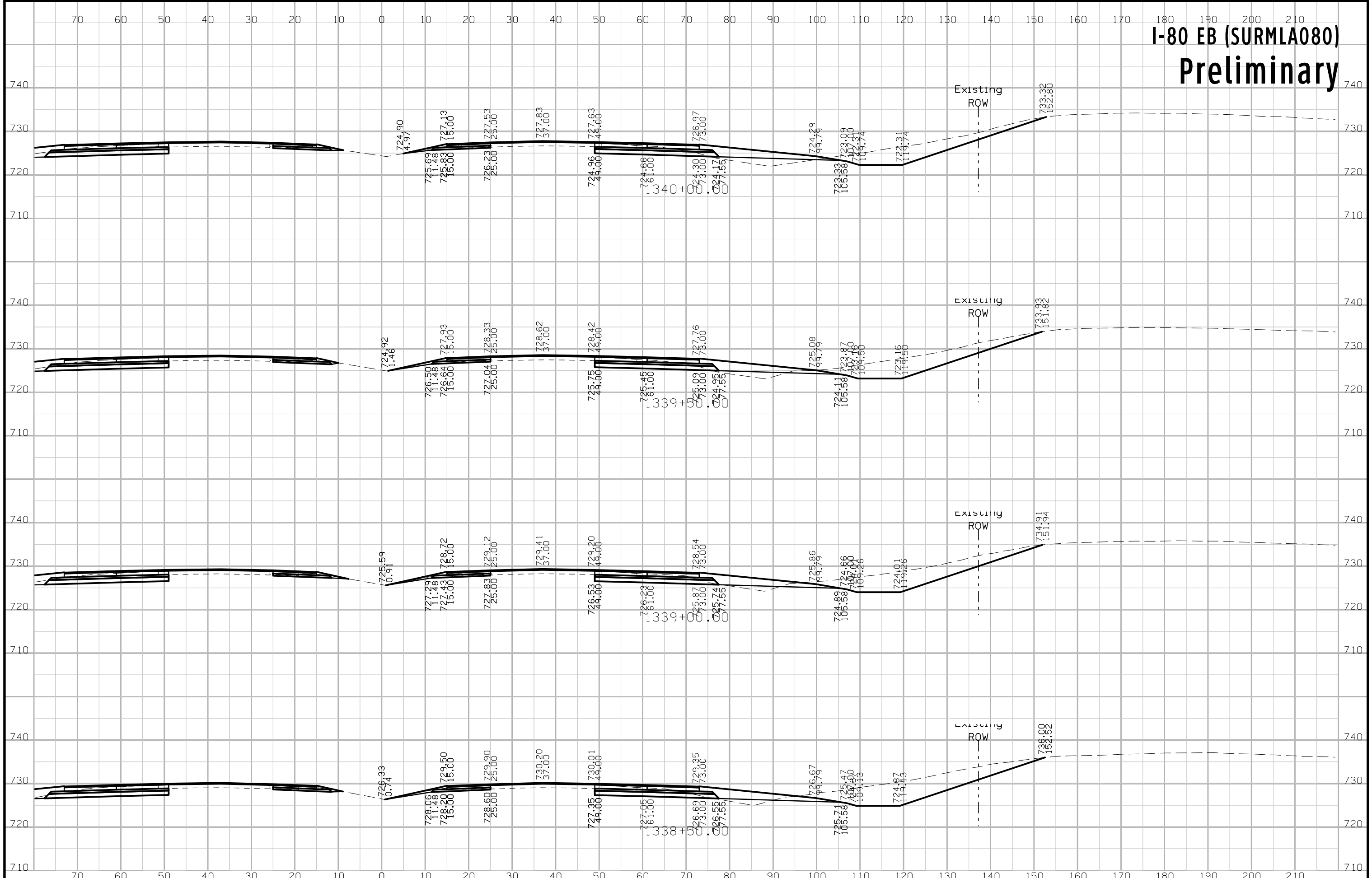
**I-80 EB (SURMLA080)
Preliminary**



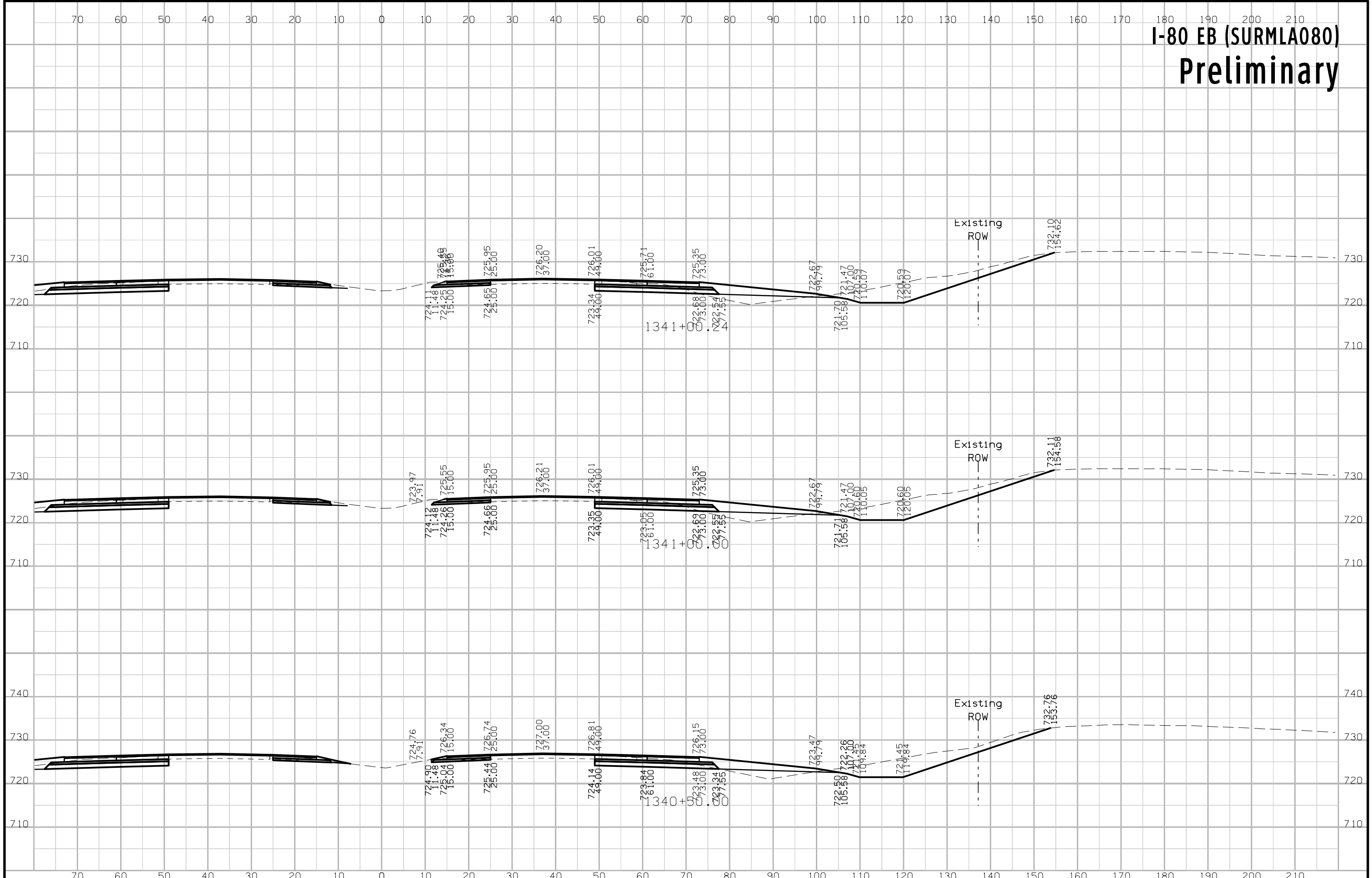
I-80 EB (SURMLA080)
Preliminary



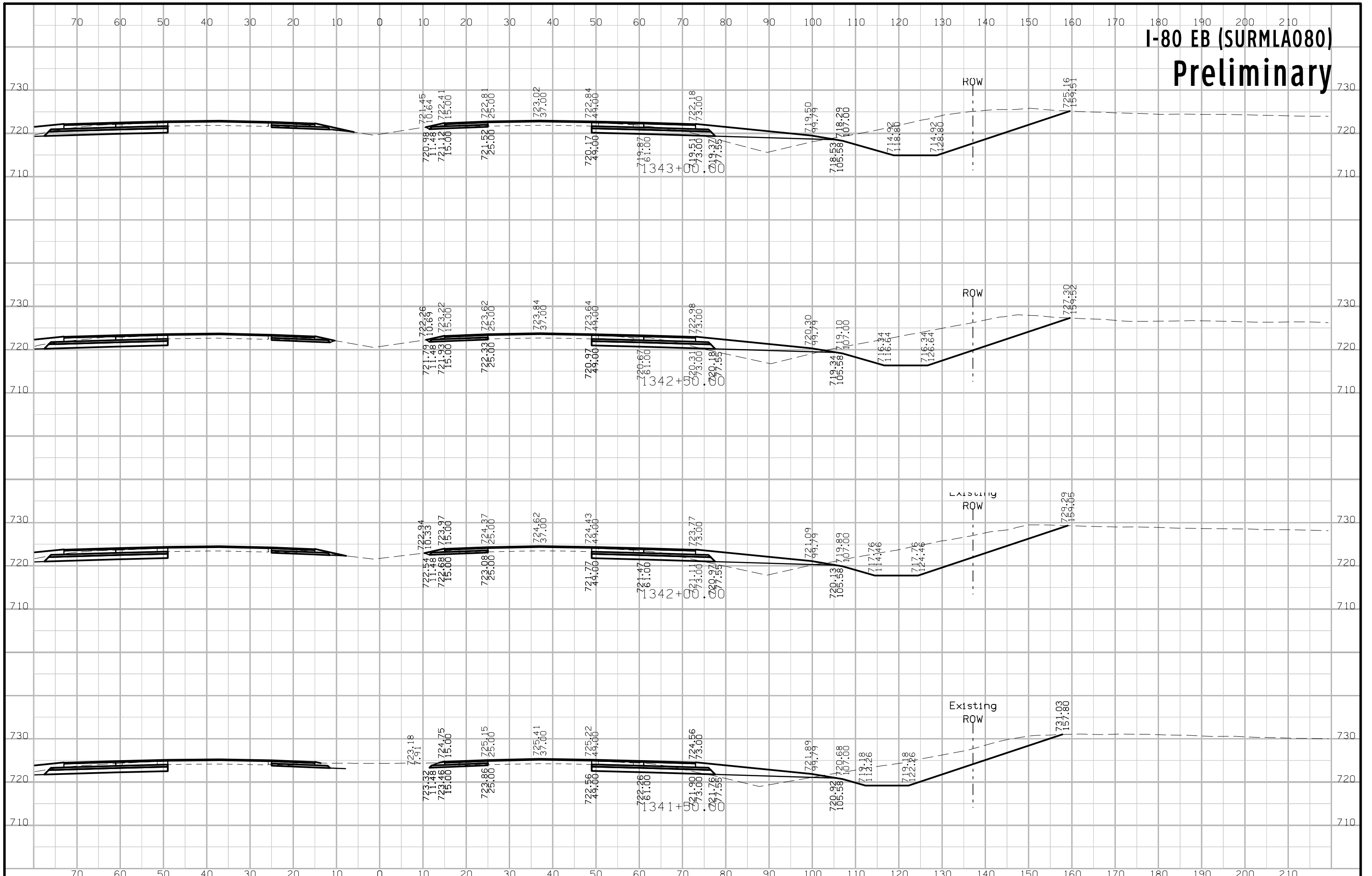
I-80 EB (SURMLA080) Preliminary



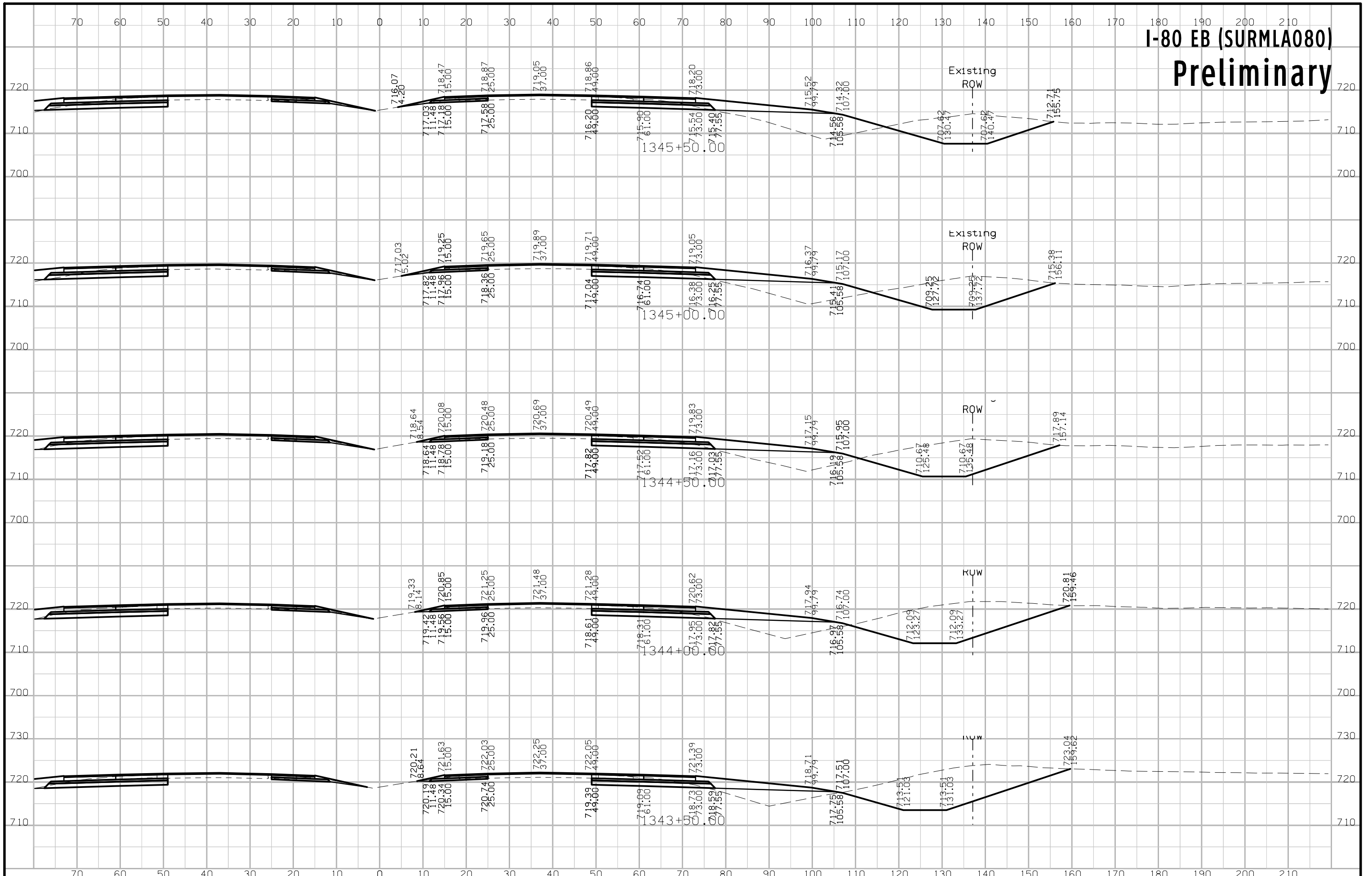
I-80 EB (SURMLA080) Preliminary



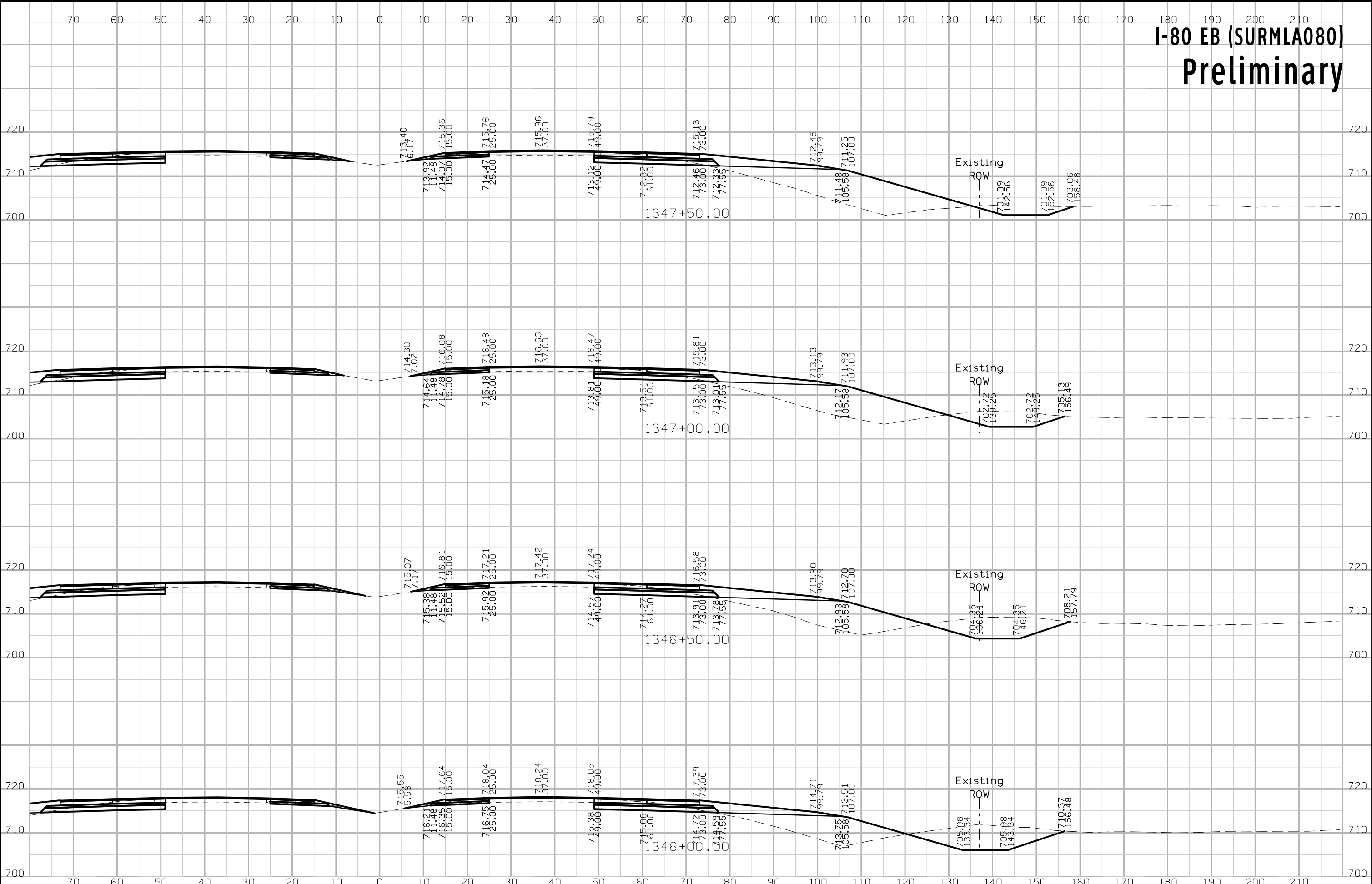
I-80 EB (SURMLA080) Preliminary



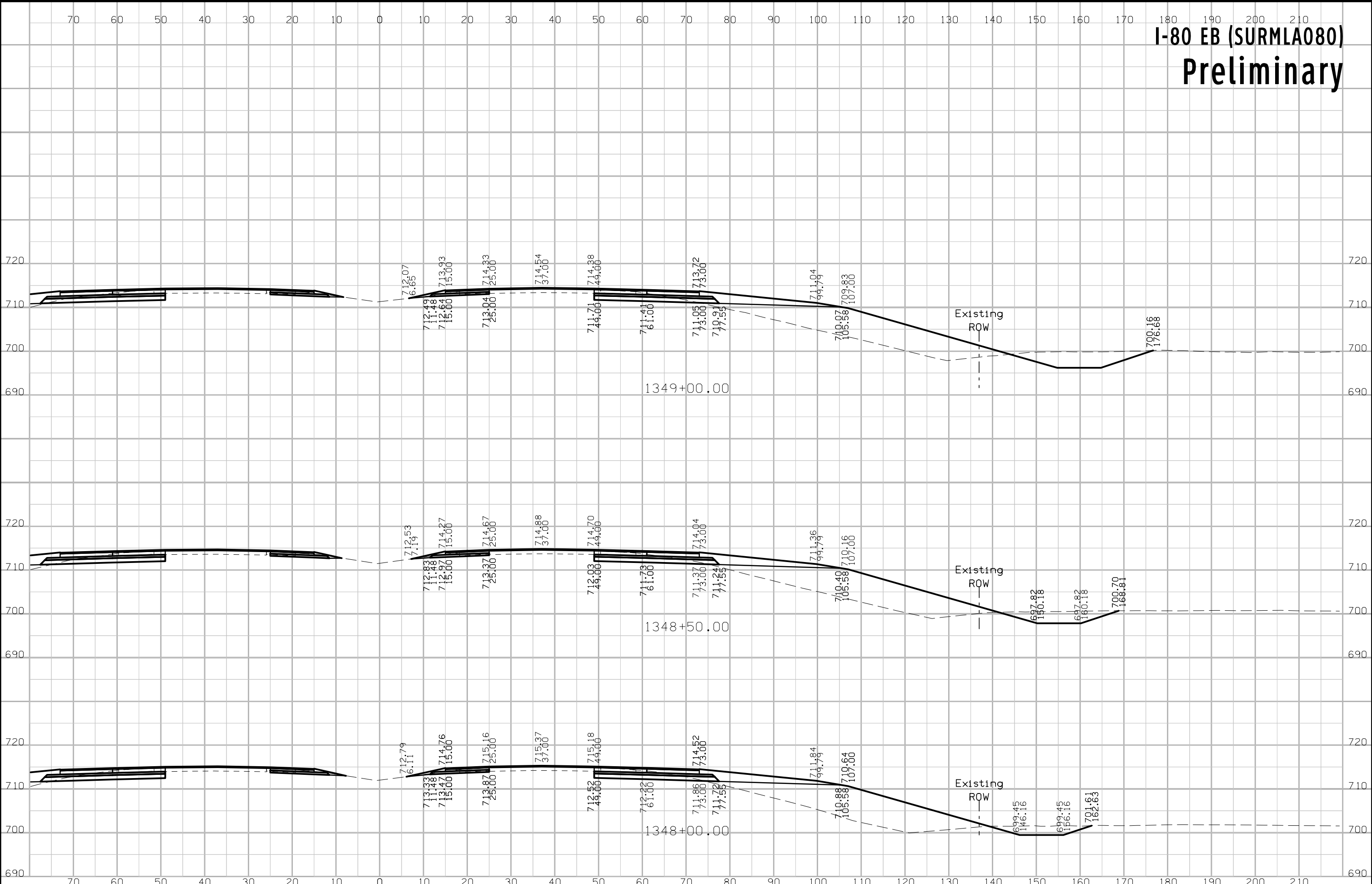
I-80 EB (SURMLA080) Preliminary



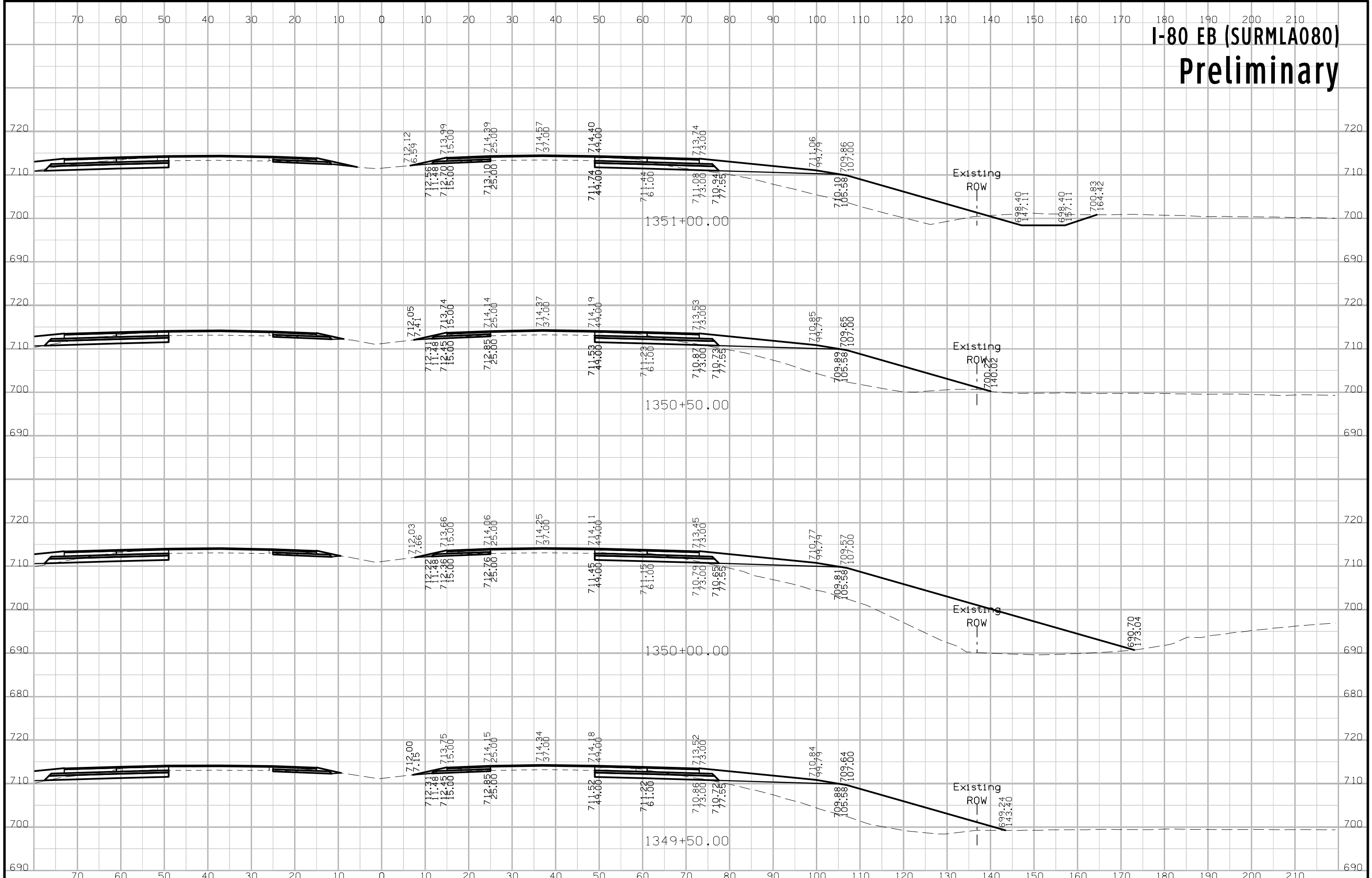
I-80 EB (SURMLA080) Preliminary



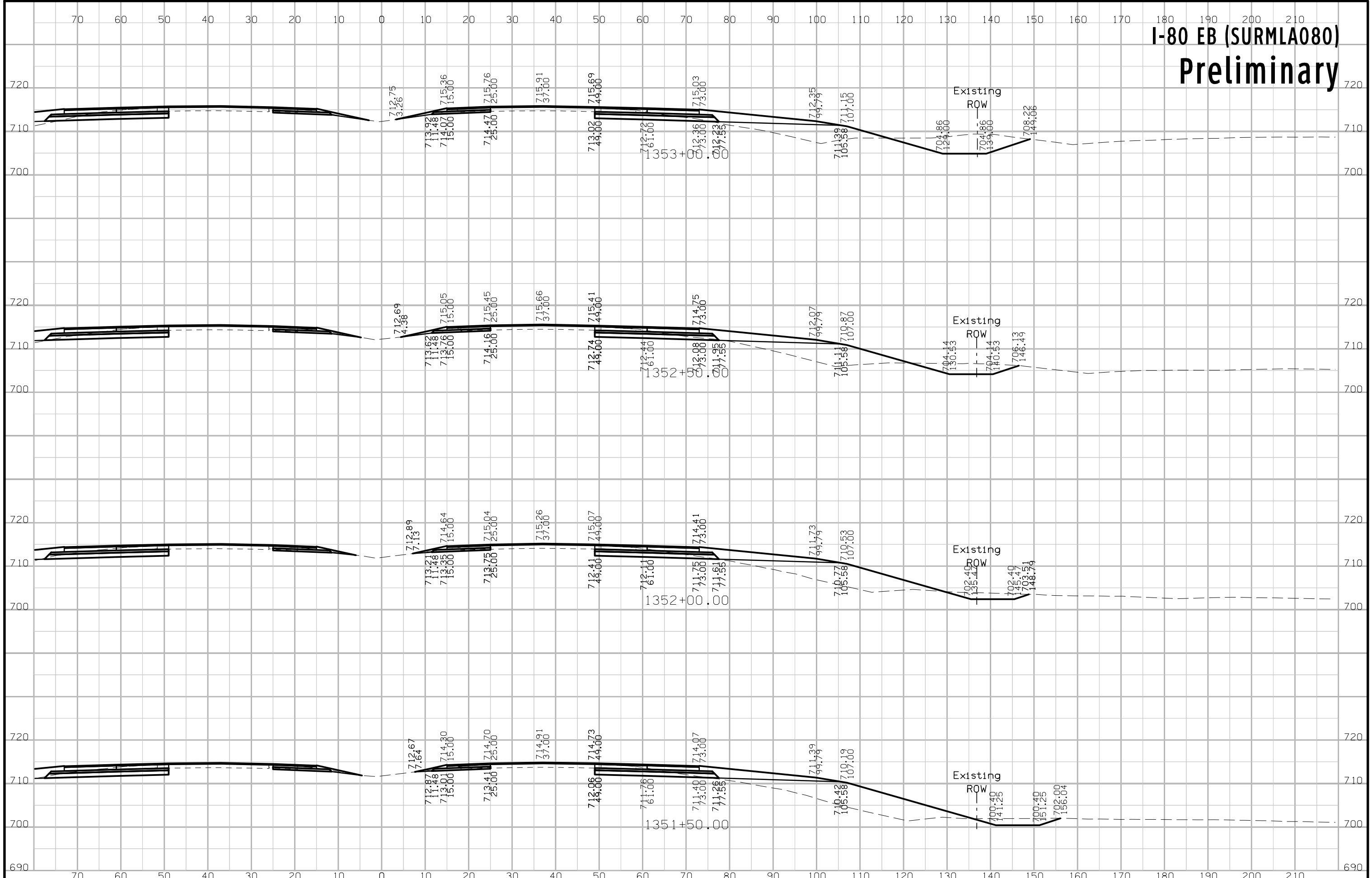
I-80 EB (SURMLA080) Preliminary



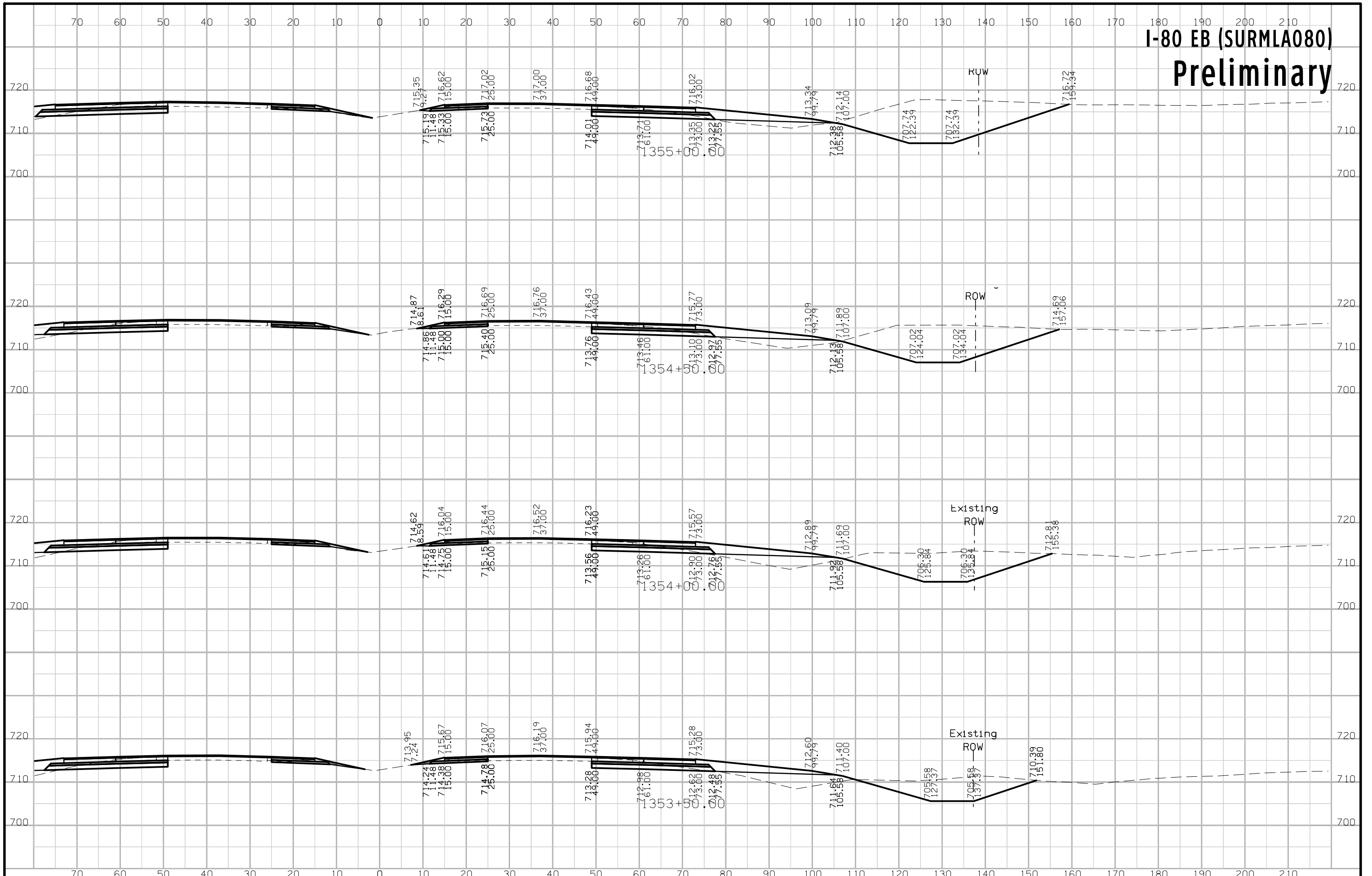
I-80 EB (SURMLA080) Preliminary



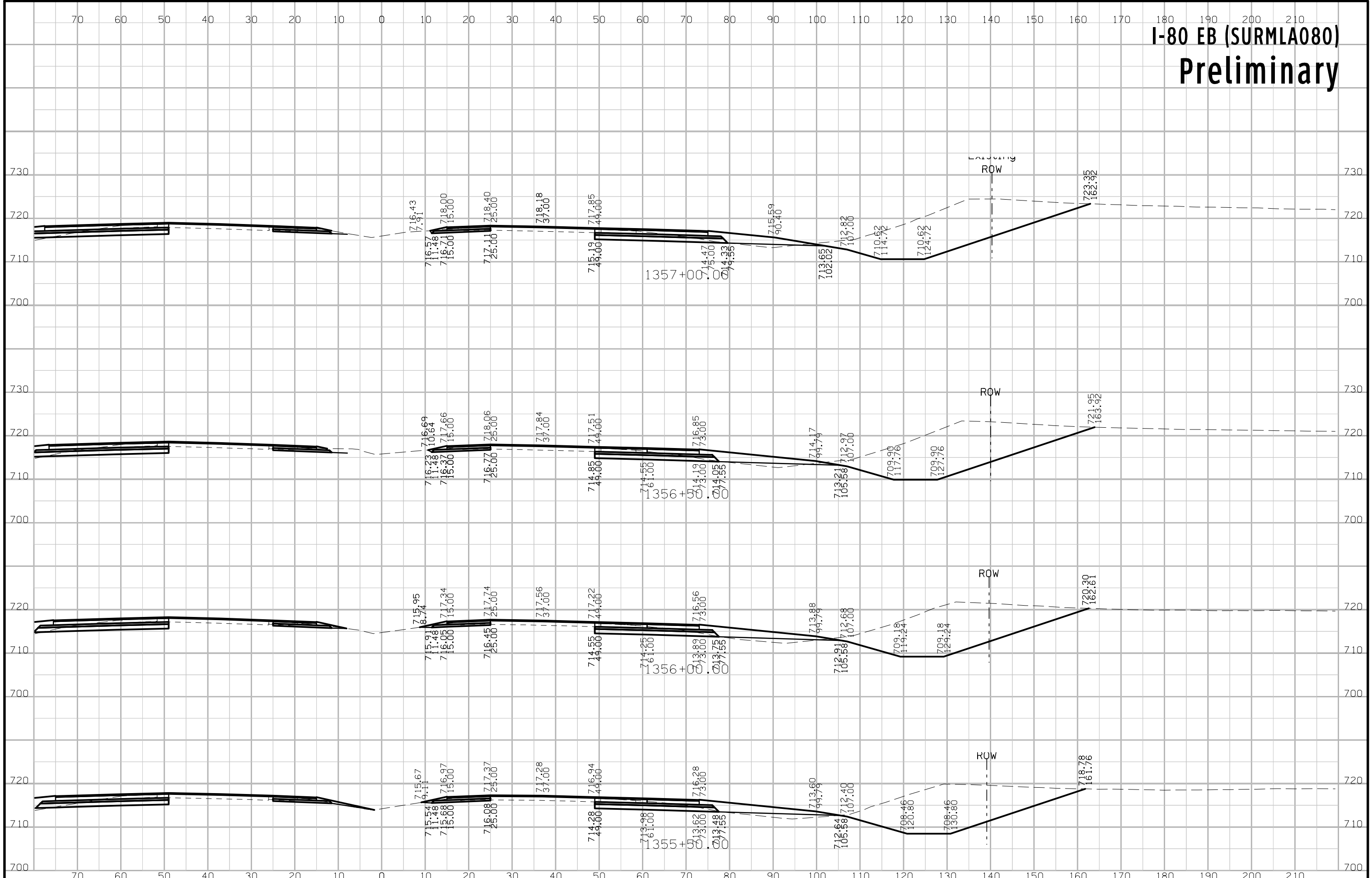
I-80 EB (SURMLA080) Preliminary



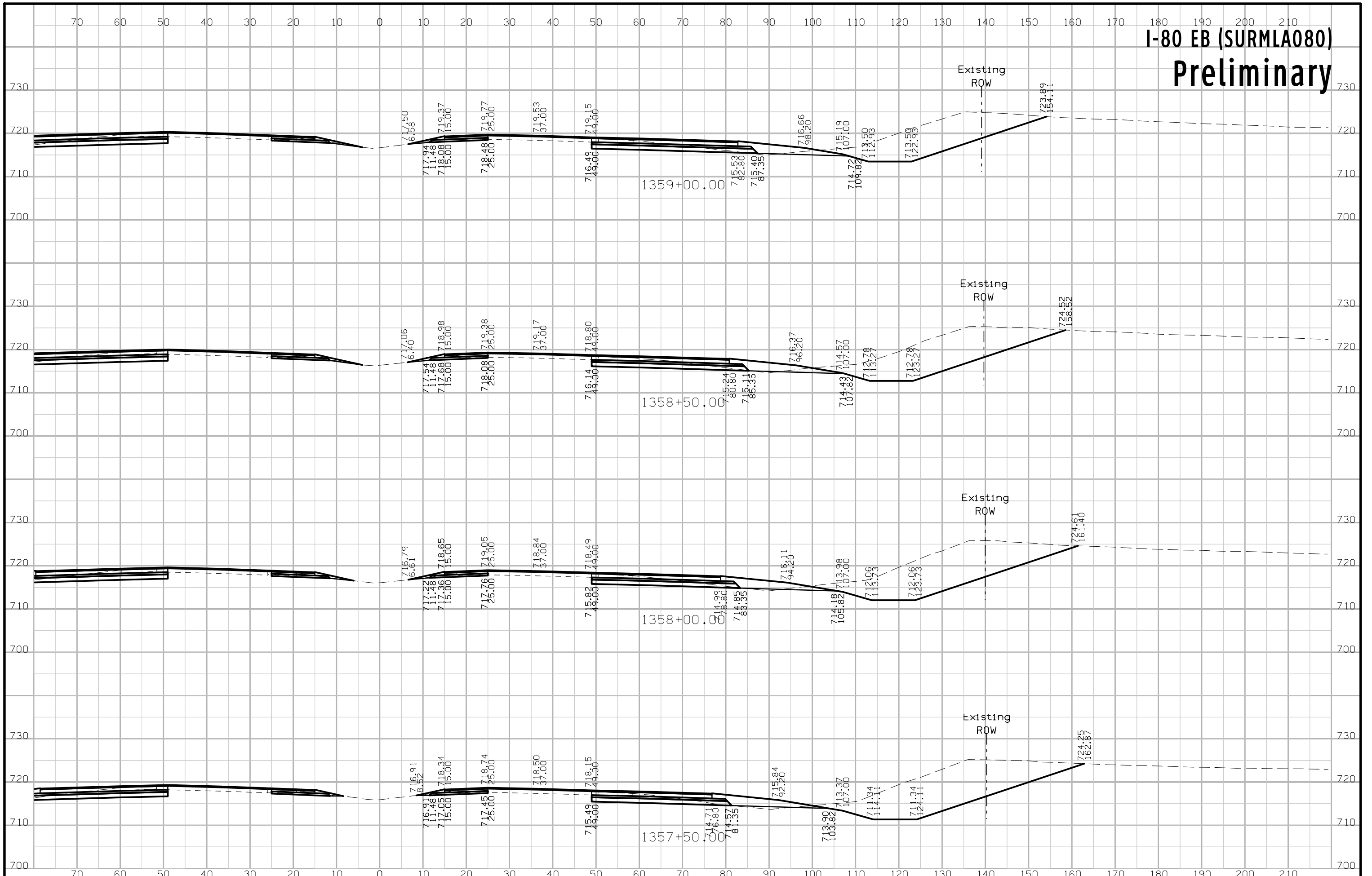
I-80 EB (SURMLA080) Preliminary



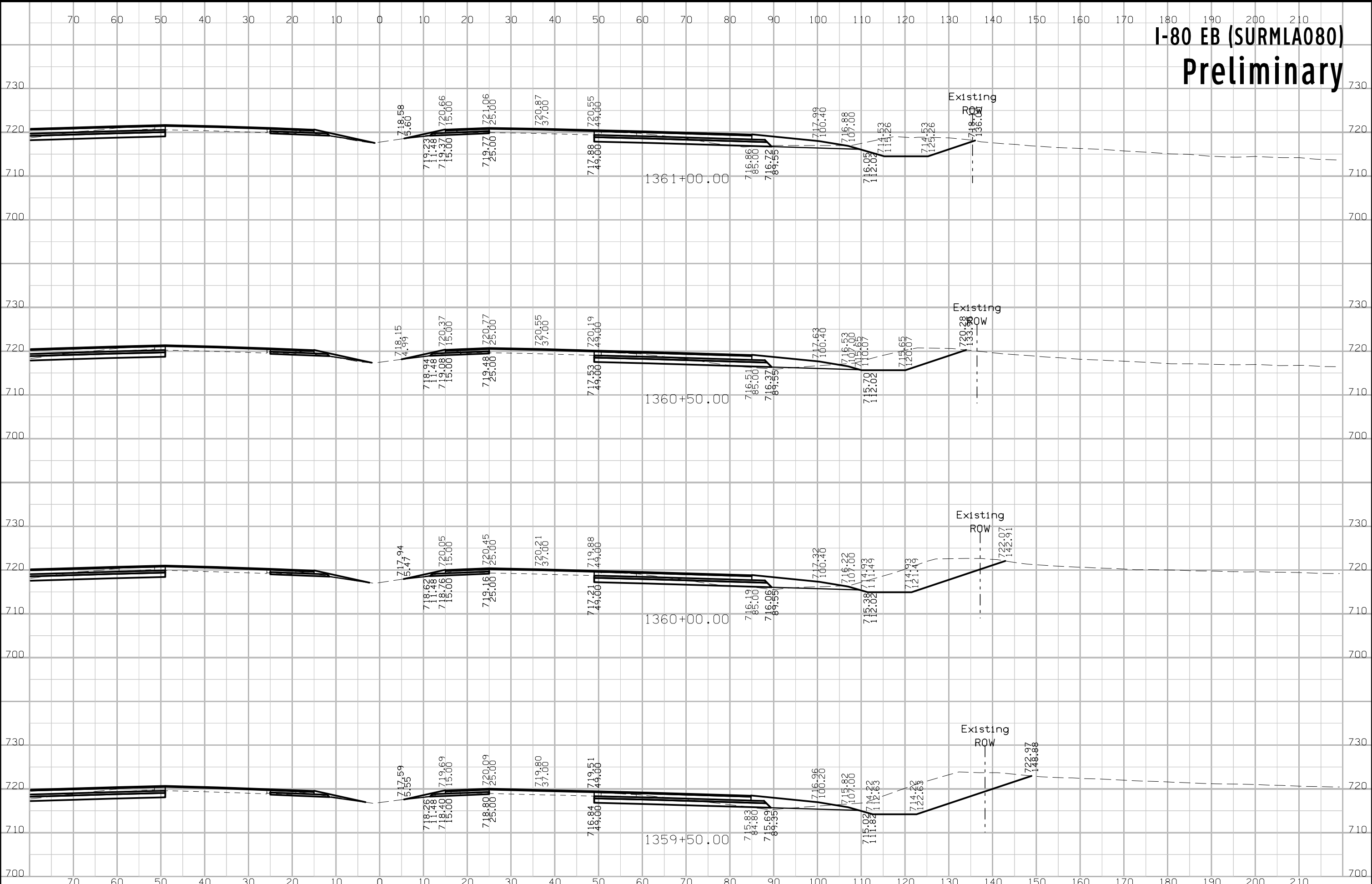
I-80 EB (SURMLA080) Preliminary



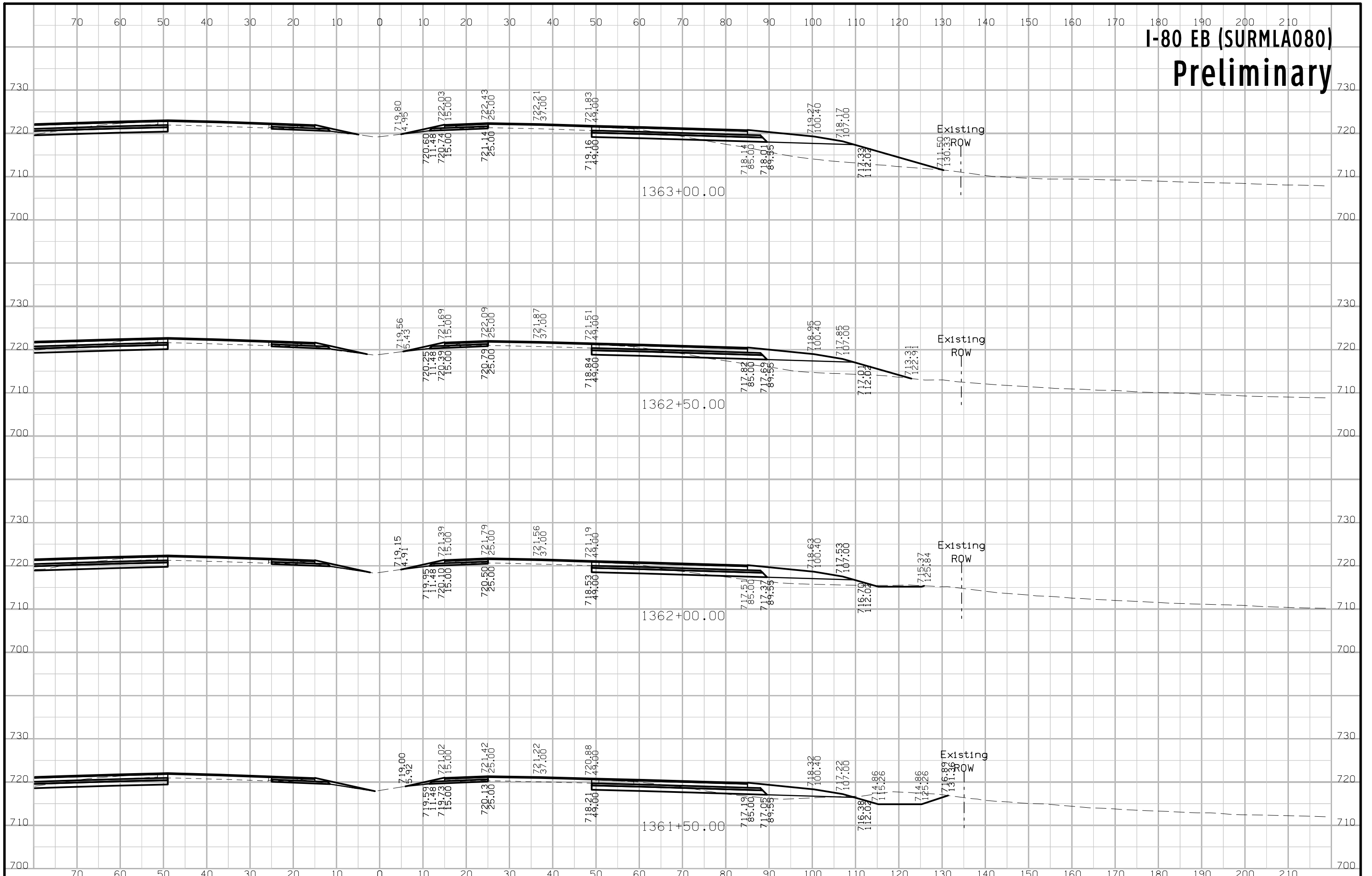
I-80 EB (SURMLA080) Preliminary



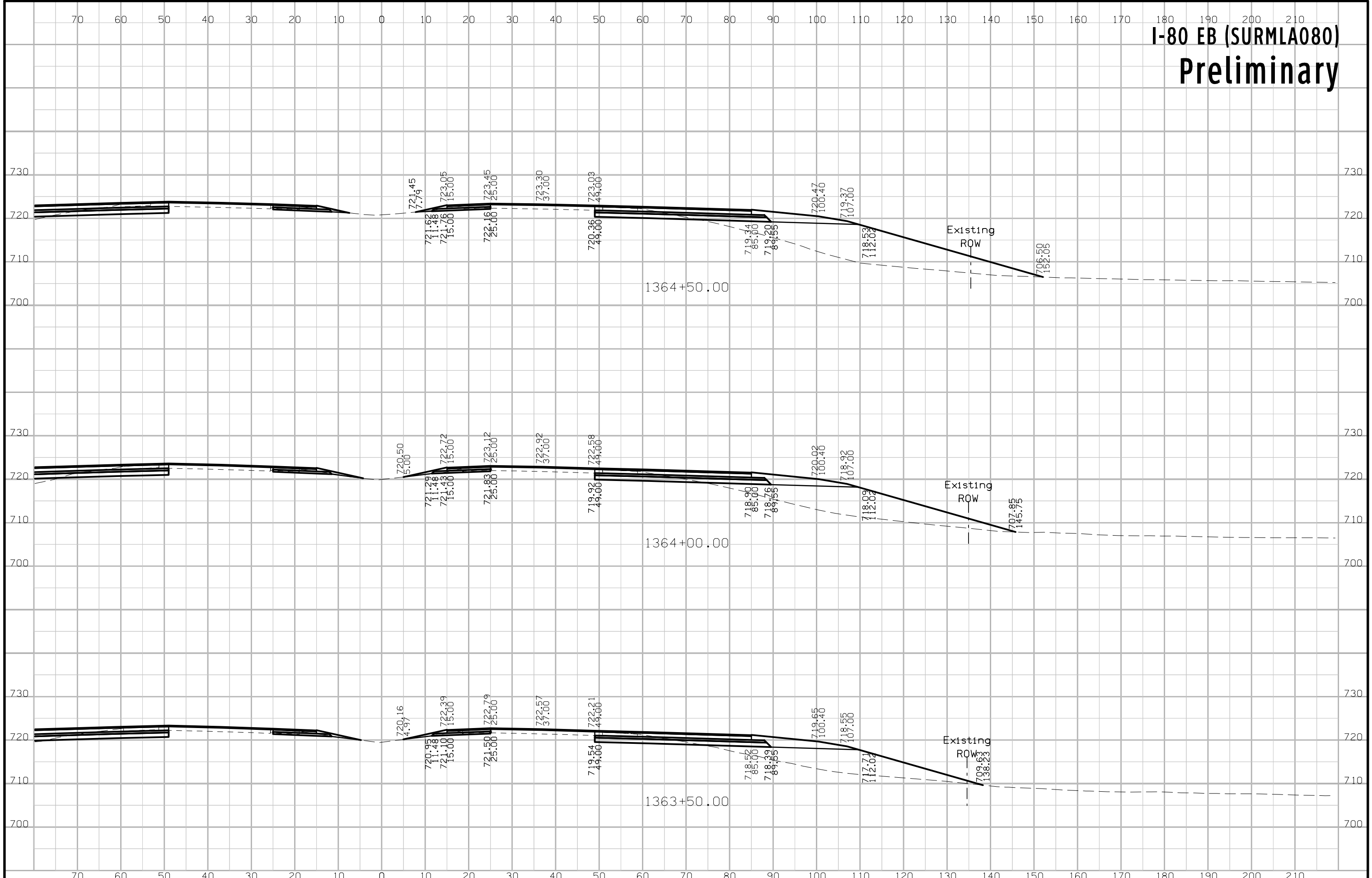
I-80 EB (SURMLA080) Preliminary



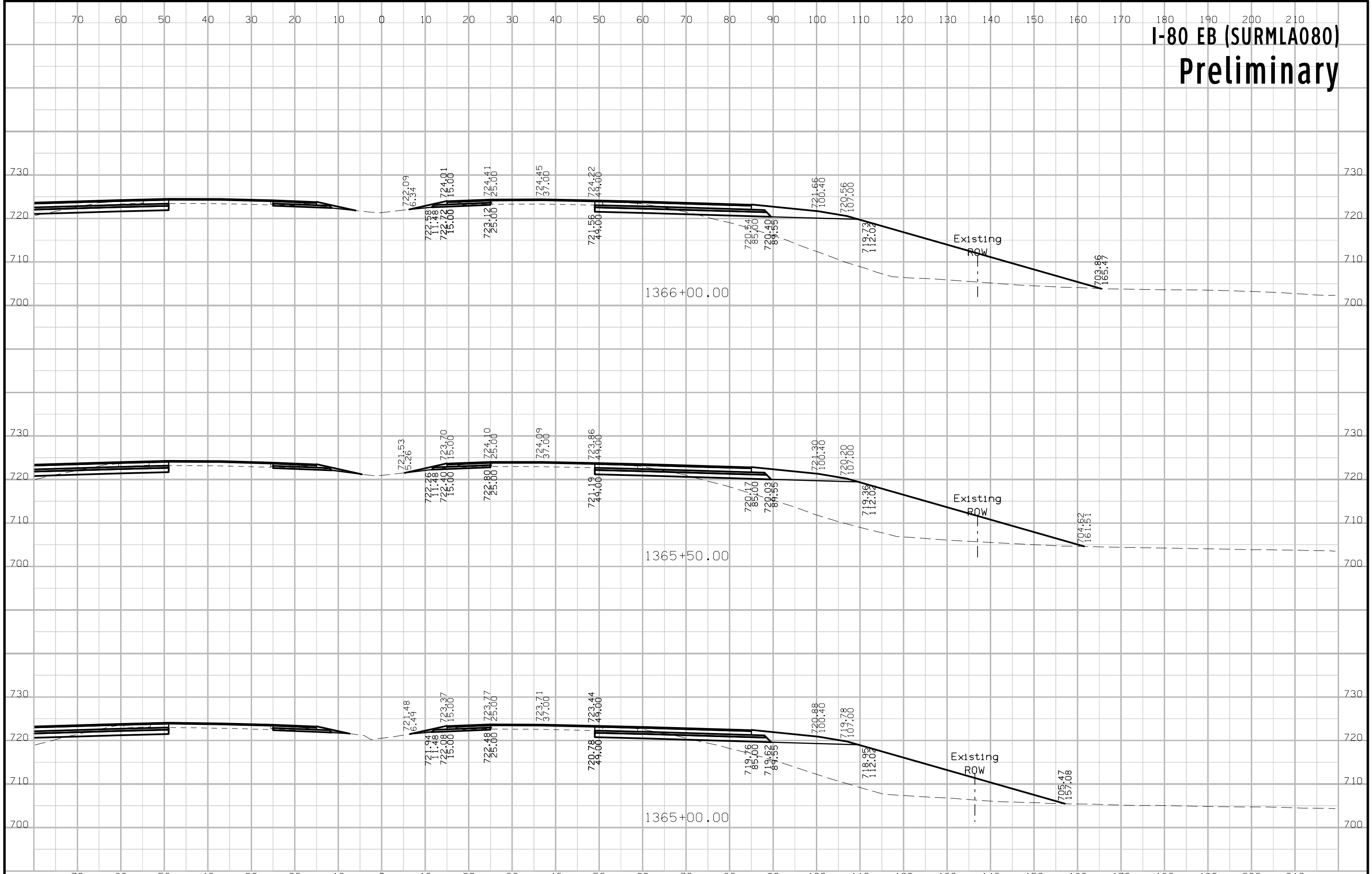
I-80 EB (SURMLA080) Preliminary



I-80 EB (SURMLA080) Preliminary



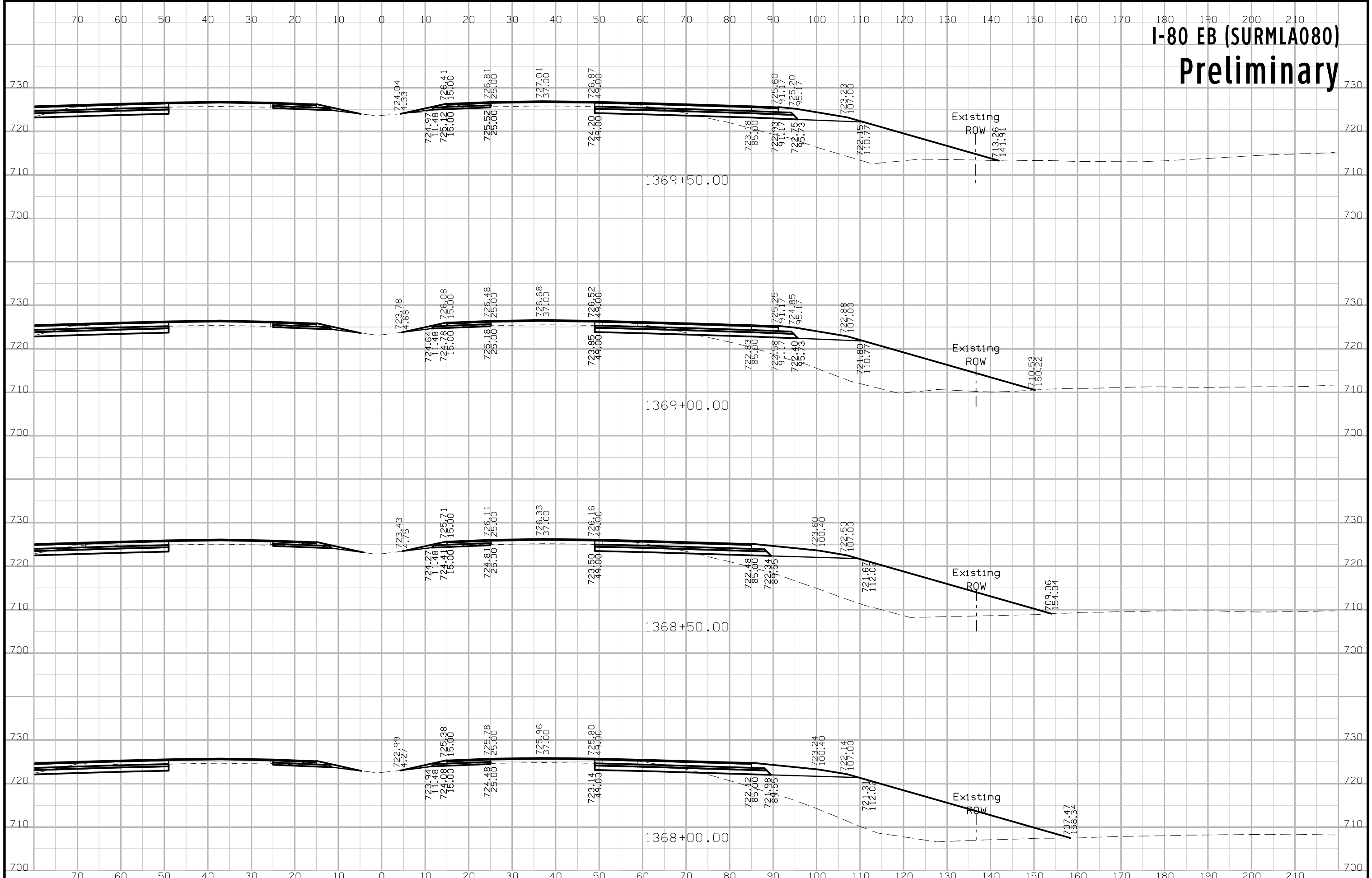
I-80 EB (SURMLA080) Preliminary



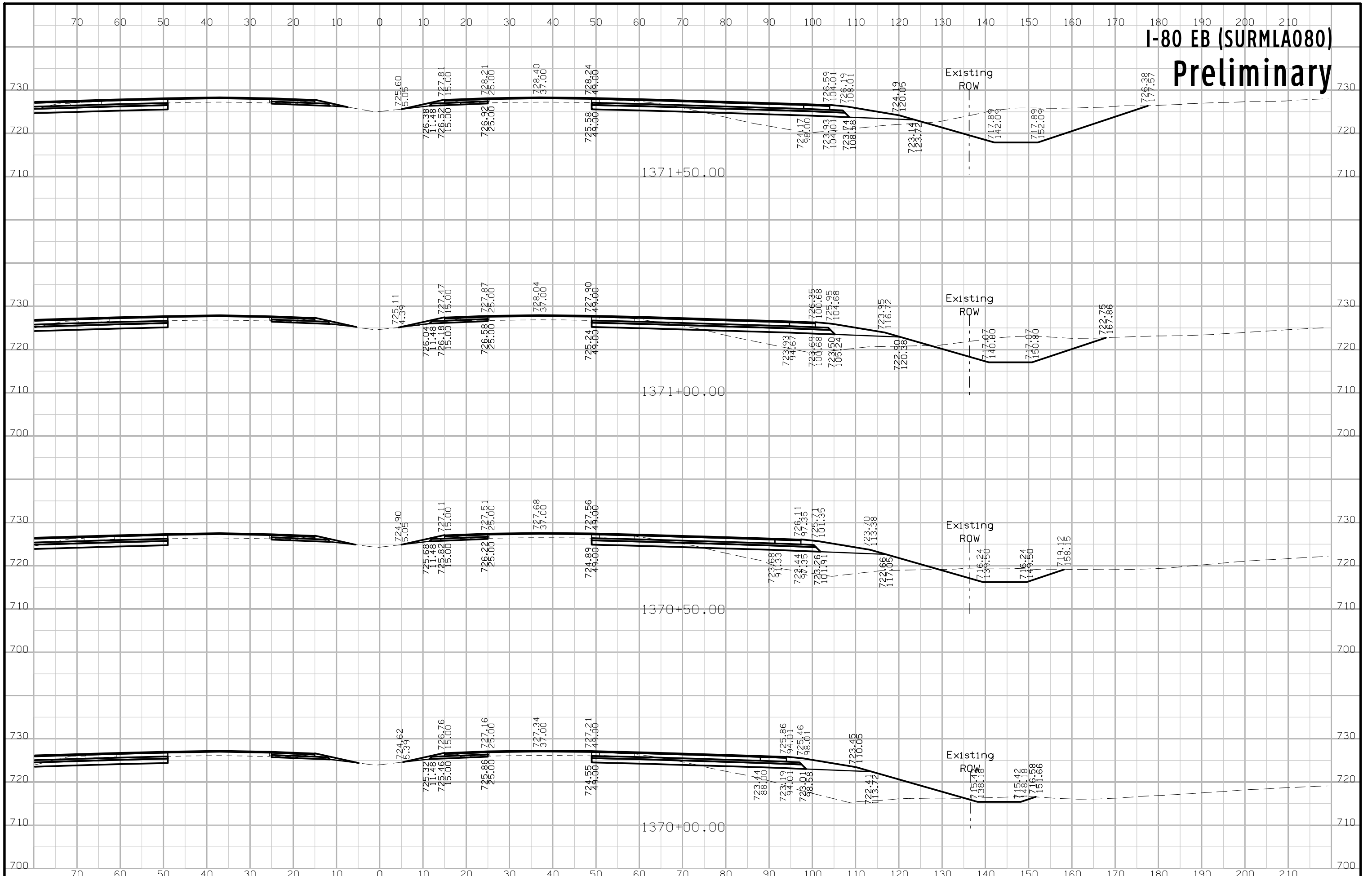
I-80 EB (SURMLA080) Preliminary



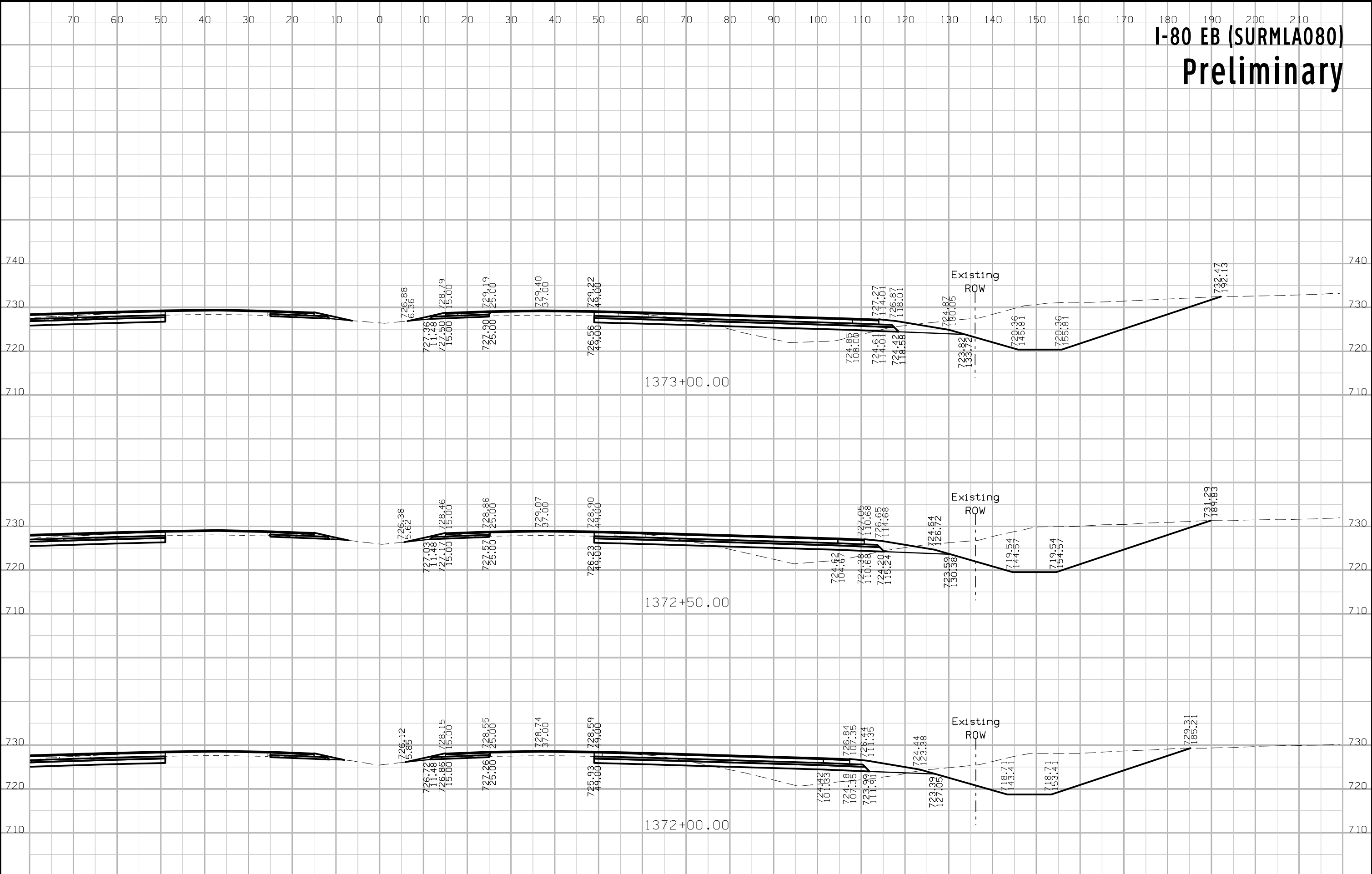
I-80 EB (SURMLA080) Preliminary



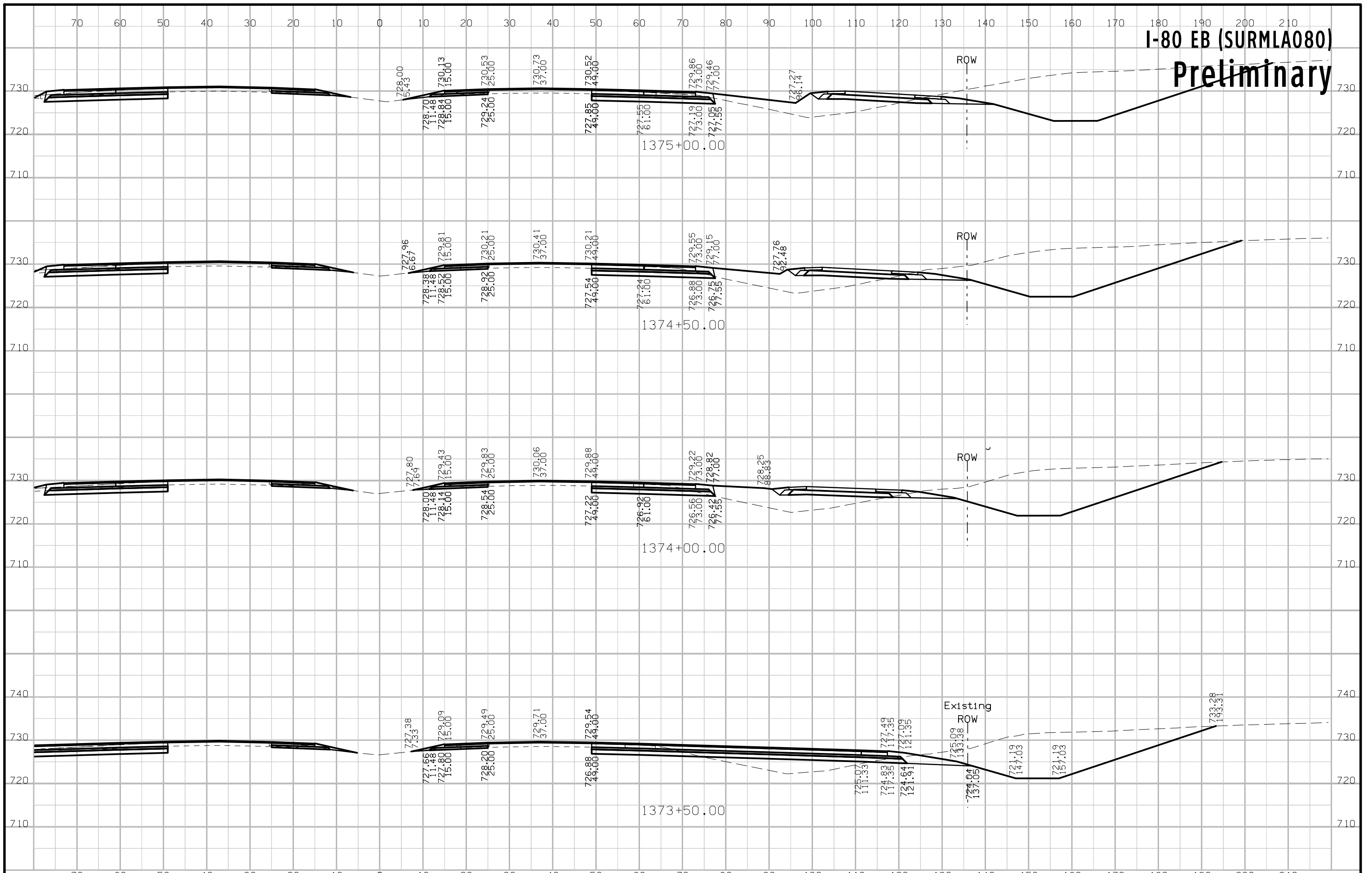
I-80 EB (SURMLA080) Preliminary



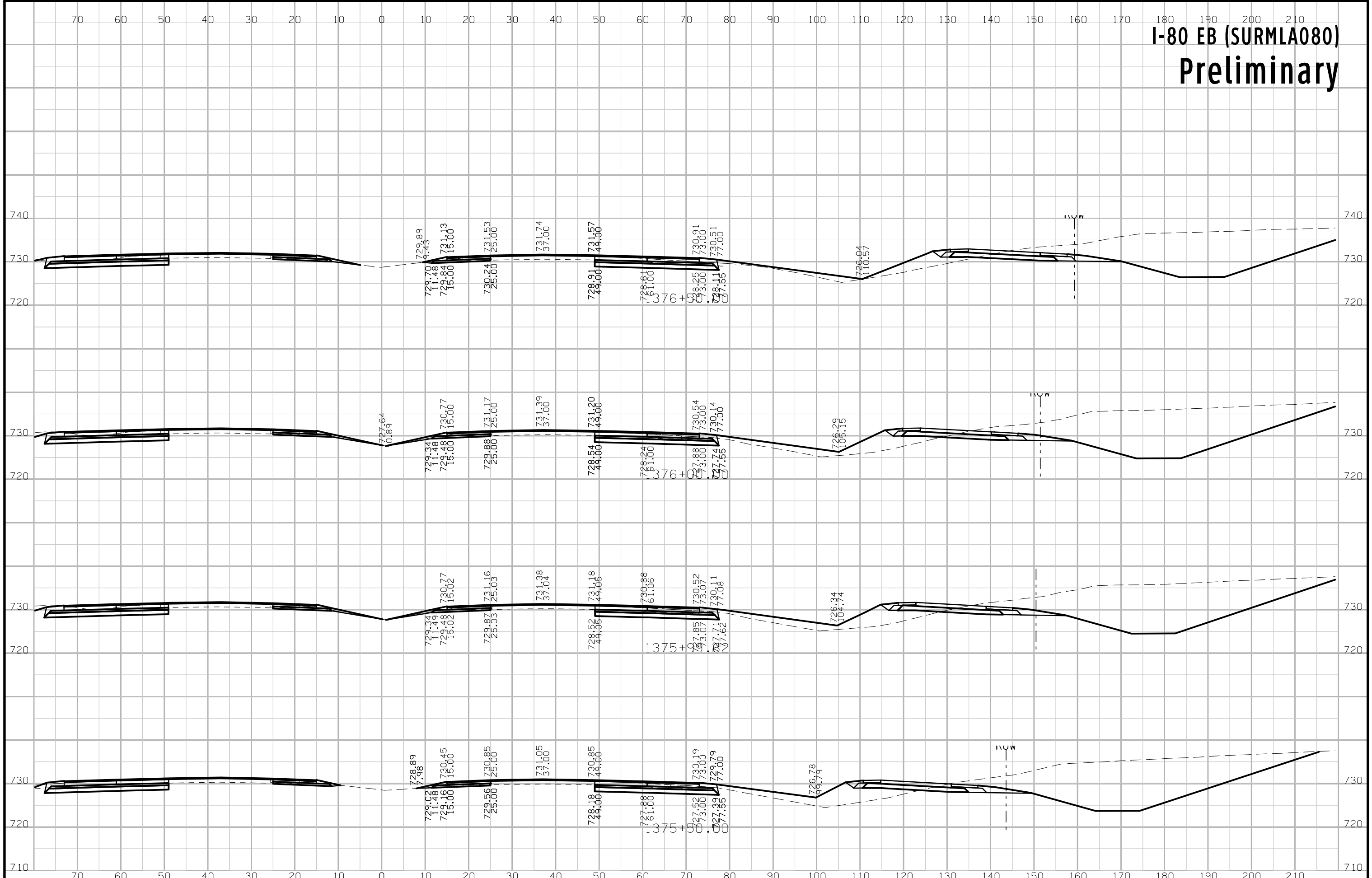
I-80 EB (SURMLA080) Preliminary



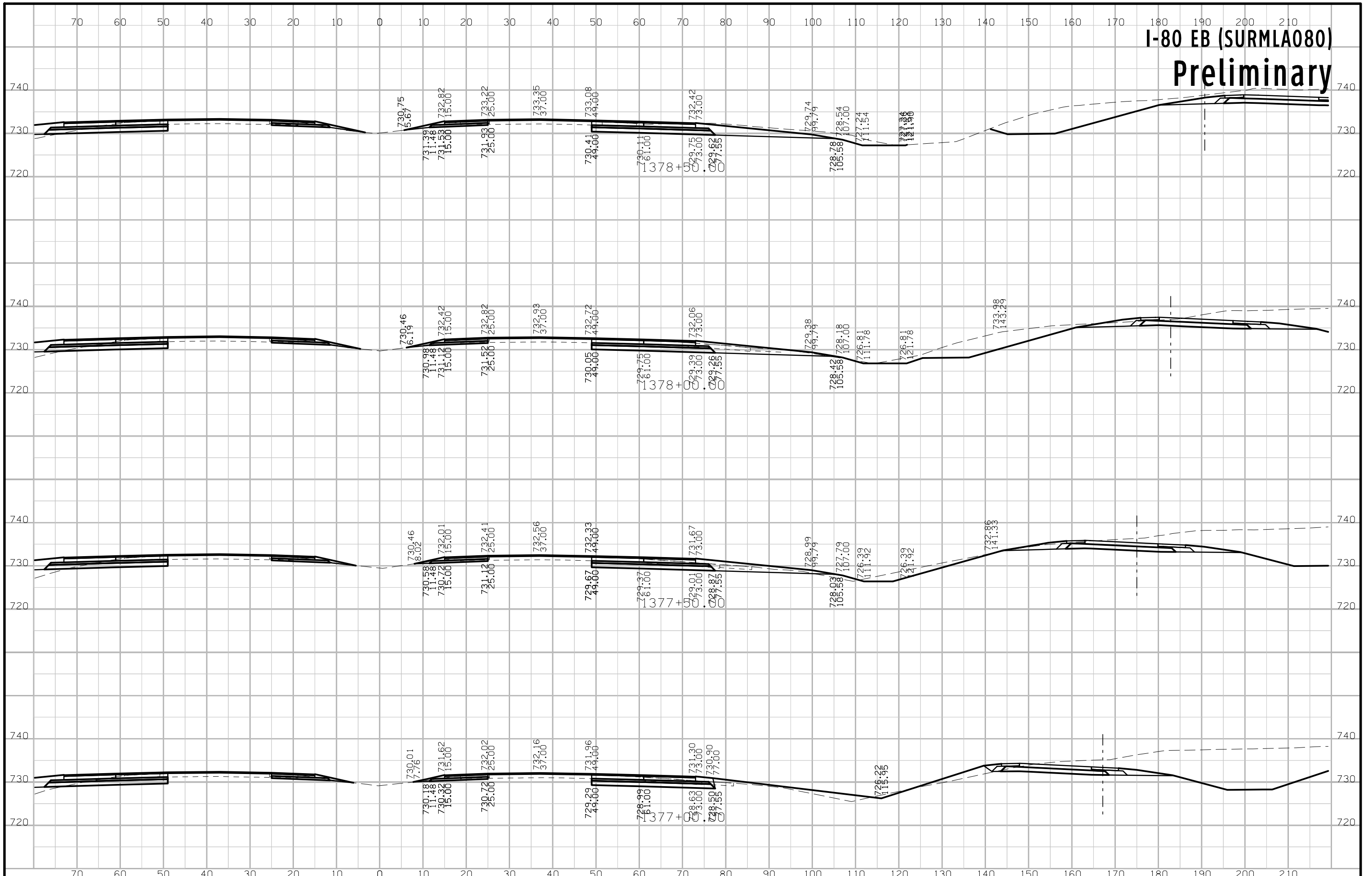
I-80 EB (SURMLA080)
Preliminary



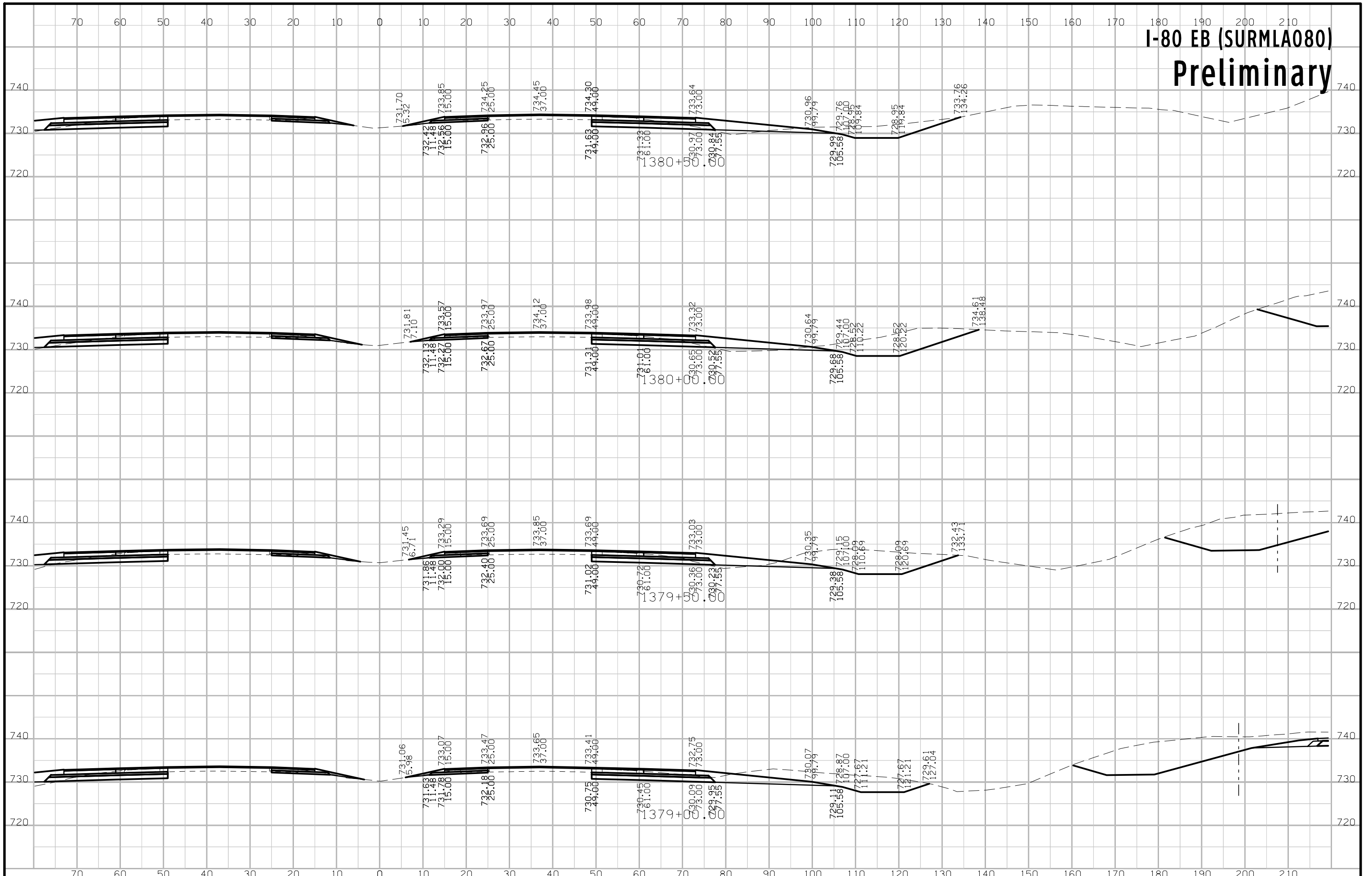
I-80 EB (SURMLA080) Preliminary



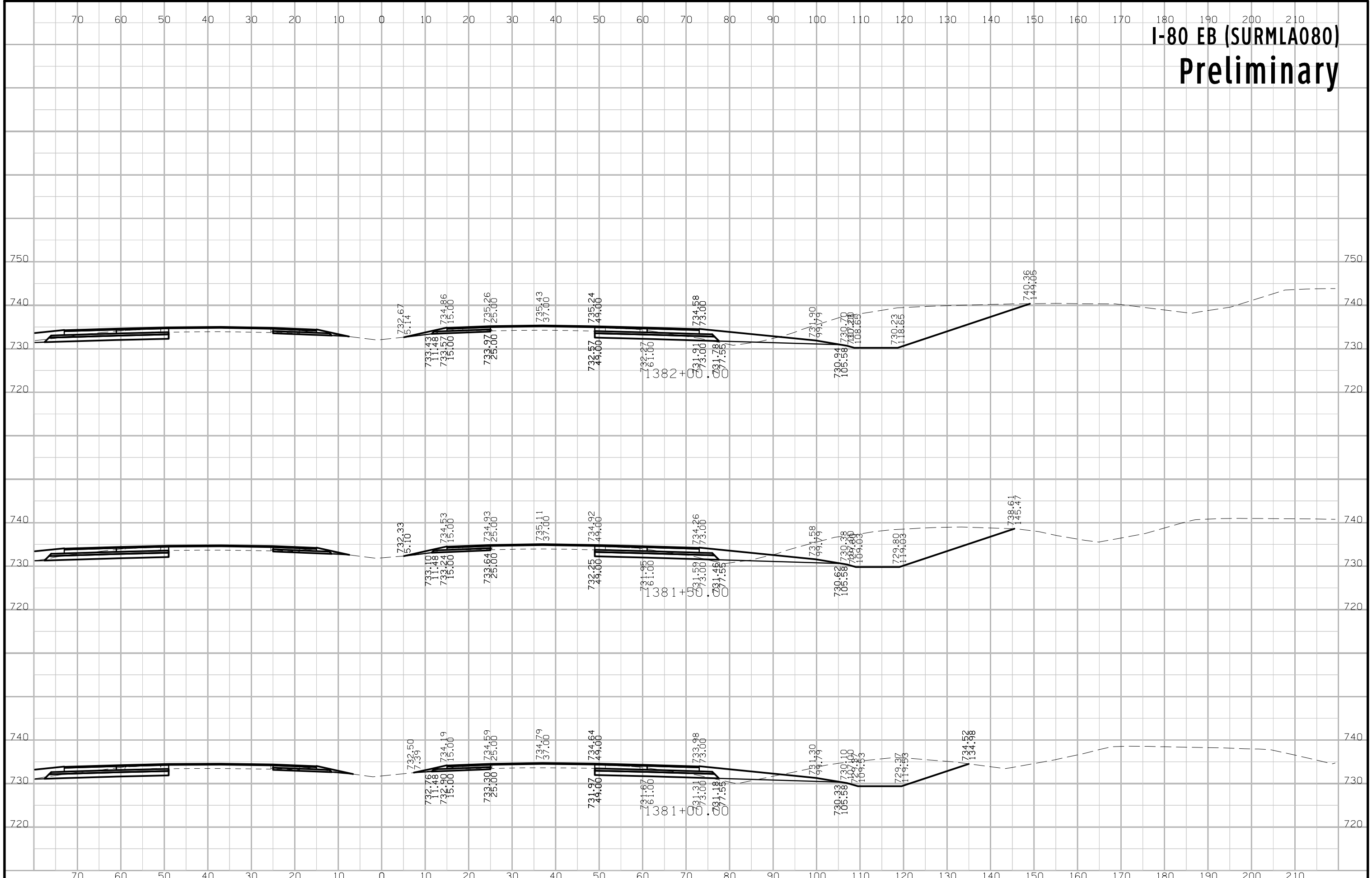
I-80 EB (SURMLA080) Preliminary



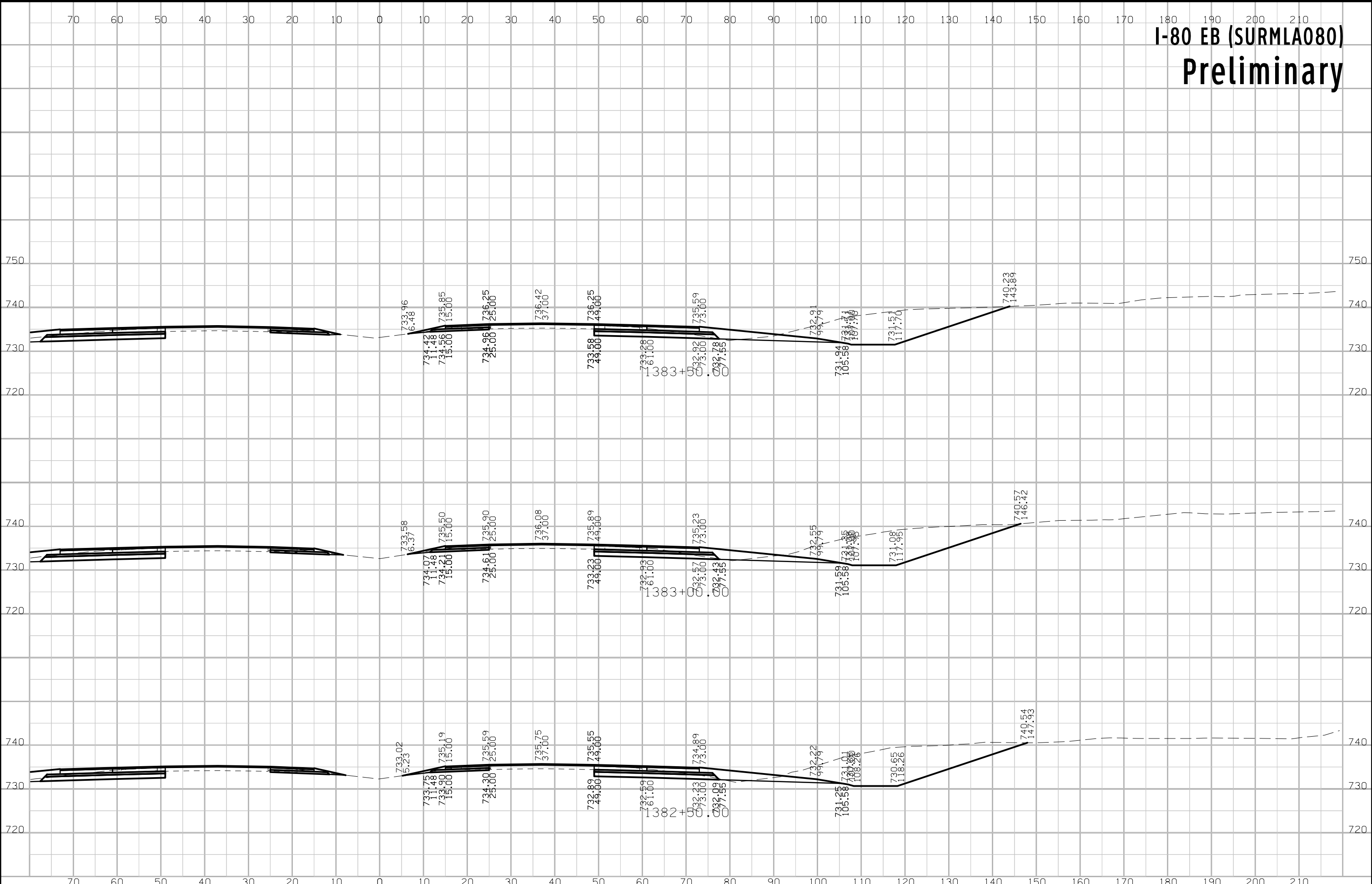
I-80 EB (SURMLA080) Preliminary



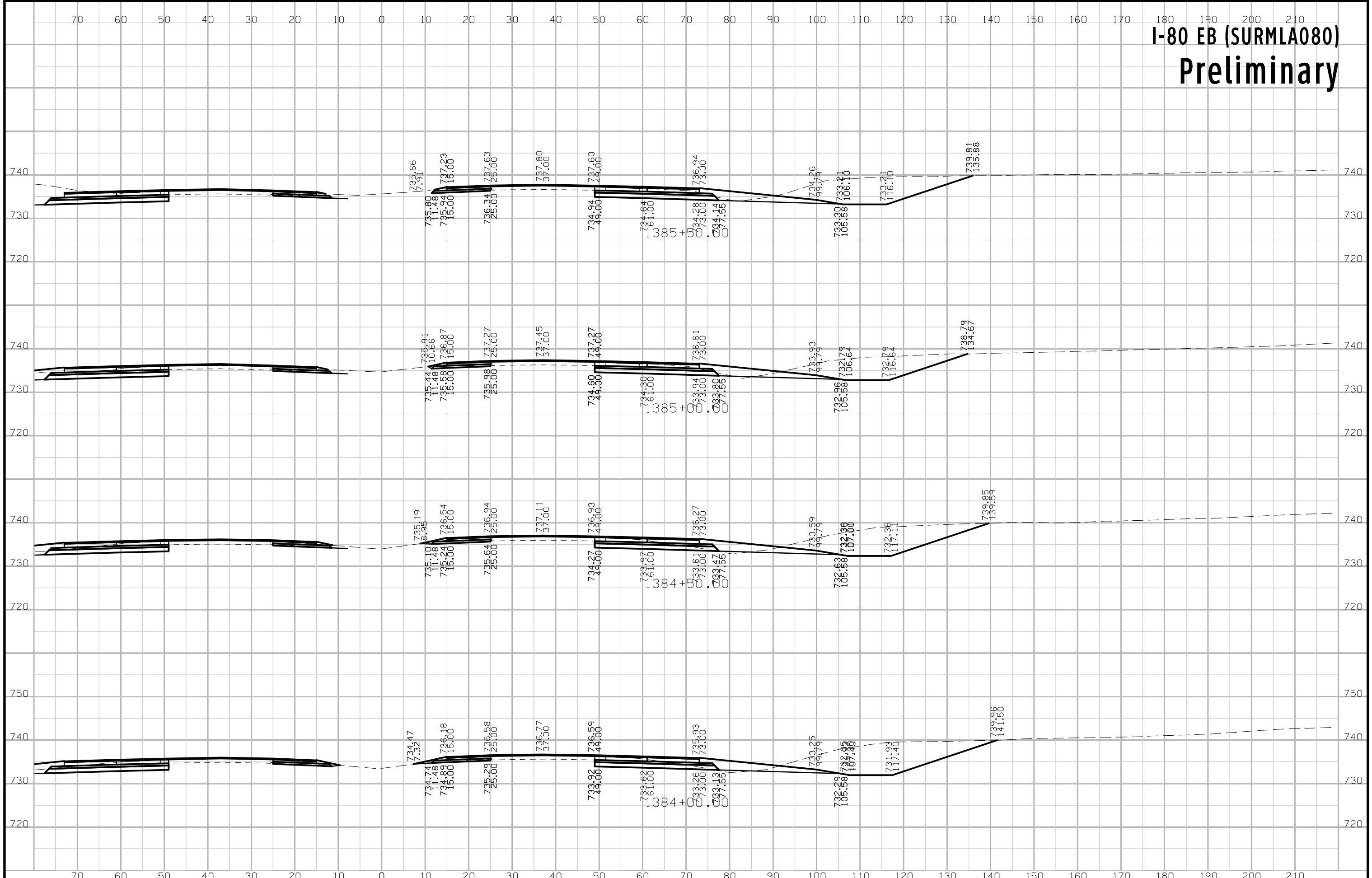
I-80 EB (SURMLA080) Preliminary



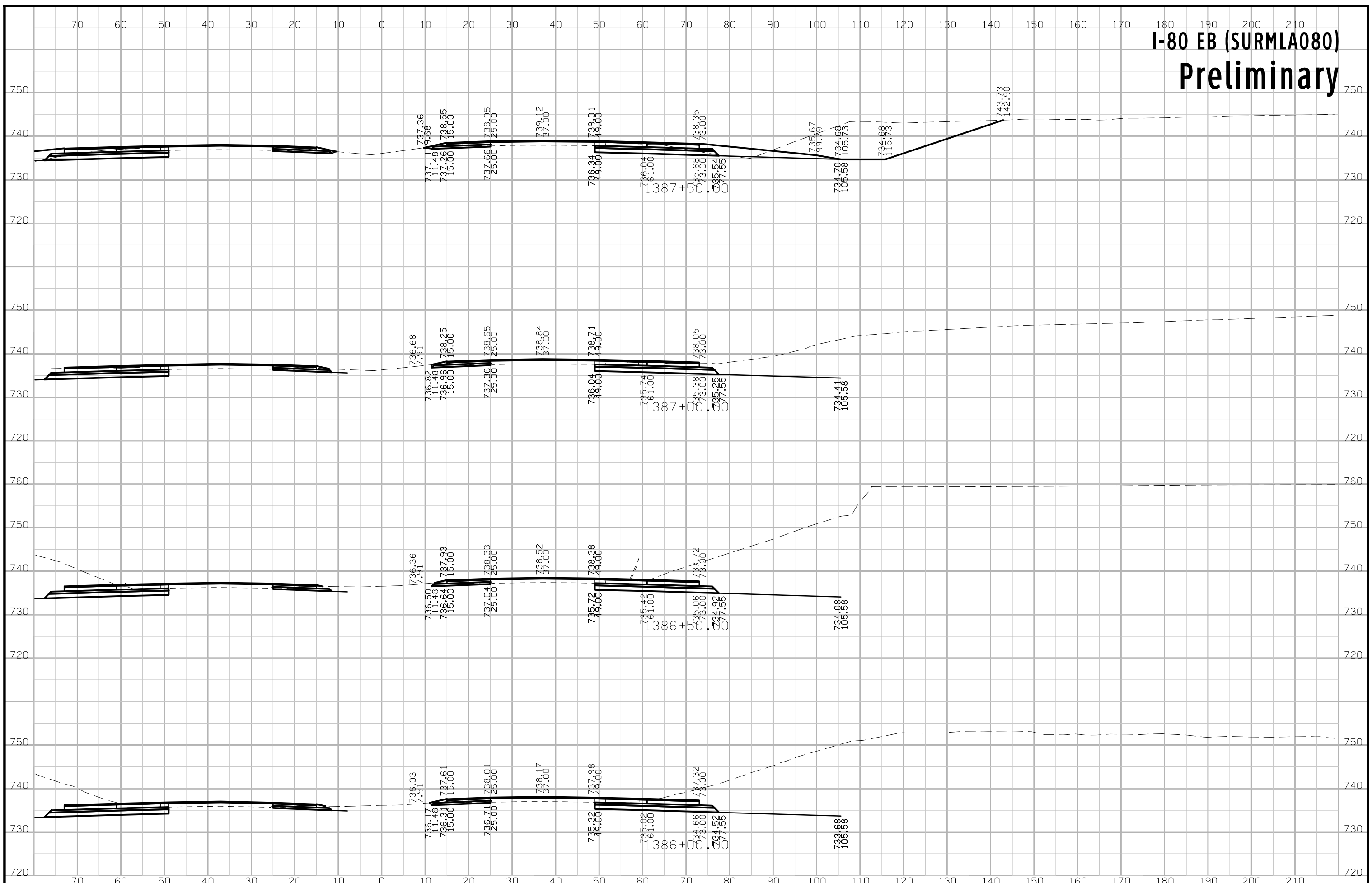
I-80 EB (SURMLA080) Preliminary



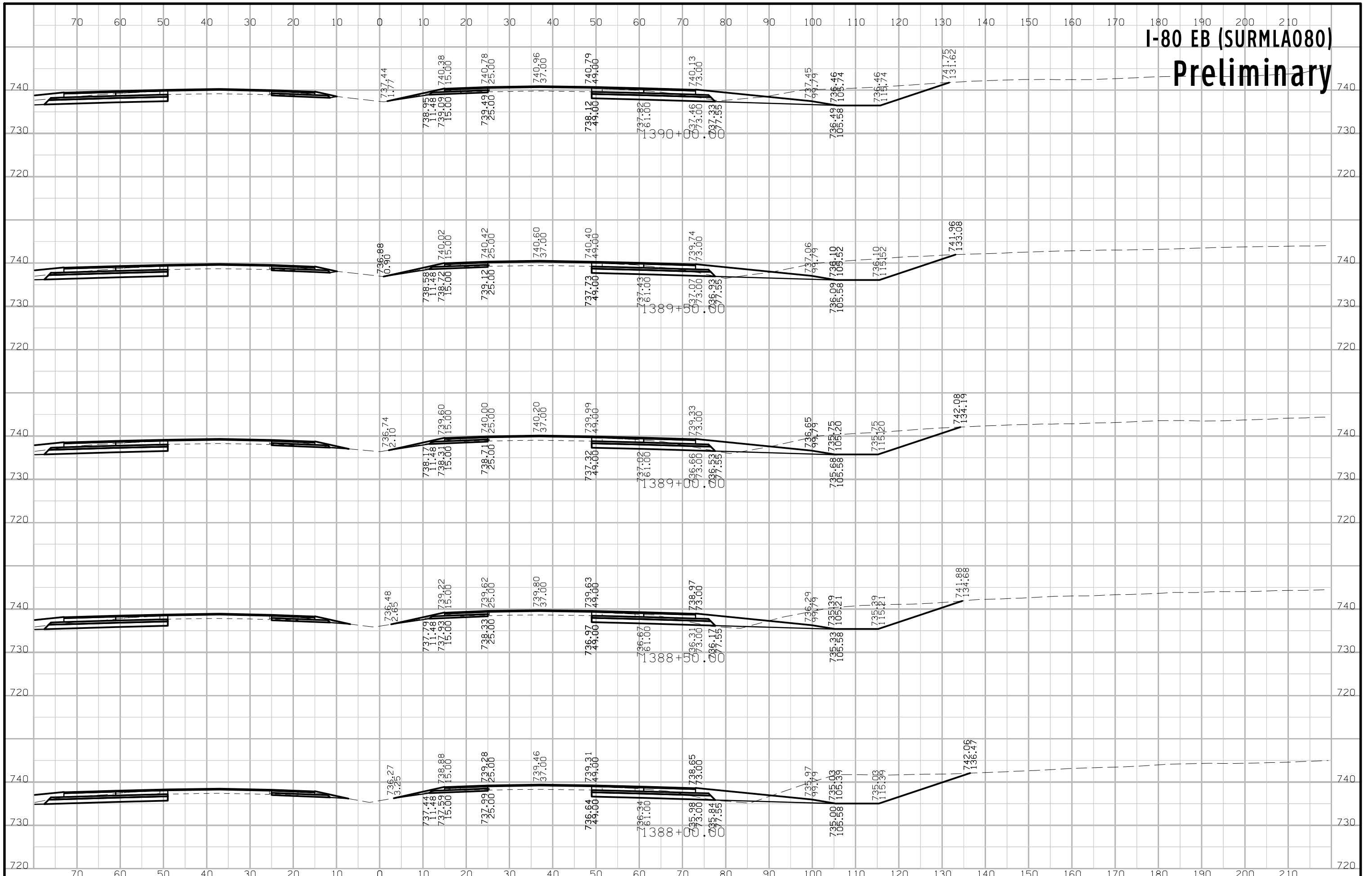
I-80 EB (SURMLA080) Preliminary



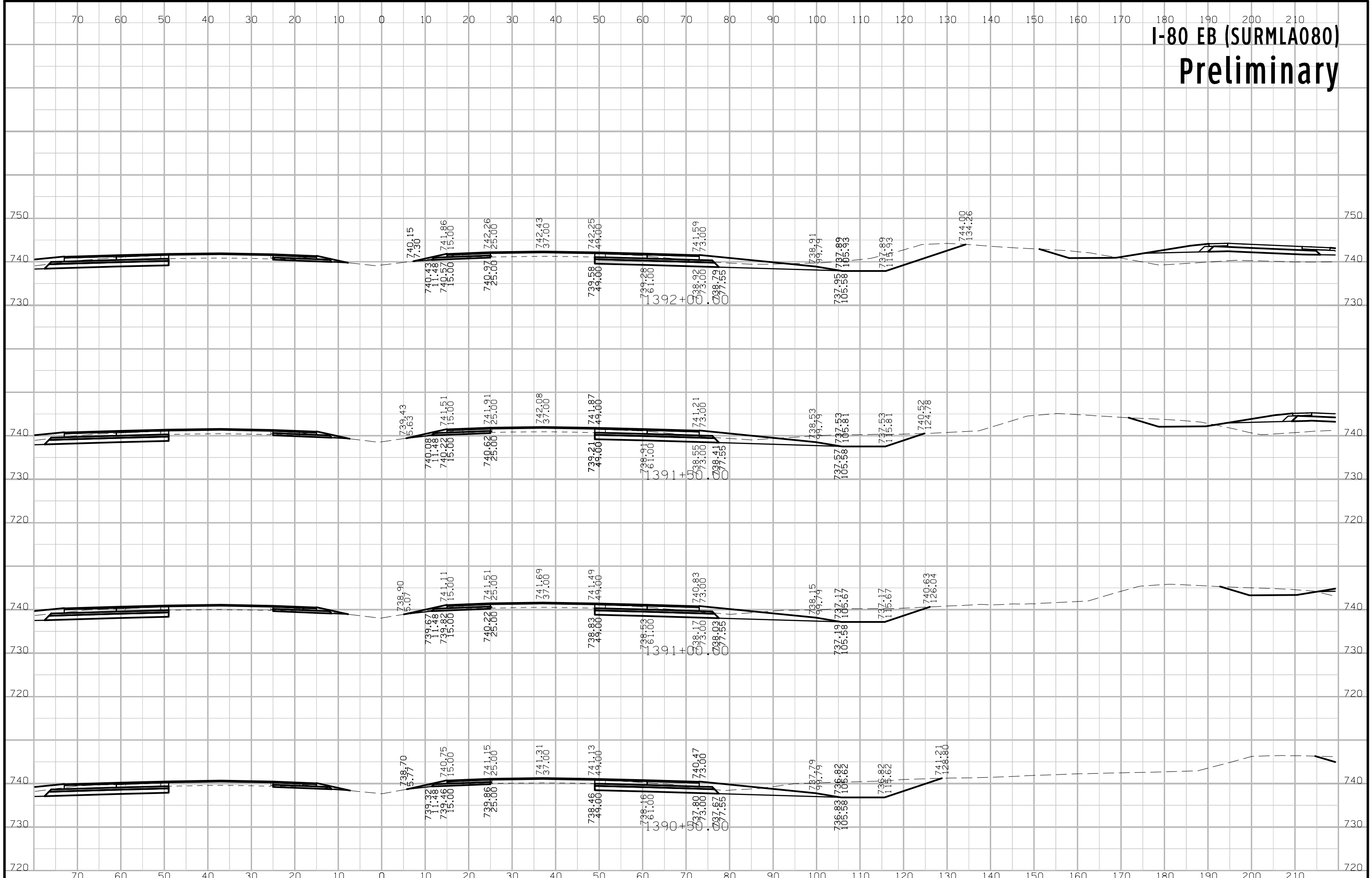
I-80 EB (SURMLA080) Preliminary



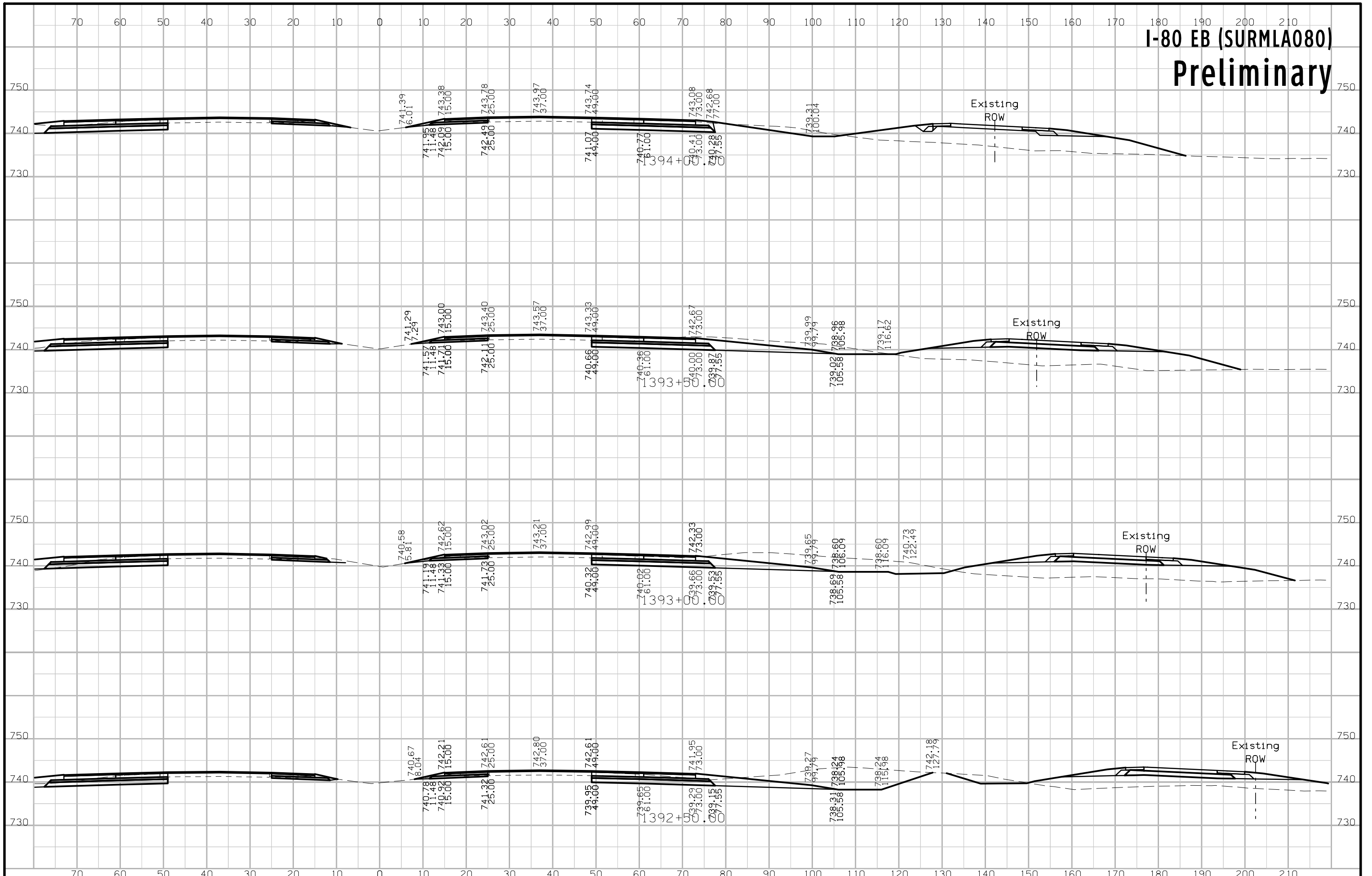
I-80 EB (SURMLA080) Preliminary



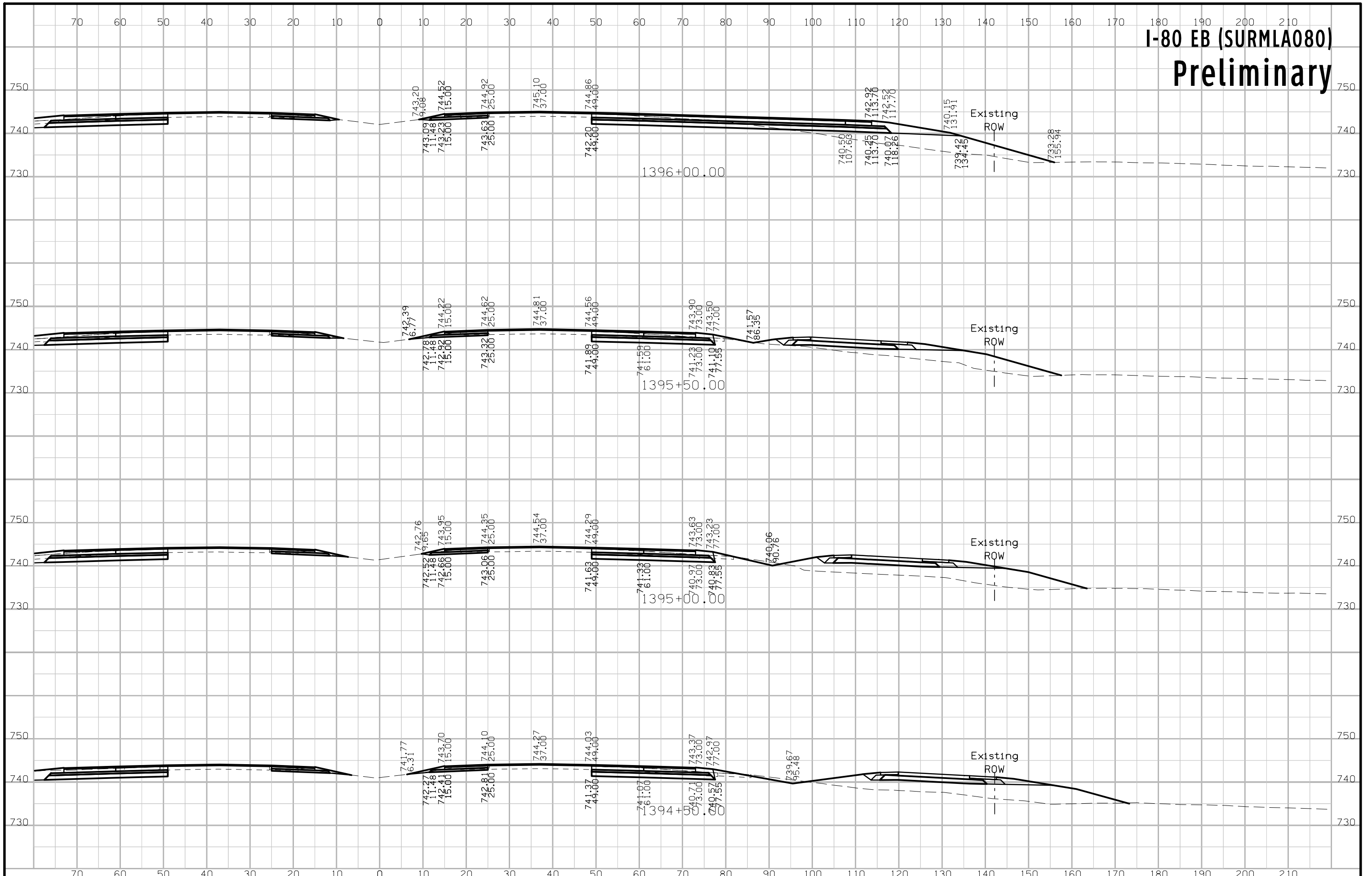
I-80 EB (SURMLA080) Preliminary



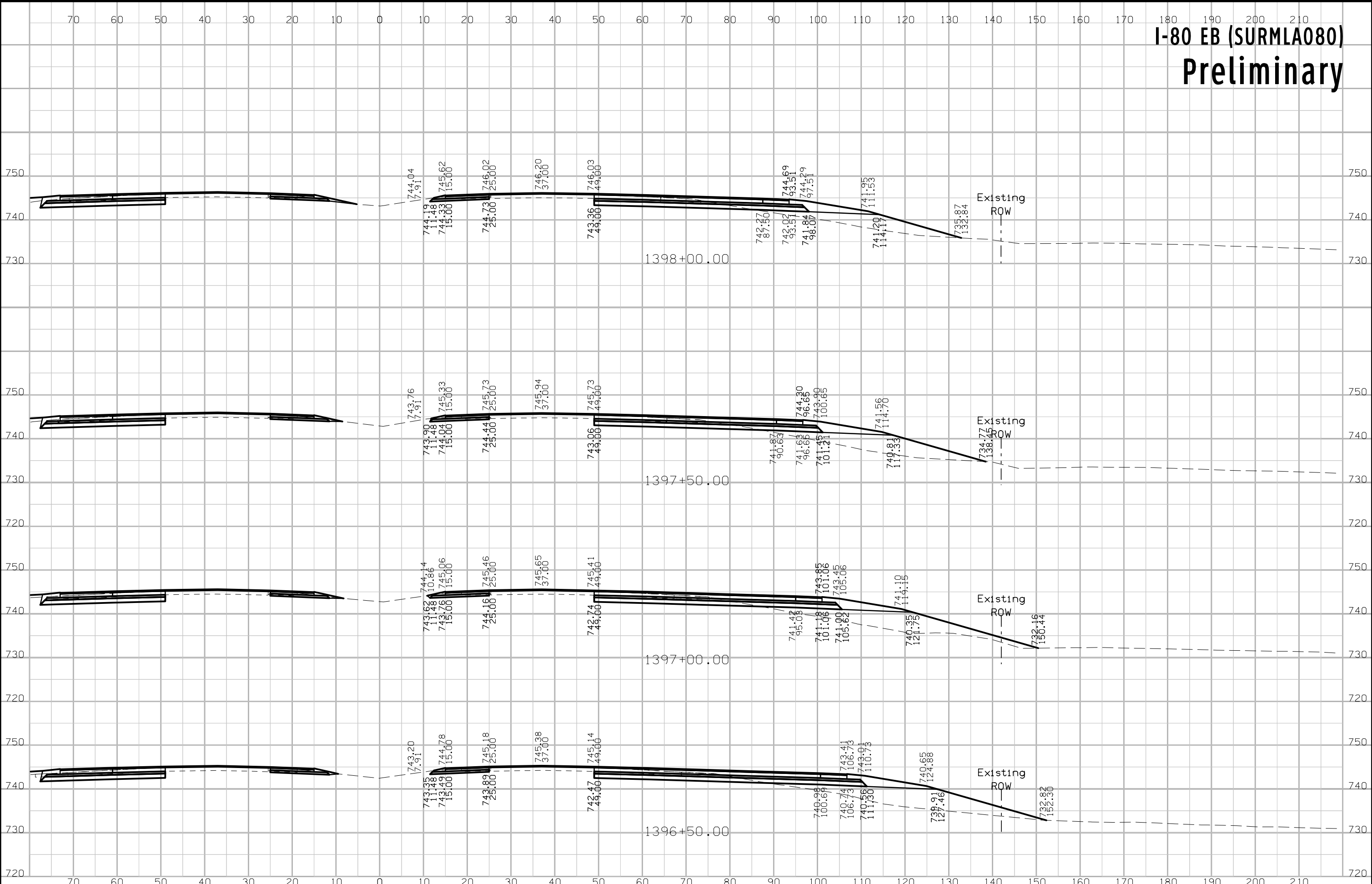
