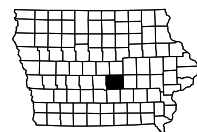


JASPER CO.

RECONSTRUCTION

LETTING DATE
XX-XX-XXXX

IMX-80-5(307)174--02-50



INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 6	Typical Cross Sections and Details
B.7 - 8	As-Built Plan Sheets
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 23	Interstate 80
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 3	108th Street
G Sheets	Survey Sheets
G.1 - 3	Reference Ties and Bench Marks
G.4 - 5	Horizontal Control Tab. & Super for all Alignments
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
J.1	Staging Notes Stage
* J.2	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.4 - 19	Staging and Traffic Control Sheets
U Sheets	500 Series, Mod.Stds. and Detail Sheets
U.1 - 2	Superelevation Details
U.3 - 4	12th Street Roadbed Obliteration
V Sheets	Bridge and Culvert Situation Plans
V.1 - 5	Bridge and Culvert Situation Plans
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 25	I-80 Eastbound Shoulder Strengthening
W.26 - 91	I-80 Eastbound Lanes
W.92 - 116	I-80 Transition Pavement
W.117 - 183	I-80 Westbound Construction
W.183 - 255	I-80 Median Construction
X Sheets	Side Road Cross Sections
X.1 - 18	Side Road Cross Sections
	* Color Plan Sheets



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

INTERSTATE ROAD SYSTEM
JASPER COUNTY
RECONSTRUCTION

I-80 Over the North Skunk River
2.1 Miles East of IA 224

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



REVISIONS

TOTAL
XXX
PROJECT IDENTIFICATION NUMBER
04-50-080-020
PROJECT NUMBER
IMX-80-5(307)174--02-50
R.O.W. PROJECT NUMBER
IMN-080-5(241)176--0E-50

MILEAGE SUMMARY

Div.	Location	Lin. Ft.	Miles
	EASTBOUND LANES		
	STA. 3086+00.00 TO STA. 3188+50.00	10,250.00	1.94
	BRIDGE: STA. 3156+47.31 TO STA. 3159+81.31	-334.00	0.06
	TOTAL:	9,916.00	1.88
	WESTBOUND LANES		
	STA. 3096+00.00 TO STA. 3184+25.00	8,825.00	1.67
	BRIDGE: STA. 3156+28.62 TO STA. 3159+62.62	-334.00	0.06
	TOTAL:	8,491.00	1.61

DESIGN DATA RURAL			
2015	AADT	30,000	V.P.D.
2035	AADT	40,500	V.P.D.
2035	DHV	4,200	V.P.H.
	TRUCKS	32	%
	Total		
	Design ESALs	--	

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

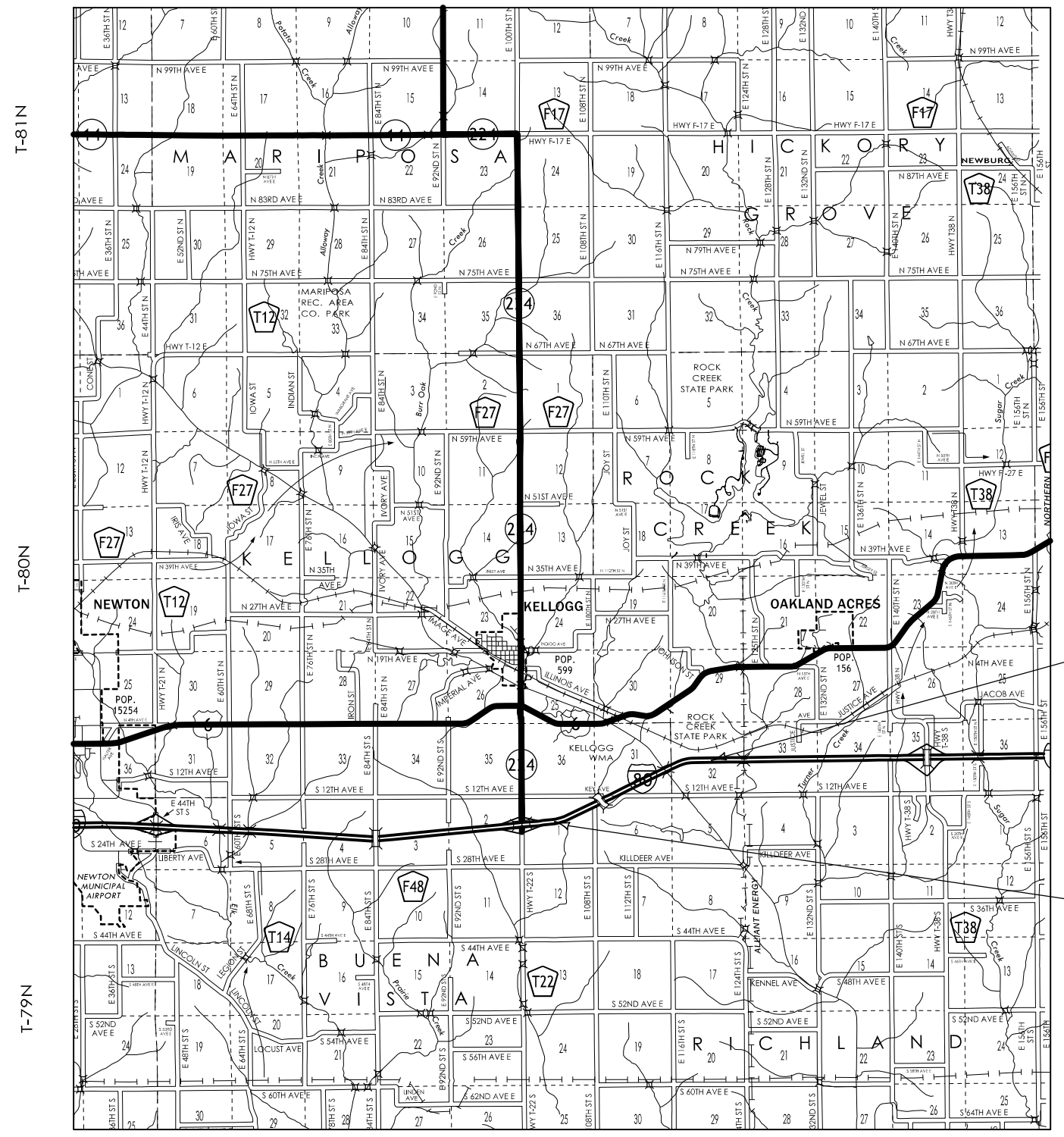
PRELIMINARY PLANS

Subject to change by final design.

D5 PLAN – Date: Oct. 3, 2014

R-18W

R-17W



T-81N

T-80N

T-79N

T-81N

T-80N

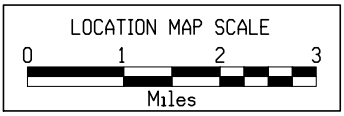
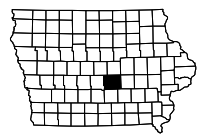
T-79N

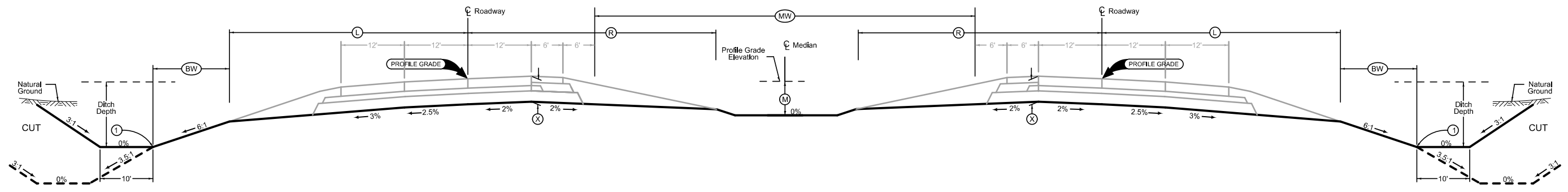
R-18W

R-17W

STA. 3188+50.00
END CONSTRUCTION
MP 175.5

STA. 3086+00.00
BEGIN CONSTRUCTION
MP 173.6





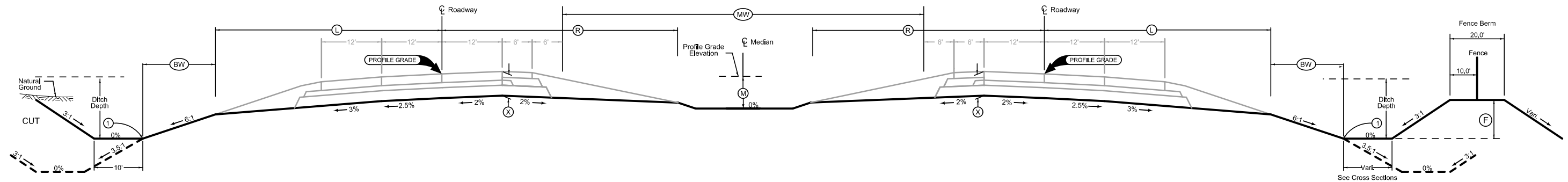
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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.

LOCATION		DIMENSIONS						
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	BW Feet	MW Feet	M Feet	
I-80	3086+00.00 - 3099+69.52	43.9	55.9	29.5	9.5	82	4	
I-80	3124+25.00 - 3188+50.00	43.9	55.9	29.5	9.5	82	4	

TYPICAL CROSS SECTION
6-LANE GRADING



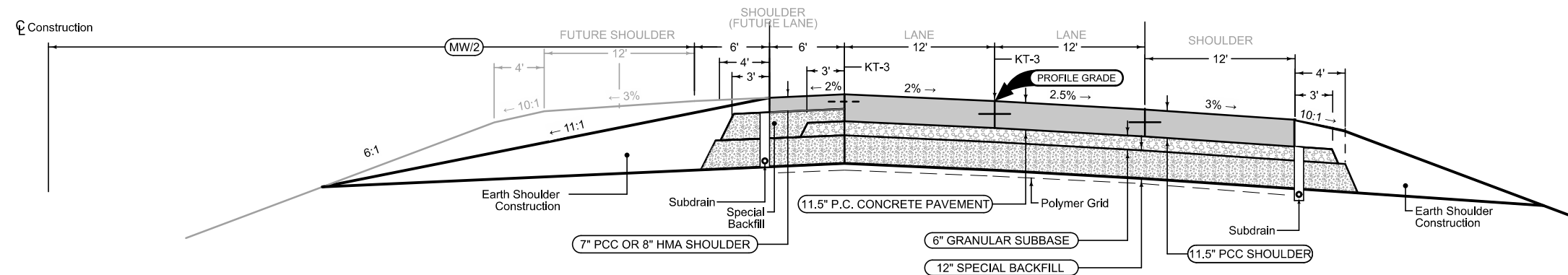
Normal section shown may be modified appropriately in areas of superelevated curves or other locations specifically designated by the Engineer.

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.

LOCATION		DIMENSIONS							
ROAD IDENTIFICATION	STATION TO STATION	L Feet	R Feet	X Inches	BW Feet	MW Feet	M Feet	F Feet	
I-80	3099+69.52 - 3124+25.00	43.9	55.9	29.5	9.5	82	4	3.5	

TYPICAL CROSS SECTION
6-LANE GRADING WITH FENCE BERM



Paved Shoulder Alternates

Refer to Curve and Superelevation Tabulations for additional information.

PCC Shoulder Jointing:
 Longitudinal joint: BT-1 or BT-3
 Transverse joints: C at 20' spacing
 HMA Shoulder Jointing:
 Longitudinal joint: B

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

2_P_ALT_ MODIFIED			
Direction of Travel	STATION TO STATION		(P) Feet
	EB	3086+00	3188+50
WB	3096+00	3184+25	6

6DP_Dprs_ 04-19-11			
Direction of Travel	BEGIN STATION	END STATION	(MW) Feet
	EB	3086+00	3188+50
WB	3096+00	3184+25	82

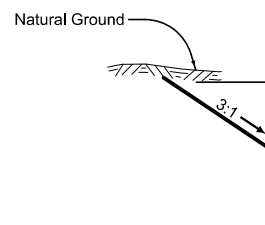
See Tab 100-24 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

INTERSTATE 80

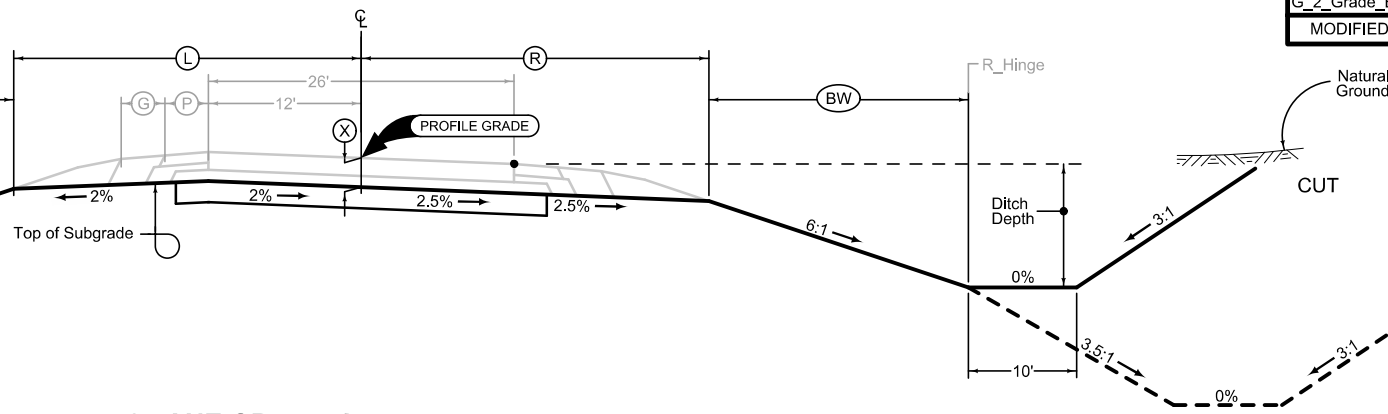
LOCATION		DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(R) Feet	(X) Inches	(BW) Feet
I-80 EB	13066+00 - 13086+11.86	29.6	35.2	17.5	20.4
I-80 EB	23188+50 - 23206+96.25	29.6	35.2	17.5	20.4

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

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



FILL



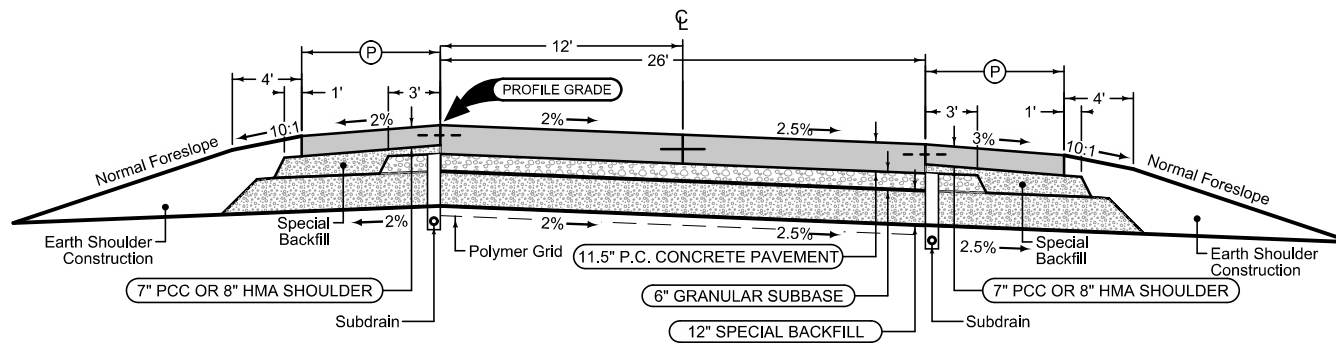
G_2_Grade_BR
MODIFIED

**2 LANE GRADING
(Barnroof Section)**

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-3
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

		2_P_ALT_		
		MODIFIED		
Direction of Travel	STATION TO STATION	(P)		Feet
EB	13079+08.27 - 13086+11.86			6
EB	23188+50 - 23206+96.25			6
WB	3184+25 - 3187+25			6
WB	3085+95 - 3089+00			6



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

		2P_		
		10-19-10		
Direction of Travel	STATION TO STATION			
EB	13066+00 - 13086+11.86			
EB	23188+50 - 23206+96.25			
WB	3085+95 - 3089+00			
WB	3184+25 - 3187+25			

Paved Shoulder Alternates

PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-3
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B

		2_P_ALT_		
		MODIFIED		
Direction of Travel	STATION TO STATION	(P)		Feet
EB	13066+00 - 13086+11.86			10
EB	23188+50 - 23206+96.25			10
WB	3184+25 - 3187+25			10
WB	3085+95 - 3089+00			10

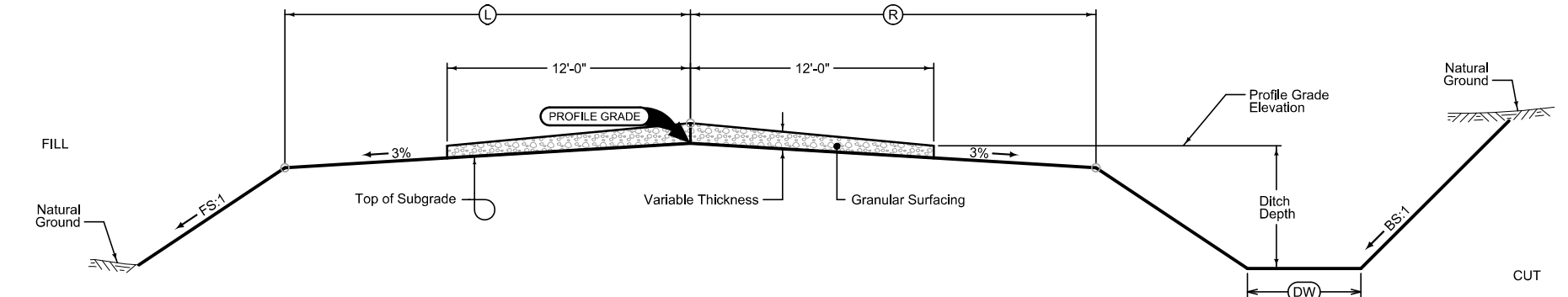
Refer to Curve and Superelevation Tabulations for additional information.

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

**INTERSTATE 80
TRANSITION PAVEMENT**

LOCATION			DIMENSIONS				
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	FS	BS	(DW) Feet
108th Ave.	504+00	538+50	14	14	3	3	10

G_2_GradeGran
04-17-12



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

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

Place Granular Surfacing as follows:
Grading design application rate is 3,330 tons per mile.

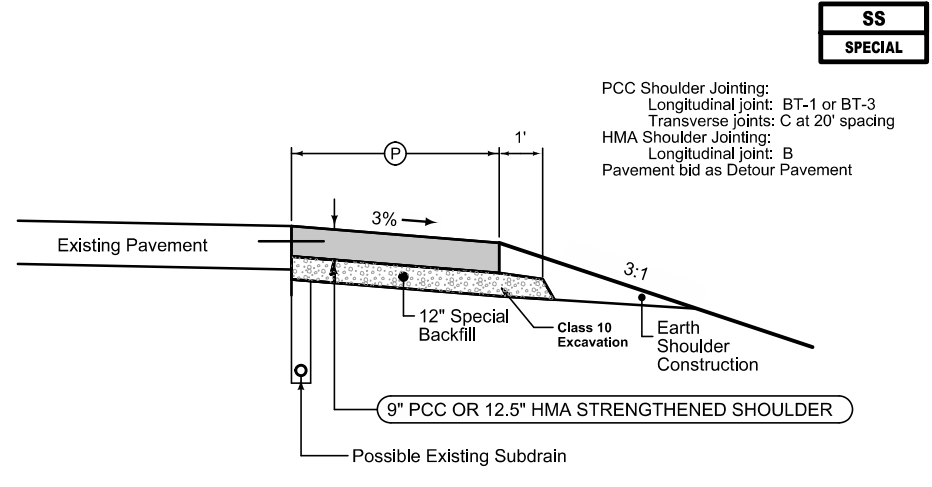
GRADING AND GRANULAR SURFACING

Station	Side	(AA)	(WL)	(TA)	(L)	Anchored X	(W) ^①	Remarks
		Feet	Feet	Feet	Feet		Ft-Inches	
3064+50 to 3079+25	RT	50	1400	25	1475			
3192+82 to 3207+50	RT	50	1375	50	1475			

① Where (W) is less than 14'-6", install restricted width signing as per Standard Road Plan TC-81.

**TEMPORARY CONCRETE BARRIER LAYOUT
for One-Way Traffic**

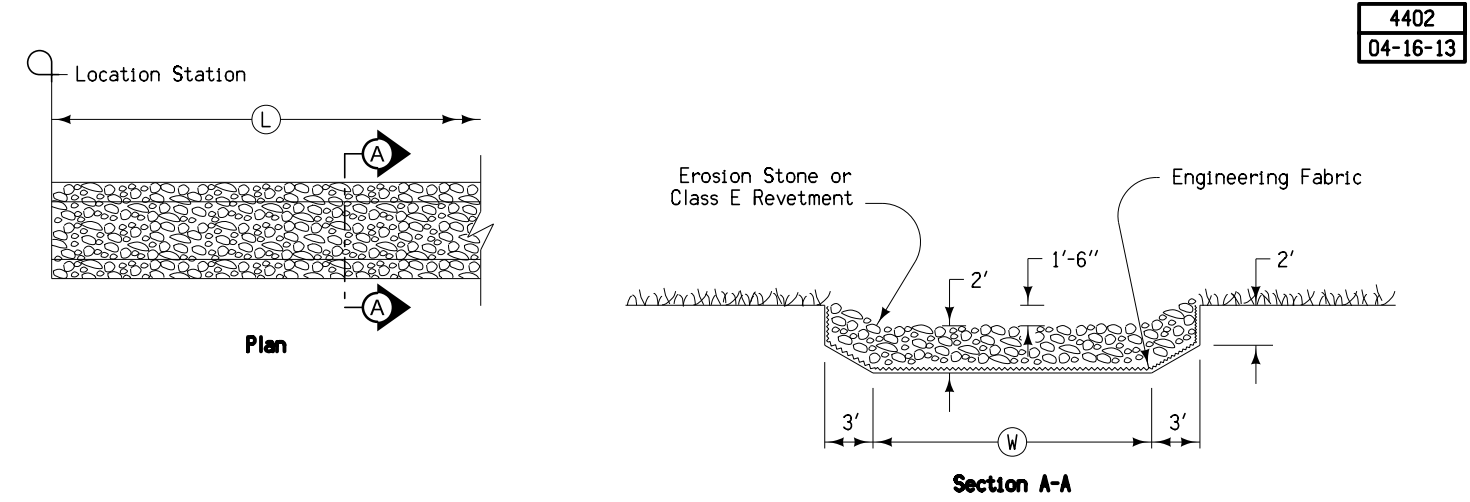
STATION TO STATION		(P) Feet	SY	Earth Shoulder Construction Sta.
3061+50	3063+97	6.6-7.3	179.0	2.47
3063+97	3068+04	7.3-14.1	585.9	4.07
3068+04	3079+00	14.1-13.6	1722.1	10.96
3079+00	3081+50	13.6-6.6	208.3	2.50
3081+50	3083+00	6.6	146.7	1.50
3188+82	3190+11	4.0	57.6	1.29
3190+11	3193+32	4.0-14.1	324.8	3.21
3193+32	3207+50	14.1	2216.8	14.18
3207+50	3210+70	14.1-4.0	319.6	3.20
3210+70	3212+00	4.0	57.9	1.30
TOTAL			5818.7	44.68



Shoulder Strengthening Alternates

**SS
SPECIAL**

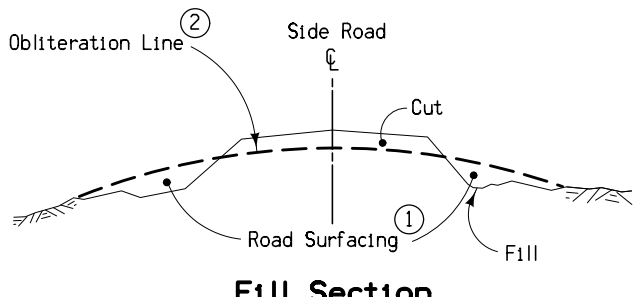
PCC Shoulder Jointing:
Longitudinal joint: BT-1 or BT-3
Transverse joints: C at 20' spacing
HMA Shoulder Jointing:
Longitudinal joint: B
Pavement bid as Detour Pavement



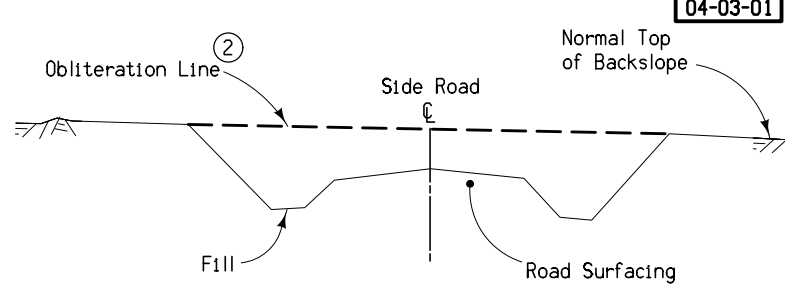
Refer to Tabulation 100-23 for additional information.

ROCK DITCH

**4402
04-16-13**



Fill Section

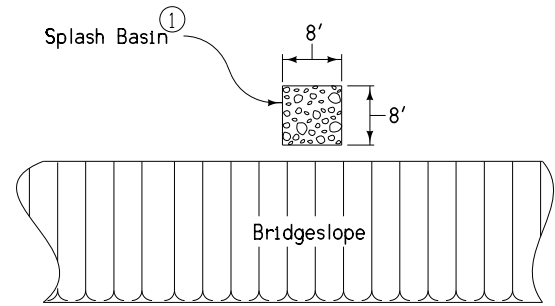


Cut Section

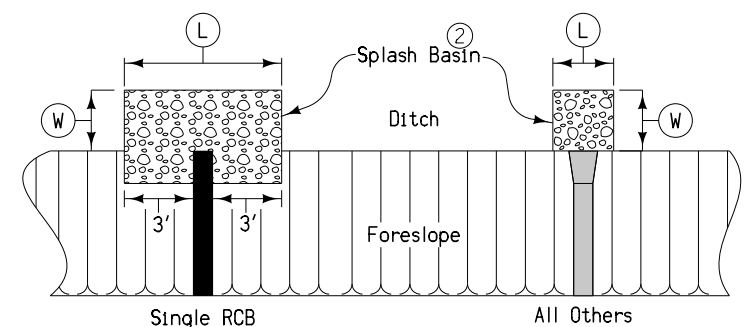
- ① Existing road surfacing (granular material) shall be placed as shown unless otherwise directed by the Engineer or provided for in the detail project plans.
 - ② When specified, the upper 1' to be suitable for vegetation (grass or crops).
- Note:
The work of obliterating or reshaping old roadbeds shall be done at the direction of the Engineer.

TYPICAL DETAILS FOR OBLITERATION EXISTING ROADBED

**4302
04-03-01**

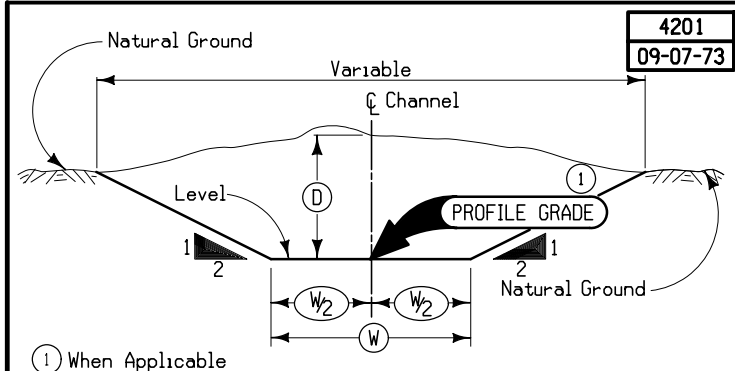


**Splash Basin Under Bridge Drain
Plan View**



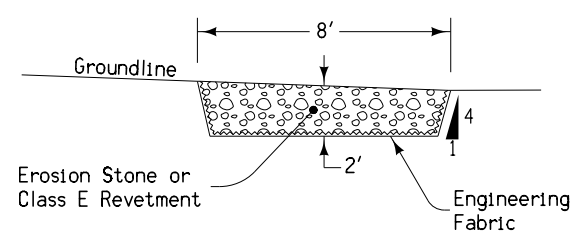
**Splash Basin at Culvert Outlet
Plan View**

**4404
10-15-13**

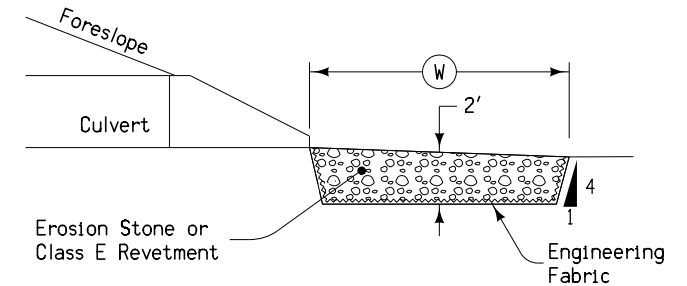


**TYPICAL CROSS SECTION
TYPE 1 CHANNEL**

LOCATION		WIDTH (W)	DEPTH (Average) (D)
STATION	SIDE		
3113+75.00	RT.	15.0	3.0



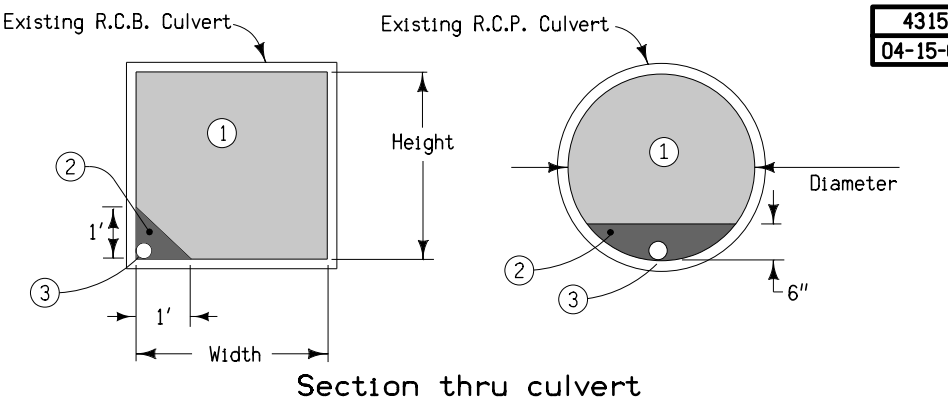
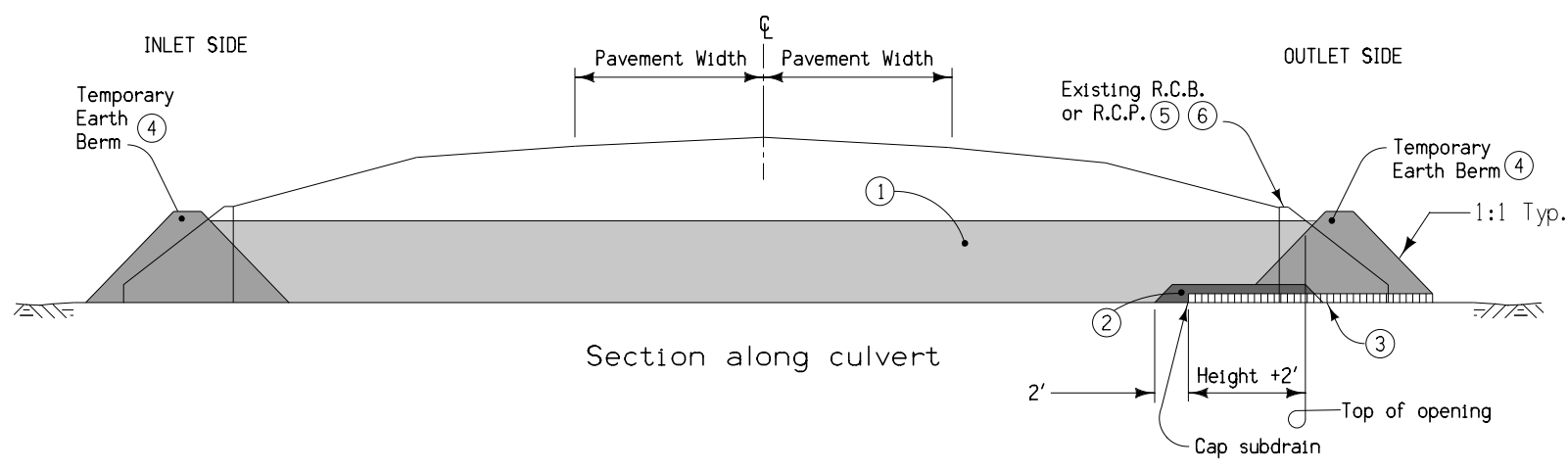
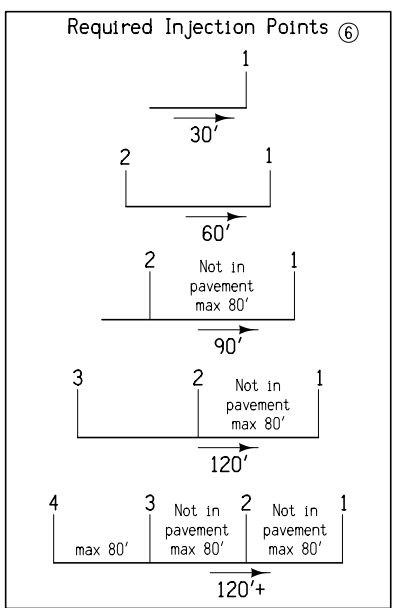
**Splash Basin Under Bridge Drain
Typical Section**



**Splash Basin at Culvert Outlet
Typical Section**

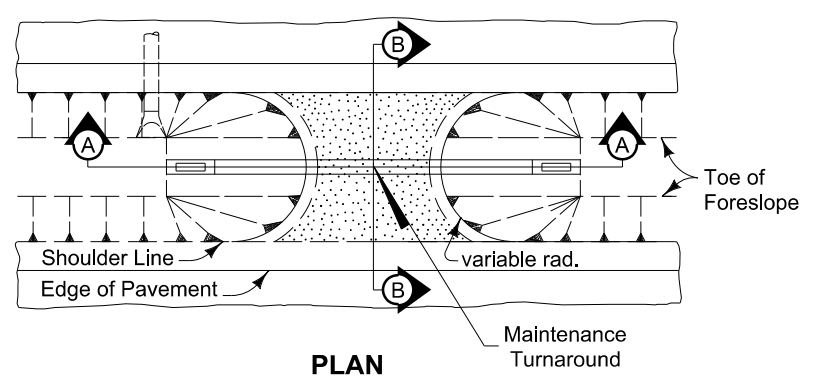
- ① Center splash basin directly under bridge drain.
 - ② For single RCB, extend splash basin along the outside of the wings to the face of the parapet. Construct to a width of 3 feet and a depth of 2 feet.
- Refer to Tabulation 100-23 for additional information.

ROCK SPLASH BASIN

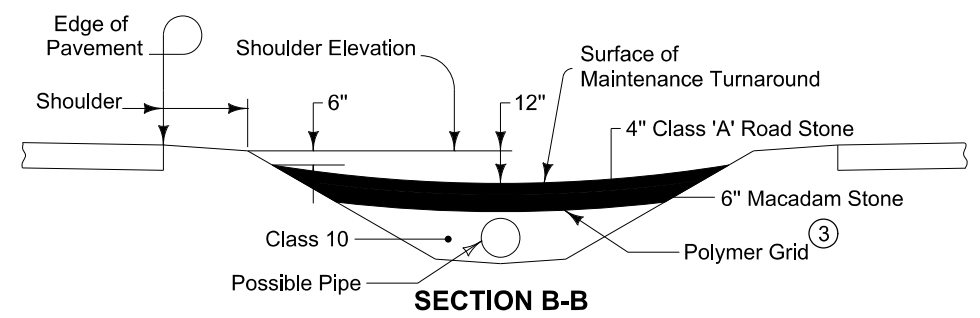
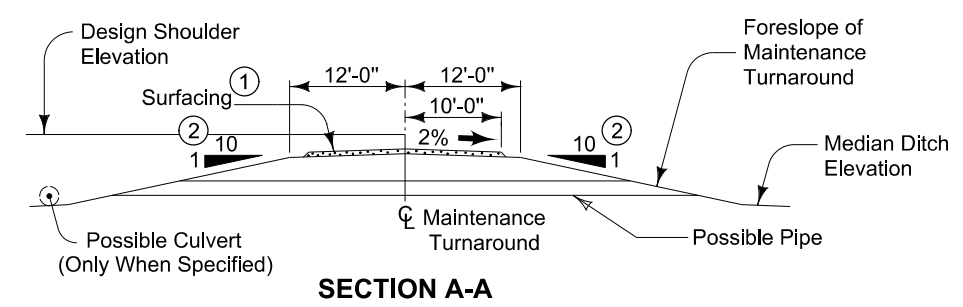


- ① Flowable Mortar.
- ② Granular Backfill.
- ③ 4" subdrain at flowline elevation of culvert shall be extended into the culvert a distance of 2' plus the height of the culvert. Granular Backfill covers subdrain and extends an additional 2'. Subdrain and granular backfill are incidental to flowable mortar.
- ④ Ends of culvert shall be plugged sufficiently to retain flowable mortar. Temporary earth berms are incidental to flowable mortar.
- ⑤ Removal of headwalls may be required.
- ⑥ Outlet shall be filled first. See injection point detail for additional information.

DETAILS OF CULVERT ABANDONMENT WITH FLOWABLE MORTAR
(Rectangular structures less than 8' in either height or width.
Circular structures less than 10' Dia.)



- ① Surfacing quantities based on a 6 inch layer of Macadam Stone base and a 4 inch layer of Class 'A' Road Stone. Apply surfacing as directed by the Engineer.
- ② Construct 8:1 foreslope when drainage pipe is incorporated into the maintenance turnaround.
- ③ Install Polymer Grid between earth fill and stone material.
- ④ See Standard Road Plan RF-27



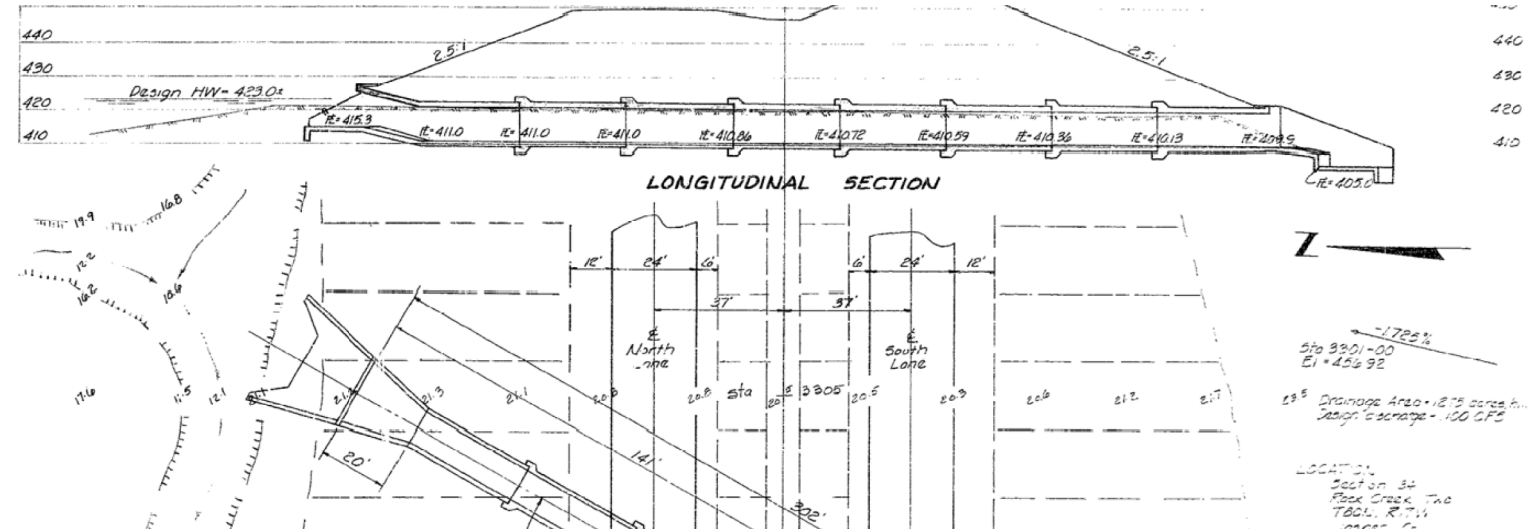
MAINTENANCE TURNAROUND

Location		Macadam Stone	Class 'A' Road Stone	Polymer Grid	Class 10	Pipe Length	Beveled Pipe & Guard (4)	Remarks
Road Identification	Station	Tons	Tons	SY	CY	LF	Each	
I-80	3166+10.00	X	X	X	X	X	X	Construct with Median Project

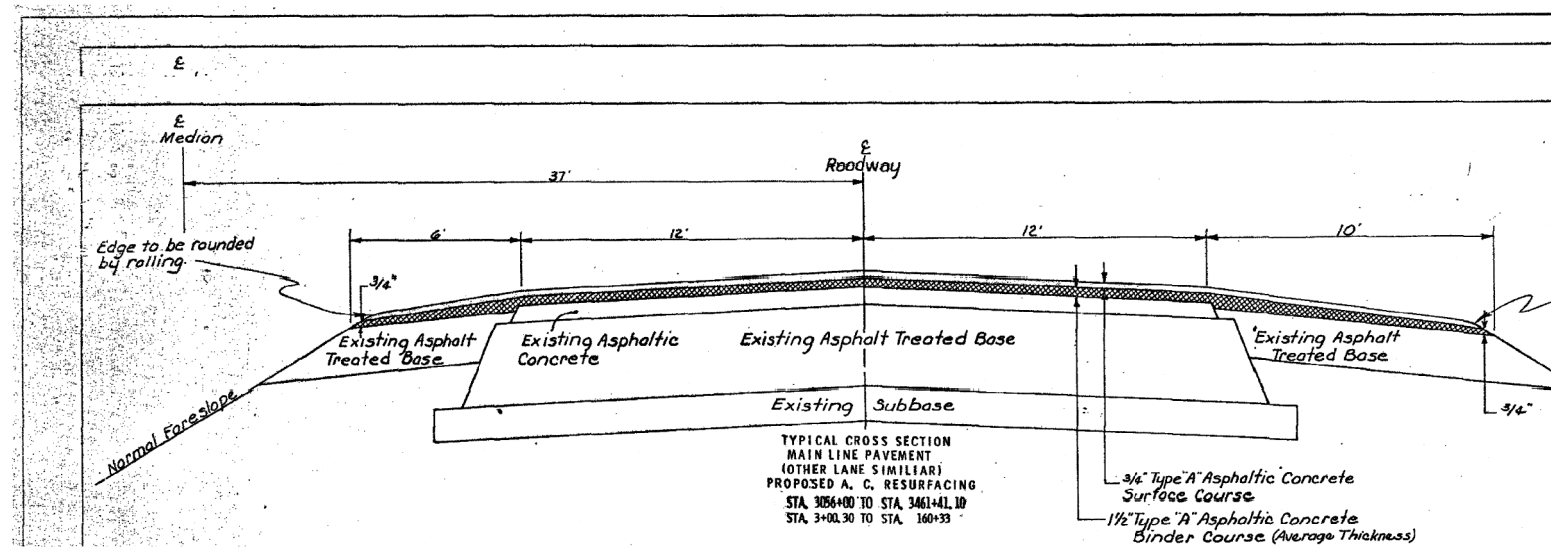
JASPER COUNTY 2011 CONSTRUCTION HISTORY

CO	ROUTE	D I R	BEG. MILE POST	END. MILE POST	T Y P	PROJECT NO.	SUR TYPE	SUR DEP.	BASE TYPE	BASE DEP.	SUB BASE TYPE	SUB BASE DEP.	RE-MOVE TYPE	RE-MOVE DEP.	COARSE AGGREGATE	AGG. TYPE	D U R	REMARKS	RELATIVE INDEXES			
																			IRI	C&P	RPI	PCI 2010
50	I-080	1	174.21	180.64	2004	IMX-080-5 (196)174--02-50	HMA	2.0	HMA	2.0									0.87	47	44	80
					1984	IR-80-5 (105)173	RAC	1.5	RAC	1.5			MIL	2.0	FERGUSON			C.LST.				
					1968	I-IG-80-5 (34)178--04-50	AAC	0.5	AAC	1.5					FERGUSON			C.LST.				
					1962	I-IG-80-5 (20)183	AAC	3.0	ATB	14.0	SAS	6.0										

Vertical FF	610	13'-0"		2336.7	
Horizontal	160	15'-0"		5648.0	
Inlet	20	21'-0"		420.0	
FF	20	6'-11" to 27'-6"	28'-6"	366.0	
BF	10	11'-10" to 29'-7.30"		390.7	
Vertical	42	9'-1" to 14'-10"		544.3	
	12	10'-6"		126.0	
	14	9'-0"		126.0	
	12	2'-9" to 4'-8"		44.5	
FF	54	2'-9" to 12'-10"		420.9	
	12	6'-0"		72.0	
Bottom	8	4'-6" to 4'-21"		148.0	
Bottom barrel	72	3'-5"		2526.0	
Top	32	3'-5"		1122.7	
Bottom inlet	17	21'-0"		357.0	
Top	2	21'-4"		42.7	
Barrel	72	3'-5"		2526.0	
Bottom	14	3'-5"		501.3	
Top inlet	17	21'-0"		357.0	
Bottom	2	21'-4"		42.7	
Hoops	19	19'-4"		367.3	
Transverse	32	5'-7"		178.7	
Bottom barrel	448	4'-0" to 4'-12"		131.3	5528.8
Bottom inlet	896	12'-4"		5071.6	576.7
Bottom inlet	33	12'-6" to 22'-4"		437.3	5674.8
Top barrel	448	5'-0" to 7'-7"		5071.6	569.0
Top inlet	33	12'-10" to 22'-4"			

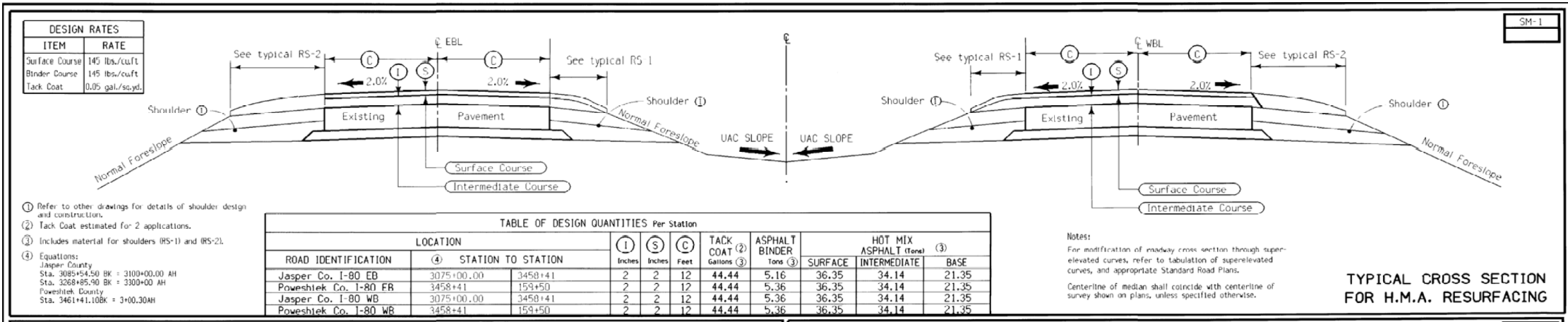


1962

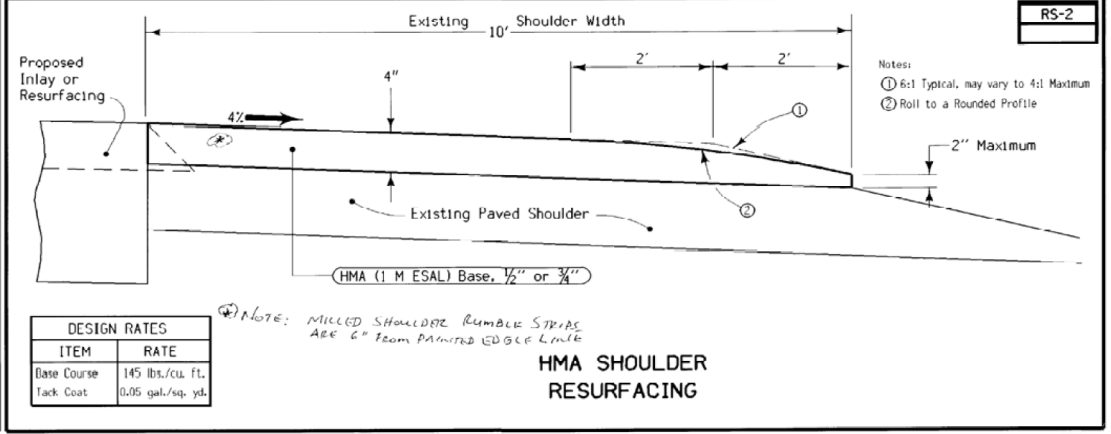
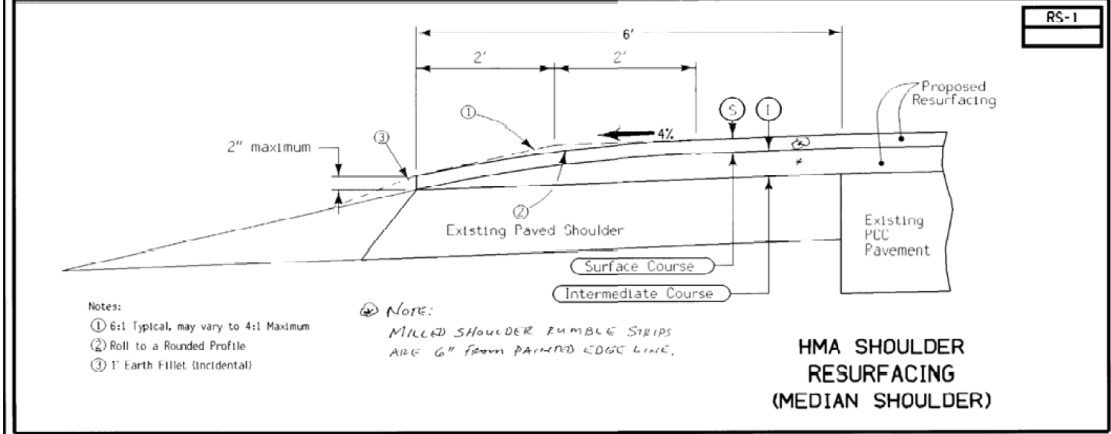


1968

For Information Only



2004



For Information Only

SURVEY SYMBOLS

- PR Electric Riser Pole
- COS Square Bridge Pier Column
- OUT Tile Outlet
- UB Utility Box
- TPD Telephone Pedestal
- GDL Guard Rail Steel
- RET Retaining Walls
- WW Water Valve
- WHU RV Water Hook Up
- LP L.P. Tank
- SEP Septic Tank
- D Centerline Draw or Stream (Down)
- DU Centerline Draw or Stream (Up)
- EG Edge of Gravel Road
- FOA Underground Fiber Optic Co. 1
- WLA Underground Water Line Co. 1
- FOB Underground Fiber Optic Co. 2
- FOC Underground Fiber Optic Co. 3
- ELA Underground Electric Line Co. 1
- EB Electrical Box
- GLA Underground Gas Line Co. 1
- GDL Guard Rail Steel
- SI Sign
- TDC Tree Deciduous
- DIK Centerline of Dike or Dam
- TEV Evergreen Tree
- D Centerline Draw or Stream (Down)
- PPA Power Pole Co. 1
- ENU Edge Unpaved Entrance & Parking
- EG Edge of Gravel Road
- FWD Wood Fence
- WM Wind Mill
- EW Edge of Water
- BNK Stream Bank
- BIN Grain Bin
- BB Billboard
-

- Alliant
- Iowa Network Services
- Central Iowa Water Association
- Iowa Communications Network
- Mediacom
- Alliant
- Alliant

UTILITY LEGEND

Alliant Energy
Jason Hogan
608-458-4871

CIWA
Jim LaPlant
641-792-7011

ICN
Larry Klawitter
515-725-4741

INS
Jeff Klocko
515-830-0445

City of Kellogg
Curt Babbitt
515-526-3403

Windstream/PAETEC
Dale Graff
641-990-3297

Partner Communications
Don Jennings
641-498-7701

Mediacom
Paul May
515-669-3647

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	
Yellow	(4)		Highlight for Critical Notes or Features
Red	(3)		Delineates Restricted Areas
Lavender	(9)		Temporary Pavement Shading
Gray, Light	(48)		Proposed Pavement Shading
Gray, Med	(80)		Proposed Granular Shading
Gray, Dark	(112)		Proposed Grade and Pave Shading
Brown, Light	(236)		Grading Shading
Green-Gray	(138)		Transition Pavement

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

CONVENTIONAL SIGNS

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

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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

BUENA VISTA TWP
T-79N - R-18W
SECTION 1



Sta. 3061+50.00
Begin Shoulder Strengthening

PC Sta 13066+00.00

PCC Sta 13066+07.54

PC Sta 3067+96.24

PI Sta 13066+03.77

POC Sta. 13066+00.00 (TEMP3066)
= POT 3066+00.00 36.98 RT (ML080)
Begin Transition Paving

3055

3060

3065

13070 3070

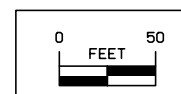
I-80 (WB)

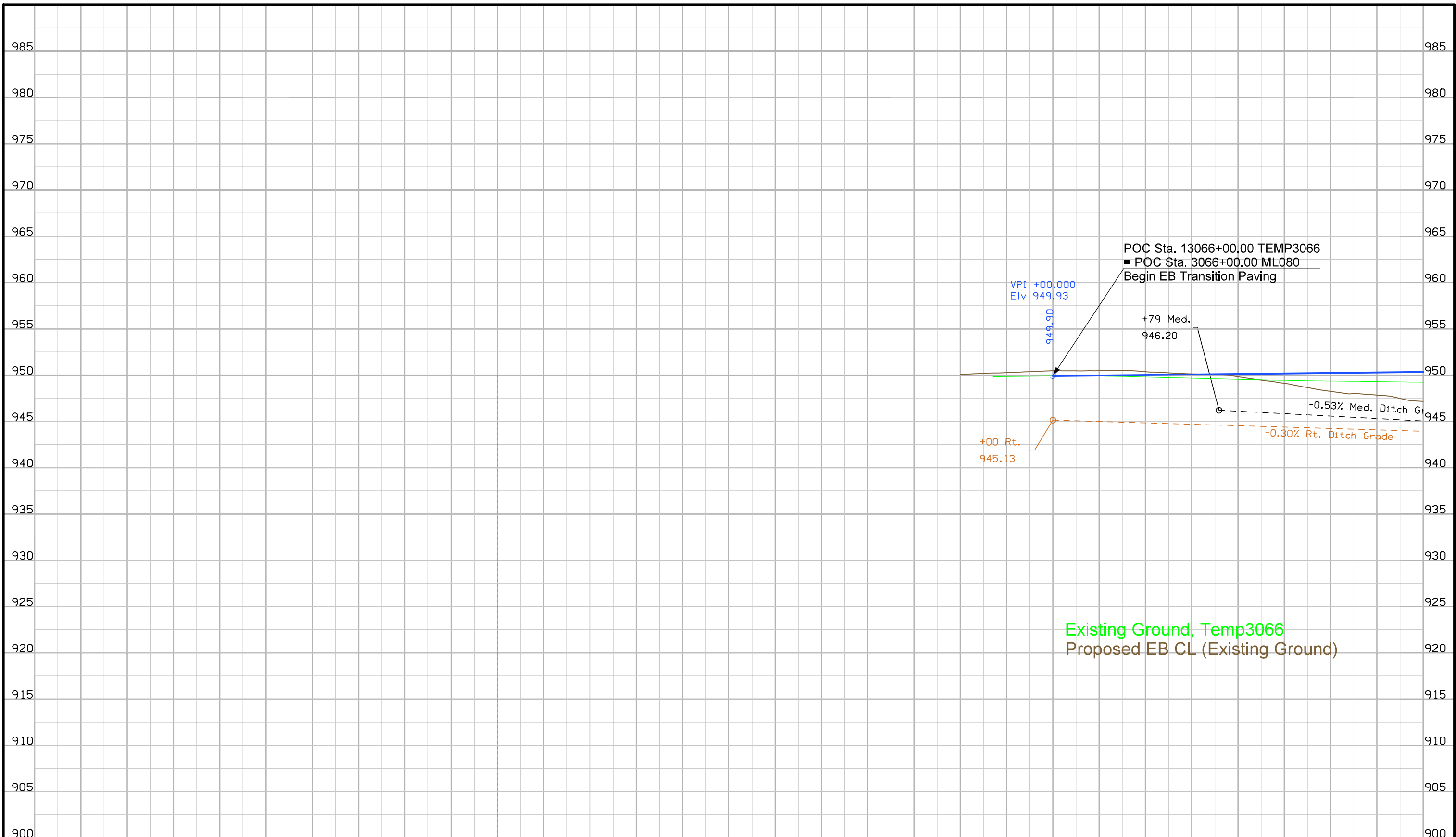
I-80 (EB)

F02

F02

F02



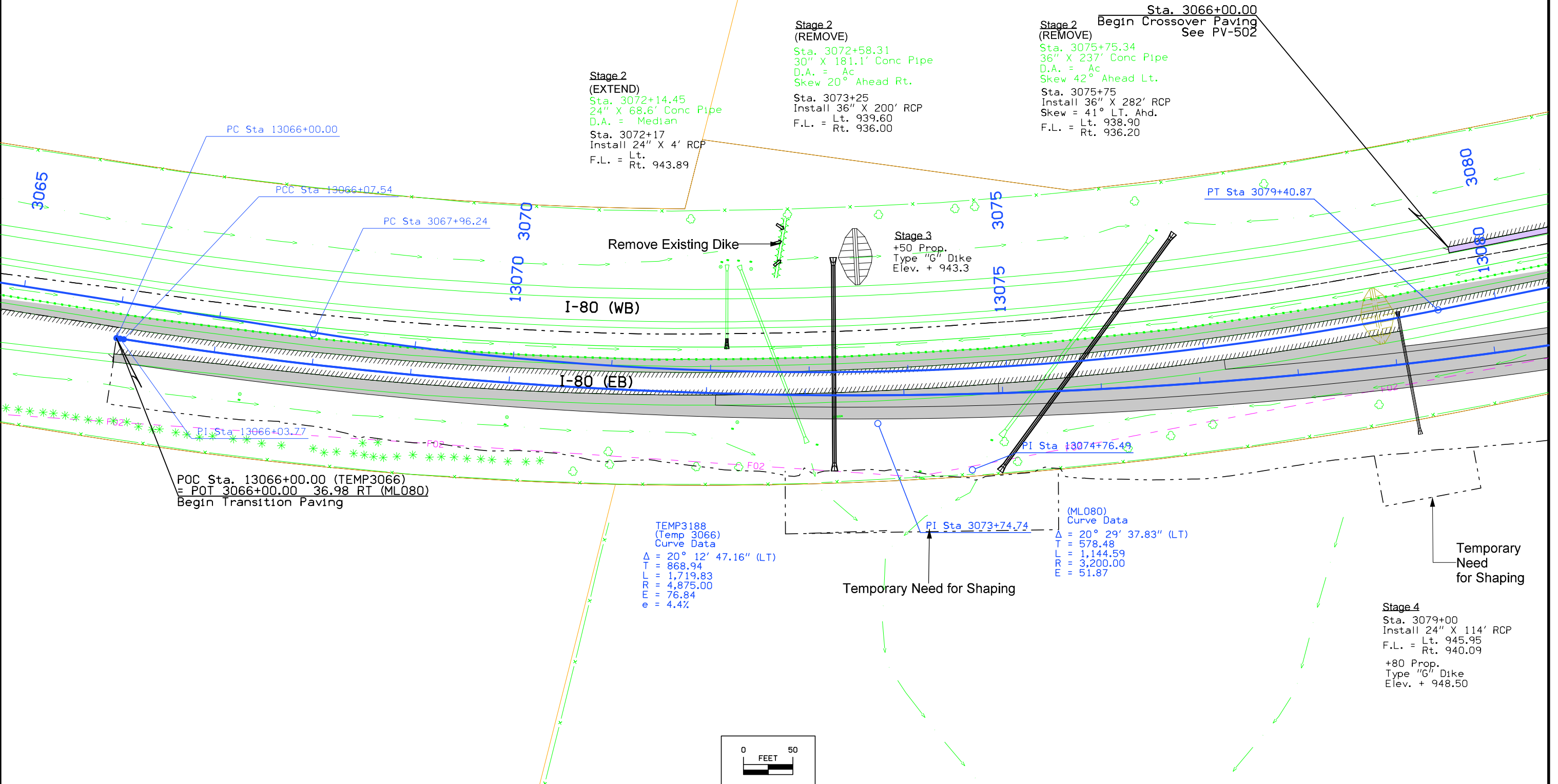


Existing Ground, Temp3066
Proposed EB CL (Existing Ground)



3055	3056	3057	3058	3059	3060	3061	3062	3063	3064	3065	3066	3067	3068	3069	3070												
											949.90	949.93	949.96	949.99	950.01	950.04	950.07	950.10	950.12	950.15	950.18	950.21	950.24	950.26	950.29	950.32	950.35

BUENA VISTA TWP
T-79N - R-18W
SECTION 1



Stage 2
(EXTEND)
Sta. 3072+14.45
24" X 68.6' Conc Pipe
D.A. = Median
Sta. 3072+17
Install 24" X 4' RCP
Lt. 943.89
F.L. = Rt. 943.89

Stage 2
(REMOVE)
Sta. 3072+58.31
30" X 181.1' Conc Pipe
D.A. = Ac
Skew 20° Ahead Rt.
Sta. 3073+25
Install 36" X 200' RCP
Lt. 939.60
F.L. = Rt. 936.00

Sta. 3066+00.00
Begin Crossover Paving
See PV-502
Stage 2
(REMOVE)
Sta. 3075+75.34
36" X 237' Conc Pipe
D.A. = Ac
Skew 42° Ahead Lt.
Sta. 3075+75
Install 36" X 282' RCP
Skew = 41° LT. Ahd.
Lt. 938.90
F.L. = Rt. 936.20

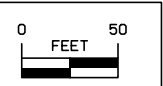
Stage 3
+50 Prop.
Type "G" Dike
Elev. + 943.3

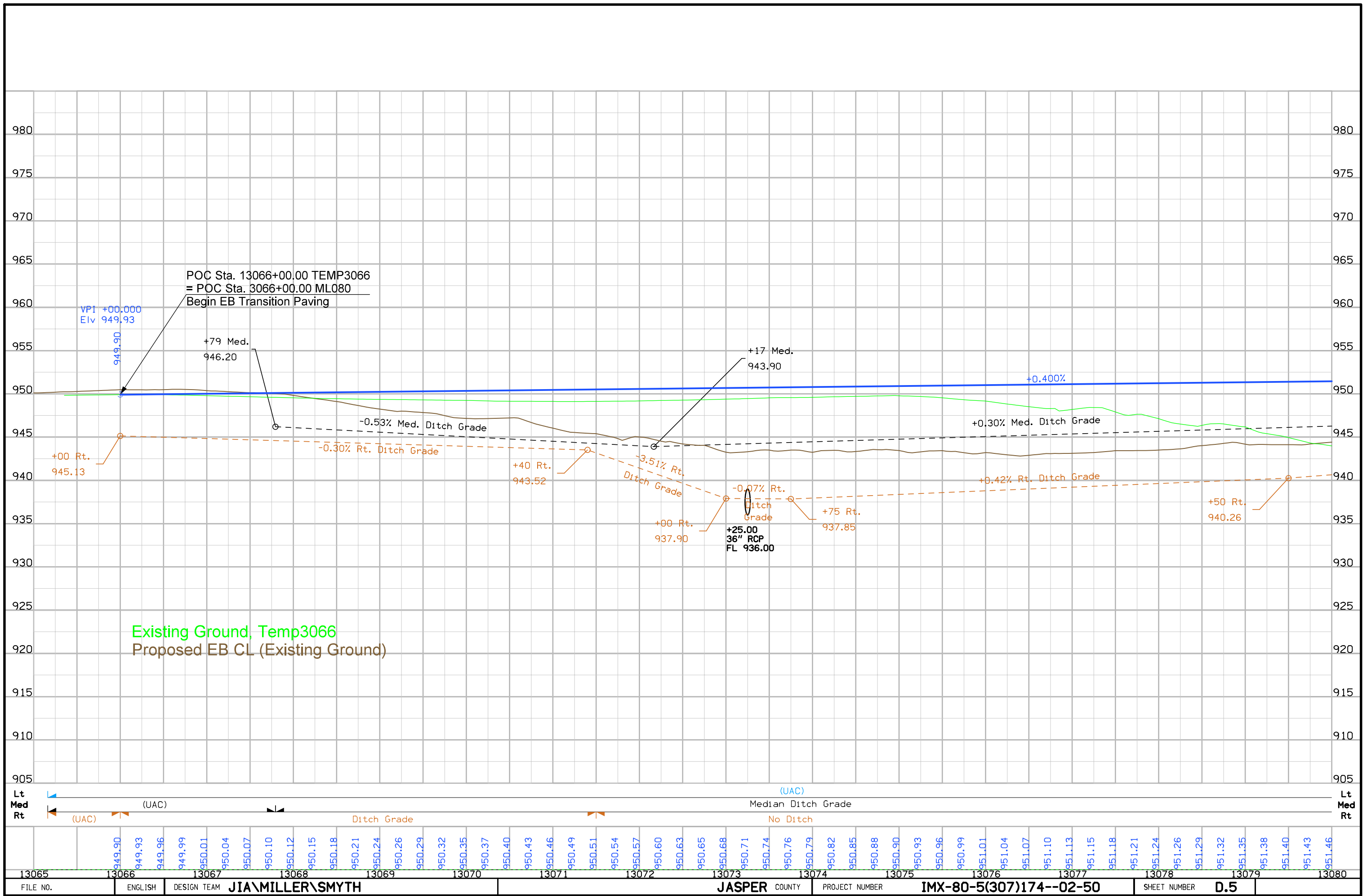
POC Sta. 13066+00.00 (TEMP3066)
= POT 3066+00.00 36.98 RT (ML080)
Begin Transition Paving

TEMP3188
(Temp 3066)
Curve Data
 $\Delta = 20^\circ 12' 47.16''$ (LT)
T = 868.94
L = 1,719.83
R = 4,875.00
E = 76.84
e = 4.4%

(ML080)
Curve Data
 $\Delta = 20^\circ 29' 37.83''$ (LT)
T = 578.48
L = 1,144.59
R = 3,200.00
E = 51.87

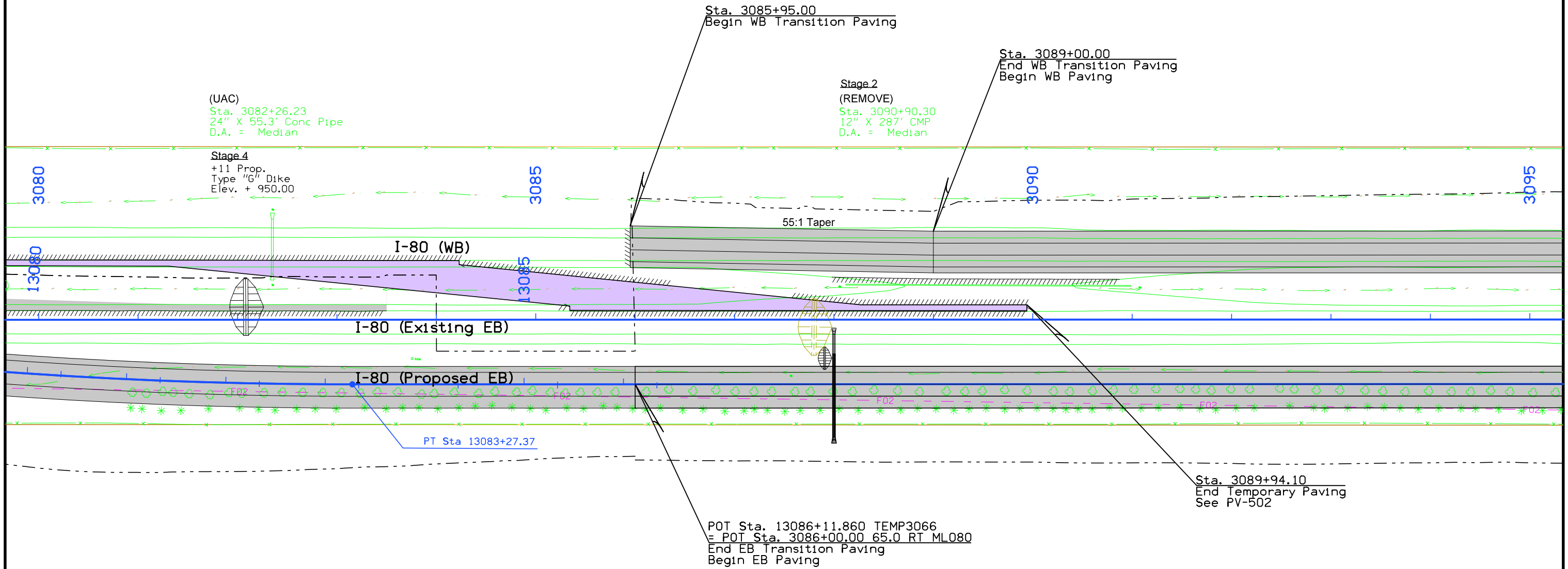
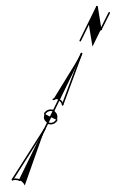
Stage 4
Sta. 3079+00
Install 24" X 114' RCP
F.L. = Lt. 945.95
Rt. 940.09
+80 Prop.
Type "G" Dike
Elev. + 948.50

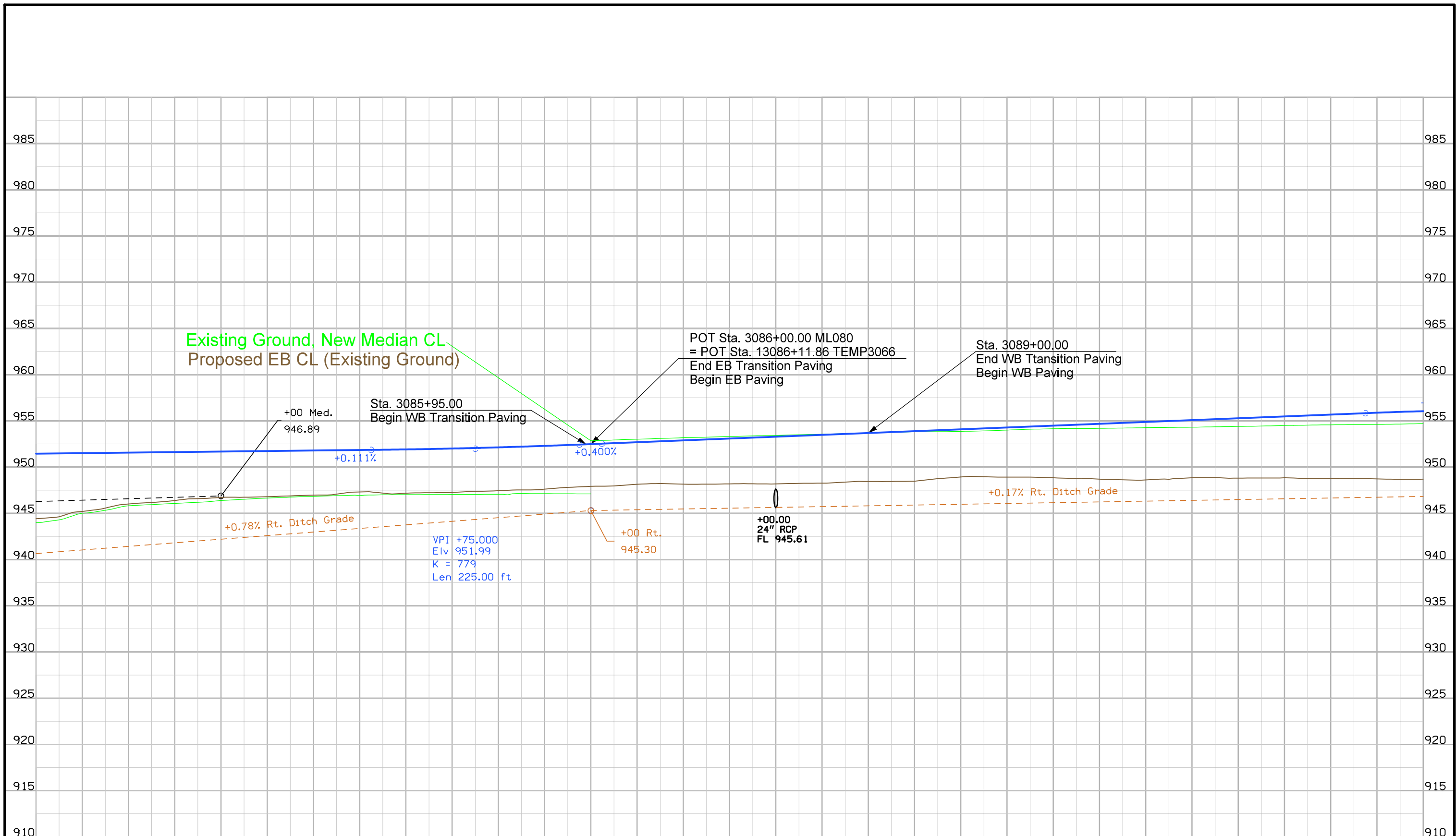




FILE NO.	ENGLISH	DESIGN TEAM	JIA\MILLER\SMYTH	JASPER COUNTY	PROJECT NUMBER	IMX-80-5(307)174--02-50	SHEET NUMBER	D.5
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BUENA VISTA TWP
T-79N - R-18W
SECTION 1





Lt	(UAC)	(UAC)	Lt
Med		4' Median Ditch	Med
Rt		No Ditch	Rt

13080	13081	13082	13083	13084	13085	3086	3087	3088	3089	3090	3091	3092	3093	3094	3095
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FILE NO.	ENGLISH	DESIGN TEAM	JIA\MILLER\SMYTH	JASPER COUNTY	PROJECT NUMBER	IMX-80-5(307)174--02-50	SHEET NUMBER	D.7
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BUENA VISTA TWP
T-79N - R-18W
SECTION 1

RICHLAND TWP
T-79N - R-17W
SECTION 6

3095 3100 3105 3110

I-80 (WB)

I-80 (Existing EB)

I-80 (Proposed EB)



Stage 2
(REMOVE)
Sta. 3099+89.13
15" X 73.6' CMP
D.A. = Ac

Grading for Fence Berm

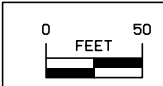
Stage 2
(REMOVE)
Sta. 3104+33.00
15" CMP Into 24" RCP
D.A. = Median
Sta. 3105+25
Install 24" X 80' RCP
F.L. = Lt. 947.55
Rt. 946.57
+40 Prop.
Type "G" Dike (Temporary)
Elev. + 952.50

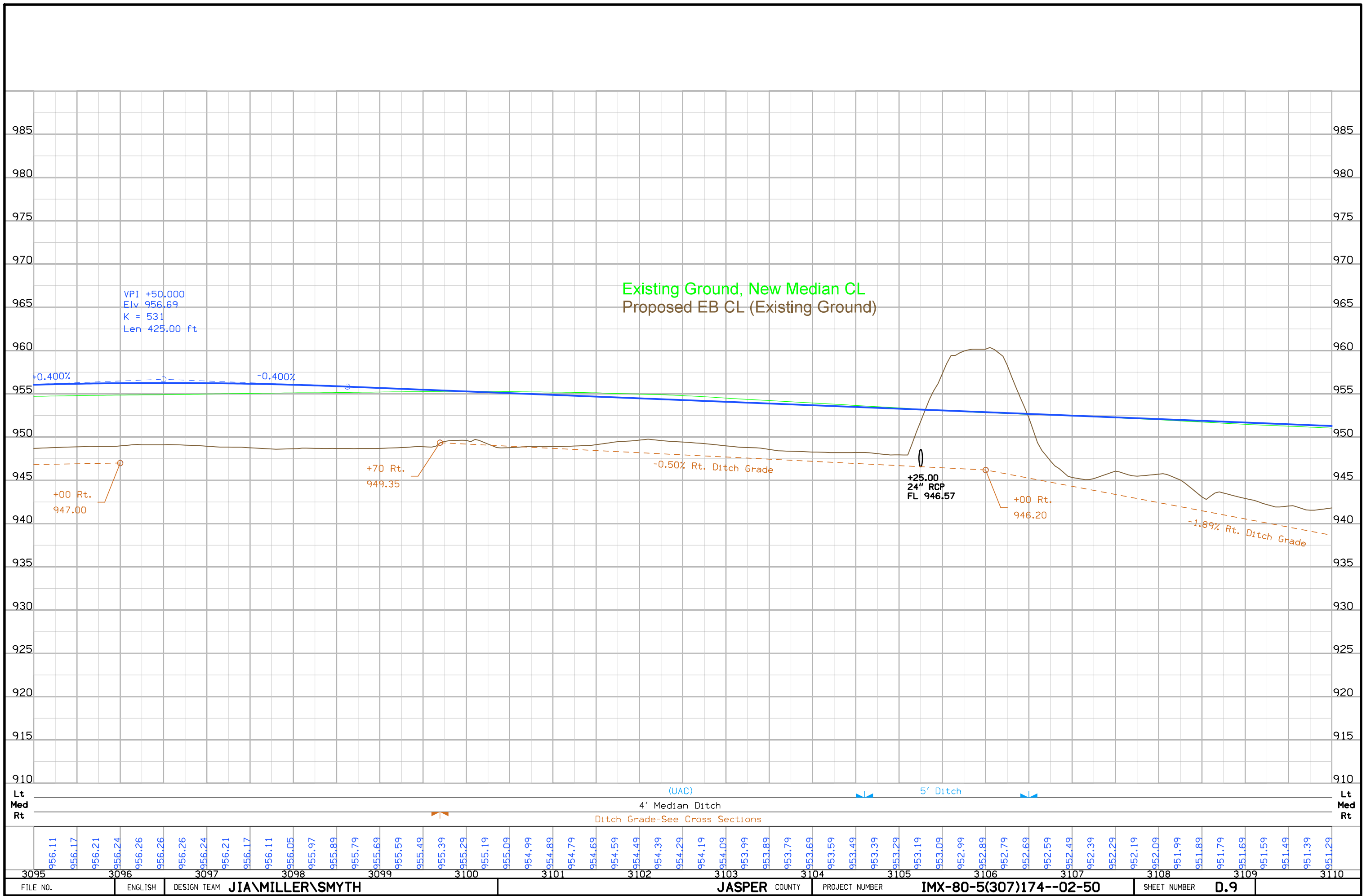
Existing Bridge at S 12th Ave E
Bridge Des. 1260
Maint. 5074.50080
FHWA 31210
Refer to V Sheets for Additional Information

Grading

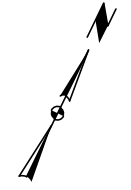
E 108th St S

E 108th St S





ROCK CREEK TWP
T-80N - R-17W
SECTION 31



Stage 2
(REMOVE)
Sta. 3113+64.33
30" X 152.3' Conc Pipe
D.A. = Ac
Sta. 3113+90
Install 36" X 266' RCP
F.L. = Lt. 942.82
Rt. 930.70

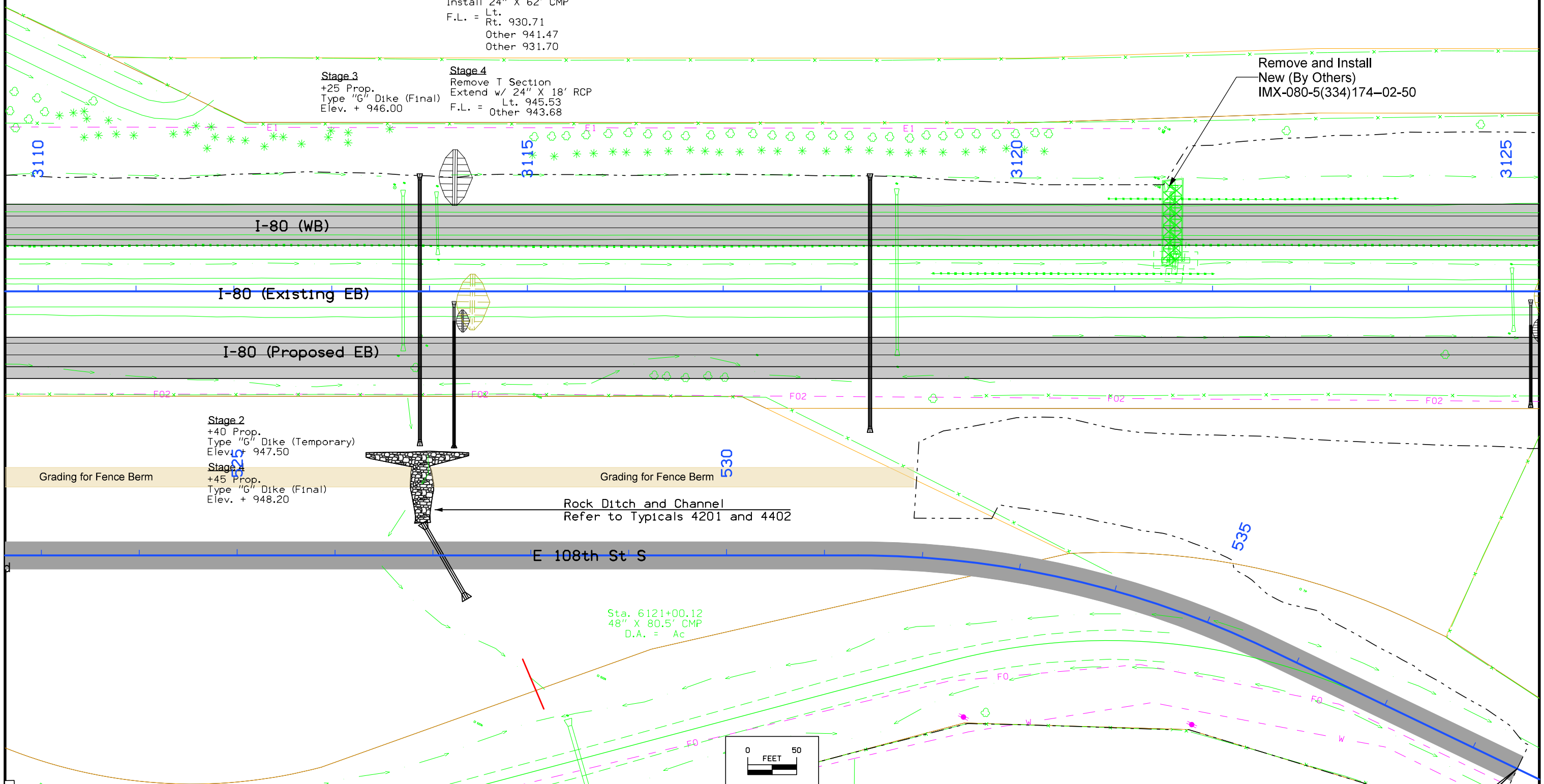
Stage 3
(REMOVE)
Sta. 3113+99.84
24" X 52' Conc Pipe
D.A. = Median
Stage 2
Sta. 3114+25
Install 24" X 62' RCP
F.L. = Lt. 943.43
Rt. 930.71
Sta. 3114+25
Install 24" X 62' CMP
F.L. = Lt. 941.47
Rt. 931.70

Stage 2
(REMOVE)
Sta. 3118+68.82
30" X 158.3' Conc Pipe
D.A. = Ac
Sta. 3118+50
Install 30" X 252' RCP
F.L. = Lt. 941.00
Rt. 934.25

Stage 3
+25 Prop.
Type "G" Dike (Final)
Elev. + 946.00

Stage 4
Remove T Section
Extend w/ 24" X 18' RCP
F.L. = Lt. 945.53
Other 943.68

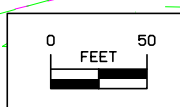
Remove and Install
New (By Others)
IMX-080-5(334)174-02-50

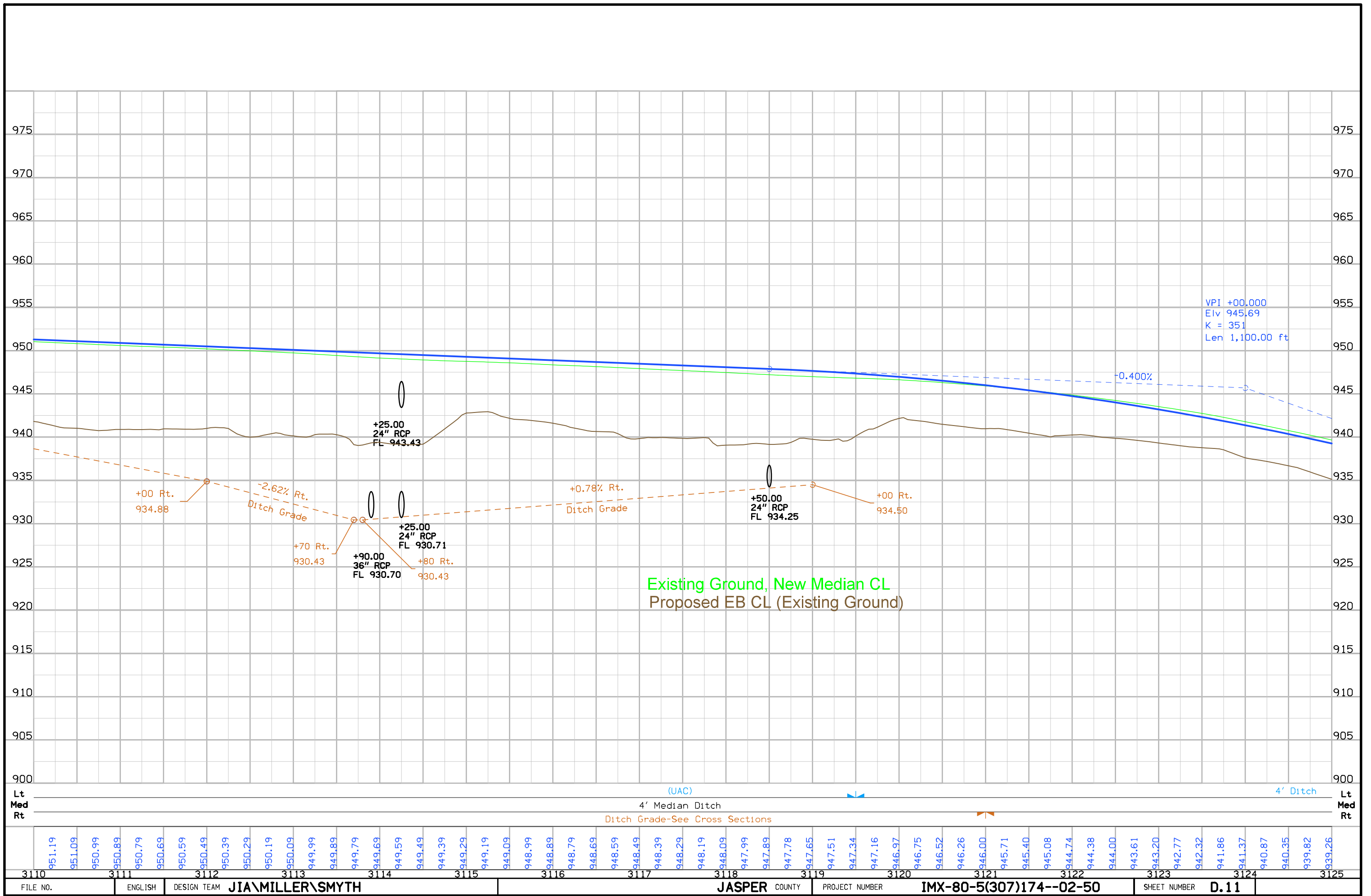


Stage 2
+40 Prop.
Type "G" Dike (Temporary)
Elev. + 947.50
Stage 3
+45 Prop.
Type "G" Dike (Final)
Elev. + 948.20

Rock Ditch and Channel
Refer to Typical 4201 and 4402

Sta. 6121+00.12
48" X 80.5' CMP
D.A. = Ac





ROCK CREEK TWP
T-80N - R-17W
SECTION 31

Stage 2
(REMOVE)
Sta. 3134+90.07
30" X 193.7' Conc Pipe
D.A. = Ac
Skew 10° Ahead Lt.
Sta. 3135+25
Install 30" X 280' RCP
Lt. 891.49
Rt. 893.39

Temporary Need for Shaping

3125

3130

3135

3140

I-80 (WB)

I-80 (Existing EB)

I-80 (Proposed EB)

Stage 2
(REMOVE)
Sta. 3124+97.17
24" X 52.9' Conc Pipe
D.A. = Median

Sta. 3125+25
Install 24" X 78' RCP
F.L. = Lt. 933.05
Rt. 932.10
+40 Prop.
Type "G" DiKE (Temporary)
Elev. + 938.00

Stage 4
Remove T Section
Extend w/ 24" X 28' RCP
F.L. = Lt. 933.40
Other = 933.40
+45 Prop.
Type "G" DiKE (Final)
Elev. + 935.50

Stage 2
(REMOVE)
Sta. 3133+23.55
24" X 51.5' Conc Pipe
D.A. = Median

Sta. 3134+50
Install 24" X 64' RCP
F.L. = Lt. 902.75
Rt.

Sta. 3134+50
Install 24" X 38' CMP
F.L. = Lt. 897.27
Other 901.40
Other 898.10

Stage 4
Remove T Section
Extend w/ 24" X 16' RCP
F.L. = Lt. 905.40
Other 903.43
Other 902.79

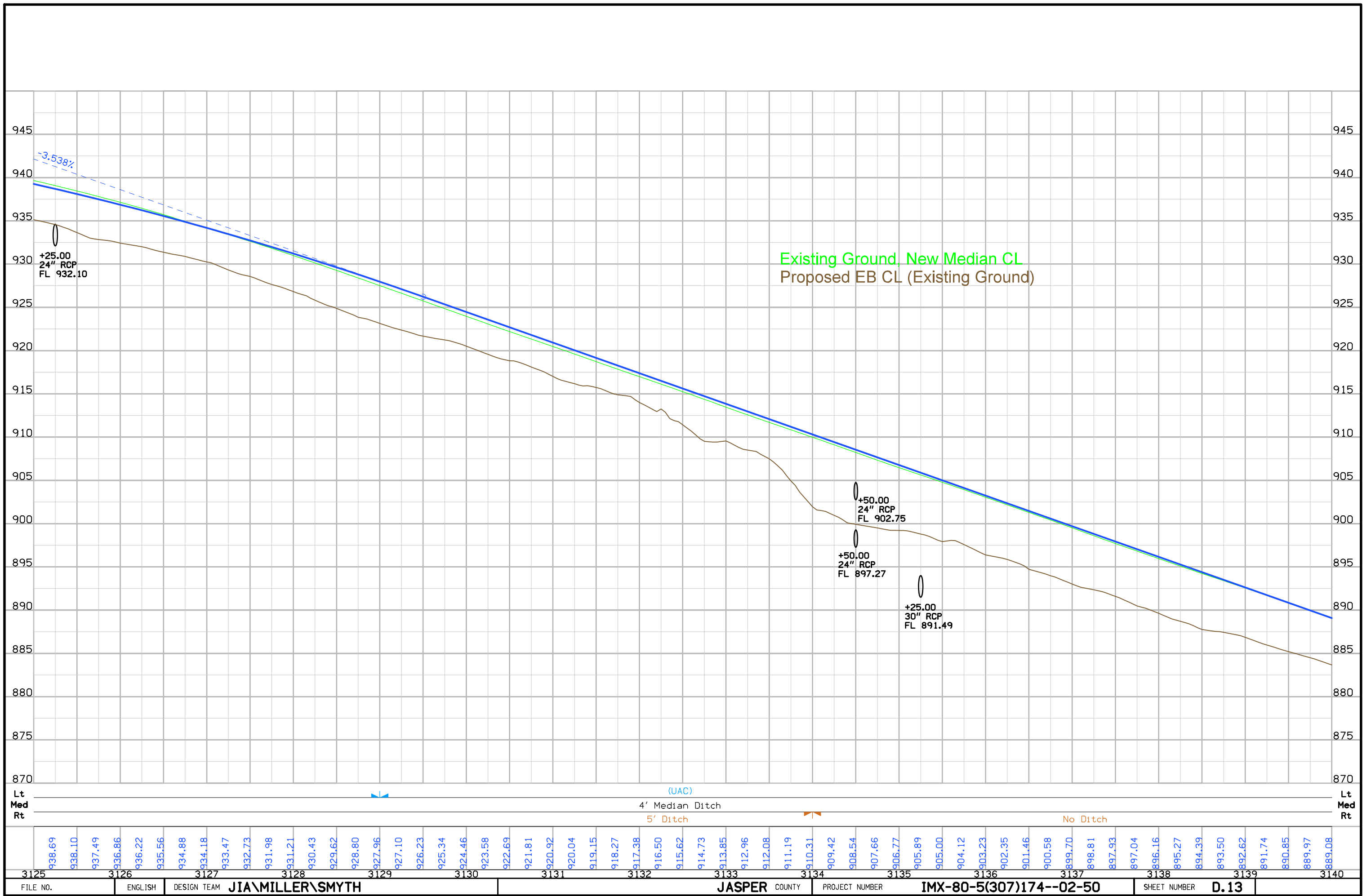
Stage 2
(REMOVE)
Sta. 3133+28.26
24" X 26.3' CMP
D.A. = Ac

Stage 2
+60 Prop.
Type "G" DiKE (Temporary)
Elev. + 907.20

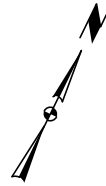
+50 Rt. Prop.
Type "G" DiKE (Final)
Elev. + 896.30

Stage 4
+60 Prop.
Type "G" DiKE (Final)
Elev. + 908.20

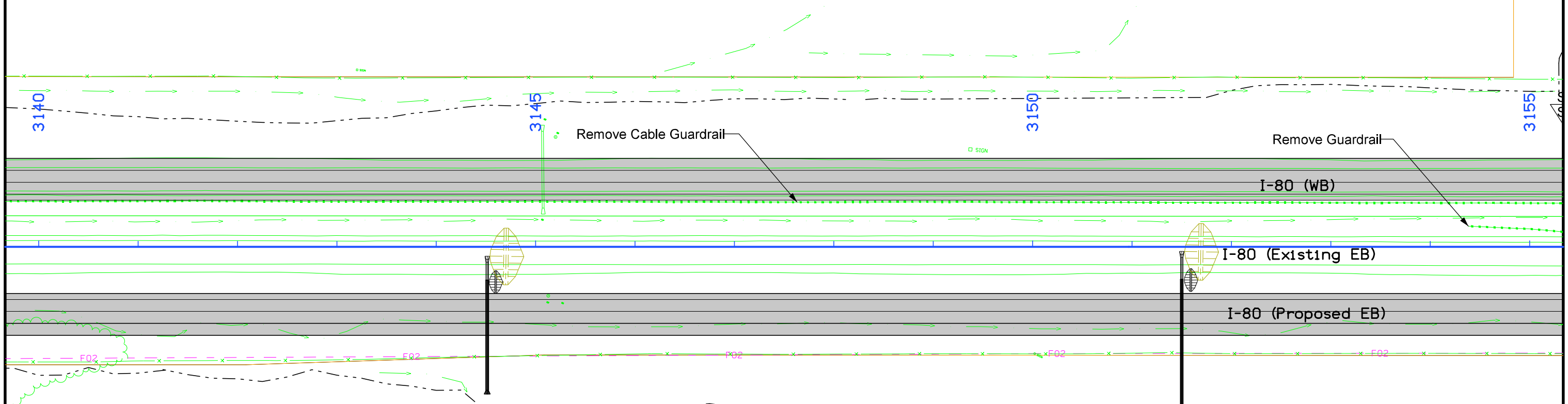




ROCK CREEK TWP
T-80N - R-17W
SECTION 31



Replace
334' x 60'
BRFIMX-



**Stage 3
(REMOVE)**
Sta. 3144+98.98
24" X 77.8' Conc Pipe
D.A. = Median

Stage 2
Sta. 3144+50
Install 24" X 60' RCP
F.L. = Lt. 867.77
Rt.

Sta. 3144+50
Install 24" X 52' CMP
F.L. = Lt. 858.37
Rt. 859.22
Other 866.45

+60 Prop.
Type "G" Dike (Temporary)
Elev. + 872.30

Stage 4
Remove T Section
Extend w/ 24" X 22' RCP
F.L. = Lt. 868.61
Other 867.91

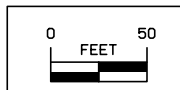
+70 Prop.
Type "G" Dike (Final)
Elev. + 871.50

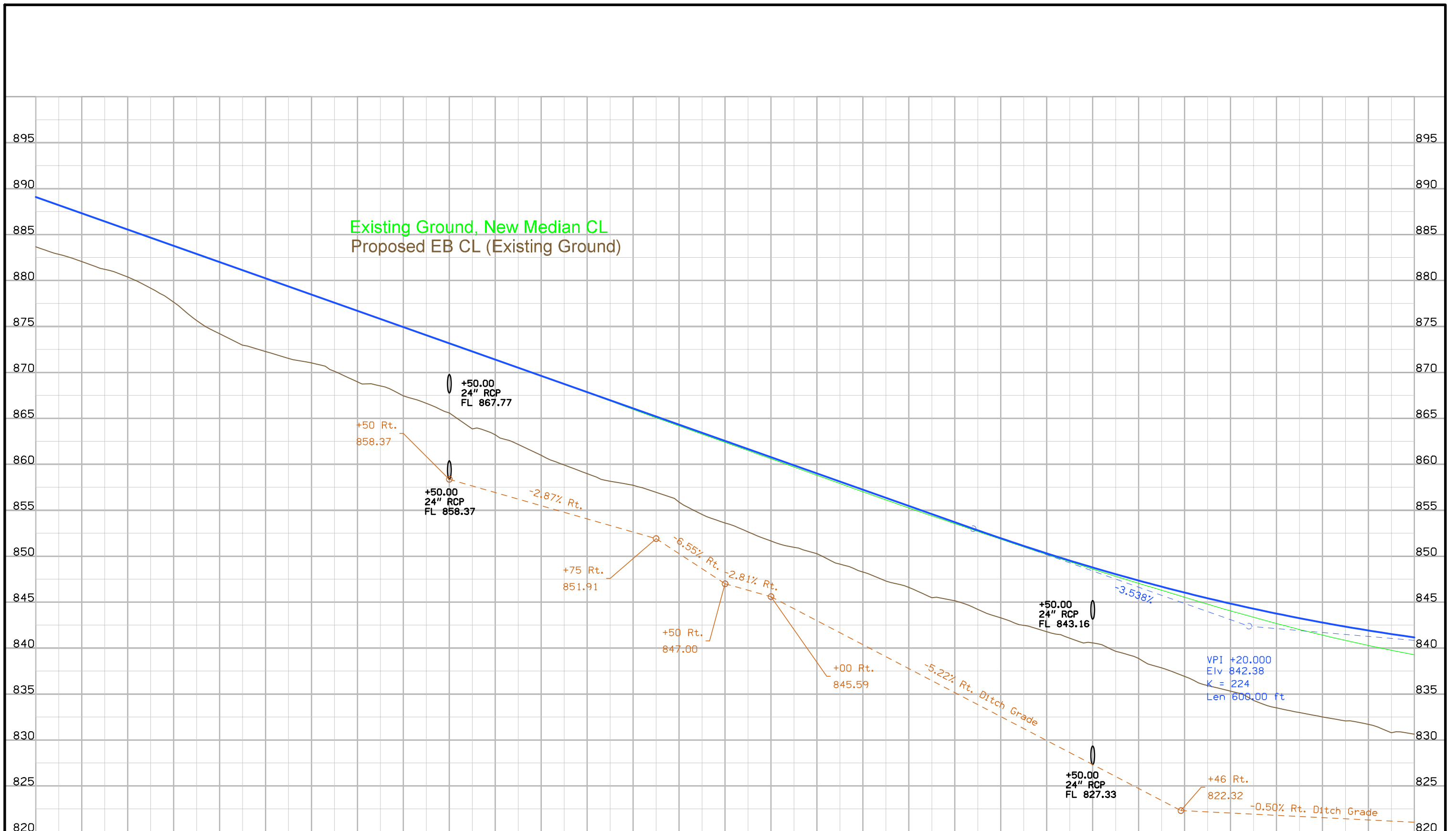
Stage 2
Sta. 3151+50
Install 24" X 62' RCP
F.L. = Lt. 843.16
Rt.

Sta. 3151+50
Install 24" X 76' CMP
F.L. = Lt. 827.33
Rt. 828.14
Other 841.96

+60 Prop.
Type "G" Dike (Temporary)
Elev. + 847.30

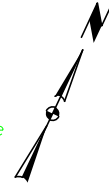
Stage 4
Remove T Section
Extend w/ 24" X 26' RCP
F.L. = Lt. 843.70
Other
+70 Prop.
Type "G" Dike (Final)
Elev. + 846.40





Lt																					Lt																																								
Rt																					Rt																																								
	888.20	887.31	886.43	885.54	884.66	883.77	882.89	882.01	881.12	880.24	879.35	878.47	877.58	876.70	875.81	874.93	874.05	873.16	872.28	871.39	870.51	869.62	868.74	867.85	866.97	866.09	865.20	864.32	863.43	862.55	861.66	860.78	859.89	859.01	858.13	857.24	856.36	855.47	854.59	853.70	852.82	851.95	851.12	850.31	849.53	848.77	848.05	847.35	846.68	846.04	845.43	844.84	844.29	843.76	843.26	842.78	842.34	841.92	841.53	841.17	
3140	3141	3142	3143	3144	3145	3146	3147	3148	3149	3150	3151	3152	3153	3154	3155											3155																																			

ROCK CREEK TWP
T-80N - R-17W
SECTION 31



Stage 3 (REMOVE)
Sta. 3159+44.57
24" X 58' CMP w/ Gate Valve
D.A. = Ac
Sta. 3158+32.79 156.44' LT
Install 24" X 182' CMP
F.L. = BK 815.00
AH 817.00
AH 821.00 (SW-562 FORM GRADE)

Stage 3 (REMOVE)
Sta. 3168+46.78
24" X 72.6' Conc Pipe
D.A. = Median

Replace Bridge
334' x 60' PPCB
BRFIMX-080-5(239)176--14-50

North Skunk River

Sta. 3155+55.75
Stop Paving

Stage 3 (REMOVE)
Sta. 3165+72.38
18" X 54.4' CMP
D.A. = Median

PC Sta 3166+18.67

I-80 (WB)

I-80 (Existing EB)

I-80 (Proposed EB)

Sta. 3155+75.79
Stop Paving

Sta. 3166+10.00
Install Maintenance Turnaround

Stage 2 (REMOVE)
Sta. 3156+14.24
18" X 74.3' CMP
D.A. = Median
Sta. 3155+75
Install 24" X 74' RCP
F.L. = Lt. 833.00
Rt.
Sta. 3155+75
Install 24" X 60' CMP
F.L. = Lt.
Rt. 820.68
Other 831.31
Other 821.25
+85 Prop.
Type "G" Dike (Temporary)
Elev. + 837.10
Stage 4
Remove T Section
Extend w/ 24" X 22' RCP
F.L. = Lt. 836.16
Other 833.09
Other 832.91
+95 Prop.
Type "G" Dike (Final)
Elev. + 838.90

Sta. 3160+54.19
Resume Paving

Proposed Bridge
334' x 60' PPCB
BRFIMX-080-5(240)176--14-50

Stage 2
Sta. 3159+19.78 162.75' RT
Install 37 X 23" X 34' LCP
F.L. = BK 817.59
AH 817.95

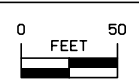
Stage 2
Sta. 3164+00
Install 24" X 64' RCP
F.L. = Lt. 827.21
Rt.
Sta. 3164+00
Install 24" X 42' CMP
F.L. = Lt.
Rt. 820.52
Other 825.82
Other 821.39
+10 Prop.
Type "G" Dike (Temporary)
Elev. + 831.00

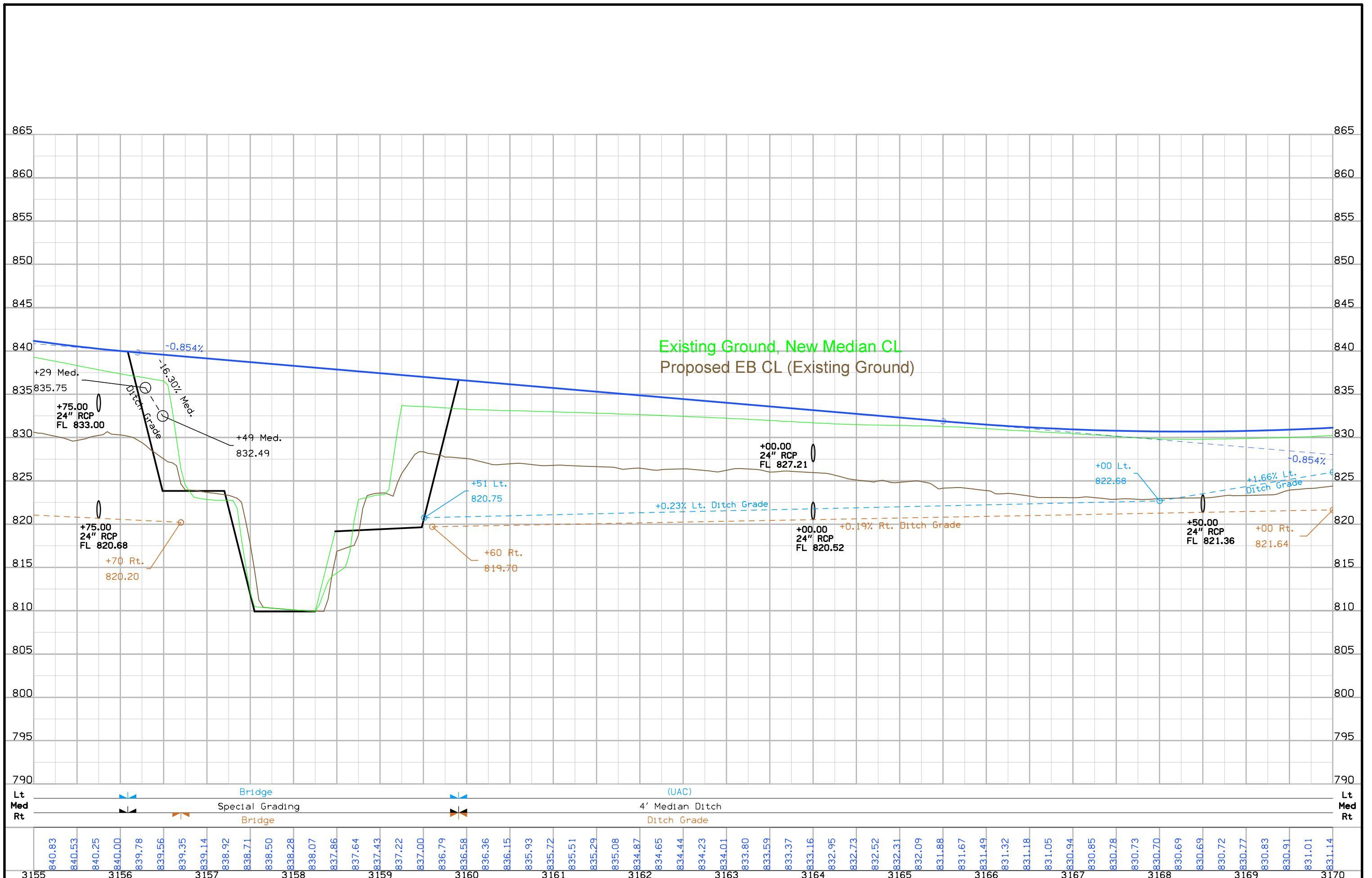
Stage 4
Remove T Section
Extend w/ 24" X 20' RCP
F.L. = Lt. 829.16
Other 827.38
+20 Prop.
Type "G" Dike (Final)
Elev. + 832.00

Curve Data
Δ = 25° 16' 07.86" (RT)
T = 672.47
L = 1,323.07
R = 3,000.00
E = 74.45
e = 6.0%

Stage 2
Sta. 3168+50
Install 24" X 84' RCP
F.L. = Lt. 823.97
Rt. 821.36
Stage 4
Remove T Section
Extend w/ 24" X 22' RCP
F.L. = Lt. 826.56
Other 824.14

Existing Bridges at Skunk River
Bridge Des. 860
Maint. 5075.5R080/ 5075.5L080
FHWA 31220/312230
Refer to V Sheets for Additional Information





FILE NO.	ENGLISH	DESIGN TEAM	JIA\MILLER\SMYTH	JASPER COUNTY	PROJECT NUMBER	IMX-80-5(307)174--02-50	SHEET NUMBER	D.17
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ROCK CREEK TWP
T-80N - R-17W
SECTION 32

Stage 2
(PLUG & ABANDON)
Sta. 3180+40.92
8' X 5' X 167.5' RCB
D.A. = Ac
Sta. 3180+55
Install 78" X 274' RCP
Lt. 836.55
F.L. = Rt. 833.15

Stage 3
(REMOVE)
Sta. 3173+96.78
24" X 65.8' Conc Pipe
D.A. = Median

Sta. 3184+25.00
End Westbound Paving
Begin Transition Paving

PI Sta 3172+91.14

3175

3180

3185

I-80 (WB)

I-80 (Existing EB)

I-80 (Proposed EB)

F02

F02

F02

F02

PT Sta 3179+41.74

Curve Data
 $\Delta = 25^\circ 16' 07.86''$ (RT)
T = 672.47
L = 1,323.07
R = 3,000.00
E = 74.45
e = 6.0%

Stage 2
Sta. 3175+00
Install 24" X 88' RCP
F.L. = Lt. 832.10
Rt. 826.64
+90 Prop.
Type "G" Dike (Temporary)
Elev. + 837.00

Stage 4
Remove T Section
Extend w/ 24" X 22' RCP
F.L. = Lt. 833.54
Rt.
+80 Prop.
Type "G" Dike (Final)
Elev. + 836.20

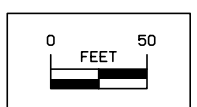
10' X 10' Splach Basin
Refer to Typical 4404

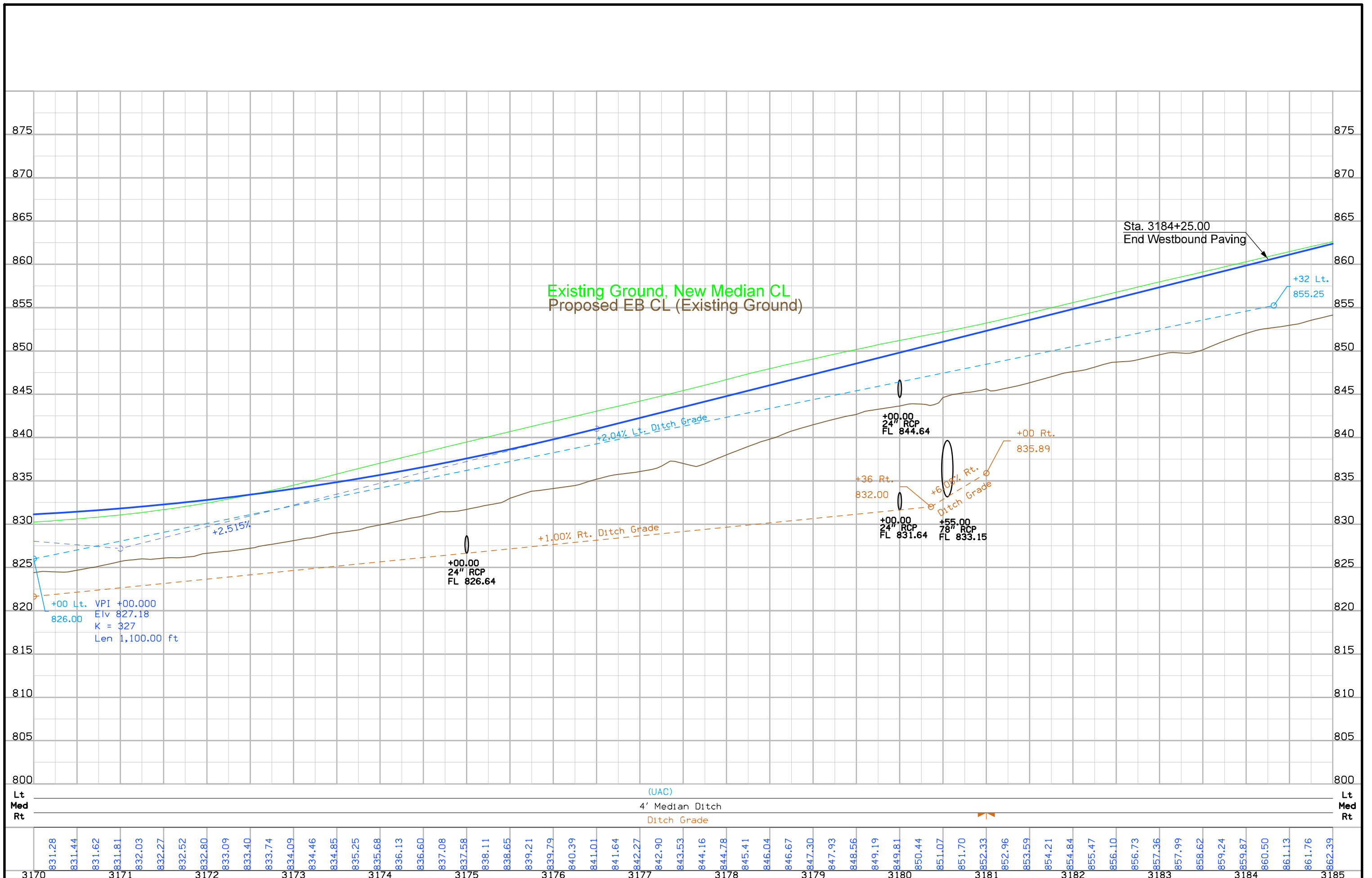
Stage 2
Sta. 3180+00
Install 24" X 54' RCP
F.L. = Lt. 844.64
Rt.
Sta. 3180+00
Install 24" X 64' CMP
F.L. = Lt. 831.64
Other 843.41
Other 832.25
+90 Prop.
Type "G" Dike (Temporary)
Elev. + 850.20

Sta. 3182+84.52
Begin Crossover Paving
See PV-502

Stage 4
Remove T Section
Extend w/ 24" X 26' RCP
F.L. = Lt. 845.69
Other 845.00
+80 Prop.
Type "G" Dike (Final)
Elev. + 848.20

P.O.C. Sta. ??
=P.O.T. Sta.
Begin Trai





ROCK CREEK TWP
T-80N - R-17W
SECTION 32



Stage 2
(REMOVE)
Sta. 3191+65.99
42" X 217.1' Conc Pipe
D.A. = Ac
Sta. 3191+00
Install 42" X 304' RCP
F.L. = Lt. 858.06
Rt. 849.00

Sta. 3193+15.48
End Temporary Paving
See PV-502

Sta. 3188+82.06
Begin Shoulder Strengthening
Sta. 3188+00.00
End EB Paving
(REMOVE)
Sta. 3185+95.61
24" X 57.5' Conc Pipe
D.A. = Median

Sta. 3187+25.00
End Transition Paving

I-80 (WB)

Sta. 3194+35.00

I-80 (Existing EB)

I-80 (Proposed EB)

PI Sta 23191+49.49
(TEMP3188)

PT Sta 23194+48.88
(TEMP3188)

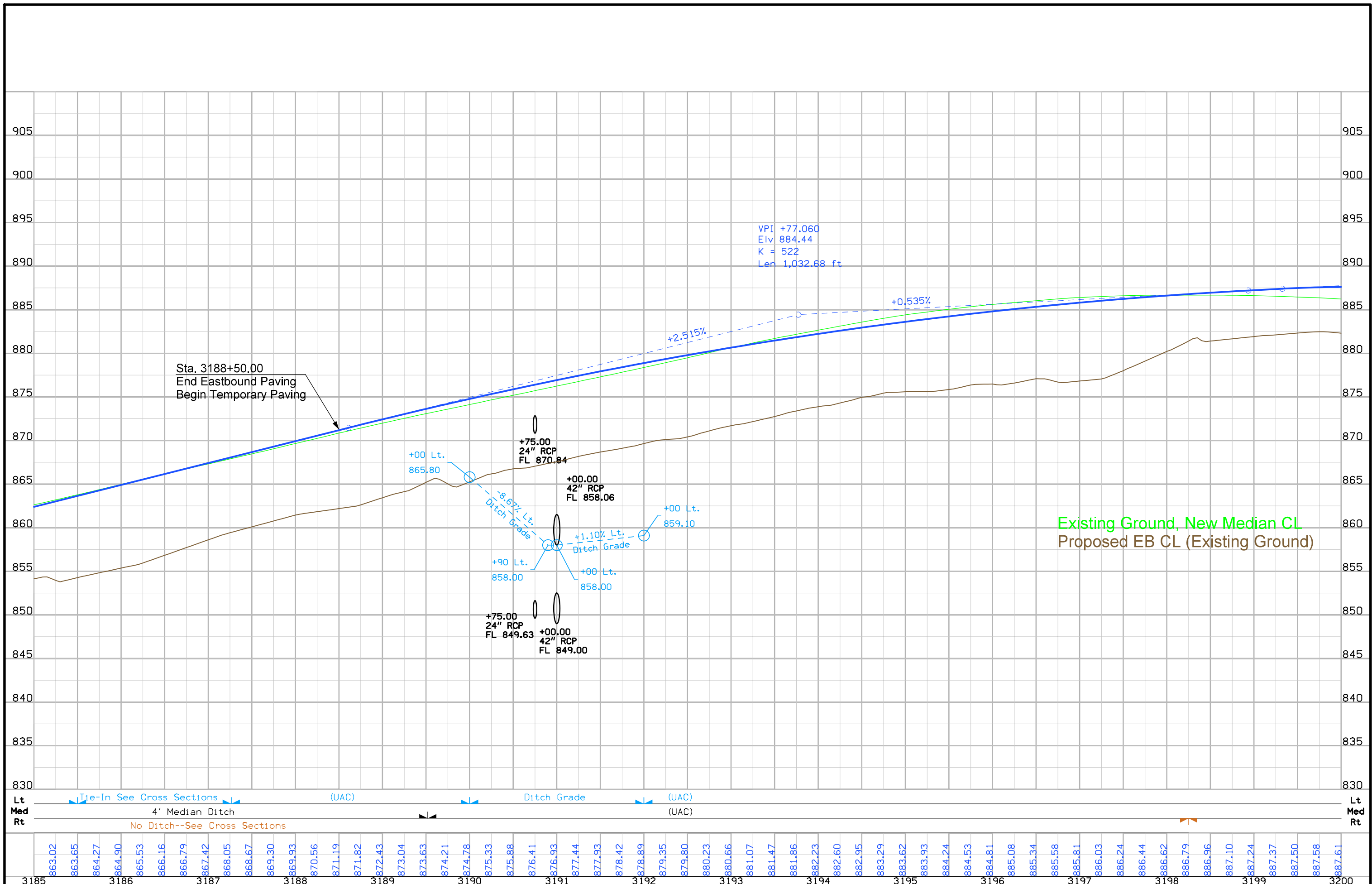
POC Sta. 23188+50.00 Temp3188
=POT Sta. 3188+50.00 65.0 RT MLO80
Begin Transition Paving

Stage 2
Sta. 3190+75
Install 24" X 106' RCP
F.L. = Lt. 870.84
Rt.
Sta. 3190+75
Install 24" X 96' CMP
F.L. = Lt. 849.63
Other 868.57
Other 850.26

Curve Data
 $\Delta = 2^\circ 39' 35.73''$ (LT)
T = 299.49
L = 598.88
R = 12,900.00
E = 3.48
e = NC

+50 Prop.
Type "G" Dike (Temporary)
Elev. + 873.80
+65 Prop.
Type "G" Dike (Final)
Elev. + 875.00





VPI +77.060
 Elv 884.44
 K = 522
 Len 1,032.68 ft

Sta. 3188+50.00
 End Eastbound Paving
 Begin Temporary Paving

Existing Ground, New Median CL
 Proposed EB CL (Existing Ground)

Lt	Tie-In See Cross Sections		(UAC)	Ditch Grade		(UAC)	Lt
Med	4' Median Ditch						Med
Rt	No Ditch--See Cross Sections						Rt
863.02	863.65	864.27	864.90	865.53	866.16	866.79	867.42
867.05	868.05	868.67	869.30	869.93	870.56	871.19	871.82
872.43	873.04	873.63	874.21	874.78	875.33	875.88	876.41
876.93	877.44	877.93	878.42	878.89	879.35	879.80	880.23
880.66	881.07	881.47	881.86	882.23	882.60	882.95	883.29
883.62	883.93	884.24	884.53	884.81	885.08	885.34	885.58
885.81	886.03	886.24	886.44	886.62	886.79	886.96	887.10
887.24	887.37	887.50	887.58	887.61			

ROCK CREEK TWP
T-80N - R-17W
SECTION 32



(UAC)
Sta. 3210+25.17
24" X 108' Conc Pipe
D.A. = Ac

3200

3205

3210

POT Sta 3213+17.06

I-80 (WB)

I-80 (EB)

PC Sta 23201+15.87
(TEMP3188)

F02

F02

F02

F02

Sta. 3212+00.00
End Shoulder Strengthening
End Construction

POT Sta. 23206+96.25 TEMP3188
PT Sta. 3207+00.00 6.26 RT ML080
End Transition Paving

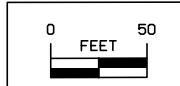
PI Sta 23204+06.11
(TEMP3188)

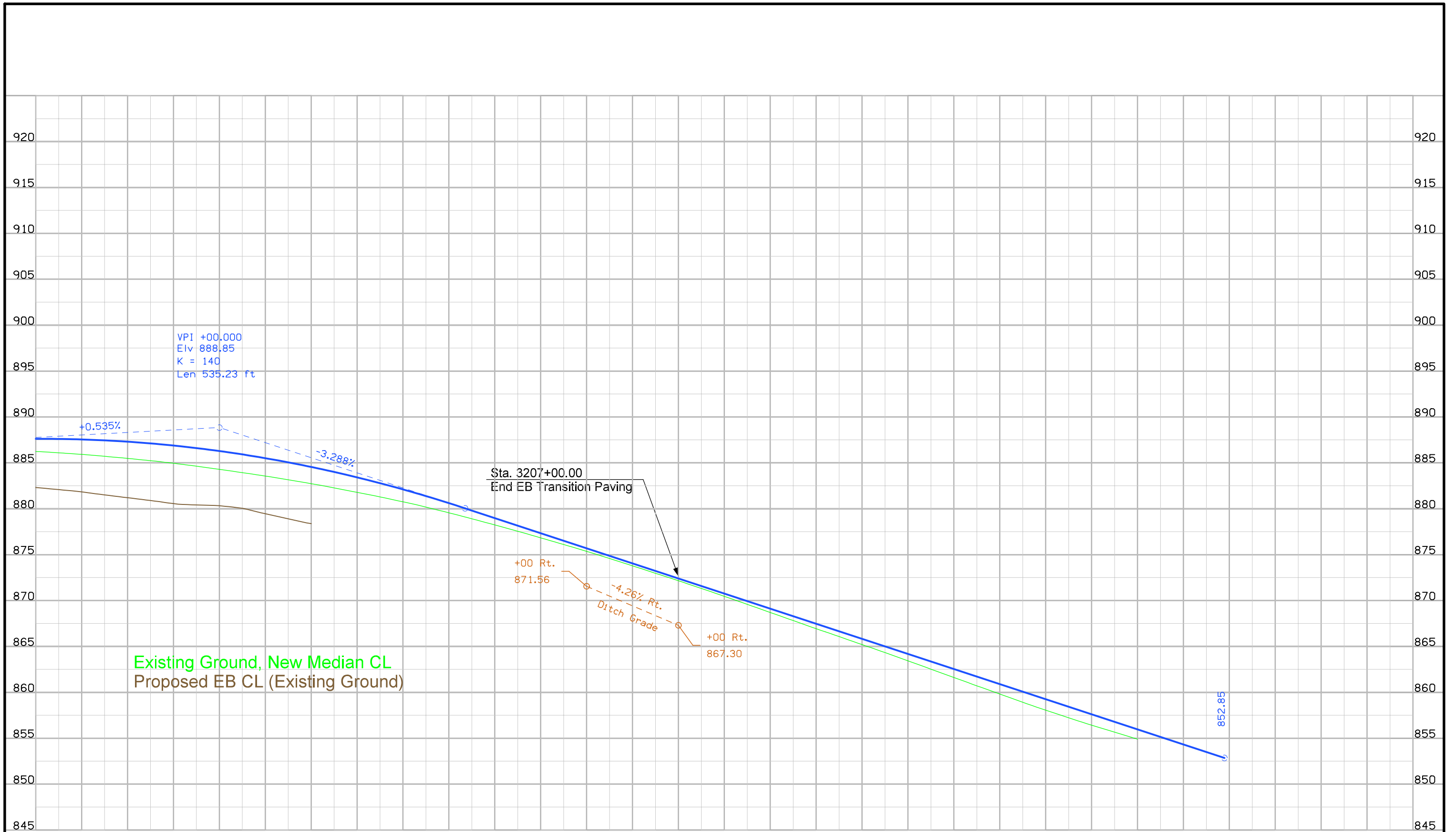
PT Sta 23206+96.25
(TEMP3188)

Curve Data
 $\Delta = 2^\circ 34' 40.06''$ (RT)
T = 290.24
L = 580.38
R = 12,900.00
E = 3.26
e = NC

23200

23205

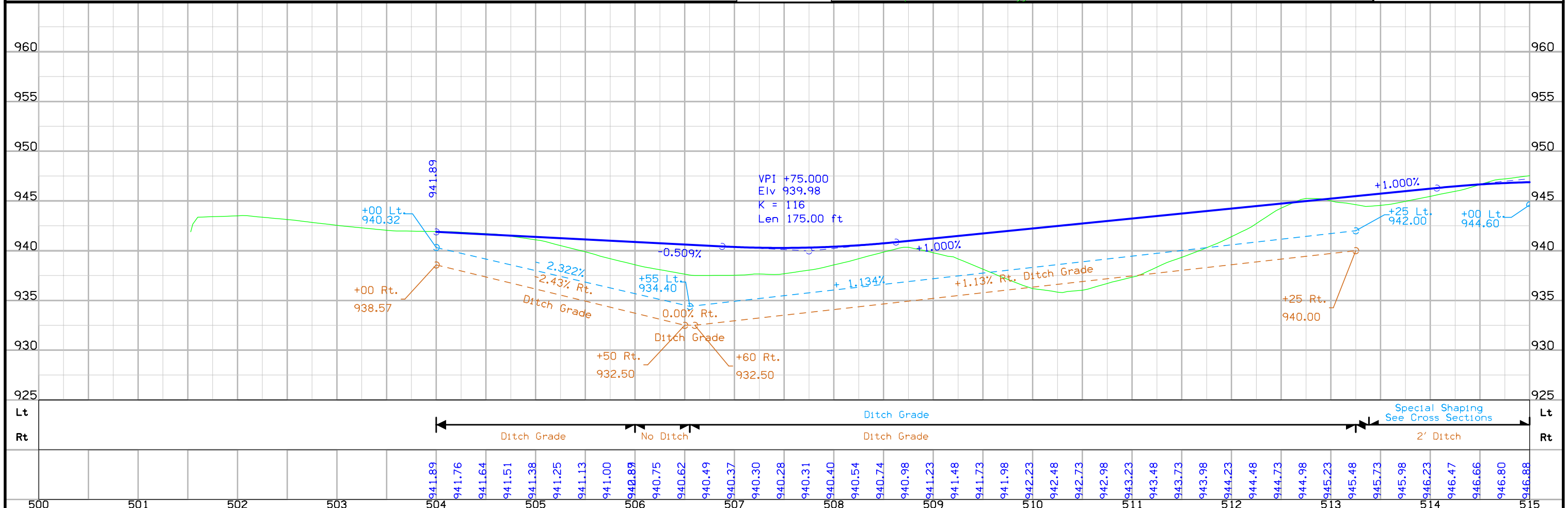
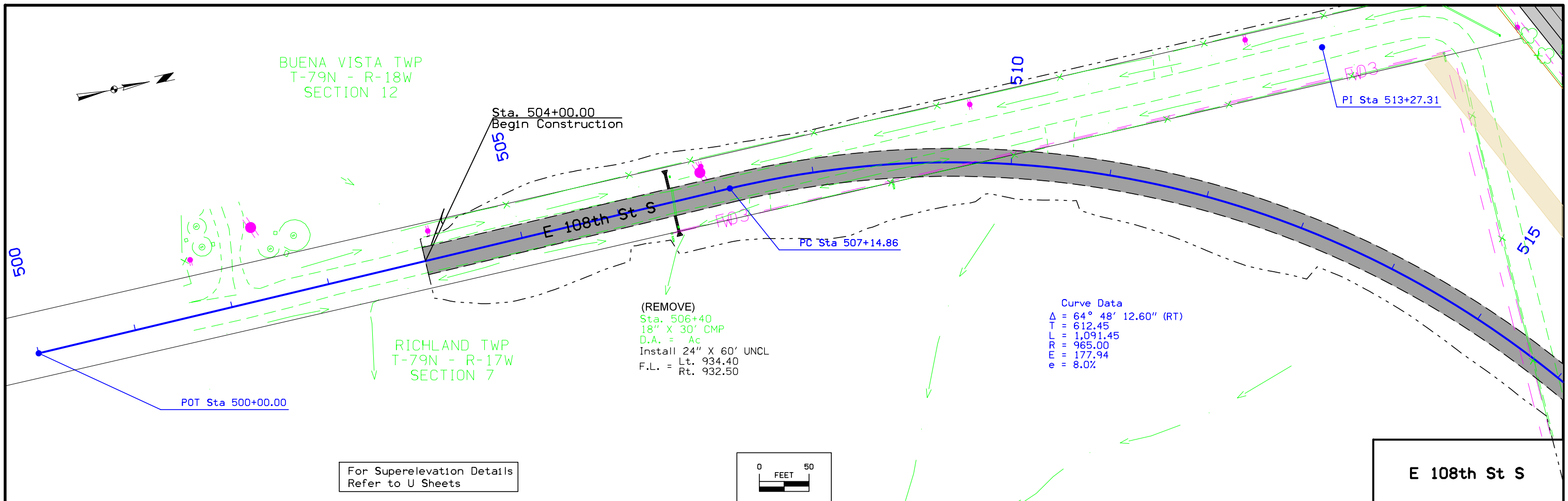




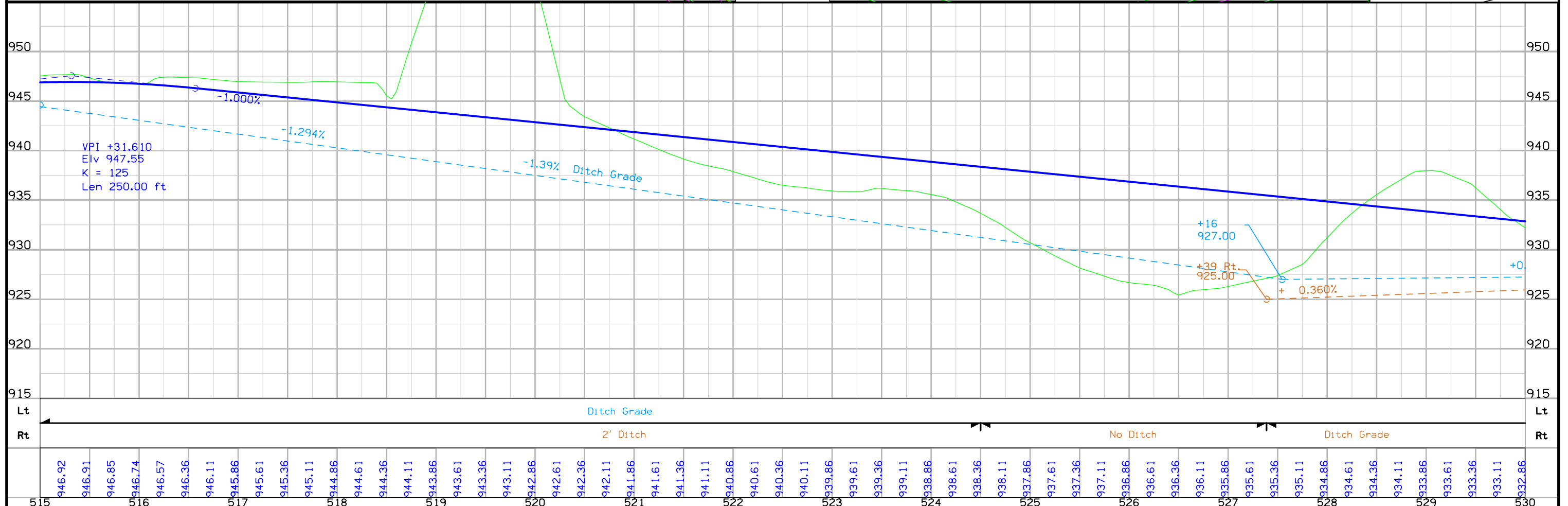
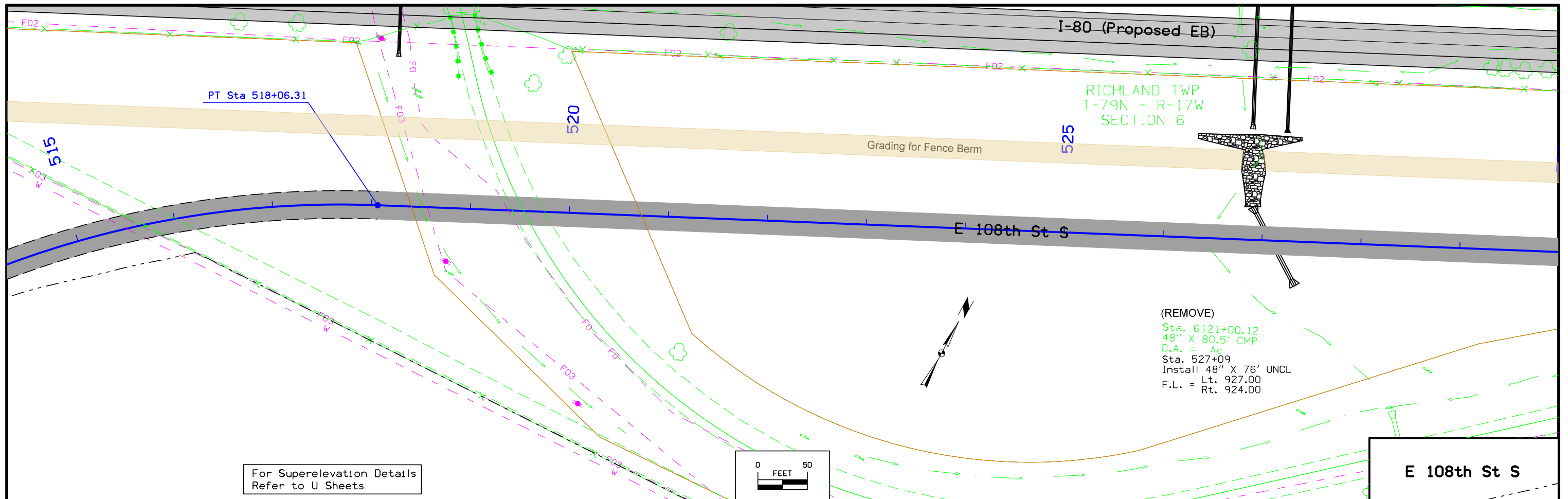
Existing Ground, New Median CL
Proposed EB CL (Existing Ground)

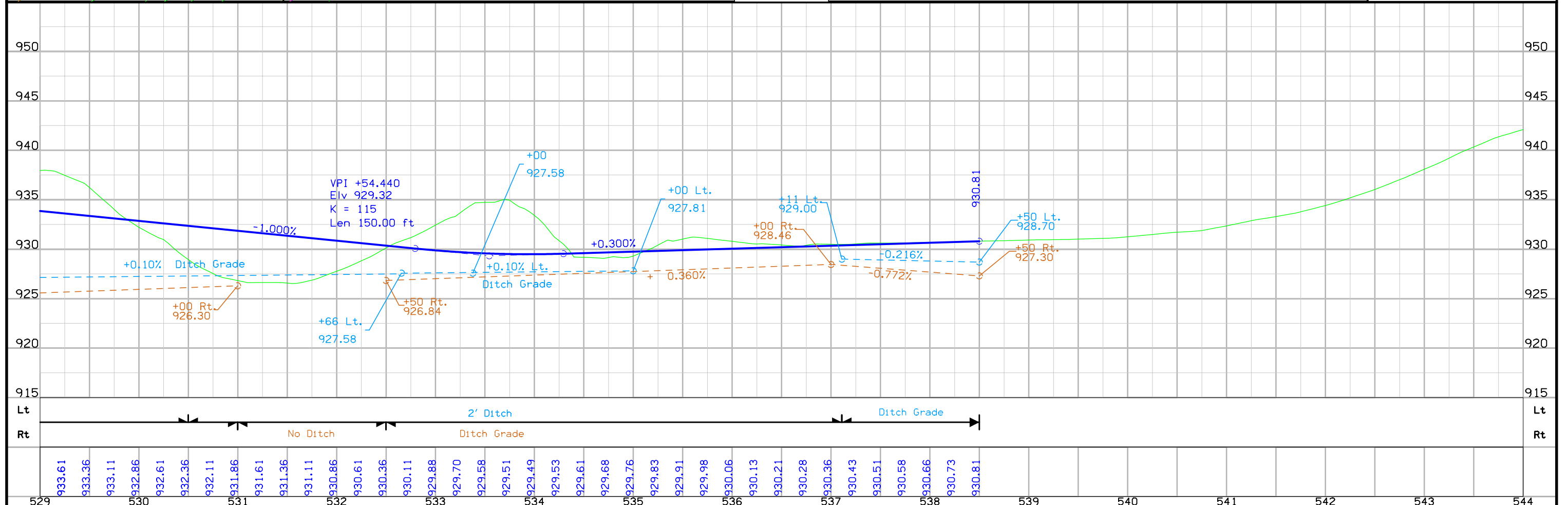
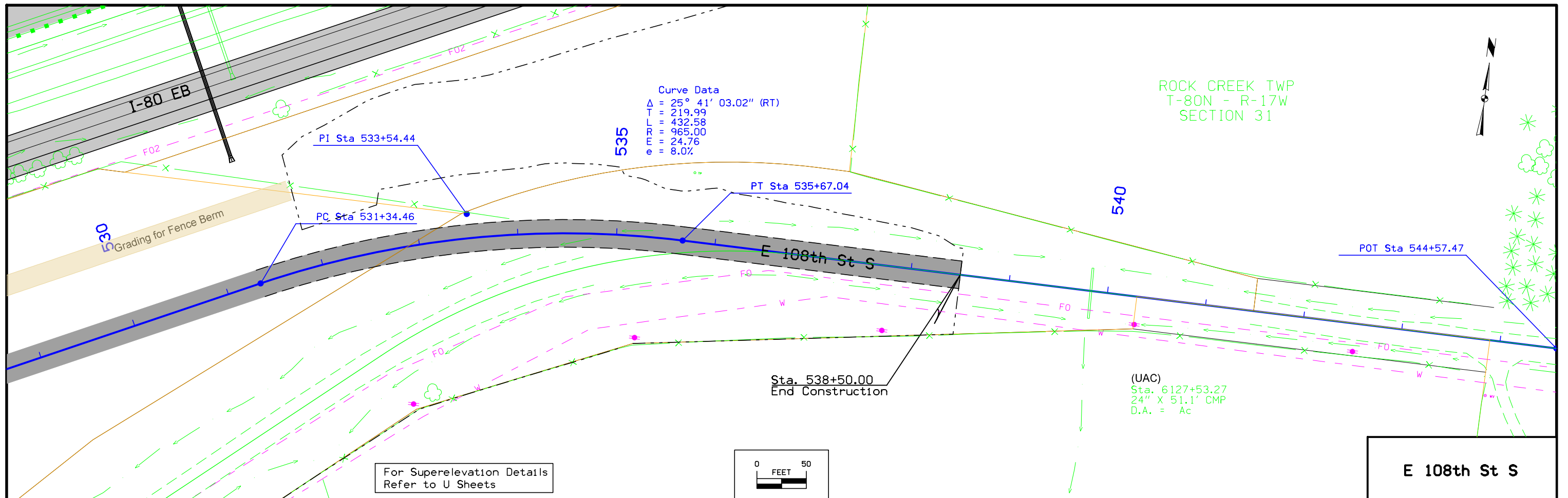


3200	887.60	3201	887.55	887.45	887.31	887.12	886.89	886.61	886.29	885.92	885.51	885.05	884.55	884.01	883.42	882.78	882.11	881.38	880.61	879.80	878.98	878.16	877.34	876.51	875.69	874.87	874.05	873.23	872.40	871.58	870.76	869.94	869.12	868.29	867.47	866.65	865.83	865.01	864.18	863.36	862.54	861.72	860.90	860.07	859.25	858.43	857.61	856.79	855.96	855.14	854.32	853.50	852.85
------	--------	------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------



500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	
FILE NO.	ENGLISH	DESIGN TEAM	JIA\MILLER\SMYTH				JASPER COUNTY	PROJECT NUMBER	IMX-80-5(307)174--02-50				SHEET NUMBER	E.1		





FILE NO.	ENGLISH	DESIGN TEAM	JIA\MILLER\SMYTH	JASPER COUNTY	PROJECT NUMBER	IMX-80-5(307)174--02-50	SHEET NUMBER	E.3
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Survey Information

General Information

Measurement units for this survey are US survey feet. This survey was performed for total reconstruction of east and west bound bridges over North Skunk River approximately 2.1 miles East of Ia. 224 in Jasper County, Iowa. Project datum and control information is provided by Design Survey Office. This project is a Partial DTM Survey which means aerial photography will be used to complete the survey. Under a separate contract (SAP-0493), Aerial Photo Control was established.

Vertical Control

Vertical datum for this survey is designated as NAVD 88 datum in accordance with County Control Pt. K01 . It was checked relative to IaRTN ellipsoid height and computed using Geoid 09 (orthometric height of 942.36). The measured network height was within measurement error tolerance of the same as the published height. Published NAVD88 height was accepted and used at project Pt. K01, (Found cast CM with Disk).

Utilizing K01, a level run was completed through project control points and benchmarks. The error was allowable and the error was distributed proportionately among the project monuments.

Horizontal Control

Horizontal datum for this survey is designated as NAVD83(1996) in accordance with County Control Pt. K01 . It was checked relative to IaRTN NAD83 (1996CORS) for Epoch 2002.00. The measured network position was within measurement error tolerance of the same as the published position and the published position was held. The survey coordinate system for this project is Modified Iowa State Plane South Zone in U.S Survey ft. units. State plane coordinates were modified to remove grid to ground distortion by scaling about Pt. K01 by a factor of 1.00005575.

Alignment Information

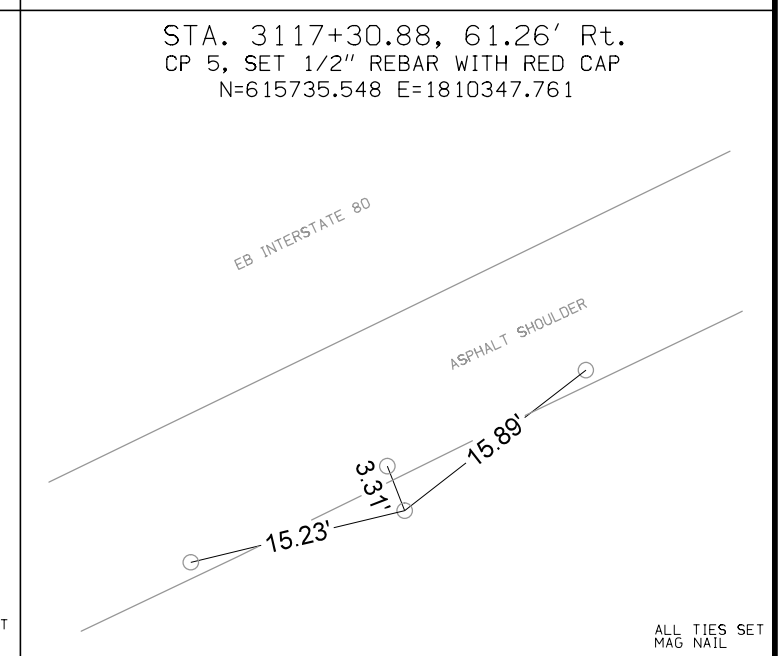
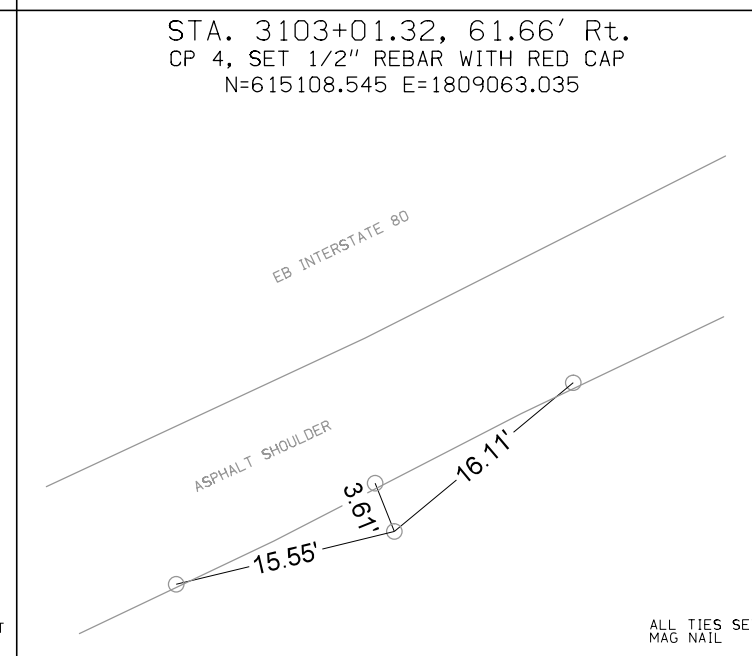
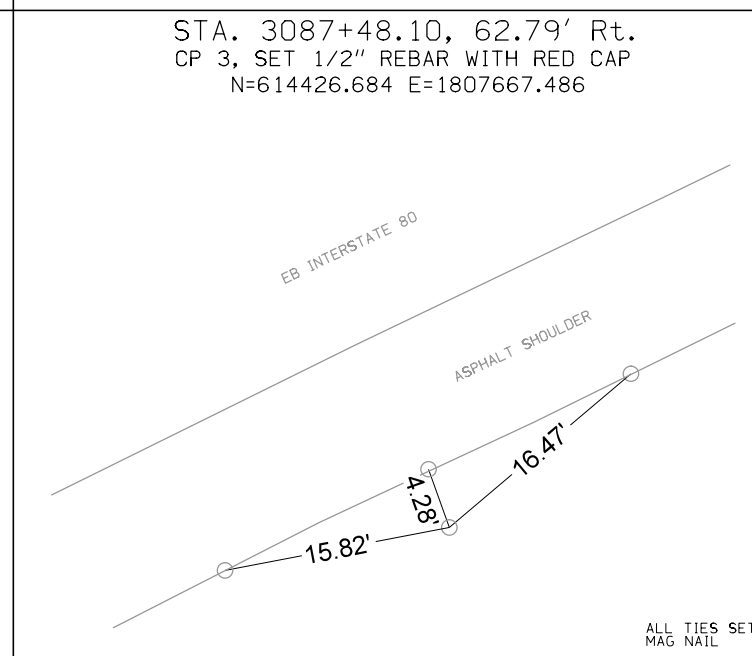
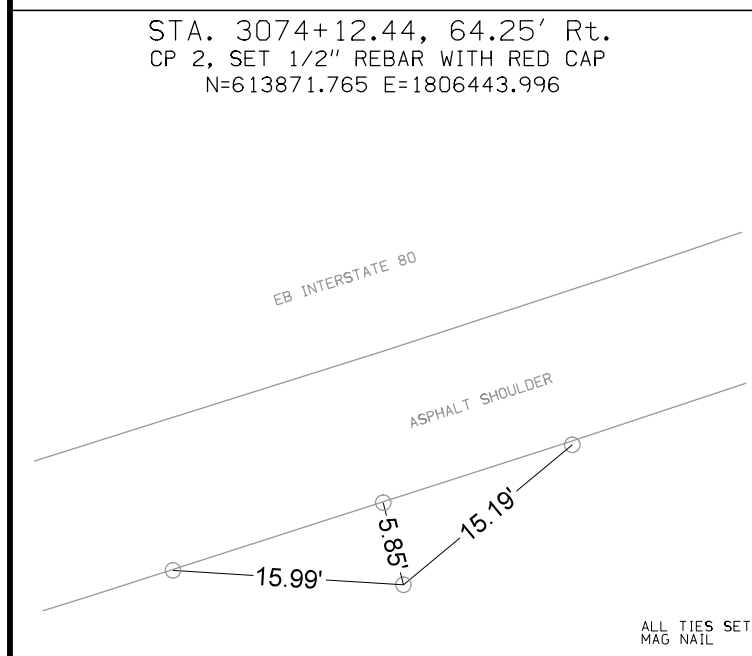
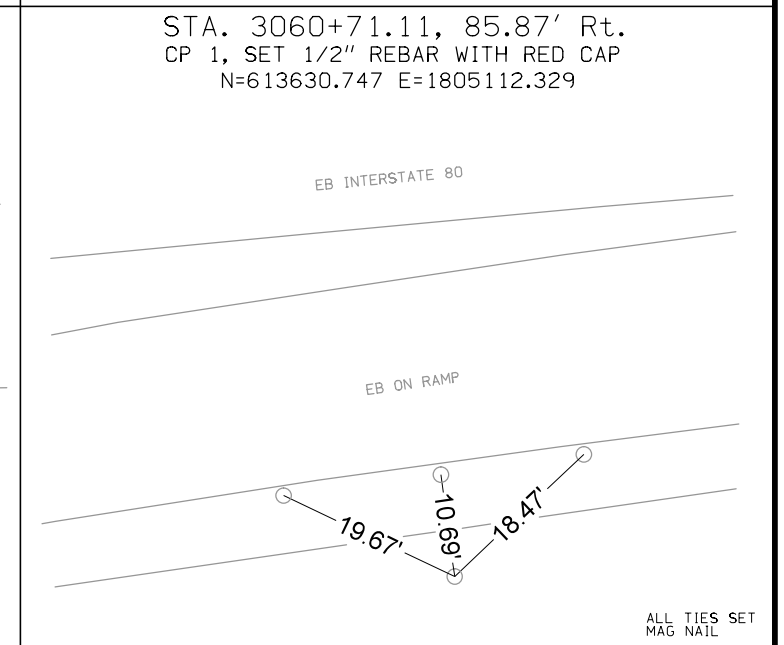
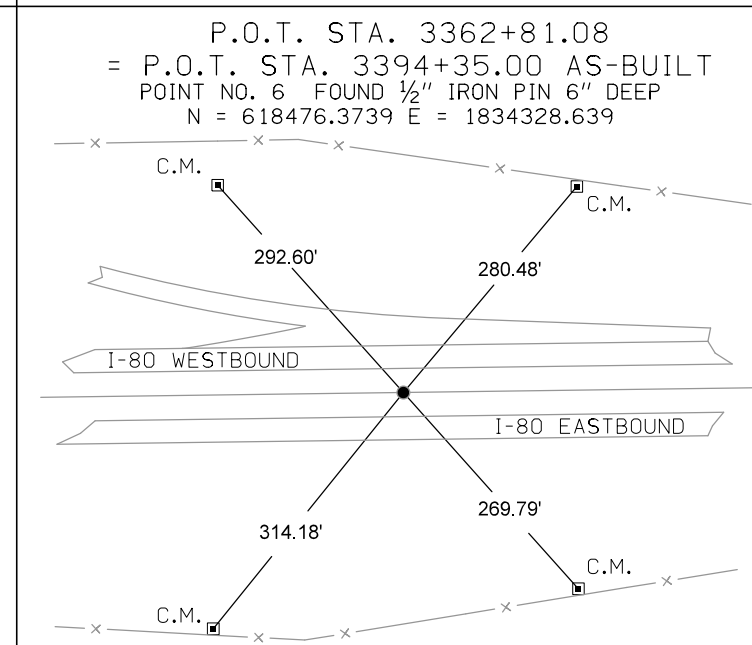
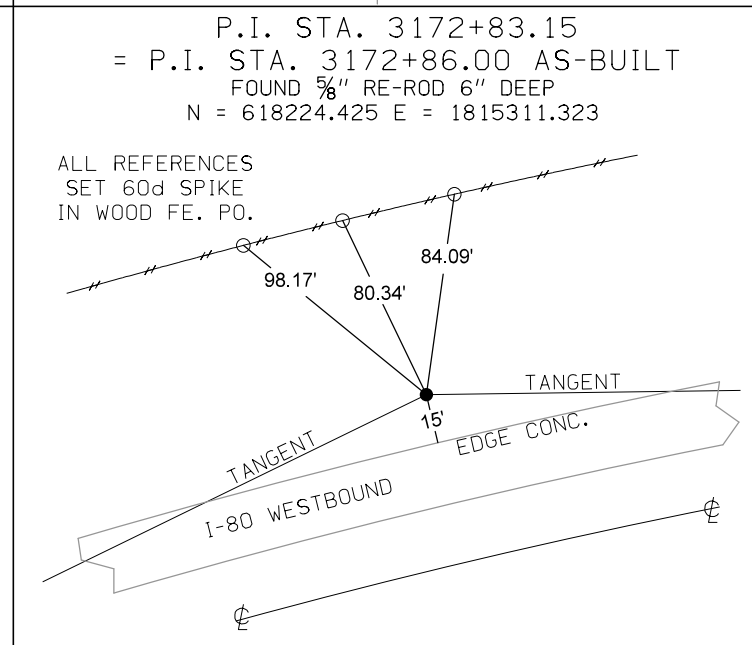
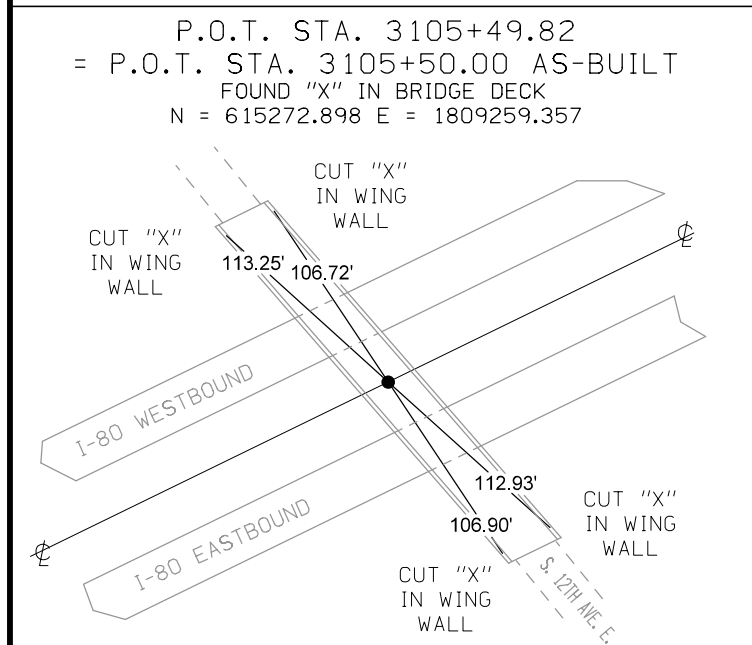
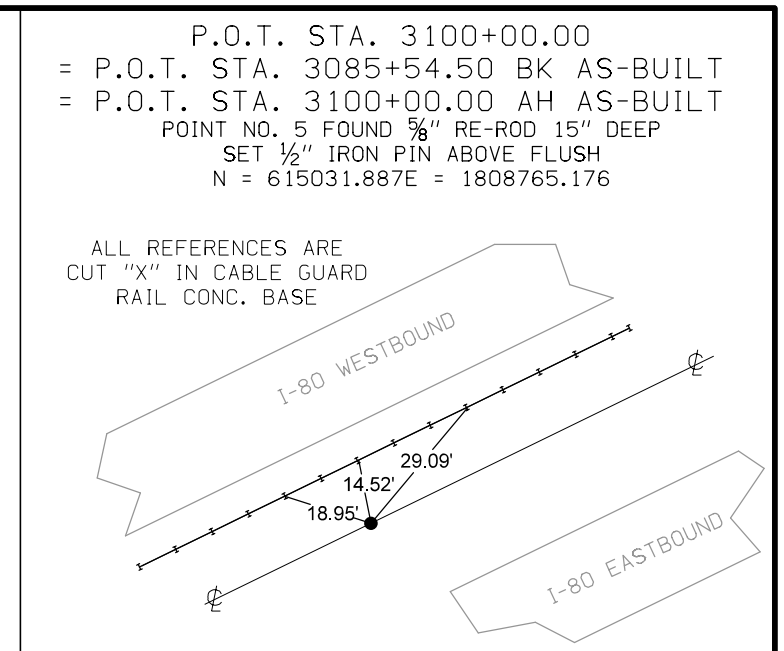
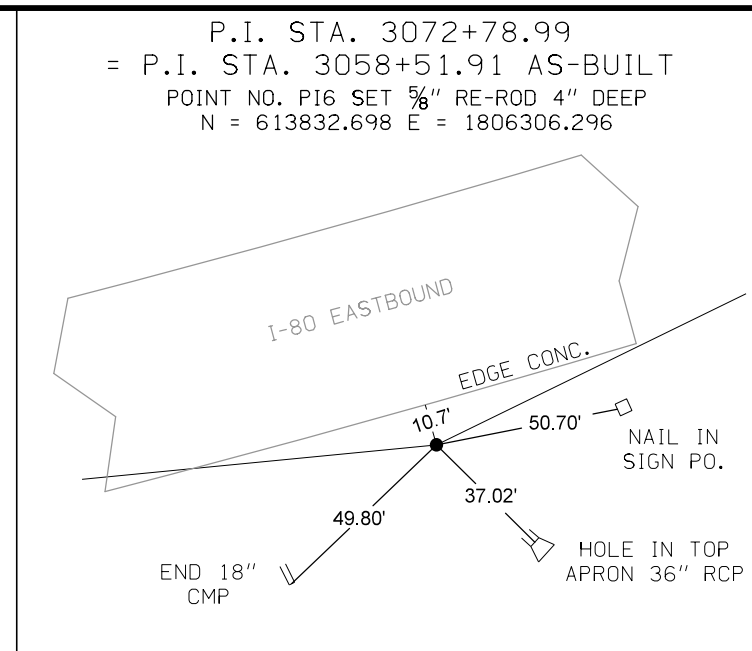
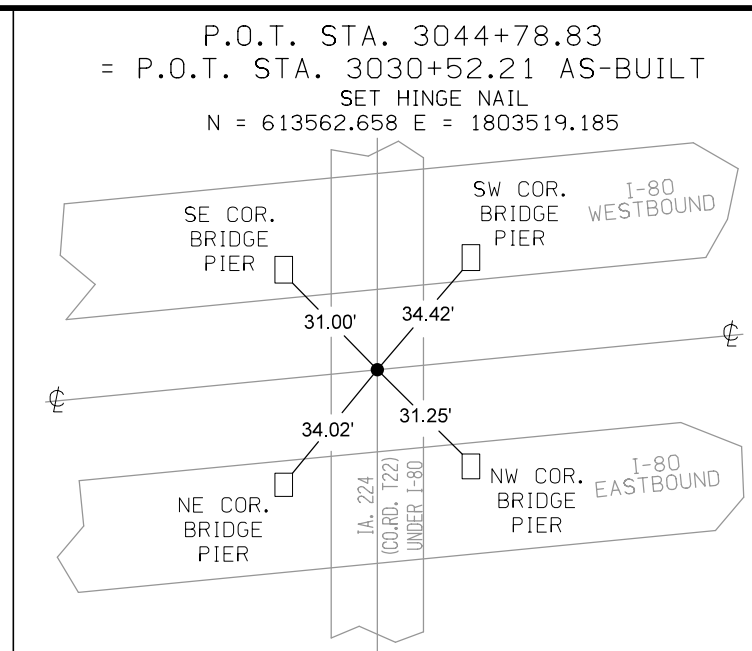
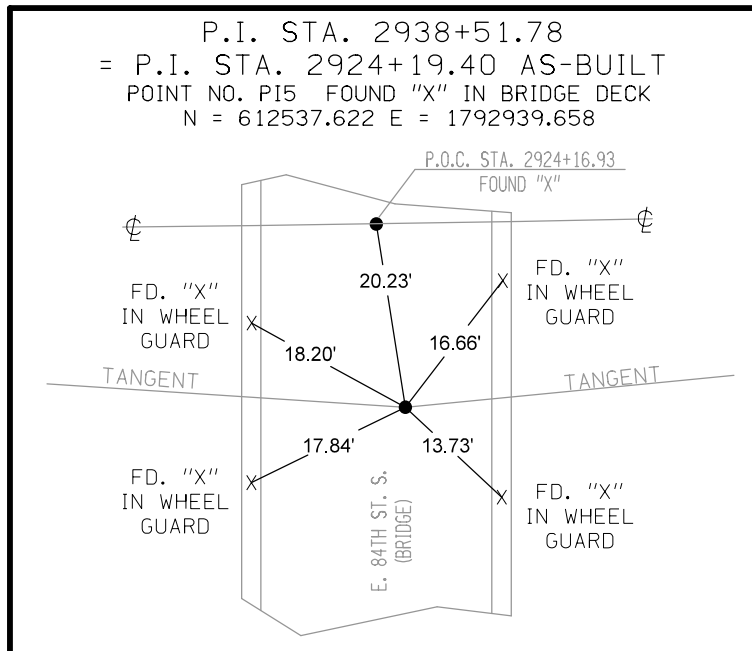
Alignment information was provided by Iowa Department of Transportation District 1 ROW Office. Please contact that office for further alignment information.

The horizontal alignment for this survey is a retrace of the as-built centerline shown in the Project I-80-5(19)178 ACC Paving plans. Stationing was established at as-built P.O.T. Sta. 3100+00.00 and carried forward and back through the project without equation.

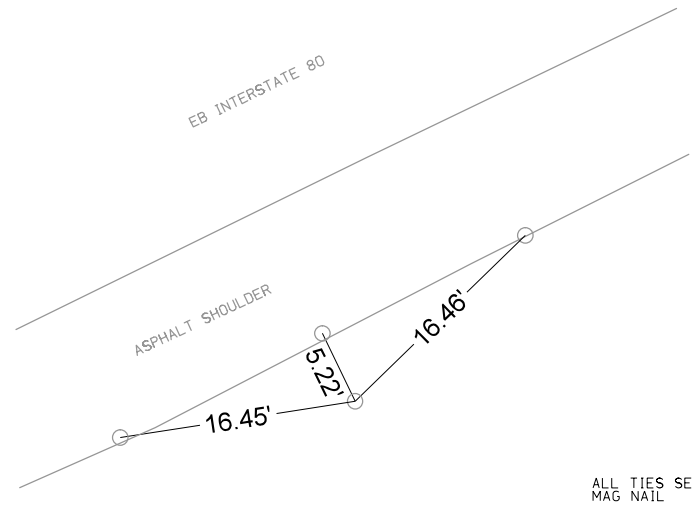
P.I. Sta. 2938+51.78 (found "X") this survey = P.I. Sta. 2924+19.40 Project No. I-80-5(18)171
 P.O.T. Sta. 3044+78.83 (set hinge nail) this survey = P.O.T. Sta. 3030+52.21 Project No. I-80-5(18)171
 P.I. Sta. 3072+78.99 (set 5/8" re-rod) this survey = P.I. Sta. 3058+51.91 Project No. I-80-5(19)178
 P.O.T. Sta. 3100+00.00 (found 5/8" re-rod) this survey = Eq. Point P.O.T. Sta. 3100+00.00 AH Project No. I-80-5(19)178
 P.O.T. Sta. 3105+49.82 (found "X") this survey = P.O.T. Sta. 3105+50.0 Project No. I-80-5(19)178
 P.I. Sta. 3172+83.15 (found 1/2" iron pin) this survey = P.I. Sta. 3172+86.00 Project No. I-80-5(19)178
 P.O.T. Sta. 3362+81.08 (found 1/2" iron pin) this survey = P.O.T. Sta. 3394+35.00 Project No. I-IG-80-5(20)183

VERTICAL CONTROL

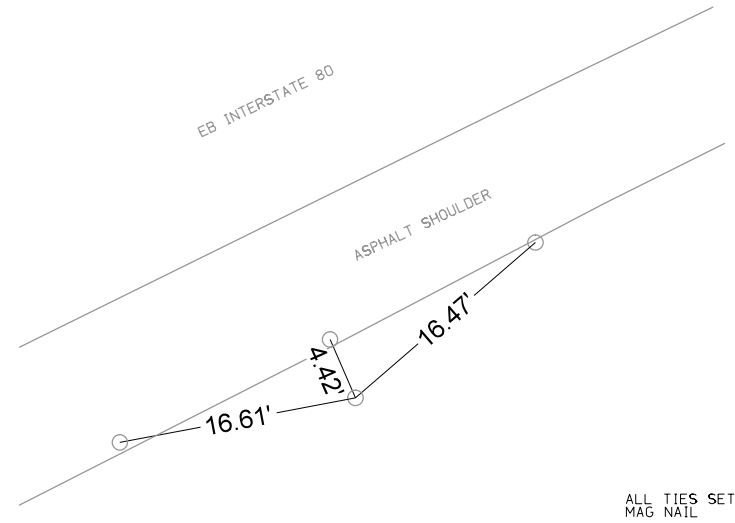
Point	North	East	Elevation	Station	Offset	Feature	Description
500	614985.790	1809897.350	942.360	3109+97.40	537.716	BM	JASPER COUNTY K01/FOUND CONCRETE MONUMENT WITH ALUMINUM DISC
501	613801.544	1806466.045	938.372	3074+11.89	137.851	BM	SPIKE IN NORTH FACE OF EAST BRACE POST 10FT EAST OF STA 3060 SIGN IN SOUTH ROW SOUTH OF CP2
502	614627.805	1807620.890	949.217	3087+94.38	-138.401	BM	SPIKE IN SOUTH FACE FENCE POST NORTH ROW NORTH OF CP3
503	615195.778	1809345.841	972.728	3105+93.75	107.226	BM	IHC PLUG ON SE WING WALL OVER PASS I-80 AND S 12TH AVE
504	615666.786	1810386.198	936.965	3117+35.29	139.916	BM	SPIKE IN NORTH FACE OF WEST BRACE POST SOUTH ROW SOUTH OF CP5
505	616208.556	1811516.950	937.161	3129+89.10	148.630	BM	SPIKE IN NORTH FACE OF WEST BRACE POST SOUTH ROW SOUTH OF CP6
506	616888.101	1812889.894	861.029	3145+20.99	139.674	BM	SPIKE IN NORTH FACE OF WEST BRACE POST SOUTH ROW SOUTH OF CP7
507	617576.253	1814122.487	835.840	3159+30.50	61.460	BM	CUT TRIANGLE IN SE CORNER CONCRETE BRIDGE GUARD RAIL EAST BOUND SKUNK RIVER BRIDGE
508	618016.921	1815351.598	827.595	3172+63.34	139.660	BM	SPIKE IN NORTH FACE OF FENCE POST SOUTH ROW SOUTH OF CP9
509	618114.088	1817361.950	857.025	3193+11.08	137.492	BM	SPIKE IN NORTH FACE OF FENCE POST SOUTH ROW SOUTH OF CP11
511	618217.816	1819464.095	852.271	3214+14.41	61.621	BM	CUT TRIANGLE IN SW CORNER EASTBOUND CONCRETE BRIDGE GUARD RAIL FIRST BRIDGE EAST OF SKUNK RIVER



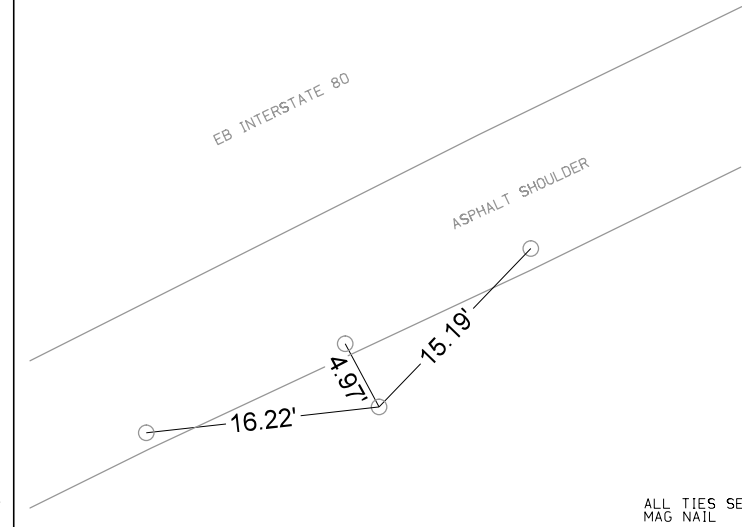
STA. 3129+93.98, 63.12' Rt.
 CP 6, SET 1/2" REBAR WITH RED CAP
 N=616287.556 E=1811483.855



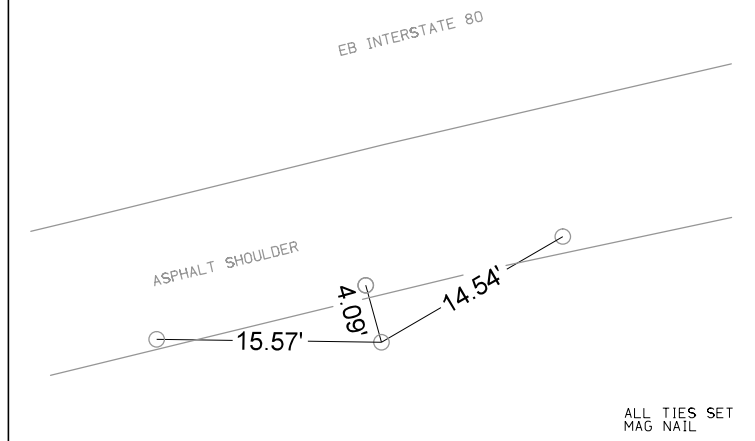
STA. 3145+20.01, 62.28' Rt.
 CP 7, SET 1/2" REBAR WITH RED CAP
 N=616957.230 E=1812855.090



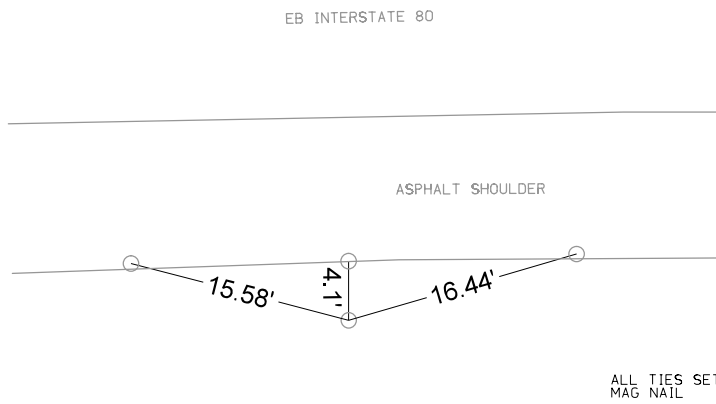
STA. 3159+47.48, 63.18' Rt.
 CP 8, SET 1/2" REBAR WITH RED CAP
 N=617582.146 E=1814138.502



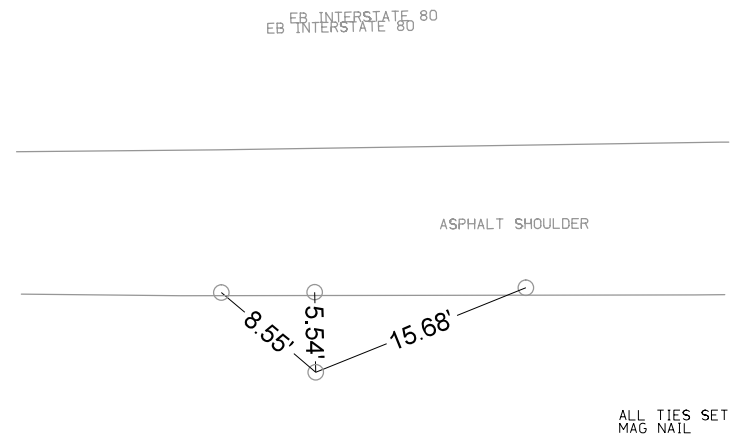
STA. 3172+64.59, 62.56' Rt.
 CP 9, SET 1/2" REBAR WITH RED CAP
 N=618092.157 E=1815334.709



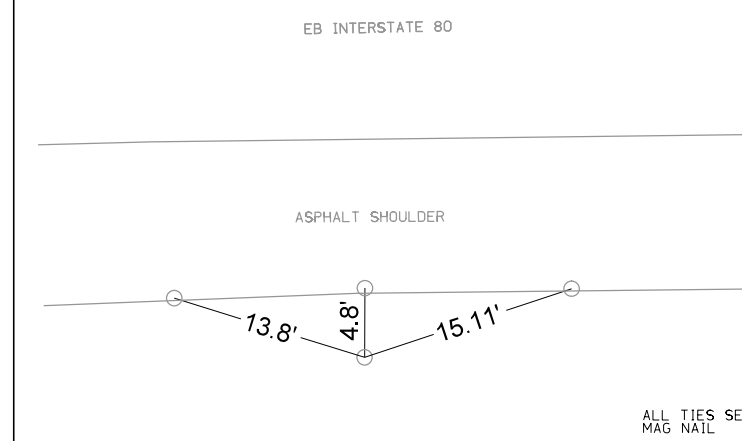
STA. 3185+82.89, 63.19' Rt.
 CP 10, SET 1/2" REBAR WITH RED CAP
 N=618178.736 E=1816632.840



STA. 3193+14.41, 64.61' Rt.
 CP 11, SET 1/2" REBAR WITH RED CAP
 N=618187.010 E=1817364.322



STA. 3206+80.18, 63.86' Rt.
 CP 12, SET 1/2" REBAR WITH RED CAP
 N=618205.856 E=1818729.953



ALIGNMENT COORDINATES

101-16
10-20-09

Name	Location	Point on Tangent			Begin Spiral			Begin Curve			Simple Curve PI or Master PI of SCS			End Curve			End Spiral		
		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates		Station	Coordinates	
			Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)		Y (Northing)	X (Easting)
ML080																			
21000		2943+14.03	612,582.40	1,793,401.76															
C1								3067+99.93	613,786.50	1,805,829.47	3073+78.41	613,842.29	1,806,405.25	3079+44.52	614,096.13	1,806,925.06			
41001								3166+18.42	617,902.31	1,814,719.26	3172+90.90	618,197.39	1,815,323.53	3179+41.50	618,206.30	1,815,995.94			
41002		3212+94.67	618,245.92	1,819,348.88															
SR108																			
502		500+00.00	613,383.24	1,808,817.52															
SR108-1								507+14.86	614,098.02	1,808,807.15	513+27.31	614,710.41	1,808,798.27	518+06.31	614,979.15	1,809,348.60			
SR108-2								531+34.46	615,561.96	1,810,542.05	533+54.44	615,658.49	1,810,739.73	535+67.04	615,659.81	1,810,959.71			
503		544+57.47	615,665.15	1,811,850.12															
TEMP3066																			
1001		13066+00.00	613,730.42	1,805,634.15															
1001								13066+00.00	613,730.42	1,805,634.15	13066+03.77	613,730.79	1,805,637.90	13066+07.54	613,731.17	1,805,641.65			
1002								13066+07.54	613,731.17	1,805,641.65	13074+76.49	613,819.21	1,806,506.12	13083+27.37	614,200.51	1,807,286.94			
1002		13098+11.86	614,851.92	1,808,620.88															
TEMP3188																			
2001		23188+50.00	618,152.04	1,816,905.15															
2001								23188+50.00	618,152.04	1,816,905.15	23191+49.49	618,155.58	1,817,204.62	23194+48.88	618,173.01	1,817,503.60			
2002								23201+15.87	618,211.83	1,818,169.46	23204+06.11	618,228.73	1,818,459.21	23206+96.25	618,232.57	1,818,749.43			
2002		23206+96.25	618,232.57	1,818,749.43															

SUPERELEVATION DATA

See PV-300 Series

Road Identification	Circular Curve or Spiral Curve Name	Radius	Superelevation Data			Standard Road Plan	Section A-A	Section B-B	Section C-C	Section D-D	Section E-E	Section F-F	Case A	Case B	Case C	Case S	Case T	Case U	Remarks
			e	L	x														
			FT	FT	FT														
I-80	41001	3000	6.0	379	158	PV-304	3161+95.37	3162+26.97	3163+53.37	3164+79.77	3165+11.37	3167+32.37	3166+18.67			3165+42.87	3166+69.20		SEE U SHEETS FOR ADDITIONAL INFORMATI
			%	FT	FT		3183+65.04	3183+33.44	3182+07.04	3180+80.64	3180+49.04	3178+28.04	3179+41.74	3180+17.54	3178+91.21				
SR108	SR108-1	965	8.0	240	90		504+56.86	505+46.86	506+36.86	507+86.86									SEE U SHEETS FOR ADDITIONAL INFORMATI
SR108	SR108-2	965	8.0	240	90		520+64.31	519+74.31	518+84.31	517+34.31									SEE U SHEETS FOR ADDITIONAL INFORMATI
							528+76.46	529+66.46	530+56.46	532+06.46									SEE U SHEETS FOR ADDITIONAL INFORMATI
							538+25.04	537+35.04	536+45.04	534+95.04									SEE U SHEETS FOR ADDITIONAL INFORMATI

Jasper	ROW: IMN-080-5(241)176--0E-50				PIN 04-50-080-020												
	N Skunk River 2.1 miles E of IA 224																
		STATE		COUNTY		CITY		BORROW									
PARCEL NO.	OWNER NAME	FEE	EASE	FEE	EASE	FEE	EASE	EXCESS	FEE	T.E.	MITIGATION	OTHER	HOUSE	BUILDING(S)	A/C ONLY	TOTAL ACQ.	
1	Platt Family Farms, L.L.C. - Fee	6.04 AC			8.68 AC												
6	Robert R Reed - Fee	.67 AC			0.23 AC												
7	Jerry(Trustee) G Jansen - Fee	9.82 AC															
8	Freda L. DeGreef - Fee	1.68 AC															
4 Parcels	"TOTALS	18.21 AC	0 AC	0 AC	8.91 AC	0 AC	0 AC	0 AC	0 AC	0 AC	0 AC						
		0 SF	0 SF	0 SF		0 SF	0 SF		0 SF	0 SF							

DENNIS A. VANDERWEEROT, ET AL

Sta. 3061+50.00
Begin Shoulder Strengthening

PC Sta 13066+00.00

PCC Sta 13066+07.54

PC Sta 3067+96.24

PI Sta 13066+03.77

POC Sta. 13066+00.00 (TEMP3066)
= POT 3066+00.00 36.98 RT (ML080)
Begin Transition Paving

MELVIN L. JANSEN

Right of Way Design Information

**THIS SHEET INCLUDED
FOR INFORMATION ONLY**

ROW Team: CUVA /WIDICK
ROW #: IMN-80-5(241)176- -0E-50
Plan Date: 2/17/2015

Color Legend:

-  Property Lines
-  Temporary Easement
-  Permanent Acquisition



BUENA VISTA TWP
T-79N - R-18W
SECTION 1

DENNIS A. VANDERWEERDT, ETAL

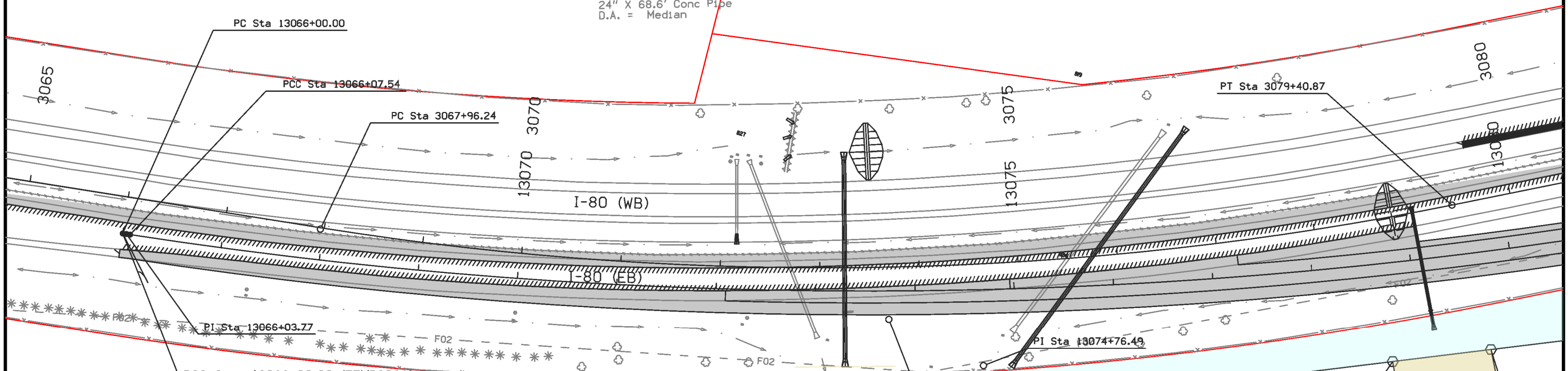
PLATT FAMILY FARMS, LLC

Sta. 3072+58.31
30" X 181.1' Conc Pipe
D.A. = Ac
Skew 20° Ahead Rt.

Sta. 3075+75.34
36" X 237' Conc Pipe
D.A. = Ac
Skew 42° Ahead Lt.

