

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
A.1	Title Sheet
A.2	Location Map Sheet
A.3 - 6	Ownership Map Sheet
B Sheets	Typical Cross Sections and Details
B.1 - 5	Typical Cross Sections and Details
C Sheets	Quantities and General Information
C.1	Project Description
C.1	Estimated Project Quantities
C.1	Estimate Reference Information
C.1	Standard Road Plans
C.1	Index of Tabulations
C.1	Pollution Prevention Plan
C.1	General Notes
C.1	Tabulations (beg. with tab. of incidentals if needed)
D Sheets	Mainline Plan and Profile Sheets
* D.1	Plan & Profile Legend & Symbol Information Sheet
* D.2 - 15	Iowa Highway 17
E Sheets	Side Road Plan and Profile Sheets
* E.1 - 6	200th Street
* E.7 - 9	Robin Road / 210th Street Connector
* E.10	210th Street
* E.11	R Avenue
* E.12	205th Street
G Sheets	Survey Sheets
G.1 - 2	Reference Ties and Bench Marks
G.3	Horizontal Control Tab. & Super for all Alignments
H Sheets	Right-of-Way Sheets
H.1 - 13	Iowa Highway 17
HE.1 - 6	200th Street
HE.7 - 10	210th Street Connector
J Sheets	Traffic Control and Staging Sheets
* J.1	Traffic Control & Staging Legend & Symbol Info. Sheet
* J.2	Staging Notes Stage
* J.3	Detour Plan
* J.4 - 6	Staging and Traffic Control Sheets Stage 1
* J.7 - 9	Staging and Traffic Control Sheets Stage 2
* J.10 - 12	Staging and Traffic Control Sheets Stage 3
L Sheets	Geometric, Staking and Jointing Sheets
L.1 - 20	Geometric & Staking "Mainline or Side Road Name"
V Sheets	Bridge and Culvert Situation Plans
V.1 - 19	Bridge and Culvert Situation Plans
W Sheets	Mainline Cross Sections
W.1	Cross Sections Legend & Symbol Information Sheet
W.2 - 144	Mainline Cross Sections
X Sheets	Side Road Cross Sections
X.1 - 133	Side Road Cross Sections
	* Color Plan Sheets



Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

BOONE COUNTY

GRADING, BRIDGE, PCC PAVING

Approx 0.5 mi north of US 30 north and east approx 3 mi

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

Value Engineering Saves. Refer to Article 1105.14 of the Specifications.

For Project Location Map
Refer to Sheet No. A.02

FHWA CROSSING #190721W



EARTHWORK SUMMARY				
ROAD ID	EXCAVATION TOTAL CUT (CY)	FILL + 30% TOTAL FILL (CY)	BORROW	WASTE
IA 17 (FY 2023)	21,122	305,858	284,736	-
Robin Road (FY 2023)	10,427	13,634	3,207	-
FY 2023 TOTALS	31,549	319,492	221,495	-
IA 17 (FY 2024)	55,920	39,302	-	2,700
200th STREET (FY 2024)	97,384	41,686	-	12,200
FY 2024 TOTALS	153,304	80,988	-	69,500
PROJECT TOTALS	184,853	400,480	221,495	69,500

IA-17/S AVENUE DESIGN DATA RURAL			
2015 AADT	3,800	V.P.D.	
2035 AADT	4,500	V.P.D.	
2035 DHV	--	V.P.H.	
TRUCKS	12 %		
Total Design ESALs	--		

200TH STREET DESIGN DATA RURAL			
2015 AADT	80	V.P.D.	
2035 AADT	3,500	V.P.D.	
2035 DHV	--	V.P.H.	
TRUCKS	12 %		
Total Design ESALs	--		

210TH STREET DESIGN DATA RURAL			
2015 AADT	0	V.P.D.	
2035 AADT	4,400	V.P.D.	
2035 DHV	--	V.P.H.	
TRUCKS	10 %		
Total Design ESALs	--		

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

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

Gabriel A. Nelson, P.E. Date _____

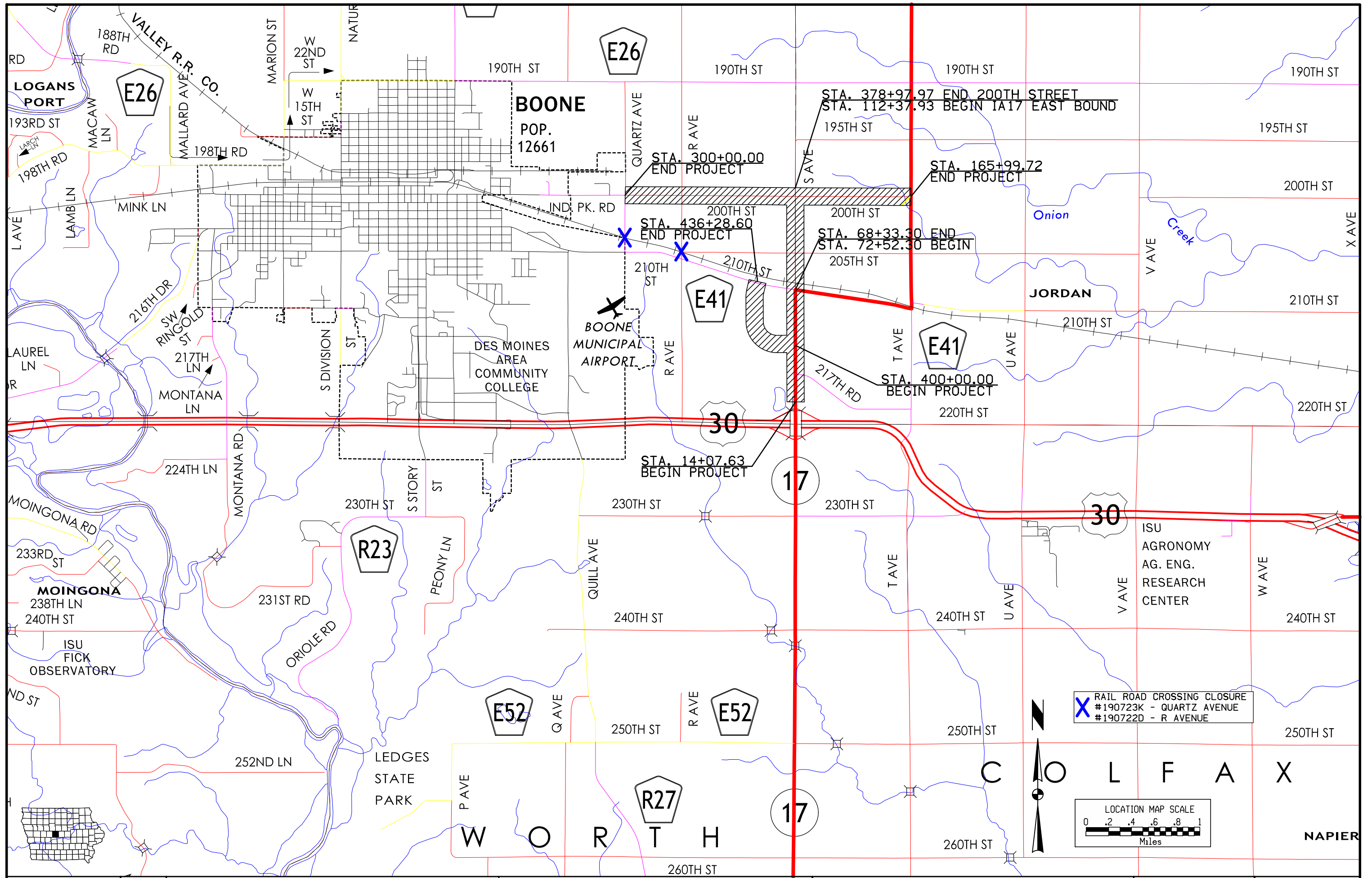
License Number 17382

My License Renewal Date is December 31, 2020

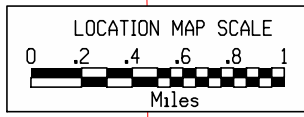
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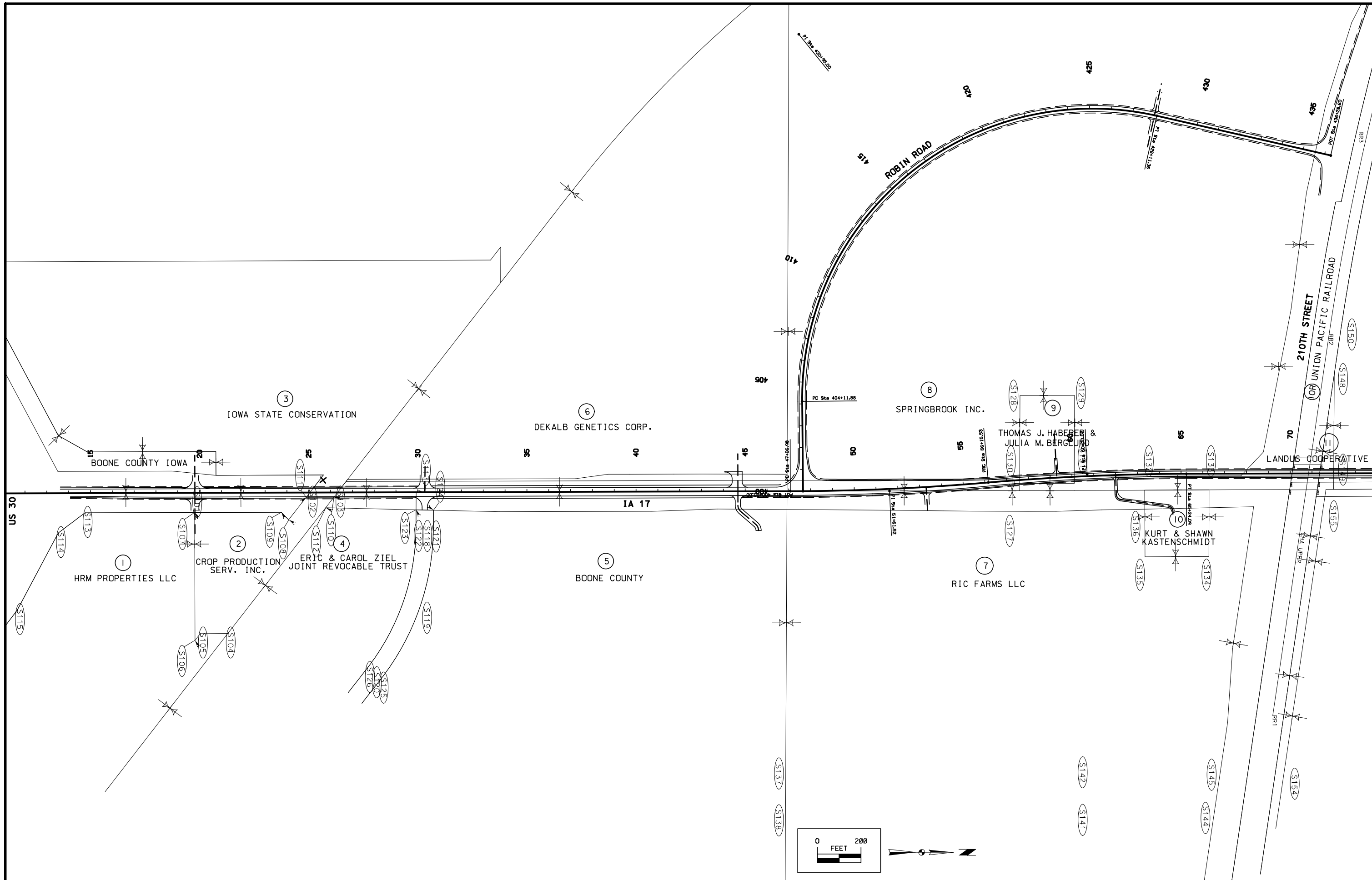
RI Submittal - Date: 5-31-19

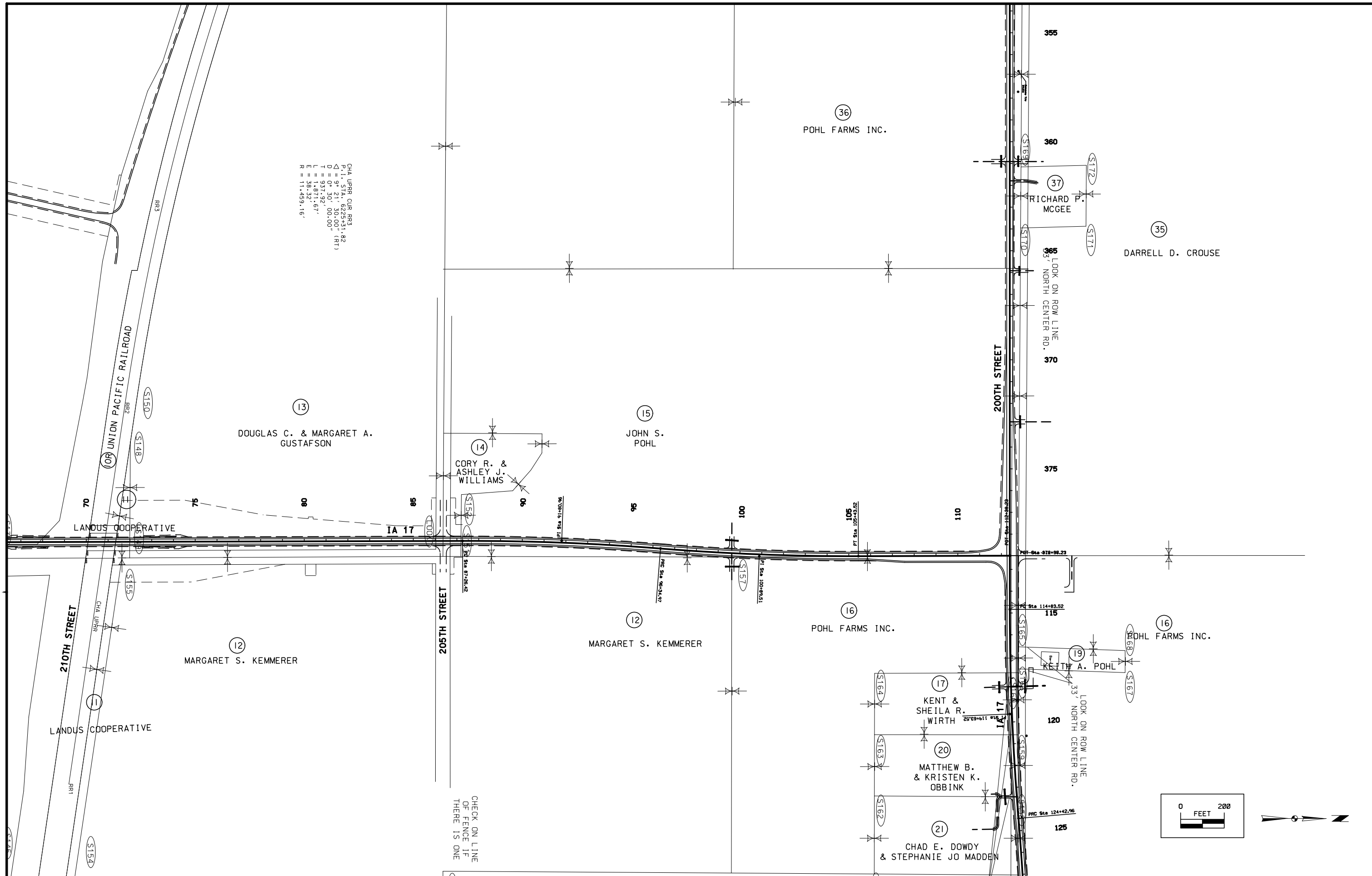
REVISIONS	TOTAL
	388
PROJECT IDENTIFICATION NUMBER	
16-08-017-010	
PROJECT NUMBER	
STPN-017-2(27)--2J-08	
R.O.W. PROJECT NUMBER	
STPN-017-2(21)--2J-08	



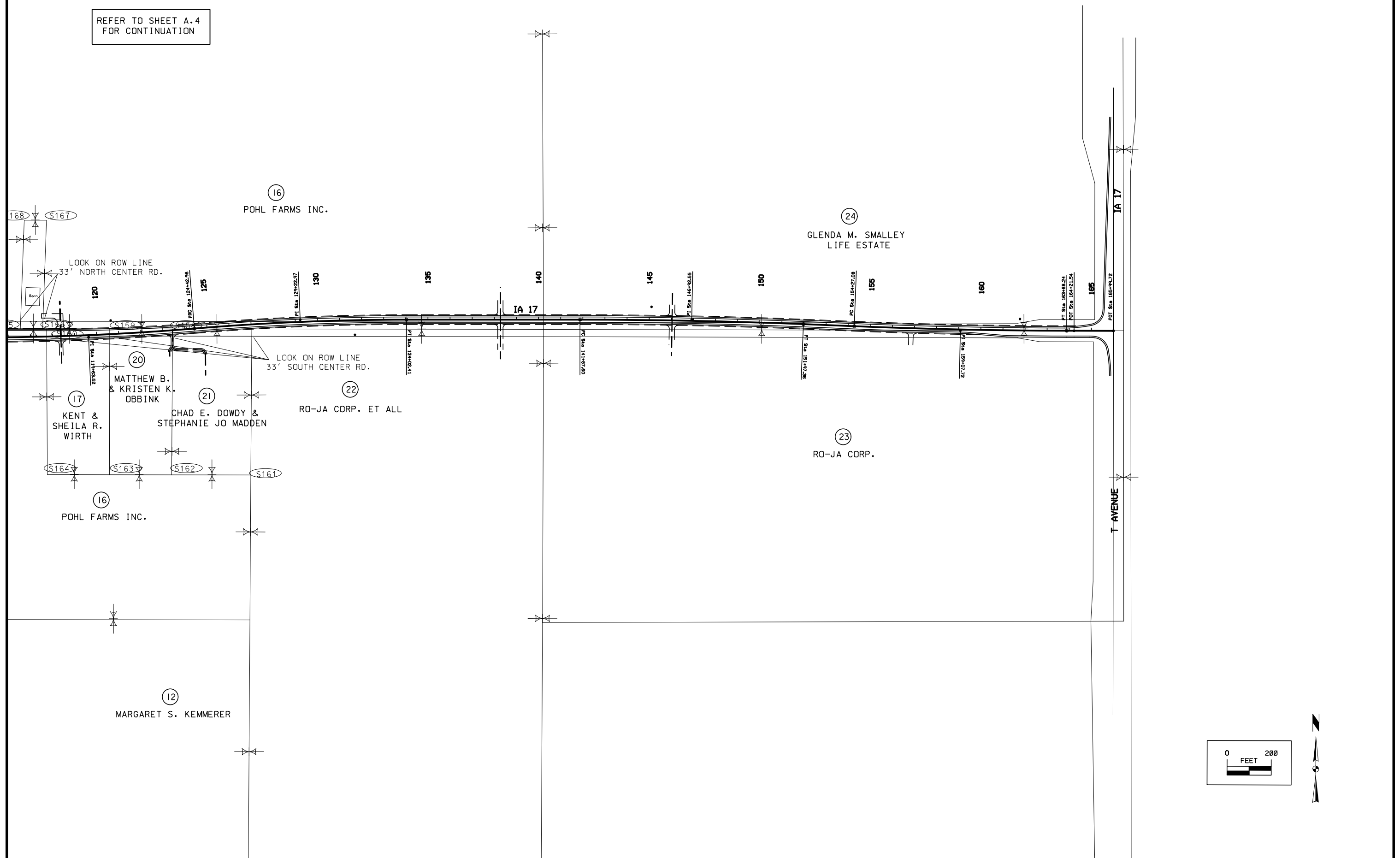
X RAIL ROAD CROSSING CLOSURE
 #190723K - QUARTZ AVENUE
 #190722D - R AVENUE



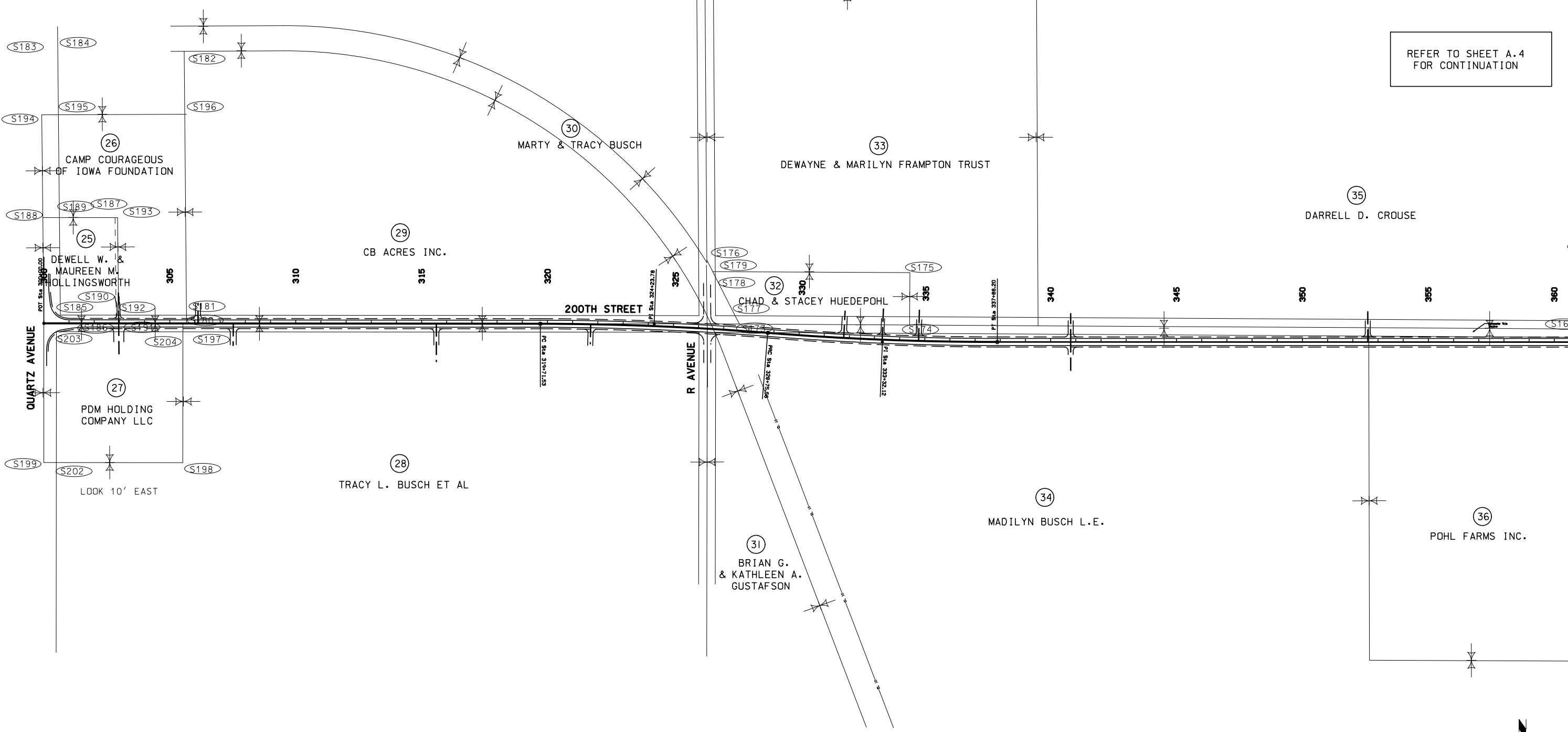




REFER TO SHEET A.4
FOR CONTINUATION



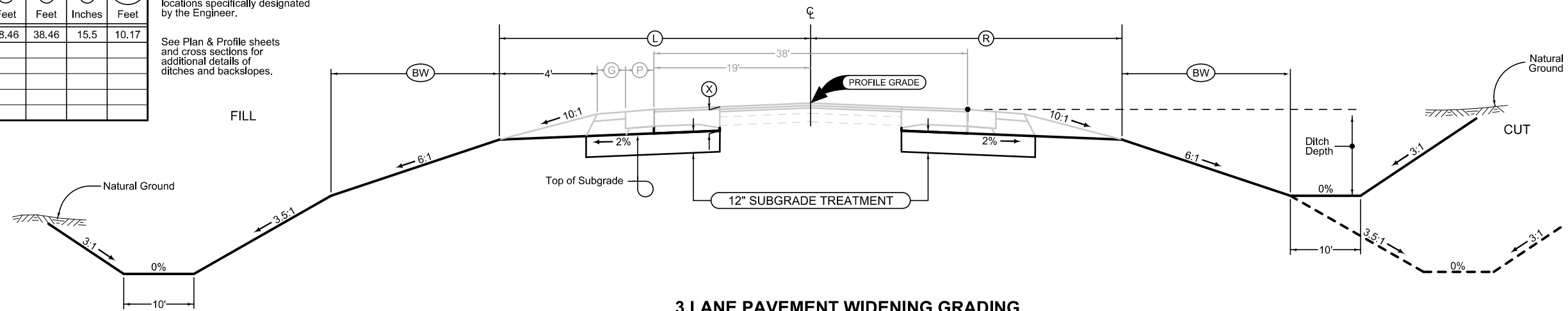
REFER TO SHEET A.4
FOR CONTINUATION



LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet
IA17	18+36.56	46+44.24	38.46	38.46	15.5	10.17

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.

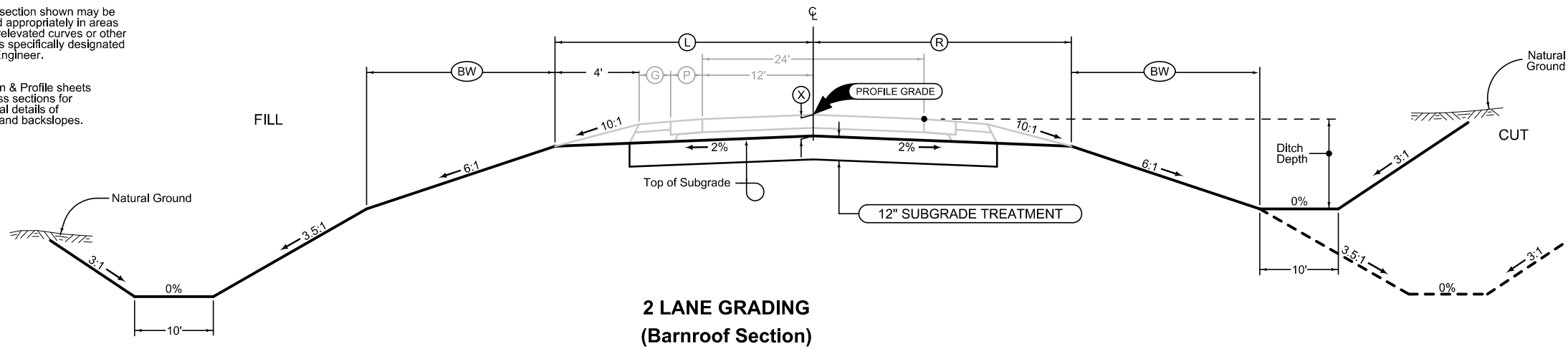


3 LANE PAVEMENT WIDENING GRADING

LOCATION			DIMENSIONS			
ROAD IDENTIFICATION	STATION TO STATION		(L) Feet	(R) Feet	(X) Inches	(BW) Feet
IA17	63+25.84	68+33.30	31.83	31.83	15.5	10.17
IA17	72+54.30	105+76.27	31.83	31.83	15.5	10.17
IA17	125+11.31	159+37.96	31.83	31.83	15.5	10.17

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.

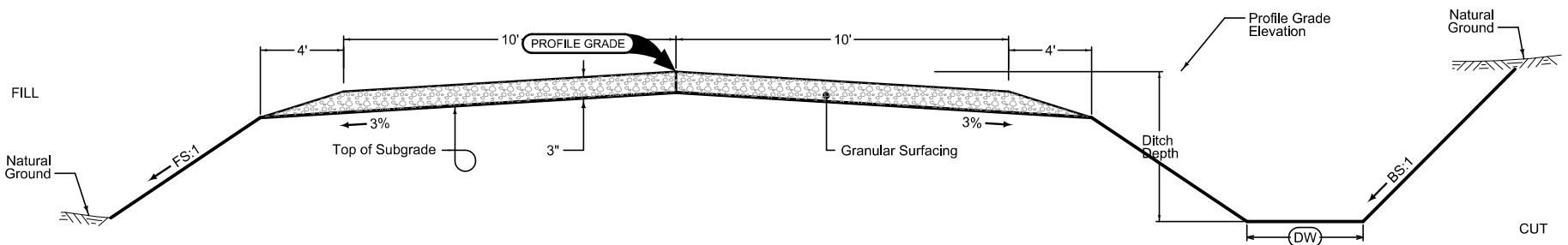


**2 LANE GRADING
(Barnroof Section)**

LOCATION			DIMENSIONS		
ROAD IDENTIFICATION	STATION TO STATION		FS	BS	(DW) Feet
205th Street	584+50.00	585+80.74	3	3	10
205th Street	586+94.23	587+80.00	3	3	10
R Avenue	613+13.10	613+98.58	3	3	10
S Avenue	1324+25.00	1325+73.84	3	3	10
S Avenue	1326+90.70	1328+30.00	3	3	10

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.



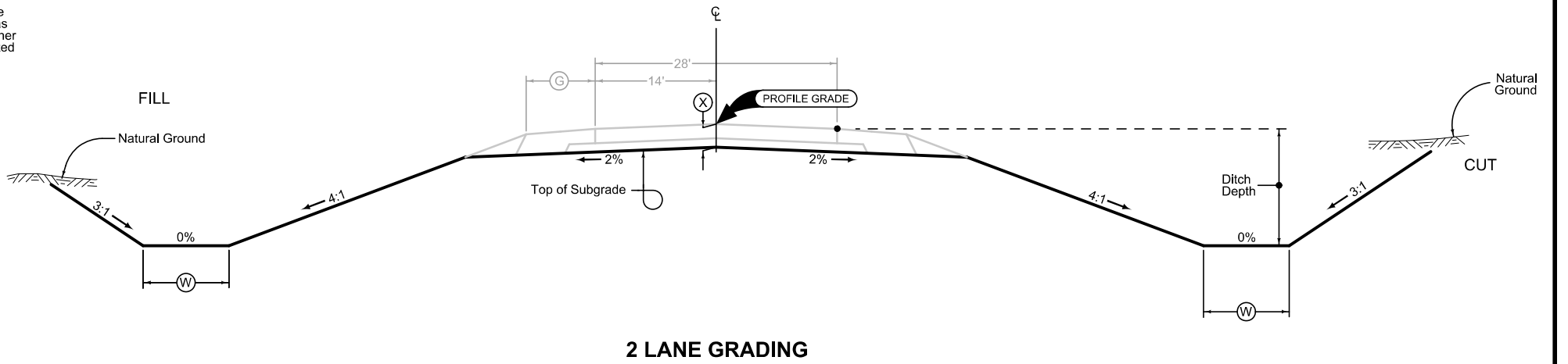
GRADING AND GRANULAR SURFACING

G_2_GradeGran
10-17-17

LOCATION		DIMENSIONS					
ROAD IDENTIFICATION	STATION TO STATION	(L) Feet	(R) Feet	(X) Inches	(BW) Feet	(W) Feet	
200th Street	301+89.34	368+36.99	30.10	30.10	16.5	11.90	10
210 Connector	402+66.70	434+11.05	30.05	30.05	16.5	-0.05	10

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.



2 LANE GRADING

Widening (LT)

Longitudinal joint: BT-3
 Transverse joint: CD: Refer to Standard Road
 Plan PV-121

2_AuxLane_PCC_10-18-16		
STATION TO STATION	(W)	Feet
13+61.20	46+44.24	8

Combination Shoulder (LT)

Shoulder Jointing:
 Longitudinal joint: BT-1
 Transverse joint: Match Widening (LT)

2_C_10-15-13			
STATION TO STATION	(P)	(G)	Feet
13+61.20	19+38.45	6	4
20+24.45	29+80.44	6	4
30+84.42	44+15.58	10	0
45+11.58	46+44.22	10	0

Widening (RT)

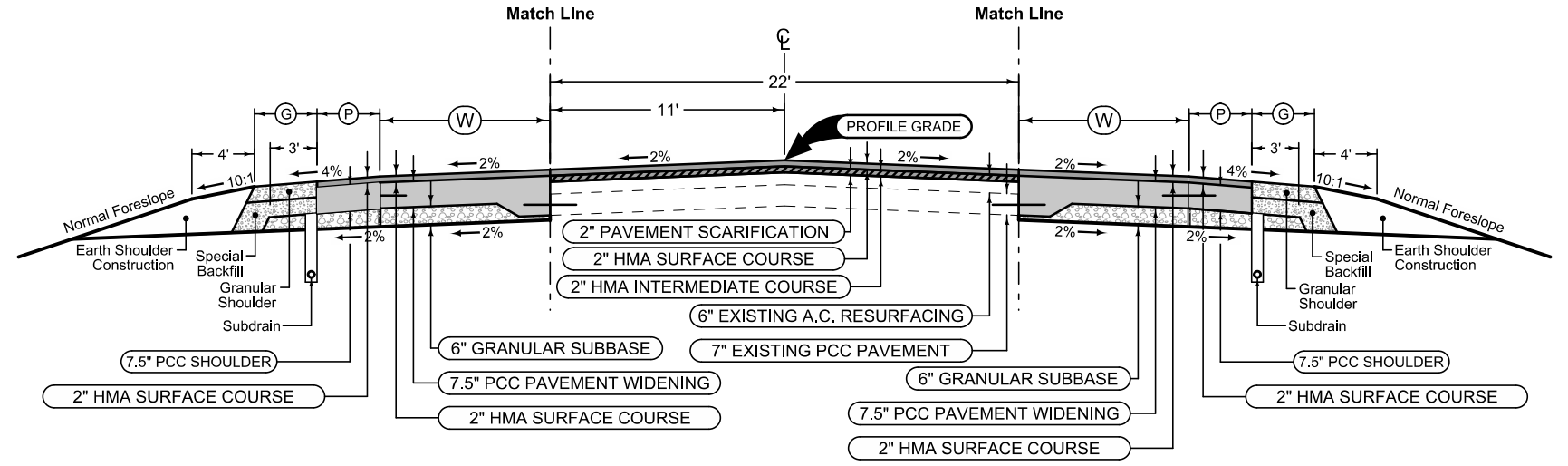
Longitudinal joint: BT-3
 Transverse joint: CD: Refer to Standard Road
 Plan PV-121

2_AuxLane_PCC_10-18-16		
STATION TO STATION	(W)	Feet
14+07.63	18+36.56	3-8
18+36.56	46+75.00	8

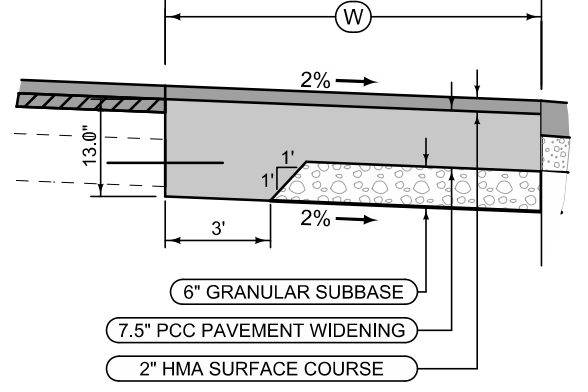
Combination Shoulder (RT)

Shoulder Jointing:
 Longitudinal joint: BT-1
 Transverse joint: Match Widening (RT)

2_C_10-15-13			
STATION TO STATION	(P)	(G)	Feet
14+07.63	29+94.57	6	4
30+68.57	46+75.00	10	0



IA 17 3-LANE SECTION



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

STATION TO STATION		LT	RT
		Feet	Feet
46+75.00	47+65.00	19	19
47+65.00	50+82.49	19-15.3	19
50+82.49	56+22.58	15.3-12	19-16.4
56+22.58	63+25.84	12	16.4-12
114+39.91	115+57.18	30	12
115+57.18	125+11.31	30-12	12

Combination Shoulder (LT)

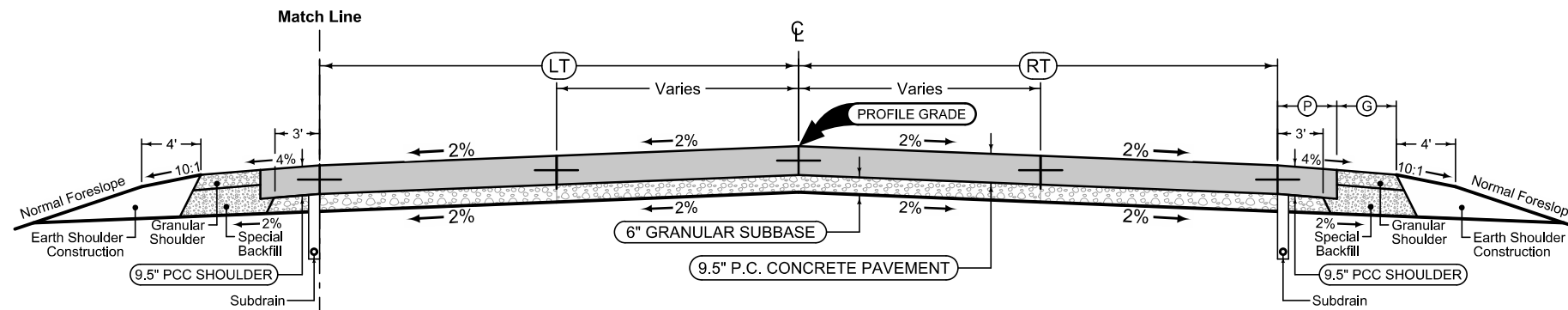
Shoulder Jointing:
 Longitudinal joint: BT-2
 Transverse joint: Match Mainline Jointing

STATION TO STATION		P	G
		Feet	Feet
55+02.09	56+22.75	6	0-4
56+22.75	63+25.84	6	4
114+39.91	125+11.31	6	4

Combination Shoulder (RT)

Shoulder Jointing:
 Longitudinal joint: BT-2
 Transverse joint: Match Mainline Jointing

STATION TO STATION		P	G
		Feet	Feet
46+75.00	63+25.84	6	4
114+39.91	115+57.18	6	4



Auxiliary Lane (LT)

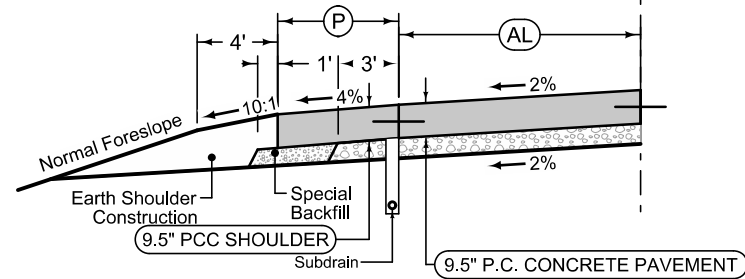
Longitudinal joint: L or KT
 Transverse joint: Match Mainline

STATION TO STATION		AL
		Feet
48+72.66	52+15.84	29.9-23
52+15.84	56+22.58	23-0

Auxiliary Lane PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: BT-2

STATION TO STATION		P
		Feet
55+02.09	56+22.75	6
56+22.75	63+25.84	6



IA 17 PAVEMENT SECTION AT ROBIN ROAD AND 200TH STREET INTERSECTIONS

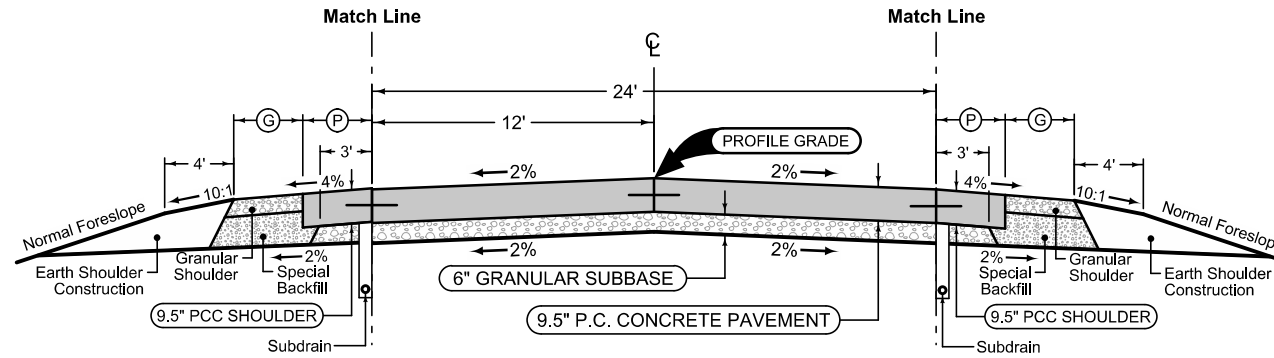
Mainline Jointing:
 Longitudinal joint: L-2
 Transverse joints: CD at 20' spacing

2P_	
10-19-10	
STATION TO STATION	
63+25.84	68+33.30
72+54.30	111+28.87
125+11.31	164+90.73

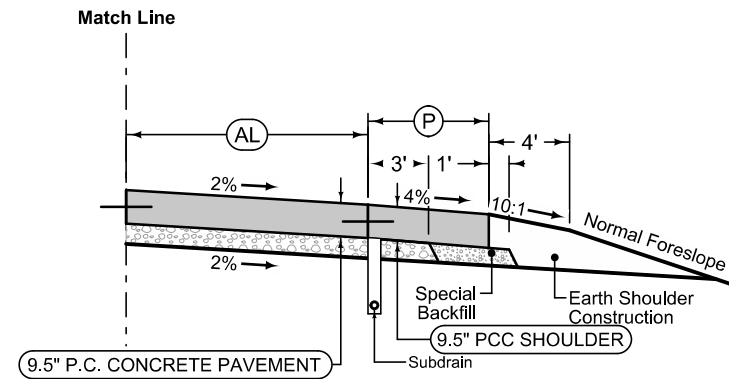
Combination Shoulder (LT)

Shoulder Jointing:
 Longitudinal joint: B
 Transverse joint: Match Mainline Jointing

2_C_		10-15-13	
STATION TO STATION		(P) Feet	(G) Feet
63+25.84	68+33.30	6	4
72+54.30	110+18.50	6	4
110+18.50	110+87.32	6	4-0
125+11.31	163+79.79	6	4
163+79.79	164+49.97	6	4-0



IA 17 2-LANE SECTION



Combination Shoulder (RT)

Shoulder Jointing:
 Longitudinal joint: B
 Transverse joint: Match Mainline Jointing

2_C_		10-15-13	
STATION TO STATION		(P) Feet	(G) Feet
63+25.84	68+33.30	6	4
72+54.30	105+76.07	6	4
105+76.07	106+38.71	6	4-0
125+11.31	159+37.96	6	4
159+37.96	159+99.98	6	4-0

Auxiliary Lane (RT)

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

2_AuxLane_PCC_		10-18-16	
STATION TO STATION		(AL)	Feet
105+76.27	107+56.27	0-12	
107+56.27	111+28.87	12	
159+37.96	161+17.96	0-12	
161+17.96	164+90.73	12	

Auxiliary Lane PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: BT-2

2_AL_SHdr_HMA		10-19-10	
(P)	Feet		
	6		
	6		
	6		

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

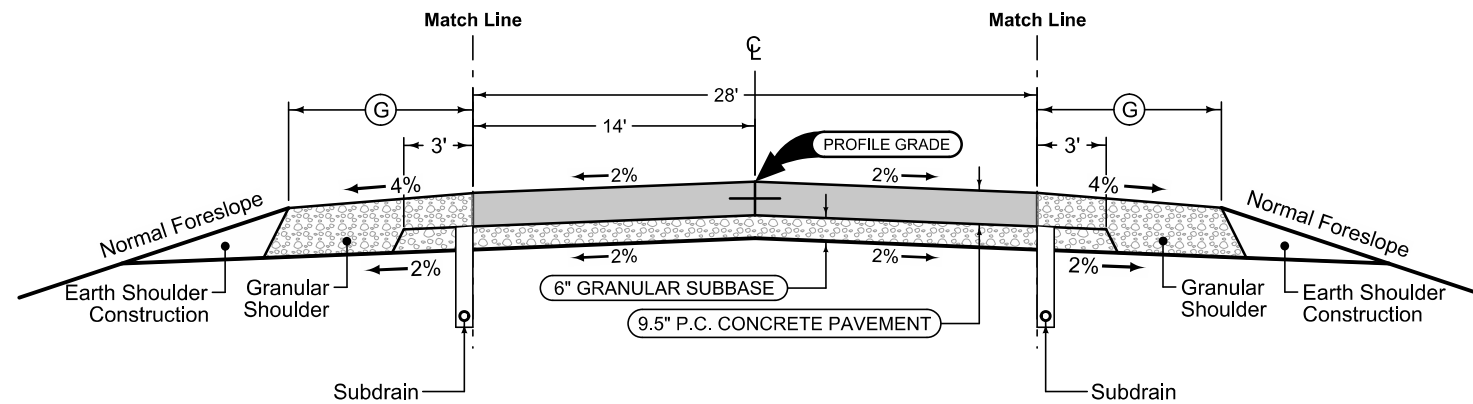
2P_	
10-19-10	
STATION TO STATION	
301+89.29	378+49.96

Granular Shoulder (LT)

2_G_SR_		Ⓞ
10-19-10		
STATION TO STATION		Feet
301+89.29	369+82.39	6

Granular Shoulder (RT)

2_G_SR_		Ⓞ
10-19-10		
STATION TO STATION		Feet
301+89.29	368+36.99	6



200TH STREET TYPICAL SECTION

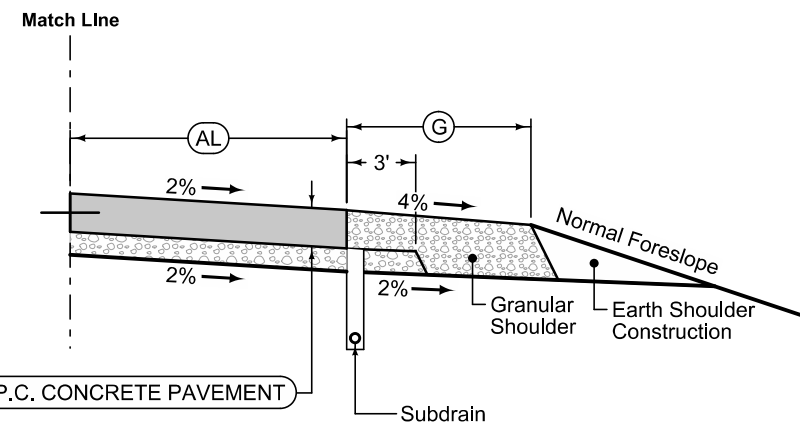
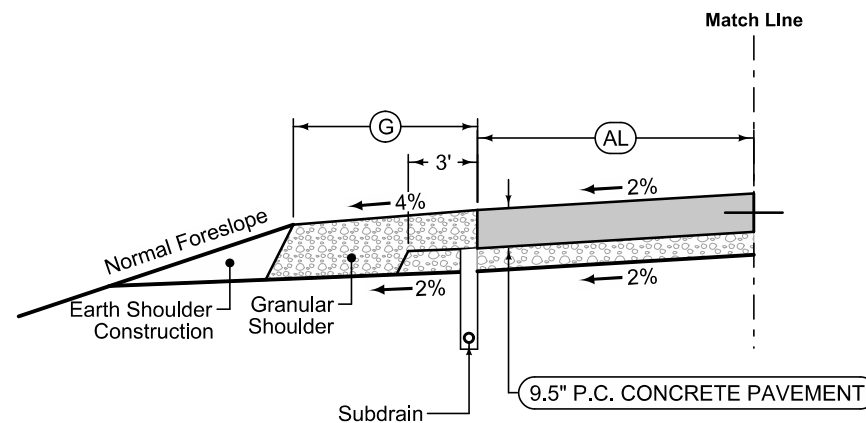
Auxiliary Lane (LT)

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

2_AuxLane_PCC_		Ⓞ
10-18-16		
STATION TO STATION		Feet
369+82.39	377+95.80	0-18
377+95.80	378+98.71	18

Auxiliary Lane Granular Shoulder

2_AL_Shldr_G_		Ⓞ
10-19-10		
Feet		
6		
6		



200TH STREET AUXILIARY LANES

Auxiliary Lane (RT)

Longitudinal joint: L or KT
 Transverse joint: Match Mainline

2_AuxLane_PCC_		Ⓞ
10-18-16		
STATION TO STATION		Feet
368+36.99	377+92.10	0-29.1

Auxiliary Lane Granular Shoulder

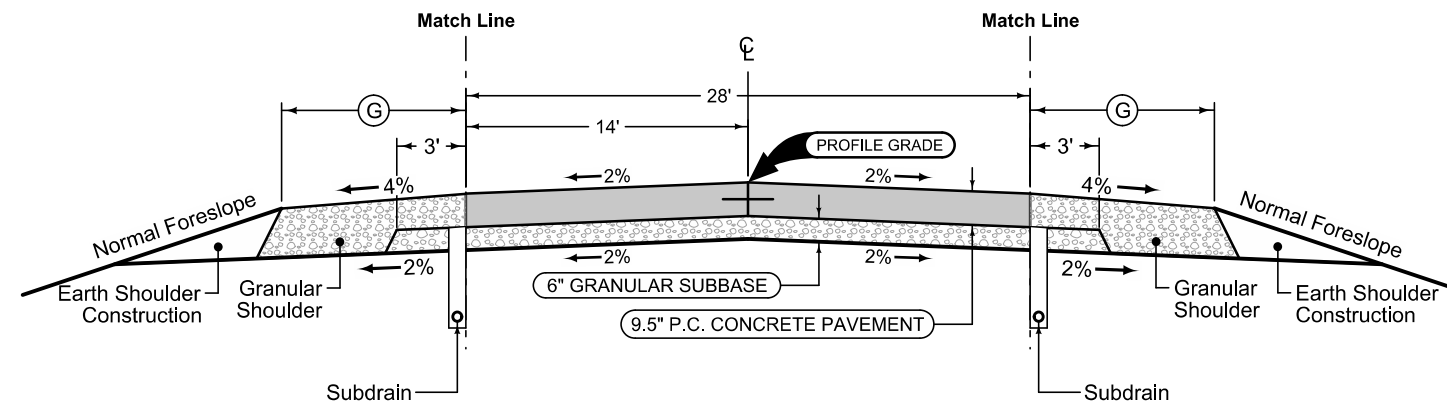
2_AL_Shldr_G_		Ⓞ
10-19-10		
Feet		
6		

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

2P_	
10-19-10	
STATION TO STATION	
402+27.19	434+11.05

Granular Shoulder (LT)

2_G_SR_		Ⓞ
10-19-10		
STATION TO STATION		Feet
402+27.19	434+11.05	6



ROBIN ROAD TYPICAL SECTION

Granular Shoulder (RT)

2_G_SR_		Ⓞ
10-19-10		
STATION TO STATION		Feet
402+27.19	434+11.05	6

200TH STREET PAVING TYPICALS
 210TH STREET CONNECTOR PAVING TYPICALS

SURVEY SYMBOLS

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

UTILITY LEGEND

- G- - - - - ALLIANT ENERGY
MARK WILLIS
319-786-8196
markwillis@alliantenergy.com
- G2- - - - - DAKOTA ACCESS
RICHARD TILLMAN
tillenviro@gmail.com
- F0- - - - - CENTURYLINK
STEVE PARKER
515-265-0968
Steven.Parker4@centurylink.com
- F02- - - - - IOWA COMMUNICATIONS NETWORK
MIKE BRODERICK
515-725-4610
mike.broderick@iowa.gov
- F03- - - - - OGDEN TELEPHONE COMPANY
JOEL MUNSON
515-275-2050
ogdenteljoel@netins.net
- W- - - - - XENIA RURAL WATER DISTRICT
KEVIN LYONS
515-676-2117
klyons@xenialwater.org
- W2- - - - - CITY OF BOONE
RHONDA CLAYTON
515-433-0600
rclayton@city.boone.ia.us
- E1- - - - - MIDLAND POWER COMPANY
BRUCE KEENEY
515-386-4111
bkmpcrec@netins.net
- E2- - - - - IOWA
JEFF VANDERZWAAG
515-290-4158
jeff.vanderzwagg@dot.iowa.gov
- TV- - - - - MEDIACOM COMMUNICATIONS CORP.
RYAN SCHAFFER
515-991-8652
rschaffer@mediacomcc.com
- - - - - ITC MIDWEST
TROY WEARY
515-639-3330
tweary@itctransco.com

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

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

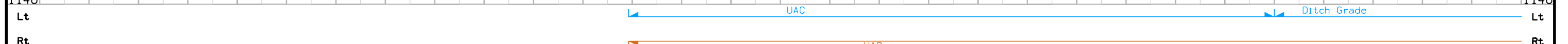
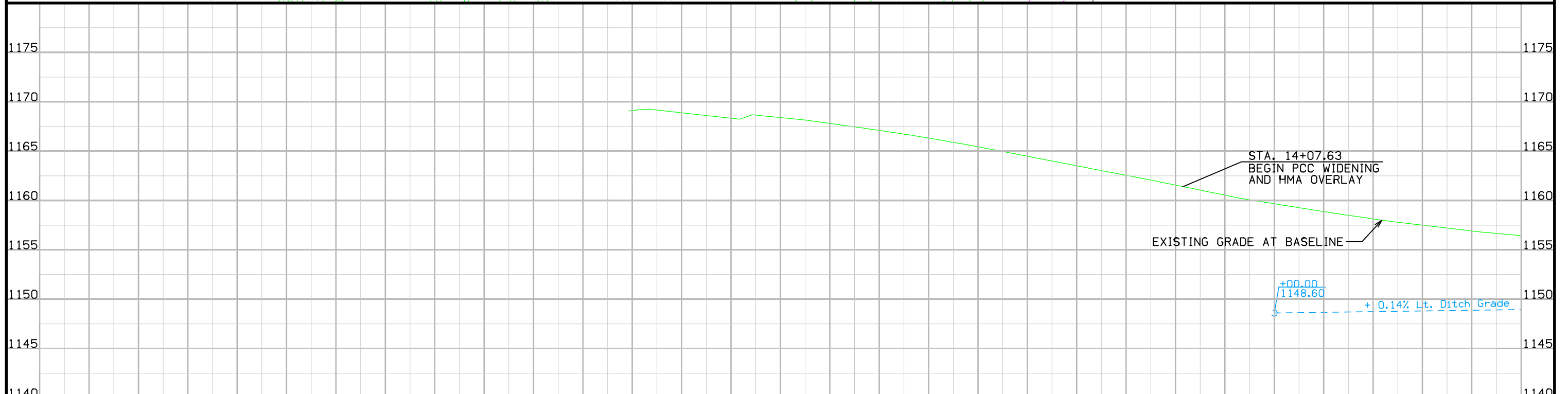
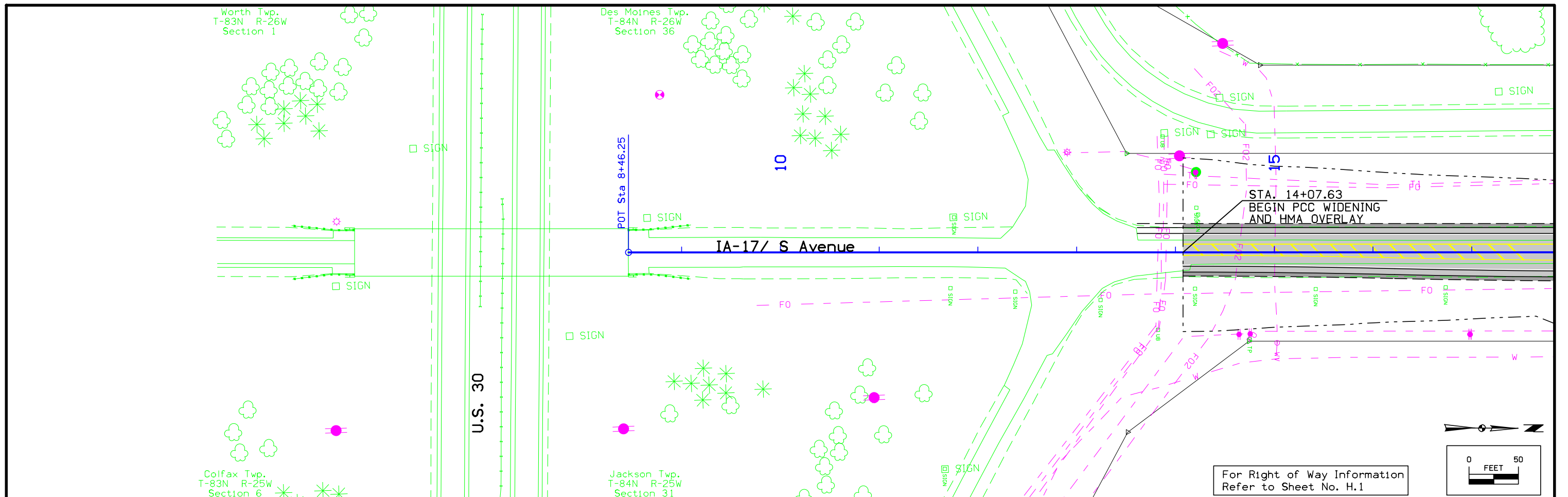
- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

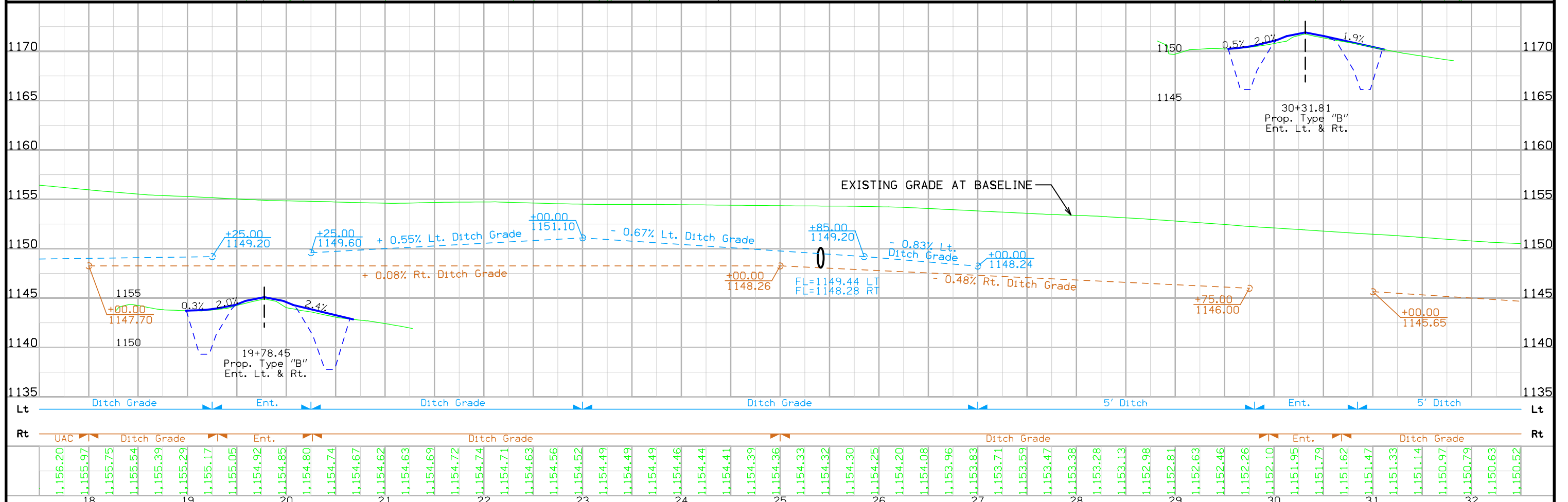
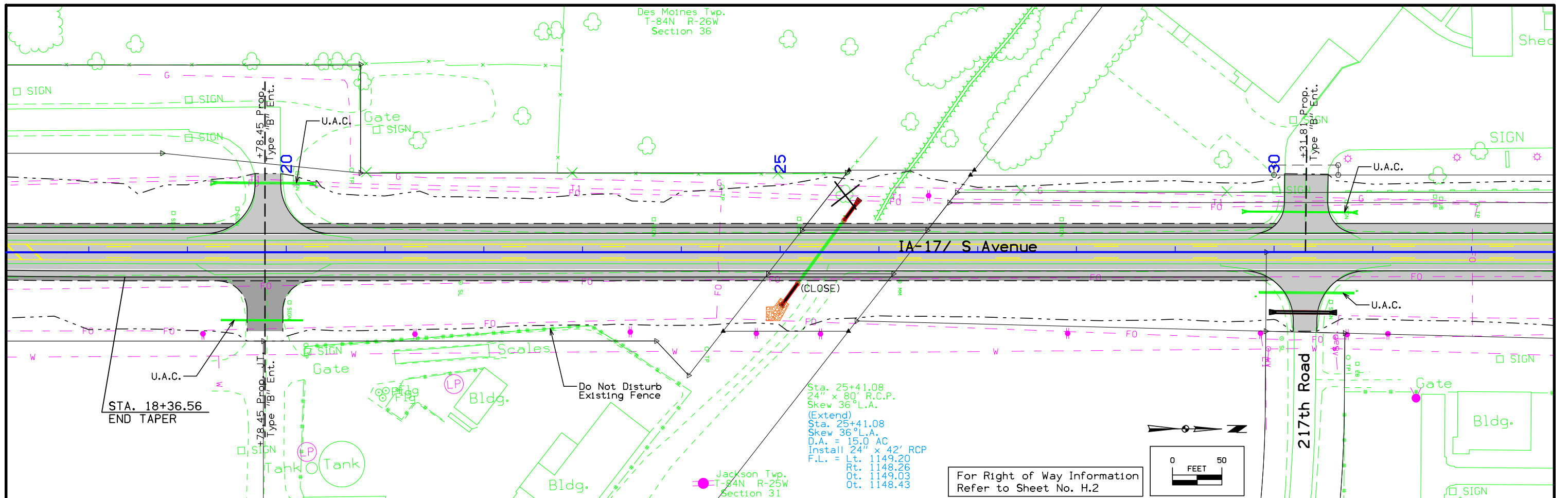
- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- Access Control
- Property Line

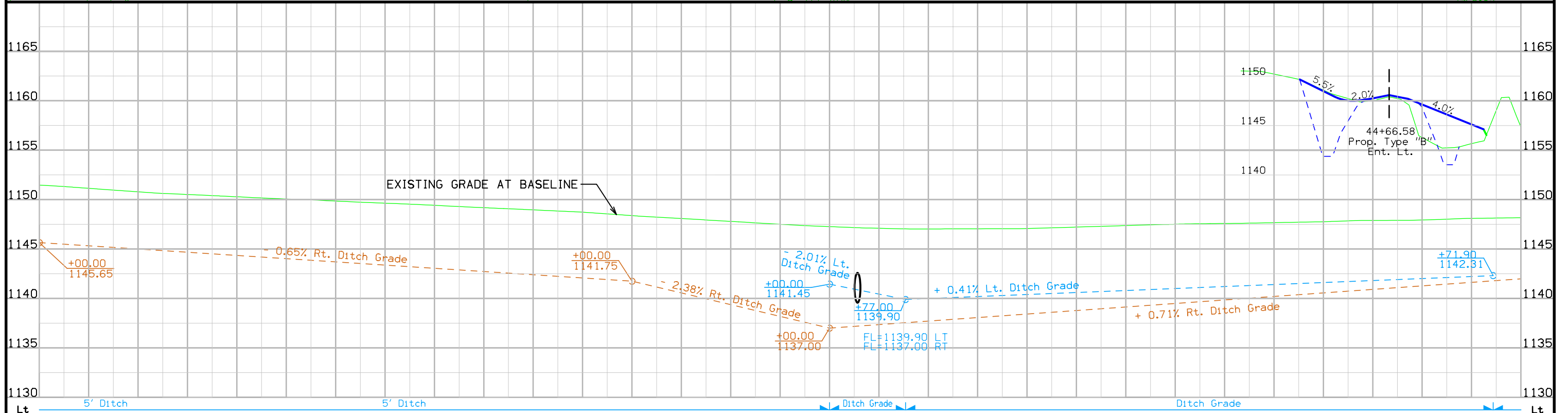
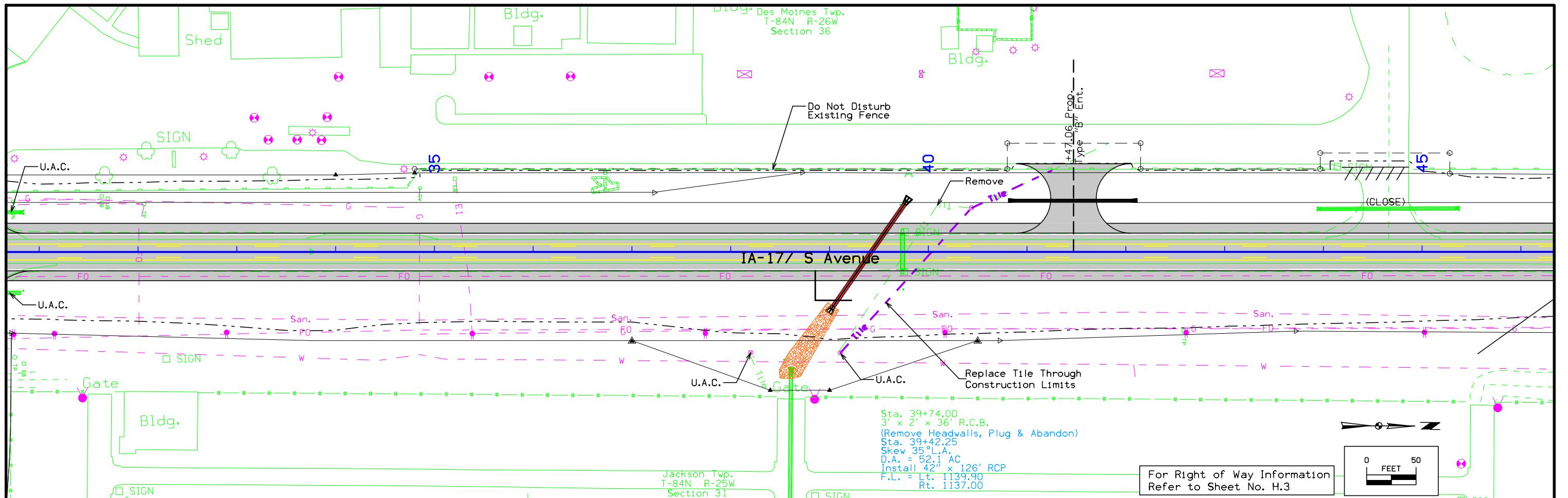
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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



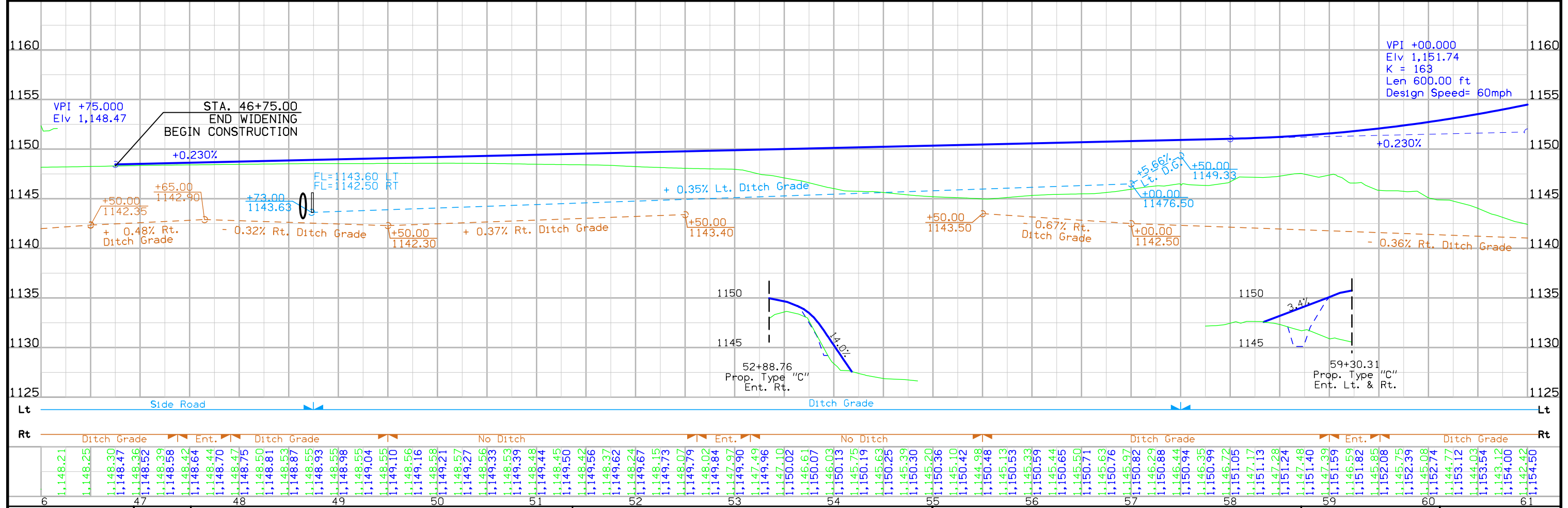
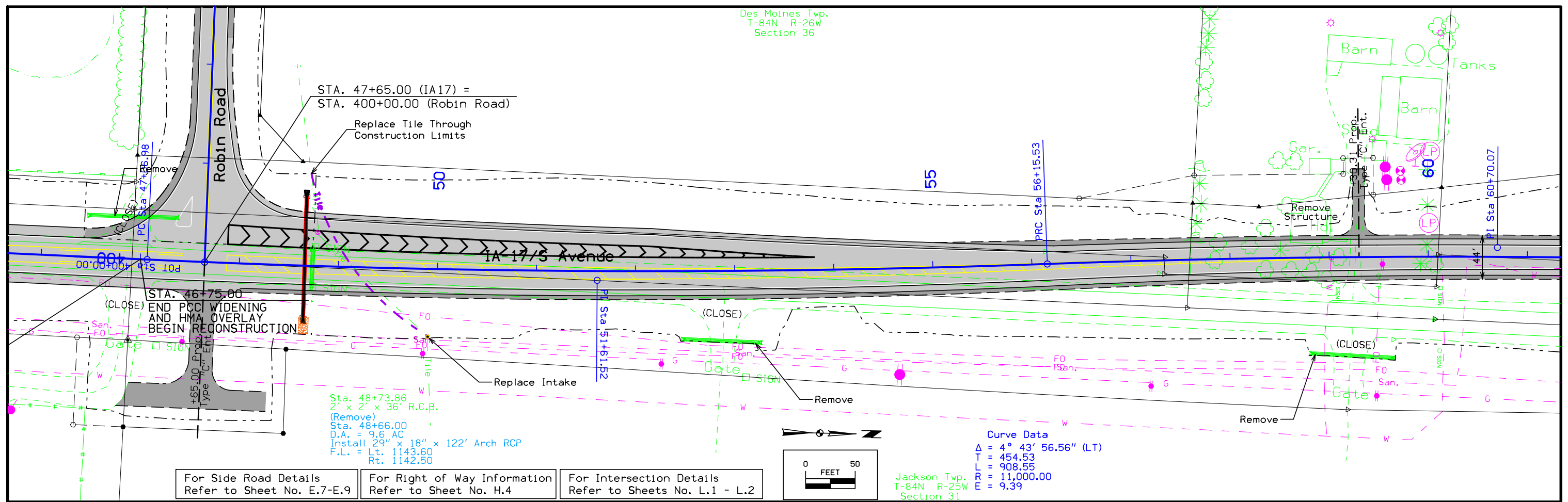
1.169.11	1.169.16	1.168.89	1.168.61	1.168.33	1.168.65	1.168.40	1.168.14	1.167.80	1.167.46	1.167.09	1.166.72	1.166.32	1.165.89	1.165.44	1.164.96	1.164.48	1.163.99	1.163.51	1.163.03	1.162.55	1.162.06	1.161.56	1.161.05	1.160.54	1.160.07	1.159.67	1.159.27	1.158.88	1.158.50	1.158.14	1.157.80	1.157.50	1.157.21	1.156.91	1.156.66	1.156.44		
						10					11					12							14						16							17		





Station	Grade
1	1.151.33
2	1.151.14
3	1.150.97
4	1.150.79
5	1.150.63
6	1.150.52
7	1.150.41
8	1.150.29
9	1.150.17
10	1.150.07
11	1.149.97
12	1.149.86
13	1.149.74
14	1.149.64
15	1.149.54
16	1.149.42
17	1.149.30
18	1.149.19
19	1.149.08
20	1.148.97
21	1.148.85
22	1.148.73
23	1.148.56
24	1.148.38
25	1.148.23
26	1.148.09
27	1.147.94
28	1.147.80
29	1.147.65
30	1.147.51
31	1.147.37
32	1.147.27
33	1.147.17
34	1.147.10
35	1.147.04
36	1.147.03
37	1.147.04
38	1.147.05
39	1.147.06
40	1.147.09
41	1.147.15
42	1.147.22
43	1.147.30
44	1.147.38
45	1.147.45
46	1.147.52
47	1.147.56
48	1.147.59
49	1.147.62
50	1.147.67
51	1.147.72
52	1.147.77
53	1.147.86
54	1.147.89
55	1.147.90
56	1.147.95
57	1.148.02
58	1.148.10
59	1.148.14
60	1.148.18

Des Moines Twp.
T-84N R-26W
Section 36



Des Moines Twp.
T-84N R-26W
Section 25

Jackson Twp.
T-84N R-25W
Section 30

Replace Tile Through
Construction Limits

Curve Data
 $\Delta = 4^\circ 43' 56.56''$ (RT)
TT = 454.53
EPL = 908.55
EPT = 11,000.00
E = 9.39

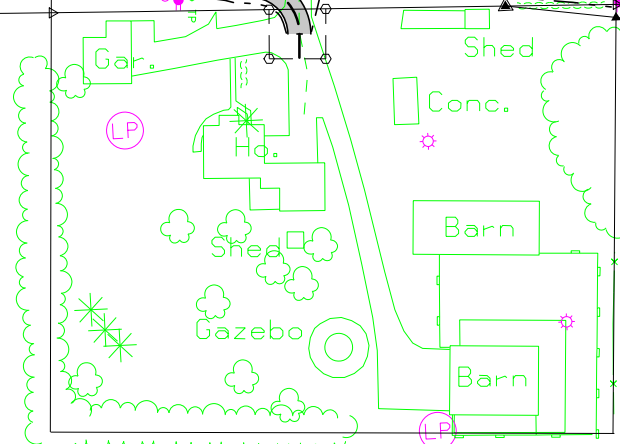
STA. 68+33.30
STOP PAVING

STA. 72+54.30
RESUME PAVING

IA-17/S Avenue

210th Street

+00.00 Prop
Type 10" Ent



Existing Force Main and Water
Main to be Relocated by Others

Remove Remove Sign

Sta. 67+83.04
24" x 66" R.C.P.
(Remove)
Sta. 68+64.00
D.A. = 70.4 AC
Install 42" x 280' RCP
F.L. = Lt. 1139.40
Rt. 1138.40

STA. 69+29.28
END REMOVAL

FRA X-ing
#190721W

Sta. 71+16.63
24" x 38" C.M.P.
(Remove)

Sta. 71+82.00
Skew 8° L.A.
D.A. = 21.8 AC
Install 36" x 166' RCP
F.L. = Lt. 1142.40
Rt. 1141.20

Sta. 71+44.20
24" x 41" C.M.P.
(Plug and Abandon)

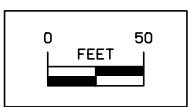
Sta. 71+28.14
Install 12" x 32' UNCL.
F.L. = Lt. 1140.42
Rt. 1140.30

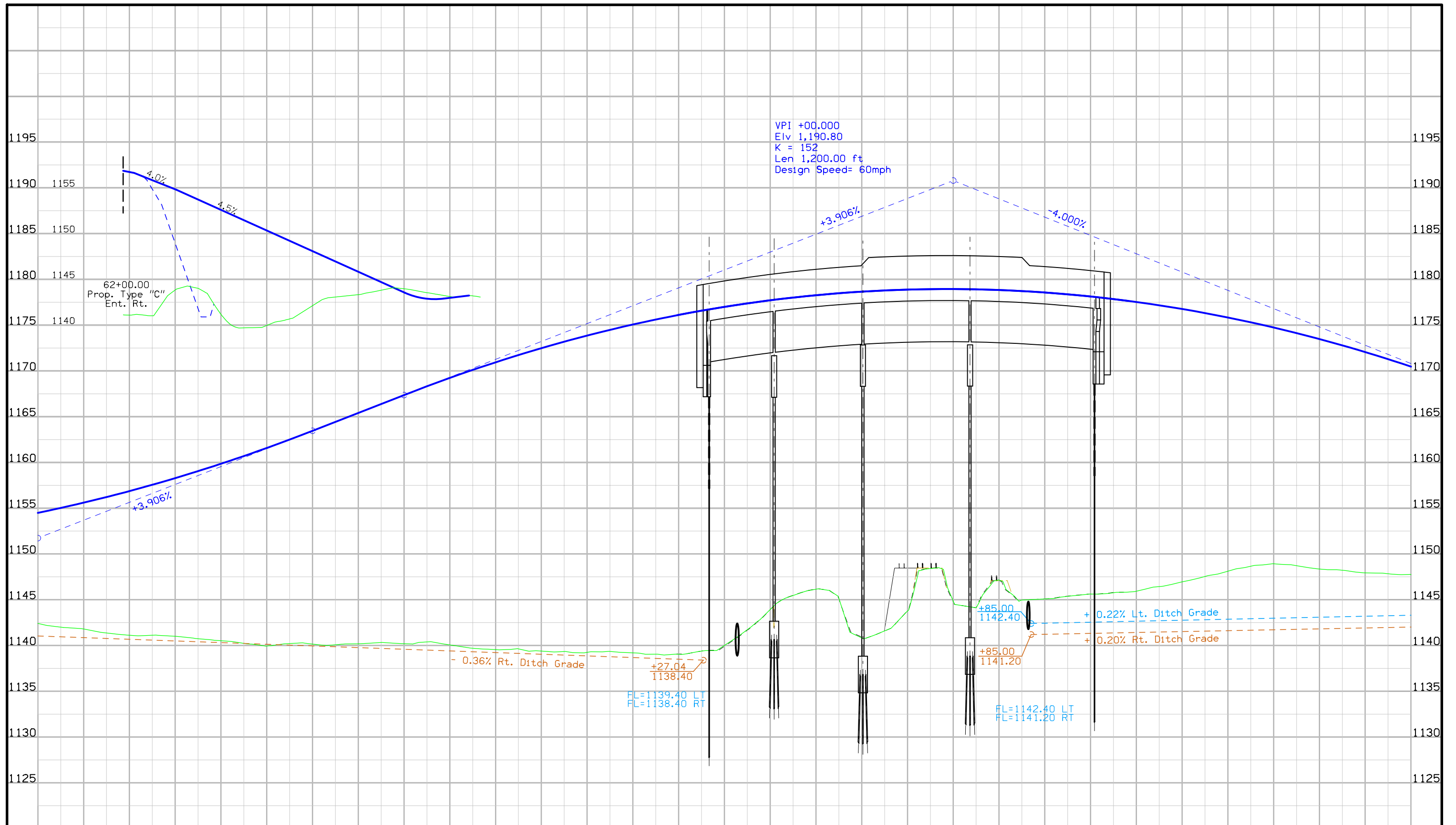
Plug and Abandon

Sta. 70+87.86
24" x 41" C.M.P.
(Protect)

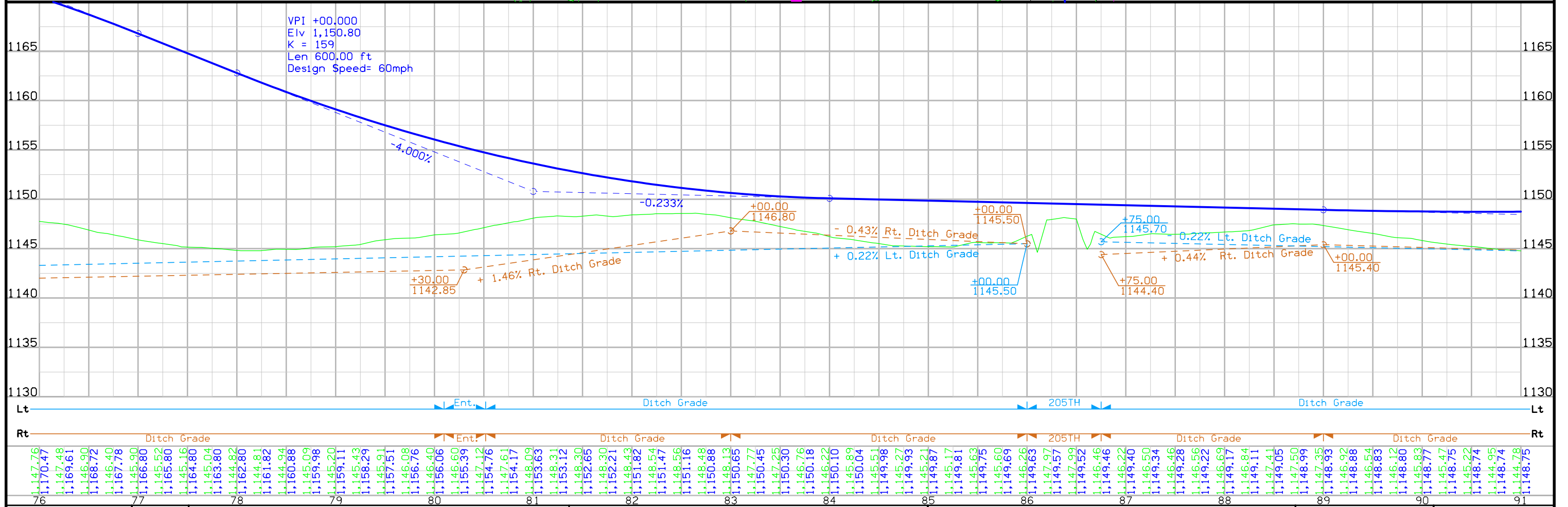
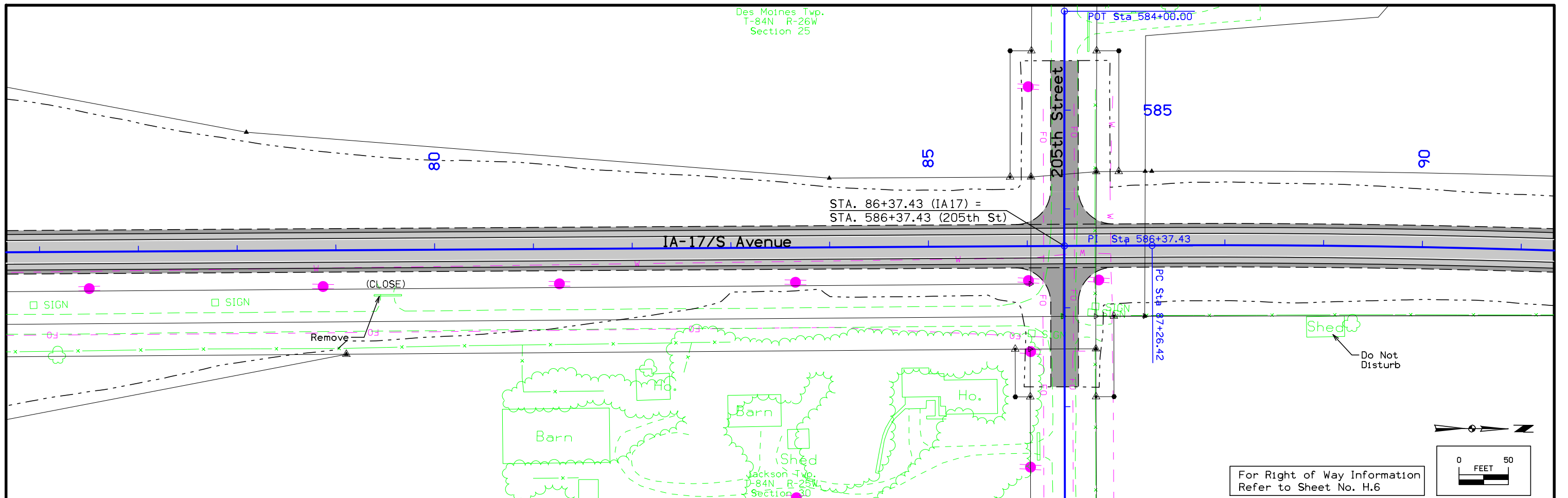
For Right of Way Information
Refer to Sheet No. H.5

For Bridge Situation Plan
Refer to Sheet No. V.18

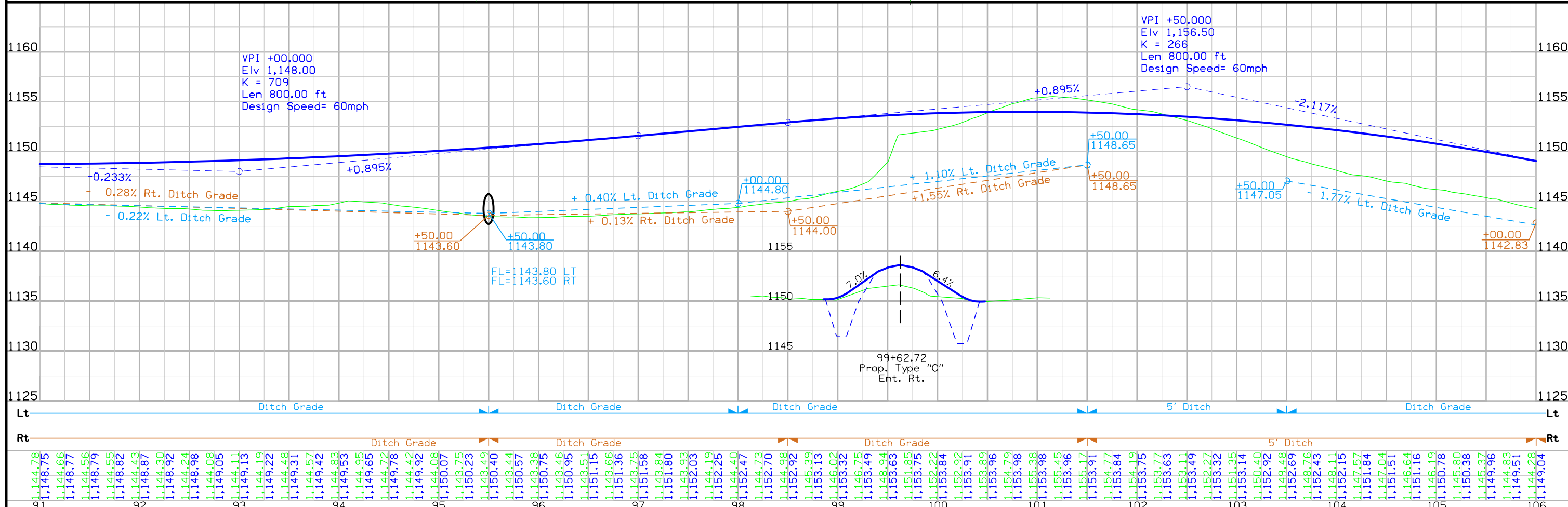
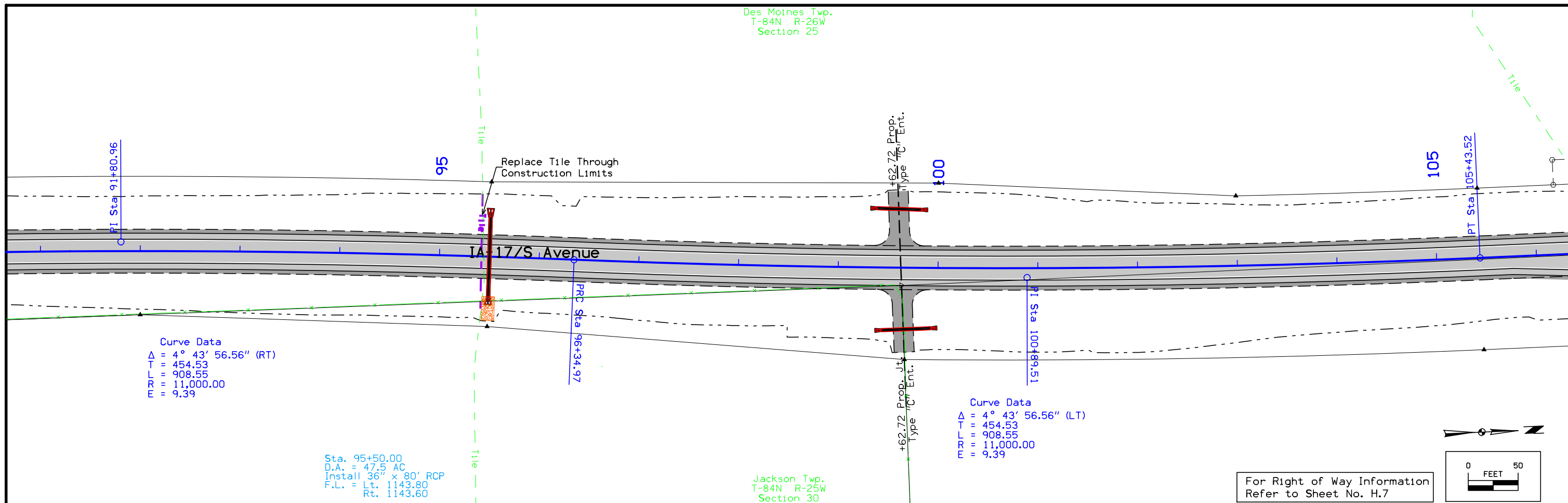


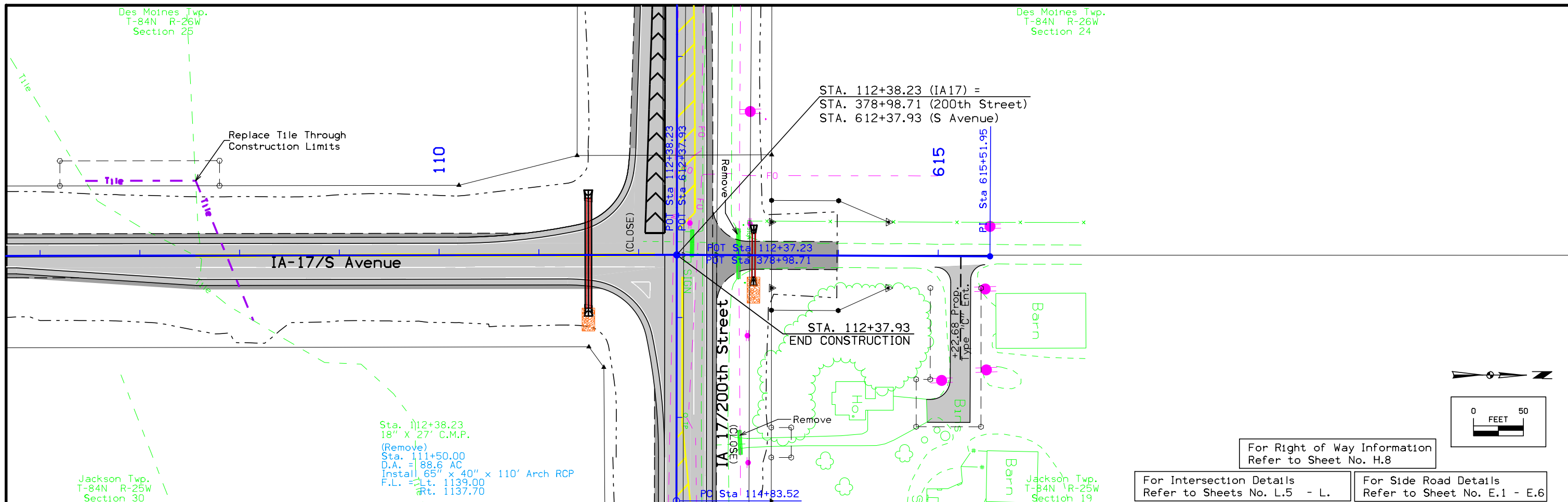


Lt		No Ditch		BRIDGE		Ditch Grade		Lt	
Rt		Ditch Grade		BRIDGE		Ditch Grade		Rt	
1,142.42	1,154.50	1,142.01	1,155.03	1,141.81	1,155.61	1,141.37	1,156.22	1,141.12	1,156.87
1,141.13	1,157.56	1,141.01	1,158.29	1,140.74	1,159.05	1,140.52	1,159.86	1,140.24	1,160.70
1,139.94	1,161.58	1,140.21	1,162.50	1,140.15	1,163.46	1,140.09	1,164.43	1,140.19	1,165.41
1,140.33	1,166.39	1,140.19	1,167.36	1,140.39	1,168.32	1,140.07	1,169.23	1,139.71	1,170.11
1,139.55	1,170.94	1,139.63	1,171.73	1,139.39	1,172.48	1,139.34	1,173.19	1,139.26	1,173.86
1,139.36	1,174.48	1,139.20	1,175.07	1,139.06	1,175.61	1,139.04	1,176.12	1,139.40	1,176.58
1,140.01	1,177.00	1,141.73	1,177.38	1,143.93	1,177.72	1,145.47	1,178.01	1,146.15	1,178.27
1,145.16	1,178.49	1,140.84	1,178.66	1,141.60	1,178.79	1,143.76	1,178.88	1,148.40	1,178.93
1,144.85	1,178.94	1,144.11	1,178.91	1,147.16	1,178.84	1,144.96	1,178.72	1,145.09	1,178.56
1,145.38	1,178.37	1,145.62	1,178.13	1,145.77	1,177.85	1,145.93	1,177.53	1,146.44	1,177.17
1,146.95	1,176.76	1,147.55	1,176.32	1,148.11	1,175.84	1,148.66	1,175.31	1,148.93	1,174.74
1,148.72	1,174.13	1,148.35	1,173.48	1,148.22	1,172.79	1,147.93	1,172.06	1,147.84	1,171.29
1,147.76	1,170.47								



FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	D.8
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Sta. 112+38.23
18" X 27" C.M.P.
(Remove)
Sta. 111+50.00
D.A. = 88.6 AC
Install 65" x 40" x 110' Arch RCP
F.L. = Lt. 1139.00
Rt. 1137.70

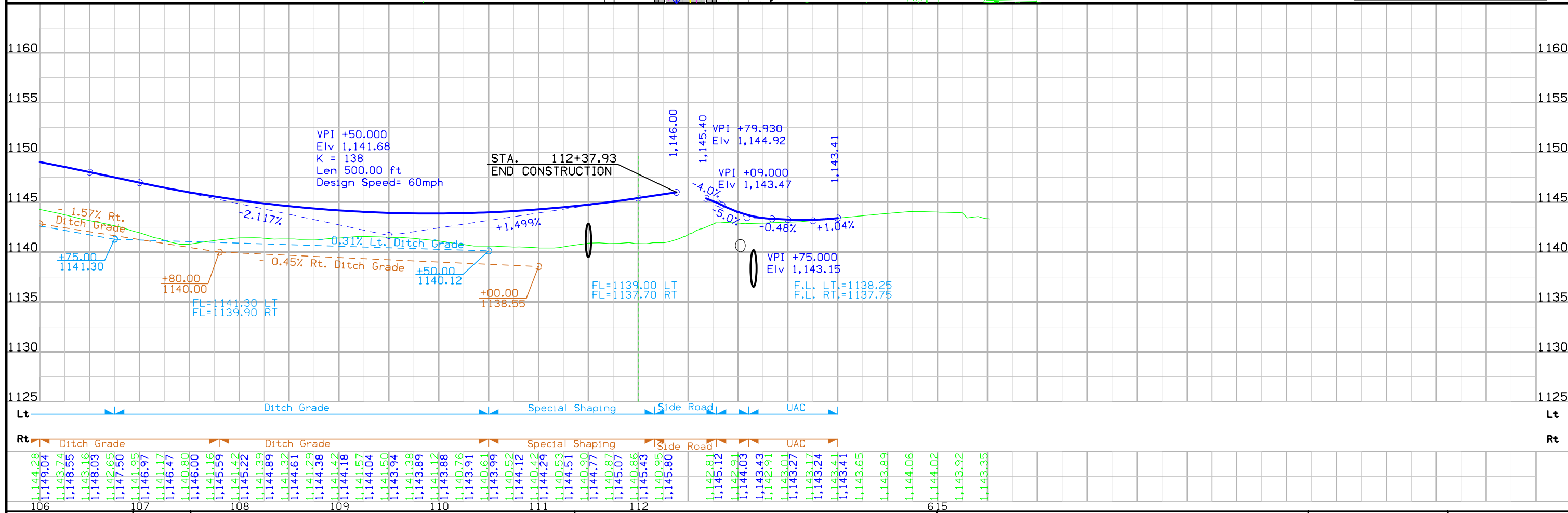
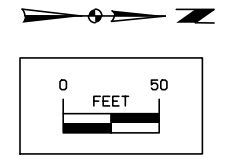
Jackson Twp.
T-84N R-25W
Section 30

Des Moines Twp.
T-84N R-26W
Section 24

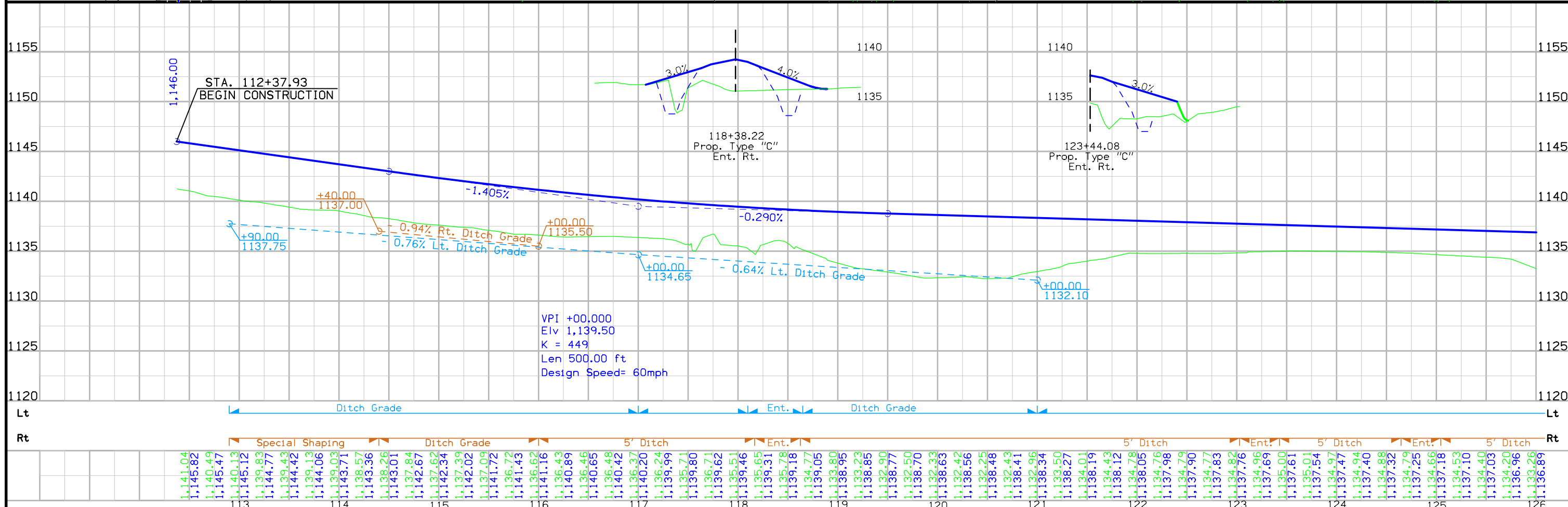
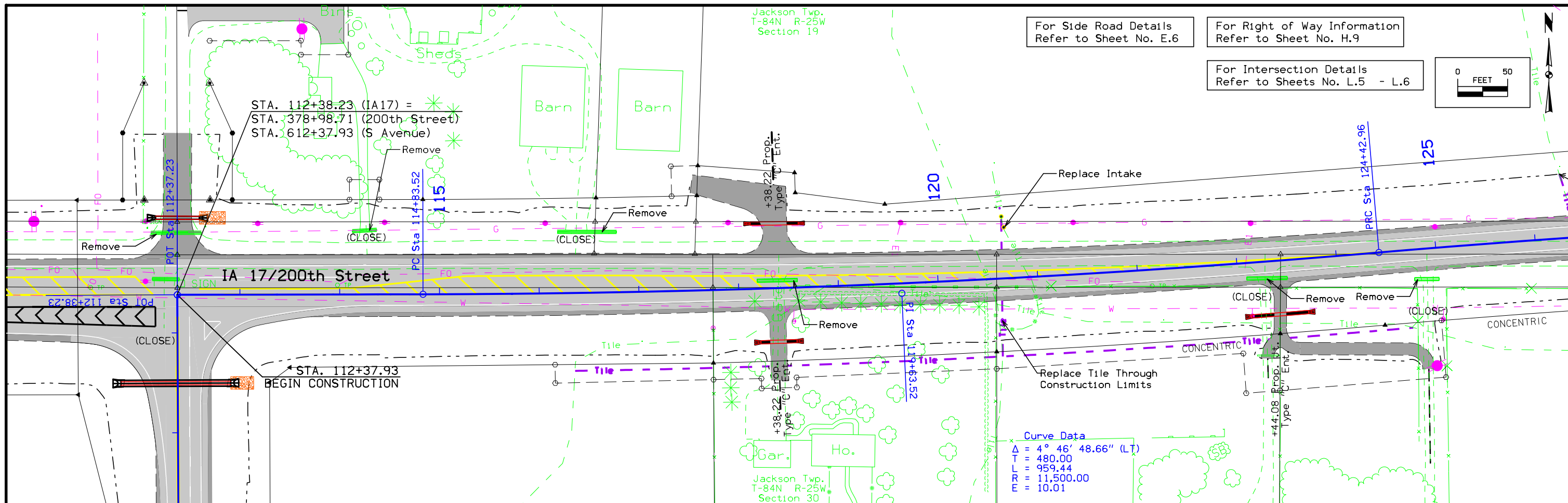
For Right of Way Information
Refer to Sheet No. H.8

For Intersection Details
Refer to Sheets No. L.5 - L.