I-80 EB (SURMLA080) Preliminary



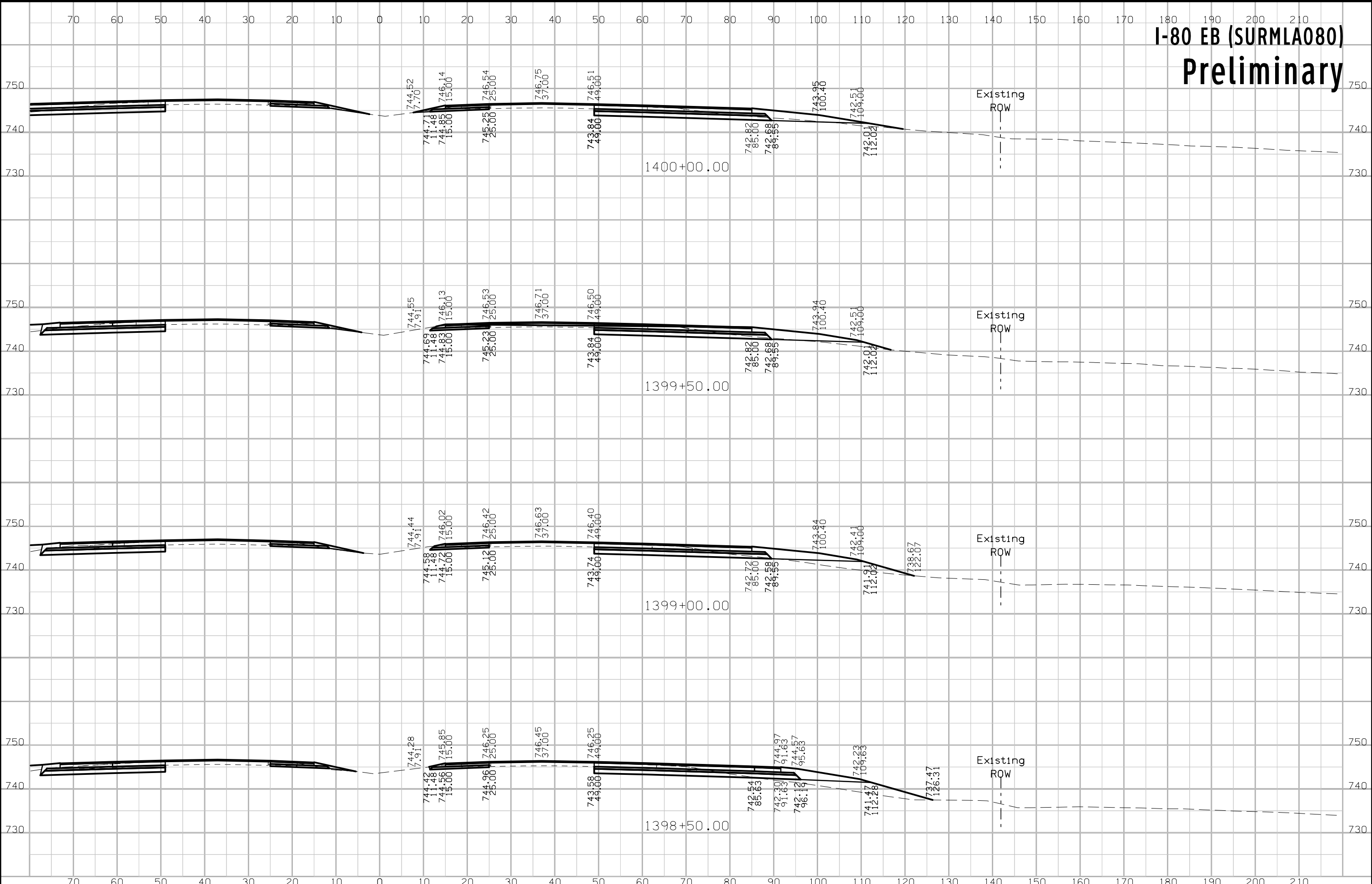
I-80 EB (SURMLA080) Preliminary



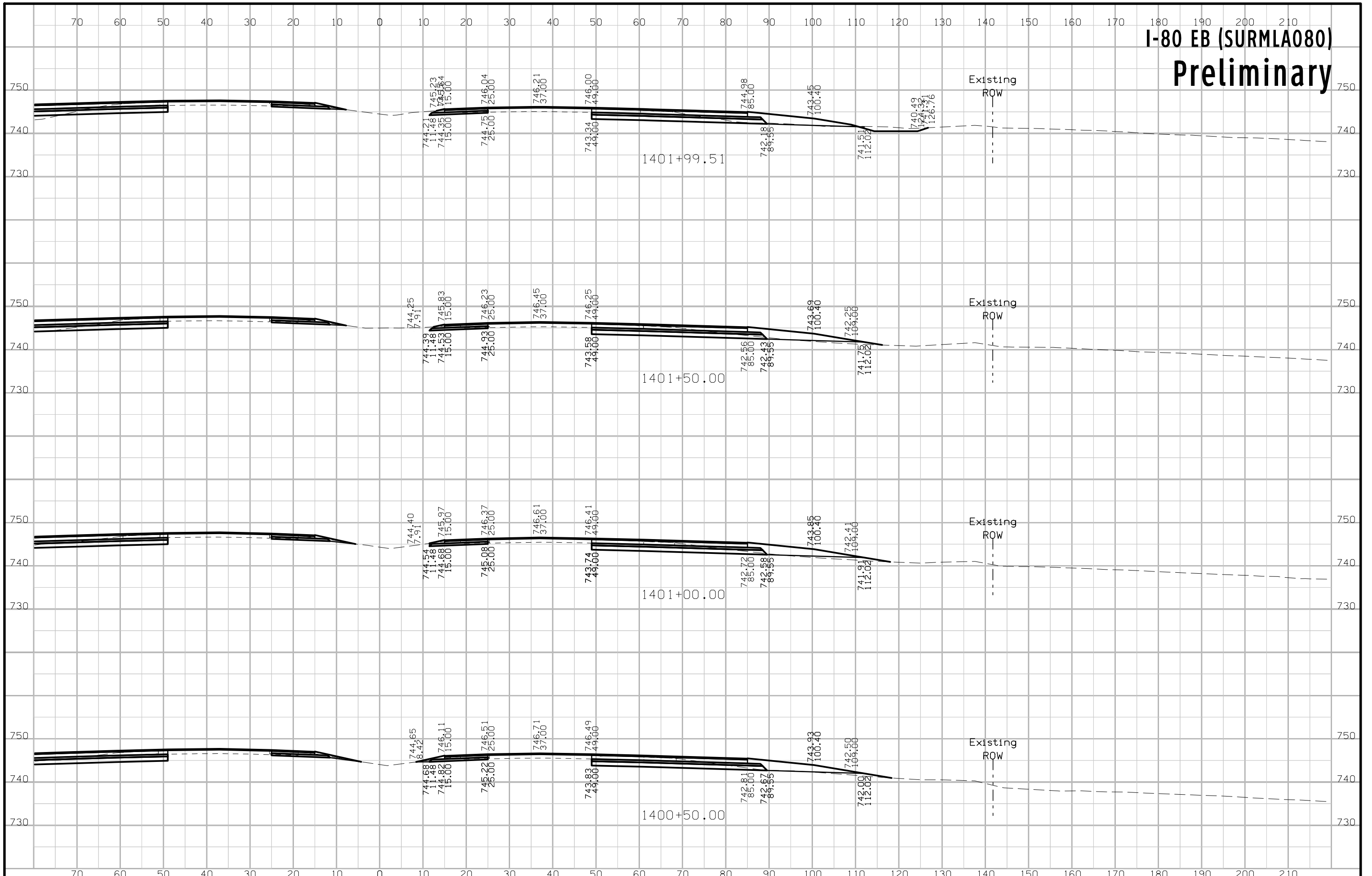
I-80 EB (SURMLA080) Preliminary



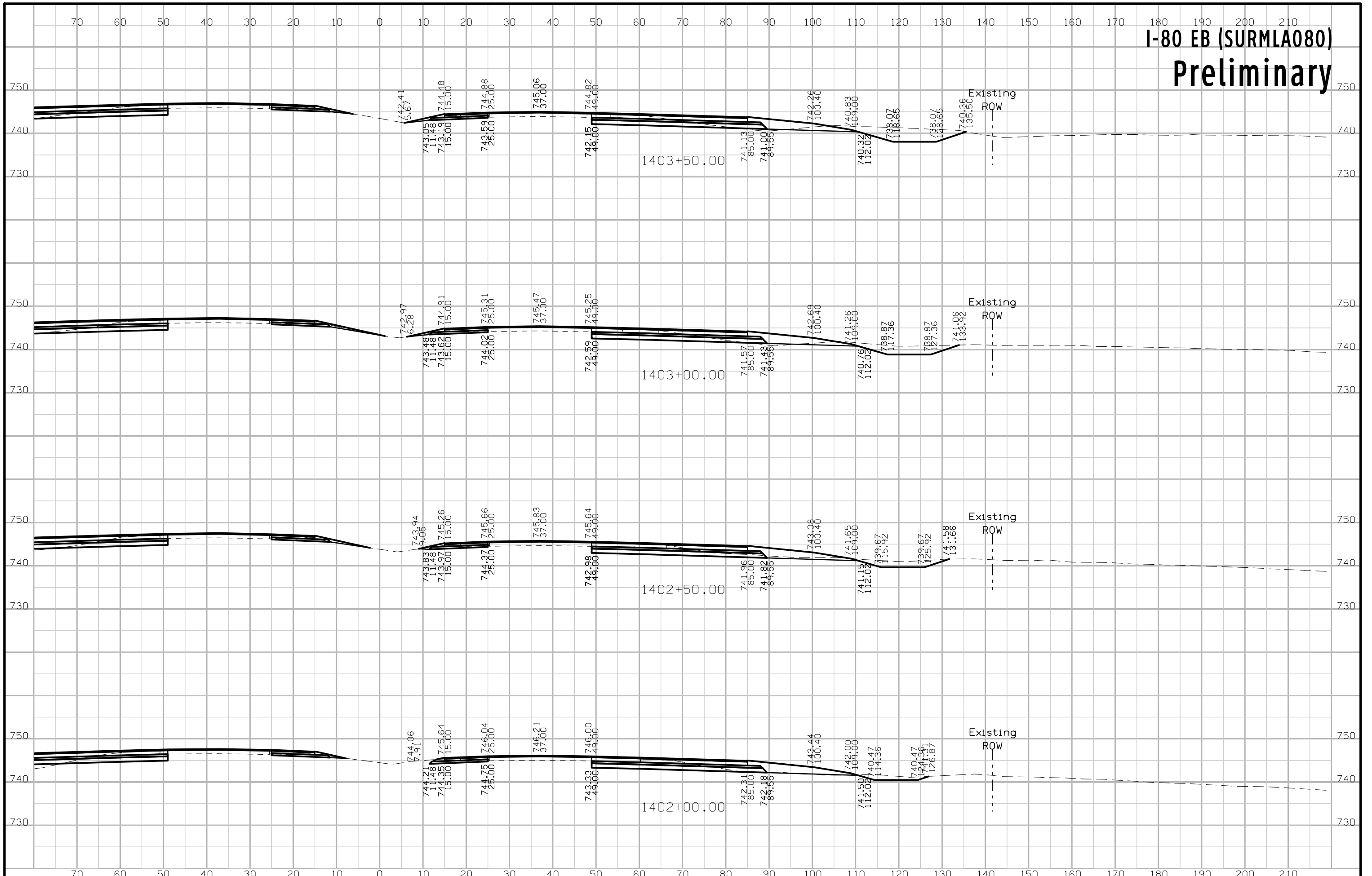
I-80 EB (SURMLA080) Preliminary



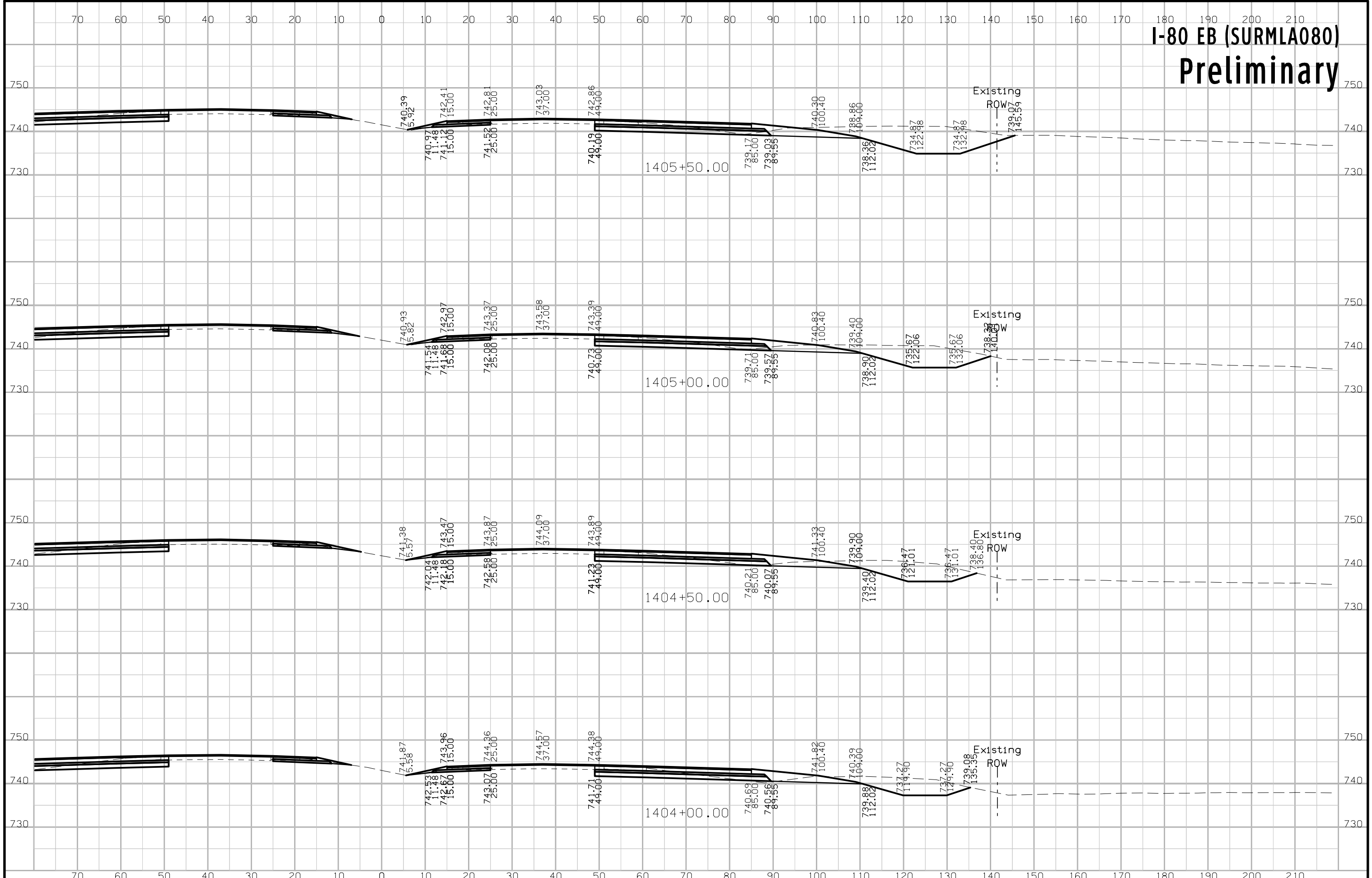
I-80 EB (SURMLA080) Preliminary



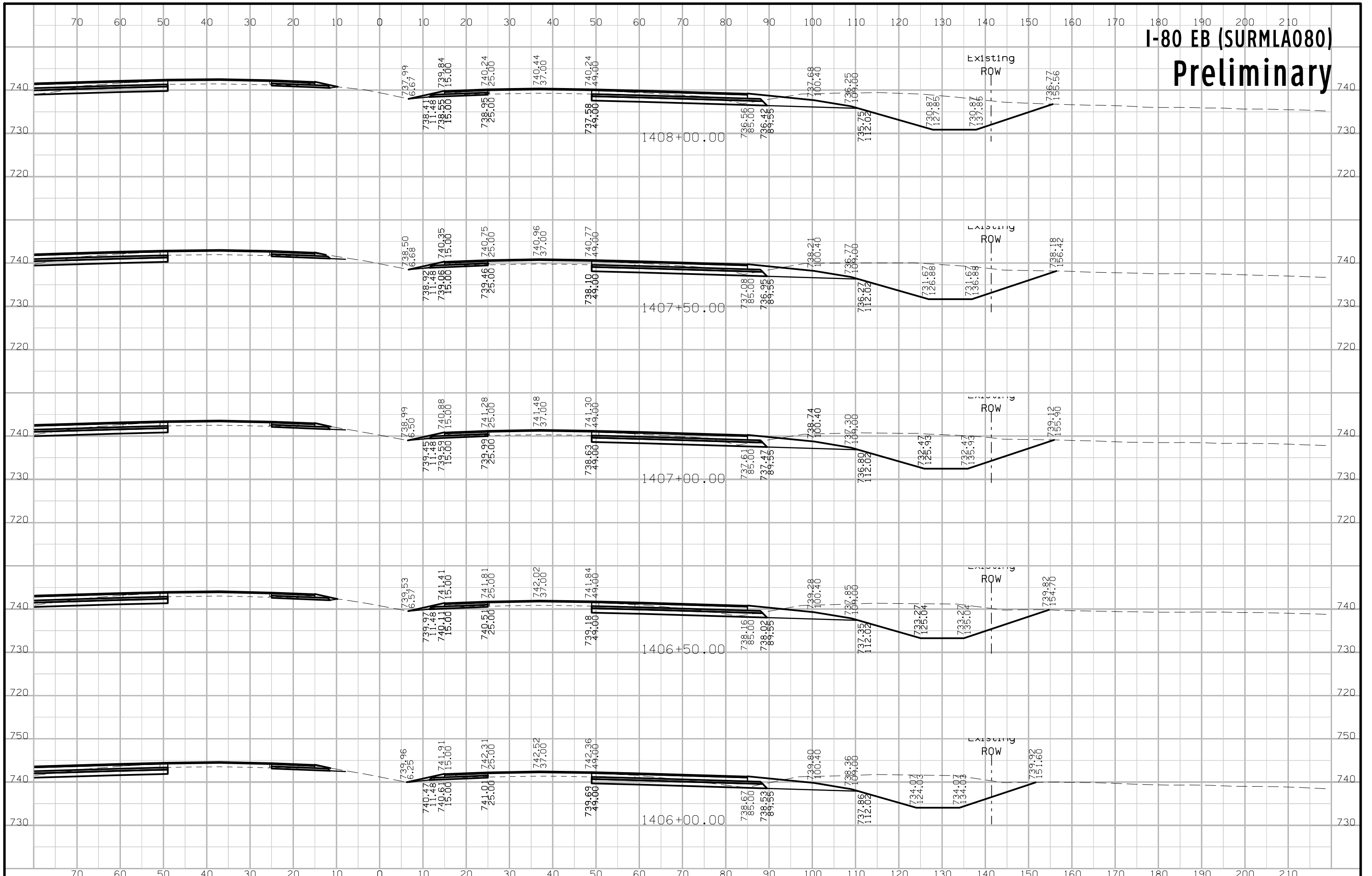
I-80 EB (SURMLA080) Preliminary



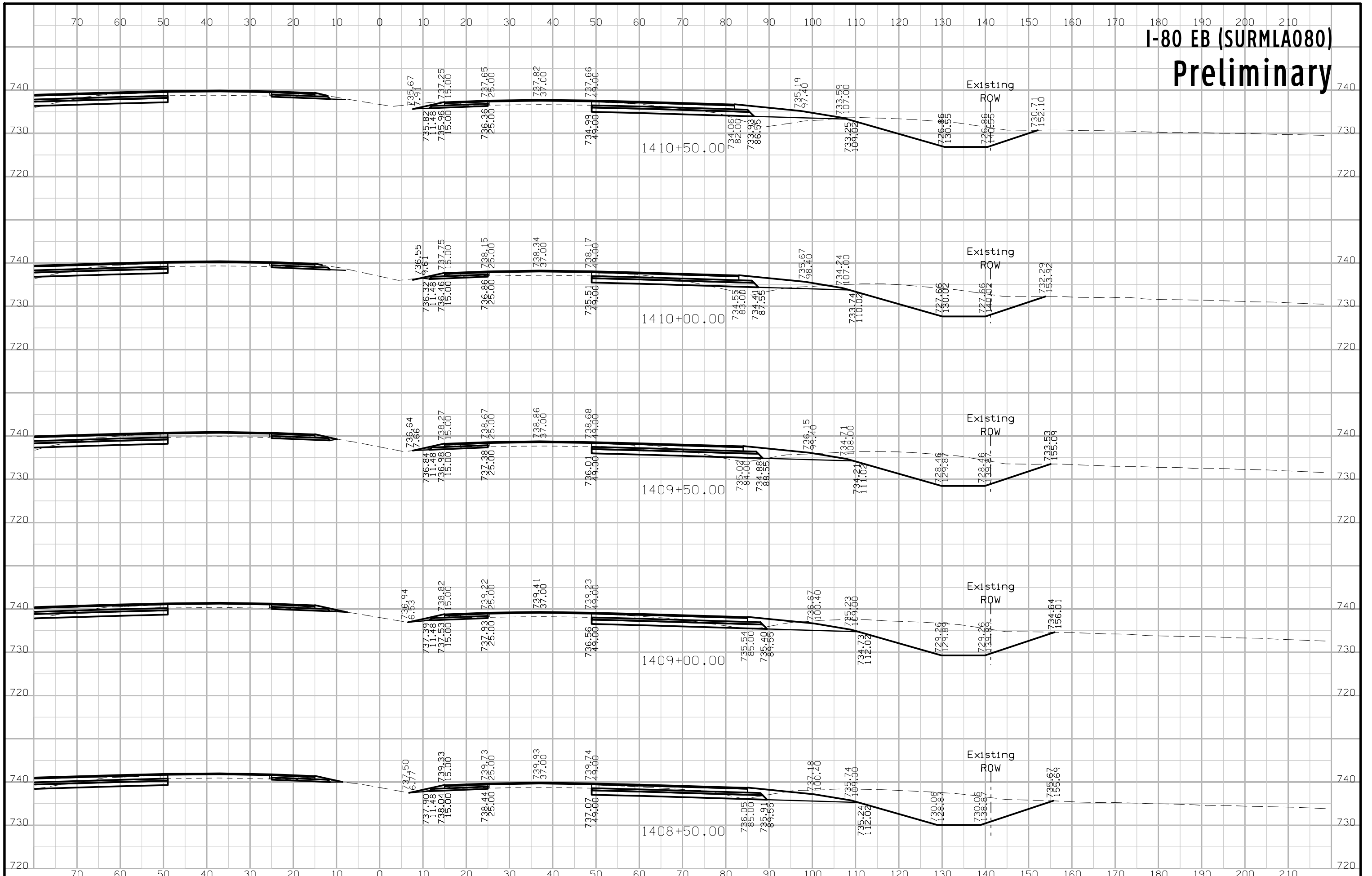
I-80 EB (SURMLA080) Preliminary



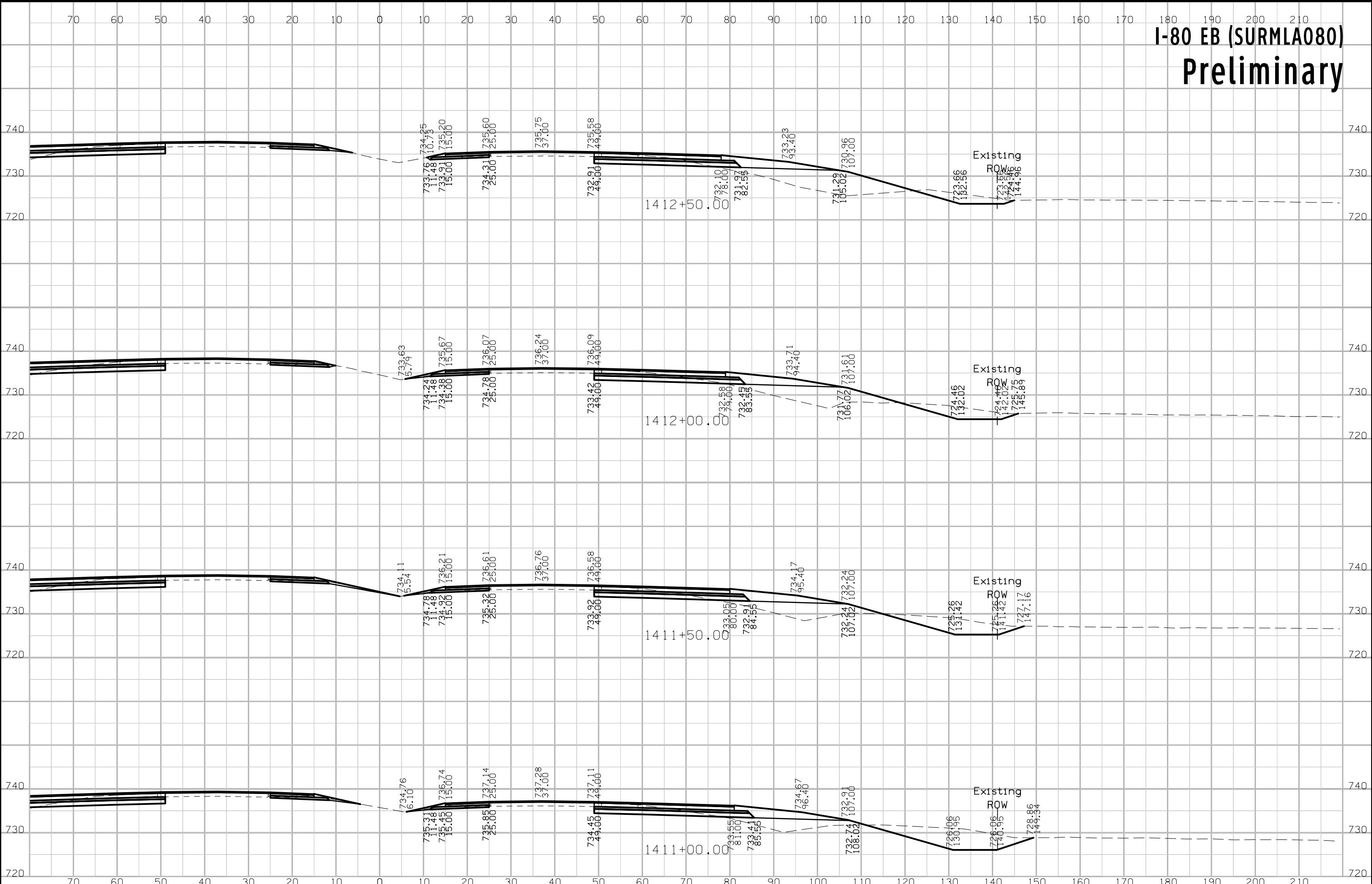
I-80 EB (SURMLA080) Preliminary



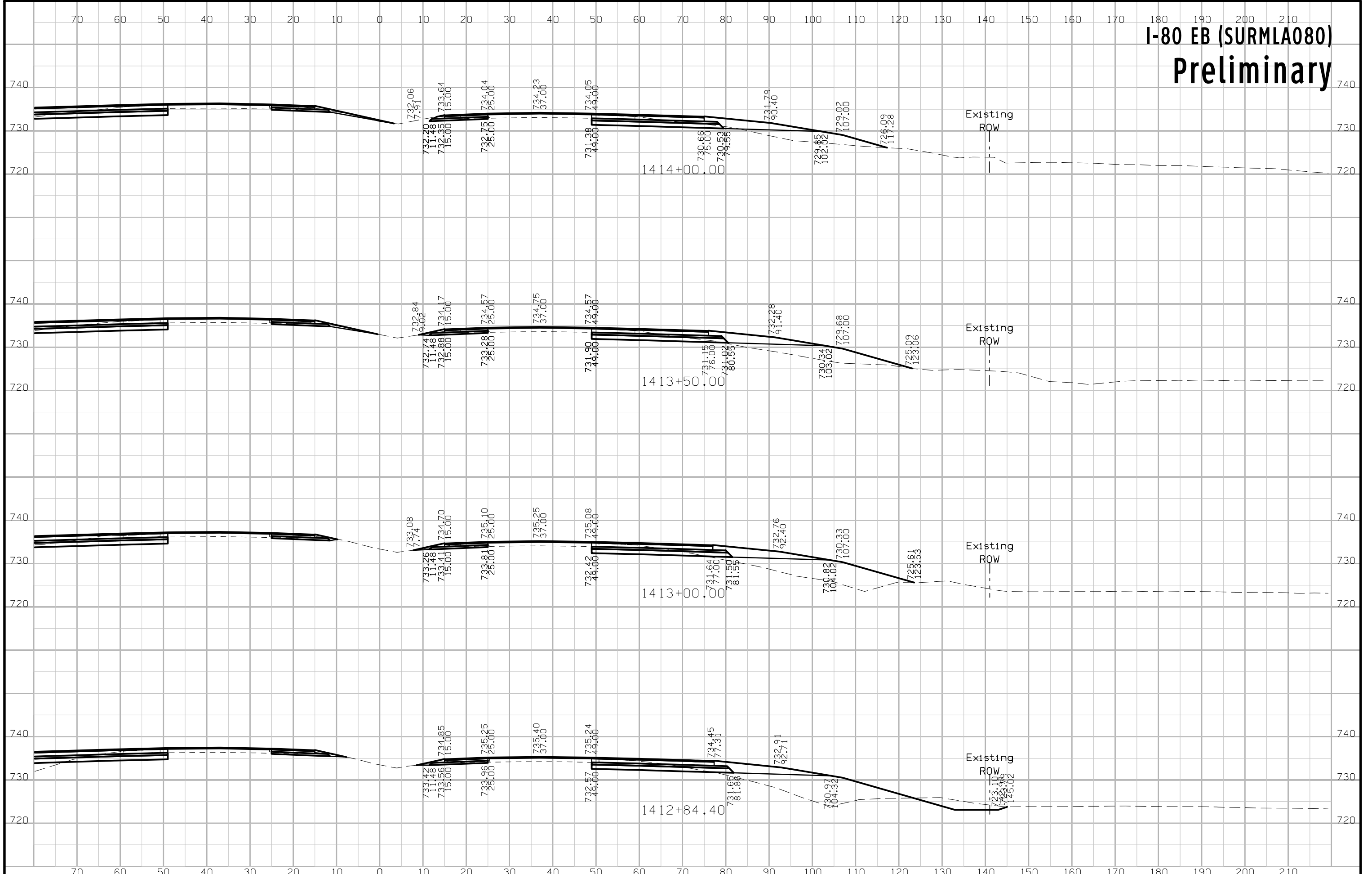
I-80 EB (SURMLA080) Preliminary



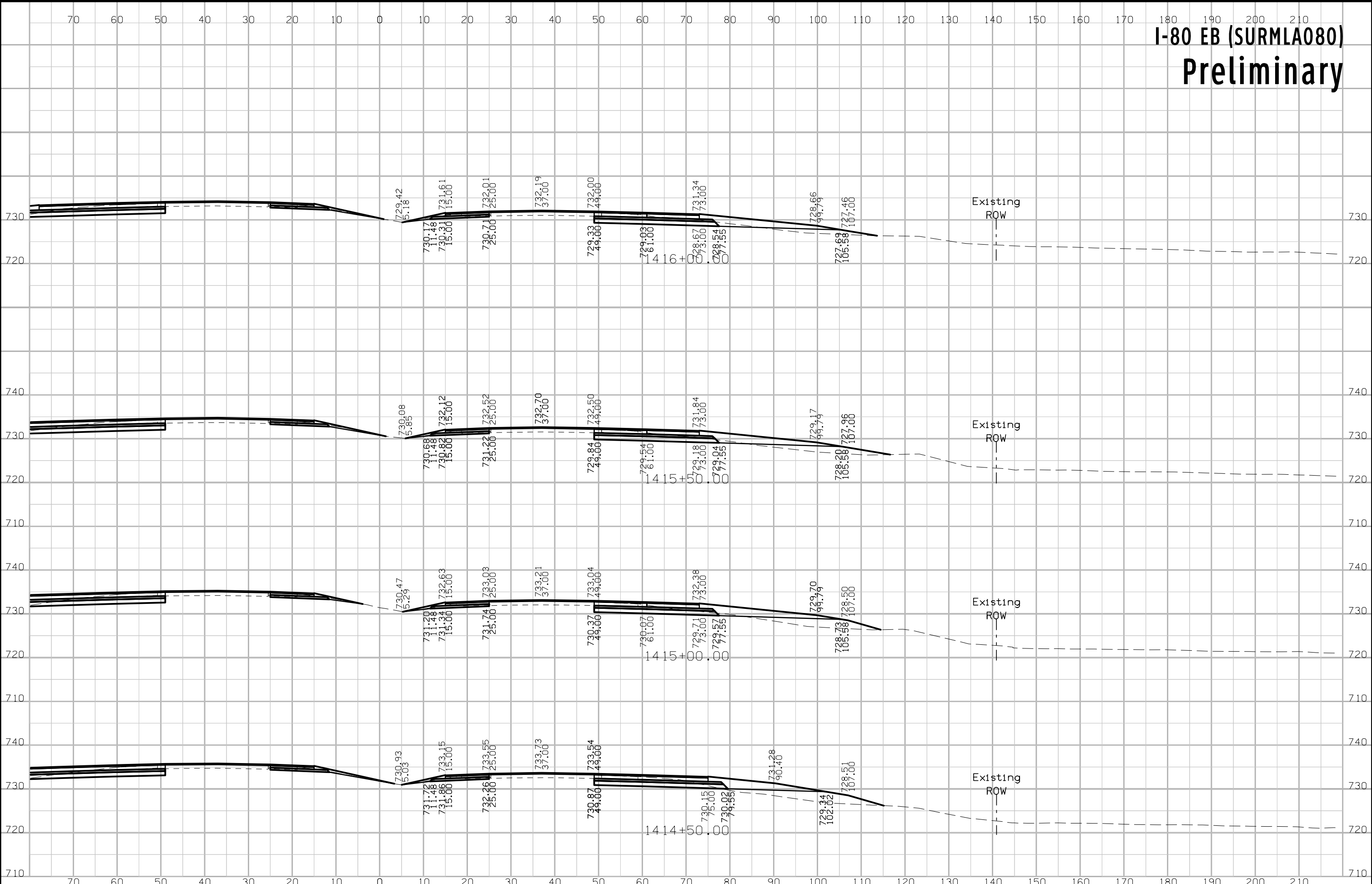
I-80 EB (SURMLA080) Preliminary



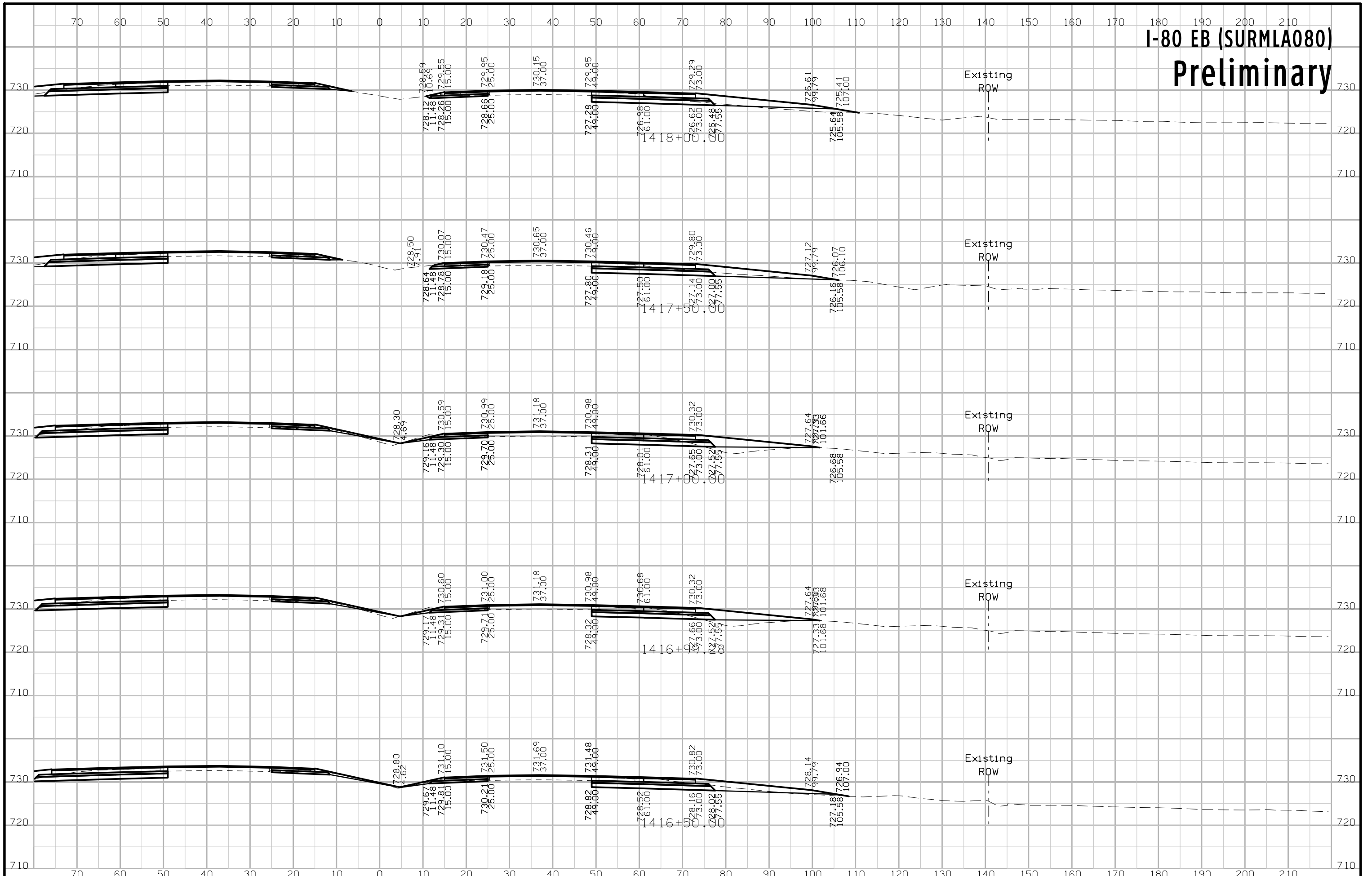
I-80 EB (SURMLA080) Preliminary



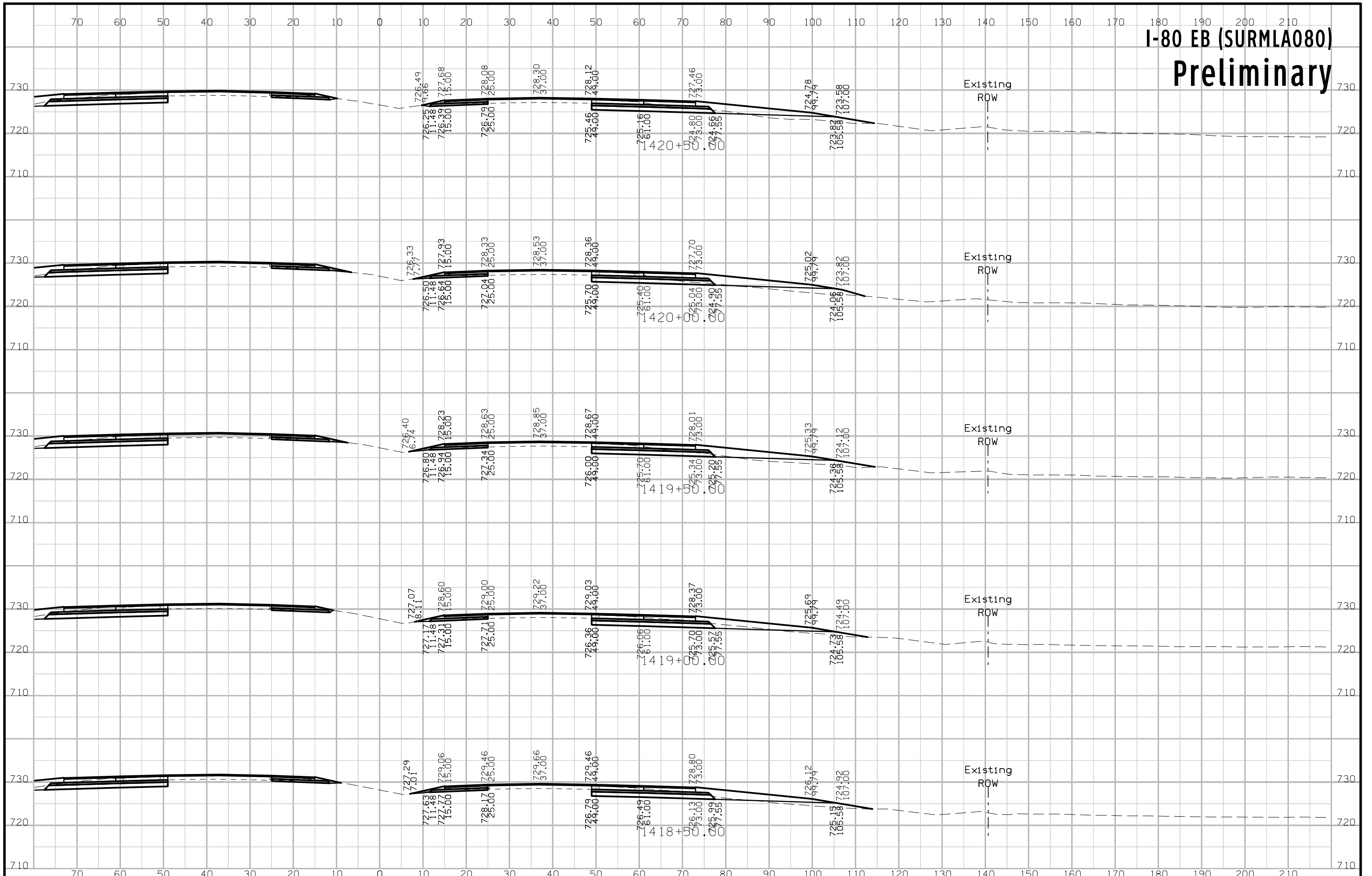
I-80 EB (SURMLA080) Preliminary



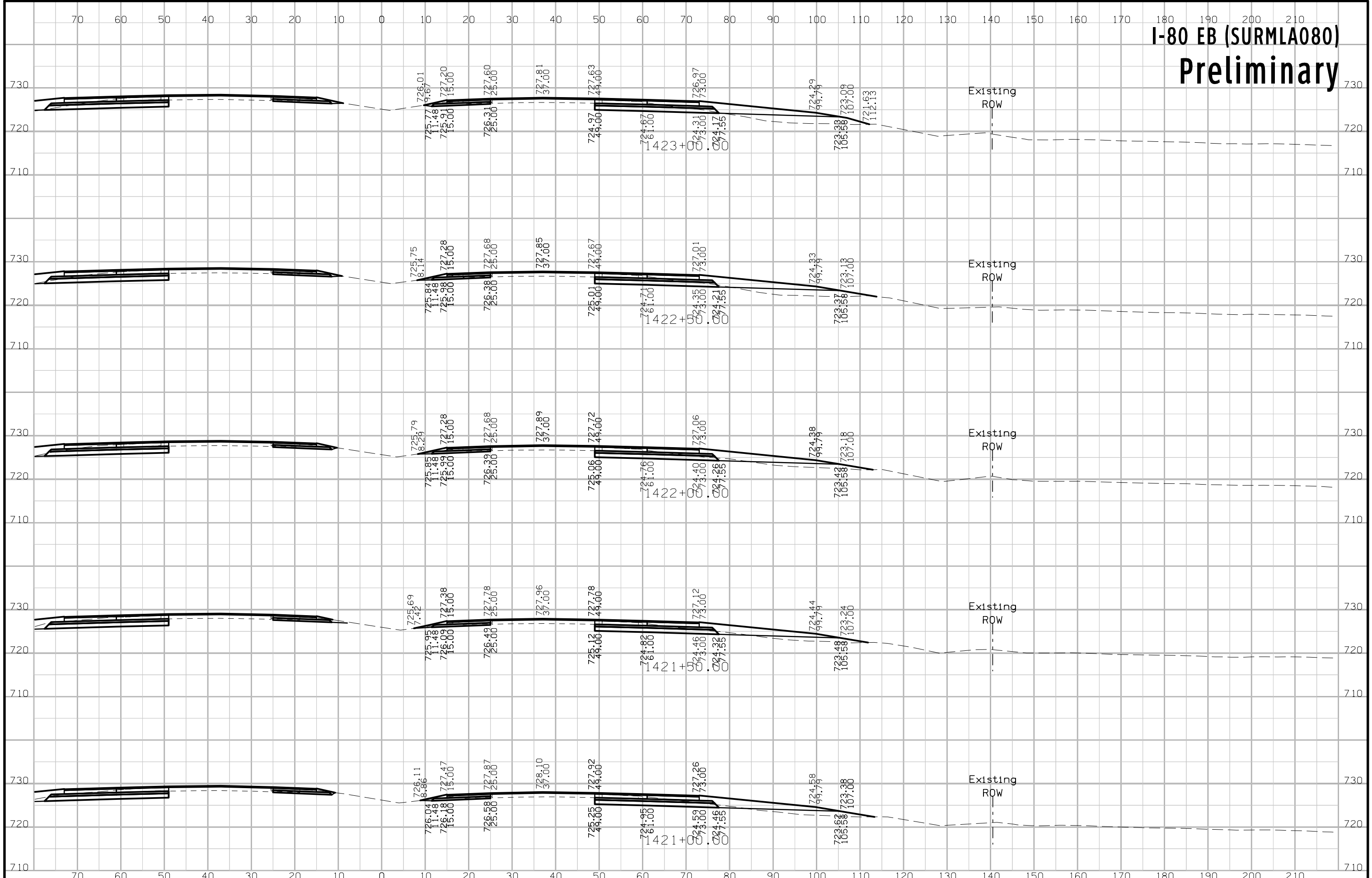
I-80 EB (SURMLA080) Preliminary



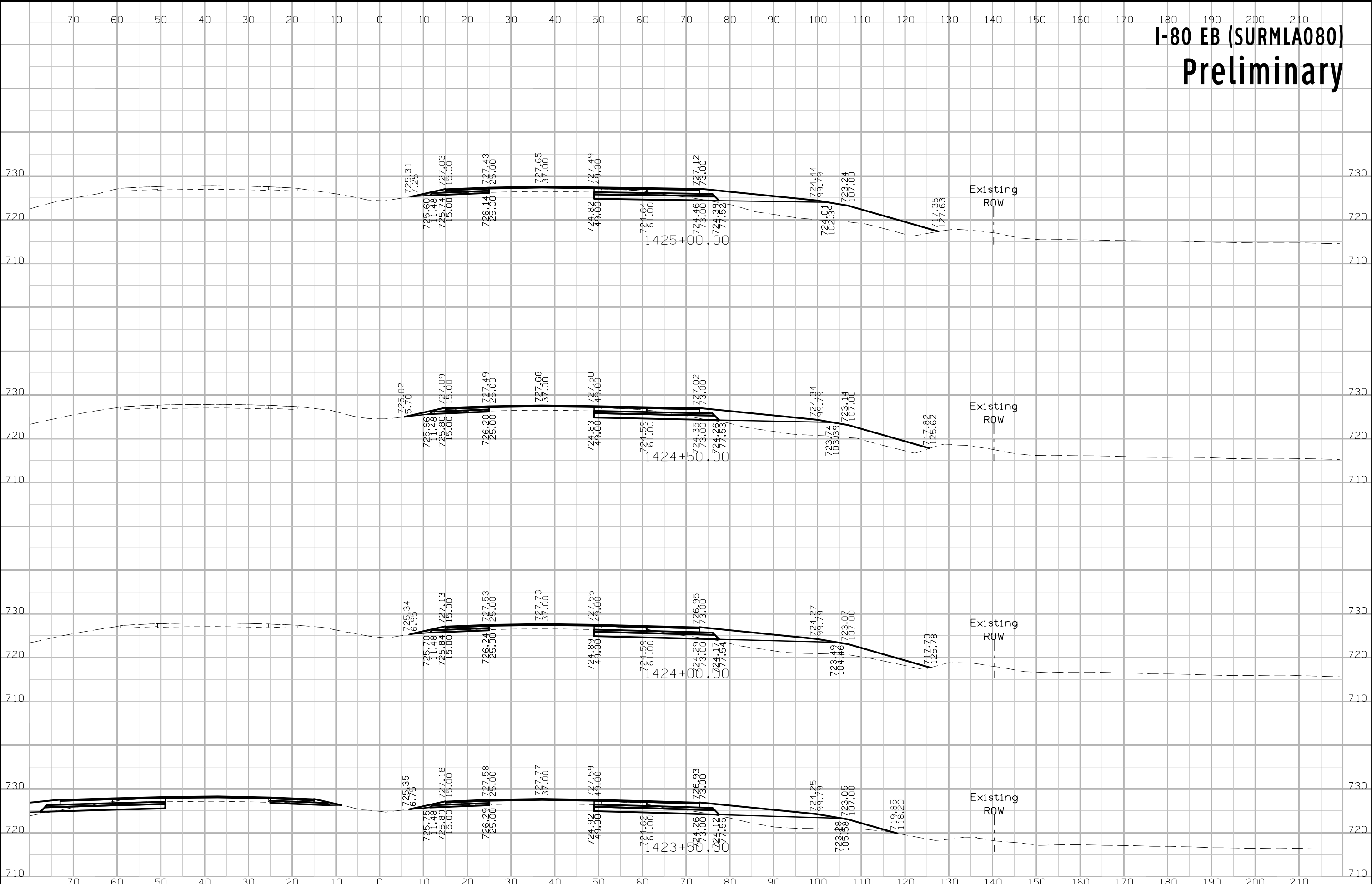
I-80 EB (SURMLA080) Preliminary



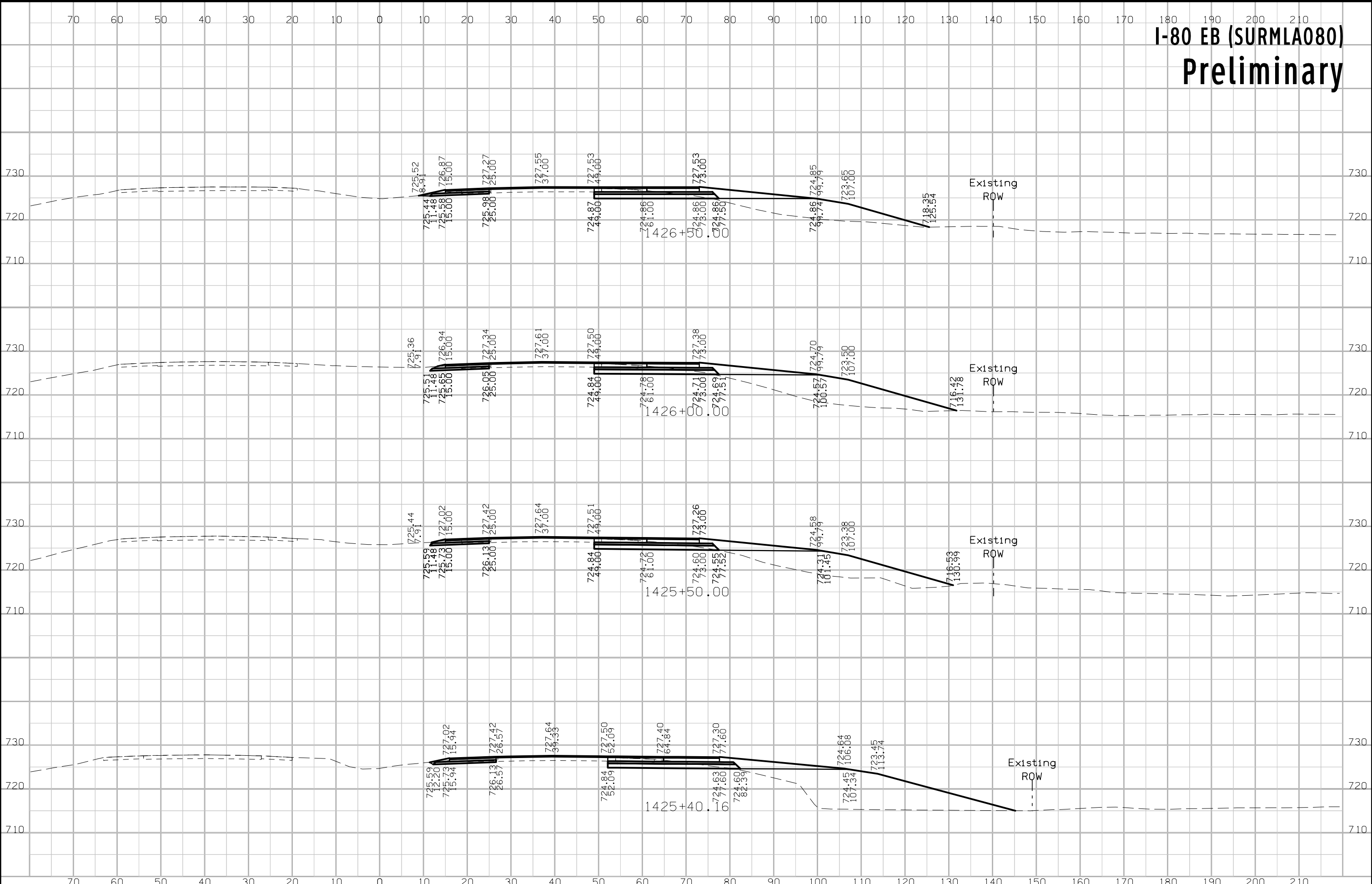
I-80 EB (SURMLA080) Preliminary



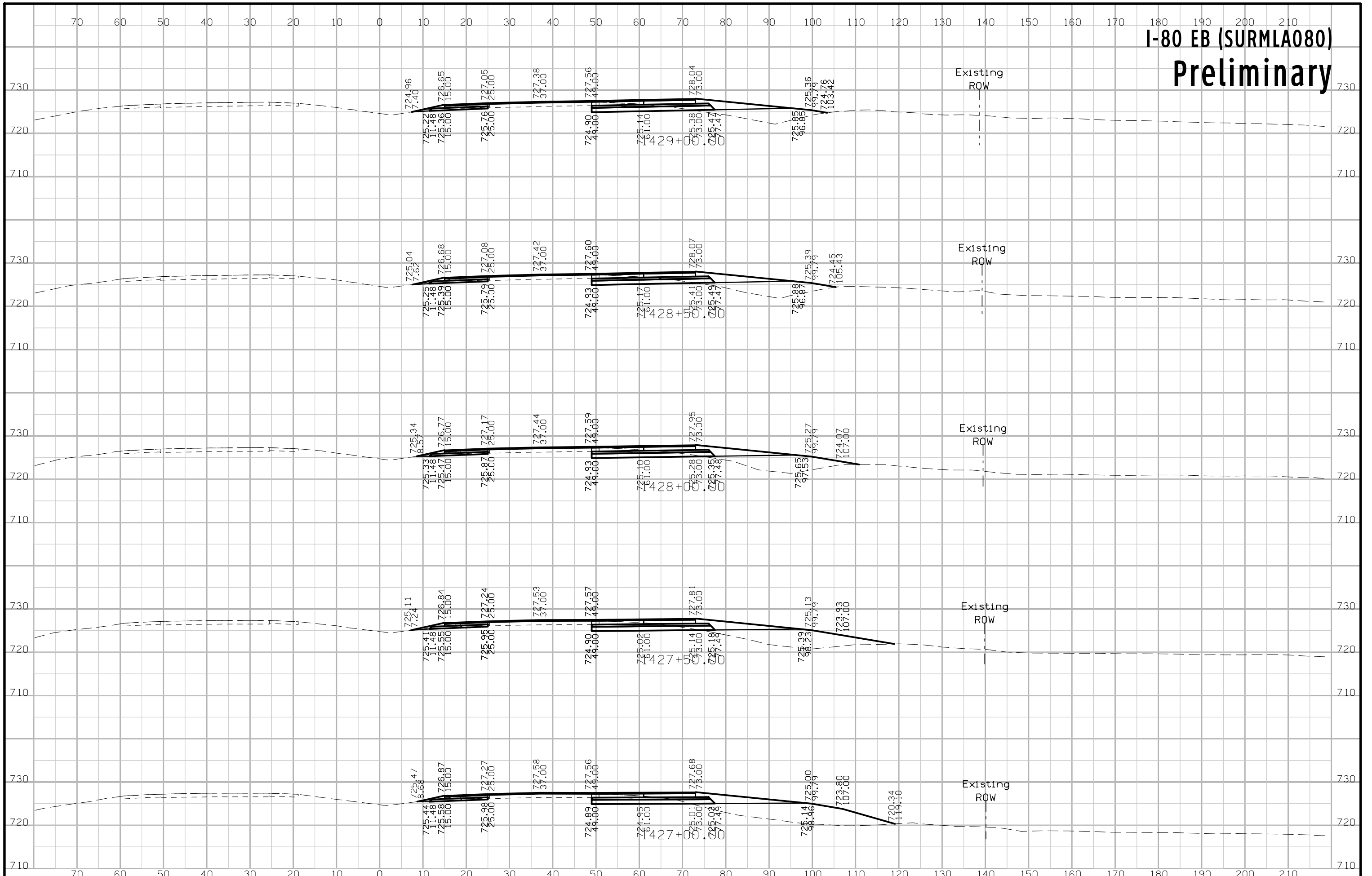
I-80 EB (SURMLA080) Preliminary



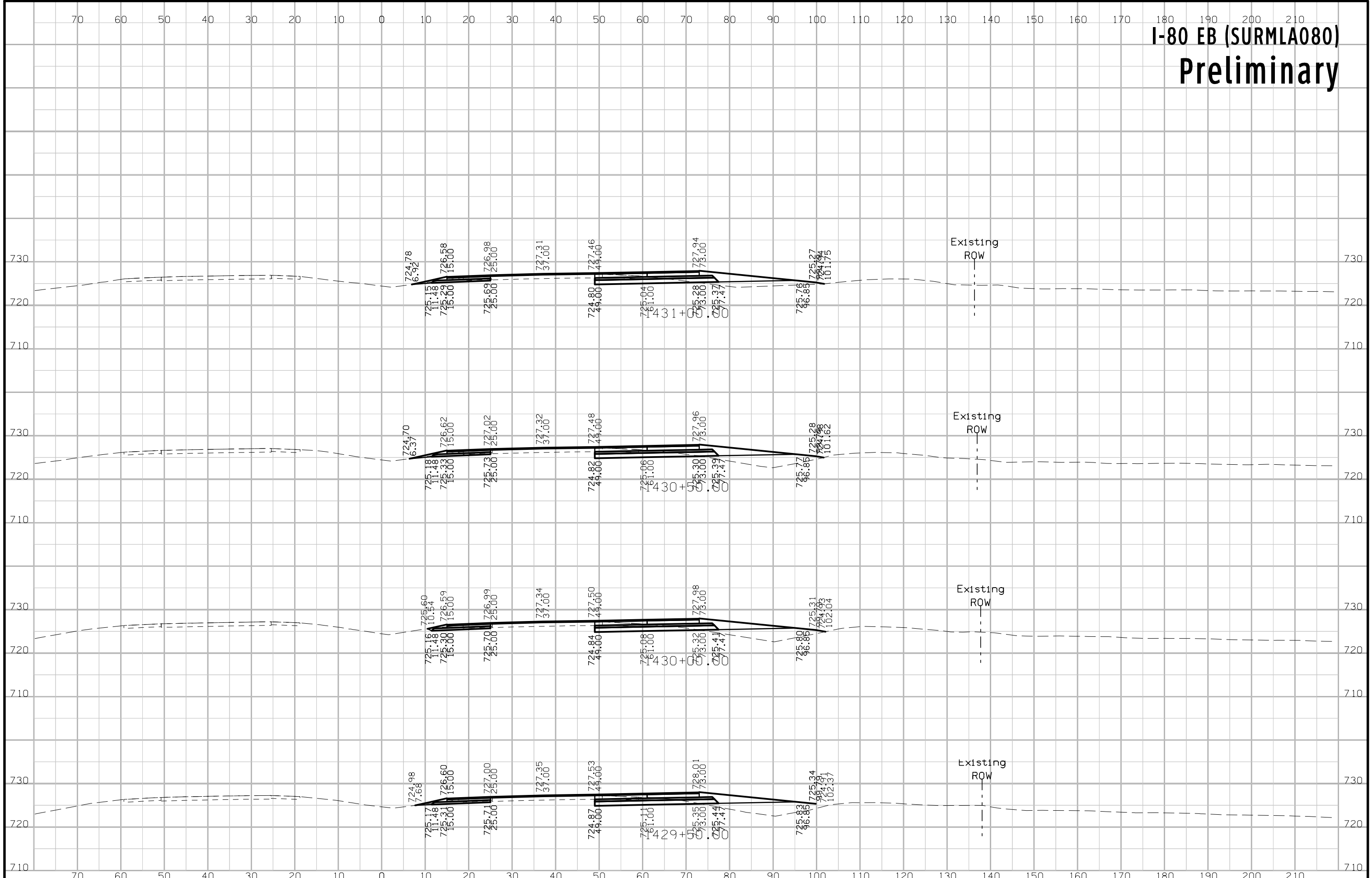
I-80 EB (SURMLA080) Preliminary



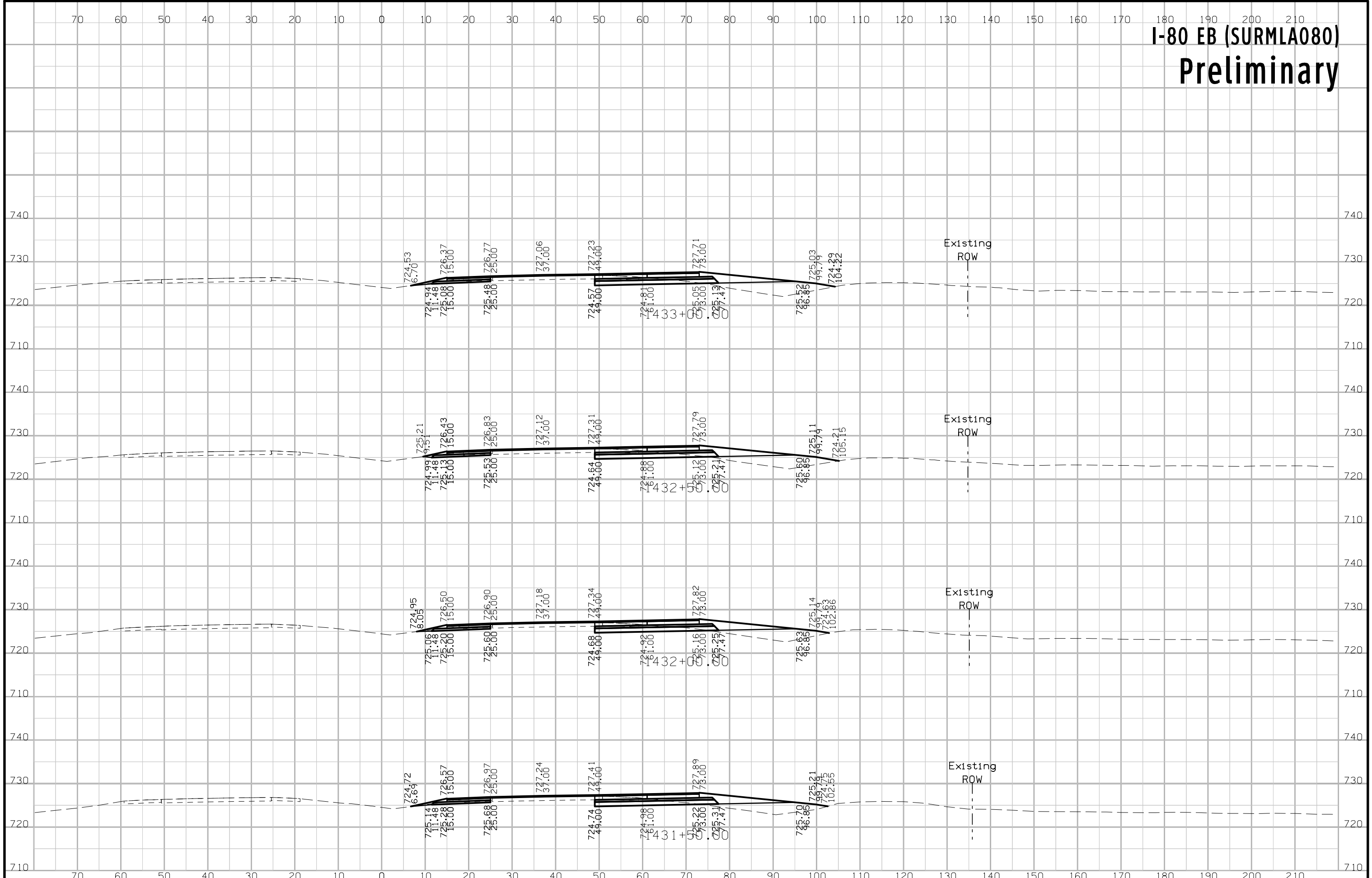
I-80 EB (SURMLA080) Preliminary



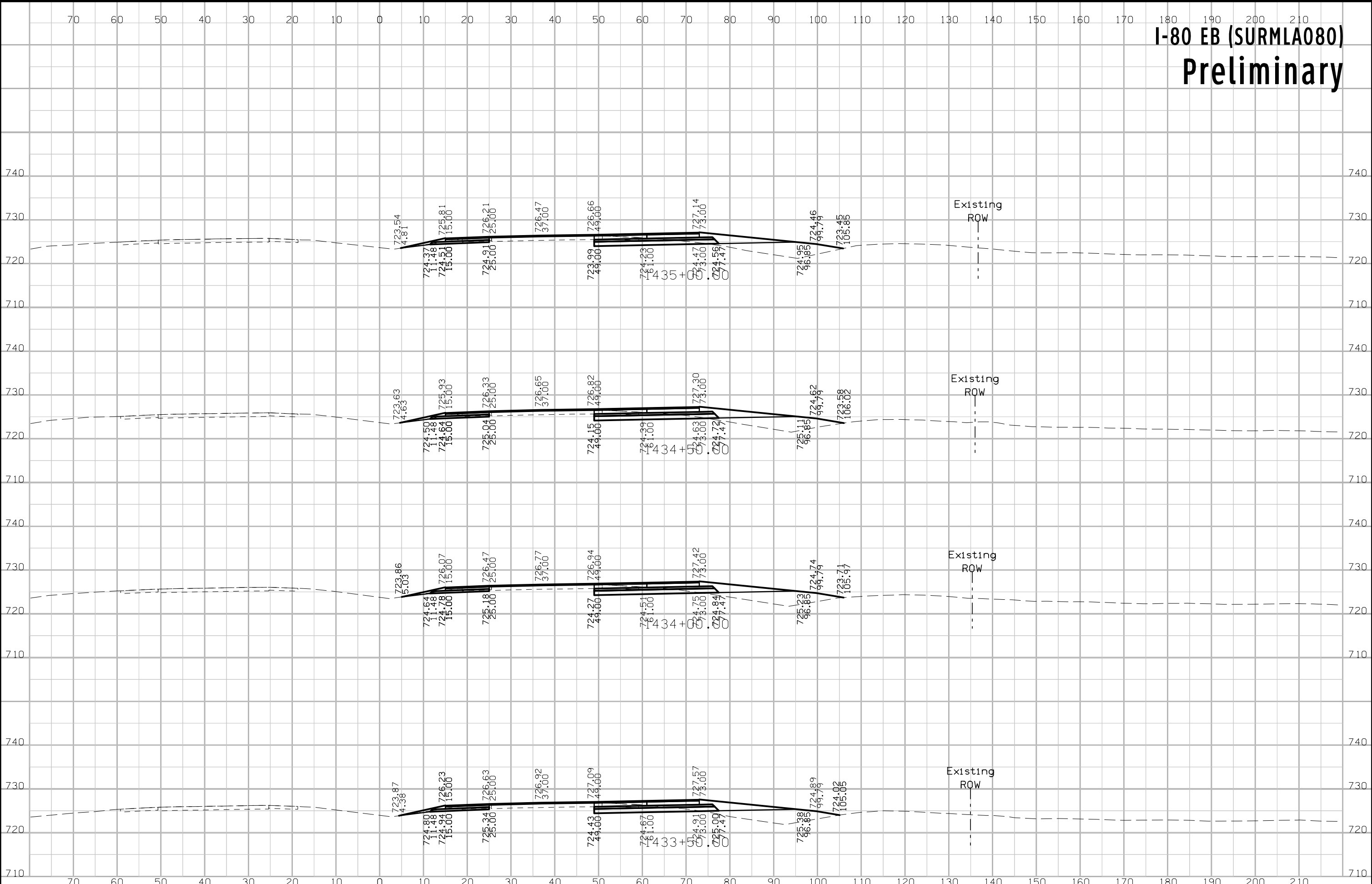
I-80 EB (SURMLA080) Preliminary



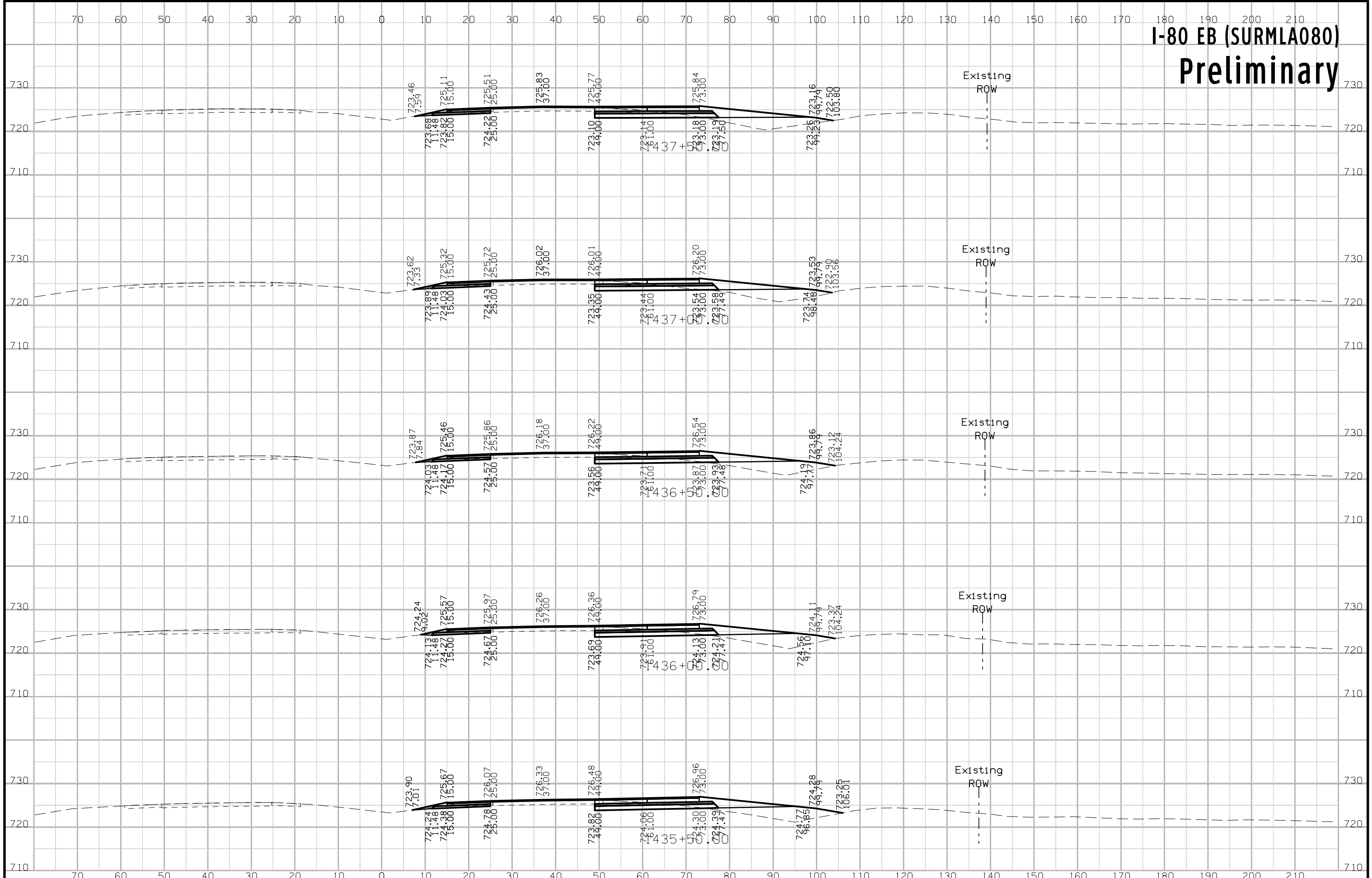
I-80 EB (SURMLA080) Preliminary



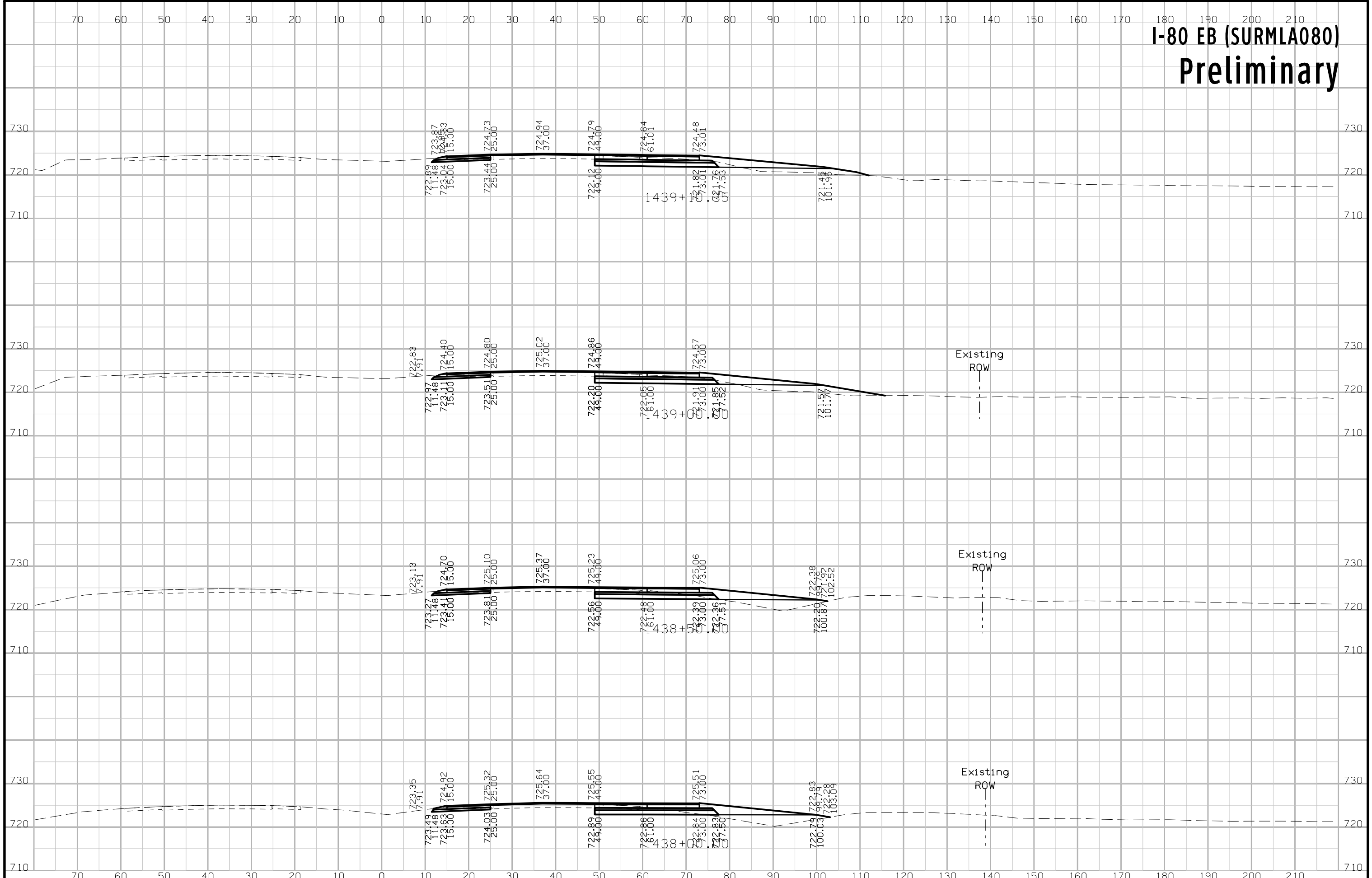
I-80 EB (SURMLA080) Preliminary



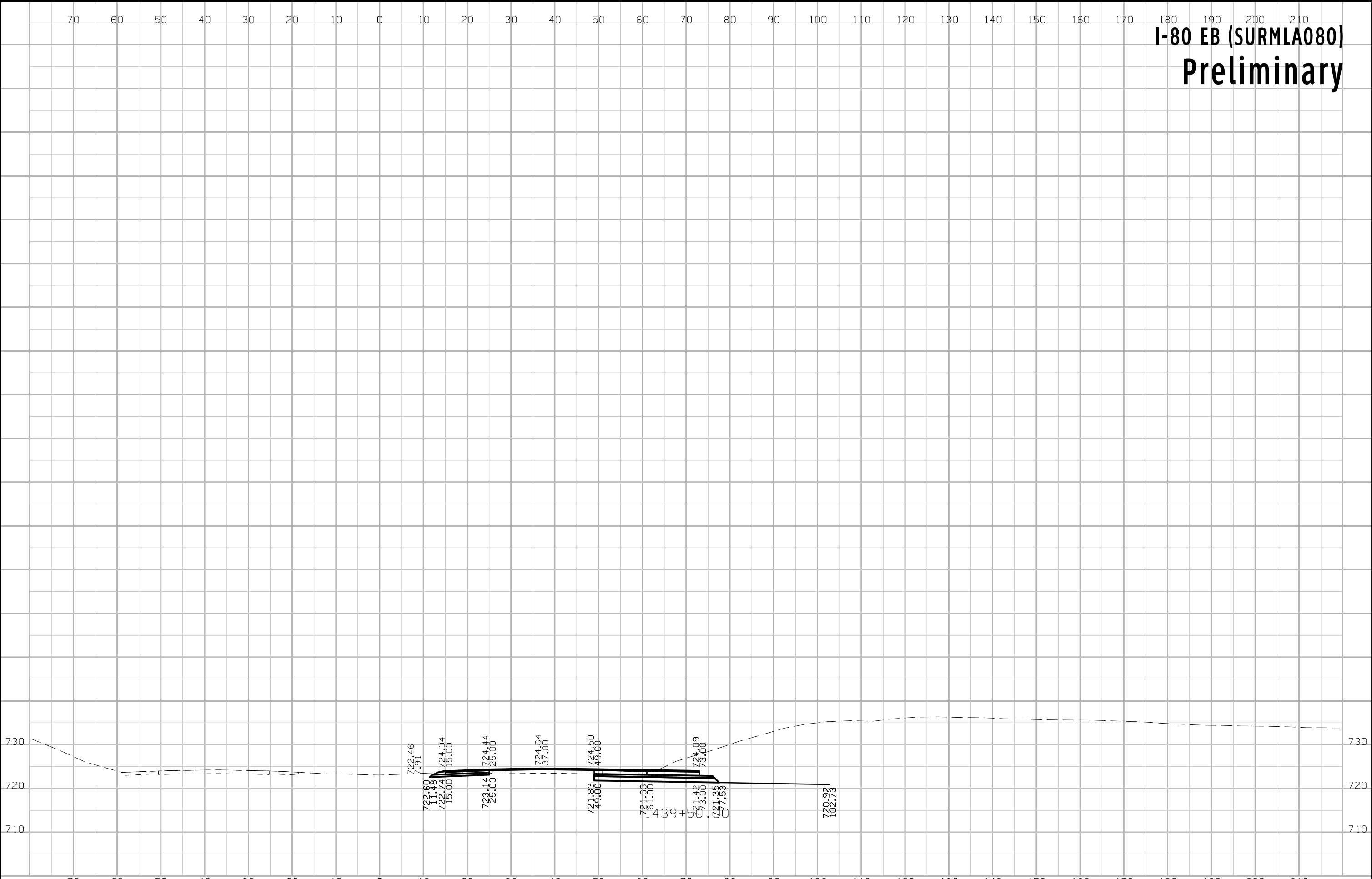
I-80 EB (SURMLA080) Preliminary



I-80 EB (SURMLA080) Preliminary

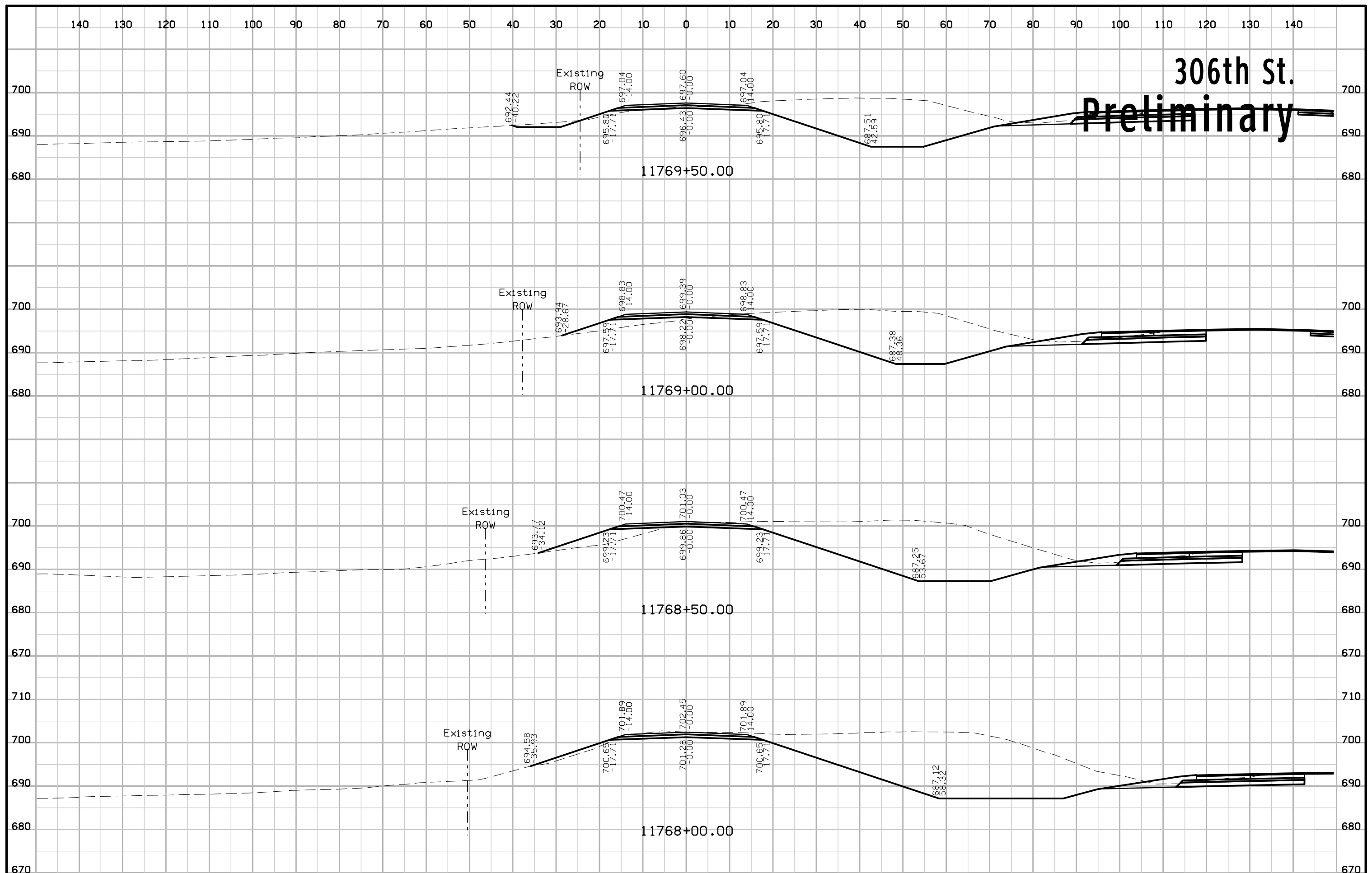


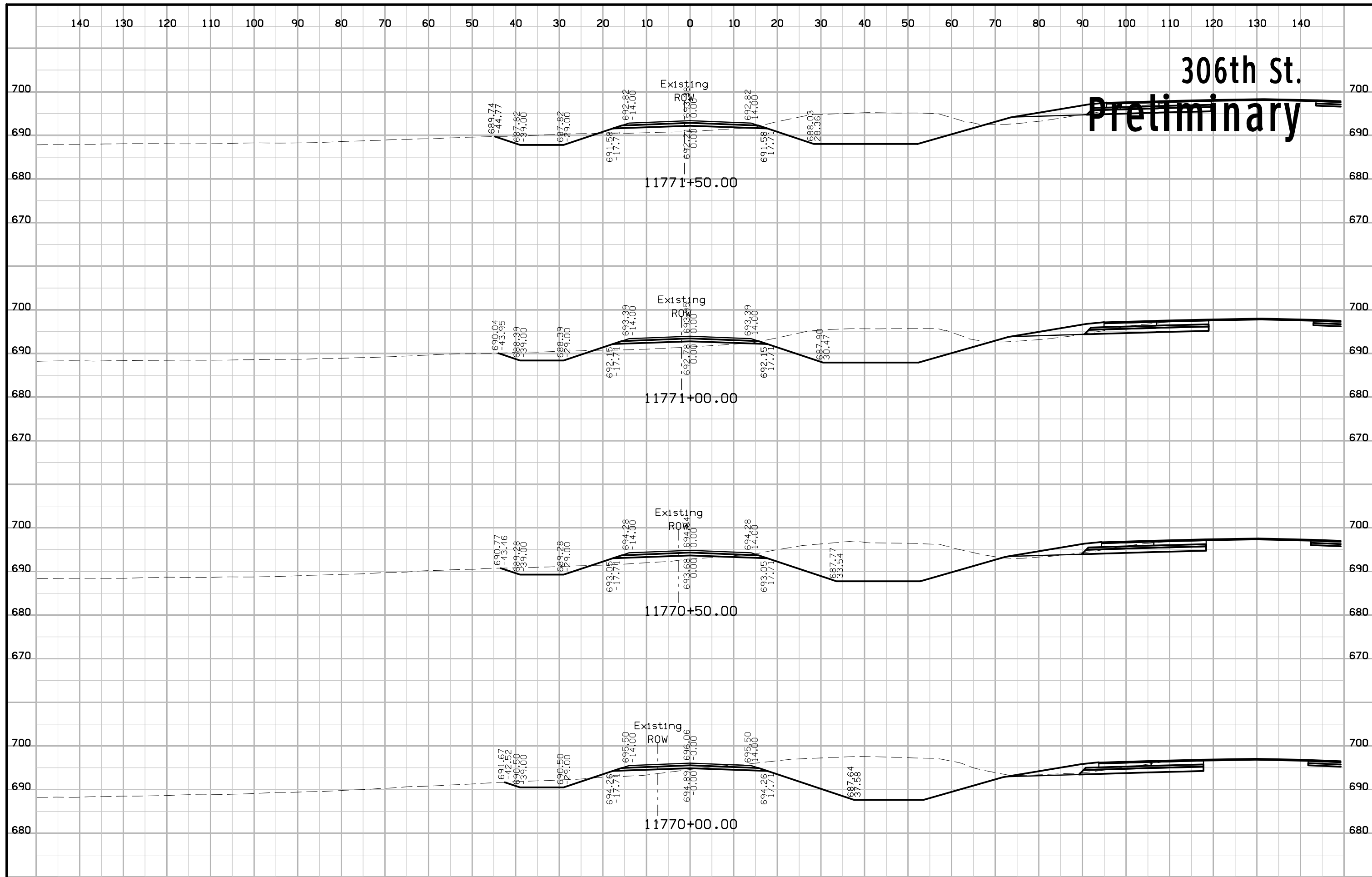
**I-80 EB (SURMLA080)
Preliminary**



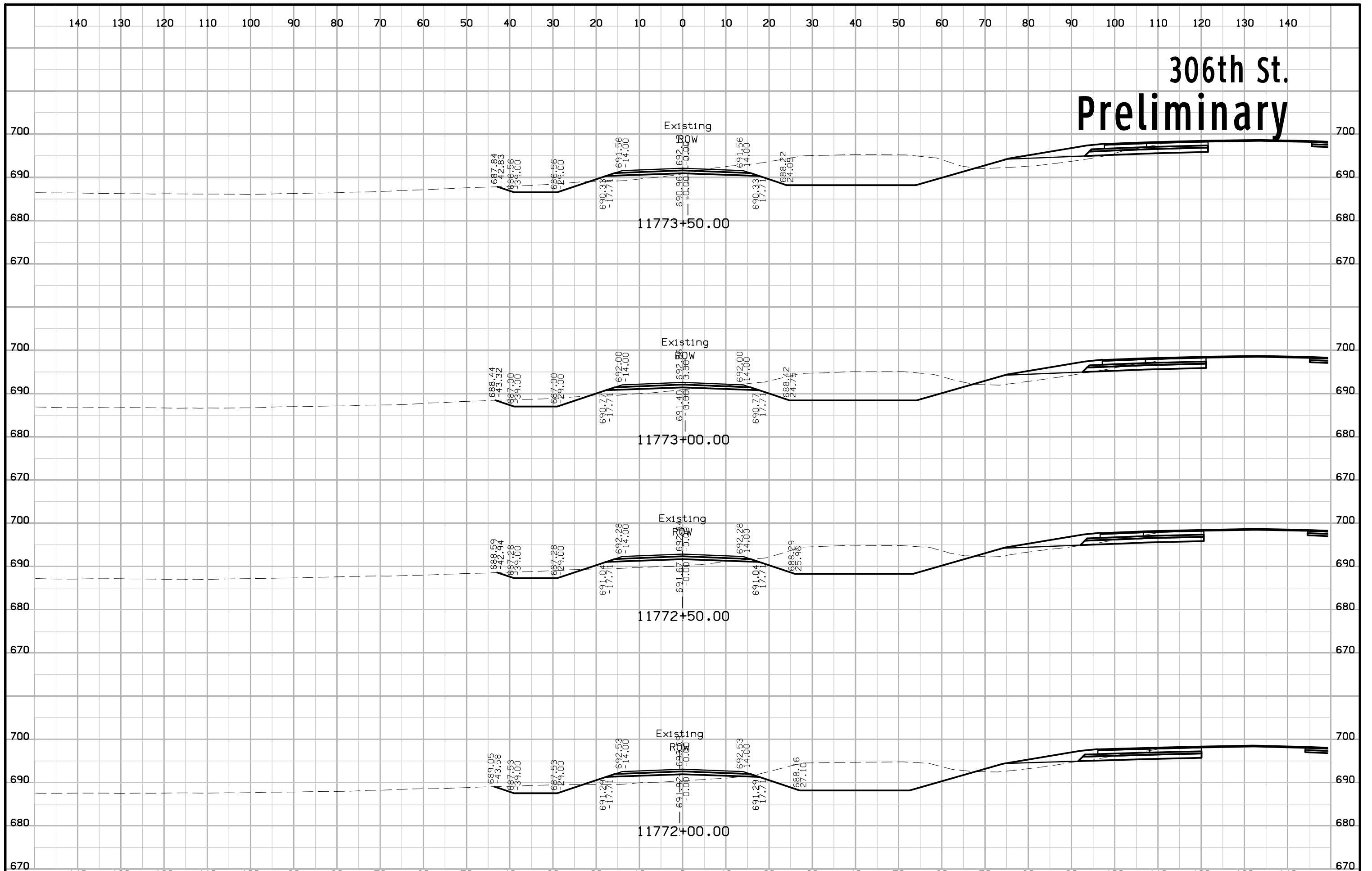
306th St.

Preliminary



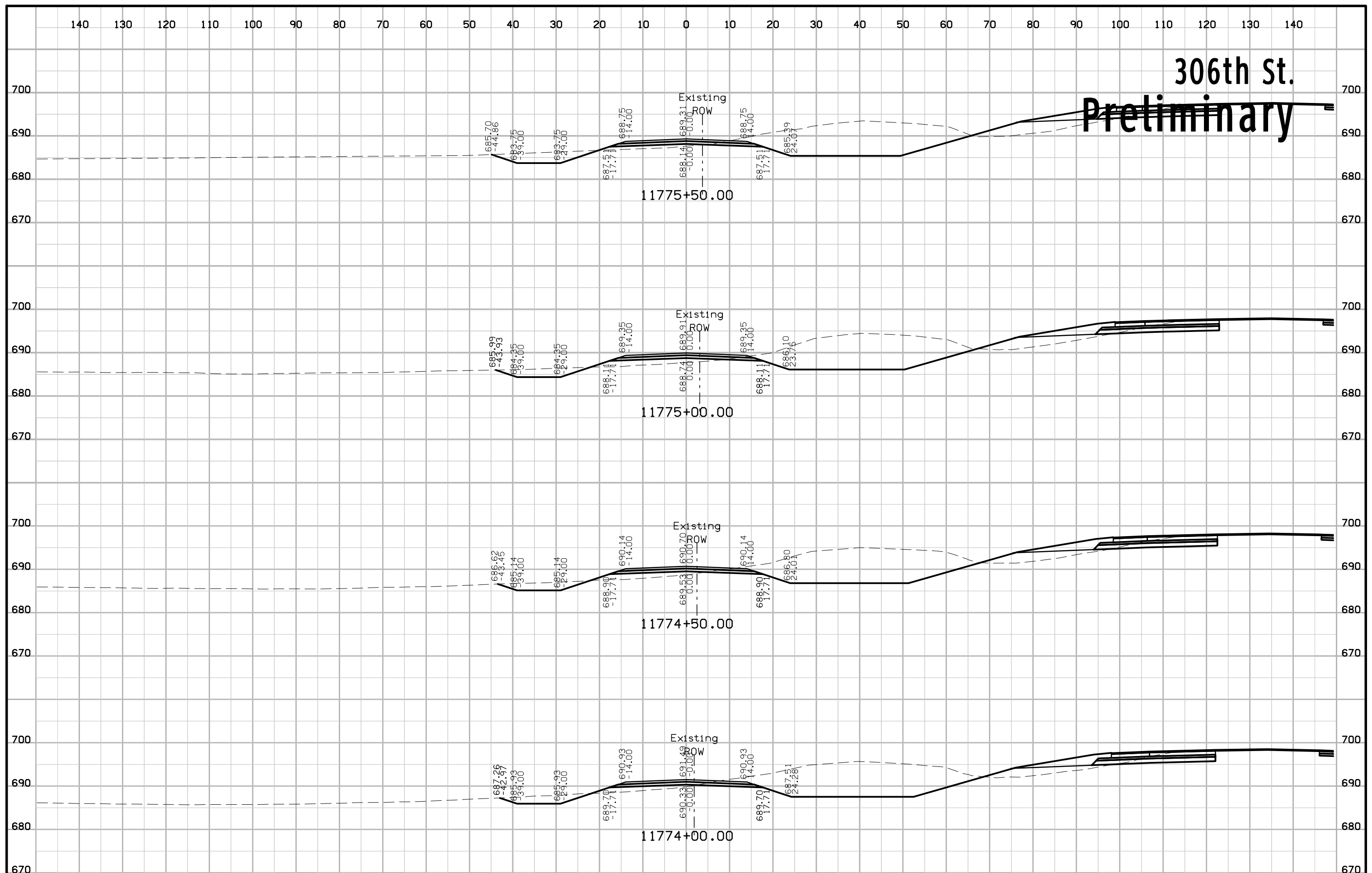


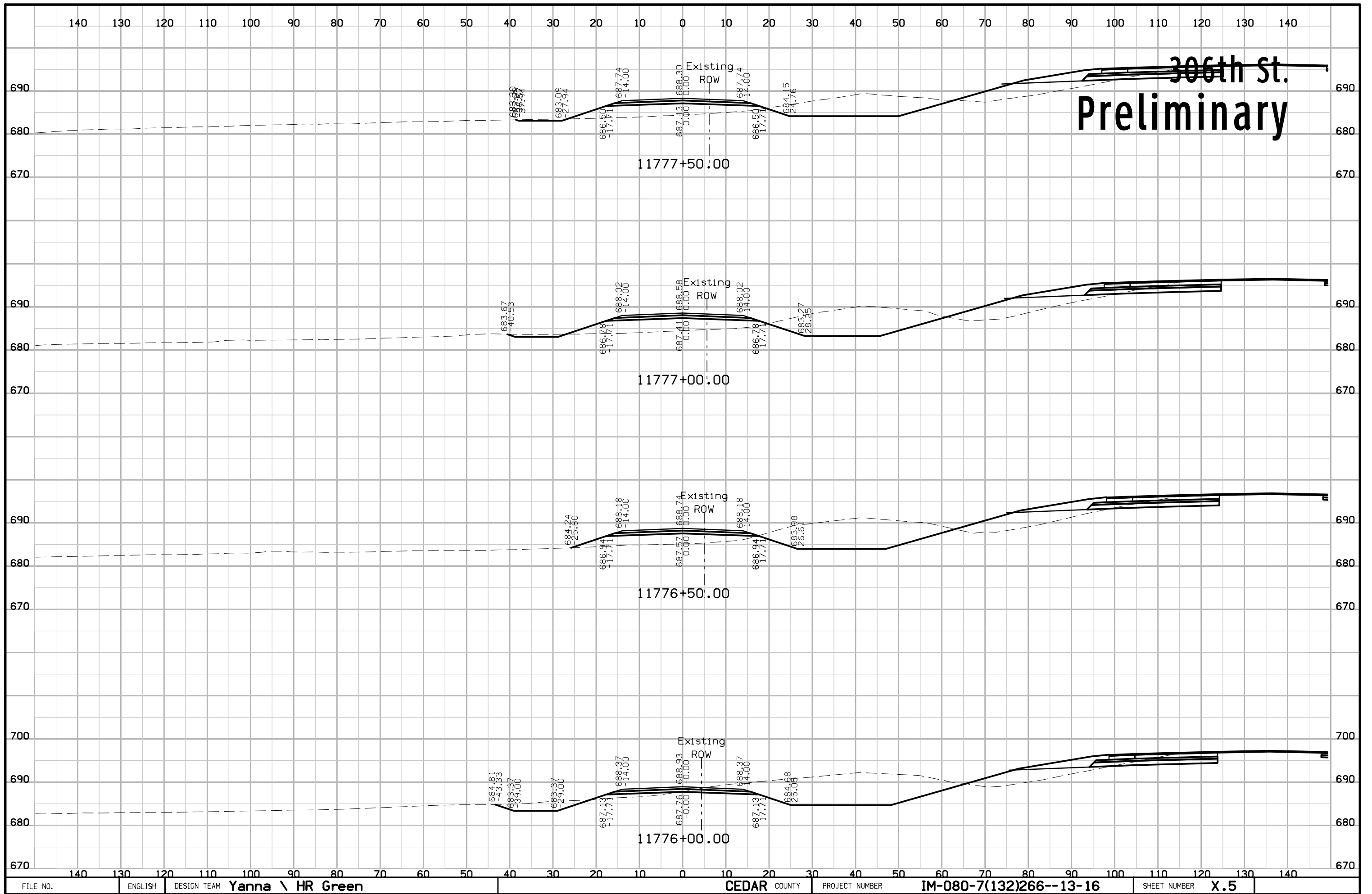
306th St. Preliminary

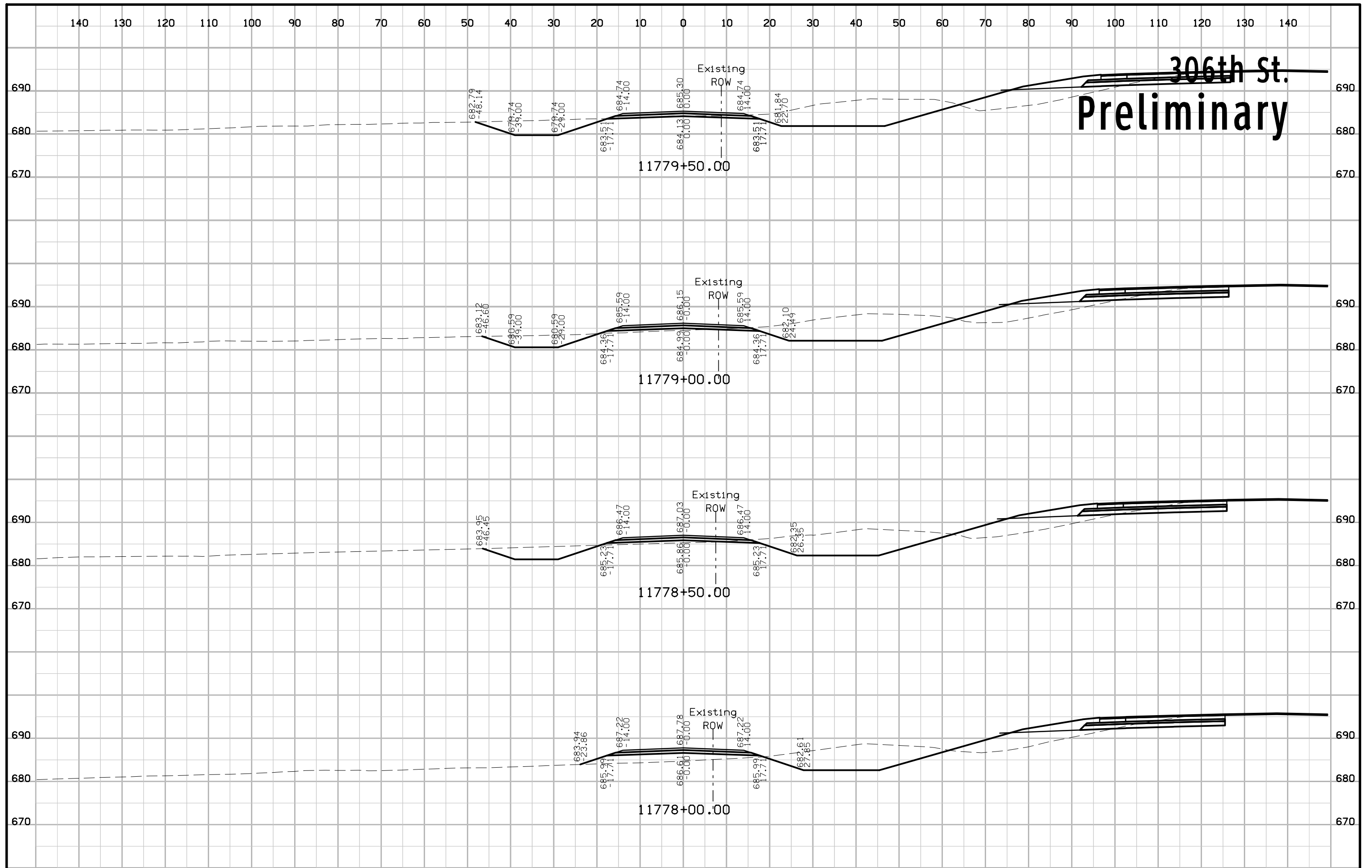


306th St.

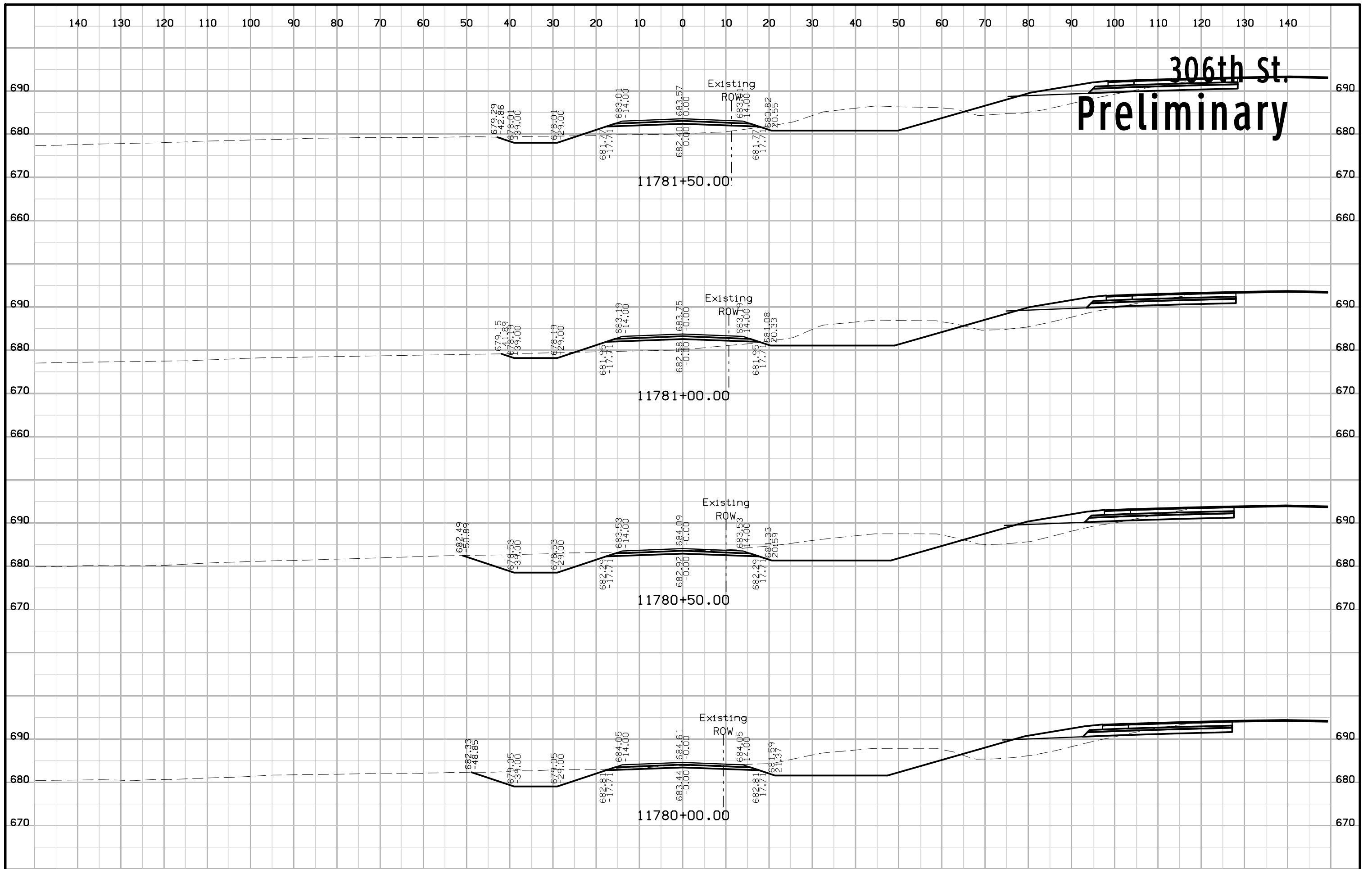
Preliminary

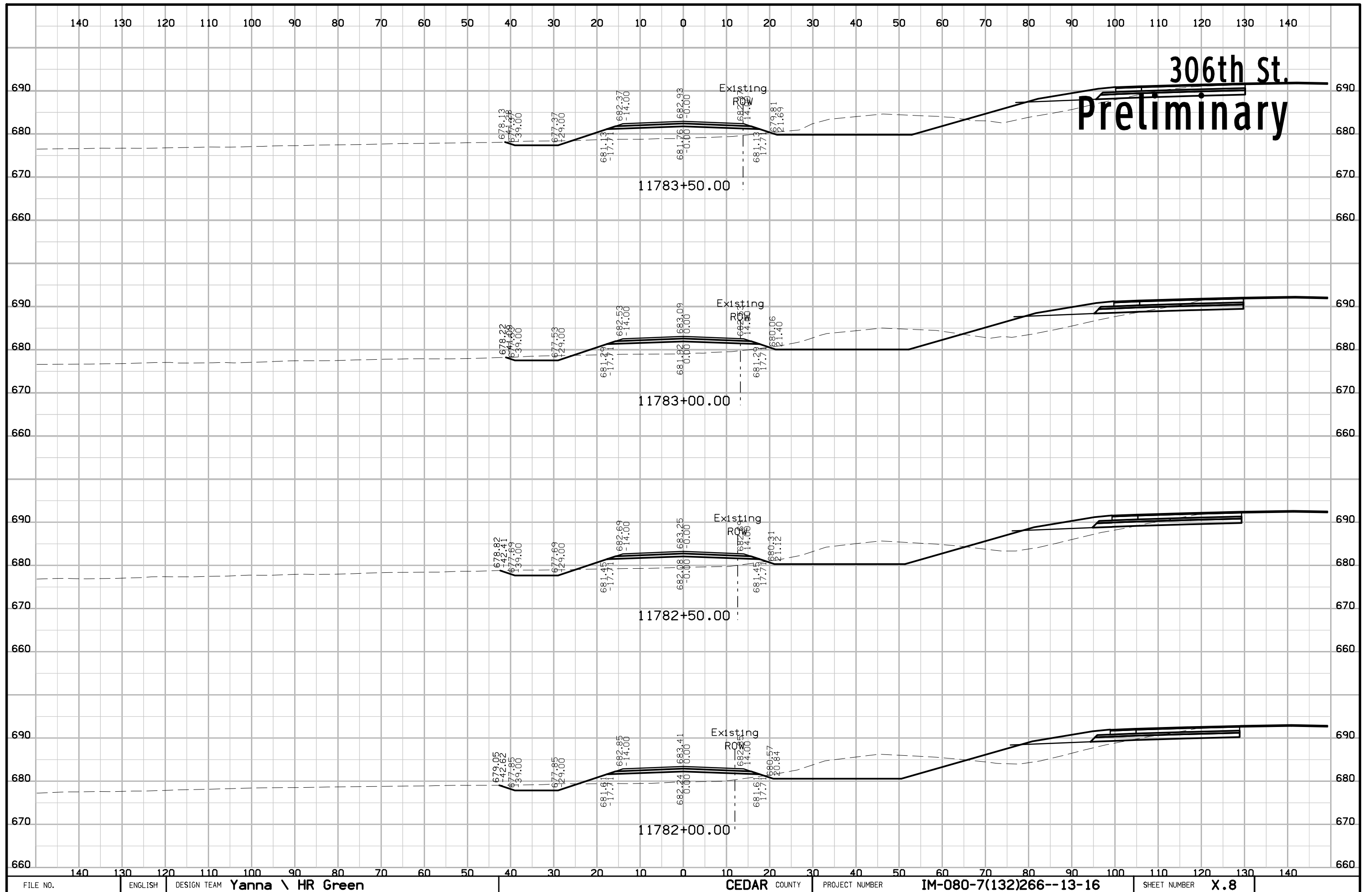


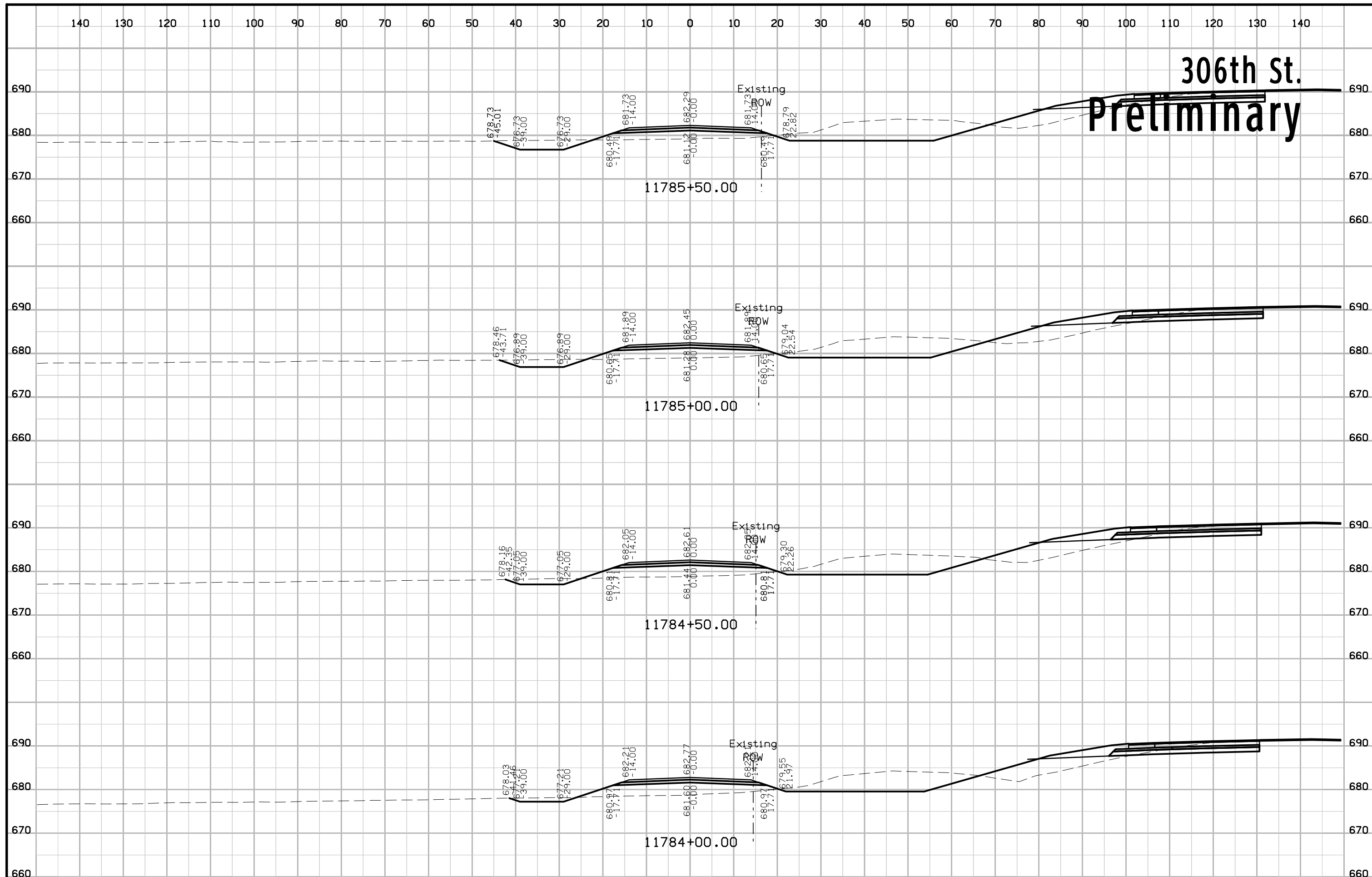




~~306th St.~~
Preliminary

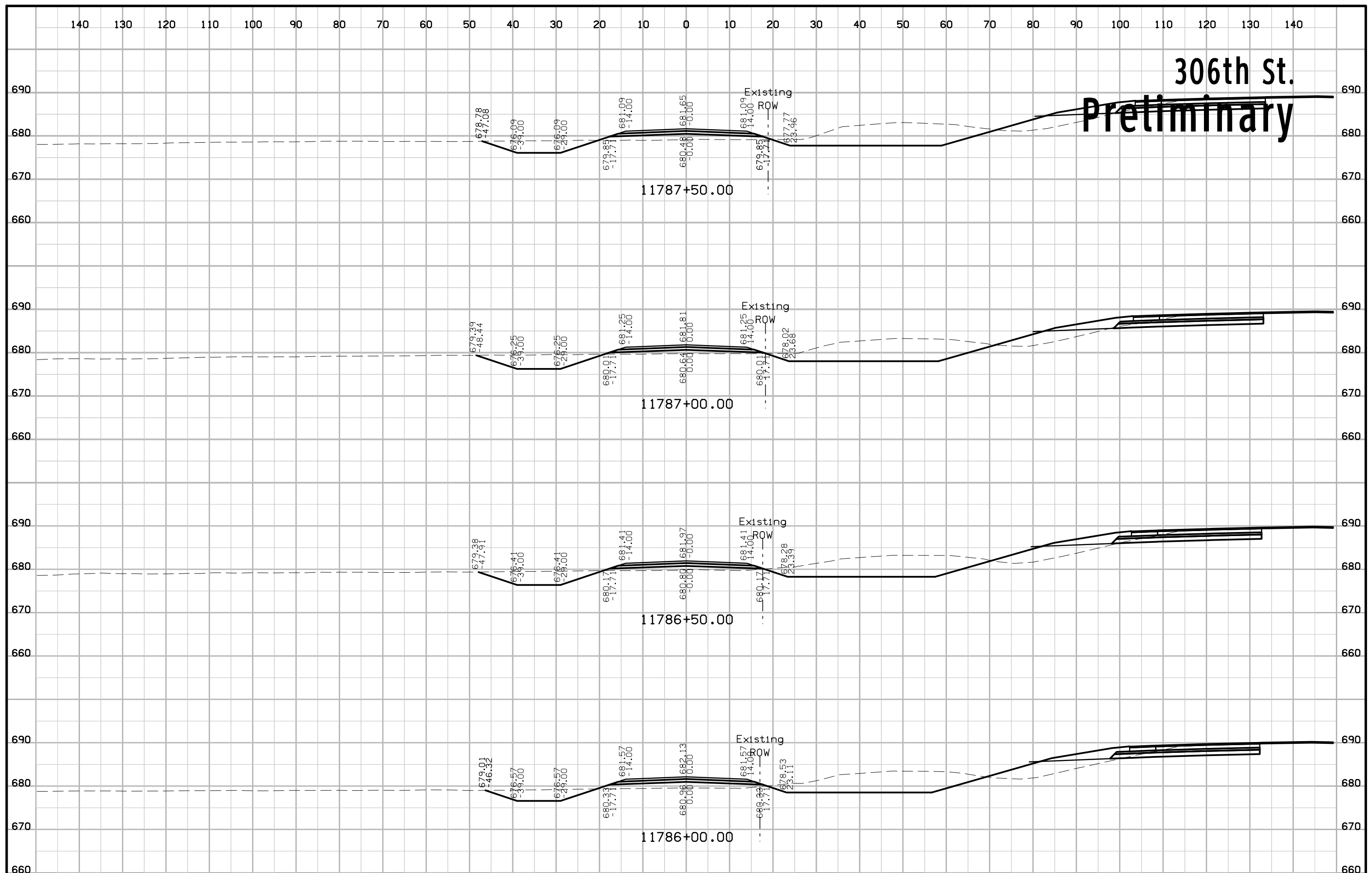




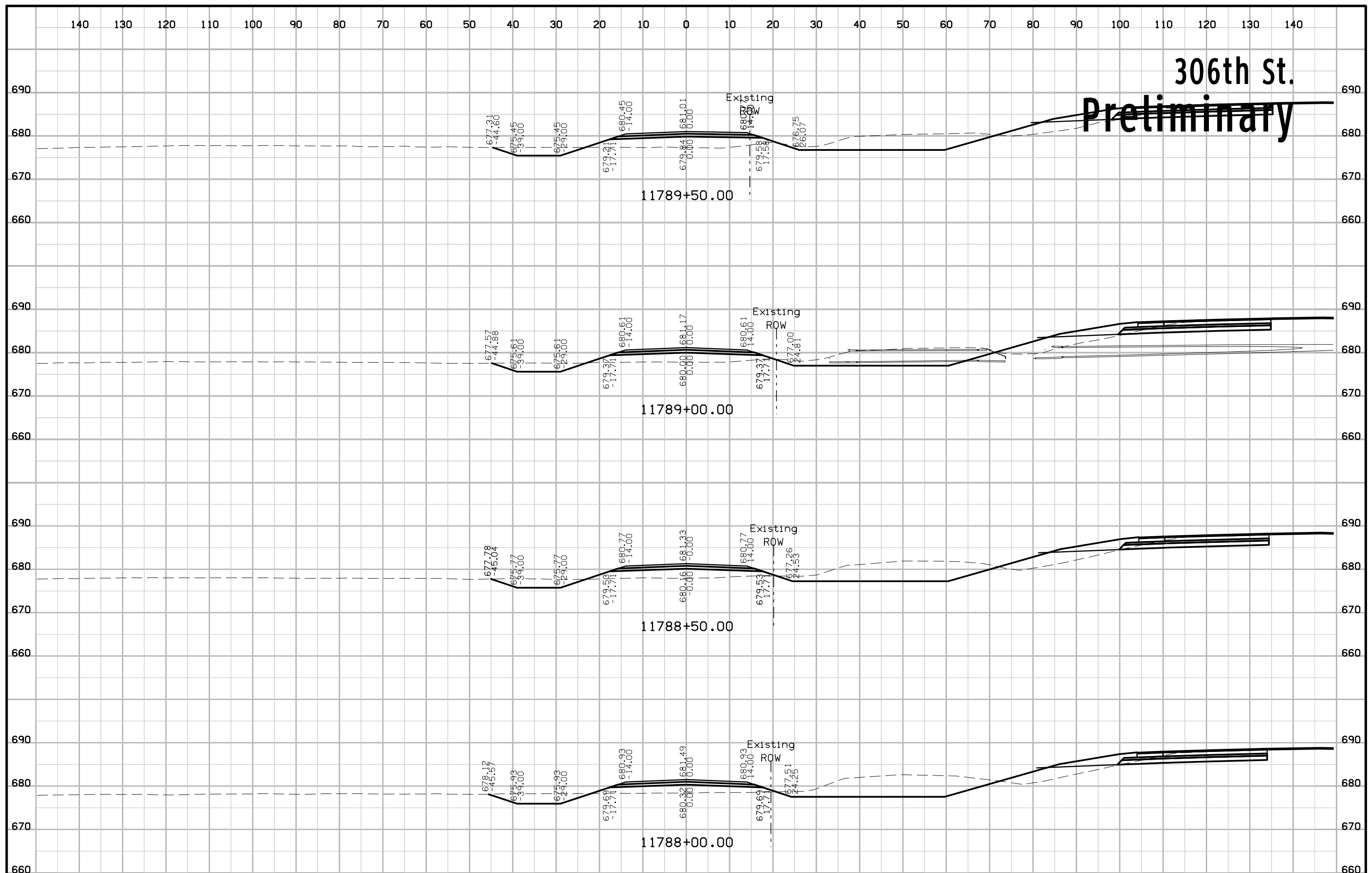


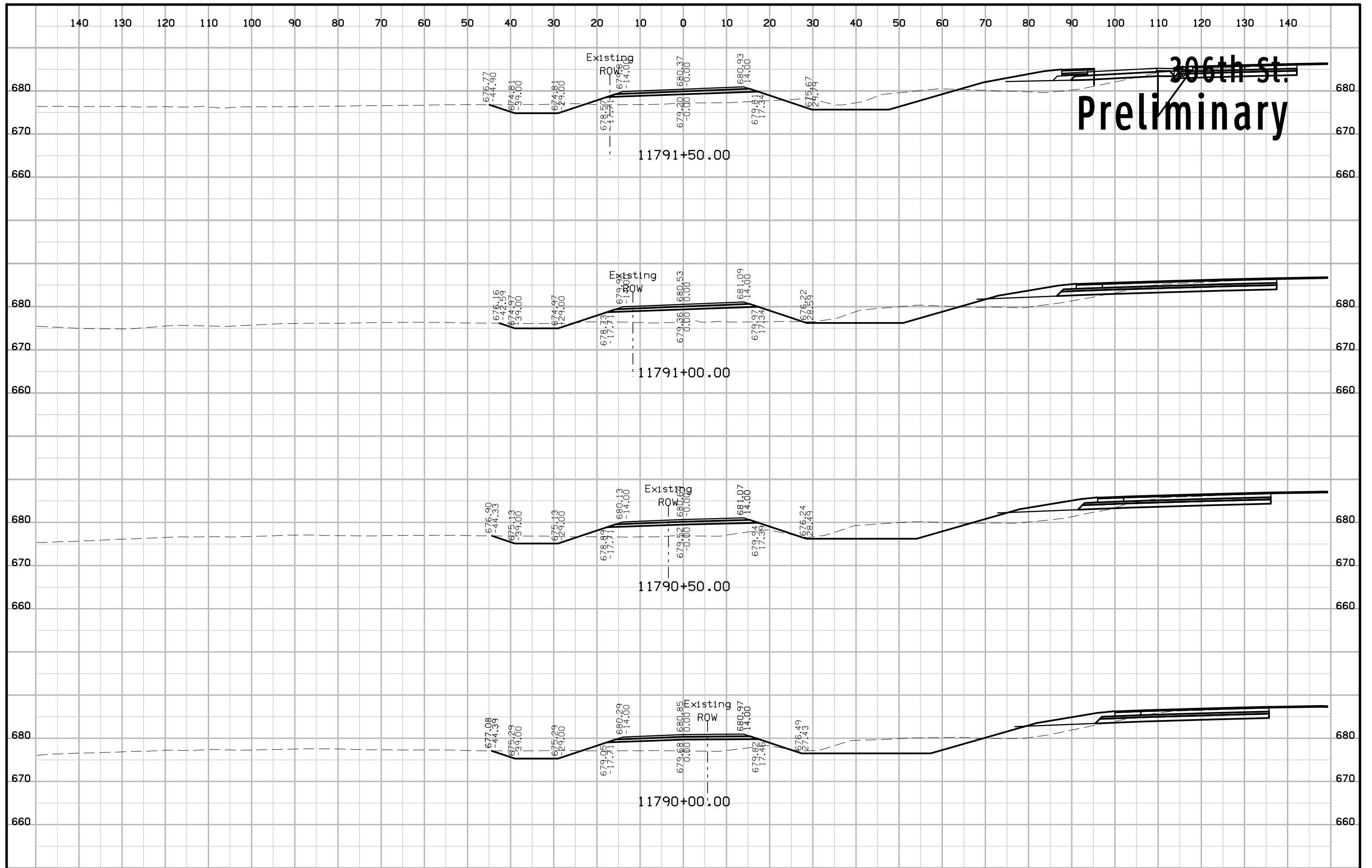
306th St.