Sta. 3072+14.45
24" X 68.6' Conc Pipe
D.A. = Median

T AL



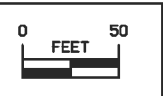
POC Sta. 13066+00.00 (TEMP3066)
= POT 3066+00.00 36.98 RT (ML080)
Begin Transition Paving

TEMP3188
(Temp 3066)
Curve Data
Δ = 20° 12' 47.16" (LT)
T = 868.94
L = 1,719.83
R = 4,875.00
E = 76.84
e = 4.4%

(ML080)
Curve Data
Δ = 20° 29' 37.83" (LT)
T = 578.48
L = 1,144.59
R = 3,200.00
E = 51.87



PLATT FAMILY FARMS, LLC



TEMPORARY EASEMENT FOR SHAPING & PIPEJACKING

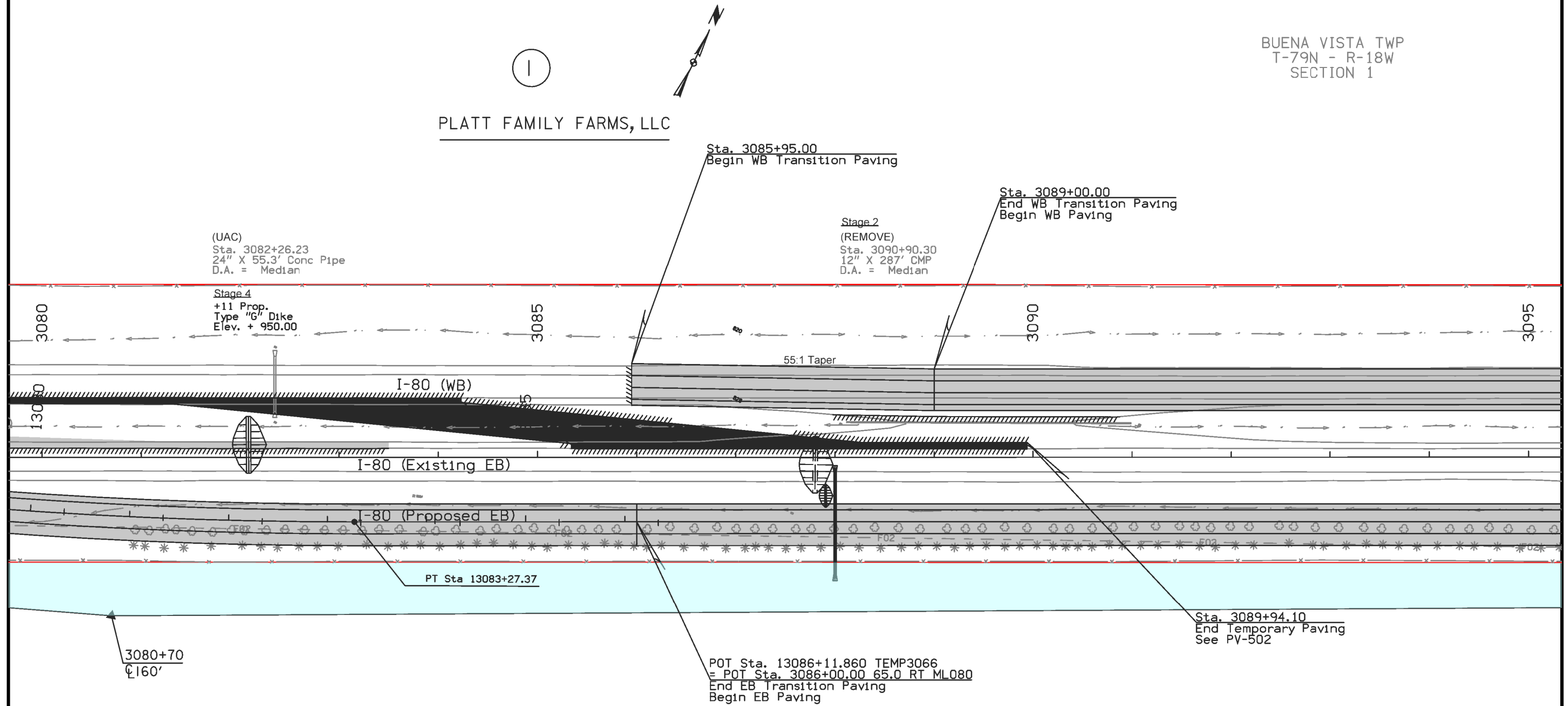
TEMPORARY EASEMENT FOR SHAPING & PIPEJACKING

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: CUVA /WIDICK	
ROW #: IMN-80-5(241)176--0E-50	
Plan Date: 2/17/2015	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

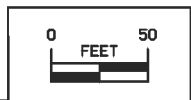
MELVIN L. JANSEN

BUENA VISTA TWP
T-79N - R-18W
SECTION 1

PLATT FAMILY FARMS, LLC



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BUENA VISTA TWP
T-79N - R-18W
SECTION 1

DEAN VANKOOTEN, ETAL

RICHLAND TWP
T-79N - R-17W
SECTION 6

18" X 49.8' CMP

S 12th Ave E

3095

3100

3105

3110

I-80 (WB)

I-80 (Existing EB)

I-80 (Proposed EB)

Stage 2
(REMOVE)
Sta. 3099+89.13
15" X 73.6' CMP
3099+21±P
CL 150'

Stage 2
(REMOVE)
Sta. 3104+33.00
15" CMP Into 24" RCP
D.A. = Median
Sta. 3105+25
Install 24" X 80' RCP
F.L. = Elev. 947.03
Rt. = 944.37
+40 Prop.
Type "G" Dike (Temporary)
Elev. + 952.50

Existing Bridge at S 12th Ave E
Bridge Des. 1260
Maint. 5074.50080
FHWA 31210
Refer to V Sheets for Additional Information

PLATT FAMILY FARMS, LLC

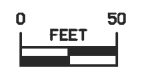
3099+75±P
CL 190'

Grading for Fence Berm

Grading

Stage 4
Remove T Section
Extend w/ 24" X 20' RCP
F.L. = Lt. 949.21
Other 947.62
+45 Prop.
Type "G" Dike (Final)
Elev. + 952.50

PLATT FAMILY FARMS, LLC



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	Permanent Acquisition

ROCK CREEK TWP
T-80N - R-17W
SECTION 31

MARVIN DUNSBERGEN

JERRY G. JANSEN
REVOCABLE TRUST

Remove and Install
New (By Others)
IMX-080-5(334)174--02-50

Stage 2
(REMOVE)
Sta. 3113+64.33
30" X 152.3' Conc Pipe
D.A. = Ac
Sta. 3113+90
Install 36" X 266' RCP
F.L. = Lt. 942.82
Rt. 930.70

Stage 3
(REMOVE)
Sta. 3113+99.84
24" X 52' Conc Pipe
D.A. = Median

Stage 2
Sta. 3114+25
Install 24" X 62' RCP
F.L. = Lt. 943.43
Rt.
Sta. 3114+25
Install 24" X 62' CMP
F.L. = Lt.
Rt. 930.71
Other 941.47
Other 931.70

Stage 2
(REMOVE)
Sta. 3118+68.82
30" X 158.3' Conc Pipe
D.A. = Ac
Sta. 3118+50
Install 30" X 252' RCP
F.L. = Lt. 941.00
Rt. 934.25

Stage 3
+25 Prop.
Type "G" Dike (Final)
Elev. + 946.00

Stage 4
Remove T Section
Extend w/ 24" X 18' RCP
F.L. = Lt. 945.53
Other 943.68

Stage 2
+40 Prop.
Type "G" Dike (Temporary)
Elev. + 947.50
Stage 3
+45 Prop.
Type "G" Dike (Final)
Elev. + 948.20

Rock Ditch and Channel
Refer to Typical's 4201 and 4402
3118+90±R
E190'

E 108th St S

Sta. 6121+00.12
48" X 80.5' CMP
D.A. = Ac

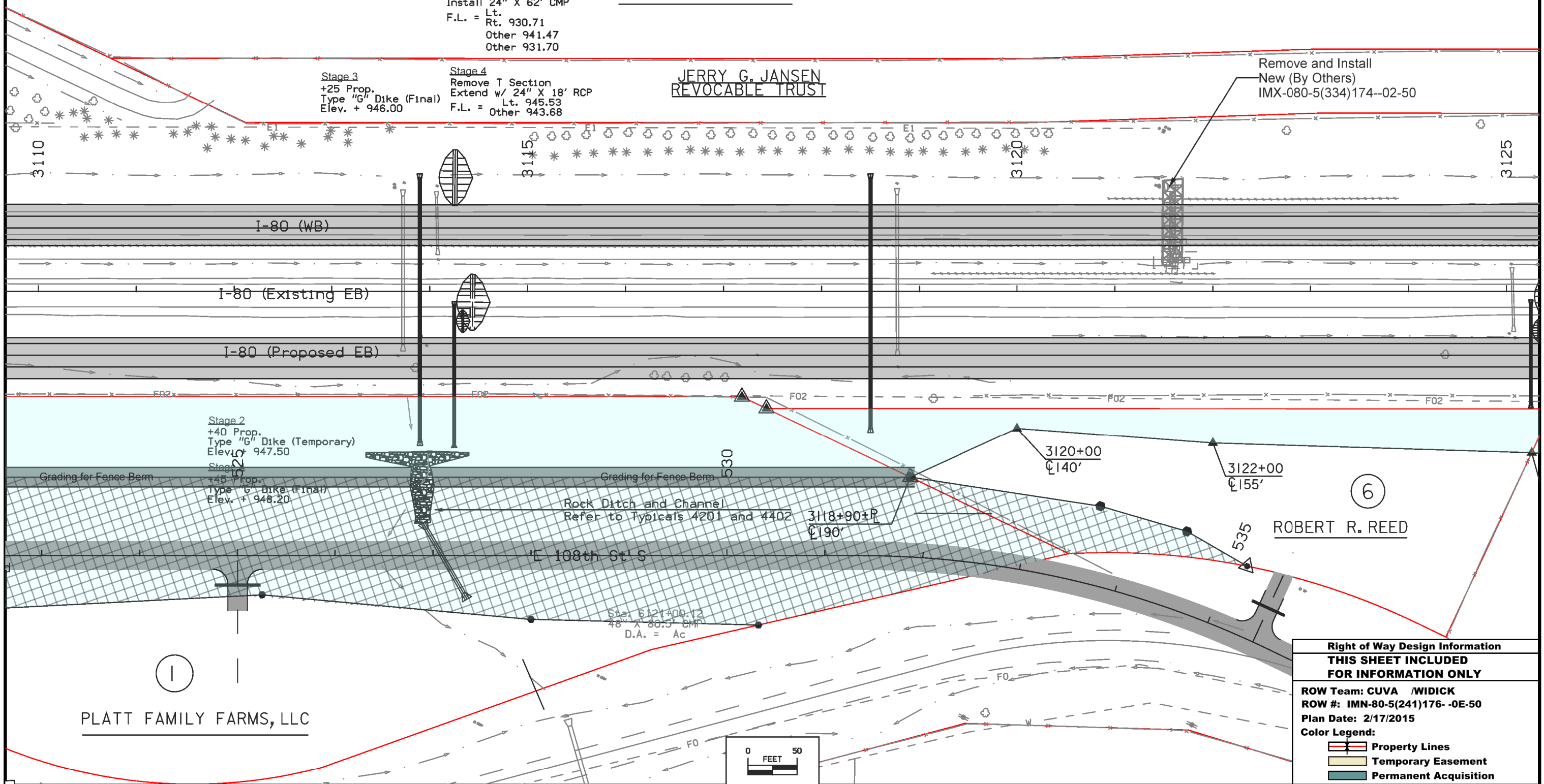
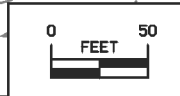
PLATT FAMILY FARMS, LLC

ROBERT R. REED

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Color Legend:
Property Lines
Temporary Easement
Permanent Acquisition



ROCK CREEK TWP
T-80N - R-17W
SECTION 31

Stage 2
(REMOVE)
Sta. 3134+90.07
30" X 193.7' Conc Pipe
D.A. = Ac
Skew 10° Ahead Lt.
Sta. 3135+25
Install 30" X 280' RCP
Lt. 891.49
Rt. 893.39

JERRY G. JANSEN REVOCABLE TRUST

TEMPORARY EASEMENT
TO SHAPE

3134+25
±205'
Temporary Need for Shaping
3135+75
±205'

3125

3130

3135

3140

I-80 (WB)

I-80 (Existing EB)

I-80 (Proposed EB)

3125+25±R
±165'

Stage 2
(REMOVE)
Sta. 3124+97.17
24" X 52.9' Conc Pipe
D.A. = Median
Sta. 3125+25
Install 24" X 78' RCP
Lt. 933.05
Rt. 932.10
+40 Prop.
Type "G" Dike (Temporary)
Elev. + 938.00
Stage 4
Remove T Section
Extend w/ 24" X 28' RCP
Lt. 933.40
Rt. 933.40
+45 Prop.
Type "G" Dike (Final)
Elev. + 935.50

JERRY G. JANSEN
REVOCABLE TRUST

3129+00
±195'

3130+80
±205'

Stage 2
(REMOVE)
Sta. 3133+23.55
24" X 51.5' Conc Pipe
D.A. = Median
Sta. 3134+50
Install 24" X 64' RCP
Lt. 902.75
Rt. 902.75
Sta. 3134+50
Install 24" X 38' CMP
Lt. 897.27
Rt. 901.40
Other 898.10

Stage 2
(REMOVE)
Sta. 3133+28.26
24" X 26.3' CMP
D.A. = Ac

3134+35
±160'

3134+80
±200'

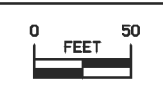
3135+55
±200'

3136+30
±150'

Stage 2
+60 Prop.
Type "G" Dike (Temporary)
Elev. + 907.20

+50 Rt. Prop.
Type "G" Dike (Final)
Elev. + 896.30

Stage 4
+60 Prop.
Type "G" Dike (Final)
Elev. + 908.20



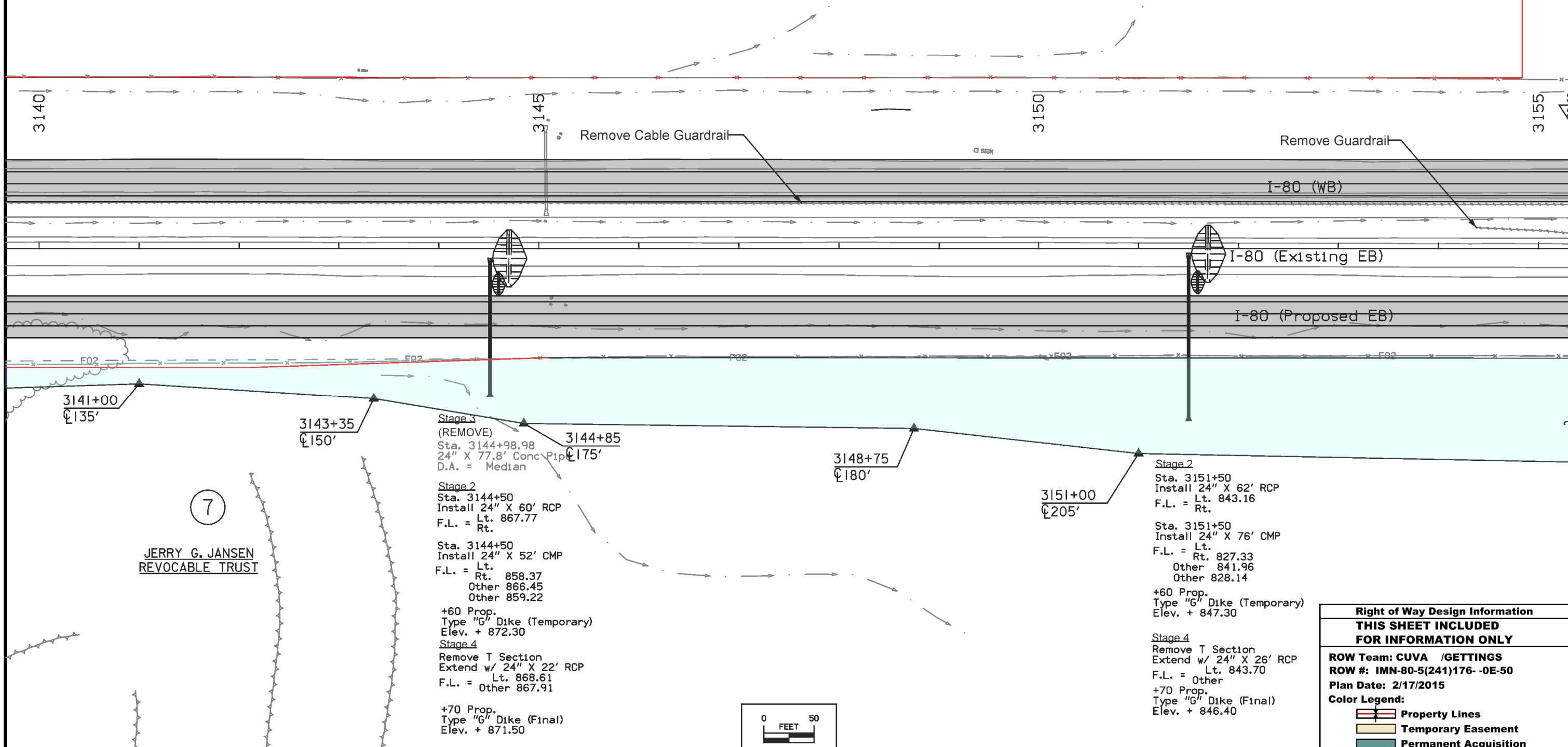
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7

JERRY G. JANSEN
REVOCABLE TRUST

ROCK CREEK TWP
T-80N - R-17W
SECTION 31

Replace
334' x 60'
BRFIMX-



7

JERRY G. JANSEN
REVOCABLE TRUST

Stage 3
(REMOVE)
Sta. 3144+98.98
24" X 77.8' Conc Pipe
D.A. = Median

Stage 2
Sta. 3144+50
Install 24" X 60' RCP
F.L. = Lt. 867.77
Rt.

Sta. 3144+50
Install 24" X 52' CMP
F.L. = Lt. 858.37
Rt. 866.45
Other 859.22

+60 Prop.
Type "G" Dike (Temporary)
Elev. + 872.30

Stage 4
Remove T Section
Extend w/ 24" X 22' RCP
F.L. = Lt. 868.61
Other 867.91

+70 Prop.
Type "G" Dike (Final)
Elev. + 871.50

3148+75
±180'

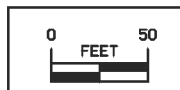
3151+00
±205'

Stage 2
Sta. 3151+50
Install 24" X 62' RCP
F.L. = Lt. 843.16
Rt.

Sta. 3151+50
Install 24" X 76' CMP
F.L. = Lt. 827.33
Rt. 841.96
Other 828.14

+60 Prop.
Type "G" Dike (Temporary)
Elev. + 847.30

Stage 4
Remove T Section
Extend w/ 24" X 26' RCP
F.L. = Other Lt. 843.70
Other
+70 Prop.
Type "G" Dike (Final)
Elev. + 846.40



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ROCK CREEK TWP
T-80N - R-17W
SECTION 31

7

JERRY G. JANSEN
REVOCABLE TRUST

Stage 3
(REMOVE)
Sta. 3159+44.57
24" X 58' CMP w/ Gate Valve
D.A. = Ac
Sta. 3158+32.79 156.44' LT
Install 24" X 182' CMP
F.L. = BK 815.00
AH 817.00
AH 821.00 (SW-562 FORM GRADE)

Stage 3
(REMOVE)
Sta. 3168+46.78
24" X 72.6' Conc Pipe
D.A. = Median

Stage 3
(REMOVE)
Sta. 3165+72.38
18" X 54.4' CMP
D.A. = Median

Curve Data
Δ = 25° 16' 07.86" (RT)
T = 672.47
L = 1,323.07
R = 3,000.00
E = 74.45
e = 6.0%

Stage 2
Sta. 3168+50
Install 24" X 84' RCP
F.L. = Lt. 823.97
Rt. 821.36

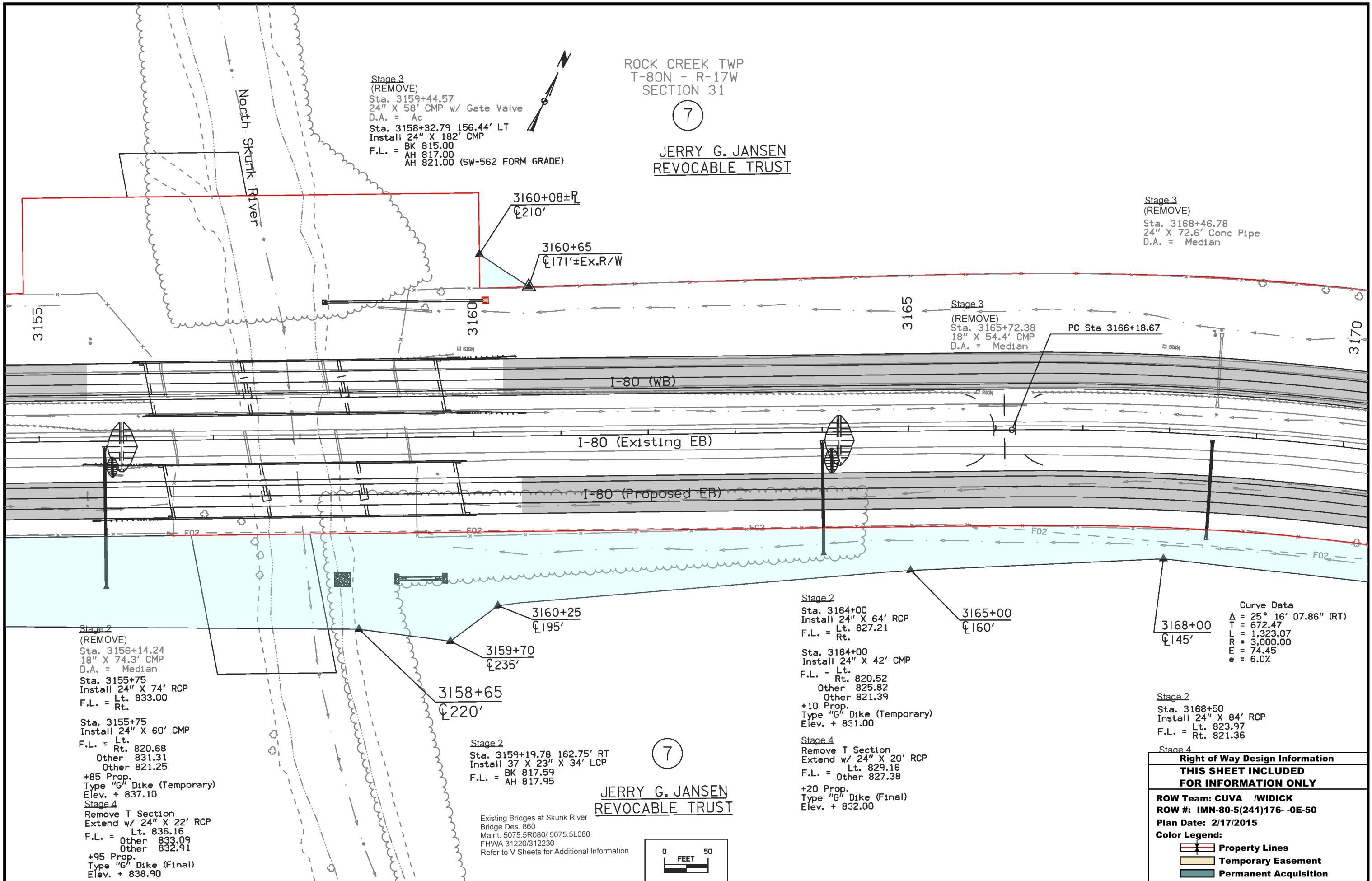
Stage 4
Right of Way Design Information
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ROW #: IMN-80-5(241)176--0E-50

Plan Date: 2/17/2015

Color Legend:

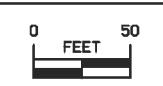
- Property Lines
- Temporary Easement
- Permanent Acquisition



Stage 2
Sta. 3159+19.78 162.75' RT
Install 37 X 23" X 34' LCP
F.L. = BK 817.59
AH 817.95

JERRY G. JANSEN
REVOCABLE TRUST

Existing Bridges at Skunk River
Bridge Des. 860
Maint. 5075.5R080/ 5075.5L080
FHWA 31220/312230
Refer to V Sheets for Additional Information



ROCK CREEK TWP
T-80N - R-17W
SECTION 32

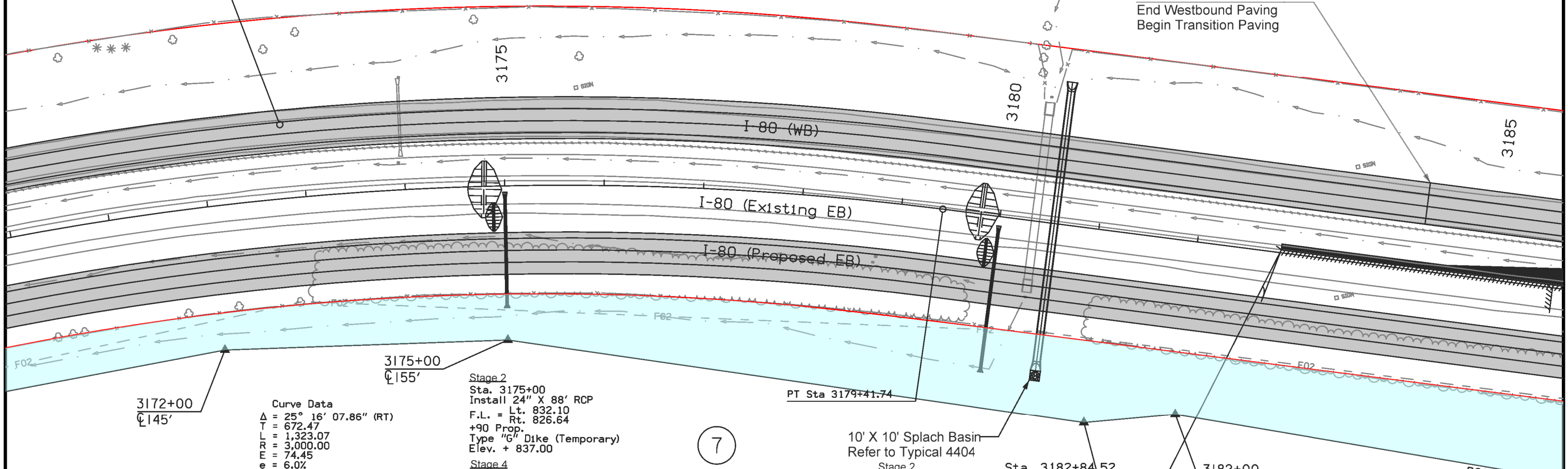
7

JERRY G. JANSEN
REVOCABLE TRUST

Stage 2
(PLUG & ABANDON)
Sta. 3180+40.92
8' X 5' X 167.5' RCB
D.A. = Ac
Sta. 3180+55
Install 78" X 274' RCP
Lt. 836.55
Rt. 833.15

Stage 3
(REMOVE)
Sta. 3173+96.78
24" X 65.8' Conc Pipe
D.A. = Median

Sta. 3184+25.00
End Westbound Paving
Begin Transition Paving



Curve Data
Δ = 25° 16' 07.86" (RT)
T = 672.47
L = 1,323.07
R = 3,000.00
E = 74.45
e = 6.0%

Stage 2
Sta. 3175+00
Install 24" X 88' RCP
F.L. = Lt. 832.10
Rt. 826.64
+90 Prop.
Type "G" Diike (Temporary)
Elev. + 837.00
Stage 4
Remove T Section
Extend w/ 24" X 22' RCP
F.L. = Lt. 833.54
Rt.
+80 Prop.
Type "G" Diike (Final)
Elev. + 836.20

7

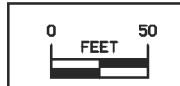
JERRY G. JANSEN
REVOCABLE TRUST

10' X 10' Splach Basin
Refer to Typical 4404
Stage 2
Sta. 3180+00
Install 24" X 54' RCP
F.L. = Lt. 844.64
Rt.
Sta. 3180+00
Install 24" X 64' CMP
F.L. = Lt. 831.64
Rt. 831.64
Other 843.41
Other 832.25
+90 Prop.
Type "G" Diike (Temporary)
Elev. + 850.20
Stage 4
Remove T Section
Extend w/ 24" X 26' RCP
Lt. 845.69
F.L. = Other 845.00
+80 Prop.
Type "G" Diike (Final)
Elev. + 848.20

Sta. 3182+84.52
Begin Crossover Paving
See PV-502
3181+10
Elev. + 195'

3182+00
Elev. + 175'

POC Sta. 3184+25.00
=POT Sta.
Begin Transition Paving



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ROCK CREEK TWP
T-80N - R-17W
SECTION 32



Stage 2
(REMOVE)
Sta. 3191+65.99
42" X 217.1' Conc Pipe
D.A. = Ac
Sta. 3191+00
Install 42" X 304' RCP
F.L. = Lt. 858.06
Rt. 849.00

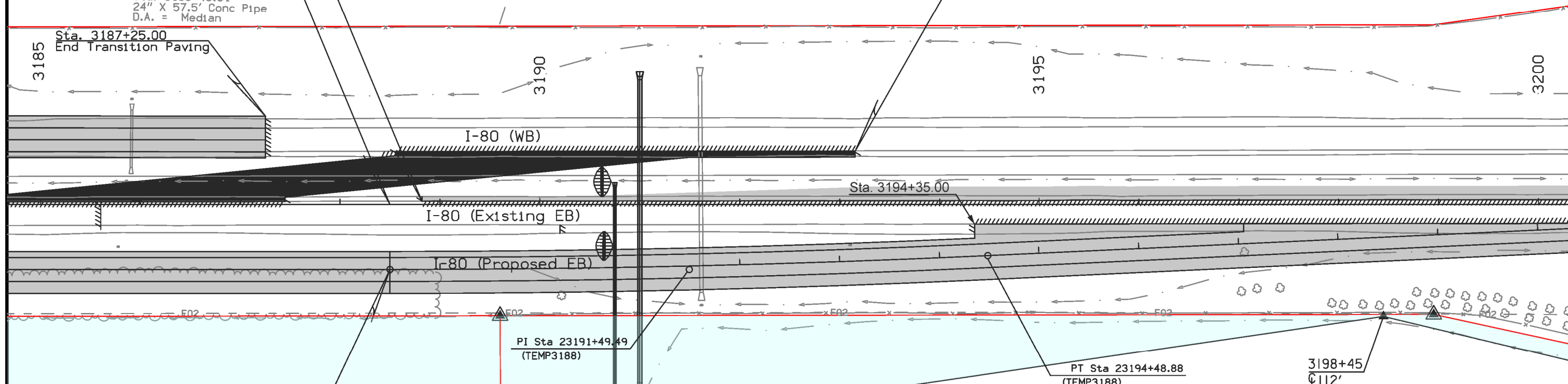
7

JERRY G. JANSEN
REVOCABLE TRUST

Sta. 3193+15.48
End Temporary Paving
See PV-502

Sta. 3188+82.06
Begin Shoulder Strengthening
Sta. 3188+00.00
End EB Paving
(REMOVE)
Sta. 3185+95.61
24" X 57.5' Conc Pipe
D.A. = Median

Sta. 3187+25.00
End Transition Paving



POC Sta. 23188+50.00 Temp3188
=POT Sta. 3188+50.00 65.0 RT MLO80
Begin Transition Paving

3189+60±R
C205'

7

JERRY G. JANSEN
REVOCABLE TRUST

Stage 2
Sta. 3190+75
Install 24" X 106' RCP
F.L. = Lt. 870.84
Rt.
Sta. 3190+75
Install 24" X 96' CMP
F.L. = Lt. 849.63
Other 868.57
Other 850.26

Curve Data
Δ = 2° 39' 35.73" (LT)
T = 299.49
L = 598.88
R = 12,900.00
E = 3.48
e = NC

3192+10
C205'

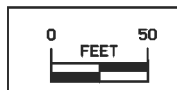
+50 Prop.
Type "G" Dike (Temporary)
Elev. + 873.80
+65 Prop.
Type "G" Dike (Final)
Elev. + 875.00

PT Sta 23194+48.88
(TEMP3188)

3198+45
C112'

8

FREDA DEGREEF



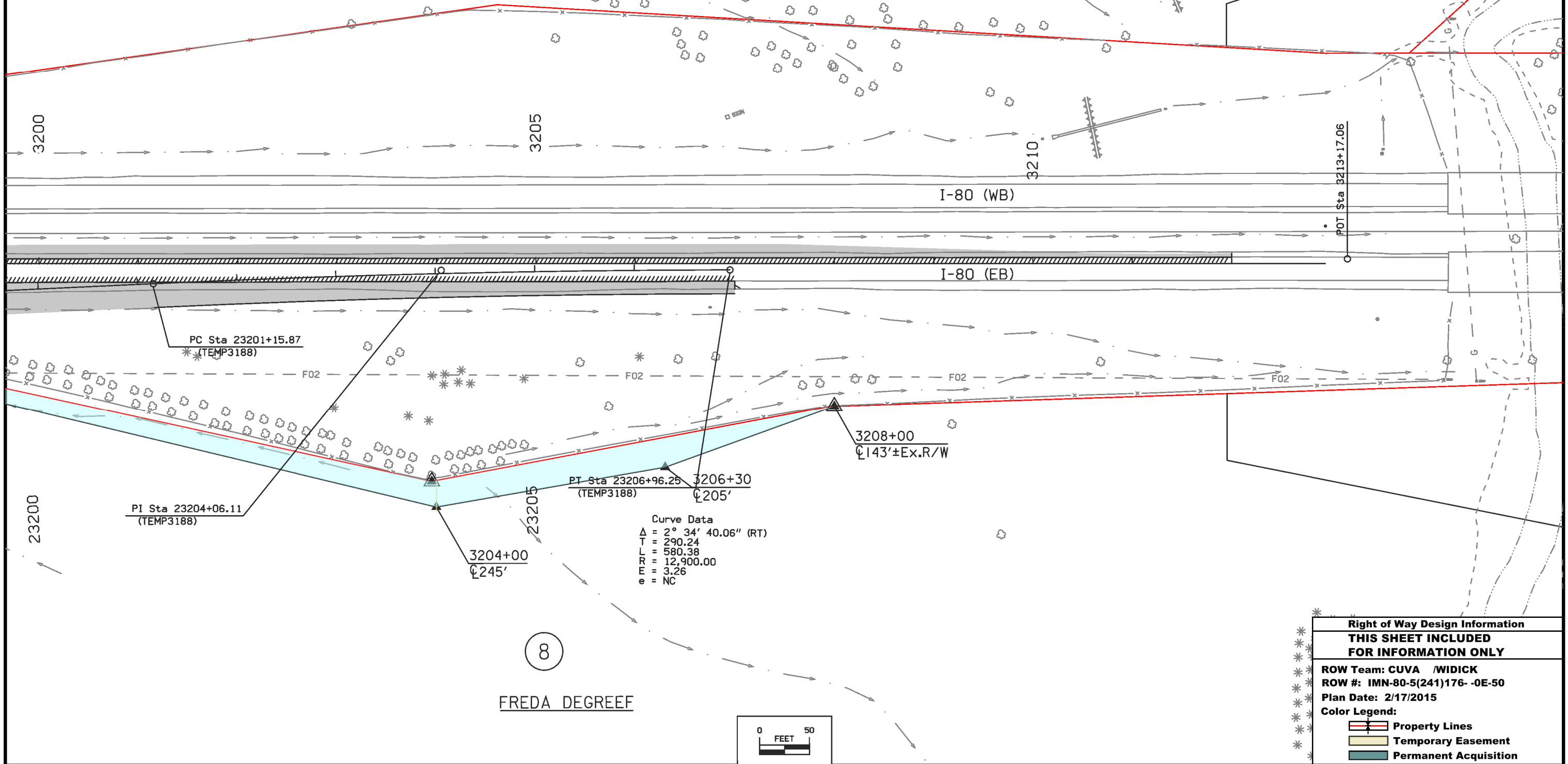
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ROCK CREEK TWP
T-80N - R-17W
SECTION 32

7

JERRY G. JANSEN
REVOCABLE TRUST

(UAC)
Sta. 3210+25.17
24" X 108' Conc Pipe
D.A. = Ac



Curve Data
Δ = 2° 34' 40.06" (RT)
T = 290.24
L = 580.38
R = 12,900.00
E = 3.26
e = NC

8

FREDA DEGREEF

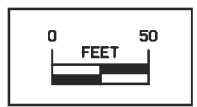
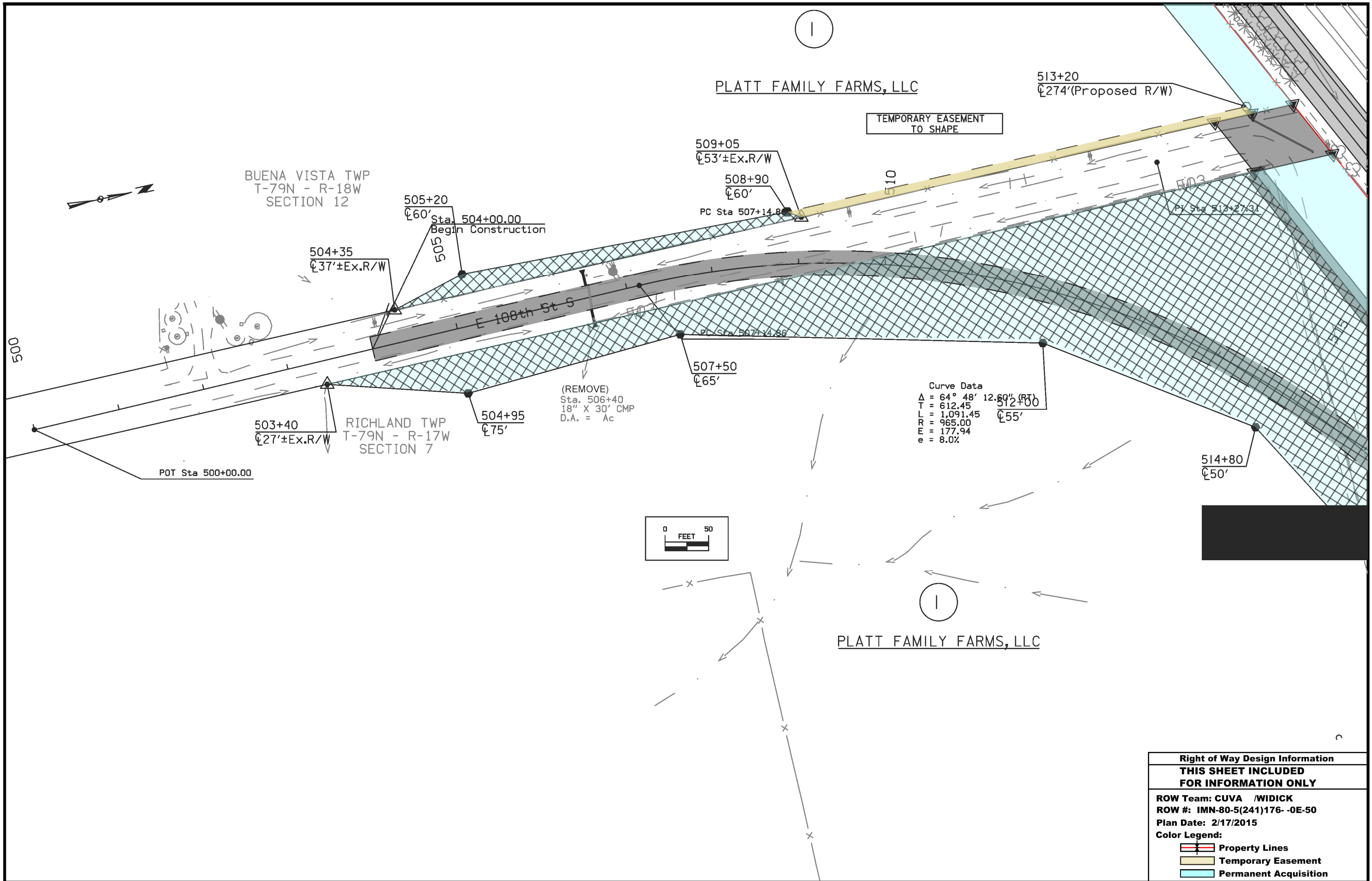


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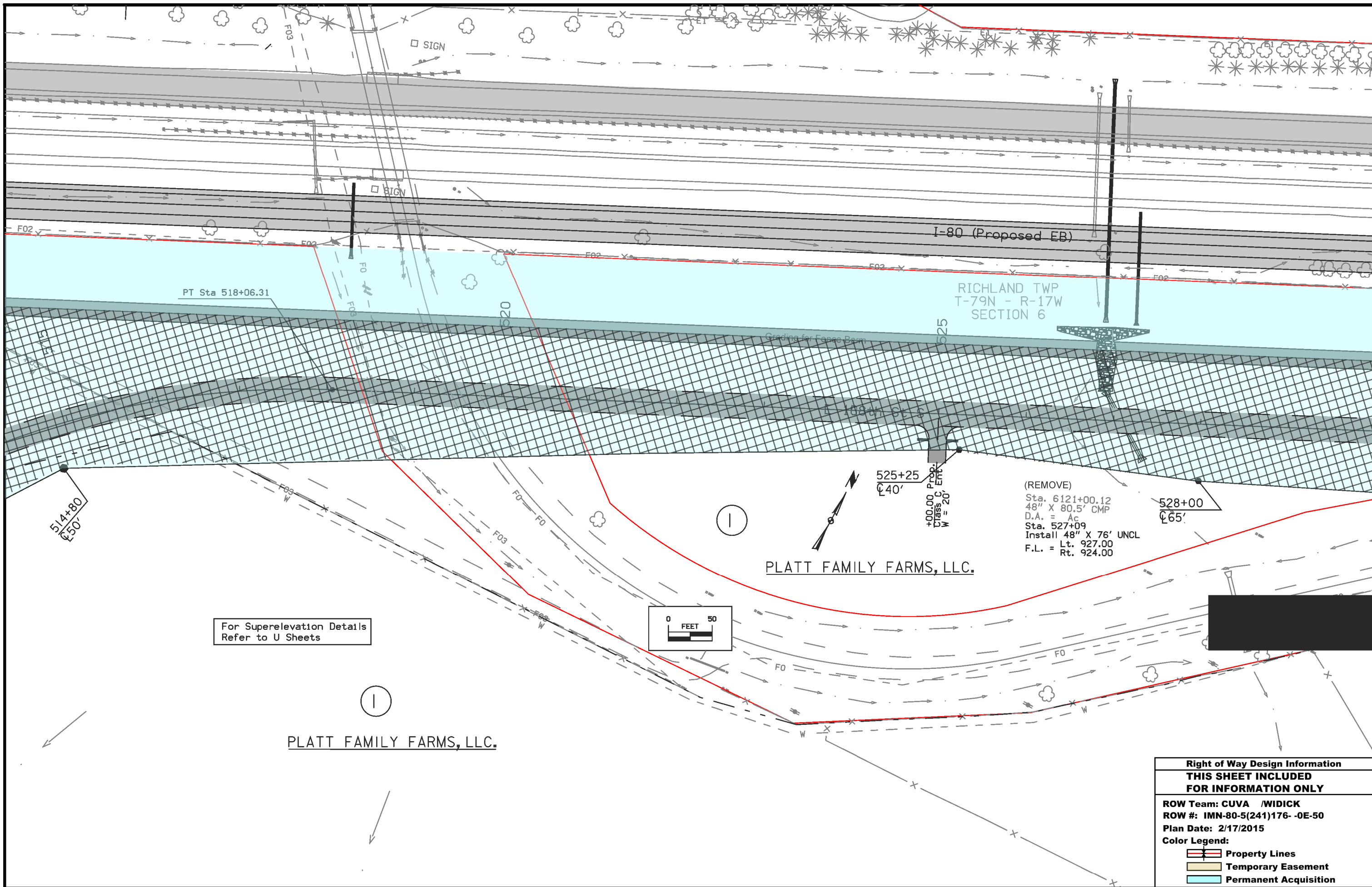
ROW Team: CUVA /WIDICK
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PT Sta 518+06.31

I-80 (Proposed EB)

RICHLAND TWP
T-79N - R-17W
SECTION 6

Grading for Easement

525+25
±40'
+00.00 Prop.
Class C Ent.
W = 20'

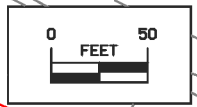
(REMOVE)
Sta. 6121+00.12
48" X 80.5' CMP
D.A. = Ac
Sta. 527+09
Install 48" X 76' UNCL
F.L. = Lt. 927.00
Rt. 924.00

528+00
±65'

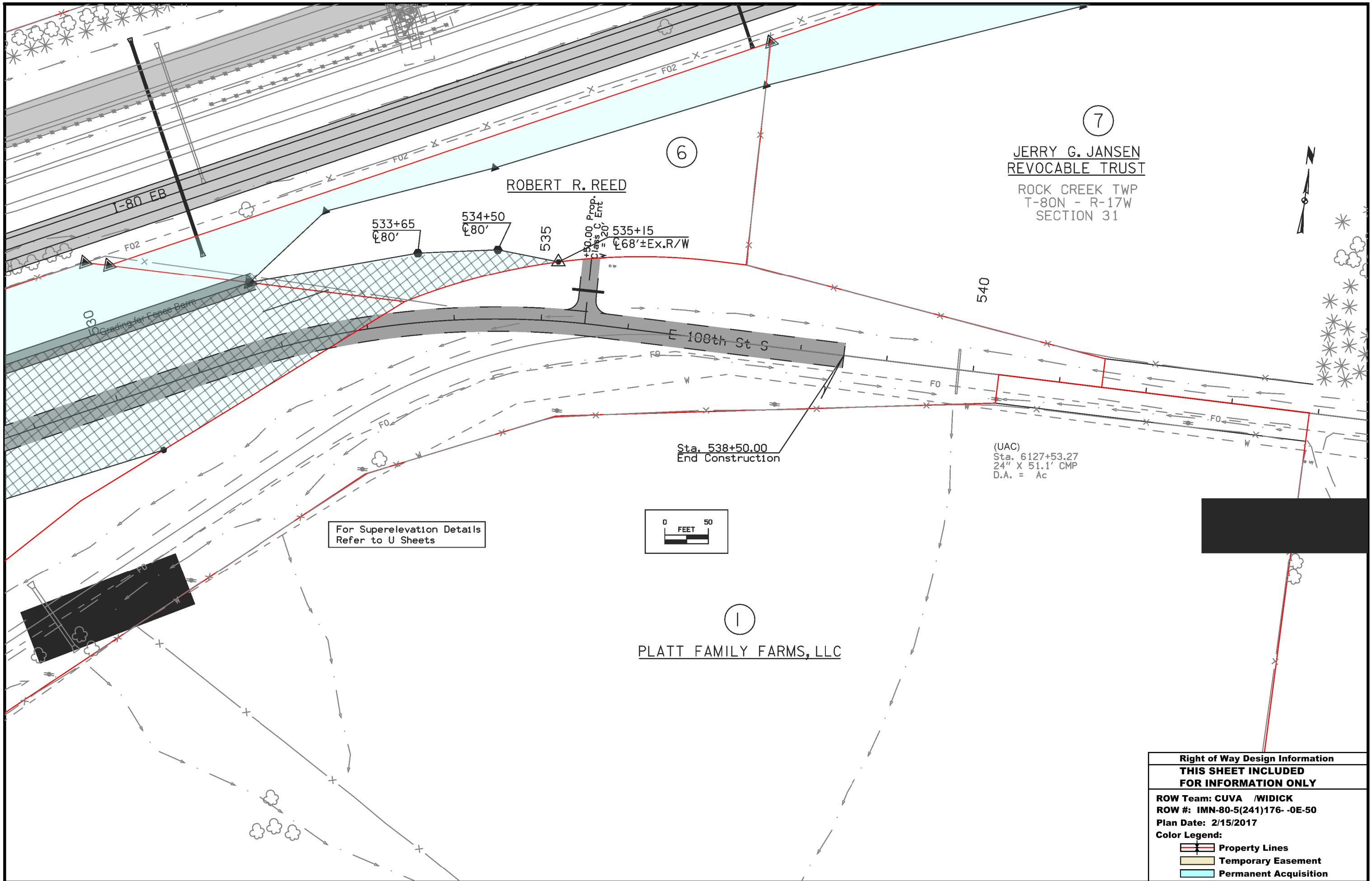
PLATT FAMILY FARMS, LLC.

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For Superelevation Details
Refer to U Sheets



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7

JERRY G. JANSEN
 REVOCABLE TRUST
 ROCK CREEK TWP
 T-80N - R-17W
 SECTION 31

6

ROBERT R. REED

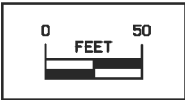
533+65
 ±80'
 534+50
 ±80'
 535
 +50.00 Prop. Ent.
 Class C Ent. = 20'
 535+15
 ±68'±Ex.R/W

540

Sta. 538+50.00
 End Construction

(UAC)
 Sta. 6127+53.27
 24" X 51.1' CMP
 D.A. = Ac

For Superelevation Details
 Refer to U Sheets



1

PLATT FAMILY FARMS, LLC

Right of Way Design Information	
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TRAFFIC CONTROL PLAN

I-80:

Two lanes of traffic in each direction shall be maintained at all times, except:
 -During 12th Avenue bridge removal, I-80 traffic will be (detoured/reduced to one lane) during the hours of 9:00 pm to 6:00 am, Sunday night through Friday morning.
 -During construction of shoulder strengthening, traffic may be reduced to one lane each direction between 9:00 pm and 6:00 am., Sunday night through Friday morning.

12th Avenue:
Closed.

108th Avenue:
Closed.

COORDINATED OPERATIONS

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

Project	Type of Work
IMX-80-5(307)174--02-50	Overall Project
IMX-80-5(302)174--02-50	EB Grading
BRFIMX-080-5(240)176--14-50	EB Bridge
IMX-080-5(334)174--02-50	Traffic Signs
IMX-80-5(303)174--02-50	EB Paving
IMX-80-5(304)174--02-50	WB Grade and Replace
BRFIMX-080-5(239)176--14-50	WB Bridge
BRFIMX-080-5(305)174--14-50	12th Ave Bridge
IMX-080-5(328)174--02-50	Median Grading
IMN-080-5(306)174--0E-50	Erosion Control

STAGING NOTES

STAGE 1: Eastbound Grading IMX-80-5(302)174--02-50

Traffic:

- I-80 traffic on existing lanes except as noted in Traffic Control Plan.
- 12th Ave. bridge over I-80 closed.
- 108th Ave. closed.

Construction:

- Remove 12th Ave. bridge over I-80.
- Obliterate existing 12th Ave.
- Construct shoulder strengthening at location across from future temporary connections.
- Construct side road connection from 108th Ave. to 12th Ave.
- Grade I-80 EB lanes from Sta. 3086+00 to 3188+50.
- Grade EB bridge berms. Begin construction of EB Skunk River bridge and bridge approaches after settlement period. (Project # BRFIMX-080-5-(240)176--14-50)

STAGE 2: Eastbound Paving IMX-80-5(303)174--02-50

Traffic:

- I-80 traffic on existing lanes, shifting onto strengthened shoulders at temporary connection tie-in locations.

Construction:

- Complete construction of EB Skunk River bridge and bridge approaches. (Project # BRFIMX-080-5-(240)176--14-50)
- Pave I-80 EB lanes from Sta. 3086+00 to 3188+50.
- Grade and Pave transition pavement at both ends of the new EB lanes.
- Construct Median Crossovers at both ends of projects.

STAGE 3: Westbound Grade and Pave IMX-80-5(304)174--02-50

Traffic:

- I-80 WB traffic on existing EB pavement via previously constructed median crossovers.
- I-80 EB traffic (stays) on previously constructed pavement.

Construction:

- Remove pavement from existing WB lanes.
- Remove WB bridge.
- Grade and pave new WB lanes.
- Grade WB bridge berms. Construct WB Skunk River bridge and bridge approaches after settlement period. (Project # BRFIMX-080-5-(239)176--14-50)

STAGE 4: Median Grading IMX-80-5(328)174--02-50

Traffic:

- I-80 traffic on final lanes.










Construction:

- Remove existing EB lanes, including EB bridge.
- Remove crossover at Sta. 3182+84 to 3193+15.
- Grade new median.

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

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

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



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

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

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

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

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

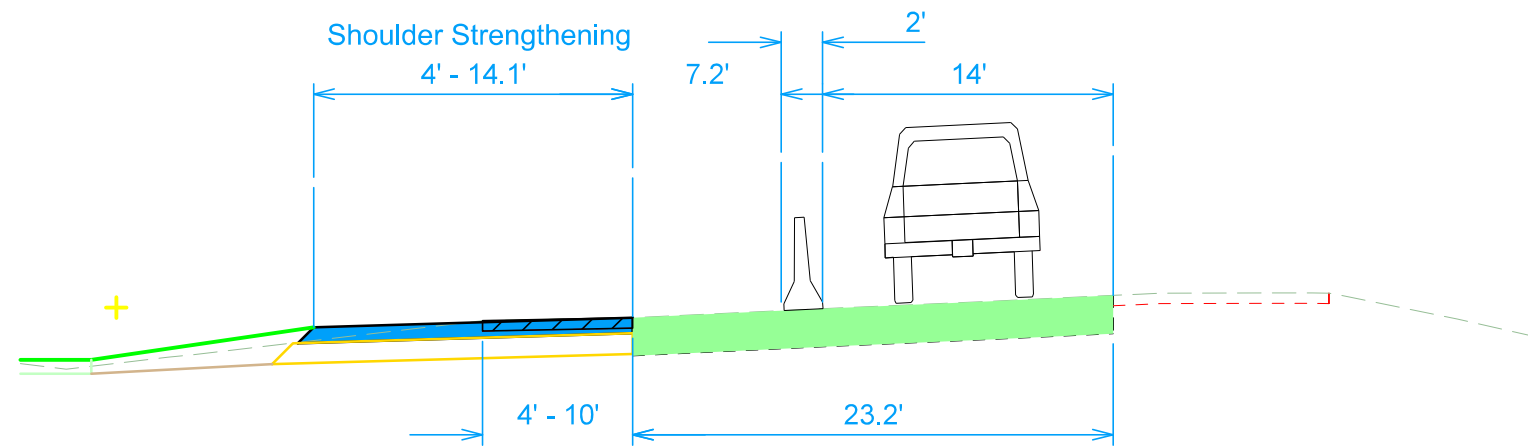
●	Channelizing Device	■	Crash Cushion
✕	Drum	○→	Traffic Signal
■	Temporary Lane Separator	♯	Flagger
◆	Tubular Marker	○●	Temporary Floodlighting
♦	Channelizer Marker	⊥	Traffic Sign
△	Concrete Barrier Marker	⊥	Type III Barricade
↵	Delineator	☀	Type A Warning Light
▬	Temporary Barrier Rail	←	Direction of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

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

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

(COVERS SHEET SERIES J)

STATION 3061+50 TO 3083+00
 STATION 3188+82 TO 3190+11



2995

3000



W20-1
48" x 48"

3005

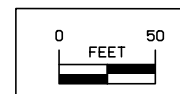
I-80 WESTBOUND (EXISTING)

I-80 EASTBOUND (EXISTING)



800'

Refer to TC-421 for additional information.
 Stations/Offsets shown at center of TBR.



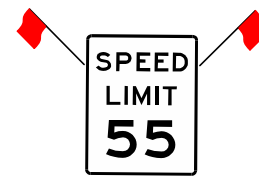
Stage 2
 Shoulder Strengthening
 & Eastbound Lane Grading

3010



W3-5
48" x 48"

3015



R2-1
48" x 60"

3020

I-80 WESTBOUND (EXISTING)



I-80 EASTBOUND (EXISTING)



800'

800'

3025

3030



3035



W4-2M
48" x 48"

I-80 WESTBOUND (EXISTING)

I-80 EASTBOUND (EXISTING)



500'

1000'

100'

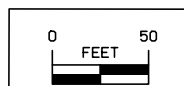


W20-5
48" x 48"

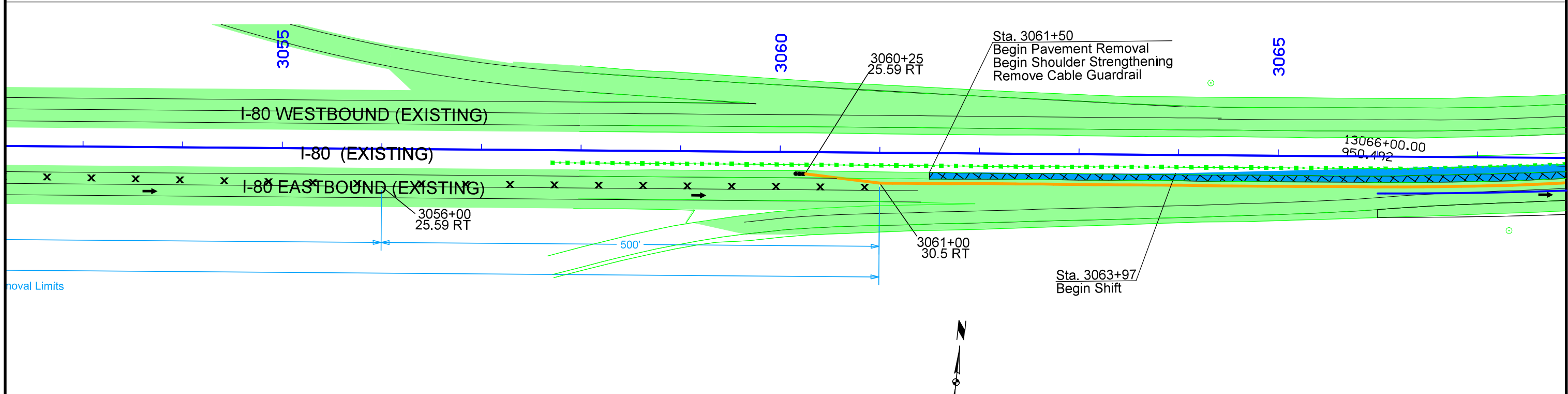
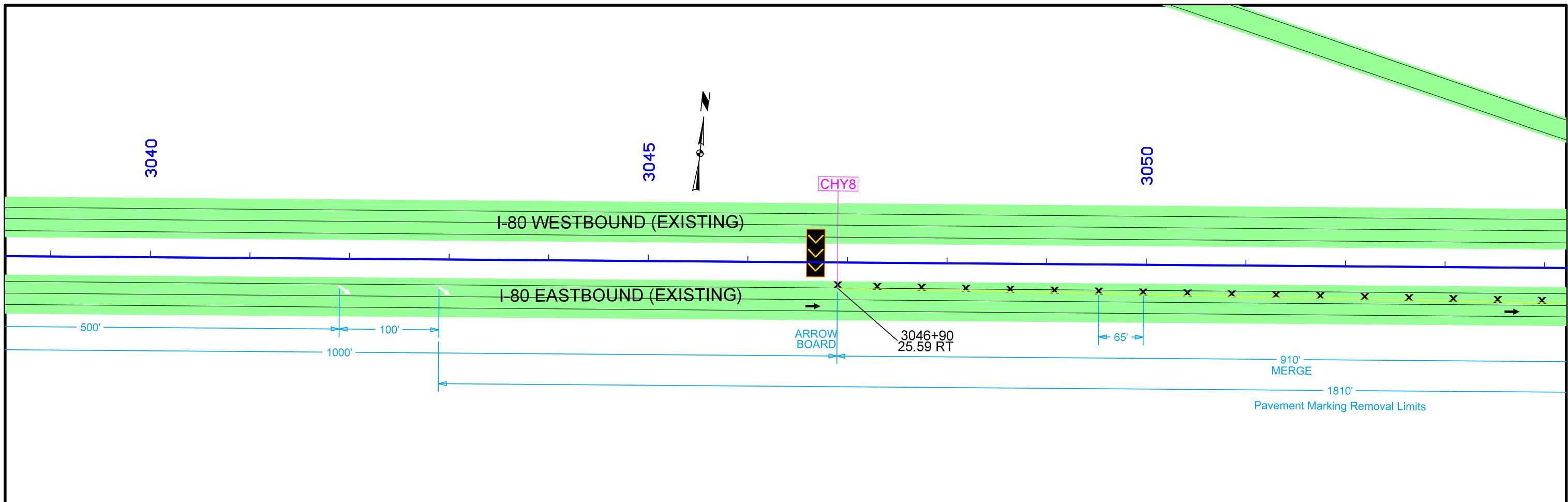


W4-2
48" x 48"

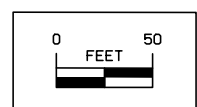
Refer to TC-421 for additional information.
Stations/Offsets shown at center of TBR.



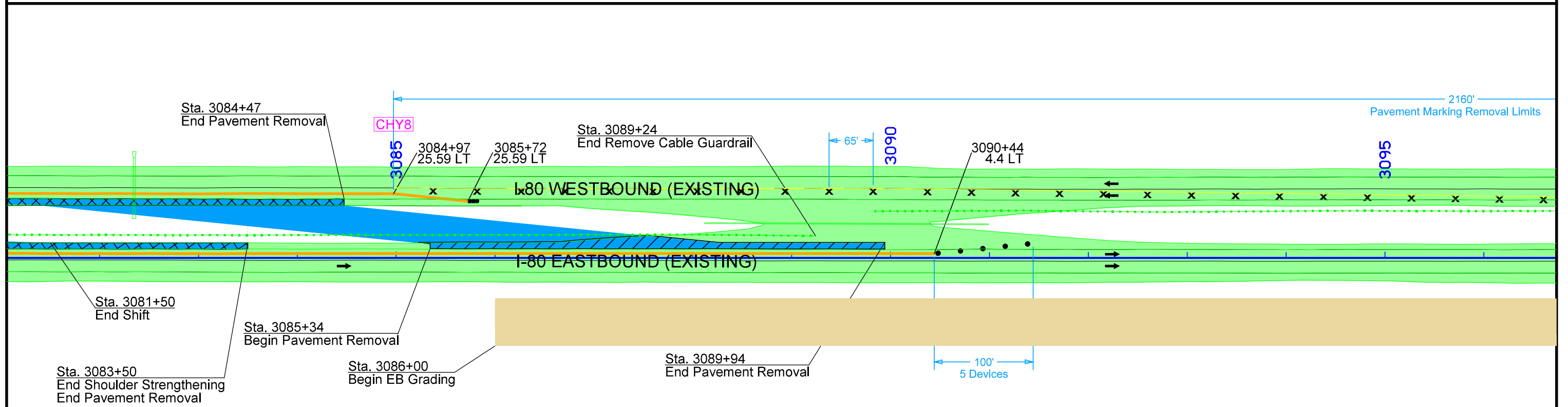
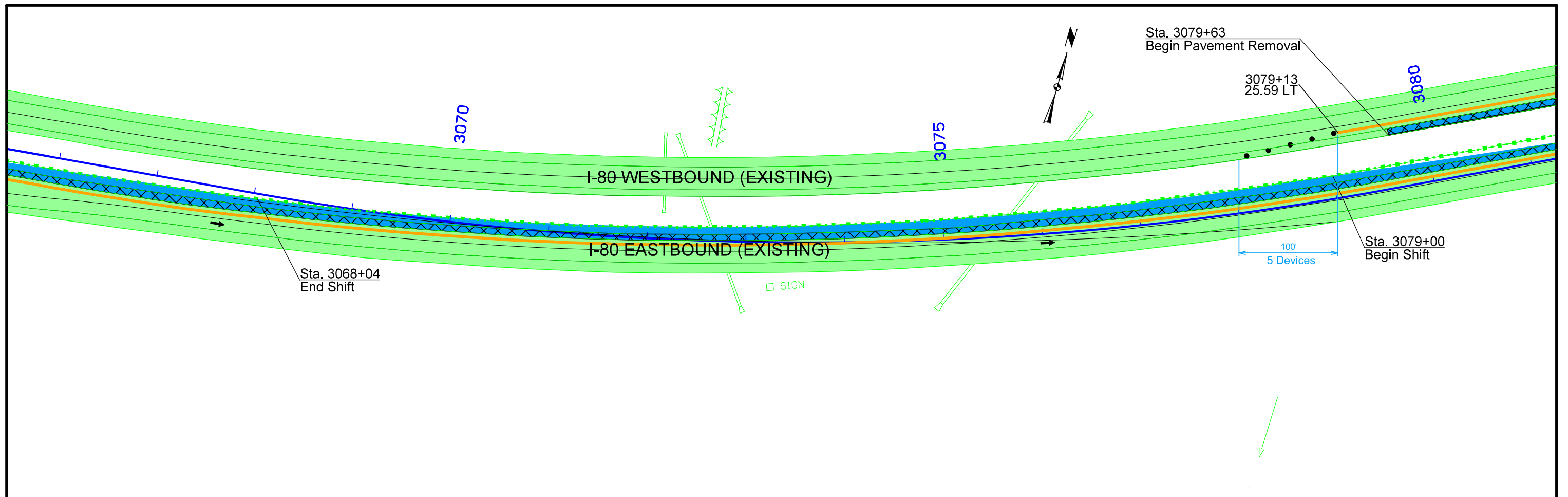
Stage 2
Shoulder Strengthening
& Eastbound Lane Grading



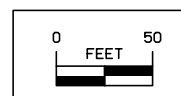
Refer to TC-421 for additional information.
Stations/Offsets shown at center of TBR.



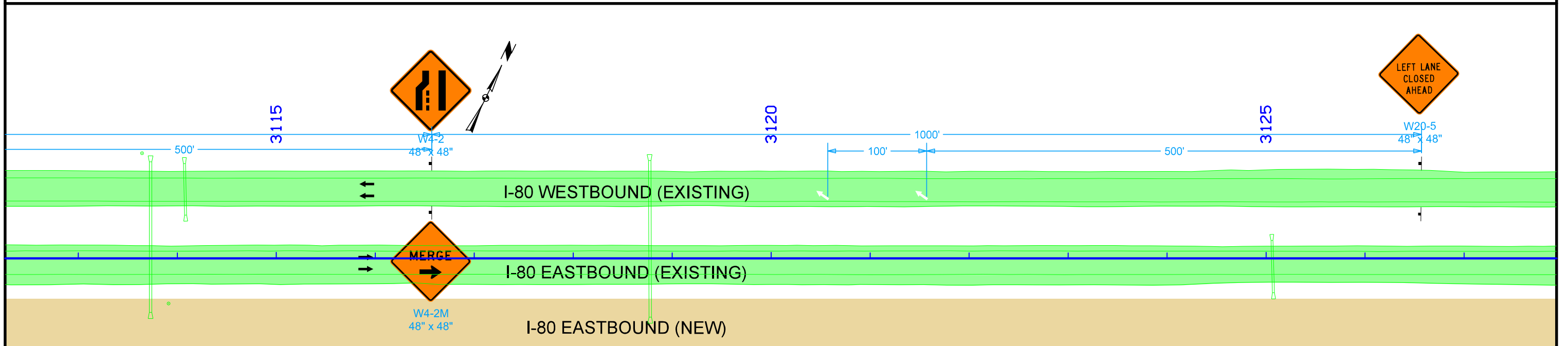
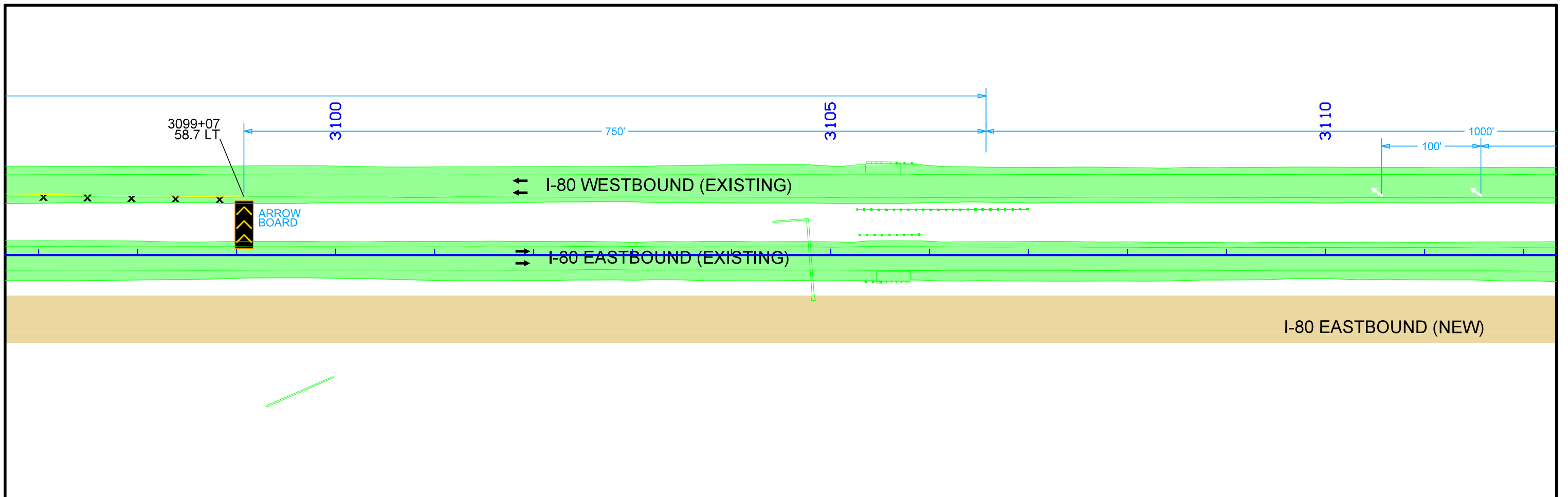
Stage 2
Shoulder Strengthening
& Eastbound Lane Grading



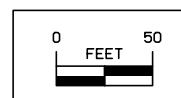
Refer to TC-421 for additional information.
Stations/Offsets shown at center of TBR.



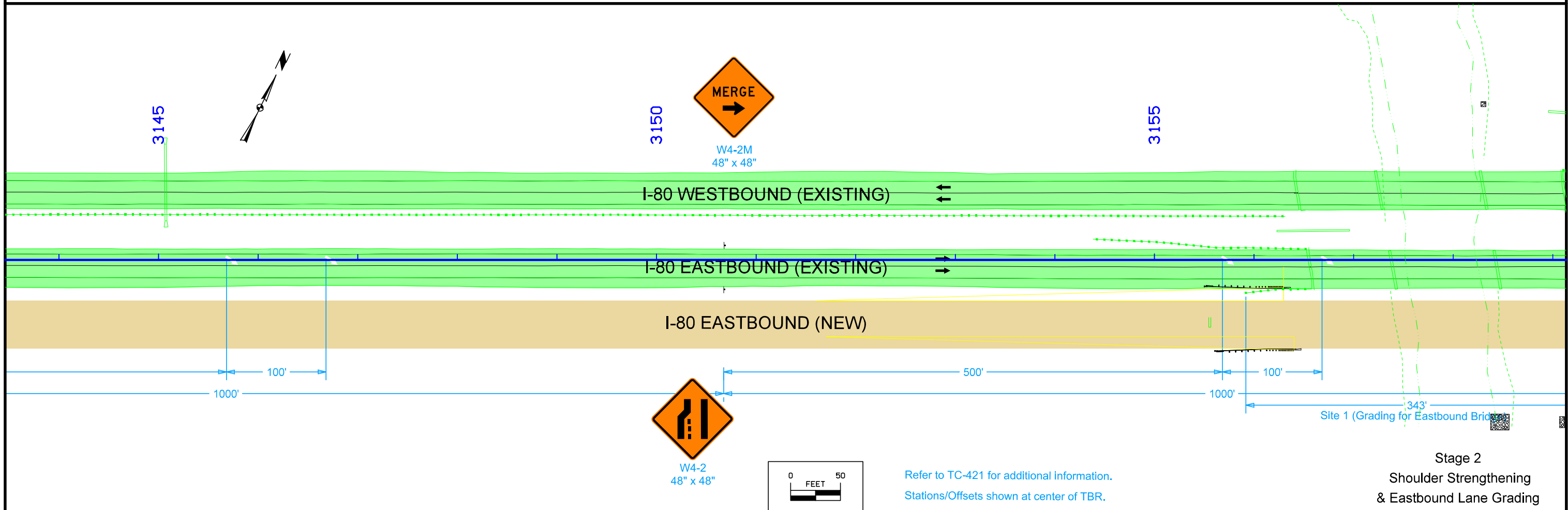
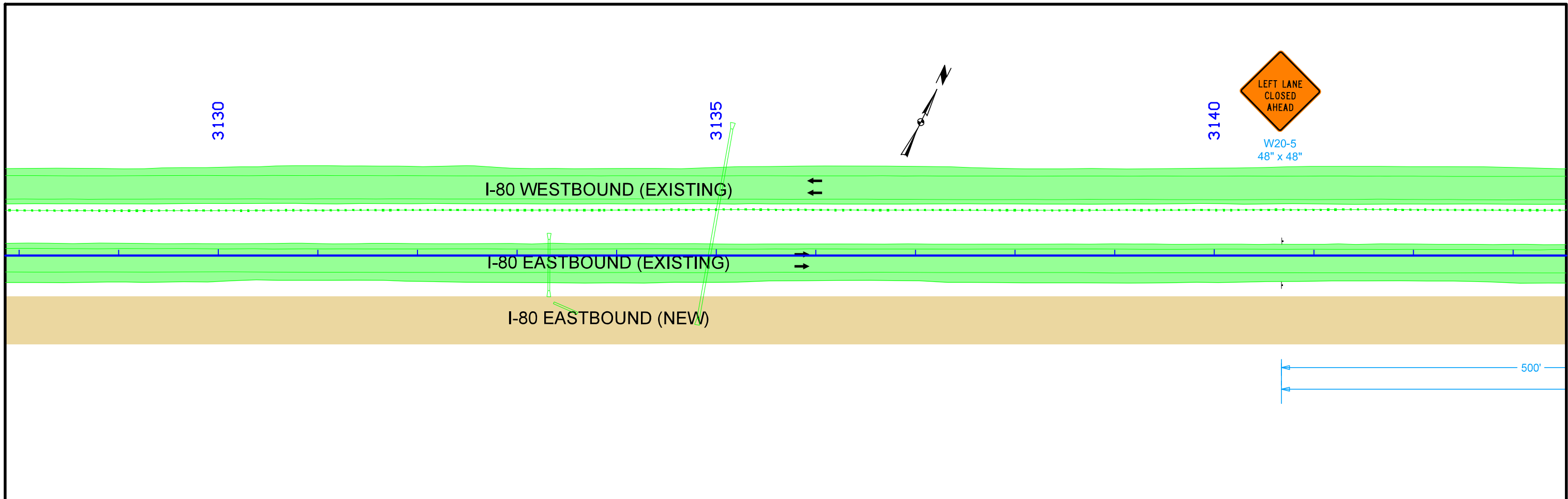
Stage 2
Shoulder Strengthening
& Eastbound Lane Grading

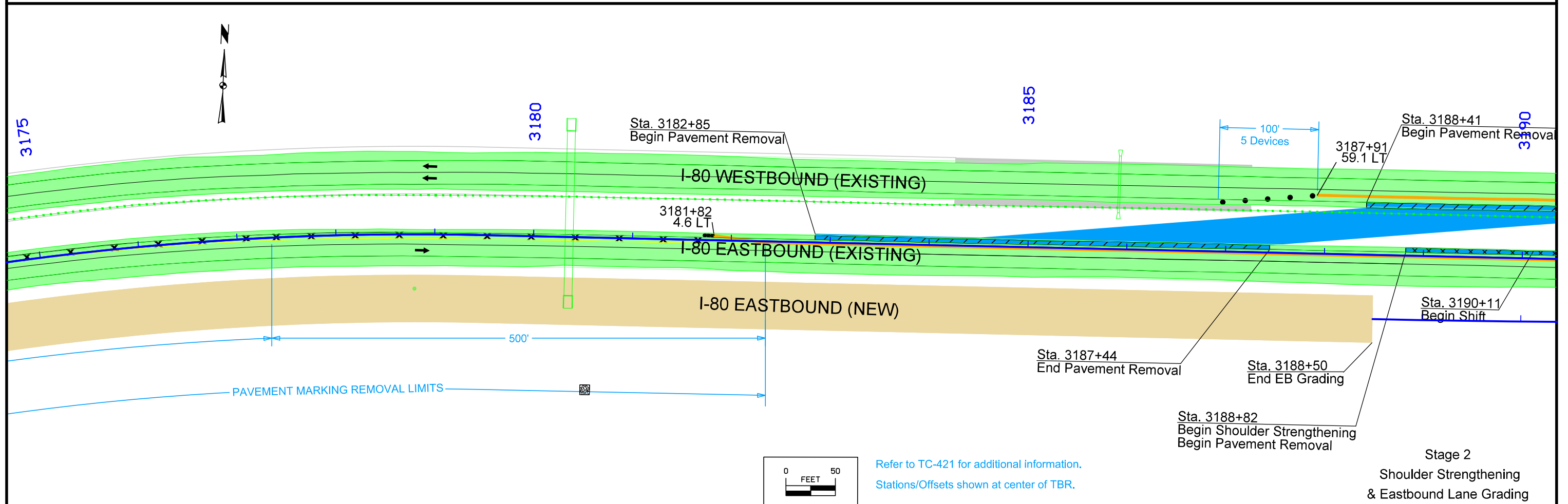
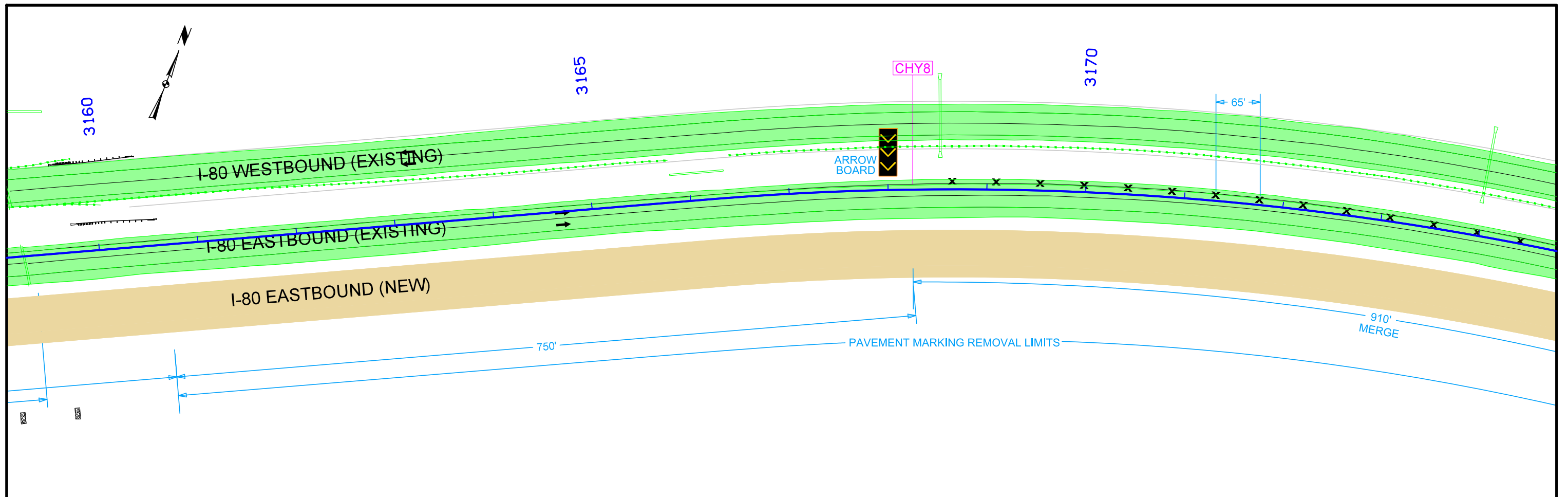


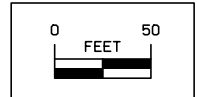
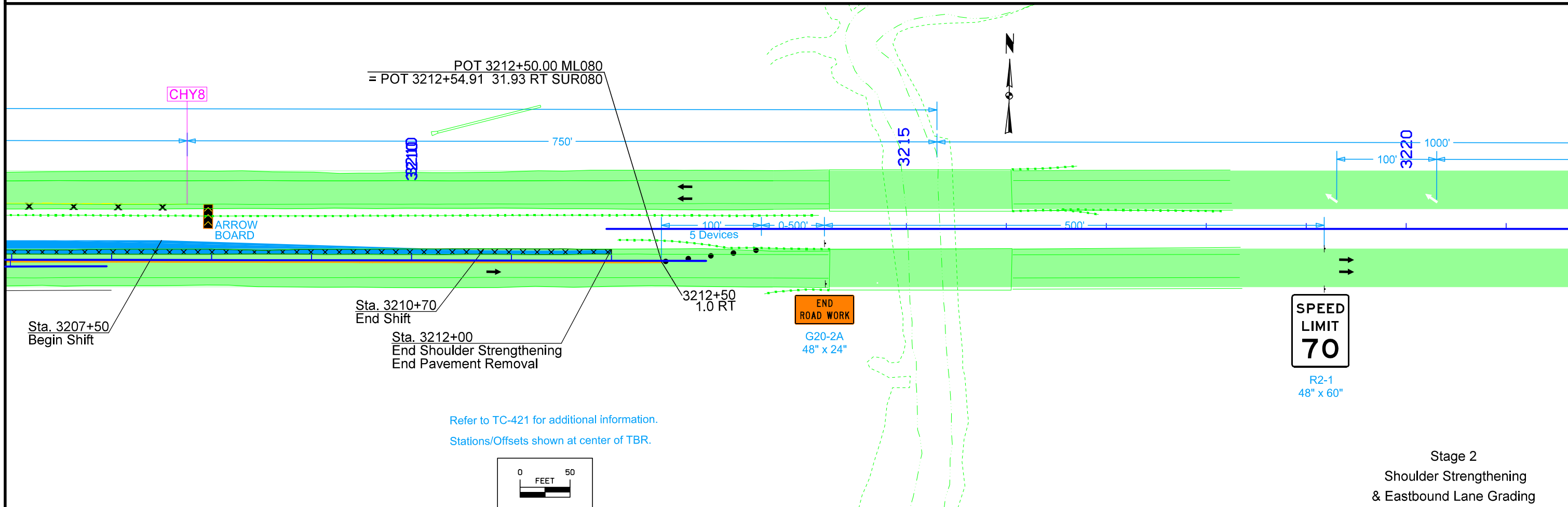
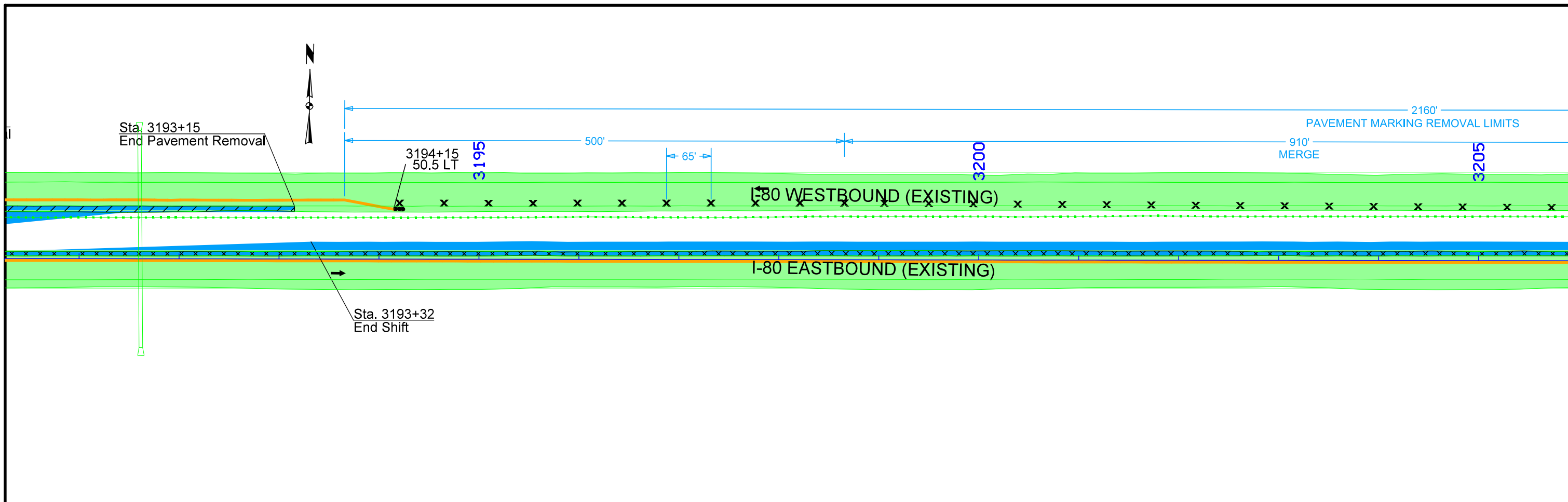
Refer to TC-421 for additional information.
Stations/Offsets shown at center of TBR.



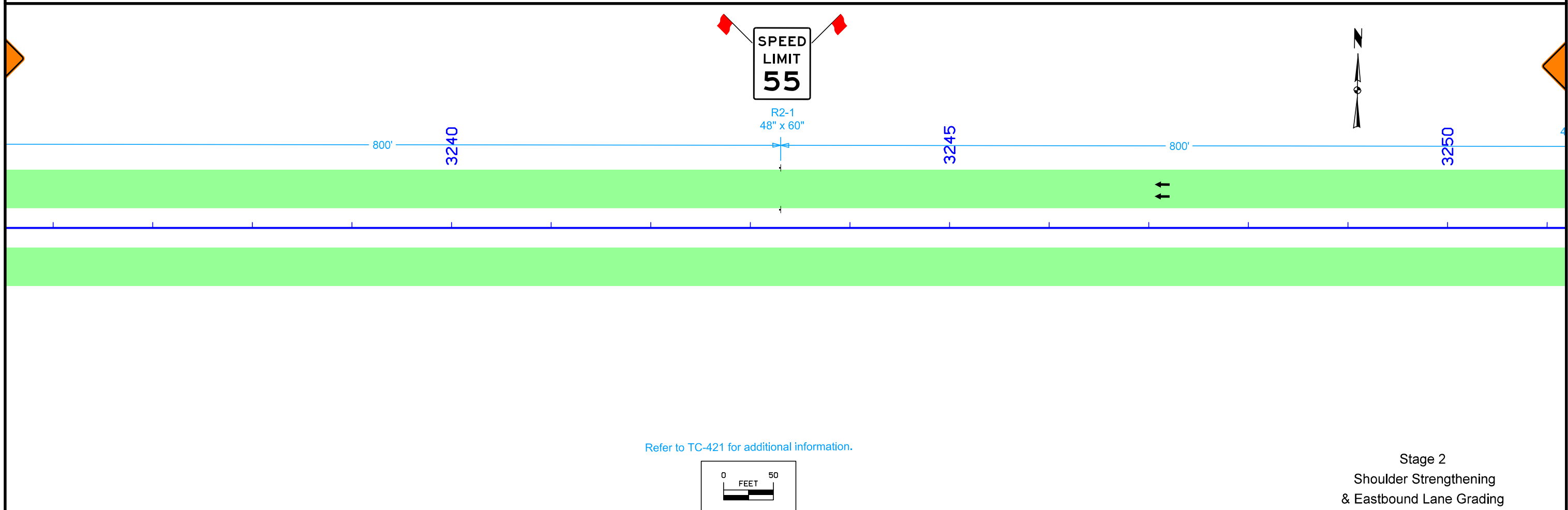
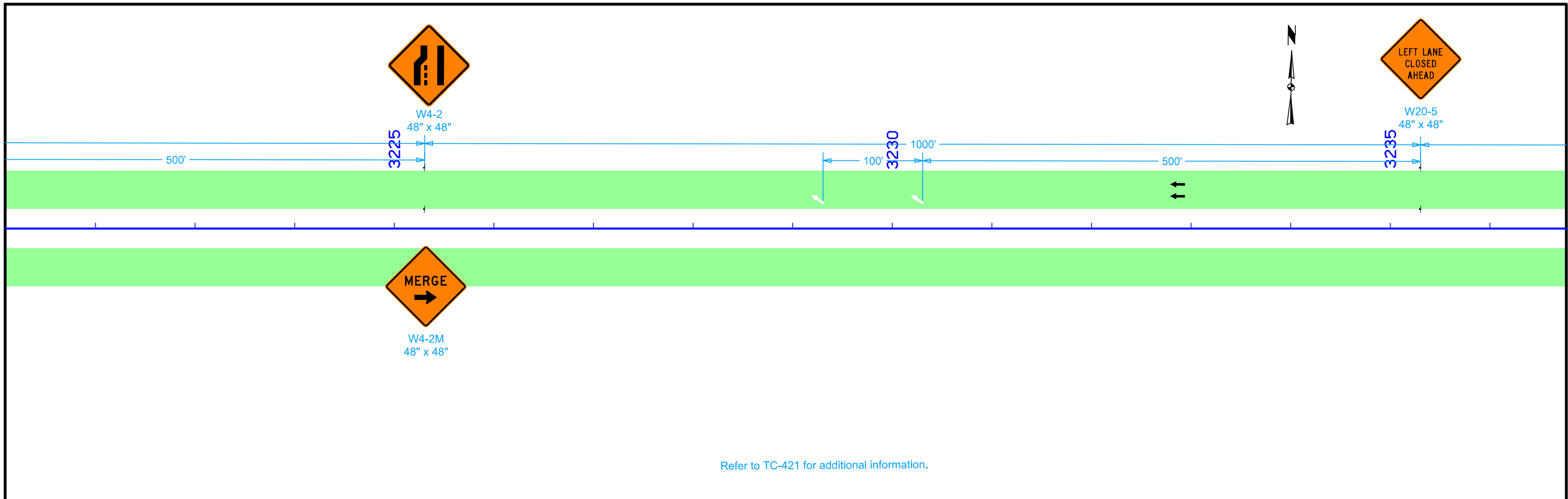
Stage 2
Shoulder Strengthening
& Eastbound Lane Grading







Stage 2
 Shoulder Strengthening
 & Eastbound Lane Grading





W3-5
48" x 48"



W20-1
48" x 48"



3255

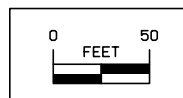
800'

3260

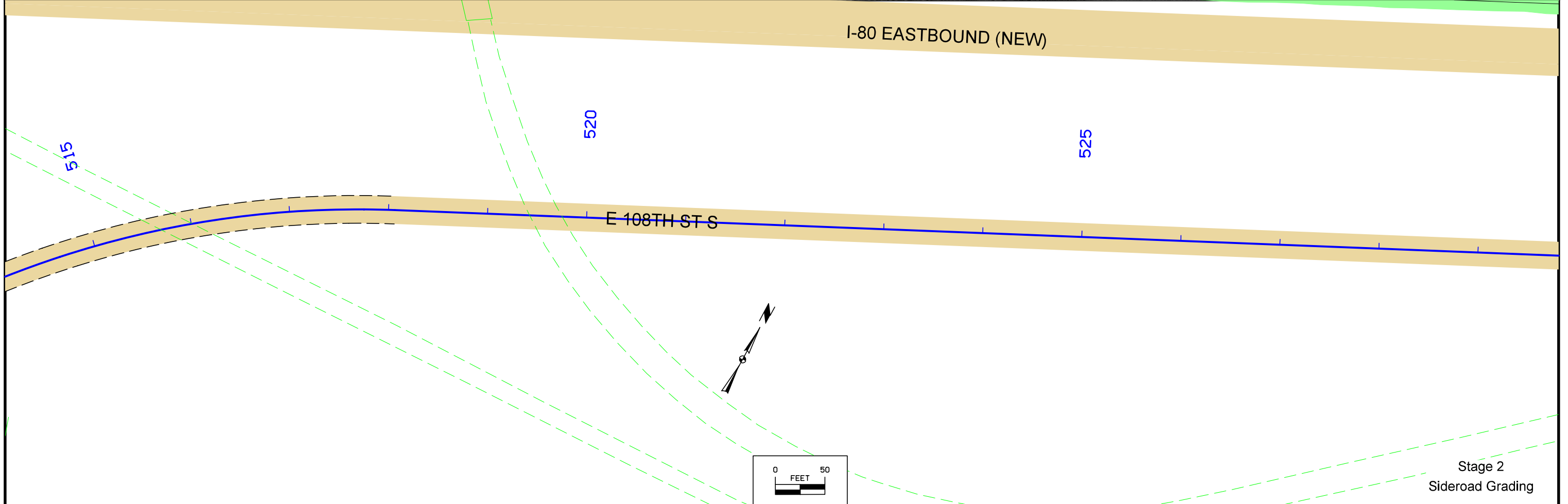
3265

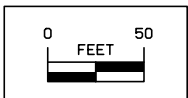


Refer to TC-421 for additional information.

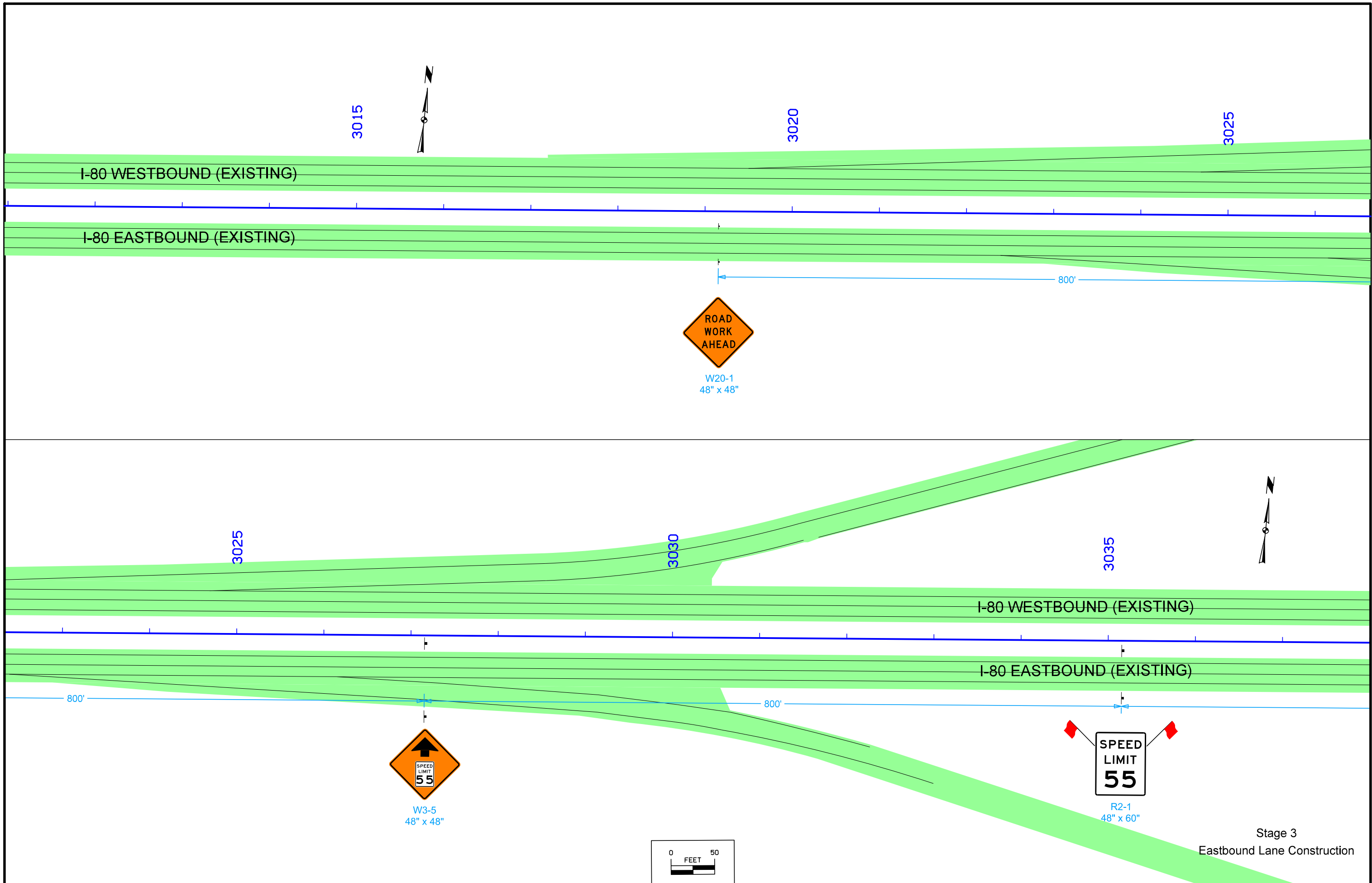


Stage 2
Shoulder Strengthening
& Eastbound Lane Grading

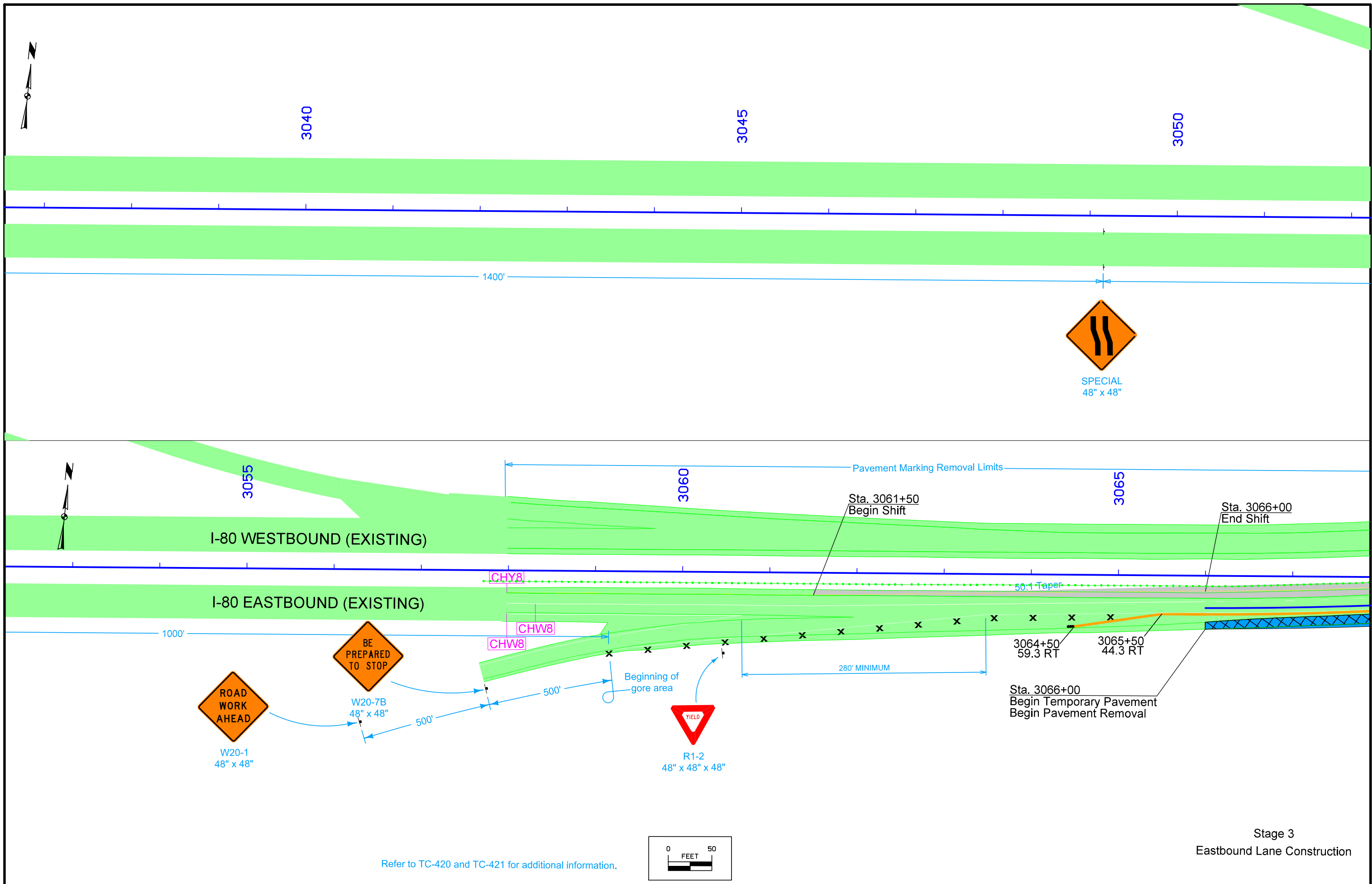




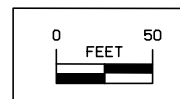
Stage 2
Sideroad Grading



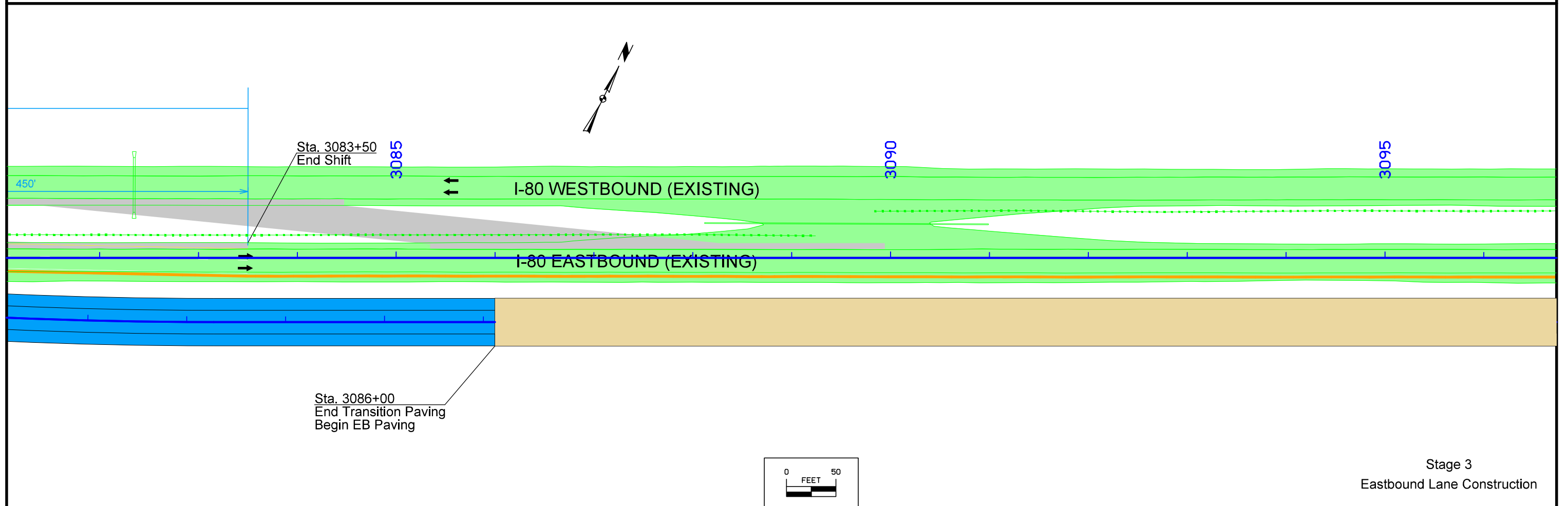
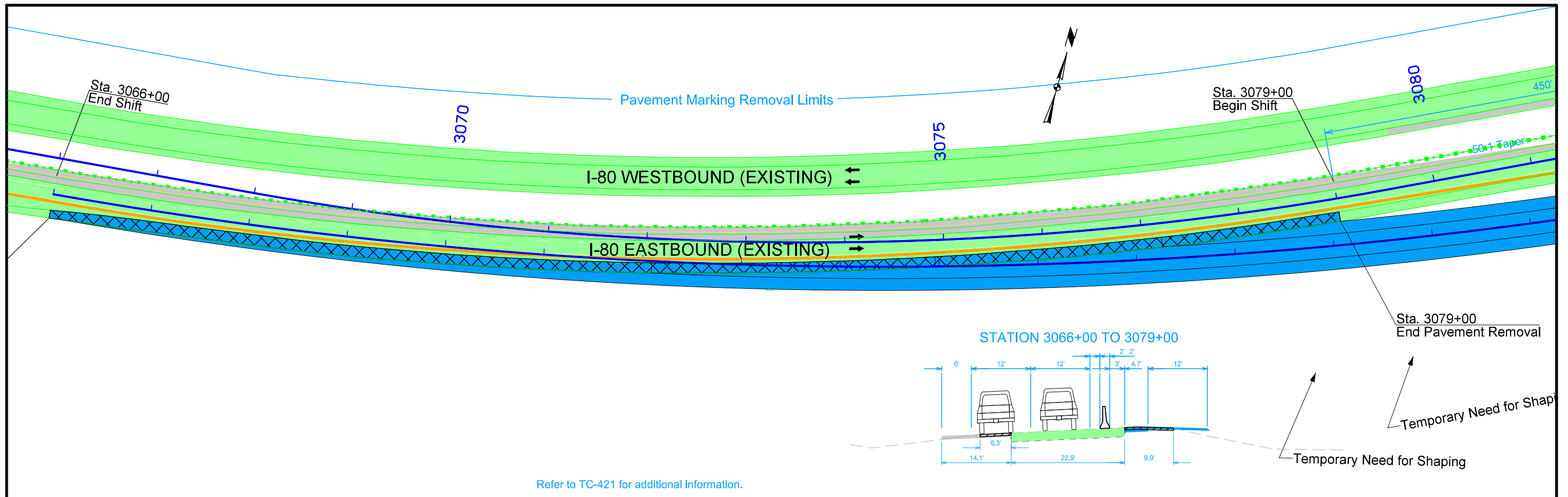
Stage 3
Eastbound Lane Construction



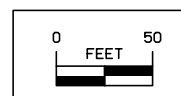
Refer to TC-420 and TC-421 for additional information.

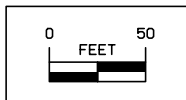
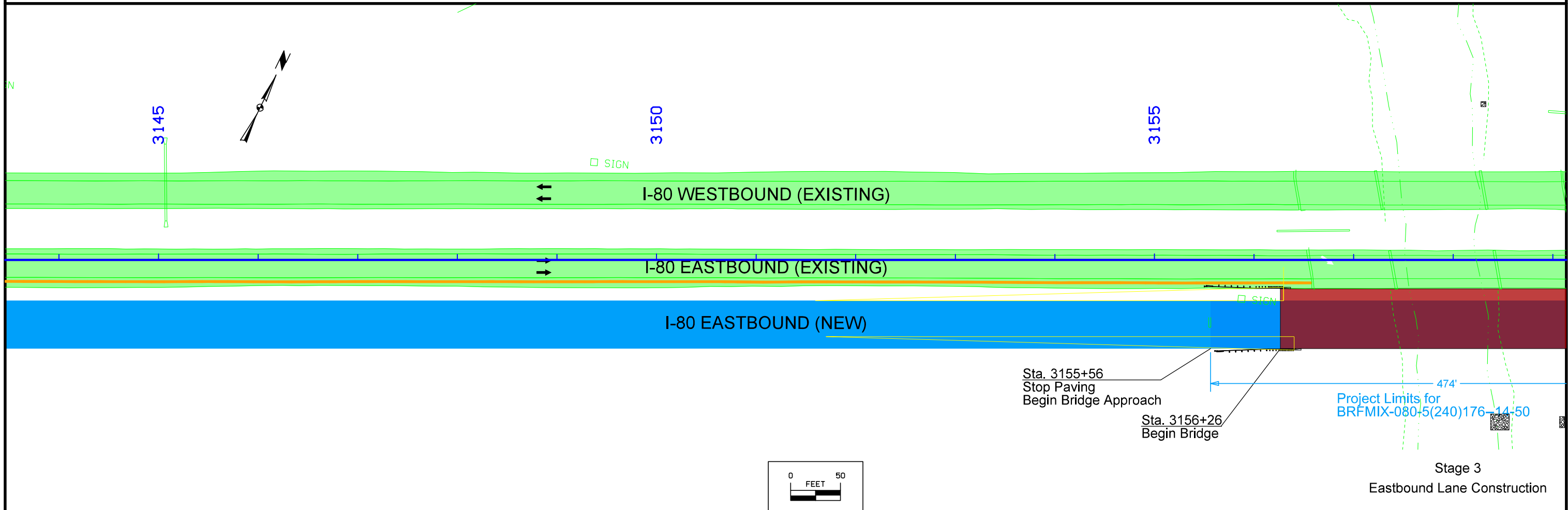
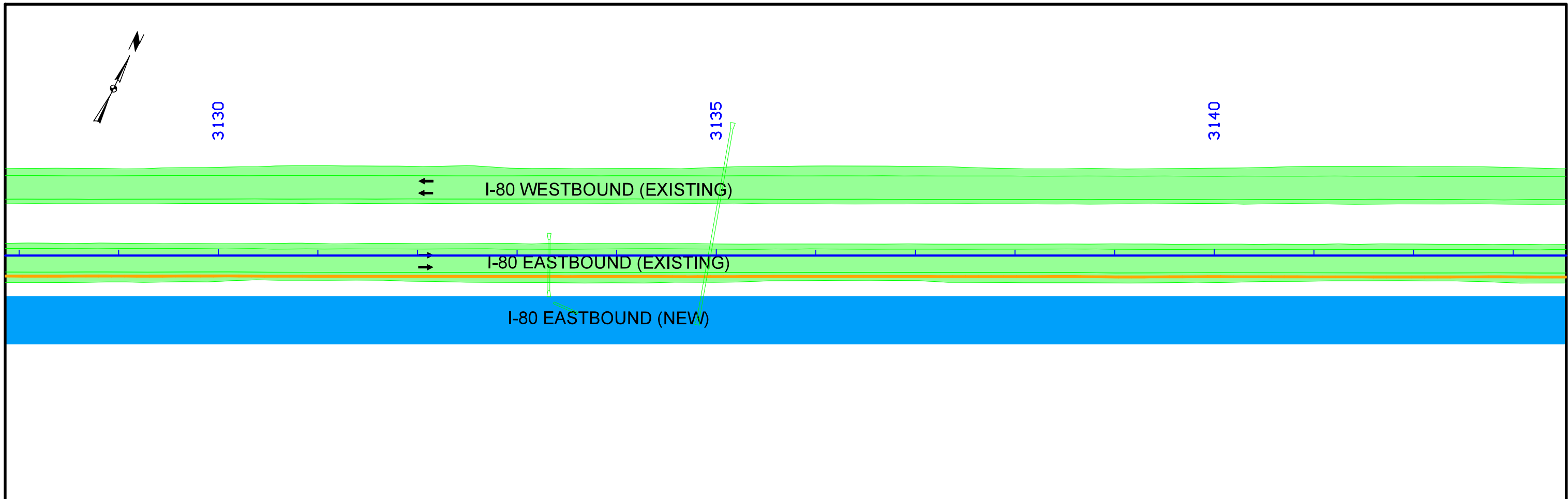


Stage 3
Eastbound Lane Construction



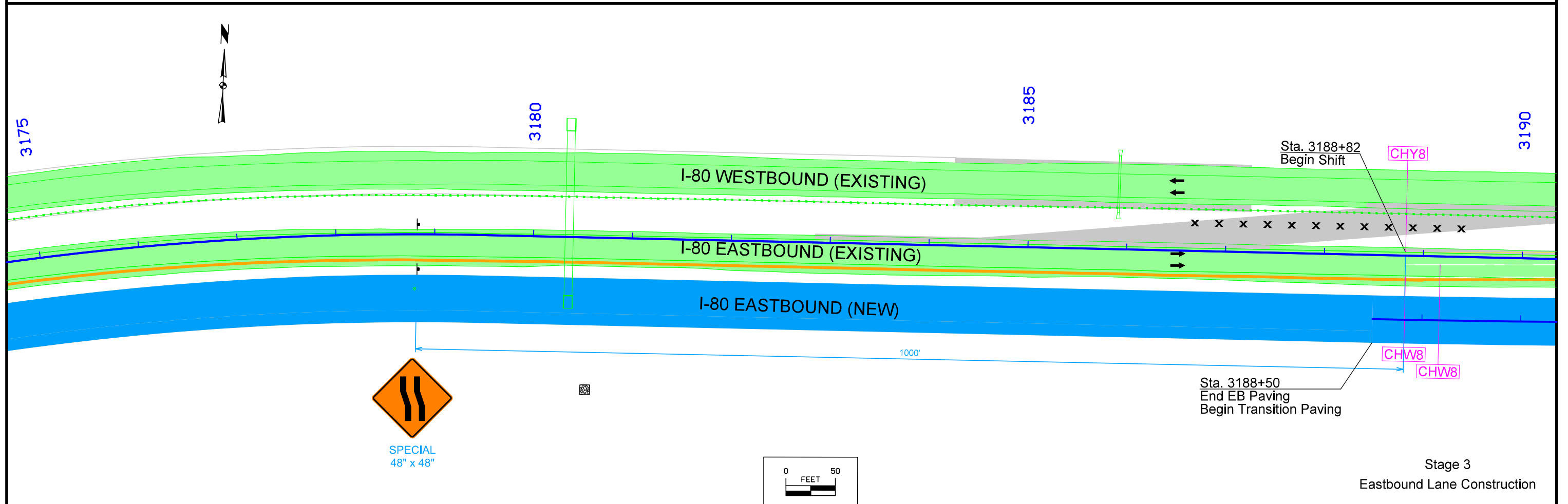
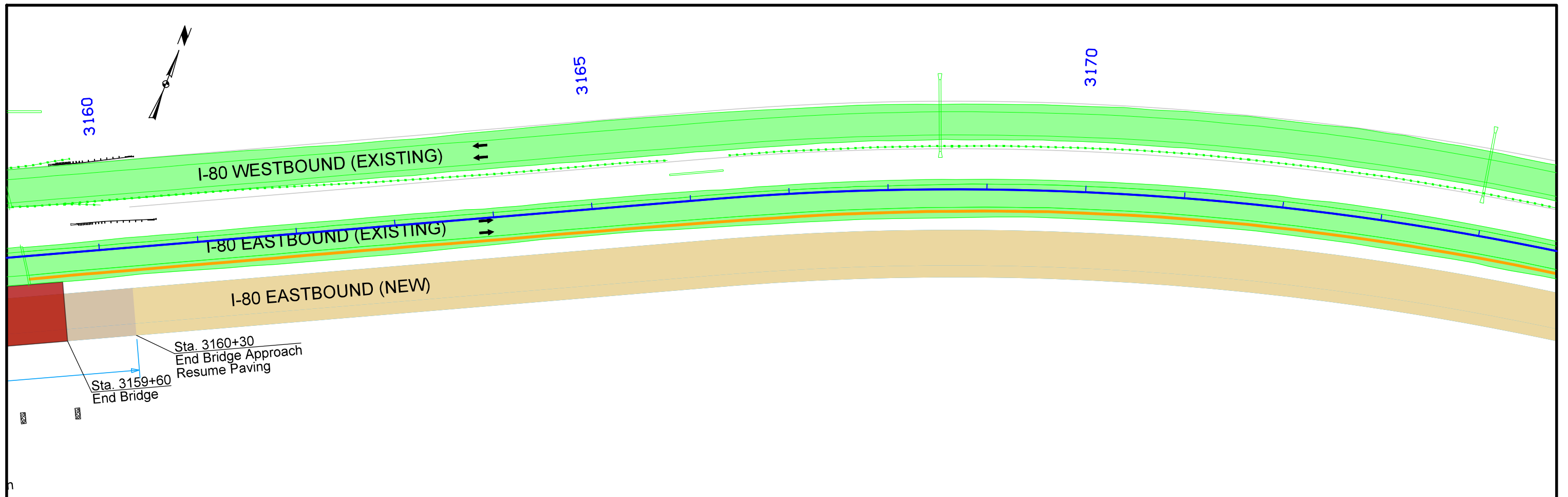
Stage 3
Eastbound Lane Construction

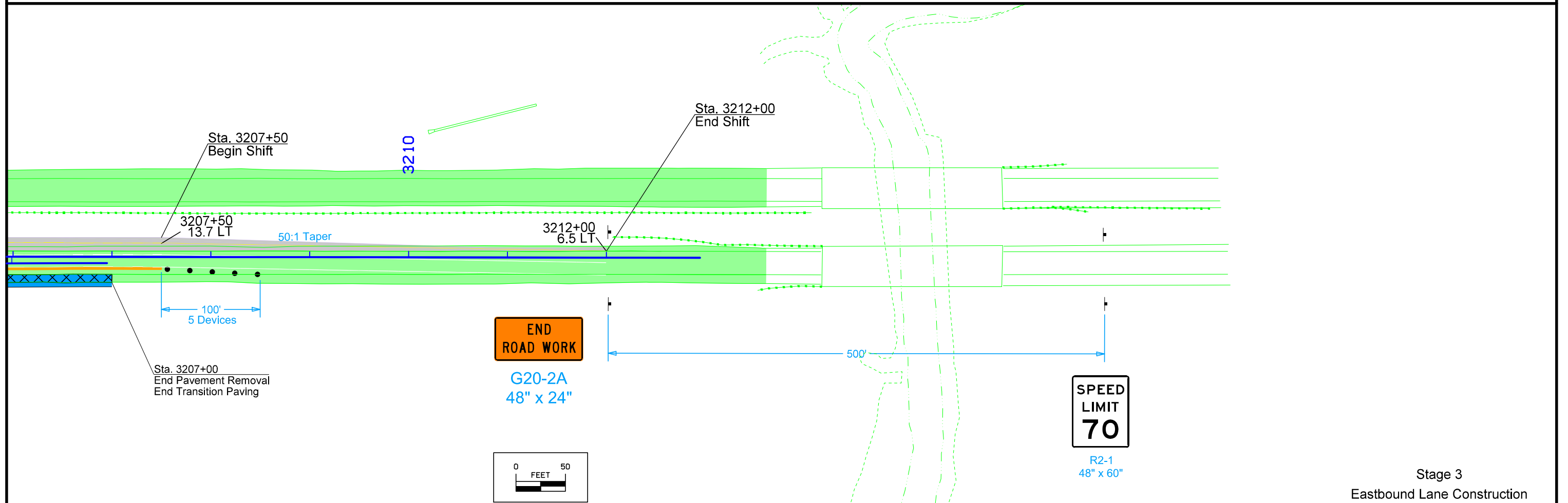
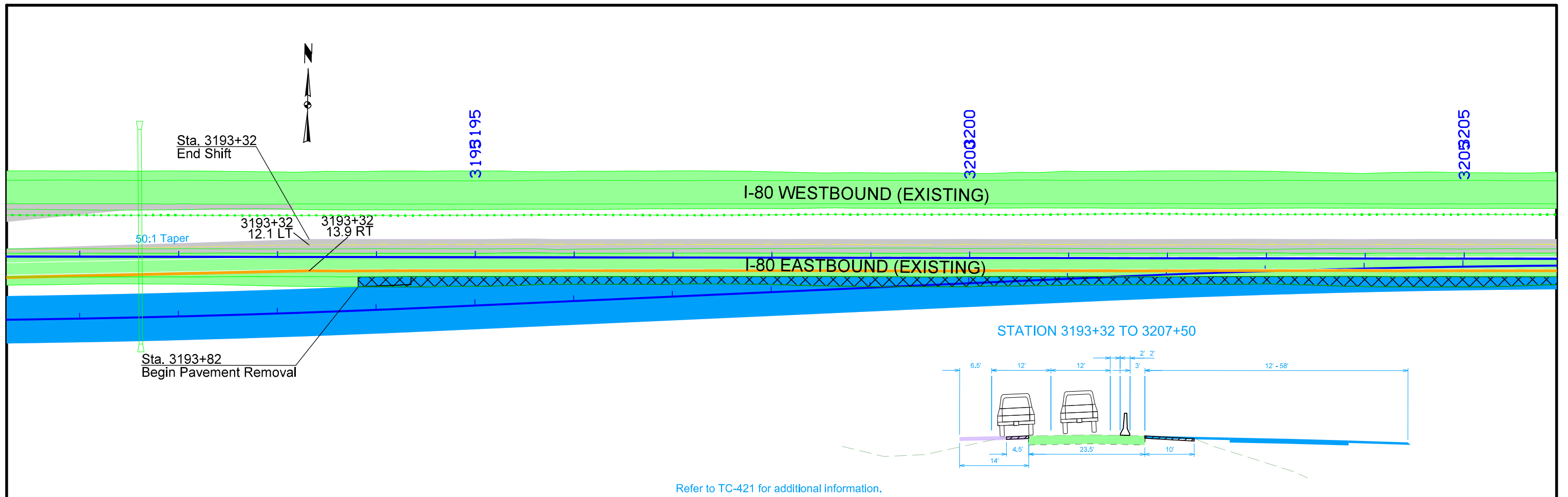


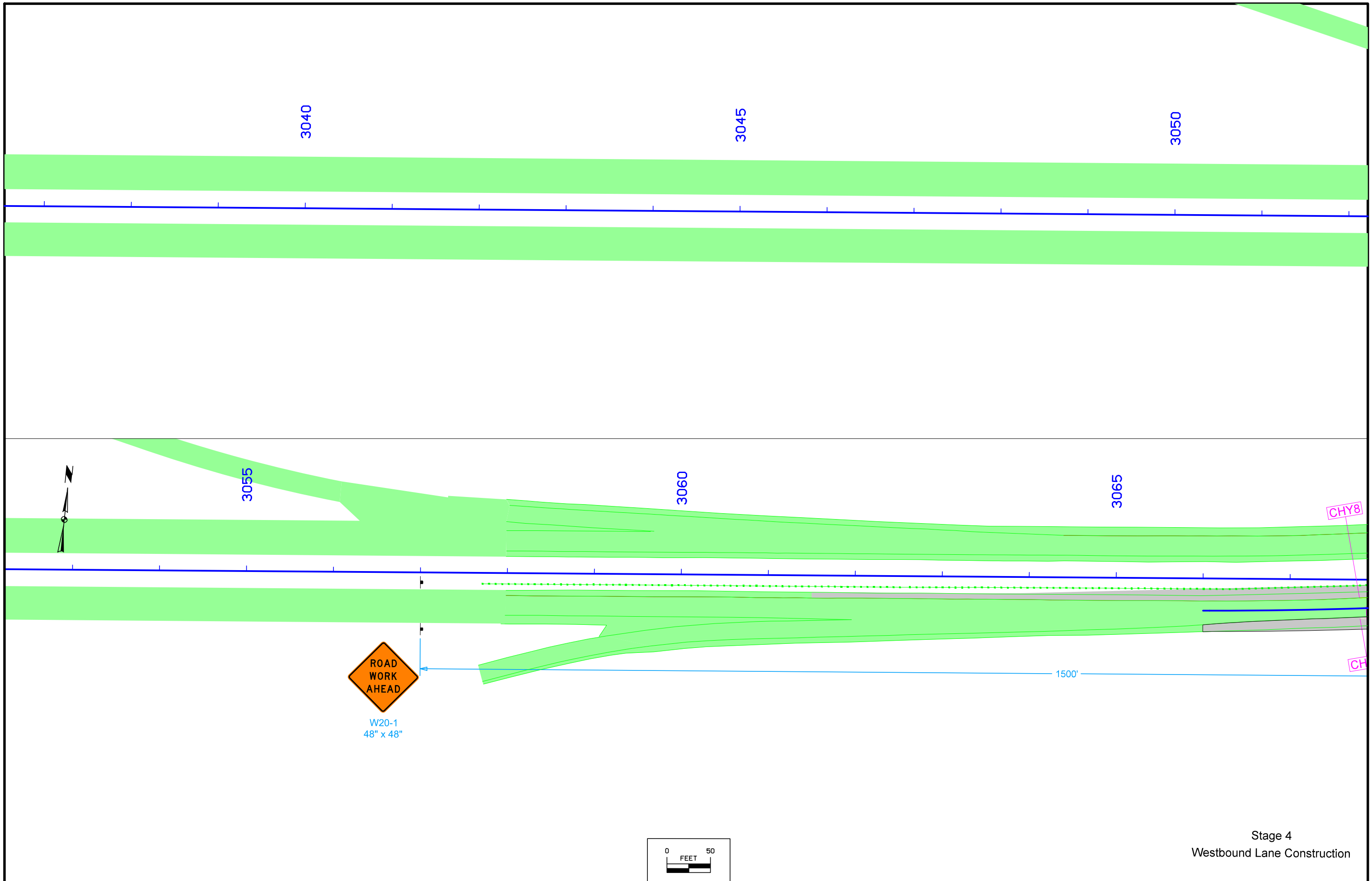


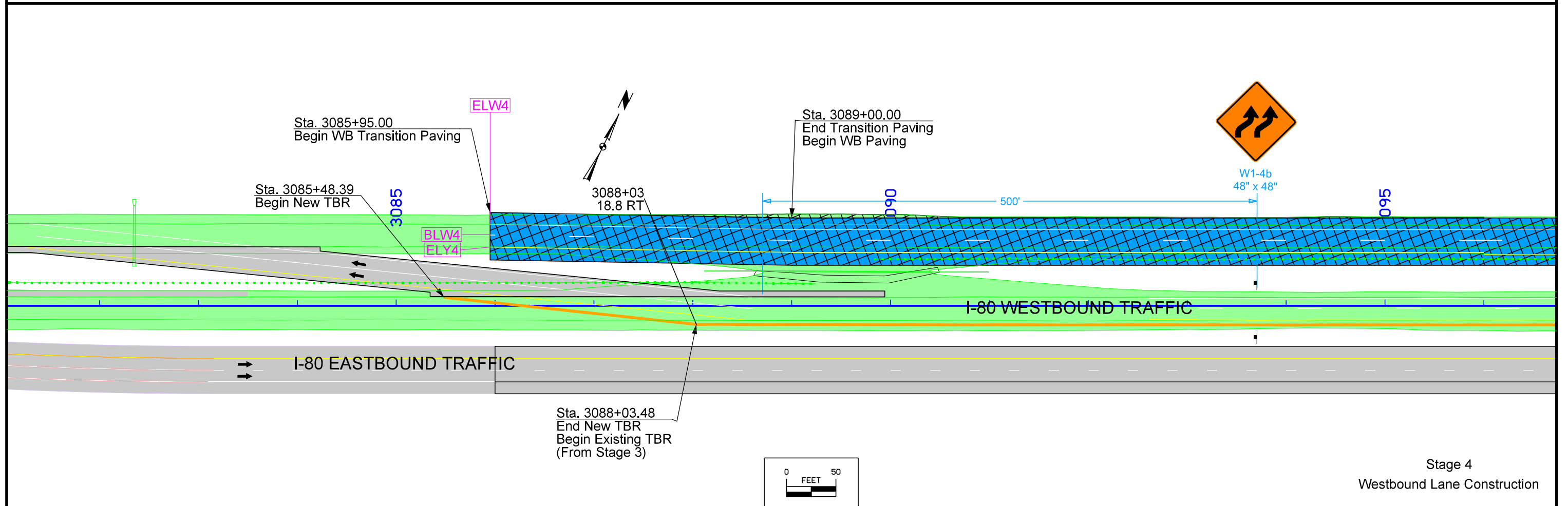
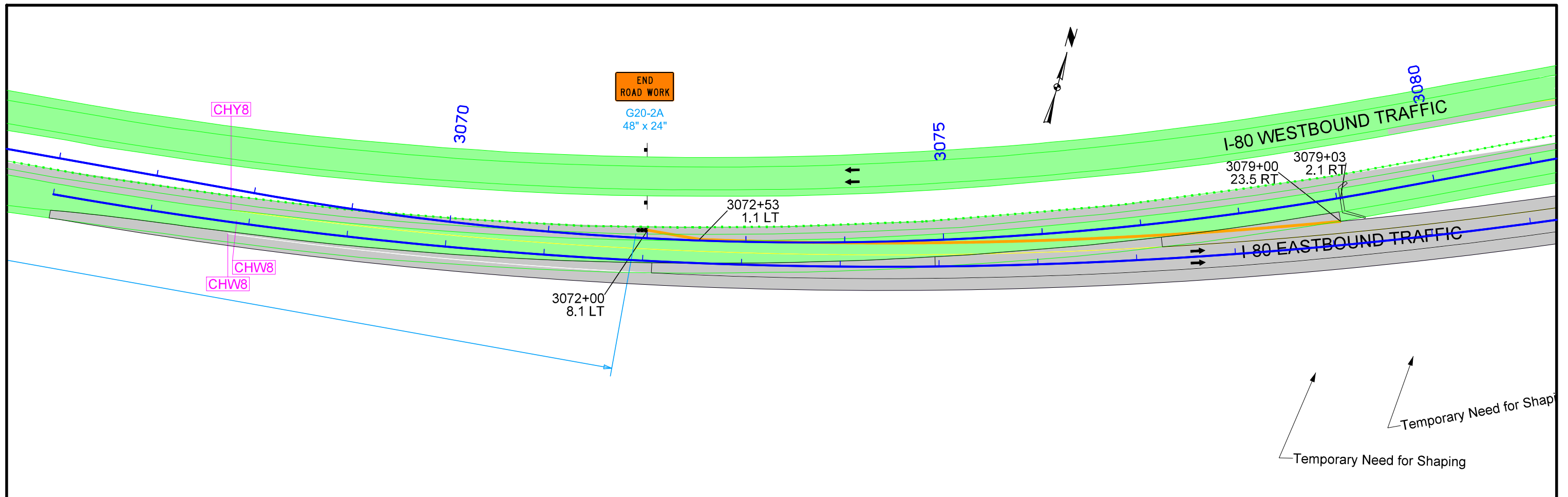
Project Limits for
BRFMIX-080-5(240)176-14-50

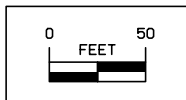
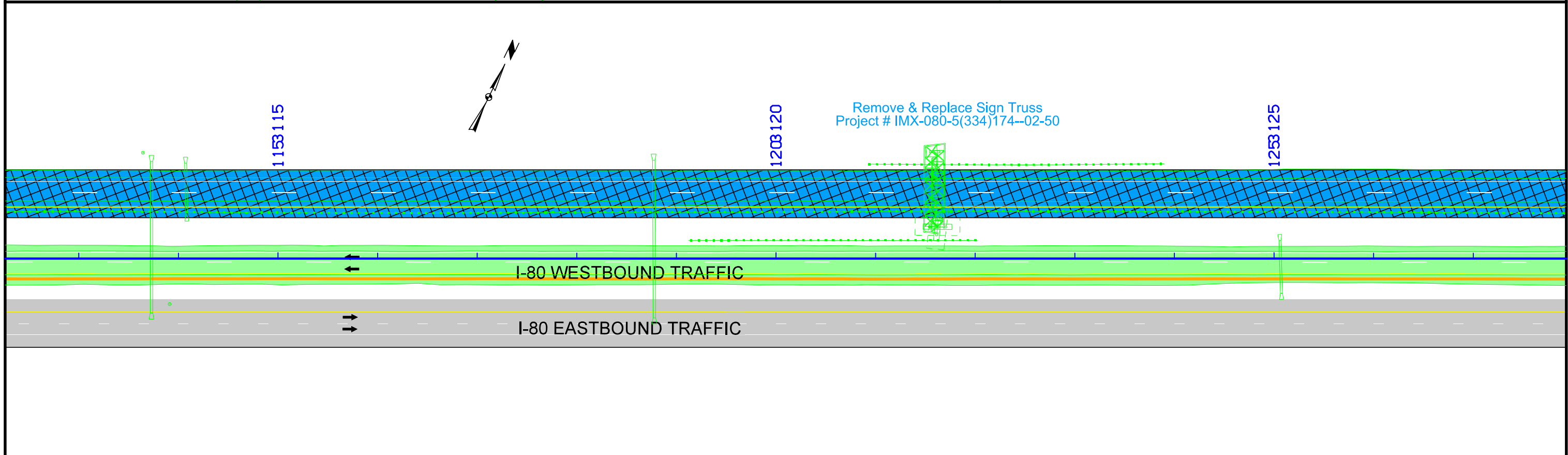
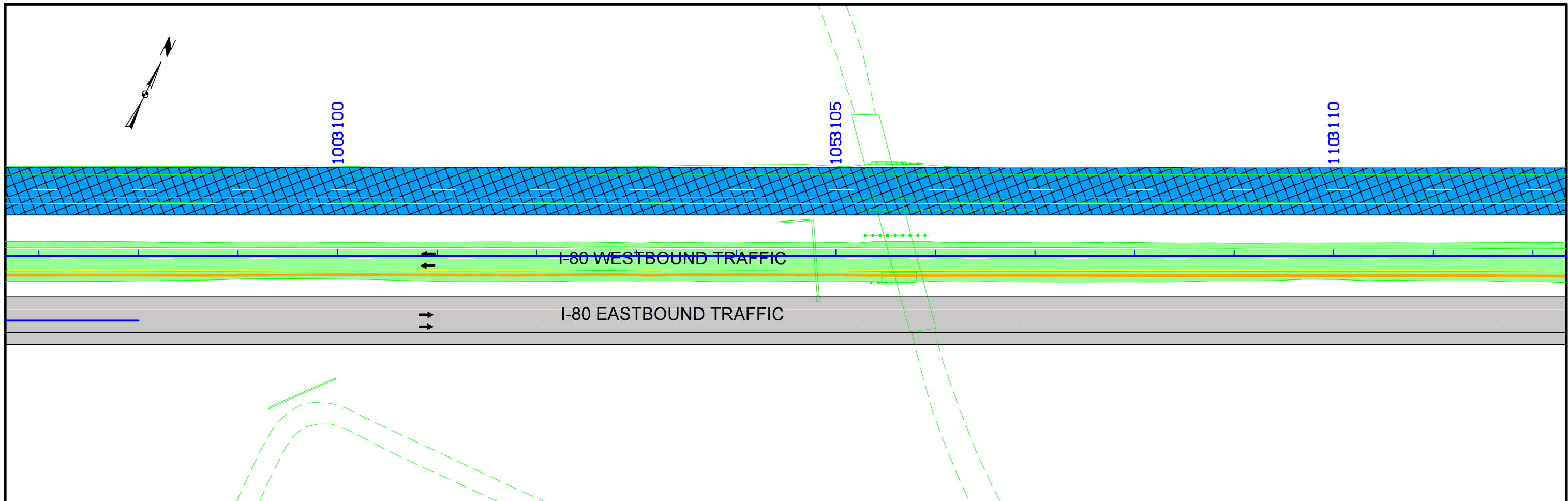
Stage 3
Eastbound Lane Construction











Stage 4
Westbound Lane Construction



3130

3135

3140

I-80 WESTBOUND TRAFFIC

I-80 EASTBOUND TRAFFIC



3145

3150

3155

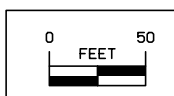
Sta. 3155+56.33
Stop Paving

Project Limits for
BRFMIX-080-5(239)176--14-50
Site #2 474'

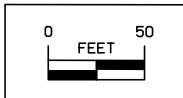
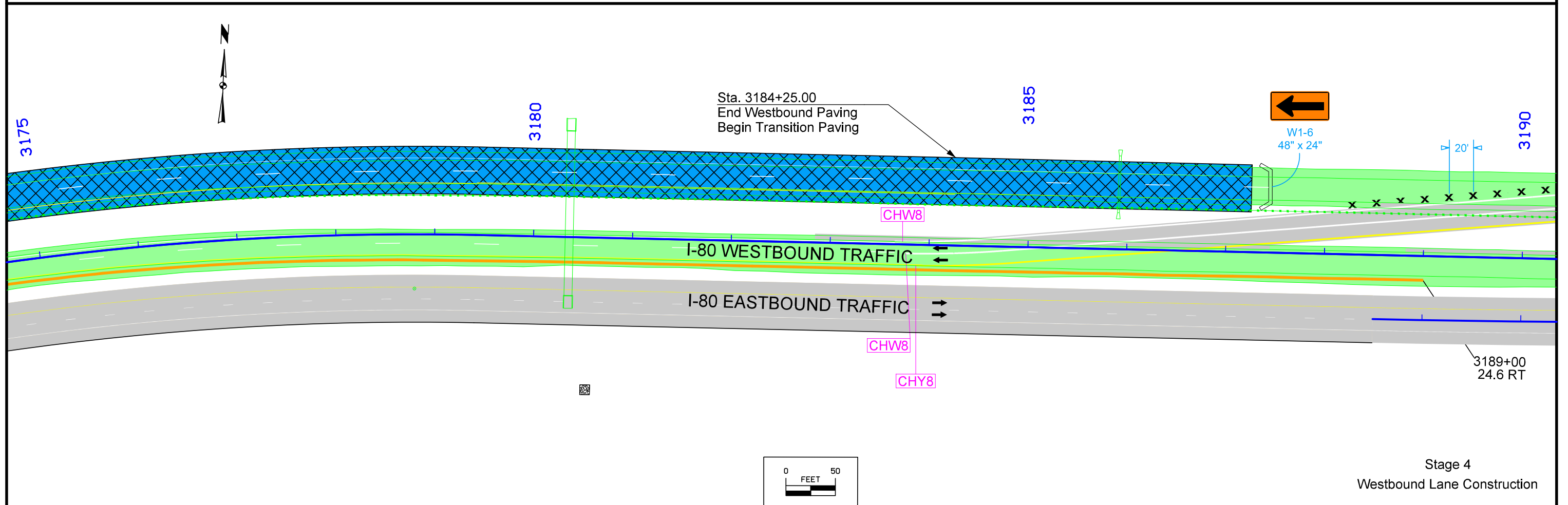
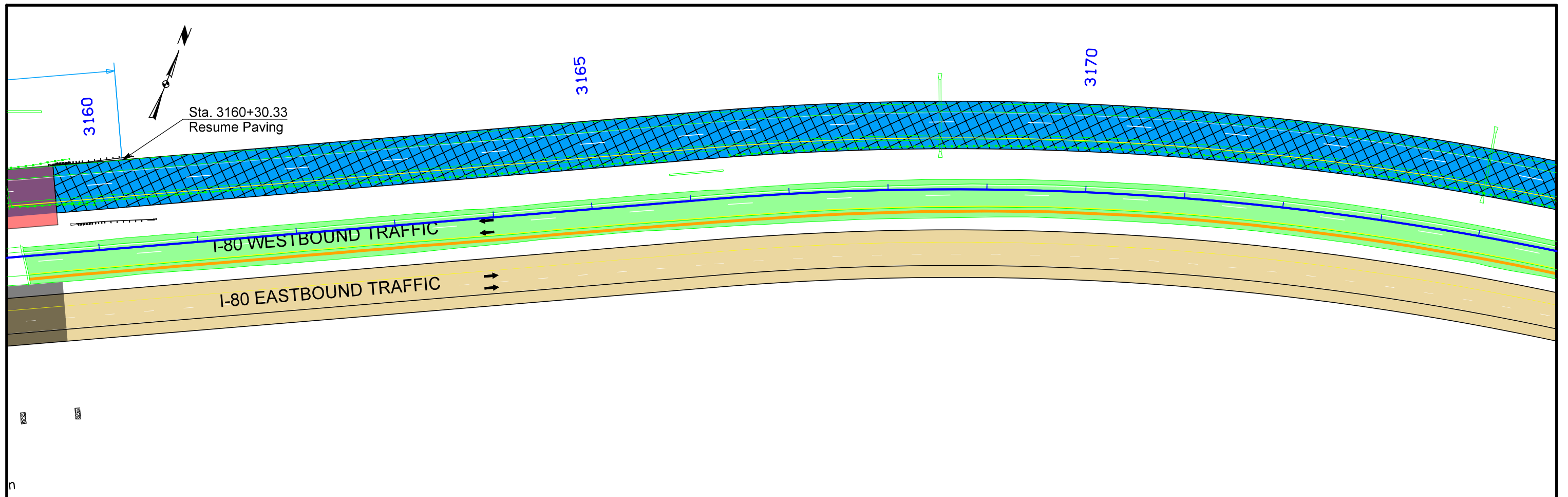
I-80 WESTBOUND TRAFFIC

I-80 EASTBOUND TRAFFIC

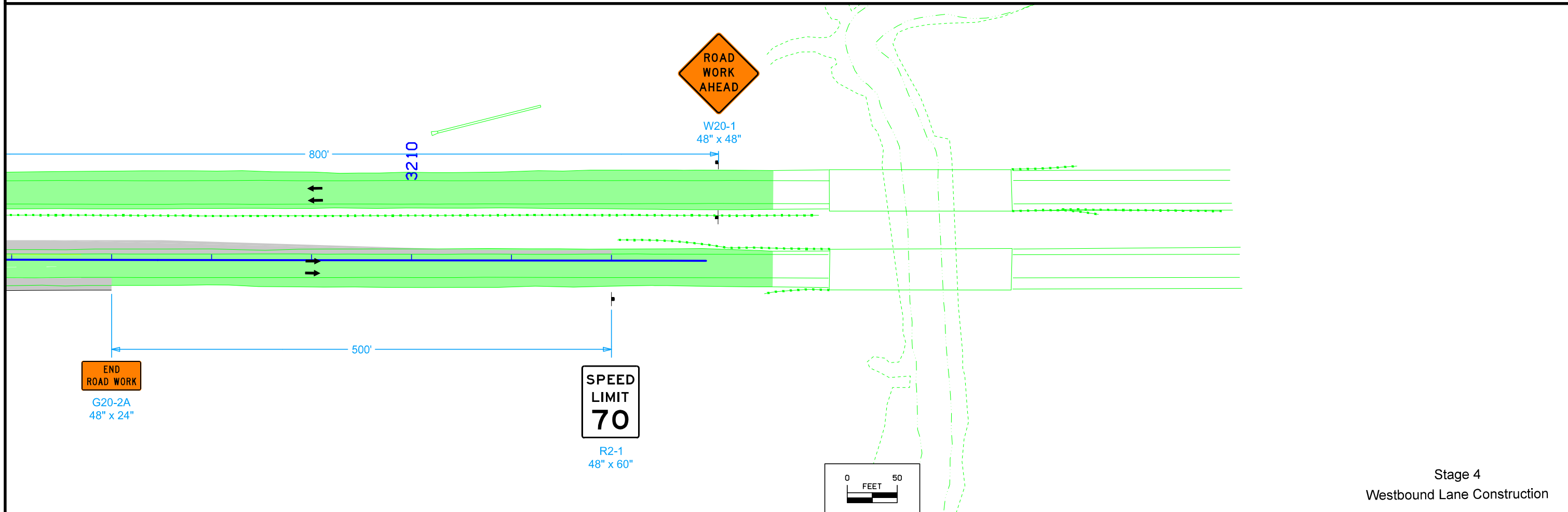
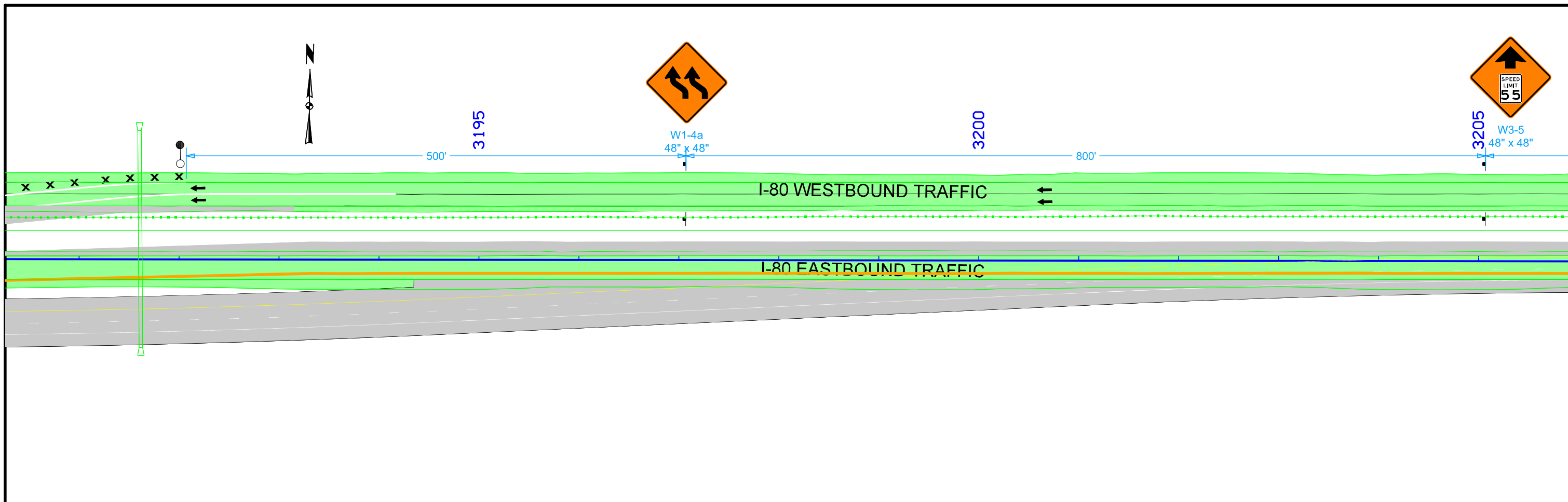
Replace Bridge
334' x 60' PPCB



Stage 4
Westbound Lane Construction

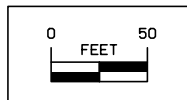
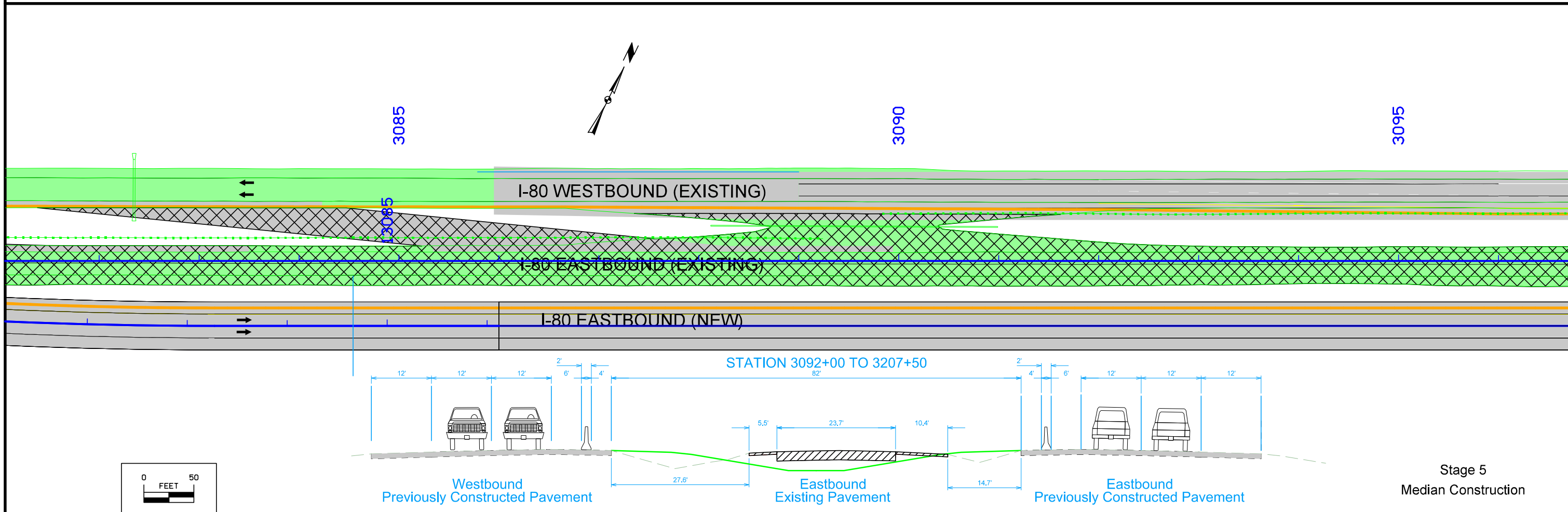
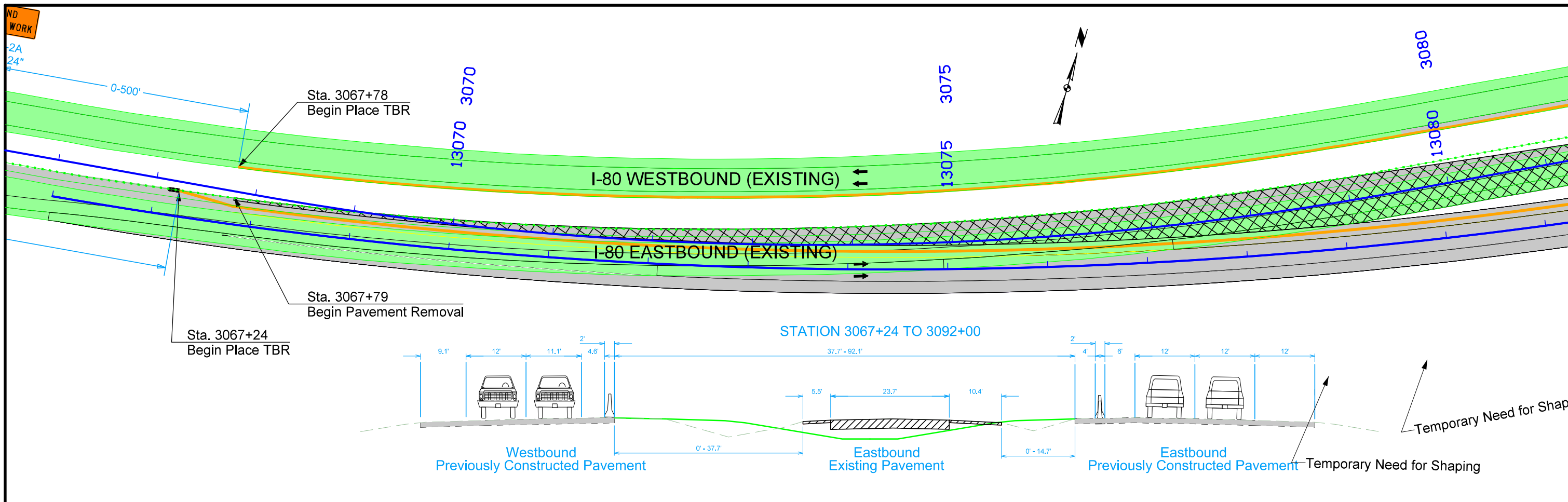


Stage 4
Westbound Lane Construction



Stage 4
Westbound Lane Construction







3100

3105

3110

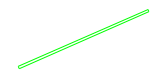


I-80 WESTBOUND (EXISTING)

I-80 EASTBOUND (EXISTING)



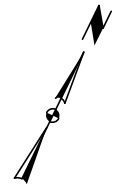
I-80 EASTBOUND (NEW)



3115

3120

3125

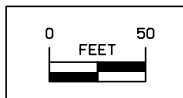


I-80 WESTBOUND (EXISTING)

I-80 EASTBOUND (EXISTING)



I-80 EASTBOUND (NEW)



Stage 5
Median Construction



3130

3135

3140



I-80 WESTBOUND (EXISTING)

I-80 EASTBOUND (EXISTING)



I-80 EASTBOUND (NEW)



3145

3150

3155



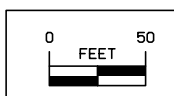
I-80 WESTBOUND (EXISTING)

I-80 EASTBOUND (EXISTING)

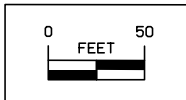
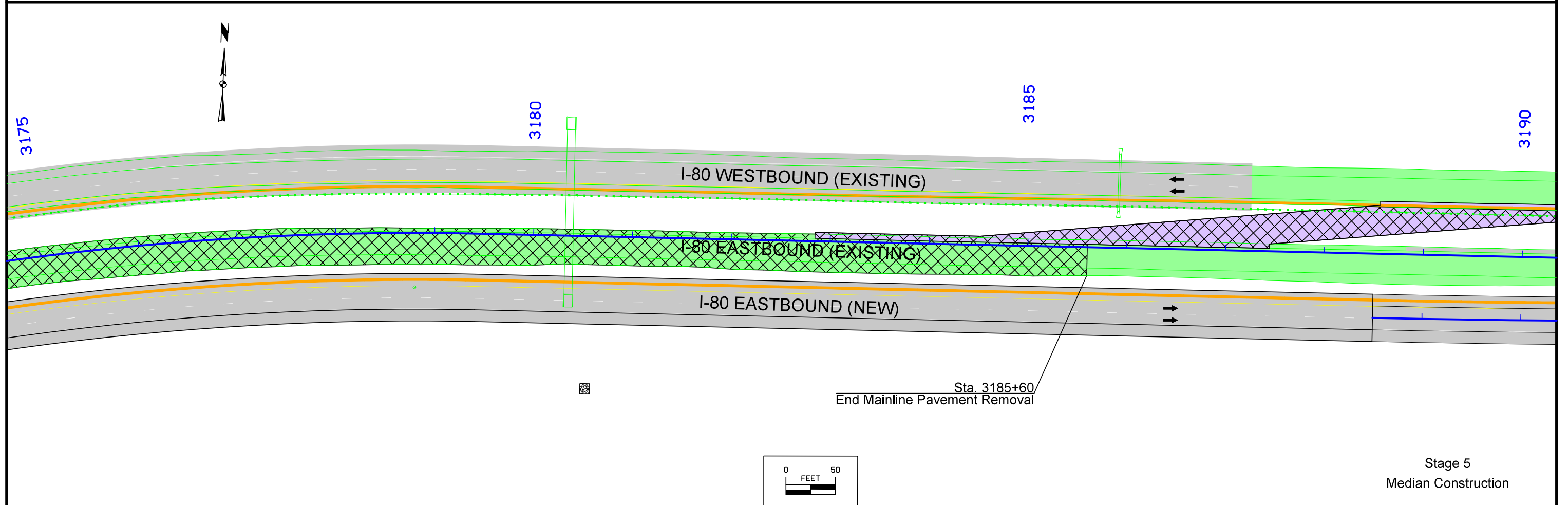
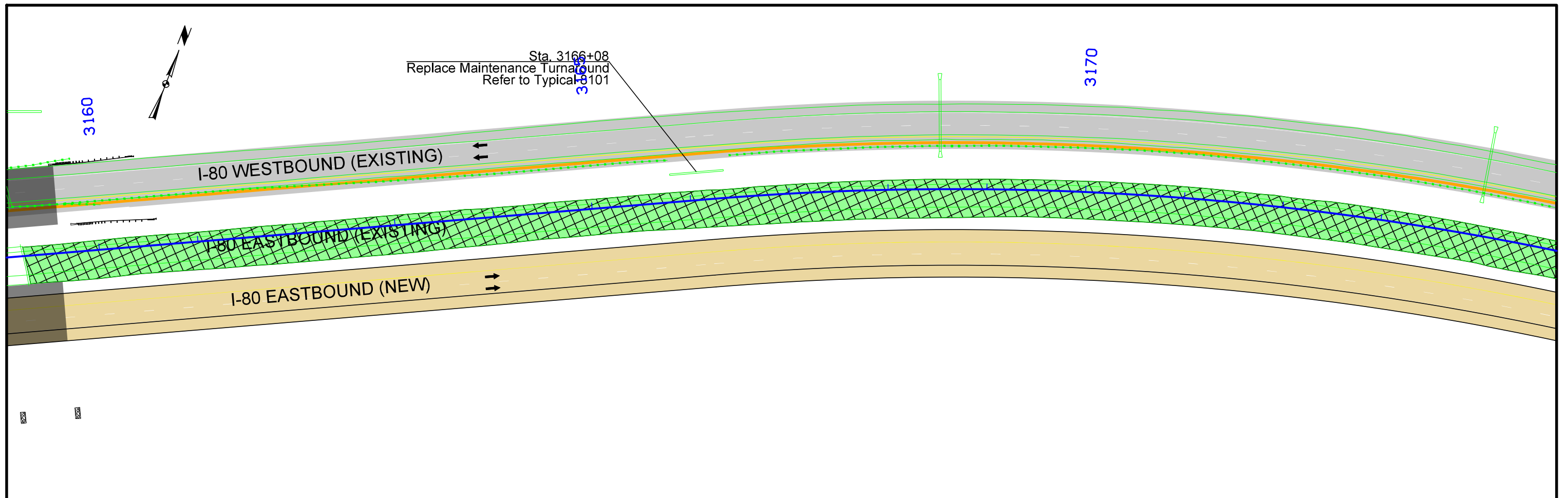


I-80 EASTBOUND (NEW)

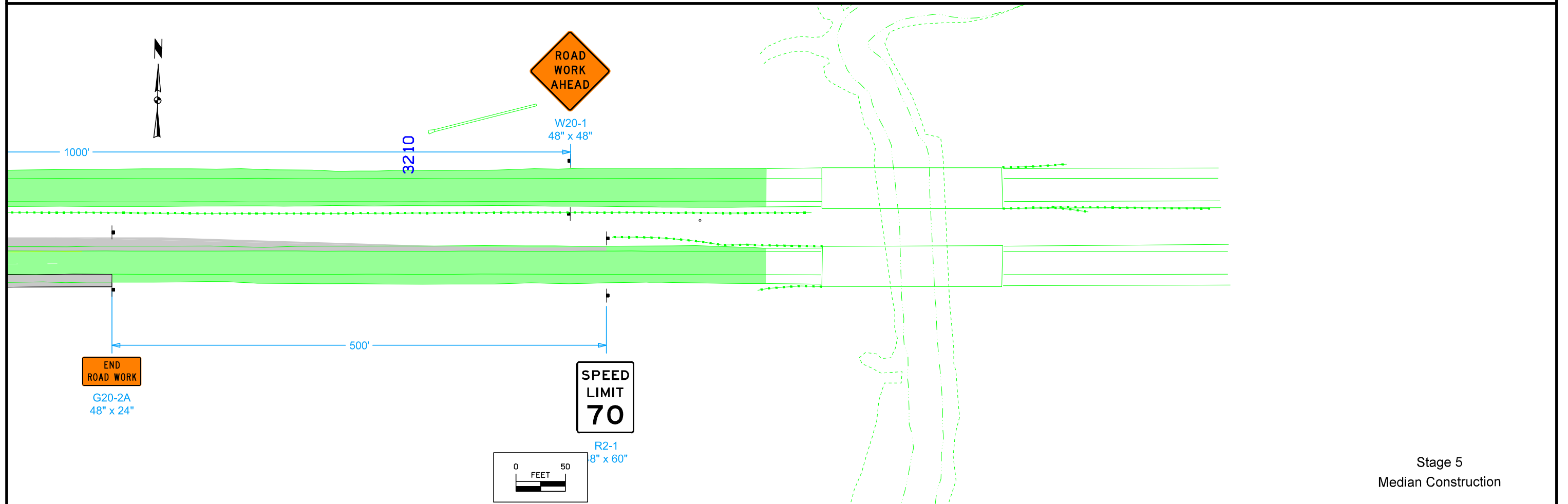
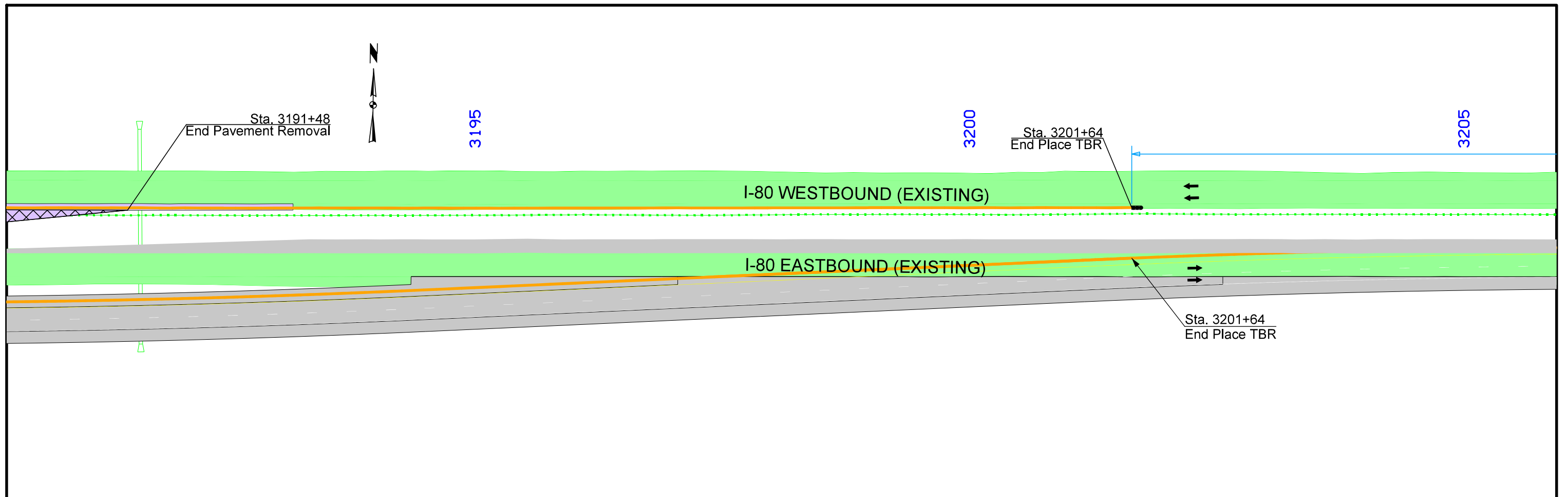
Remove Bridge

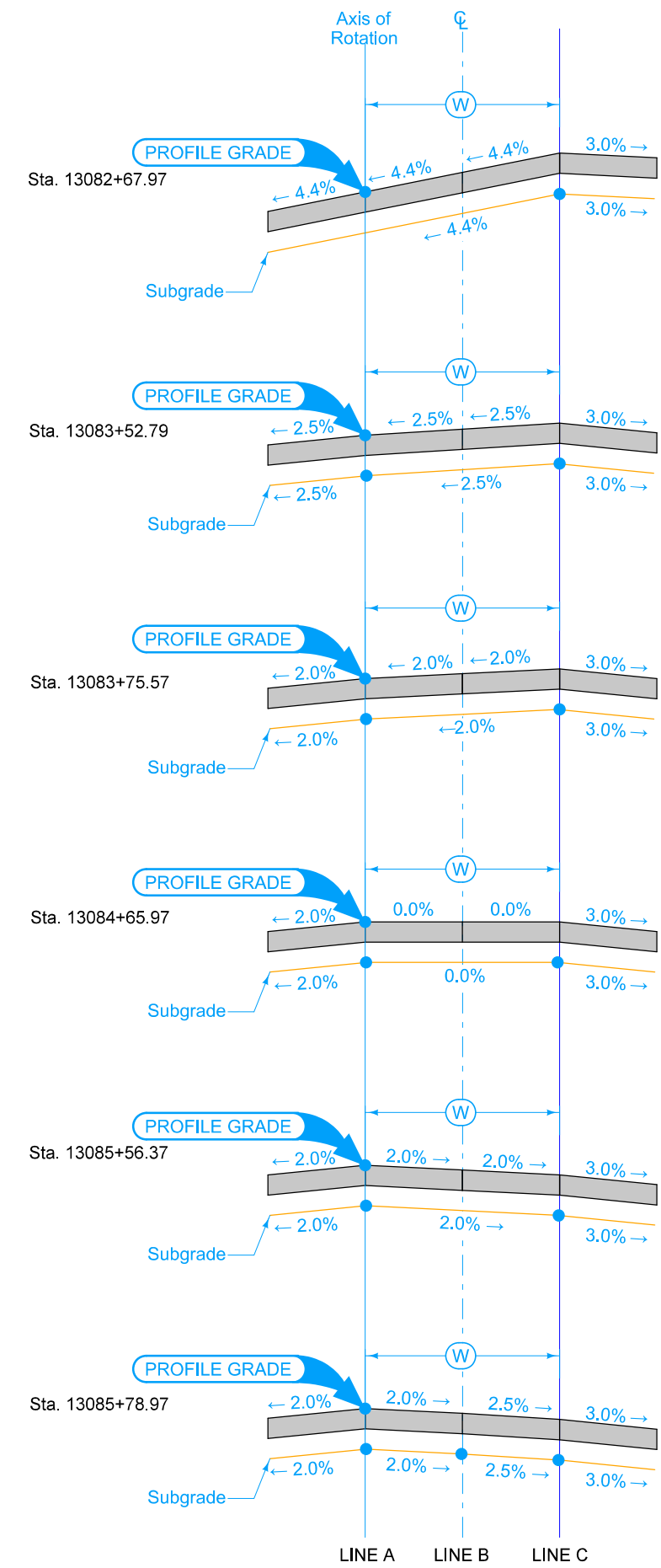
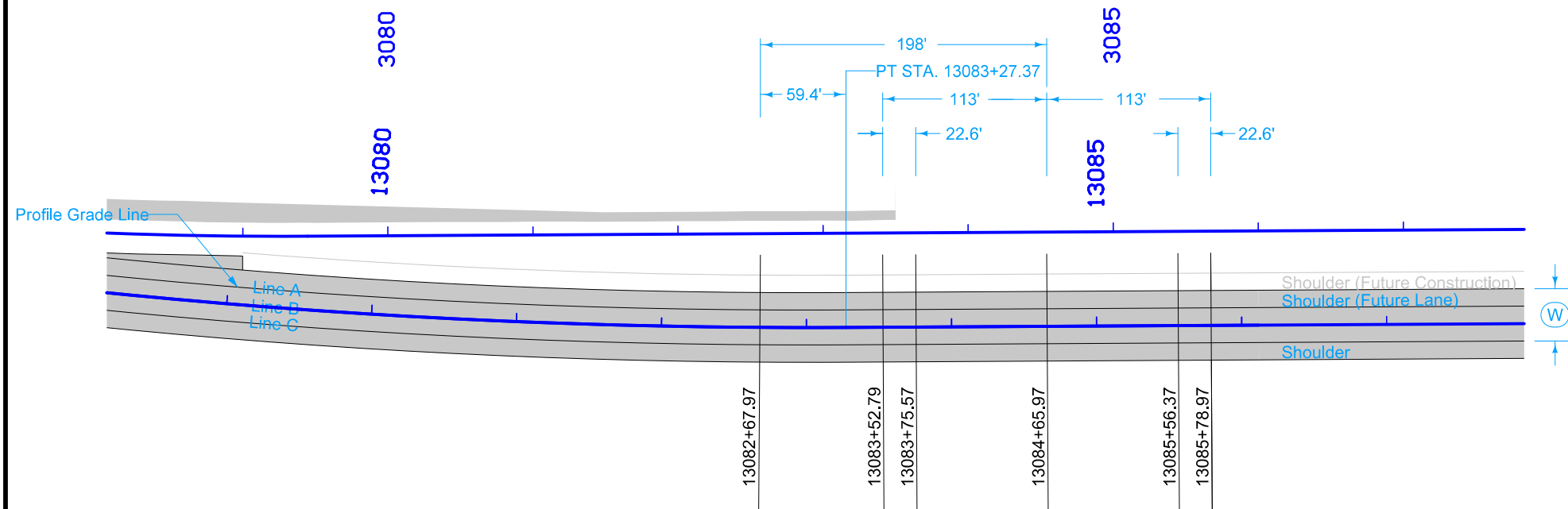


Stage 5
Median Construction

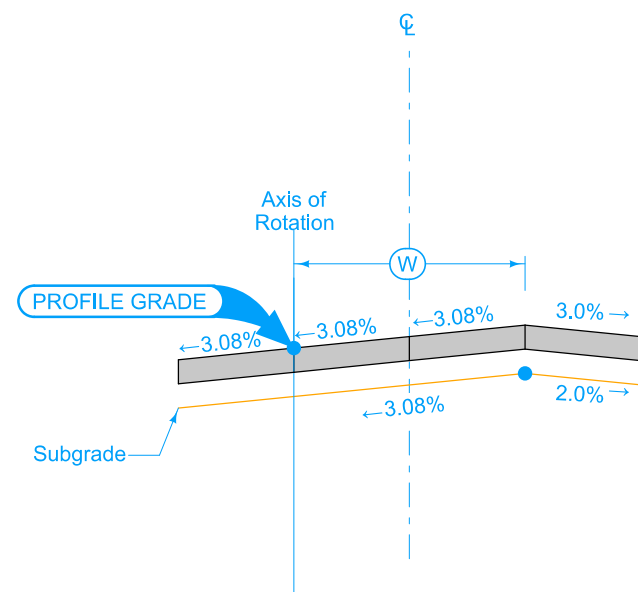


Stage 5
Median Construction





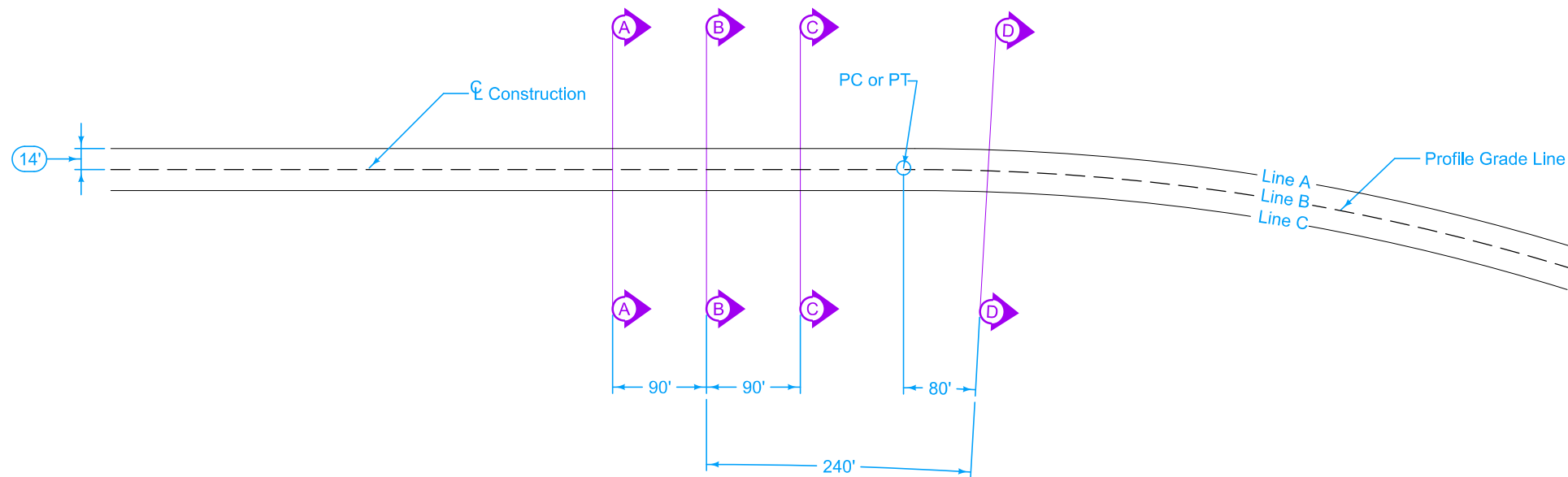
TRANSITION DETAILS



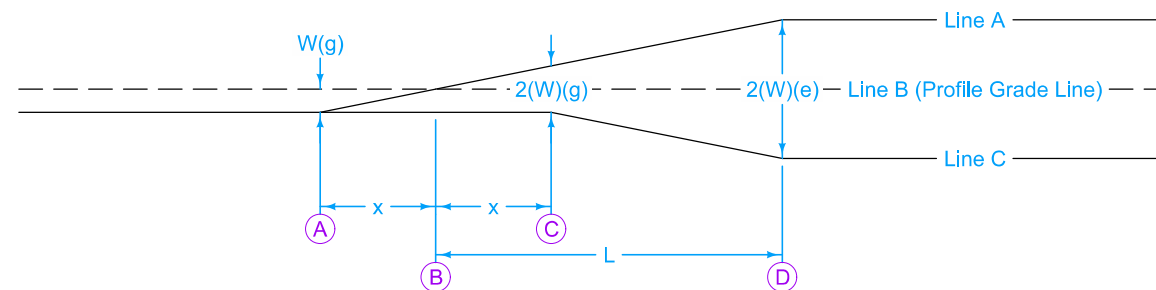
SECTION AT THE PC OR PT

SUPERELEVATION DETAILS FOR TRANSITION PAVEMENT

Refer to Tab. 101-18



TRANSITION DETAILS - TANGENT TO CURVE



DIAGRAMMATIC PROFILES OF THE EDGE LINES

Refer to specific curve data in G Sheets for tangent runout length (x), runoff length (L) and full superelevation (e).

Place 70% of full superelevation at the PC and PT
Place 30% of the runoff length within the curve.

Unless otherwise specified, all lengths are measured along the centerline of construction.

Superelevations on this sheet are shown for curves to the right. Curves to the left are a mirror image of what is shown.

Smooth curves should be established at the time of construction at sections A-D along the profile edges of lines A-C.

Axis of rotation coincides with profile grade location.

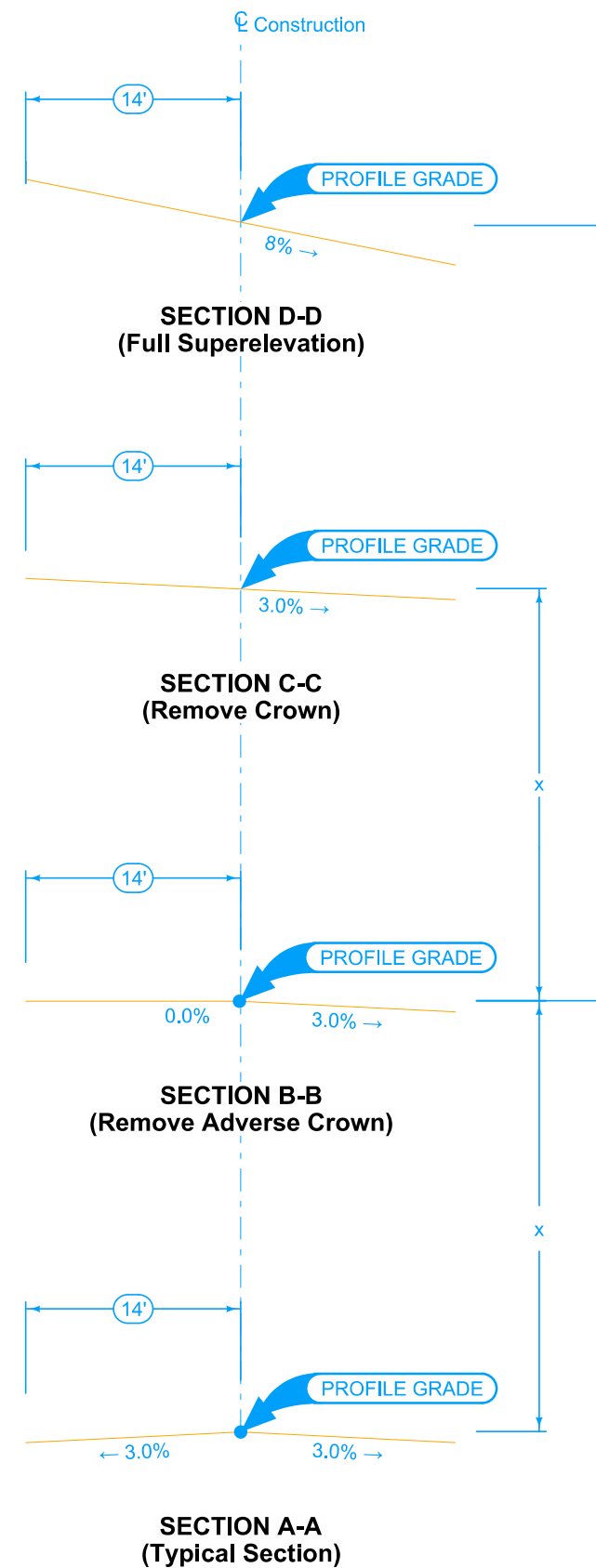
g = Normal Cross Slope (3%)

L = Distance to Change Cross Slope from 0% to e (240')

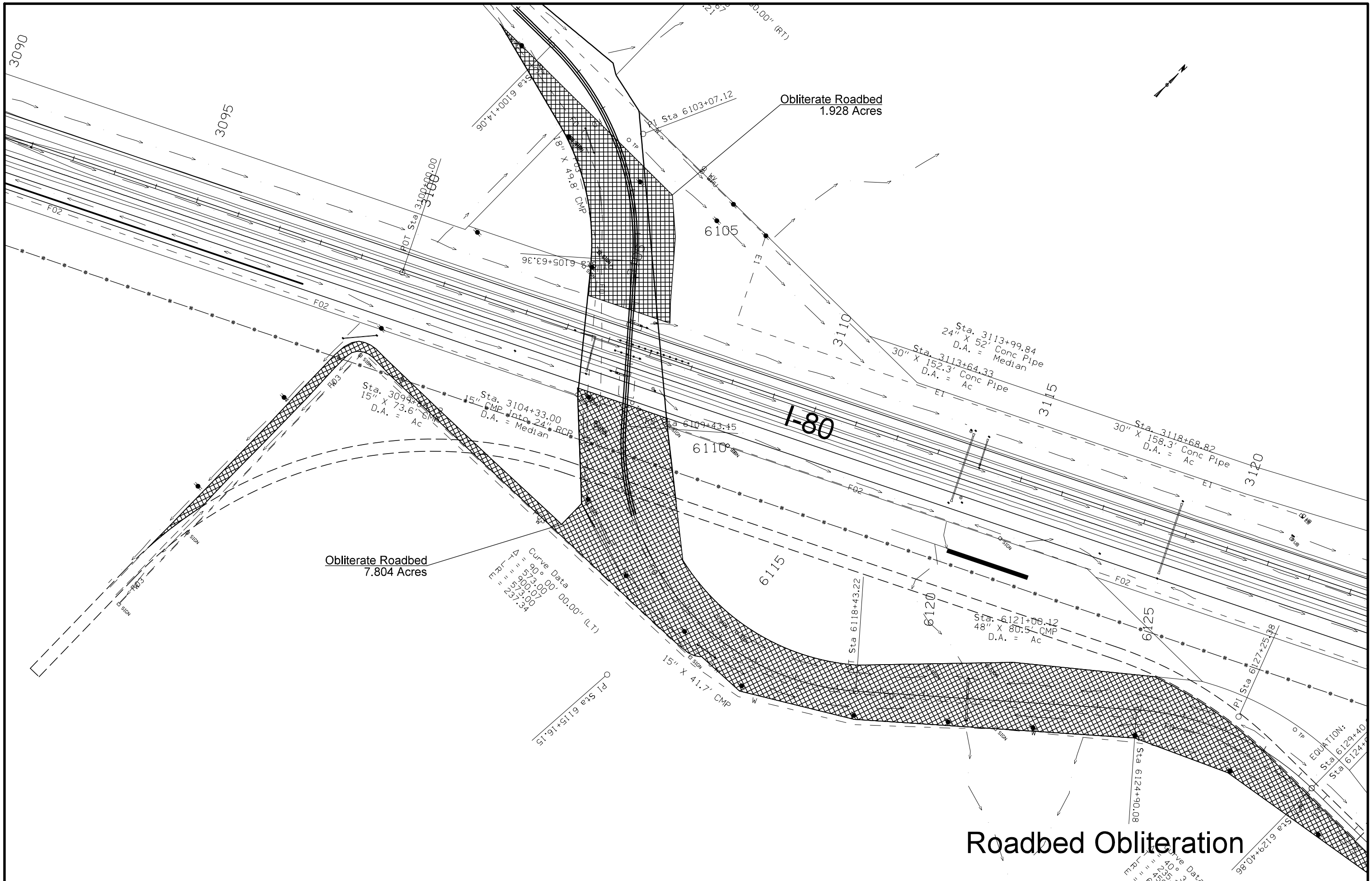
e = Superelevation Rate (8%)

x = Distance to Change Cross Slope from 0% to 3% (90')

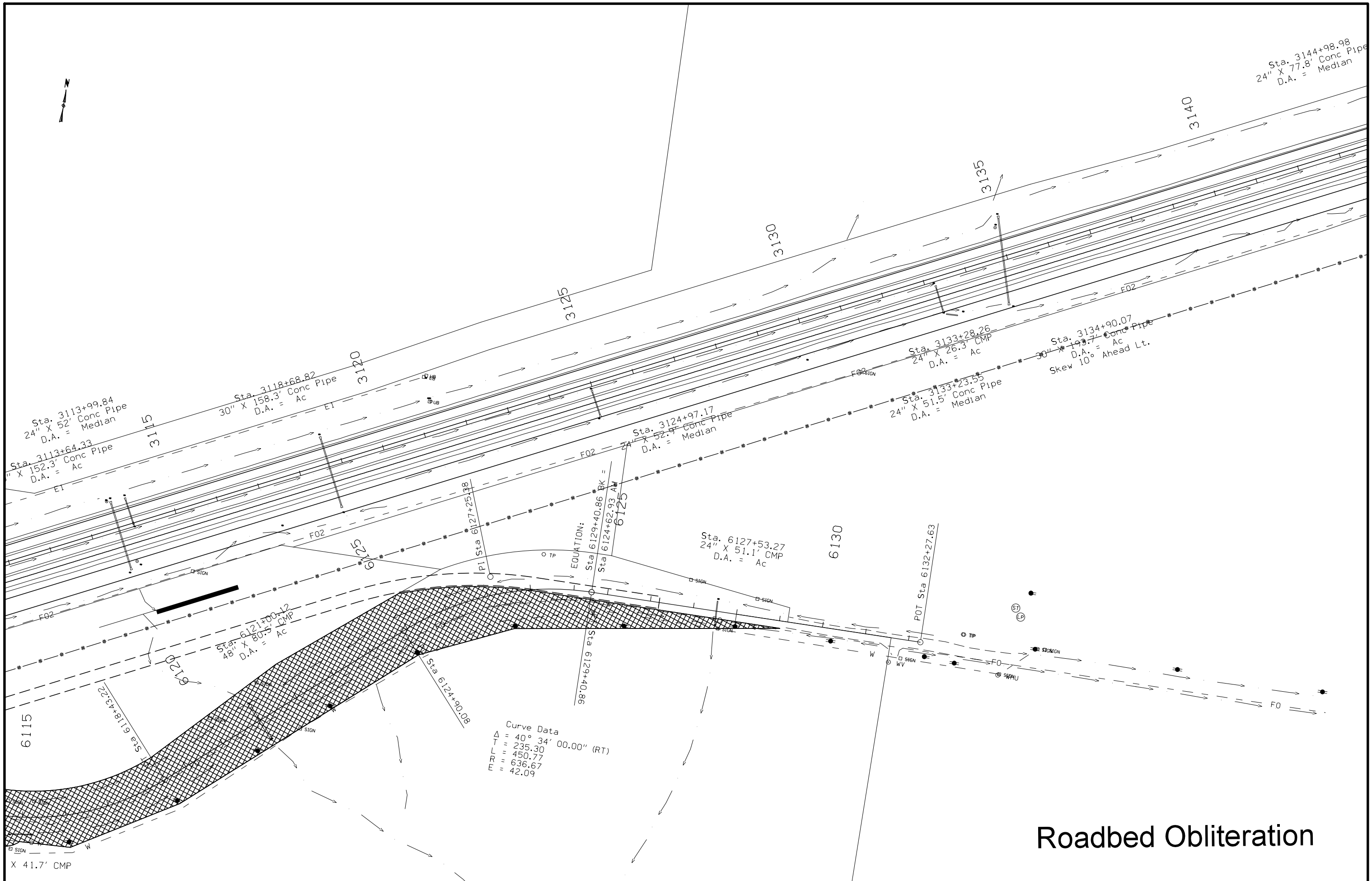
Refer to Tab. 101-18



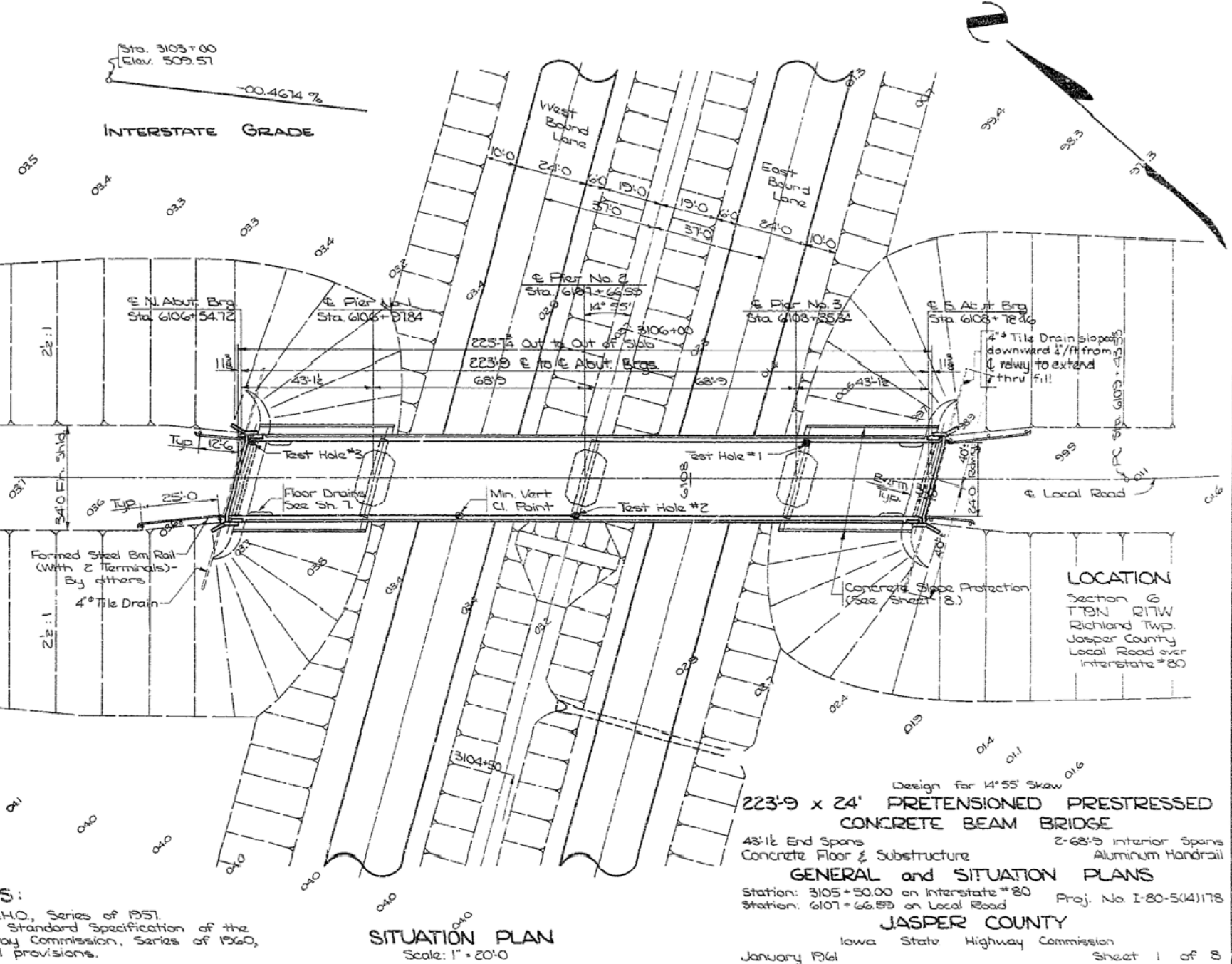
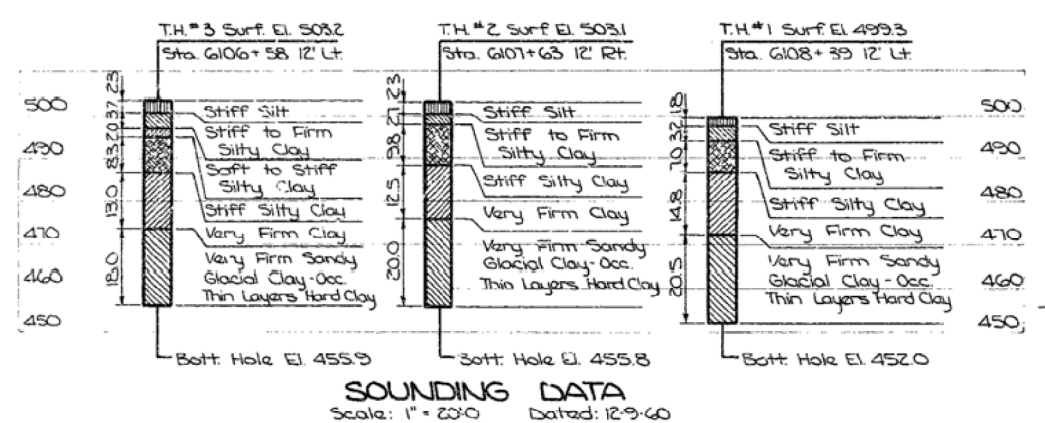
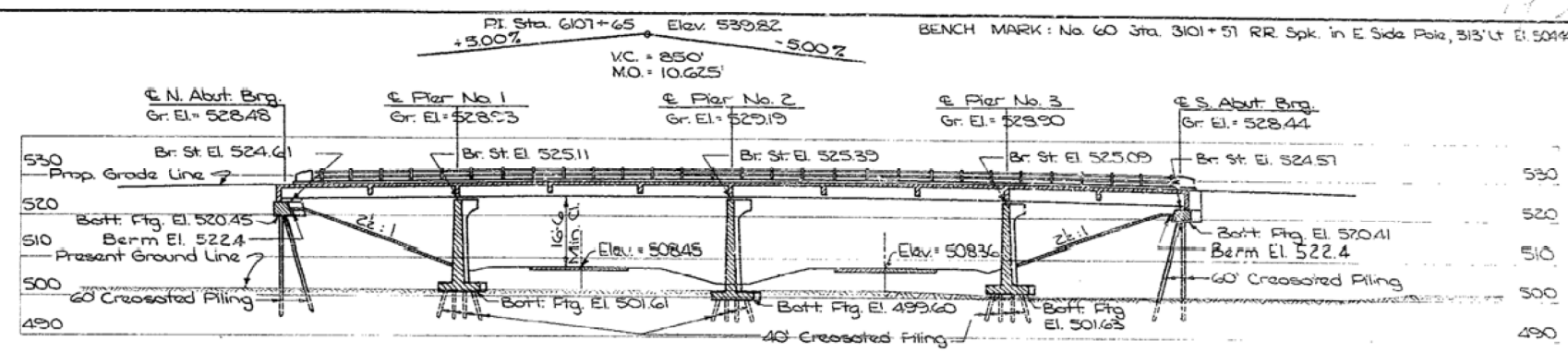
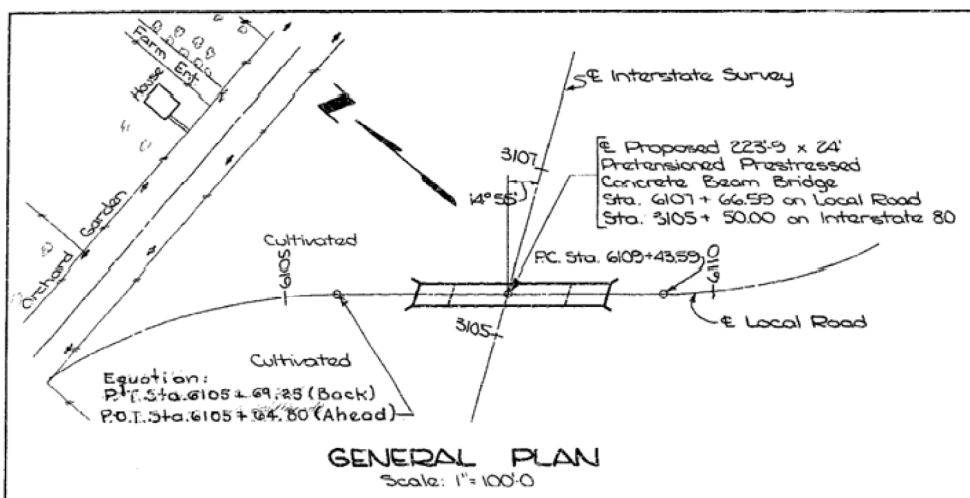
SUPERELEVATION DETAILS FOR SIDE ROAD 108TH



Roadbed Obliteration



Roadbed Obliteration



GENERAL NOTES:

This bridge is designed for H15-44 loading. Bents are not a part of this estimate, but are to be in place before abutment piles are driven.