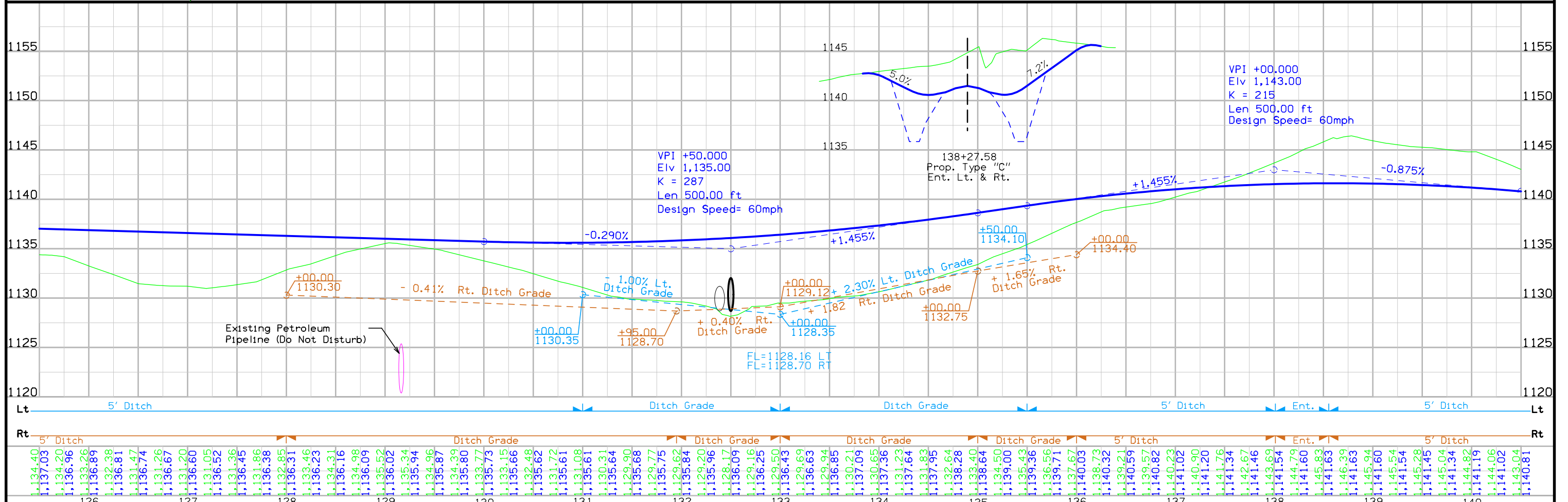
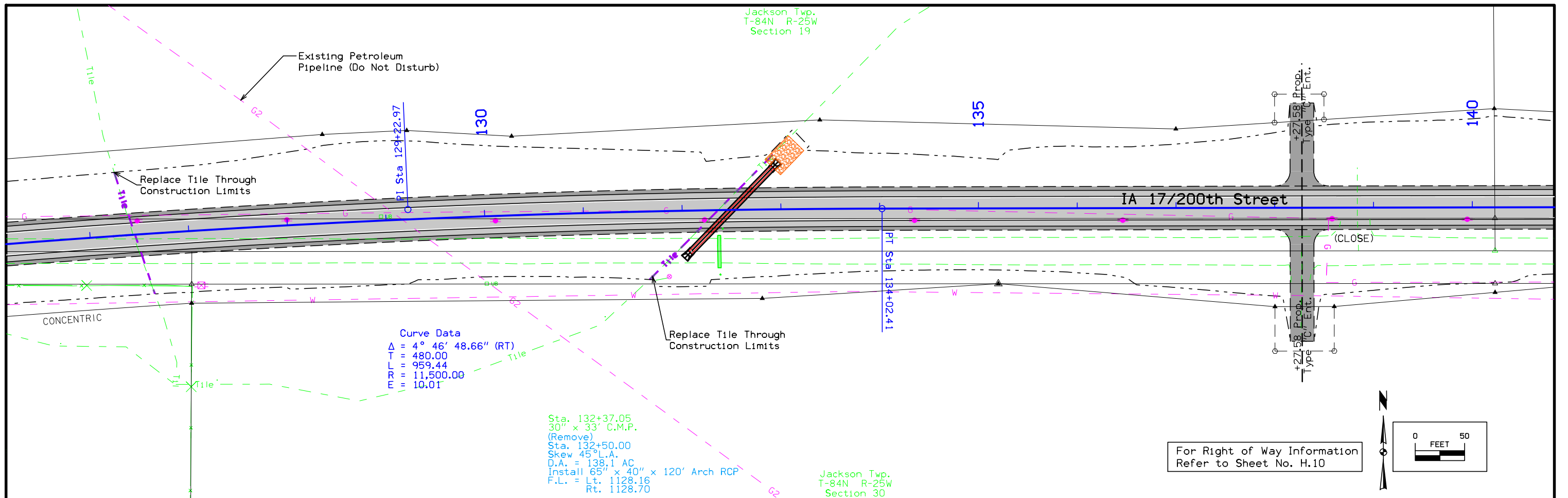
For Side Road Details
Refer to Sheet No. E.1 - E.6



FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	D.10	REVISED	07-17-19
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FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	D.11	REVISED	07-17-19
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Jackson Twp.
T-84N R-25W
Section 19

Curve Data
 $\Delta = 2^\circ 12' 10.16''$ (LT)
 $T = 480.64$
 $L = 961.16$
 $E = 25,000.00$
 $F = 4.62$

CONCENTRIC

160

Remove Intake
 Remove

(CLOSE)

IA 17/200th Street

165

POT Sta 165+99.72

STA. 165+99.72
END CONSTRUCTION

+84.95 Prop.
Type "C" Ent.

Remove

Fl Sta 159+07.72

Replace Tile Through
Construction Limits

(Remove)
Sta. 163+85.05
36" x 49' C.M.P.
D.A. = Part of 266 Acres R & Tiled

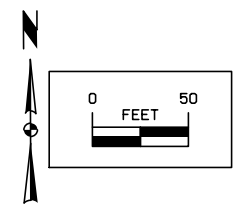
Sta. 165+13.00
Skew 6° R.A.
D.A. 354 AC
Install Twin 54" x 110' RCPs
F.L. = Lt. 1107.30
Rt. 1106.75

(Remove)
Sta. 163+77.49
36" x 51' C.M.P.
D.A. = Part of 266 Acres R & Tiled

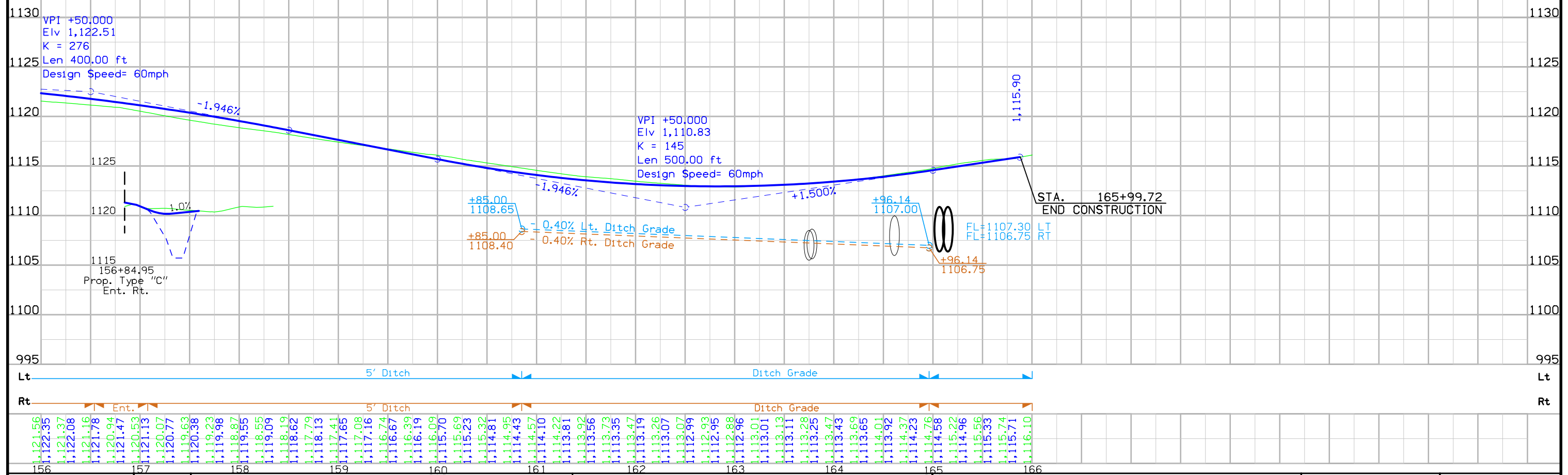
(Remove)
Sta. 164+60.63
48" x 45' C.M.P.
D.A. = Part of 266 Acres R & Tiled

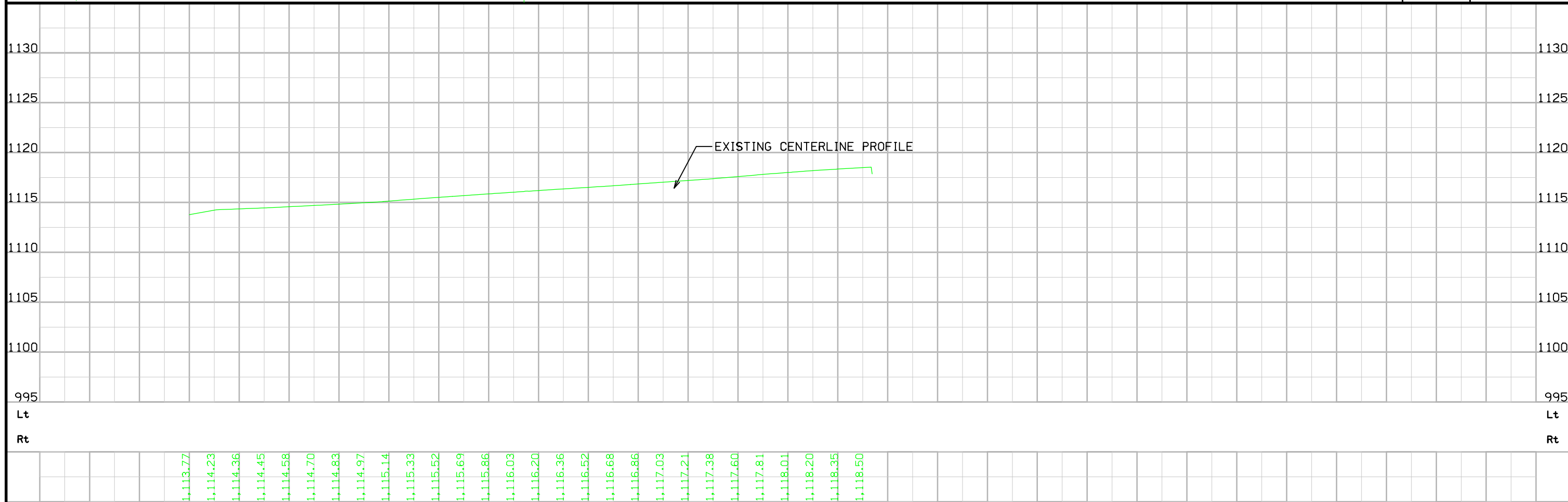
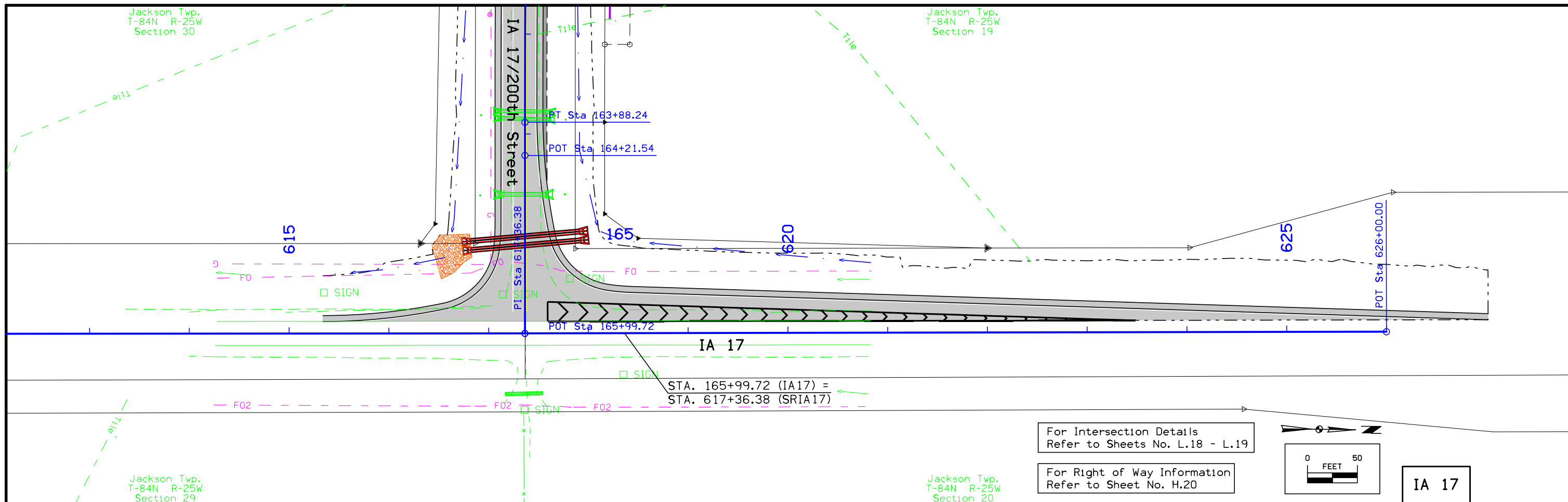
For Intersection Details
Refer to Sheets No. L.9 - L.10

For Right of Way Information
Refer to Sheet No. H.12

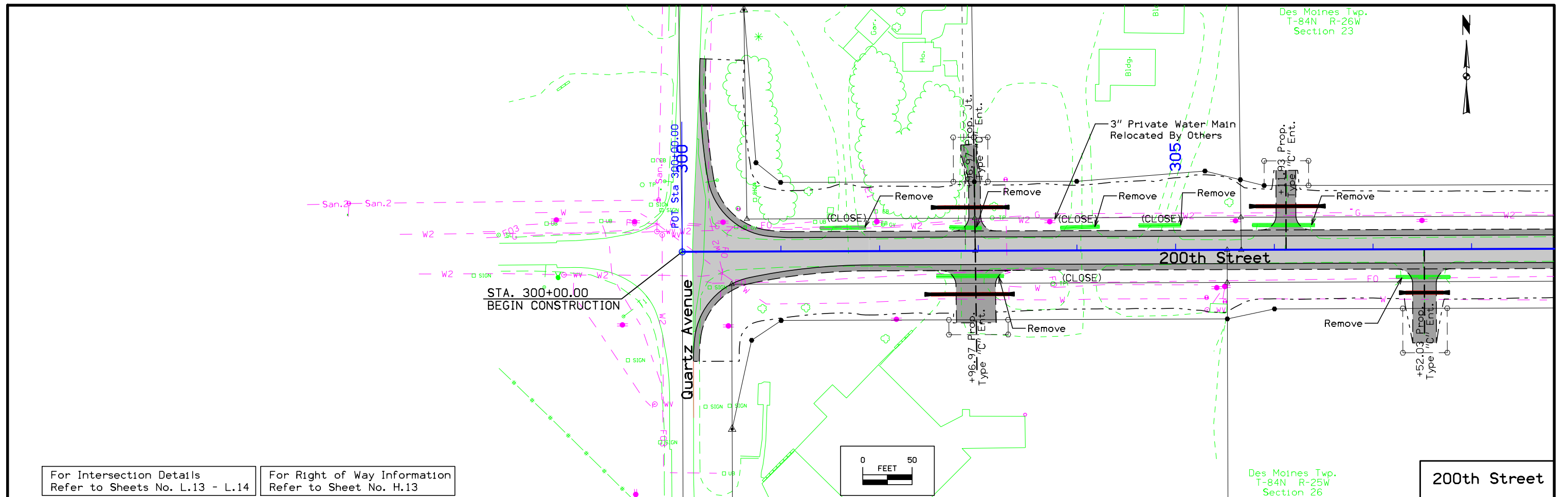


Jackson Twp.
T-84N R-25W
Section 30



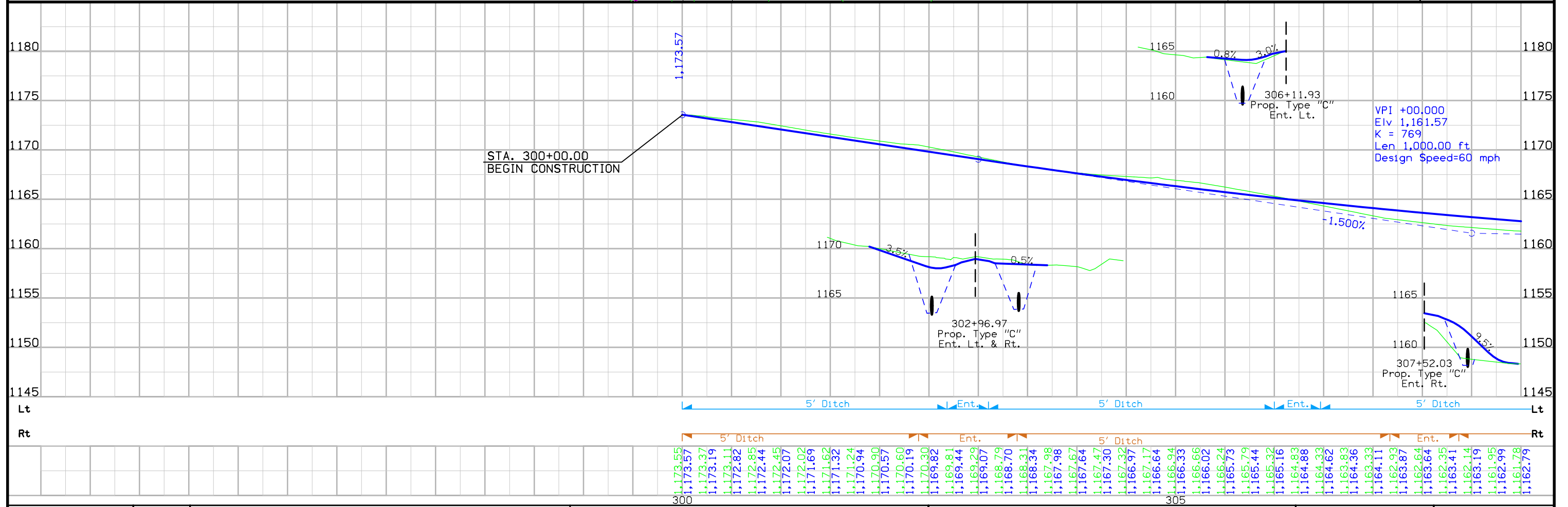
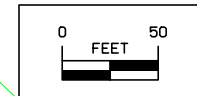


FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	D.15
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For Intersection Details
Refer to Sheets No. L.13 - L.14

For Right of Way Information
Refer to Sheet No. H.13

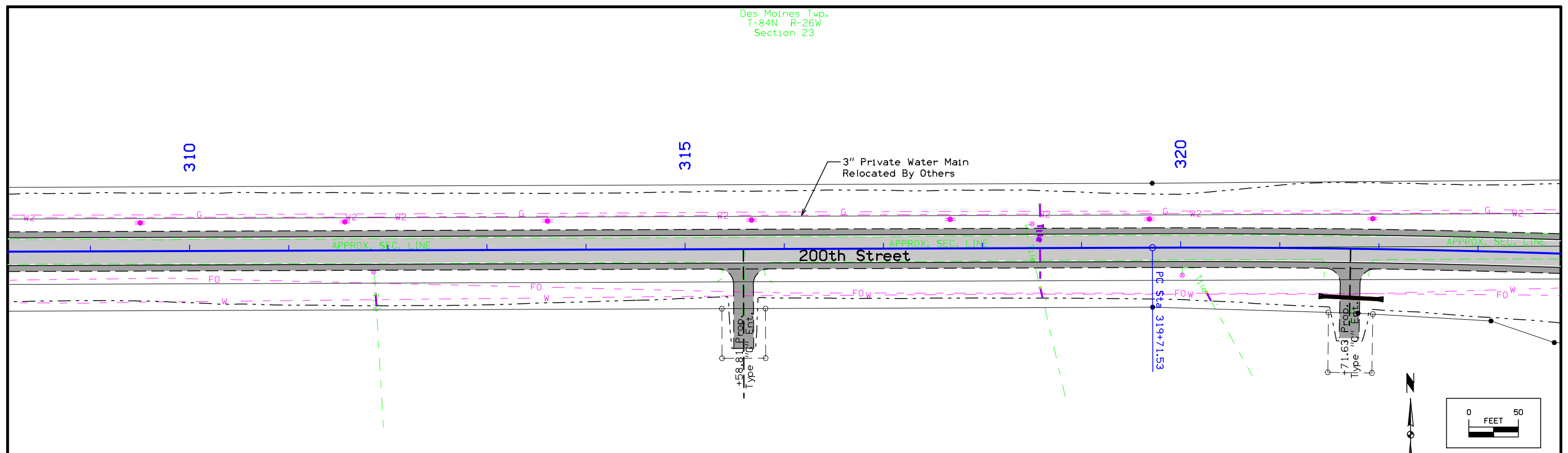


Des Moines Twp.
T-84N R-26W
Section 23

310

315

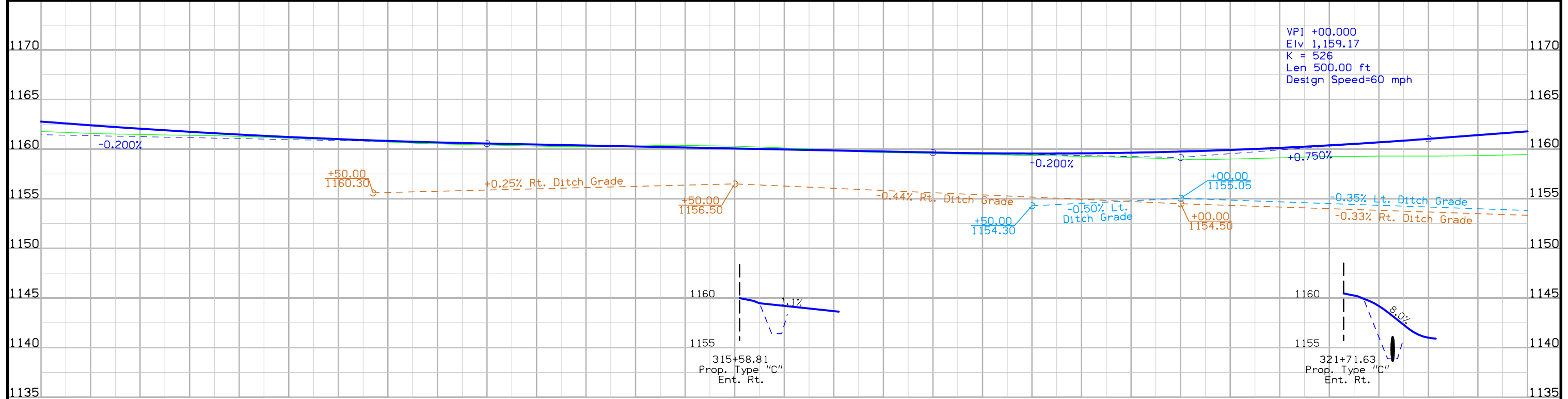
320



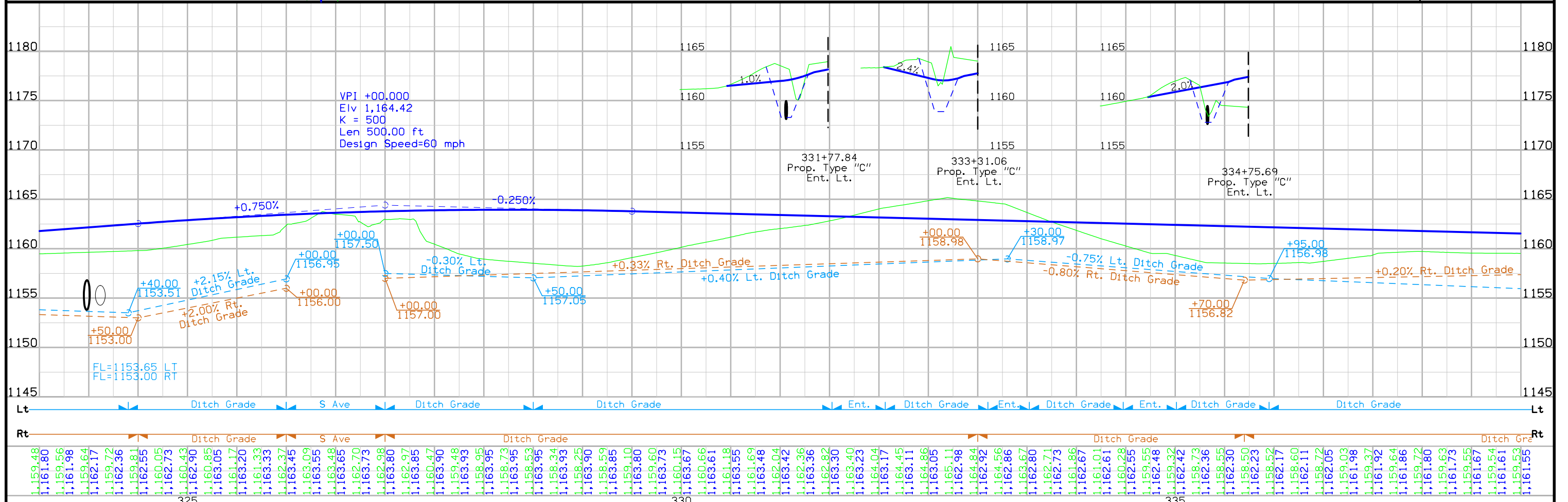
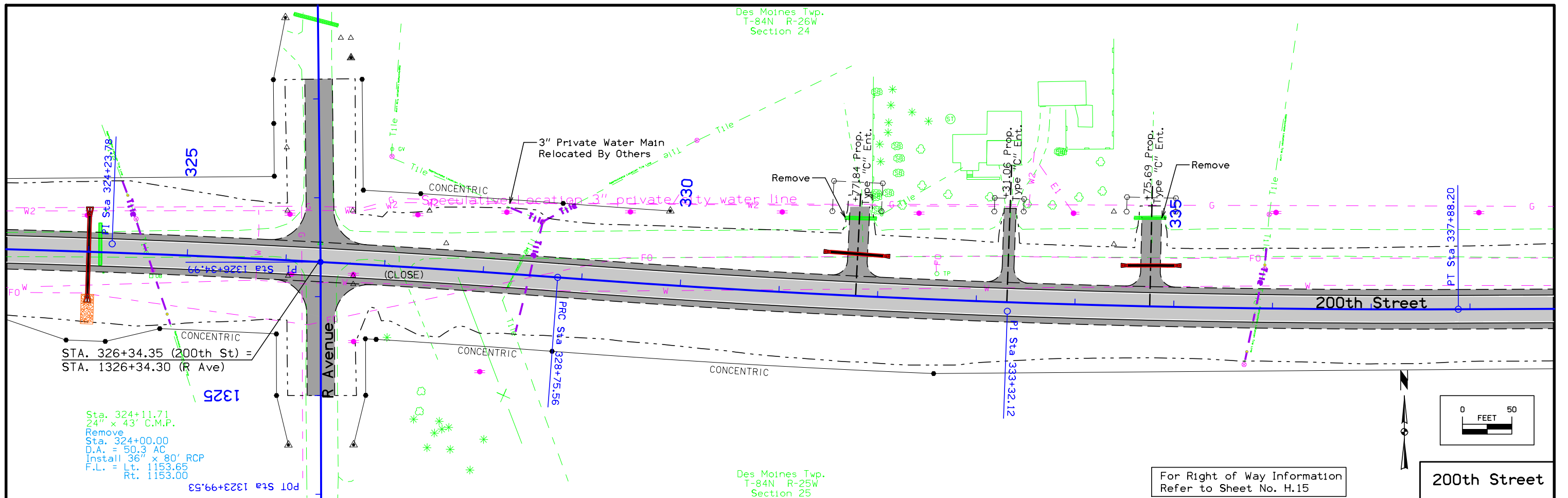
Des Moines Twp.
T-84N R-25W
Section 26

For Right of Way Information
Refer to Sheet No. H.14

200th Street

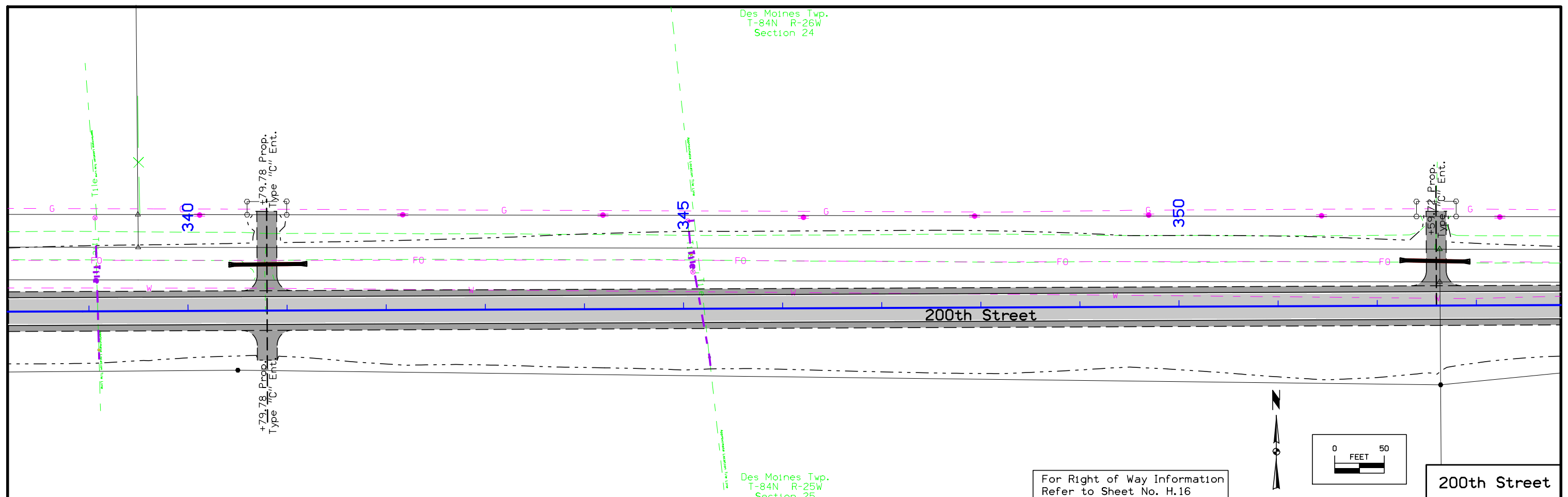


Lt	5' Ditch																															Ditch Grade																															Ent.																															Ditch Grade																															Ent.																															Ditch Grade																															Rt
	1.161.78	1.162.79	1.161.69	1.162.59	1.161.59	1.162.41	1.161.53	1.162.23	1.161.48	1.162.07	1.161.44	1.161.91	1.161.75	1.161.36	1.161.61	1.161.29	1.161.48	1.161.20	1.161.35	1.161.12	1.161.23	1.161.03	1.161.12	1.160.94	1.161.02	1.160.84	1.160.92	1.160.73	1.160.84	1.160.62	1.160.76	1.160.55	1.160.69	1.160.49	1.160.62	1.160.43	1.160.57	1.160.37	1.160.37	1.160.52	1.160.28	1.160.47	1.160.42	1.160.27	1.160.37	1.160.26	1.160.32	1.160.31	1.160.27	1.160.38	1.160.38	1.160.38	1.160.17	1.160.34	1.160.12	1.160.30	1.160.07	1.160.21	1.160.12	1.159.97	1.160.03	1.159.92	1.159.89	1.159.87	1.159.76	1.159.82	1.159.67	1.159.77	1.159.62	1.159.72	1.159.58	1.159.67	1.159.52	1.159.63	1.159.47	1.159.59	1.159.42	1.159.57	1.159.37	1.159.33	1.159.57	1.159.28	1.159.58	1.159.23	1.159.61	1.159.17	1.159.65	1.159.08	1.159.70	1.159.00	1.159.76	1.158.96	1.159.84	1.159.01	1.159.93	1.159.07	1.160.02	1.159.14	1.160.13	1.160.26	1.159.26	1.160.39	1.159.27	1.160.54	1.159.31	1.160.69	1.159.31	1.160.86	1.159.31	1.161.05	1.161.23	1.159.36	1.161.42	1.159.41	1.161.61	1.159.48	1.161.80																																																																						



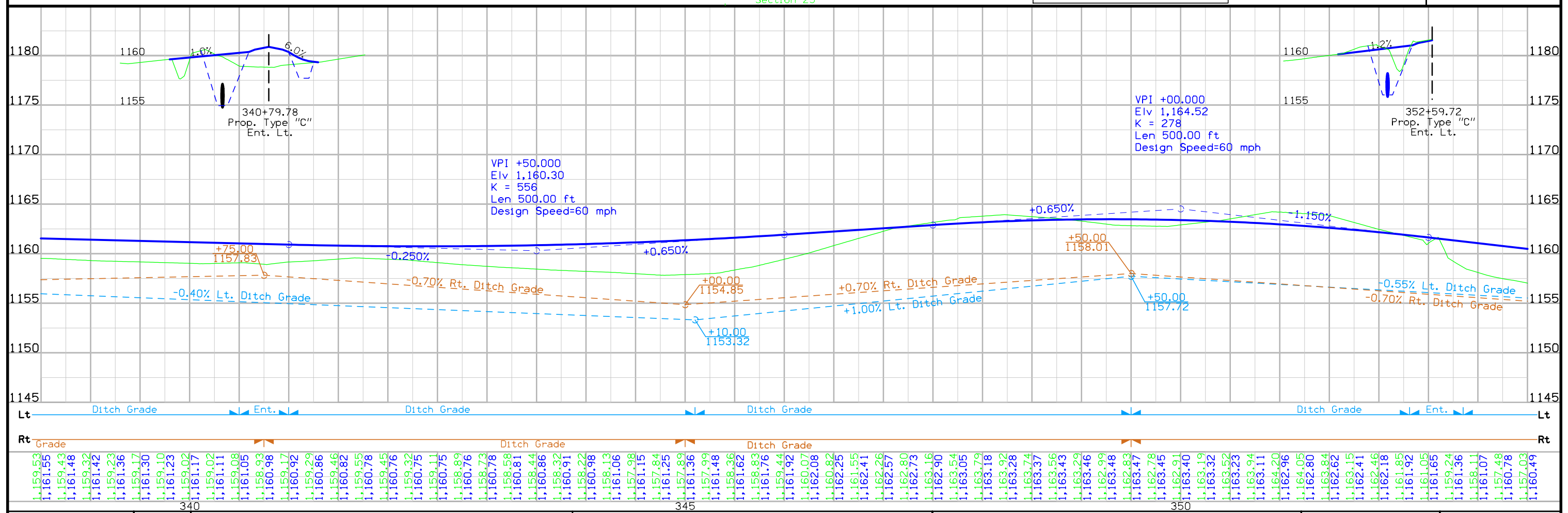
Des Moines Twp.
T-84N R-26W
Section 24

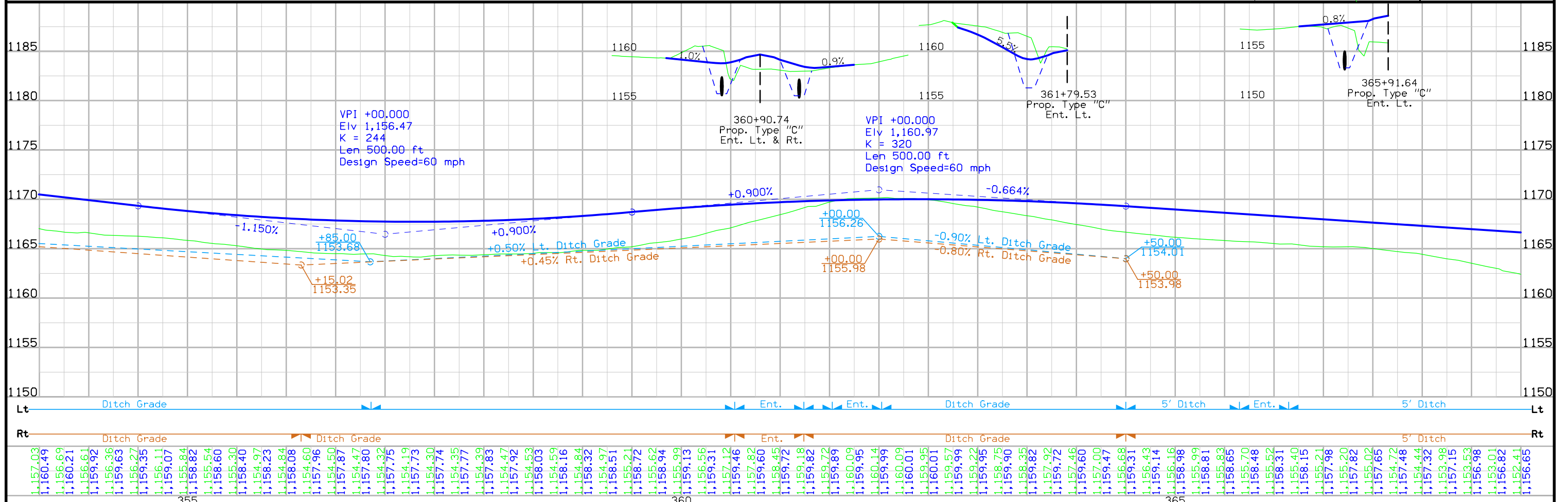
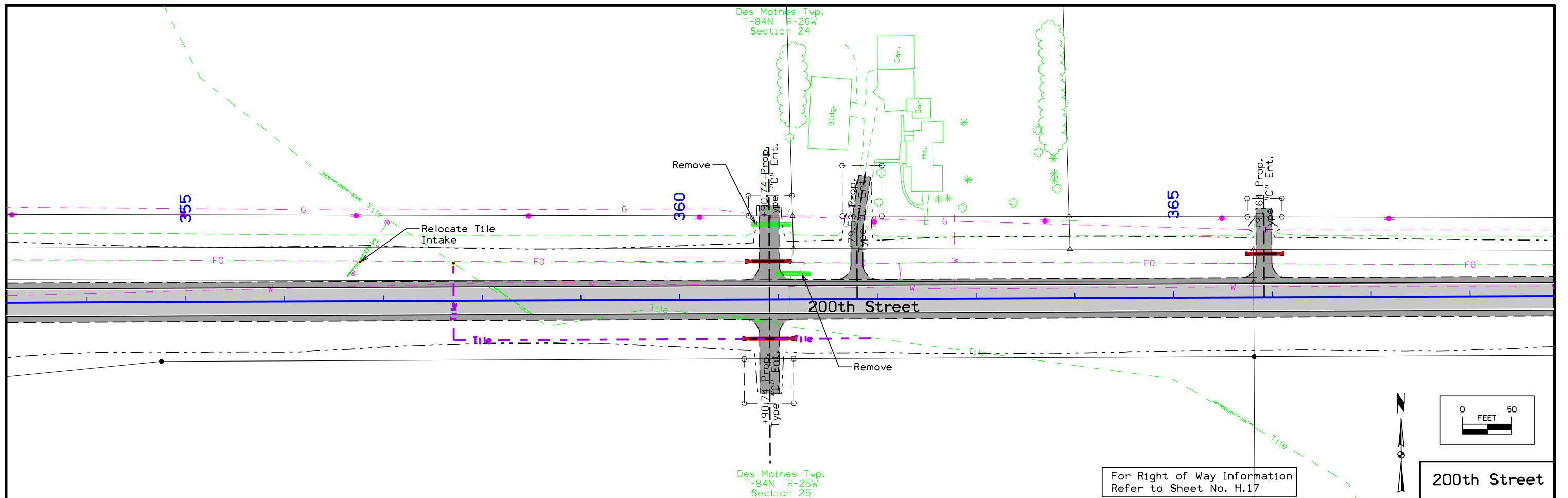
Des Moines Twp.
T-84N R-25W
Section 25



For Right of Way Information
Refer to Sheet No. H.16

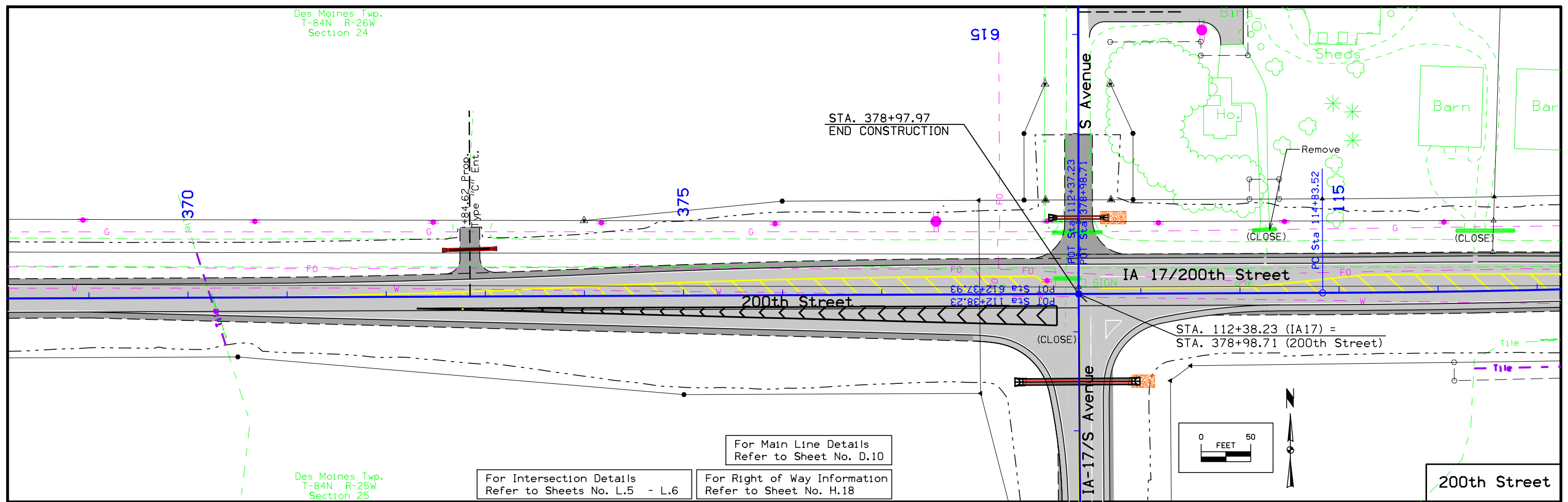
200th Street





FILE NO.	ENGLISH	DESIGN TEAM	BOONE COUNTY	PROJECT NUMBER	SHEET NUMBER
		Snyder & Associates		STPN-017-2(27)--2J-08	E.5

Des Moines Twp.
T-84N R-26W
Section 24

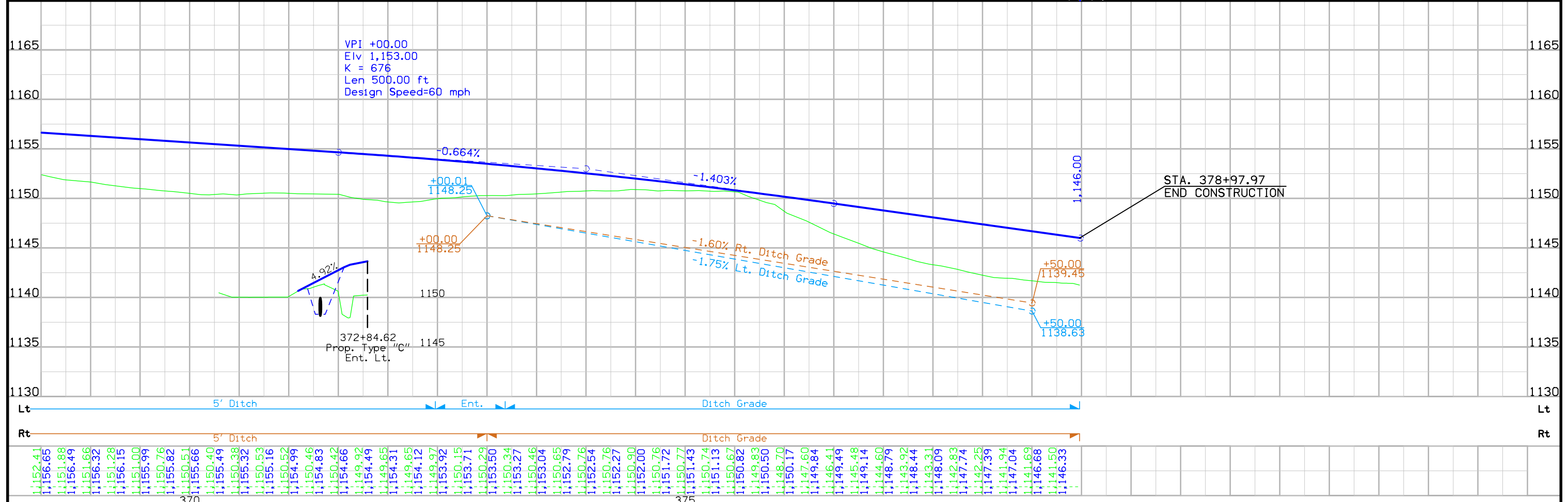


Des Moines Twp.
T-84N R-25W
Section 25

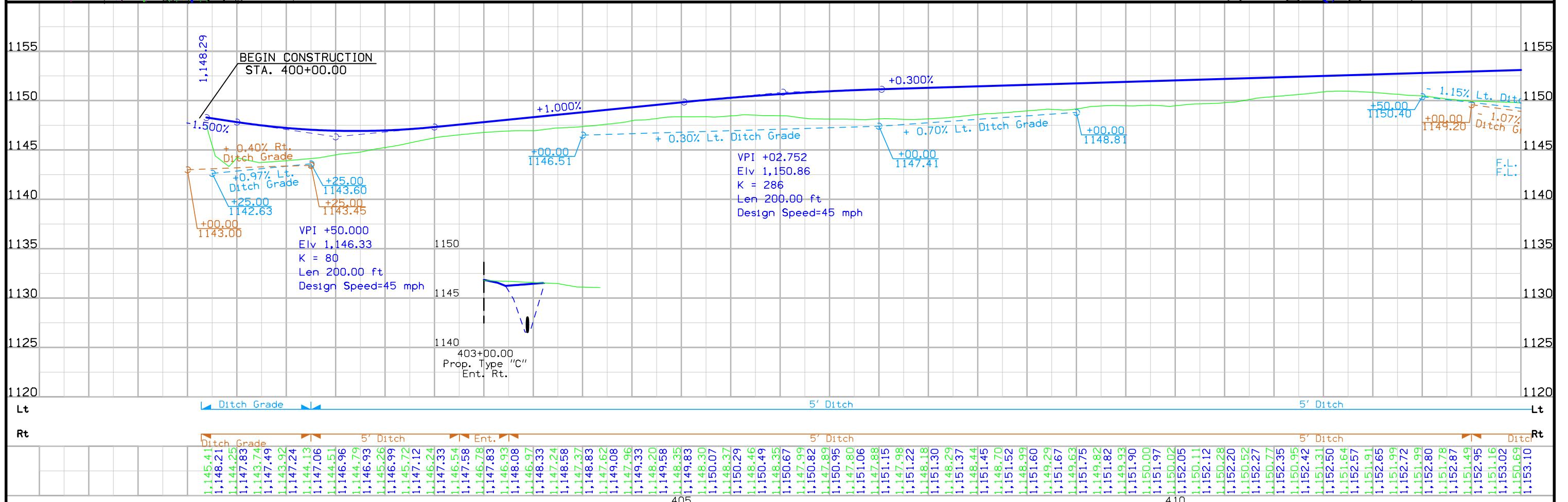
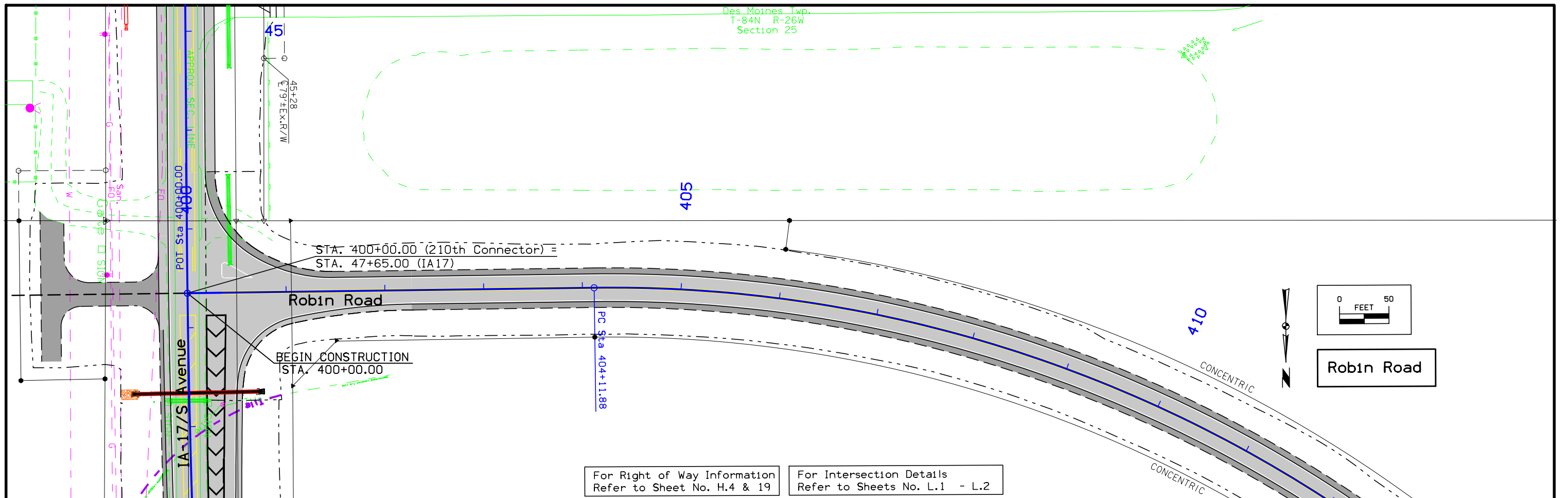
For Intersection Details
Refer to Sheets No. L.5 - L.6

For Right of Way Information
Refer to Sheet No. H.18

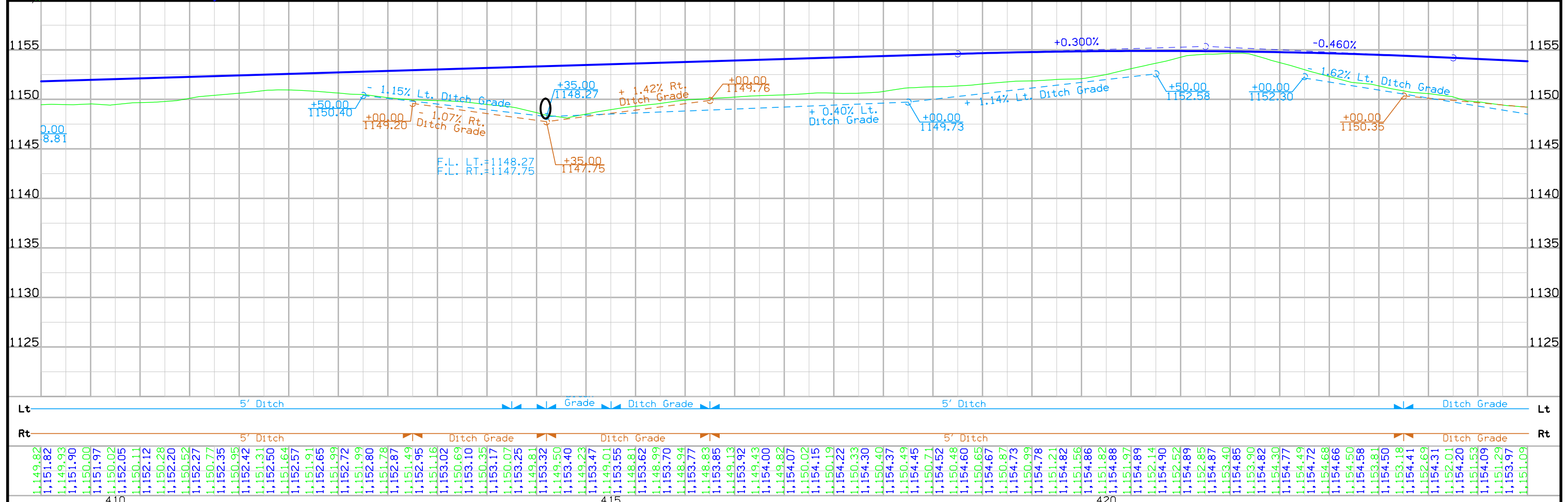
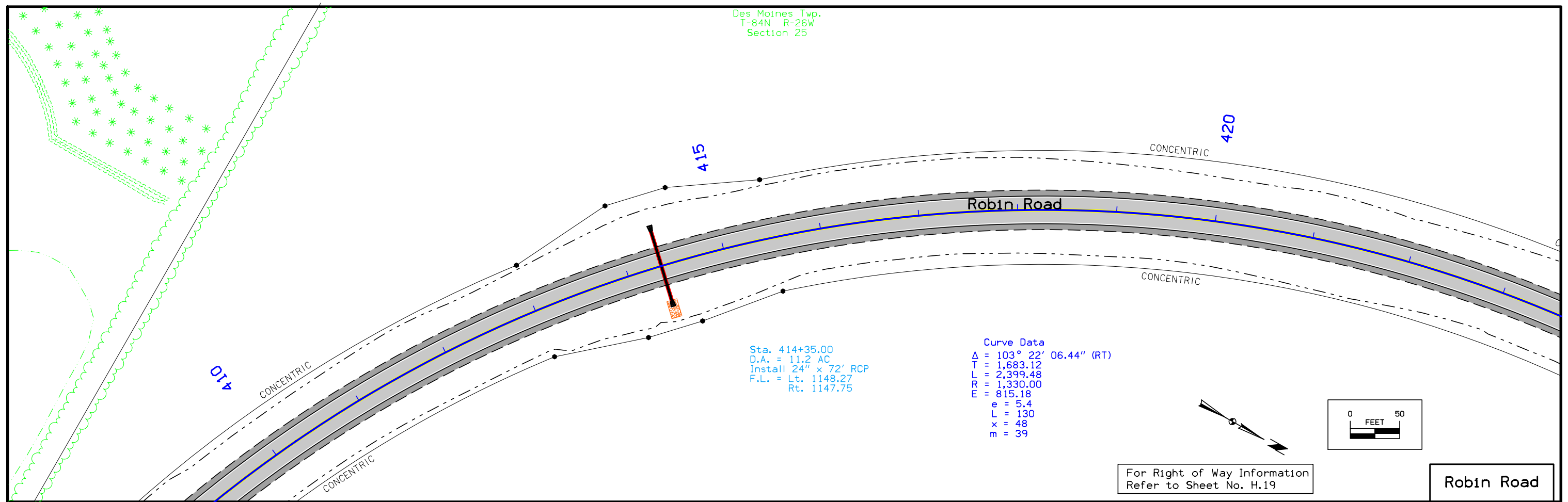
For Main Line Details
Refer to Sheet No. D.10



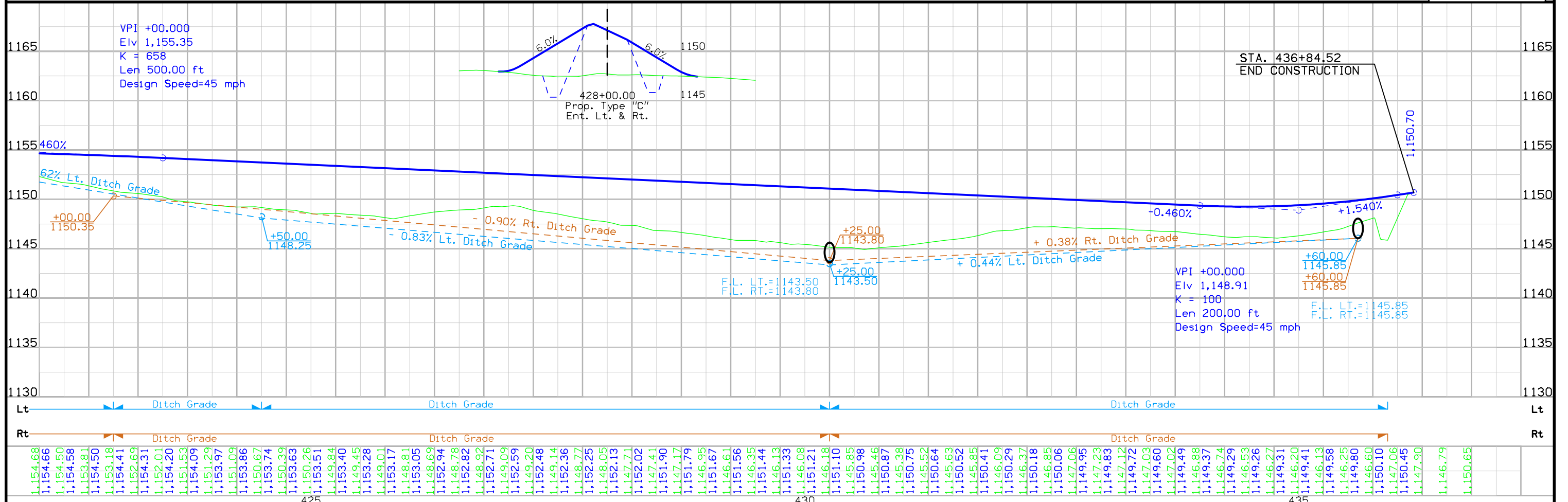
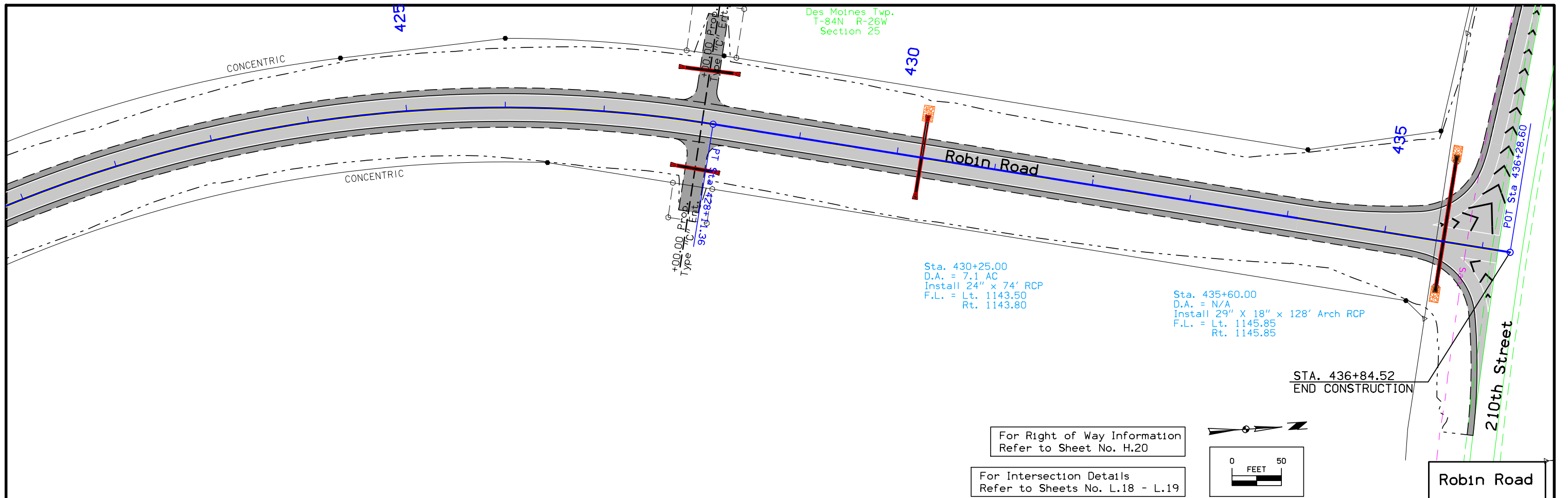
FILE NO.	ENGLISH	DESIGN TEAM	BOONE COUNTY	PROJECT NUMBER	SHEET NUMBER
		Snyder & Associates		STPN-017-2(27)--2J-08	E.6



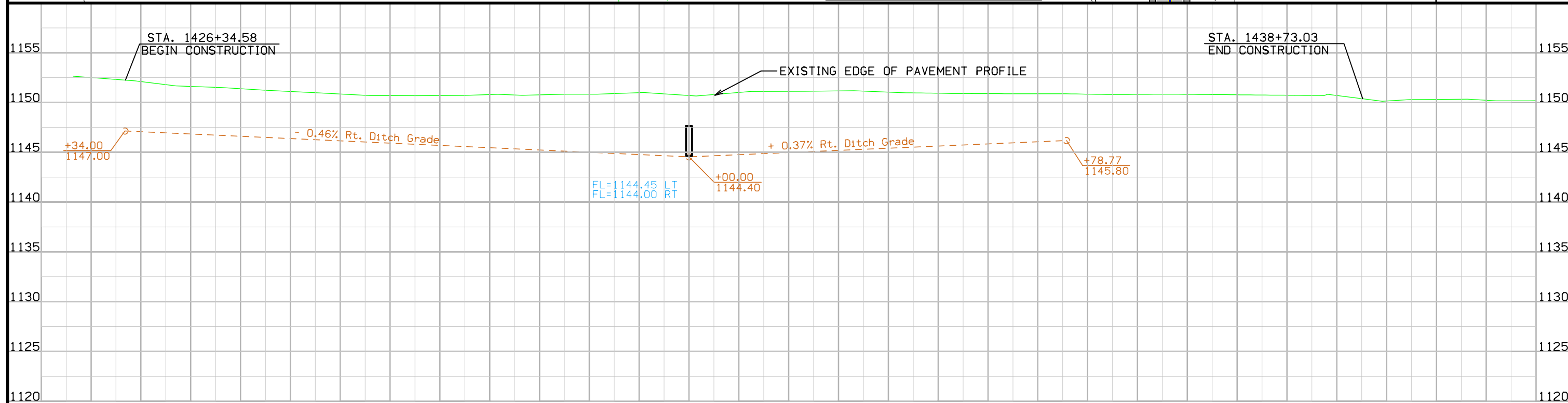
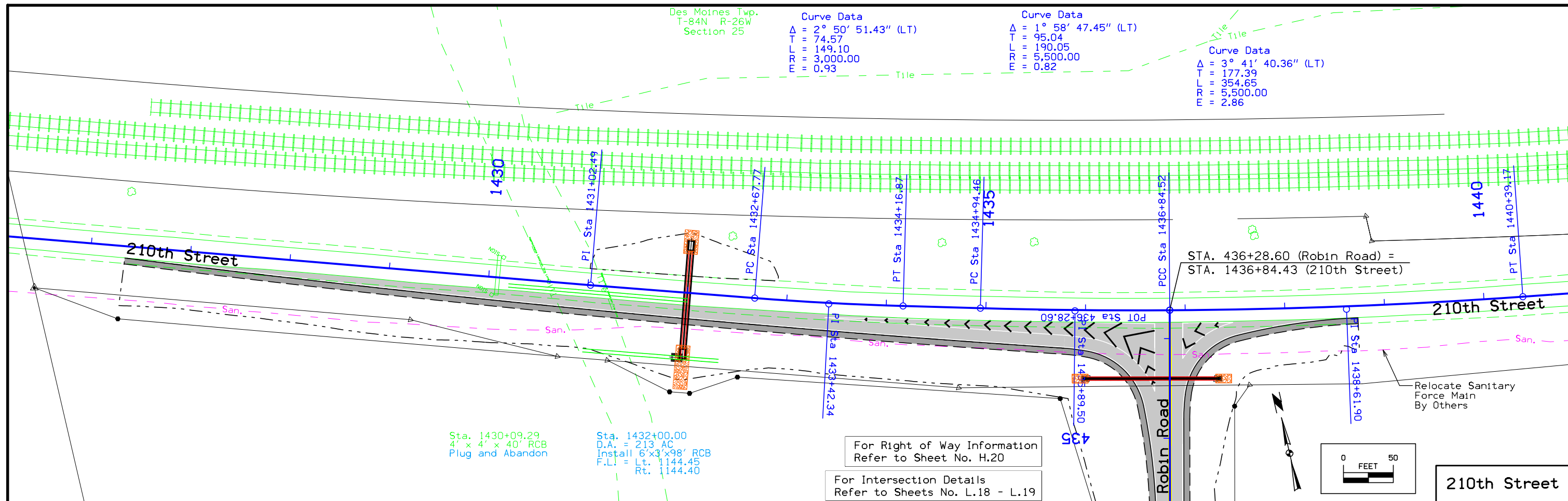
Des Moines Twp.
T-84N R-26W
Section 25



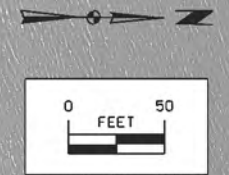
FILE NO.	ENGLISH	DESIGN TEAM	BOONE COUNTY	PROJECT NUMBER	SHEET NUMBER
		Snyder & Associates		STPN-017-2(27)--2J-08	E.8



FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	E.9
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Lt	1,152.51	1,152.32	1,152.13	1,151.88	1,151.57	1,151.45	1,151.36	1,151.20	1,151.06	1,150.94	1,150.82	1,150.69	1,150.57	1,150.55	1,150.54	1,150.56	1,150.60	1,150.68	1,150.59	1,150.65	1,150.69	1,150.69	1,150.79	1,150.85	1,150.69	1,150.53	1,150.73	1,150.93	1,150.98	1,150.99	1,151.01	1,151.04	1,150.98	1,150.88	1,150.82	1,150.78	1,150.76	1,150.75	1,150.75	1,150.74	1,150.73	1,150.69	1,150.67	1,150.69	1,150.70	1,150.68	1,150.66	1,150.63	1,150.61	1,150.59	1,150.57	1,150.48	1,150.16	1,150.06	1,150.16	1,150.18	1,150.19	1,150.04	1,150.03	1,150.05	Rt
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Worth Twp.
T-83N R-26W
Section 1

Des Moines Twp.
T-84N R-26W
Section 36

Colfax Twp.
T-83N R-25W
Section 6

Jackson Twp.
T-84N R-25W
Section 31

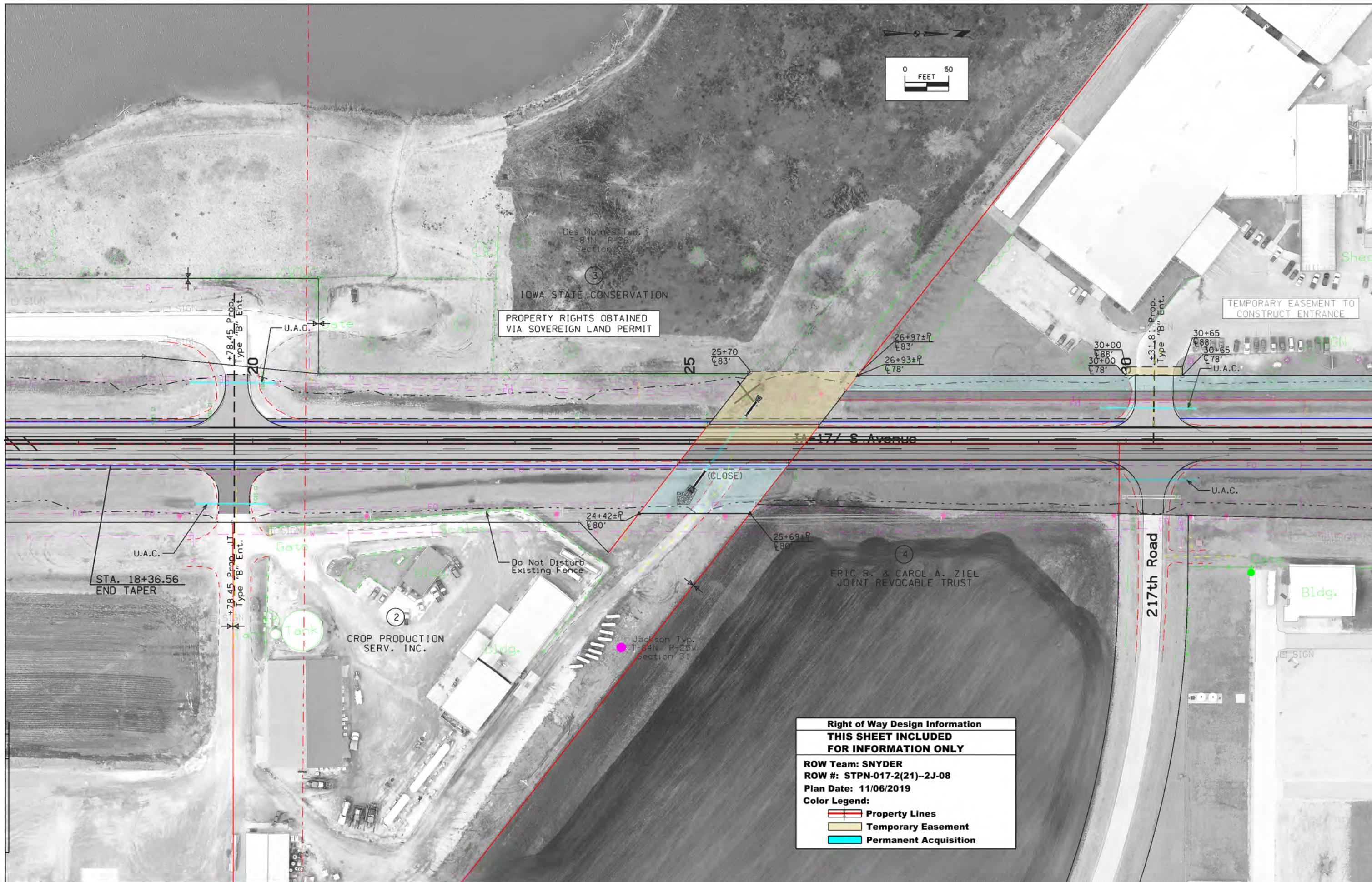
U.S. 30

IA-17/ S Avenue

BOONE COUNTY IOWA




HRM PROPERTIES LLC

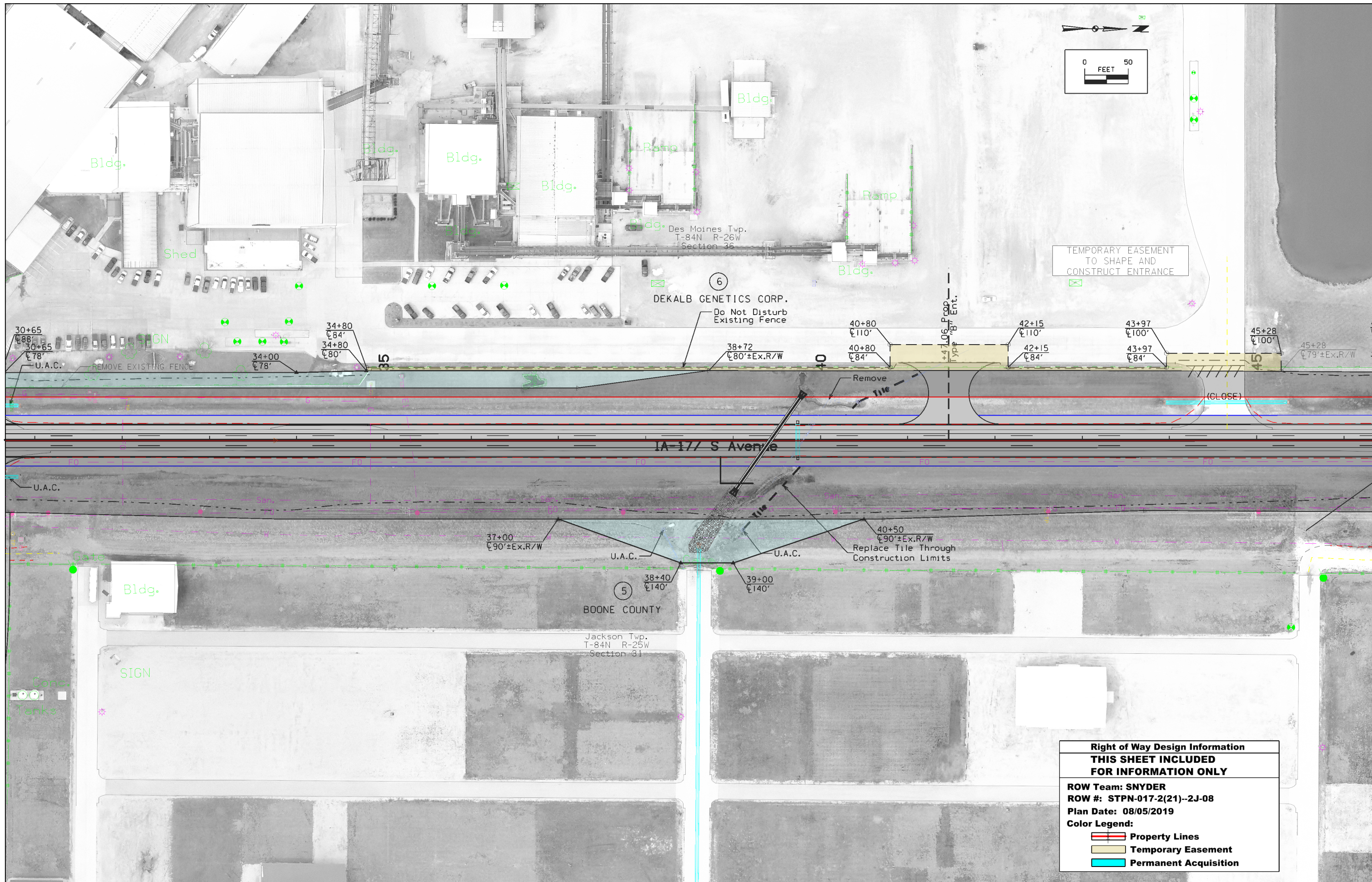
Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



PROPERTY RIGHTS OBTAINED
VIA SOVEREIGN LAND PERMIT

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 11/06/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



**Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY**

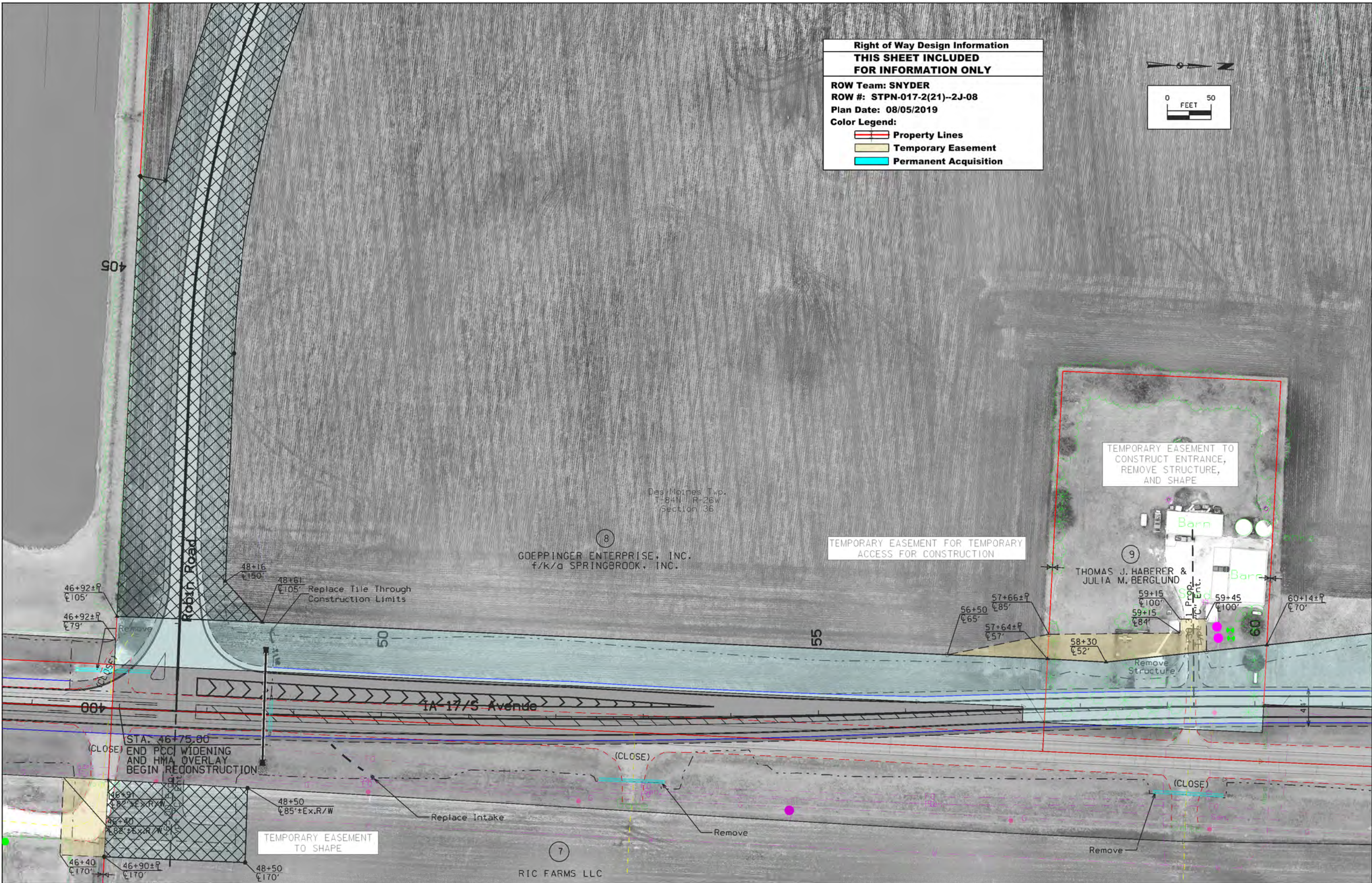
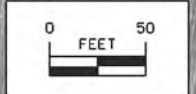
ROW Team: SNYDER
ROW #: STPN-017-2(21)--2J-08
Plan Date: 08/05/2019
Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition

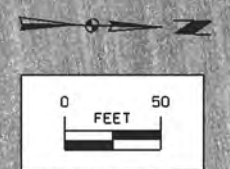
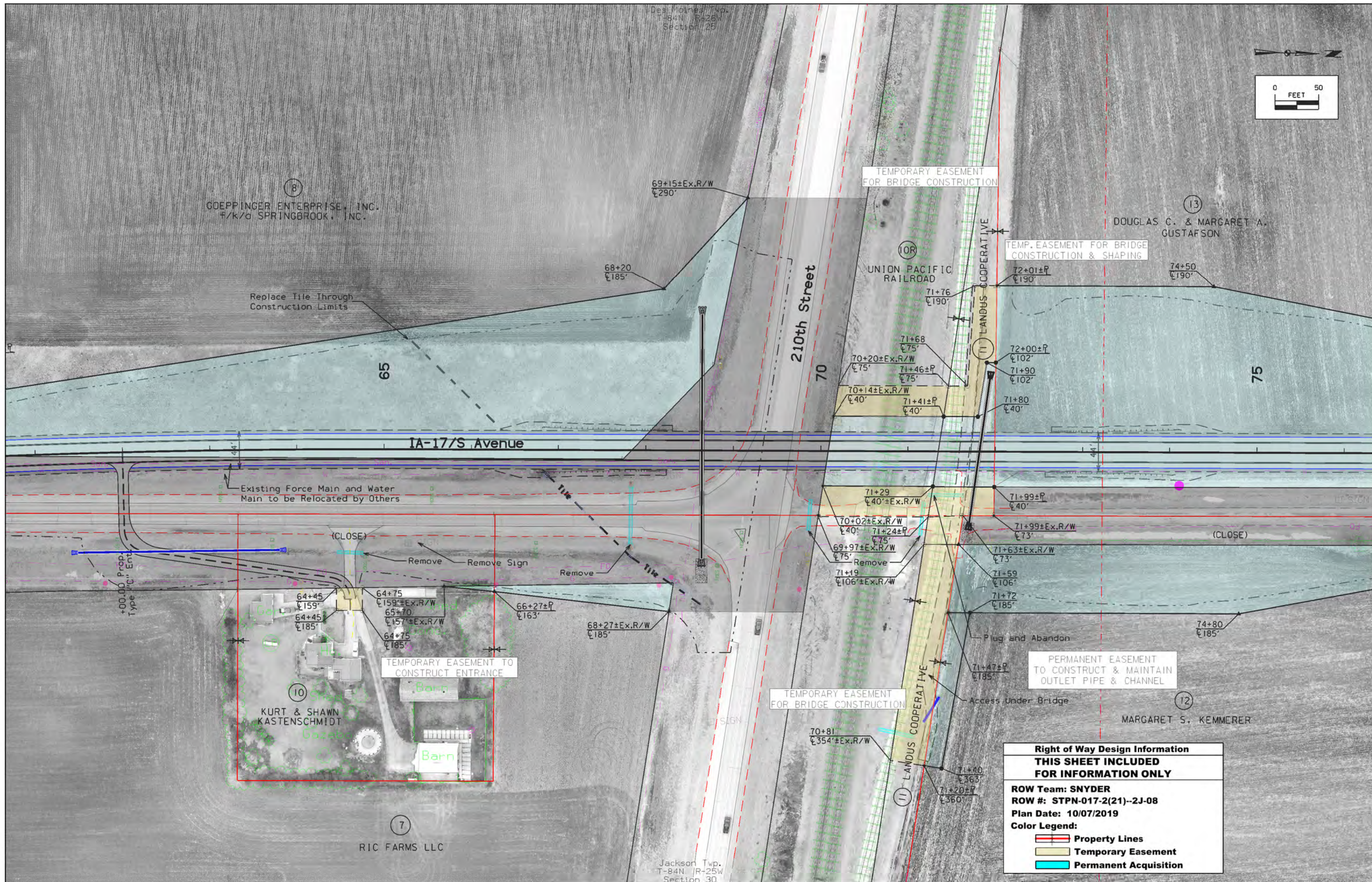
Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY

ROW Team: SNYDER
 ROW #: STPN-017-2(21)--2J-08
 Plan Date: 08/05/2019

- Color Legend:**
- Property Lines
 - Temporary Easement
 - Permanent Acquisition






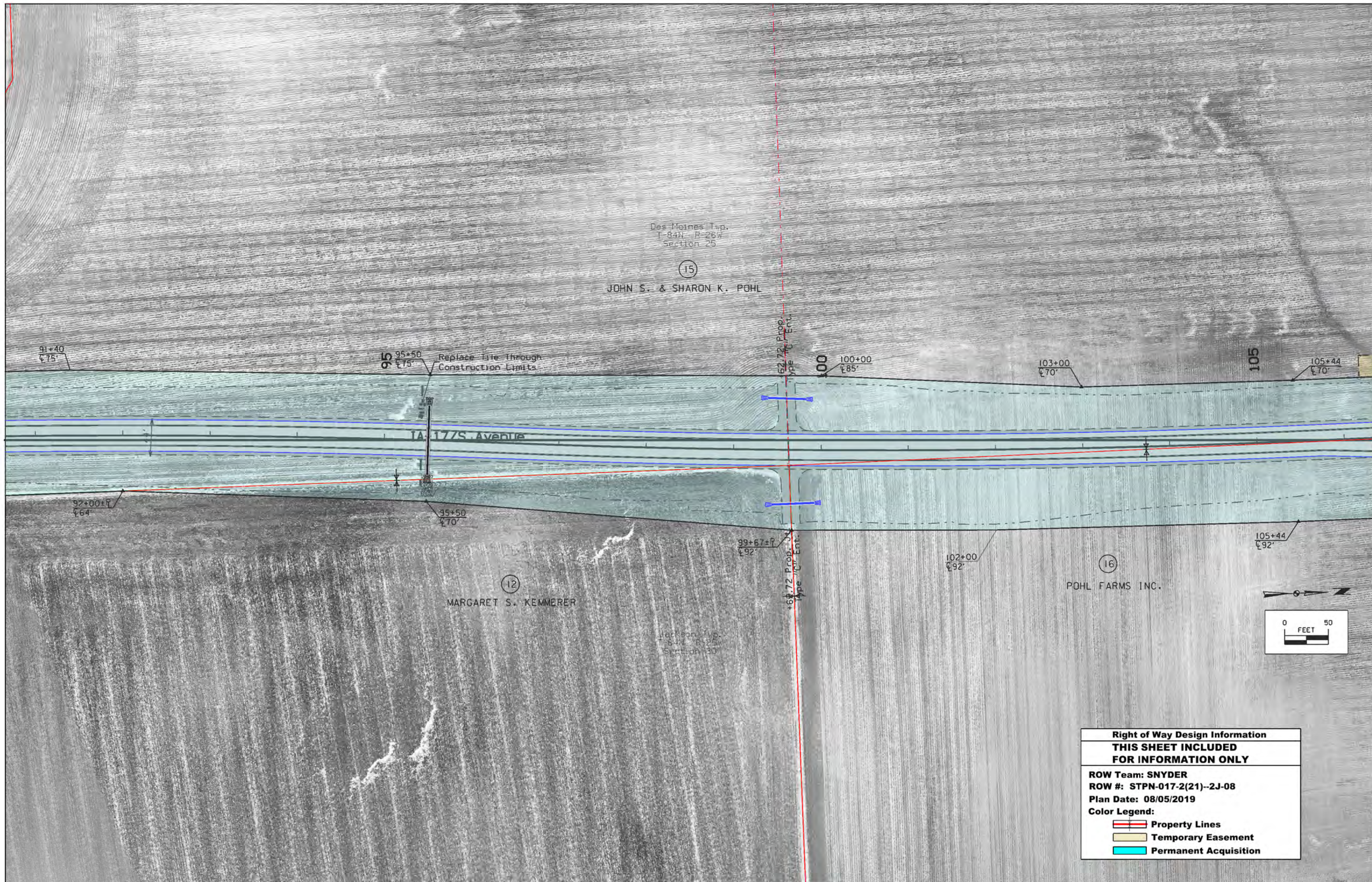
FILE NO.	ENGLISH	DESIGN TEAM Snyder & Associates	BOONE COUNTY	PROJECT NUMBER STPN-017-2(27)--2J-08	SHEET NUMBER H.4
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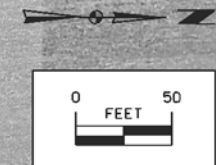
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THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 10/07/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



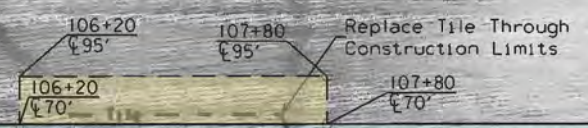
Des Moines Twp.
T-84N R-26W
Section 25

Des Moines Twp.
T-84N R-26W
Section 24

TEMPORARY EASEMENT TO
REPLACE TILE

15
JOHN S. & SHARON K. POHL

35
DARRELL D. CROUSE



IA-17/S Avenue

IA 17/200th Street

16
POHL FARMS INC.

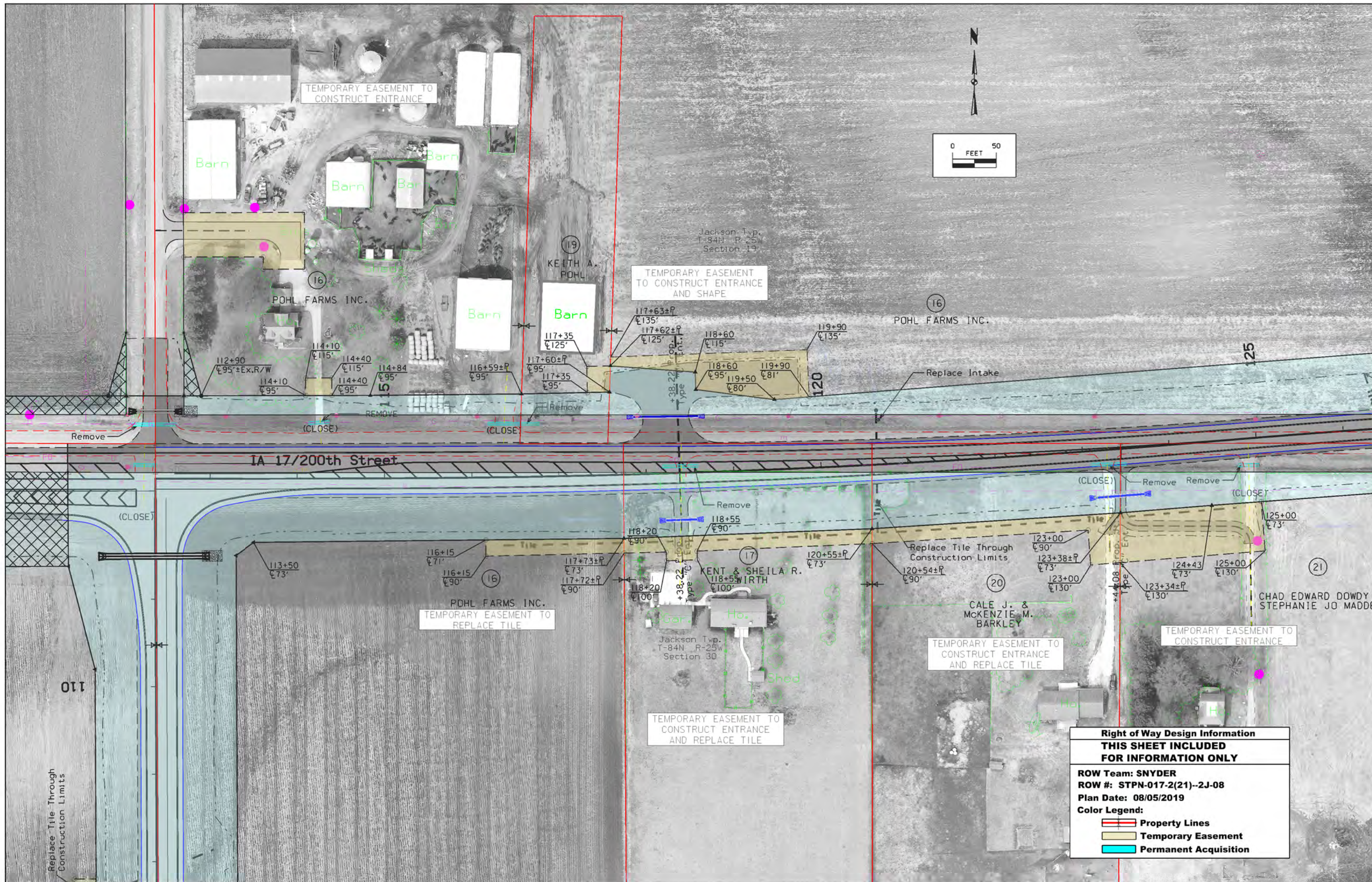
16
POHL FARMS INC.

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

TEMPORARY EASEMENT TO
REMOVE ENTRANCE

Jackson Twp.
T-84N R-25W
Section 19

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

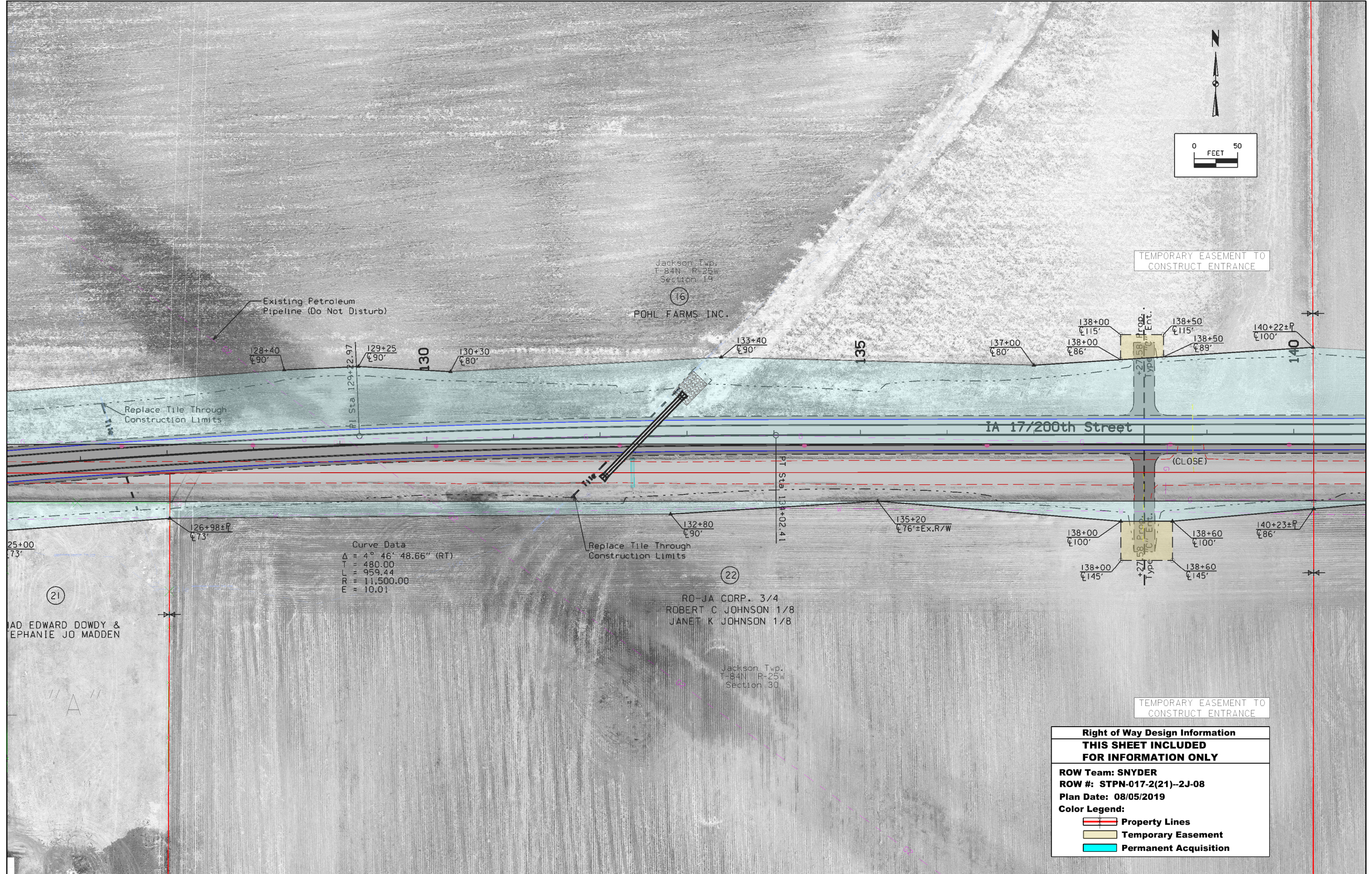
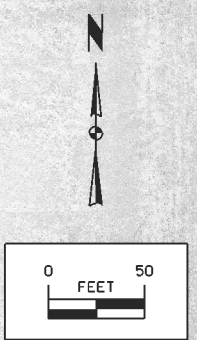


Right of Way Design Information
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: SNYDER
ROW #: STPN-017-2(21)--2J-08
Plan Date: 08/05/2019

Color Legend:




- Property Lines
- Temporary Easement
- Permanent Acquisition

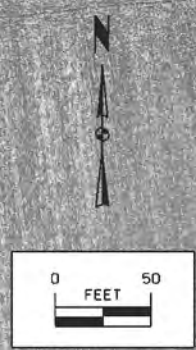


Curve Data
 $\Delta = 4^\circ 46' 48.66''$ (RT)
 $T = 480.00$
 $L = 959.44$
 $R = 11,500.00$
 $E = 10.01$

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Jackson Twp.
T-84N R-25W
Section 19

(24)
GLENDA M. SMALLEY LIFE ESTATE
Replace Tile Through
Construction Limits

IA 17/200th Street

Jackson Twp.
T-84N R-25W
Section 30

RO-JA CORP.

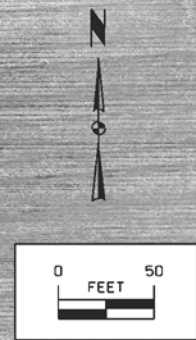
**Right of Way Design Information
THIS SHEET INCLUDED
FOR INFORMATION ONLY**

ROW Team: SNYDER
ROW #: STPN-017-2(21)--2J-08
Plan Date: 08/05/2019

Color Legend:

- Property Lines
- Temporary Easement
- Permanent Acquisition



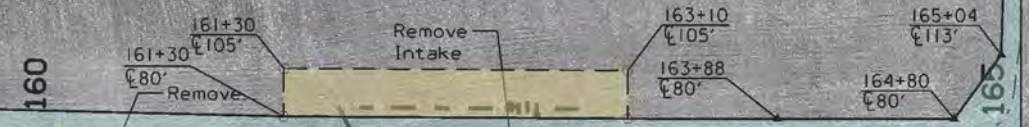


Jackson Twp.
T-84N R-25W
Section 19

24
GLENDA M. SMALLEY LIFE ESTATE

TEMPORARY EASEMENT
TO REPLACE TILE

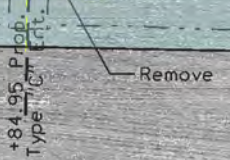
Jackson Twp.
T-84N R-25W
Section 20



IA 17/200th Street

IA 17/T AVENUE




STA. 165+99.72
END CONSTRUCTION

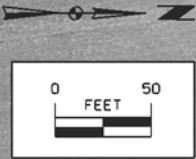


23
RO-JA CORP.

Jackson Twp.
T-84N R-25W
Section 30

Jackson Twp.
T-84N R-25W
Section 29

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



TEMPORARY EASEMENT
REPLACE TILE

Jackson Twp.
T-84N R-25W
Section 30

Jackson Twp.
T-84N R-25W
Section 19

(23)
RO-JA CORP.

(24)
GLENDA M. SMALLEY LIFE ESTATE

615

165

620

622+00
C 85'± Ex. R/W

625

POT Sta 626+00.00

PI Sta 617+86.38

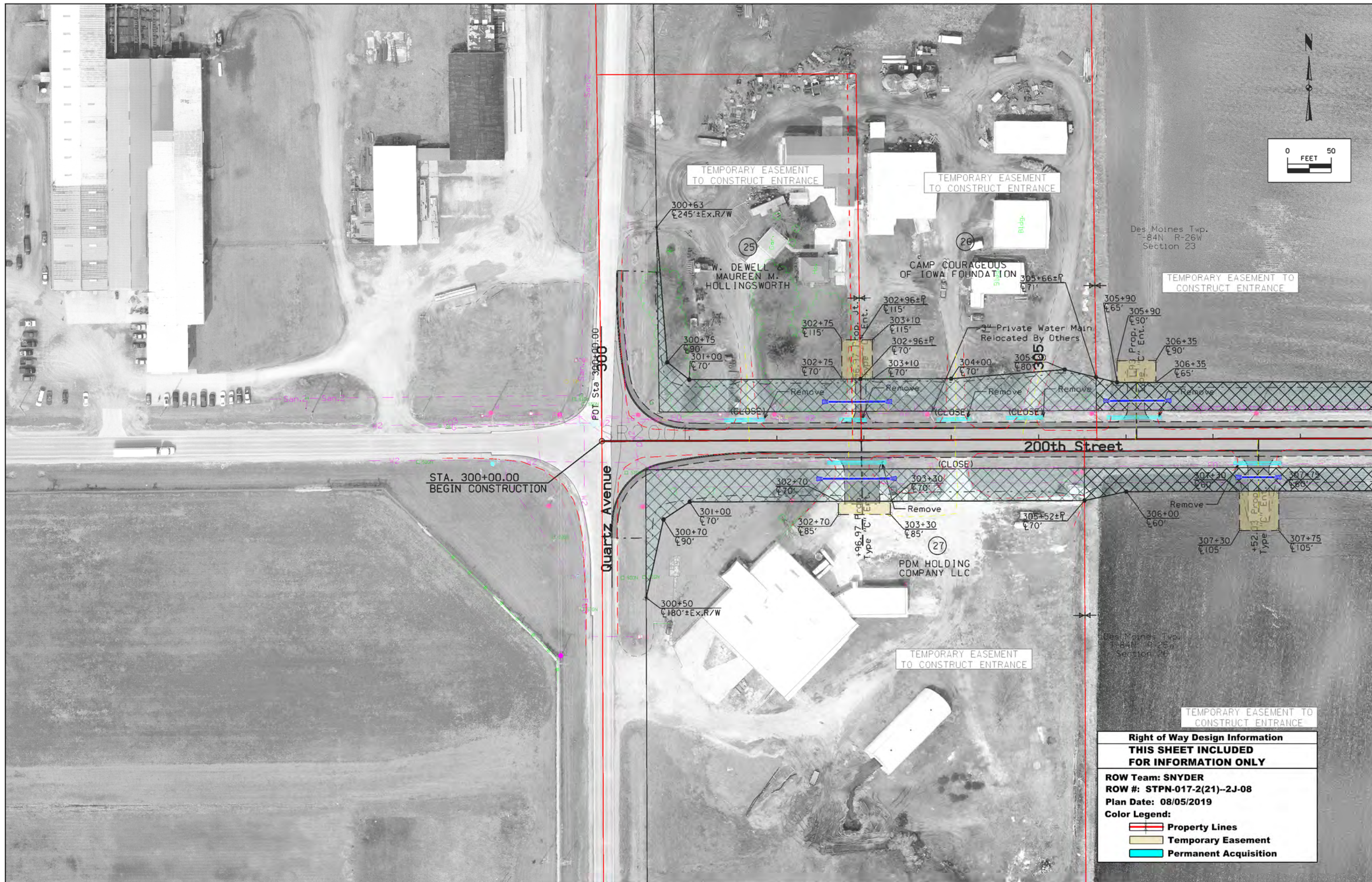
IA 17/T AVENUE

Jackson Twp.
T-84N R-25W
Section 29

Jackson Twp.
T-84N R-25W
Section 20

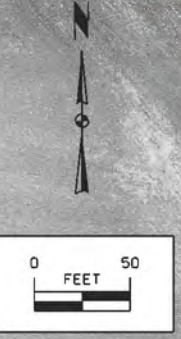
STA. 165+99.72
END CONSTRUCTION

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)-2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



STA. 300+00.00
BEGIN CONSTRUCTION

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Des Moines Twp.
T-84N R-26W
Section 23
(29)
CB ACRES INC.