Preliminary



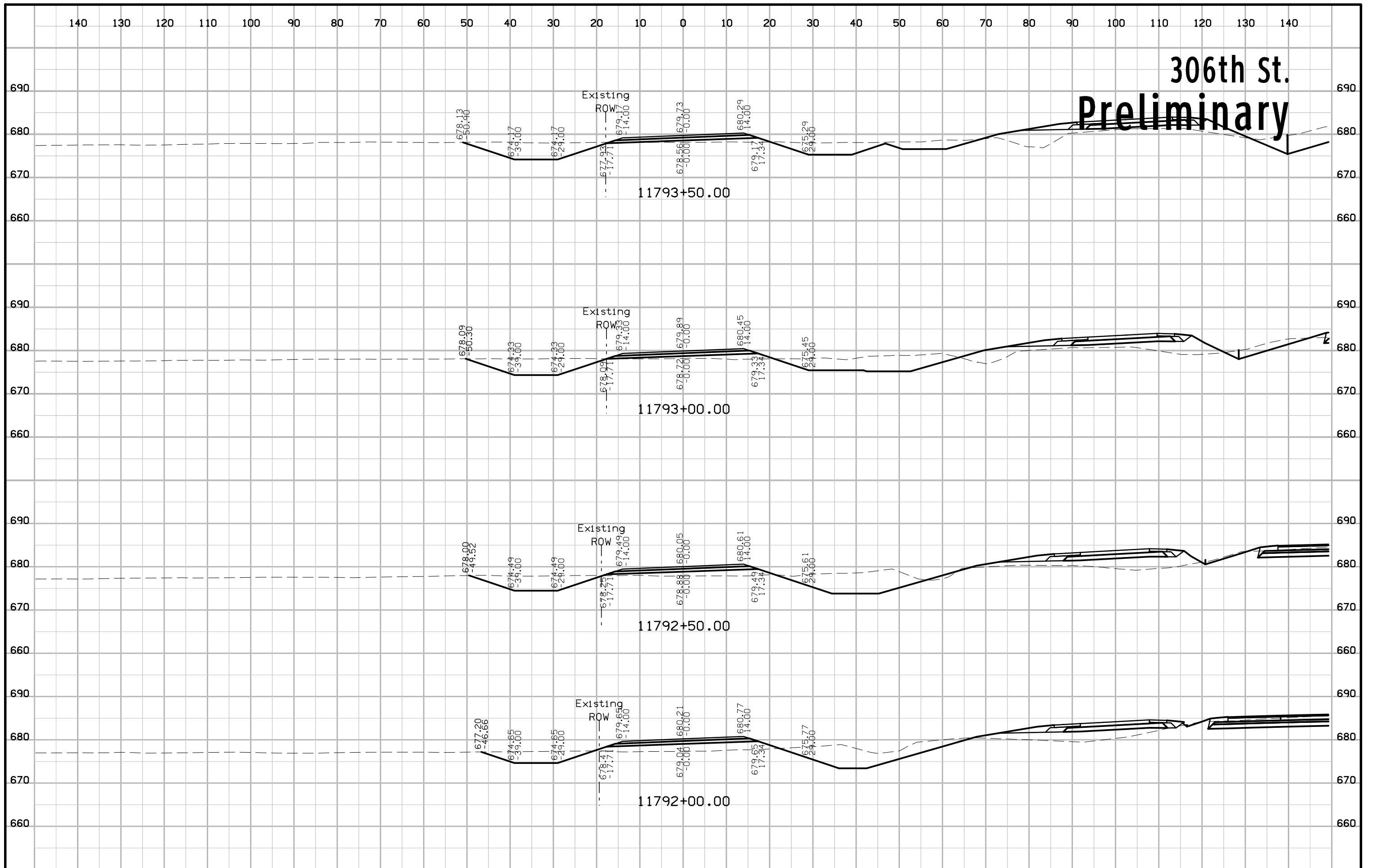
306th St. Preliminary



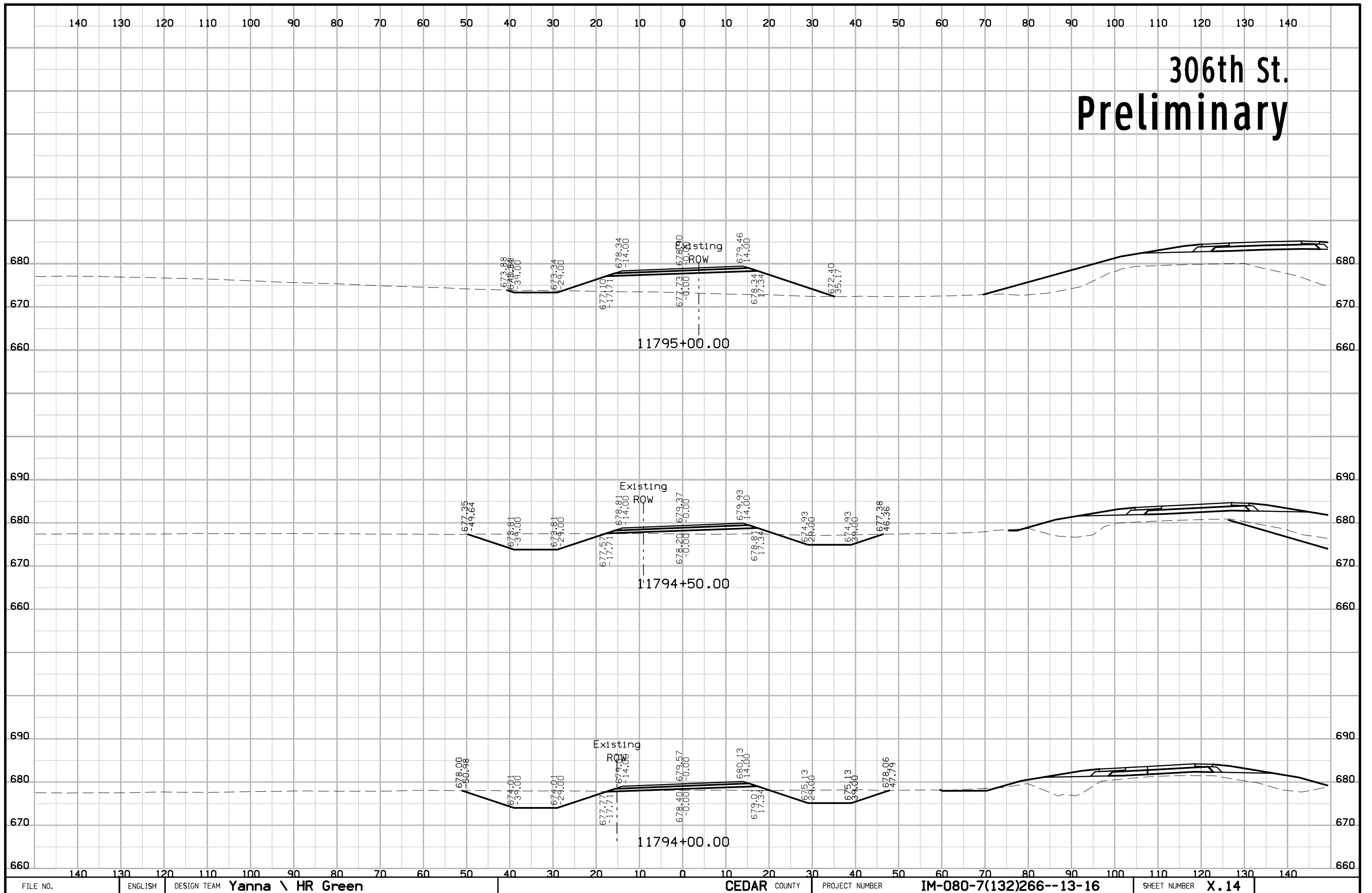


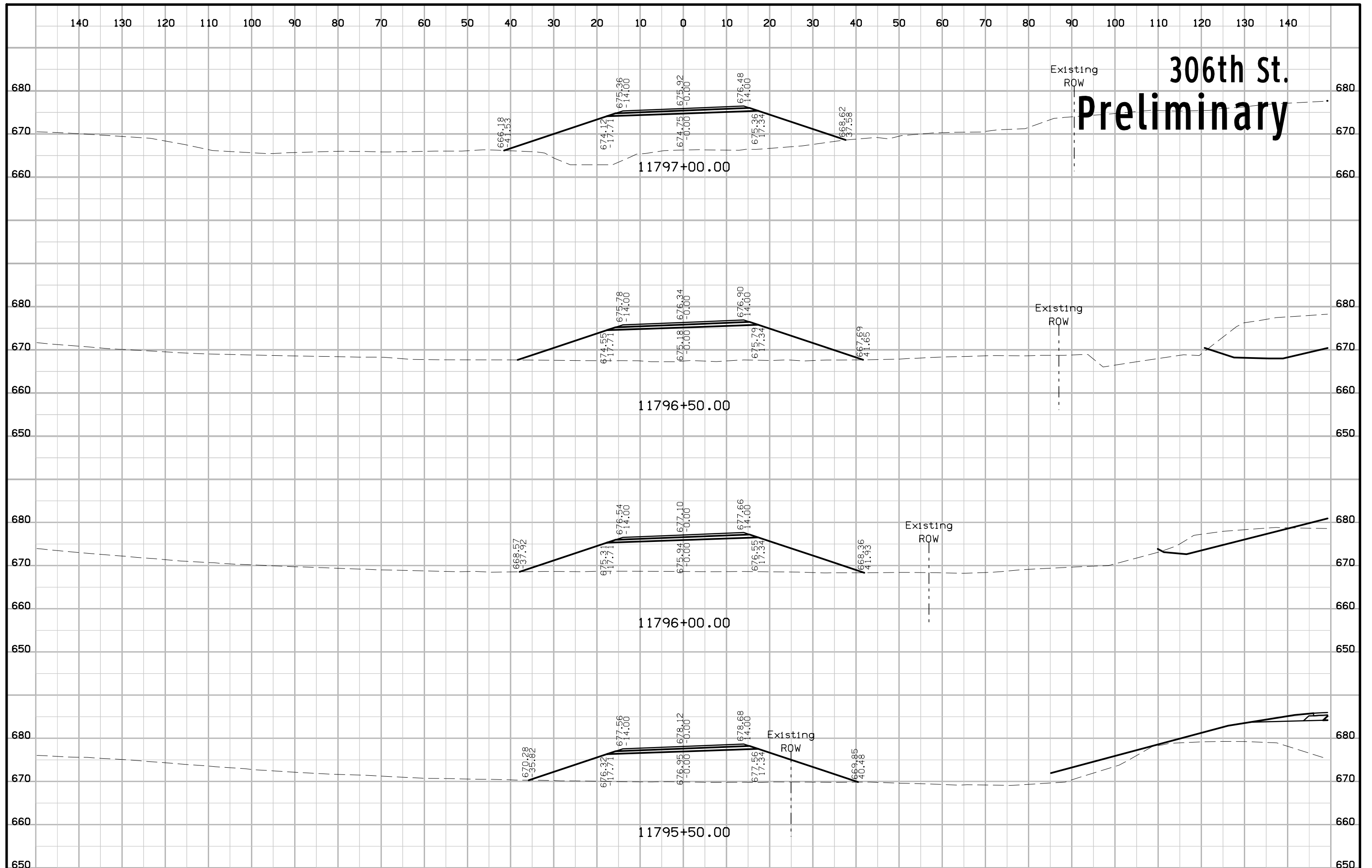
~~306th St.~~
Preliminary

306th St. Preliminary

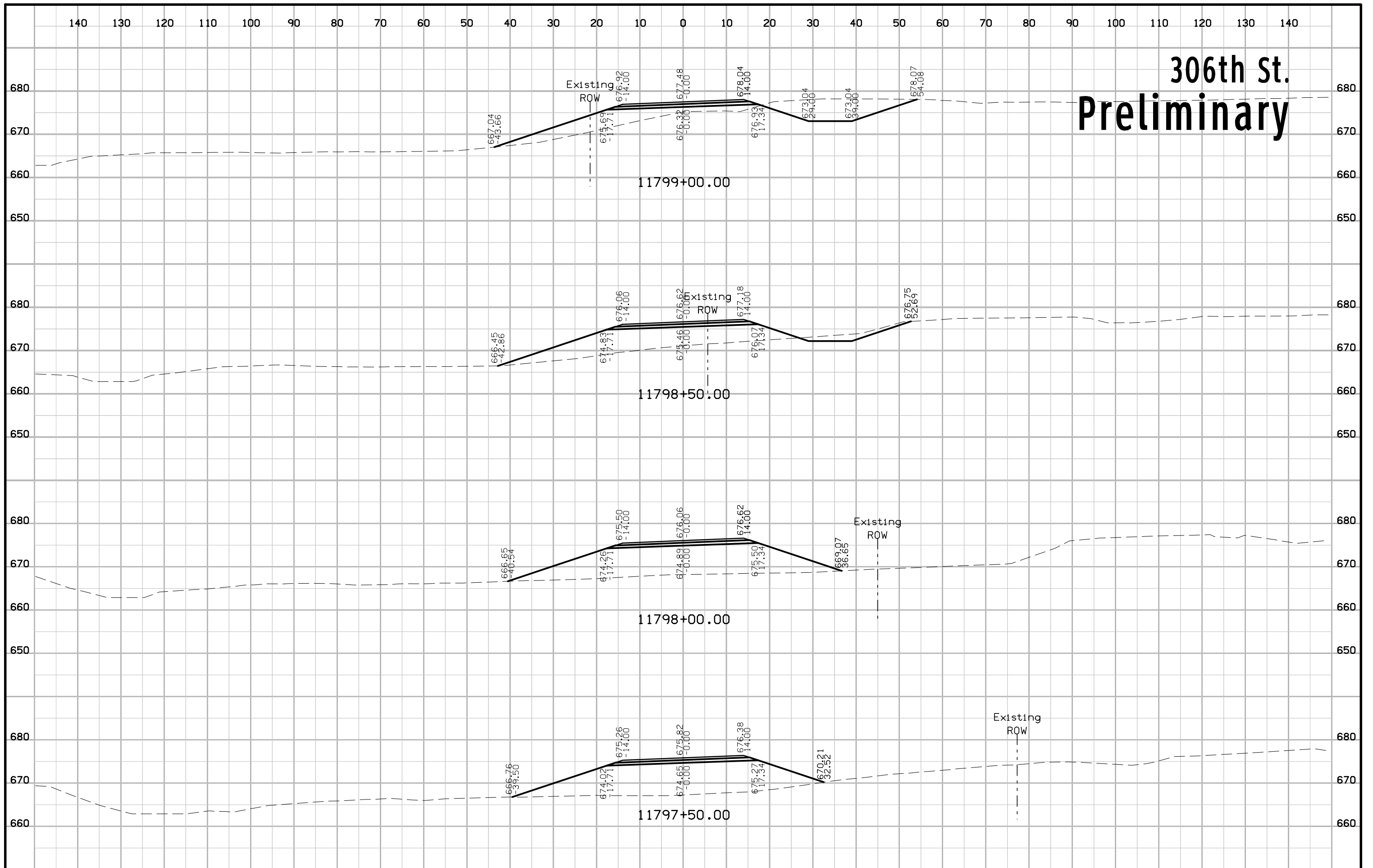


306th St. Preliminary

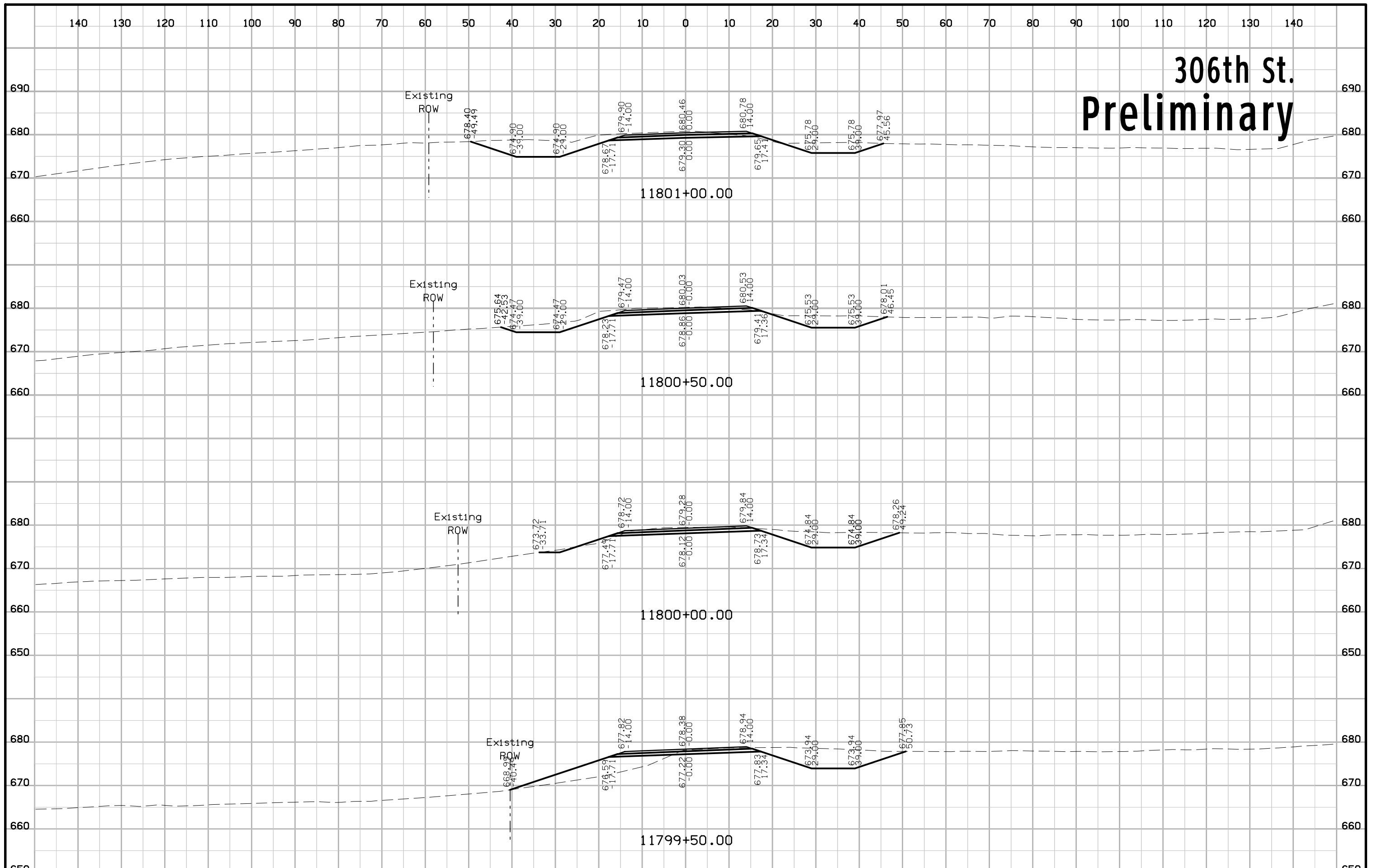




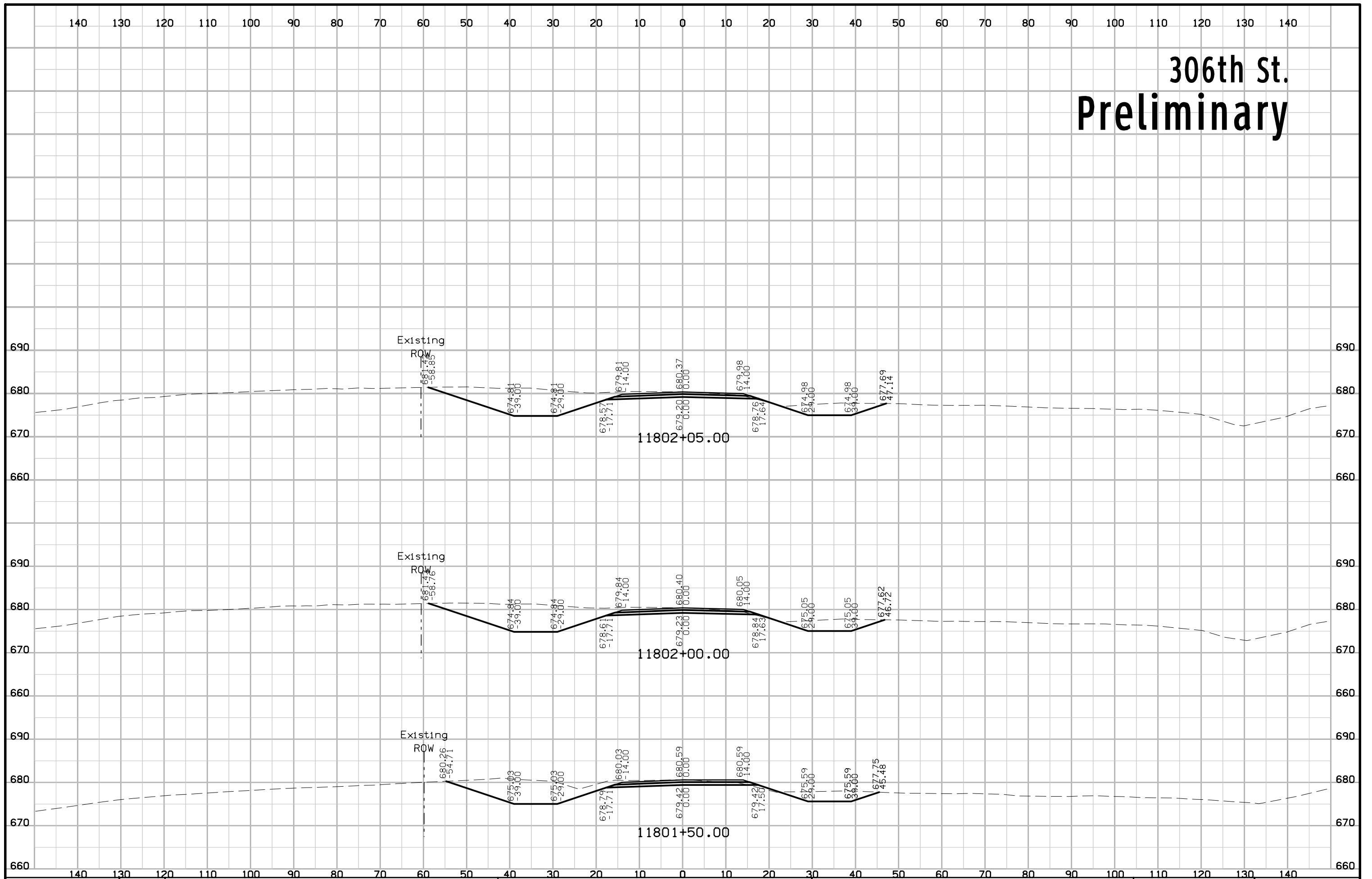
306th St. Preliminary



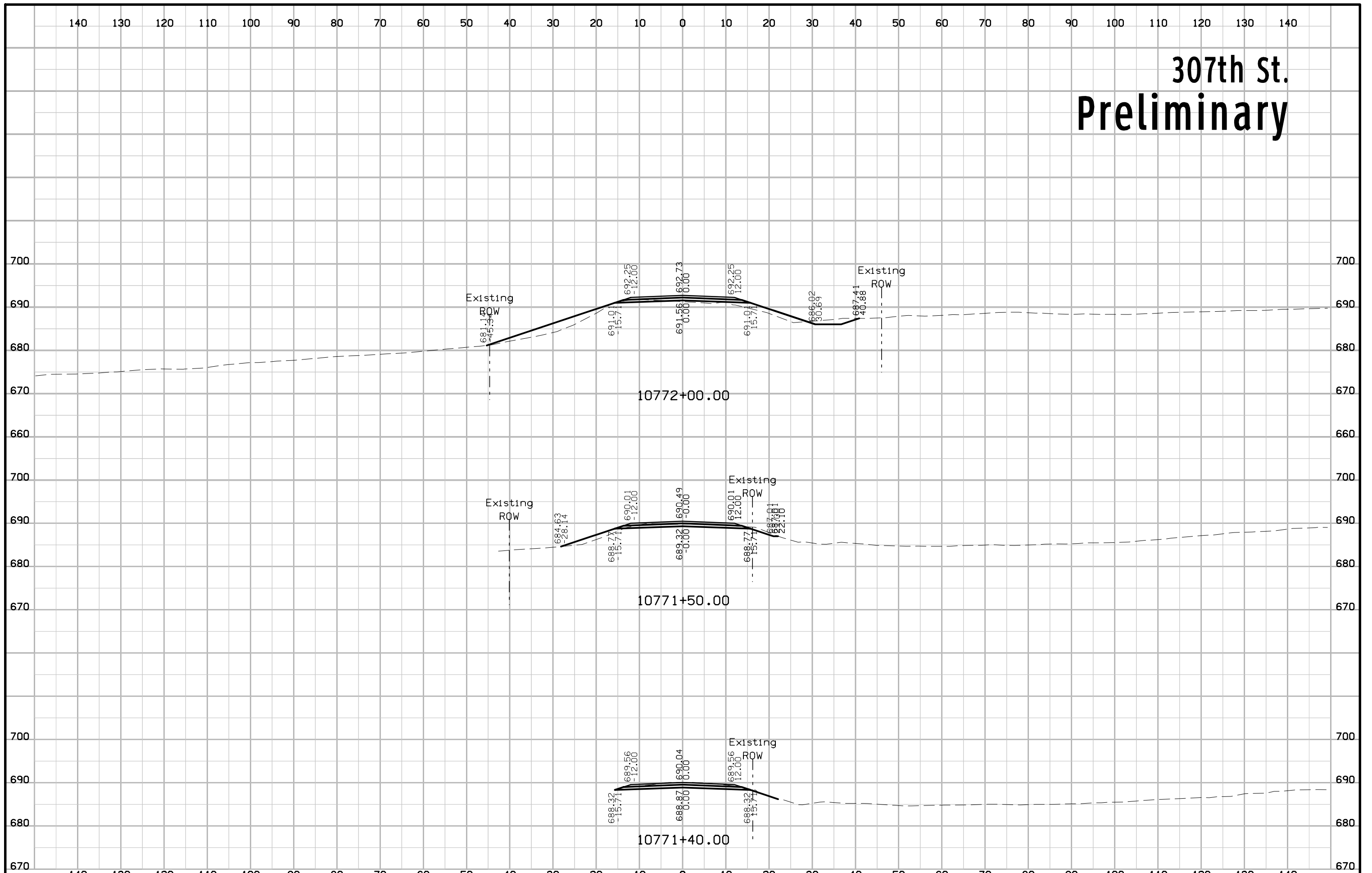
306th St. Preliminary



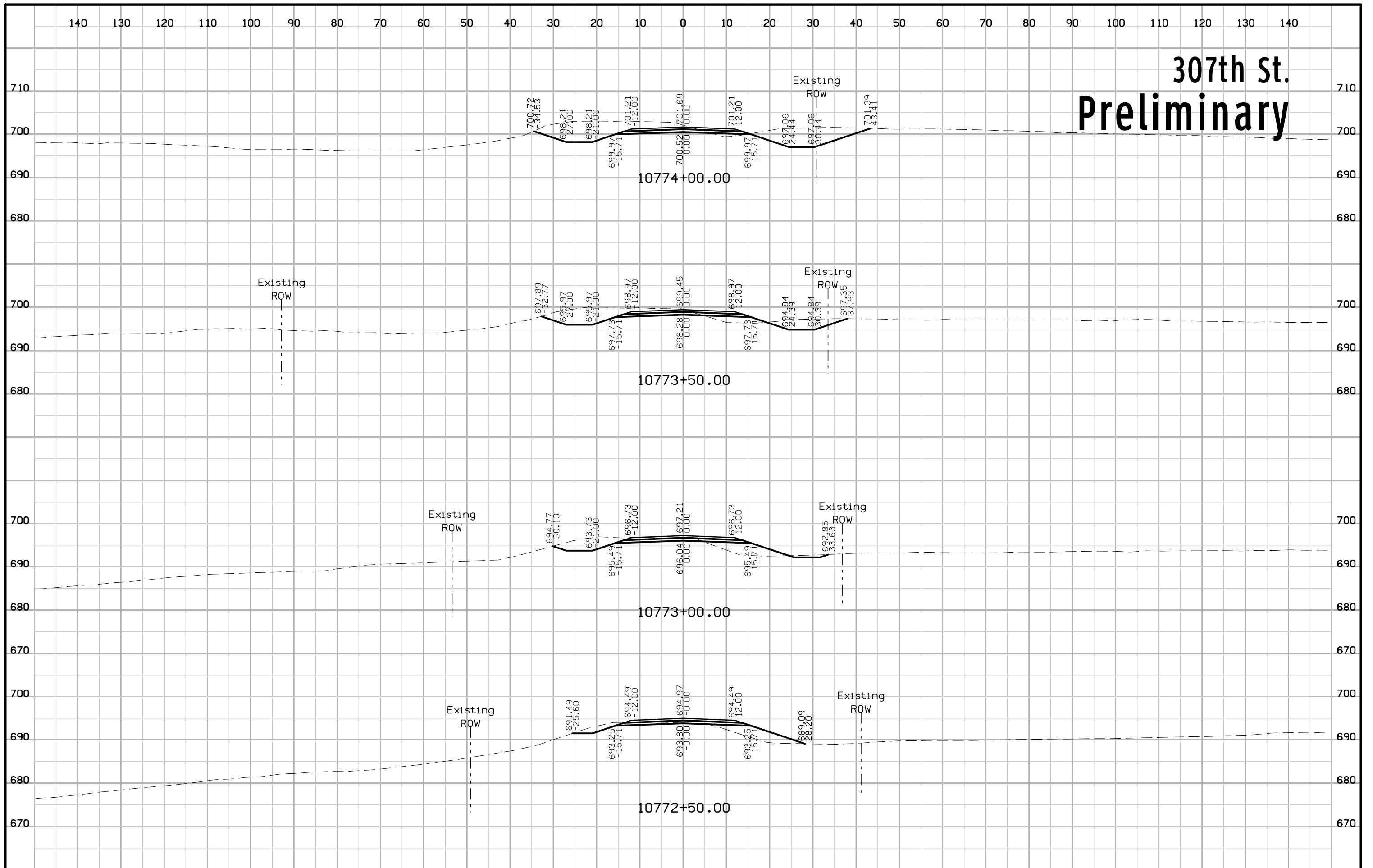
306th St. Preliminary



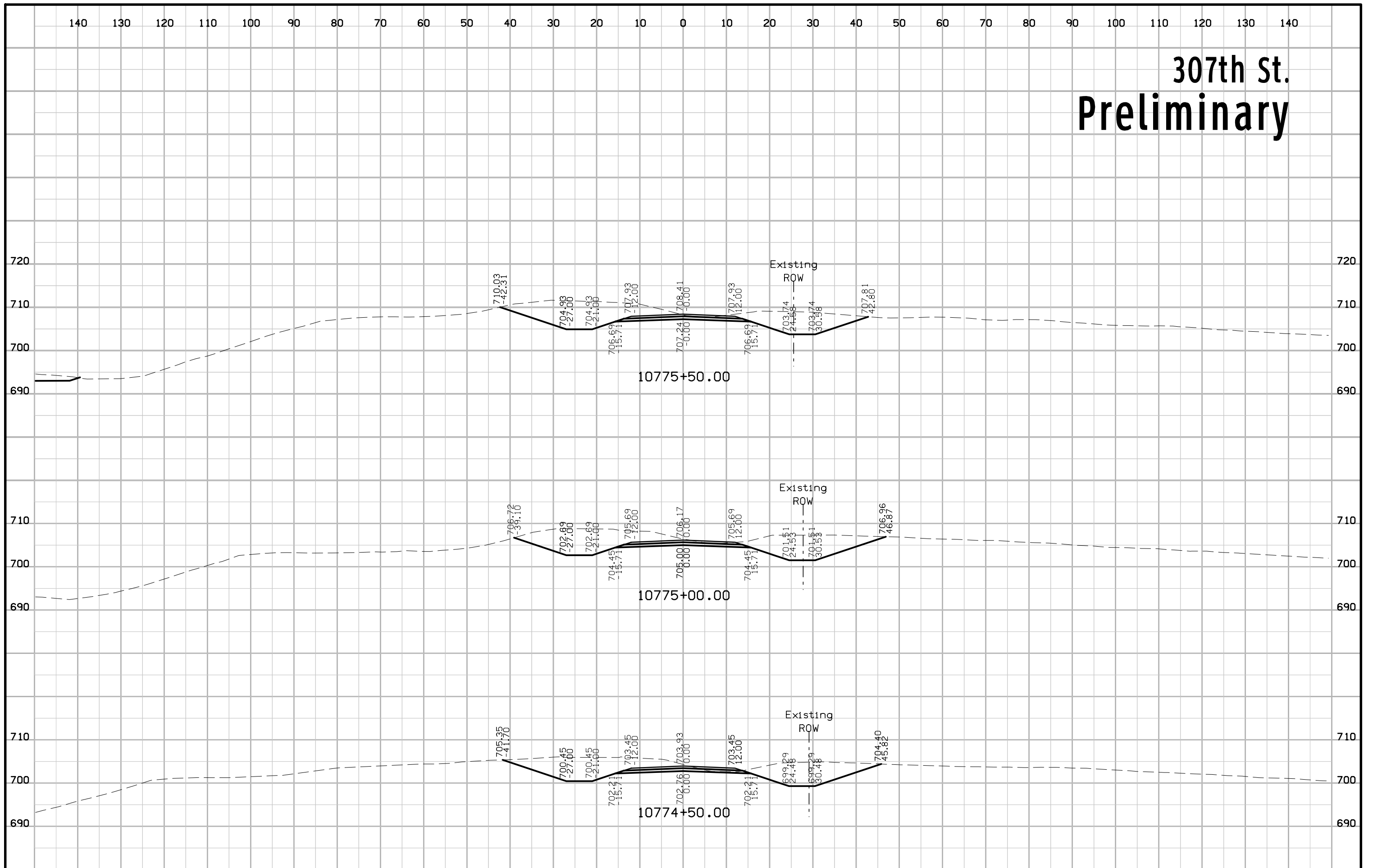
307th St. Preliminary



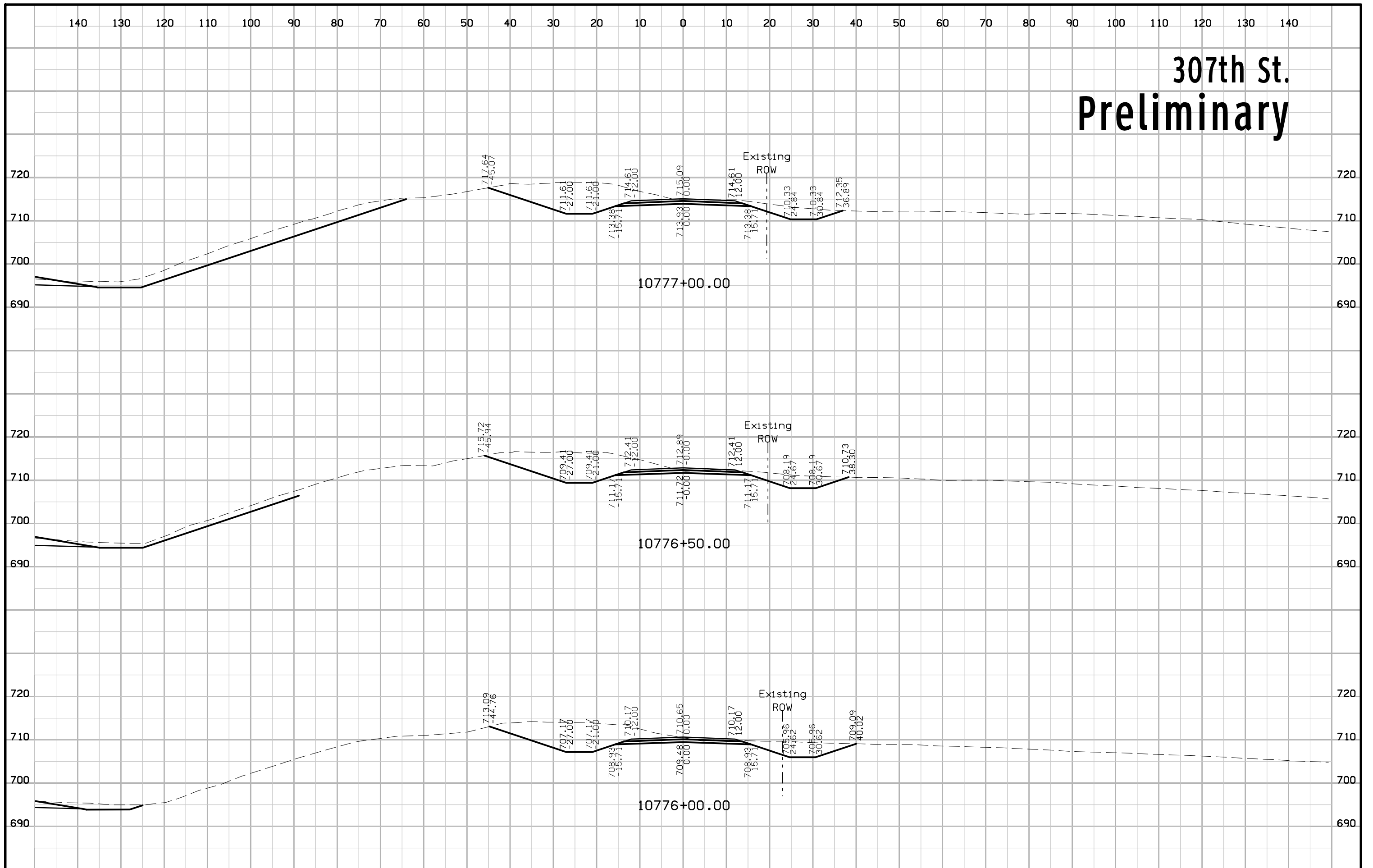
307th St. Preliminary



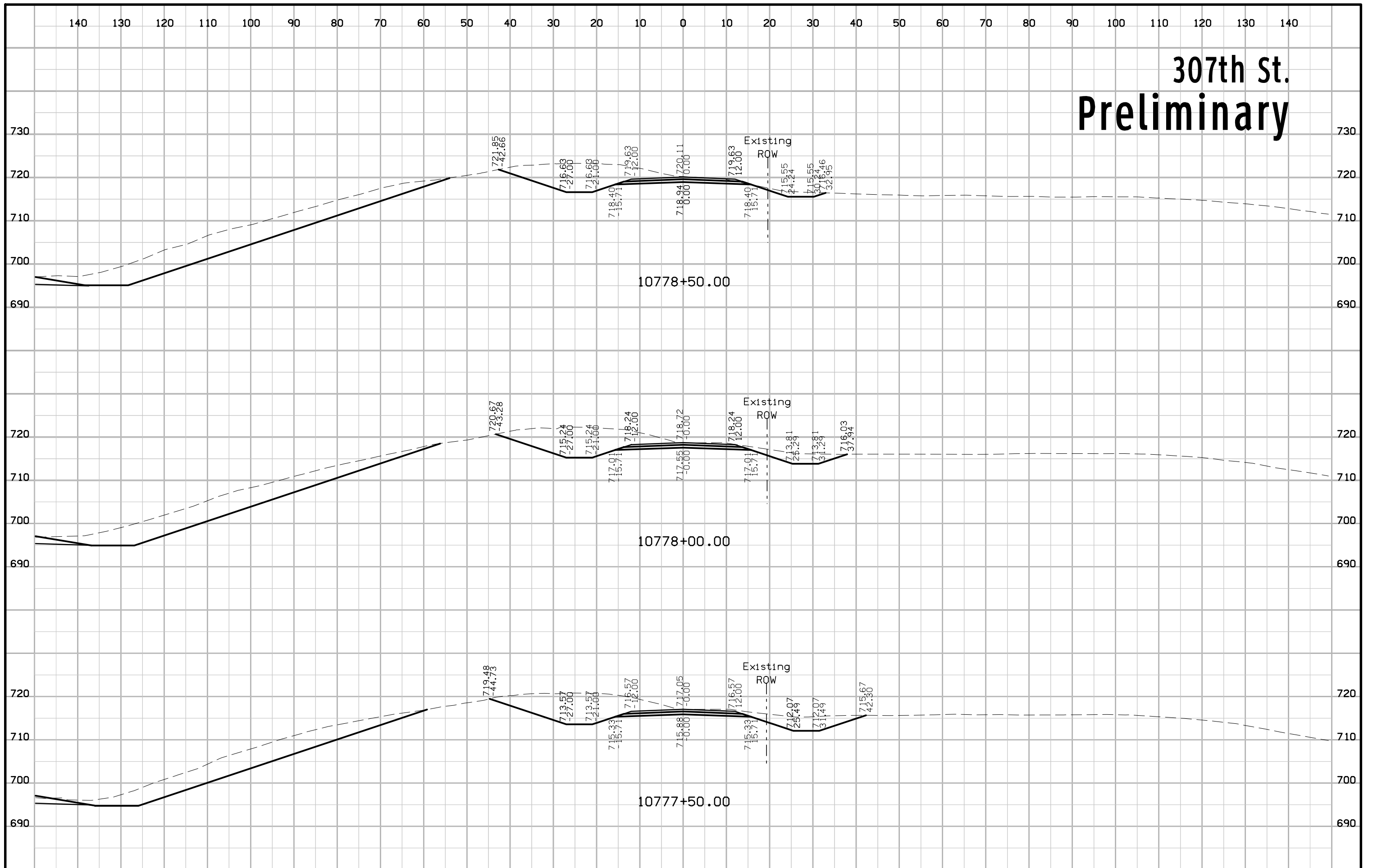
307th St. Preliminary



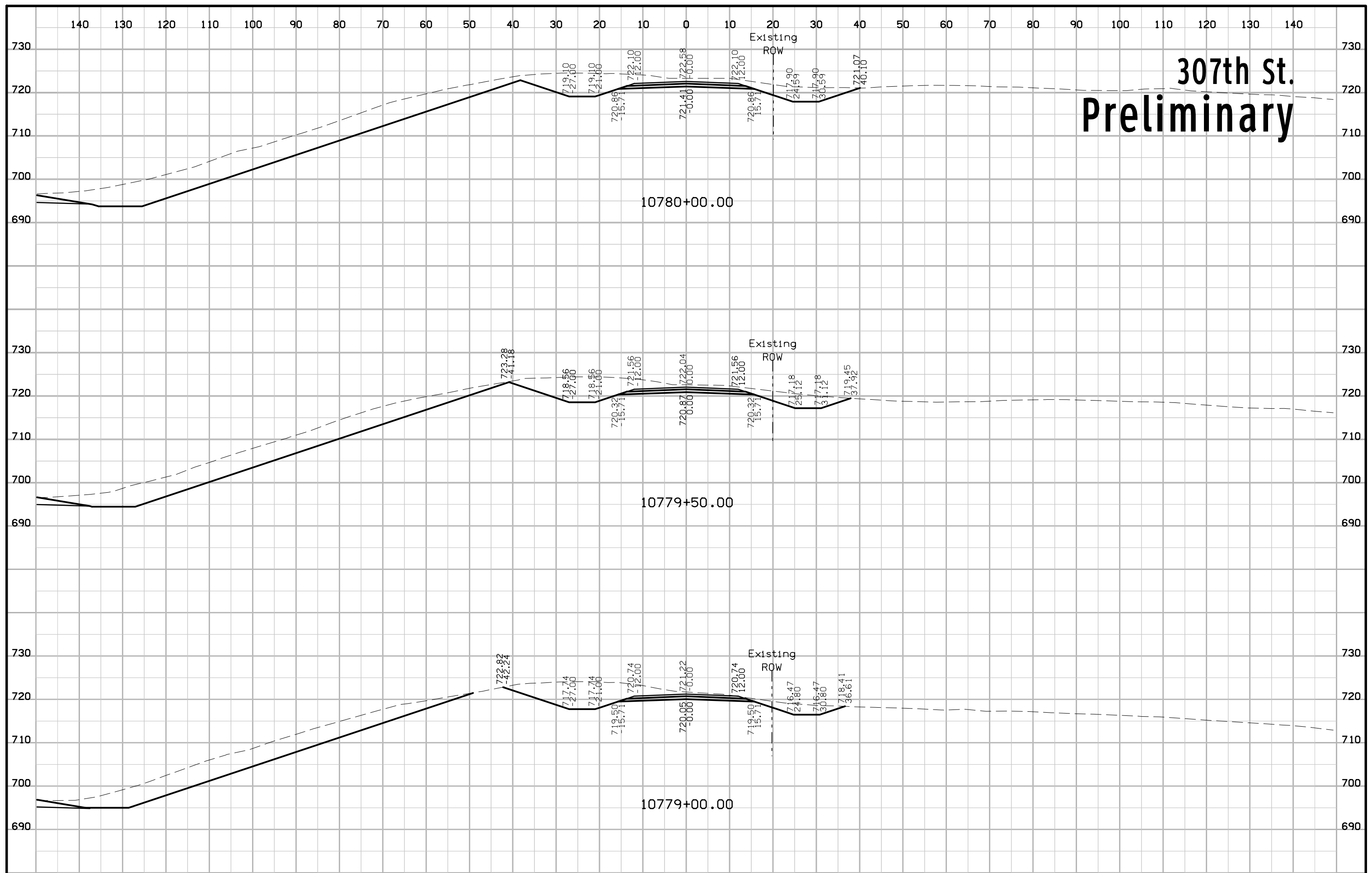
307th St. Preliminary



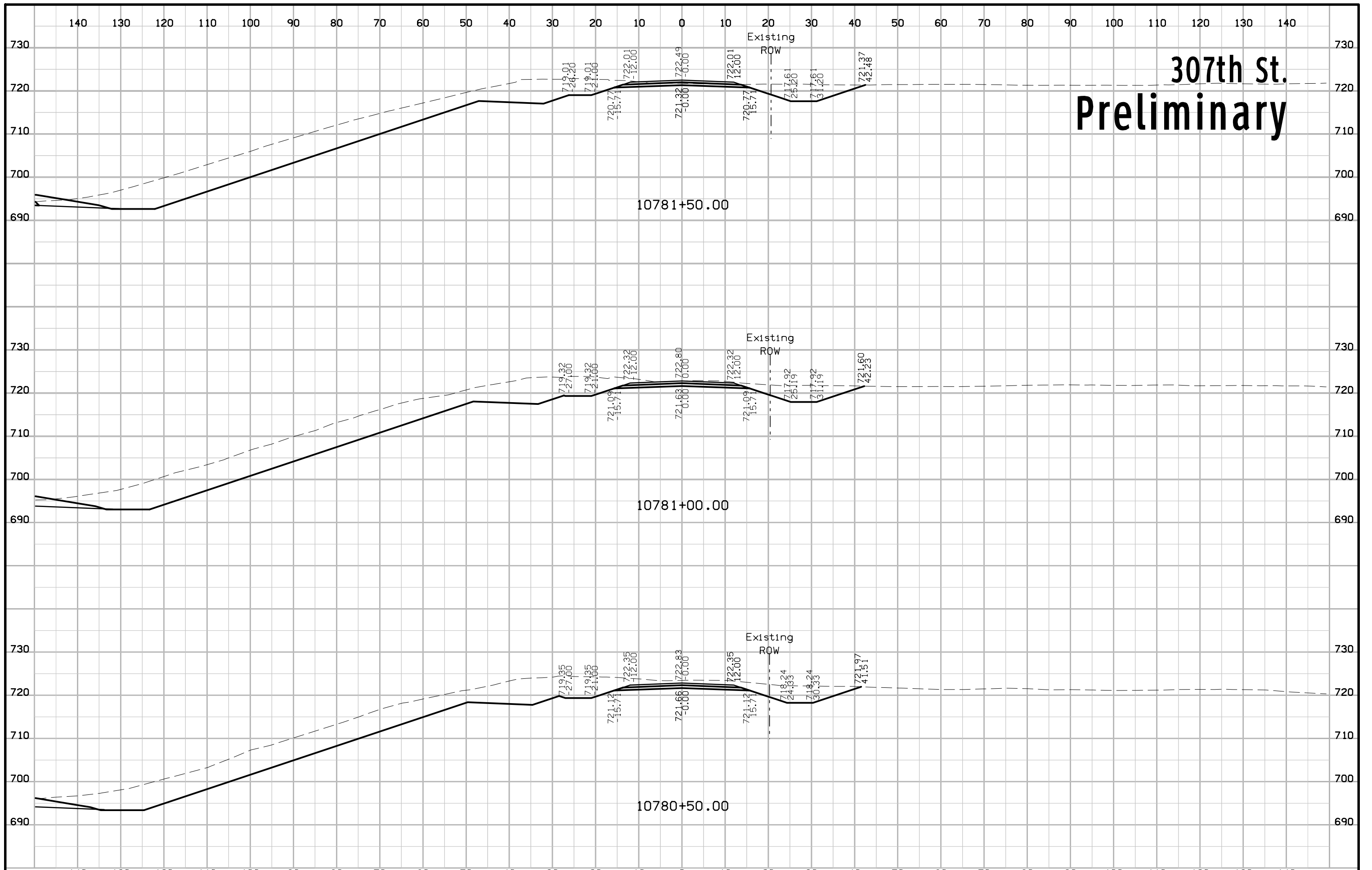
307th St. Preliminary



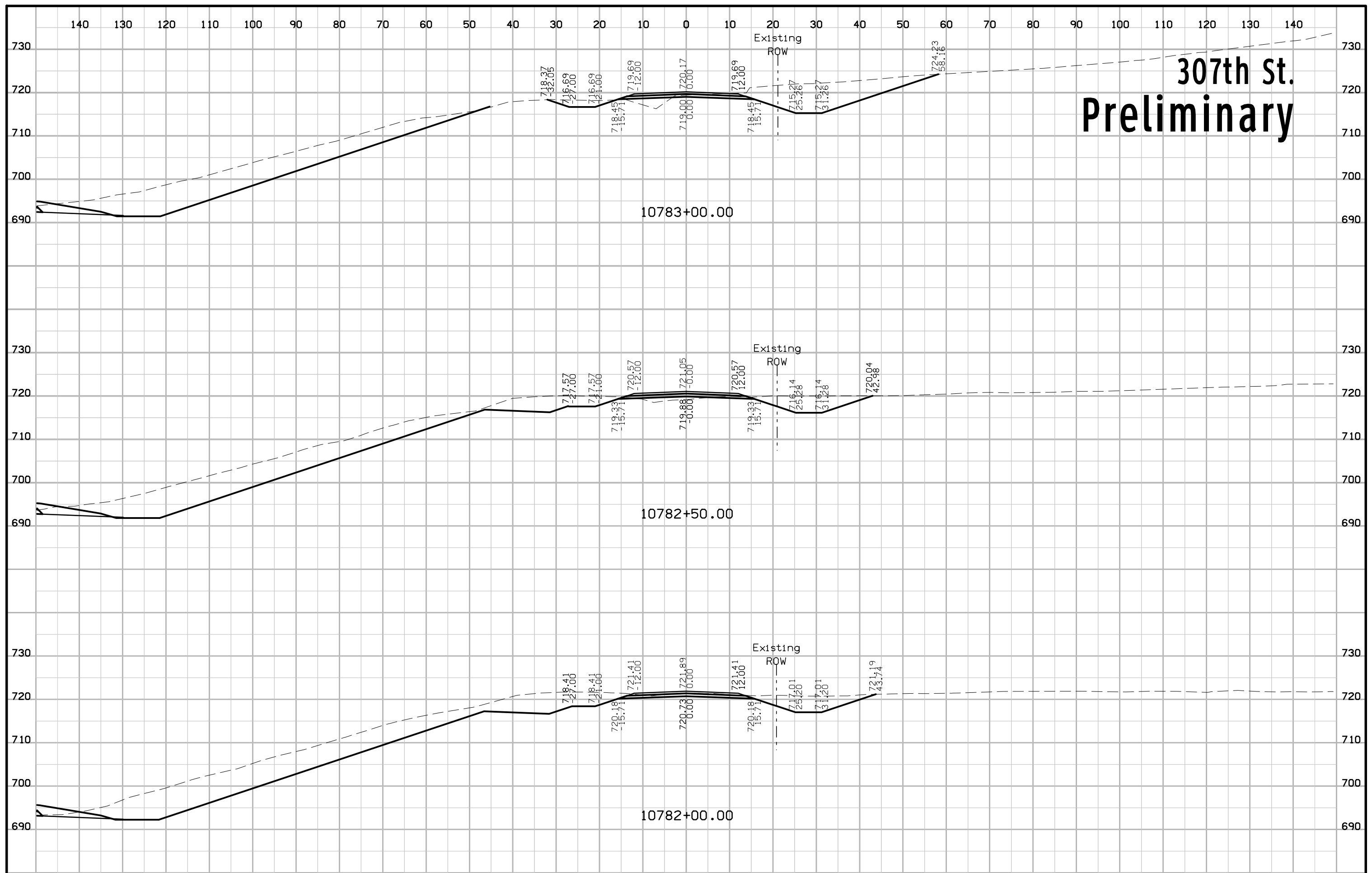
307th St. Preliminary



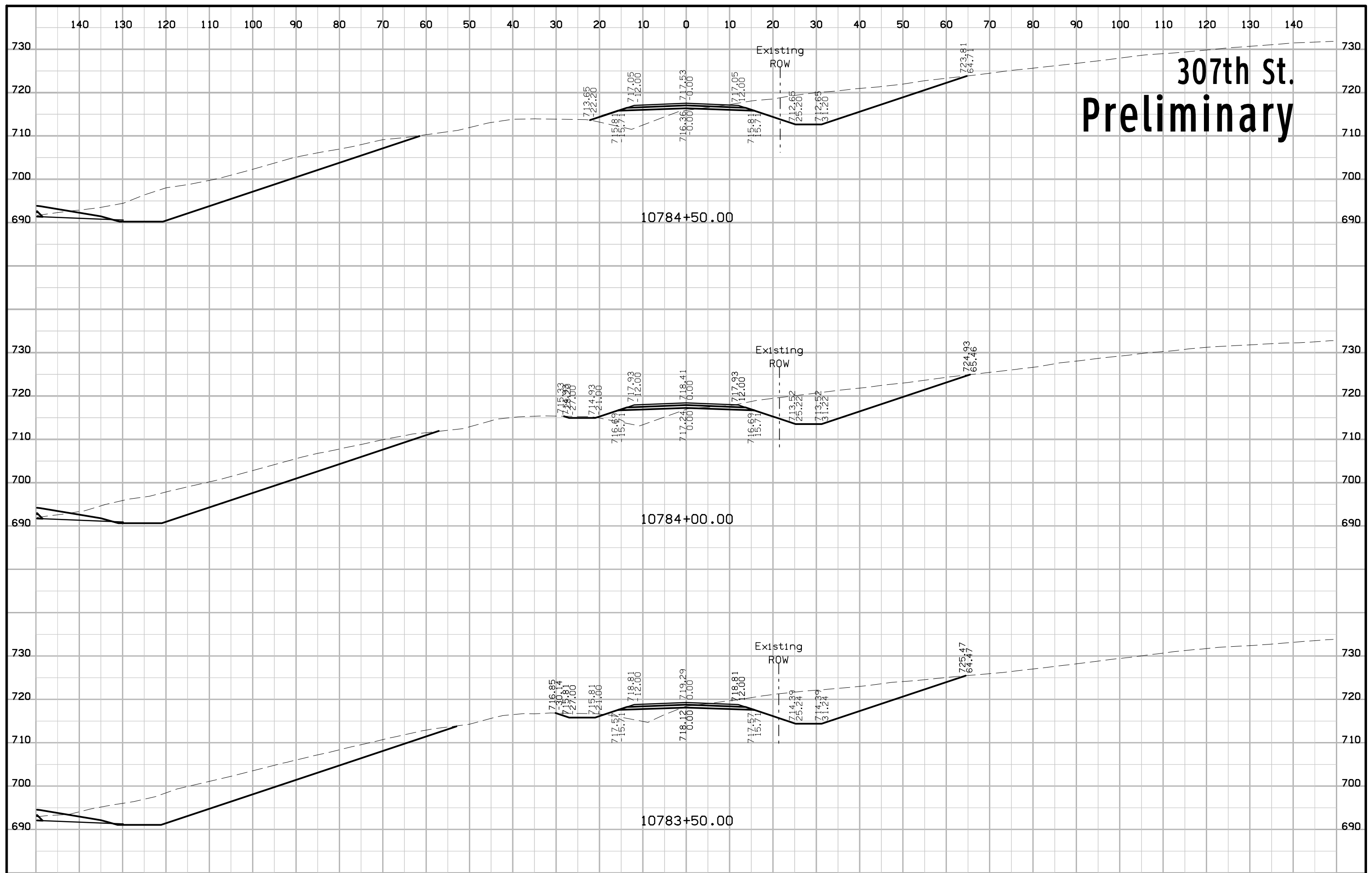
307th St. Preliminary



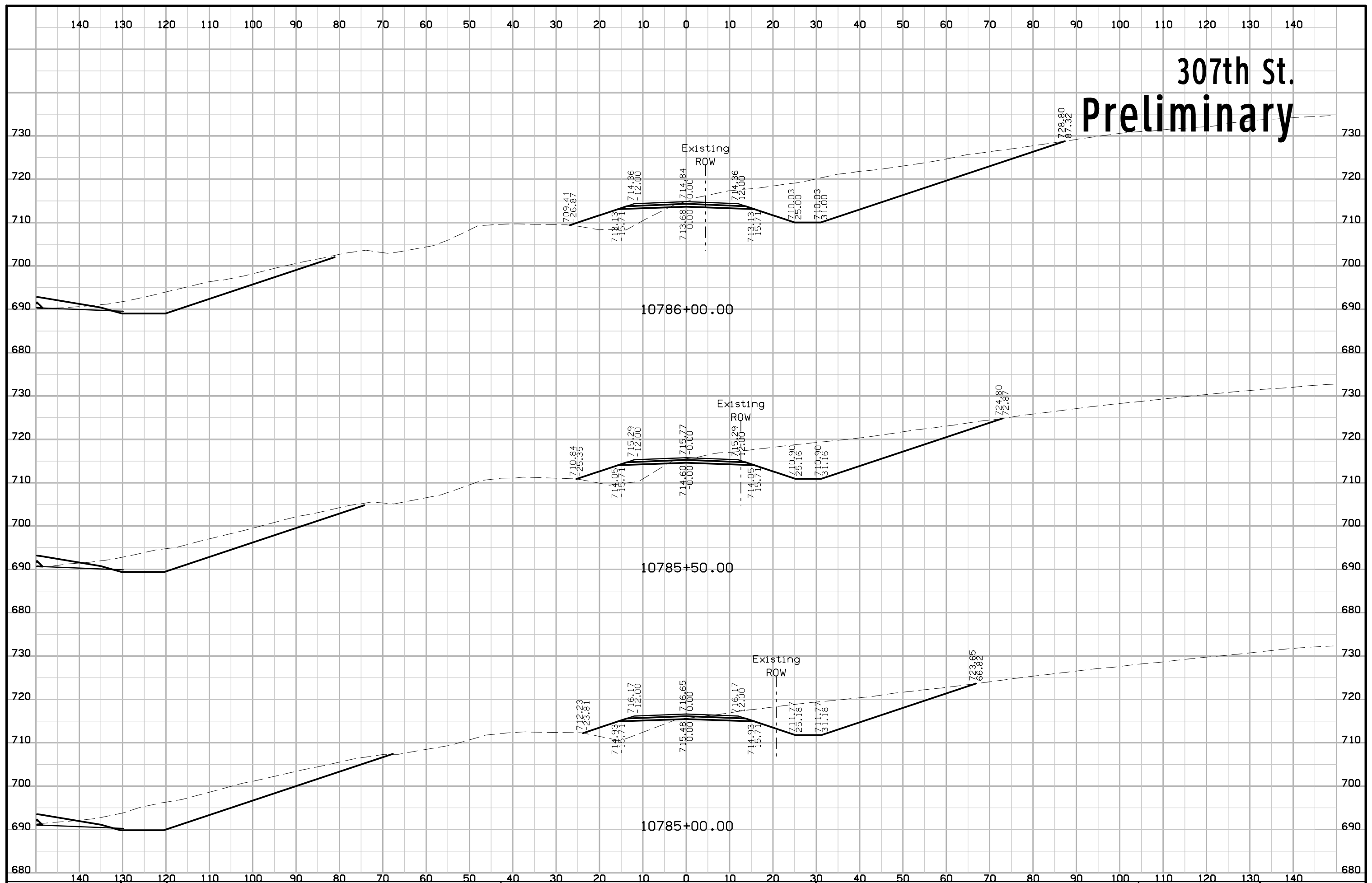
307th St. Preliminary



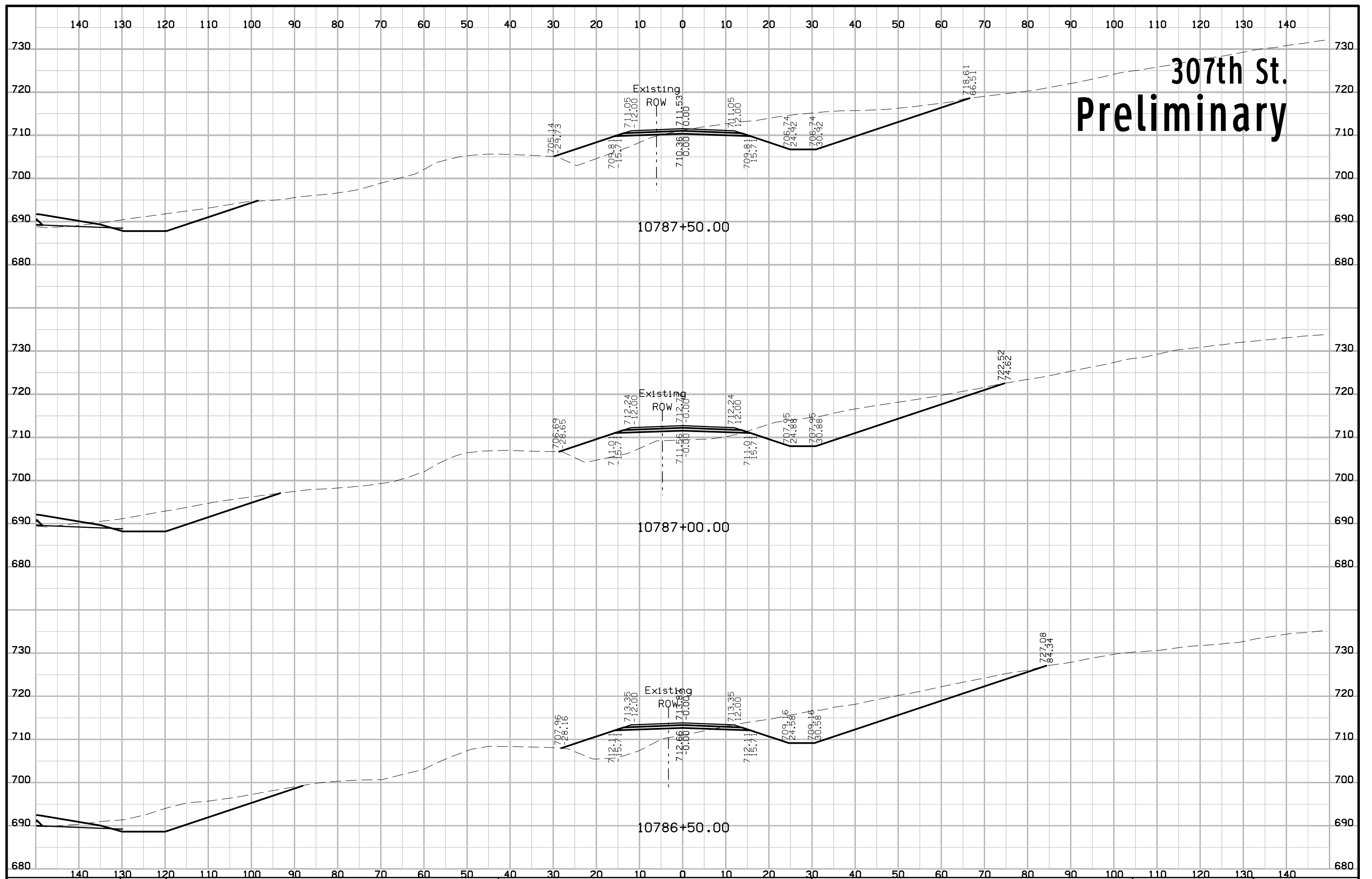
307th St. Preliminary



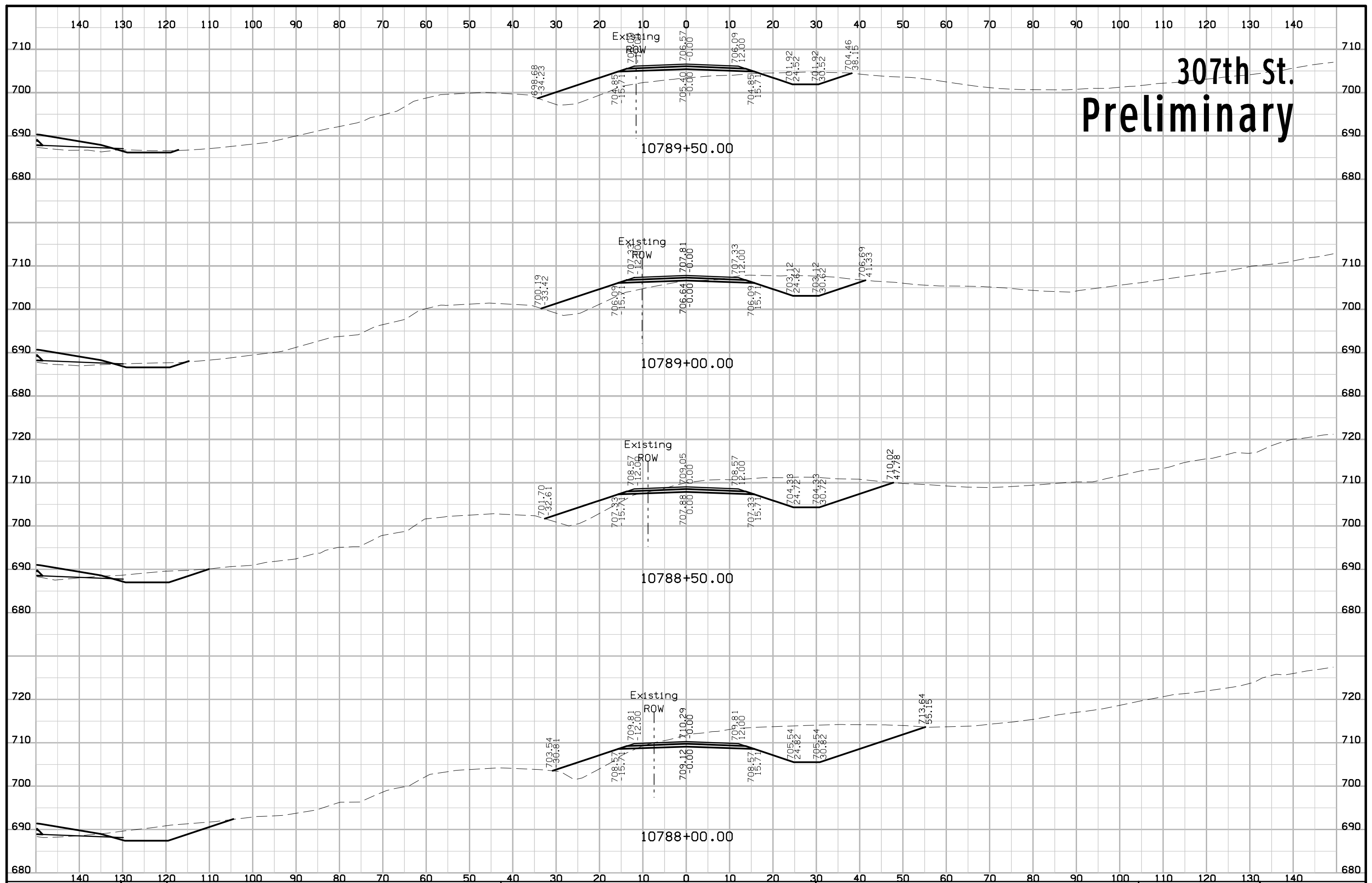
307th St. Preliminary



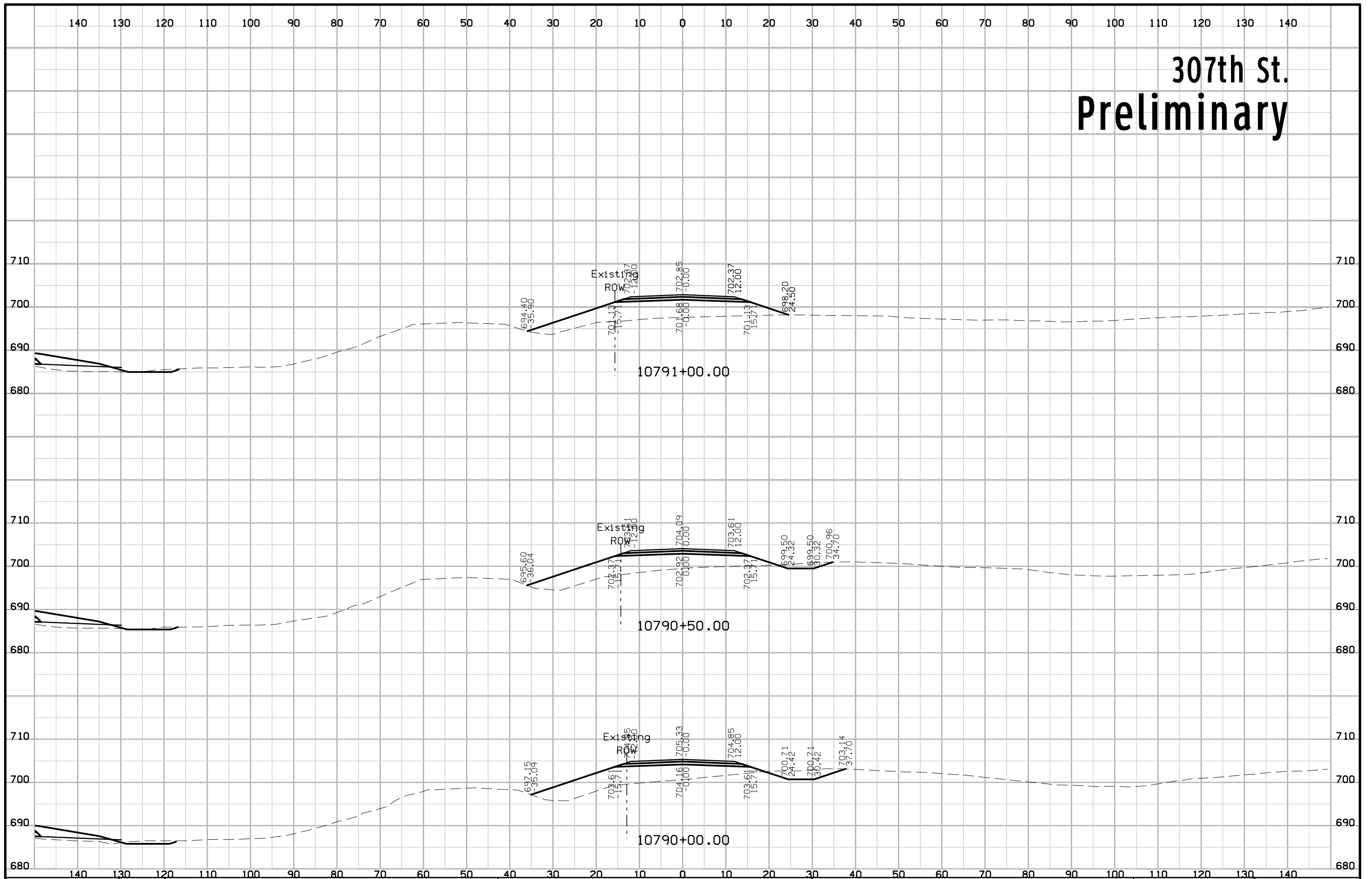
307th St. Preliminary



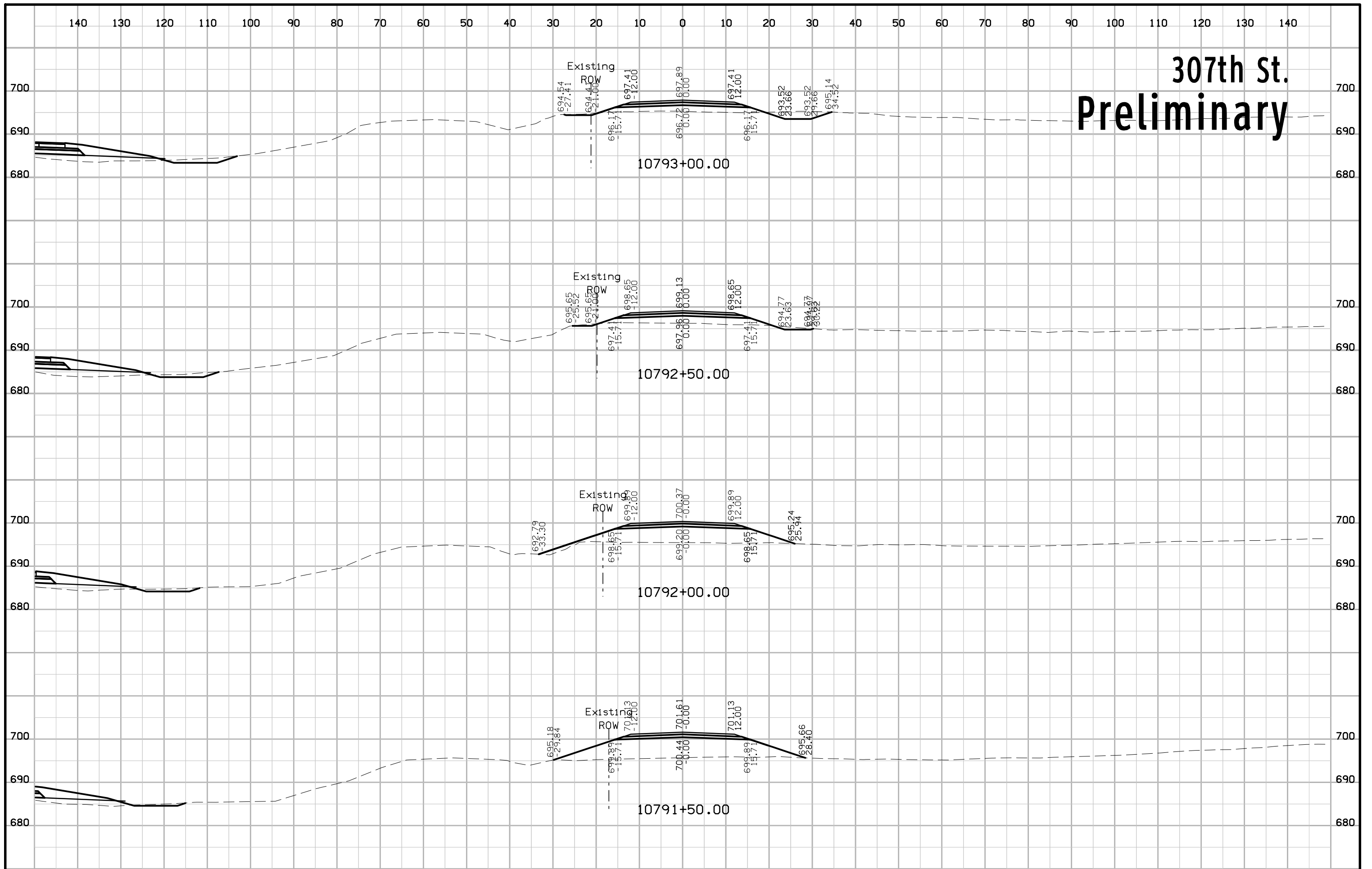
307th St. Preliminary



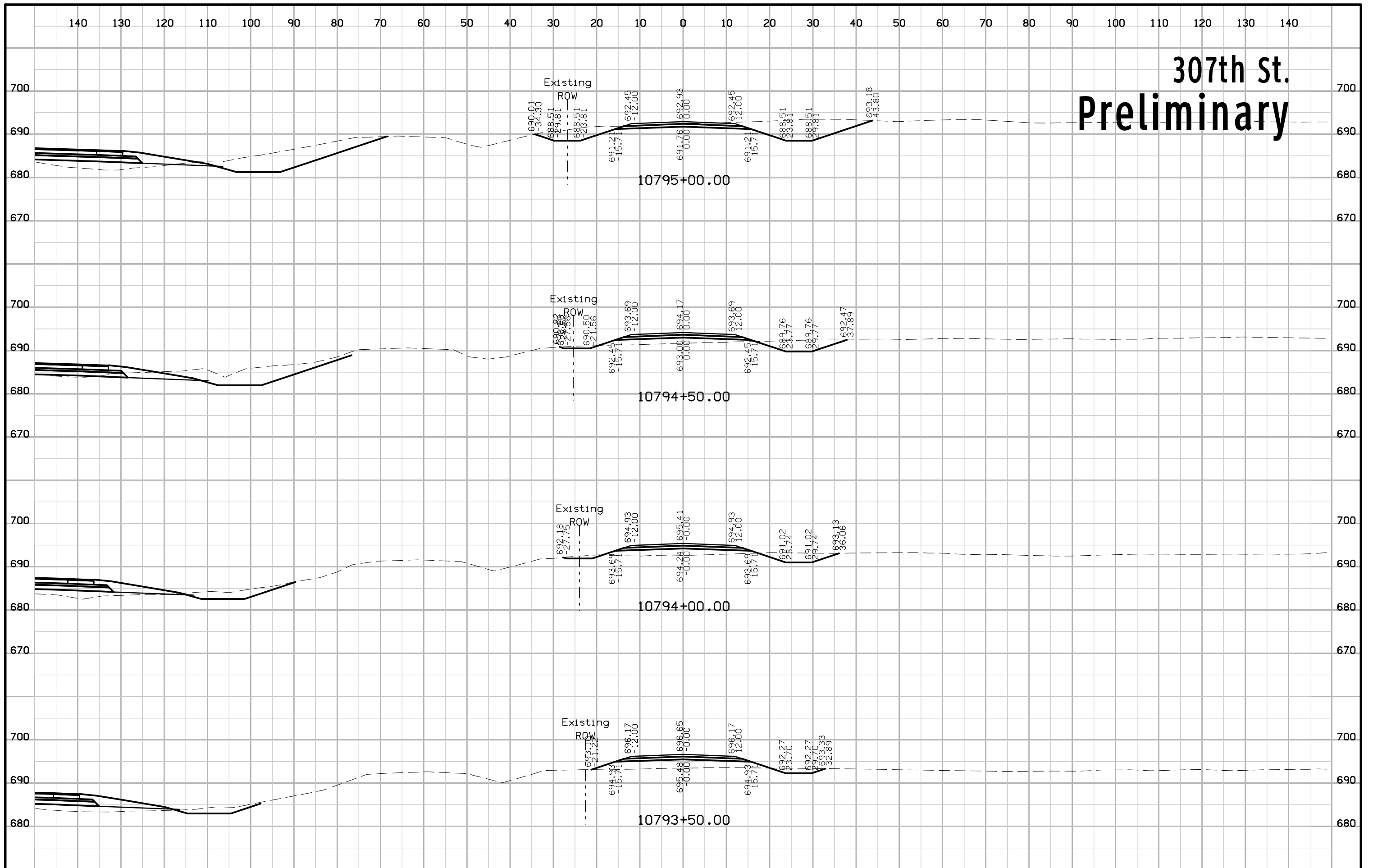
307th St. Preliminary



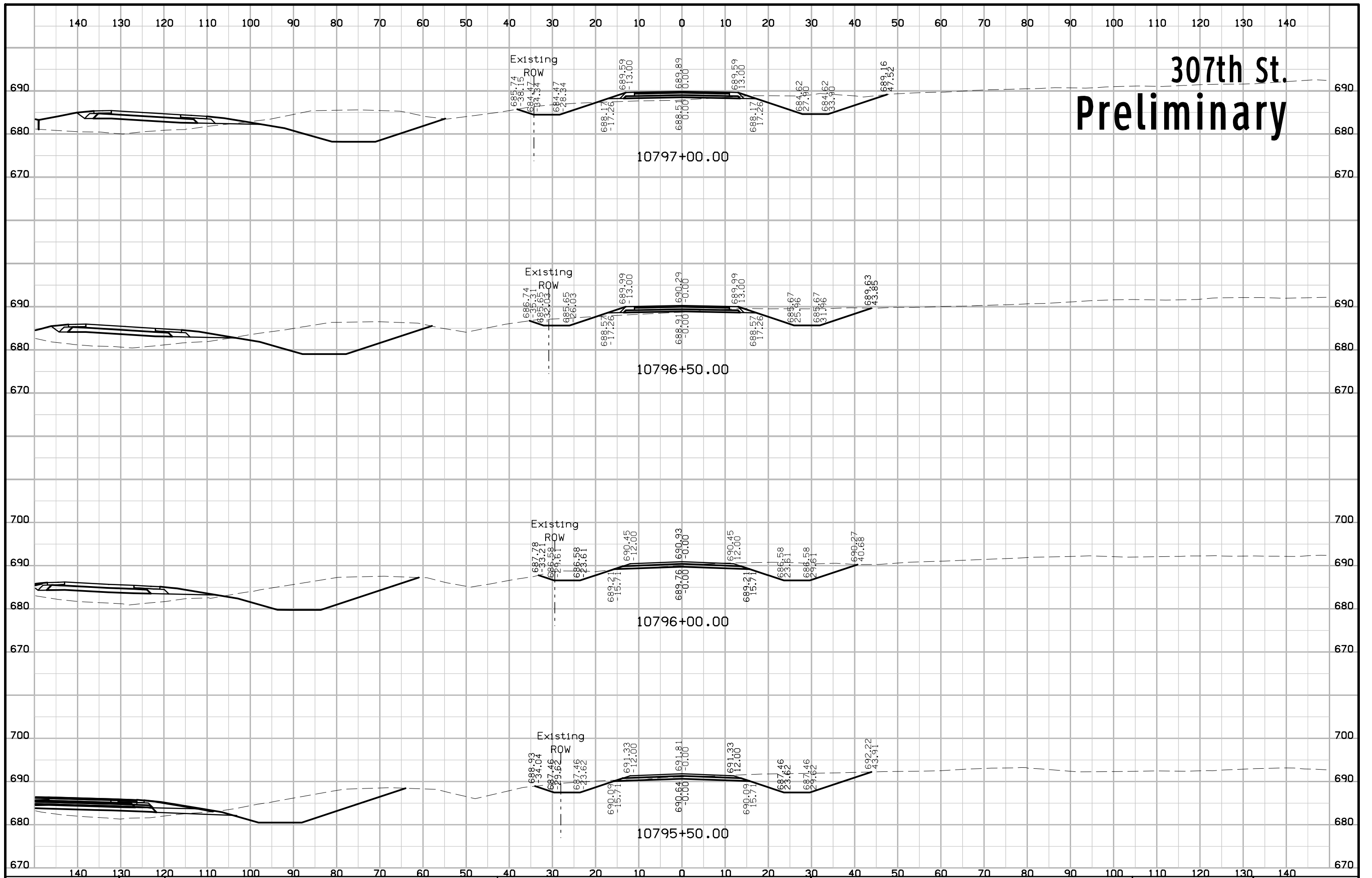
307th St. Preliminary



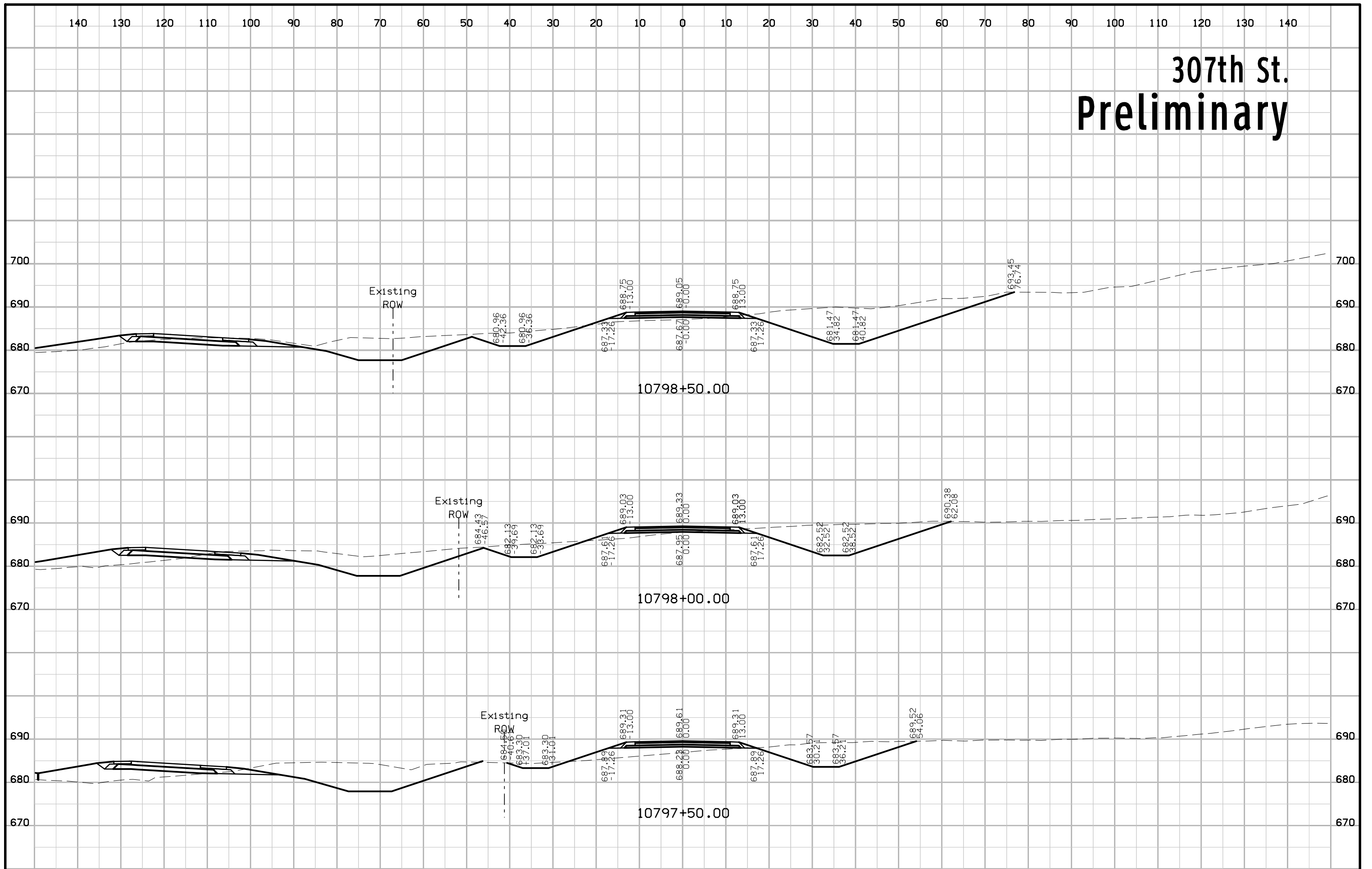
307th St. Preliminary



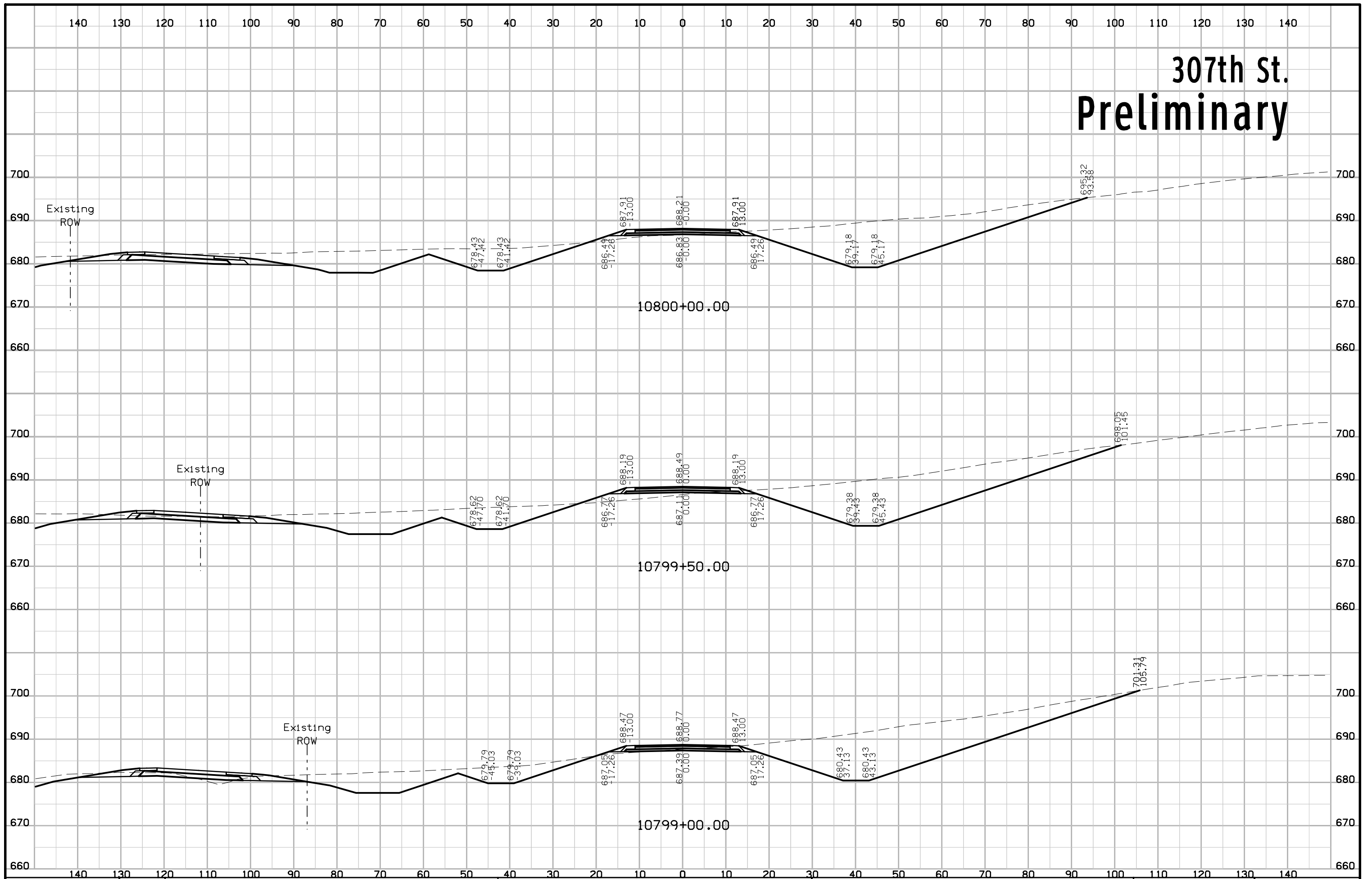
307th St. Preliminary



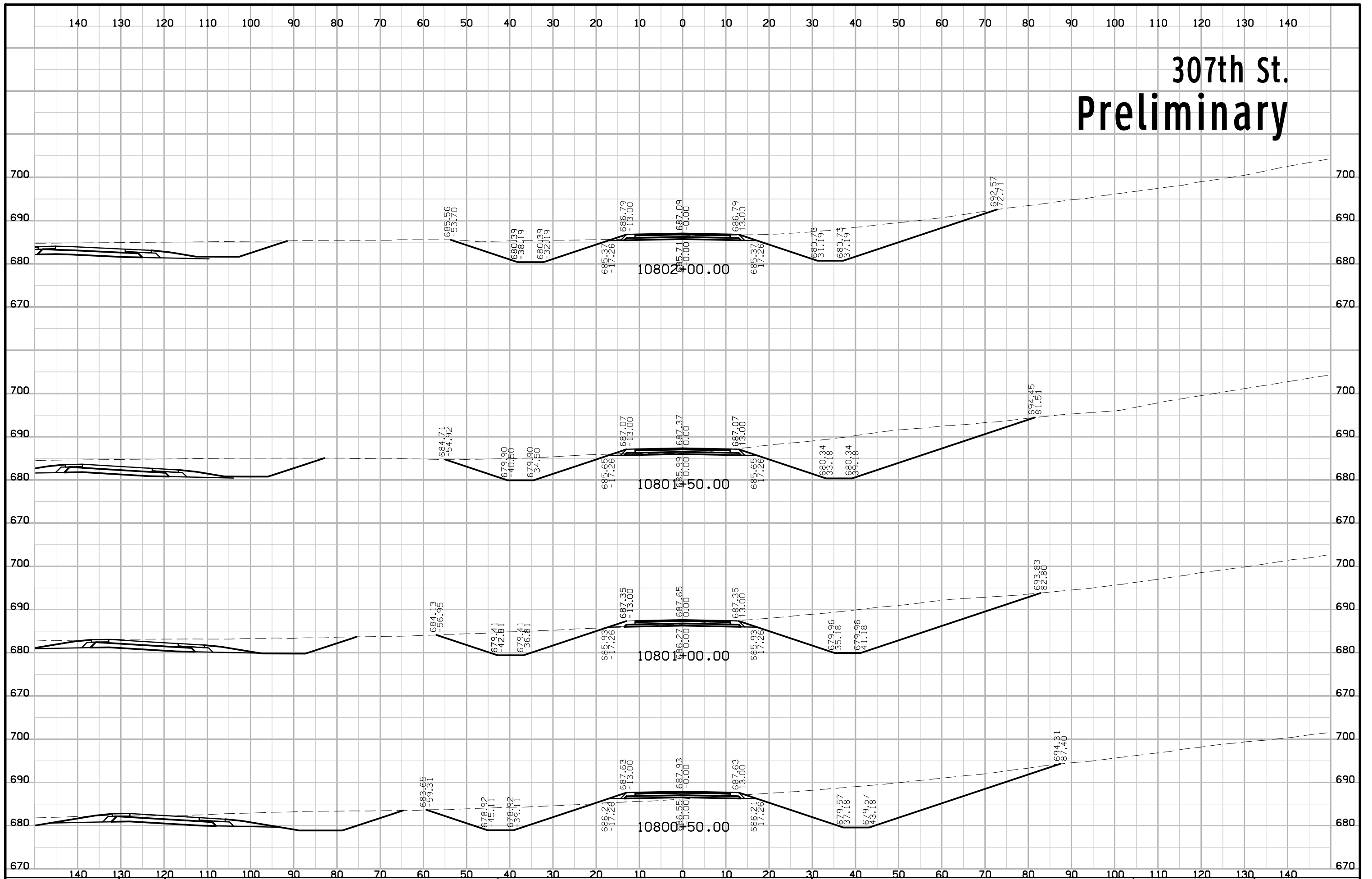
307th St. Preliminary

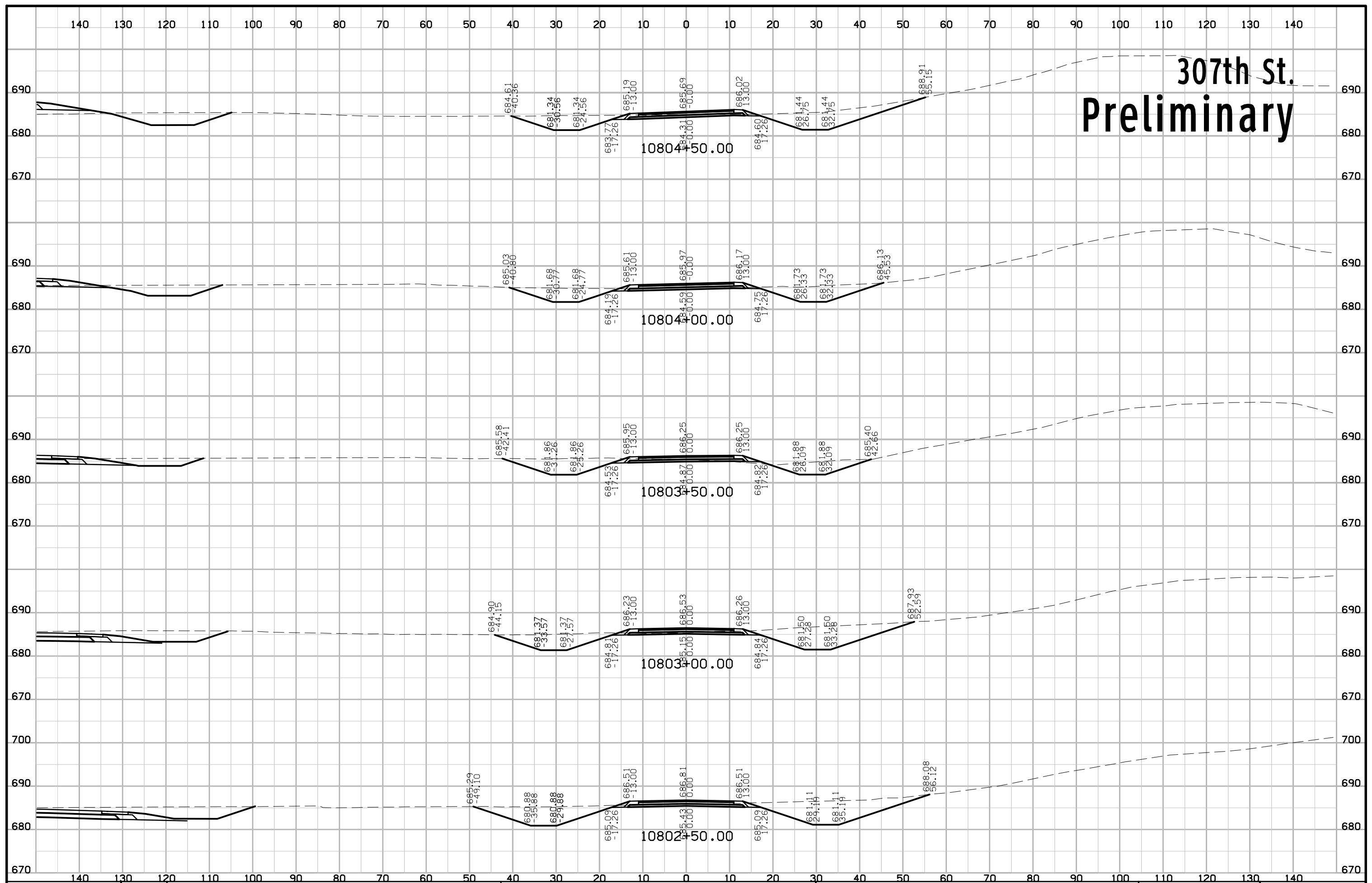


307th St. Preliminary

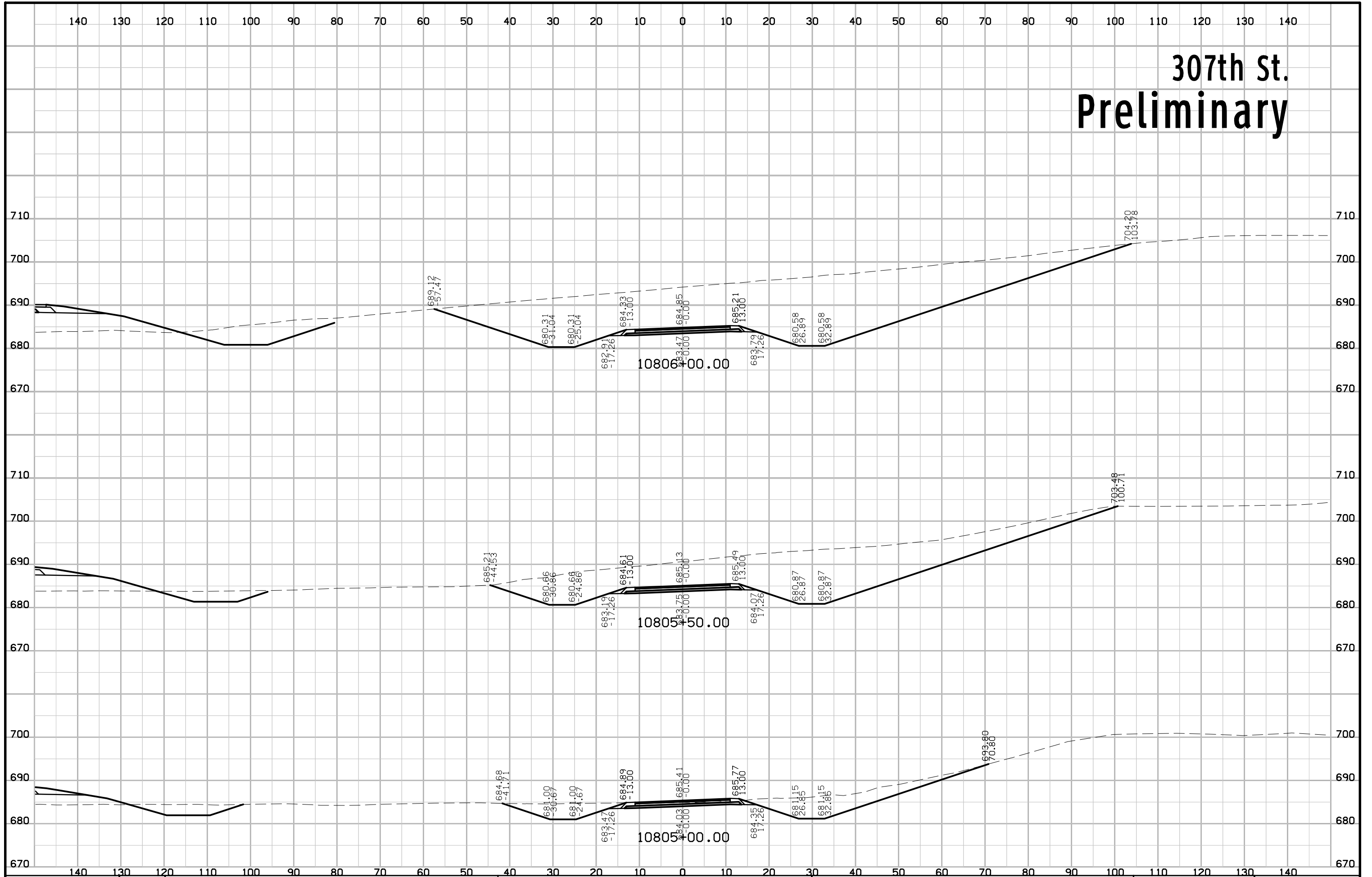


307th St. Preliminary

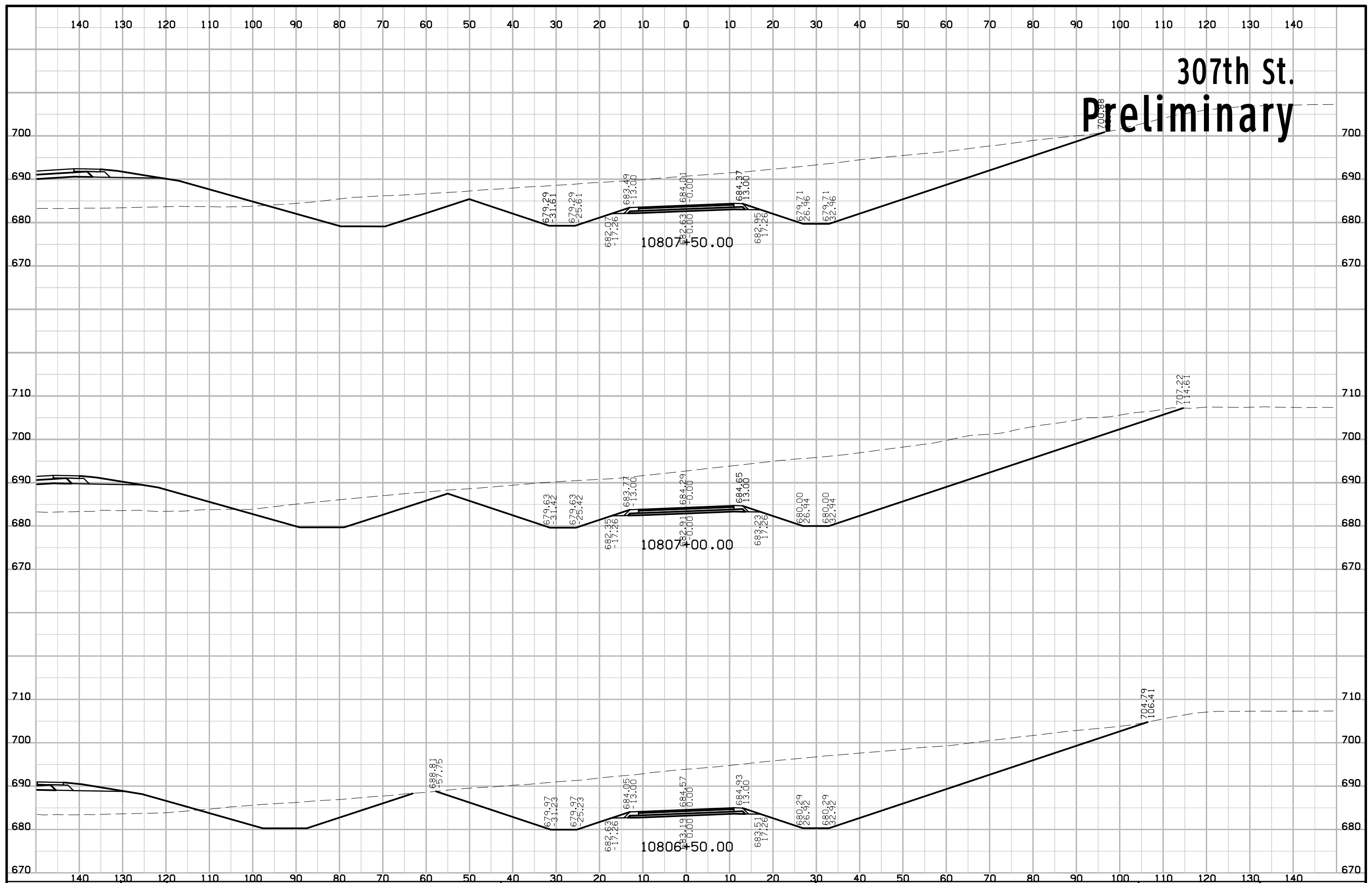




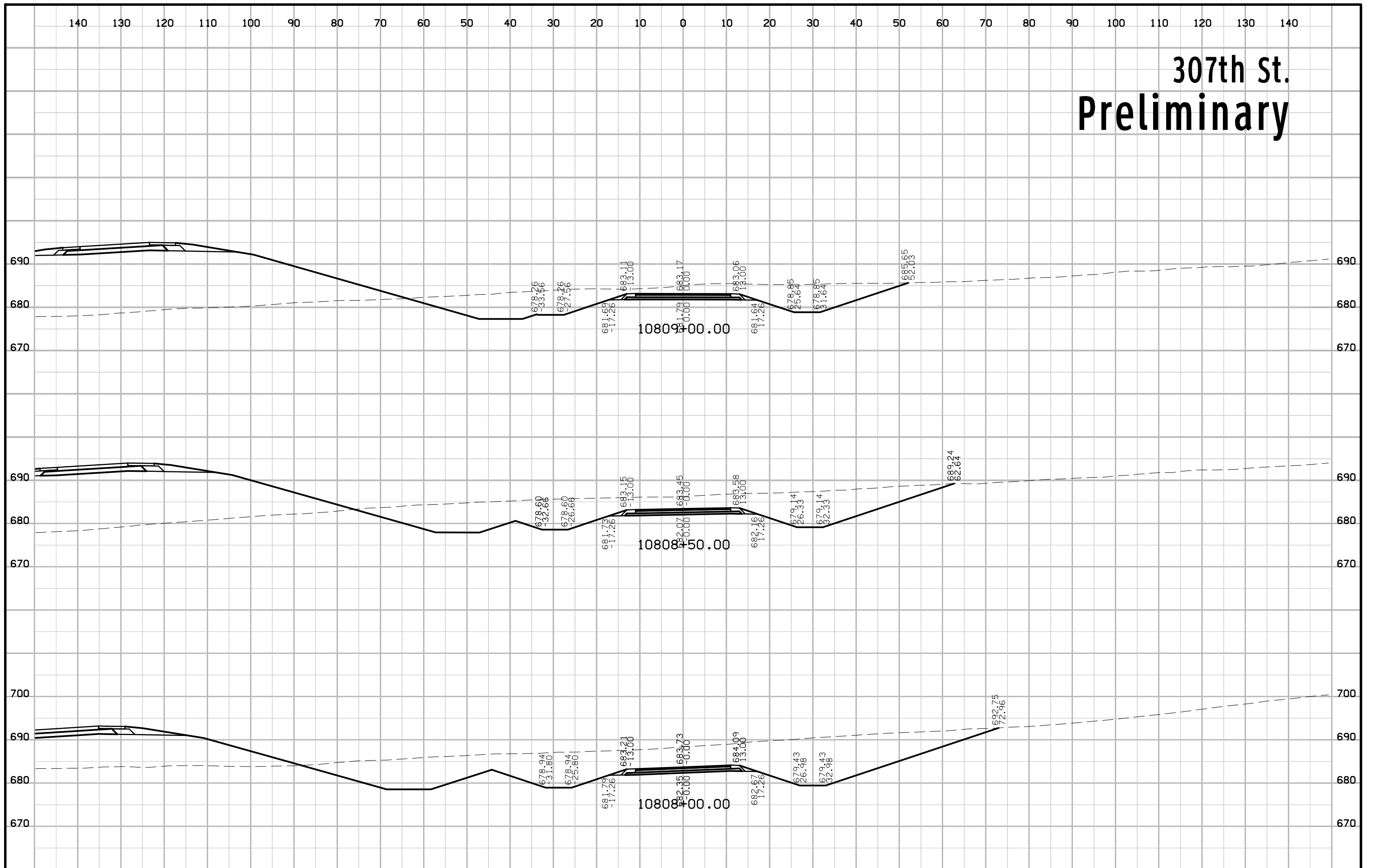
307th St. Preliminary



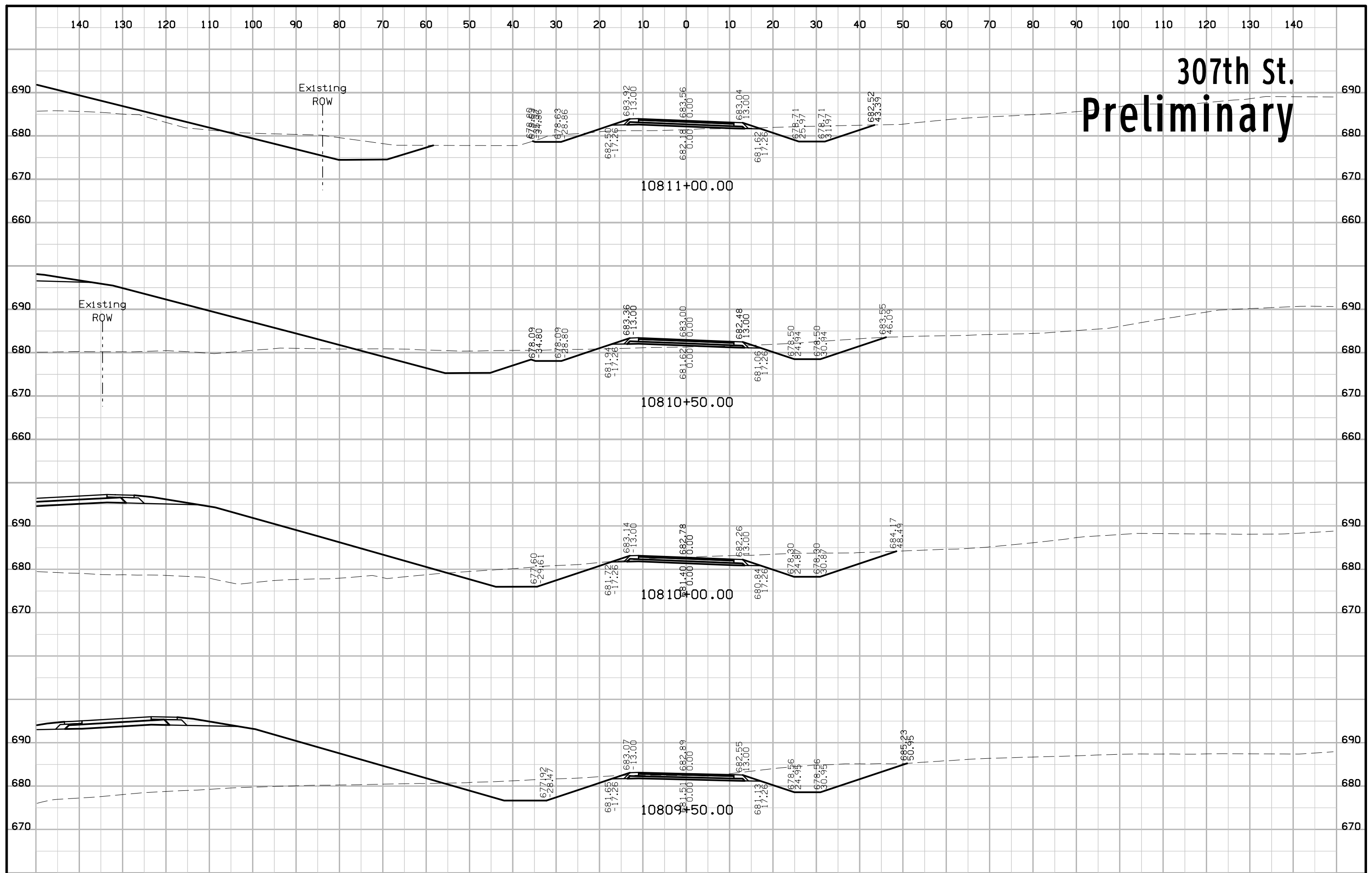
307th St. Preliminary



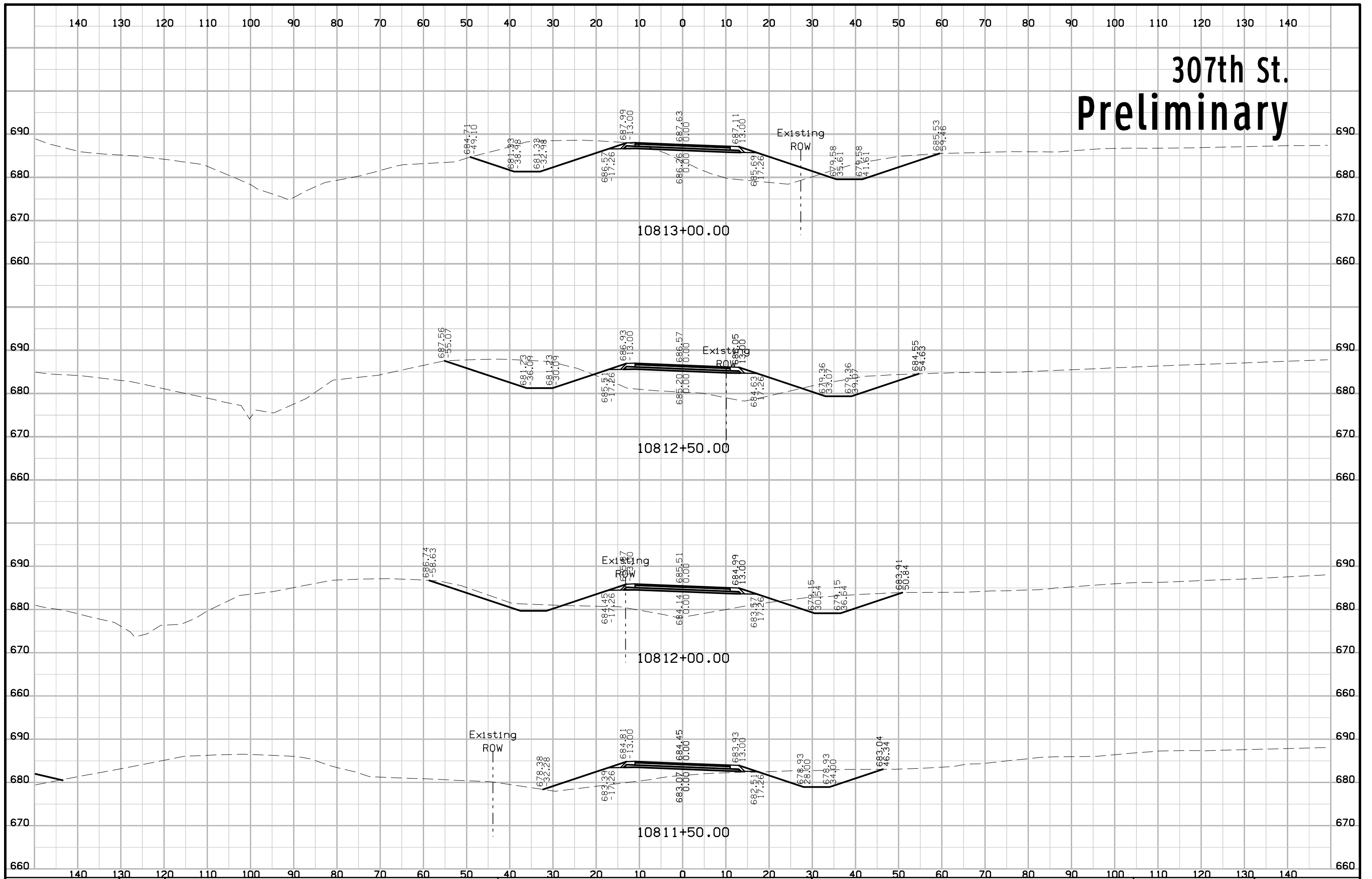
307th St. Preliminary



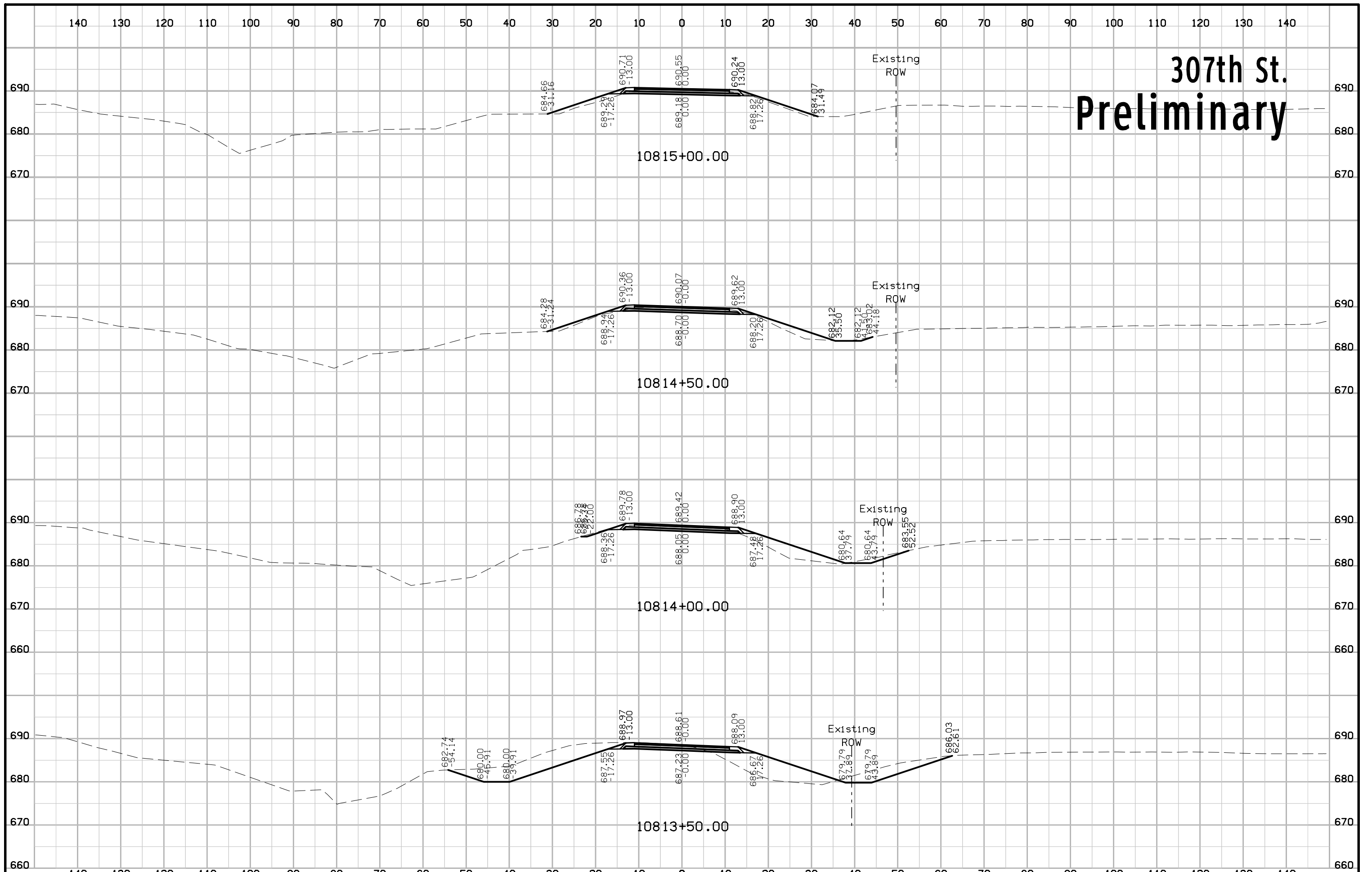
307th St. Preliminary



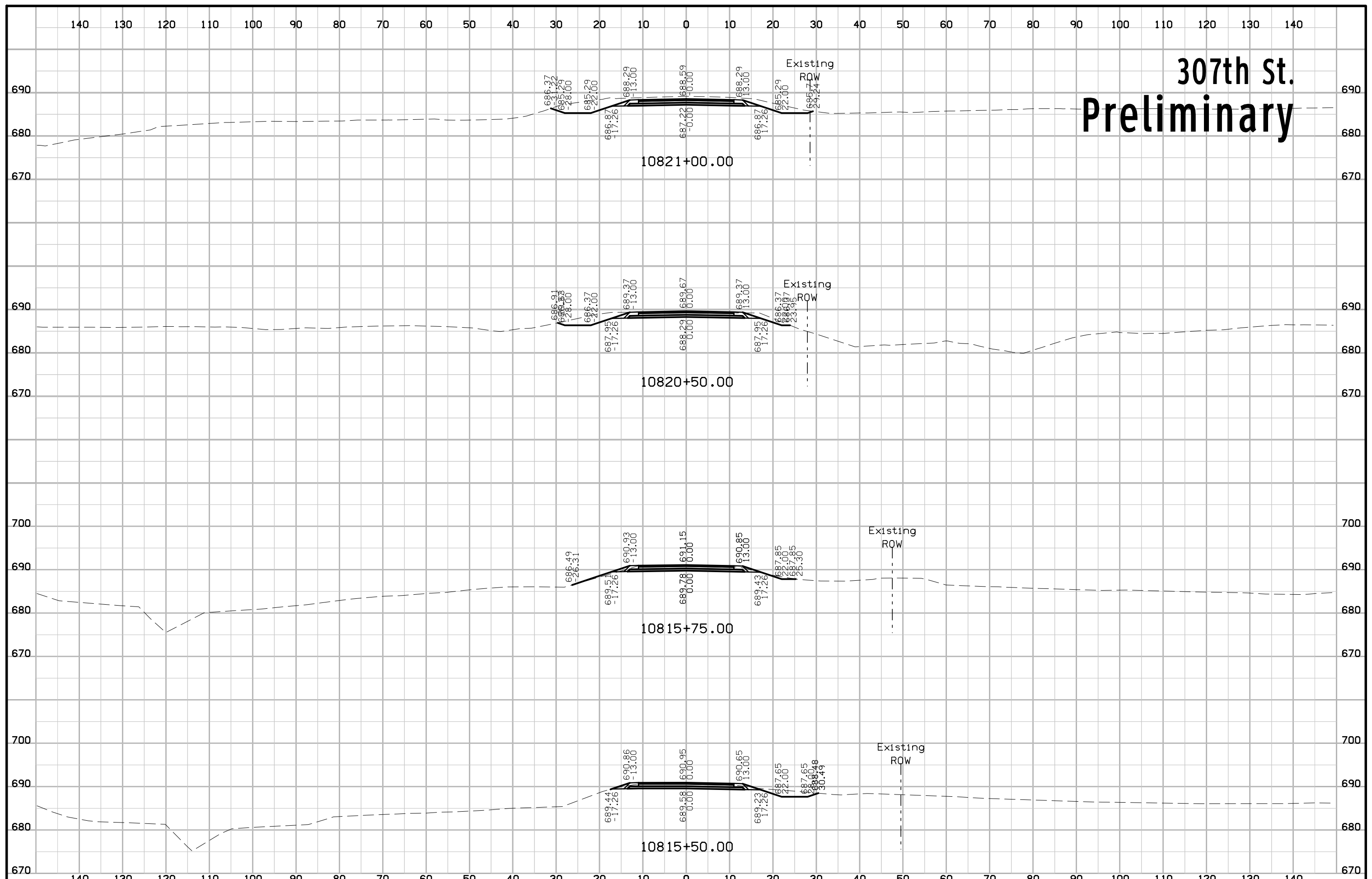
307th St. Preliminary



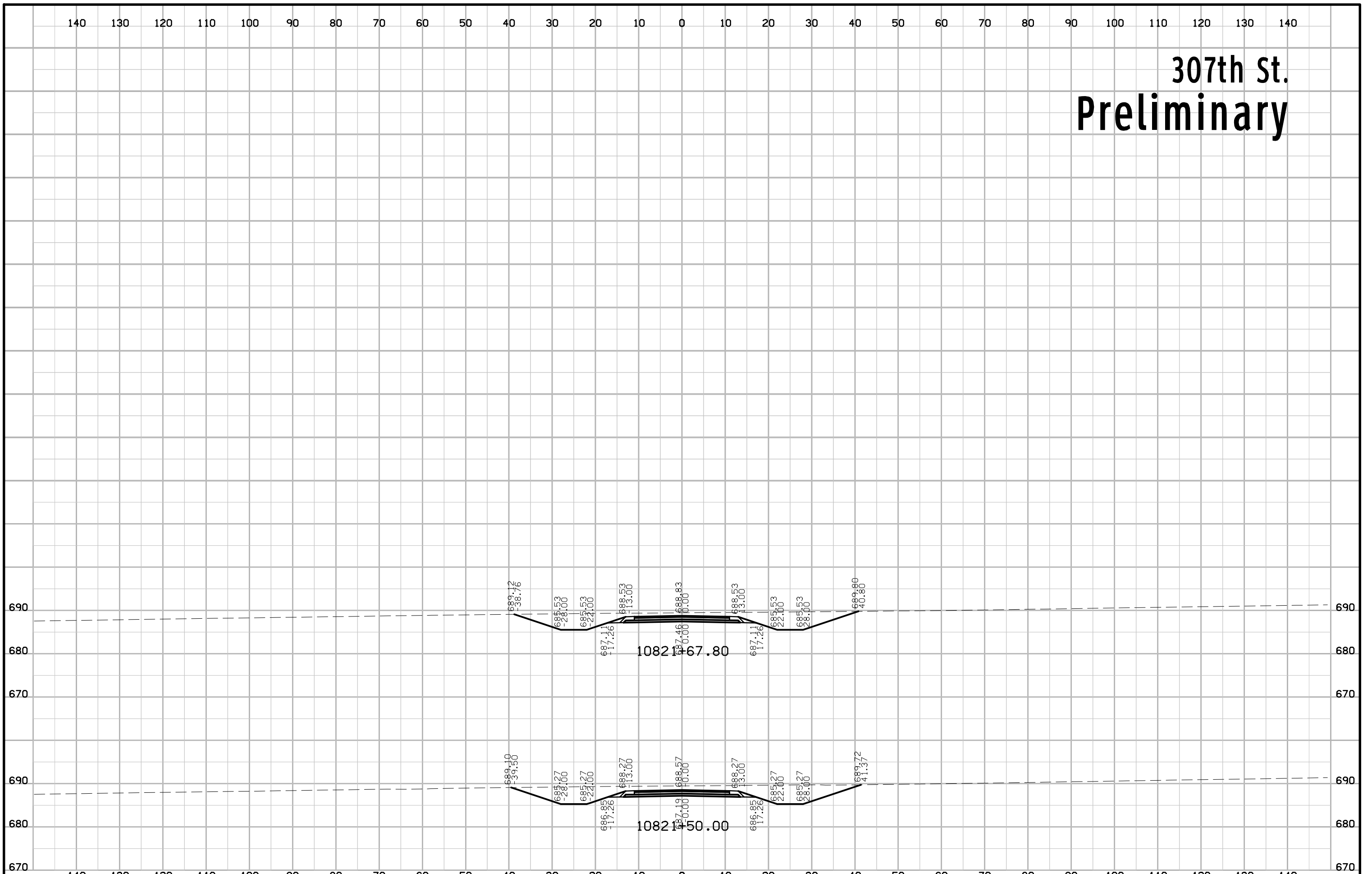
307th St. Preliminary



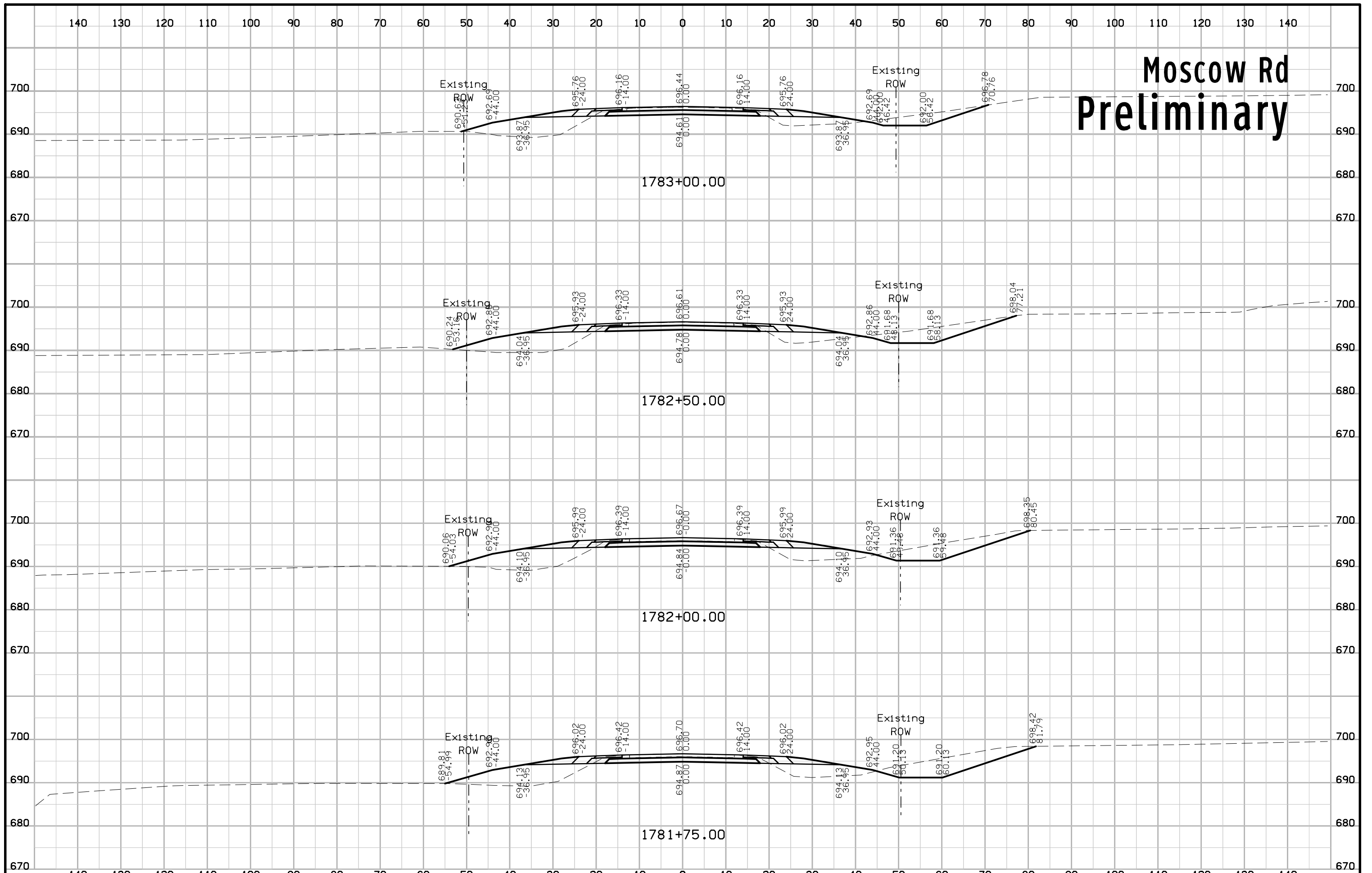
307th St. Preliminary



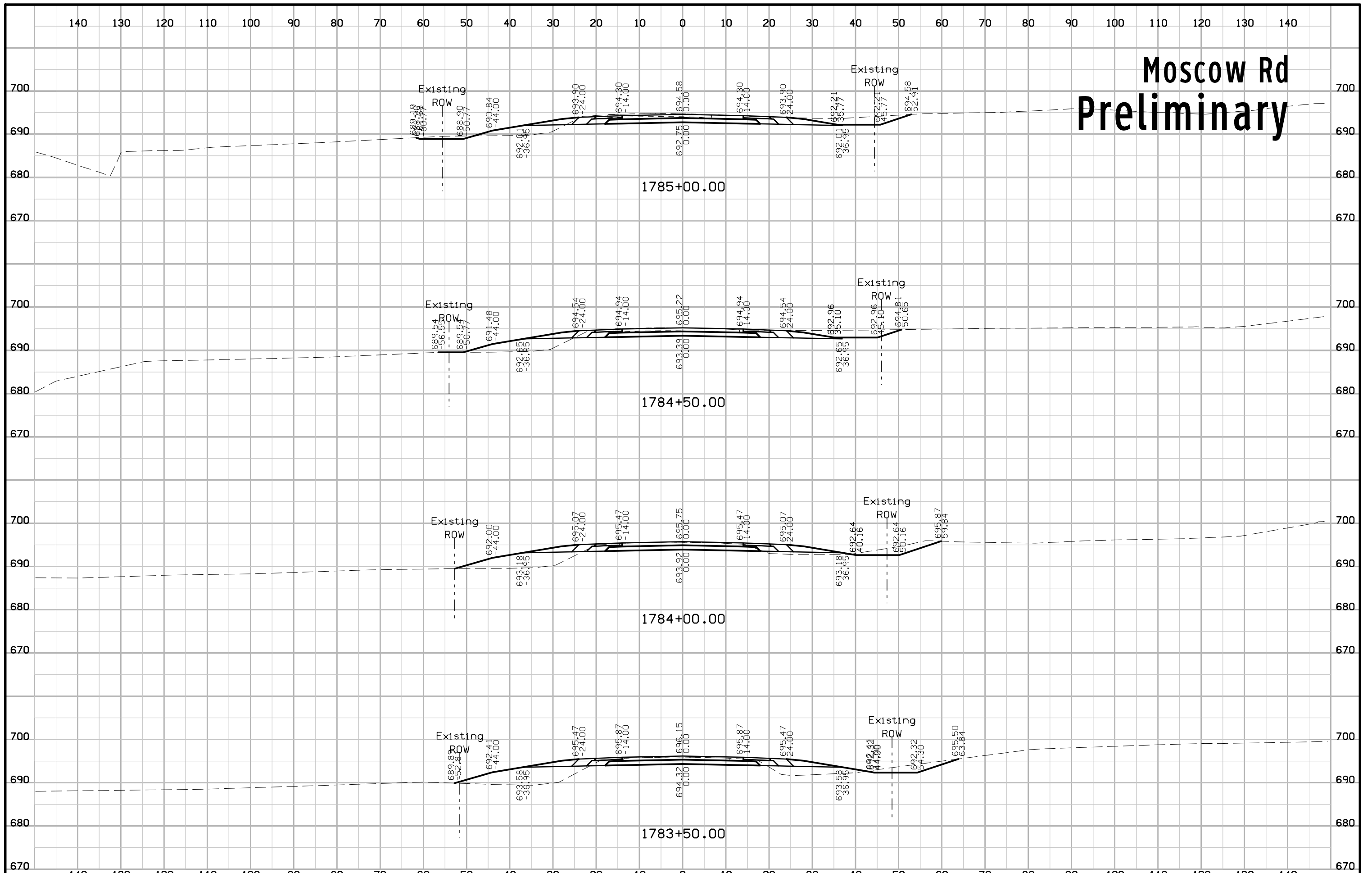
307th St. Preliminary



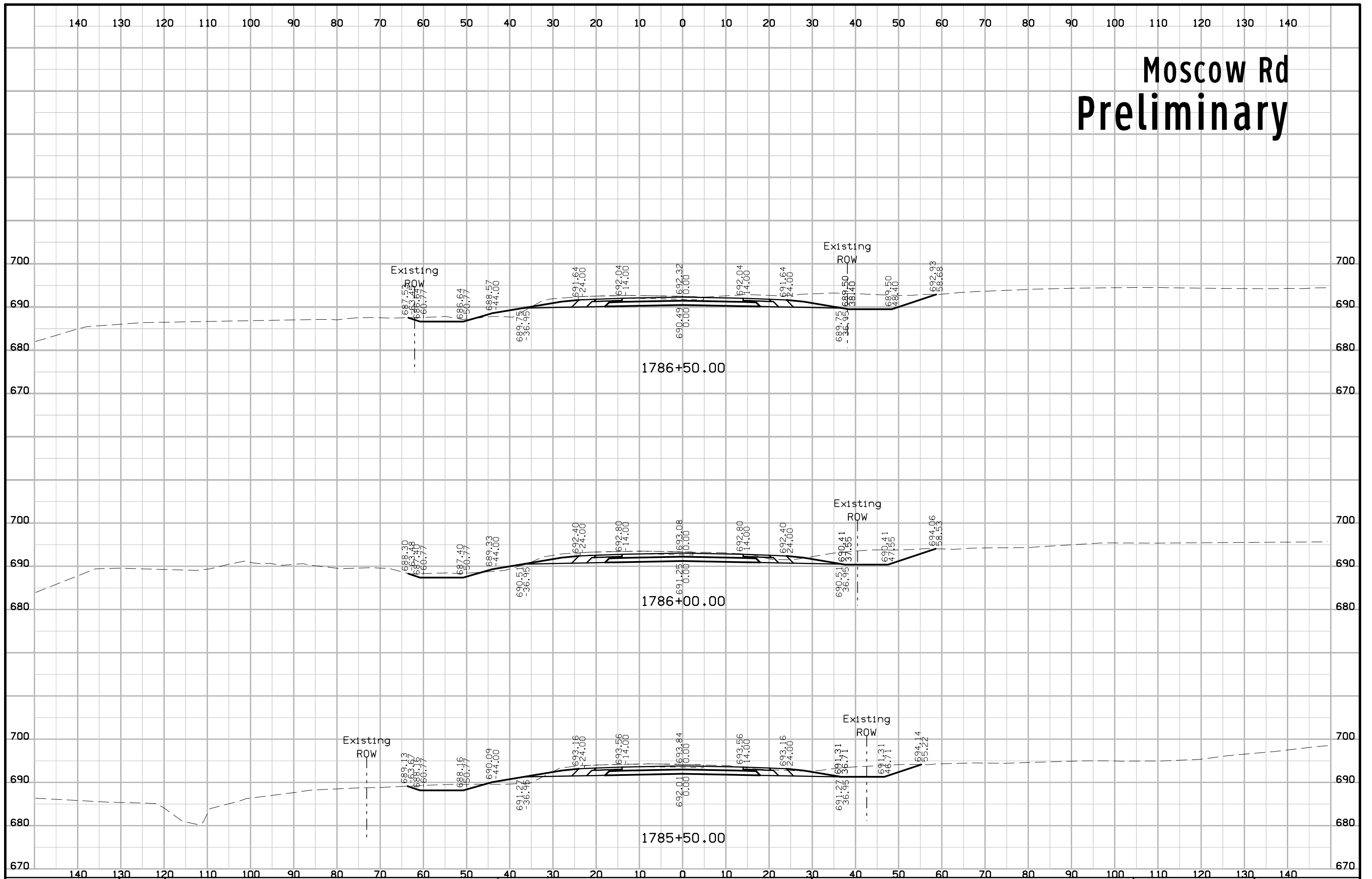
Moscow Rd Preliminary



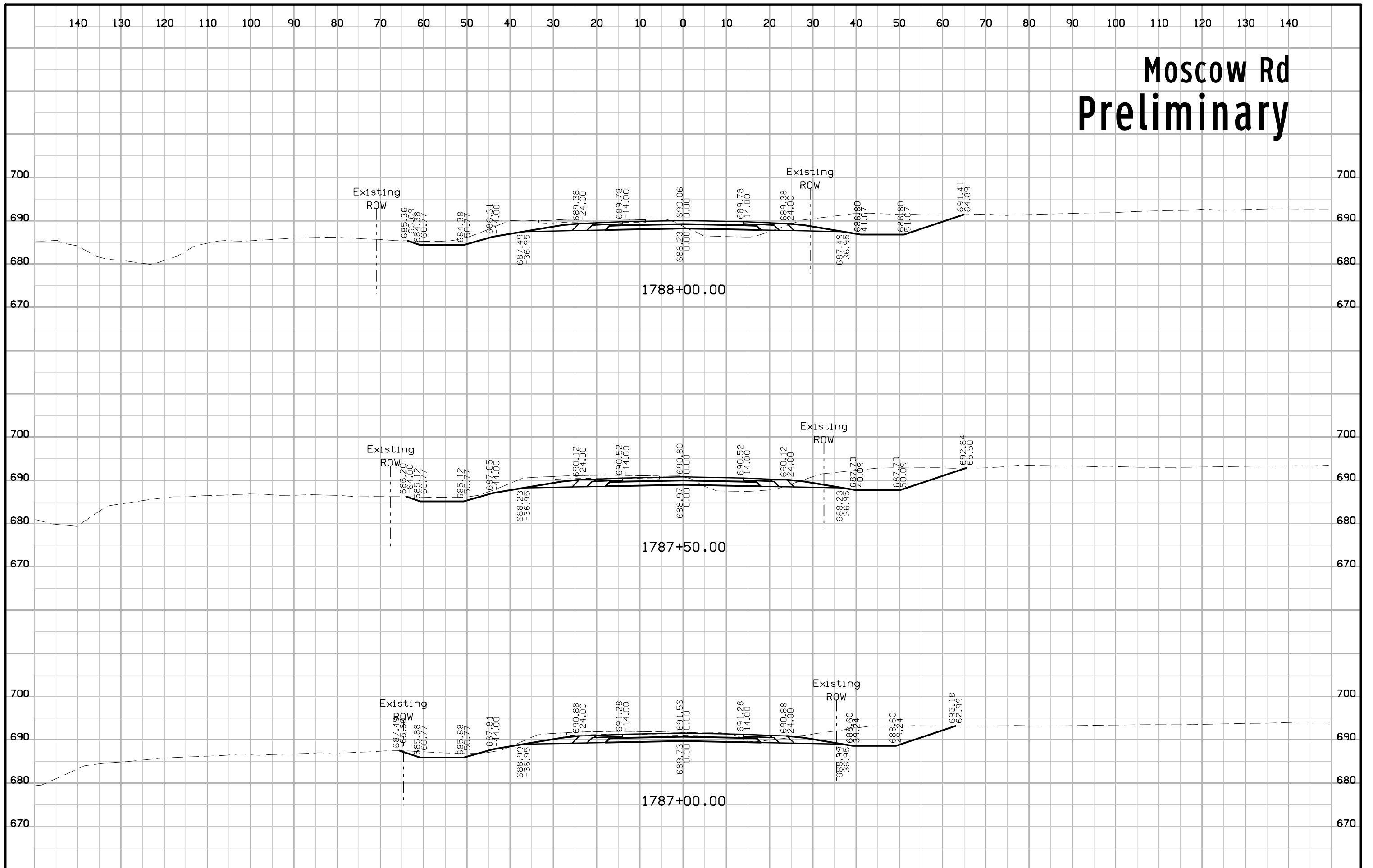
Moscow Rd Preliminary



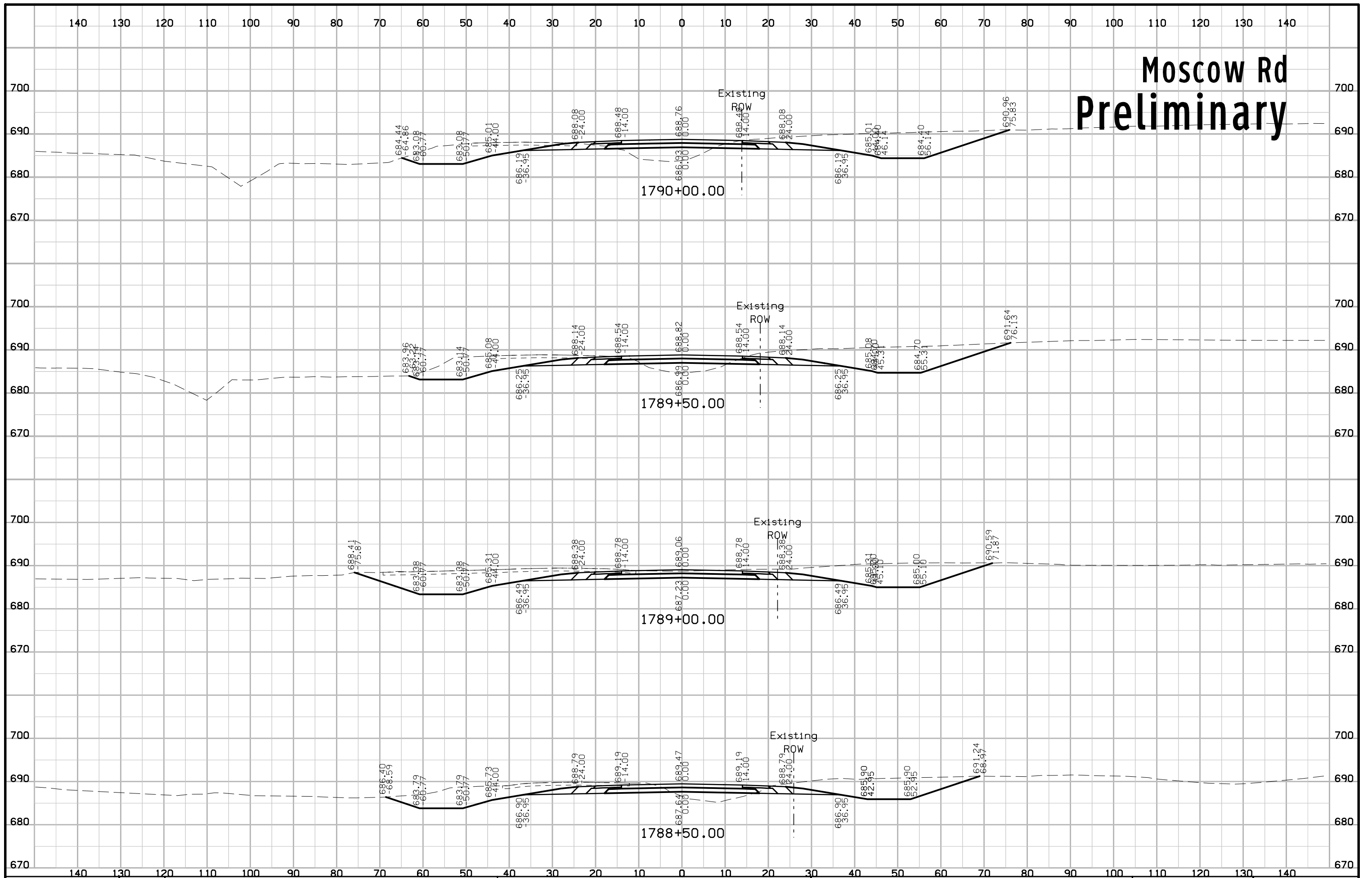
Moscow Rd Preliminary



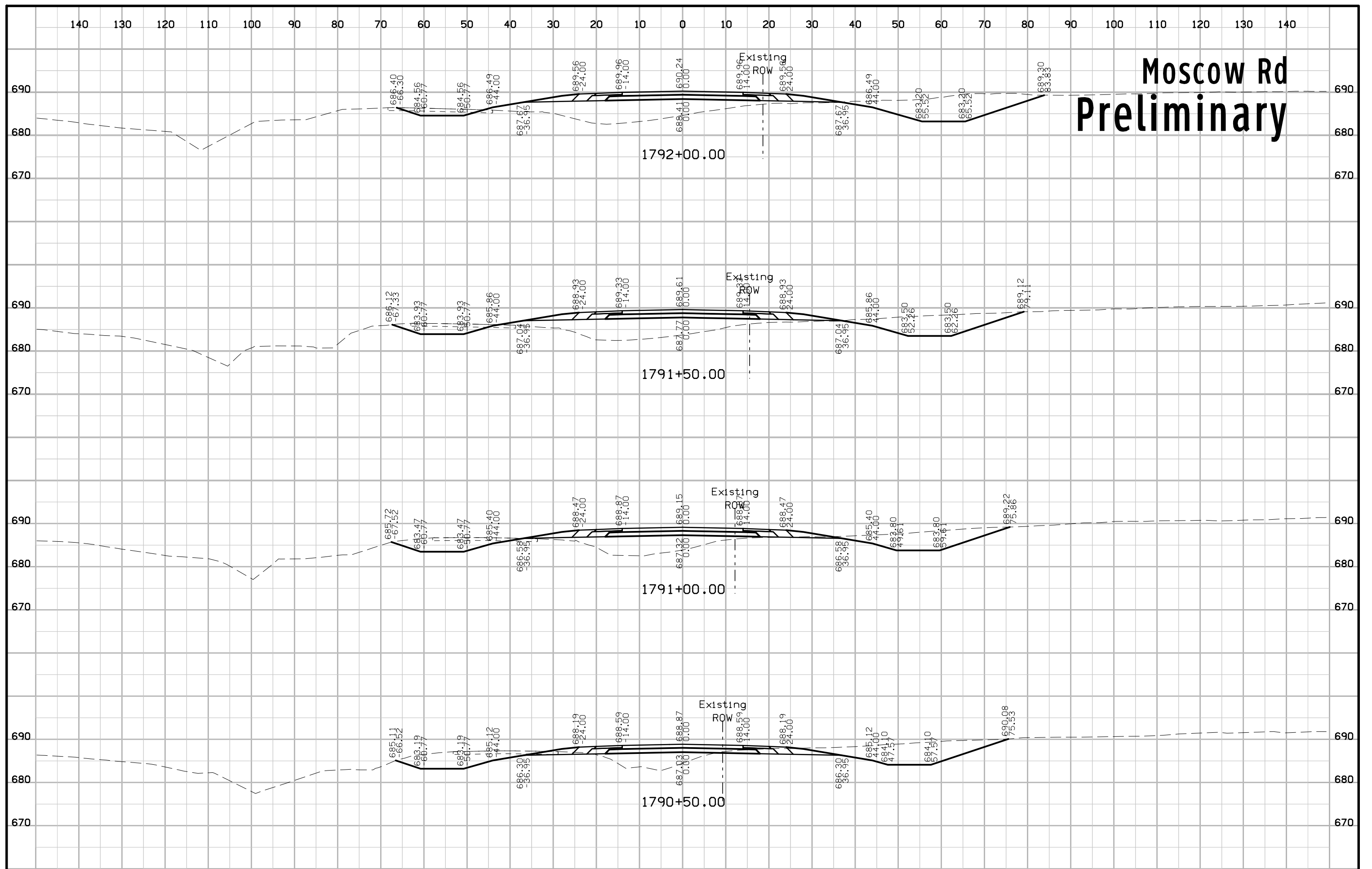
Moscow Rd Preliminary



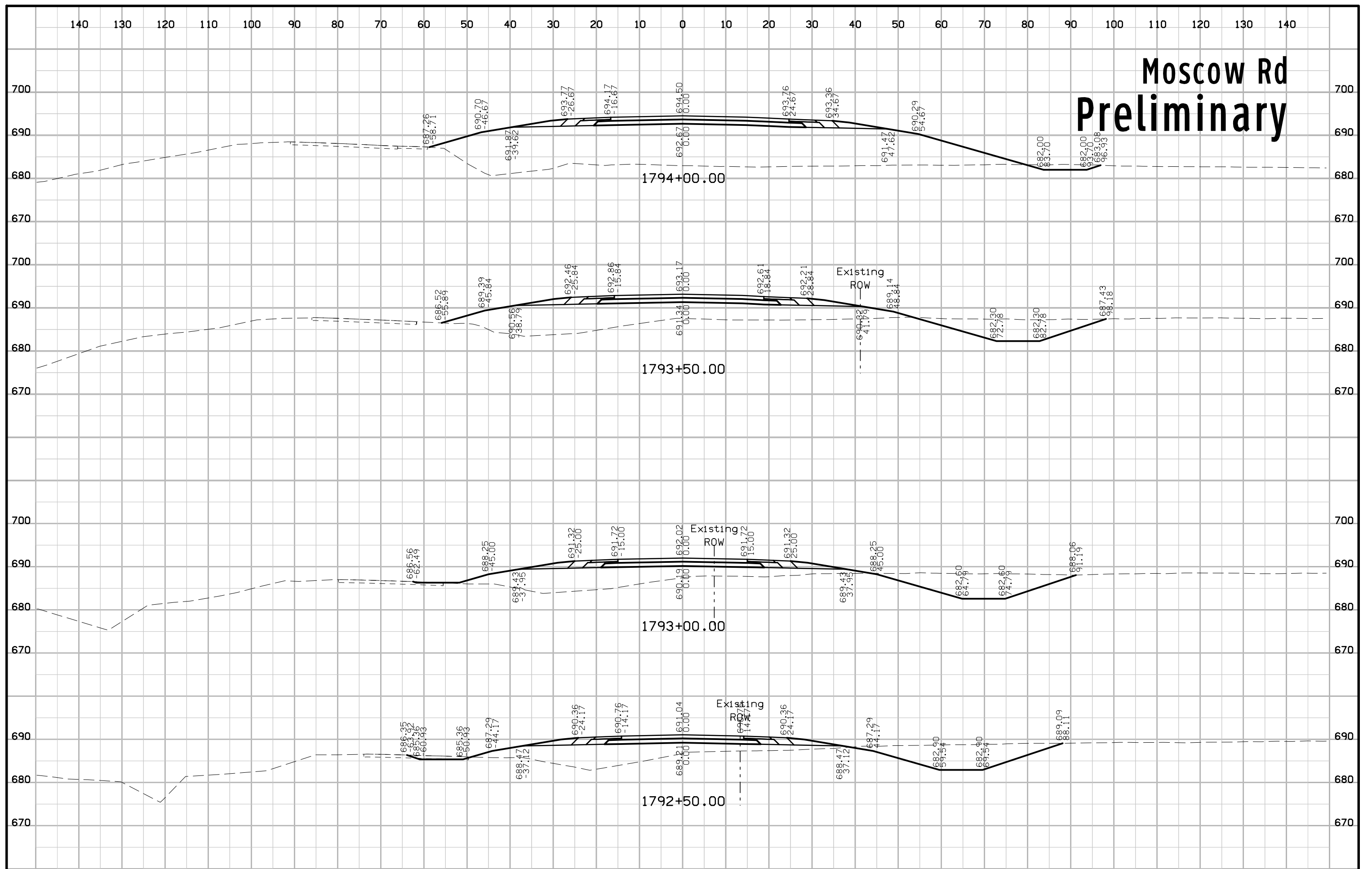
Moscow Rd Preliminary



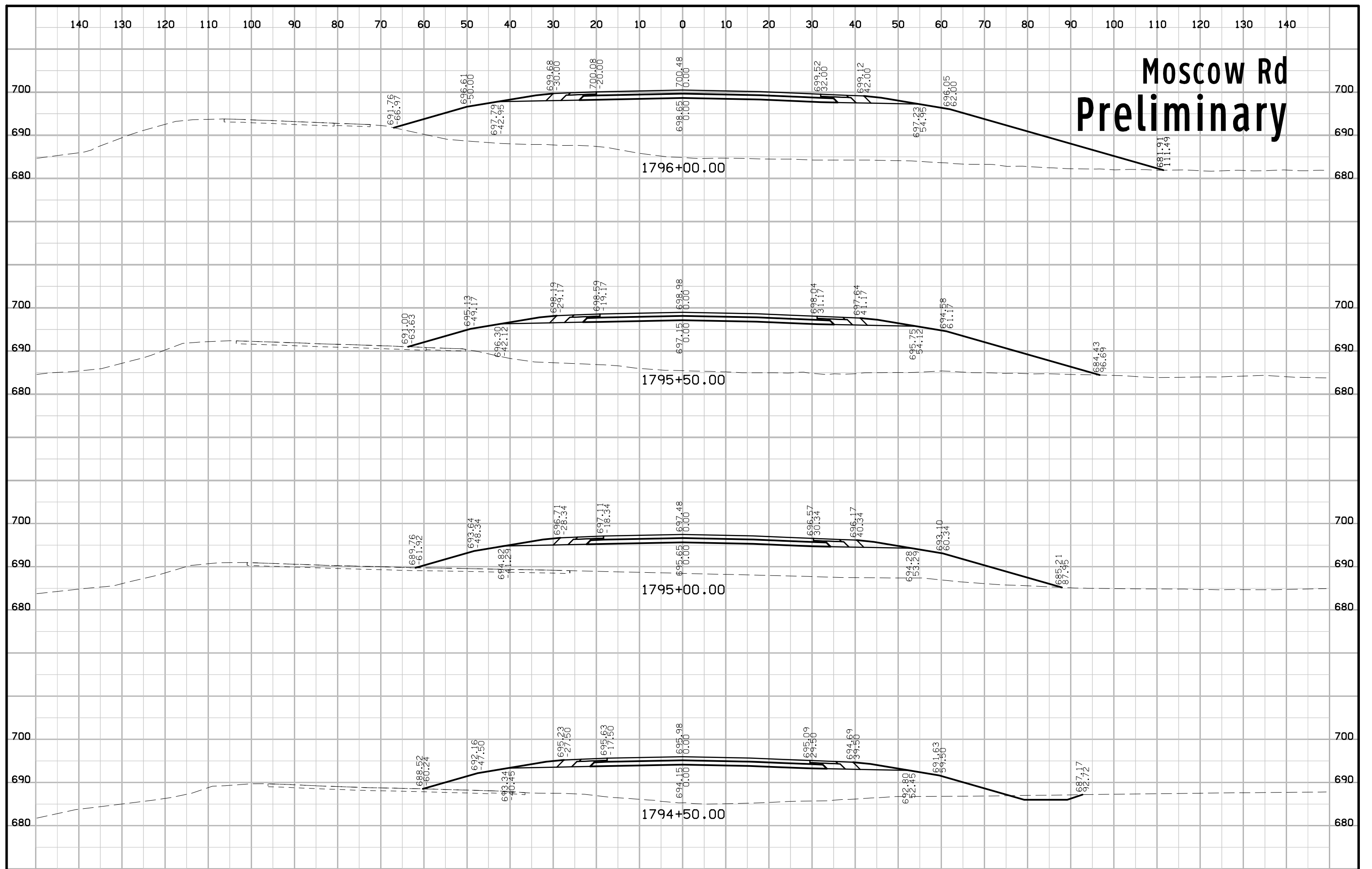
Moscow Rd Preliminary



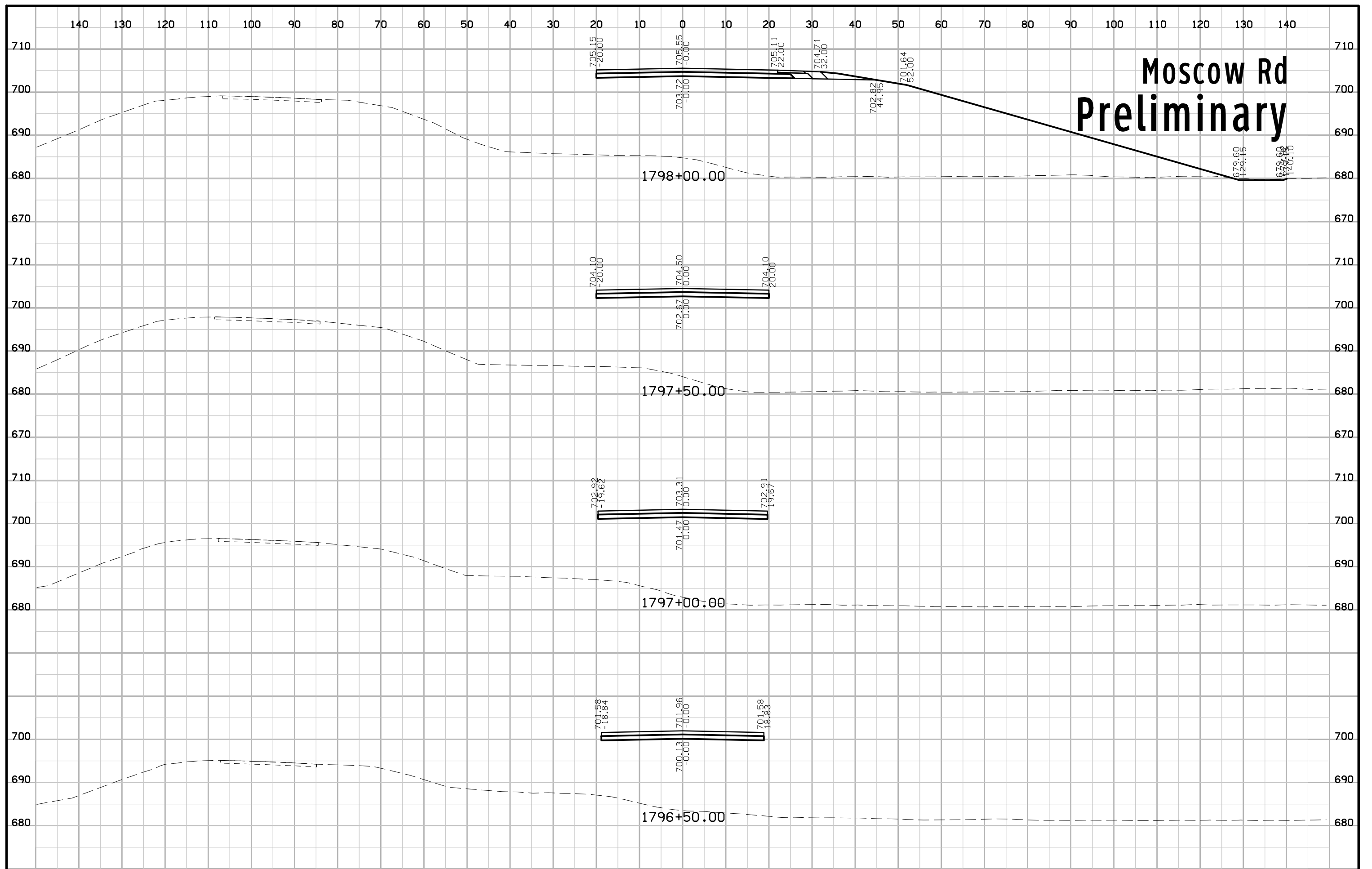
Moscow Rd Preliminary



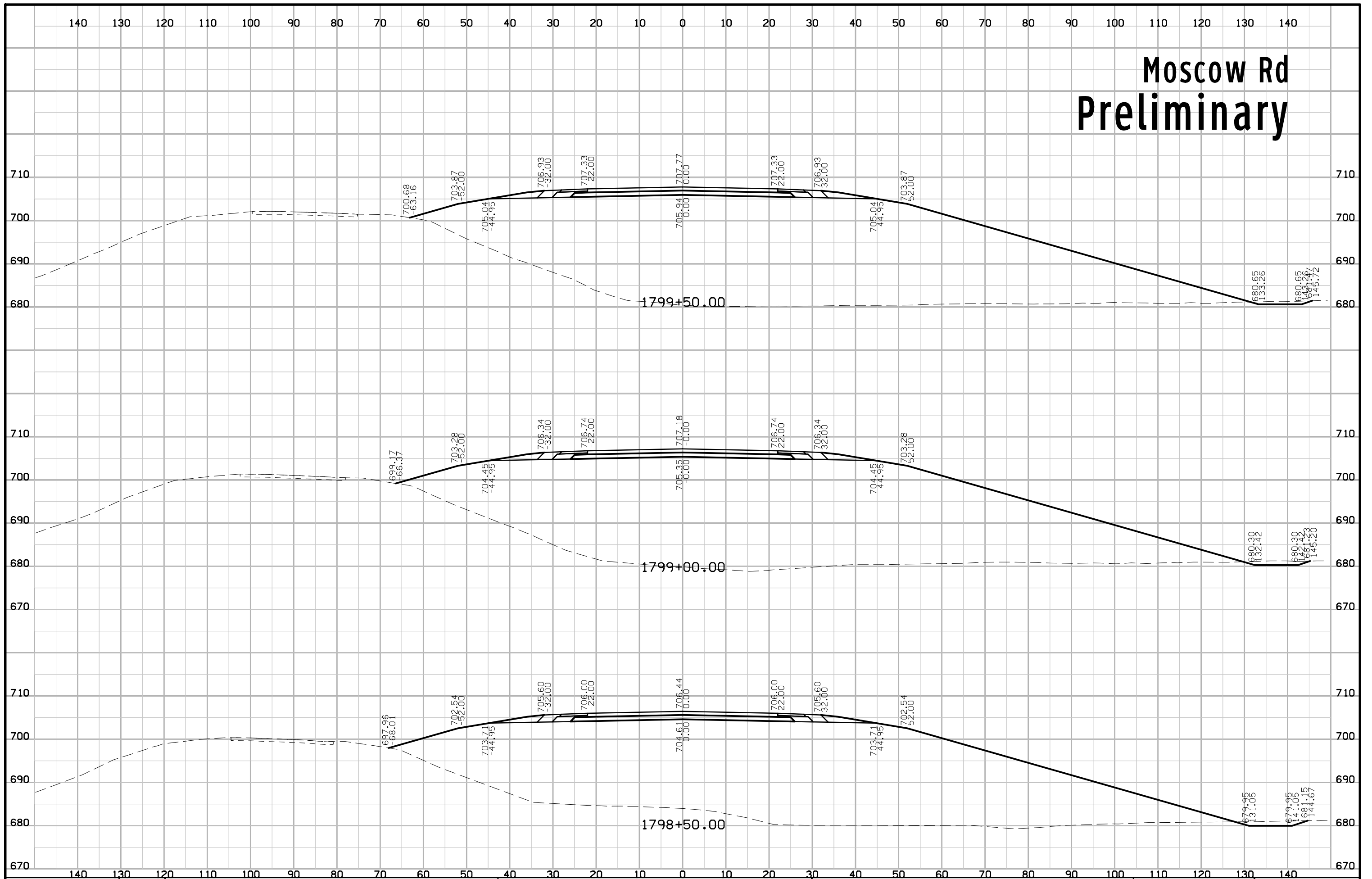
Moscow Rd Preliminary



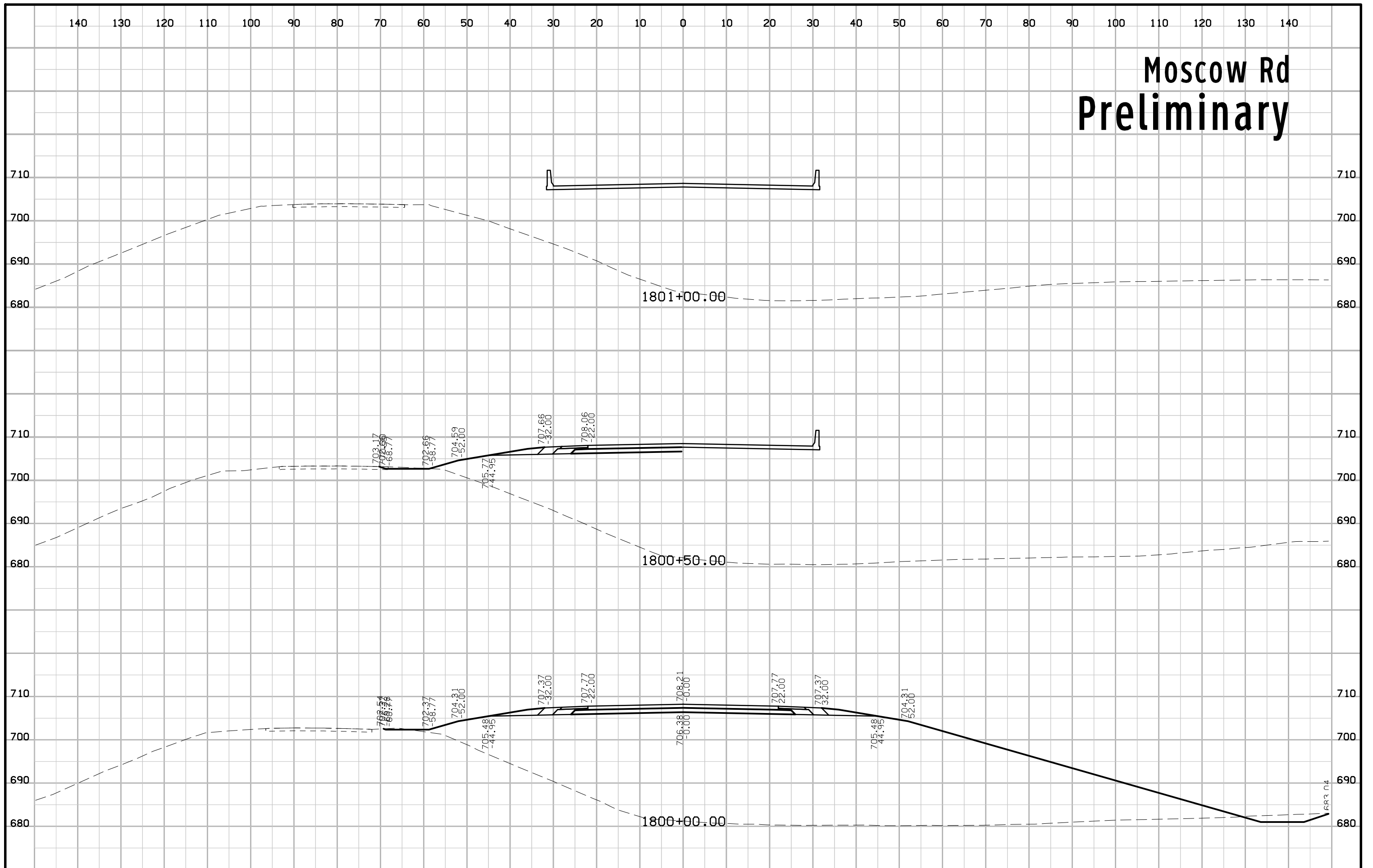
Moscow Rd Preliminary



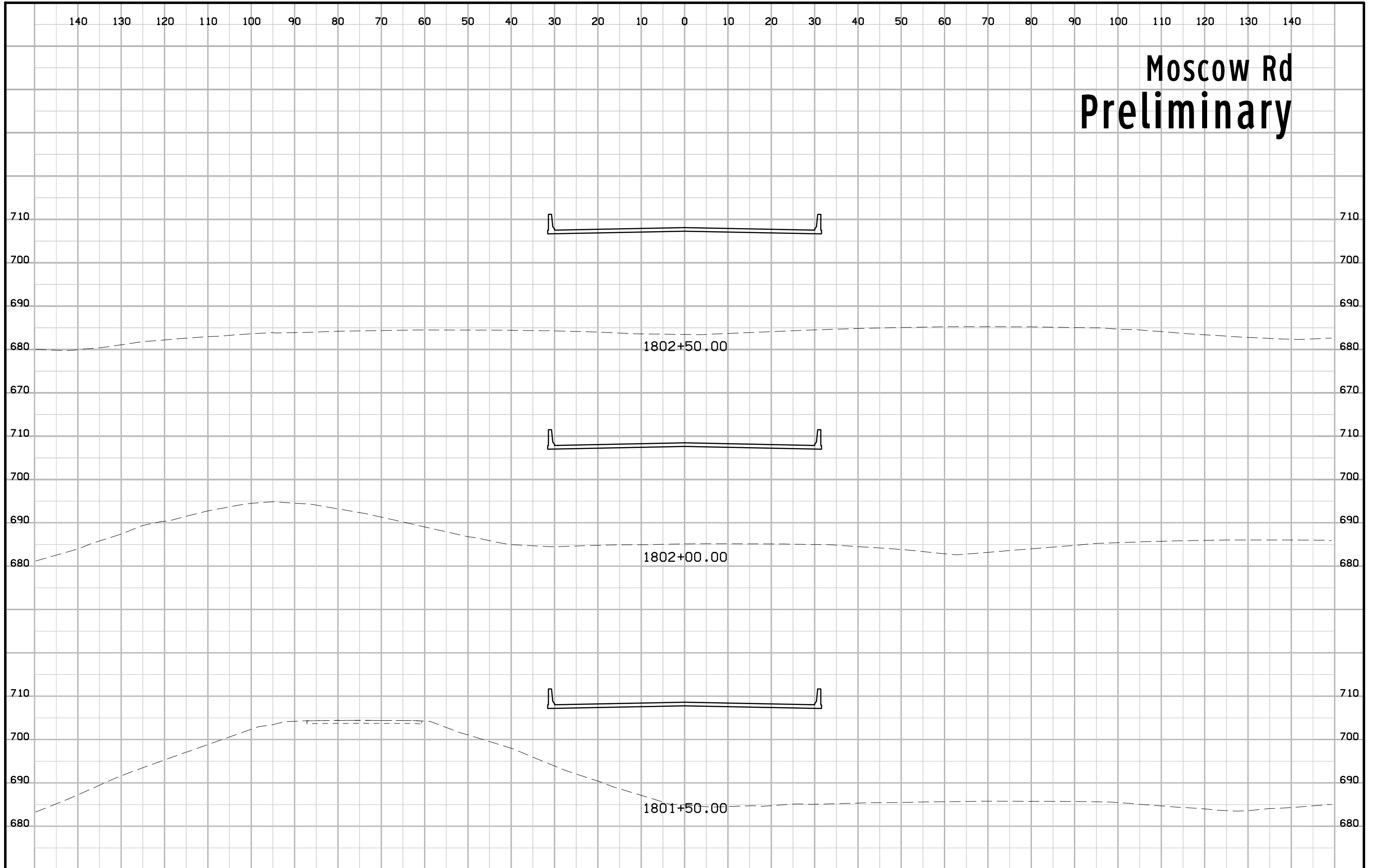
Moscow Rd Preliminary



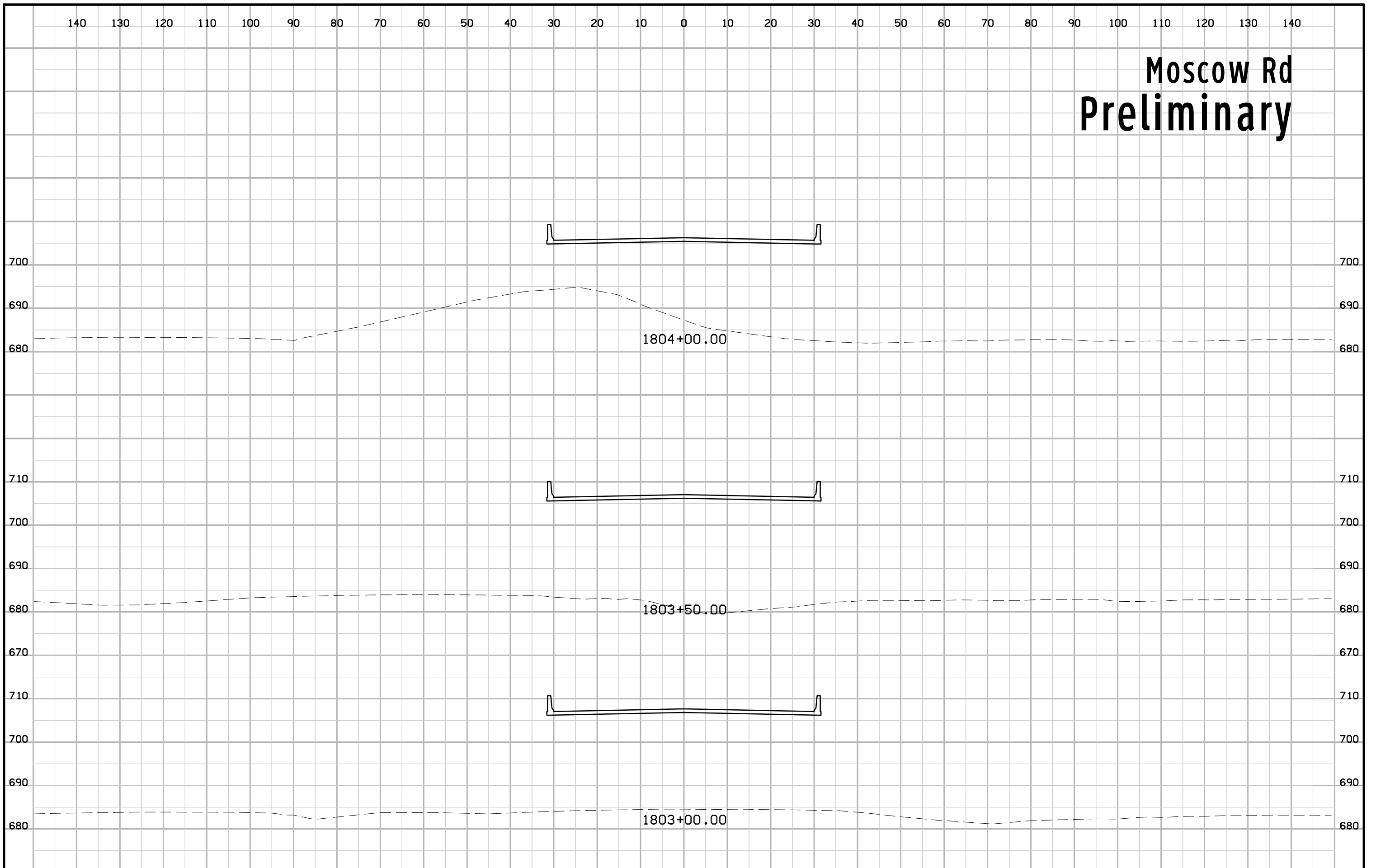
Moscow Rd Preliminary



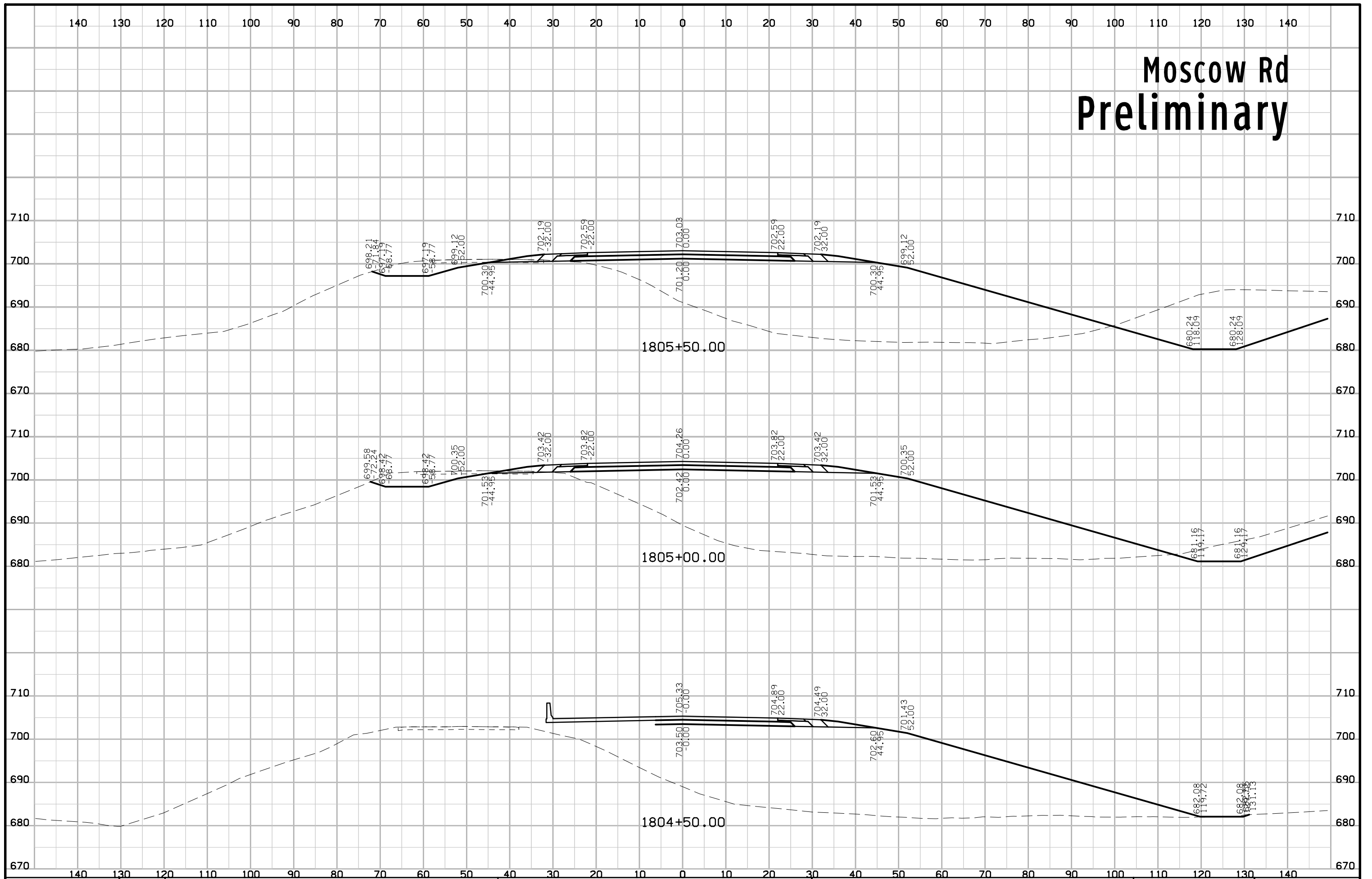
Moscow Rd Preliminary



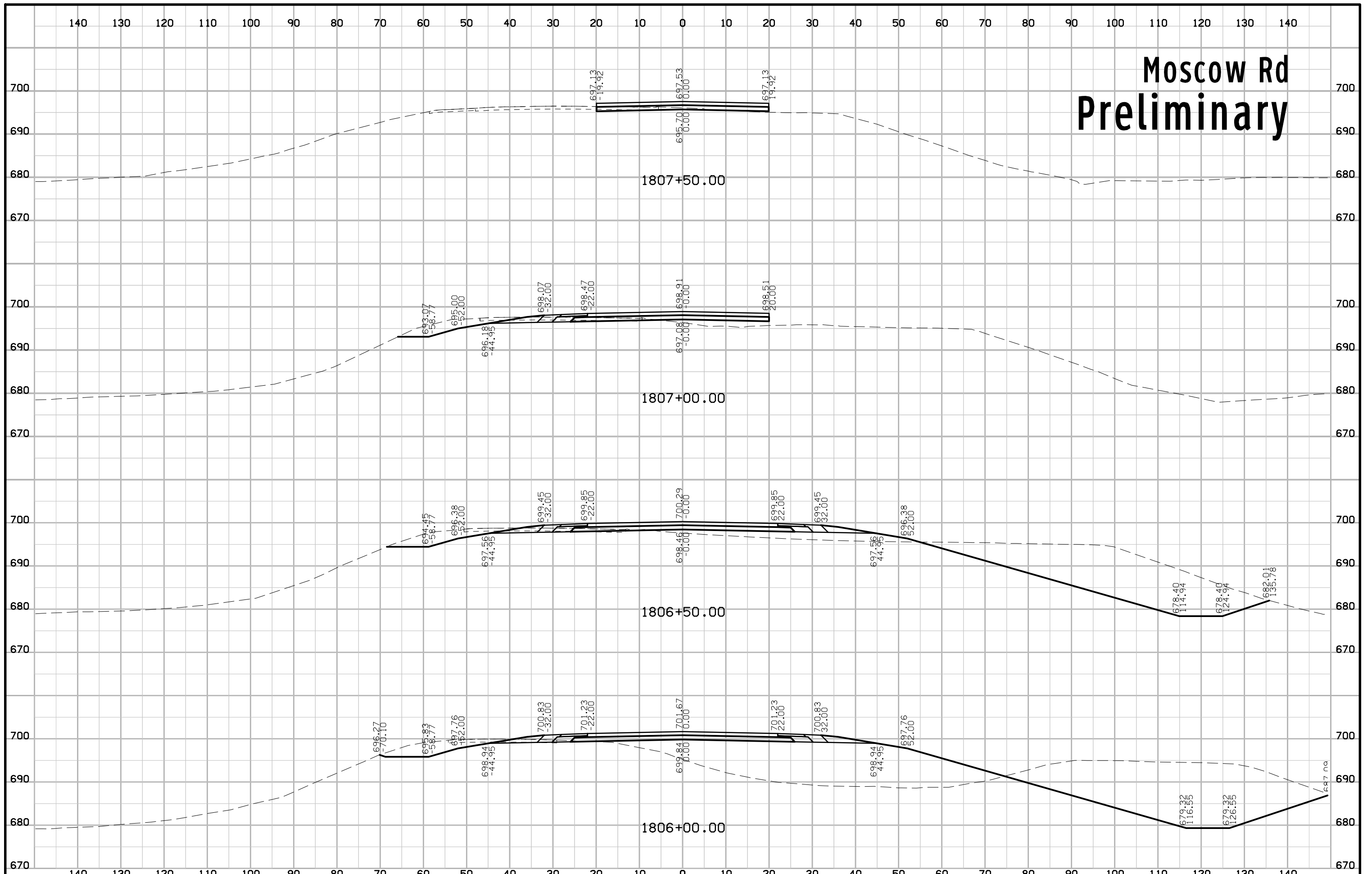