Abutment piles are to be driven in oversize holes drilled through the fill to elevation 500.0. The minimum diameter of the drilled holes is to be 4 inches greater than the diameter of the pile 3 feet from the butt. Voids around piles are to be filled with dry sand. No separate payment will be made for drilling holes or filling voids since it is considered incidental to driving piles.

The formed steel beam rails and cross-ties at the ends of the bridge, as detailed on the "Situation Plan", this sheet, and on the "Superstructure Details", sheet 4, are to be furnished and placed by others.

The Bridge Contractor is to level off bents and construct "Concrete Slope Protection" as shown on this sheet and as detailed on sheet 8.

Design stresses for the following materials are in accordance with AASHTO Standard Specifications for Highway Bridges, Series of 1951.

Reinforcing steel in accordance with Section 14.12 "Reinforcement" for Intermediate, Hard or Rail Steel Grade.

Concrete in accordance with Section 14.11 $f'_c = 3500$ psi.

The Contractor is to install the tile drain behind each abutment as detailed. The price bid for "Tile Drain" is to include the excavation necessary for installation.

TOTAL ESTIMATED QUANTITIES					
Item	Unit	2 Abuts	3 Piers	Superstr.	Total
Concrete	cu yd	38.6	108.5	181.3	328.4
Reinforcing Steel	lb	3822	13,887	44,728	67,437
Prestressed Concrete Beams	ea.	42.6		8	8
	ea.	67.6		8	8
Cross-ties	lin ft.	1080	2640		3720
Class 20 Excavation	cu yd	125	155		280
Granular Backfill	tons	140			140
Aluminum Handrail (E- & End Posts)	lin. ft.				429.3
Concrete Slope Protection	sq yd				352
4" Tile Drain	lin ft.				160

SPECIFICATIONS:

Design: AASHTO, Series of 1951.
Construction: Standard Specification of the Iowa State Highway Commission, Series of 1960, plus current special provisions.

223'-9 x 24' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

43'-12 End Spans 2-68'-9 Interior Spans
Concrete Floor & Substructure Aluminum Handrail

GENERAL and SITUATION PLANS

Station: 3105 + 50.00 on Interstate #80
Station: 6107 + 66.89 on Local Road
Proj. No. I-80-5(4)178

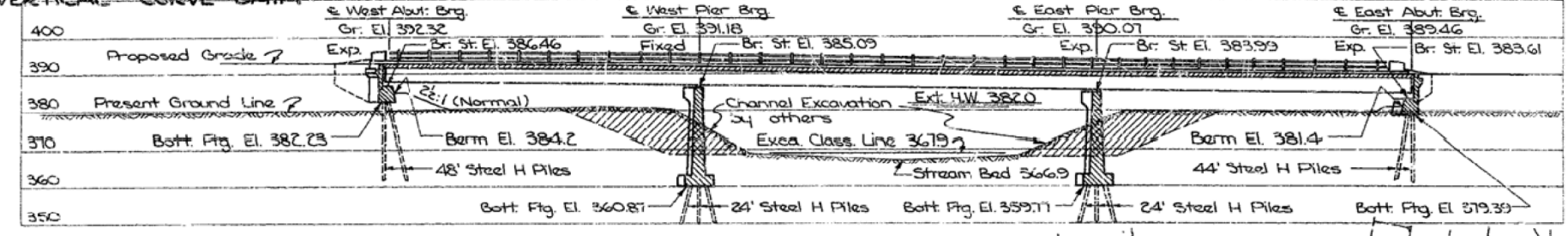
JASPER COUNTY
Iowa State Highway Commission
January 1961 Sheet 1 of 8

For Information Only

PVI Sta. 3155+00 Elev. 391.25
 -3.50% 300' VC. -0.45%

BENCH MARKS: No. 65 Sta. 3156+85 R.R. 50'x2 S. Root 24' Elm 24' Lt. Elev. 382.26
 No. 66 Sta. 3151+90 R.R. Spike SE. Root 24' Maple 18' Lt. Elev. 377.47

VERTICAL CURVE DATA



Test Hole No. 2 Sta. 3156+24 Lt 22'	Test Hole No. 1 Sta. 3151+28 Rt 52'	Test Hole No. 3 Sta. 3158+27 Lt 52'	Test Hole No. 6 Sta. 3159+31 Rt 22'
378.6	379.6	379.7	378.8
50' Soft Silty Clay	24' Sandy Silt	36' Soft to Stiff Silty Clay	38' Soft to Stiff Silty Clay
46' Soft to Stiff Silty Clay	36' Soft to Stiff Silty Clay	68' Stiff Sandy Silty Clay	28' Stiff Sandy Silty Clay
22' Stiff Sandy Silt	62' Stiff Silty Clay	18' Stiff Sandy Silt	22' Silty Sand
107' Sand with Thin Silt Layers	18' Stiff Sandy Silt	50' Sand with Thin Silt Layers	82' Sand with Thin Silt Layers
85' Gravelly Sand	50' Sand with Thin Silt Layers	39' Gravelly Sand	42' Gravelly Sand
43' Sand	160' Gravelly Sand	38' Sand	54' Sand
25' Gravelly Sand	35' Sand	80' Gravelly Sand	86' Gravelly Sand
10' Medium Hard Shale	20' Shale	128' Medium Hard Shale	14' Medium Hard Sandstone
113' Medium Hard Shale with Thin Limestone Layers	55' Limestone with Thin Shale Layer	60' Medium Hard Shale	68' Medium Hard Shale Occasional Thin Limestone Layer
12' Medium Hard Limestone	10' Medium Hard Limestone		
Bott Hole El. 325.6	Bott Hole El. 326.6	Bott Hole El. 328.7	Bott Hole El. 327.8

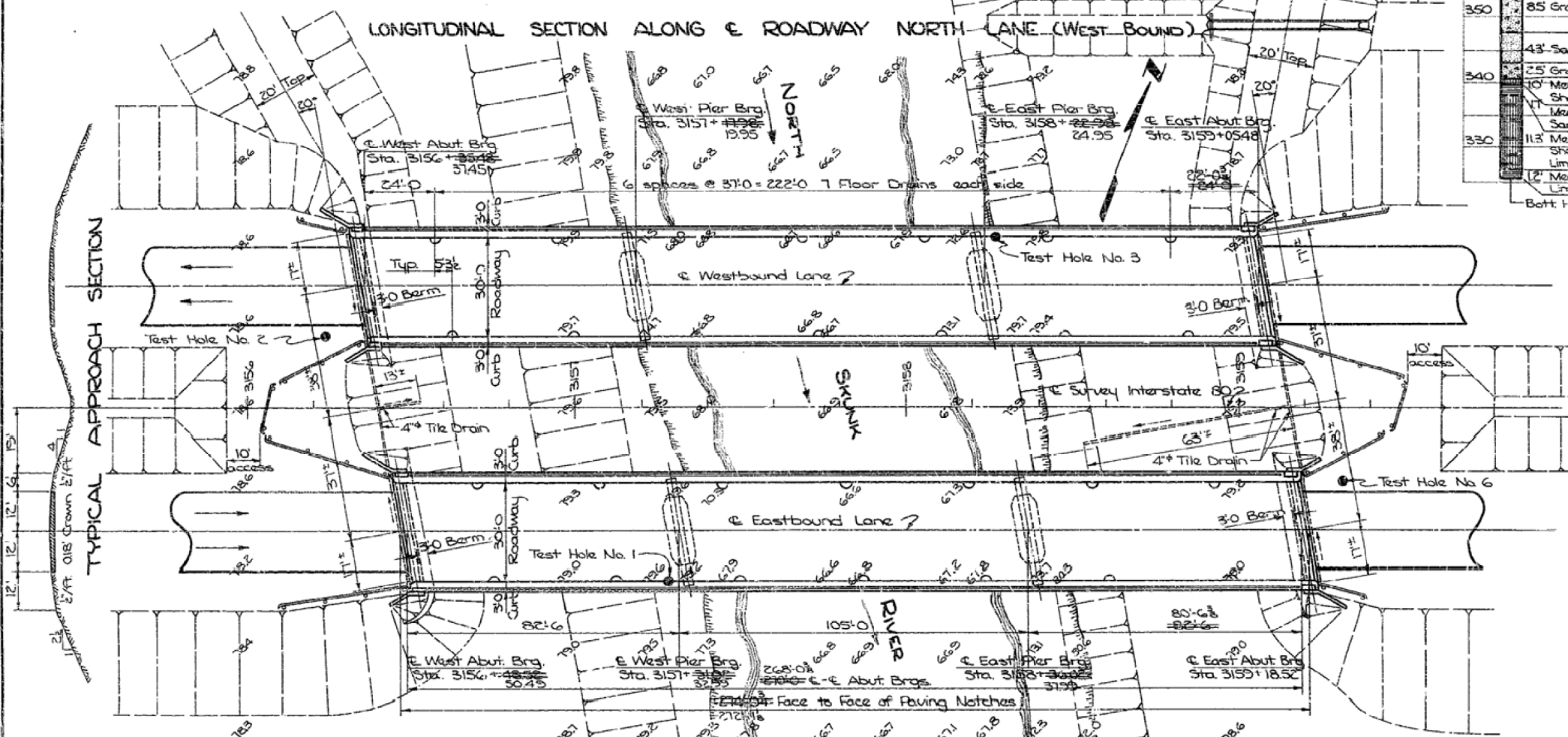
SOUNDING DATA

Scale: 1"=10'-0" Dated: 6-28-60
 Note: Test Holes No. 4 & 5 are not for this design.

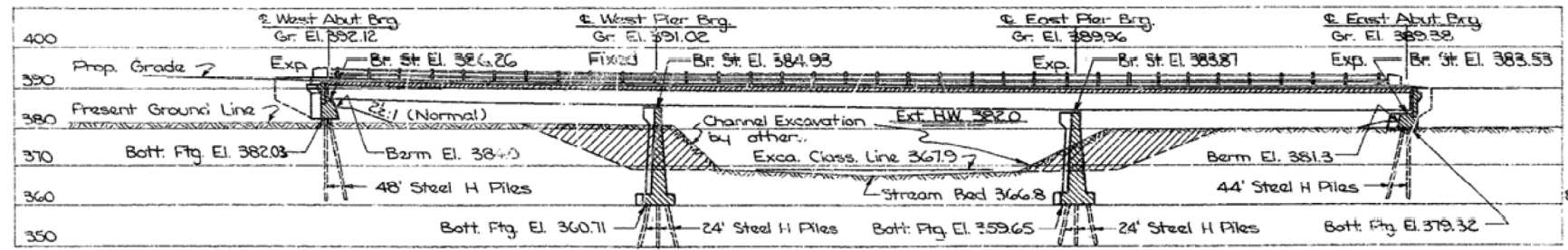
Note: The 4" tile drain is to slope downward (8"/ft. min.) toward E of median and thence to the outlet.

Note: Wing dikes and channel clearance to be done by others.

LONGITUDINAL SECTION ALONG E ROADWAY NORTH LANE (WEST BOUND)



SITUATION PLAN
Scale: 1"=20'-0"



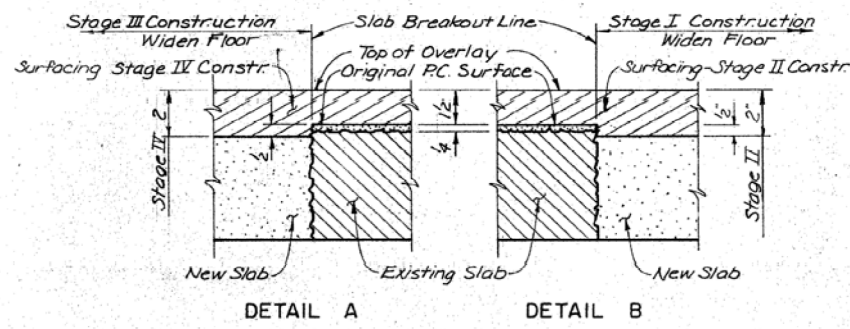
LONGITUDINAL SECTION ALONG E ROADWAY SOUTH LANE (EAST BOUND)

Revised 10-25-61: Length of bridge changed 197' at E Abut. Stationing changed.

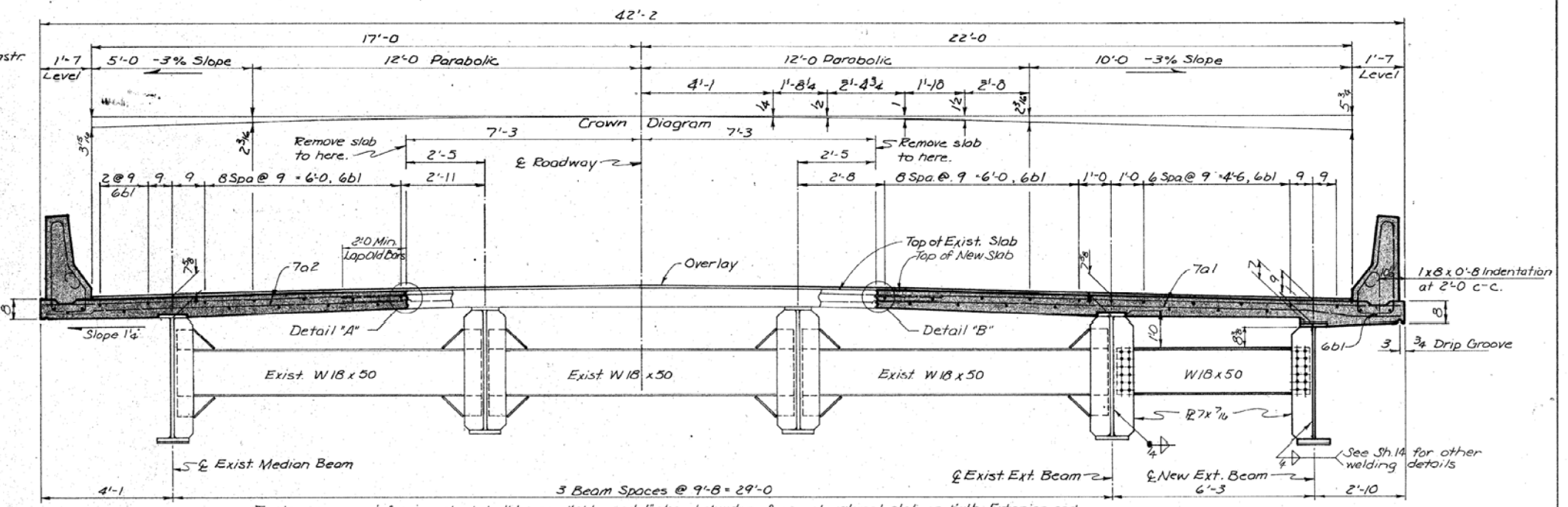
268'-0" Design for 10°00' Skew
DUAL 210'-0" x 30' CONTINUOUS WELDED GIRDER BRIDGES
 80'-6" x 82'-6" End Spans Concrete Floor & Substructure
 105'-0" Center Span Aluminum Rail

SITUATION PLAN
 Station: 3151+3048 North Lane
 Station: 3151+3352 South Lane
 85.49
JASPER COUNTY
 Iowa State Highway Commission
 December 1960
 Project No. I-80-5(307)174--02-50
 Sheet 2 of 3

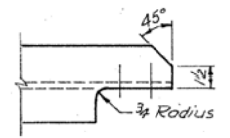
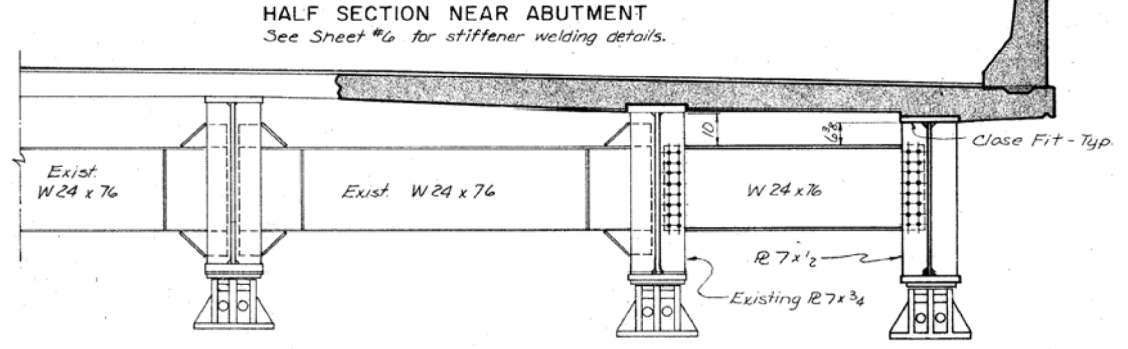
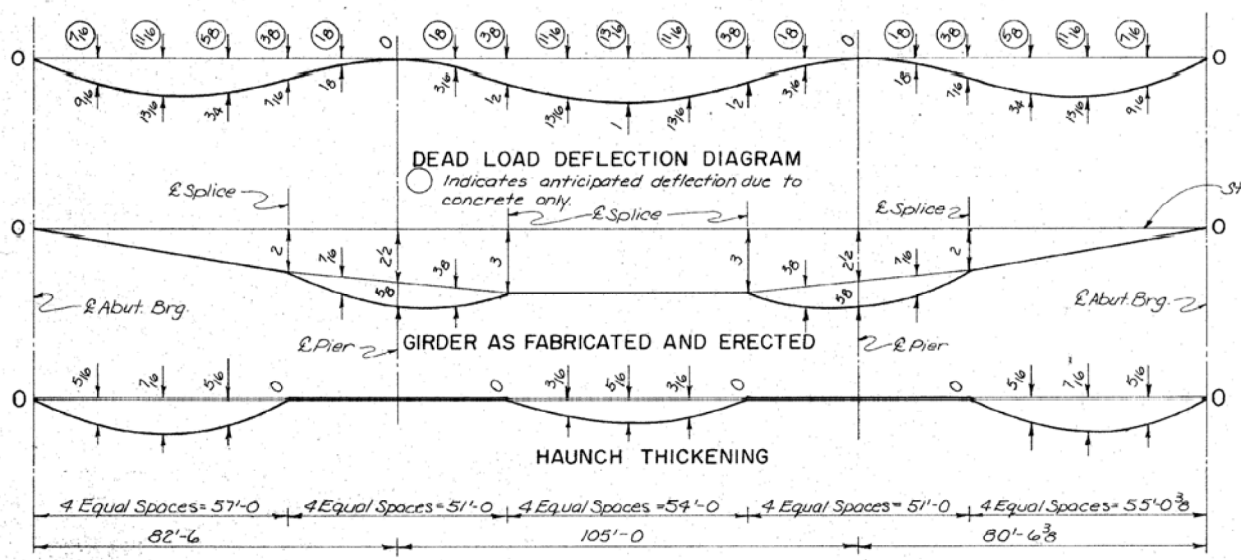
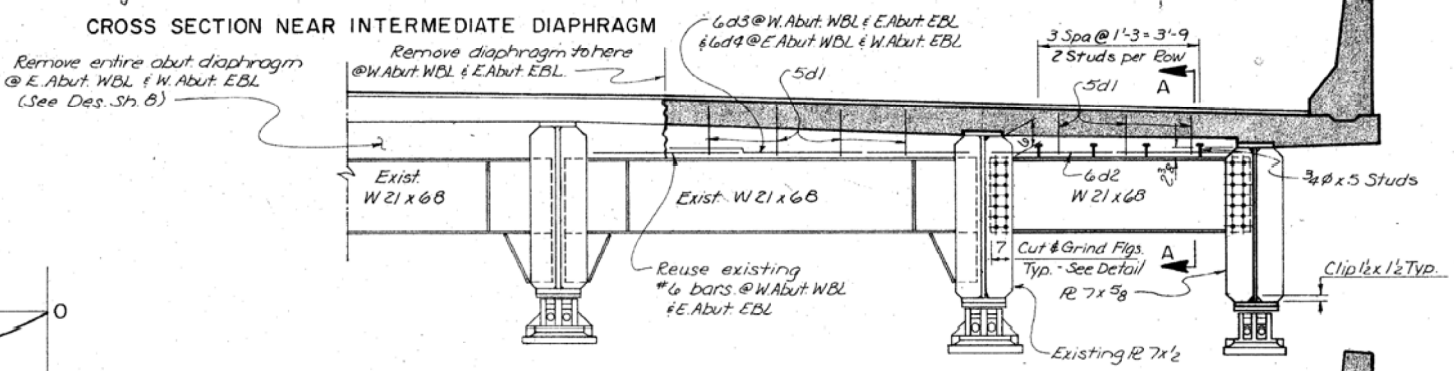
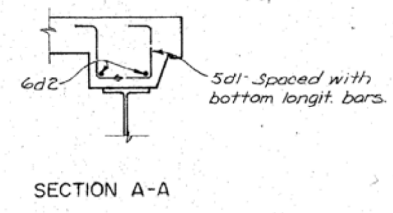
For Information Only



NOTE:
 If the new structural slab will carry traffic prior to receiving the overlay it shall be placed flush with the top of the existing slab. The 1/2" vertical offset shall be eliminated and all vertical dimensions and the slab thicknesses shown on this plan shall be increased by 1/2". The location of the reinforcing shall not change. When Overlay Construction is started, both slabs, old and new, shall be scarified 1/4" and the bridge floor overlay will be a nominal 1 3/4".



Top transverse reinforcing steel shall be parallel to and 1" clear below top of new structural slab on both Exterior and Median Side. Bottom transverse reinforcing steel shall be a minimum of 1 3/4" clear above bottom of slab. Top and bottom reinforcing steel is to be supported by metal bar chairs spaced at not more than 3'-0" centers in either direction. Bottom of slab shall be a straight line between haunches. Slab thicknesses shown are to top of new structural slab.



DESIGN FOR WIDENING OF 10' SKEW
 DUAL 268'-0" X 30' CONTINUOUS WELDED GIRDER BRIDGES
 TO 39' ROADWAY
 INTERSTATE 80 OVER NORTH SKUNK RIVER
 SUPERSTRUCTURE DETAILS

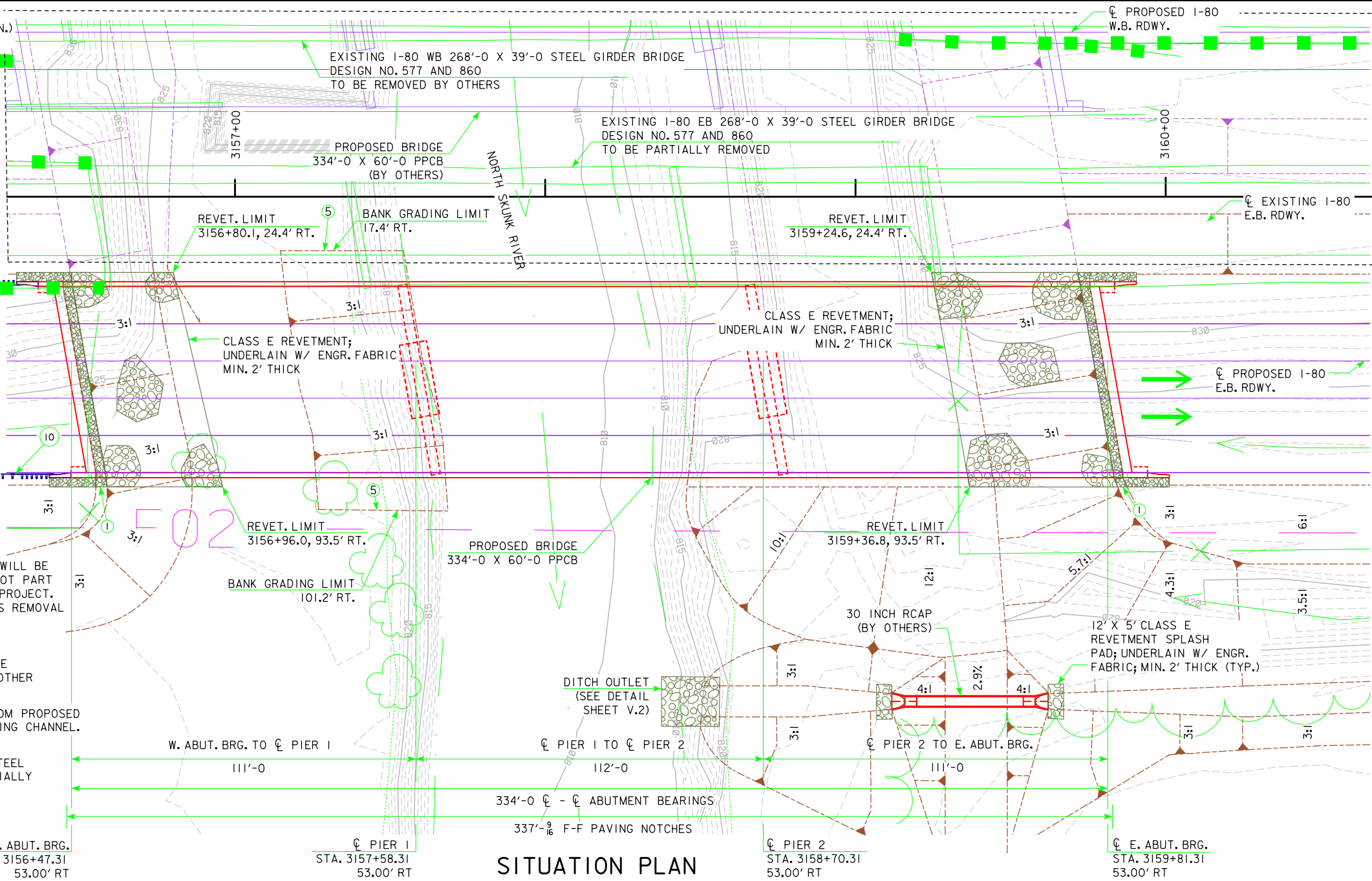
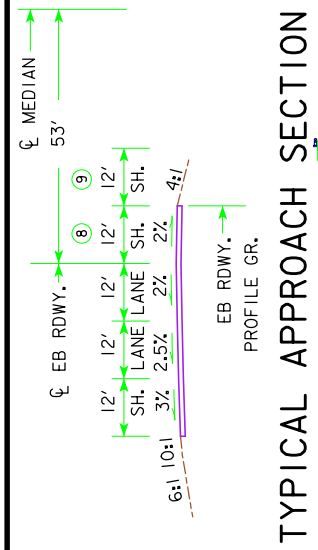
STATIONS W.B. 3157+72.45
 E.B. 3157+85.49
 JASPER COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION-HIGHWAY DIVISION
 DESIGN SHEET 7 OF 37 FILE NO. 25924 DESIGN NO. 577

WALLACE HOLLAND KASTLER CONSULTING ENGINEERS PLANNERS
 SCHMITZ COMPANY LANDSCAPE ARCHITECTS
 HAWK CITY, IOWA 50131

JASPER COUNTY	PROJECT NO. 1-80-5(307)174--01-50	STATE IOWA	FED. ROAD DIST. NO. 5	FISCAL YEAR	SHEET NO. 9	TOTAL SHEETS 39
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For Information Only

- 1 BERM PROTECTION
EROSION STONE (1' THICK, MIN.)
UNDERLAIN W/ ENGR. FABRIC
- 2 GRADE BANK TO LIMITS
SHOWN IN PLAN VIEW
- 3 GRADING SURFACE



- 4 WORK SHOWN IN THIS AREA WILL BE DONE SEPARATELY AND IS NOT PART OF THE EASTBOUND BRIDGE PROJECT. THIS FUTURE WORK INCLUDES REMOVAL OF THE EXISTING BRIDGE, CONSTRUCTION OF THE NEW WESTBOUND BRIDGE, FINAL GRADING WORK NORTH OF THE MAINLINE STATIONING AND OTHER ASSOCIATED TASKS.
- 5 PROVIDE 20' TRANSITION FROM PROPOSED CHANNEL GRADING TO EXISTING CHANNEL.
- 6 BENCH EL. 817.00
- 7 EXISTING 268'-0 X 39'-0 STEEL GIRDER BRIDGE TO BE PARTIALLY REMOVED
- 8 FUTURE LANE
- 9 FUTURE SHOULDER
- 10 PROPOSED GUARDRAIL (TYP.)

HYDRAULIC DATA

DRAINAGE AREA = 180 SQ. MI.
STREAM SLOPE = 5.2 FT./MI.

Q₂ = 3,180 CFS
STAGE = 820.49
CHANNEL VELOCITY = 2.6 FPS

Q₅₀ = 14,300 CFS
STAGE = 827.57
BACKWATER = 0.45 FT.
AVG. BRIDGE VELOCITY = 4.7 FPS

Q₁₀₀ = 16,500 CFS
STAGE = 828.03
BACKWATER = 0.62 FT.
AVG. BRIDGE VELOCITY = 5.2 FPS

Q₂₀₀ = 20,900 CFS
STAGE = 828.85
CALCULATED DESIGN SCOUR = EL. 798.4

Q₅₀₀ = 22,300 CFS
STAGE = 829.09
CALCULATED CHECK SCOUR = EL. 797.7

ROADWAY OVERTOP 830.93
STA. 3168+28.94

EXTREME HW STAGE = 826.3
DATE UNKNOWN
AVG. LOW WATER STAGE = 811.0

-0.8543%

PVI STA 3153+20.00
PVI EL. 842.38

PVI STA 3171+00.00
PVI EL. 827.18

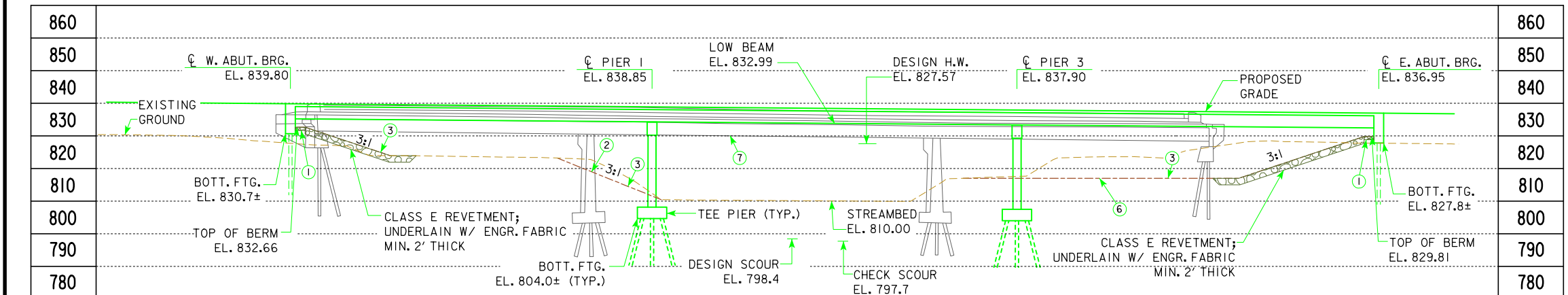
PROPOSED PROFILE I-80

TRAFFIC ESTIMATE

2015 AADT	30,000	V.P.D.
2035 AADT	40,500	V.P.D.
2035 DHV	4,200	V.P.H.
TRUCKS	32	%
TOTAL DESIGN ESALS		

LOCATION

EB I-80 OVER NORTH SKUNK RIVER
T-80N R-17W
SECTION 31
ROCK CREEK TOWNSHIP
JASPER COUNTY
BRIDGE MAINT. NO. 5075.5R080
FHWA NO. 31221
LATITUDE 41.693105°
LONGITUDE -92.864359°



LONGITUDINAL SECTION ALONG Q APPROACH ROADWAY

NOTE: TOP OF BRIDGE DECK CROWN 0.21' ABOVE PROFILE GRADE.
BENCH MARK NO. 507 STA. 3159+39.12, 28.5' RT, EL. 835.840,
CUT TRIANGLE IN SE CORNER BRIDGE GUARD RAIL EB SKUNK RIVER BRIDGE

TYPE TL-5 BRIDGE RAILING PROPOSED

DESIGN FOR 10° SKEW R.A.

334'-0 X 60'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

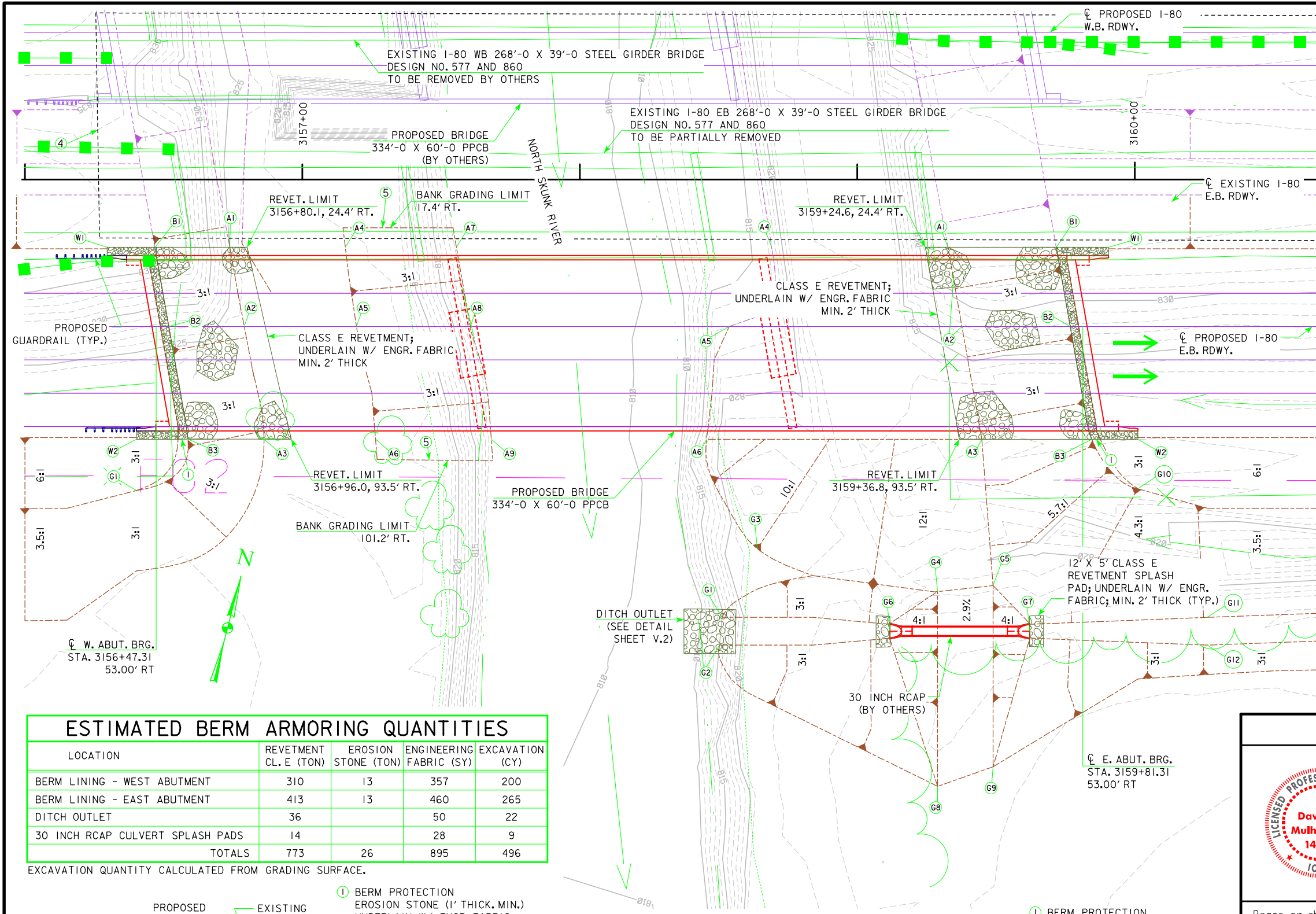
111'-0 END SPANS BTC BEAM 112'-0 INTERIOR SPAN

EASTBOUND BRIDGE SITUATION PLAN

STATION 3158+14.31, 53.00' RT MARCH 2014

JASPER COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 1 OF 2 FILE NO. 31056 DESIGN NO. 215



BERM SLOPE LOCATION TABLE

	WEST ABUTMENT			EAST ABUTMENT		
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	3156+73.85	24.42' RT	824.00	3159+32.68	24.42' RT	817.00
A2	3156+79.06	53.00' RT	823.70	3159+37.72	53.00' RT	817.00
A3	3156+86.17	93.58' RT	823.40	3159+44.88	93.58' RT	817.00
A4	3157+15.48	24.42' RT	823.10	3158+69.13	24.42' RT	817.00
A5	3157+19.51	53.00' RT	823.22	3158+53.81	53.00' RT	817.00
A6	3157+26.36	93.58' RT	823.20	3158+45.67	93.58' RT	817.00
A7	3157+55.52	24.42' RT	810.40			
A8	3157+60.53	53.00' RT	810.50			
A9	3157+68.07	93.58' RT	810.35			
B1	3156+46.84	24.42' RT	832.66	3159+71.70	24.42' RT	829.81
B2	3156+51.88	53.00' RT	832.66	3159+76.74	53.00' RT	829.81
B3	3156+58.75	93.58' RT	832.66	3159+84.51	93.58' RT	829.81
G1	3156+40.18	112.08' RT	832.66	3158+51.27	157.75' RT	815.00
G2				3158+50.33	167.75' RT	815.00
G3				3158+64.03	133.05' RT	821.72
G4				3159+28.94	148.47' RT	821.70
G5				3159+48.94	146.31' RT	821.70
G6				3159+11.78	162.75' RT	817.59
G7				3159+62.11	162.75' RT	817.95
G8				3159+28.94	218.62' RT	823.58
G9				3159+48.94	211.58' RT	823.29
G10				3160+01.14	111.43' RT	829.81
G11				3160+26.14	157.75' RT	819.83
G12				3160+26.14	167.75' RT	819.83
W1	3156+29.60	24.42' RT	839.23	3159+90.56	24.42' RT	836.15
W2	3156+40.18	93.58' RT	838.84	3160+01.14	93.58' RT	835.76

W - END WING / EROSION STONE
 BERM SLOPE TABLE ELEVATIONS REFLECT GRADING SURFACE
 G1, G2, G6, G7, G11 AND G12 ARE DITCH FLOW LINE POINTS AT EAST ABUTMENT

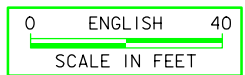
GRADING CONTROL-WEST:
 POINTS A1, A2, A3, A7, A8 AND A9 ARE BANK GRADING CONTROL LINE

GRADING CONTROL-EAST:
 POINTS A1, A2 AND A3 ARE BANK GRADING CONTROL LINE

NOTE: BANK GRADING CONTROL LINE LOCATED AT BASE OF 3:1 SLOPE

UTILITIES LEGEND:

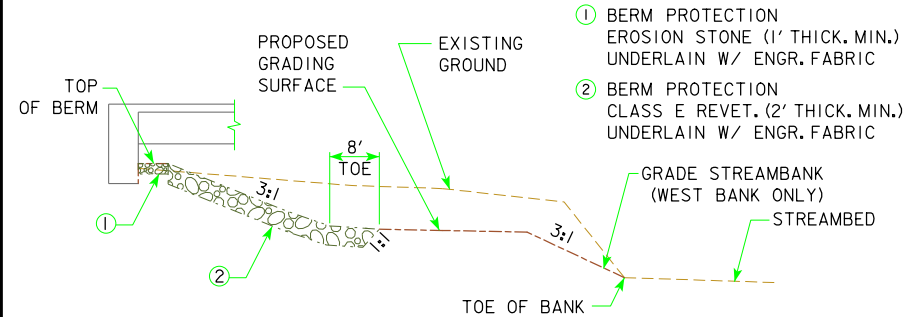
F02 - FIBER OPTIC - IOWA COMMUNICATIONS NETWORK



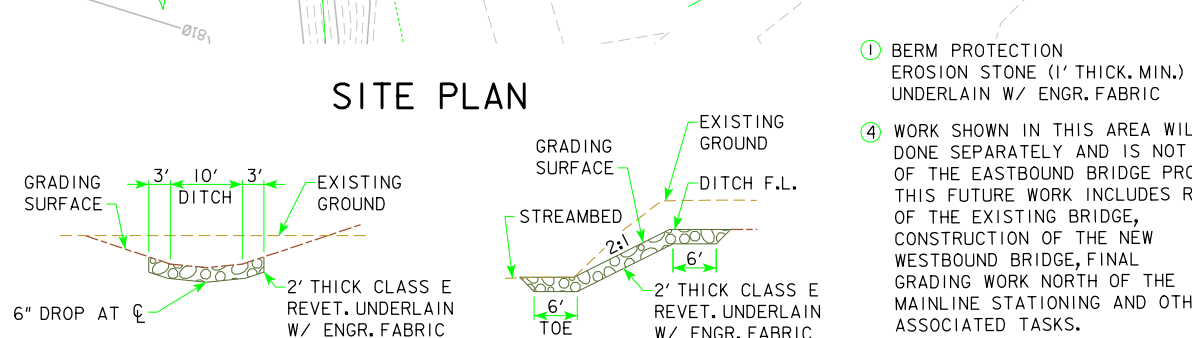
ESTIMATED BERM ARMORING QUANTITIES

LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
BERM LINING - WEST ABUTMENT	310	13	357	200
BERM LINING - EAST ABUTMENT	413	13	460	265
DITCH OUTLET	36		50	22
30 INCH RCAP CULVERT SPLASH PADS	14		28	9
TOTALS	773	26	895	496

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.



TYPICAL SECTION AT BRIDGE BERM AND STREAMBANK



TYPICAL SECTIONS AT DITCH OUTLET

SITE PLAN

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.

David J. Mulholland 3/21/14
 Signature Date

David J. Mulholland
 Printed or Typed Name

My license renewal date is December 31, 2014

Pages or sheets covered by this seal: _____ V.1 AND V.2



DESIGN FOR 10° SKEW R.A.

334'-0 X 60'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

111'-0 END SPANS BTC BEAM 112'-0 INTERIOR SPAN

EASTBOUND BRIDGE SITUATION PLAN-SITE

STATION 3158+14.31, 53.00' RT MARCH 2014

JASPER COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 2 OF 2 FILE NO. 31056 DESIGN NO. 215

NOTE: TOP OF BRIDGE DECK CROWN 0.21' ABOVE PROFILE GRADE.

BENCH MARK NO. 507 STA. 3159+39.12, 28.5' RT, EL. 835.840, CUT TRIANGLE IN SE CORNER BRIDGE GUARD RAIL EB SKUNK RIVER BRIDGE

HYDRAULIC DATA

DRAINAGE AREA = 180 SQ. MI.
 STREAM SLOPE = 5.2 FT./MI.
 Q₂ = 3,180 CFS
 STAGE = 820.49
 CHANNEL VELOCITY = 2.6 FPS

Q₅₀ = 14,300 CFS
 STAGE = 827.57
 BACKWATER = 0.45 FT.
 AVG. BRIDGE VELOCITY = 4.7 FPS

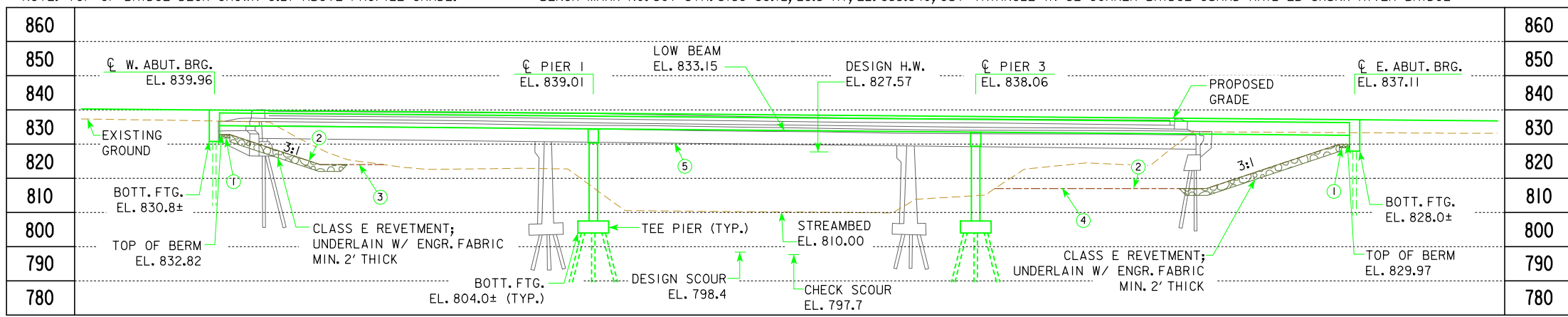
Q₁₀₀ = 16,500 CFS
 STAGE = 828.03
 BACKWATER = 0.62 FT.
 AVG. BRIDGE VELOCITY = 5.2 FPS

Q₂₀₀ = 20,900 CFS
 STAGE = 828.85
 DESIGN SCOUR = EL. 798.4

Q₅₀₀ = 22,300 CFS
 STAGE = 829.09
 CHECK SCOUR = EL. 797.7

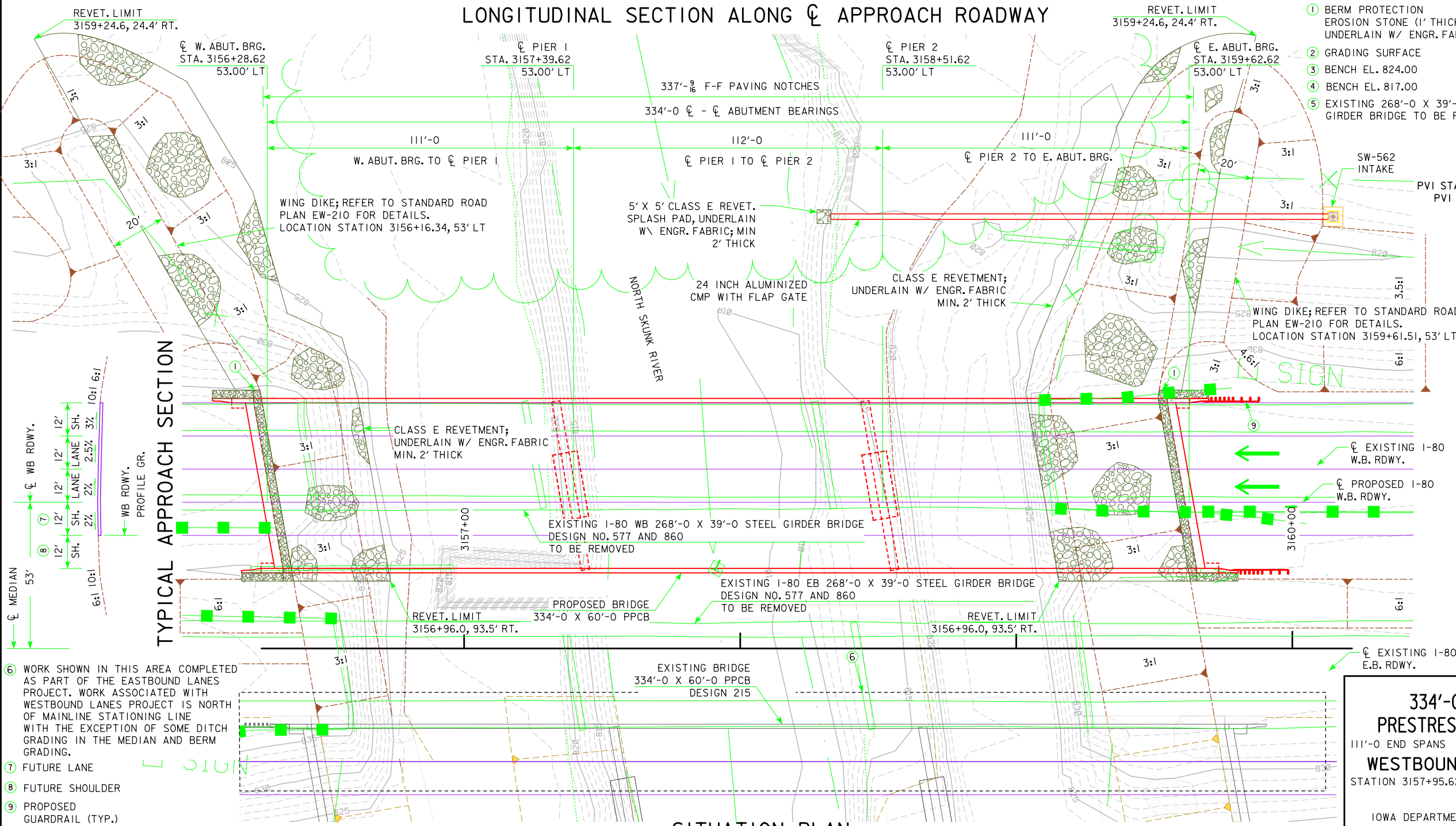
ROADWAY OVERTOP 830.93
 STA. 3168+28.94

EXTREME HW STAGE = 826.3
 DATE UNKNOWN
 AVG. LOW WATER STAGE = 811.0



LONGITUDINAL SECTION ALONG CL APPROACH ROADWAY

- 1 BERM PROTECTION EROSION STONE (1' THICK, MIN.) UNDERLAIN W/ ENGR. FABRIC
- 2 GRADING SURFACE
- 3 BENCH EL. 824.00
- 4 BENCH EL. 817.00
- 5 EXISTING 268'-0 X 39'-0 STEEL GIRDER BRIDGE TO BE REMOVED



SITUATION PLAN

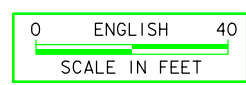
PROPOSED PROFILE I-80

TRAFFIC ESTIMATE

2015 AADT	30,000	V.P.D.
2035 AADT	40,500	V.P.D.
2035 DHV	4,200	V.P.H.
TRUCKS	32	%
TOTAL DESIGN ESALS		

LOCATION

WB I-80 OVER NORTH SKUNK RIVER
 T-80N R-17W
 SECTION 31
 ROCK CREEK TOWNSHIP
 JASPER COUNTY
 BRIDGE MAINT. NO. 5075.5L080
 FHWA NO. 31231
 LATITUDE 41.693345°
 LONGITUDE -92.864588°



DESIGN FOR 10° SKEW R.A.

334'-0 X 60'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

111'-0 END SPANS BTC BEAM 112'-0 INTERIOR SPAN

WESTBOUND BRIDGE SITUATION PLAN

STATION 3157+95.62, 53.00' LT MARCH 2014

JASPER COUNTY

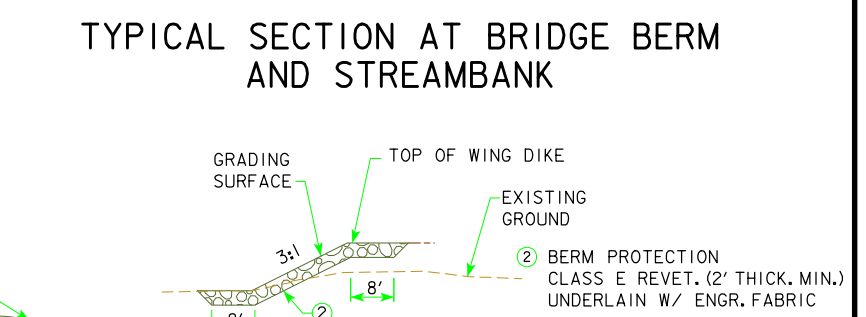
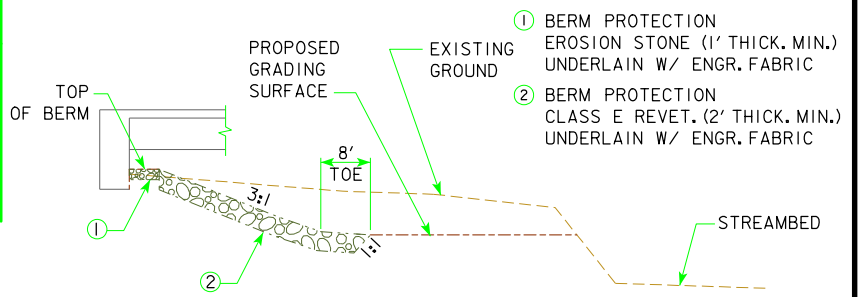
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 2 FILE NO. 31056 DESIGN NO. 117

- 6 WORK SHOWN IN THIS AREA COMPLETED AS PART OF THE EASTBOUND LANES PROJECT. WORK ASSOCIATED WITH WESTBOUND LANES PROJECT IS NORTH OF MAINLINE STATIONING LINE WITH THE EXCEPTION OF SOME DITCH GRADING IN THE MEDIAN AND BERM GRADING.
- 7 FUTURE LANE
- 8 FUTURE SHOULDER
- 9 PROPOSED GUARDRAIL (TYP.)

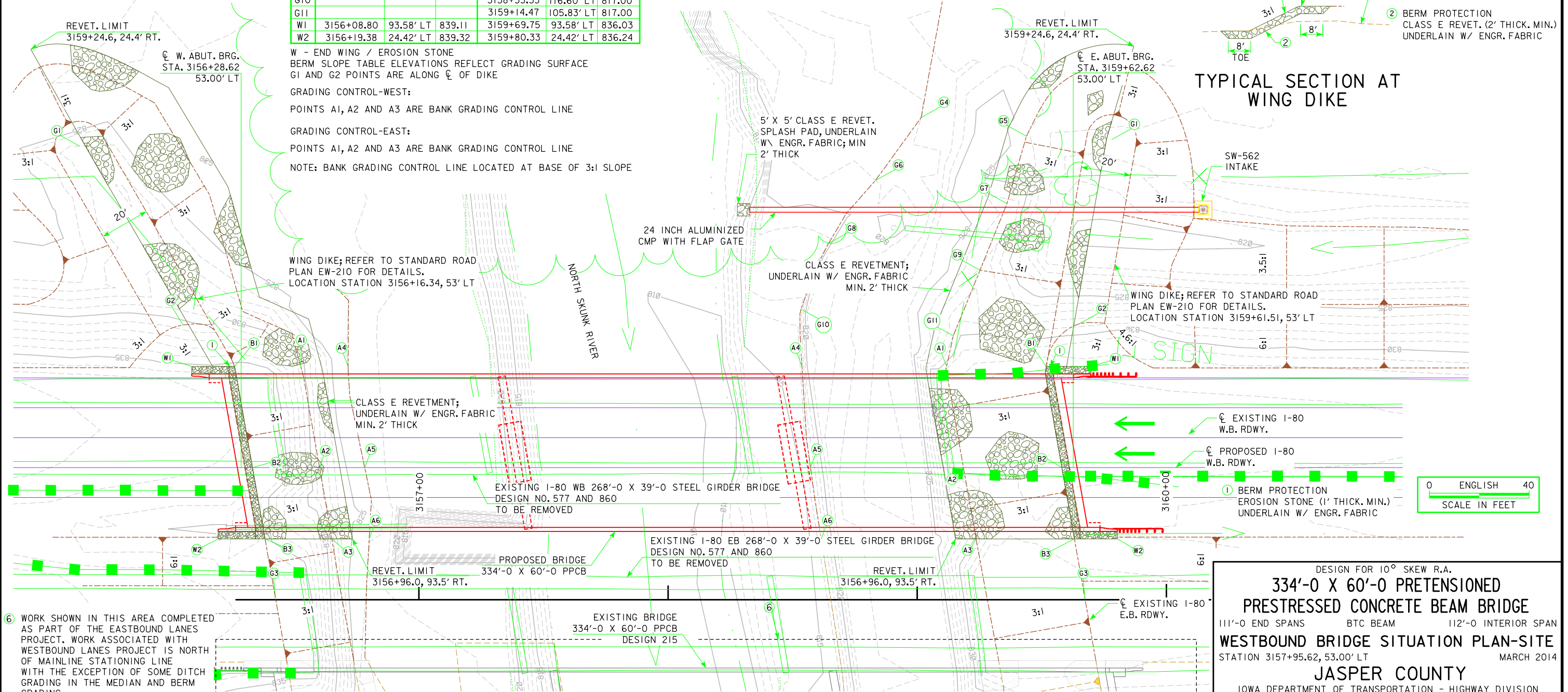
BERM SLOPE LOCATION TABLE						
WEST ABUTMENT			EAST ABUTMENT			
	STATION	OFFSET	ELEV	STATION	OFFSET	ELEV
A1	3156+52.55	93.58' LT	824.00	3159+11.78	93.58' LT	817.00
A2	3156+60.11	53.00' LT	824.00	3159+18.54	53.00' LT	817.00
A3	3156+65.03	24.42' LT	824.00	3159+23.58	24.42' LT	817.00
A4	3156+71.57	93.58' LT	824.00	3158+53.74	93.58' LT	817.00
A5	3156+78.22	53.00' LT	824.00	3158+57.16	53.00' LT	817.00
A6	3156+80.03	24.42' LT	824.00	3158+61.45	24.42' LT	817.00
B1	3156+26.04	93.58' LT	832.82	3159+51.78	93.58' LT	829.97
B2	3156+33.19	53.00' LT	832.82	3159+58.05	53.00' LT	829.97
B3	3156+38.23	24.42' LT	832.82	3159+63.09	24.42' LT	829.97
G1	3155+63.84	181.93' LT	832.82	3159+78.00	184.56' LT	829.97
G2	3156+05.27	110.18' LT	832.82	3159+64.97	110.63' LT	829.97
G3	3156+42.54	0	832.74	3159+67.40	0	829.89
G4				3159+01.56	193.40' LT	822.00
G5				3159+43.83	185.95' LT	822.00
G6				3158+83.24	168.20' LT	821.00
G7				3159+36.01	158.90' LT	821.00
G8				3158+64.39	142.93' LT	819.00
G9				3159+25.21	132.20' LT	819.00
G10				3158+53.35	116.60' LT	817.00
G11				3159+14.47	105.83' LT	817.00
W1	3156+08.80	93.58' LT	839.11	3159+69.75	93.58' LT	836.03
W2	3156+19.38	24.42' LT	839.32	3159+80.33	24.42' LT	836.24

ESTIMATED BERM\WING DIKE ARMORING QUANTITIES				
LOCATION	REVETMENT CL. E (TON)	EROSION STONE (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
BERM\WING DIKE - WEST ABUTMENT	1010	13	1077	631
BERM\WING DIKE - EAST ABUTMENT	1145	13	1196	715
24 INCH CMP SPLASH PAD	3		7	2
TOTALS	2158	26	2280	1348

EXCAVATION QUANTITY CALCULATED FROM GRADING SURFACE.



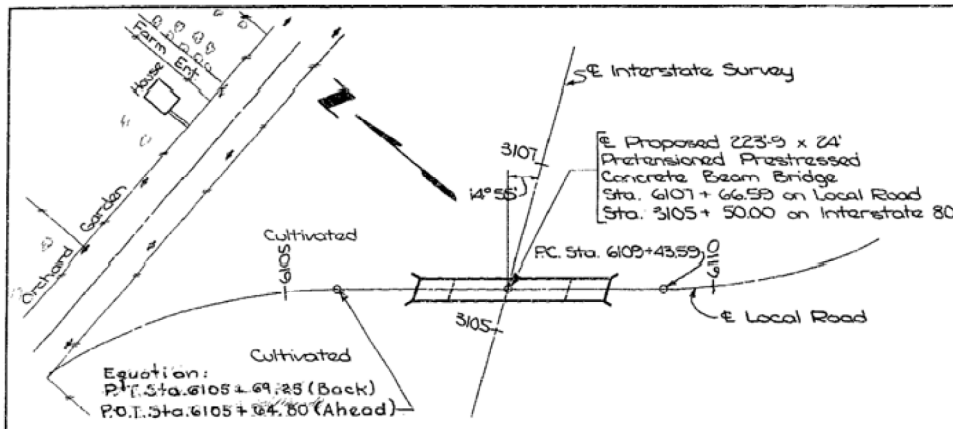
UTILITIES LEGEND:
F02 - FIBER OPTIC - IOWA COMMUNICATIONS NETWORK



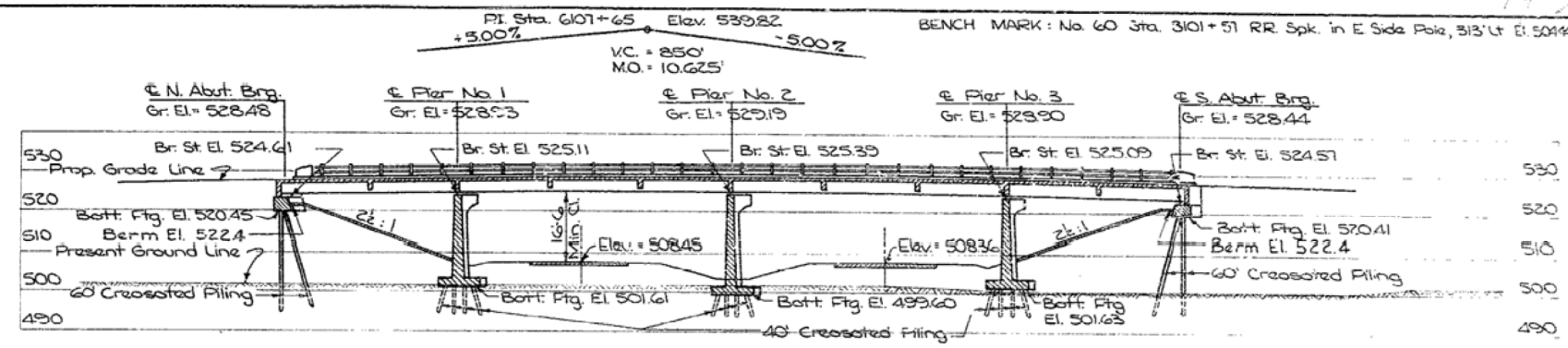
WORK SHOWN IN THIS AREA COMPLETED AS PART OF THE EASTBOUND LANES PROJECT. WORK ASSOCIATED WITH WESTBOUND LANES PROJECT IS NORTH OF MAINLINE STATIONING LINE WITH THE EXCEPTION OF SOME DITCH GRADING IN THE MEDIAN AND BERM GRADING.

DESIGN FOR 10° SKEW R.A.
334'-0 X 60'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
 111'-0 END SPANS BTC BEAM 112'-0 INTERIOR SPAN
WESTBOUND BRIDGE SITUATION PLAN-SITE
 STATION 3157+95.62, 53.00' LT MARCH 2014
JASPER COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 2 OF 2 FILE NO. 31056 DESIGN NO. 117

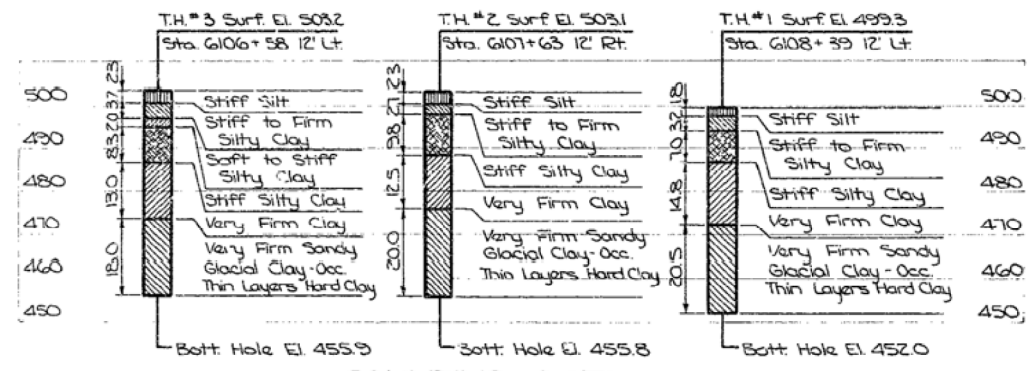
SITE PLAN



GENERAL PLAN
Scale: 1" = 100'-0"



LONGITUDINAL SECTION ALONG ROADWAY
Scale: 1" = 20'-0"



SOUNDING DATA
Scale: 1" = 20'-0" Dated: 12-9-60

GENERAL NOTES:

This bridge is designed for H15-44 loading. Bents are not a part of this estimate, but are to be in place before abutment piles are driven.

Abutment piles are to be driven in oversize holes drilled through the fill to elevation 500.0. The minimum diameter of the drilled holes is to be 4 inches greater than the diameter of the pile 3 feet from the butt. Voids around piles are to be filled with dry sand. No separate payment will be made for drilling holes or filling voids since it is considered incidental to driving piles.

The formed steel beam rails and creosoted posts at the ends of the bridge, as detailed on the "Situation Plan", this sheet, and on the "Superstructure Details", sheet 4, are to be furnished and placed by others.

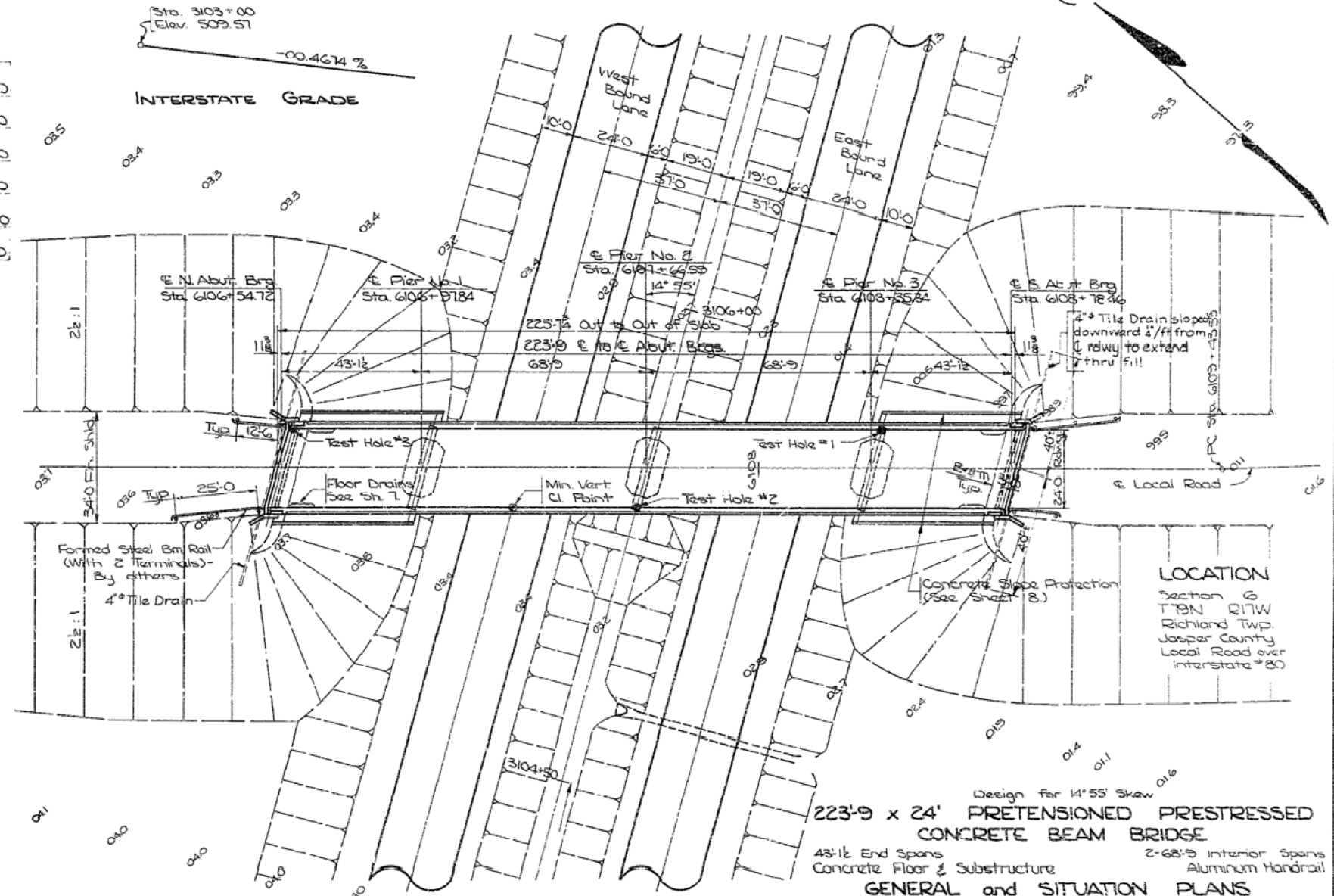
The Bridge Contractor is to level off bents and construct "Concrete Slope Protection" as shown on this sheet and as detailed on sheet 8.

Design stresses for the following materials are in accordance with AASHTO Standard Specifications for Highway Bridges, Series of 1951.

Reinforcing steel in accordance with Section 14.12 "Reinforcement" for Intermediate, Hard or Rail Steel Grade.

Concrete in accordance with Section 14.11 $f'_c = 3500$ psi.

The Contractor is to install the tile drain behind each abutment as detailed. The price bid for "Tile Drain" is to include the excavation necessary for installation.



SITUATION PLAN
Scale: 1" = 20'-0"

TOTAL ESTIMATED QUANTITIES					
Item	Unit	2 Abuts	3 Piers	Superstr.	Total
Concrete	cu yd	38.6	108.5	181.3	328.4
Reinforcing Steel	lb	3822	13,887	44,728	67,437
Pretensioned Prestressed Concrete Beams	ea.	42-6	67-6	8	8
Creosoted Piles	lin ft.	1080	2640		3720
Class 20 Excavation	cu yd	125	155		280
Granular Backfill	tons	140			140
Aluminum Handrail (E- & End Posts)	lin. ft.				429.3
Concrete Slope Protection	sq yd				352
4" Tile Drain	lin ft.				160

SPECIFICATIONS:

Design: AASHTO, Series of 1951.
Construction: Standard Specification of the Iowa State Highway Commission, Series of 1960, plus current special provisions.

223'-9 x 24' PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

43'-12" End Spans 2-68'-9" Interior Spans
Concrete Floor & Substructure Aluminum Handrail

GENERAL and SITUATION PLANS

Station: 3105+50.00 on Interstate #80
Station: 6107+66.53 on Local Road
Proj. No. I-80-5(4)178

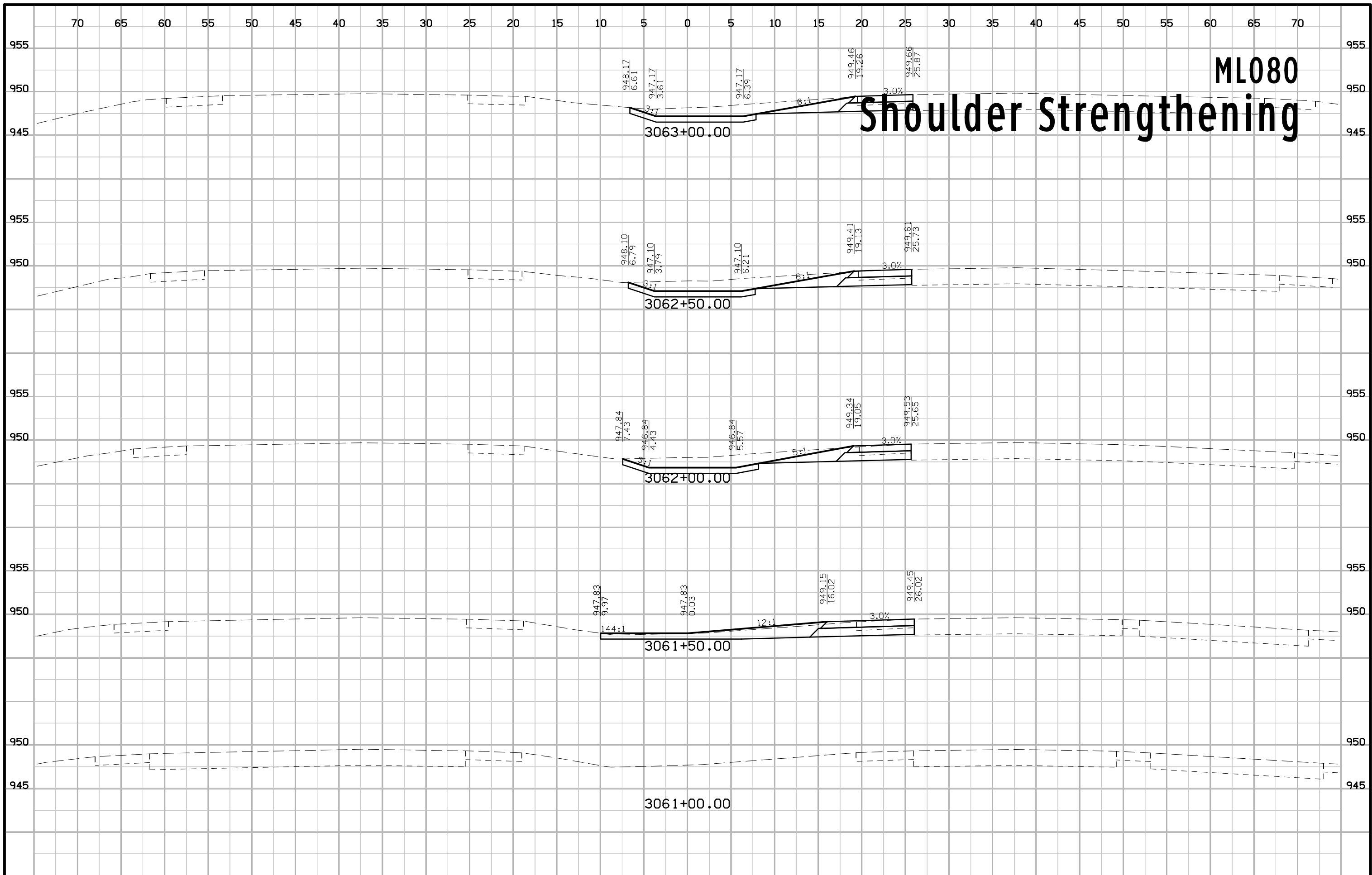
JASPER COUNTY

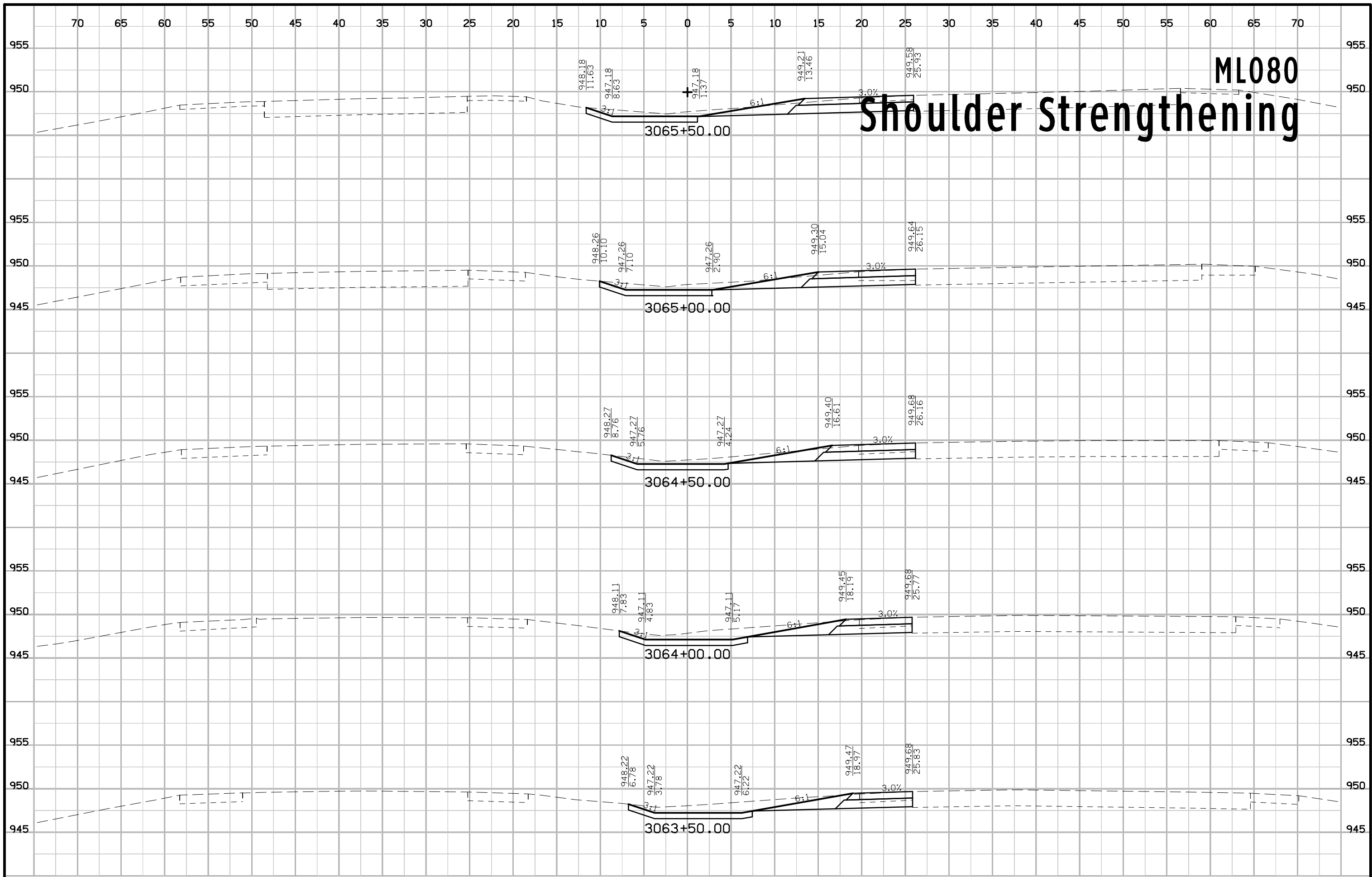
Iowa State Highway Commission
January 1961 Sheet 1 of 8

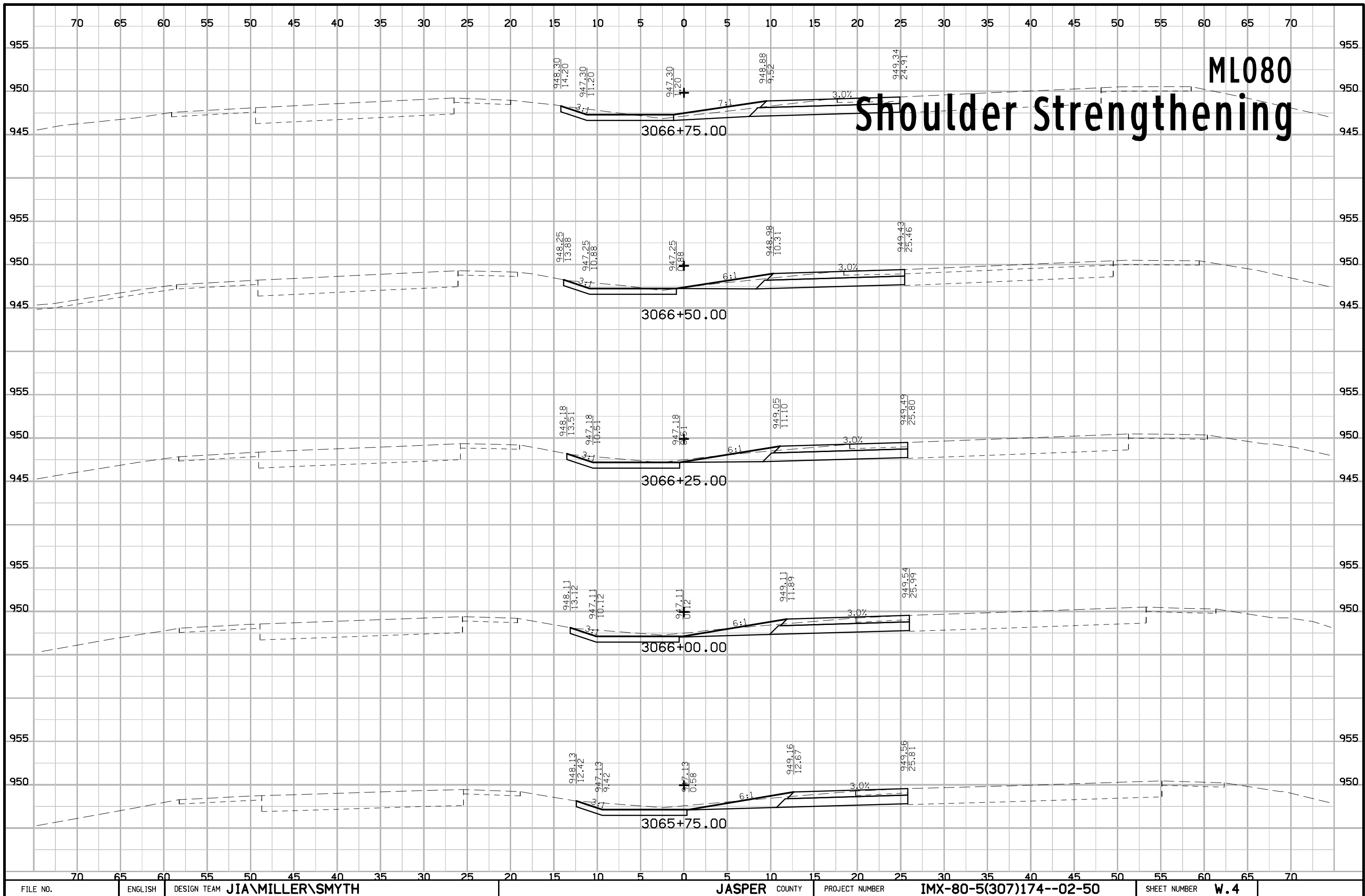
Design #1260 Jasper County File No. 20989

Designed by: wpe Traced by: [Signature]

For Information Only

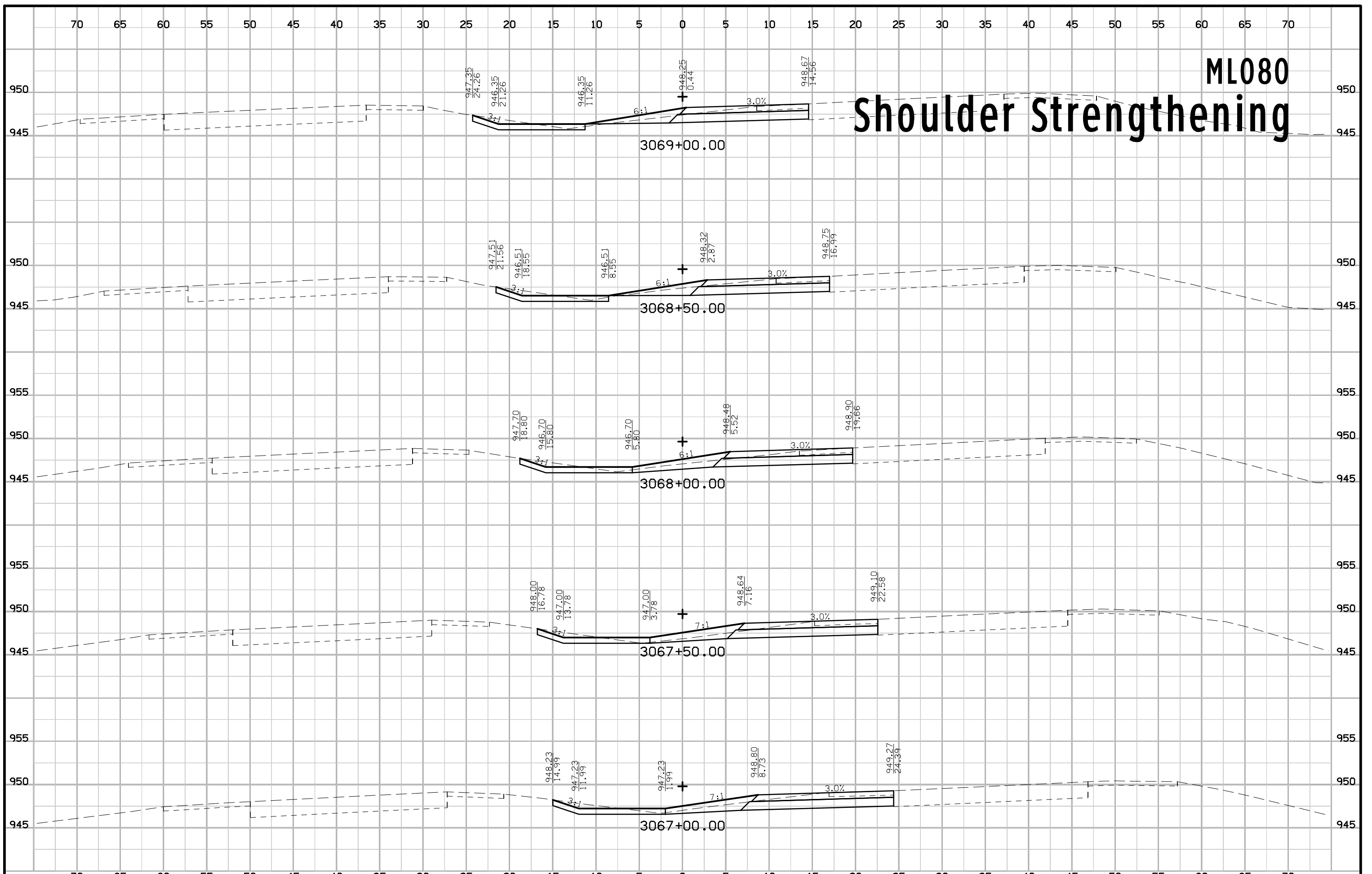




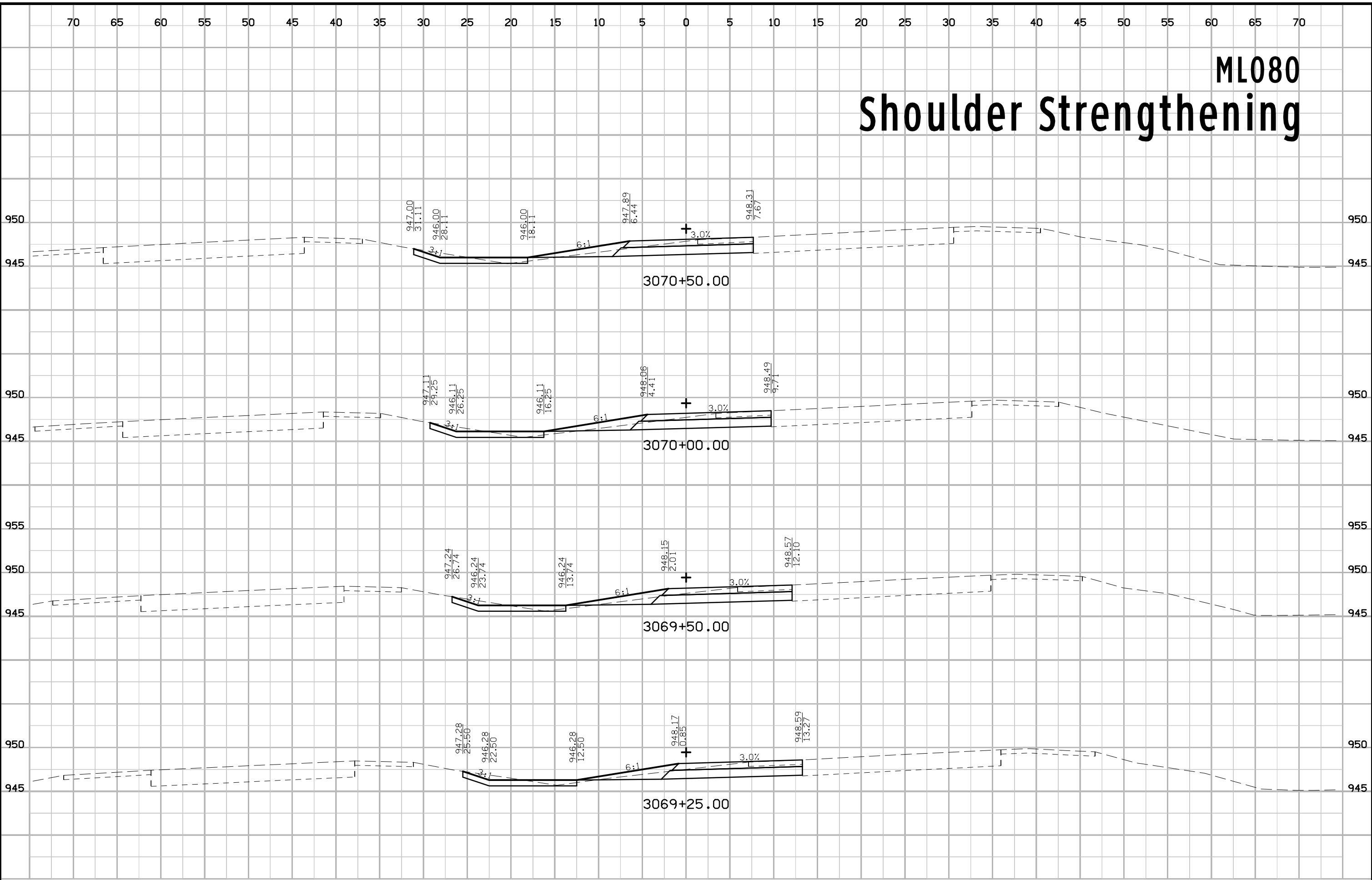


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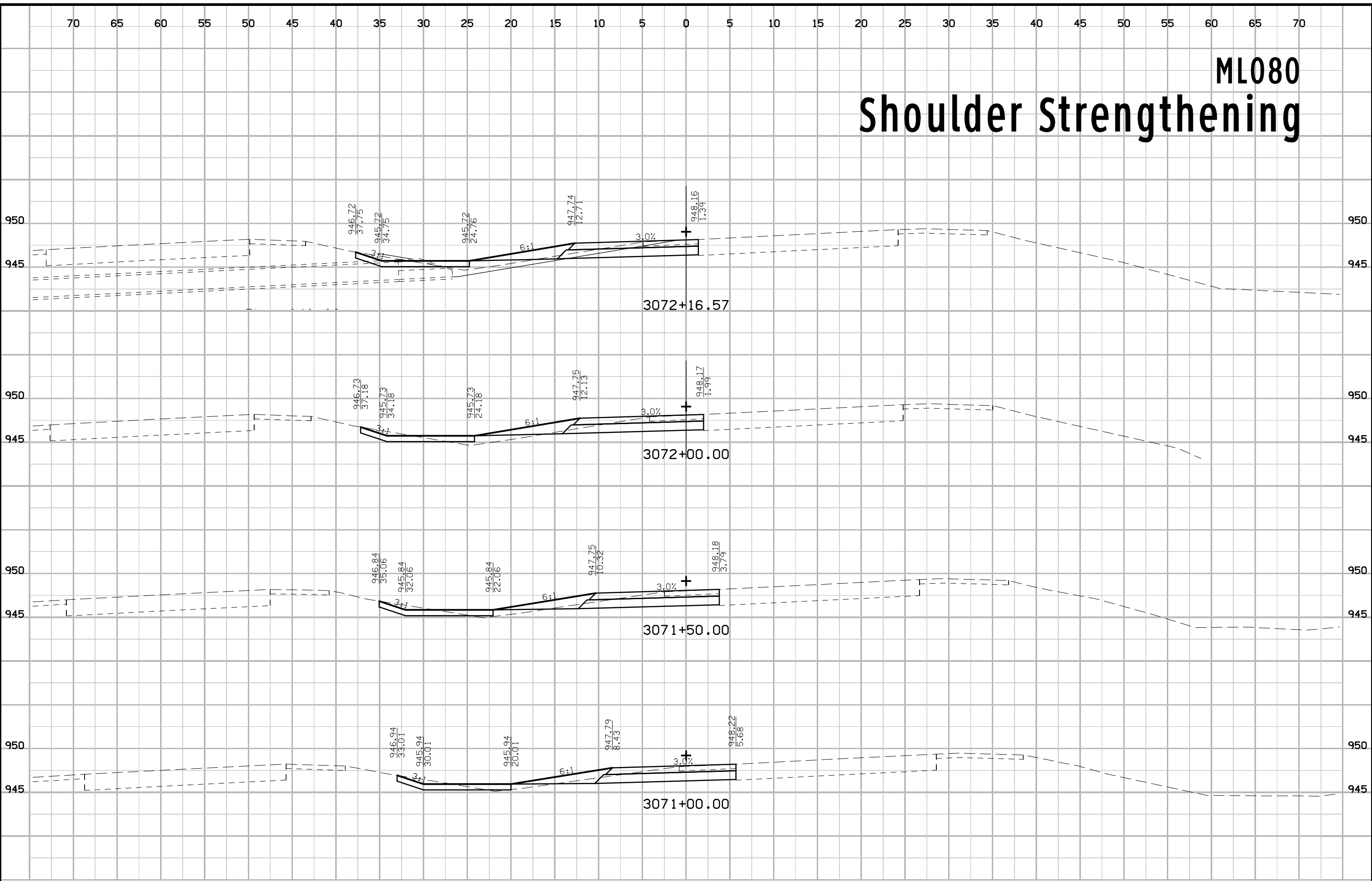
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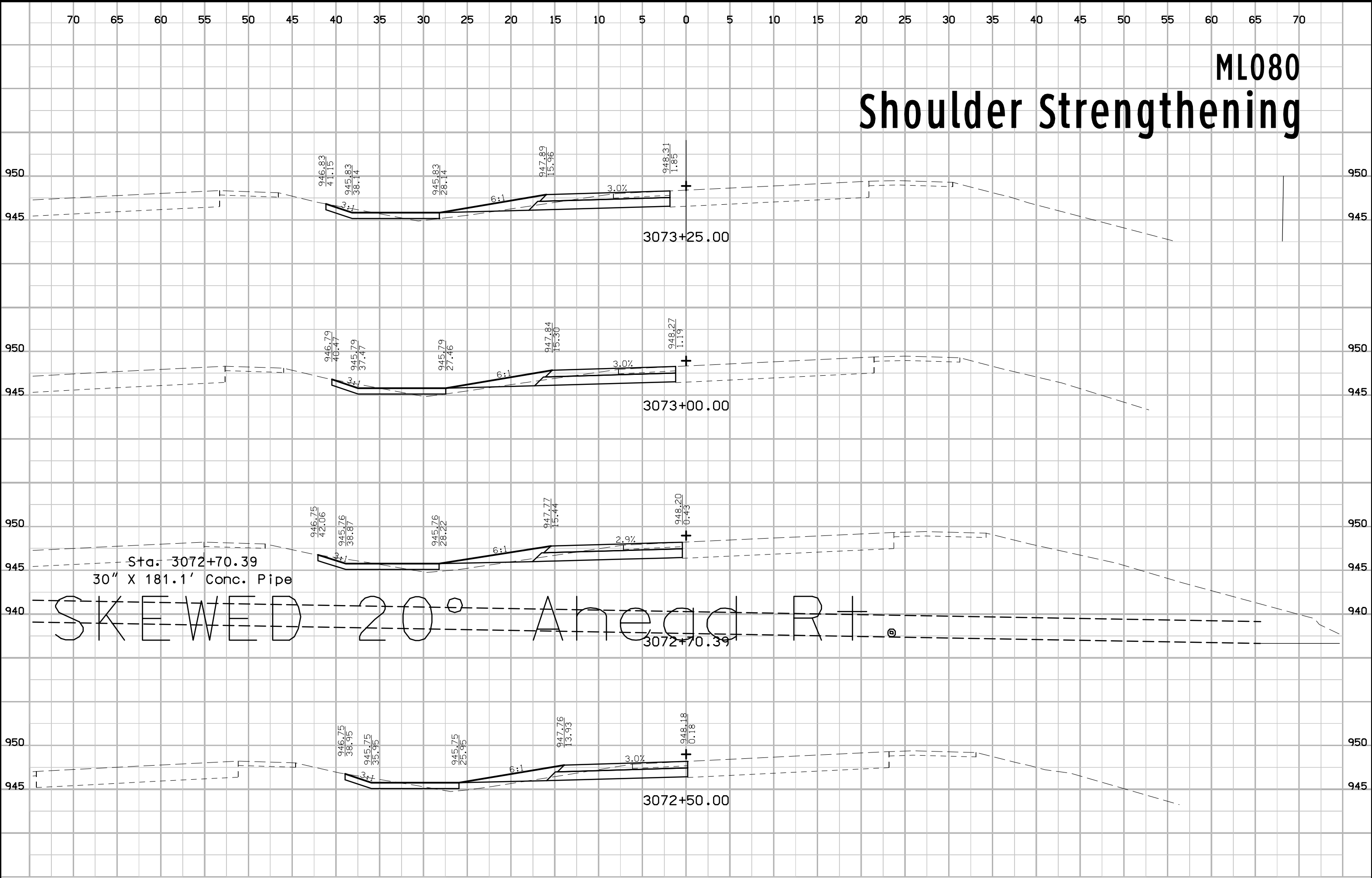
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ML080 Shoulder Strengthening

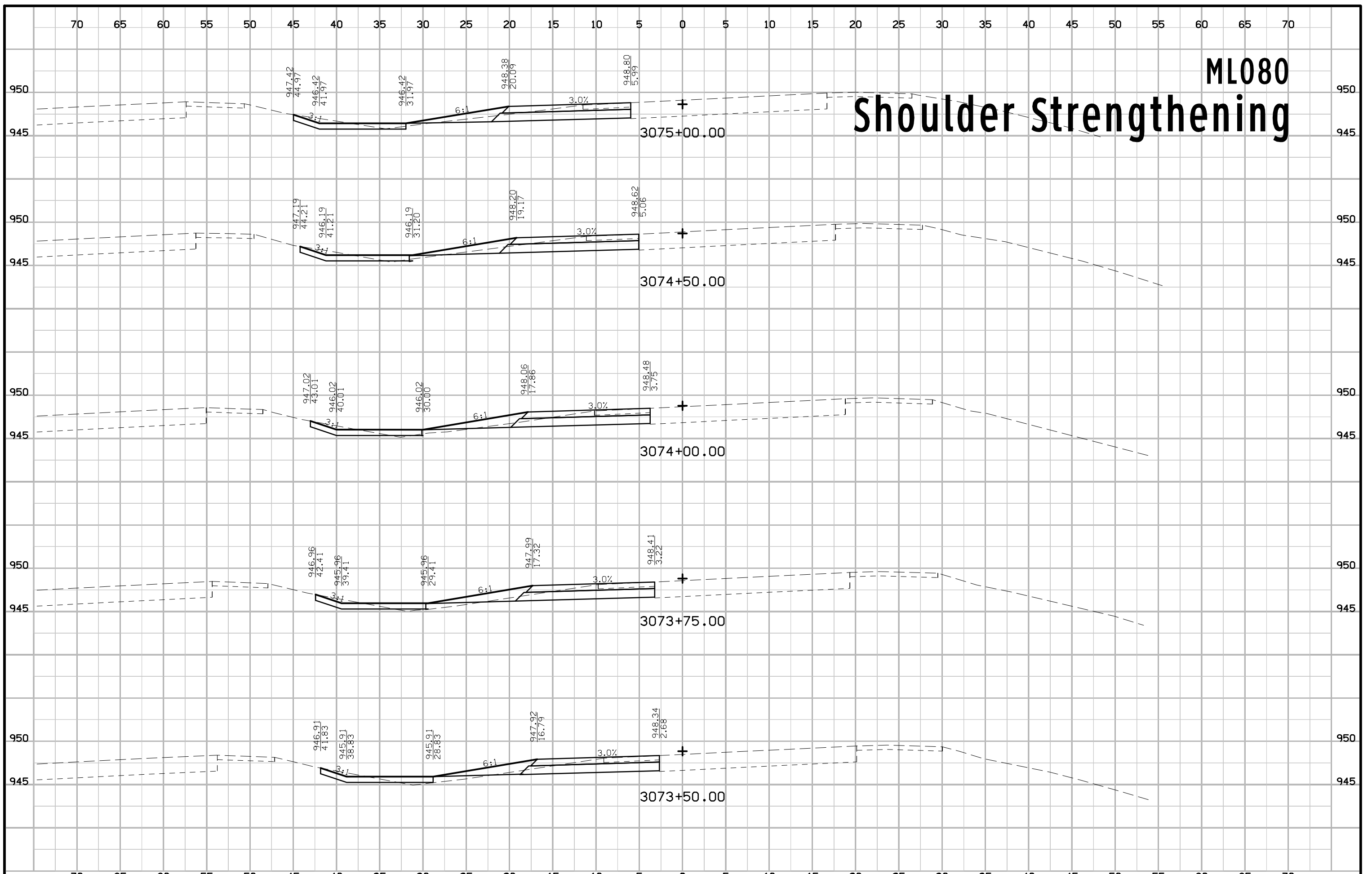


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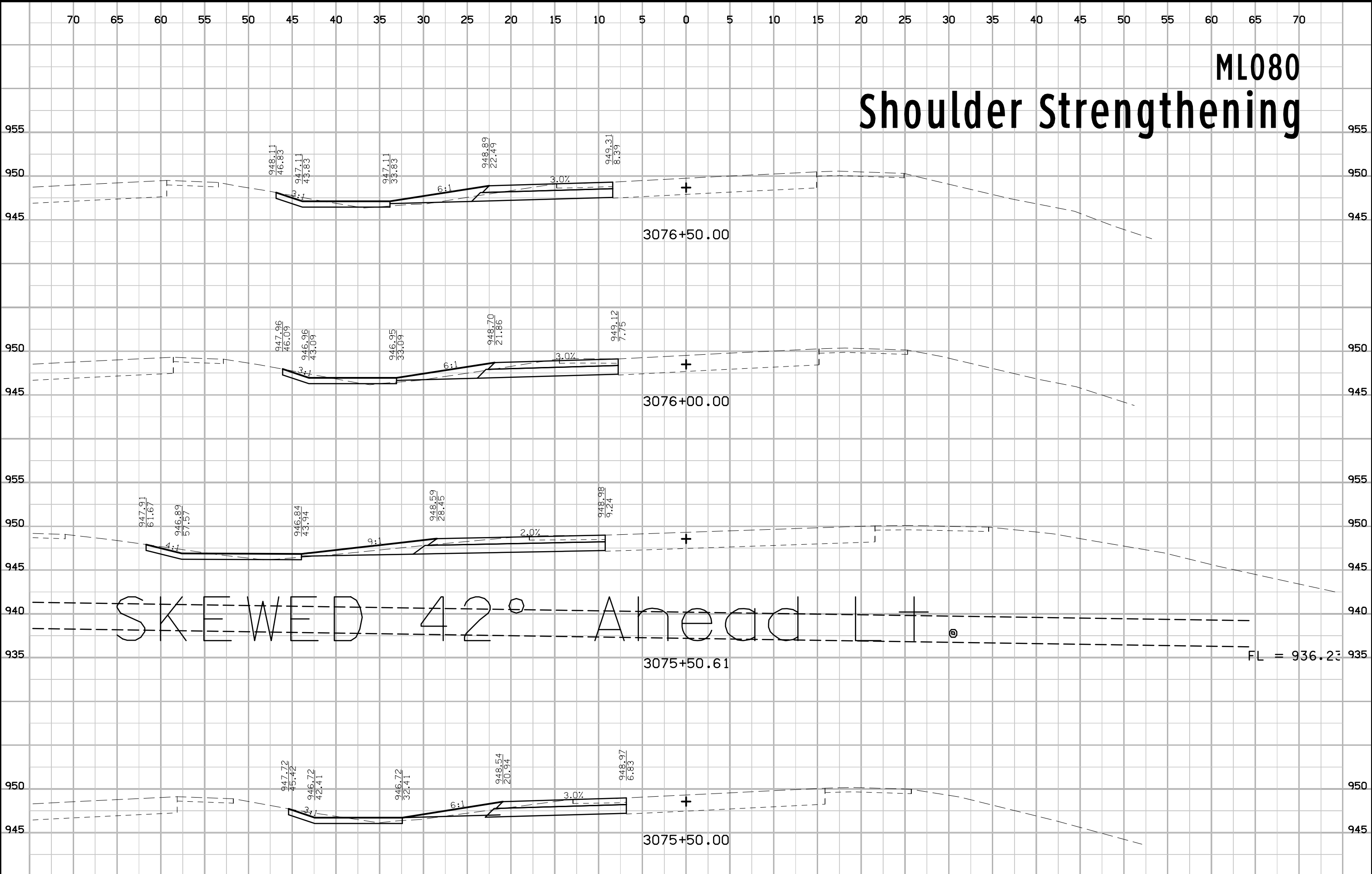


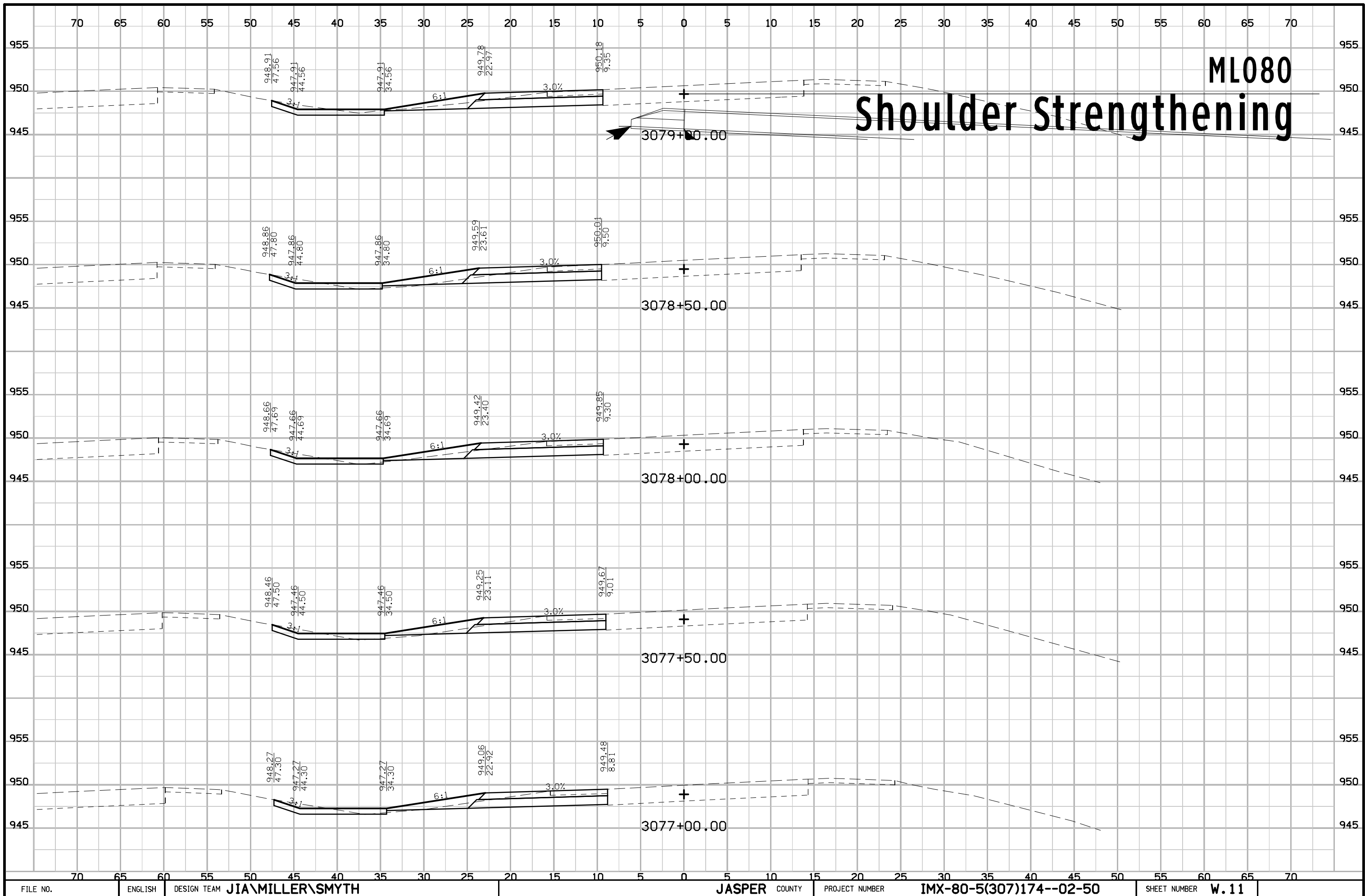
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Shoulder Strengthening



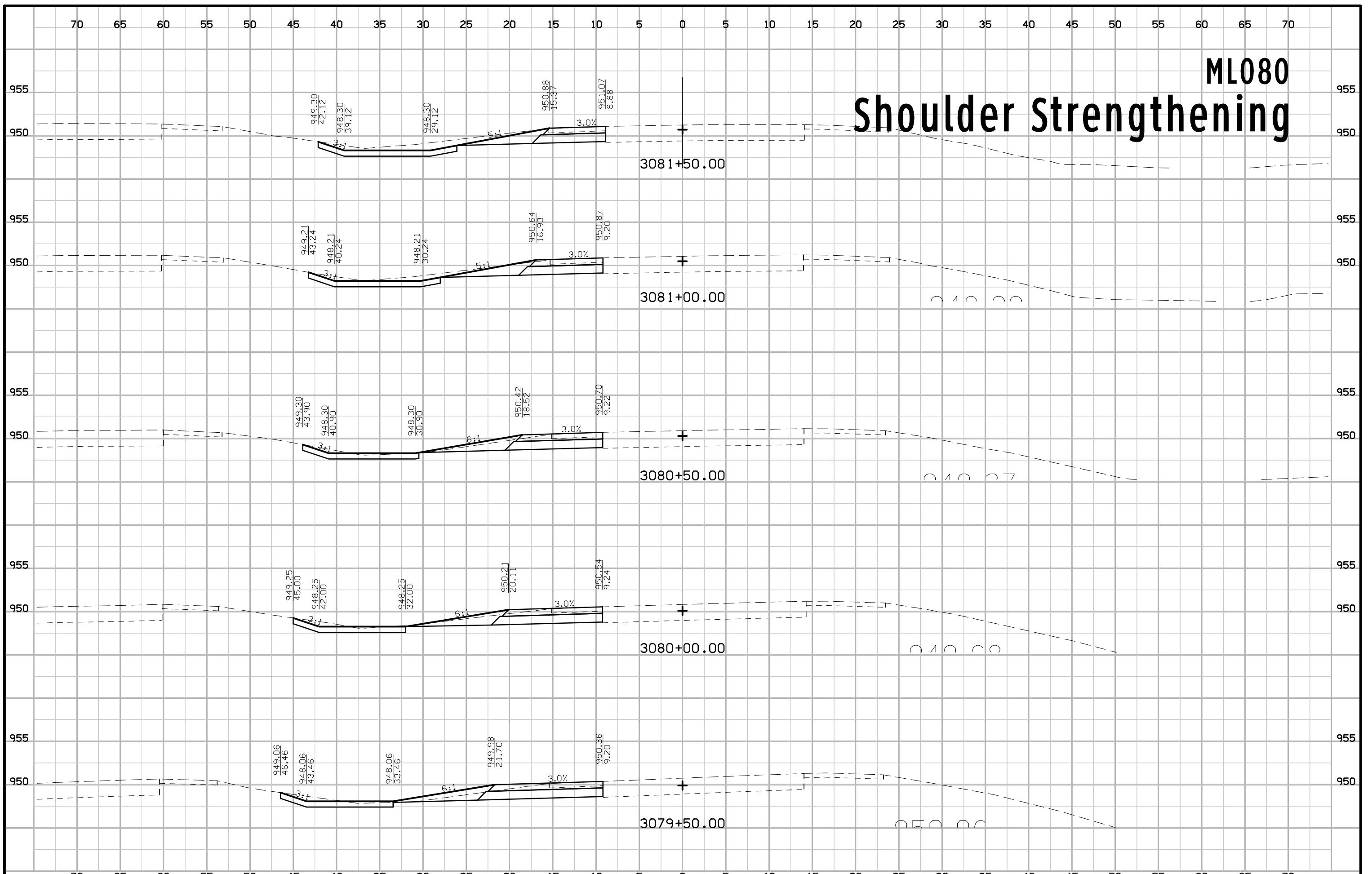
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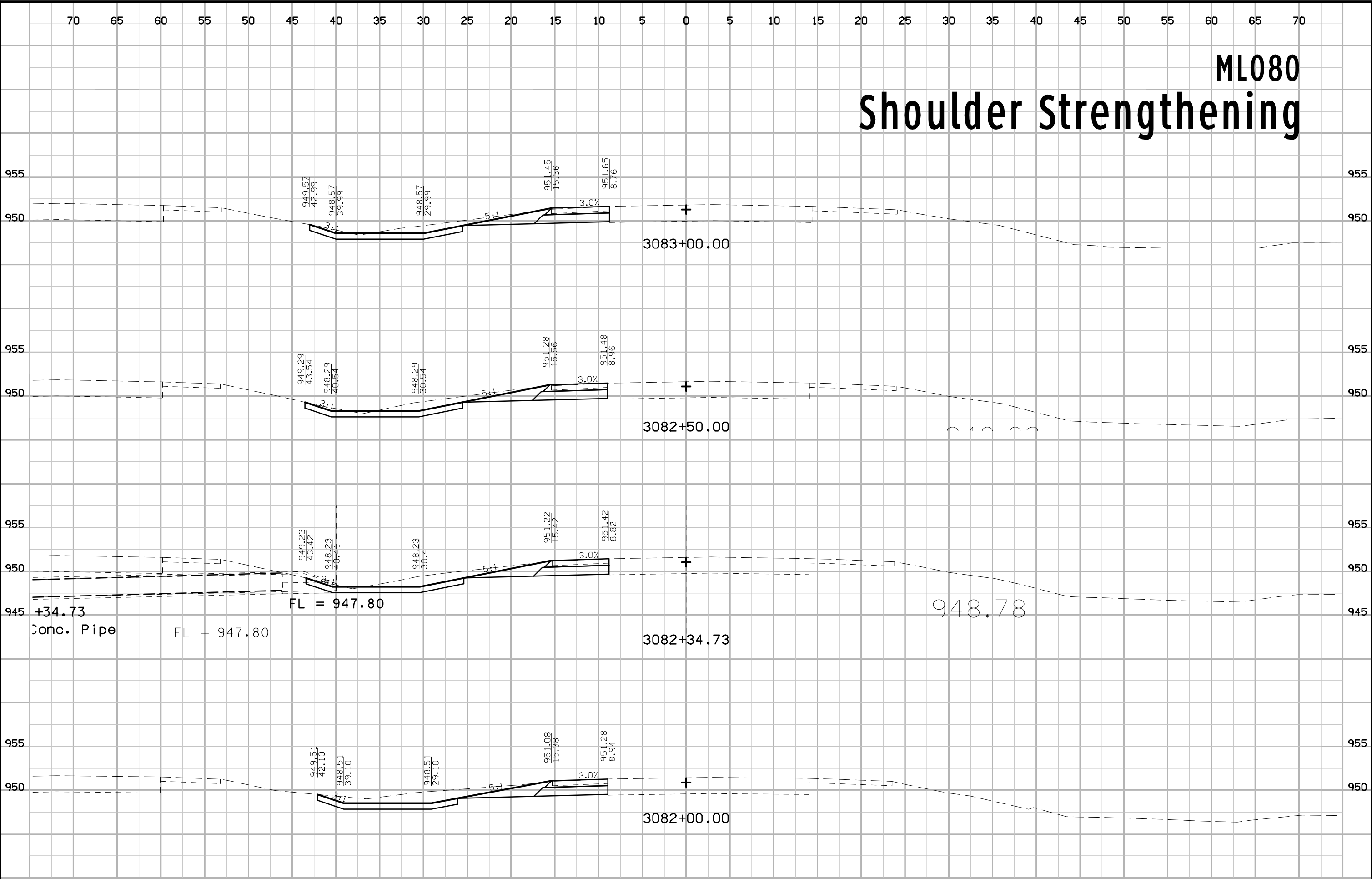


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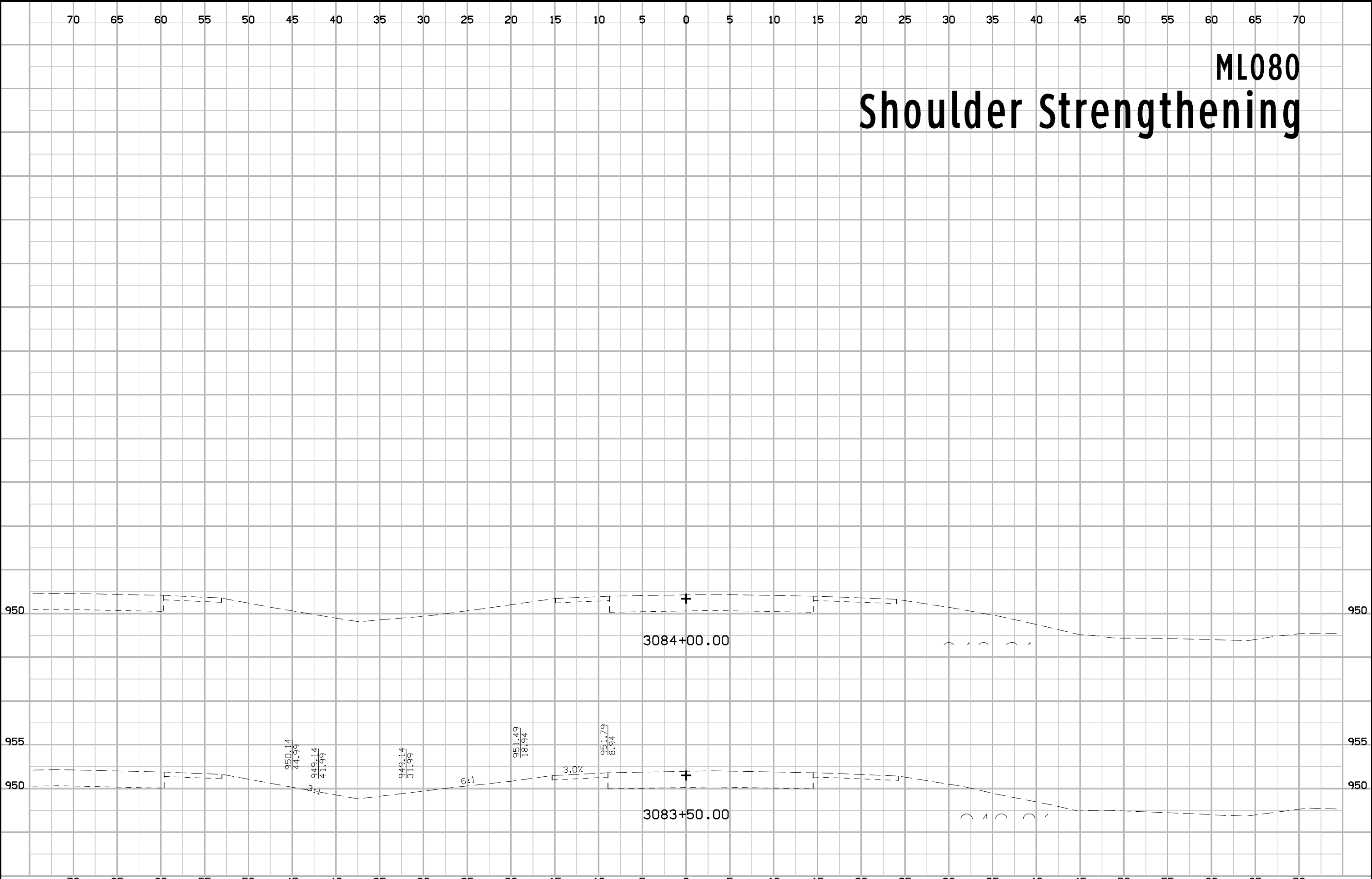
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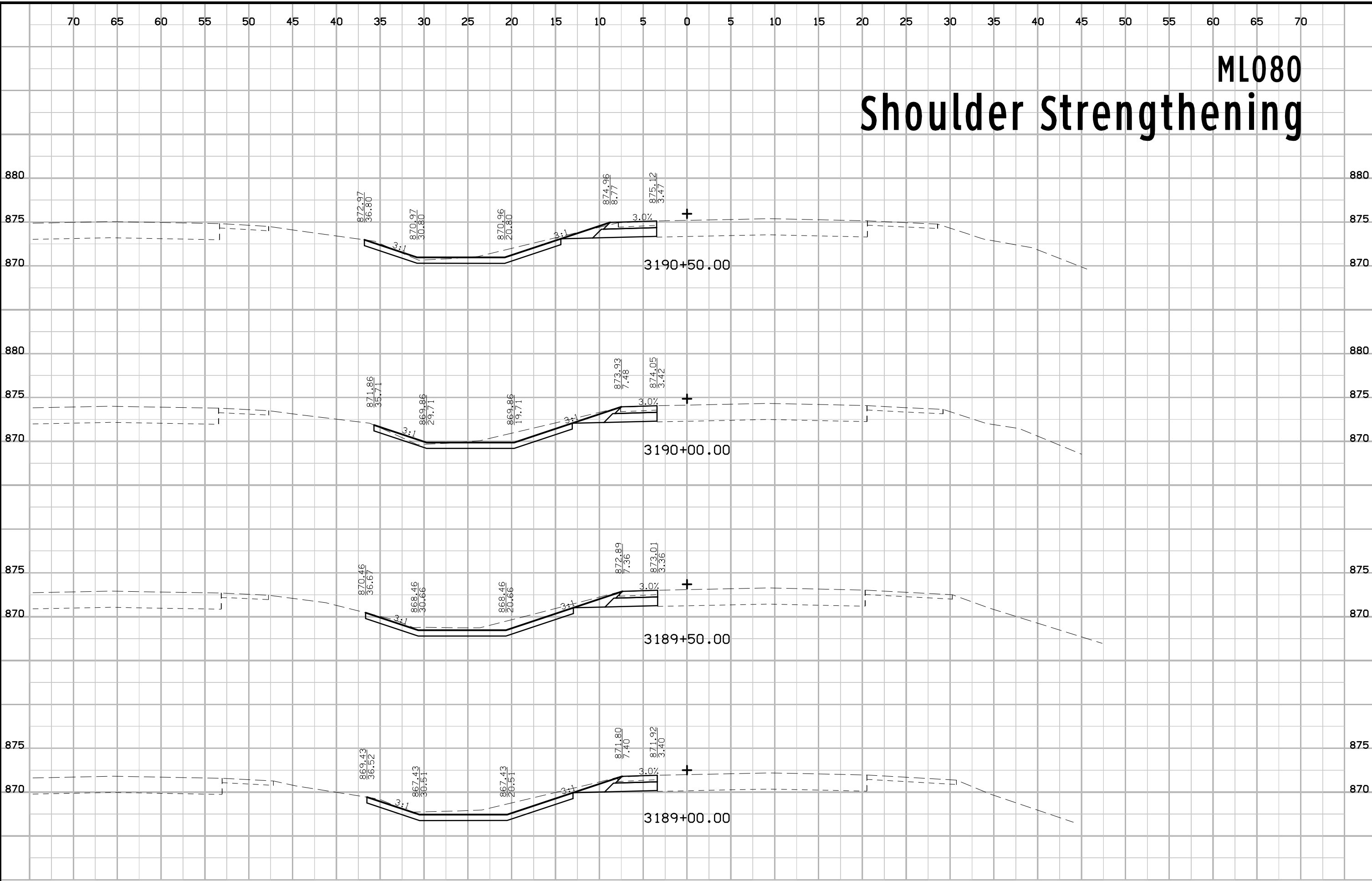
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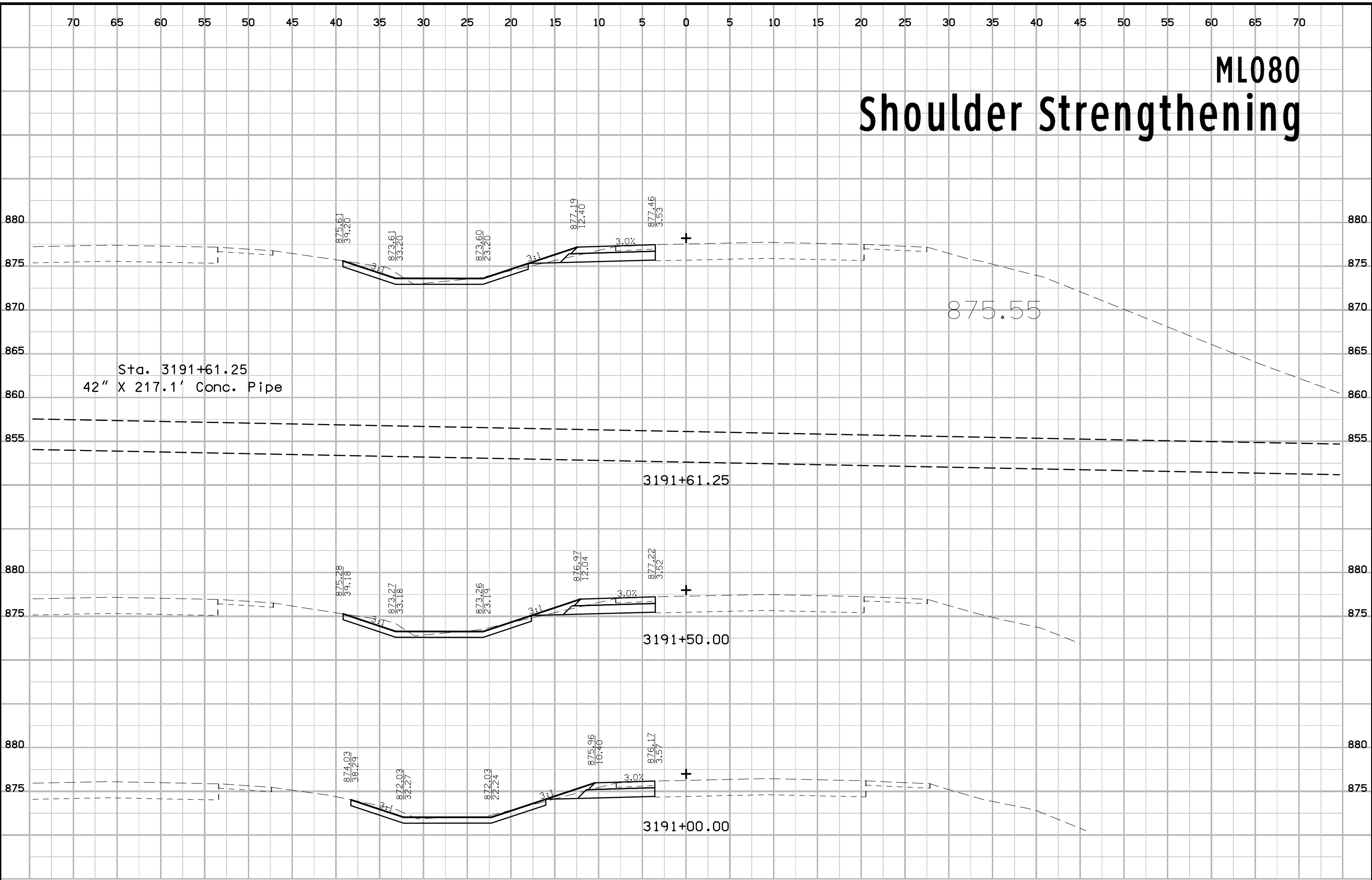
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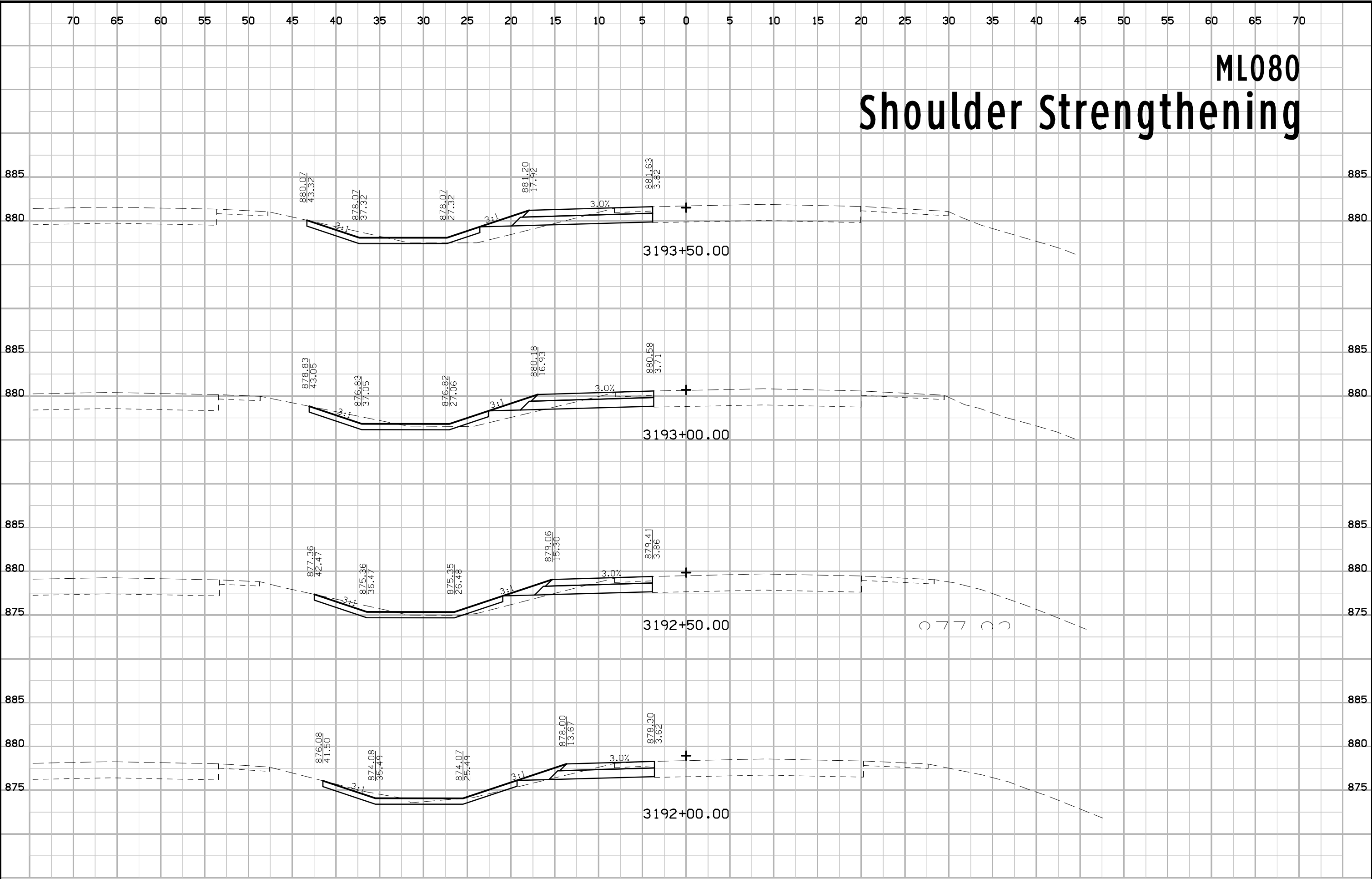
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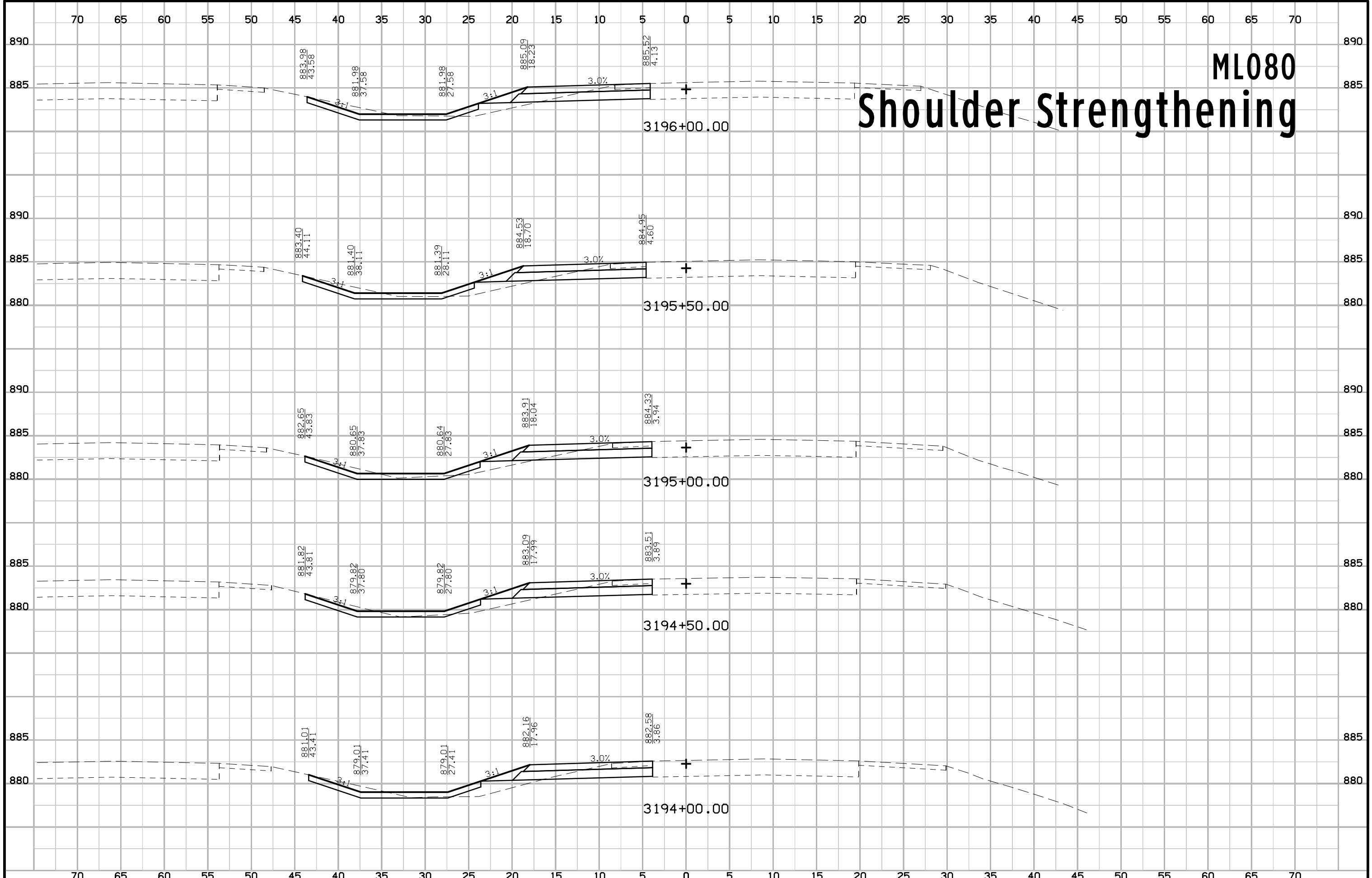
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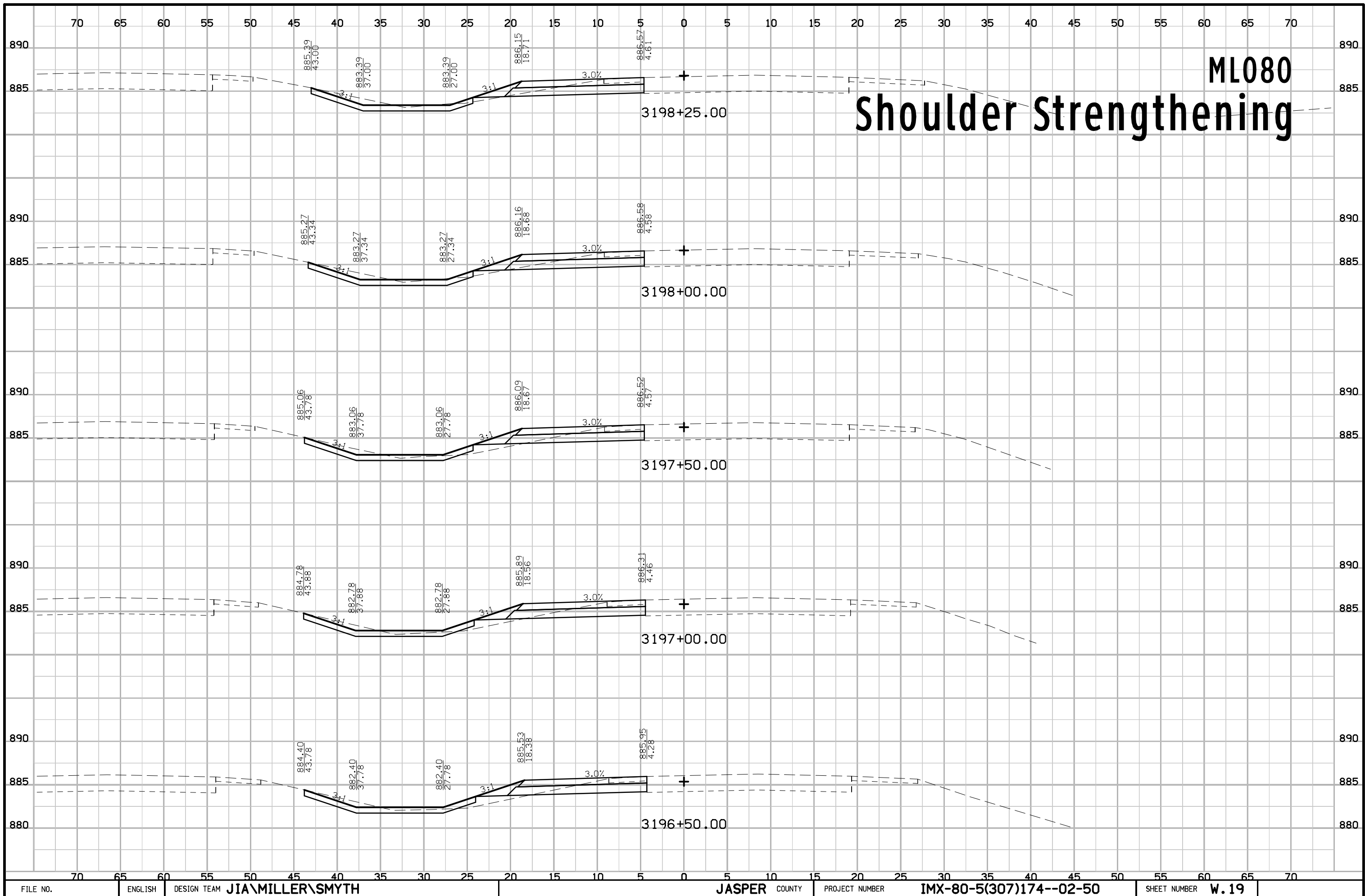


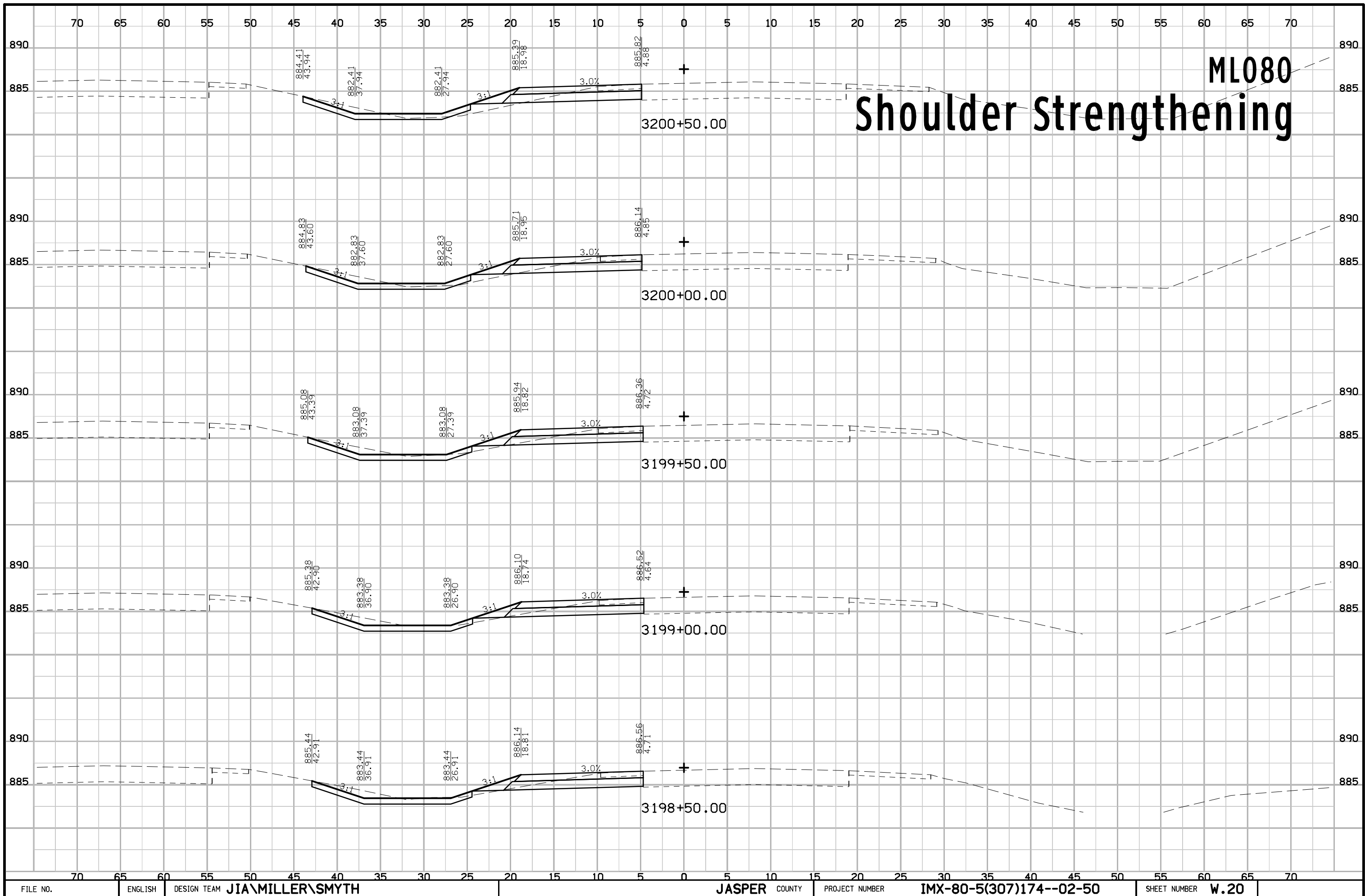
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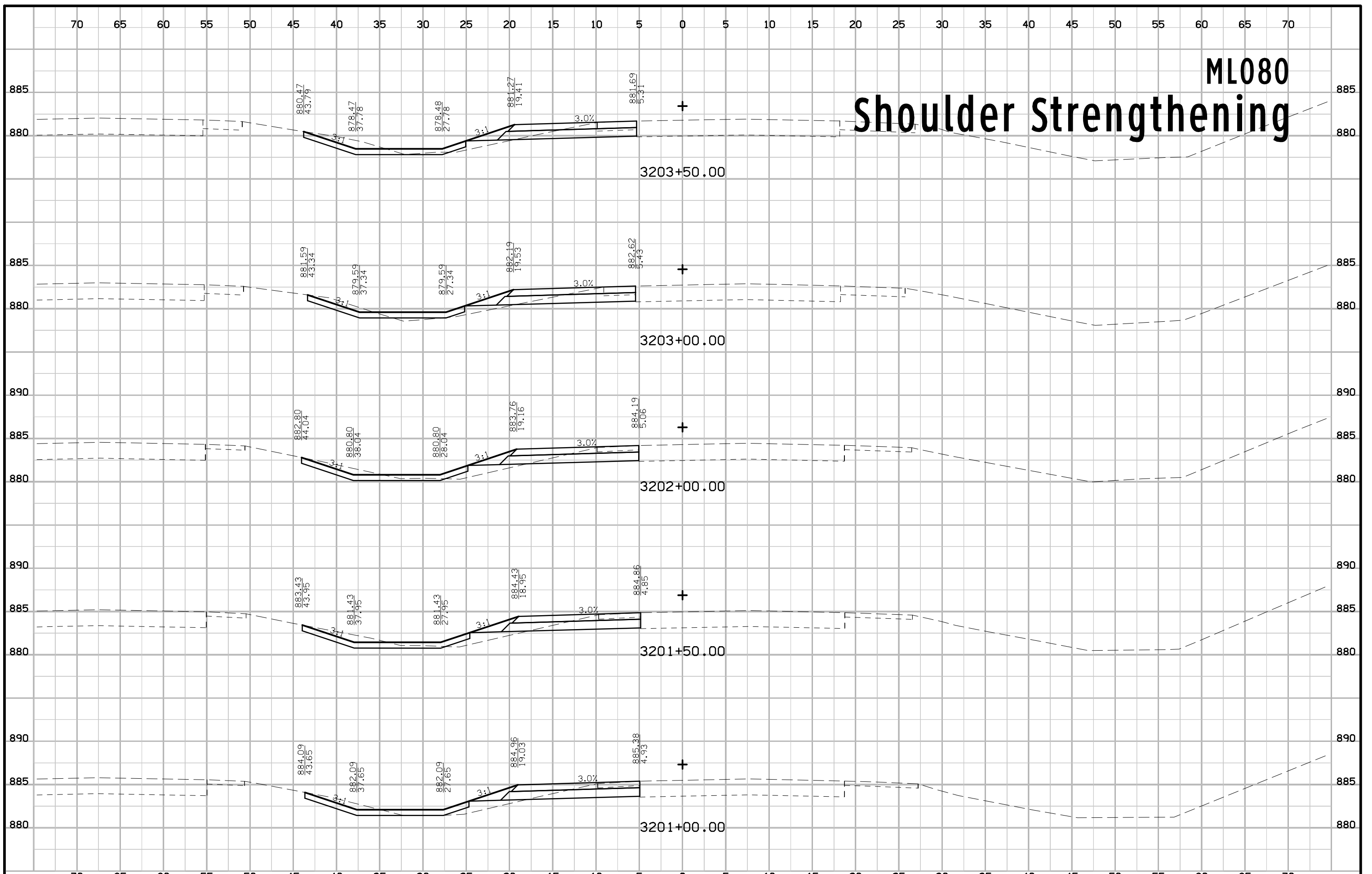




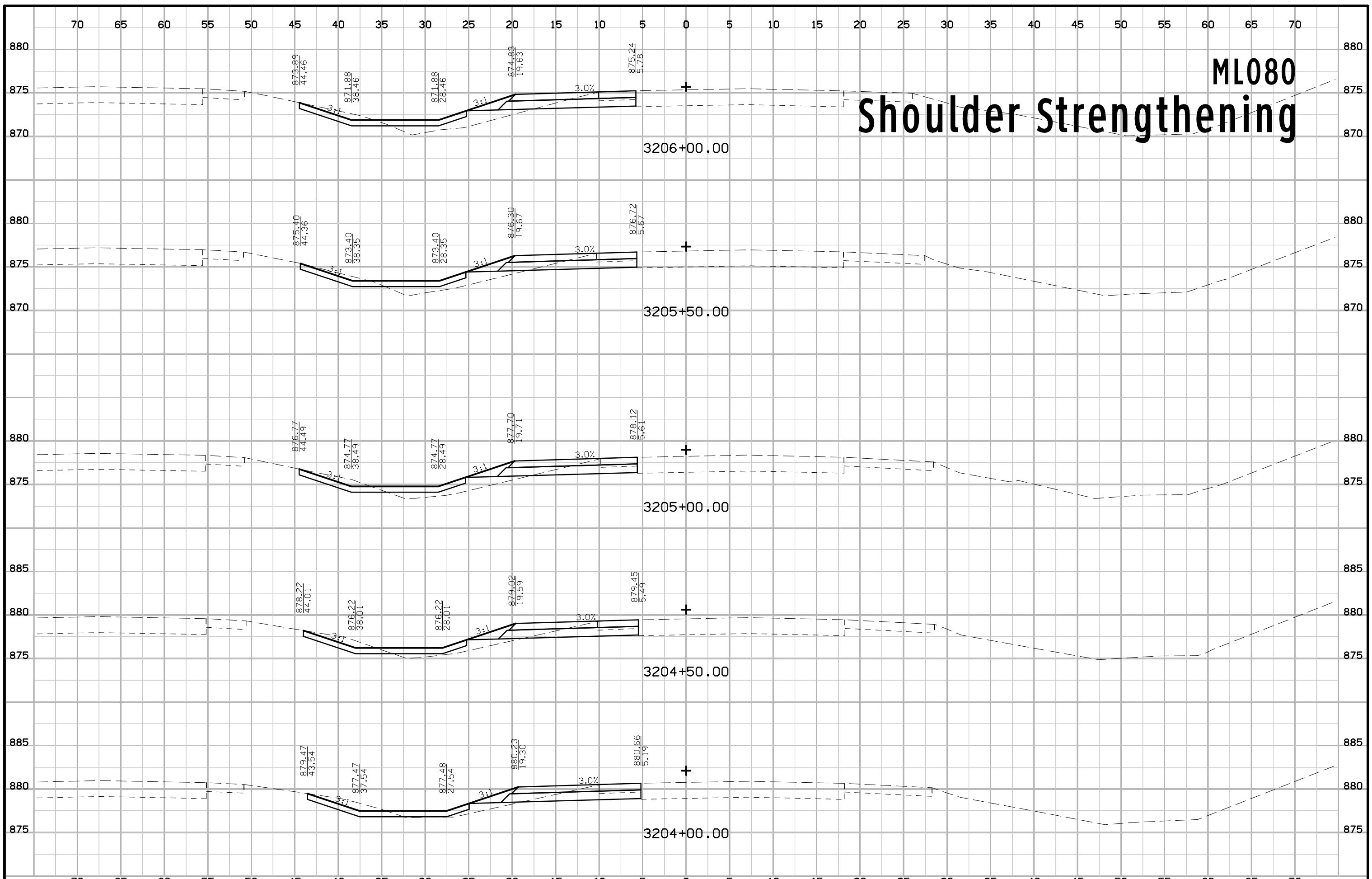


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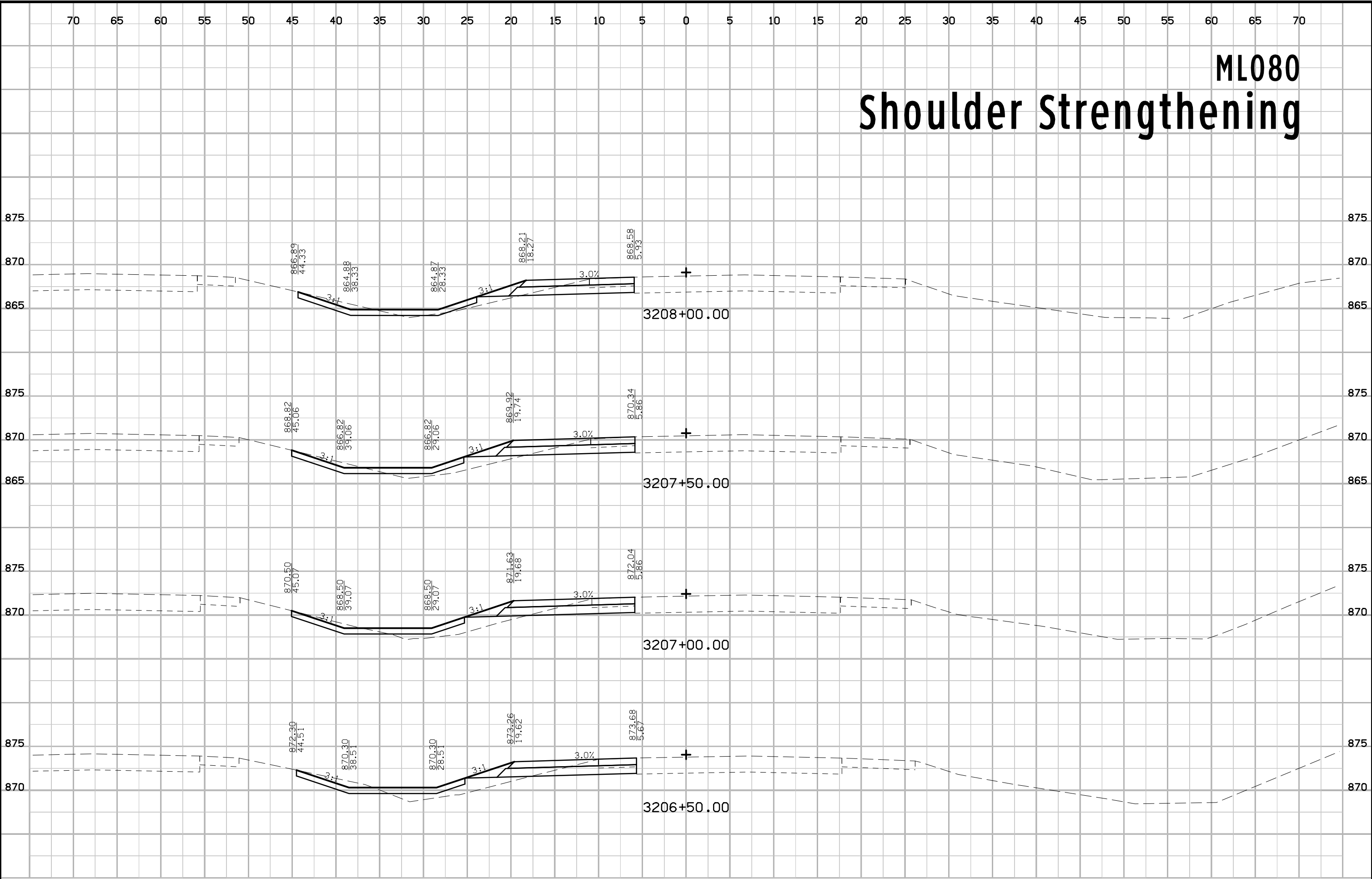
Shoulder Strengthening



ML080 Shoulder Strengthening

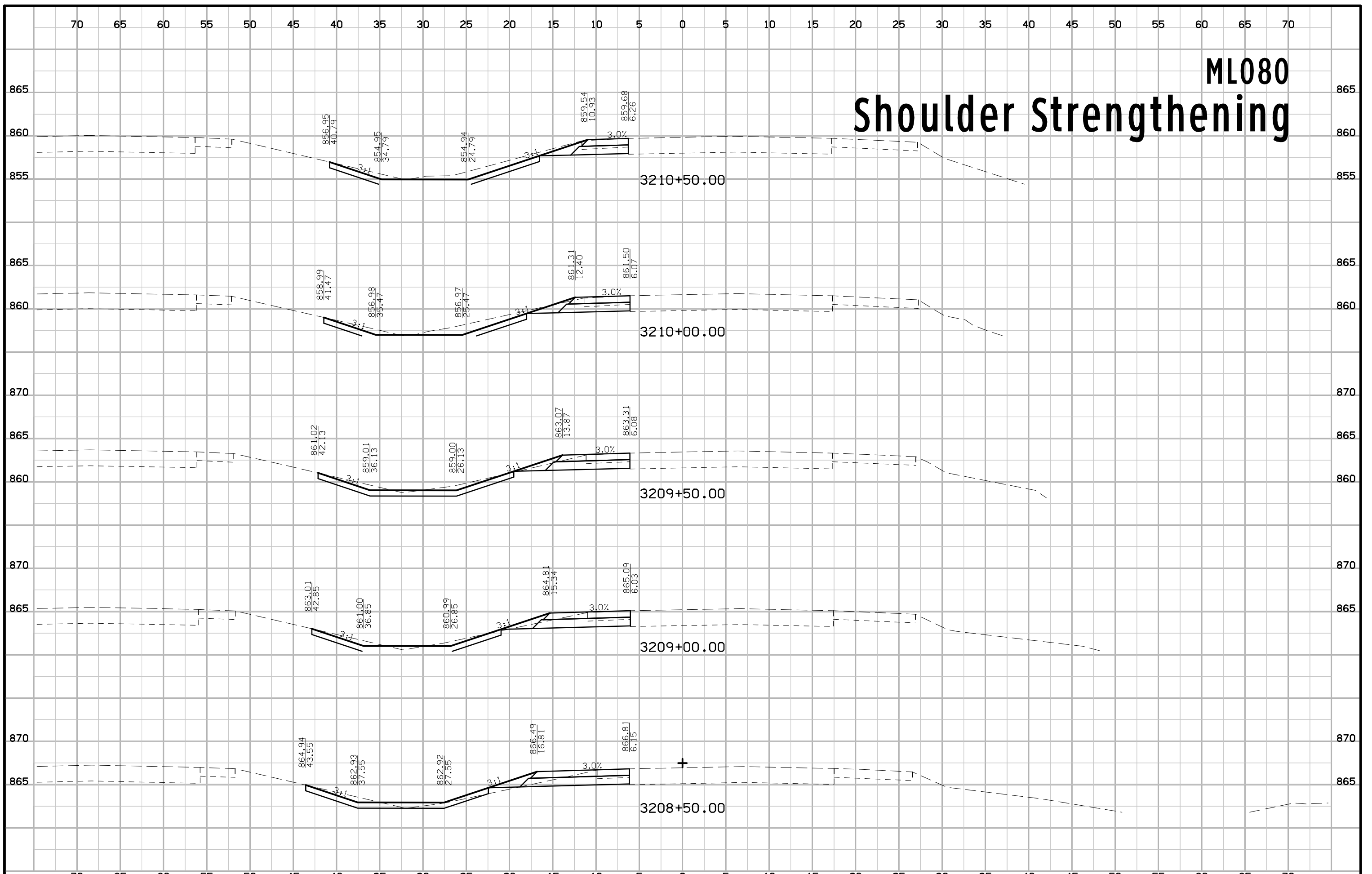


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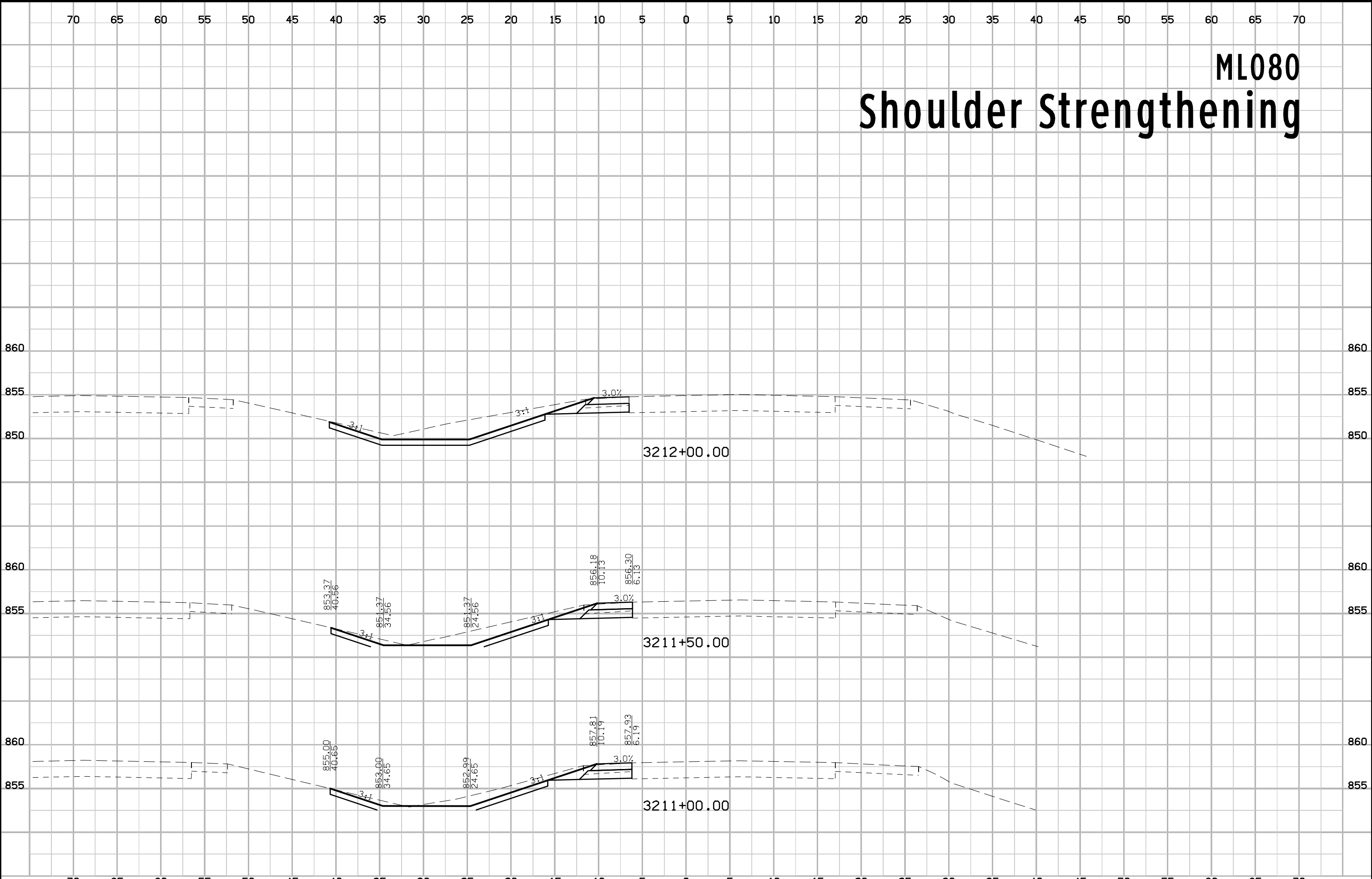


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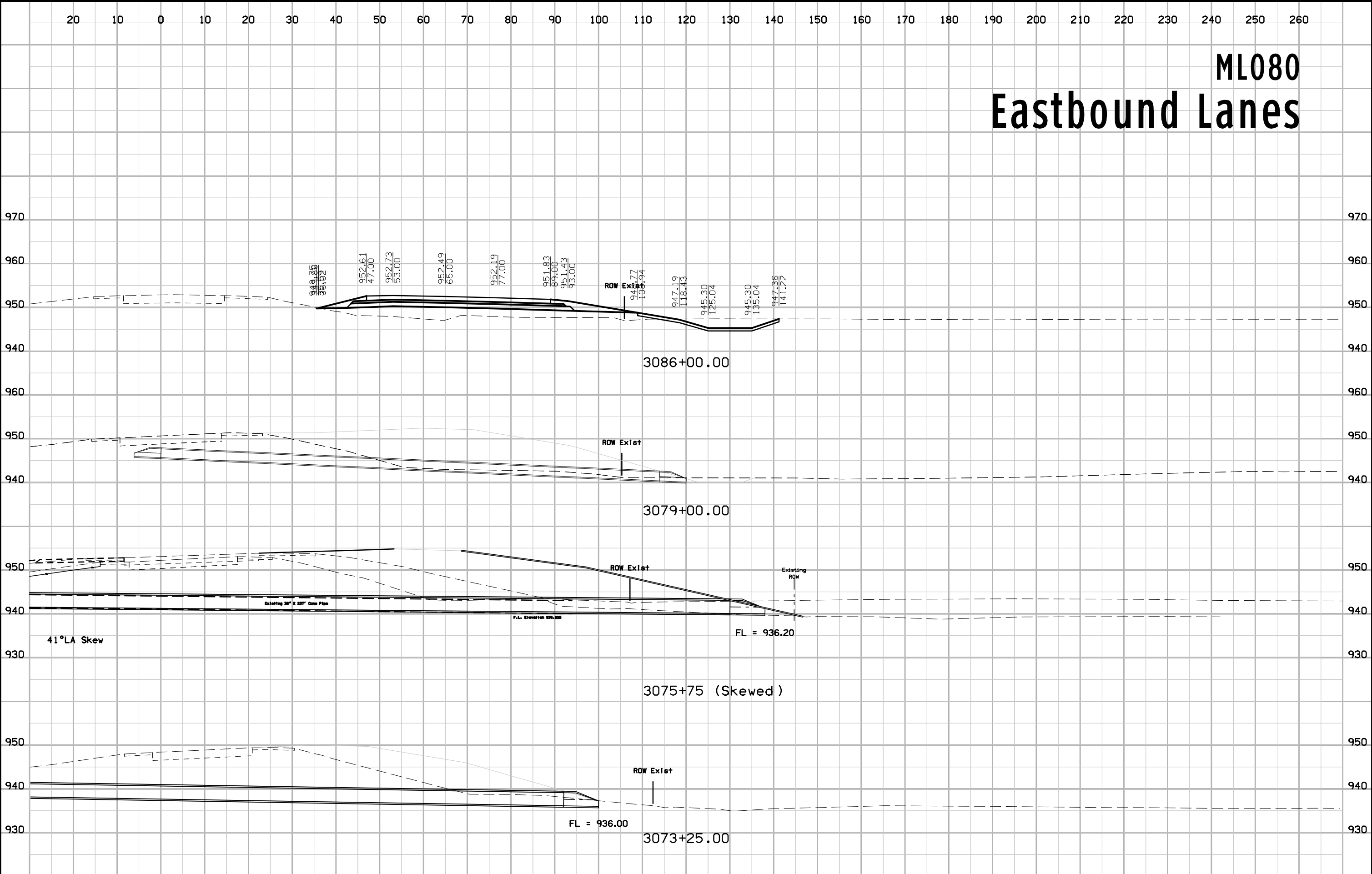
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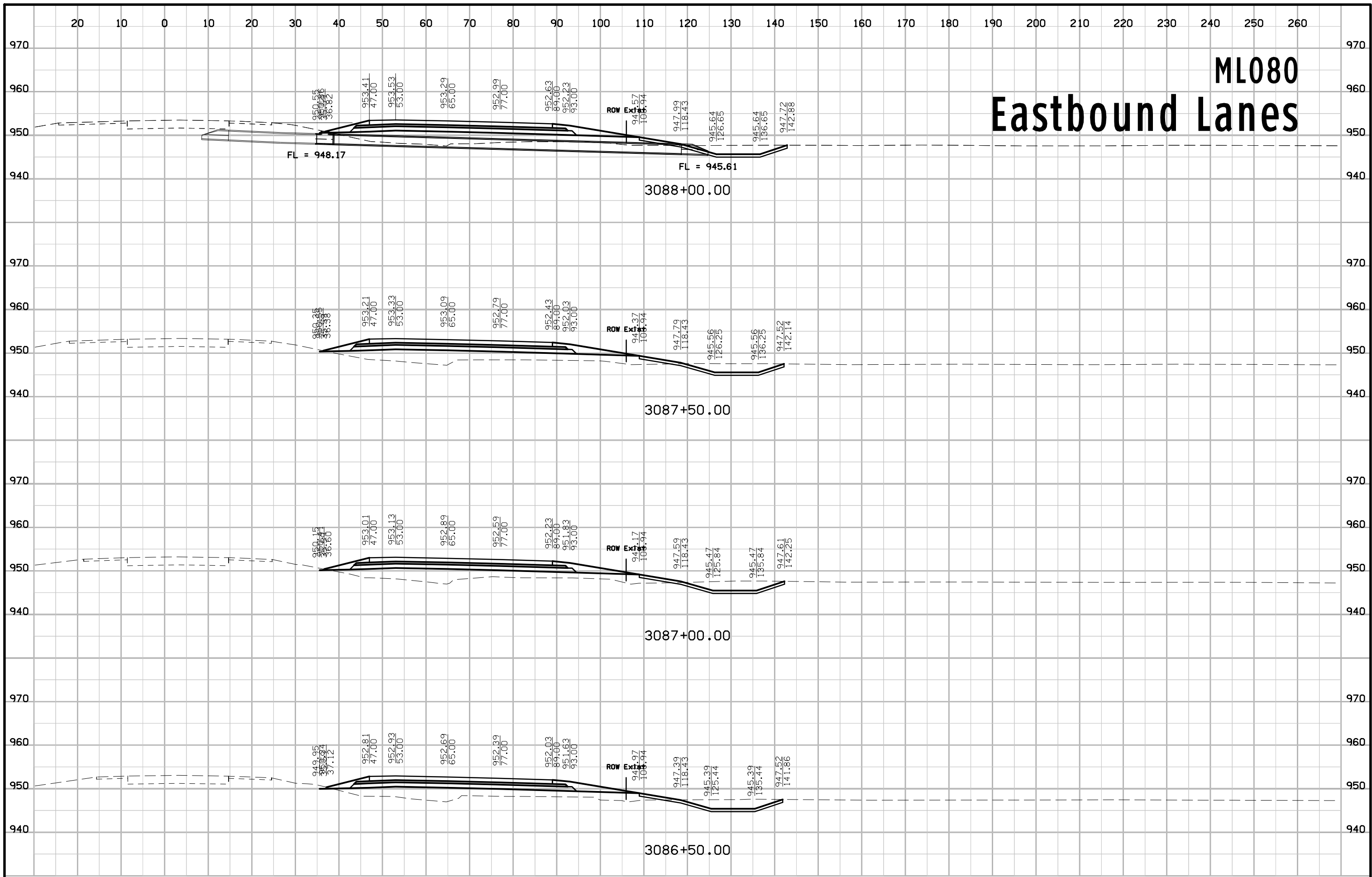


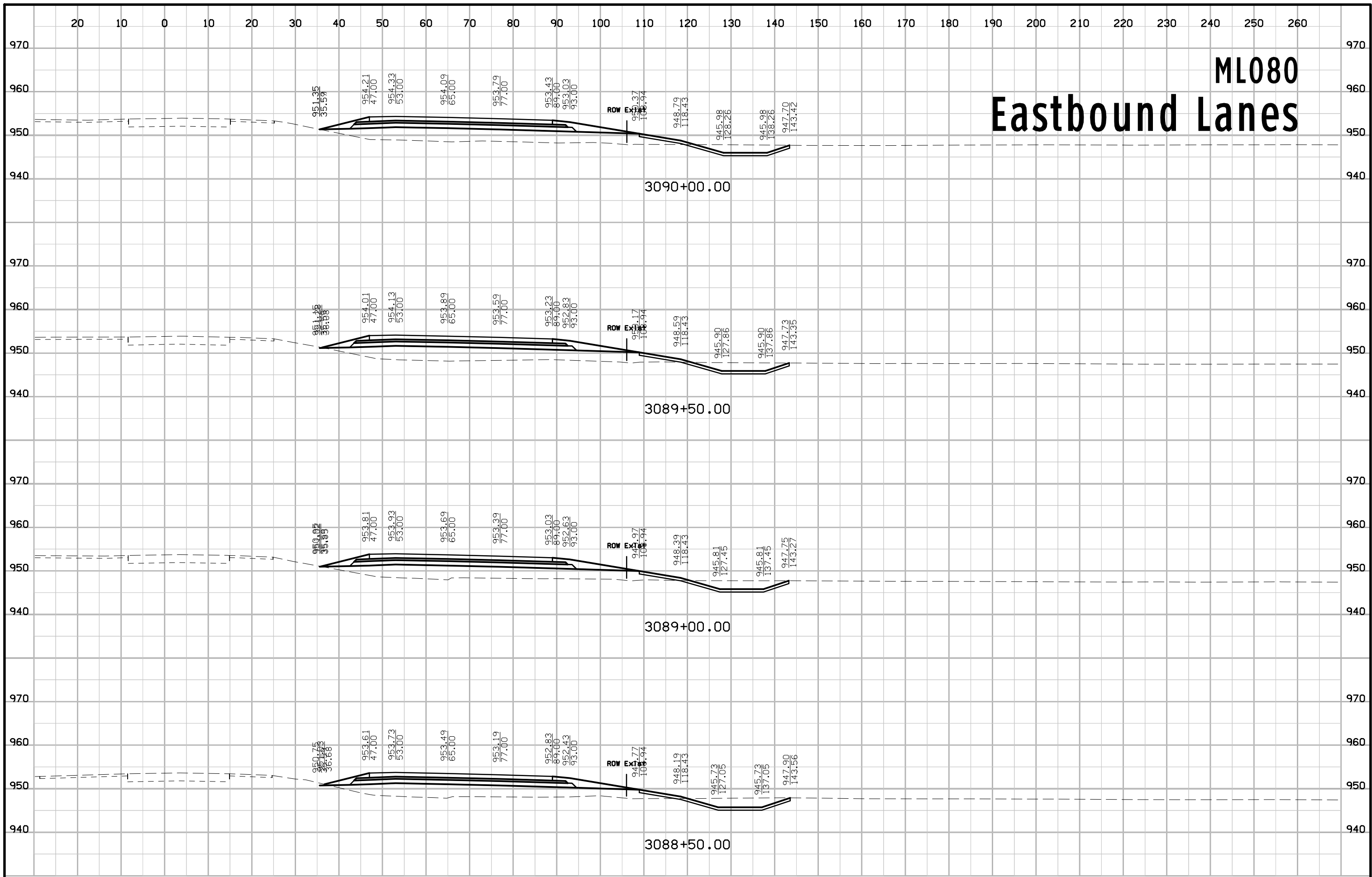
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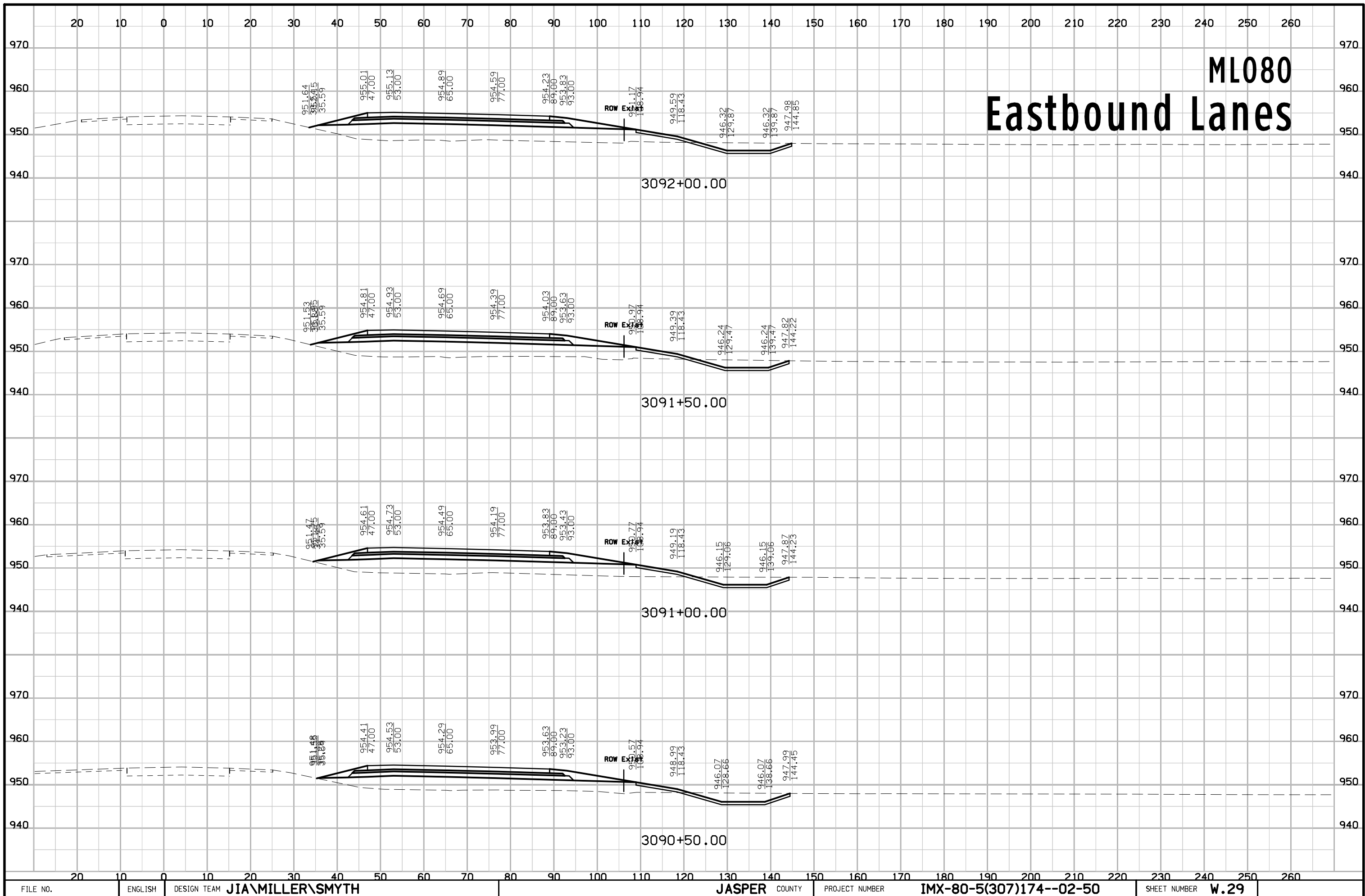