310

315

320

3" Private Water Main
Relocated By Others

319+72
±65'

200th Street

315+37
±60'

315+37
±110'

315+81
±60'

315+81
±110'

+58.6
Type "E"

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

(28)
TRACY L. BUSCH ET AL

Des Moines Twp.
T-84N R-25W
Section 26

319+72
±60'

319+71.53

321+50
±65'

321+50
±125'

321+85
±66'




321+80
±65'

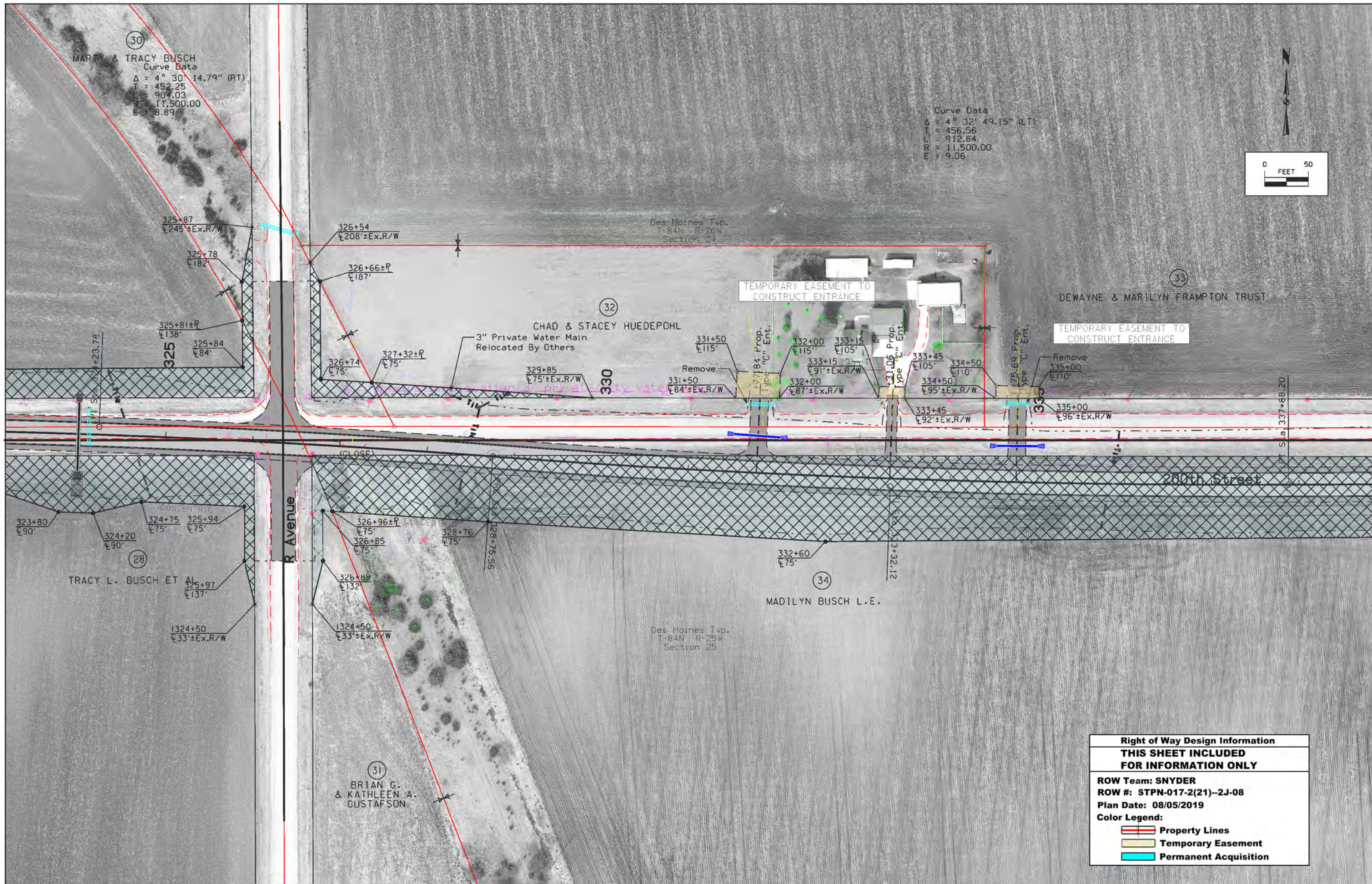
321+95
±125'

323+15
±70'

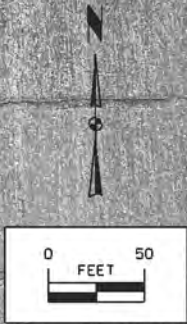
323+80
±90'

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)-2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



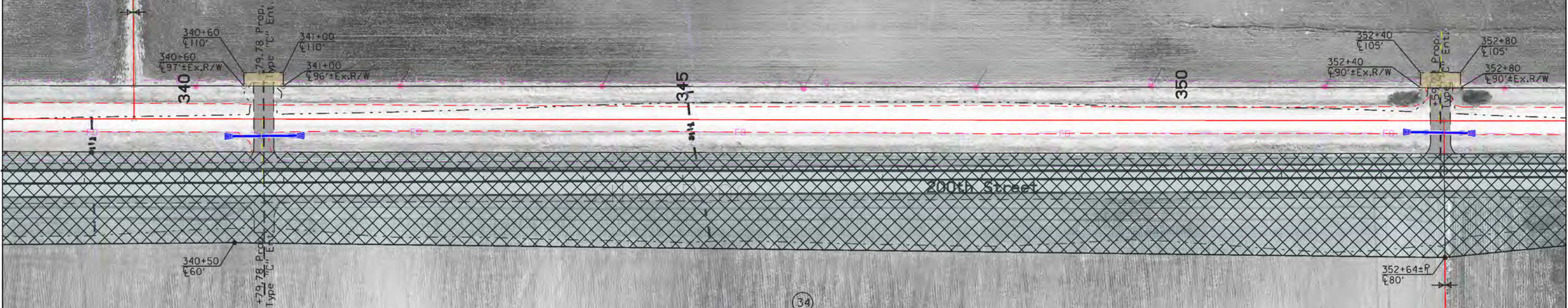
Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)-2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Des Moines Twp.
T-84N R-26W
Section 24
35
DARRELL D. CROUSE

TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE

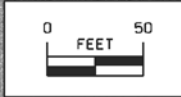
TEMPORARY EASEMENT TO
CONSTRUCT ENTRANCE



200th Street




34
MADILYN BUSCH L.E.
Des Moines Twp.
T-84N R-26W
Section 25

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)-2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

Des Moines Twp.
T-84N R-26W
Section 25

6
DEKALB GENETICS CORP.

8
GOEPPINGER ENTERPRISE, INC.
f/k/a SPRINGBROOK, INC.

8
GOEPPINGER ENTERPRISE, INC.
f/k/a SPRINGBROOK, INC.

TEMPORARY EASEMENT
TO SHAPE

400+00±P
400

IA-17/S
Avenue

Robin Road

405

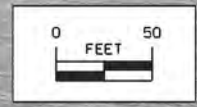
406+00±P
479'

406+00
450'

404+12
450'

404+11.88

410



413+00
450'

413+00
450'

414+00
465'

414+60
465'

Right of Way Design Information
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FOR INFORMATION ONLY

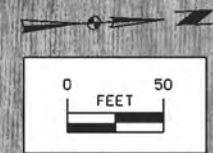
ROW Team: SNYDER
 ROW #: STPN-017-2(21)--2J-08
 Plan Date: 08/05/2019

Color Legend:

-  Property Lines
-  Temporary Easement
-  Permanent Acquisition





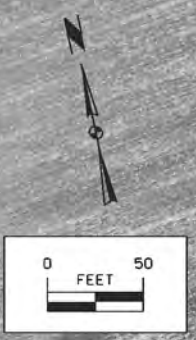
Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)-2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition



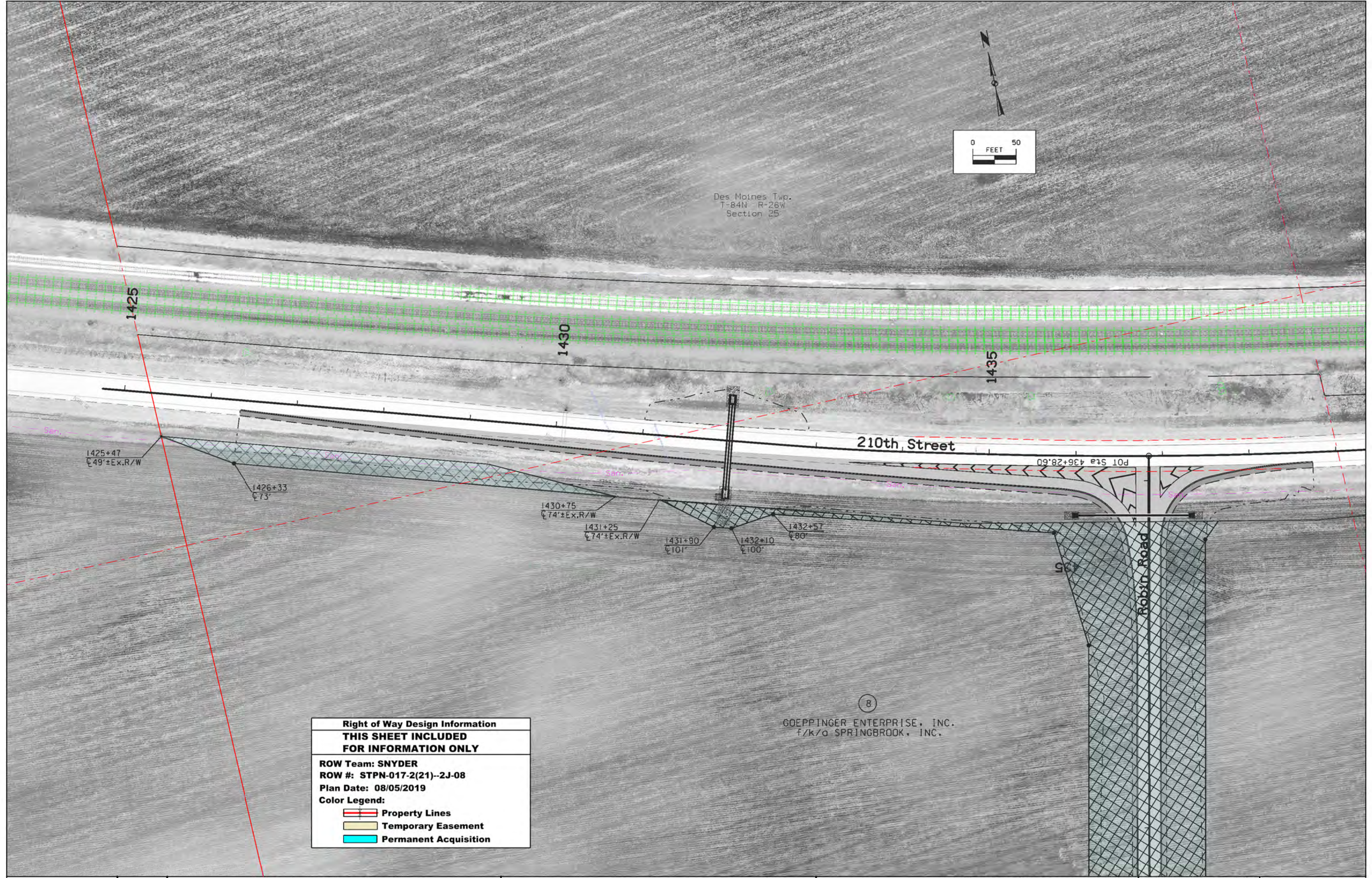
TEMPORARY EASEMENT TO CONSTRUCT DRIVEWAY

TEMPORARY EASEMENT TO CONSTRUCT DRIVEWAY

Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

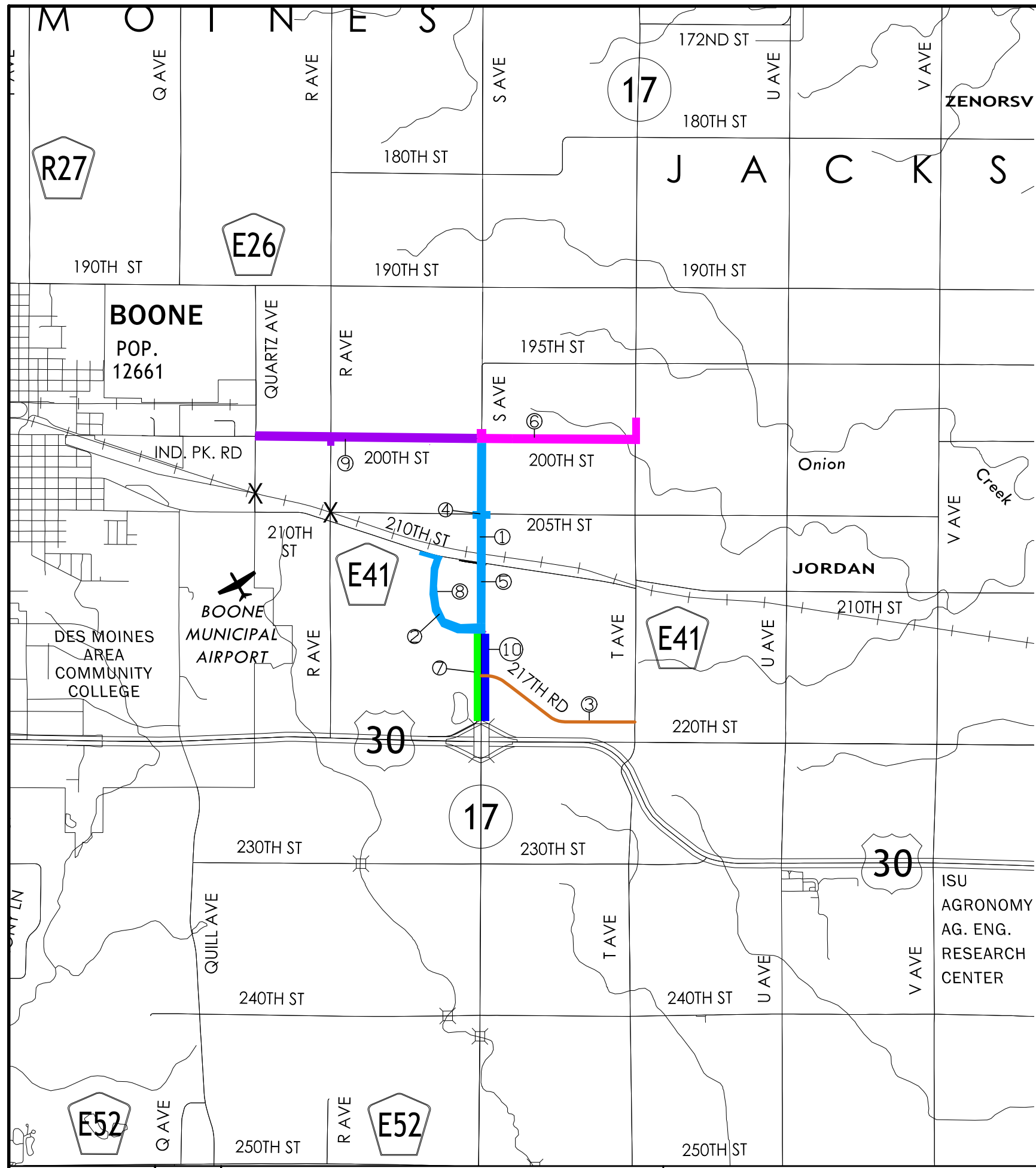


Des Moines Twp.
T-84N R-26W
Section 25



Right of Way Design Information	
THIS SHEET INCLUDED FOR INFORMATION ONLY	
ROW Team: SNYDER	
ROW #: STPN-017-2(21)--2J-08	
Plan Date: 08/05/2019	
Color Legend:	
	Property Lines
	Temporary Easement
	Permanent Acquisition

8
GOEPPINGER ENTERPRISE, INC.
f/k/a SPRINGBROOK, INC.



STAGE 1 - FY2023

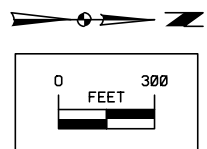
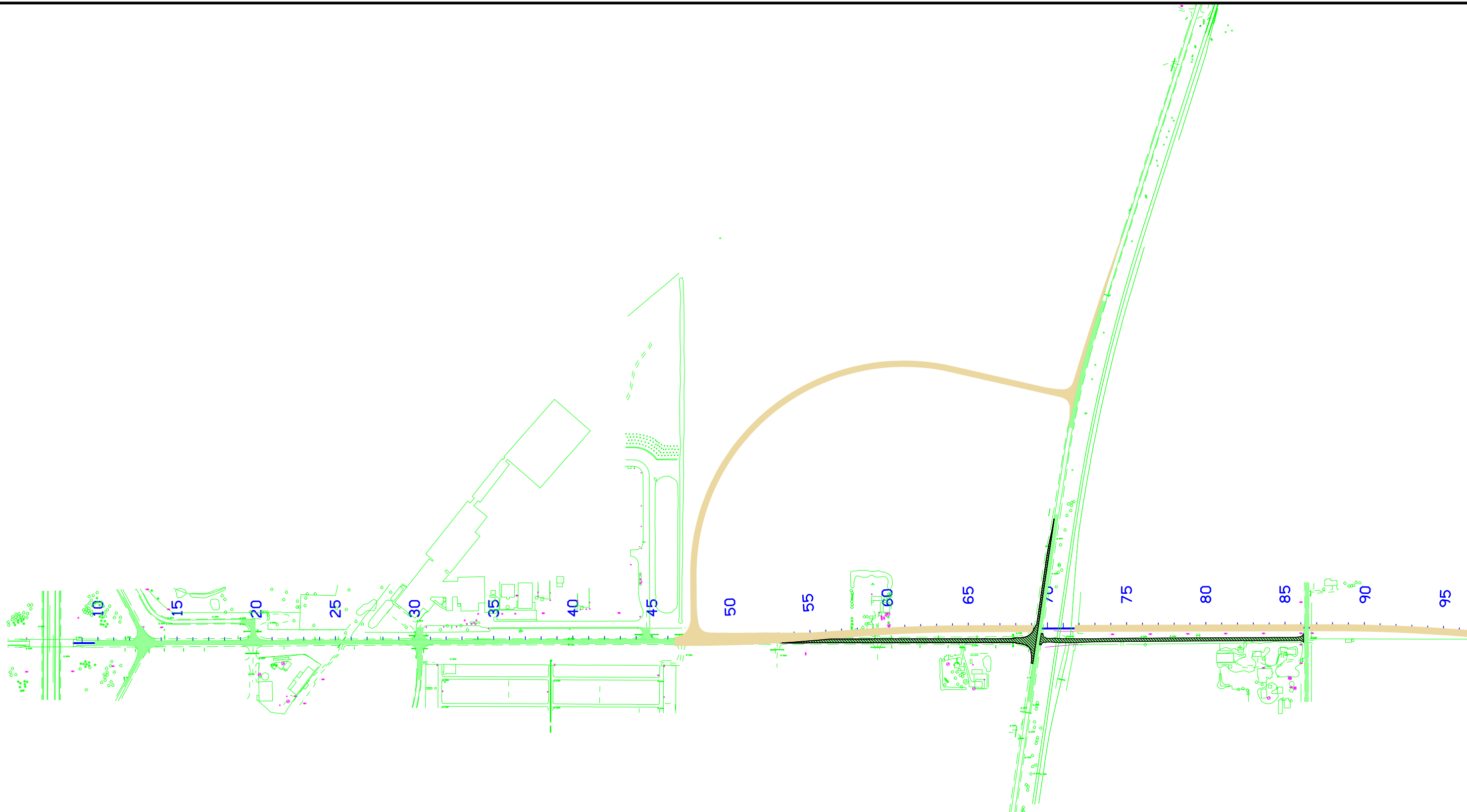
1. CLOSE IA 17 JUST NORTH OF PROPOSED 210TH STREET CONNECTOR ROAD AND S AVE. FROM 210TH STREET TO 205TH STREET. GRADE PROPOSED IA 17 FROM PROPOSED 210TH STREET CONNECTOR ROAD TO 200TH STREET.
2. GRADE THE 210TH STREET CONNECTOR ROAD FROM IA 17 TO 210TH STREET.
3. DETOUR NORTHBOUND AND SOUTHBOUND IA 17 TRAFFIC ALONG 217TH ROAD.
4. MAINTAIN EASTBOUND AND WESTBOUND TRAFFIC ALONG 205TH STREET AT THE INTERSECTION WITH PROPOSED IA 17.

STAGE 2 - FY2024

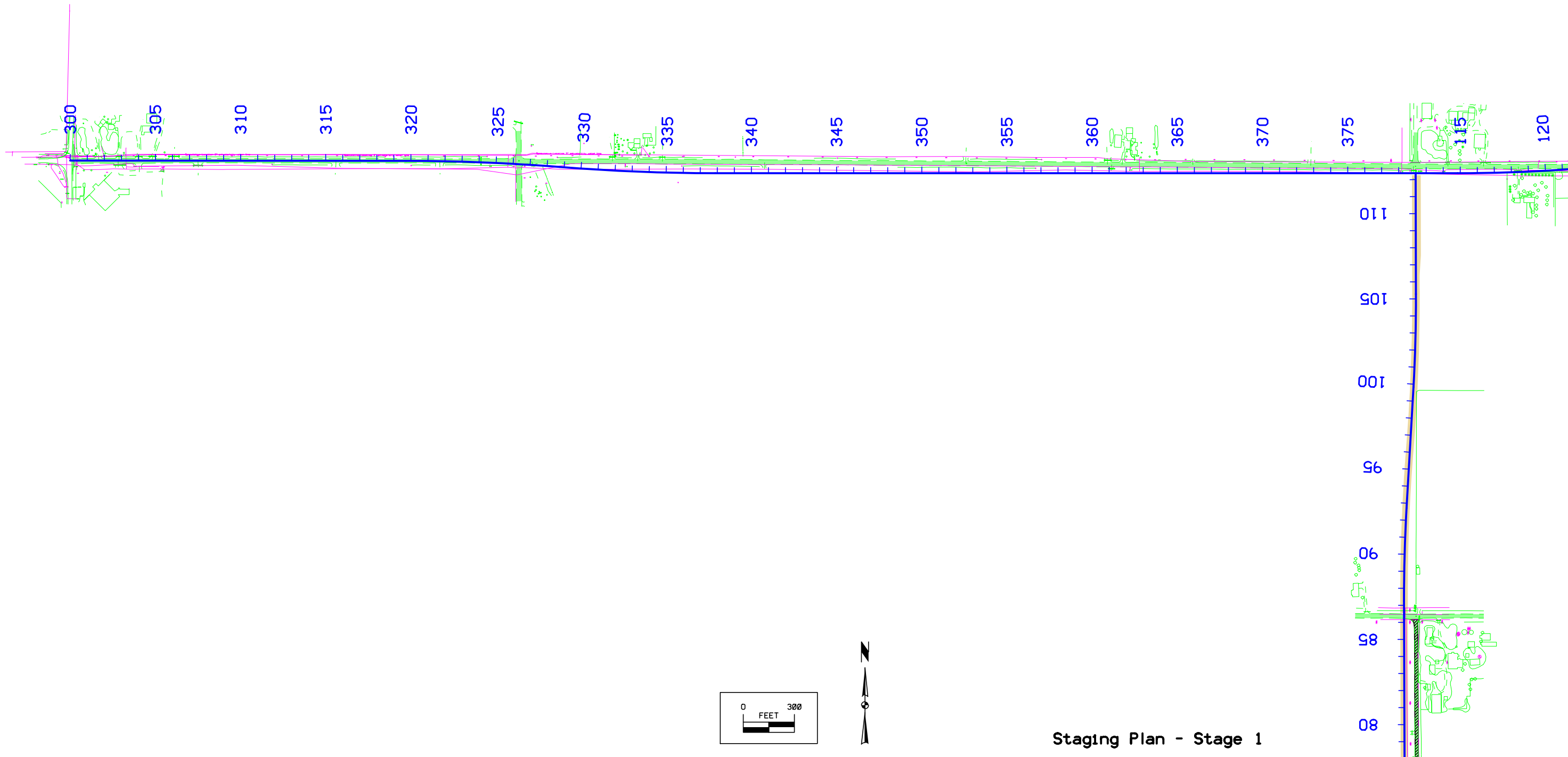
5. PAVE IA 17 FROM THE PROPOSED 210TH STREET CONNECTOR ROAD TO 200TH STREET. MAINTAIN TRAFFIC ALONG DESIGNATED DETOUR ROUTE.
6. GRADE AND PAVE PROPOSED IA 17 FROM S AVE. TO EXISTING IA 17. KEEP IA 17 TRAFFIC ON DETOUR ROUTE ALONG 217TH ROAD.
7. WIDEN SOUTHBOUND IA 17 FROM THE HWY 30 INTERCHANGE TO THE PROPOSED 210TH STREET CONNECTOR ROAD.
8. PAVE THE 210TH STREET CONNECTOR ROAD FROM IA 17 TO 210TH STREET.

STAGE 3 - FY2024

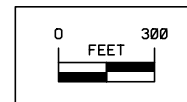
9. GRADE AND PAVE 200TH STREET FROM QUARTZ AVE. TO S AVE. MAINTAIN ACCESS TO RESIDENTS BY UTILIZING EXISTING 200TH STREET.
10. WIDEN NORTHBOUND IA 17 FROM THE HWY 30 INTERCHANGE TO THE PROPOSED 210TH STREET CONNECTOR ROAD.
11. NEW IA 17 SHALL BE OPEN TO NORTHBOUND AND SOUTHBOUND IA 17 TRAFFIC.

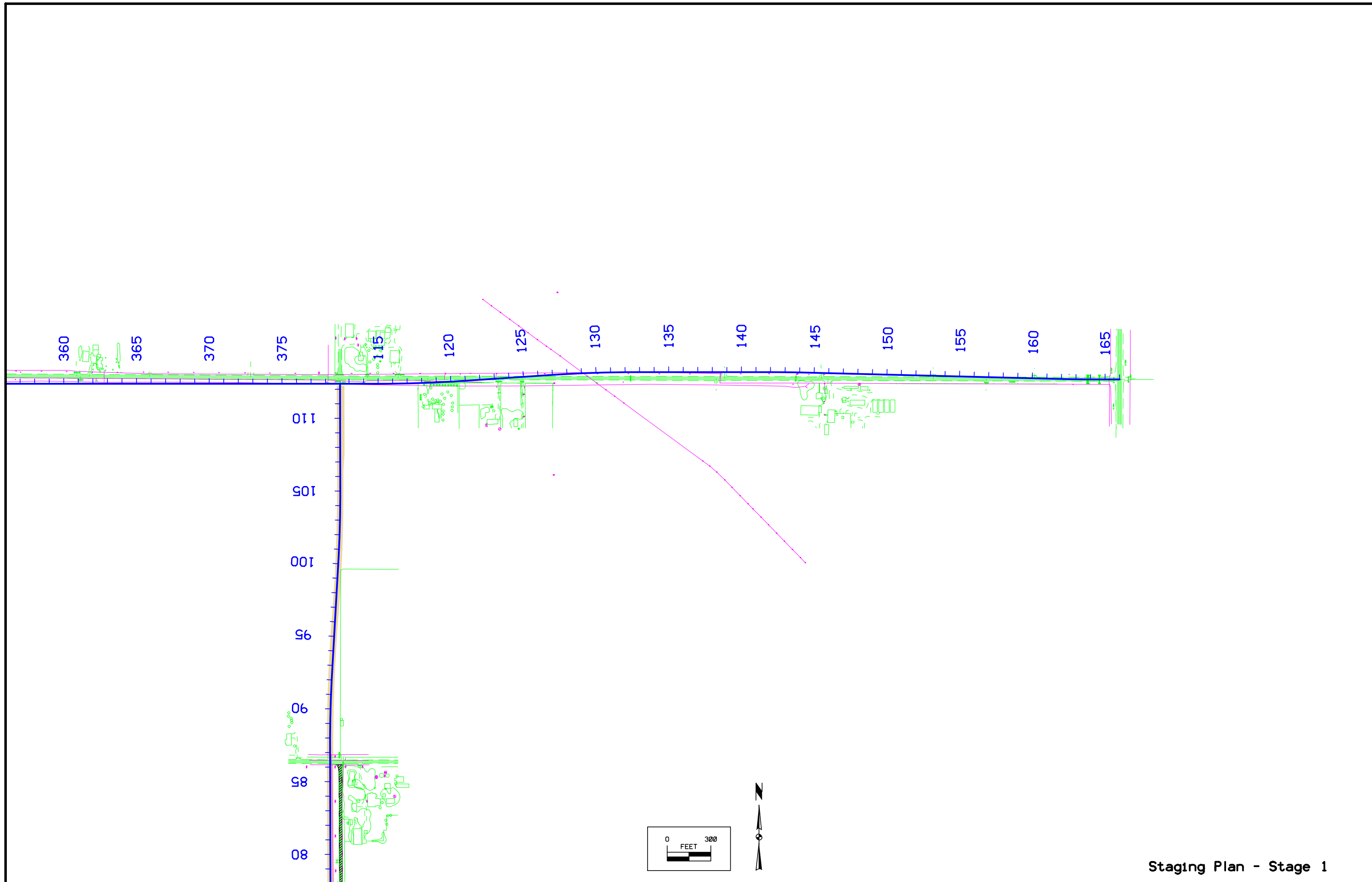


Staging Plan - Stage 1

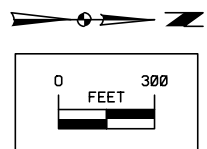
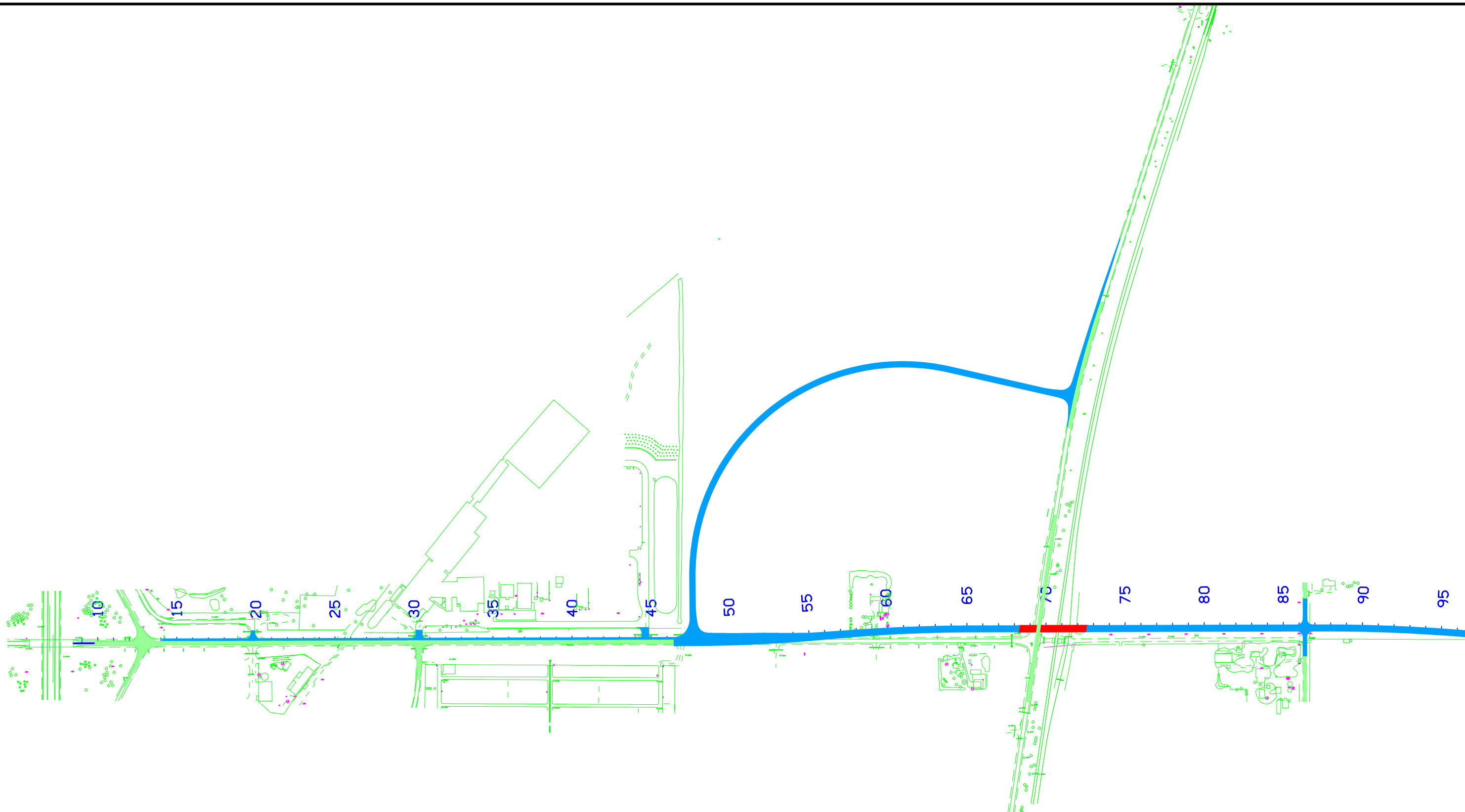


Staging Plan - Stage 1

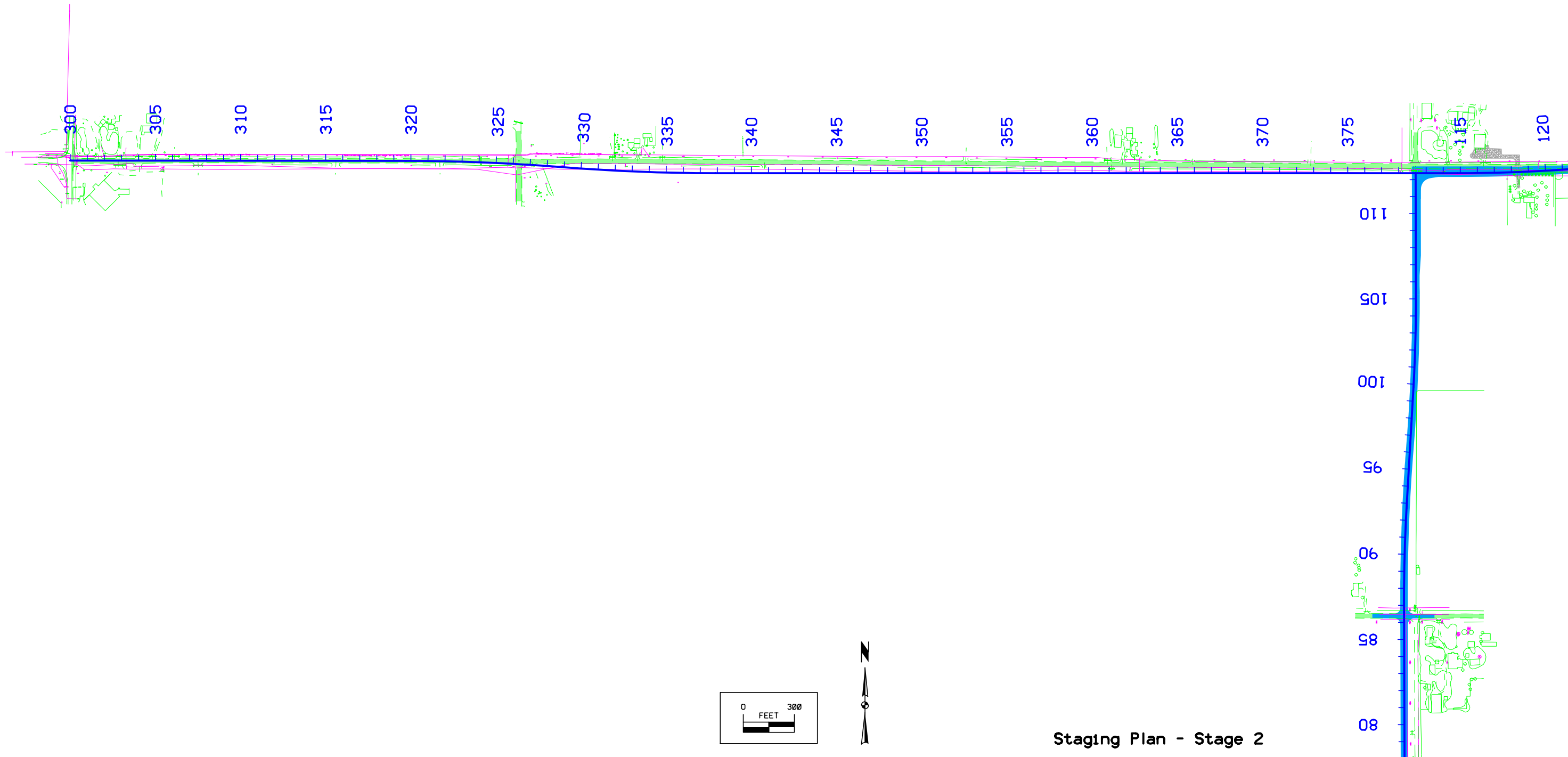




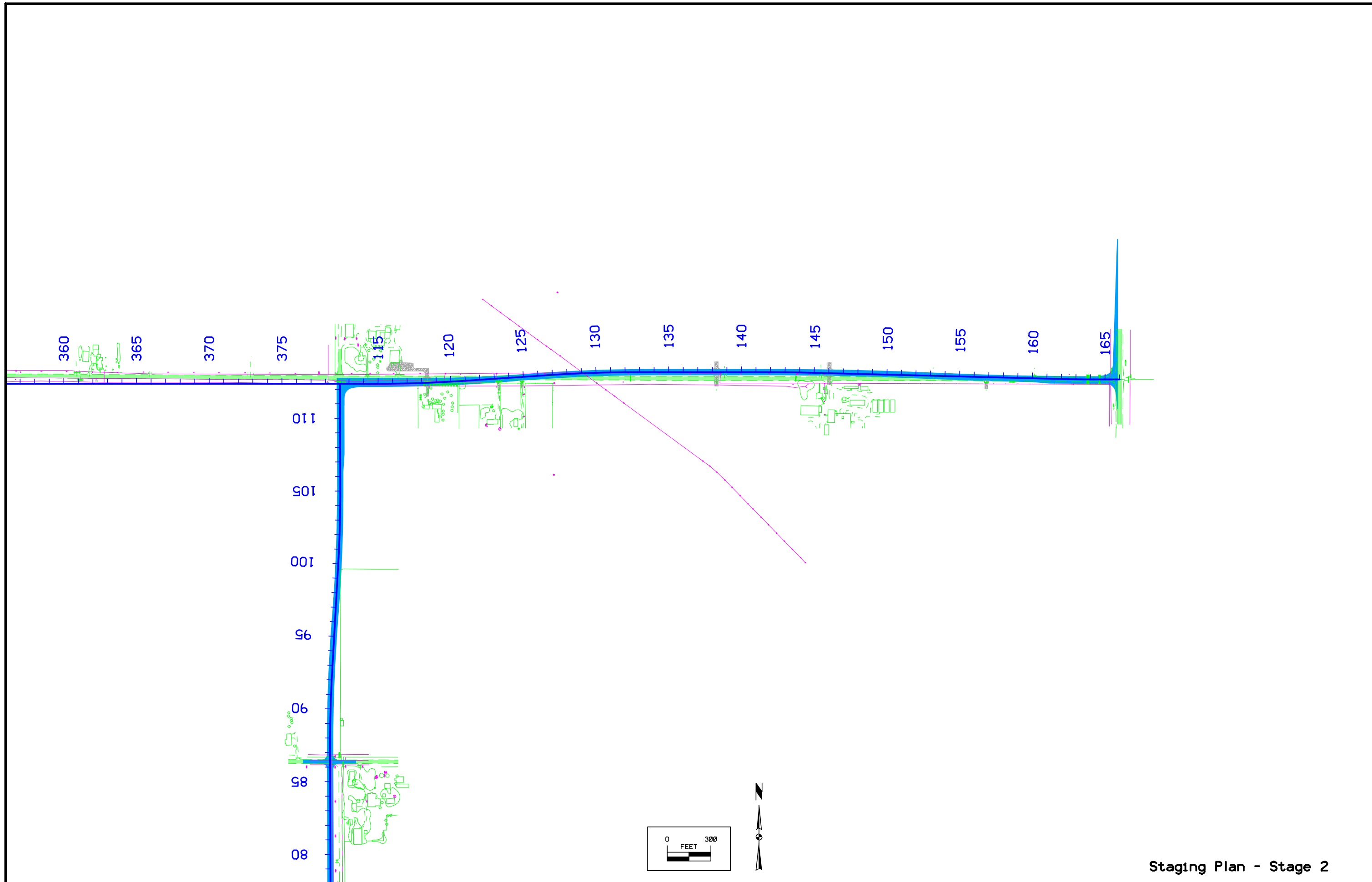
Staging Plan - Stage 1



Staging Plan - Stage 2



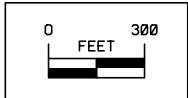
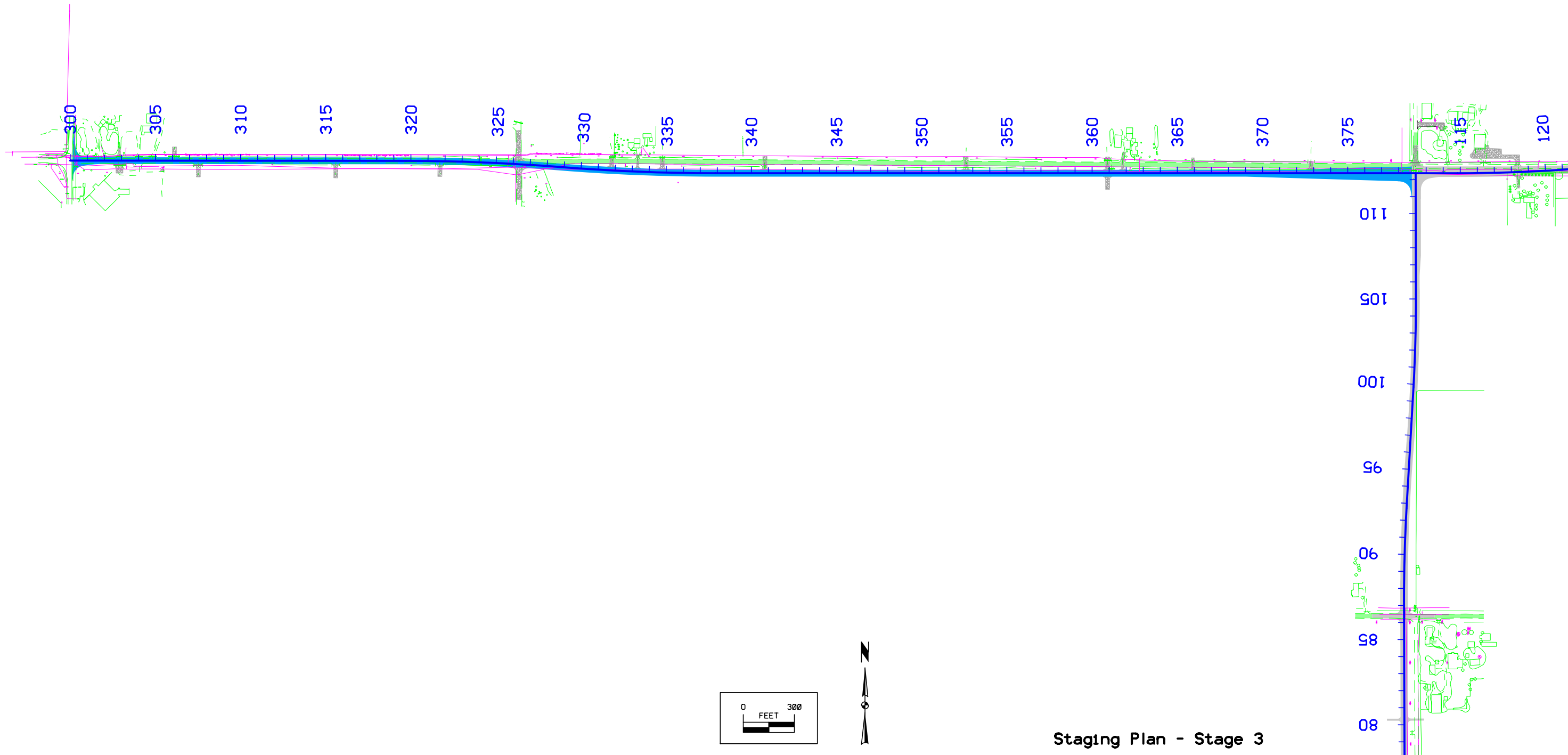
Staging Plan - Stage 2



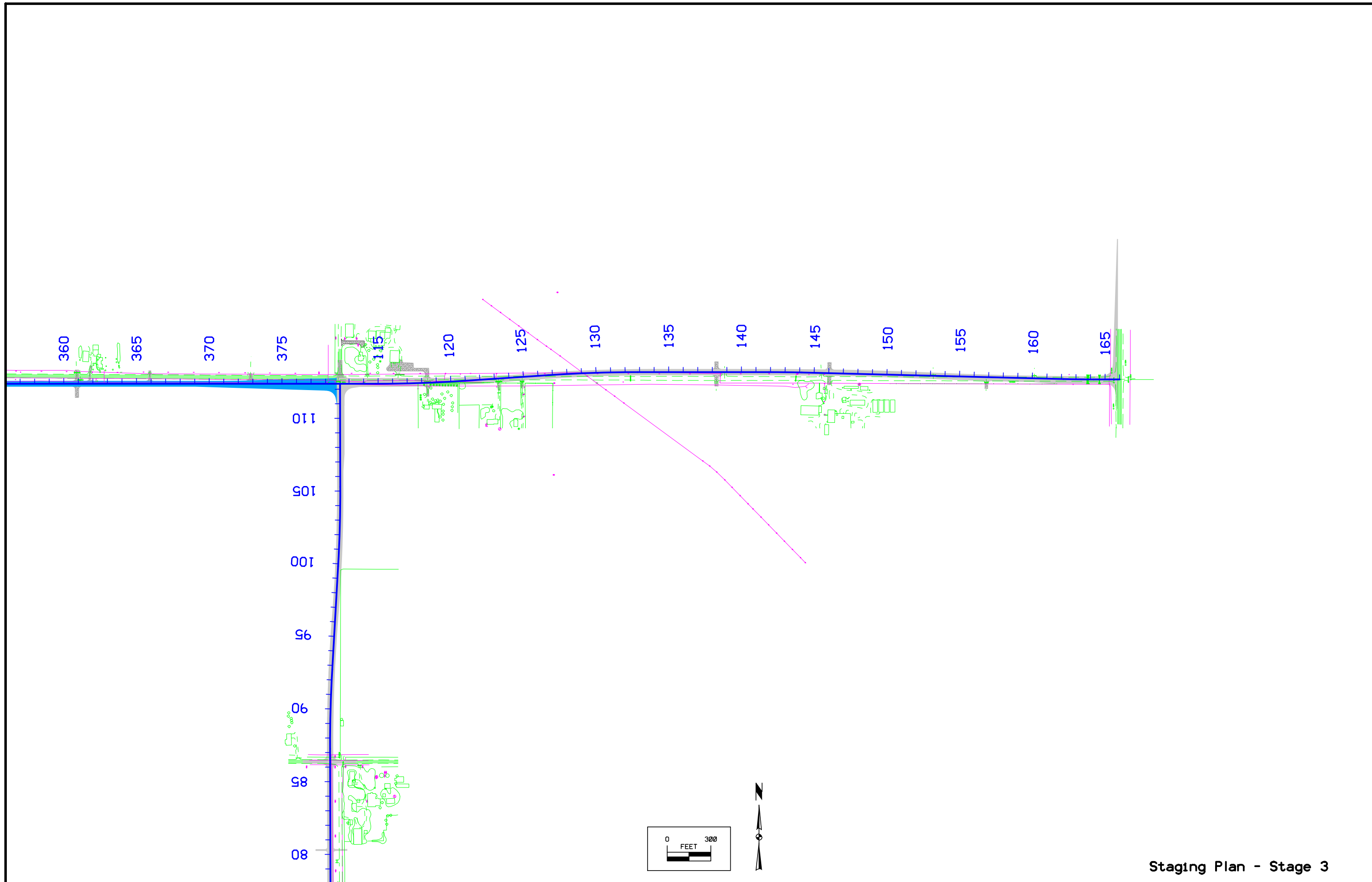
Staging Plan - Stage 2



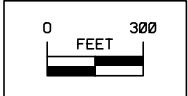
Staging Plan - Stage 3

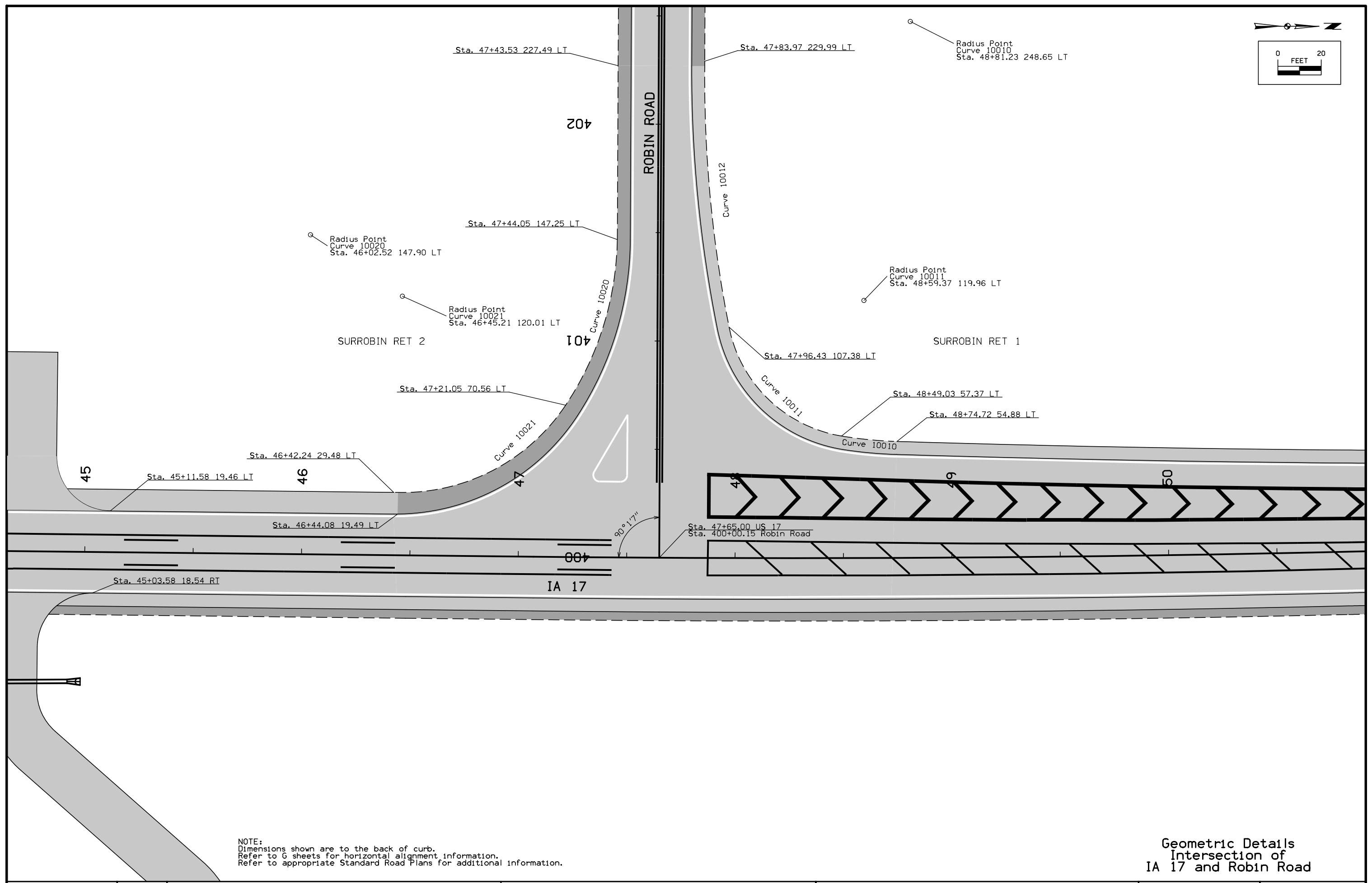
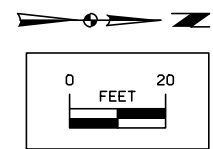


Staging Plan - Stage 3



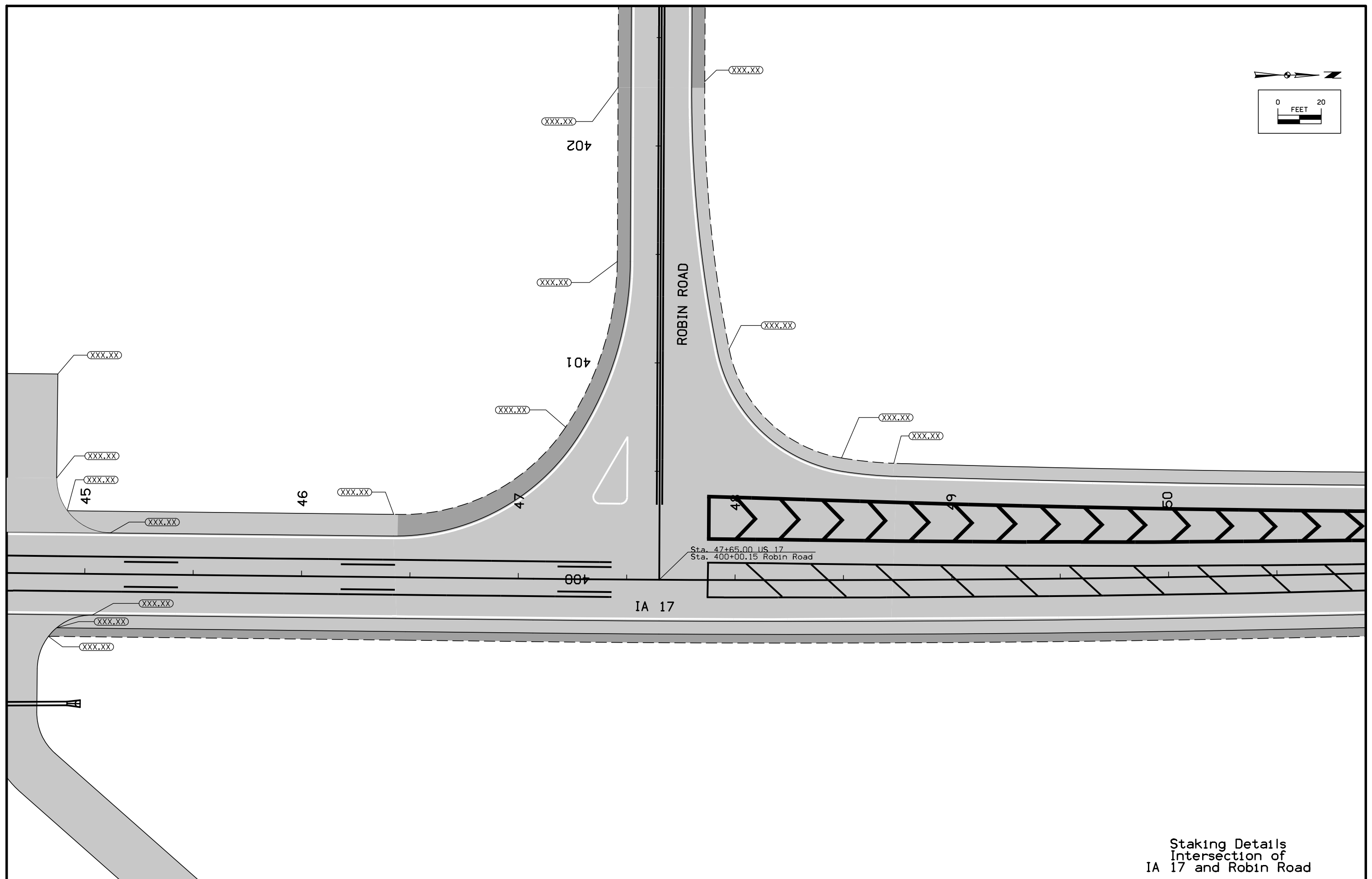
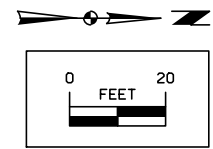
Staging Plan - Stage 3





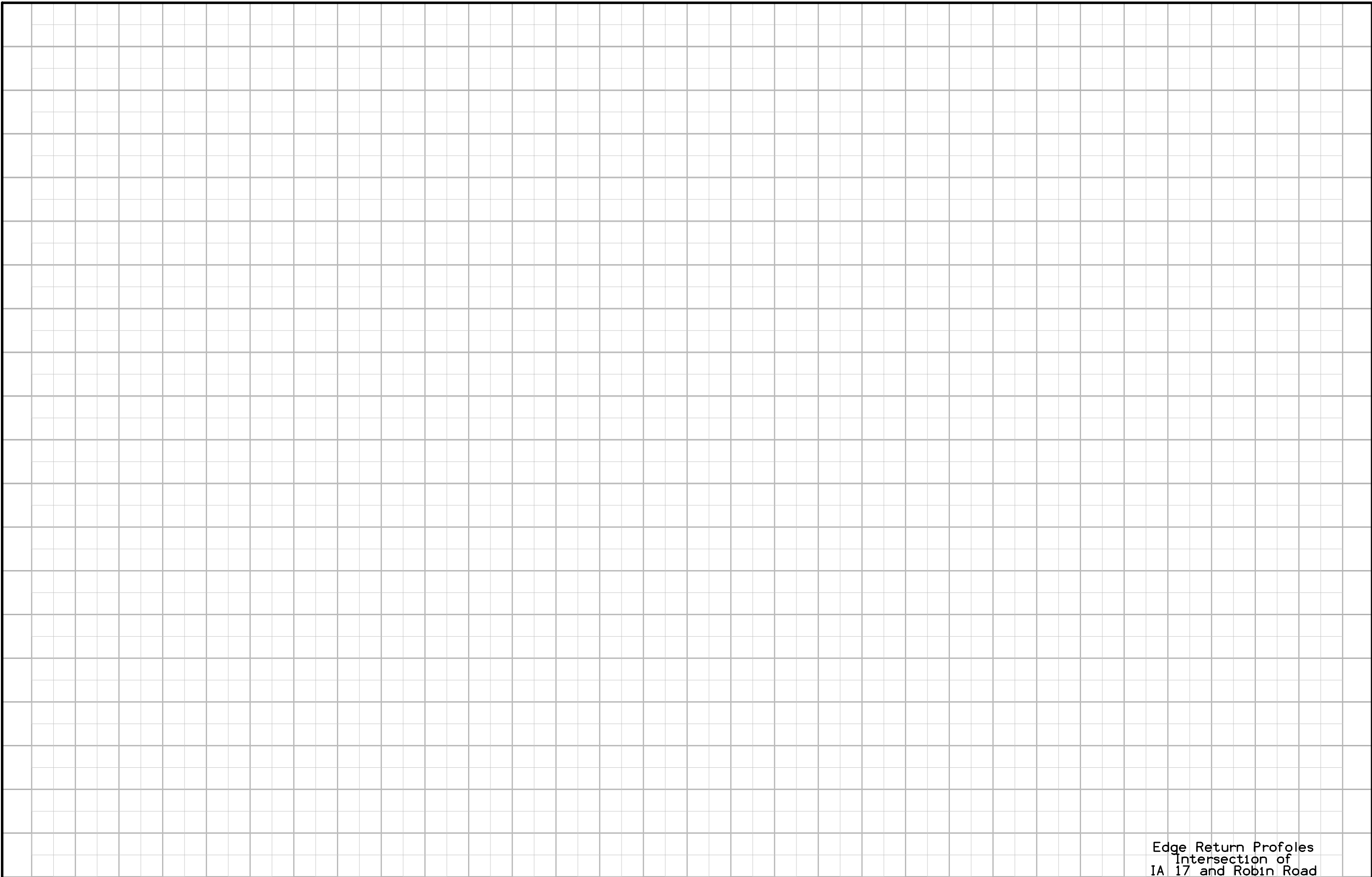
NOTE:
 Dimensions shown are to the back of curb.
 Refer to G sheets for horizontal alignment information.
 Refer to appropriate Standard Road Plans for additional information.

Geometric Details
 Intersection of
 IA 17 and Robin Road

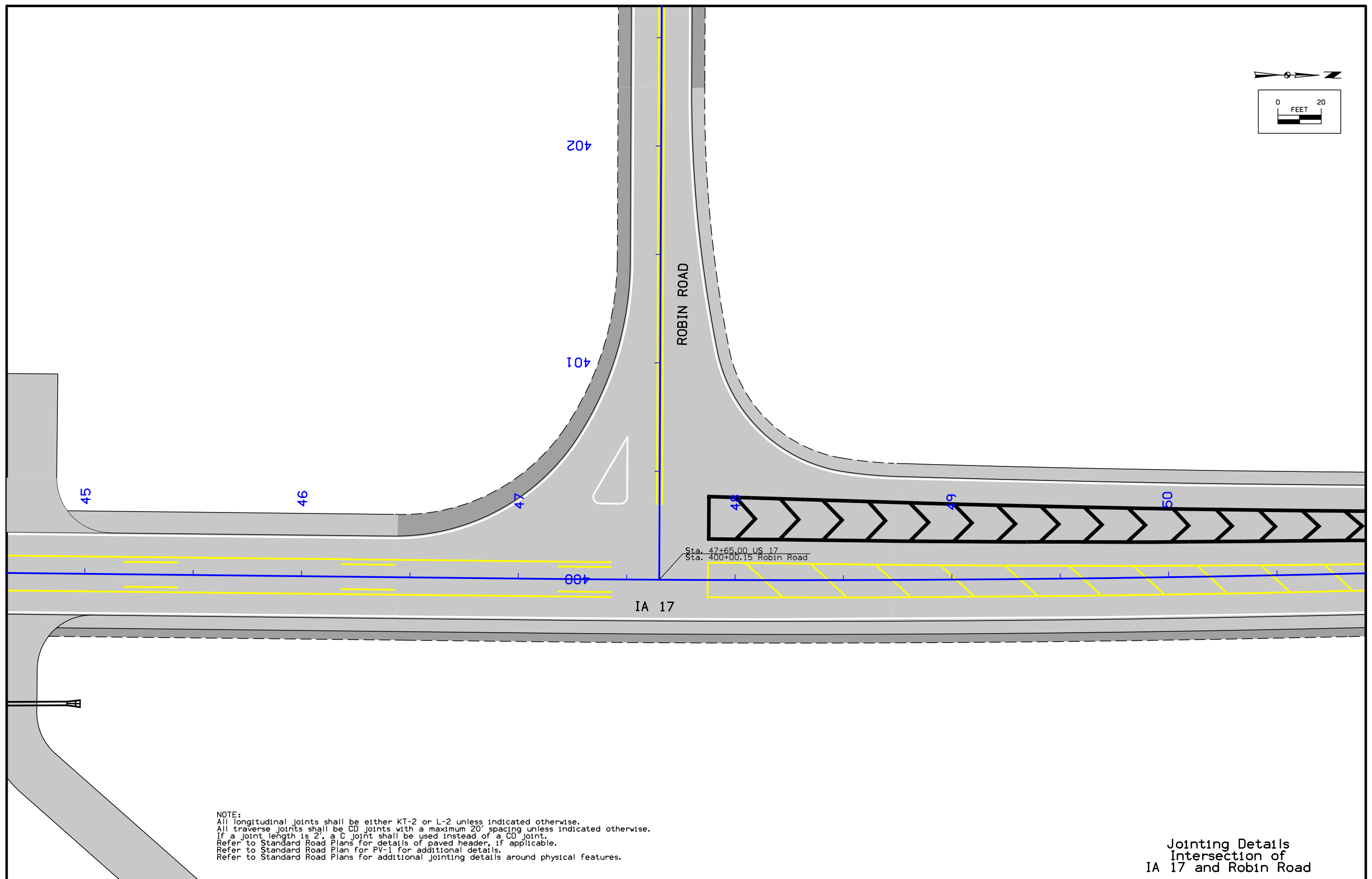
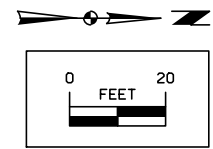


Sta. 47+65.00 US 17
Sta. 400+00.15 Robin Road

Staking Details
Intersection of
IA 17 and Robin Road



Edge Return Profiles
Intersection of
IA 17 and Robin Road

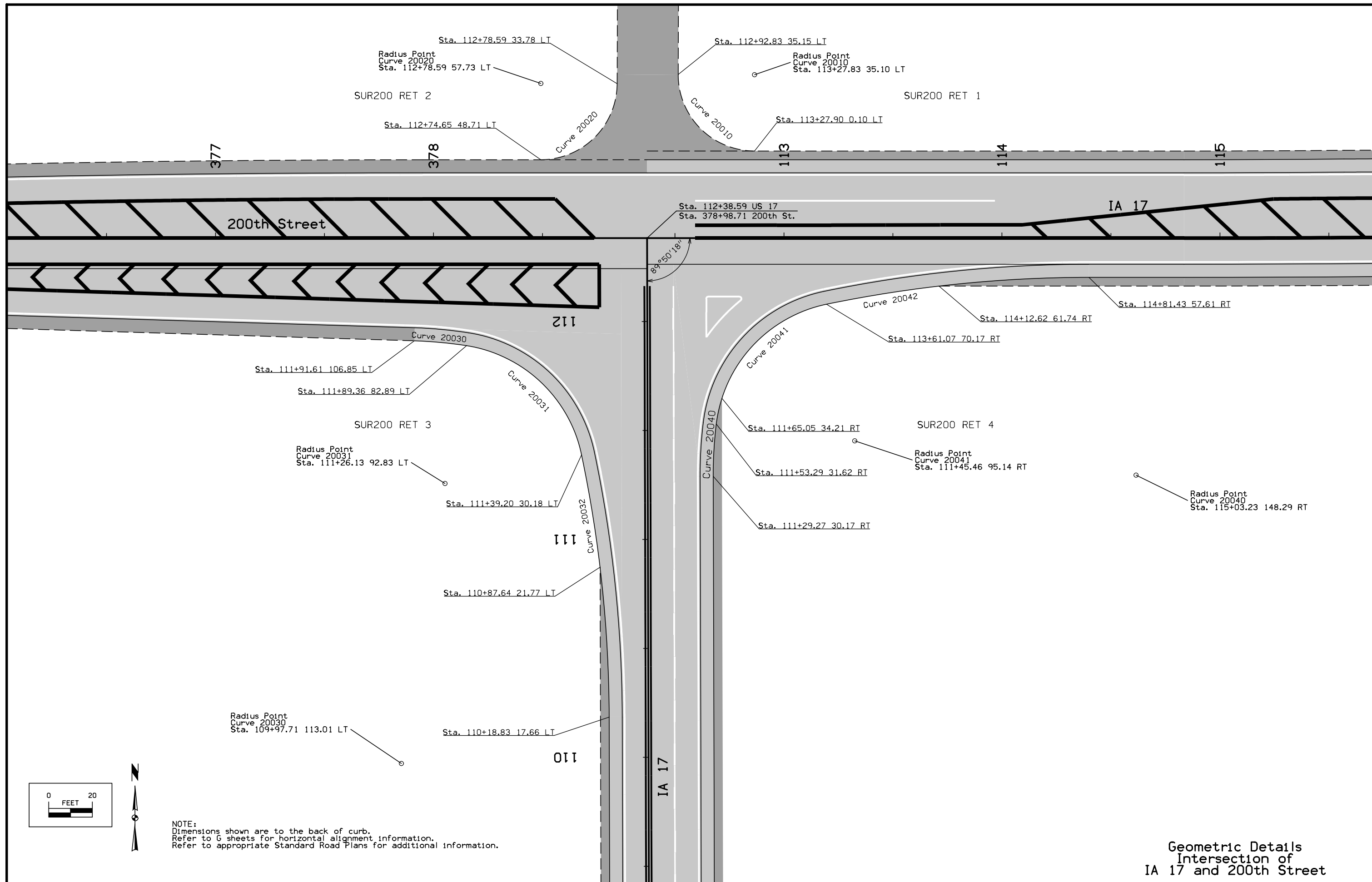


Sta. 47+65.00 US 17
 Sta. 400+00.15 Robin Road

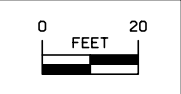
NOTE:
 All longitudinal joints shall be either KT-2 or L-2 unless indicated otherwise.
 All traverse joints shall be CD joints with a maximum 20' spacing unless indicated otherwise.
 If a joint length is 2', a C joint shall be used instead of a CD joint.
 Refer to Standard Road Plans for details of paved header, if applicable.
 Refer to Standard Road Plan for PV-1 for additional details.
 Refer to Standard Road Plans for additional jointing details around physical features.

Jointing Details
 Intersection of
 IA 17 and Robin Road

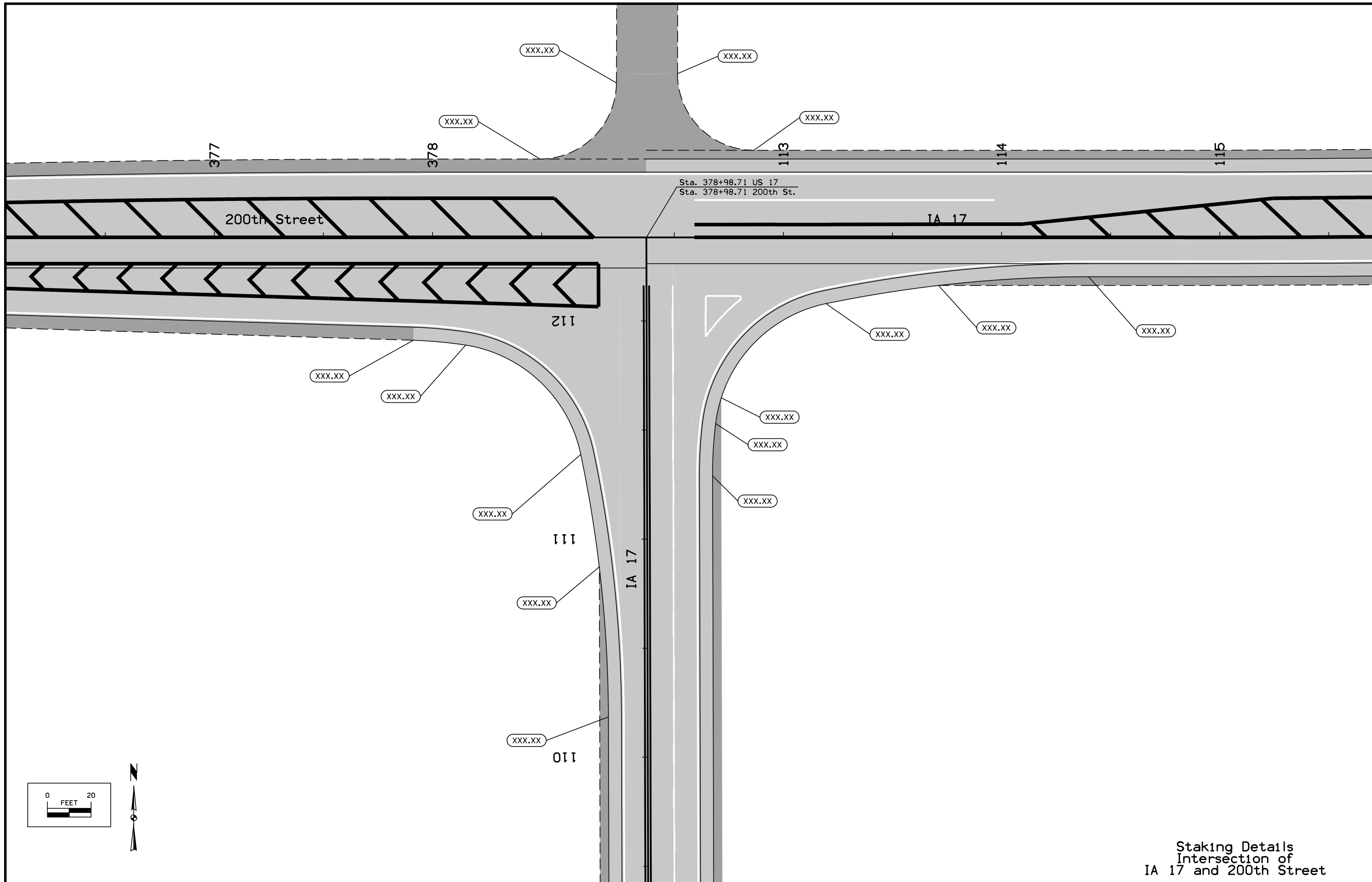
FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	L.4
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NOTE:
 Dimensions shown are to the back of curb.
 Refer to G sheets for horizontal alignment information.
 Refer to appropriate Standard Road Plans for additional information.

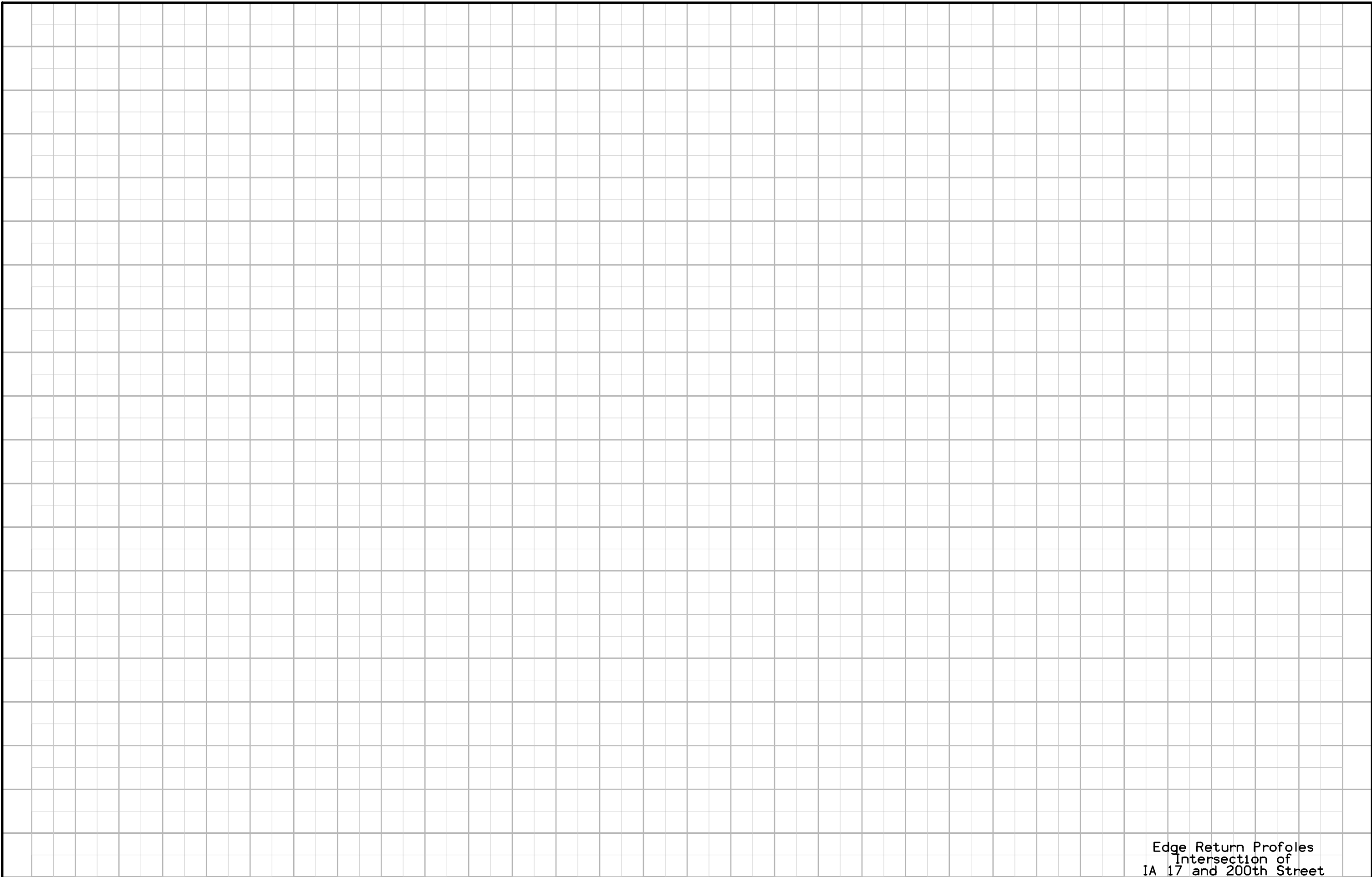


Geometric Details
 Intersection of
 IA 17 and 200th Street

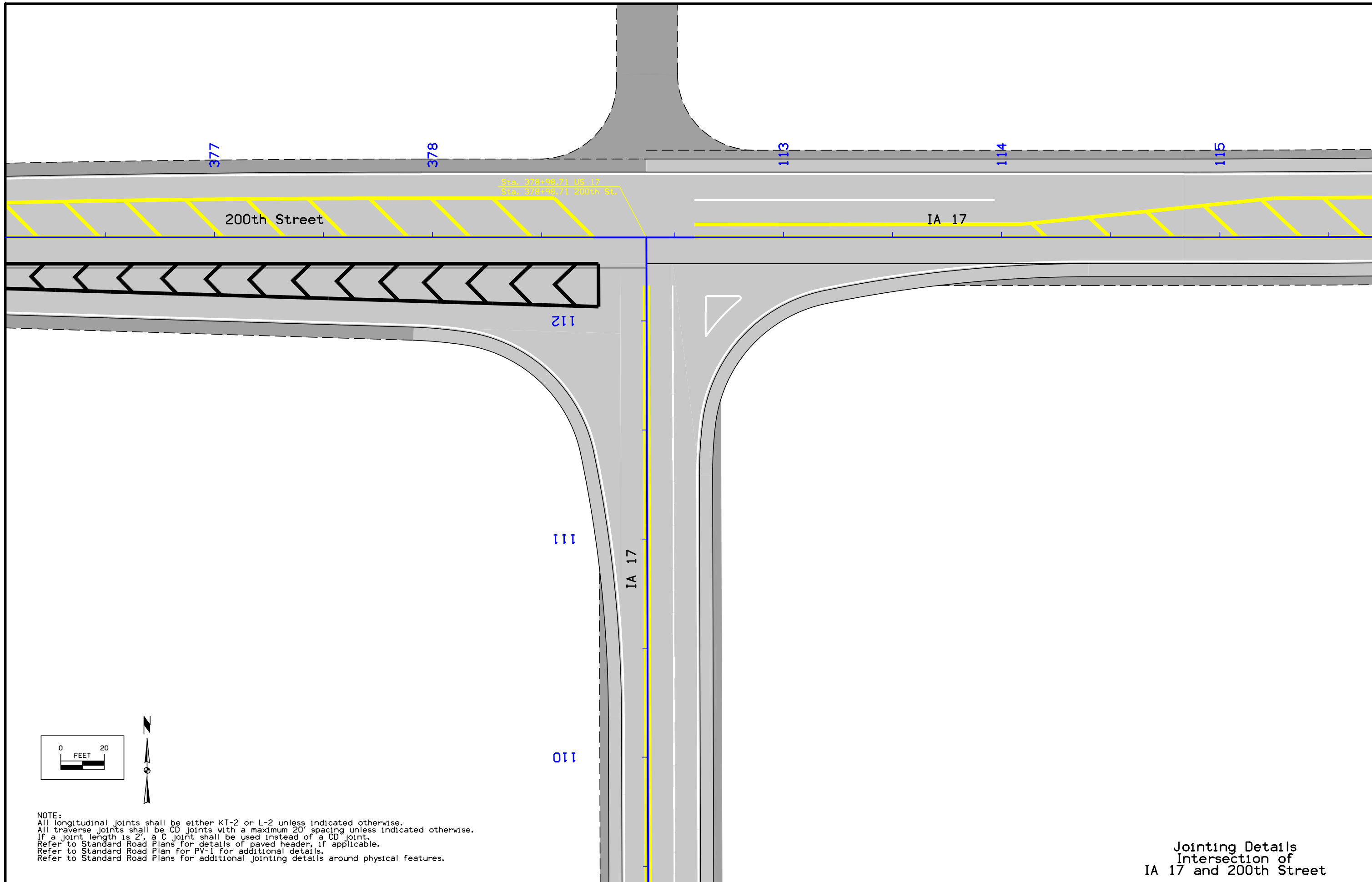


Sta. 378+98.71 US 17
 Sta. 378+98.71 200th St.

Staking Details
 Intersection of
 IA 17 and 200th Street

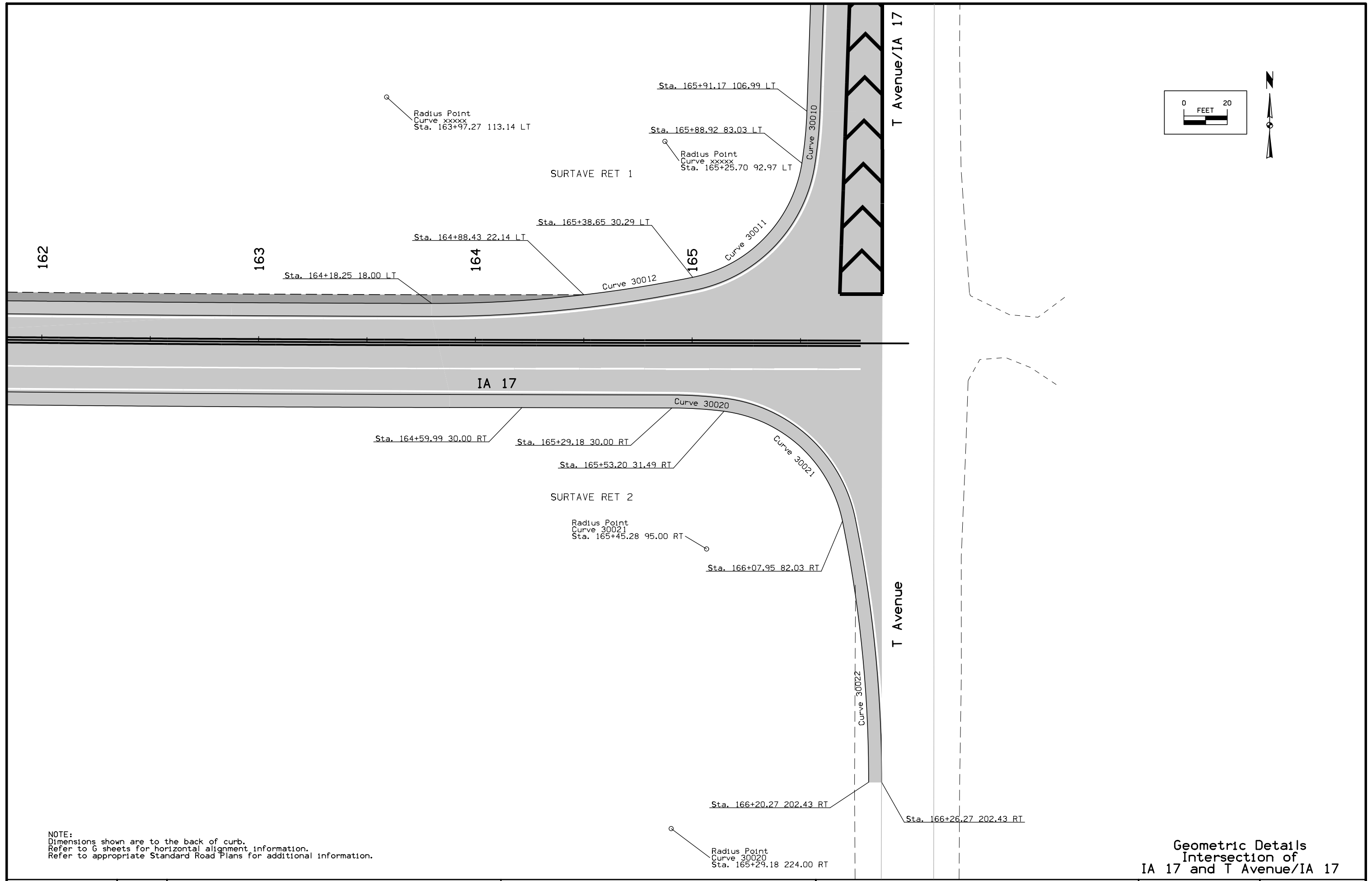


Edge Return Profiles
Intersection of
IA 17 and 200th Street



NOTE:
 All longitudinal joints shall be either KT-2 or L-2 unless indicated otherwise.
 All traverse joints shall be CD joints with a maximum 20' spacing unless indicated otherwise.
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 Refer to Standard Road Plan for PV-1 for additional details.
 Refer to Standard Road Plans for additional jointing details around physical features.

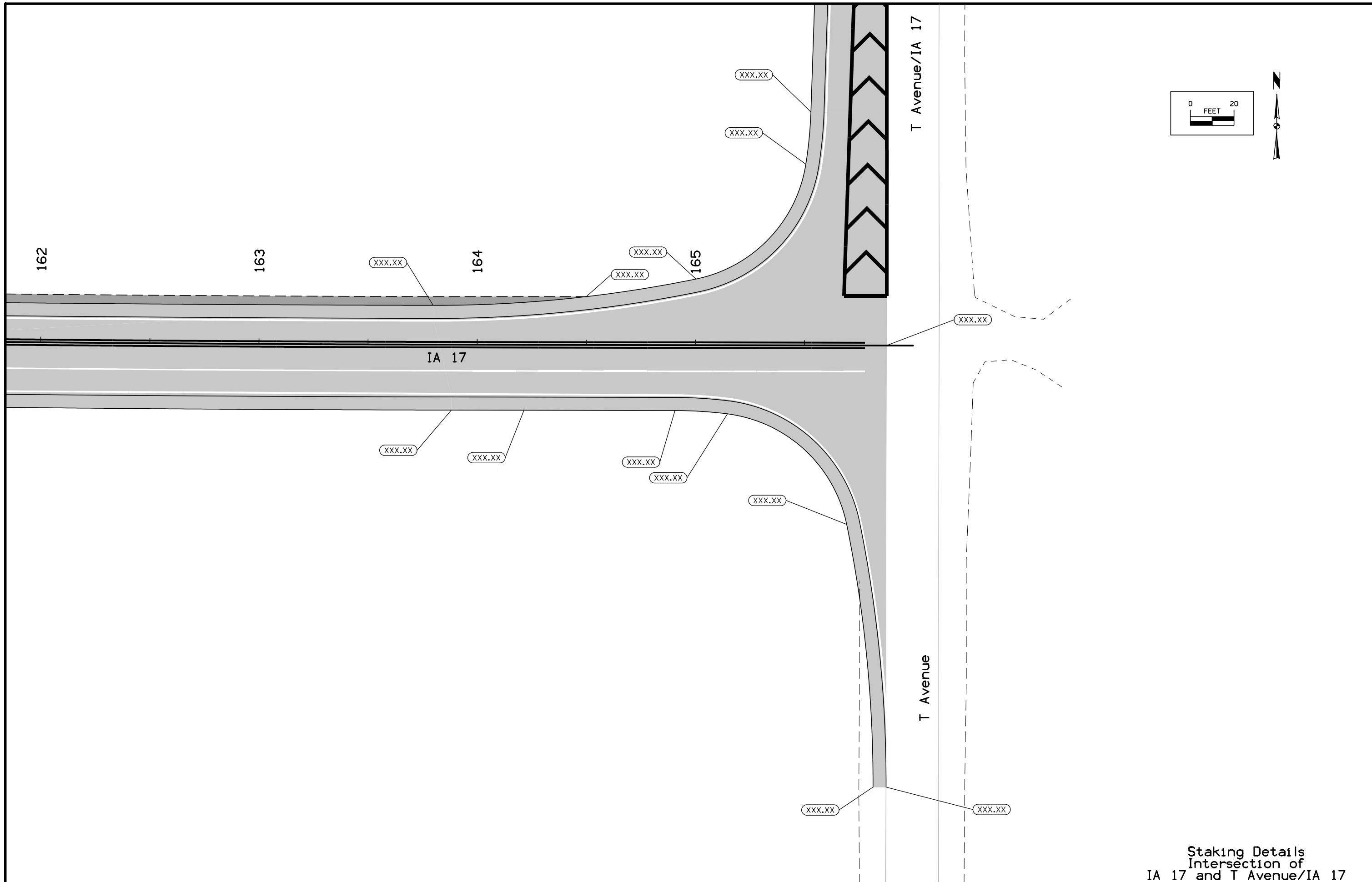
Jointing Details
 Intersection of
 IA 17 and 200th Street



NOTE:
 Dimensions shown are to the back of curb.
 Refer to G sheets for horizontal alignment information.
 Refer to appropriate Standard Road Plans for additional information.

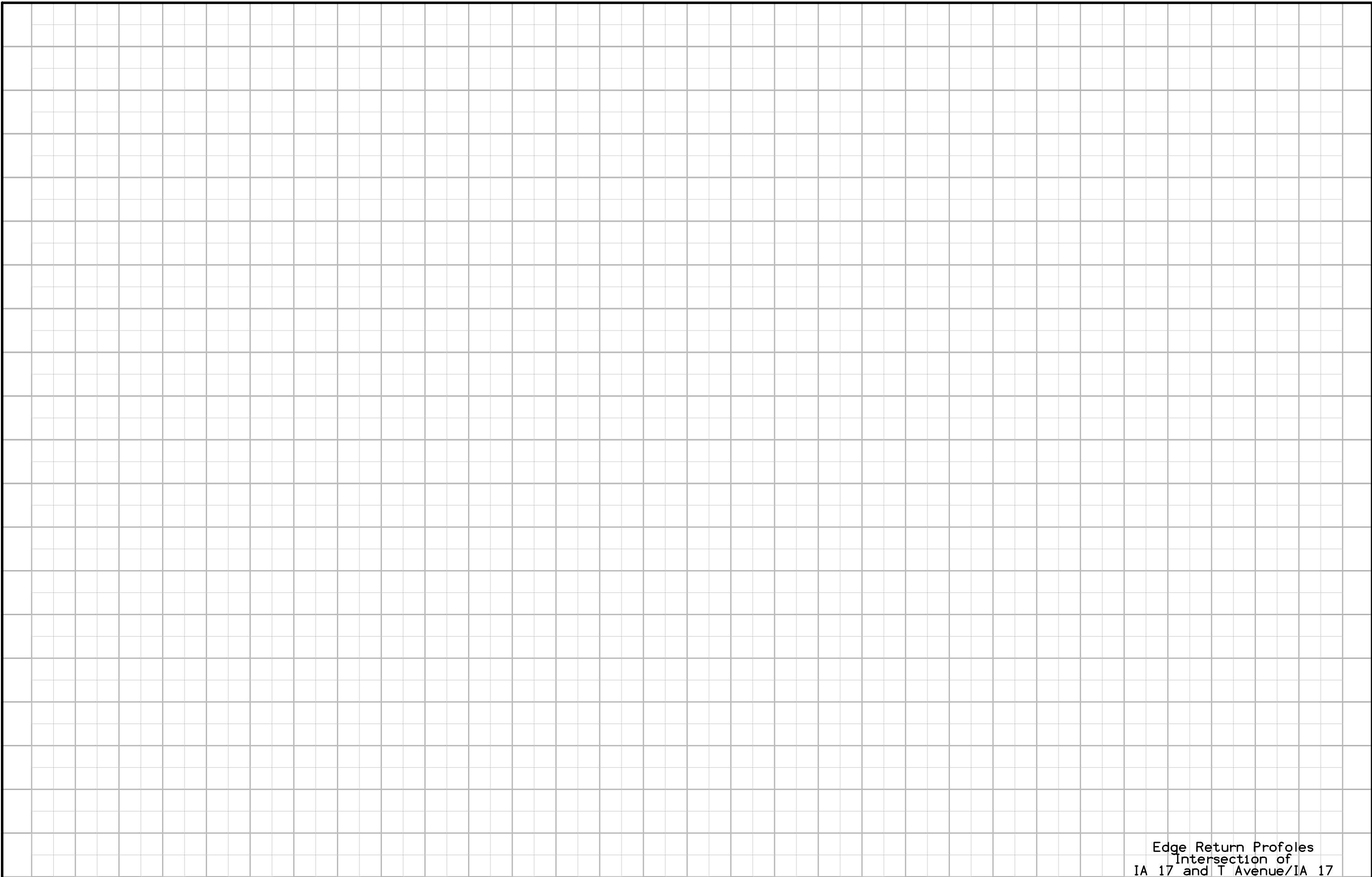
Geometric Details
 Intersection of
 IA 17 and T Avenue/IA 17

FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	L.9
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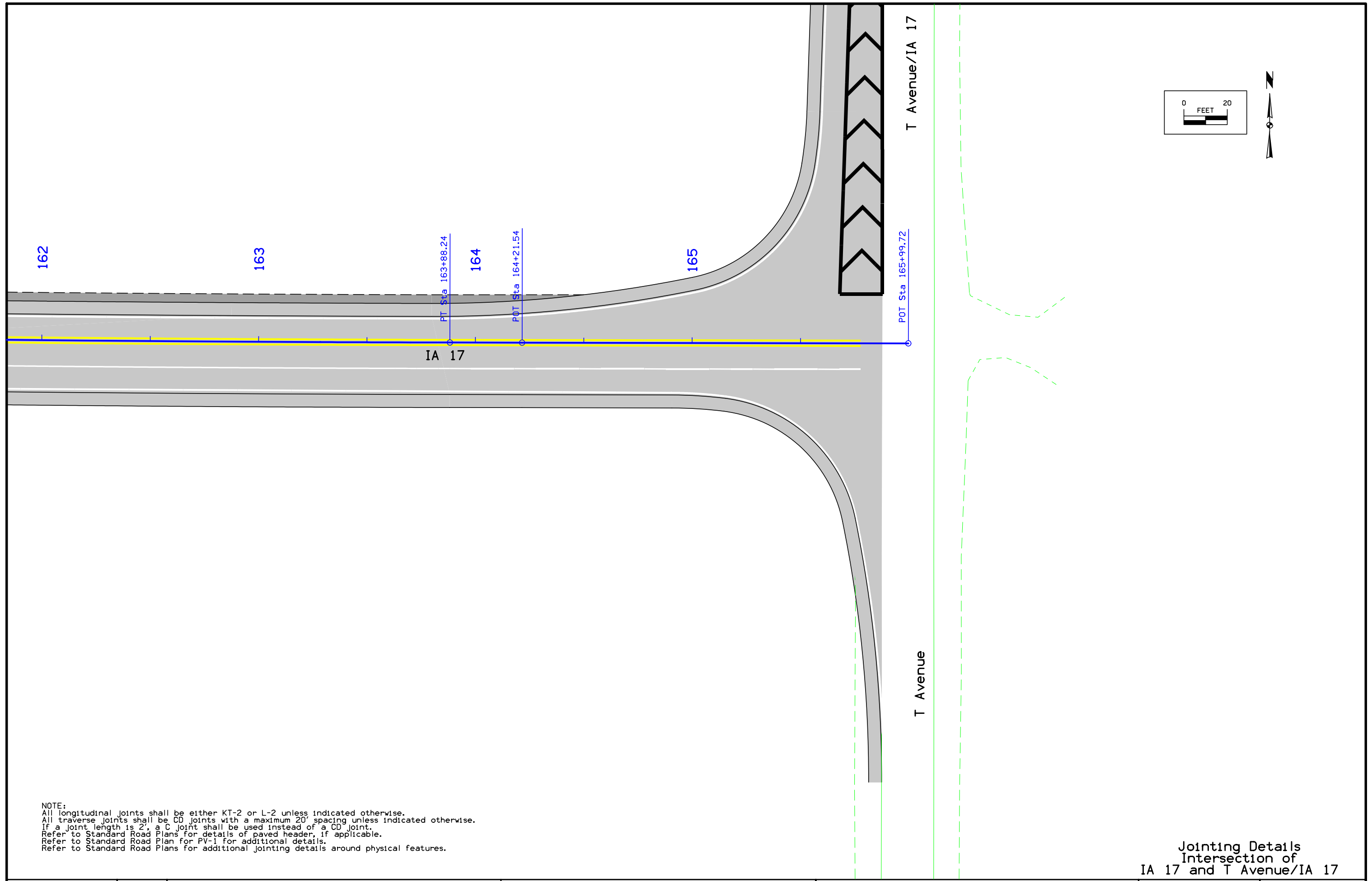


Staking Details
 Intersection of
 IA 17 and T Avenue/IA 17

FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	L.10
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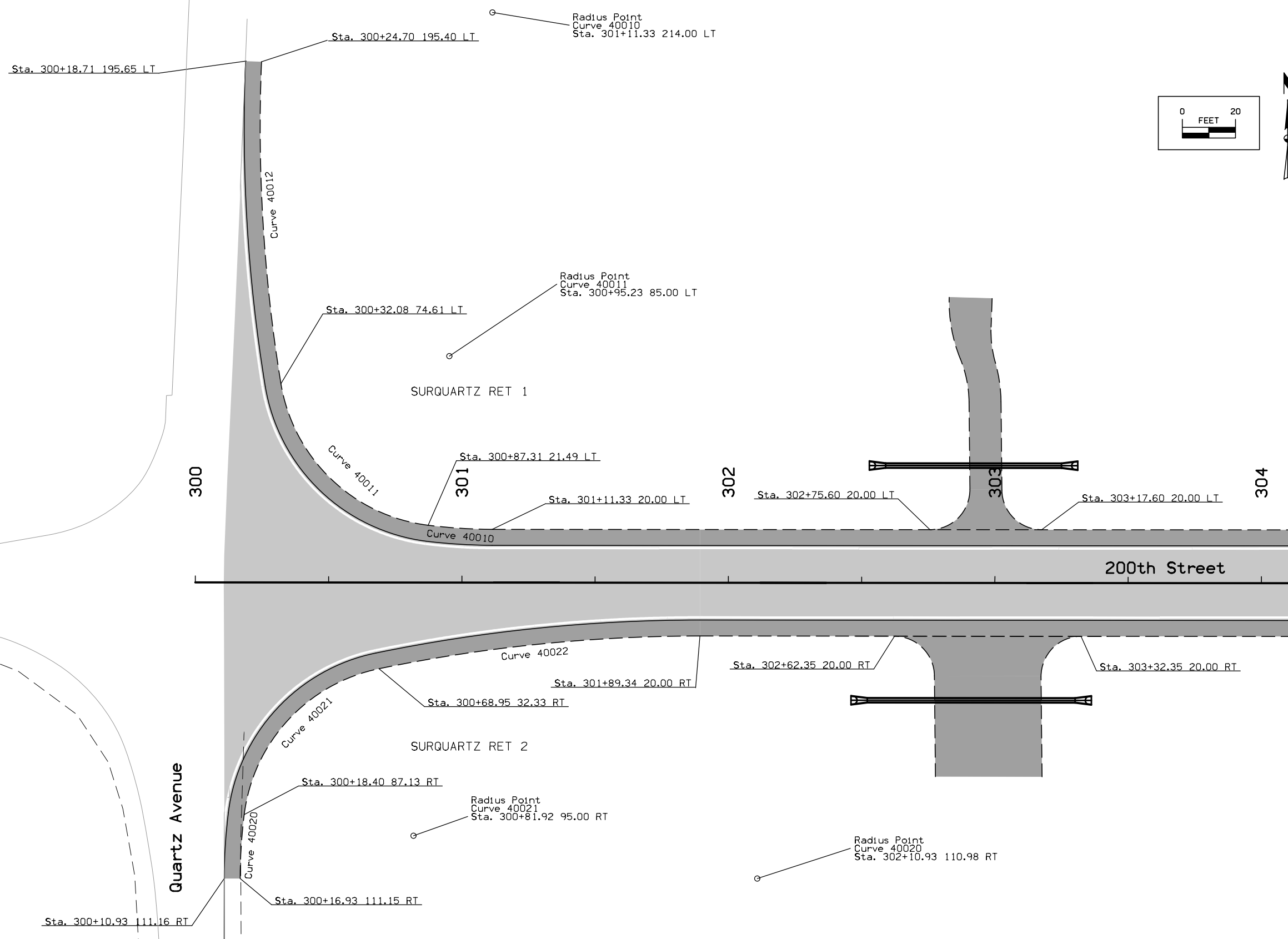
Edge Return Profiles
Intersection of
IA 17 and T Avenue/IA 17



NOTE:
 All longitudinal joints shall be either KT-2 or L-2 unless indicated otherwise.
 All traverse joints shall be CD joints with a maximum 20' spacing unless indicated otherwise.
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 Refer to Standard Road Plans for details of paved header, if applicable.
 Refer to Standard Road Plan for PV-1 for additional details.
 Refer to Standard Road Plans for additional jointing details around physical features.