Moscow Rd Preliminary



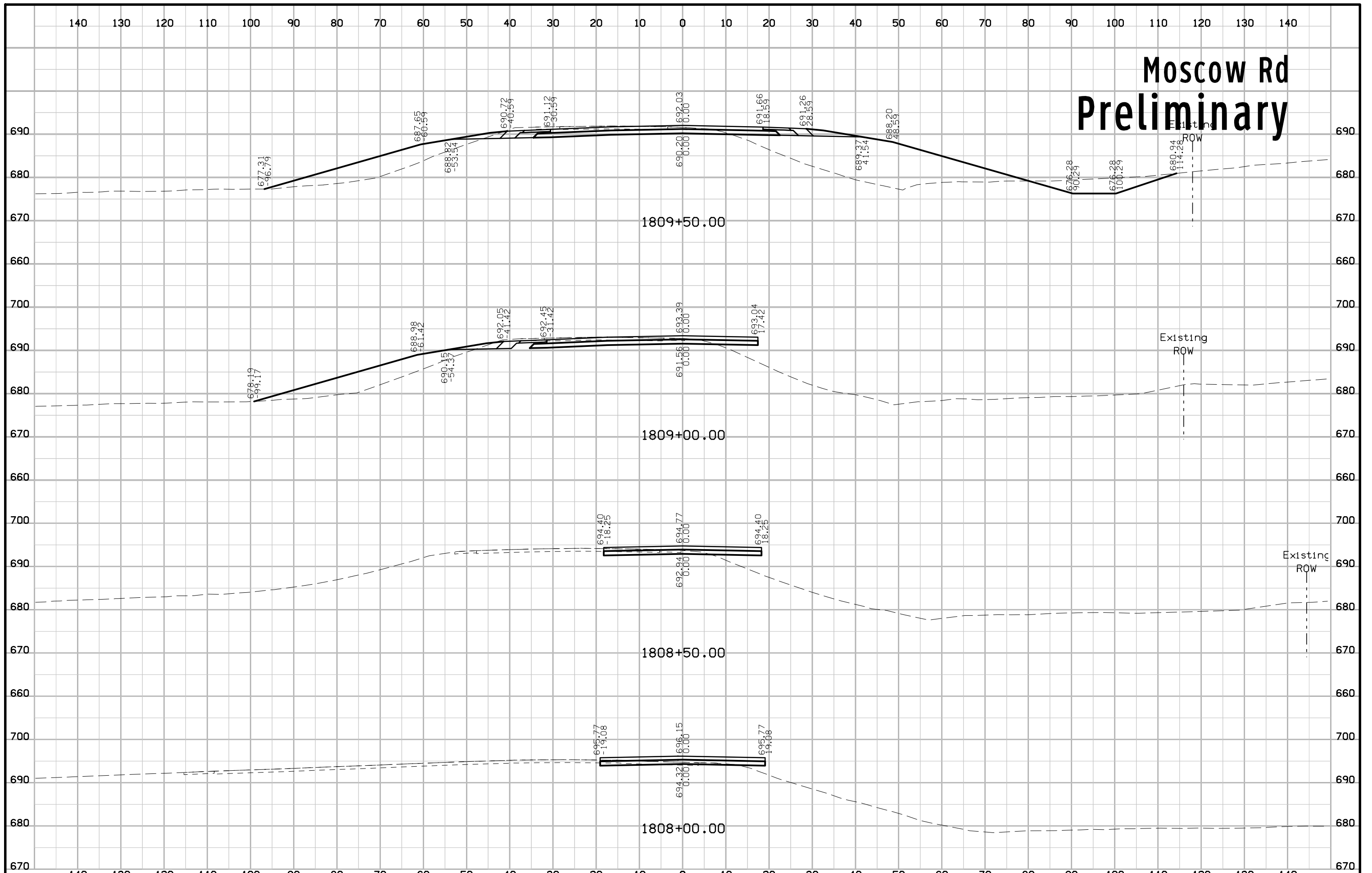
Moscow Rd Preliminary



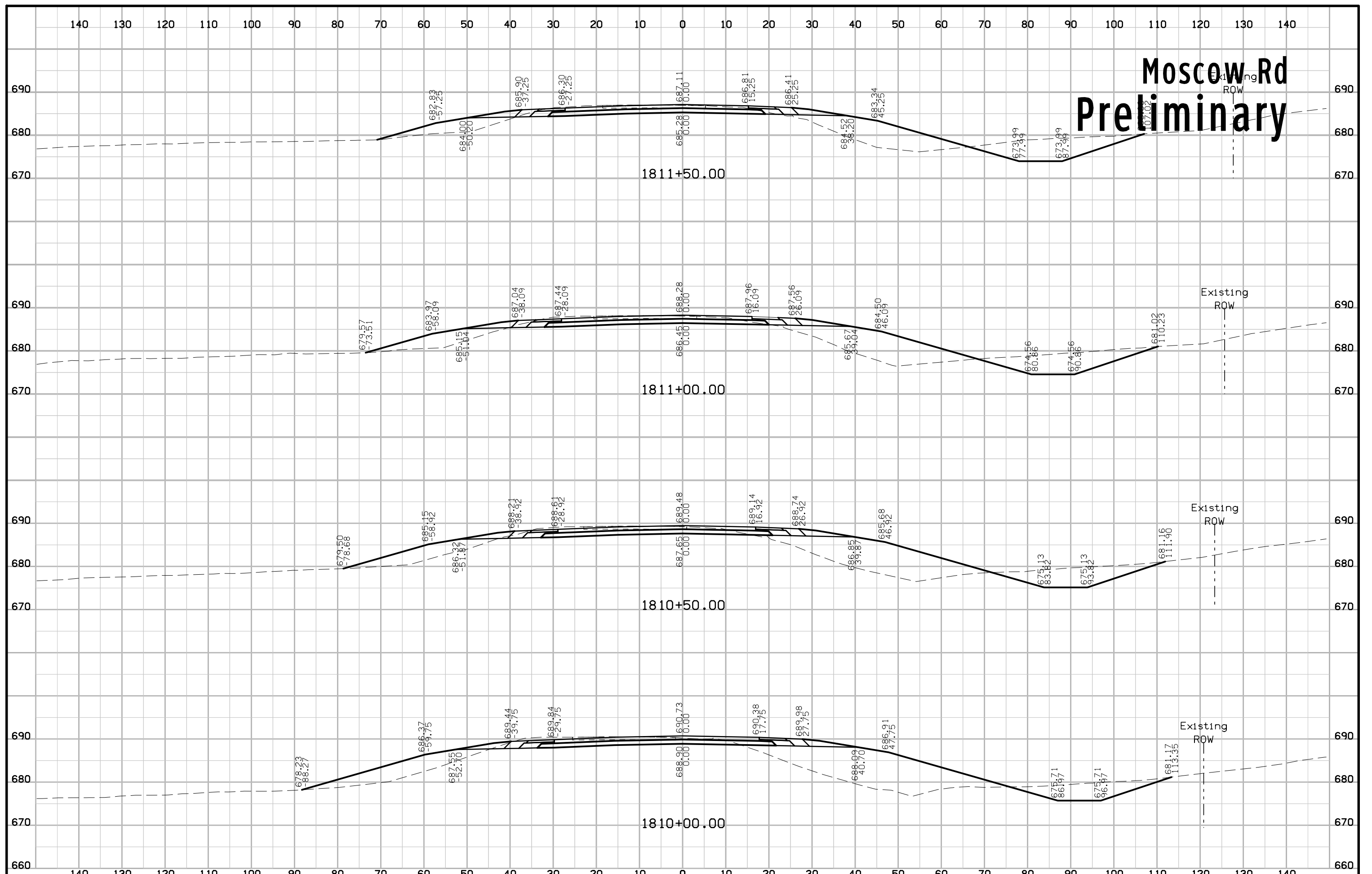
Moscow Rd Preliminary



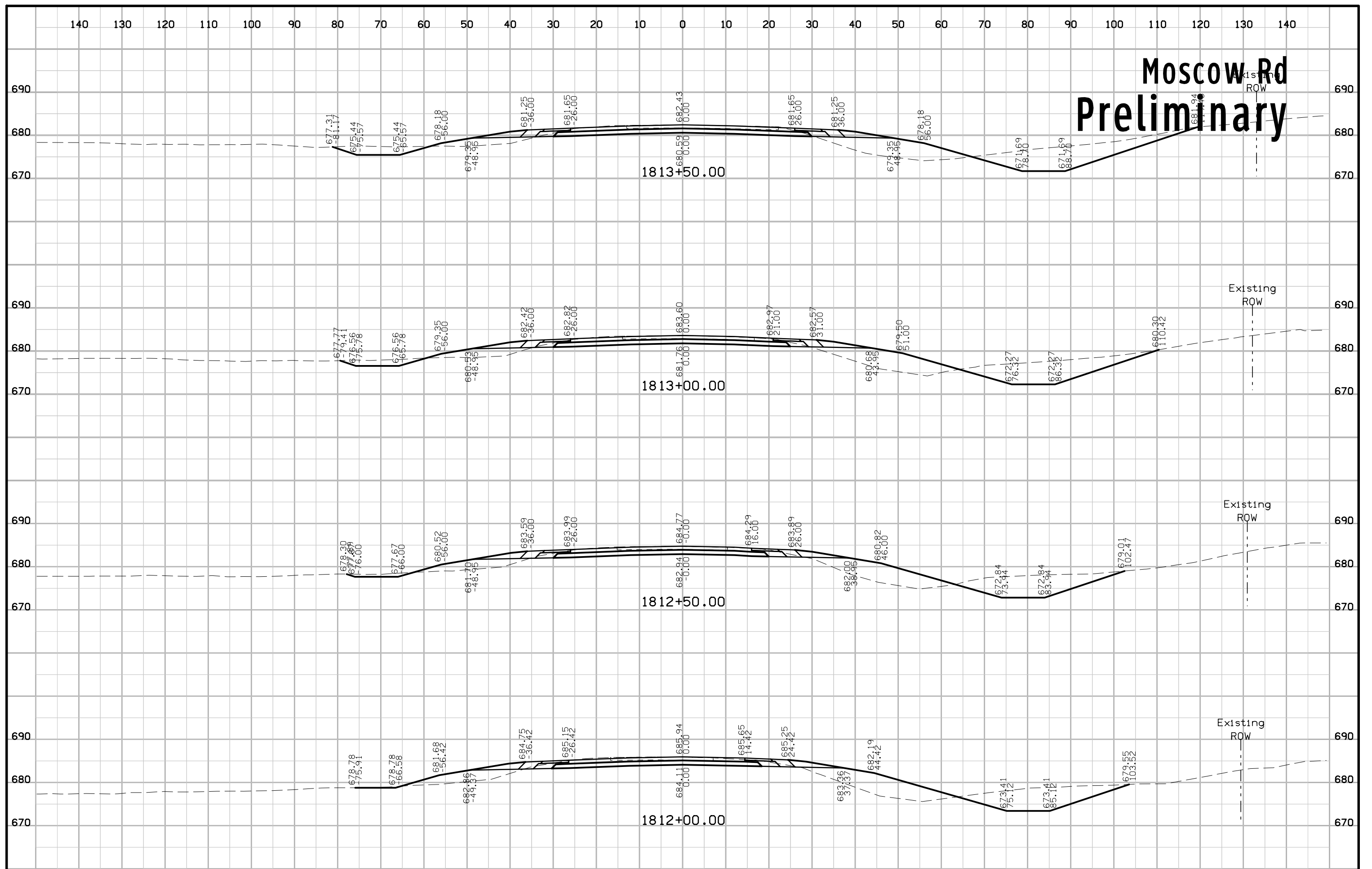
Moscow Rd Preliminary



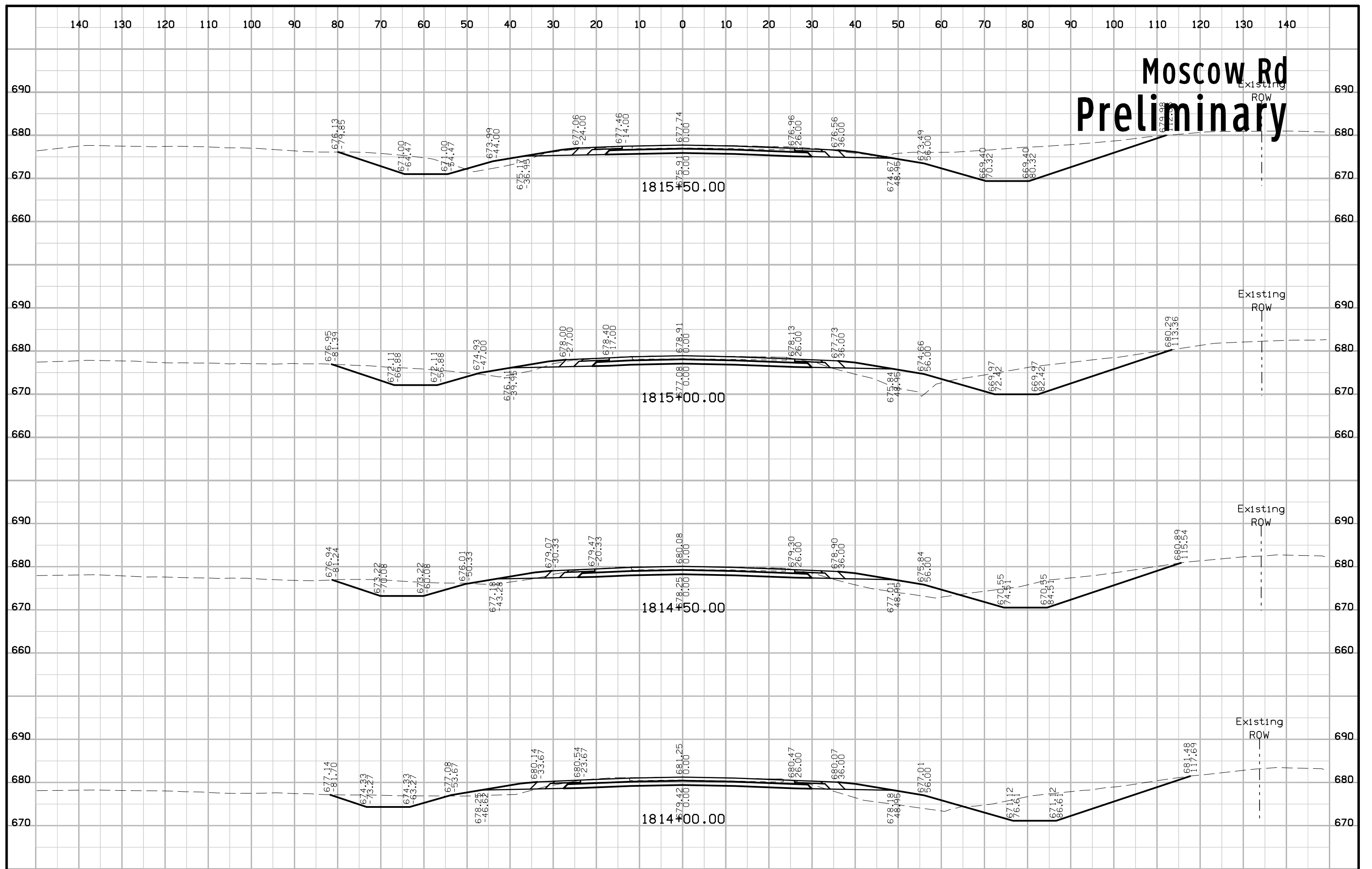
Moscow Rd Preliminary



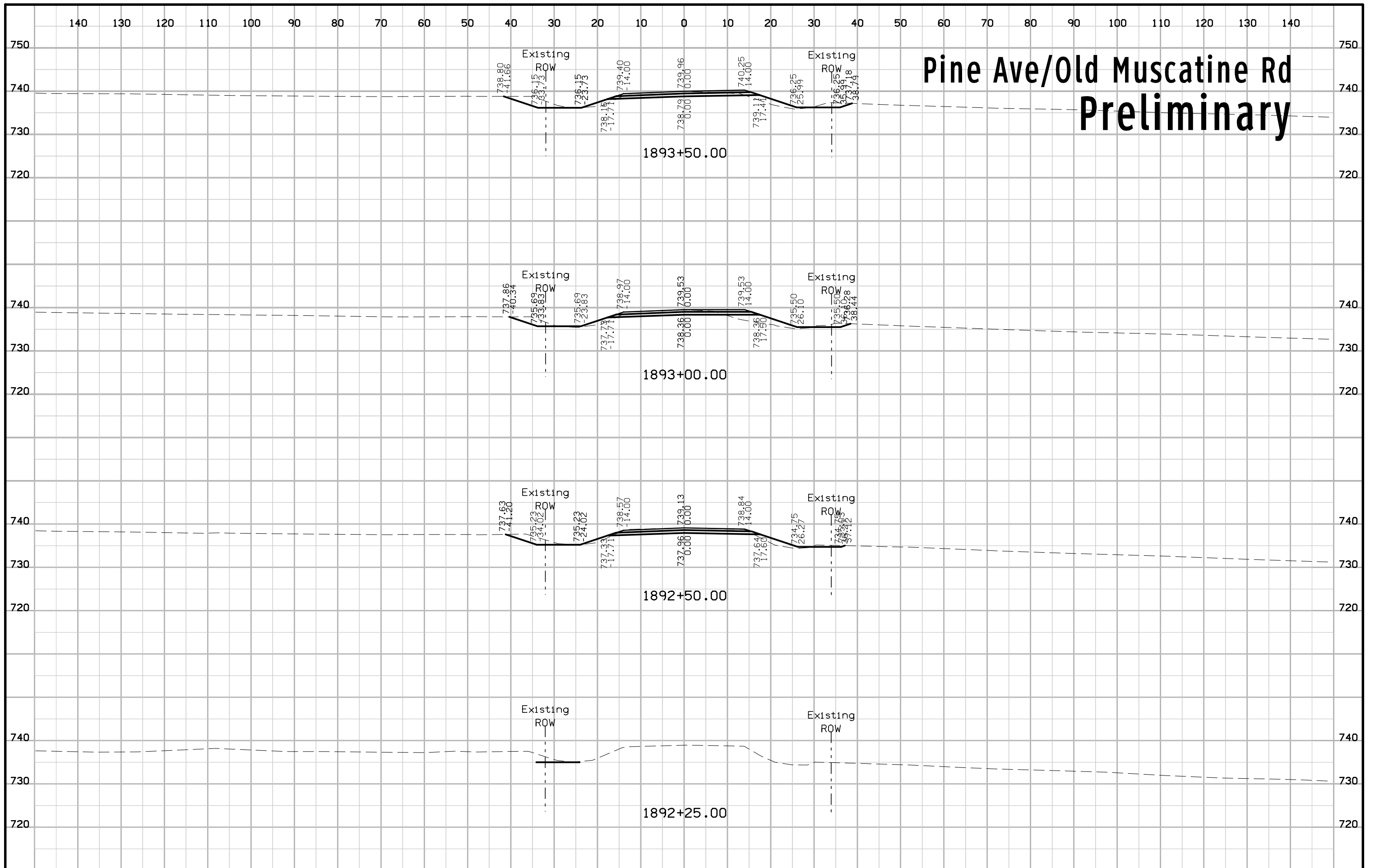
Moscow Rd Preliminary



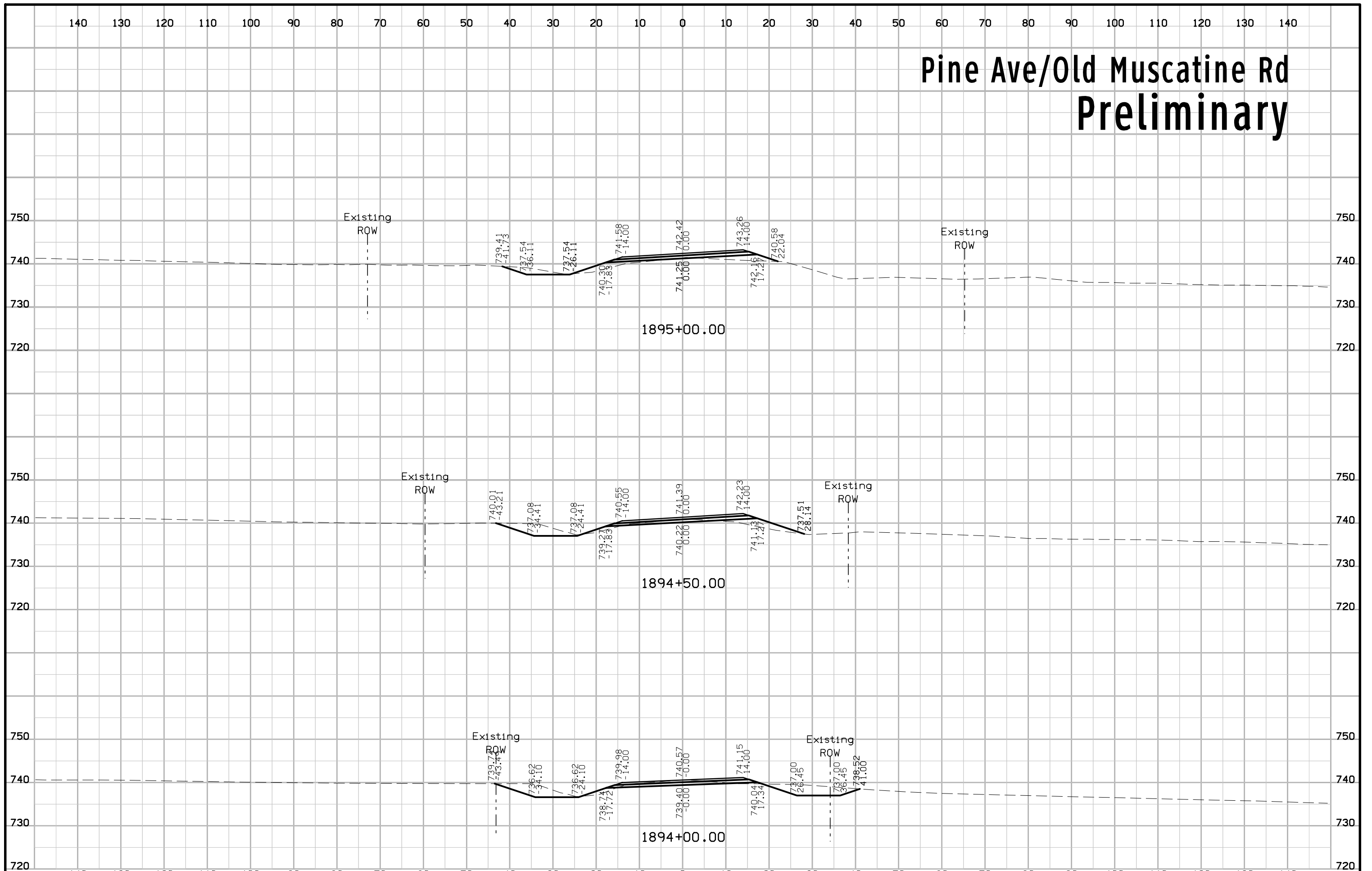
Moscow Rd Preliminary



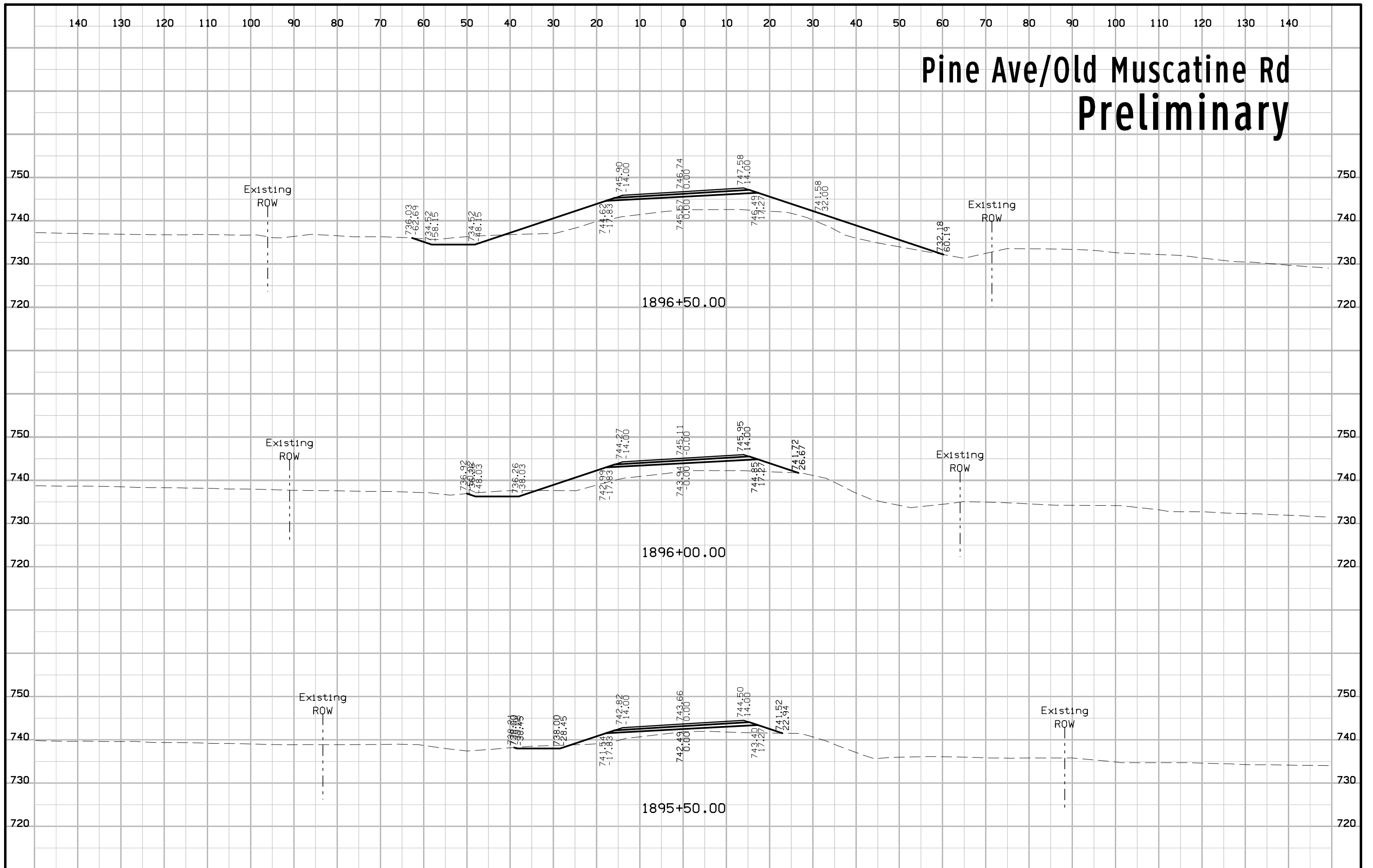
Pine Ave/Old Muscatine Rd Preliminary



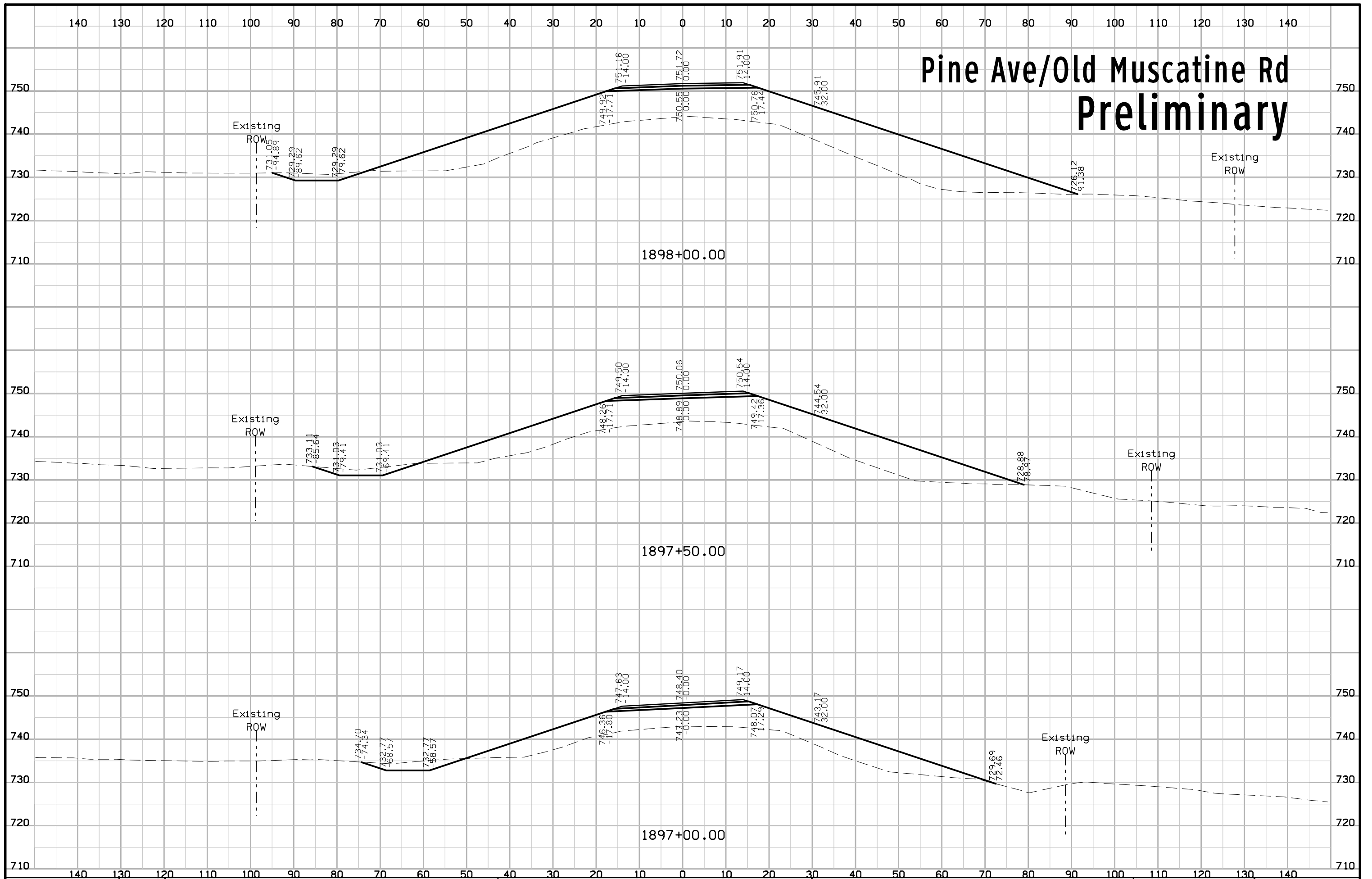
Pine Ave/Old Muscatine Rd Preliminary



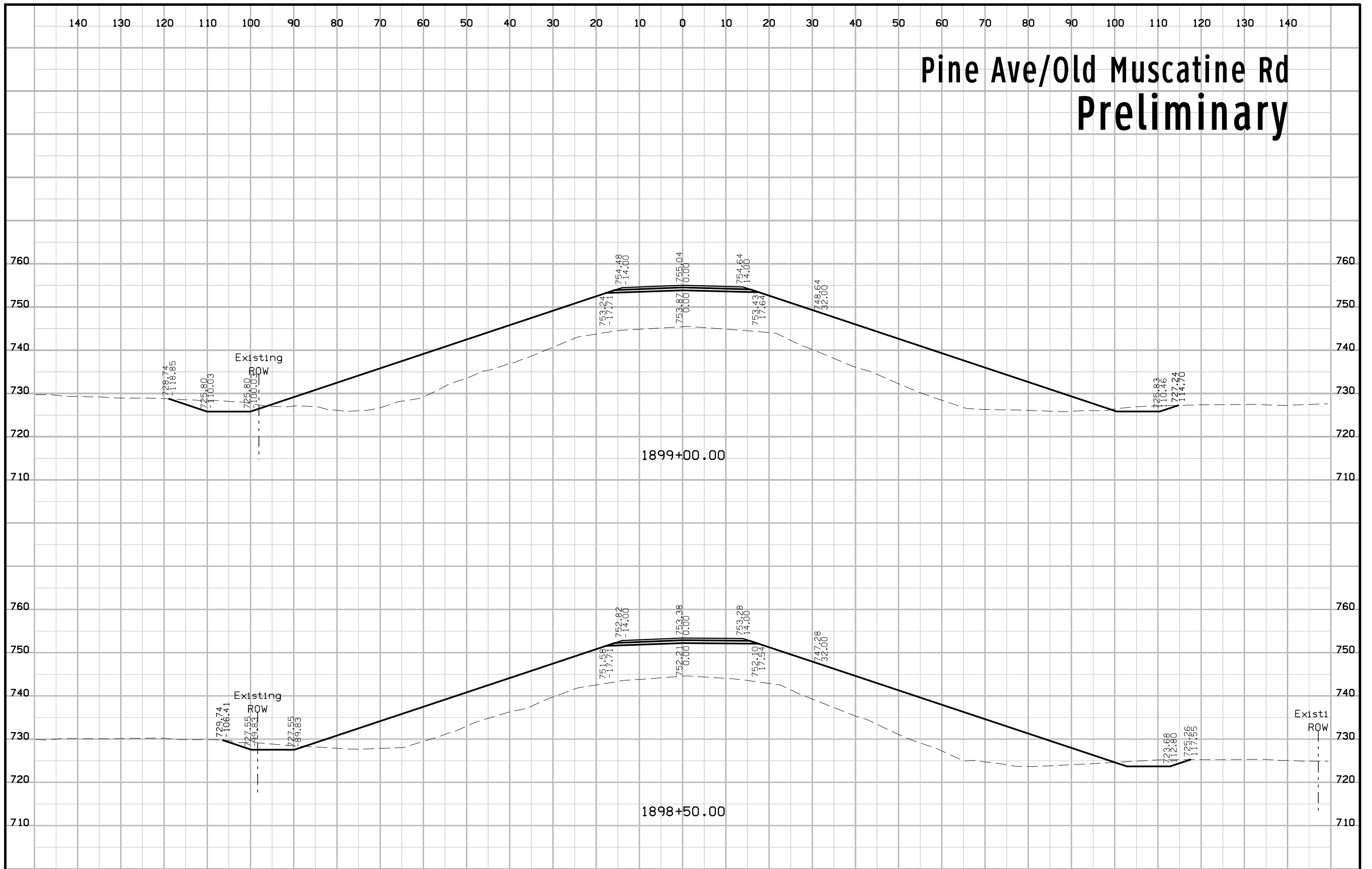
Pine Ave/Old Muscatine Rd Preliminary



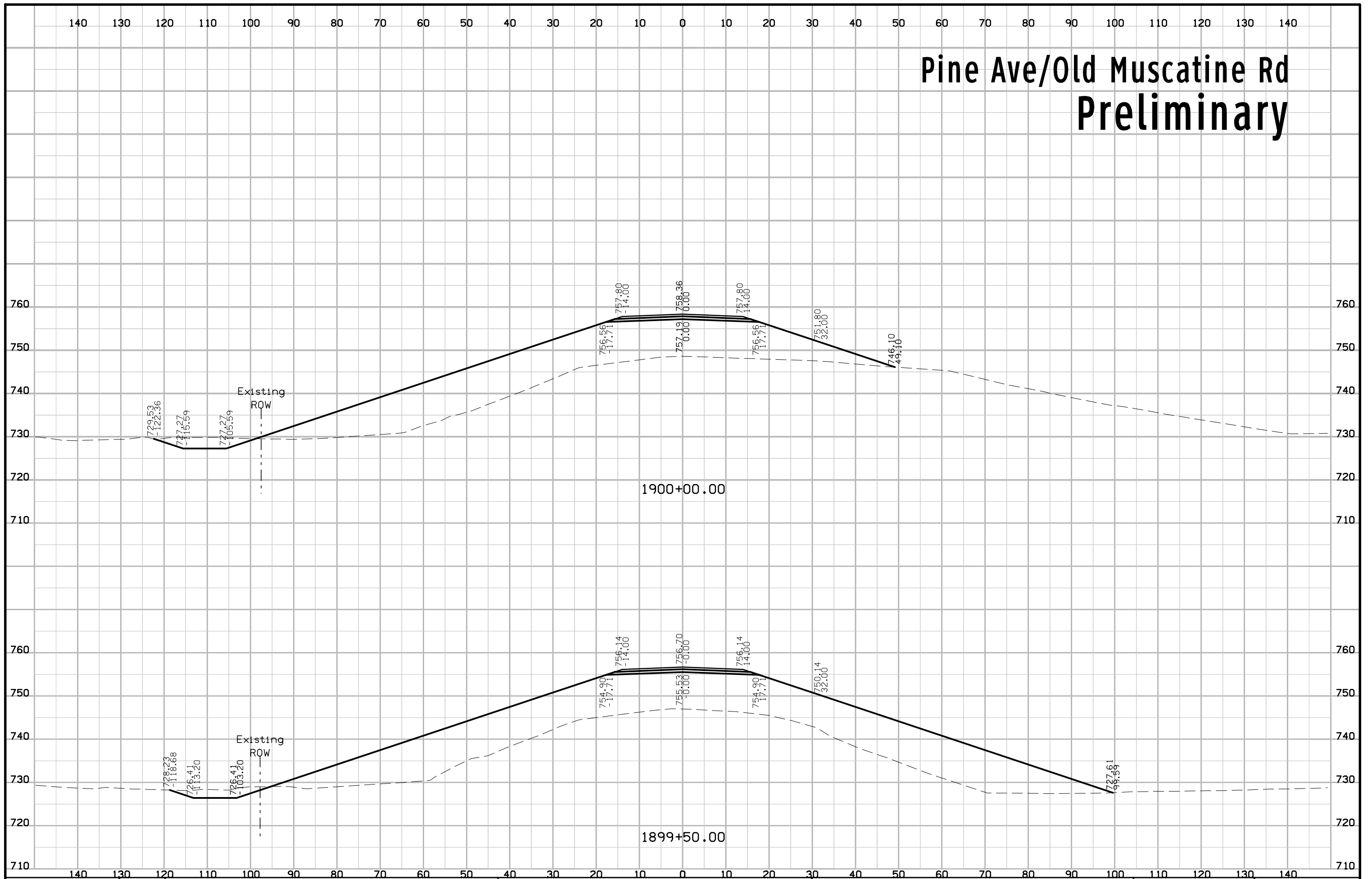
Pine Ave/Old Muscatine Rd Preliminary



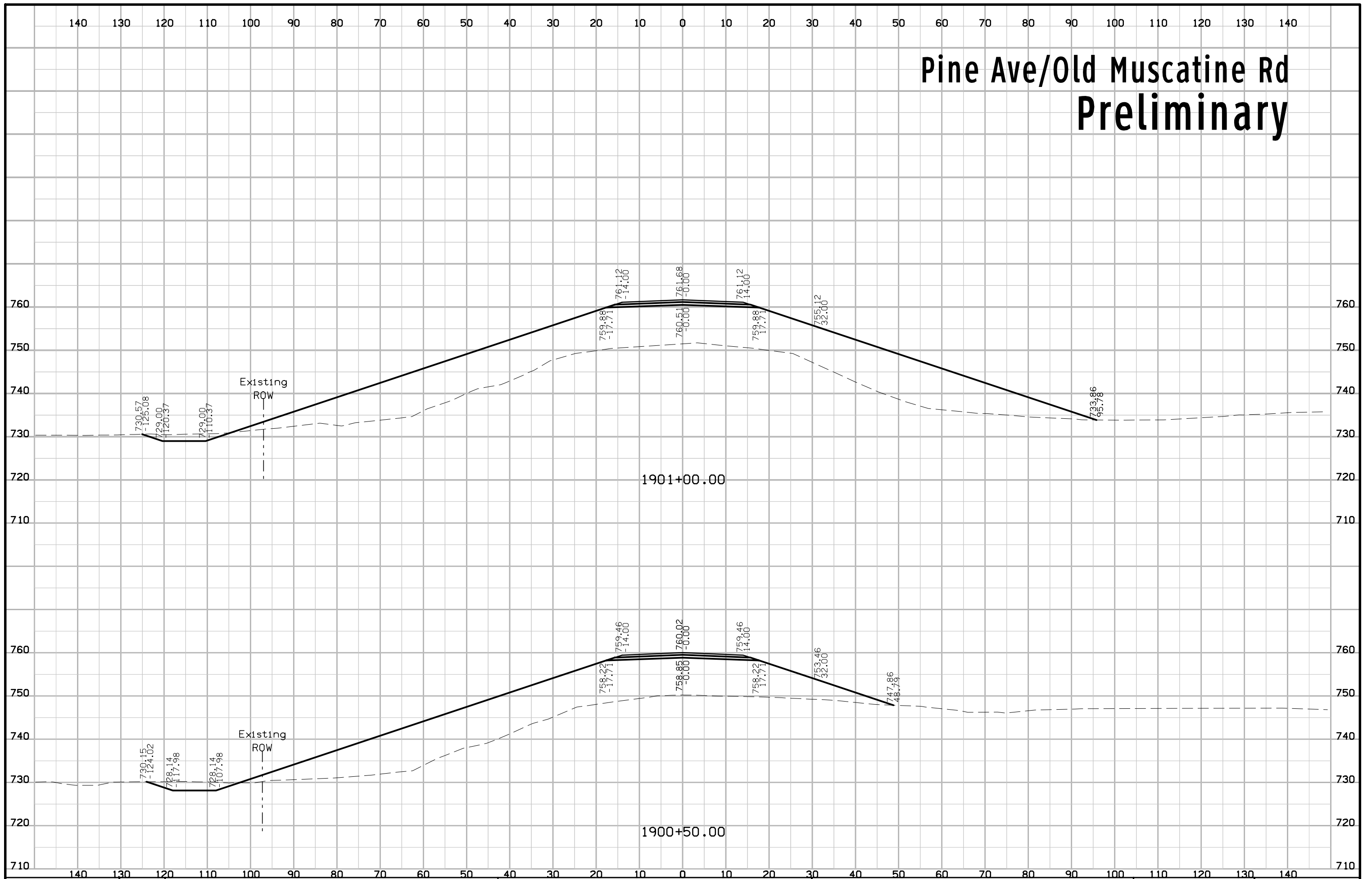
Pine Ave/Old Muscatine Rd Preliminary



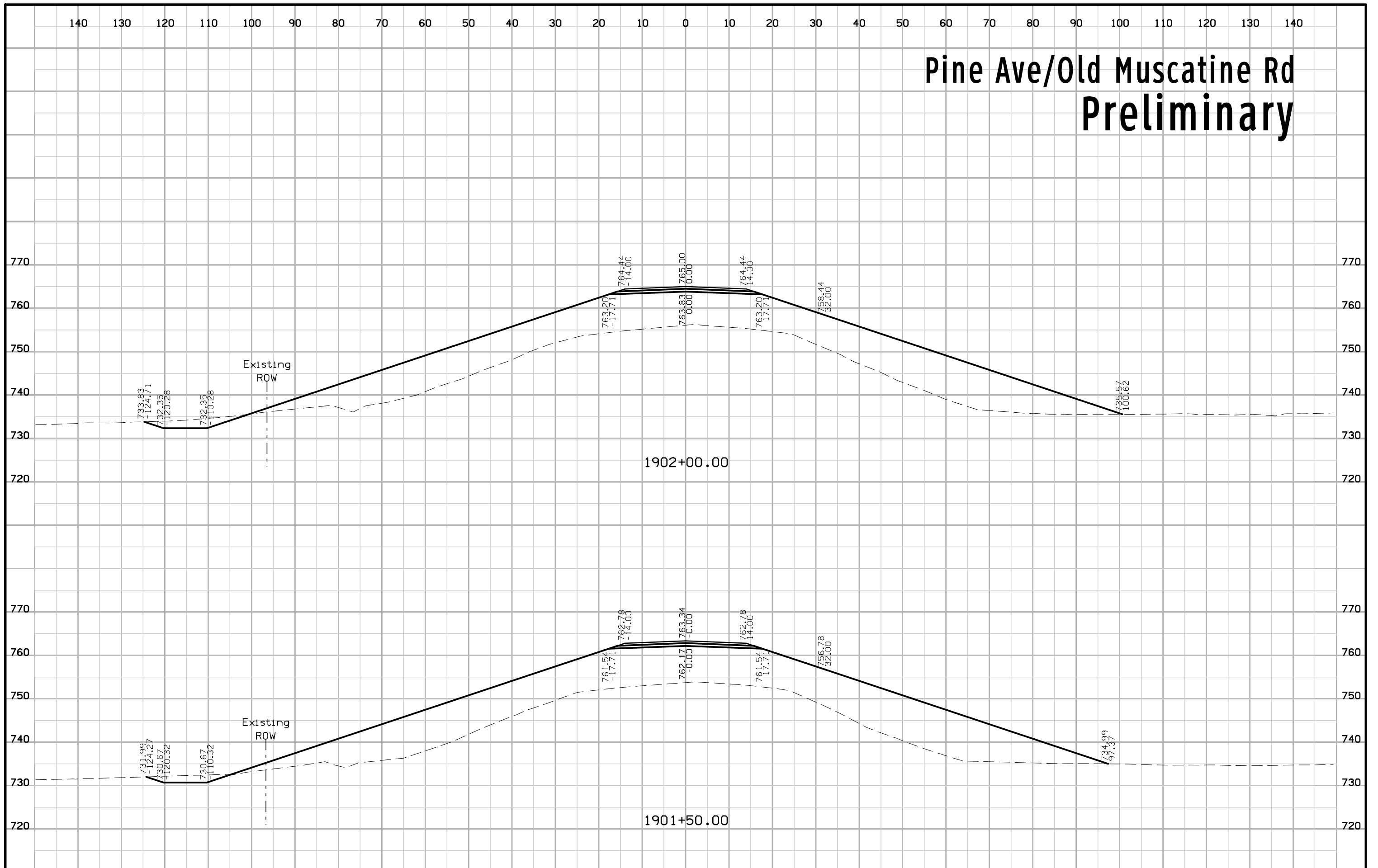
Pine Ave/Old Muscatine Rd Preliminary



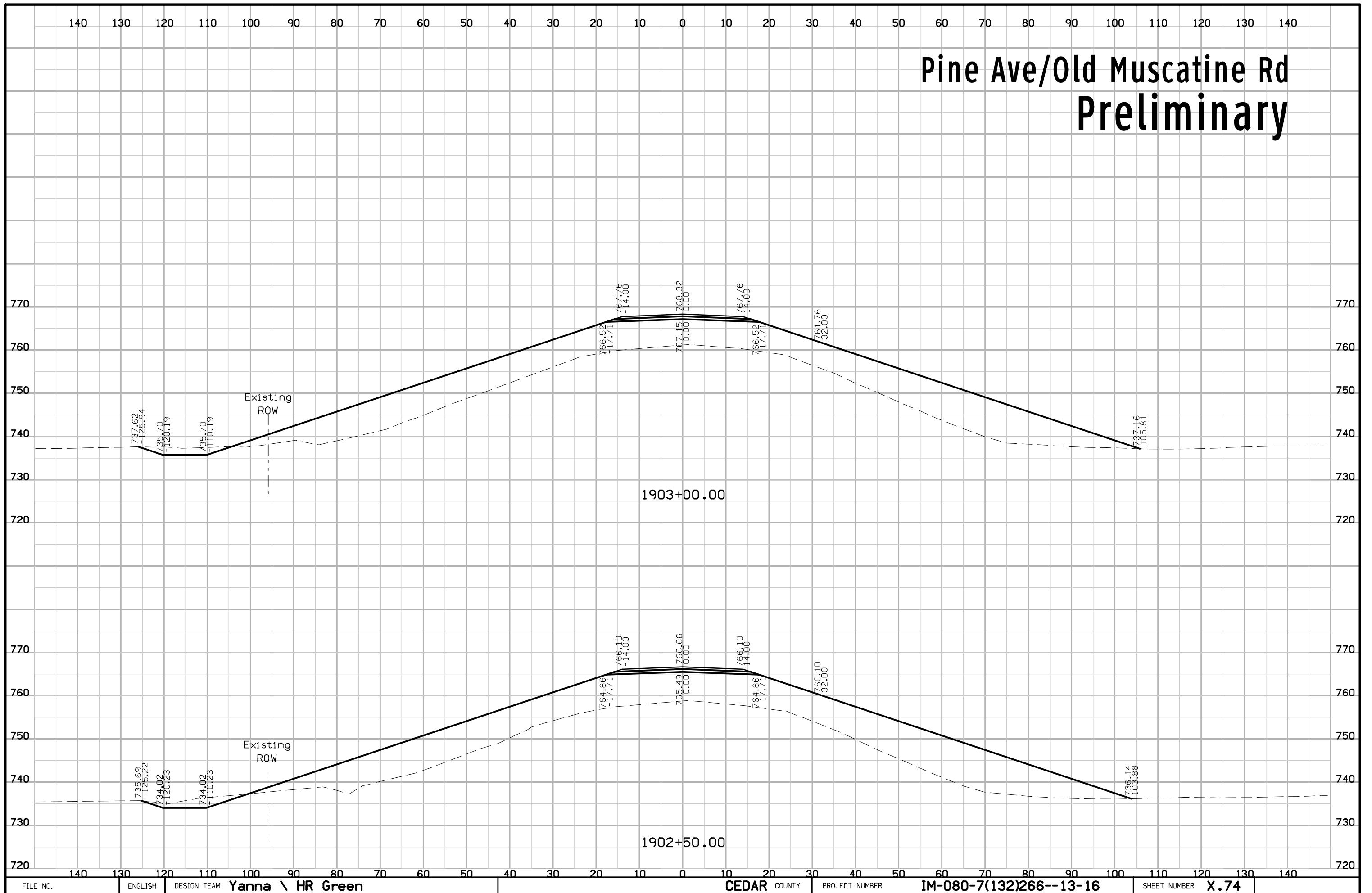
Pine Ave/Old Muscatine Rd Preliminary



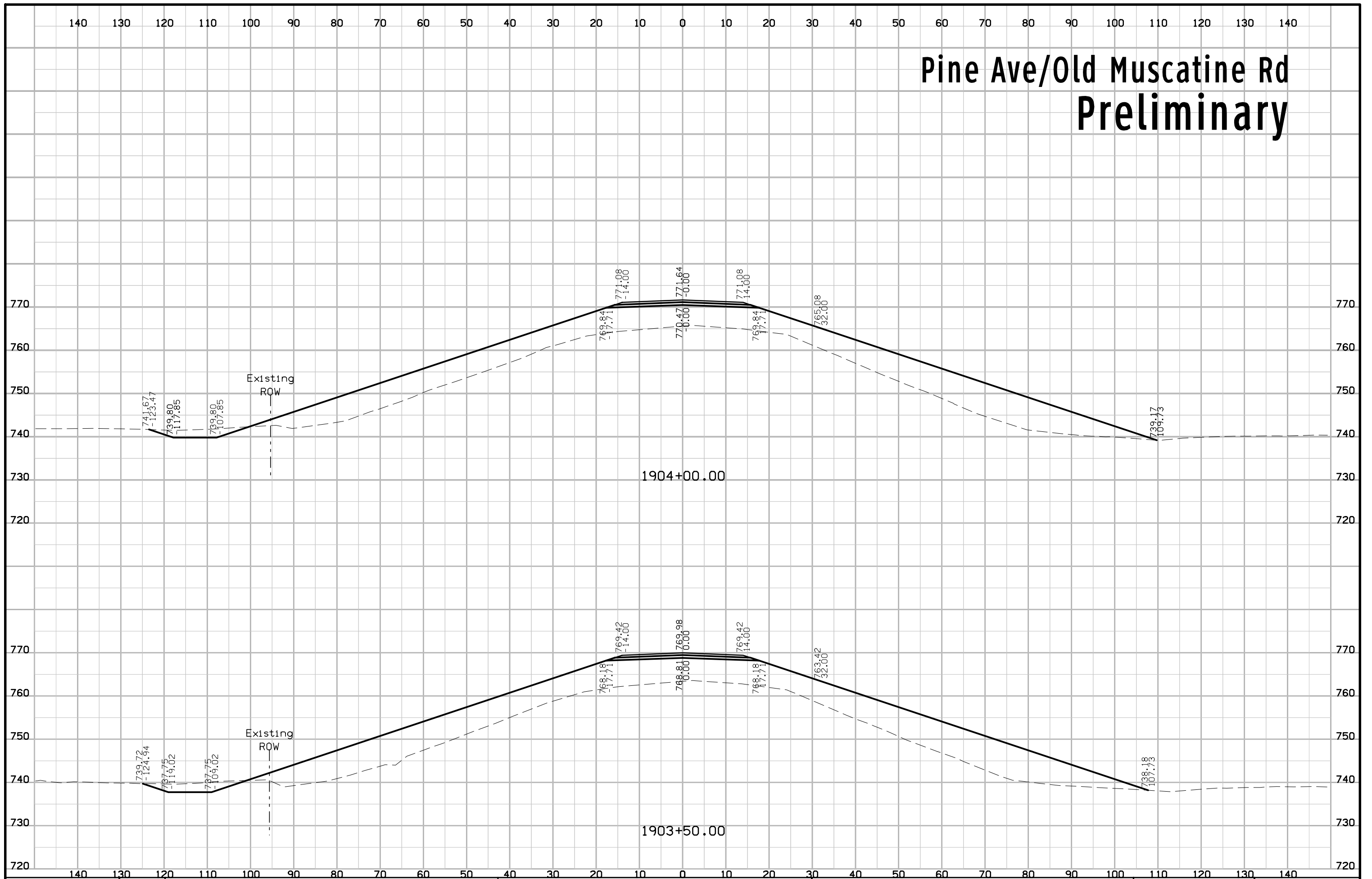
Pine Ave/Old Muscatine Rd Preliminary



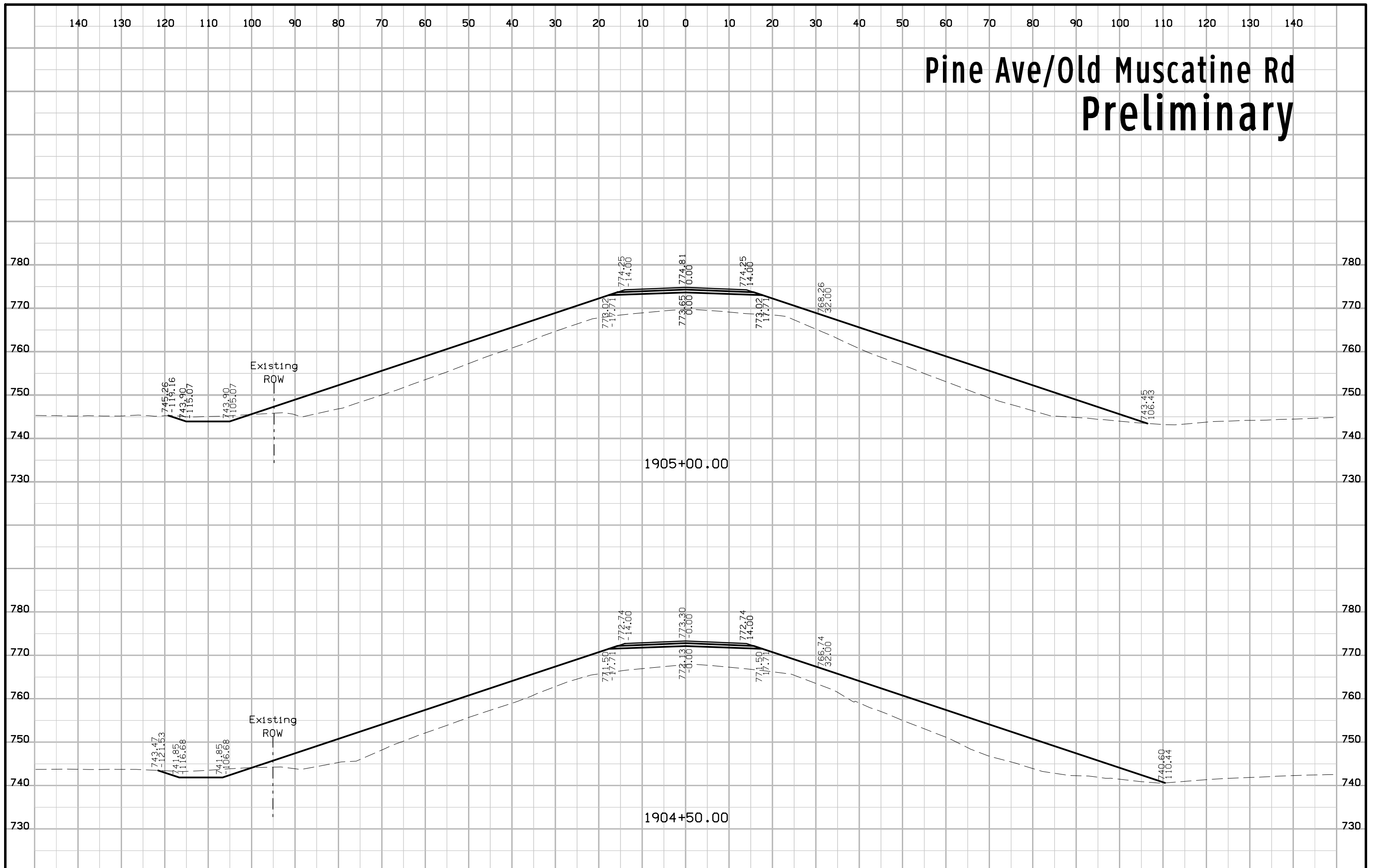
Pine Ave/Old Muscatine Rd Preliminary



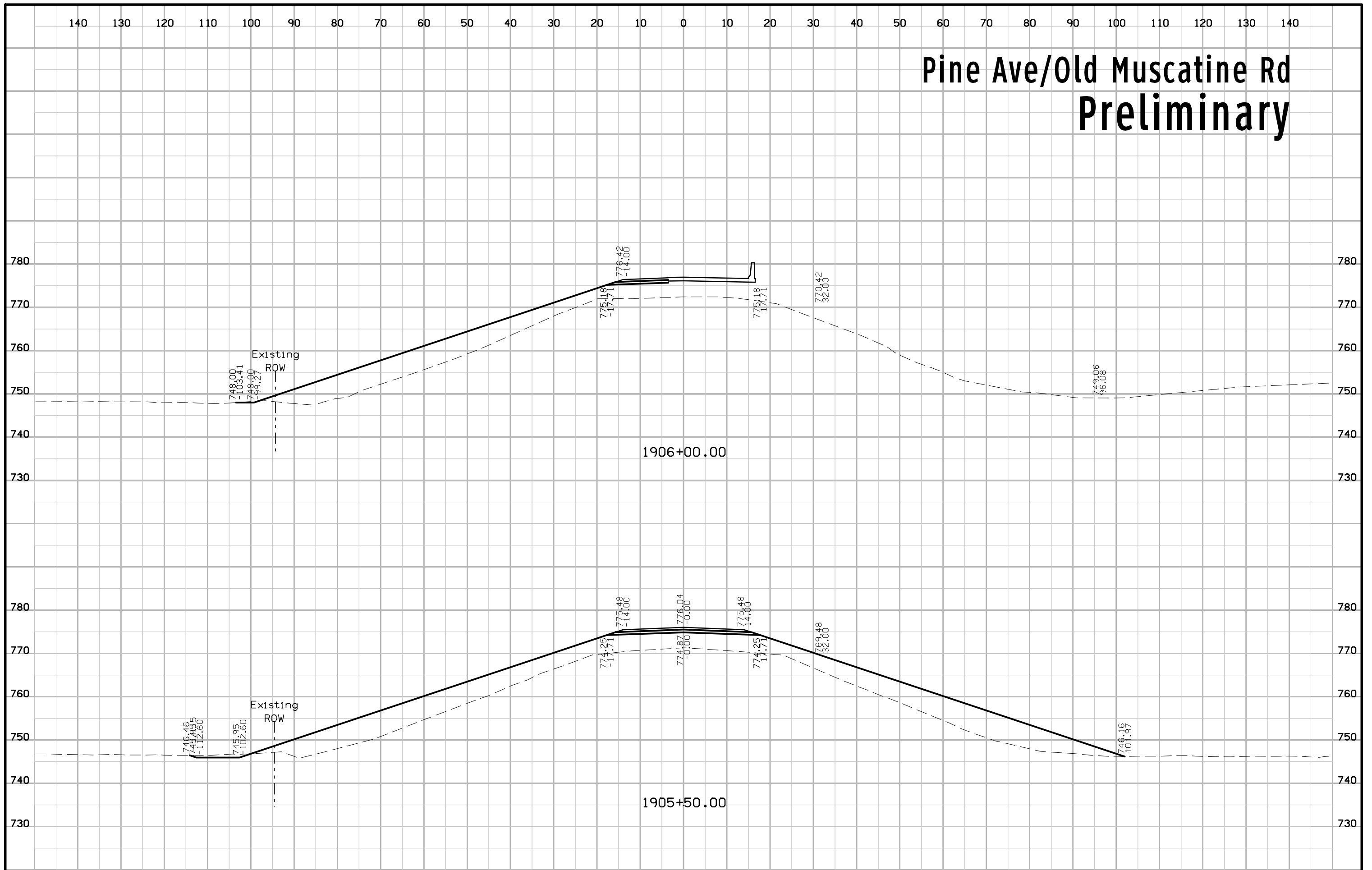
Pine Ave/Old Muscatine Rd Preliminary



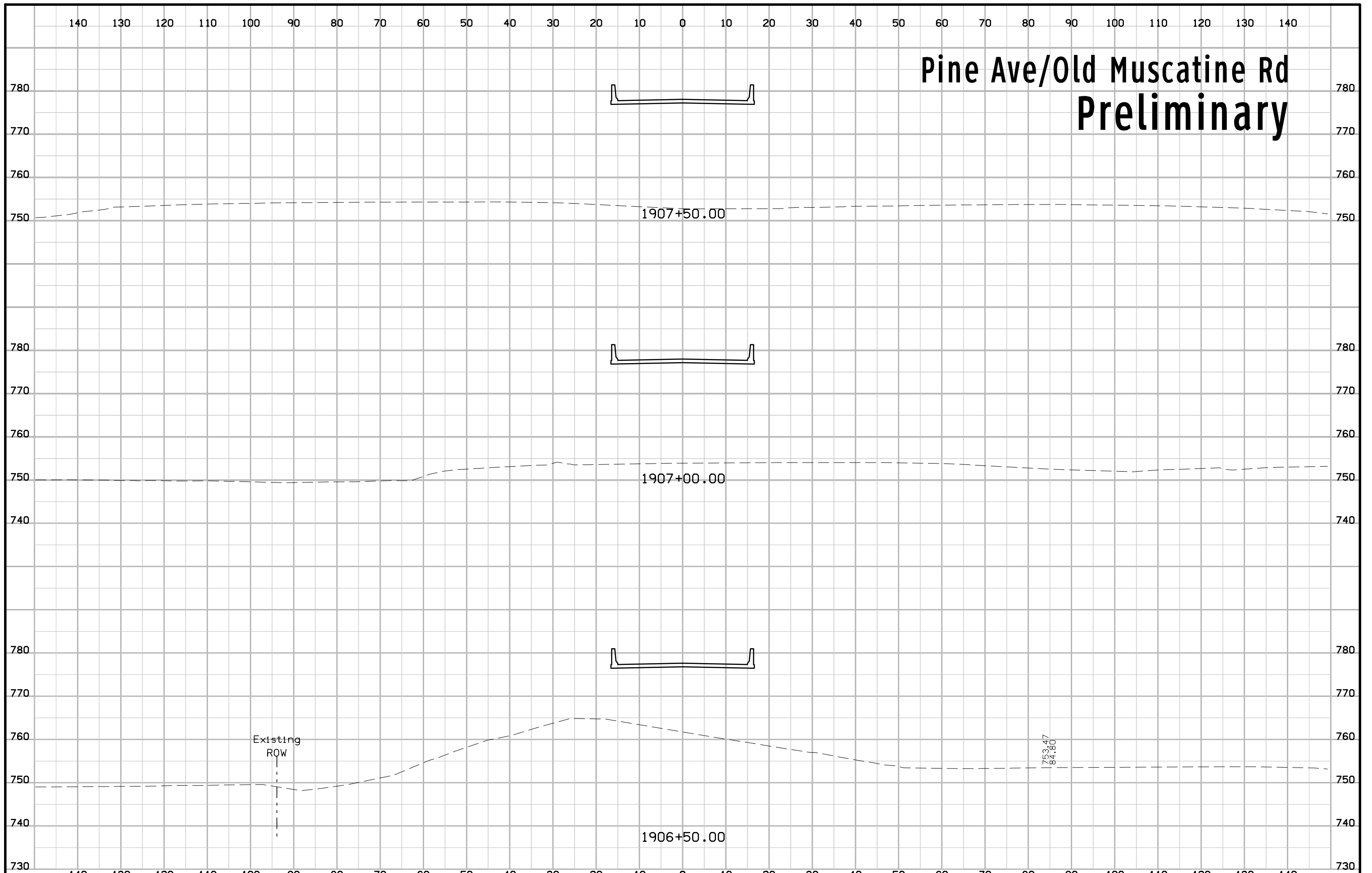
Pine Ave/Old Muscatine Rd Preliminary



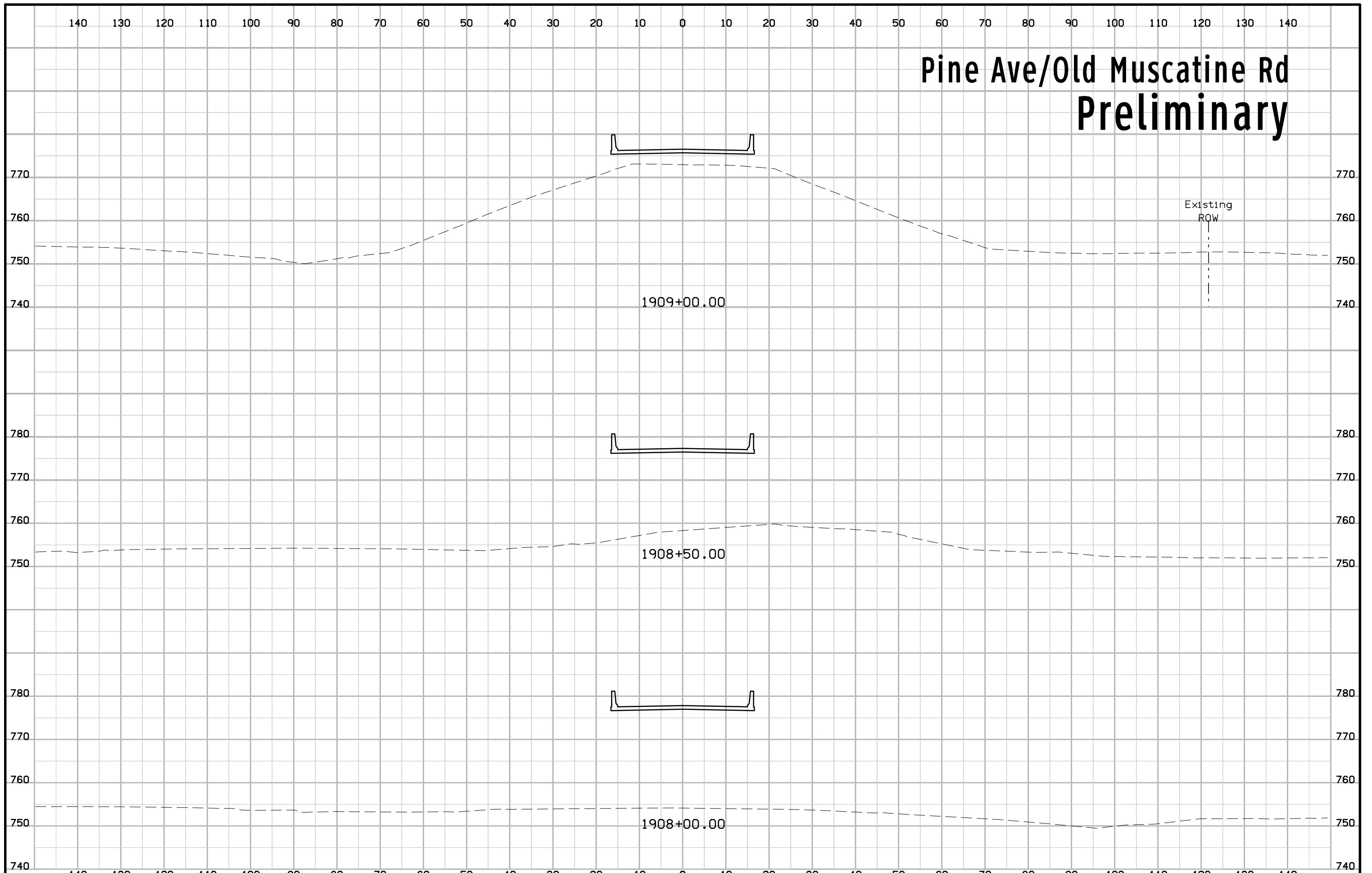
Pine Ave/Old Muscatine Rd Preliminary



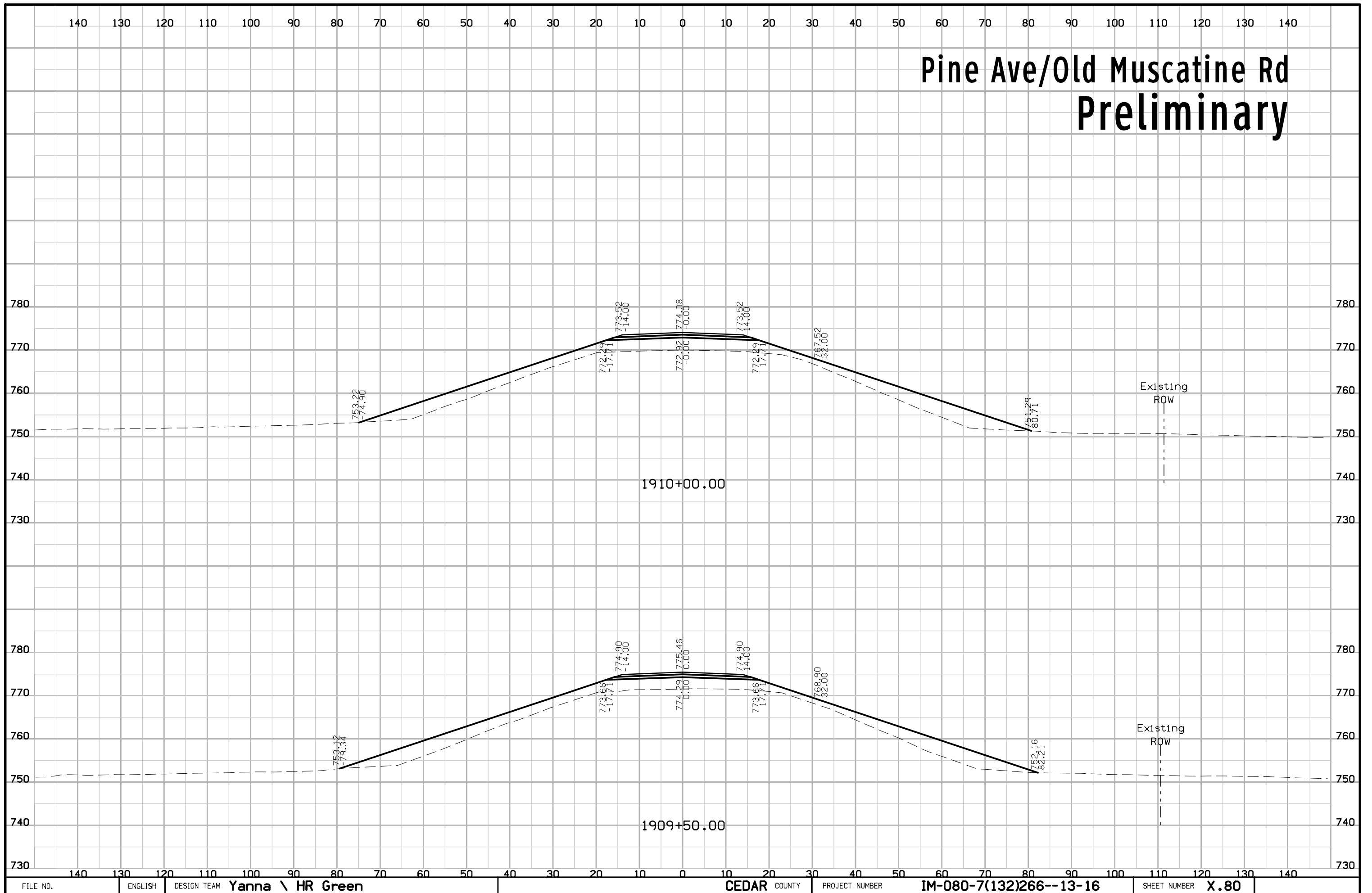
Pine Ave/Old Muscatine Rd Preliminary



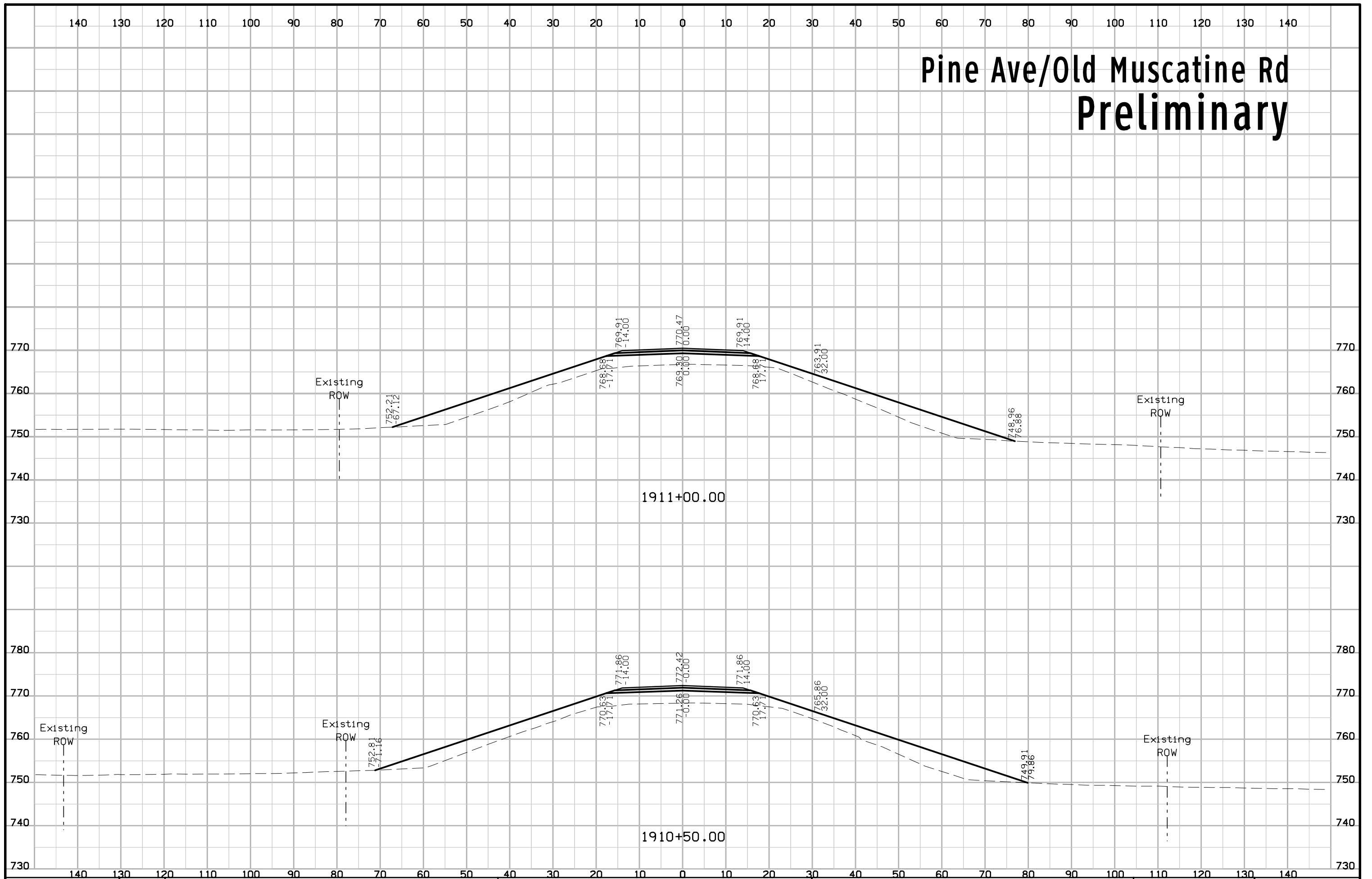
Pine Ave/Old Muscatine Rd Preliminary



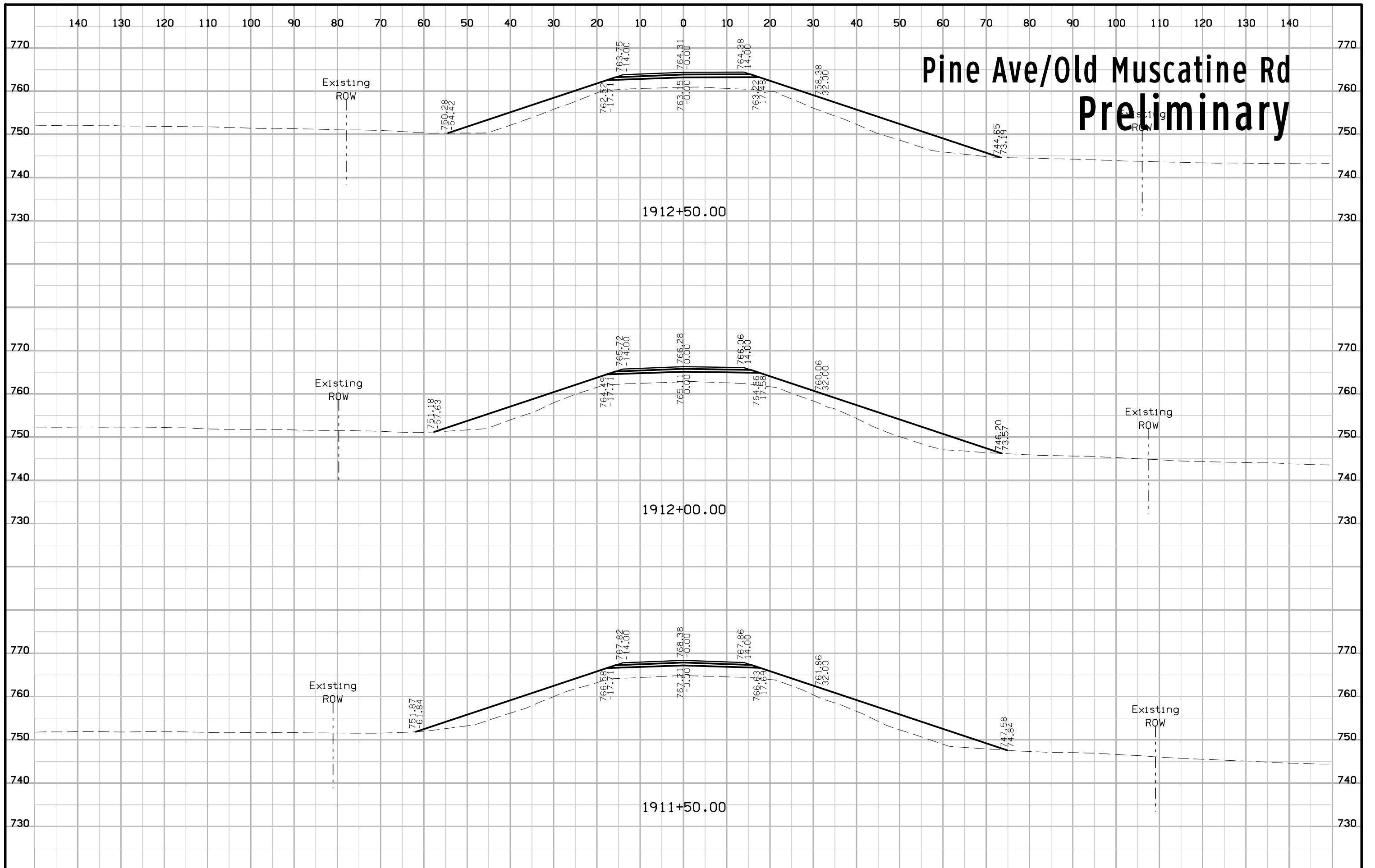
Pine Ave/Old Muscatine Rd Preliminary



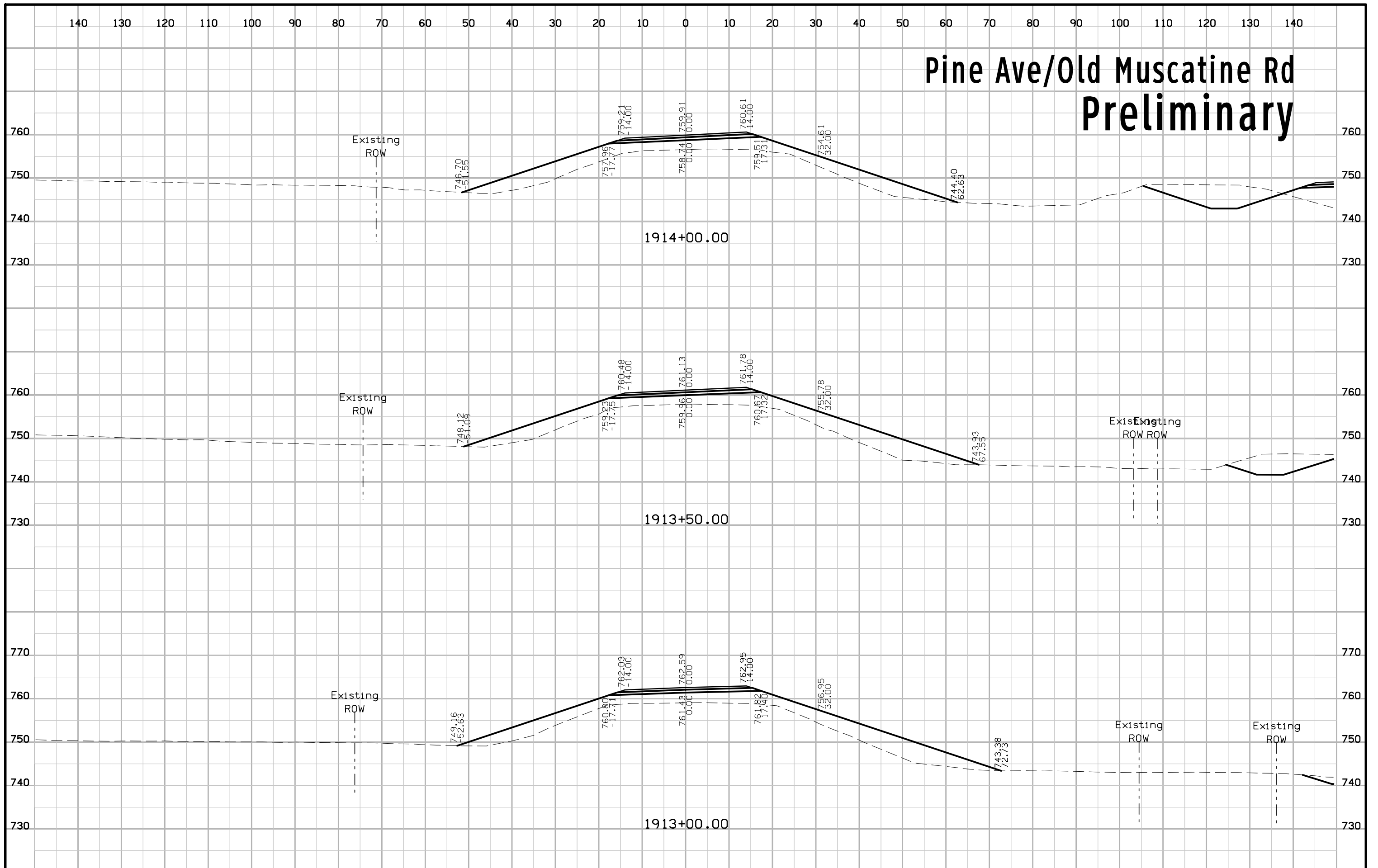
Pine Ave/Old Muscatine Rd Preliminary



Pine Ave/Old Muscatine Rd Preliminary



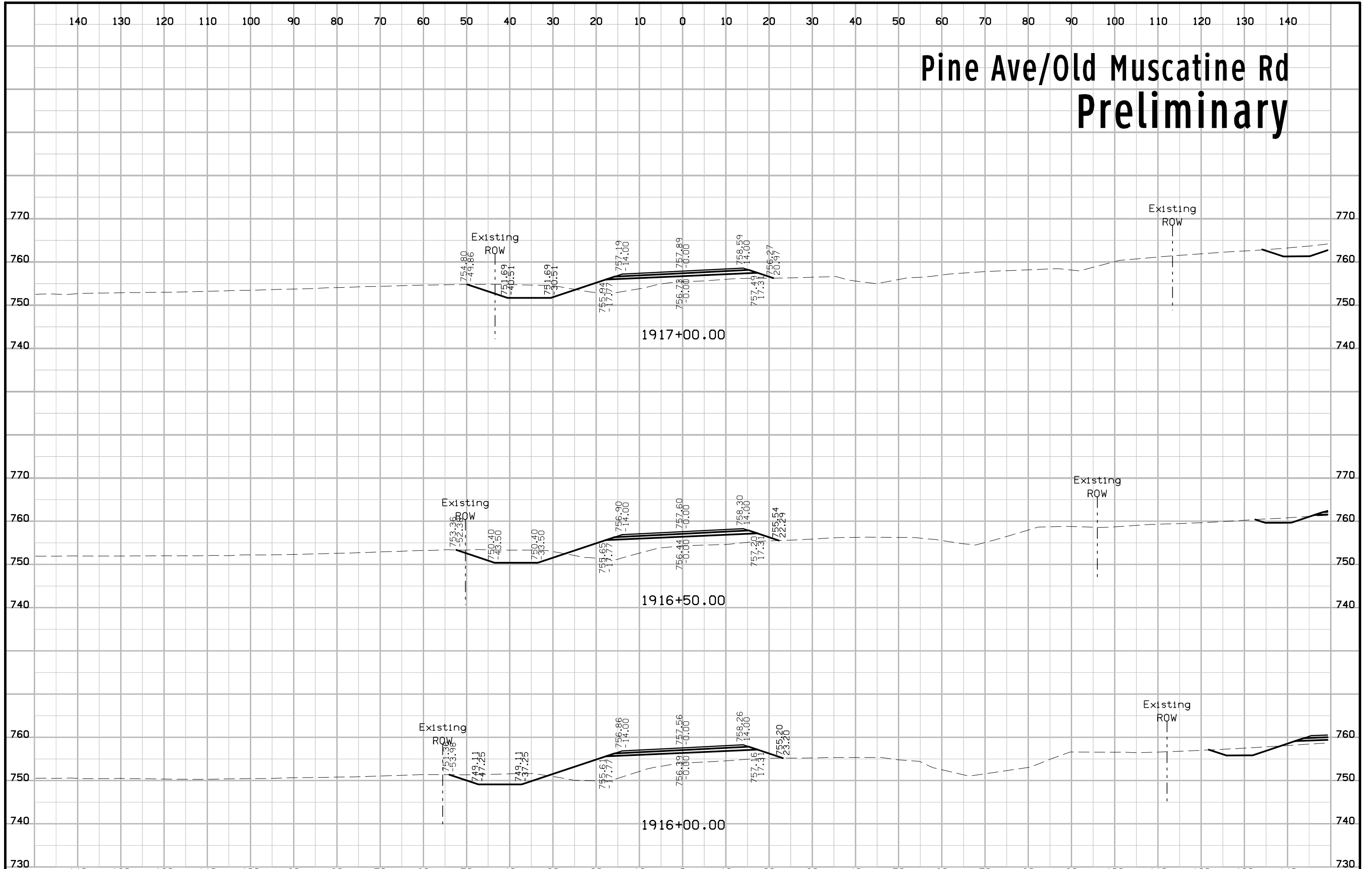
Pine Ave/Old Muscatine Rd Preliminary



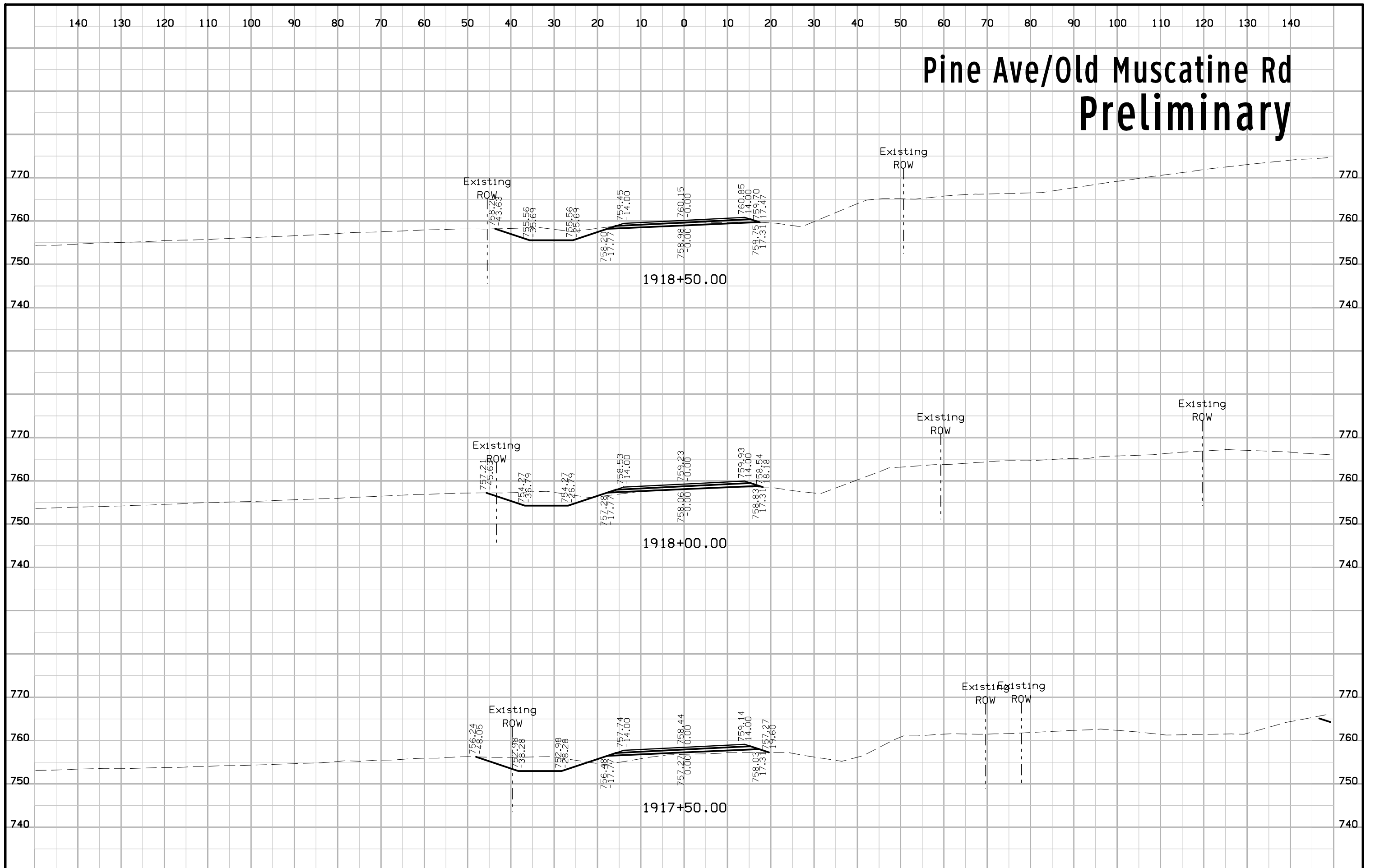
Pine Ave/Old Muscatine Rd Preliminary



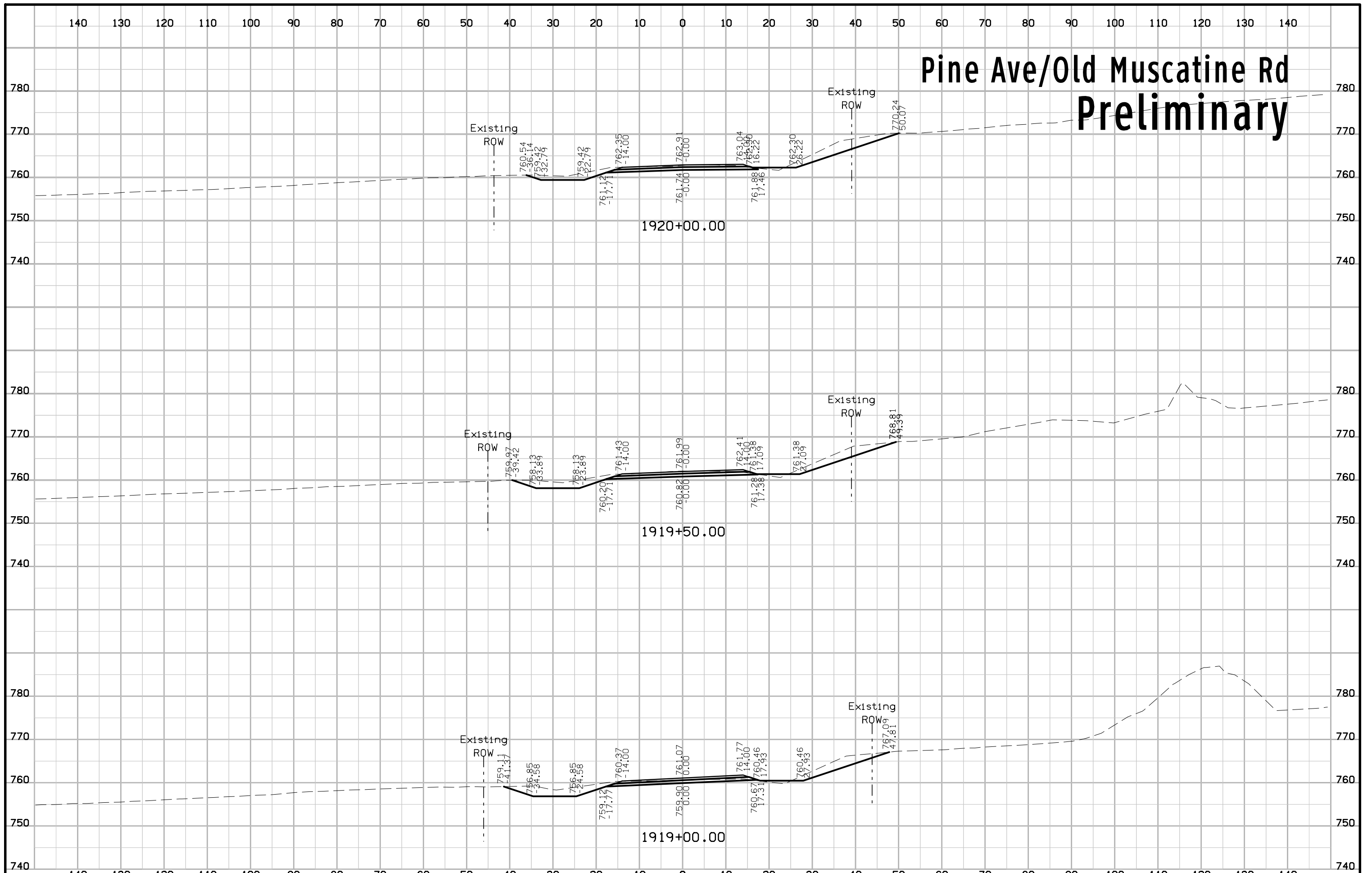
Pine Ave/Old Muscatine Rd Preliminary



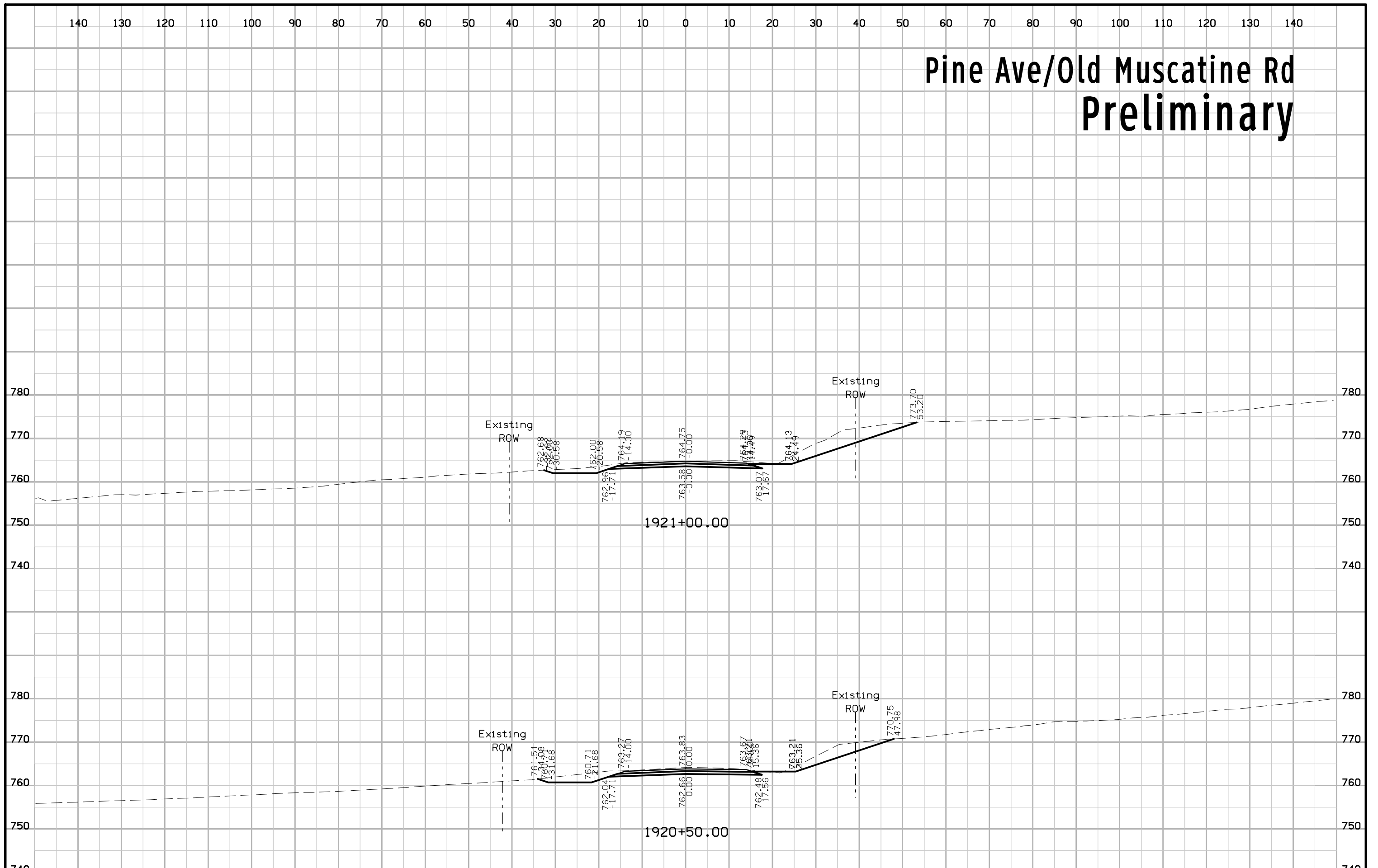
Pine Ave/Old Muscatine Rd Preliminary



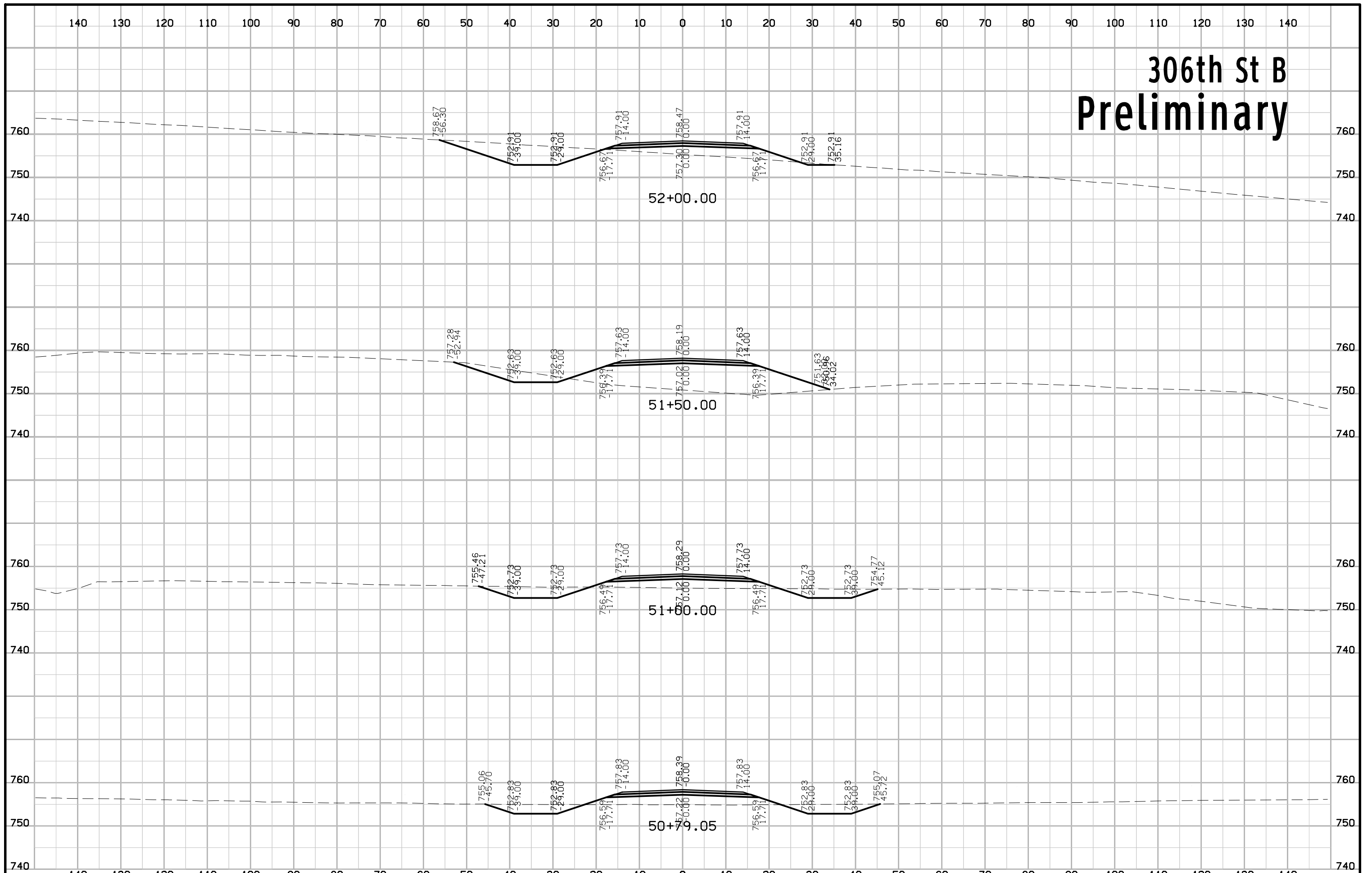
Pine Ave/Old Muscatine Rd Preliminary



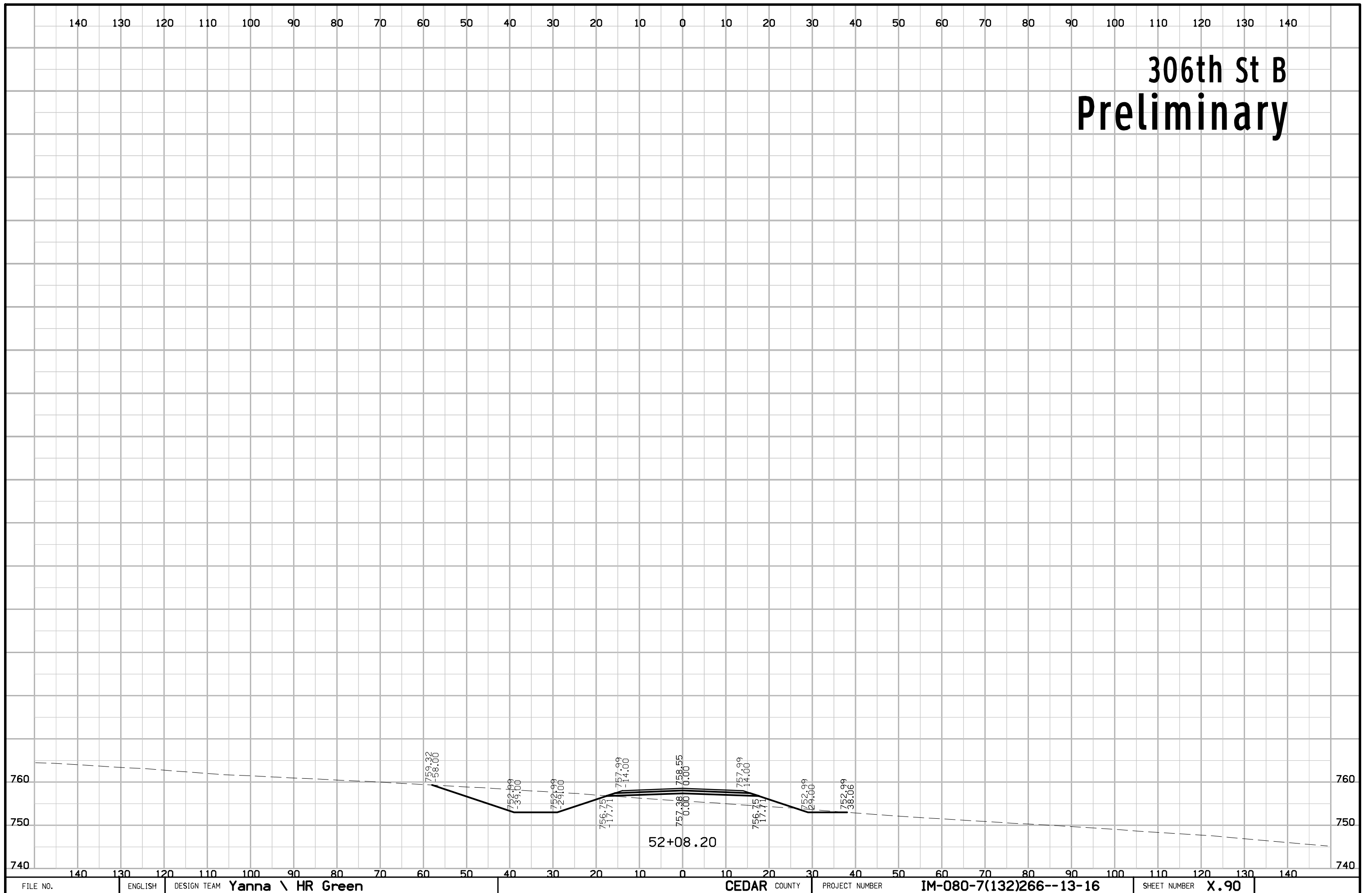
Pine Ave/Old Muscatine Rd Preliminary



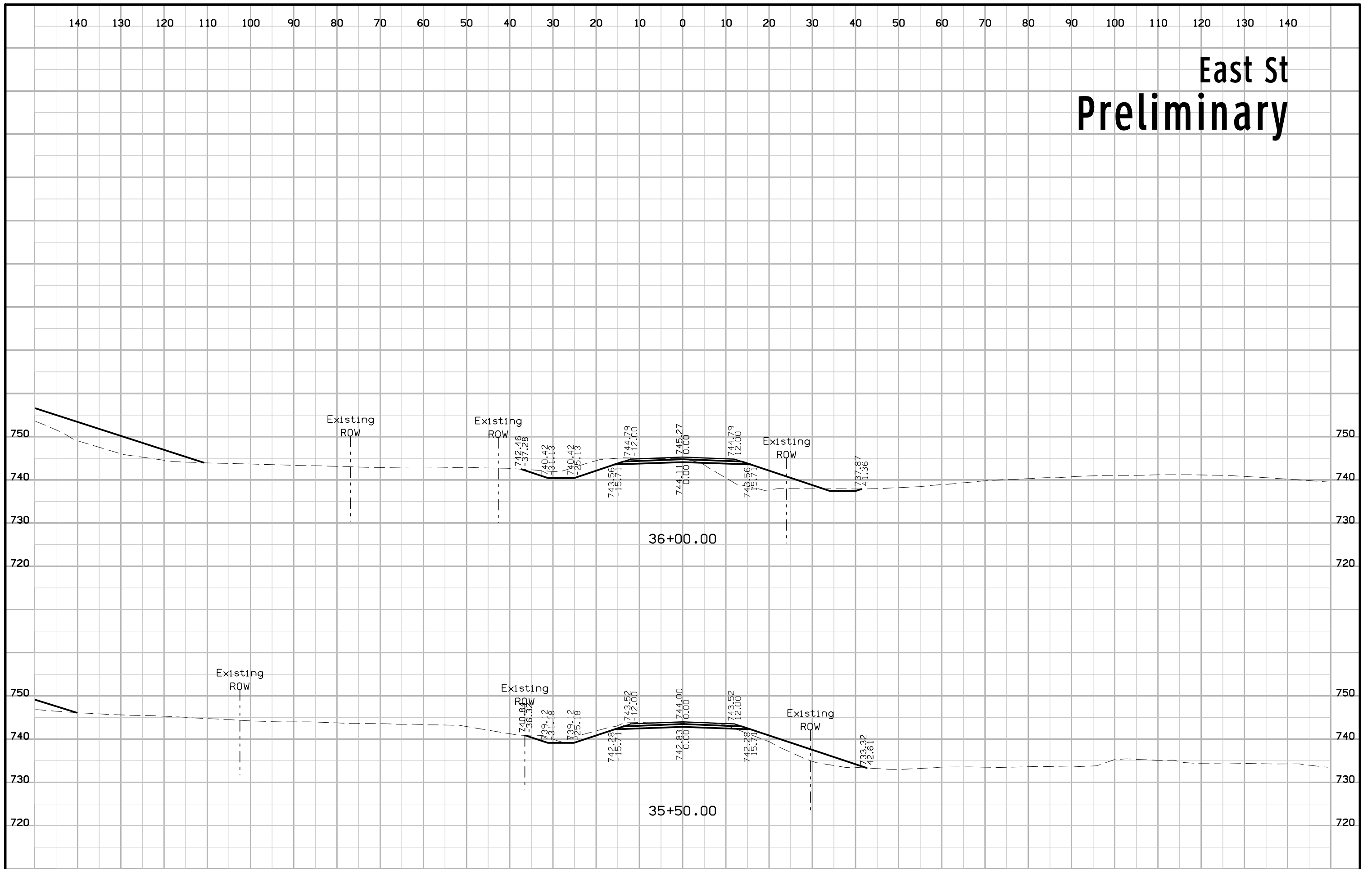
306th St B Preliminary



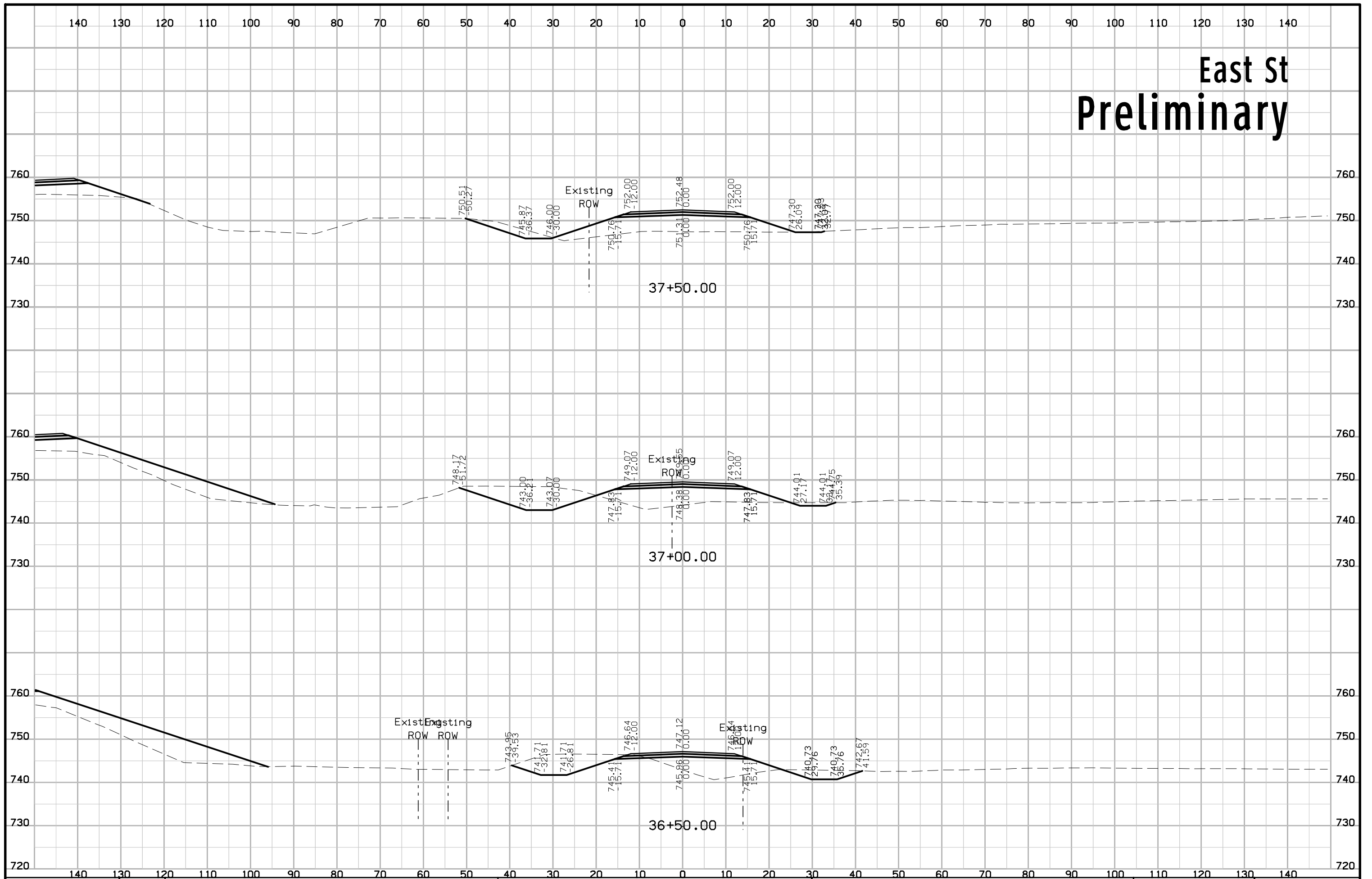
306th St B Preliminary



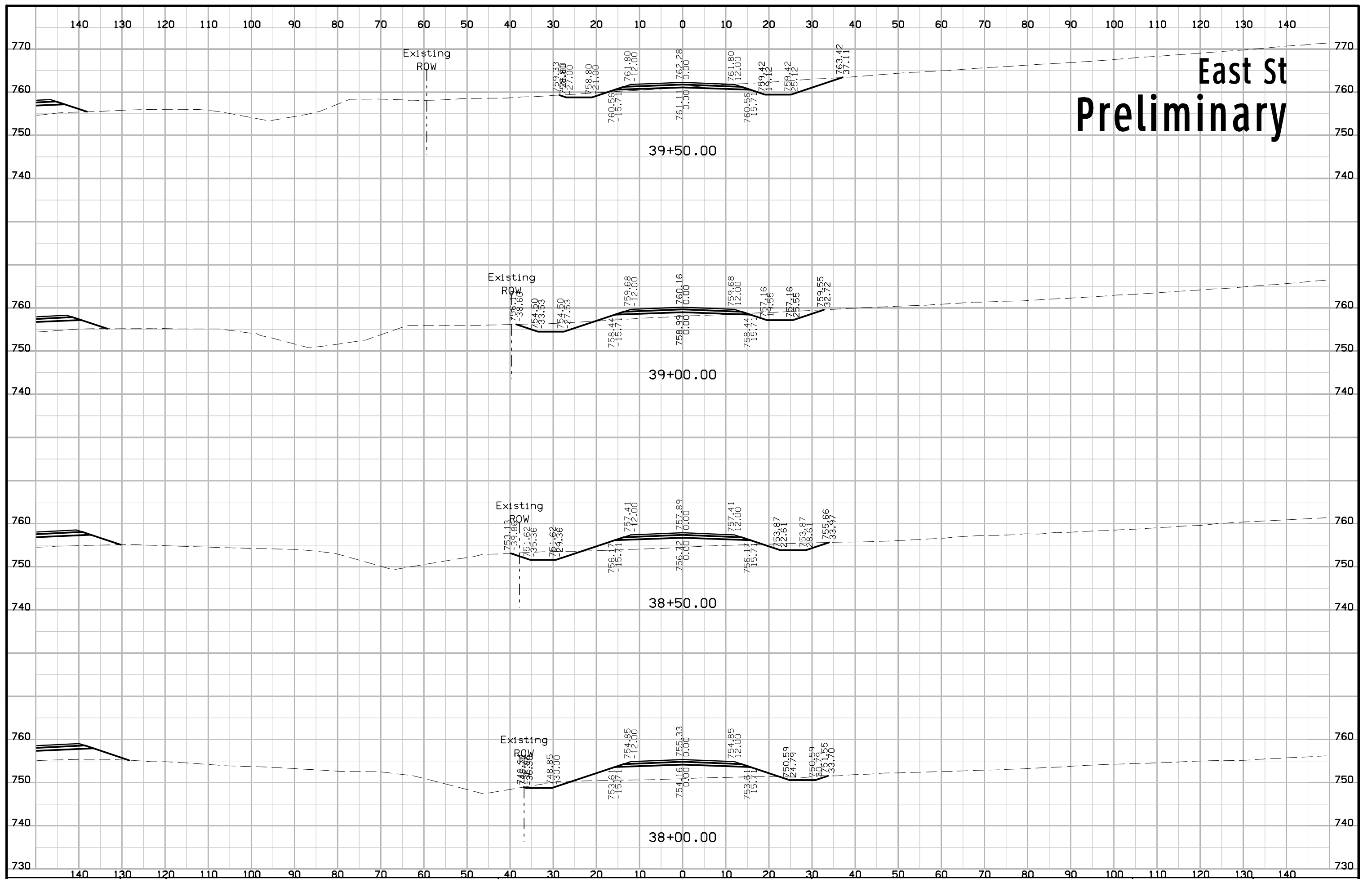
East St Preliminary



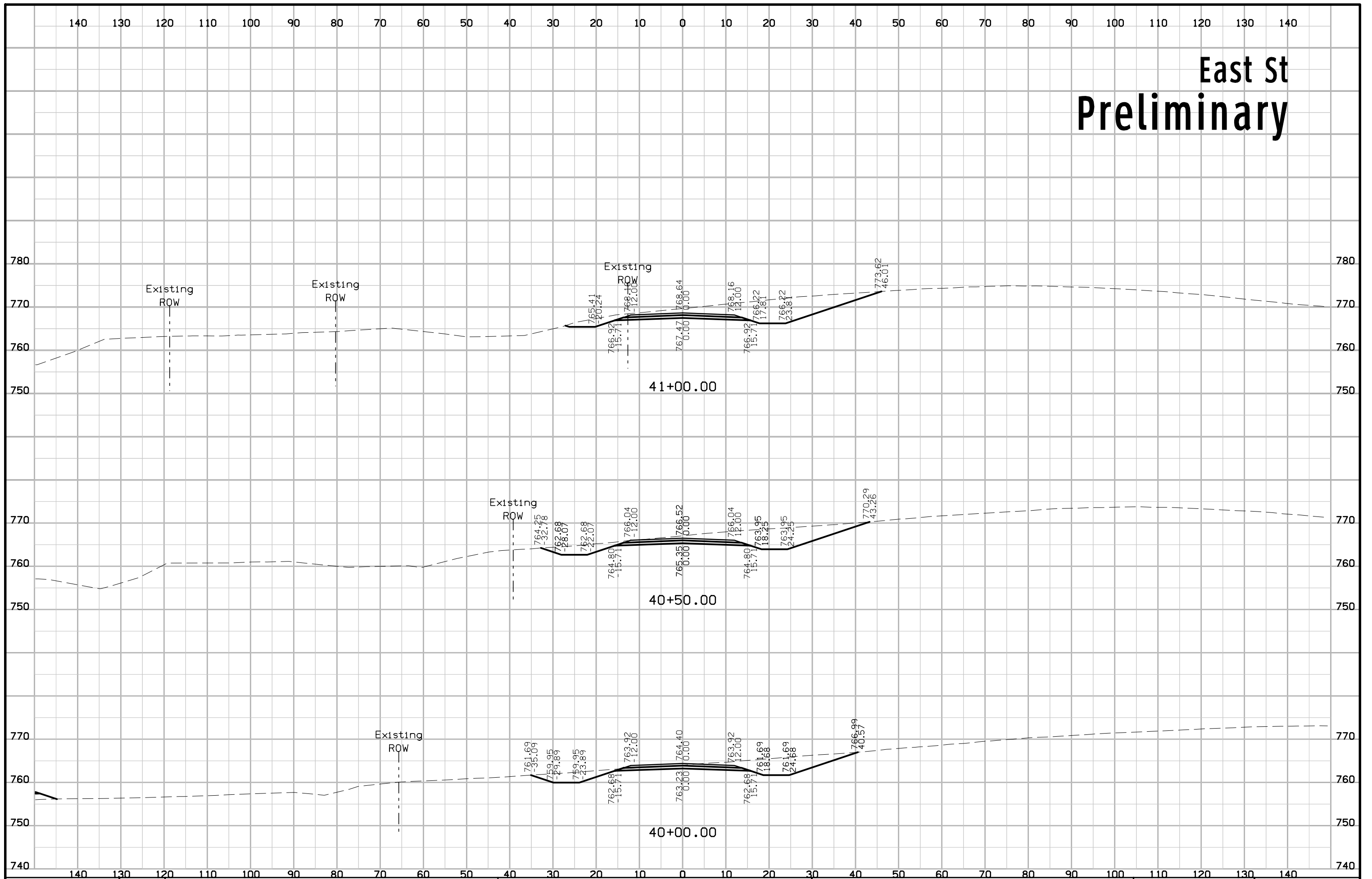
East St Preliminary



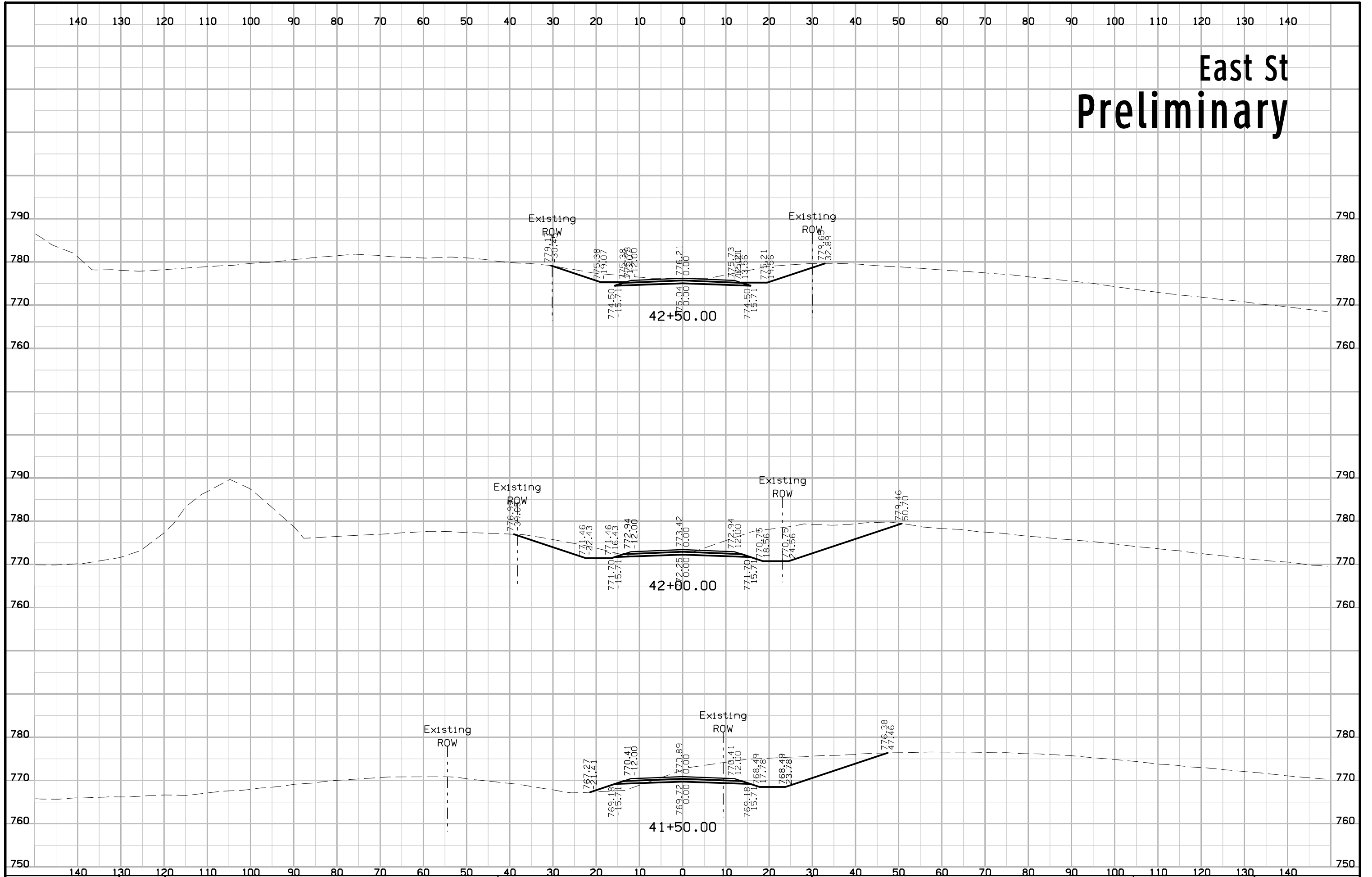
East St Preliminary



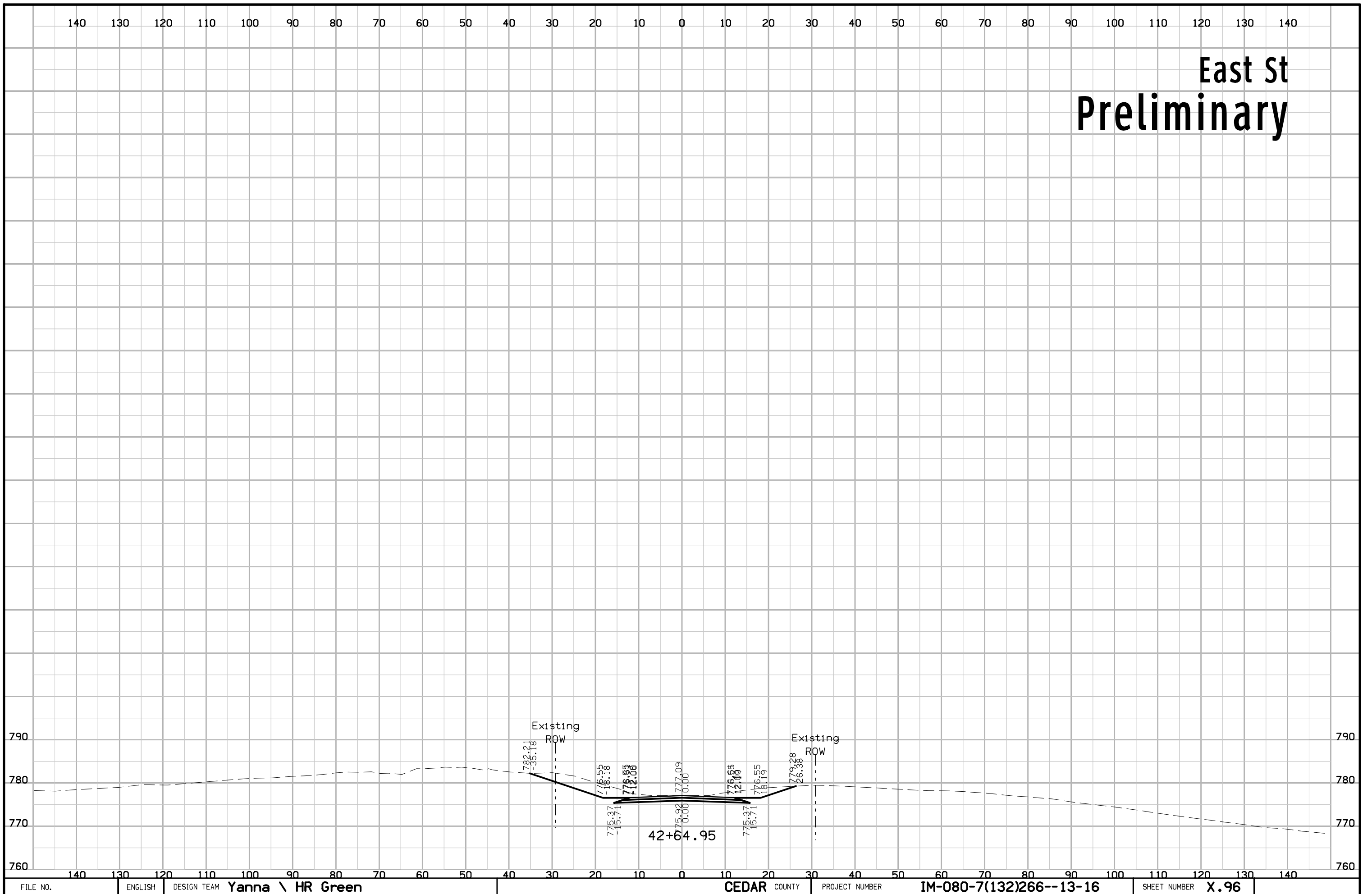
East St Preliminary



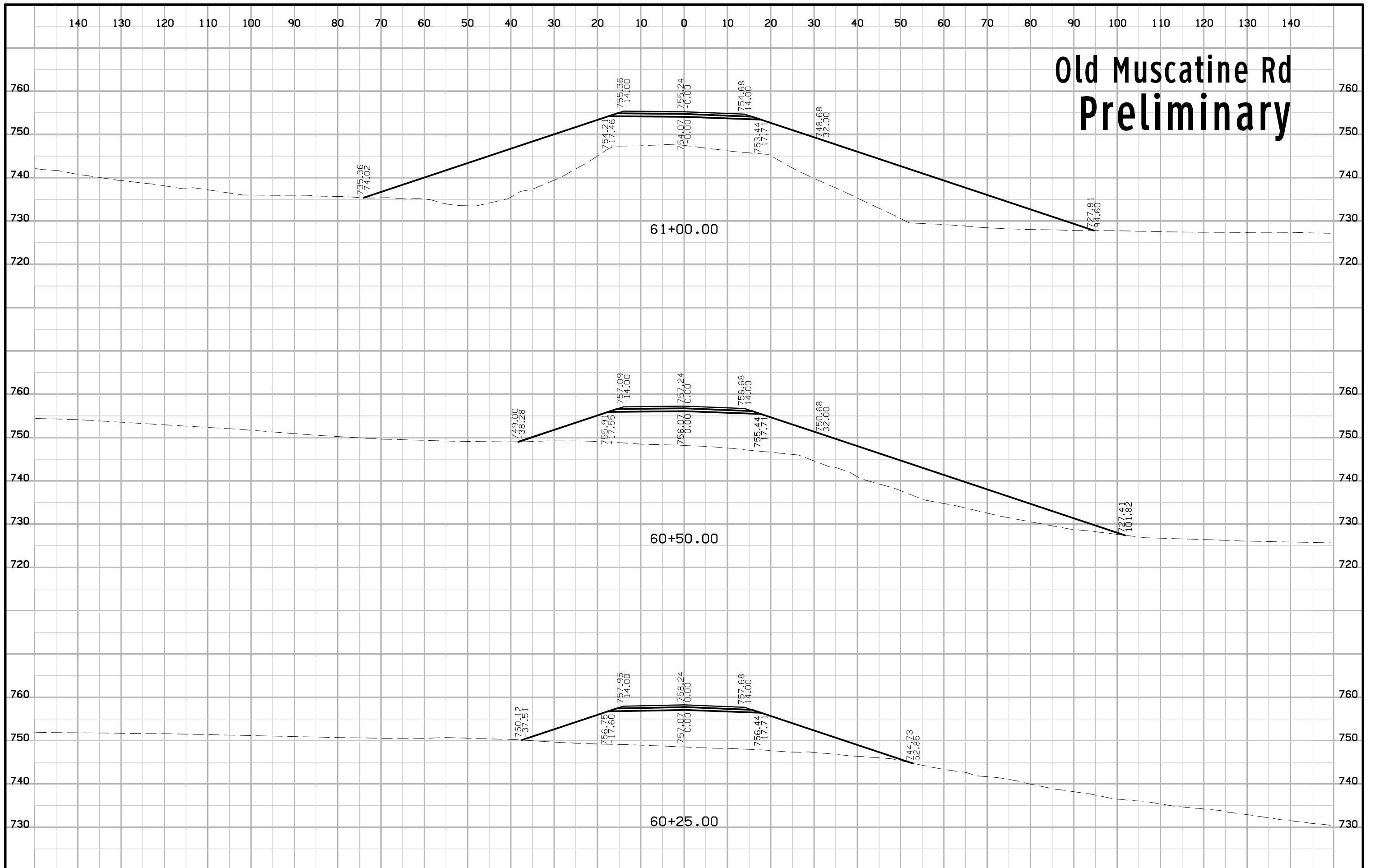
East St Preliminary



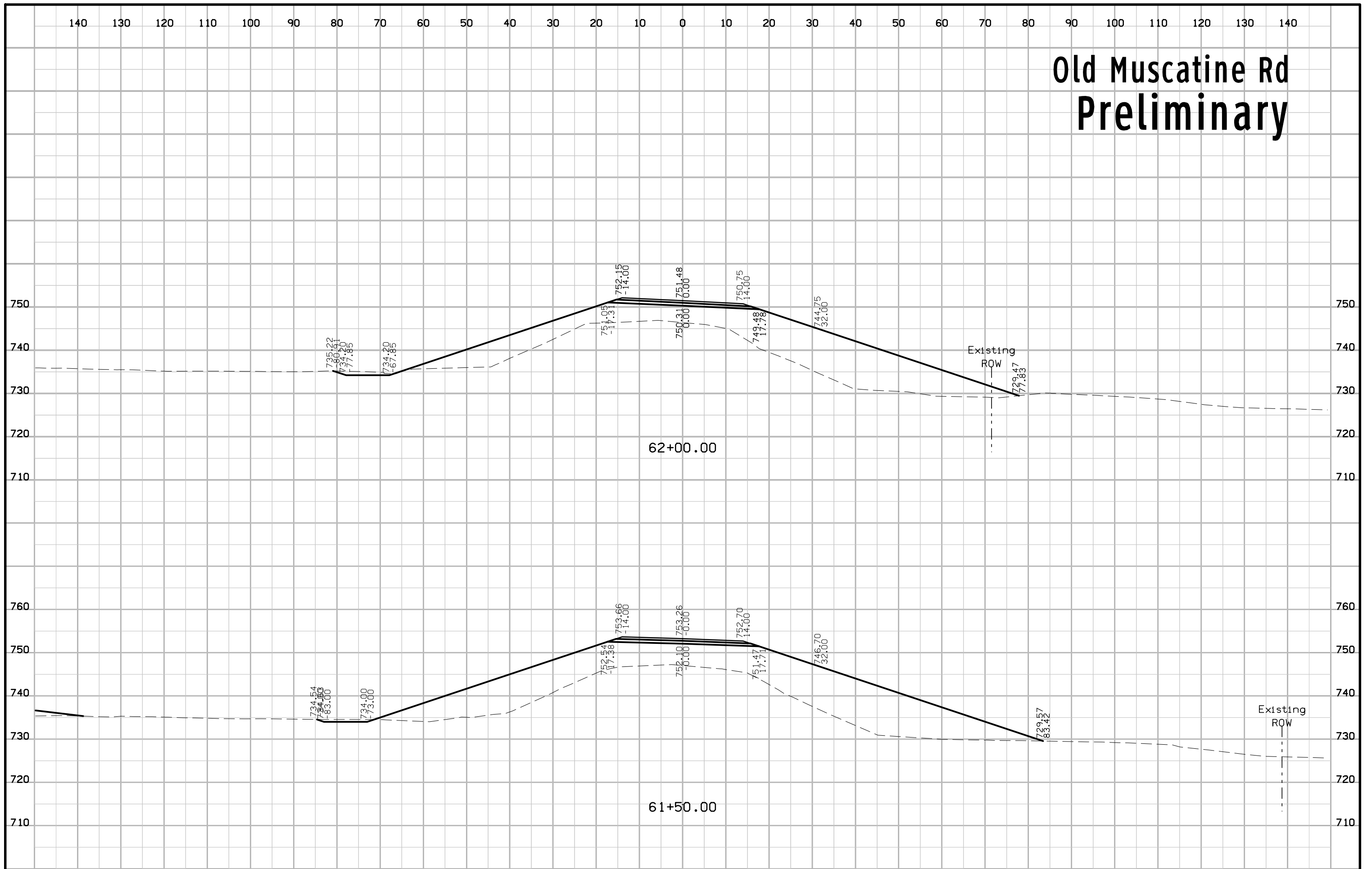
East St Preliminary



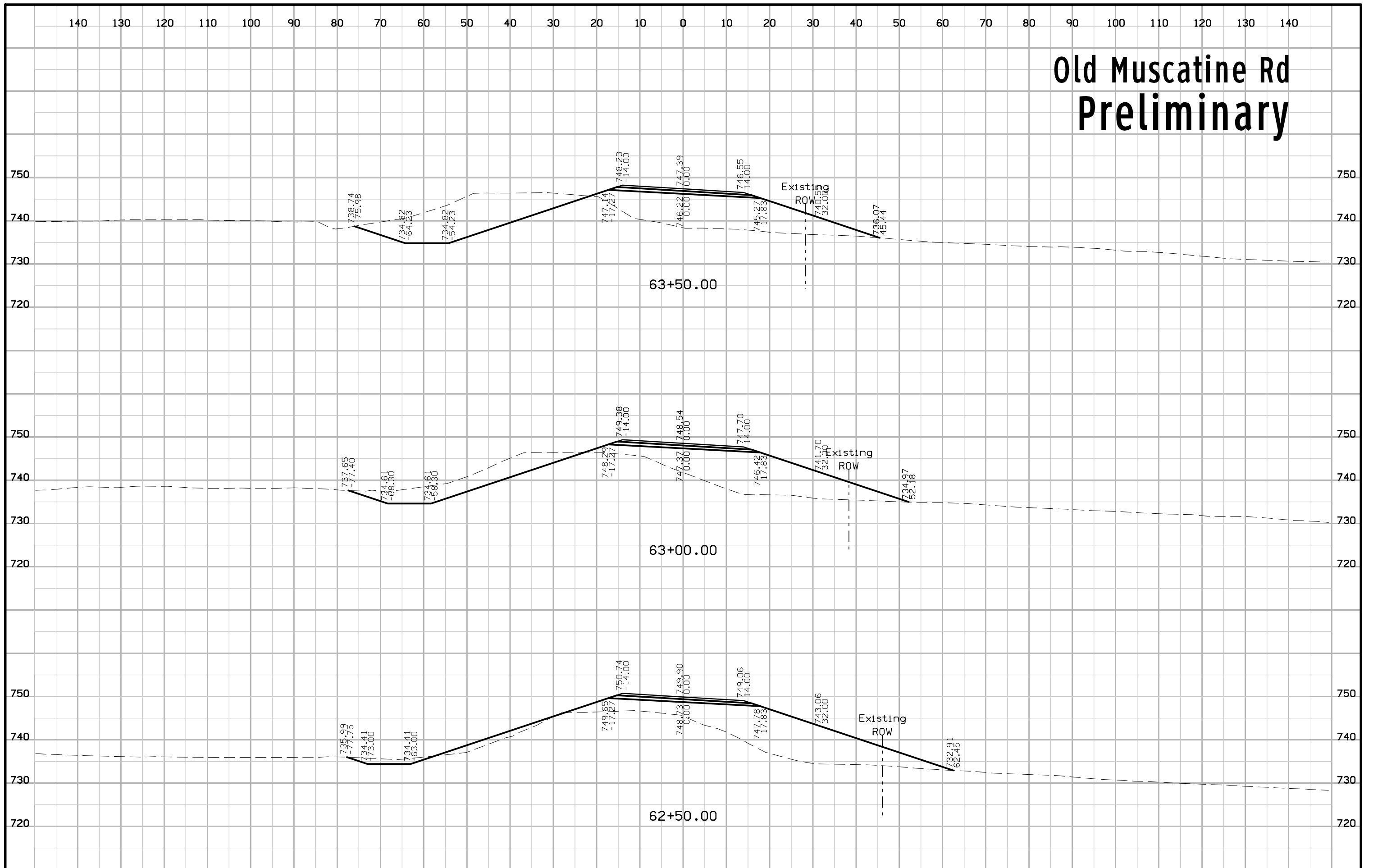
Old Muscatine Rd Preliminary



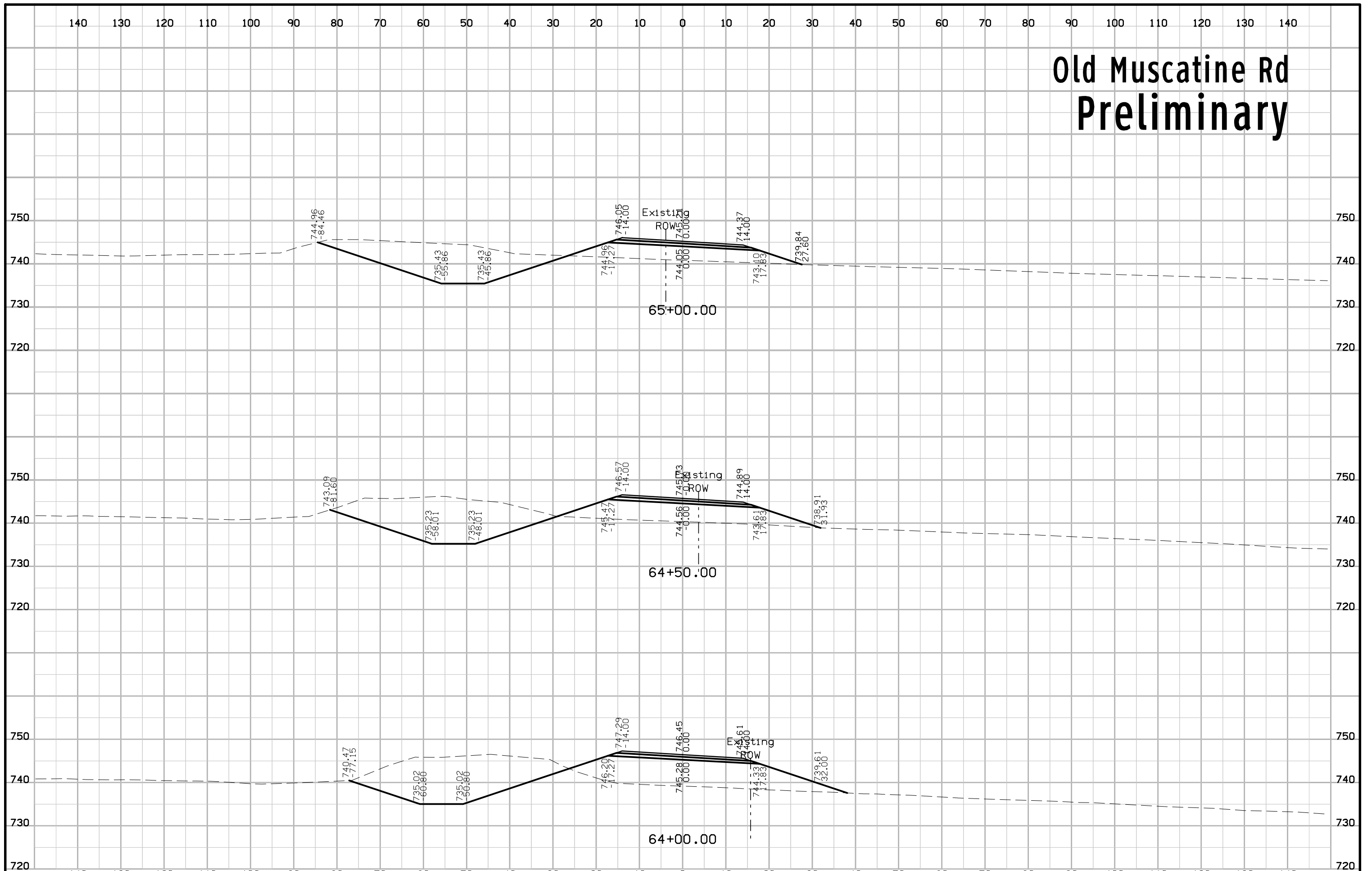
Old Muscatine Rd Preliminary



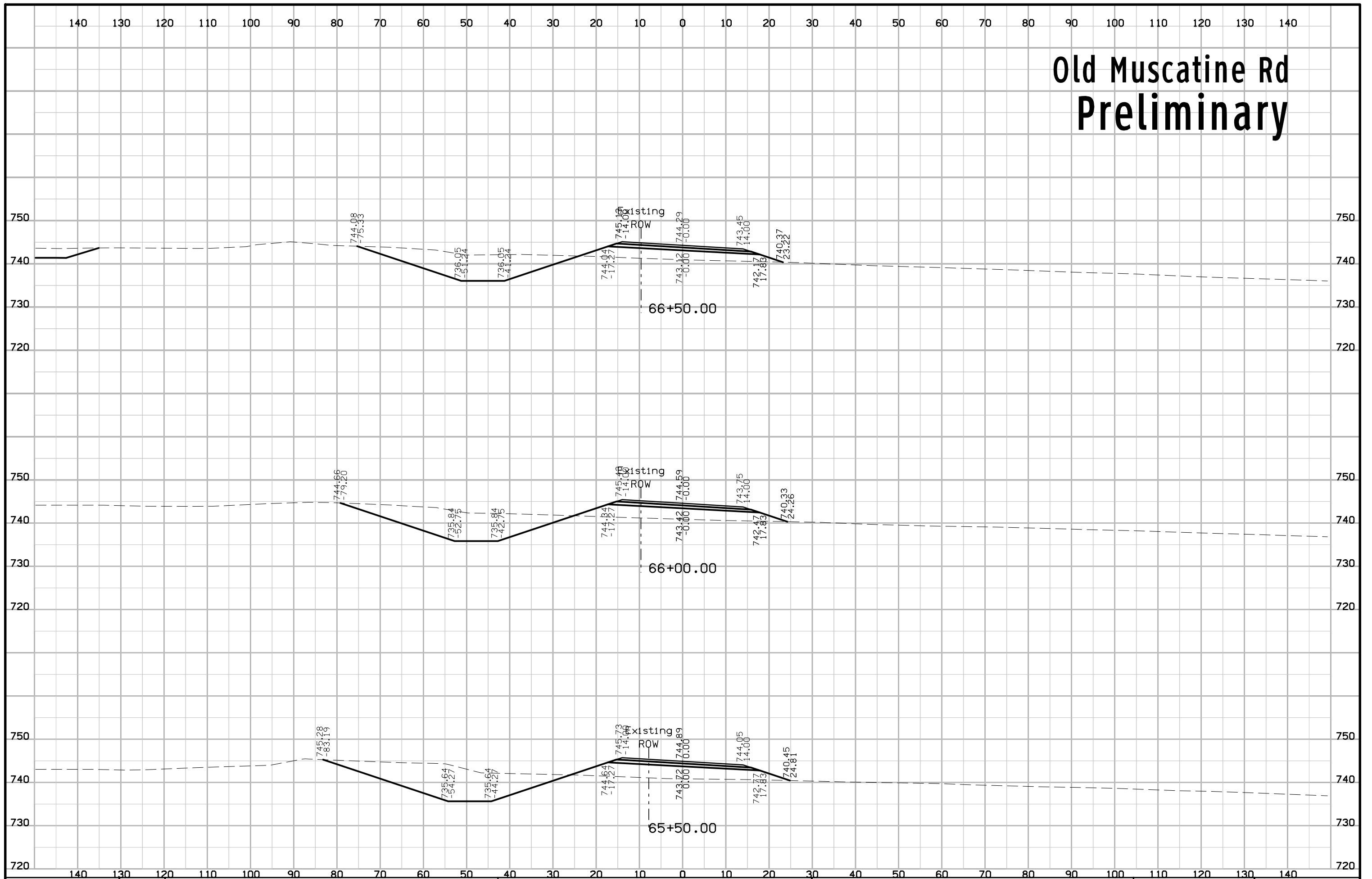
Old Muscatine Rd Preliminary



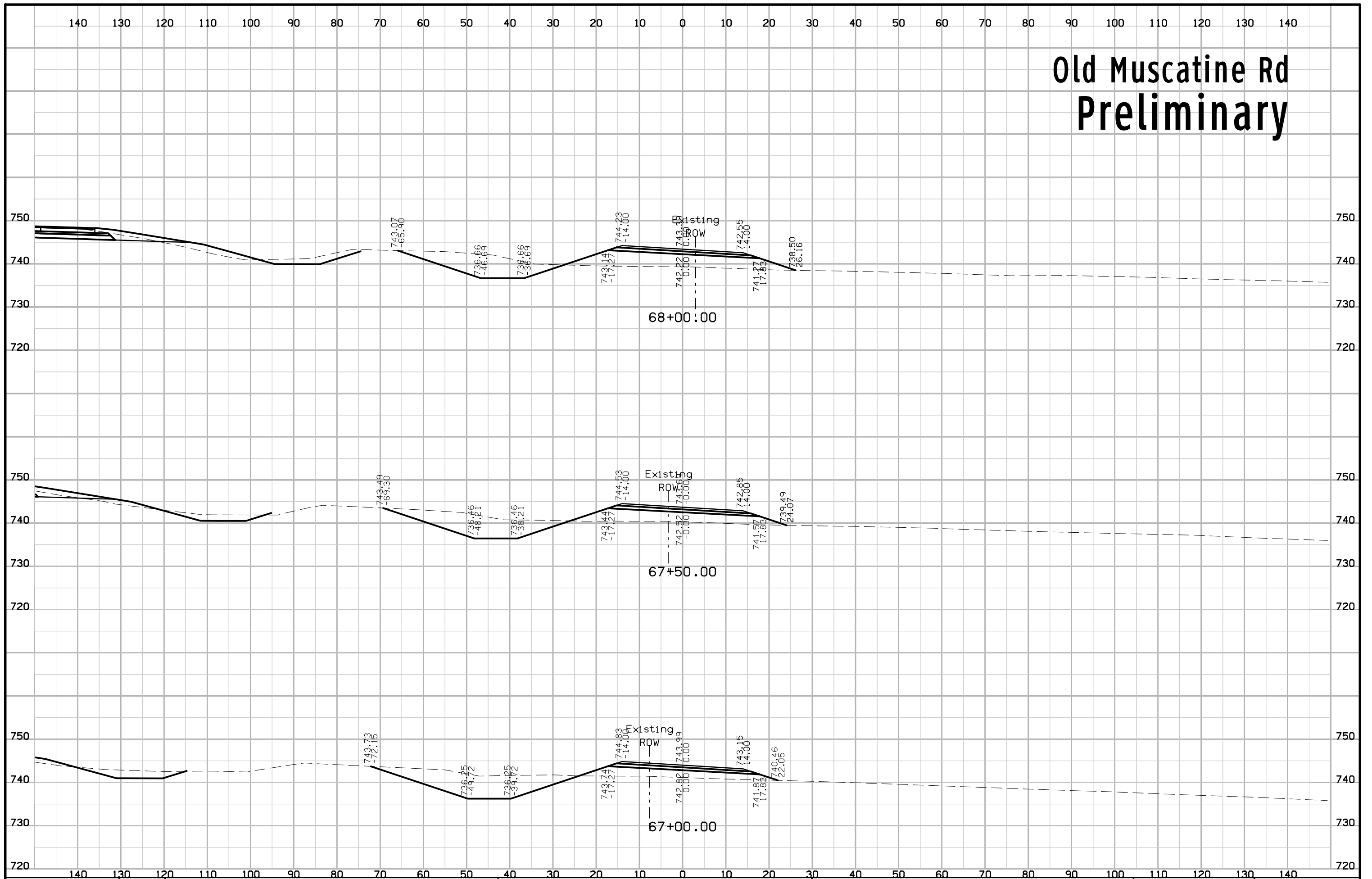
Old Muscatine Rd Preliminary



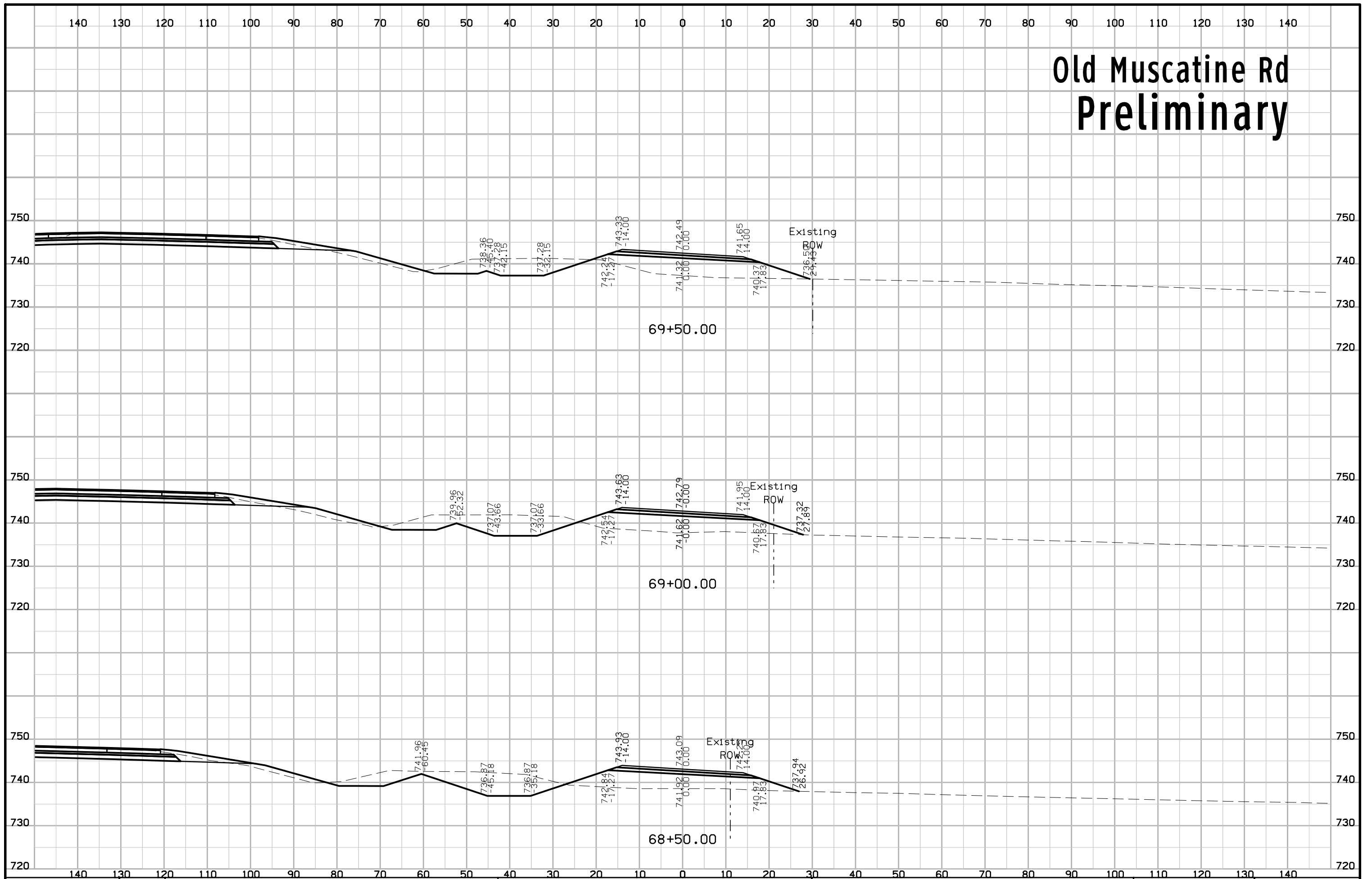
Old Muscatine Rd Preliminary