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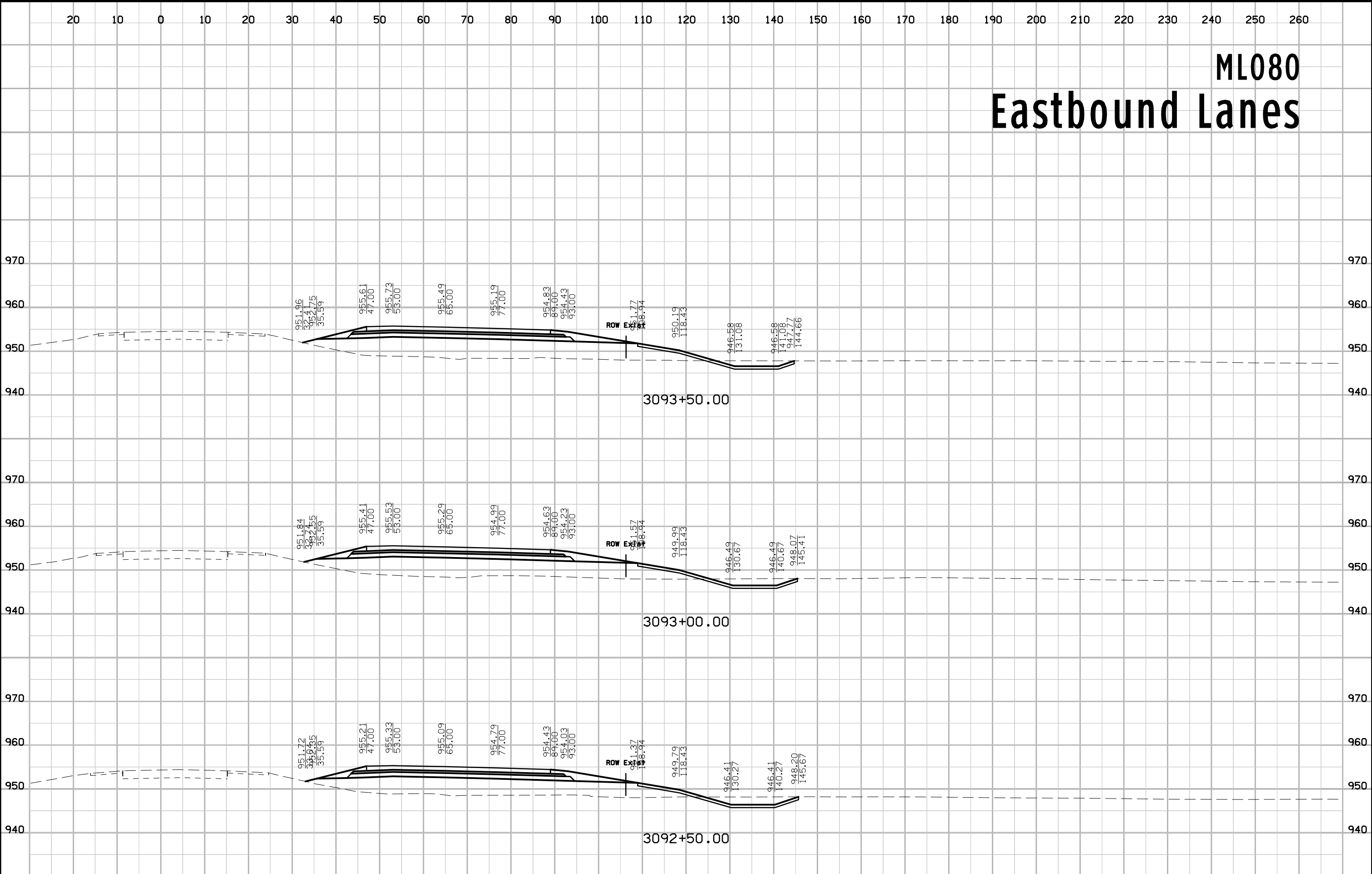




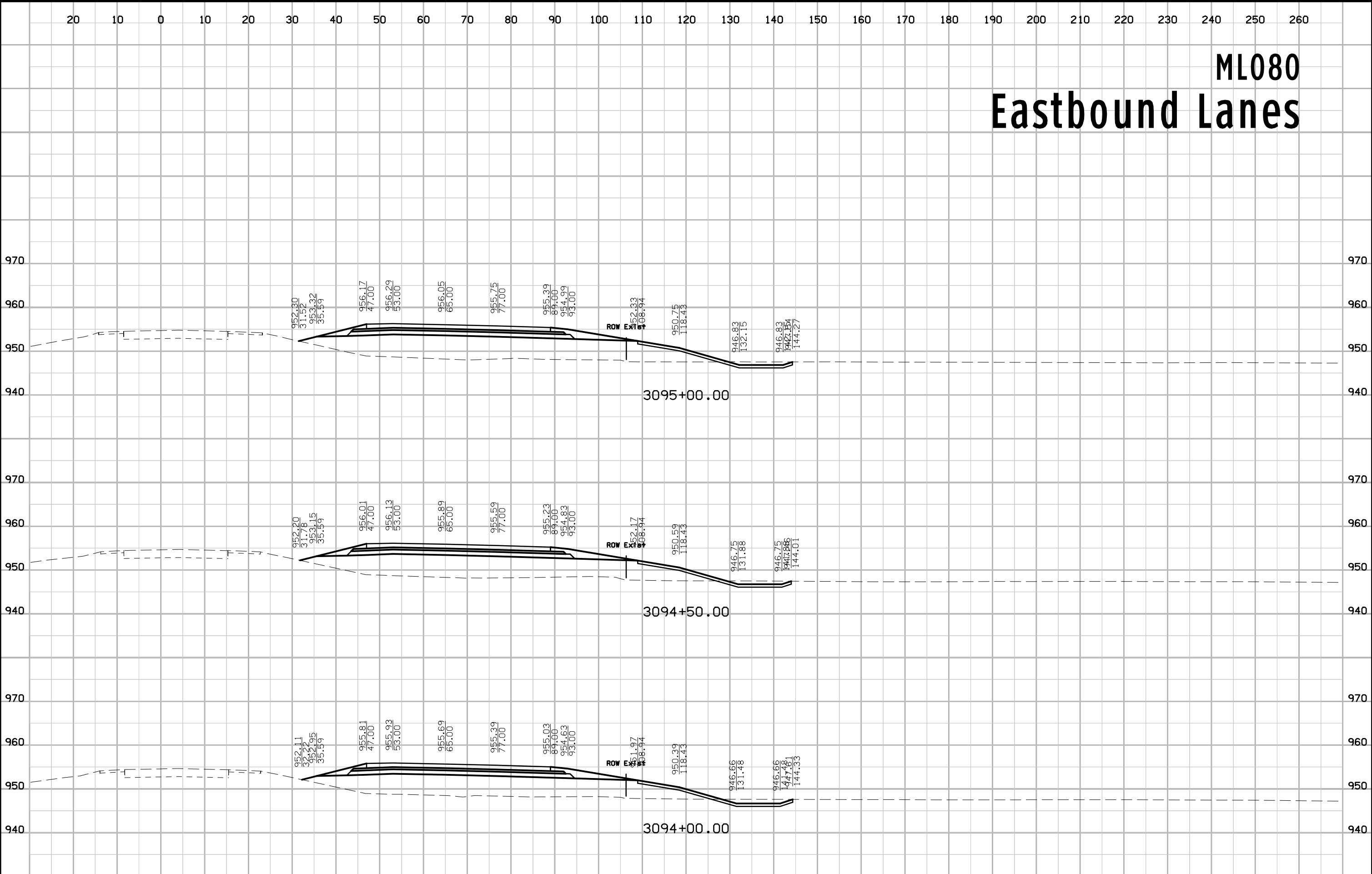




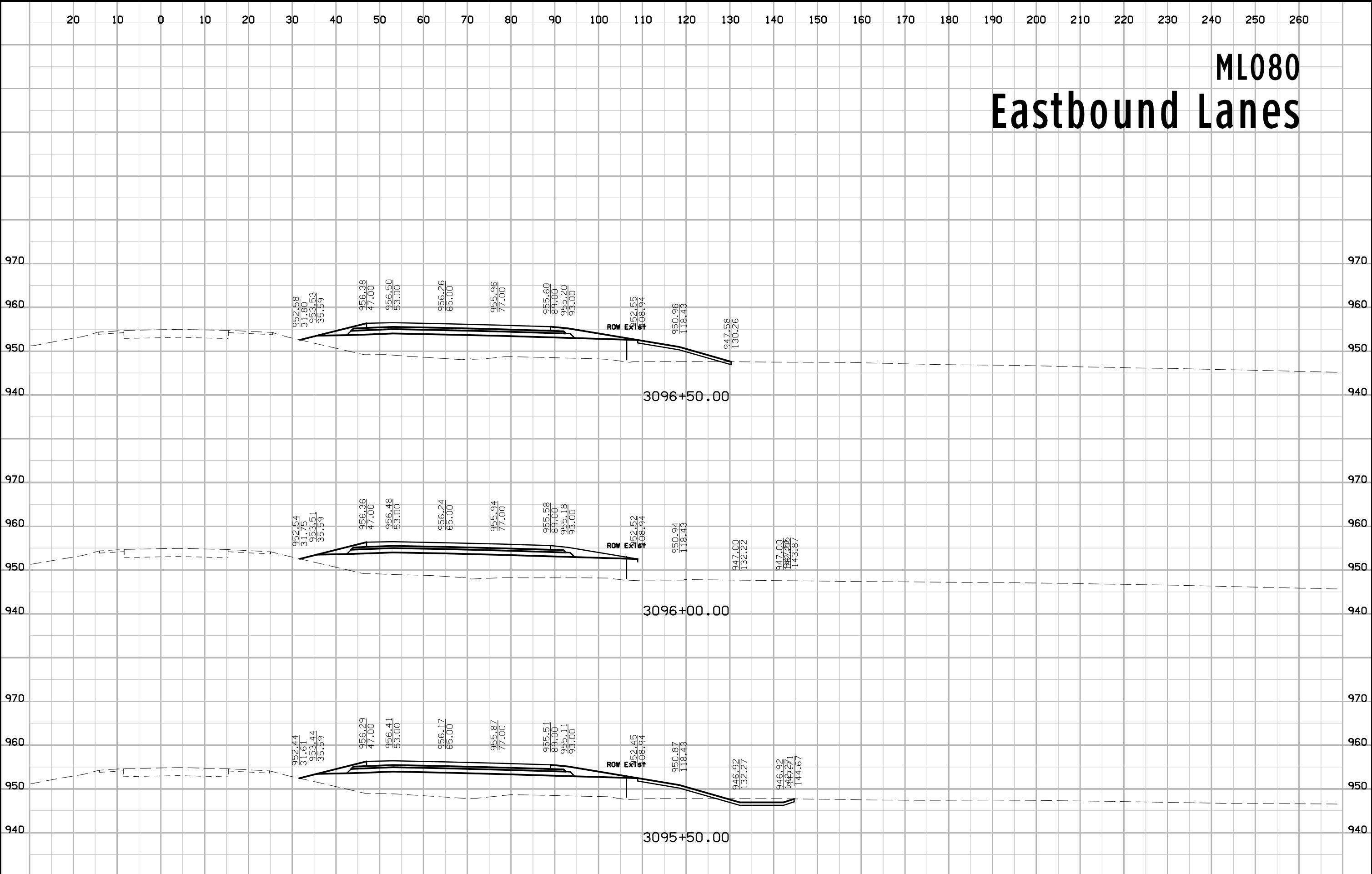
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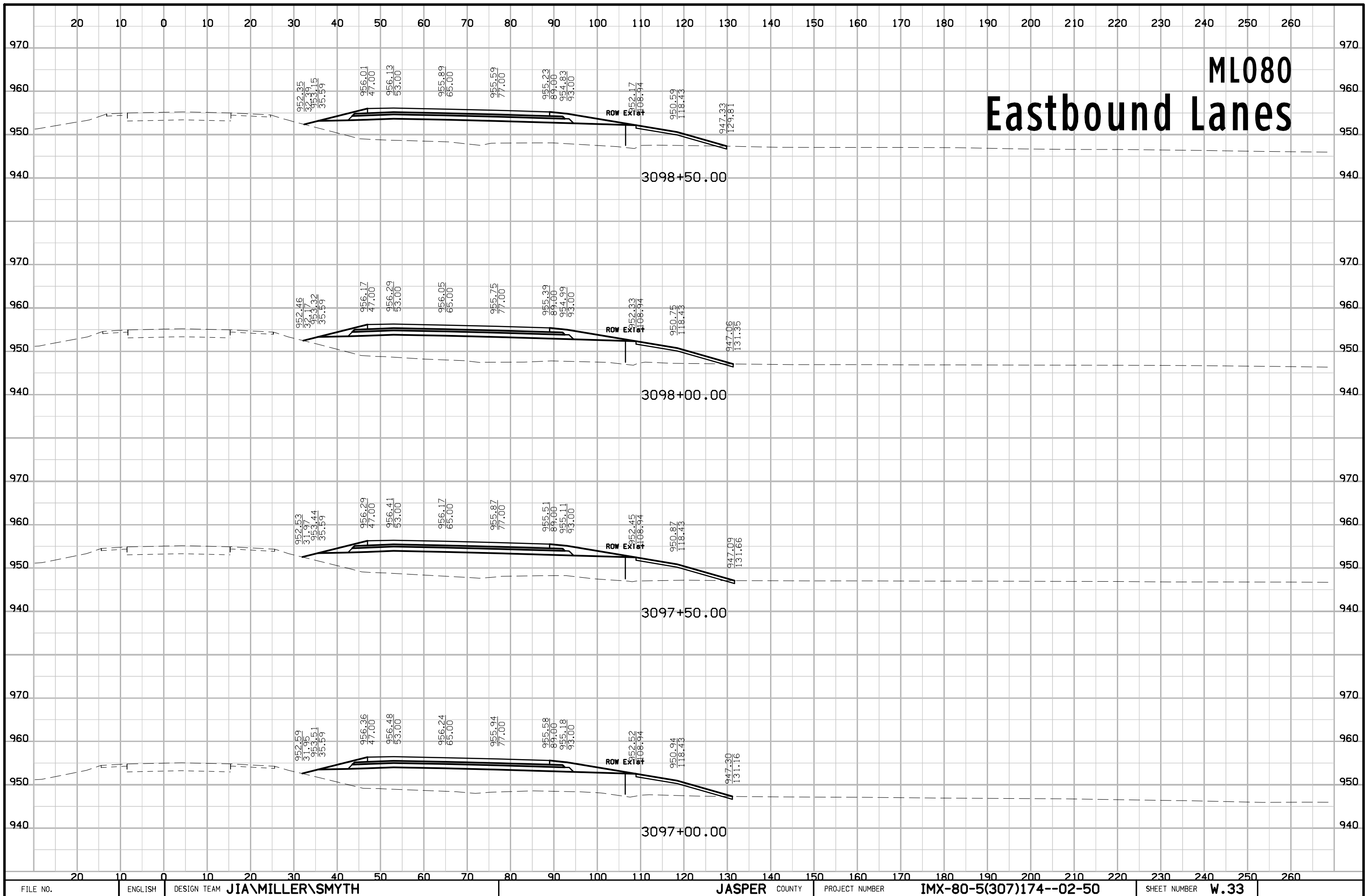


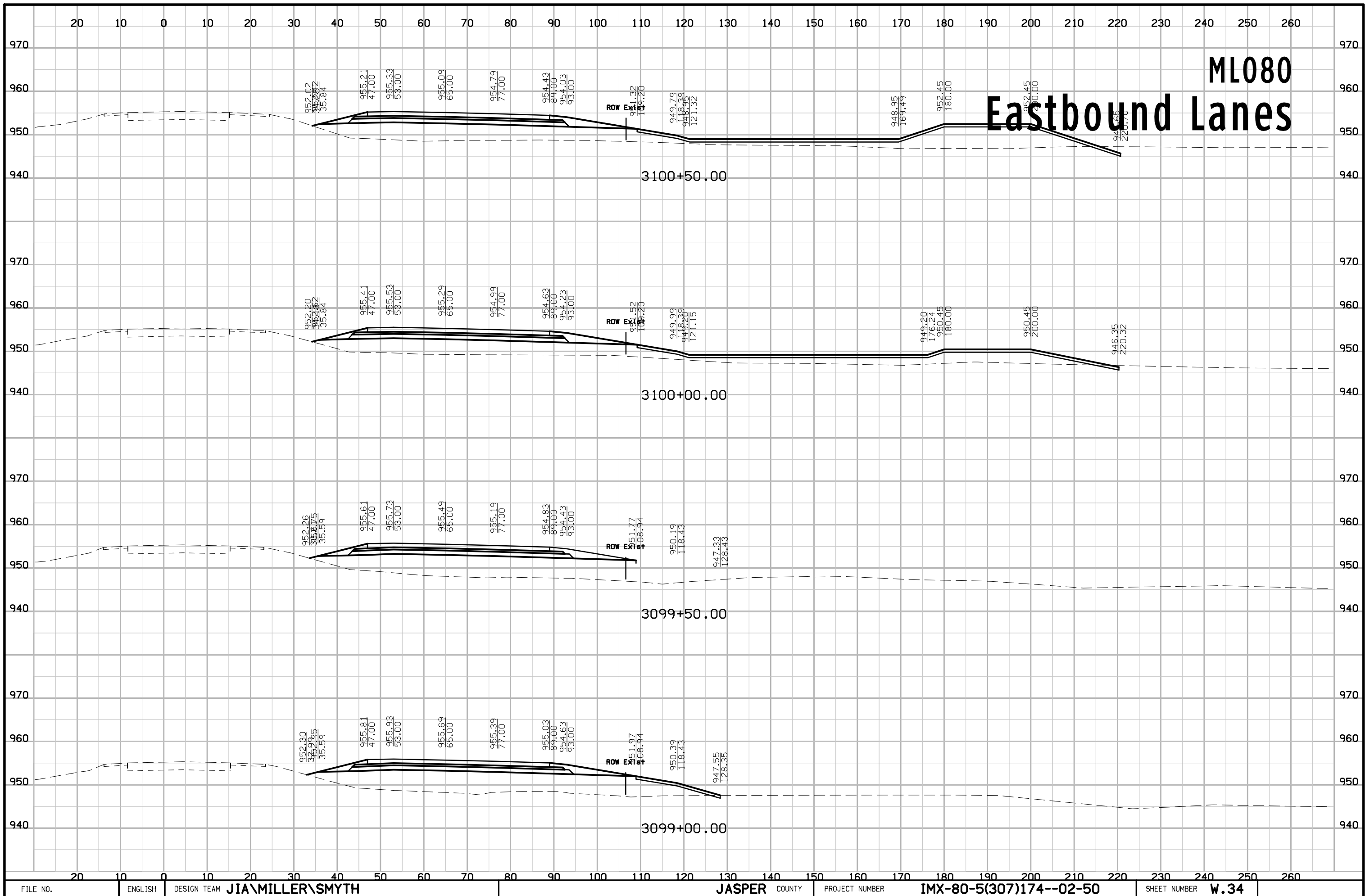
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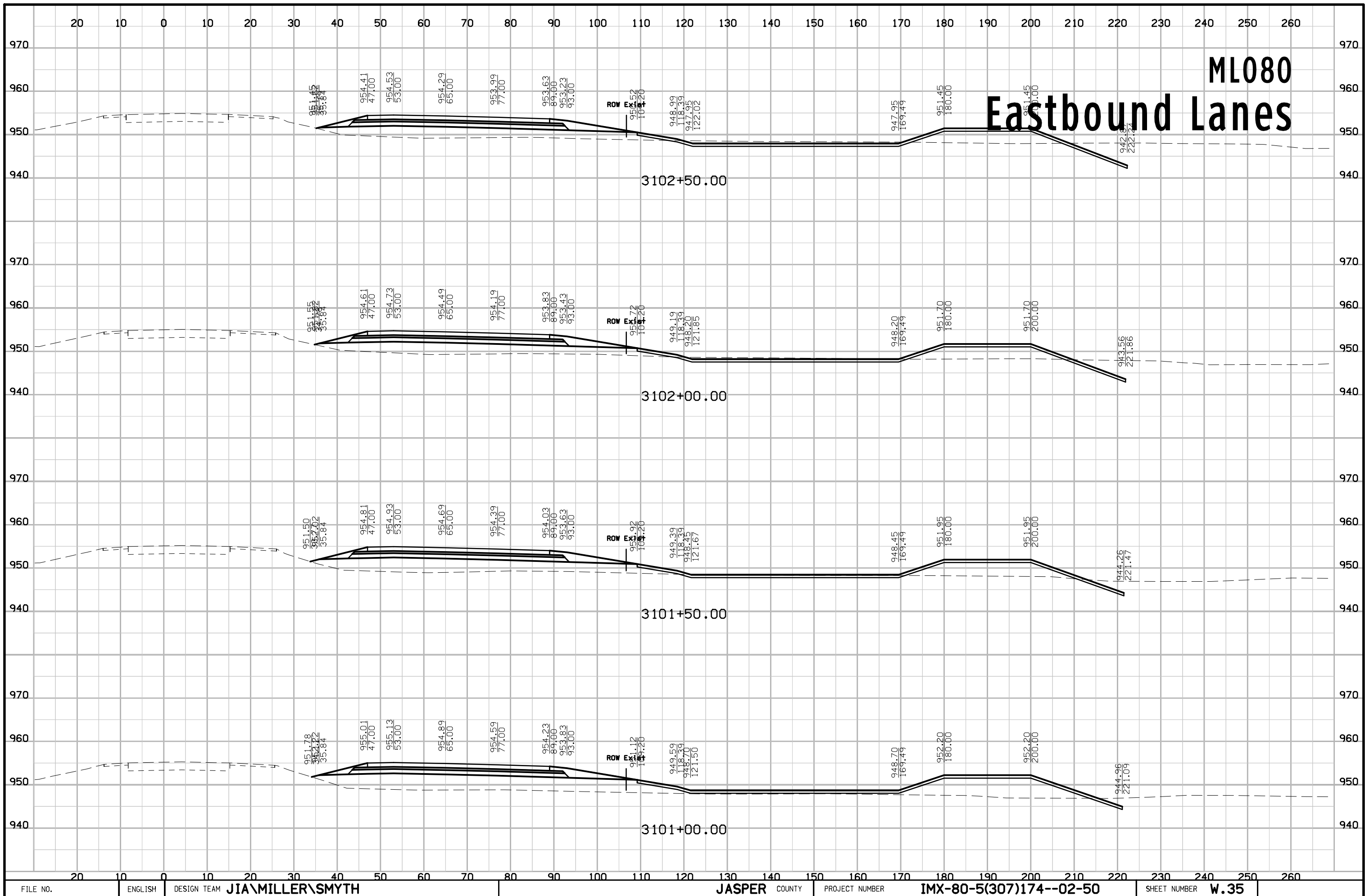


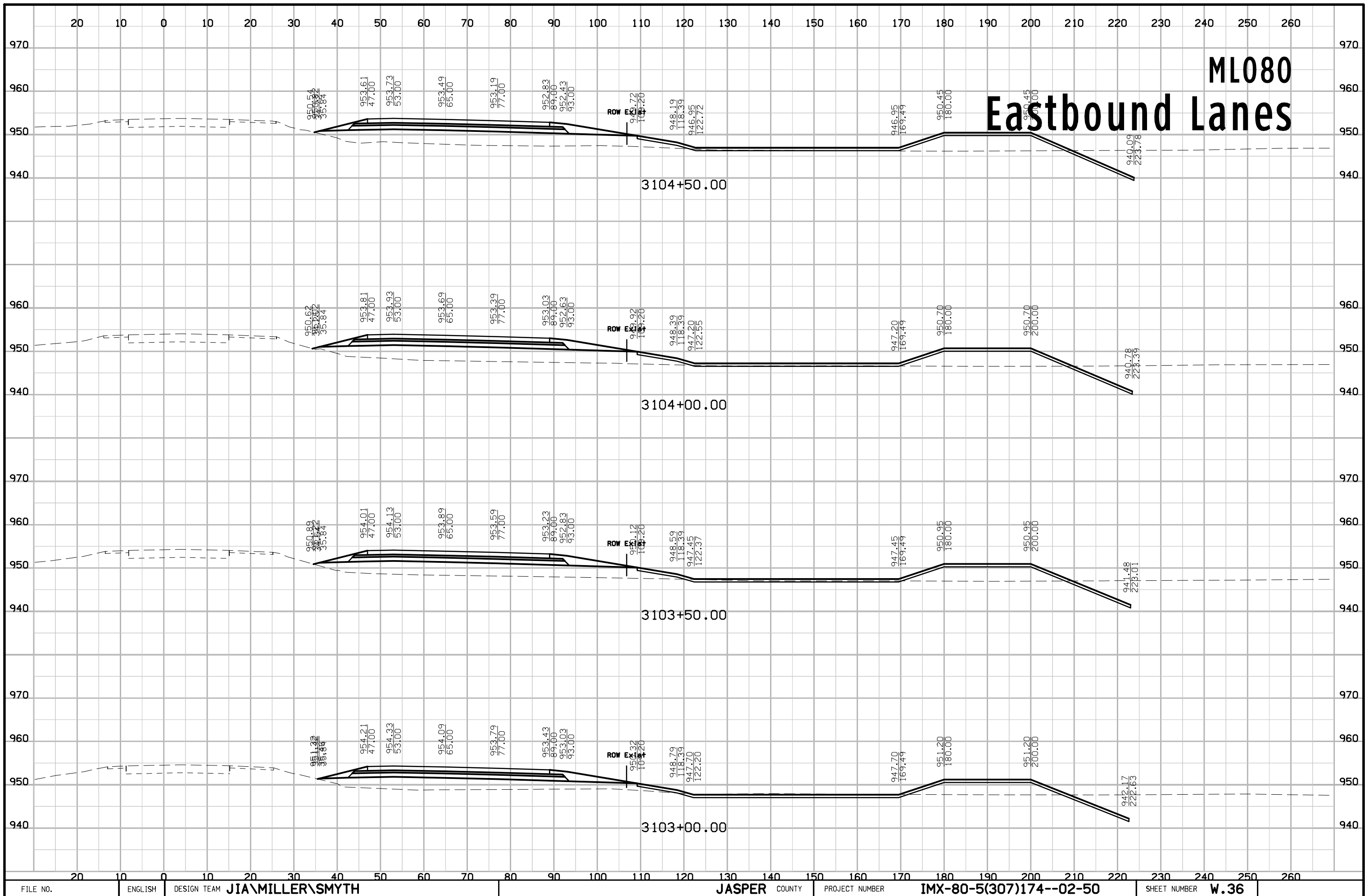
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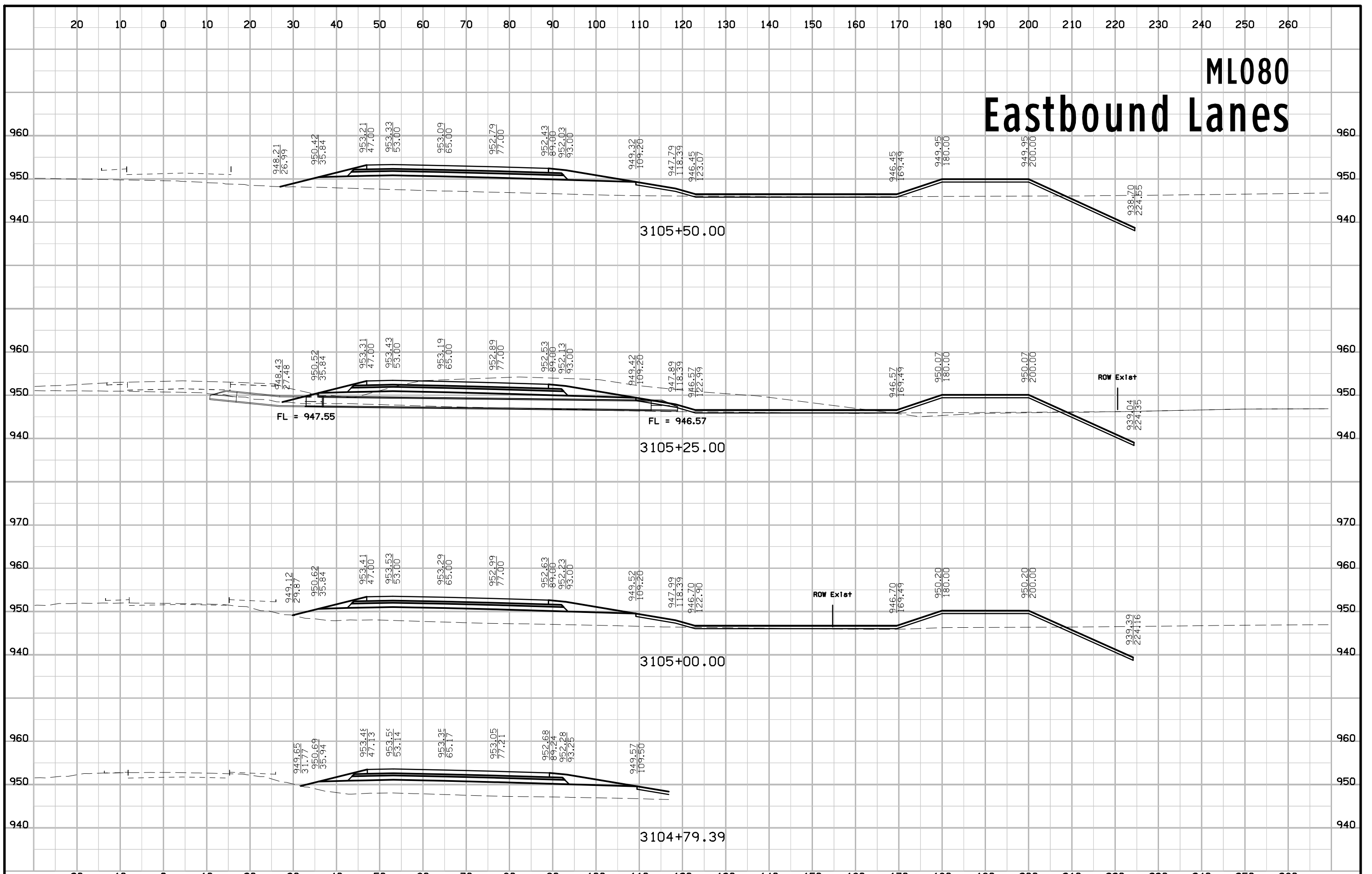




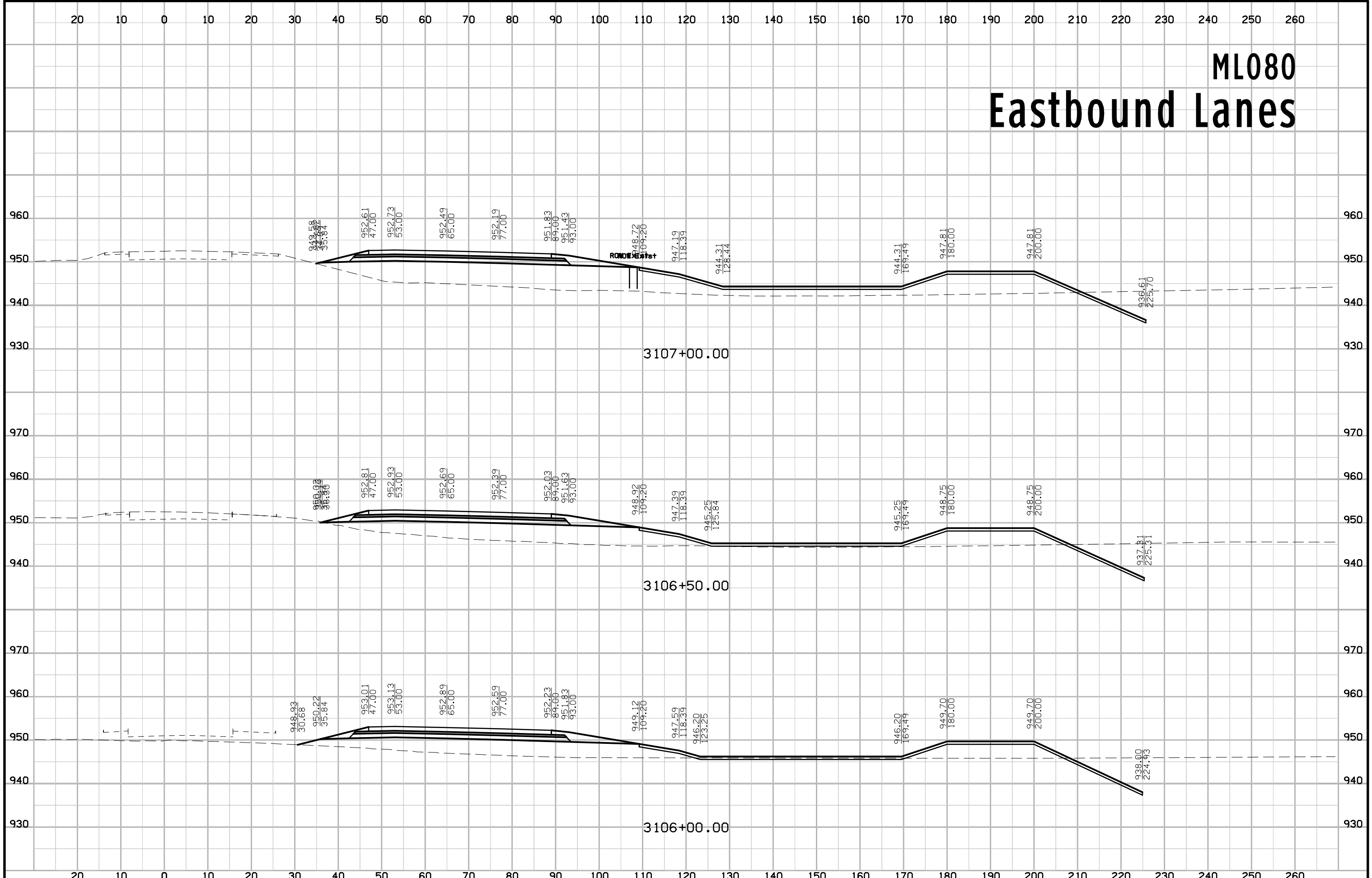


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Eastbound Lanes

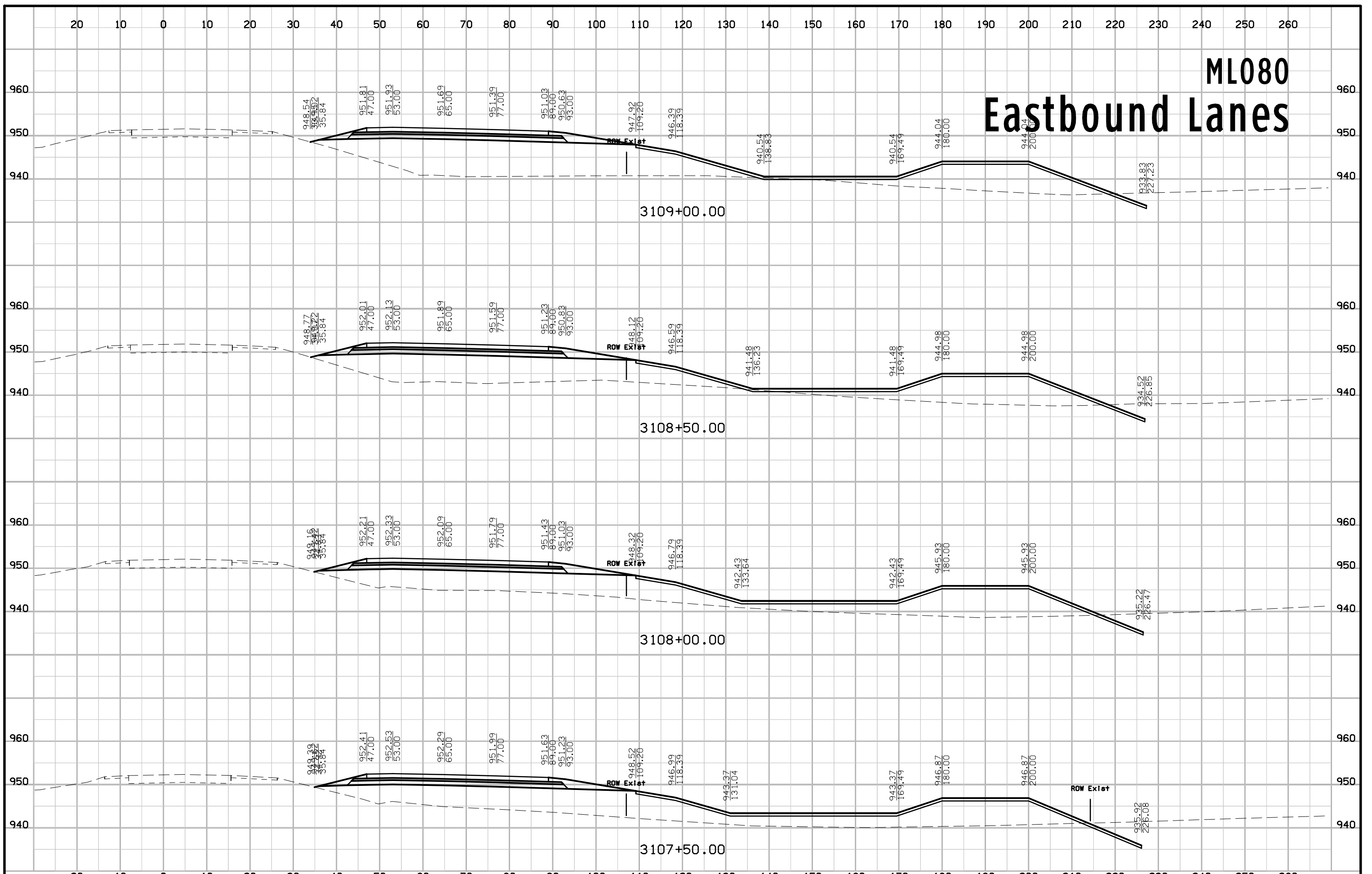


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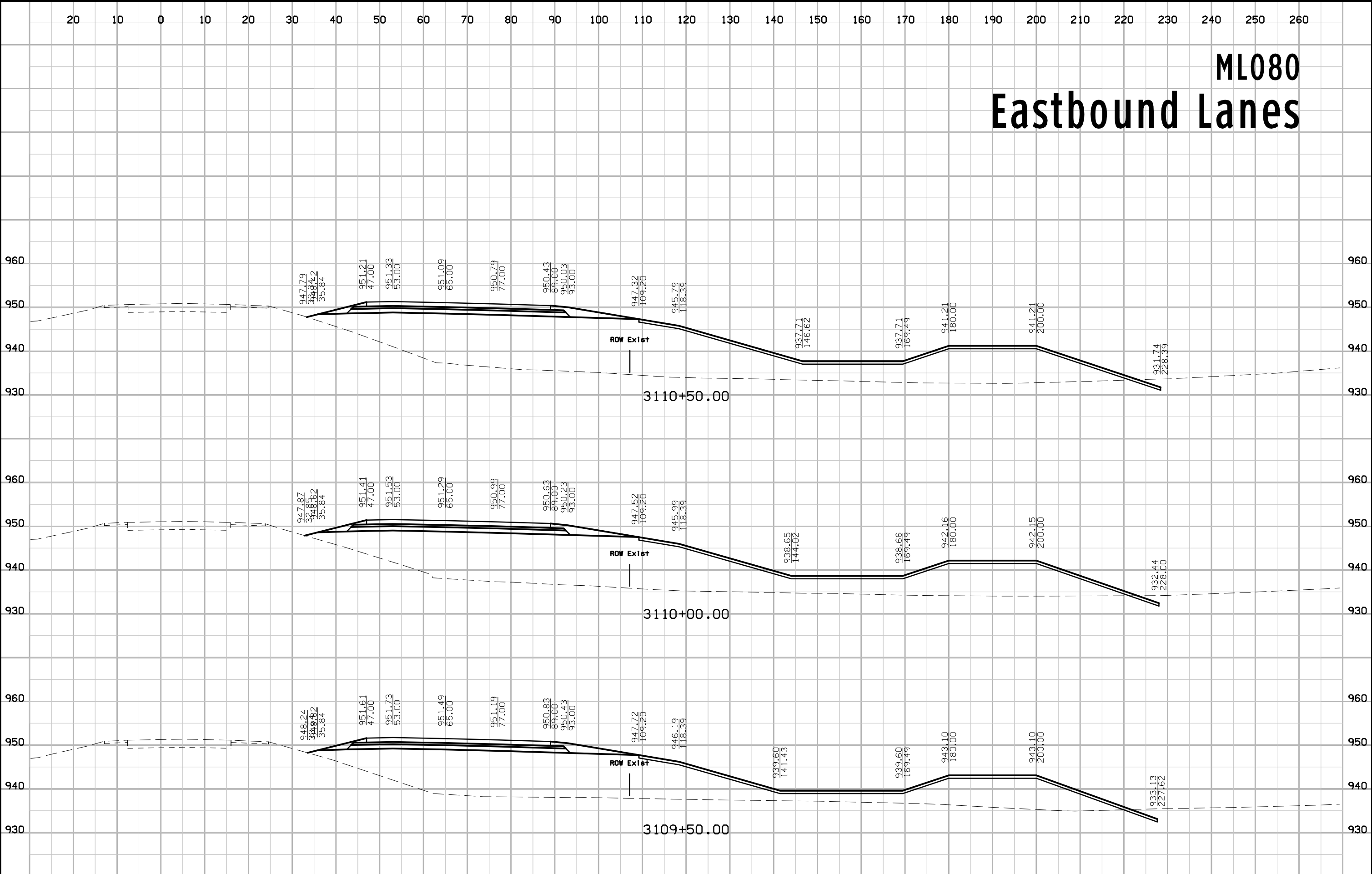


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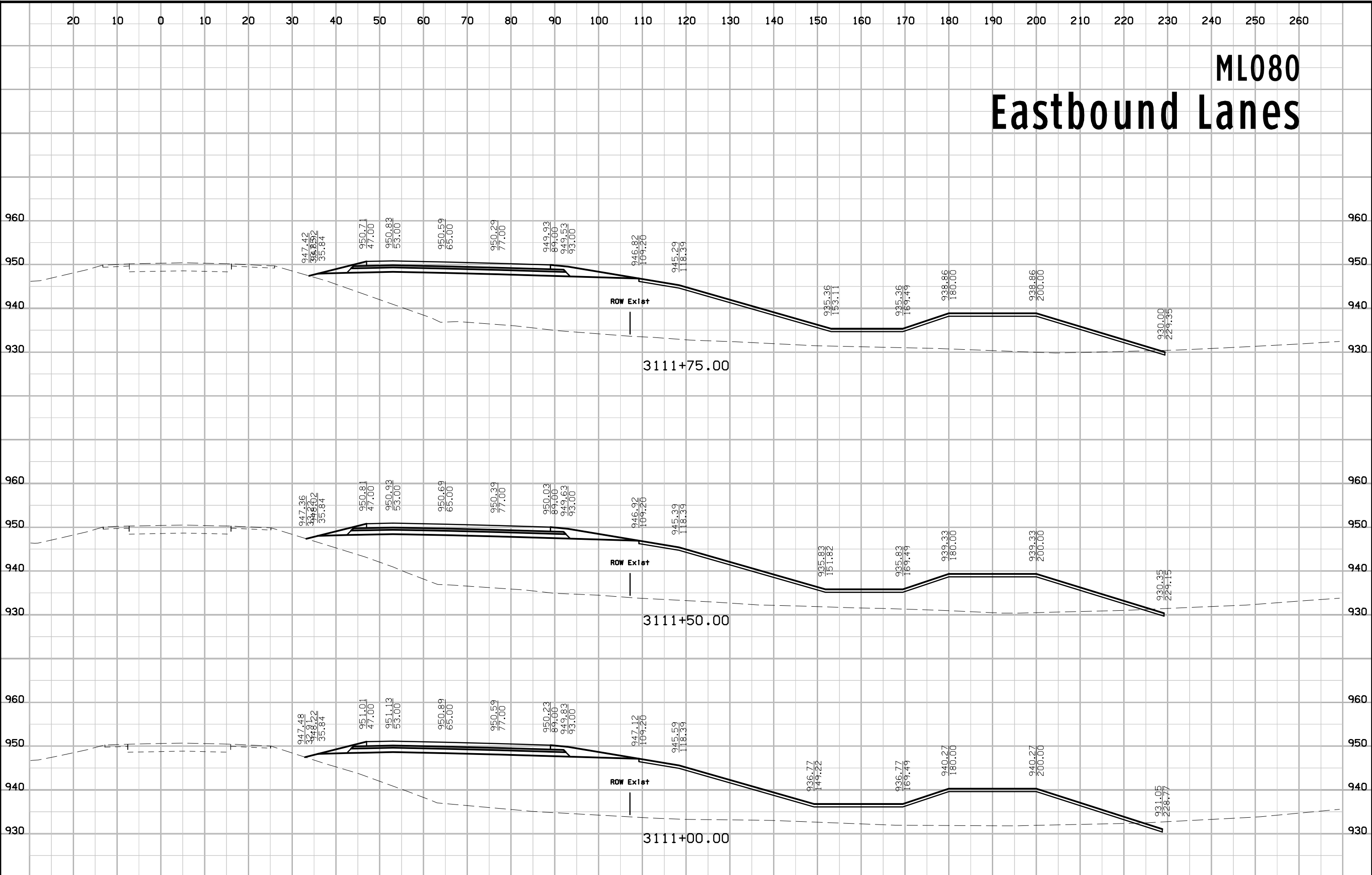
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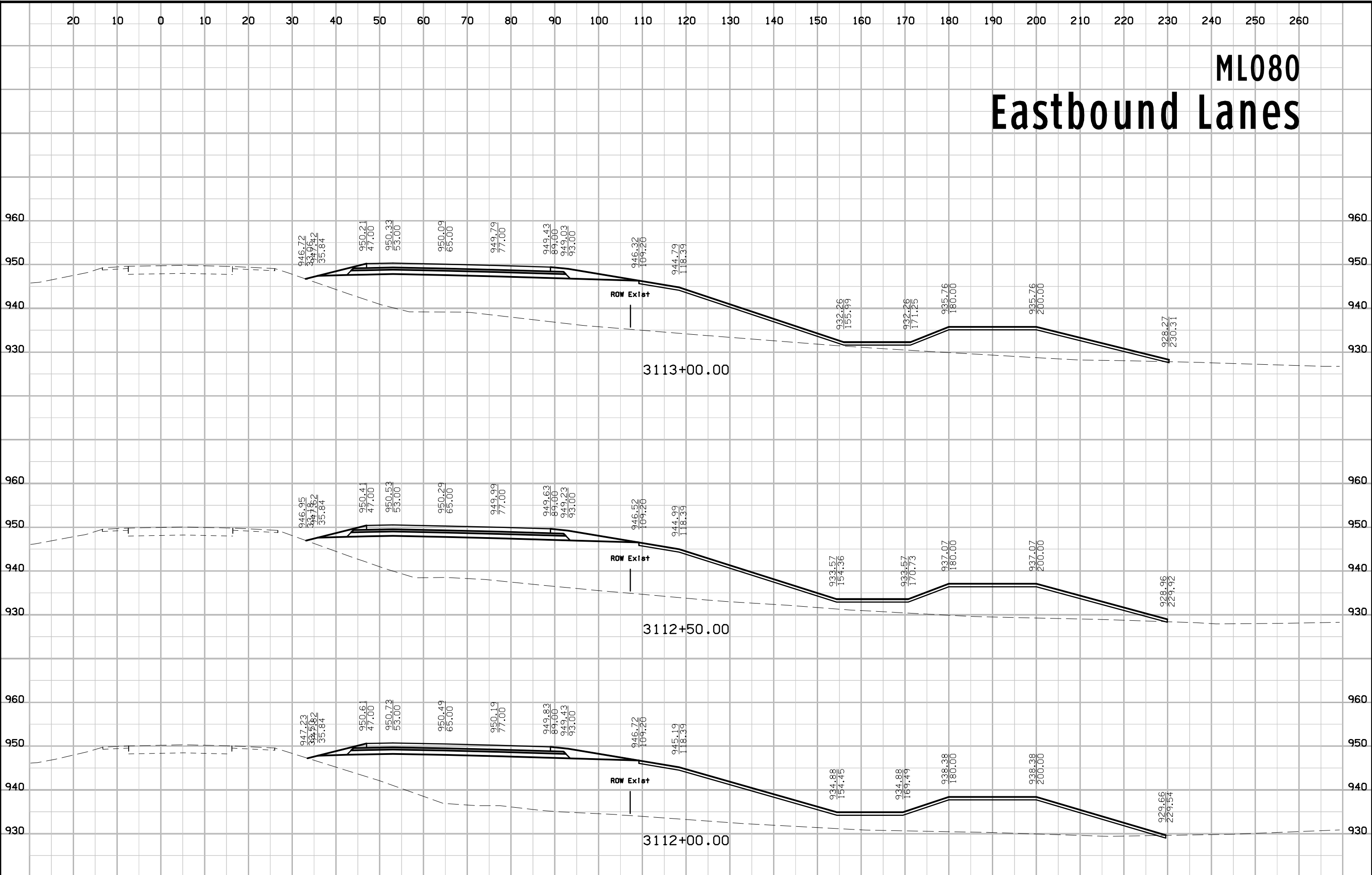
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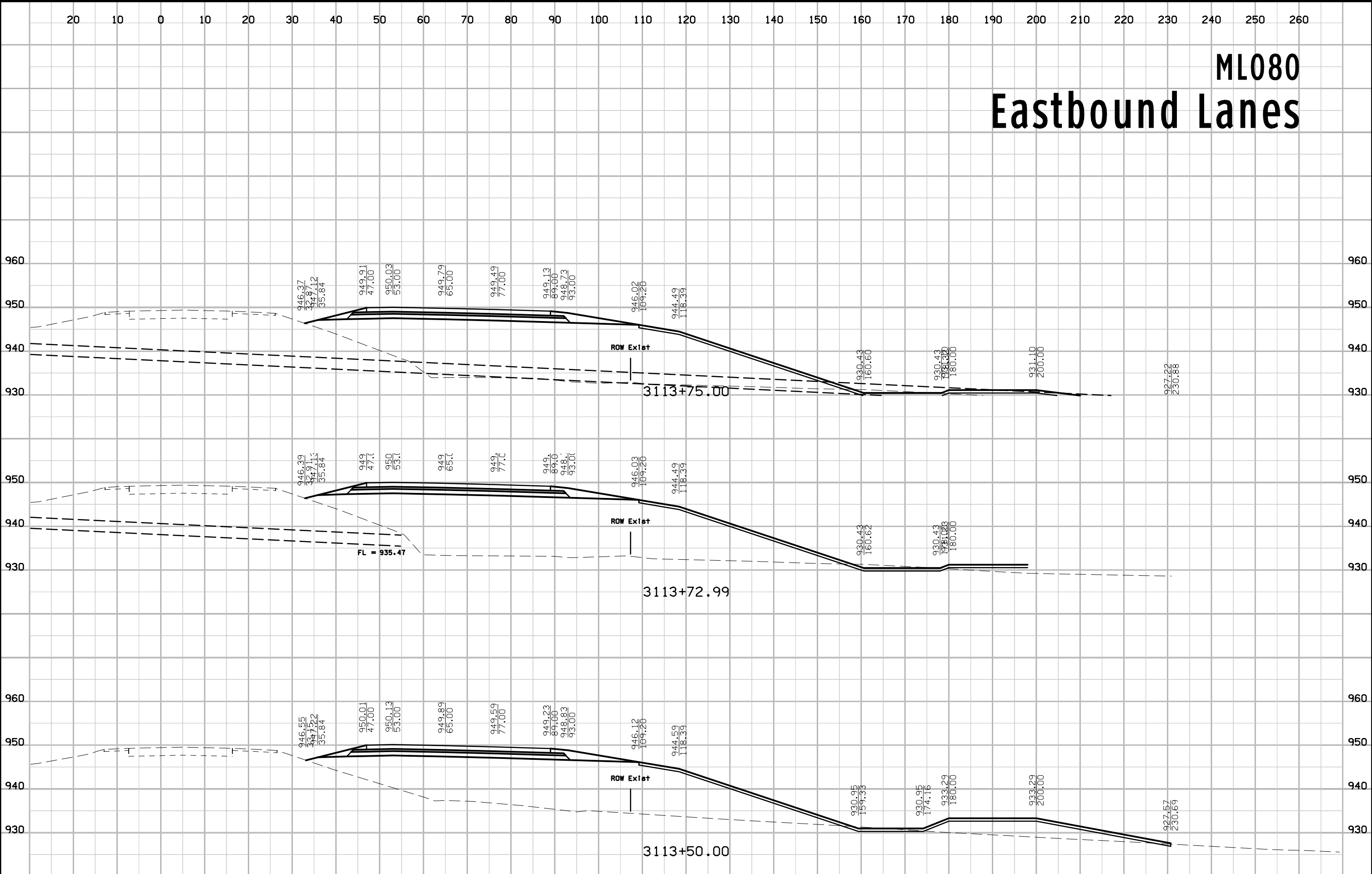
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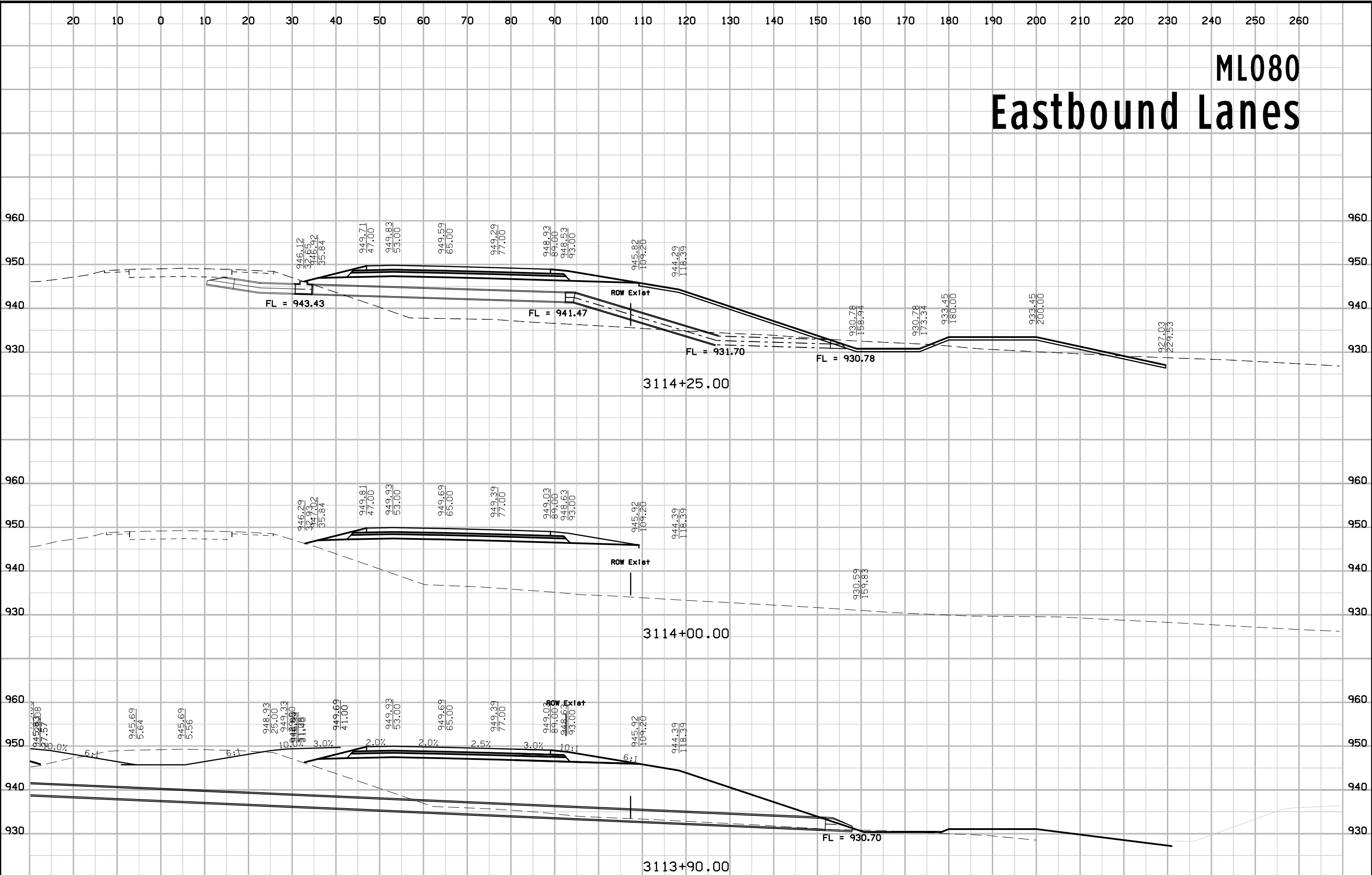
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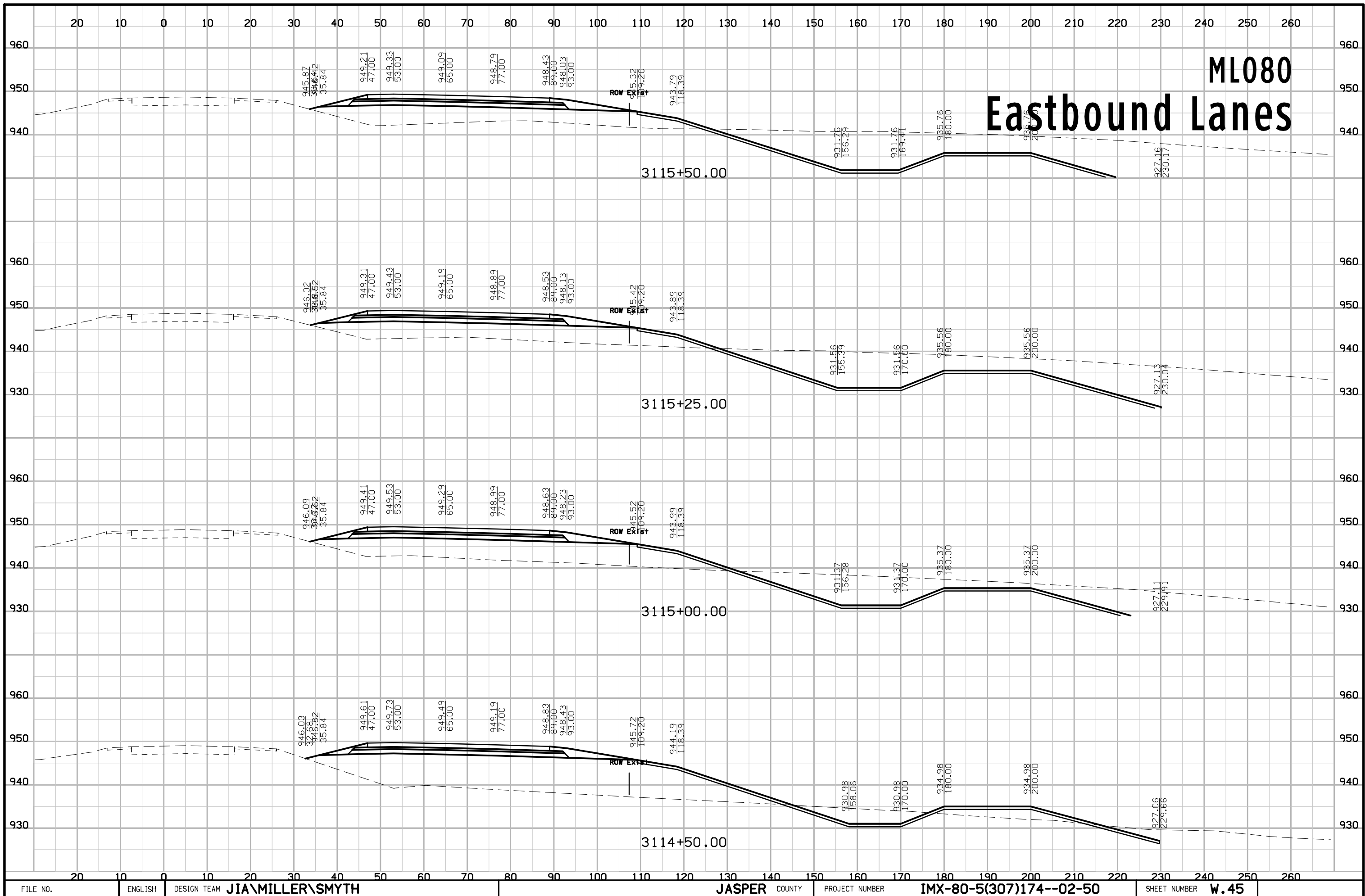


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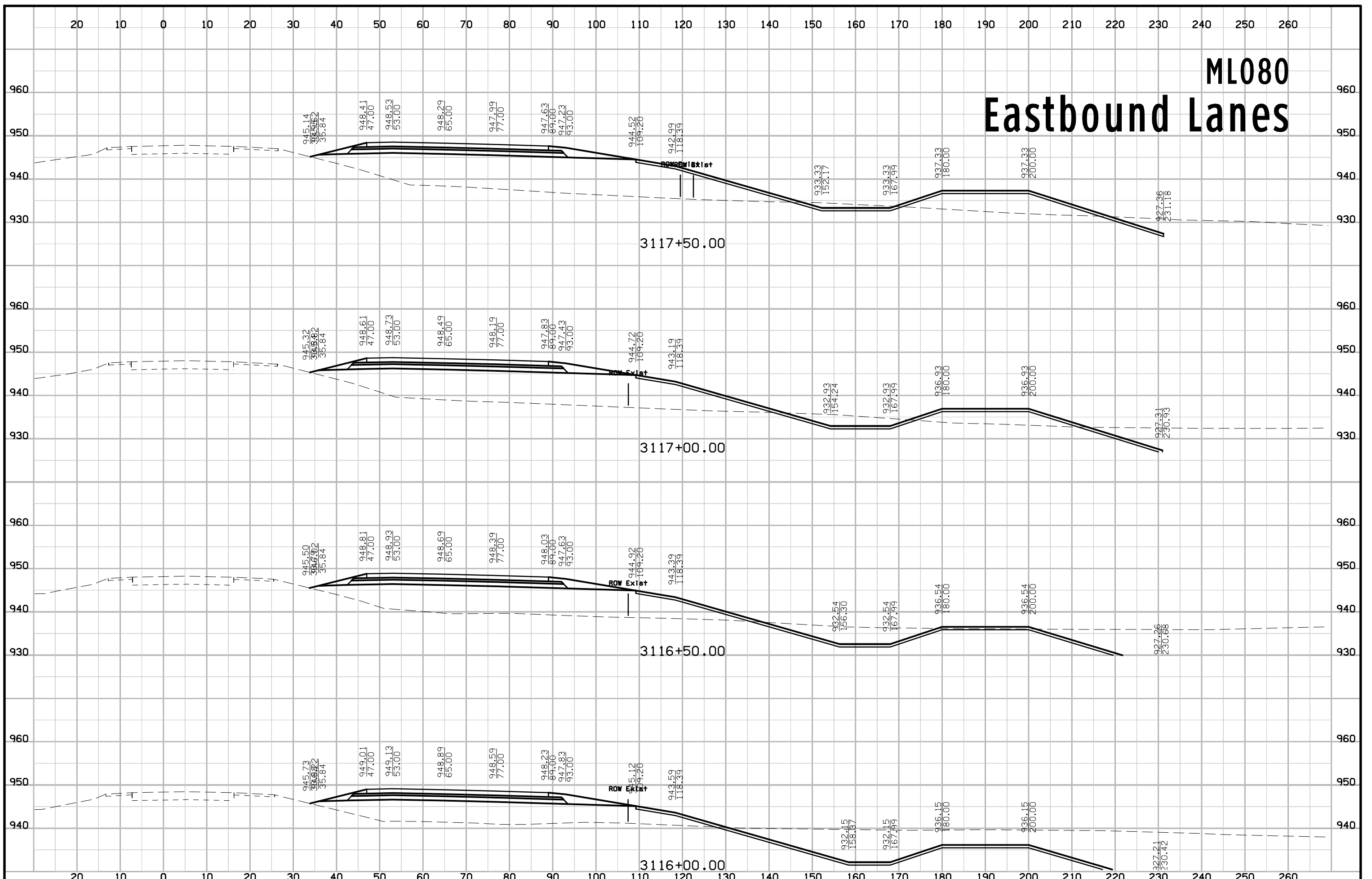
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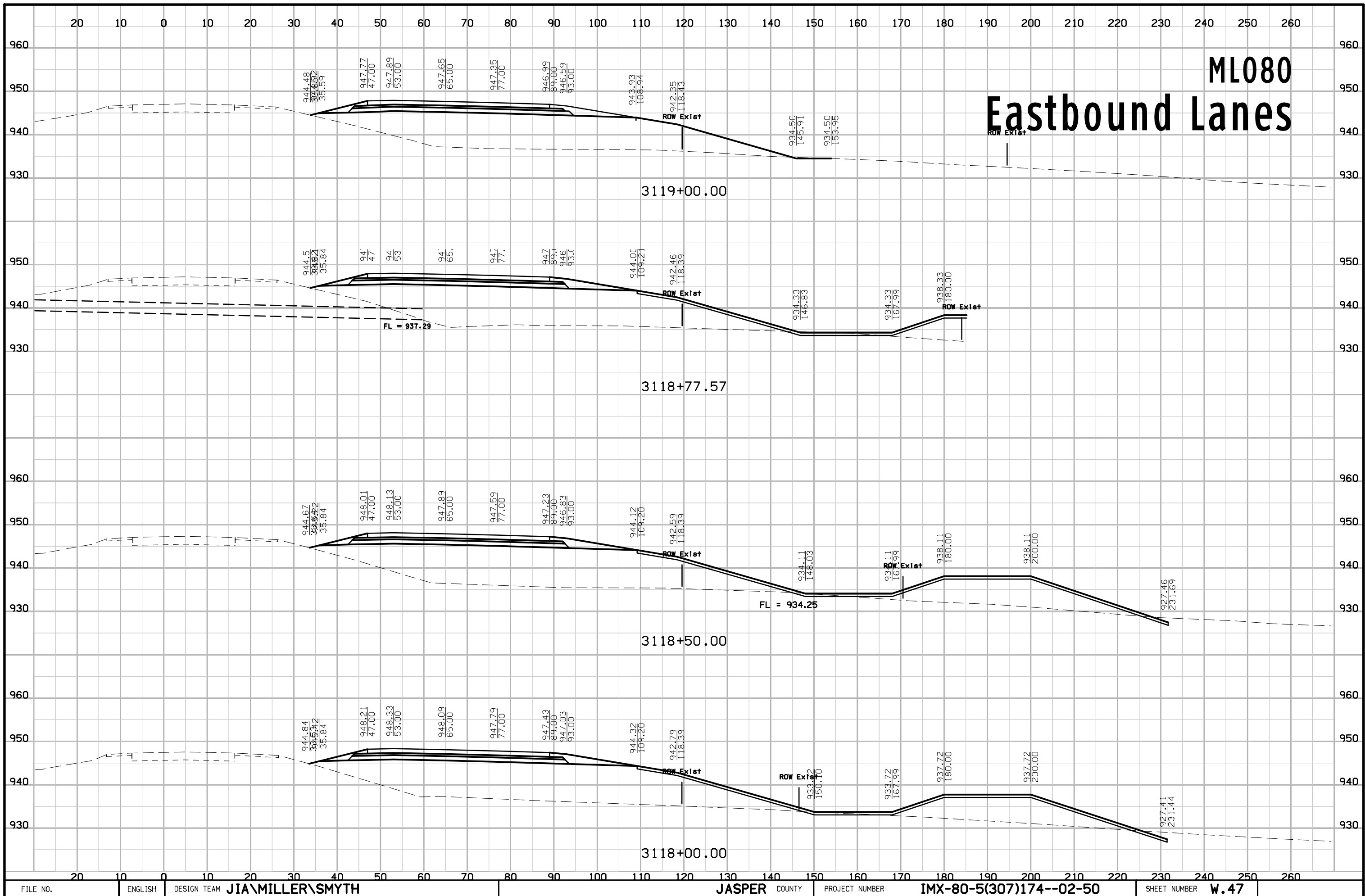


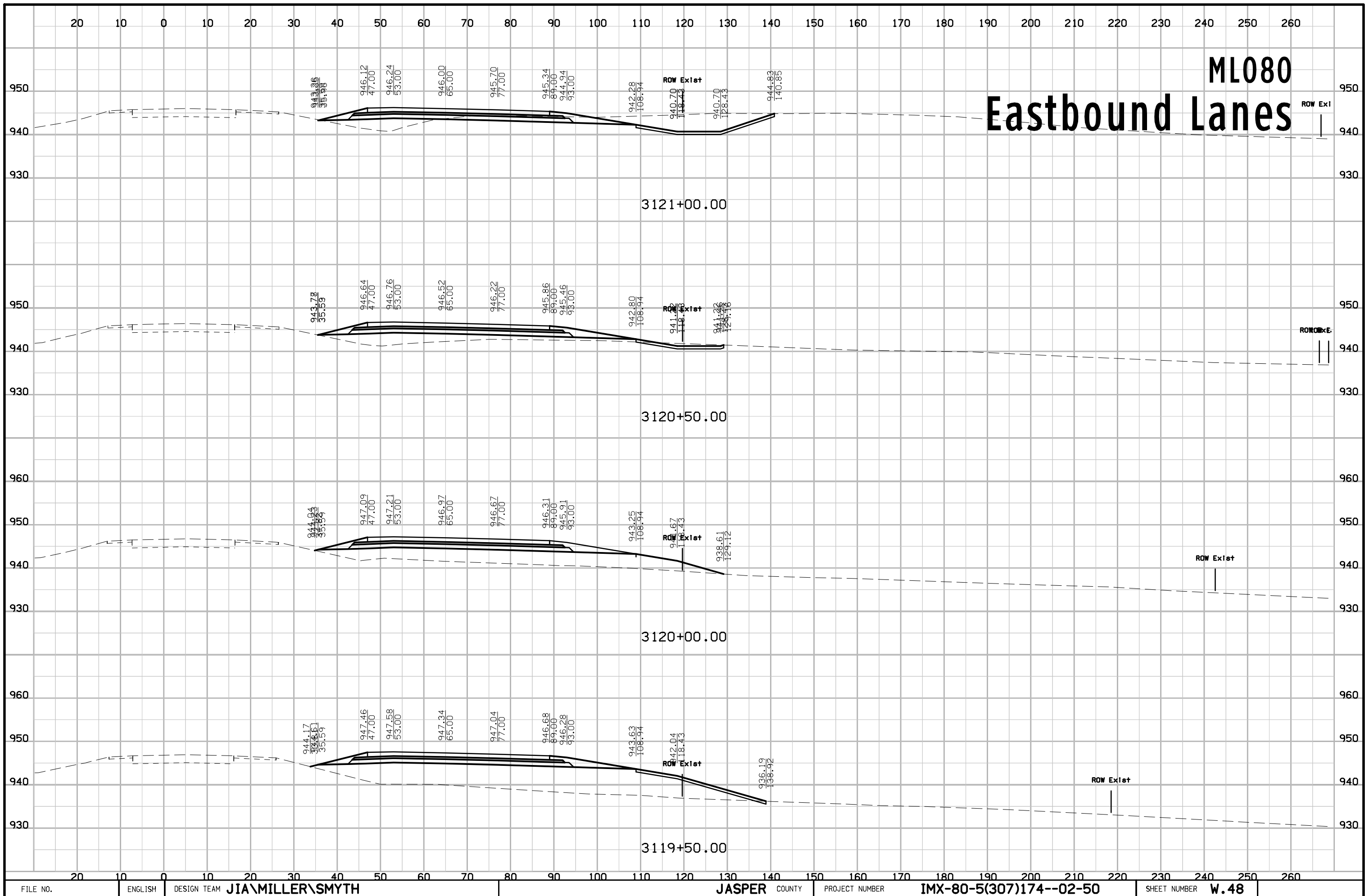


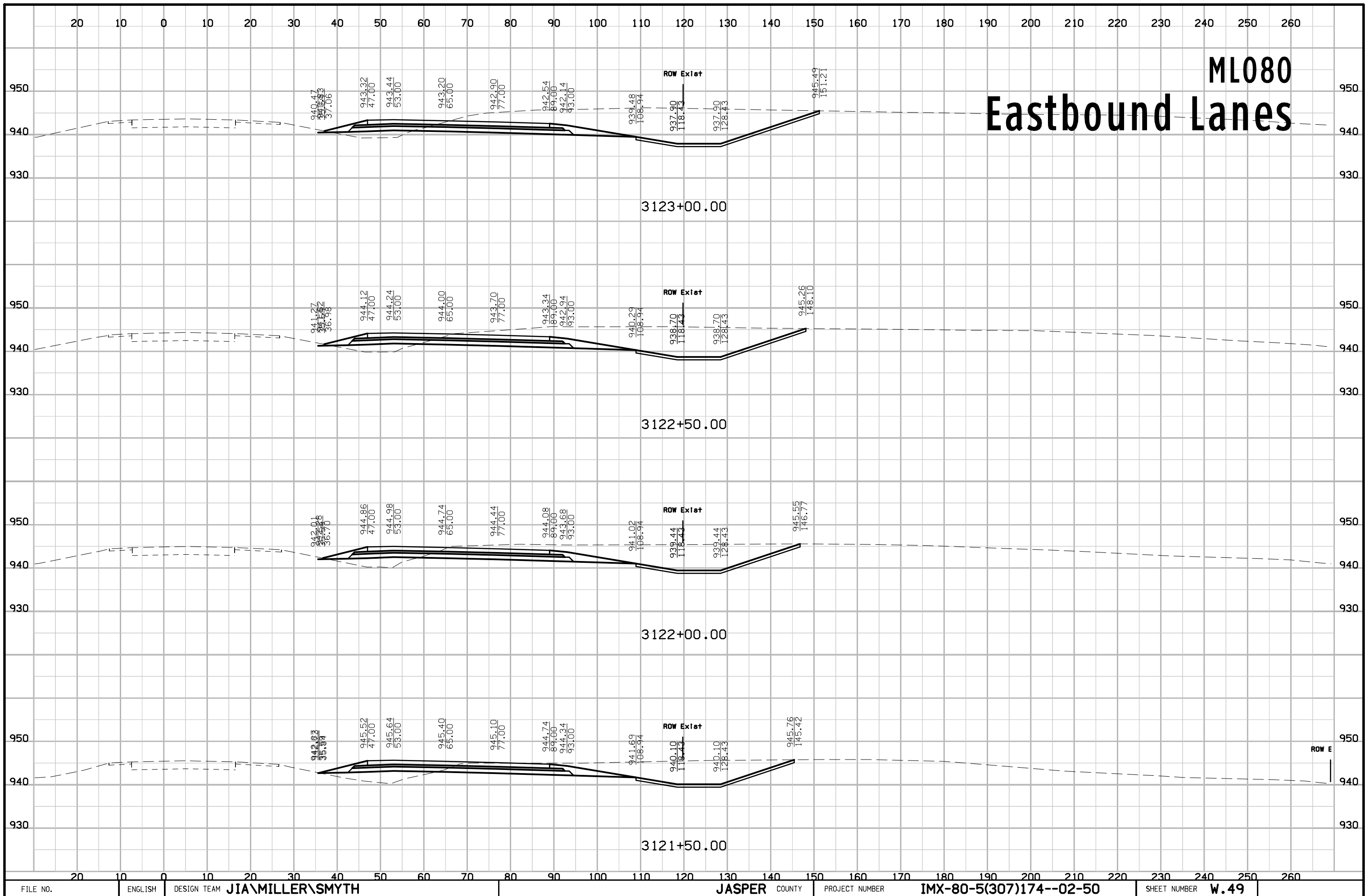
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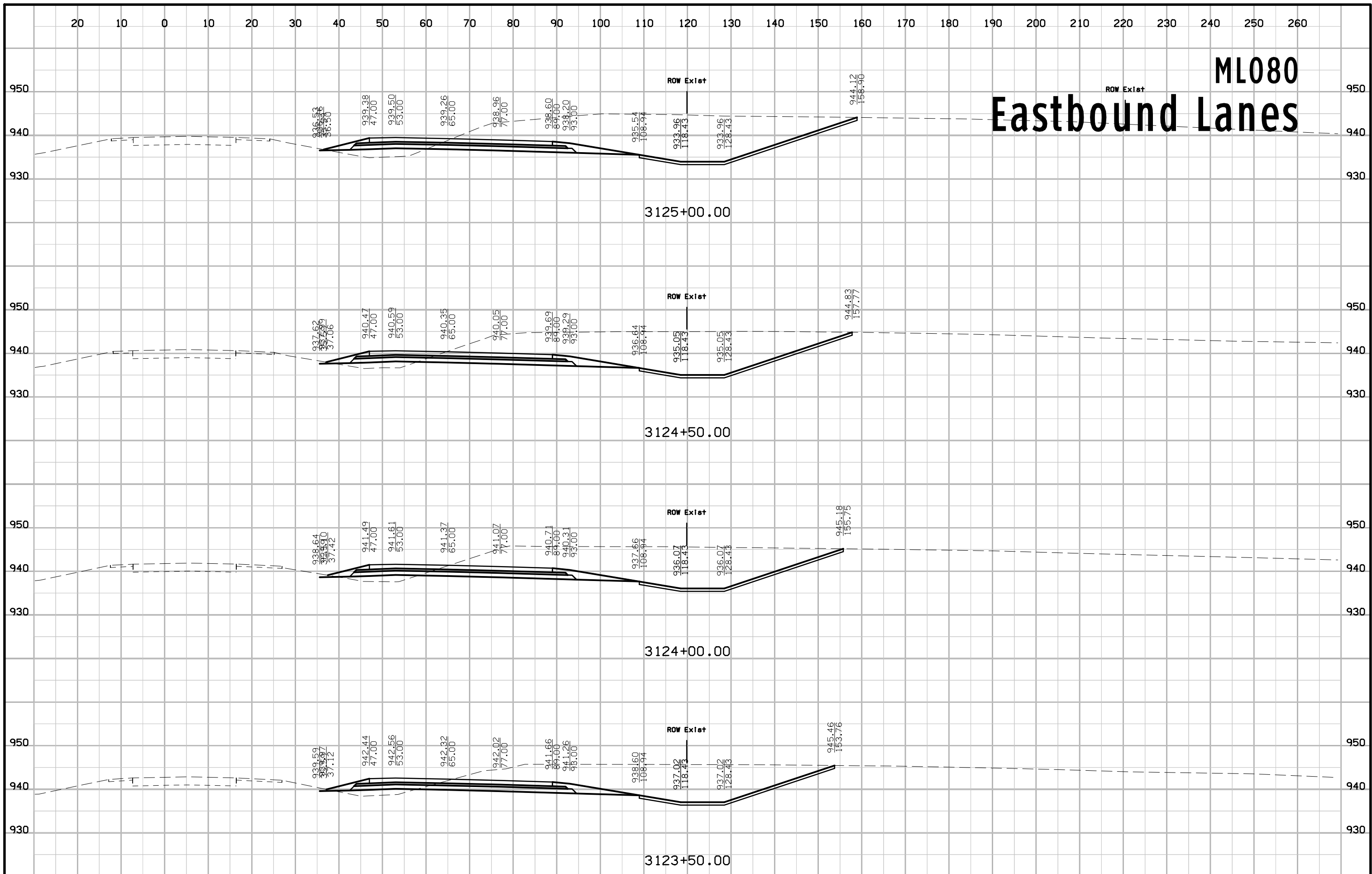
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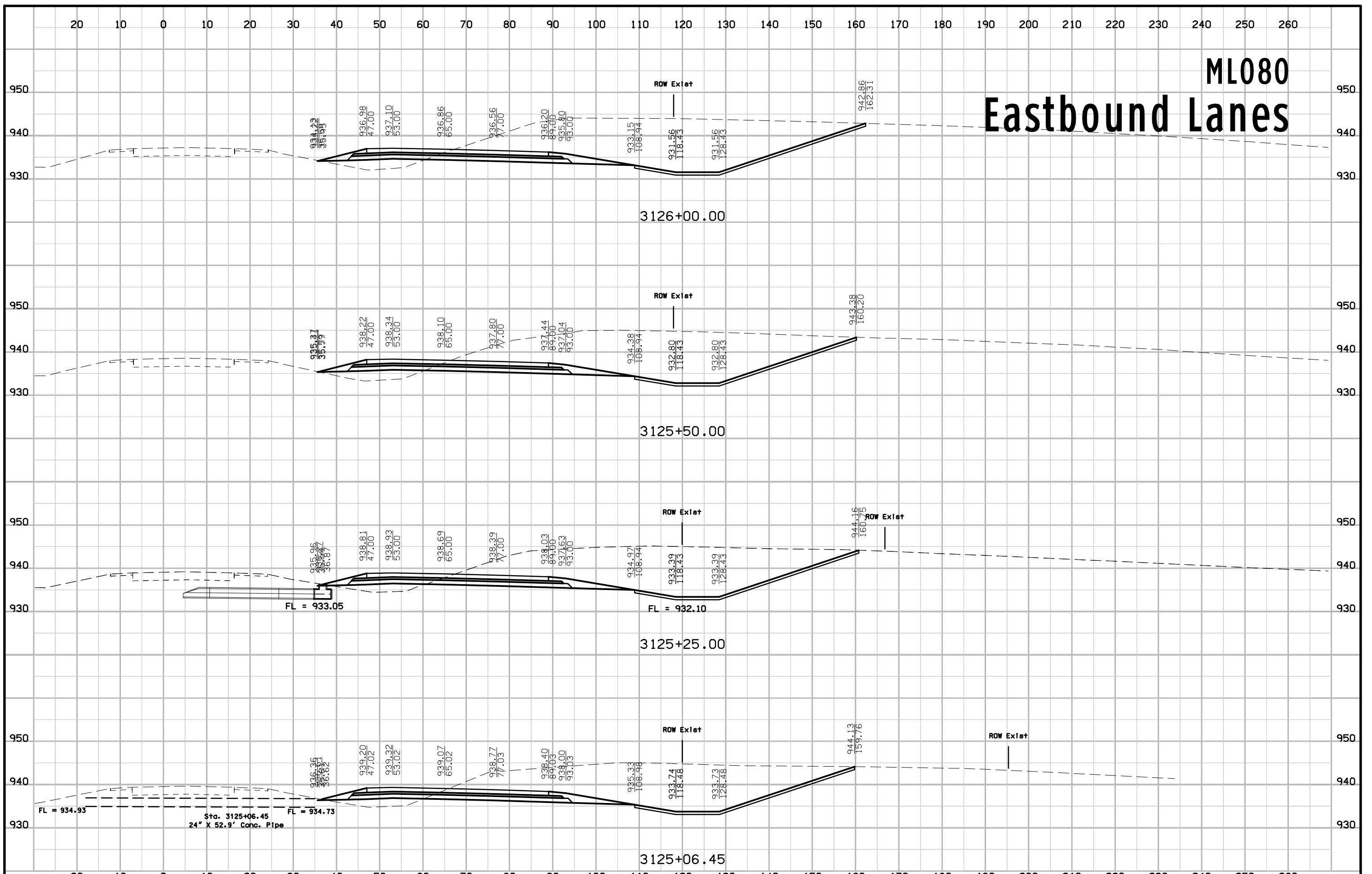




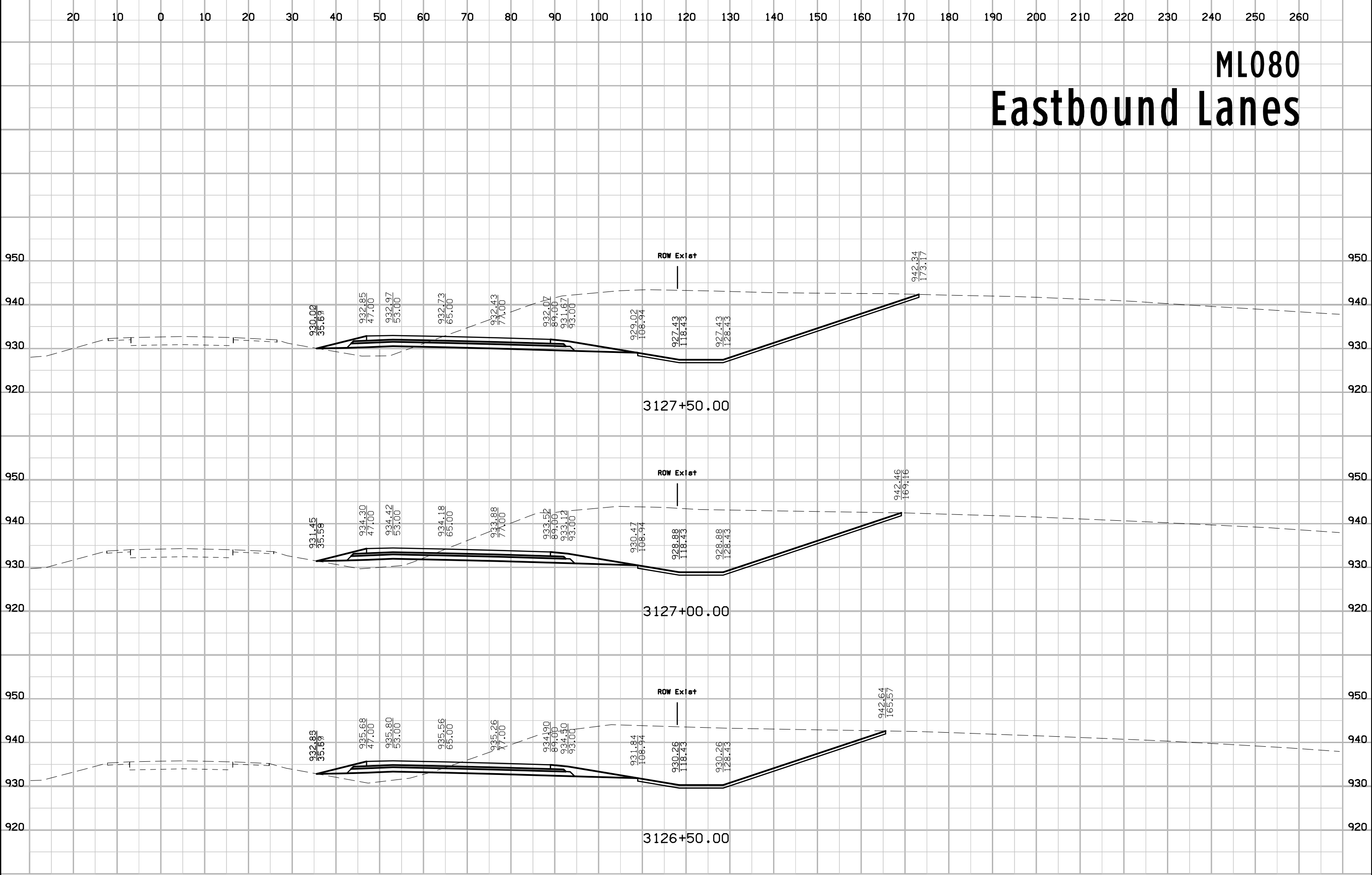


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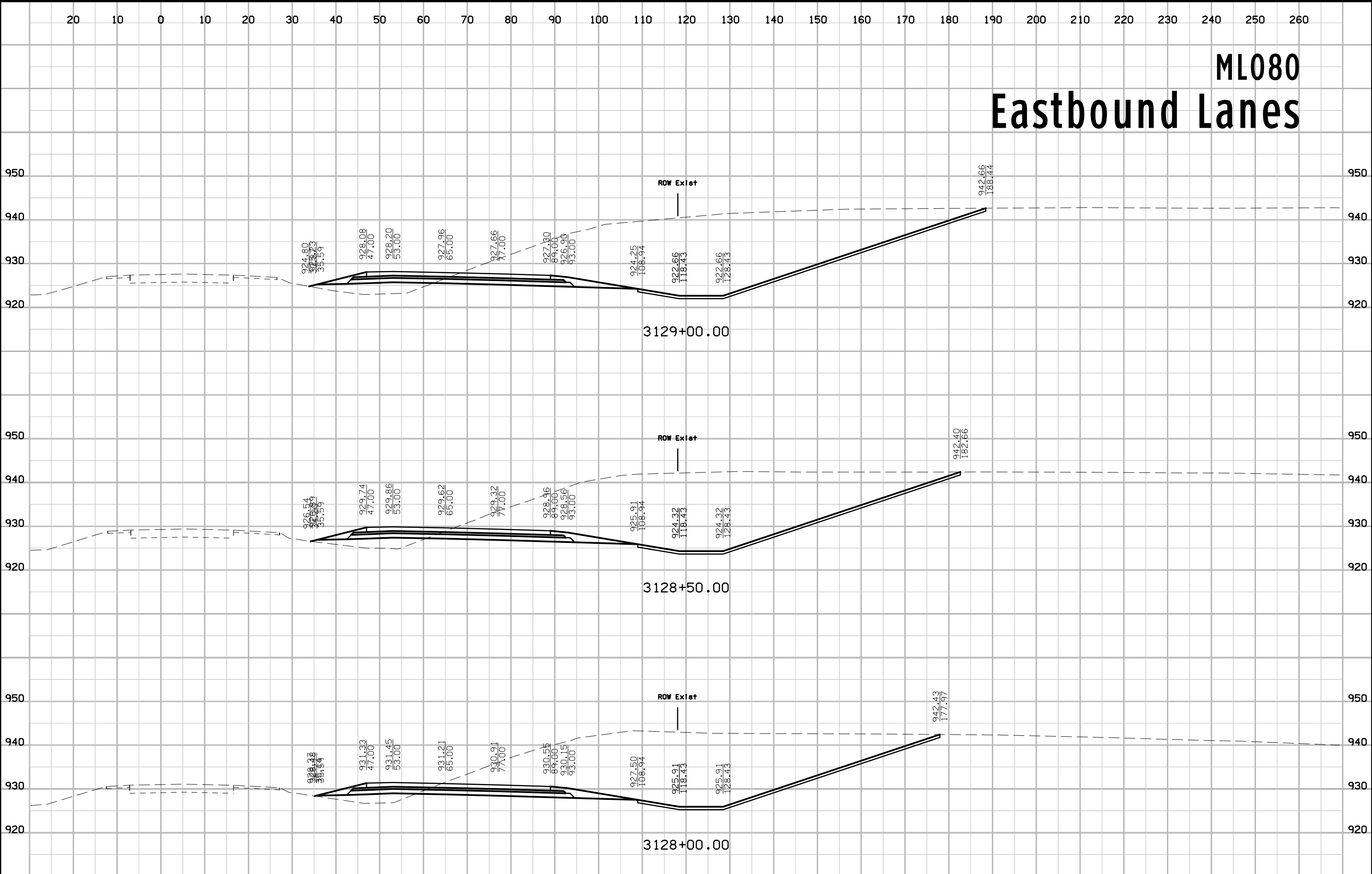
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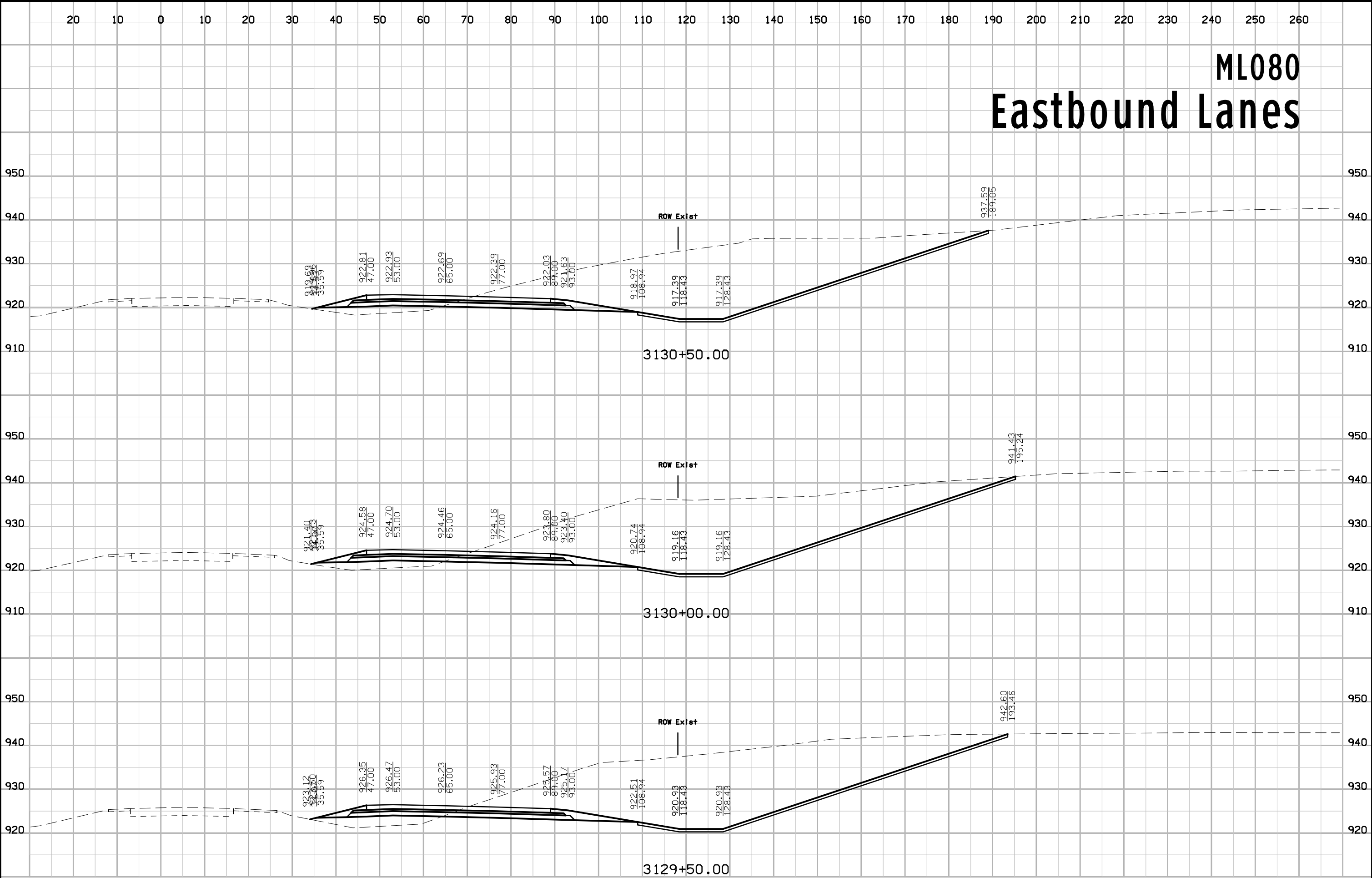
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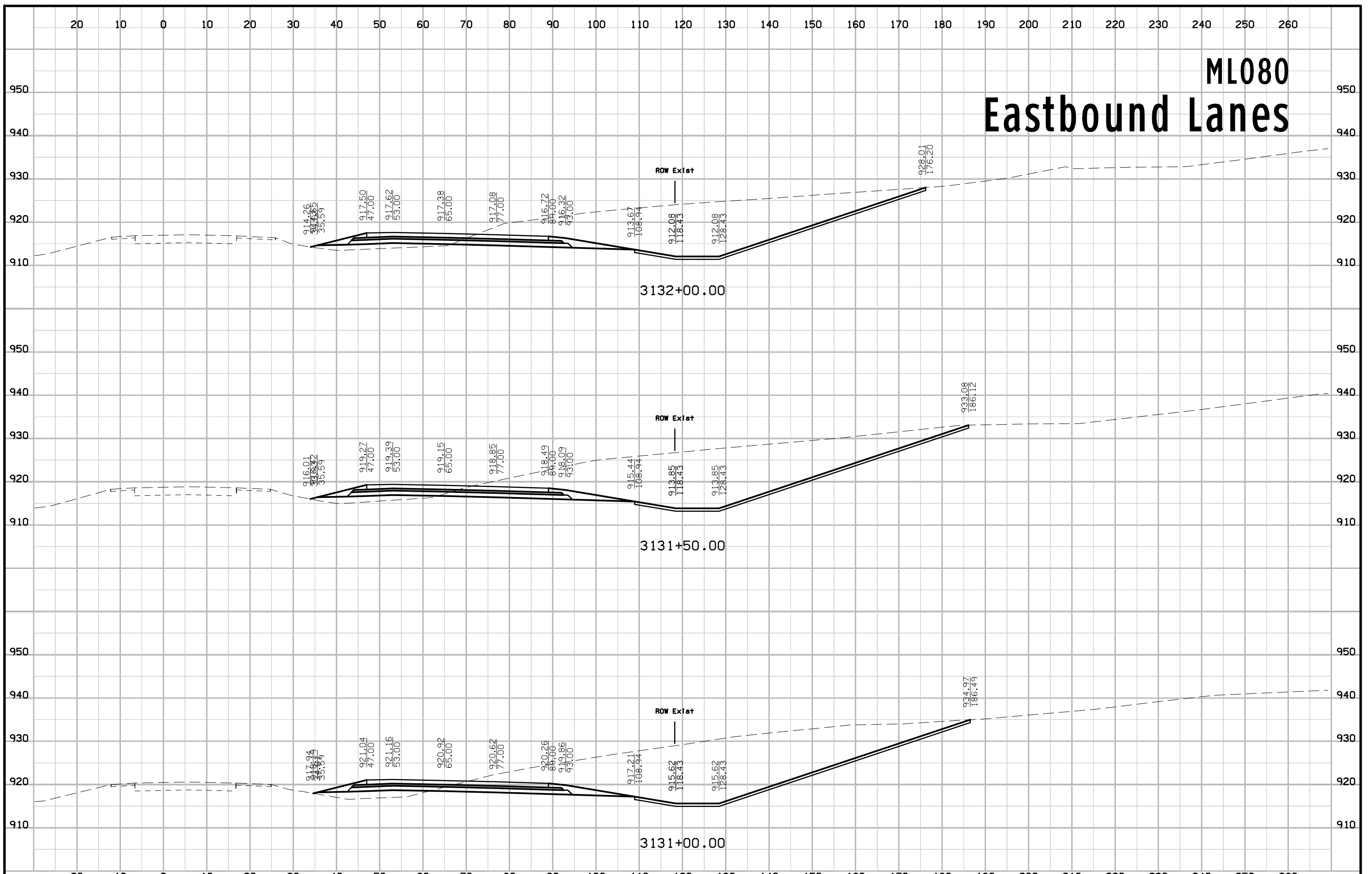
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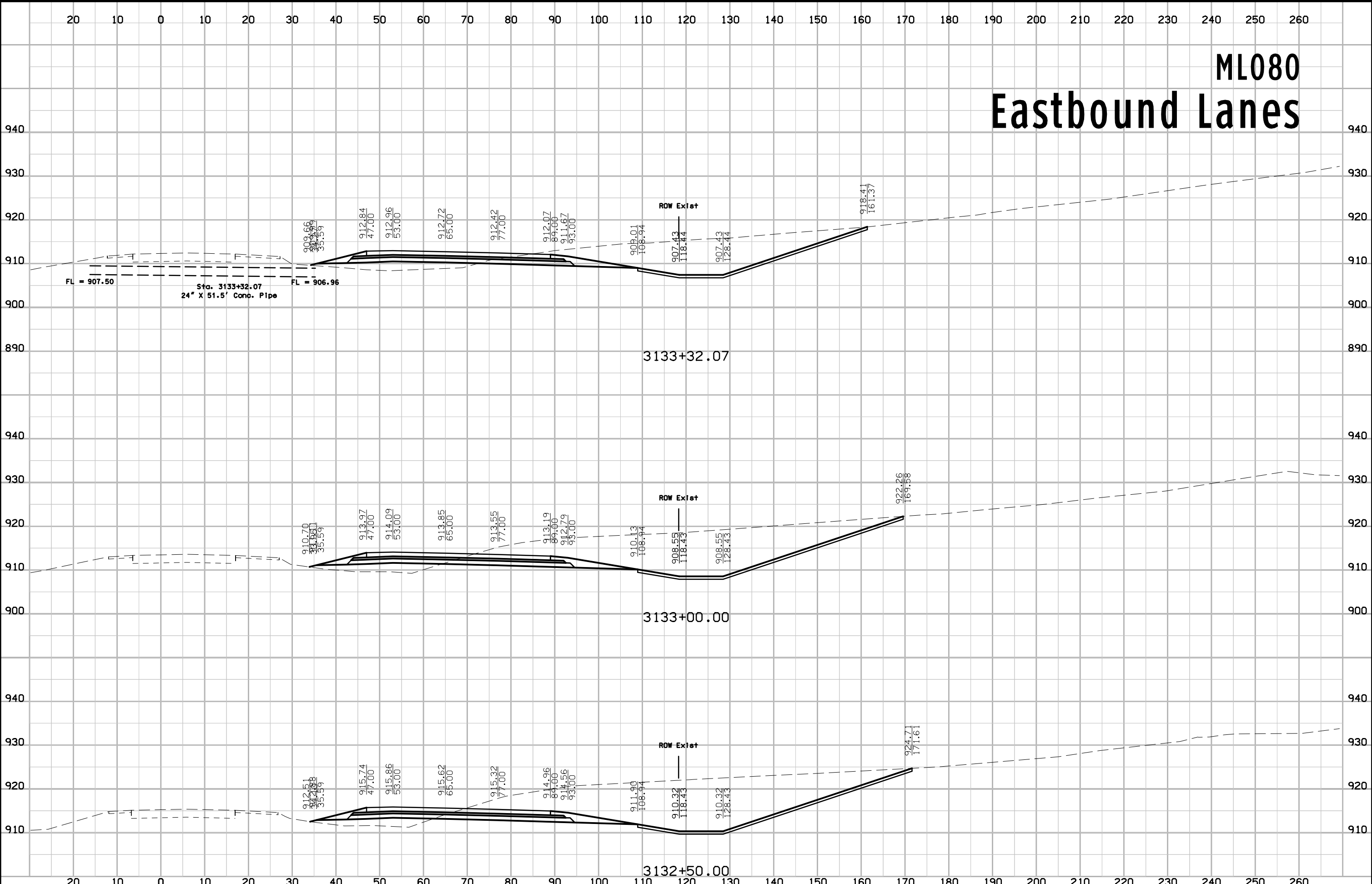
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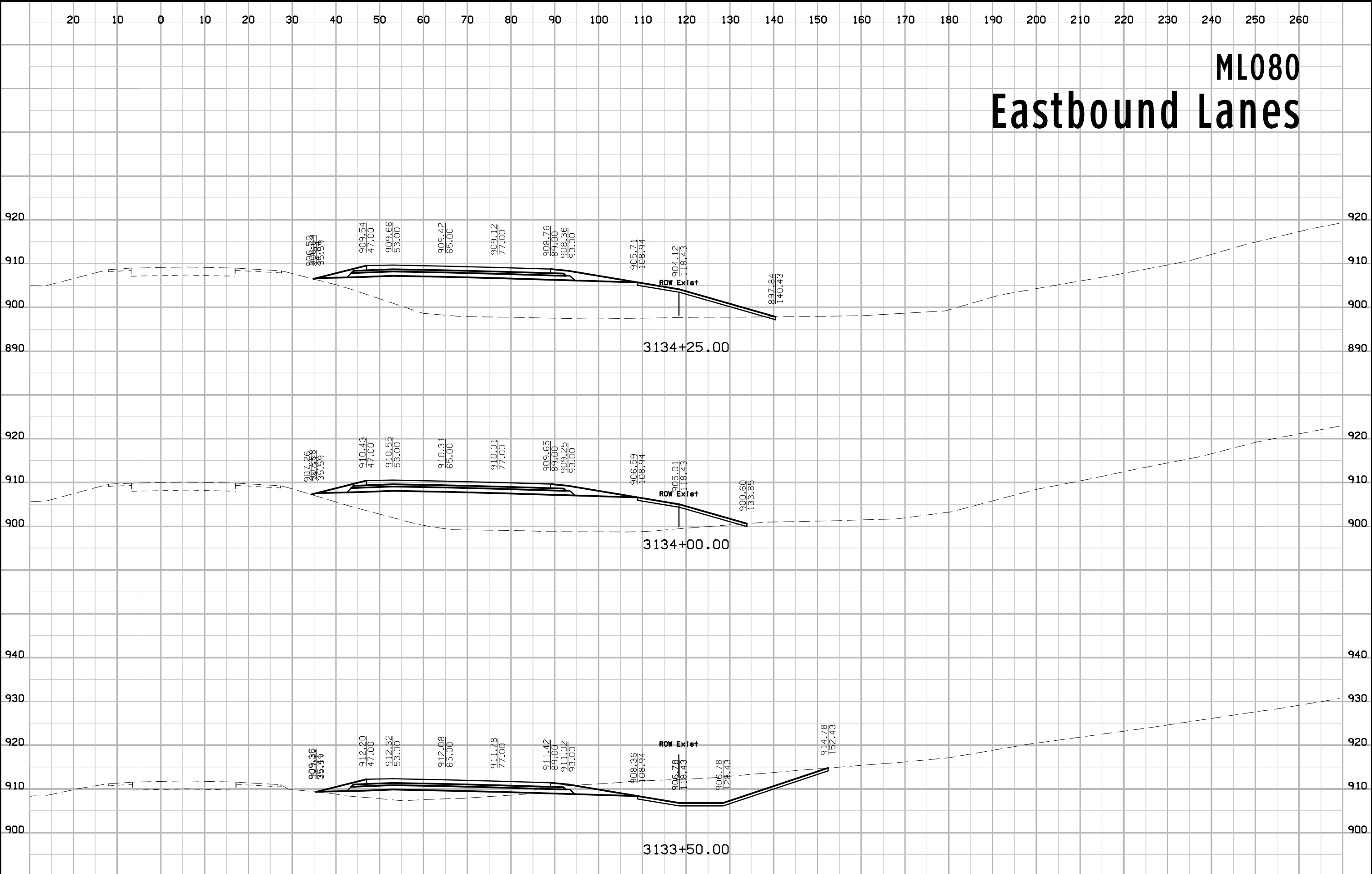
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ML080 Eastbound Lanes

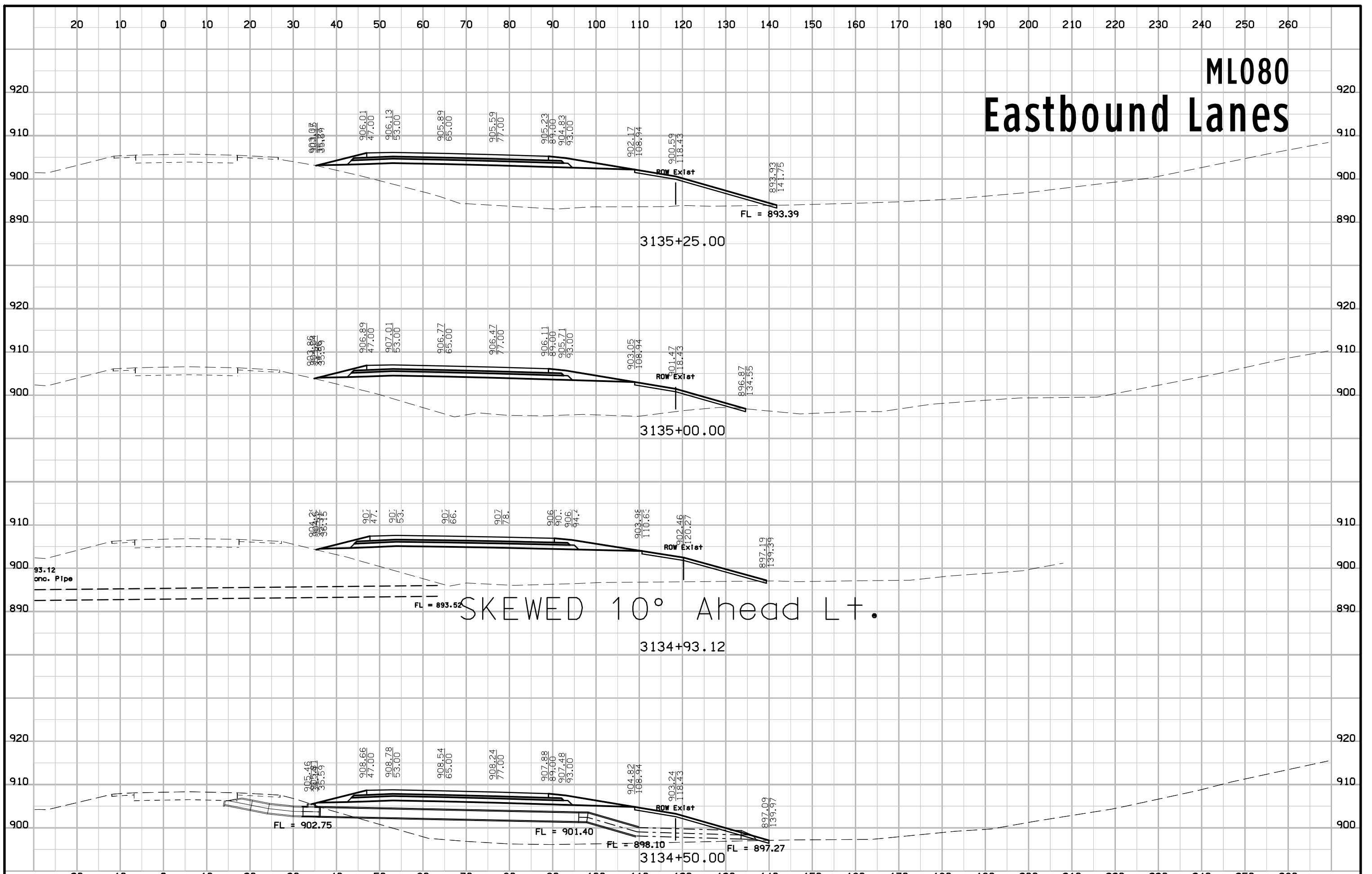


ML080 Eastbound Lanes



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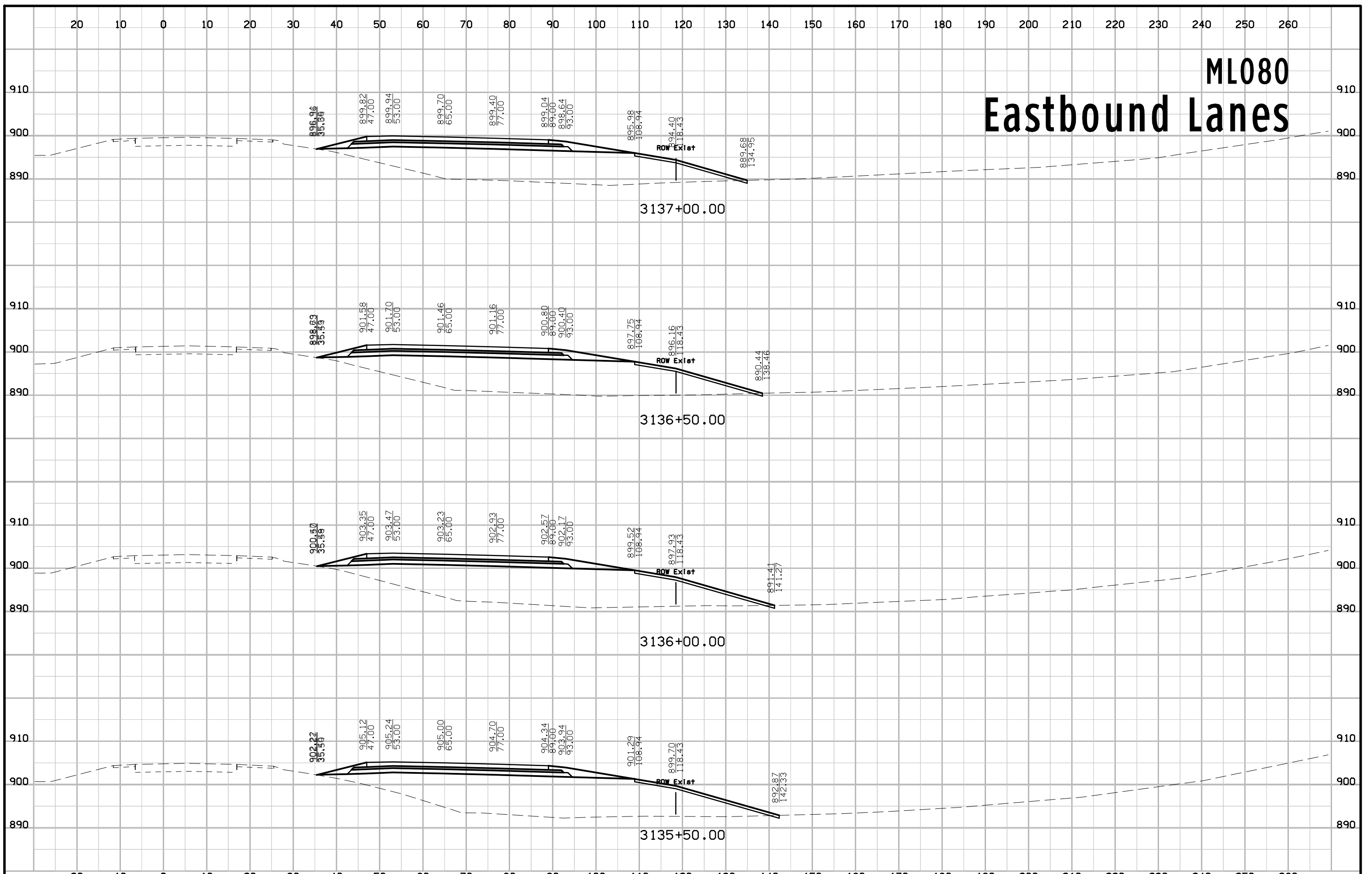
Eastbound Lanes



SKEWED 10° Ahead Lt.

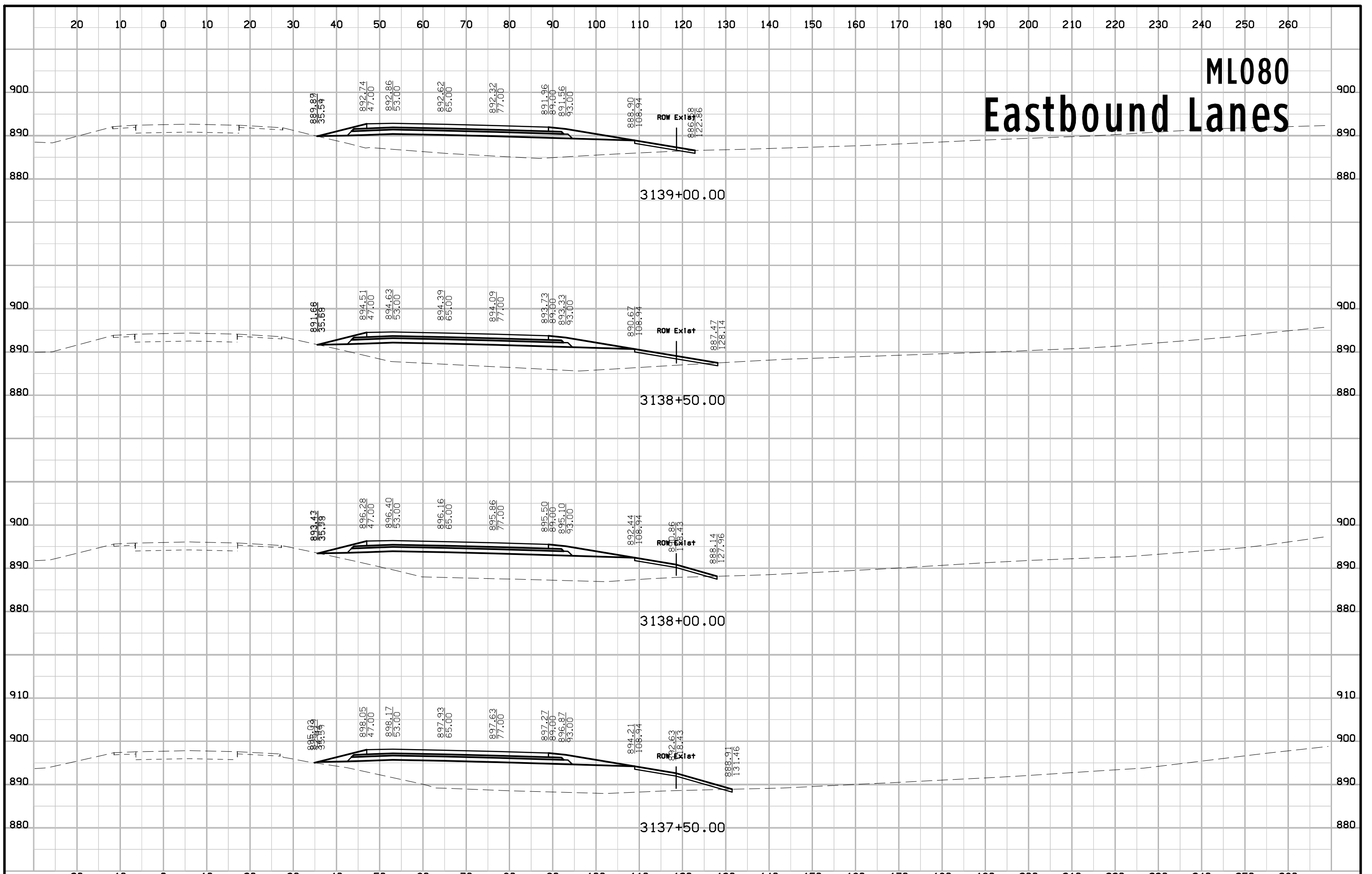
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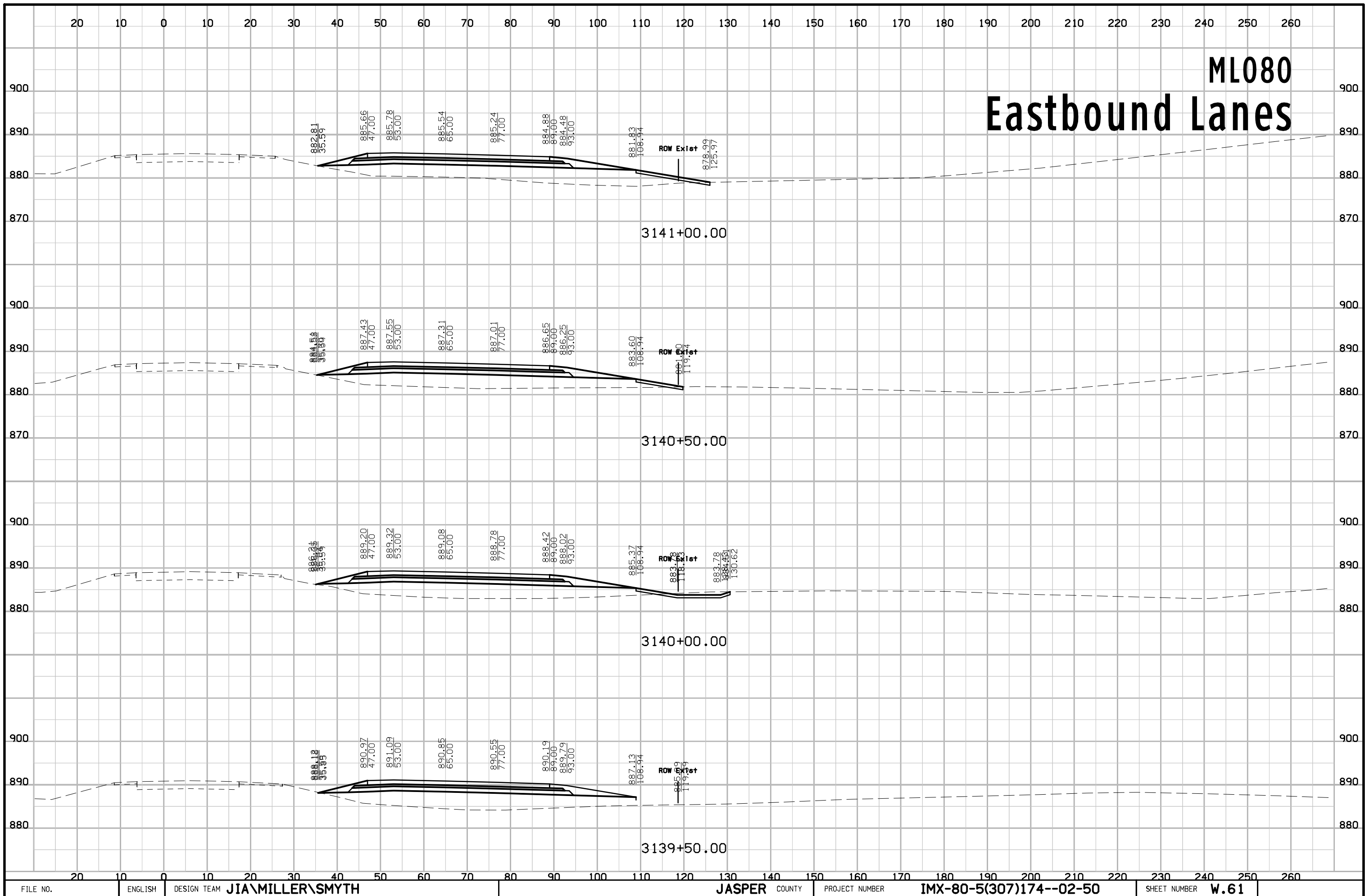
Eastbound Lanes



ML080

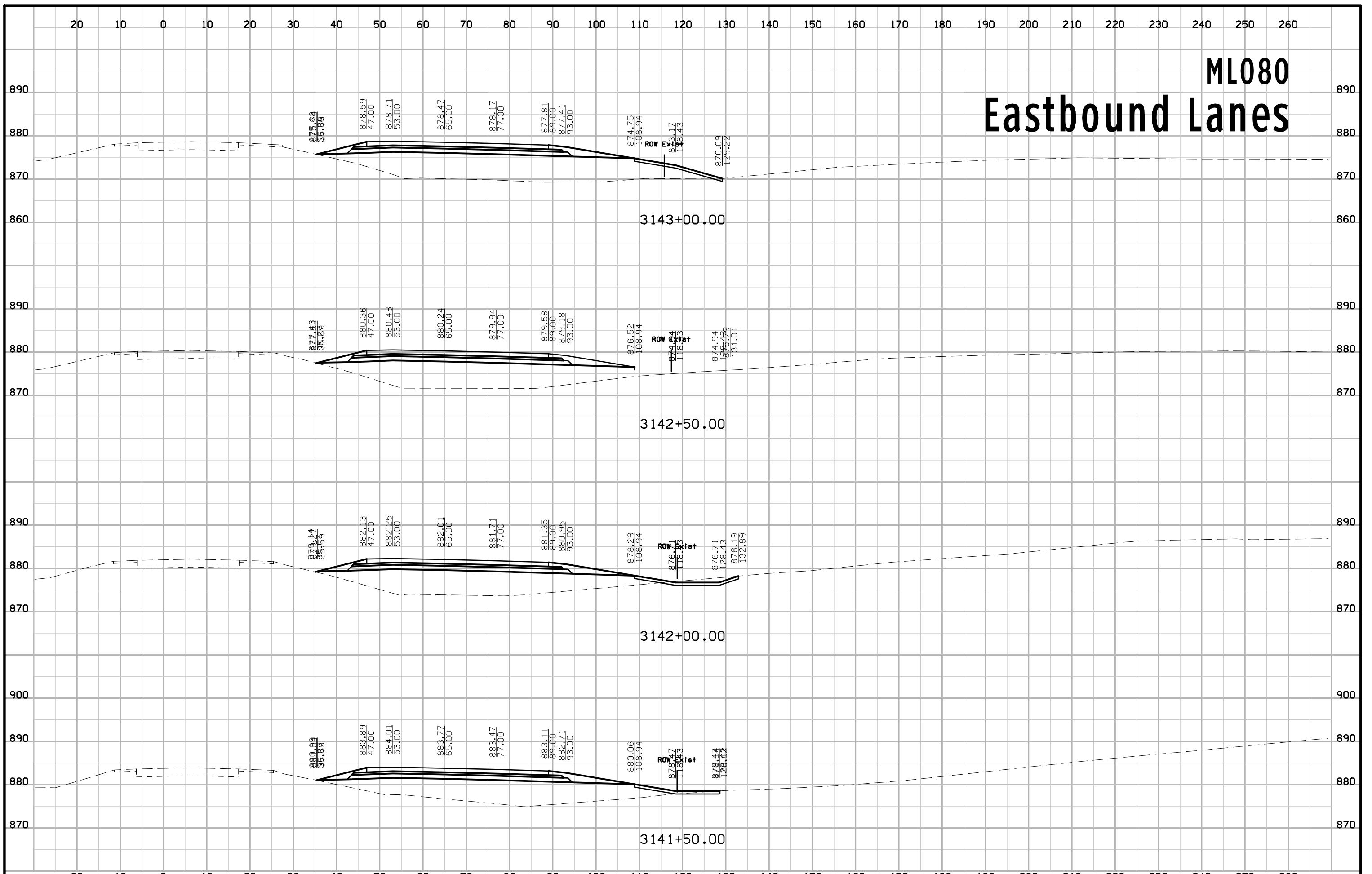
Eastbound Lanes





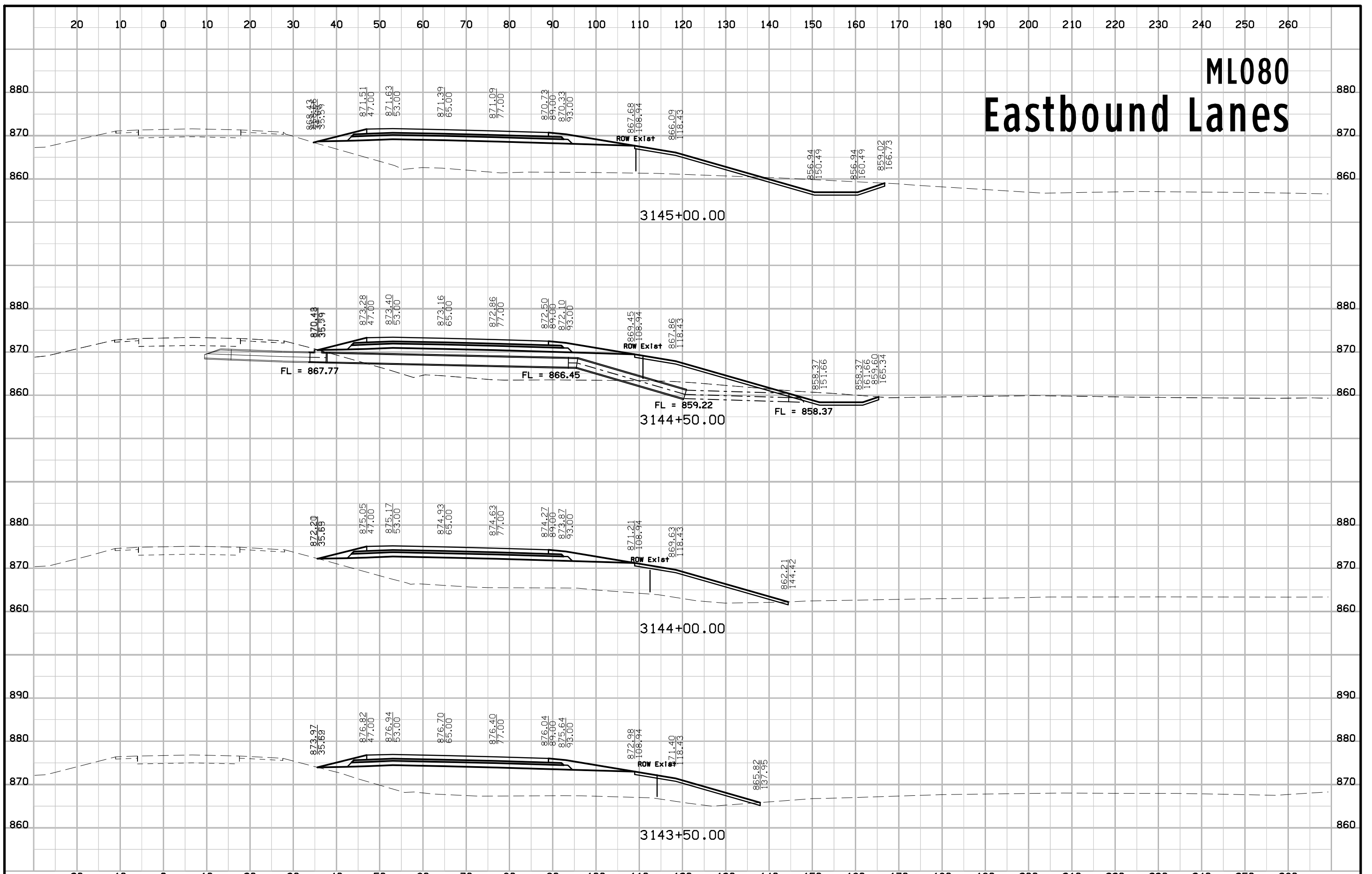
ML080

Eastbound Lanes

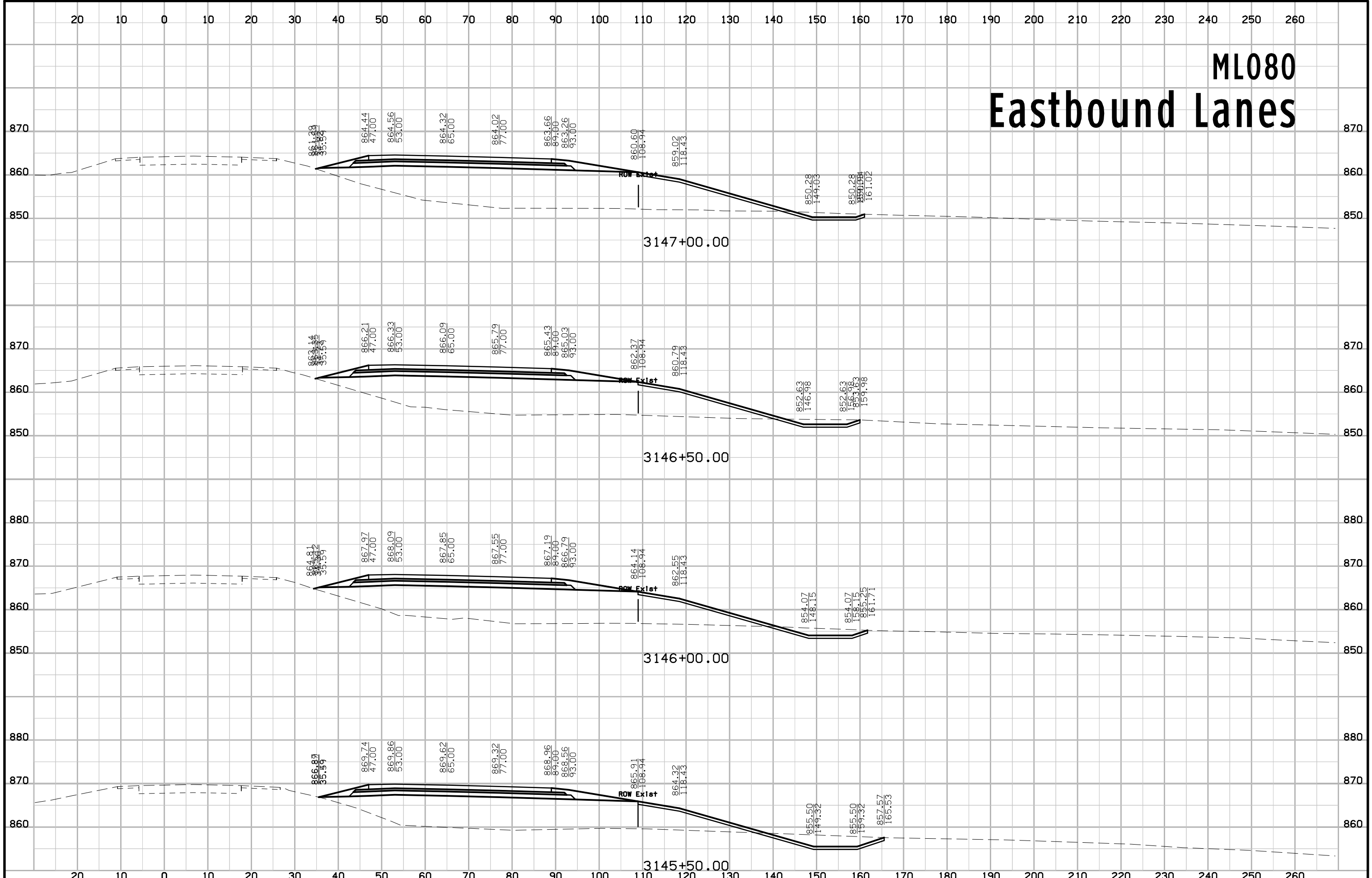


ML080

Eastbound Lanes

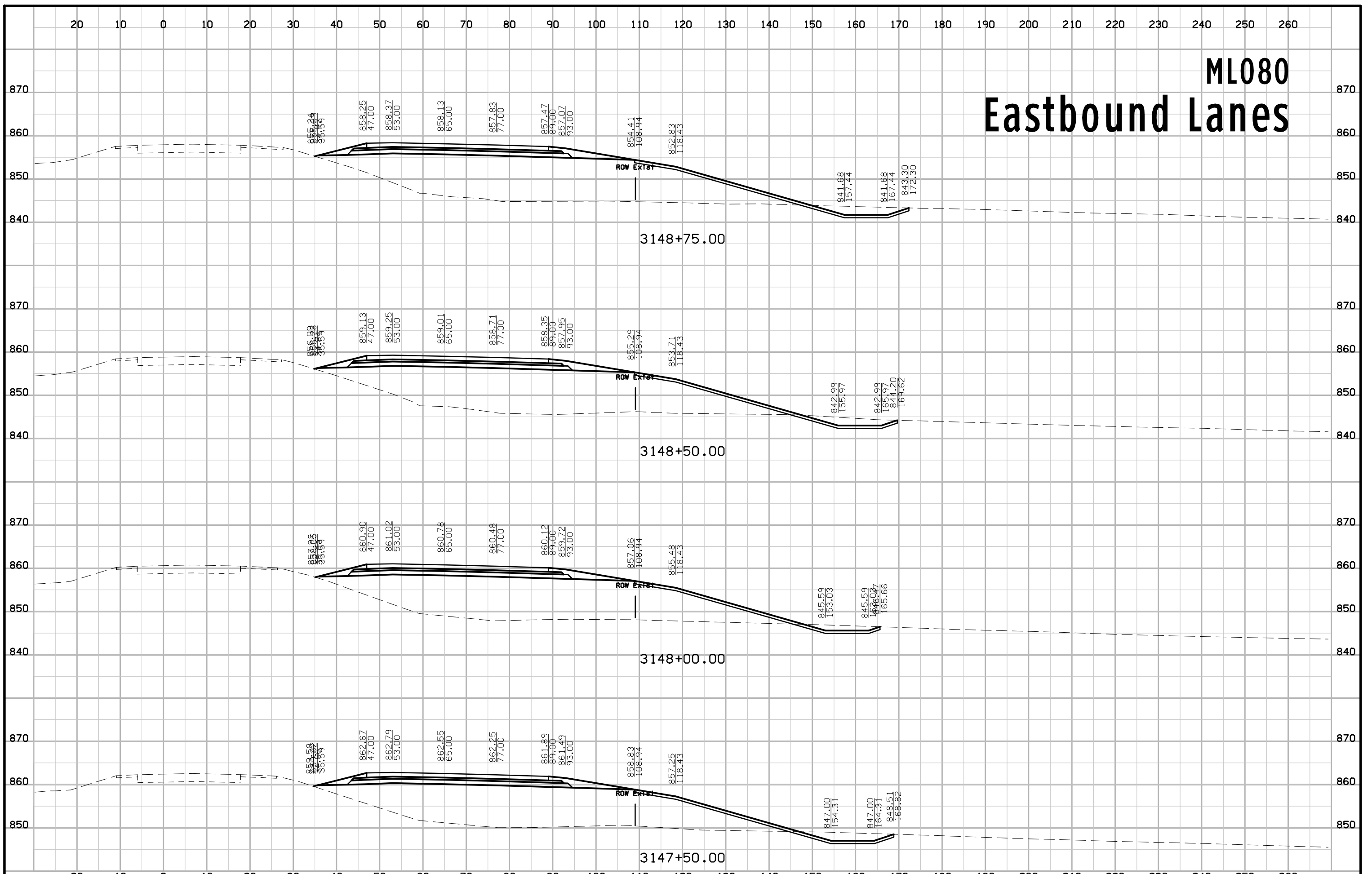


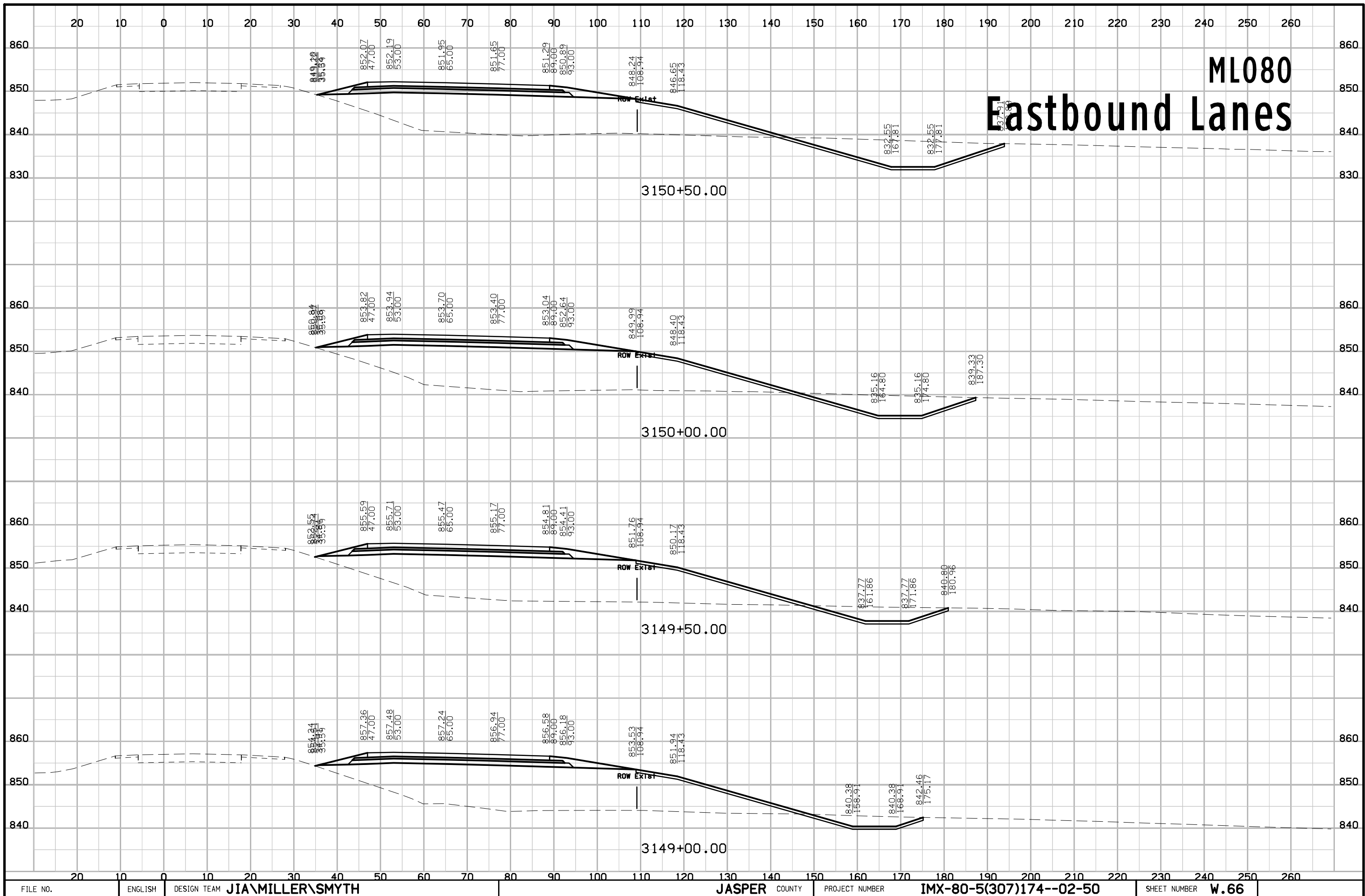
ML080 Eastbound Lanes



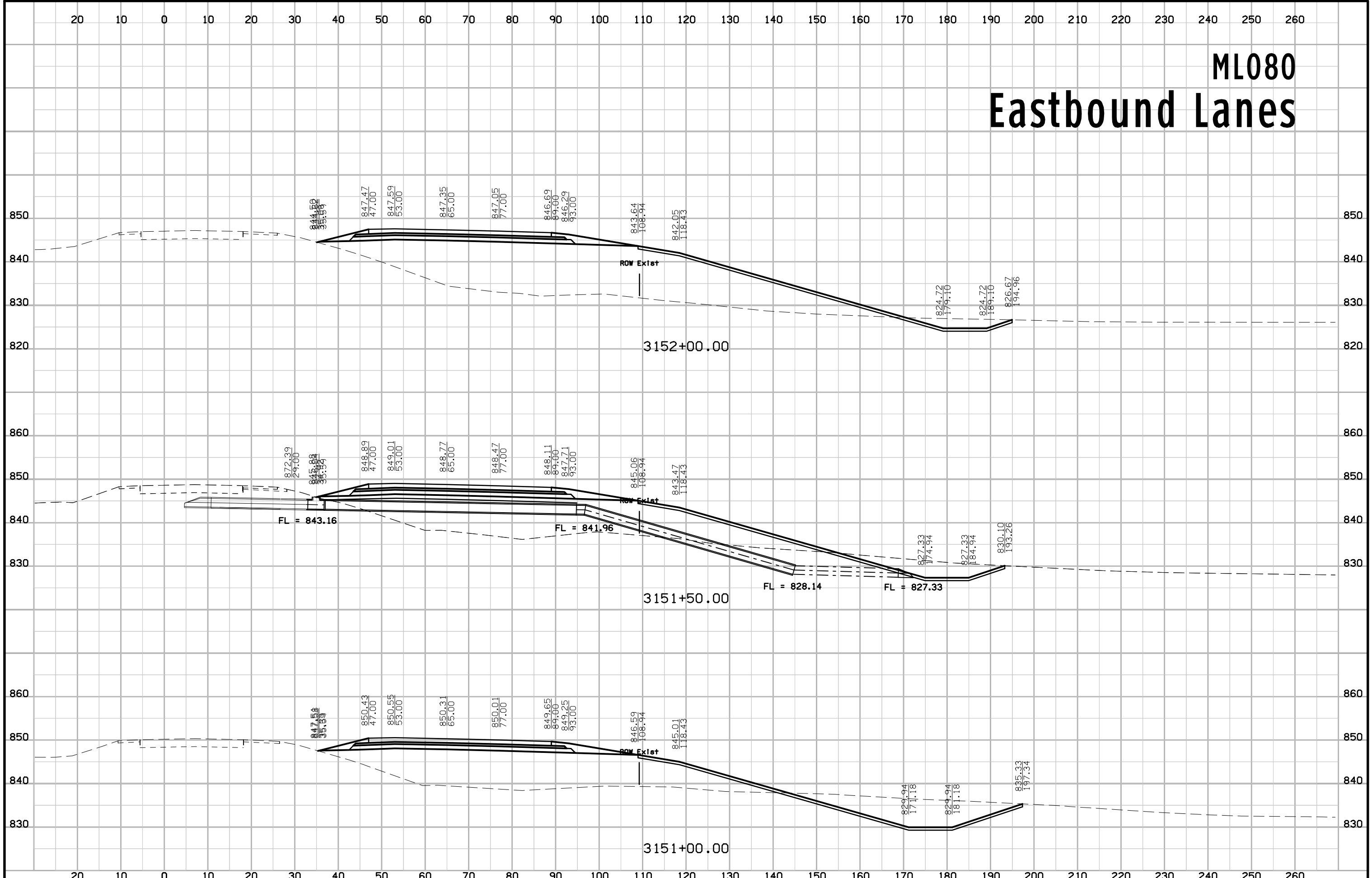
ML080

Eastbound Lanes

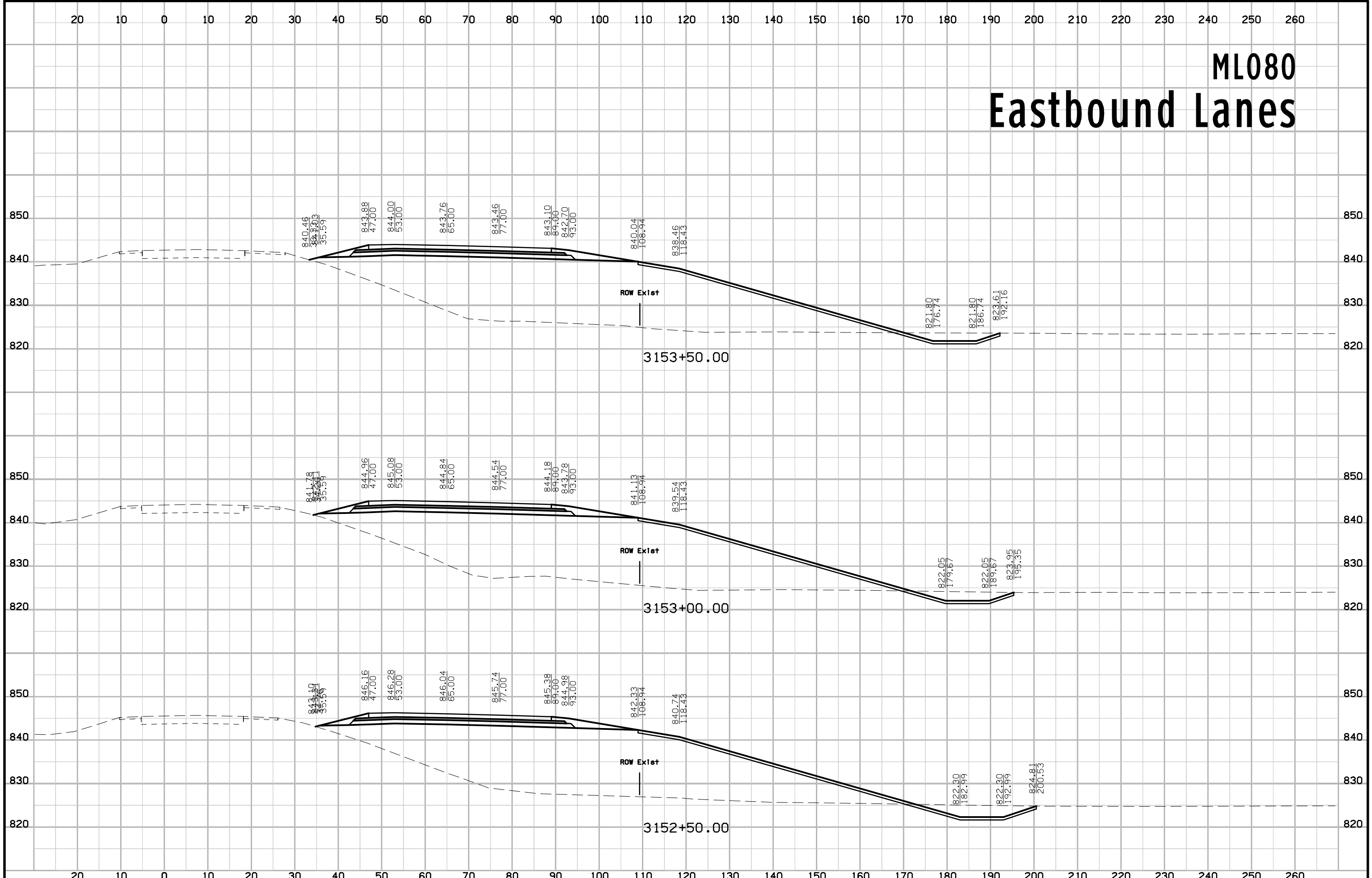


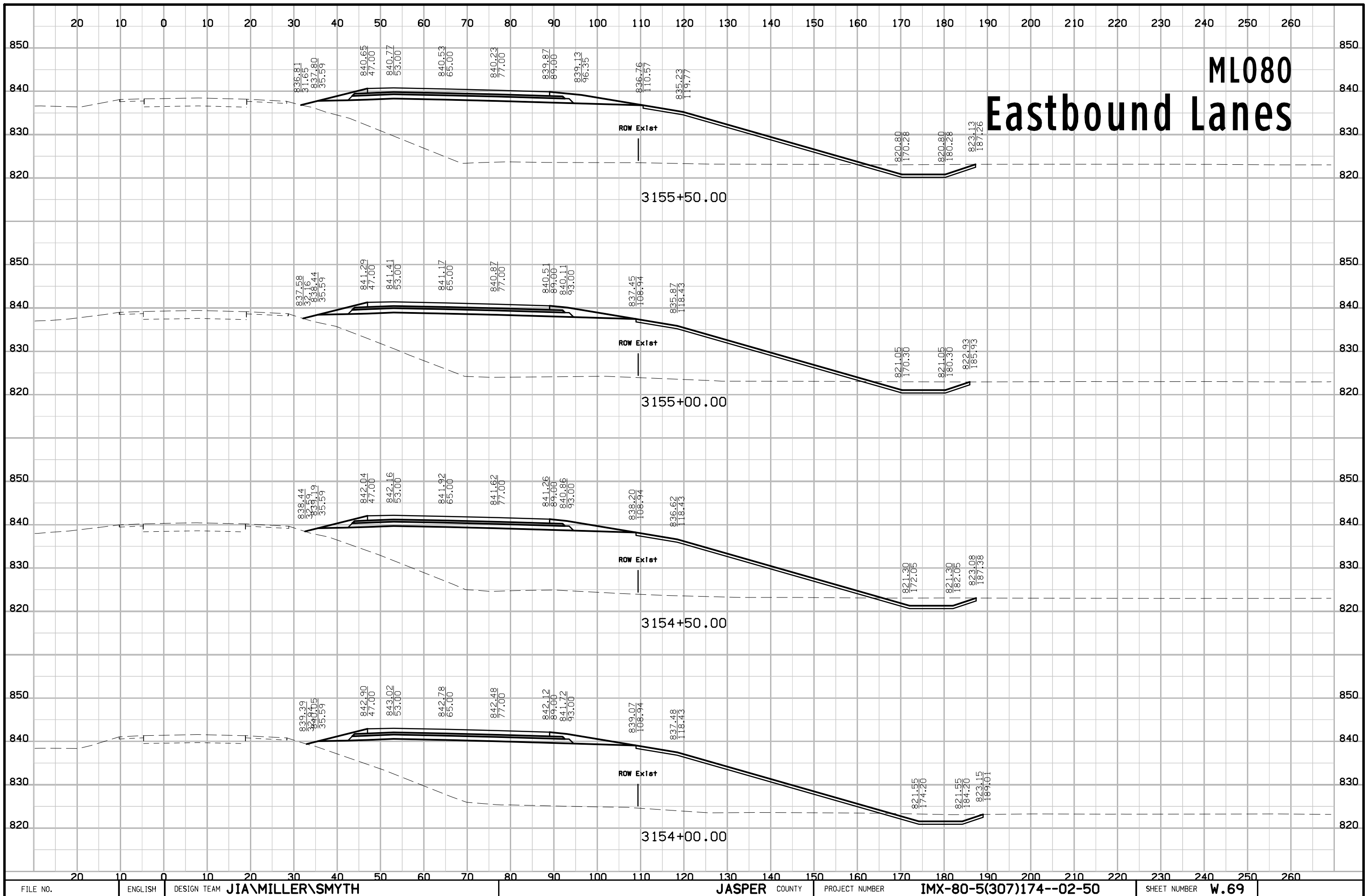


ML080 Eastbound Lanes

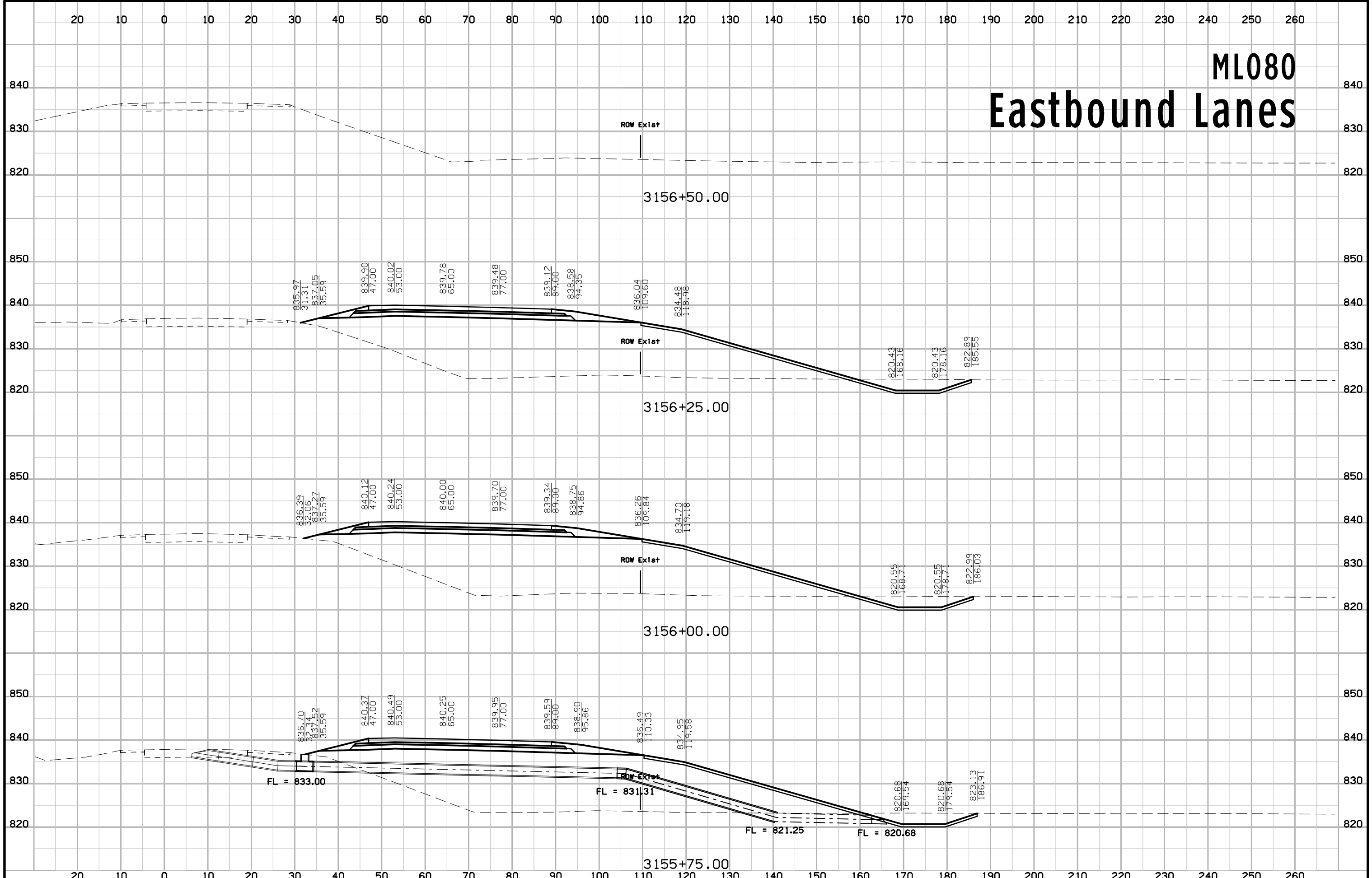


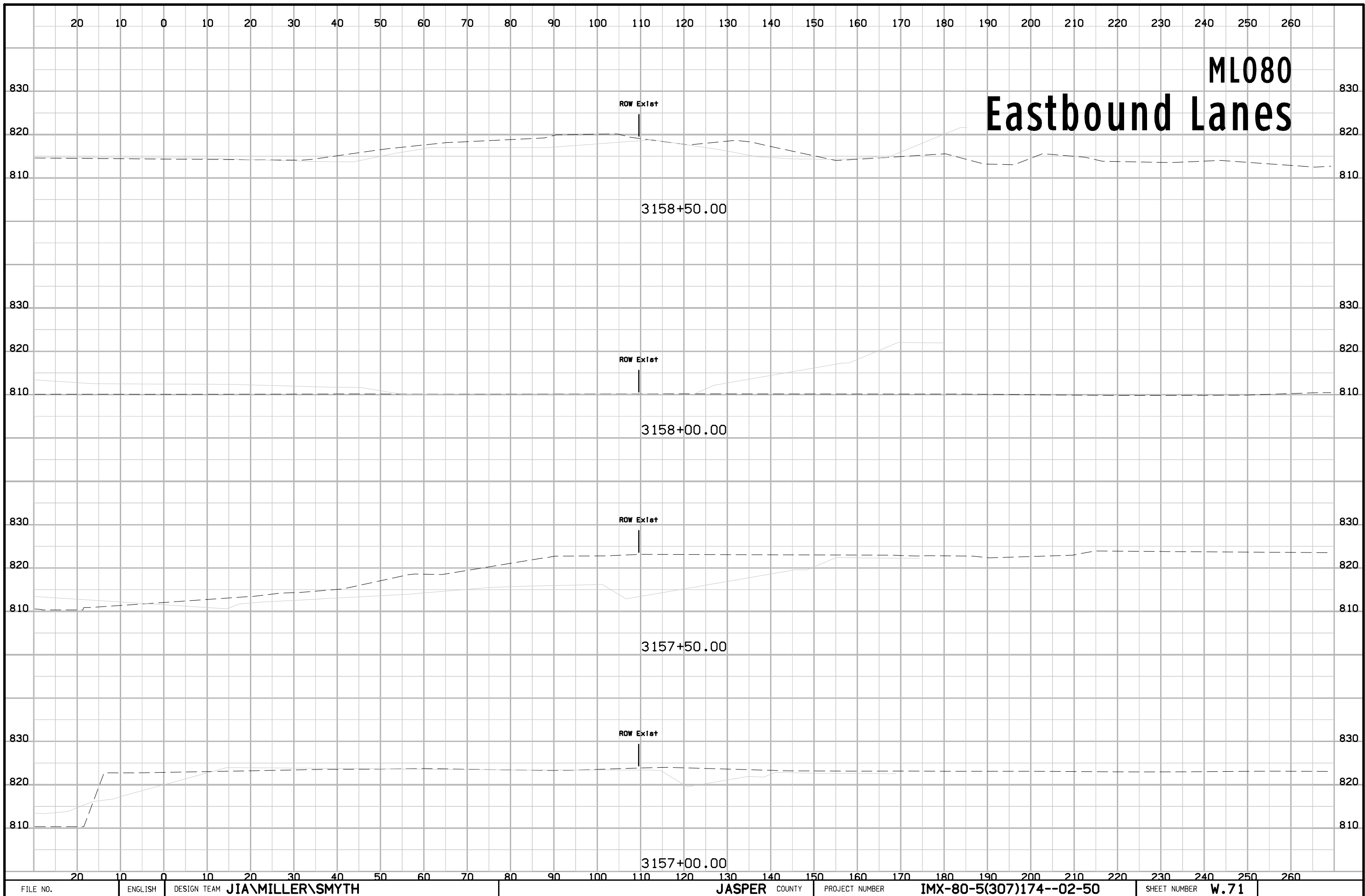
ML080 Eastbound Lanes



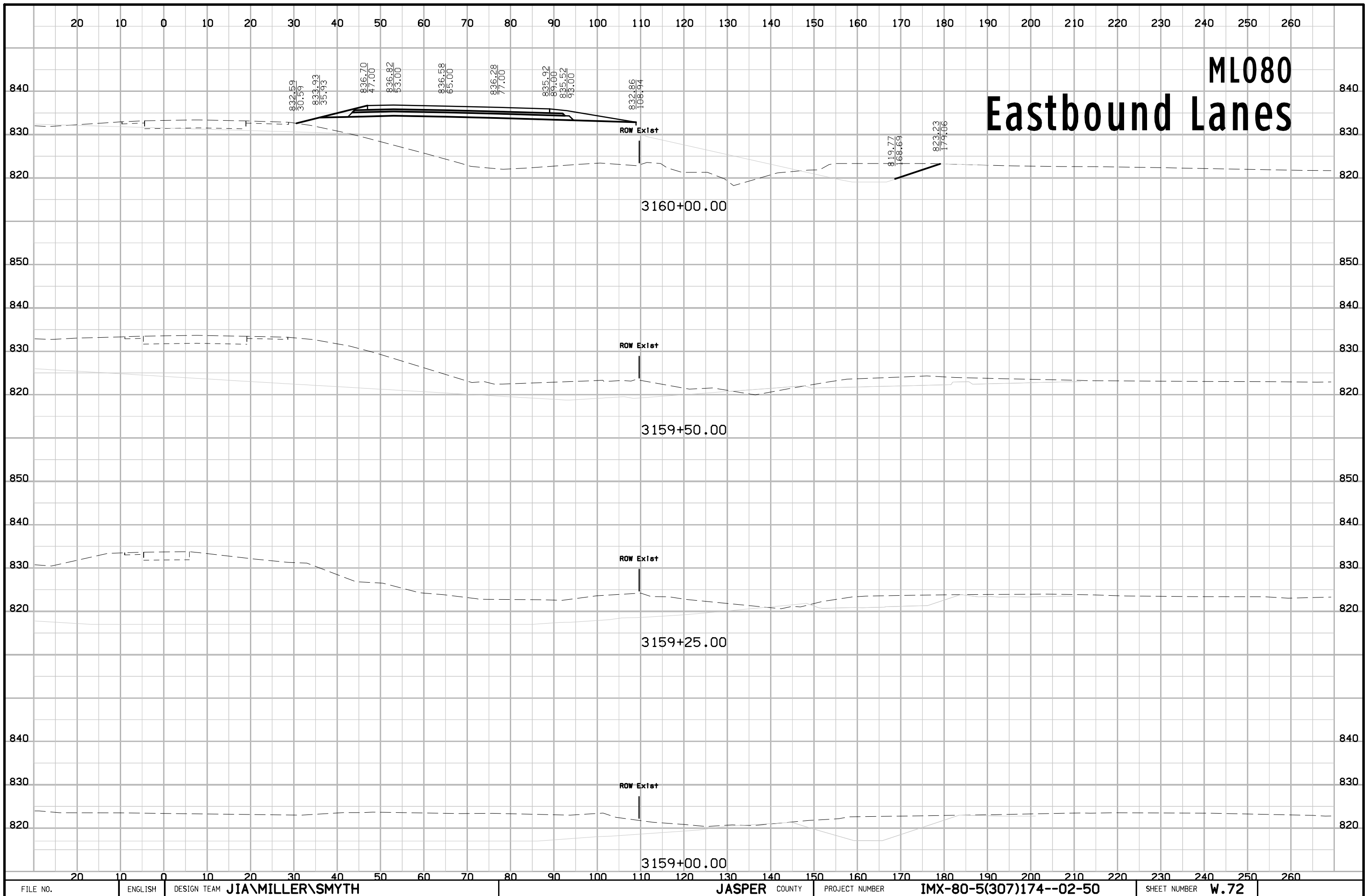


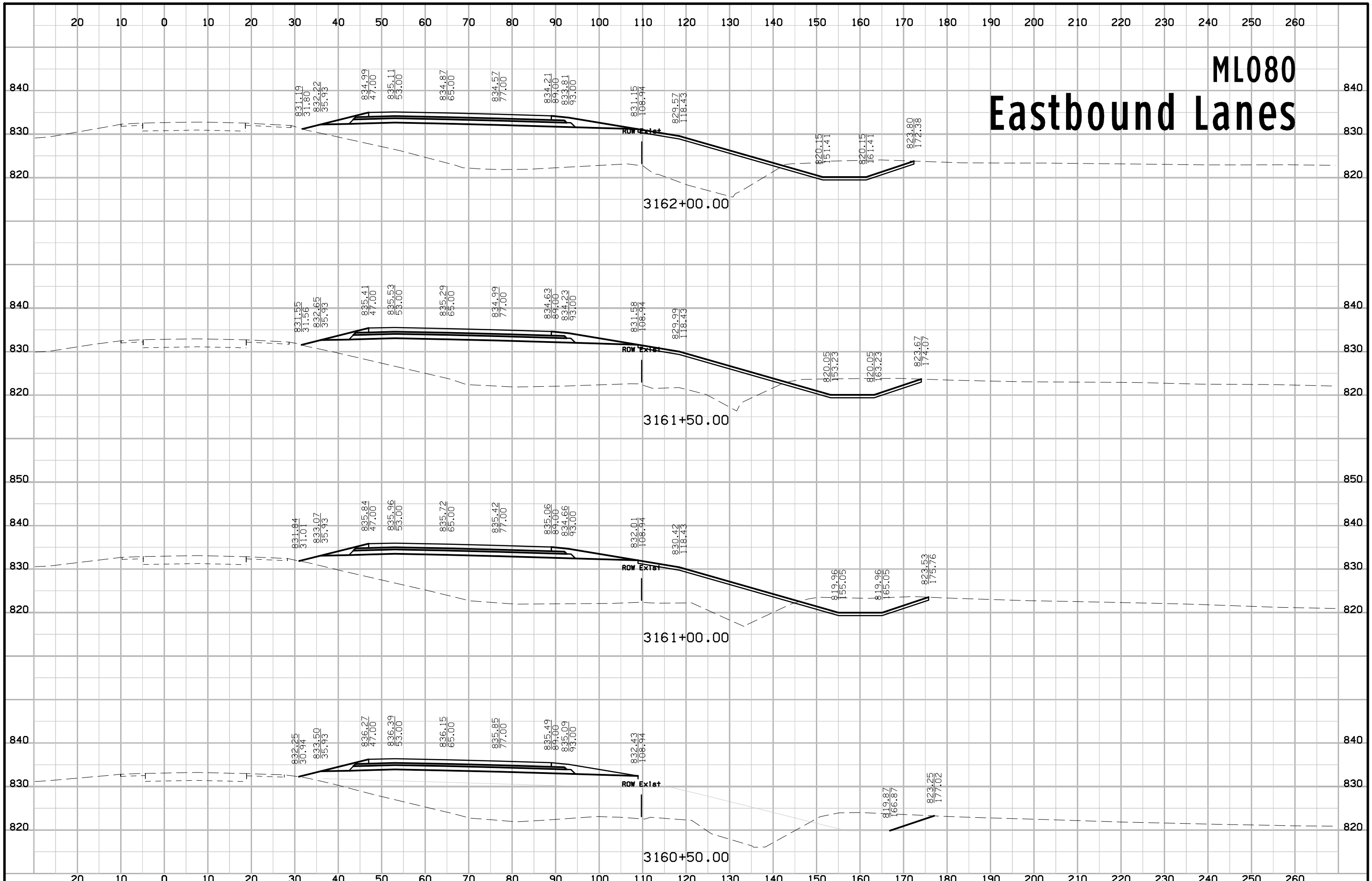
ML080 Eastbound Lanes





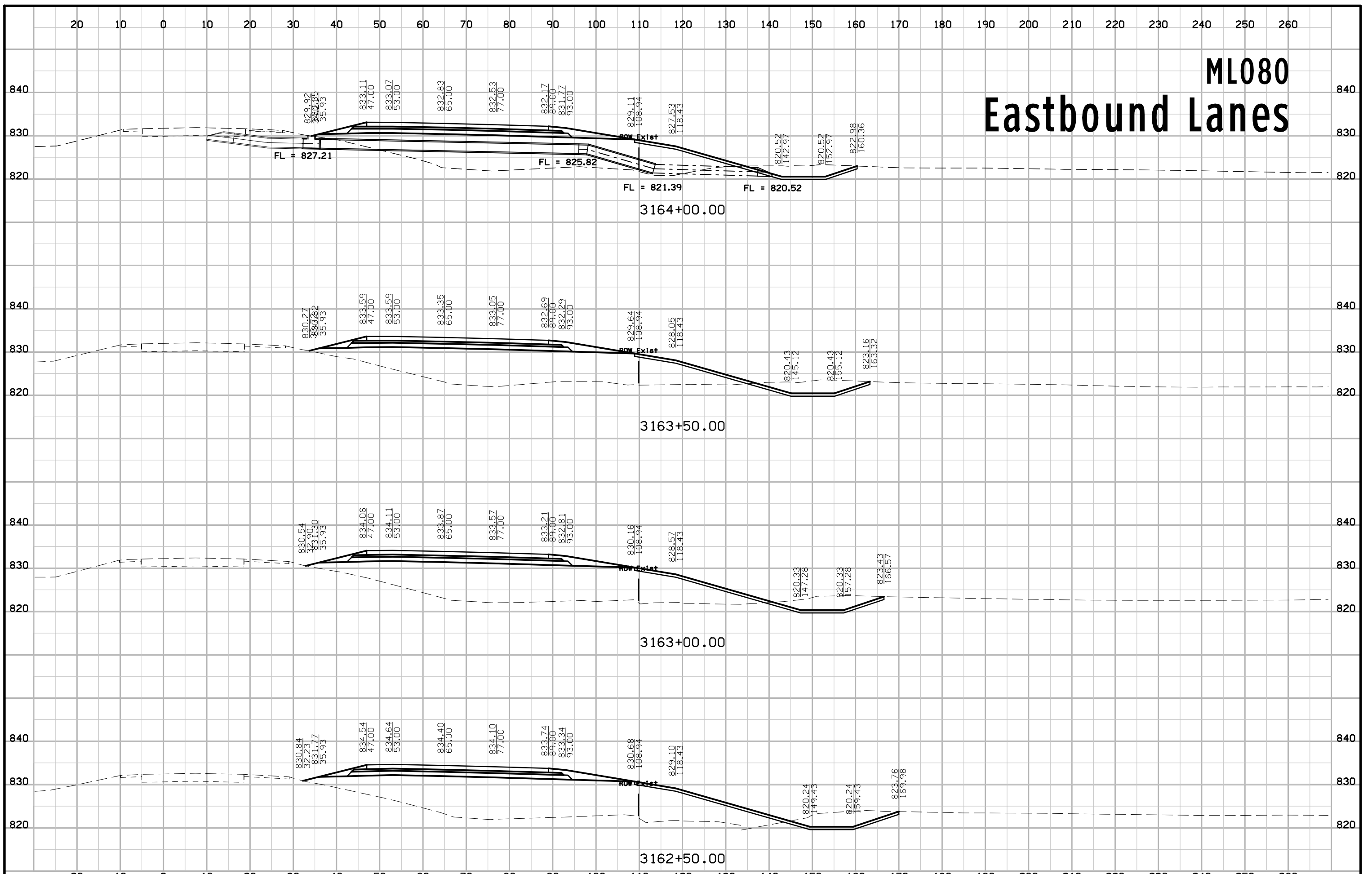
ML080 Eastbound Lanes





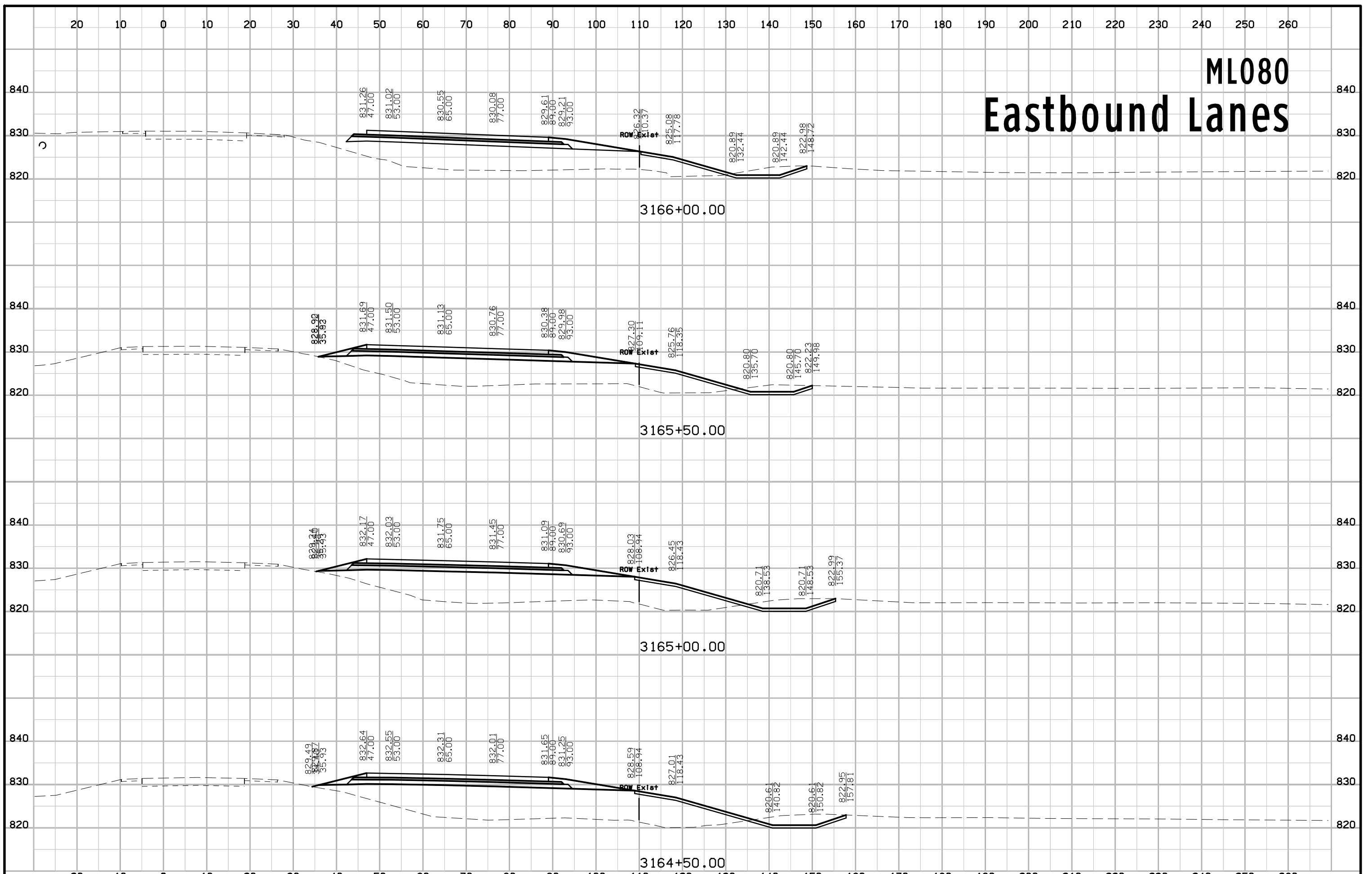
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Eastbound Lanes



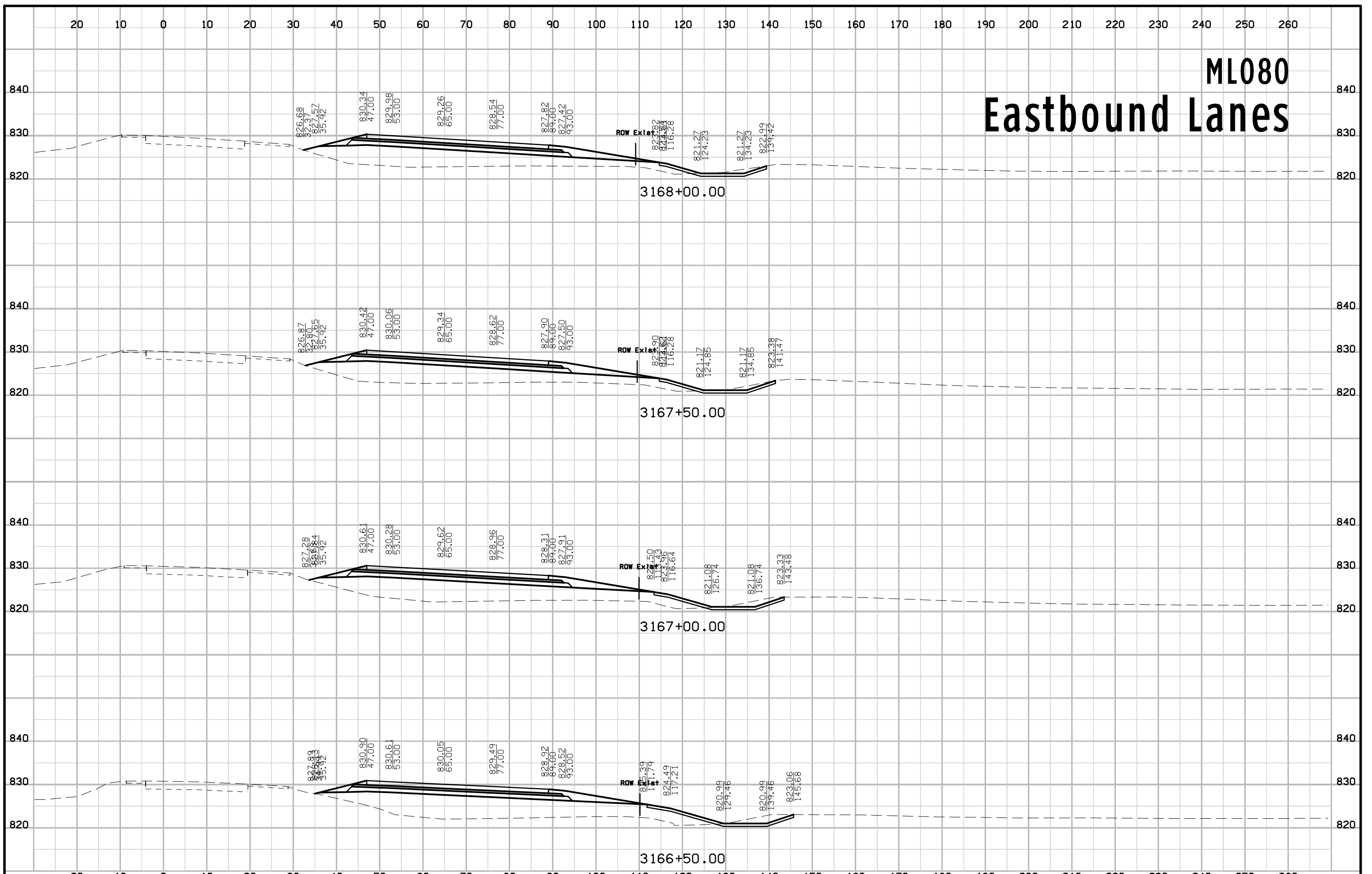
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Eastbound Lanes