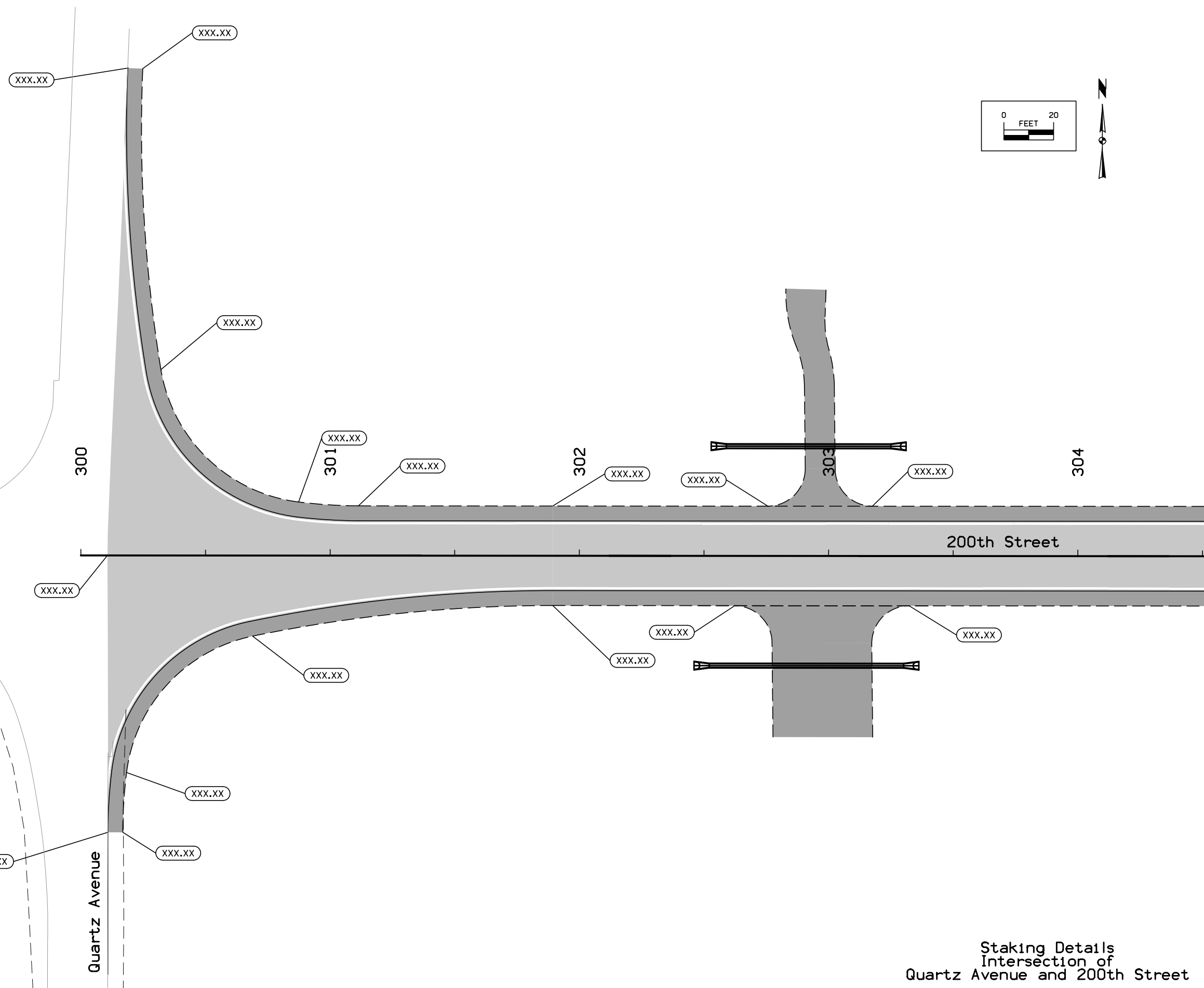
Jointing Details
 Intersection of
 IA 17 and T Avenue/IA 17

FILE NO.	ENGLISH	DESIGN TEAM	Snyder & Associates	BOONE COUNTY	PROJECT NUMBER	STPN-017-2(27)--2J-08	SHEET NUMBER	L.12
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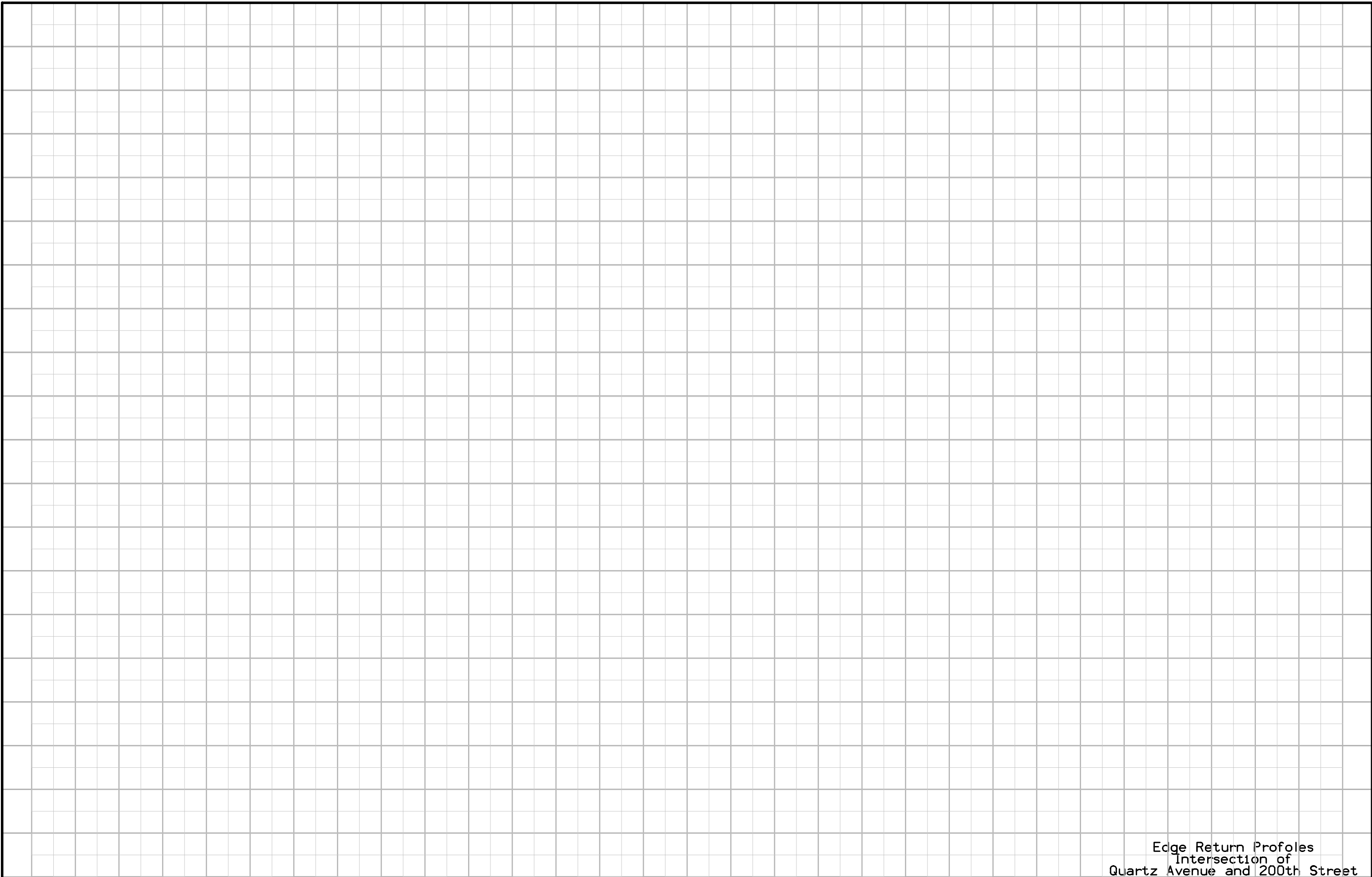


NOTE:
 Dimensions shown are to the back of curb.
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 Refer to appropriate Standard Road Plans for additional information.

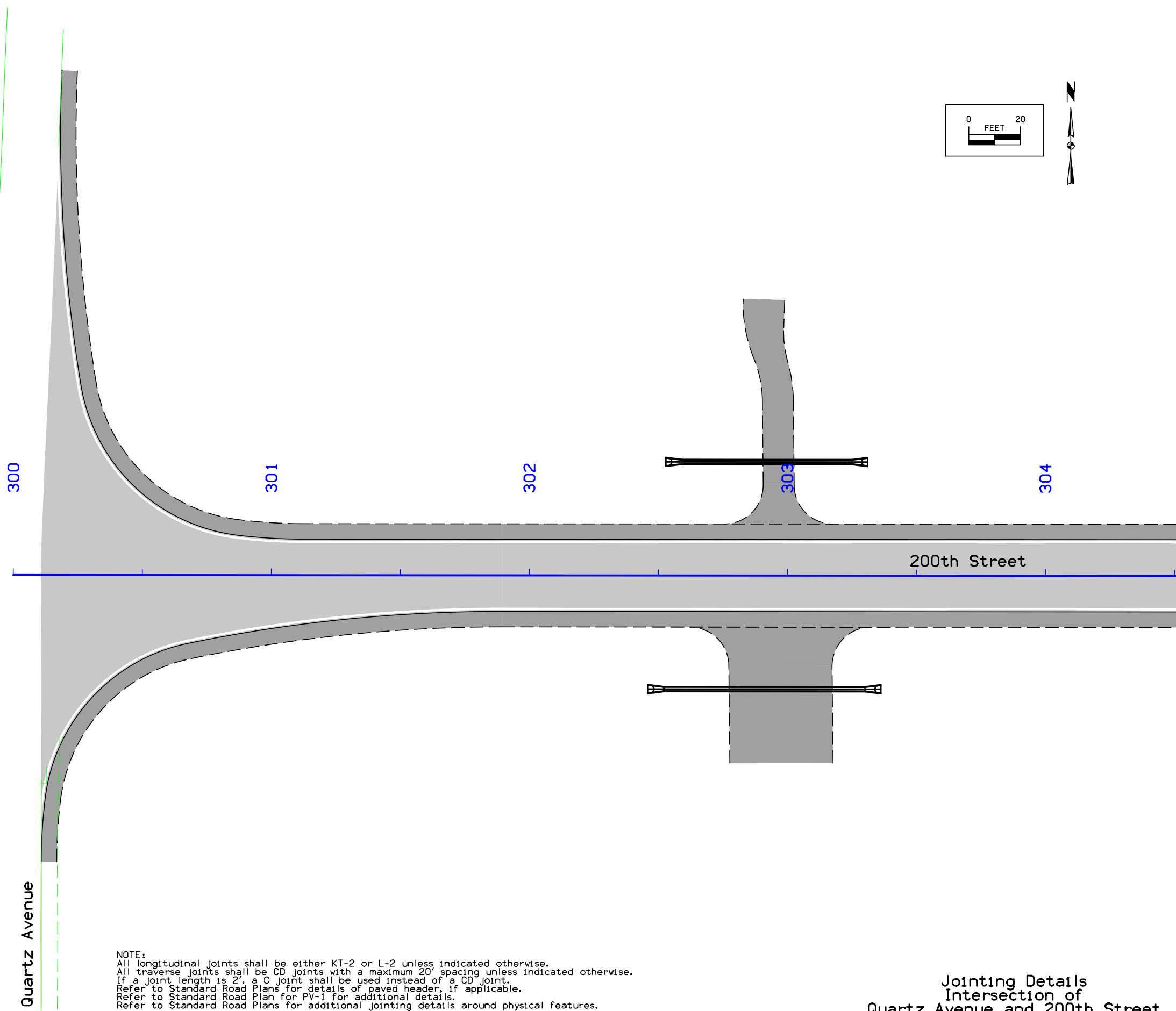
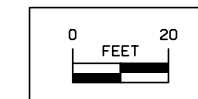
Geometric Details
 Intersection of
 Quartz Avenue and 200th Street



Staking Details
 Intersection of
 Quartz Avenue and 200th Street

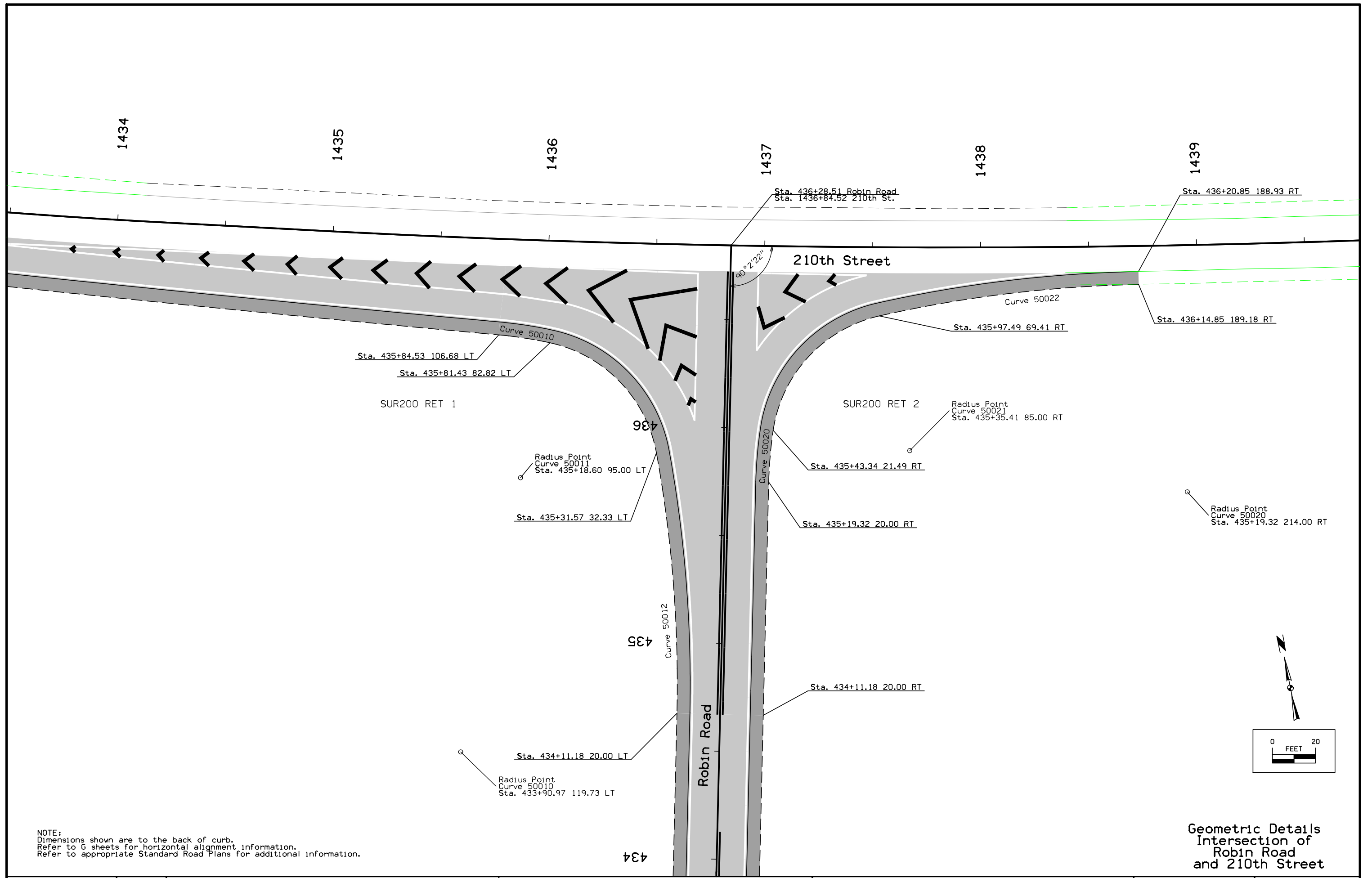


Edge Return Profiles
Intersection of
Quartz Avenue and 200th Street

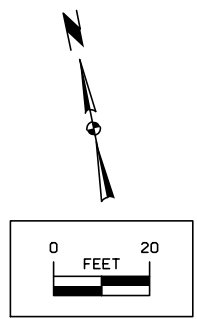


NOTE:
 All longitudinal joints shall be either KT-2 or L-2 unless indicated otherwise.
 All traverse joints shall be CD joints with a maximum 20' spacing unless indicated otherwise.
 If a joint length is 2', a C joint shall be used instead of a CD joint.
 Refer to Standard Road Plans for details of paved header, if applicable.
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 Refer to Standard Road Plans for additional jointing details around physical features.

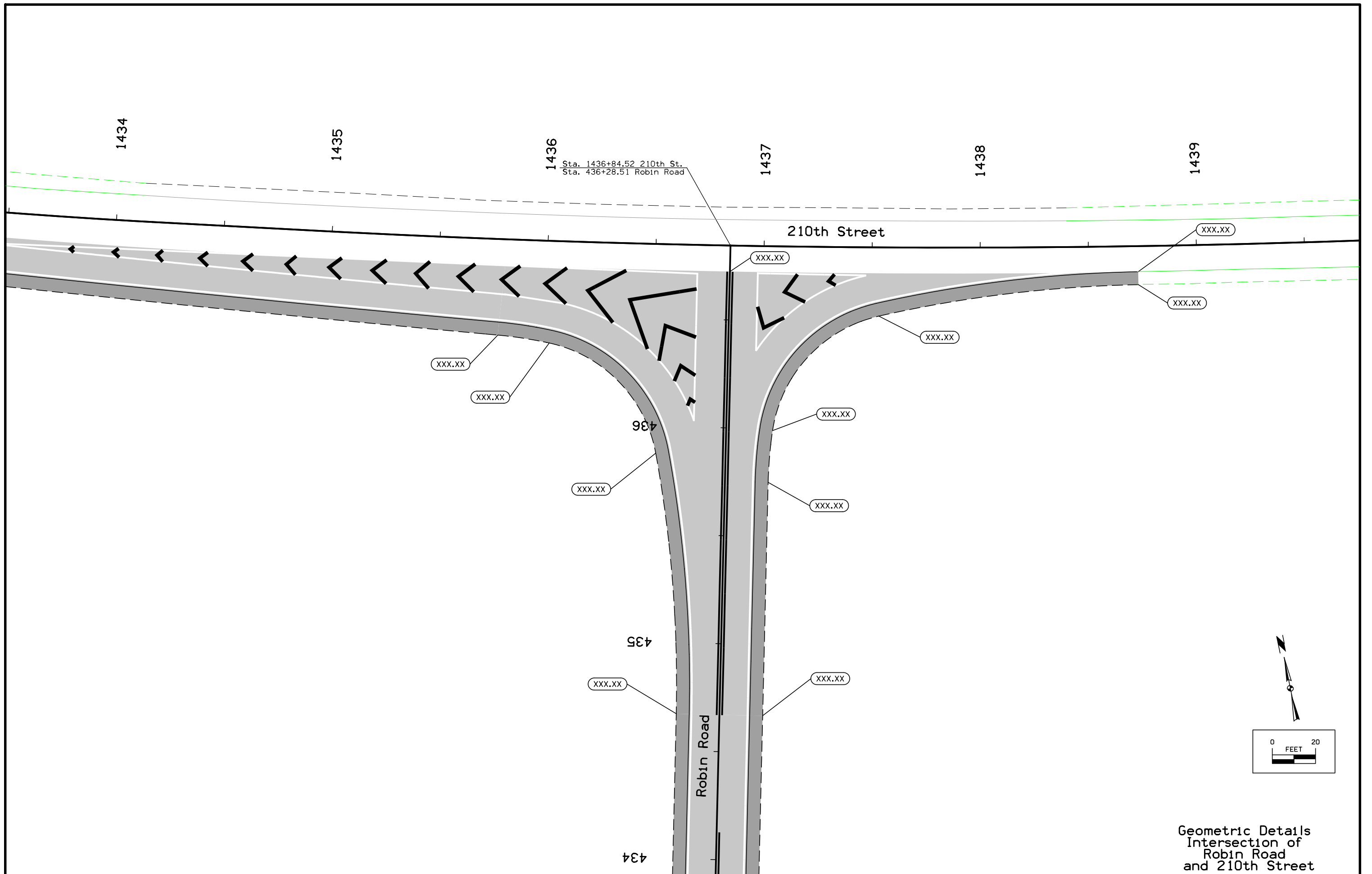
Jointing Details
 Intersection of
 Quartz Avenue and 200th Street



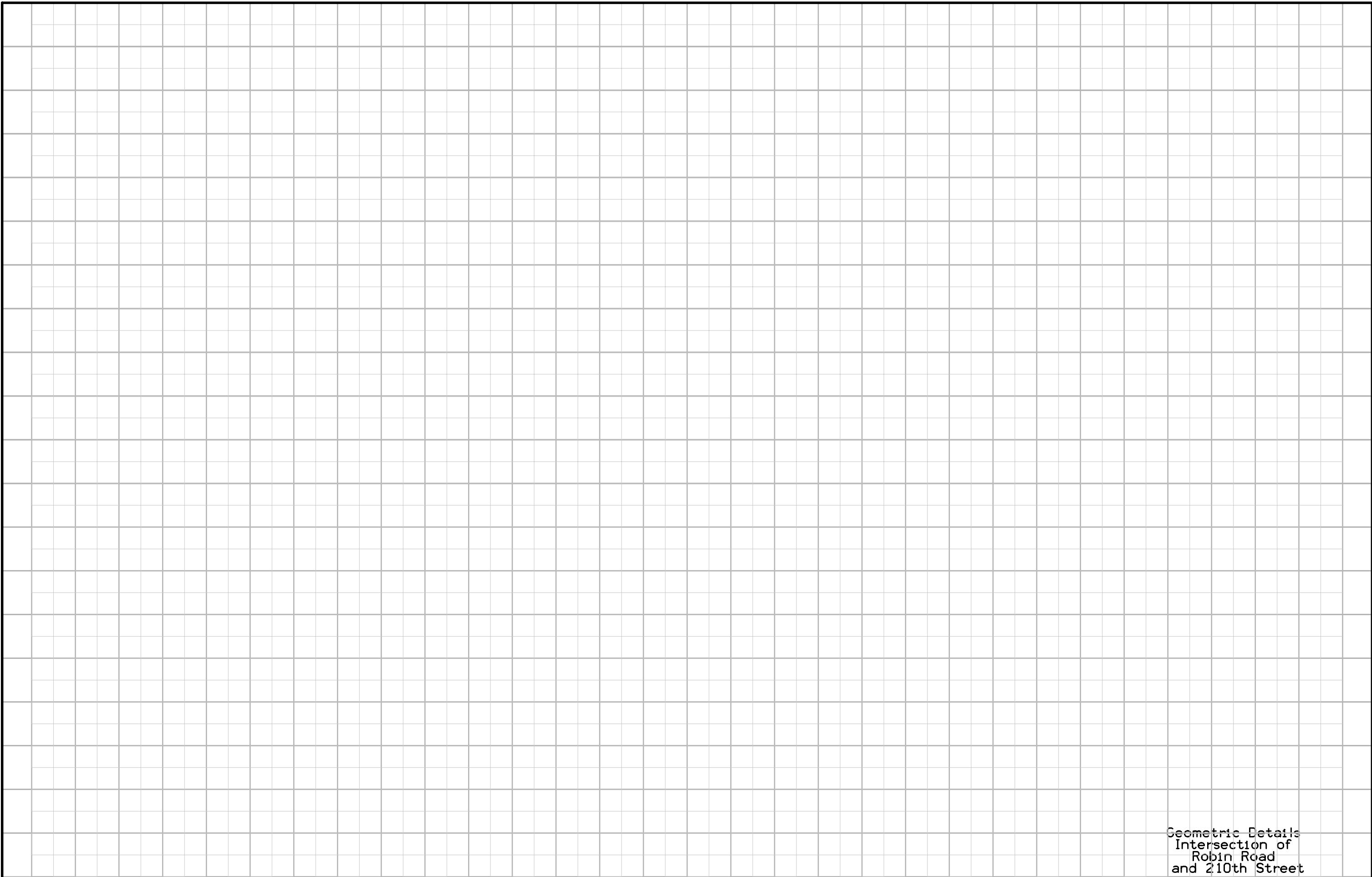
NOTE:
 Dimensions shown are to the back of curb.
 Refer to G sheets for horizontal alignment information.
 Refer to appropriate Standard Road Plans for additional information.



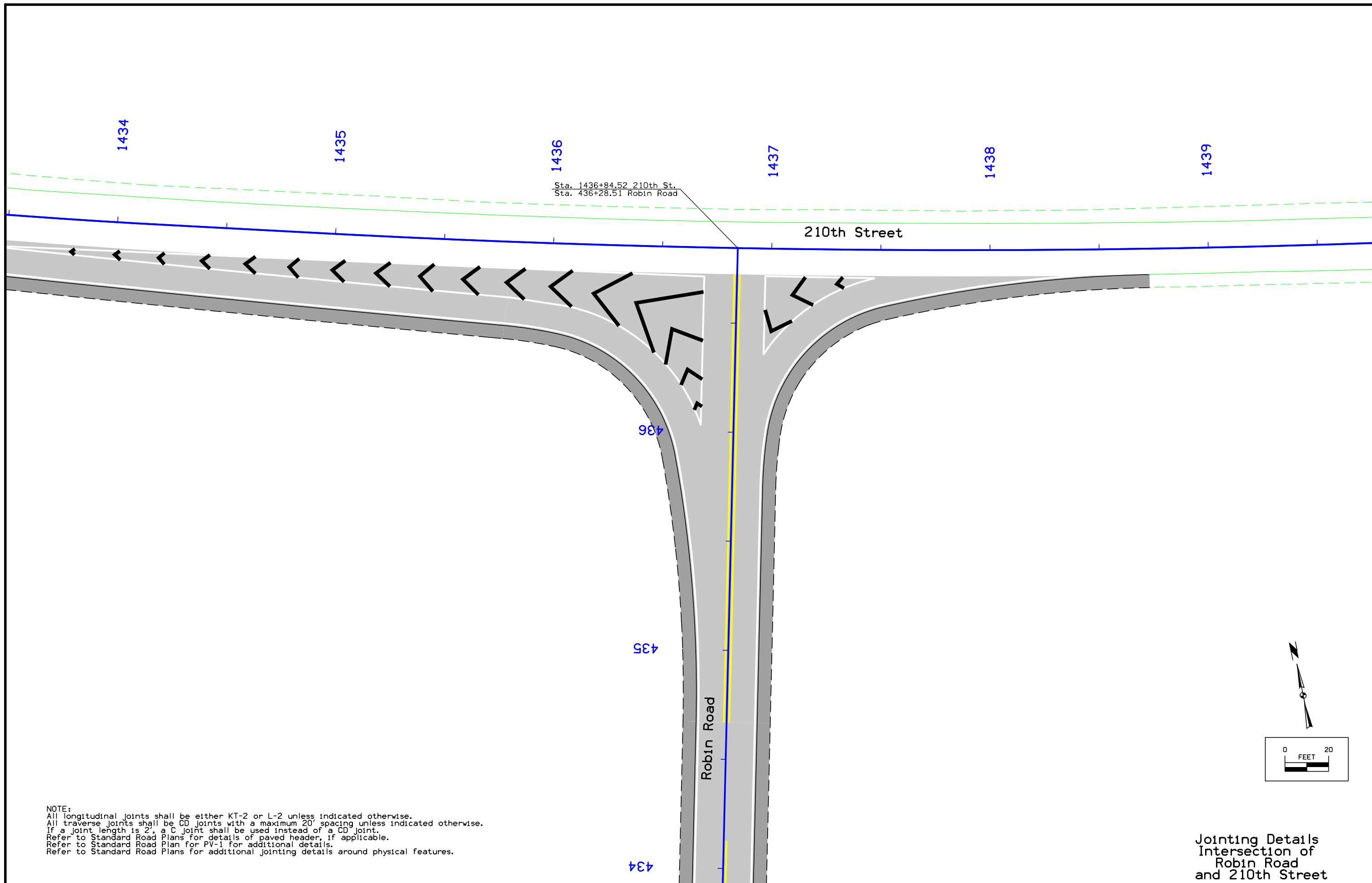
Geometric Details
 Intersection of
 Robin Road
 and 210th Street



Geometric Details
 Intersection of
 Robin Road
 and 210th Street



Geometric Details
Intersection of
Robin Road
and 210th Street

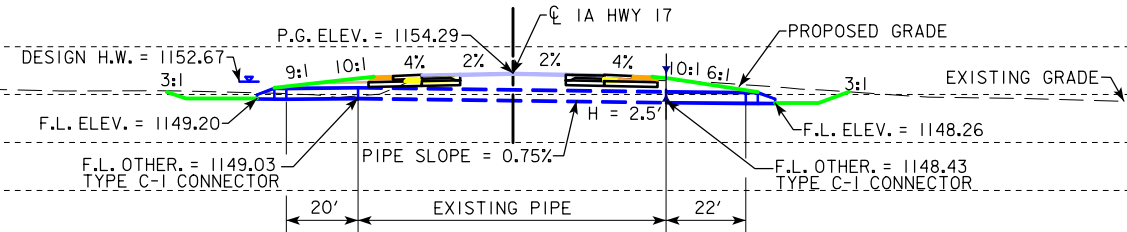


NOTE:
 All longitudinal joints shall be either KT-2 or L-2 unless indicated otherwise.
 All traverse joints shall be CD joints with a maximum 20' spacing unless indicated otherwise.
 If a joint length is 2', a C joint shall be used instead of a CD joint.
 Refer to Standard Road Plans for details of paved header, if applicable.
 Refer to Standard Road Plan for PV-1 for additional details.
 Refer to Standard Road Plans for additional jointing details around physical features.

Jointing Details
 Intersection of
 Robin Road
 and 210th Street

1170		1170
1160		1160
1150		1150
1140		1140
1130		1130
1120		1120

BENCH MARK CP24 STA 9+10.46, 28.9' RT FD DISK INSIDE PVC CASING STAMPED 99-24. 164' N OF W.B. US HWY 30. 63' NE OF NE COR BRG FLOOR.. 3' E OF IA HWY 17. 158' NW OF POWER POLE.

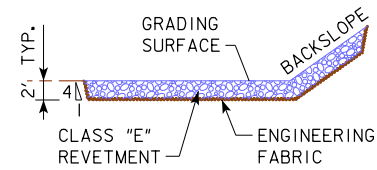


LONGITUDINAL SECTION ALONG CULVERT

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	32	54	22
TOTALS	32	54	22

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



UTILITIES LEGEND:

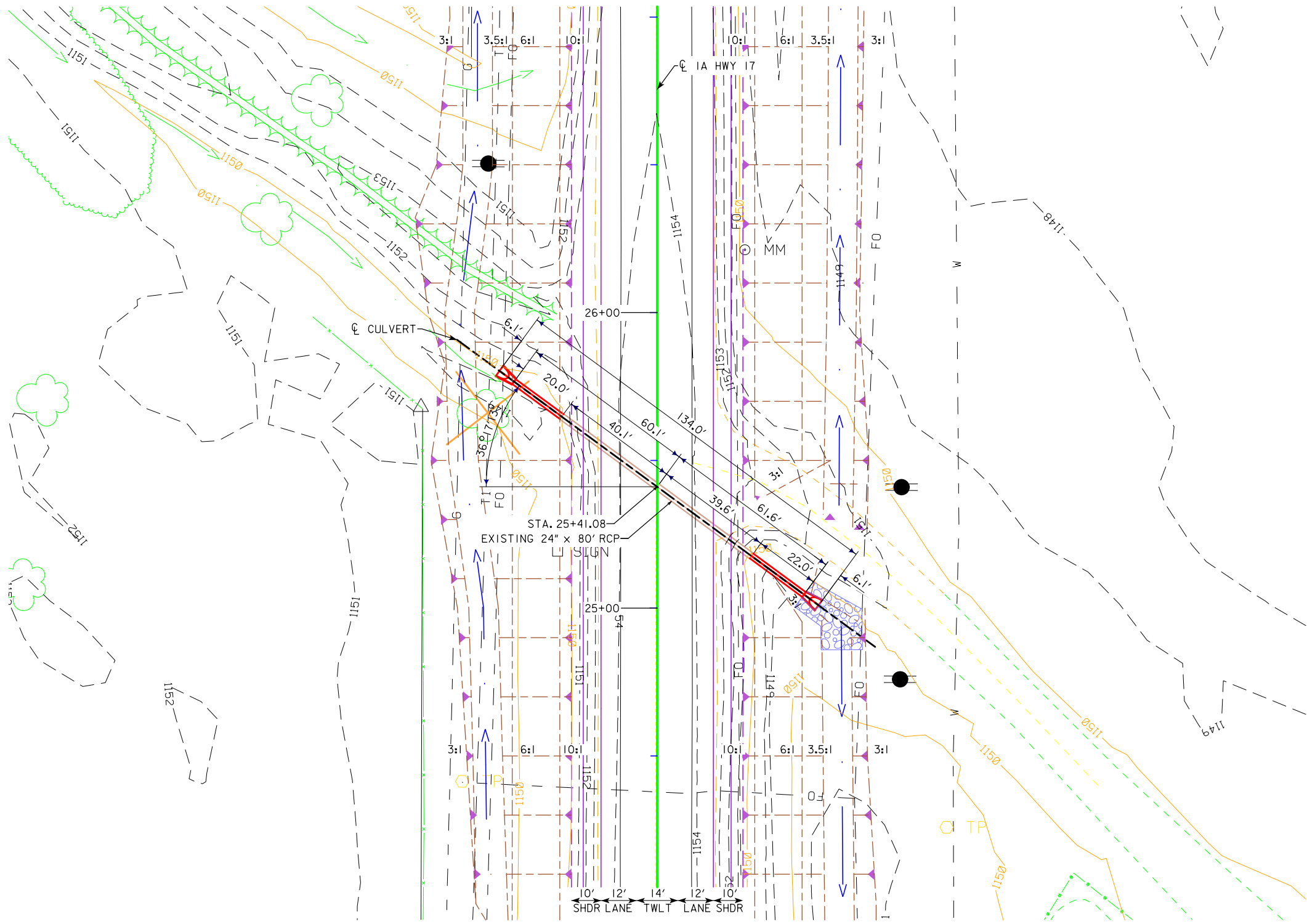
REFER TO D.I

HYDRAULIC DATA

DRAINAGE AREA = 15.0 ACRES F & TILED
 DESIGN DISCHARGE, Q₅₀ = 23 CFS
 DESIGN HIGH WATER = 1152.67

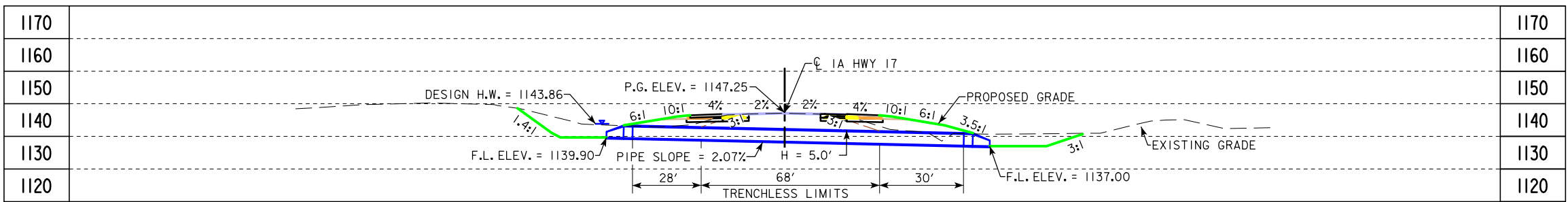
LOCATION

IA-17
 T-84 NR-25W & R-26W
 SECTIONS 31 & 36
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY



PLAT PLAN

PRELIMINARY
 DESIGN FOR 36° SKEW LT. AHEAD
24" X 42'
REINFORCED CONCRETE PIPE
CULVERT EXTENSION
PLAT PLAN
 STA. 25+41.08 C/ IA-17 MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



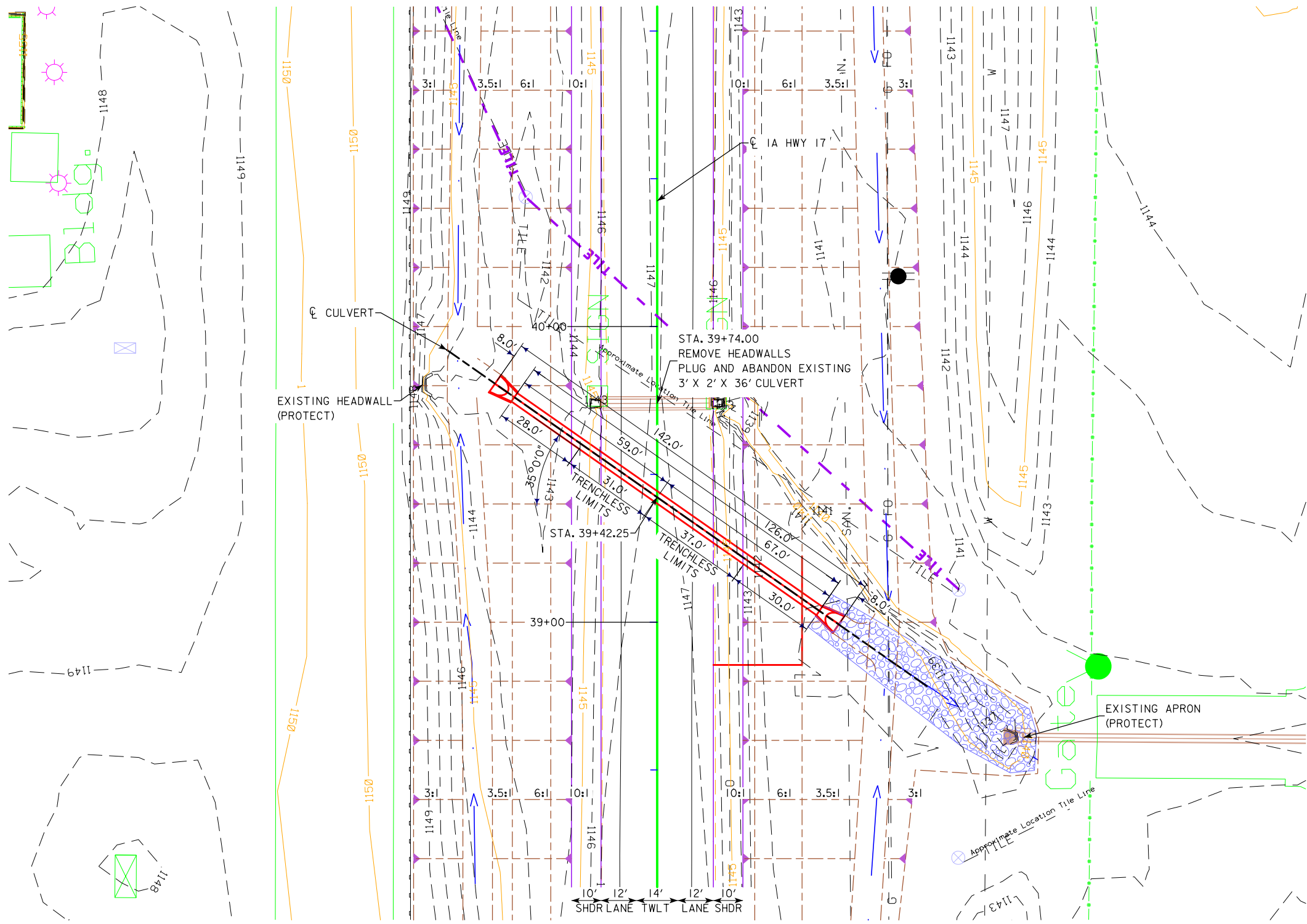
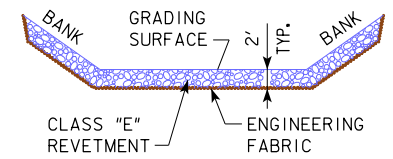
BENCH MARK CP24 STA 9+10.46, 28.9' RT FD DISK INSIDE PVC CASING STAMPED 99-24. 164' N OF W.B. US HWY 30, 63' NE OF NE COR BRG FLOOR., 3' E OF IA HWY 17, 158' NW OF POWER POLE.

LONGITUDINAL SECTION ALONG ϕ CULVERT

ESTIMATED REVELTMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVELTMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	167	228	118
TOTALS	167	228	118

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



UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

DRAINAGE AREA = 52.1 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 61 CFS
 DESIGN HIGH WATER = 1143.86

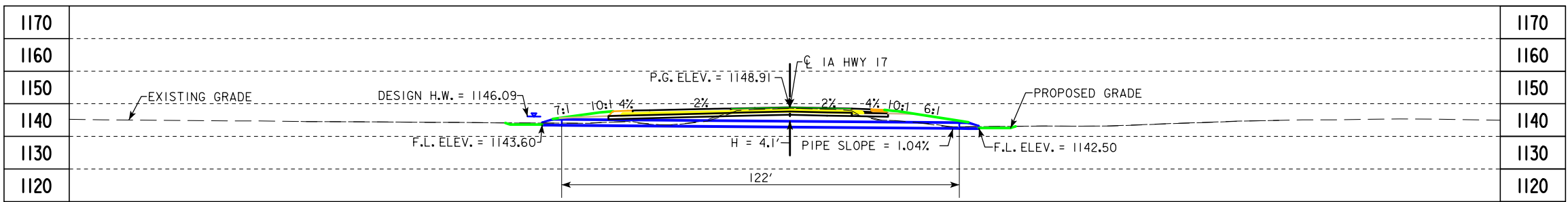
LOCATION

IA-17
 T-84 NR-25W & R-26W
 SECTIONS 31 & 36
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY

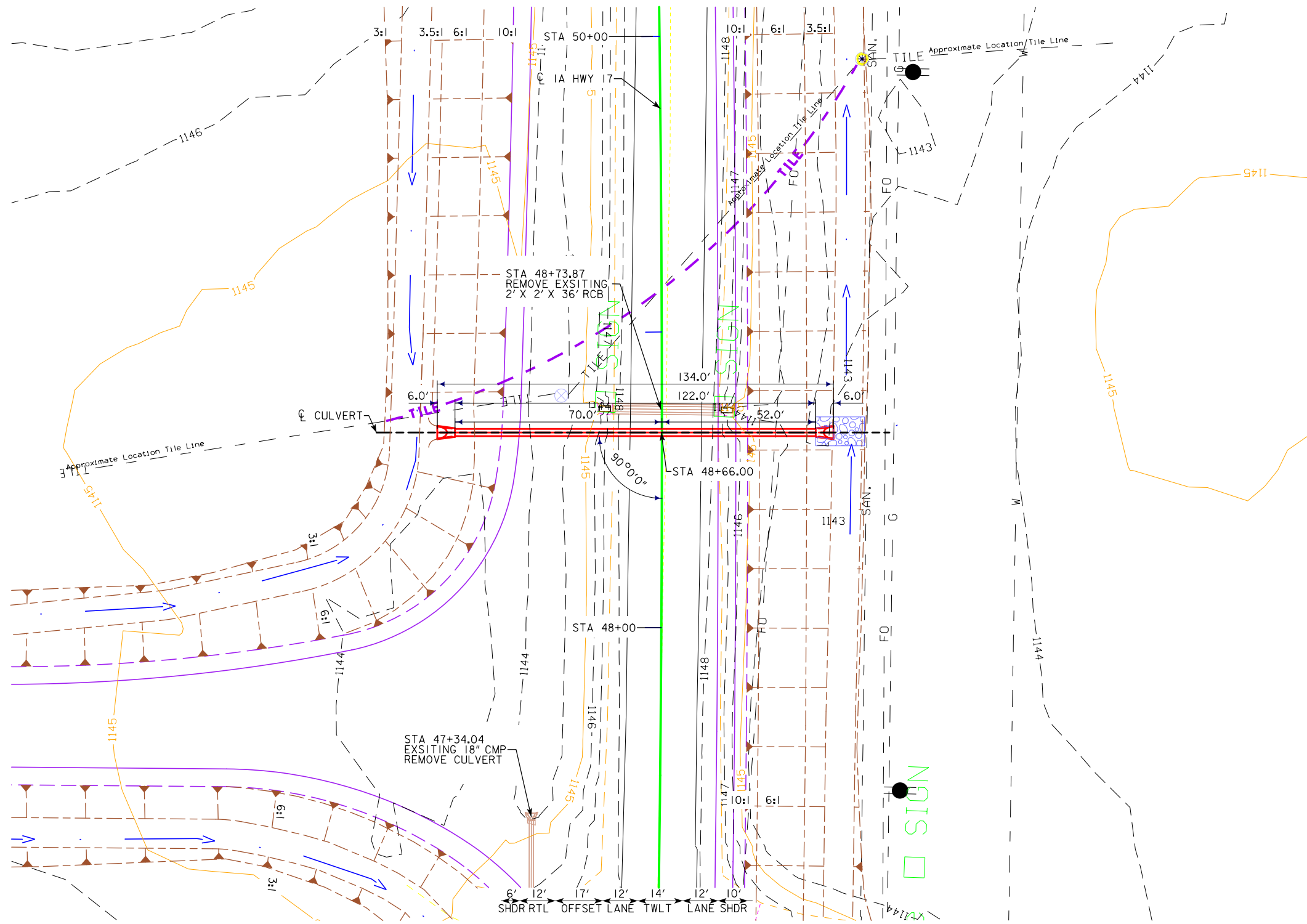


PLAT PLAN

PRELIMINARY
 DESIGN FOR 35° SKEW LT. AHEAD
**42" X 126' (68' TRENCHLESS)
 REINFORCED CONCRETE PIPE**
 PLAT PLAN
 STA. 39+42.25 ϕ Iowa Hwy 17 MAY 2019
 BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



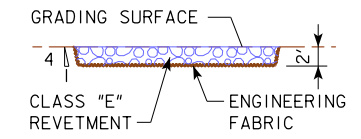
BENCH MARK CP24 STA 9+10.46, 28.9' RT FD DISK INSIDE PVC CASING STAMPED 99-24. 164' N OF W.B. US HWY 30. 63' NE OF NE COR BRG FLOOR.. 3' E OF IA HWY 17. 158' NW OF POWER POLE.



ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	15	31	11
TOTALS	15	31	11

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



UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

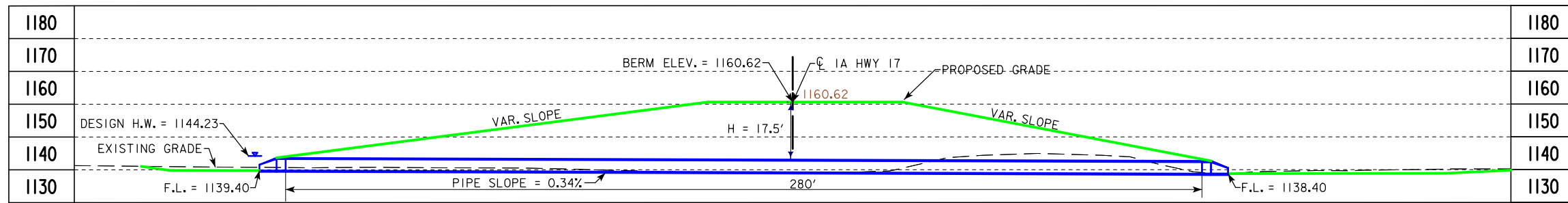
DRAINAGE AREA = 9.6 ACRES F & TILED
 DESIGN DISCHARGE, Q₅₀ = 17 CFS
 DESIGN HIGH WATER = 1146.09

LOCATION

IA-17
 T-84 NR-25W & R-26W
 SECTIONS 31 & 36
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY

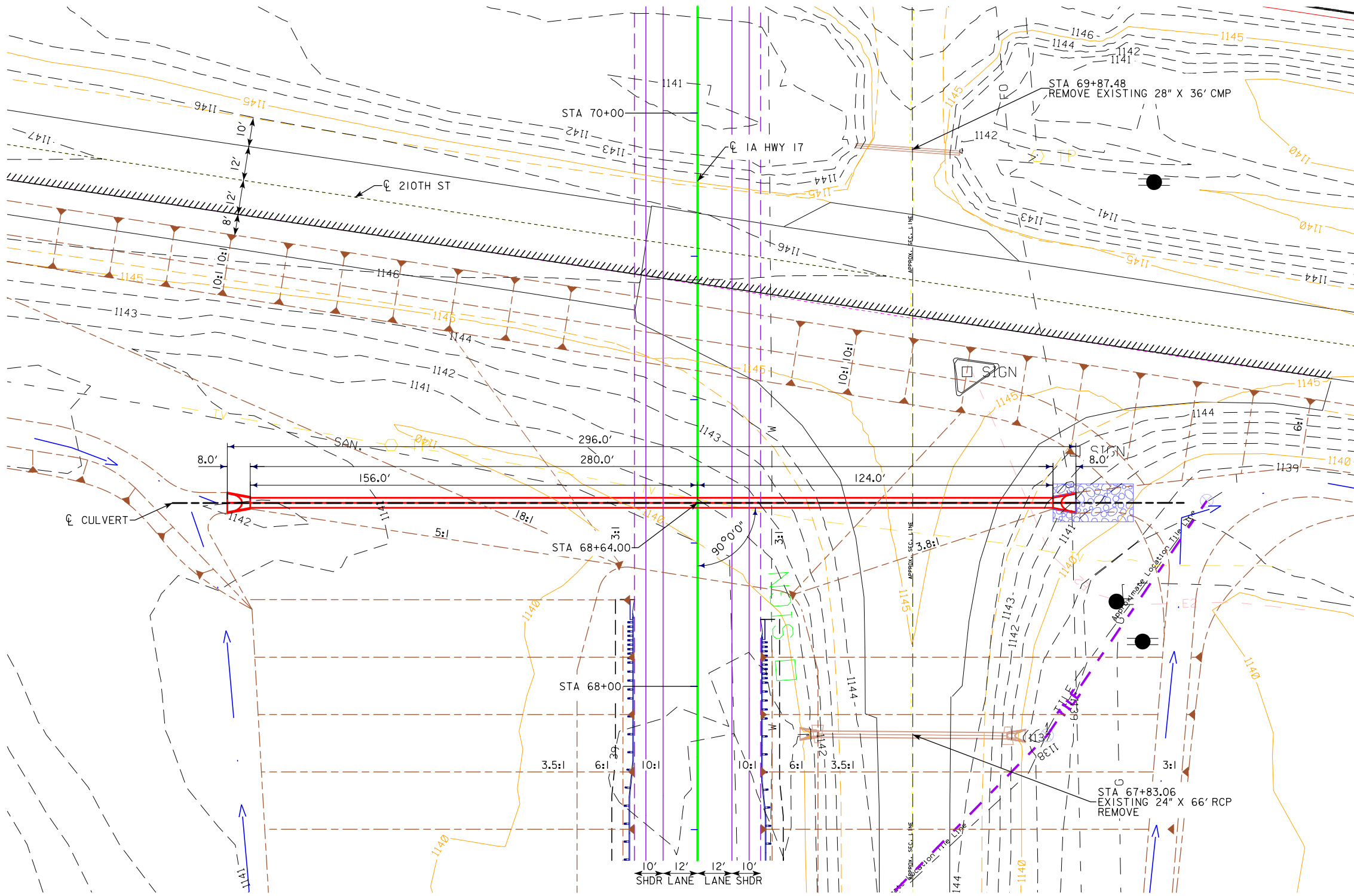


PRELIMINARY
 DESIGN FOR 0° SKEW
29" X 18" X 122'
REINFORCED ARCH CONCRETE PIPE
 PLAT PLAN
 STA. 48+66.00 C Iowa Hwy 17 MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER
 POLE.

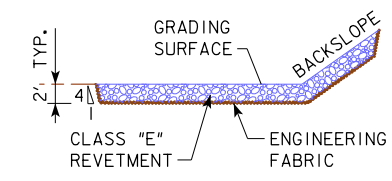
LONGITUDINAL SECTION ALONG CL CULVERT



ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	35	60	25
TOTALS	35	60	25

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



UTILITIES LEGEND:
 REFER TO D.I

HYDRAULIC DATA
 DRAINAGE AREA = 70.4 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 76 CFS
 DESIGN HIGH WATER = 1144.23

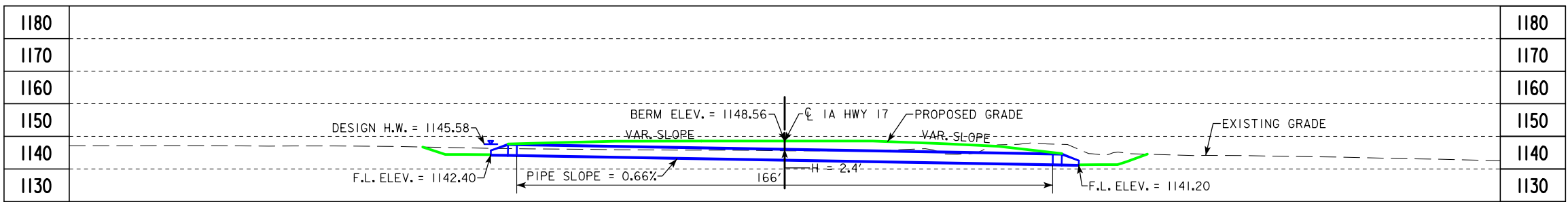
LOCATION

1A-17
 T-84N R-25W & R-26W
 SECTIONS 30 & 25
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY



PRELIMINARY
 DESIGN FOR 0° SKEW
42" X 280'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 68+64.00 CL Iowa Hwy 17
 BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____

PLAT PLAN



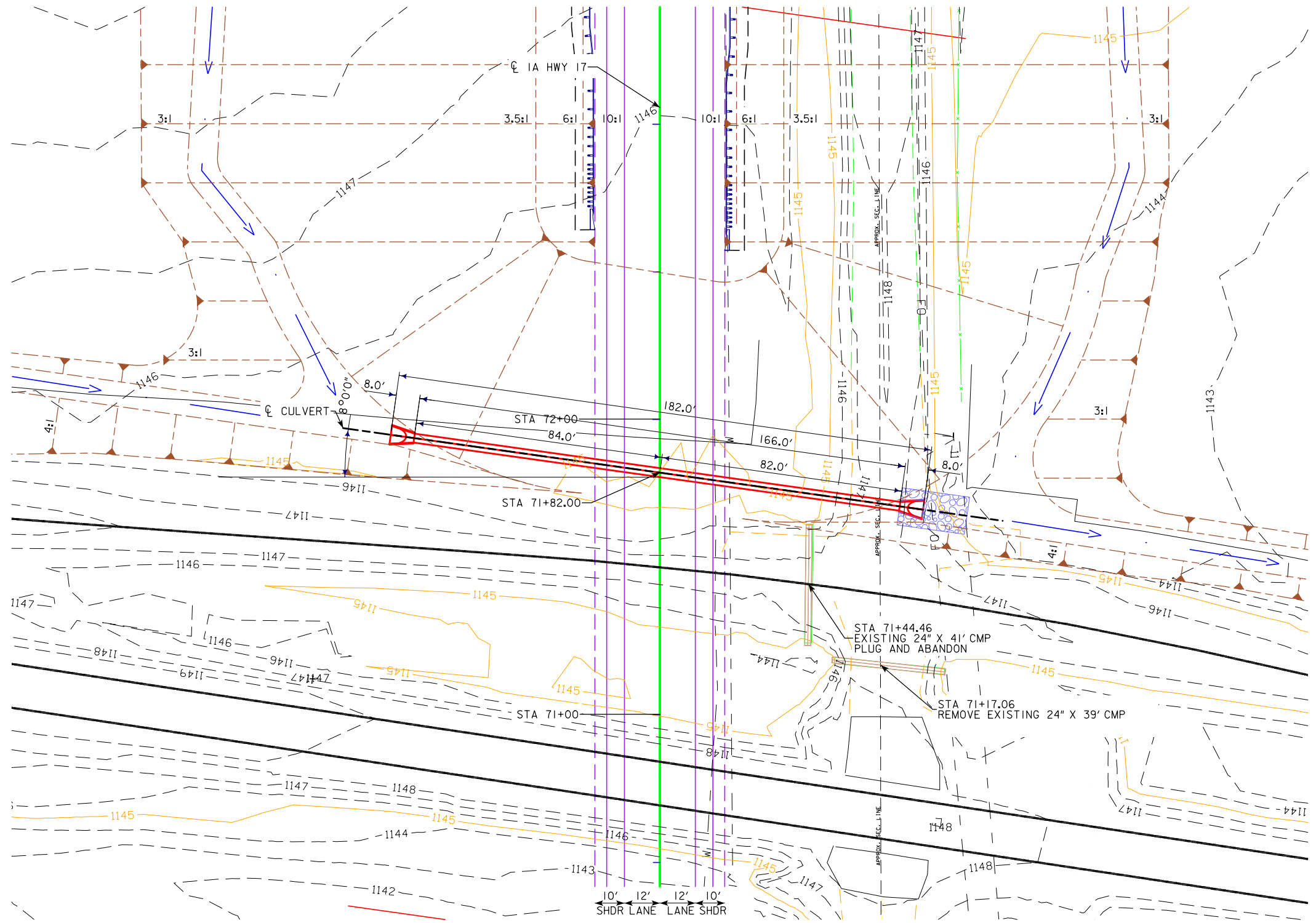
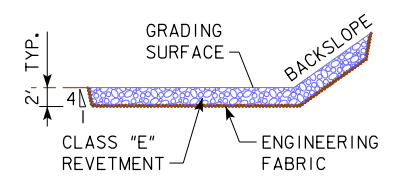
BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 ST. 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

LONGITUDINAL SECTION ALONG CULVERT

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	27	49	19
TOTALS	27	49	19

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



PLAT PLAN

UTILITIES LEGEND:

REFER TO D.I

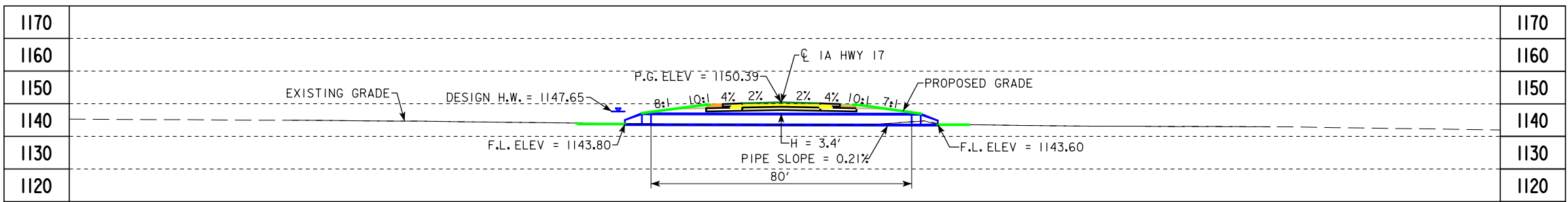
HYDRAULIC DATA

DRAINAGE AREA = 28.0 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 38 CFS
 DESIGN HIGH WATER = 1145.58

LOCATION

IA-17
 T-84N -25W & R-26W
 SECTIONS 30 & 25
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY

DESIGN FOR 8° SKEW
36" X 166'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 71+82.00 C/L Iowa Hwy 17 MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



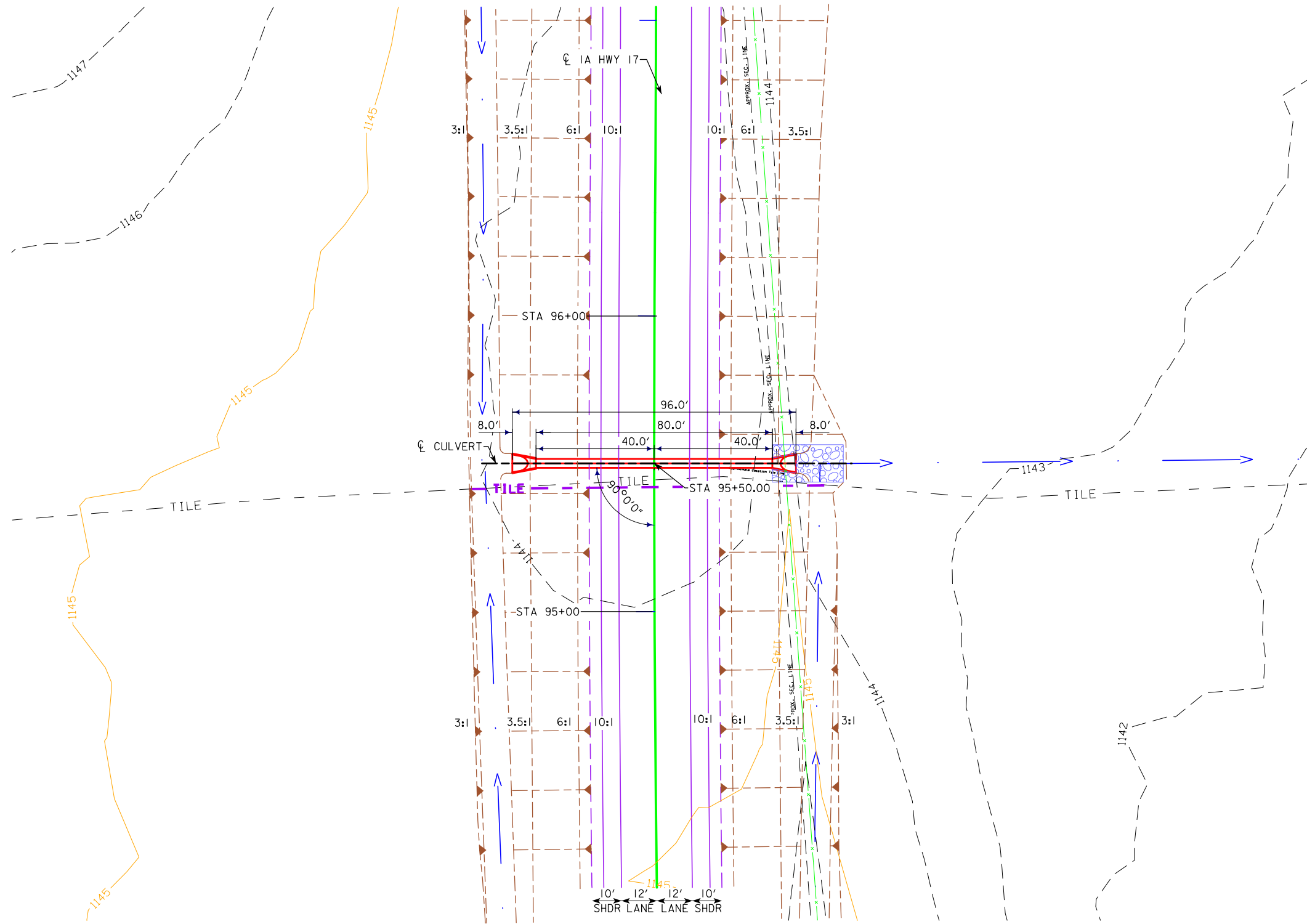
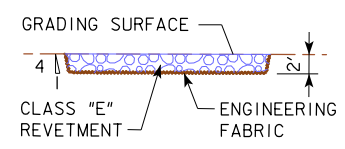
BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

LONGITUDINAL SECTION ALONG CL CULVERT

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	28	51	20
TOTALS	28	51	20

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



PLAT PLAN

UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

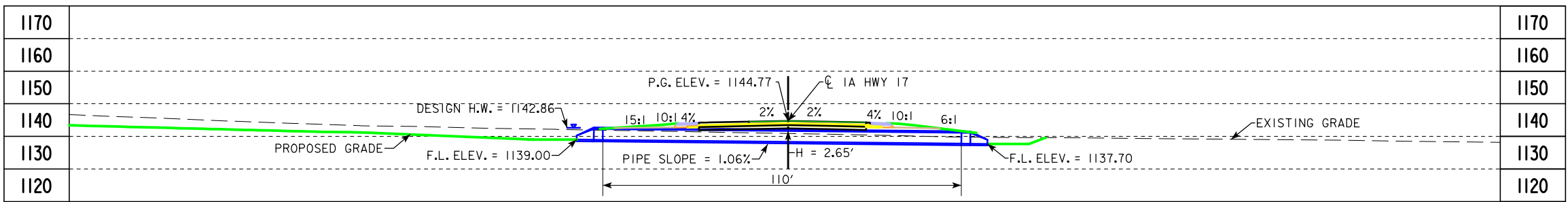
DRAINAGE AREA = 38.1 ACRES F & TILED
 DESIGN DISCHARGE, Q₅₀ = 48 CFS
 DESIGN HIGH WATER = 1147.65

LOCATION

1A-17
 T-84N R-25W & R-26W
 SECTIONS 30 & 25
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY

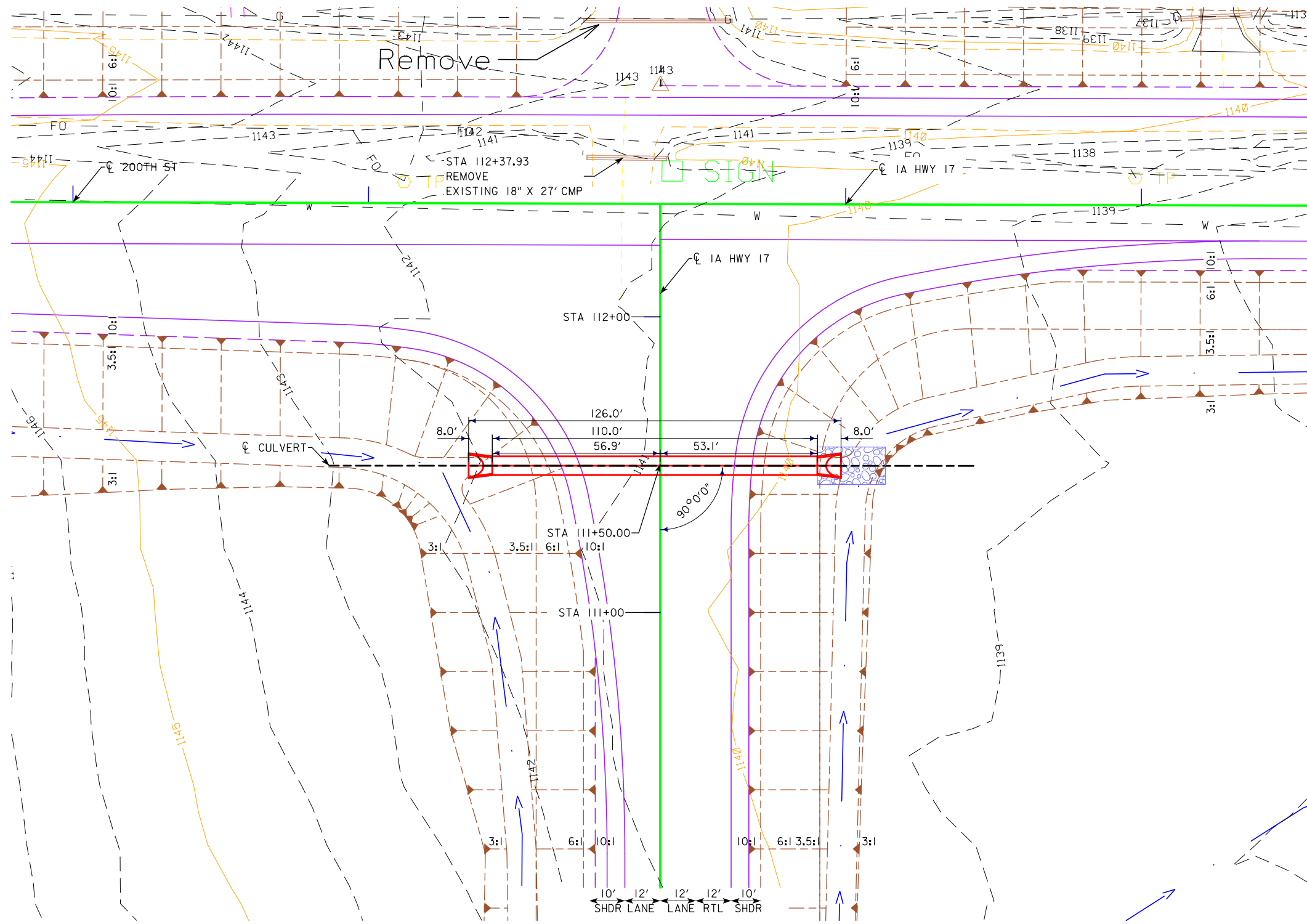


PRELIMINARY
 DESIGN FOR 0° SKEW
36" X 80'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 95+50.00 CL Iowa Hwy 17 MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

LONGITUDINAL SECTION ALONG CL CULVERT

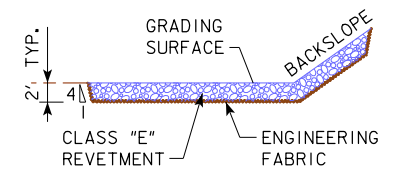


PLAT PLAN

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	25	47	18
TOTALS	25	47	18

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



UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

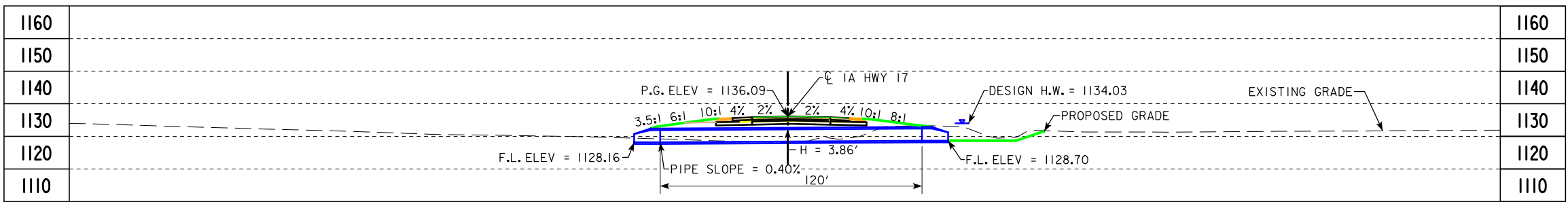
DRAINAGE AREA = 88.6 ACRES F & TILED
 DESIGN DISCHARGE, Q₅₀ = 90 CFS
 DESIGN HIGH WATER = 1142.86

LOCATION

IA-17
 T-84N R-25W & R-26W
 SECTIONS 30 & 25
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY



PRELIMINARY
 DESIGN FOR 0° SKEW
65" x 40" x 110'
REINFORCED ARCH CONCRETE PIPE
 PLAT PLAN
 STA. 111+50.00 CL Iowa Hwy 17 MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



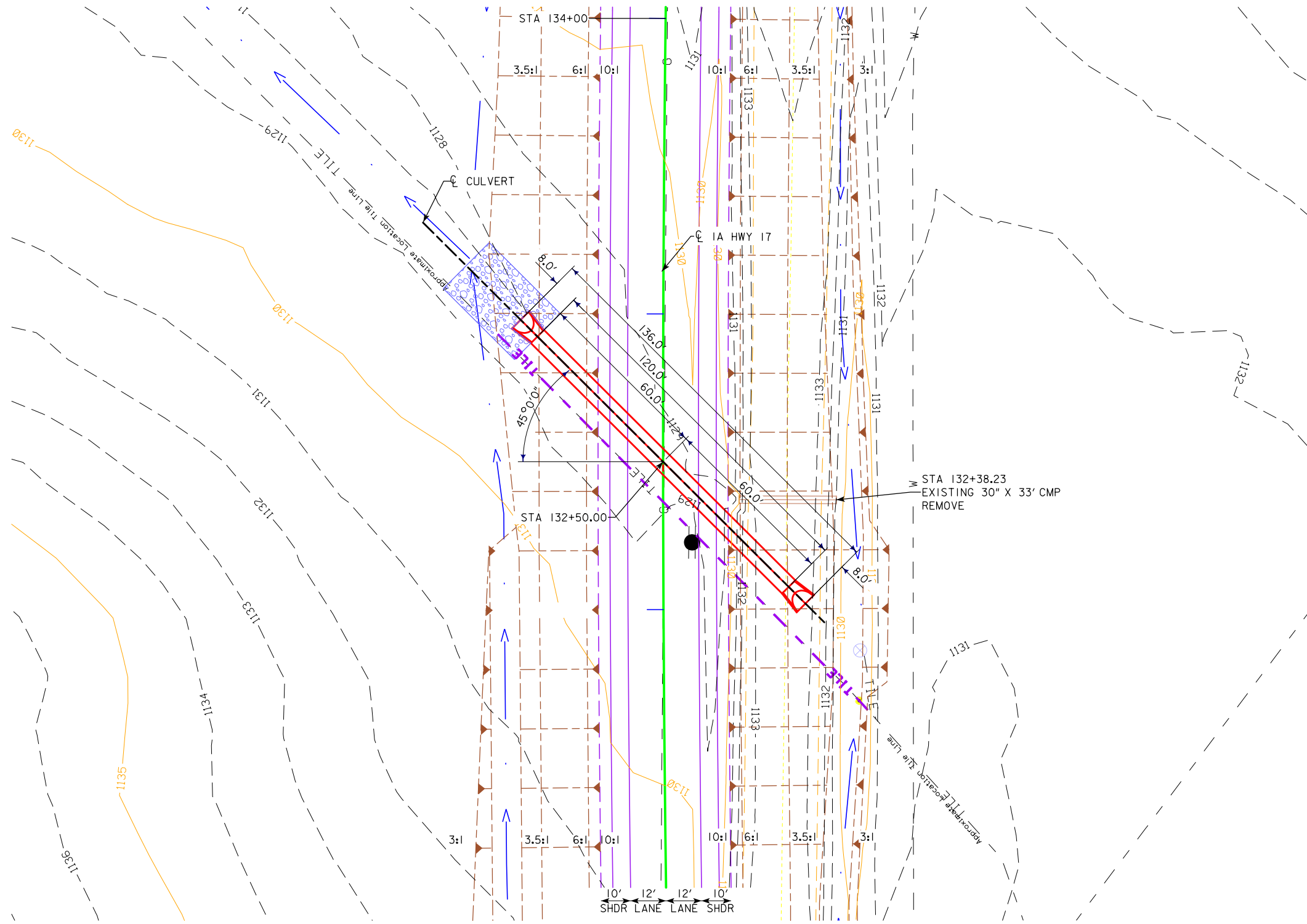
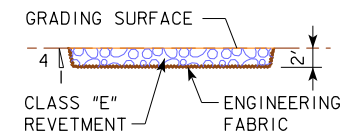
BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 ST. 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

LONGITUDINAL SECTION ALONG CULVERT

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	73	107	51
TOTALS	73	107	51

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



UTILITIES LEGEND:

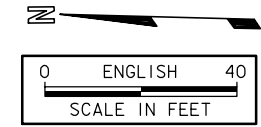
REFER TO D.I

HYDRAULIC DATA

DRAINAGE AREA = 138.1 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 124 CFS
 DESIGN HIGH WATER = 1134.03

LOCATION

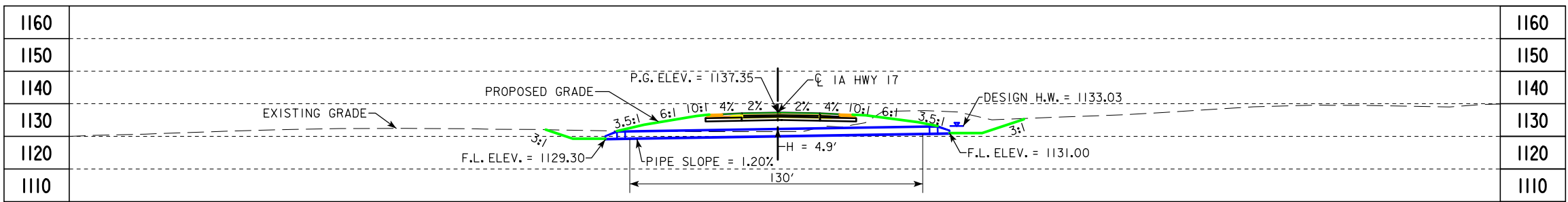
IA-17
 T-84N R-25W
 SECTIONS 19 & 30
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY



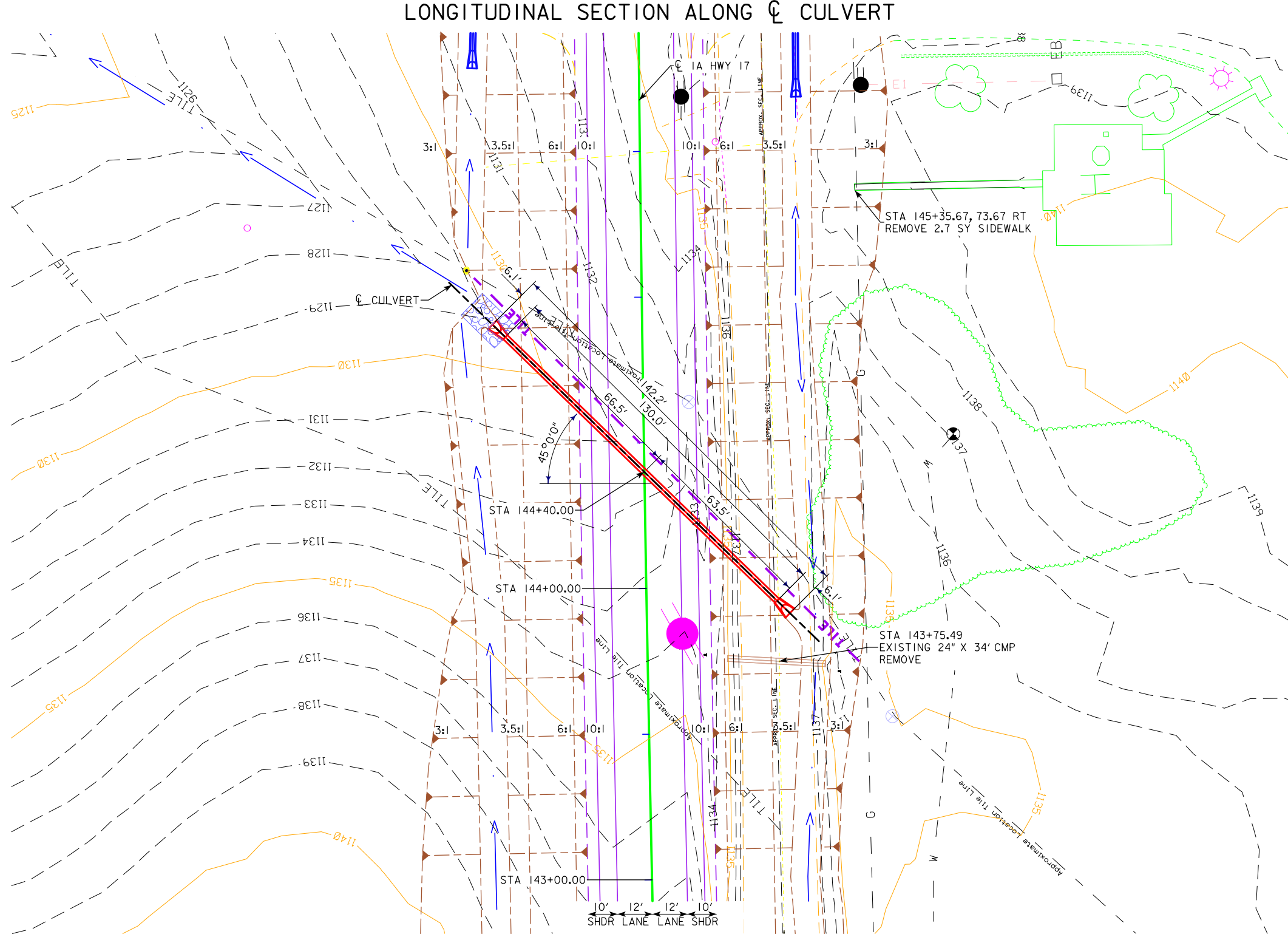
PLAT PLAN

DESIGN FOR 45° SKEW LT. AHEAD
65" X 40" X 120'
REINFORCED ARCH CONCRETE PIPE

PLAT PLAN
 STA. 132+50.00 C/L Iowa Hwy 17 MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



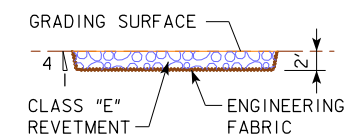
BENCH MARK CP2 STA 165+99.72, 2602.85' RT
 SET FENO MONUMENT. 357' E OF INTERS. IA HWY 17 &
 205TH ST. 27' N OF 205TH ST. 138' E OF FARM ENT. 126'
 NE OF POWER POLE.



ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	16	32	11
TOTALS	16	32	11

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



UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

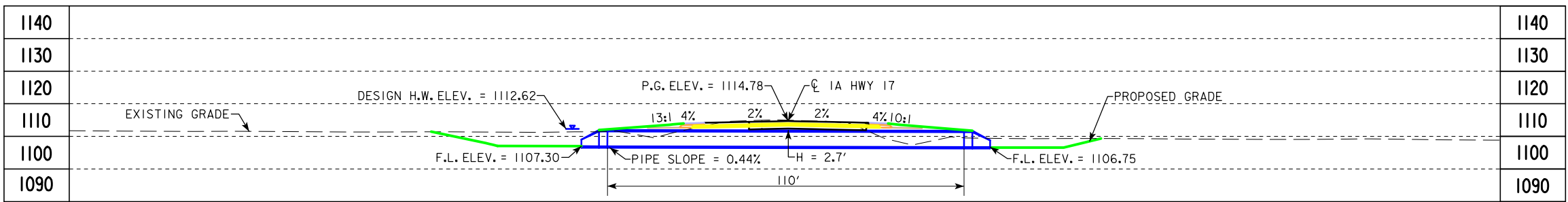
DRAINAGE AREA = 7.1 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 13 CFS
 DESIGN HIGH WATER = 1133.03

LOCATION

IA-17
 T-84N R-25W
 SECTIONS 19 & 30
 DES MOINES AND JACKSON TOWNSHIPS
 BOONE COUNTY

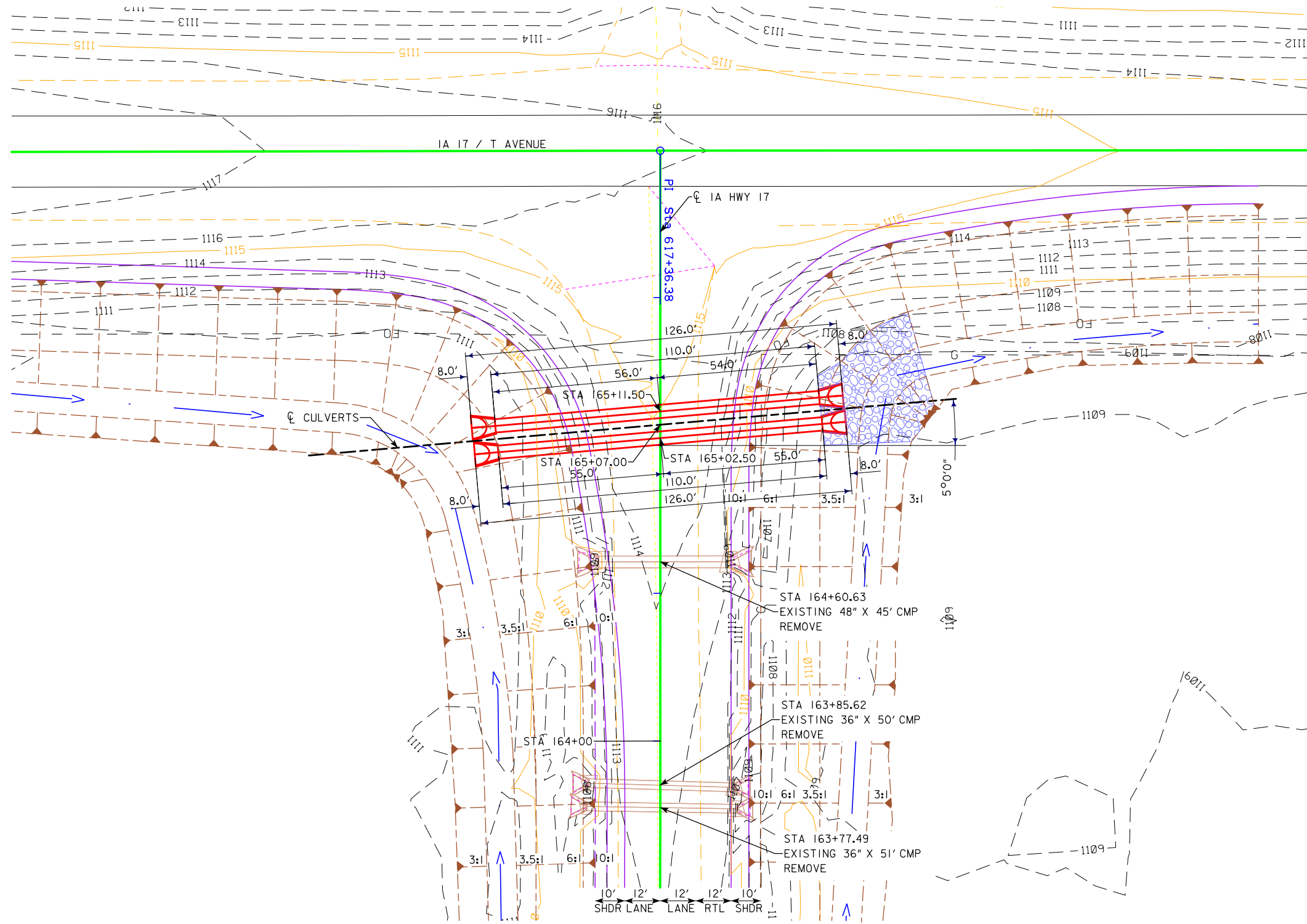


PRELIMINARY
 DESIGN FOR 45° SKEW LT. AHEAD
24" X 130'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 144+40.00 C Iowa Hwy 17 MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



BENCH MARK CP2 STA 165+99.72, 2602.85' RT
 SET FENO MONUMENT. 357' E OF INTERS. IA HWY 17 &
 205TH ST. 27' N OF 205TH ST. 138' E OF FARM ENT. 126'
 NE OF POWER POLE.

LONGITUDINAL SECTION ALONG CULVERT

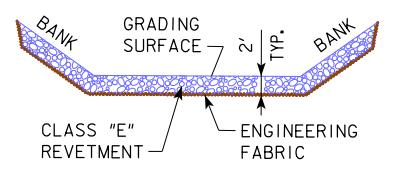


PLAT PLAN

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	119	167	84
TOTALS	119	167	84

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



UTILITIES LEGEND:

REFER TO D.1

HYDRAULIC DATA

DRAINAGE AREA = 354 ACRES F & TILED
 DESIGN DISCHARGE, $Q_{50} = 242$ CFS
 DESIGN HIGH WATER = 1112.62

LOCATION

IA-17
 T-84N R-25W
 SECTIONS 19 & 30
 JACKSON TOWNSHIP
 BOONE COUNTY



PRELIMINARY

DESIGN FOR 5° SKEW RT. AHEAD

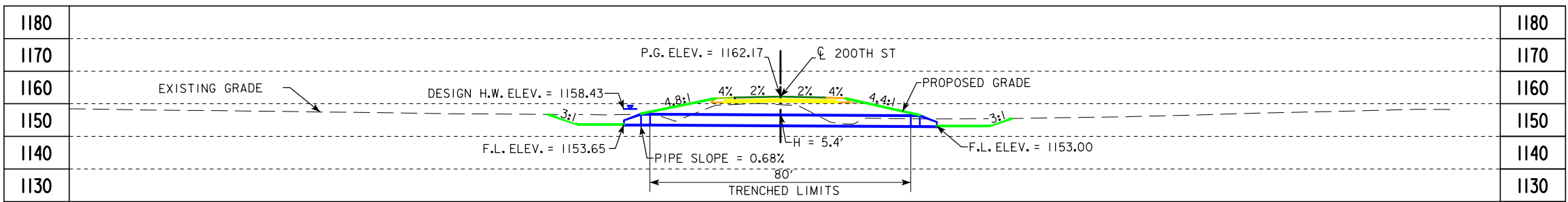
TWIN 54" X 110'
REINFORCED CONCRETE PIPES

PLAT PLAN

STA. 165+07.00 C/L Iowa Hwy 17 MAY 2019

BOONE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



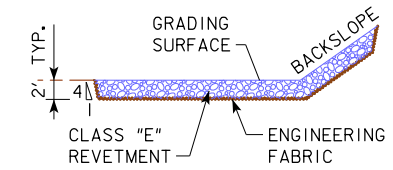
BENCH MARK CP43 STA 300+42.57, 40.72' RT
 FD DISK INSIDE PVC CASING STAMPED 99-43. 51' SE OF
 INTERS. OF QUARTZ AVE & 200TH ST. 45' E OF QUARTZ AVE.
 40' S OF 200TH ST 34' N OF POWER POLE

LONGITUDINAL SECTION ALONG CULVERT

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	36	86	26
TOTALS	36	86	26

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



UTILITIES LEGEND:

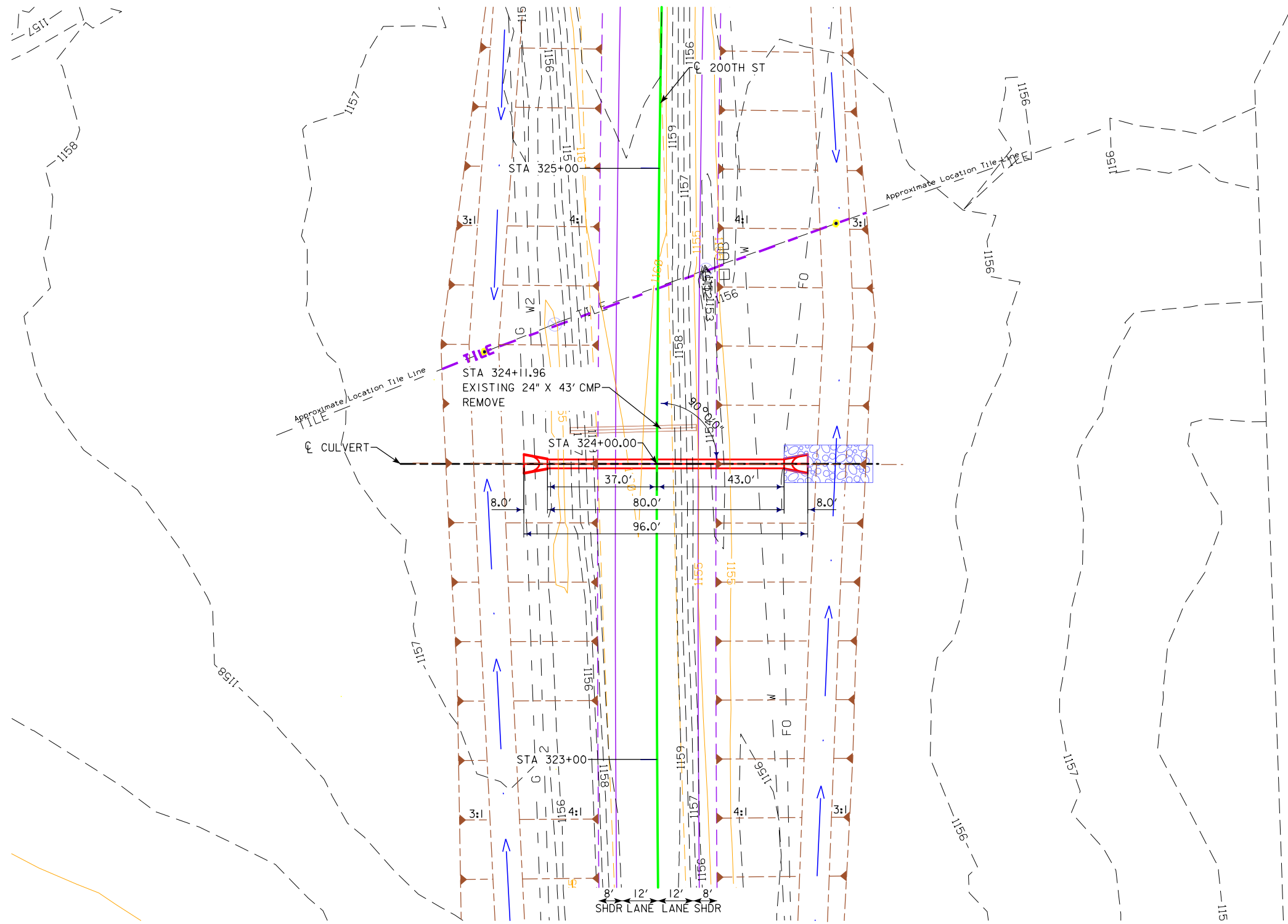
REFER TO D.I

HYDRAULIC DATA

DRAINAGE AREA = 50.3 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 59 CFS
 DESIGN HIGH WATER = 1158.43

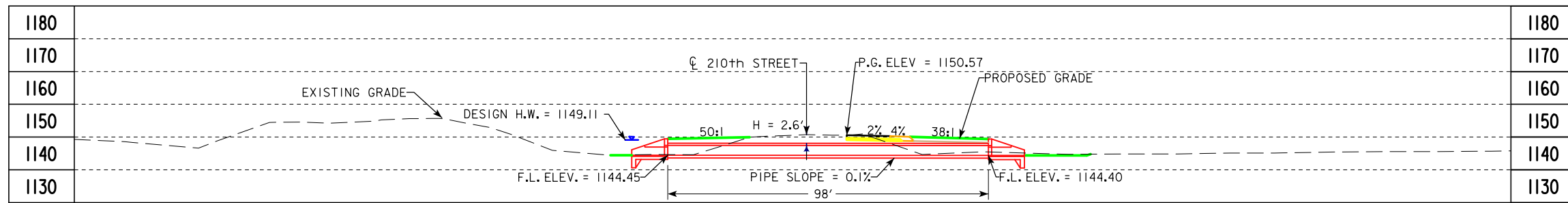
LOCATION

1A-17
 T-84N R-26W
 SECTIONS 23 & 26
 DES MOINES TOWNSHIP
 BOONE COUNTY



PLAT PLAN

PRELIMINARY
 DESIGN FOR 0° SKEW
36" X 80'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 324+00.00 C 200th St. MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



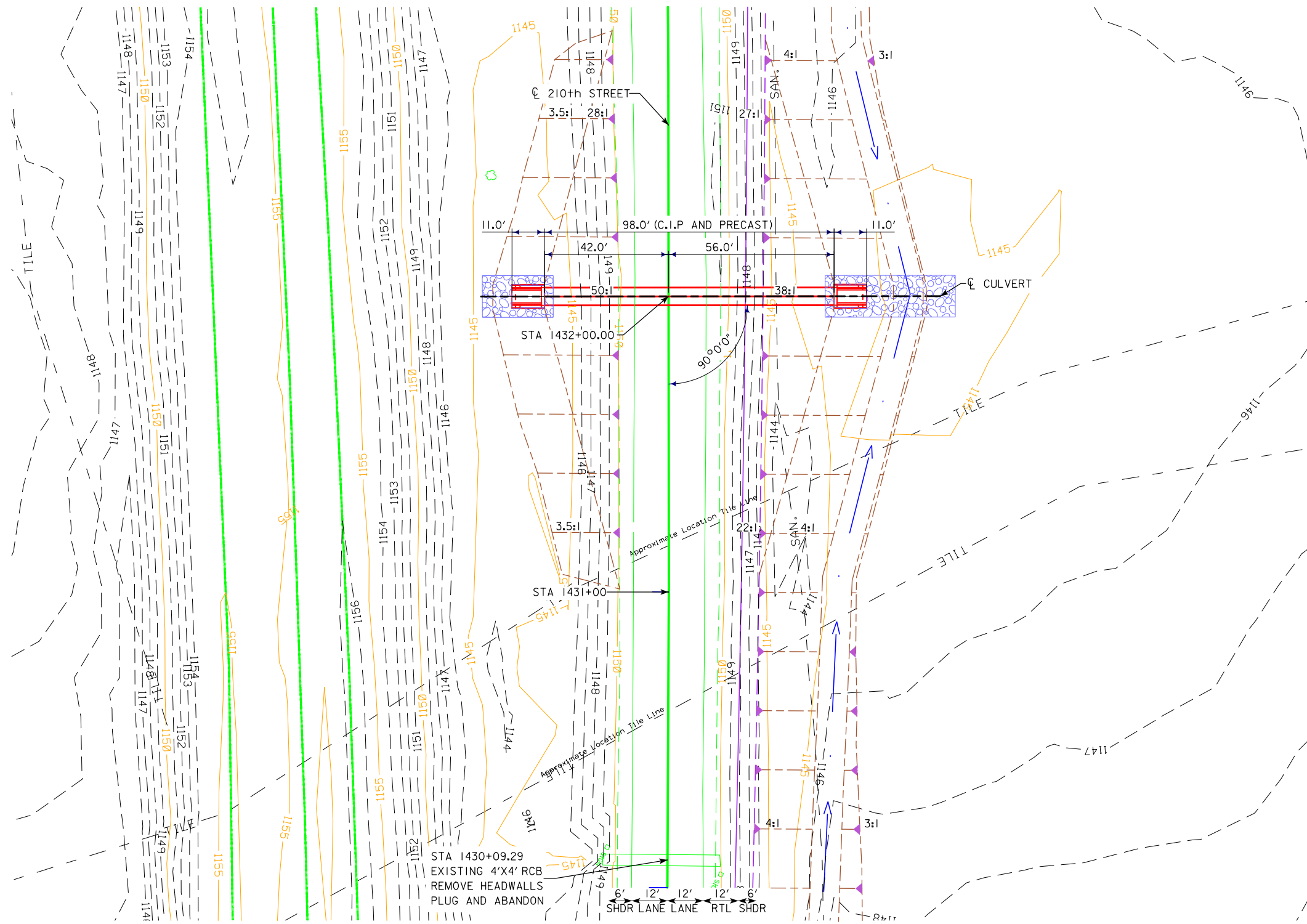
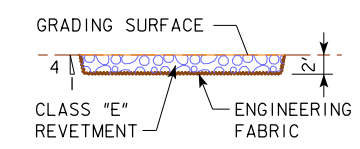
LONGITUDINAL SECTION ALONG CULVERT

BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 ST. 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	27	55	20
OUTLET	57	95	40
TOTALS	84	150	60

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



PLAT PLAN

UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

DRAINAGE AREA = 213 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 168 CFS
 DESIGN HIGH WATER = 1149.11

LOCATION

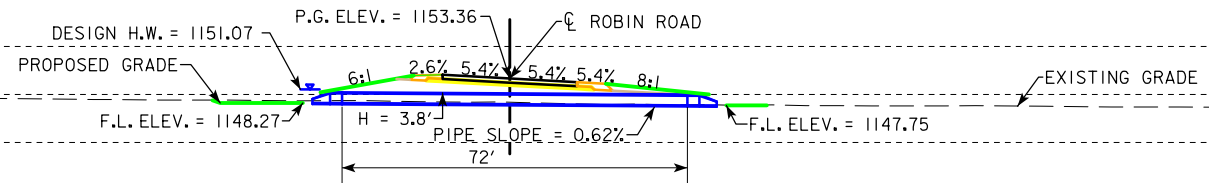
1A-17
 T-84N R-26W
 SECTION 25
 DES MOINES TOWNSHIP
 BOONE COUNTY



PRELIMINARY
 DESIGN FOR 0° SKEW
SINGLE 6'-0 X 3'-0 X 98'
CONCRETE BOX CULVERT
 PLAT PLAN
 STA. 1432+00.00 C 210th STREET MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. 123

1180		1180
1170		1170
1160		1160
1150		1150
1140		1140
1130		1130

BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

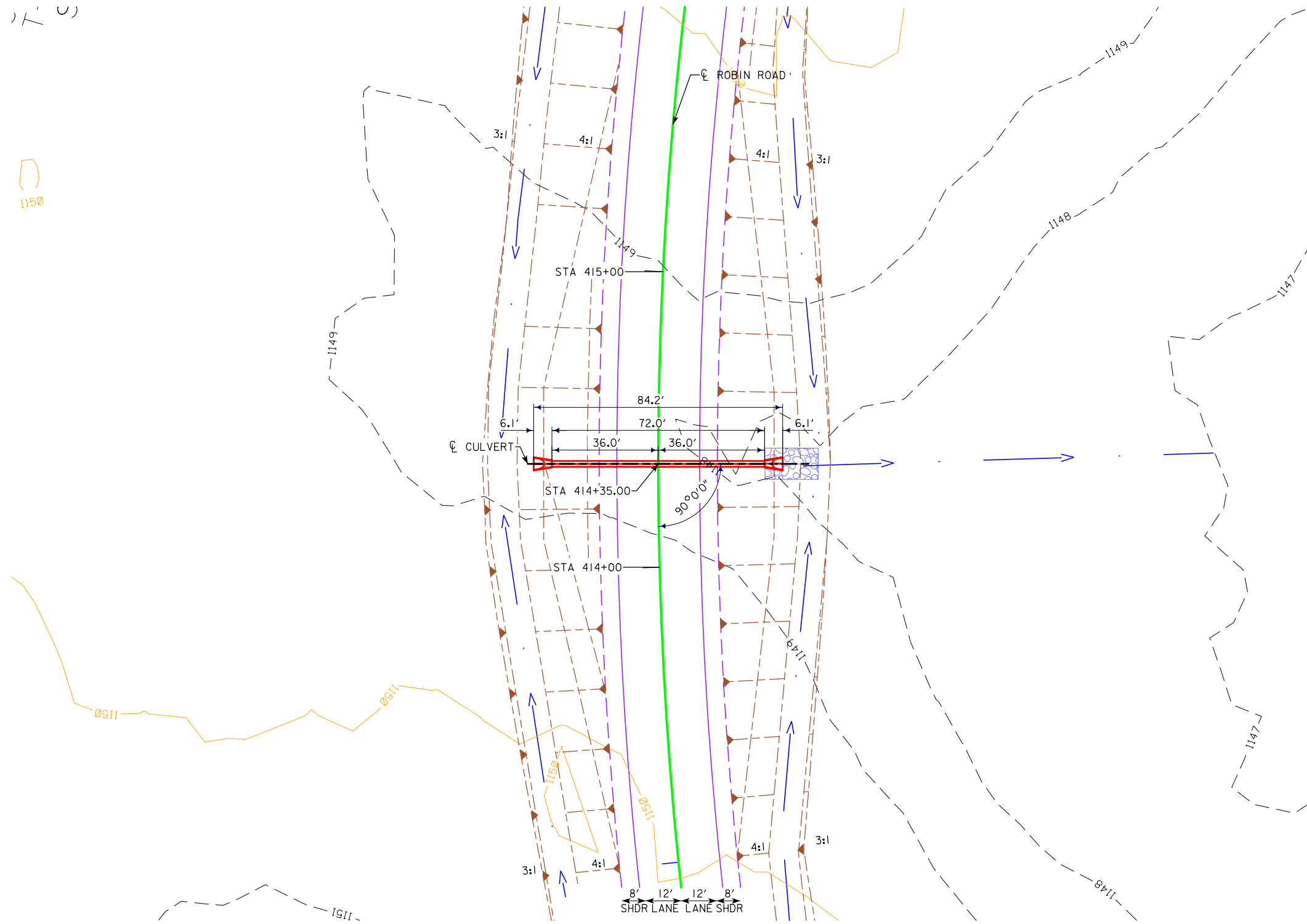
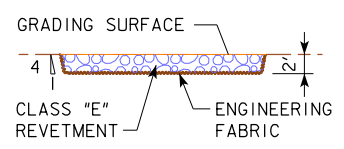


LONGITUDINAL SECTION ALONG CL CULVERT

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	18	35	13
TOTALS	18	35	13

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



PLAT PLAN

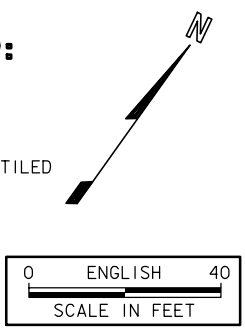
UTILITIES LEGEND:
 REFER TO D.I

HYDRAULIC DATA

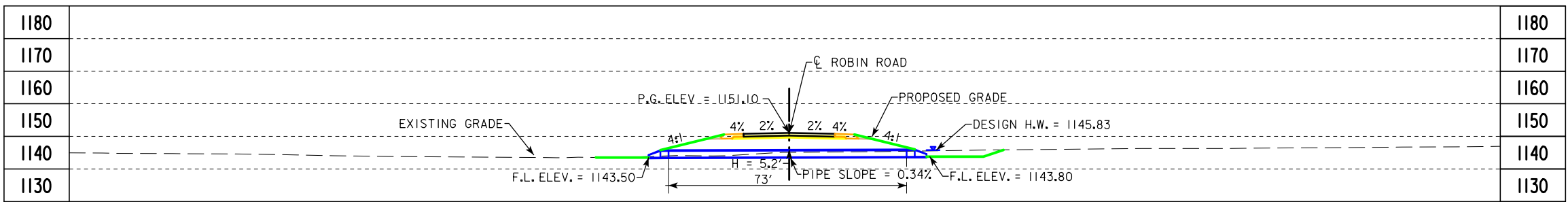
DRAINAGE AREA = 11.2 ACRES F & TILED
 DESIGN DISCHARGE, Q₅₀ = 19 CFS
 DESIGN HIGH WATER = 1151.07

LOCATION

1A-17
 T-84N R-26W
 SECTION 36
 DES MOINES TOWNSHIP
 BOONE COUNTY

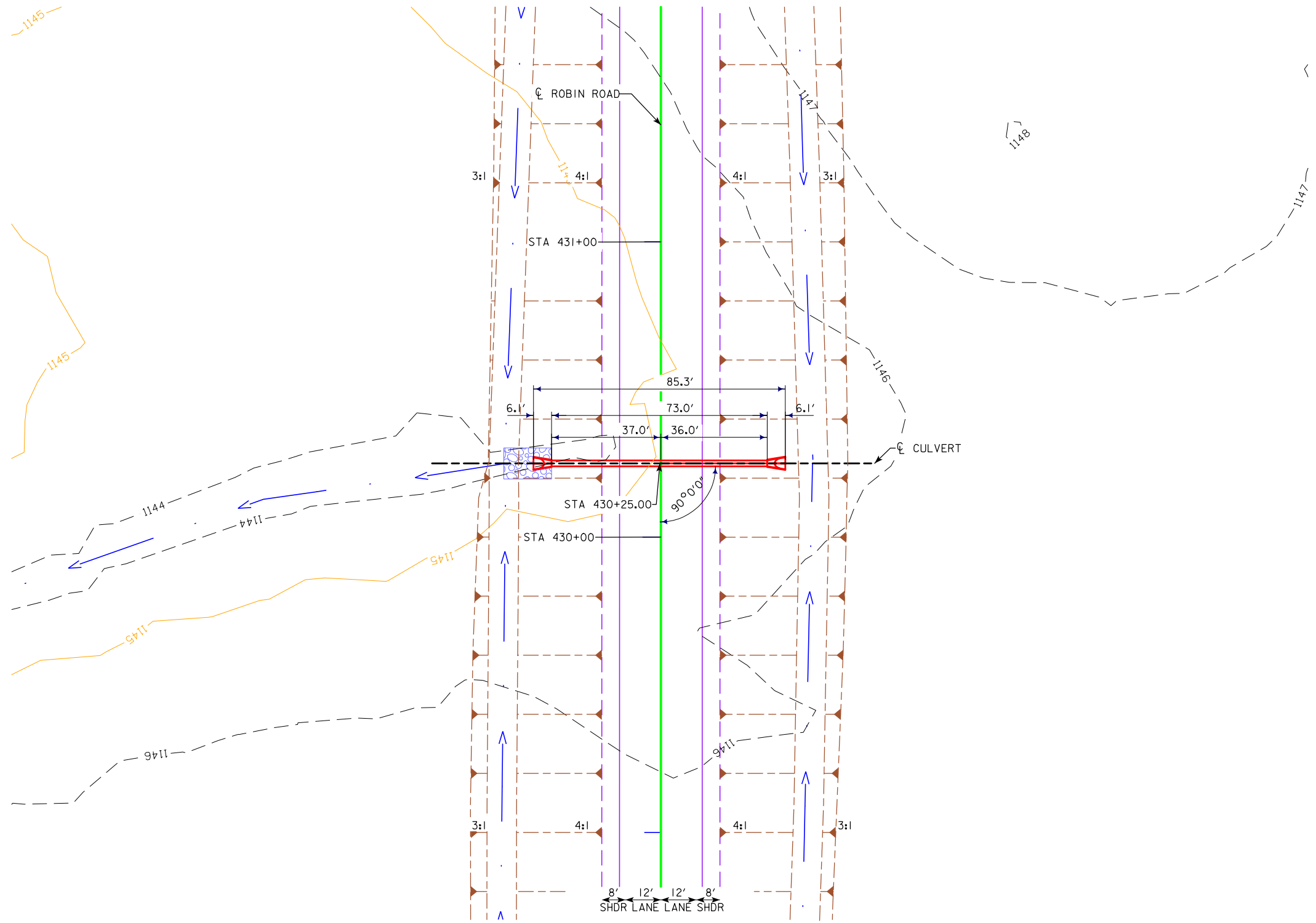


PRELIMINARY
 DESIGN FOR 0° SKEW
24" X 72'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 414+35.00 CL ROBIN ROAD MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. OF FILE NO. 31460 DESIGN NO.