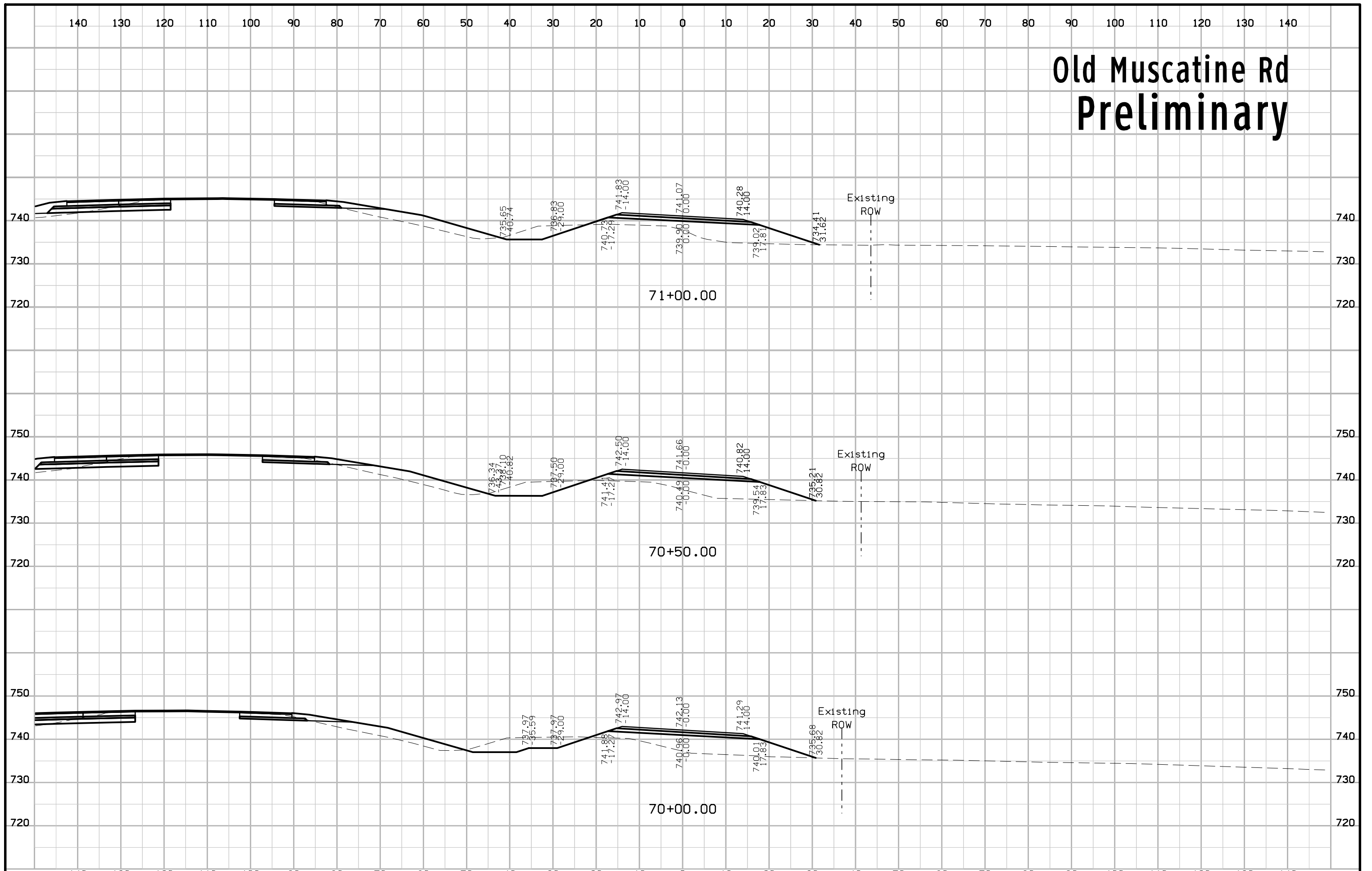
Old Muscatine Rd Preliminary



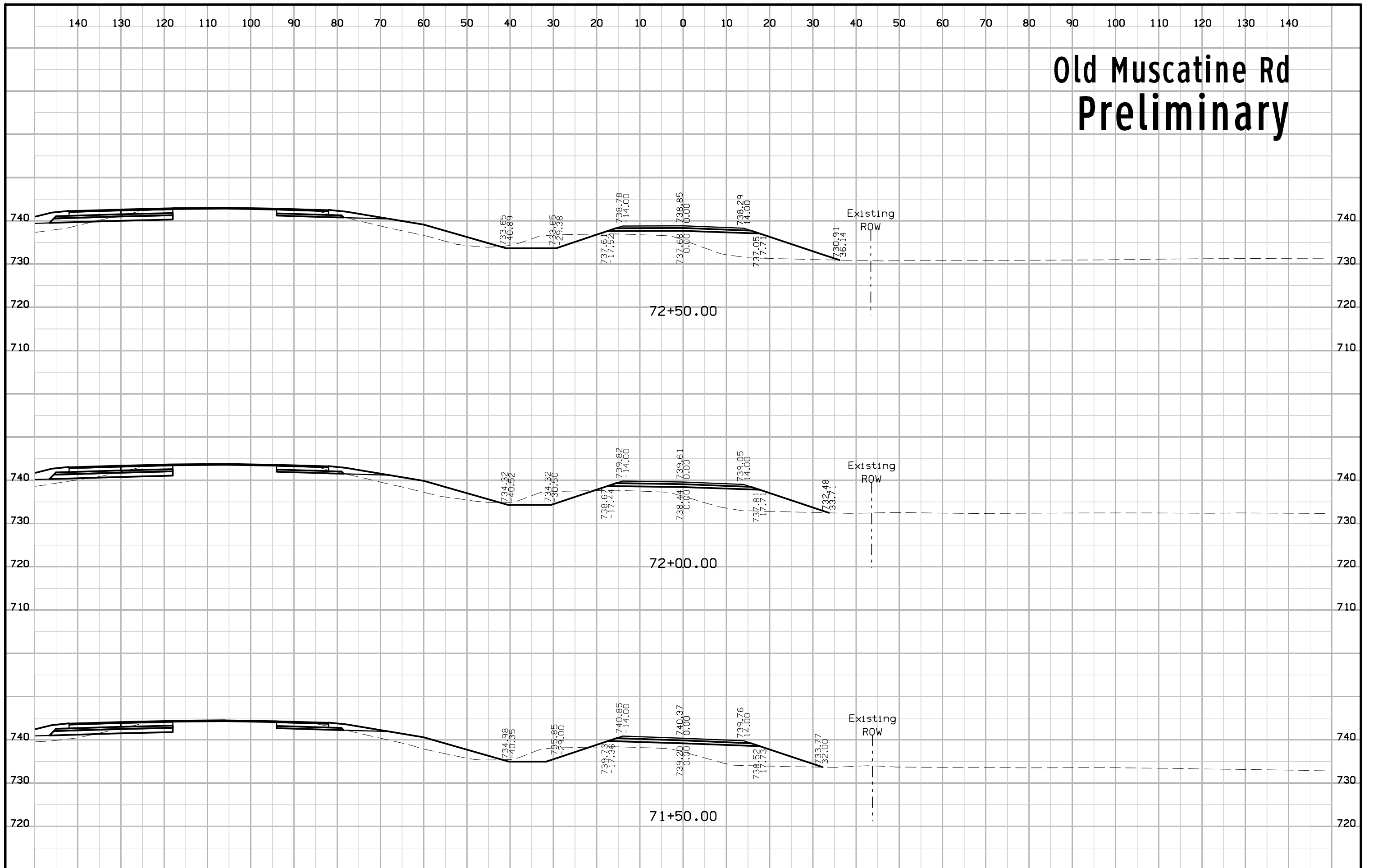
Old Muscatine Rd Preliminary



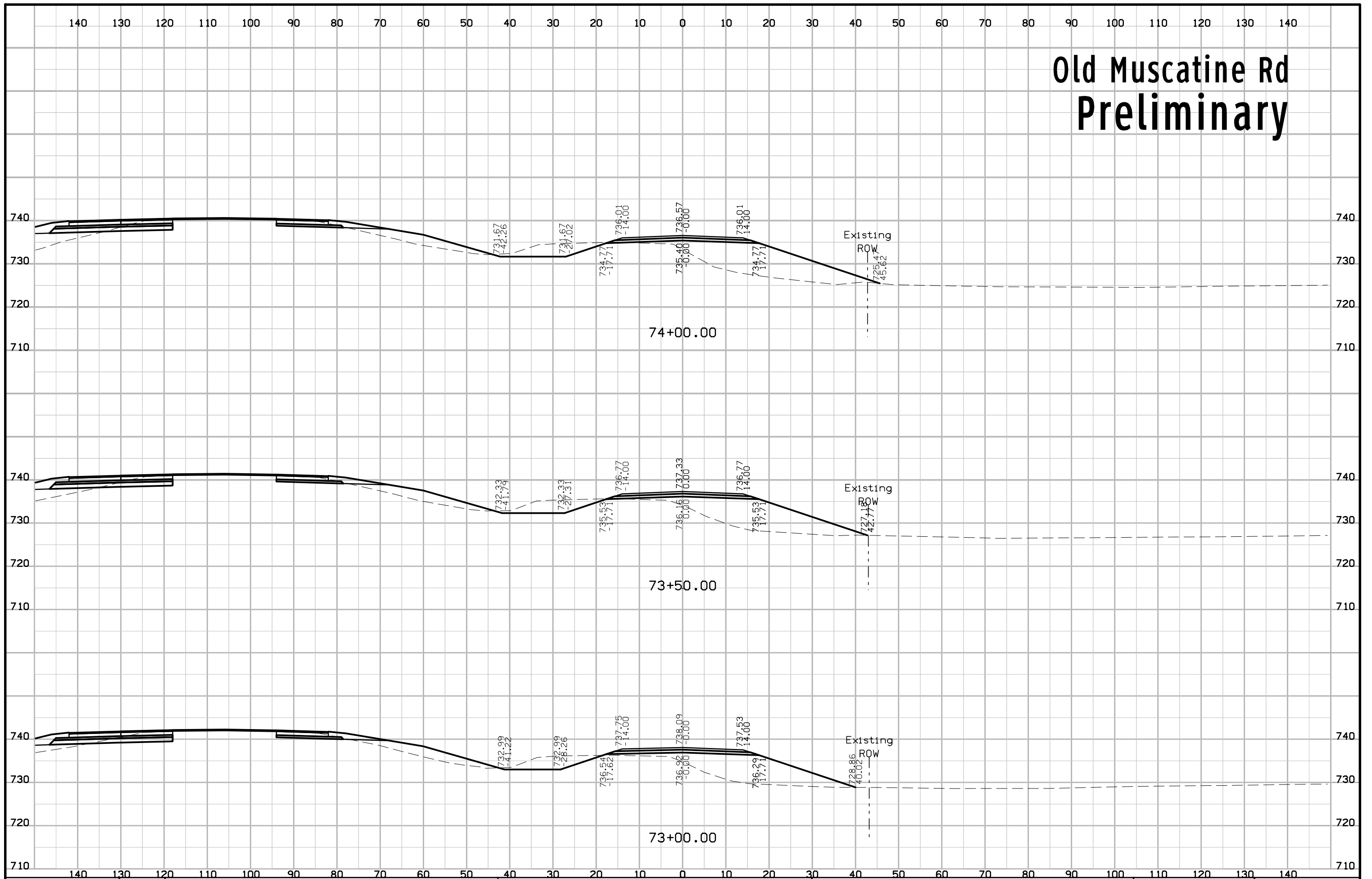
Old Muscatine Rd Preliminary



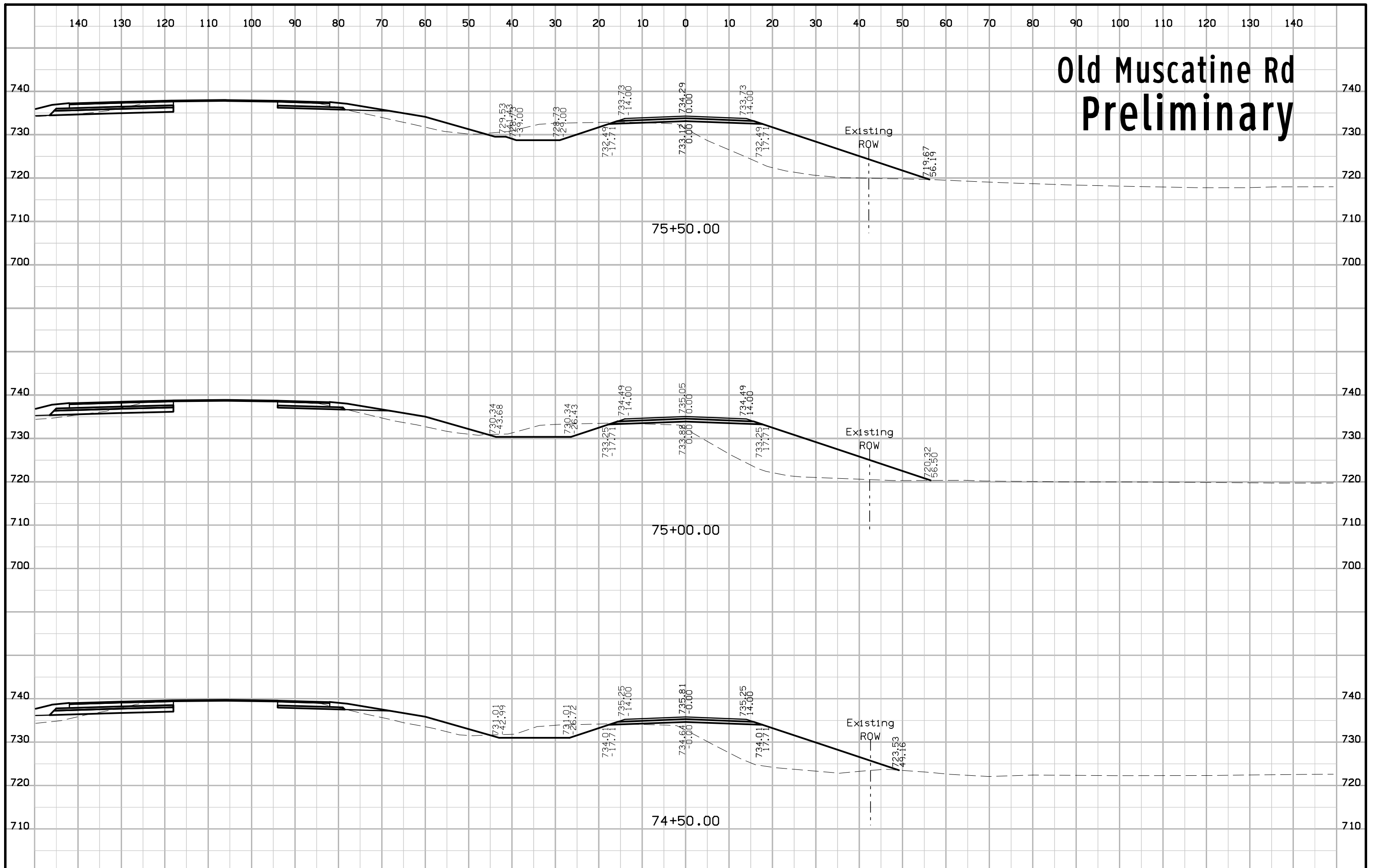
Old Muscatine Rd Preliminary



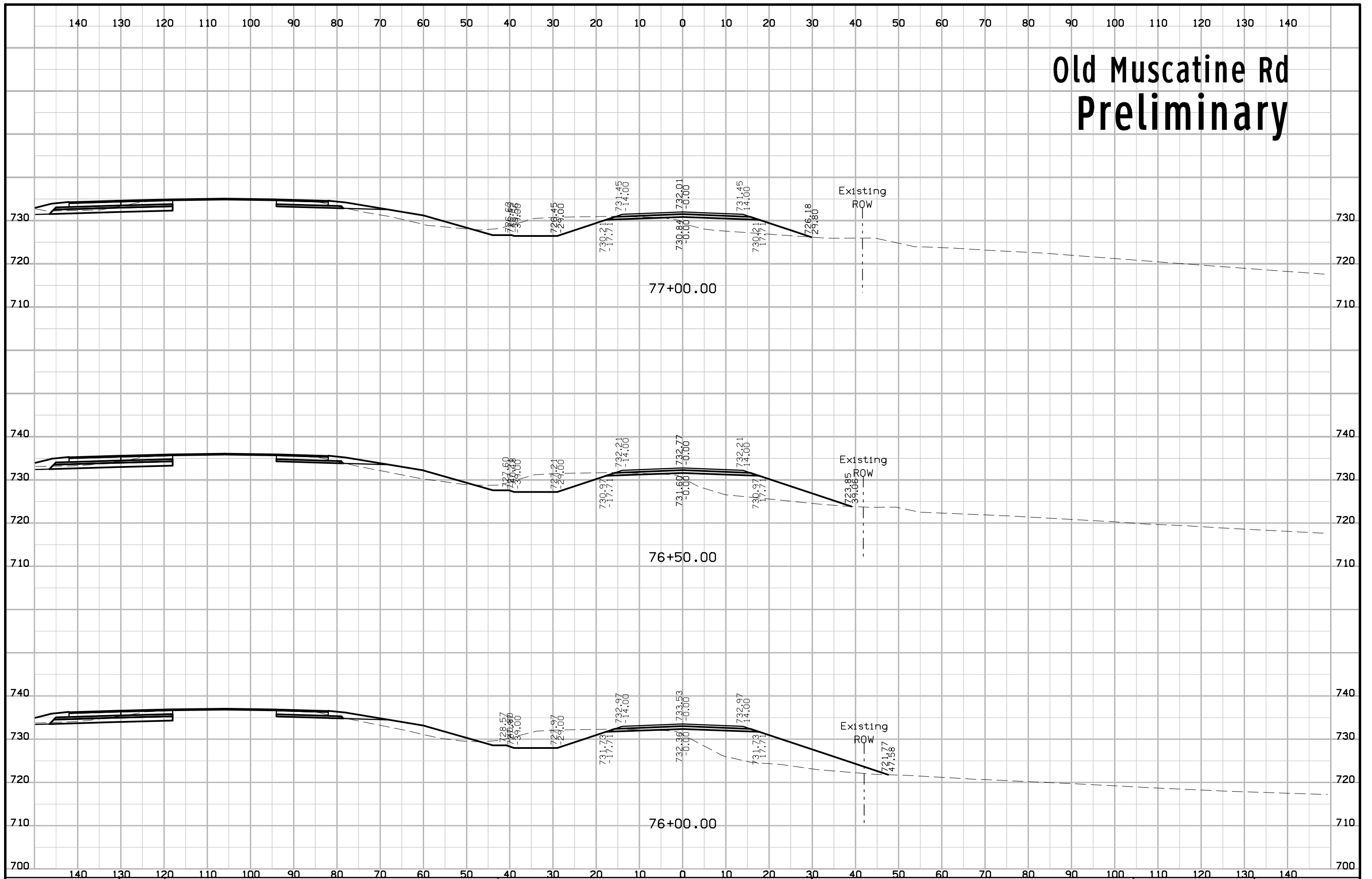
Old Muscatine Rd Preliminary



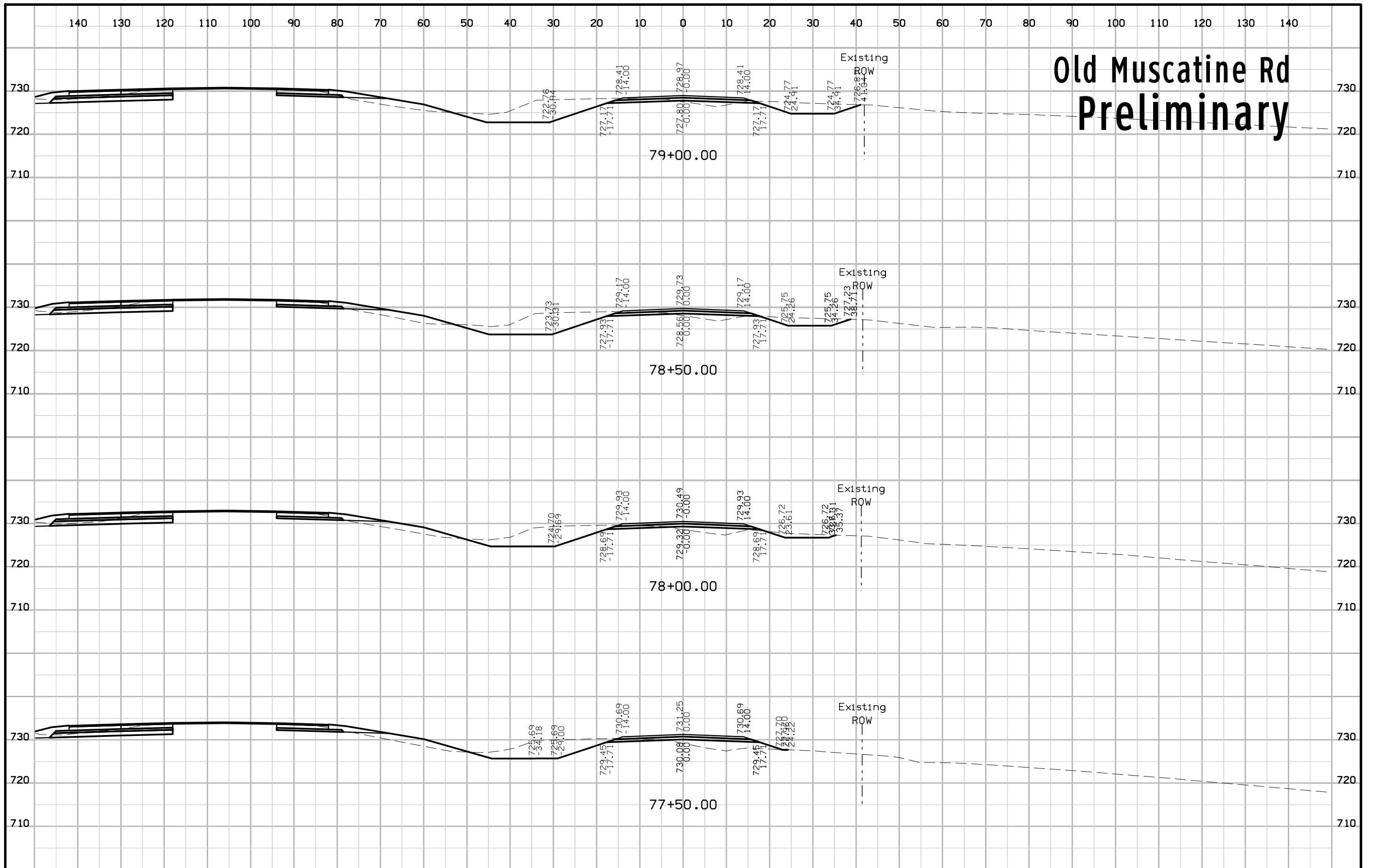
Old Muscatine Rd Preliminary



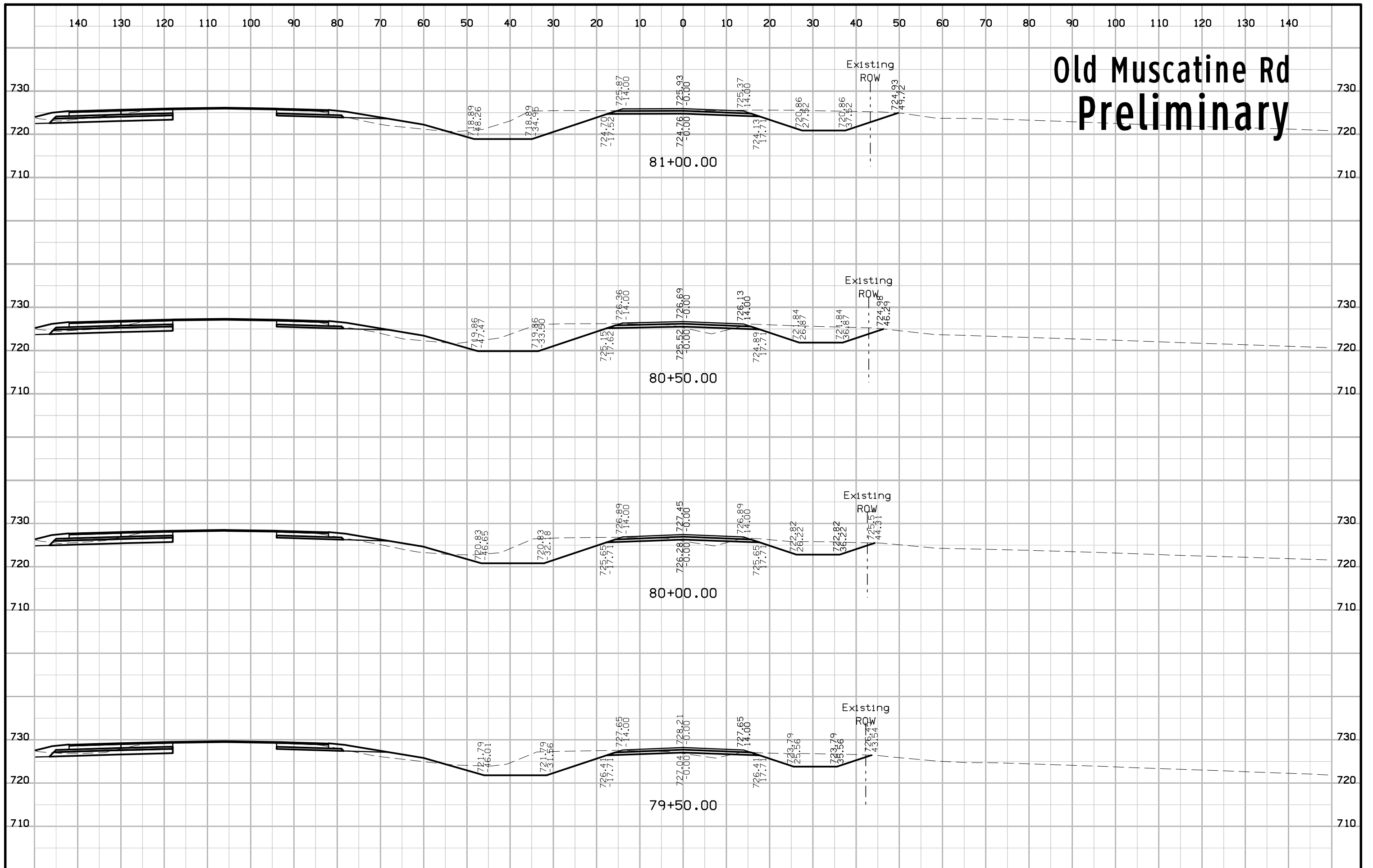
Old Muscatine Rd Preliminary



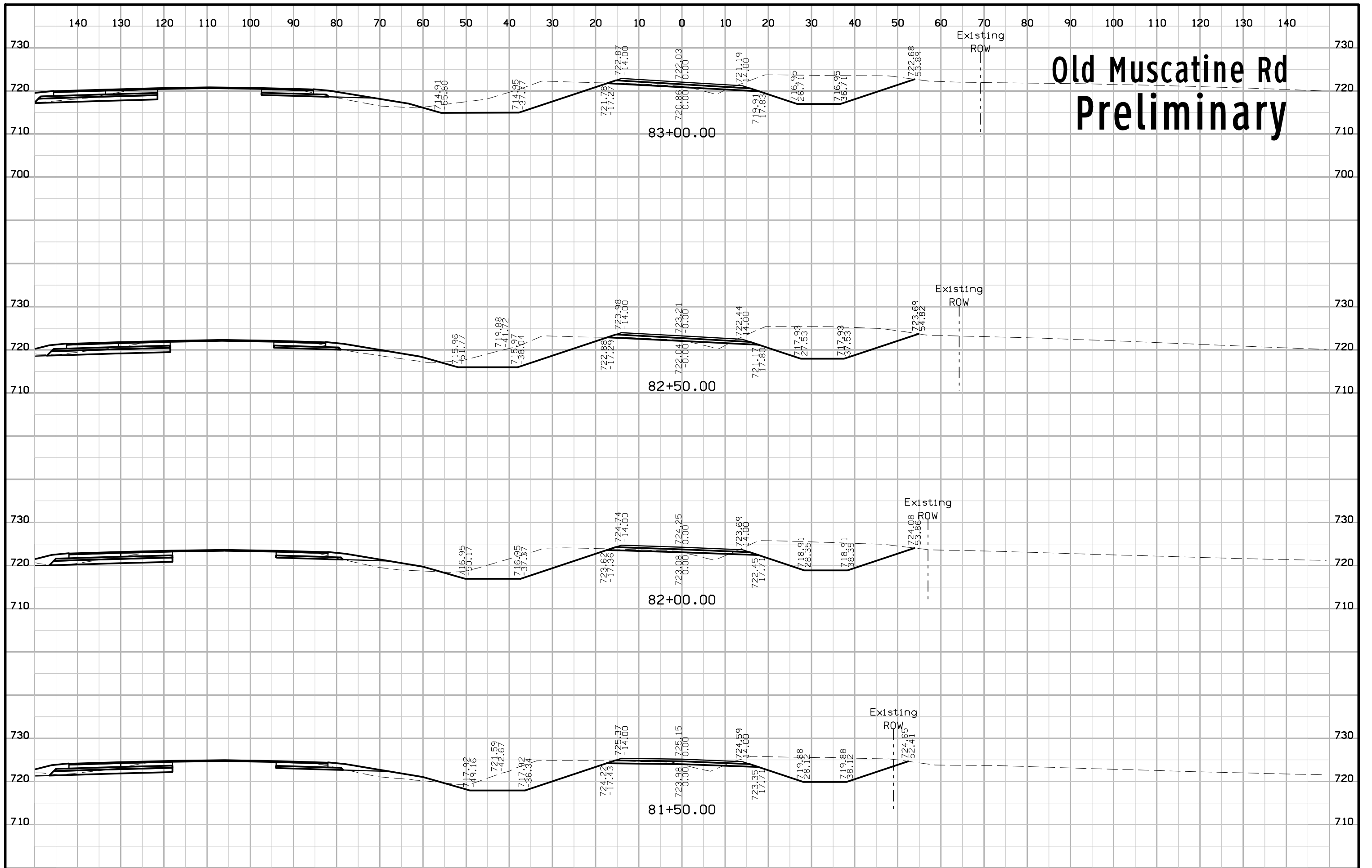
Old Muscatine Rd Preliminary



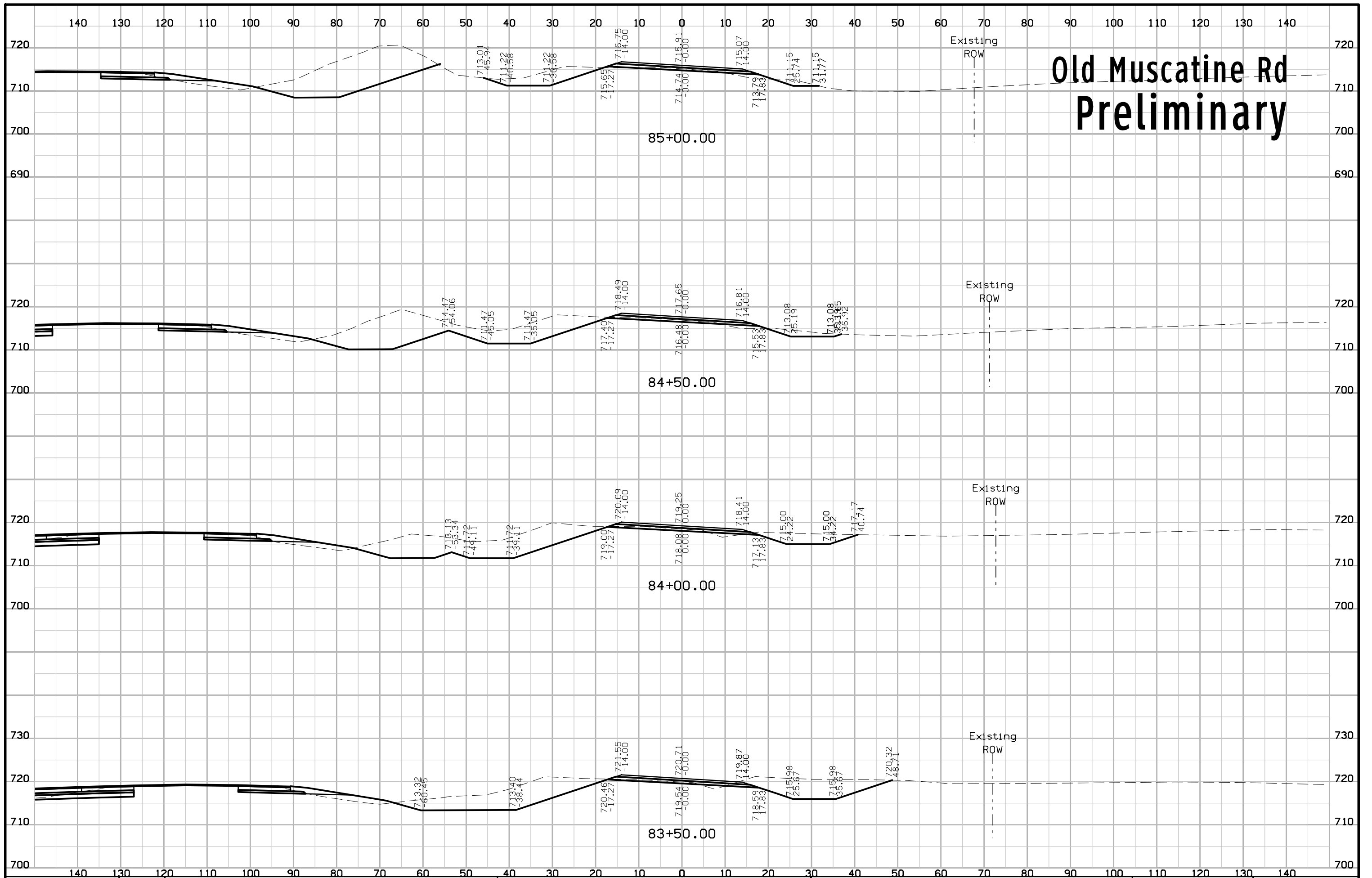
Old Muscatine Rd Preliminary



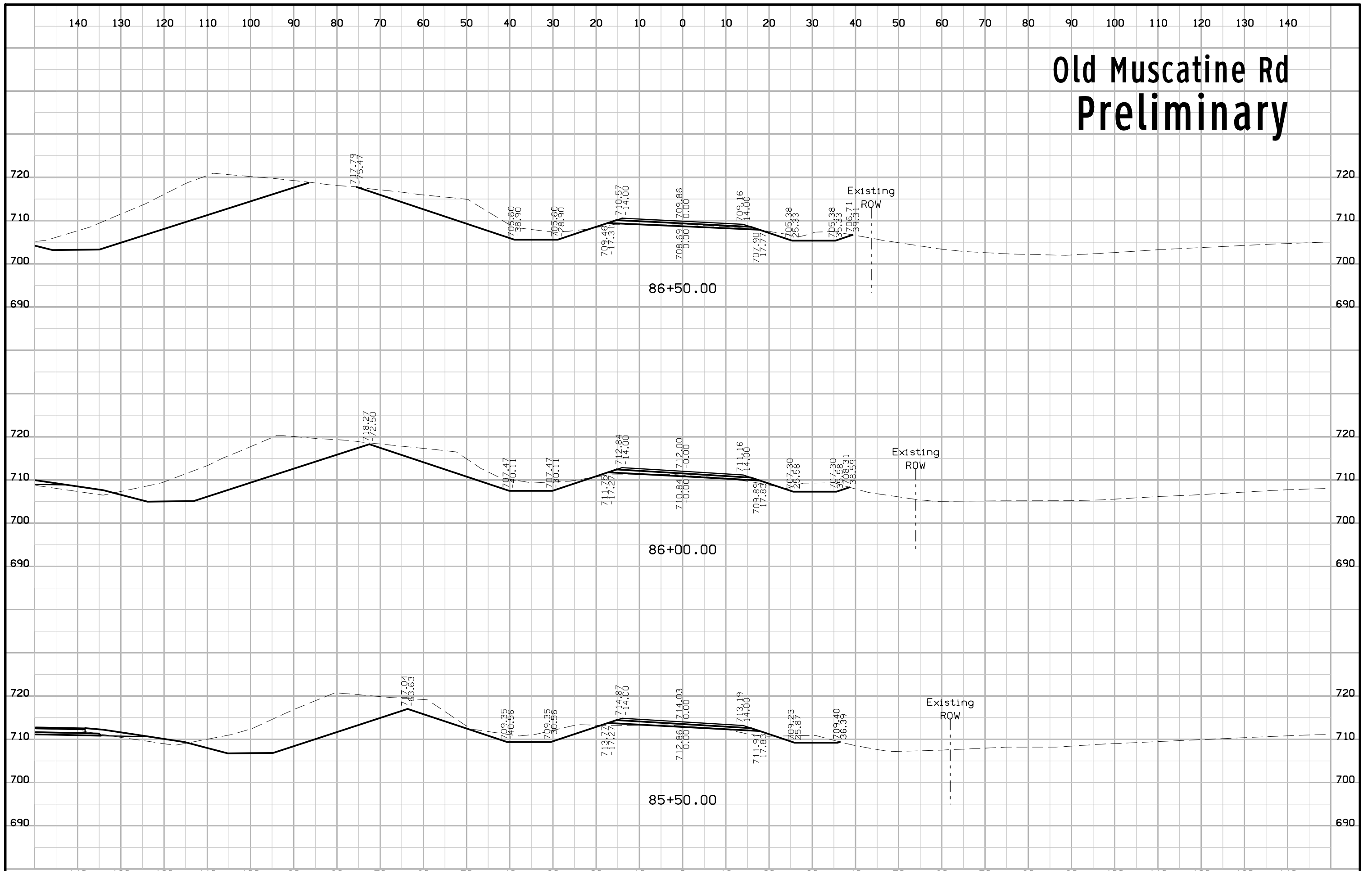
Old Muscatine Rd Preliminary



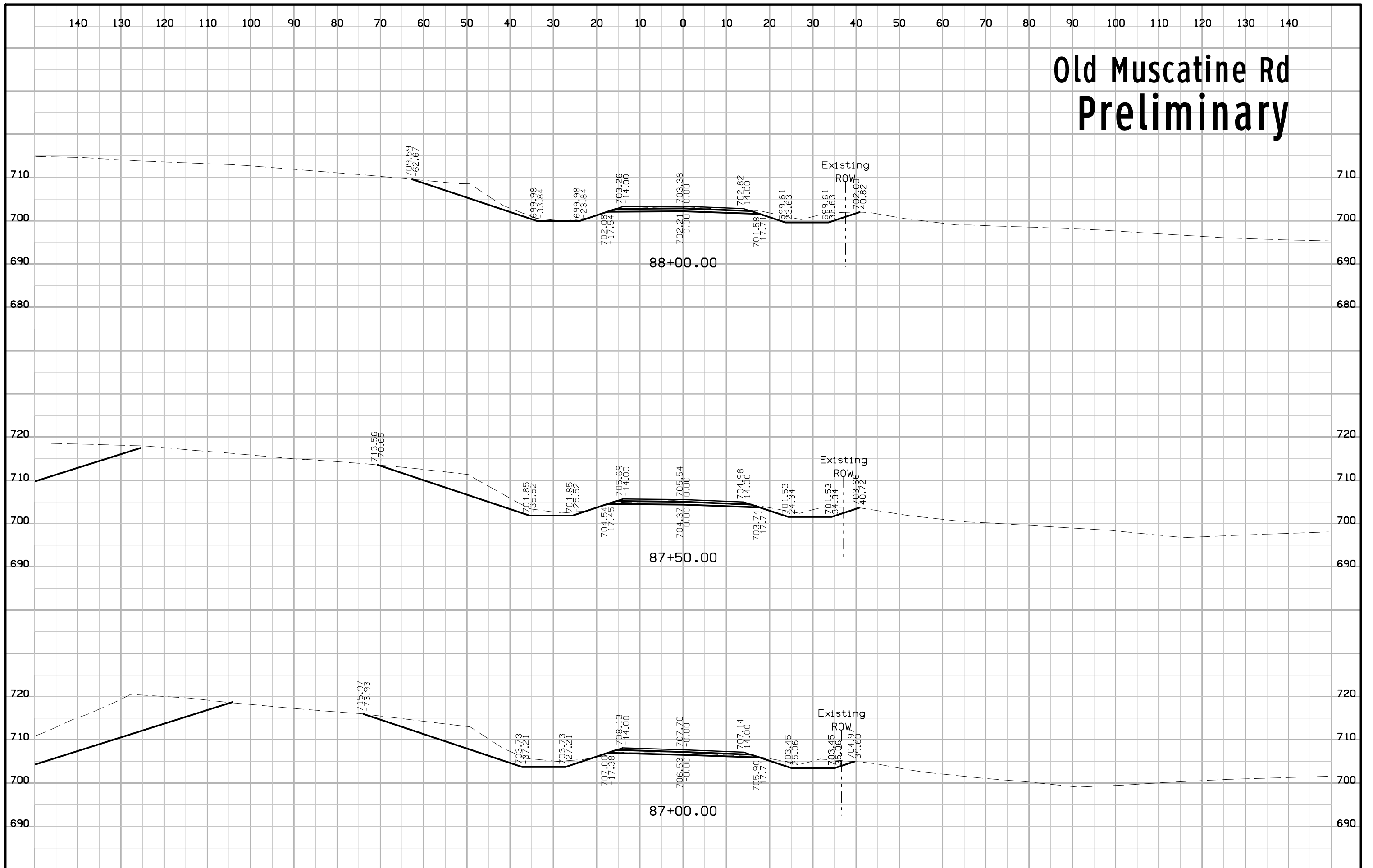
Old Muscatine Rd Preliminary



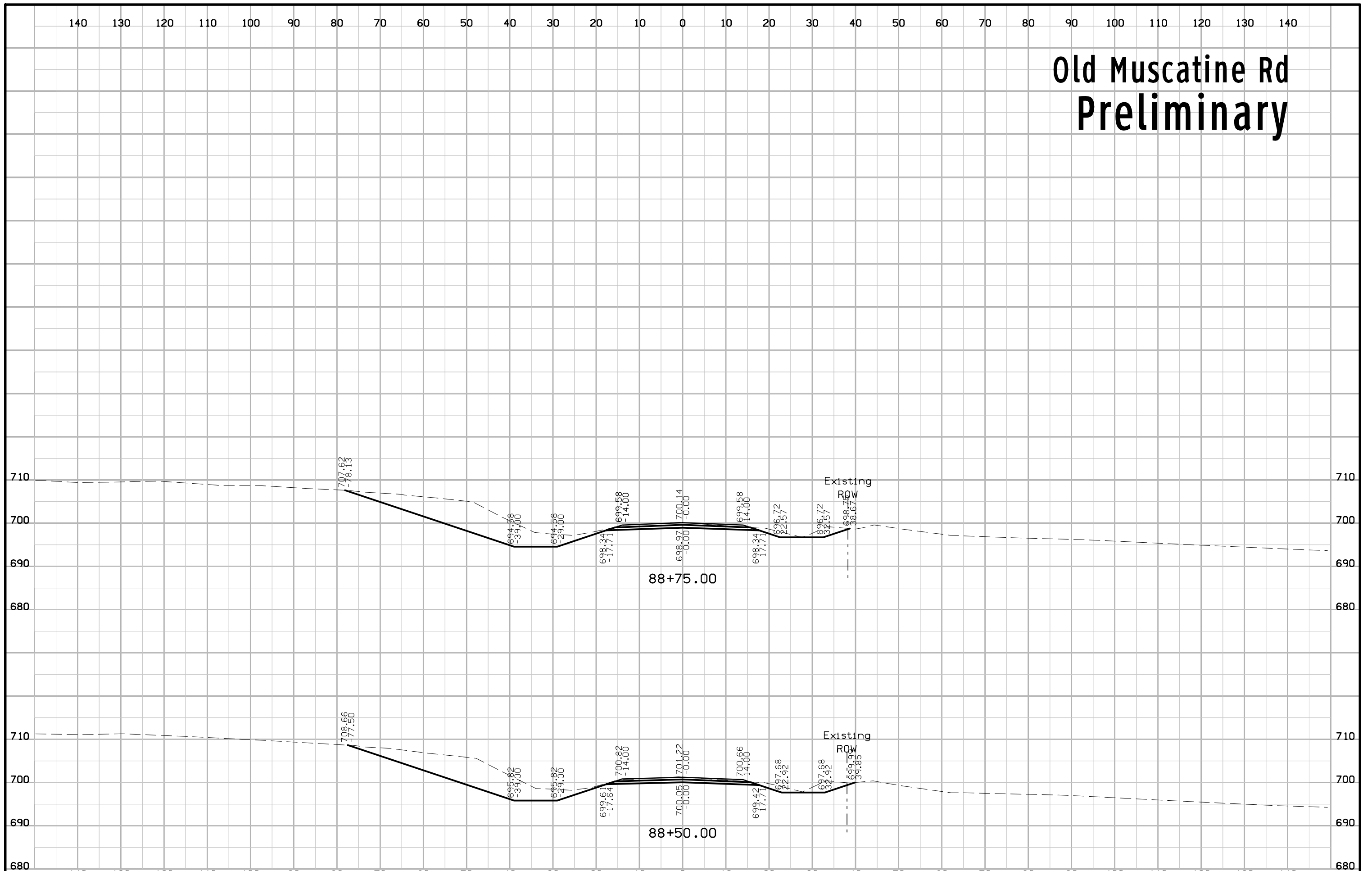
Old Muscatine Rd Preliminary



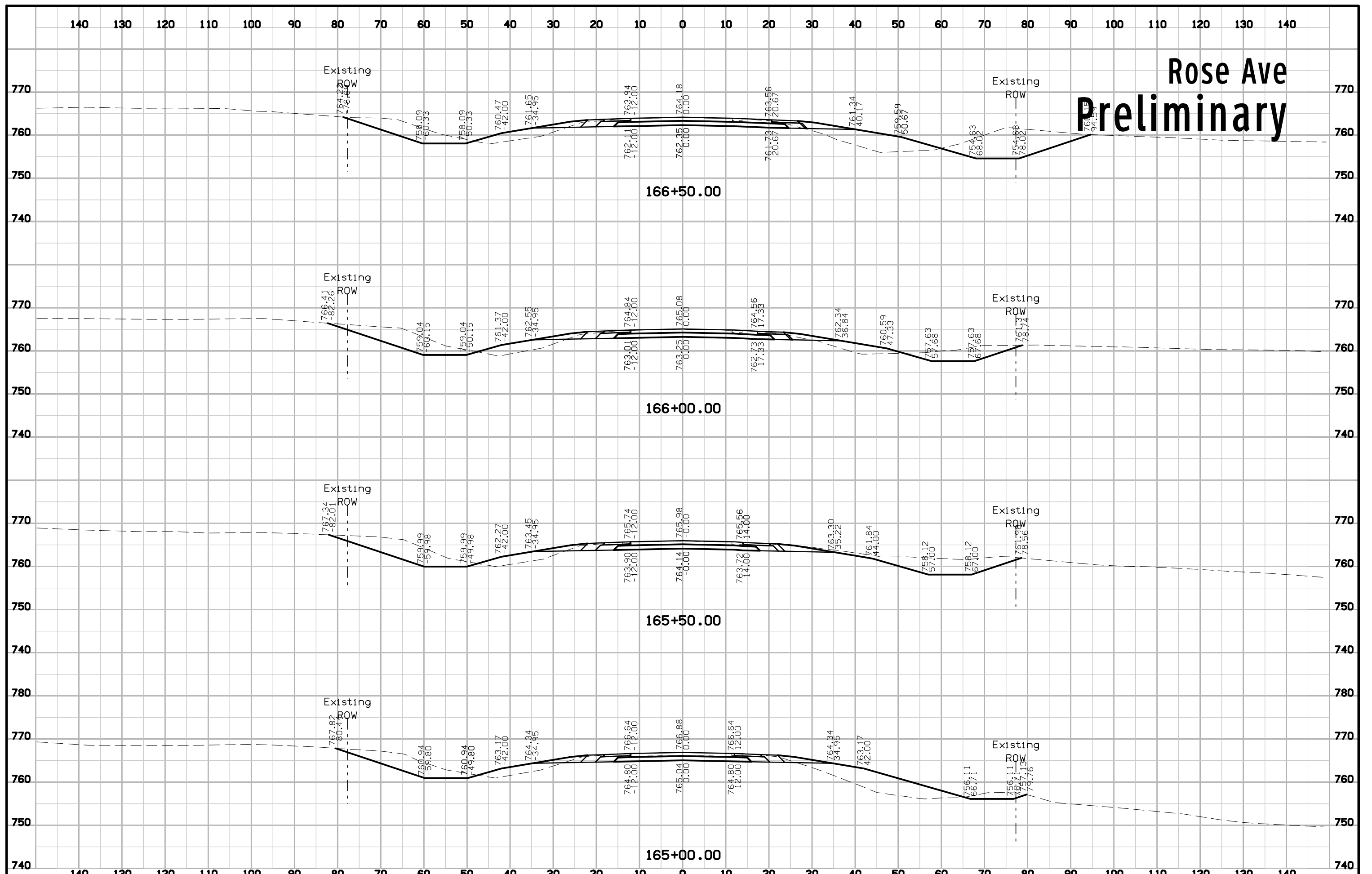
Old Muscatine Rd Preliminary



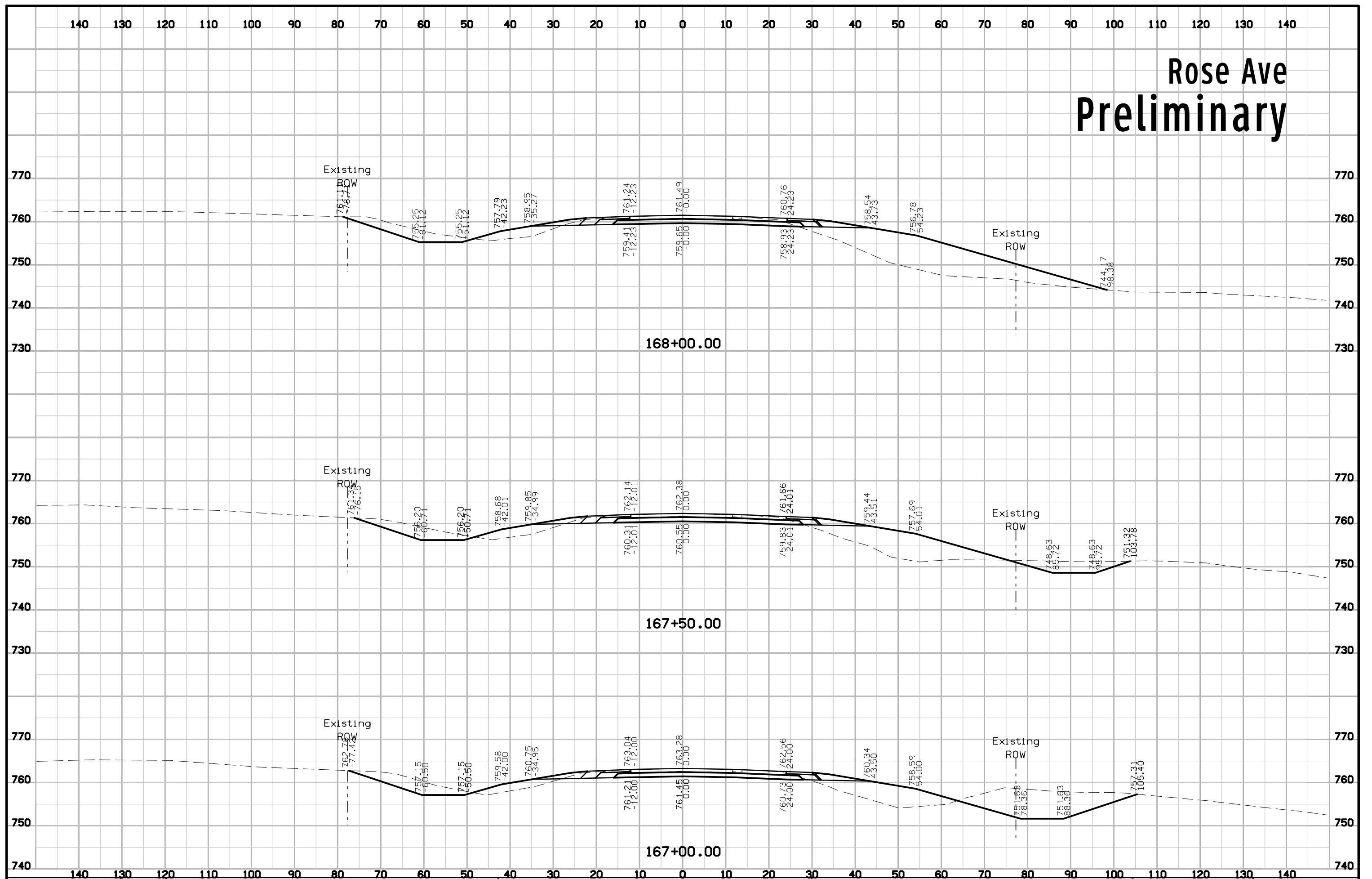
Old Muscatine Rd Preliminary



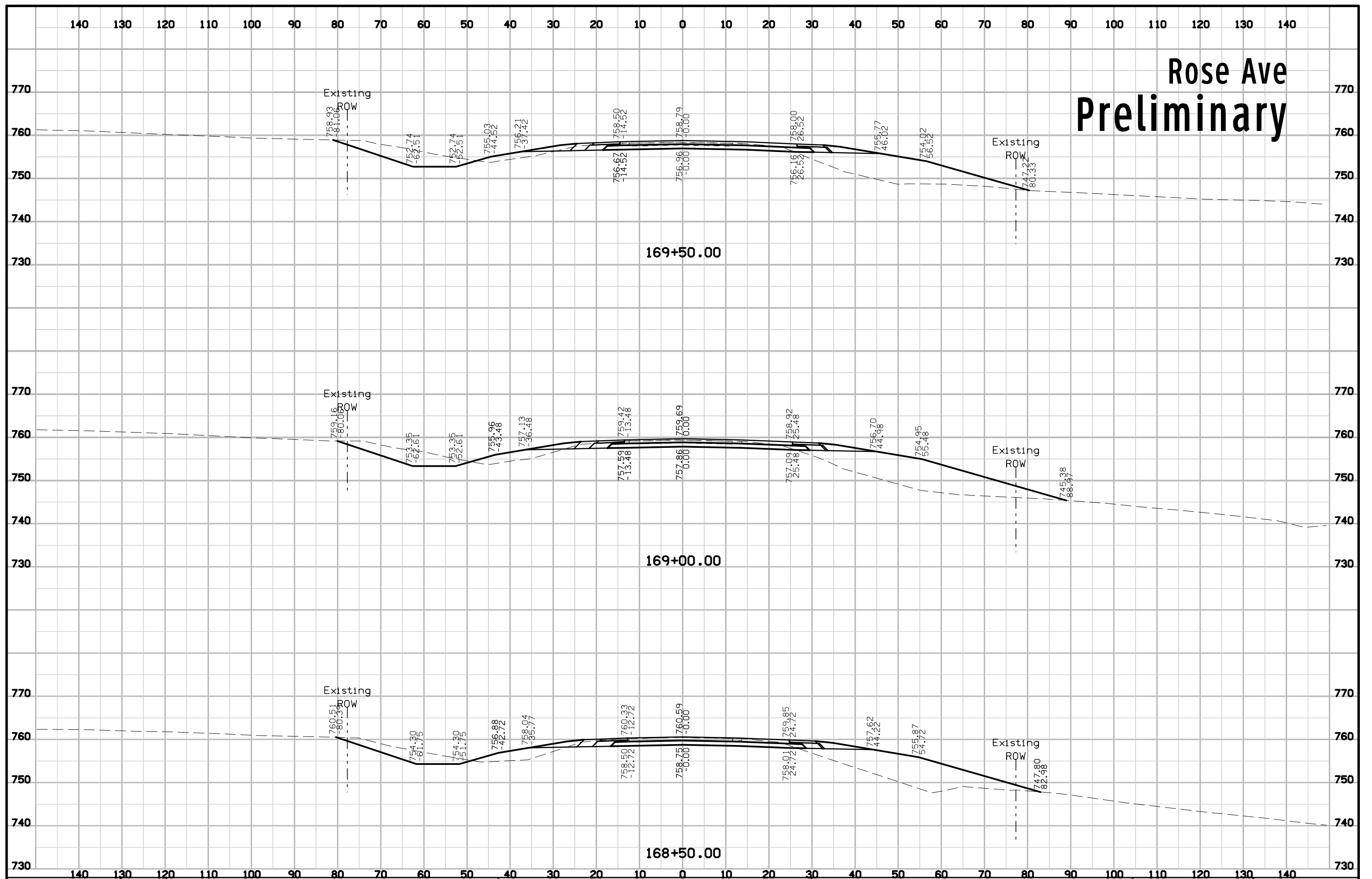
Rose Ave Preliminary



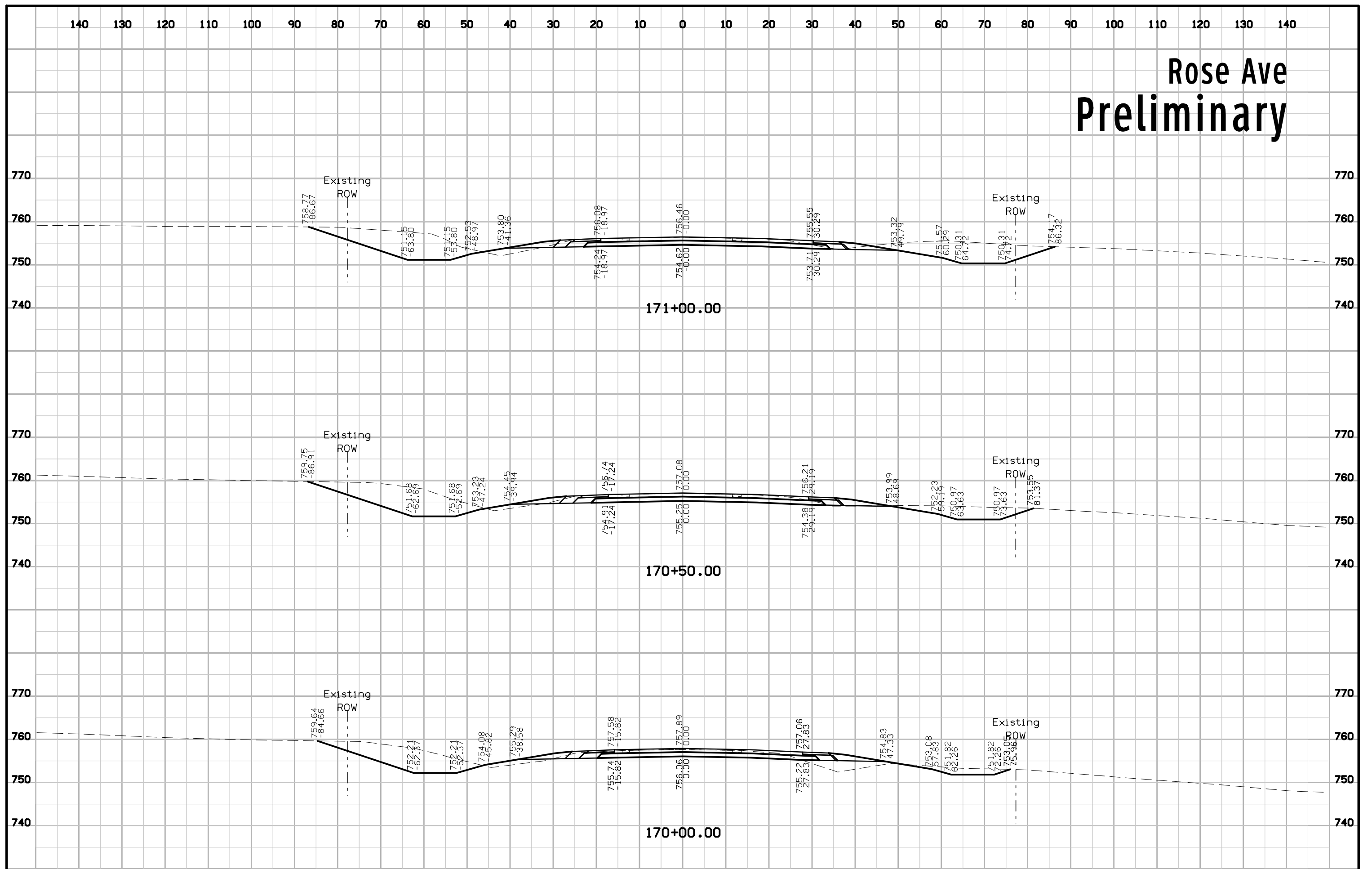
Rose Ave Preliminary



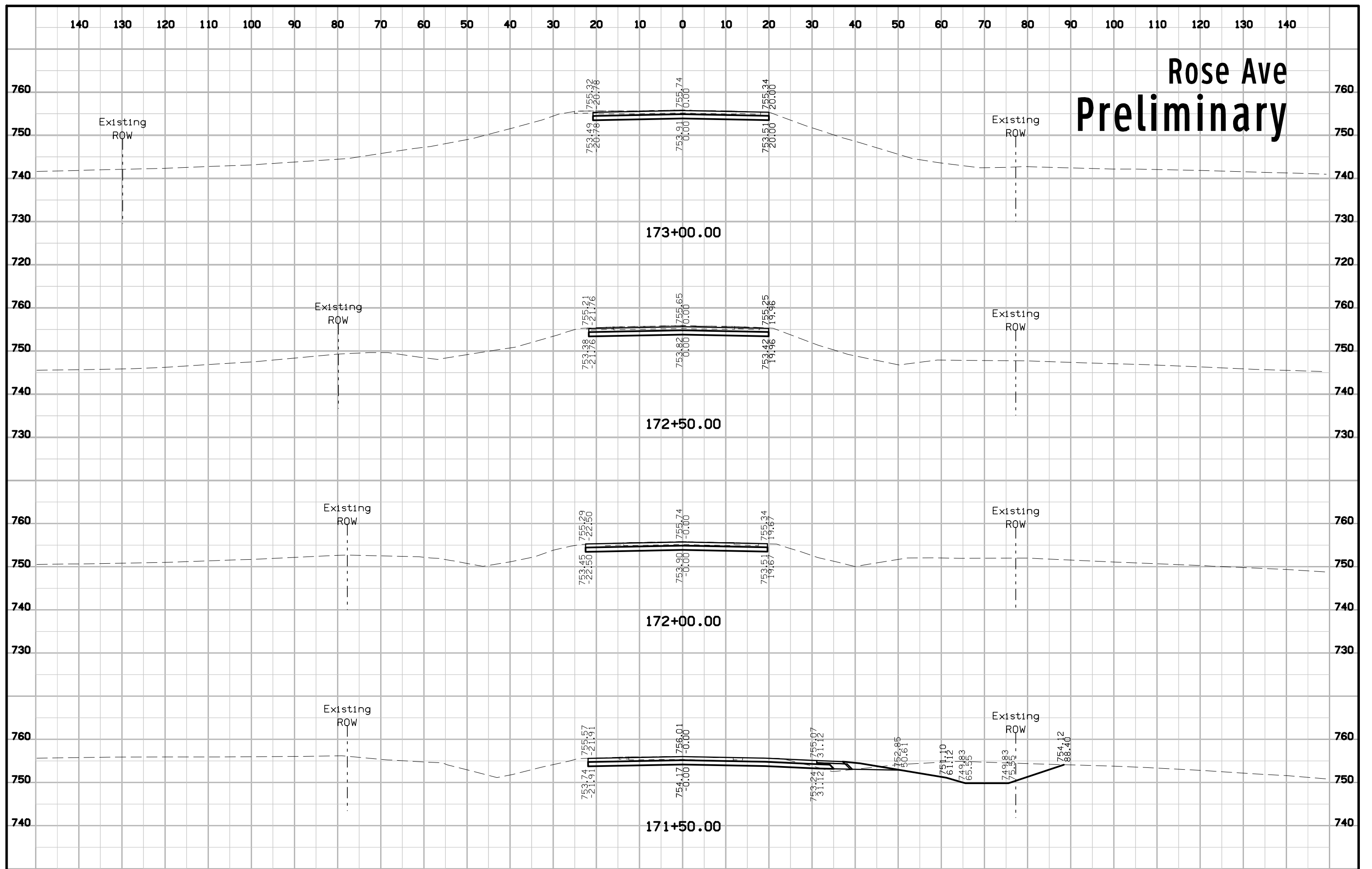
Rose Ave Preliminary



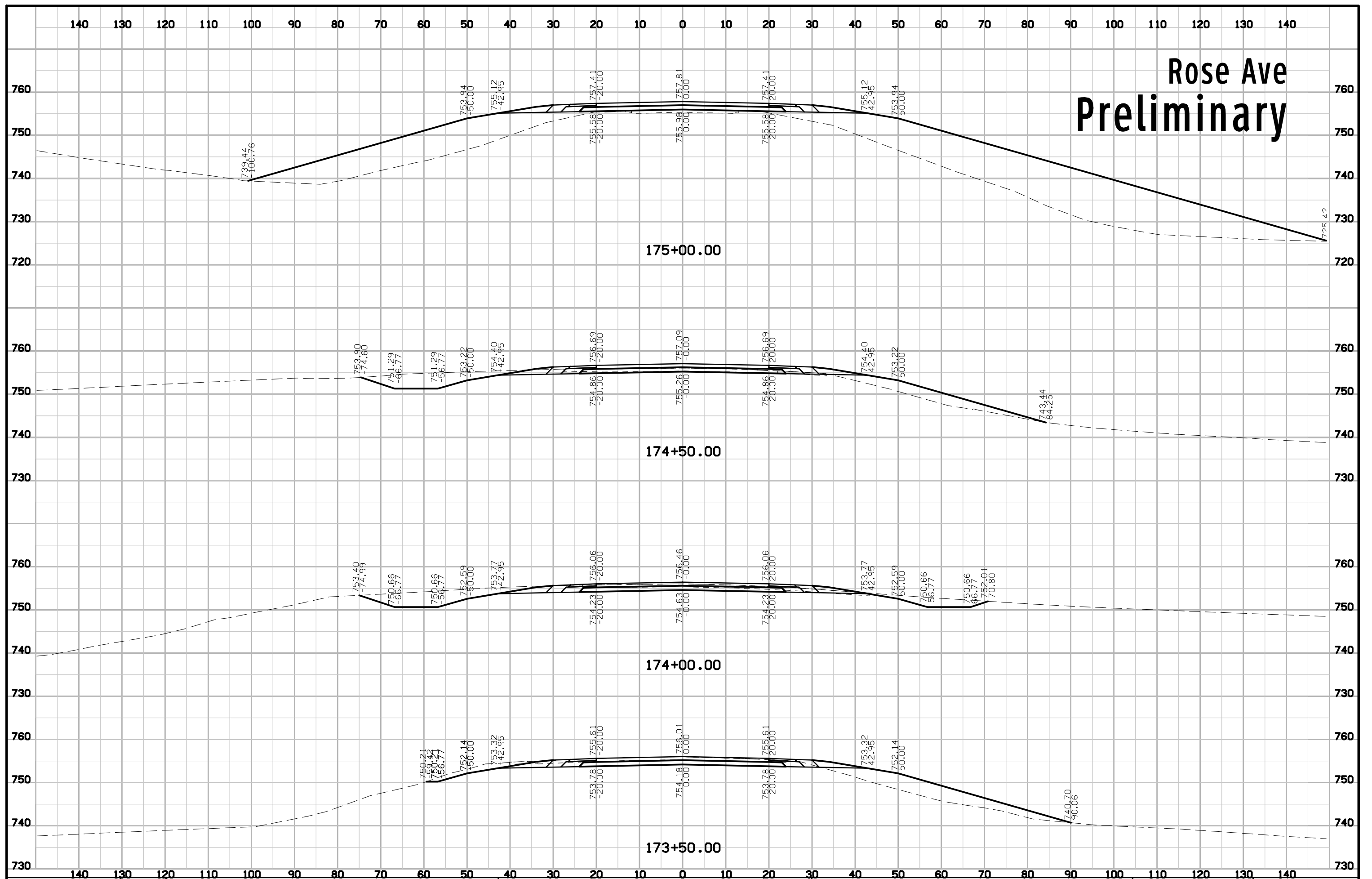
Rose Ave Preliminary



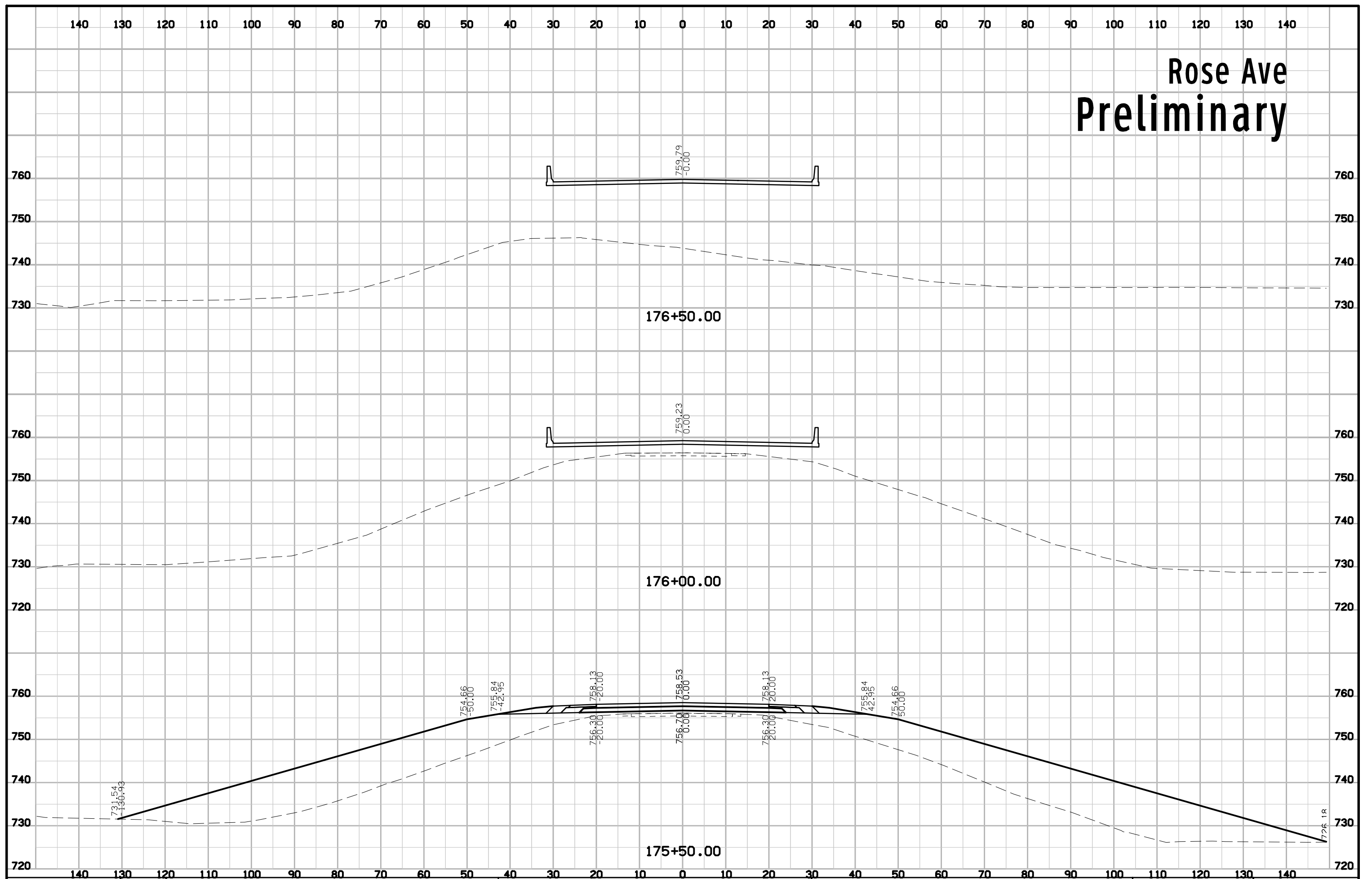
Rose Ave Preliminary



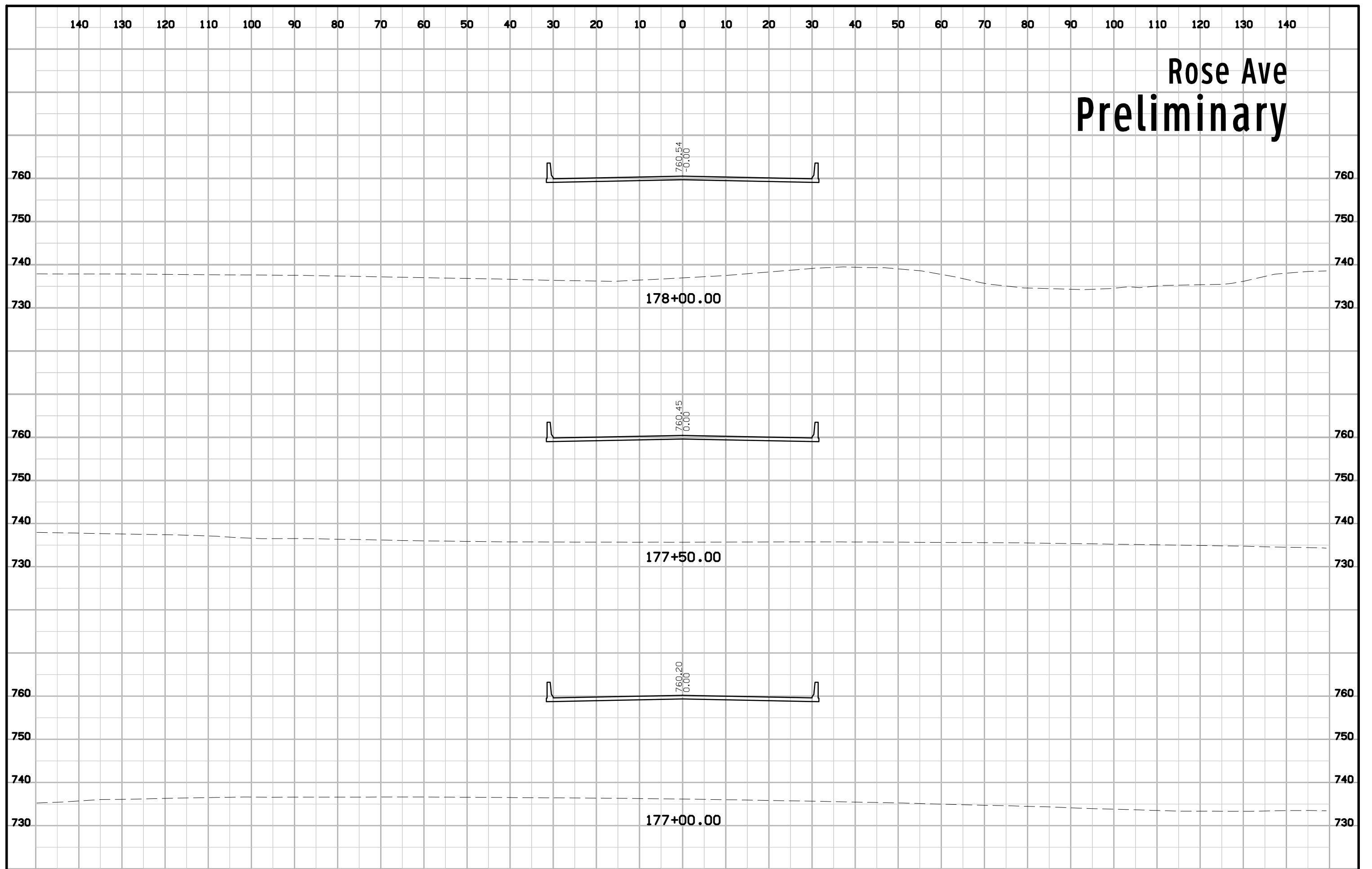
Rose Ave Preliminary



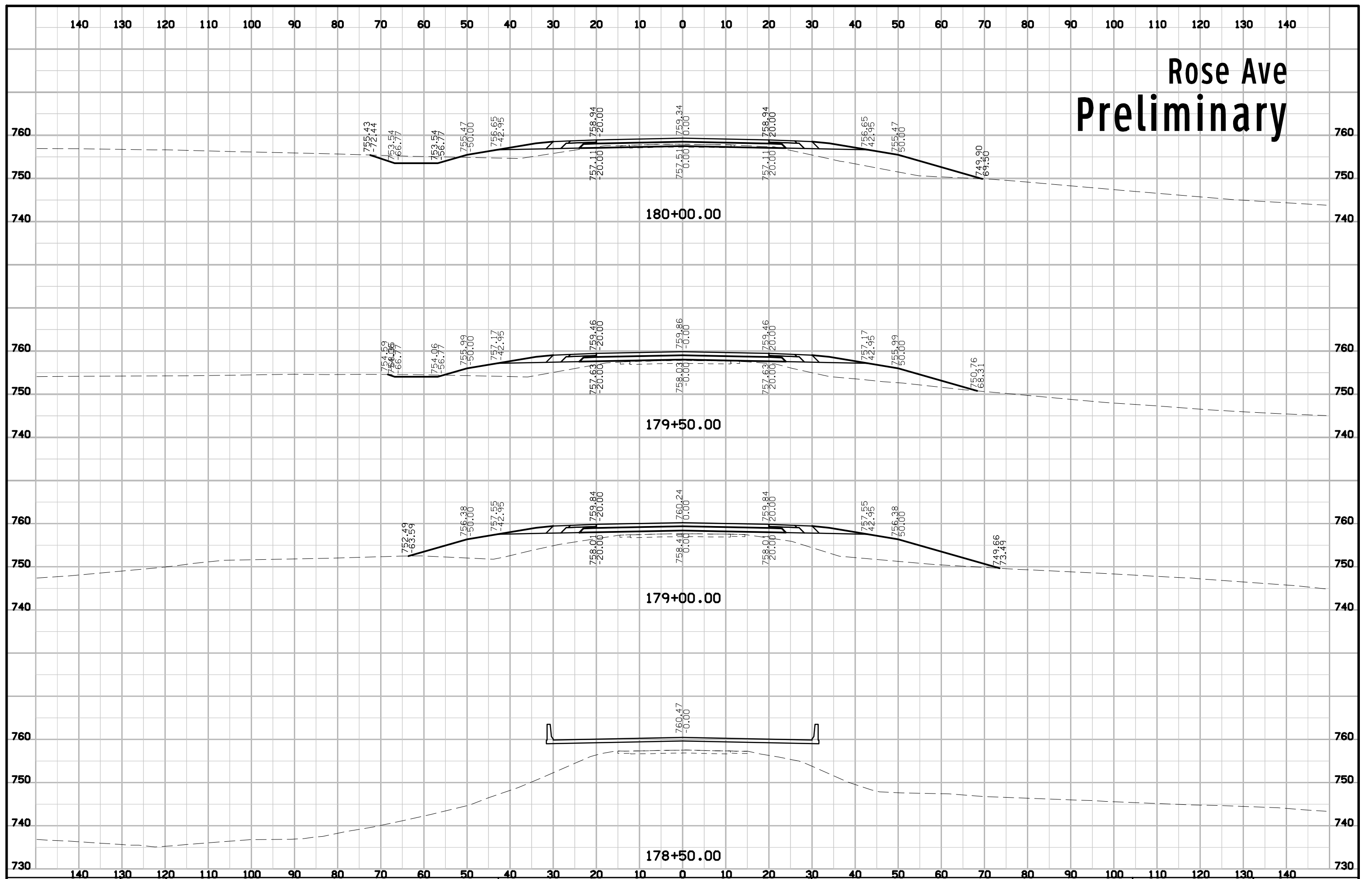
Rose Ave Preliminary



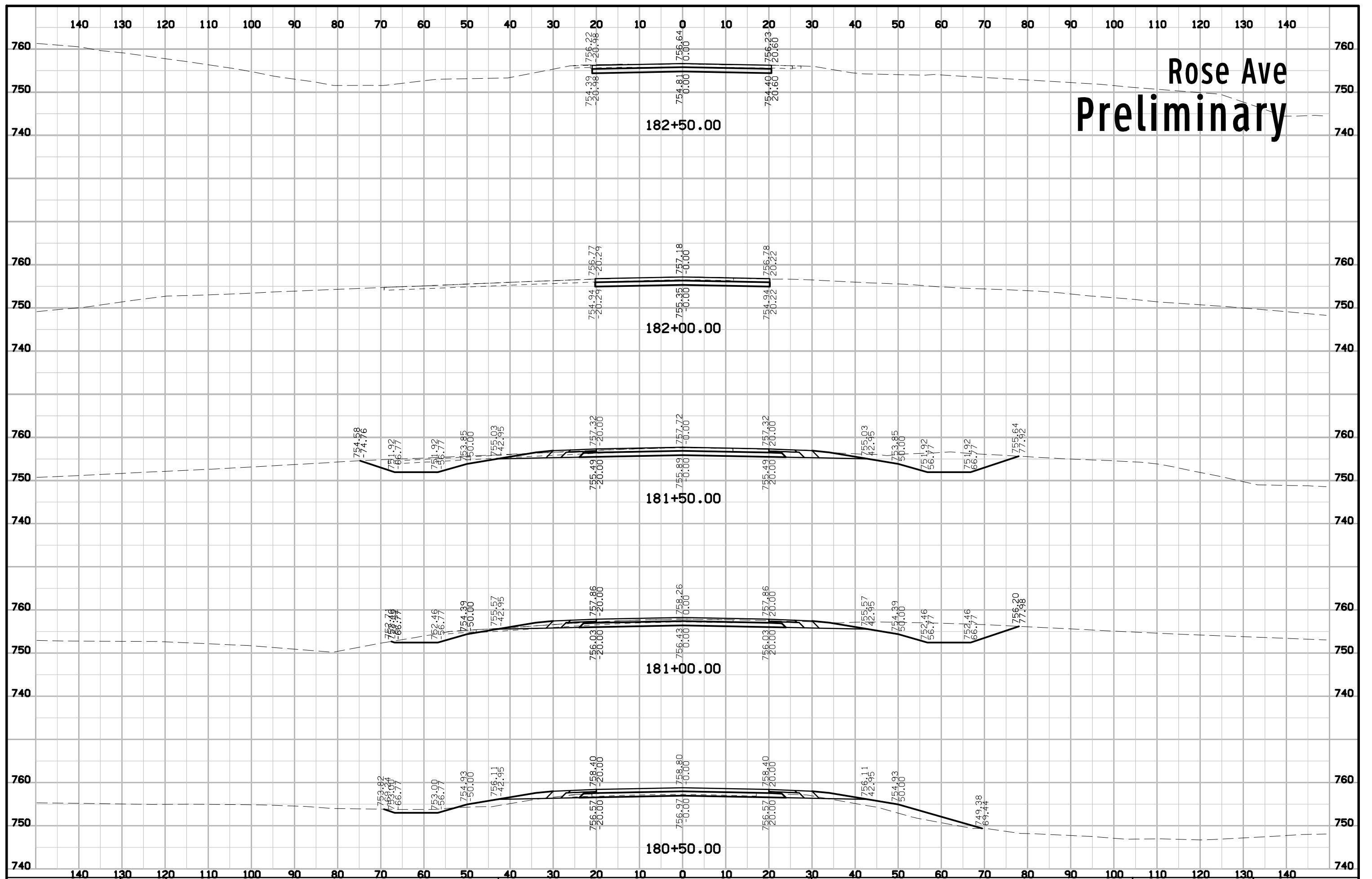
Rose Ave Preliminary



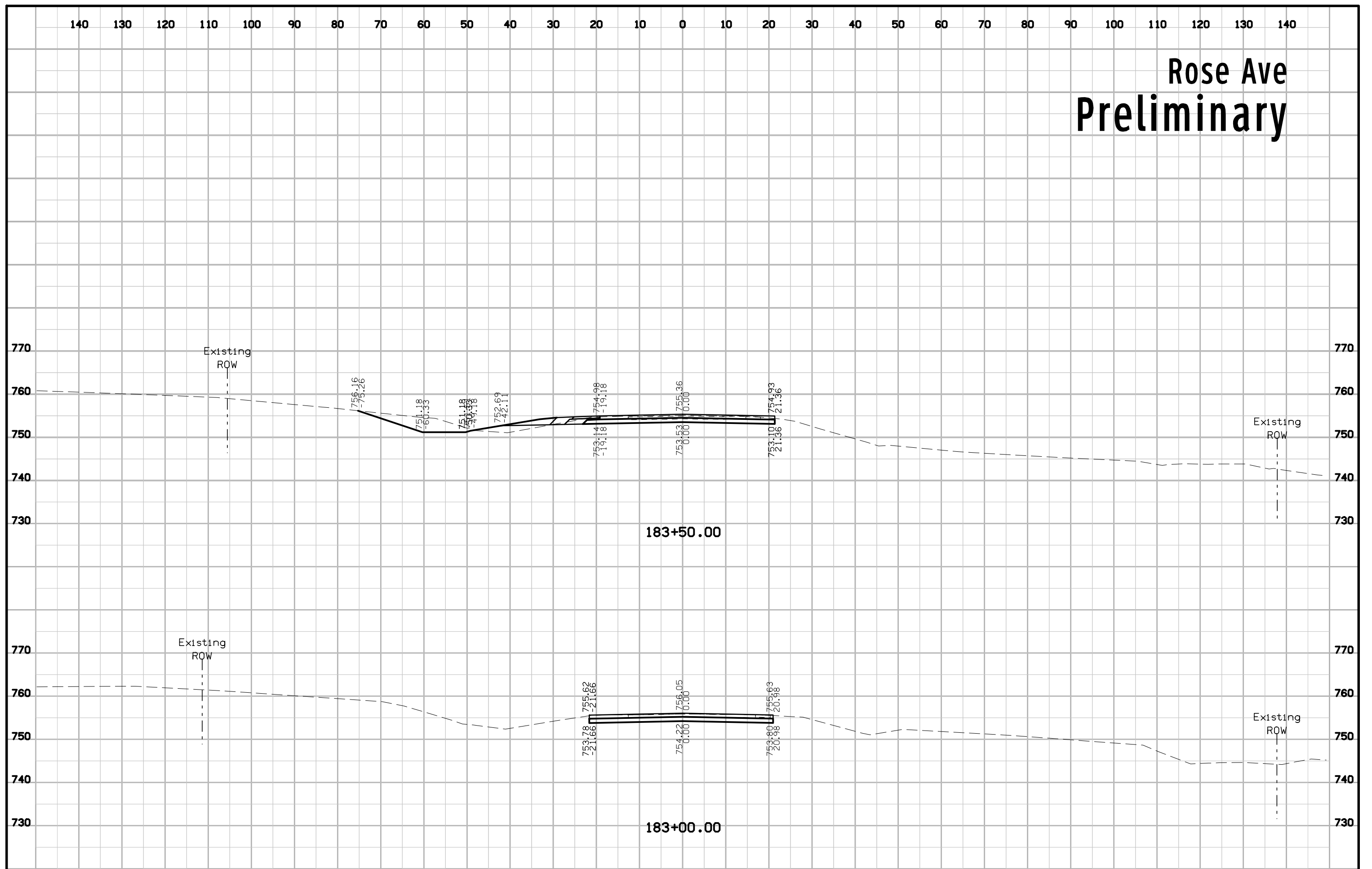
Rose Ave Preliminary



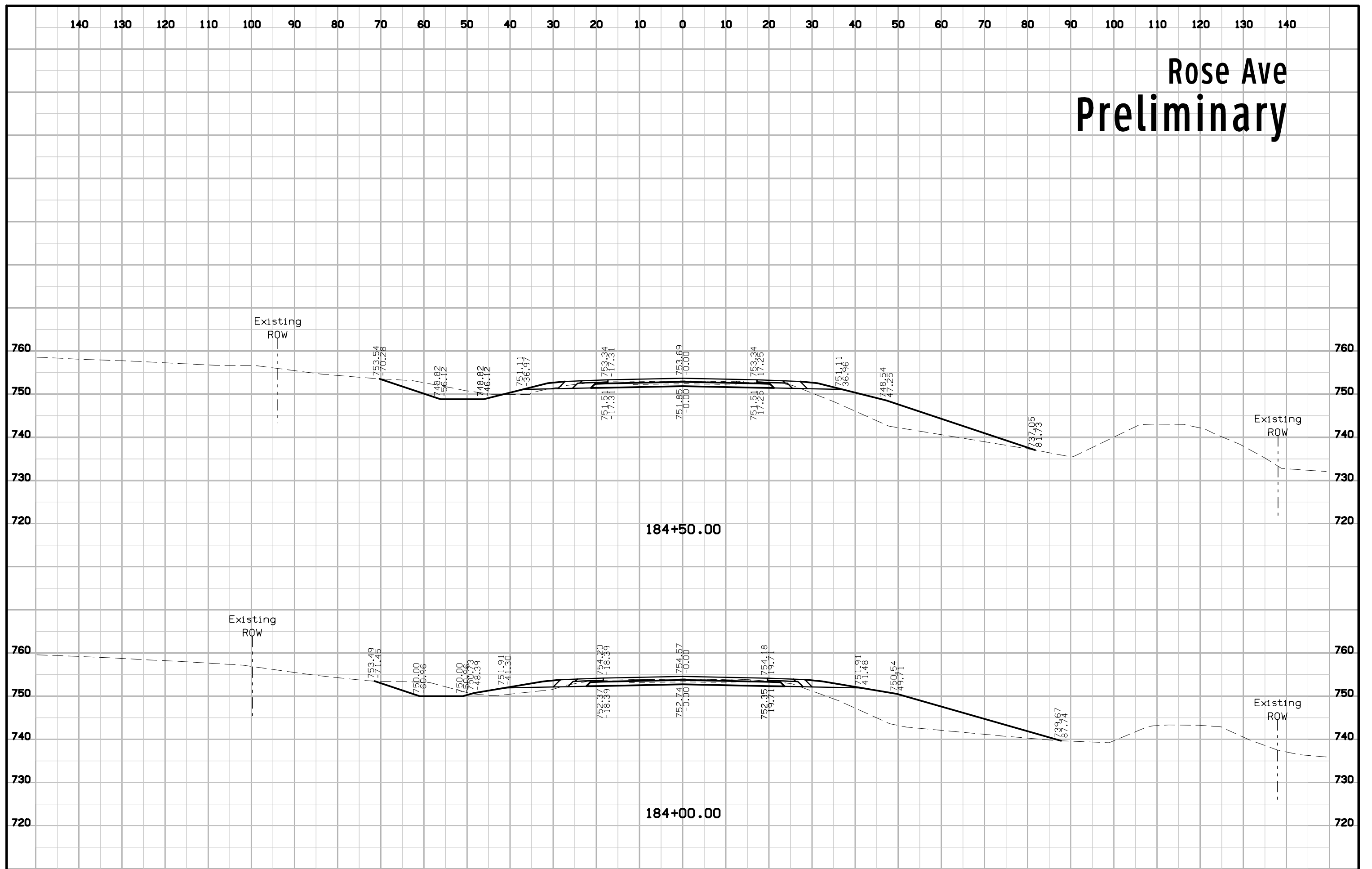
Rose Ave Preliminary



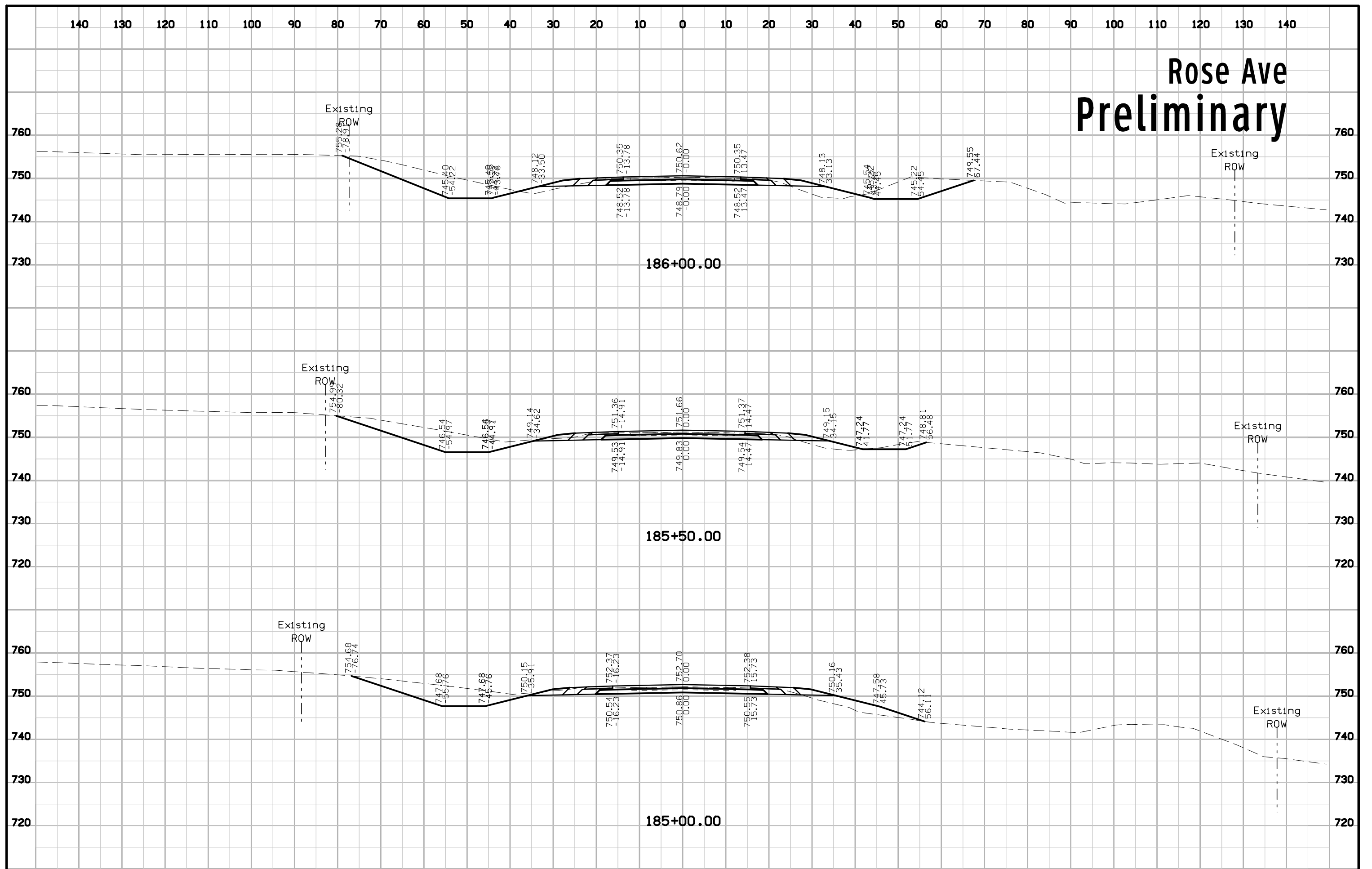
Rose Ave Preliminary



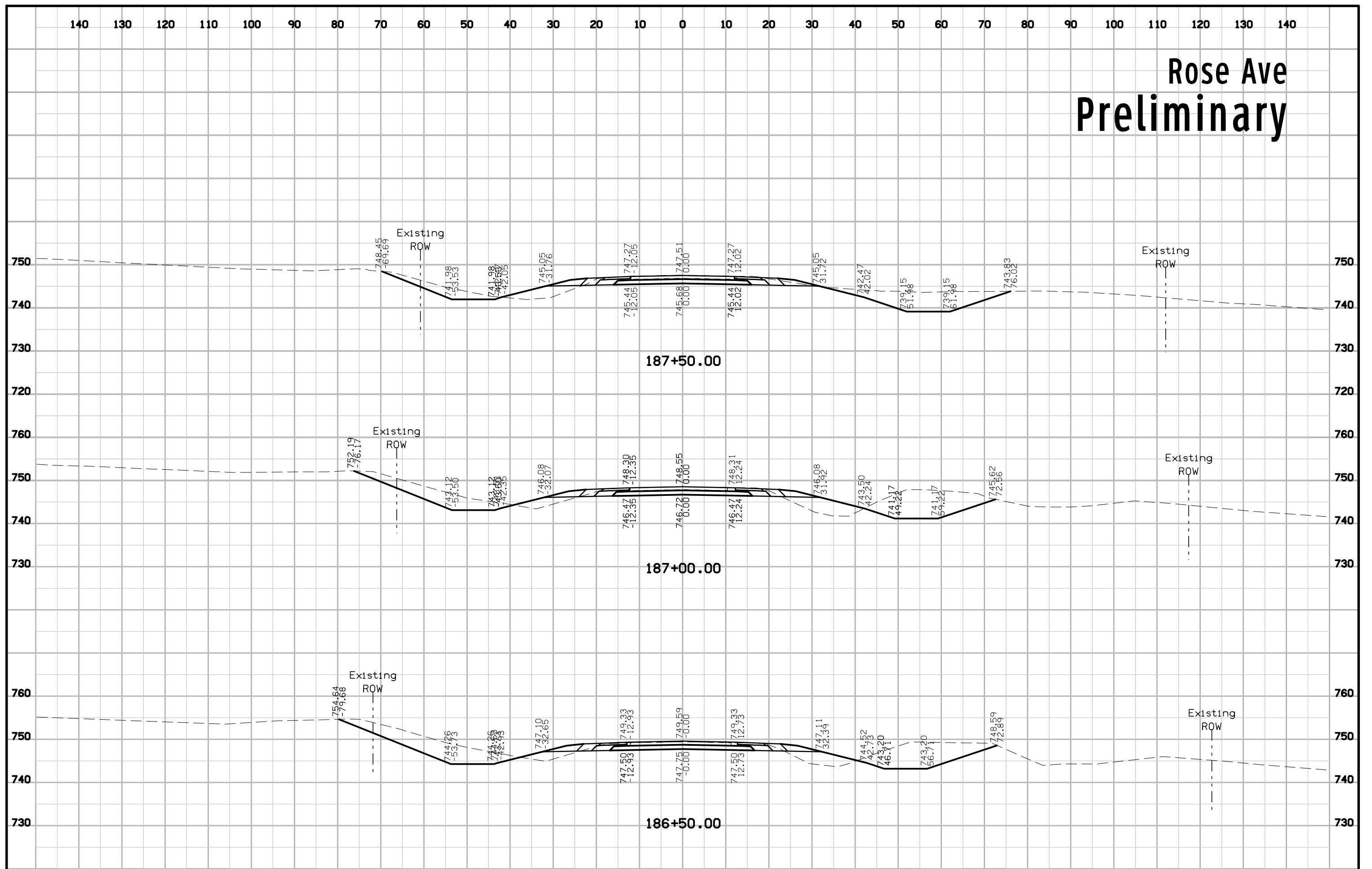
Rose Ave Preliminary



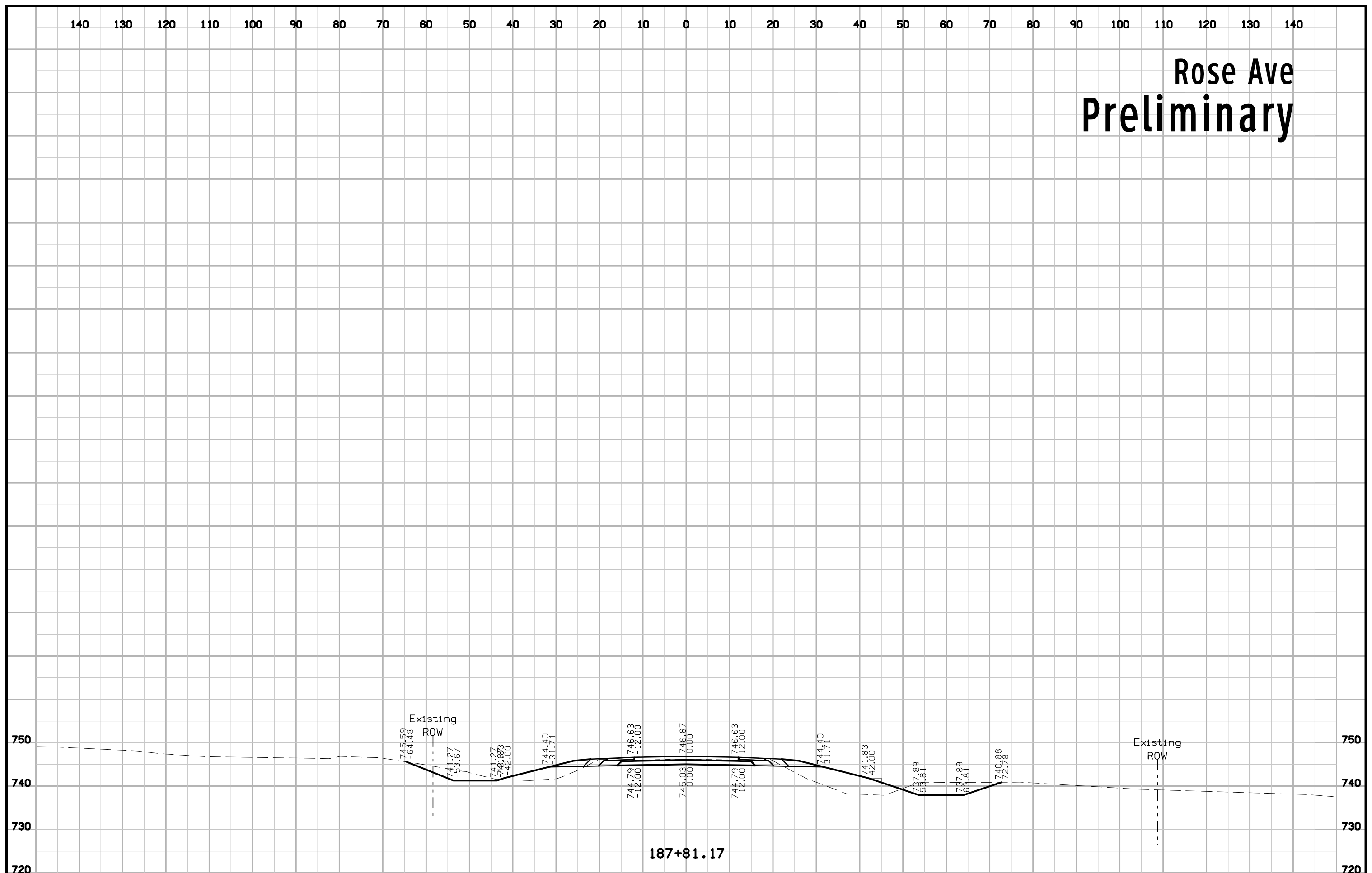
Rose Ave Preliminary



Rose Ave Preliminary

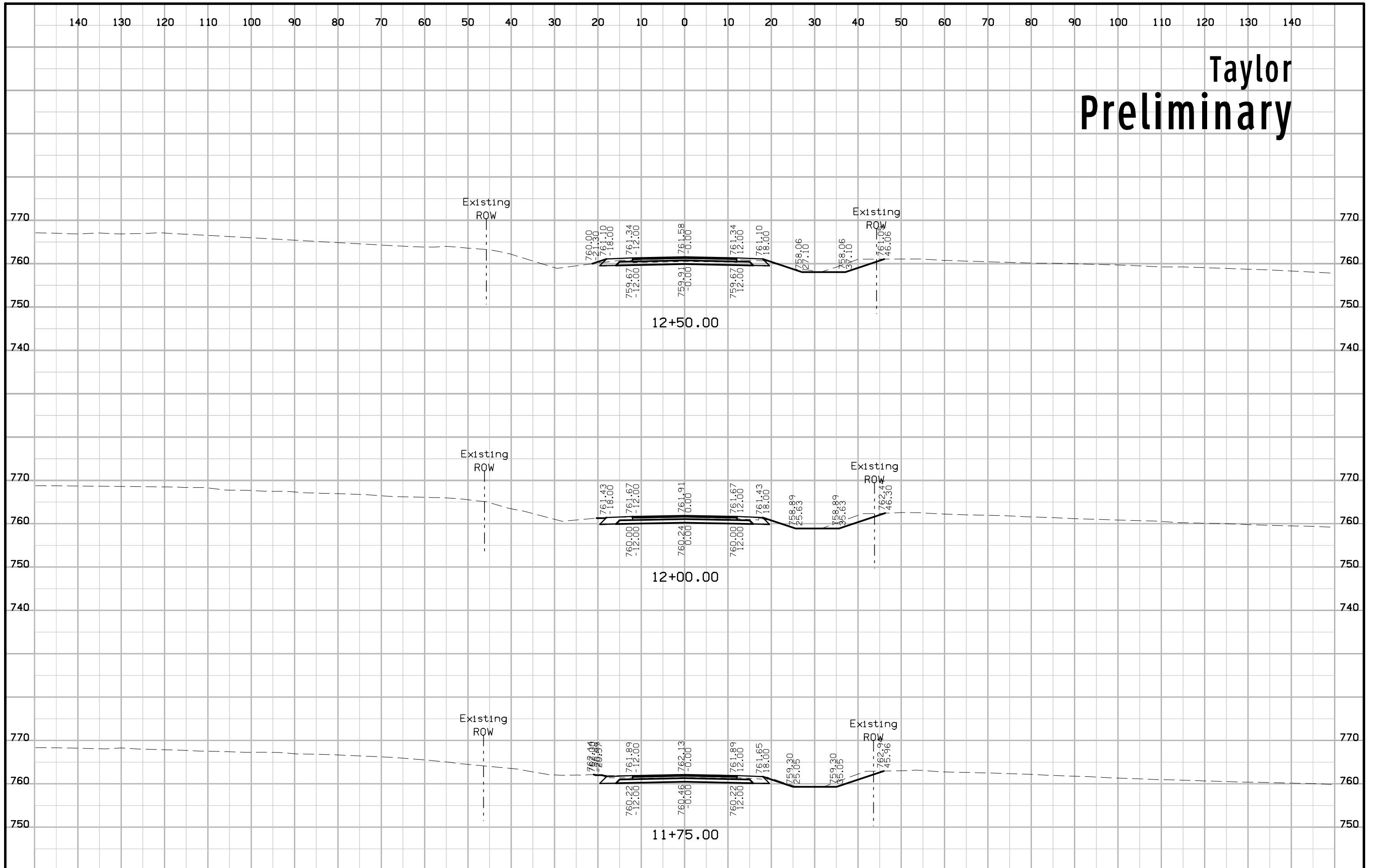


Rose Ave Preliminary

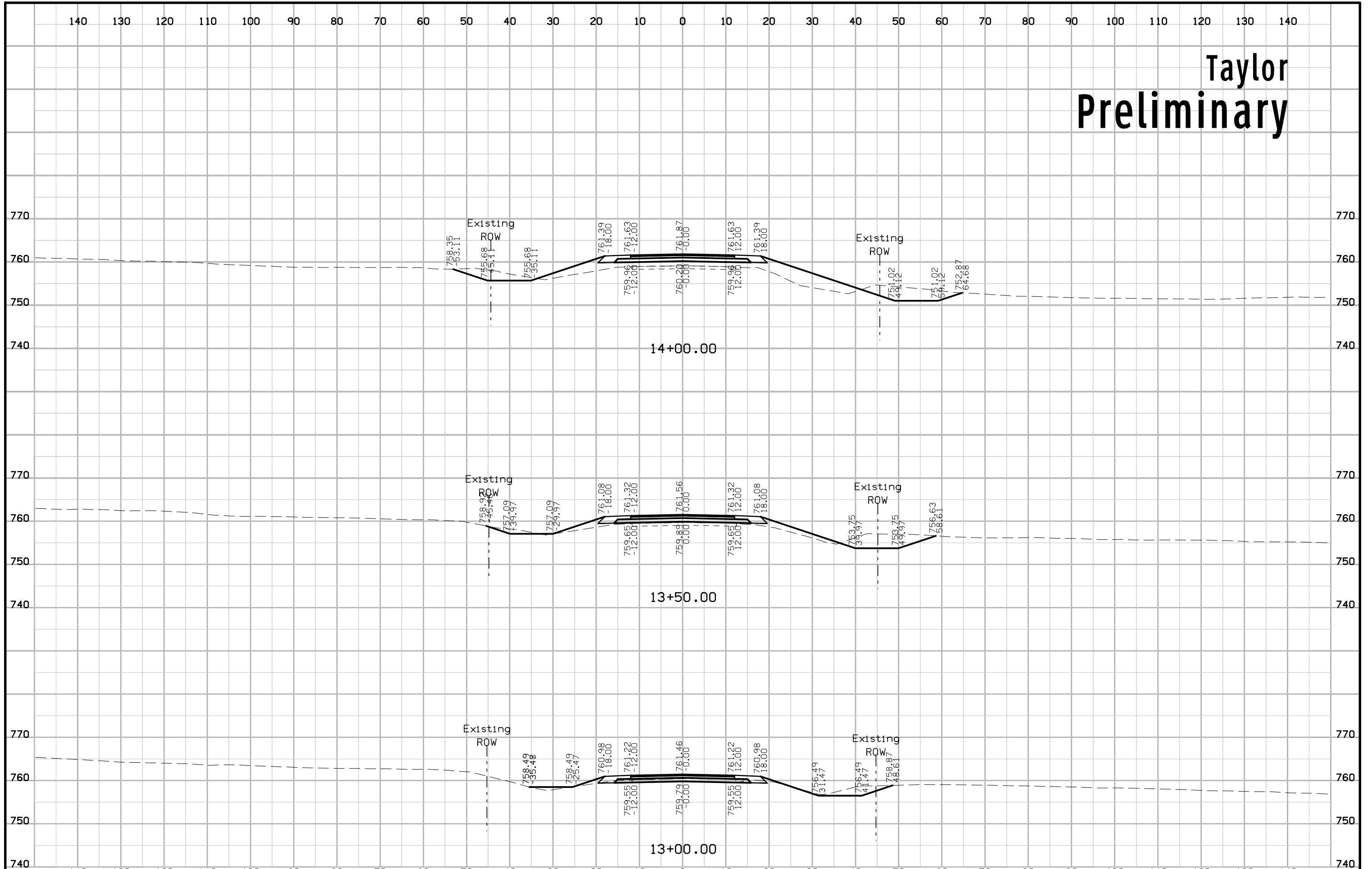


187+81.17

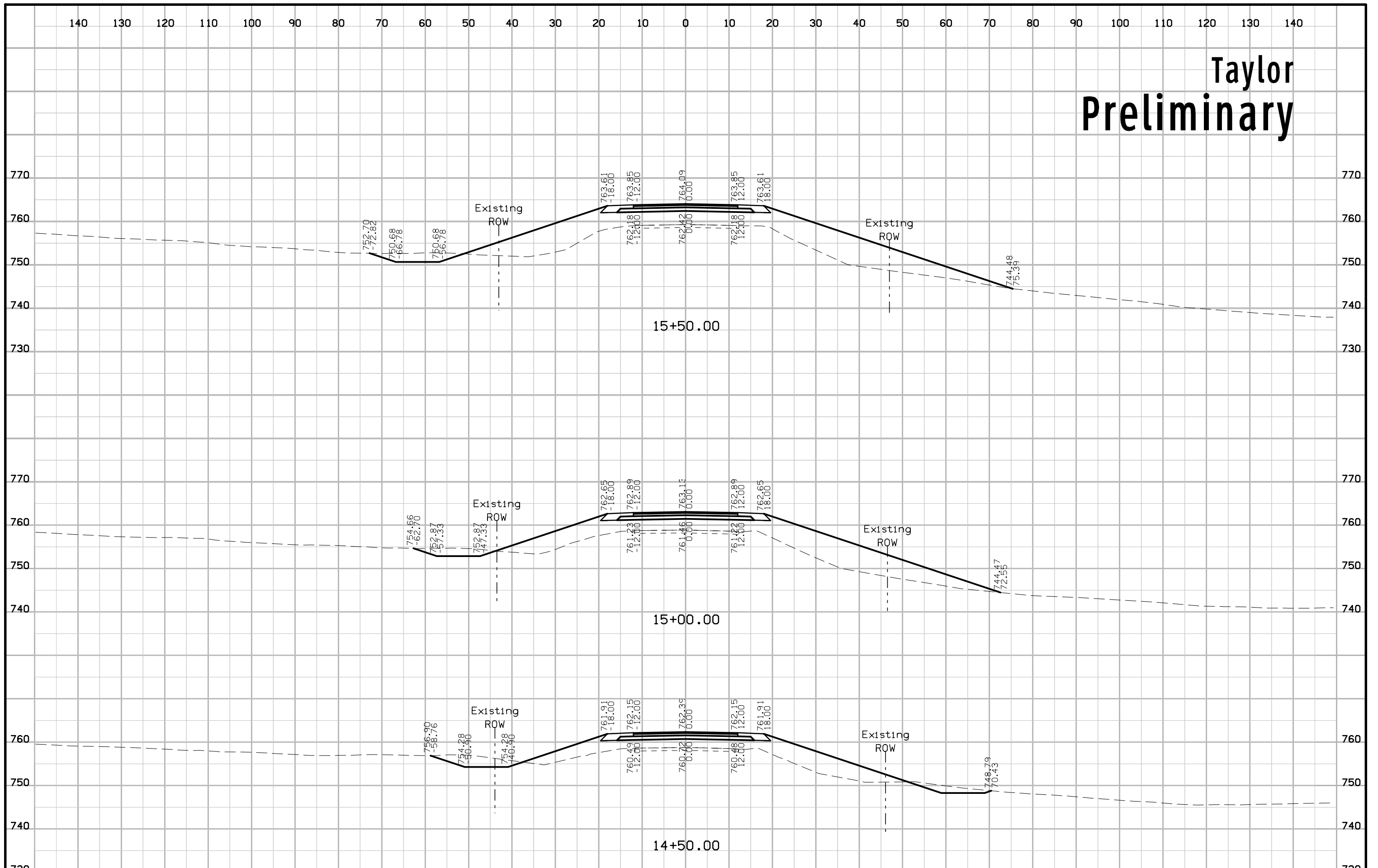
Taylor Preliminary



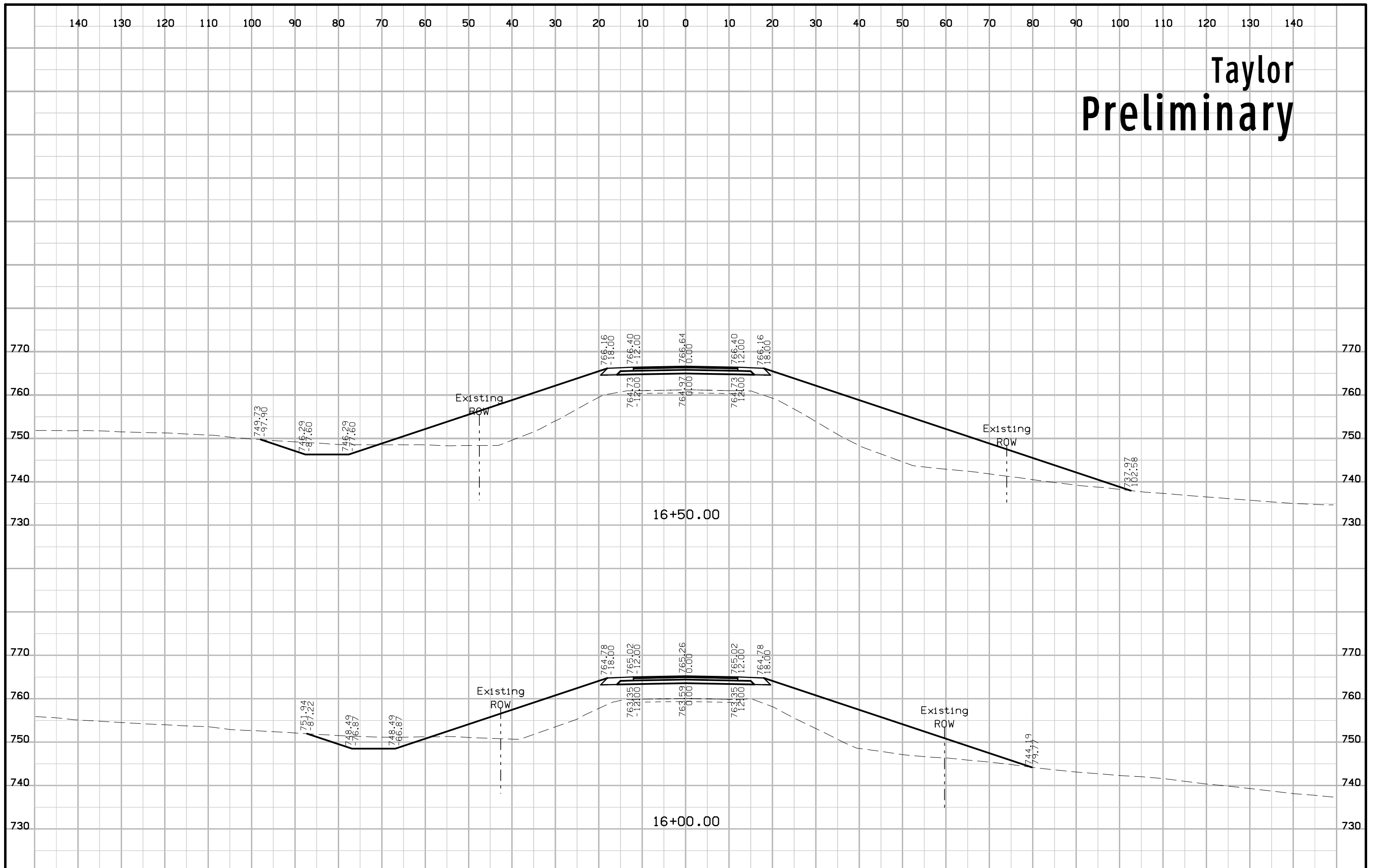
Taylor Preliminary



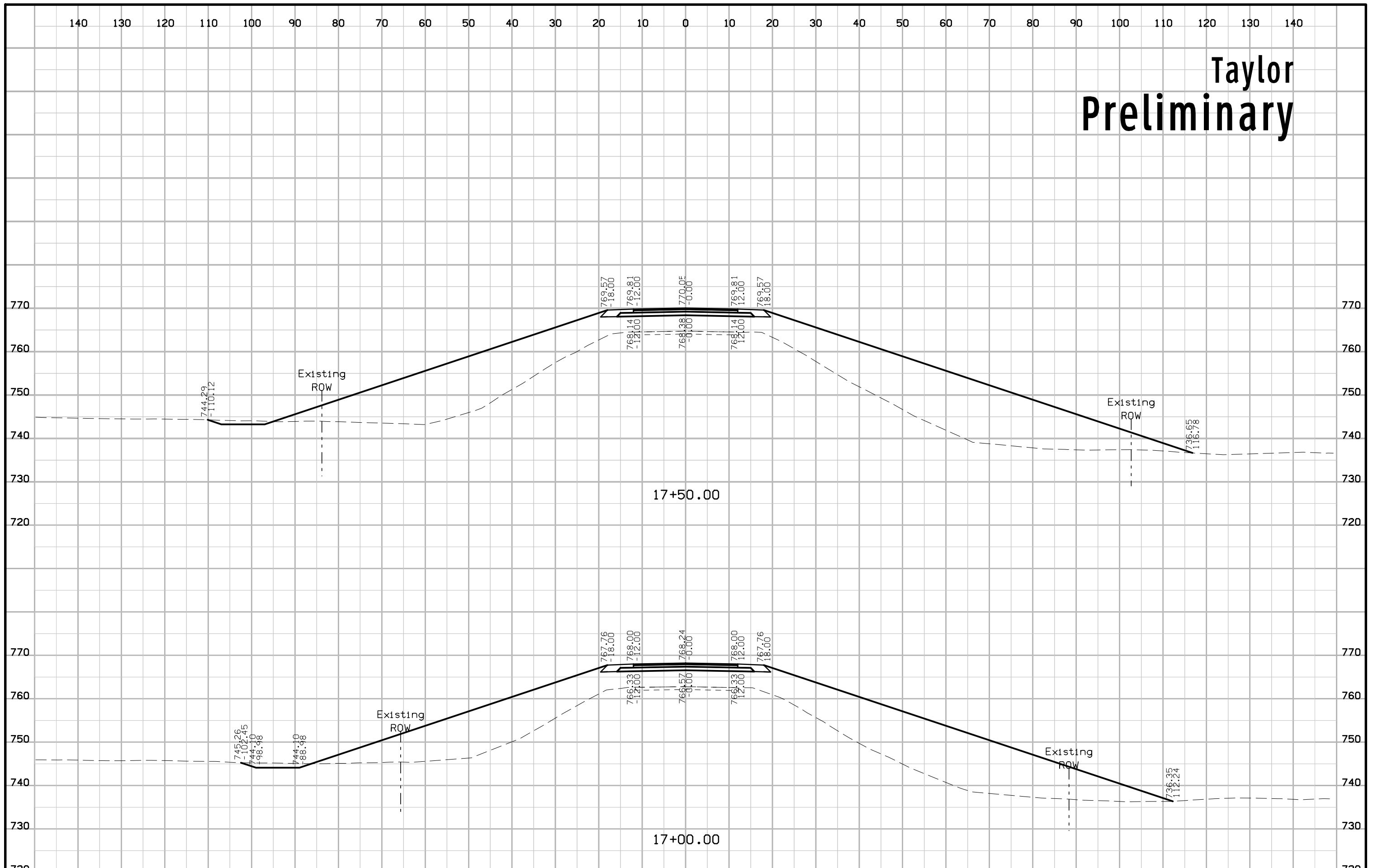
Taylor Preliminary



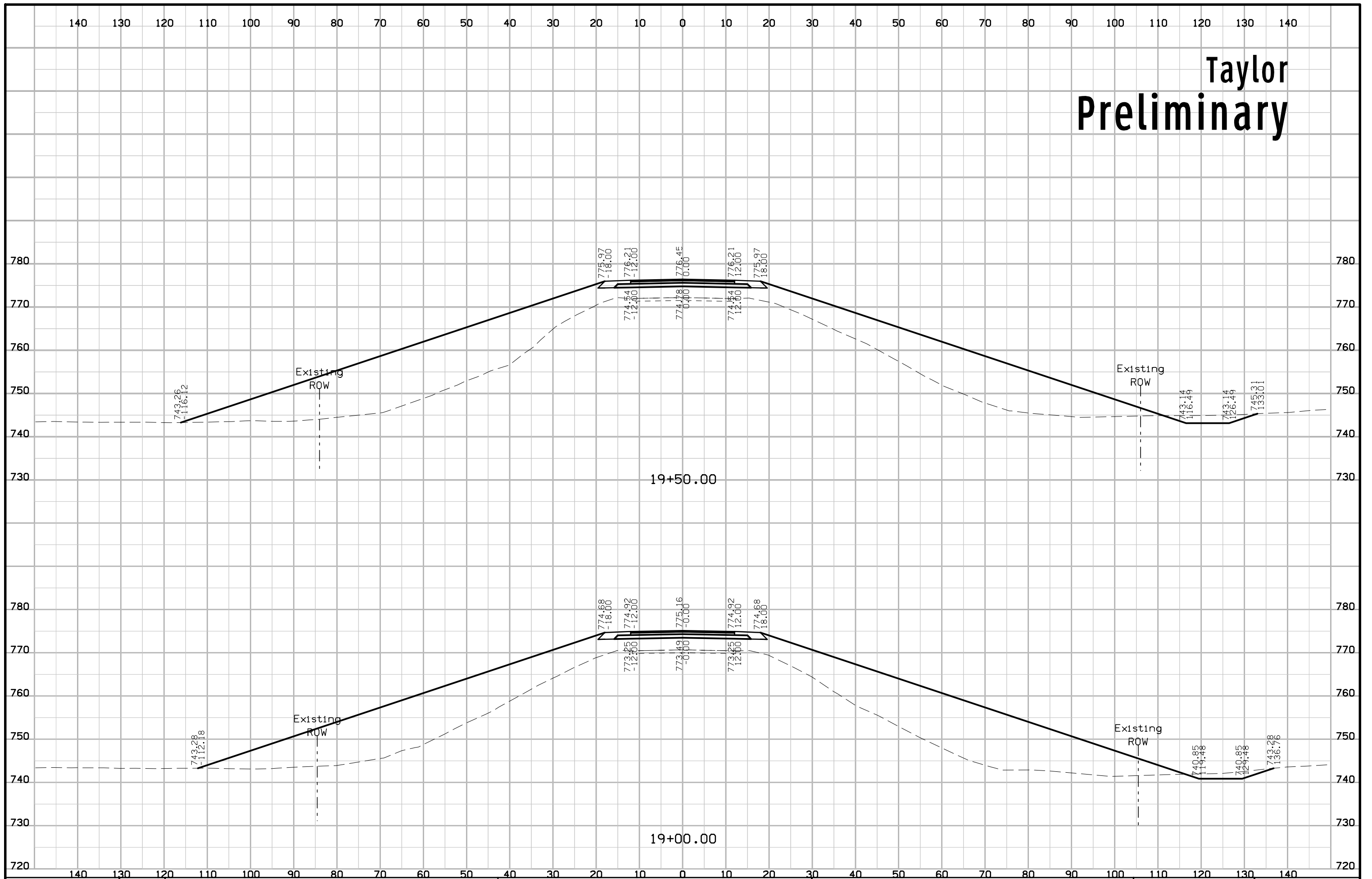
Taylor Preliminary



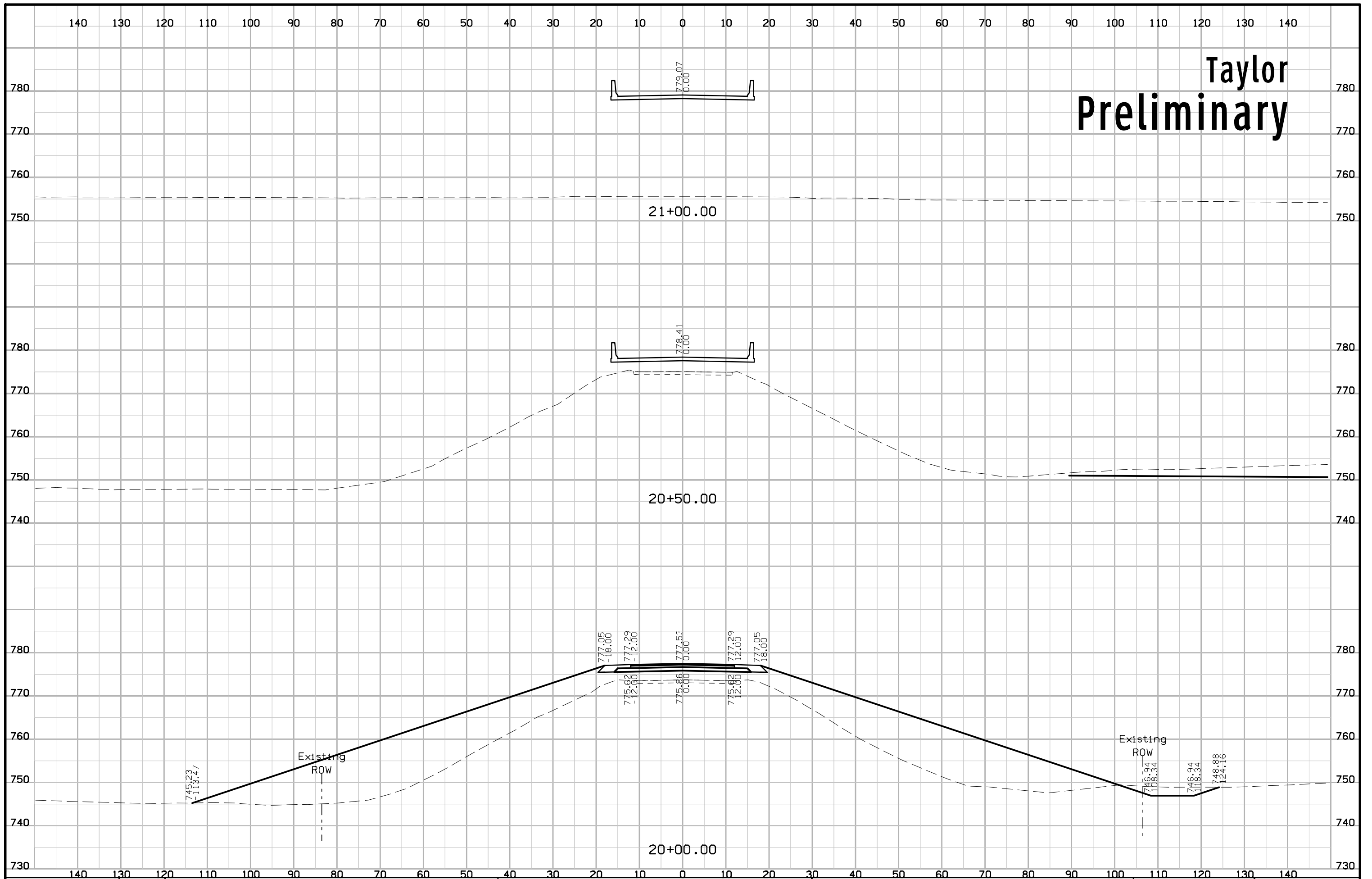
Taylor Preliminary



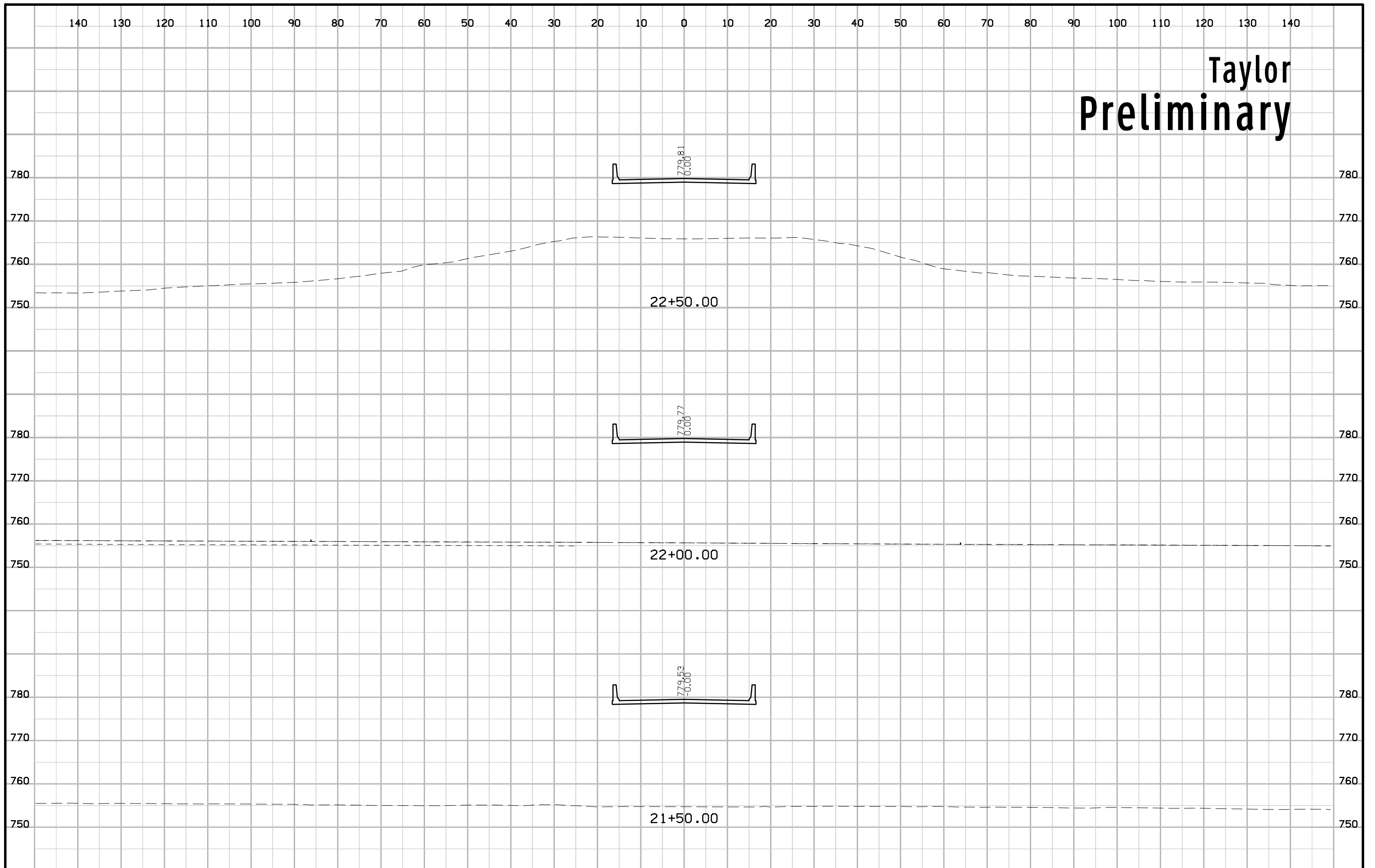
Taylor Preliminary



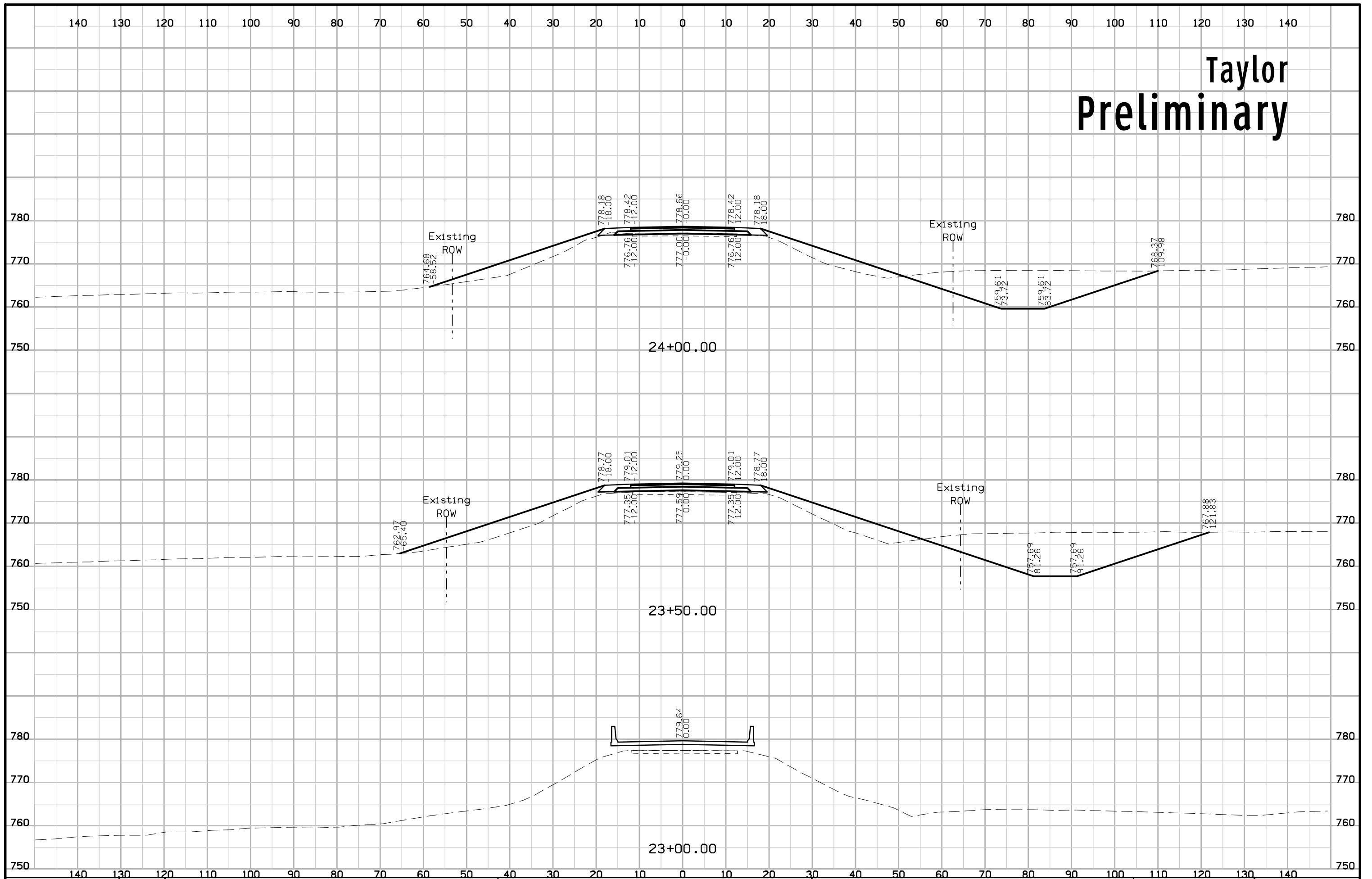
Taylor Preliminary



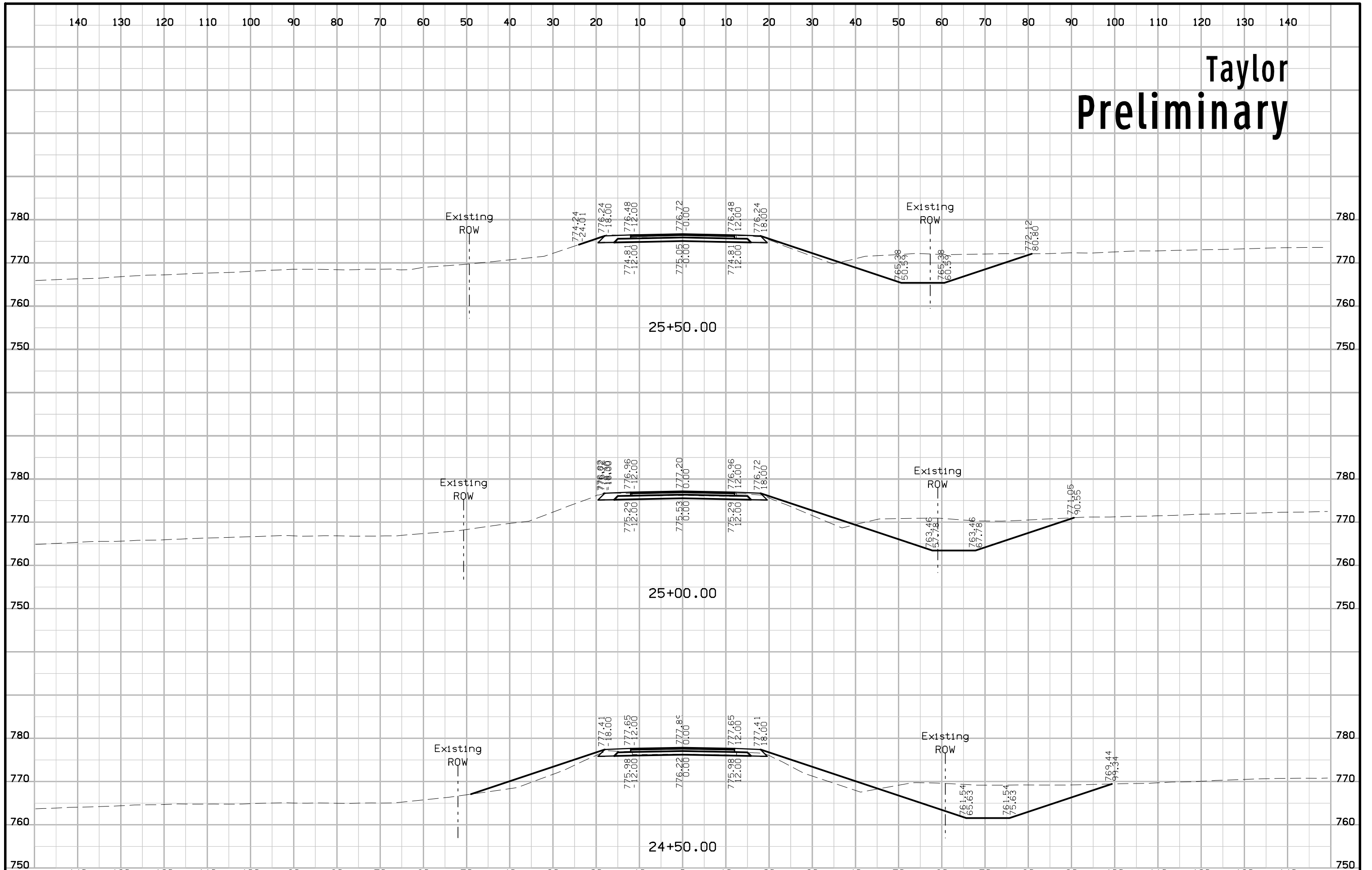
Taylor Preliminary



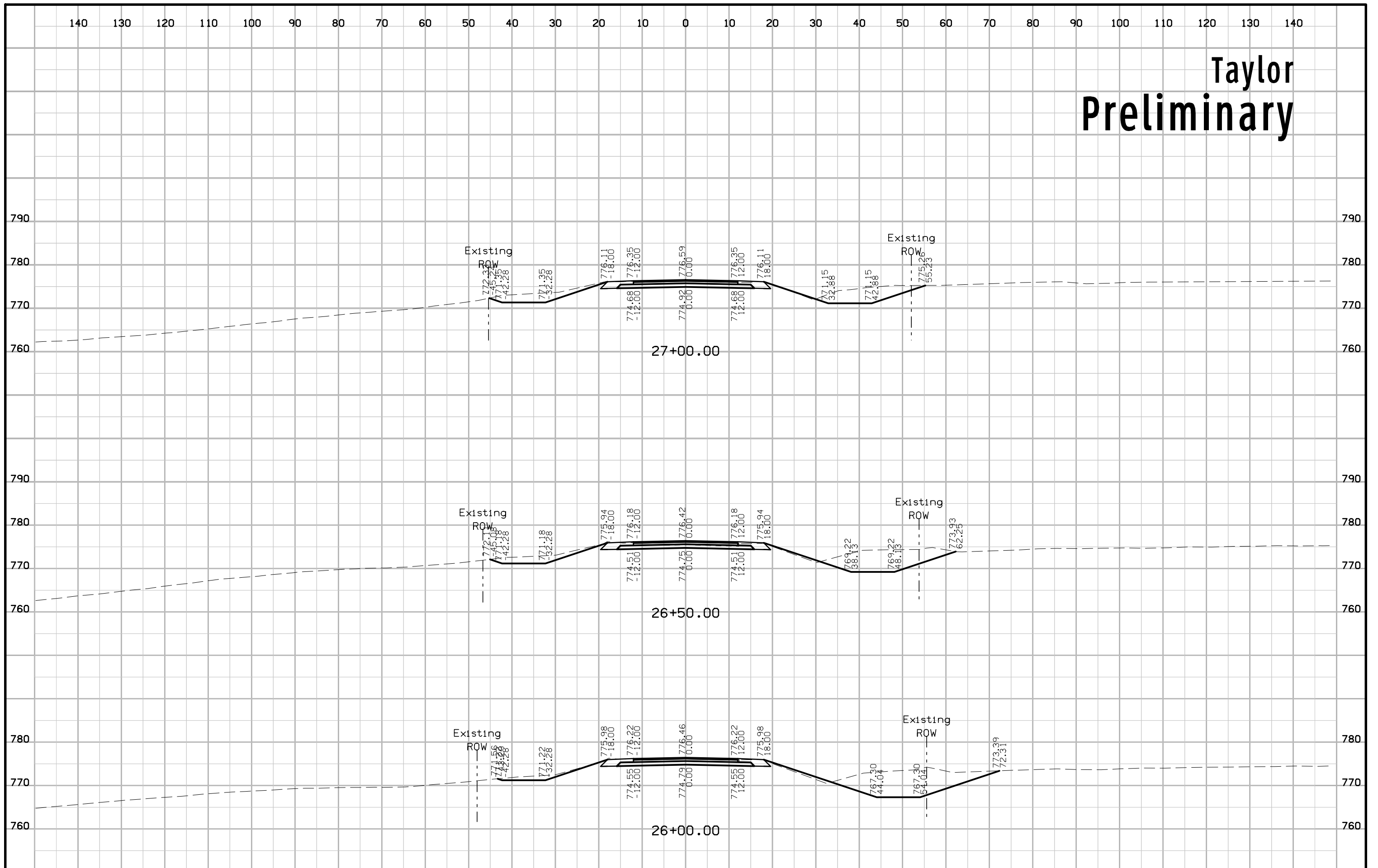
Taylor Preliminary



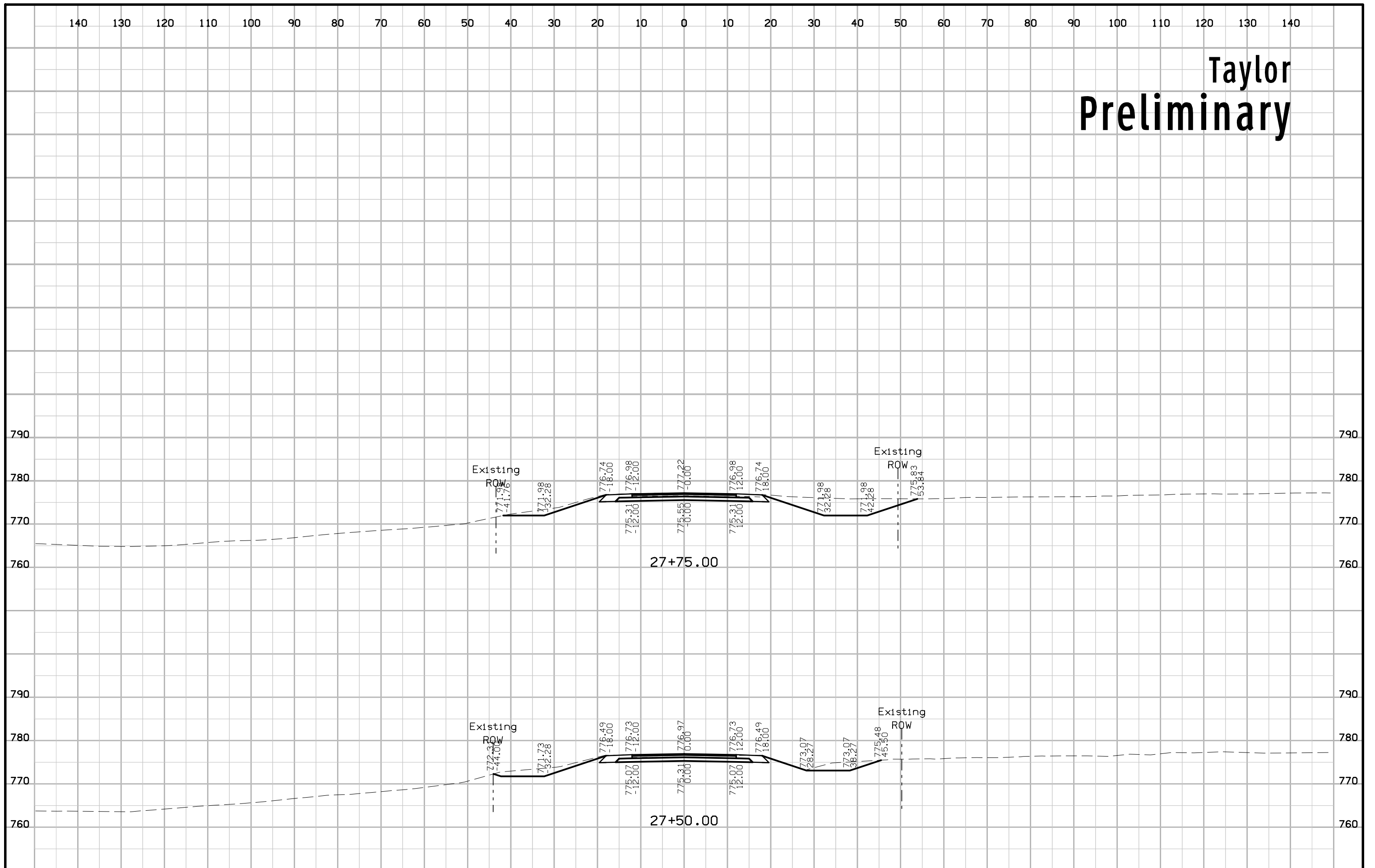
Taylor Preliminary



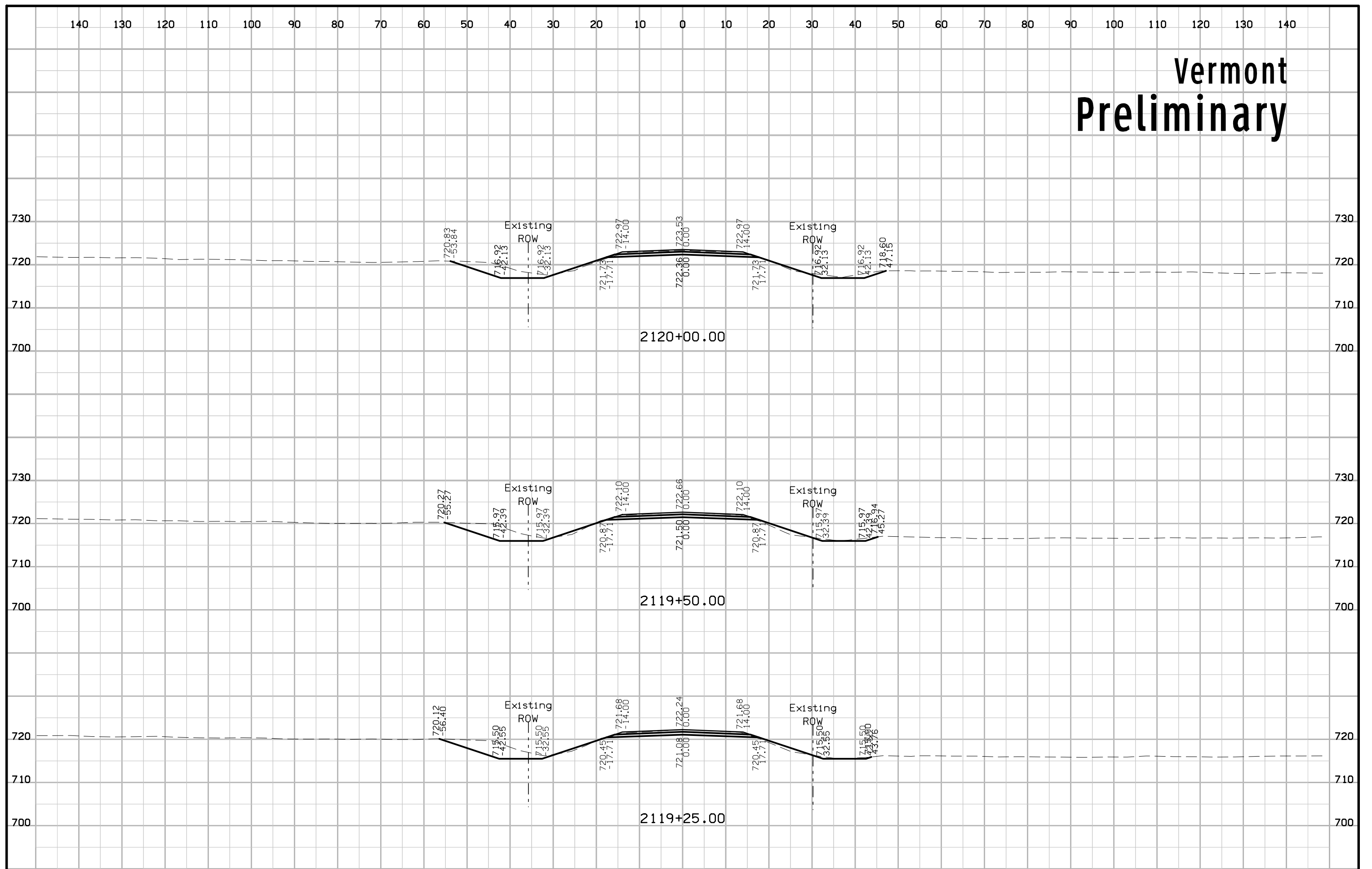
Taylor Preliminary



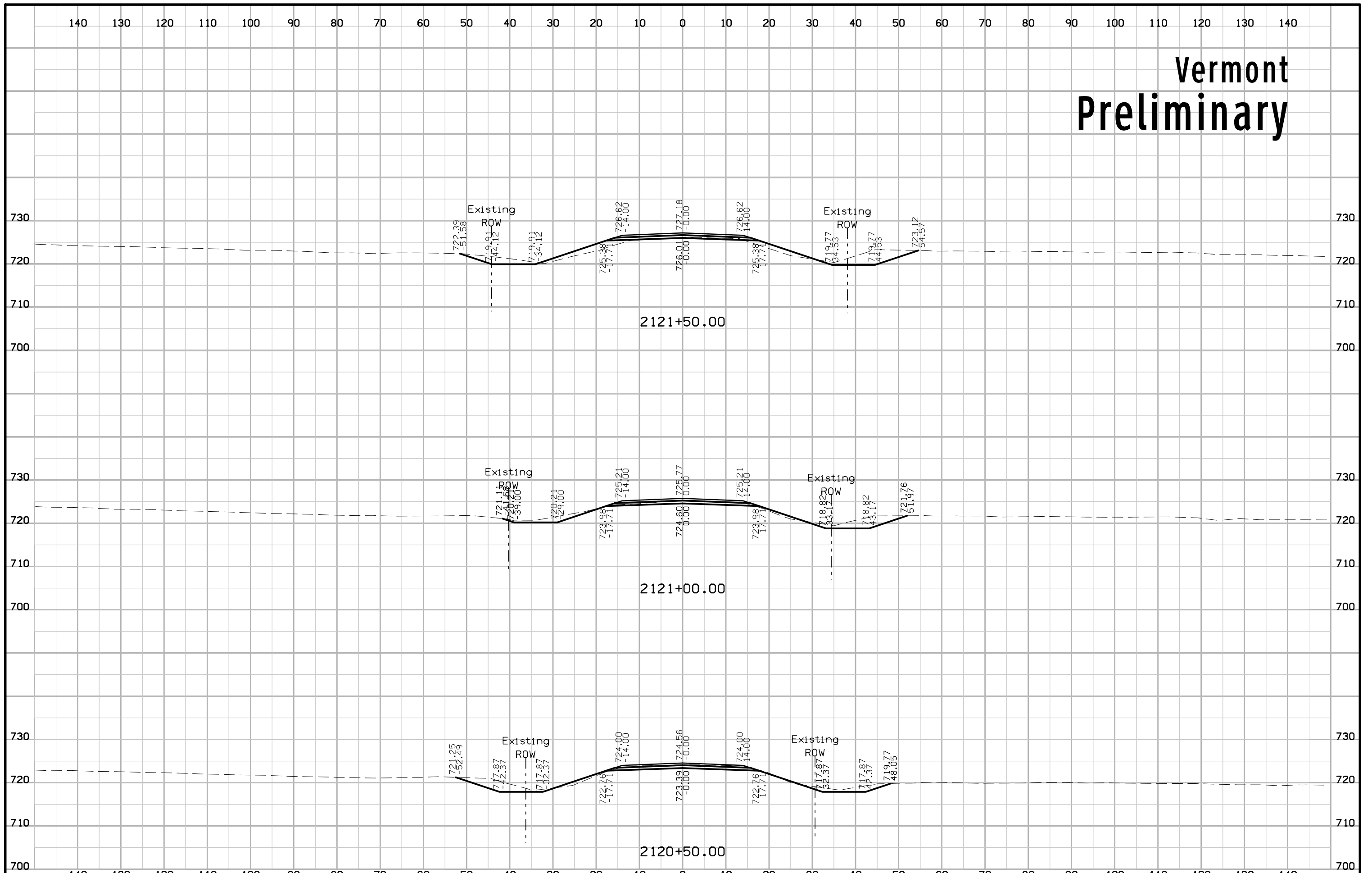
Taylor Preliminary



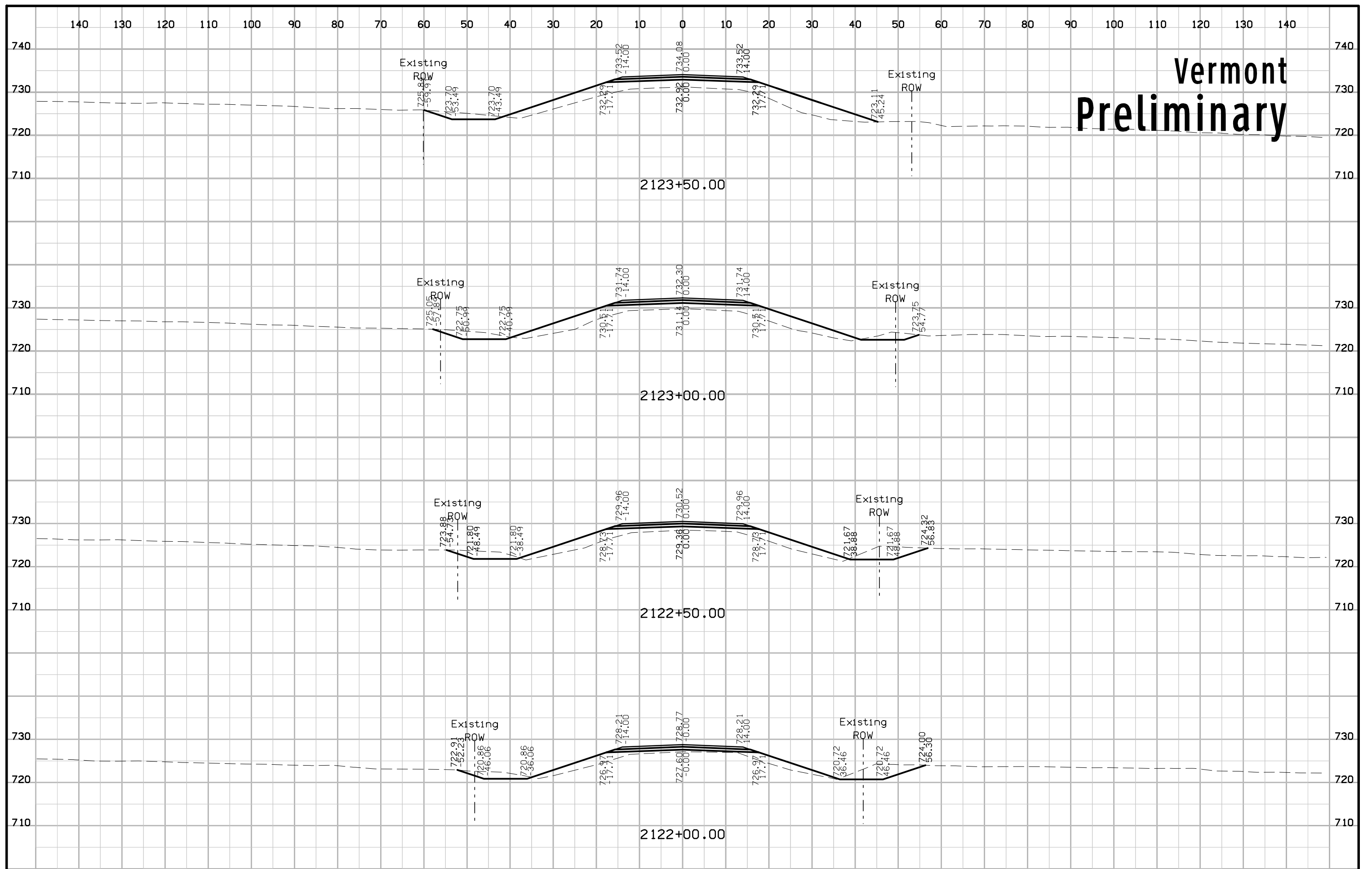
Vermont Preliminary



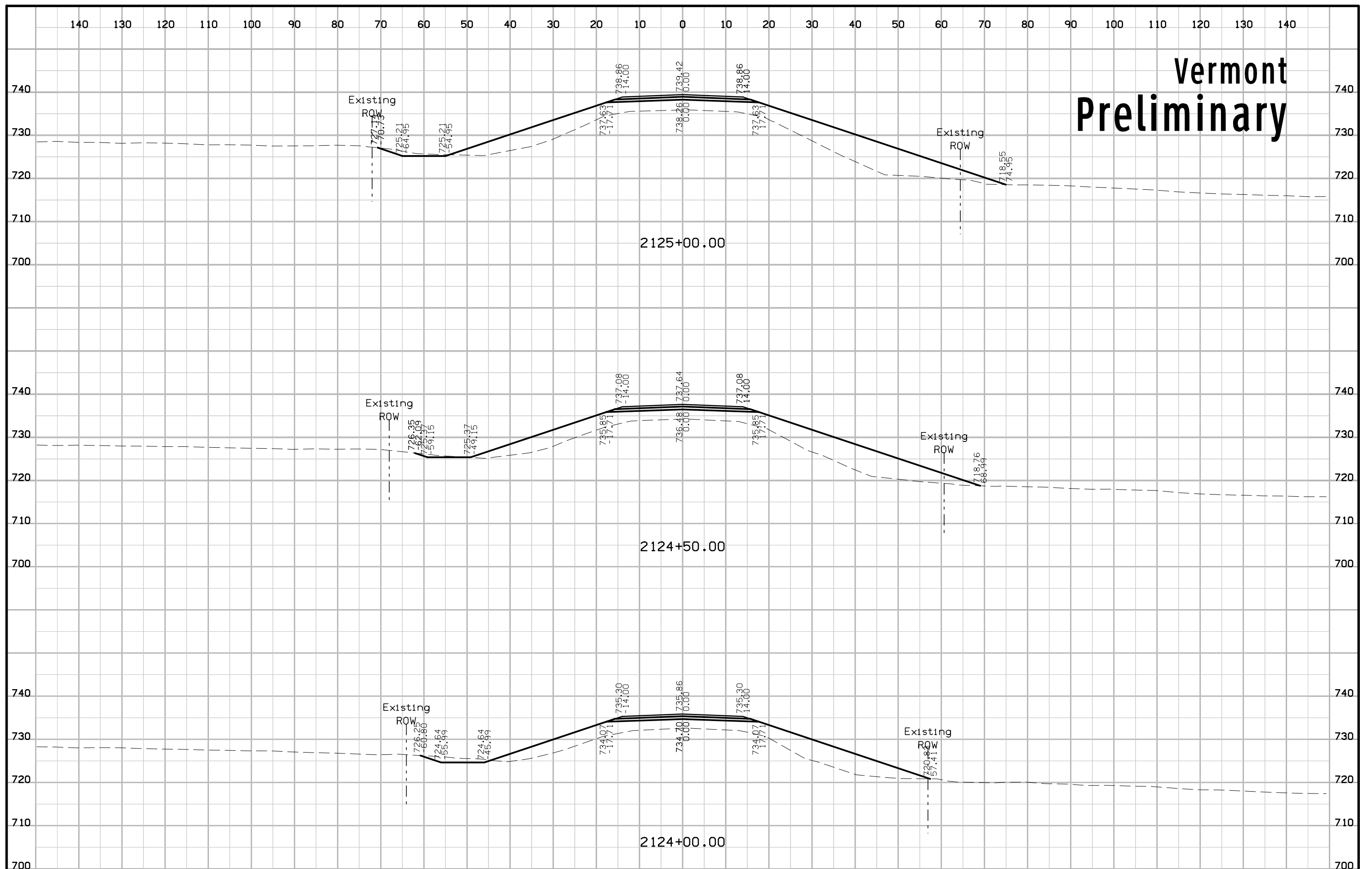
Vermont Preliminary



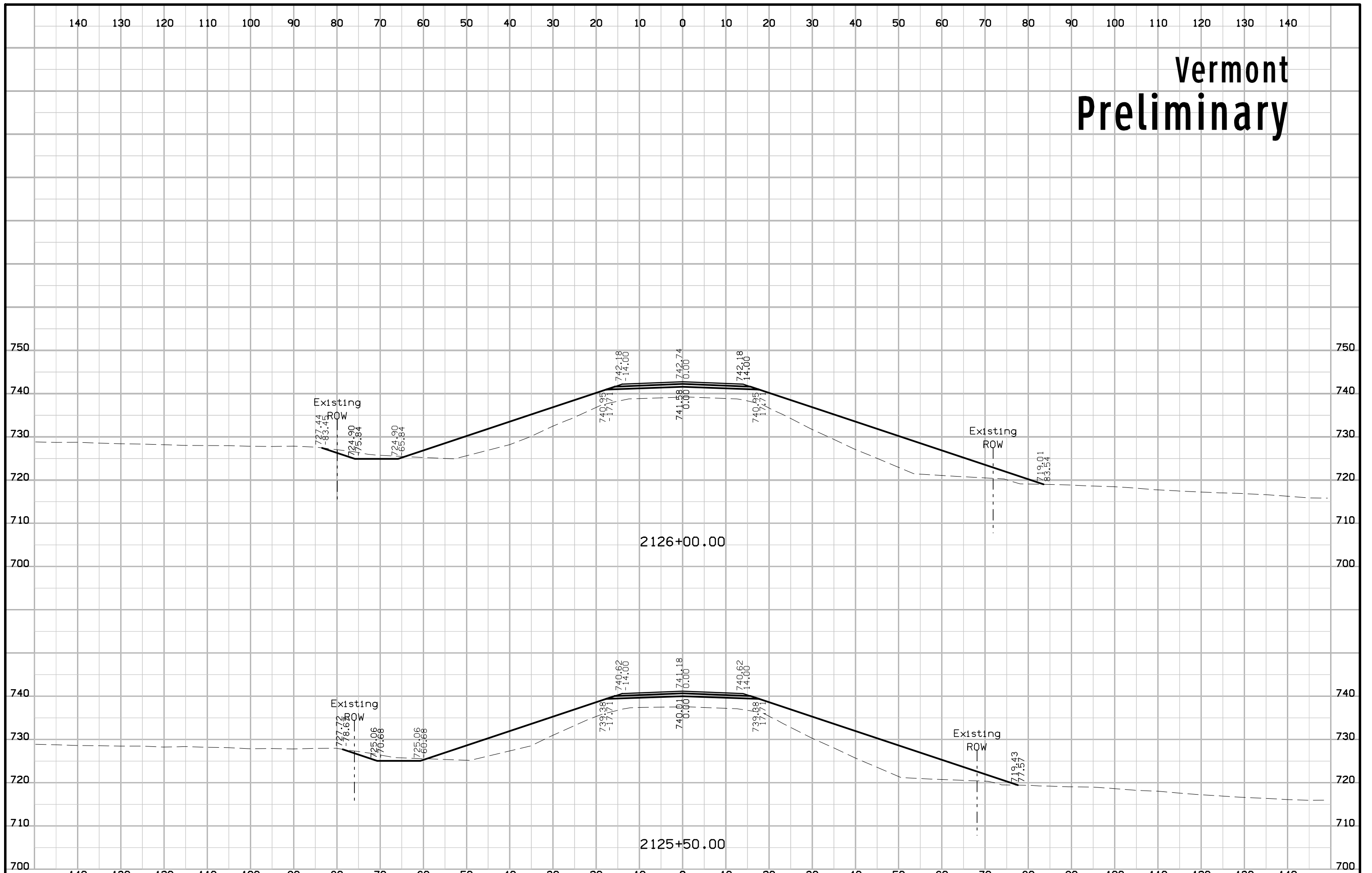
Vermont Preliminary



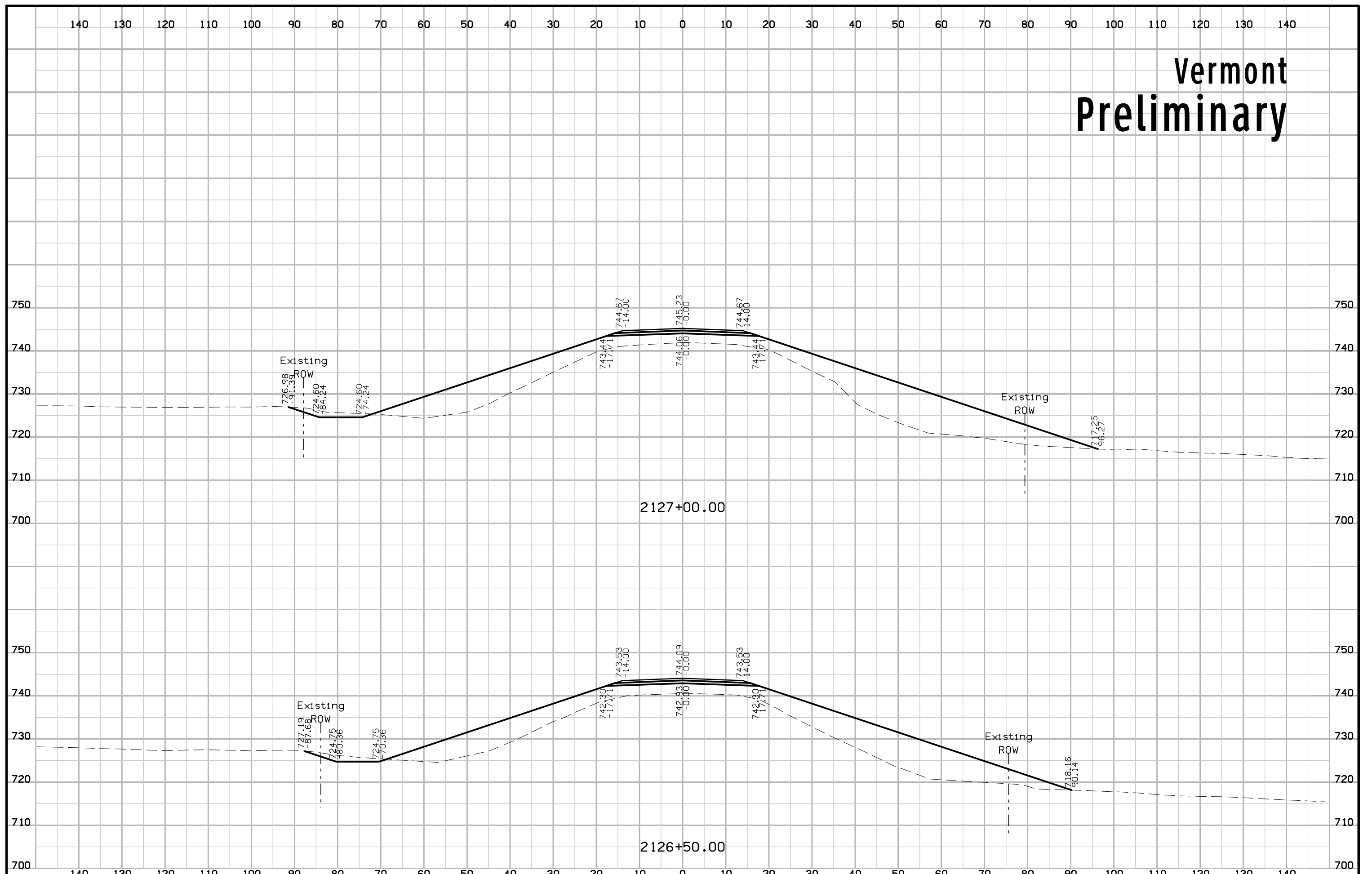
Vermont Preliminary



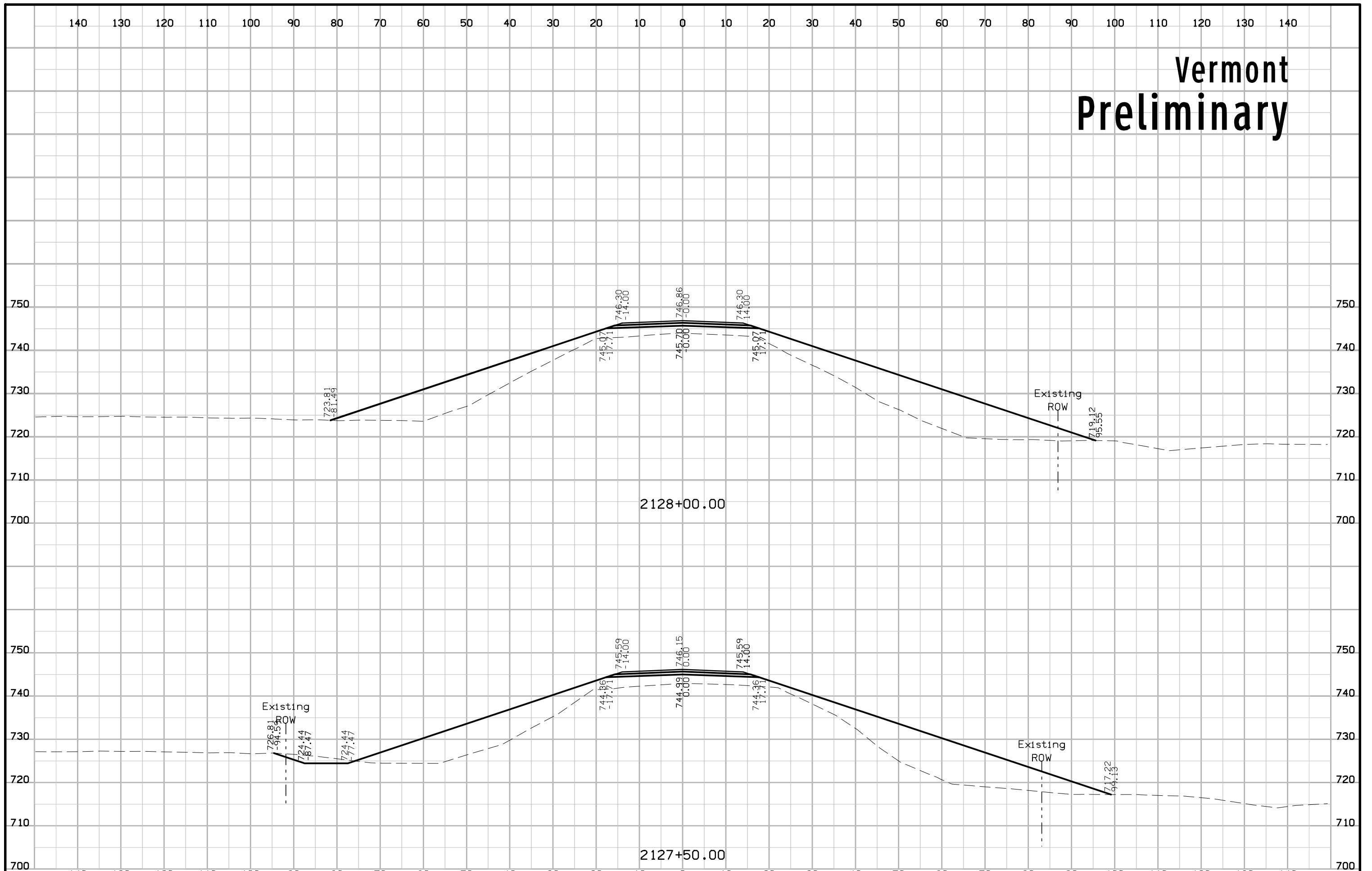
Vermont Preliminary



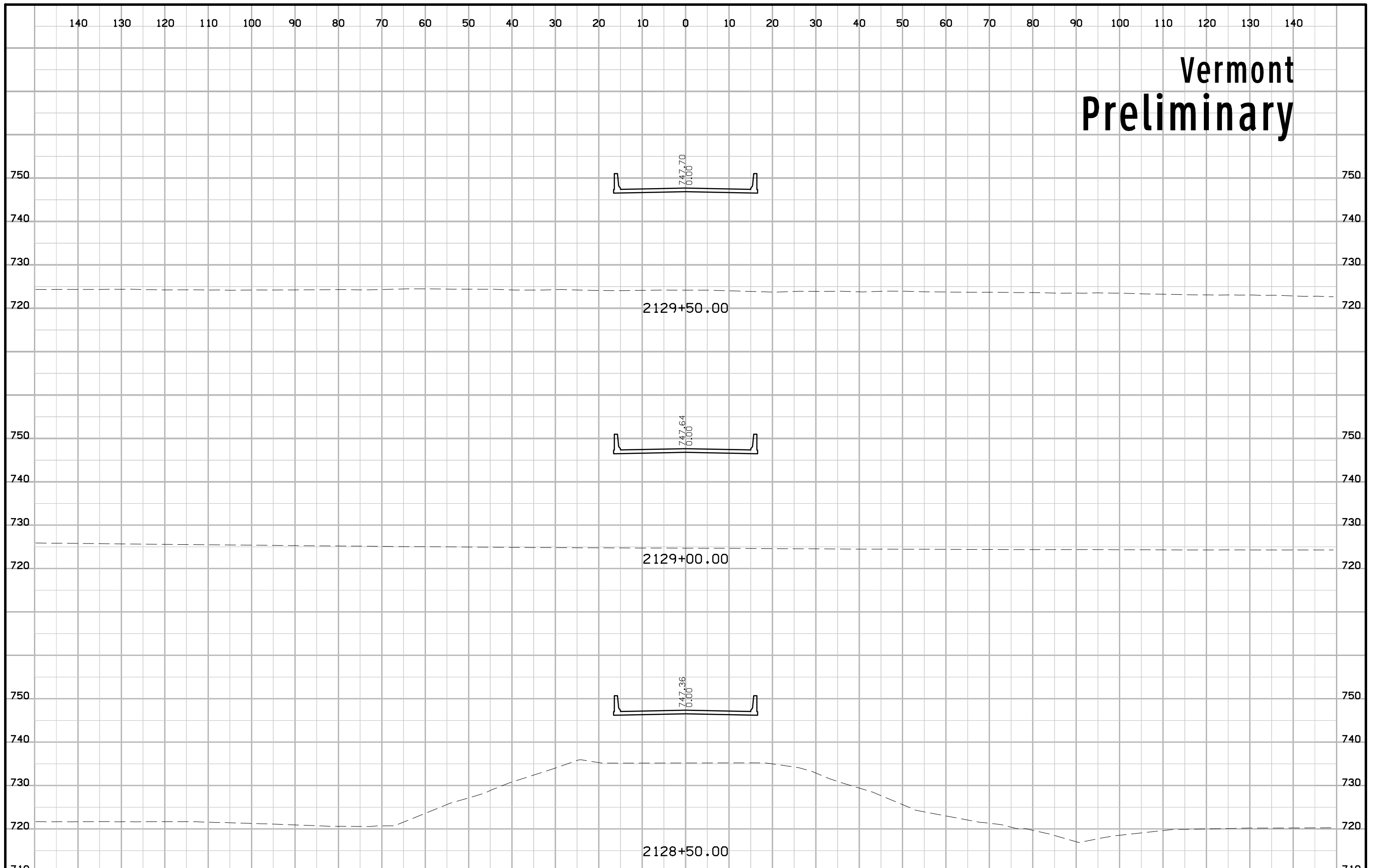
Vermont Preliminary