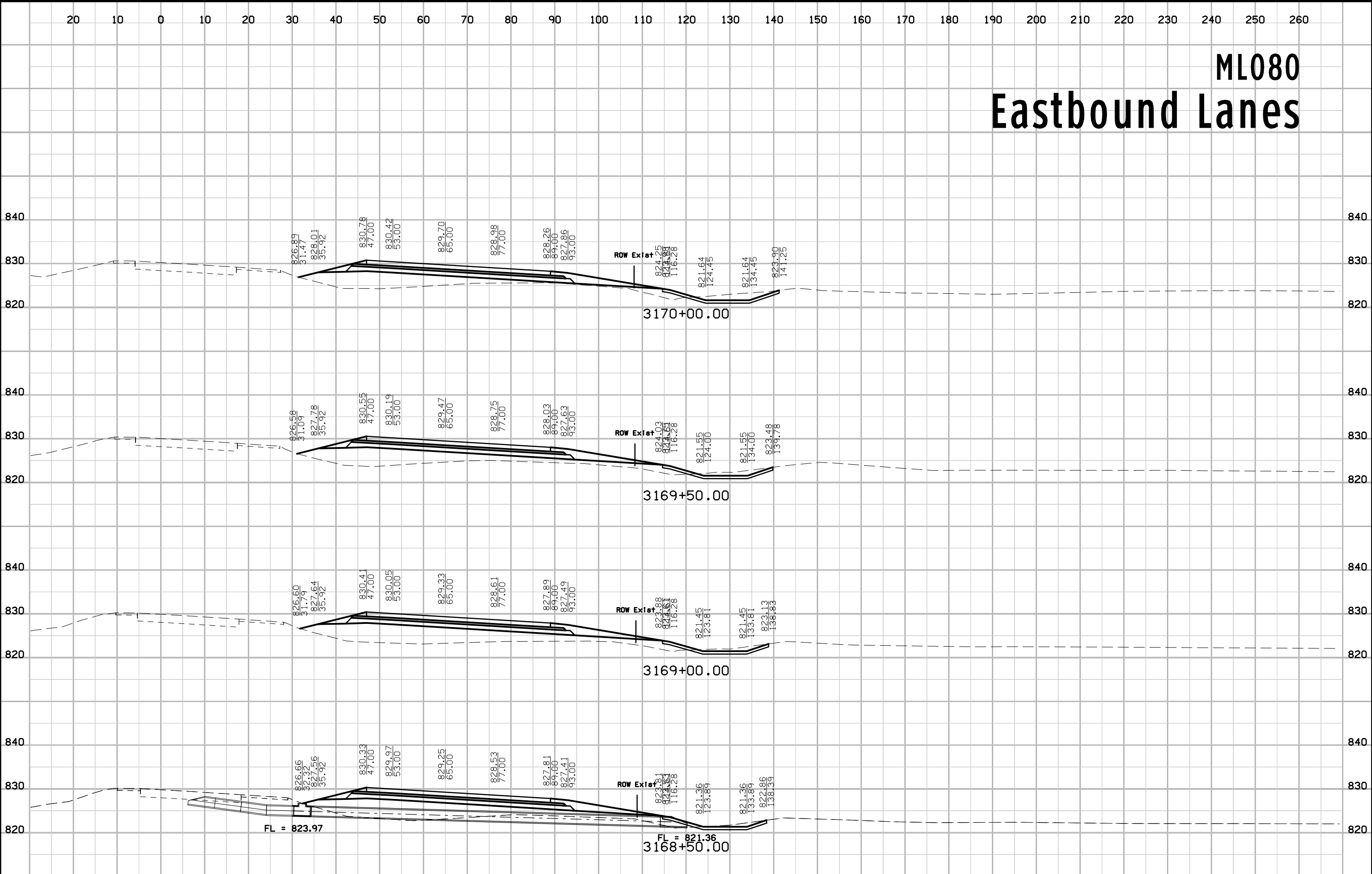


ML080

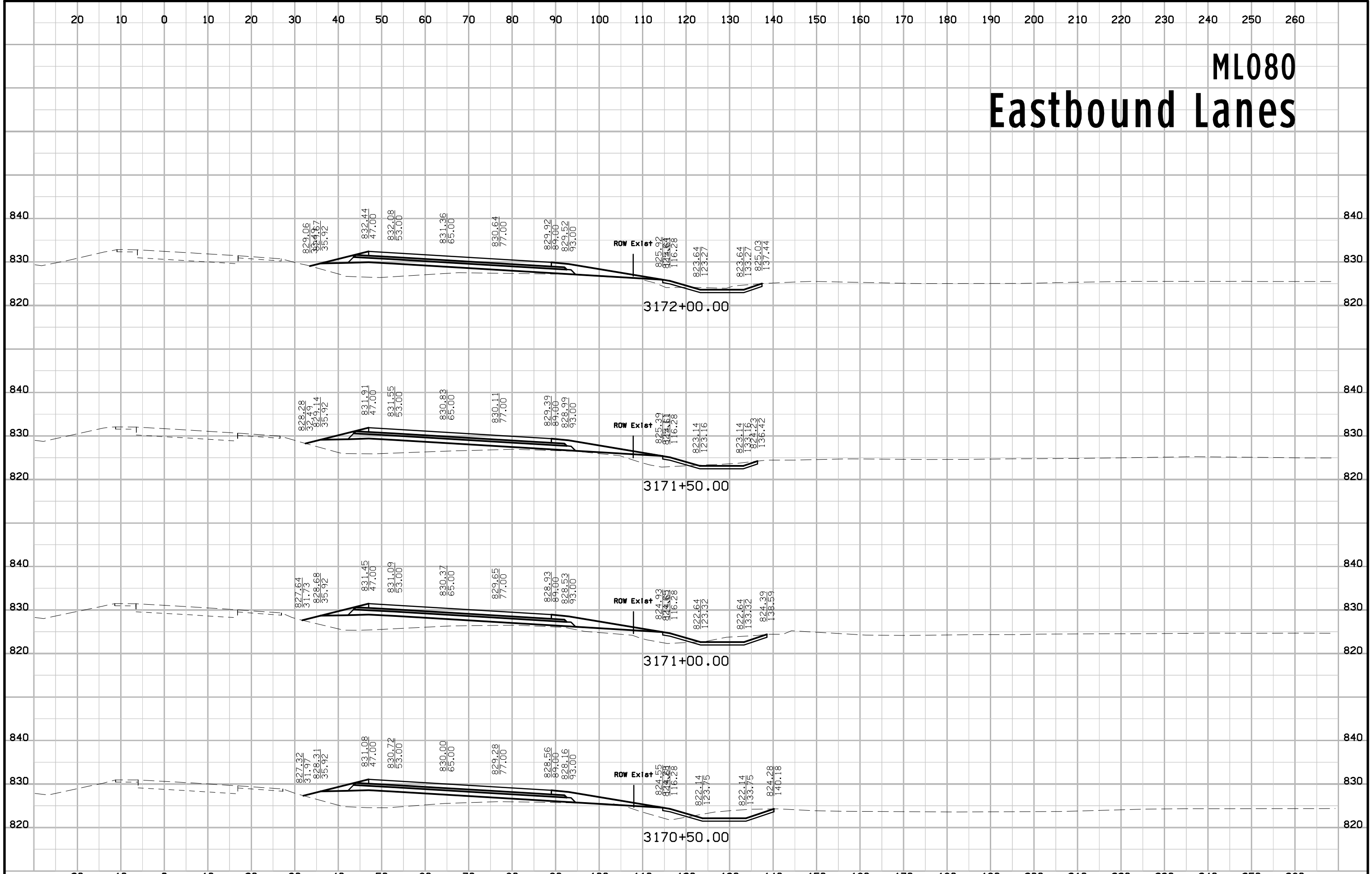
Eastbound Lanes



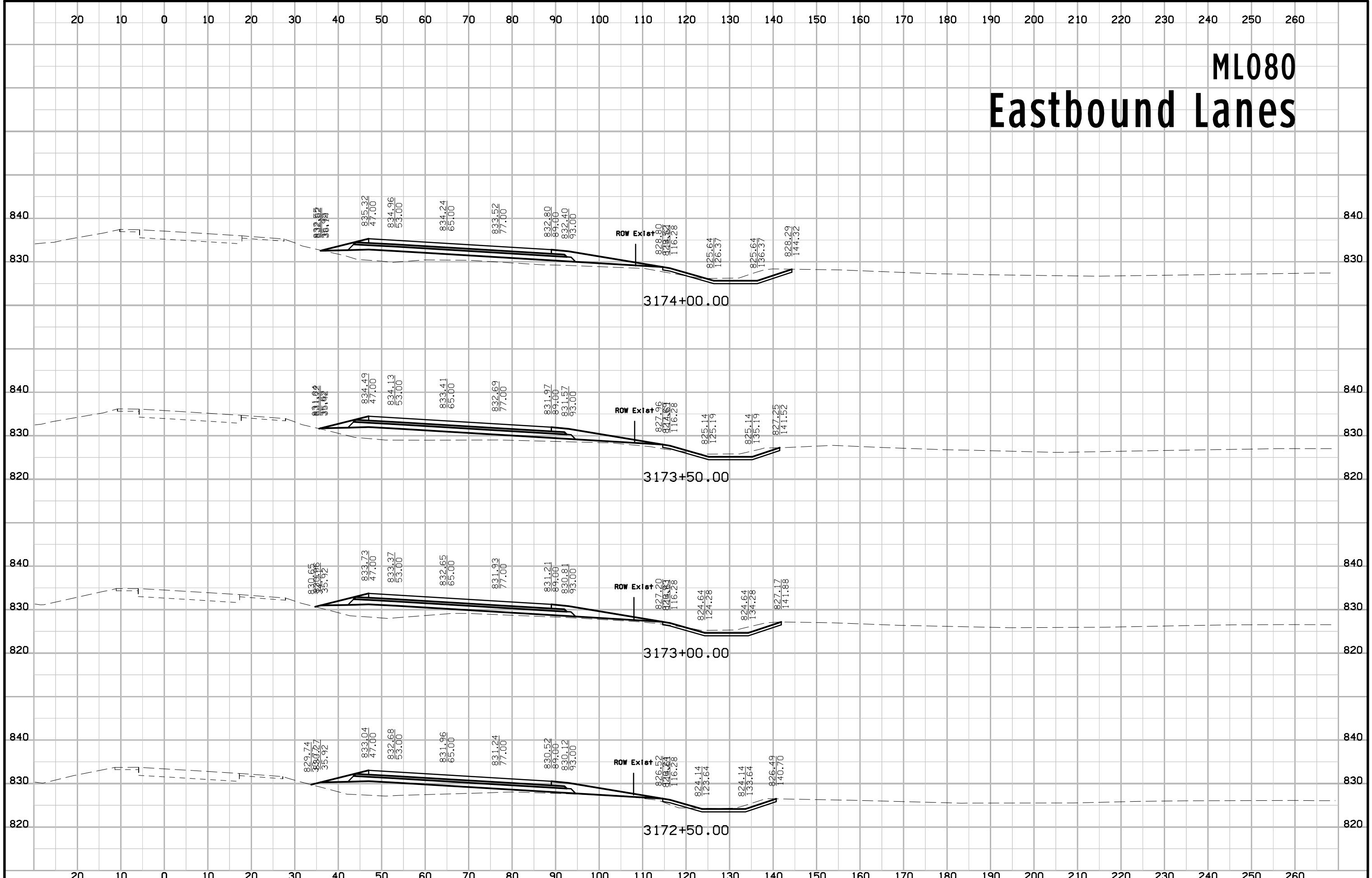
ML080 Eastbound Lanes



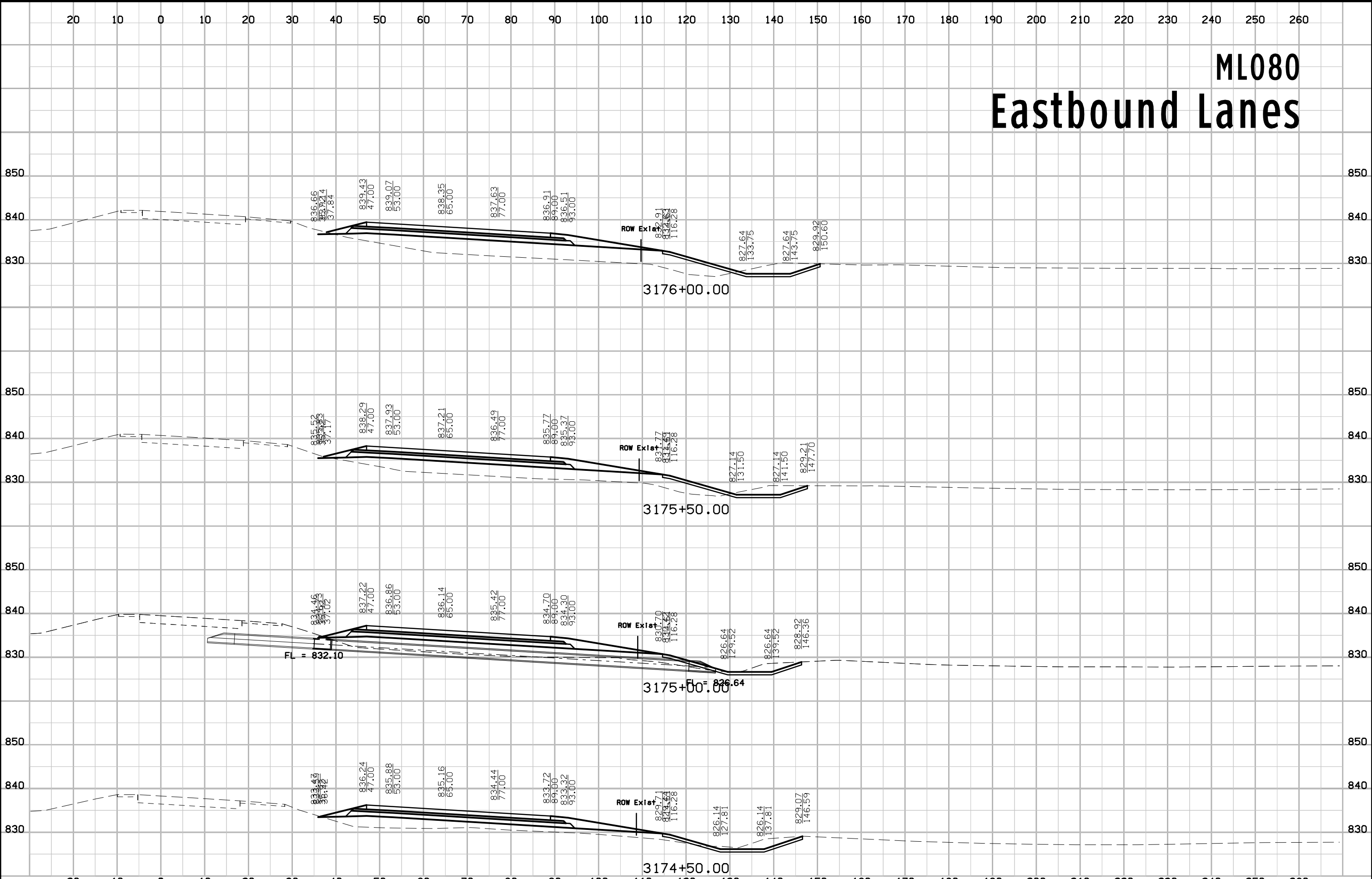
ML080 Eastbound Lanes



ML080 Eastbound Lanes

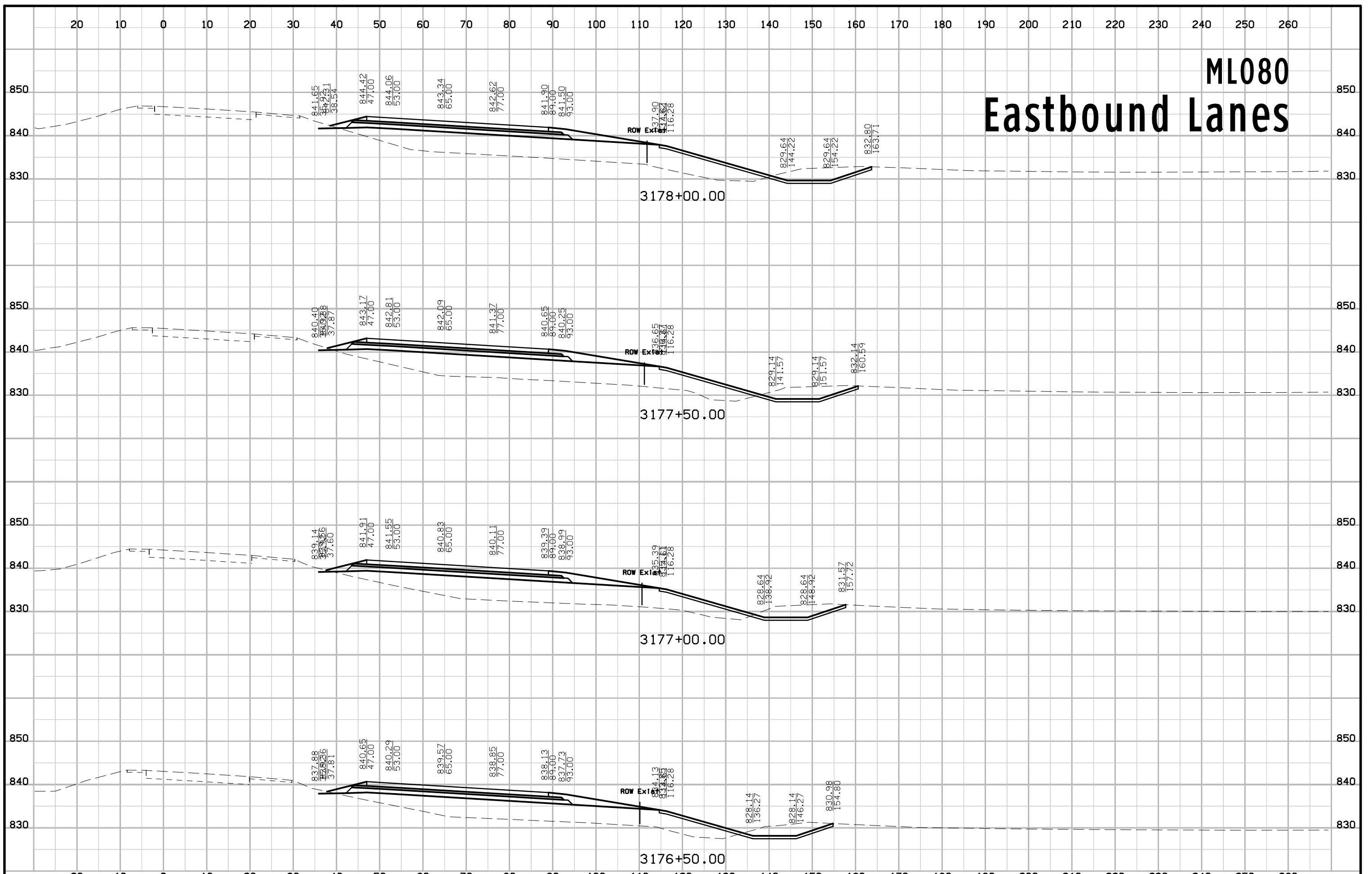


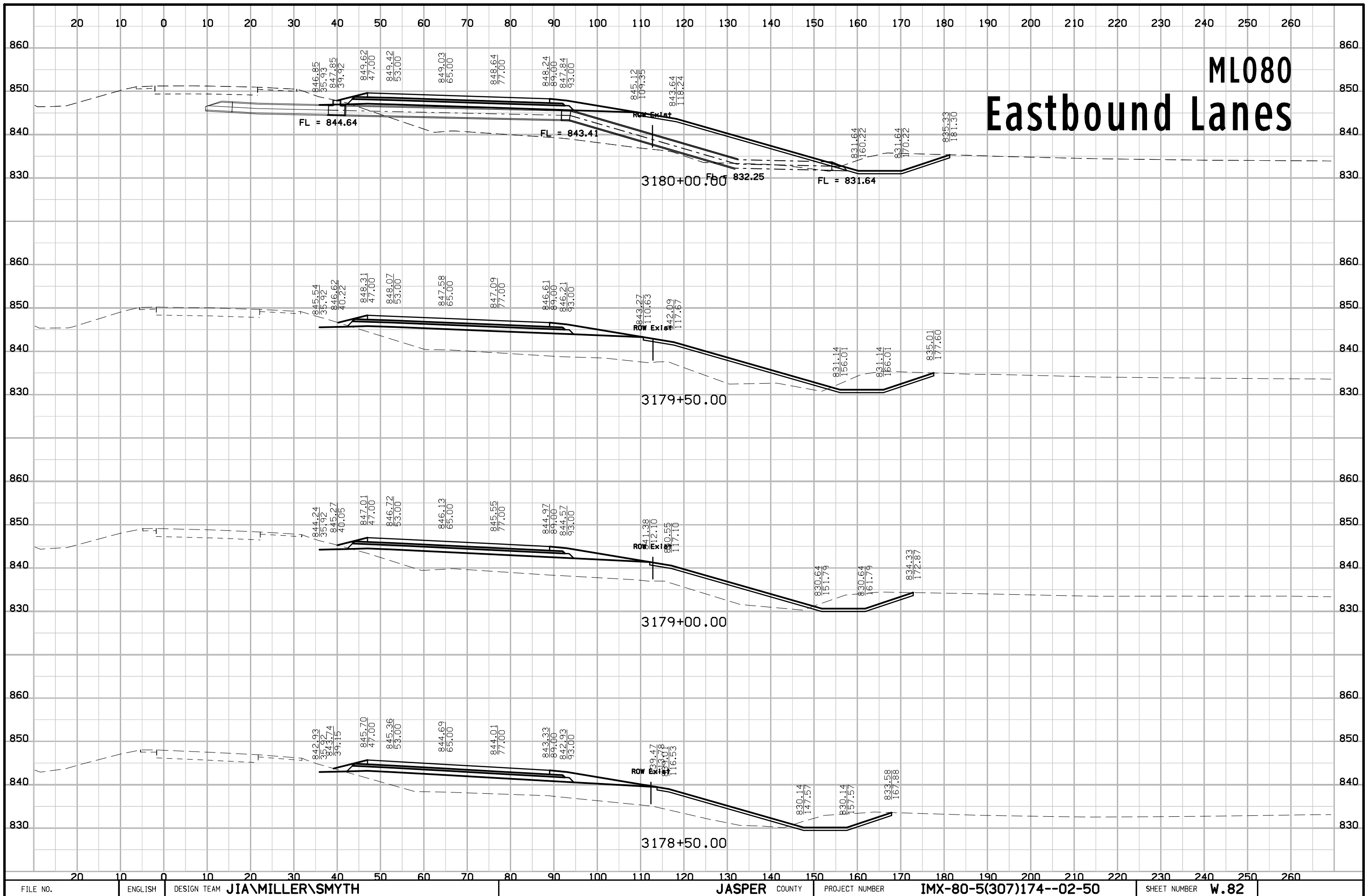
ML080 Eastbound Lanes



ML080

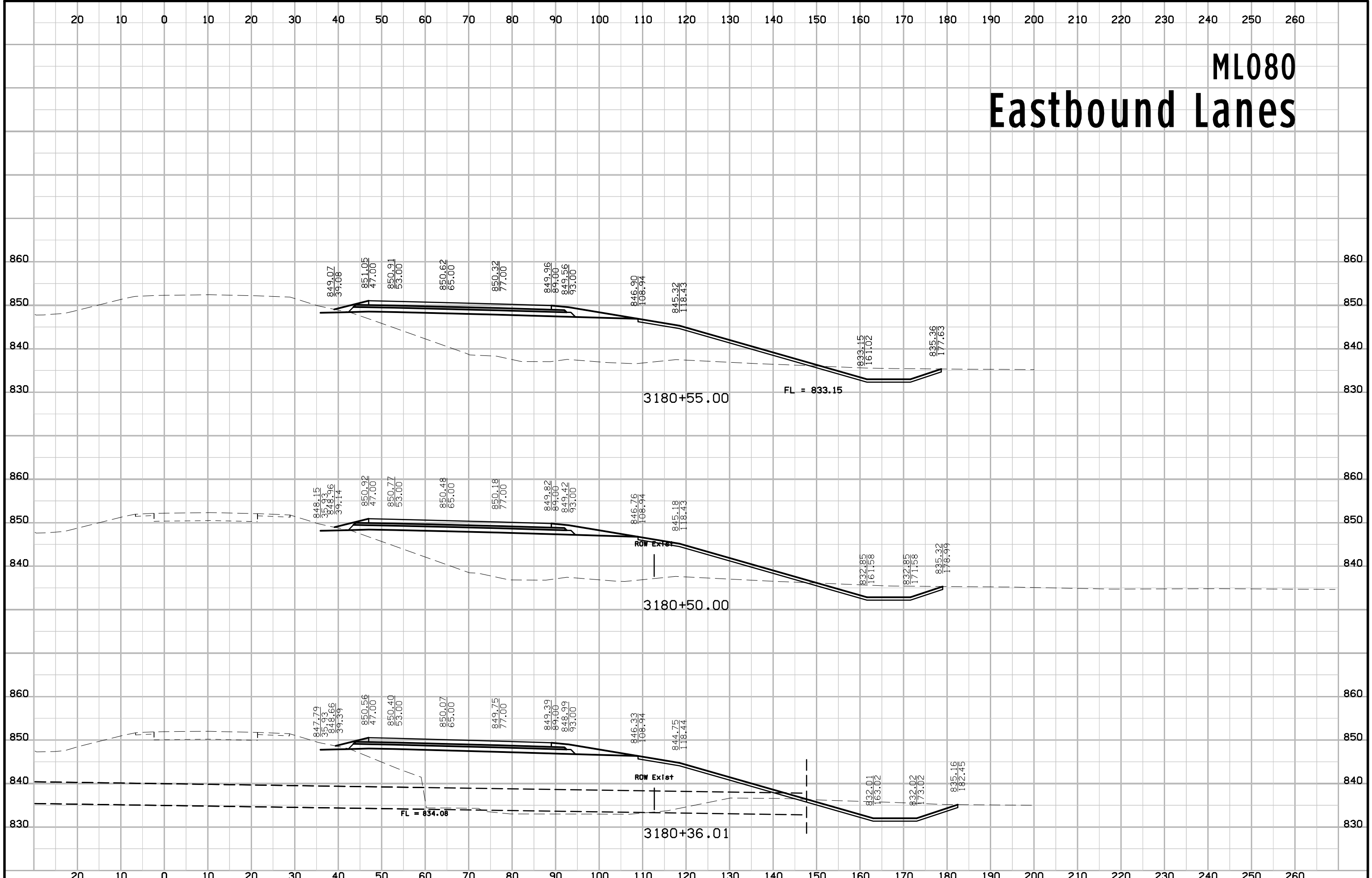
Eastbound Lanes



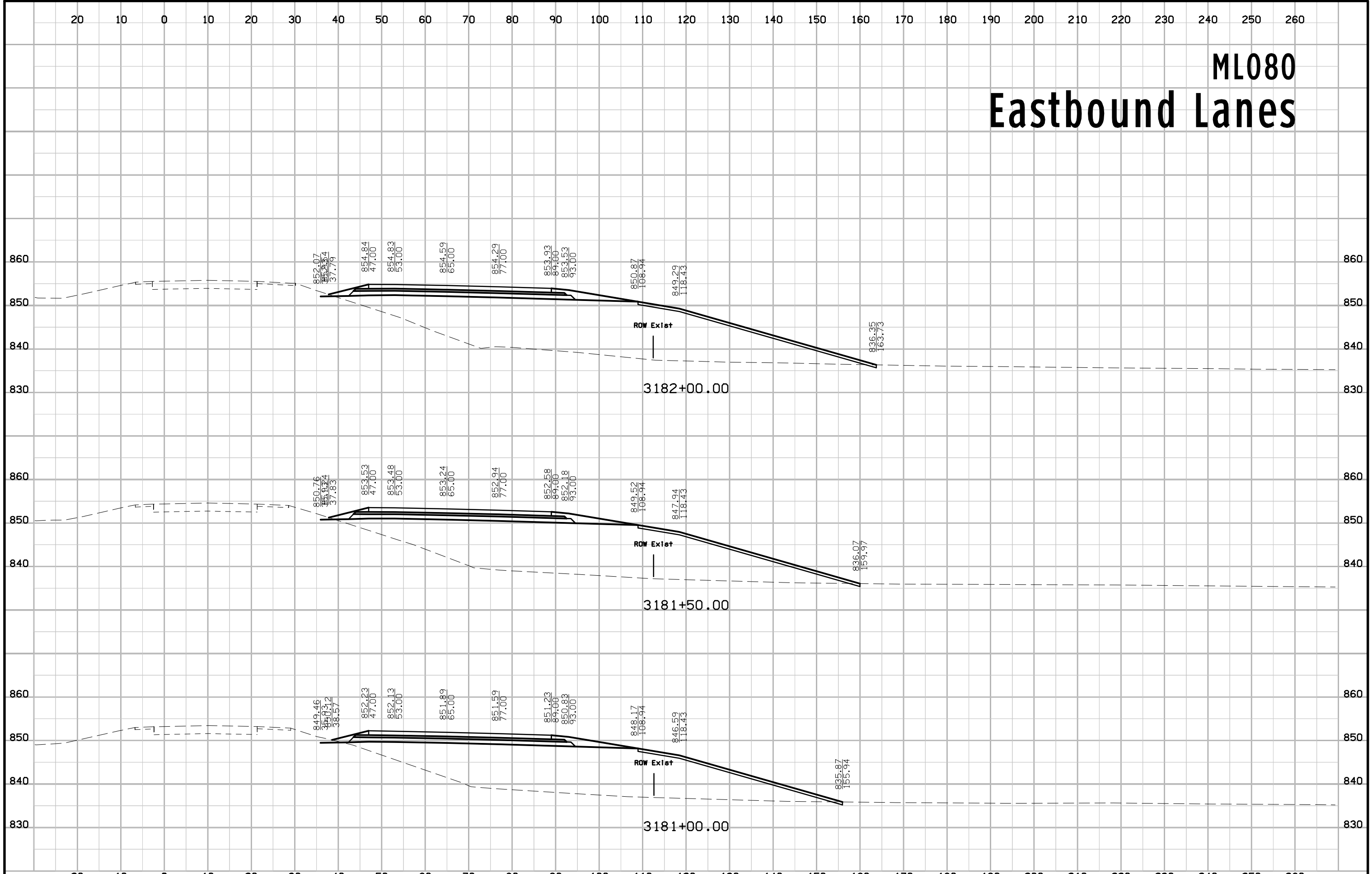


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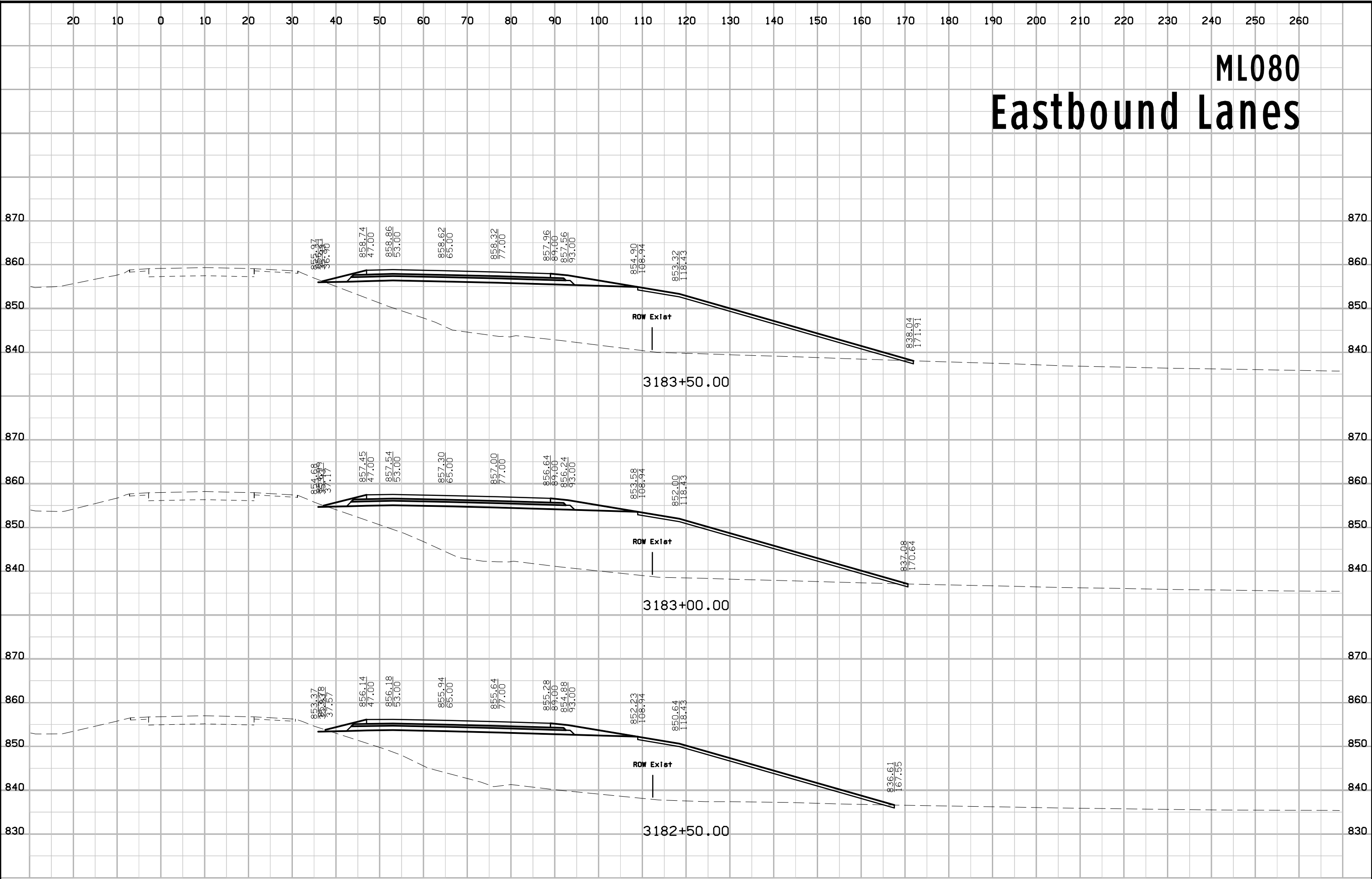
Eastbound Lanes



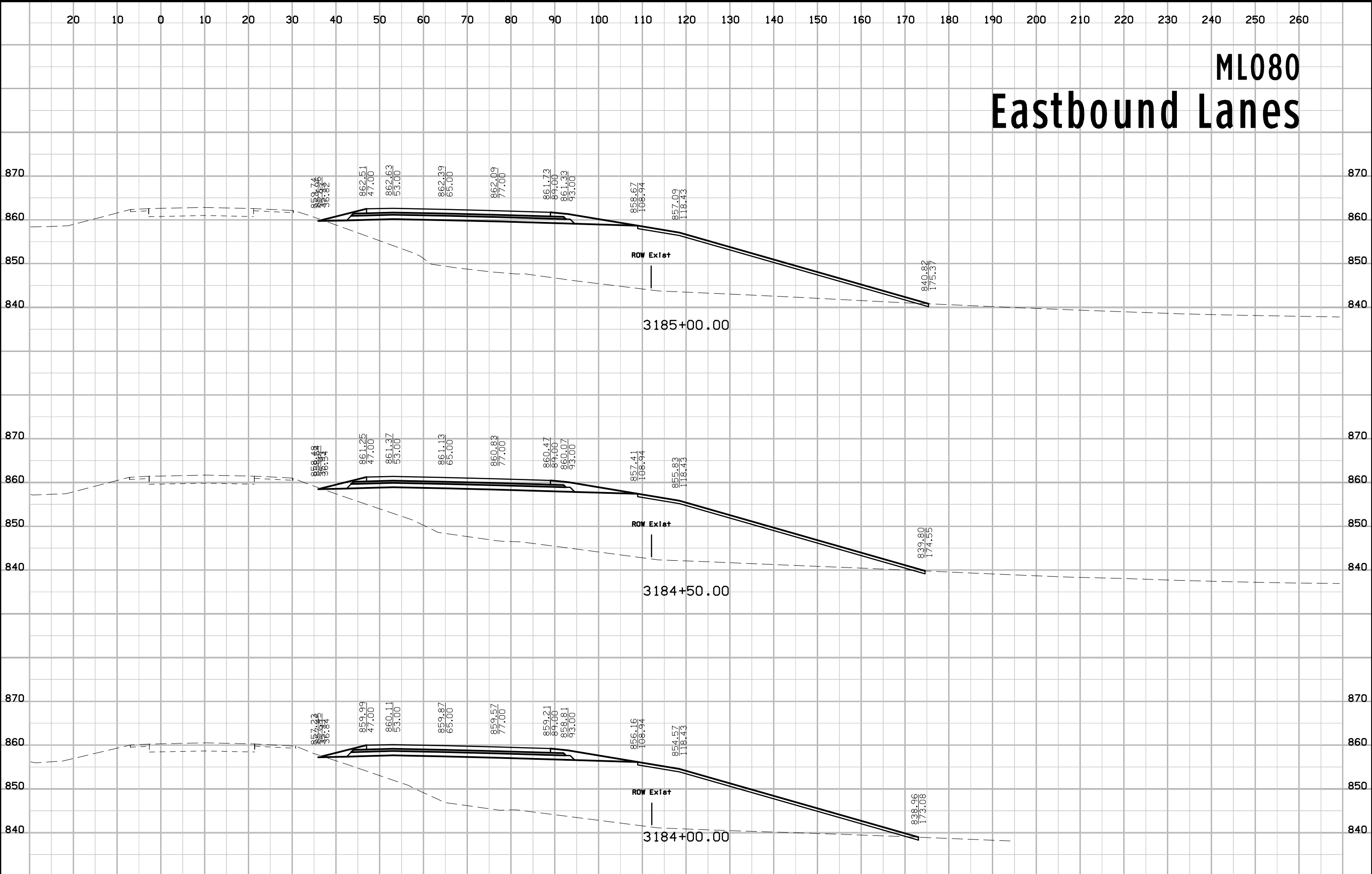
ML080 Eastbound Lanes



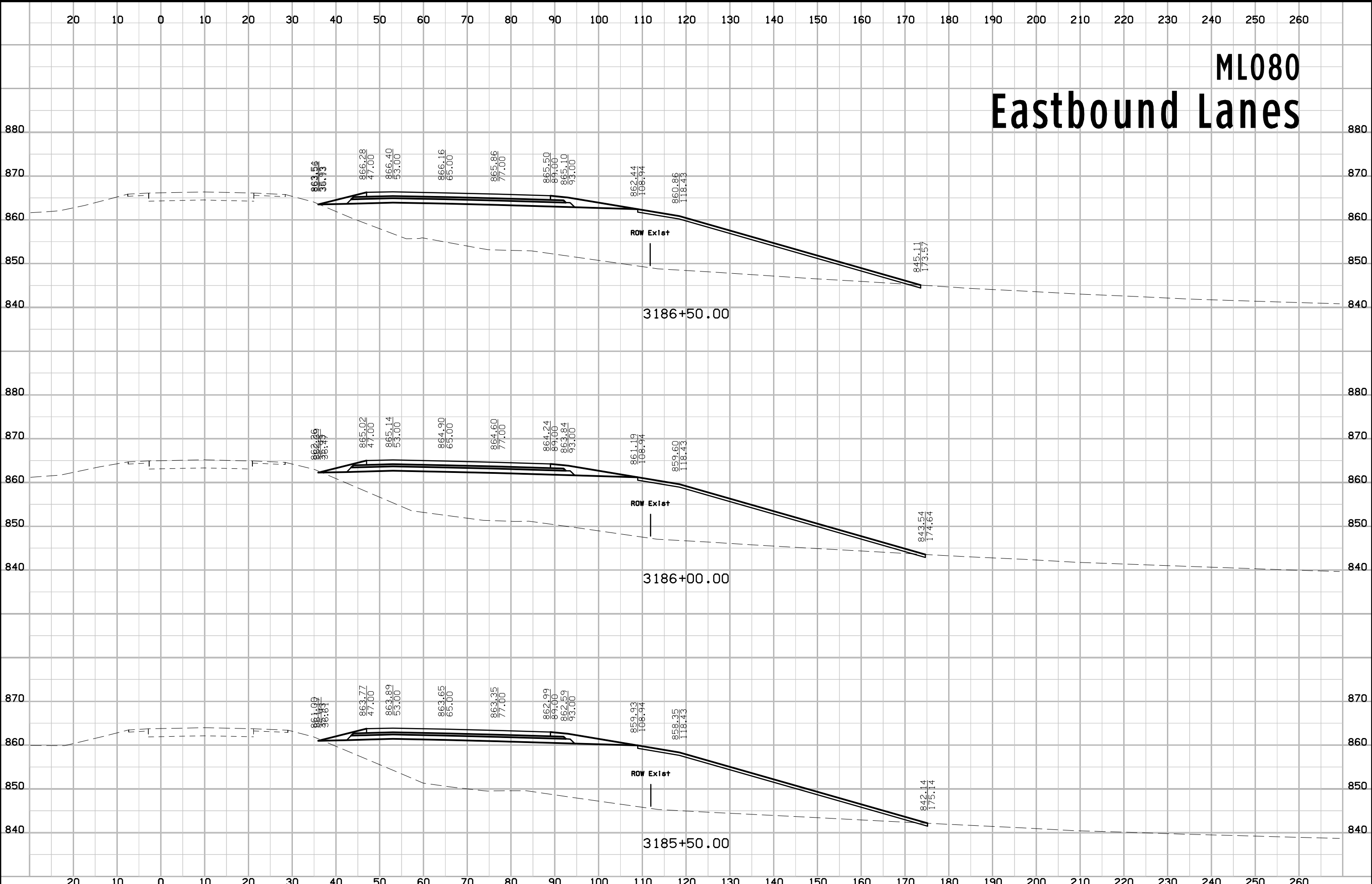
ML080 Eastbound Lanes



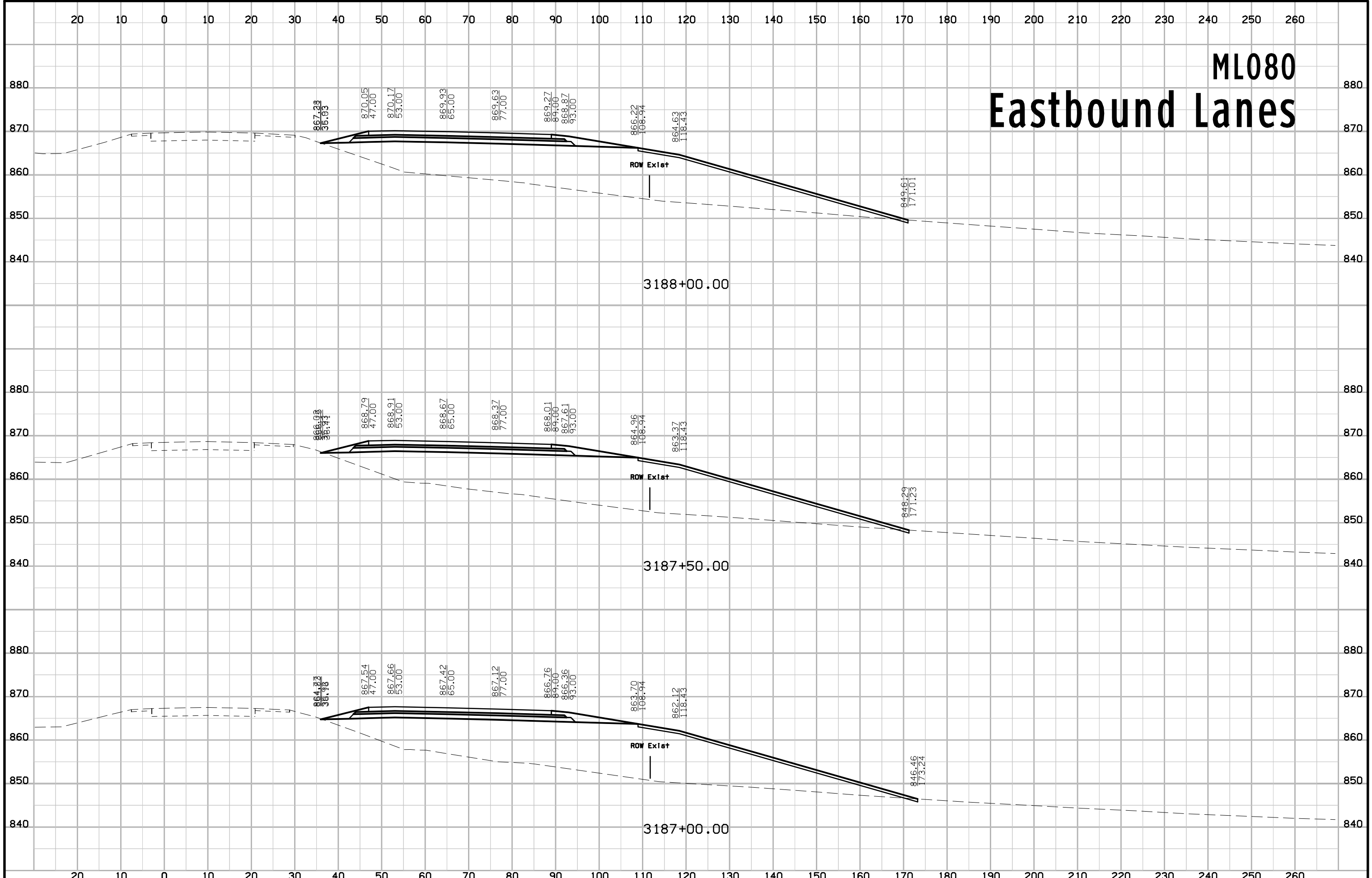
ML080 Eastbound Lanes

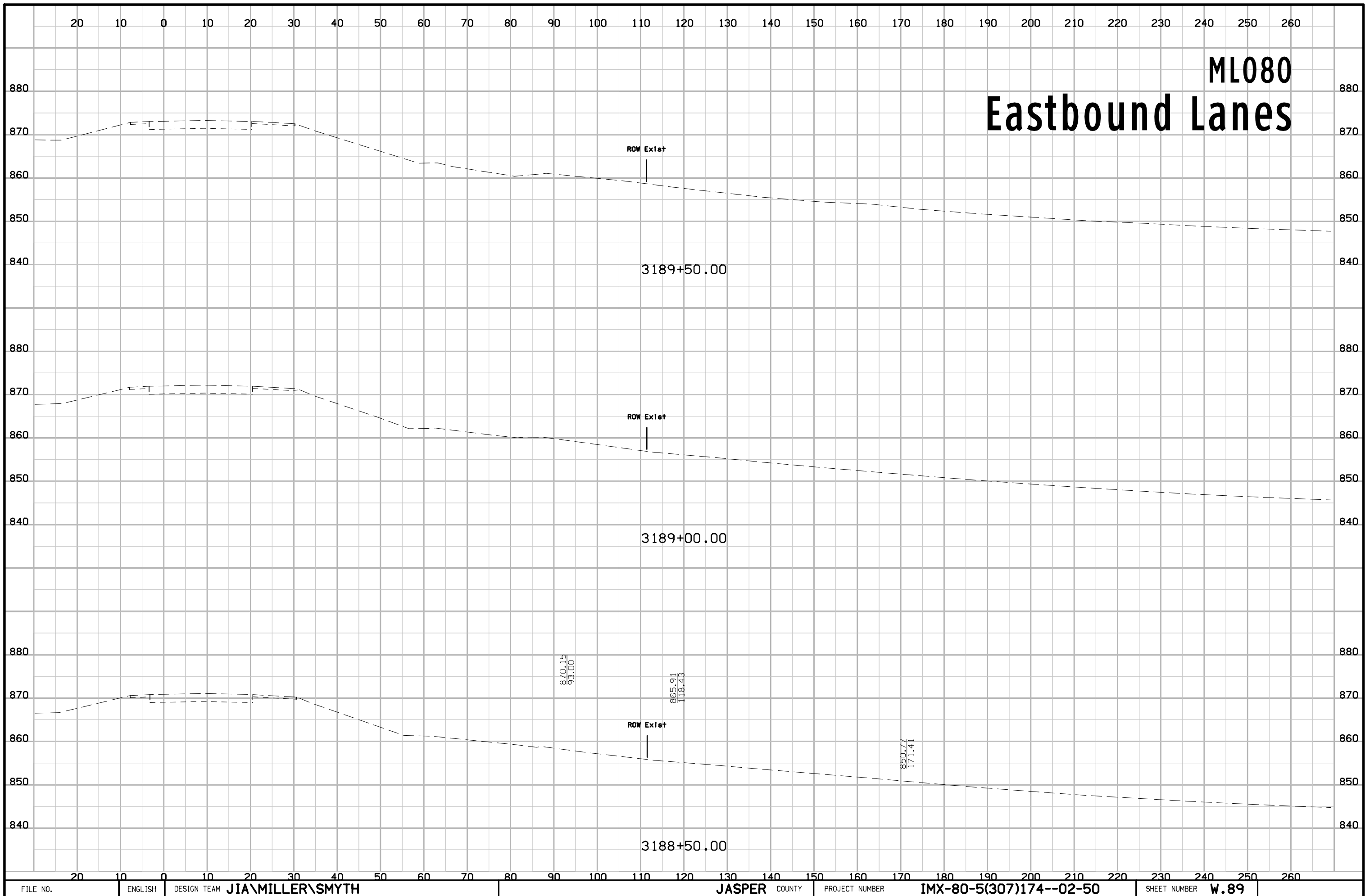


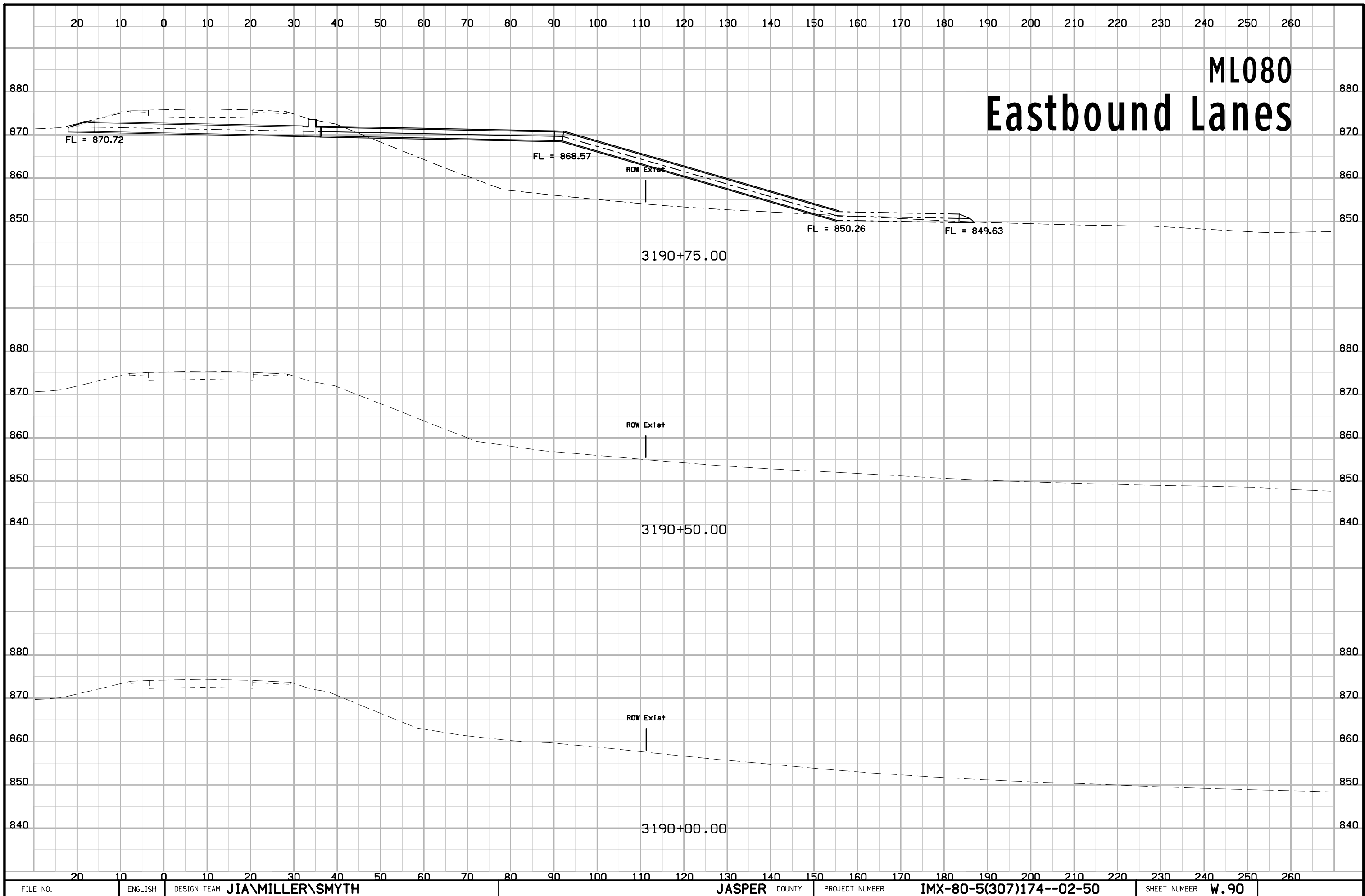
ML080 Eastbound Lanes



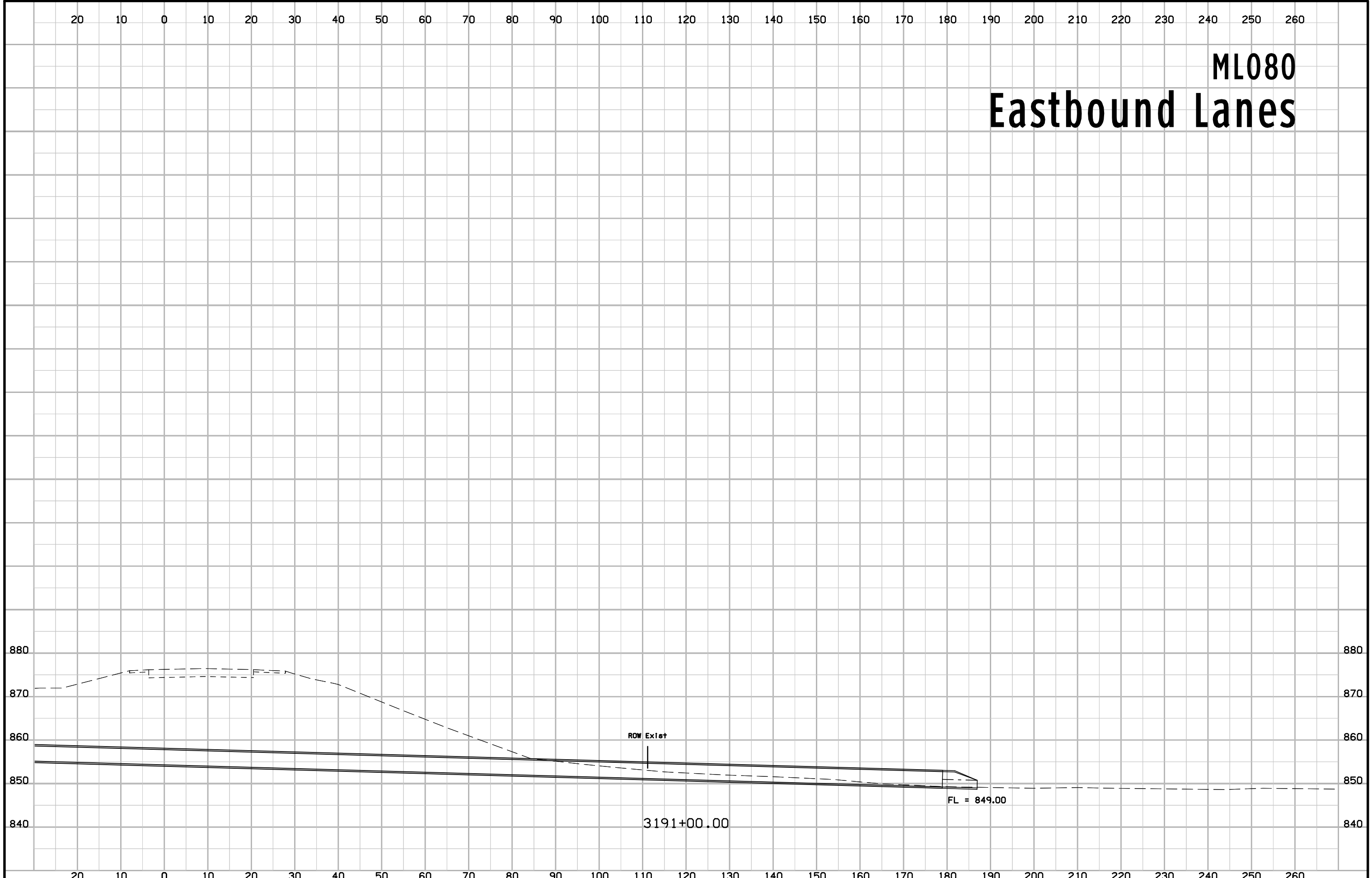
ML080 Eastbound Lanes

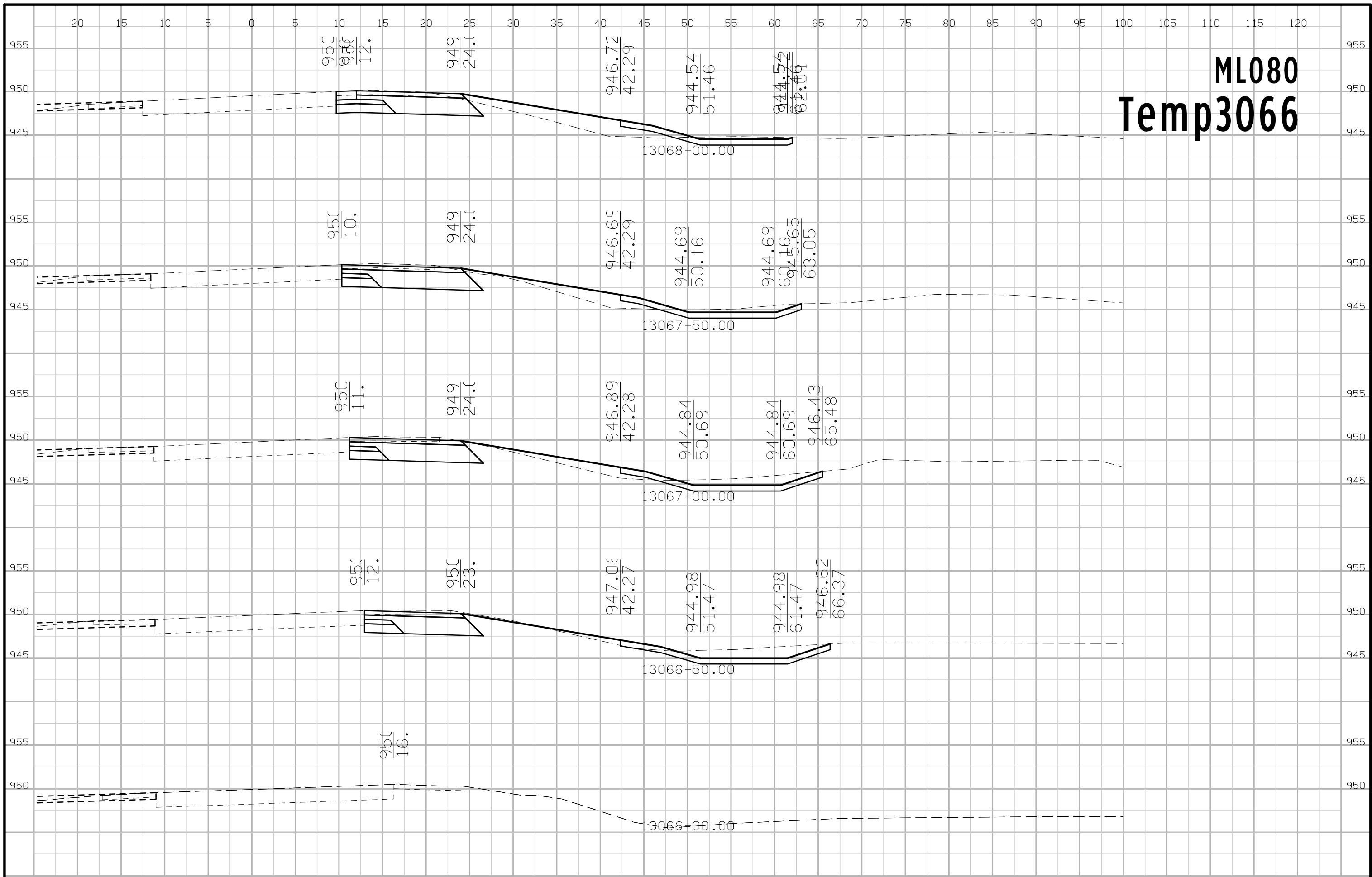




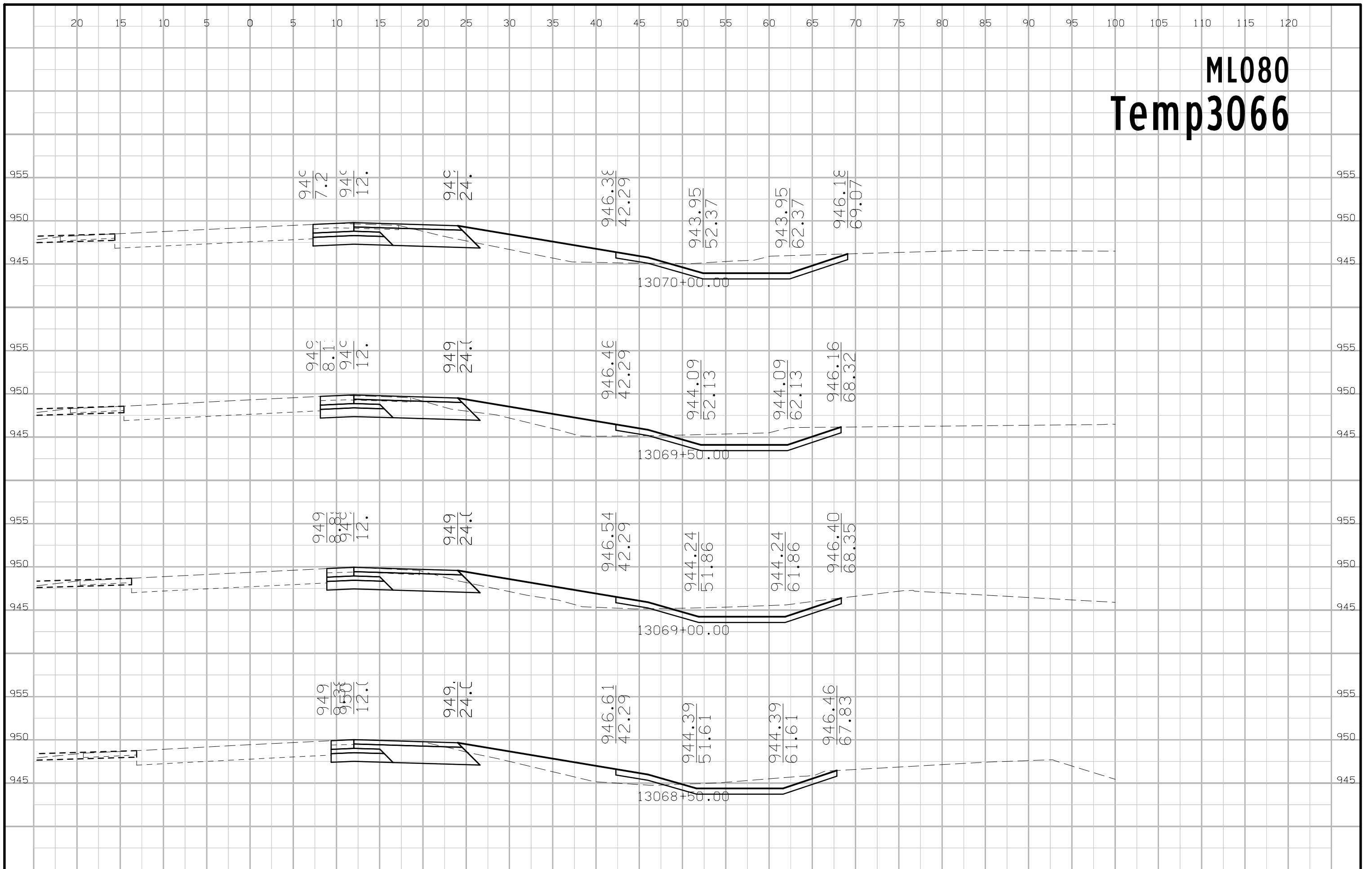


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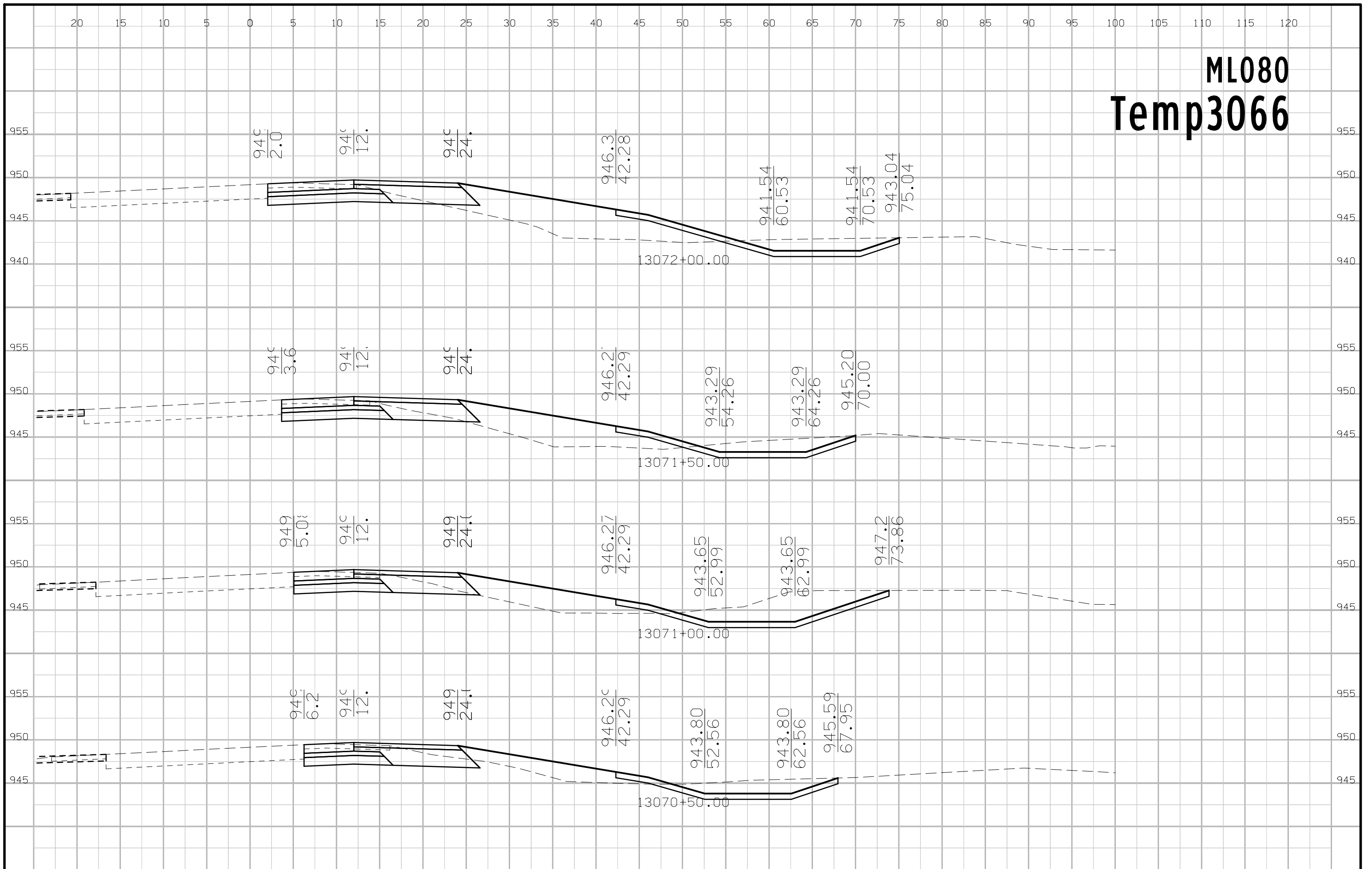




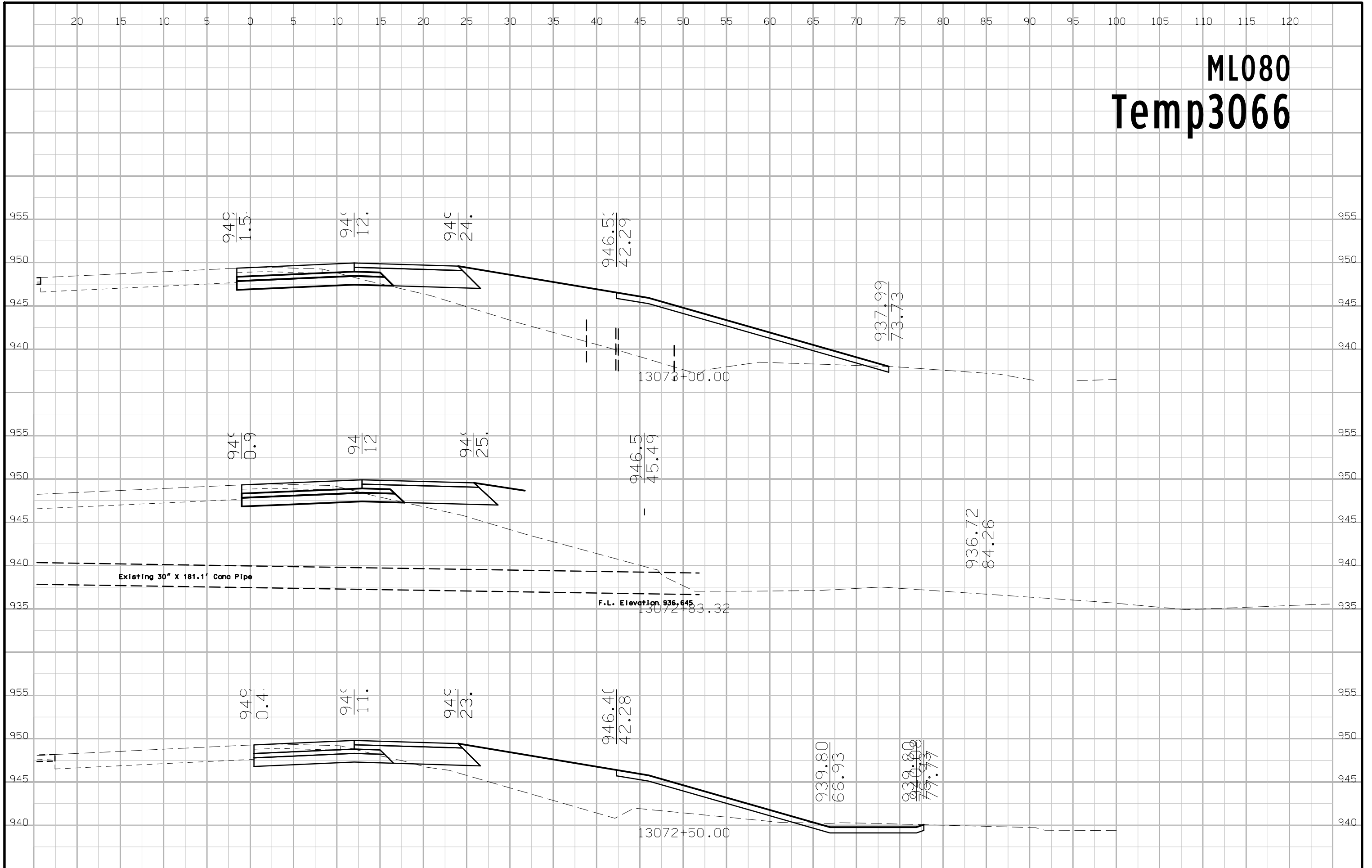
ML080 Temp3066



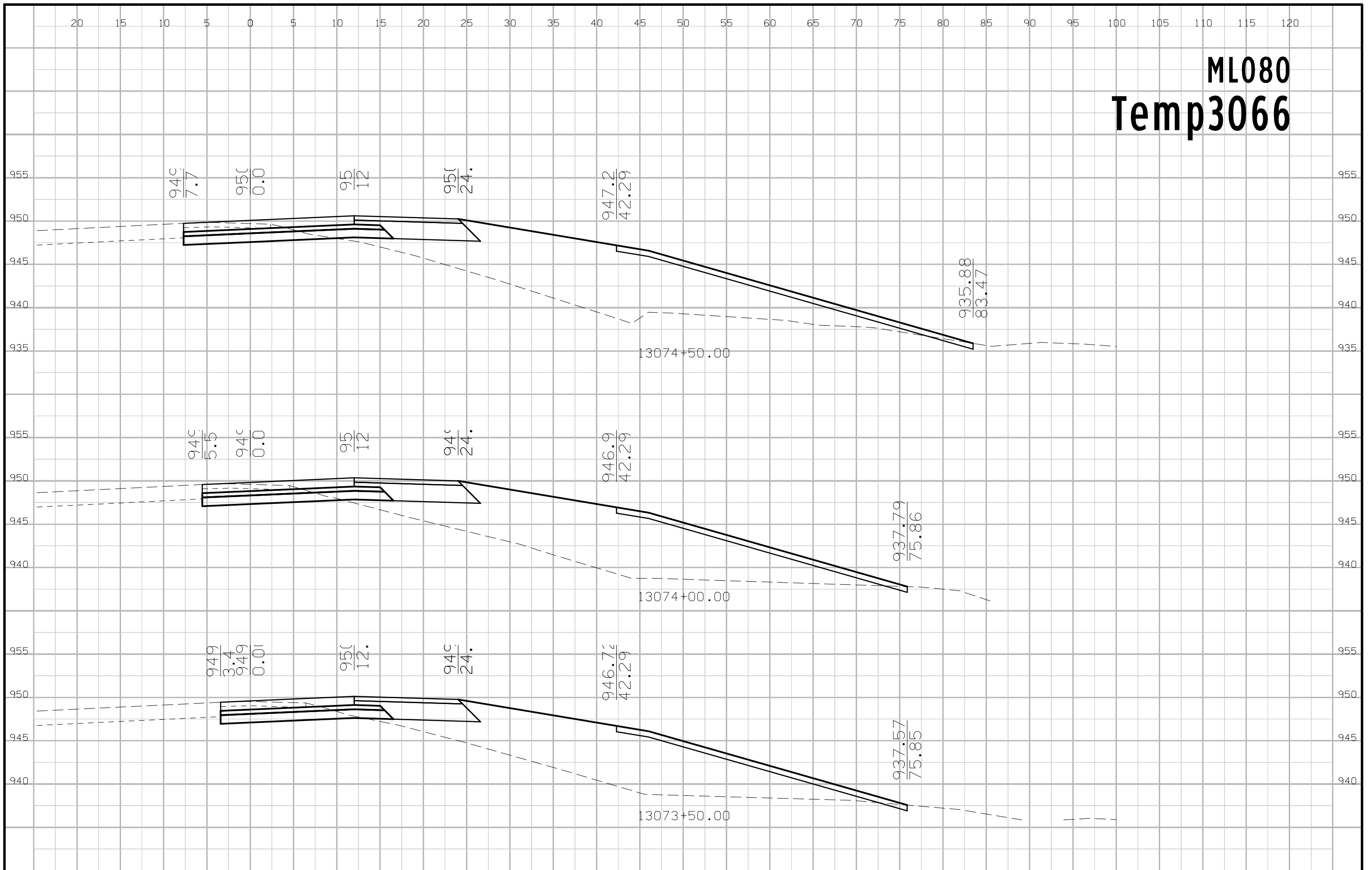
ML080 Temp3066



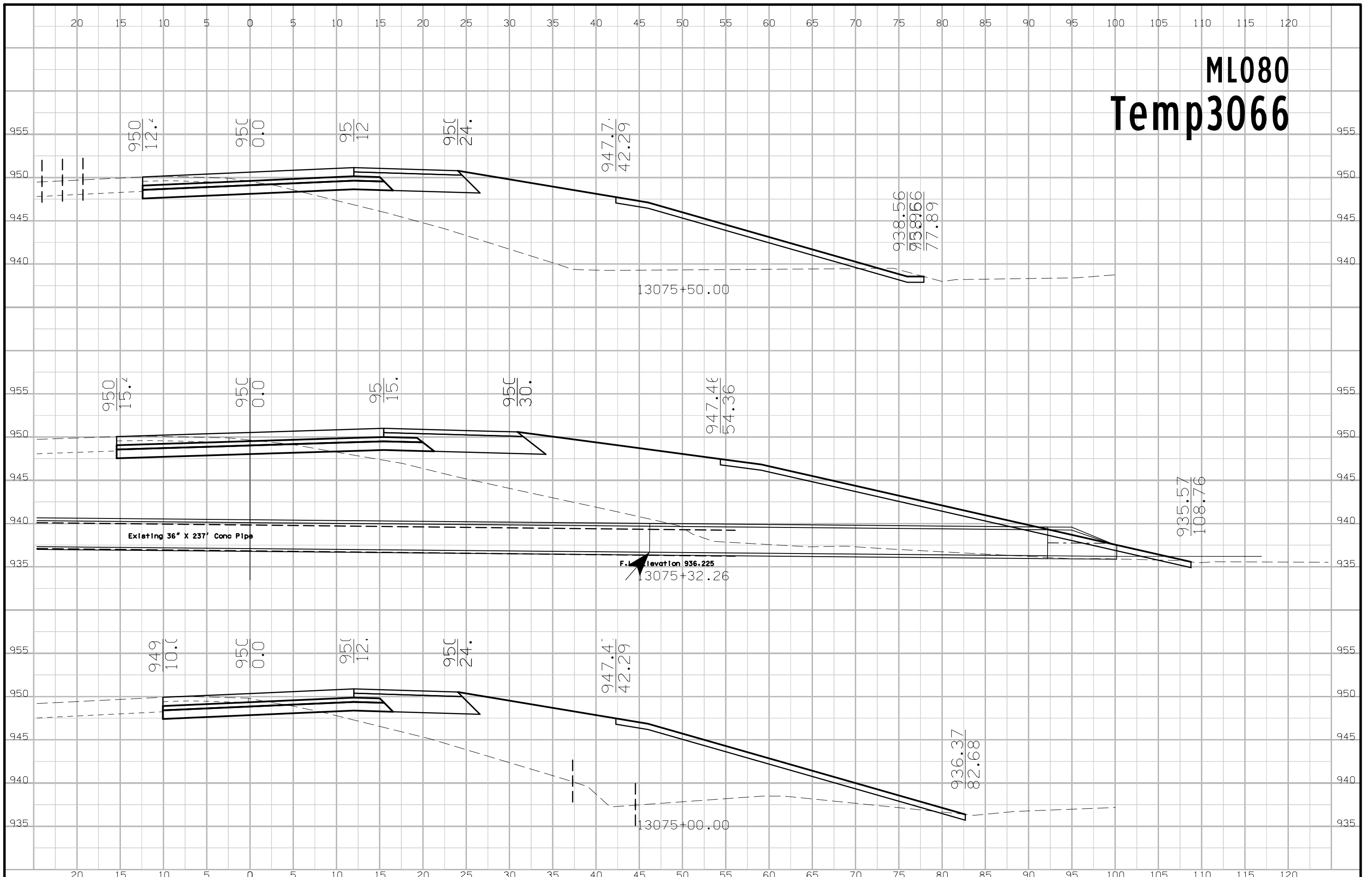
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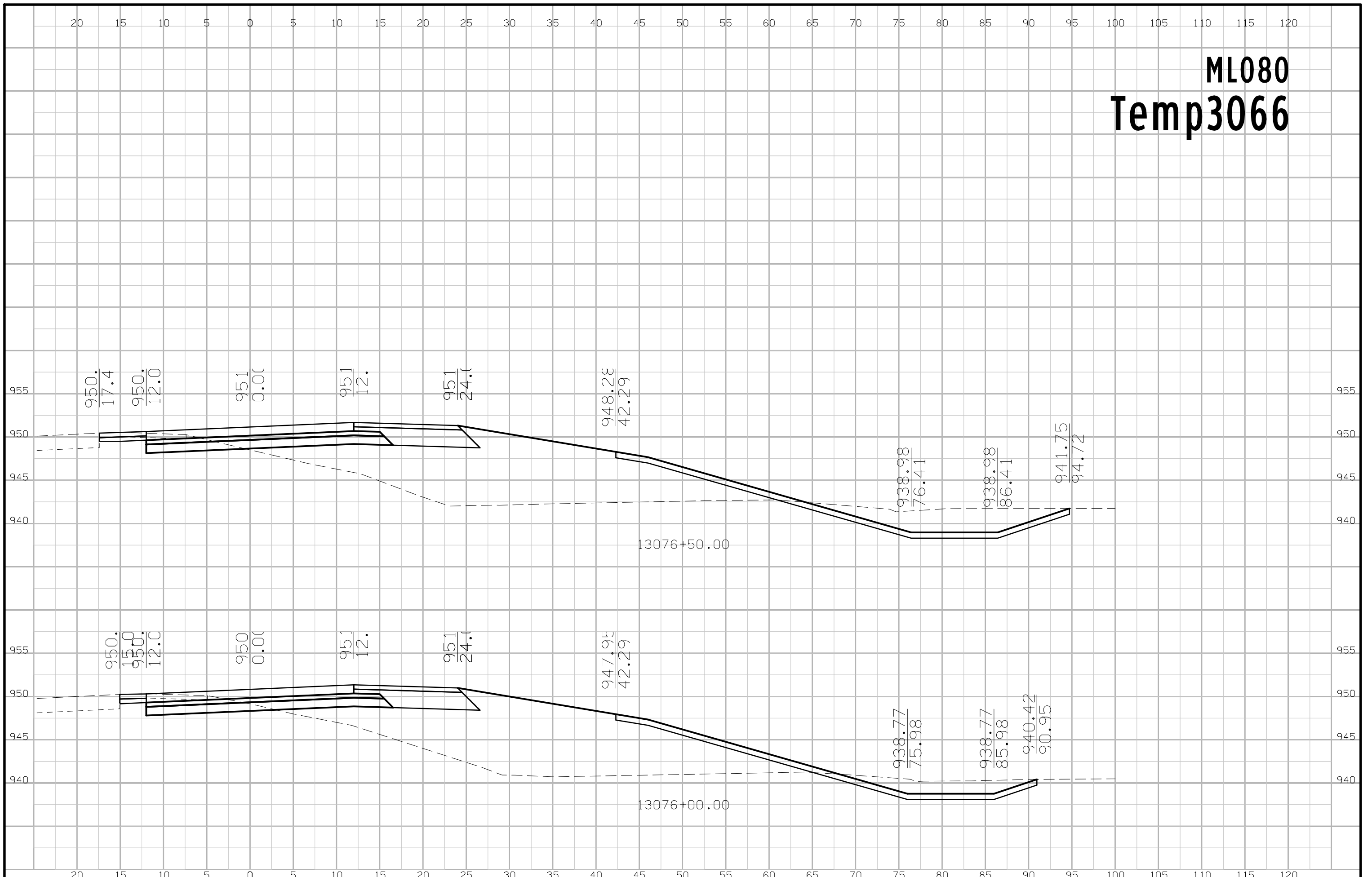
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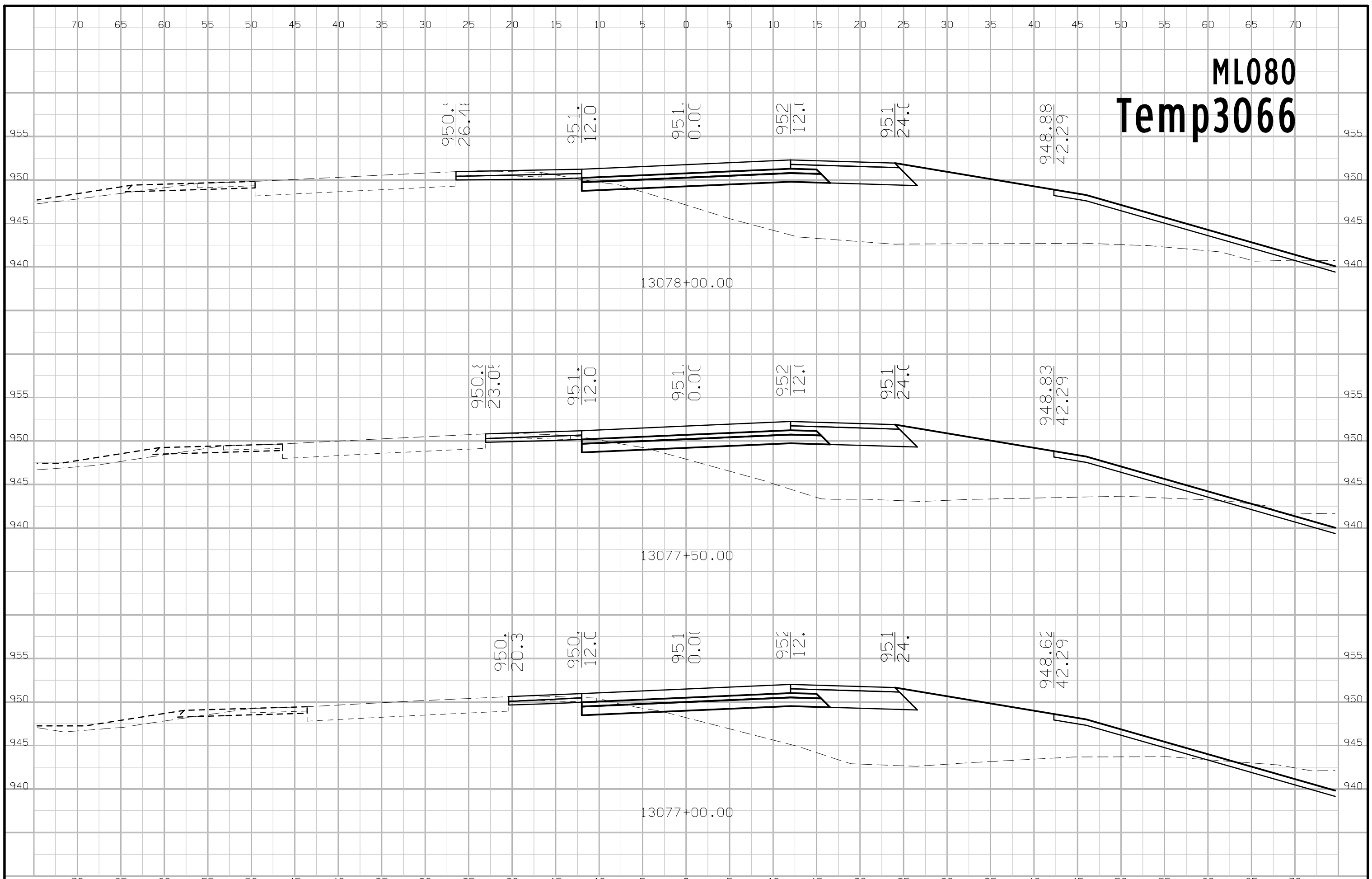
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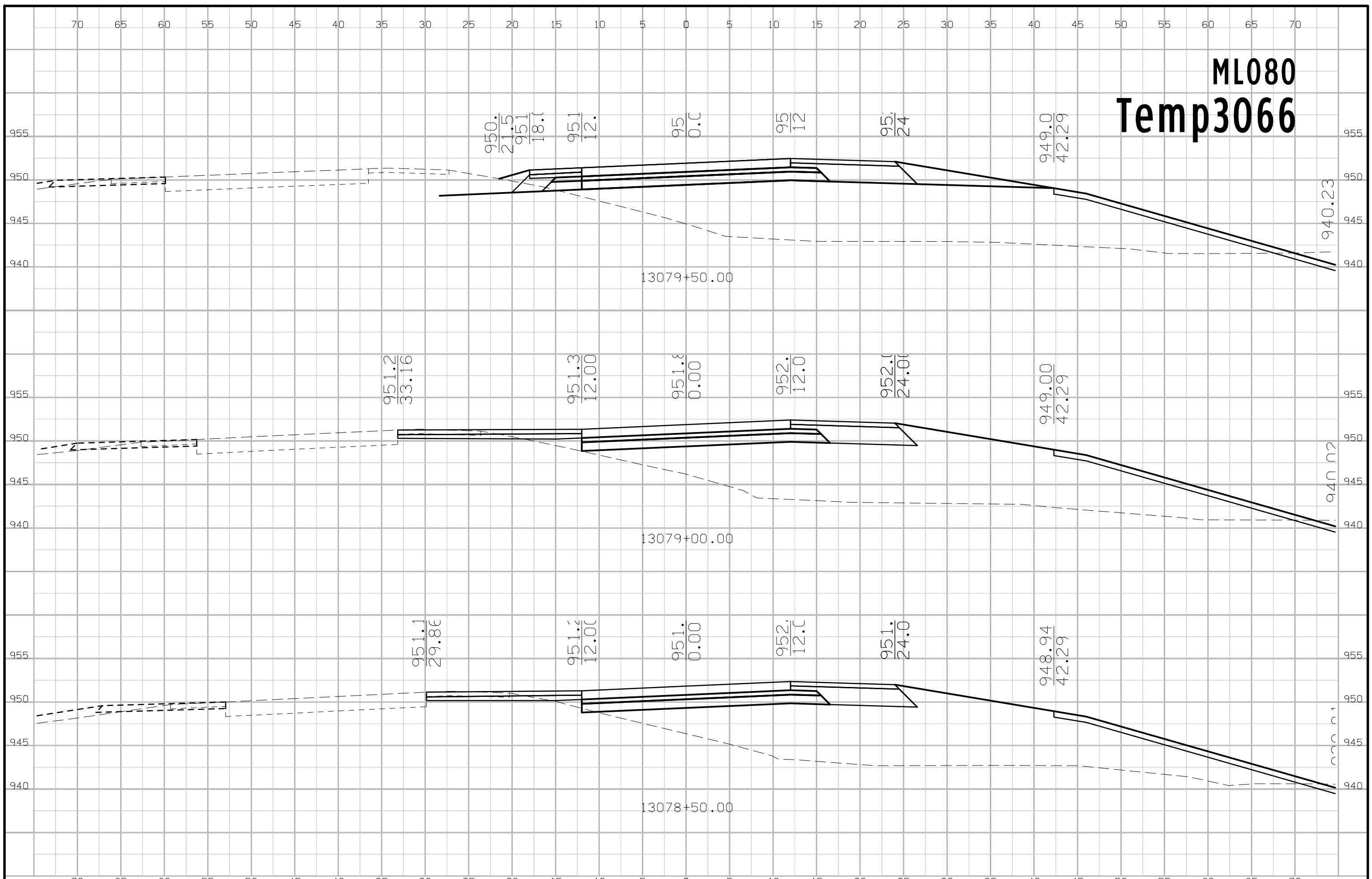
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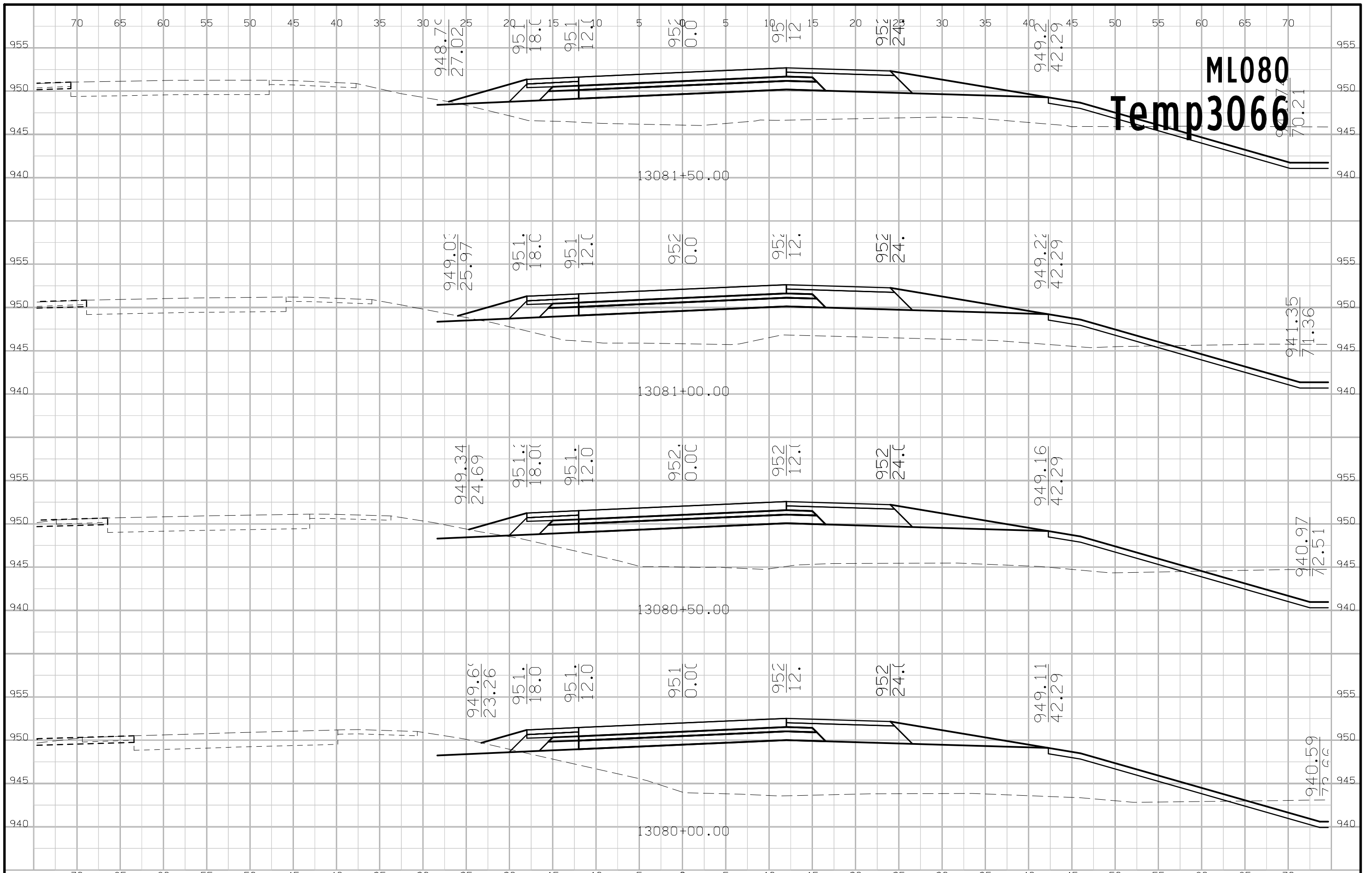


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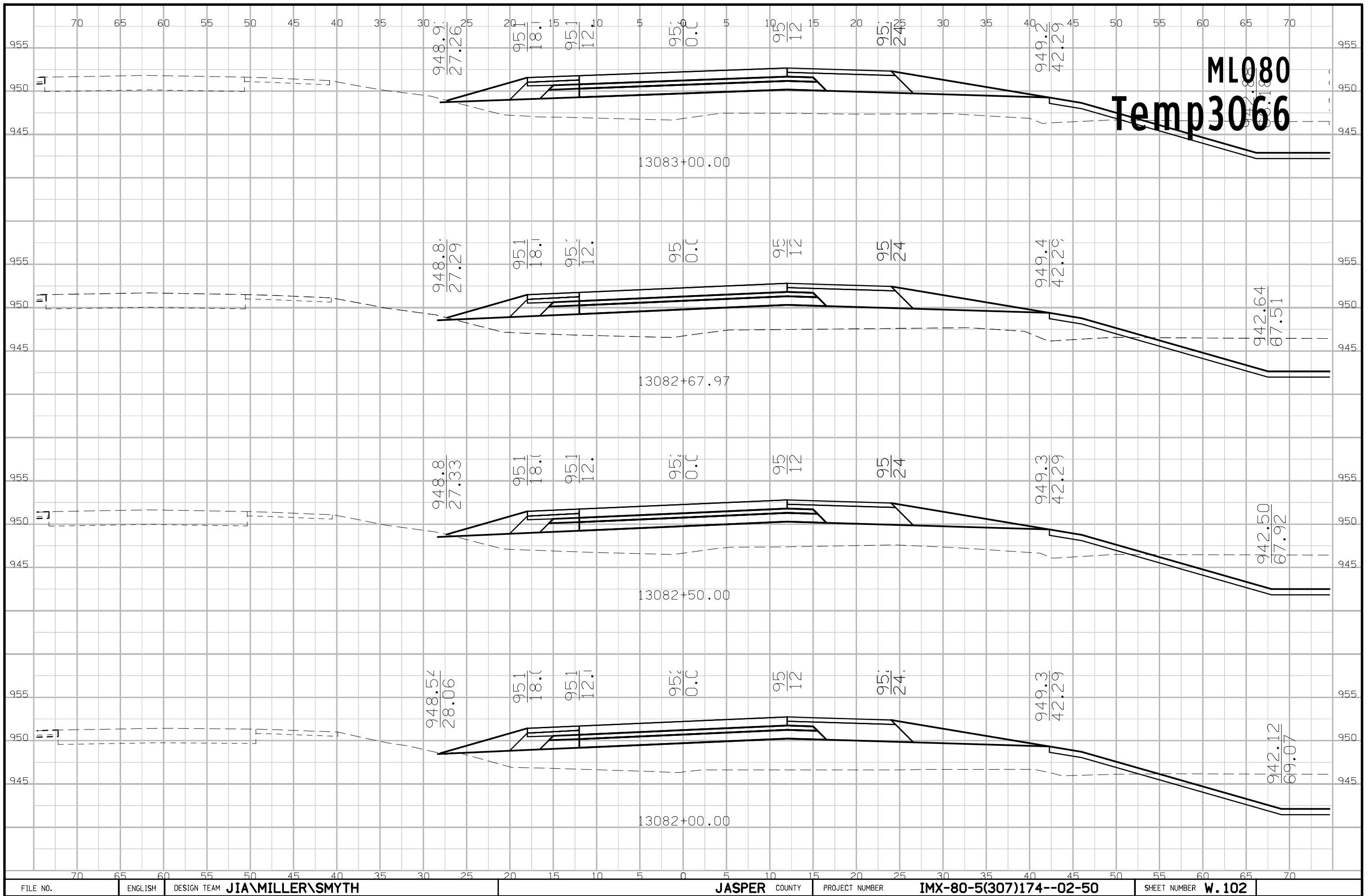


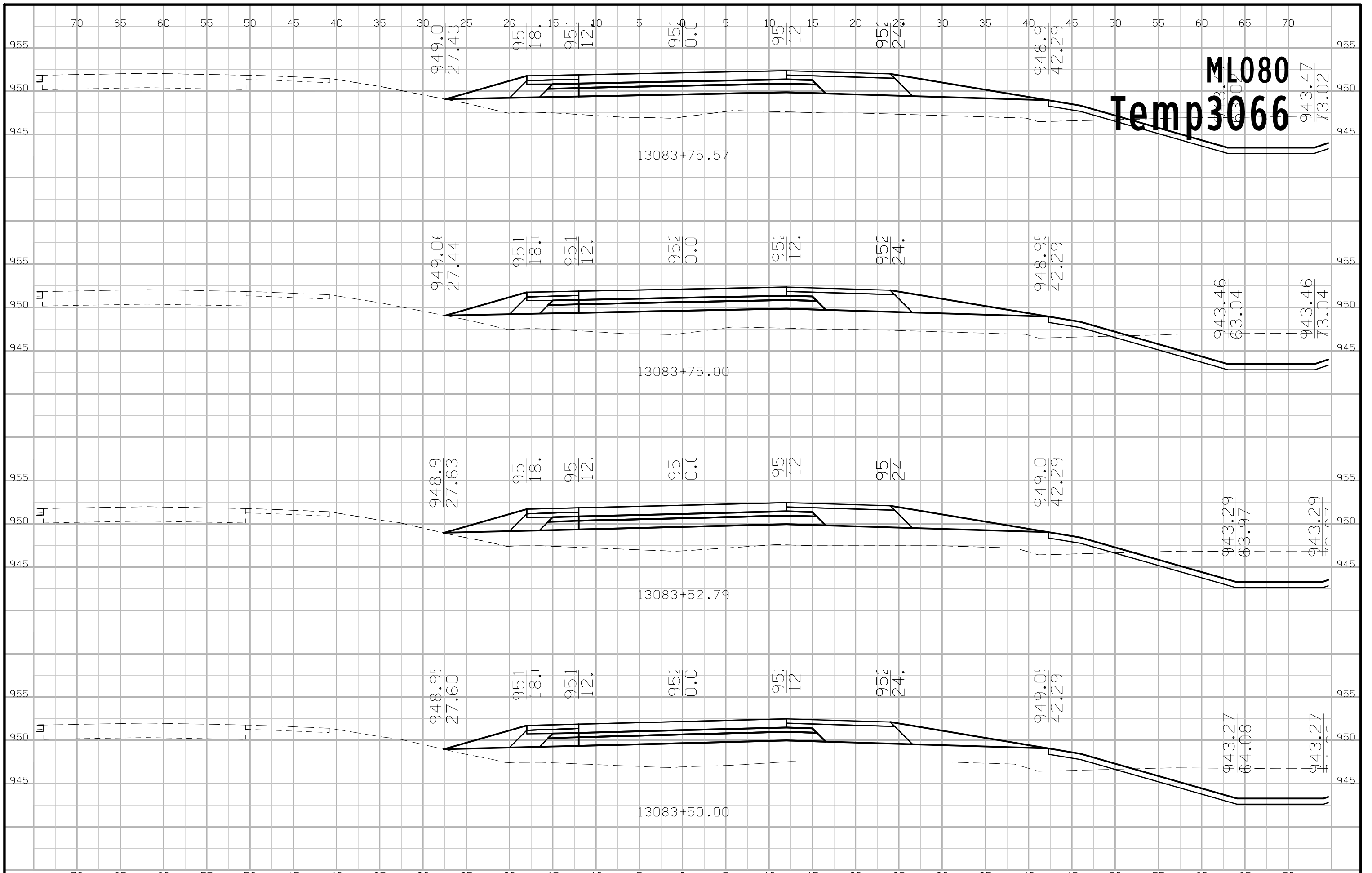
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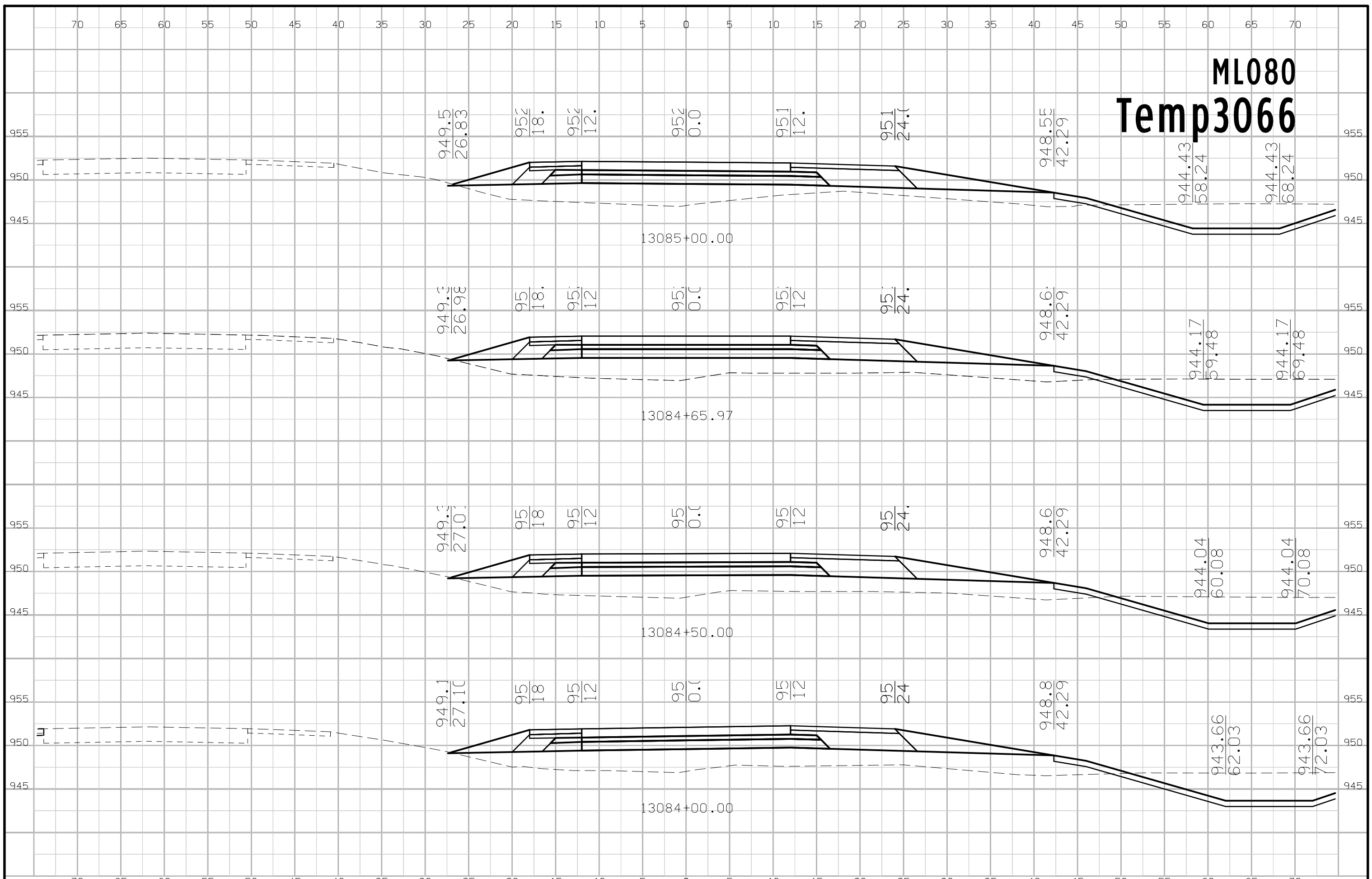
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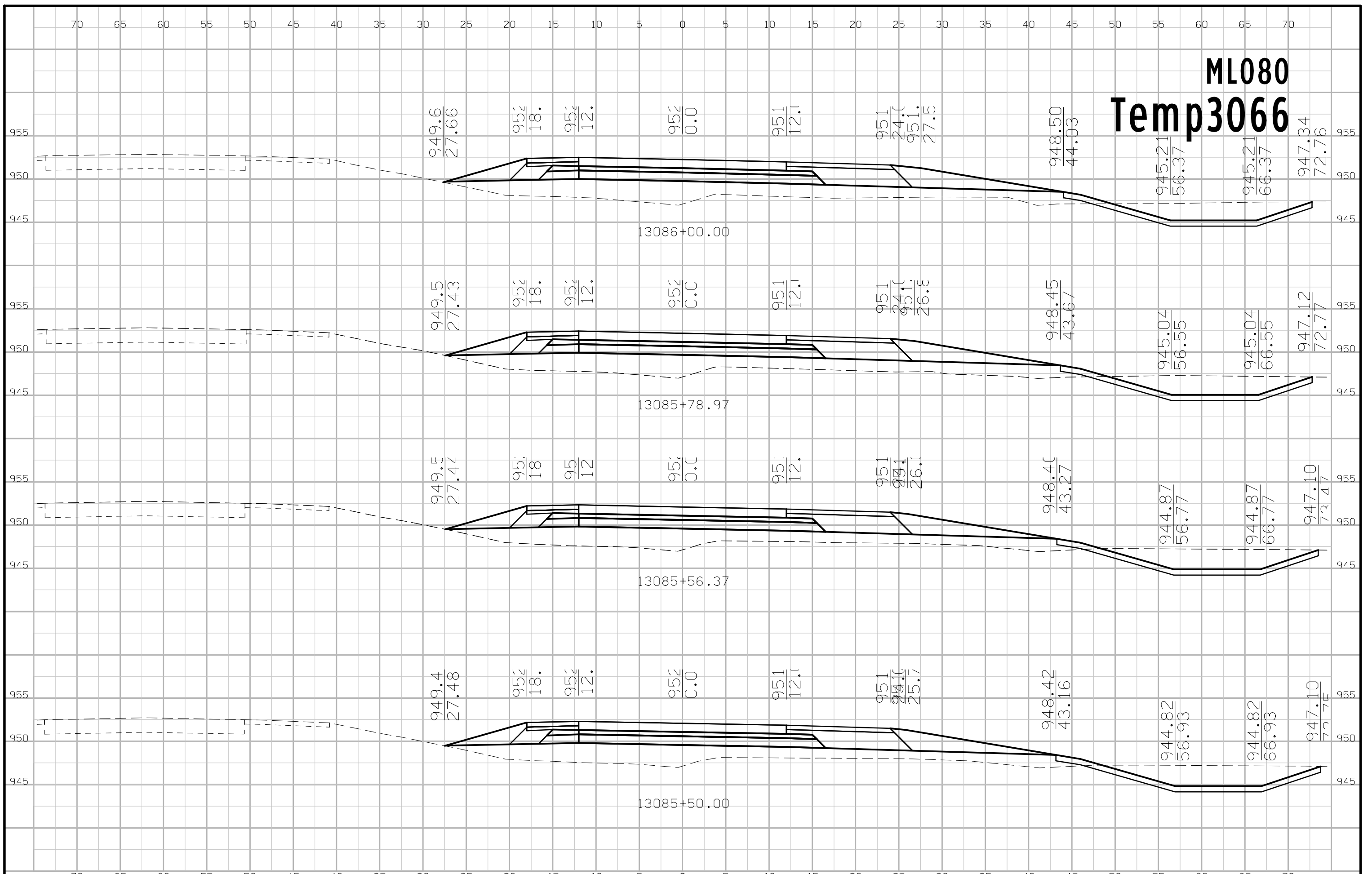
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ML080 Temp3066

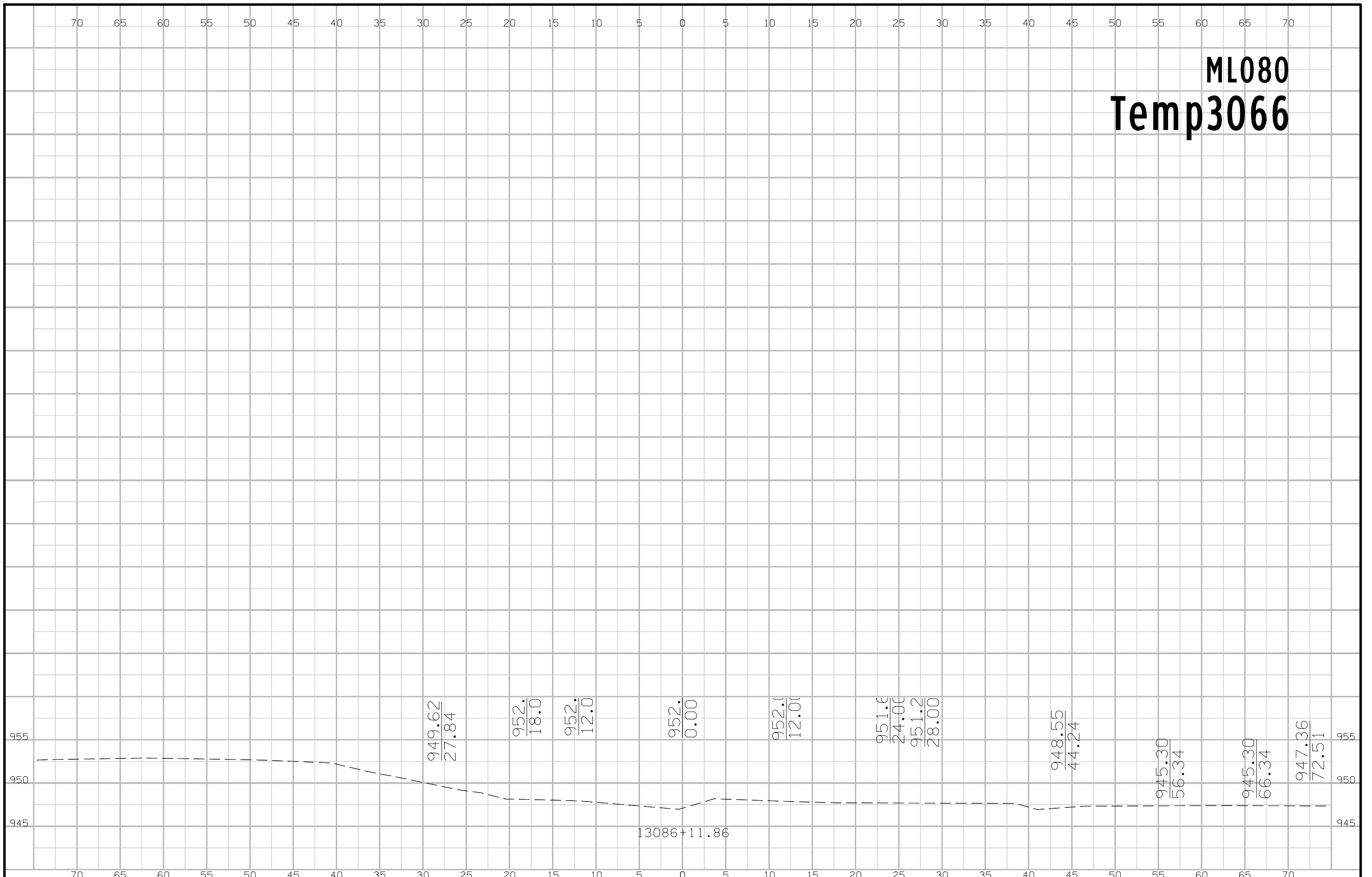


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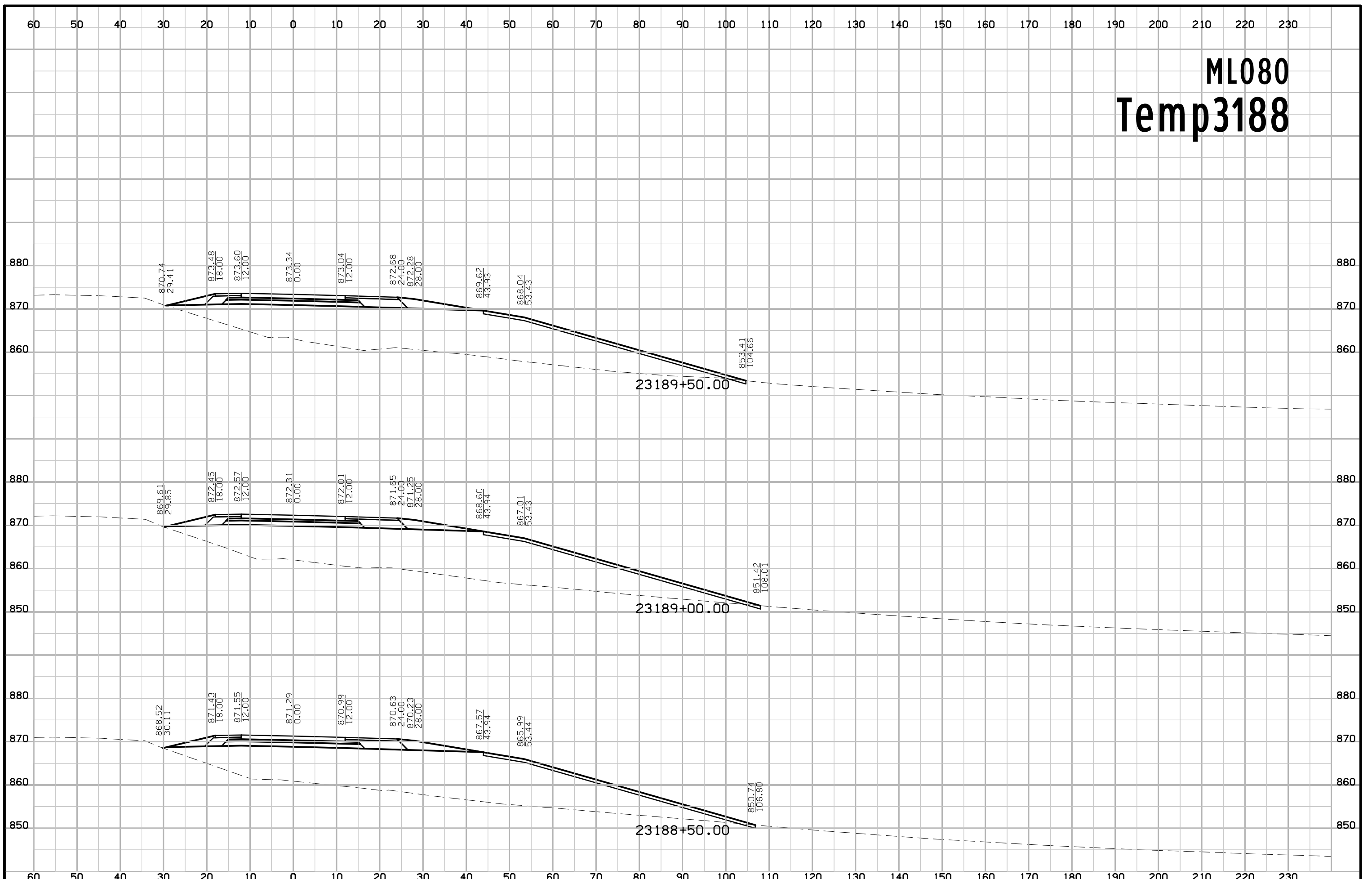
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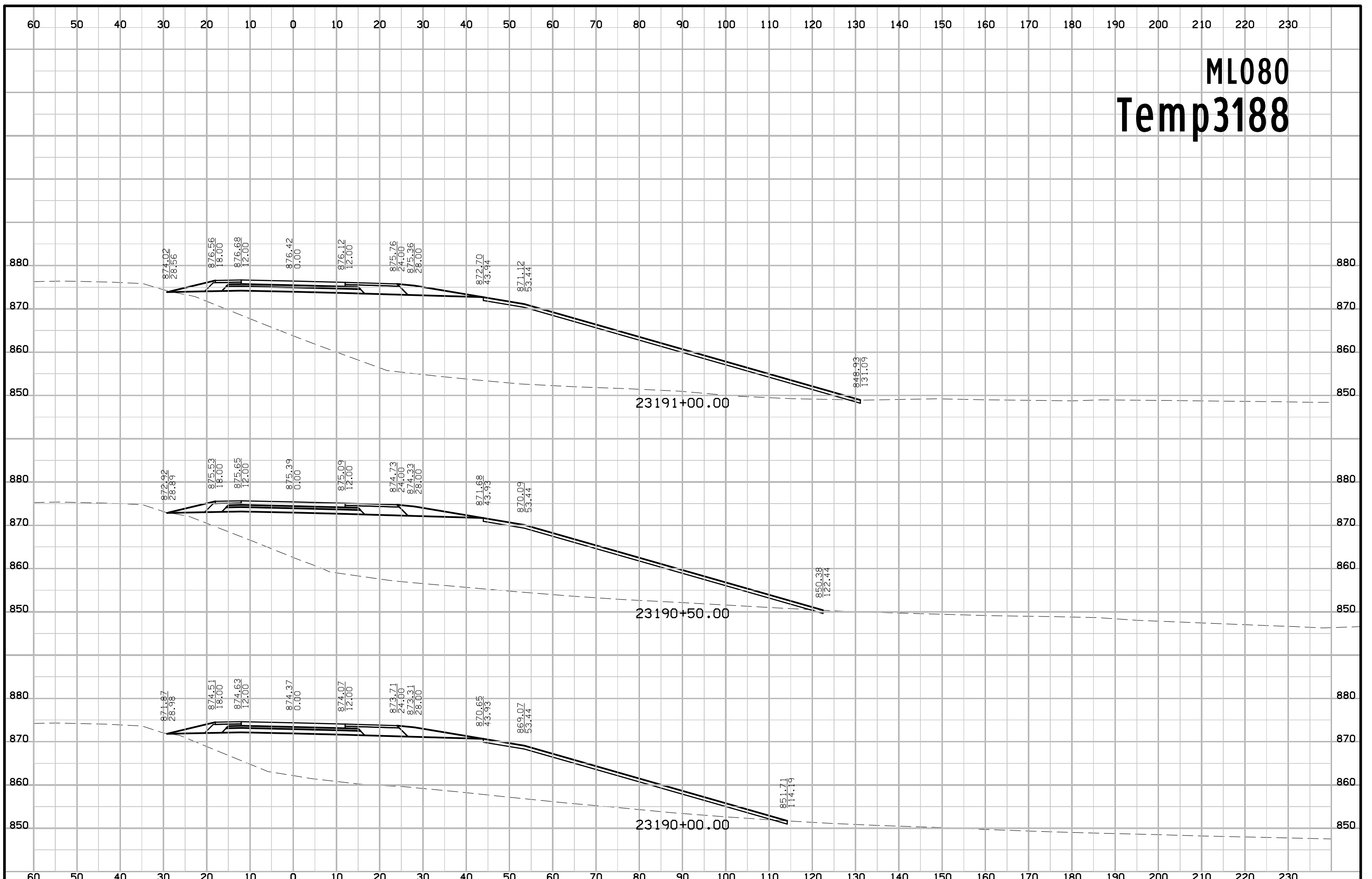
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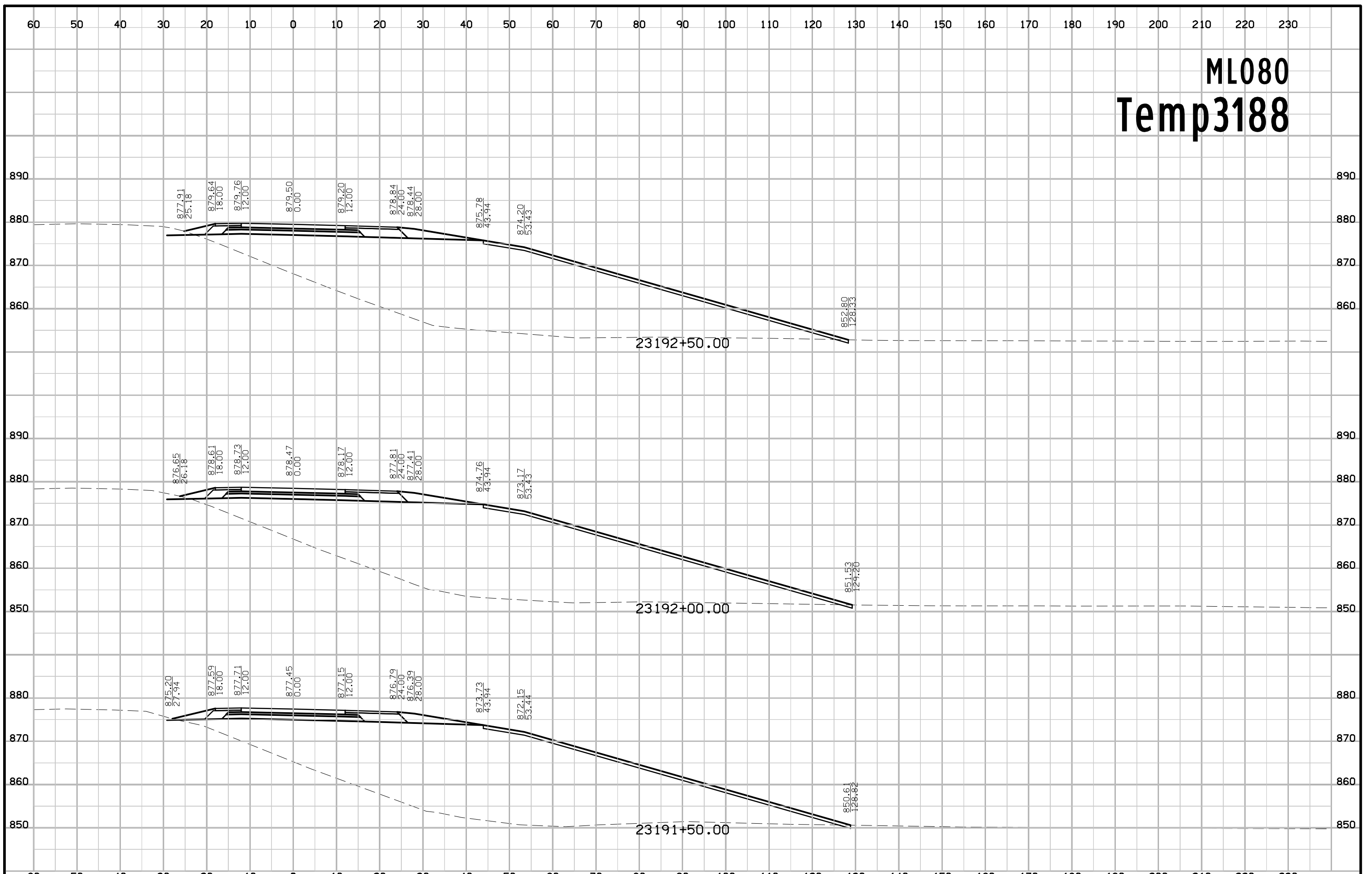
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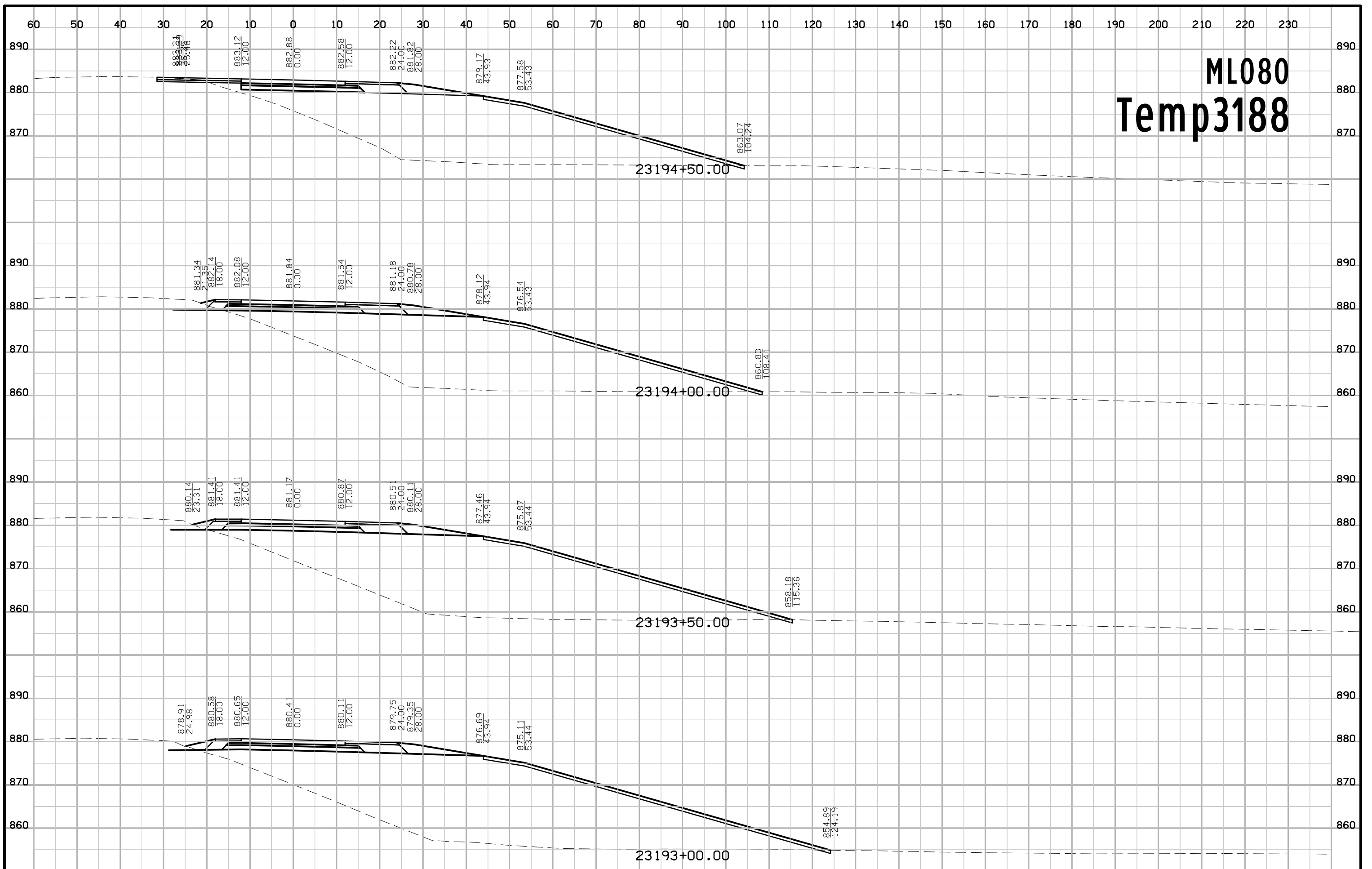
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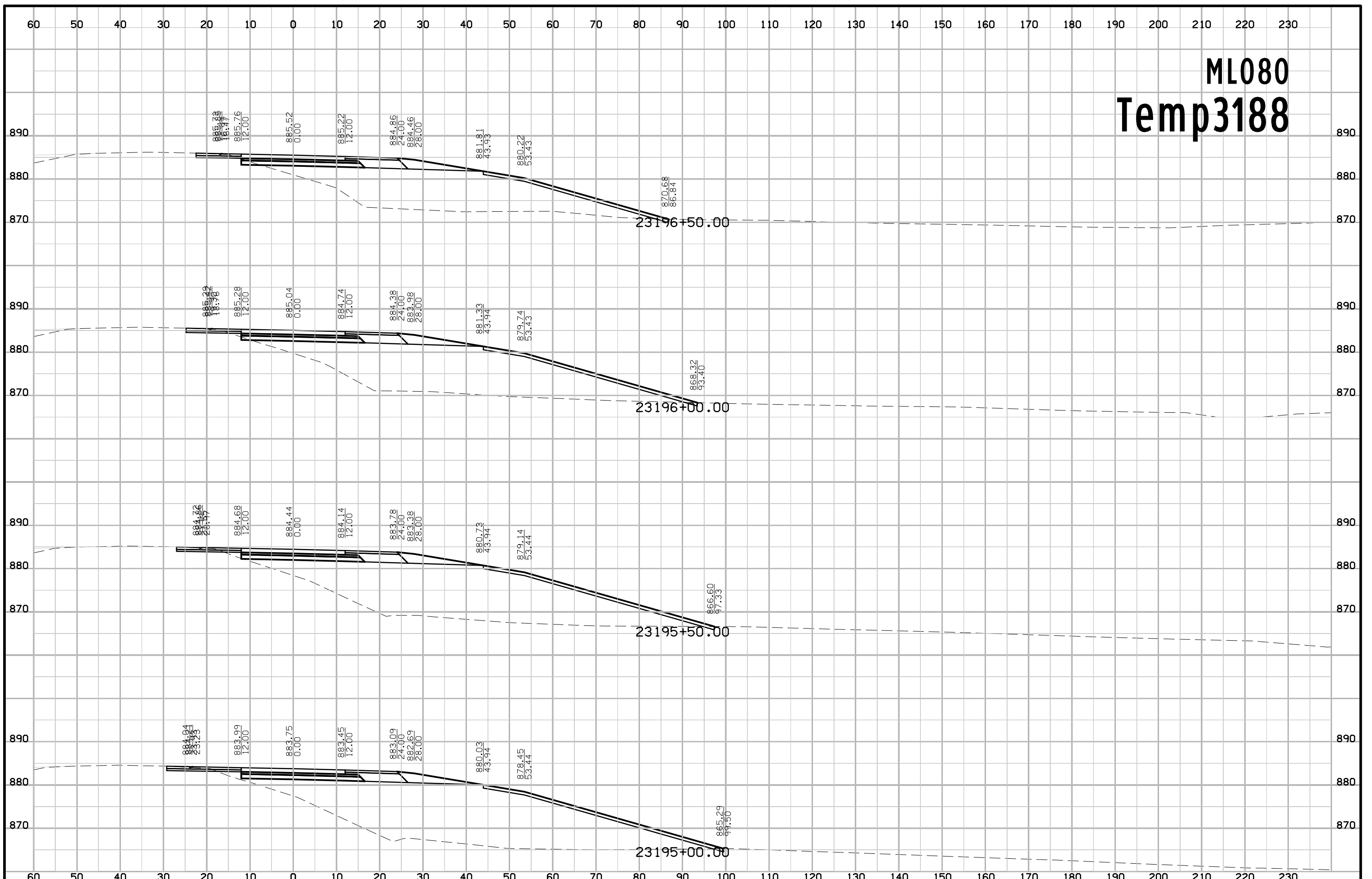
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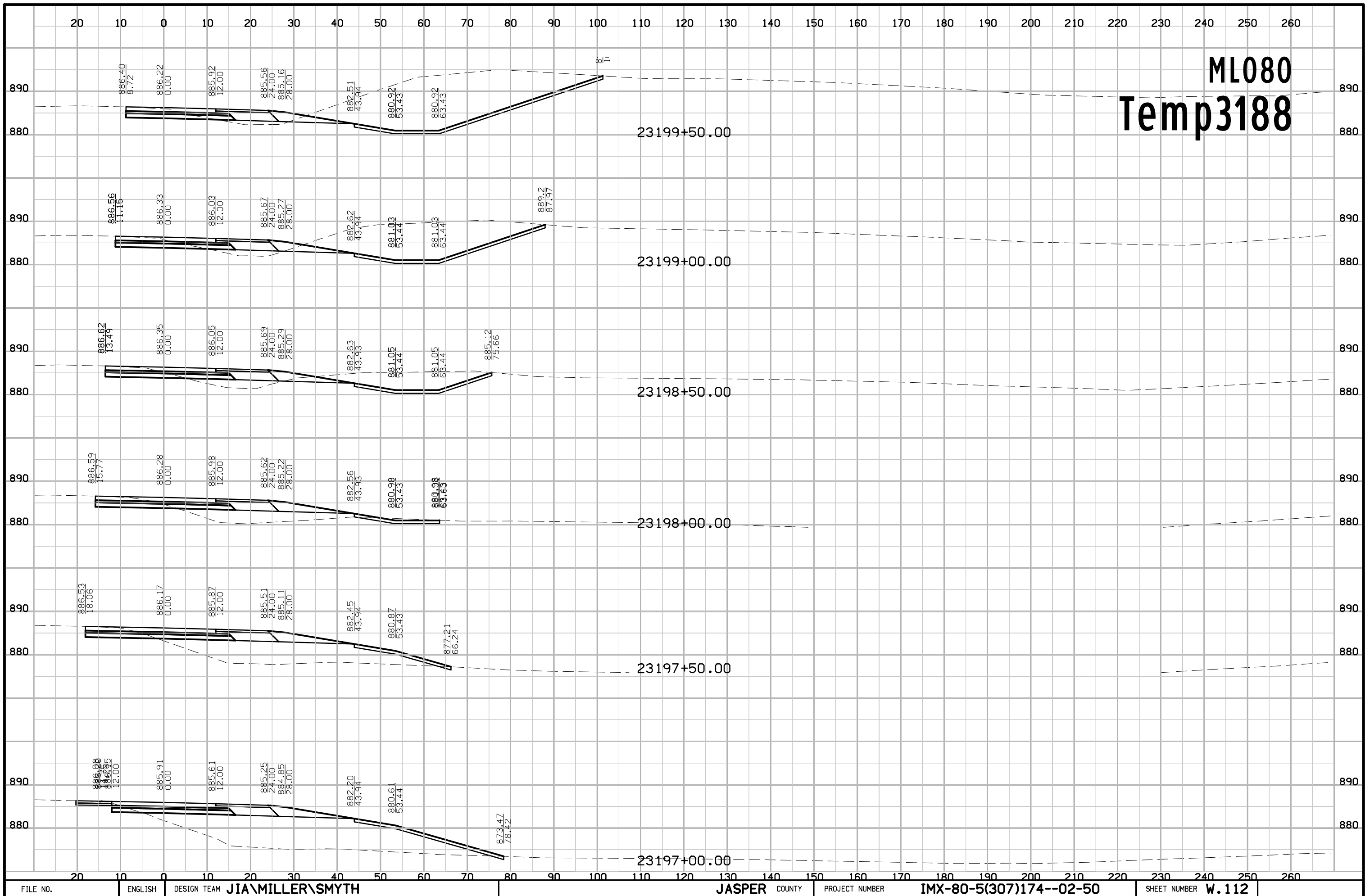


ML080 Temp3188

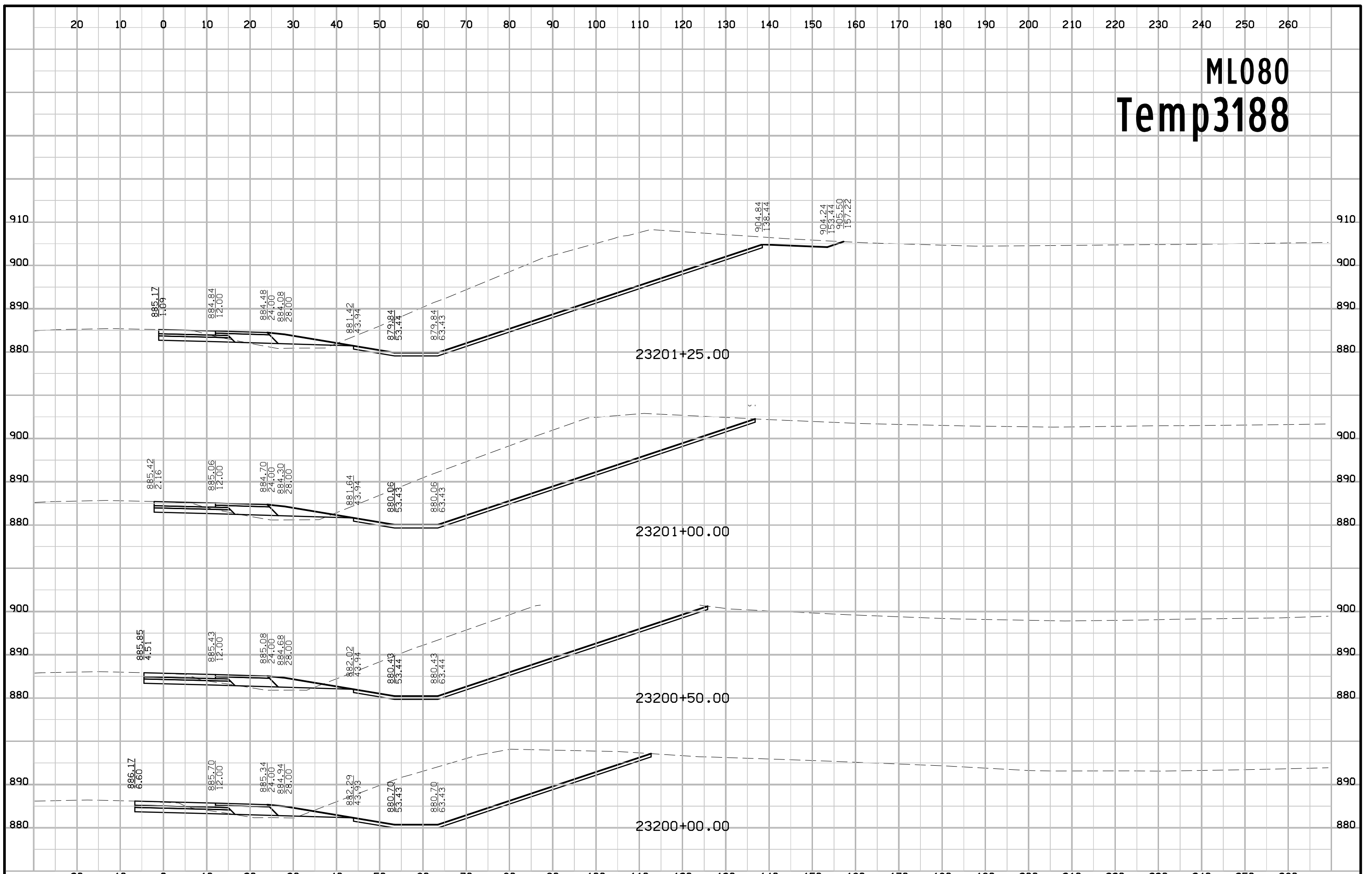


ML080 Temp3188

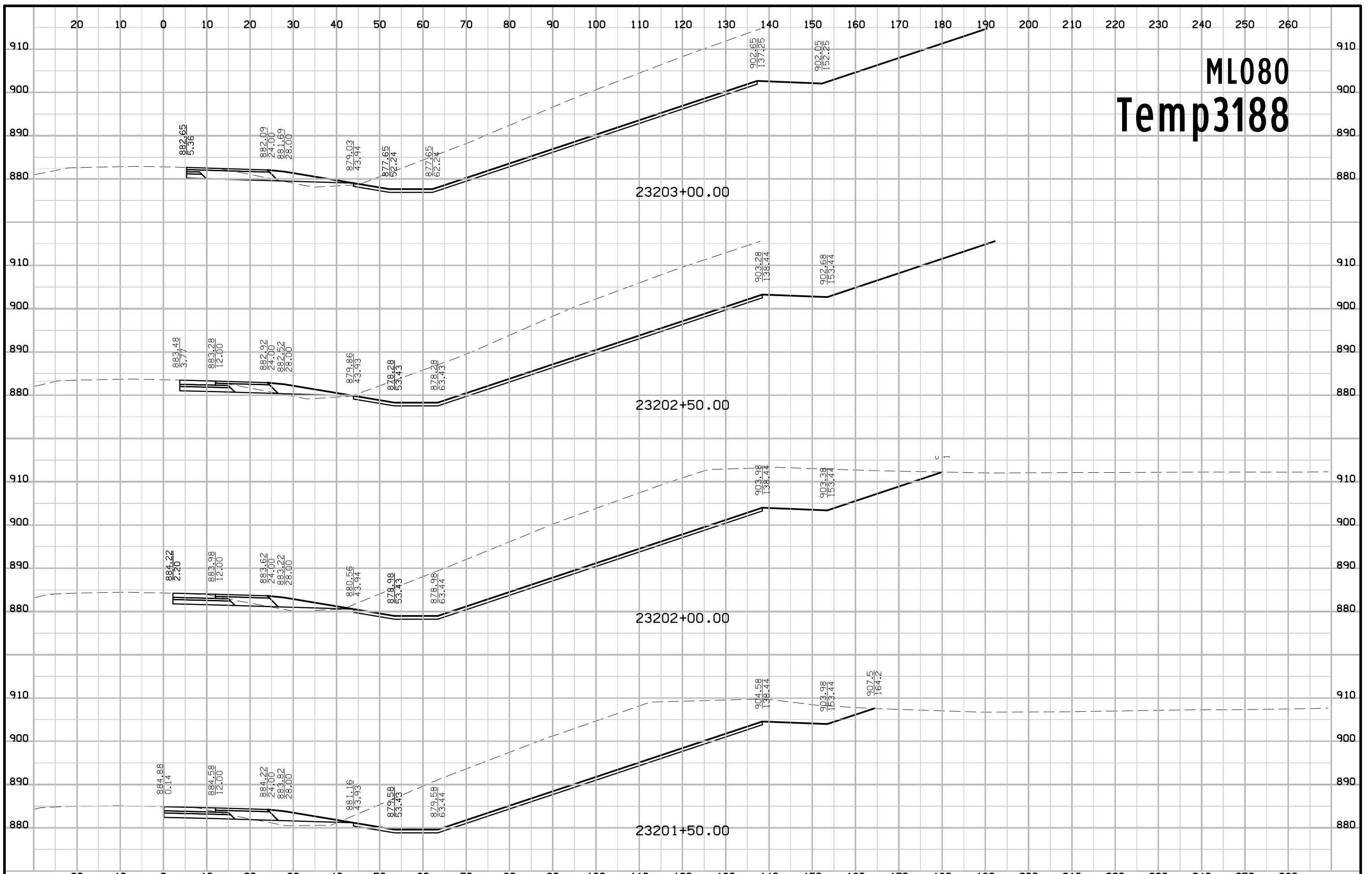




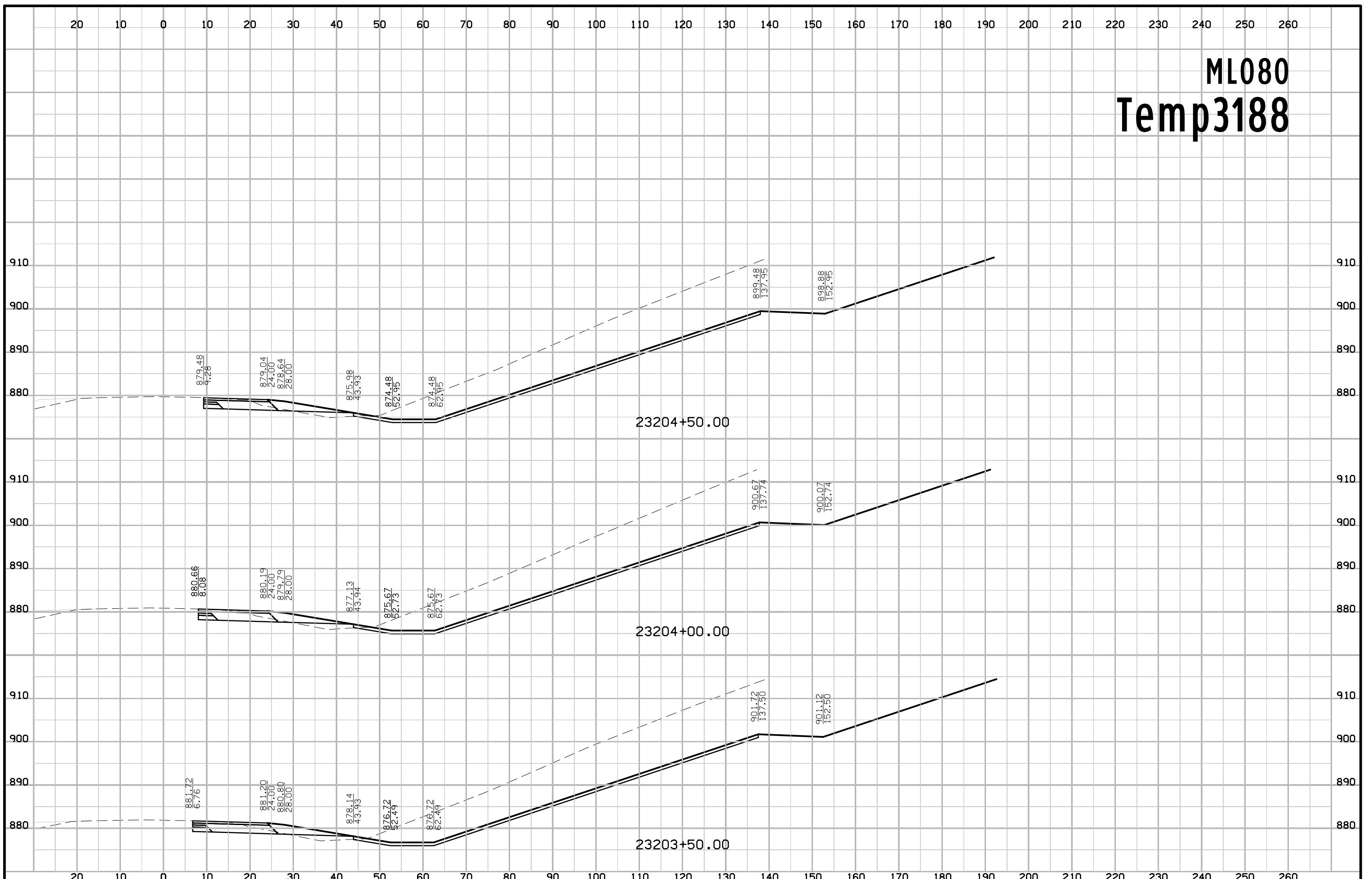
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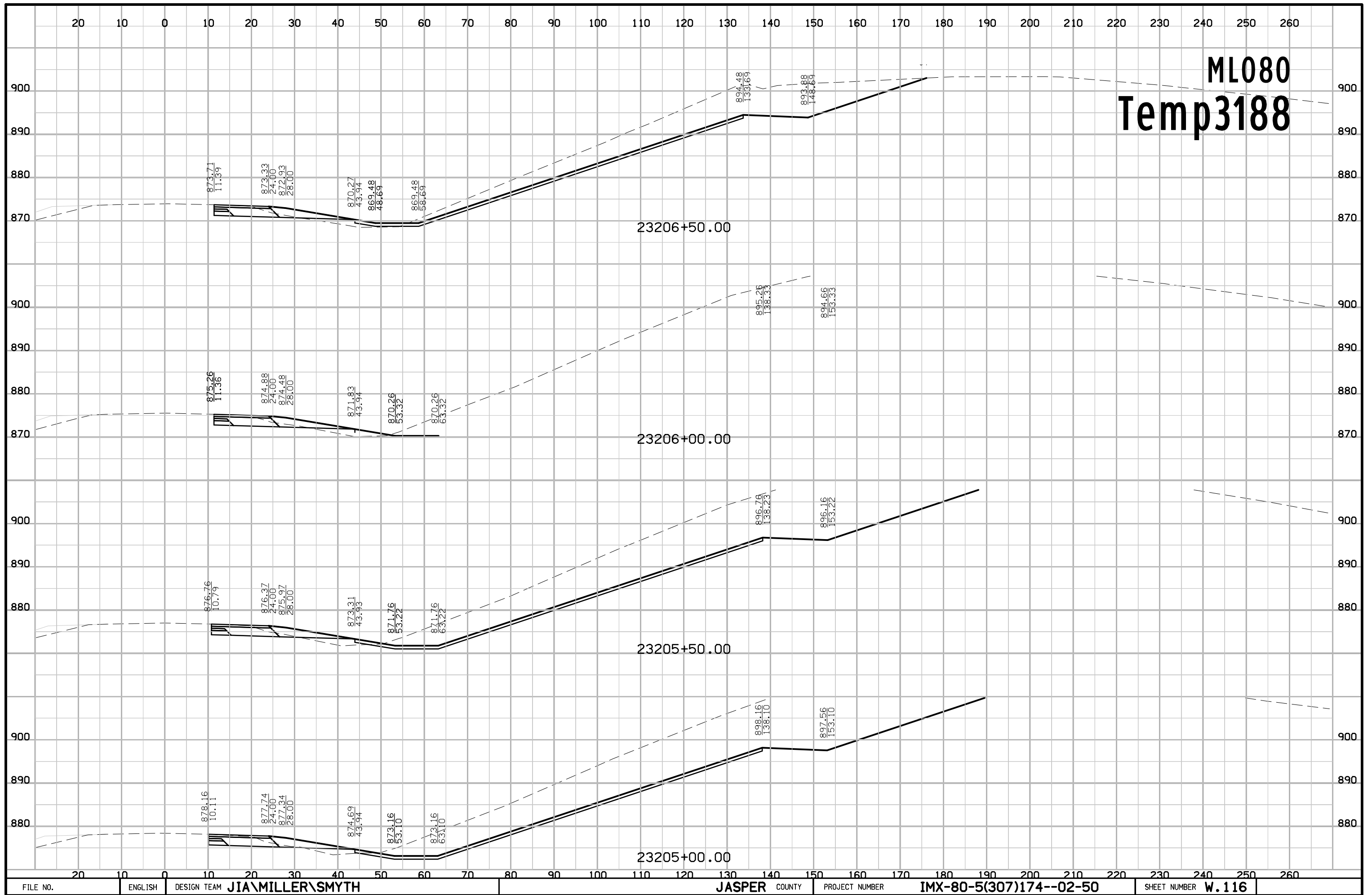


ML080 Temp3188



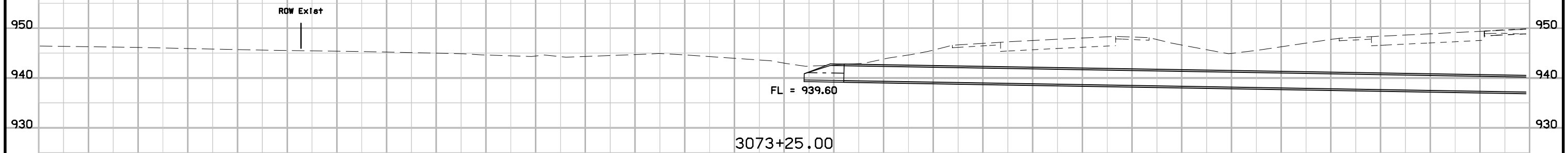
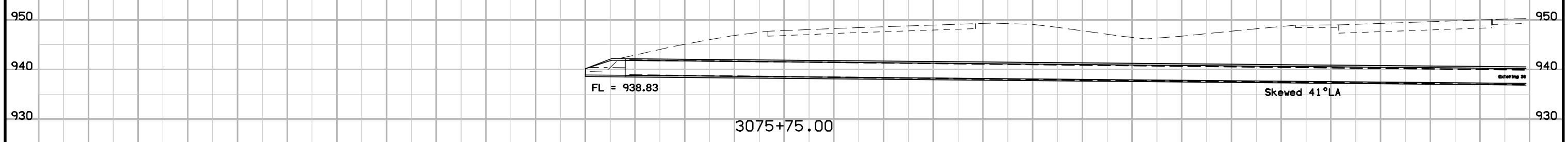
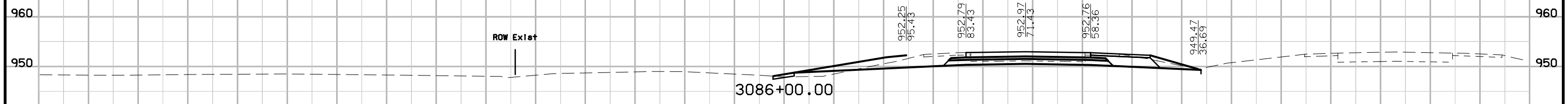
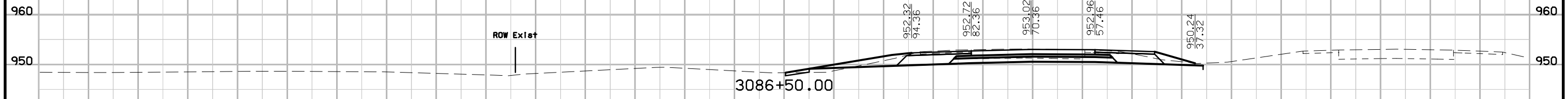
ML080 Temp3188



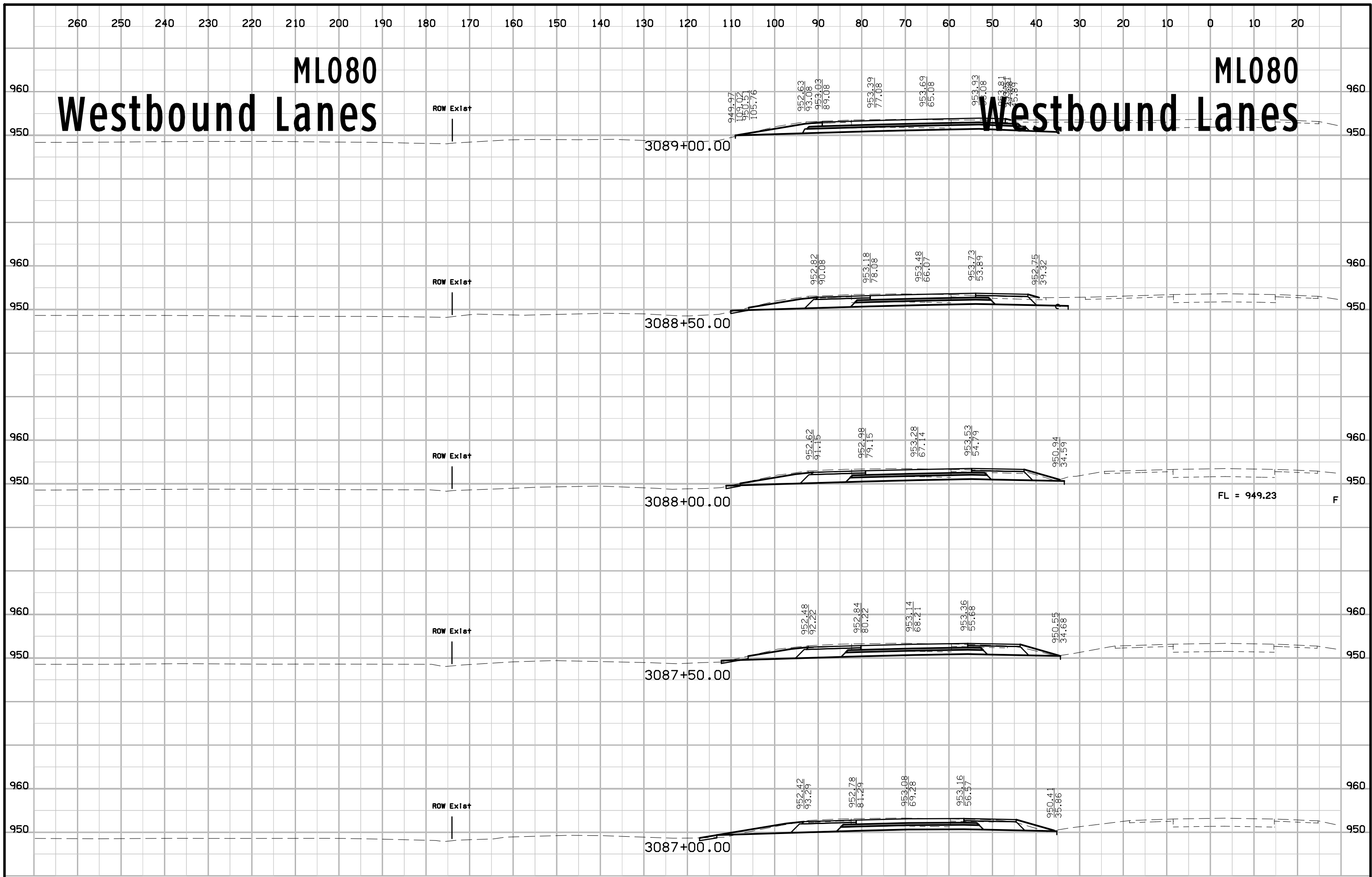


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ML080 Westbound Lanes

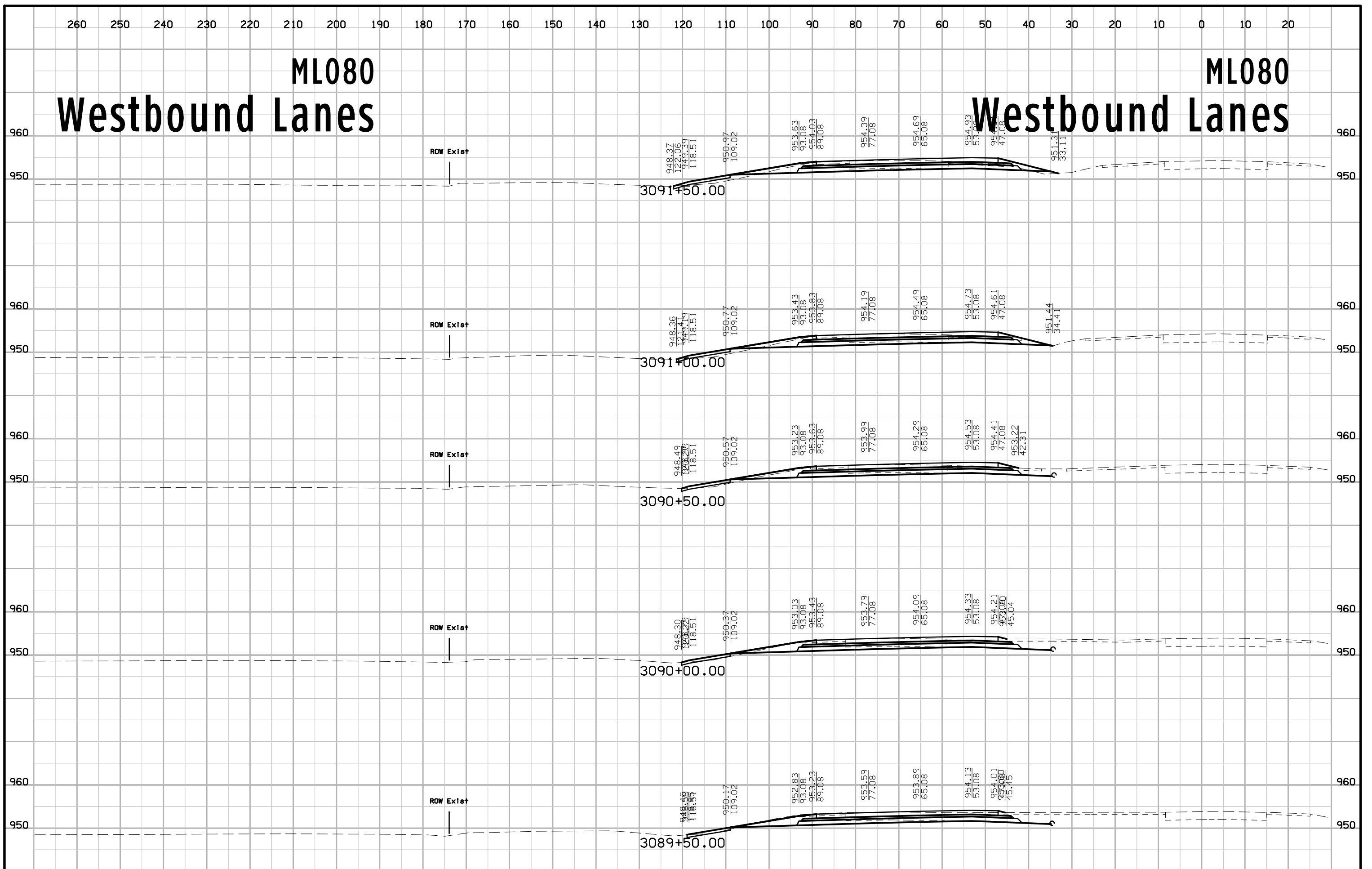


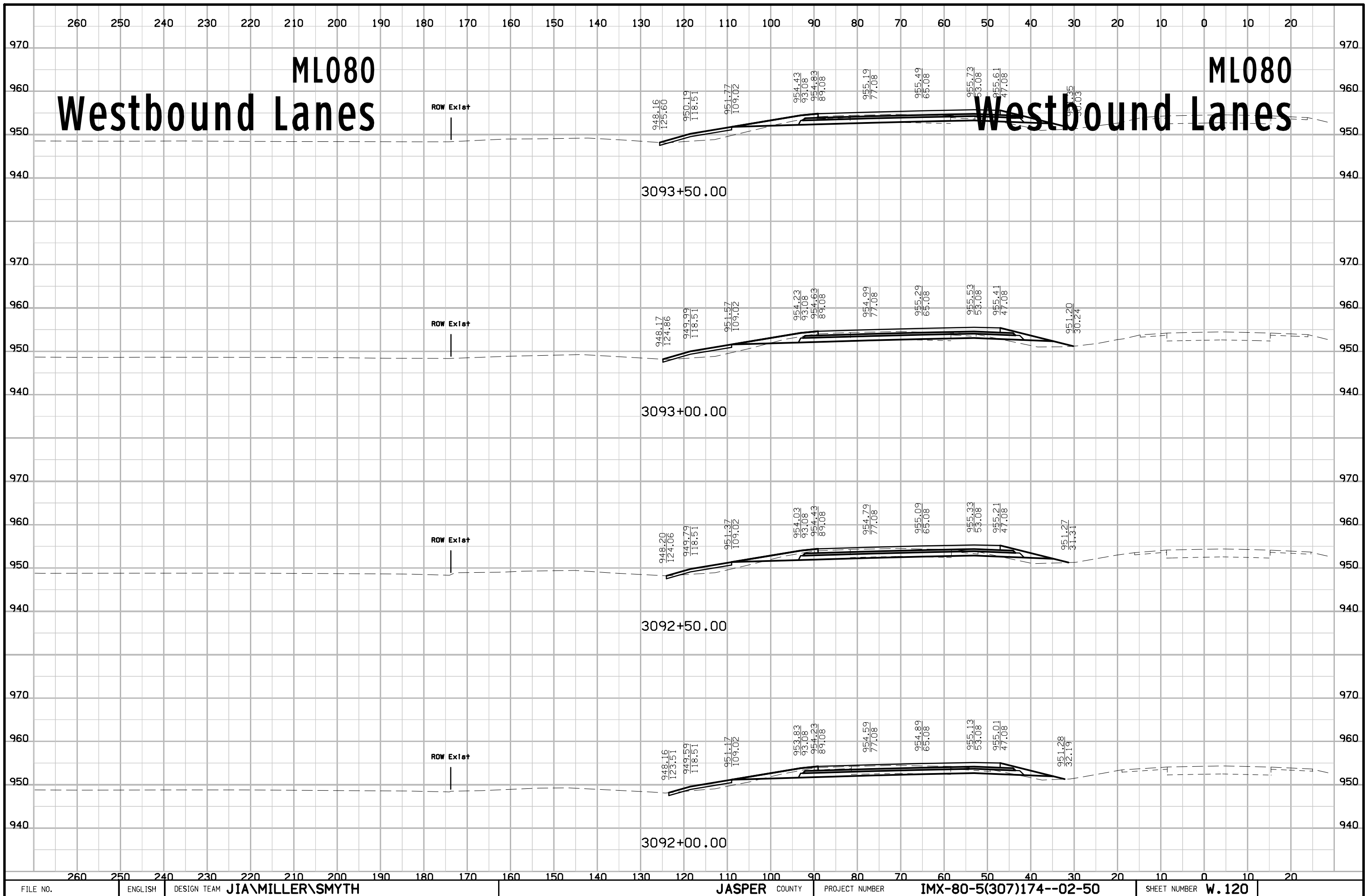
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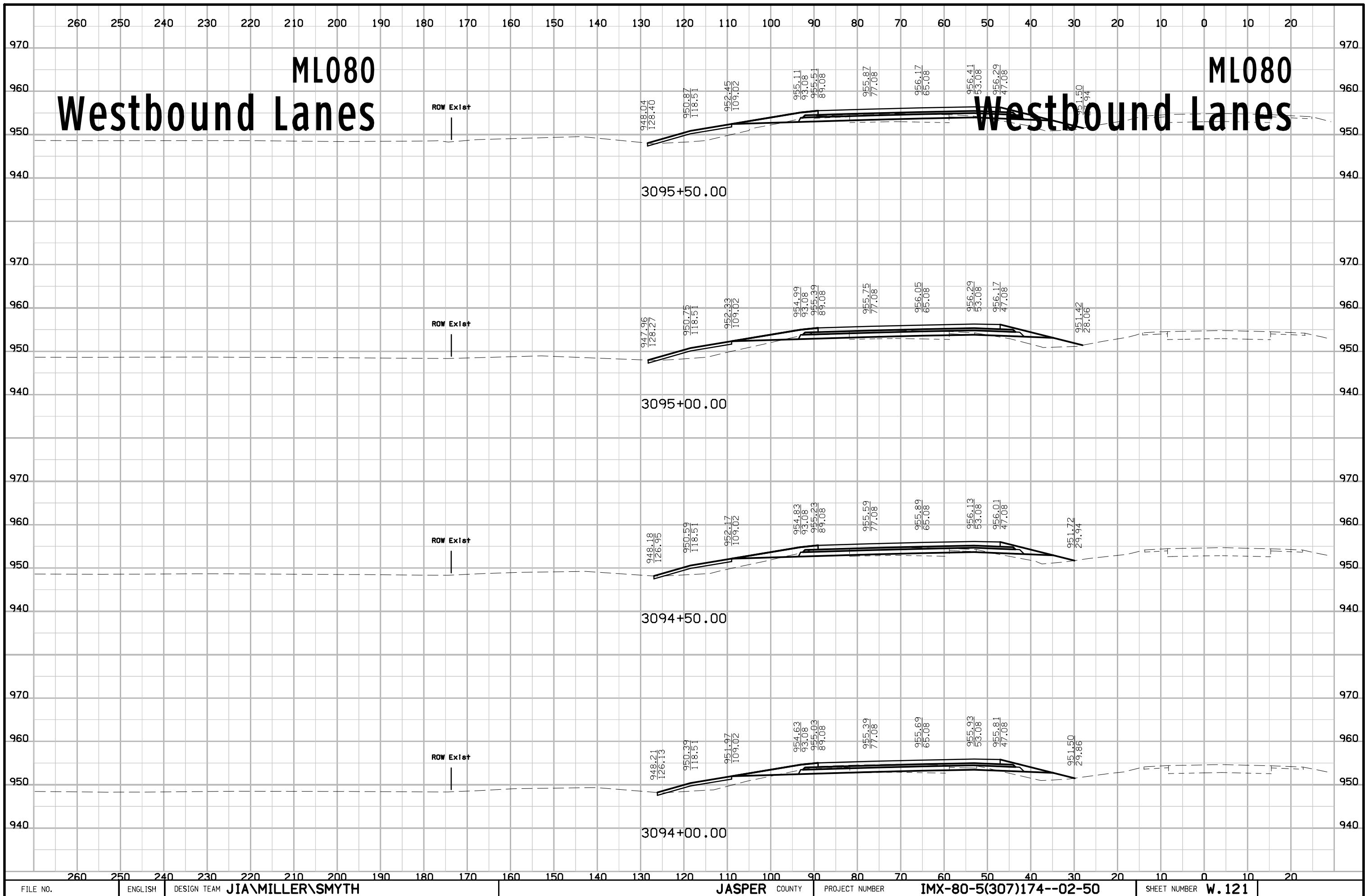


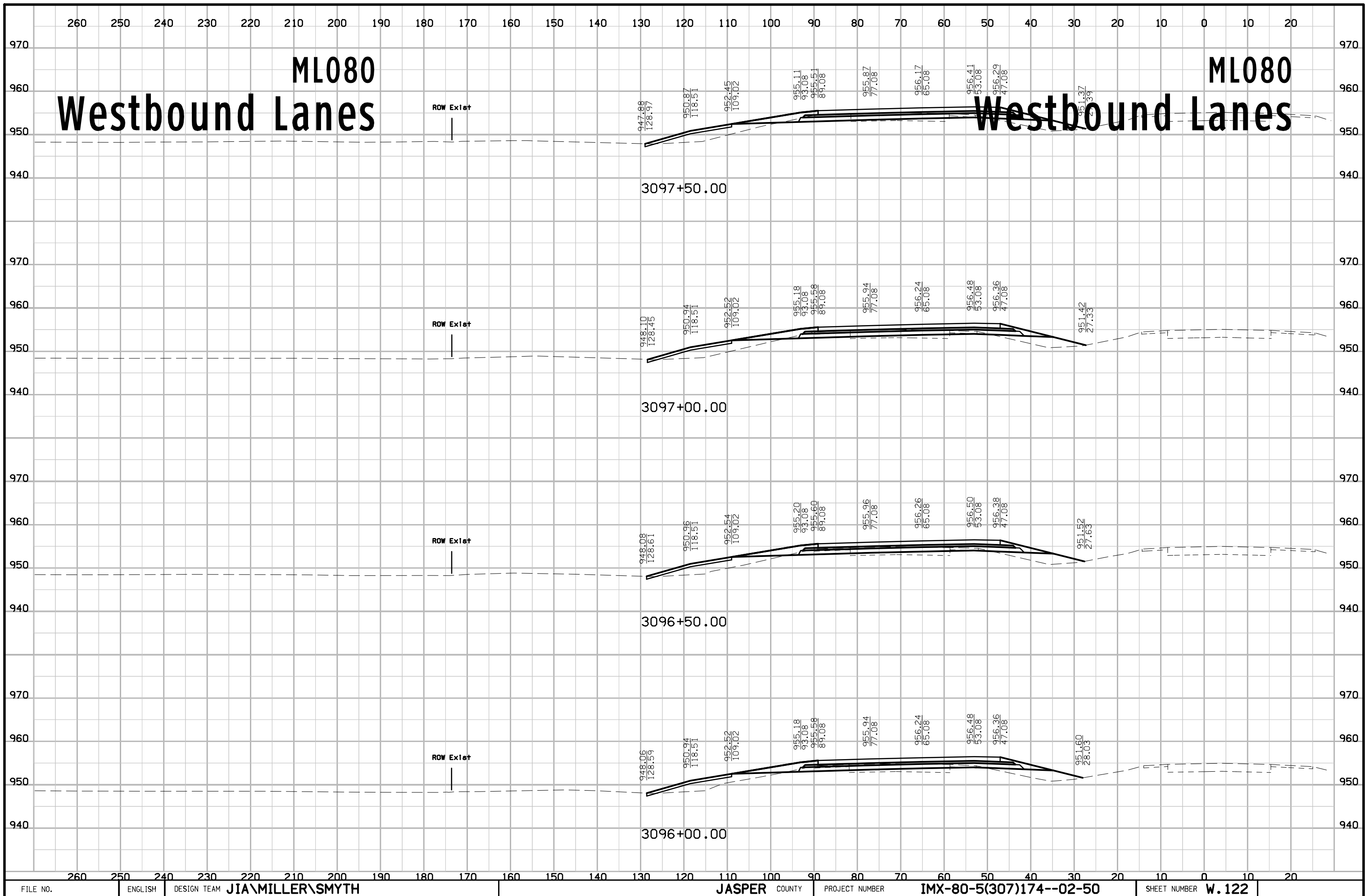
ML080 Westbound Lanes

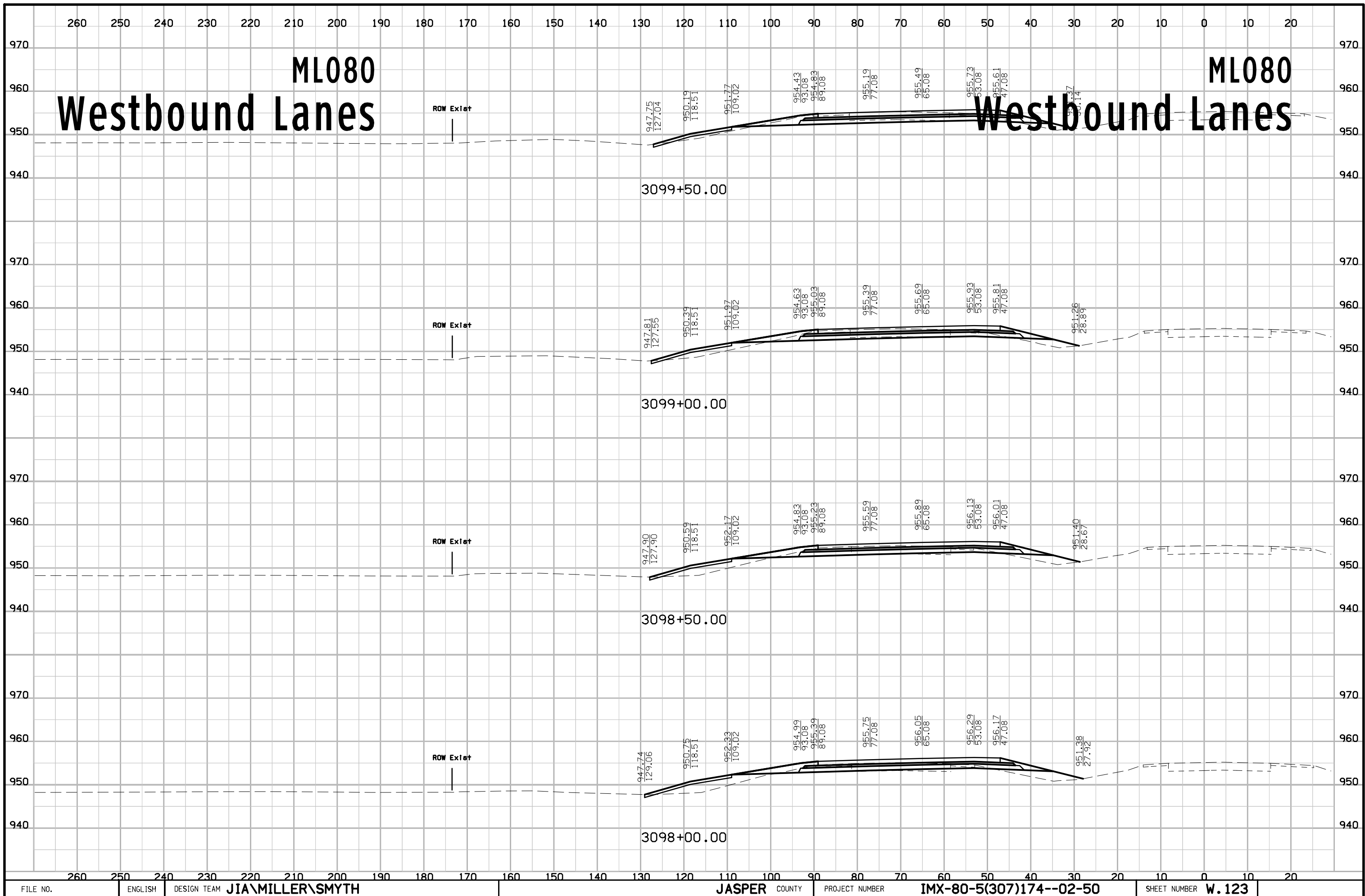
ML080 Westbound Lanes

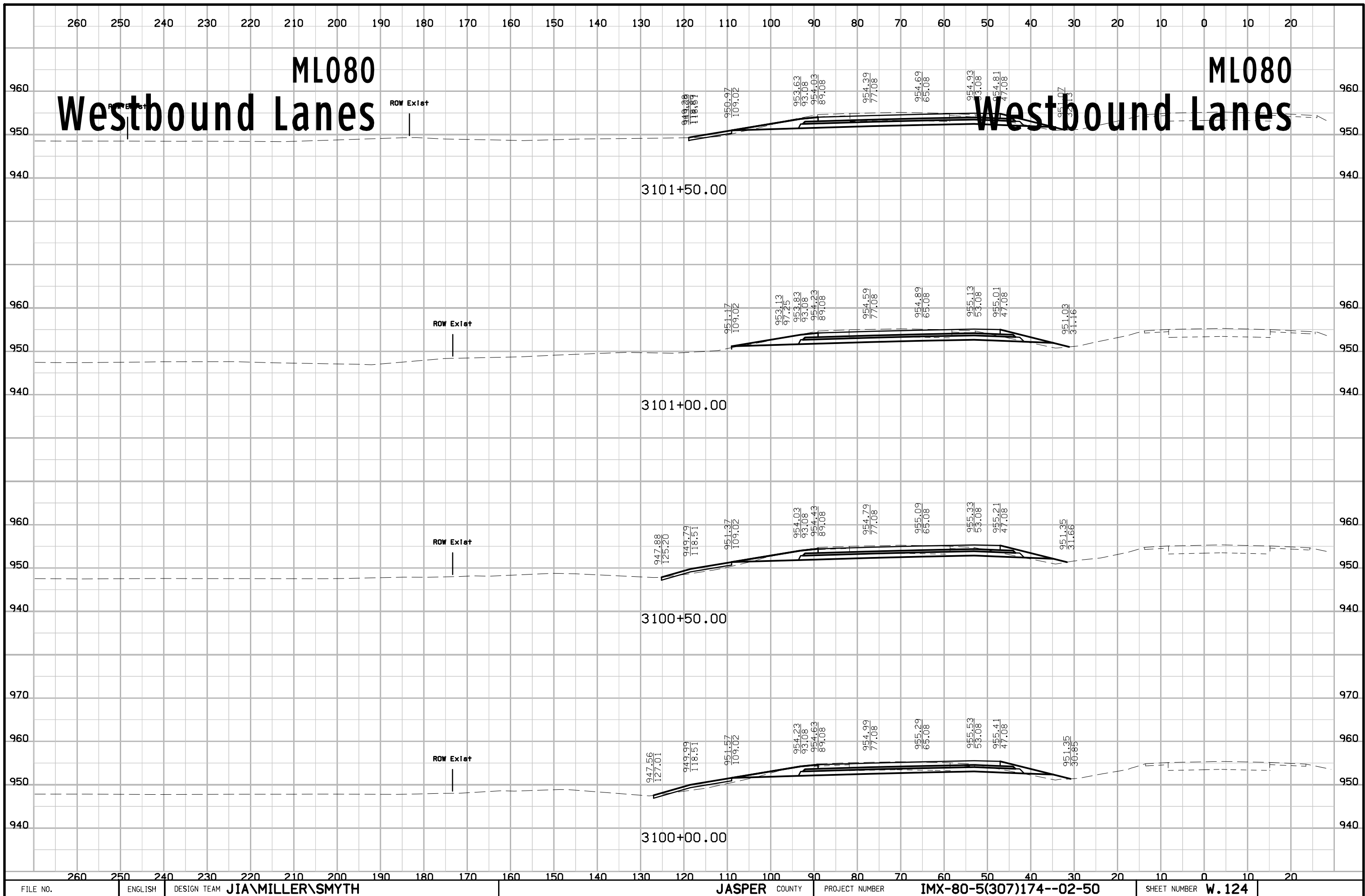


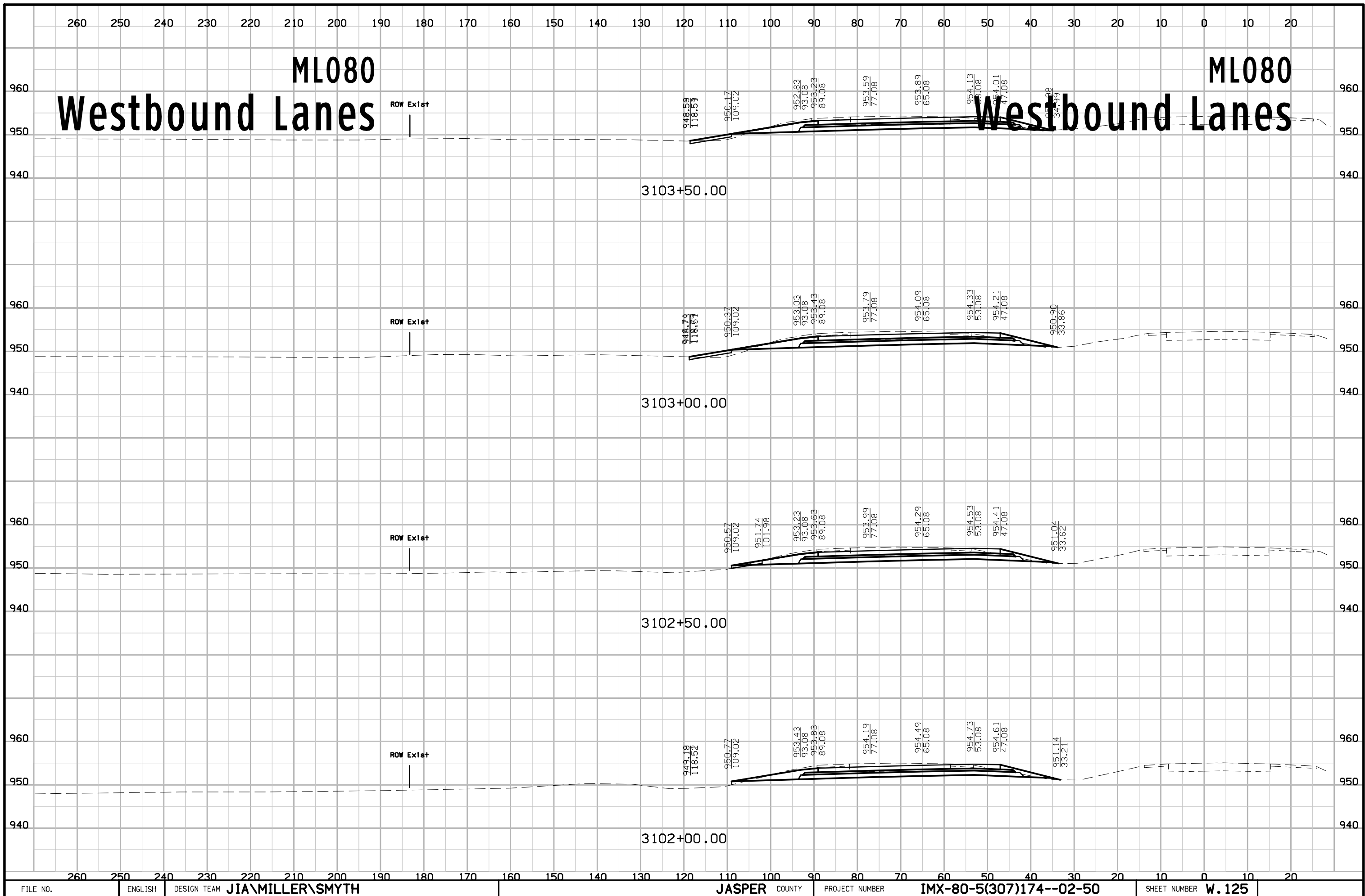


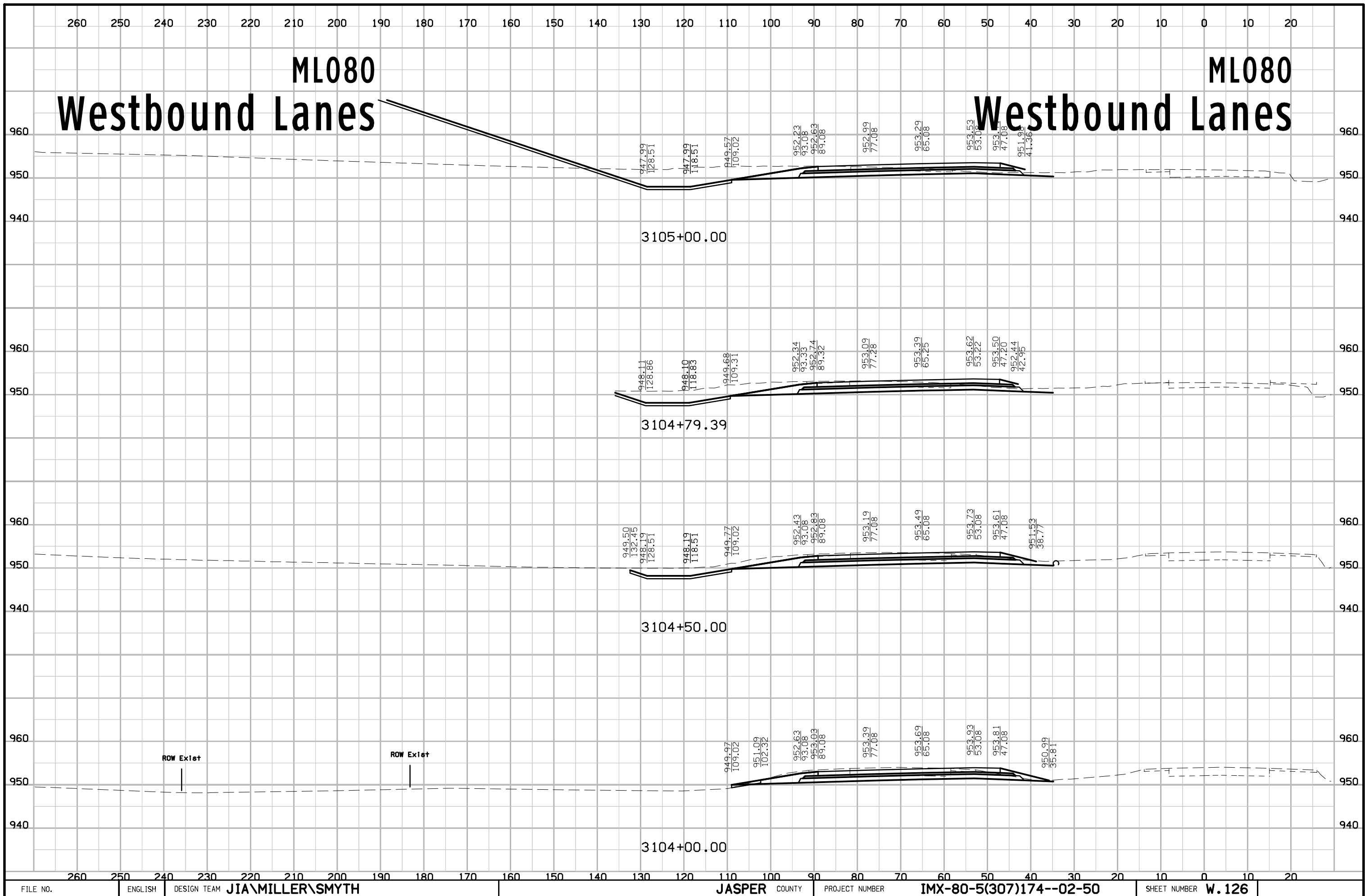






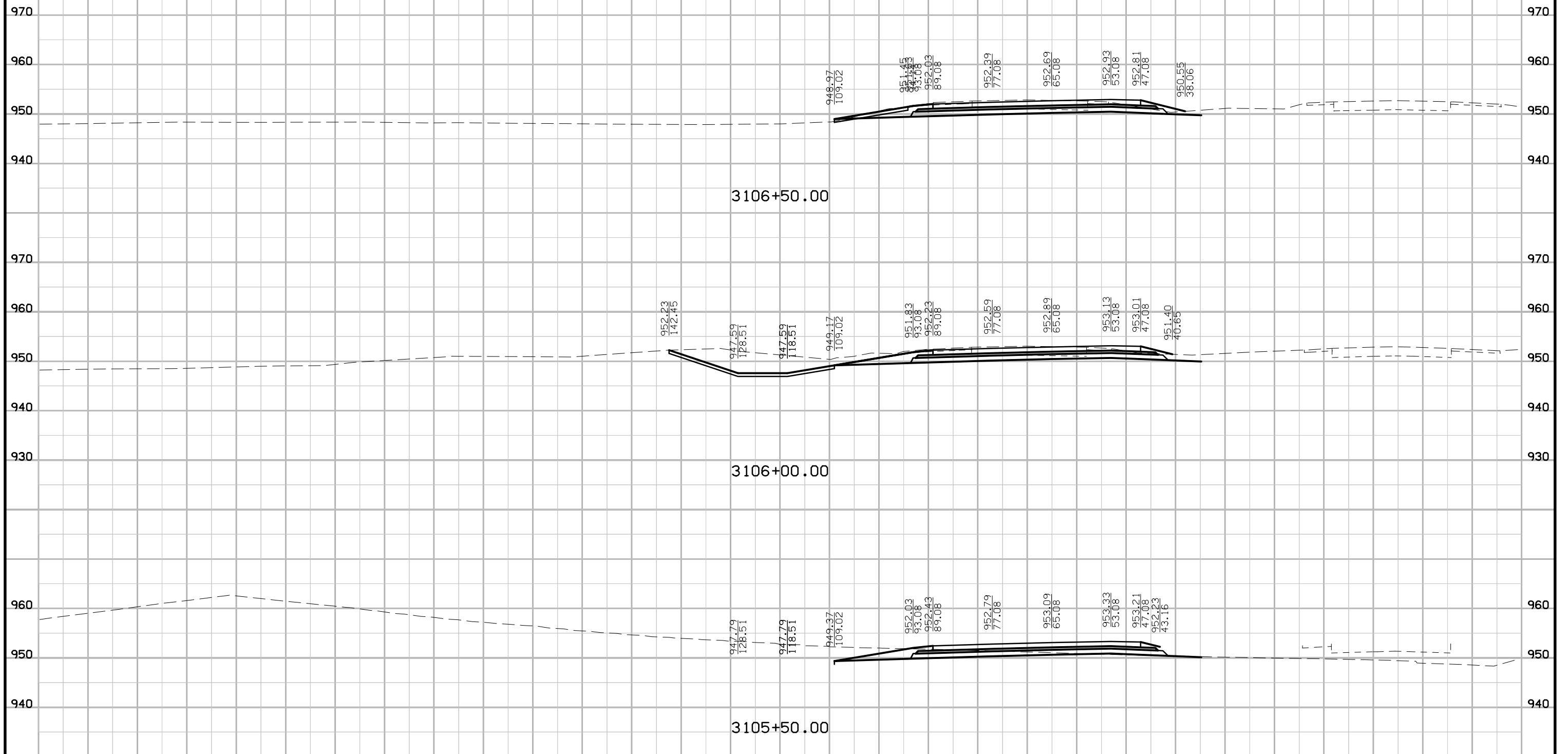






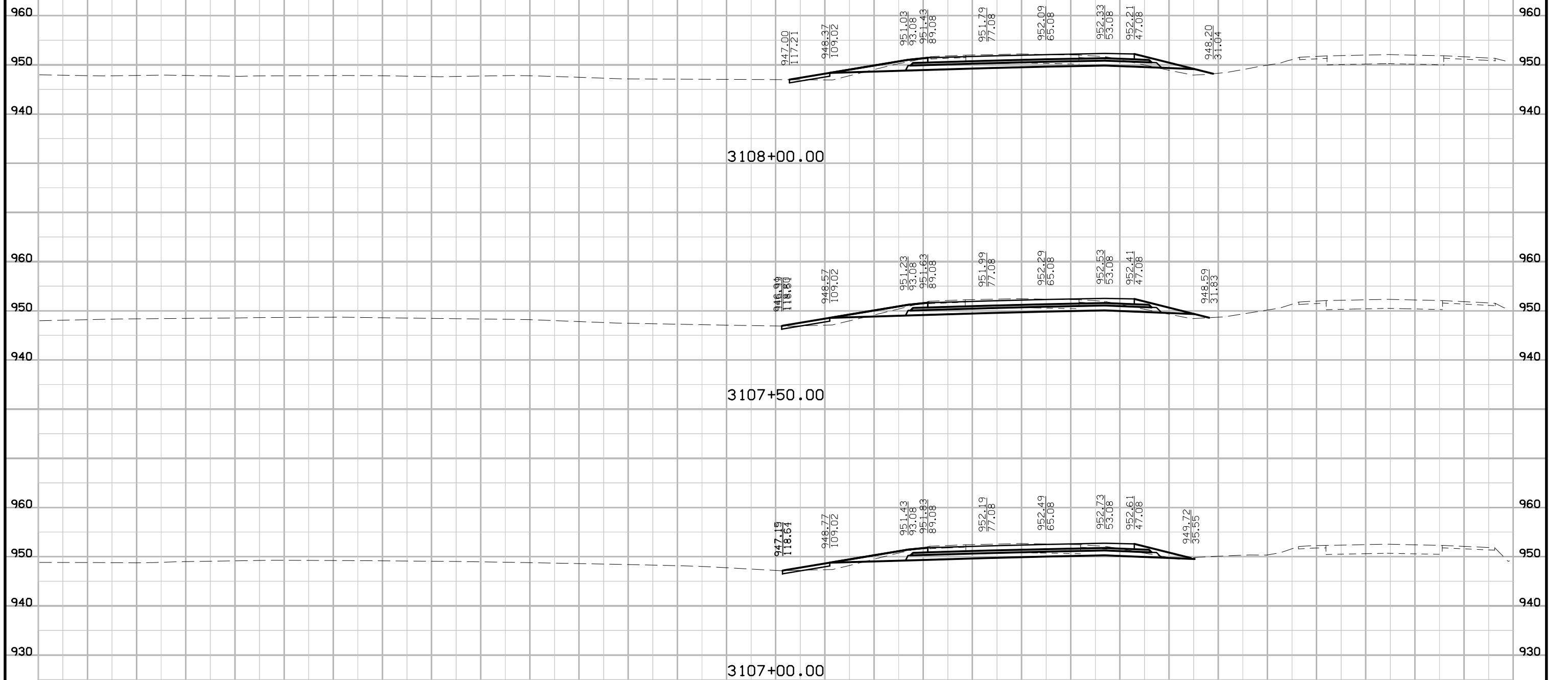
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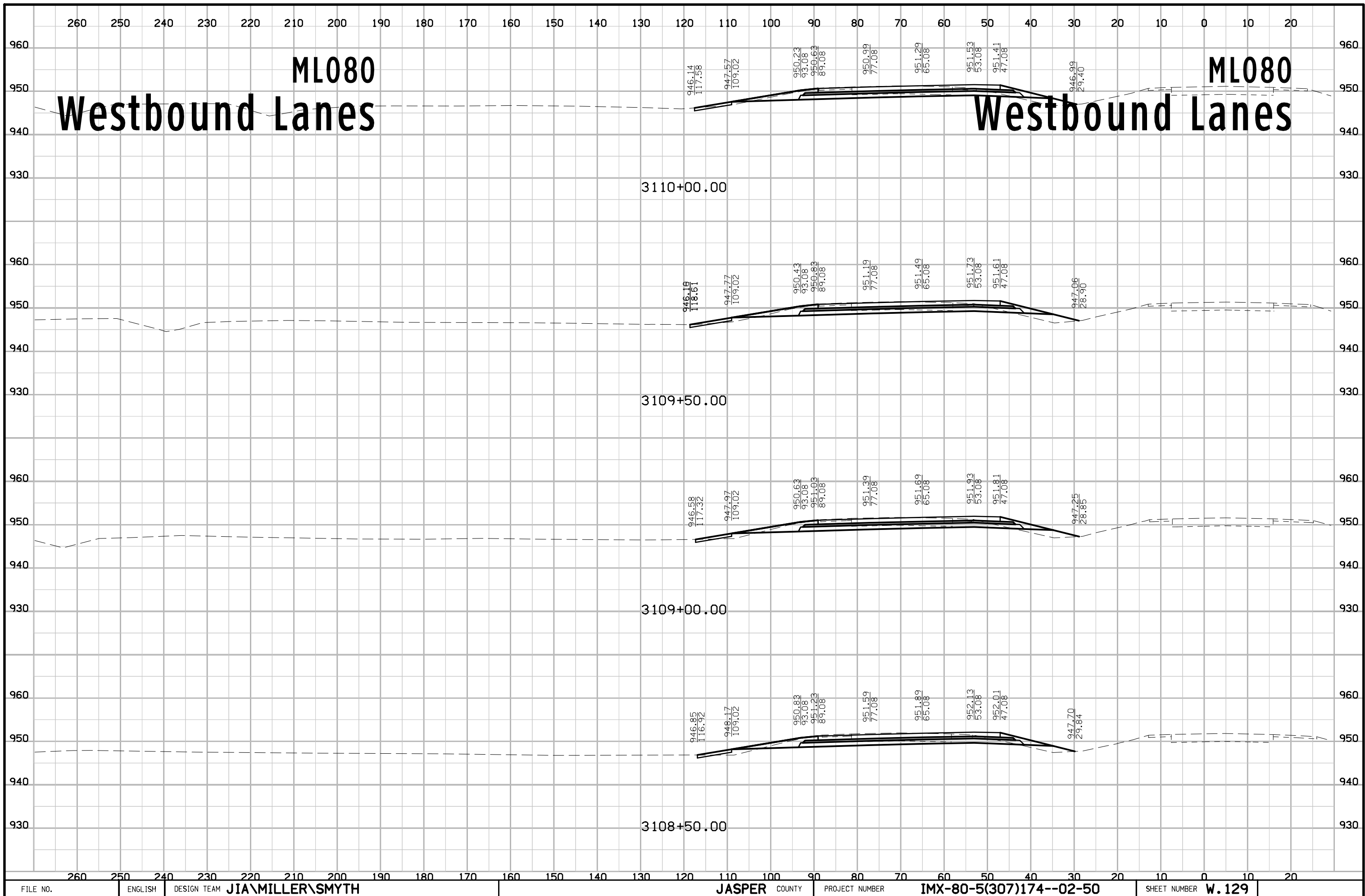
ML080 Westbound Lanes