LONGITUDINAL SECTION ALONG ϕ CULVERT

BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

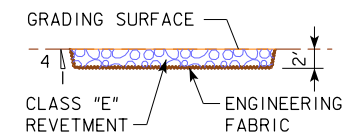


PLAT PLAN

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	16	33	11
TOTALS	16	33	11

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



UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

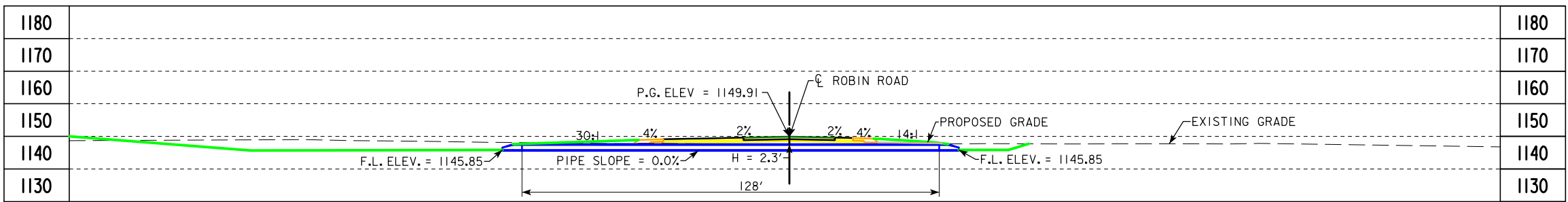
DRAINAGE AREA = 7.1 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 13 CFS
 DESIGN HIGH WATER = 1145.83

LOCATION

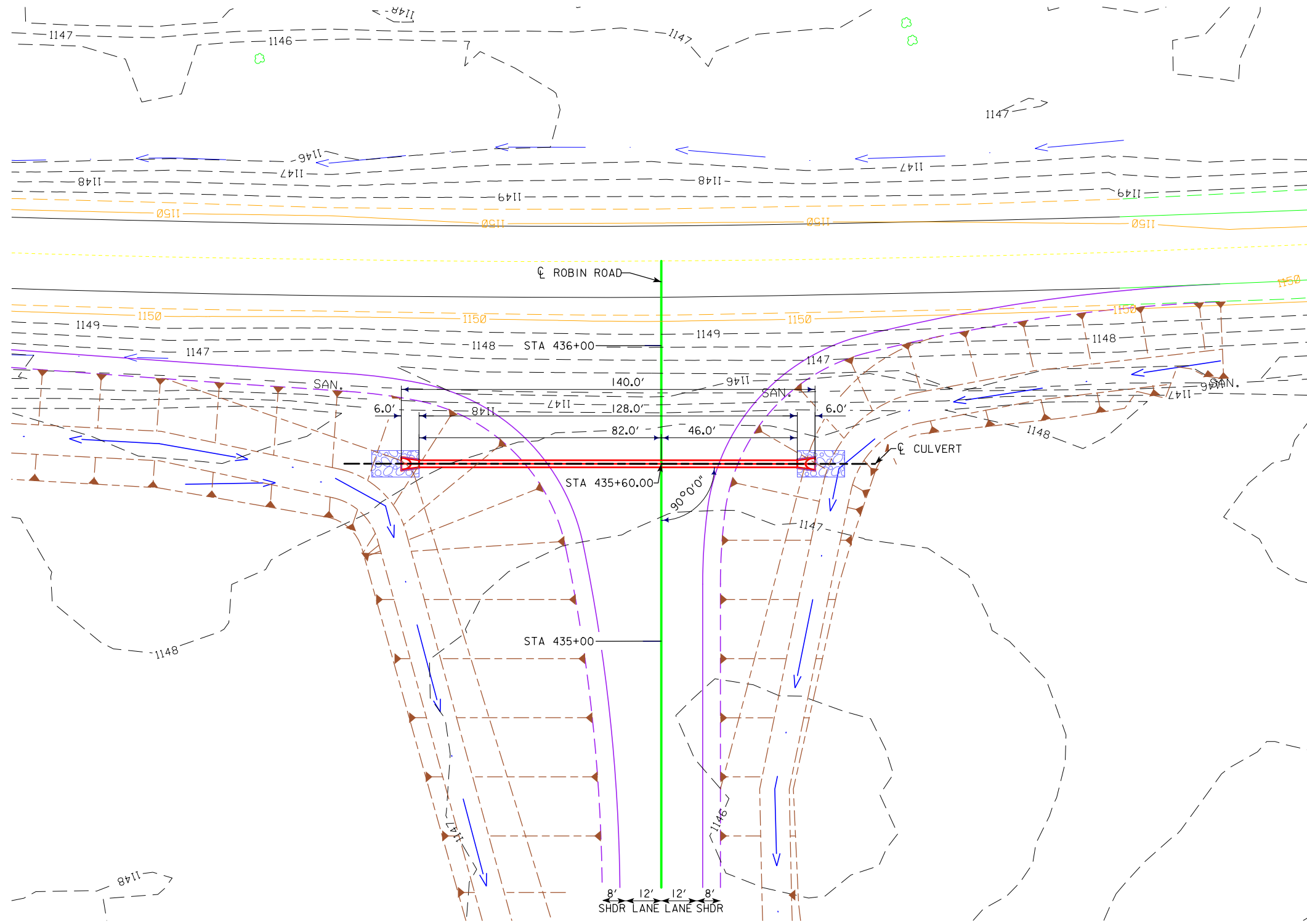
1A-17
 T-84N R-26W
 SECTION 36
 DES MOINES TOWNSHIP
 BOONE COUNTY



PRELIMINARY
 DESIGN FOR 0° SKEW
24" X 73'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 430+25.00 ϕ ROBIN ROAD MAY 2019
BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. OF FILE NO. 31460 DESIGN NO.



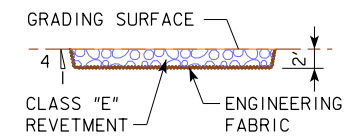
BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.



ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	13	12	9
OUTLET	13	12	9
TOTALS	26	24	18

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



UTILITIES LEGEND:

REFER TO D.I

HYDRAULIC DATA

DRAINAGE AREA = N/A
 DESIGN DISCHARGE, N/A
 DESIGN HIGH WATER = N/A

LOCATION

1A-17
 T-84N R-26W
 SECTION 36
 DES MOINES TOWNSHIP
 BOONE COUNTY



PRELIMINARY

DESIGN FOR 0° SKEW

29" X 18" X 128'

REINFORCED ARCH CONCRETE PIPE

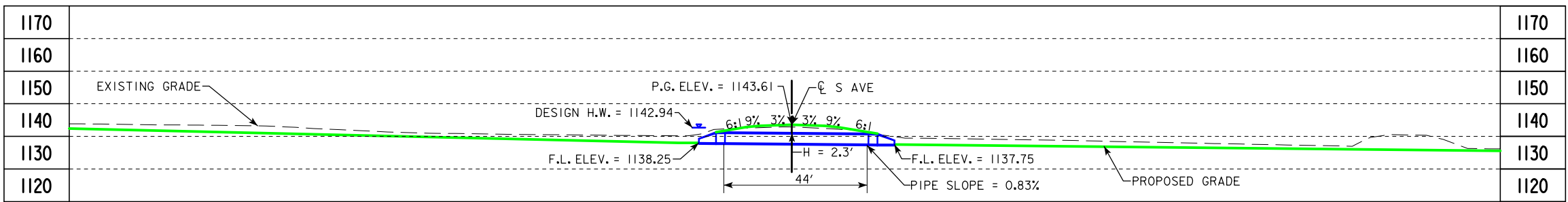
PLAT PLAN

STA. 435+60.00 CULVERT ROBIN ROAD MAY 2019

BOONE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



LONGITUDINAL SECTION ALONG ϕ CULVERT

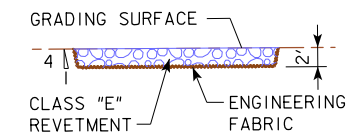
BENCH MARK CPI STA 86+71.38, 166.73' LT
 SET FENO MONUMENT. 240' W OF INTERS. S AVE & 205TH ST.
 34' N OF 205TH ST. 55' E OF FARM ENT. 33' SE OF POWER POLE.

NOTES:
 BURY CULVERT 3"

ESTIMATED REVETMENT QUANTITIES INCLUDED WITH ROAD PLANS

LOCATION	REVETMENT CL. "E" (TON)	ENGINEERING FABRIC (SY)	EXCAVATION (CY)
INLET	0	0	0
OUTLET	31	55	22
TOTALS	31	55	22

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

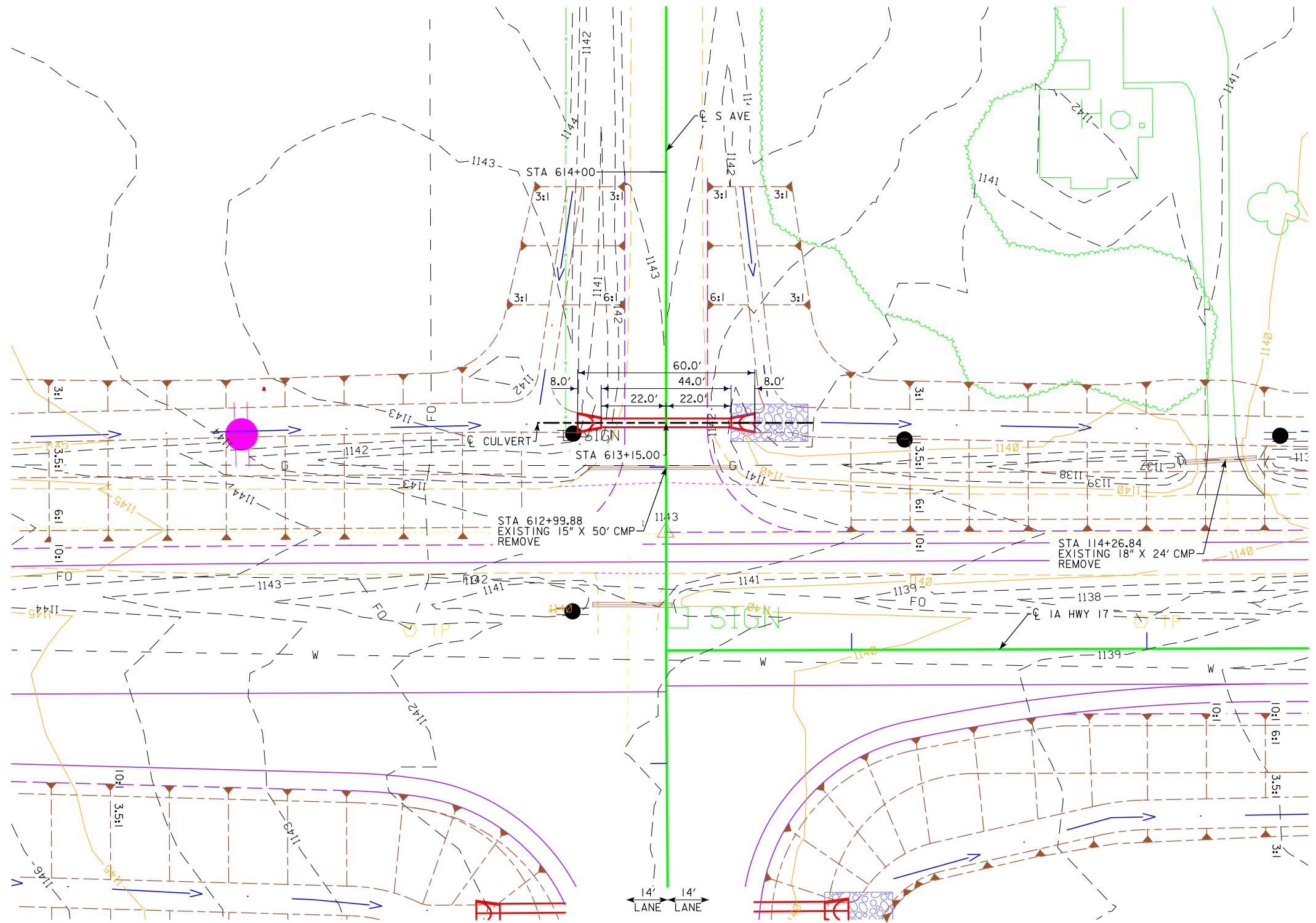


UTILITIES LEGEND:
 REFER TO D.I.

HYDRAULIC DATA
 DRAINAGE AREA = 48.8 ACRES F & TILED
 DESIGN DISCHARGE, Q_{50} = 58 CFS
 DESIGN HIGH WATER = 1142.94

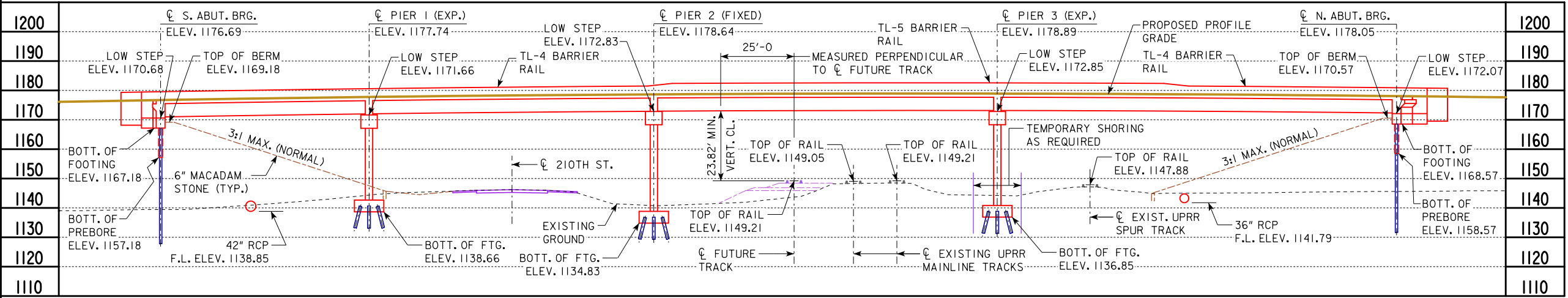
LOCATION

1A-17
 T-84N R-25W & R-26W
 SECTIONS 19 & 24
 JACKSON TOWNSHIP
 BOONE COUNTY



PLAT PLAN

DESIGN FOR 0° SKEW
36" X 44'
REINFORCED CONCRETE PIPE
 PLAT PLAN
 STA. 613+15.00 ϕ S AVE
 BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 1 FILE NO. 31460 DESIGN NO. _____



RAILROAD MILEPOST DATA

DOT CROSSING INVENTORY NUMBER: 190721W

UNION PACIFIC RAILROAD COMPANY MILEPOST: 0199.430

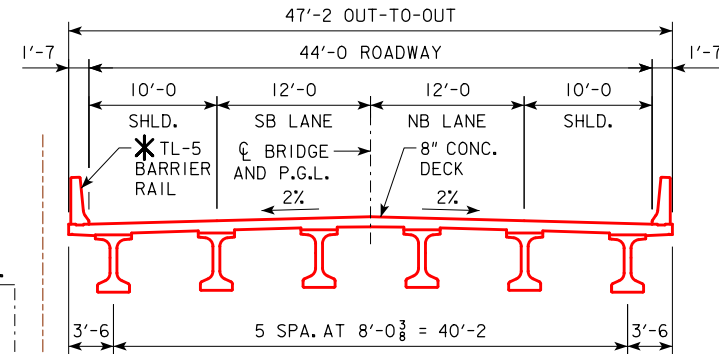
MILEPOST INCREASING TOWARD WEST

UTILITIES LEGEND:

- TV - CABLE TV - MEDIACOM
- FO - FIBER OPTIC - CENTURYLINK
- W - WATER - XENIA RURAL WATER
- SAN. - SANITARY SEWER - XENIA RURAL WATER
- E2 - ELECTRIC - STATE OF IOWA

LONGITUDINAL SECTION ALONG CL BRIDGE

TOP OF BRIDGE DECK AT CENTERLINE ROADWAY IS 0.03' BELOW THE PROFILE GRADE LINE TO ACCOUNT FOR THE PARABOLIC CROWN.



BRIDGE CROSS SECTION

(LOOKING NORTH)
 BTD BEAMS
 * TRANSITION TO TL-4 BARRIER AT 10:1 SLOPE OUTSIDE UPRR ROW AND 25' BEYOND CL SPUR TRACK.

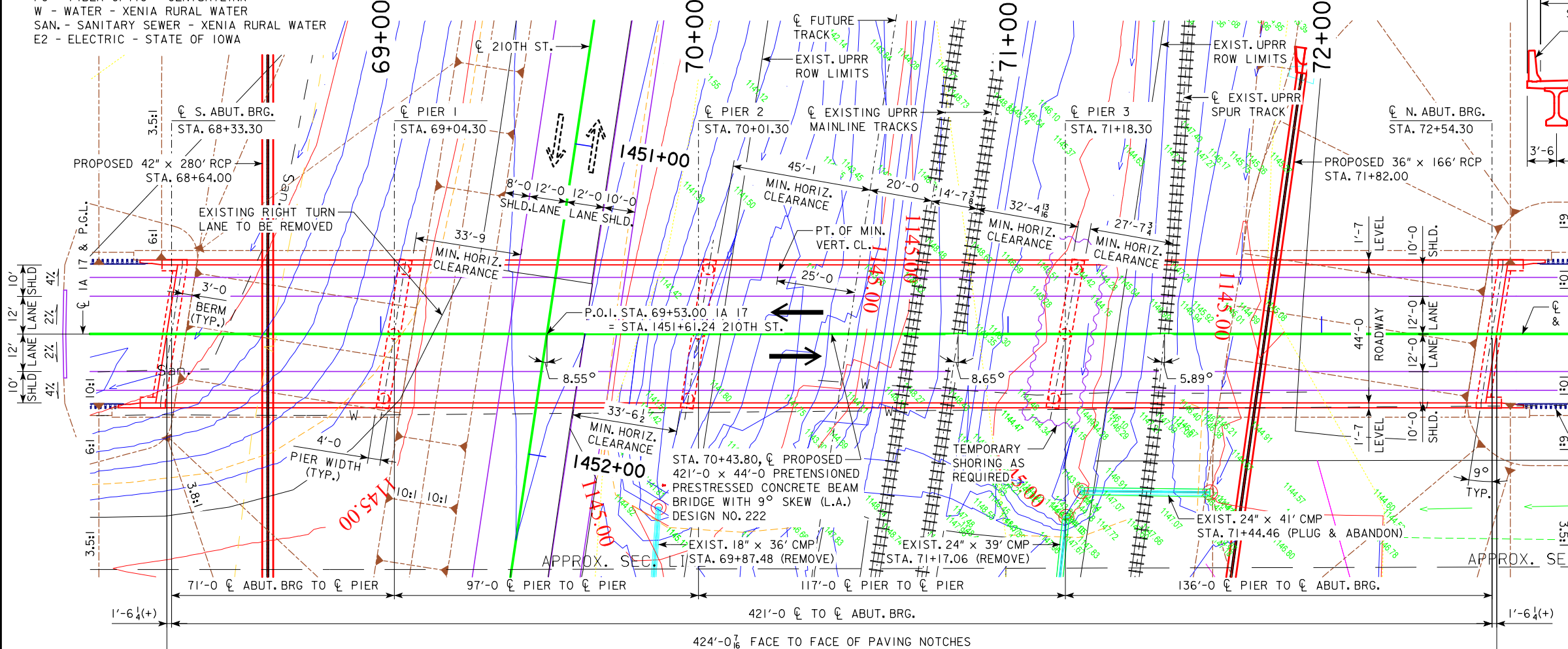
IA 17 TRAFFIC ESTIMATE

2015 AADT	3,800	V.P.D.
2035 AADT	4,500	V.P.D.
2035 DHV	-	V.P.H.
TRUCKS	12	%
TOTAL DESIGN ESALS	-	

210TH STREET TRAFFIC ESTIMATE

2015 AADT	1,800	V.P.D.
2035 AADT	700	V.P.D.
2035 DHV	-	V.P.H.
TRUCKS	12	%
TOTAL DESIGN ESALS	-	

PRELIMINARY



SITUATION PLAN



NOTES:

- ALL OFFSETS ARE MEASURED FROM CL OF IA 17 U.N.O.
- ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
- PIER TYPE - FRAME PIER
- PIERS EXEMPT FROM VEHICULAR COLLISION FORCE DESIGN.
- PIER 3 SHALL HAVE A PIER PROTECTION WALL.
- BEAM TYPE - BTD BEAMS, DEPTH = 4'-6."
- TL-4 & TL-5 BARRIER PROPOSED.
- NO AESTHETIC TREATMENTS ARE INTENDED DURING FINAL DESIGN.
- ABUTMENT SLOPES TO BE CONFIRMED DURING FINAL DESIGN.

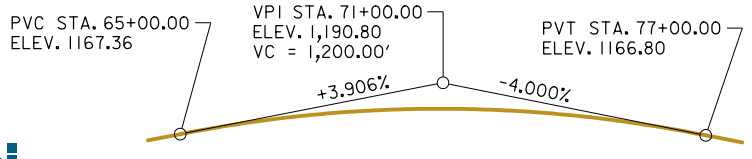
LOCATION

IA 17 OVER U.P.R.R. & 210TH ST.
 T-84N R-25W
 SECTION 30
 JACKSON TOWNSHIP
 BOONE COUNTY
 FHWA NO. 701055
 FRA. NO. 190721W
 LATITUDE 42.052103°
 LONGITUDE -93.815794°

MINIMUM VERTICAL CLEARANCE

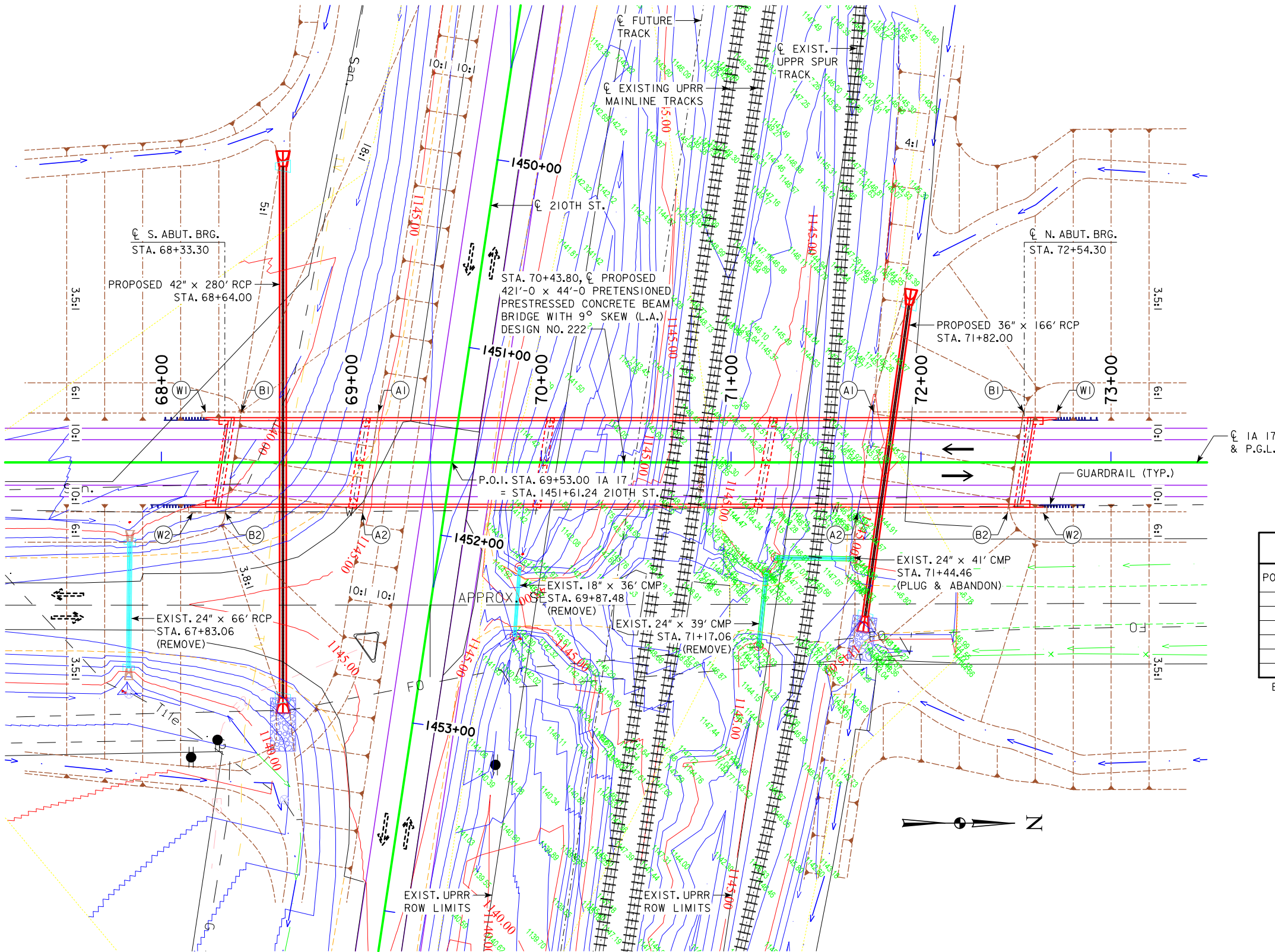
OVERHEAD STATION = 70+26.84, OFFSET 20.08' LT.
 OVERHEAD ELEVATION = 1178.40
 DEPTH OF SUPERSTRUCTURE = 5.33
 UNDERPASS STATION = 3310+11.61, OFFSET 59.63' LT.
 UNDERPASS ELEVATION = 1149.25
 MINIMUM VERTICAL CLEARANCE = 23.82'

PROPOSED PROFILE GRADE



421'-0" x 44'-0" PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

SPANS (71'-0", 97'-0", 117'-0", 136'-0") (BTD BEAMS)
 SITUATION PLAN
 STATION 70+43.80
 BOONE COUNTY
 IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
 DESIGN SHEET NO. 1 OF 3 FILE NO. 31460 DESIGN NO. 222



ESTIMATED QUANTITIES		
DESCRIPTION	LOCATION	QUANTITY
MACADAM STONE SLOPE PROTECTION	SOUTH ABUT.	465.9 SQ. YDS.
MACADAM STONE SLOPE PROTECTION	NORTH ABUT.	515.6 SQ. YDS.
TOTAL		981.5 SQ. YDS.

FOR DETAILS, SEE STANDARD SHEET 1006D.

ITEMS TO BE INCLUDED IN "MACADAM STONE SLOPE PROTECTION":
 EXCAVATING, SHAPING AND COMPACTING
 ENGINEERING FABRIC
 MACADAM STONE
 4" x 6" TREATED TIMBER EDGING
 1/2" φ STEEL PINS (OR REBARS)
 POROUS BACKFILL OR GRANULAR SUBBASE BACKFILL AT
 FRONT FACE ABUTMENT FOOTING

BERM SLOPE LOCATION TABLE						
POINTS	SOUTH ABUTMENT			NORTH ABUTMENT		
	STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.
A1	69+14.30	26.58' LT.	1145.71	71+75.04	26.58' LT.	1145.00
A2	69+05.88	26.58' RT.	1145.51	71+66.62	26.58' RT.	1144.84
B1	68+42.07	26.58' LT.	1169.18	72+53.95	26.58' LT.	1170.57
B2	68+33.65	26.58' RT.	1169.18	72+45.53	26.58' RT.	1170.57
W1	68+23.28	26.58' LT.	1175.96	72+71.28	26.58' LT.	1177.30
W2	68+16.32	26.58' RT.	1175.83	72+64.32	26.58' RT.	1177.38

BERM SLOPE ELEVATIONS REFLECT THE GRADING SURFACE

UTILITIES LEGEND:
 TV - CABLE TV - MEDIACOM
 FO - FIBER OPTIC - CENTURYLINK
 W - WATER - XENIA RURAL WATER
 SAN. - SANITARY SEWER - XENIA RURAL WATER
 E2 - ELECTRIC - STATE OF IOWA

SITE PLAN
 ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED

PRELIMINARY

DESIGN FOR 9° SKEW (L.A.)

421'-0 x 44'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE

SPANS (71'-0, 97'-0, 117'-0, 136'-0) (BTD BEAMS)

SITE PLAN

STATION 70+43.80 FEBRUARY, 2019

BOONE COUNTY

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. 2 OF 3 FILE NO. 31460 DESIGN NO. 222



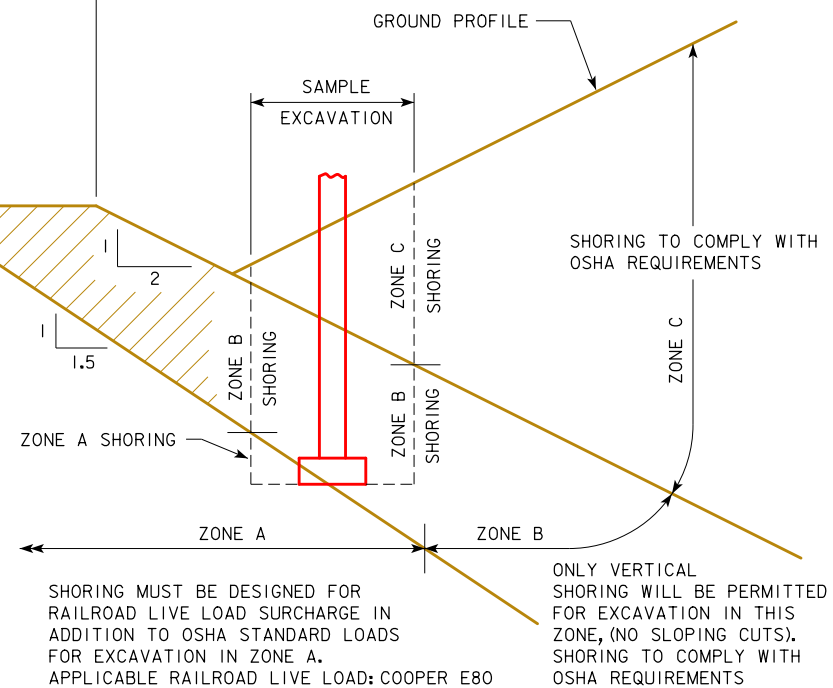
TOP OF RAIL ELEVATIONS
(STATIONS INCREASE WITH MILEPOST INCREASE - INCREASING TOWARD WEST)

UPRR TRACKS								
ALIGNMENT: SOUTH MAIN LINE			ALIGNMENT: NORTH MAIN LINE			ALIGNMENT: SPUR TRACK		
STATION	S. RAIL ELEV.	N. RAIL ELEV.	STATION	S. RAIL ELEV.	N. RAIL ELEV.	STATION	S. RAIL ELEV.	N. RAIL ELEV.
2300+00	1144.60	1144.58	3300+00	1144.65	1144.67	4300+00	1142.98	1142.92
2301+00	1145.10	1145.08	3301+00	1145.12	1145.13	4301+00	1143.61	1143.55
2302+00	1145.54	1145.48	3302+00	1145.56	1145.55	4302+00	1144.11	1144.12
2303+00	1145.96	1145.89	3303+00	1145.96	1145.94	4303+00	1144.82	1144.87
2304+00	1146.65	1146.41	3304+00	1146.35	1146.29	4304+00	1145.19	1145.29
2305+00	1146.88	1146.86	3305+00	1146.78	1146.80	4305+00	1145.50	1145.52
2306+00	1147.29	1147.28	3306+00	1147.21	1147.20	4306+00	1146.18	1146.14
2307+00	1147.66	1147.67	3307+00	1147.74	1147.66	4307+00	1146.76	1146.75
2308+00	1148.10	1148.09	3308+00	1148.20	1148.18	4308+00	1147.23	1147.25
2309+00	1148.64	1148.65	3309+00	1148.68	1148.67	4309+00	1147.67	1147.63
① 2310+00	1149.03	1149.05	① 3310+00	1149.20	1149.21	① 4310+00	1147.88	1147.86
2311+00	1149.56	1149.56	3311+00	1149.72	1149.71	4311+00	1148.21	1148.26
2312+00	1150.17	1150.12	3312+00	1150.16	1150.17	4312+00	1148.82	1148.87
2313+00	1150.67	1150.56	3313+00	1150.56	1150.53	4313+00	1149.23	1149.23
2314+00	1151.19	1150.97	3314+00	1150.93	1150.90	4314+00	1149.55	1149.46
2315+00	1151.63	1151.63	3315+00	1151.26	1151.23	4315+00	1150.03	1149.89
2316+00	1152.10	1152.09	3316+00	1151.59	1151.51	4316+00	1150.47	1150.35
2317+00	1152.52	1152.45	3317+00	1152.00	1151.92	4317+00	1150.92	1150.83
2318+00	1152.81	1152.72	3318+00	1152.39	1152.23	4318+00	1151.32	1151.24
2319+00	1153.08	1152.98	3319+00	1152.74	1152.66	4319+00	1151.61	1151.58
2320+00	1153.42	1153.33	3320+00	1153.05	1153.01	4320+00	1151.88	1151.84

① EXISTING TRACK STA. AT ϕ BRIDGE.

GENERAL SHORING NOTES:

- ALL DIMENSIONS ARE MEASURED PERPENDICULAR TO TRACK.
- PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE RAILROAD DETAILED PLANS INDICATING THE NATURE AND EXTENT OF THE TRACK PROTECTION SHORING PROPOSED. THE CONTRACTOR SHALL INSTALL THE TEMPORARY SHORING SYSTEM PER THE APPROVED PLANS. DESIGN OF THE TEMPORARY SHORING SYSTEM TO COMPLY WITH GUIDELINES FOR TEMPORARY SHORING.
- FOR EXCAVATIONS WHICH ENCROACH INTO ZONE A OR B, SHORING PLANS SHALL BE ACCOMPANIED BY DESIGN CALCULATIONS. PLANS AND CALCULATIONS MUST BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF IOWA.

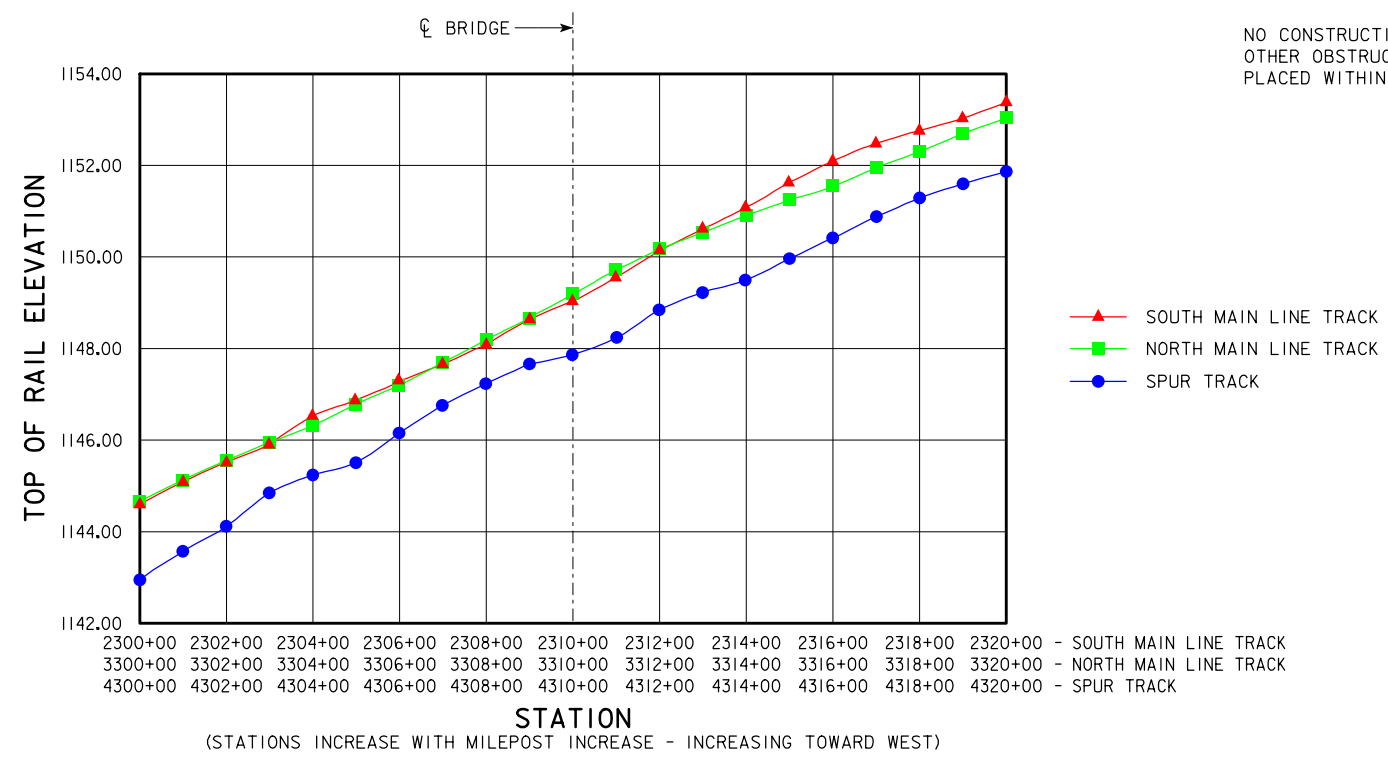


GENERAL EXCAVATION ZONES

RAILROAD GENERAL NOTES:

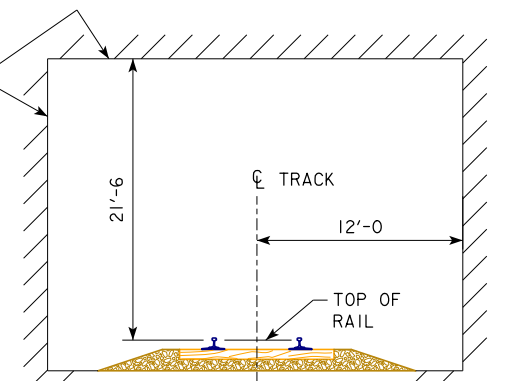
- RAILROAD REVIEW AND APPROVAL OF SHORING, ERECTION, DEMOLITION, AND FALSEWORK IS REQUIRED. ALLOW A MINIMUM OF FOUR WEEKS FOR THE REVIEW AND APPROVAL OF EACH SUBMITTAL.
- THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.
- THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
- THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.
- ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.
- ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.
- ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
- ALL CONSTRUCTION PHASING THAT MAY IMPACT THE RAILROAD OPERATIONS SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
- FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.
- ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
- FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD COORDINATION REQUIREMENTS AS PART OF SPECIAL PROVISIONS.

NOTE:
UPRR = UNION PACIFIC RAILROAD



UPRR TRACK PROFILES
(STATIONS INCREASE WITH MILEPOST INCREASE - INCREASING TOWARD WEST)

NO CONSTRUCTION ACTIVITIES OR OTHER OBSTRUCTION SHALL BE PLACED WITHIN THESE LIMITS



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE
(NORMAL TO RAILROAD)

PRELIMINARY
DESIGN FOR 9° SKEW (L.A.)
421'-0 x 44'-0 PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGE
SPANS (71'-0, 97'-0, 117'-0, 136'-0) (BTD BEAMS)
STANDARD RAILROAD INFORMATION
STATION 70+43.80 FEBRUARY, 2019
BOONE COUNTY
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. 3 OF 3 FILE NO. 31460 DESIGN NO. 222



LINE STYLE LEGEND OF CROSS SECTION SHEETS (ROAD)

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

LINE STYLE LEGEND OF CROSS SECTION SHEETS (SOILS)

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

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

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

SYMBOL LEGEND OF CROSS SECTION SHEETS

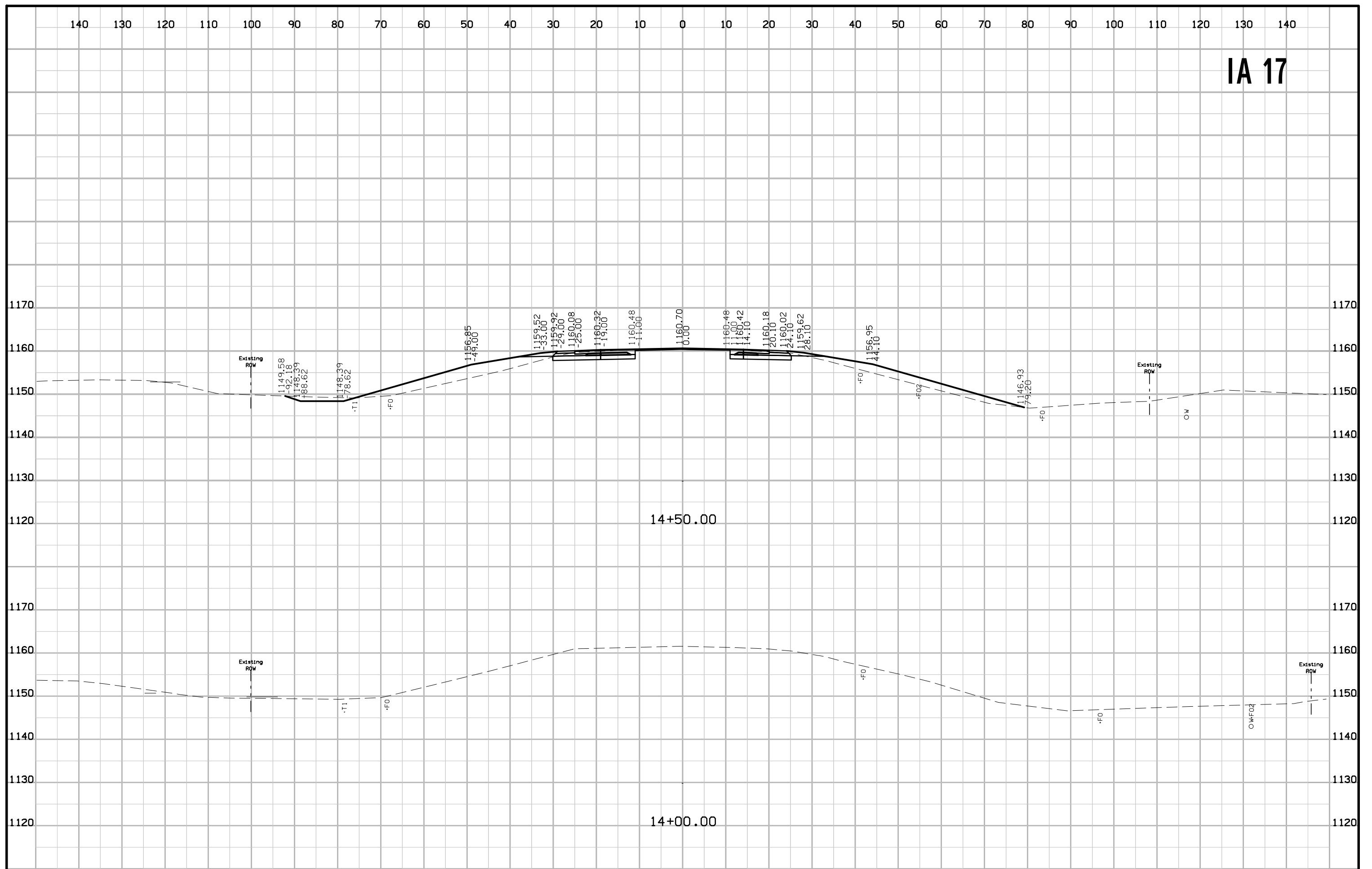
- Existing ROW
----- Existing Right-of-Way Limit
- Proposed ROW
----- Proposed Right-of-Way Limit
- Temporary ROW
----- Temporary Right-of-Way Limit

Note: Horizontal locations of utilities are shown for information only. Vertical locations are not accurate.

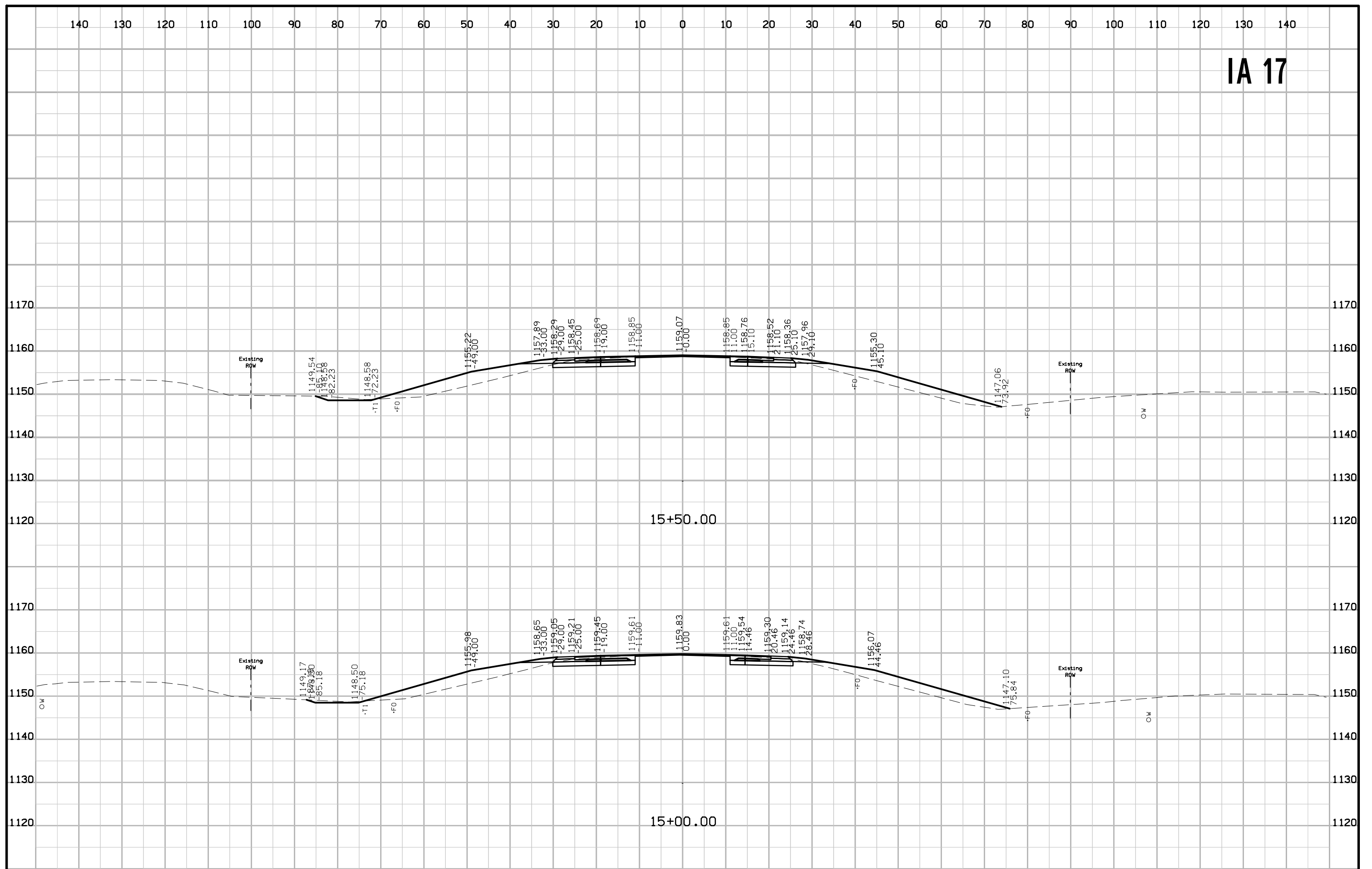
**CROSS SECTION
LEGEND AND SYMBOL
INFORMATION SHEET**