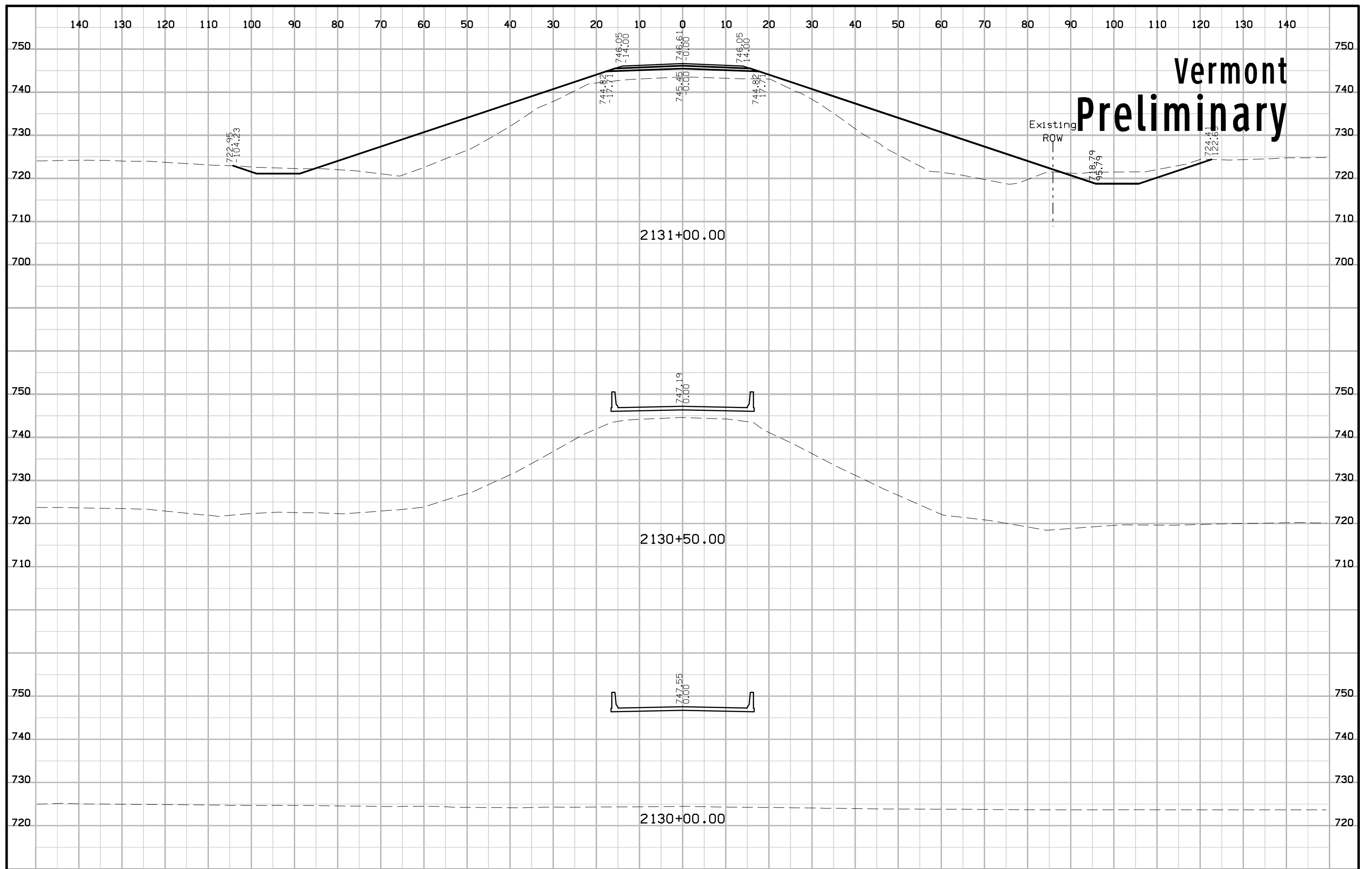
Vermont Preliminary



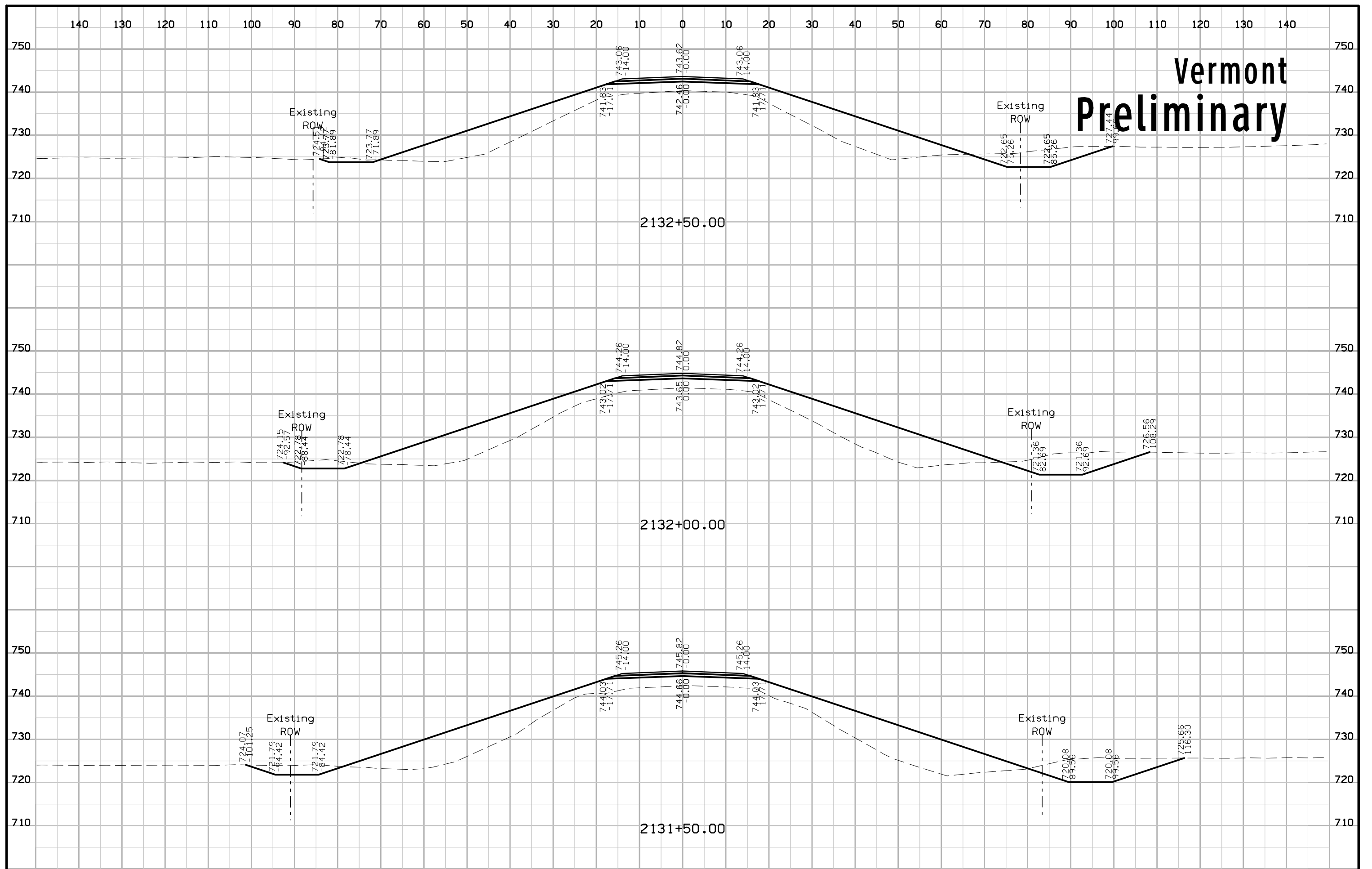
Vermont Preliminary



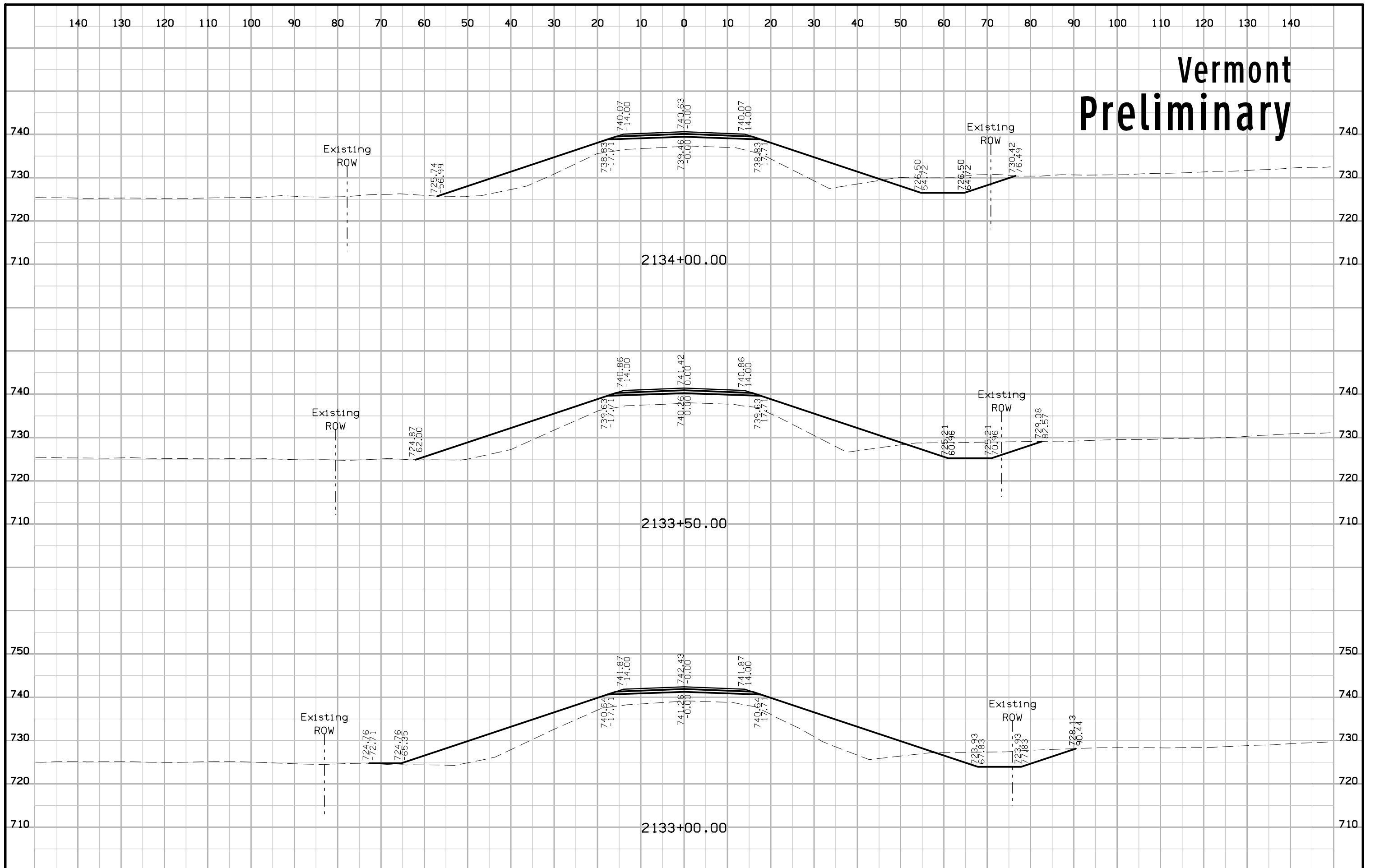
Vermont Preliminary



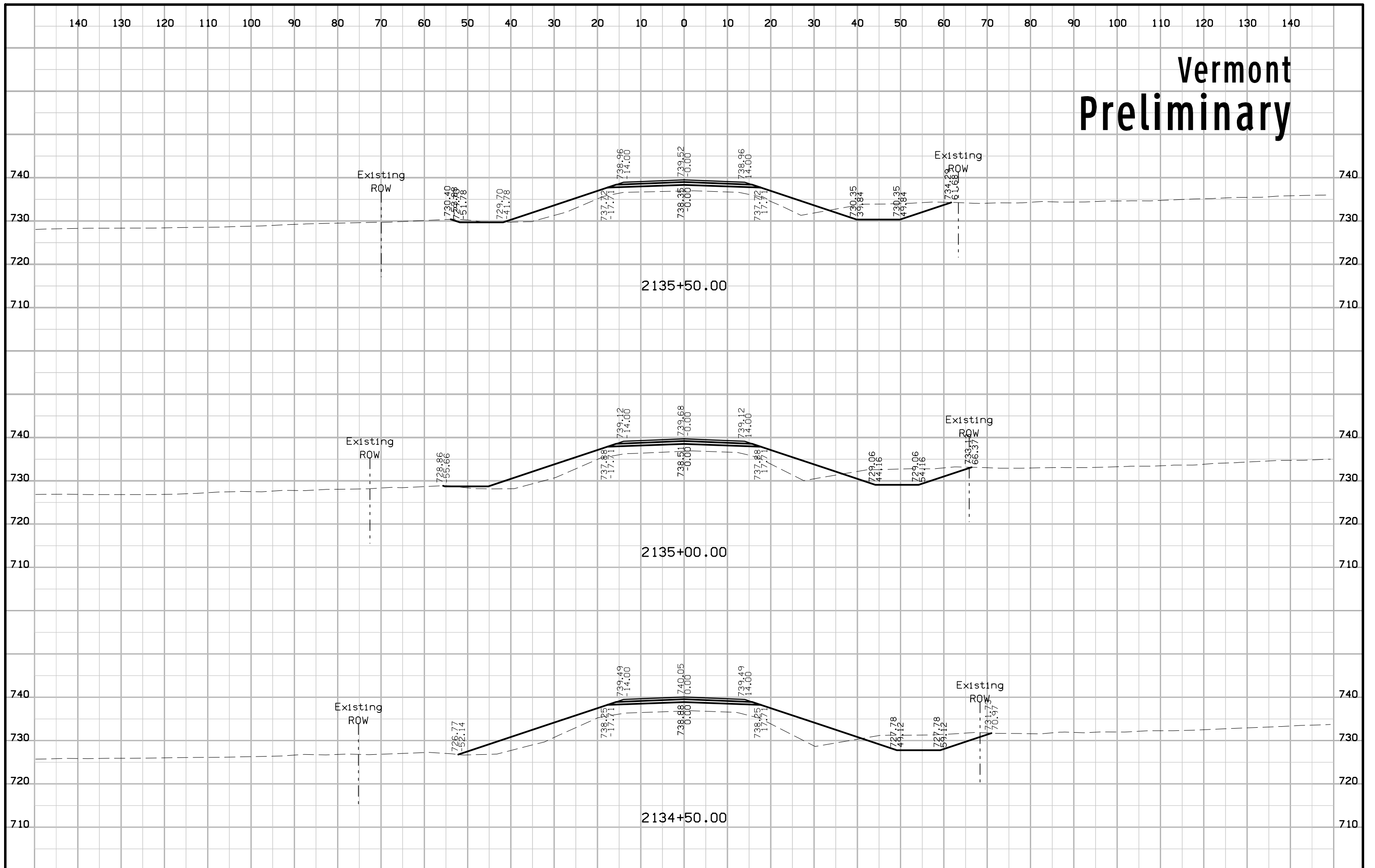
Vermont Preliminary



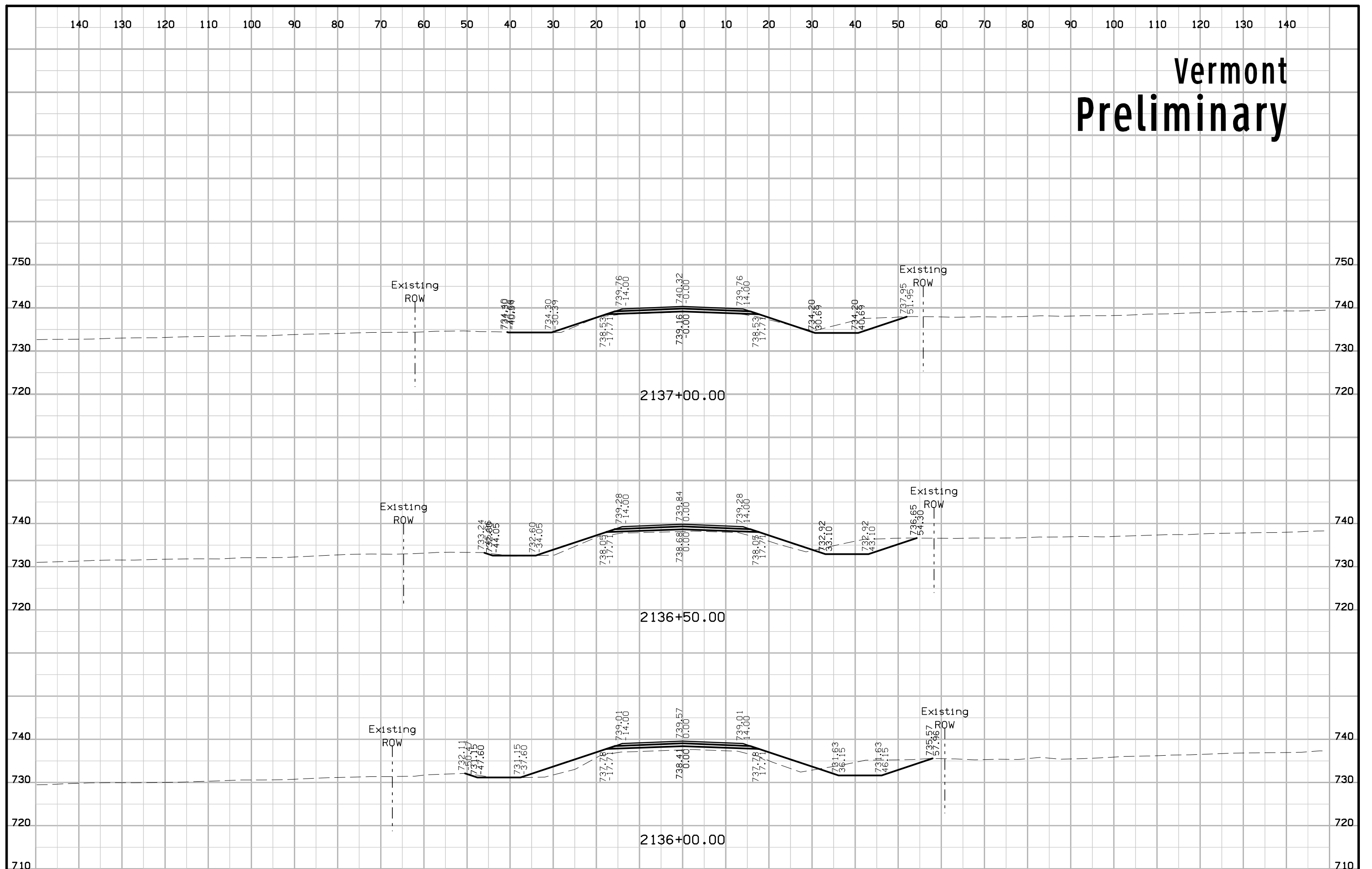
Vermont Preliminary



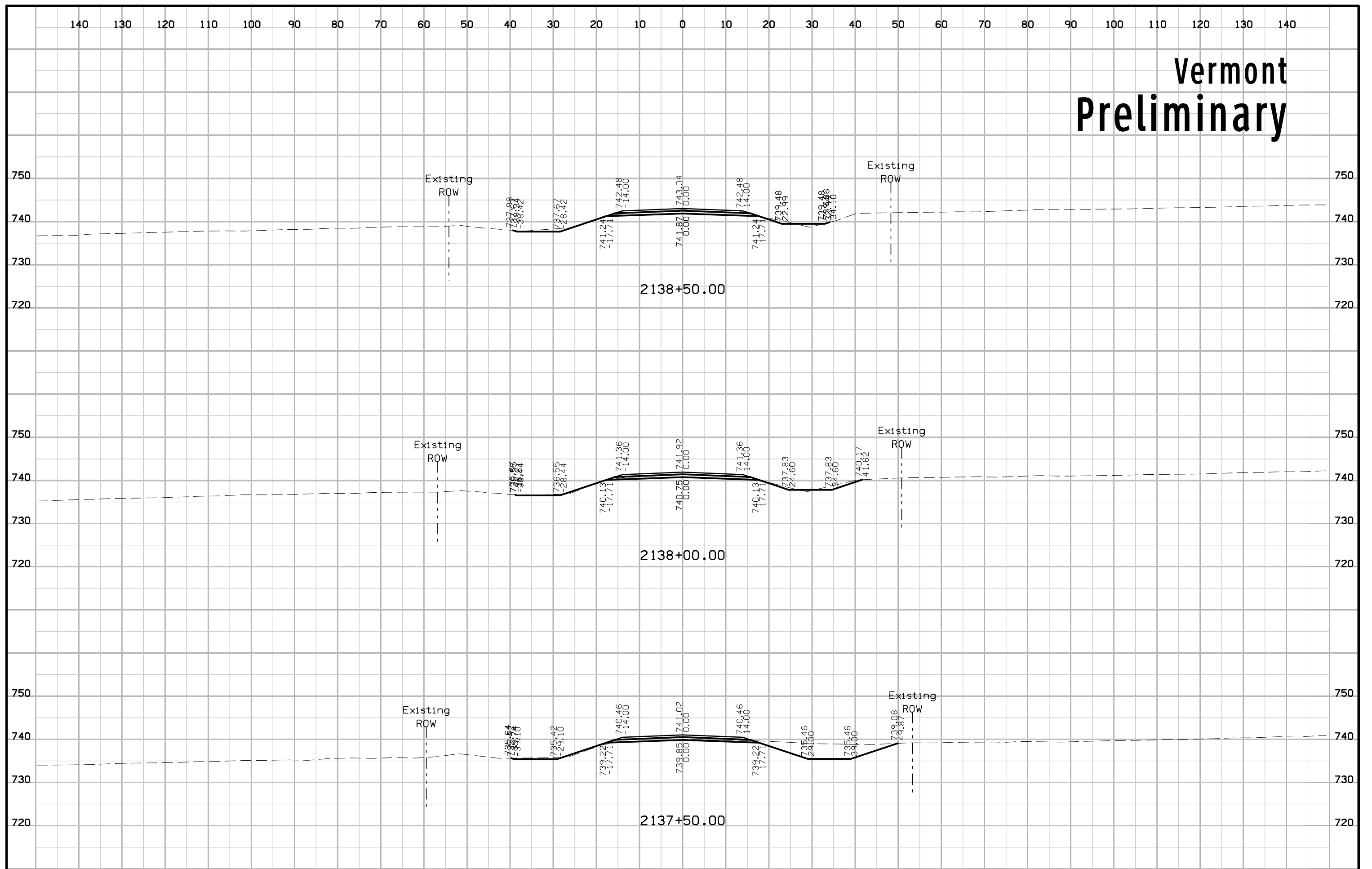
Vermont Preliminary



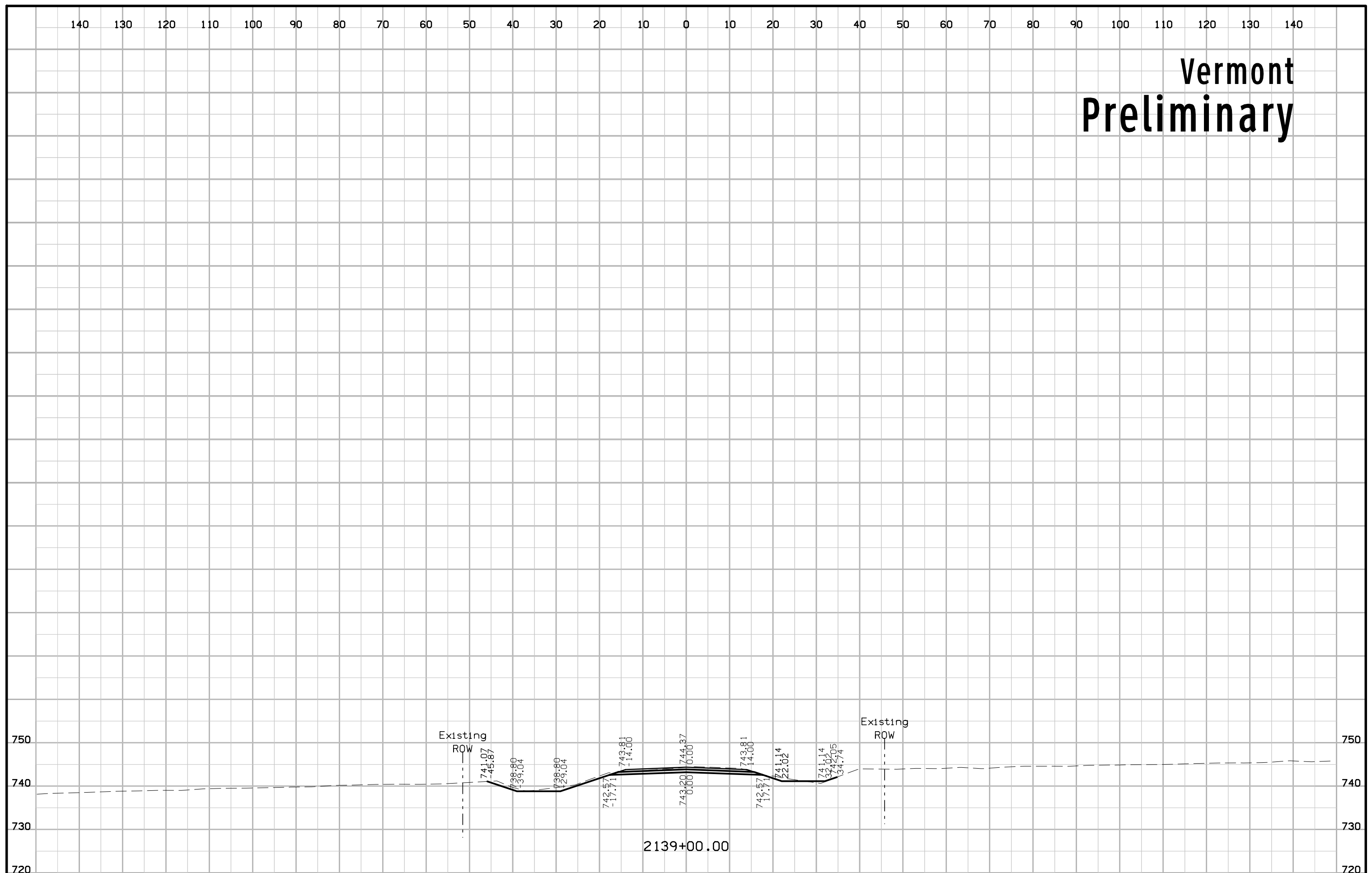
Vermont Preliminary



Vermont Preliminary

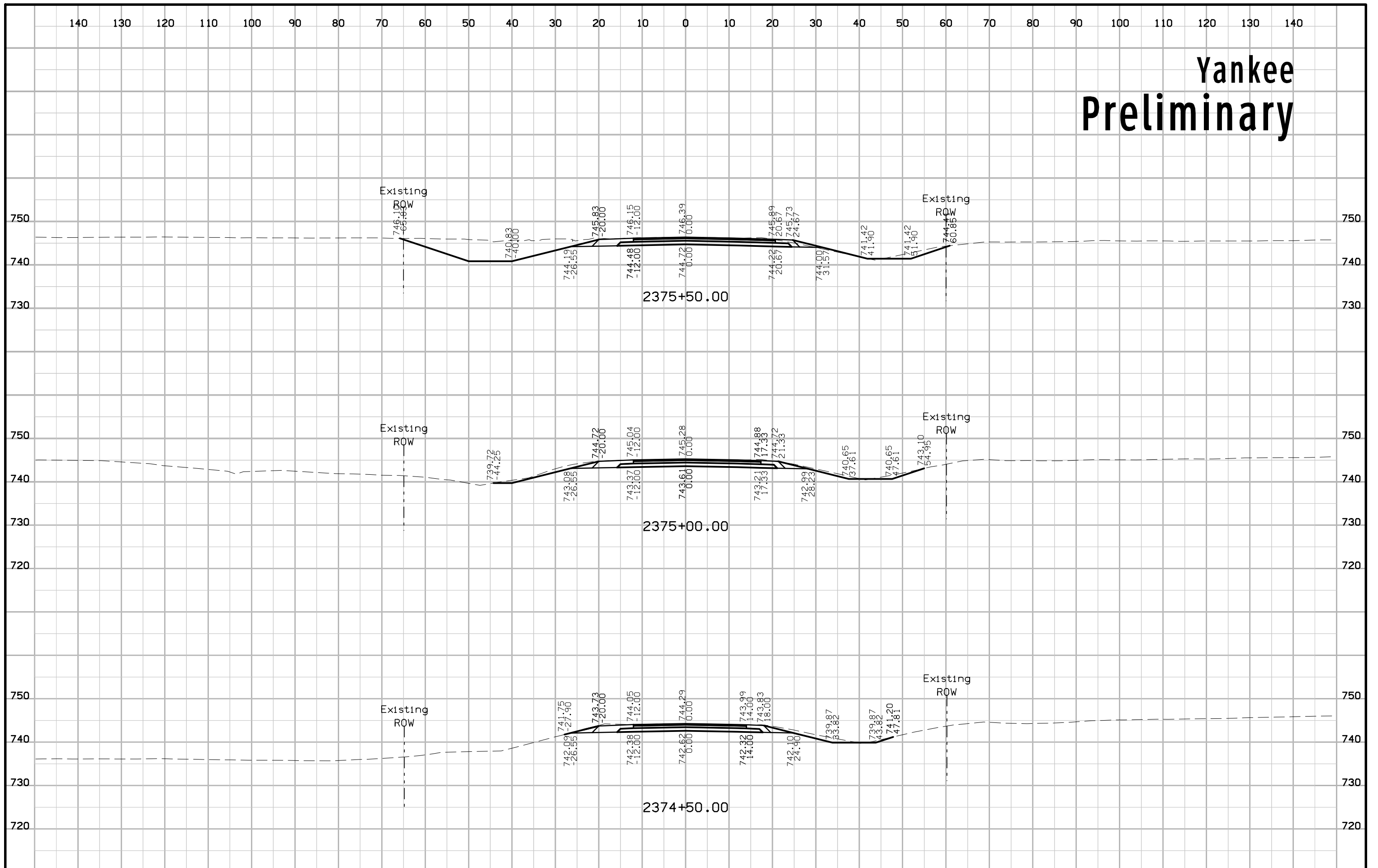


Vermont Preliminary

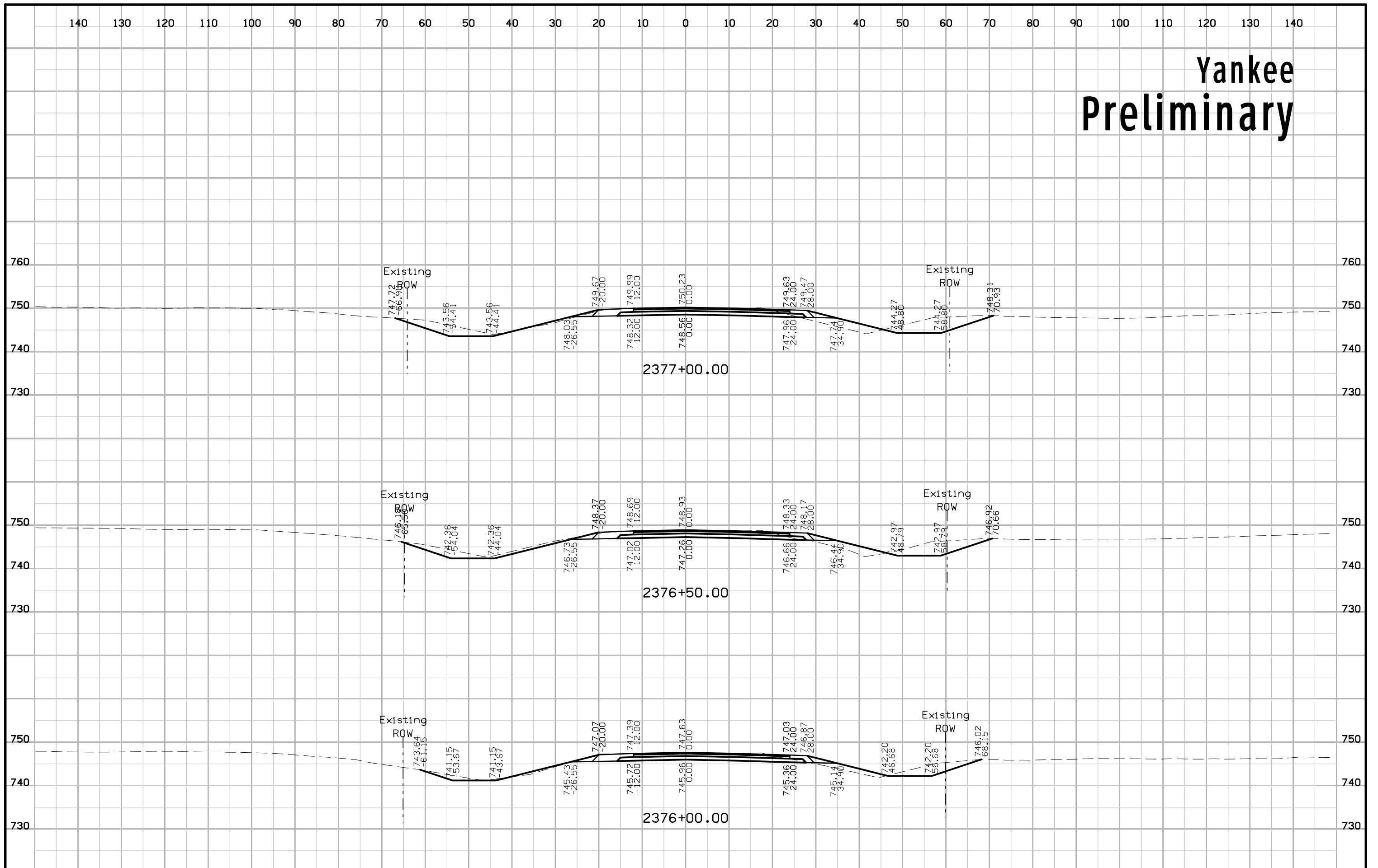


2139+00.00

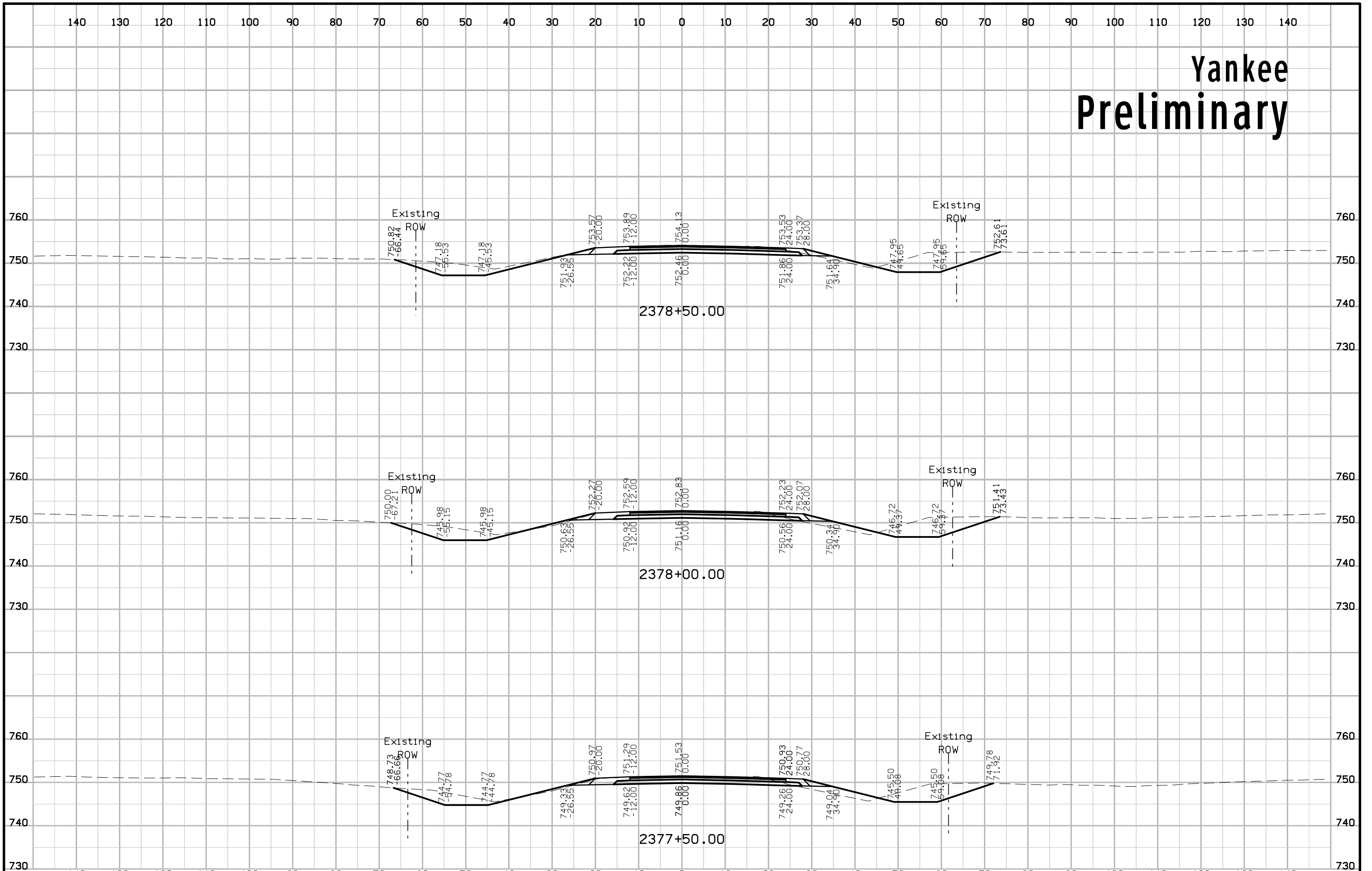
Yankee Preliminary



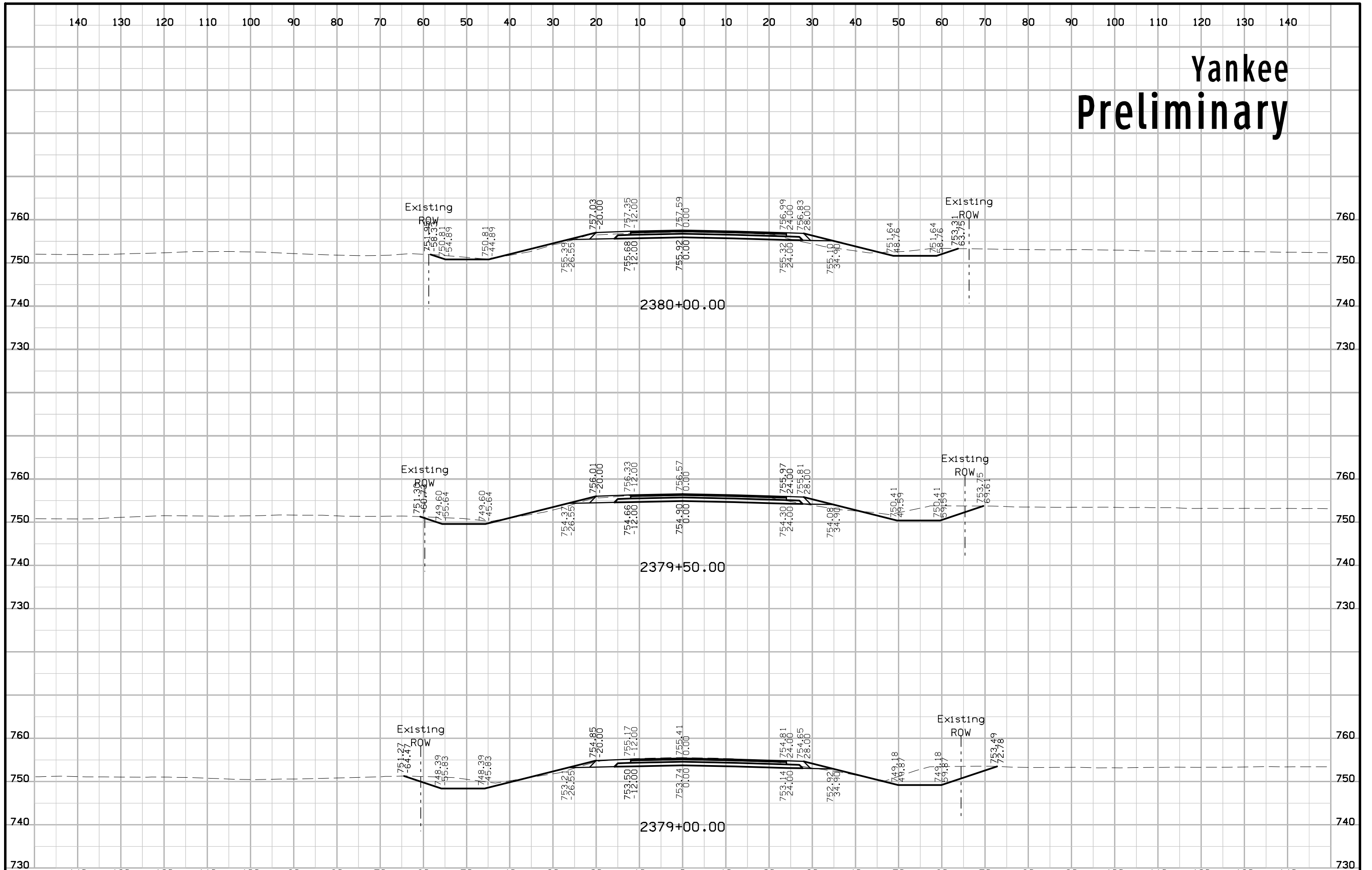
Yankee Preliminary



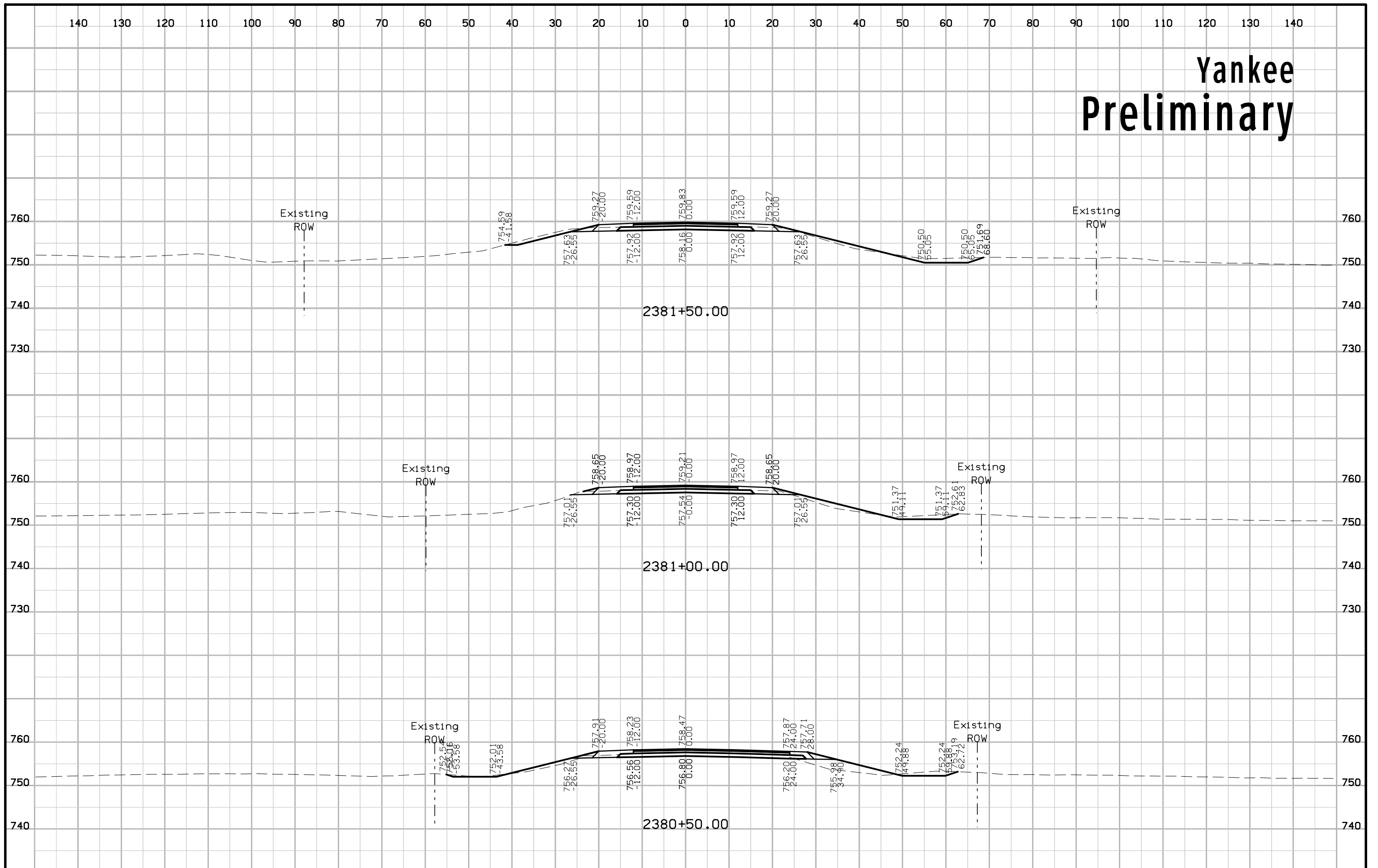
Yankee Preliminary



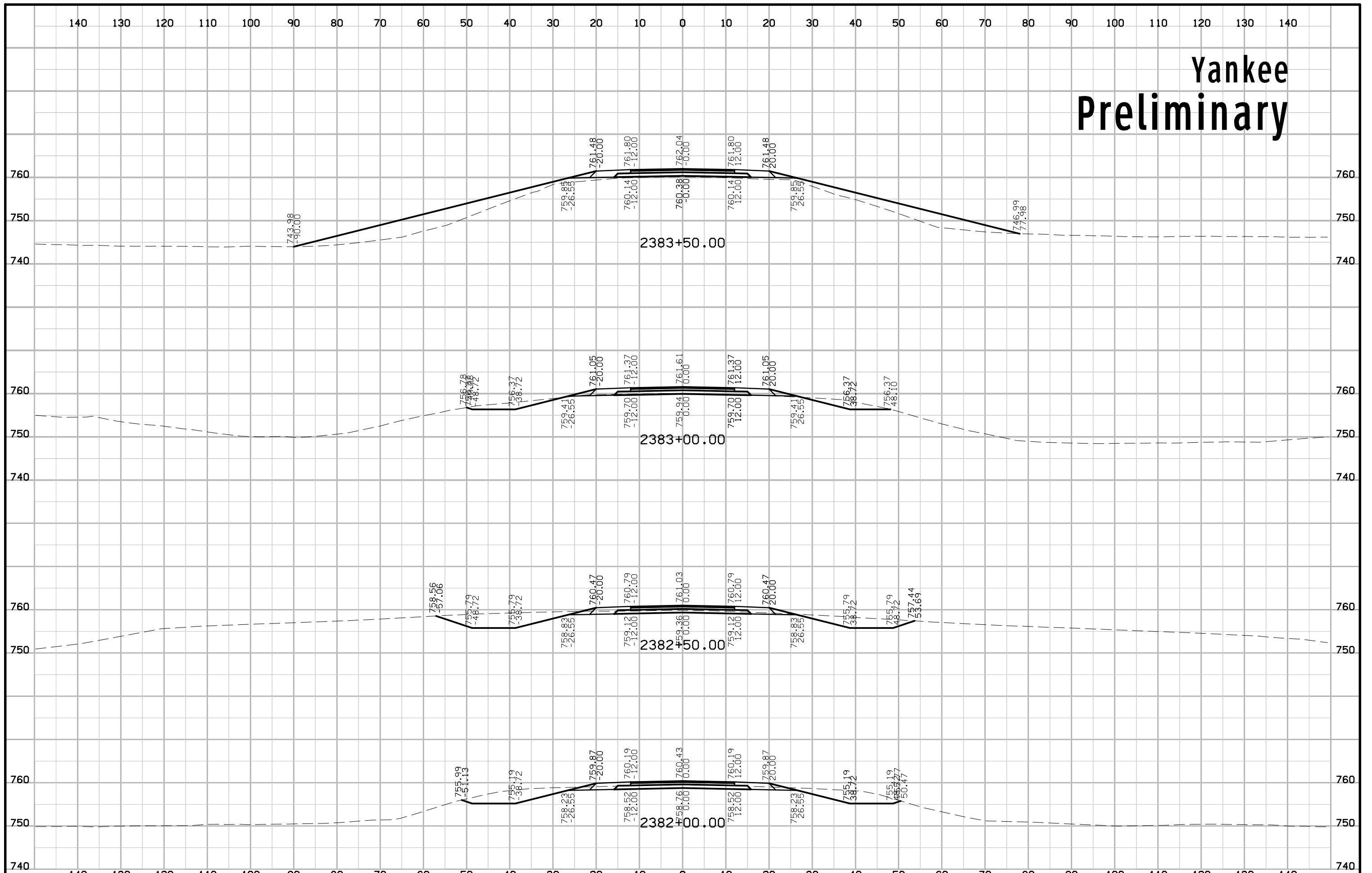
Yankee Preliminary



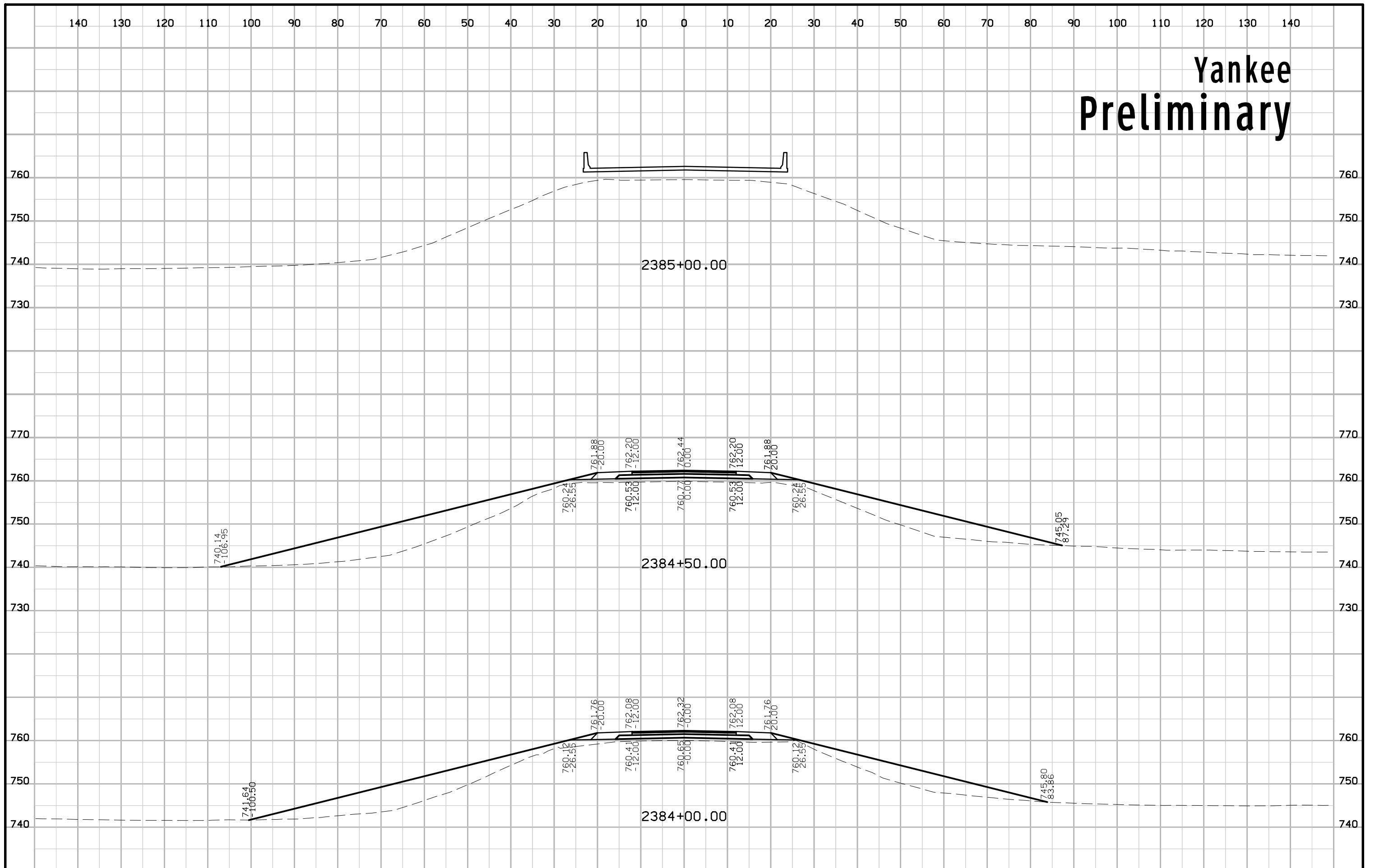
Yankee Preliminary



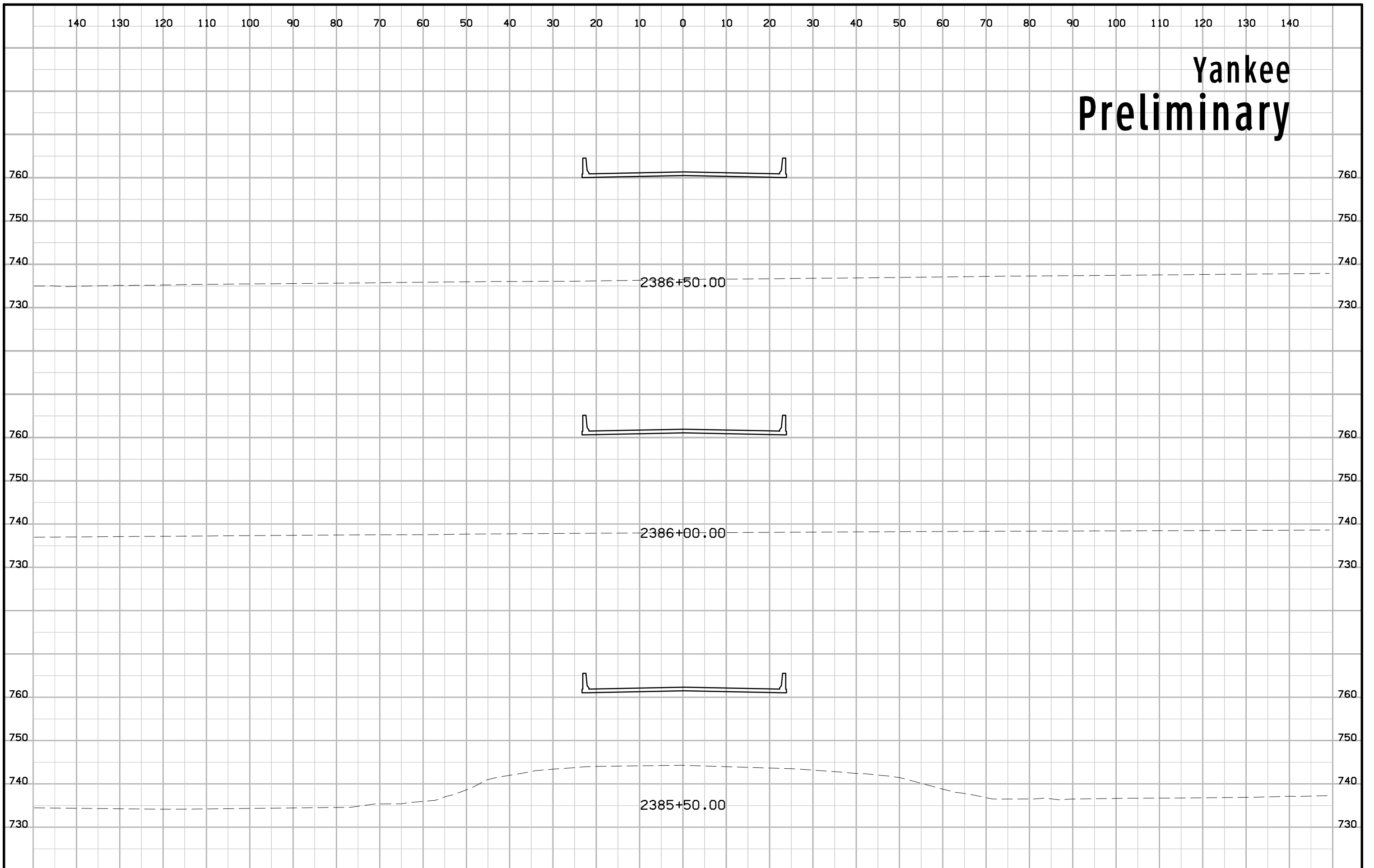
Yankee Preliminary



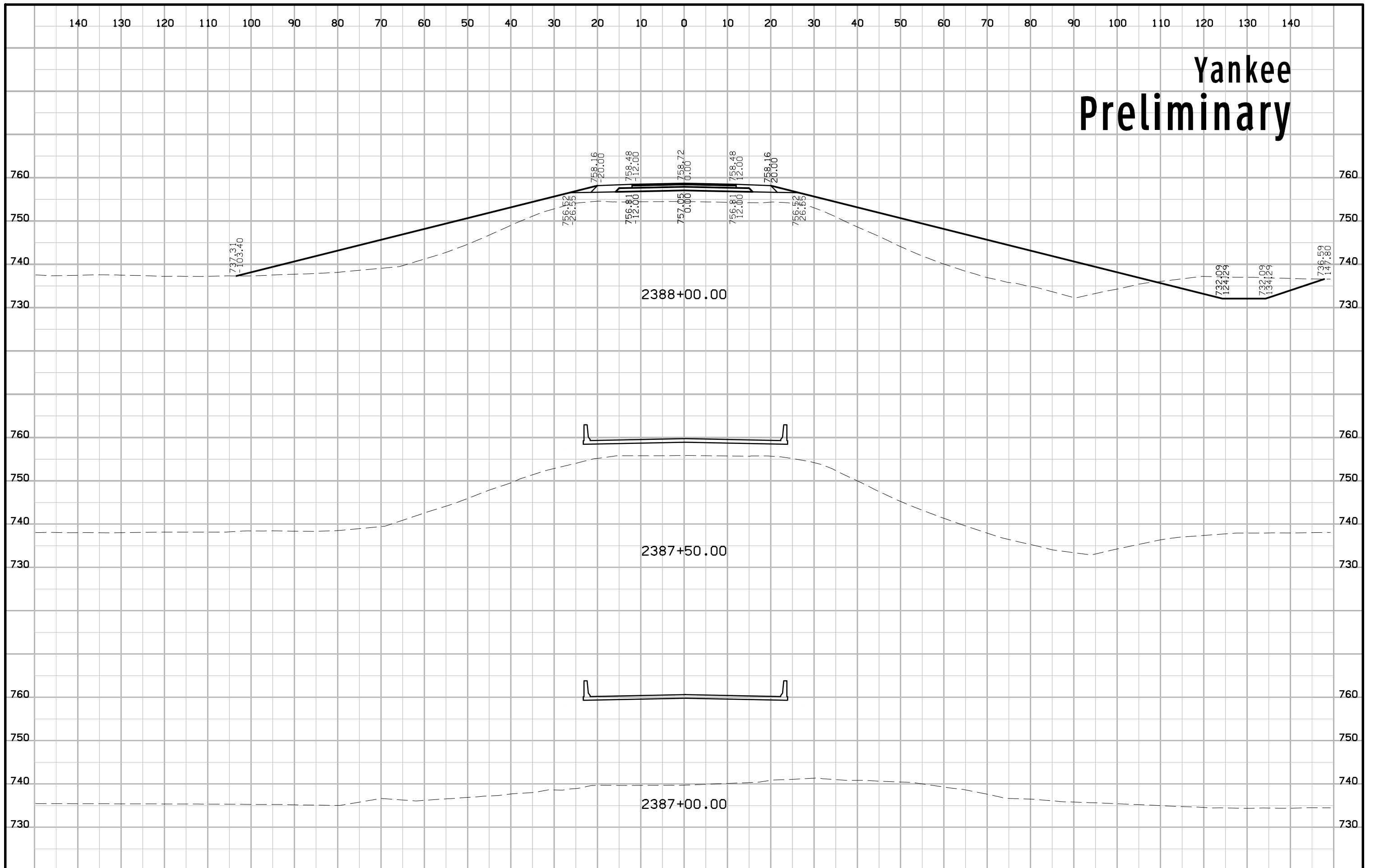
Yankee Preliminary



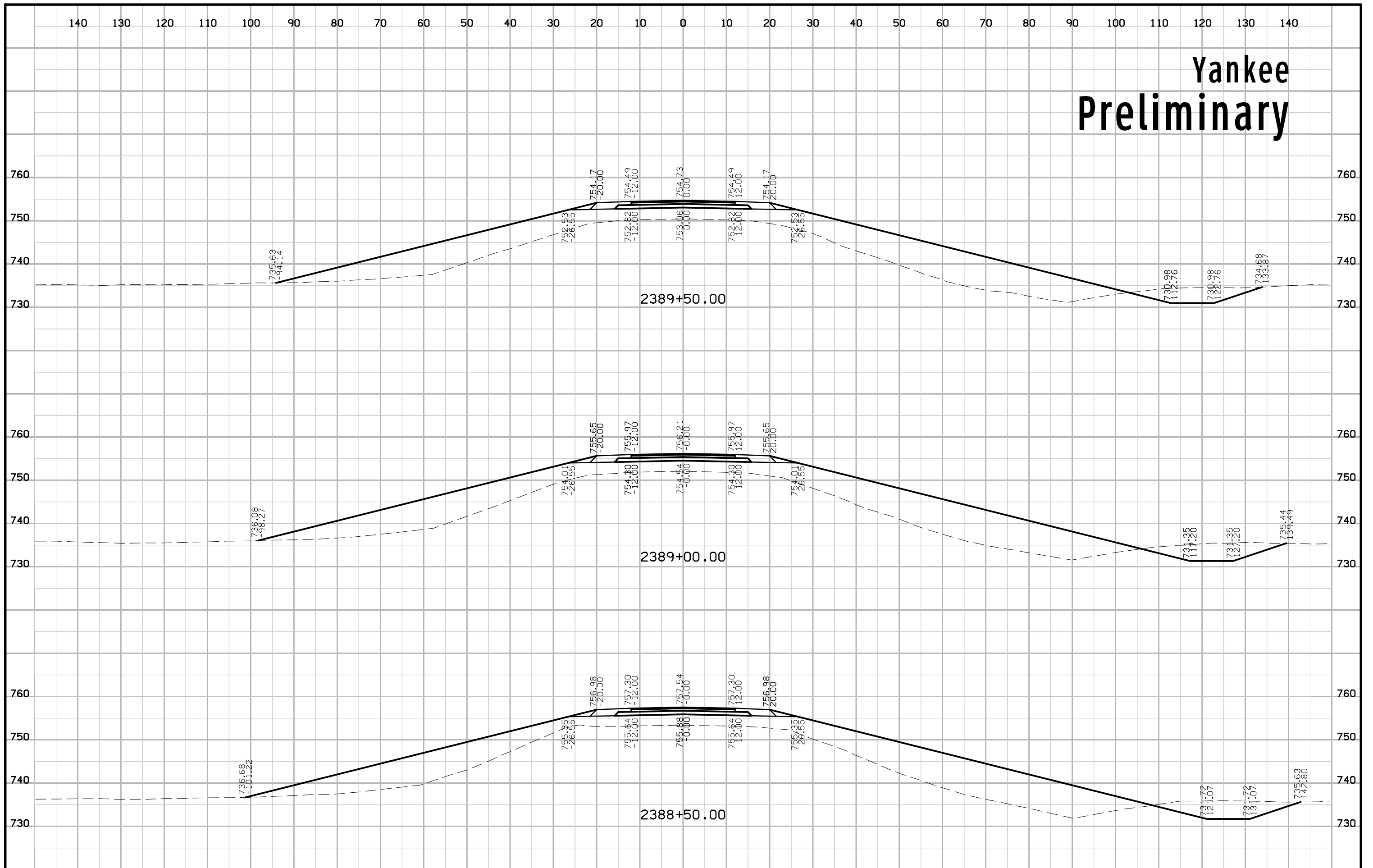
Yankee Preliminary



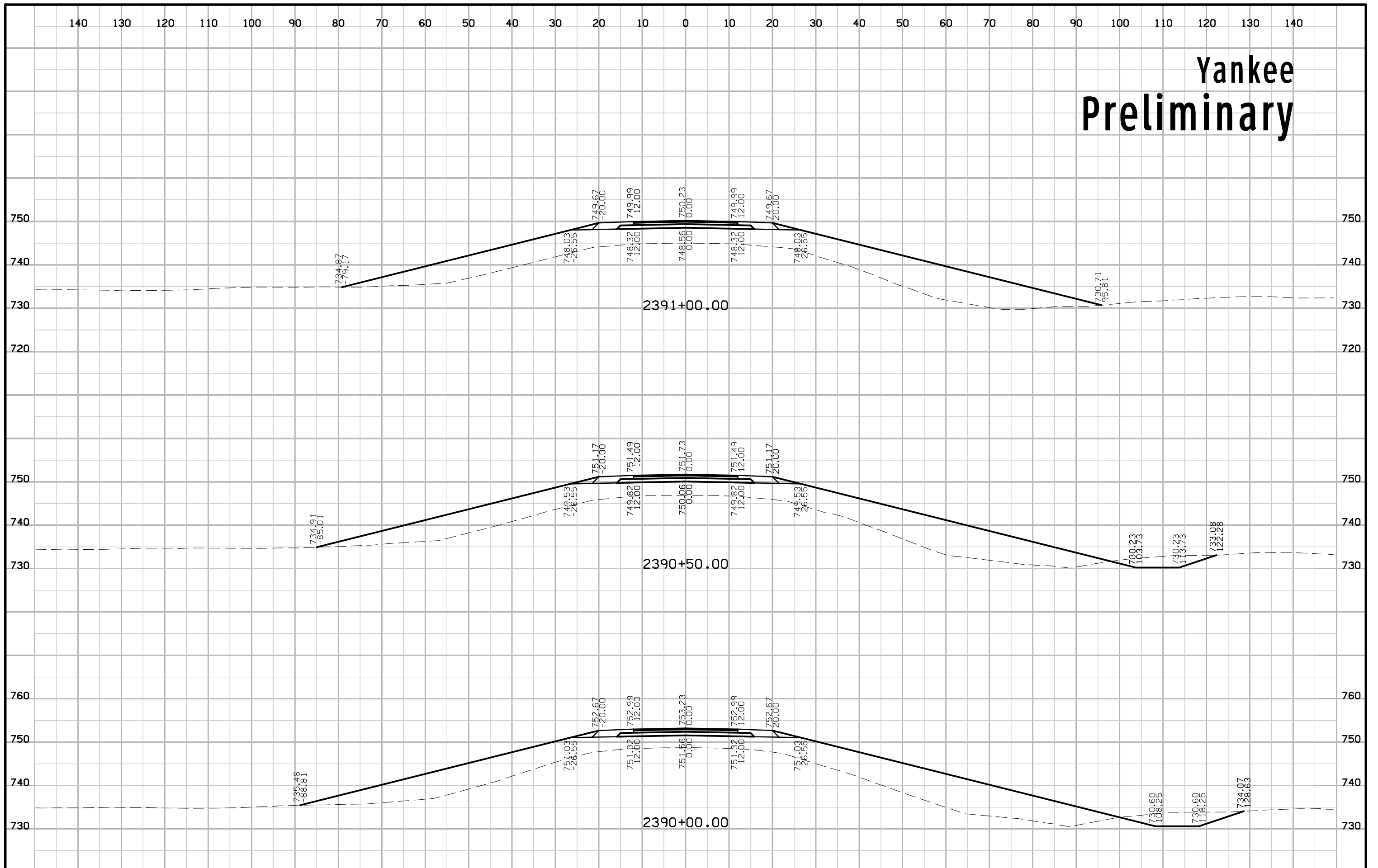
Yankee Preliminary



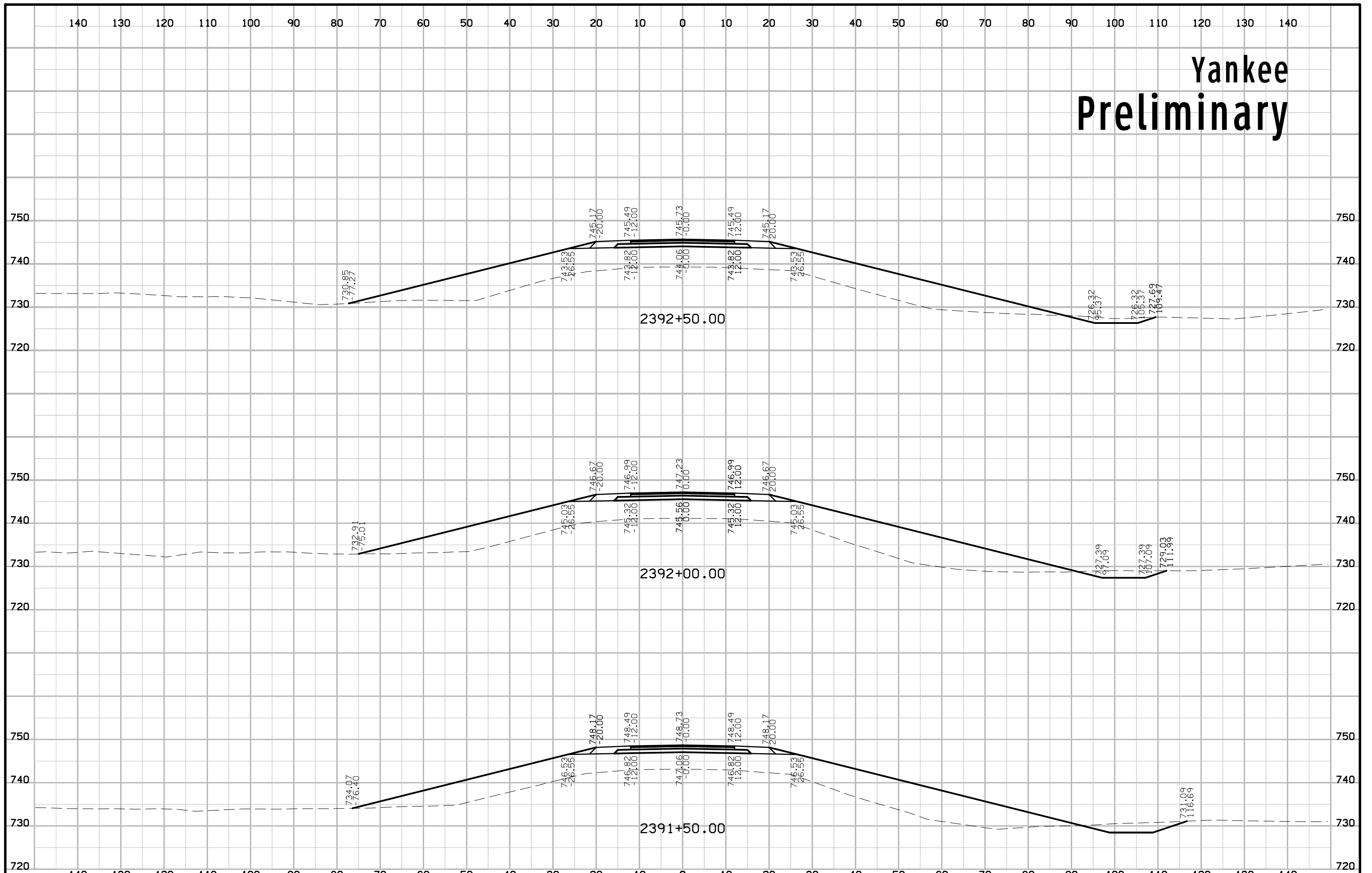
Yankee Preliminary



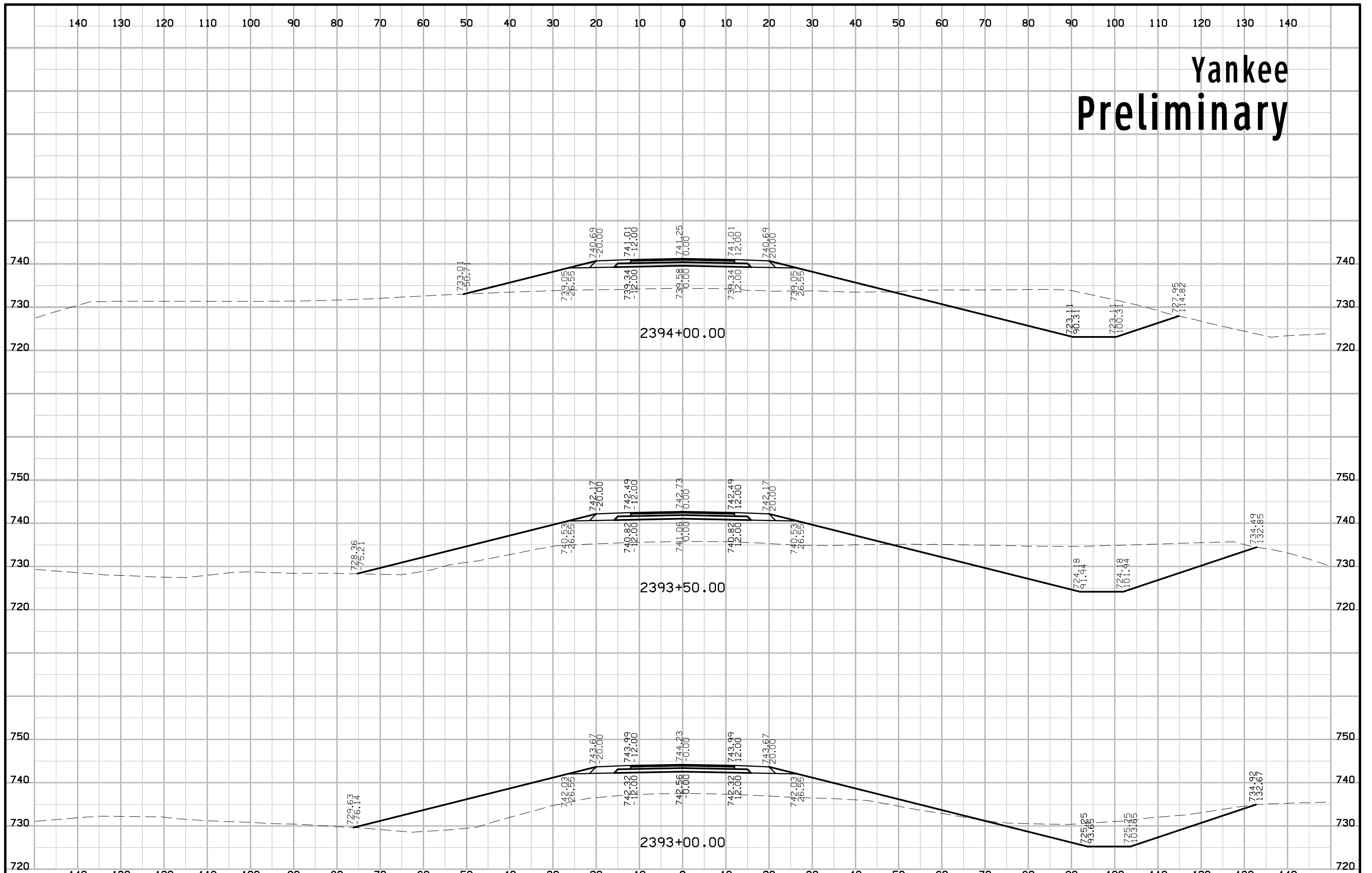
Yankee Preliminary



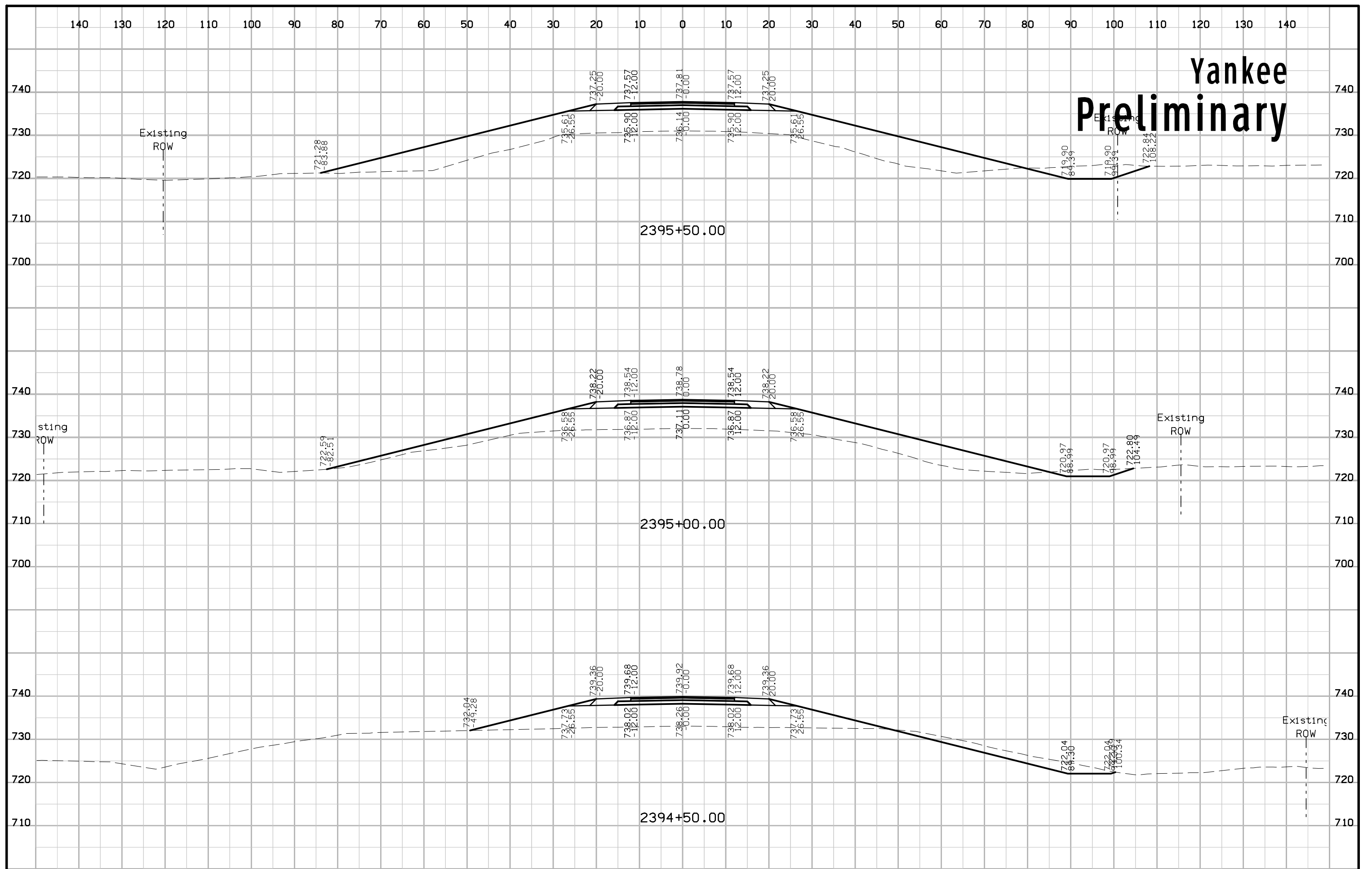
Yankee Preliminary



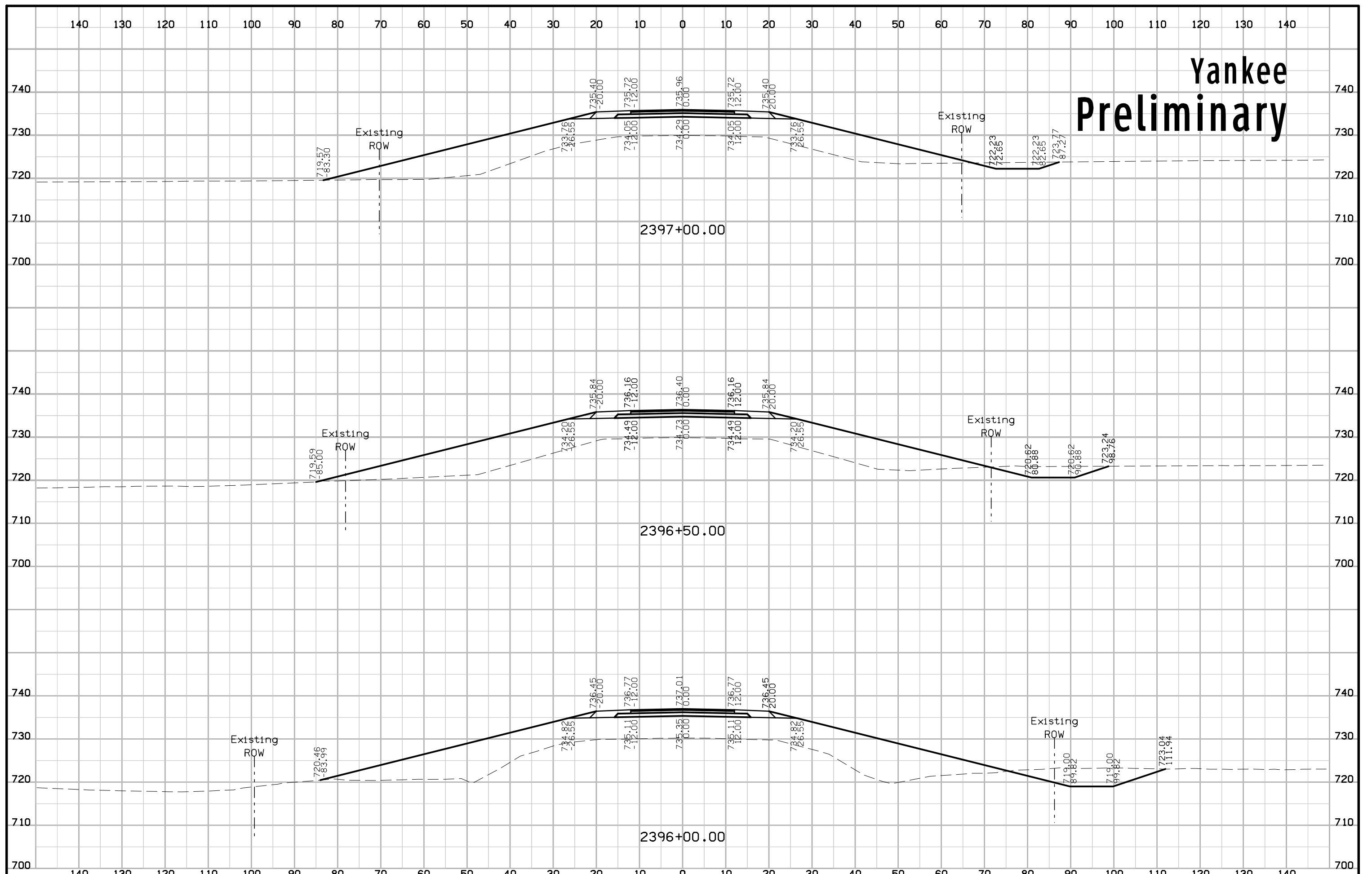
Yankee Preliminary



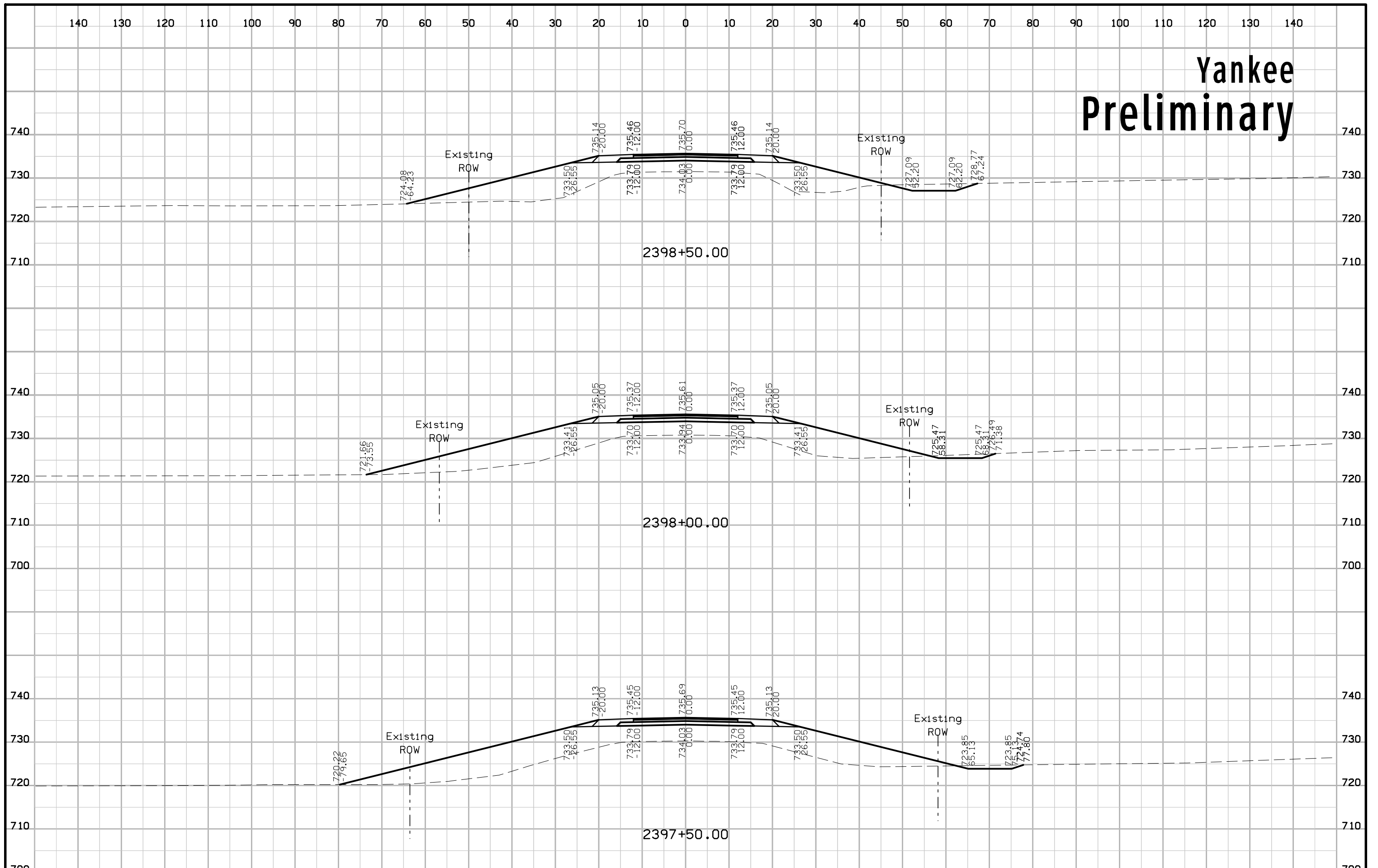
Yankee Preliminary



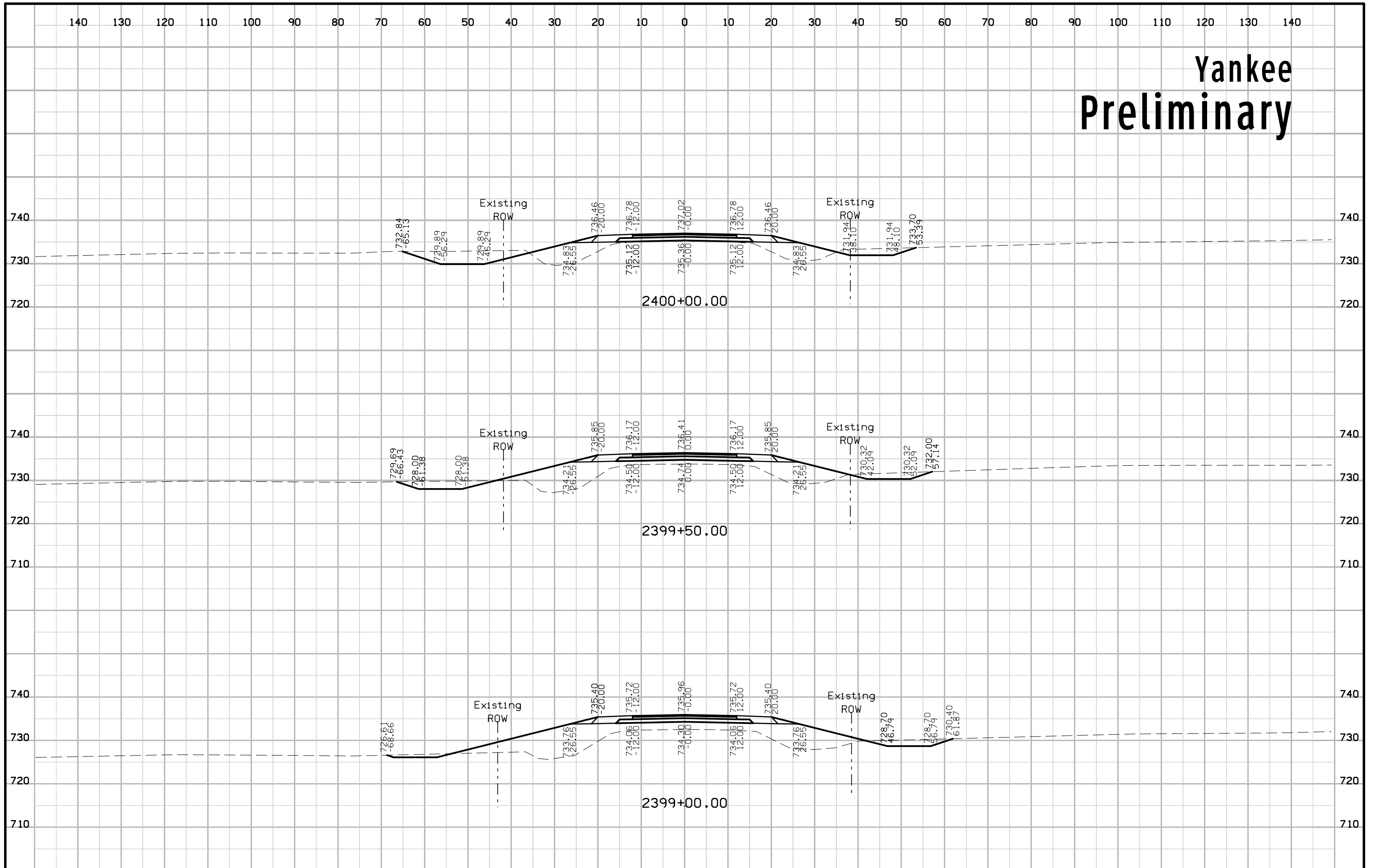
Yankee Preliminary



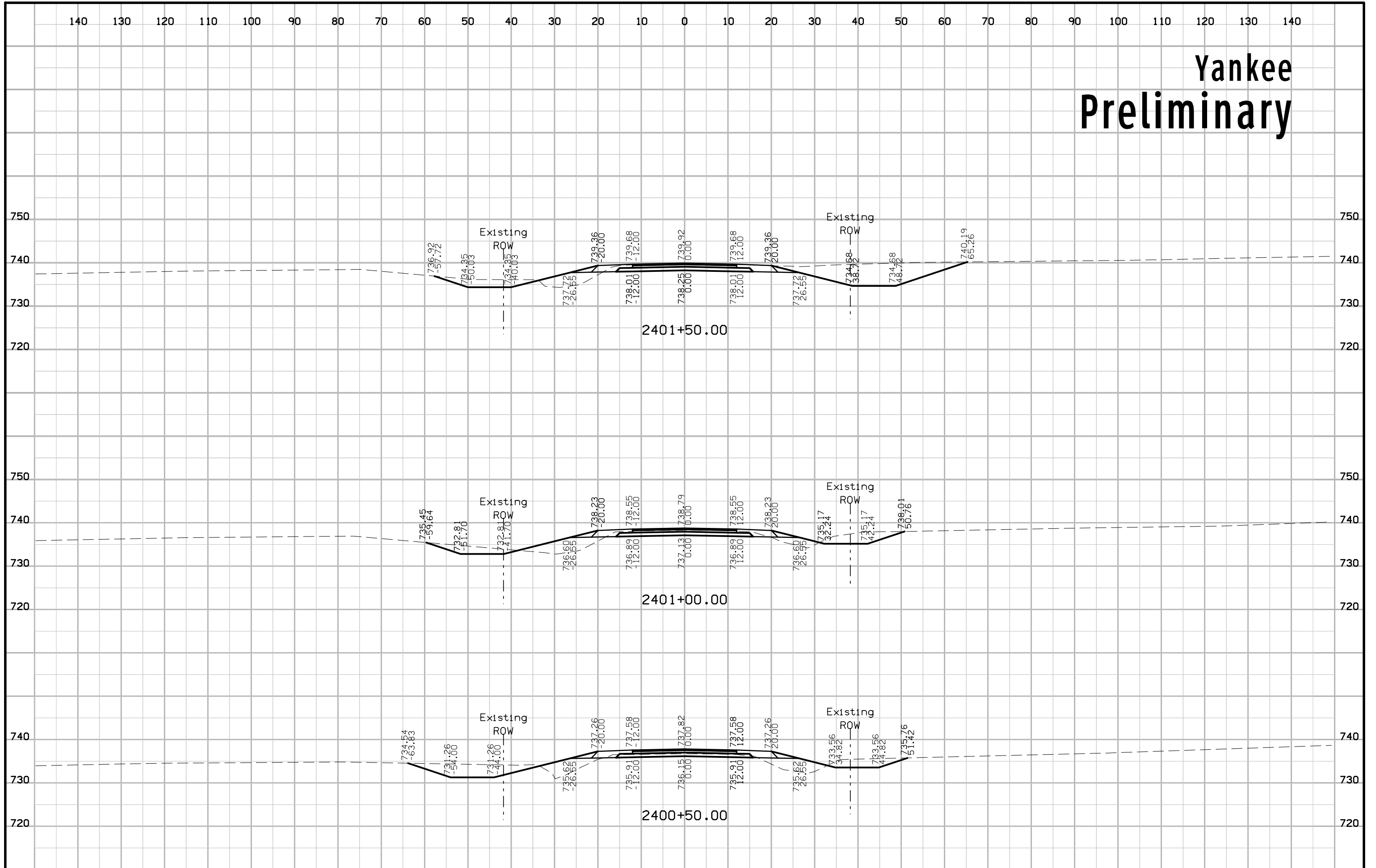
Yankee Preliminary



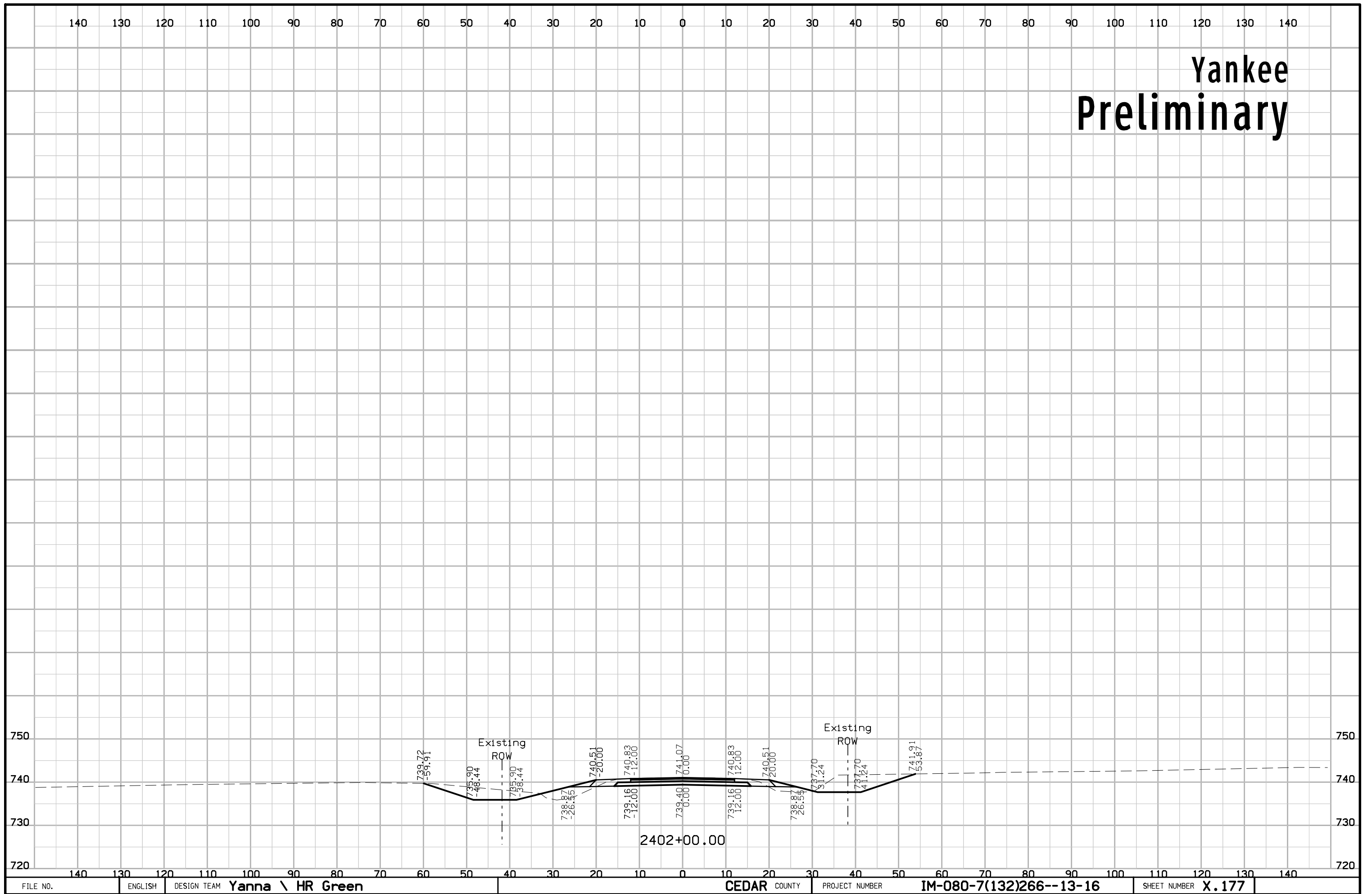
Yankee Preliminary



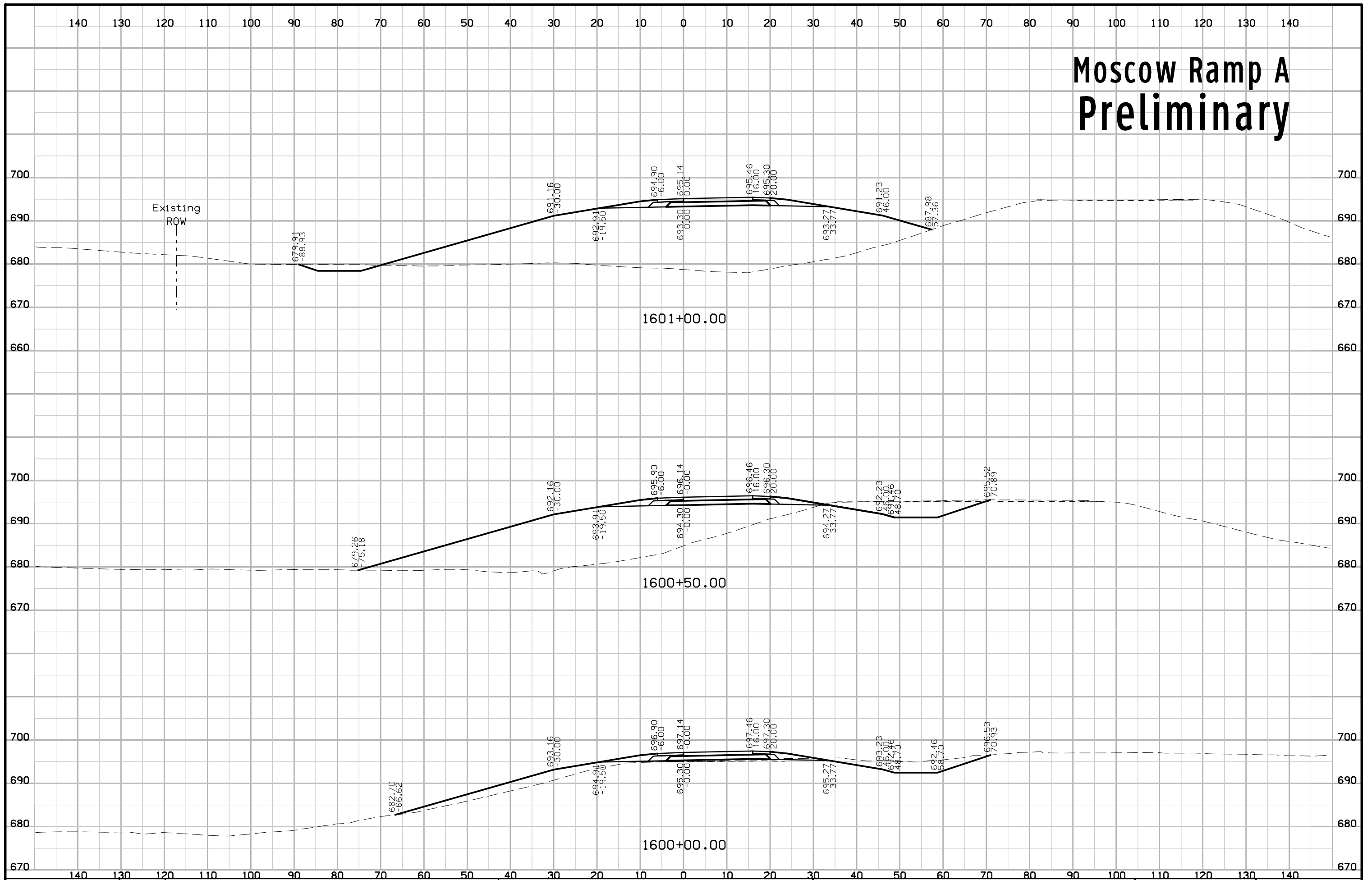
Yankee Preliminary



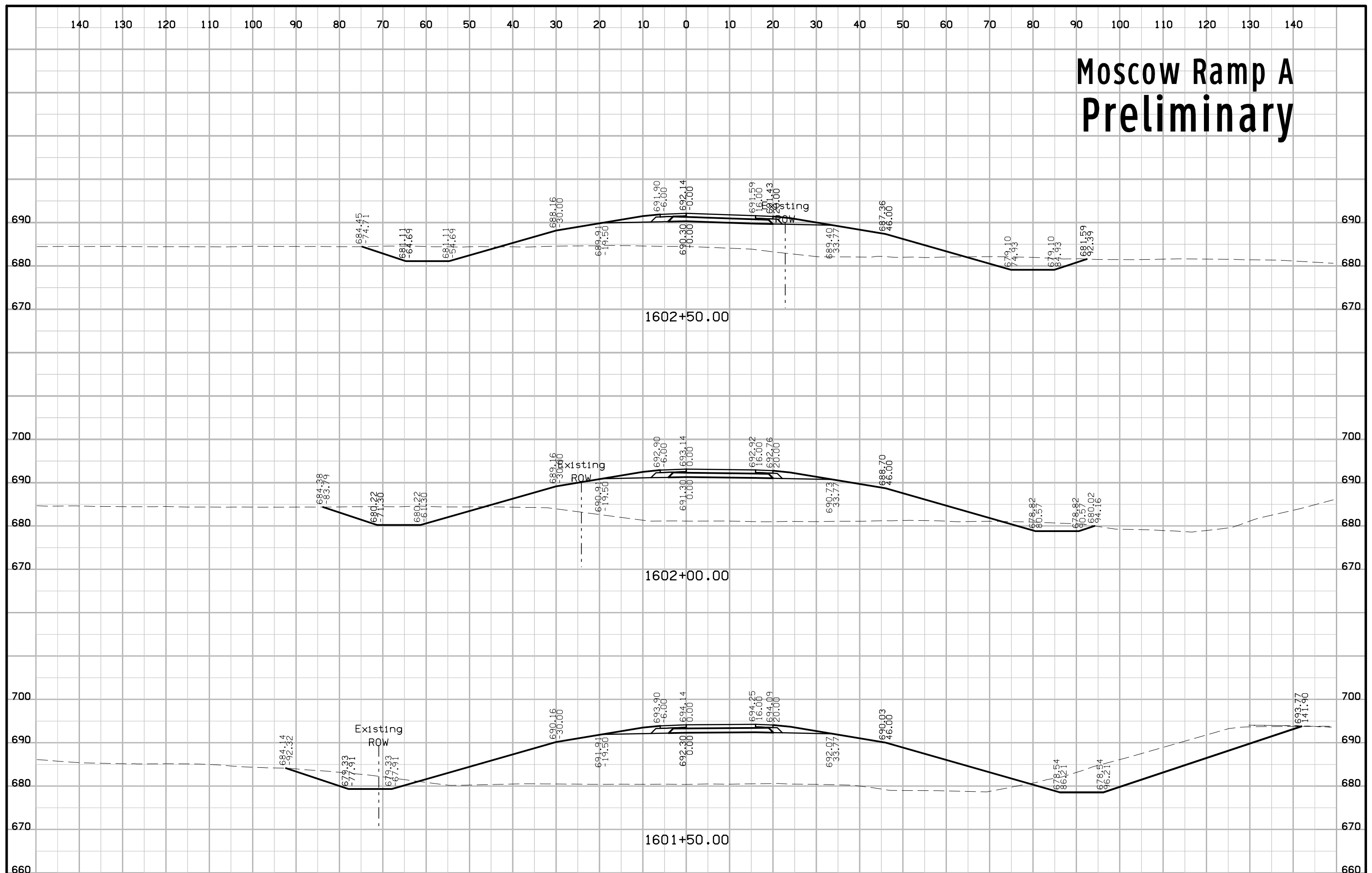
Yankee Preliminary



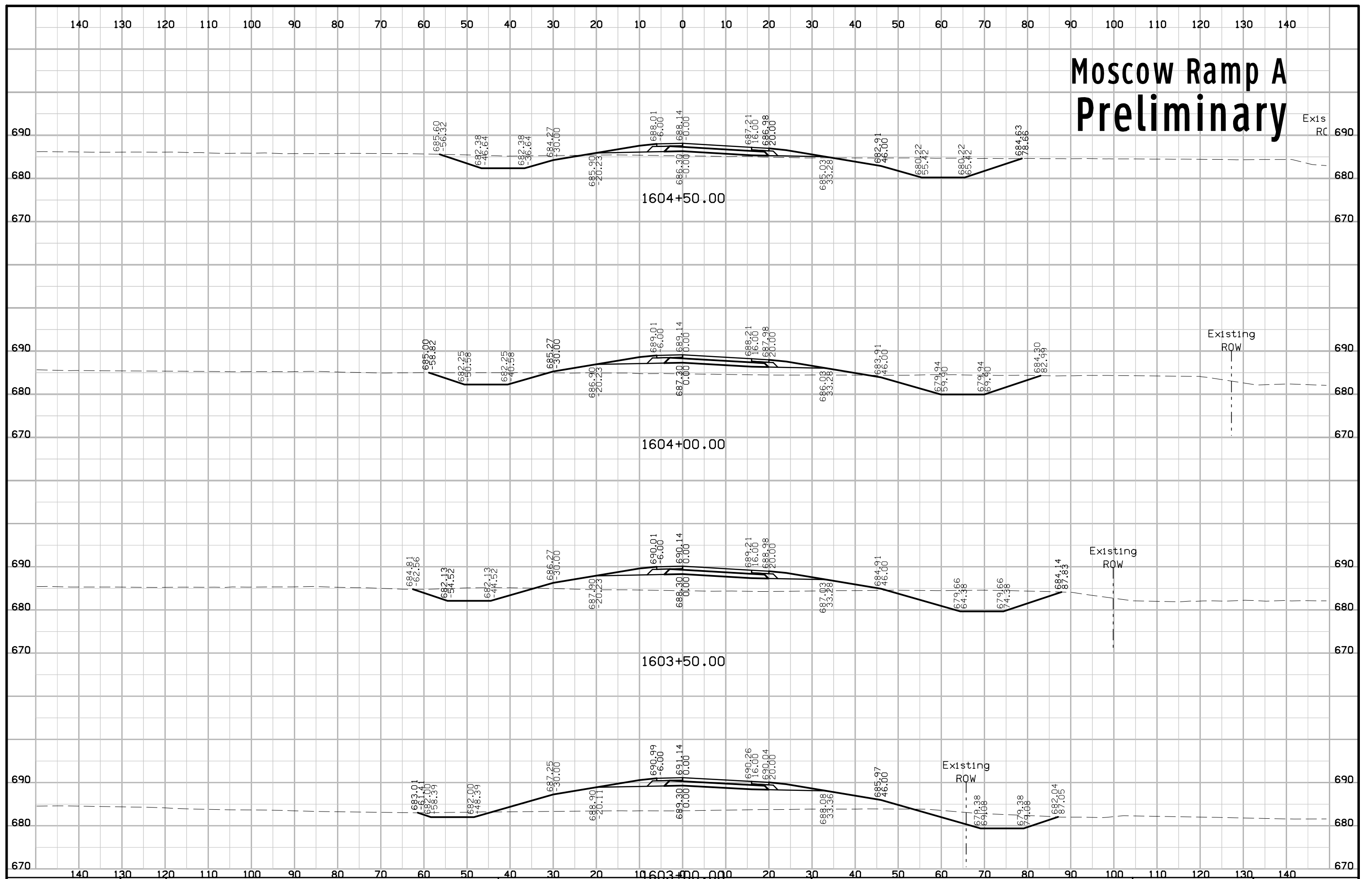
Moscow Ramp A Preliminary



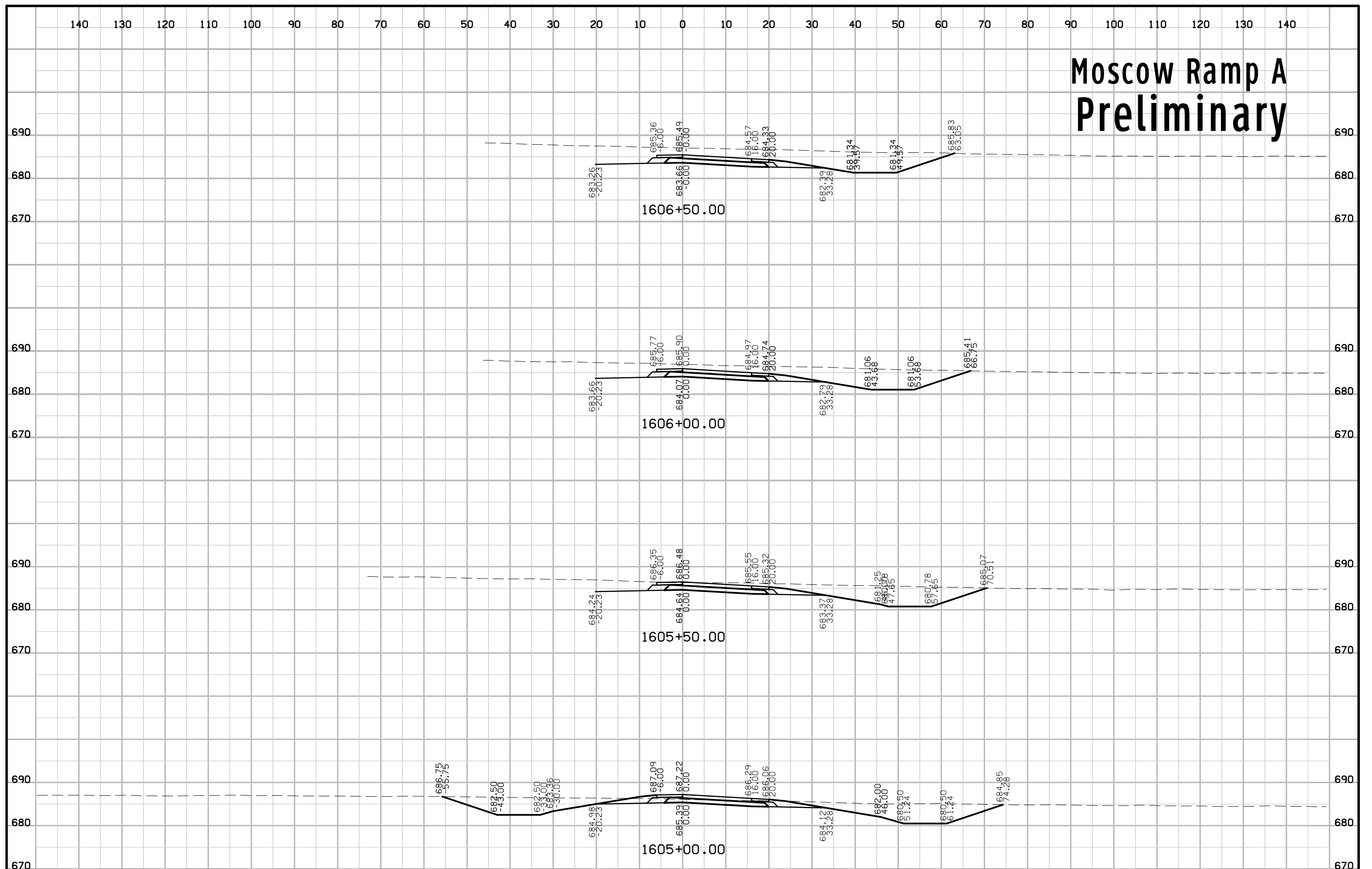
Moscow Ramp A Preliminary



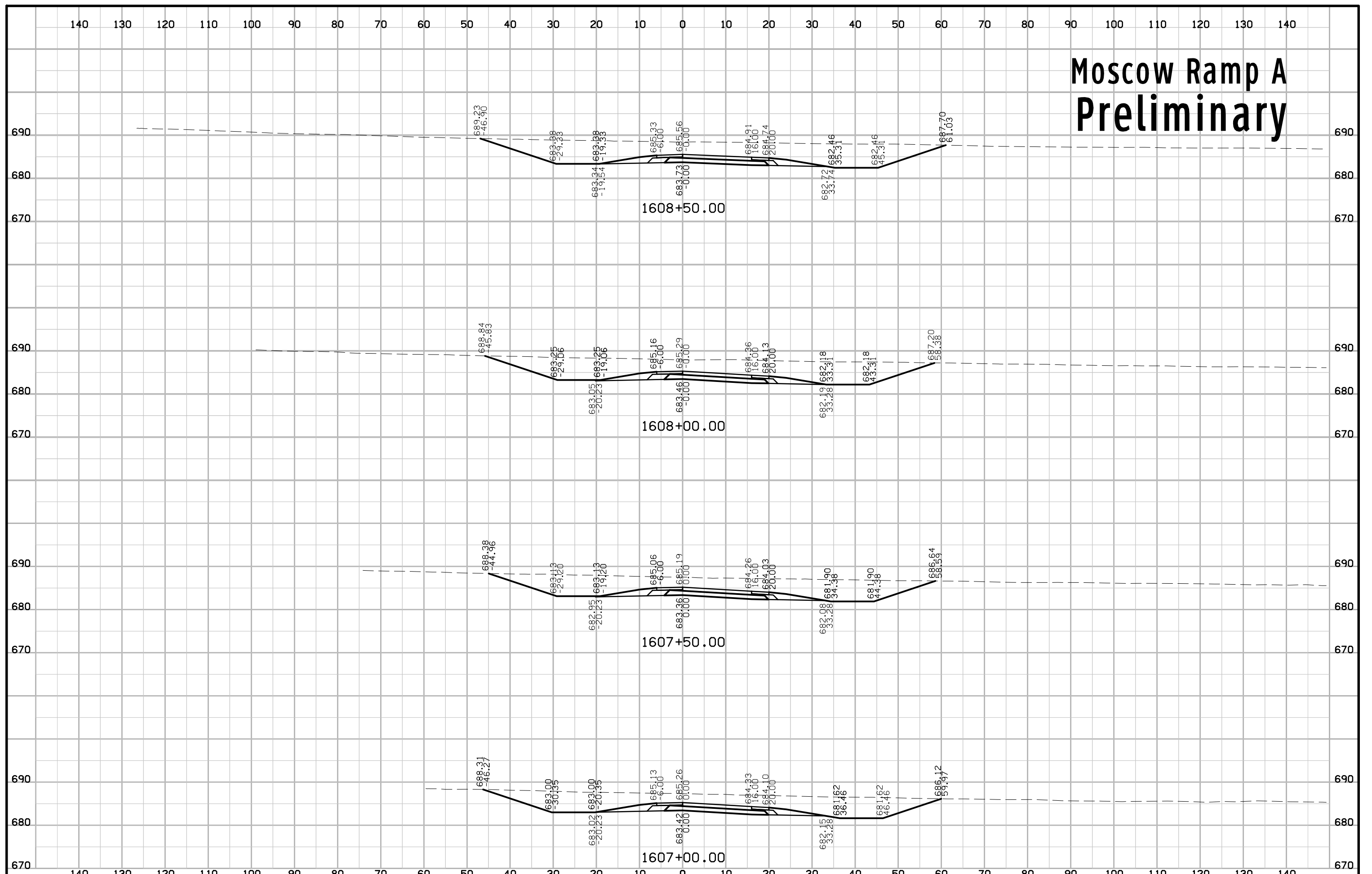
Moscow Ramp A Preliminary

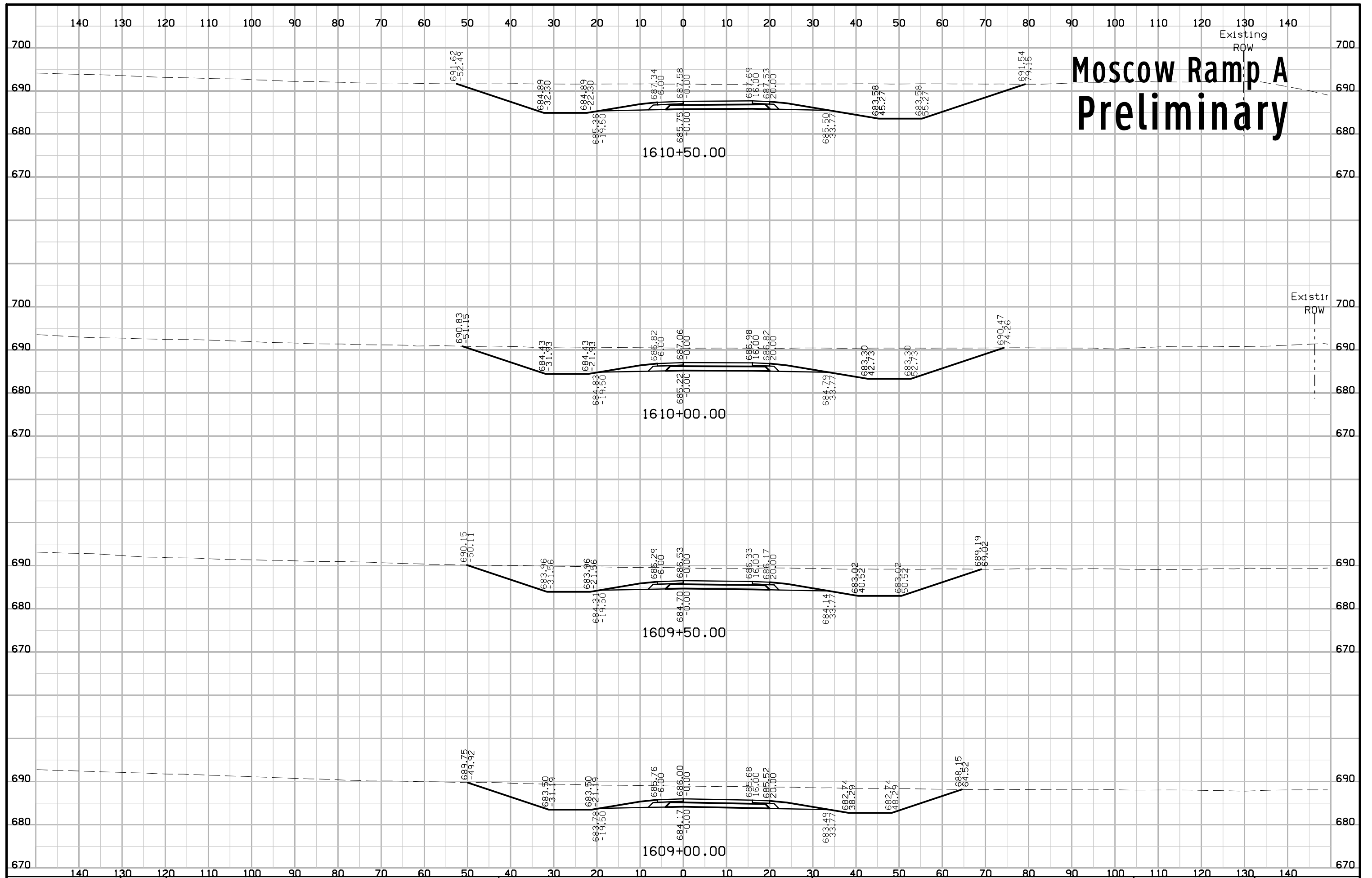


Moscow Ramp A Preliminary

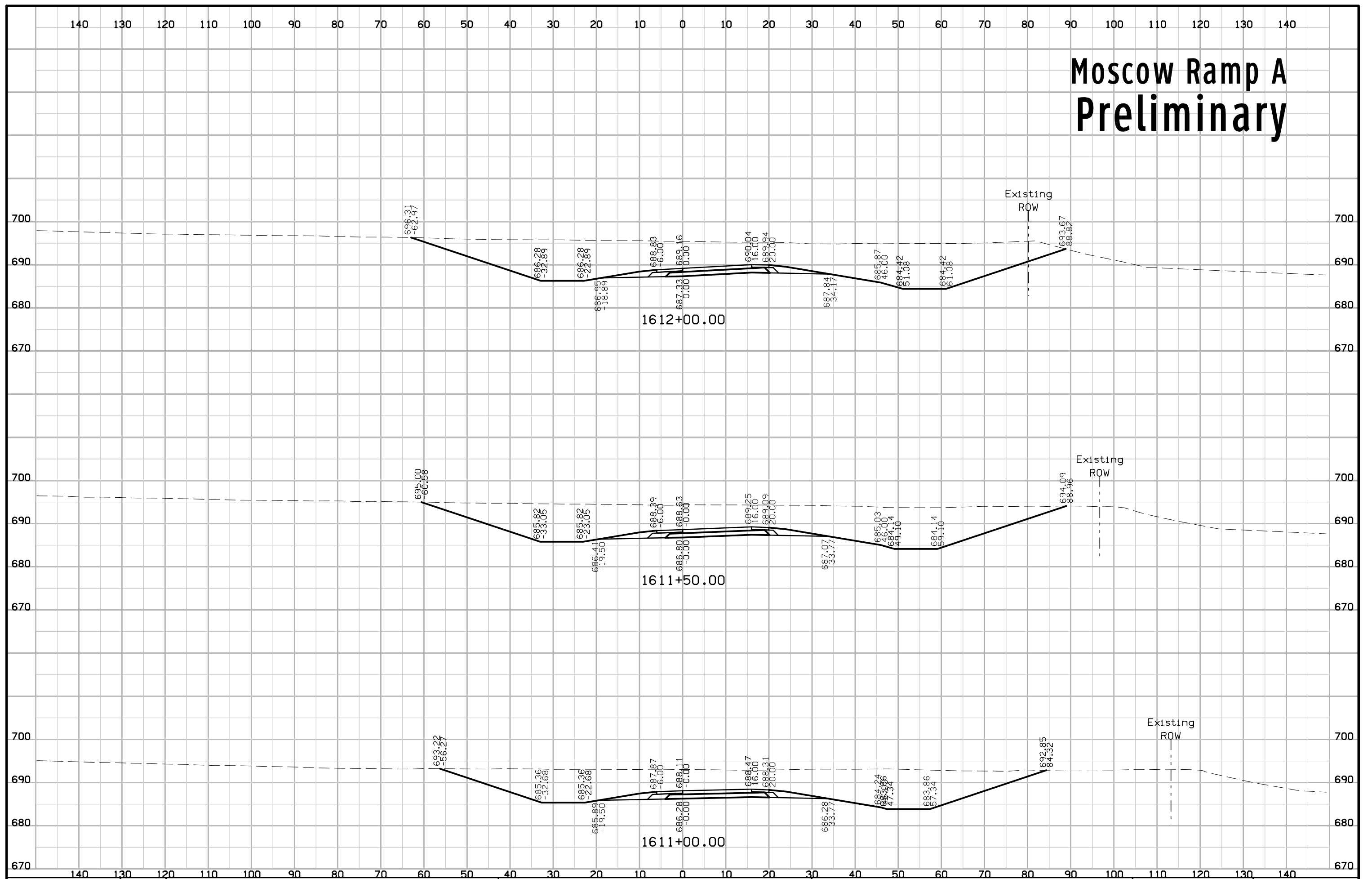


Moscow Ramp A Preliminary

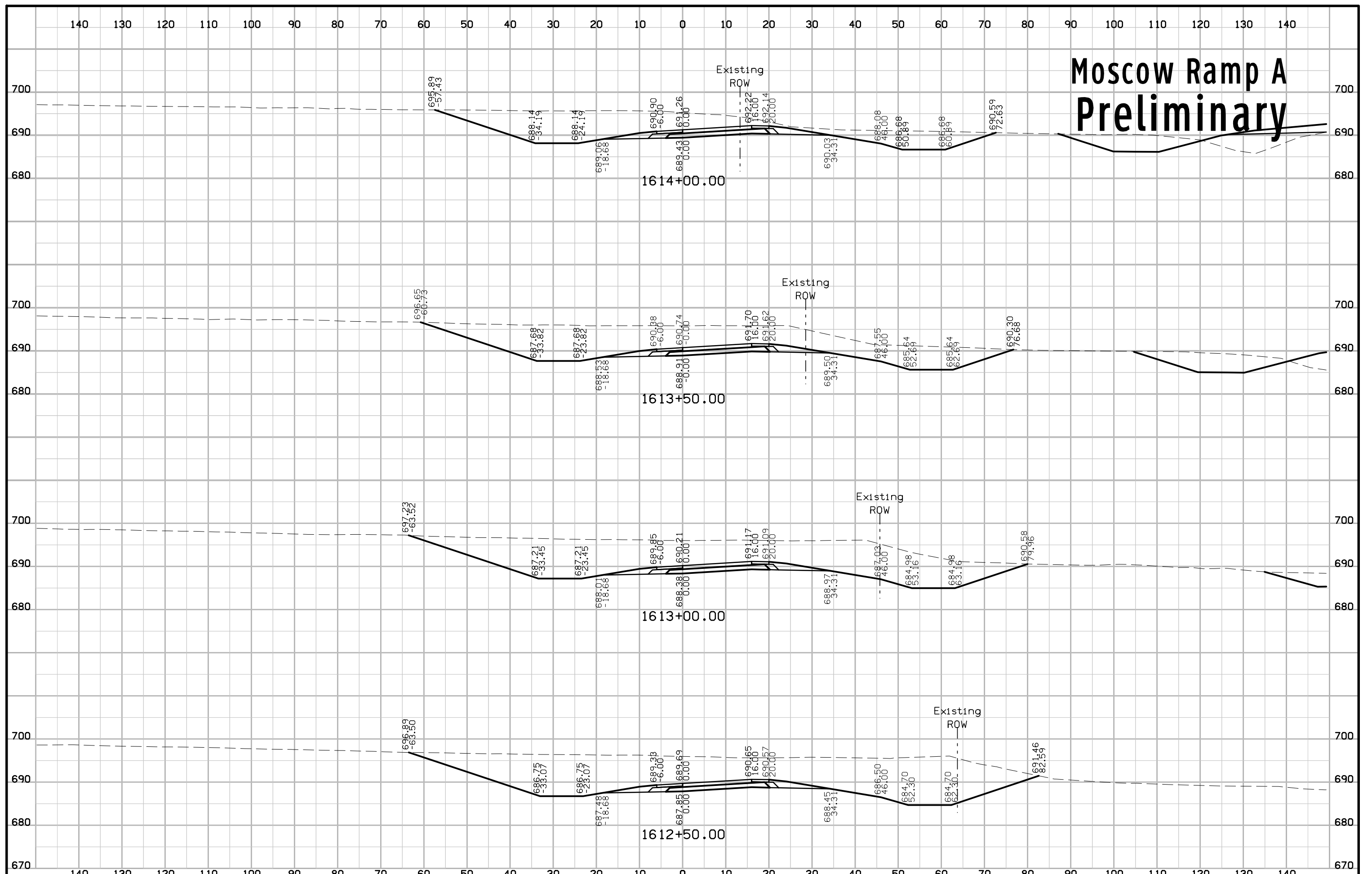




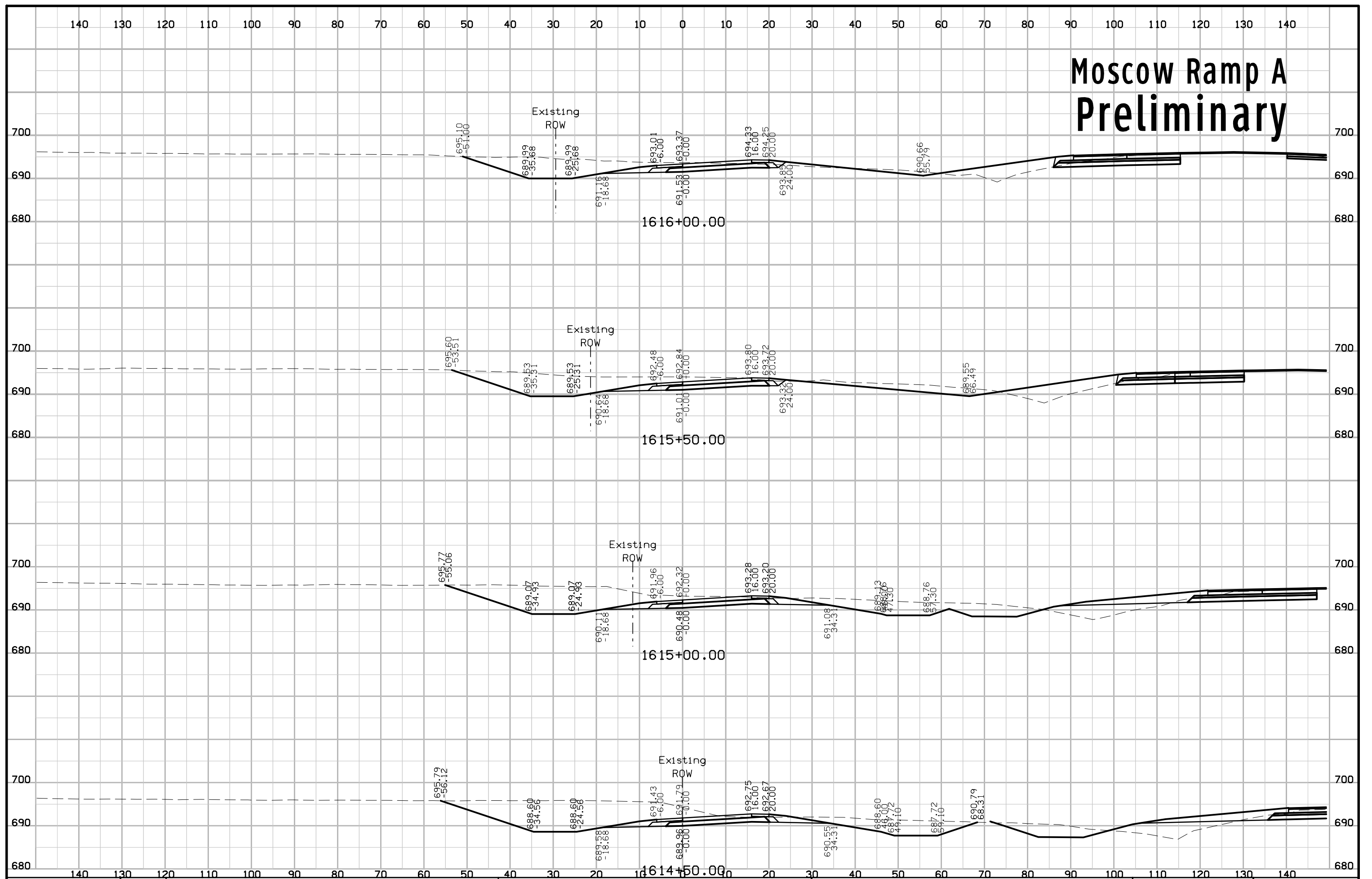
Moscow Ramp A Preliminary



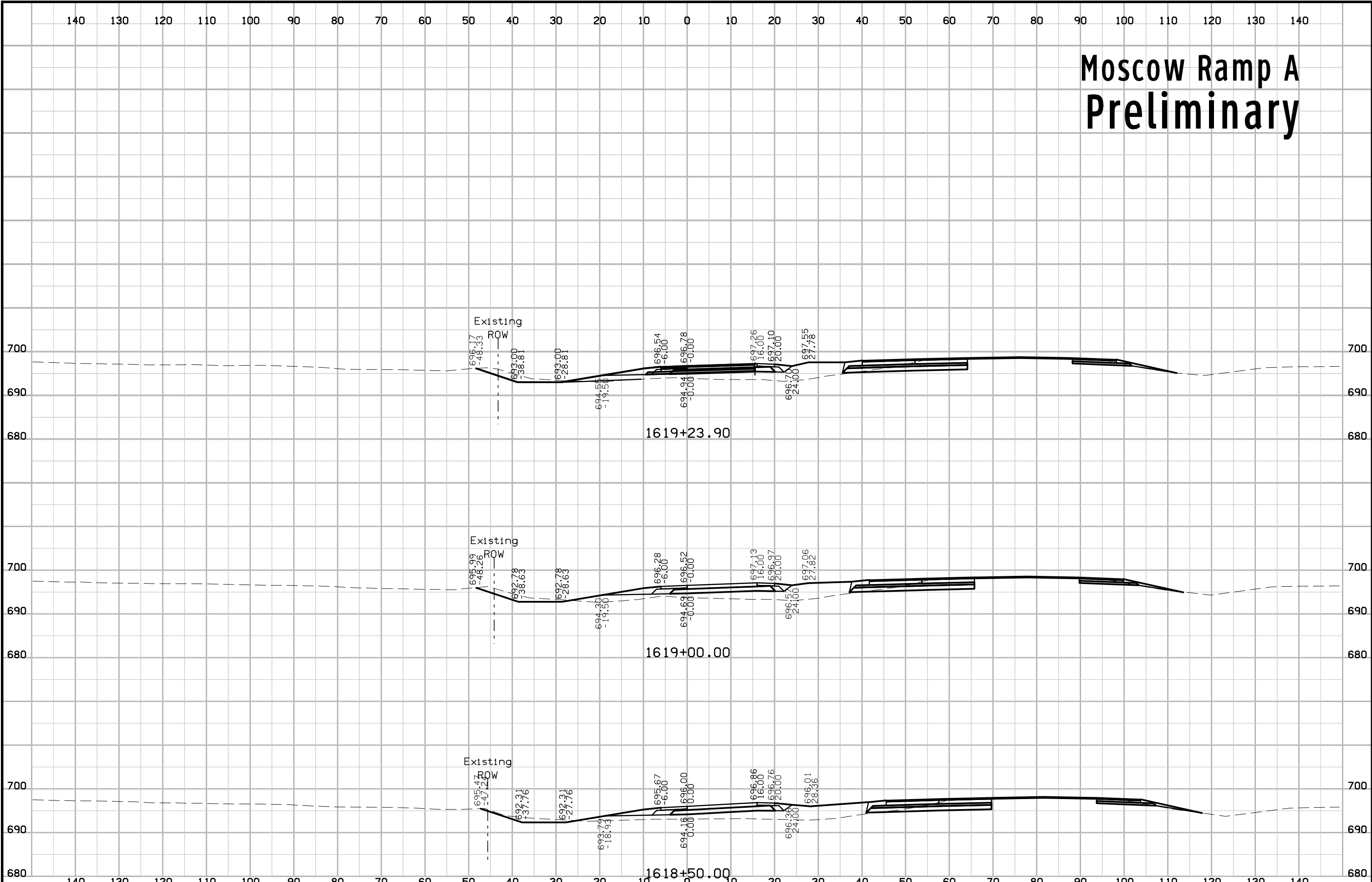
Moscow Ramp A Preliminary



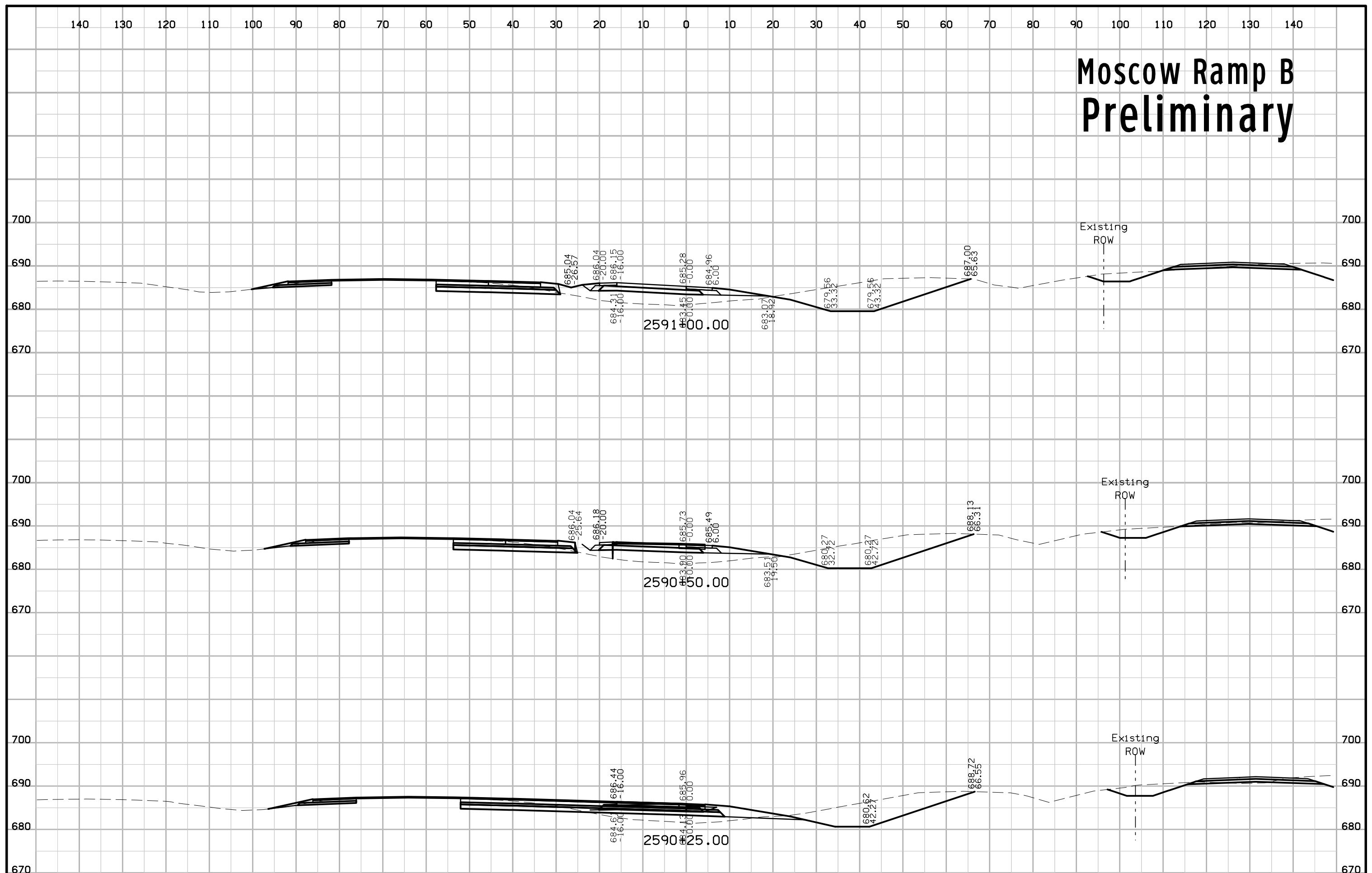
Moscow Ramp A Preliminary



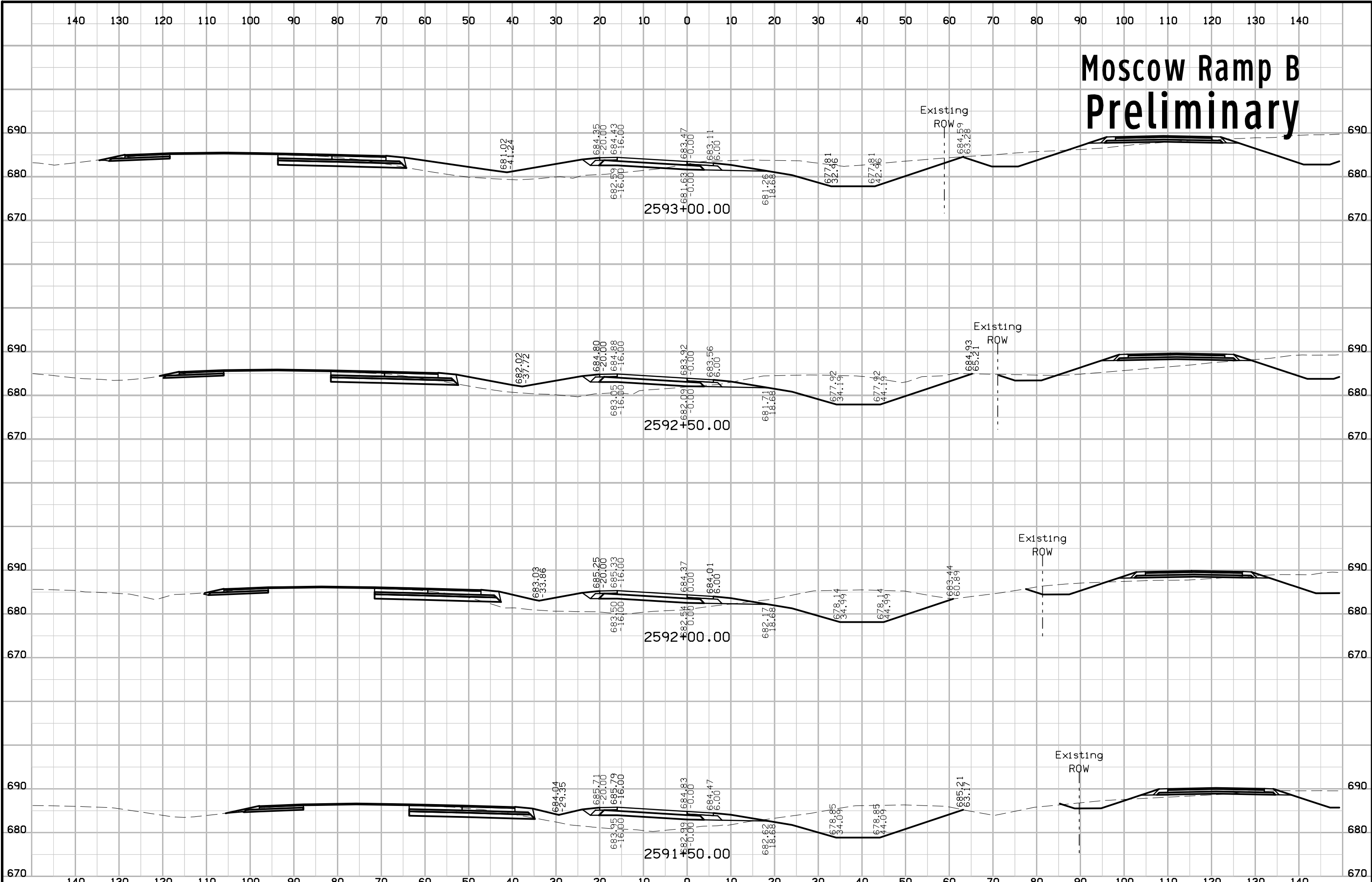
Moscow Ramp A Preliminary



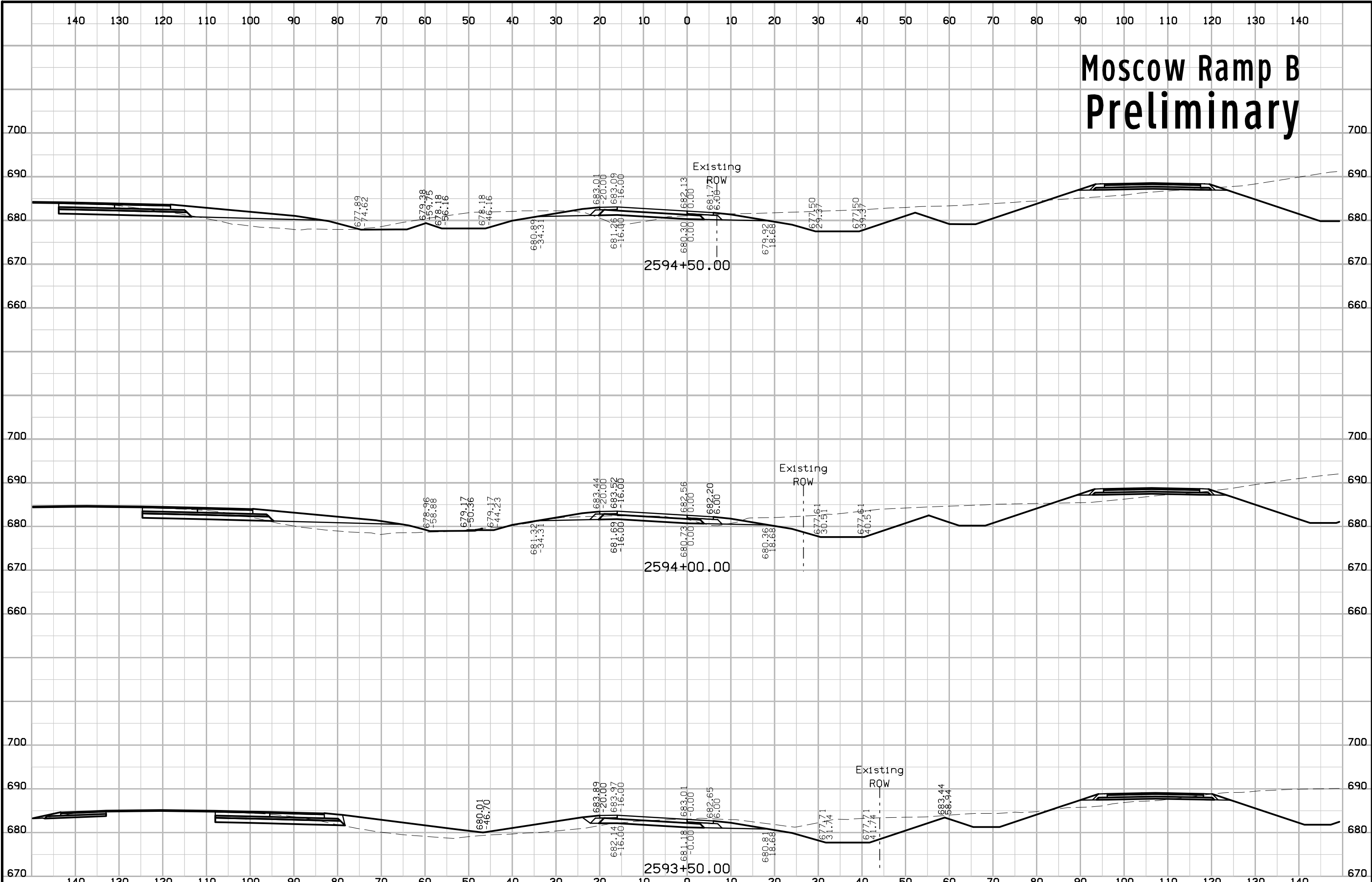
Moscow Ramp B Preliminary



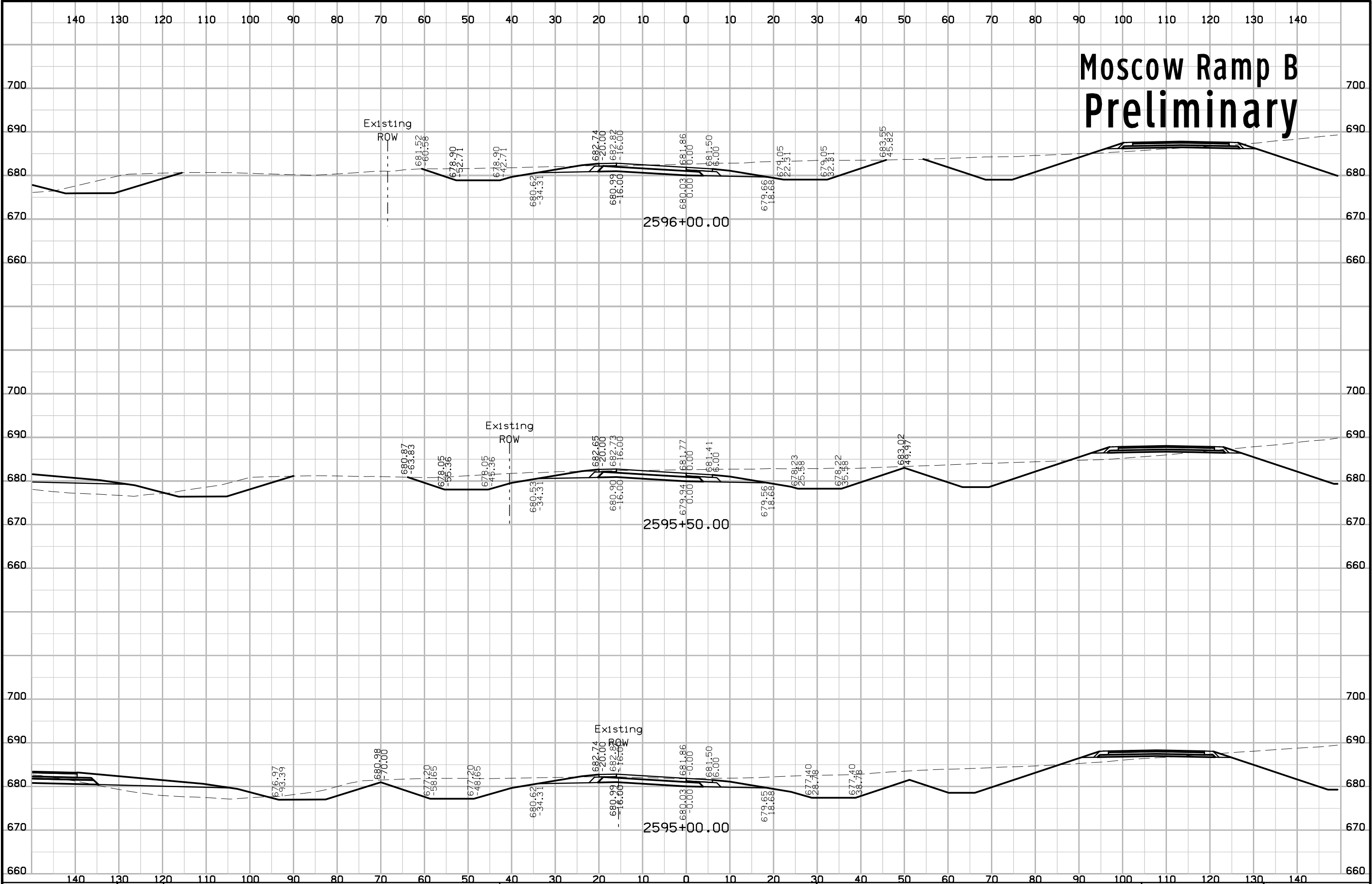
Moscow Ramp B Preliminary



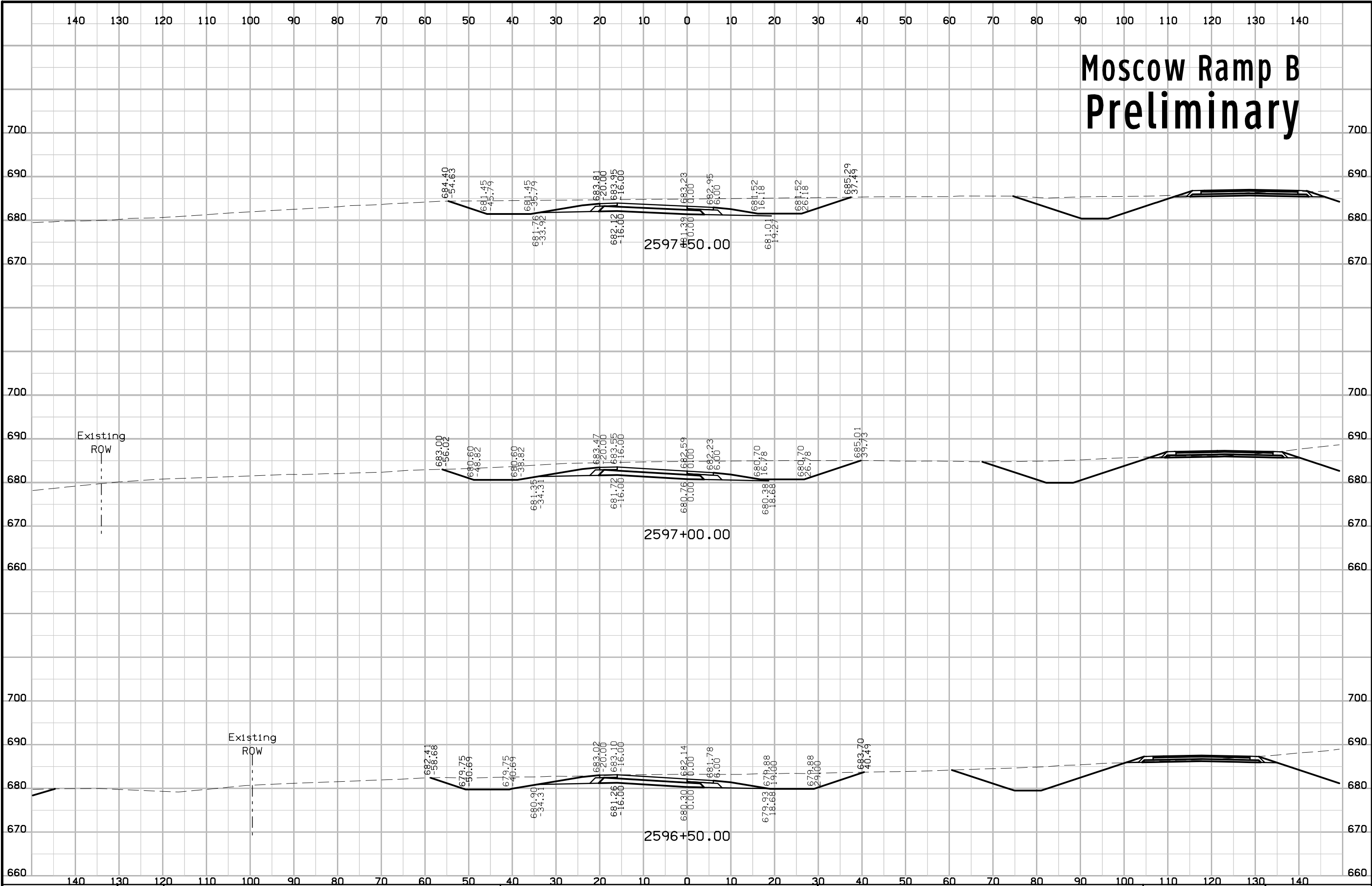
Moscow Ramp B Preliminary



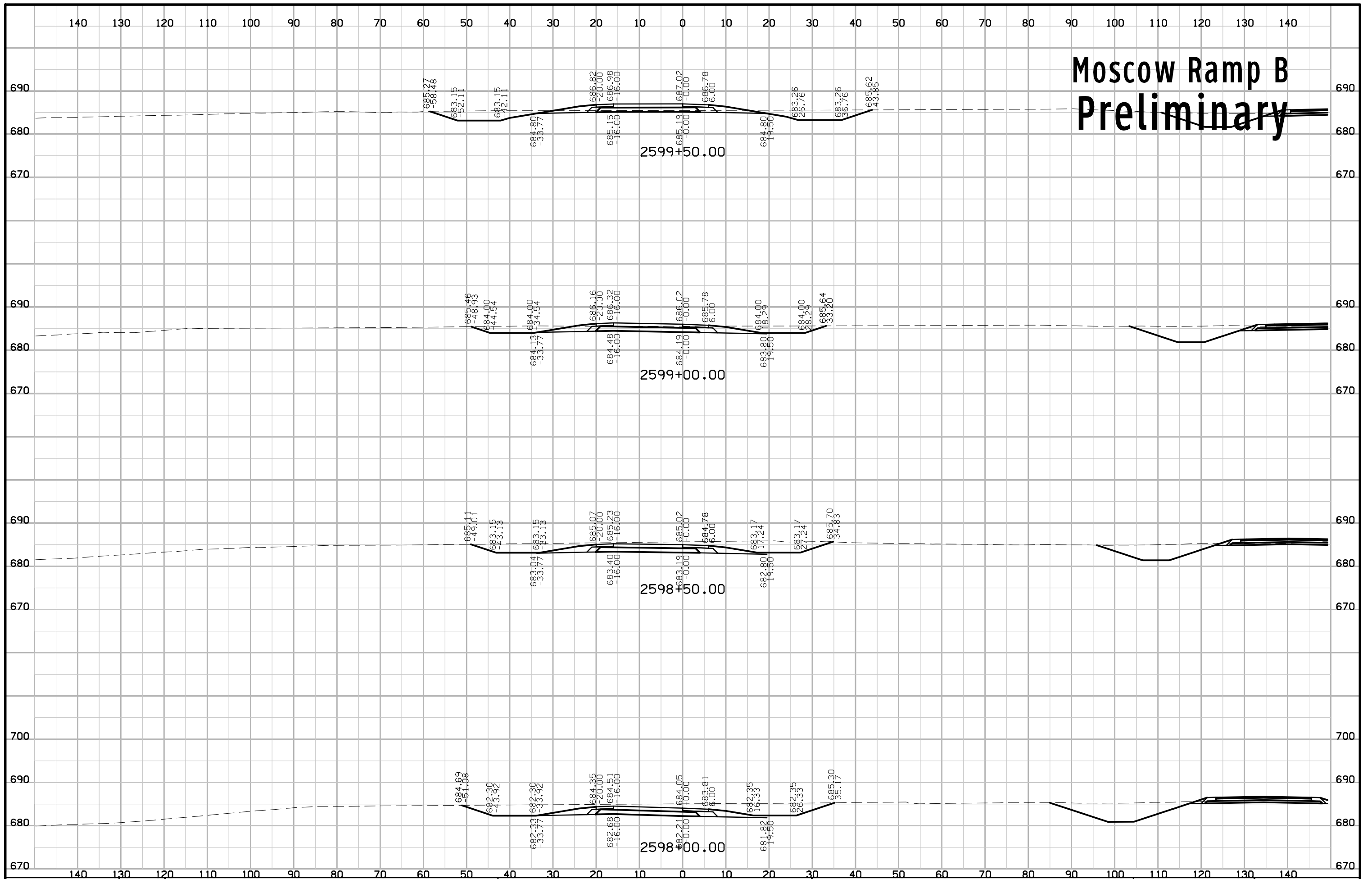
Moscow Ramp B Preliminary



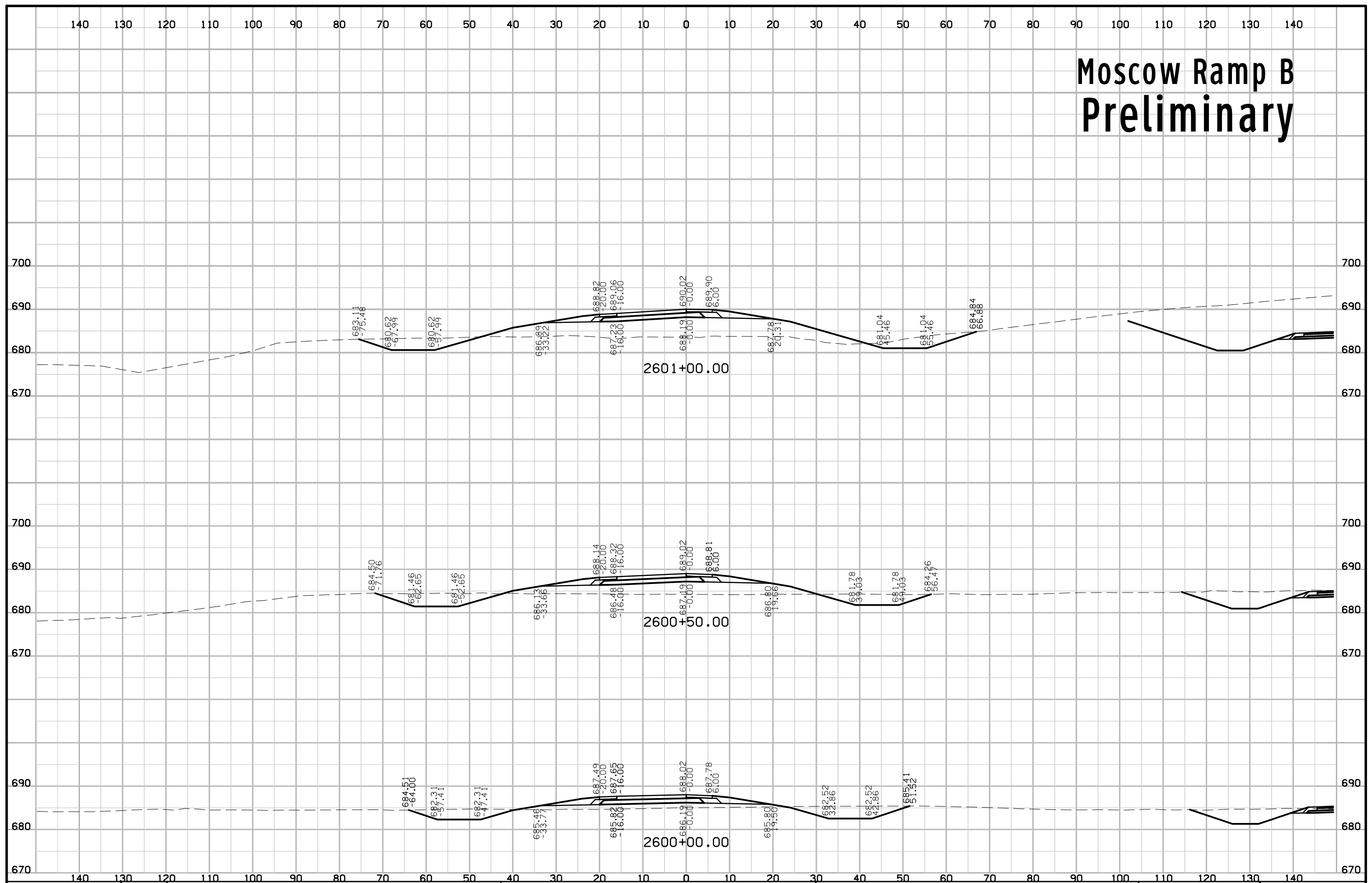
Moscow Ramp B Preliminary



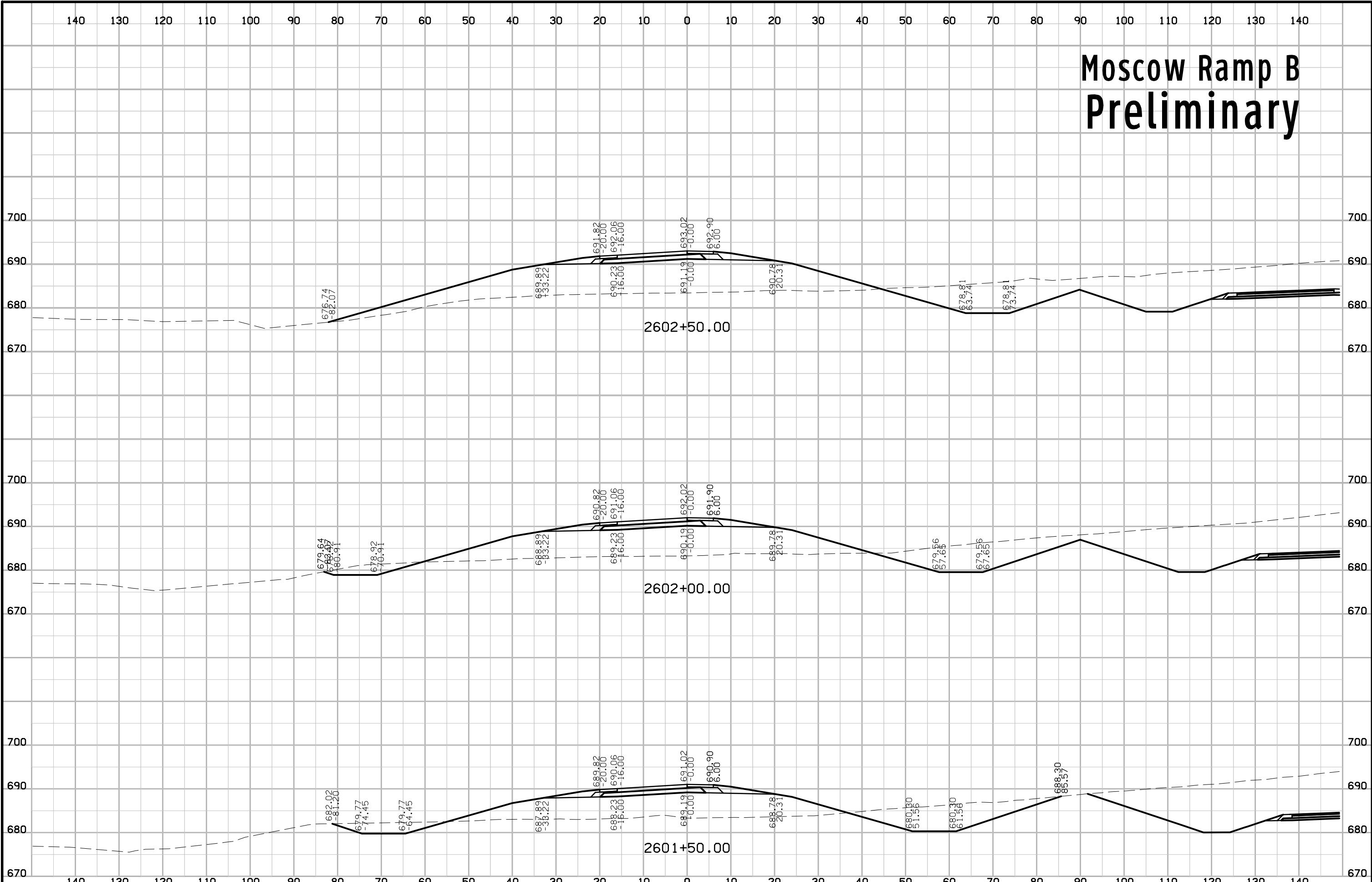
Moscow Ramp B Preliminary



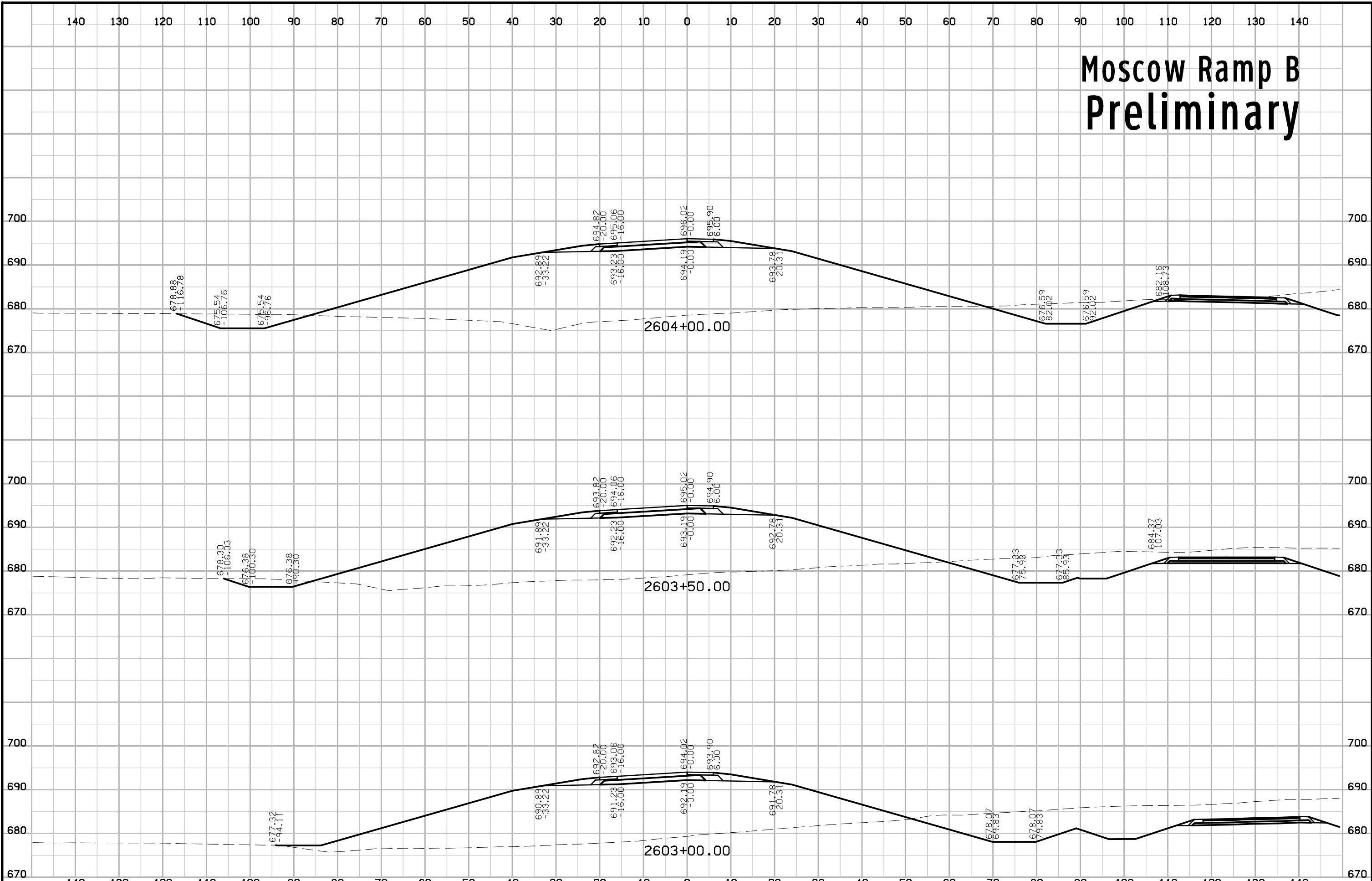
Moscow Ramp B Preliminary



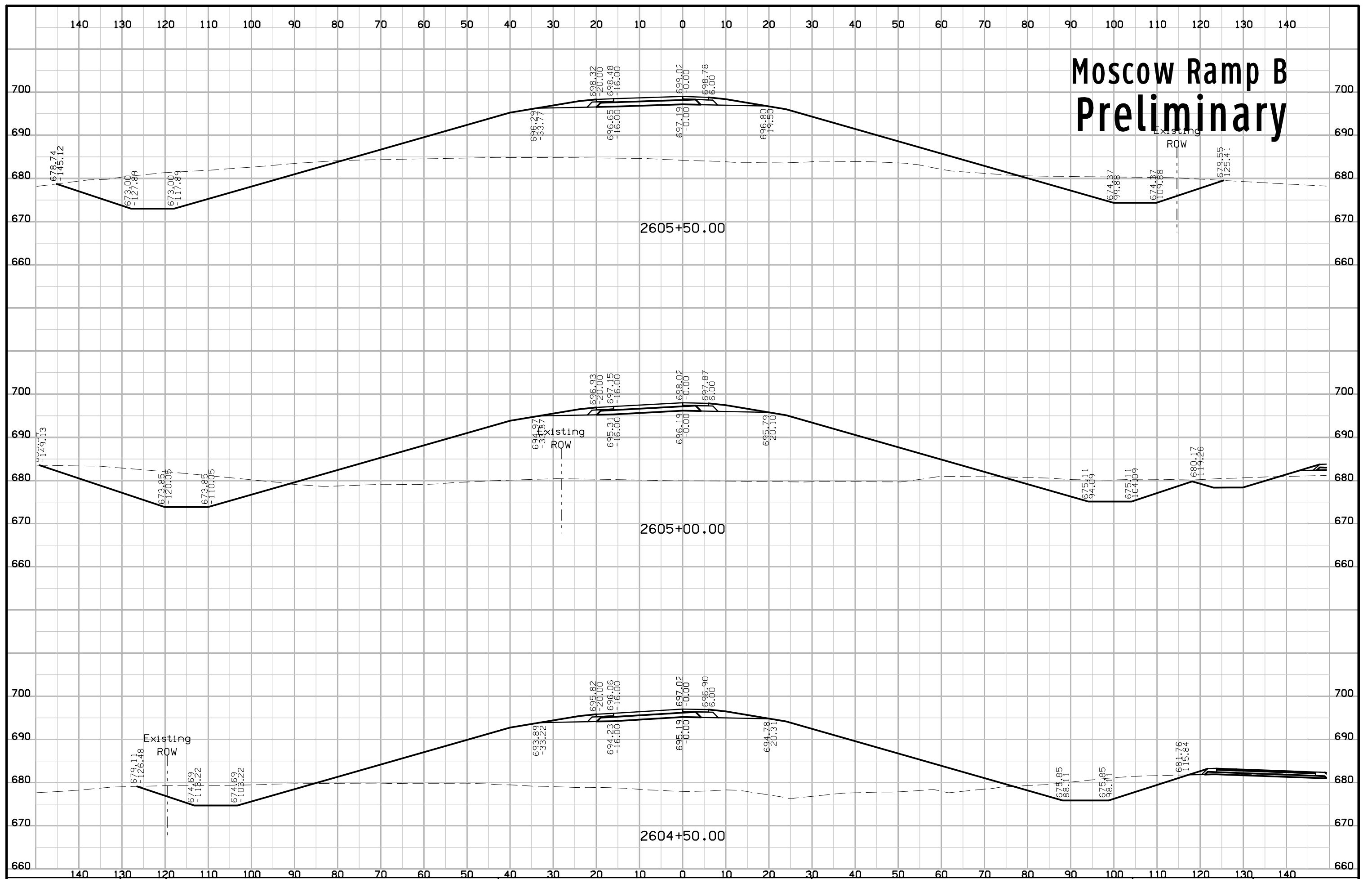
Moscow Ramp B Preliminary



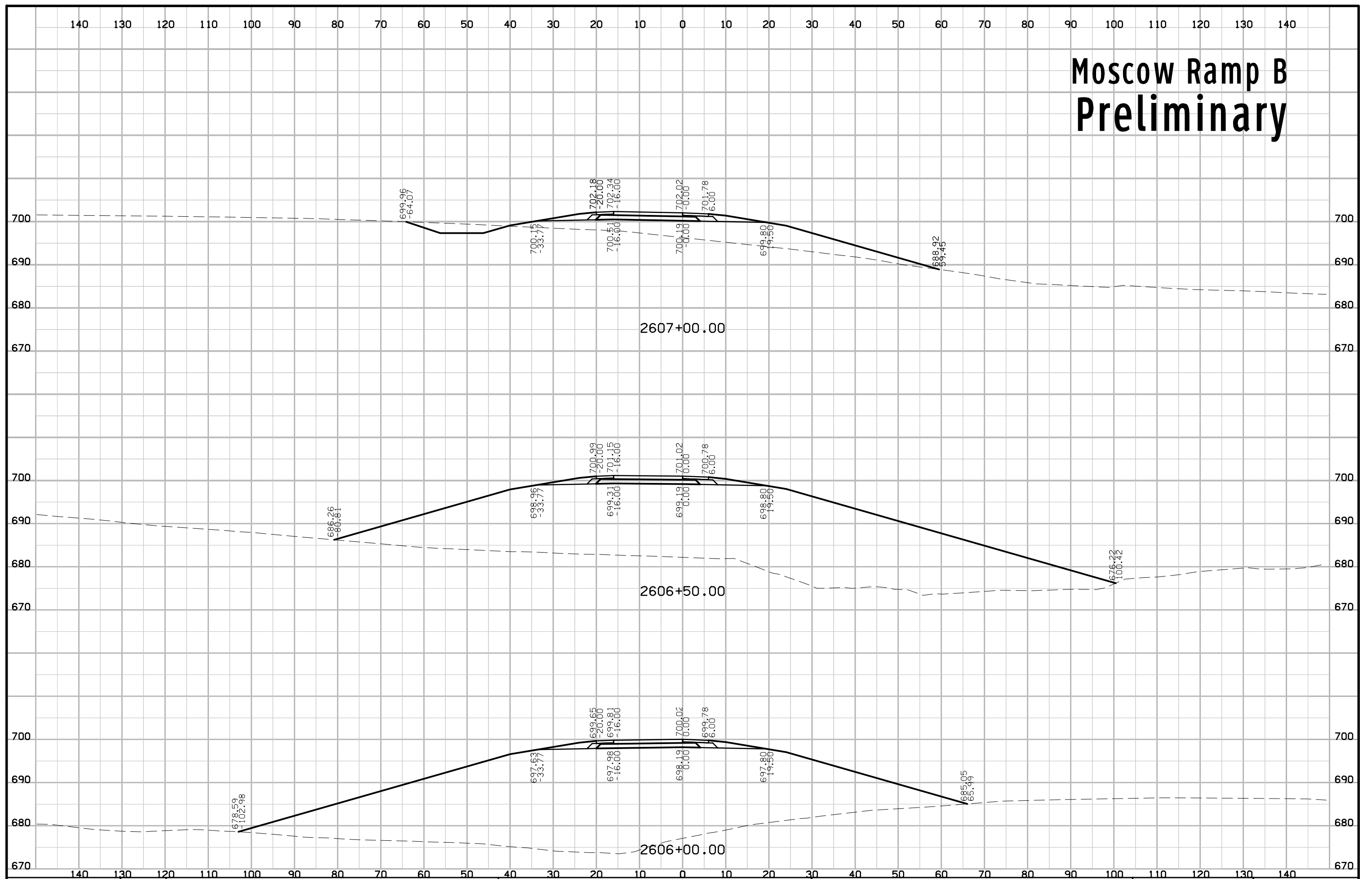
Moscow Ramp B Preliminary



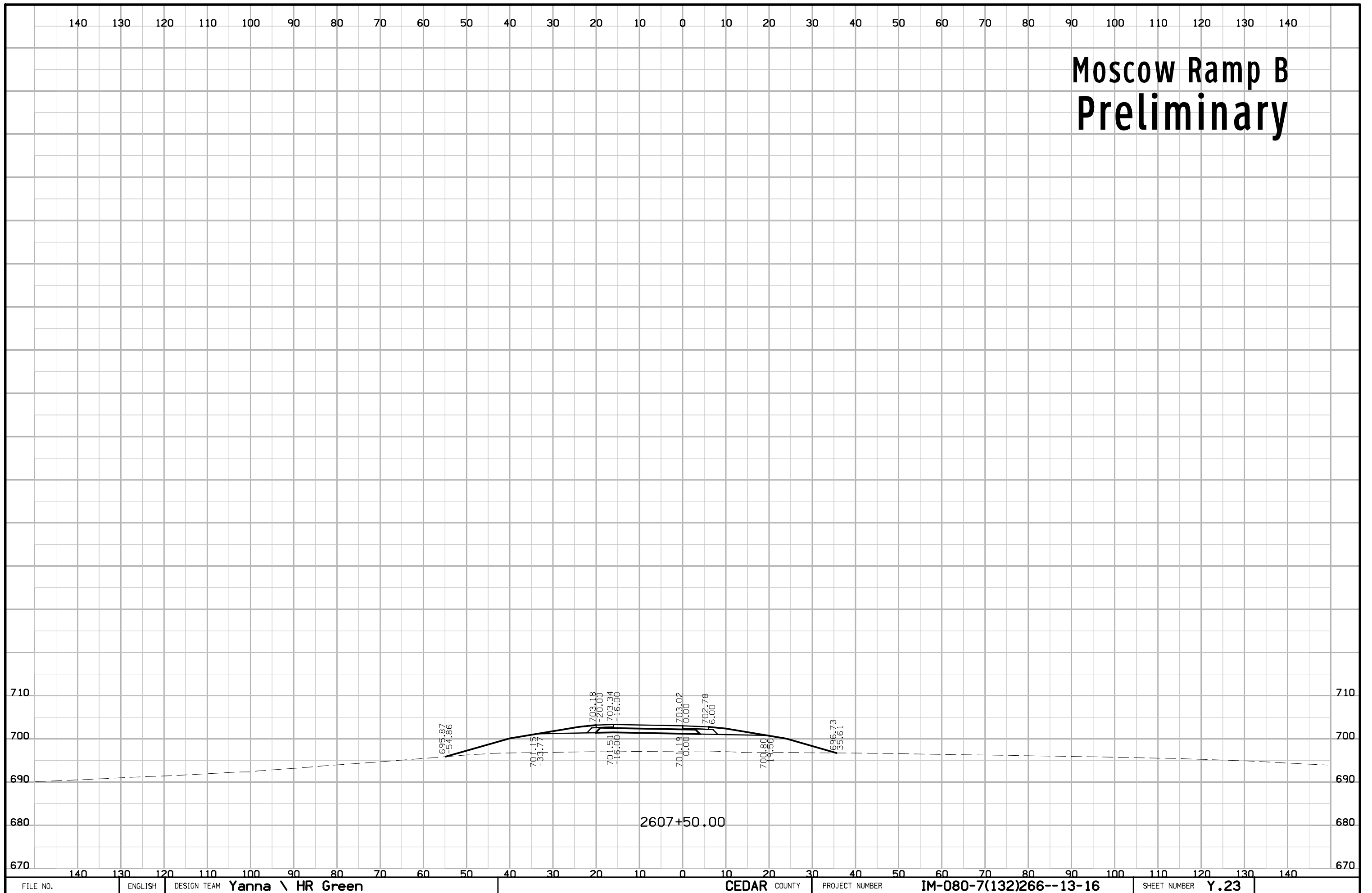
Moscow Ramp B Preliminary