260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

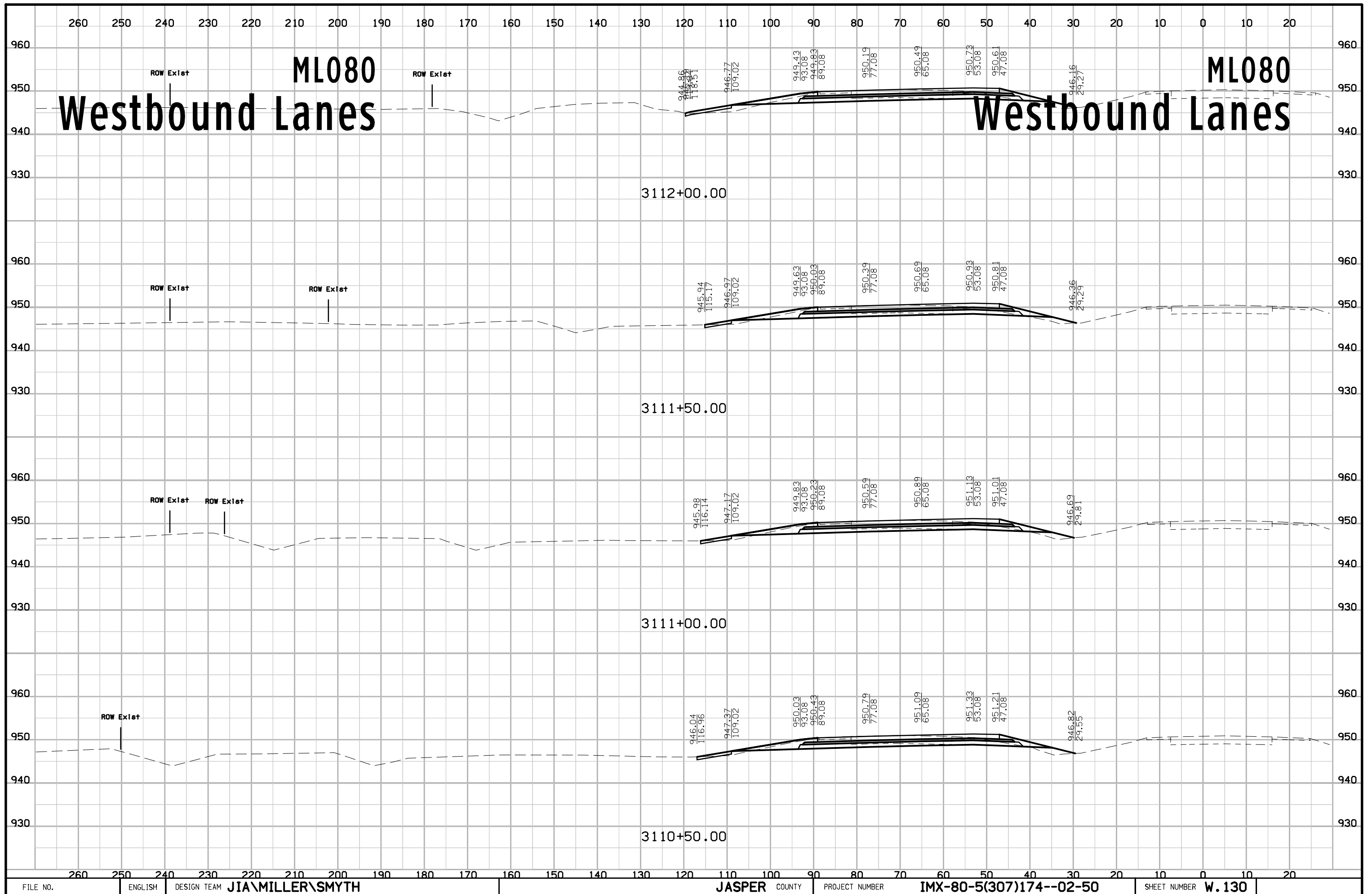
ML080 Westbound Lanes



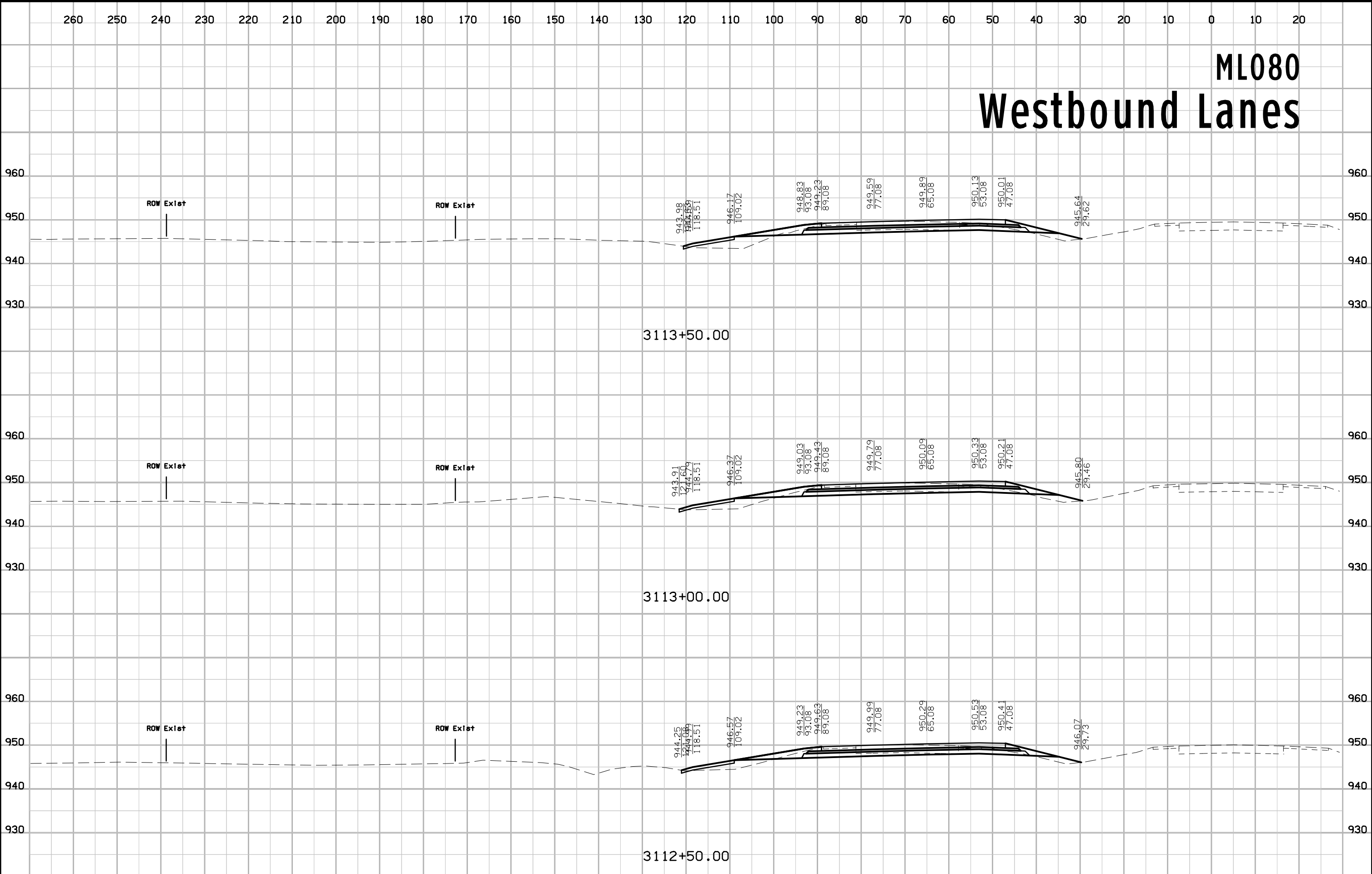


ML080
Westbound Lanes

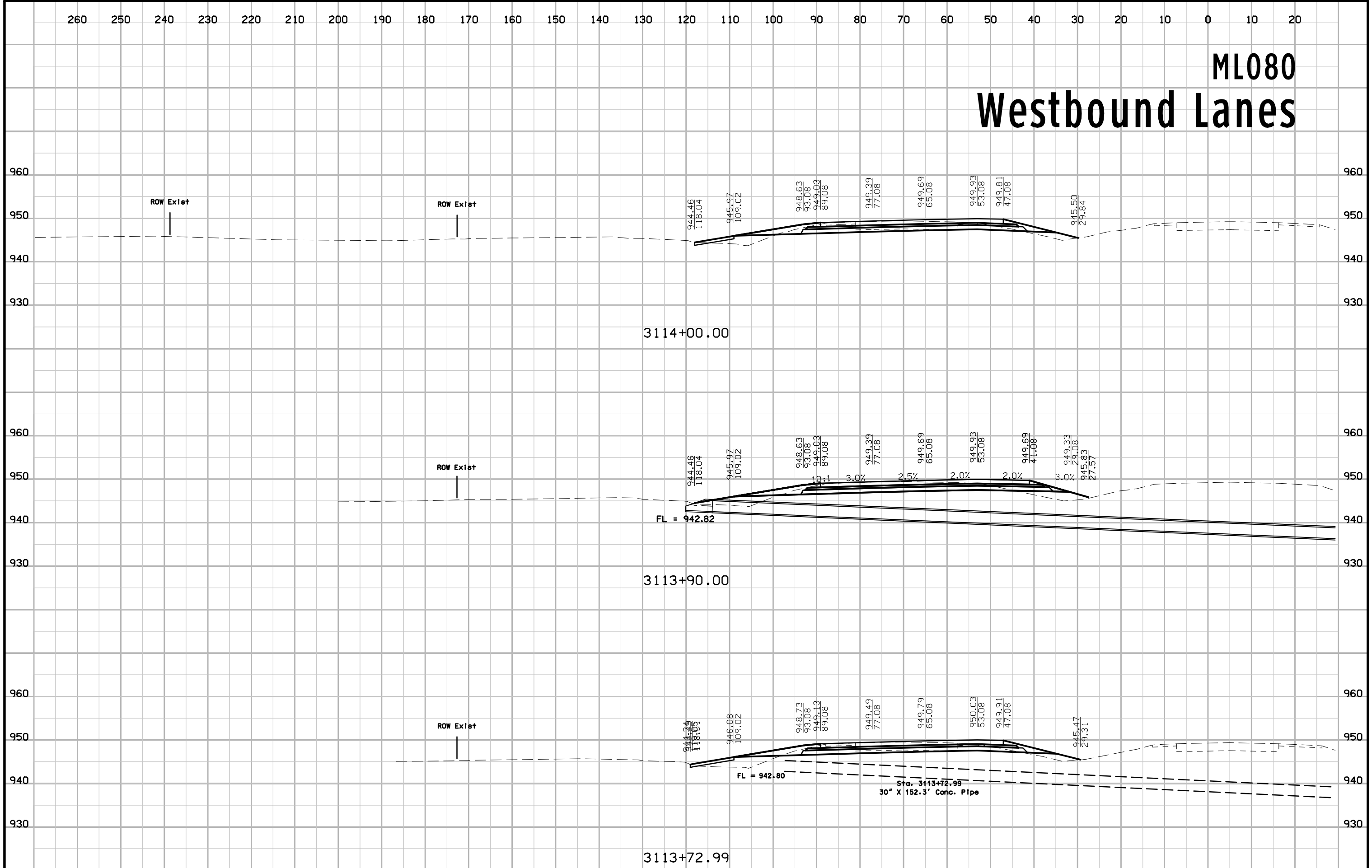
ML080
Westbound Lanes



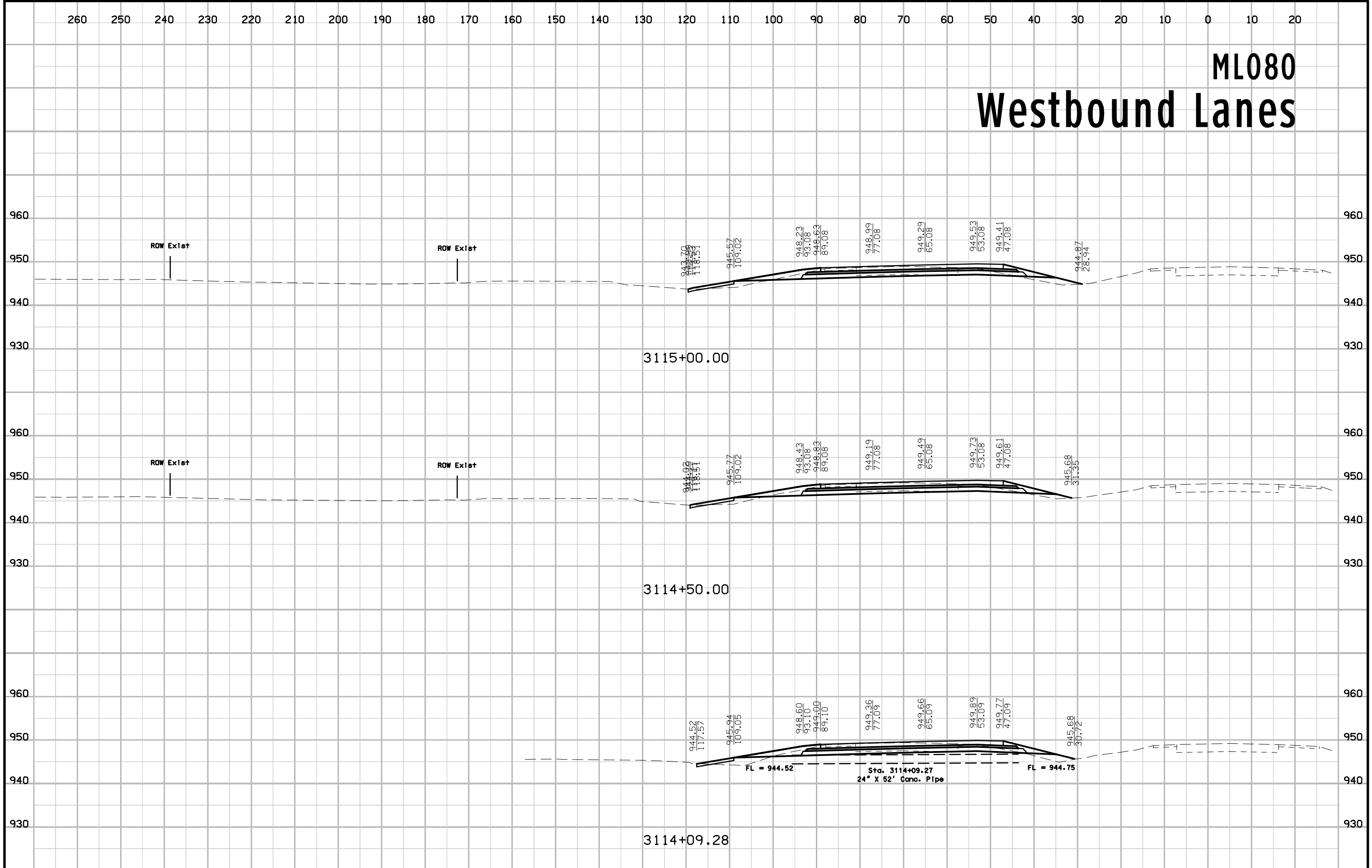
ML080 Westbound Lanes

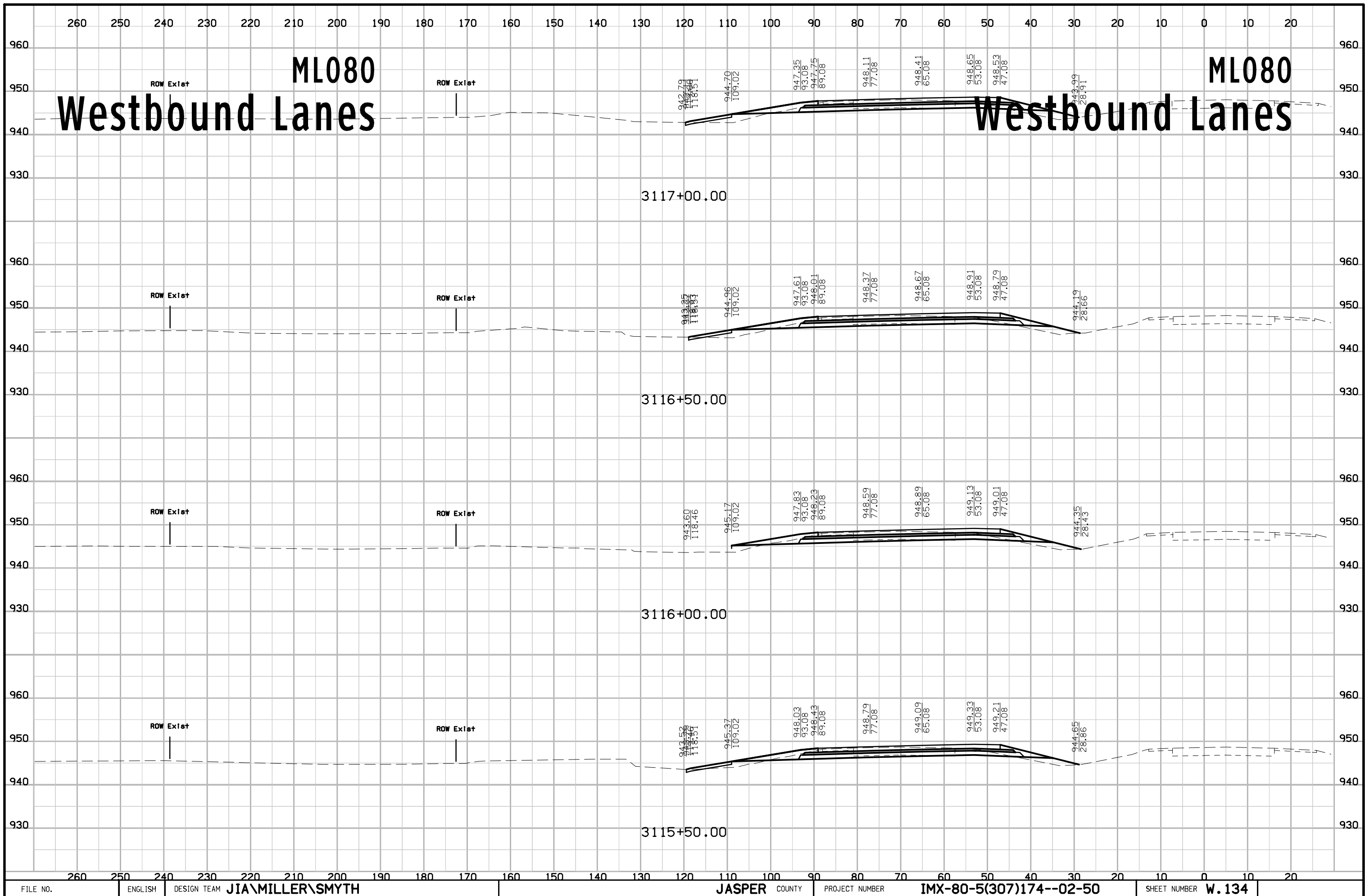


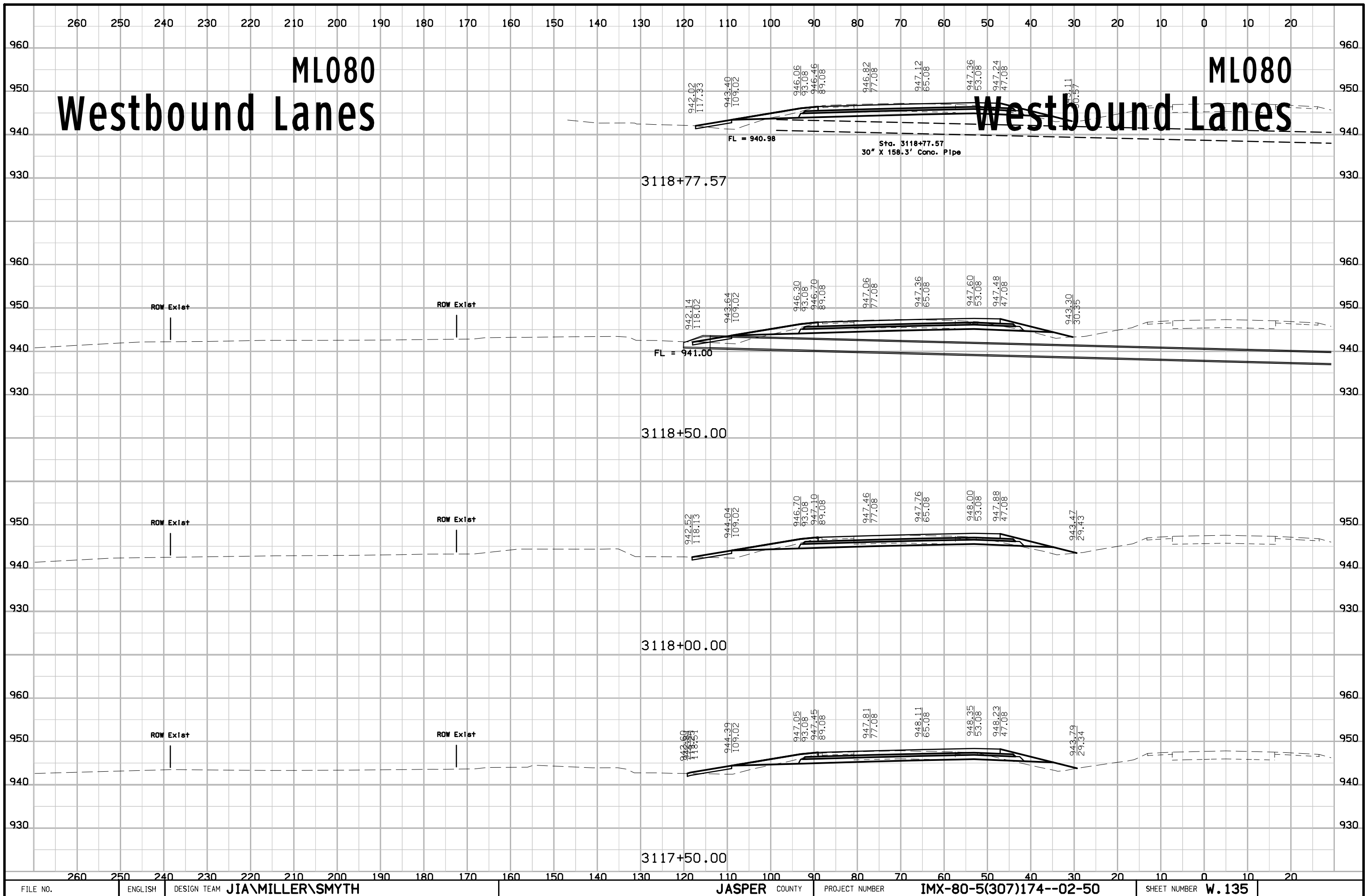
ML080 Westbound Lanes

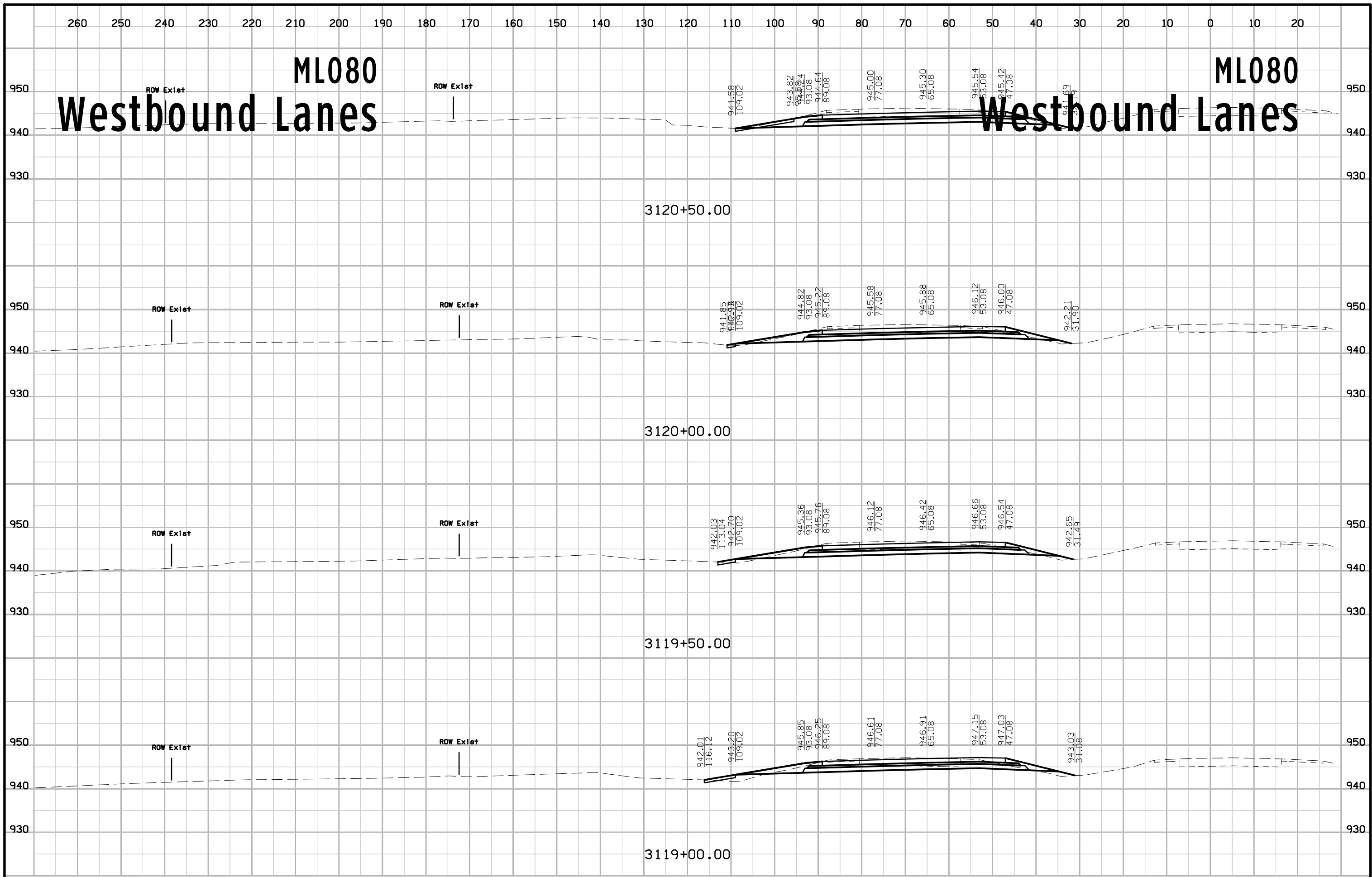


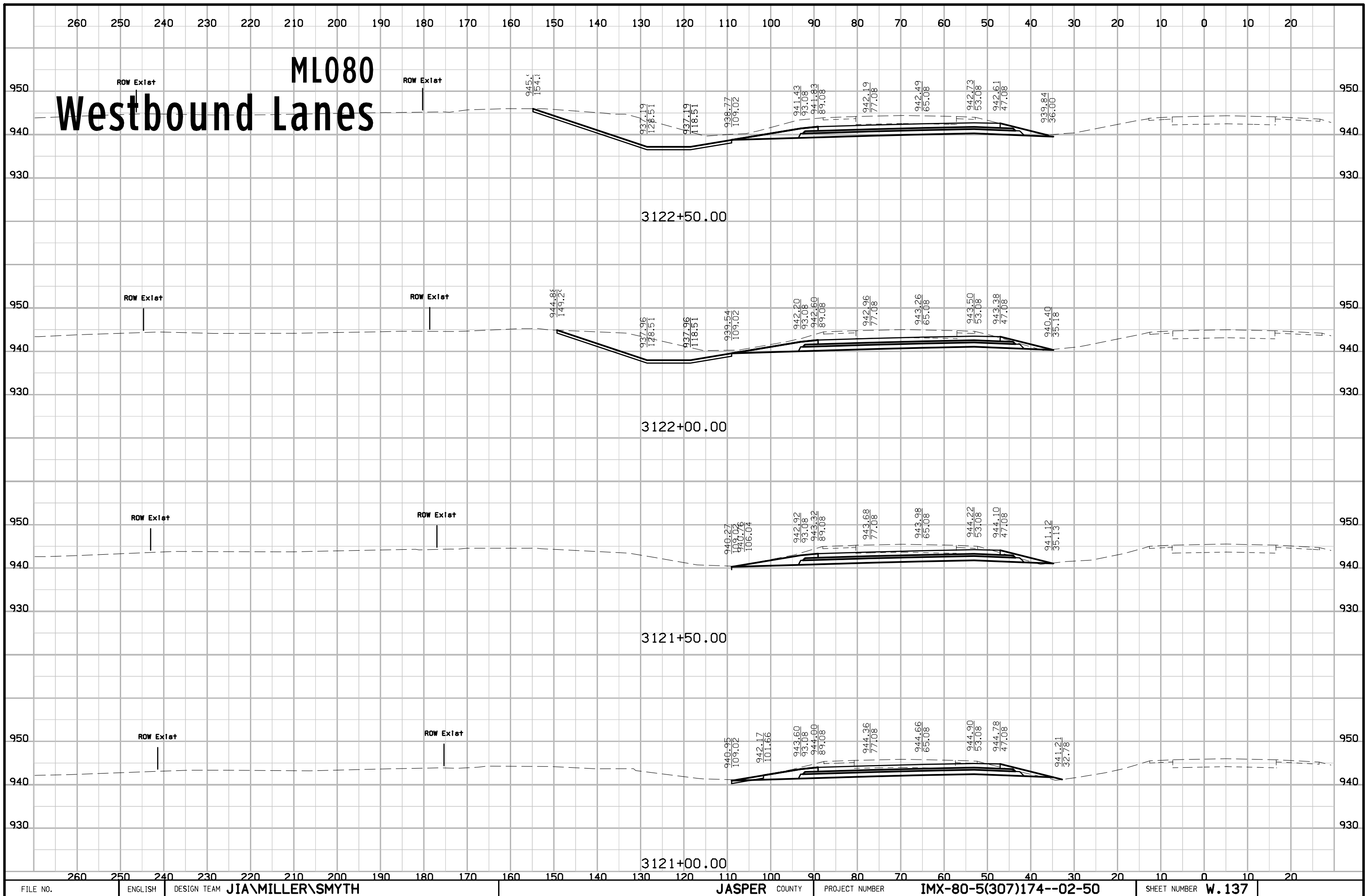
ML080 Westbound Lanes





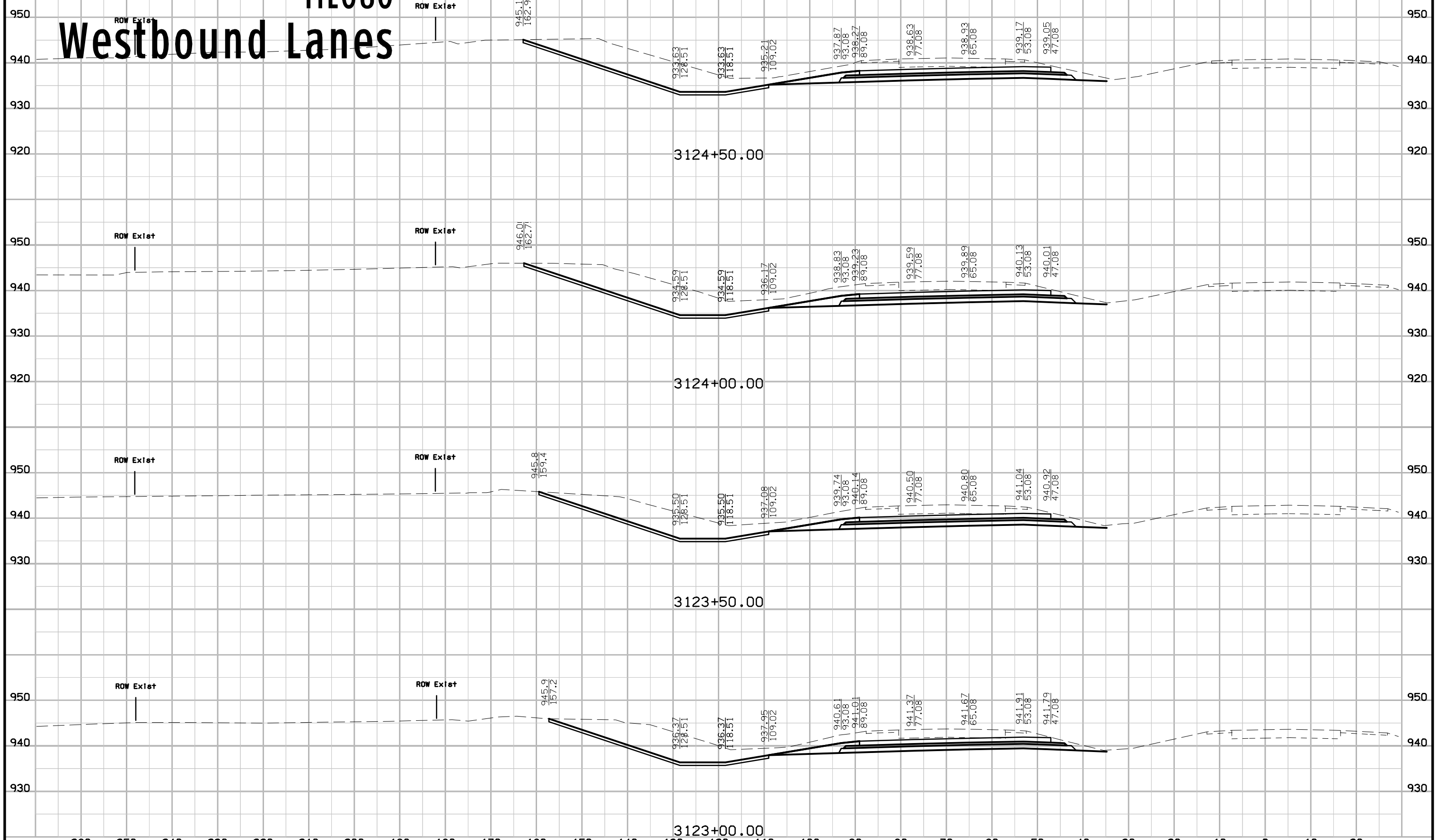






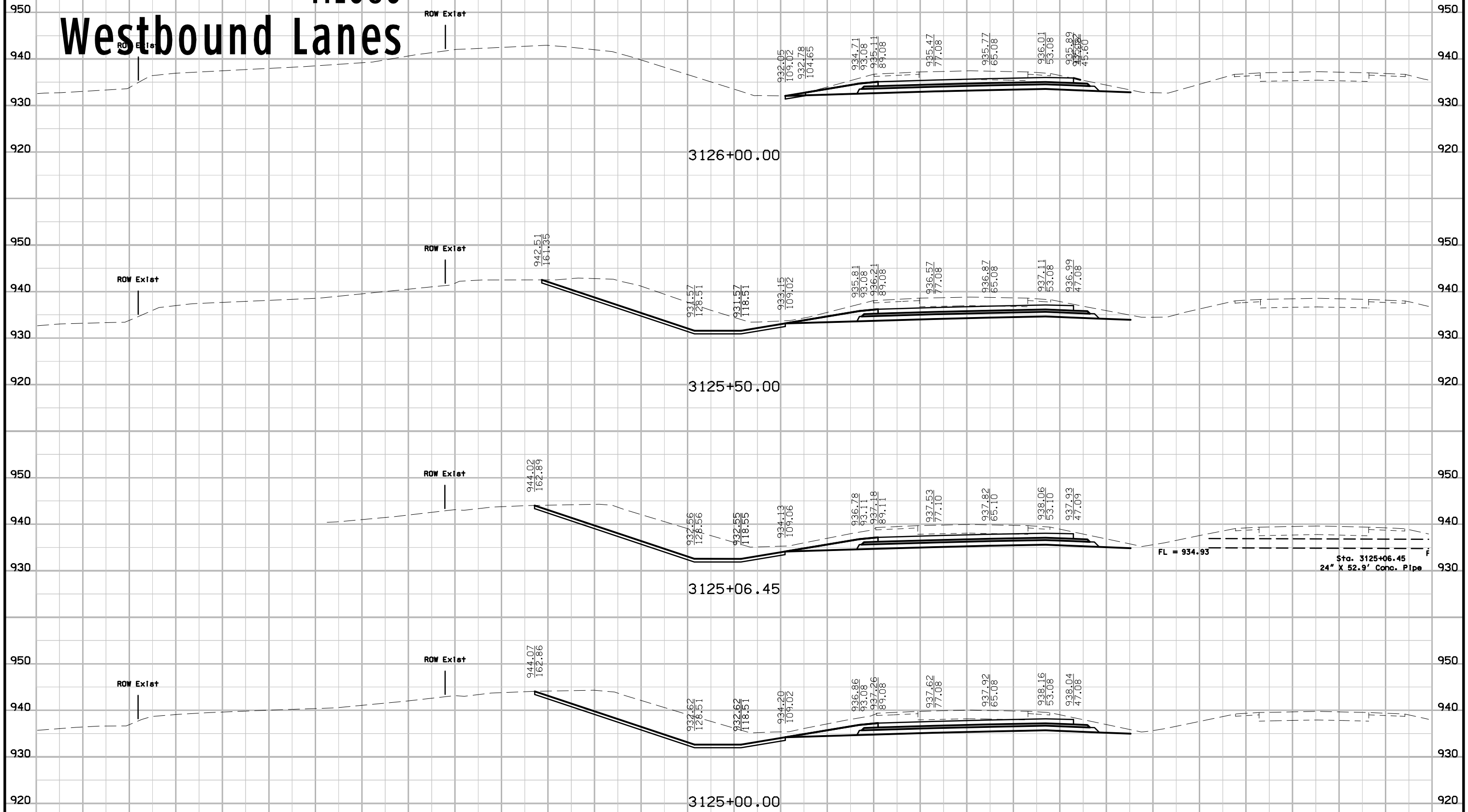
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ML080 Westbound Lanes



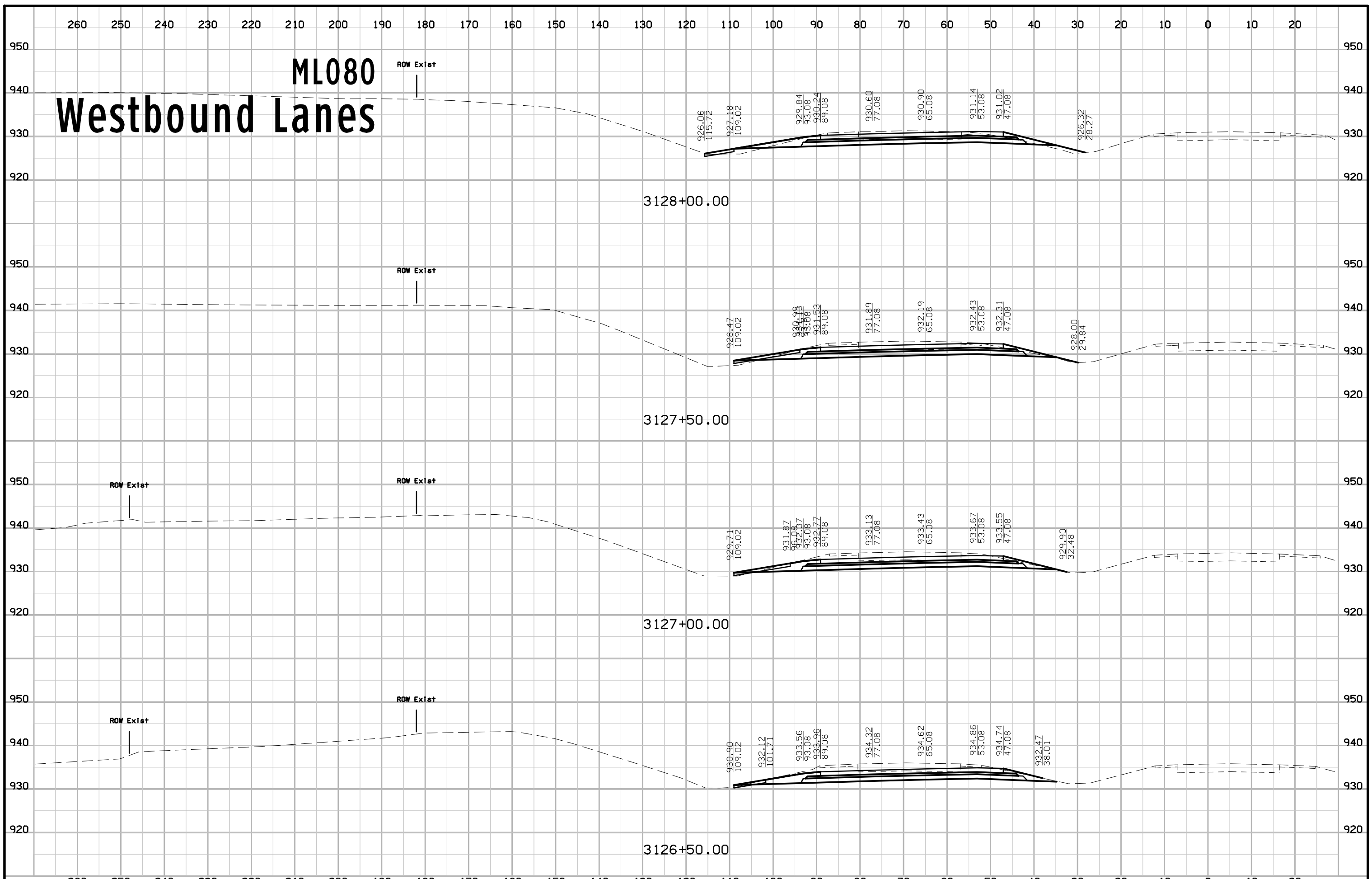
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ML080 Westbound Lanes

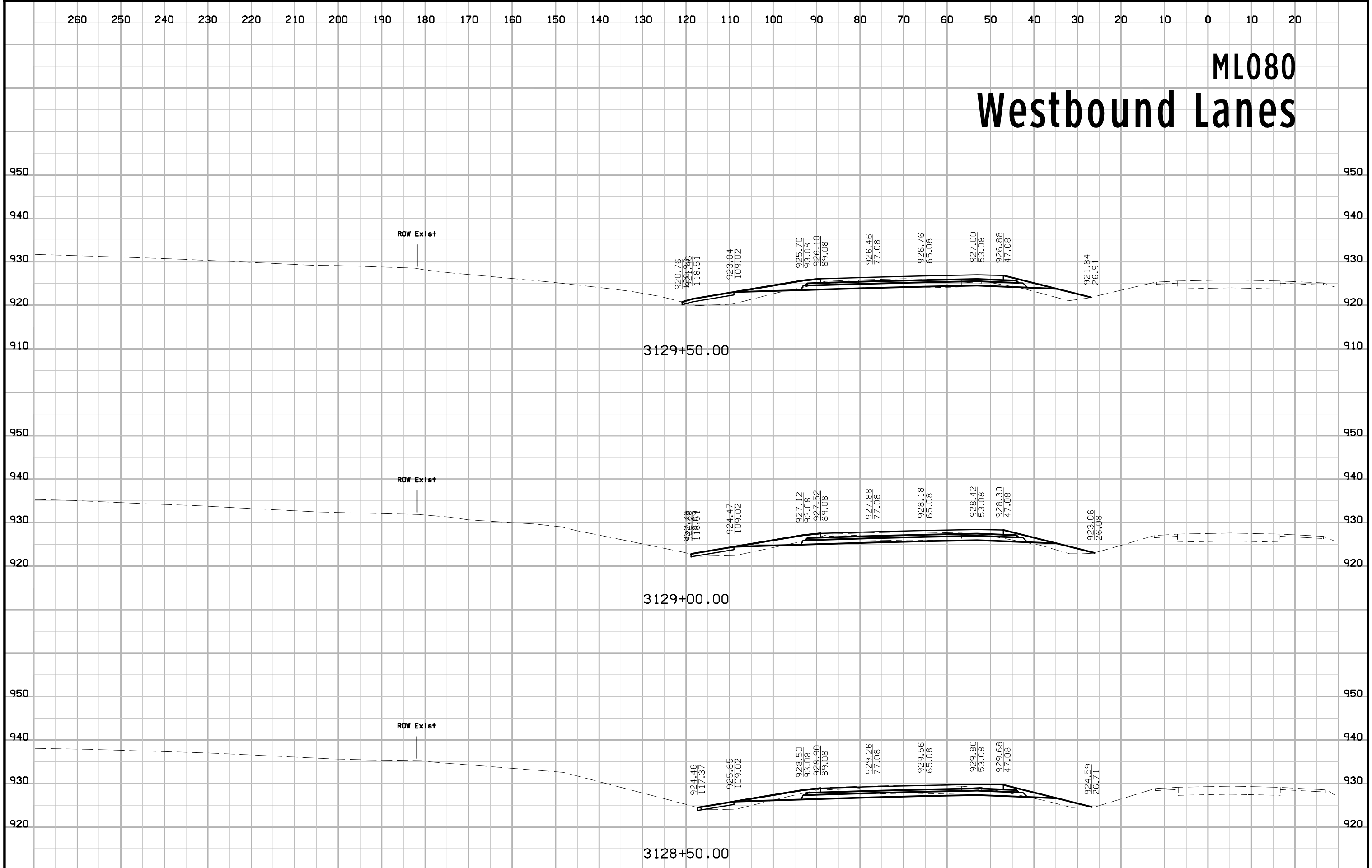


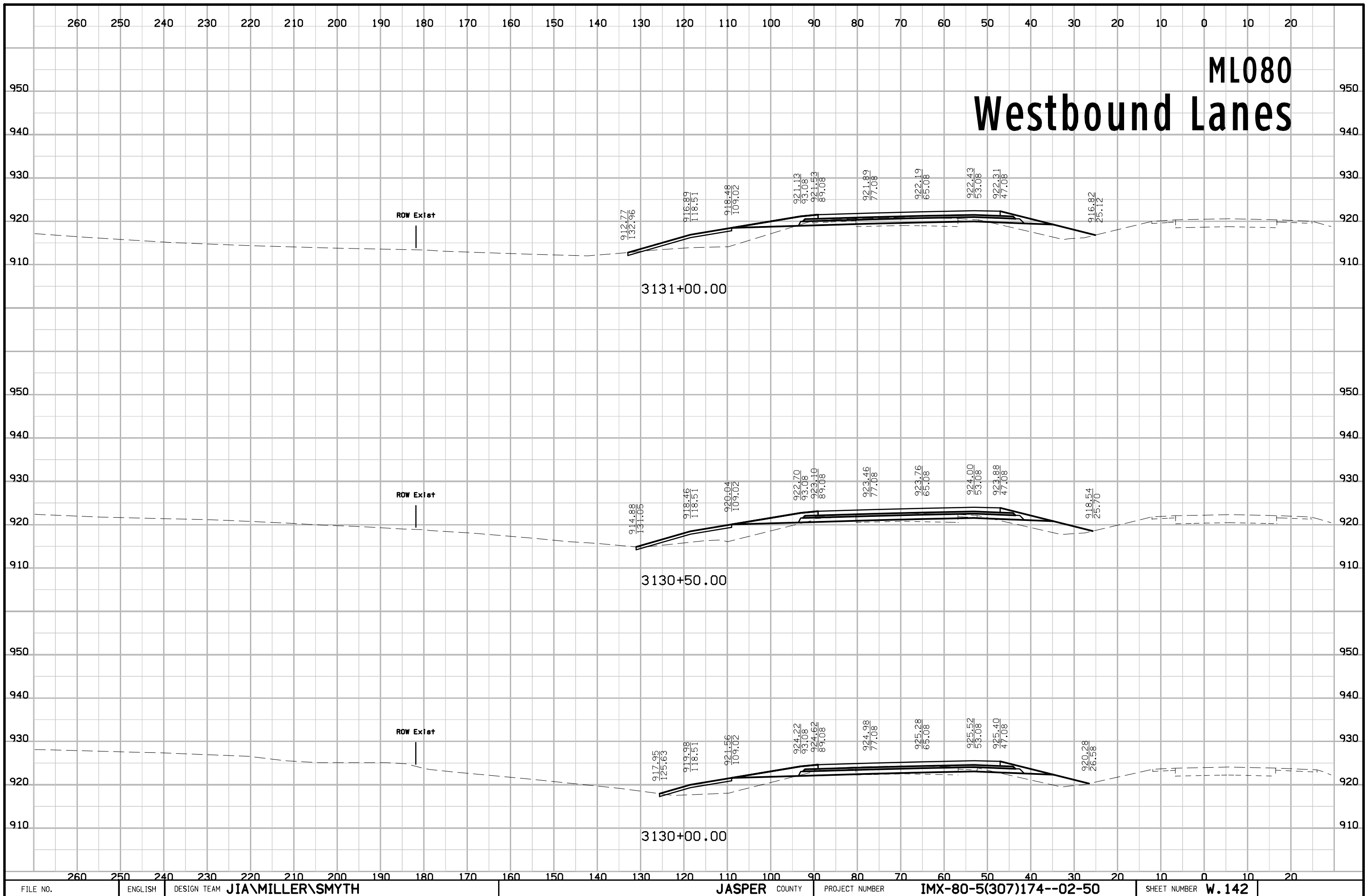
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Sta. 3125+06.45
24" X 52.9' Conc. Pipe

ML080 Westbound Lanes

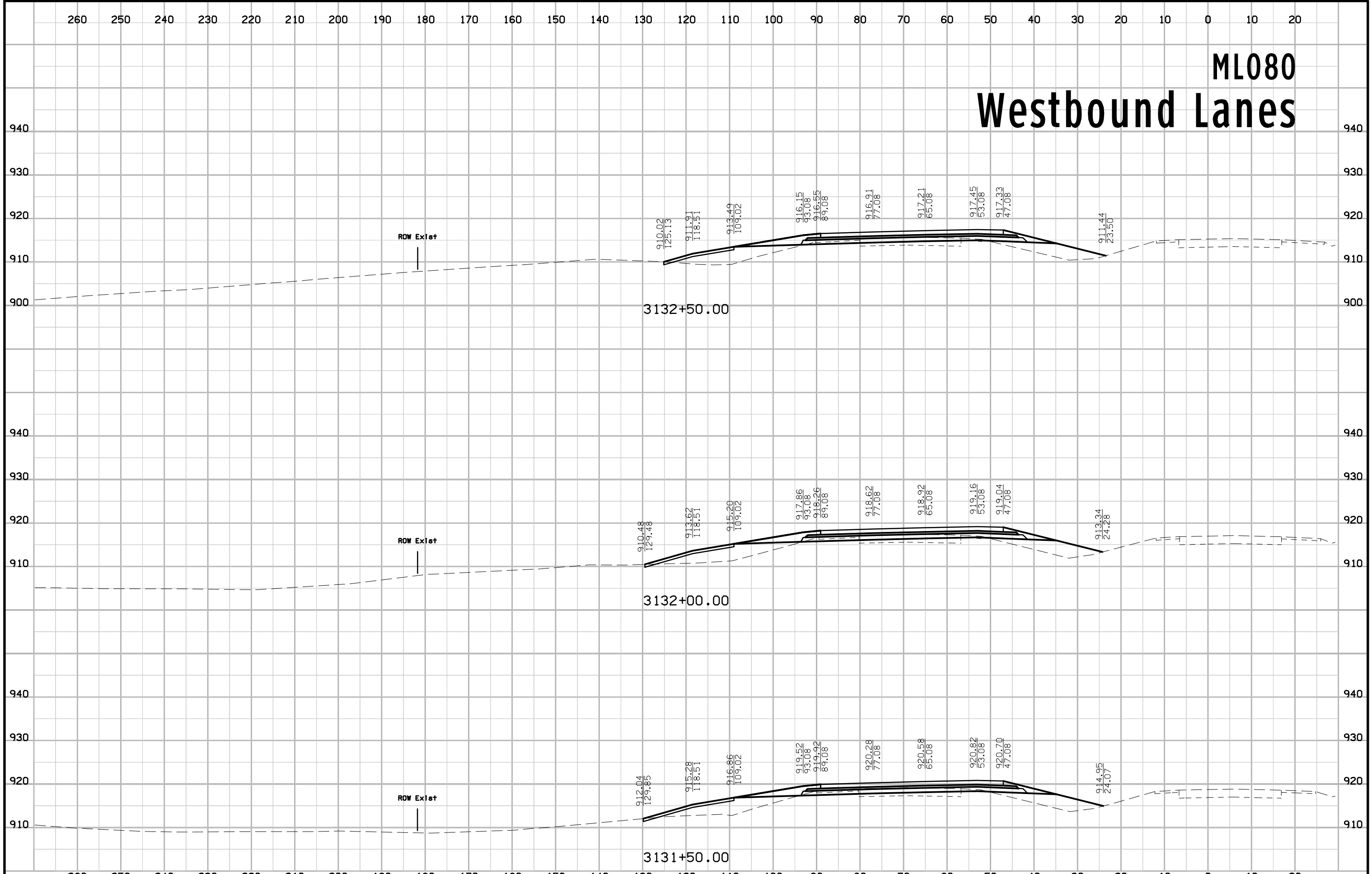


ML080 Westbound Lanes

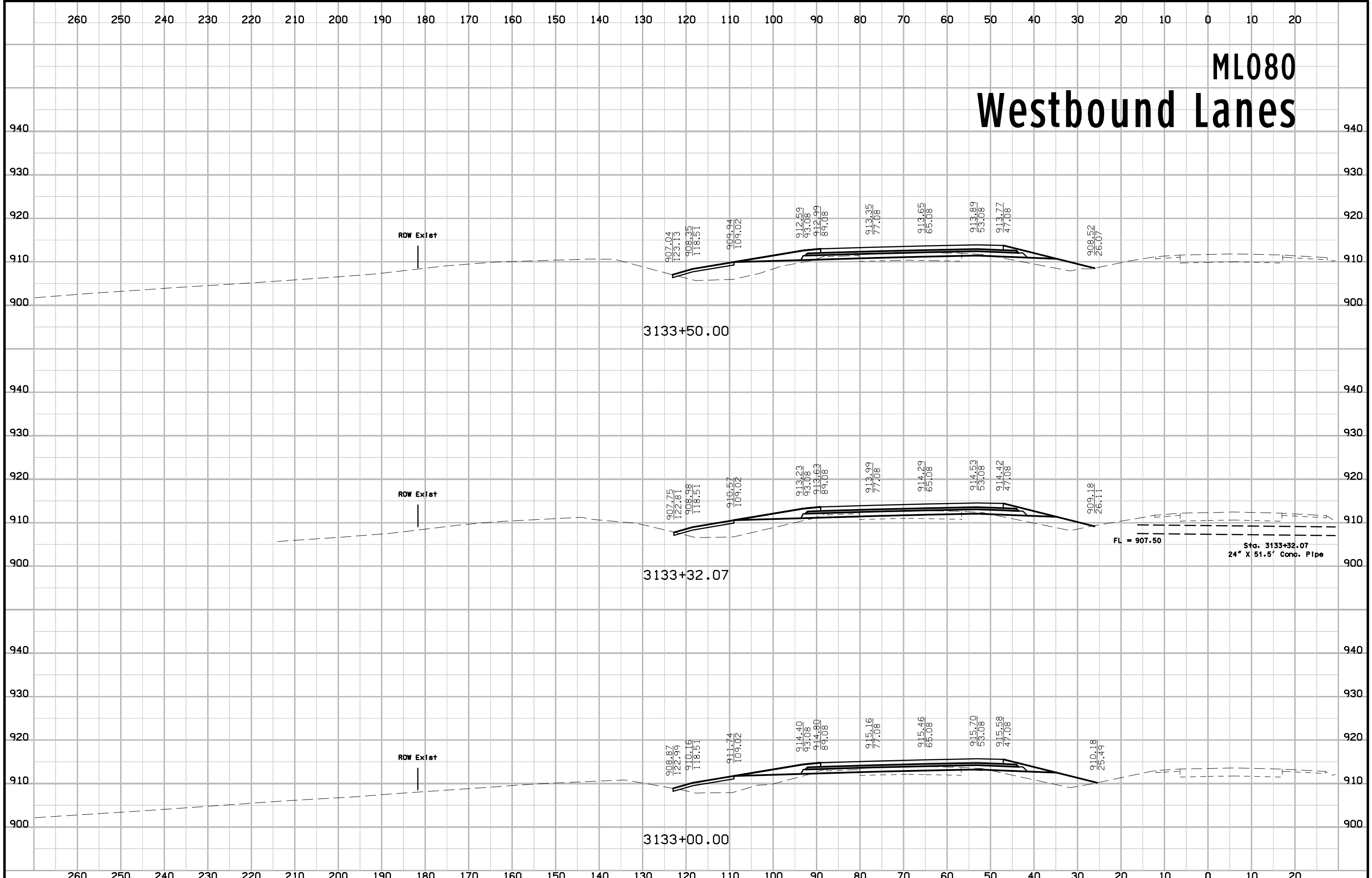




ML080 Westbound Lanes

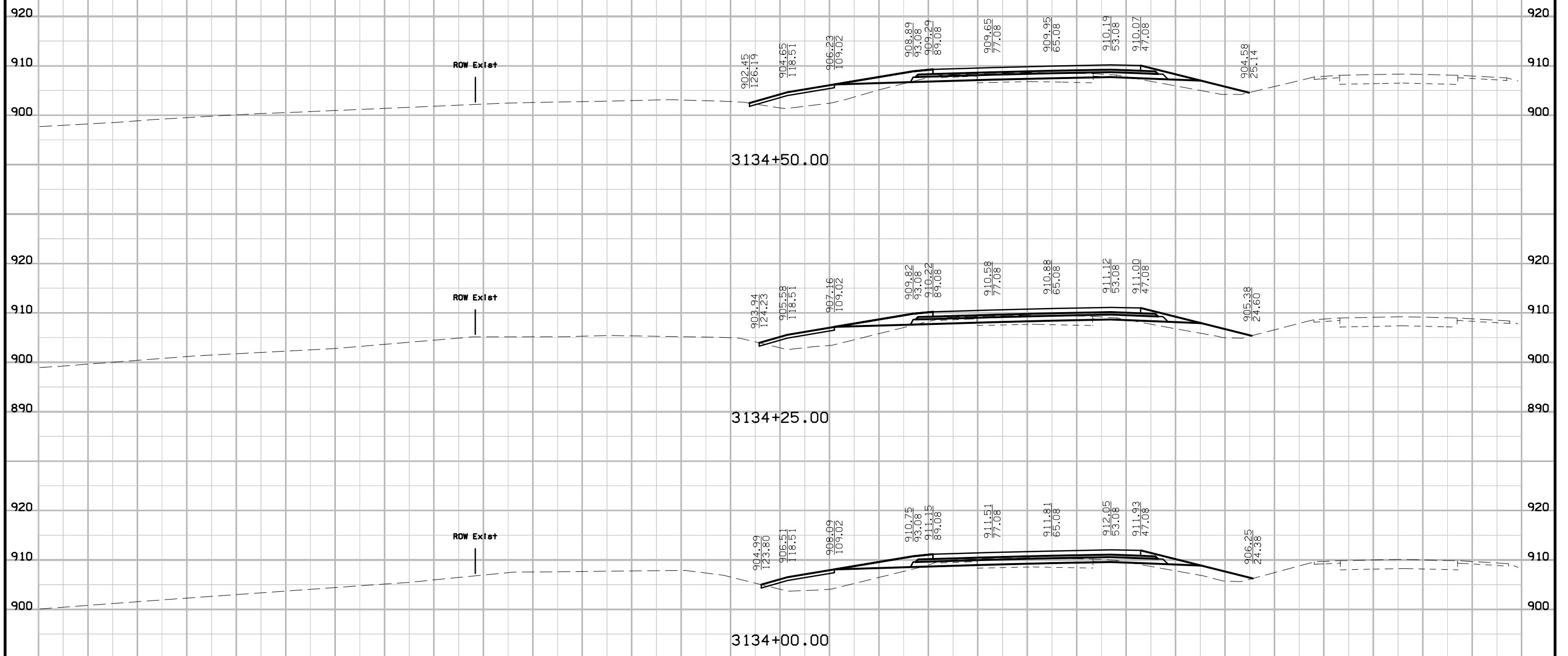


ML080 Westbound Lanes



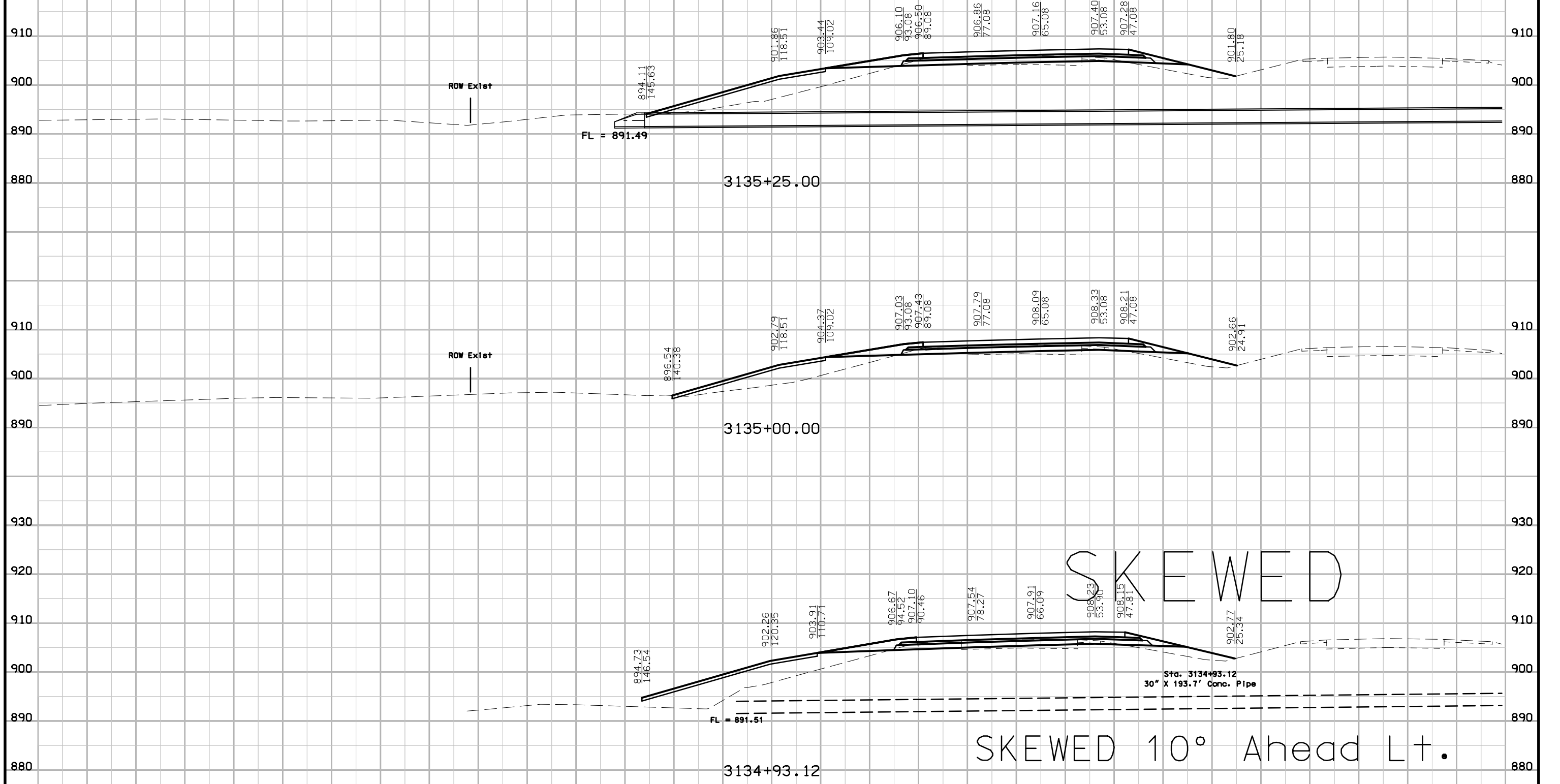
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes



260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes

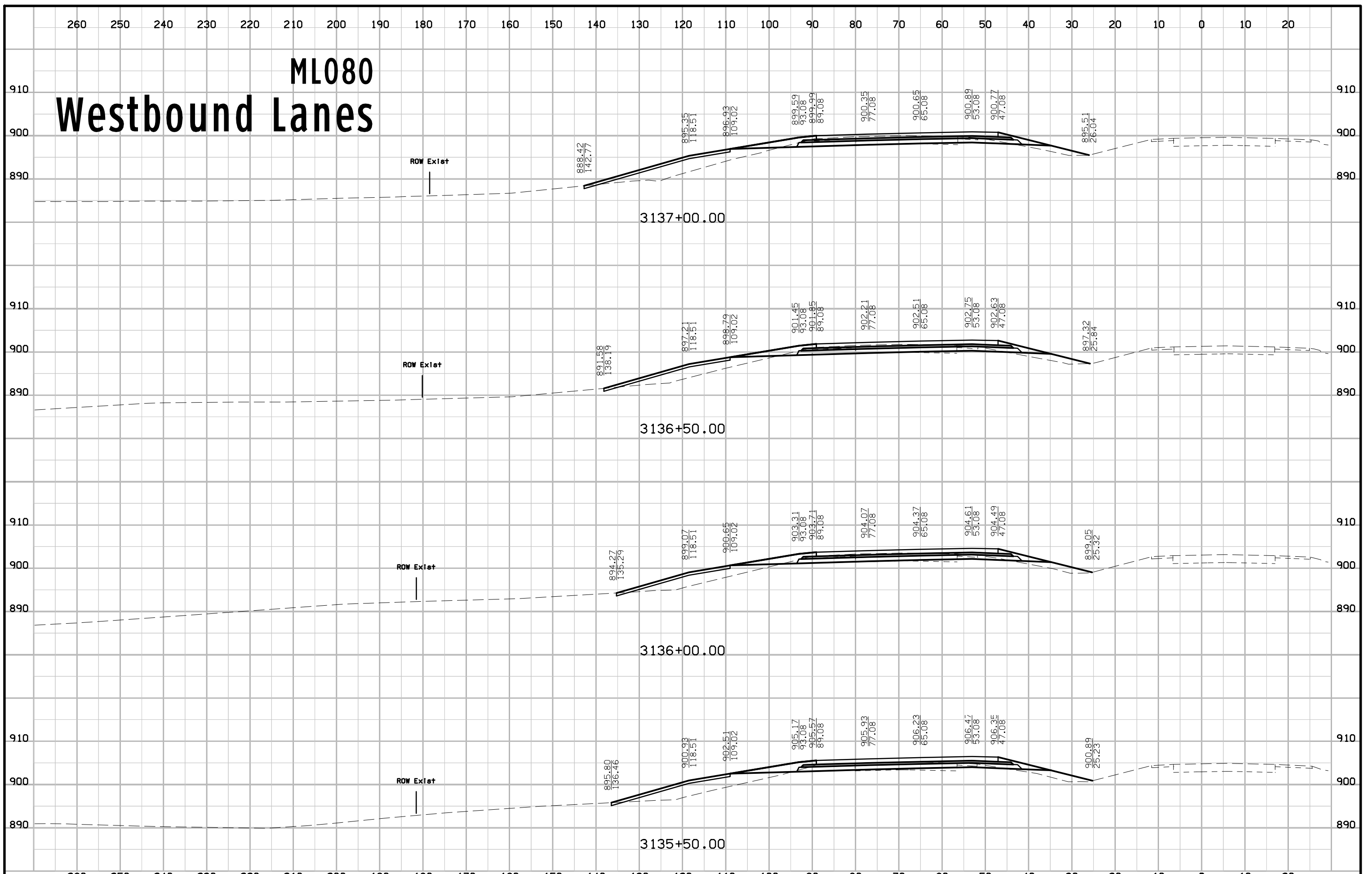


SKEWED

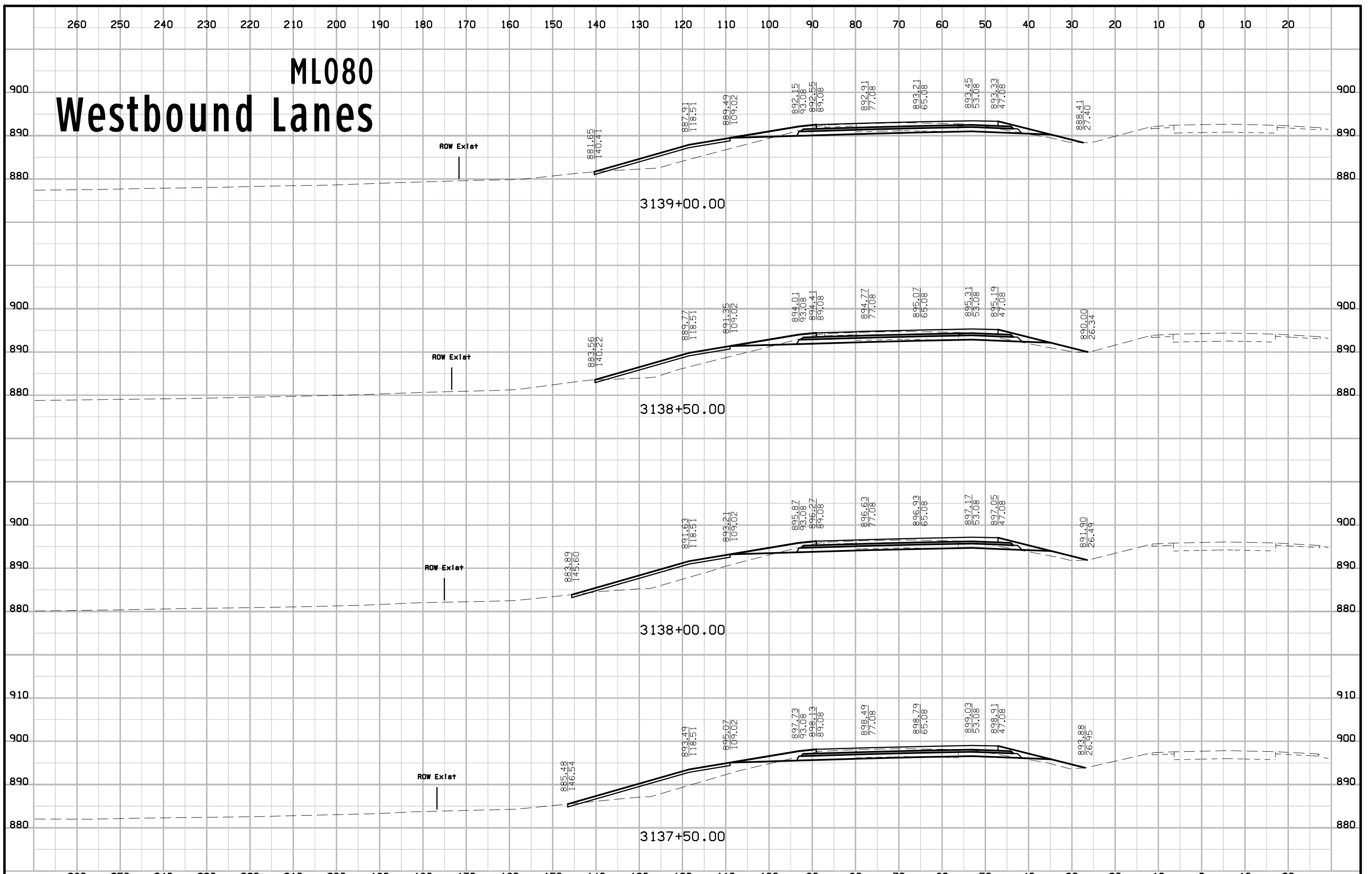
SKEWED 10° Ahead Lt.

Sta. 3134+93.12
30" X 193.7' Conc. Pipe

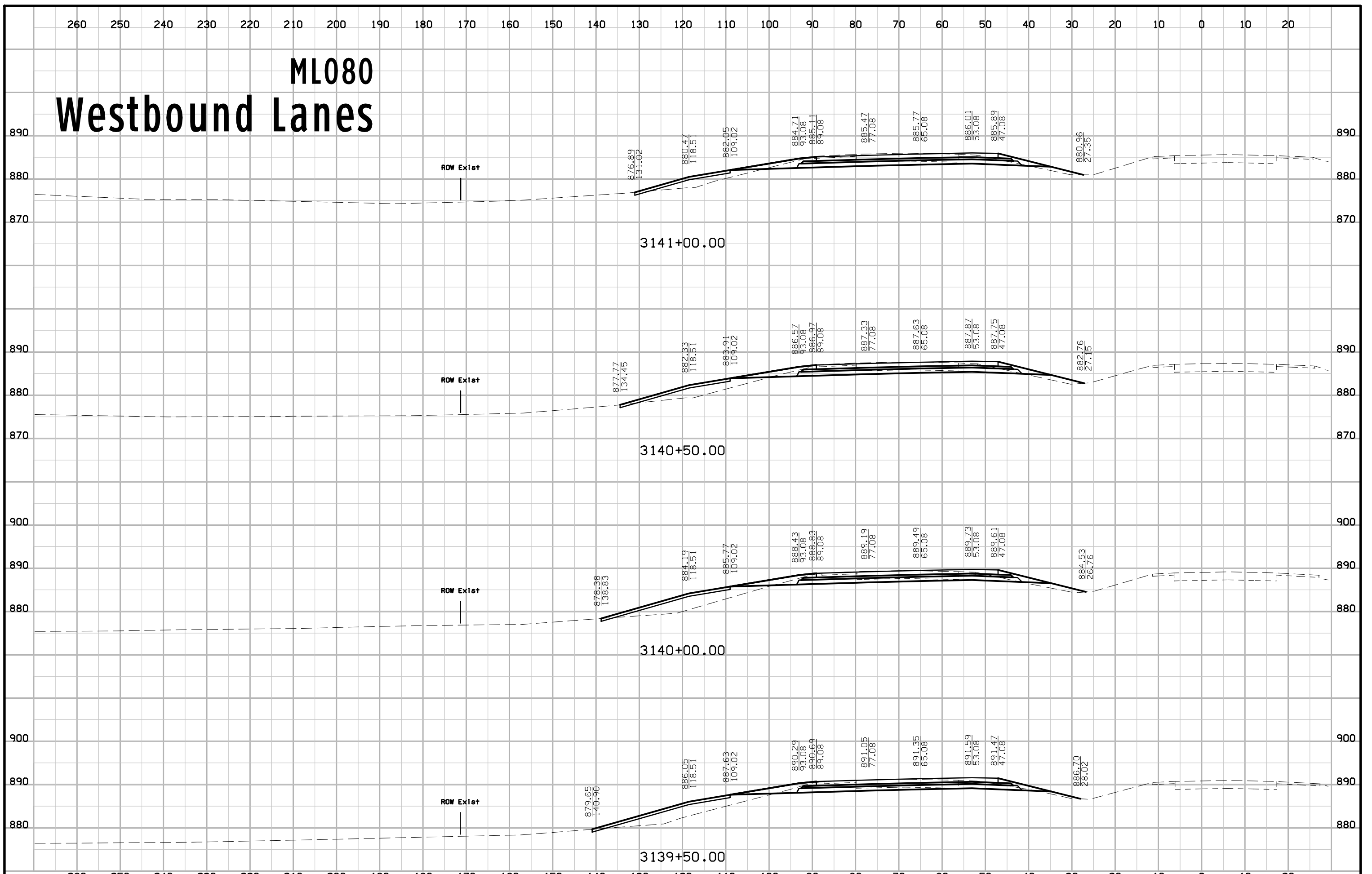
ML080 Westbound Lanes



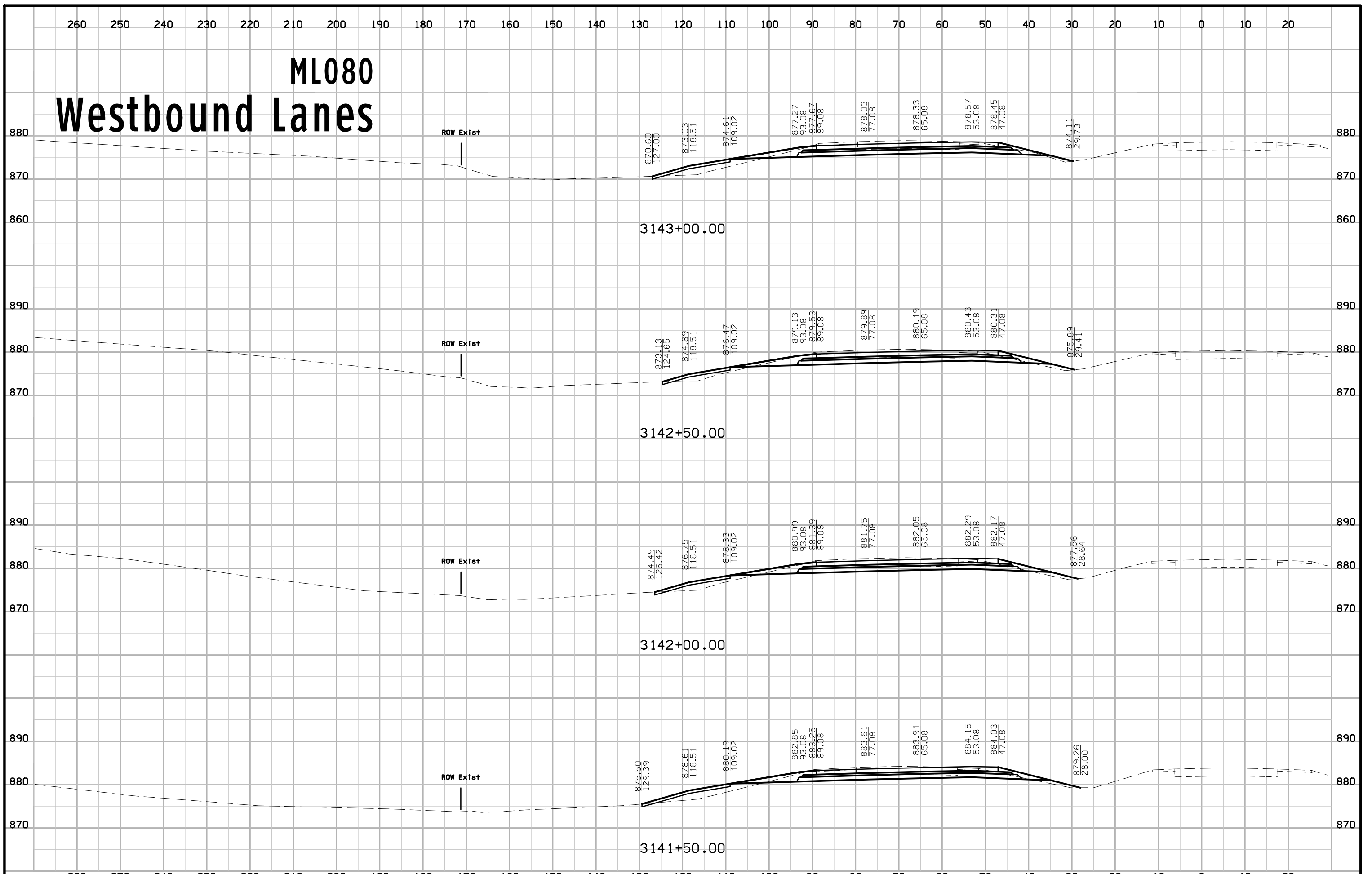
ML080 Westbound Lanes



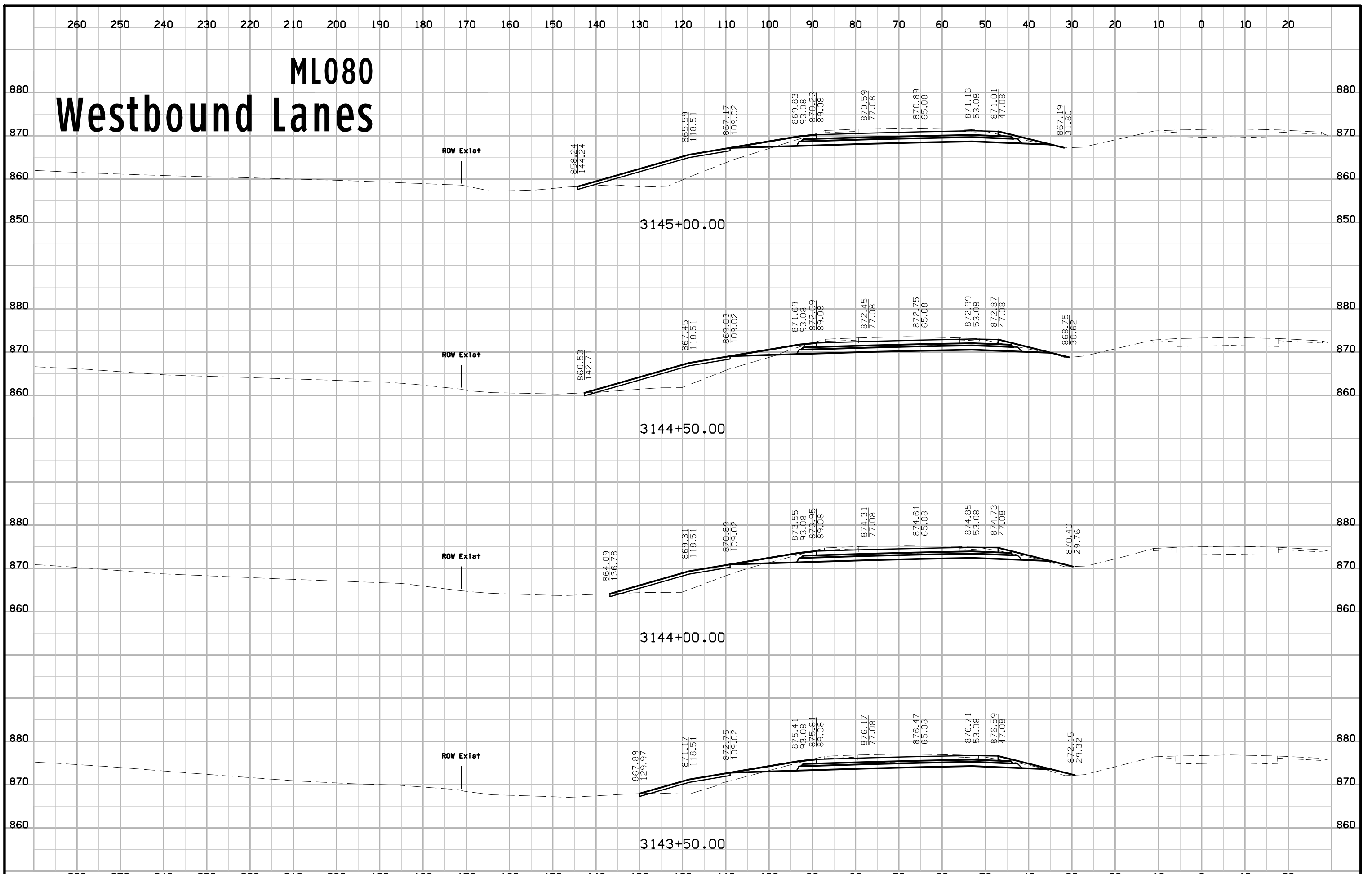
ML080 Westbound Lanes



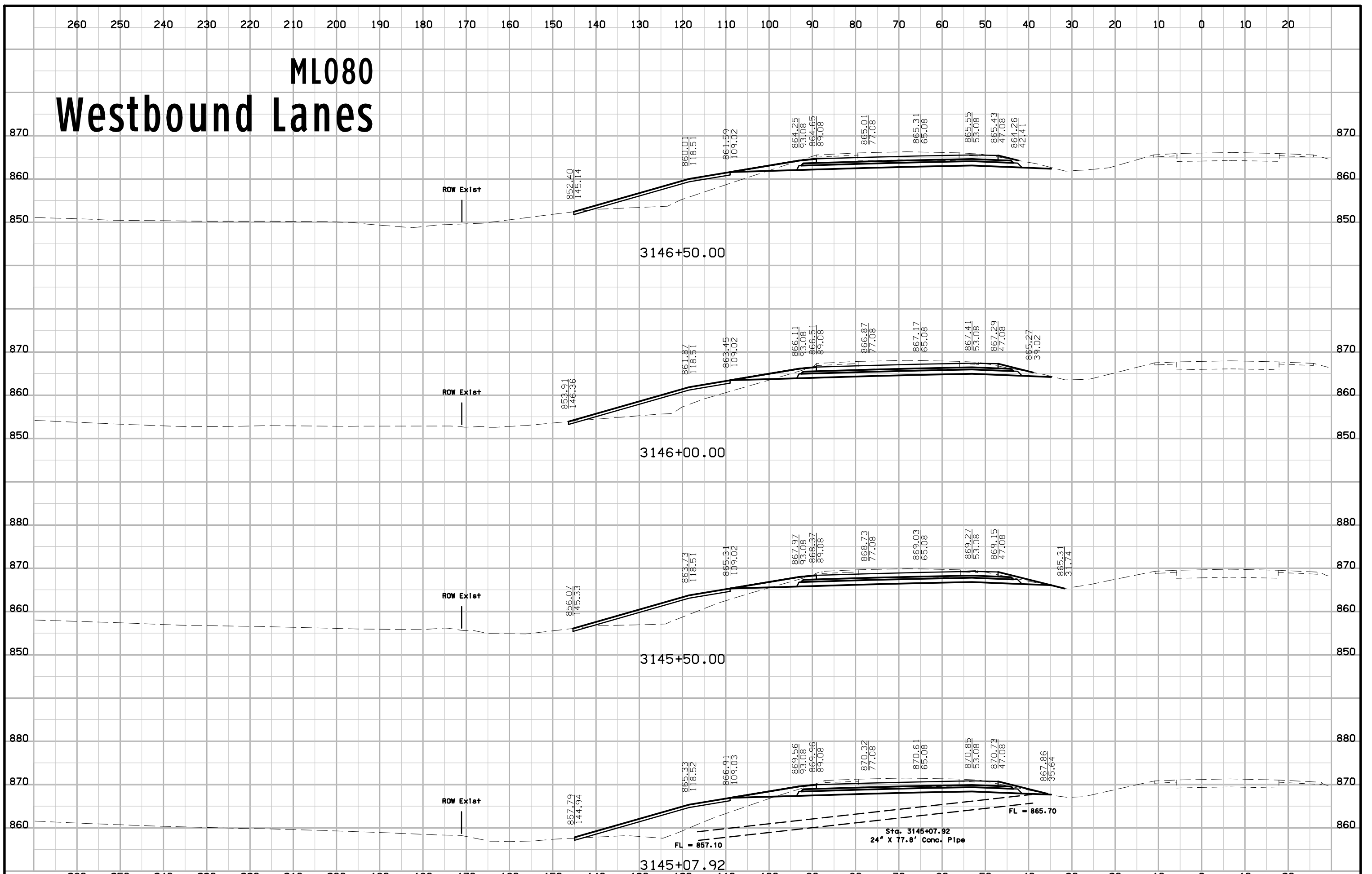
ML080 Westbound Lanes



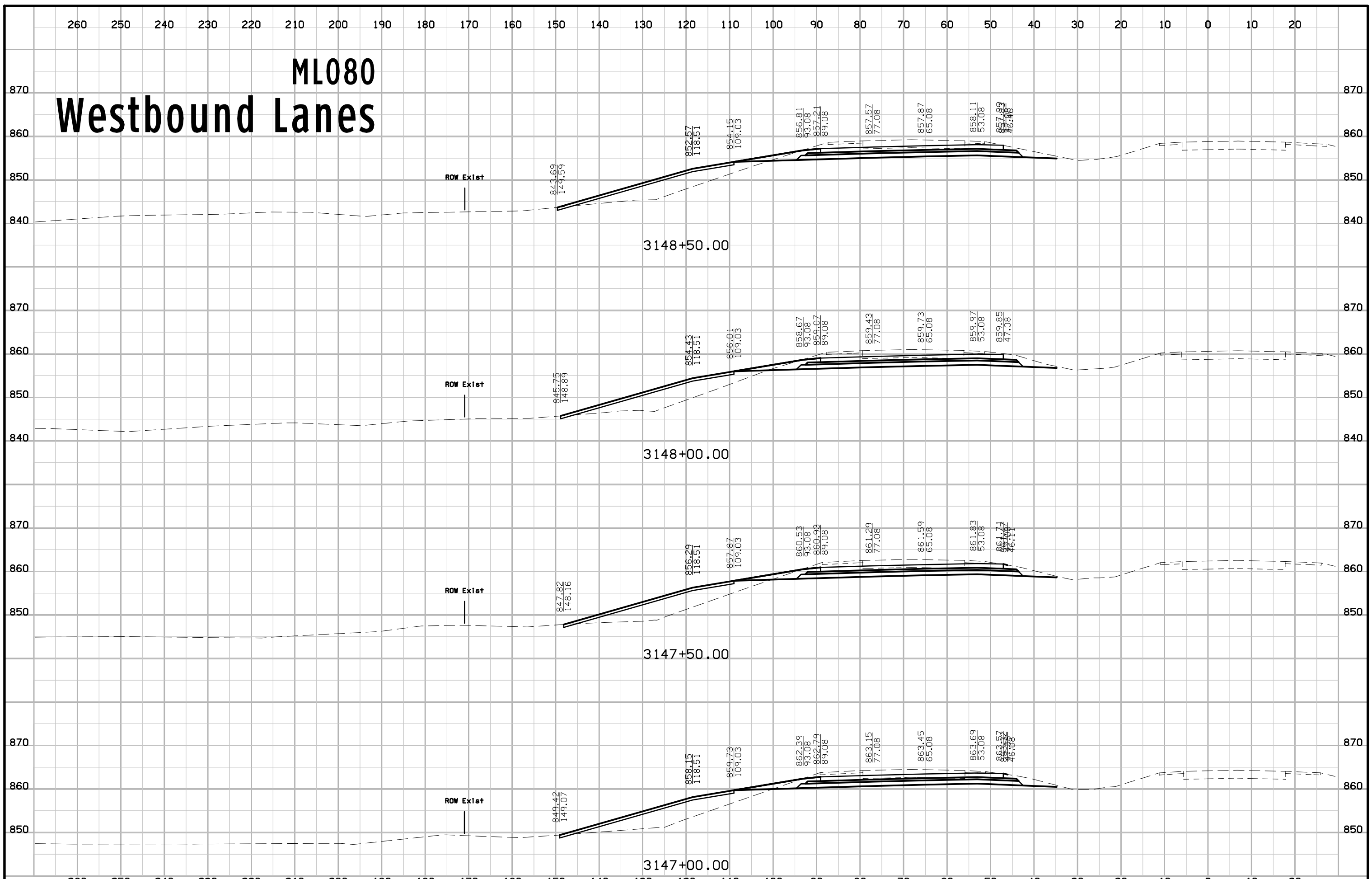
ML080 Westbound Lanes



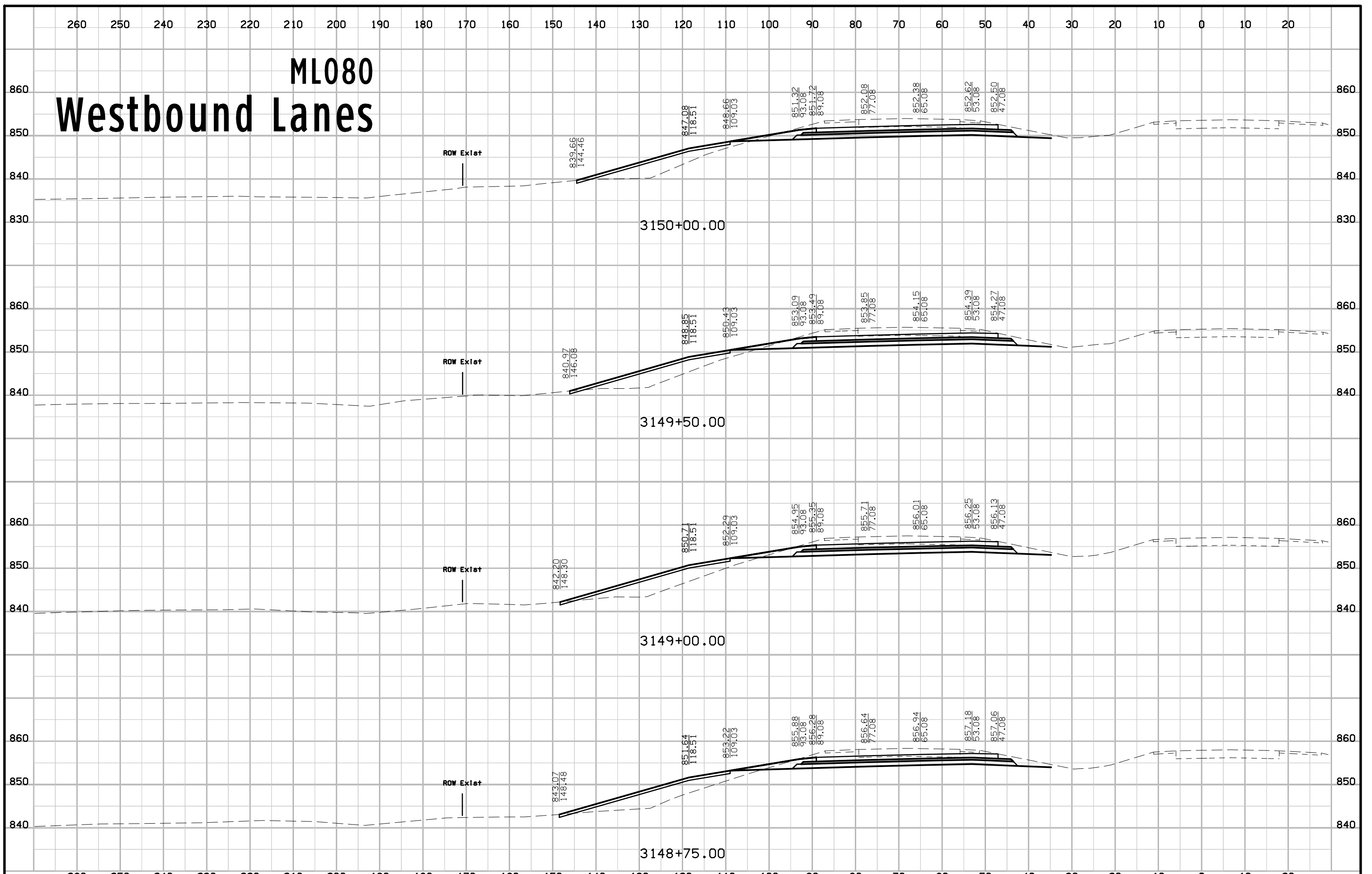
ML080 Westbound Lanes



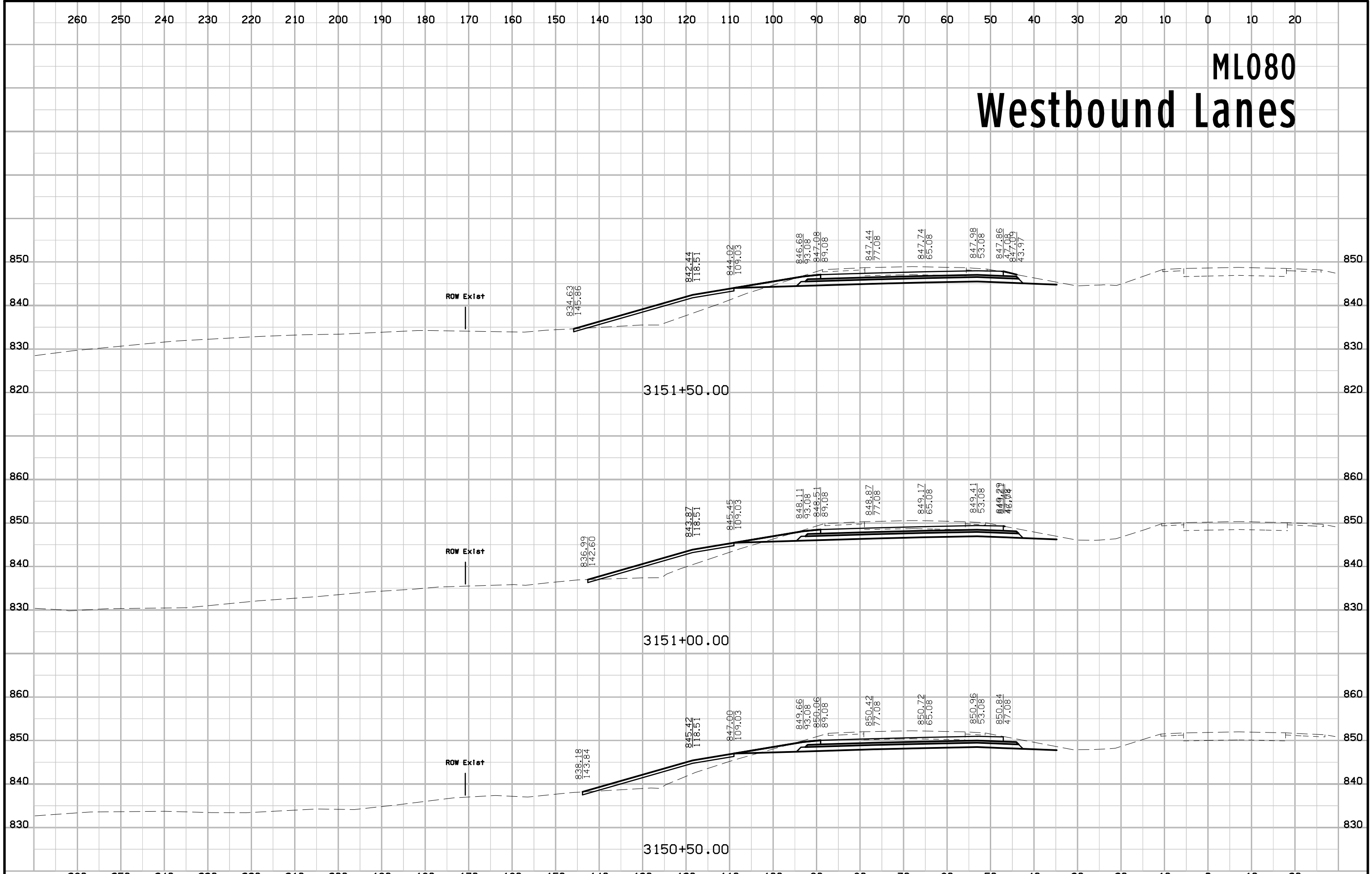
ML080 Westbound Lanes



ML080 Westbound Lanes

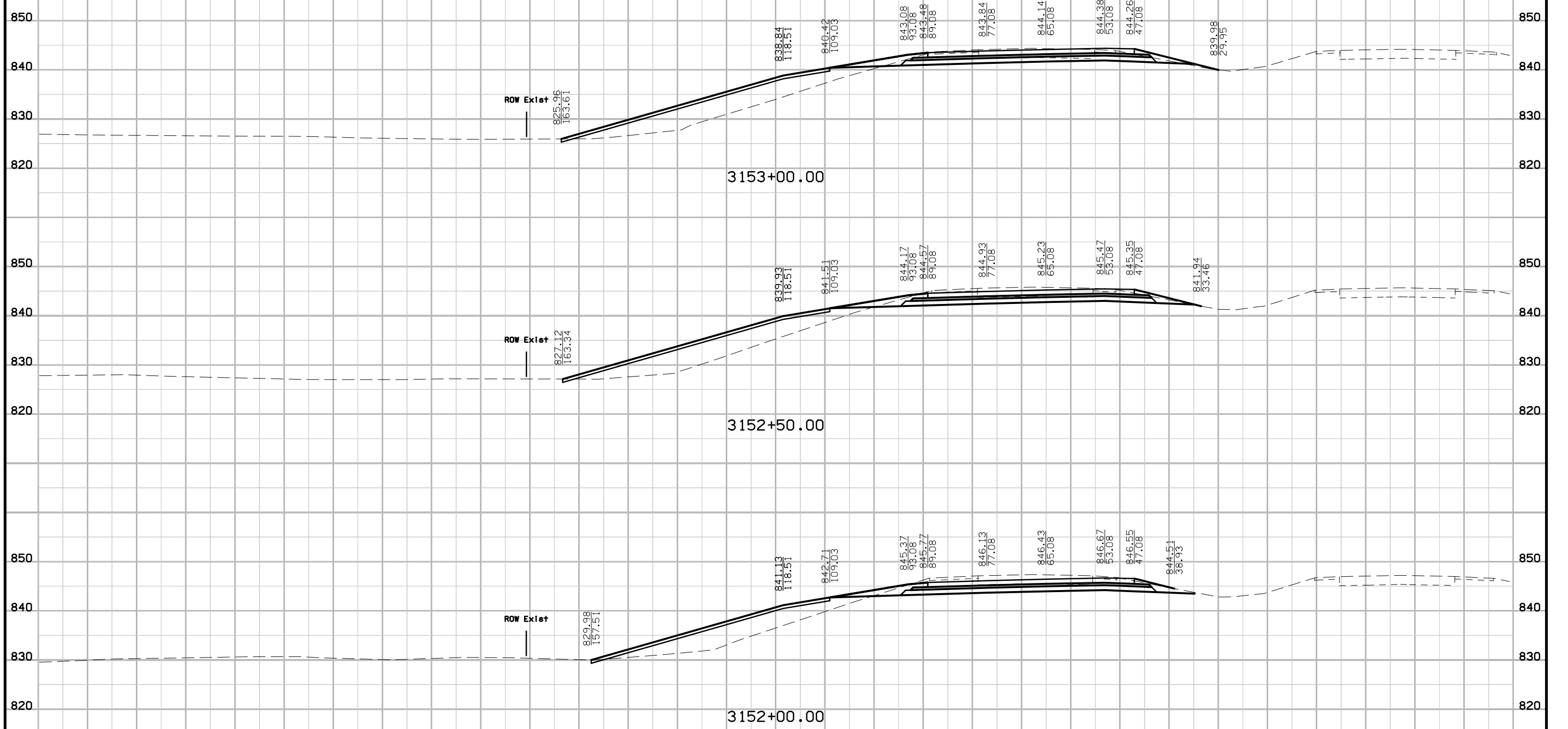


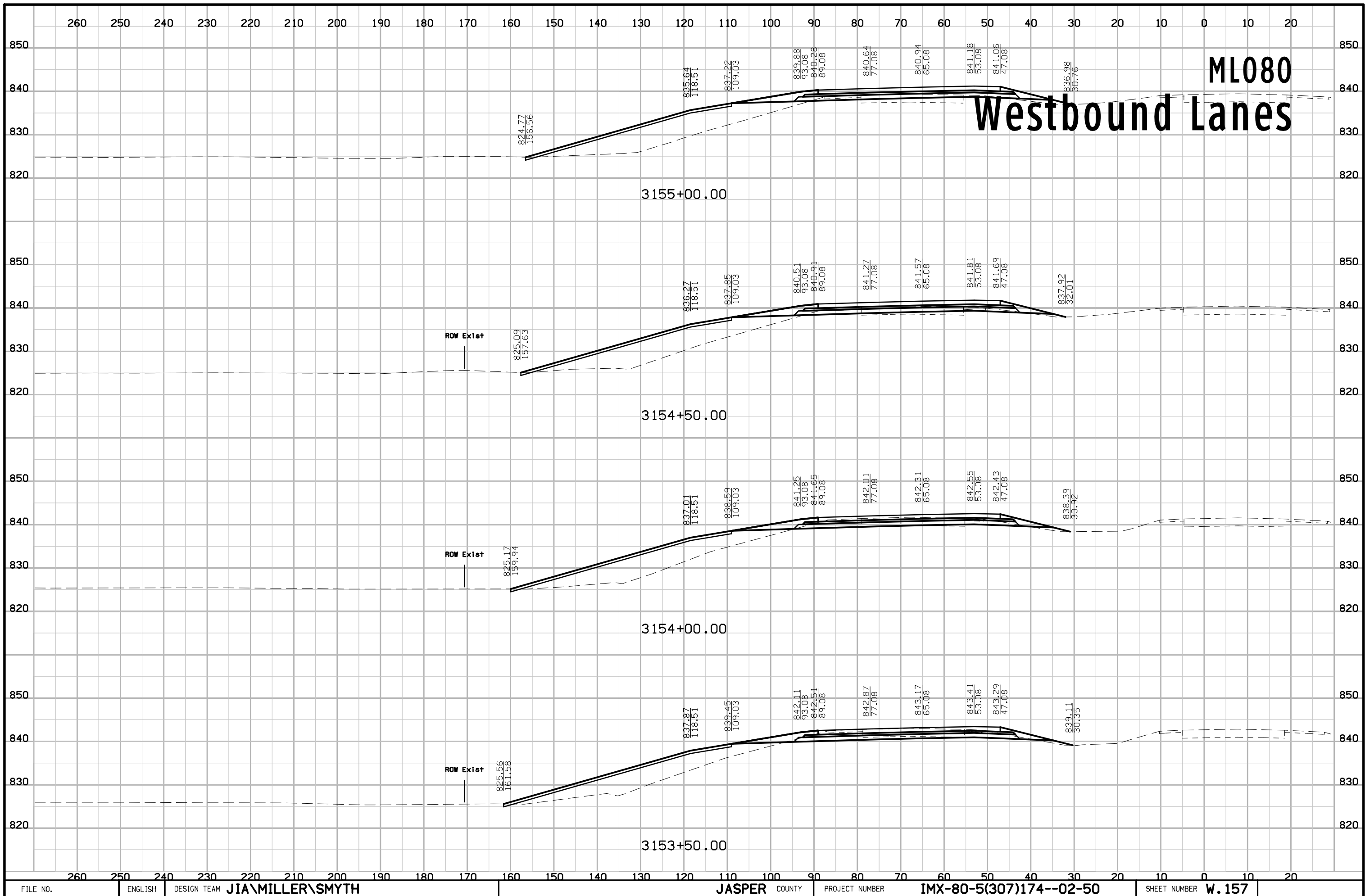
ML080 Westbound Lanes



260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

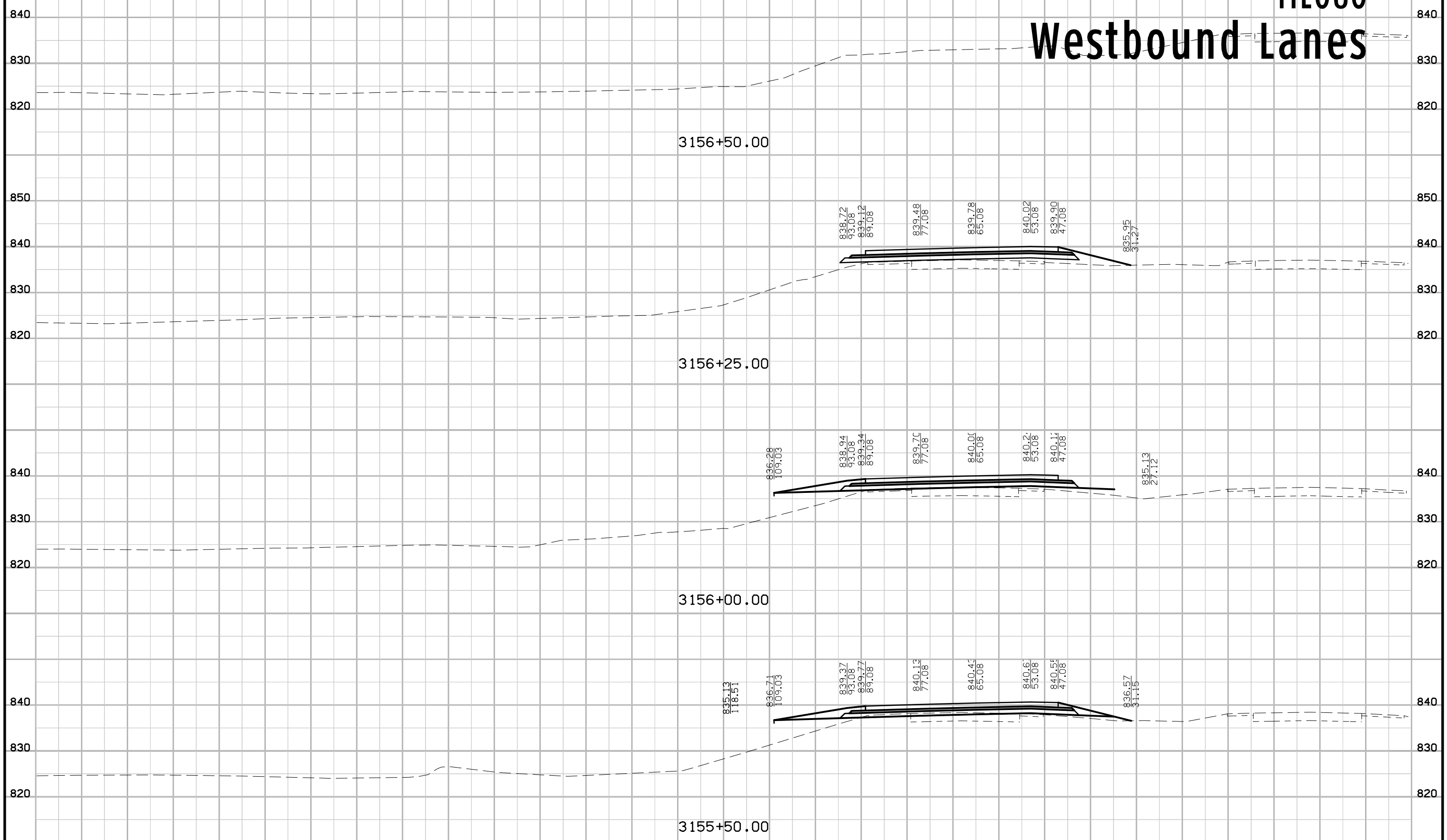
ML080 Westbound Lanes

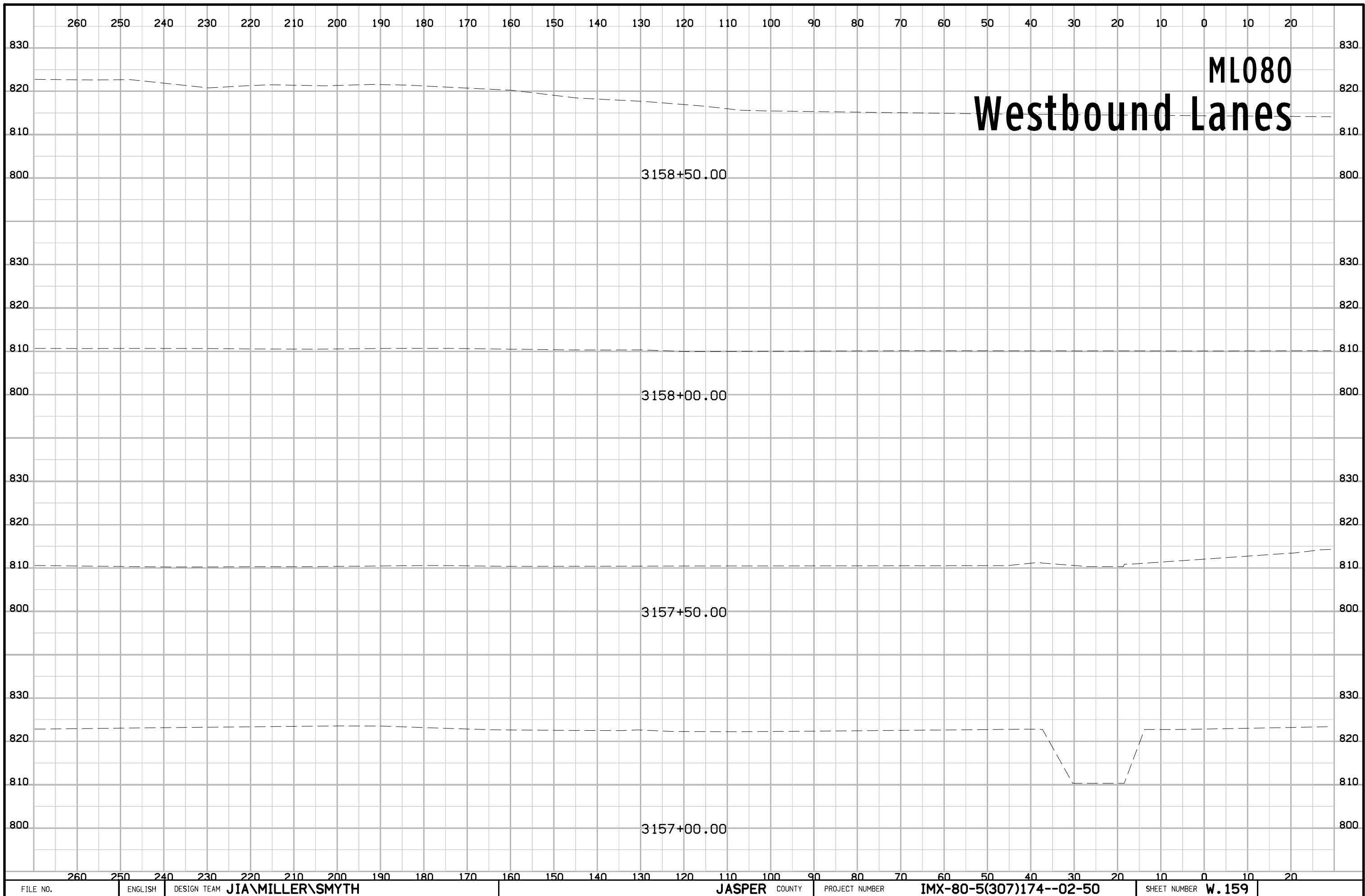




260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

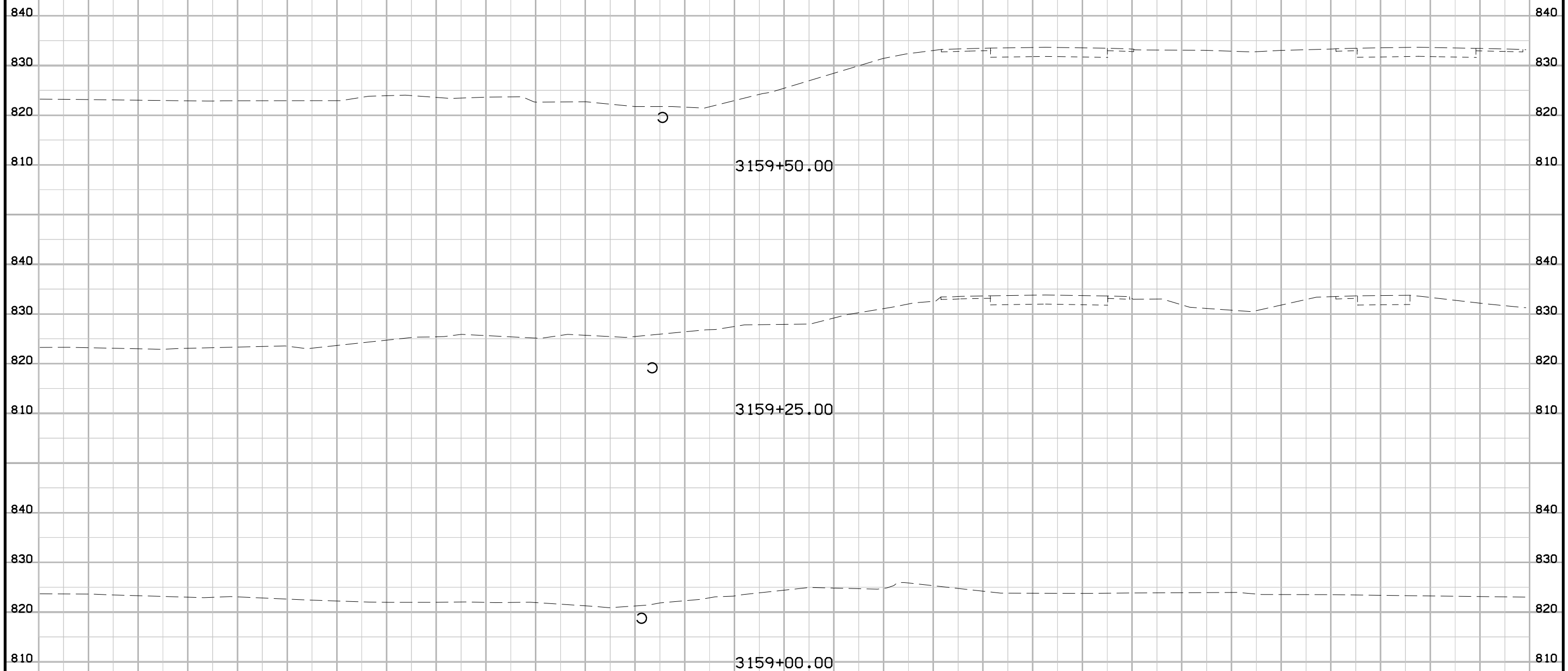
ML080 Westbound Lanes



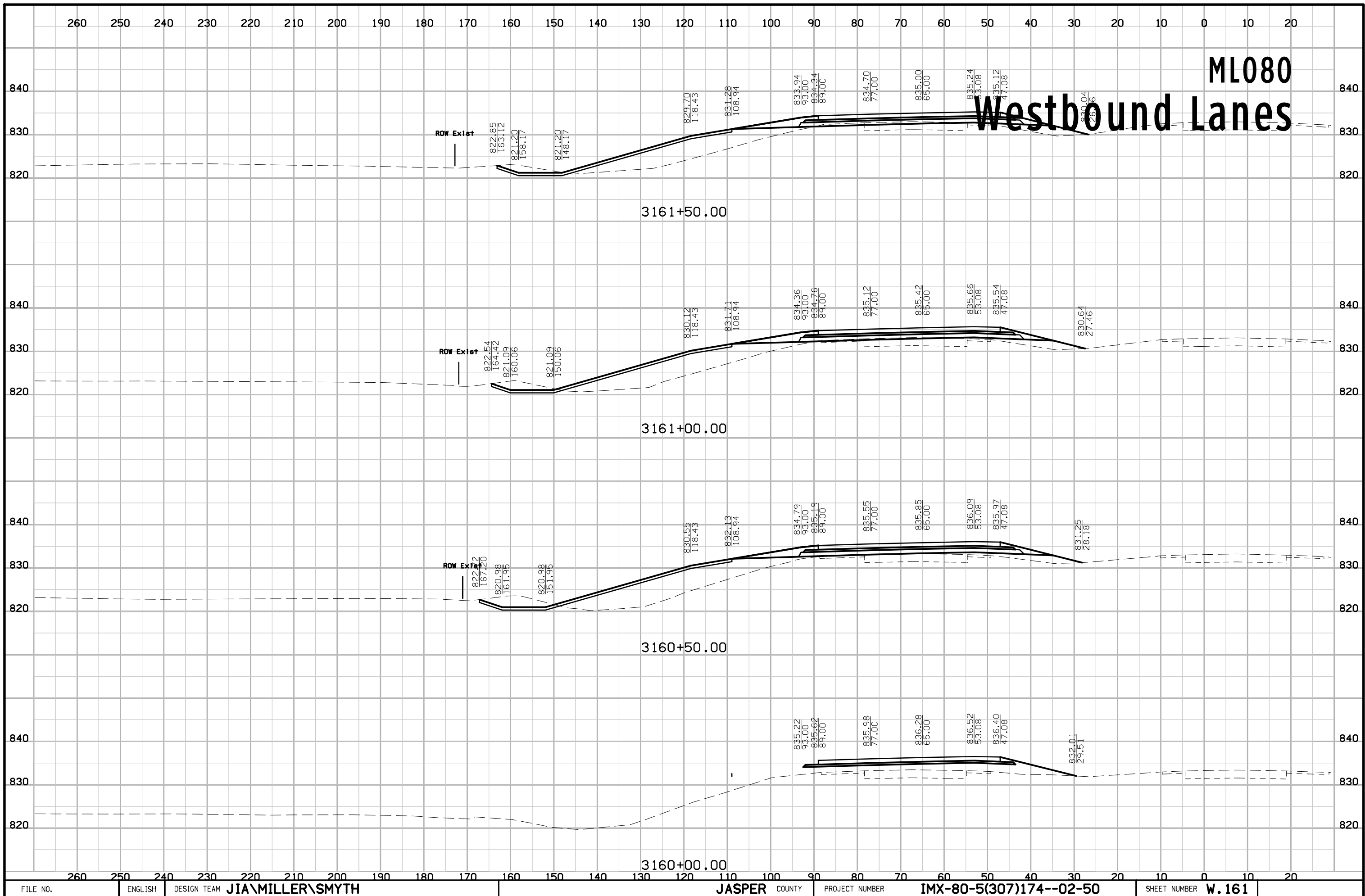


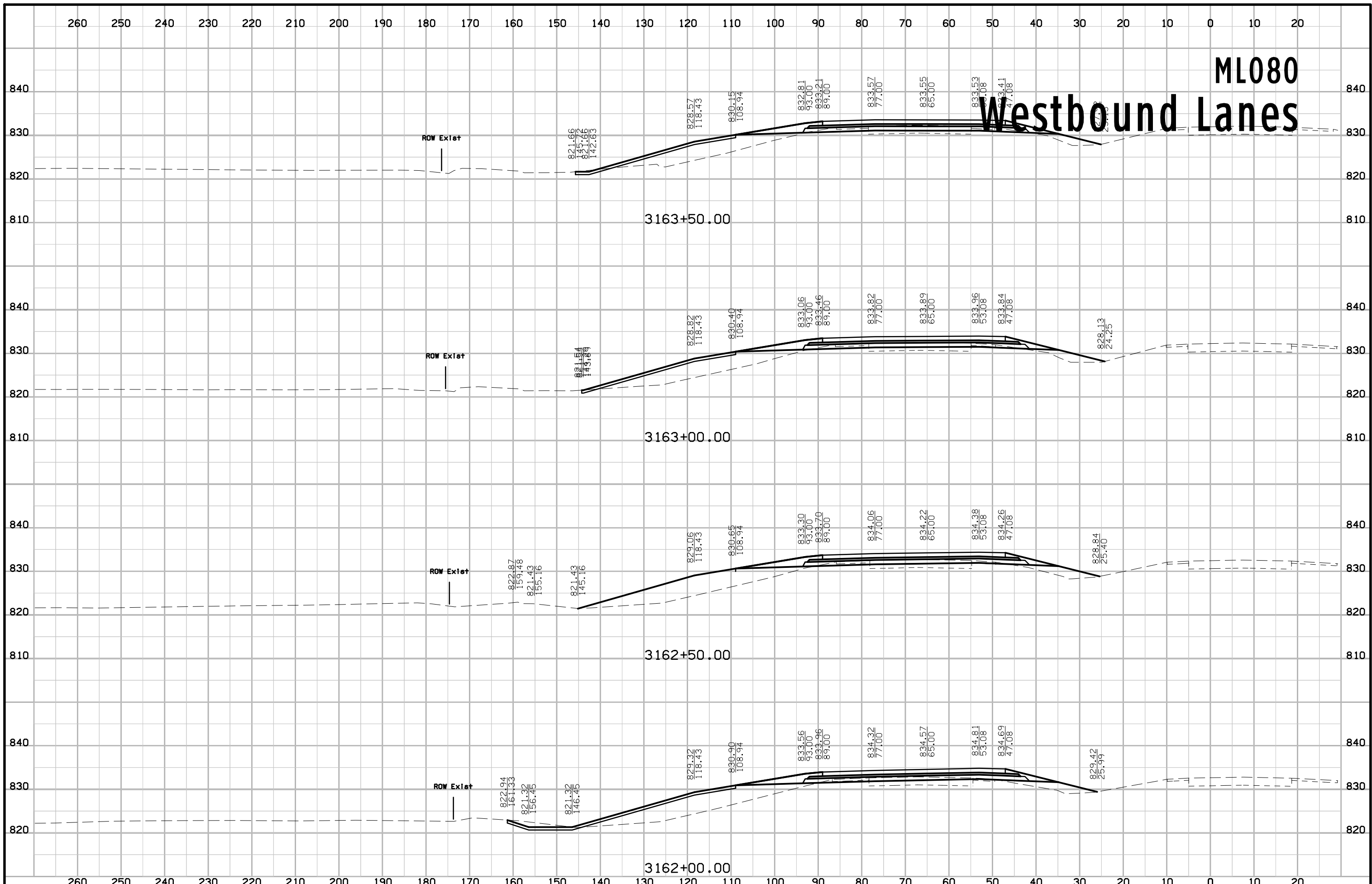
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

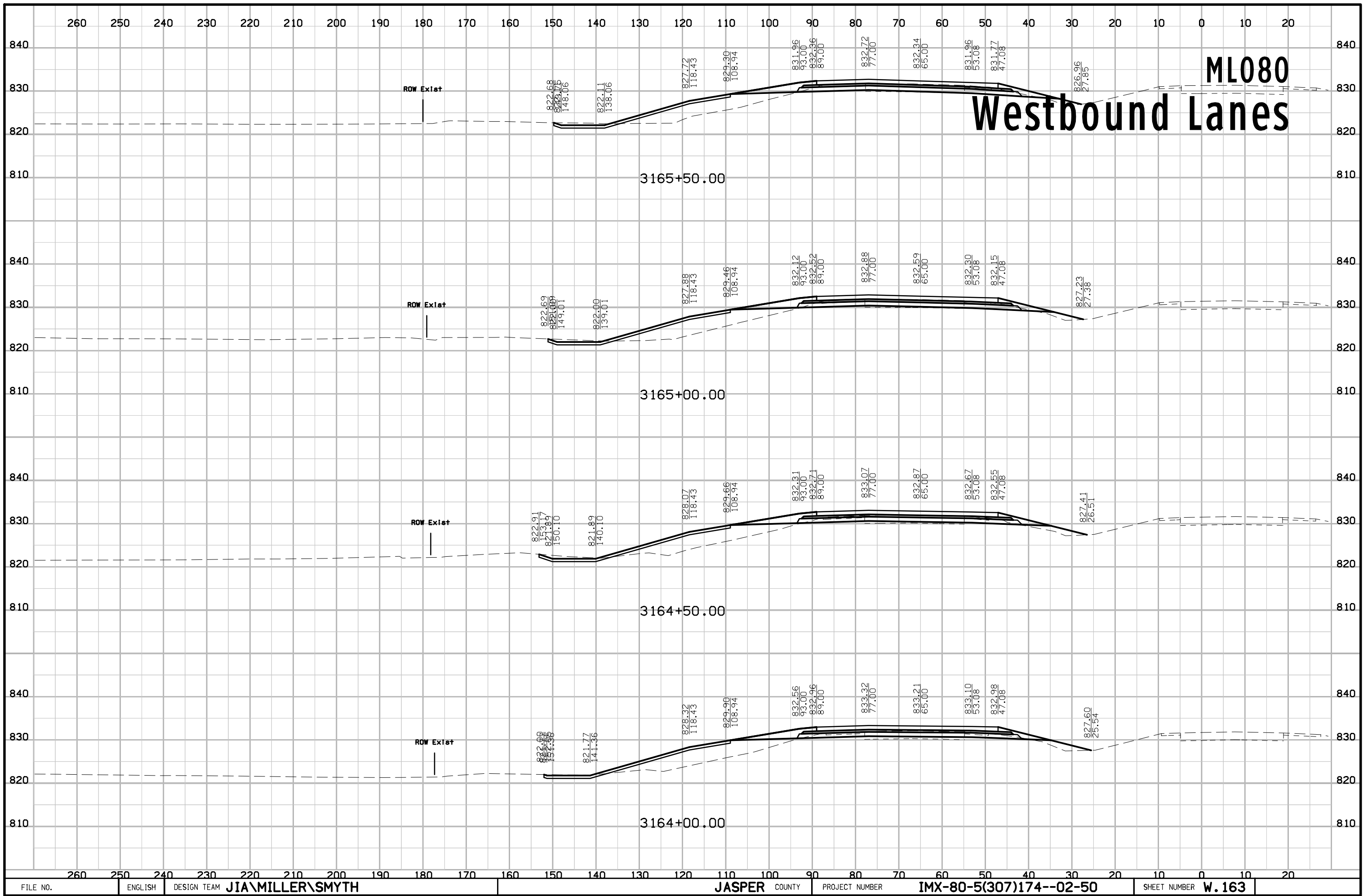
ML080 Westbound Lanes



260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

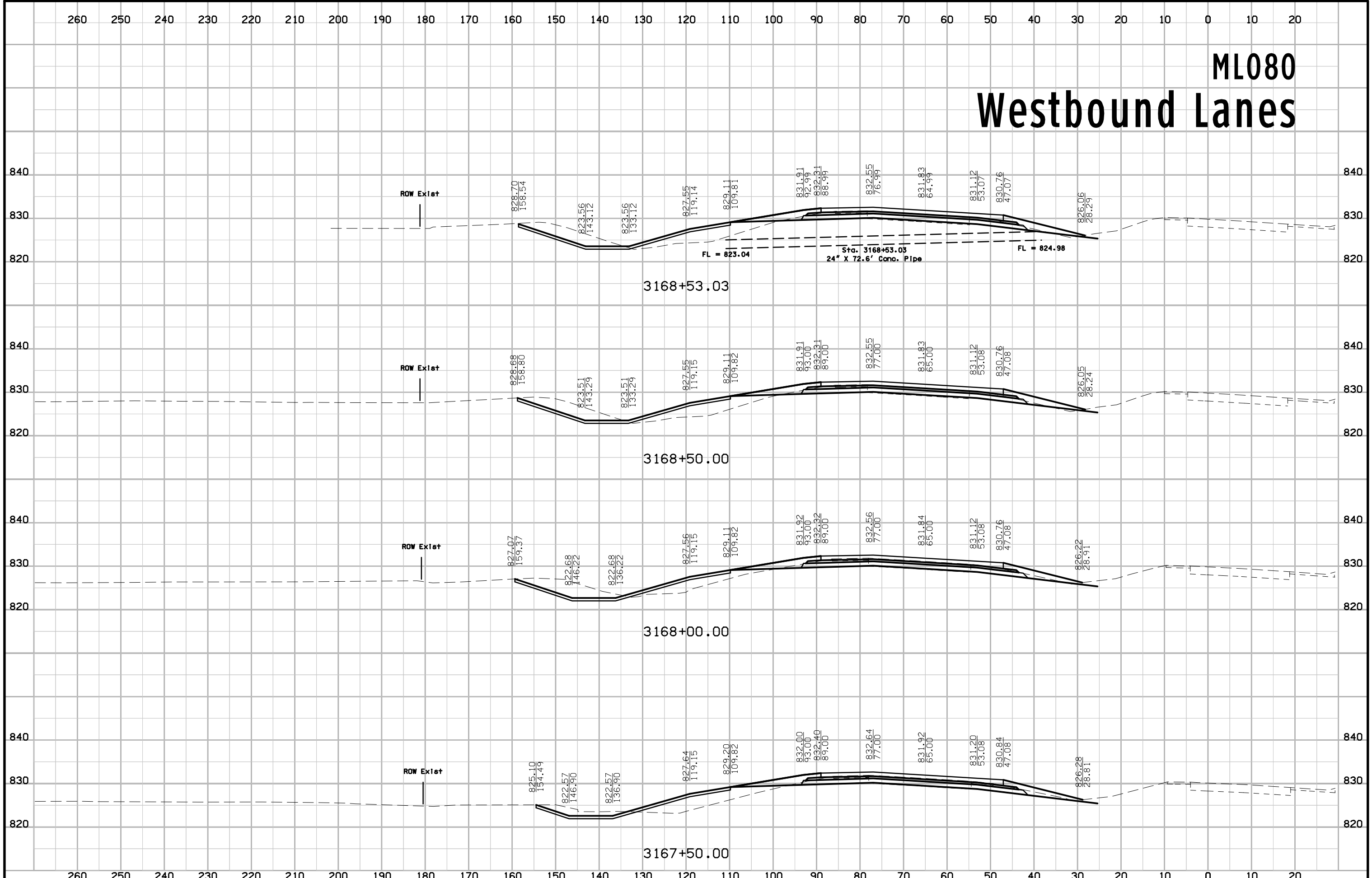


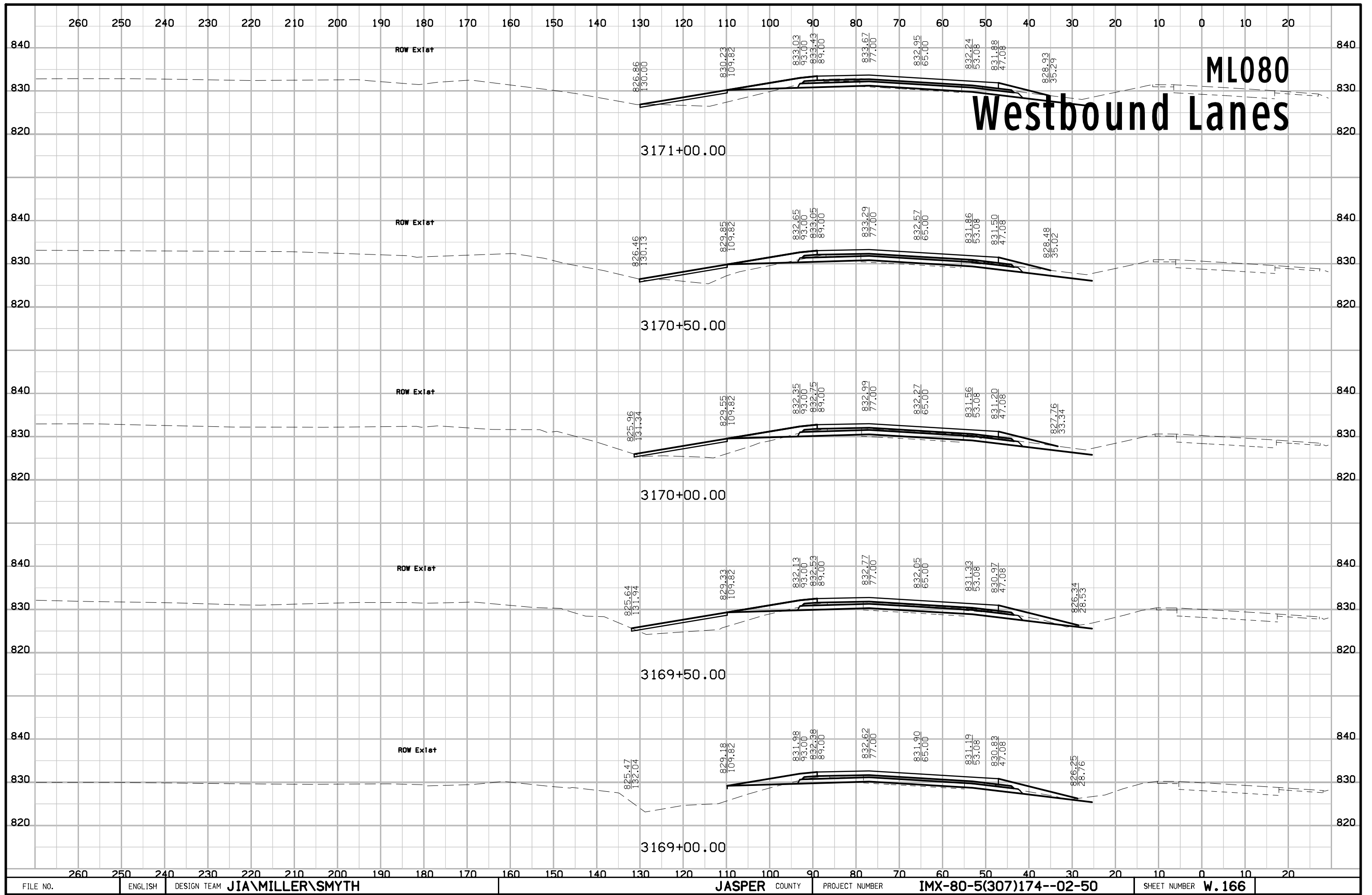






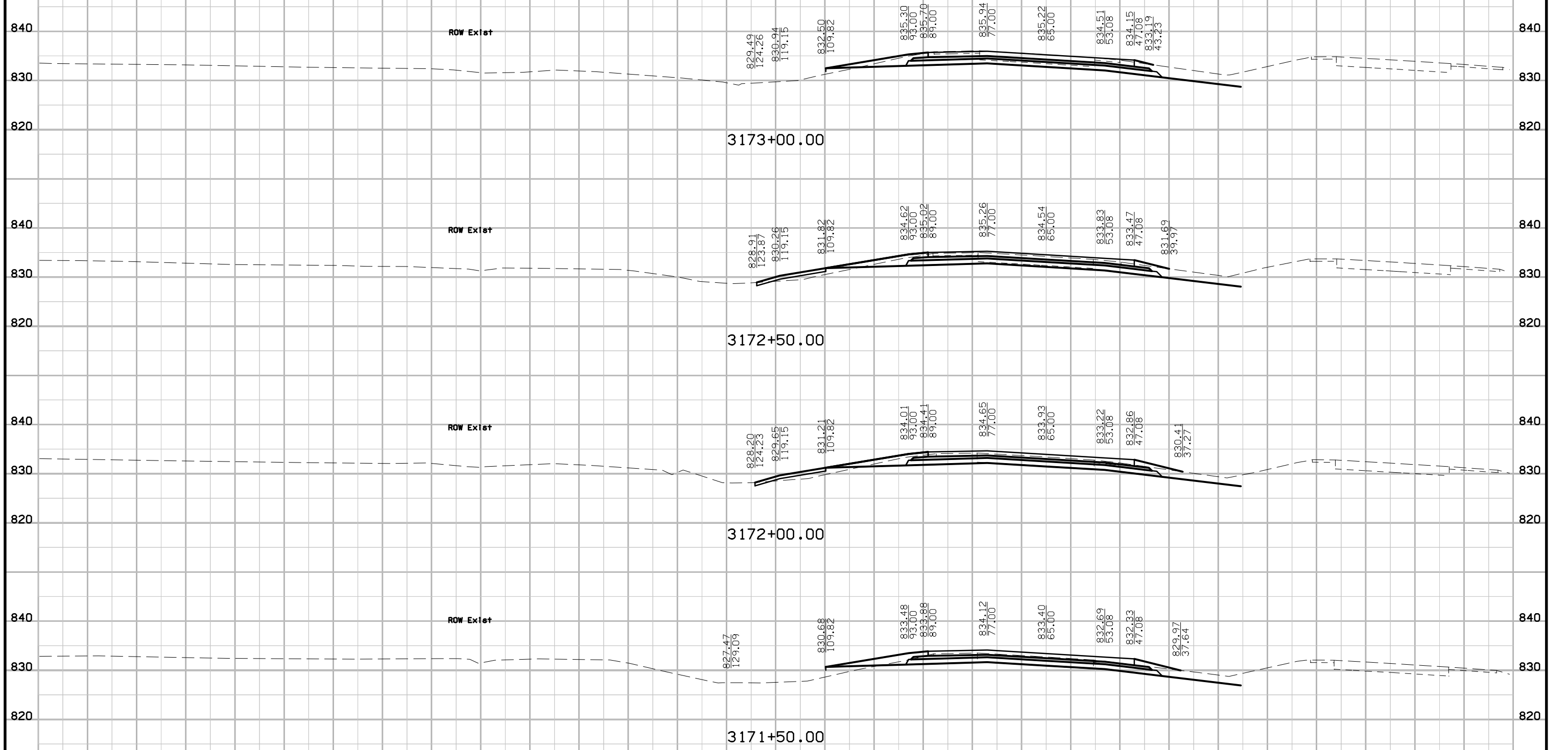
ML080 Westbound Lanes





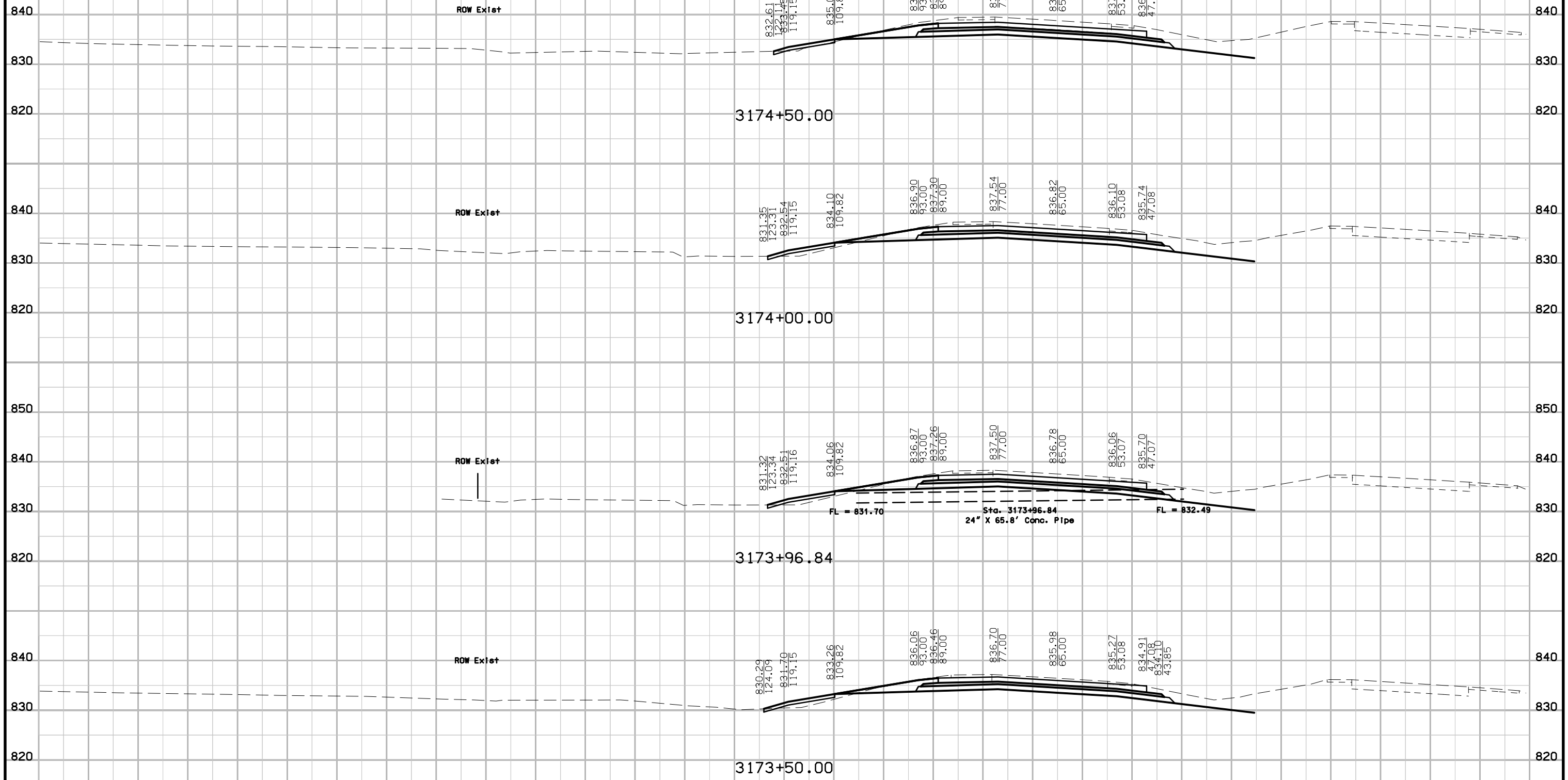
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes



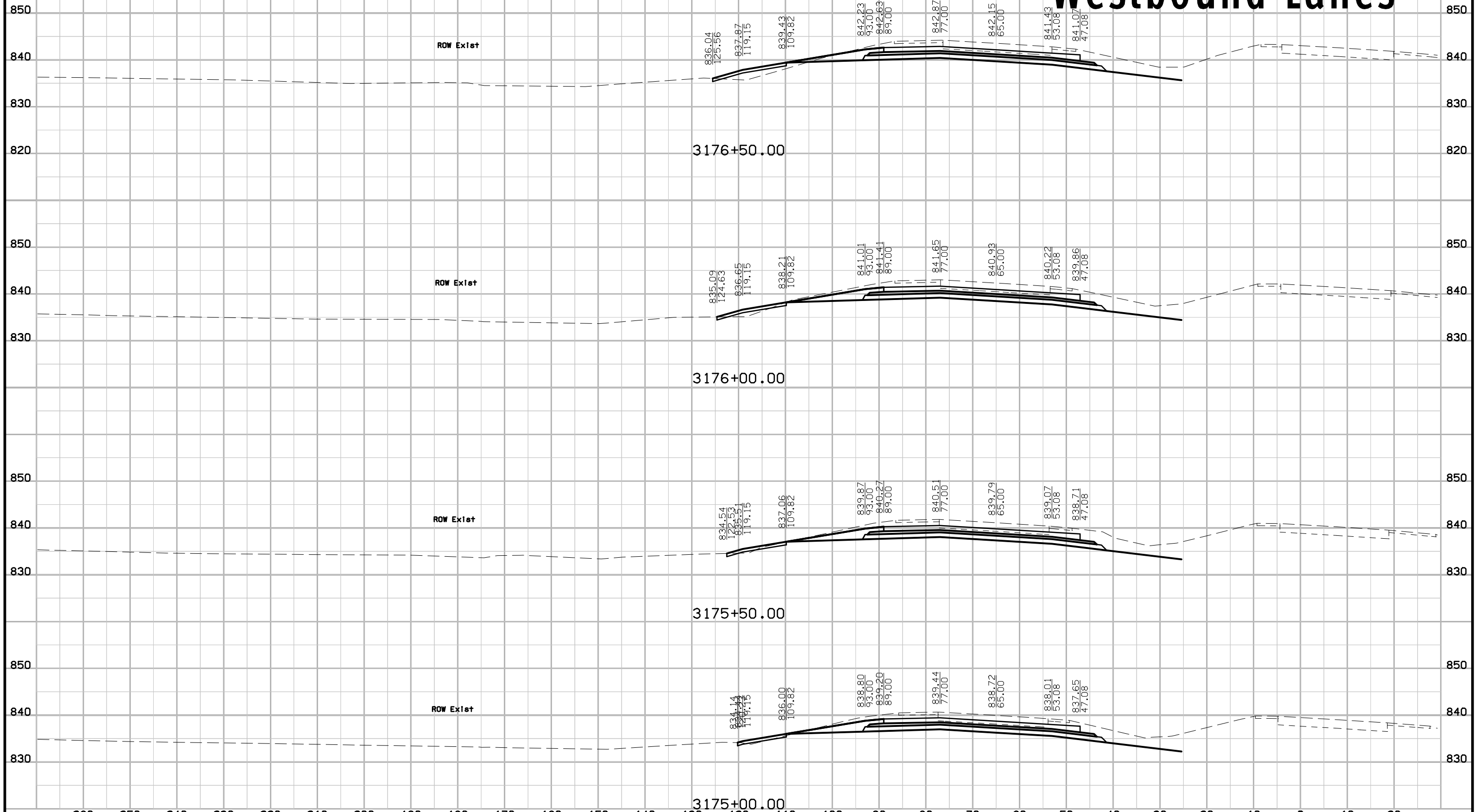
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

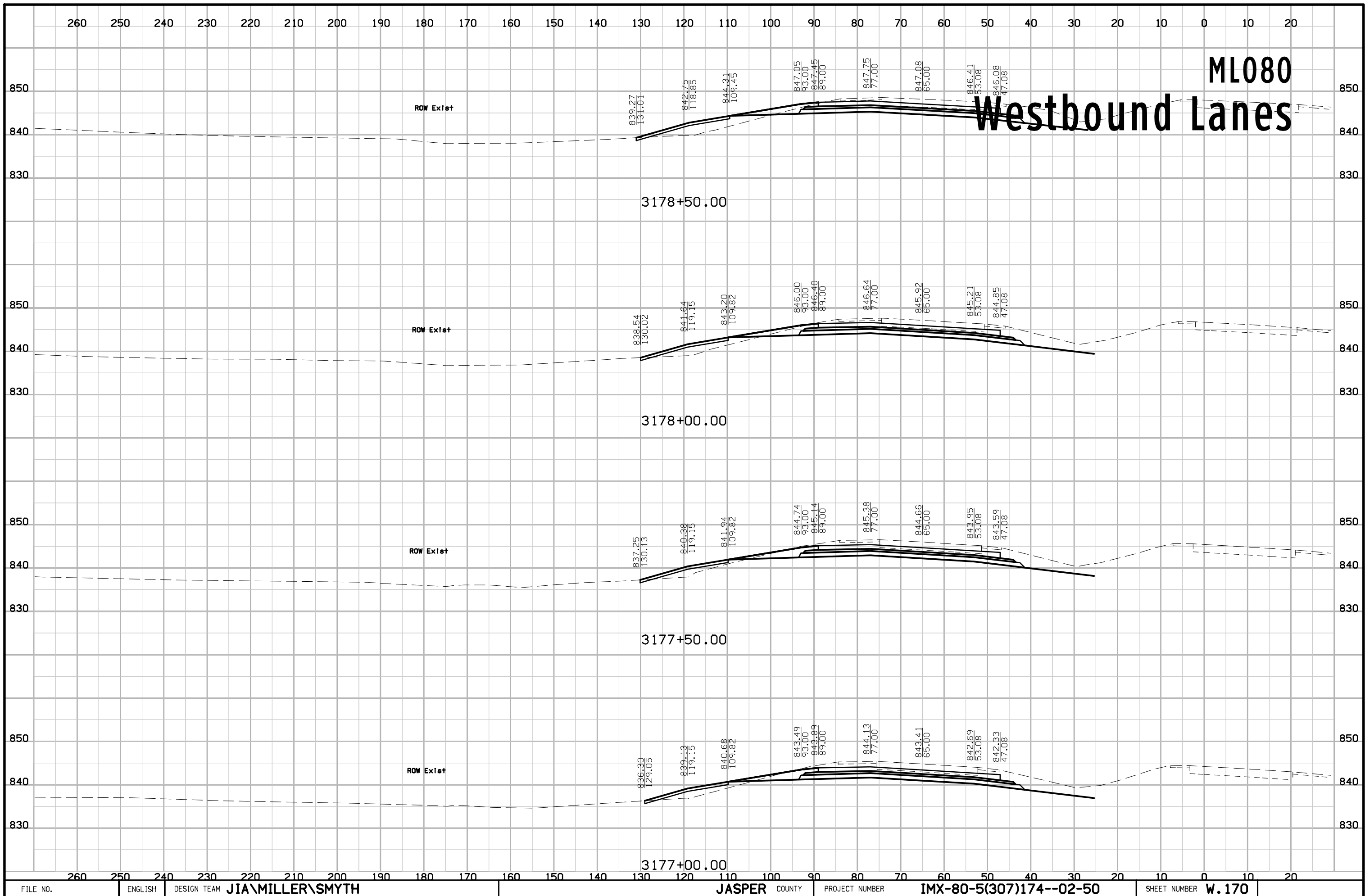
ML080 Westbound Lanes

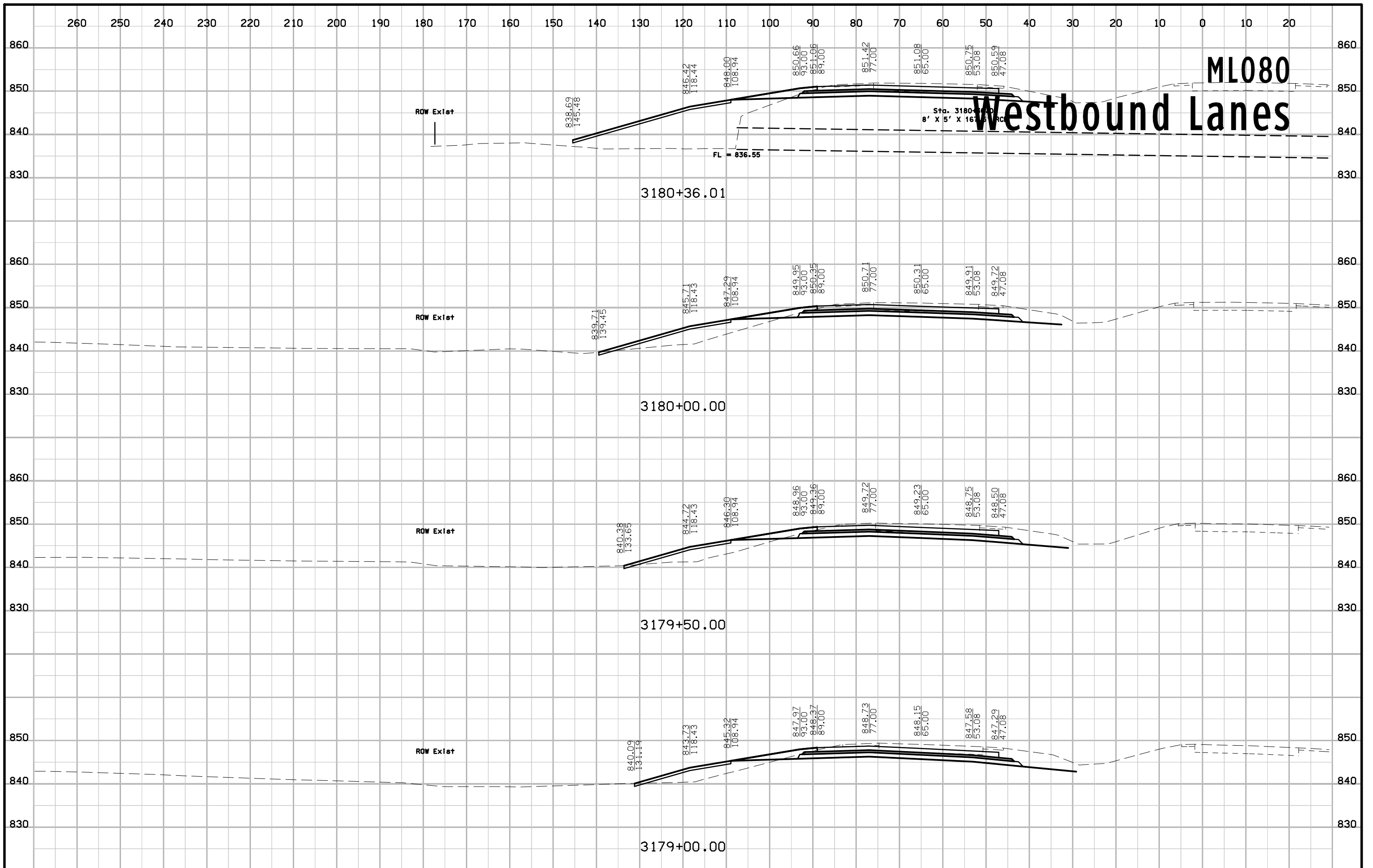


260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes

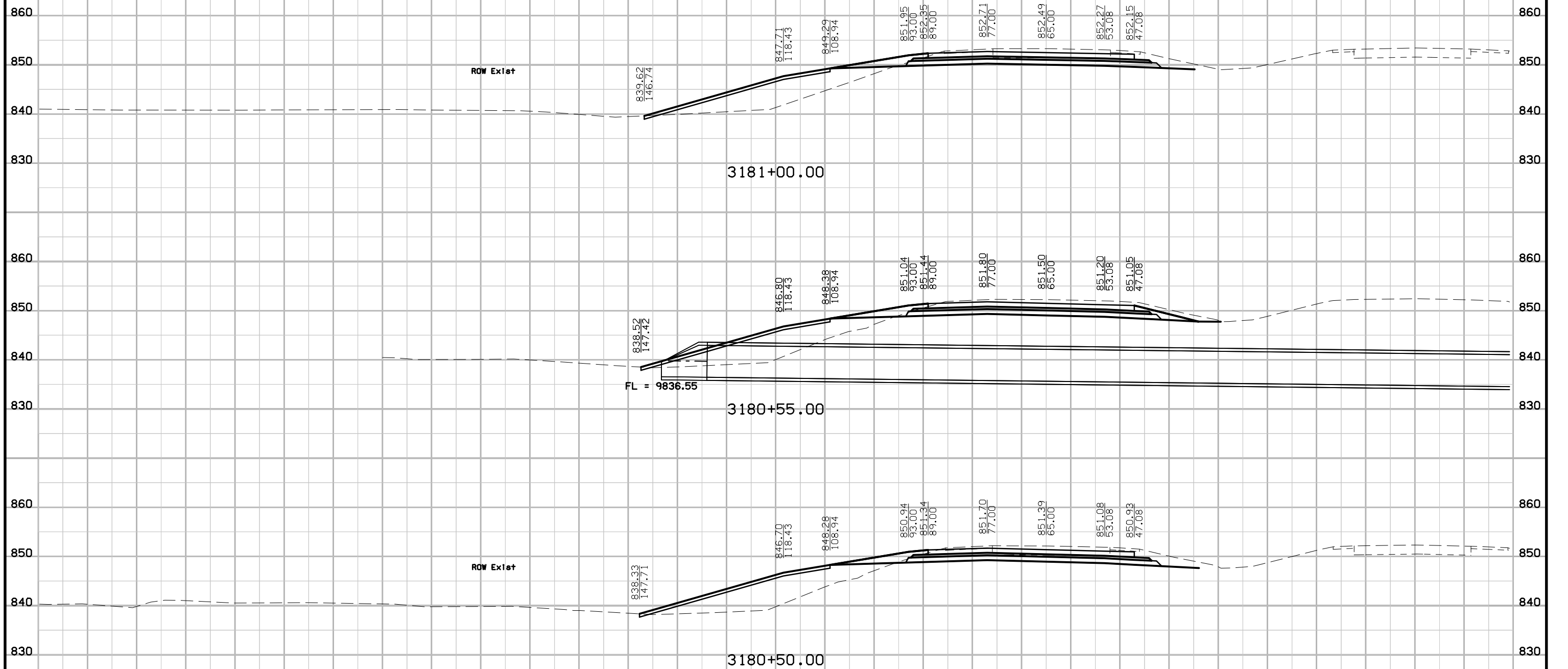






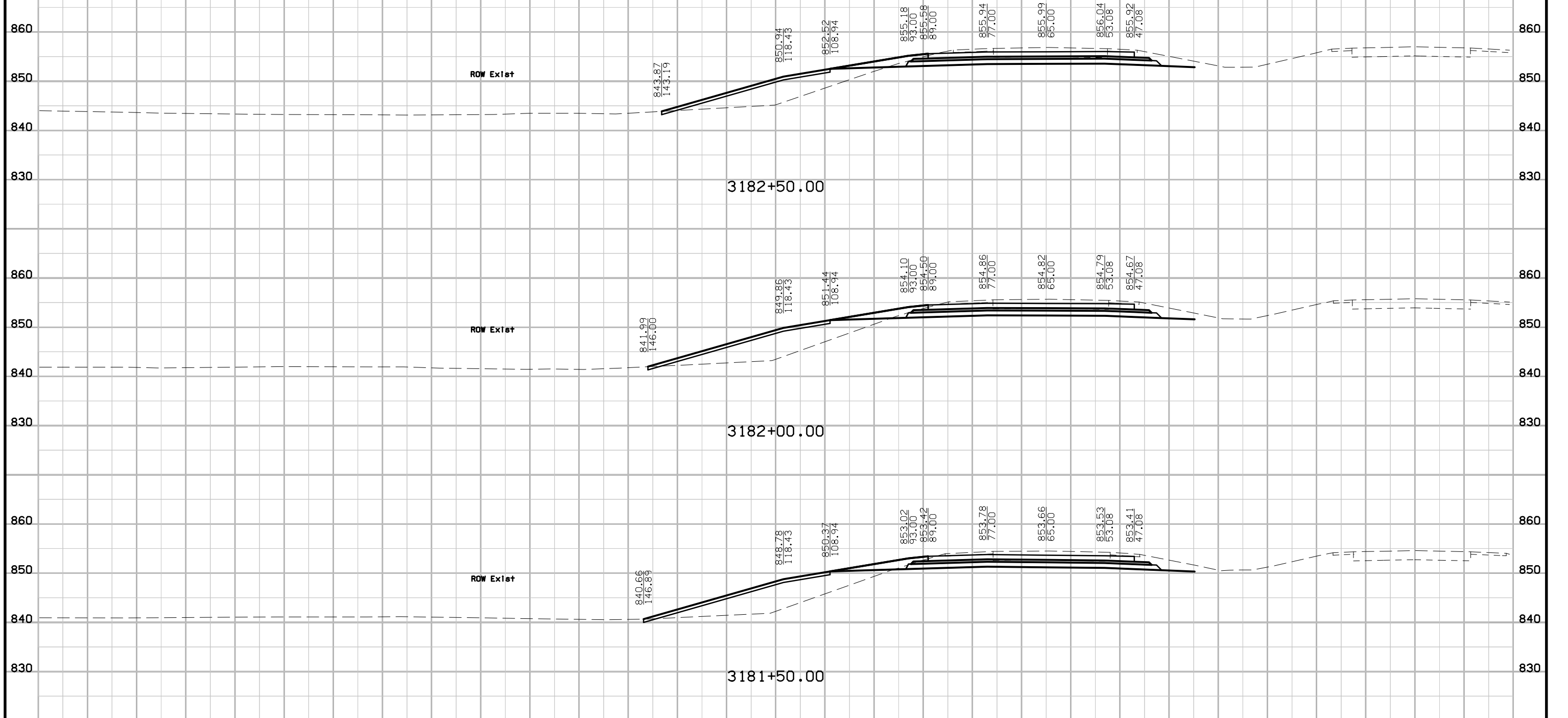
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes



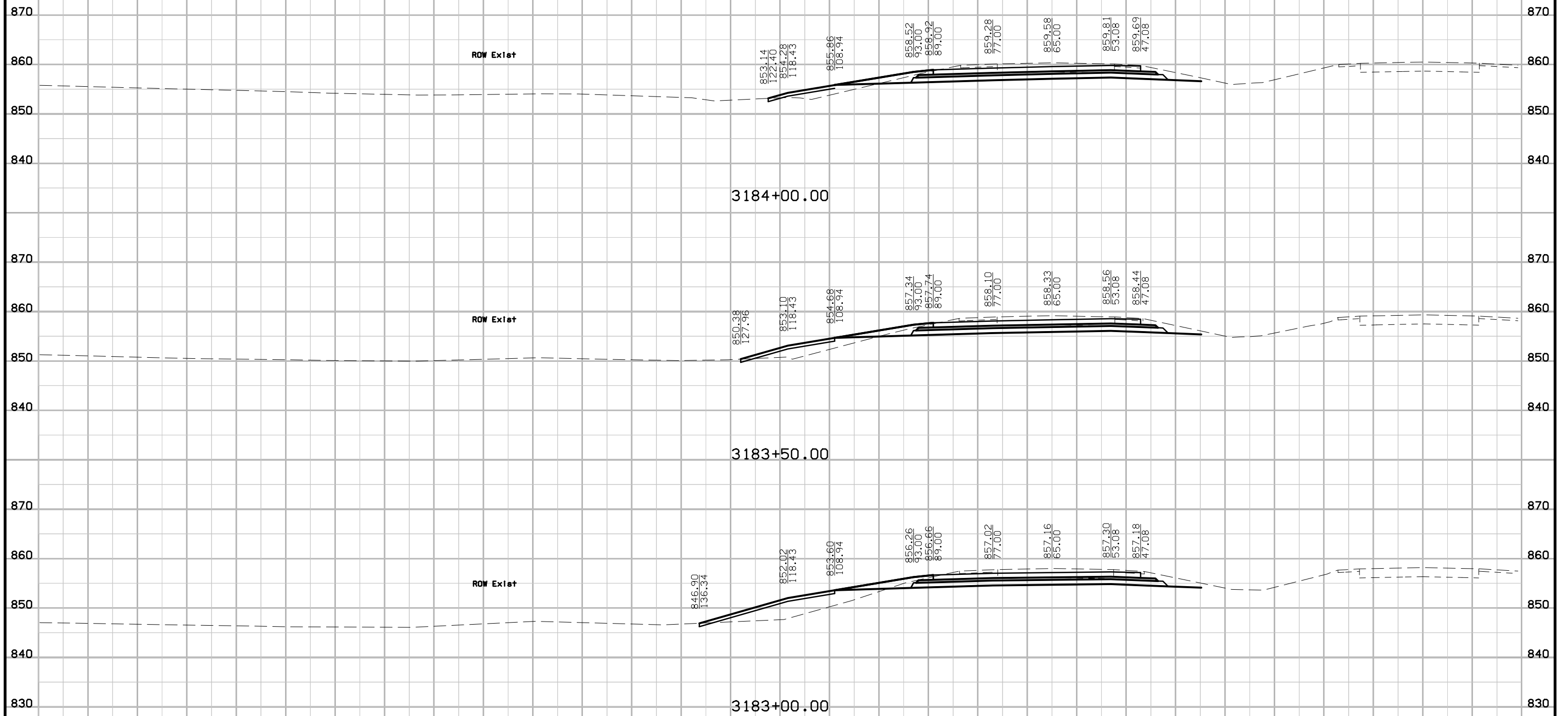
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ML080 Westbound Lanes



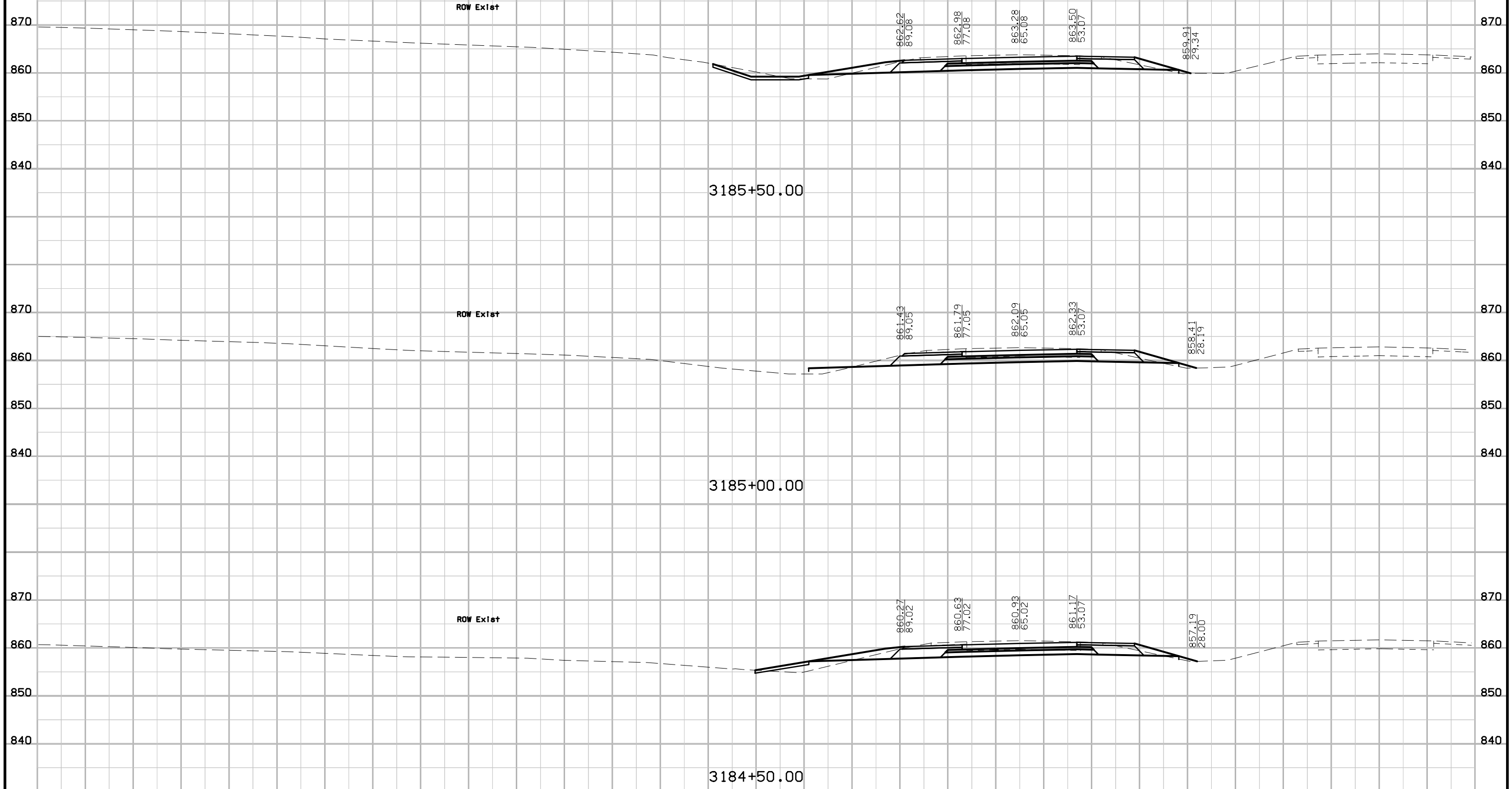
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ML080 Westbound Lanes