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

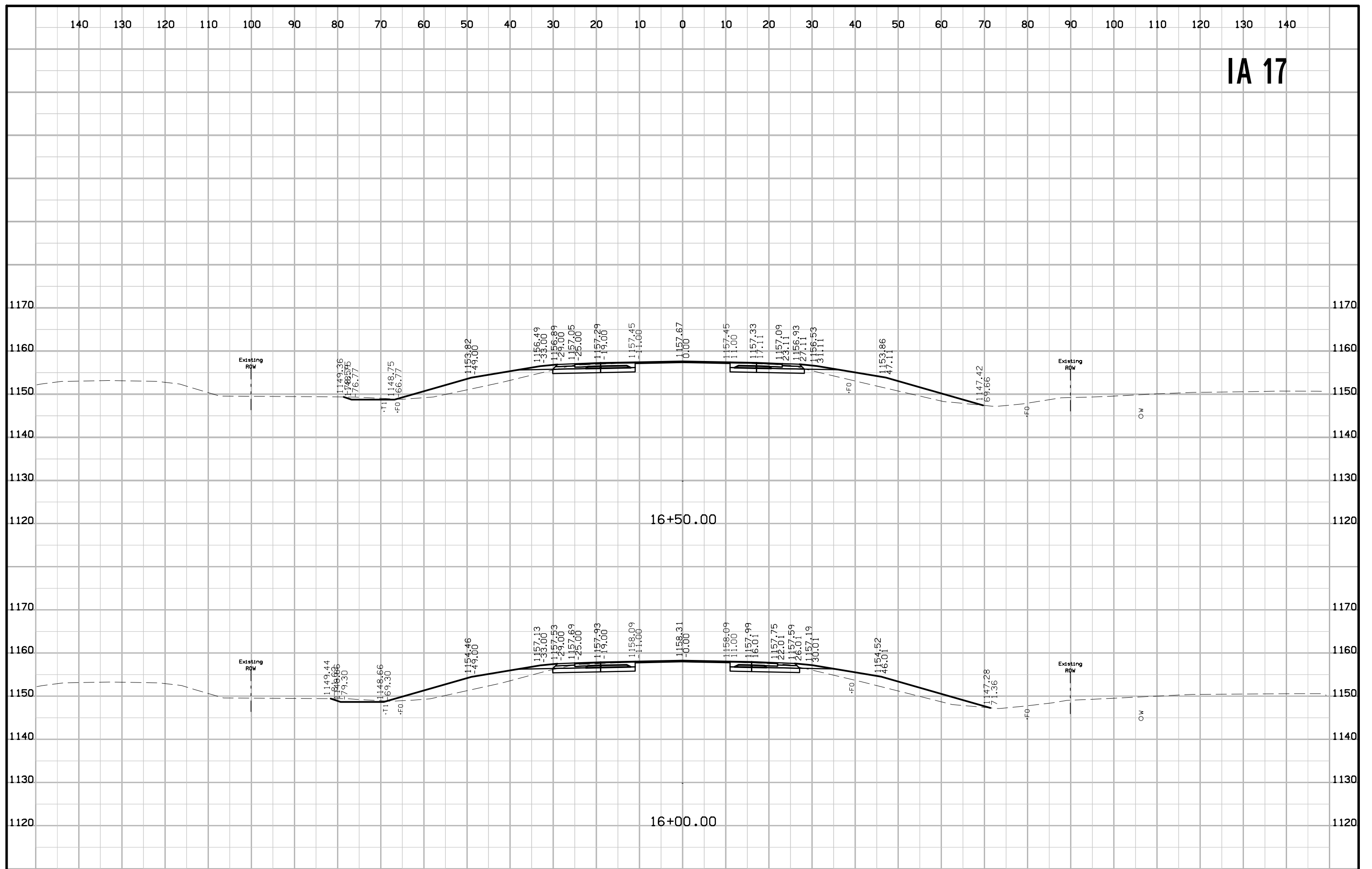
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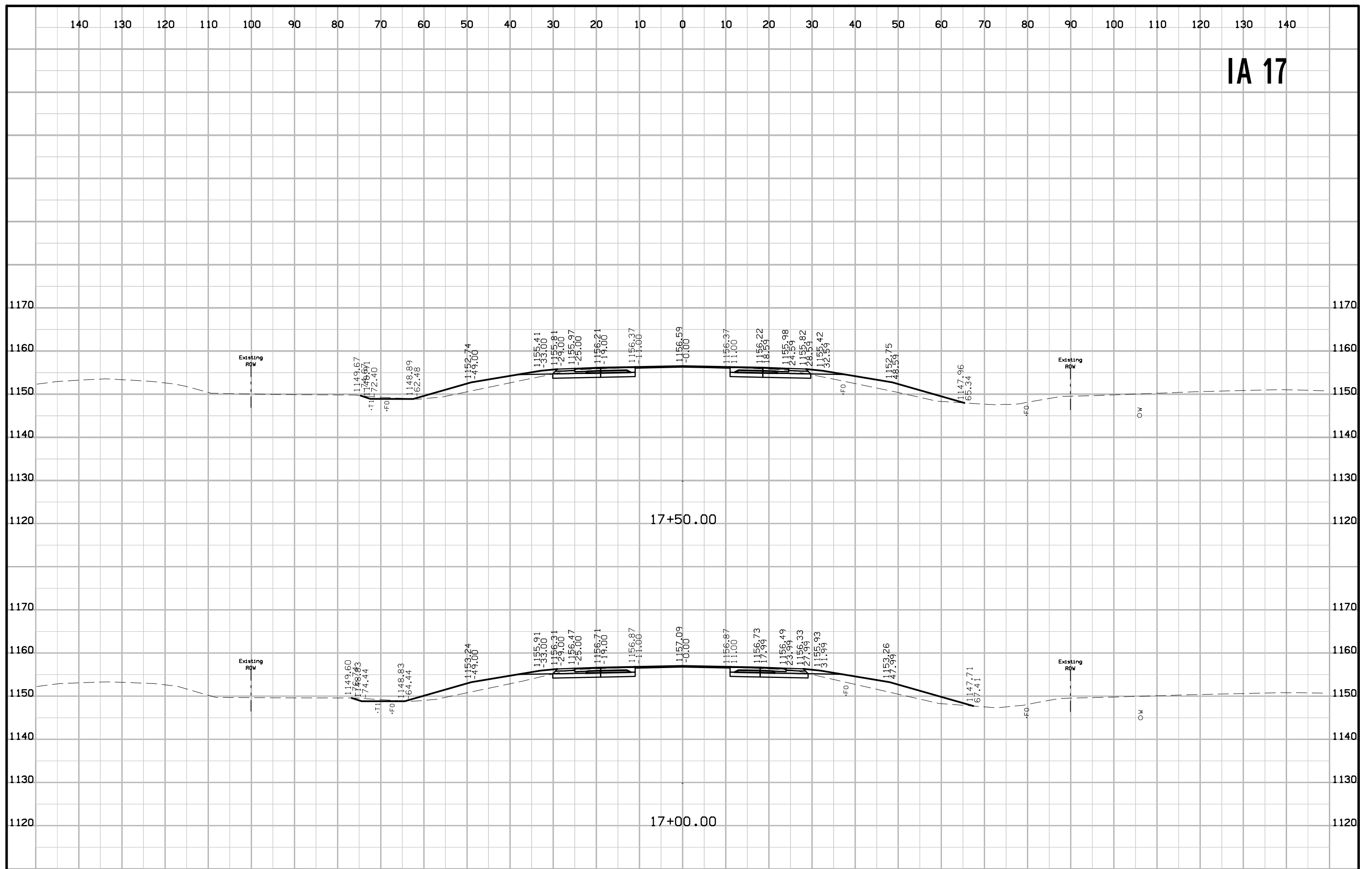
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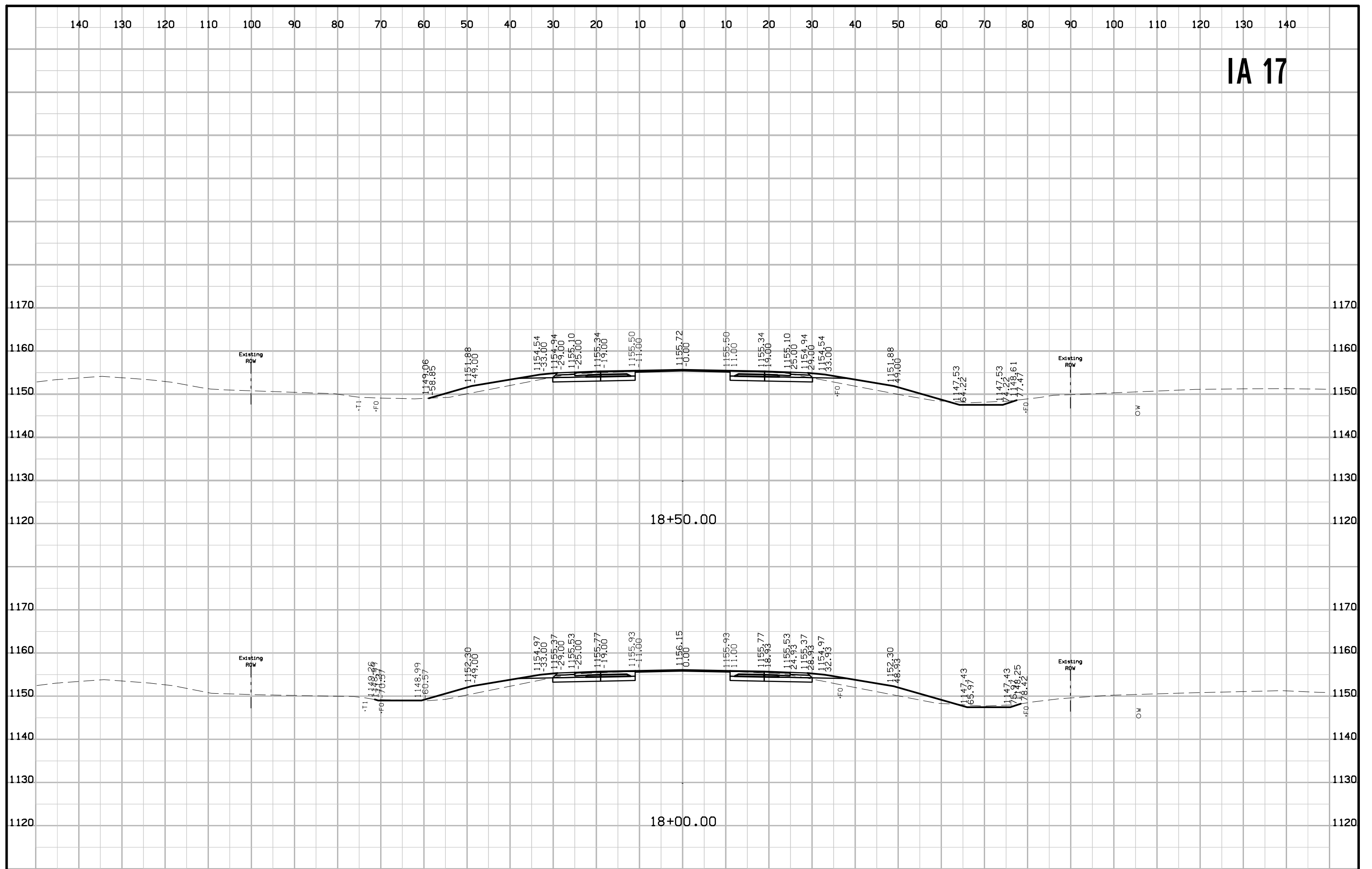
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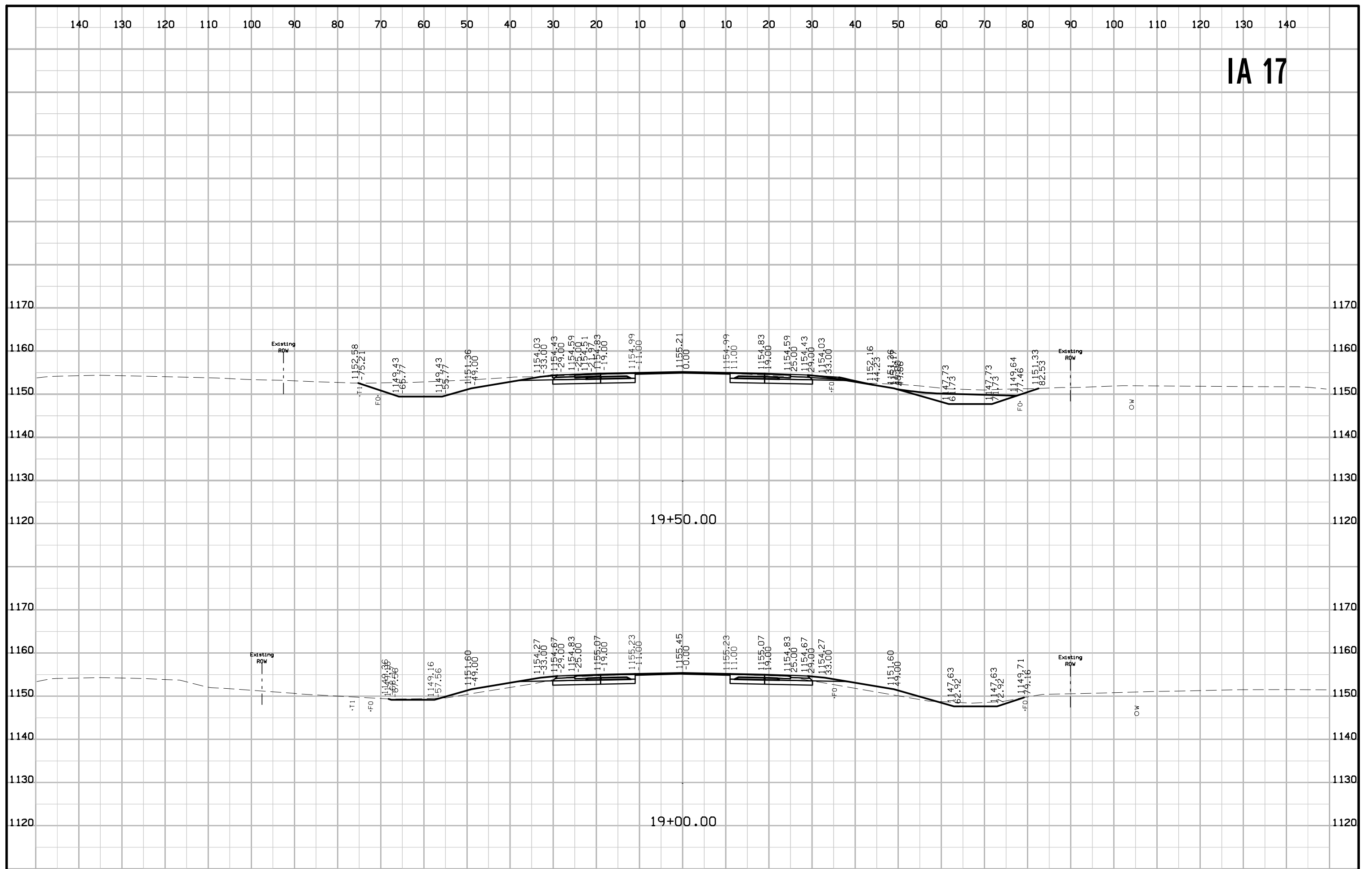
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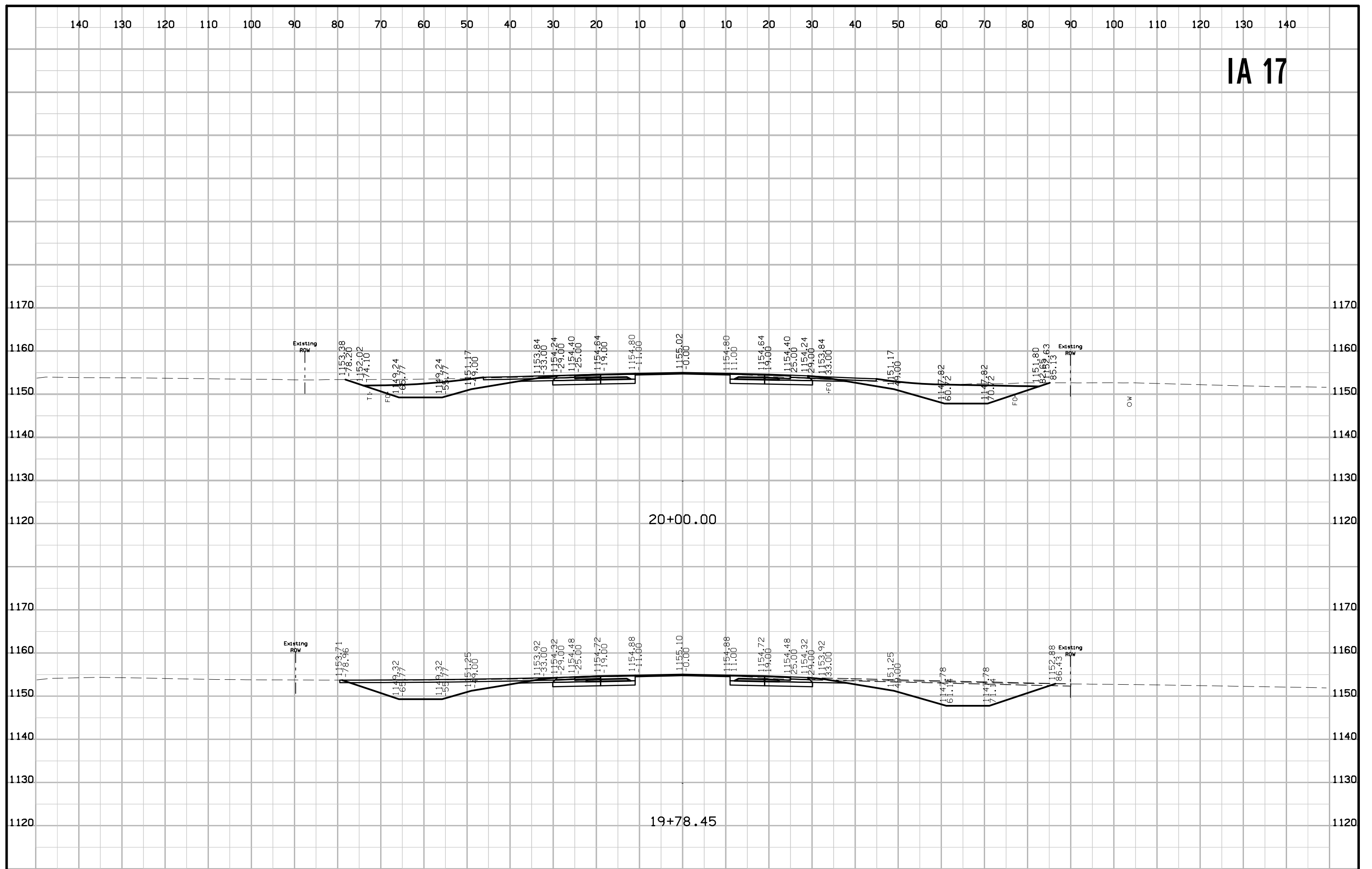
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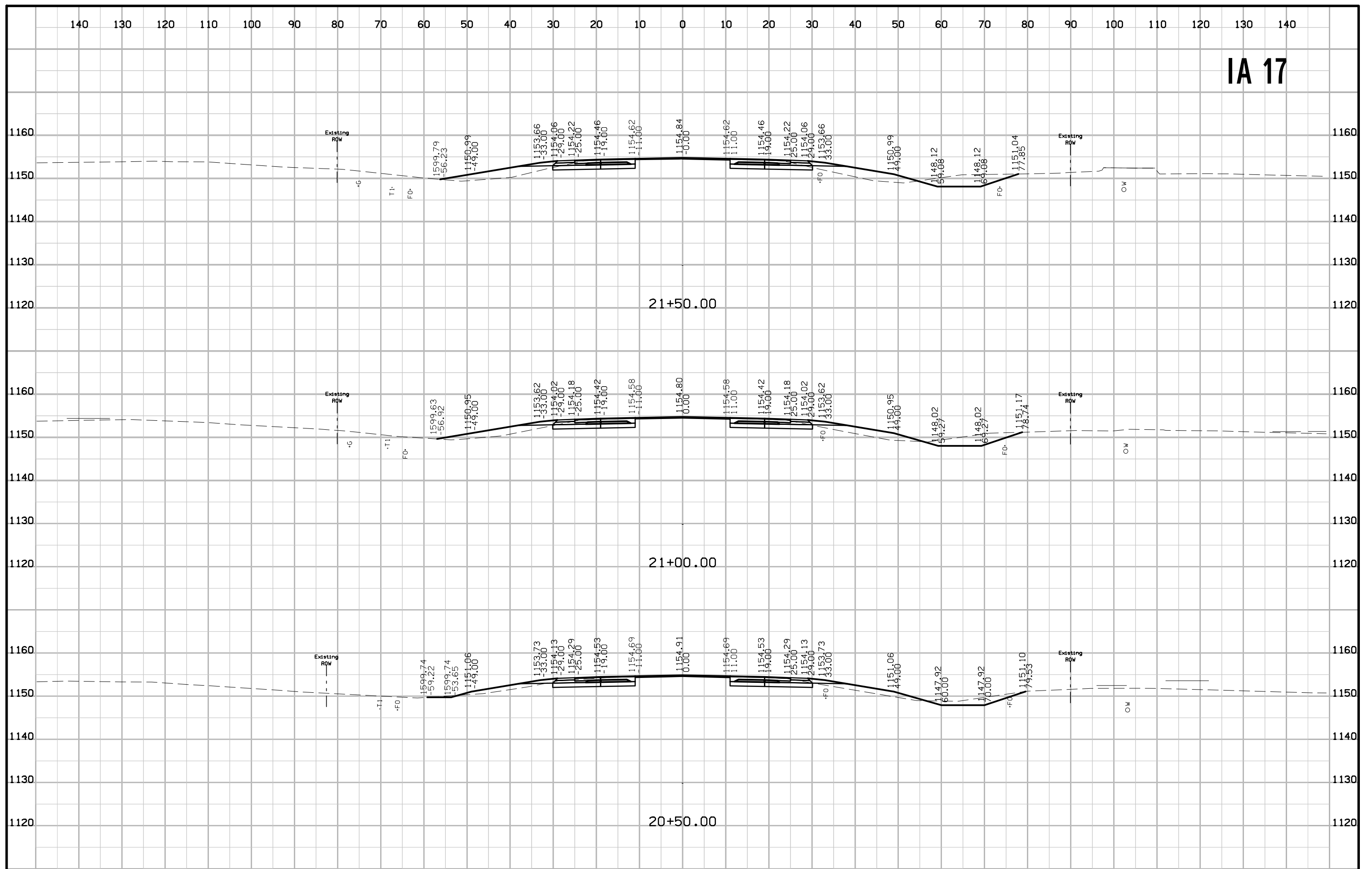
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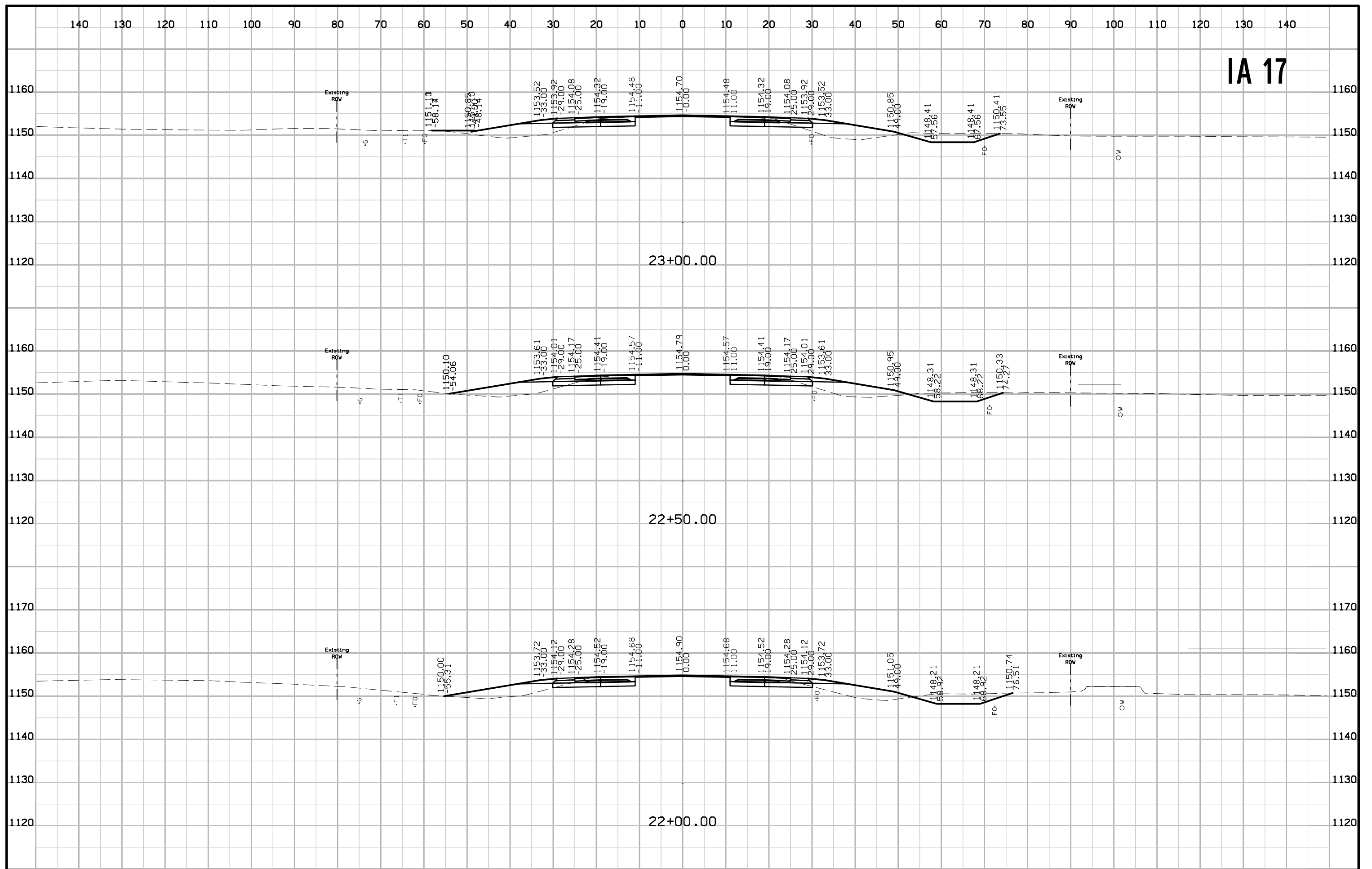
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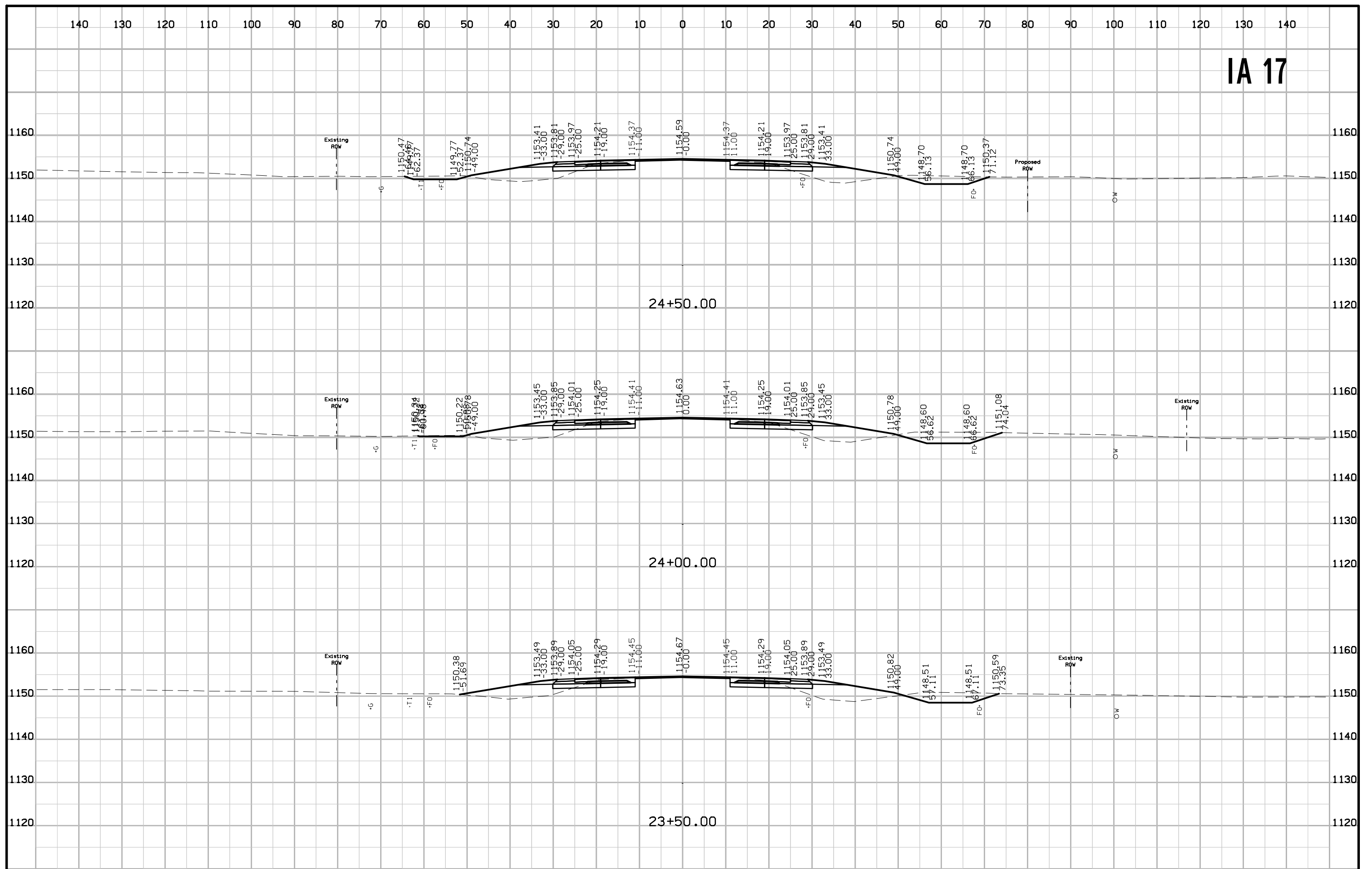
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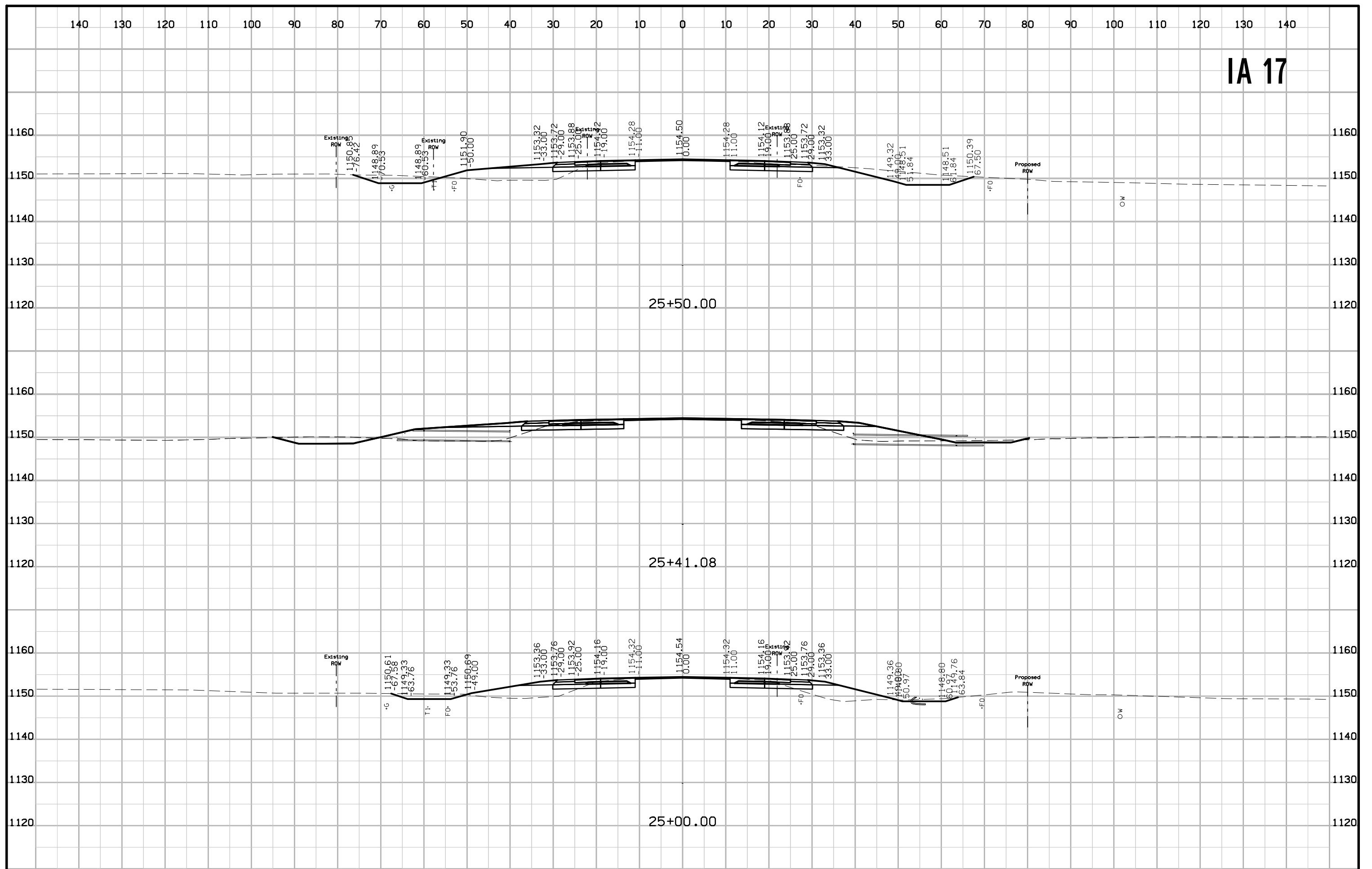
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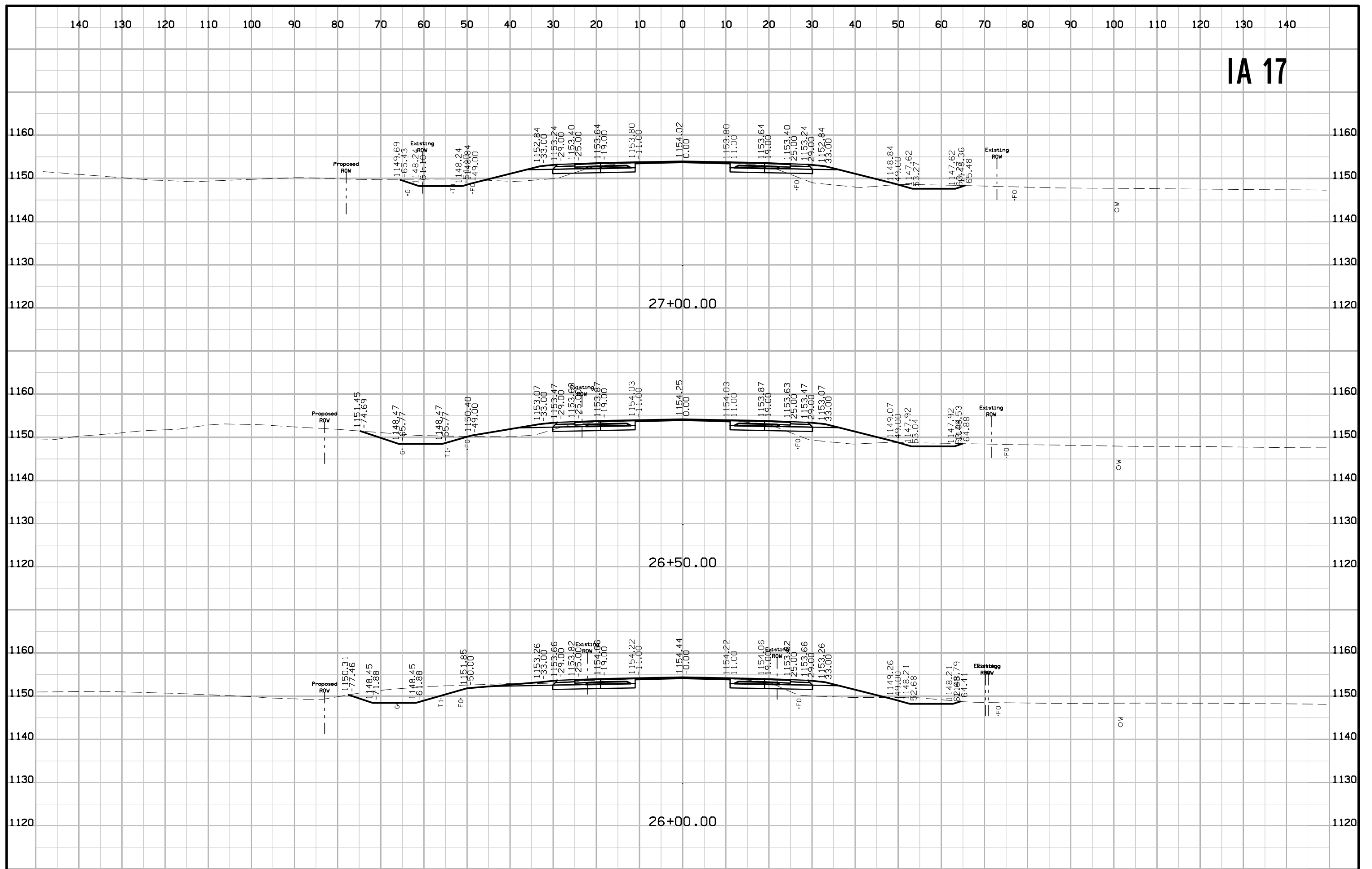
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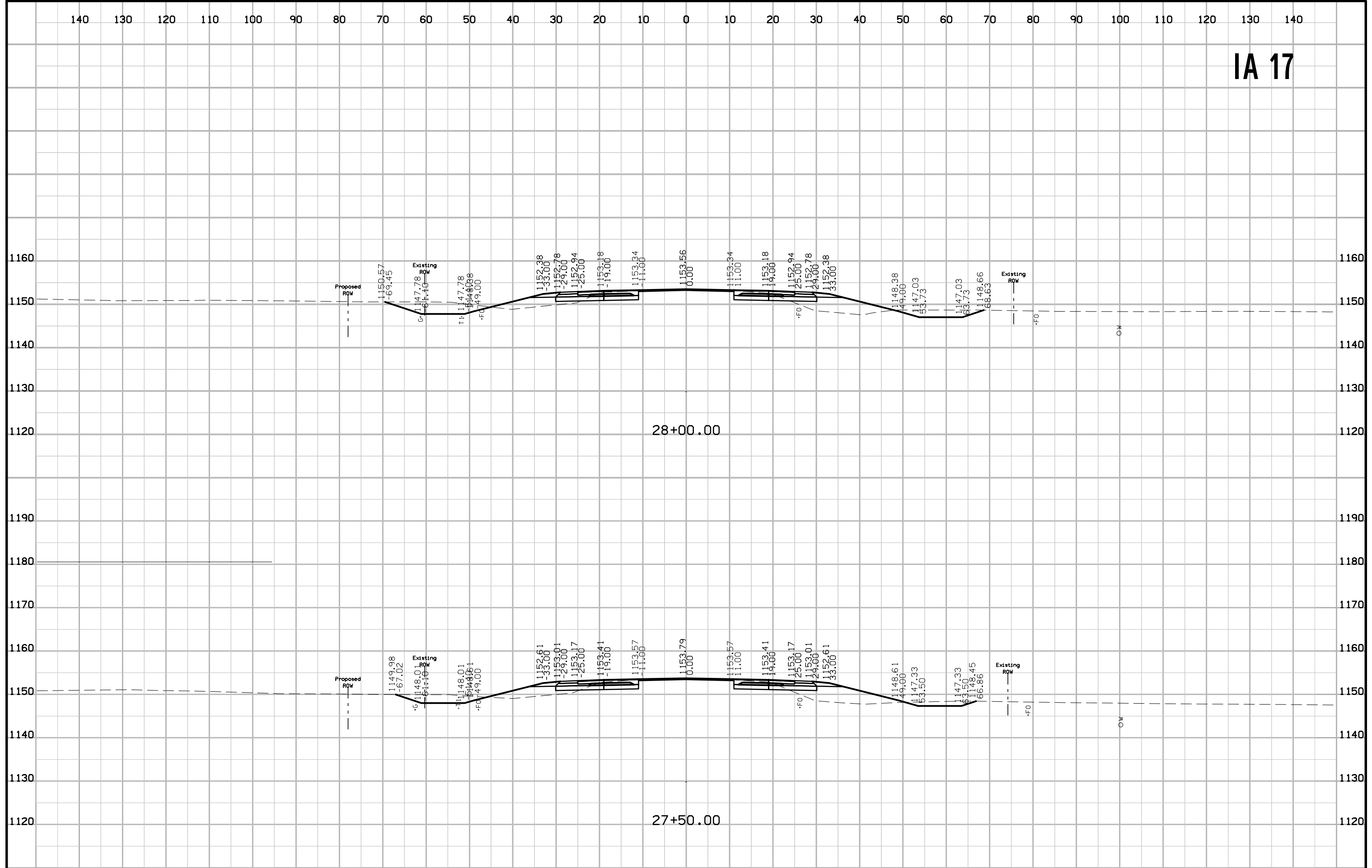
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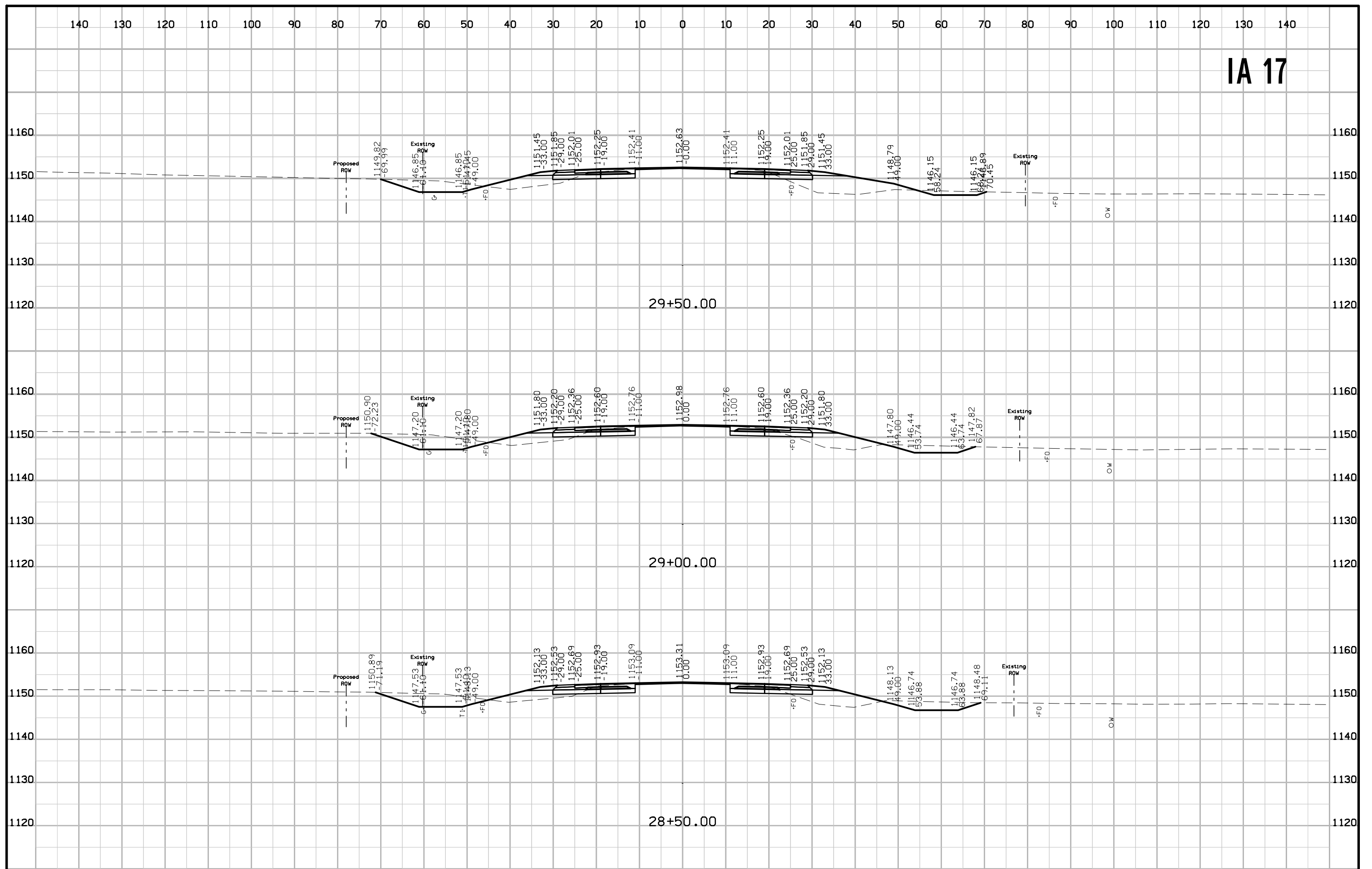
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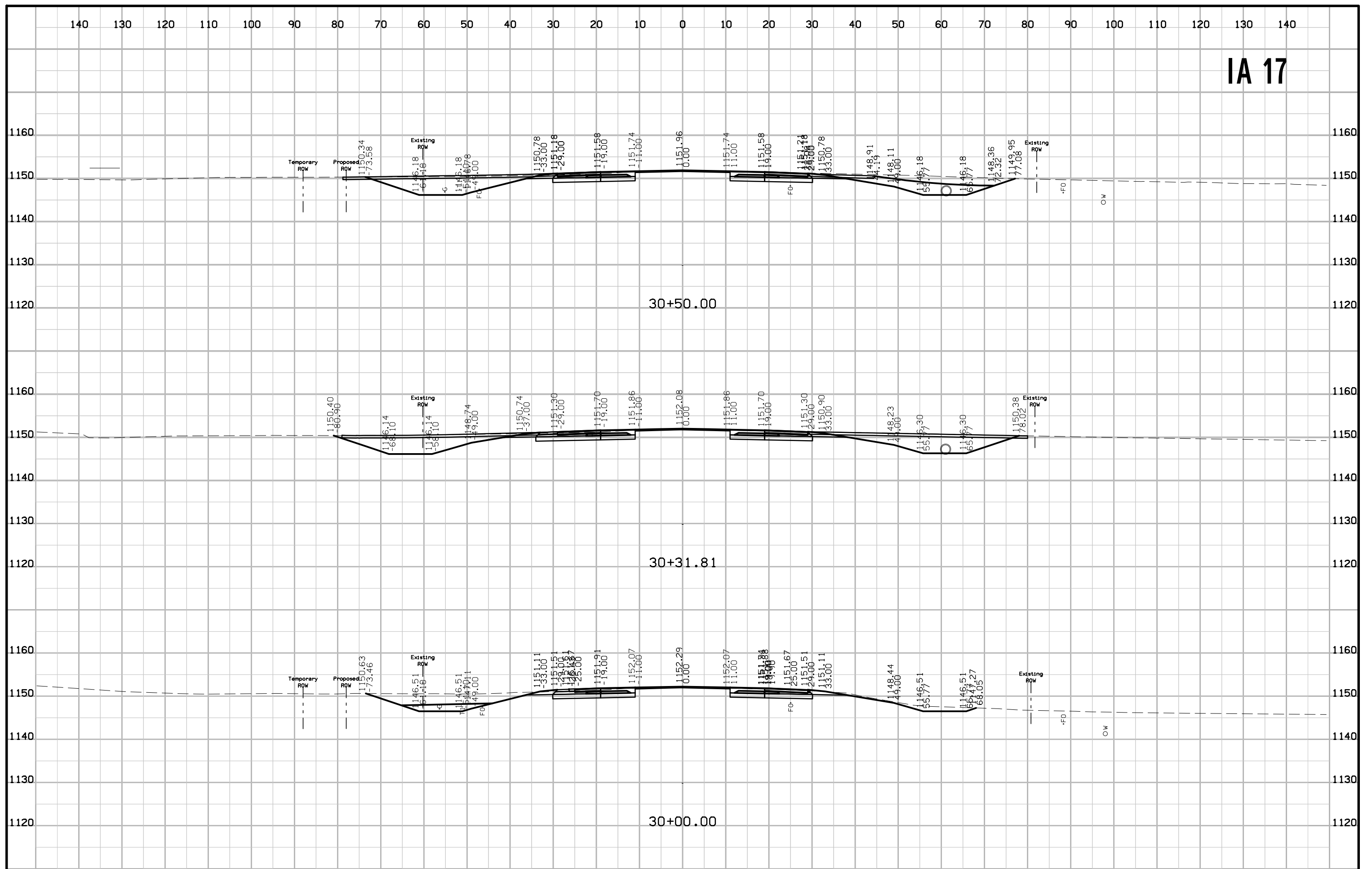
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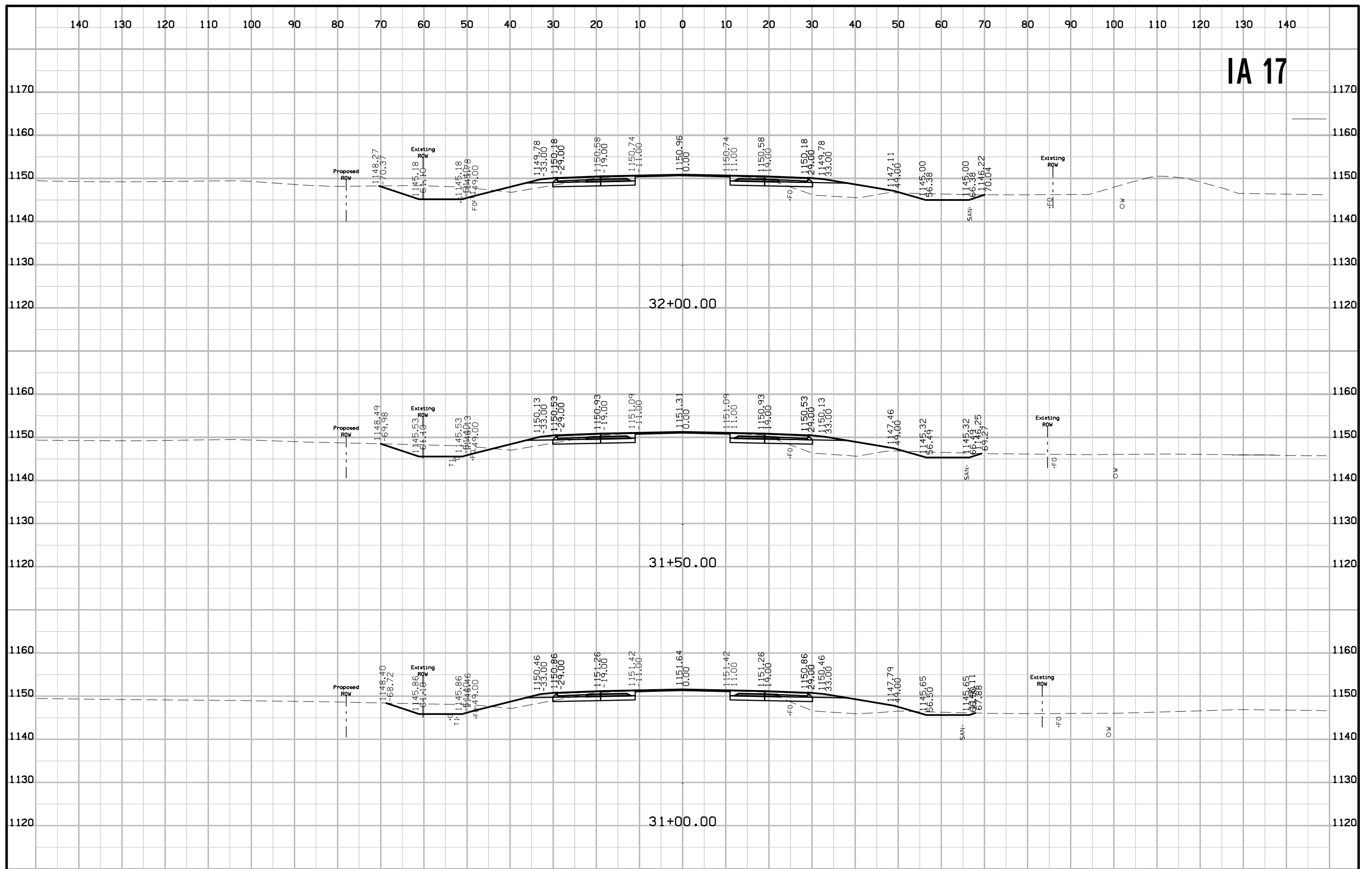
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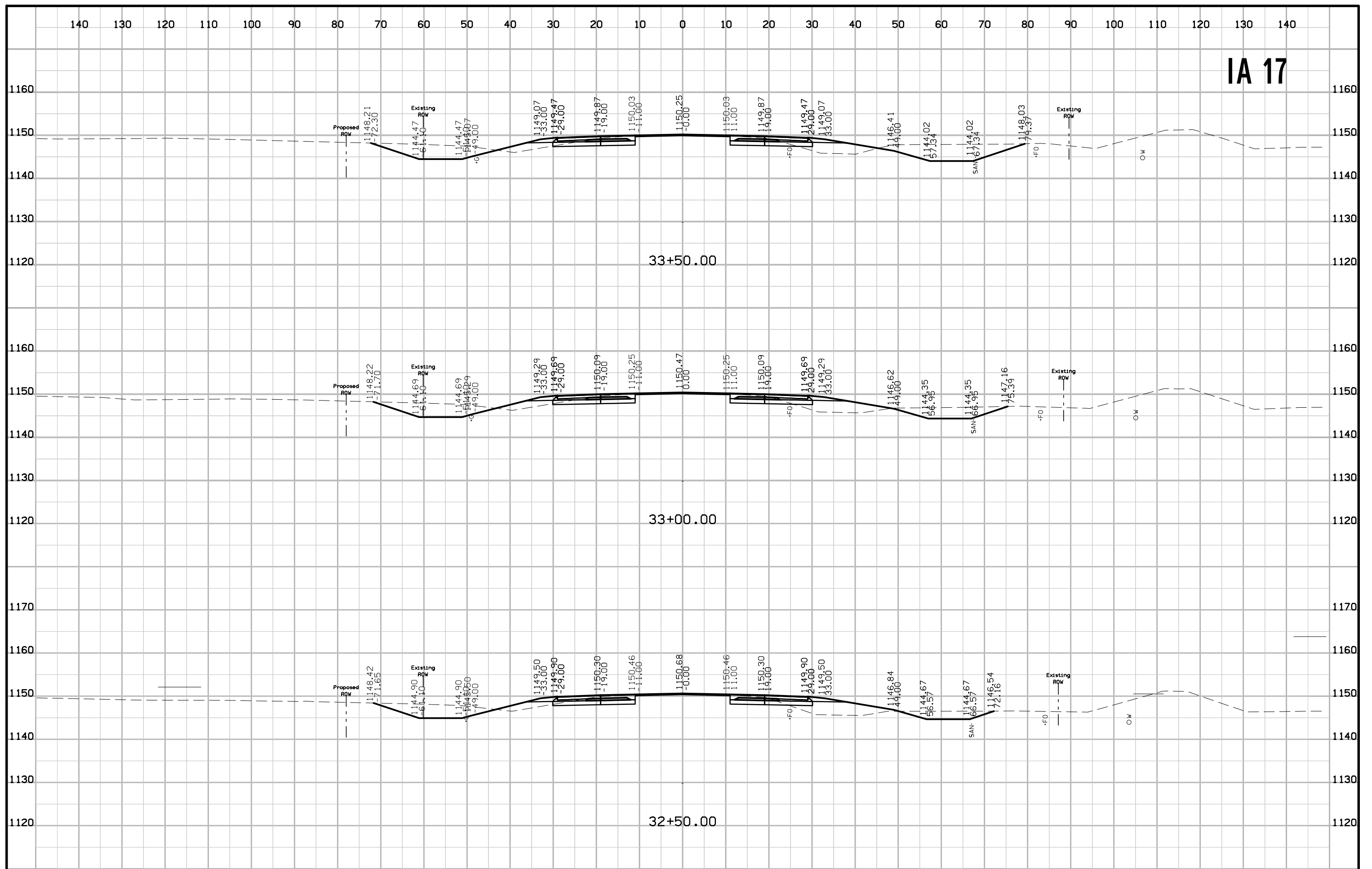
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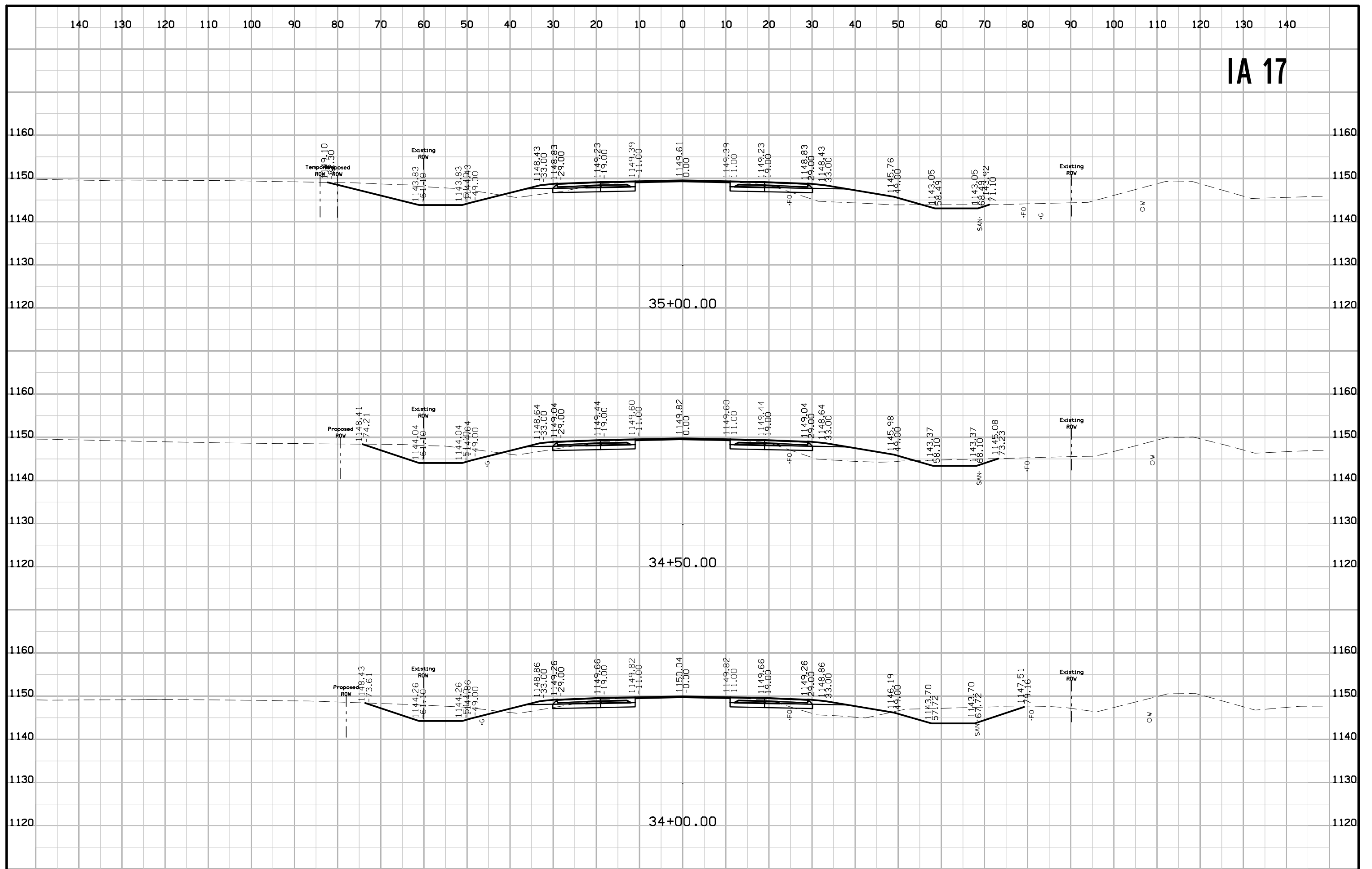
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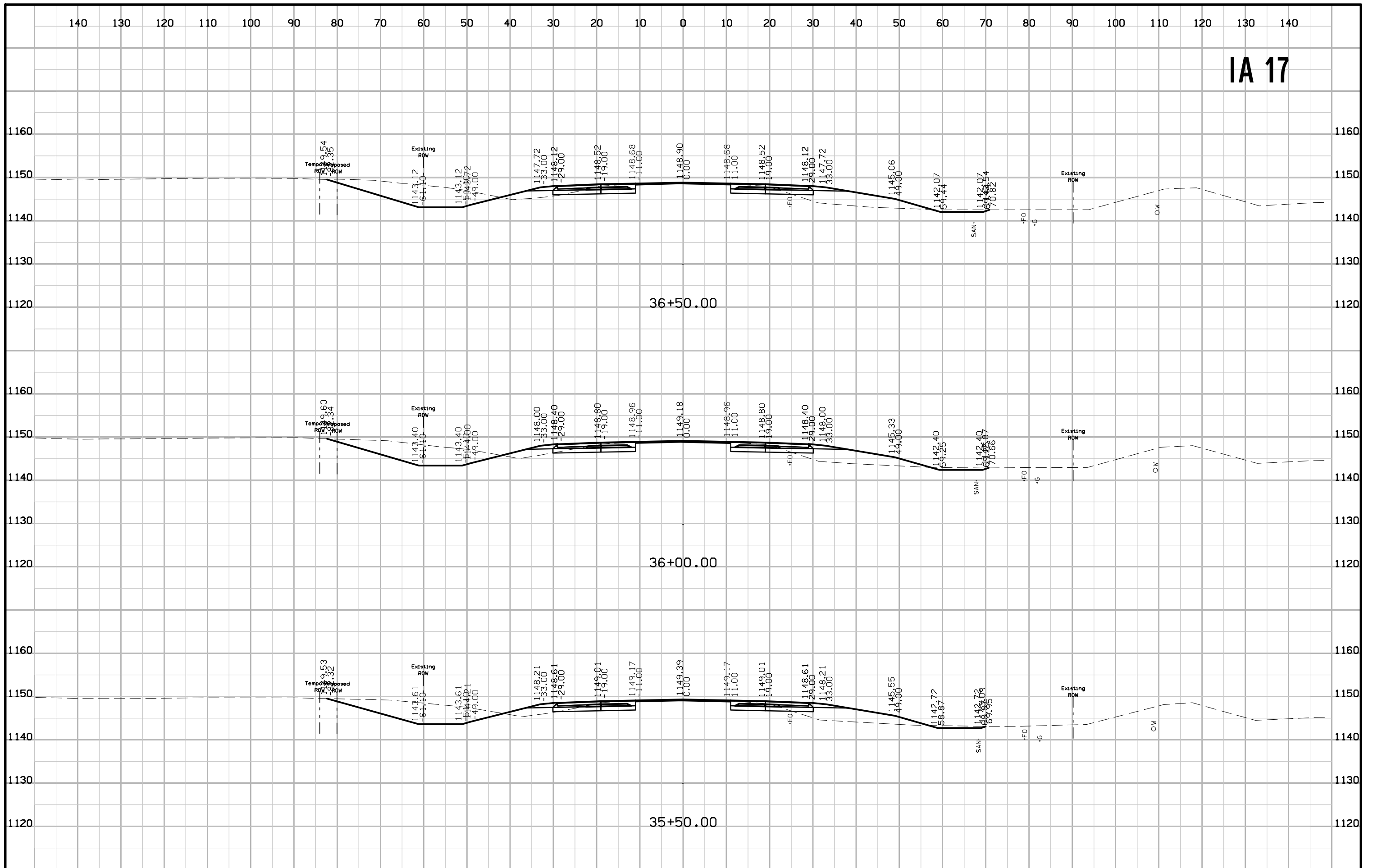
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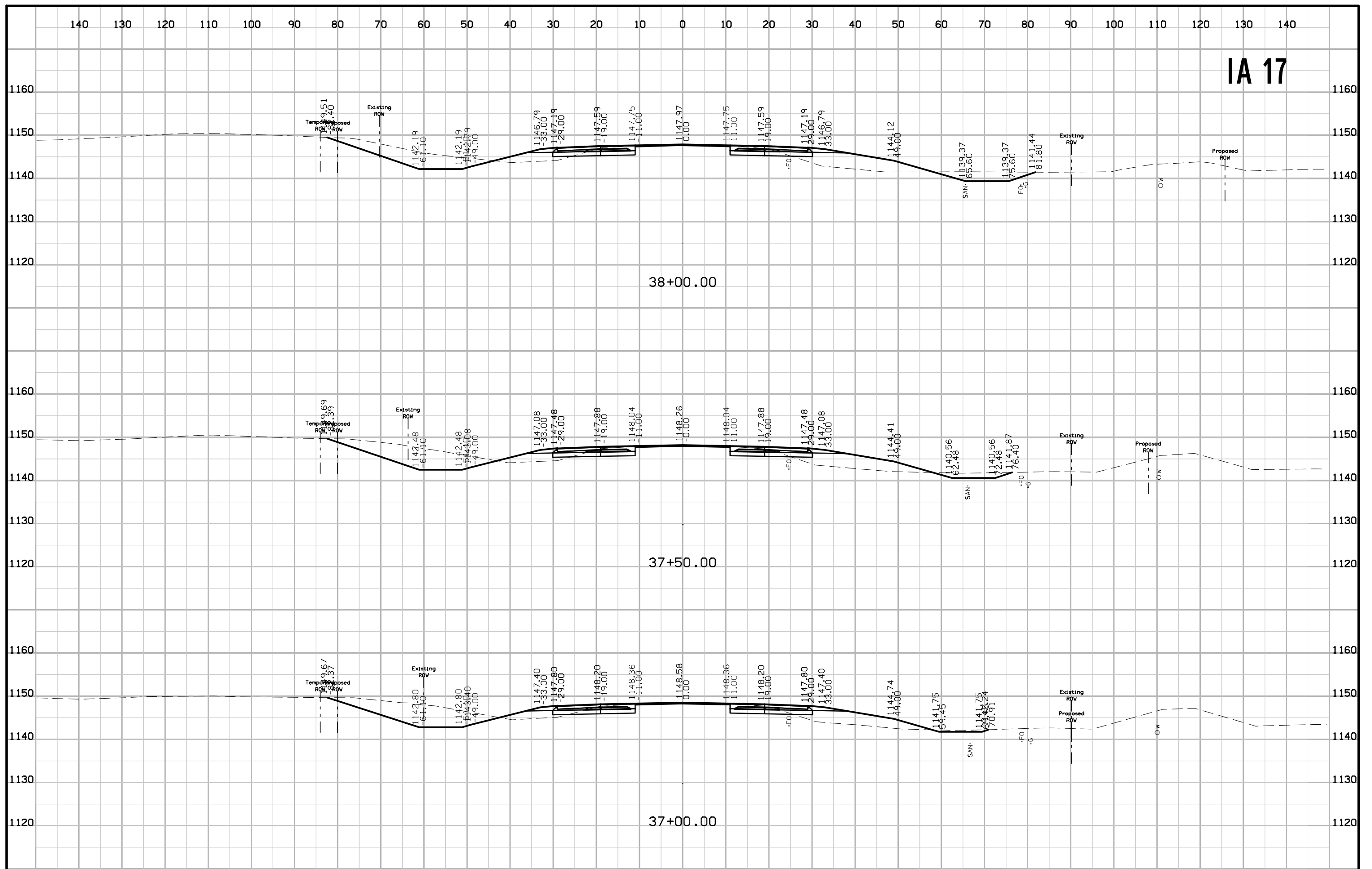
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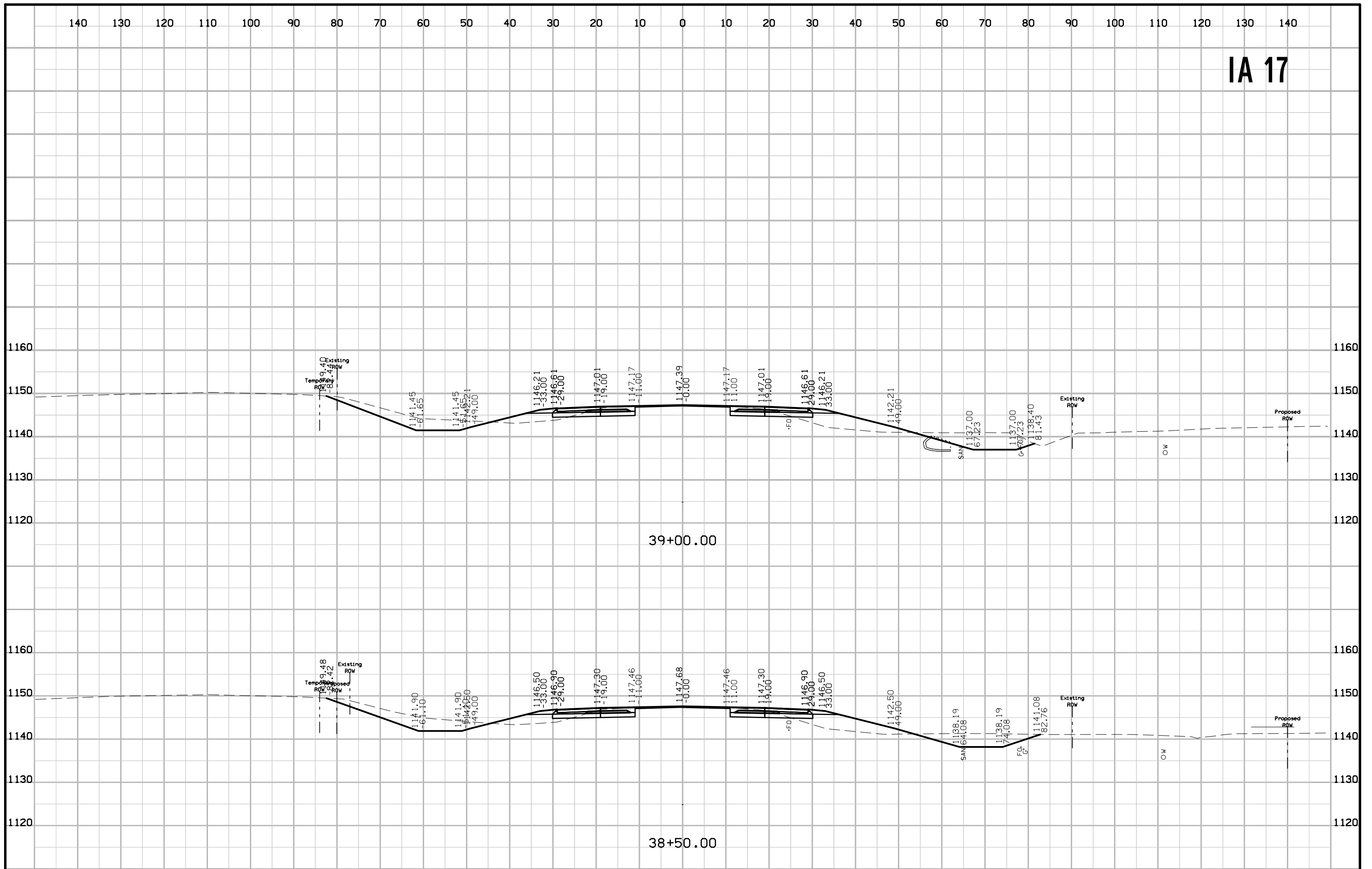
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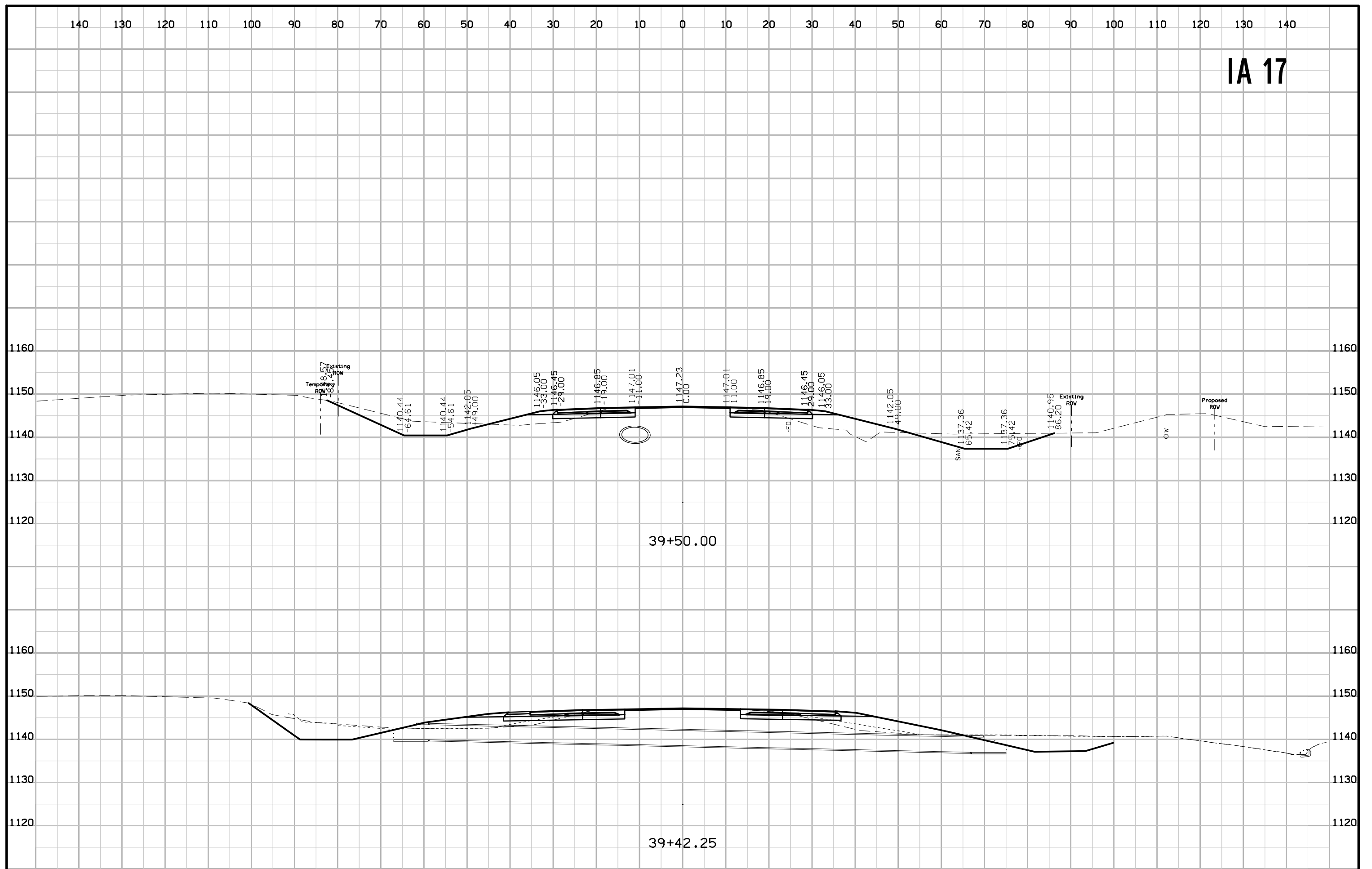
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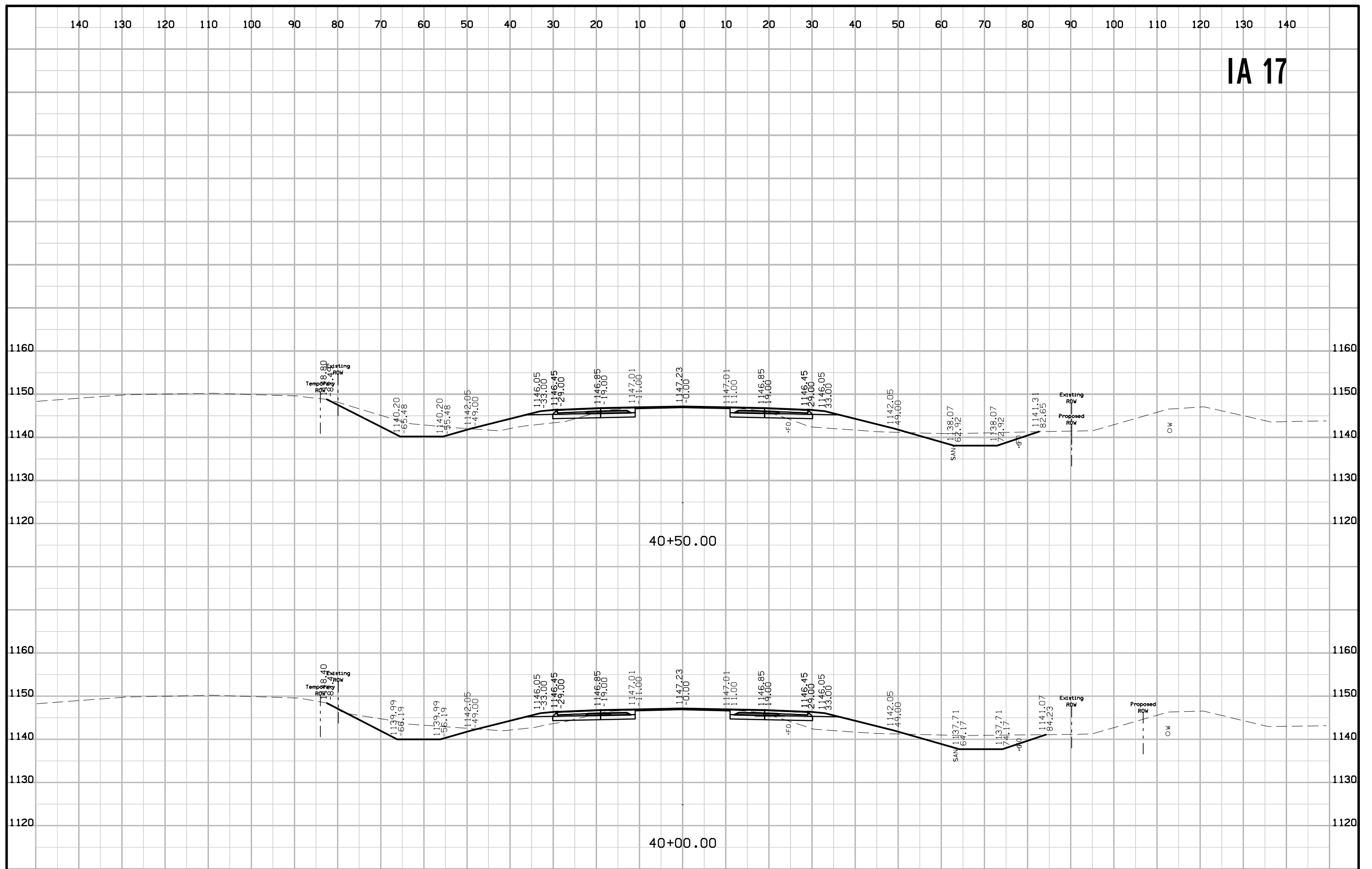
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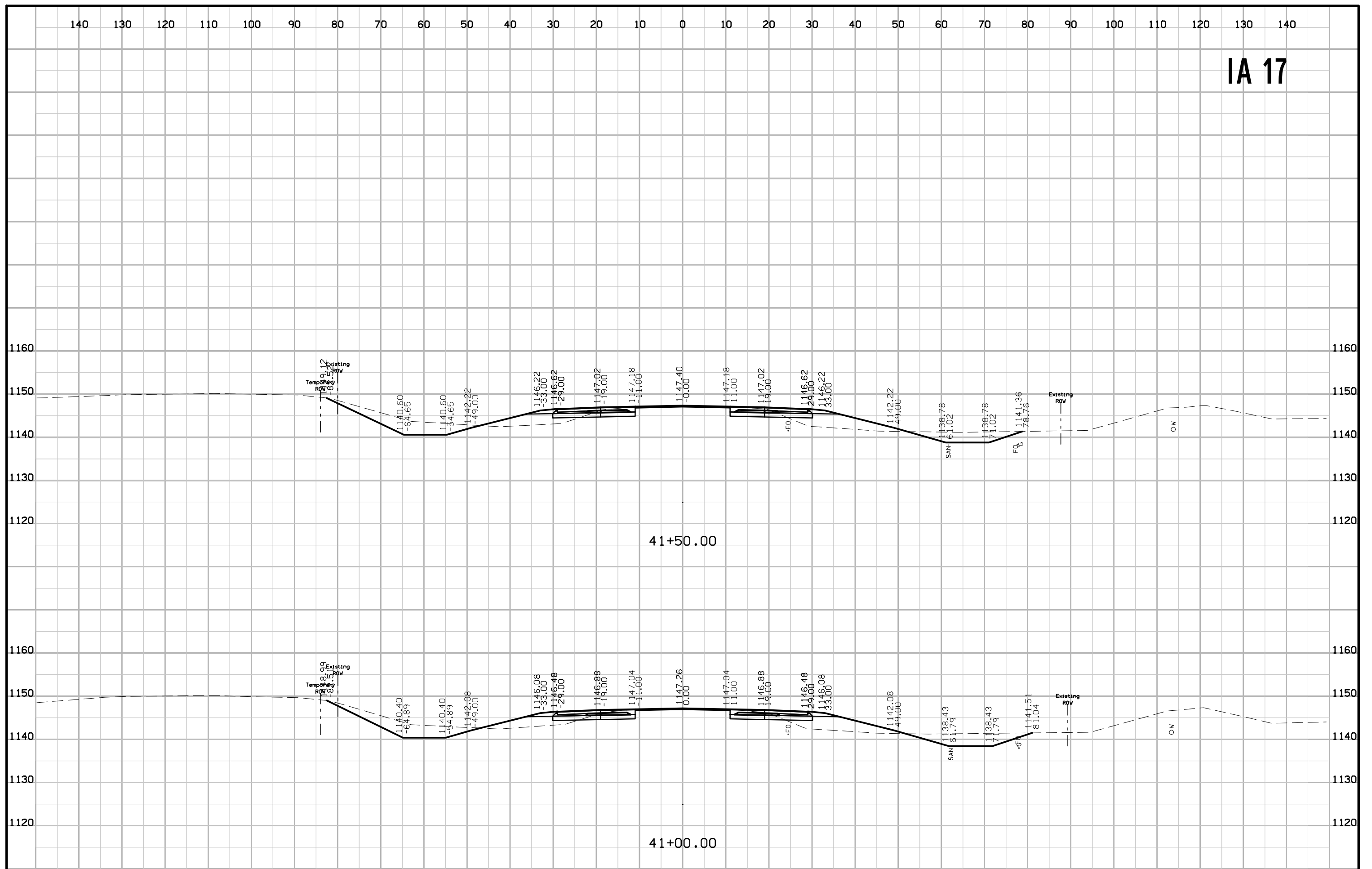
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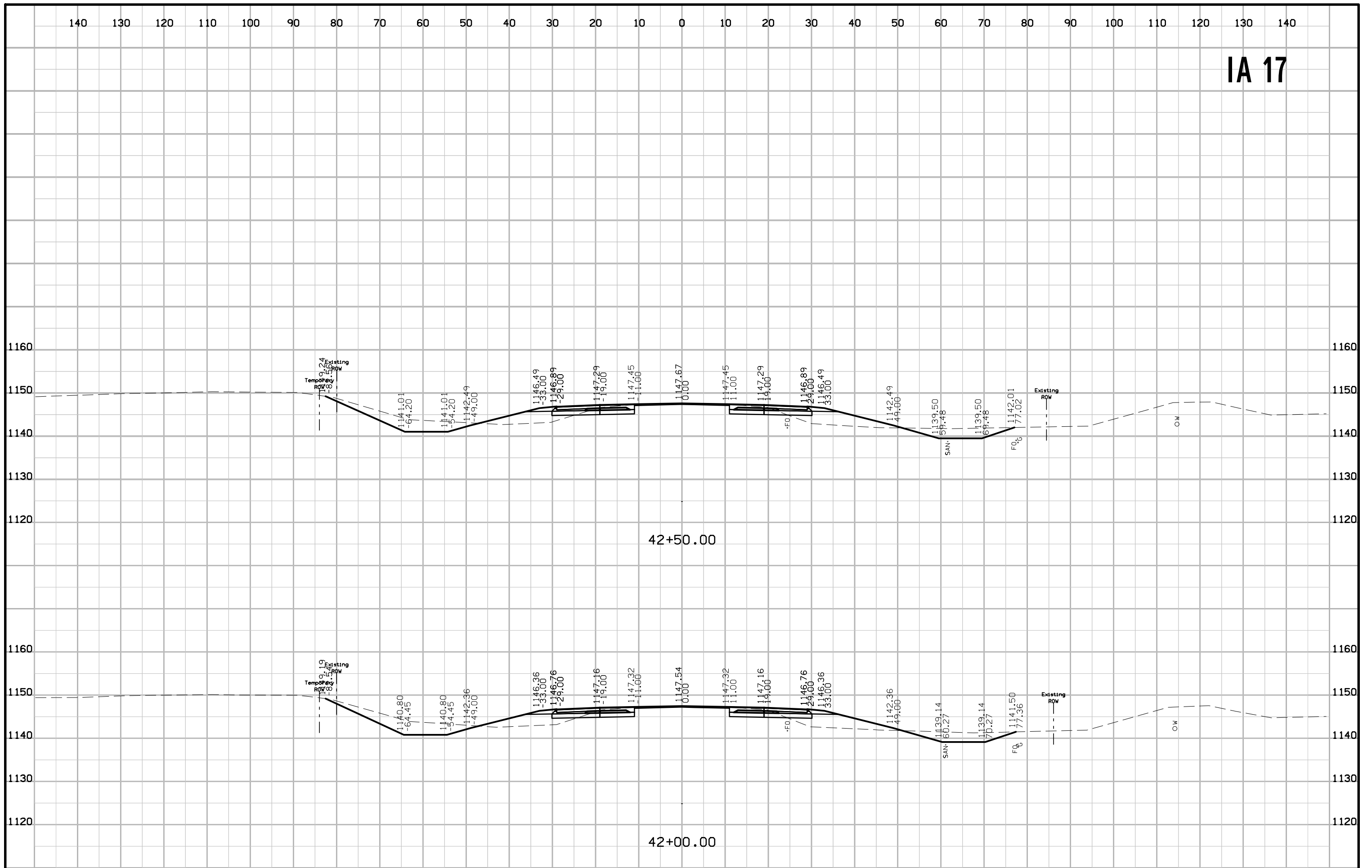
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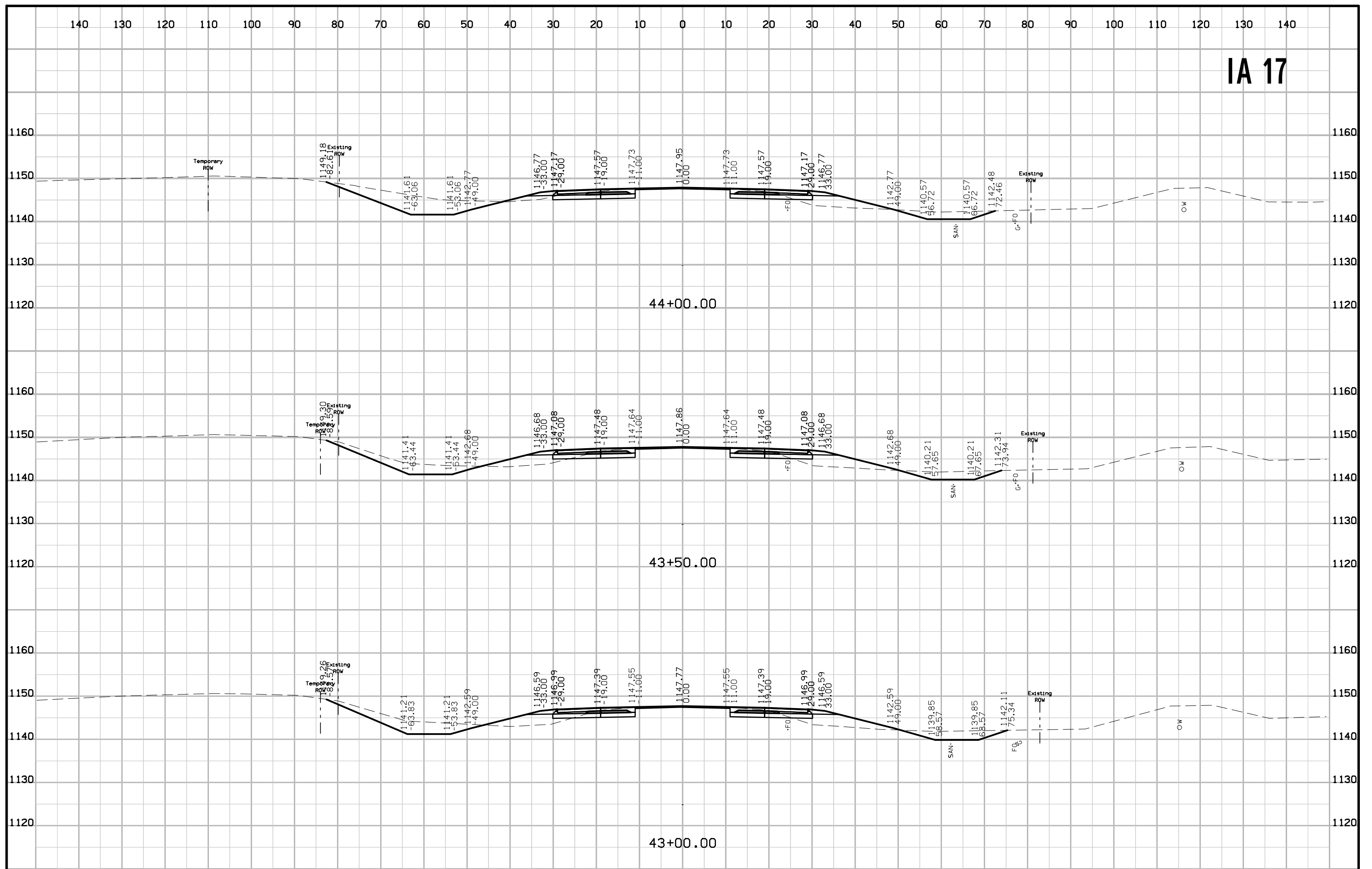
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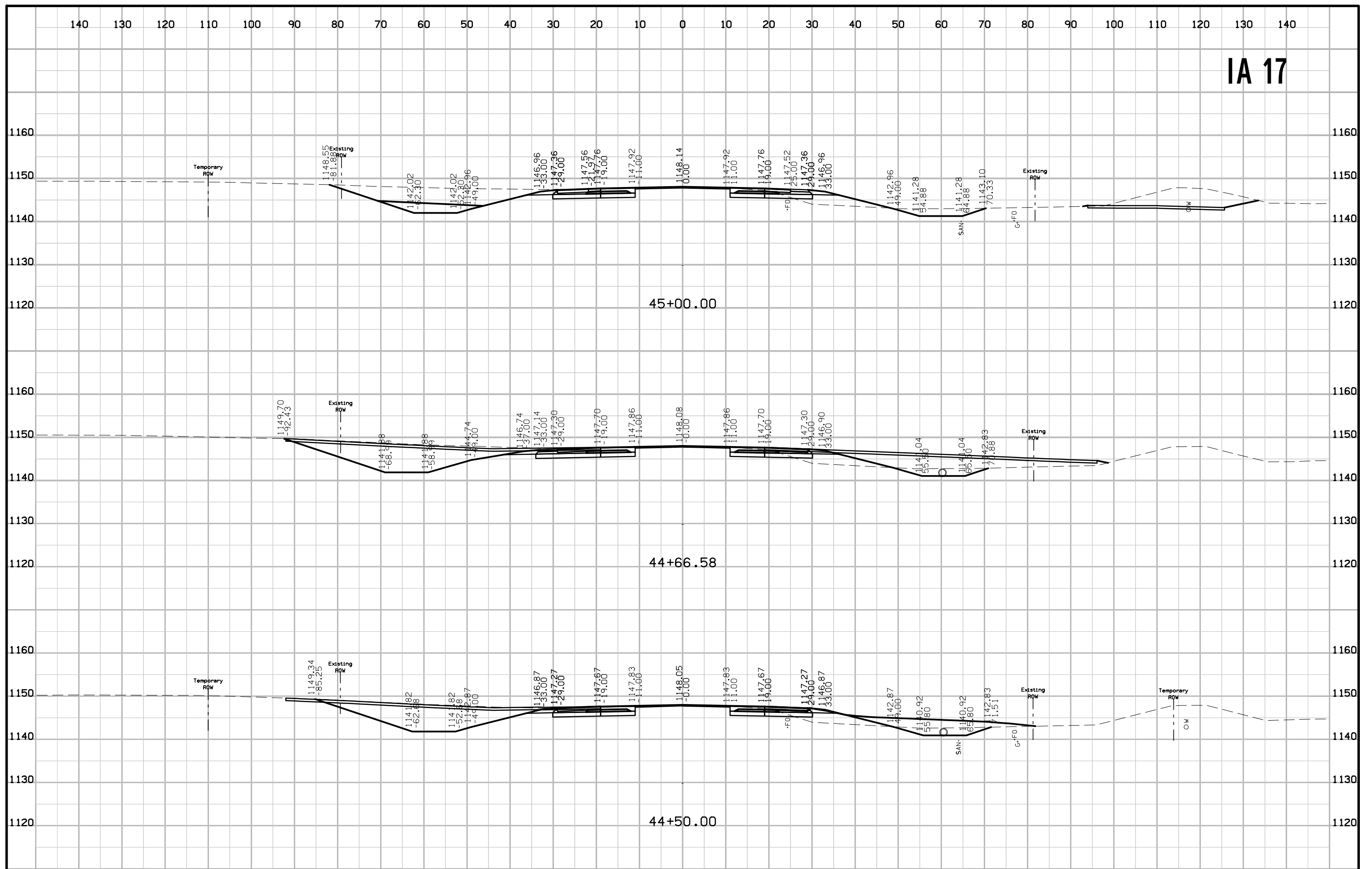
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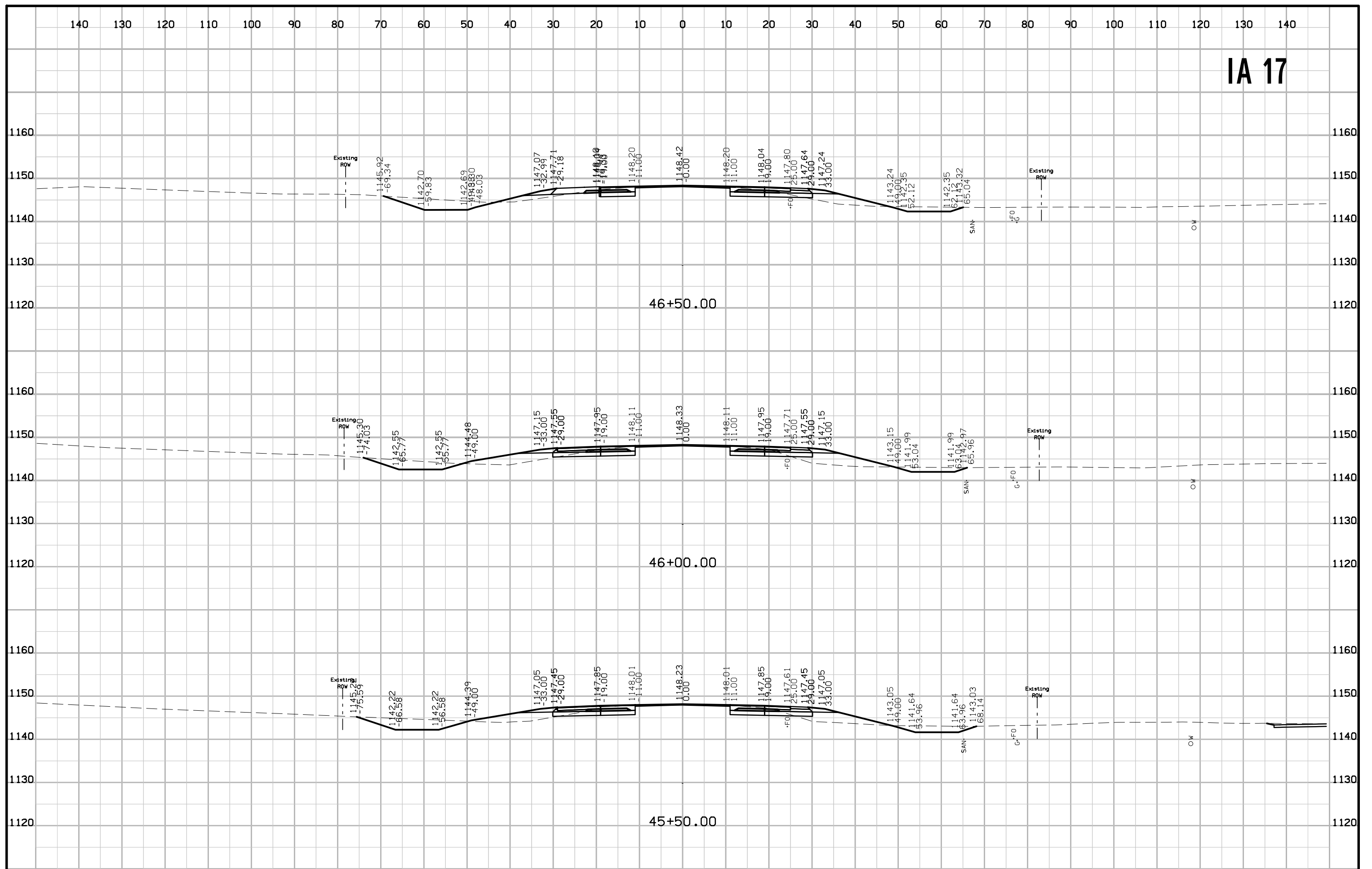
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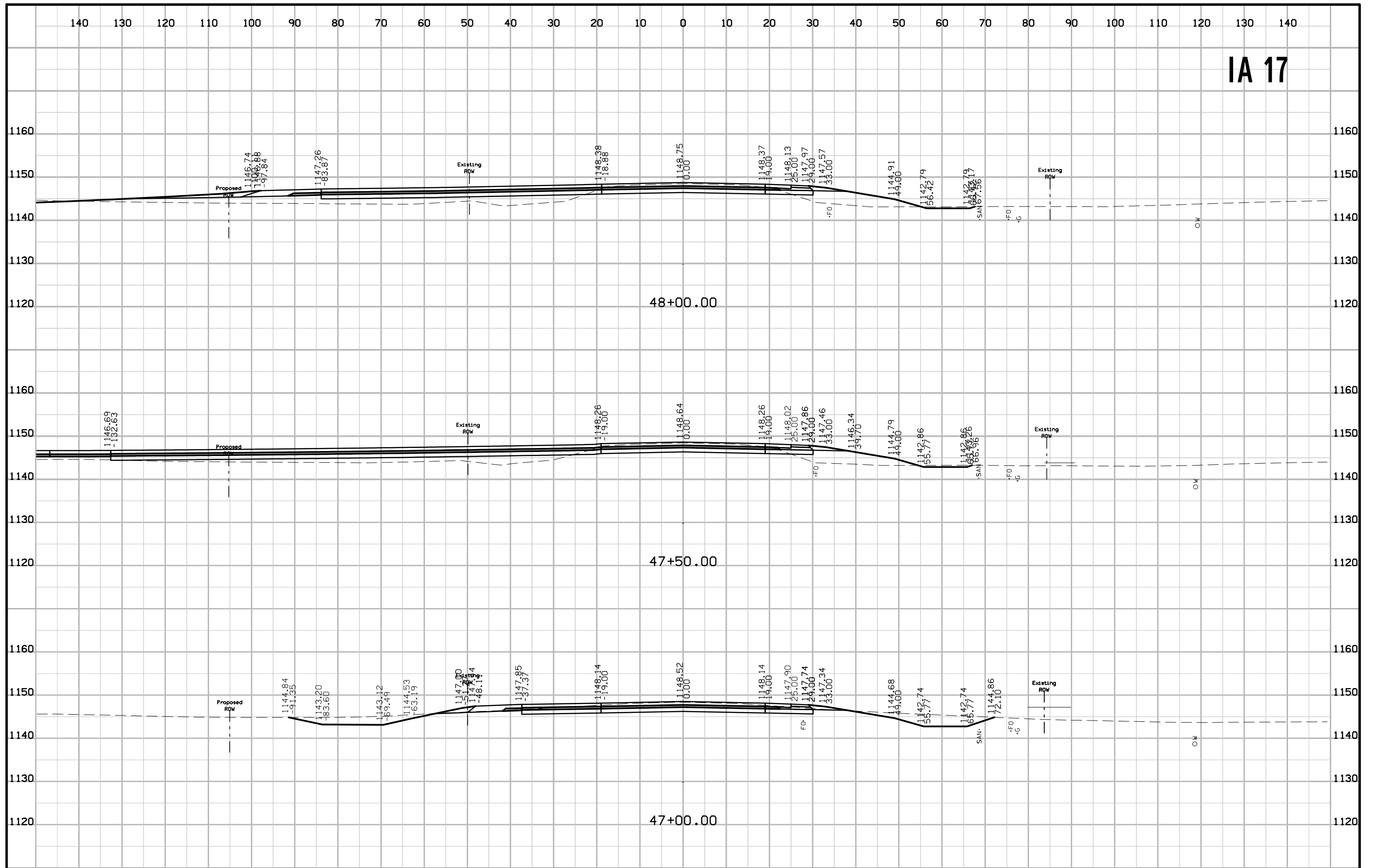
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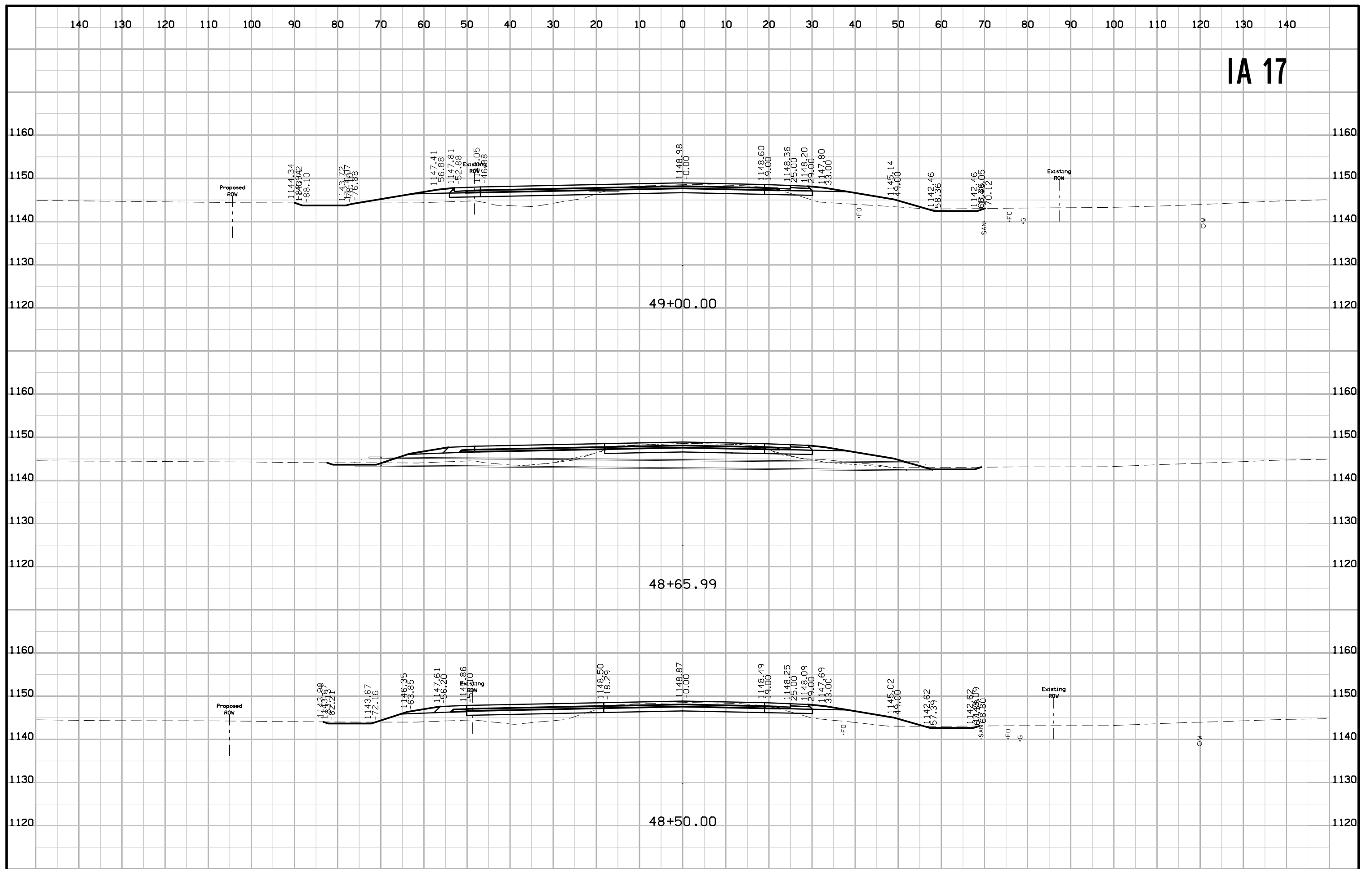
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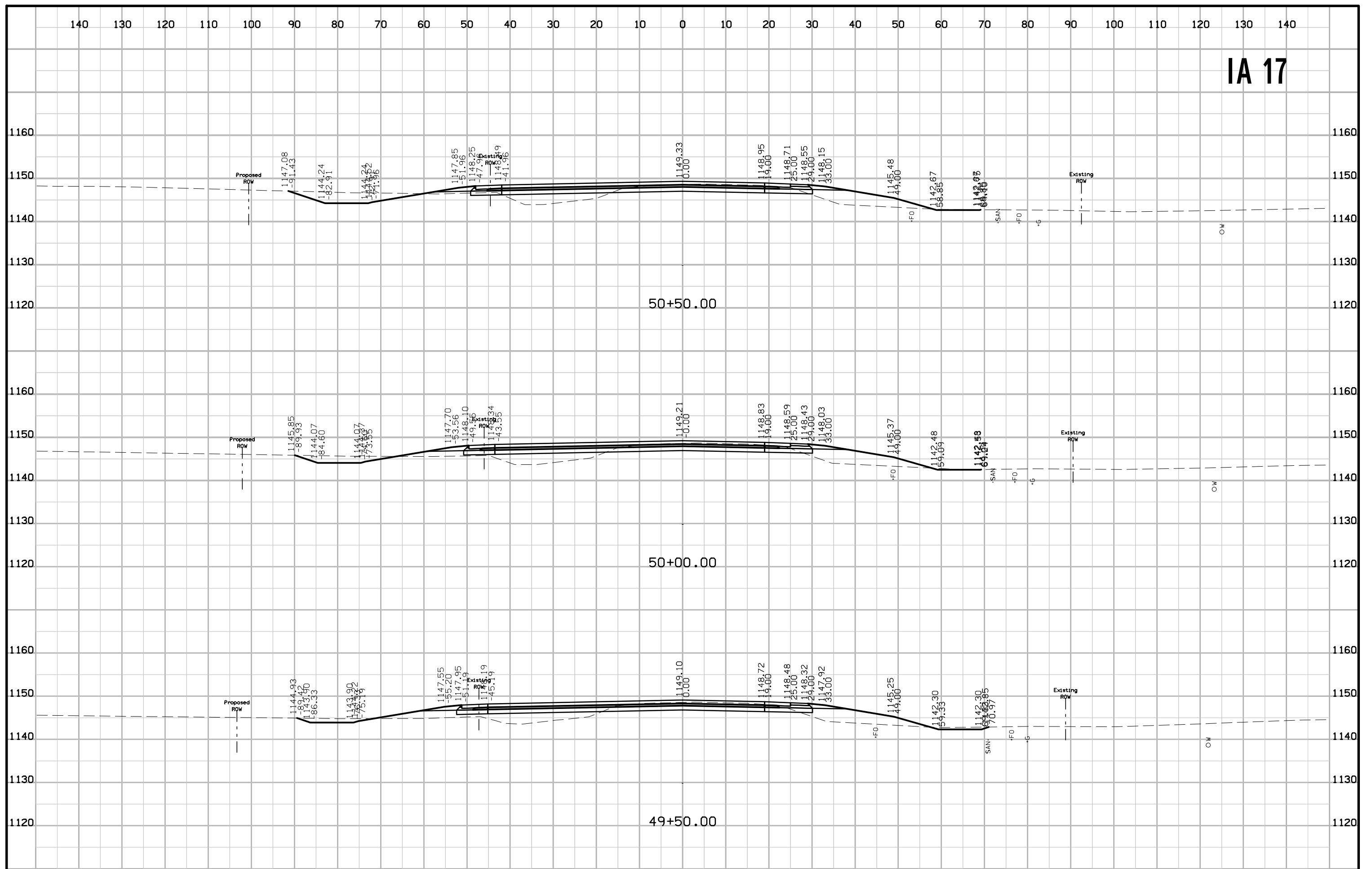
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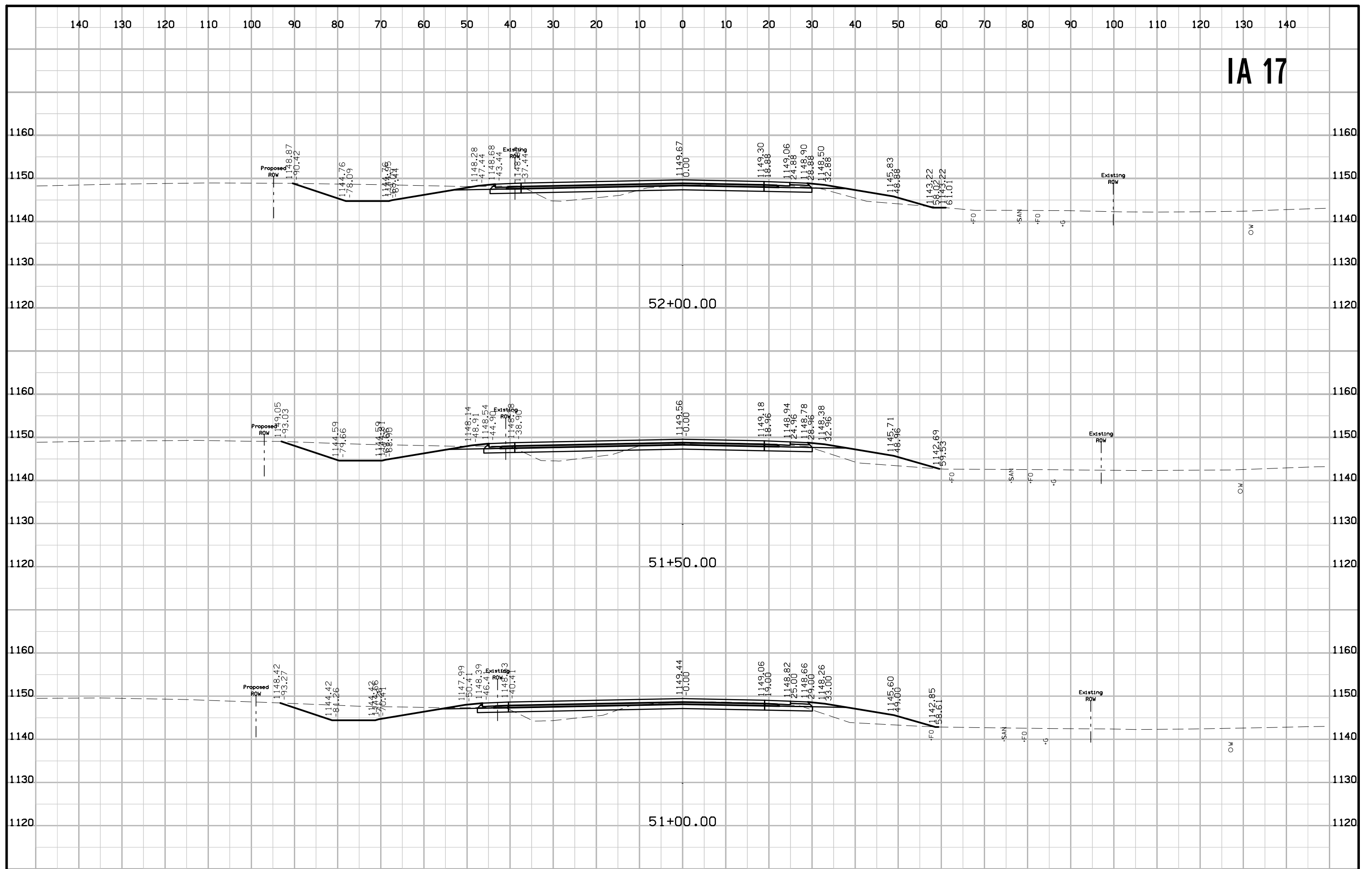
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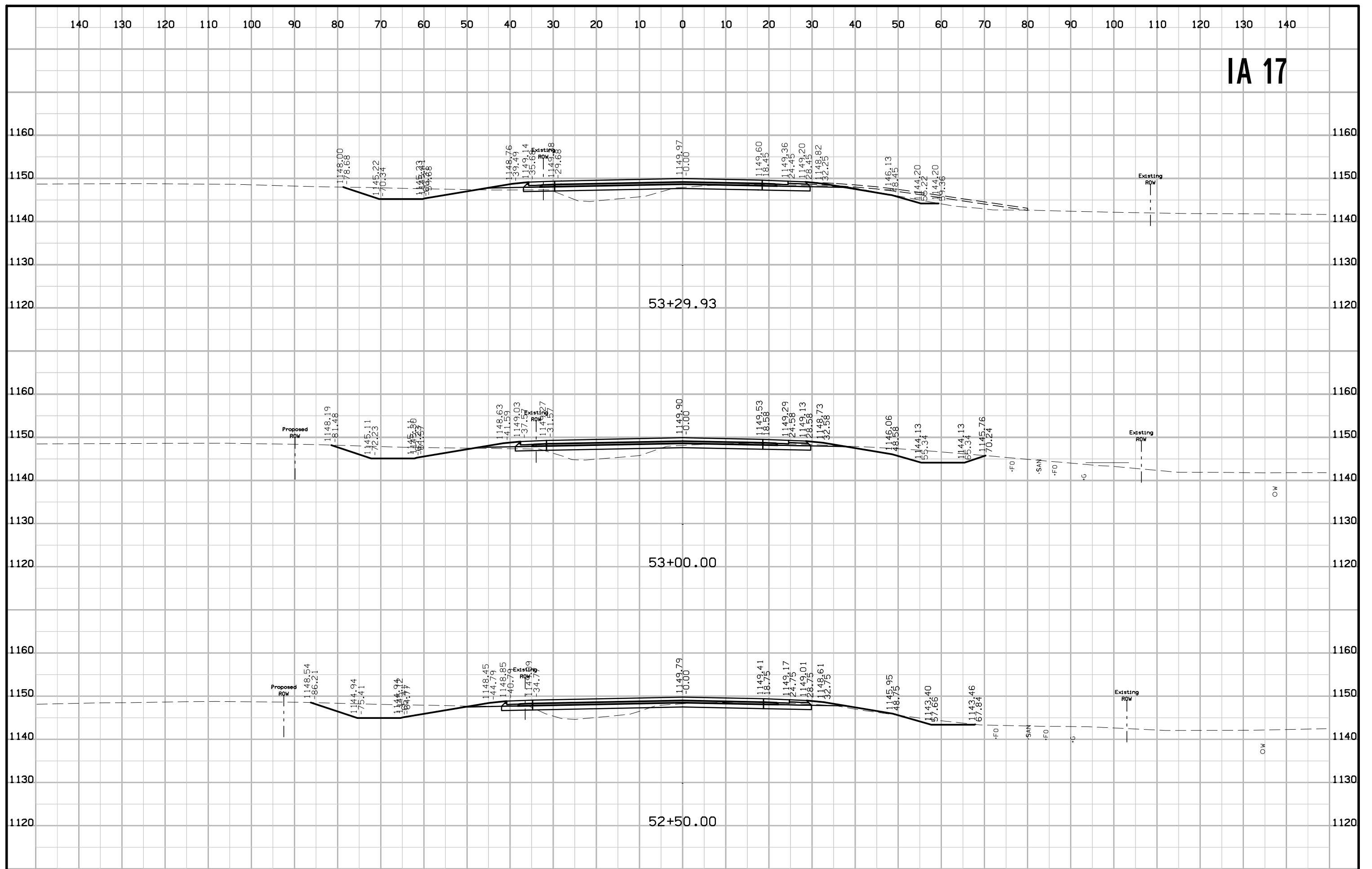
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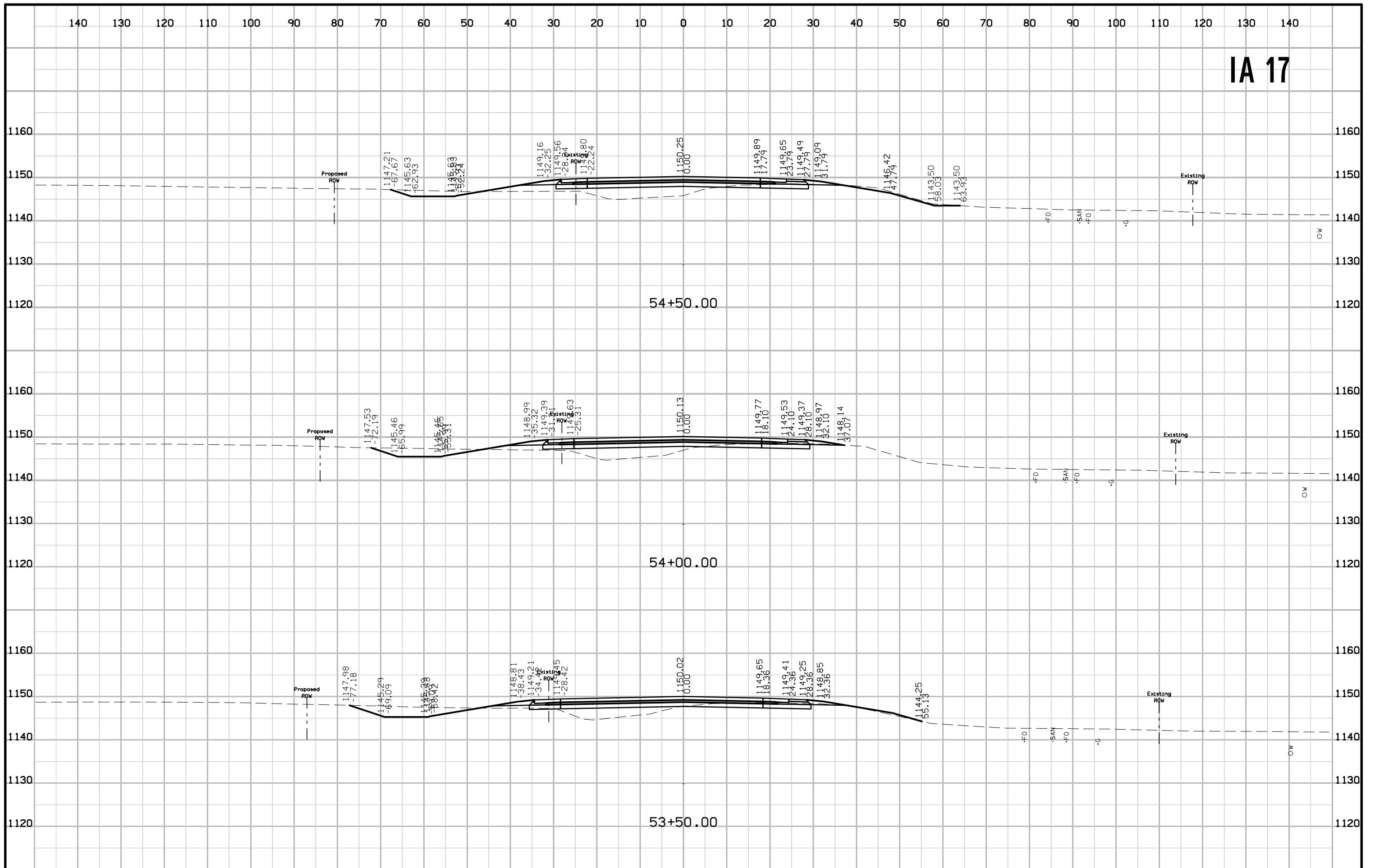