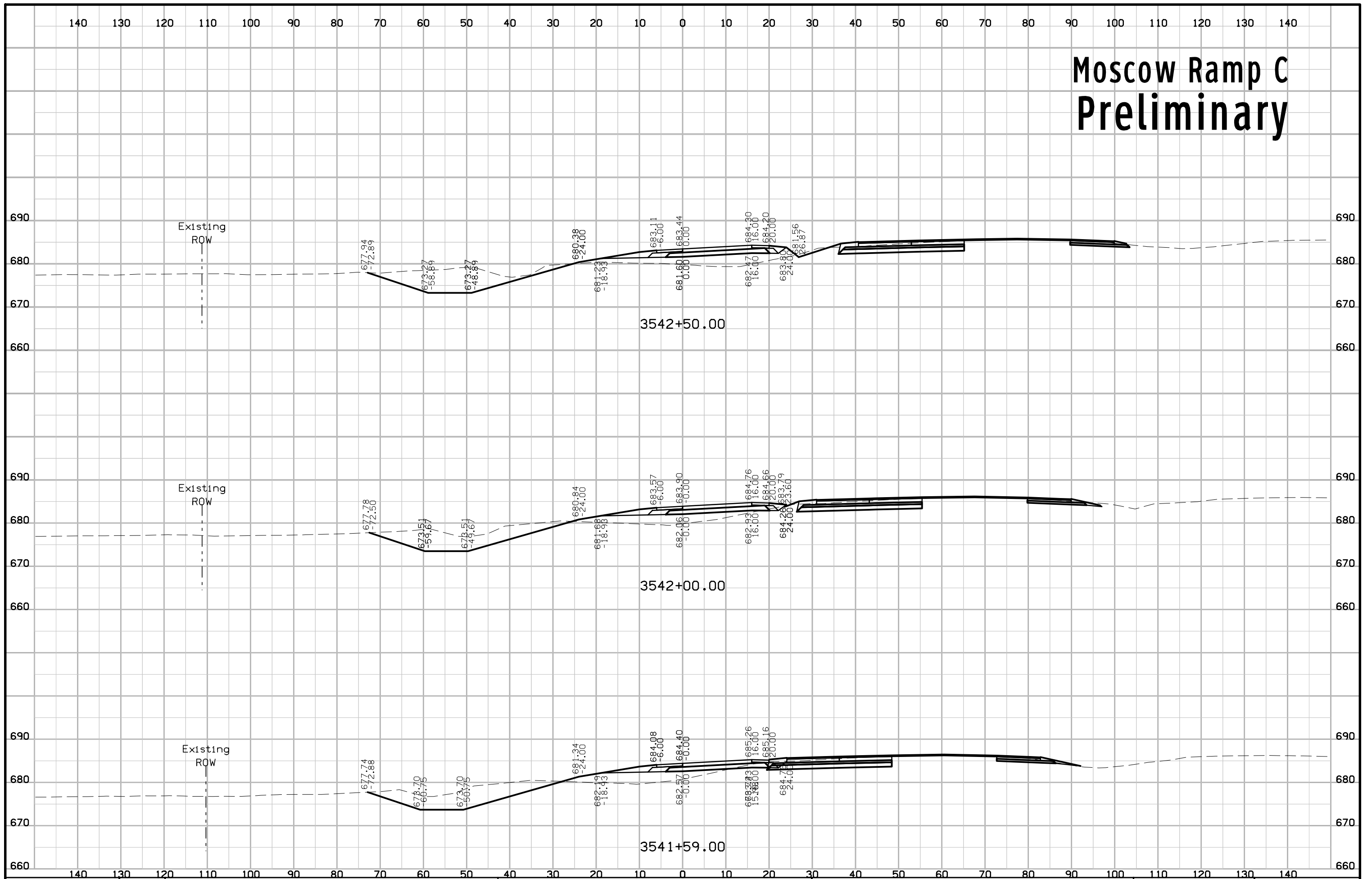
Moscow Ramp B Preliminary



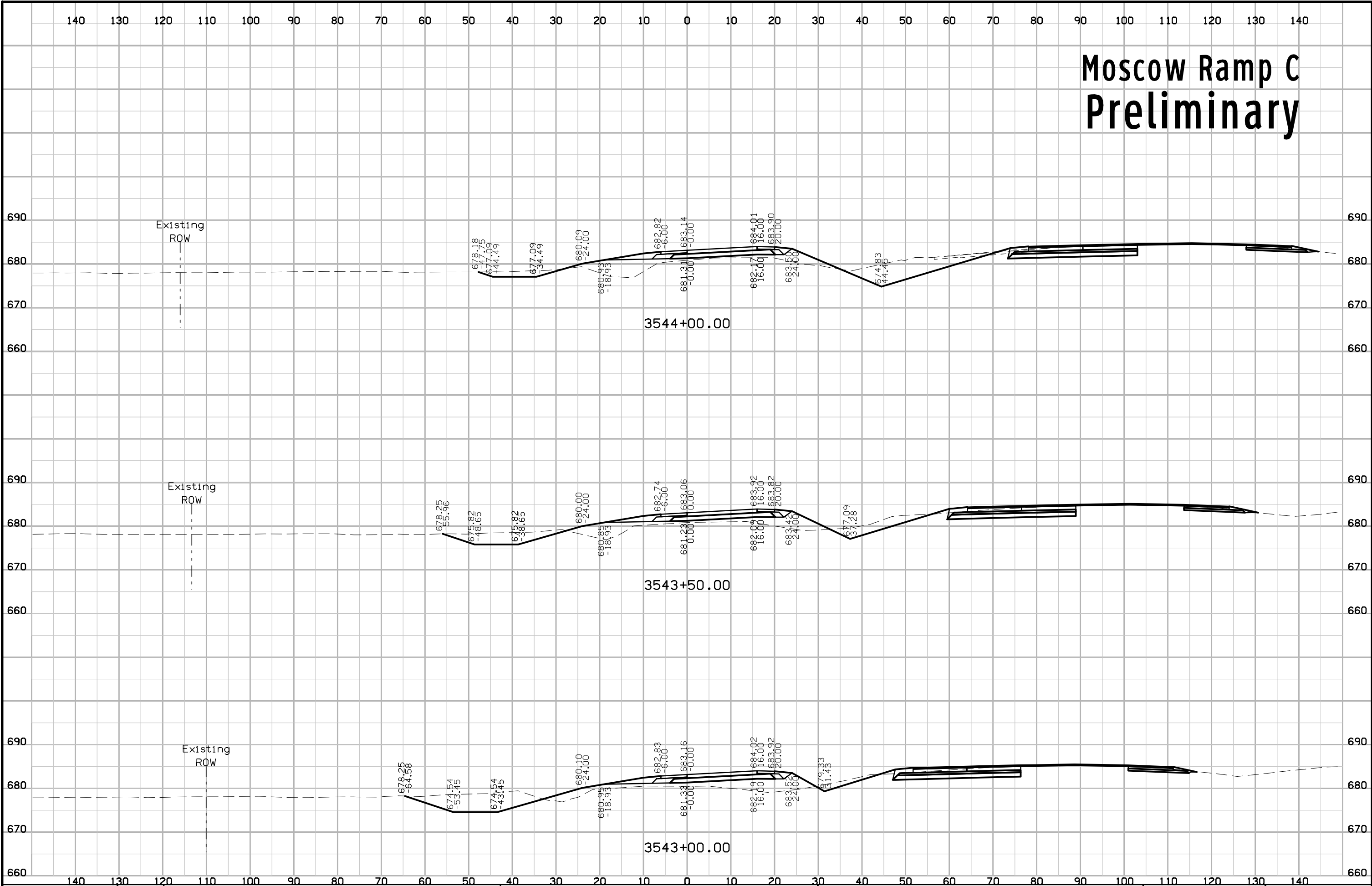
Moscow Ramp B Preliminary



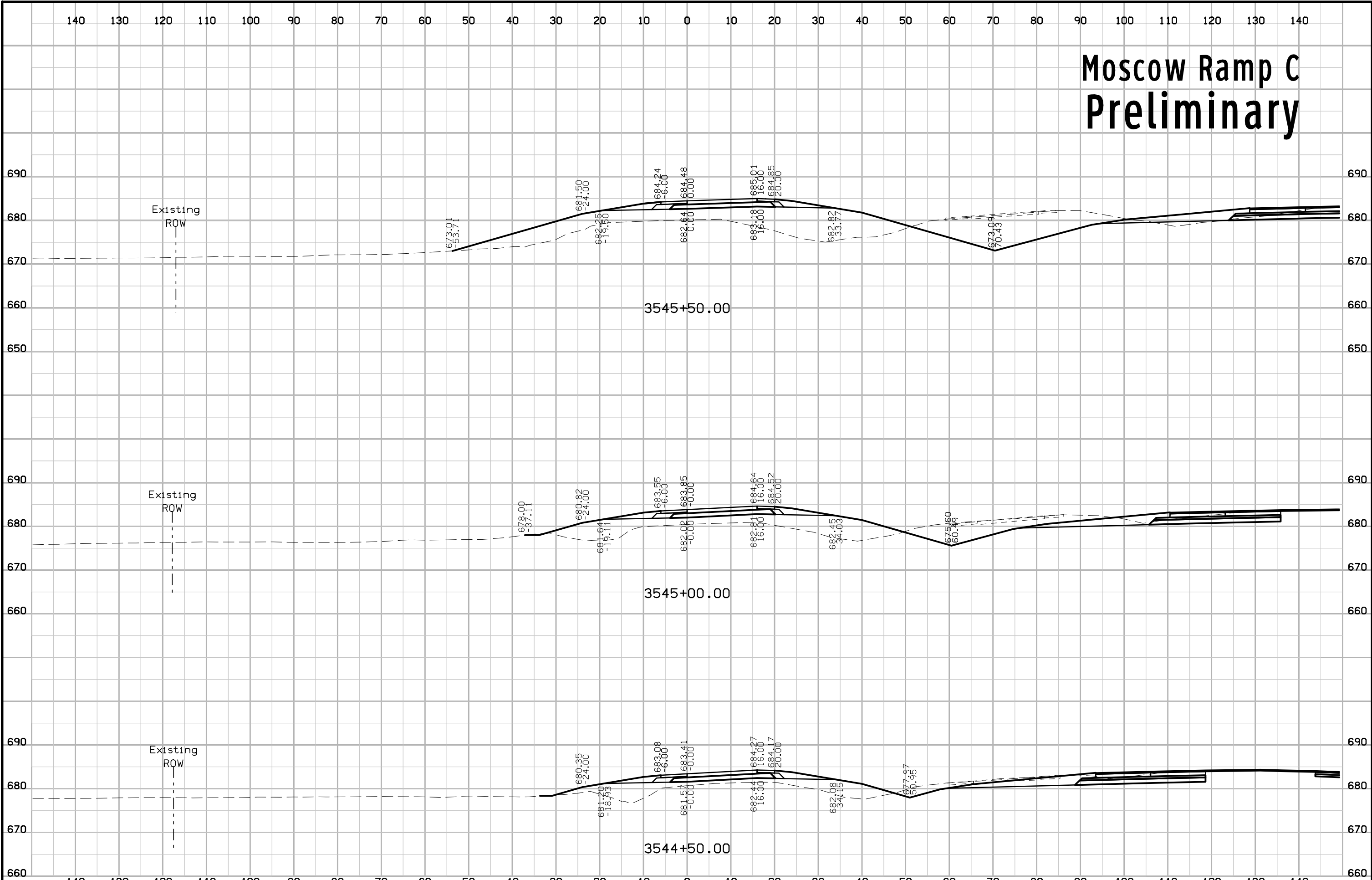
Moscow Ramp C Preliminary



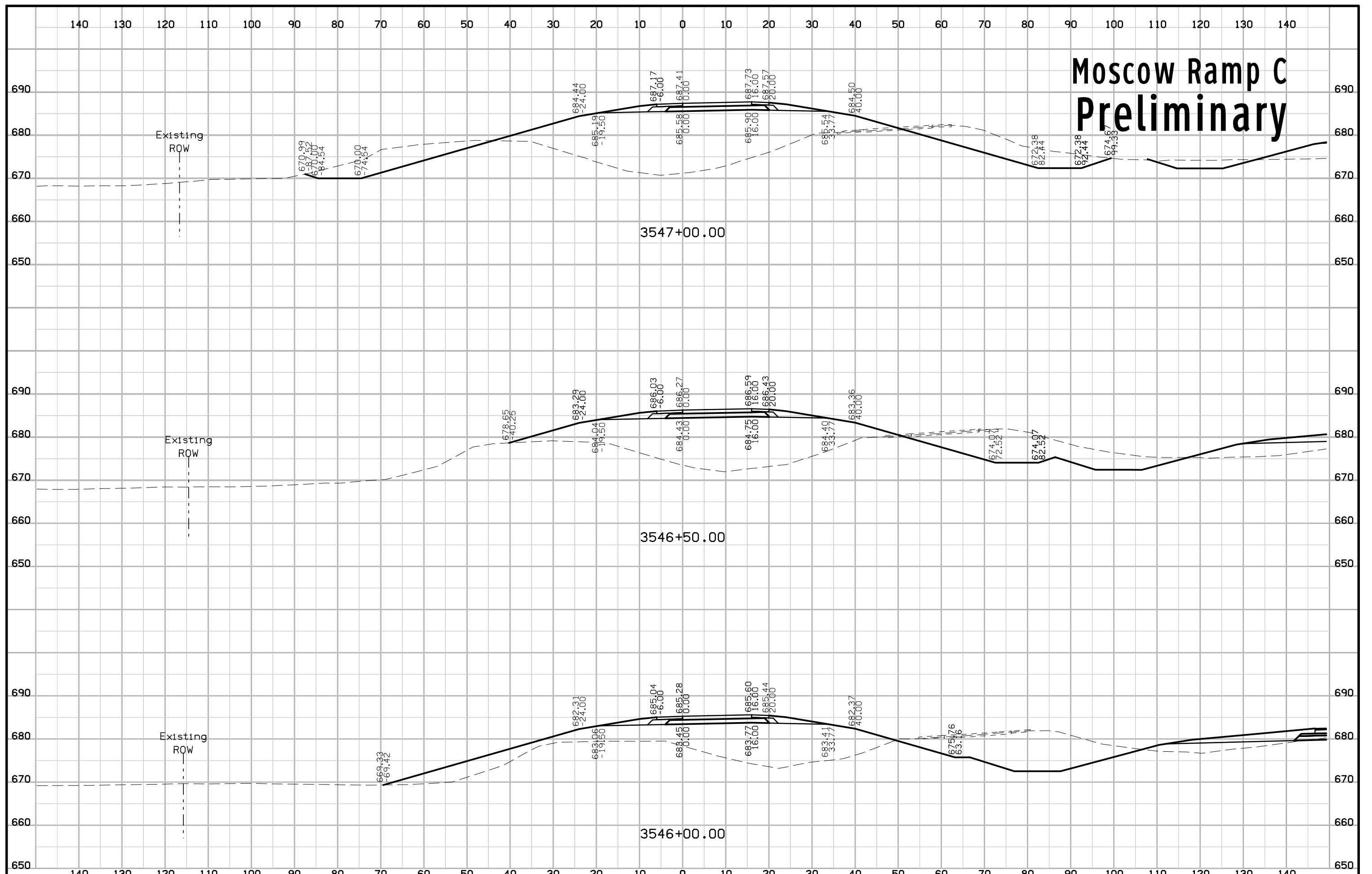
Moscow Ramp C Preliminary



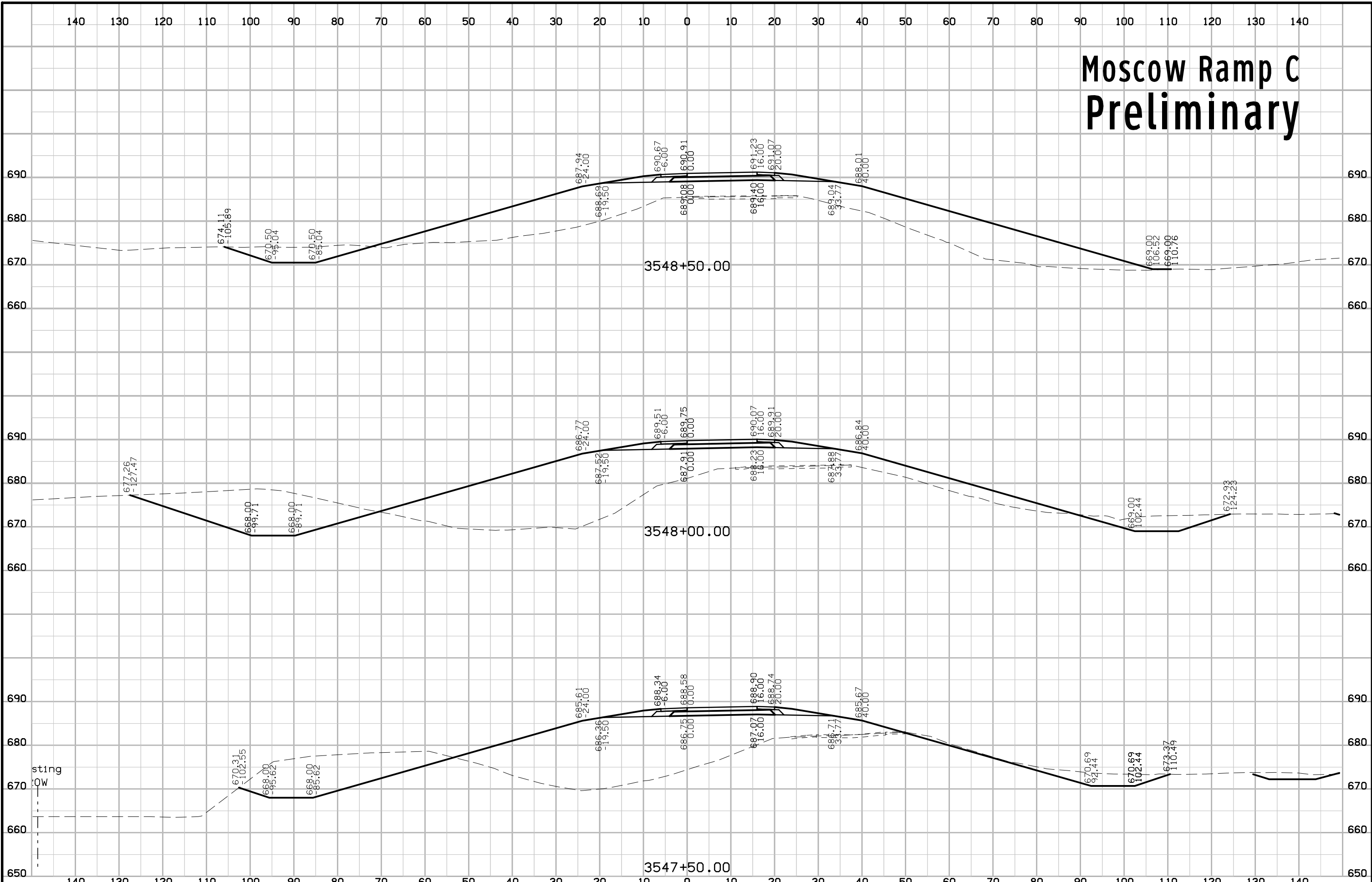
Moscow Ramp C Preliminary



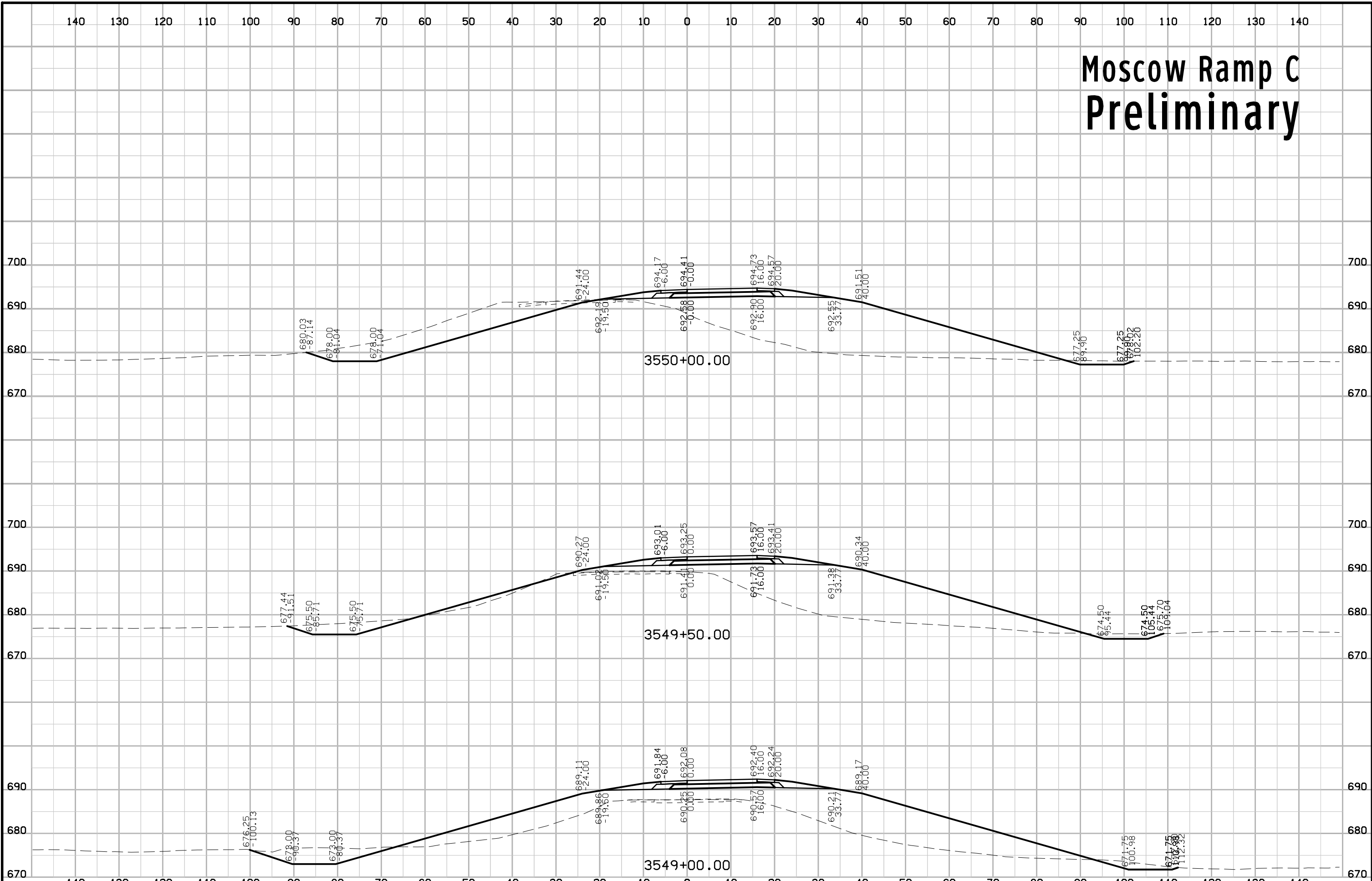
Moscow Ramp C Preliminary



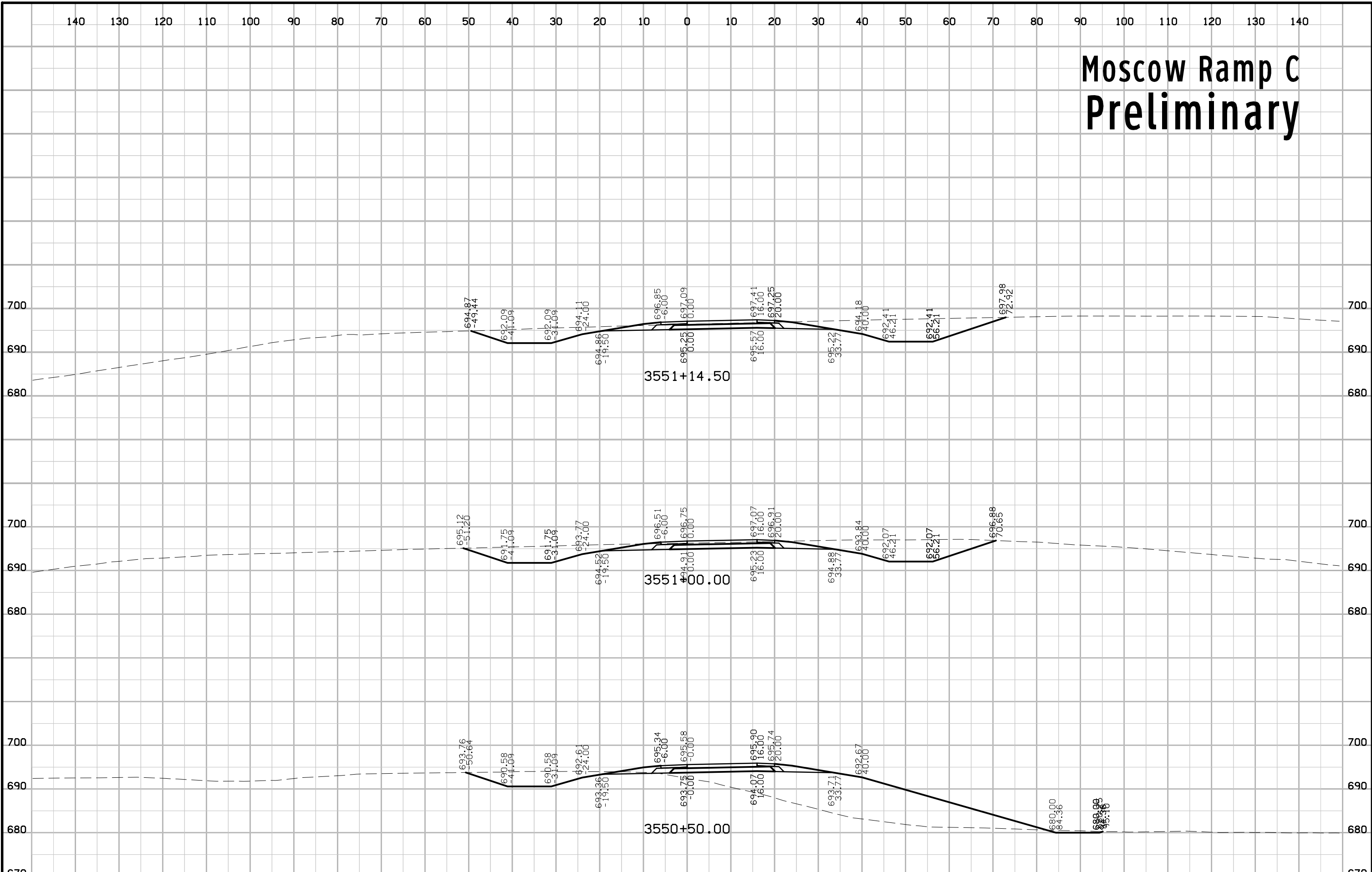
Moscow Ramp C Preliminary



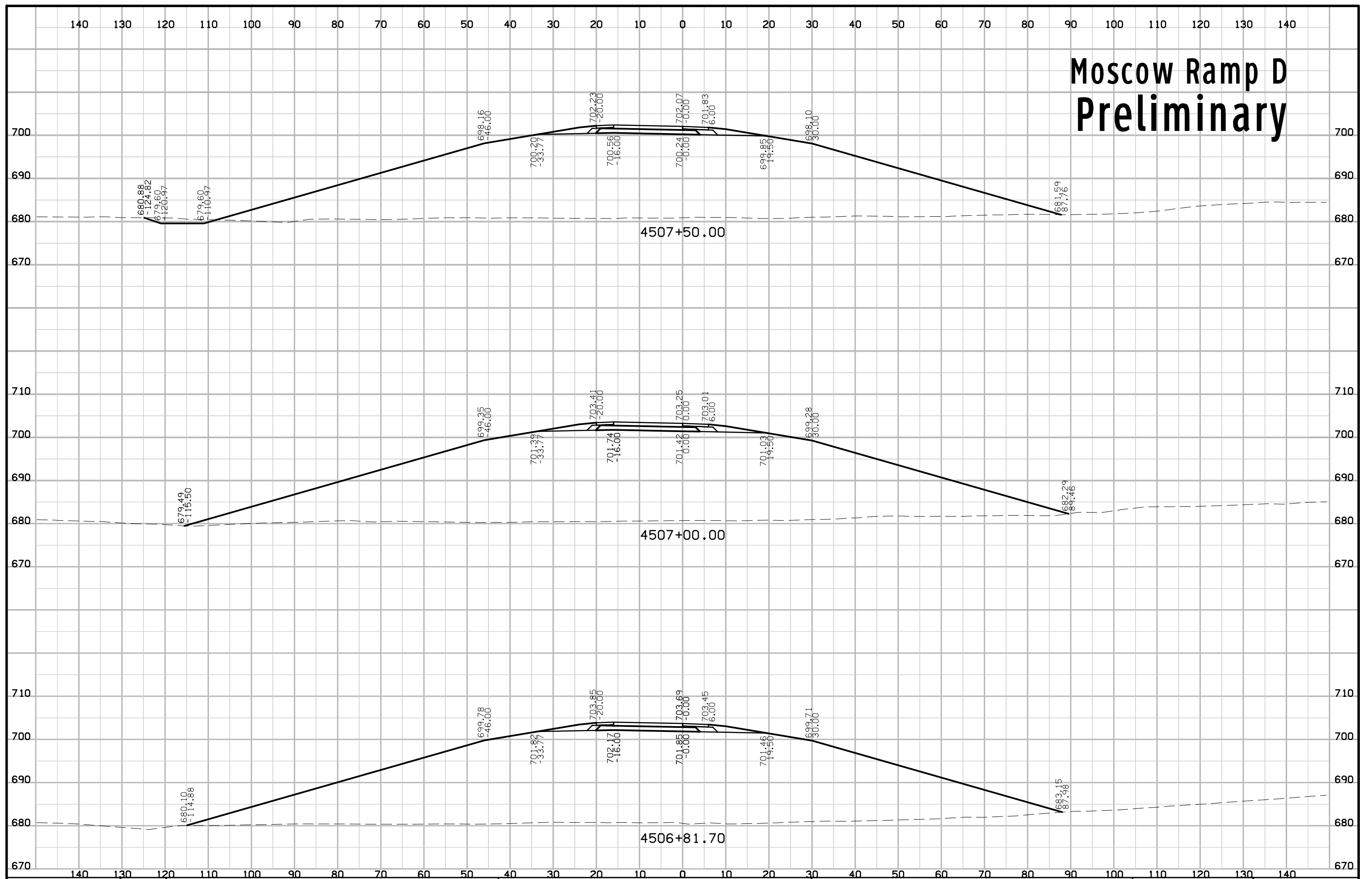
Moscow Ramp C Preliminary



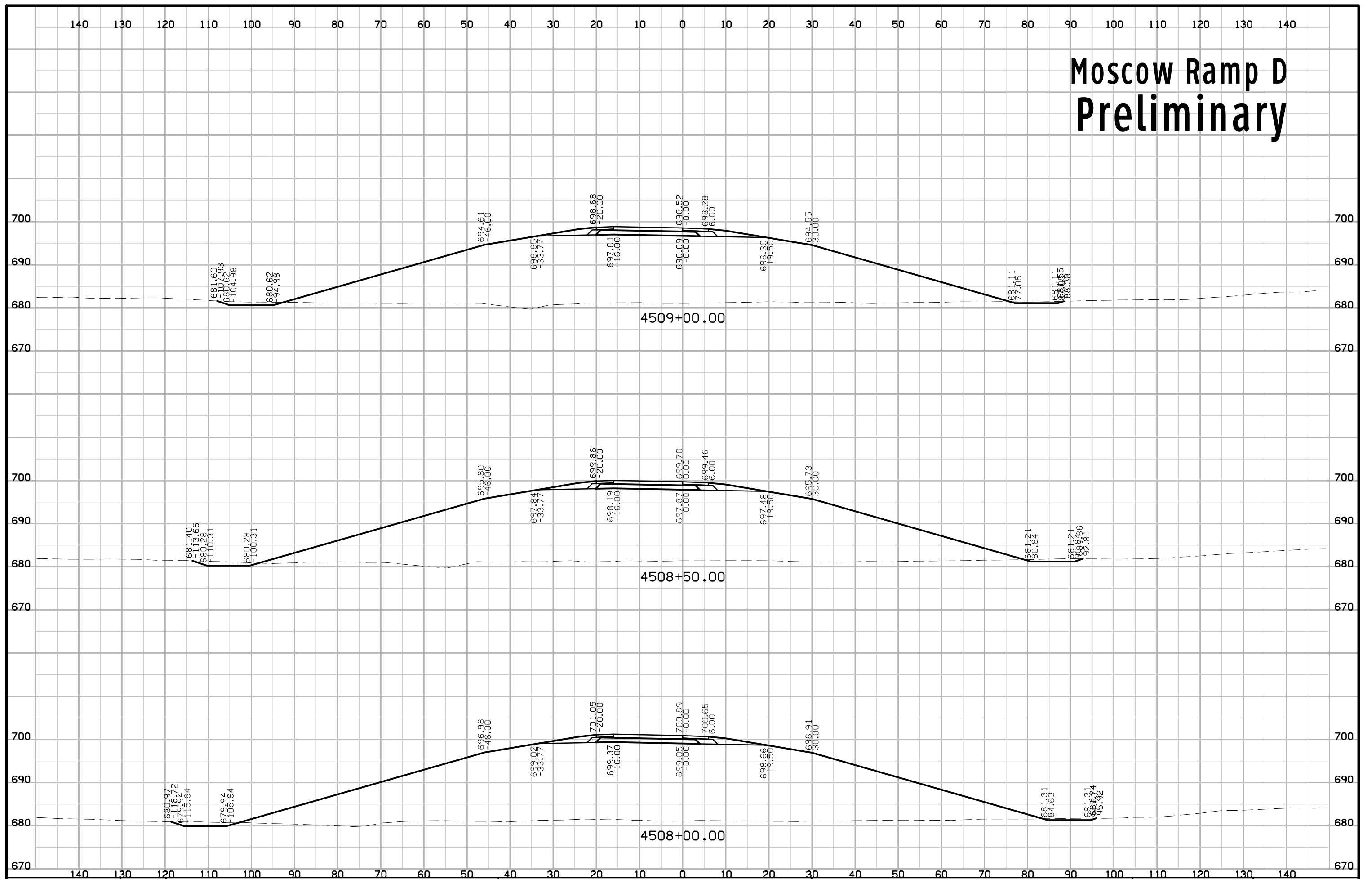
Moscow Ramp C Preliminary



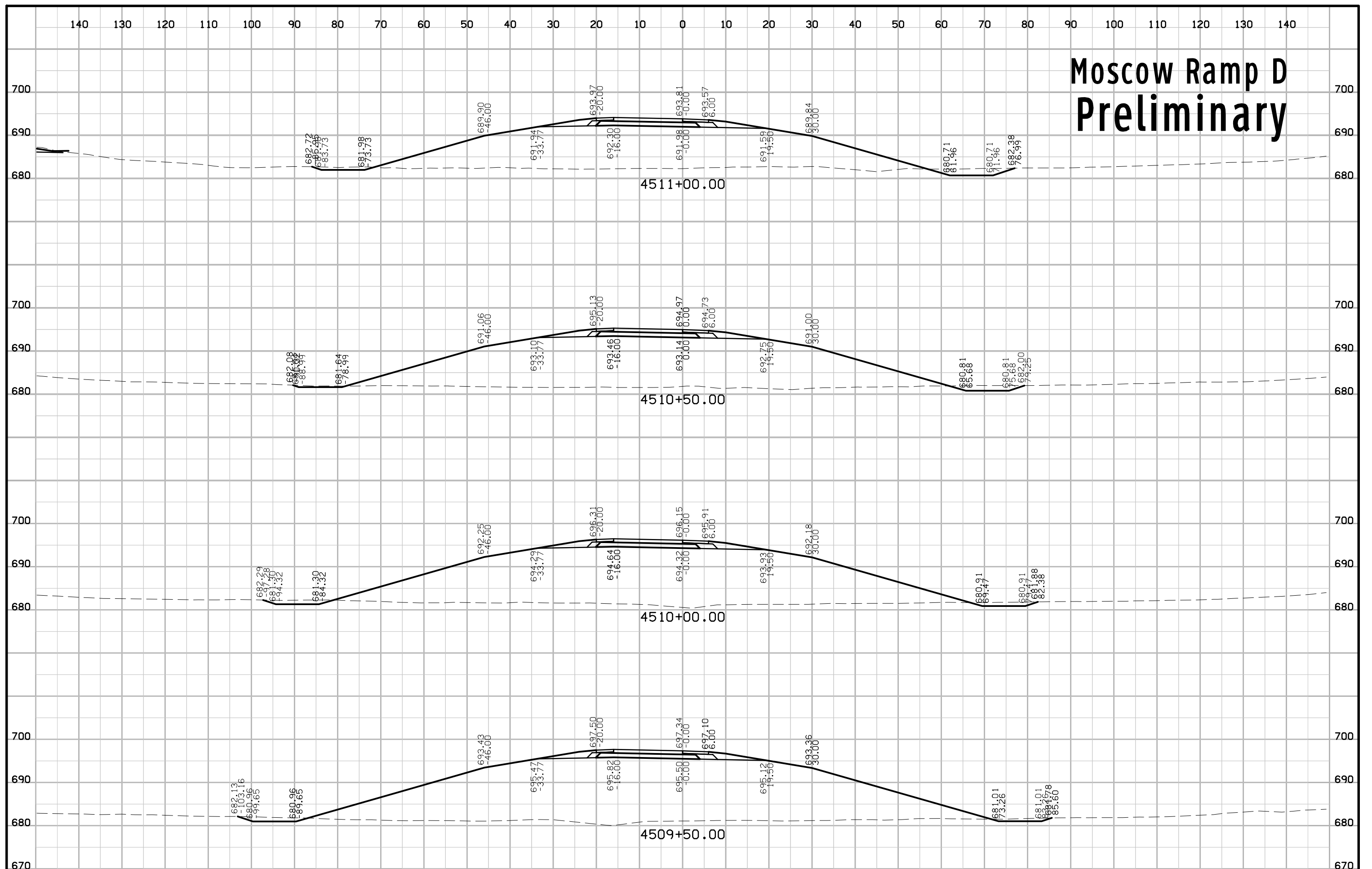
Moscow Ramp D Preliminary



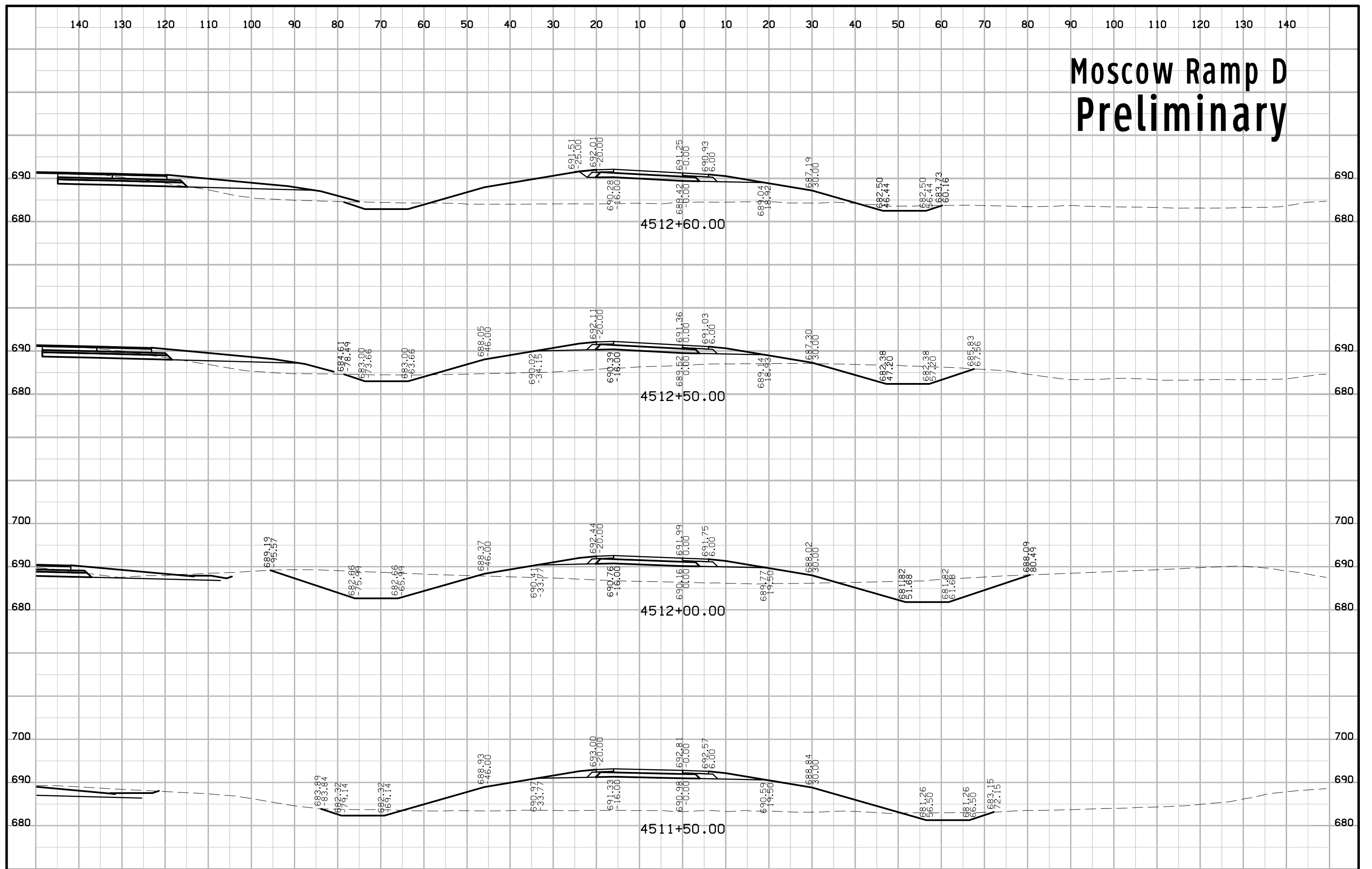
Moscow Ramp D Preliminary



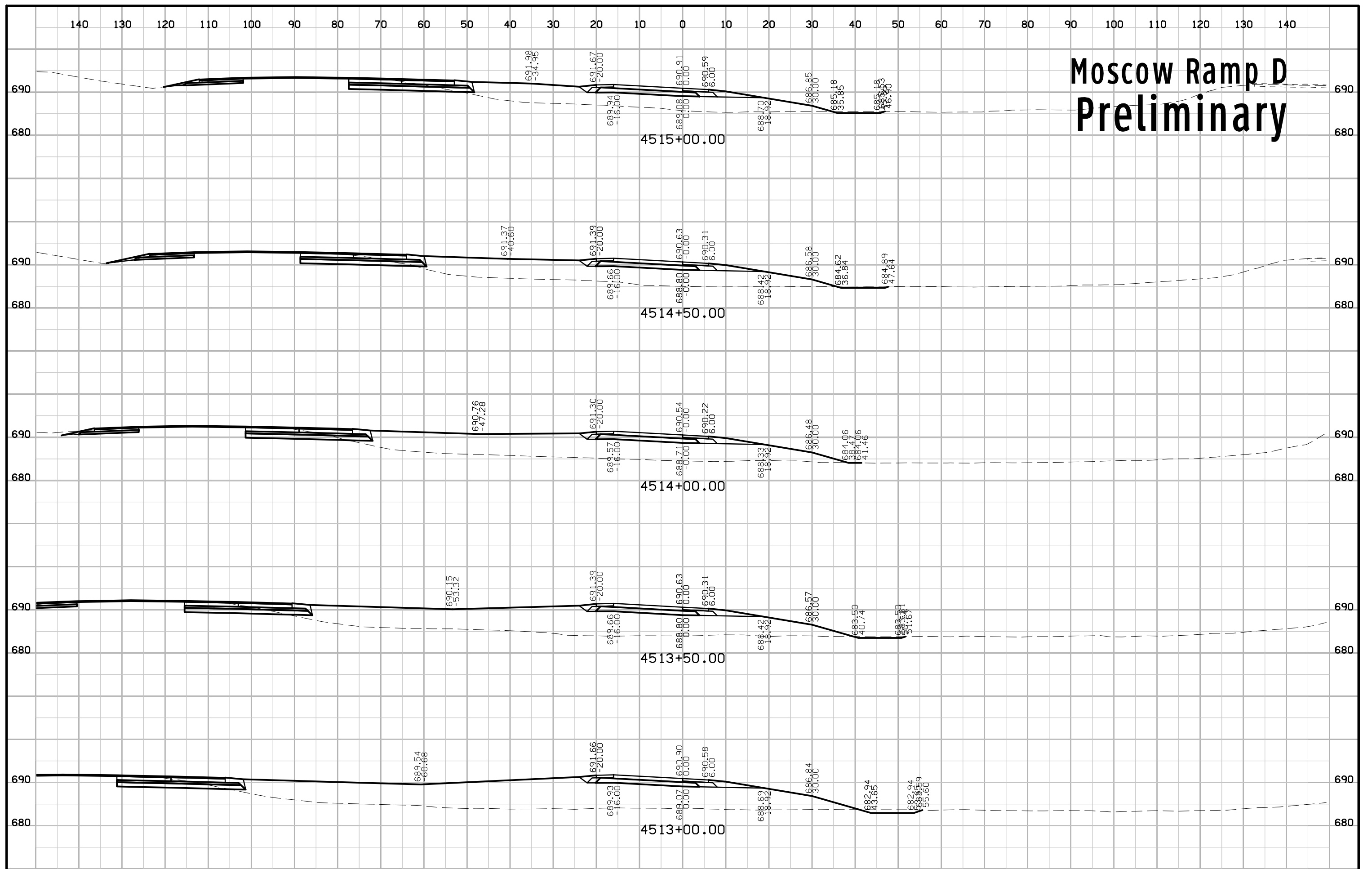
Moscow Ramp D Preliminary



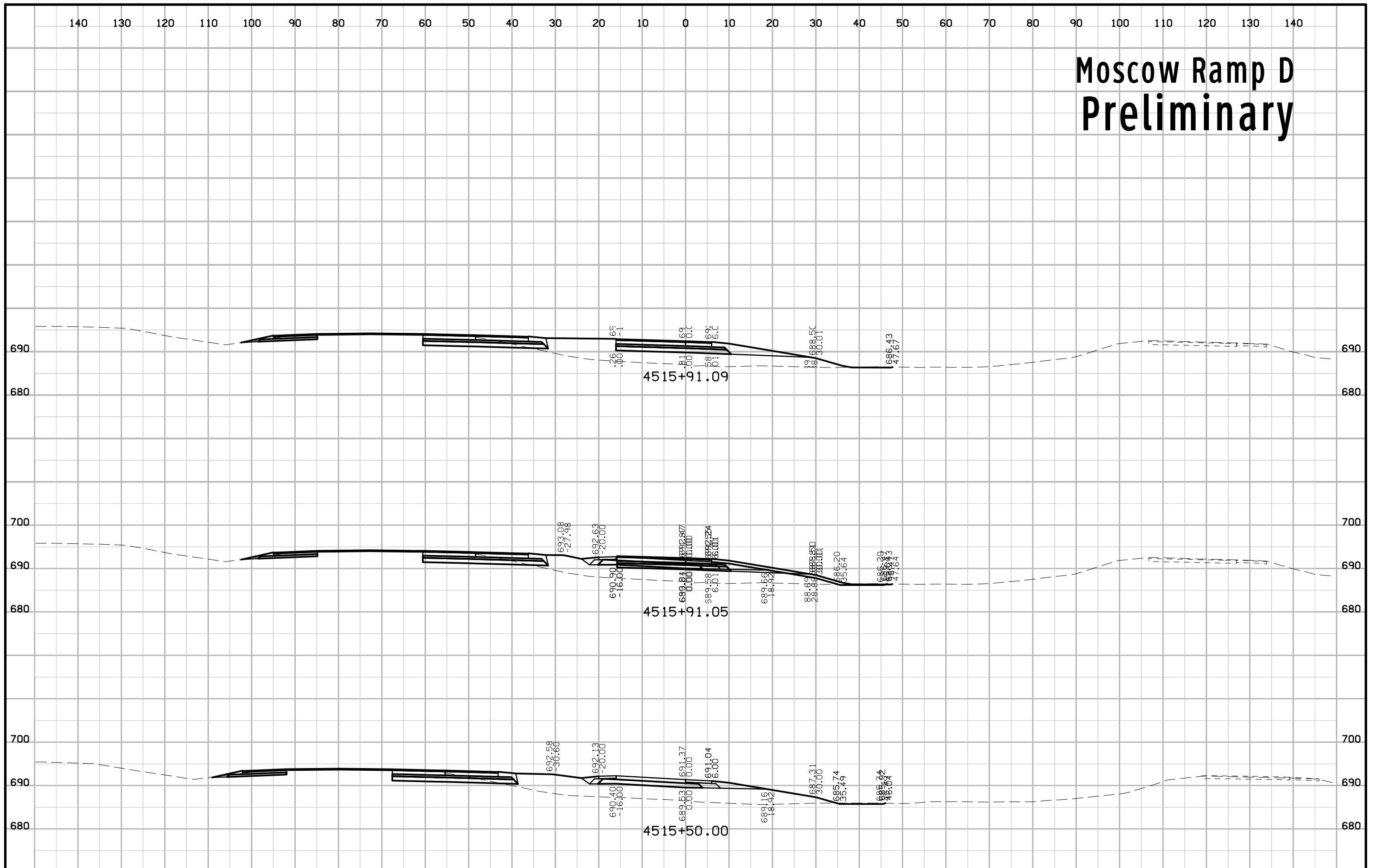
Moscow Ramp D Preliminary



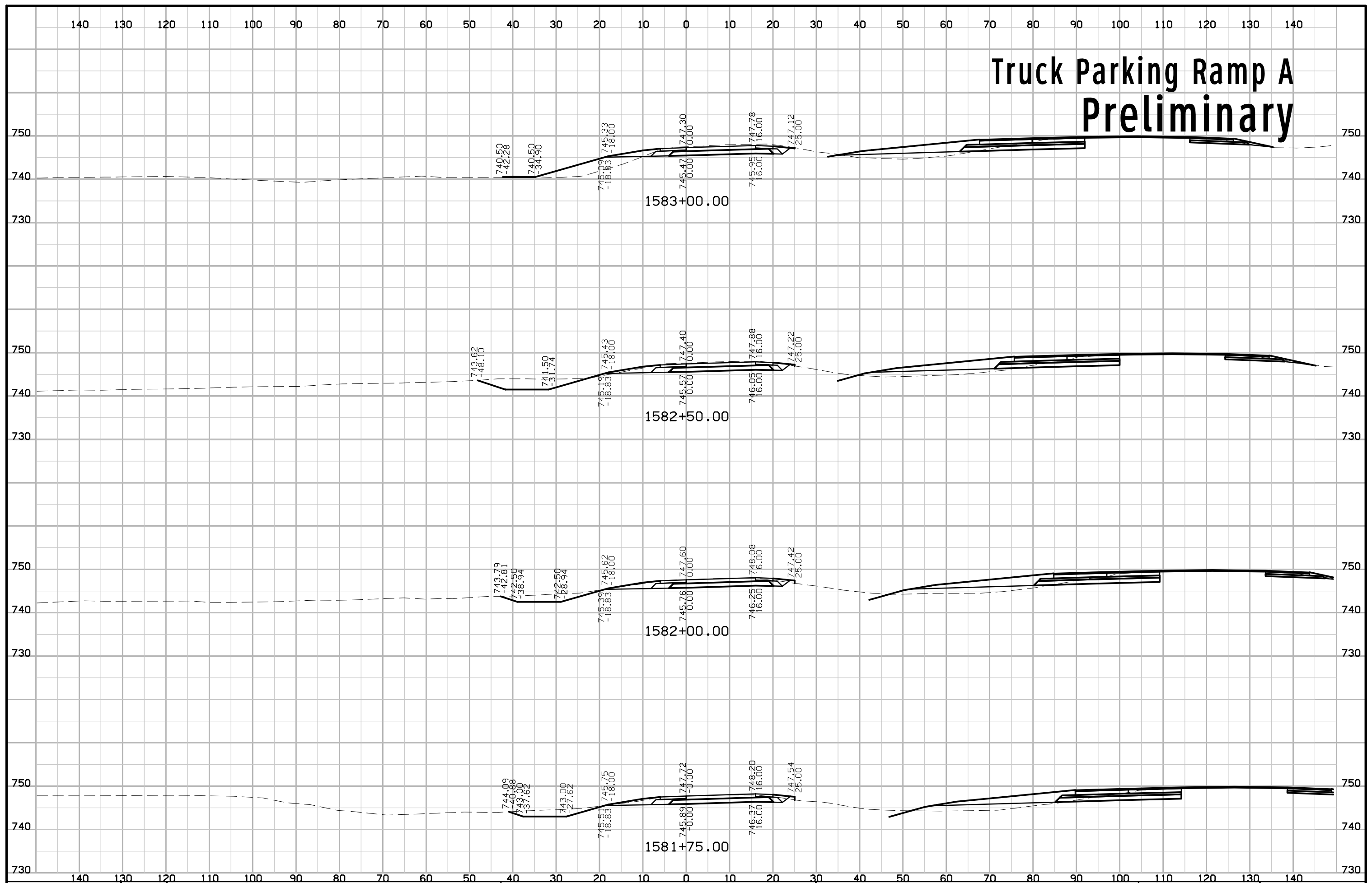
Moscow Ramp D Preliminary



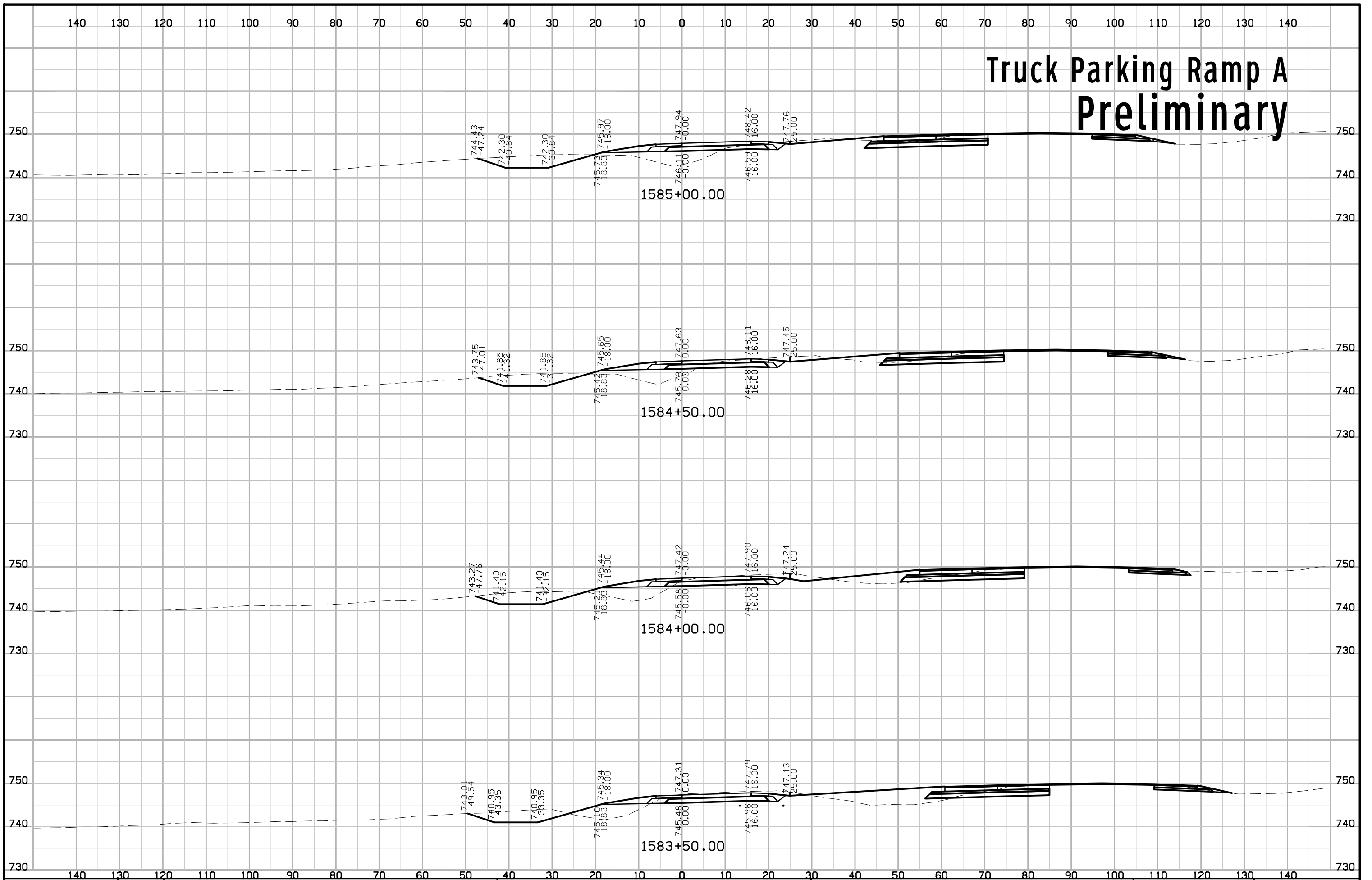
Moscow Ramp D Preliminary



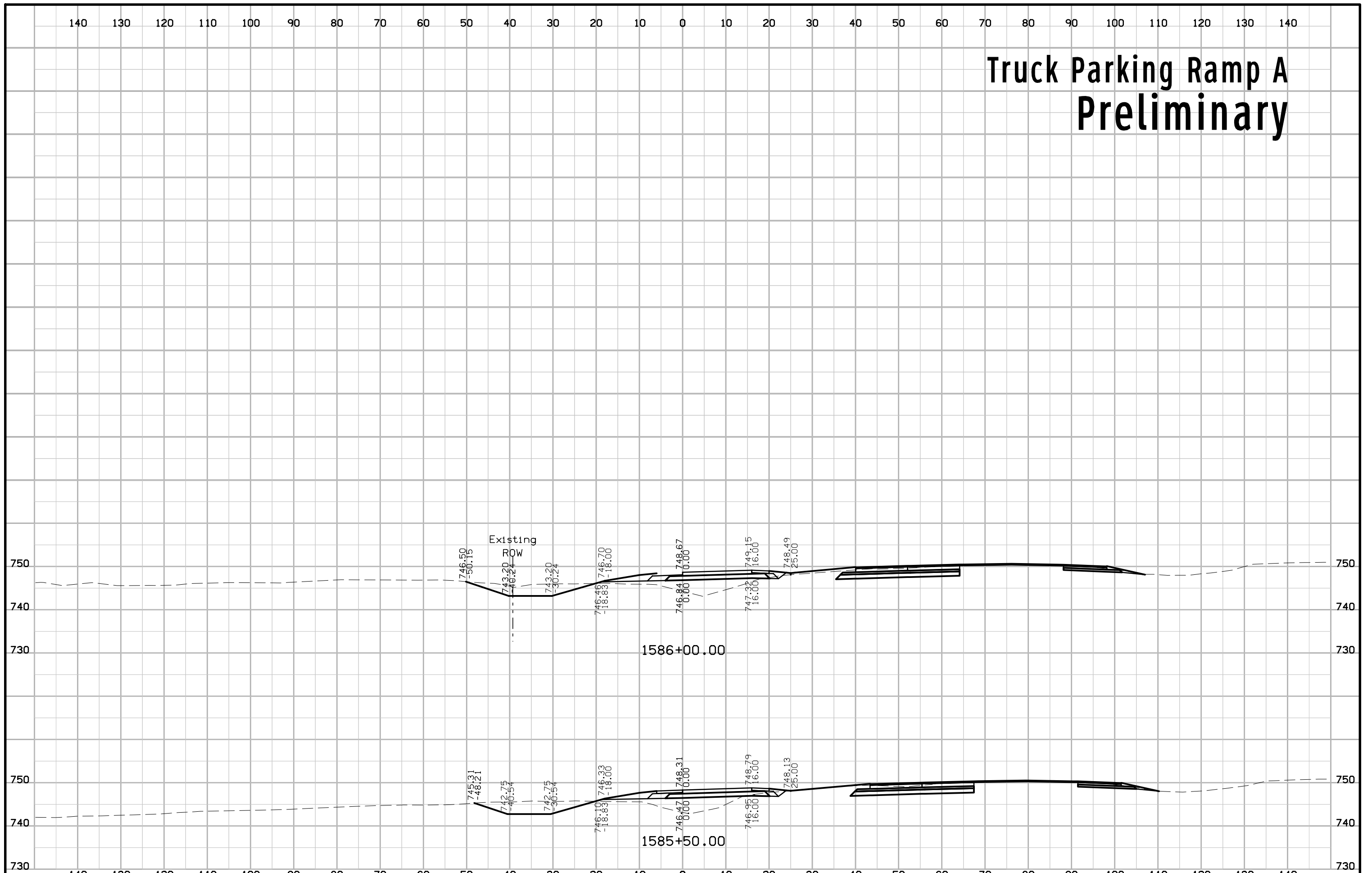
Truck Parking Ramp A Preliminary

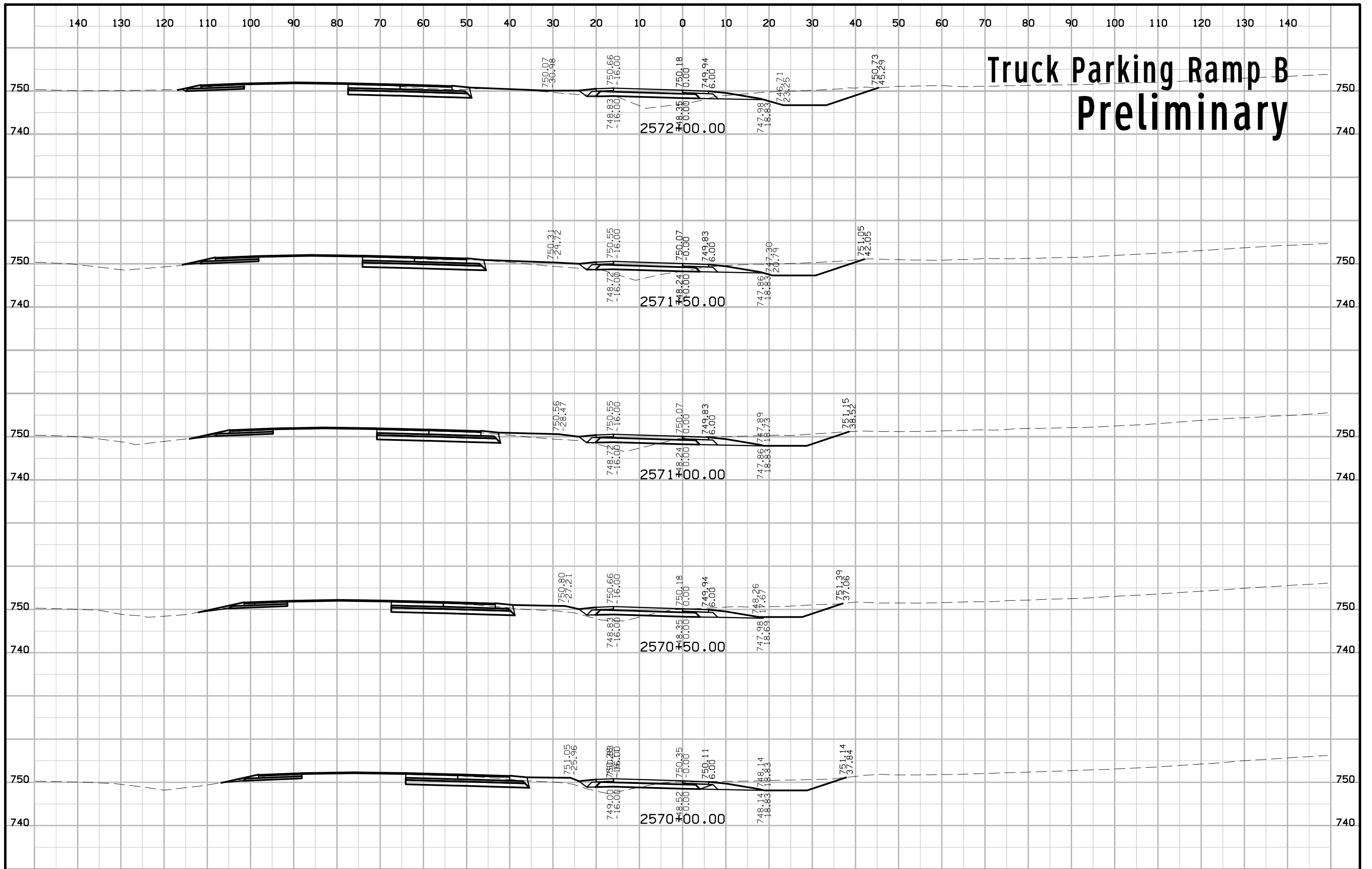


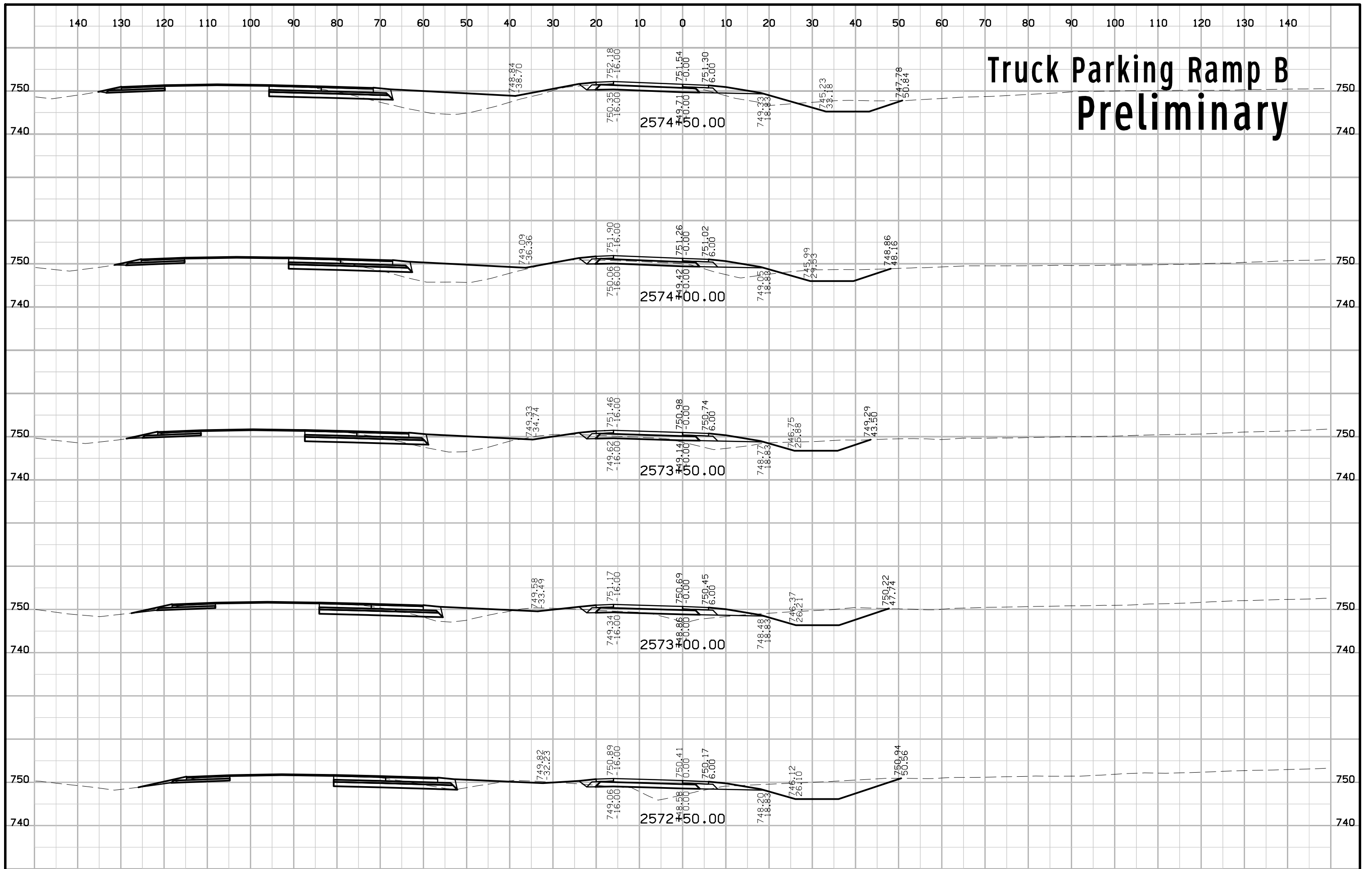
Truck Parking Ramp A Preliminary



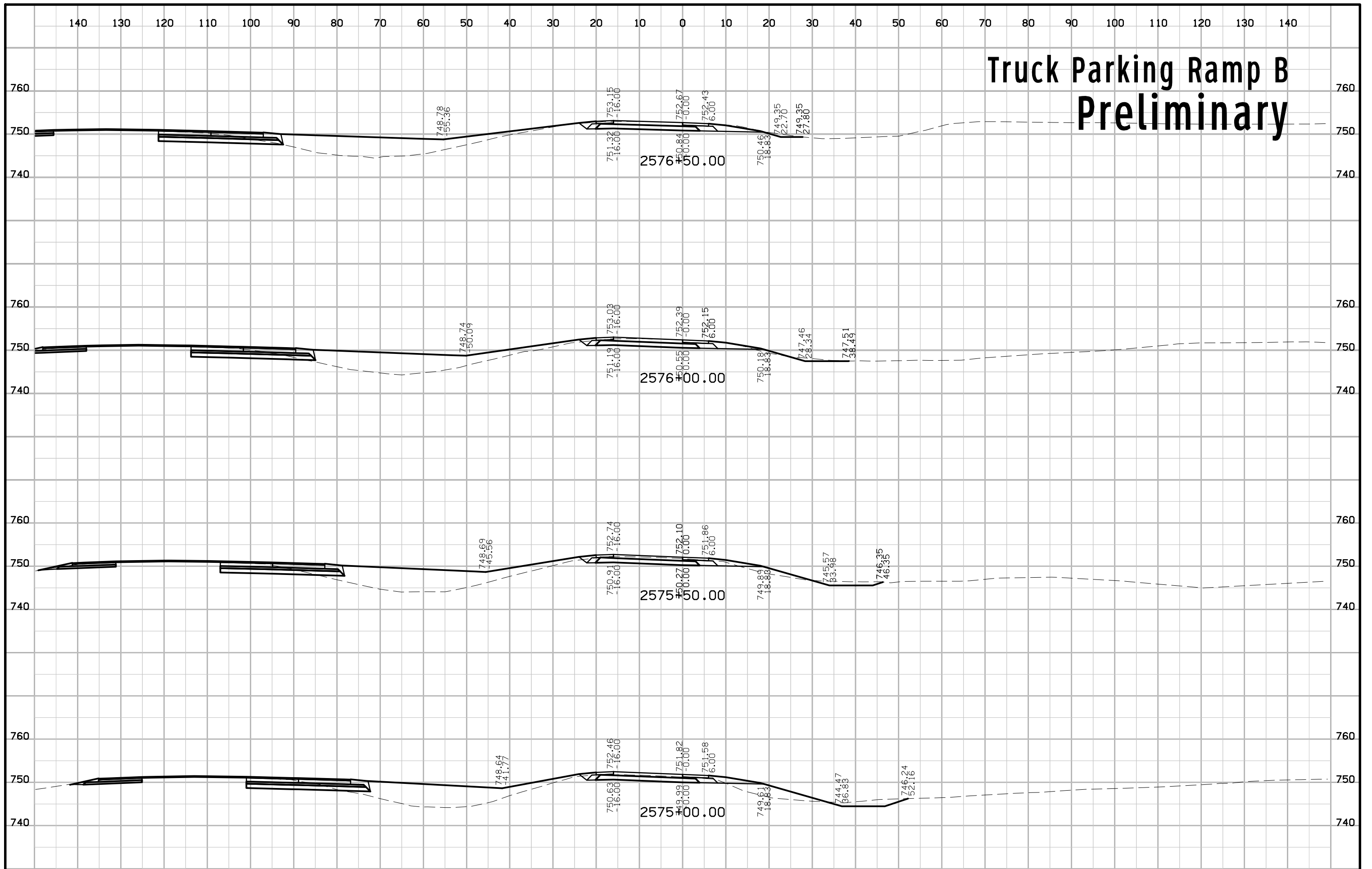
Truck Parking Ramp A Preliminary



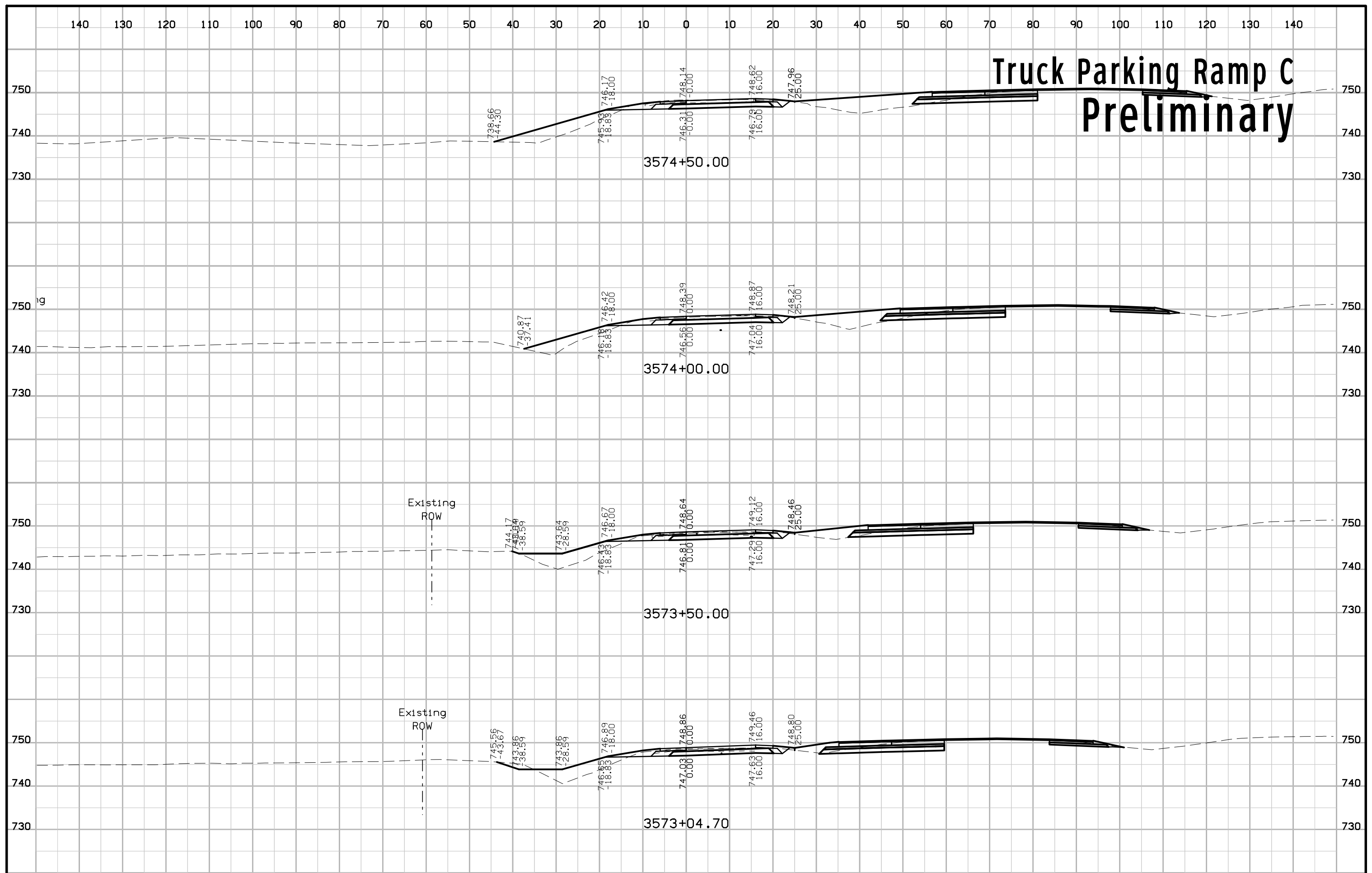




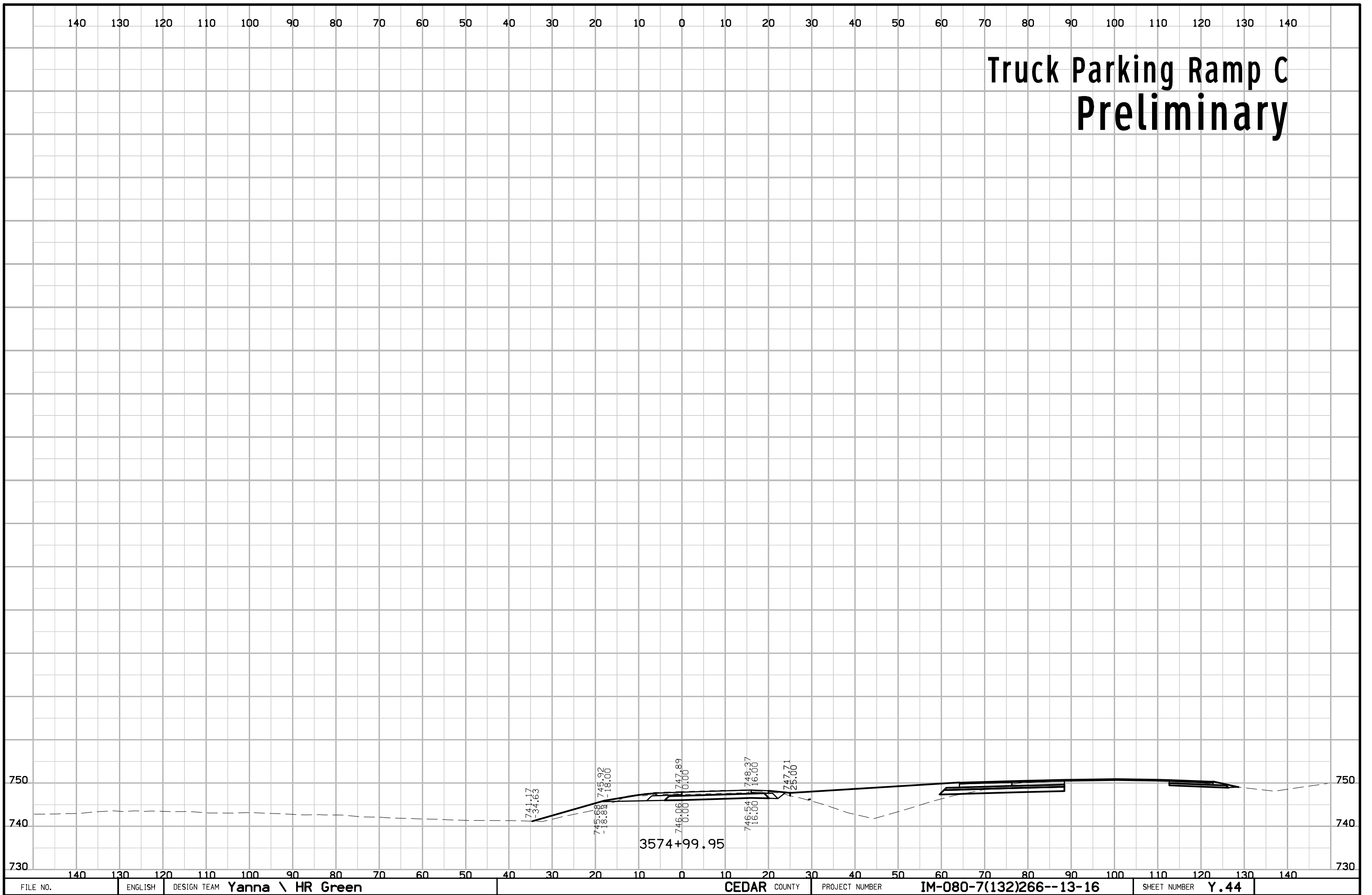
Truck Parking Ramp B Preliminary



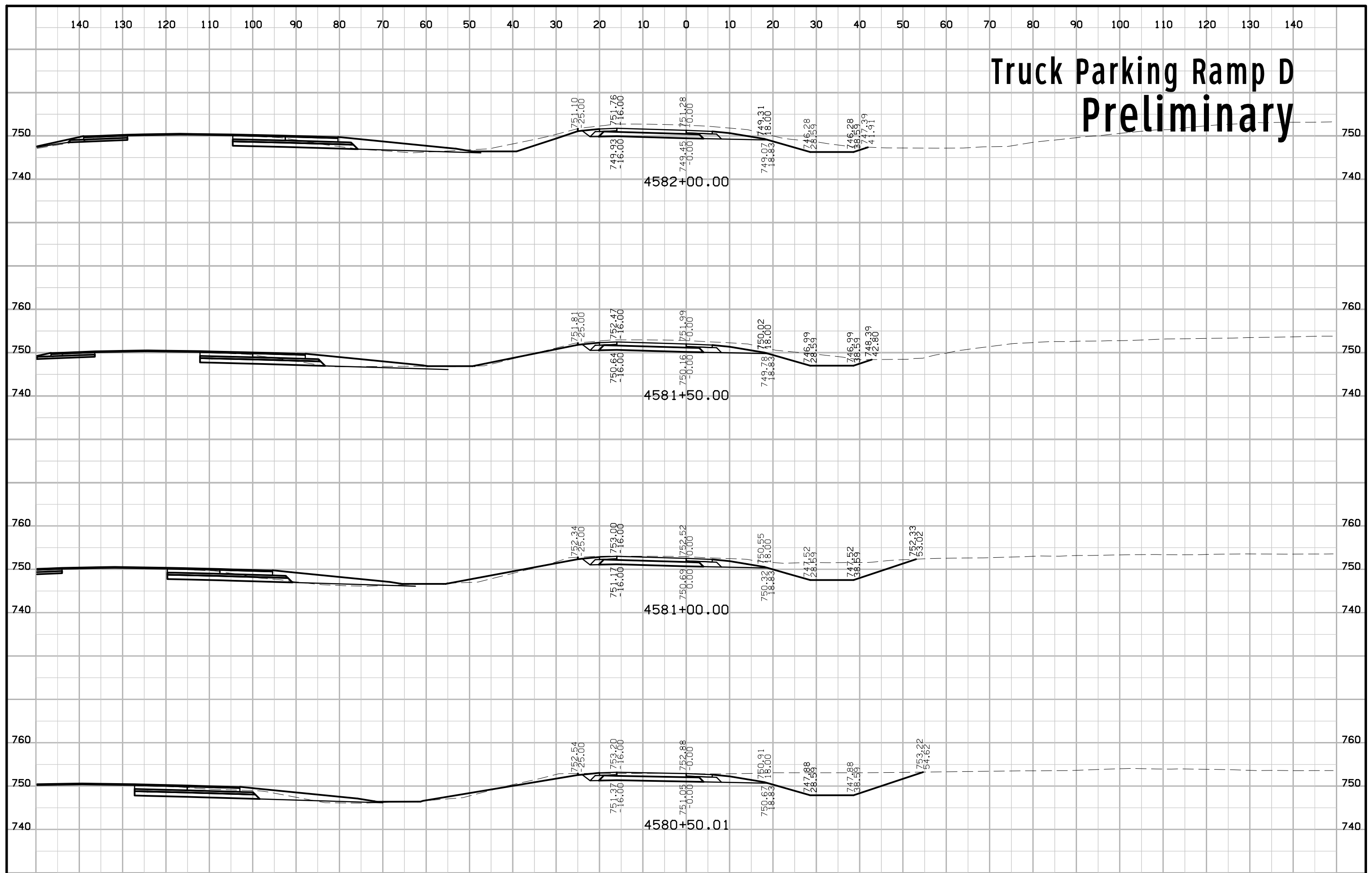
Truck Parking Ramp C Preliminary

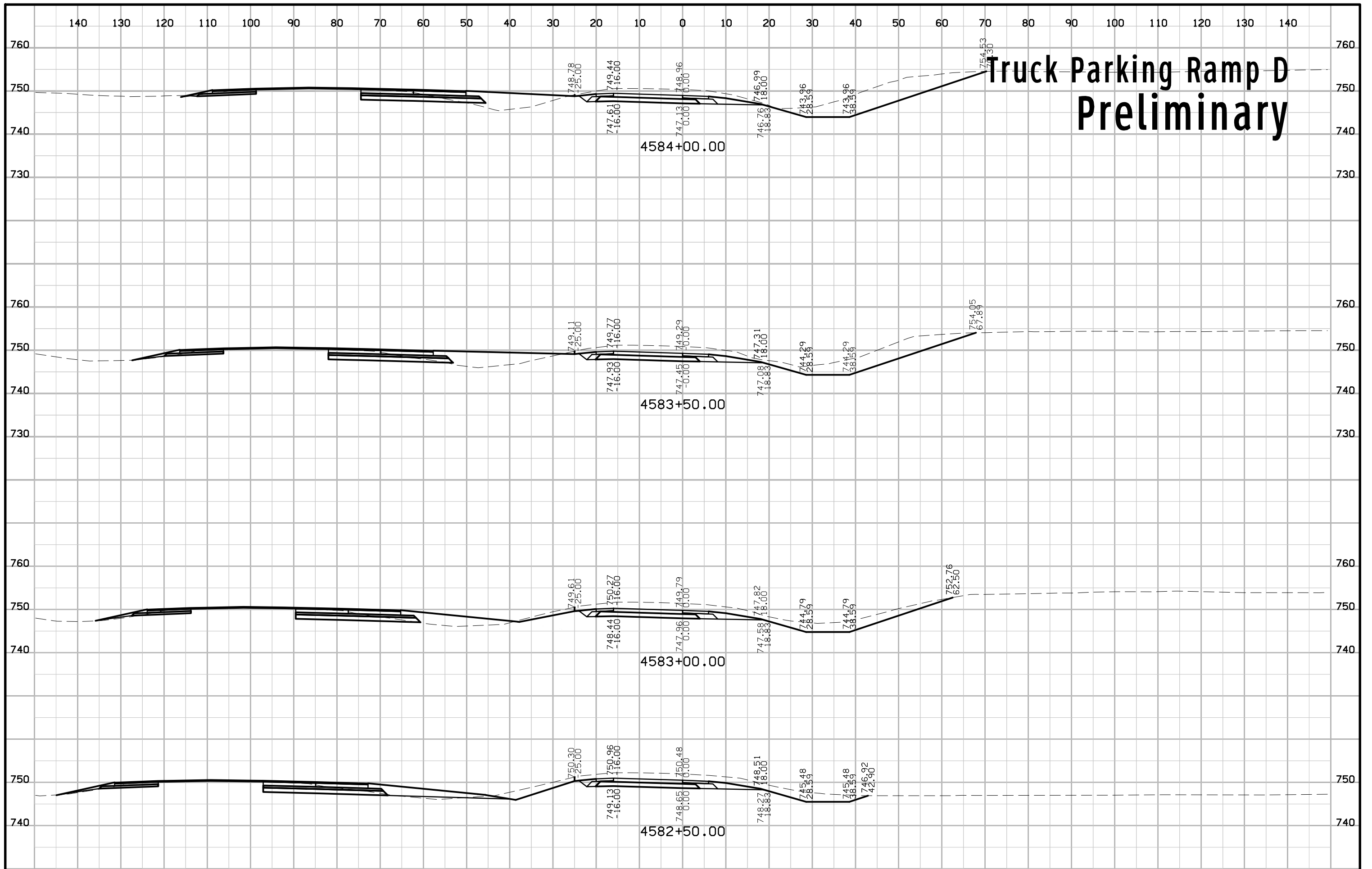


Truck Parking Ramp C Preliminary



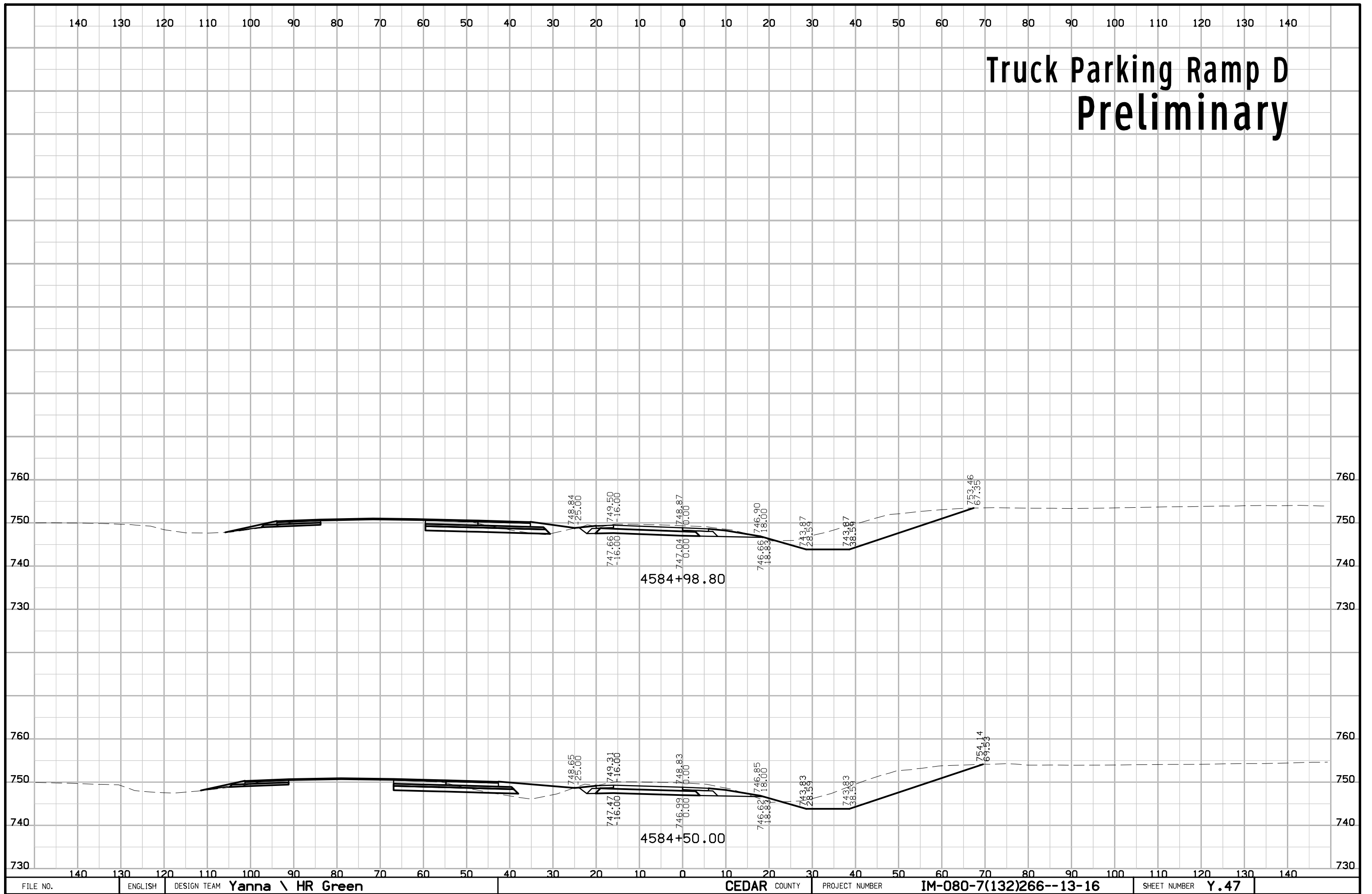
Truck Parking Ramp D Preliminary



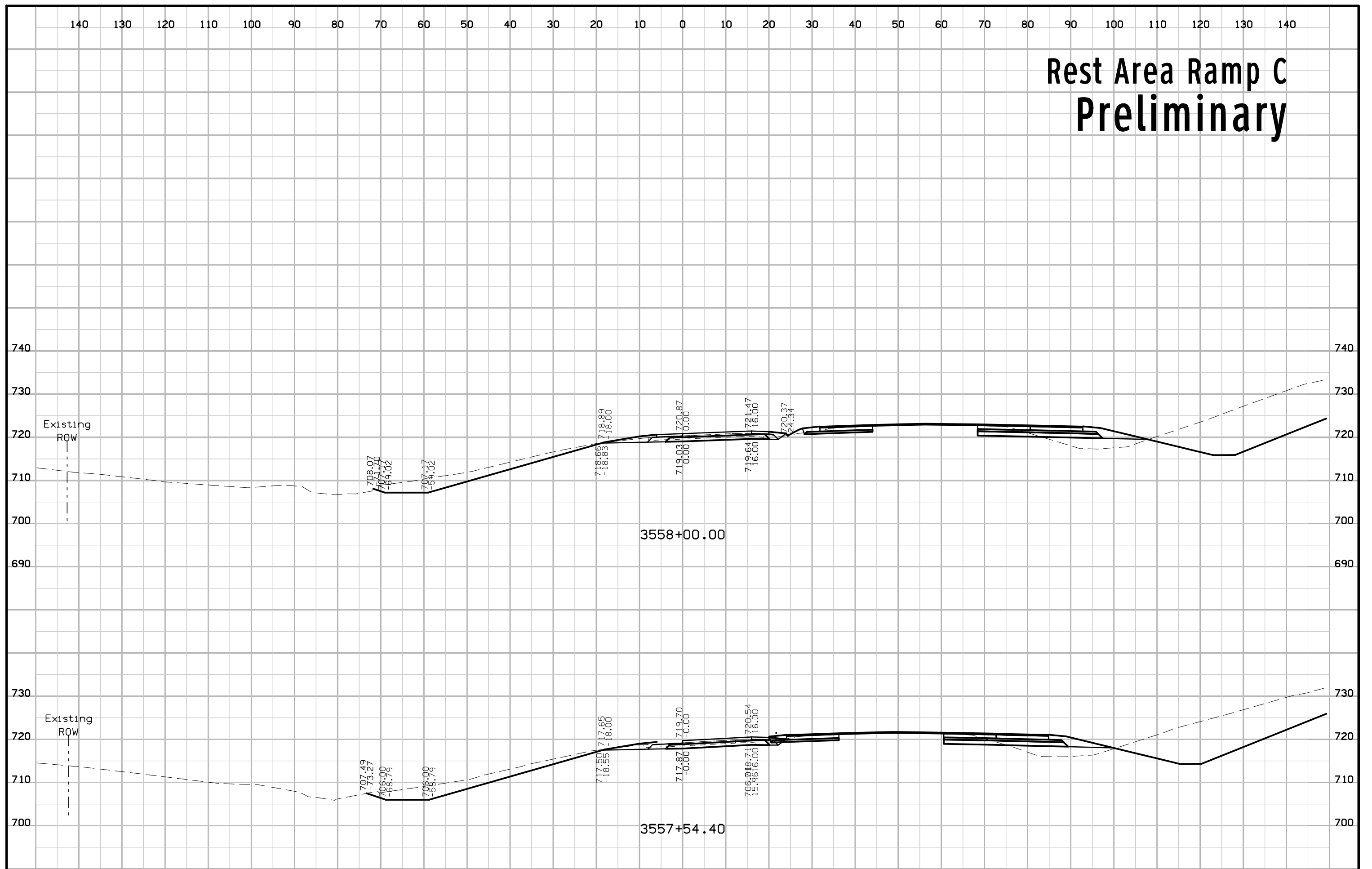


Truck Parking Ramp D Preliminary

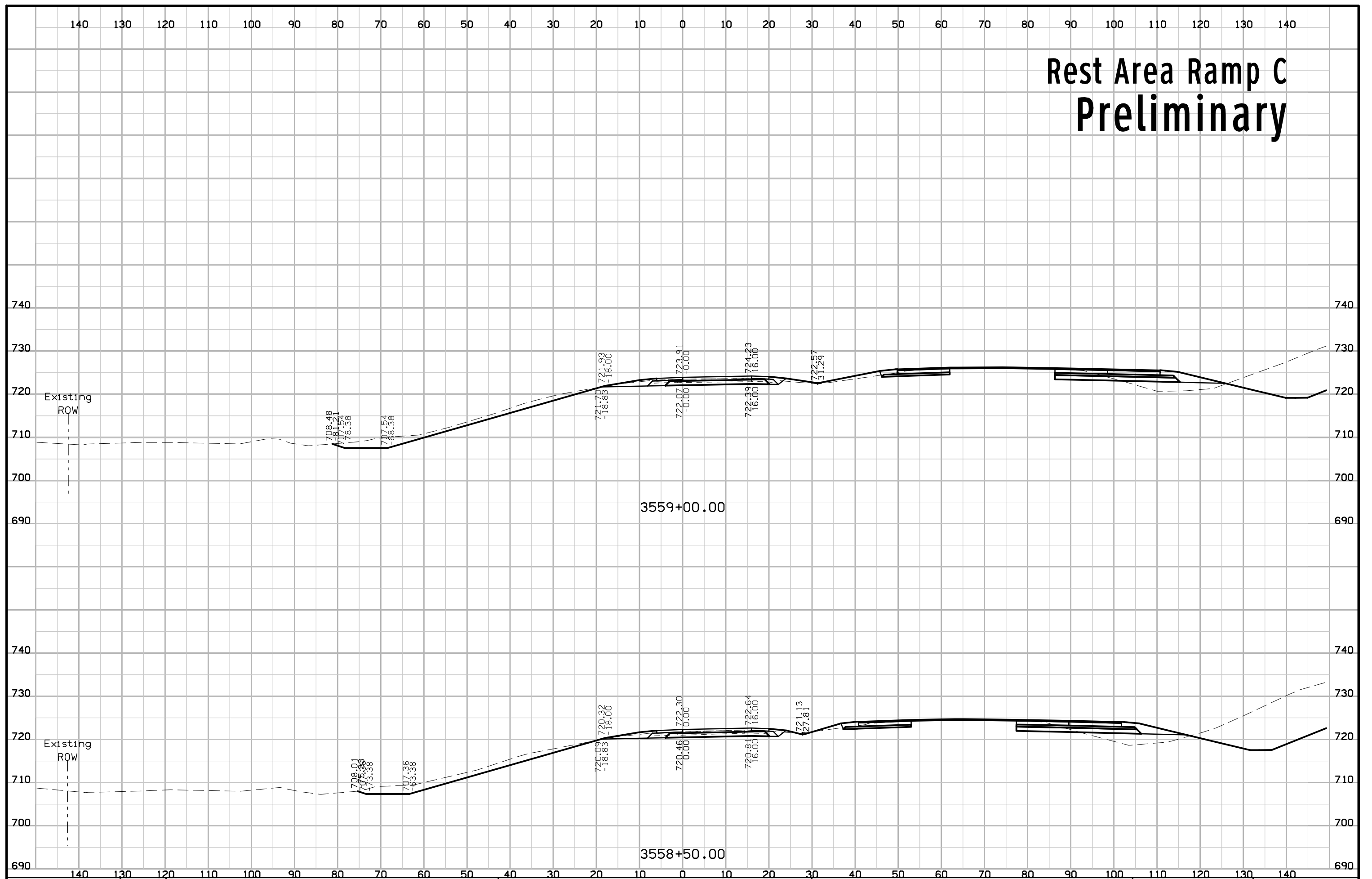
Truck Parking Ramp D Preliminary



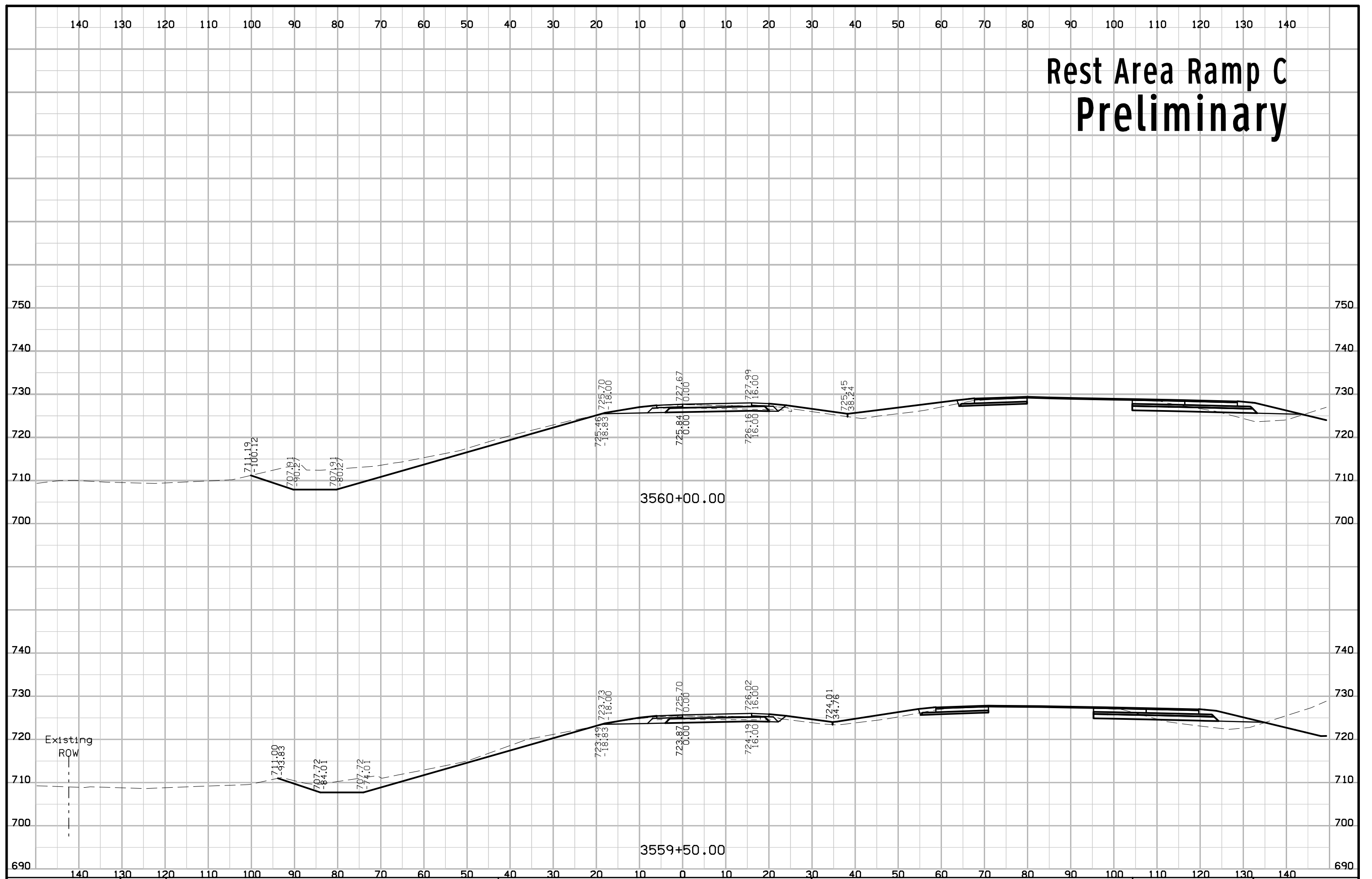
Rest Area Ramp C Preliminary



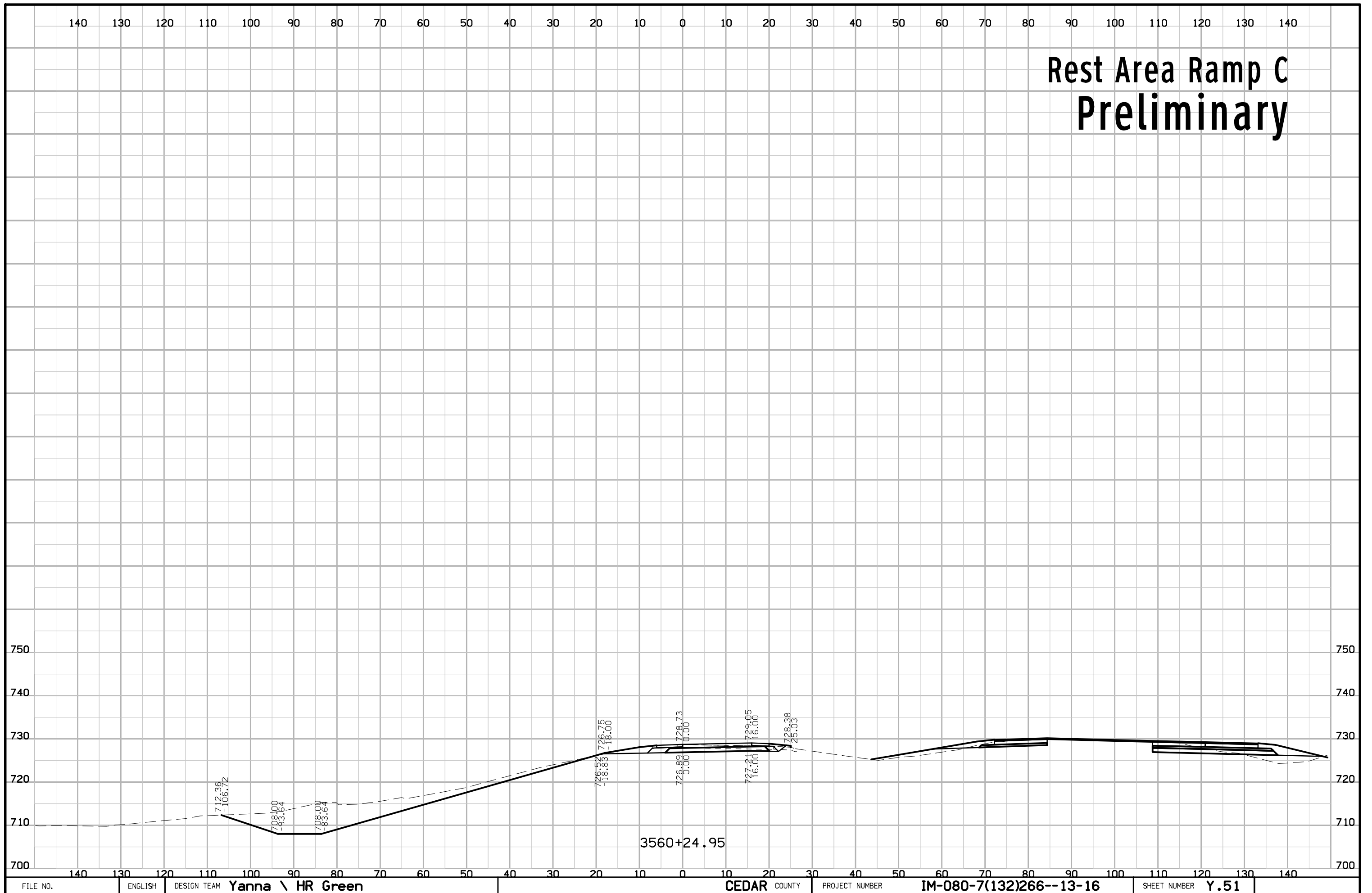
Rest Area Ramp C Preliminary



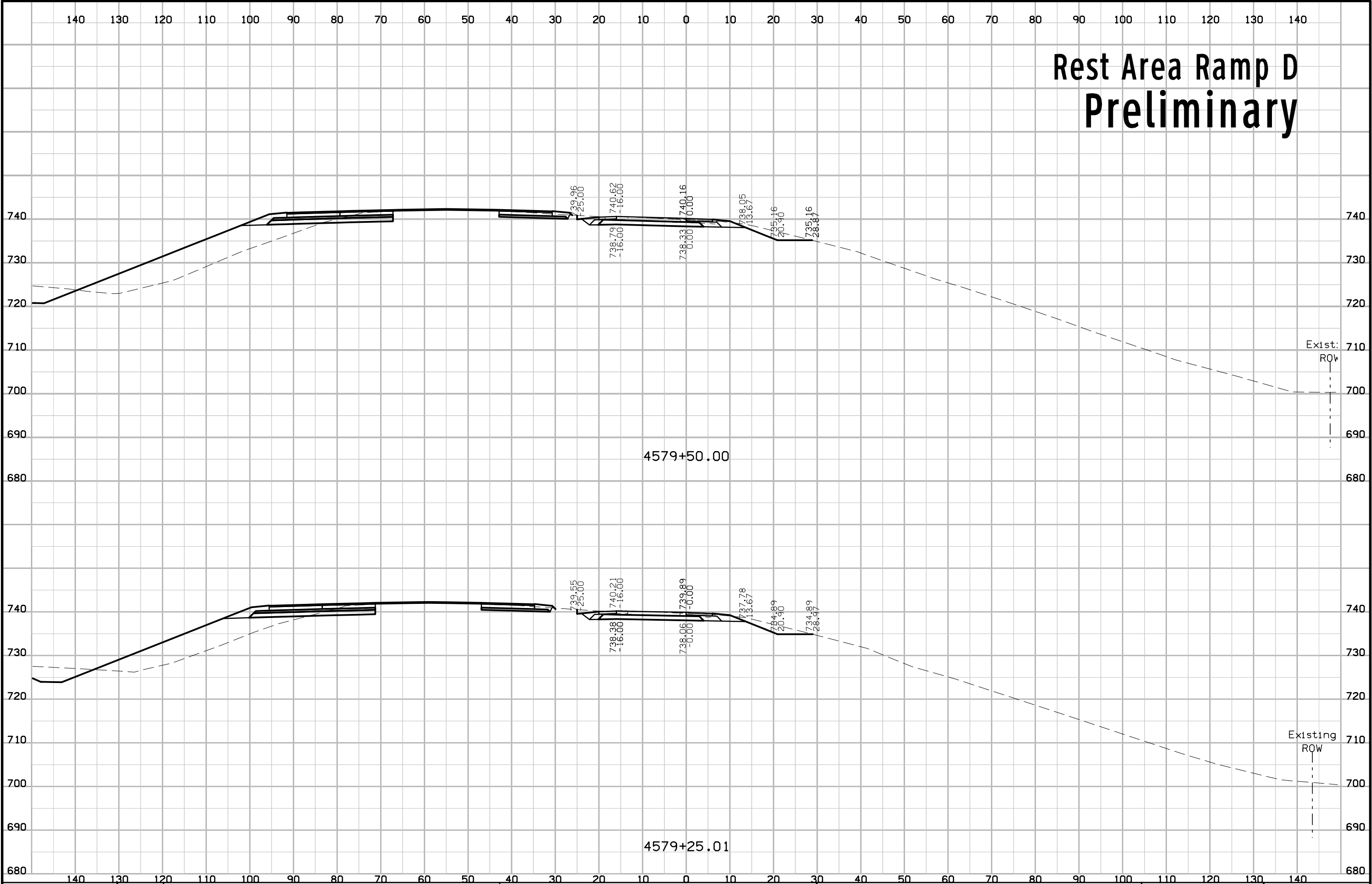
Rest Area Ramp C Preliminary



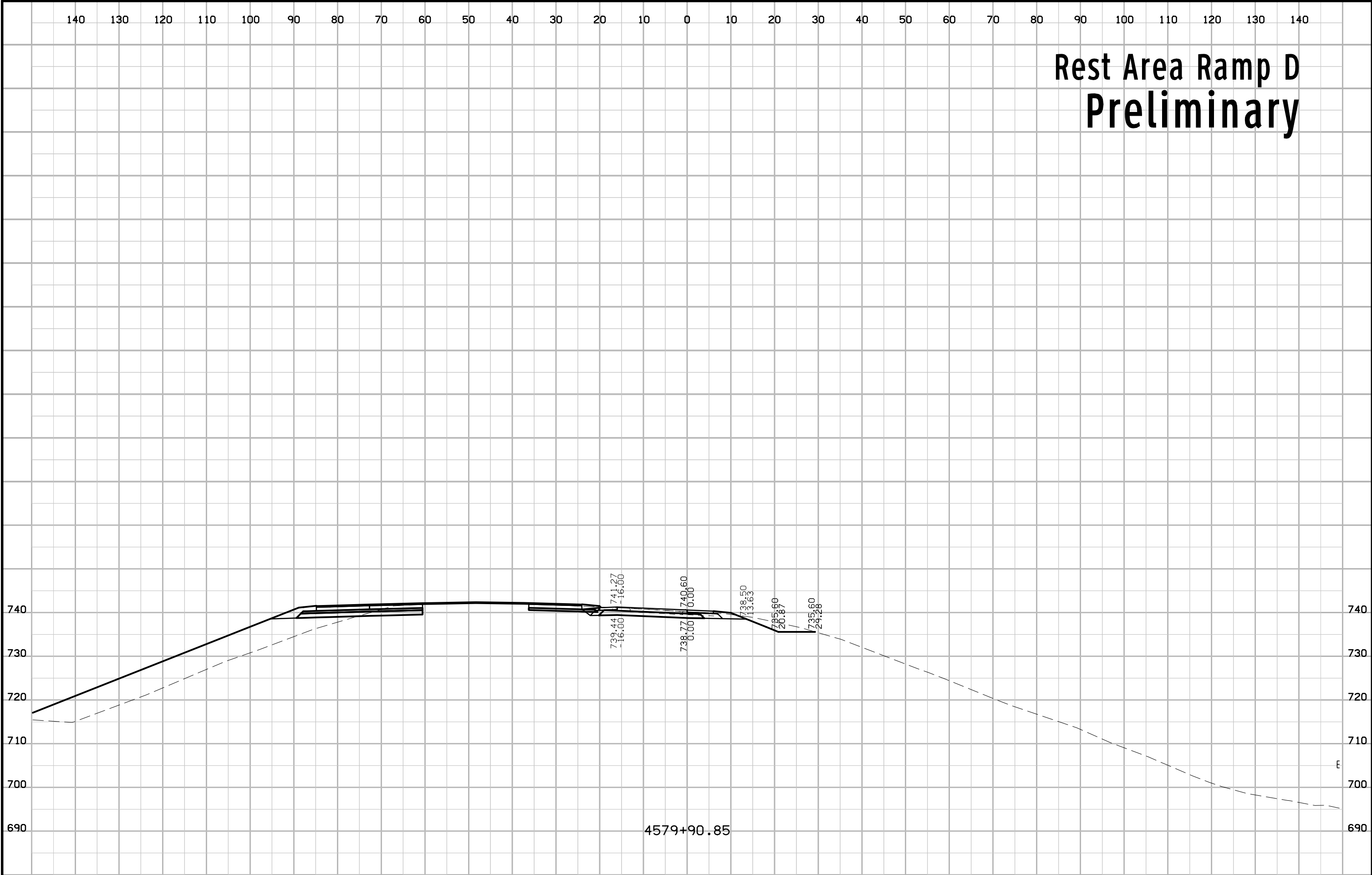
Rest Area Ramp C Preliminary



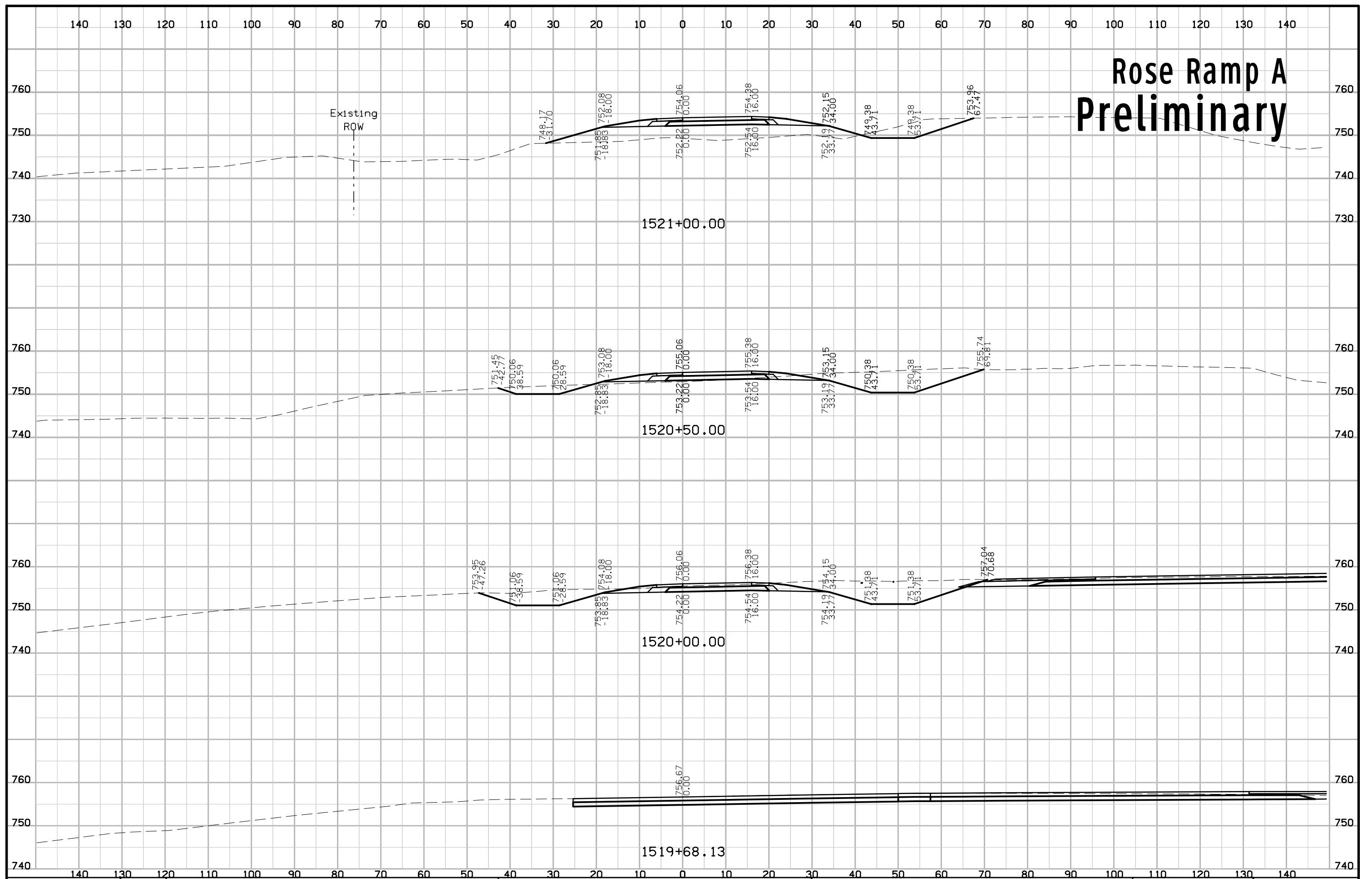
Rest Area Ramp D Preliminary



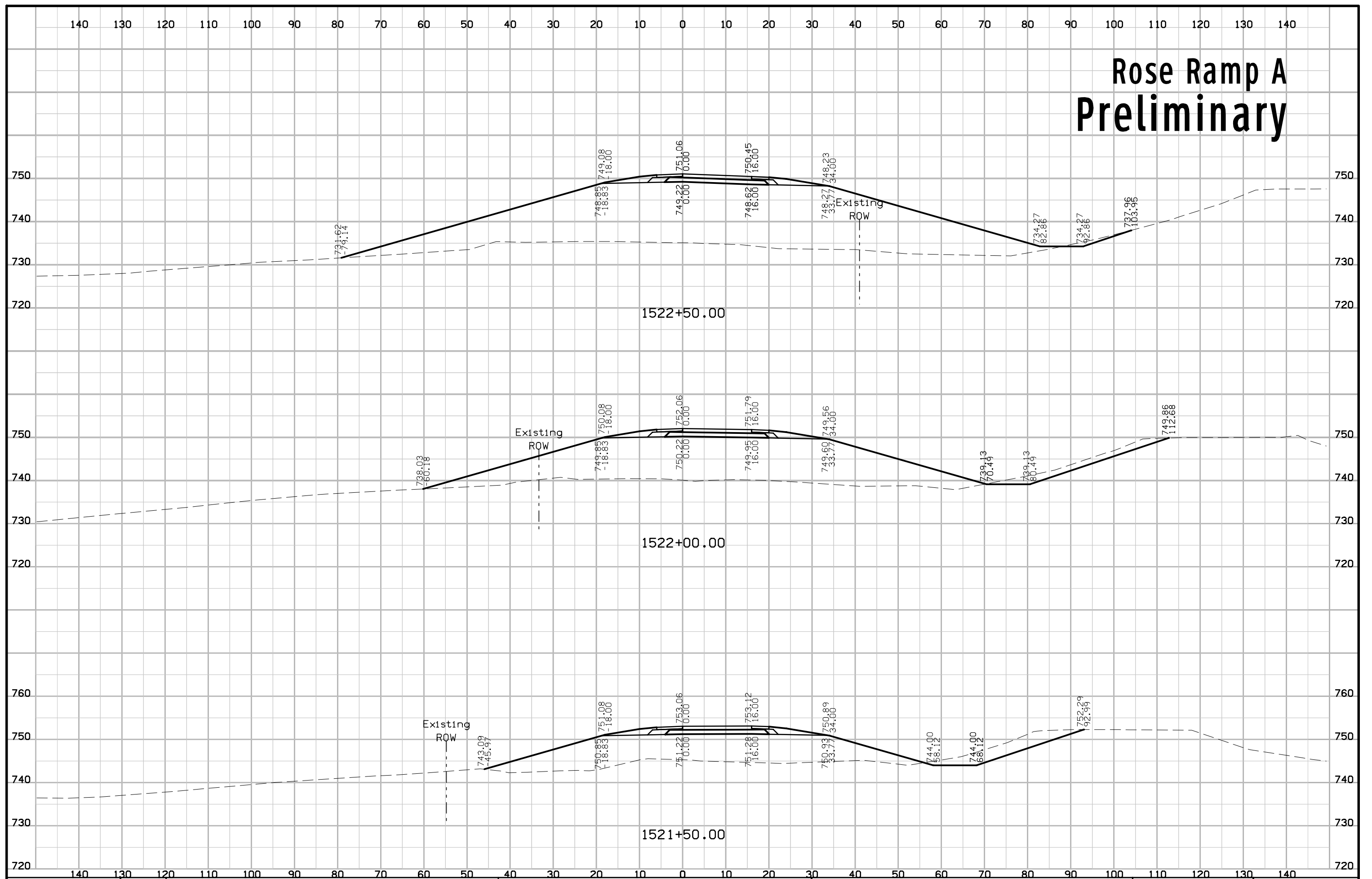
Rest Area Ramp D Preliminary



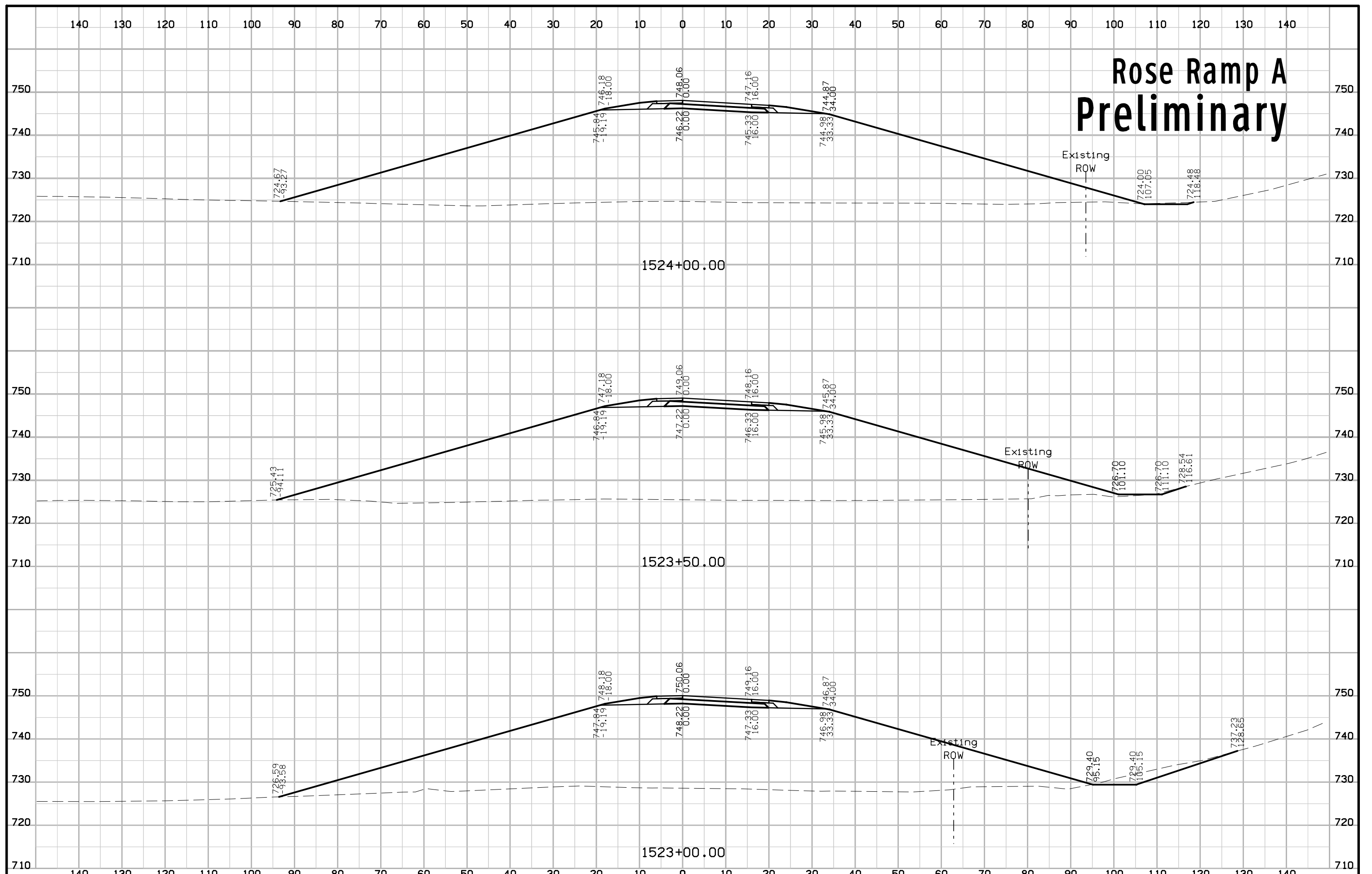
Rose Ramp A Preliminary



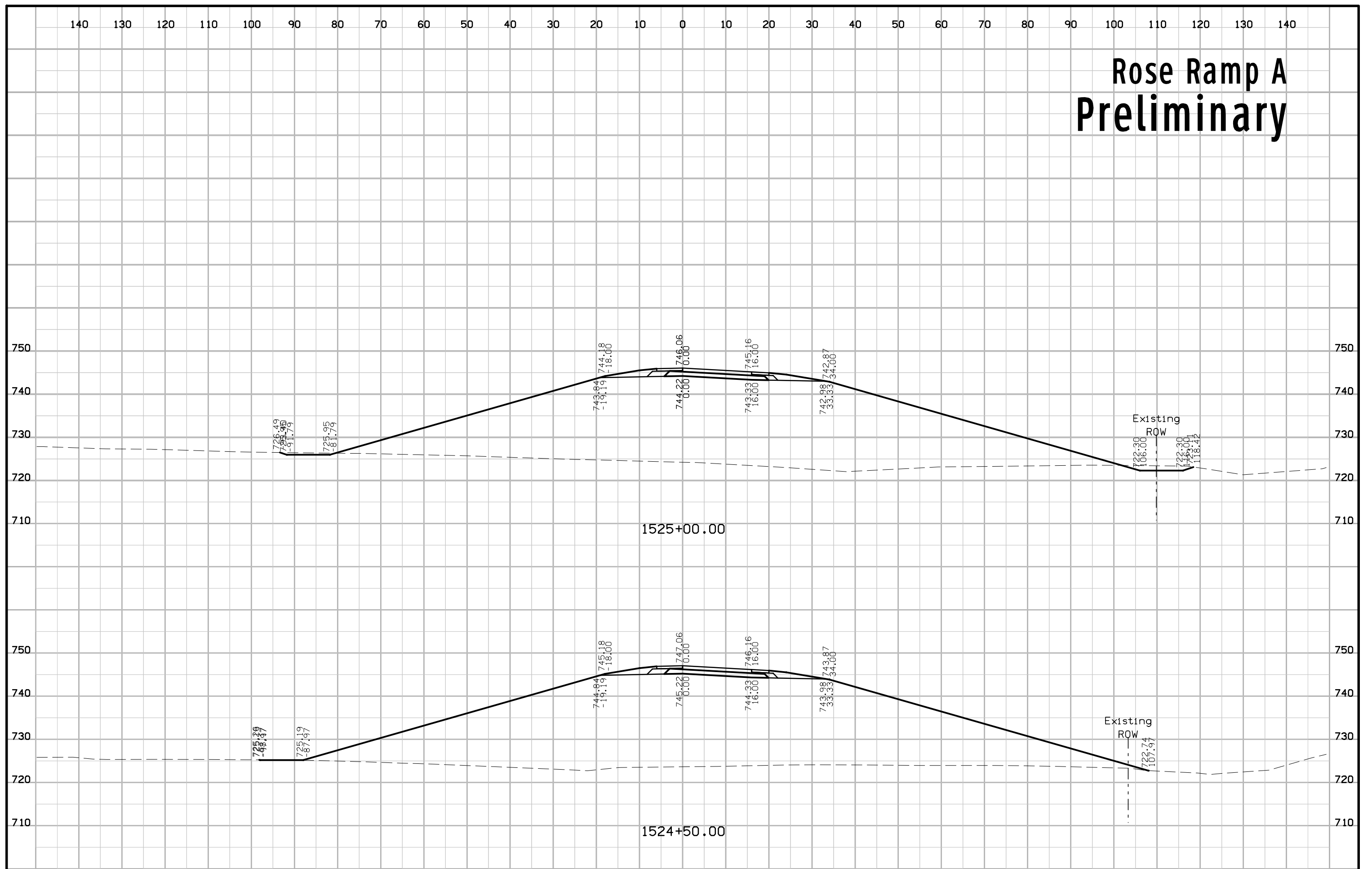
Rose Ramp A Preliminary



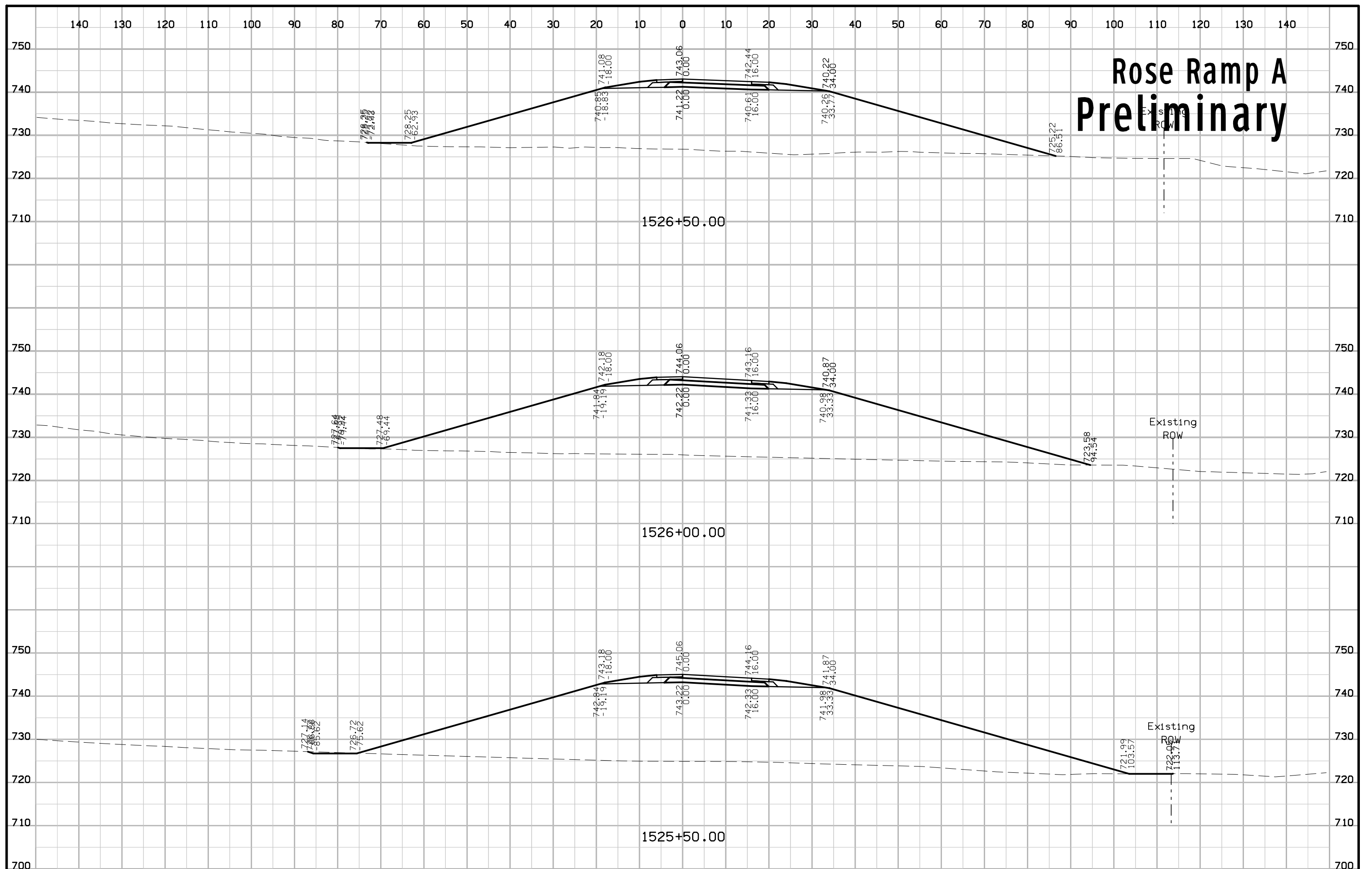
Rose Ramp A Preliminary



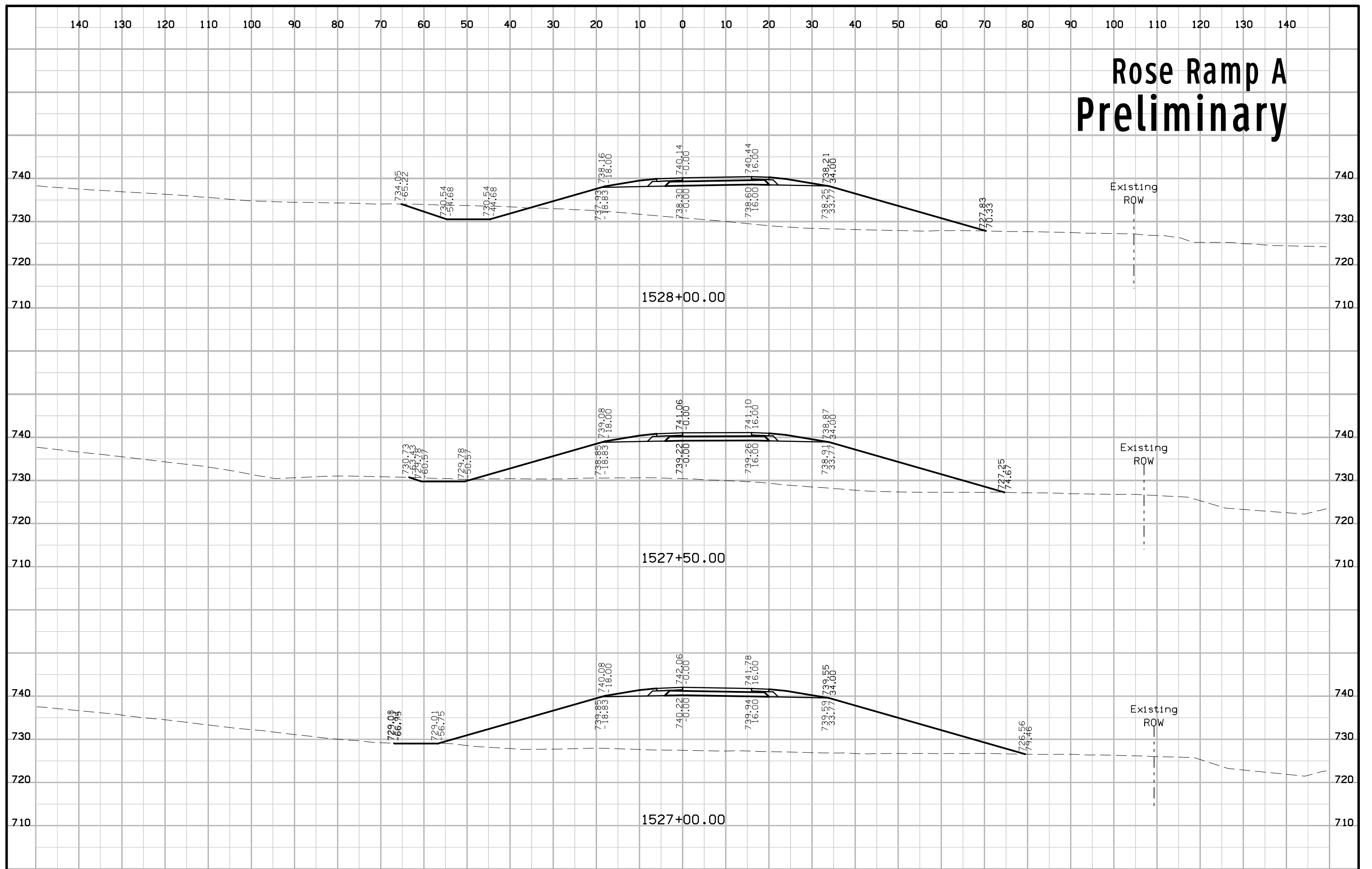
Rose Ramp A Preliminary



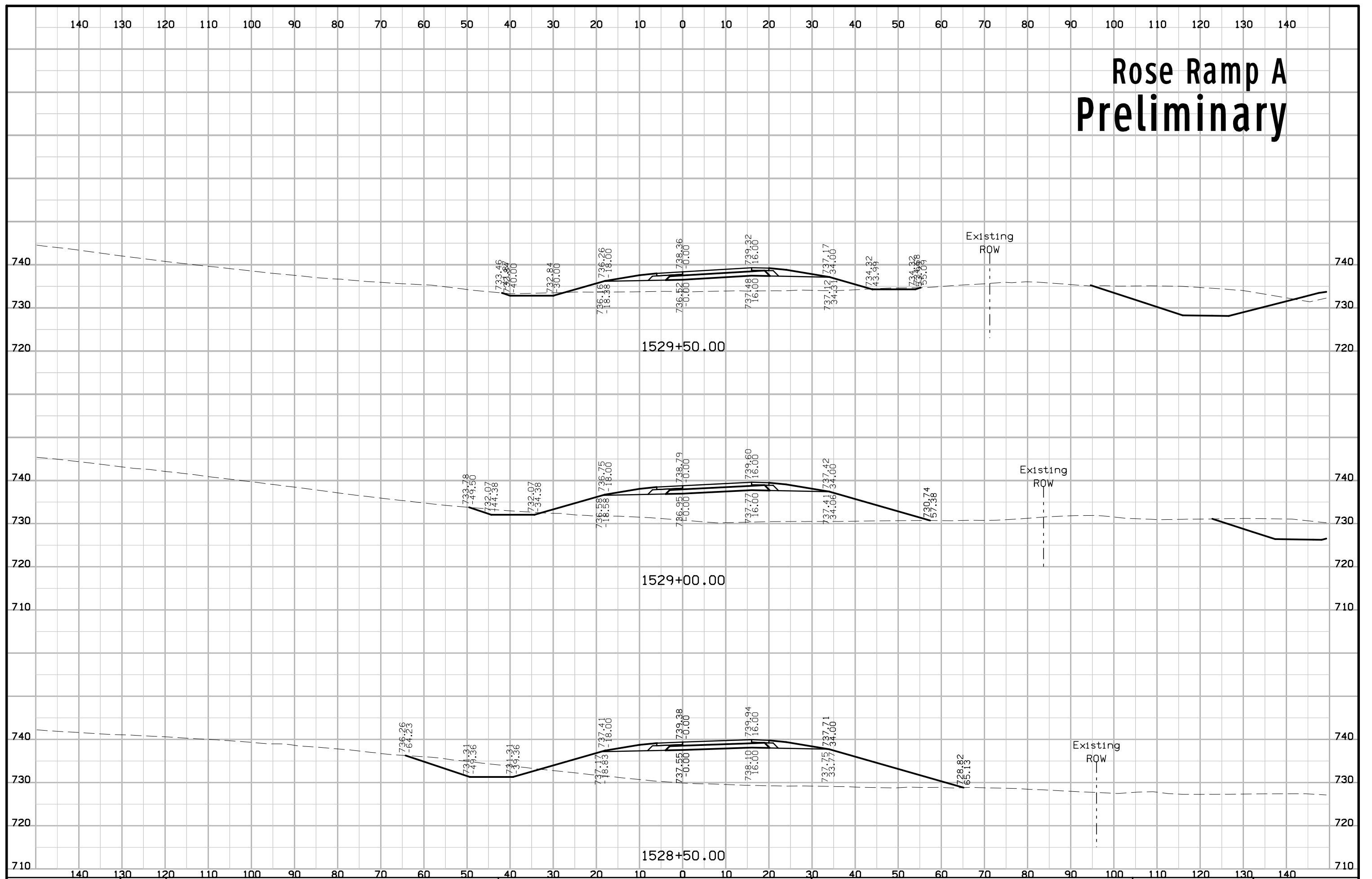
Rose Ramp A Preliminary



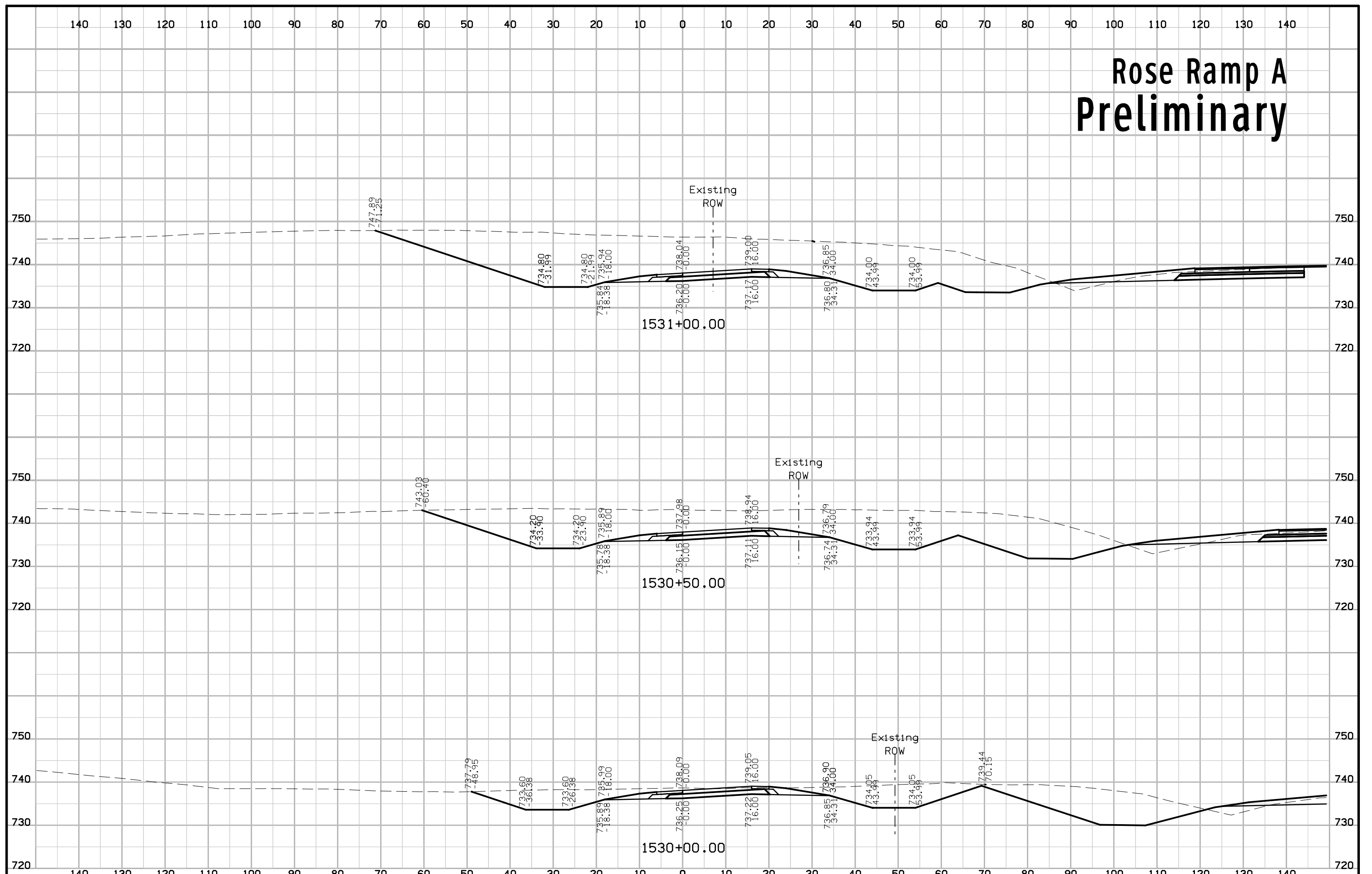
Rose Ramp A Preliminary



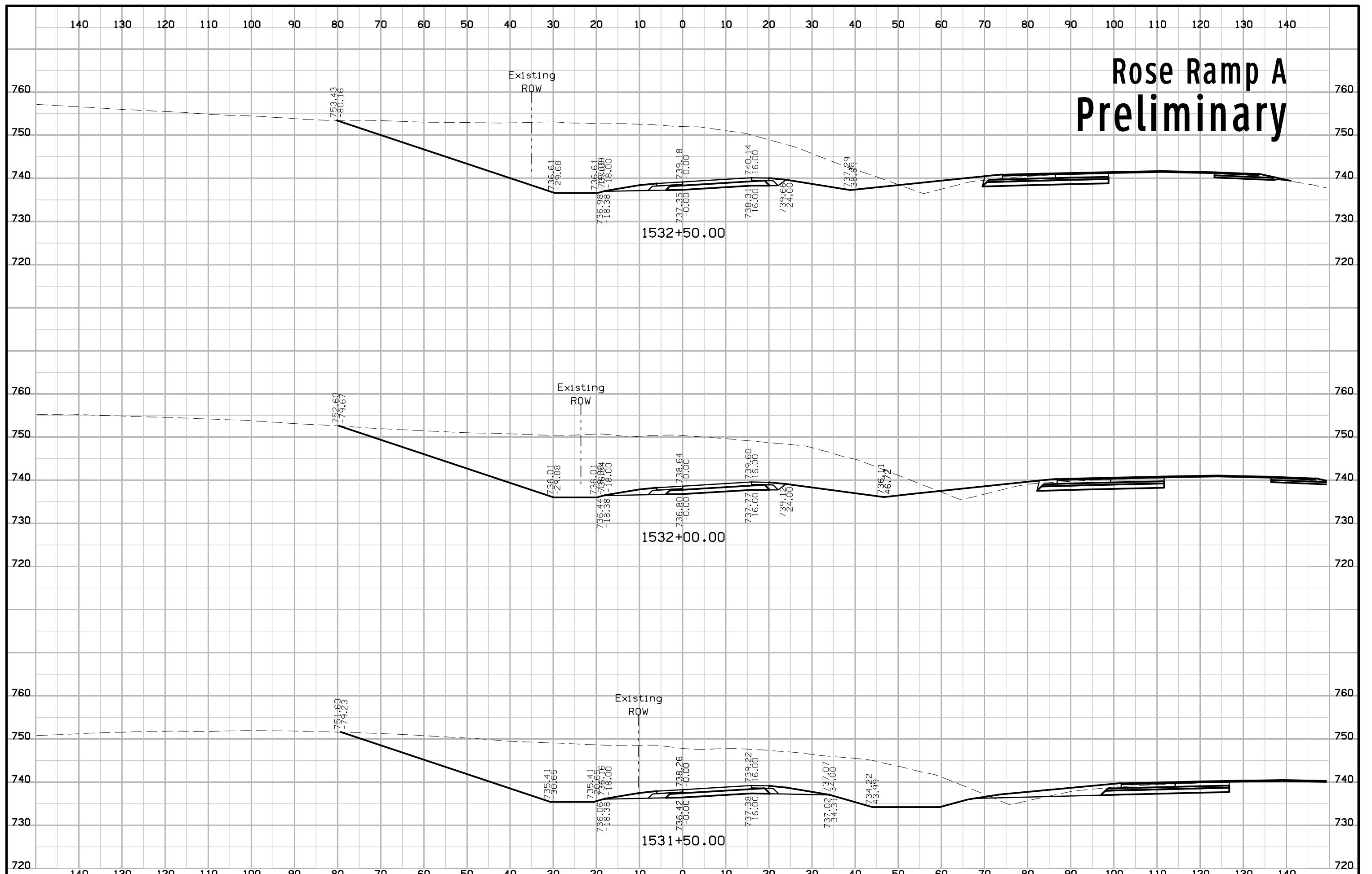
Rose Ramp A Preliminary



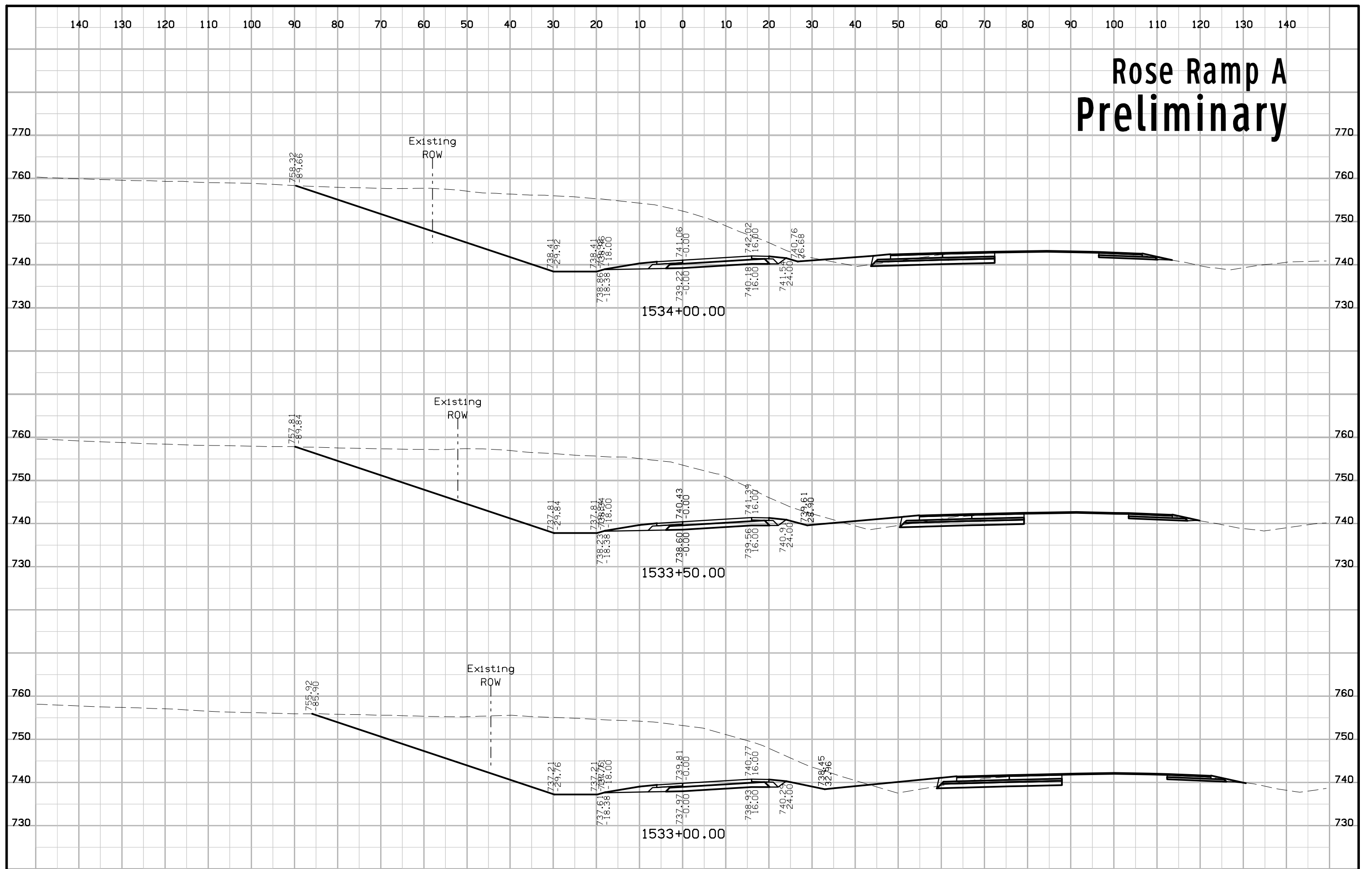
Rose Ramp A Preliminary



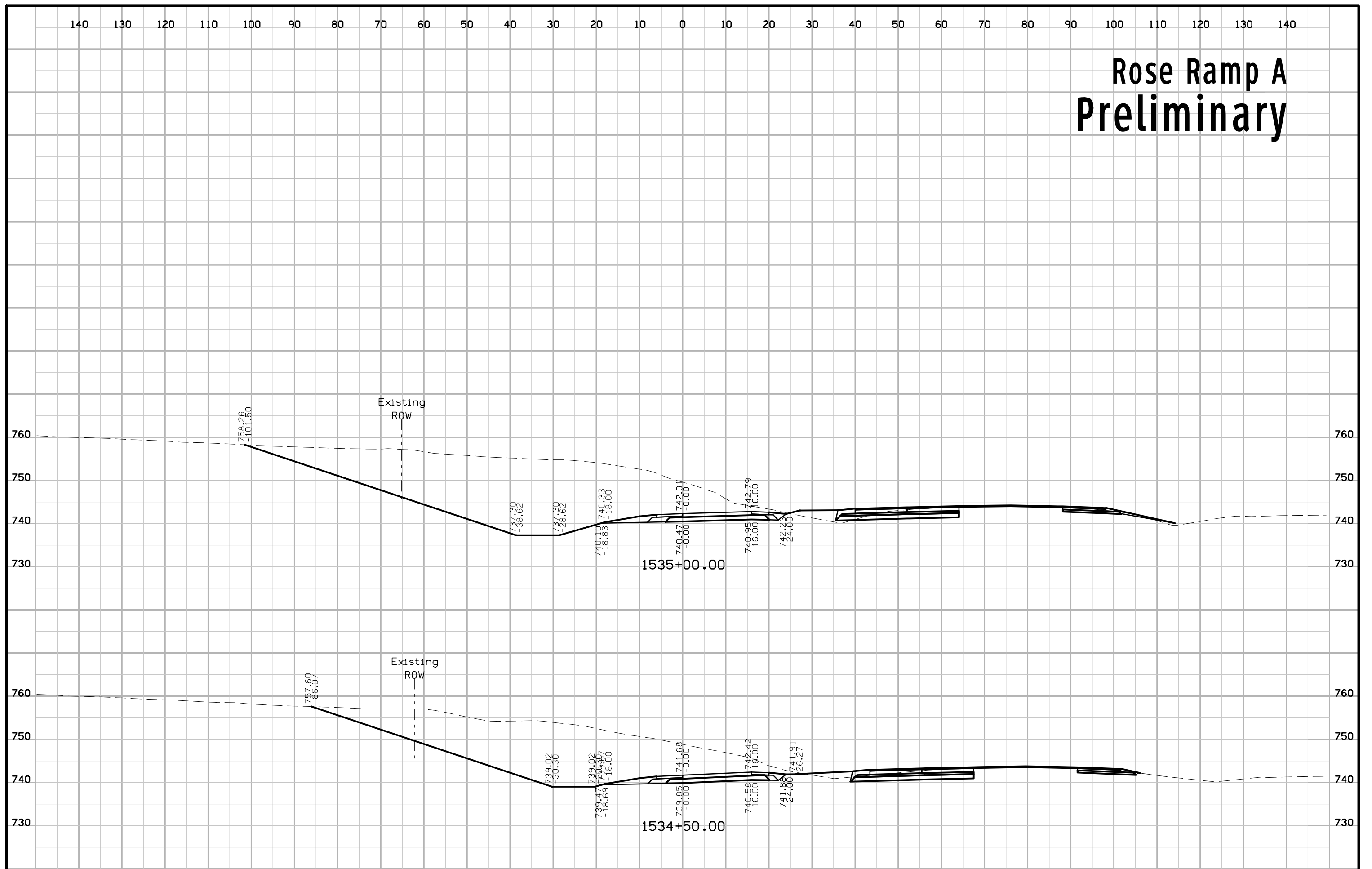
Rose Ramp A Preliminary



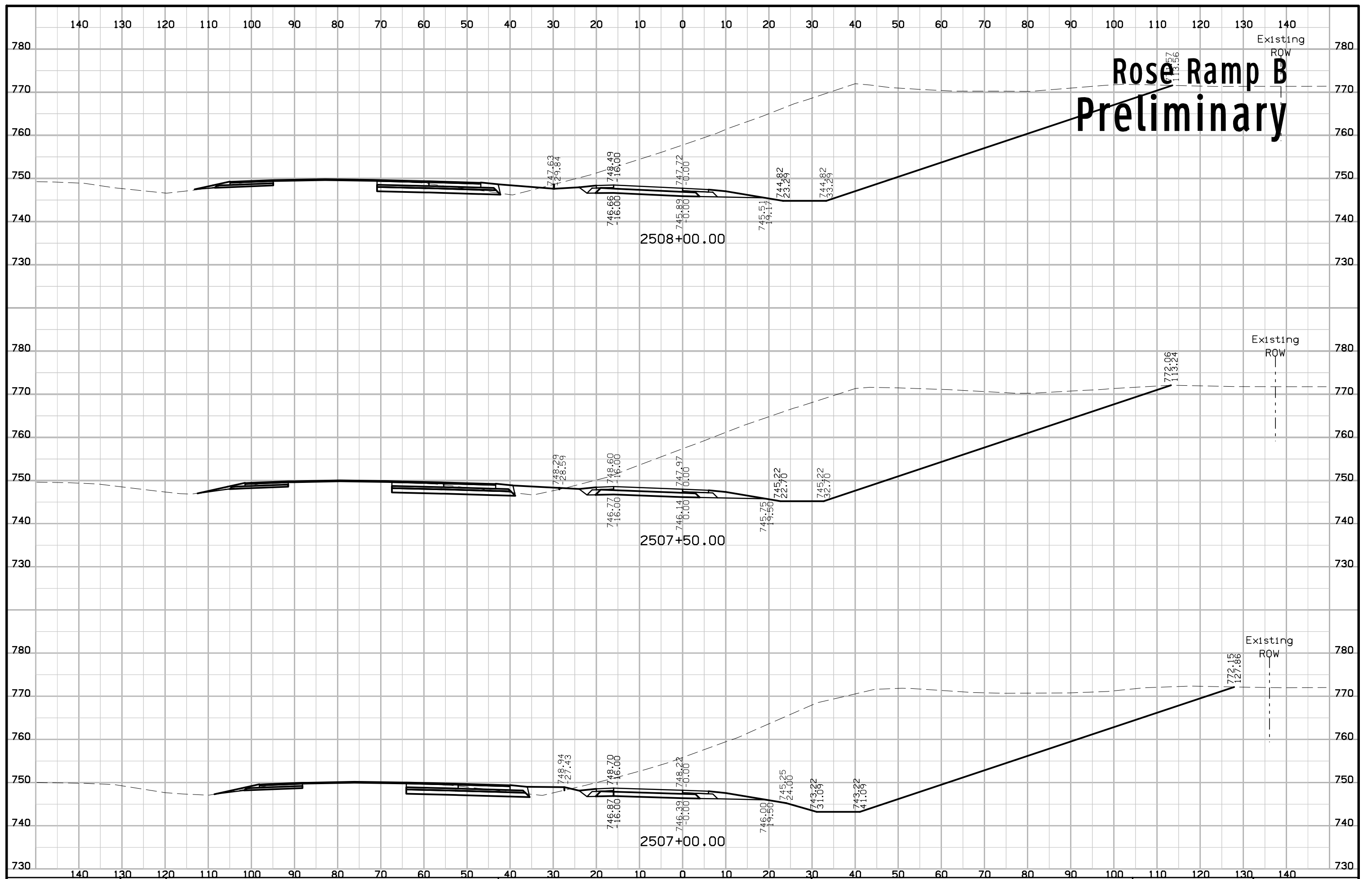
Rose Ramp A Preliminary



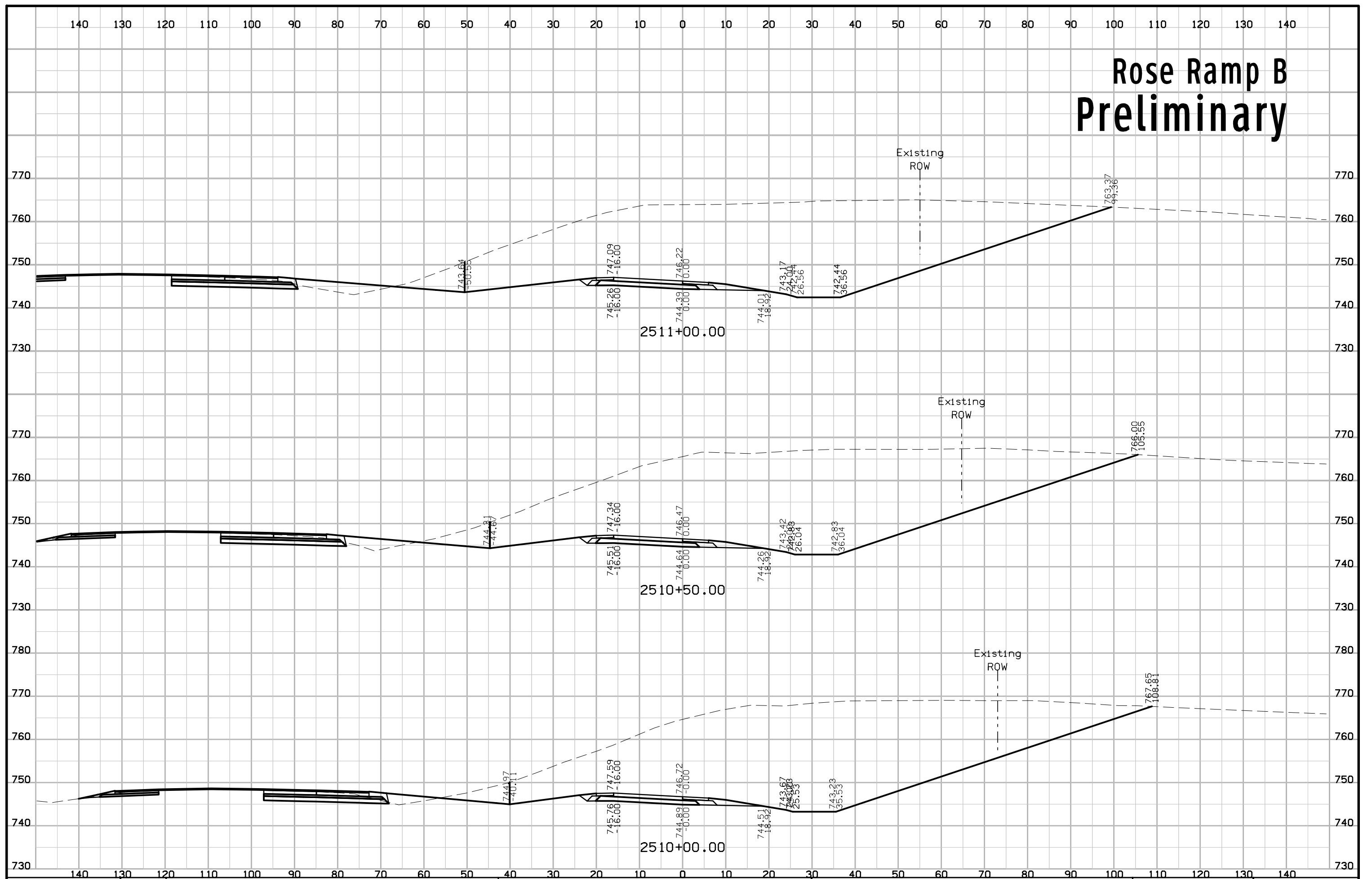
Rose Ramp A Preliminary



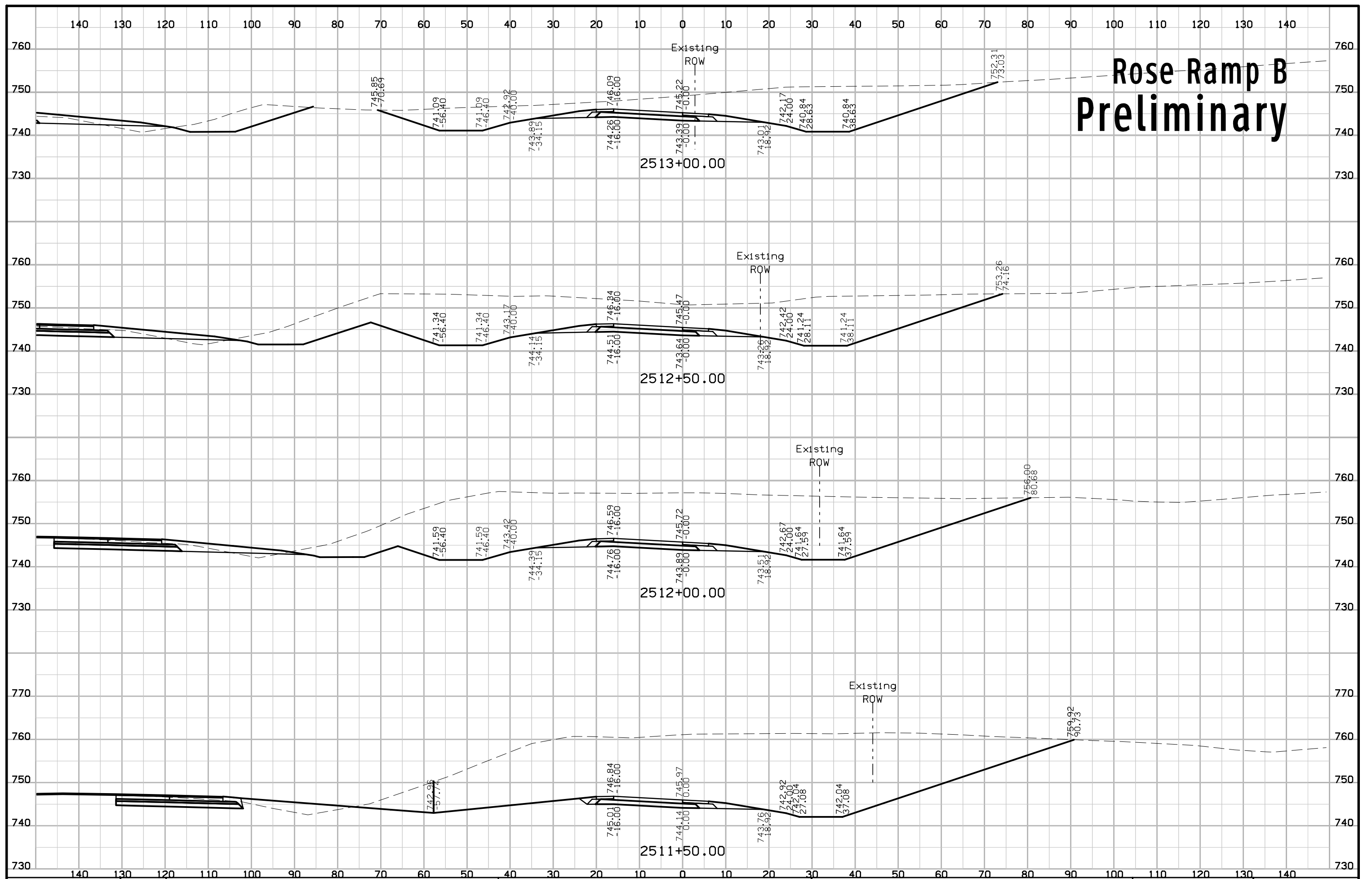
Rose Ramp B Preliminary



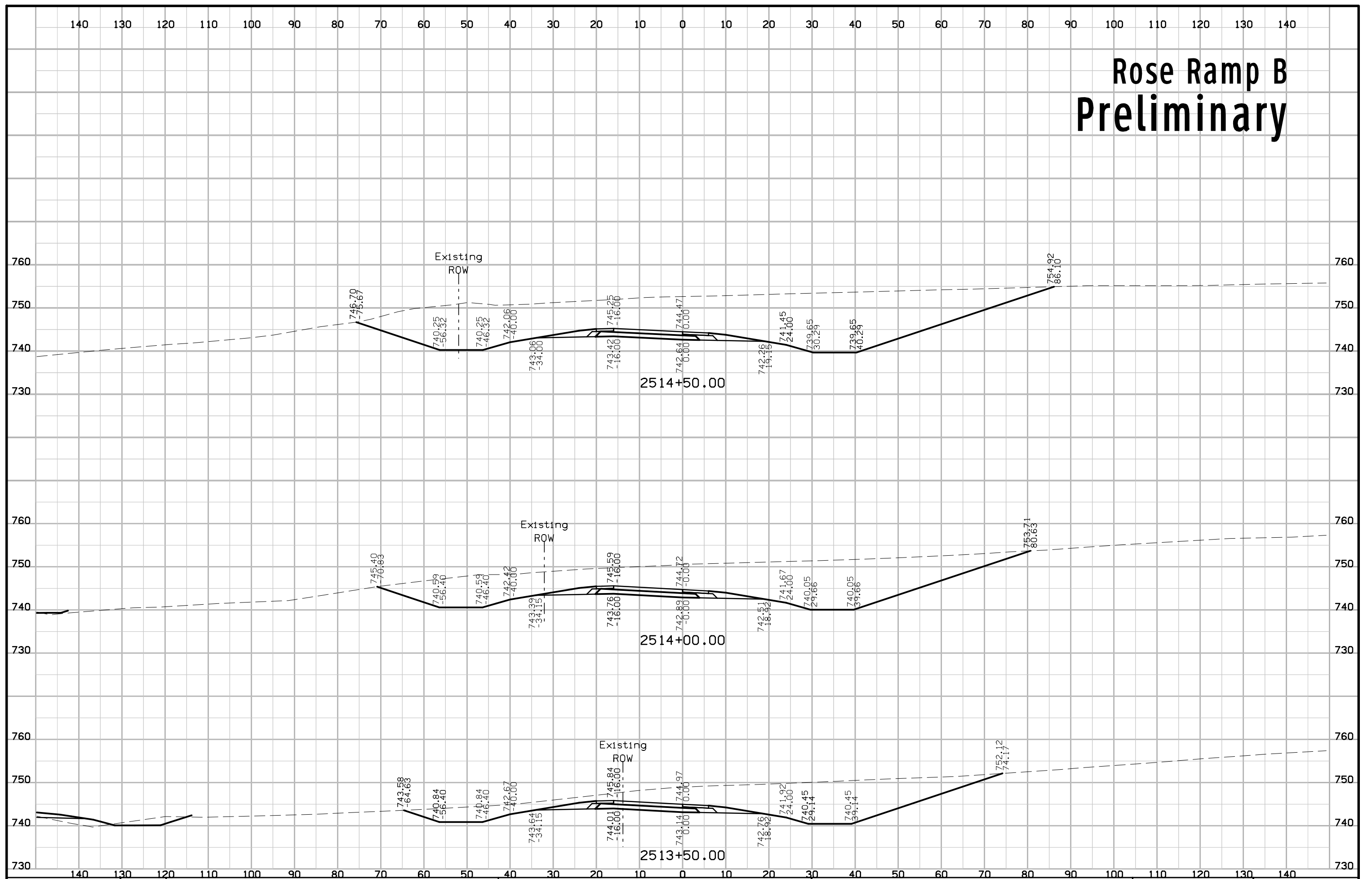
Rose Ramp B Preliminary



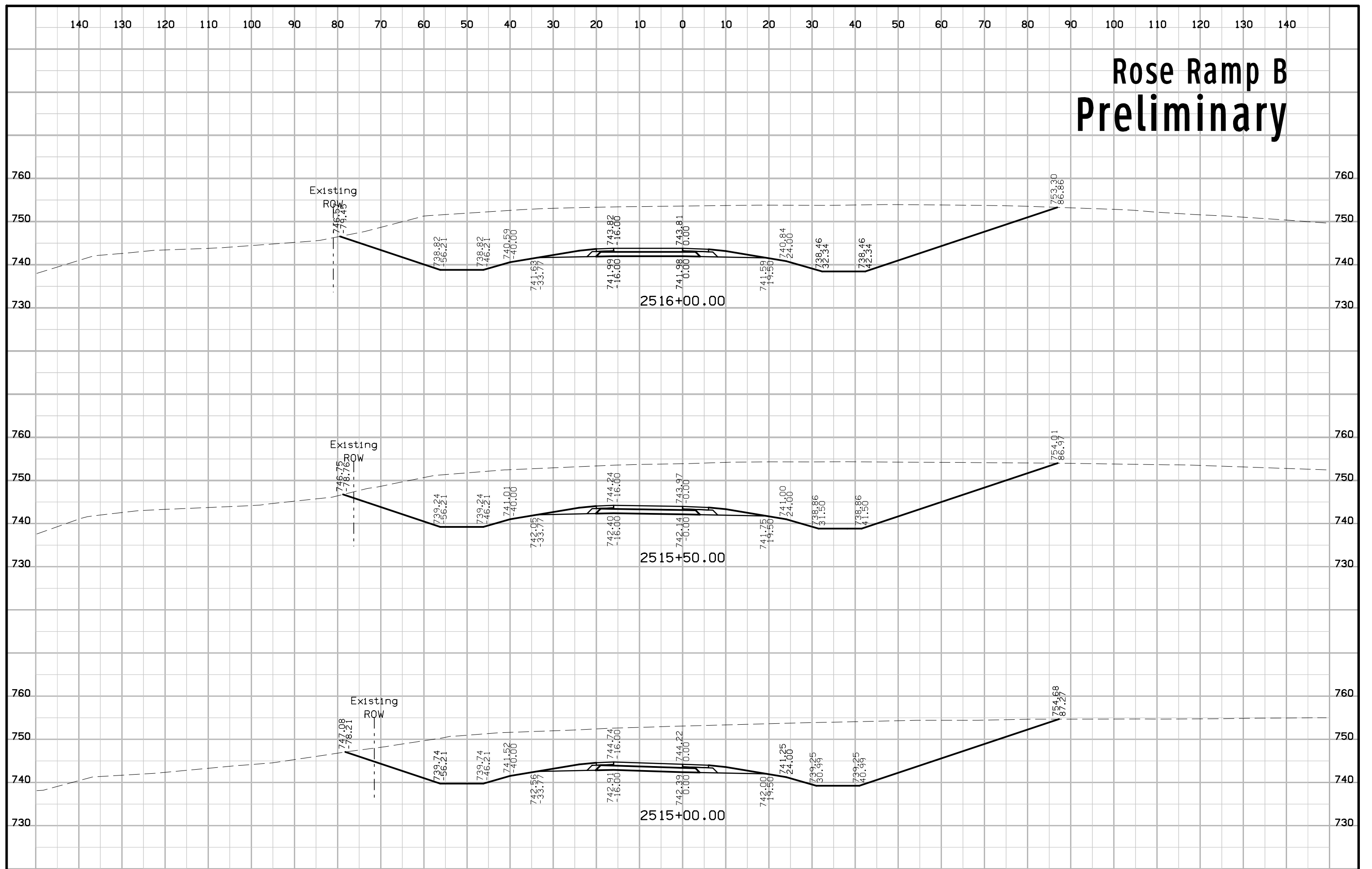