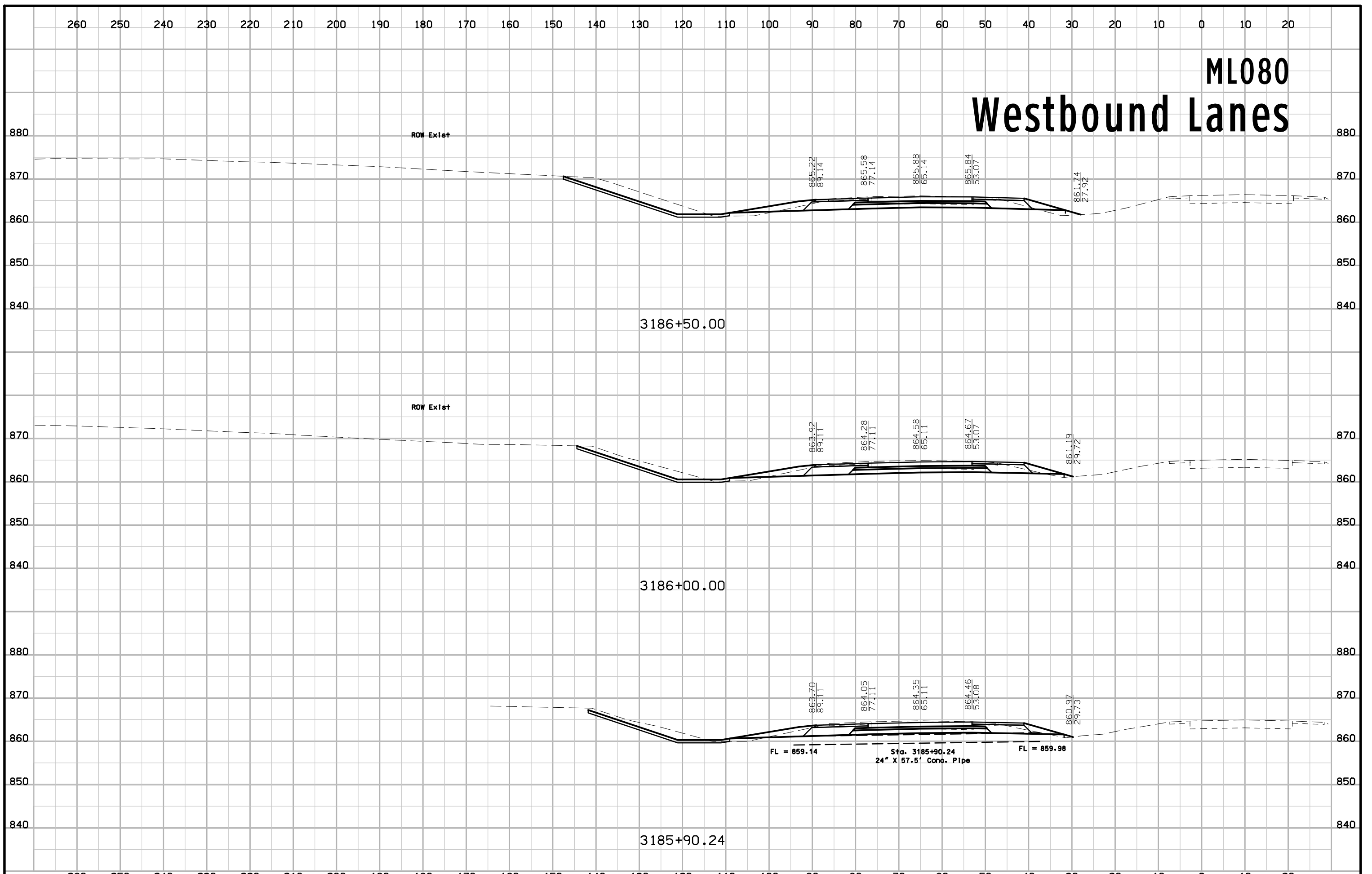


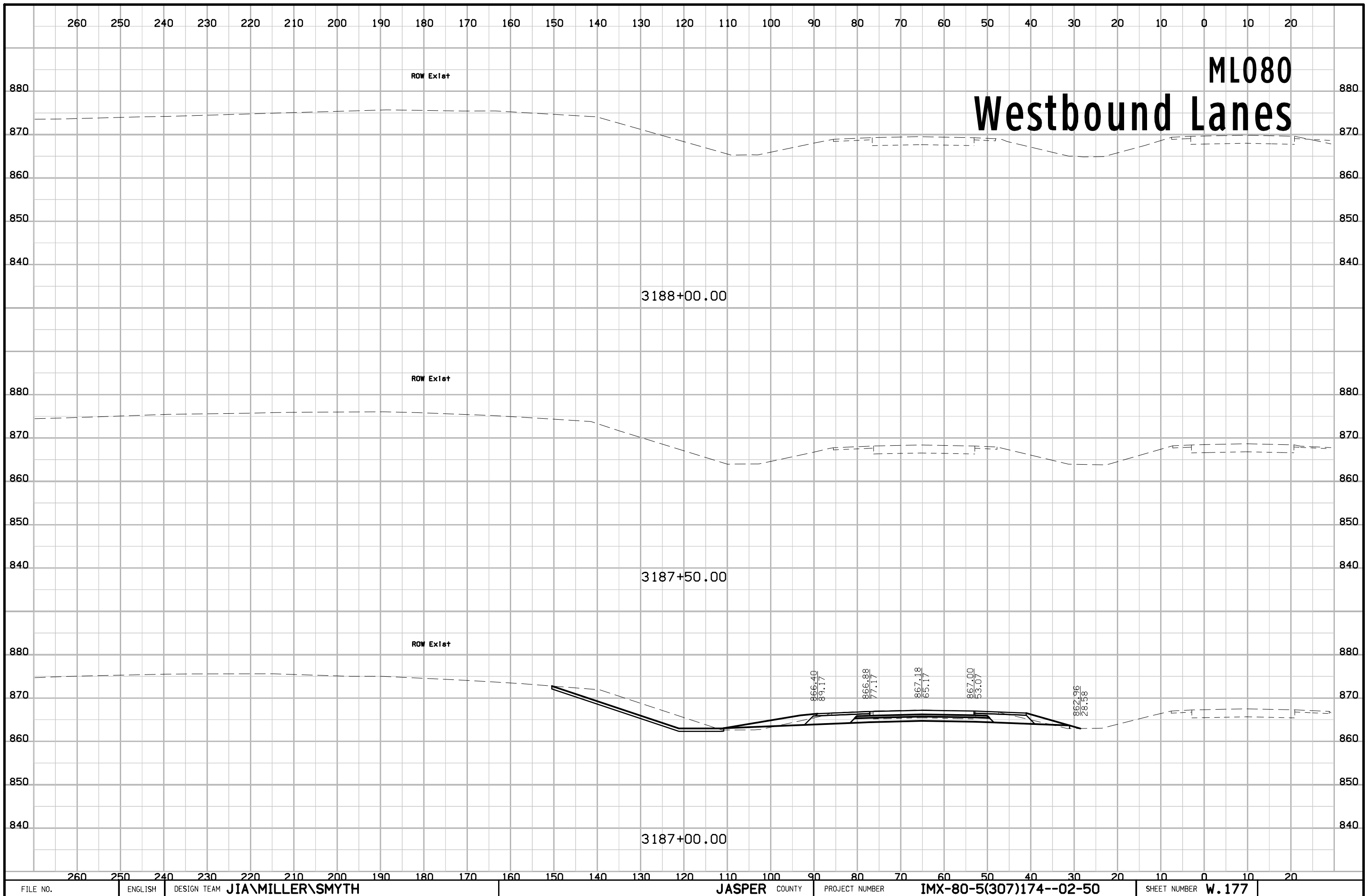
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

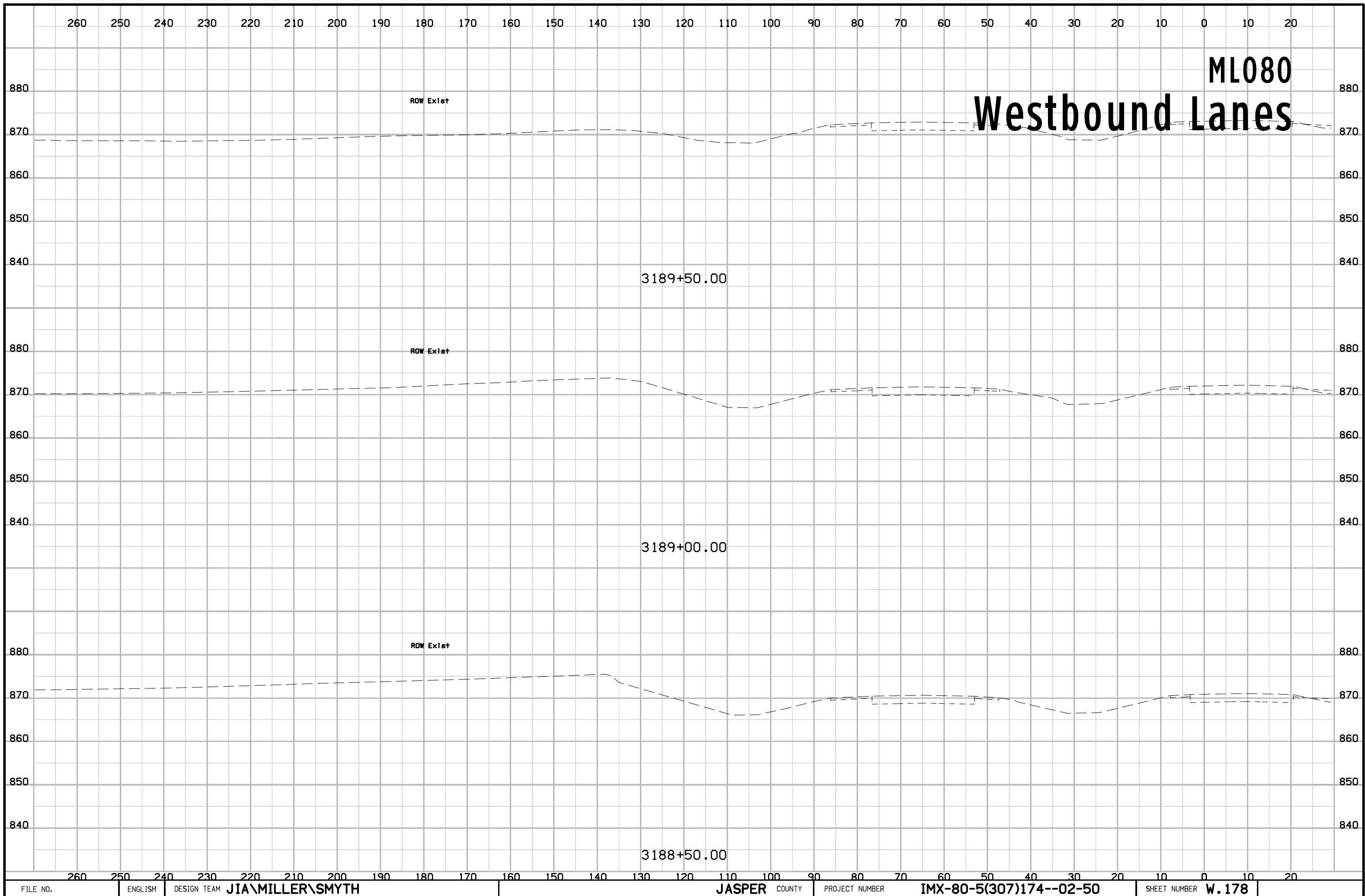
ML080 Westbound Lanes



ML080 Westbound Lanes



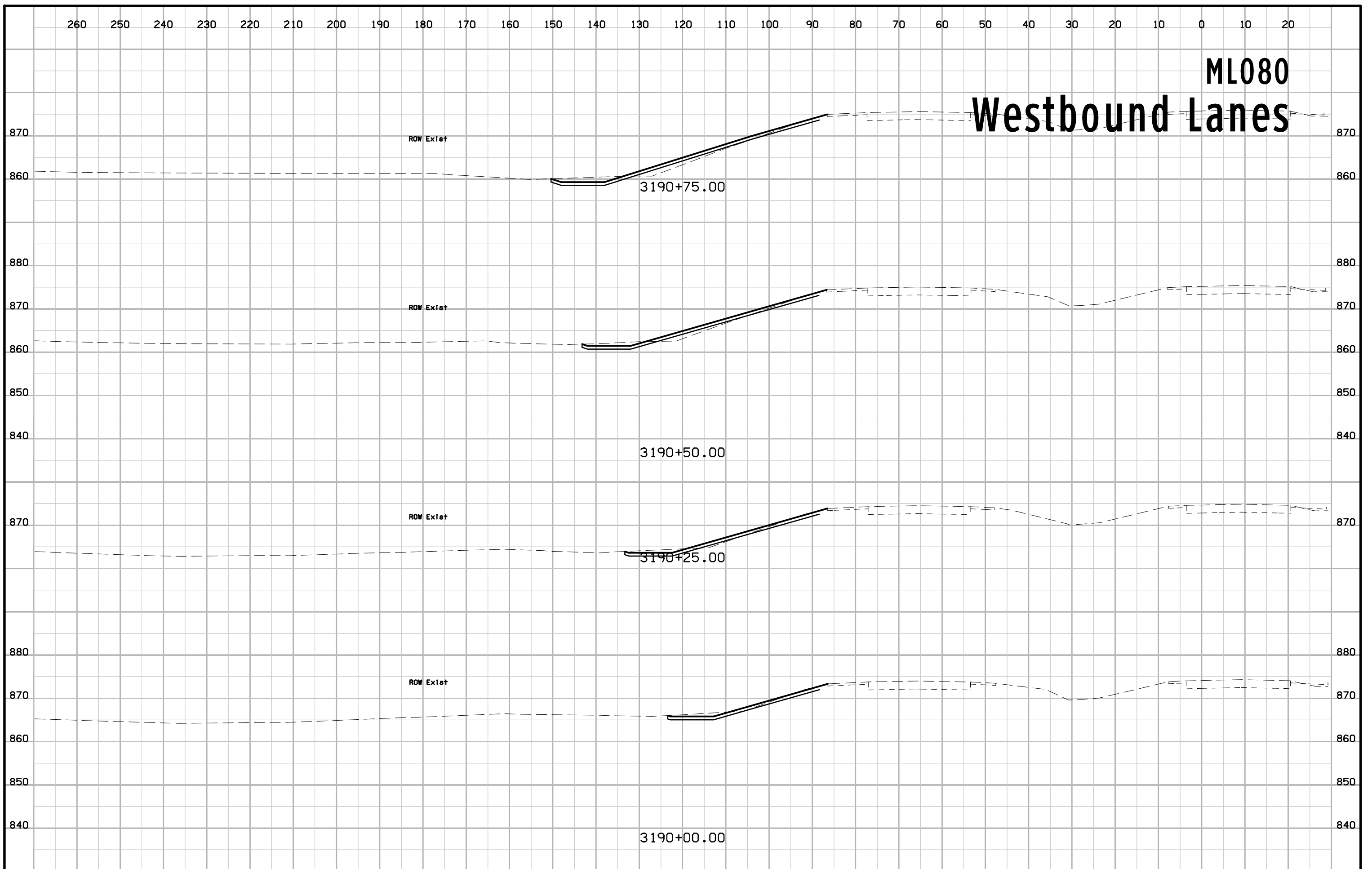




ML080 Westbound Lanes

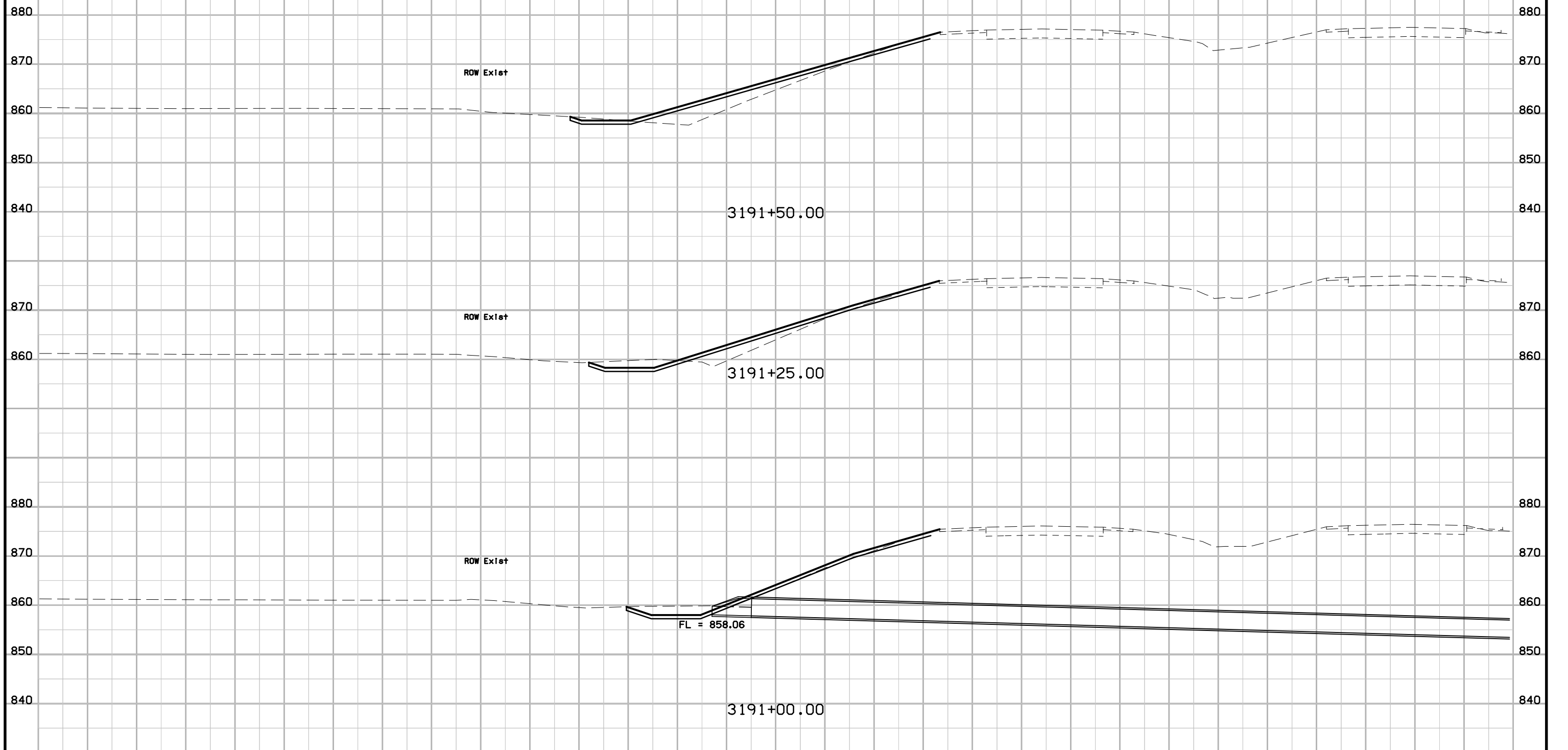
ML080

Westbound Lanes



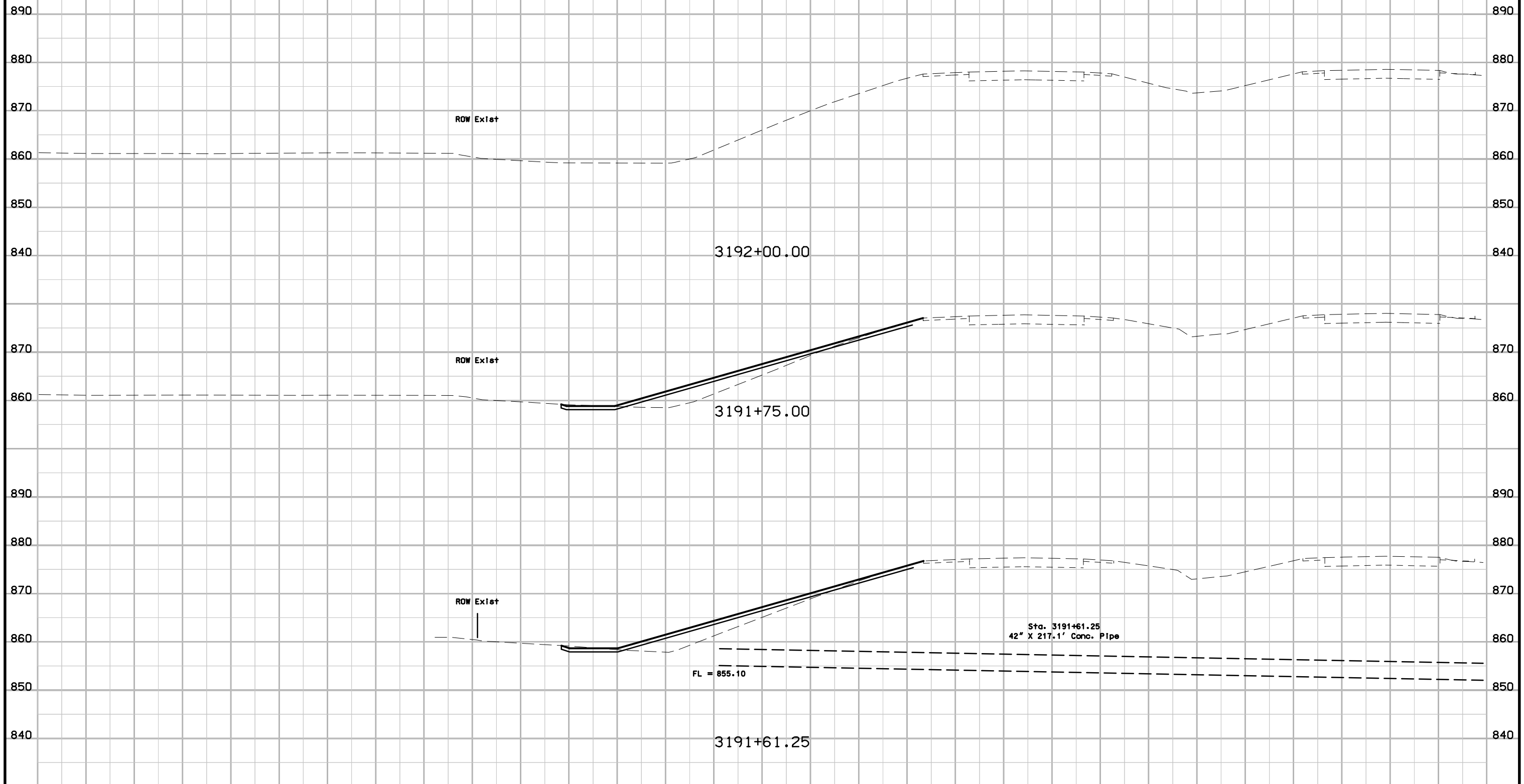
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes



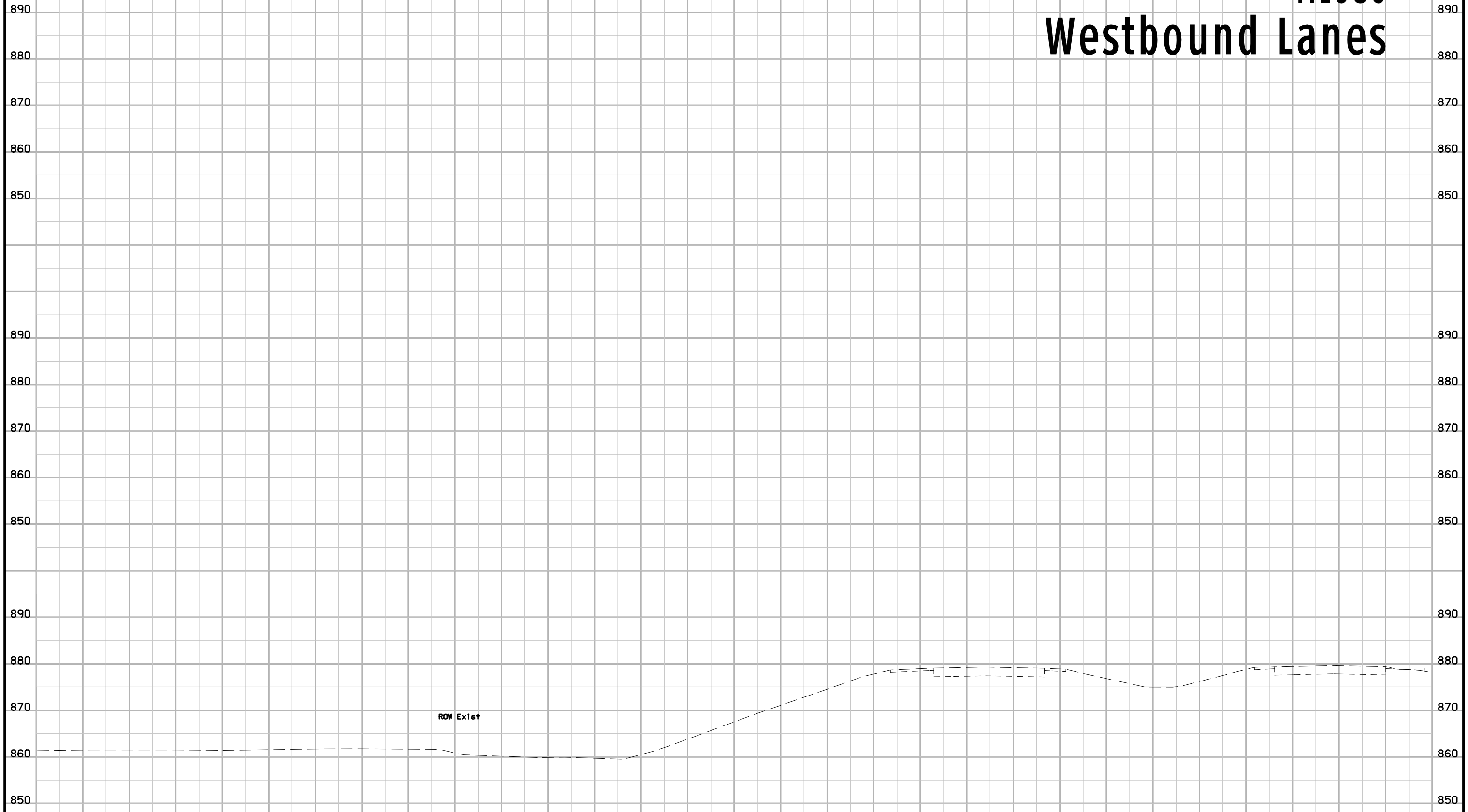
260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes



260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

ML080 Westbound Lanes

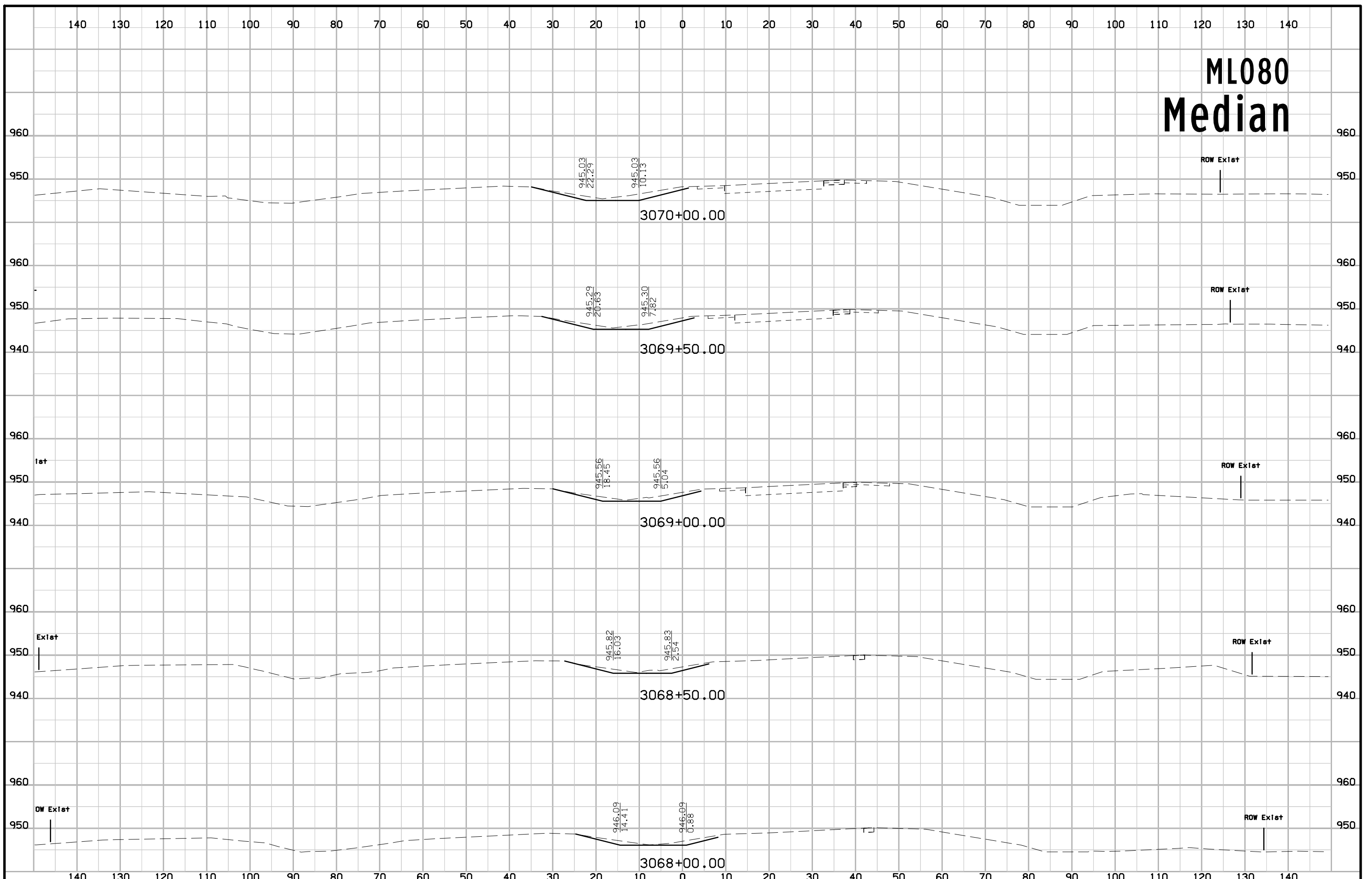


890 880 870 860 850 890 880 870 860 850 890 880 870 860 850

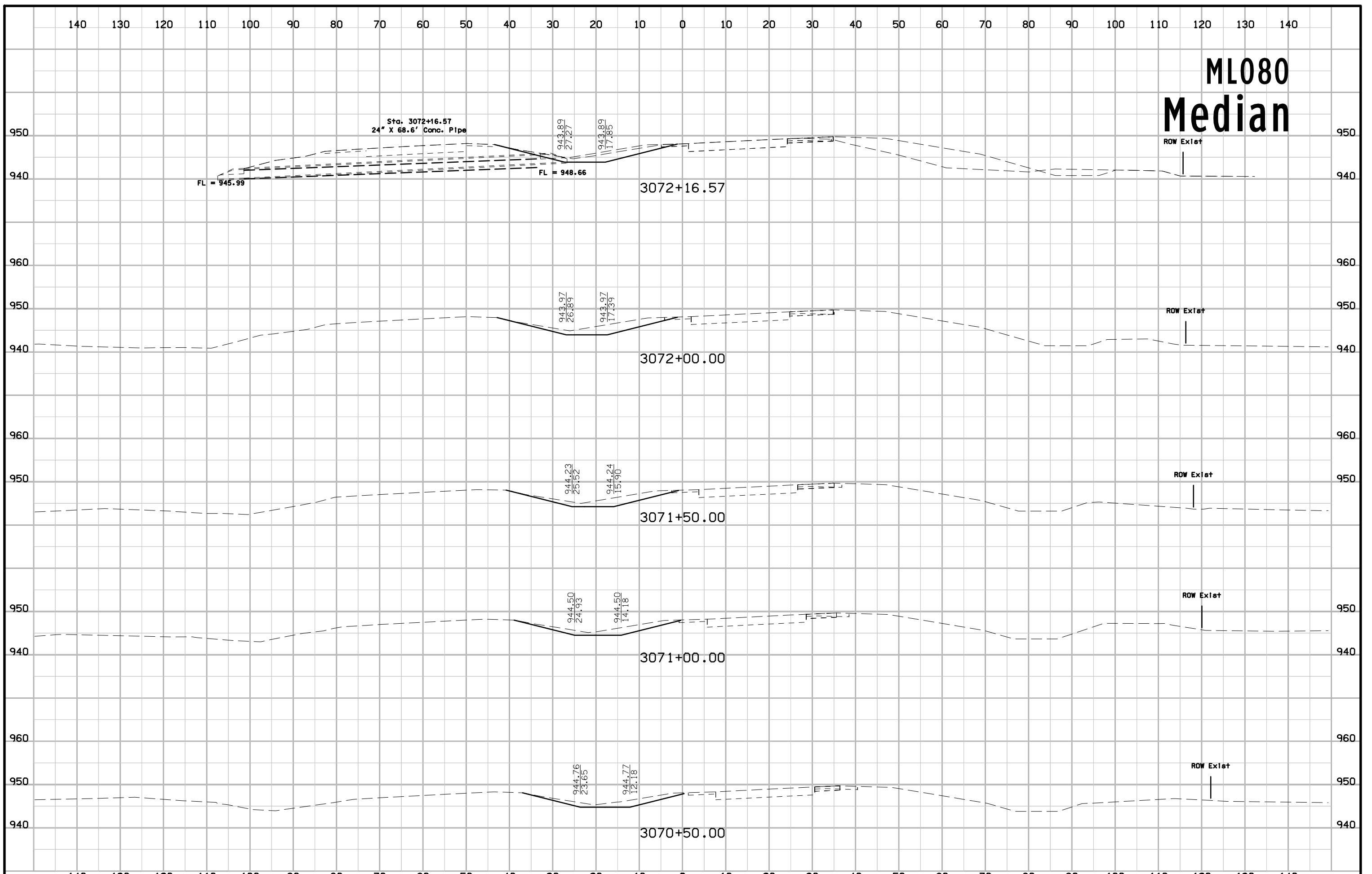
3192+50.00

260 250 240 230 220 210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20

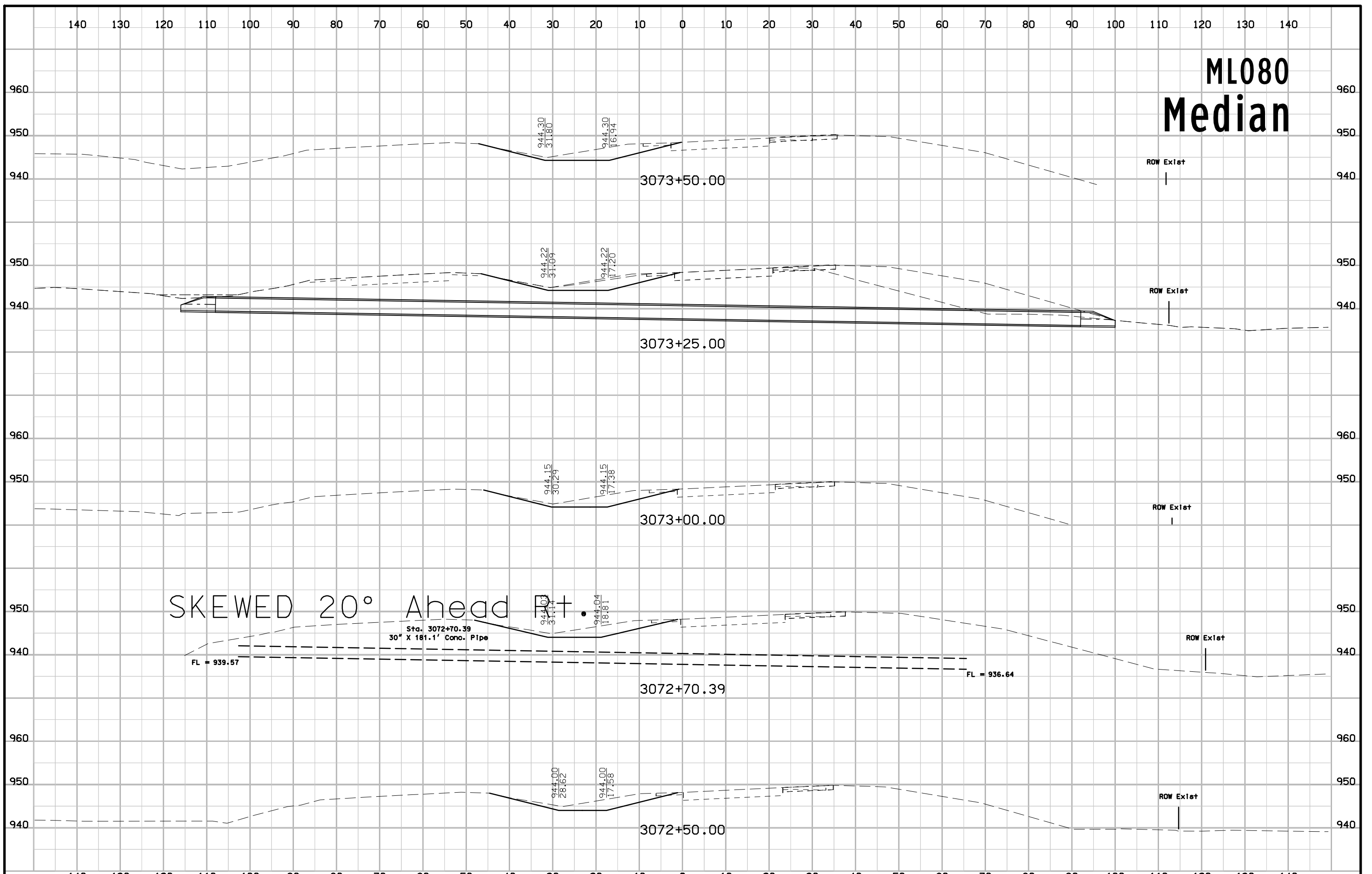
ML080 Median



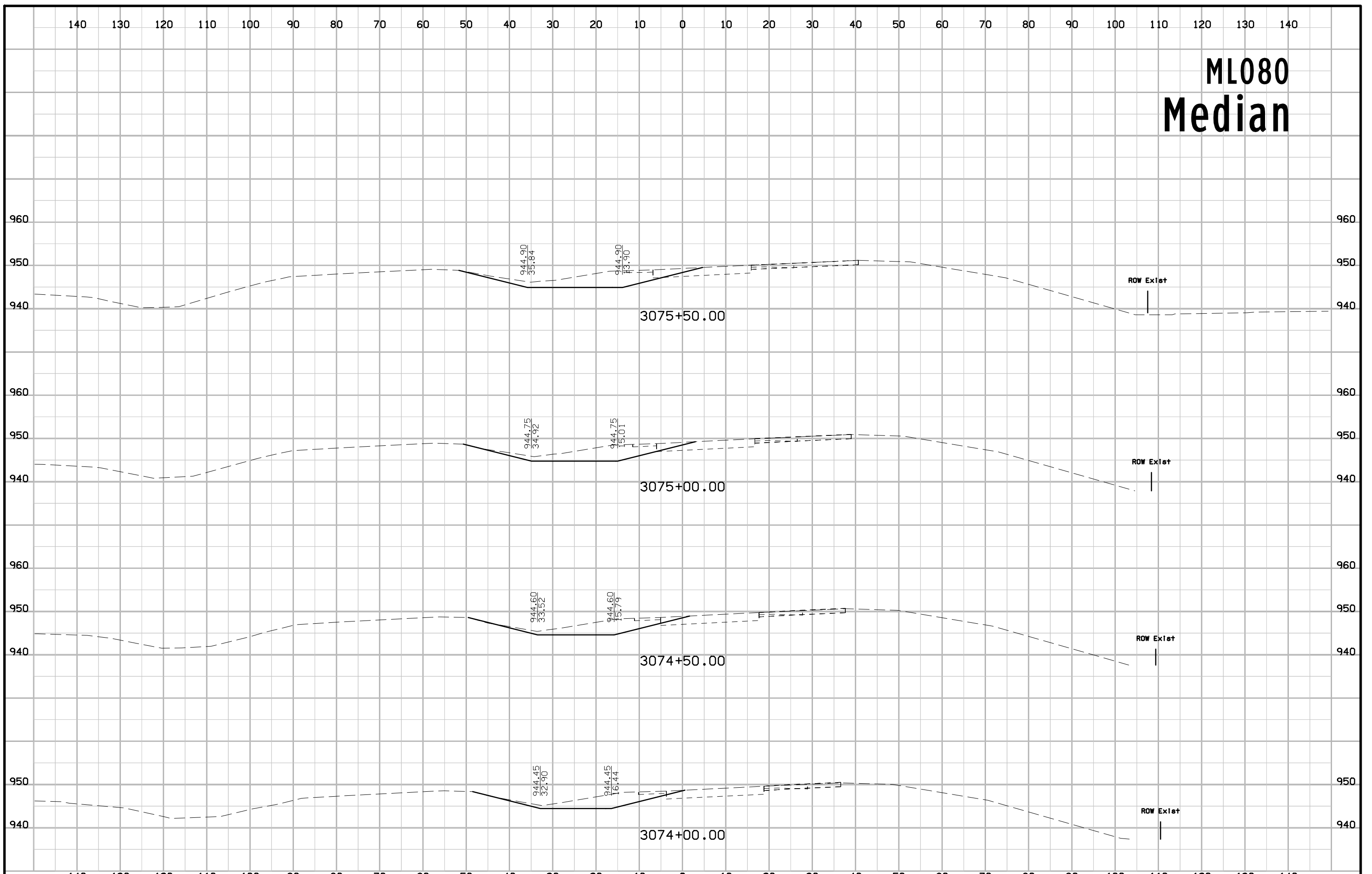
ML080 Median

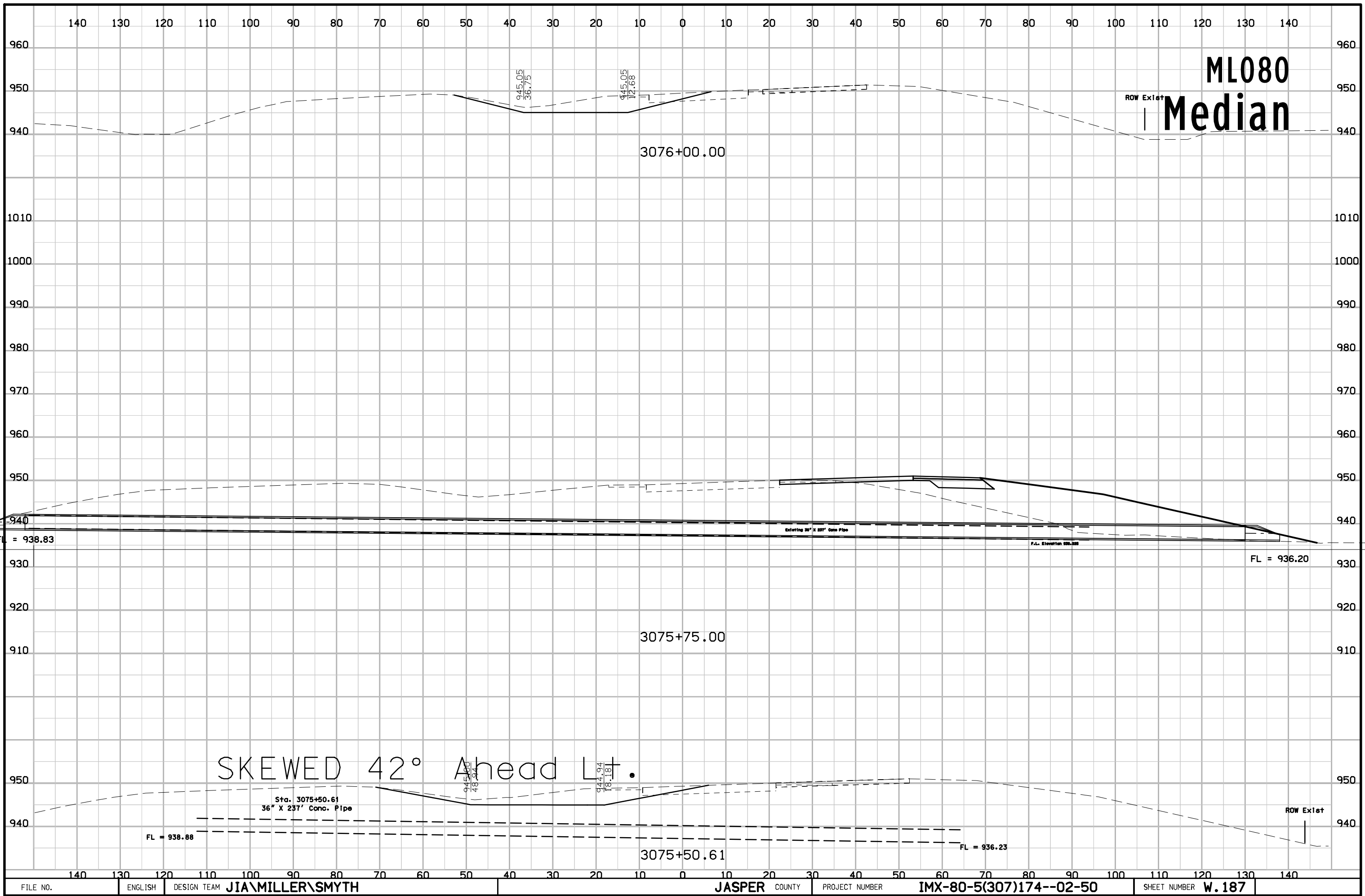


ML080 Median



ML080 Median





ML080

Median

SKEWED 42° Ahead Lt.