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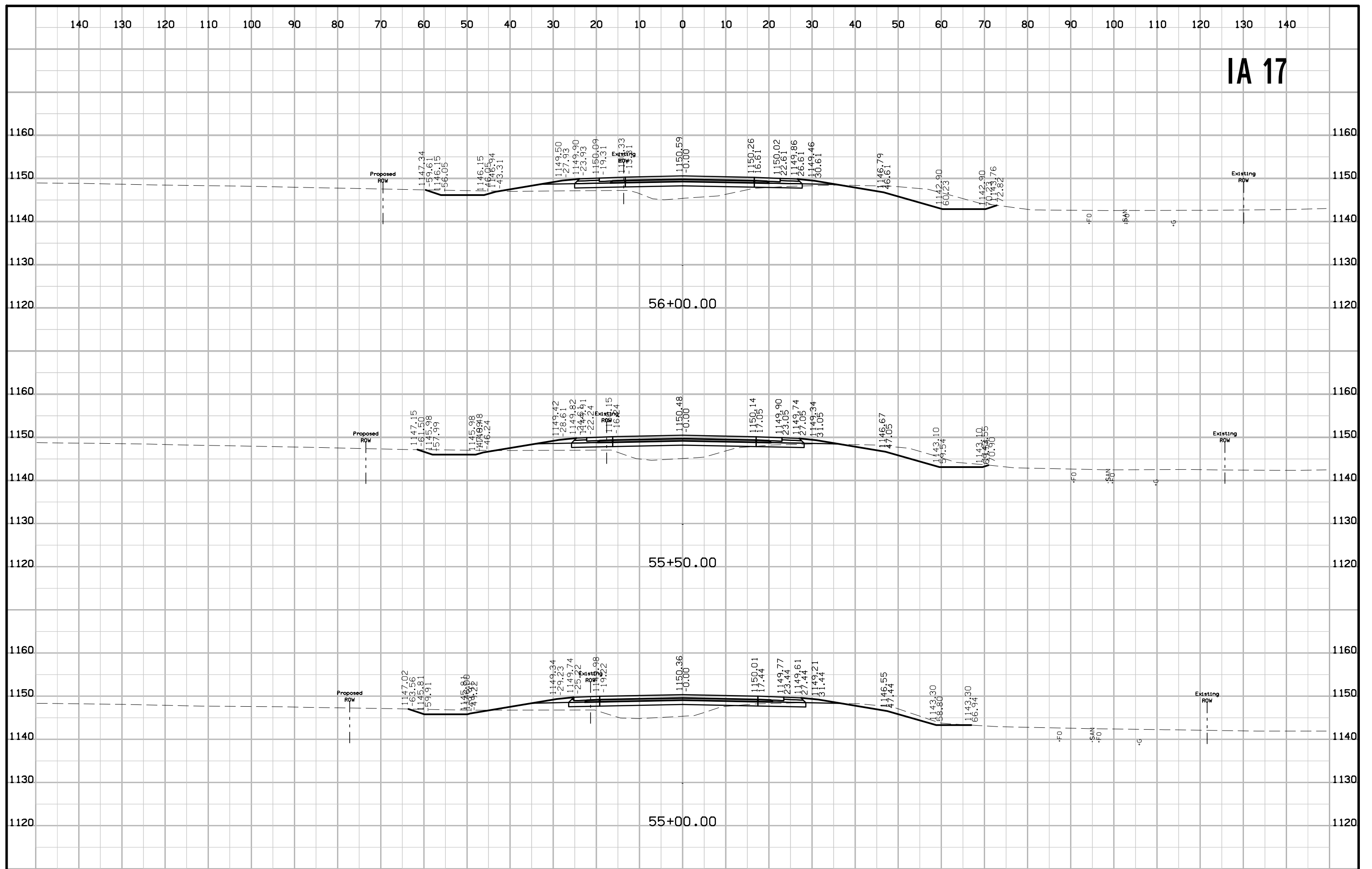
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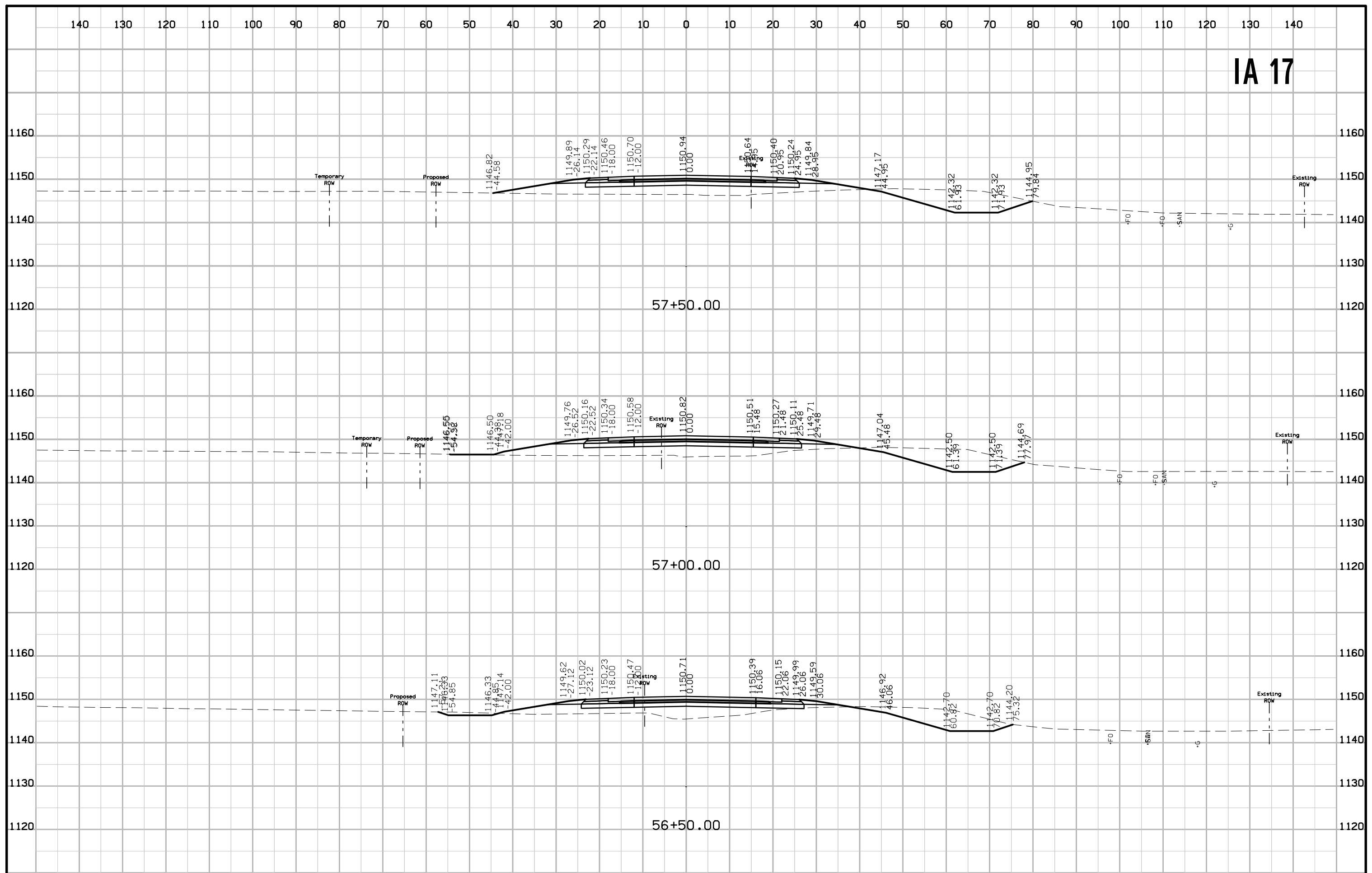
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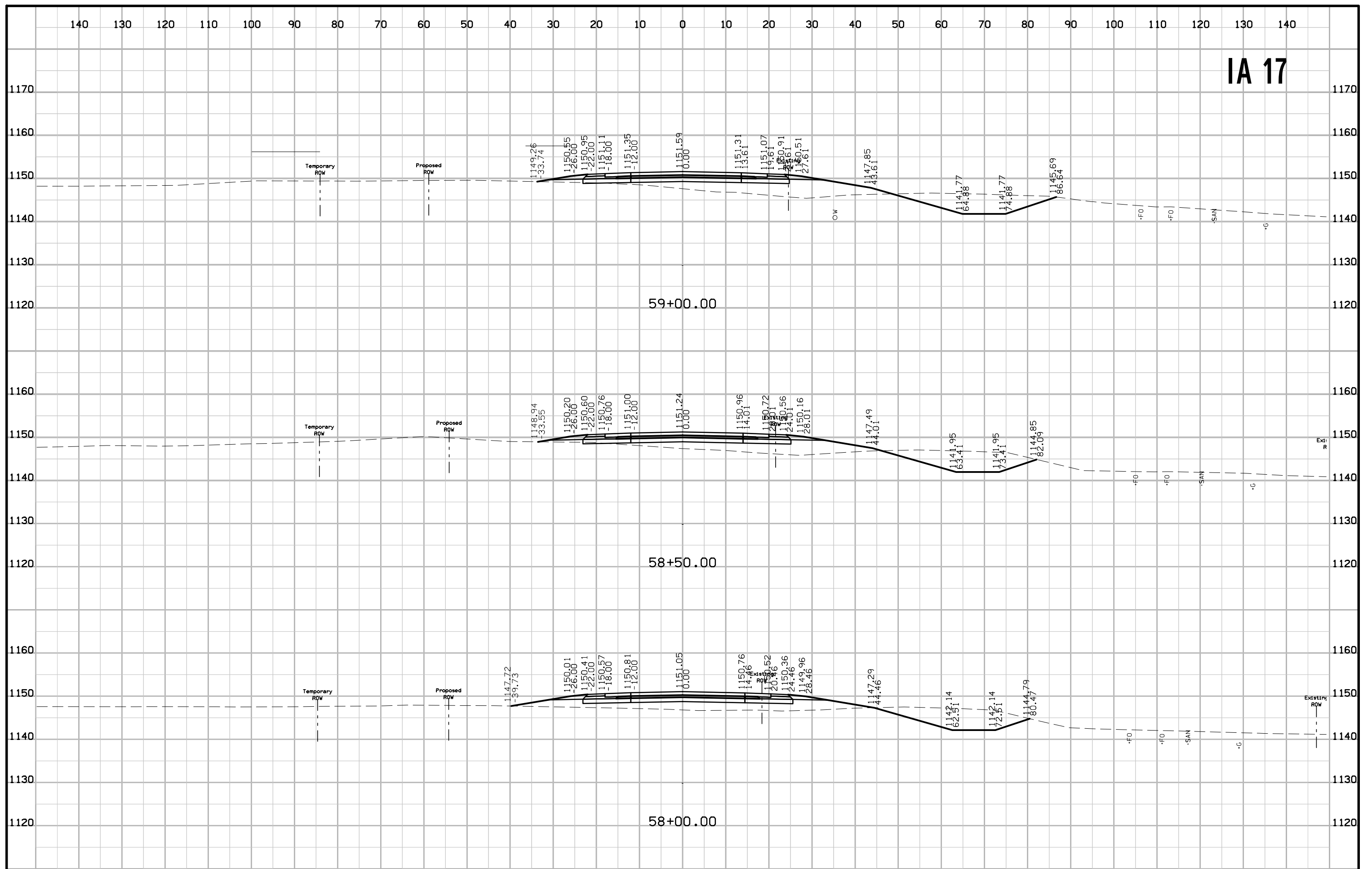
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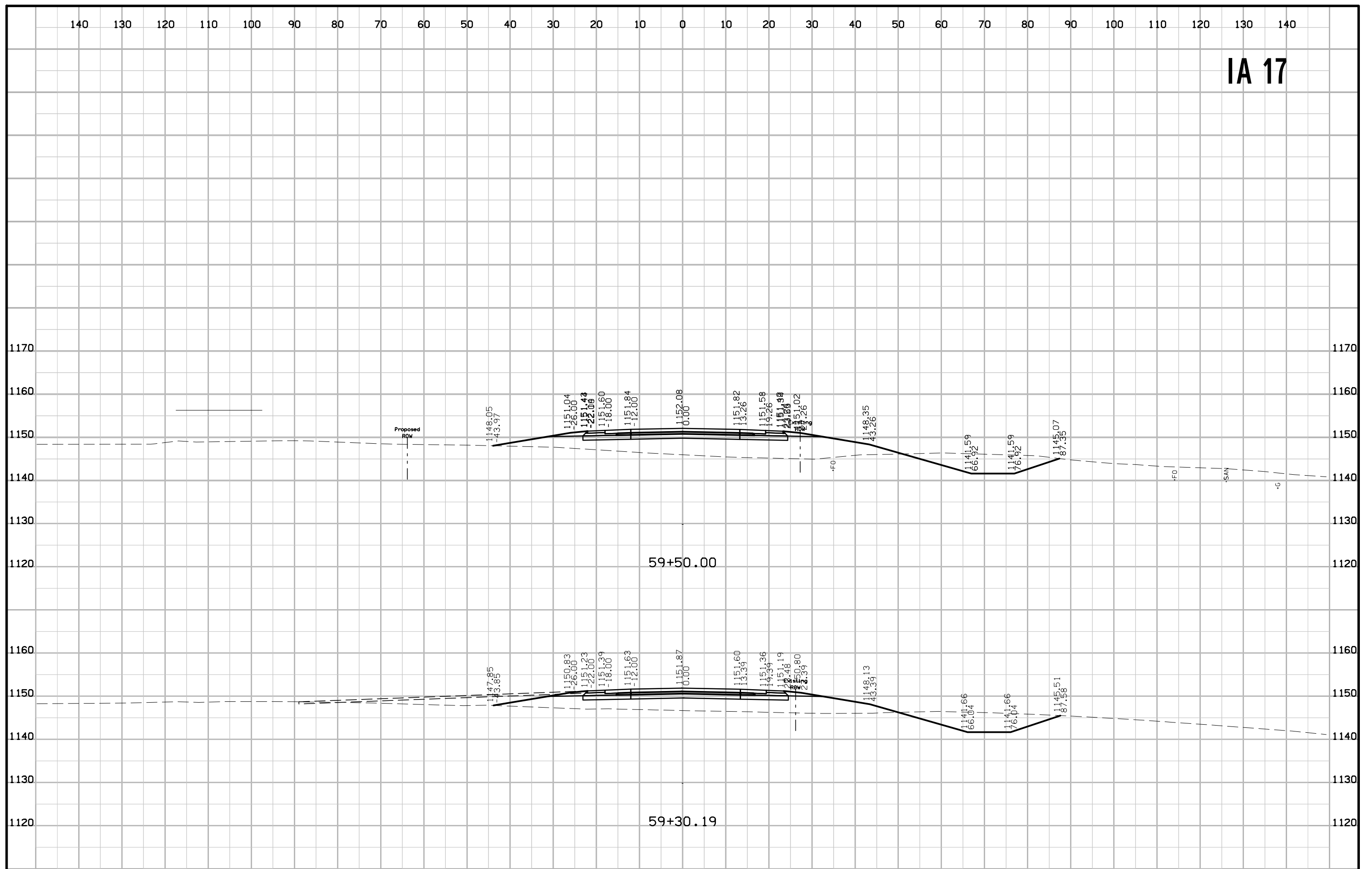
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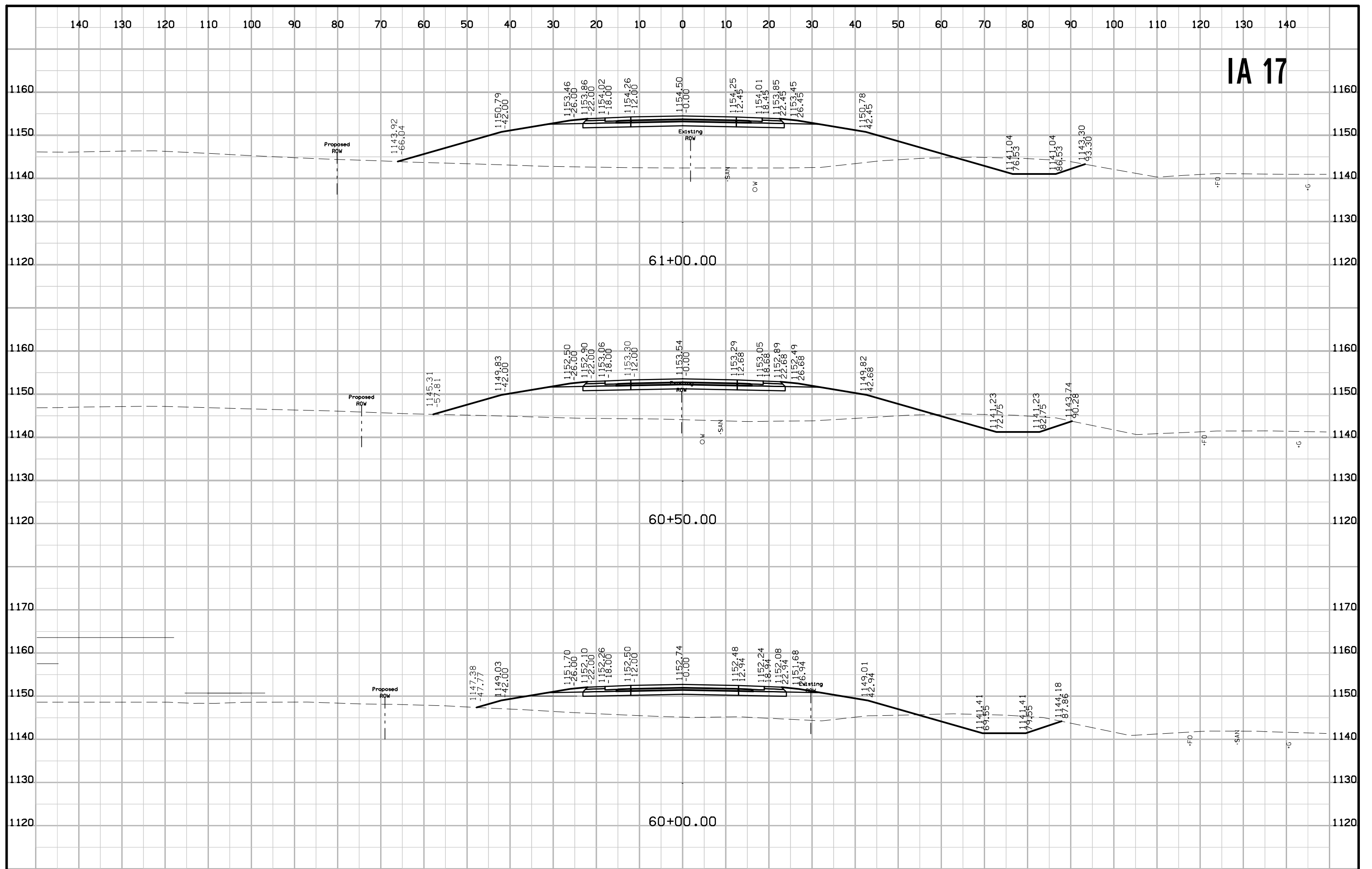
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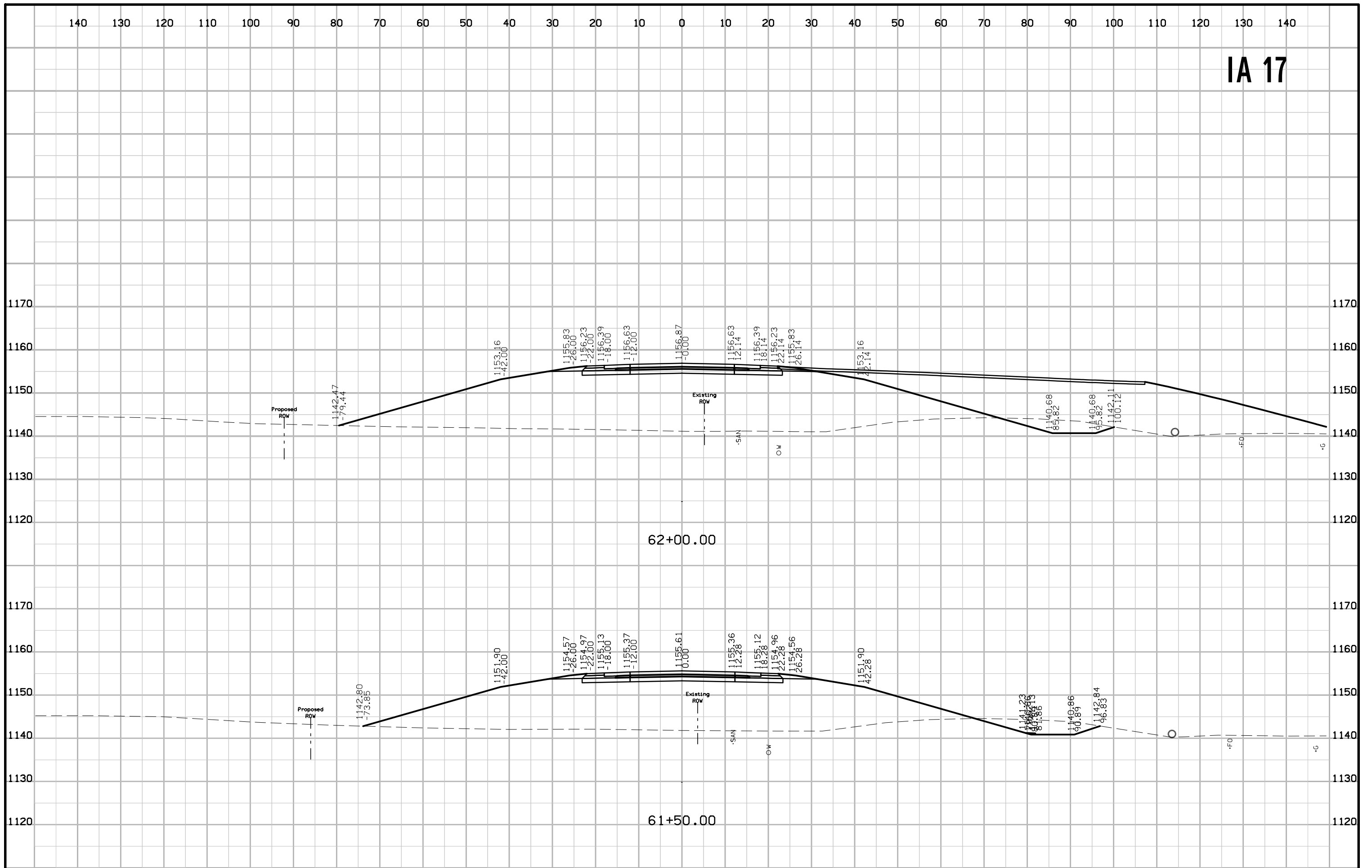
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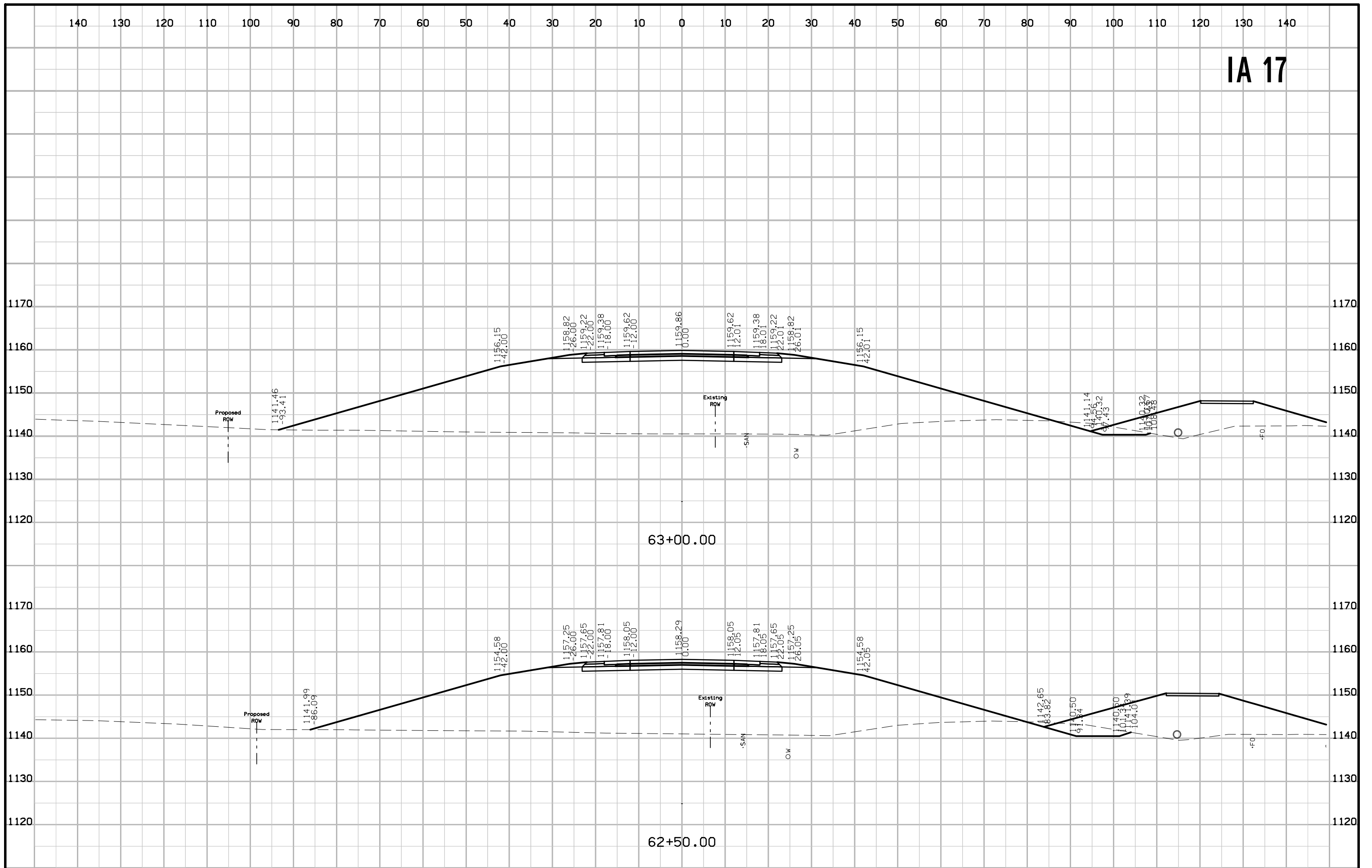
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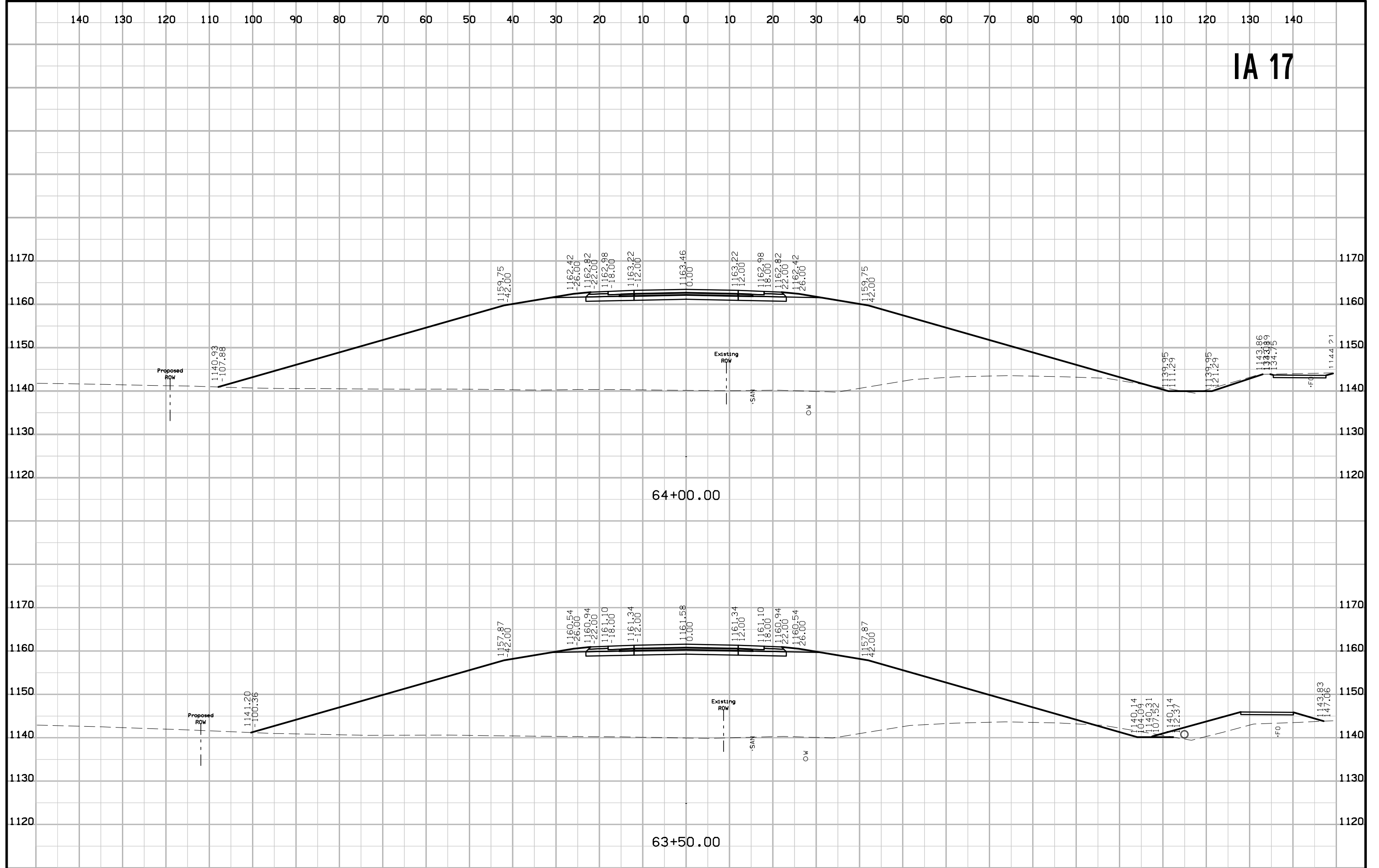
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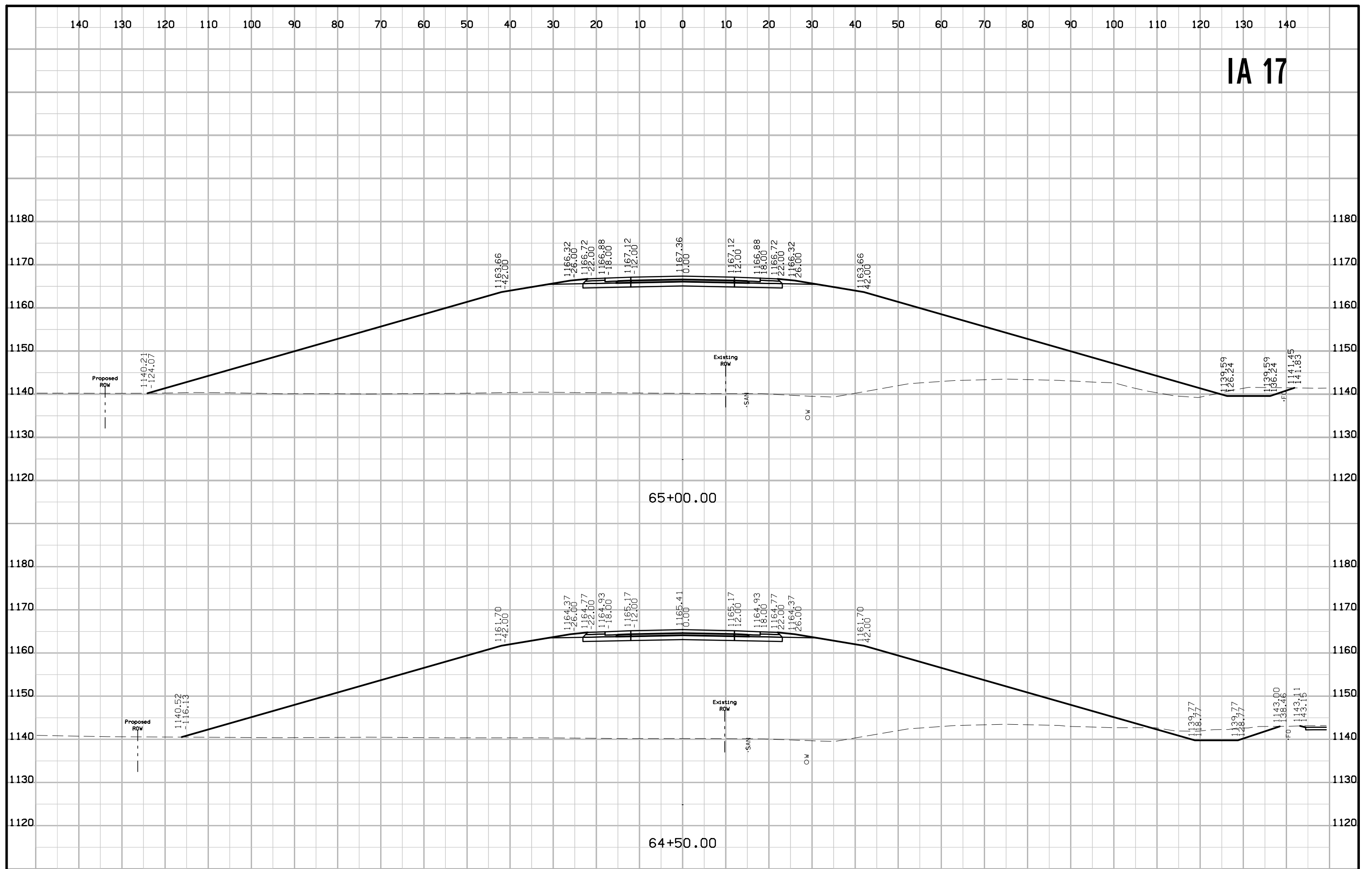
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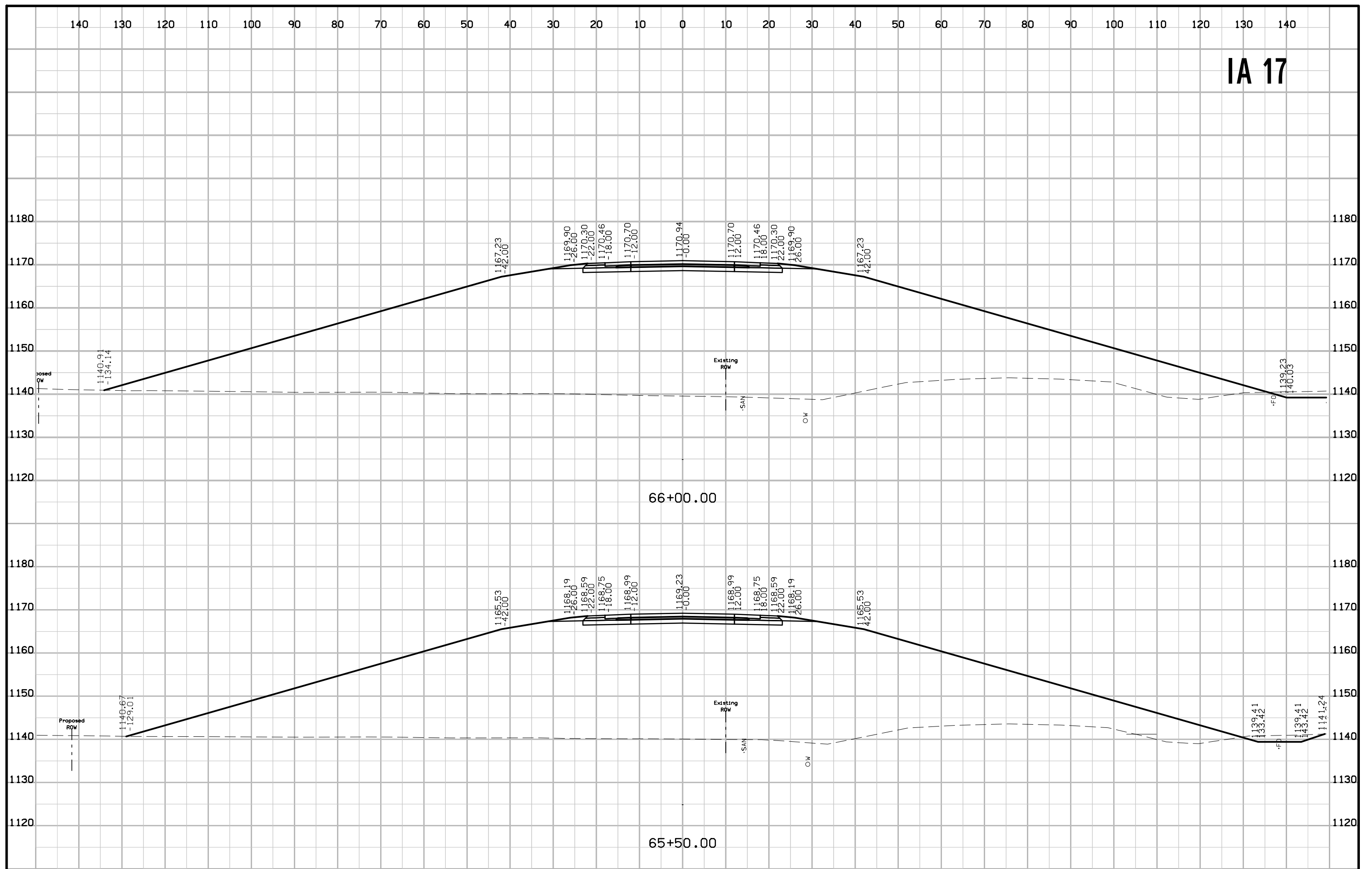
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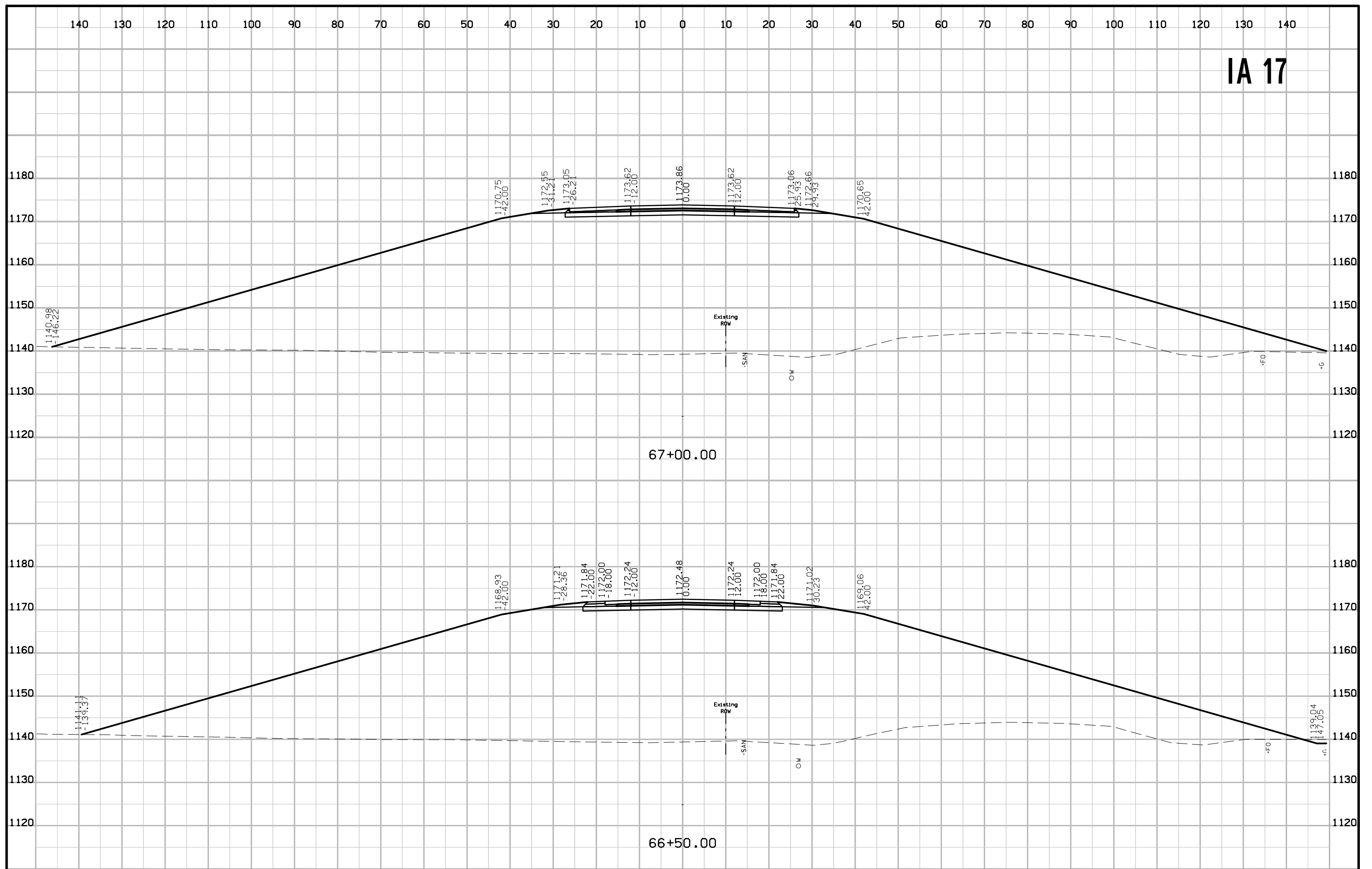
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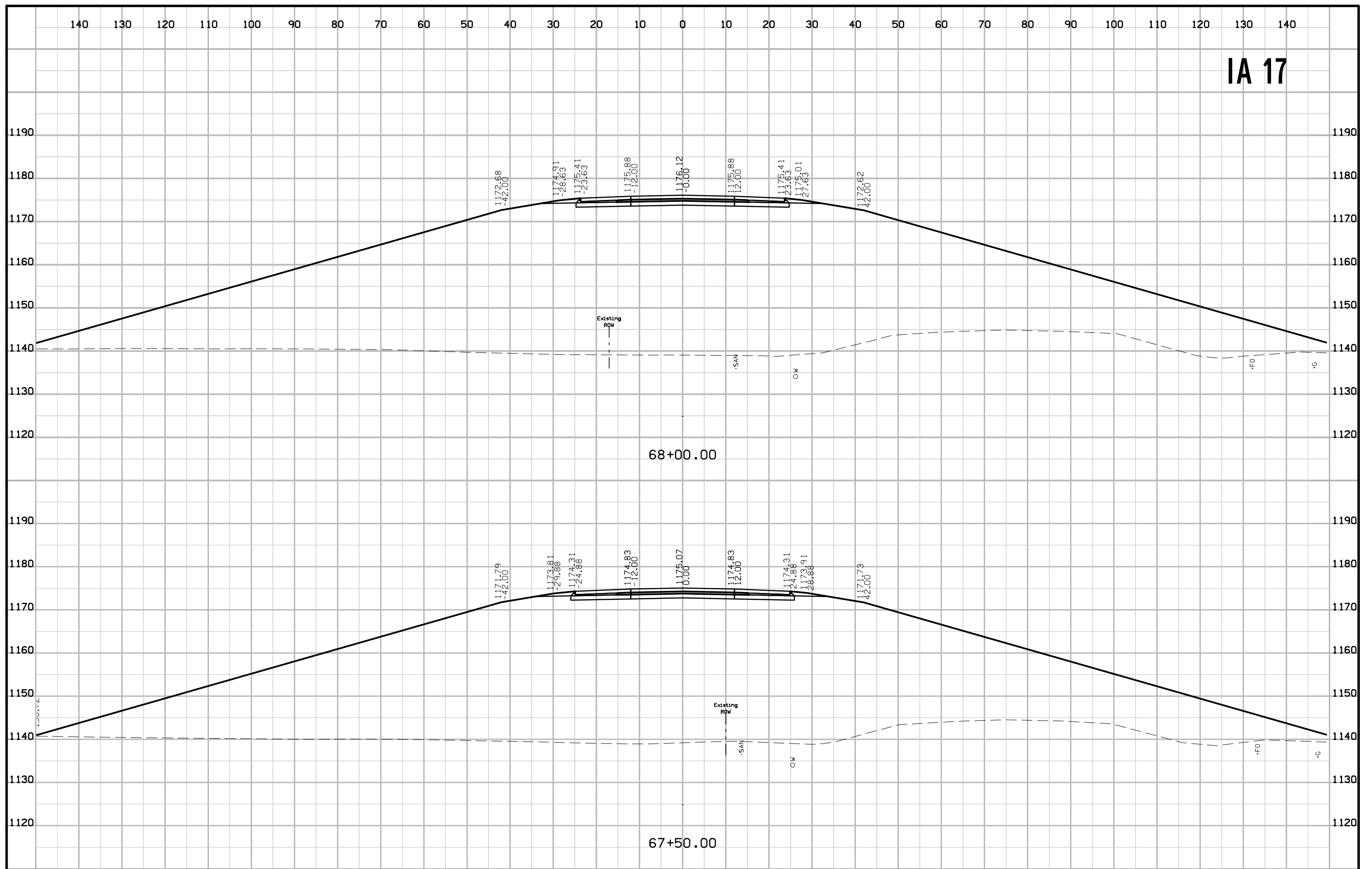
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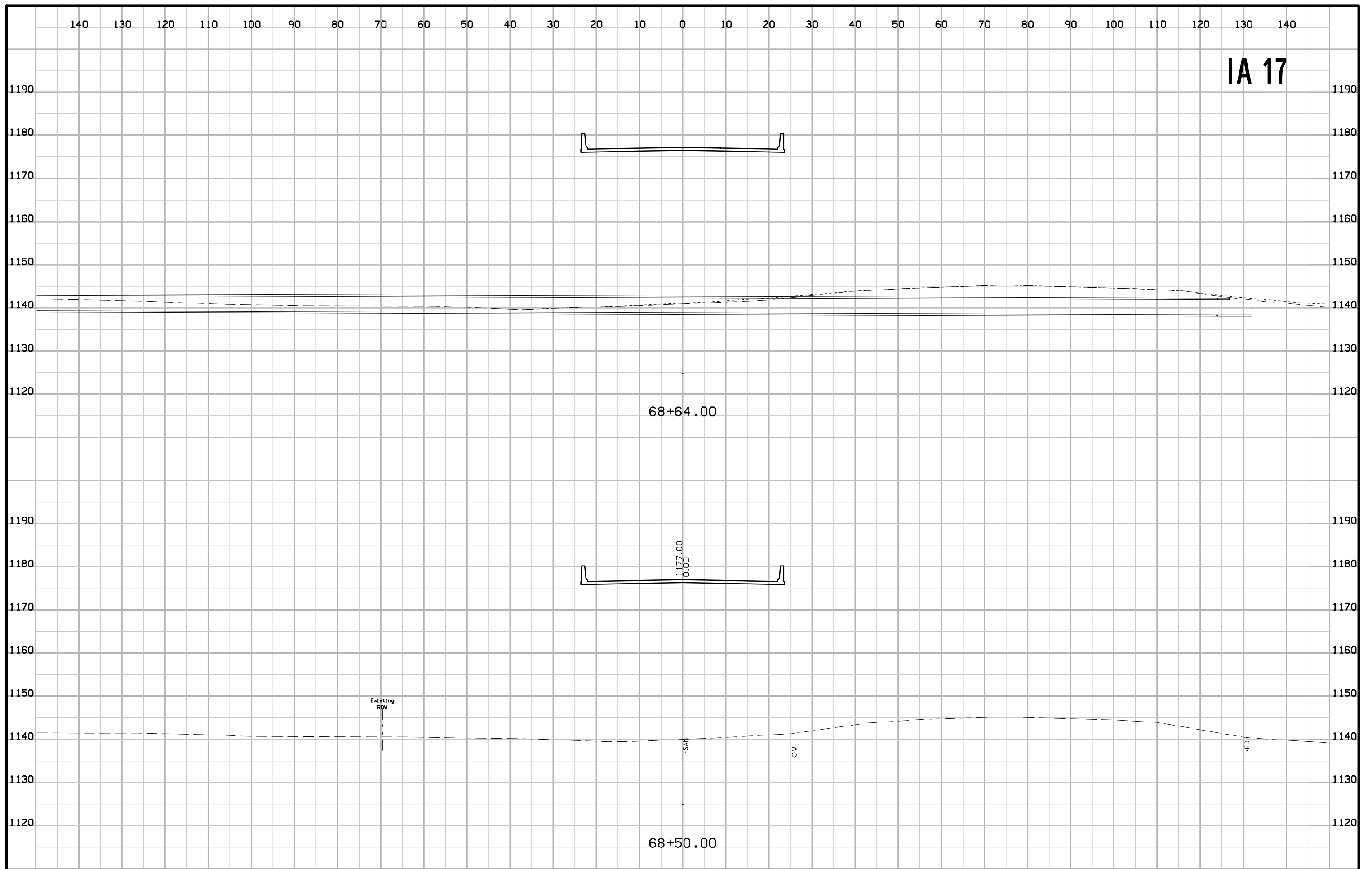
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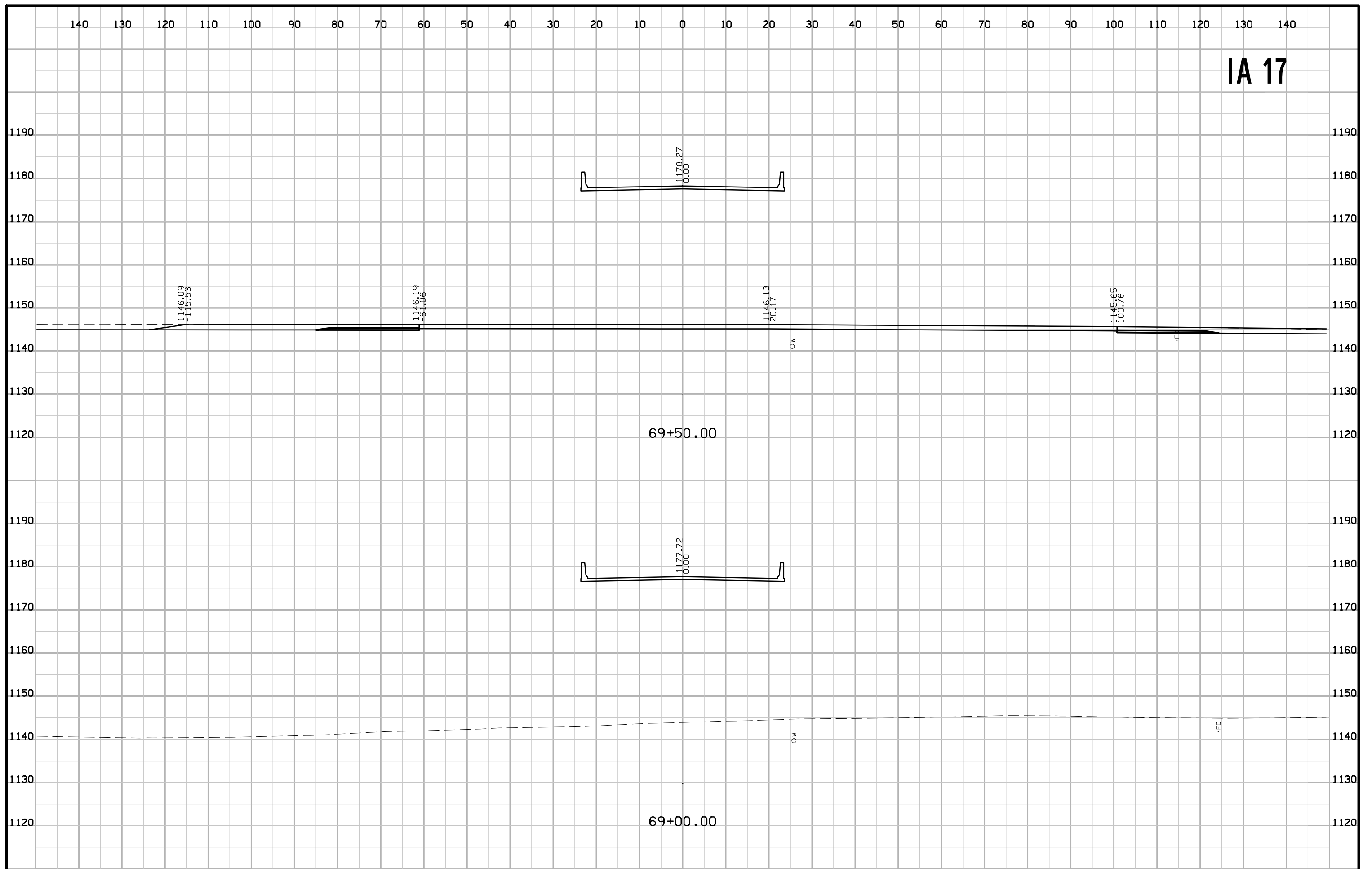
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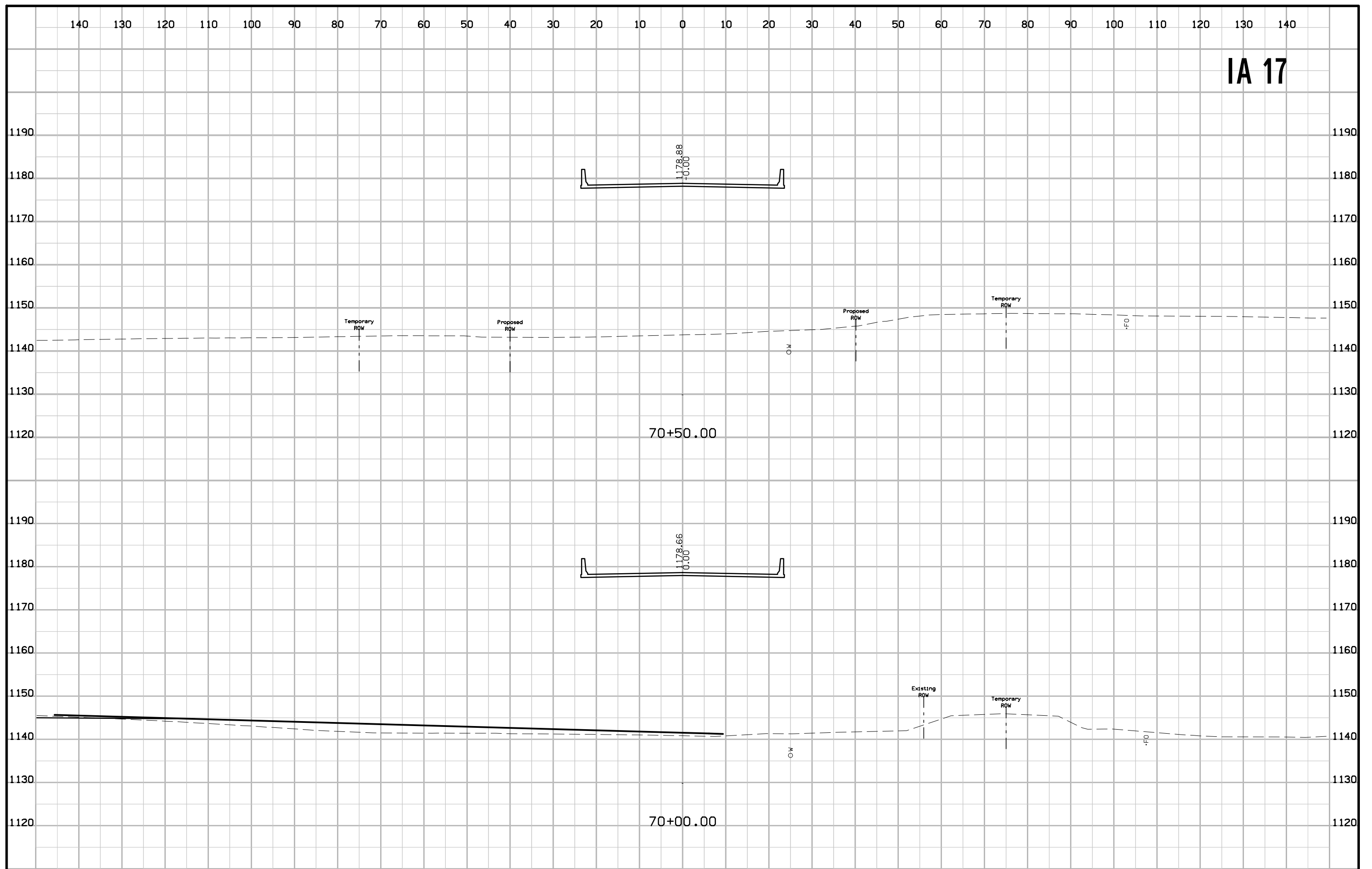
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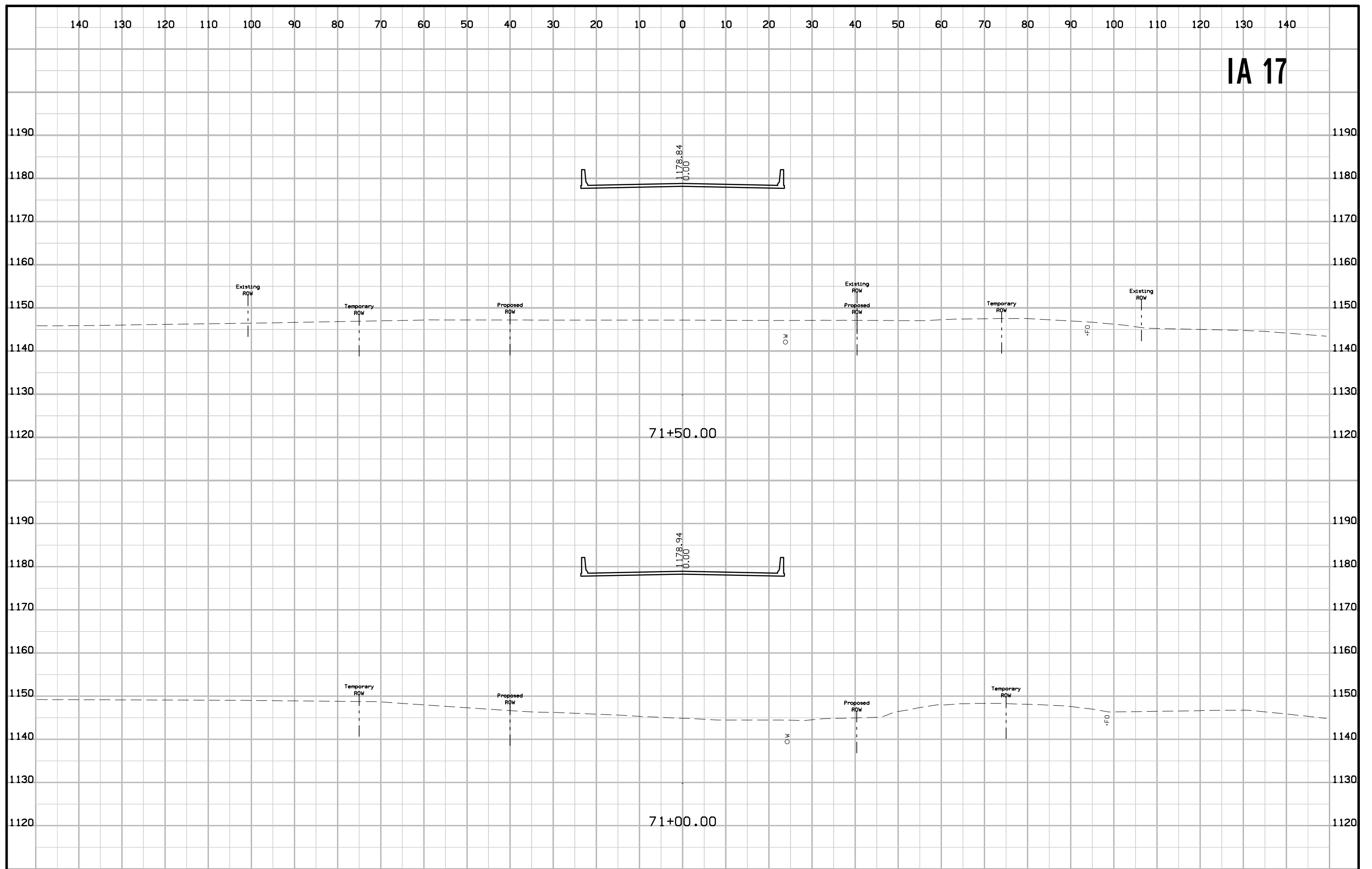
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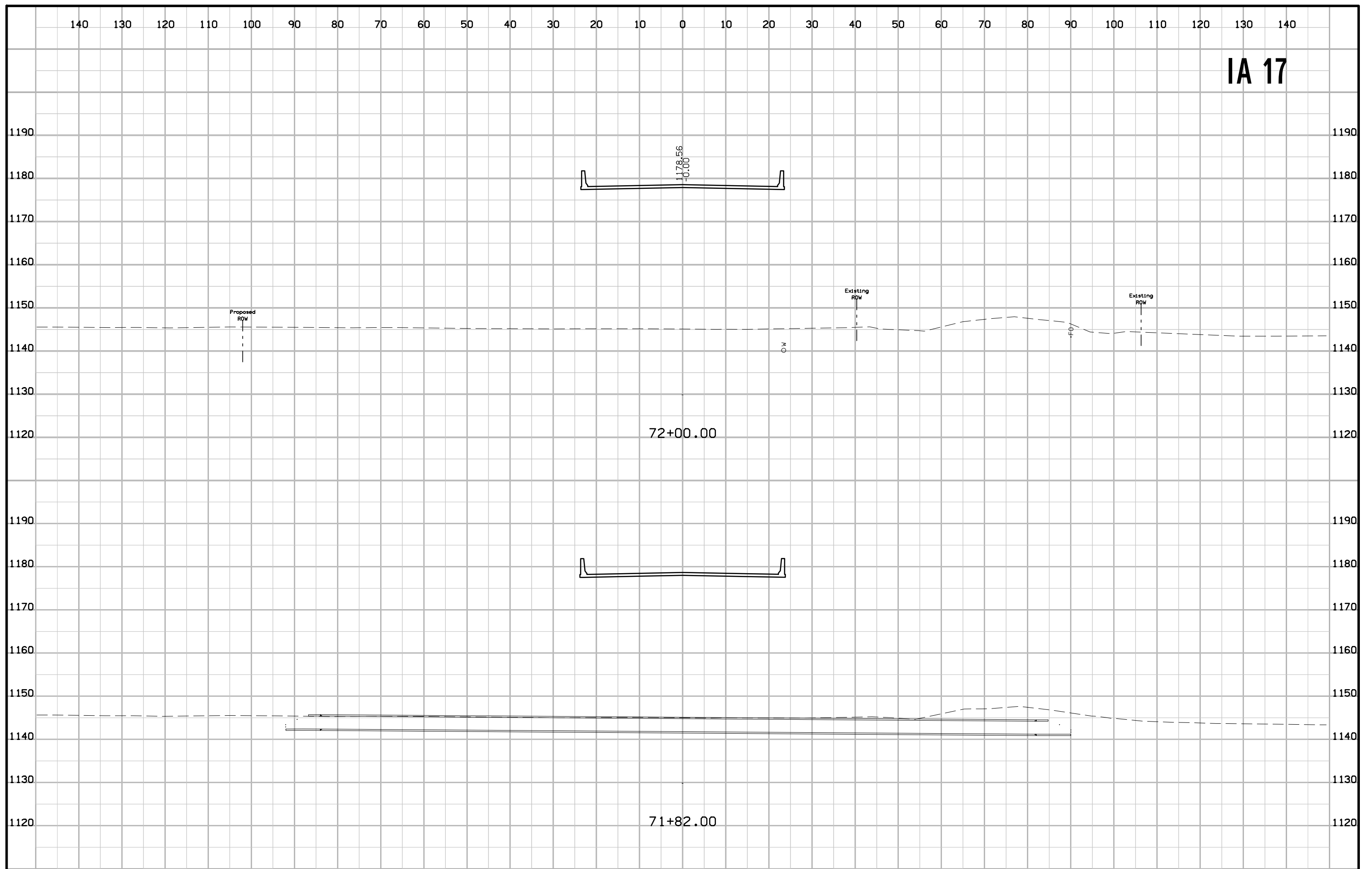
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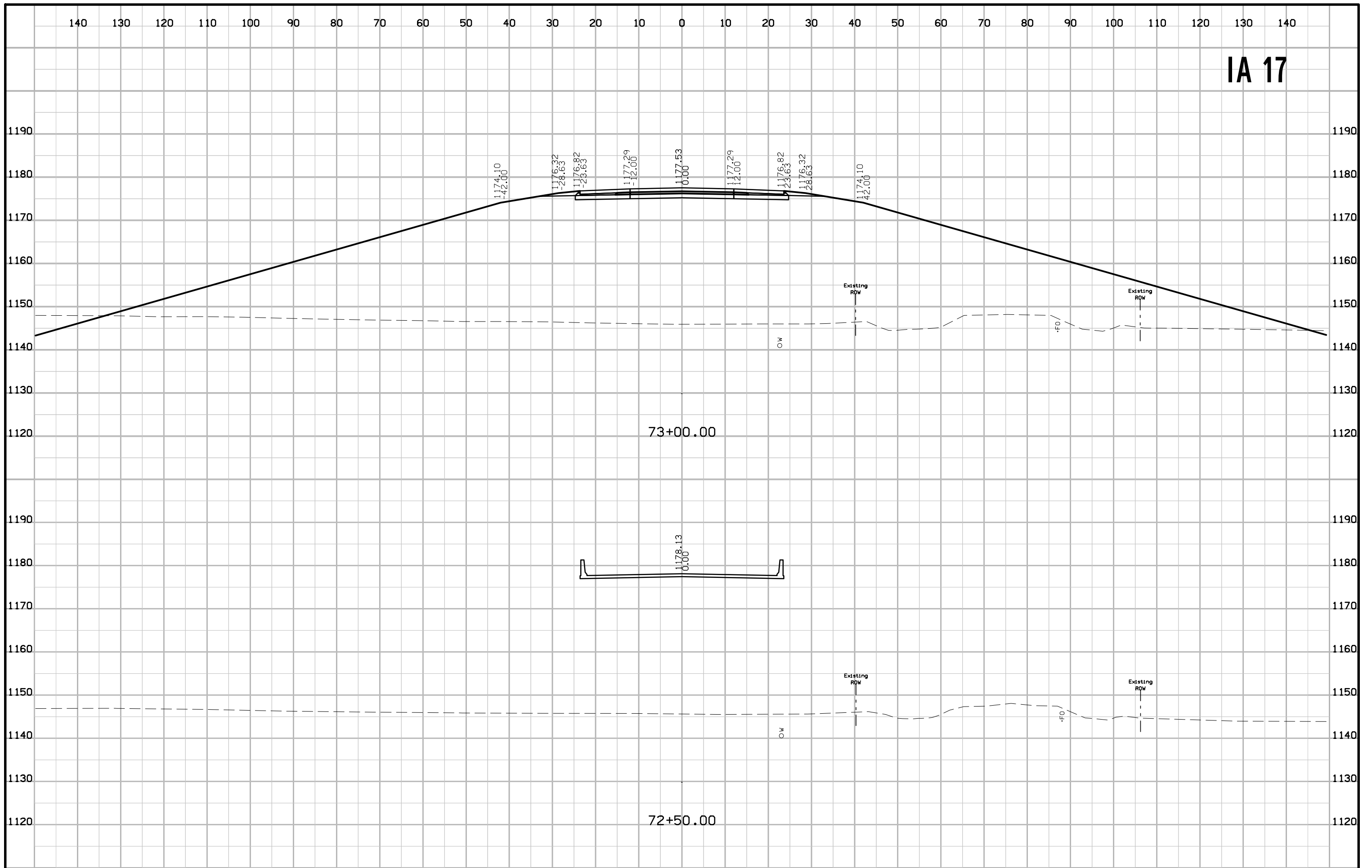
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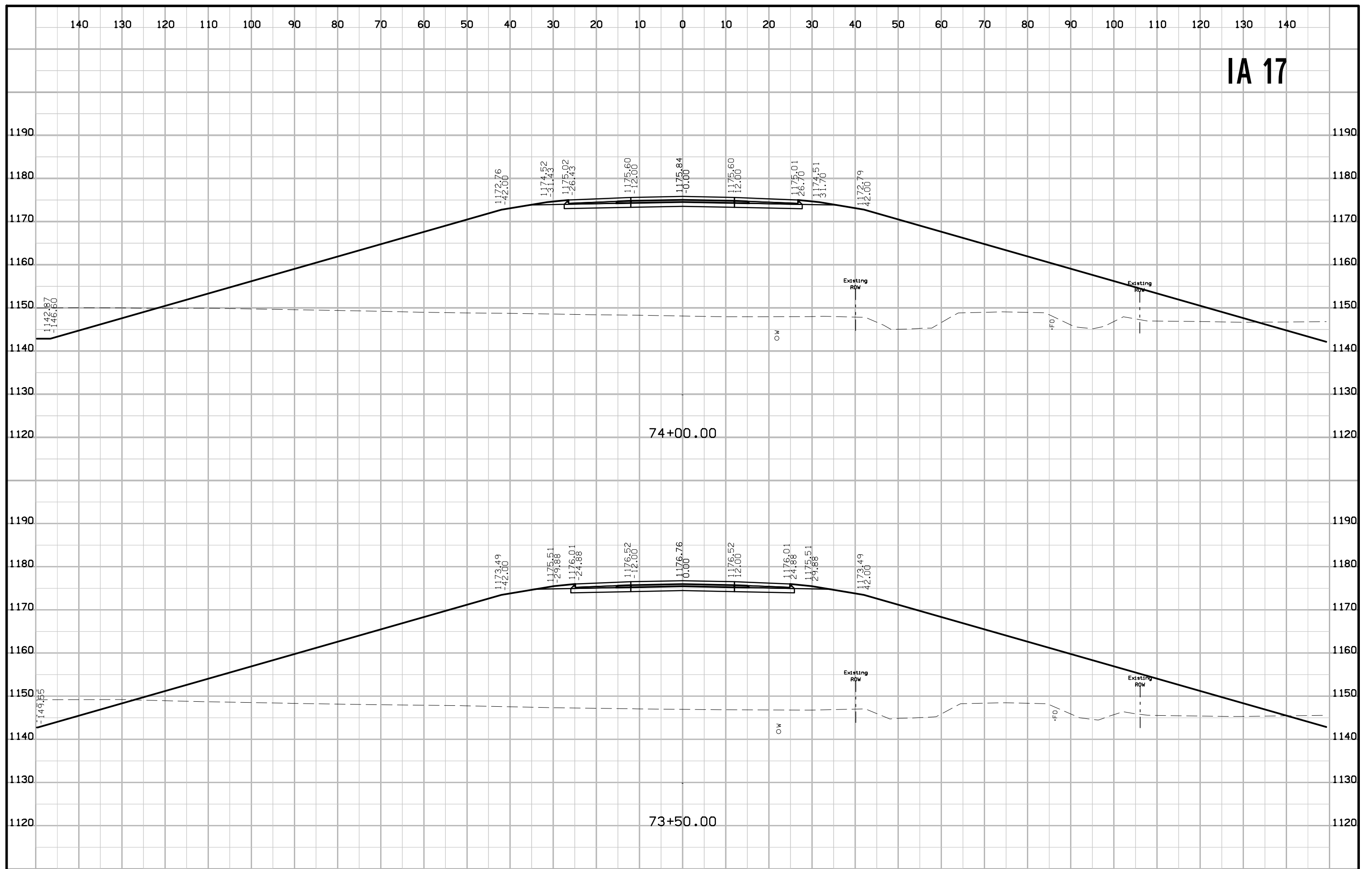
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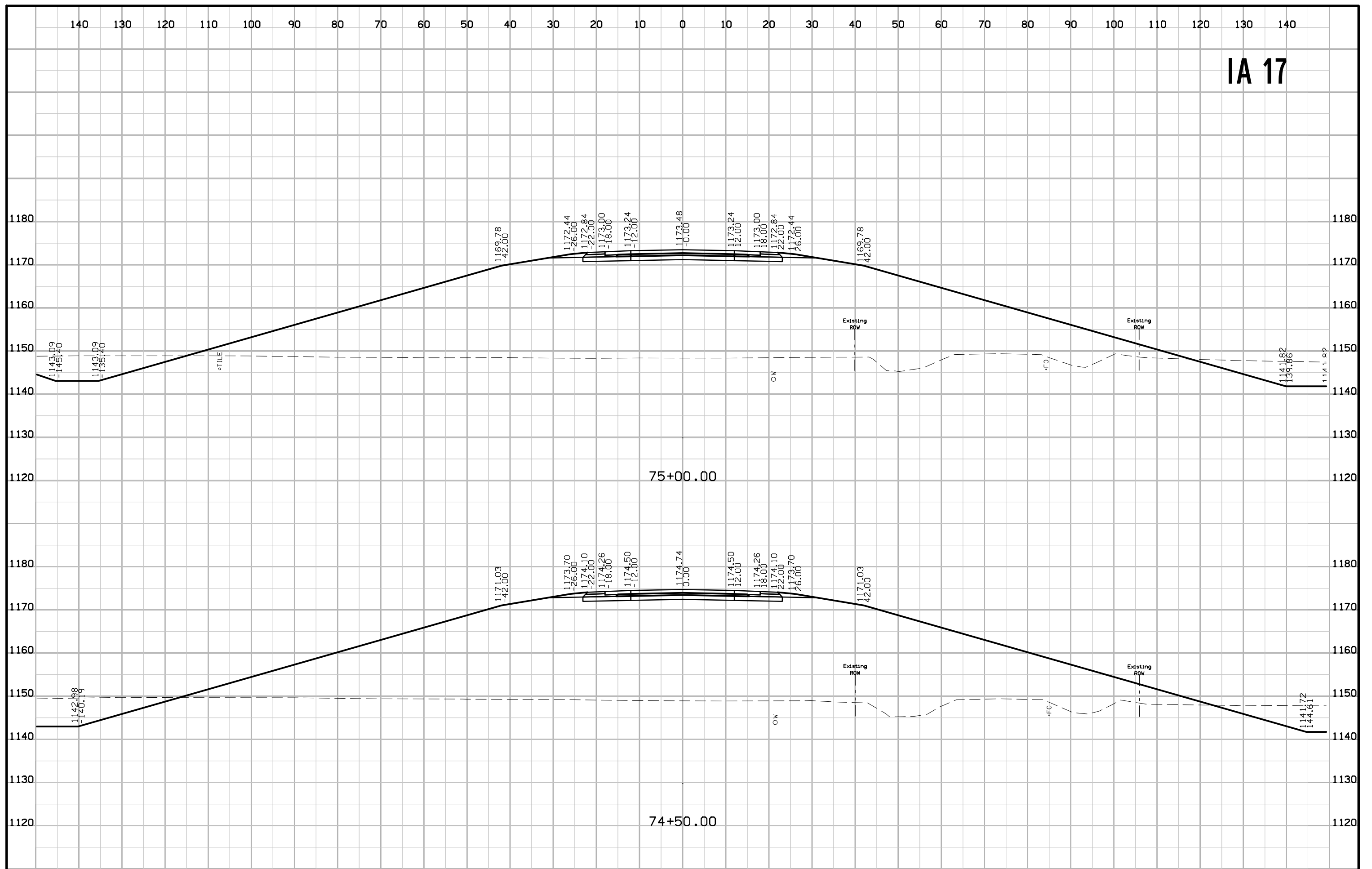
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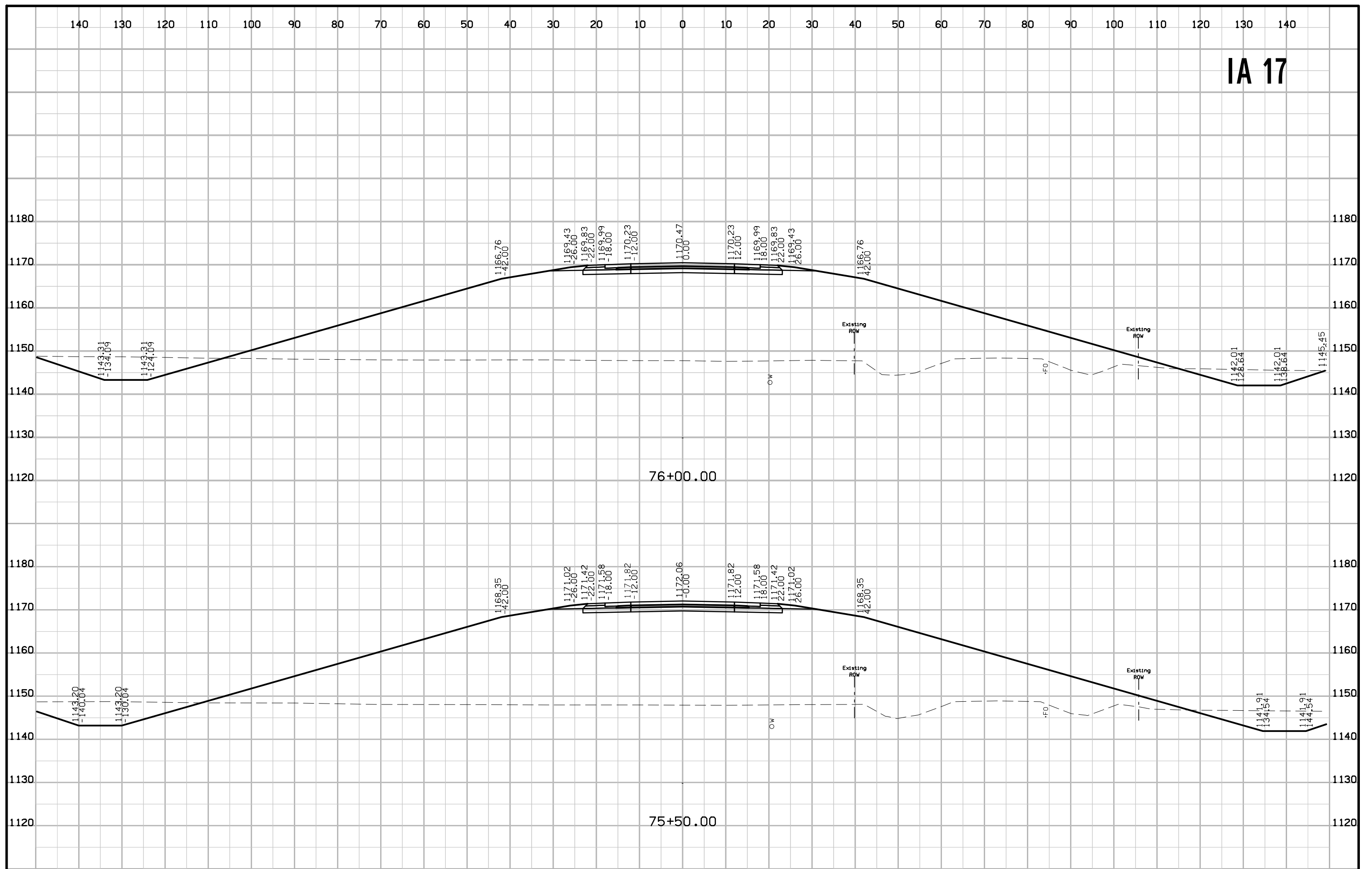
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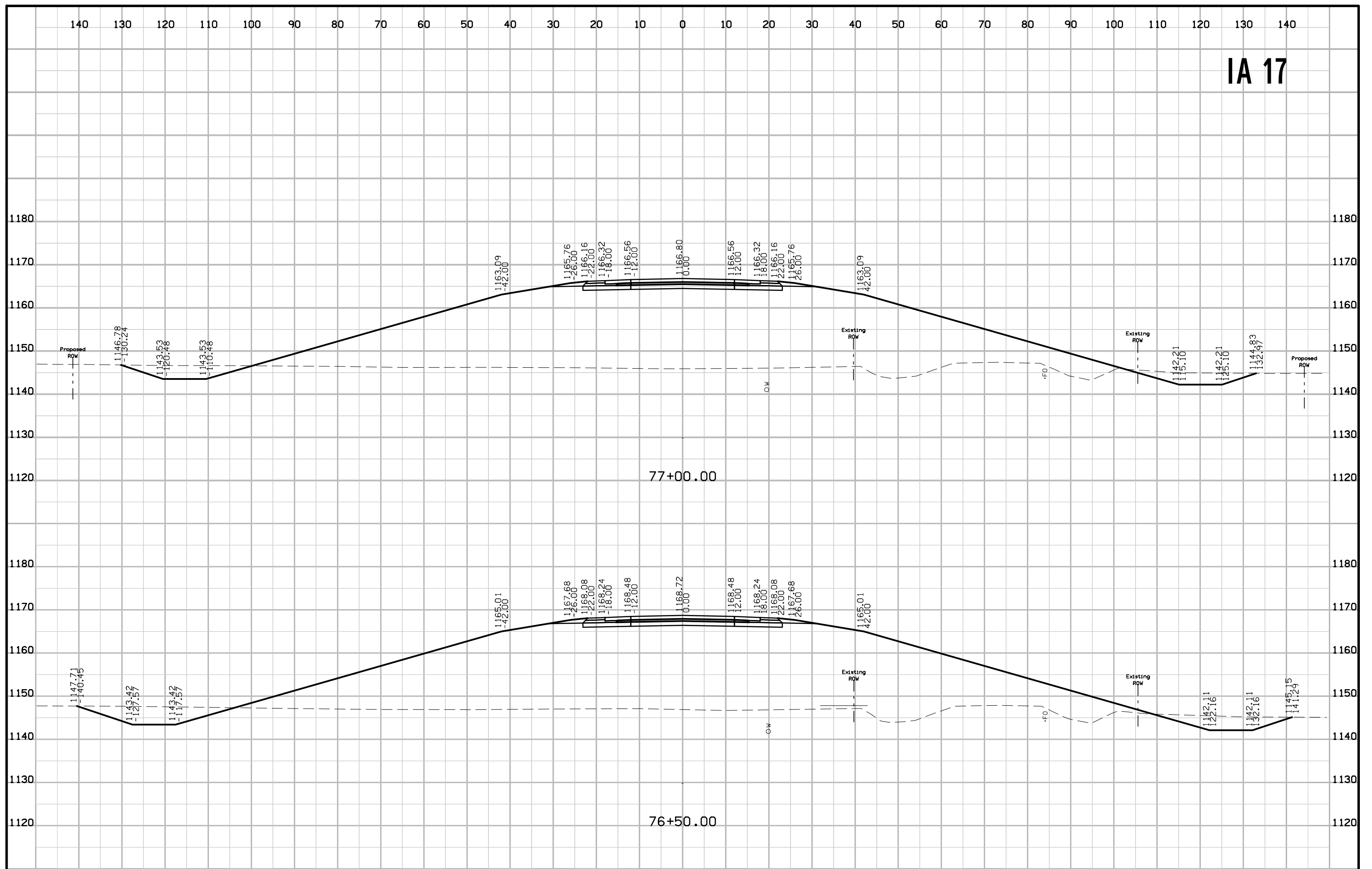
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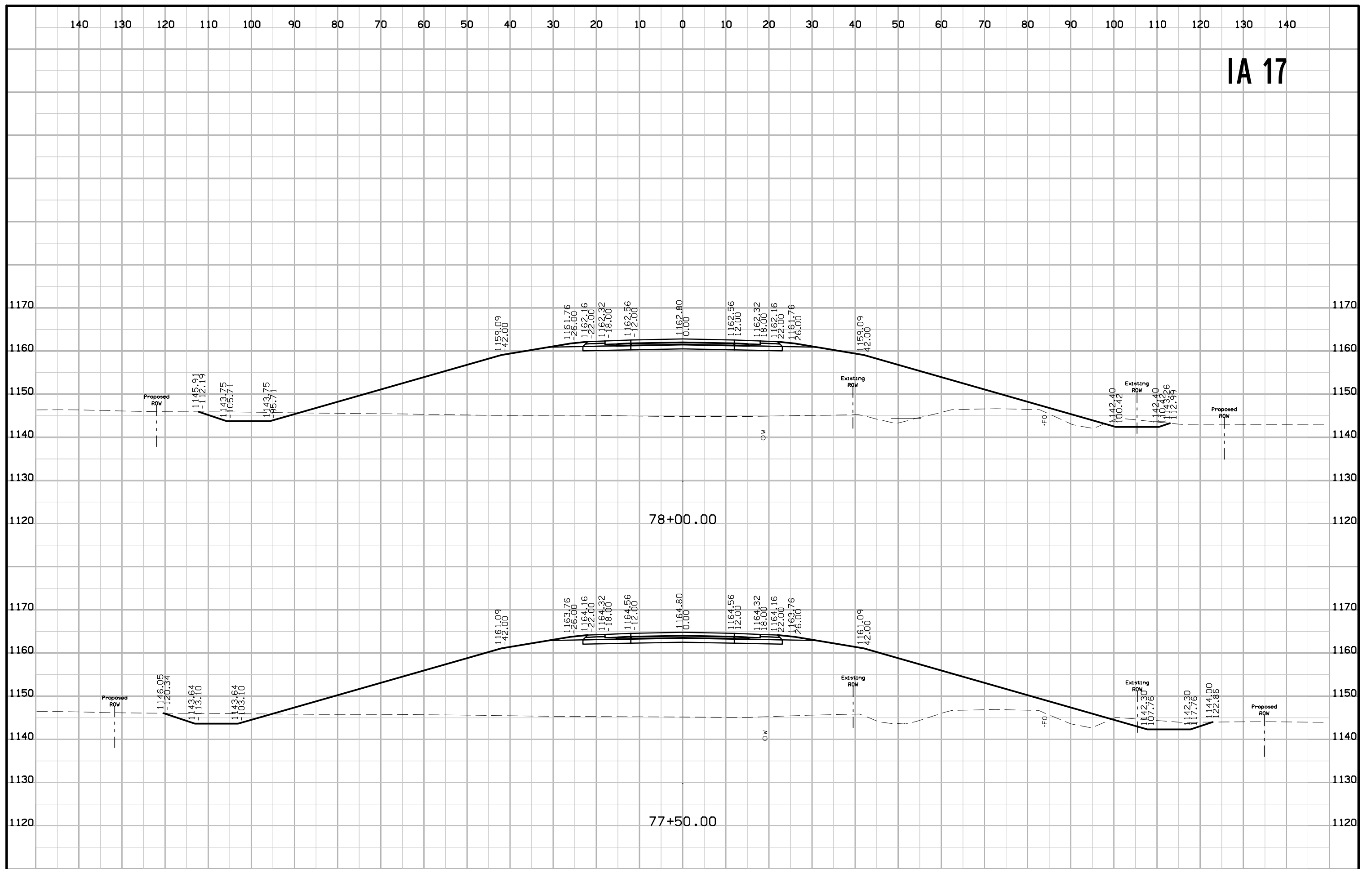
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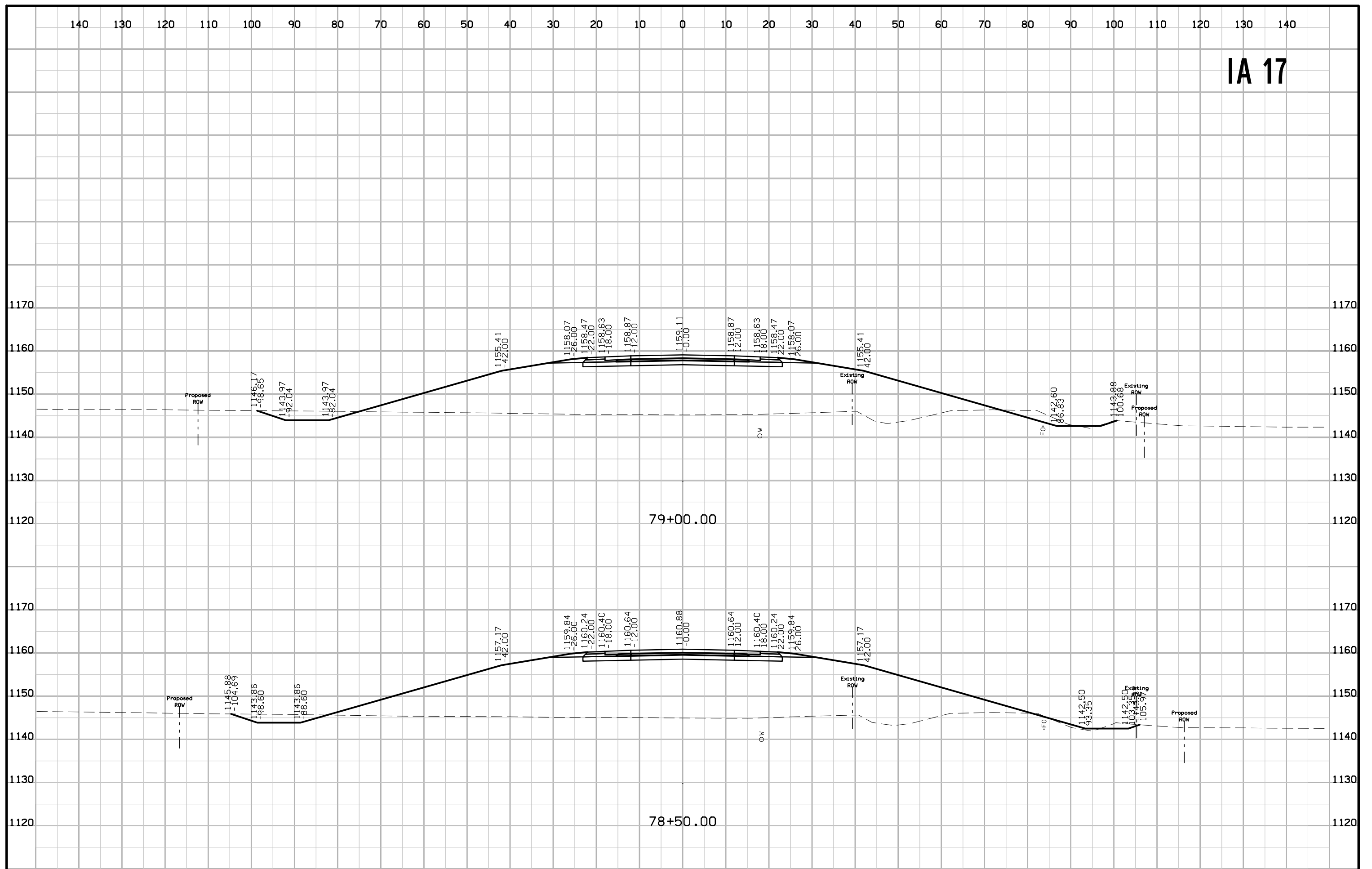
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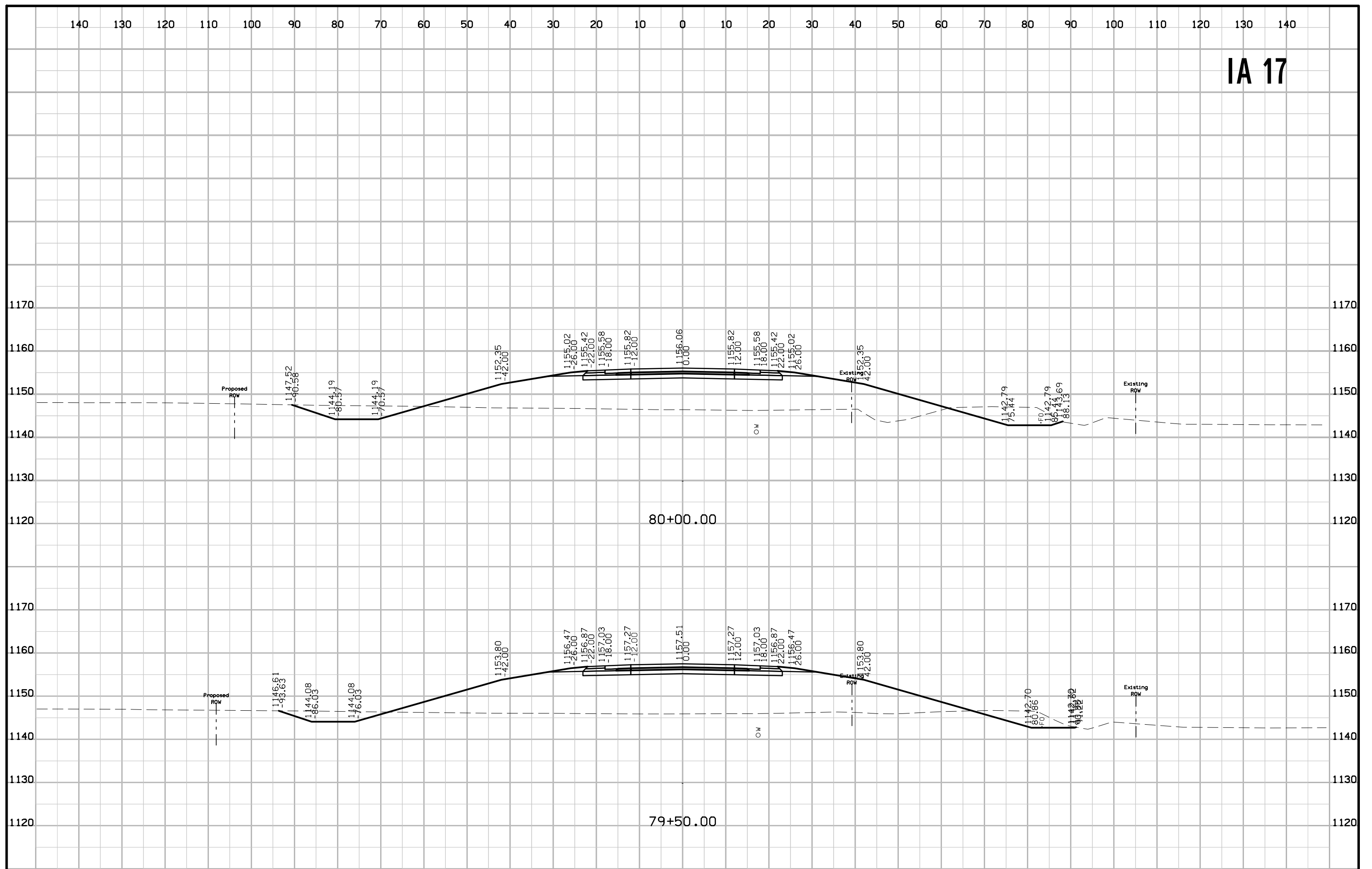
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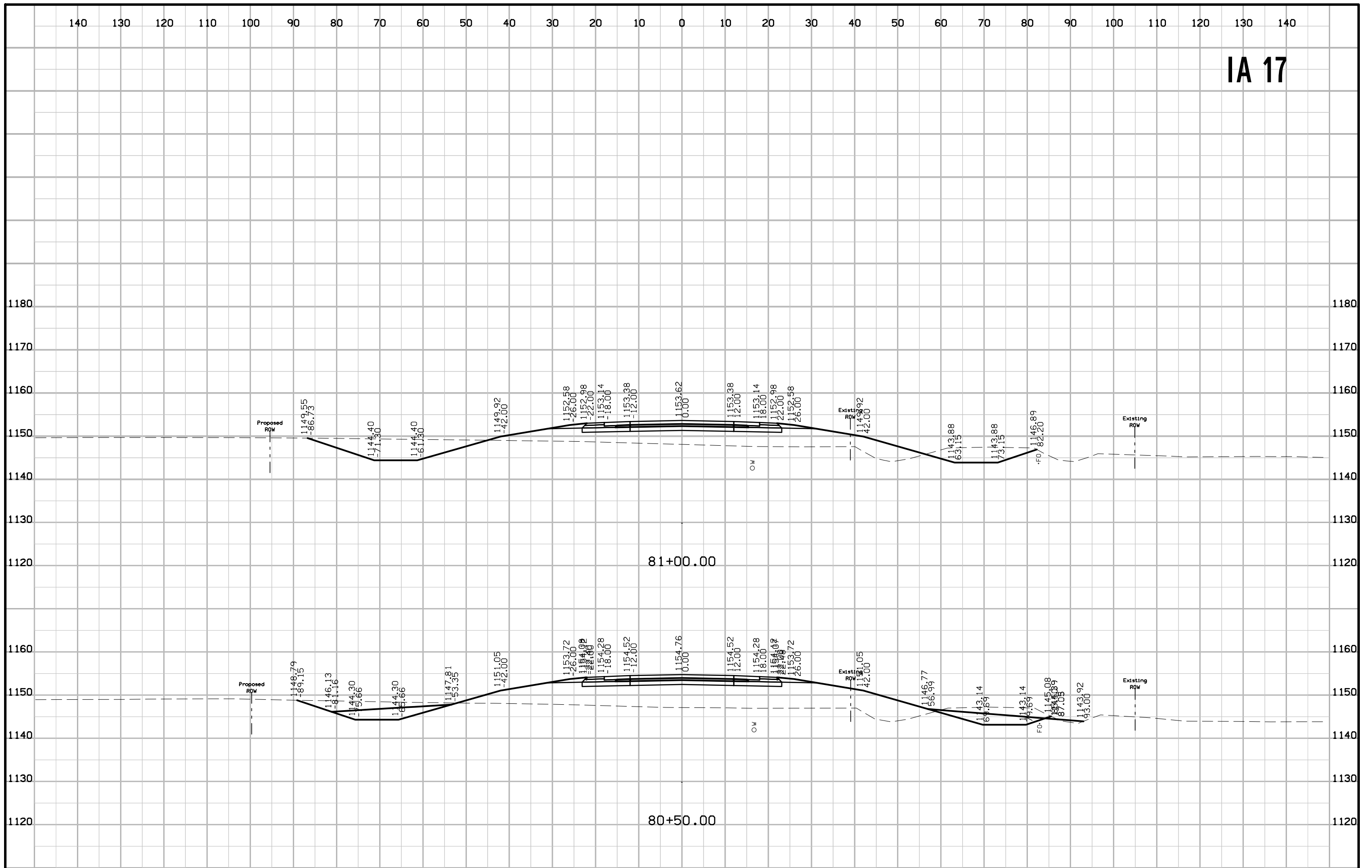
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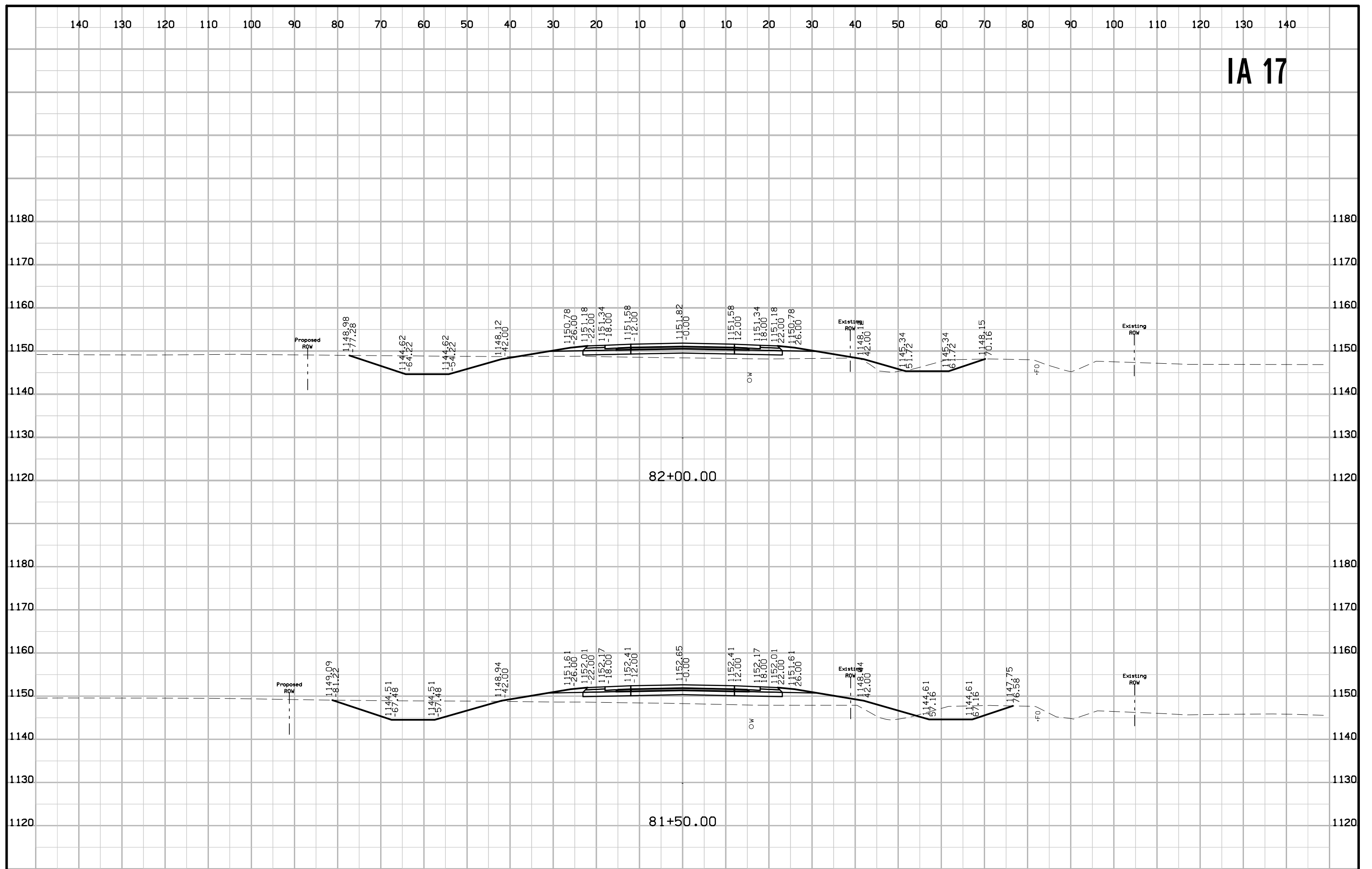
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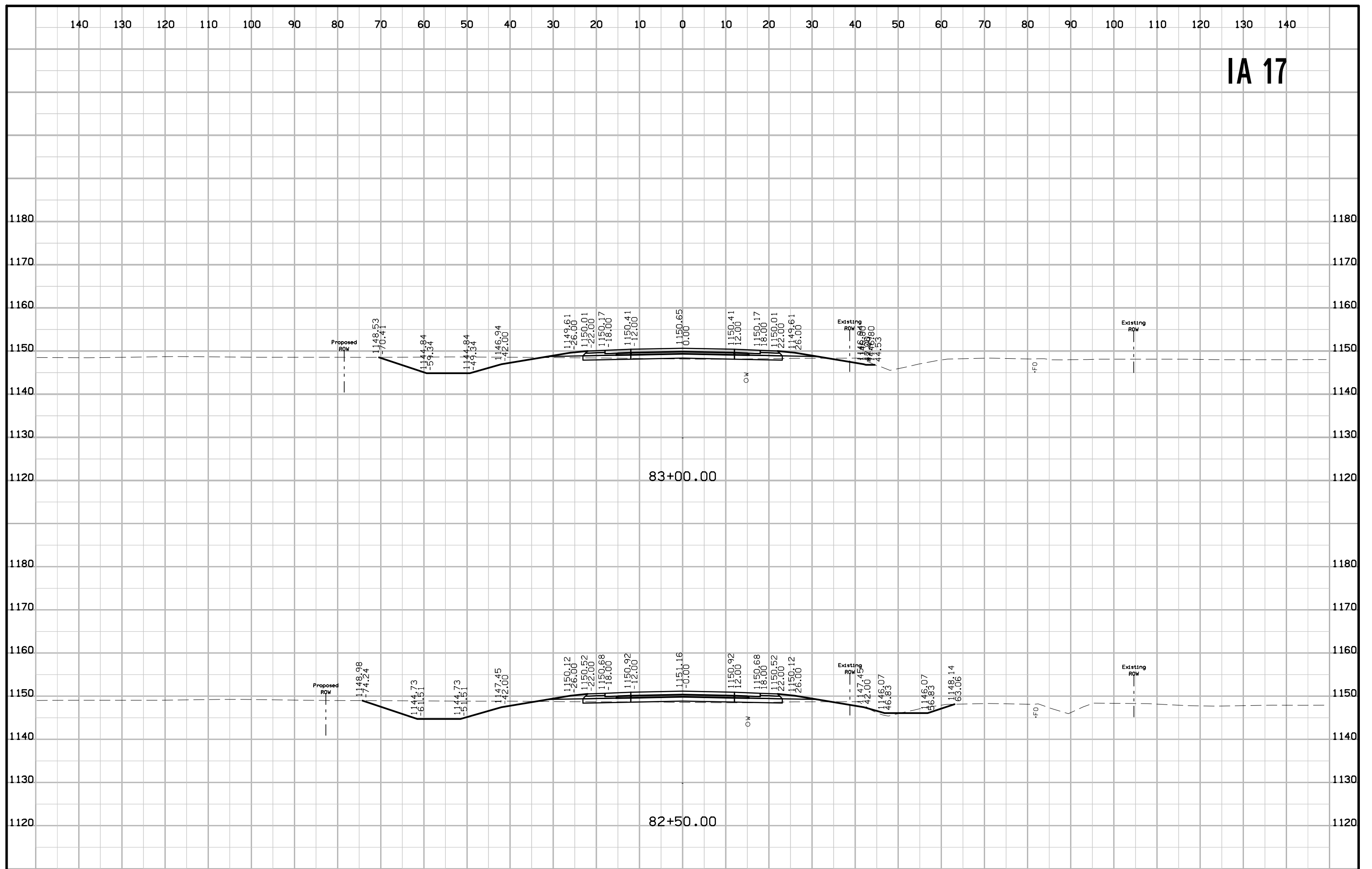
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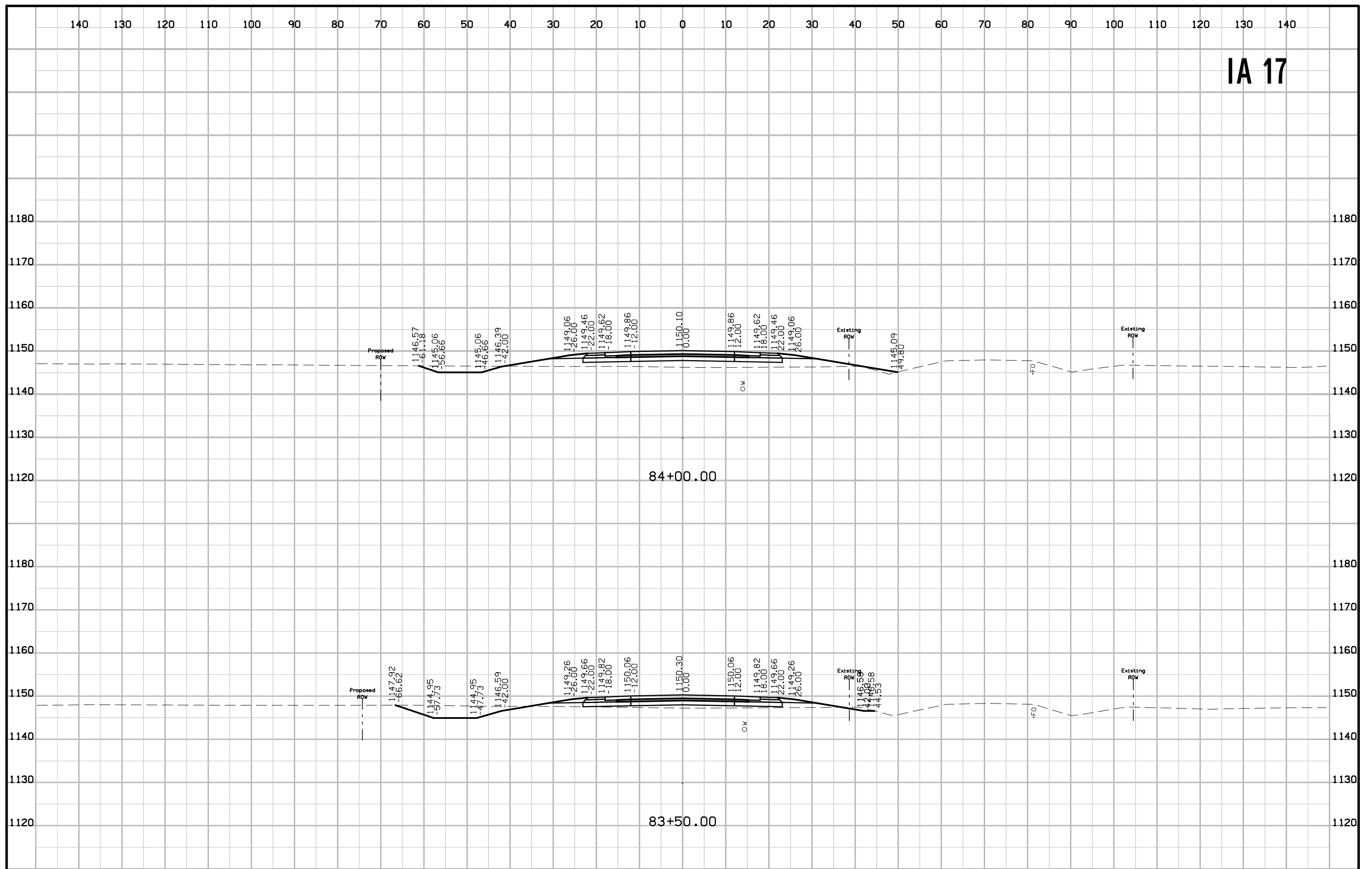
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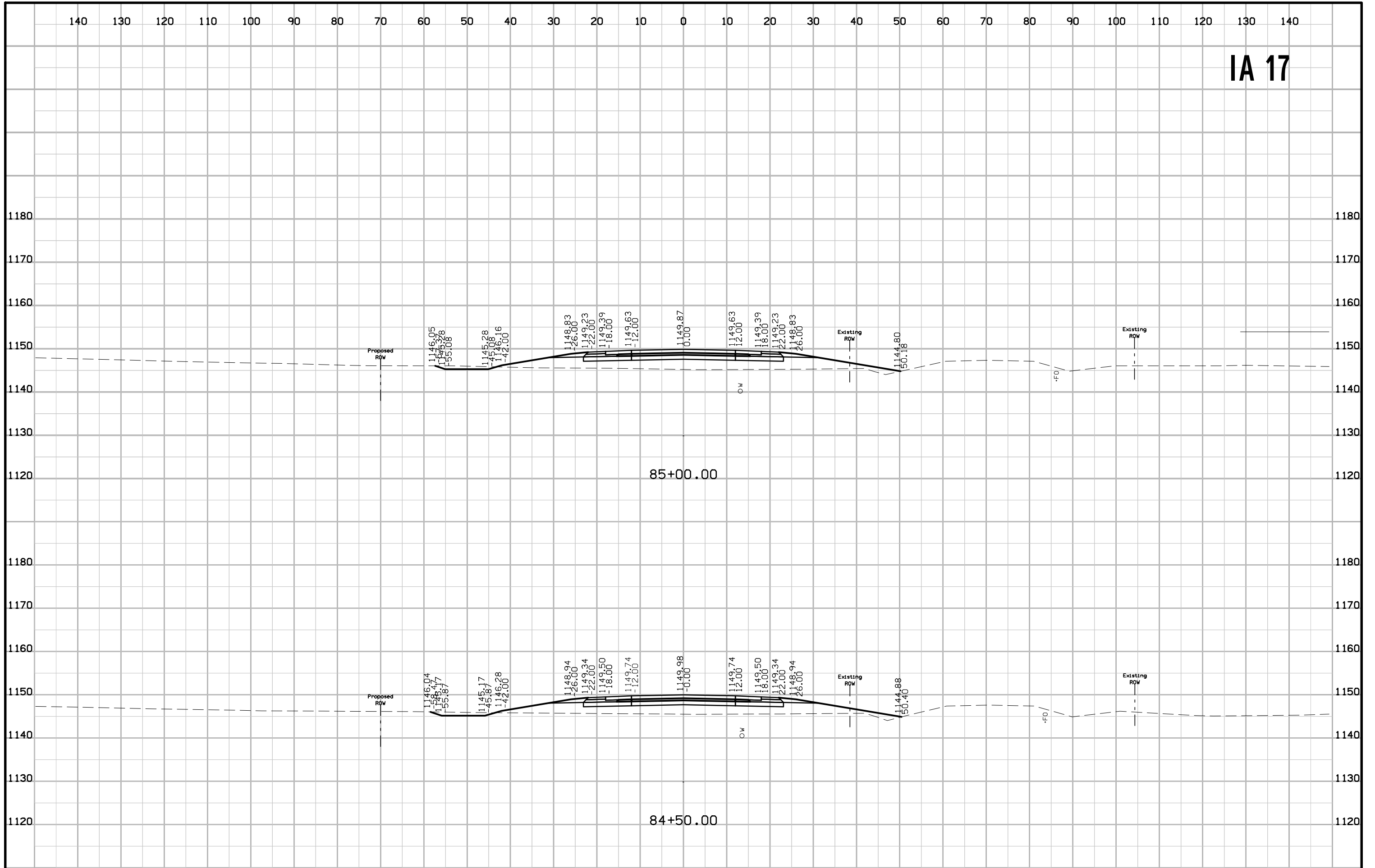
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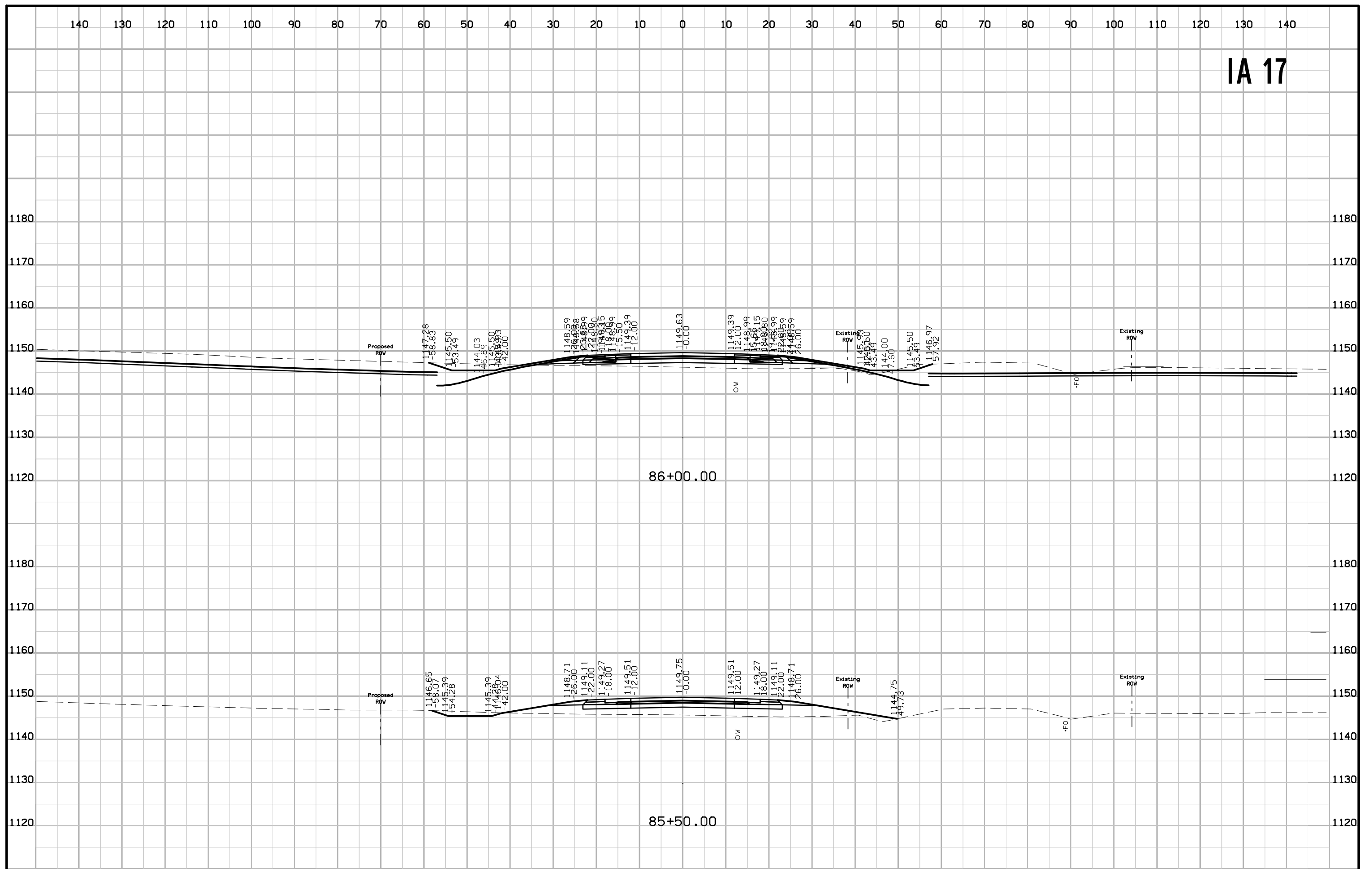
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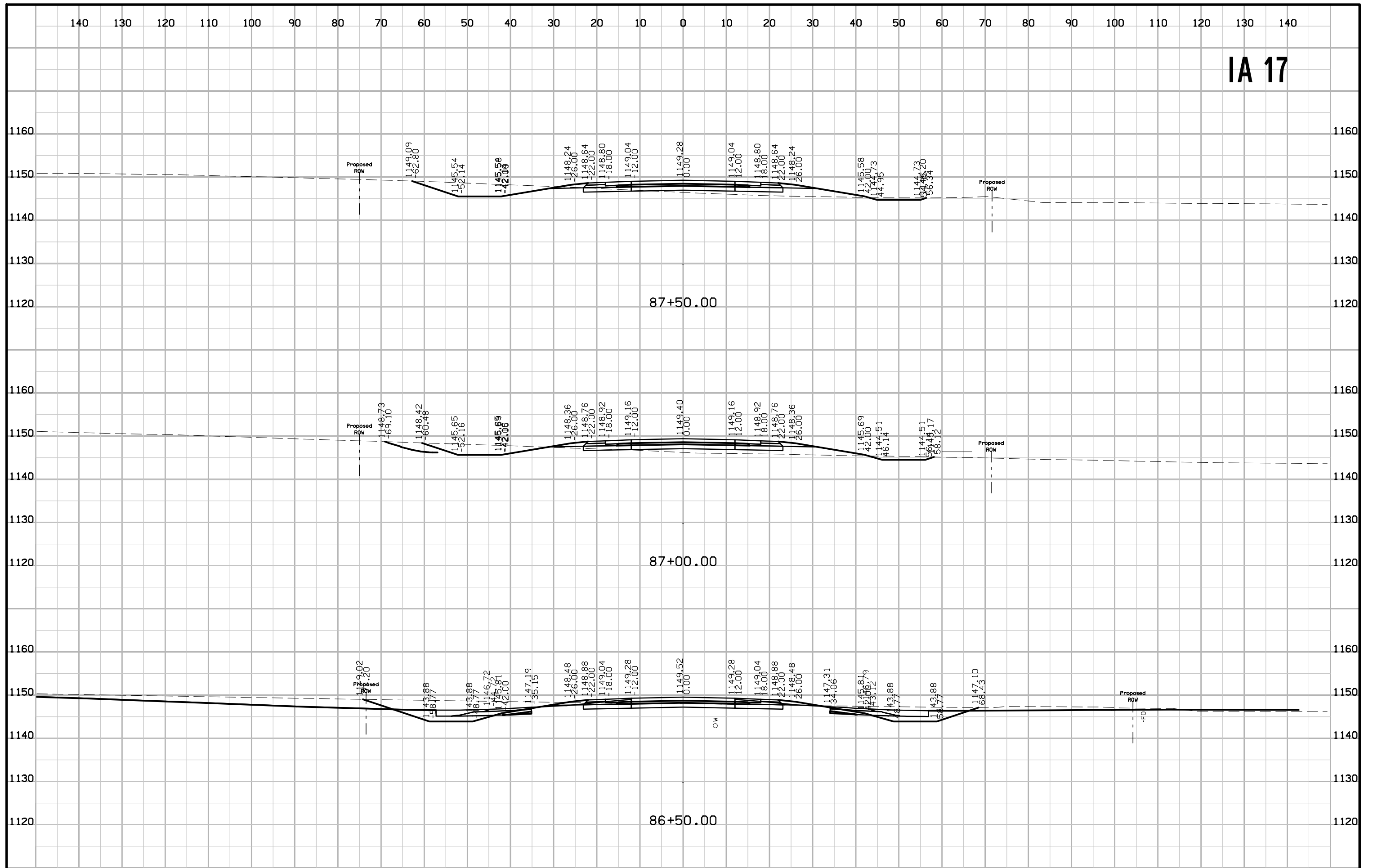