Rose Ramp B Preliminary



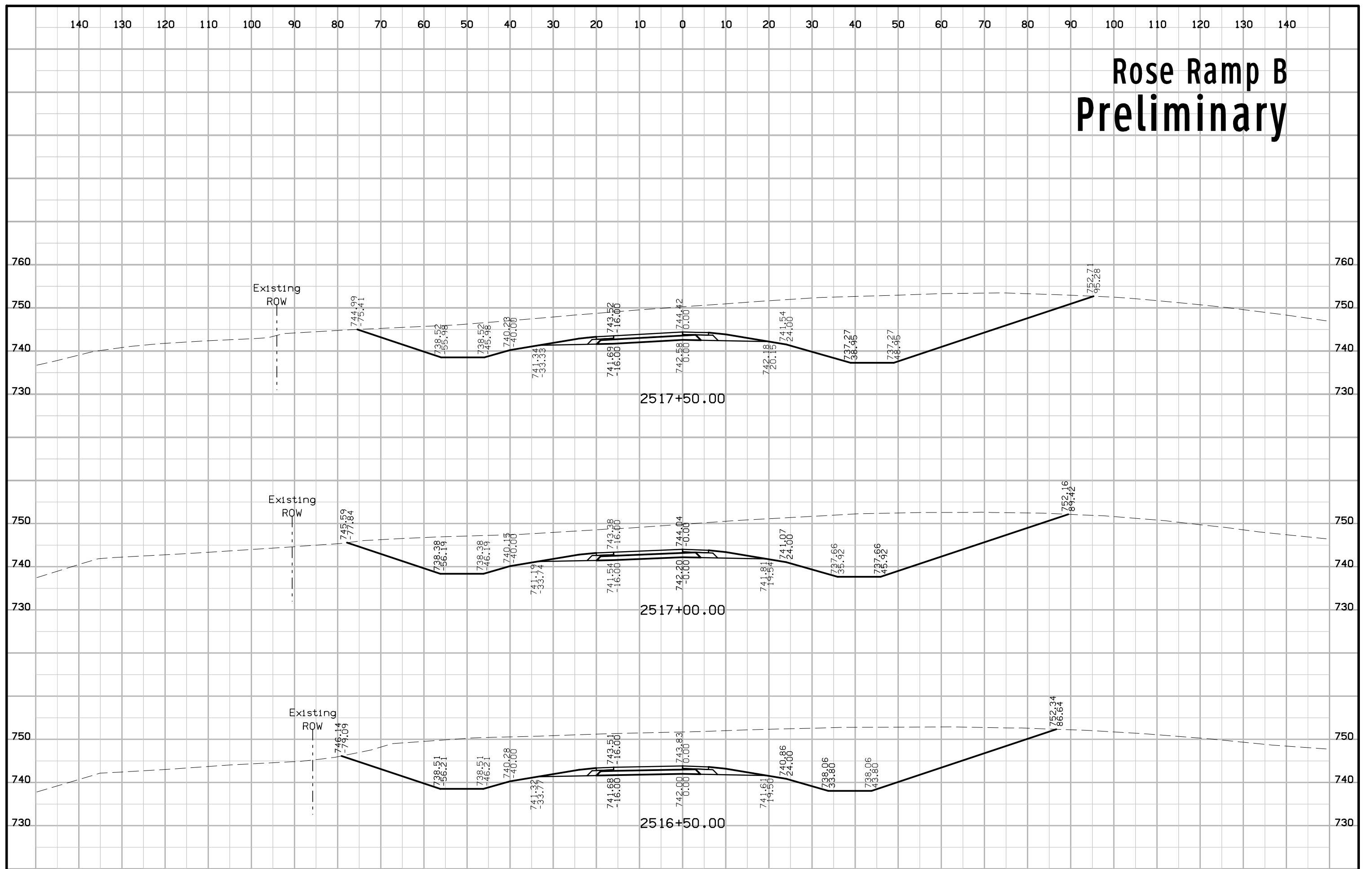
Rose Ramp B Preliminary



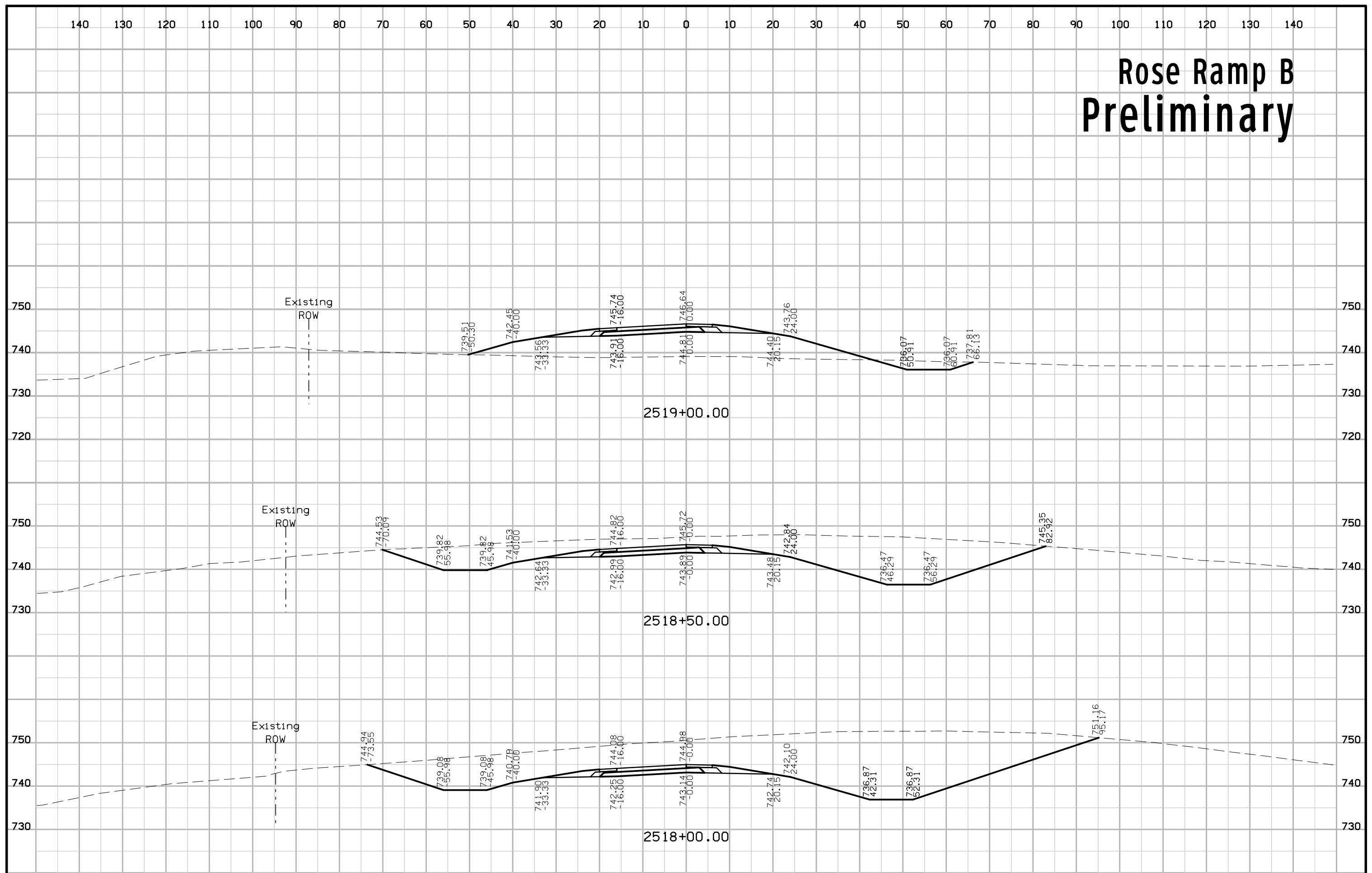
Rose Ramp B Preliminary



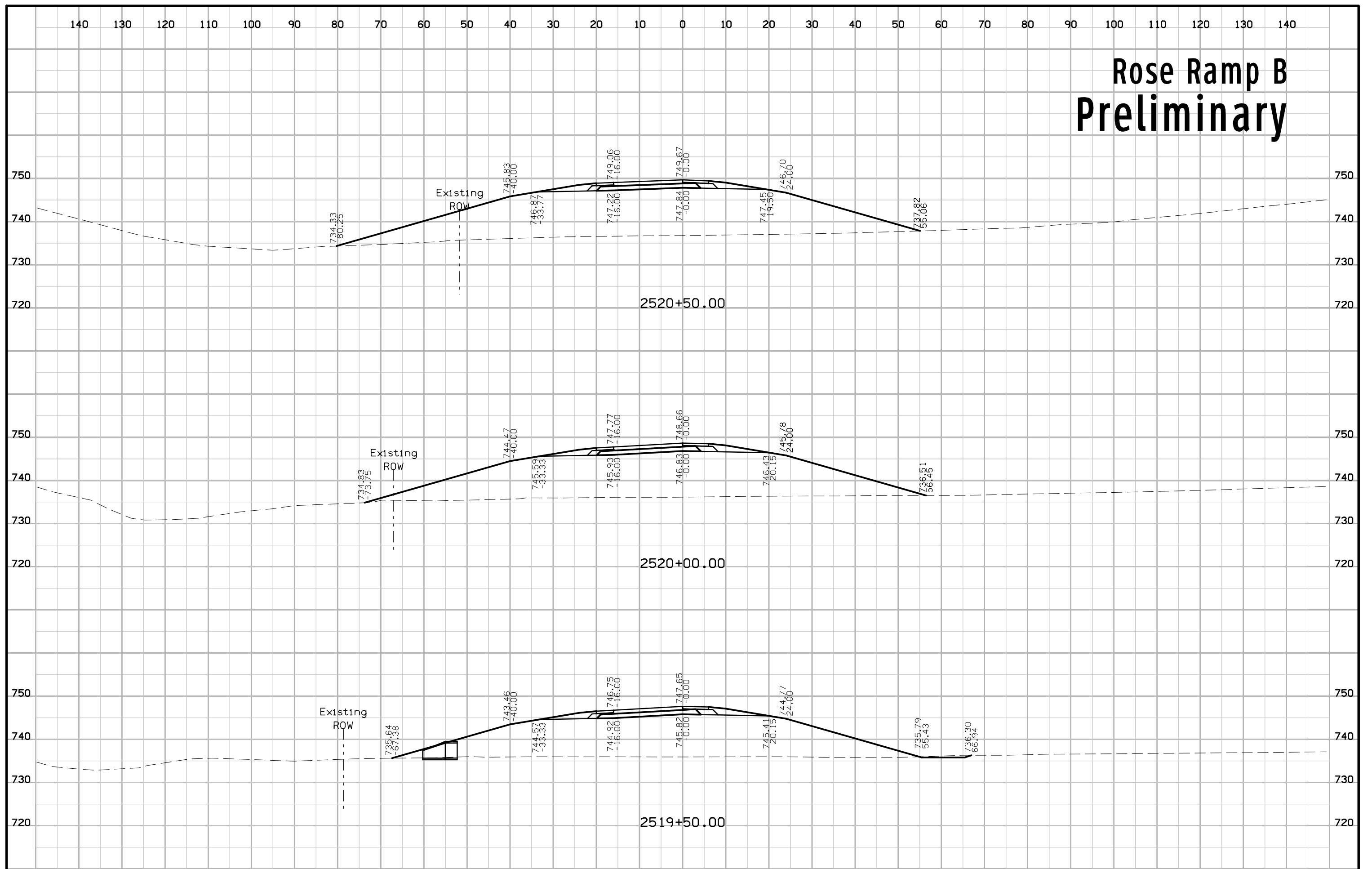
Rose Ramp B Preliminary



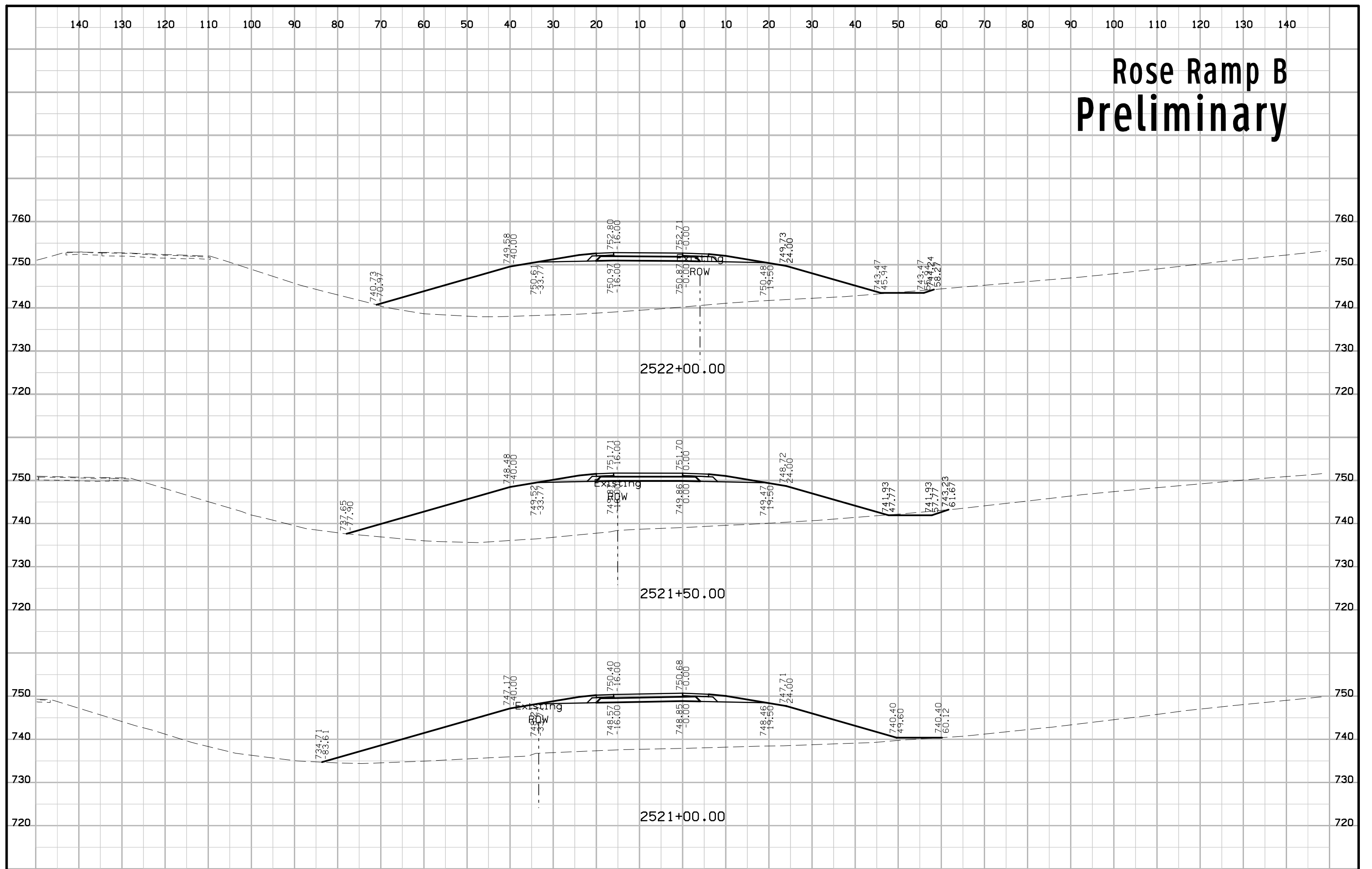
Rose Ramp B Preliminary



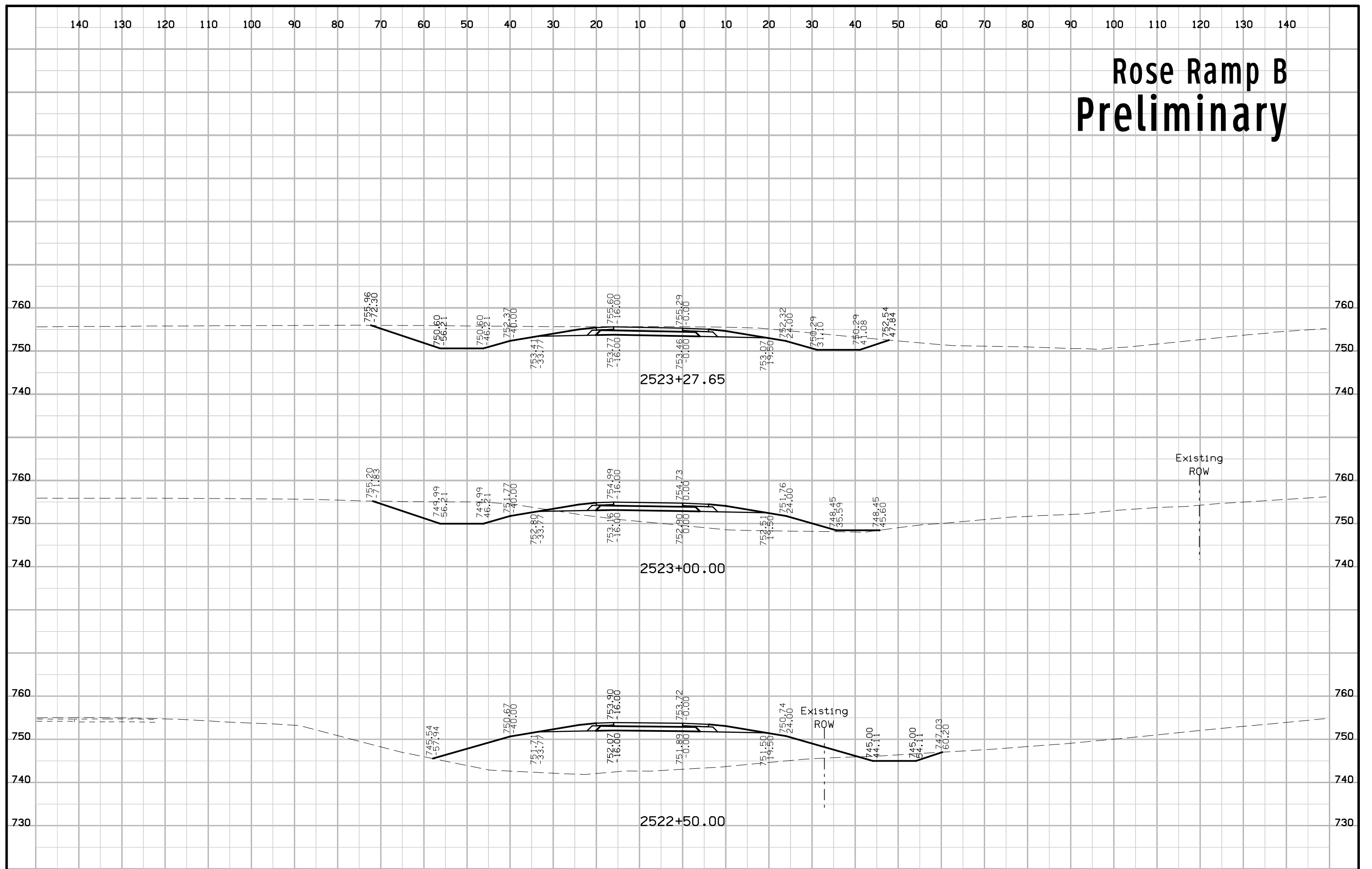
Rose Ramp B Preliminary



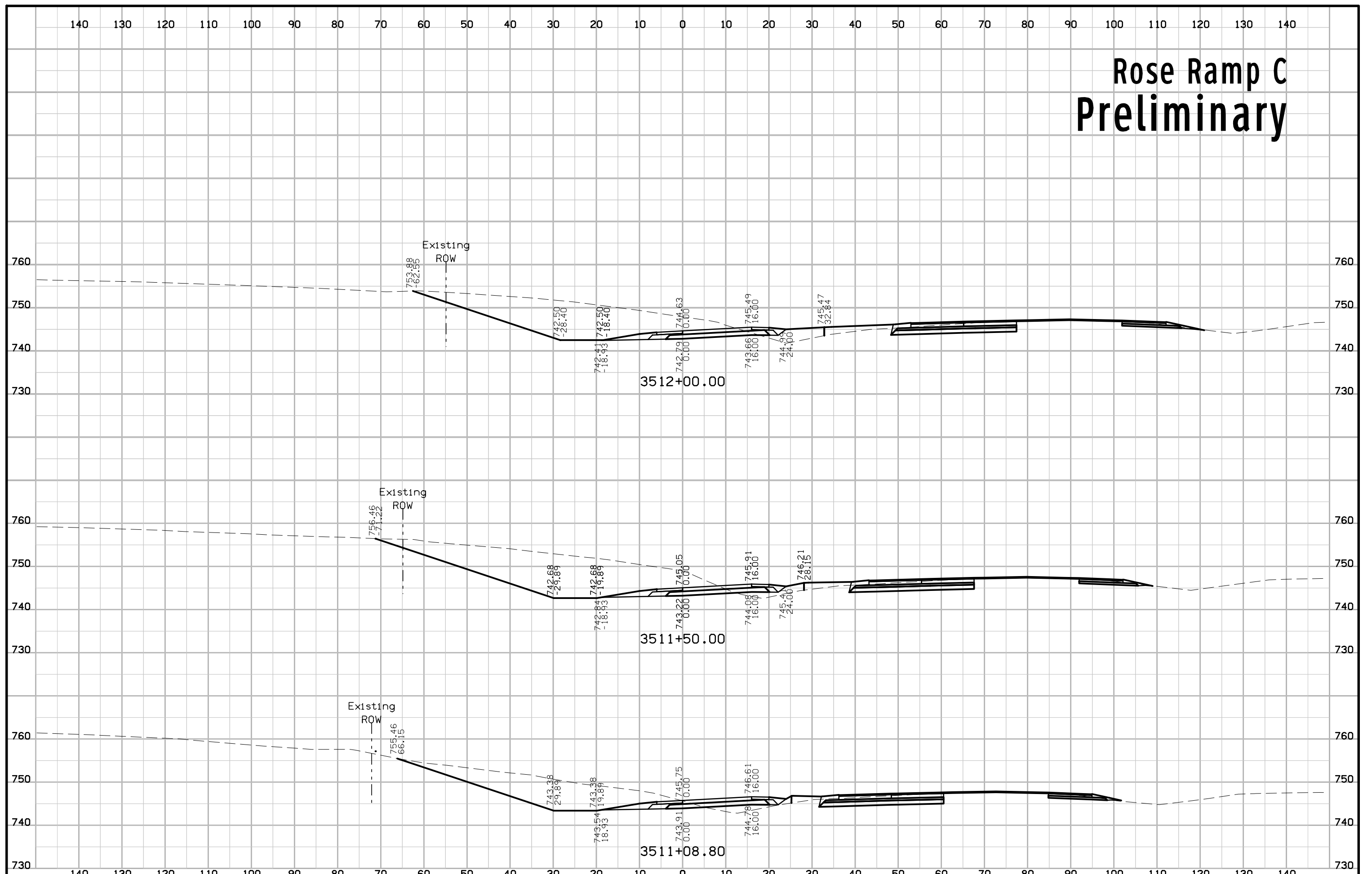
Rose Ramp B Preliminary



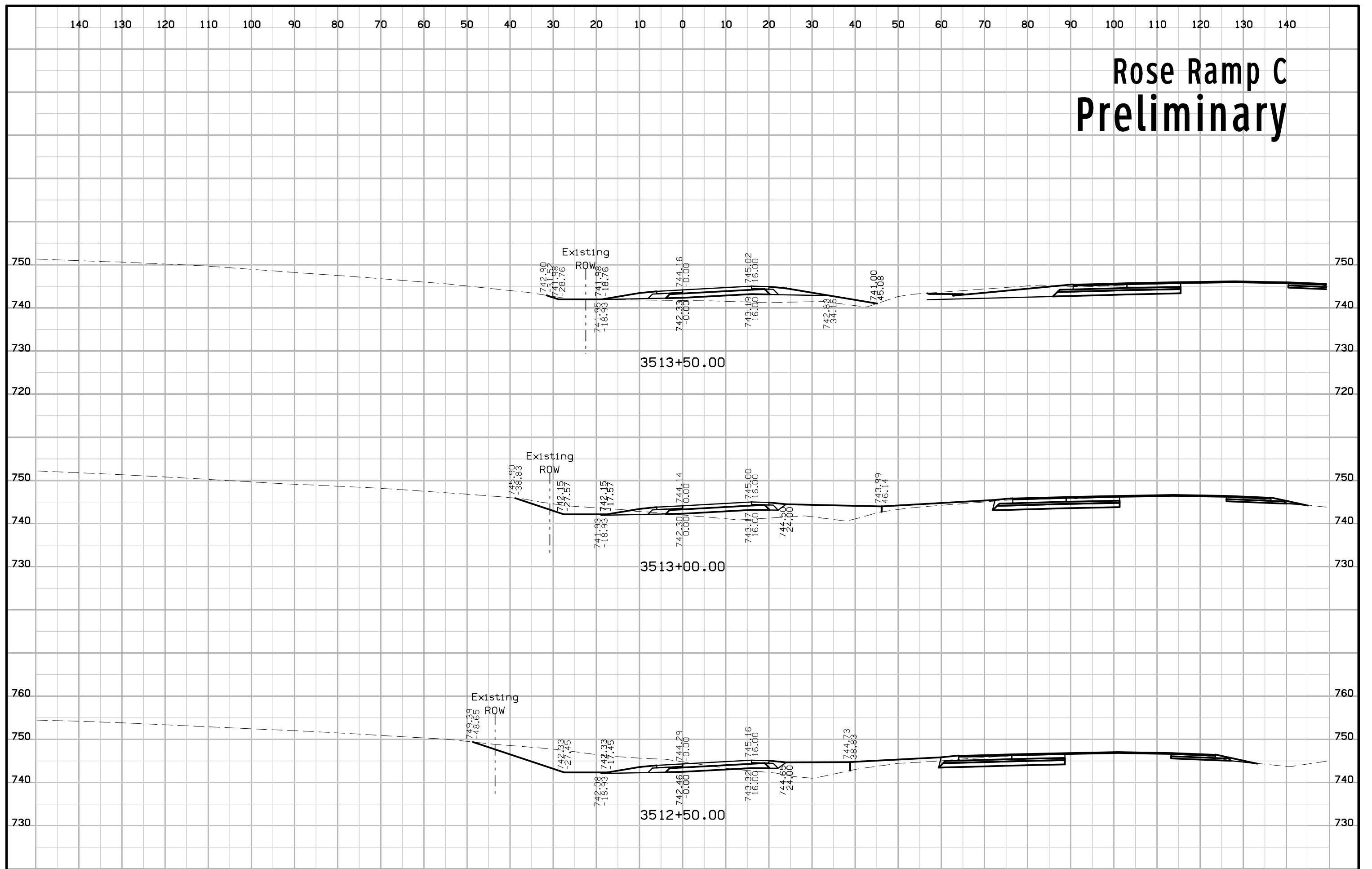
Rose Ramp B Preliminary



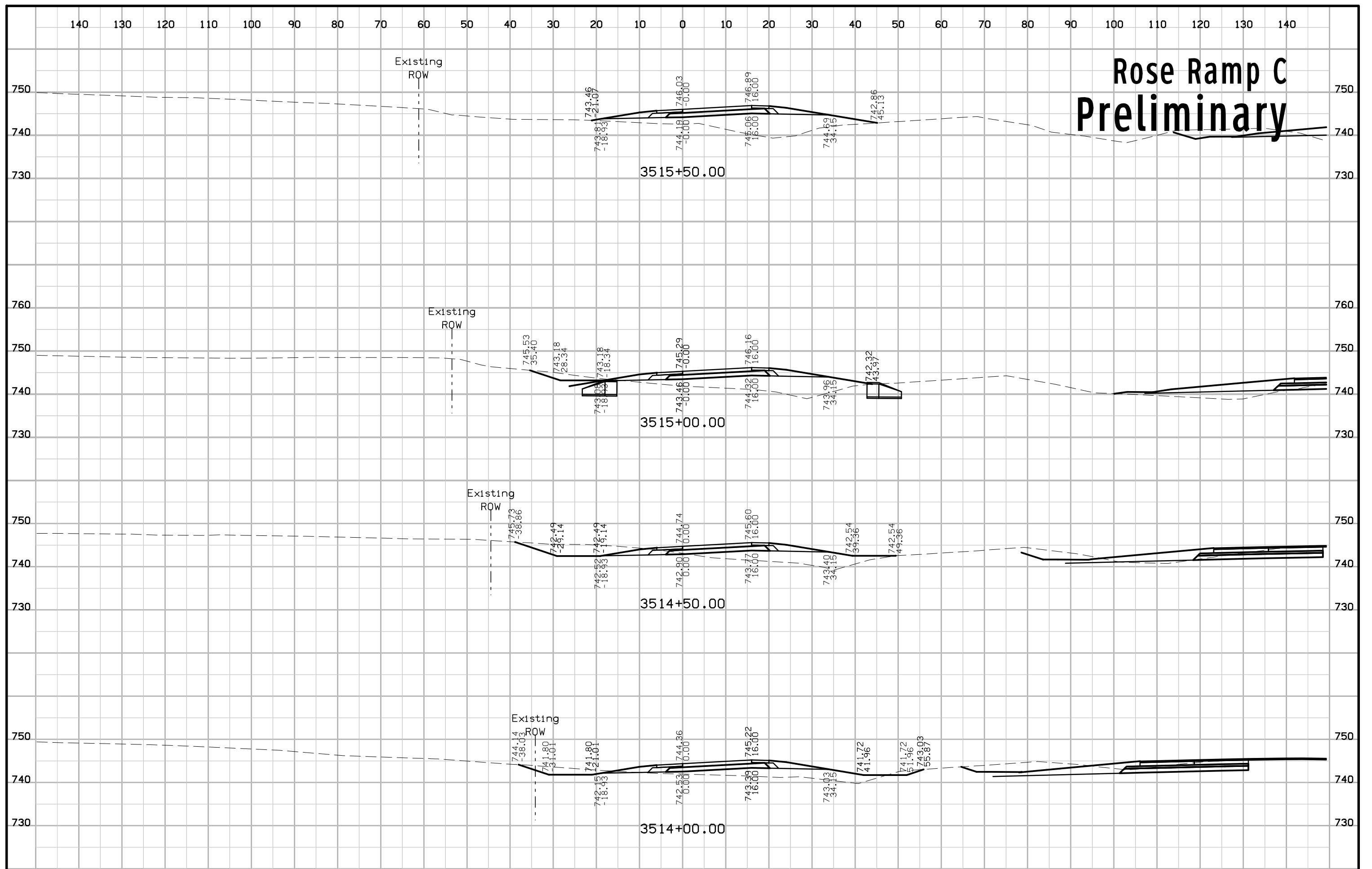
Rose Ramp C Preliminary



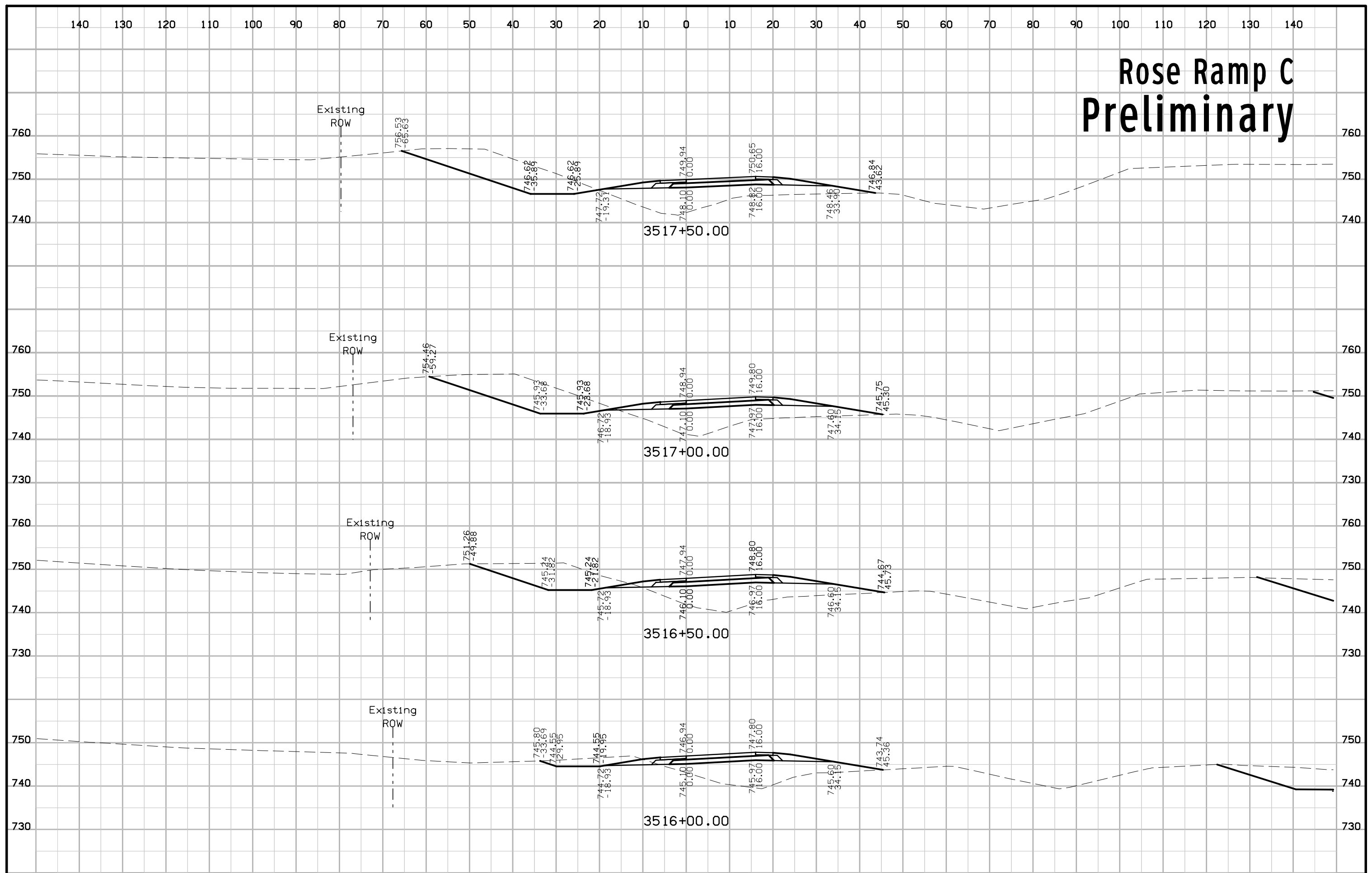
Rose Ramp C Preliminary



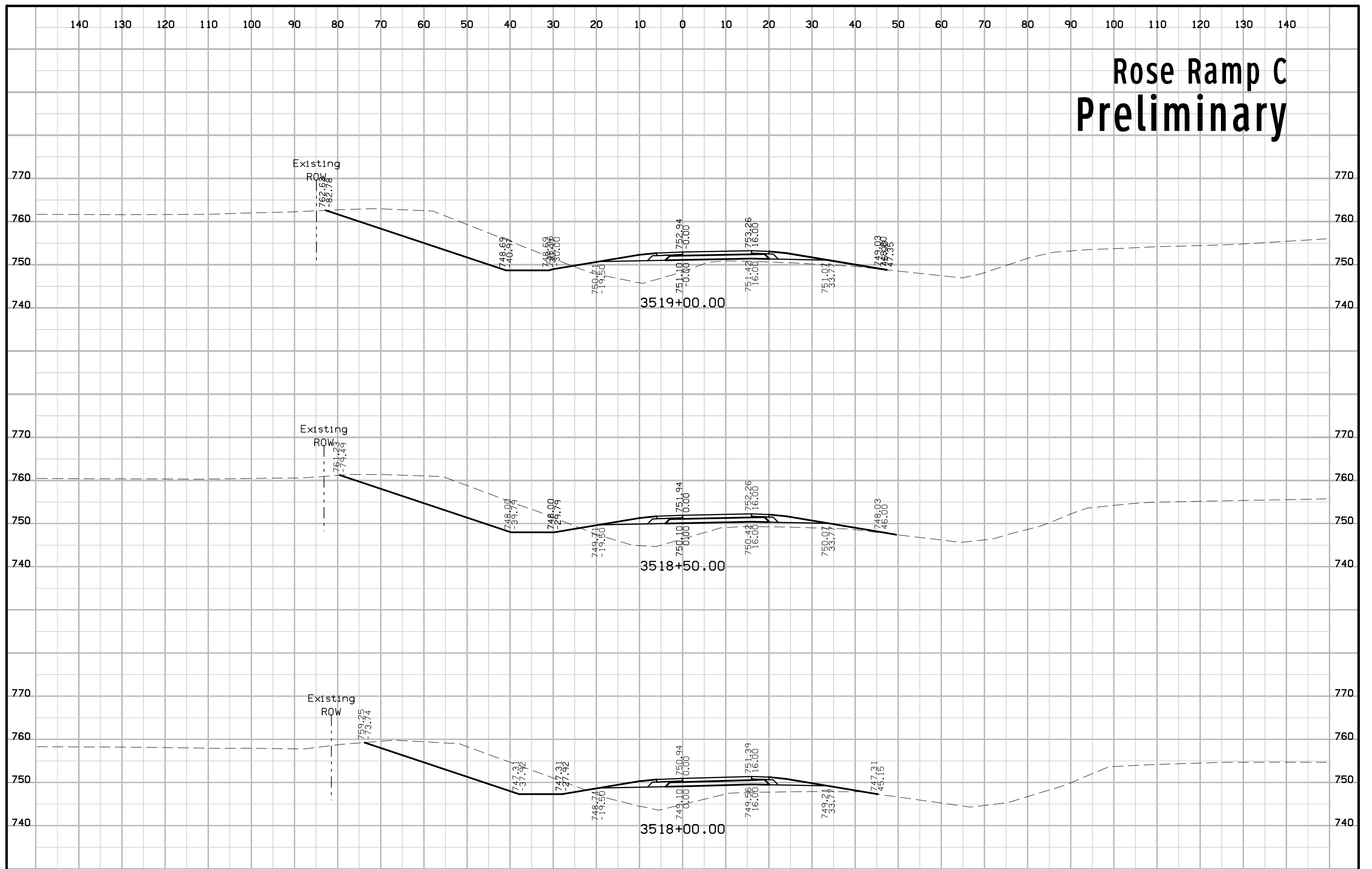
Rose Ramp C Preliminary



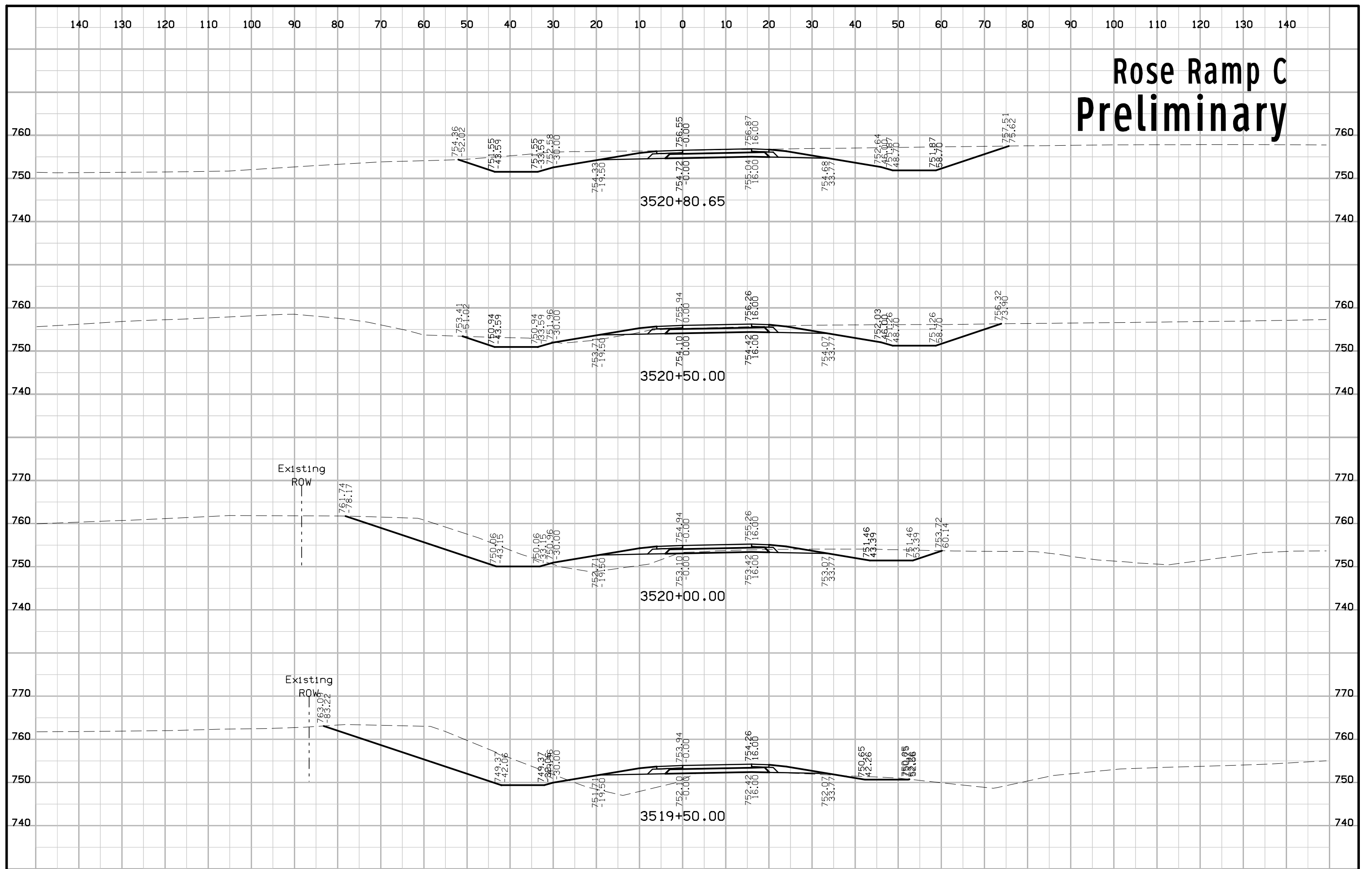
Rose Ramp C Preliminary



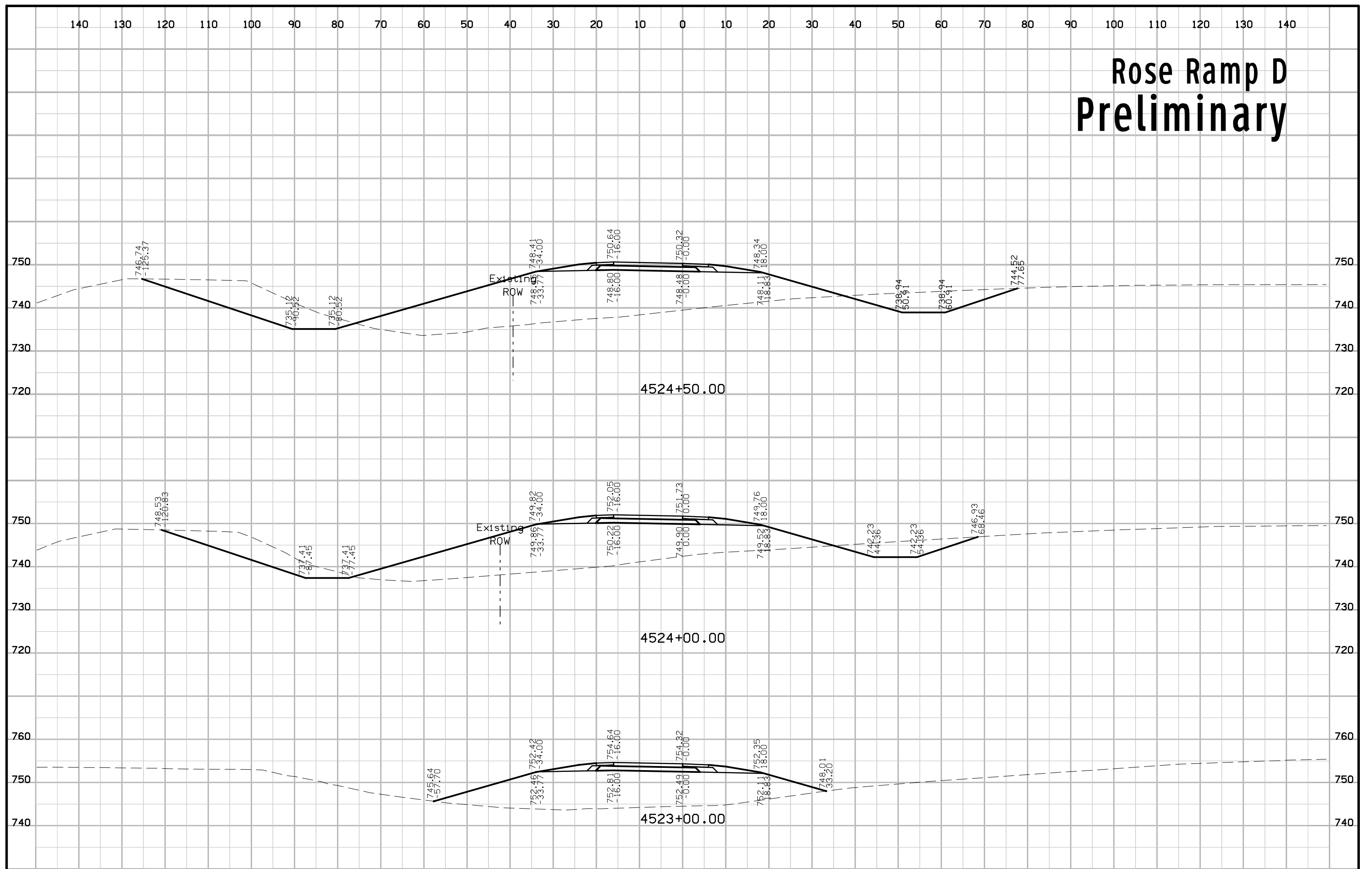
Rose Ramp C Preliminary



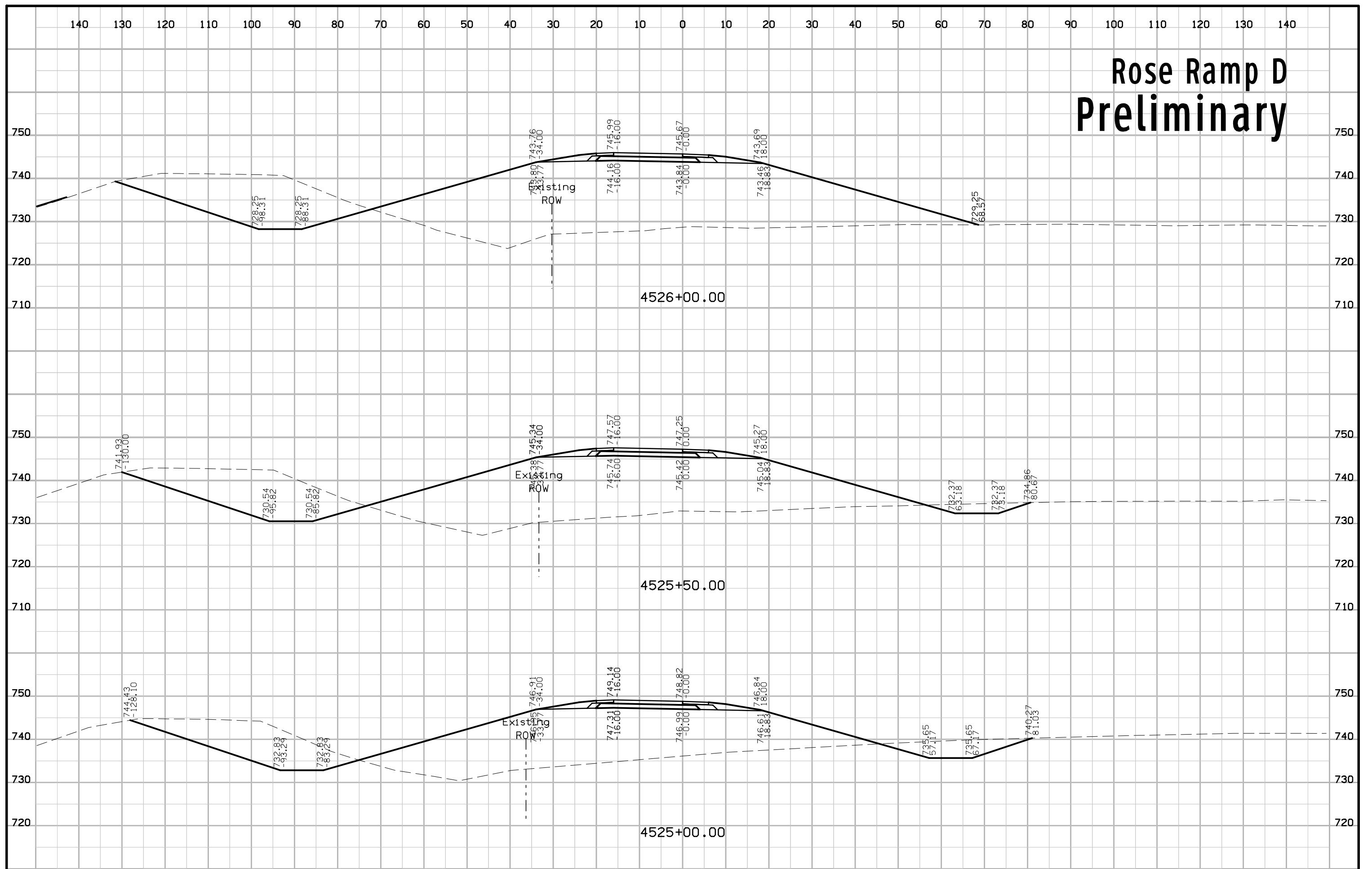
Rose Ramp C Preliminary



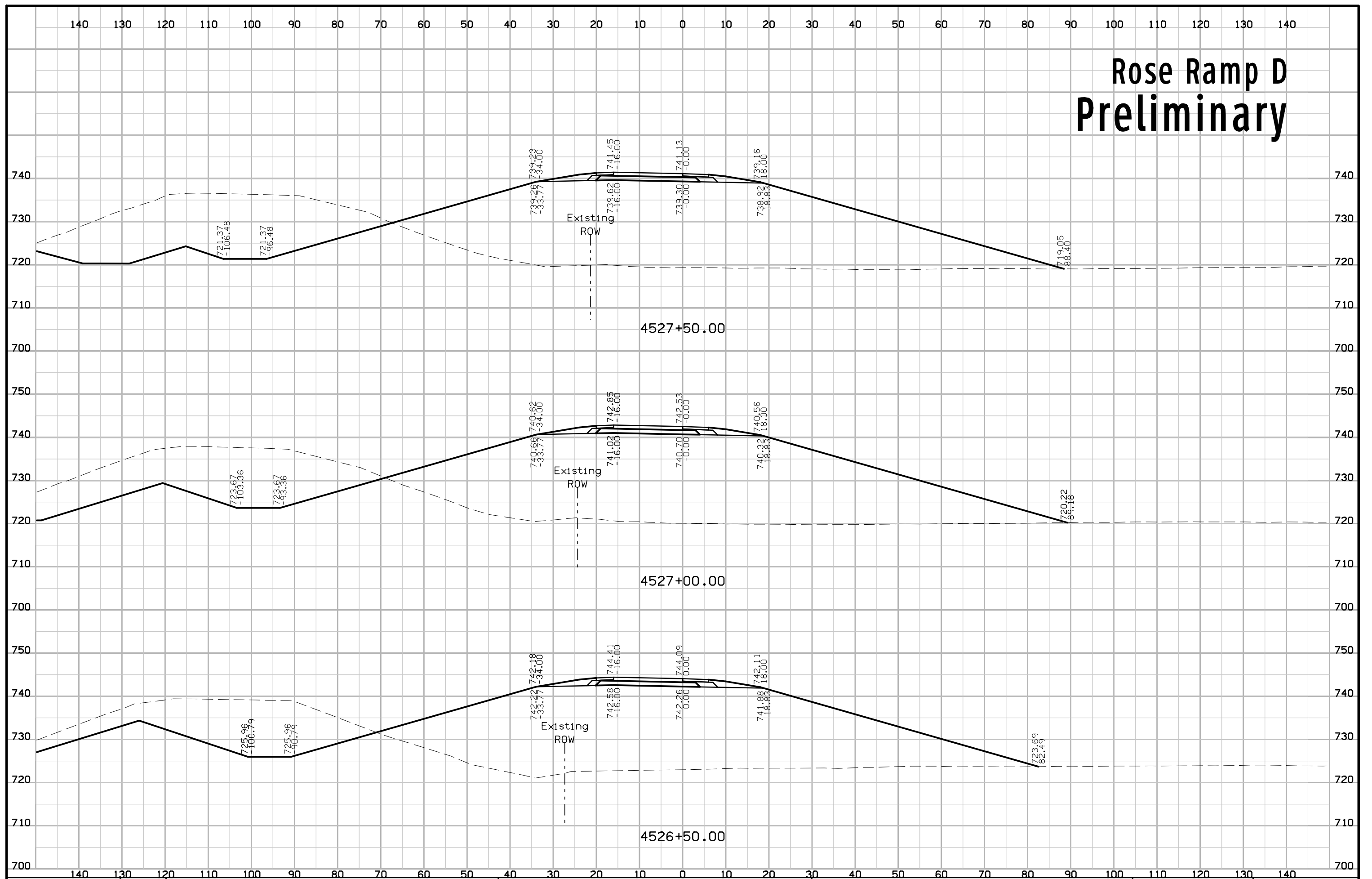
Rose Ramp D Preliminary



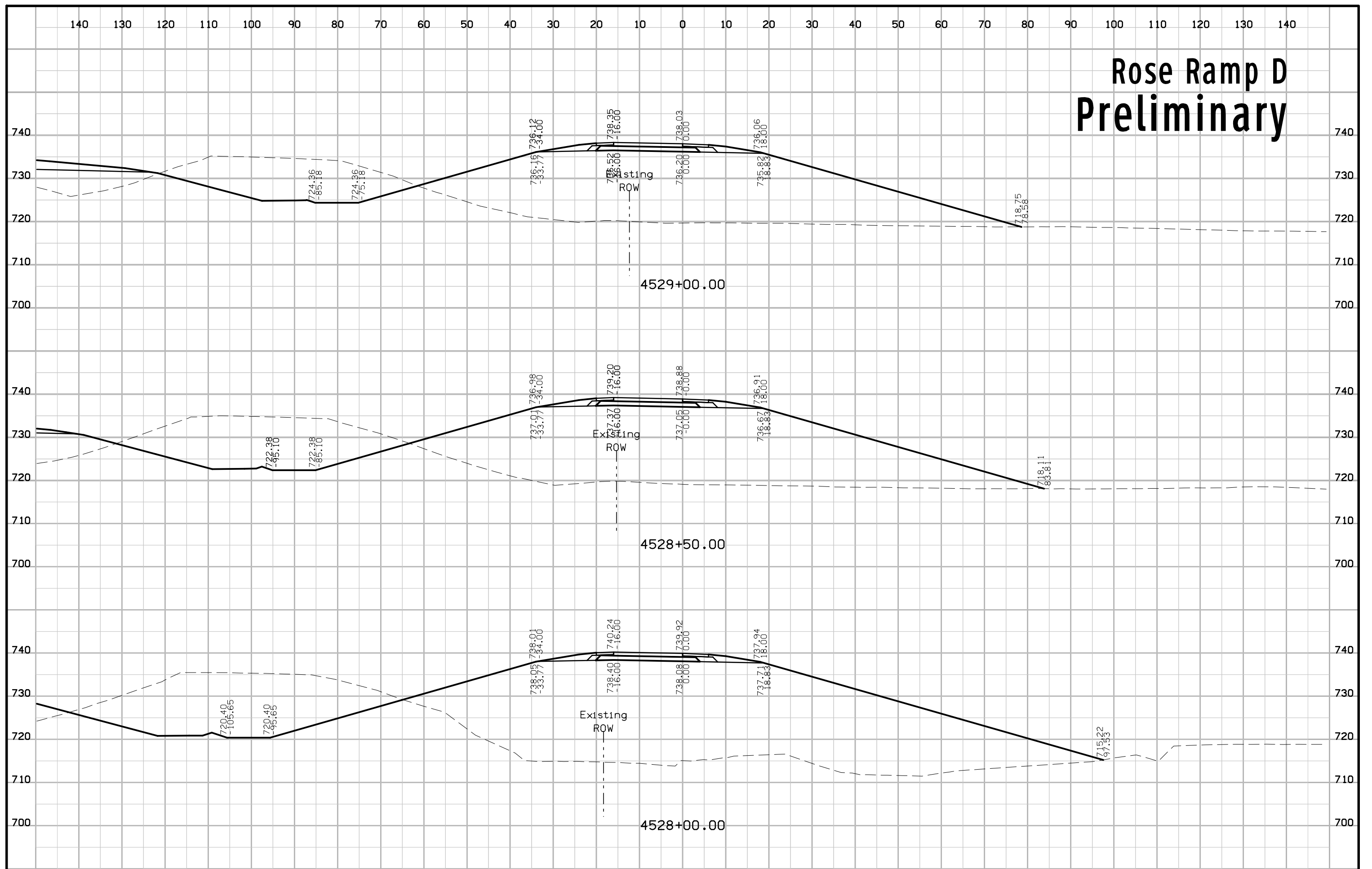
Rose Ramp D Preliminary



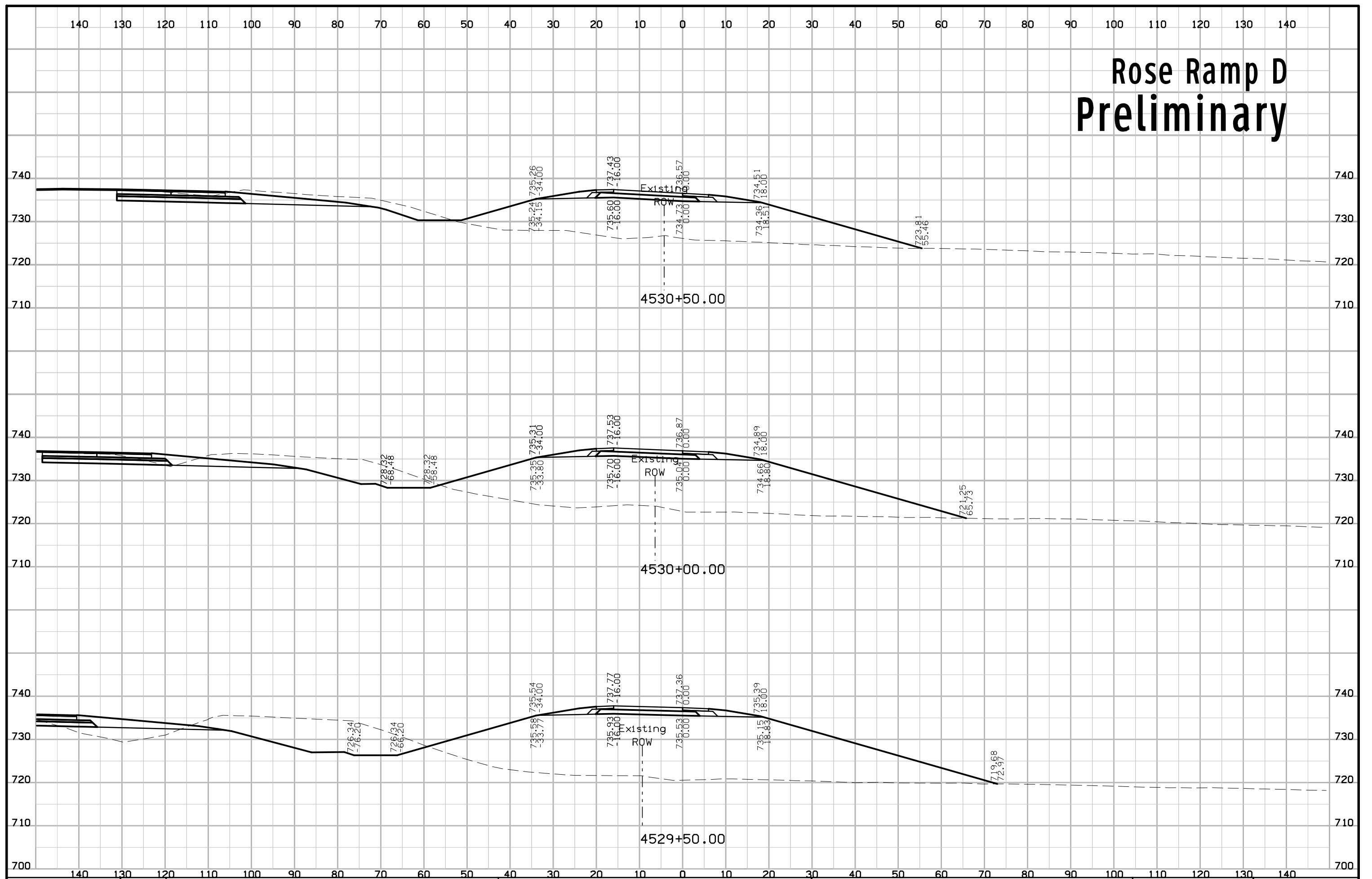
Rose Ramp D Preliminary



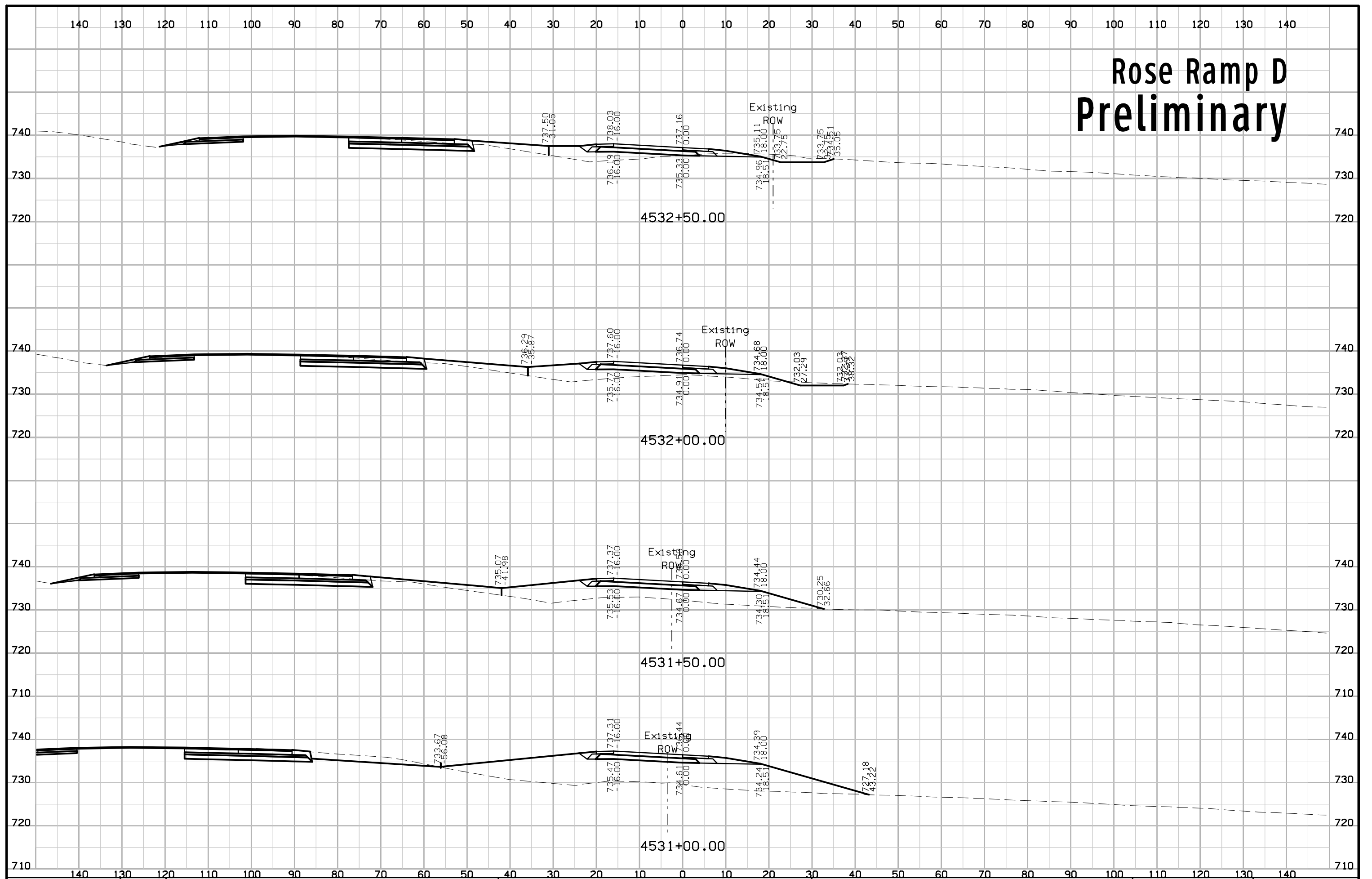
Rose Ramp D Preliminary



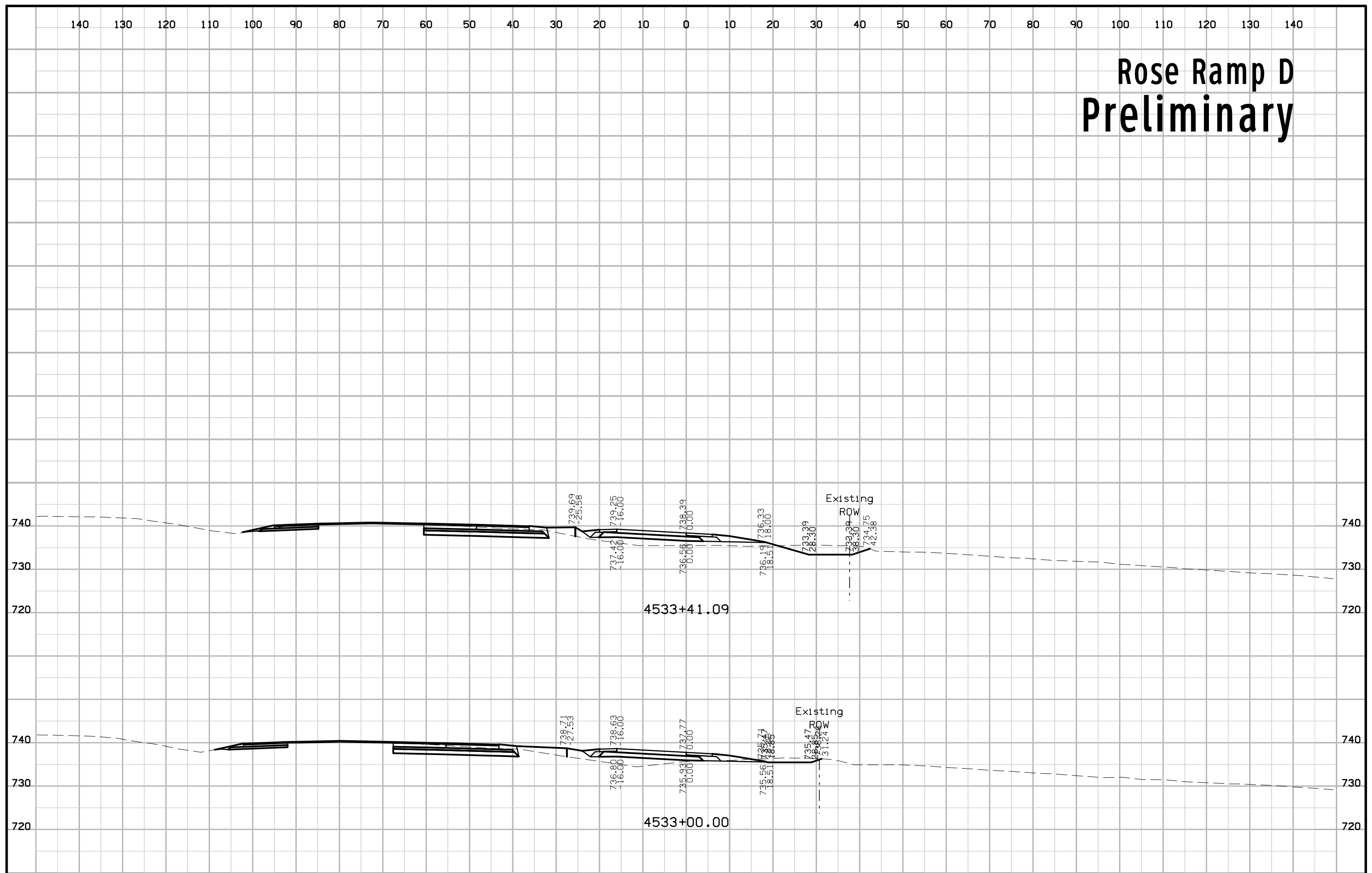
Rose Ramp D Preliminary



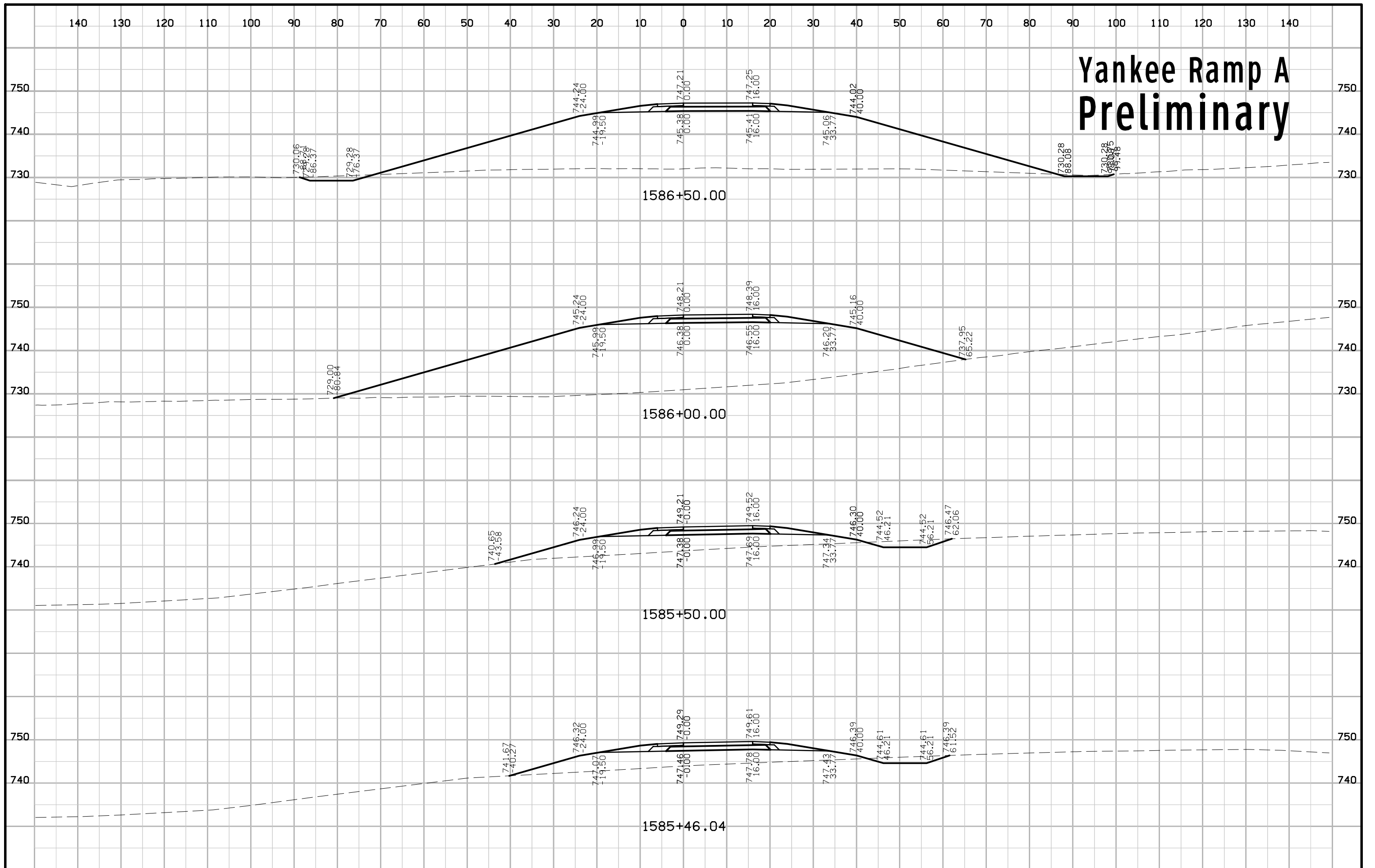
Rose Ramp D Preliminary



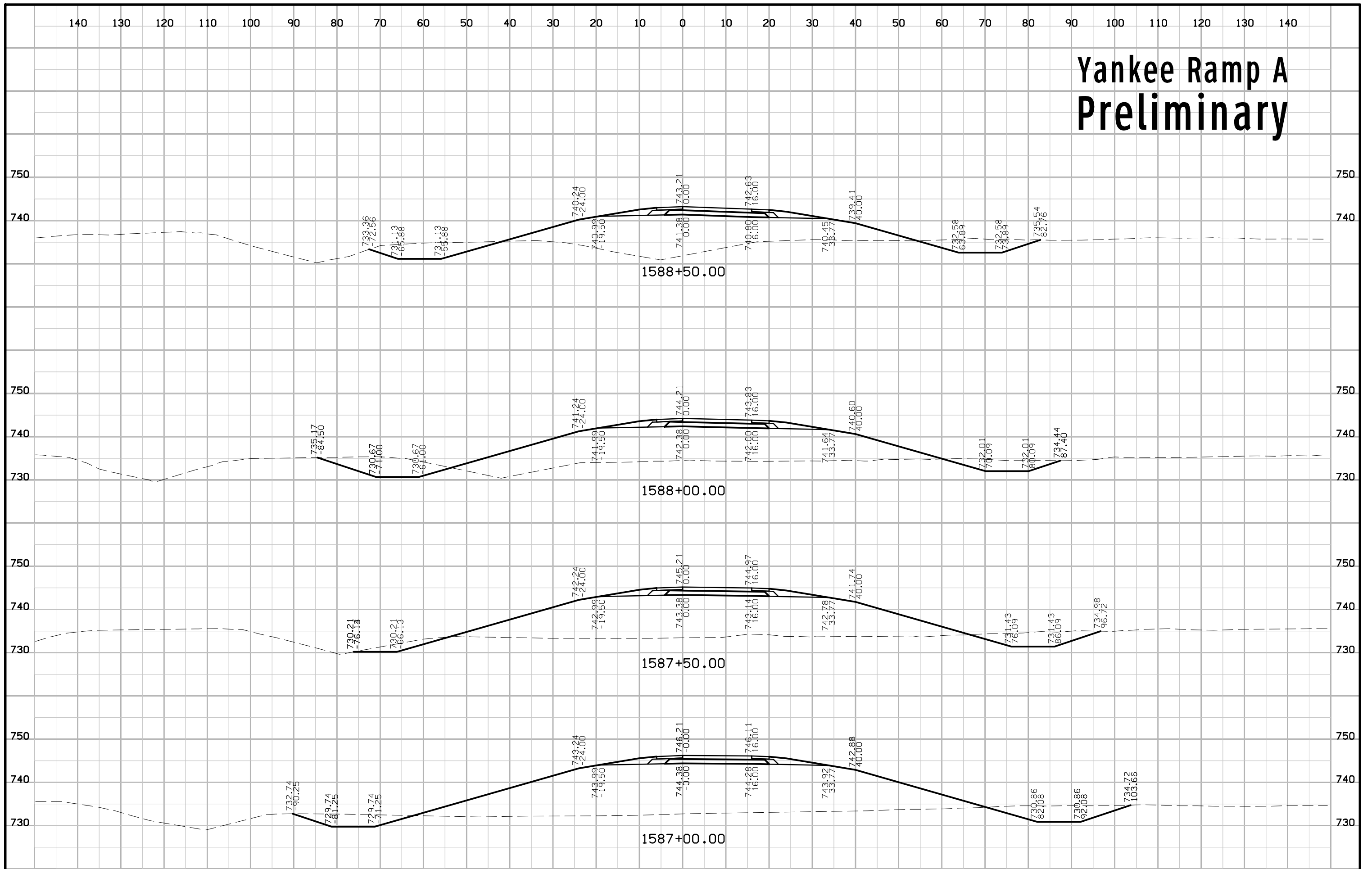
Rose Ramp D Preliminary



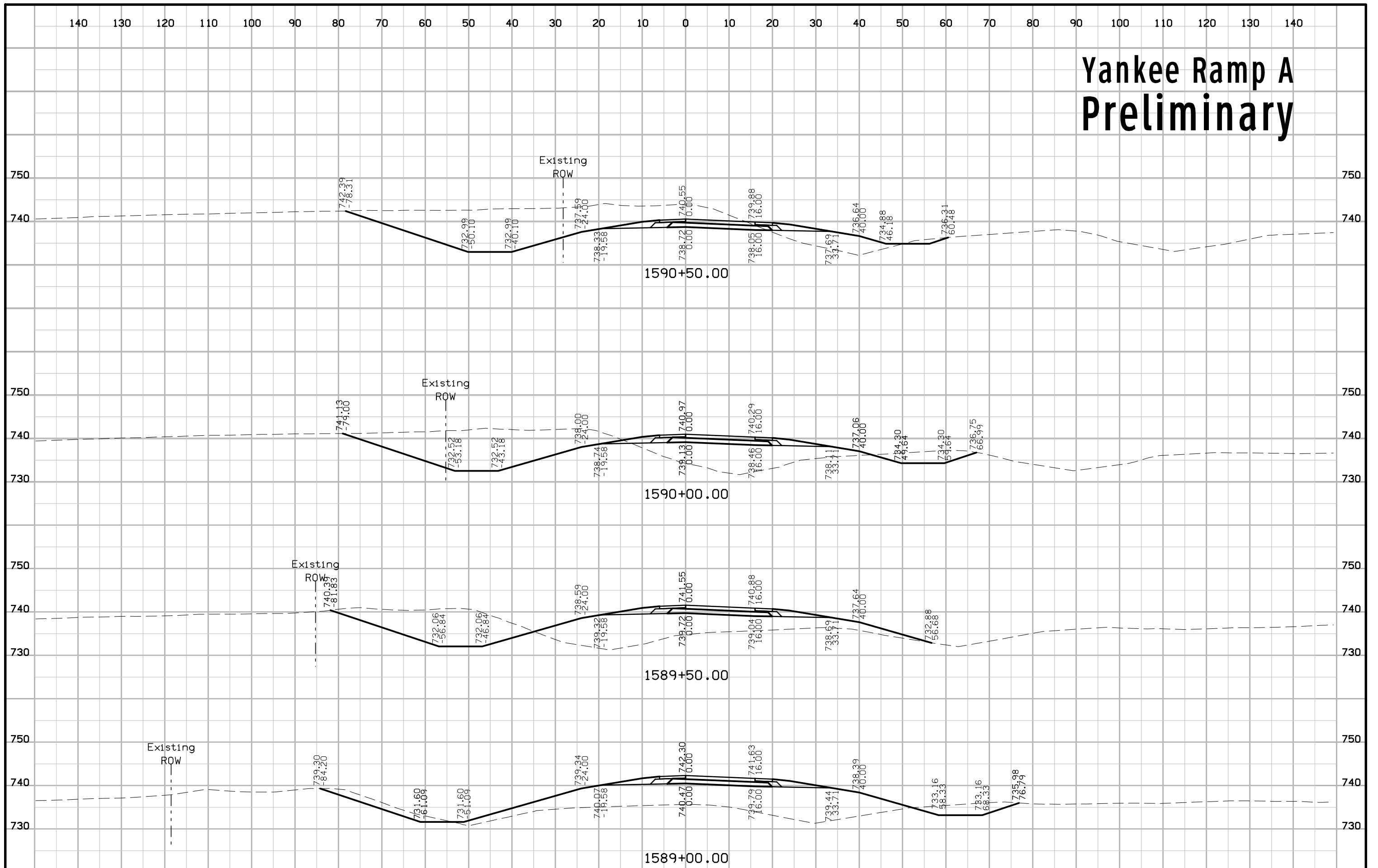
Yankee Ramp A Preliminary



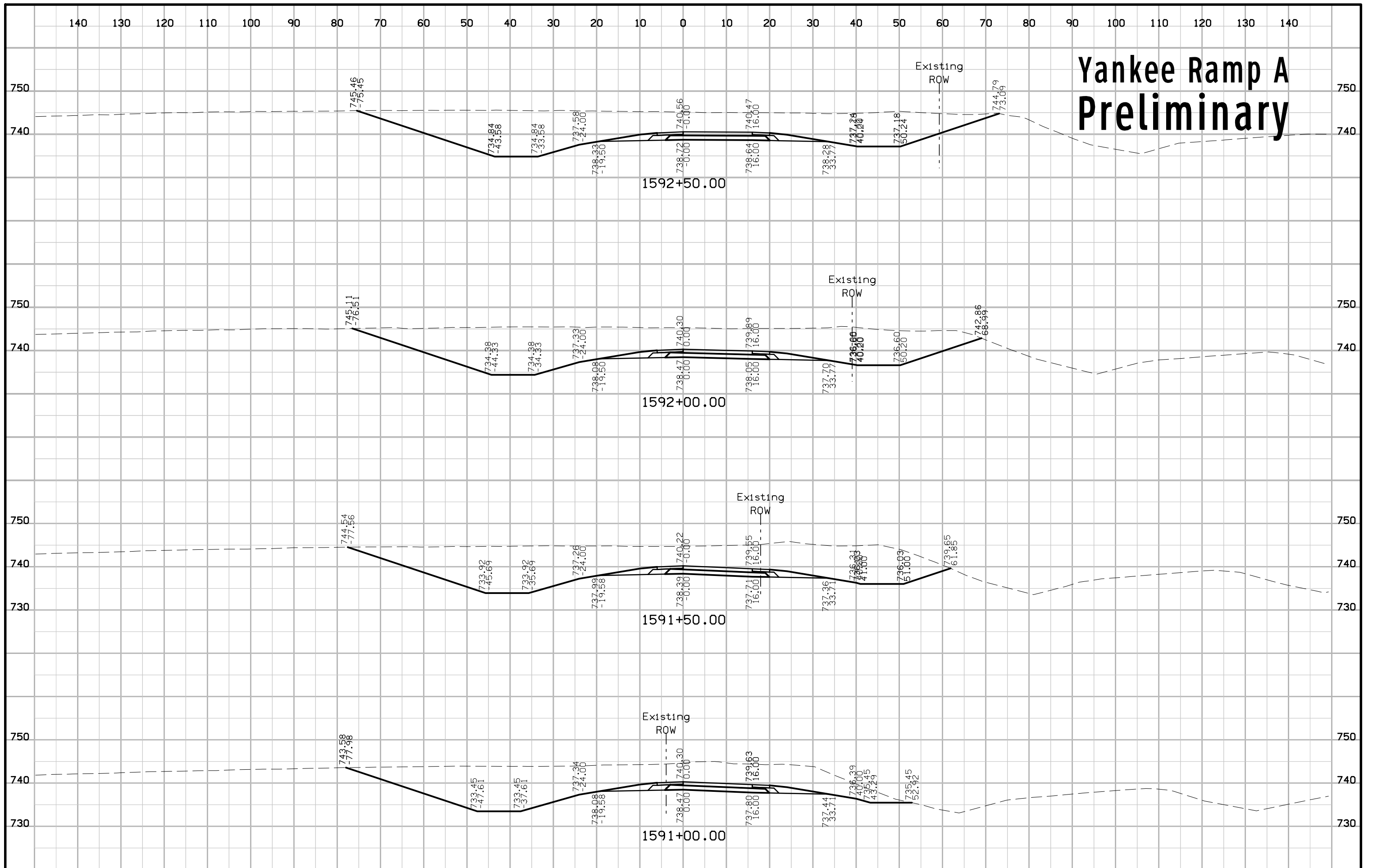
Yankee Ramp A Preliminary



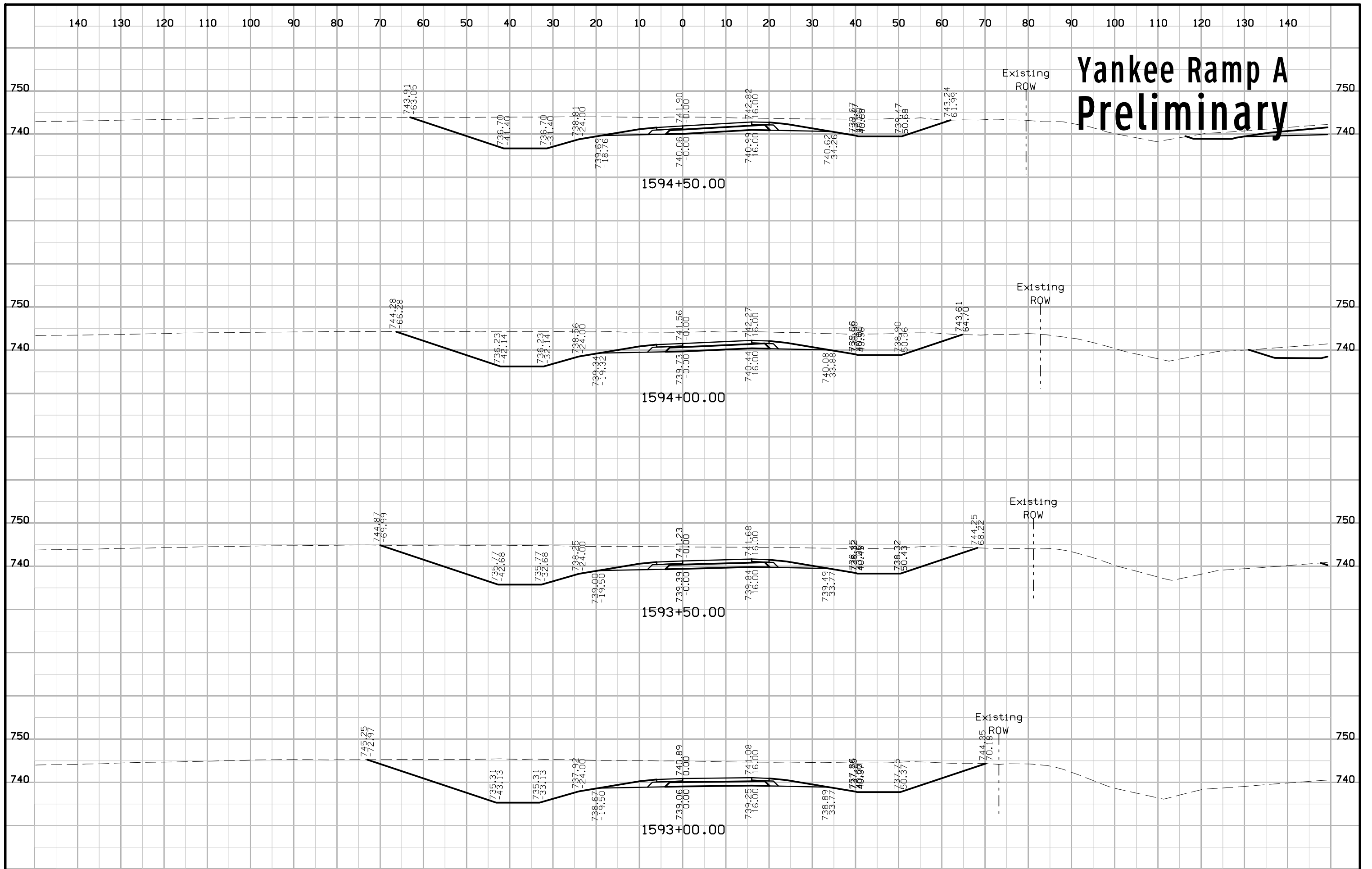
Yankee Ramp A Preliminary



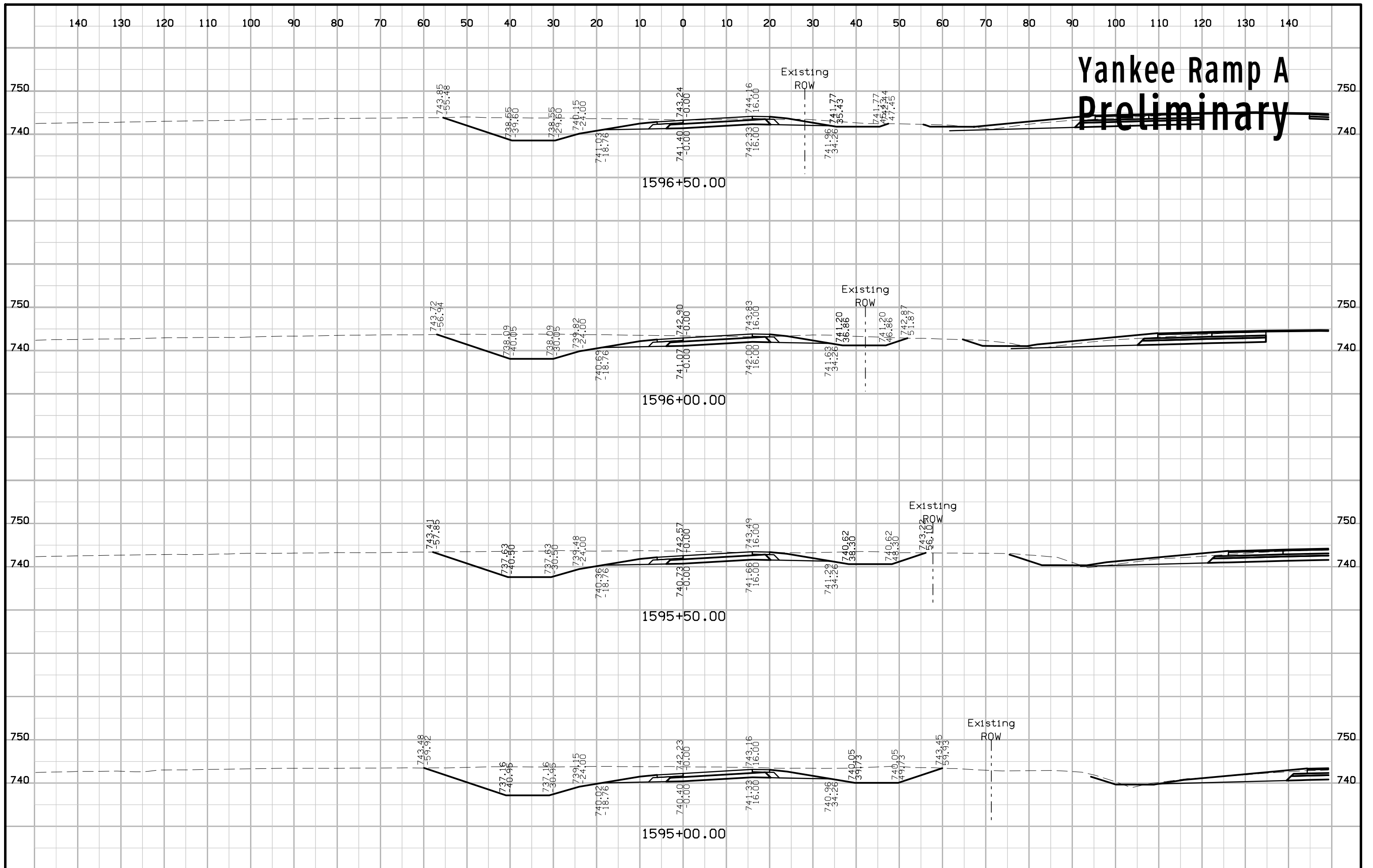
Yankee Ramp A Preliminary



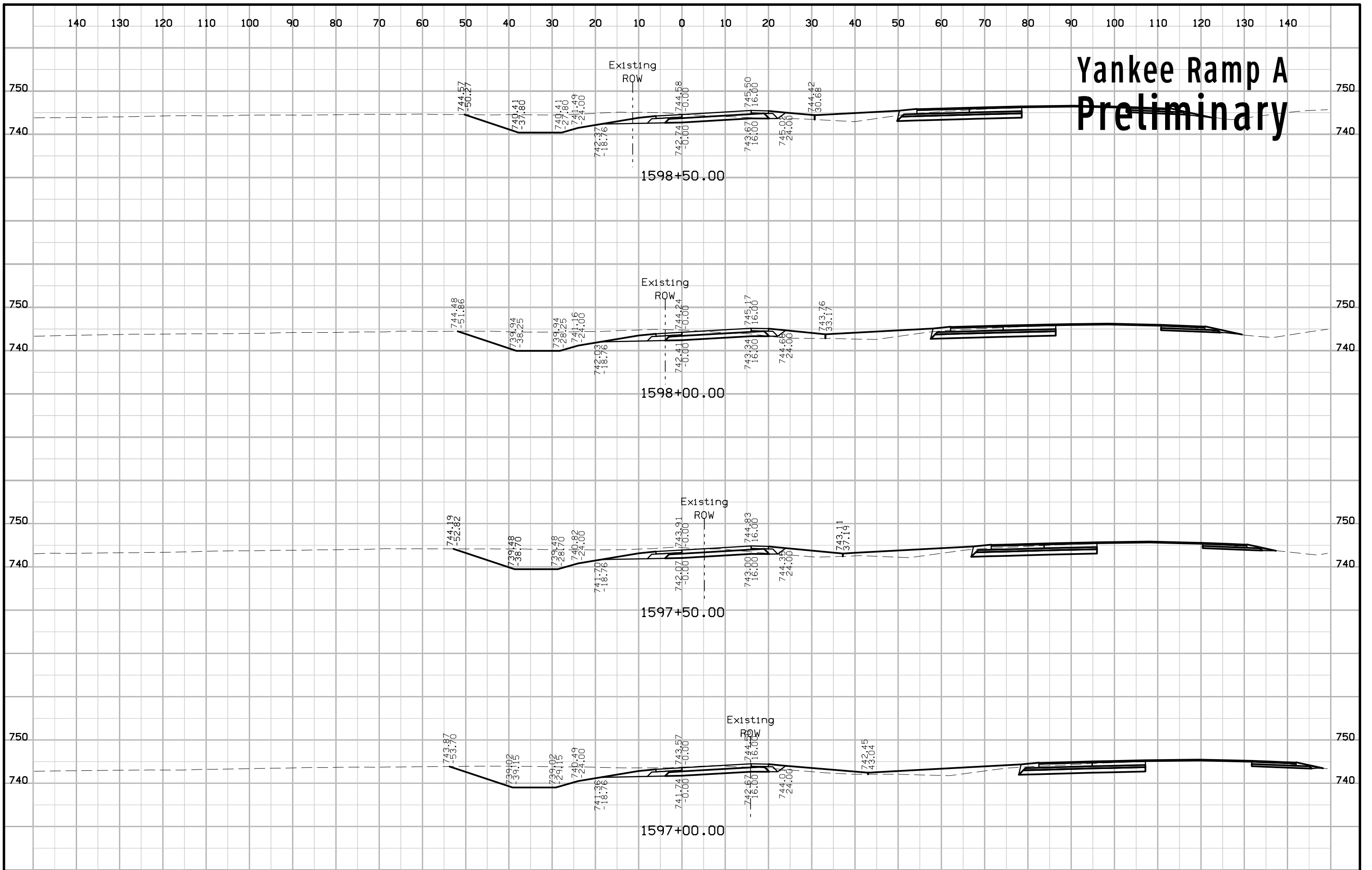
Yankee Ramp A Preliminary



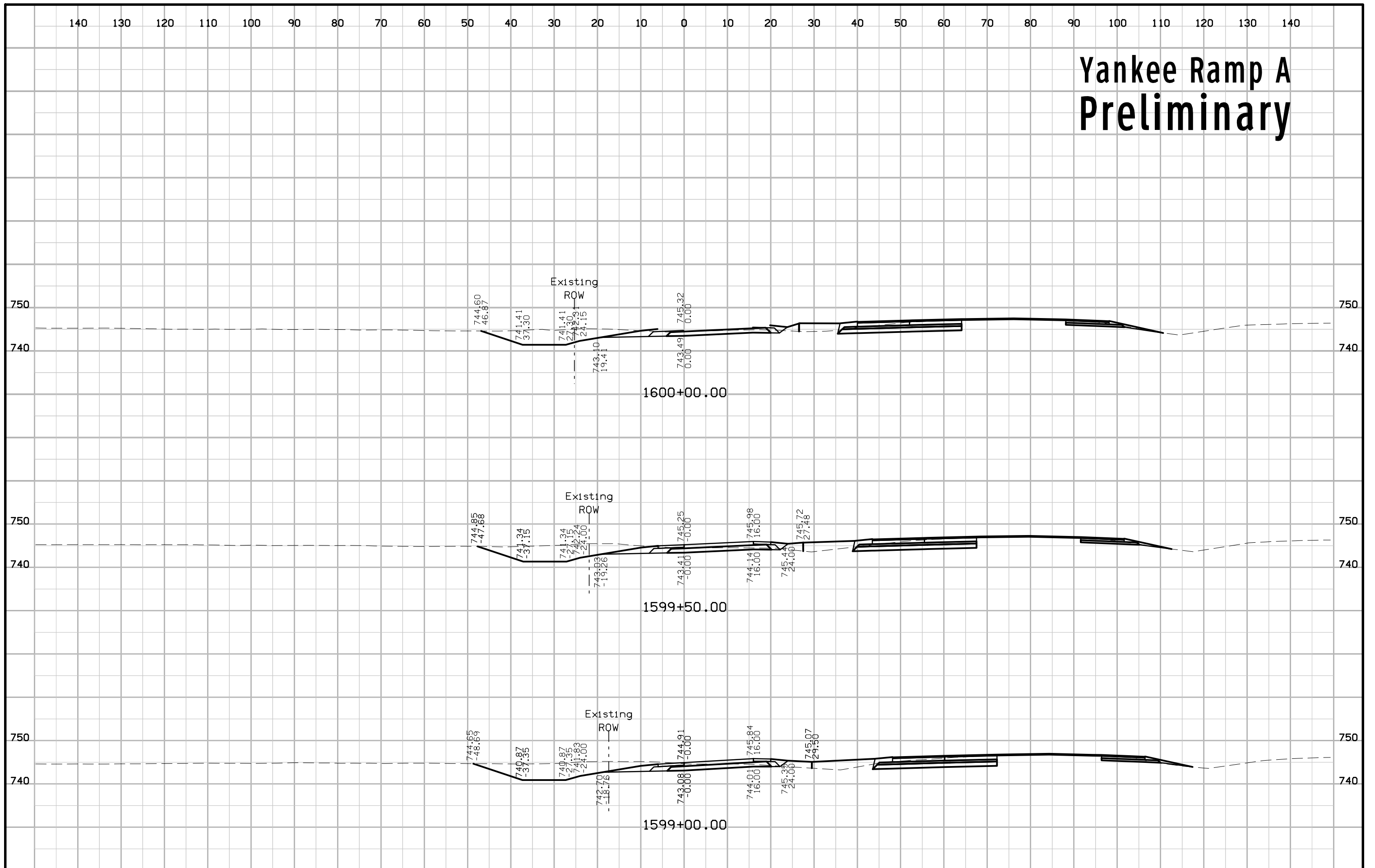
Yankee Ramp A Preliminary



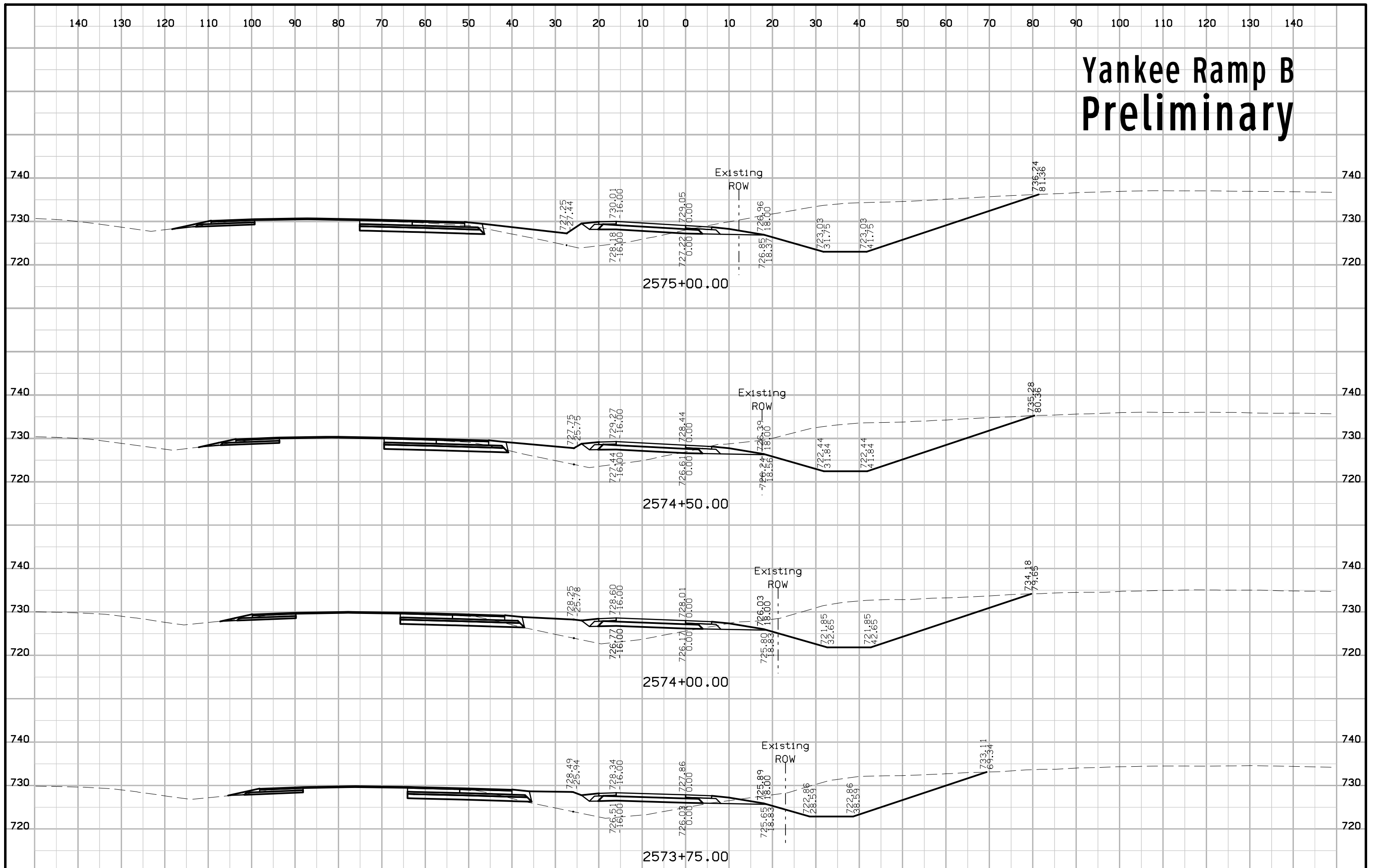
Yankee Ramp A Preliminary



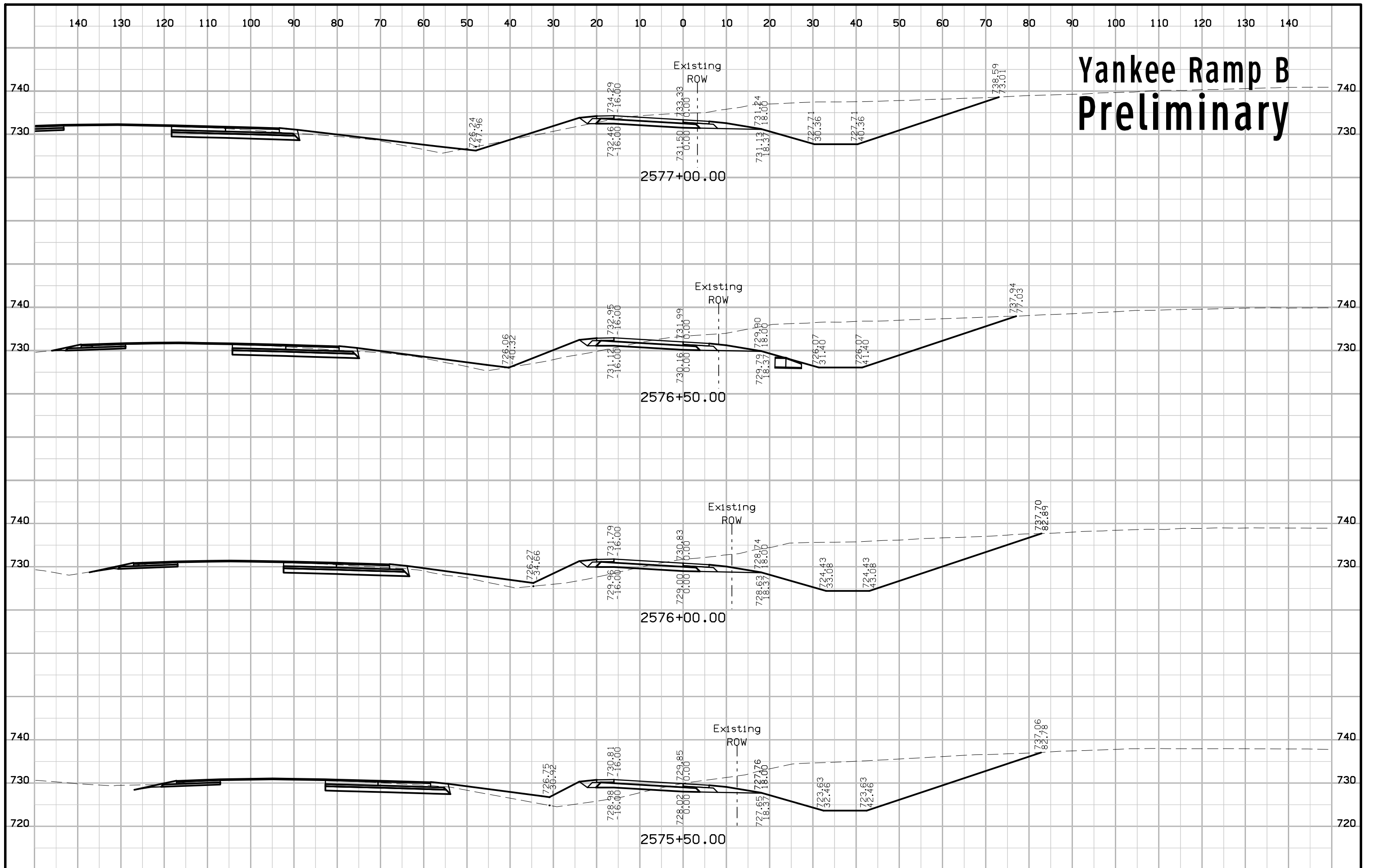
Yankee Ramp A Preliminary



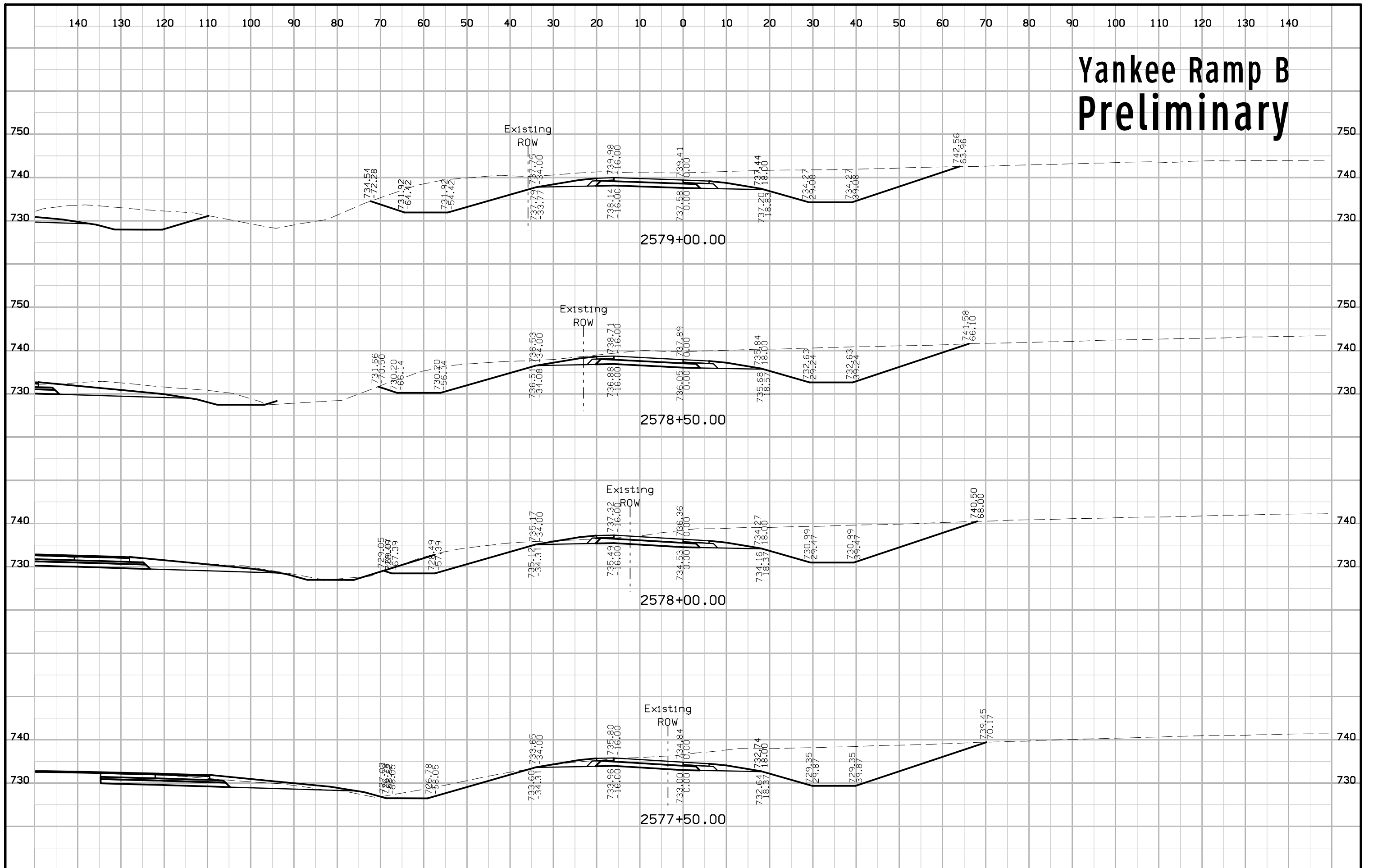
Yankee Ramp B Preliminary



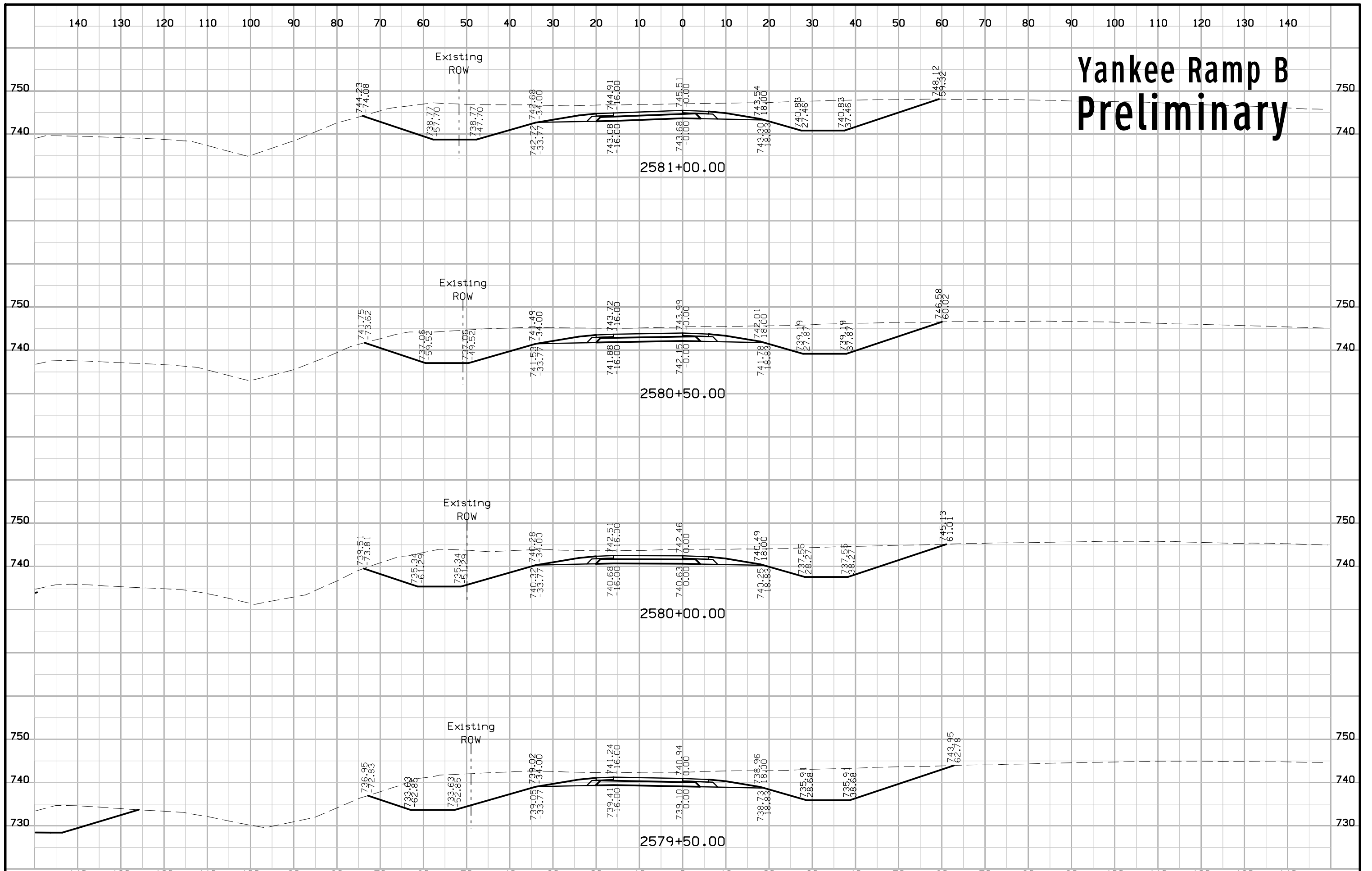
Yankee Ramp B Preliminary



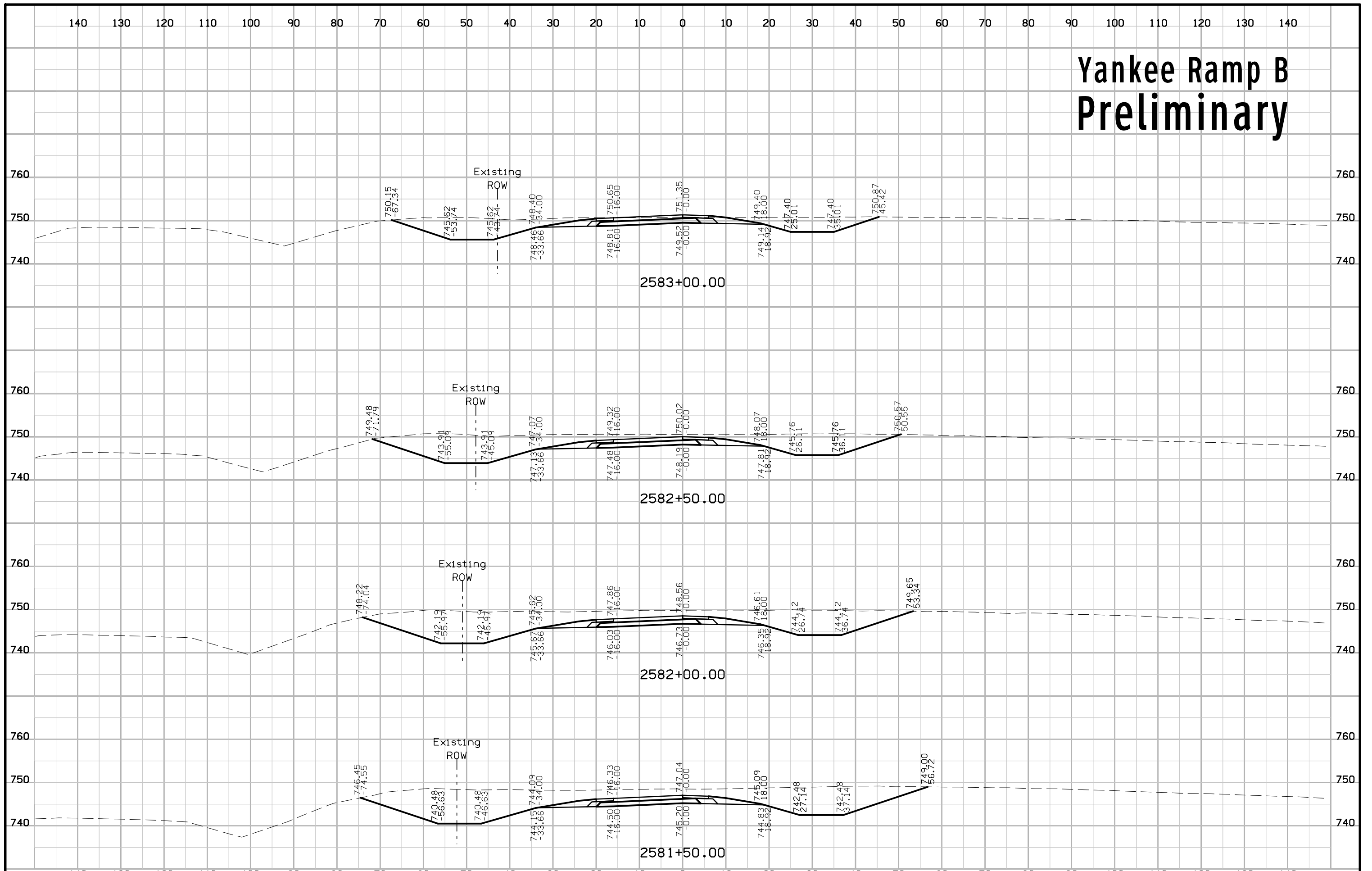
Yankee Ramp B Preliminary



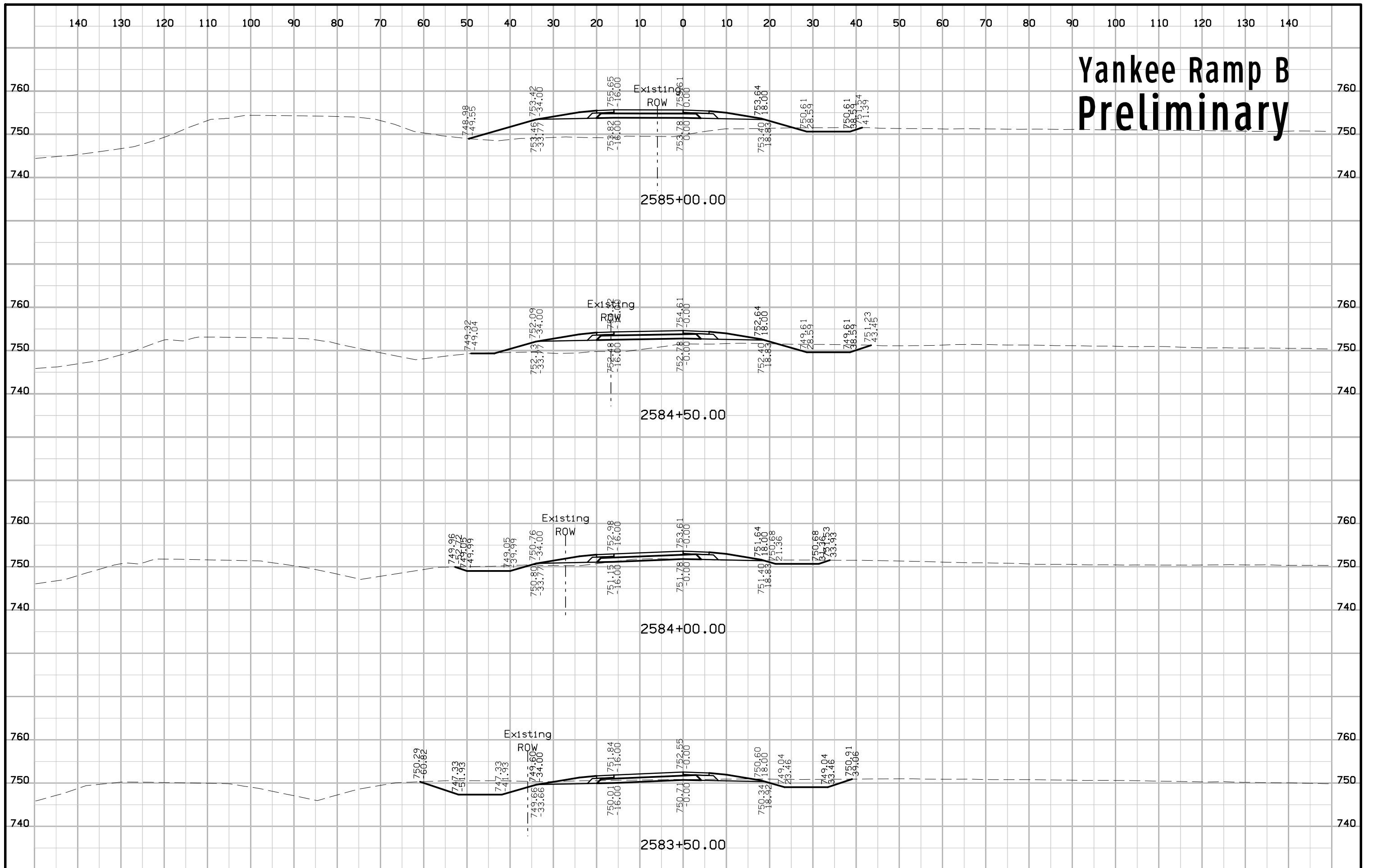
Yankee Ramp B Preliminary



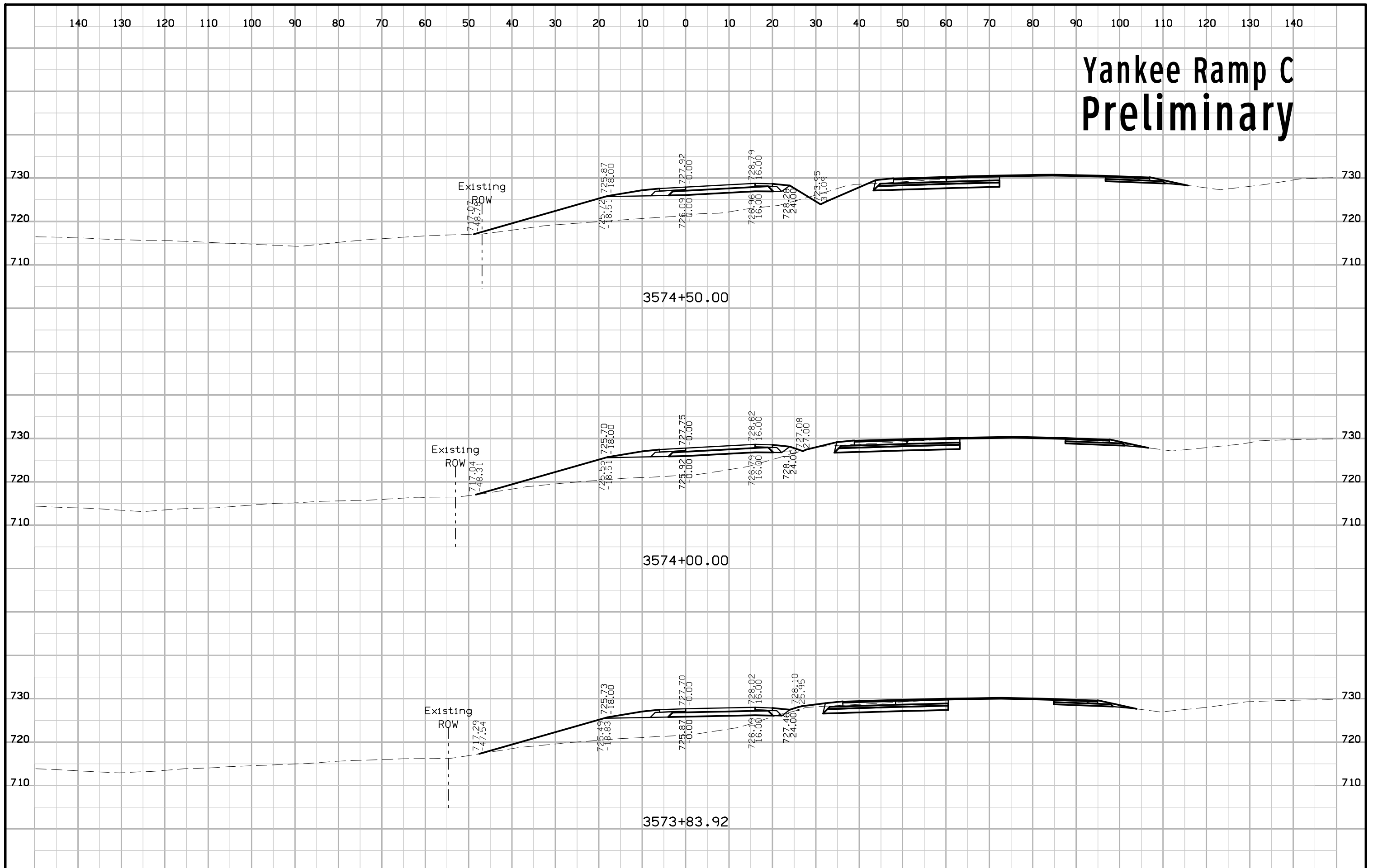
Yankee Ramp B Preliminary



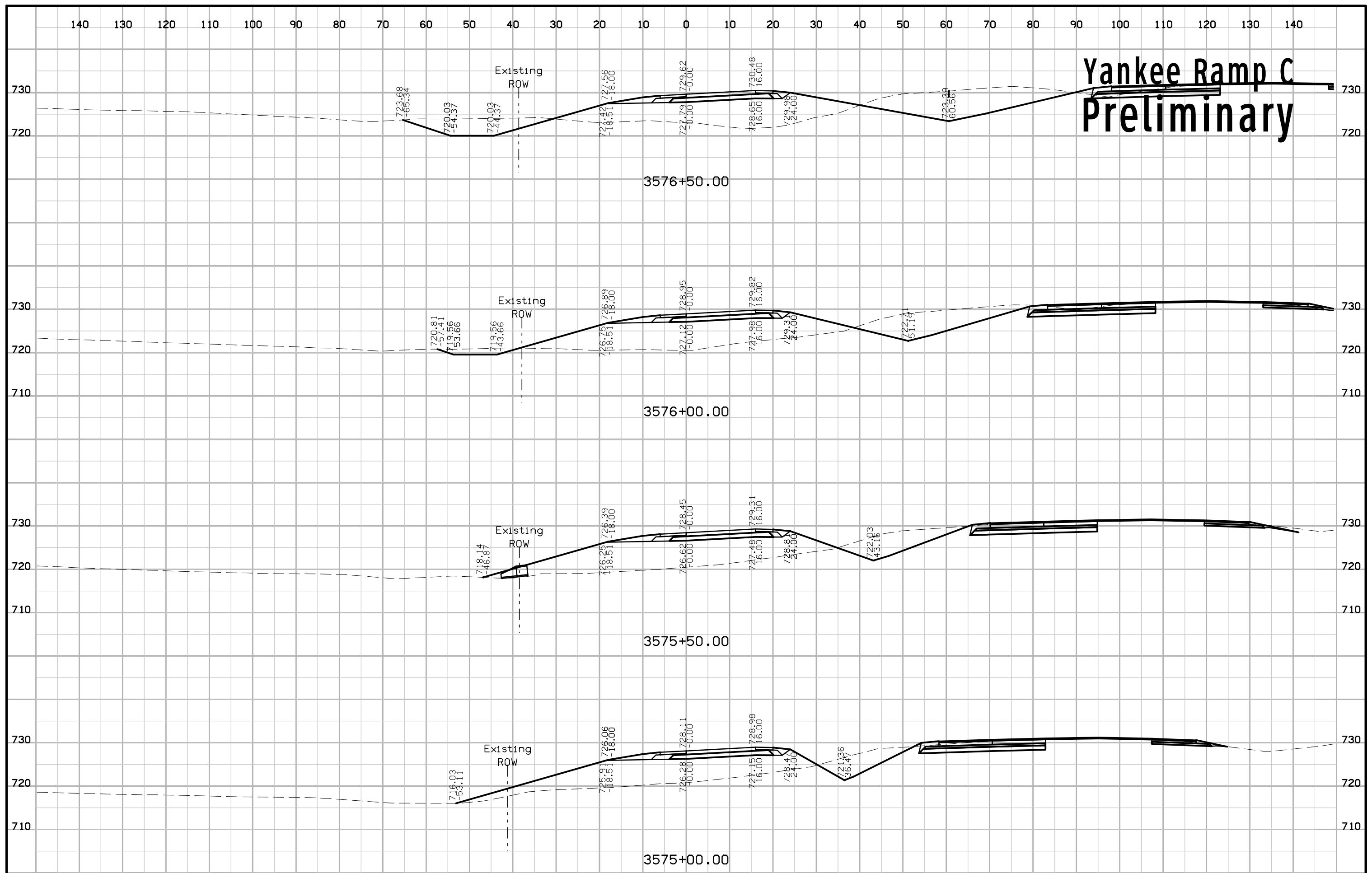
Yankee Ramp B Preliminary



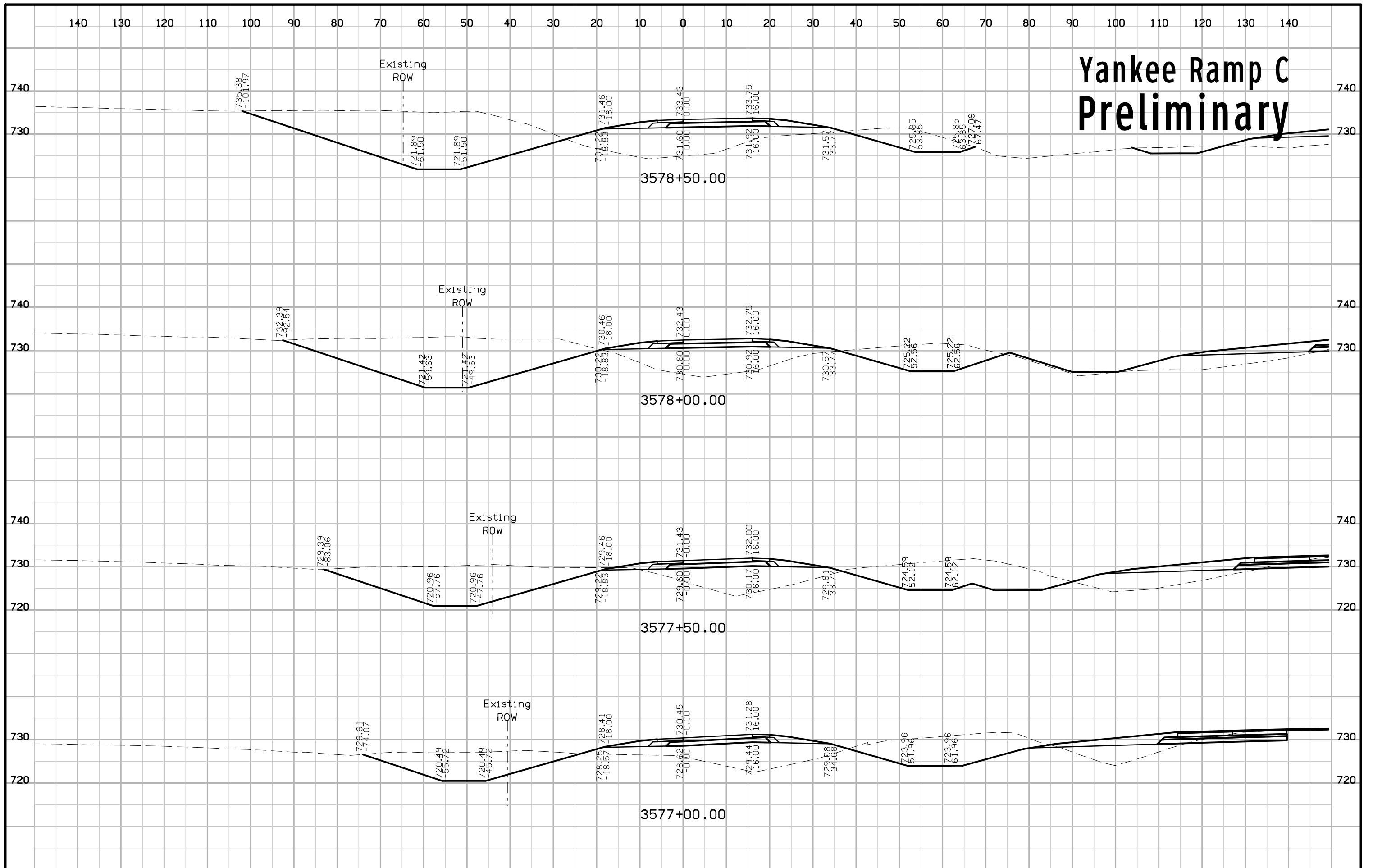
Yankee Ramp C Preliminary



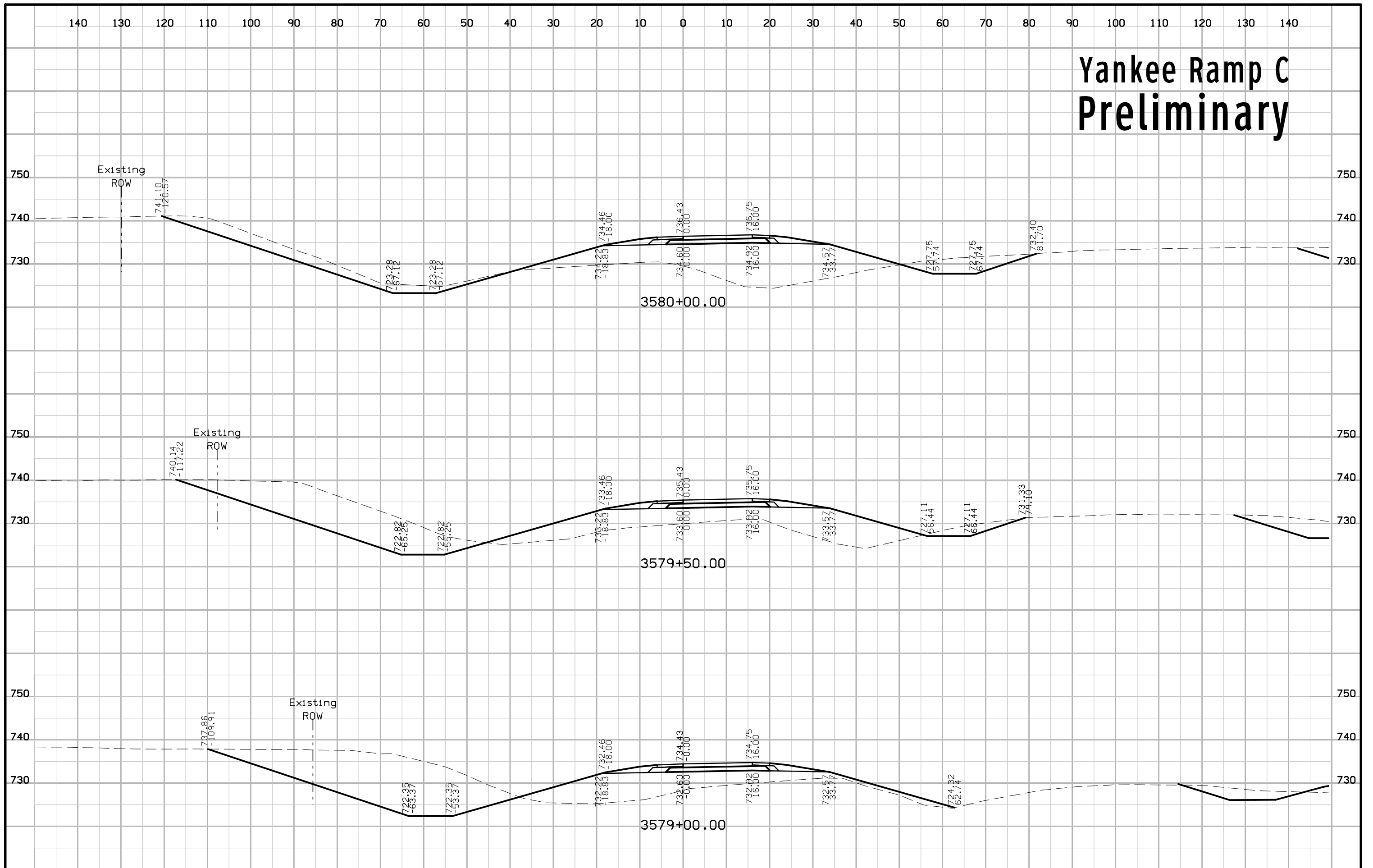
Yankee Ramp C Preliminary



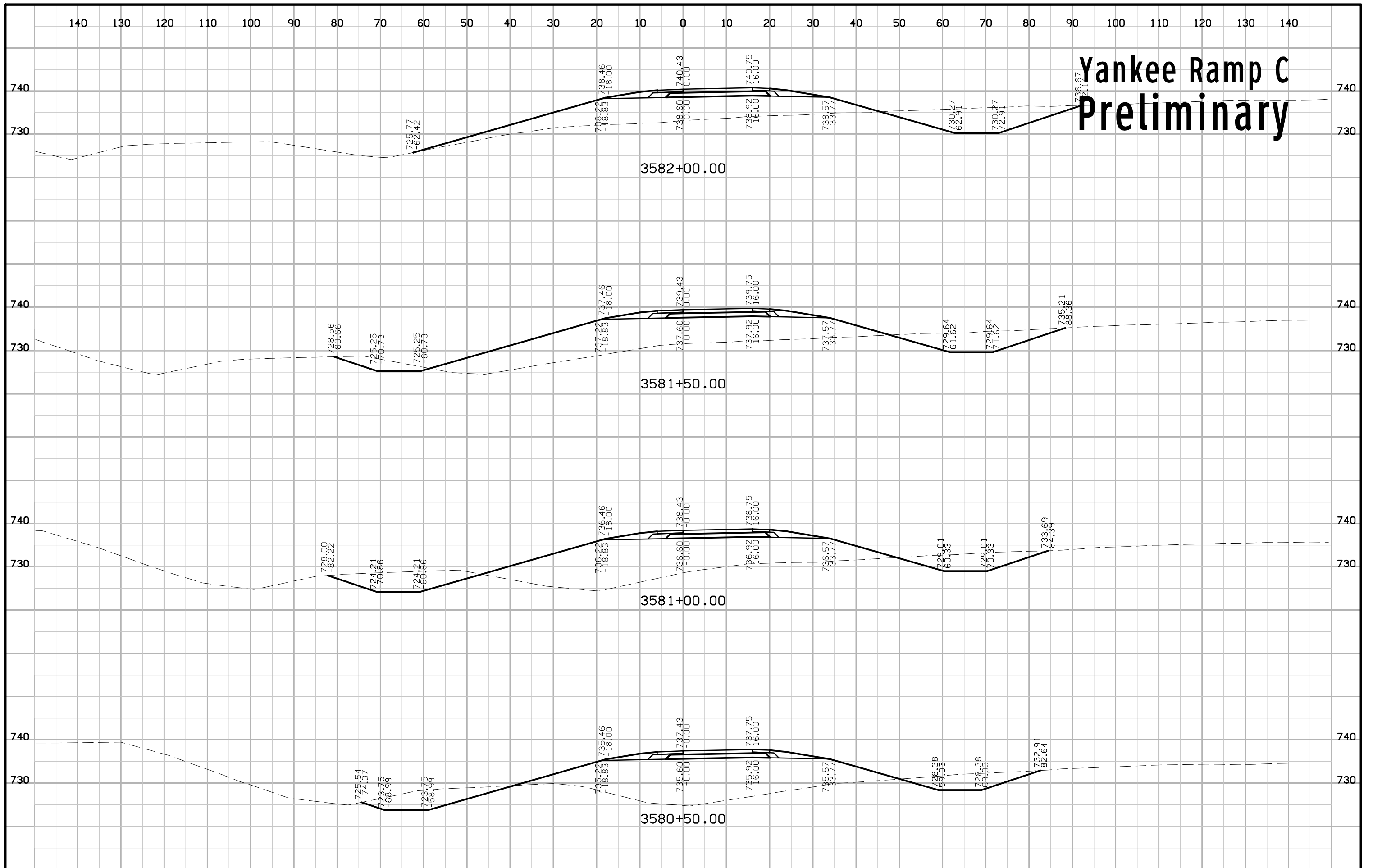
Yankee Ramp C Preliminary



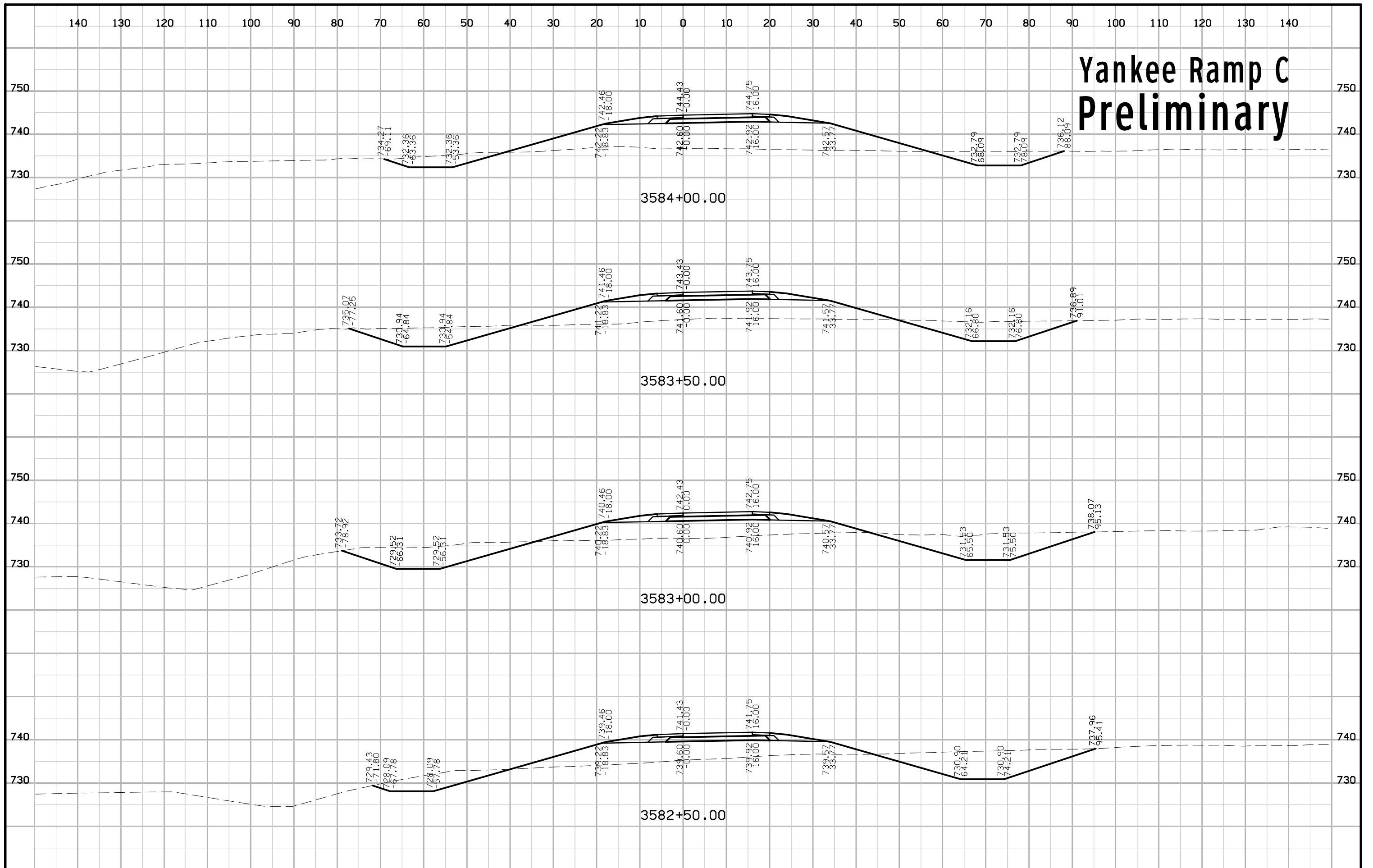
Yankee Ramp C Preliminary



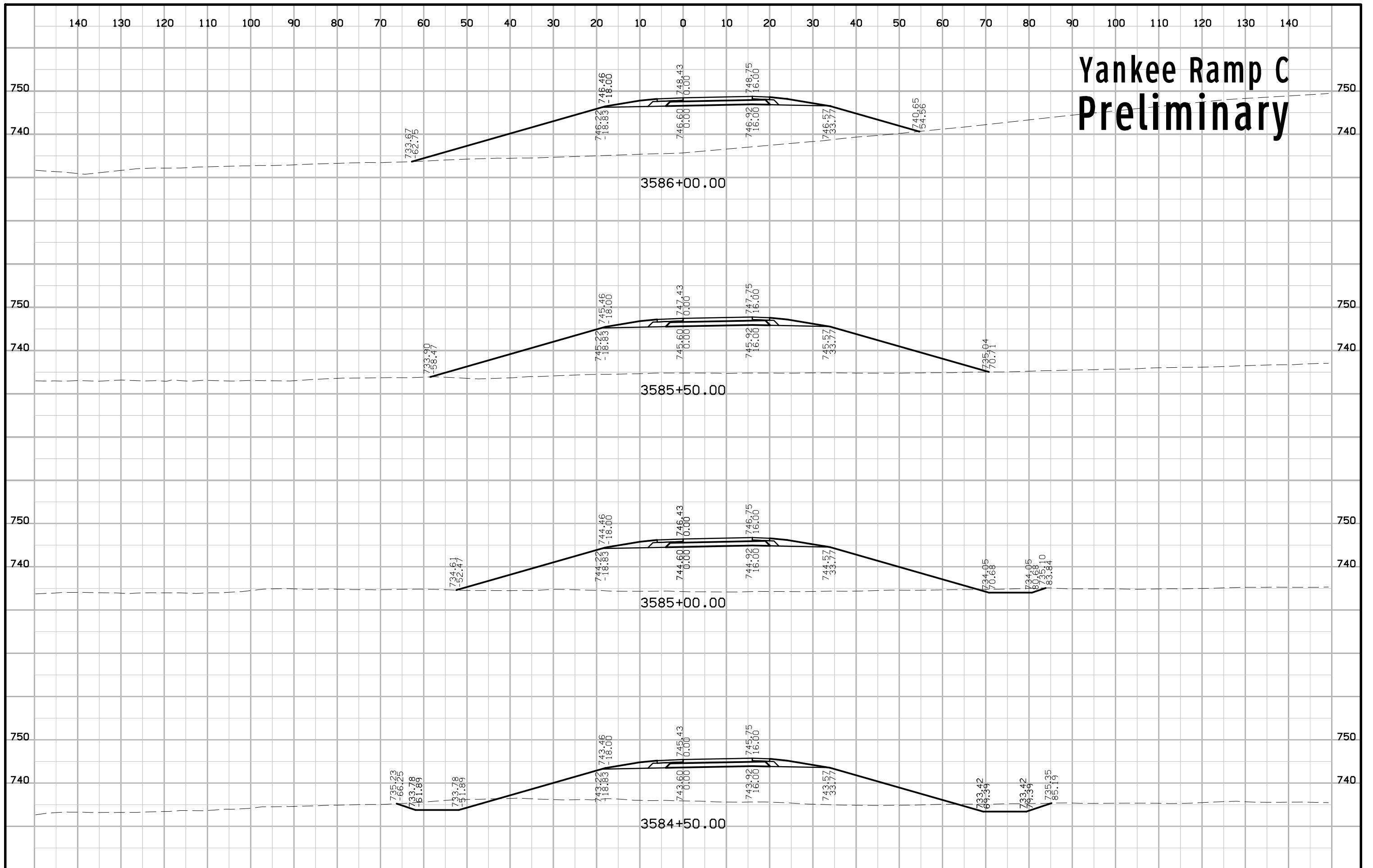
Yankee Ramp C Preliminary



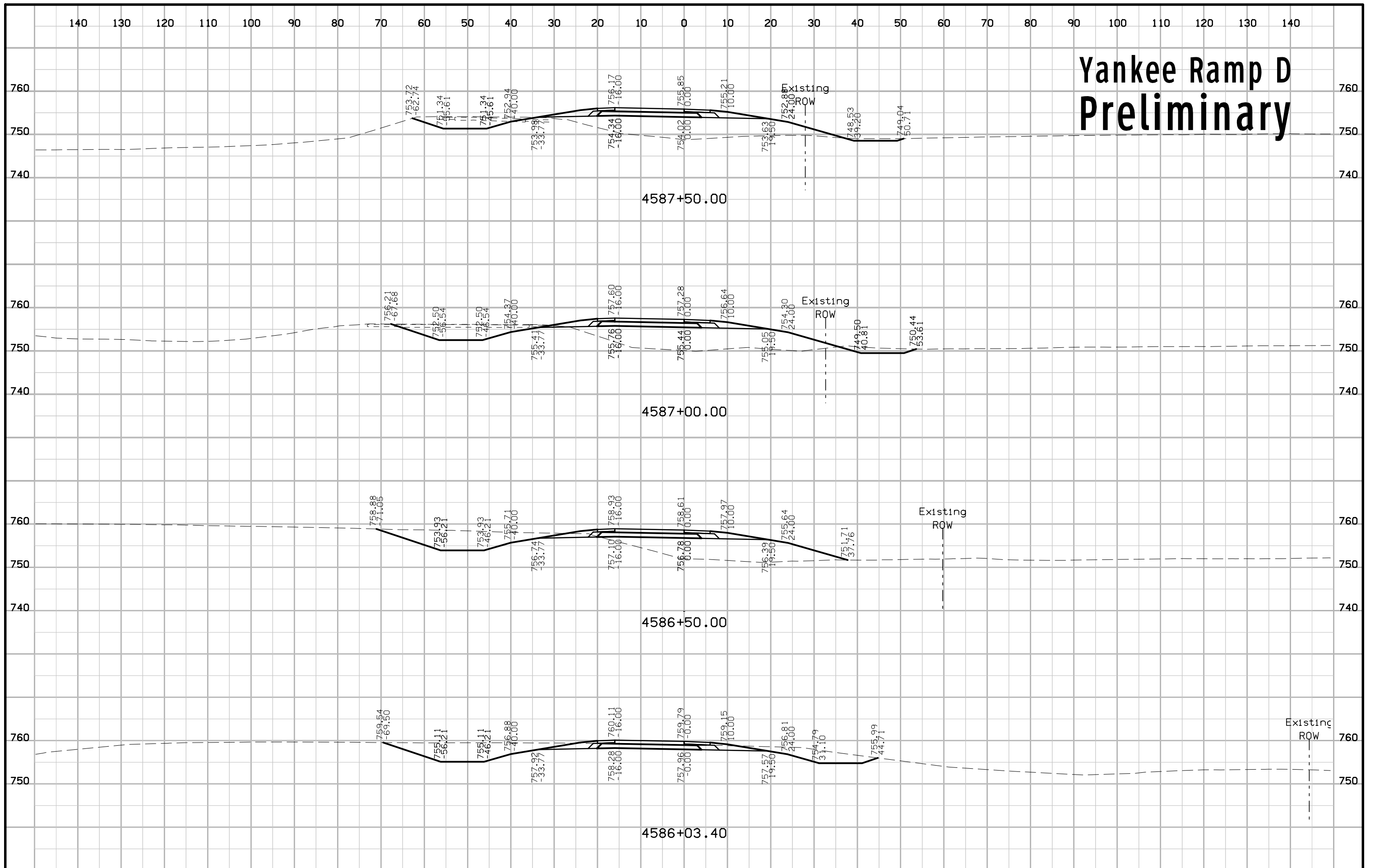
Yankee Ramp C Preliminary



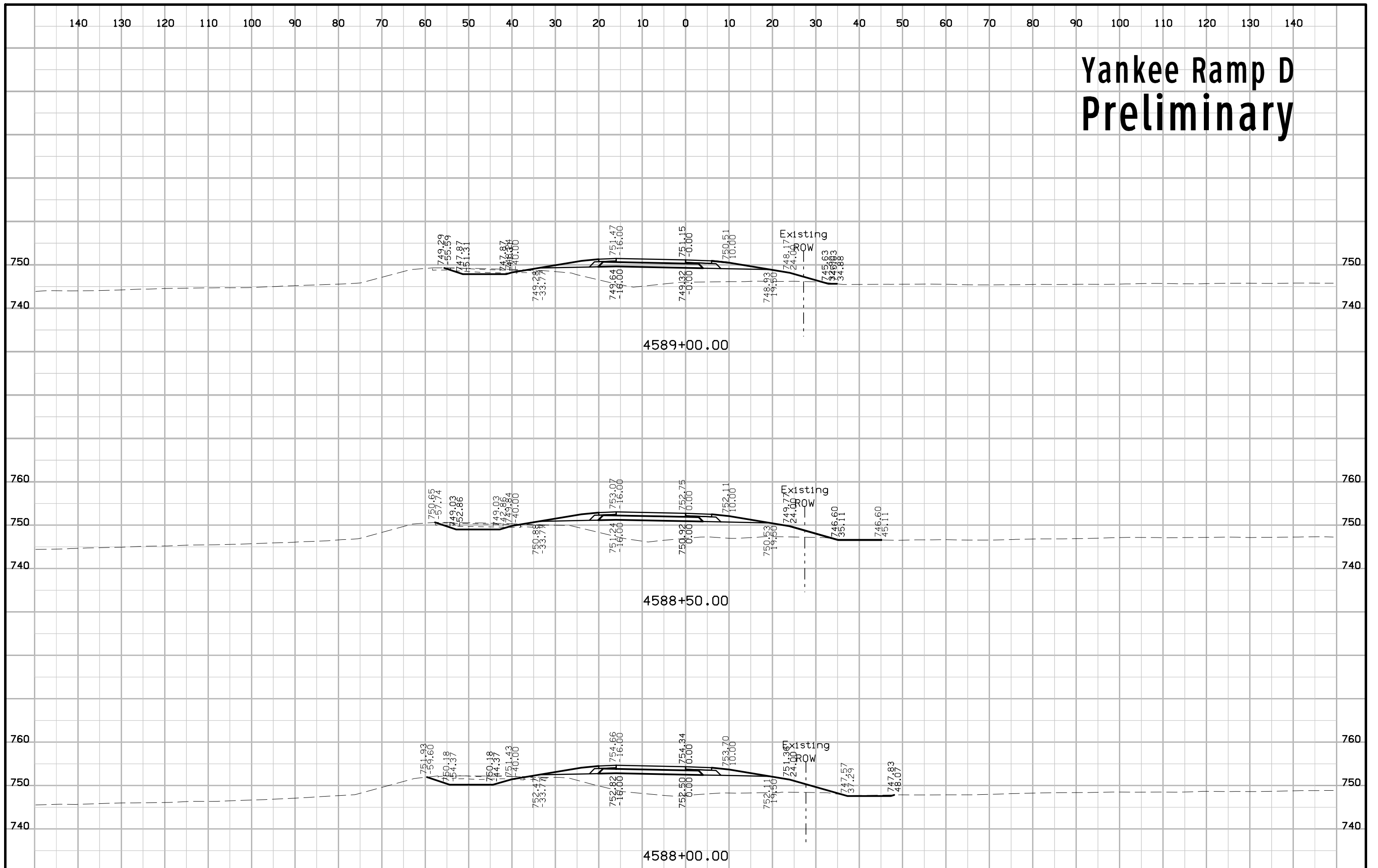
Yankee Ramp C Preliminary



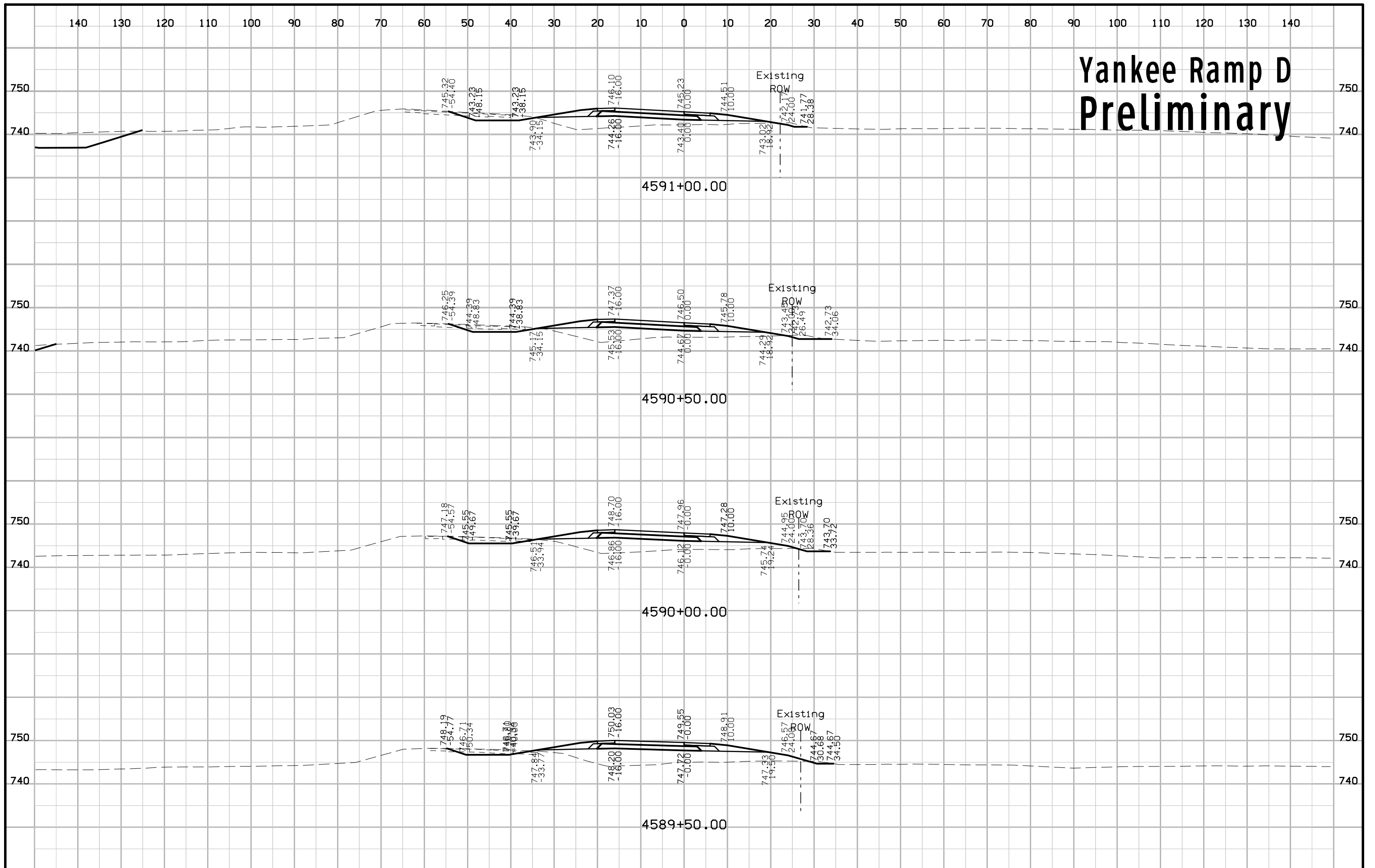
Yankee Ramp D Preliminary



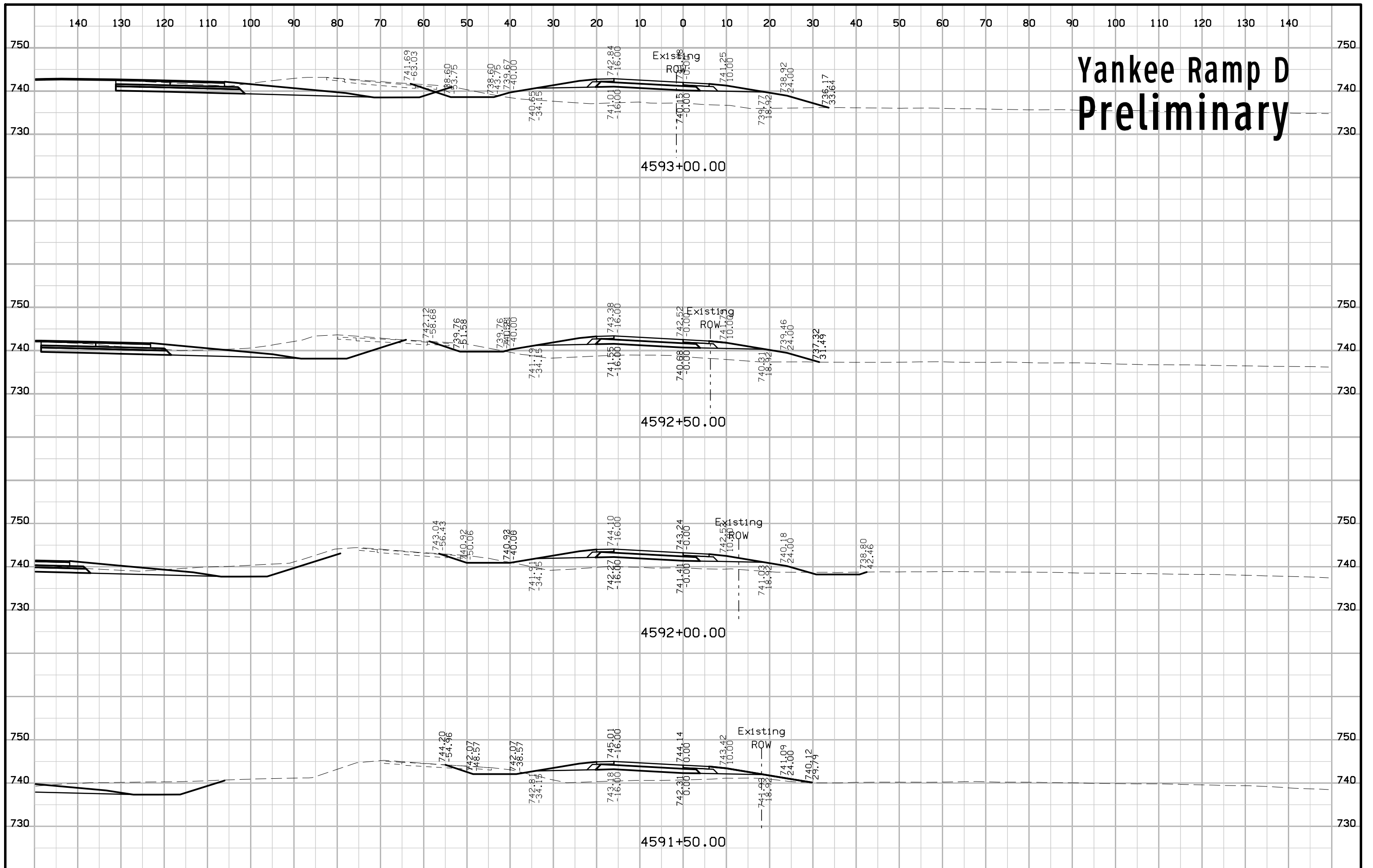
Yankee Ramp D Preliminary



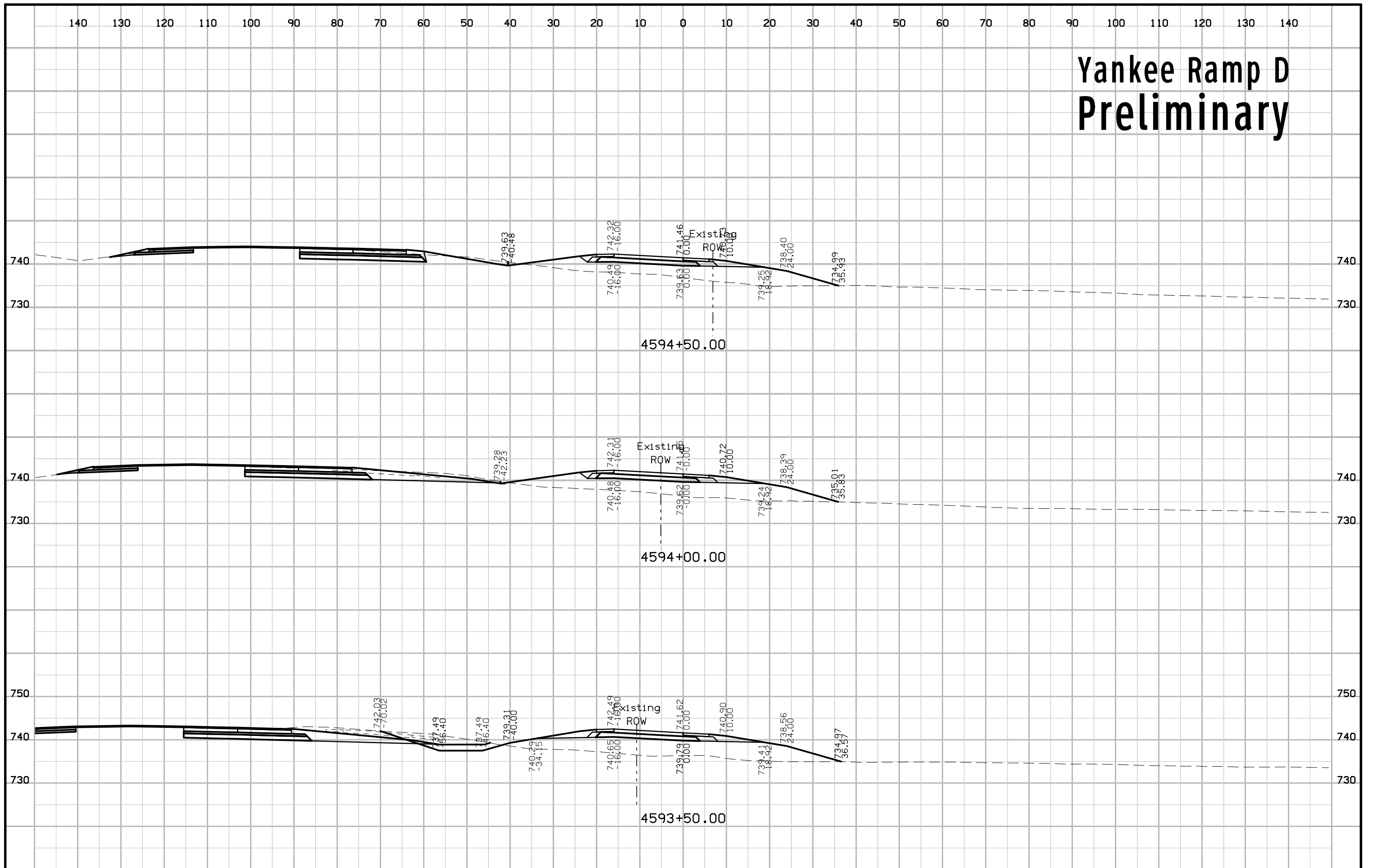
Yankee Ramp D Preliminary



Yankee Ramp D Preliminary



Yankee Ramp D Preliminary



Yankee Ramp D Preliminary