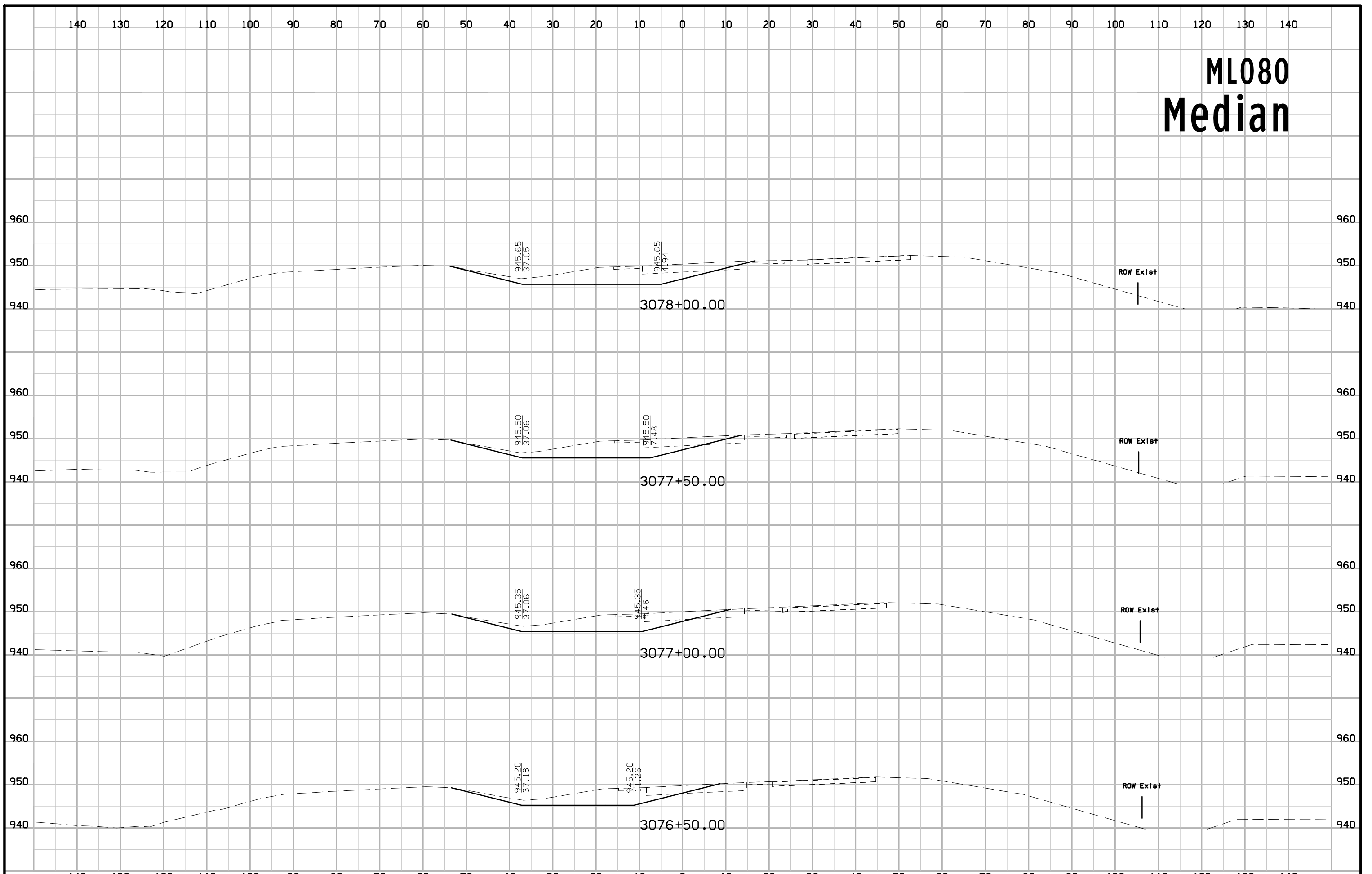
Sta. 3075+50.61
36" X 237' Conc. Pipe

Existing 36" X 237' Conc. Pipe

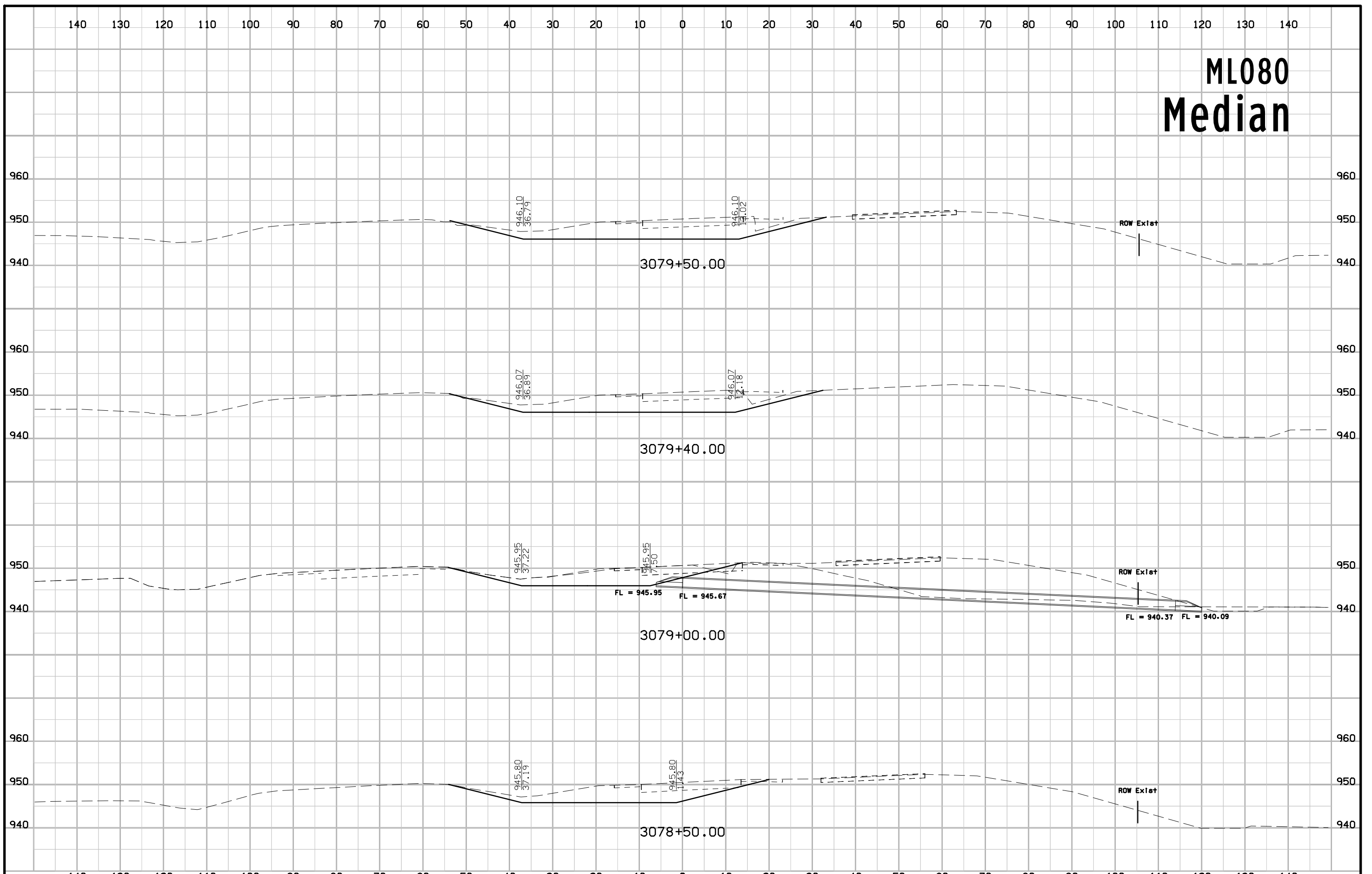
F.L. Elevation 936.20

ROW Exlet

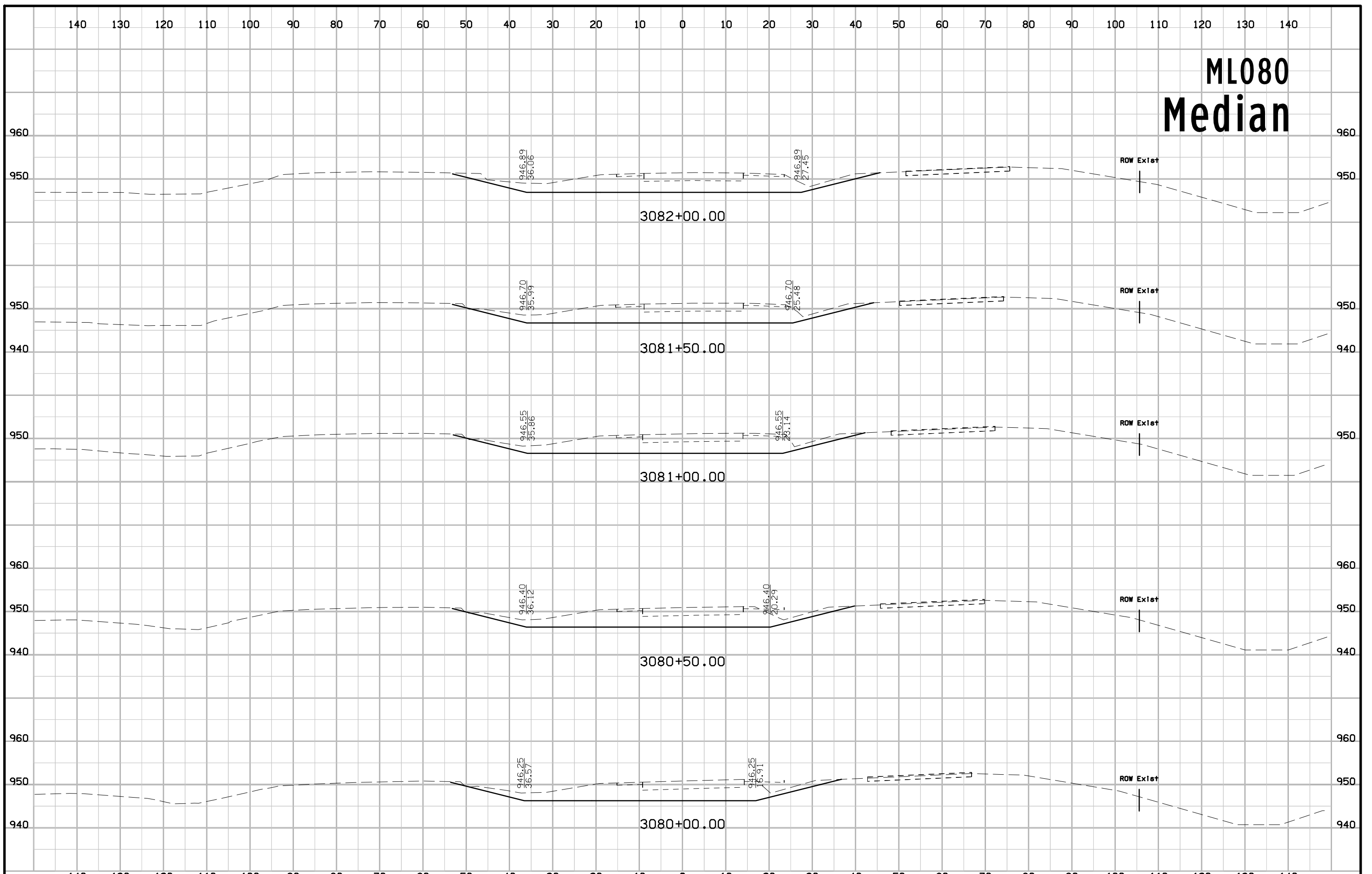
ML080 Median

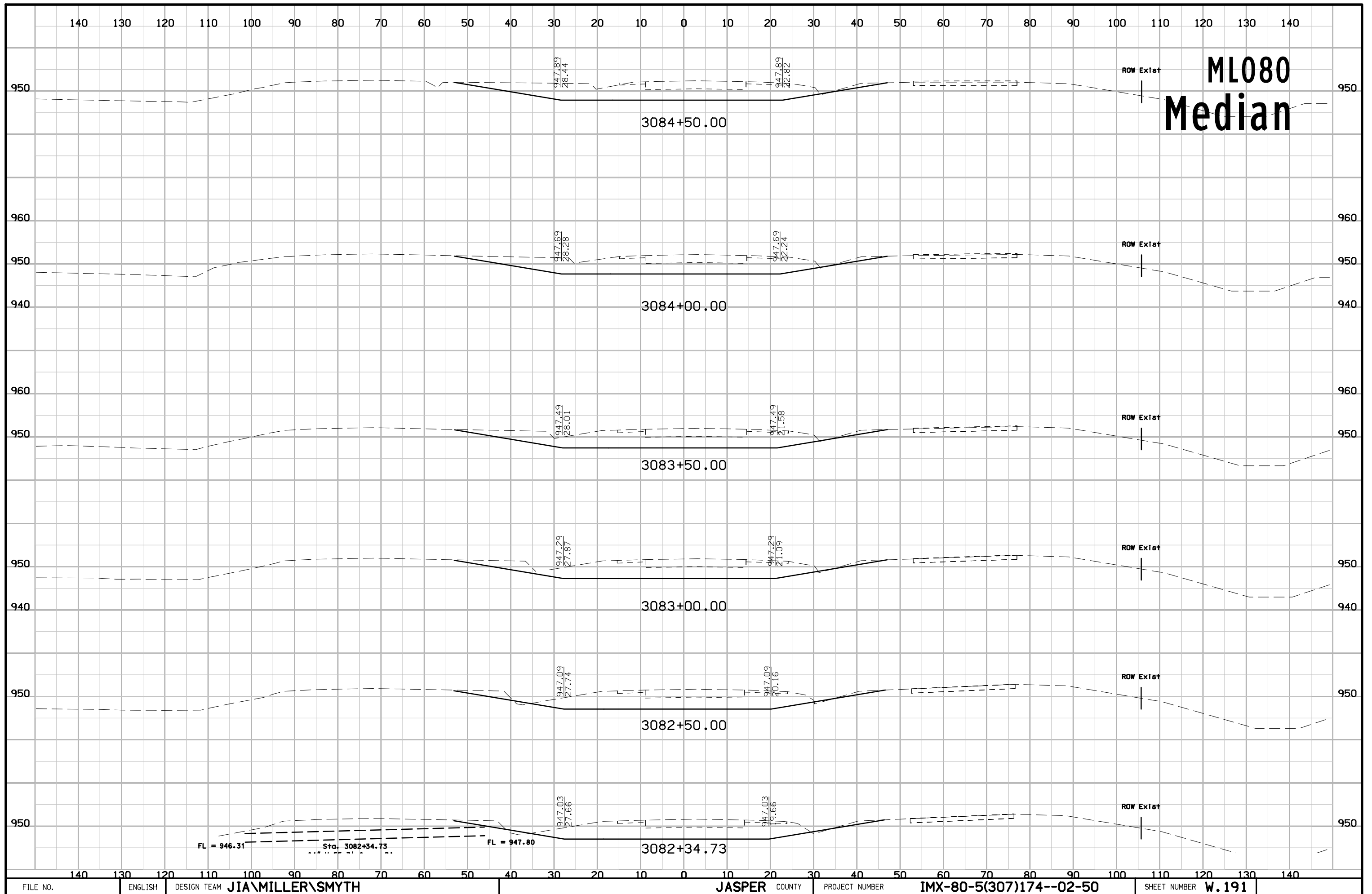


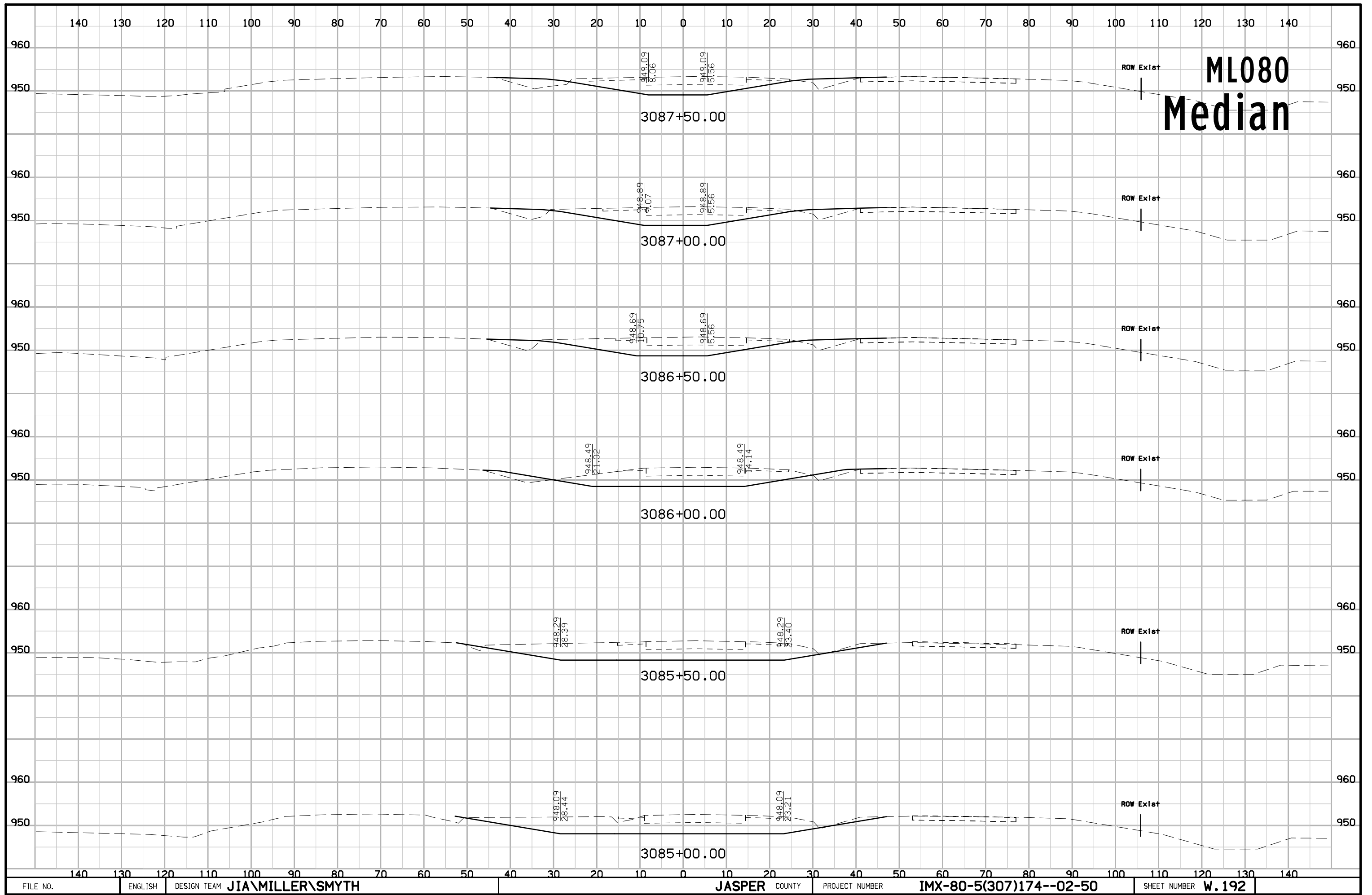
ML080 Median



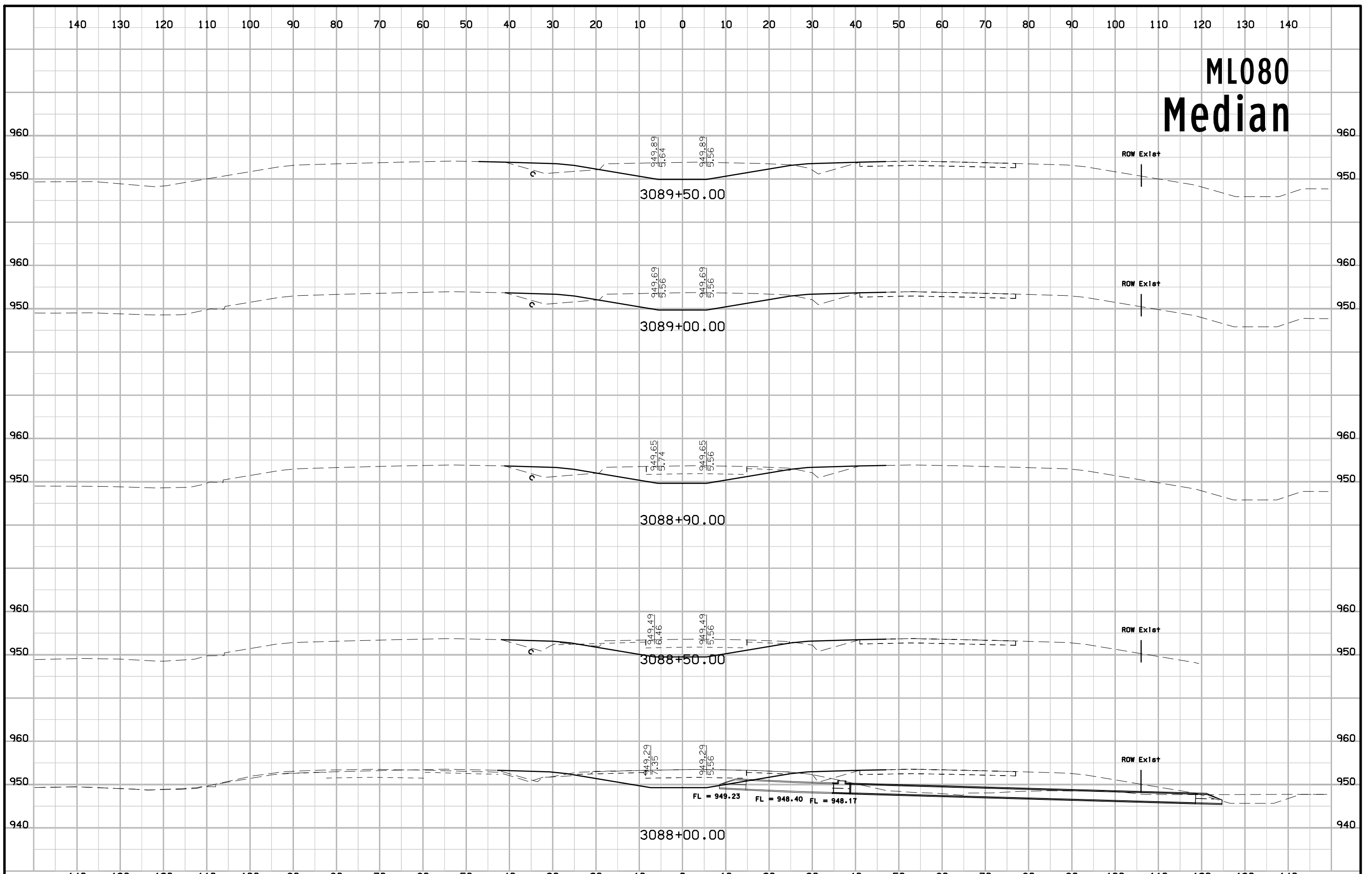
ML080 Median



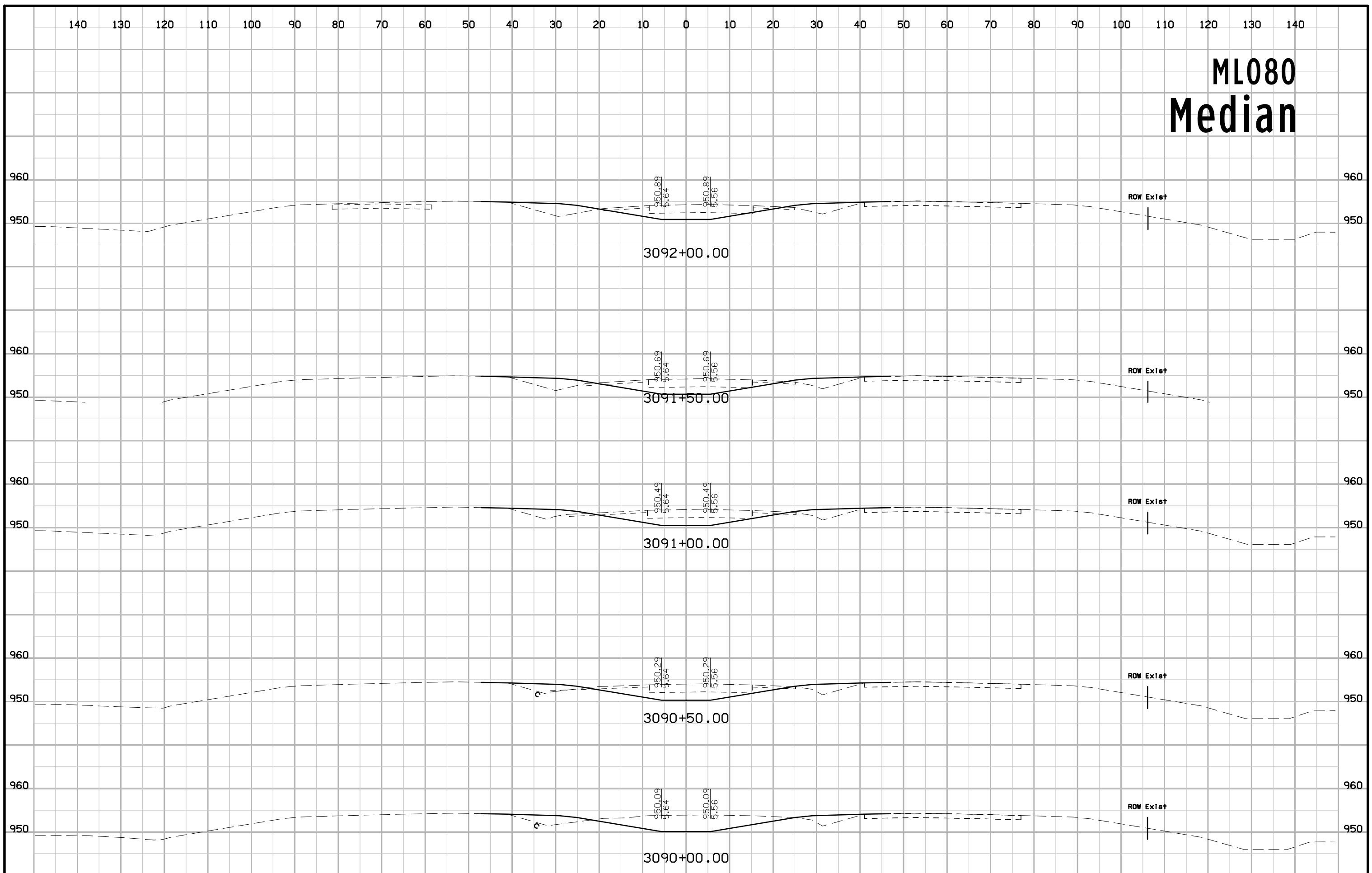




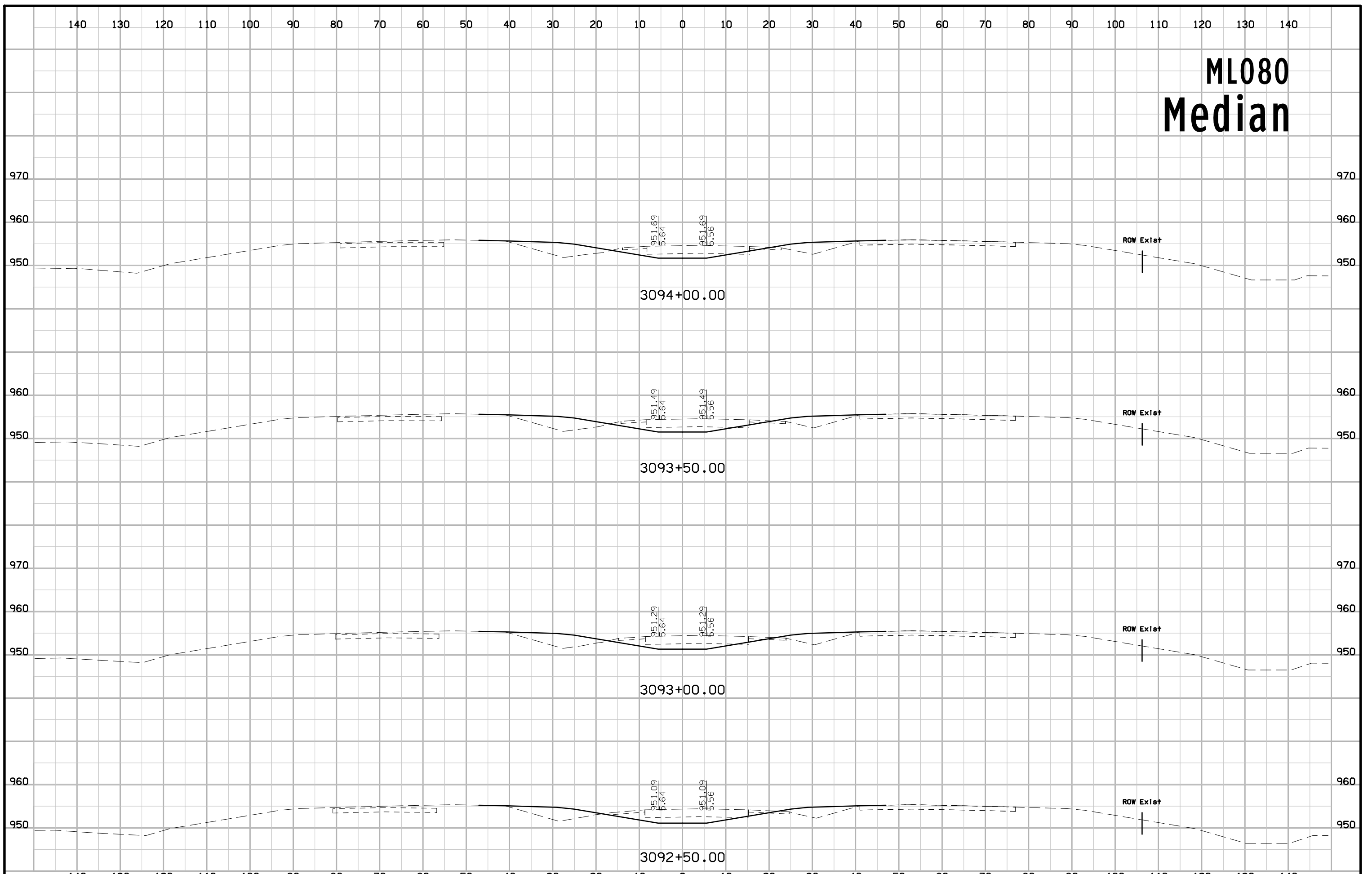
ML080 Median

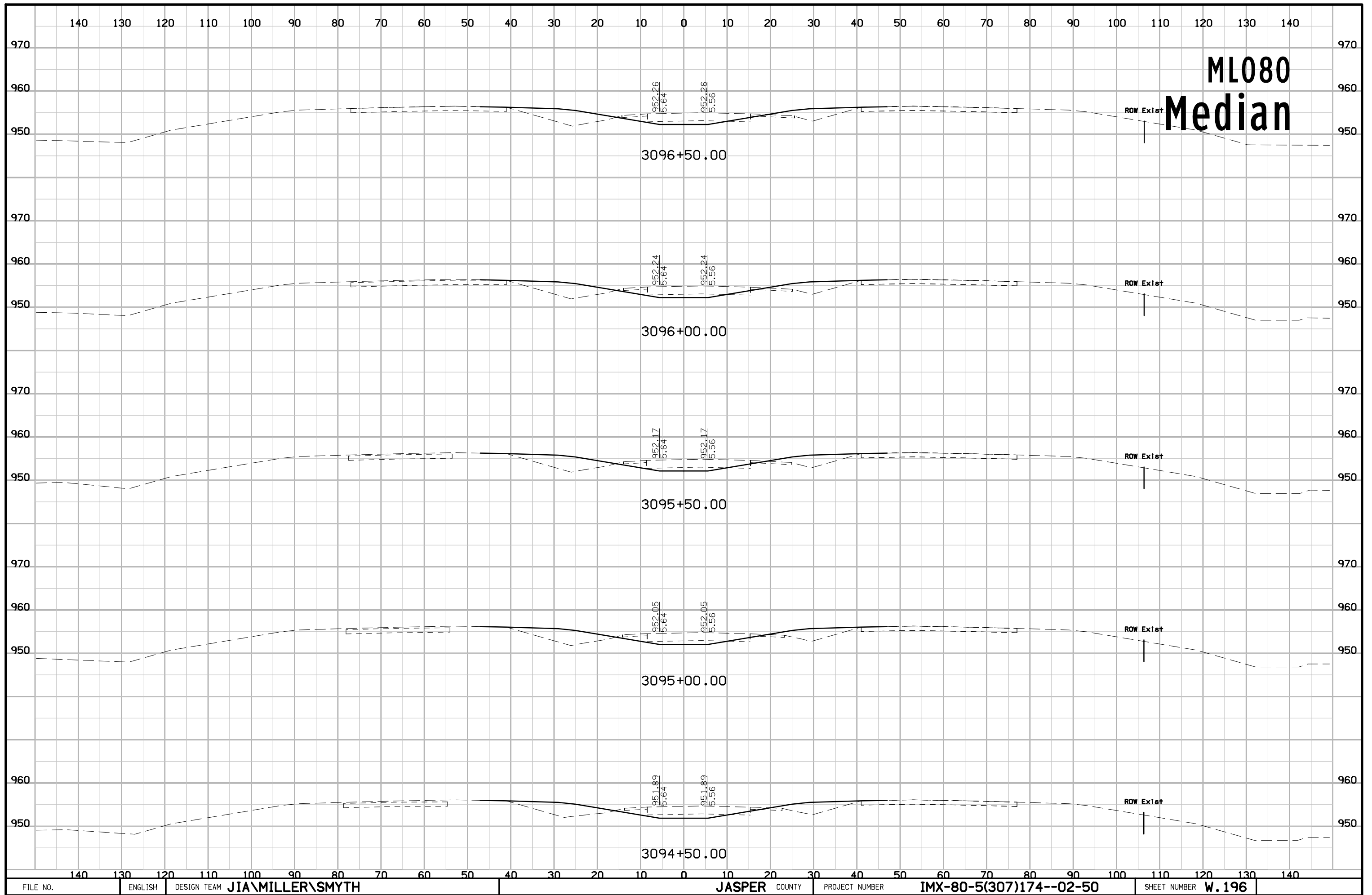


ML080 Median

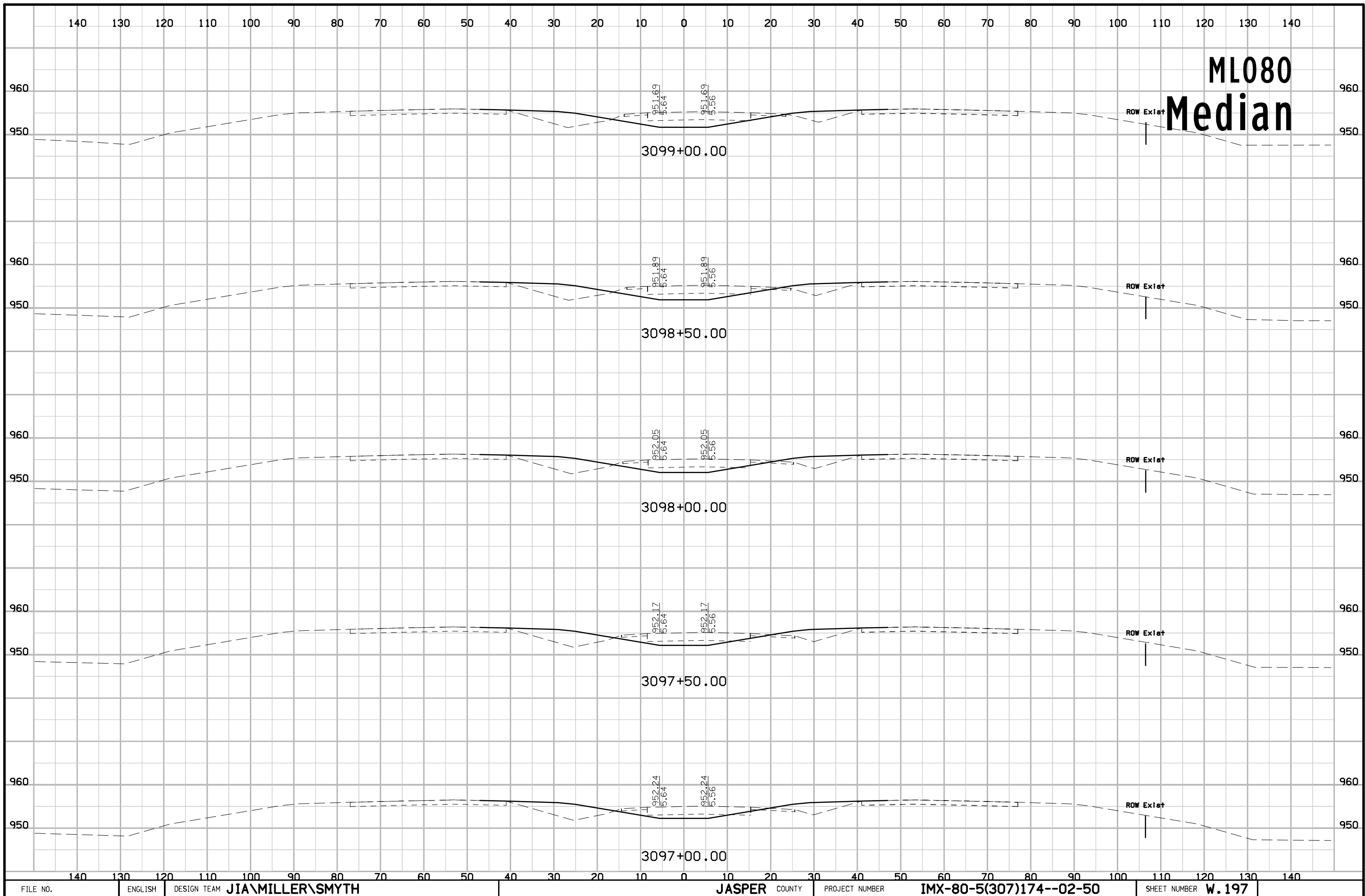


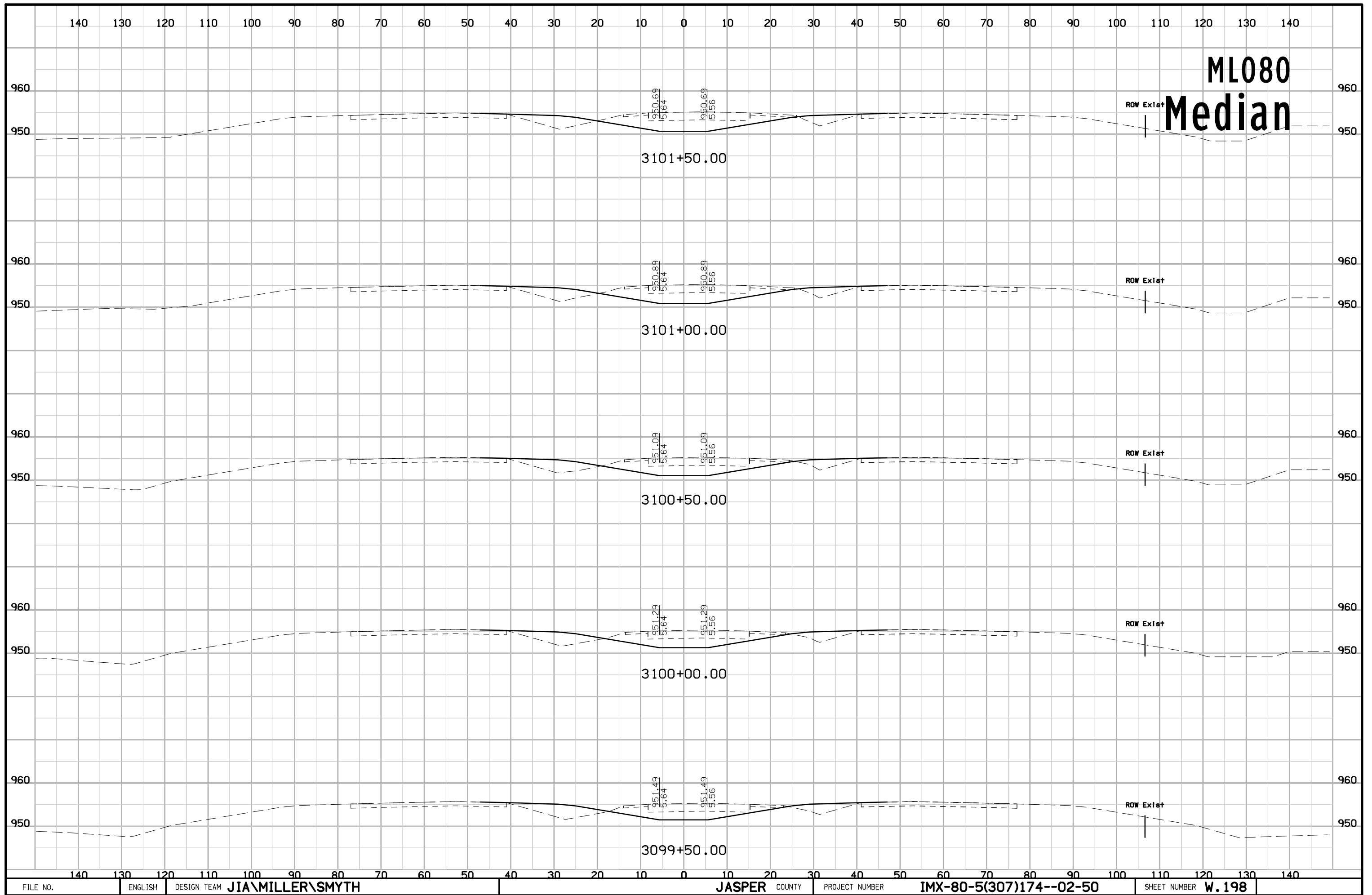
ML080 Median



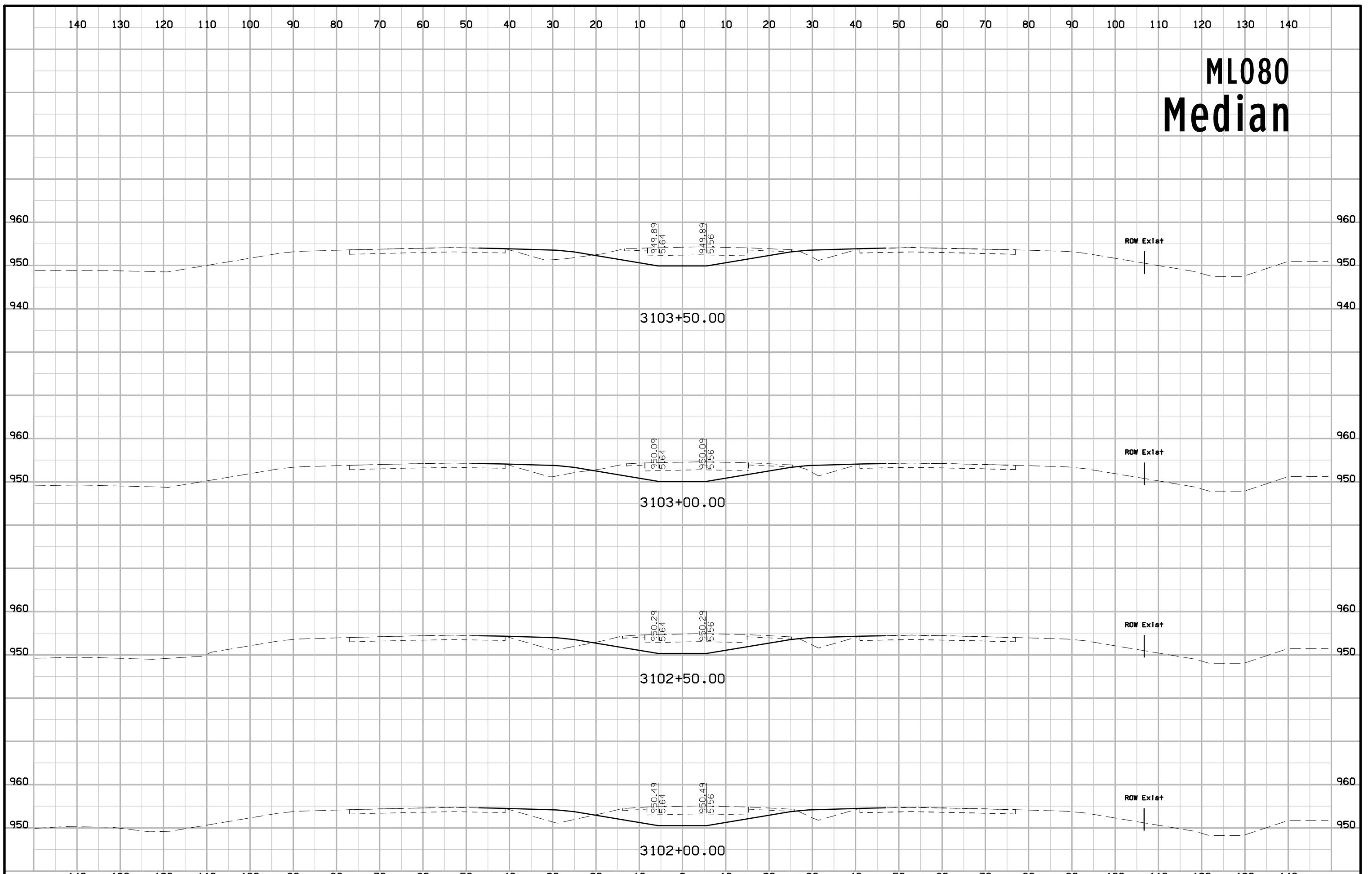


**ML080
Median**

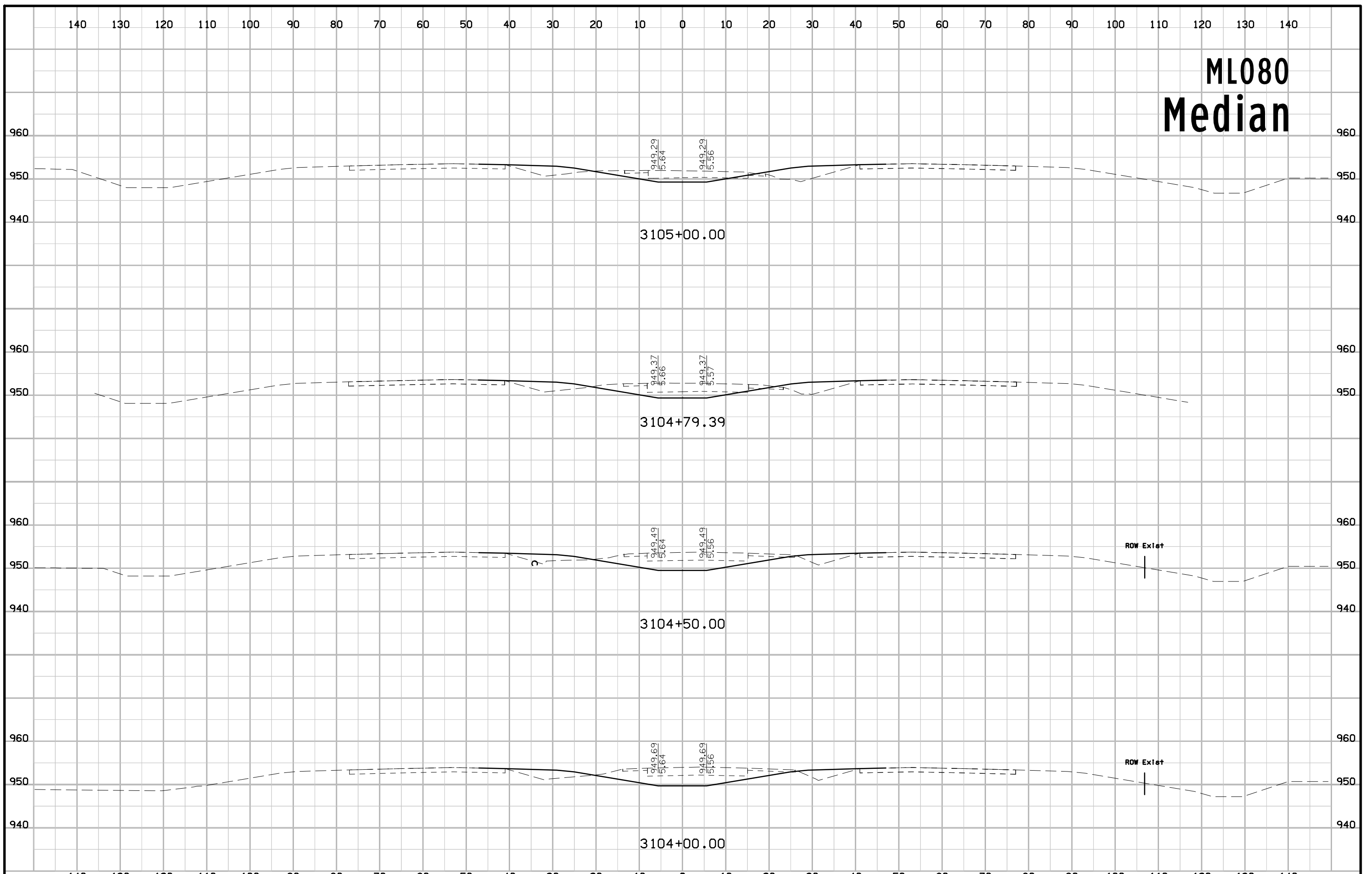




ML080 Median



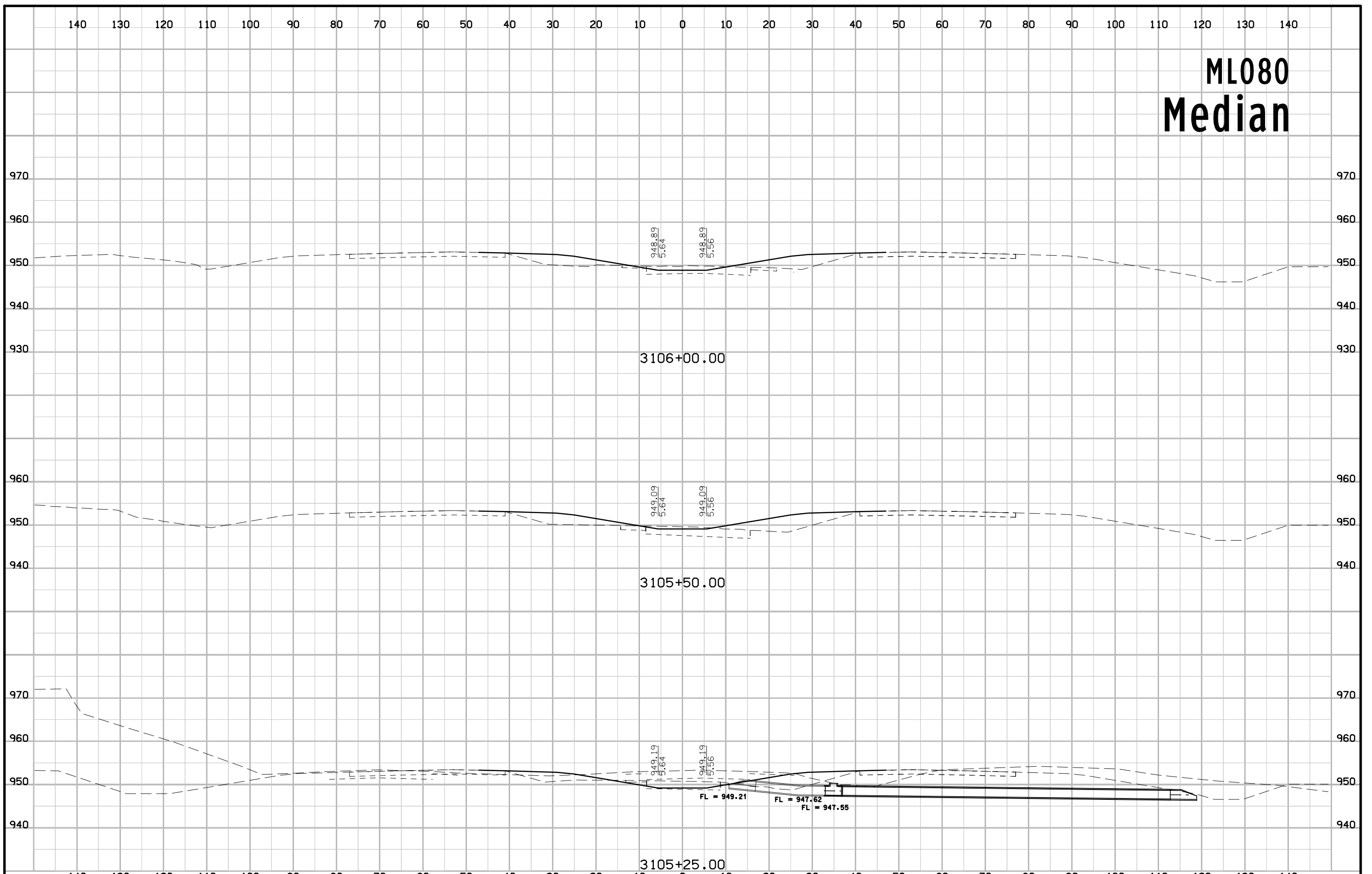
ML080 Median

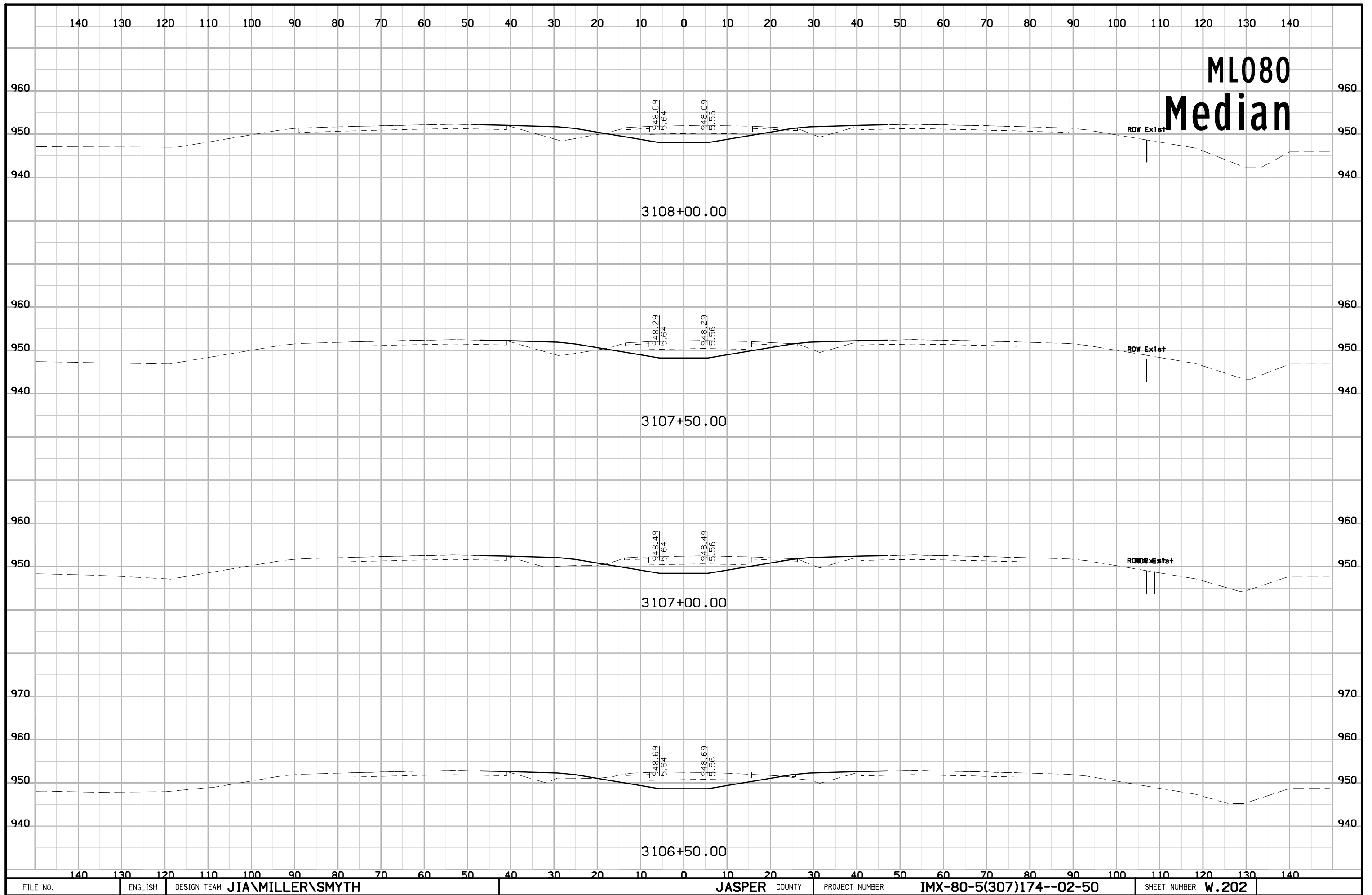


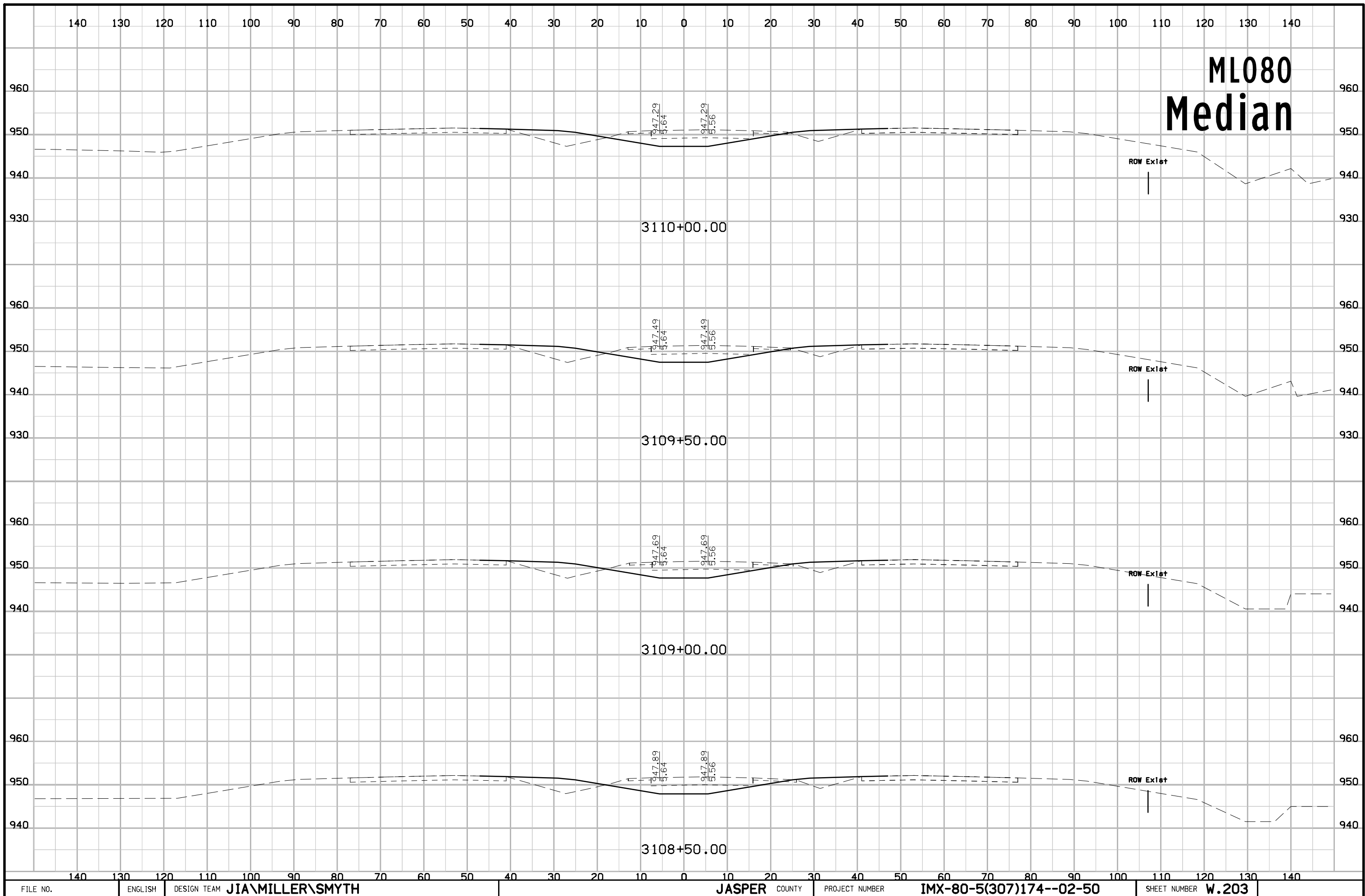
ROW Exlet

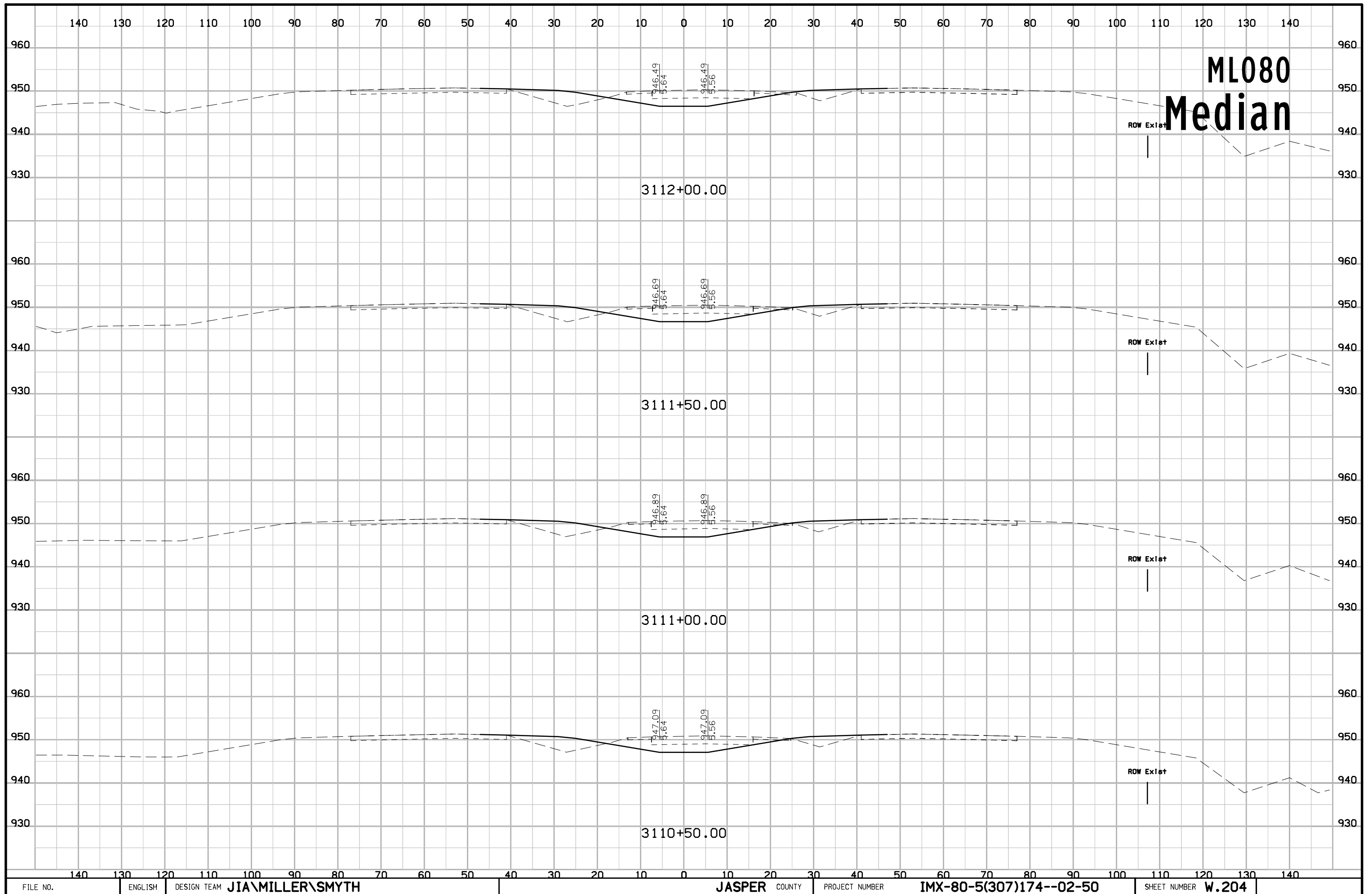
ROW Exlet

ML080 Median

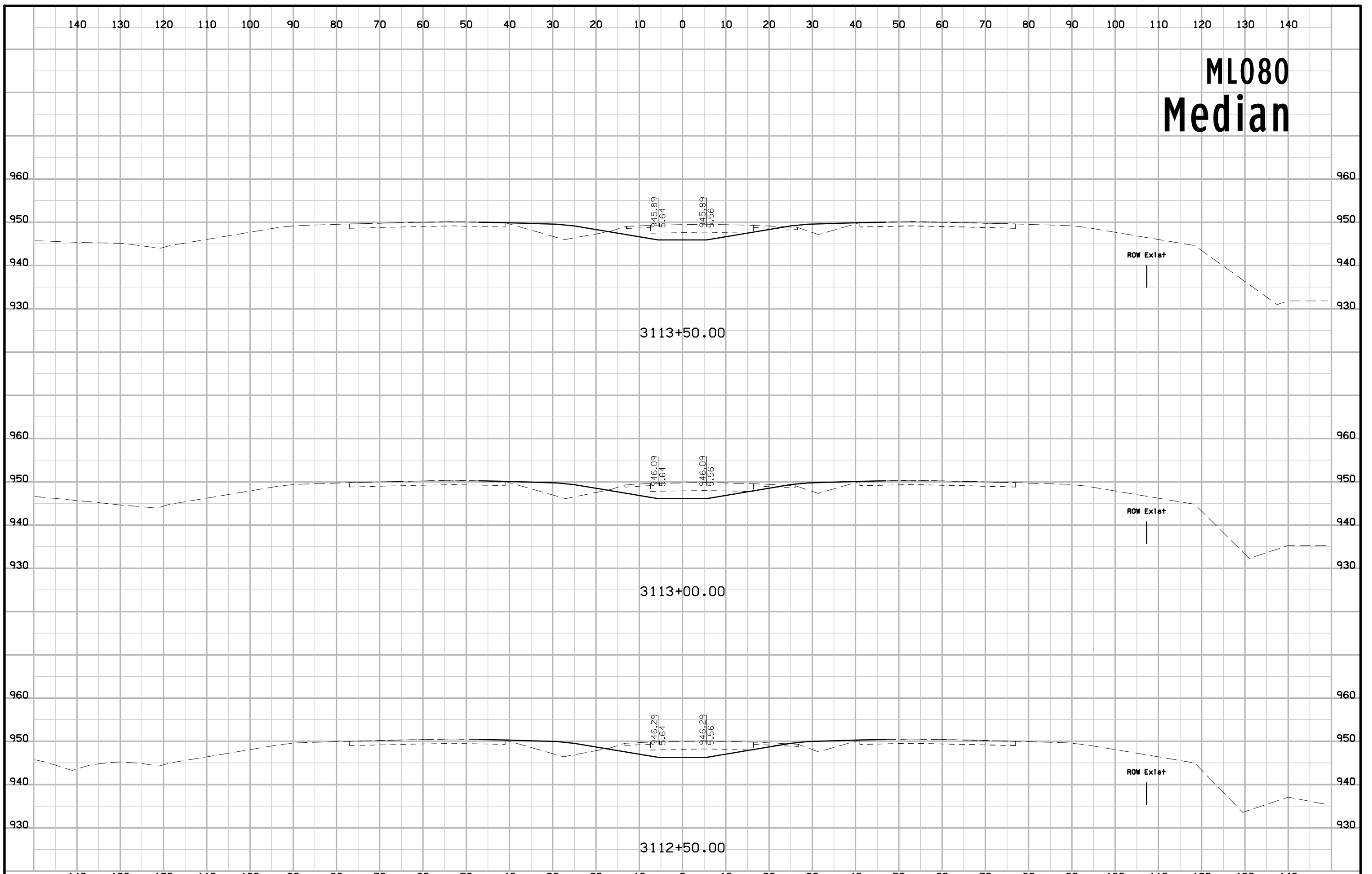




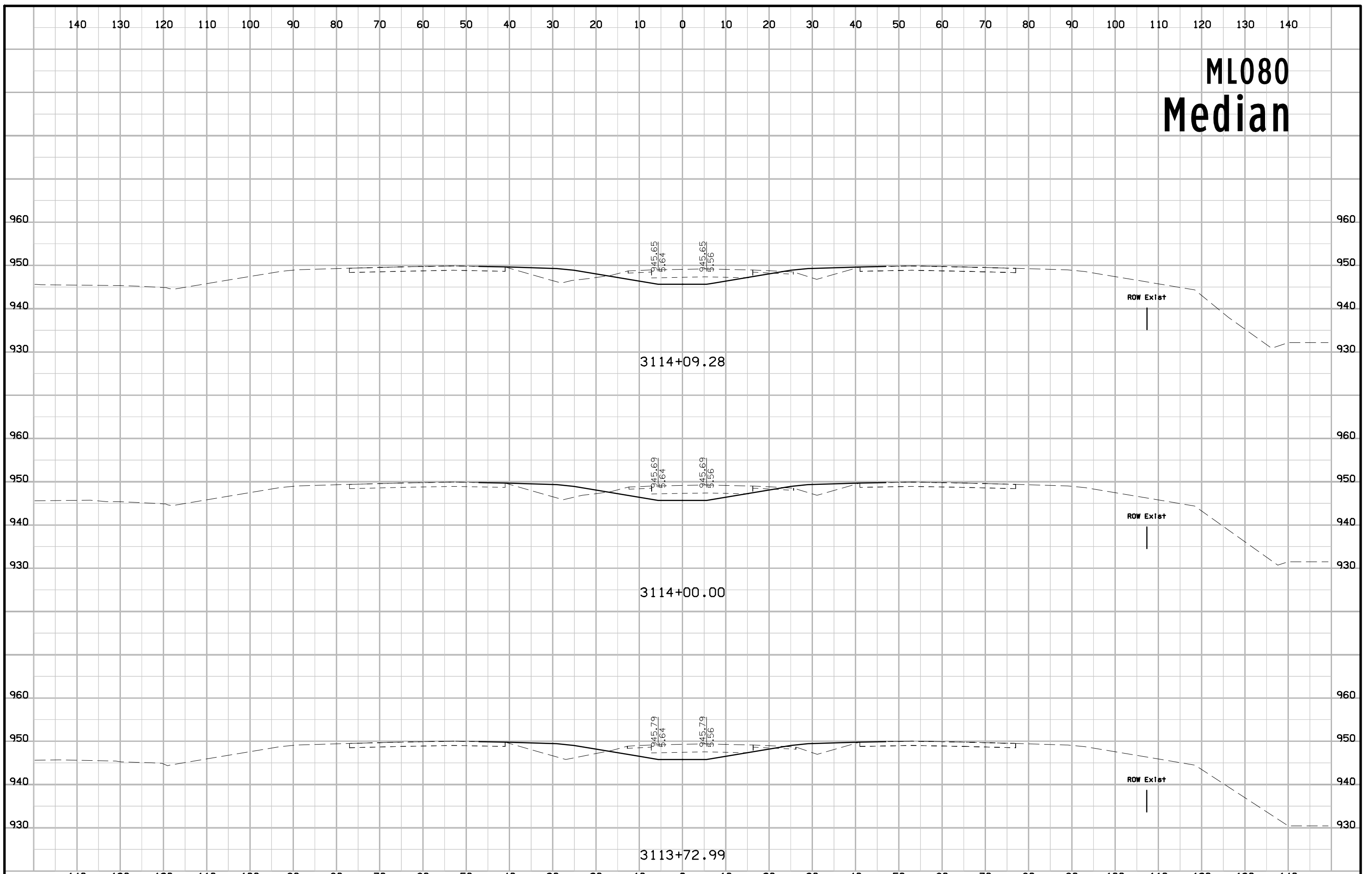


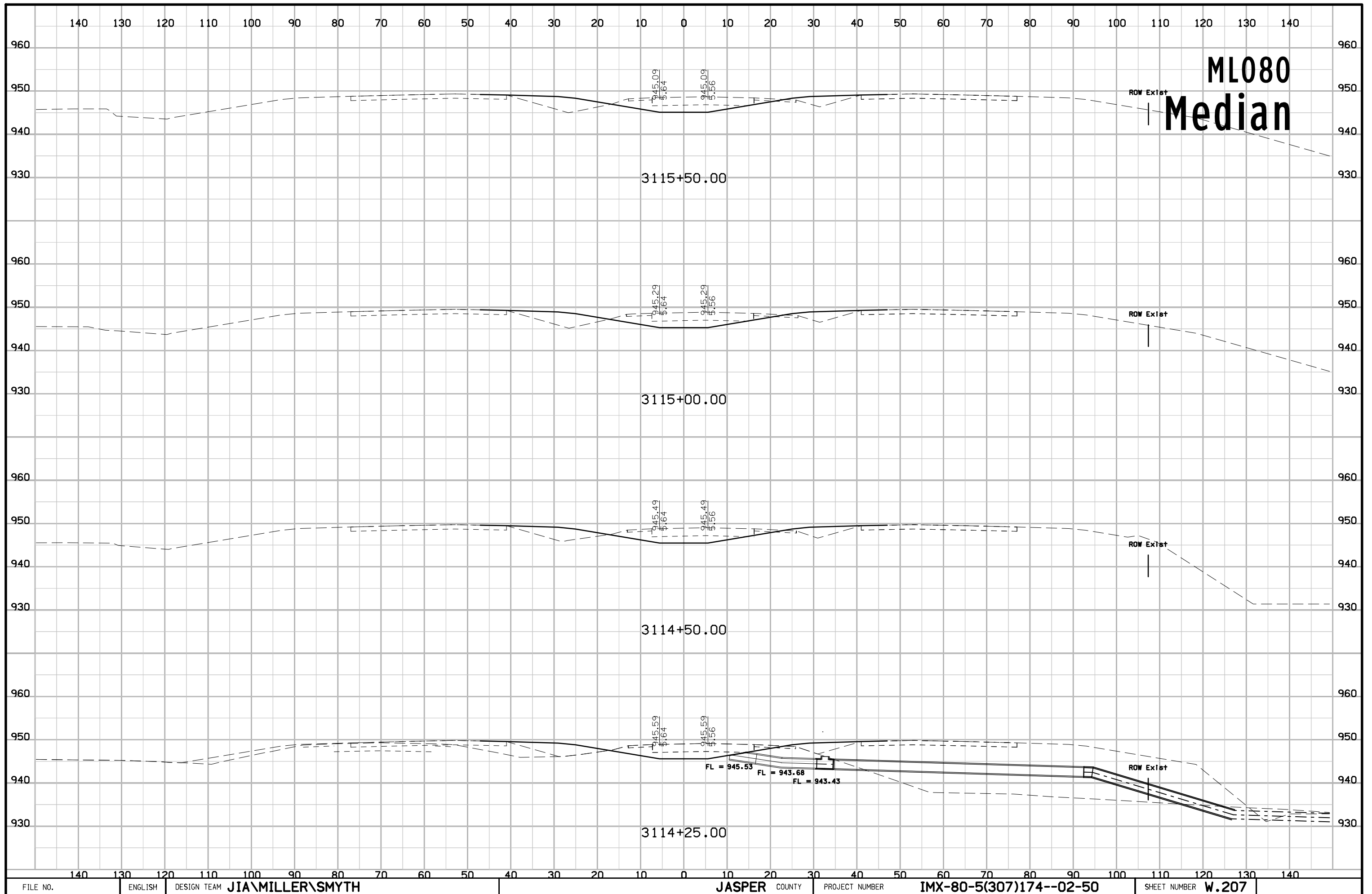


ML080 Median



ML080 Median





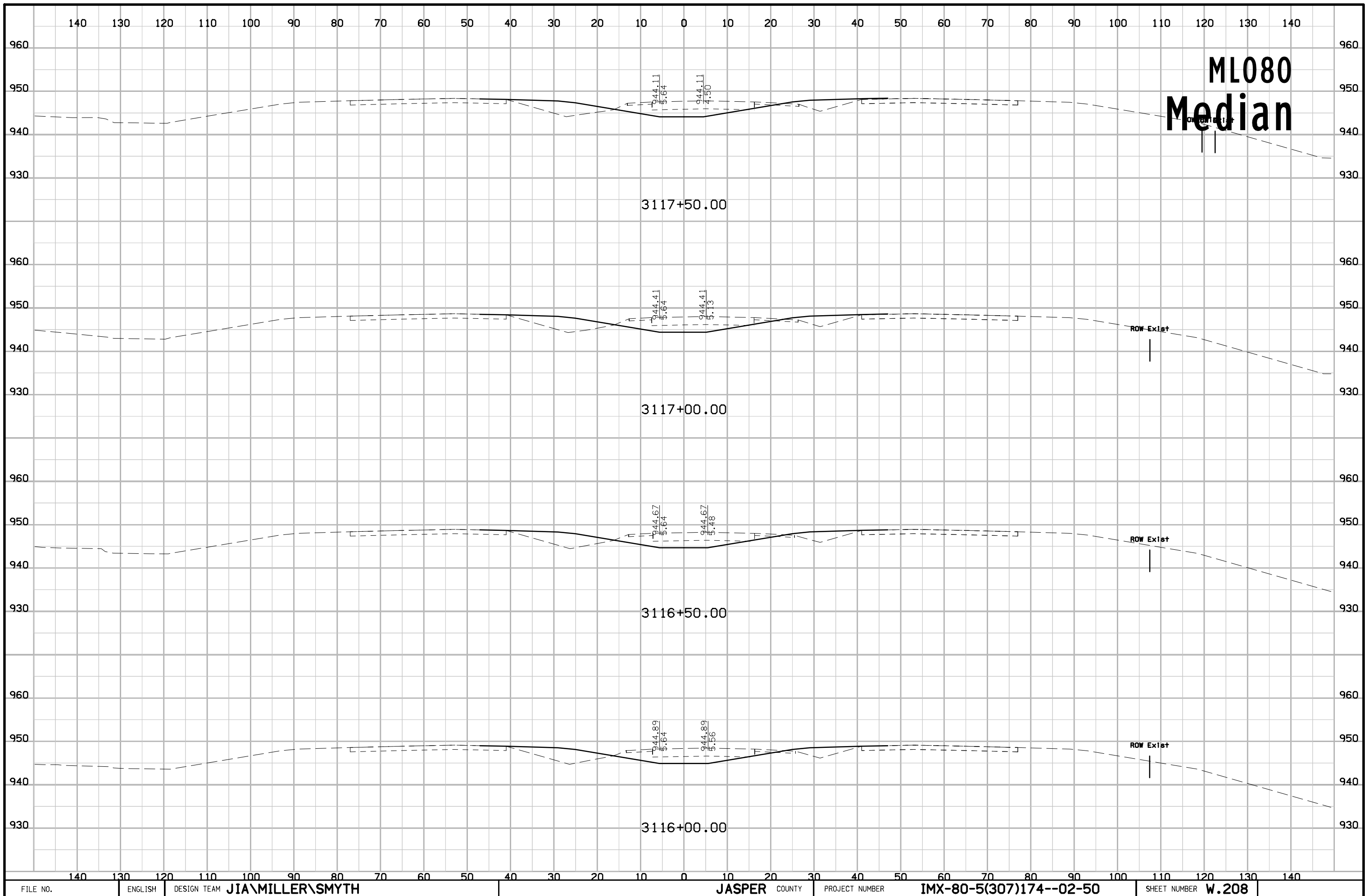
ML080
Median

3115+50.00

3115+00.00

3114+50.00

3114+25.00



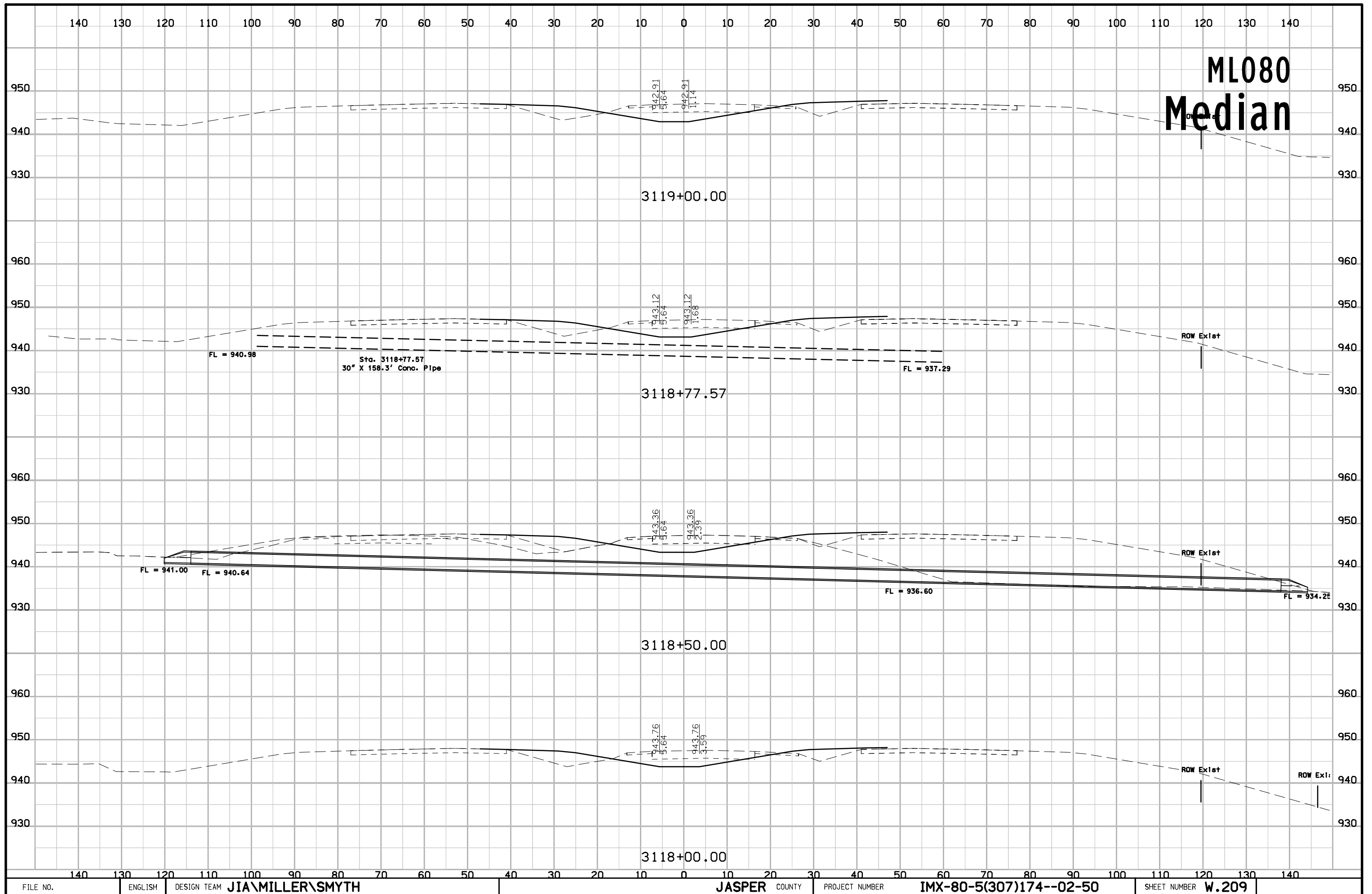
ML080 Median

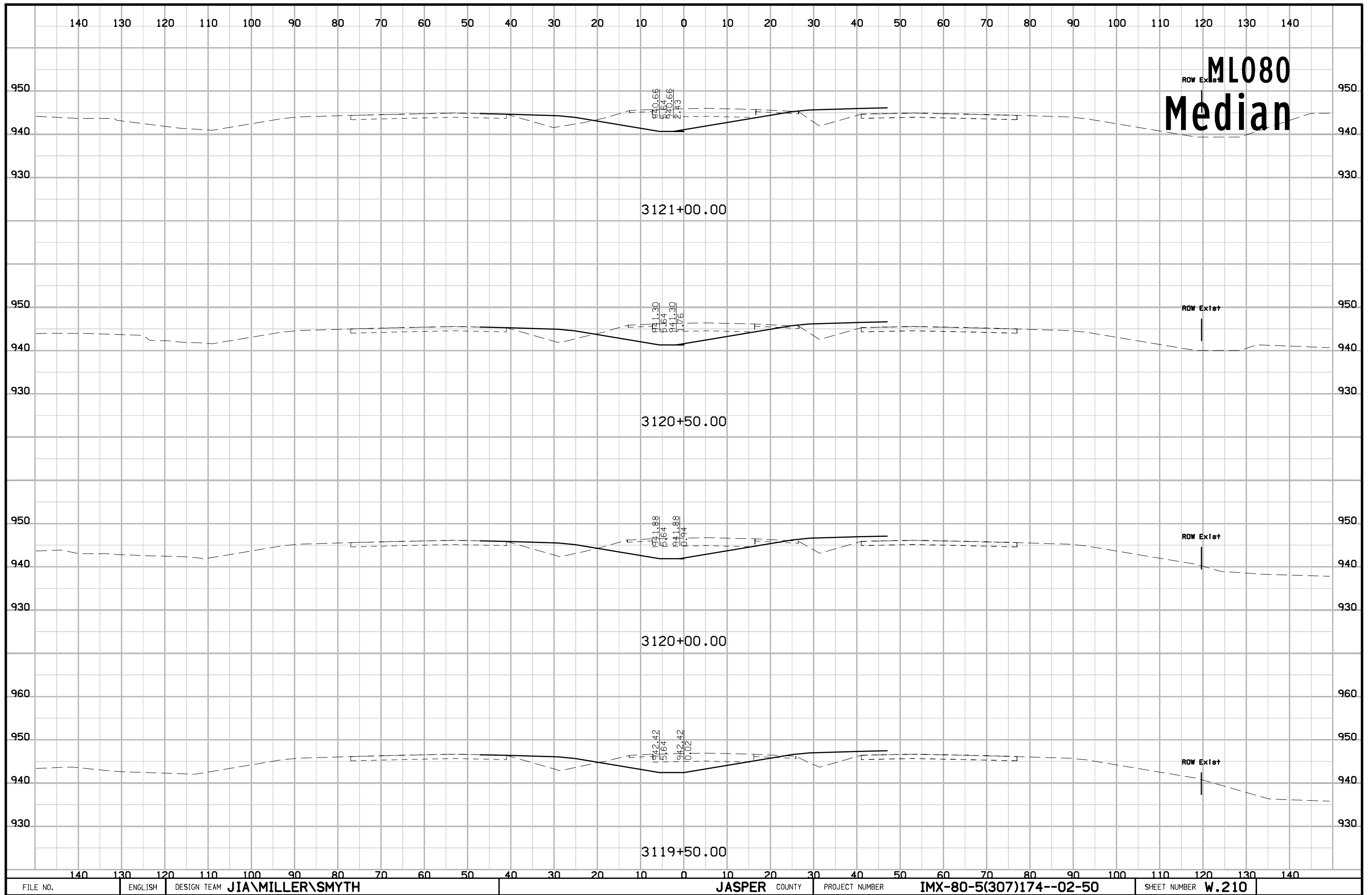
3117+50.00

3117+00.00

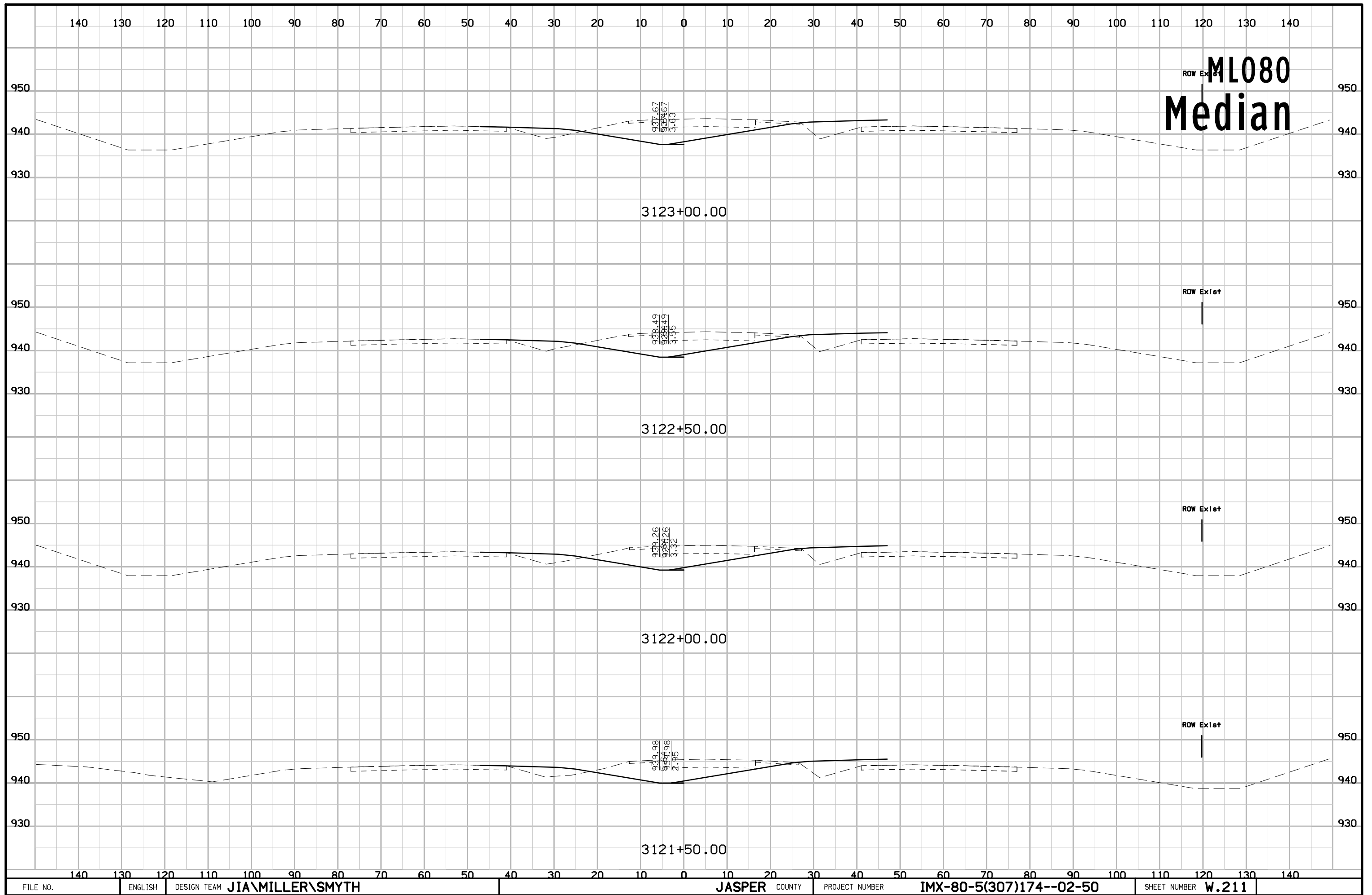
3116+50.00

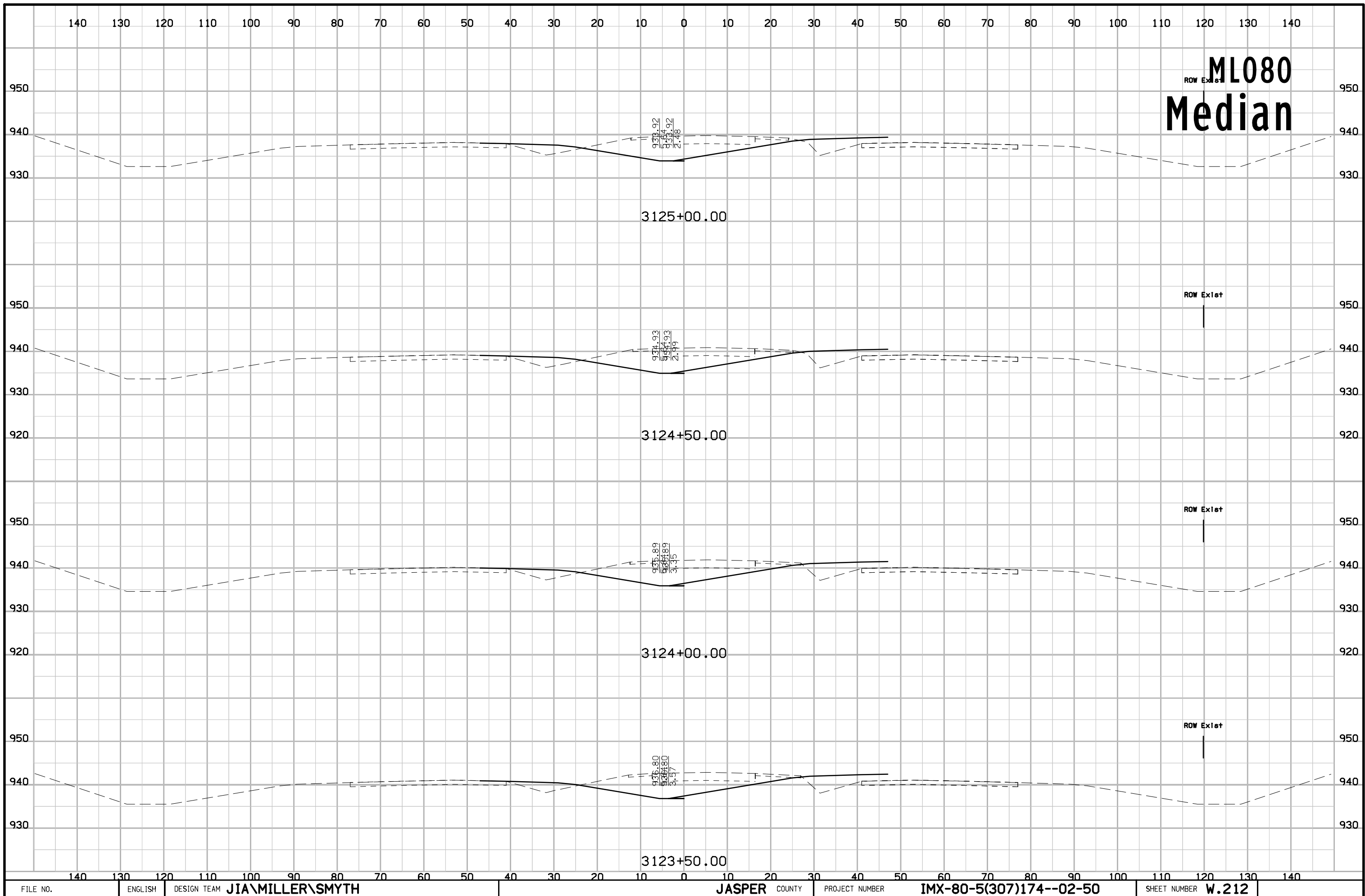
3116+00.00



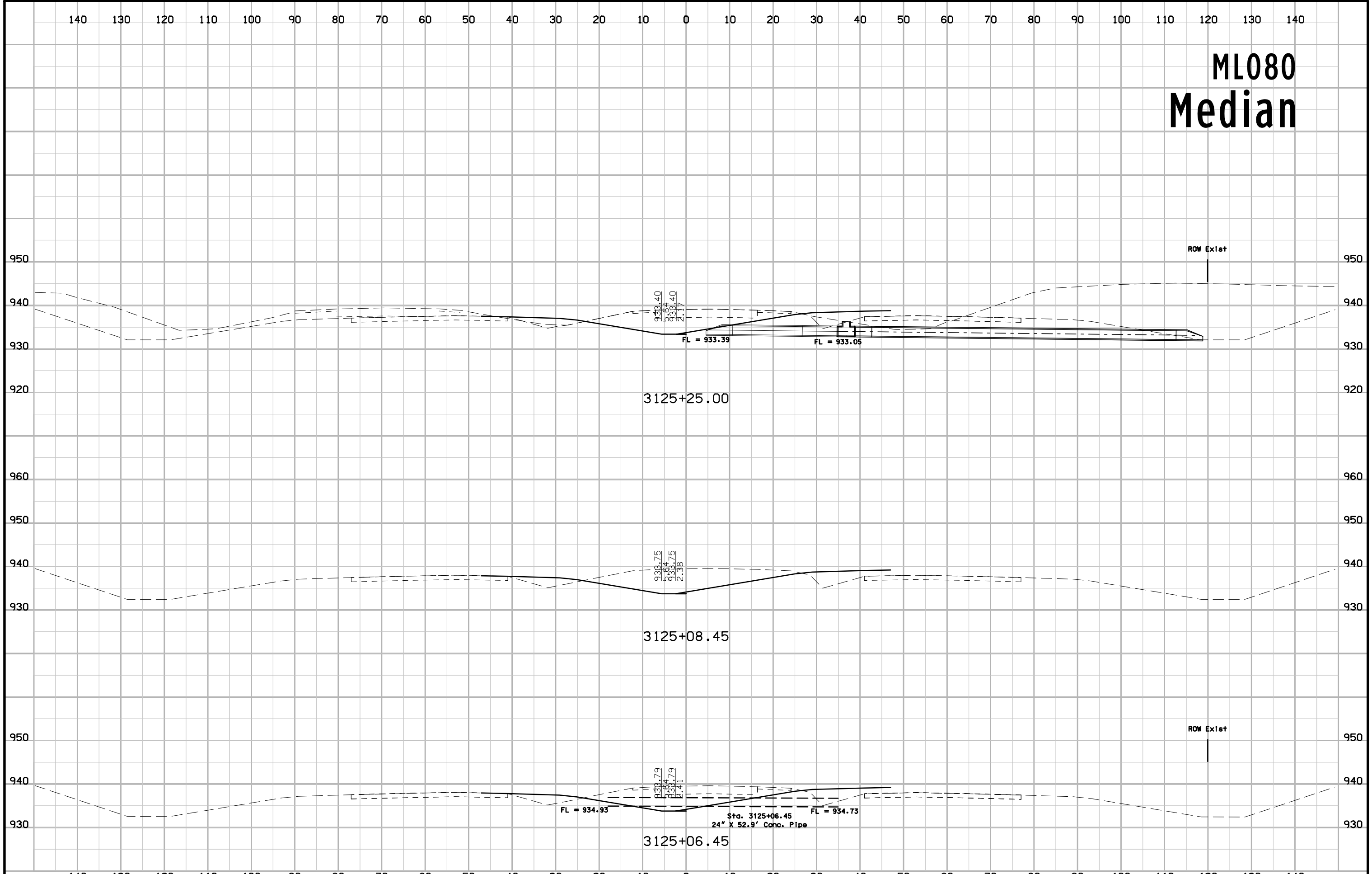


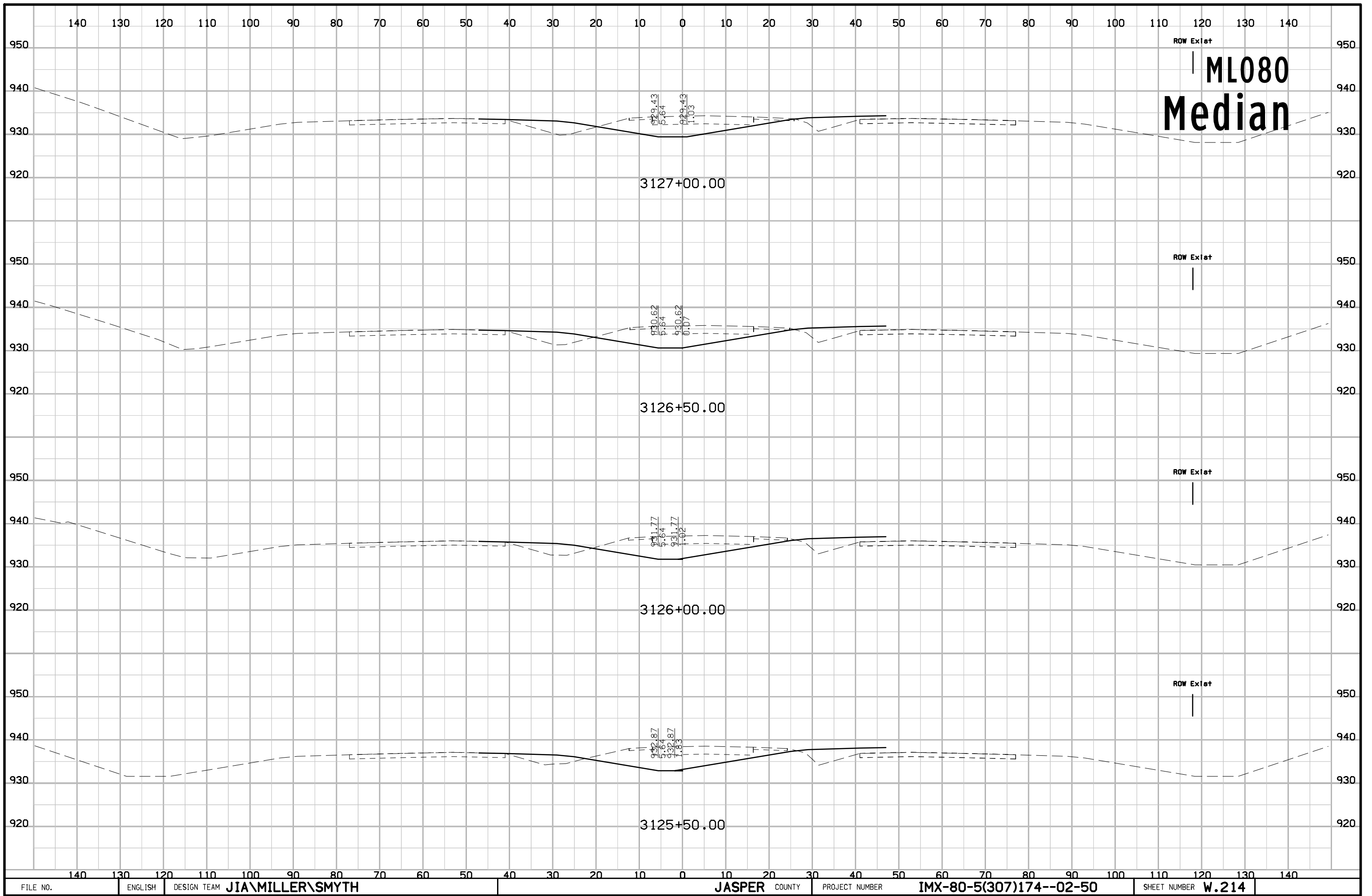
ML080
Median



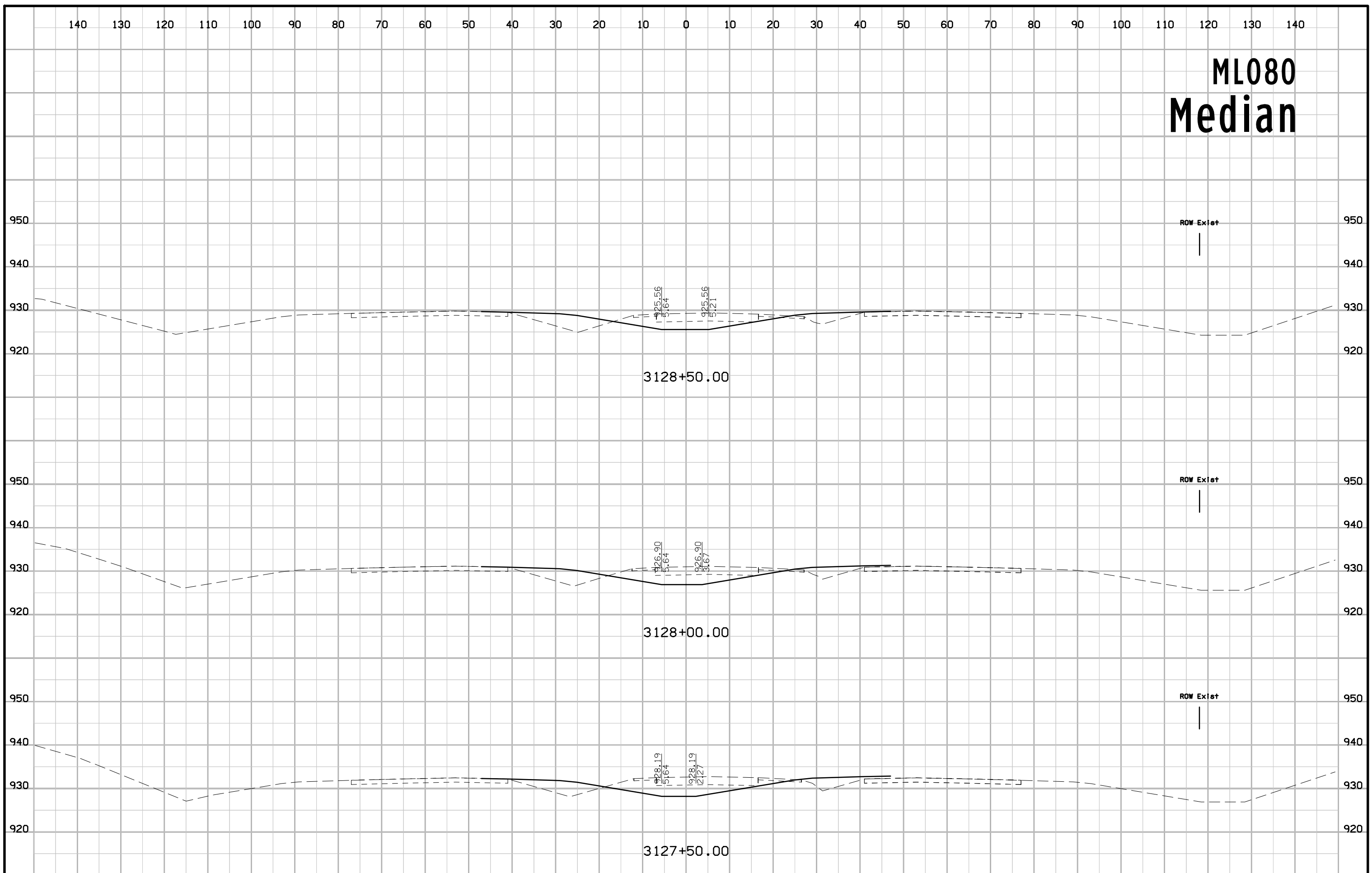


ML080 Median

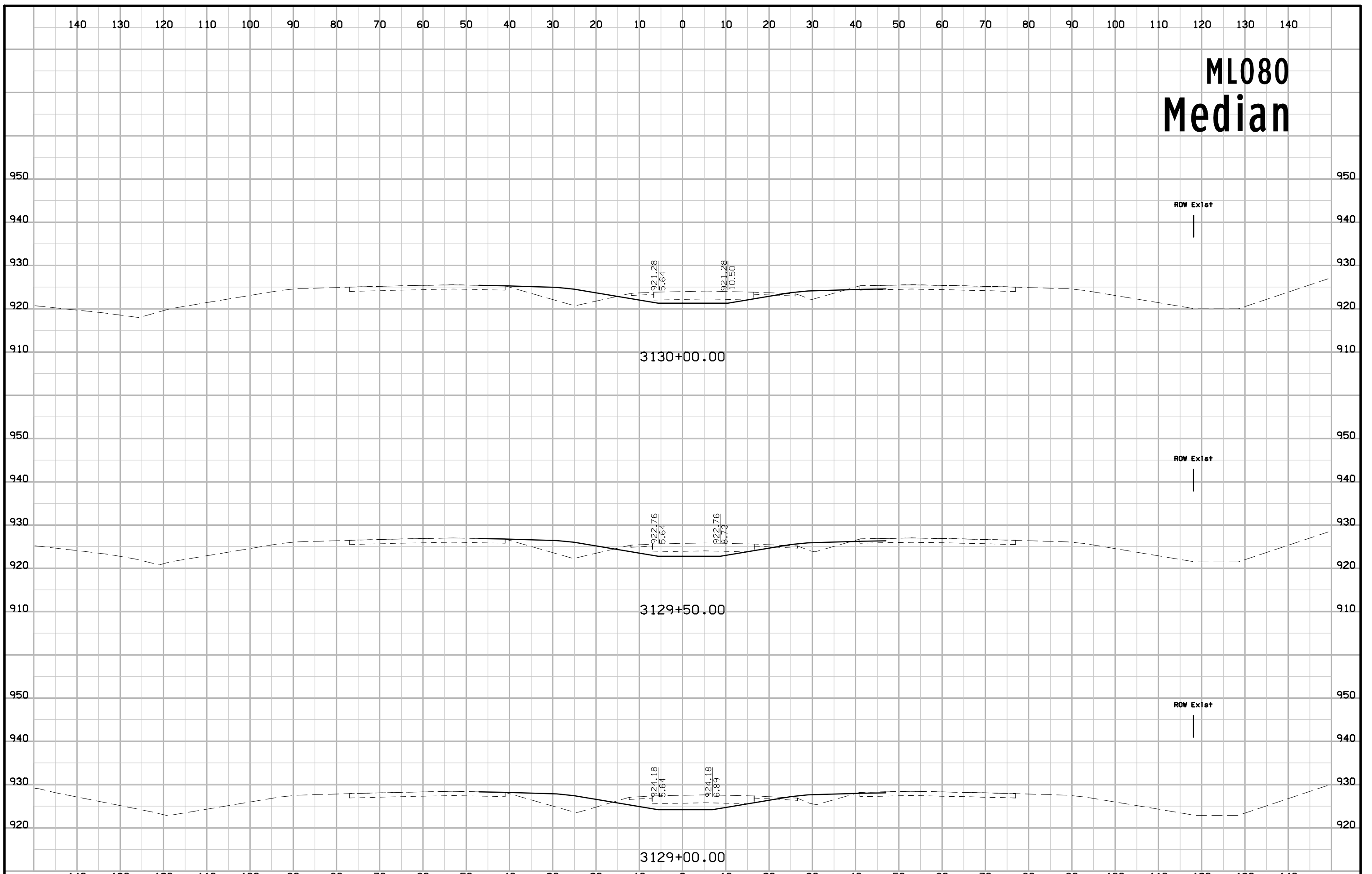


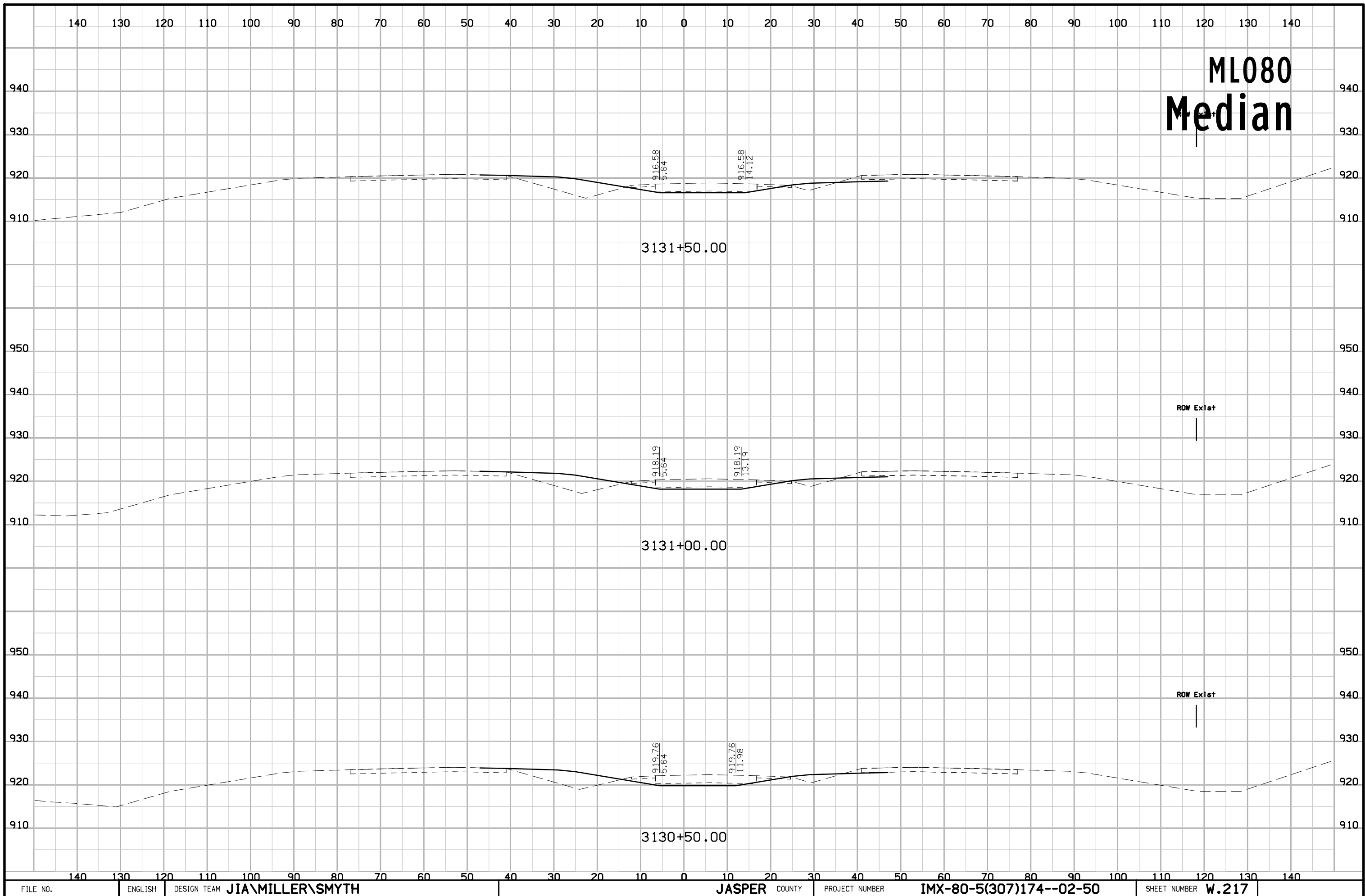


ML080 Median

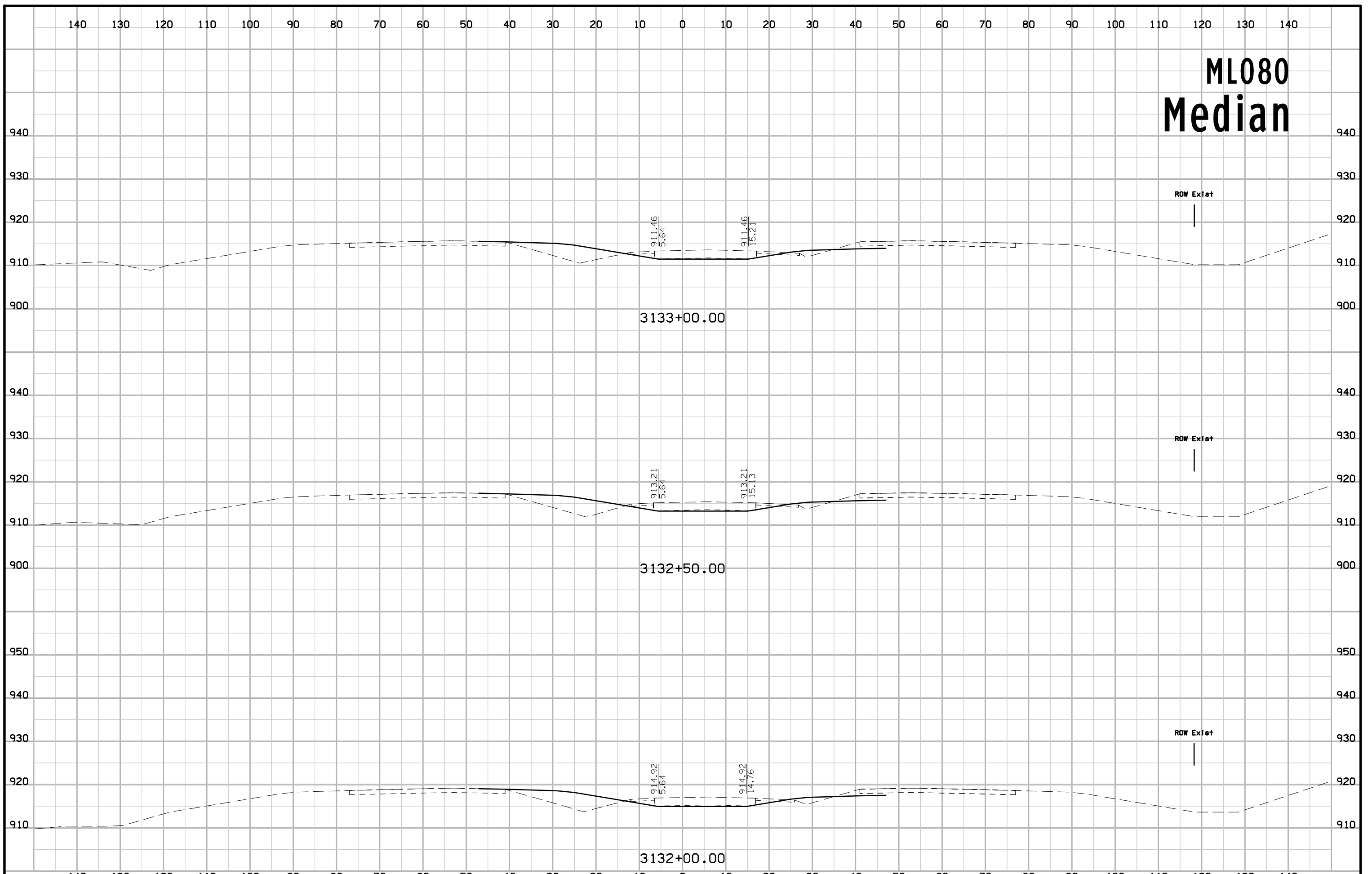


ML080 Median

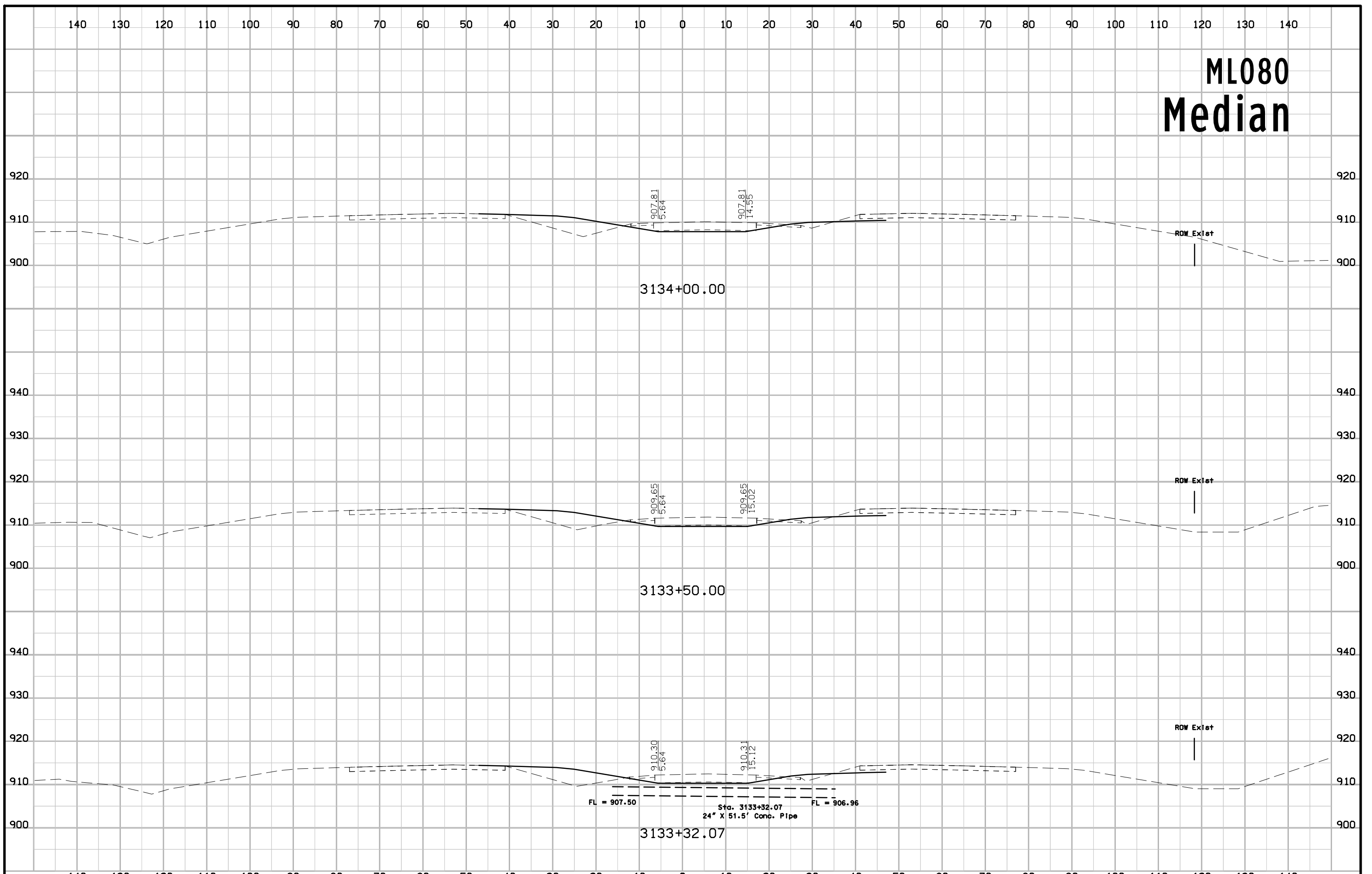




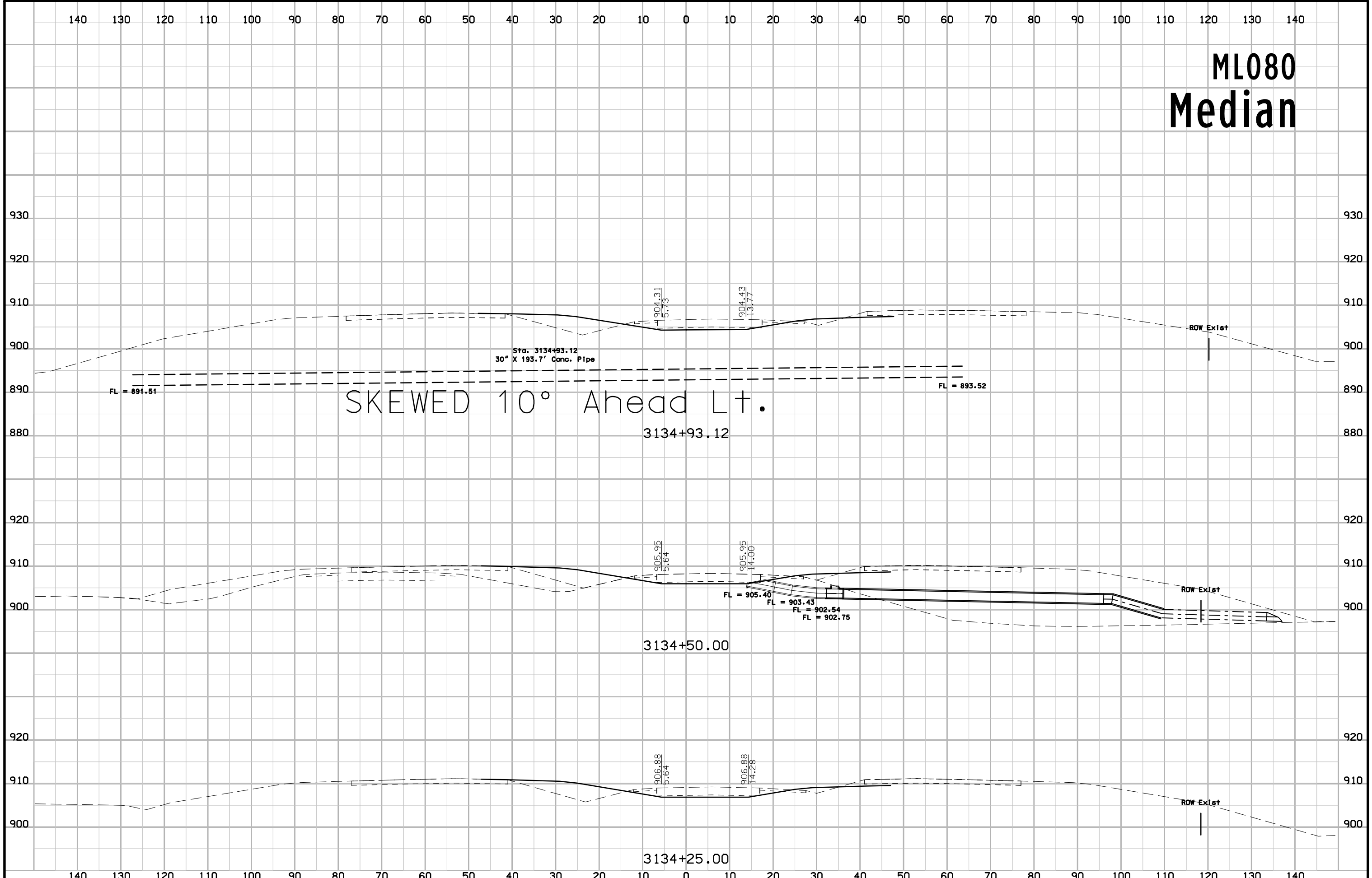
ML080 Median



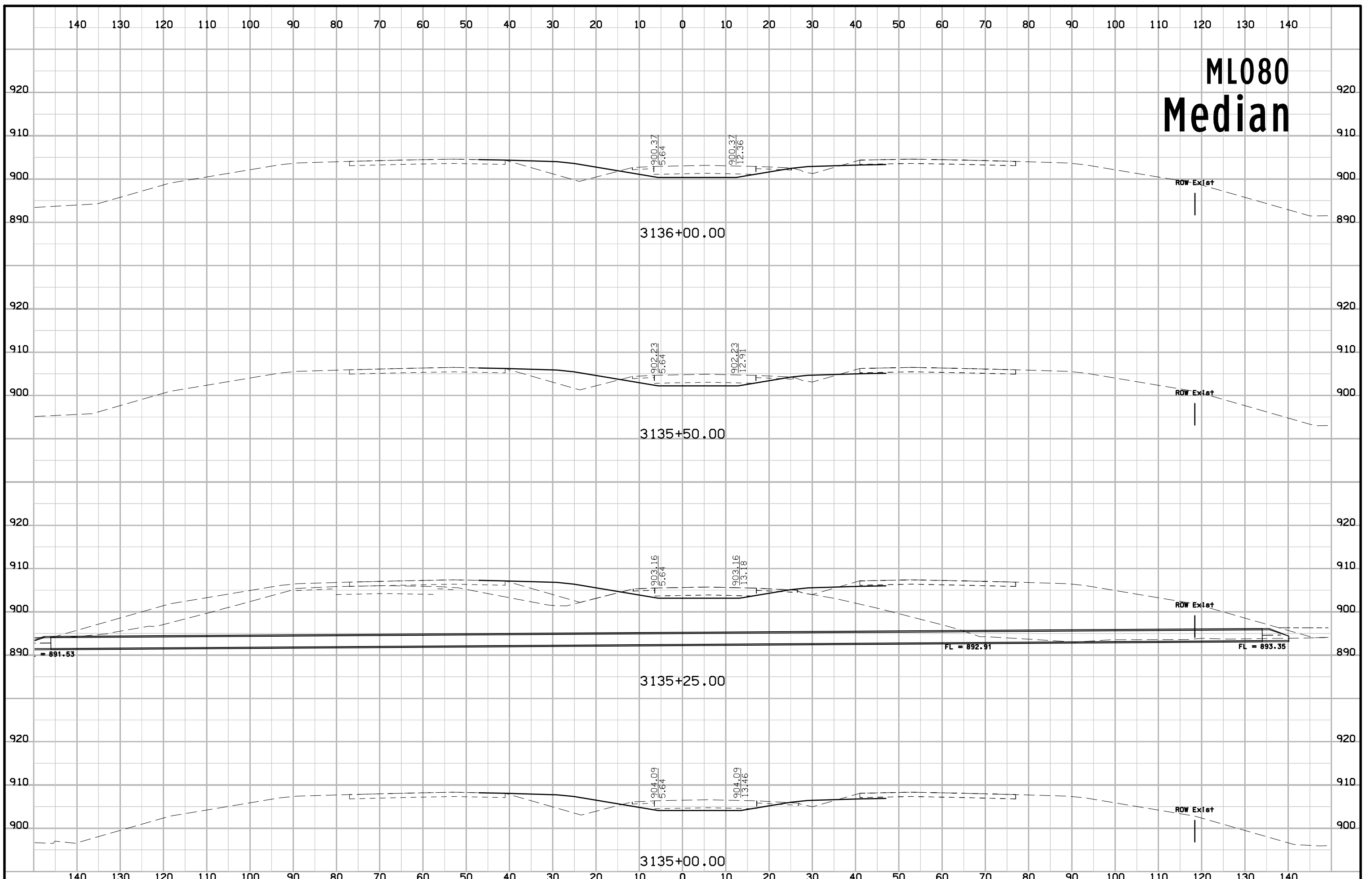
ML080 Median



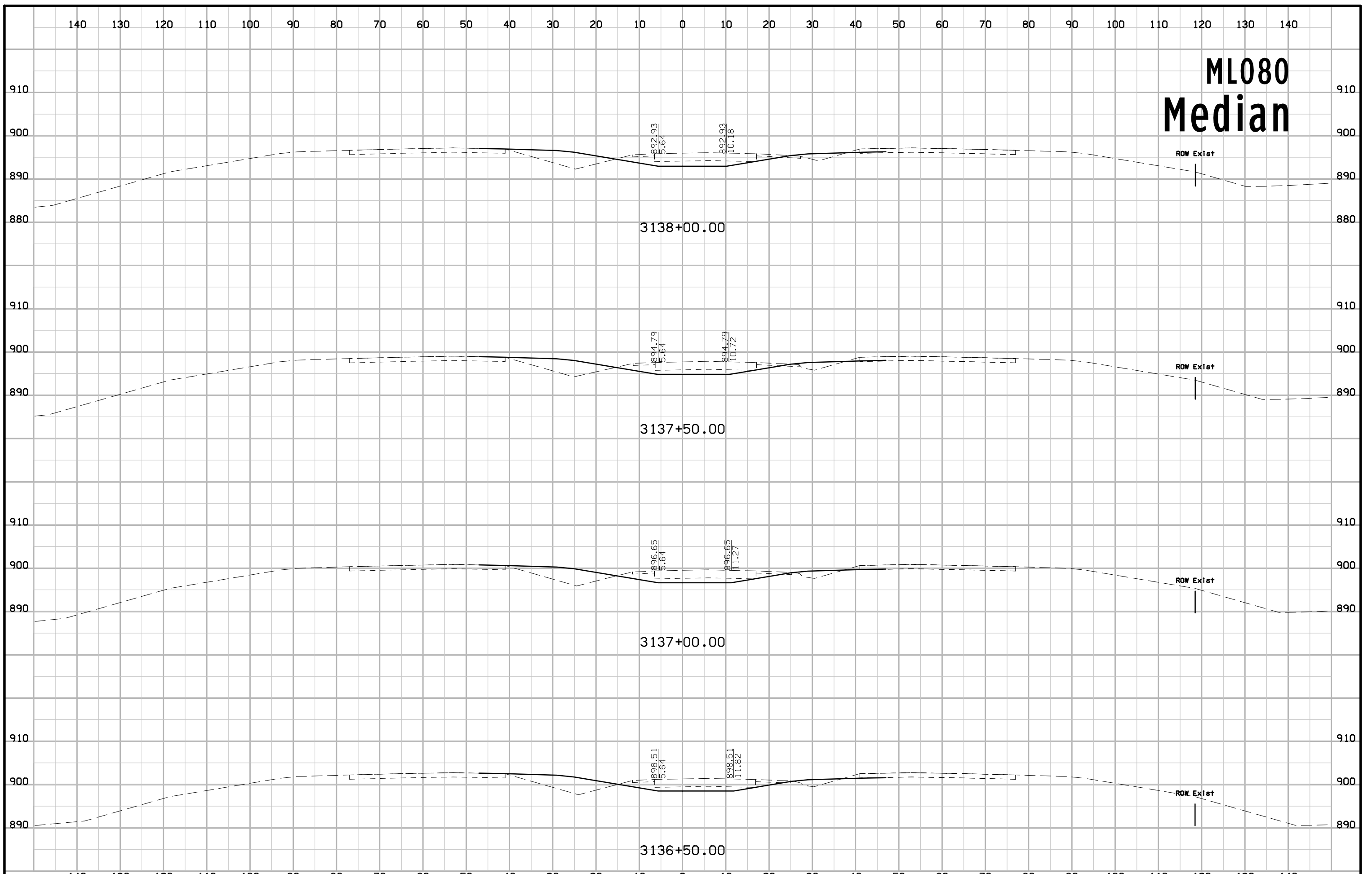
ML080 Median

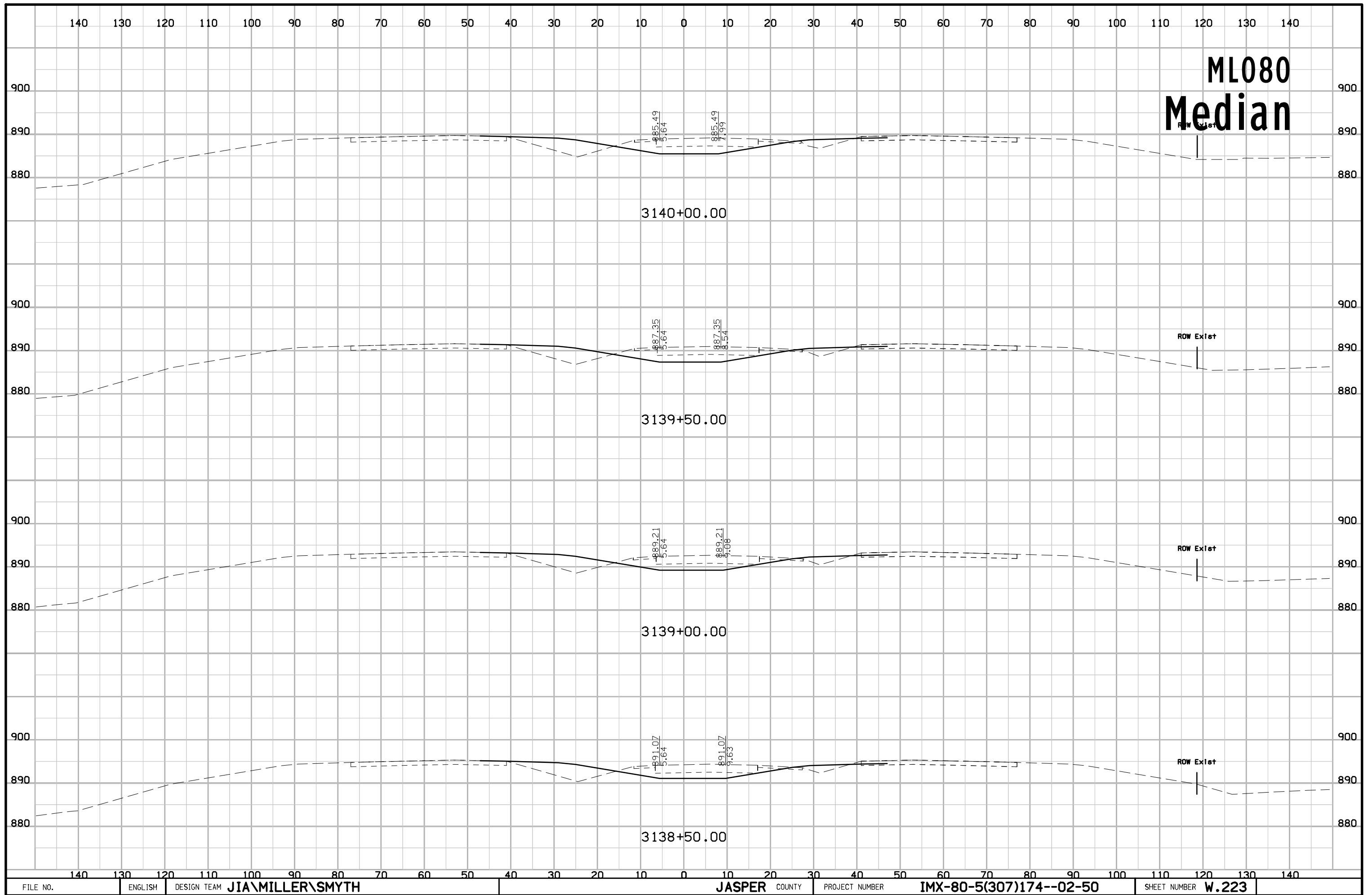


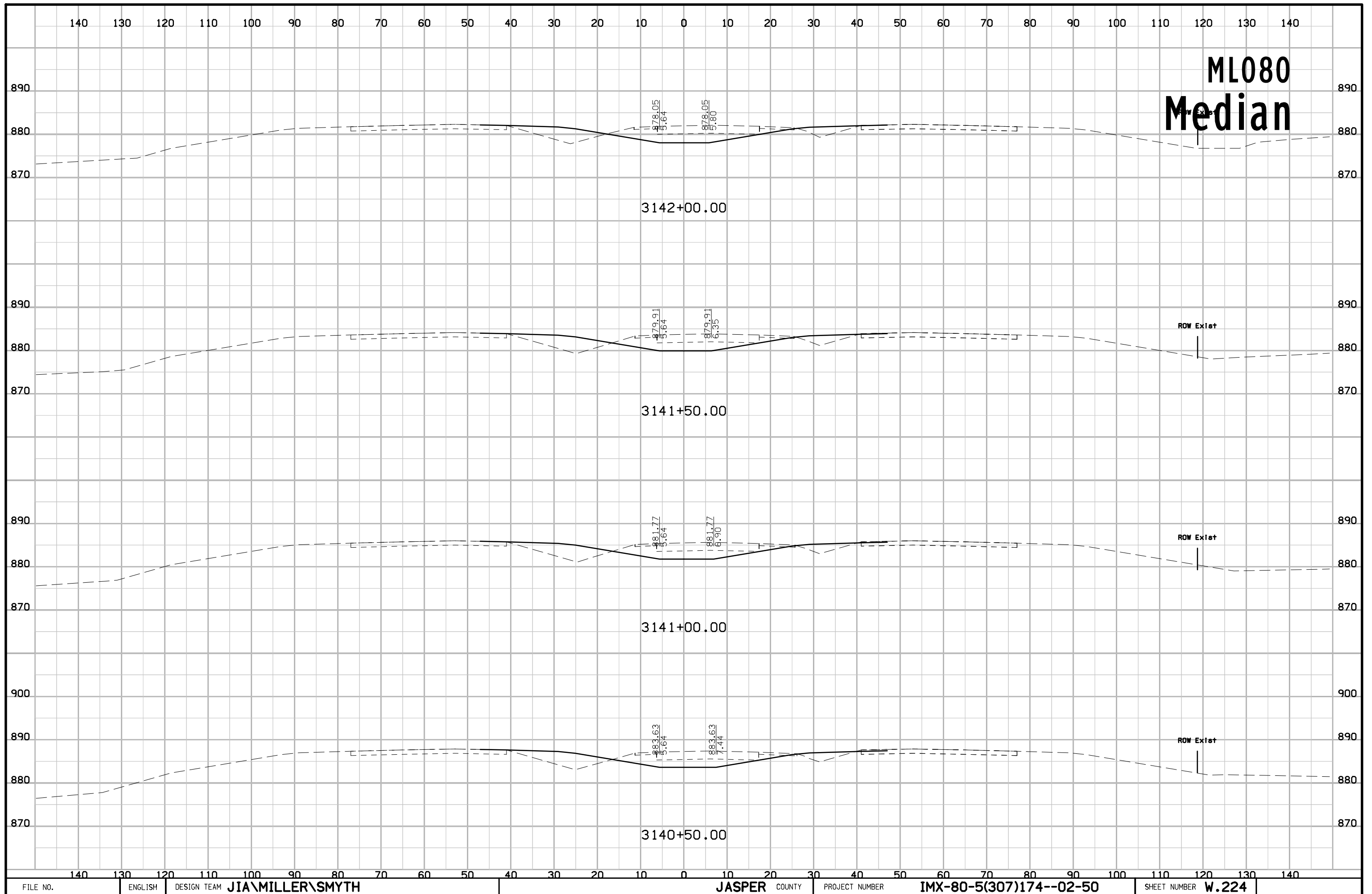
ML080 Median



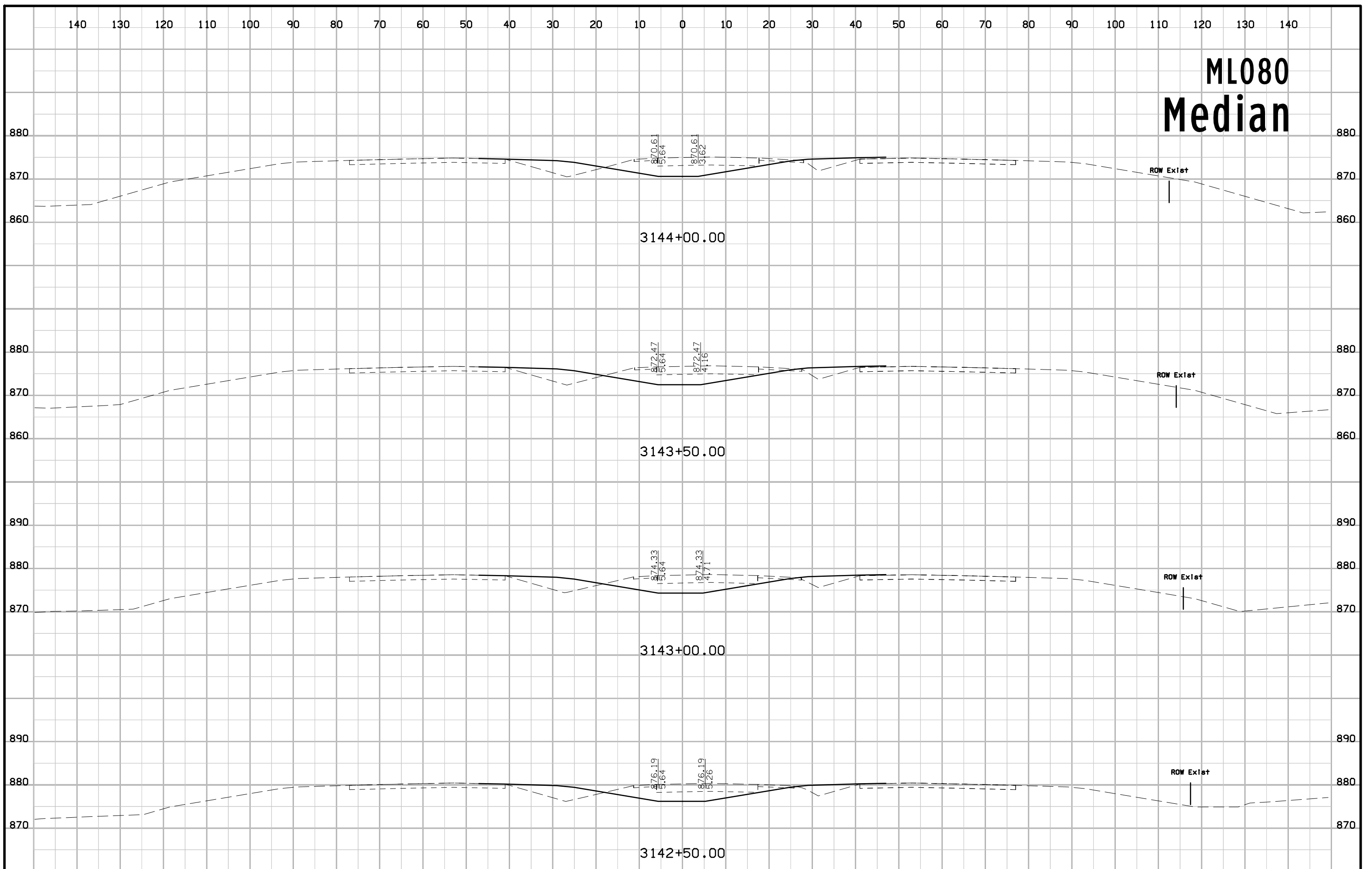
ML080 Median



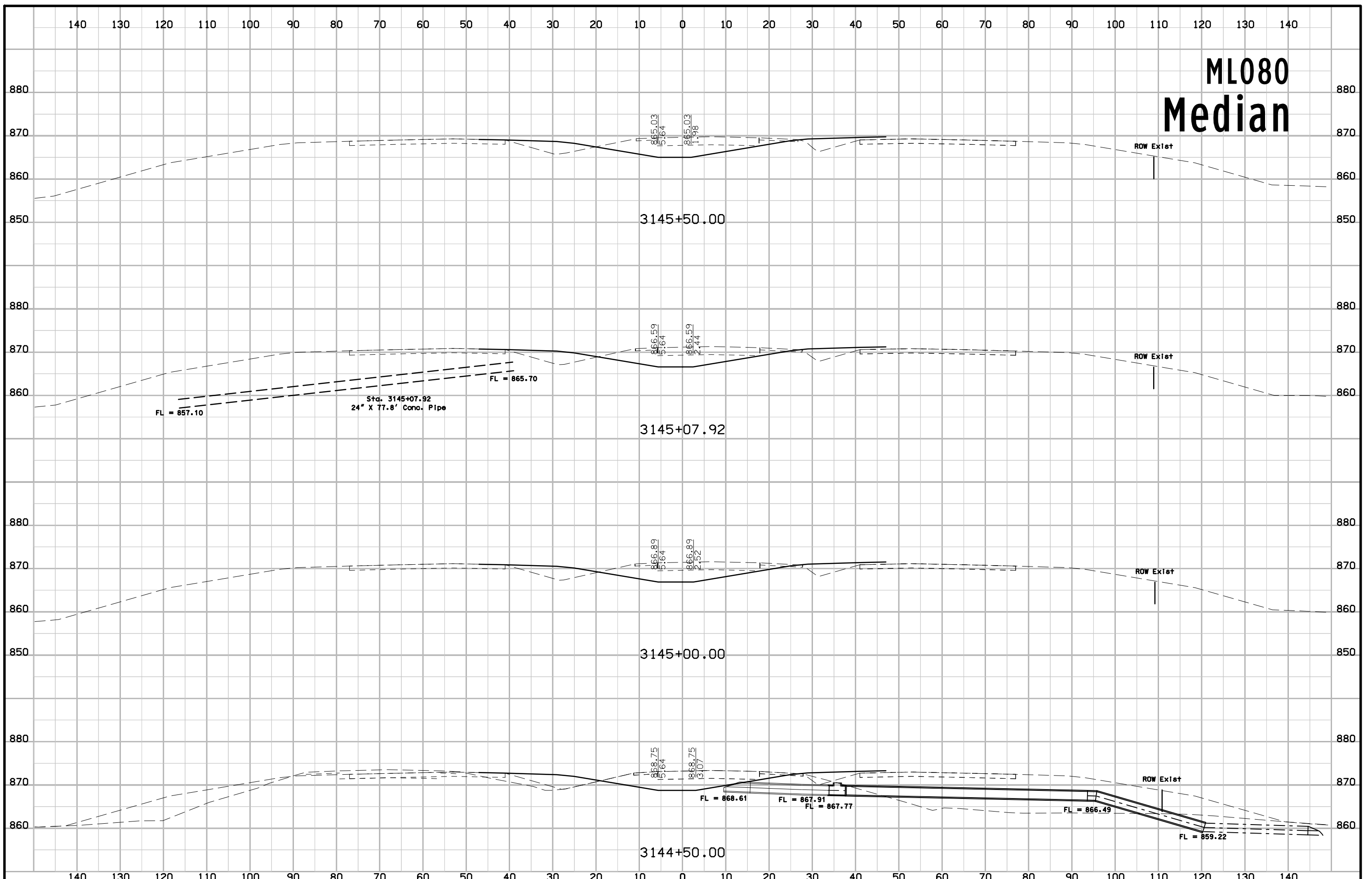




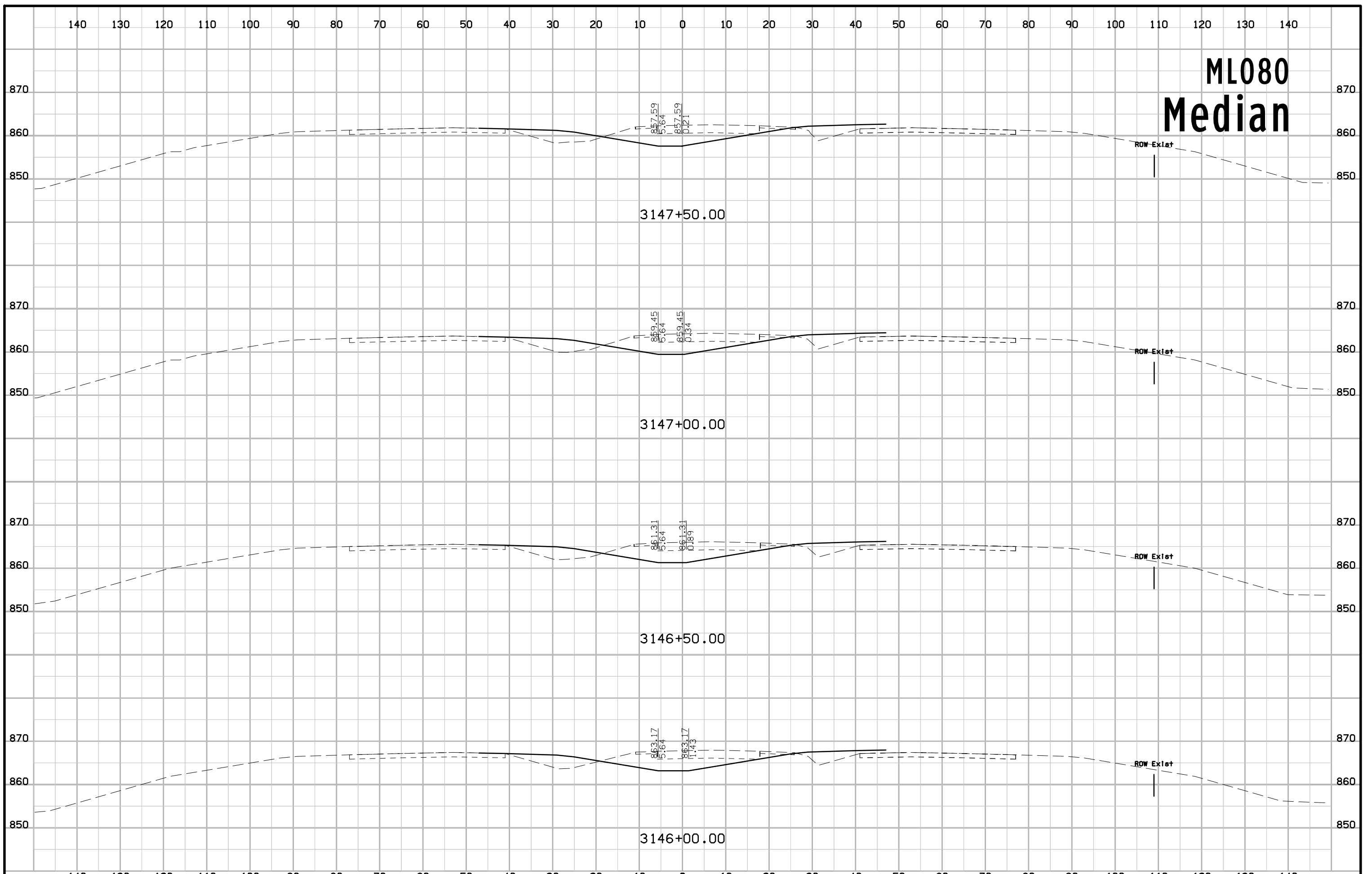
ML080 Median

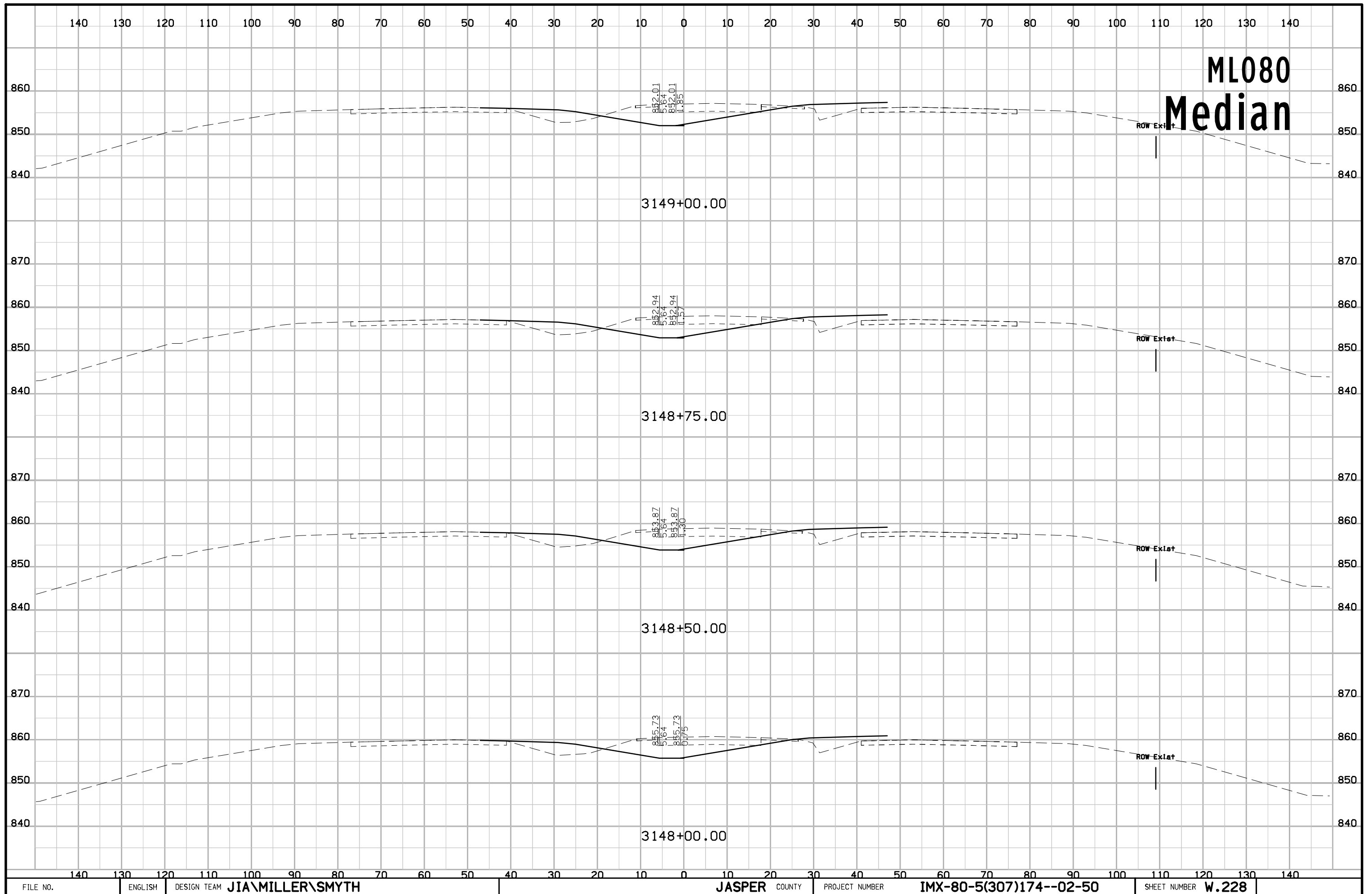


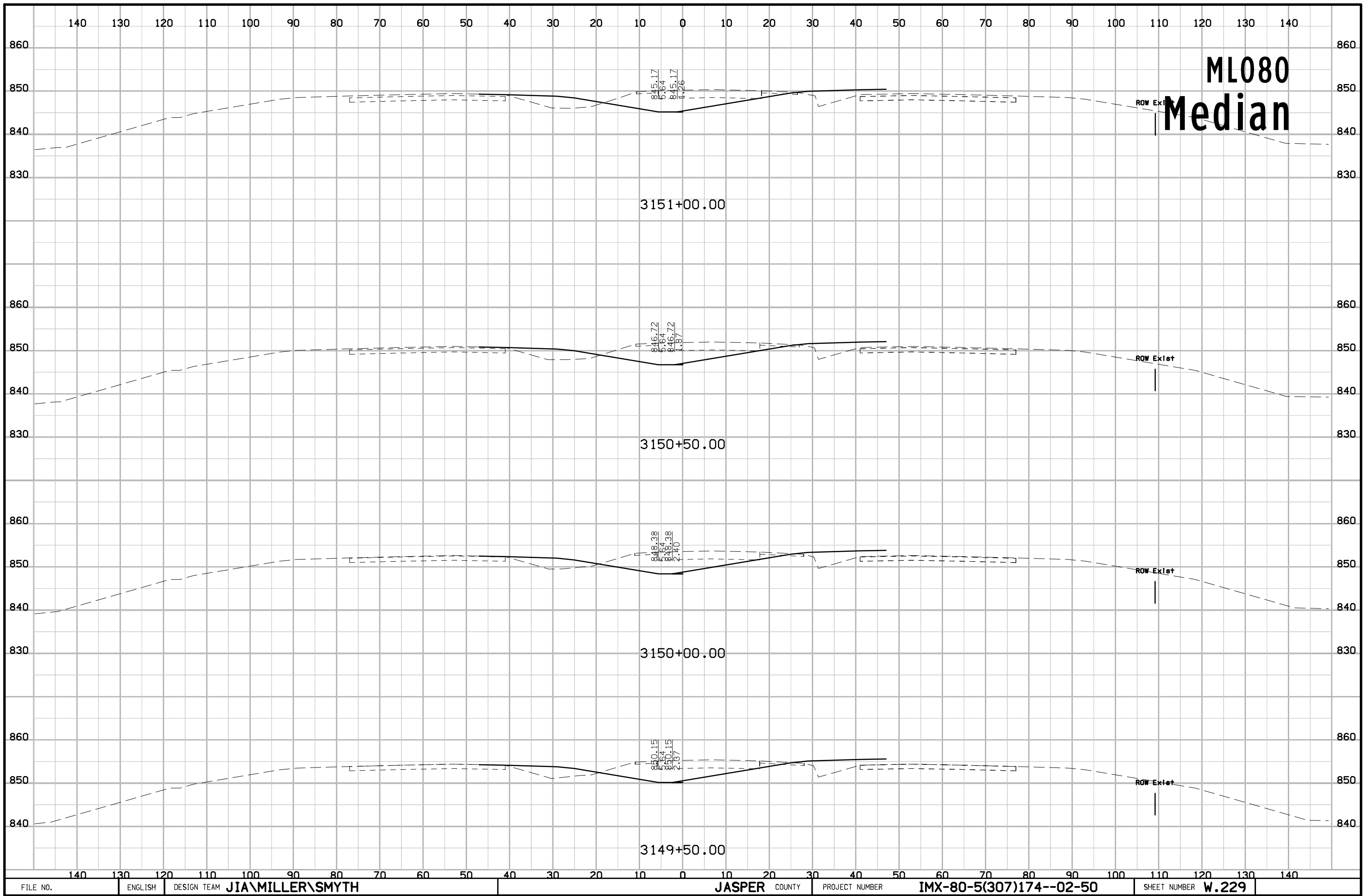
ML080 Median



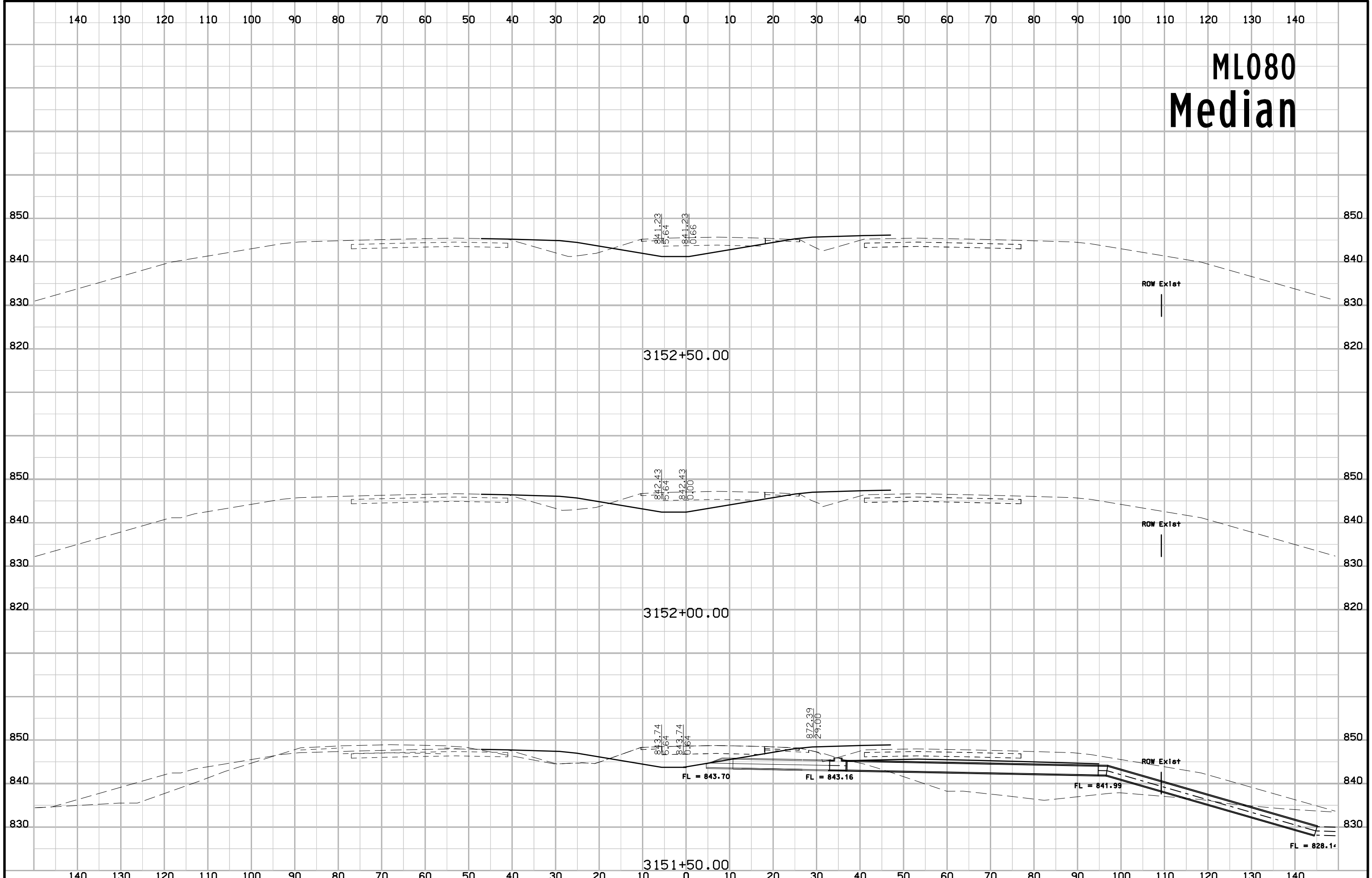
ML080 Median



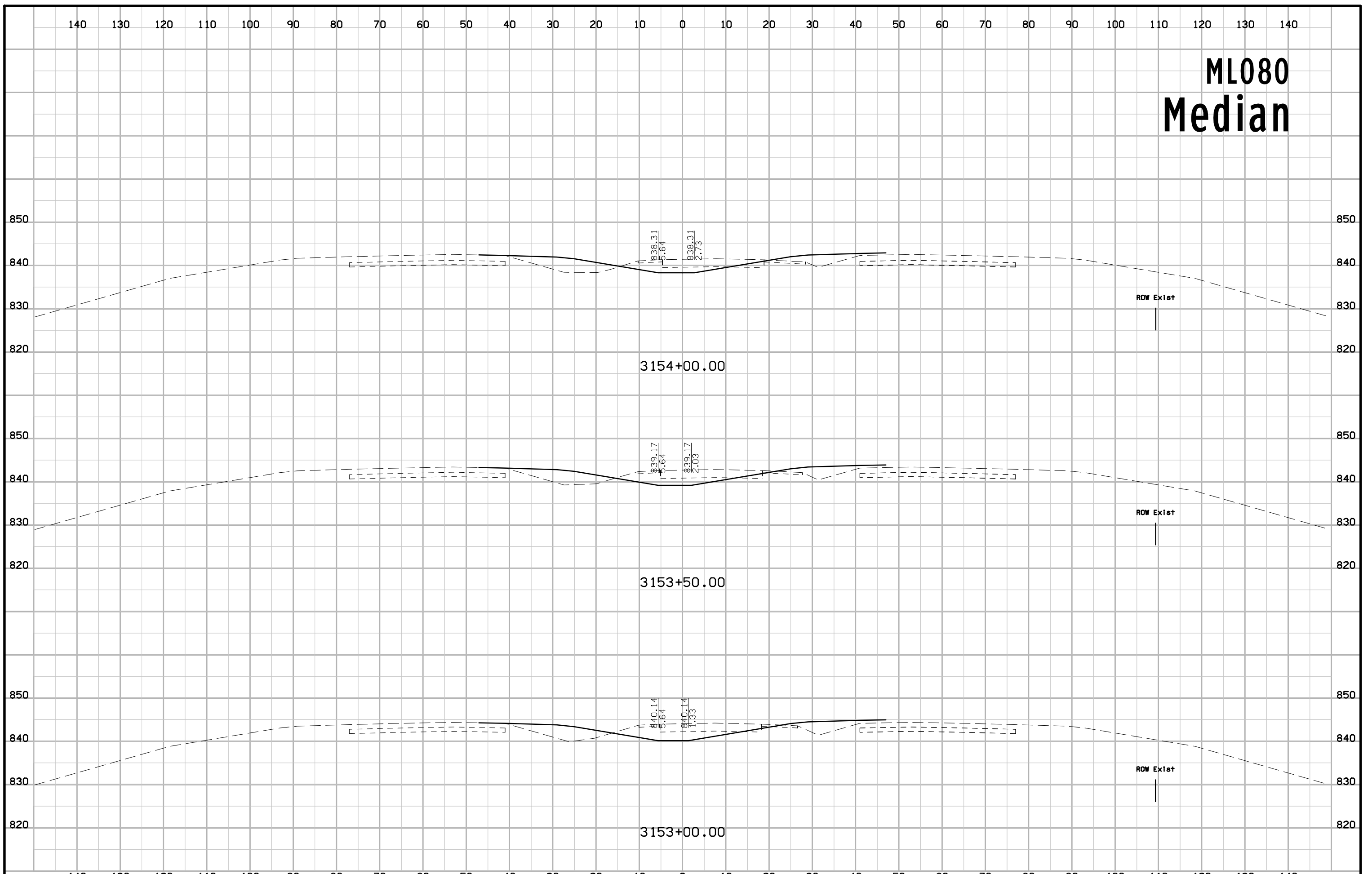




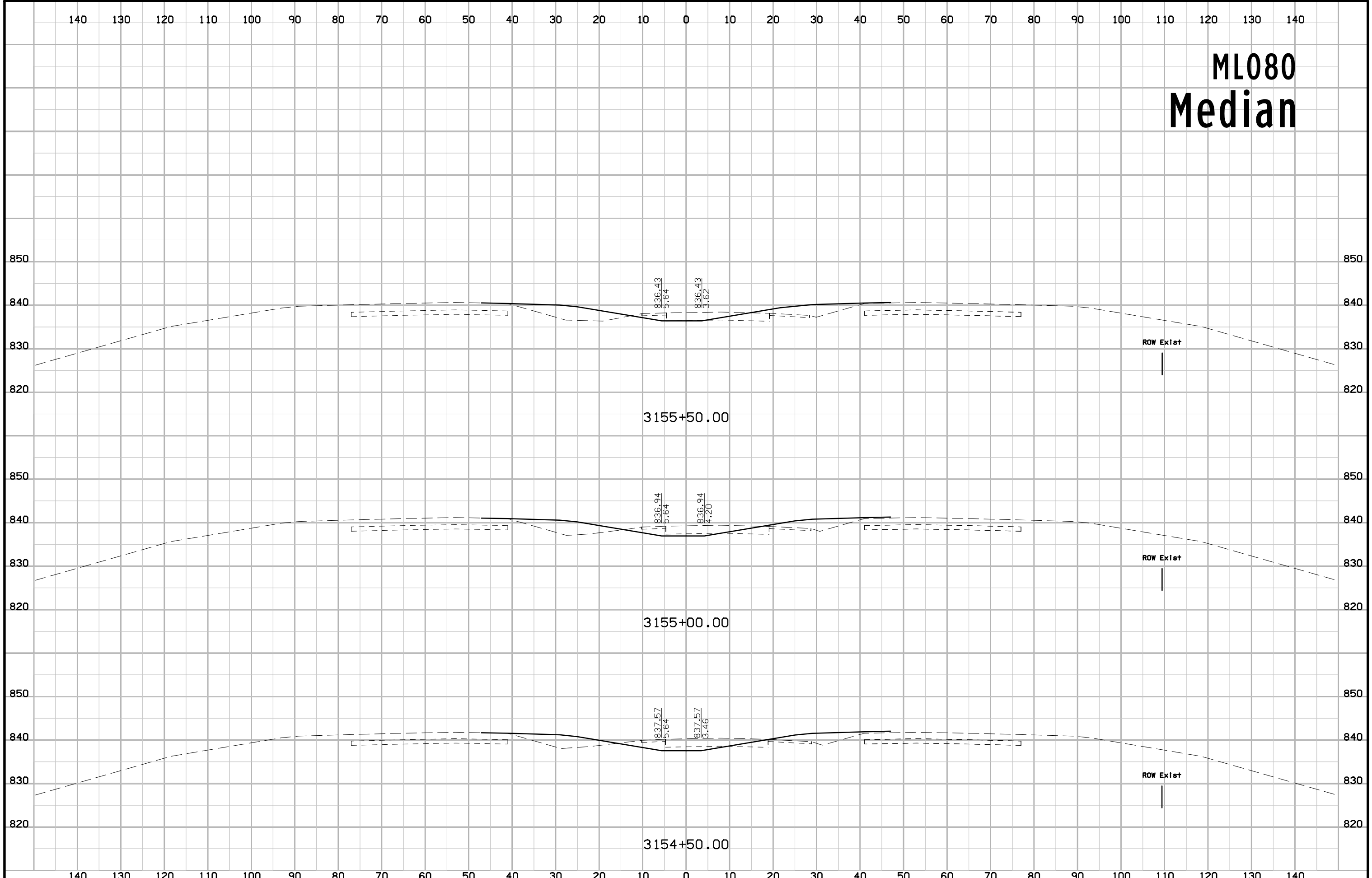
ML080 Median



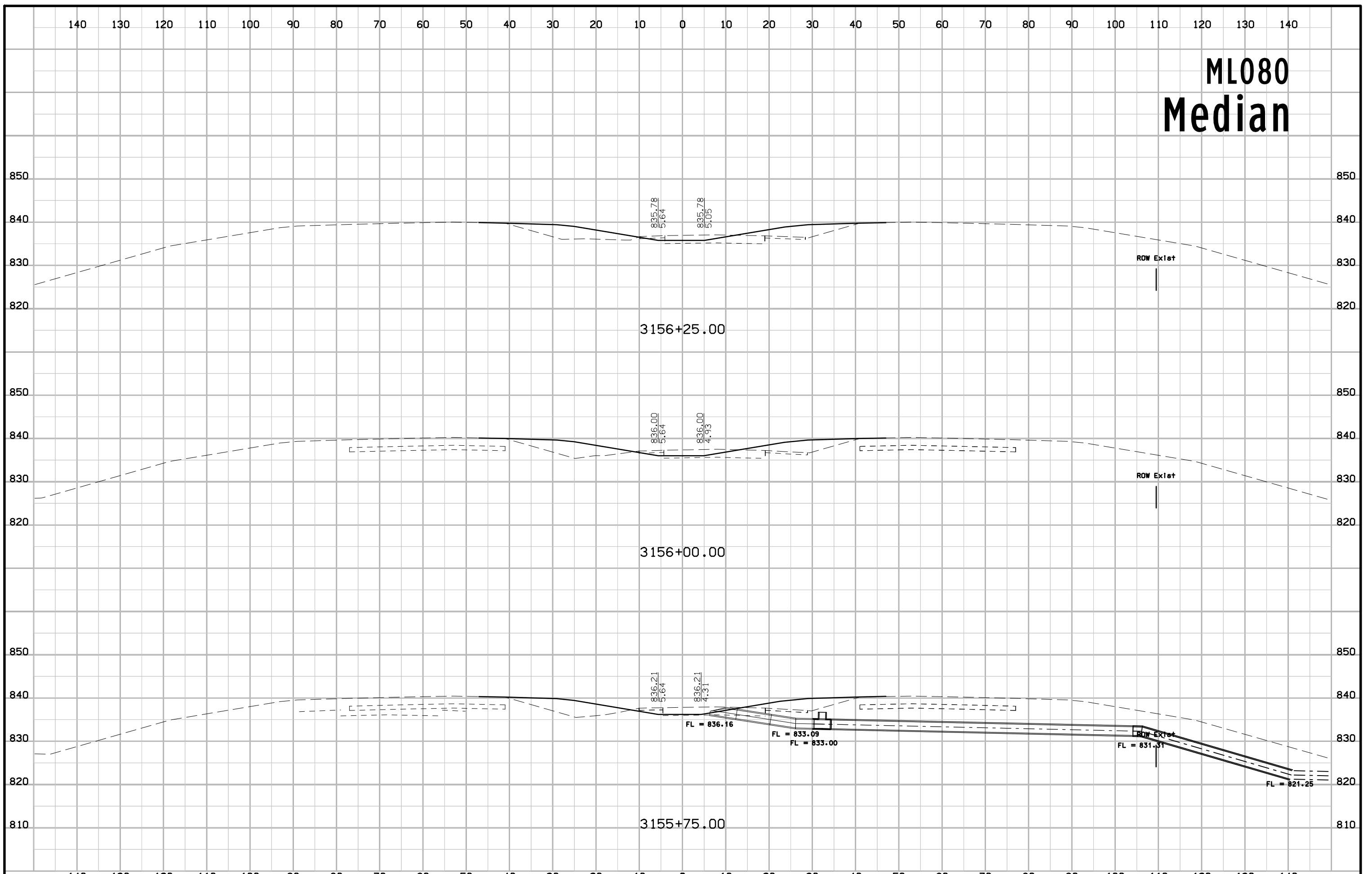
ML080 Median

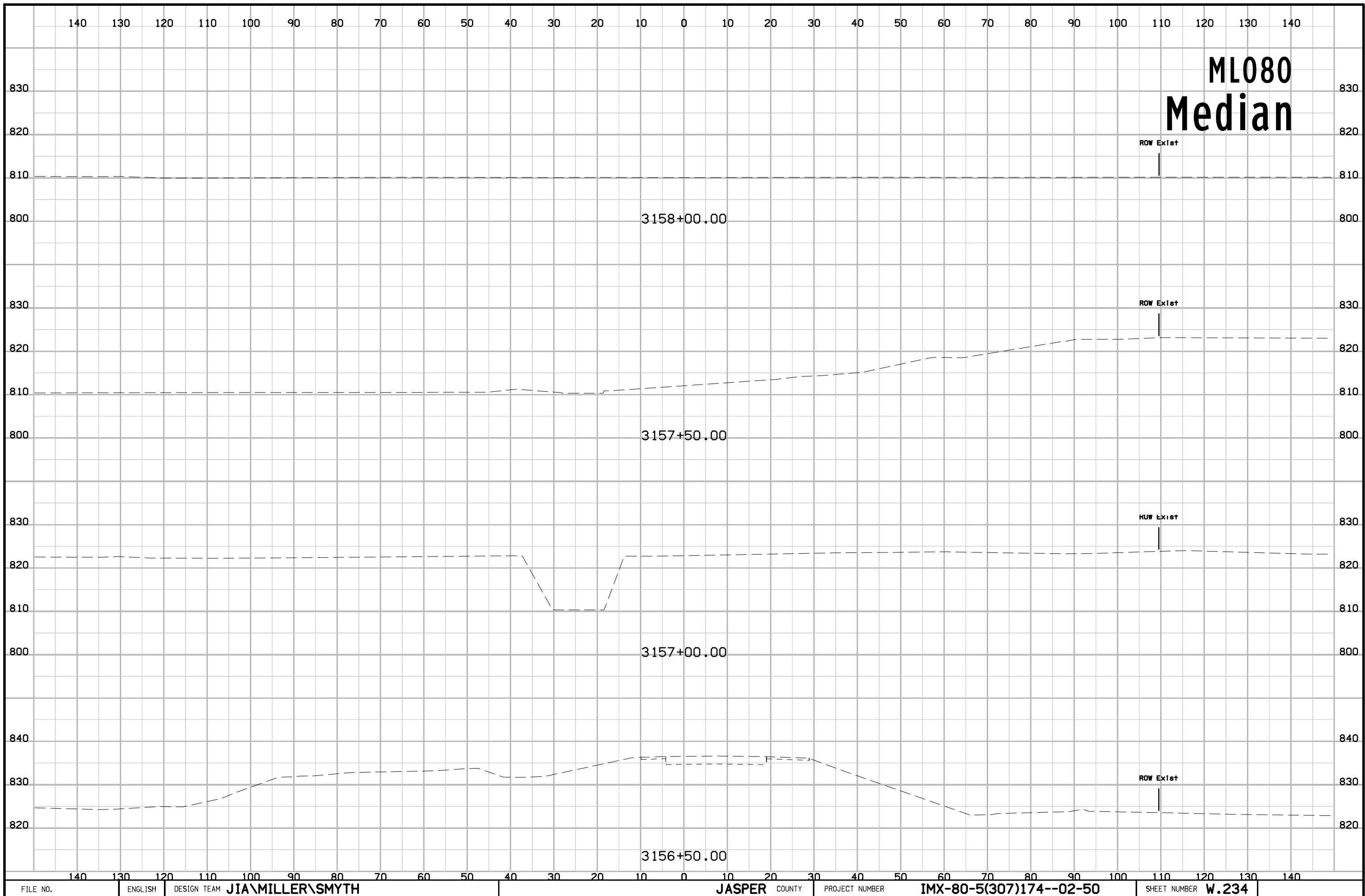


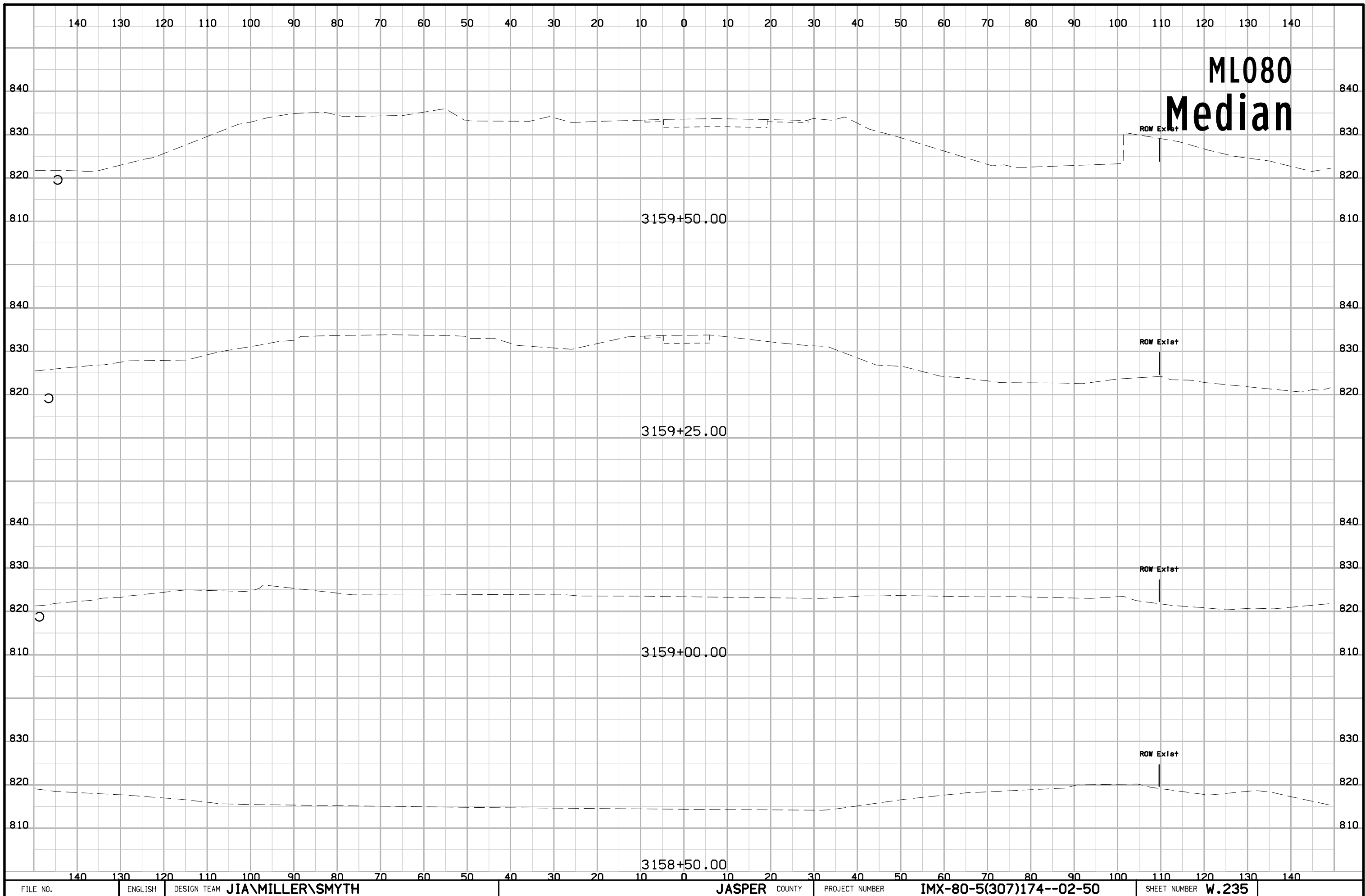
ML080 Median

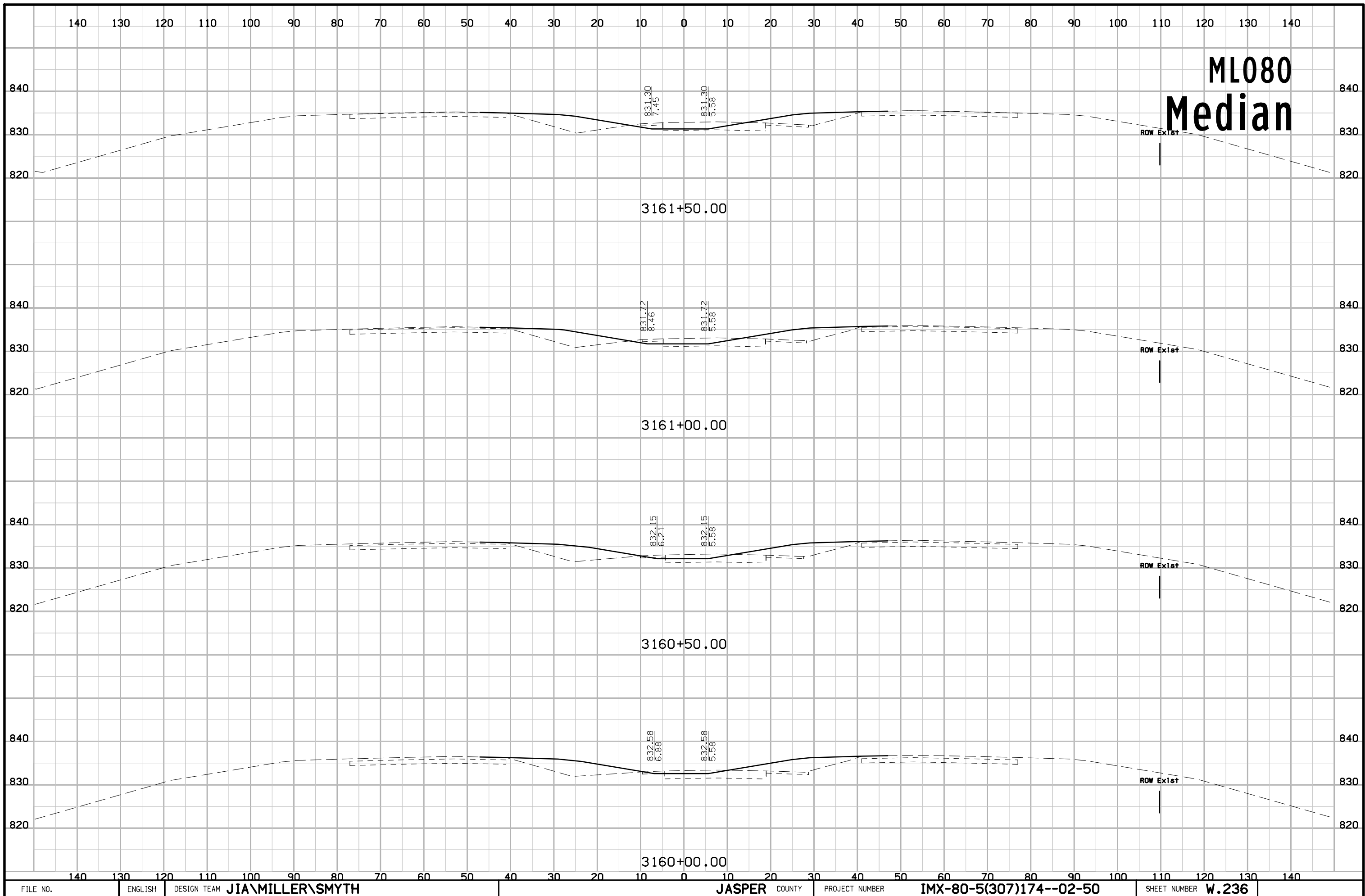


ML080 Median

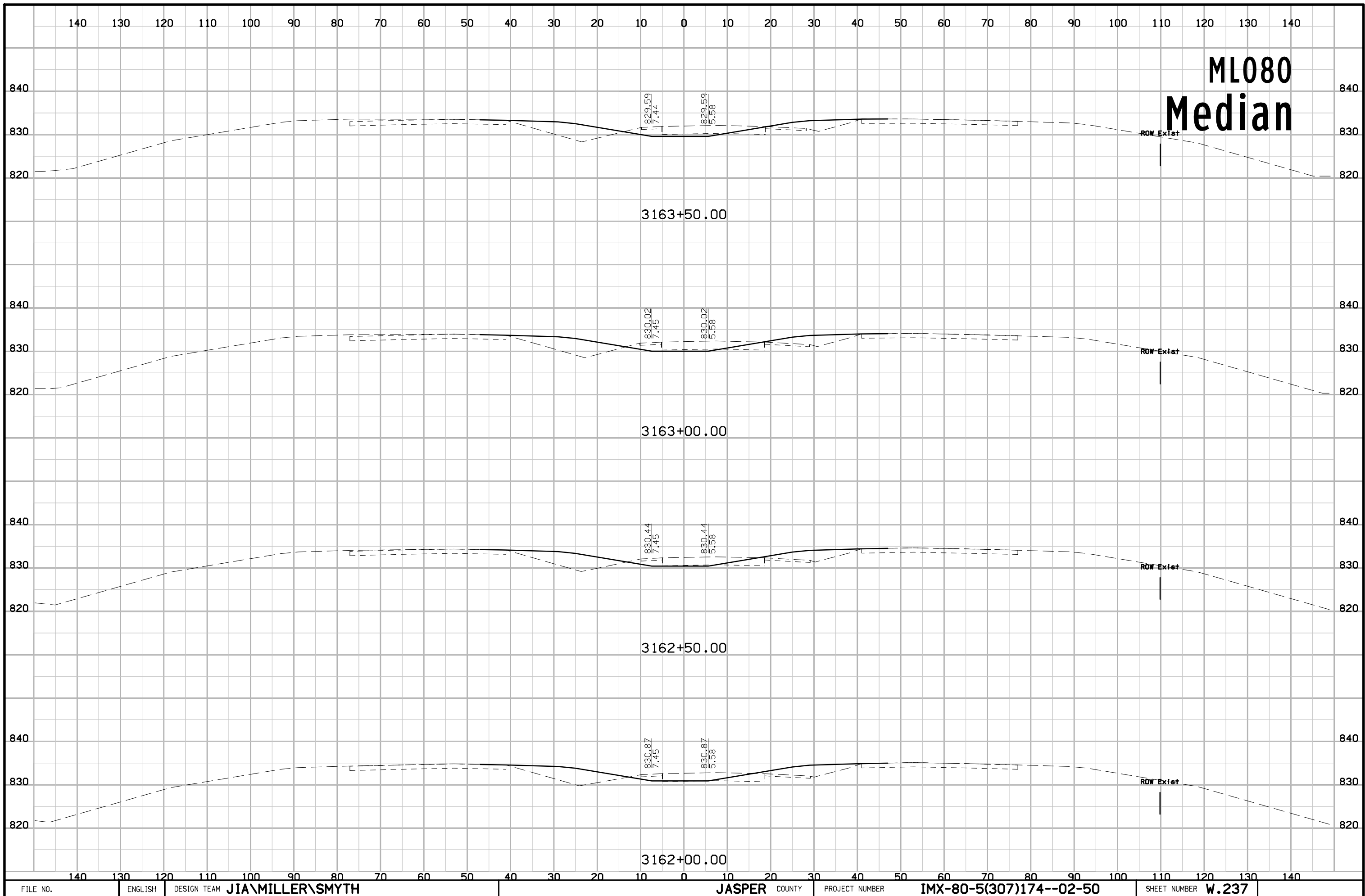




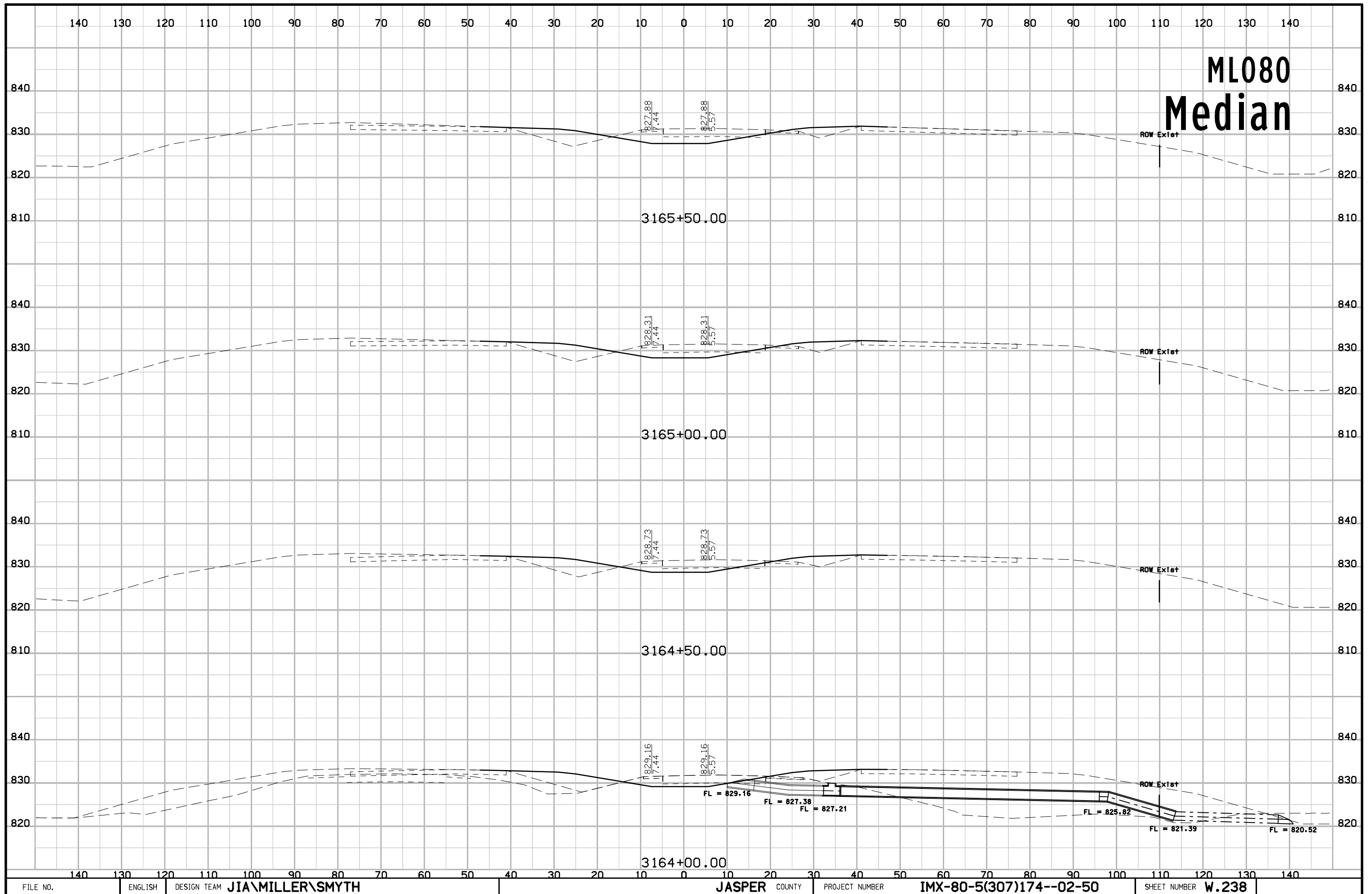


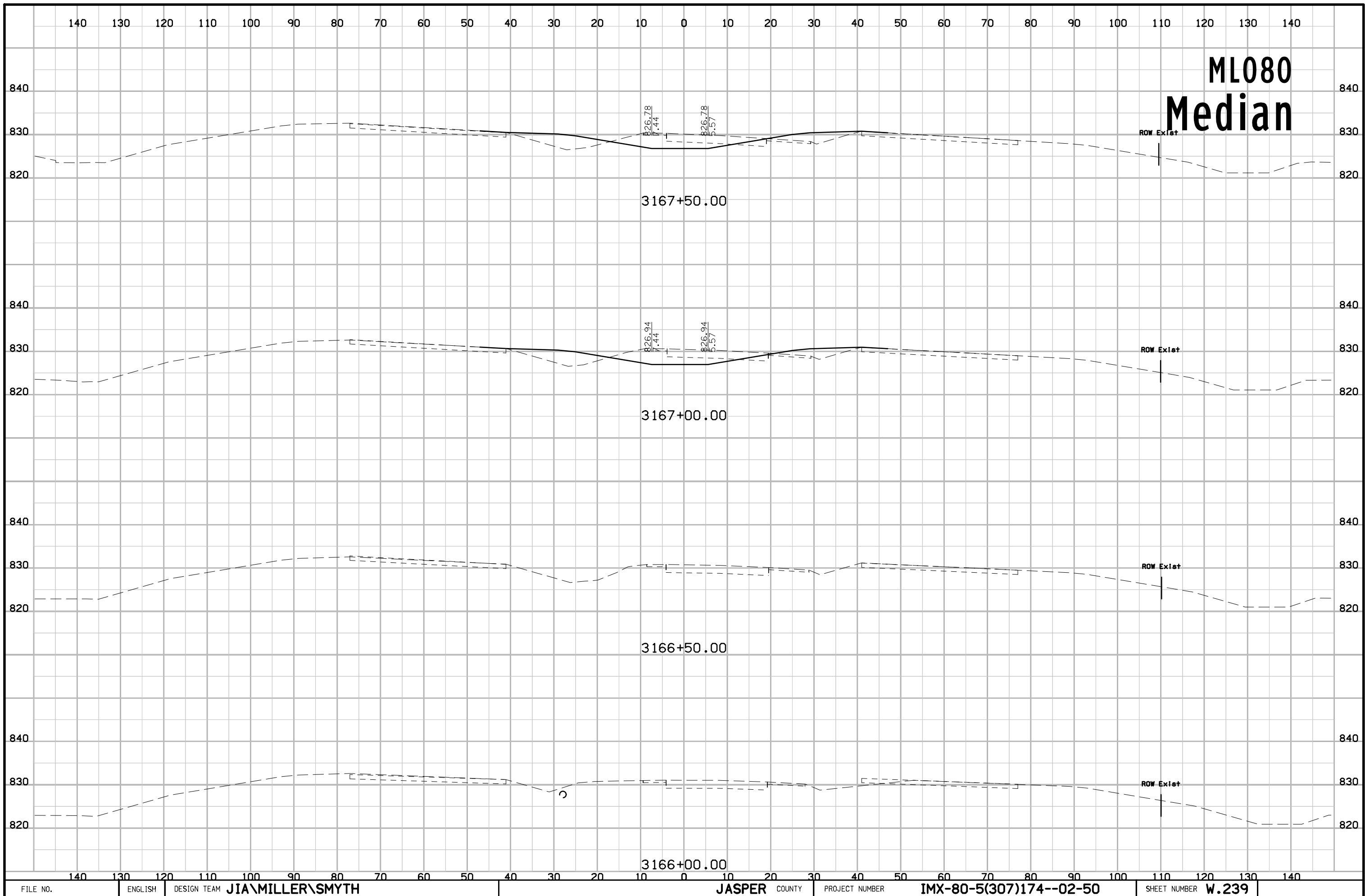


ML080 Median

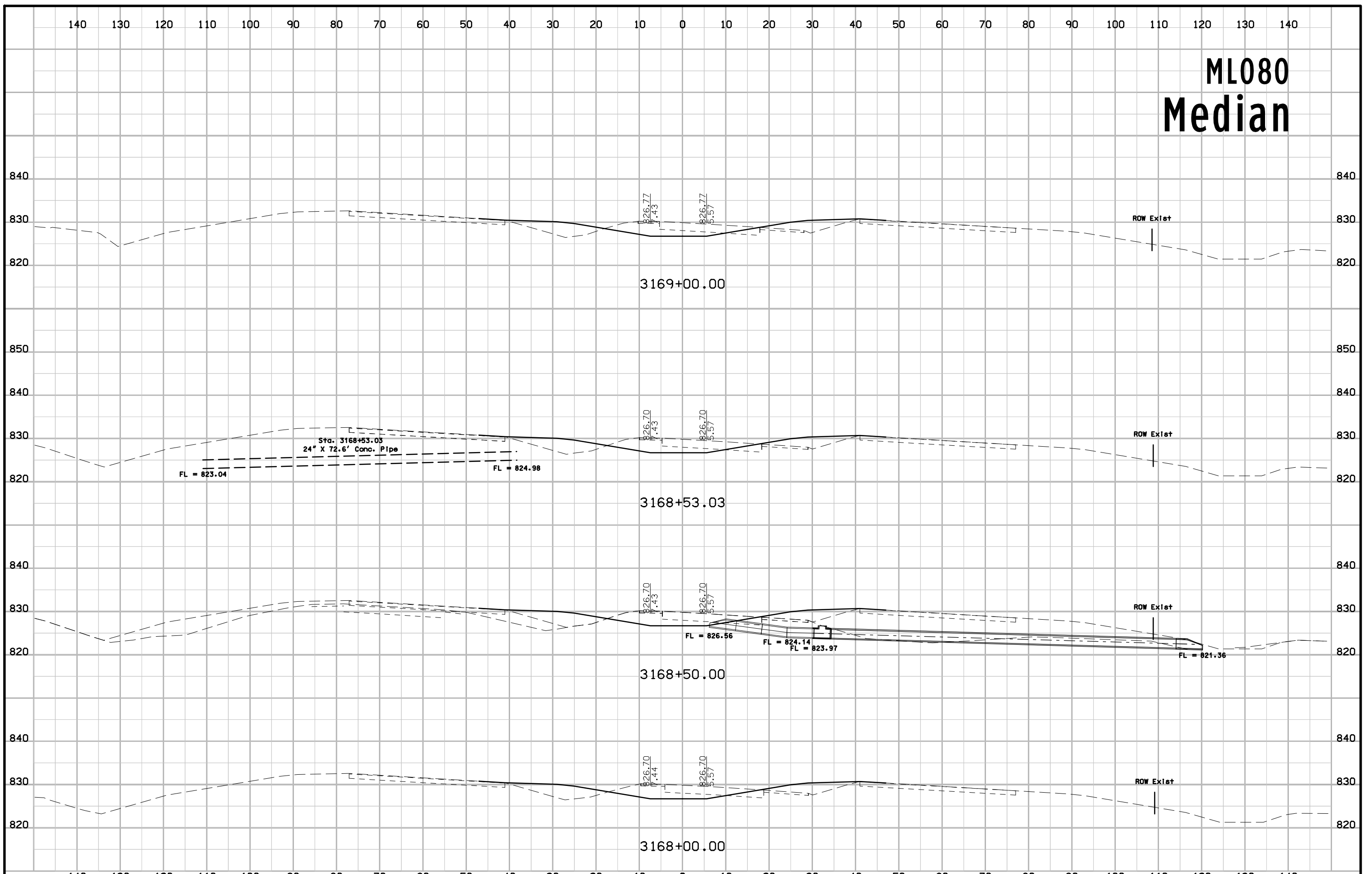


ML080 Median

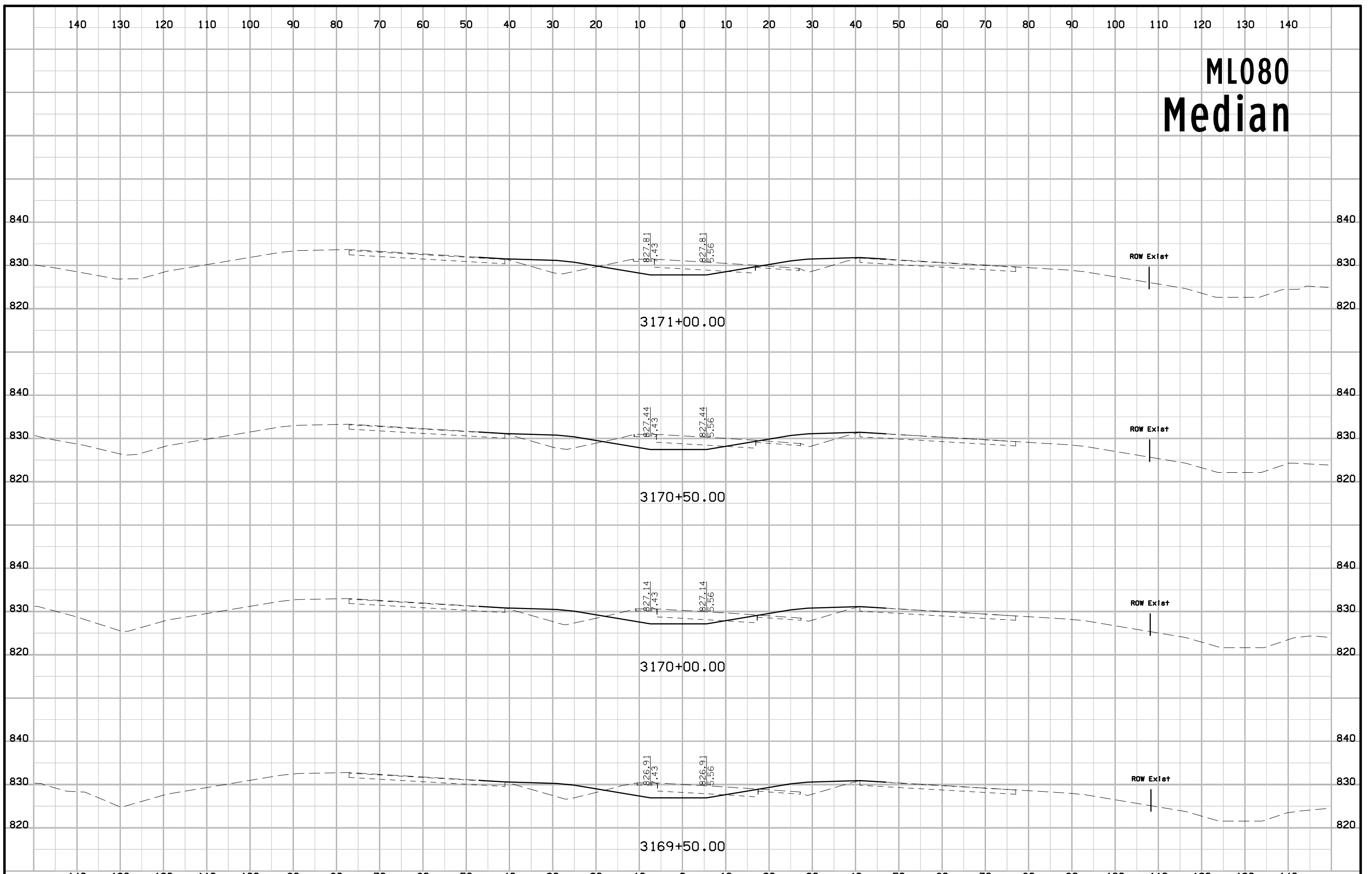




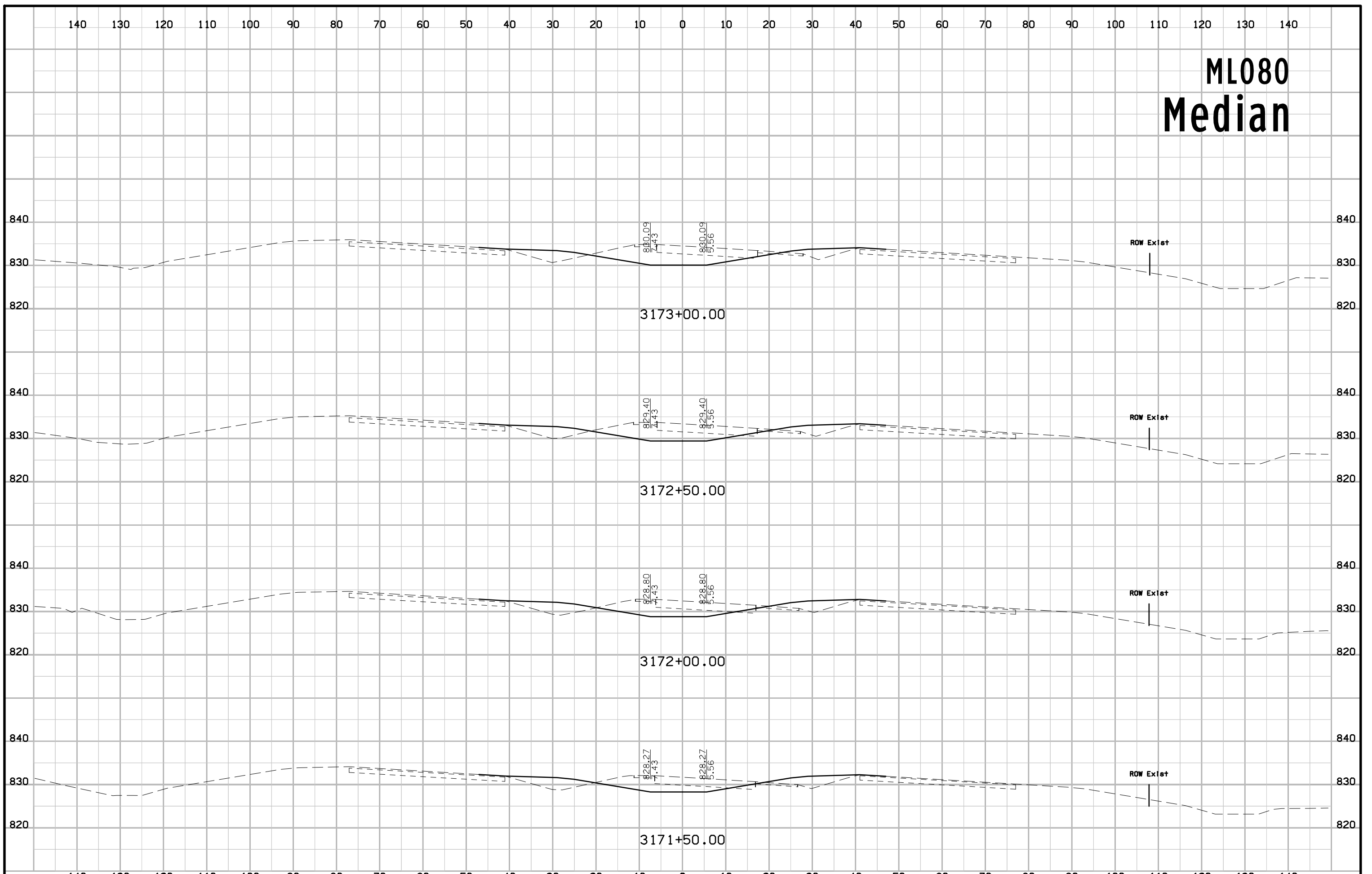
ML080 Median



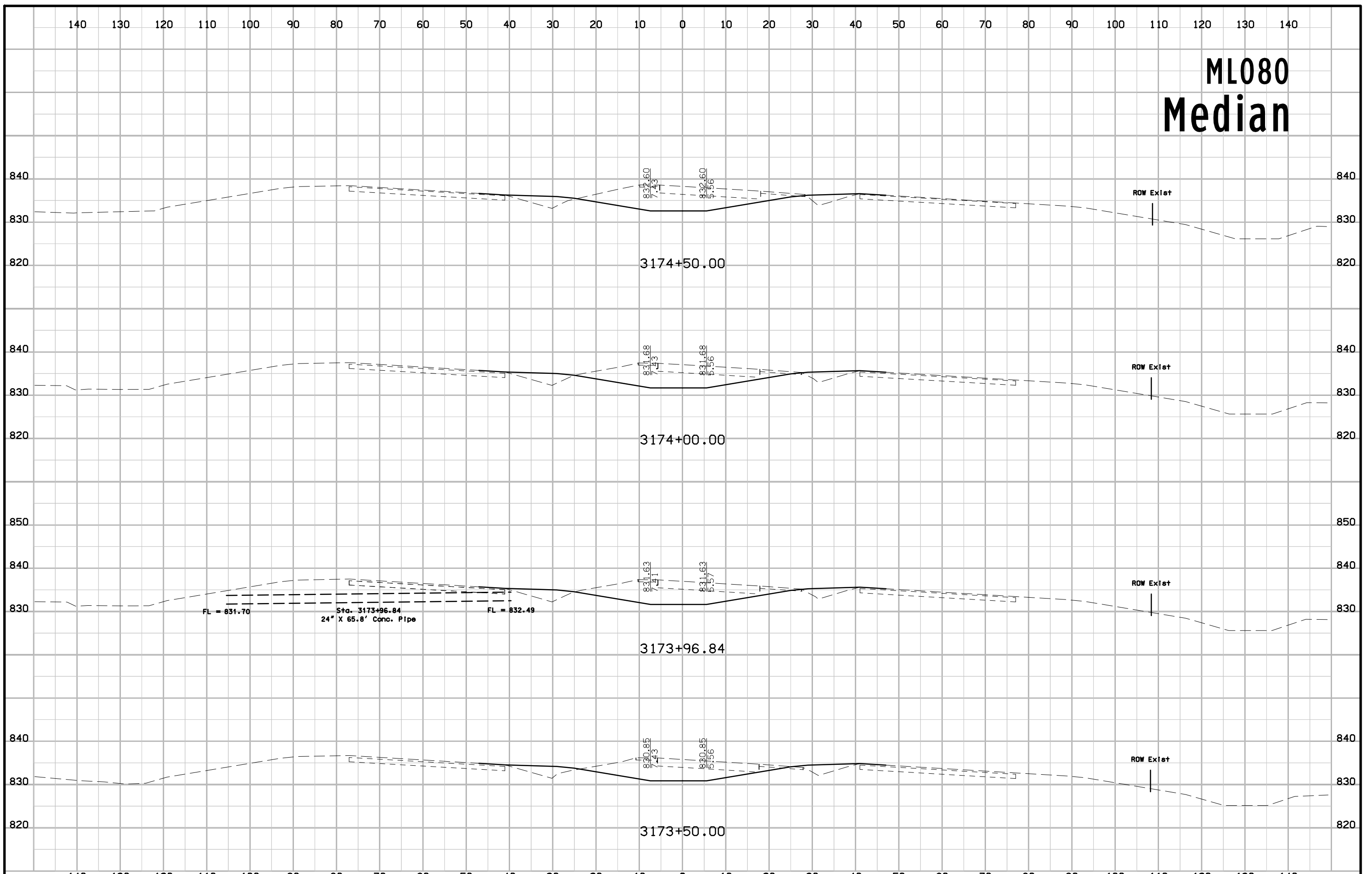
ML080 Median



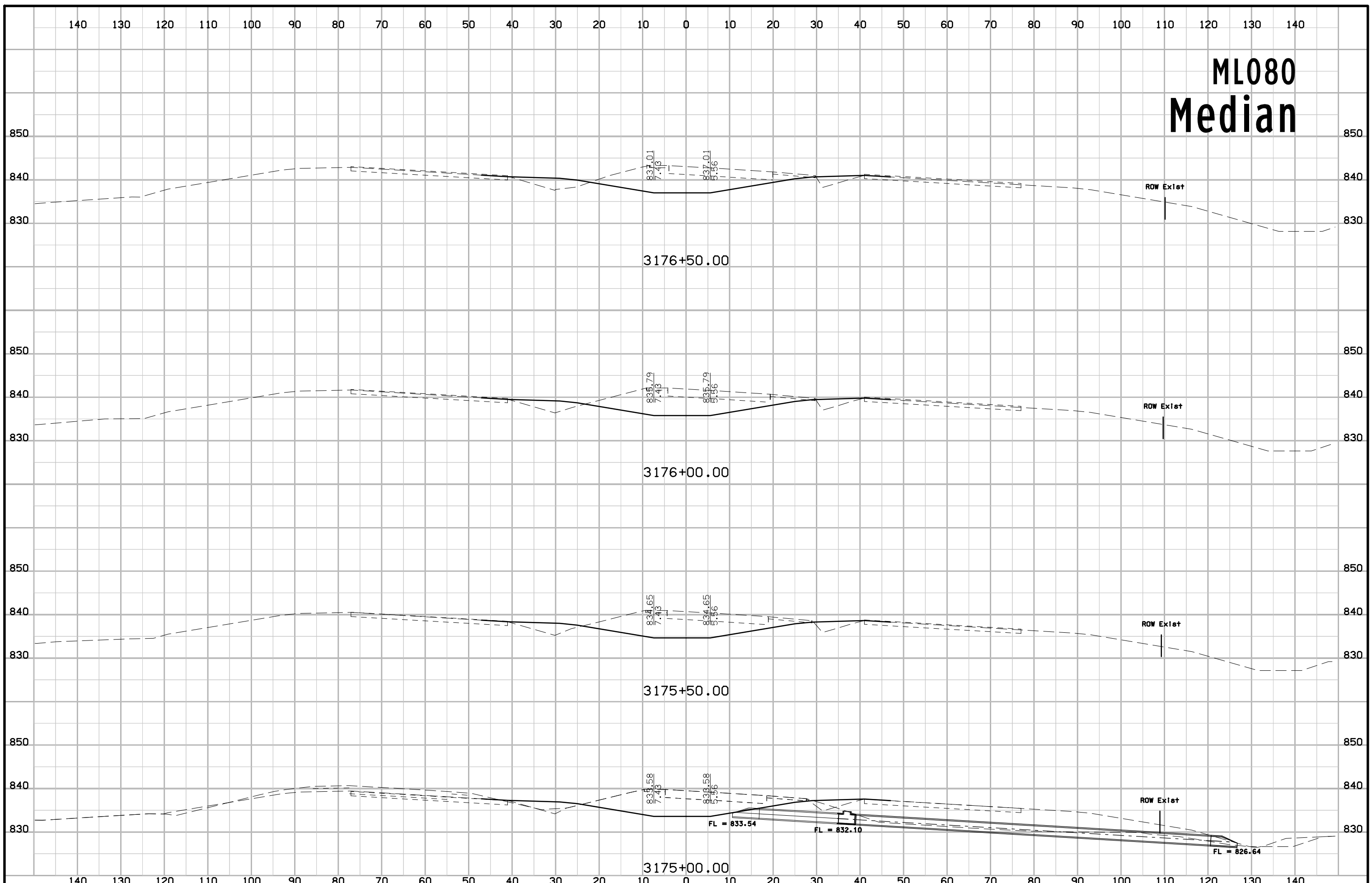
ML080 Median

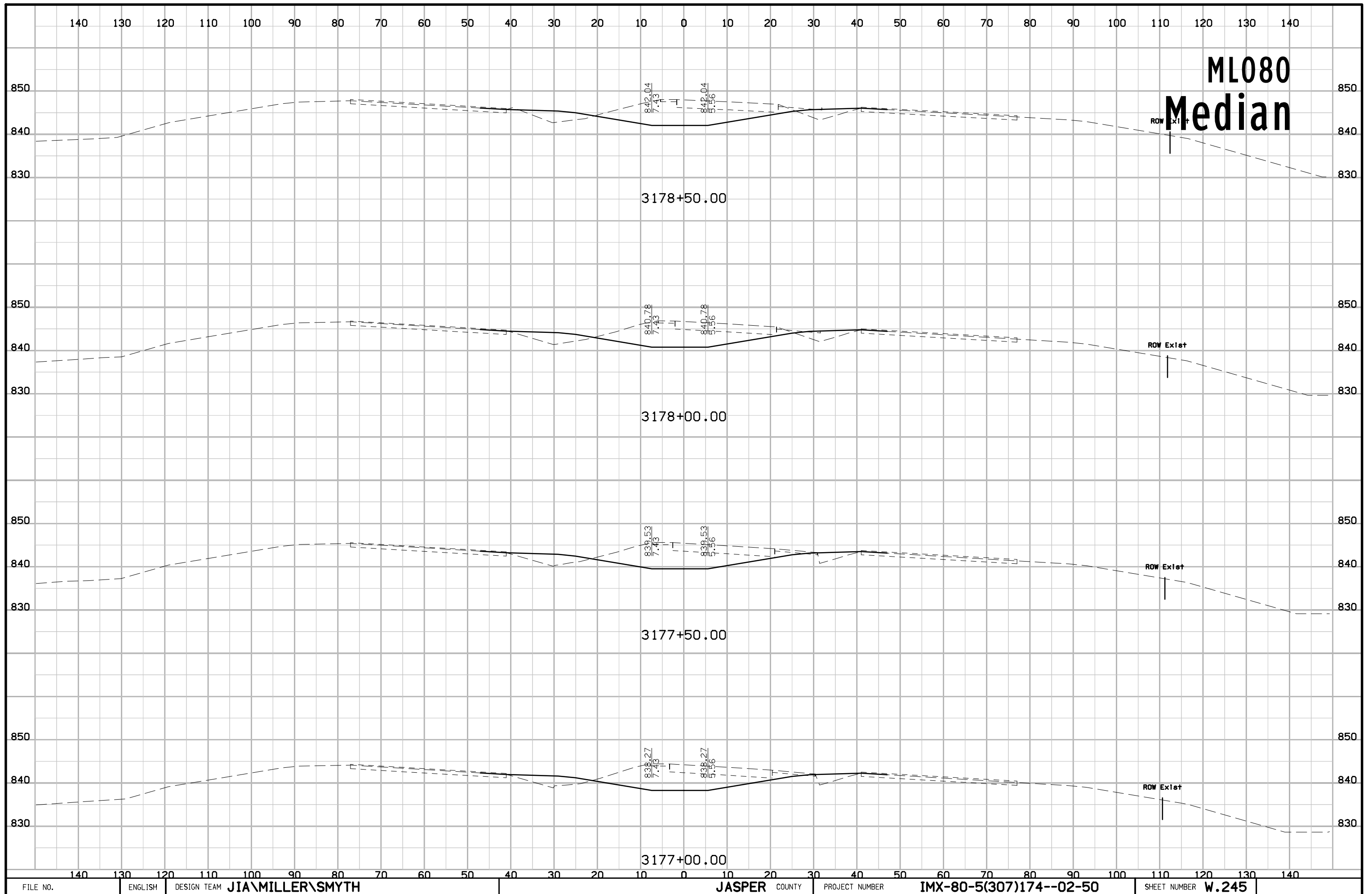


ML080 Median

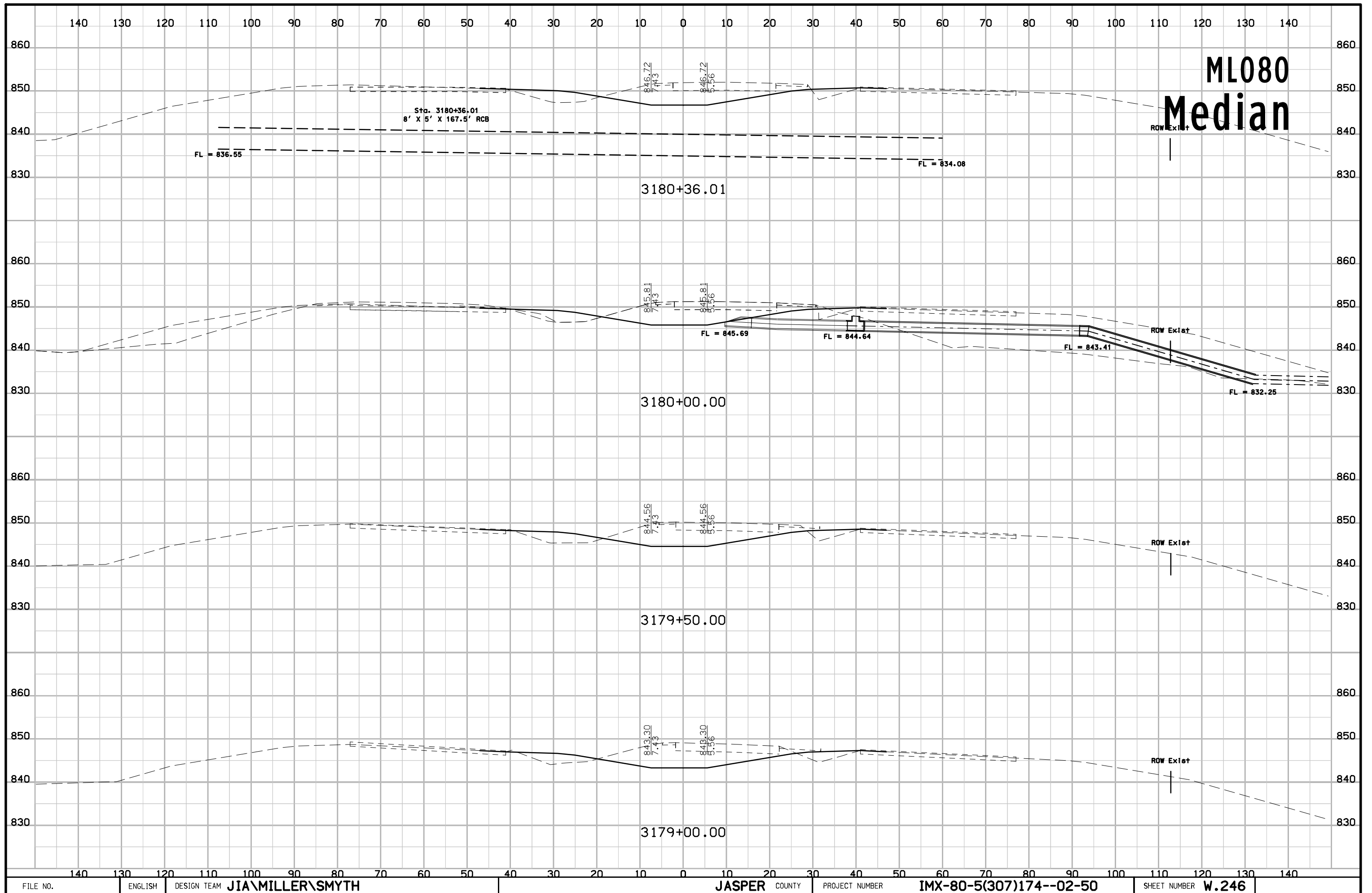


ML080 Median

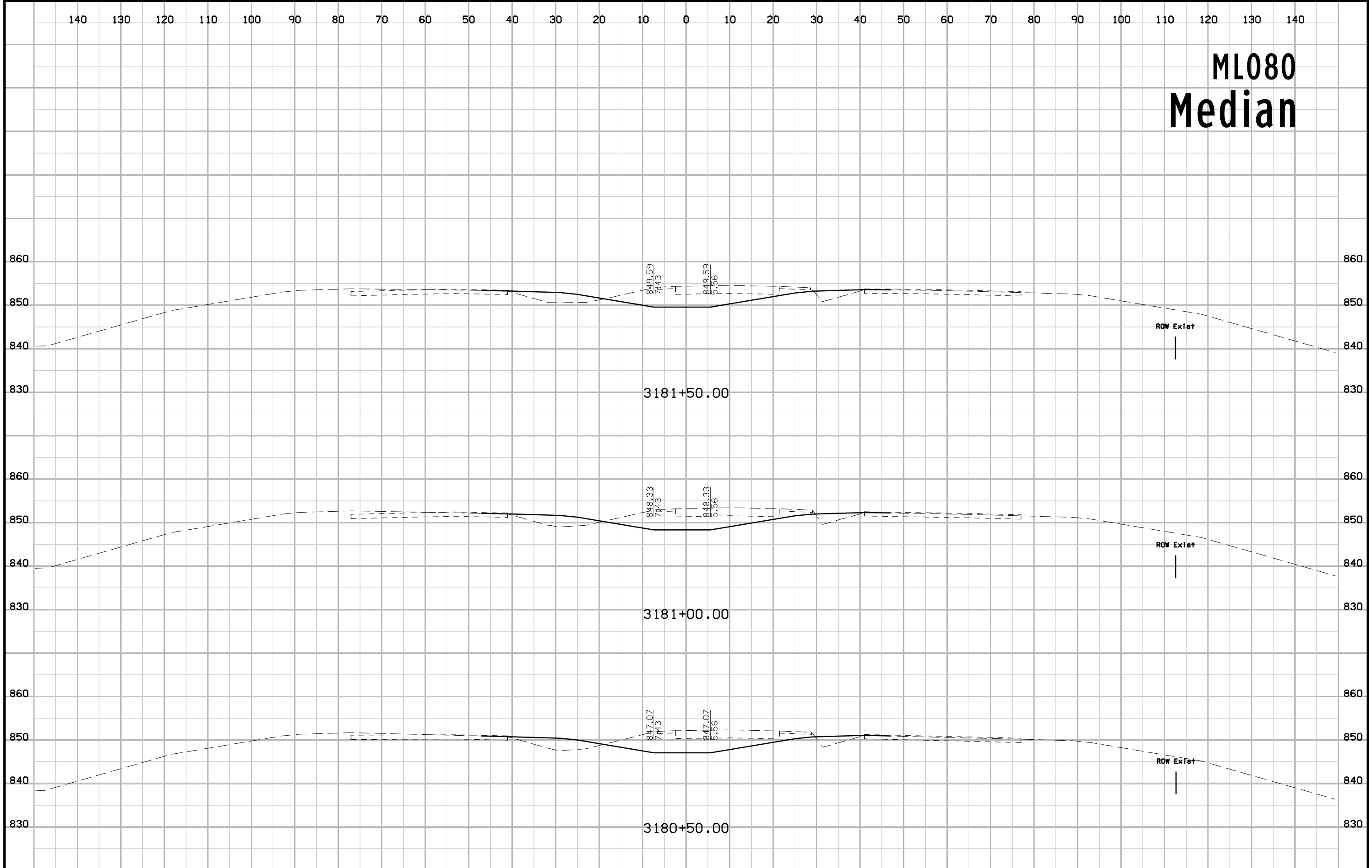




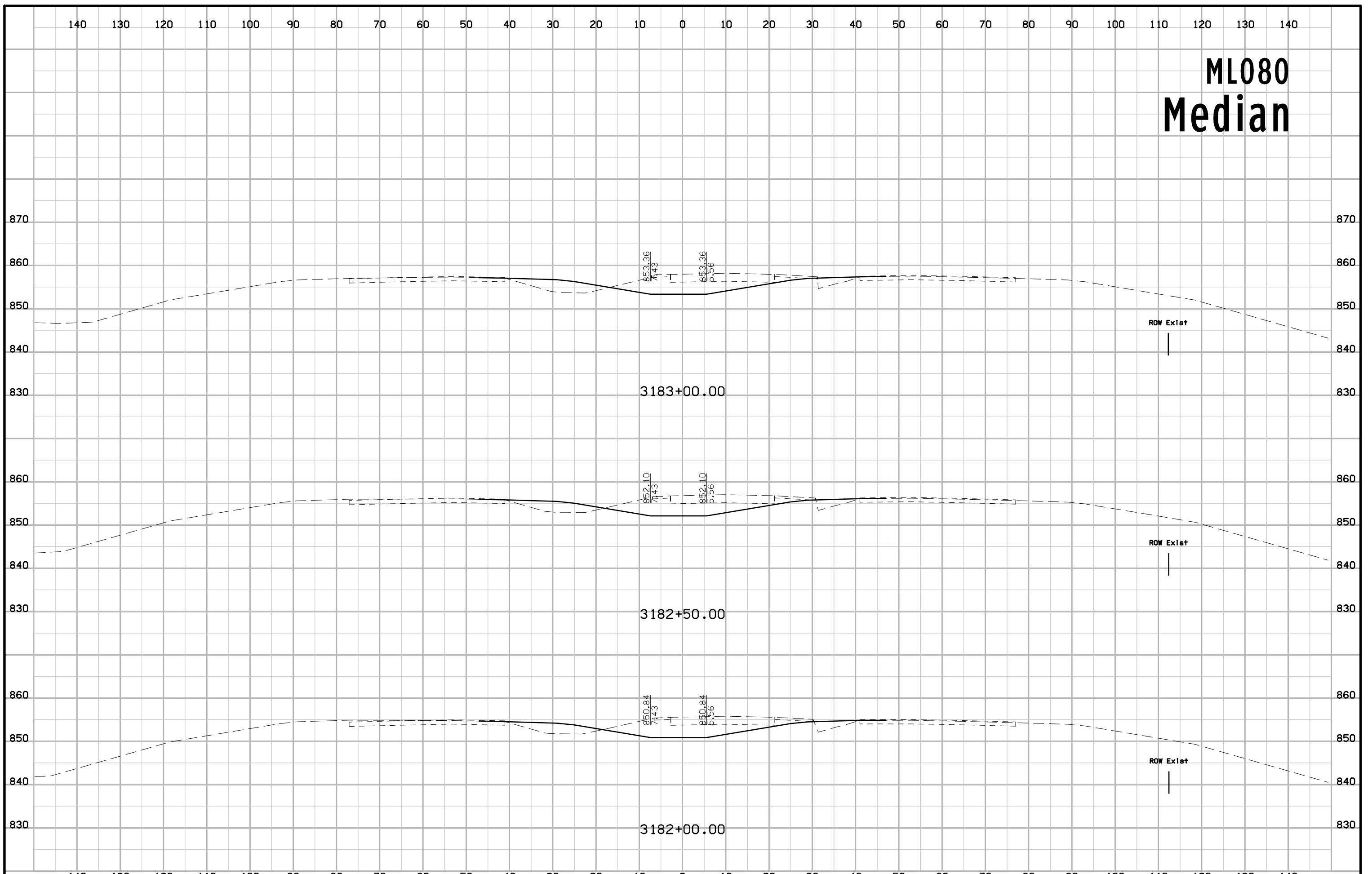
ML080 Median



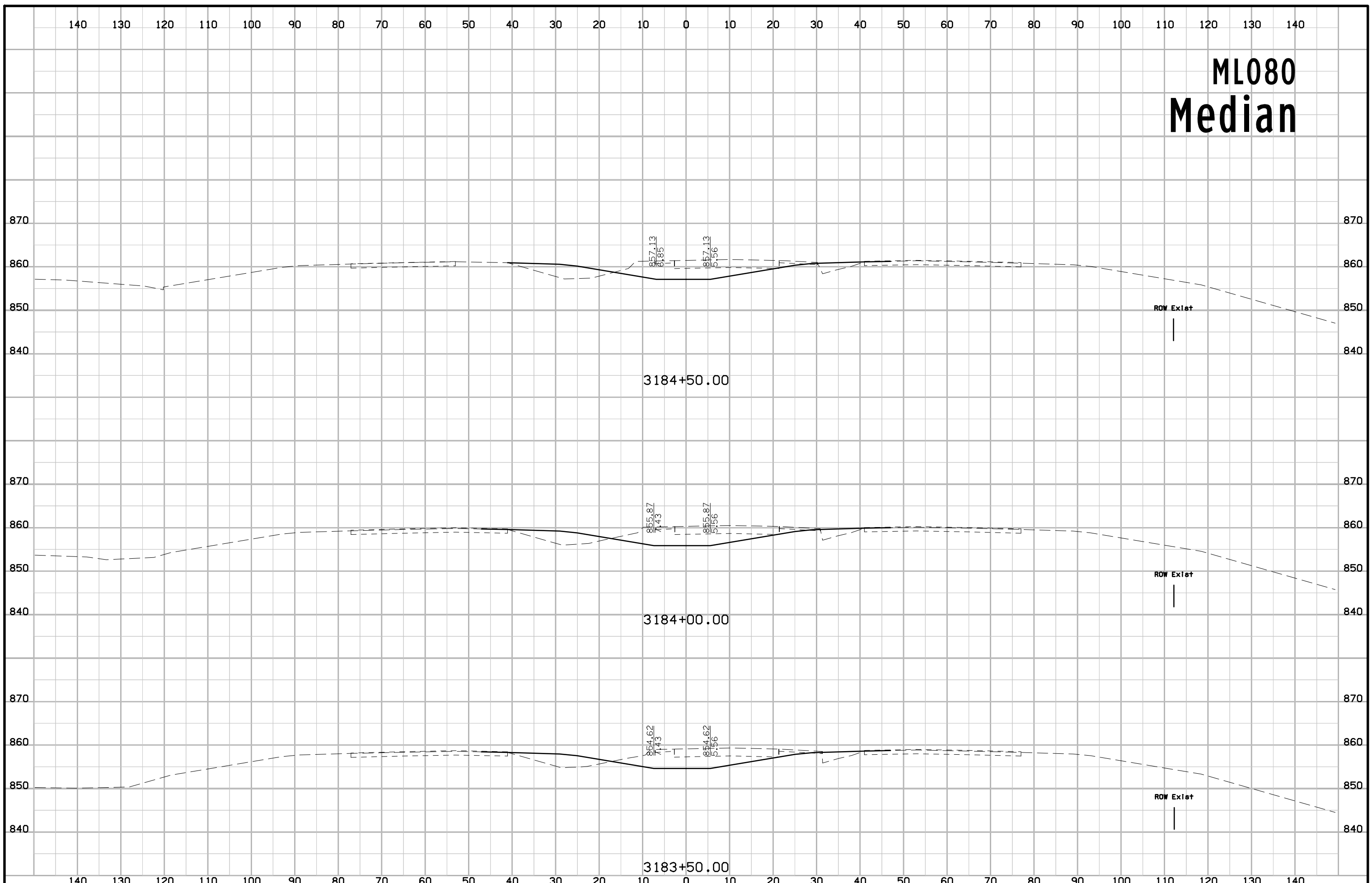
ML080 Median



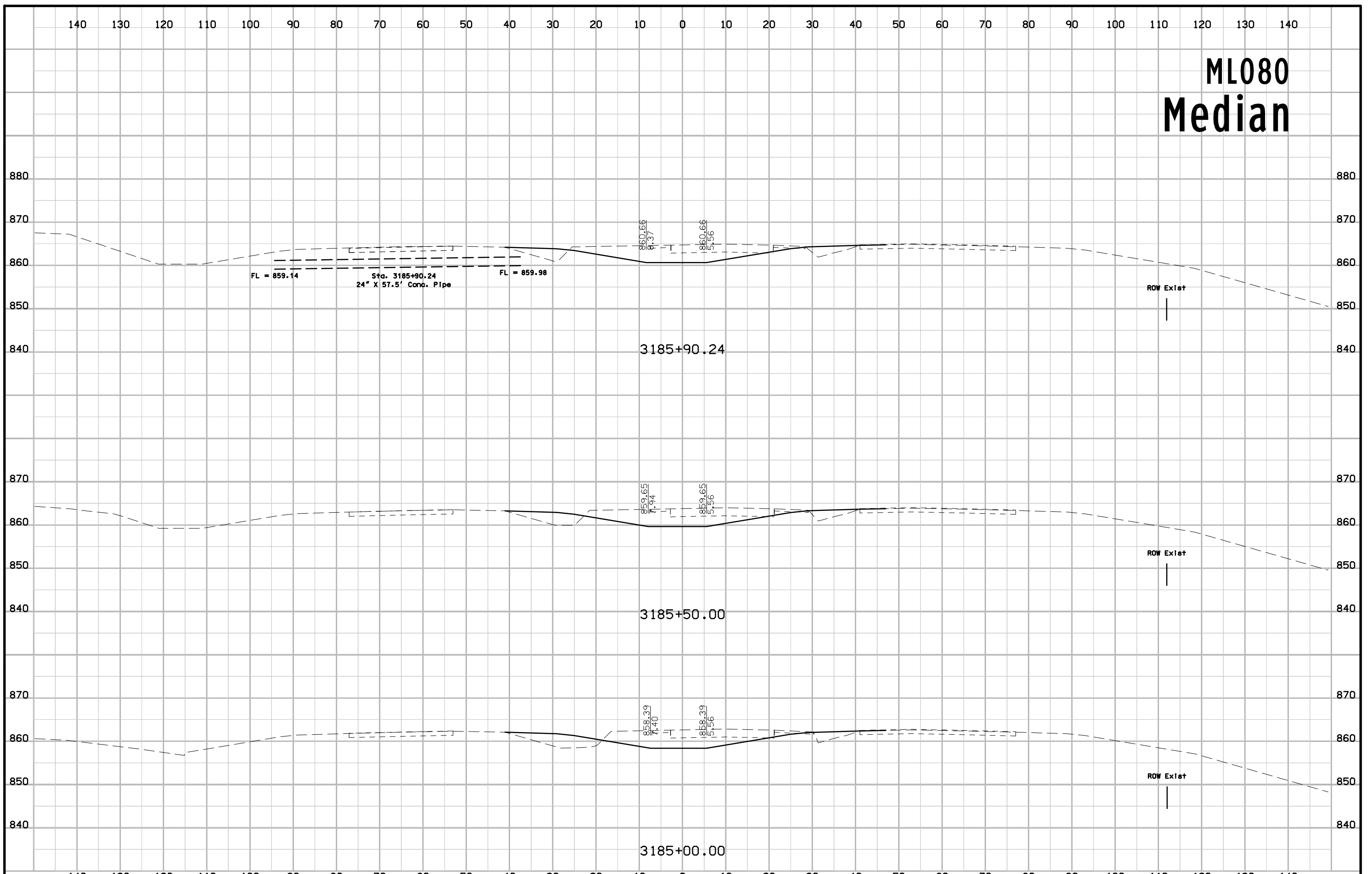
ML080 Median



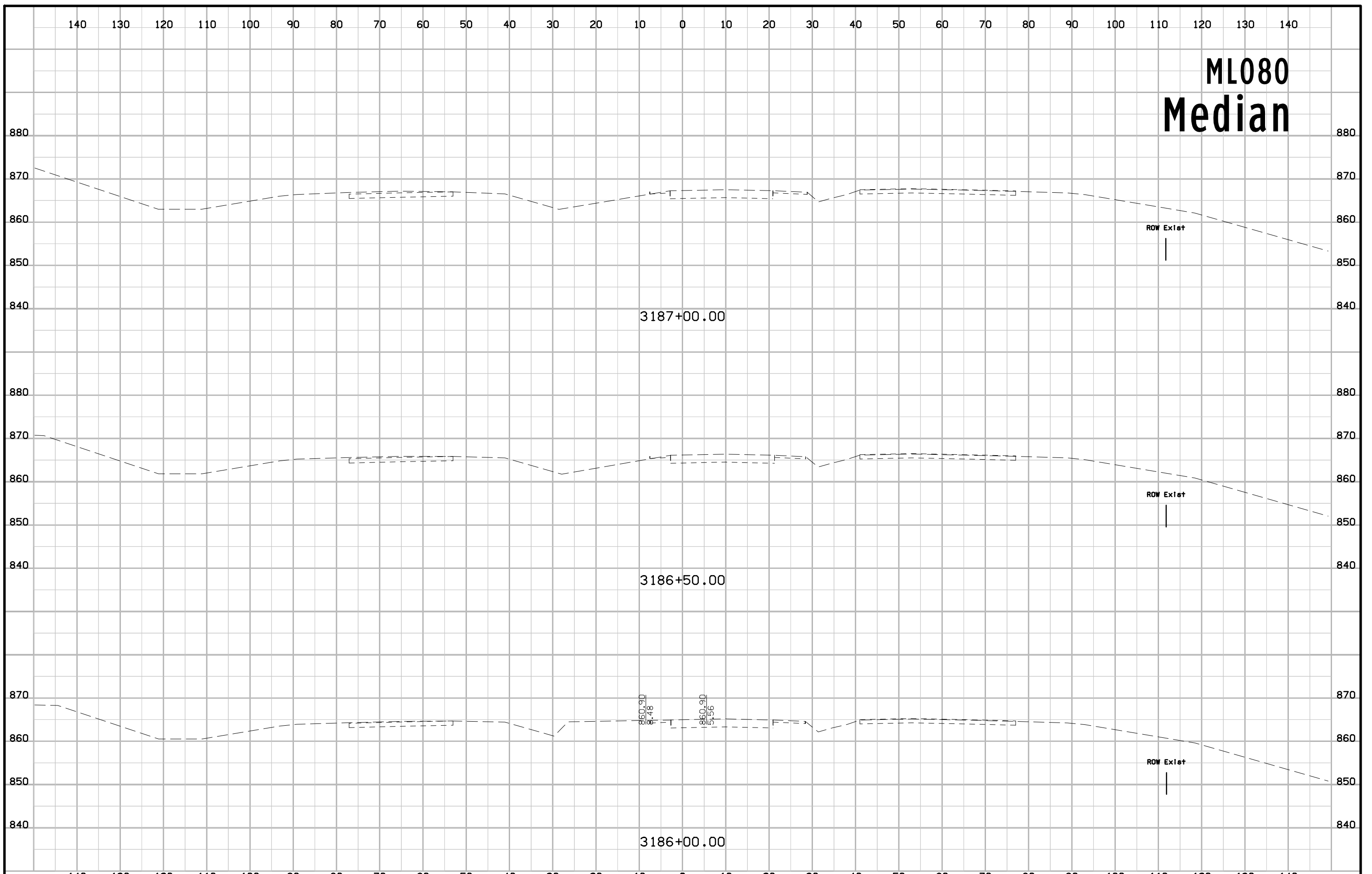
ML080 Median



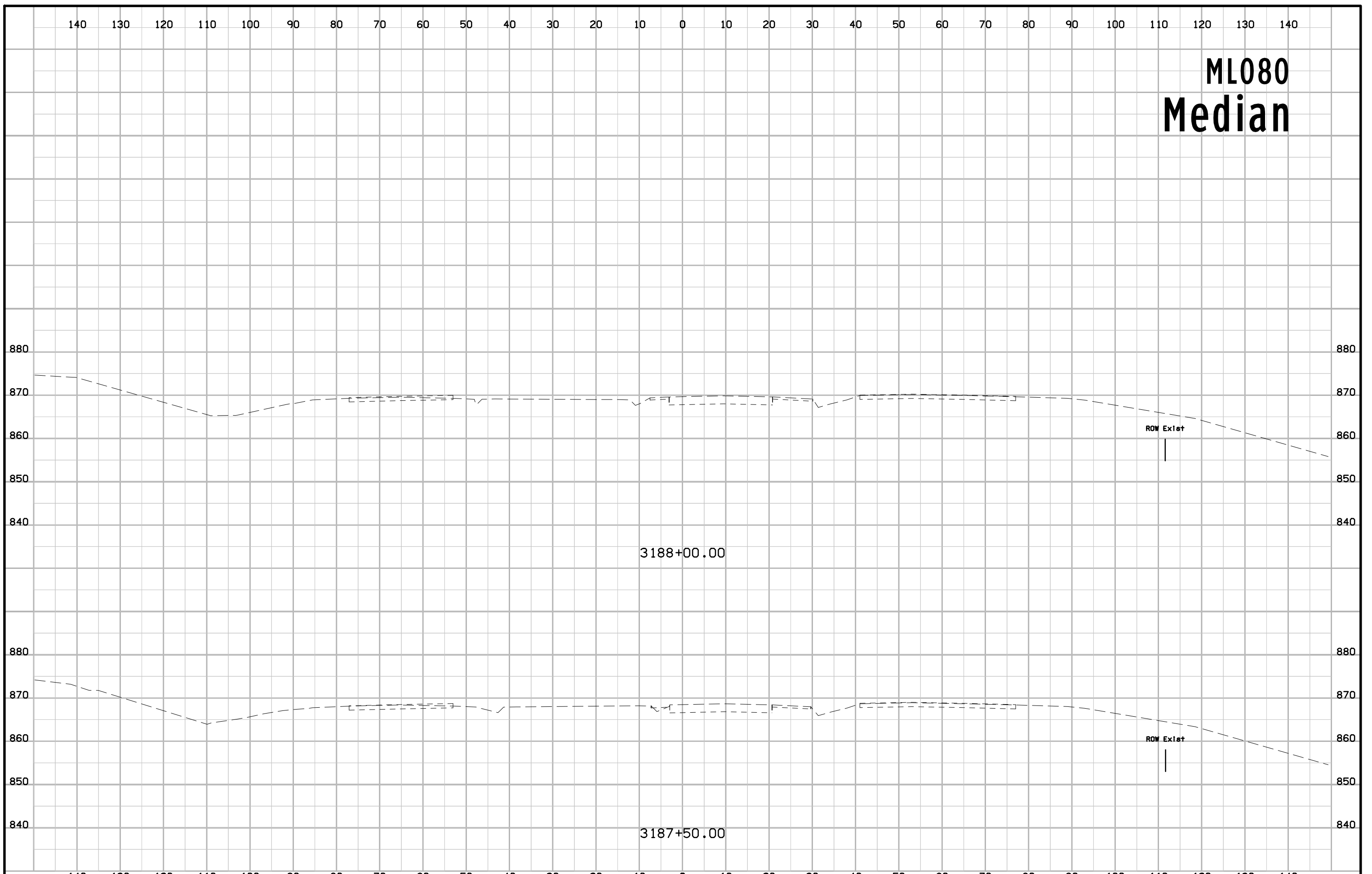
ML080 Median



ML080 Median

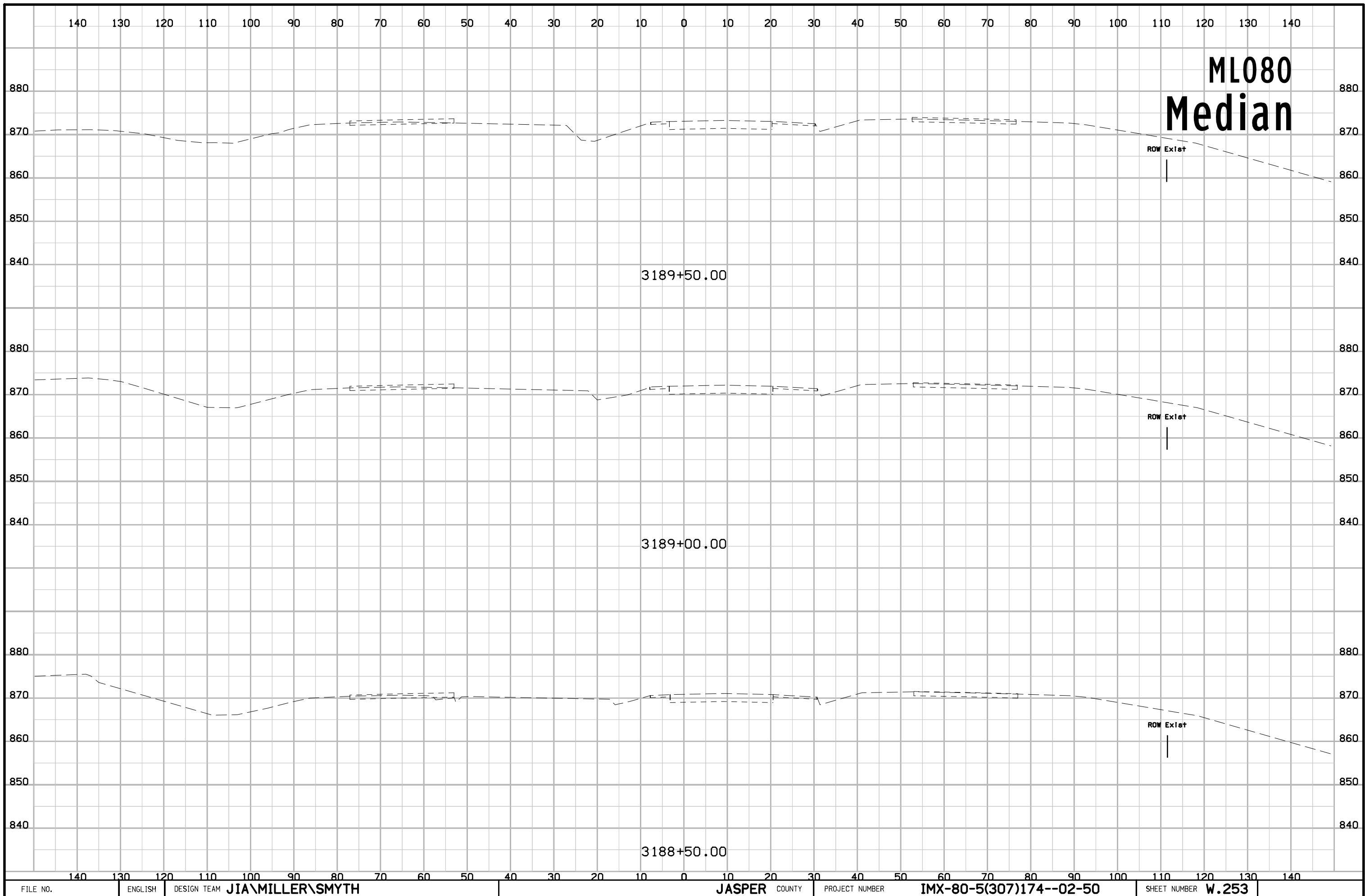


ML080 Median



3188+00.00

3187+50.00



ML080 Median

3189+50.00

3189+00.00

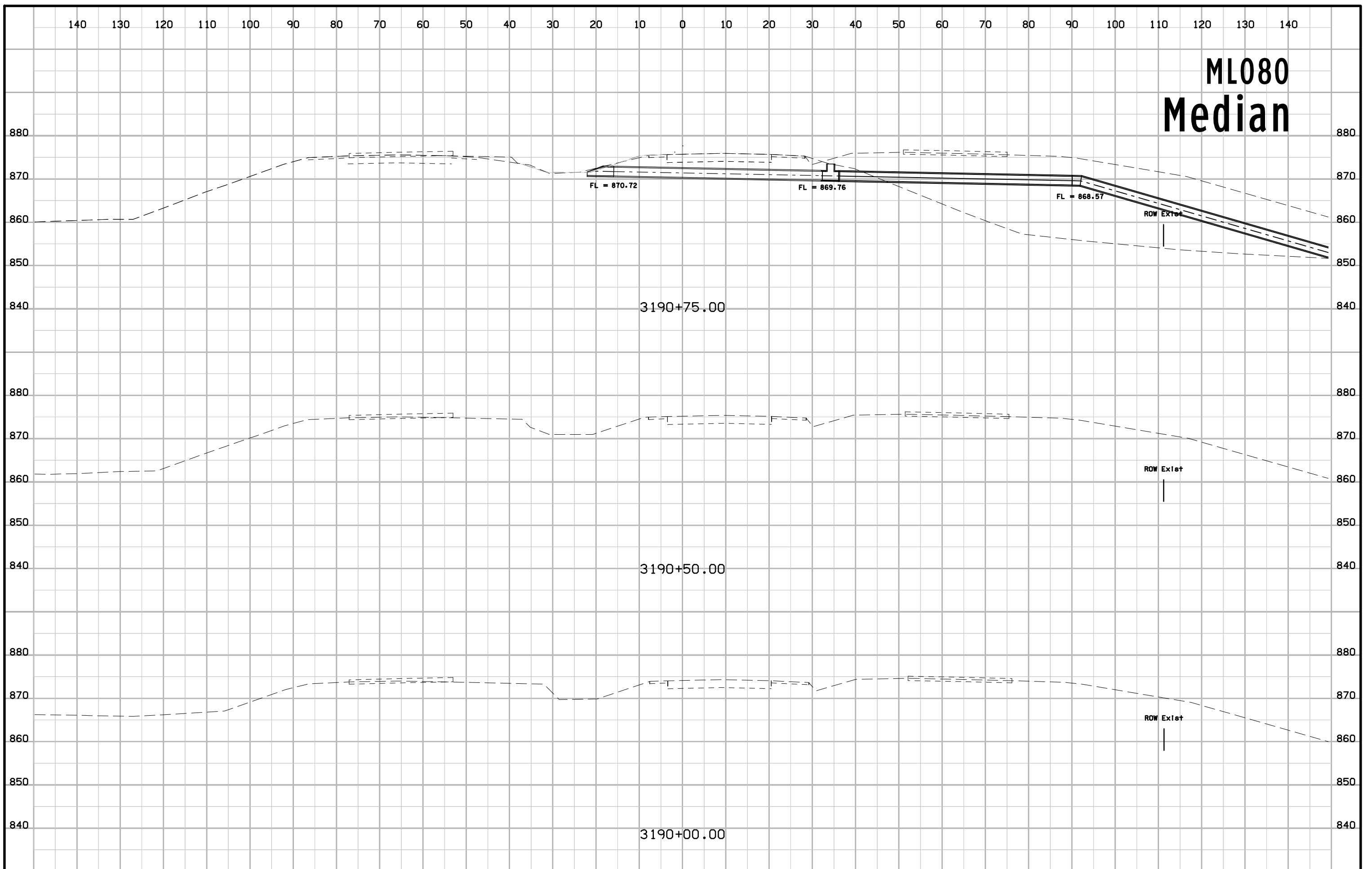
3188+50.00

ROW Exist

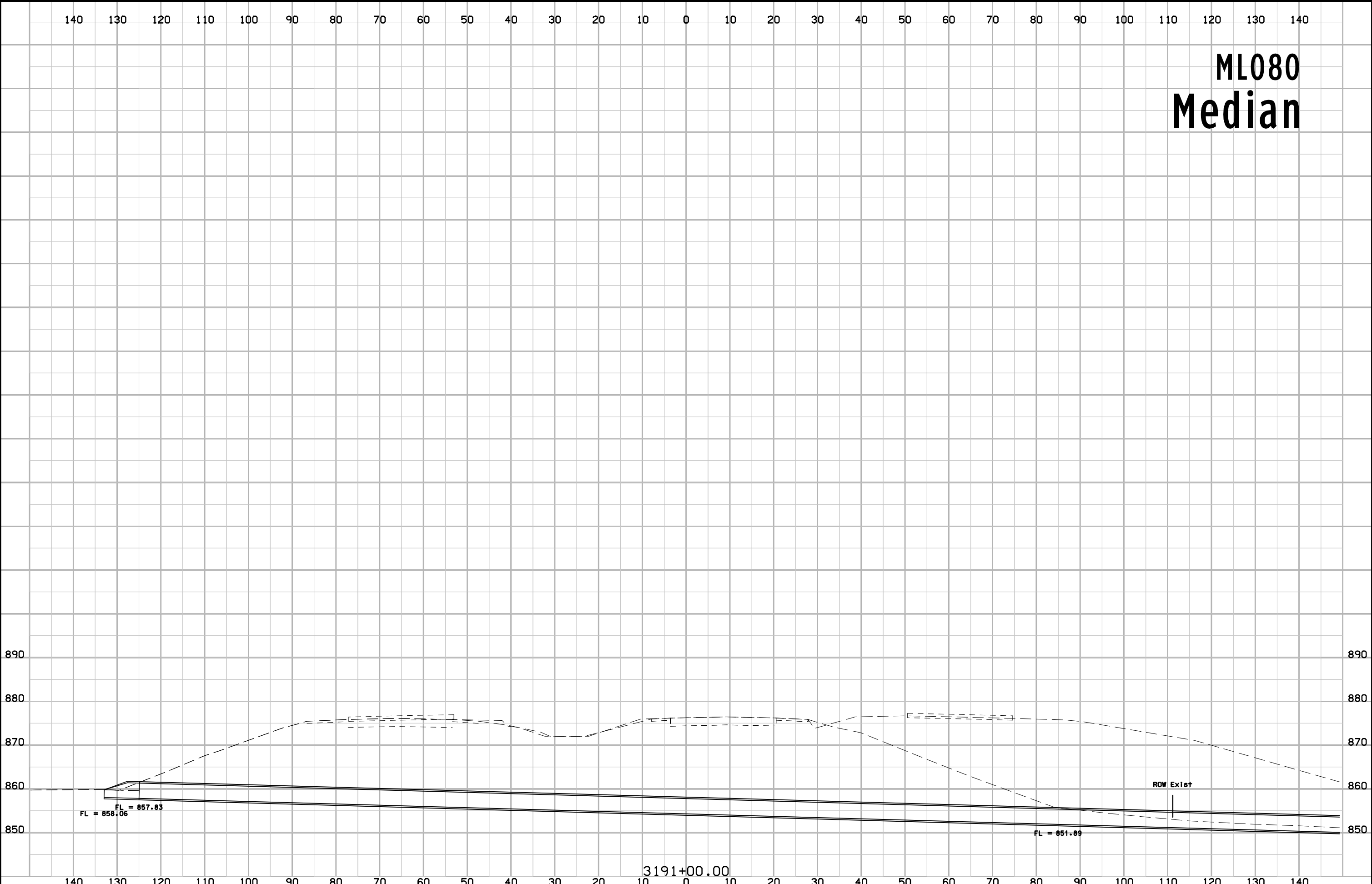
ROW Exist

ROW Exist

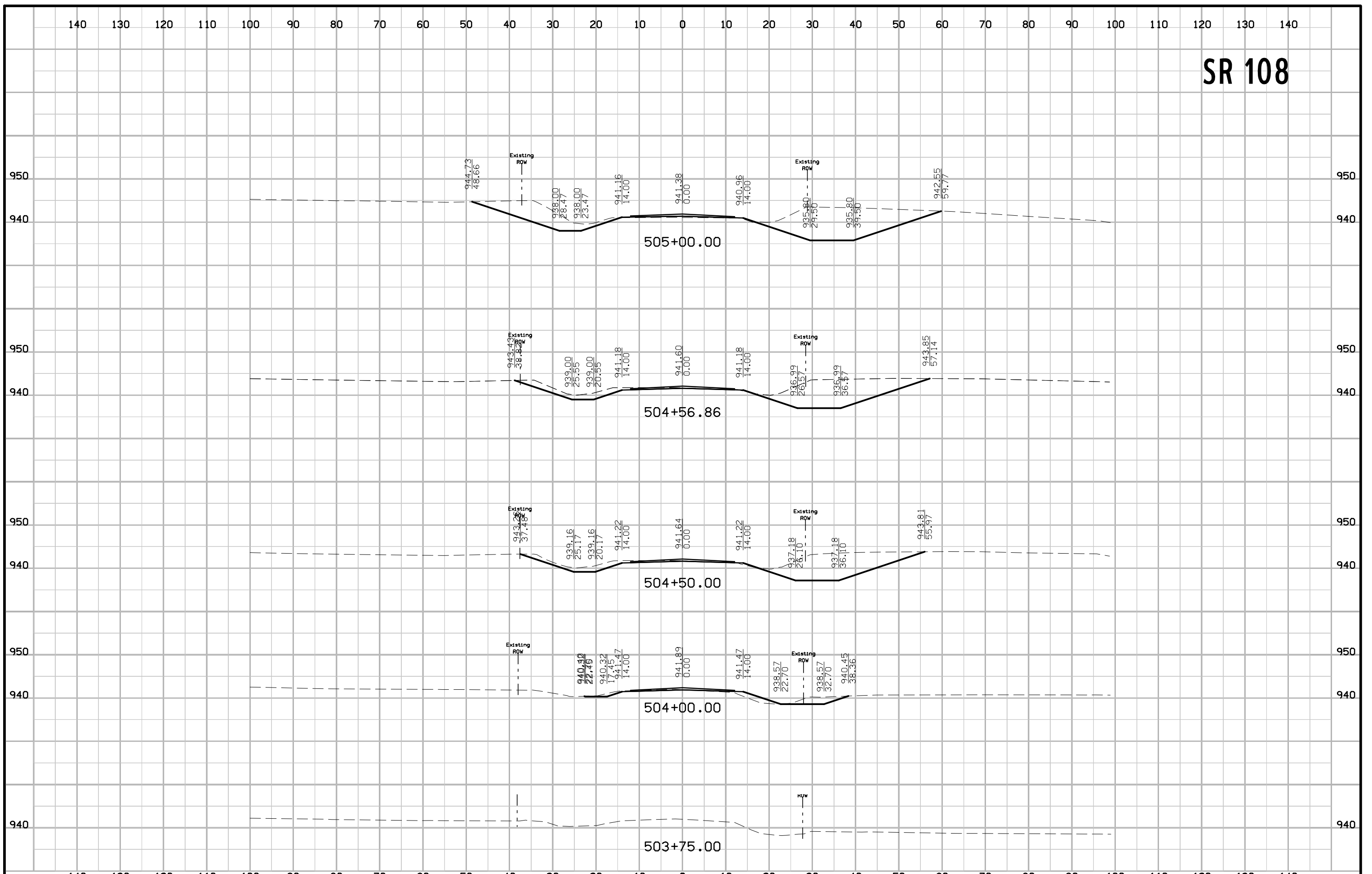
ML080 Median



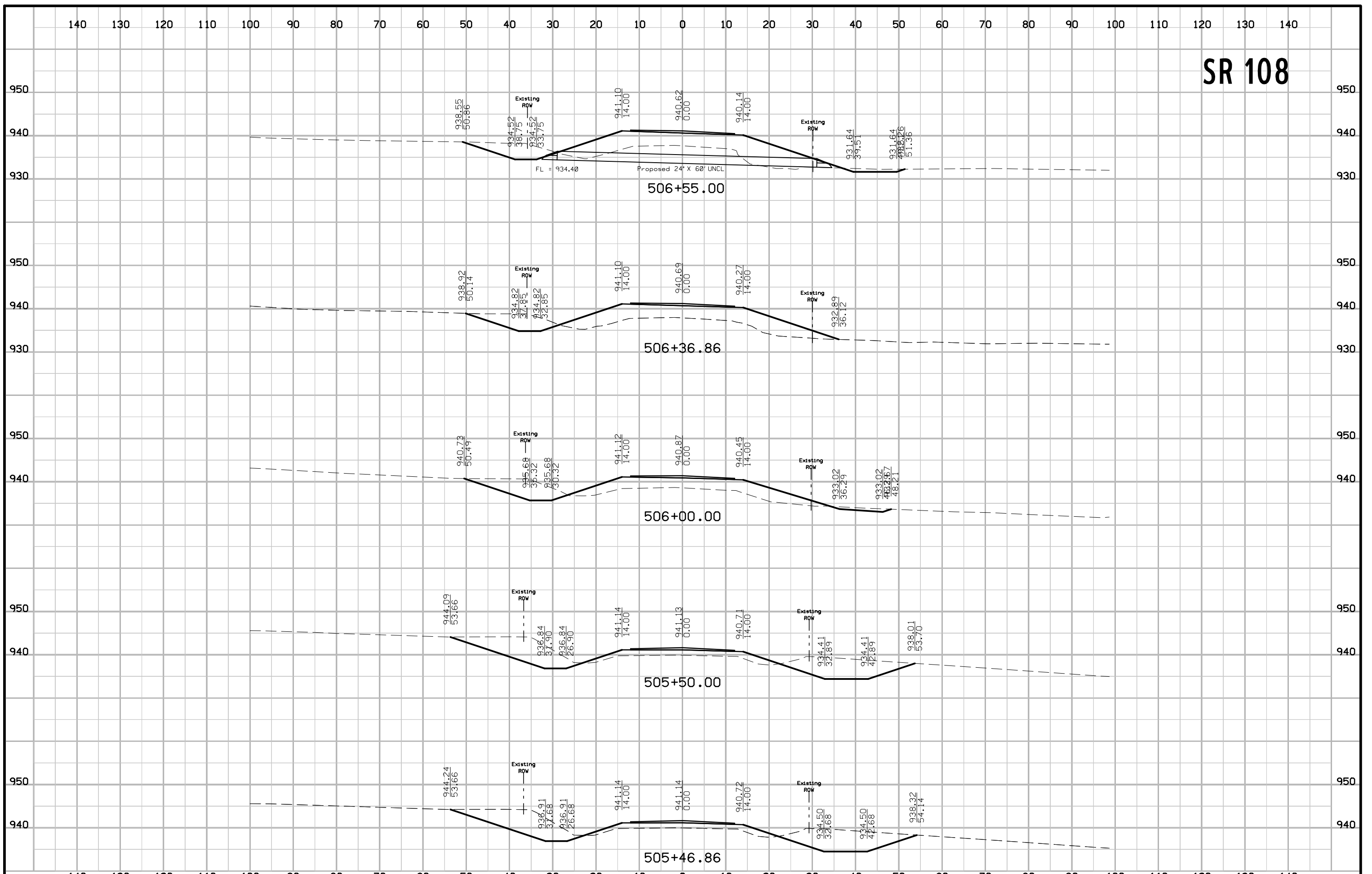
ML080 Median



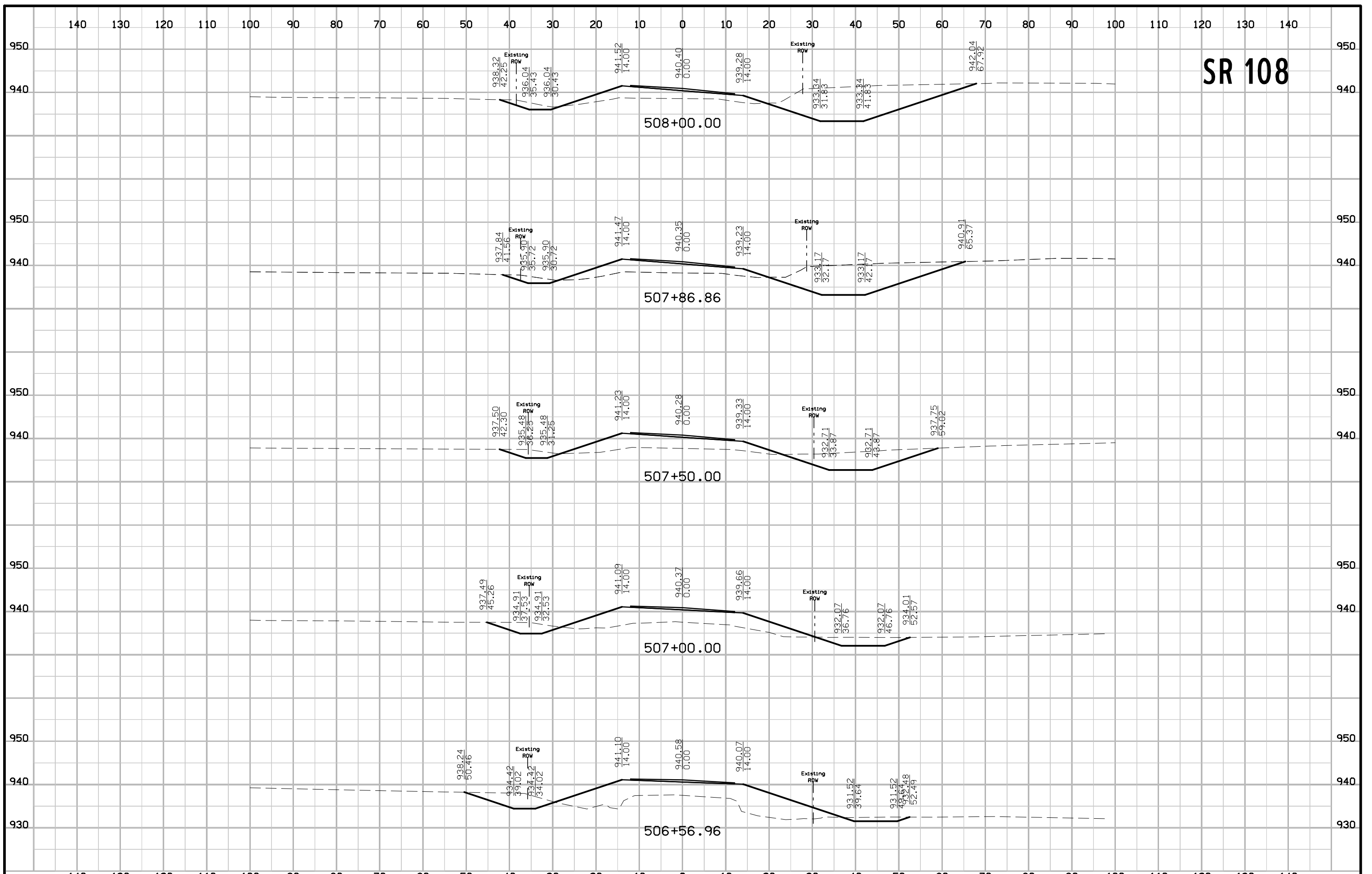
SR 108



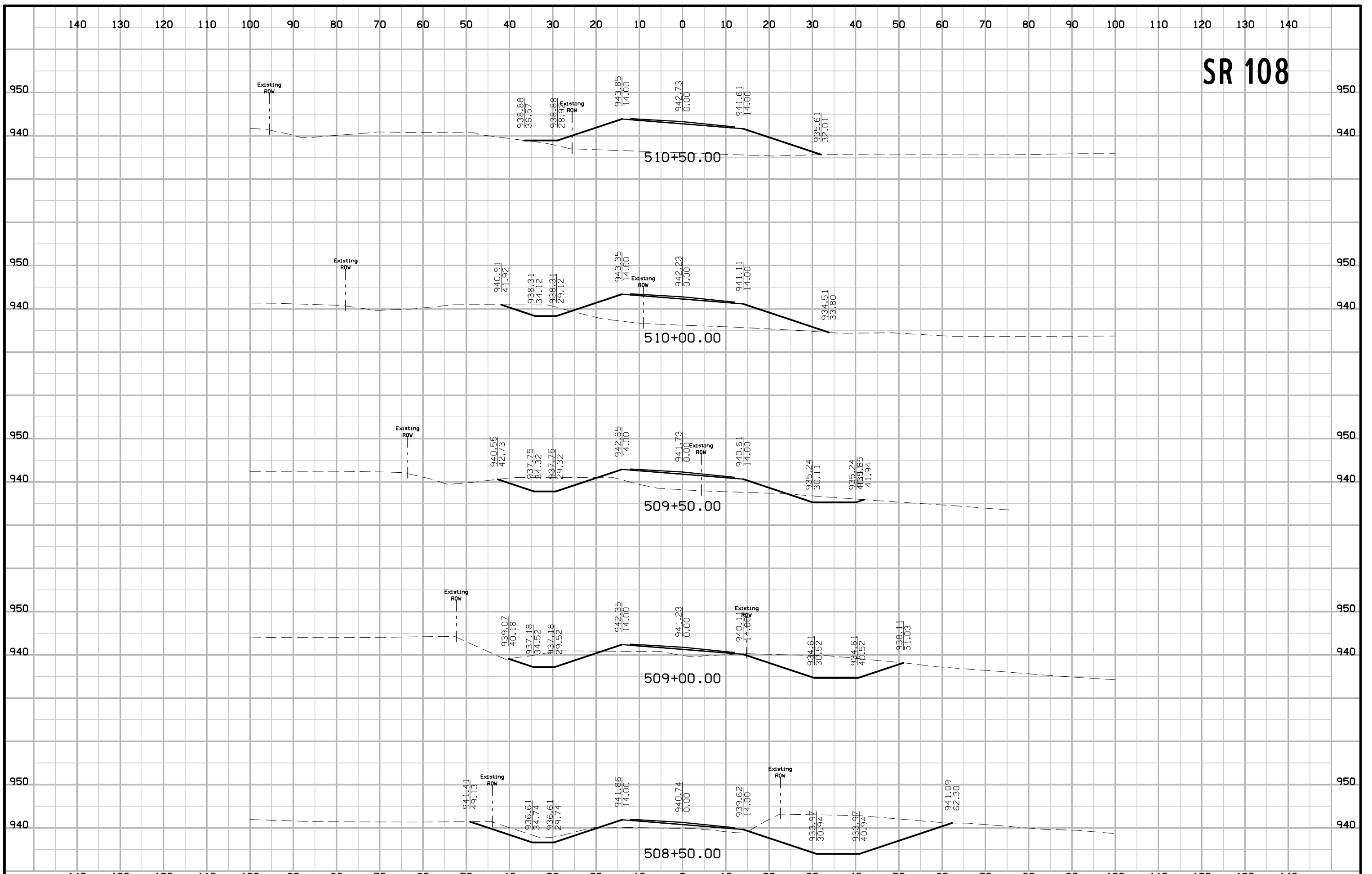
SR 108



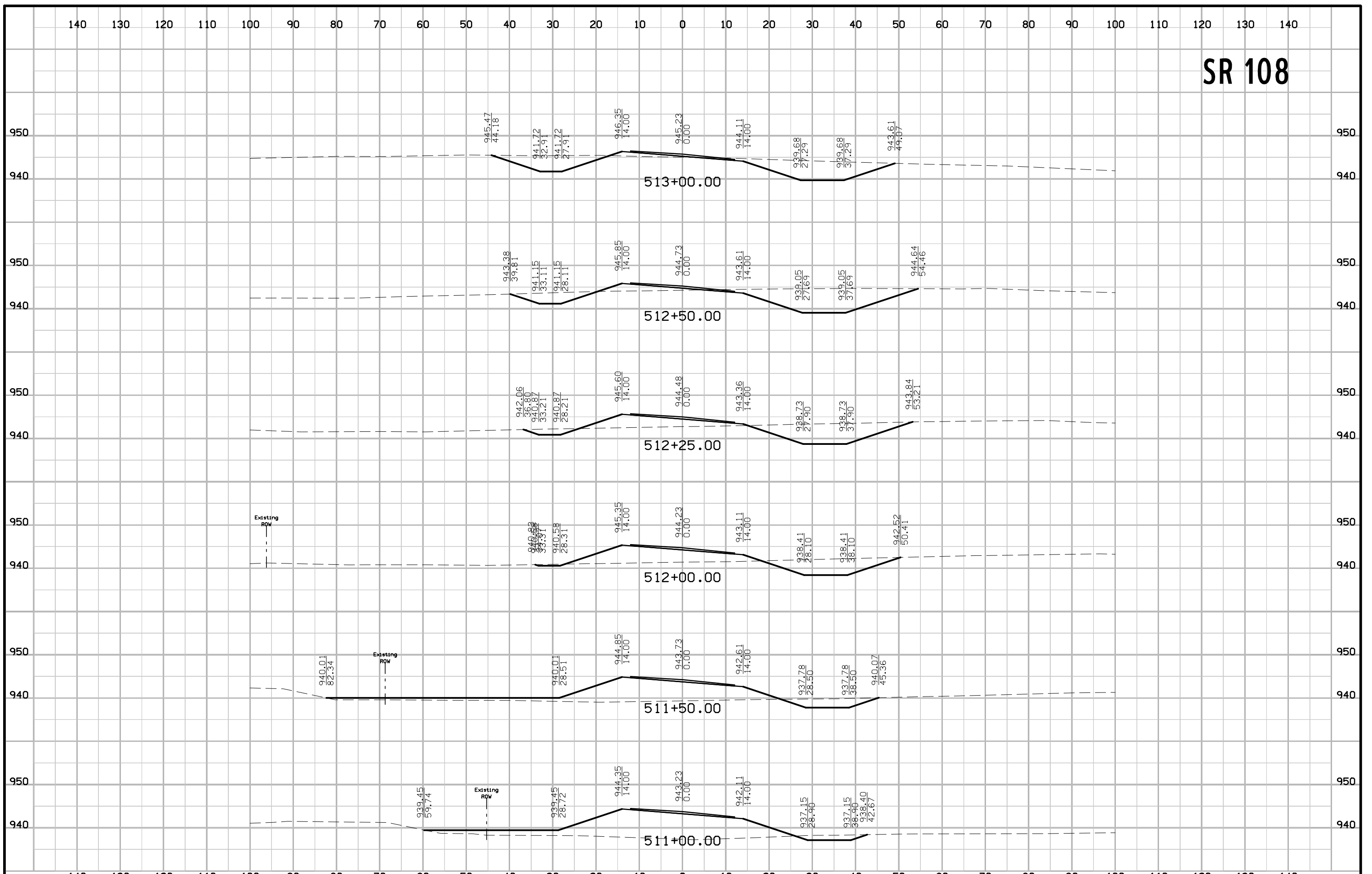
SR 108



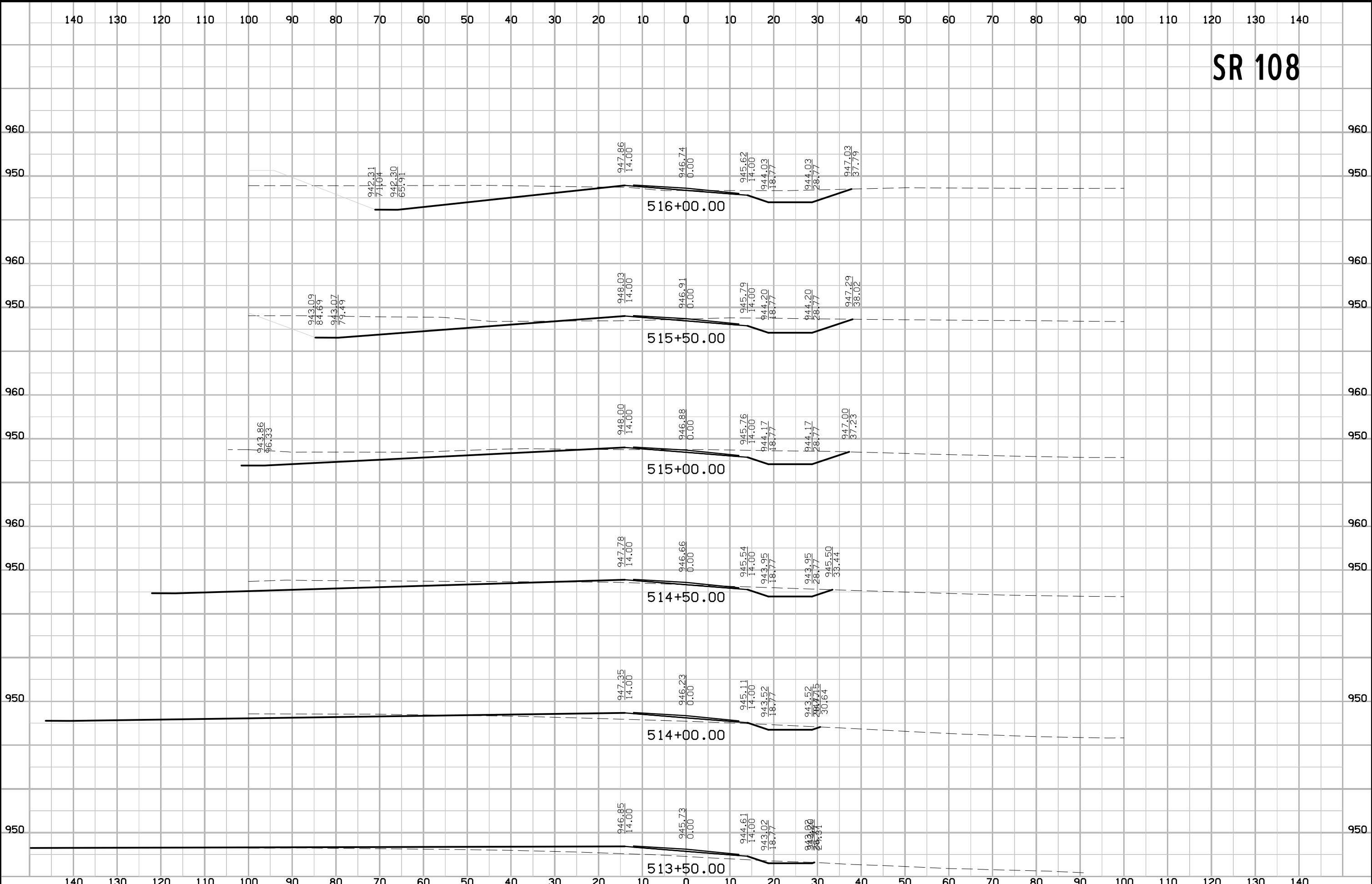
SR 108



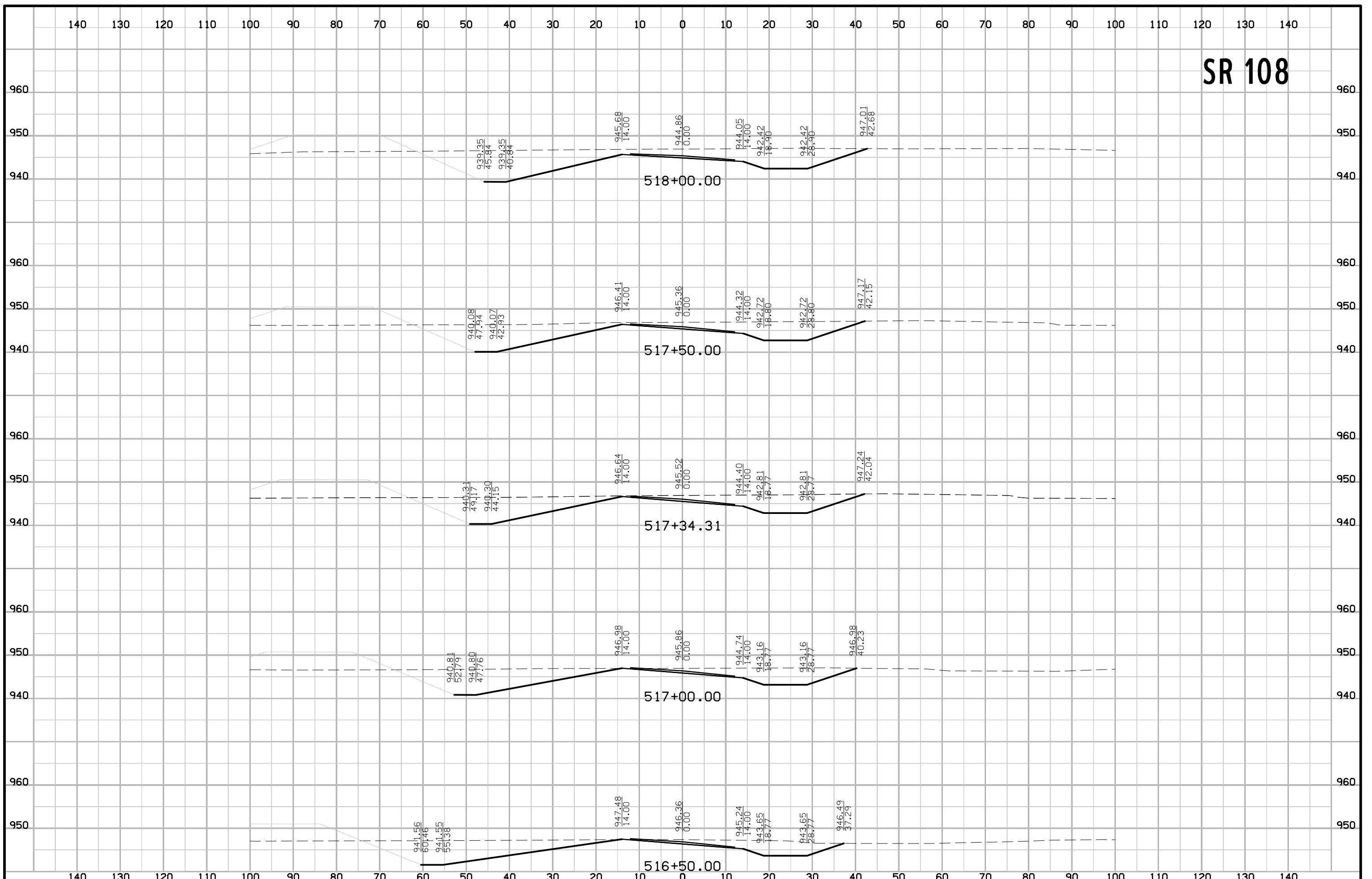
SR 108



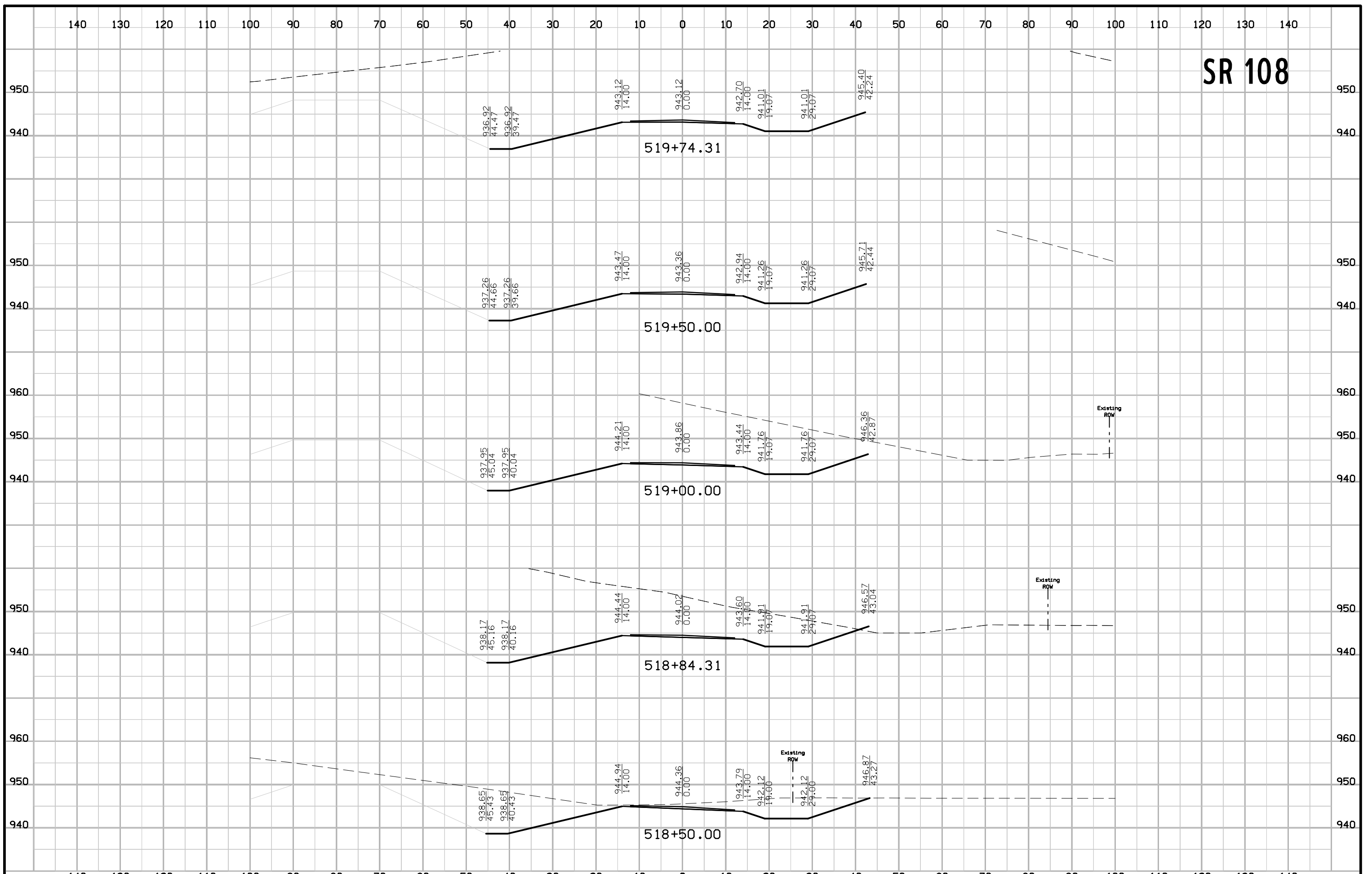
SR 108



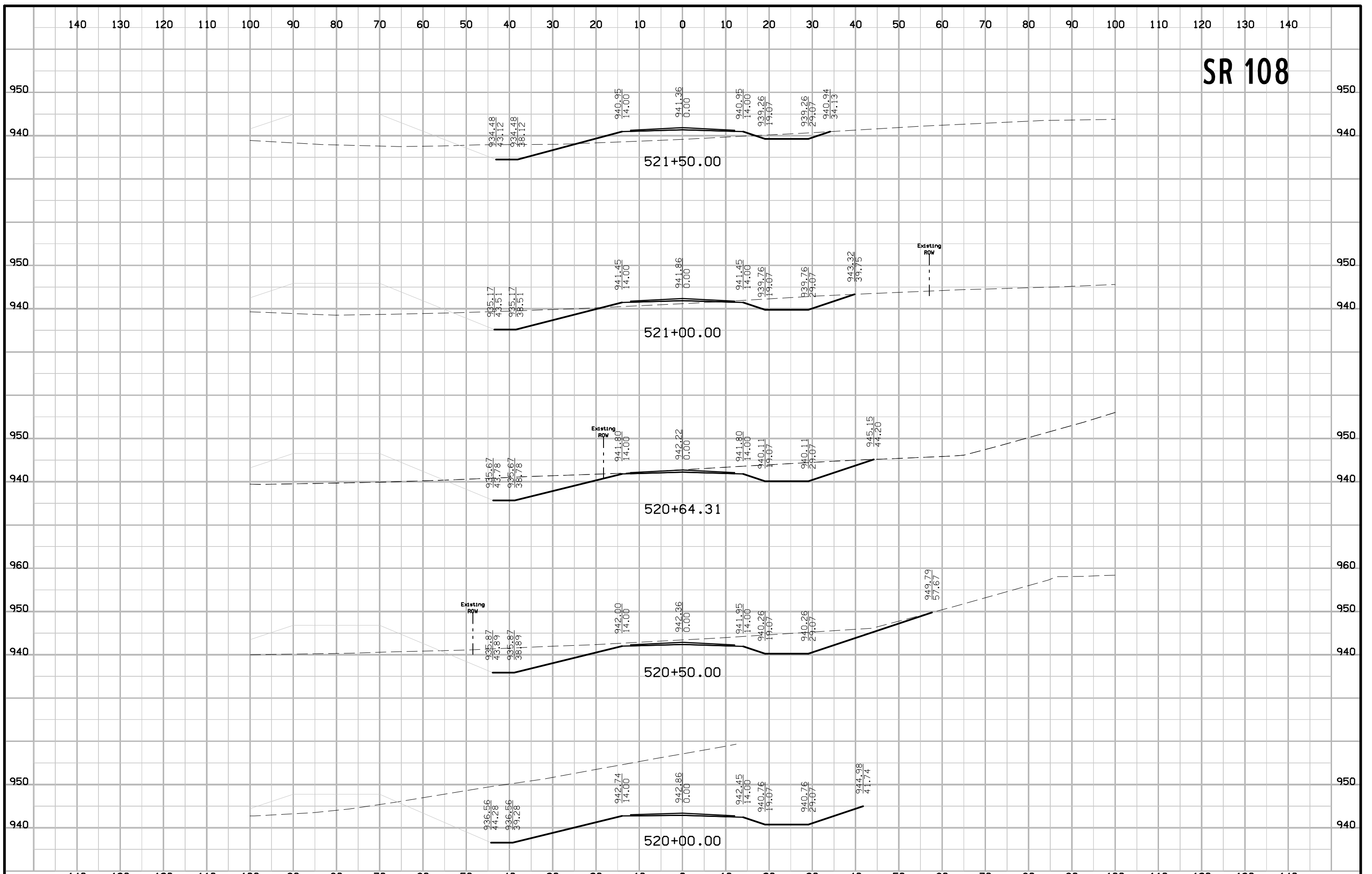
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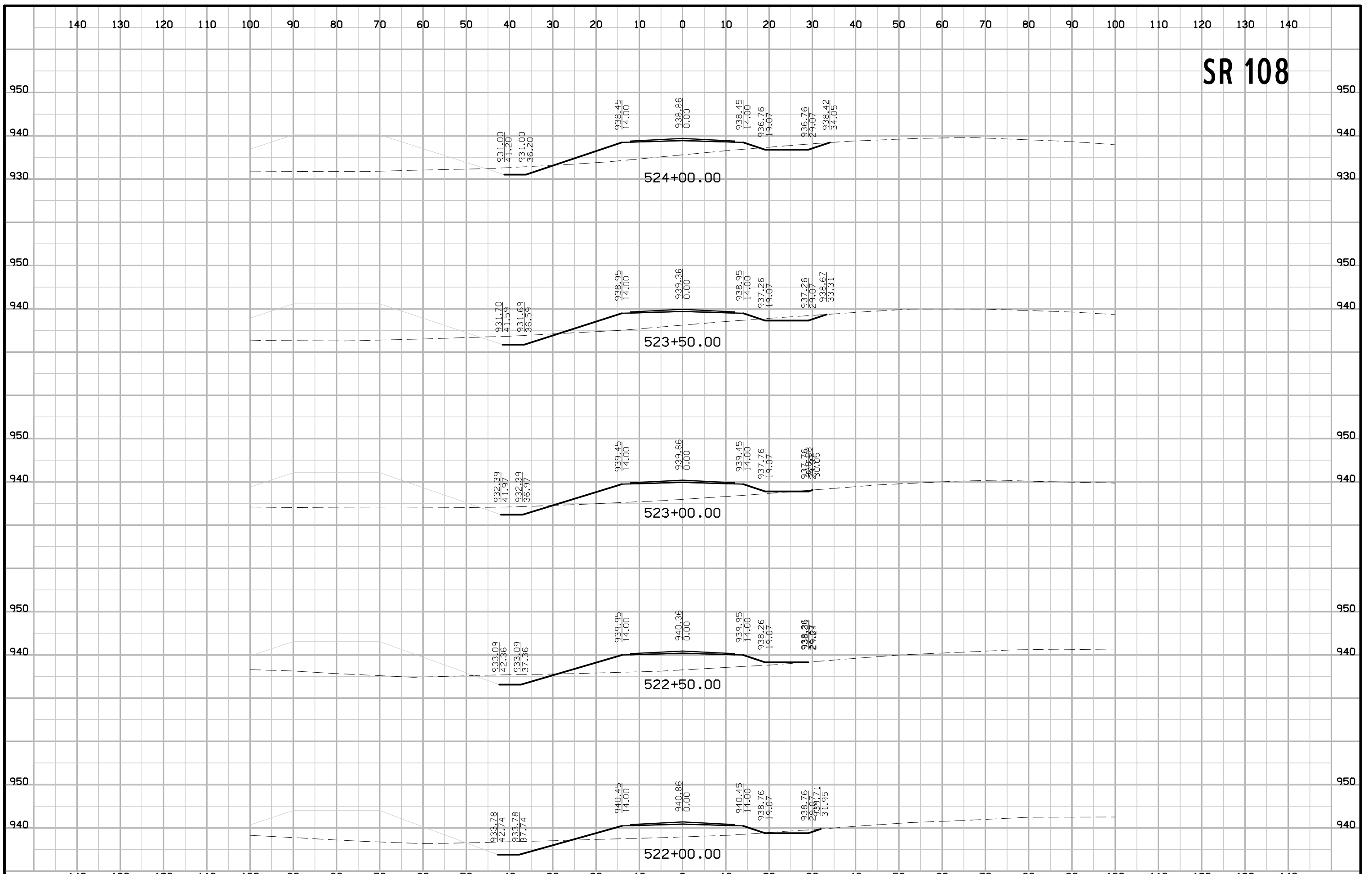
SR 108



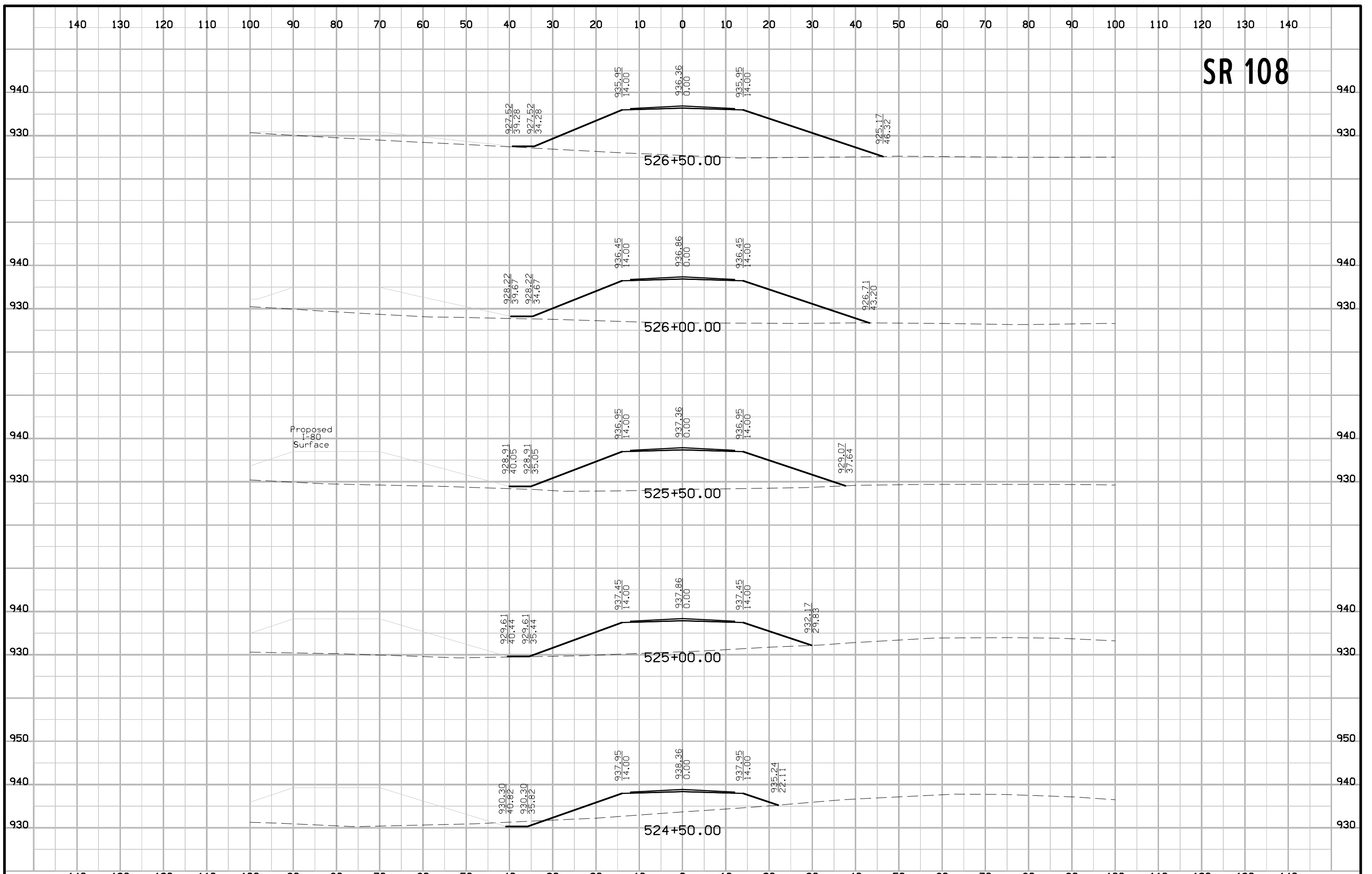
SR 108



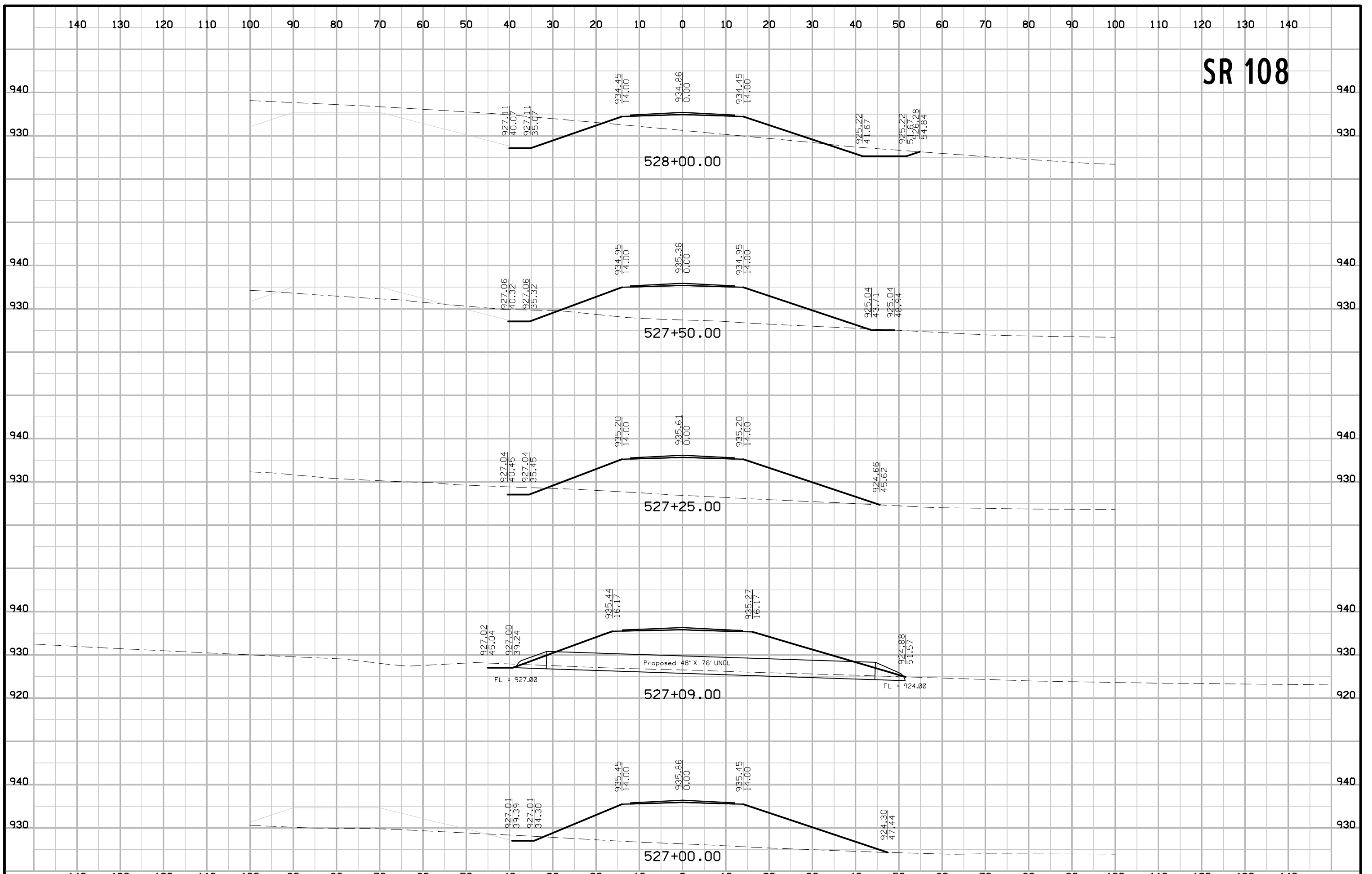
SR 108



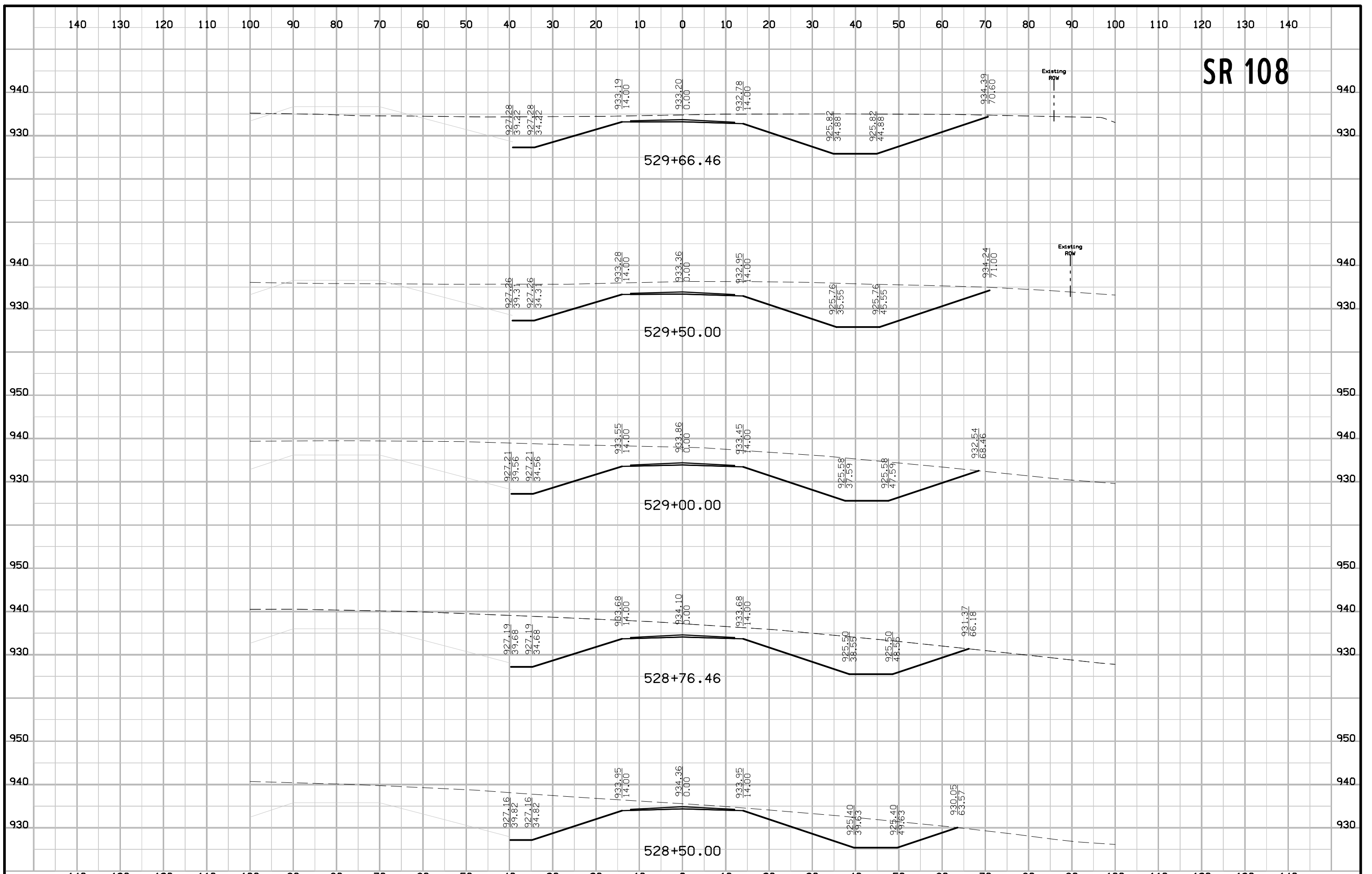
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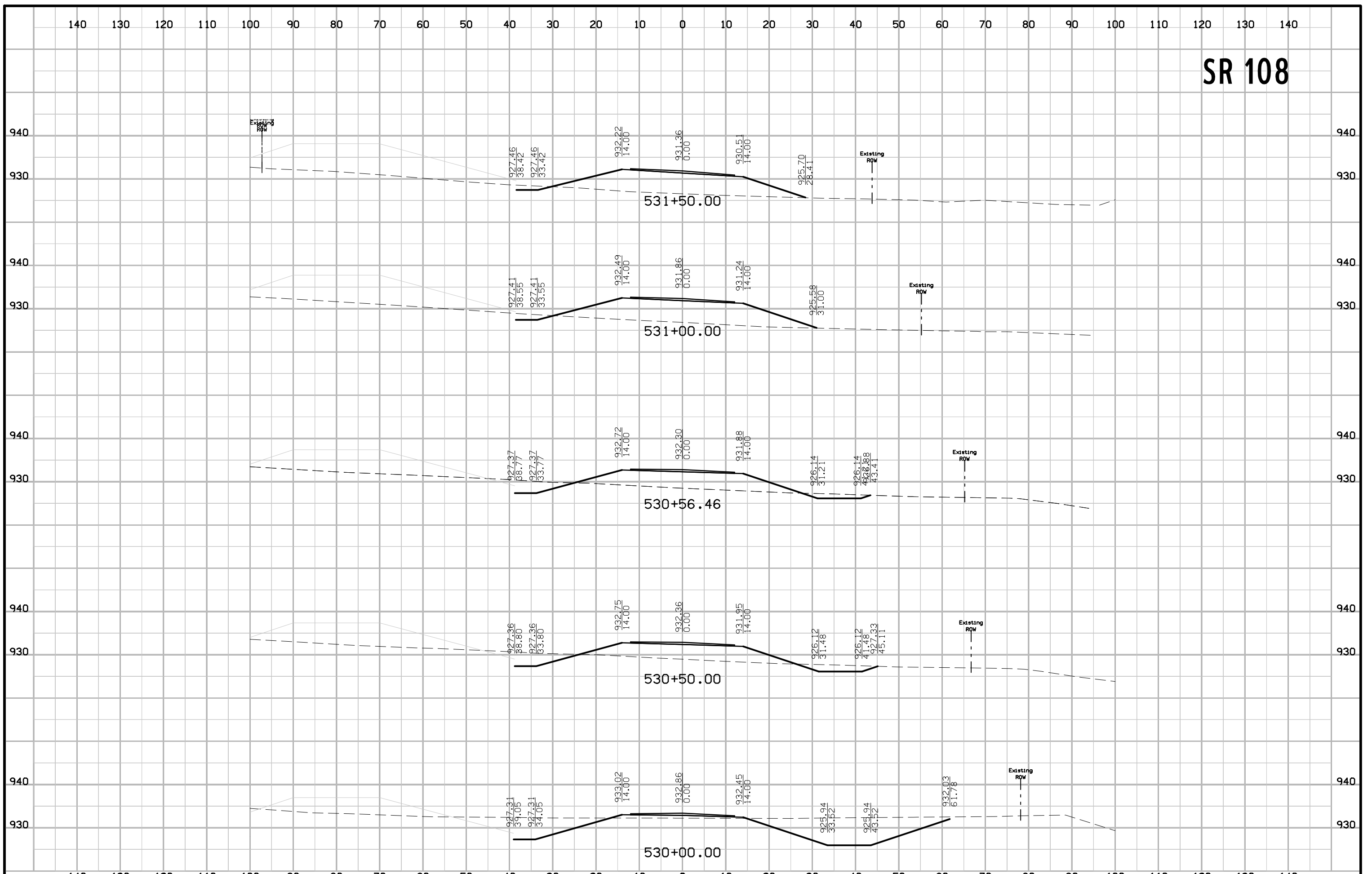
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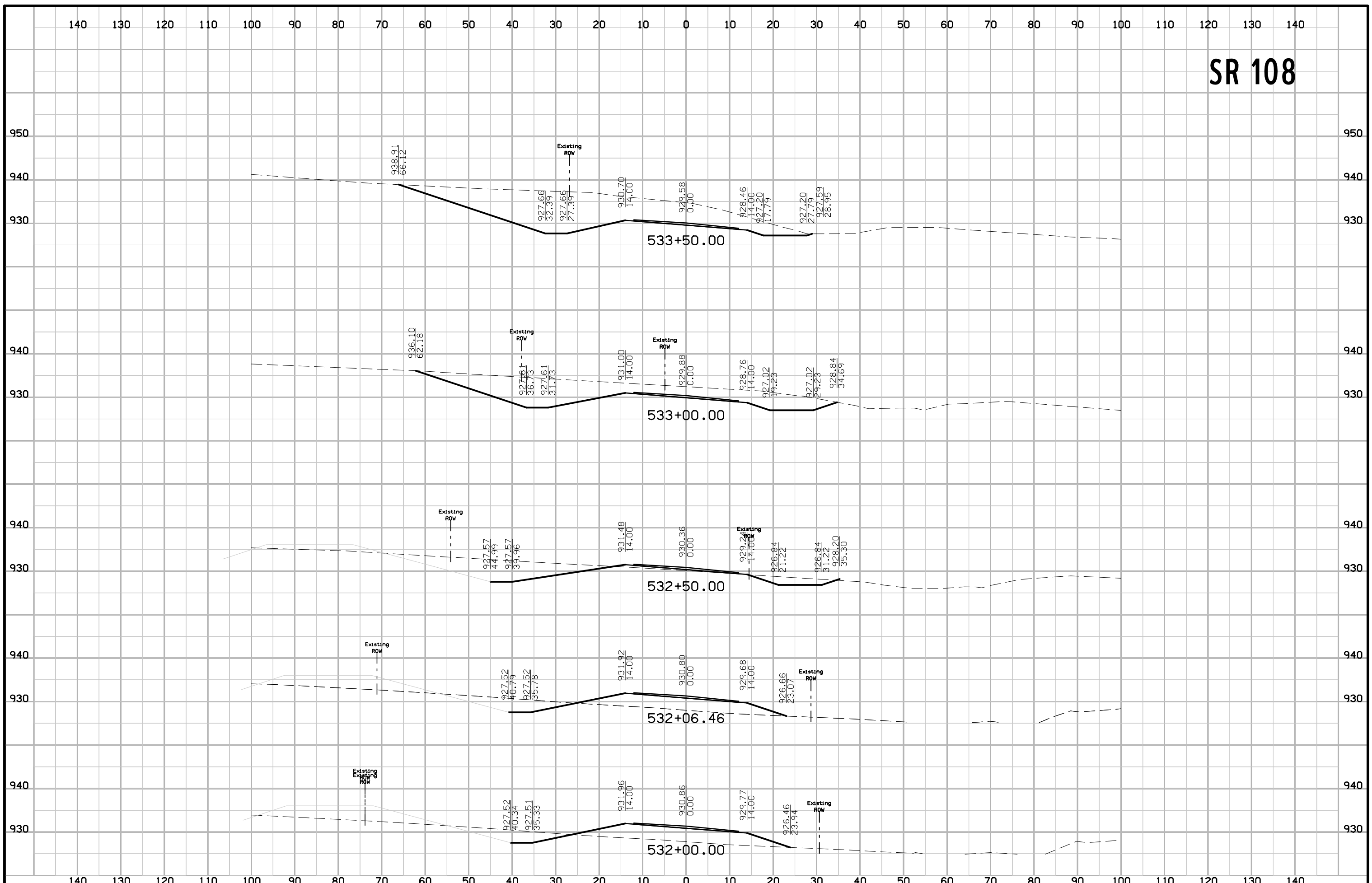
SR 108



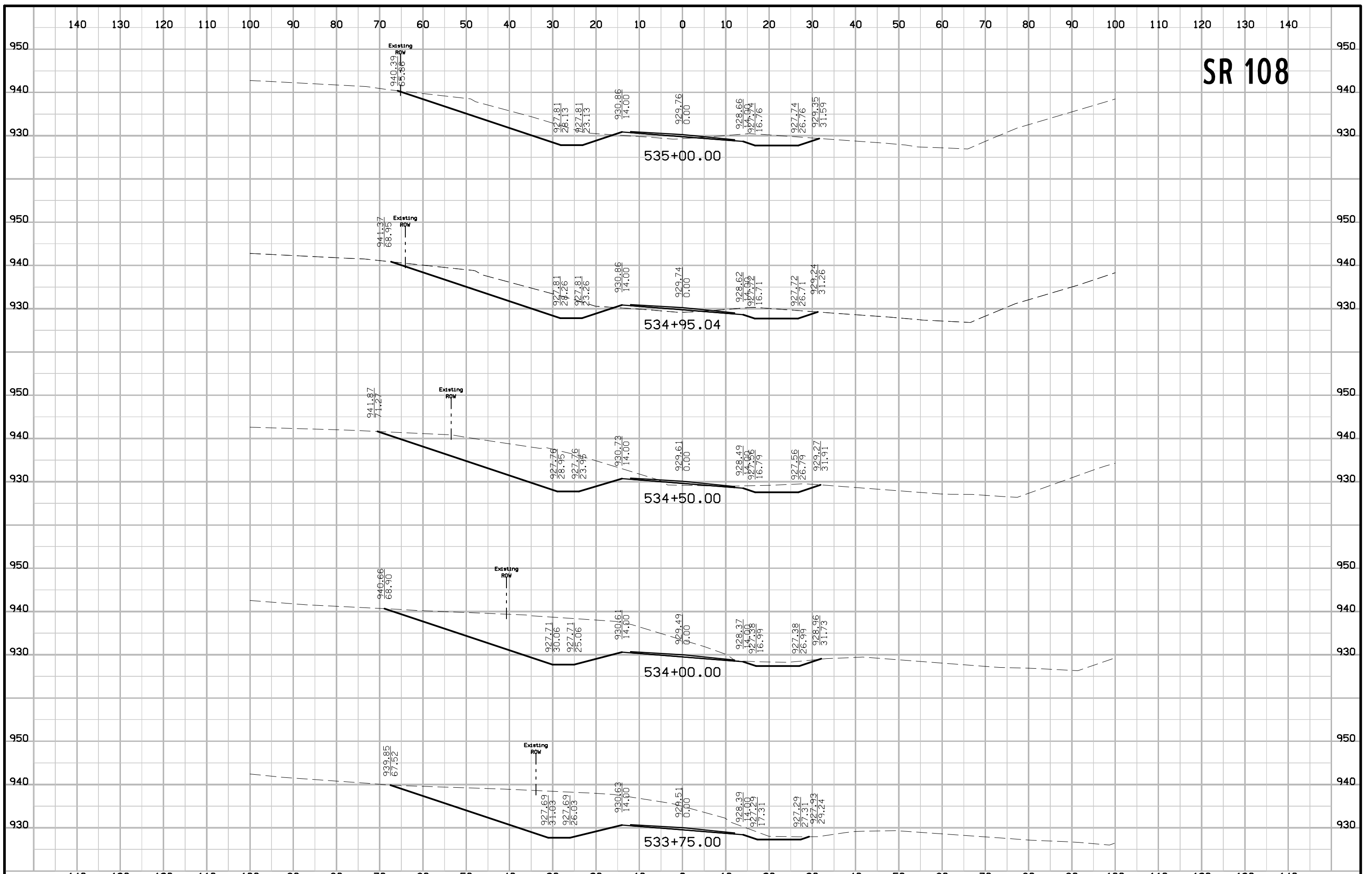
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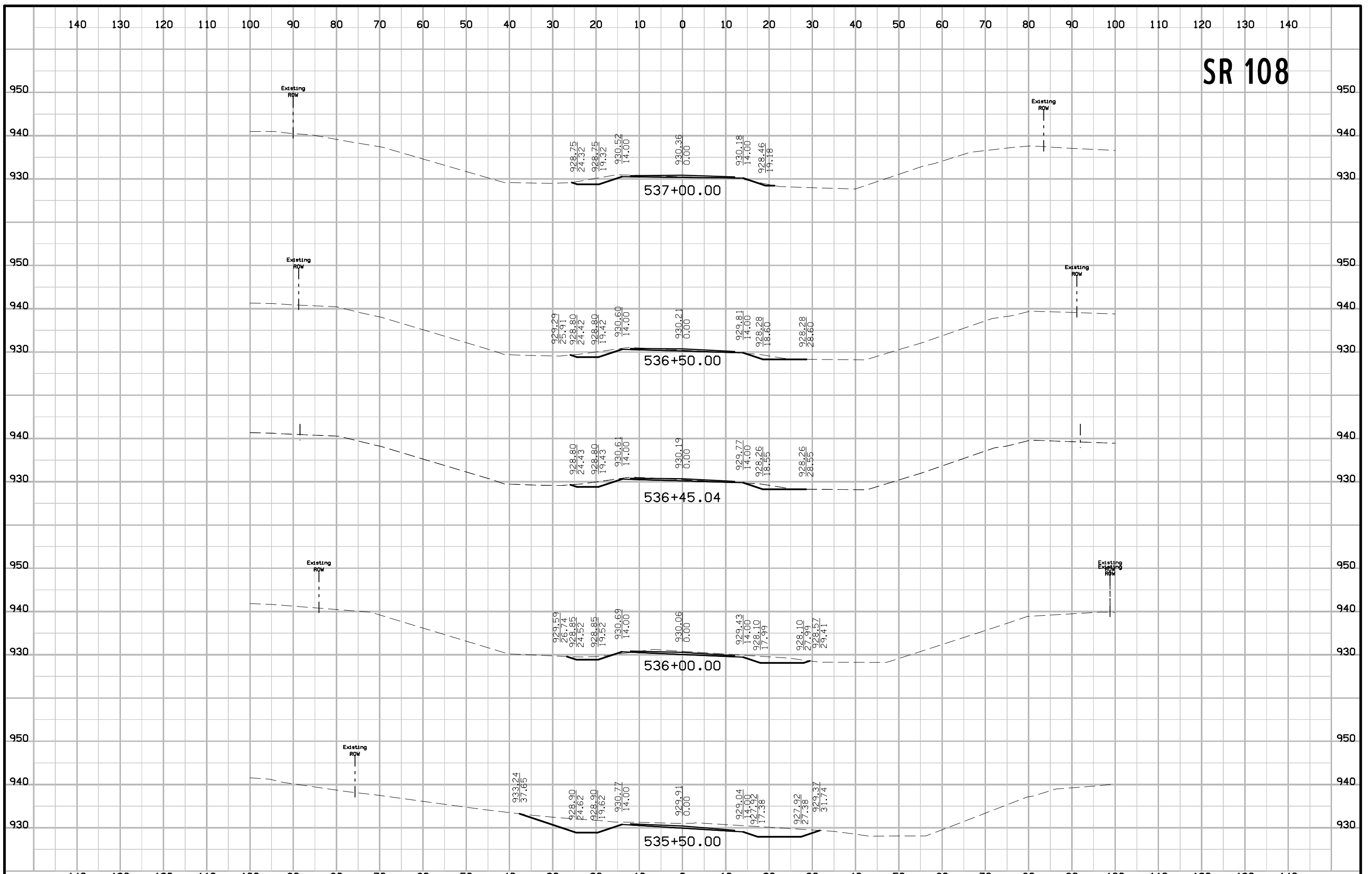
SR 108



SR 108



SR 108



SR 108