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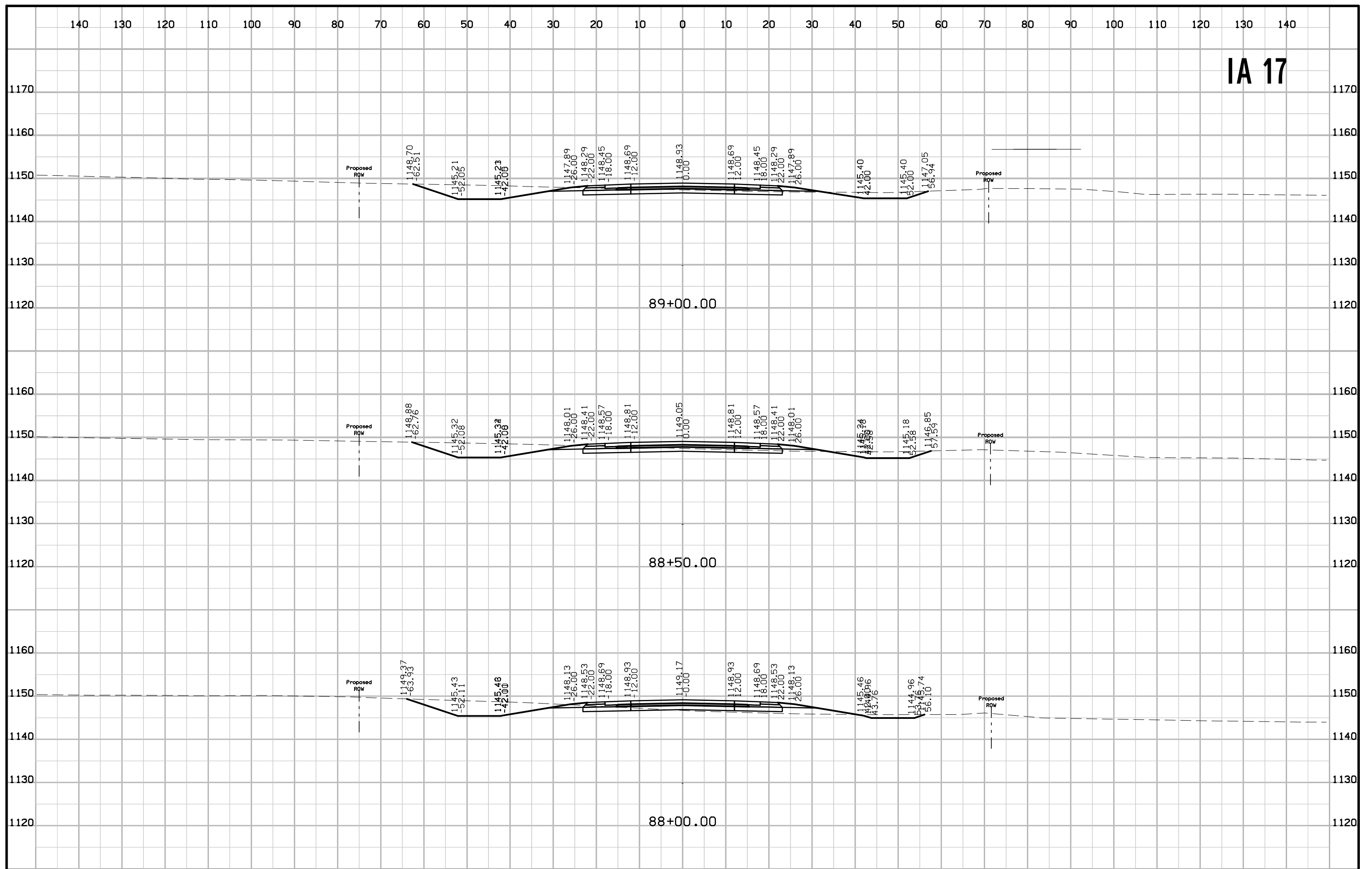
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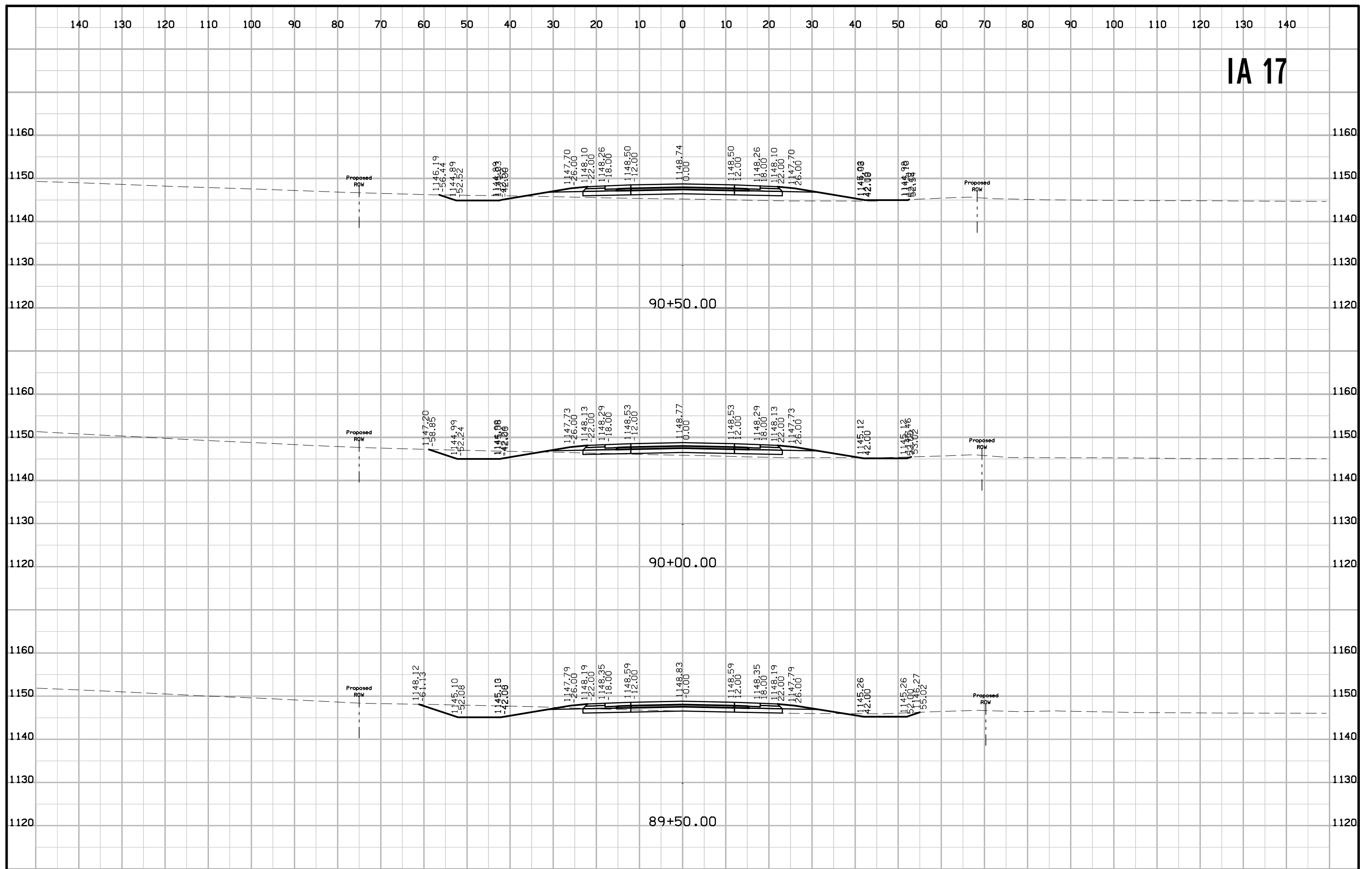
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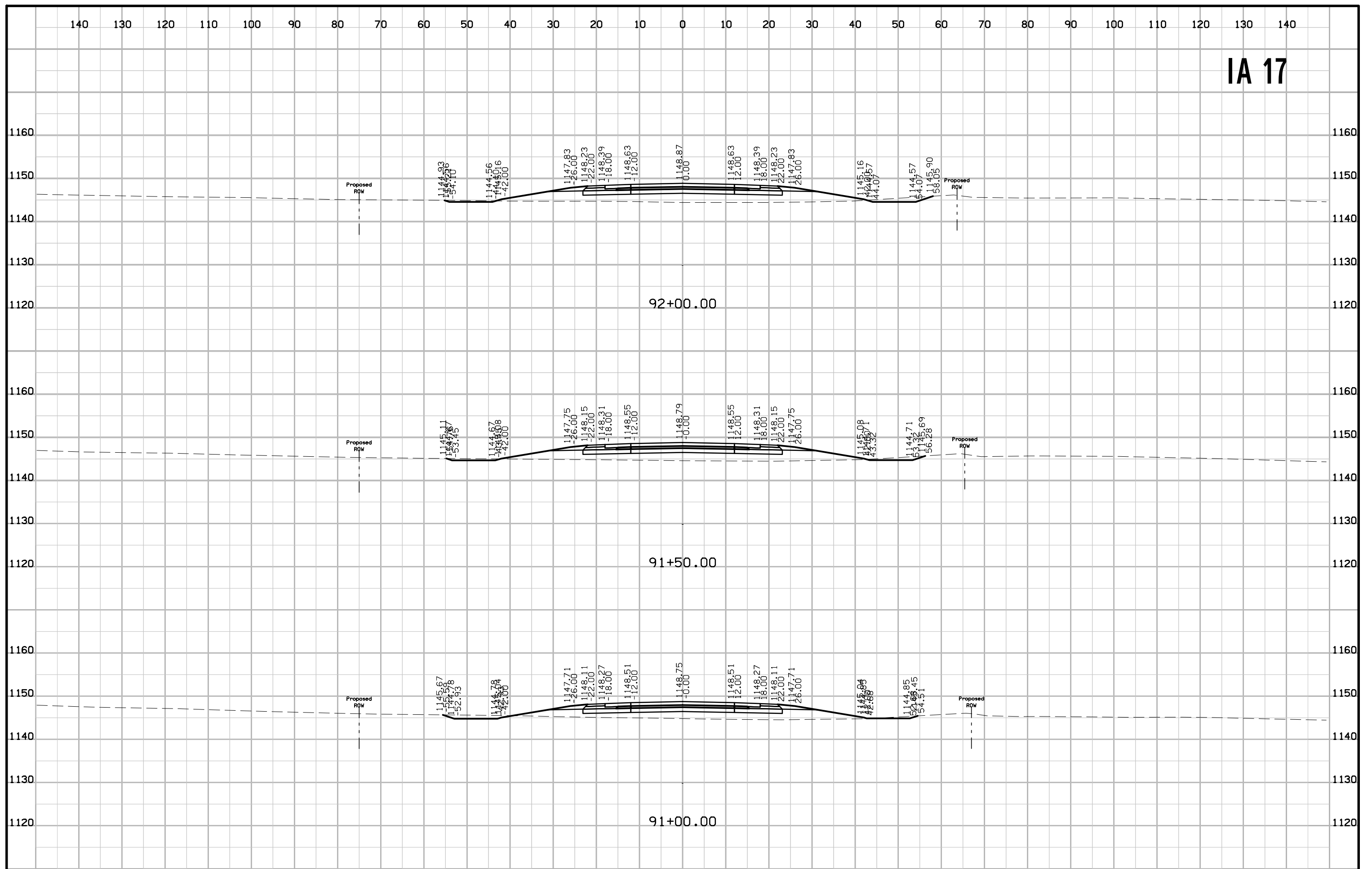
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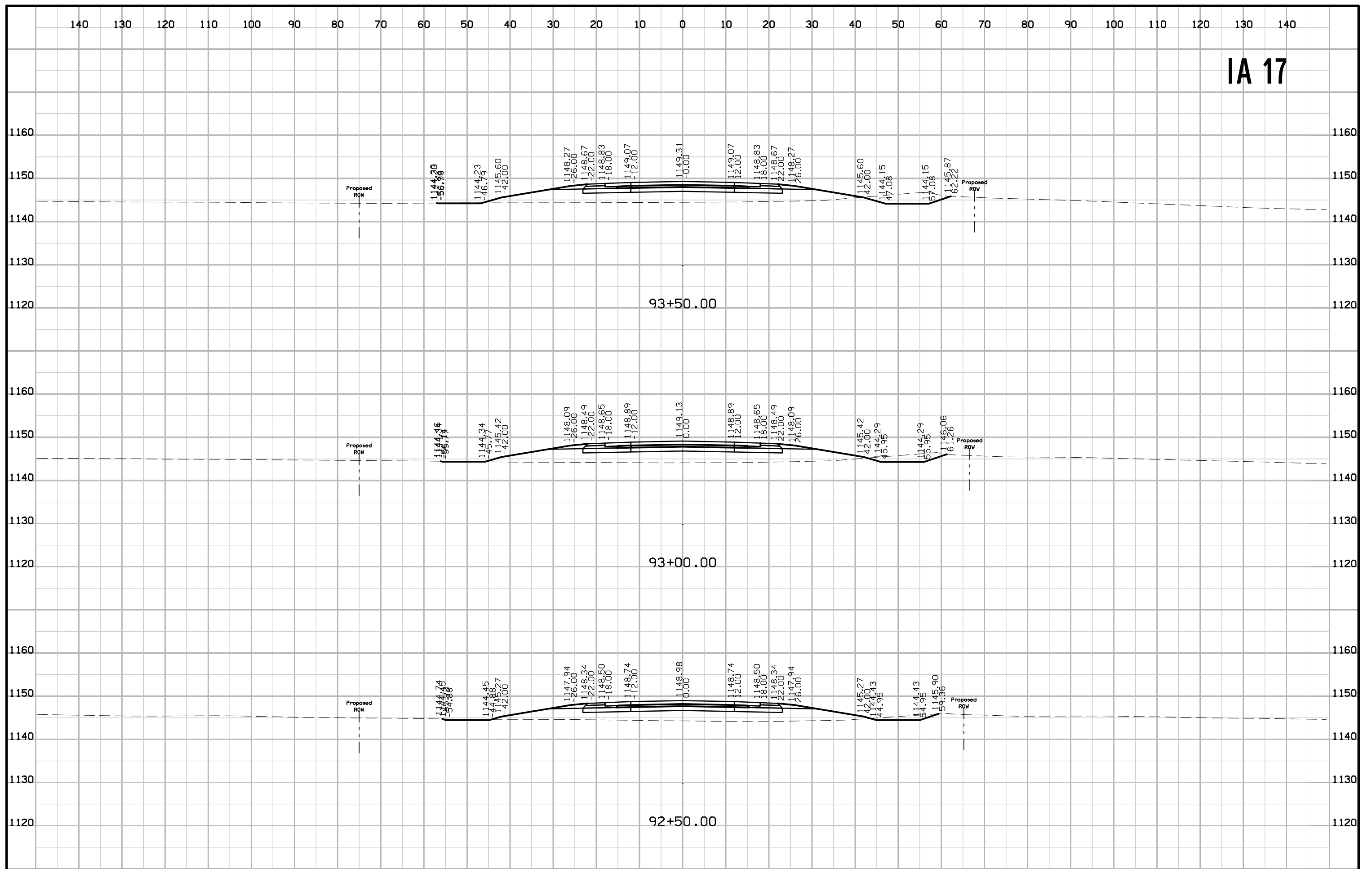
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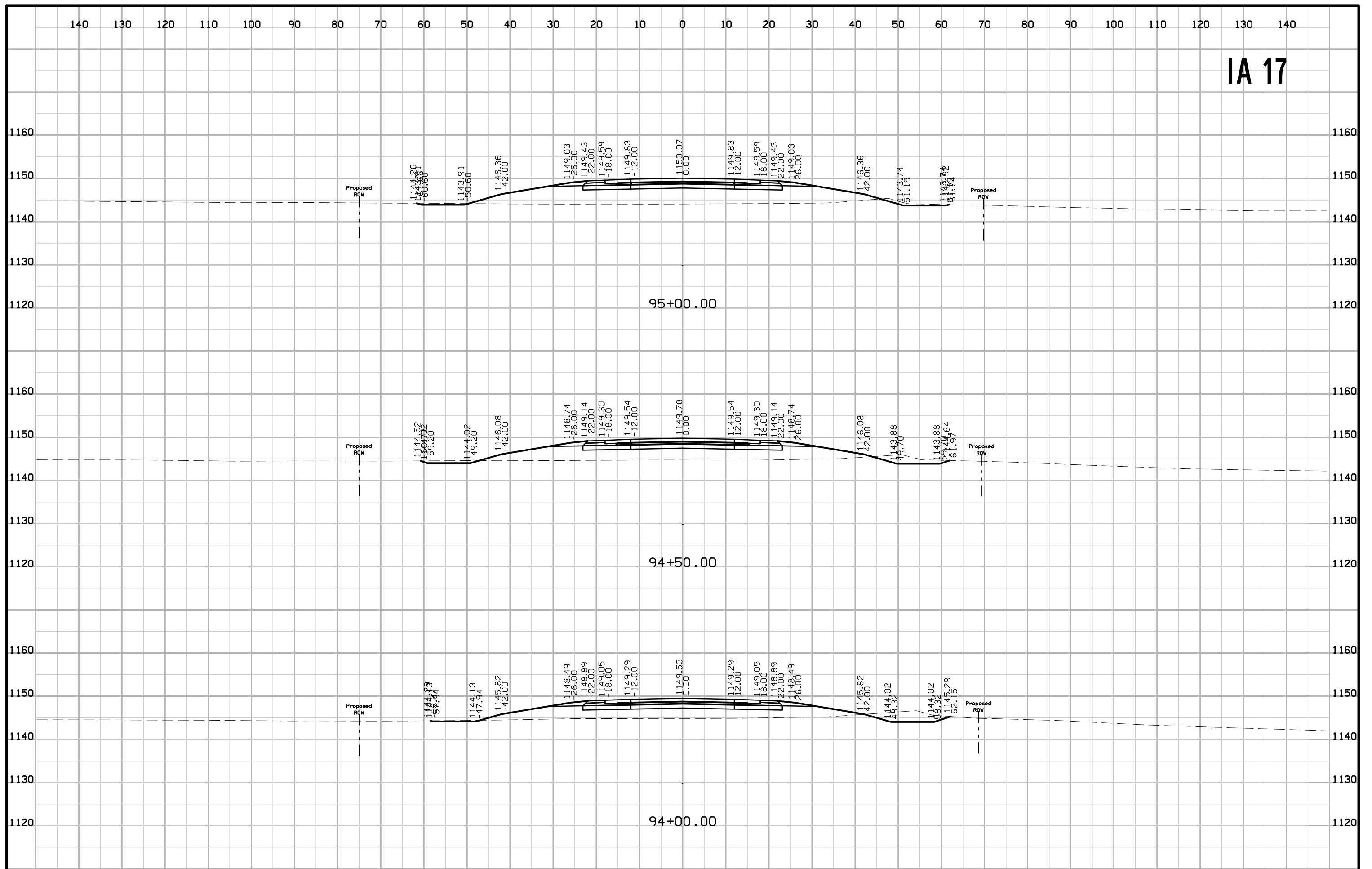
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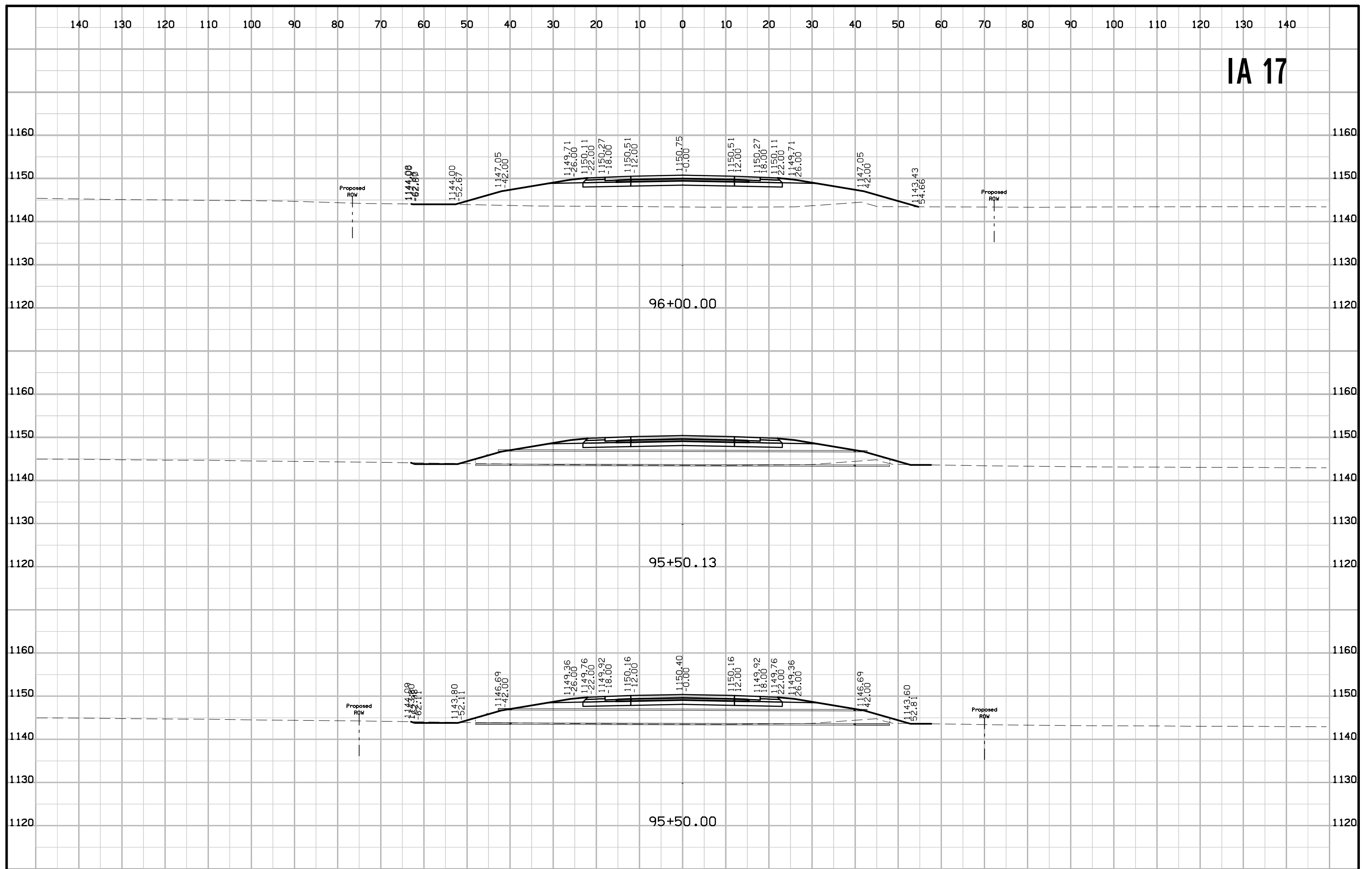
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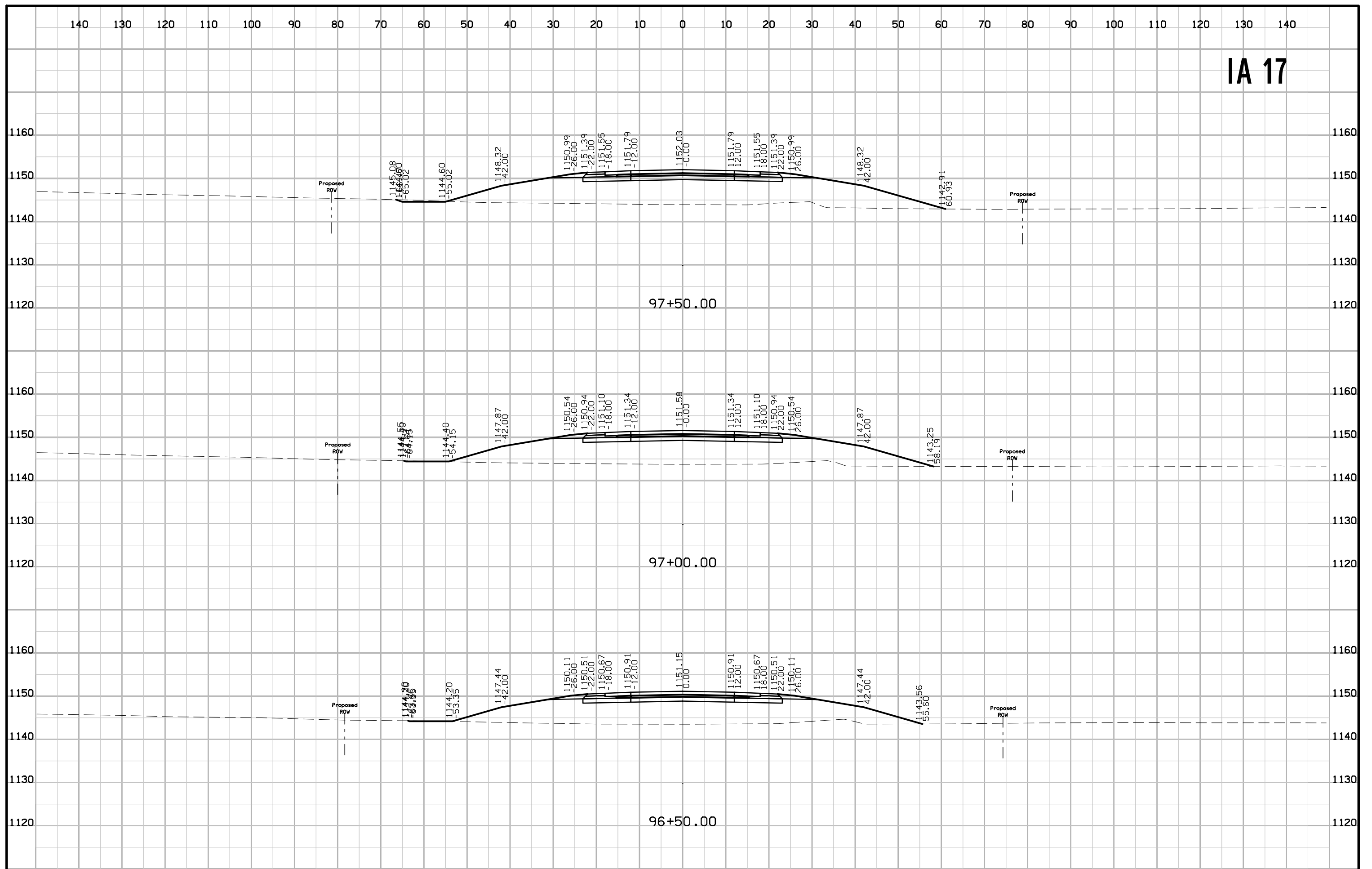
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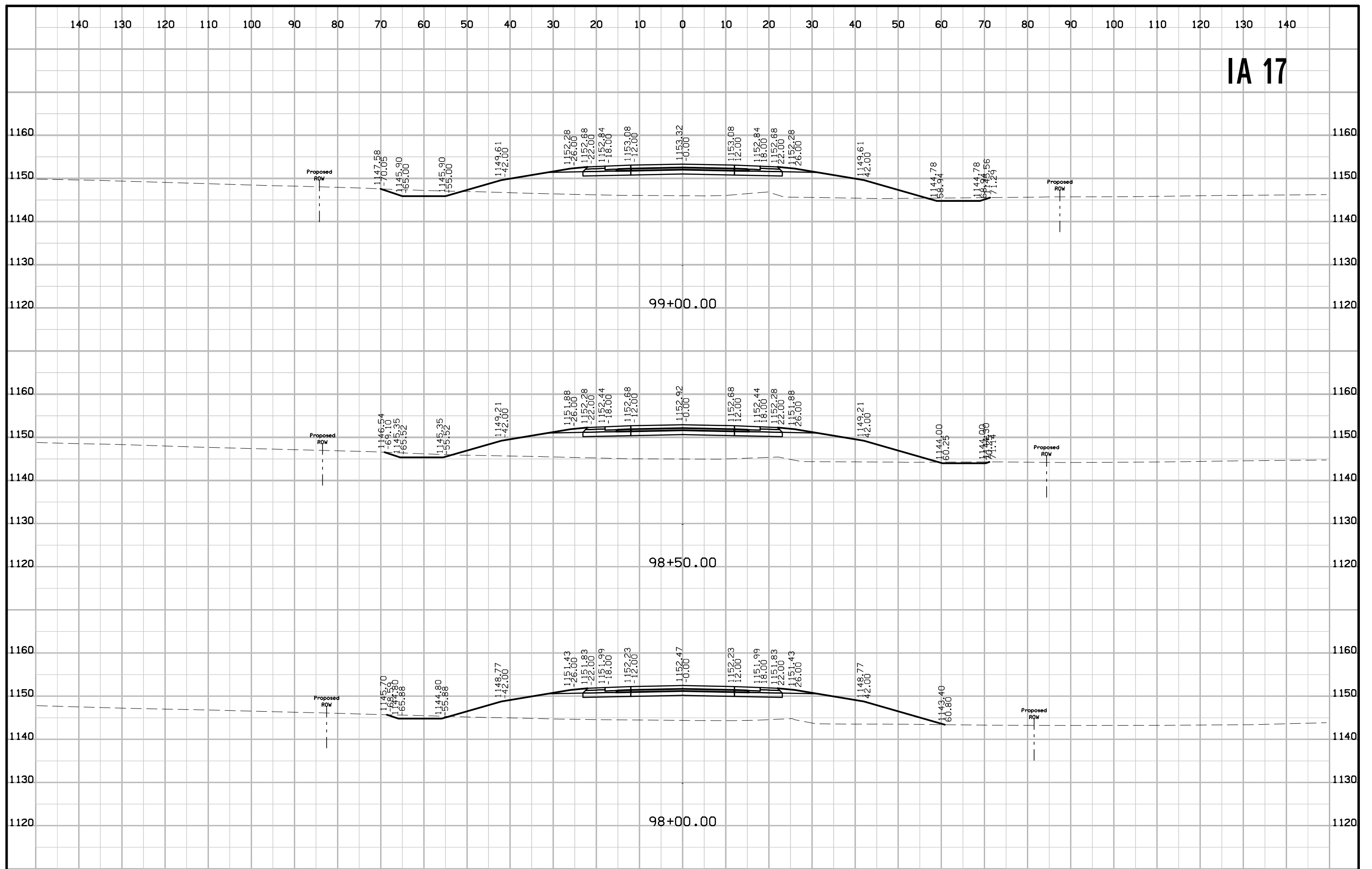
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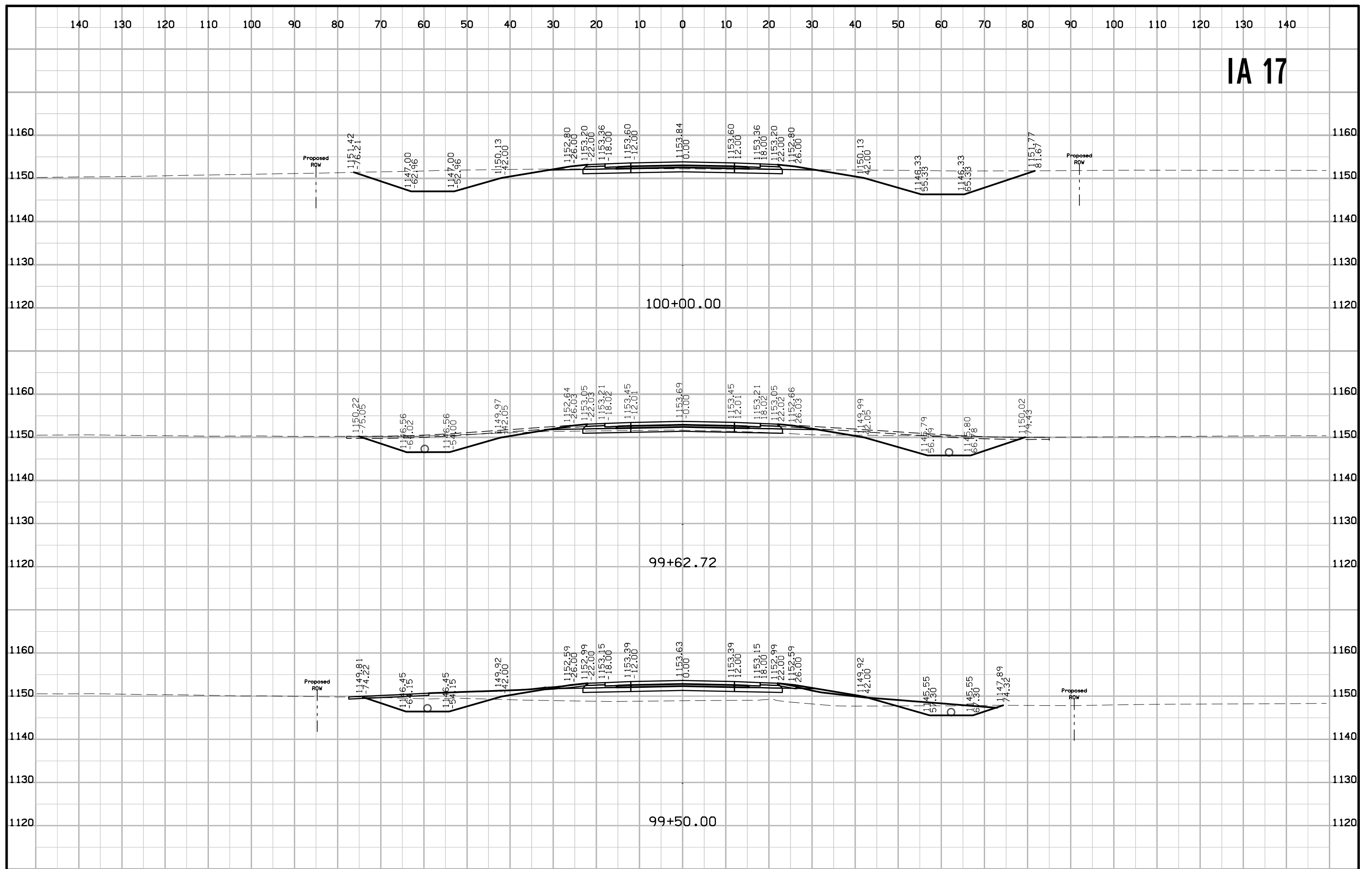
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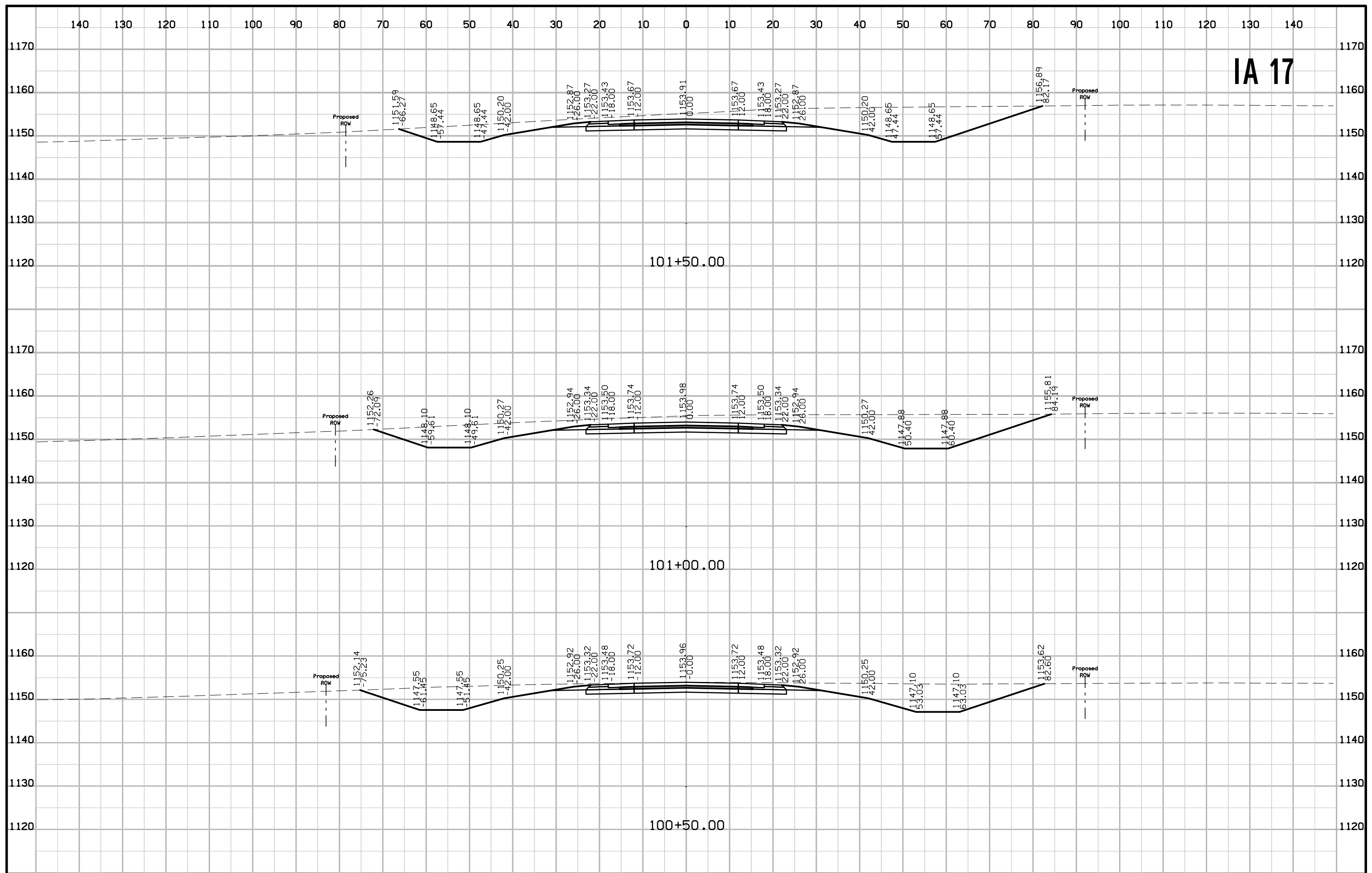
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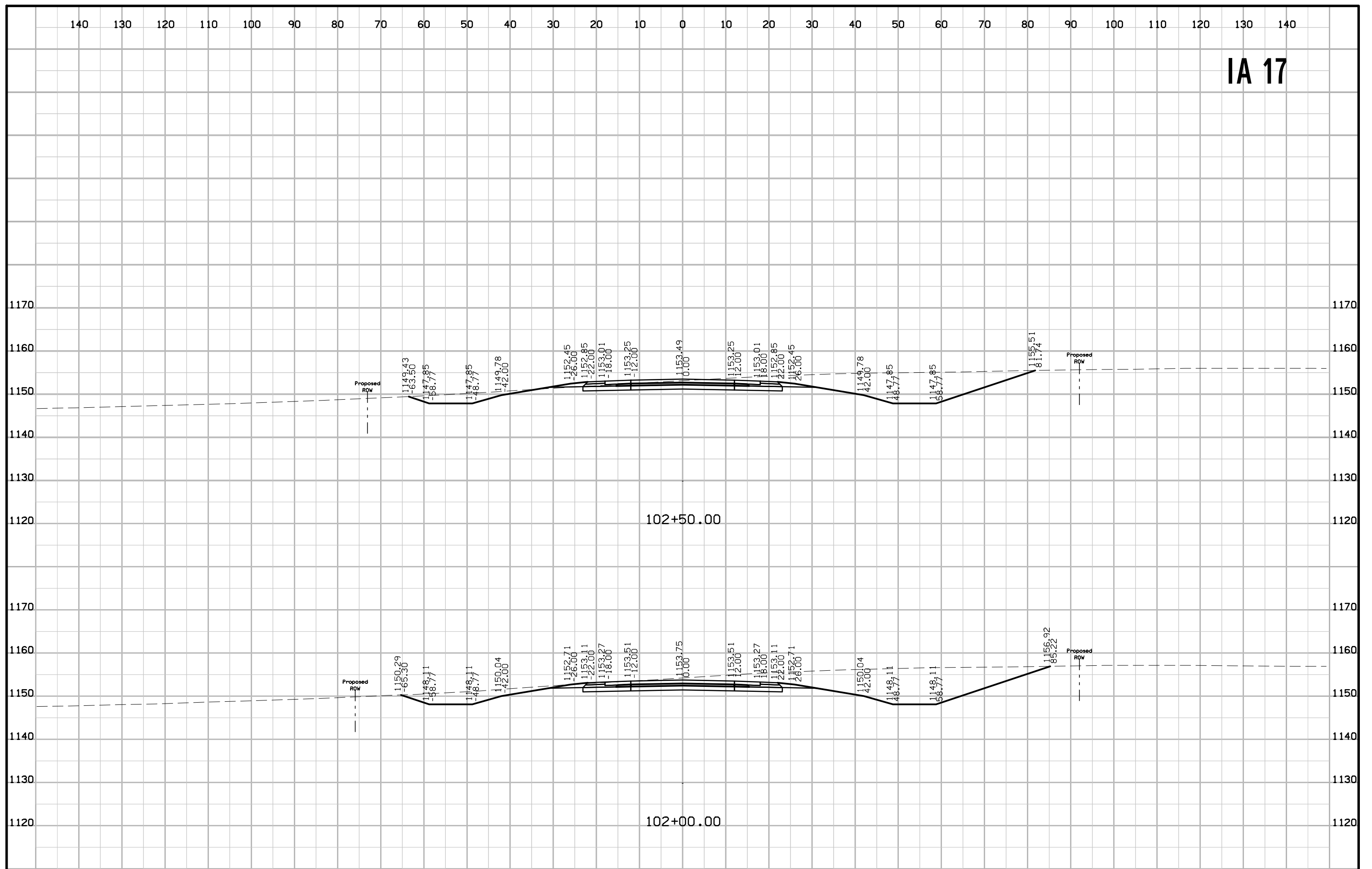
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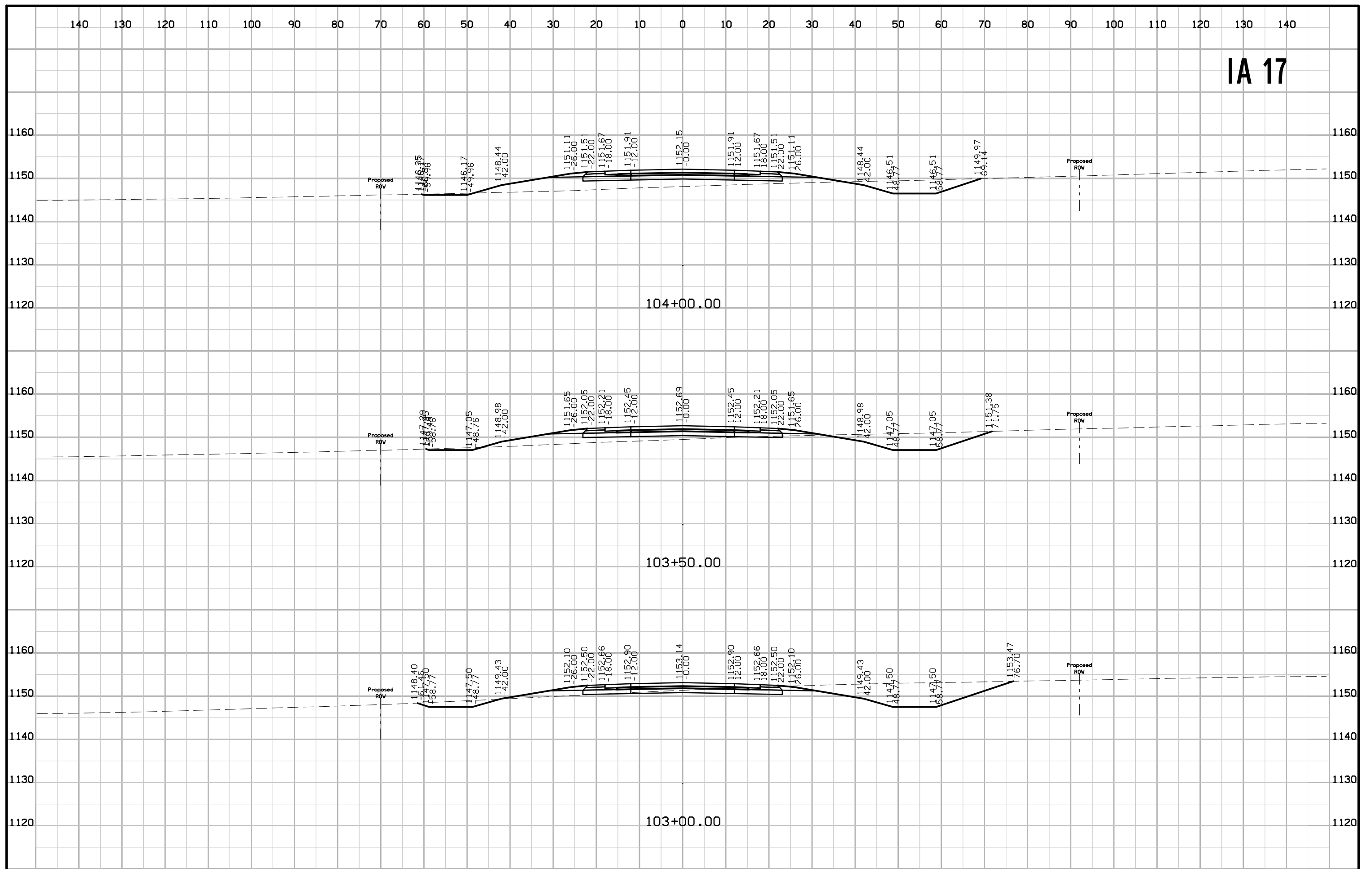
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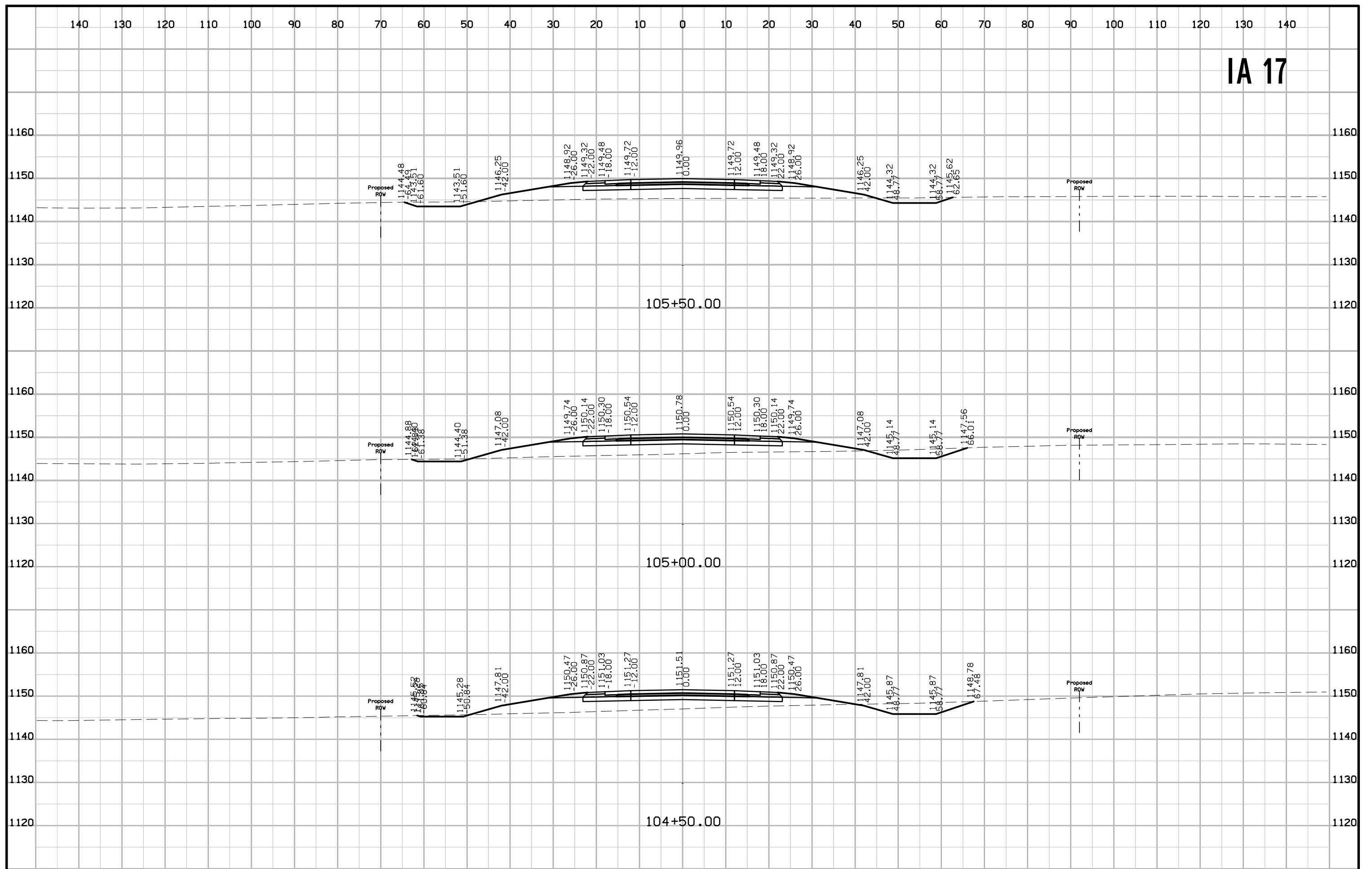
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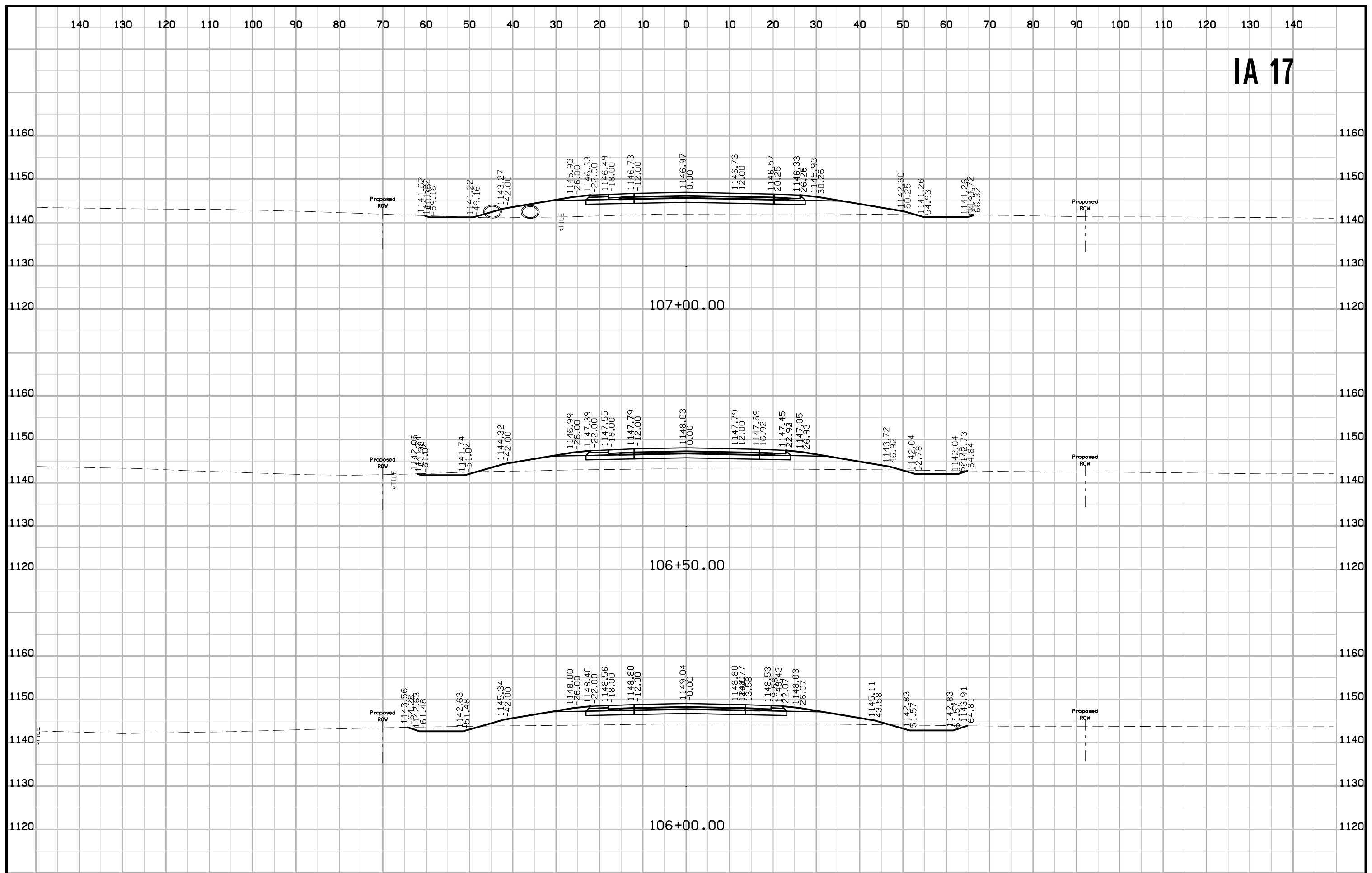
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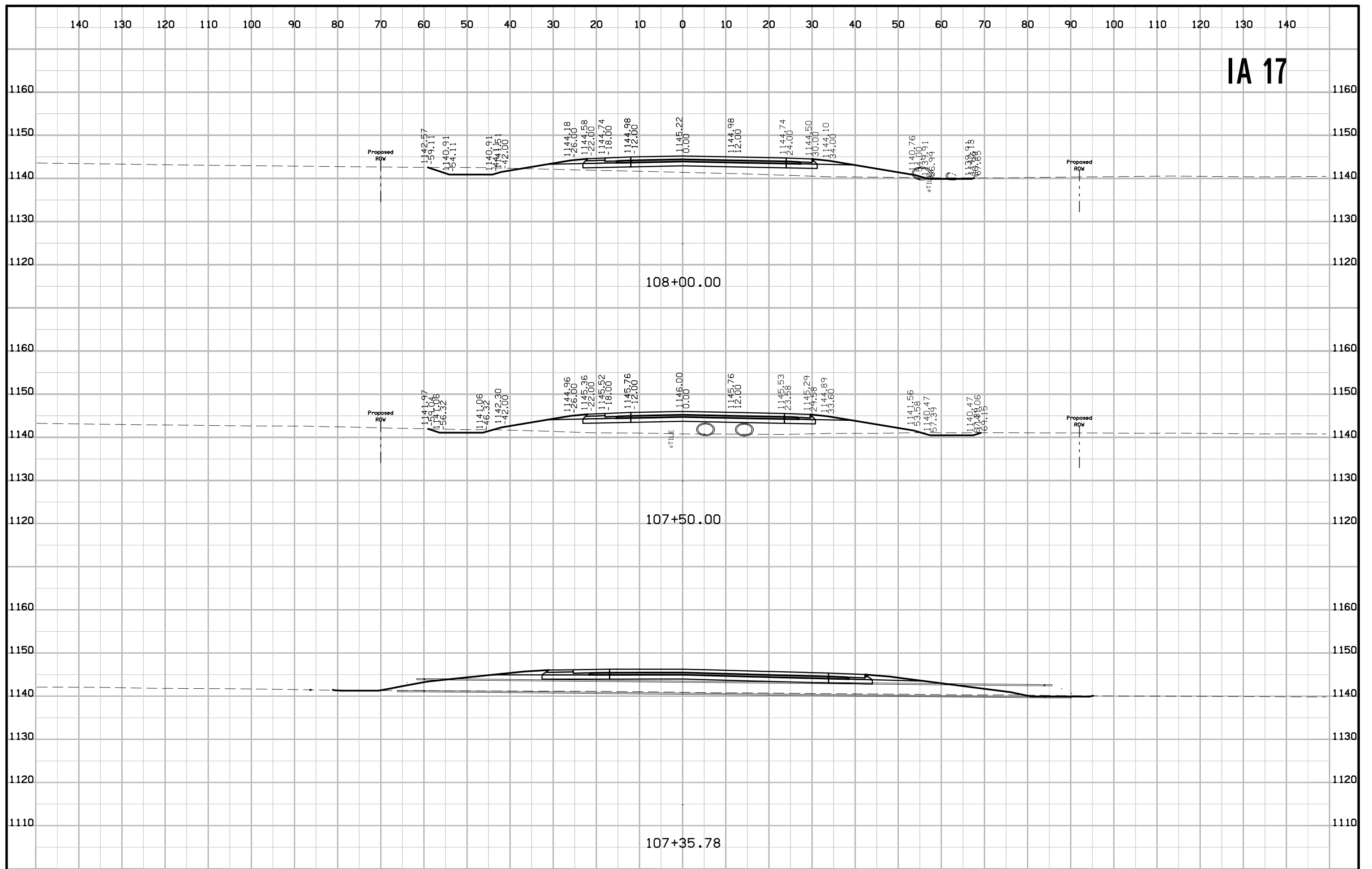
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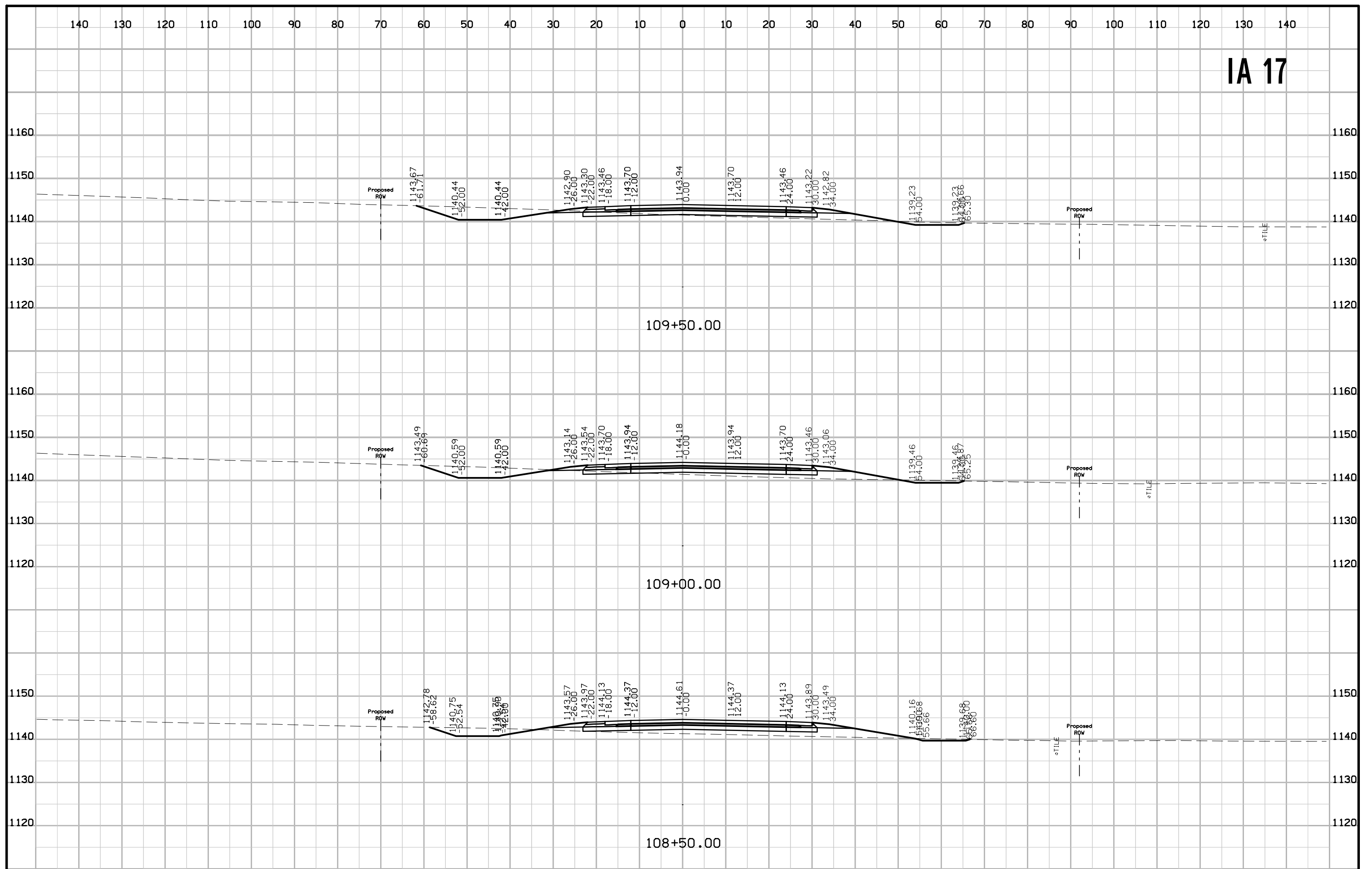
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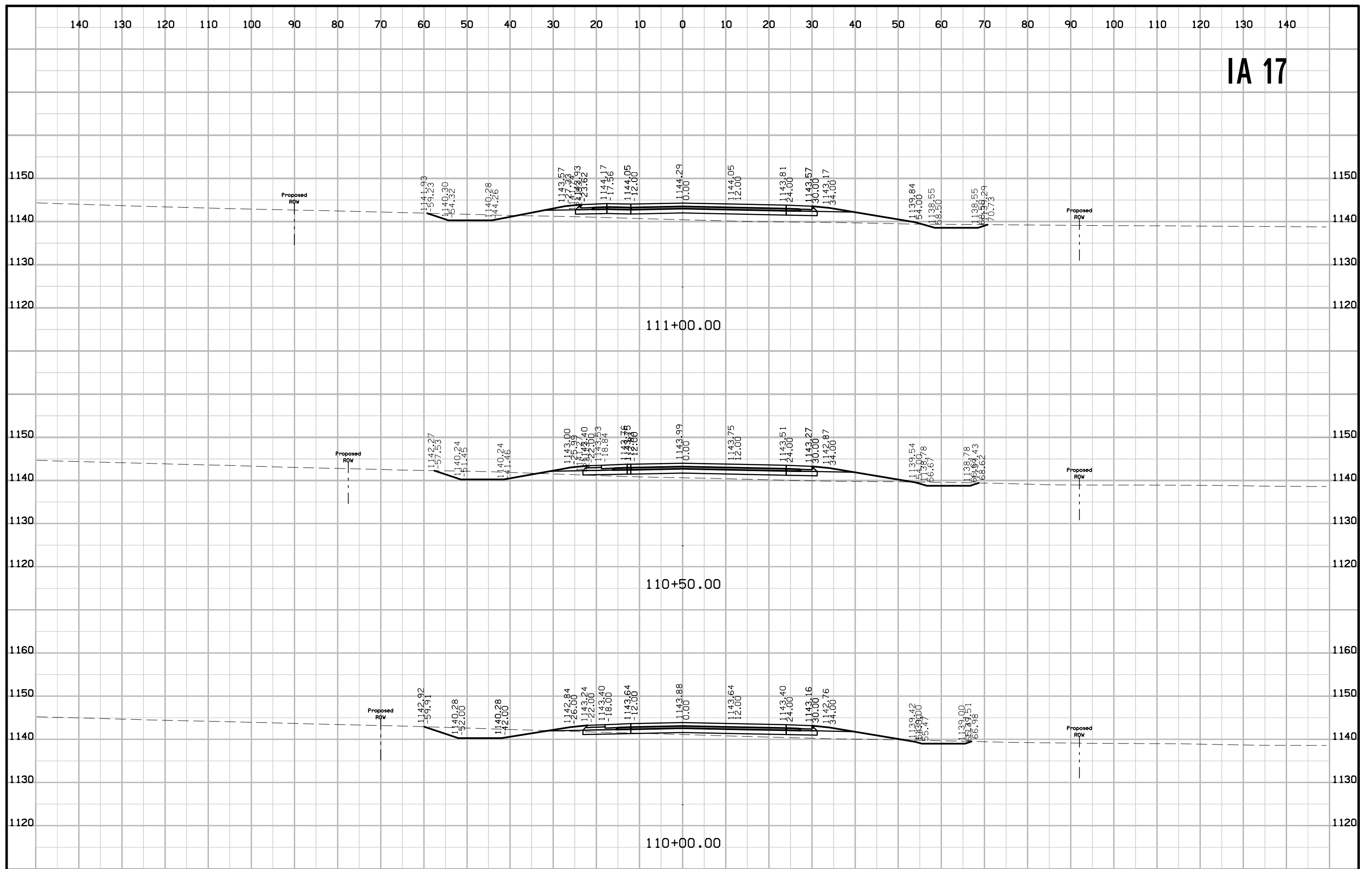
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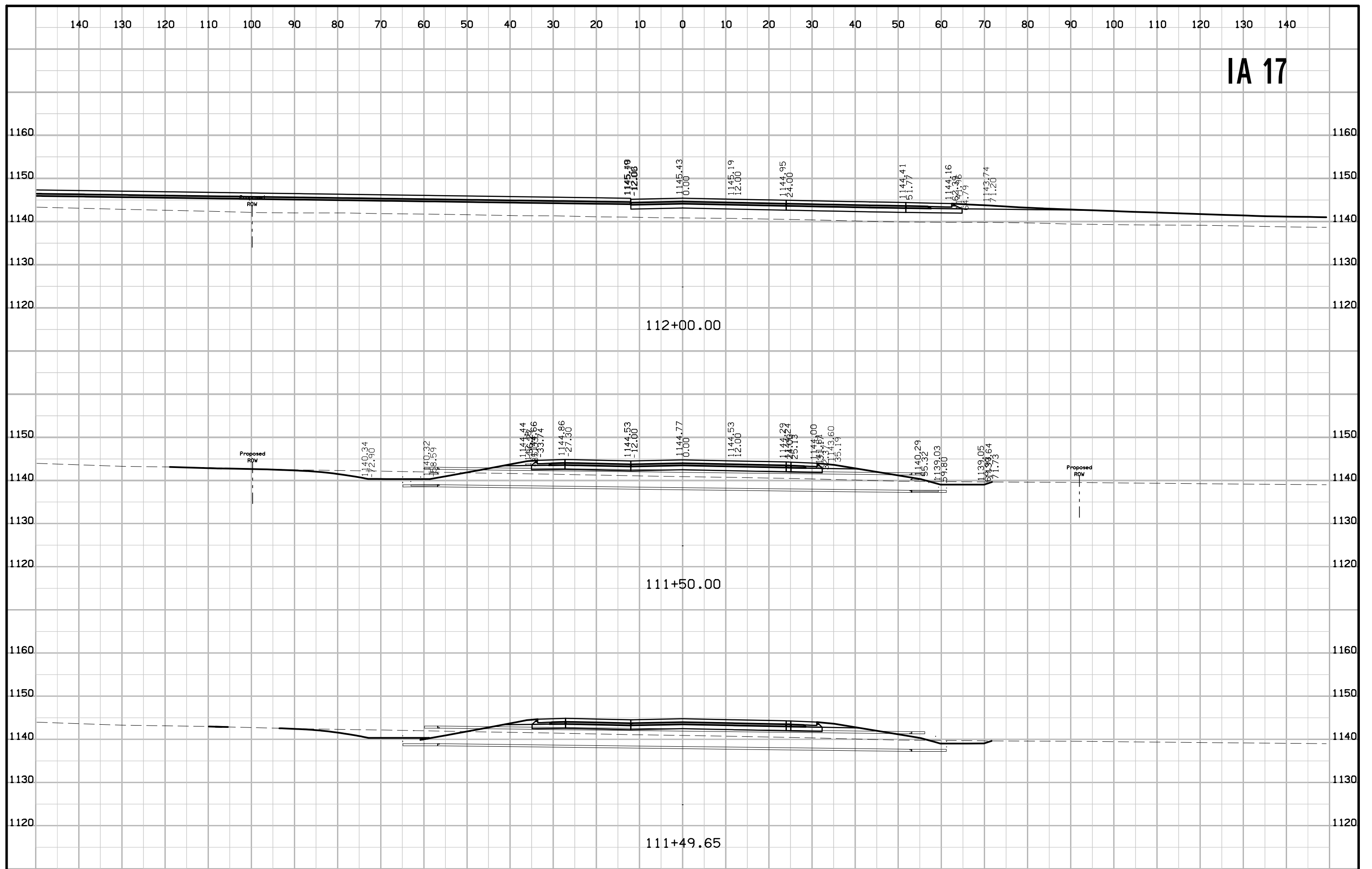
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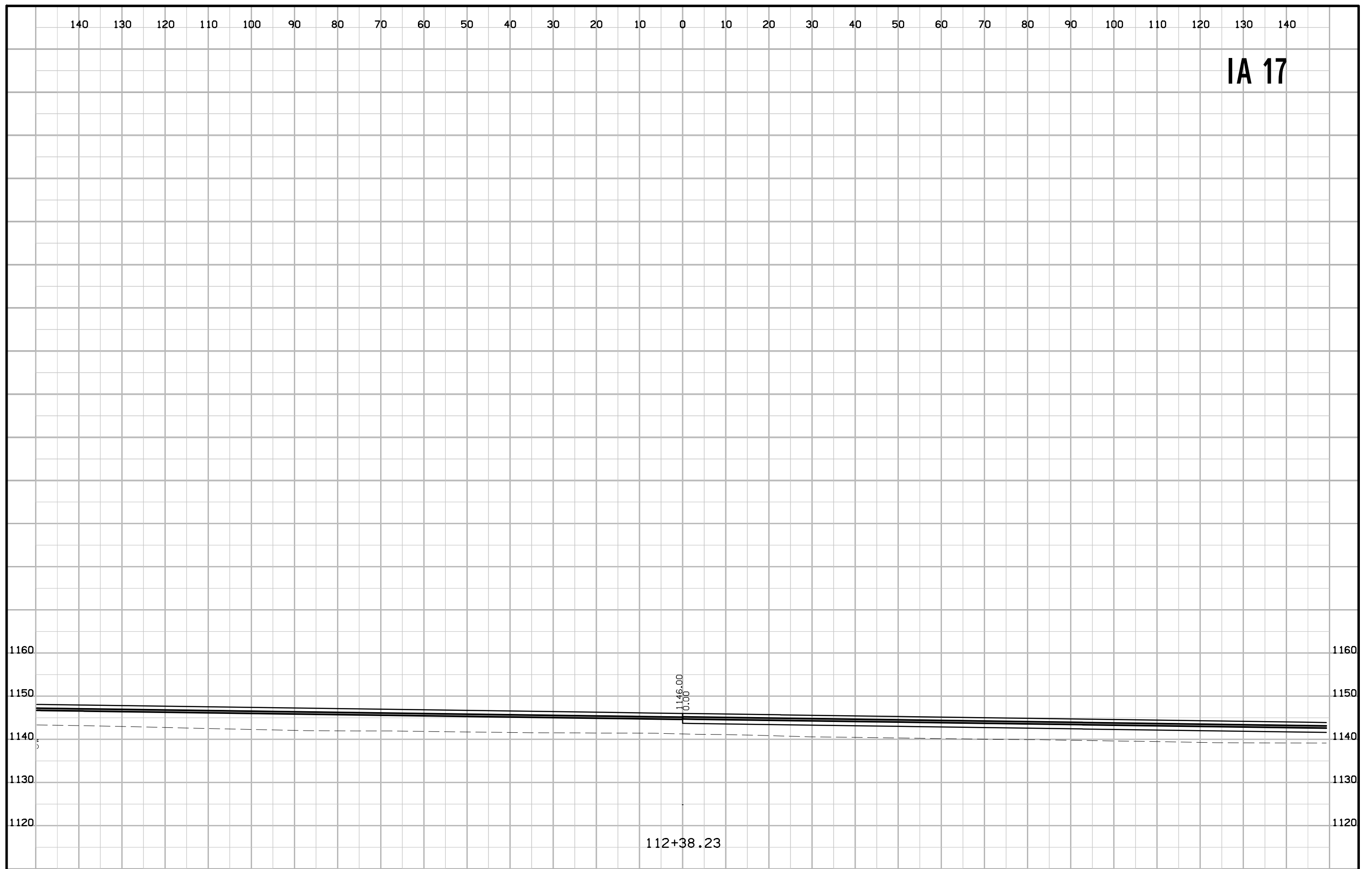
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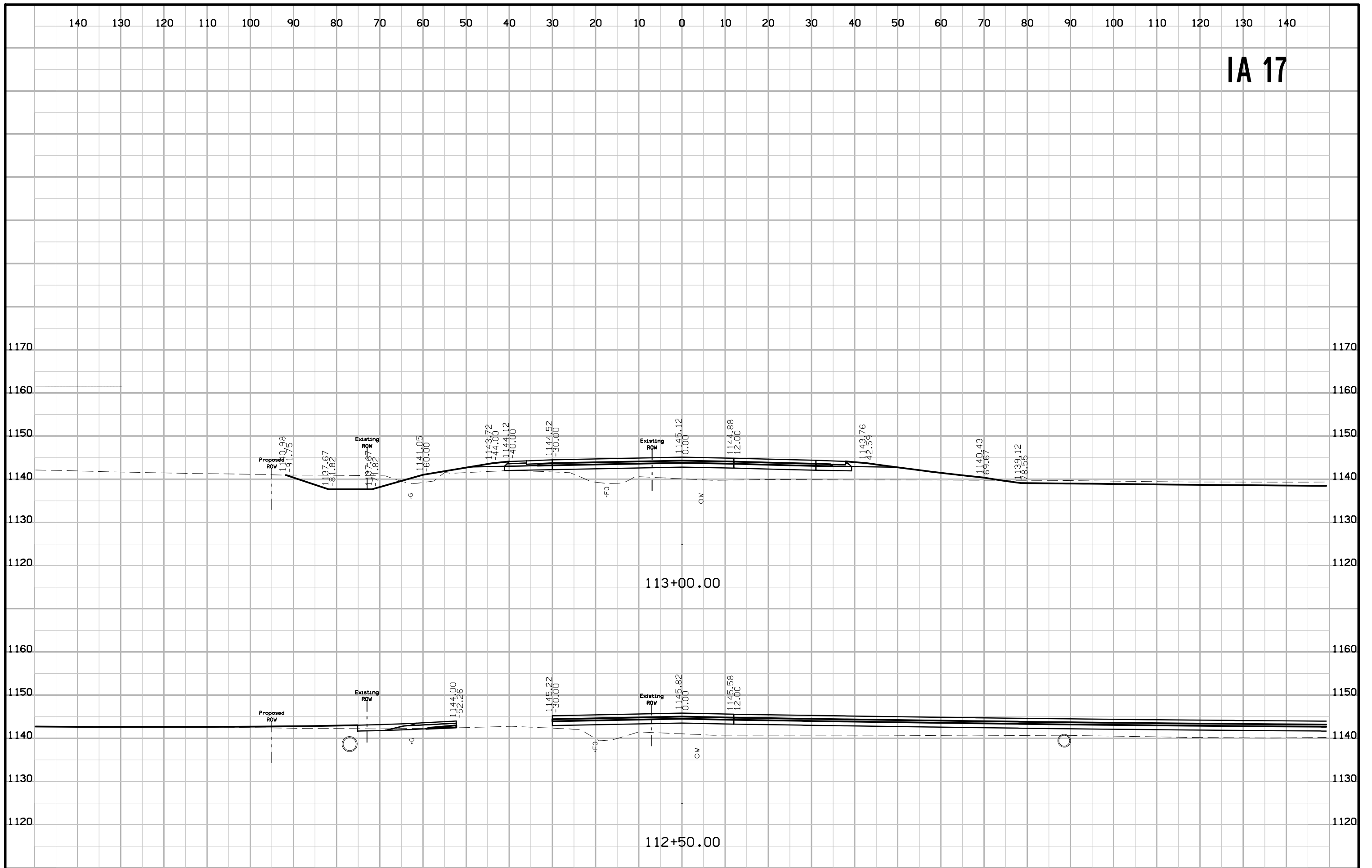
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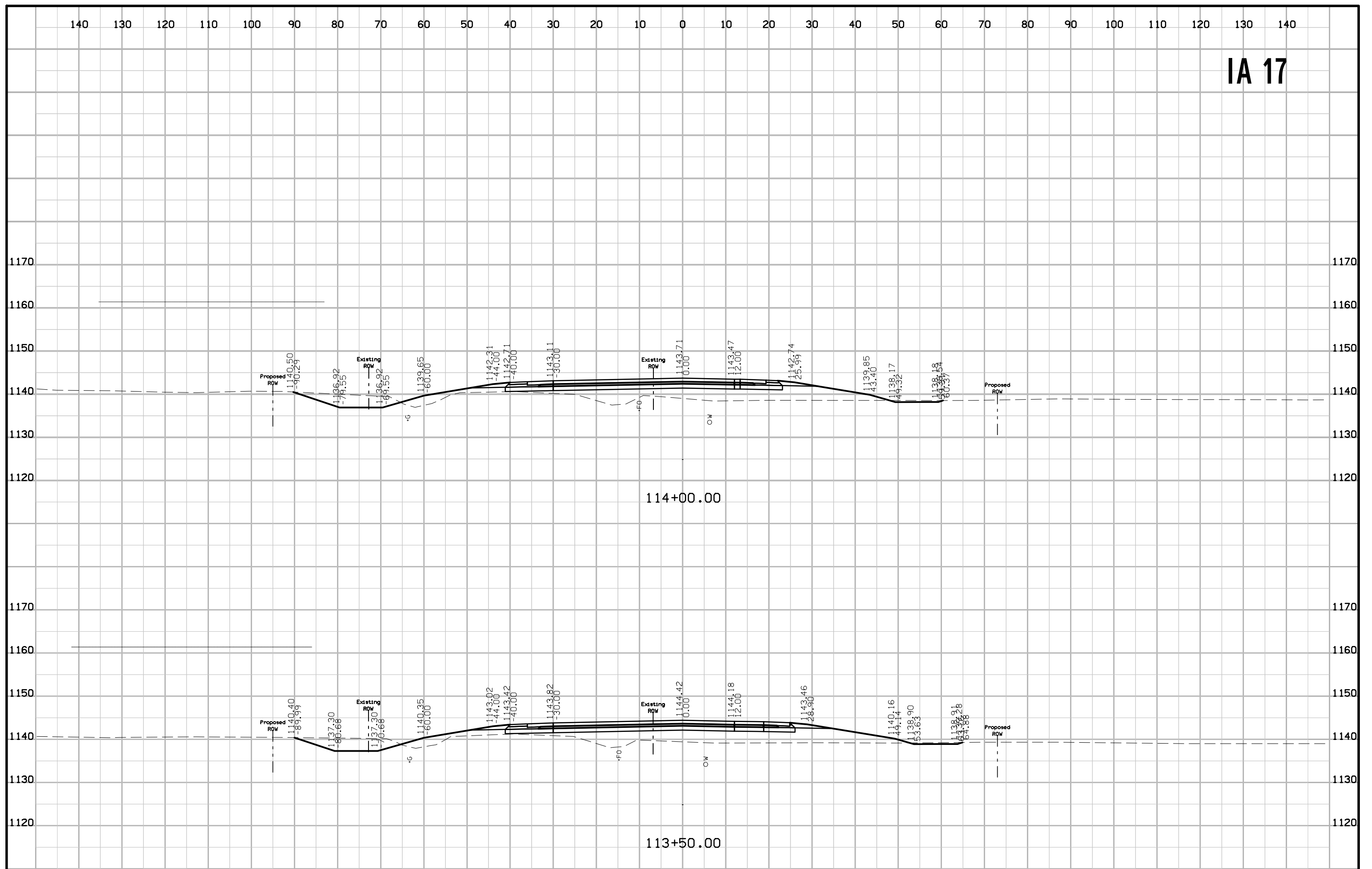
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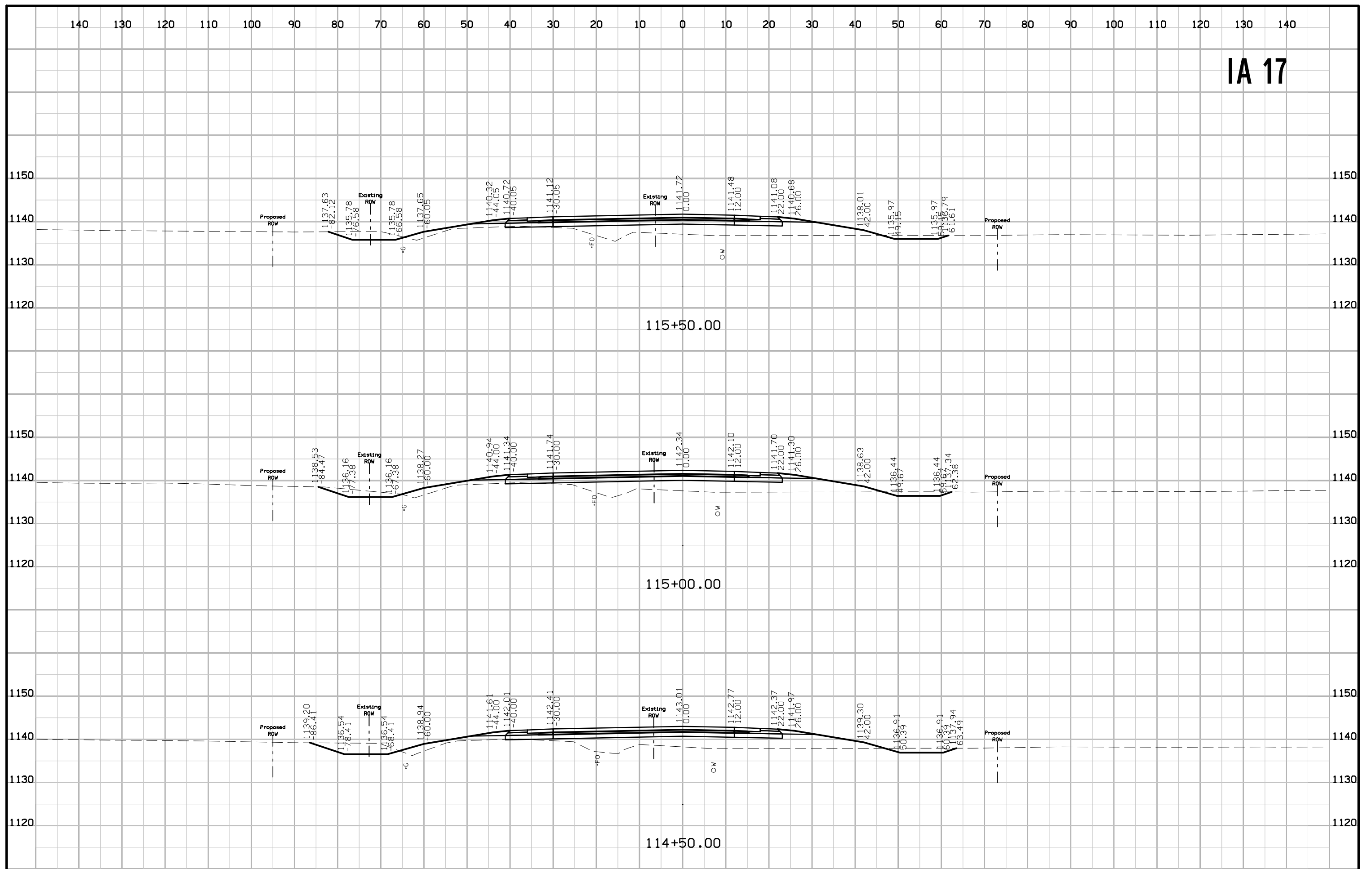
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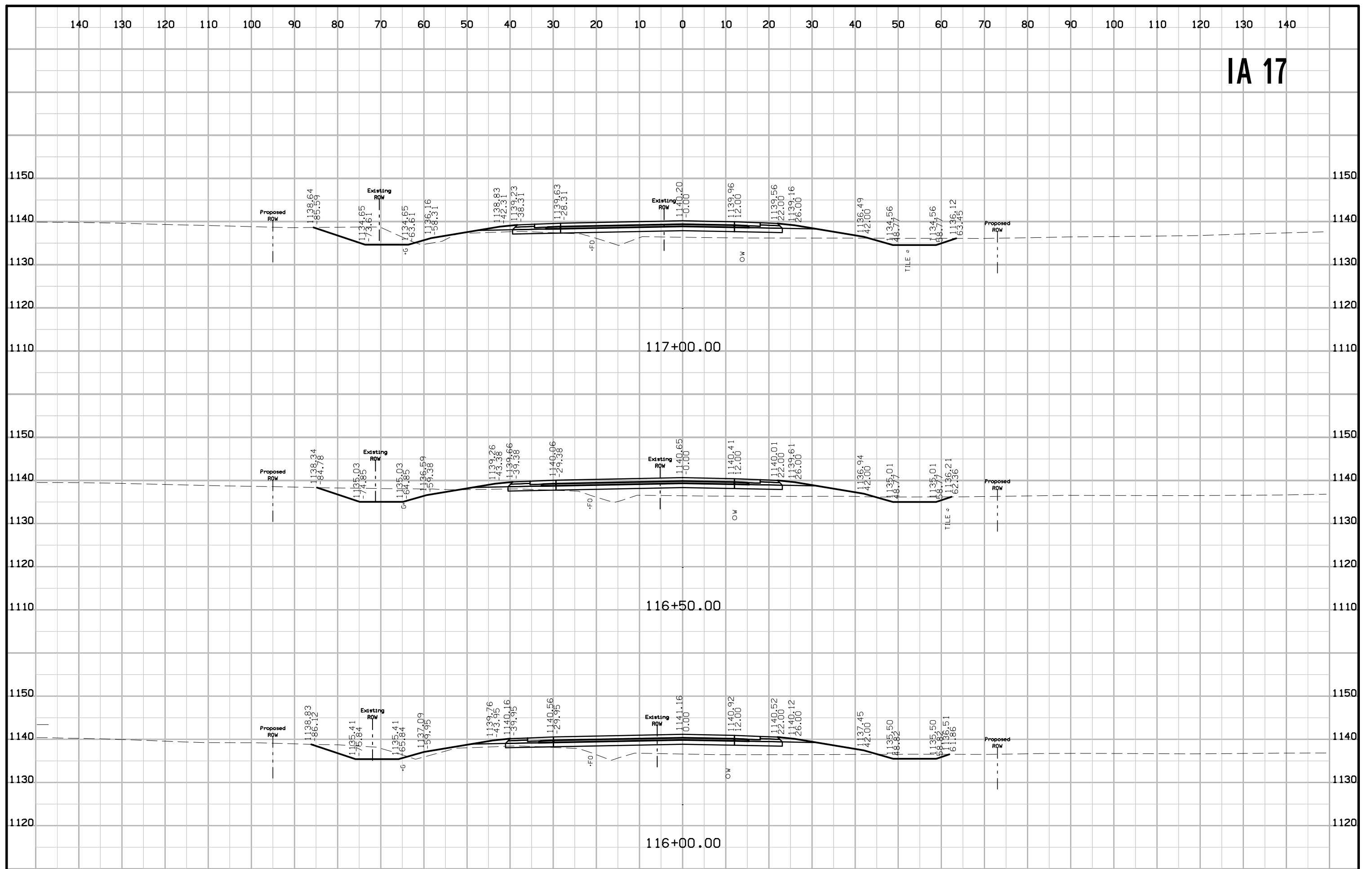
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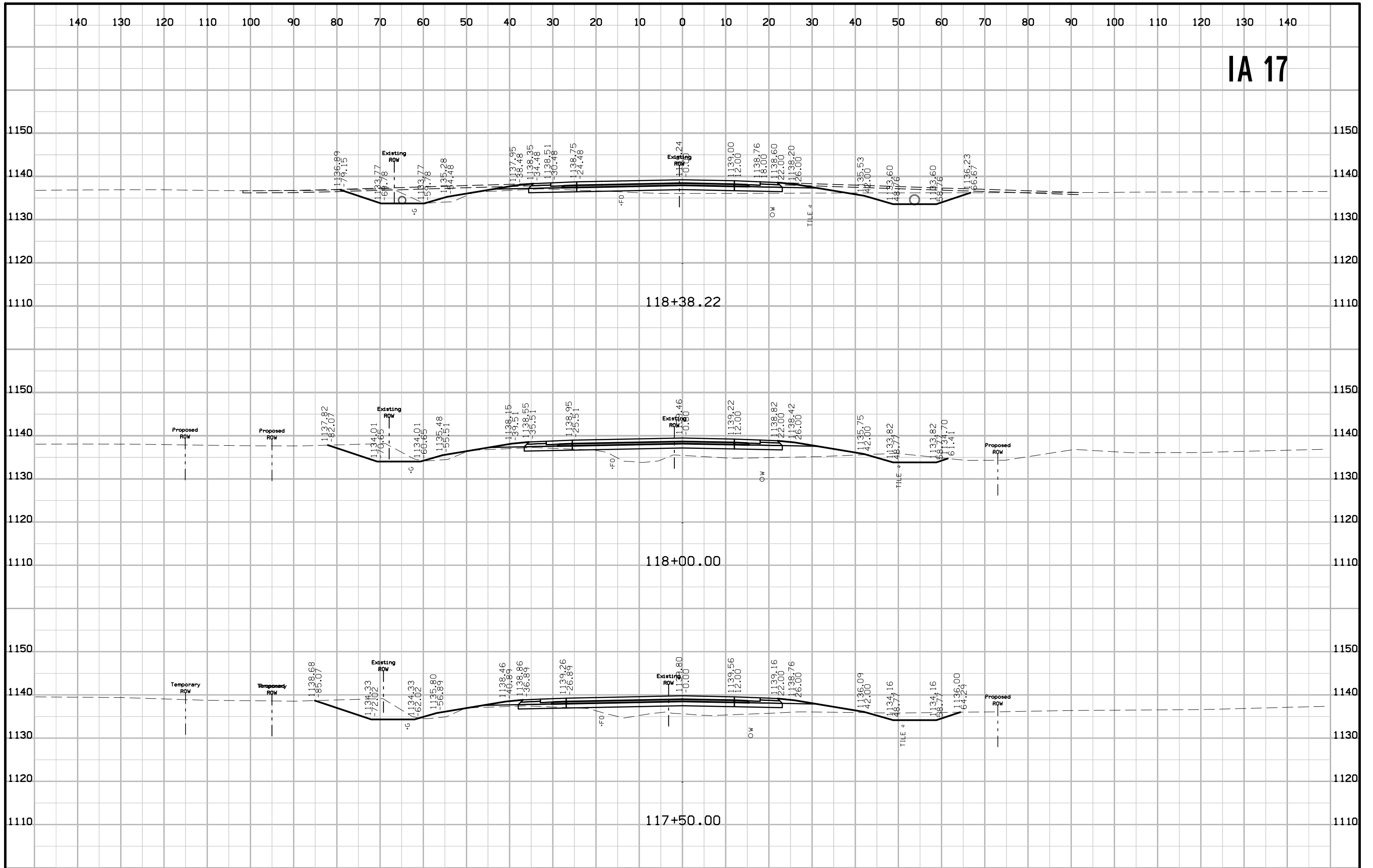
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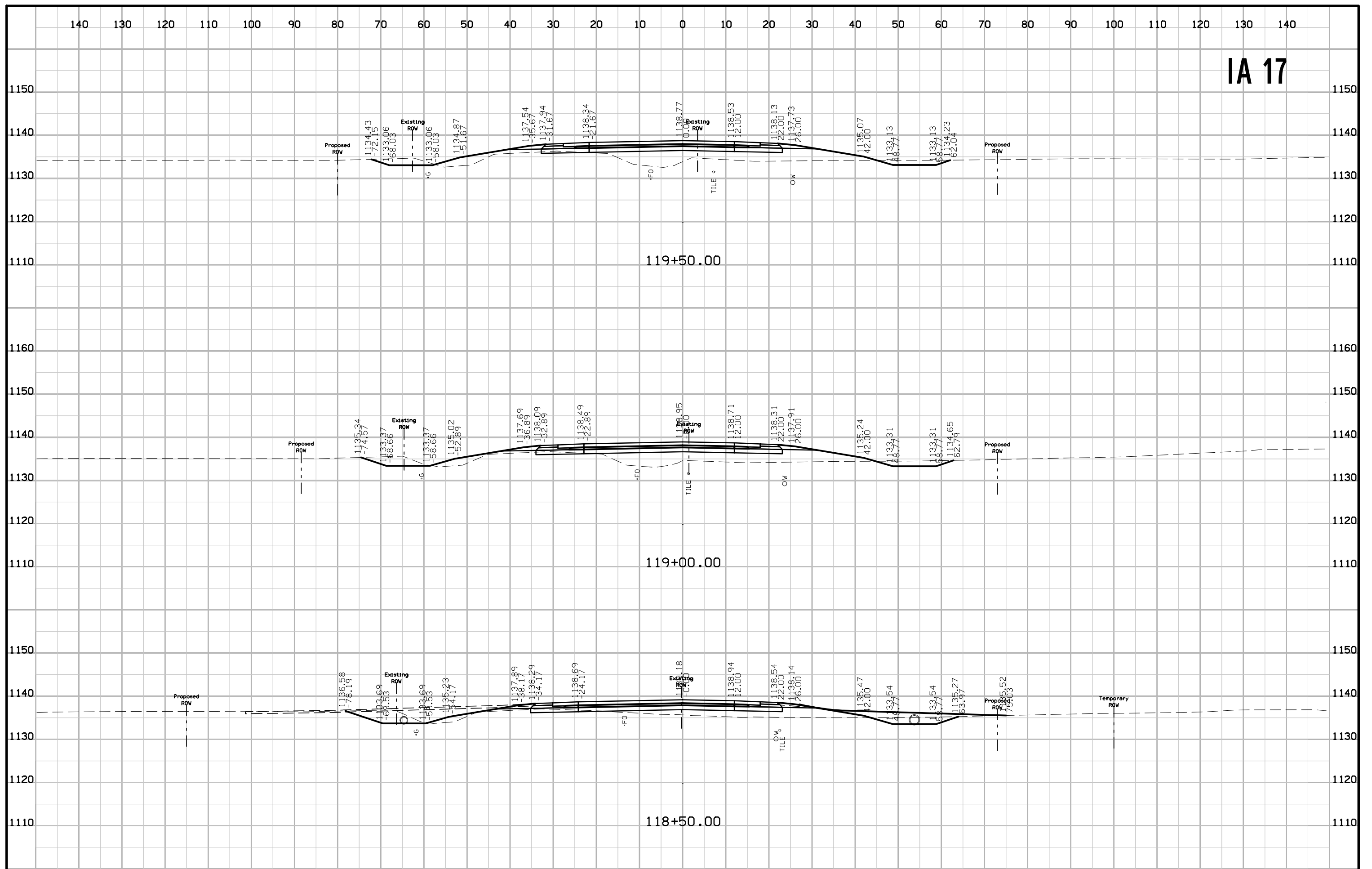
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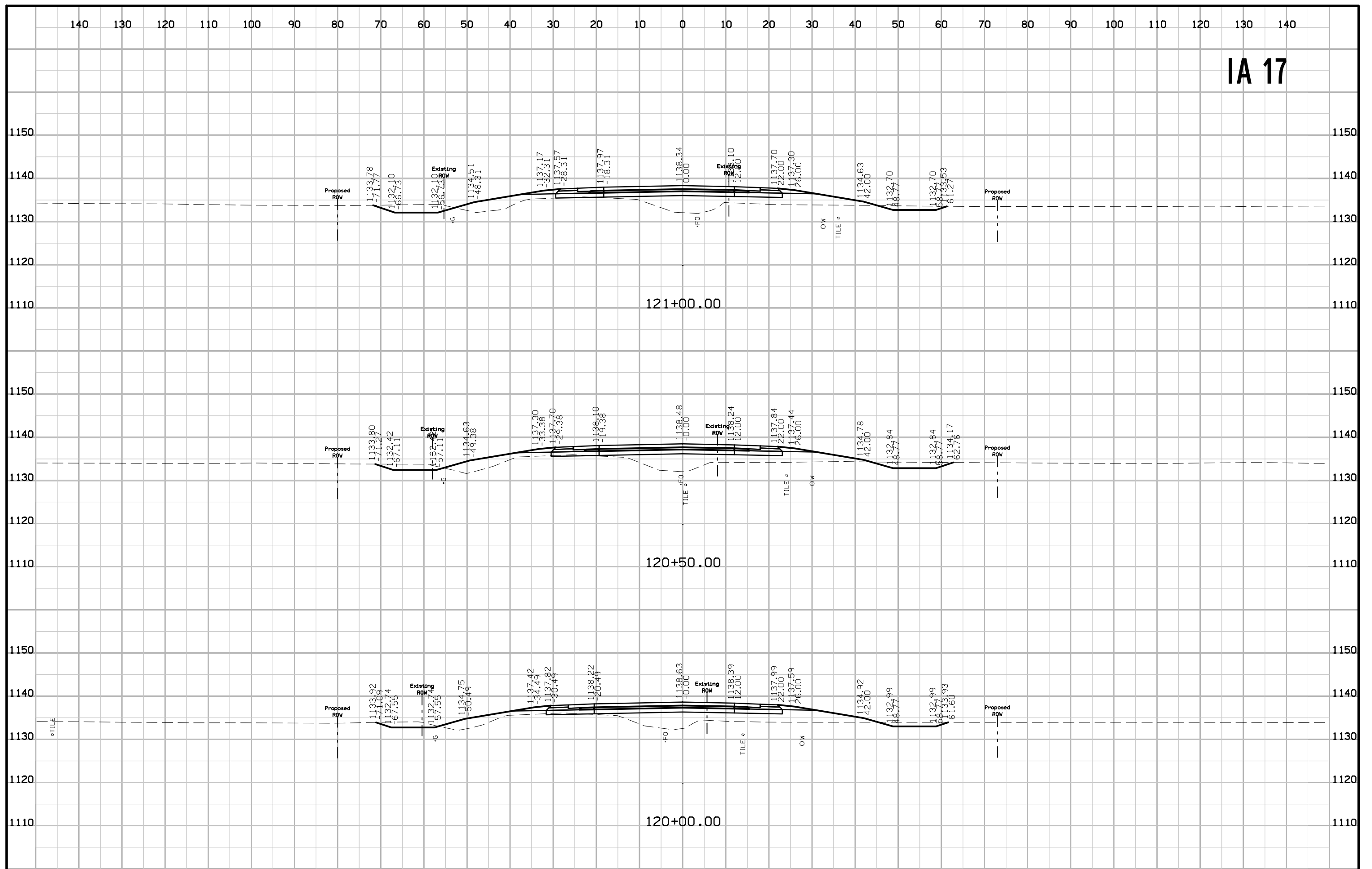
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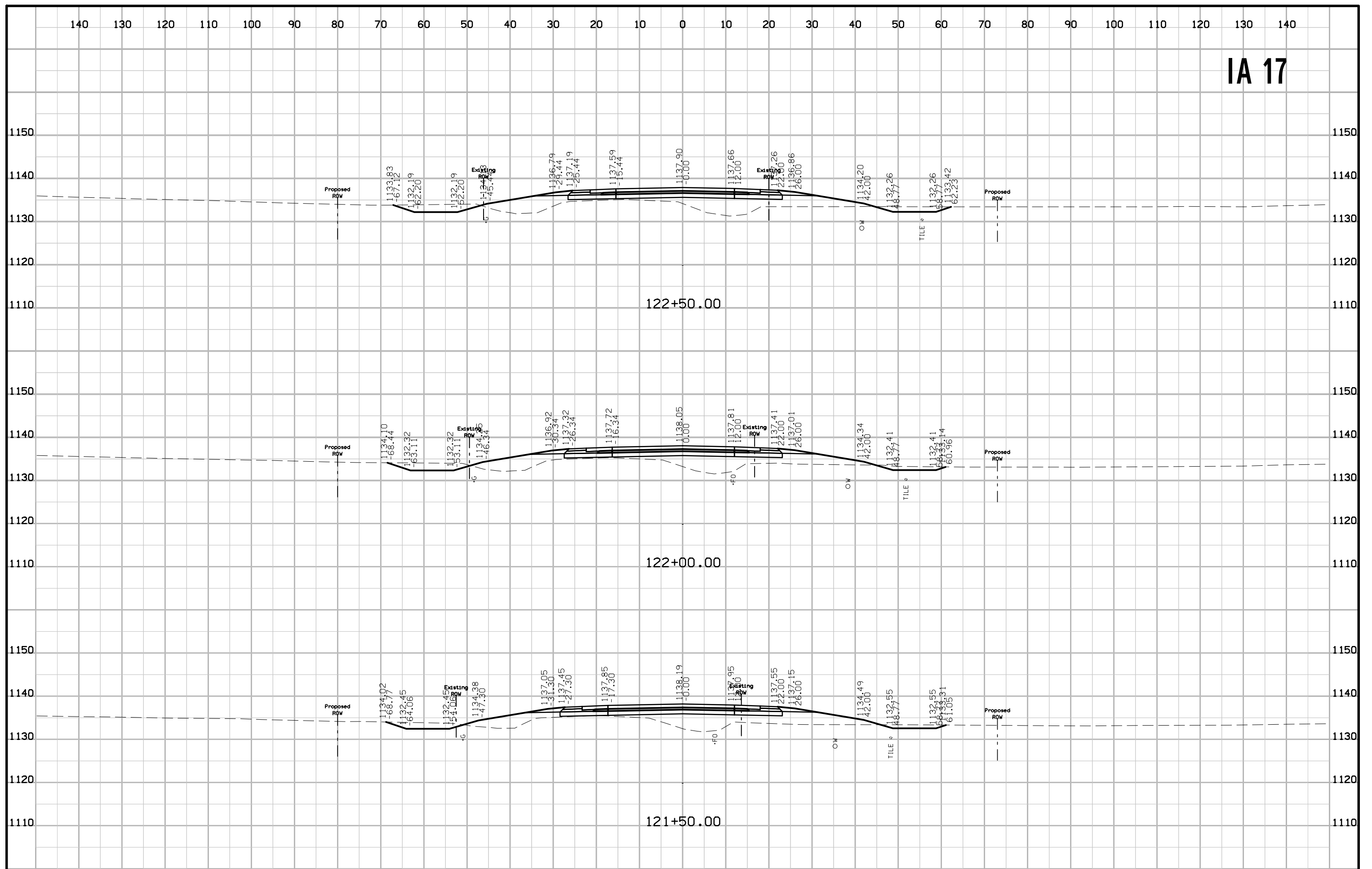
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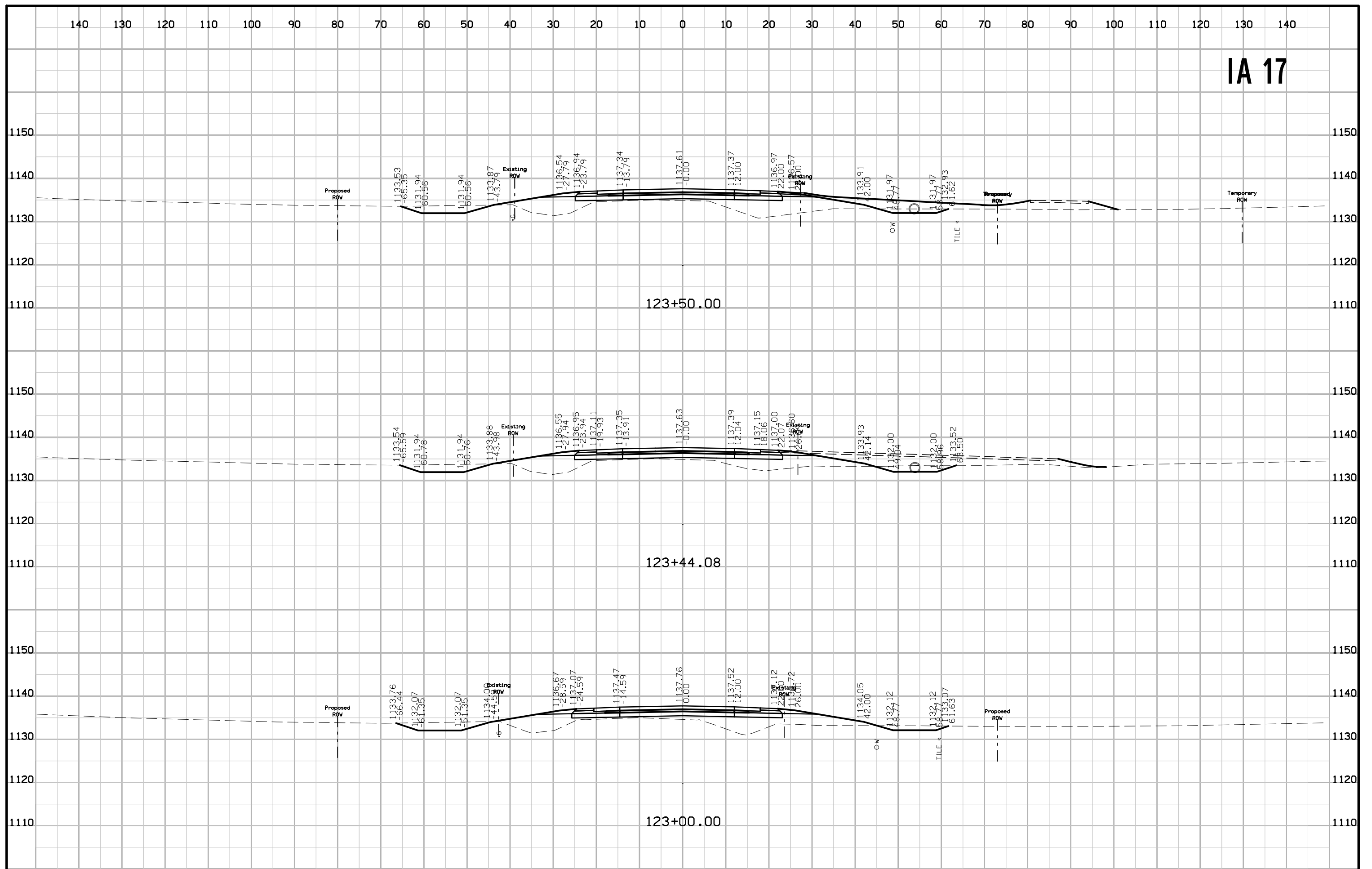
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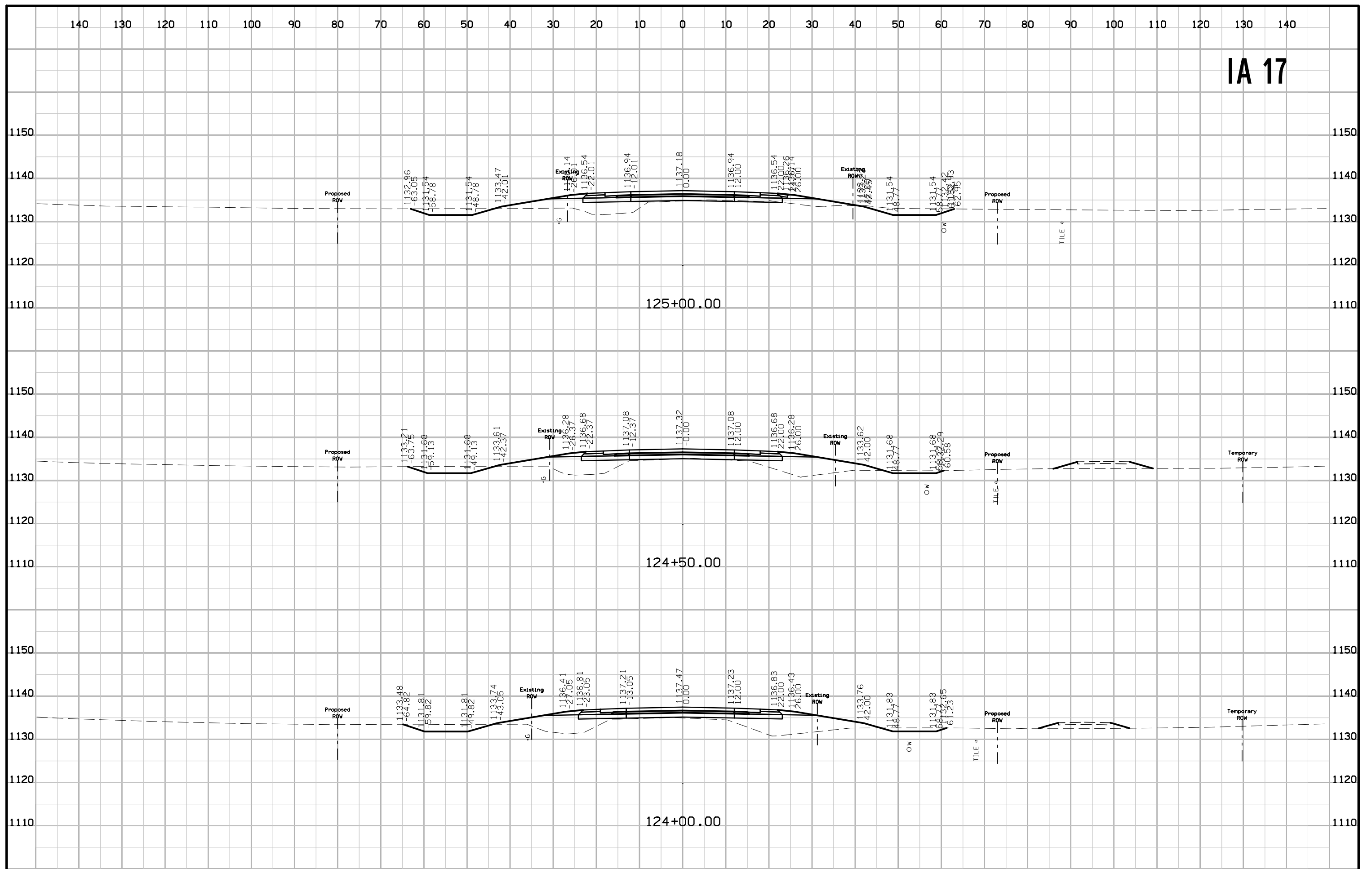
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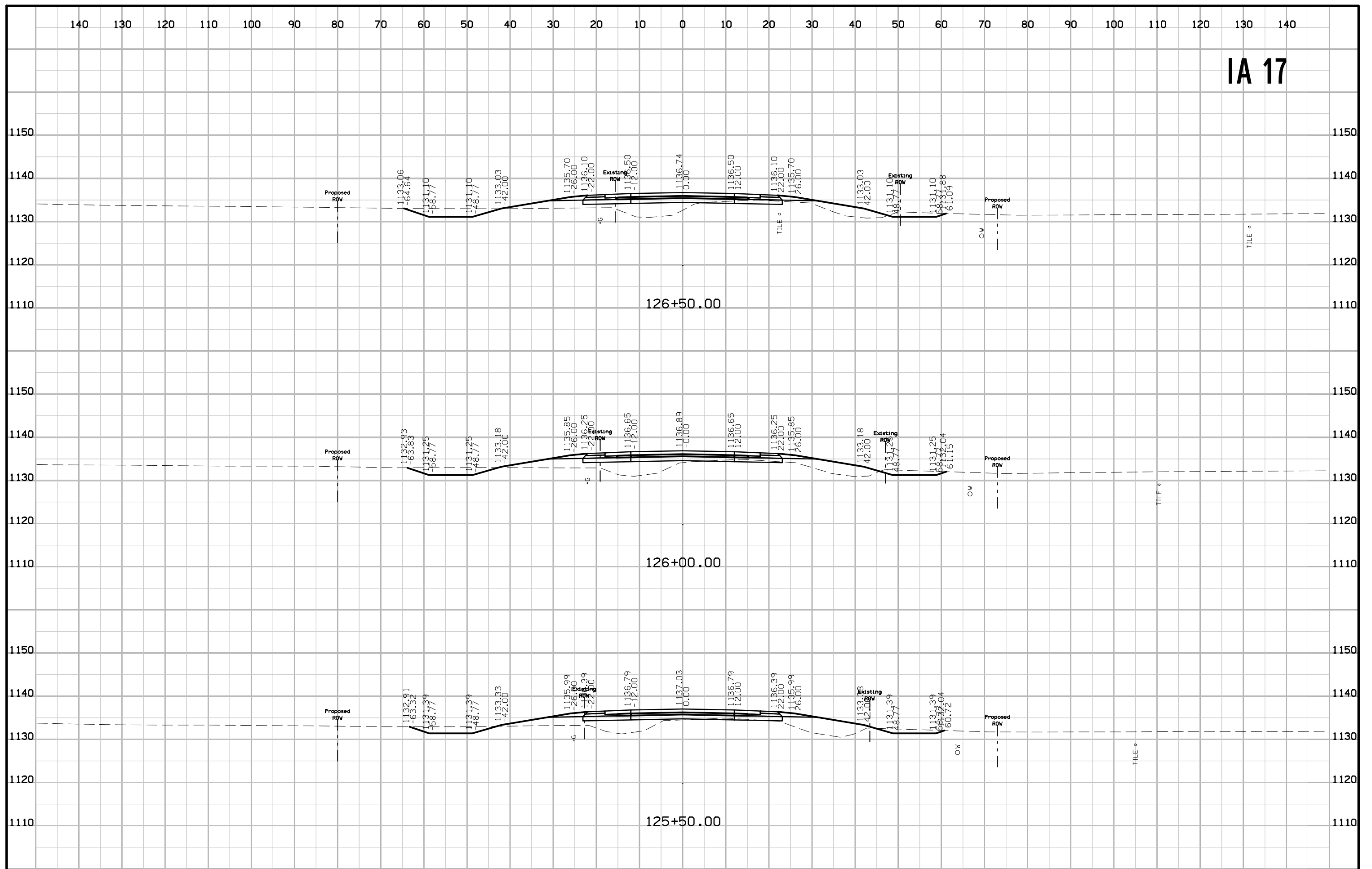
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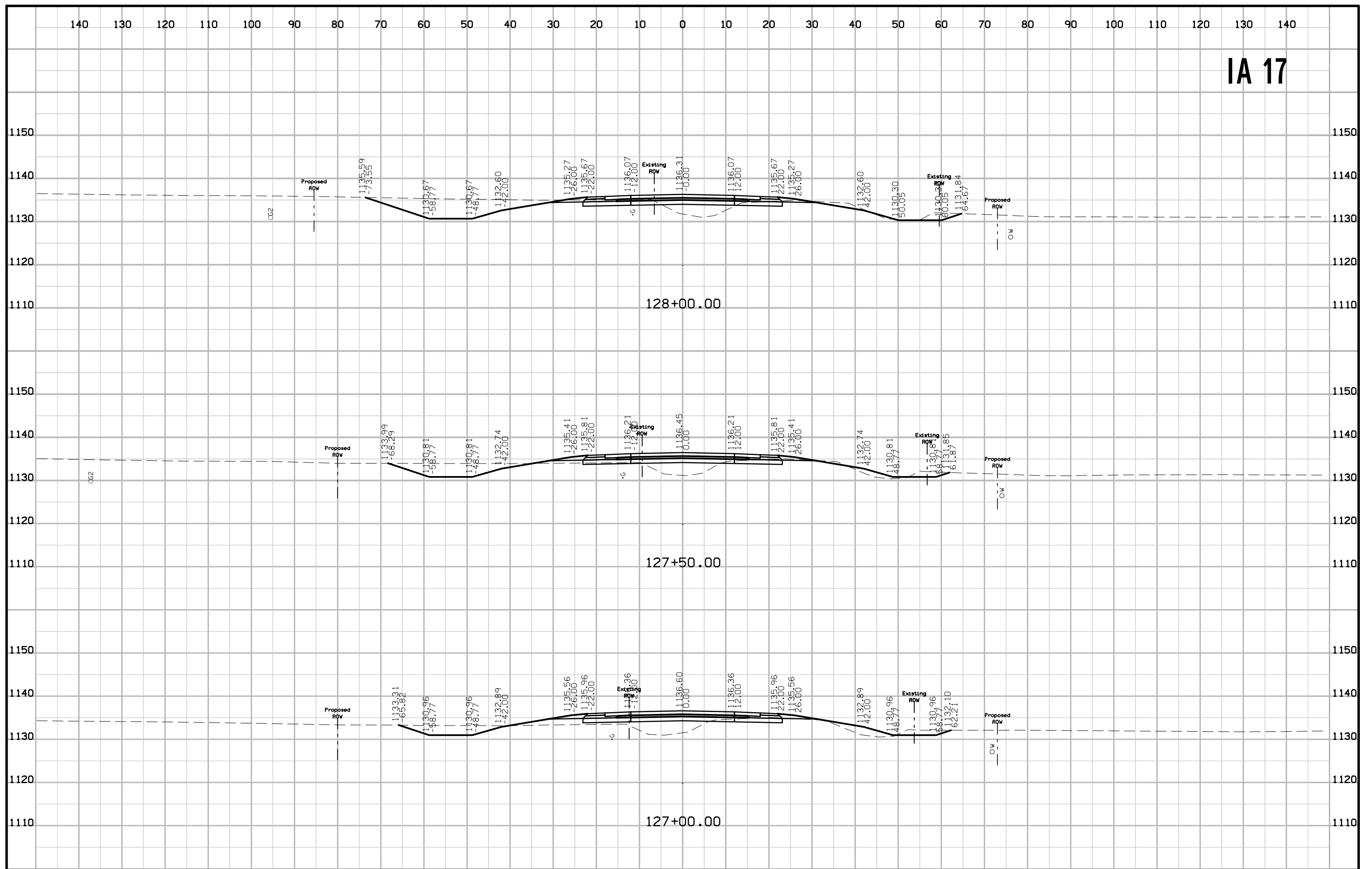
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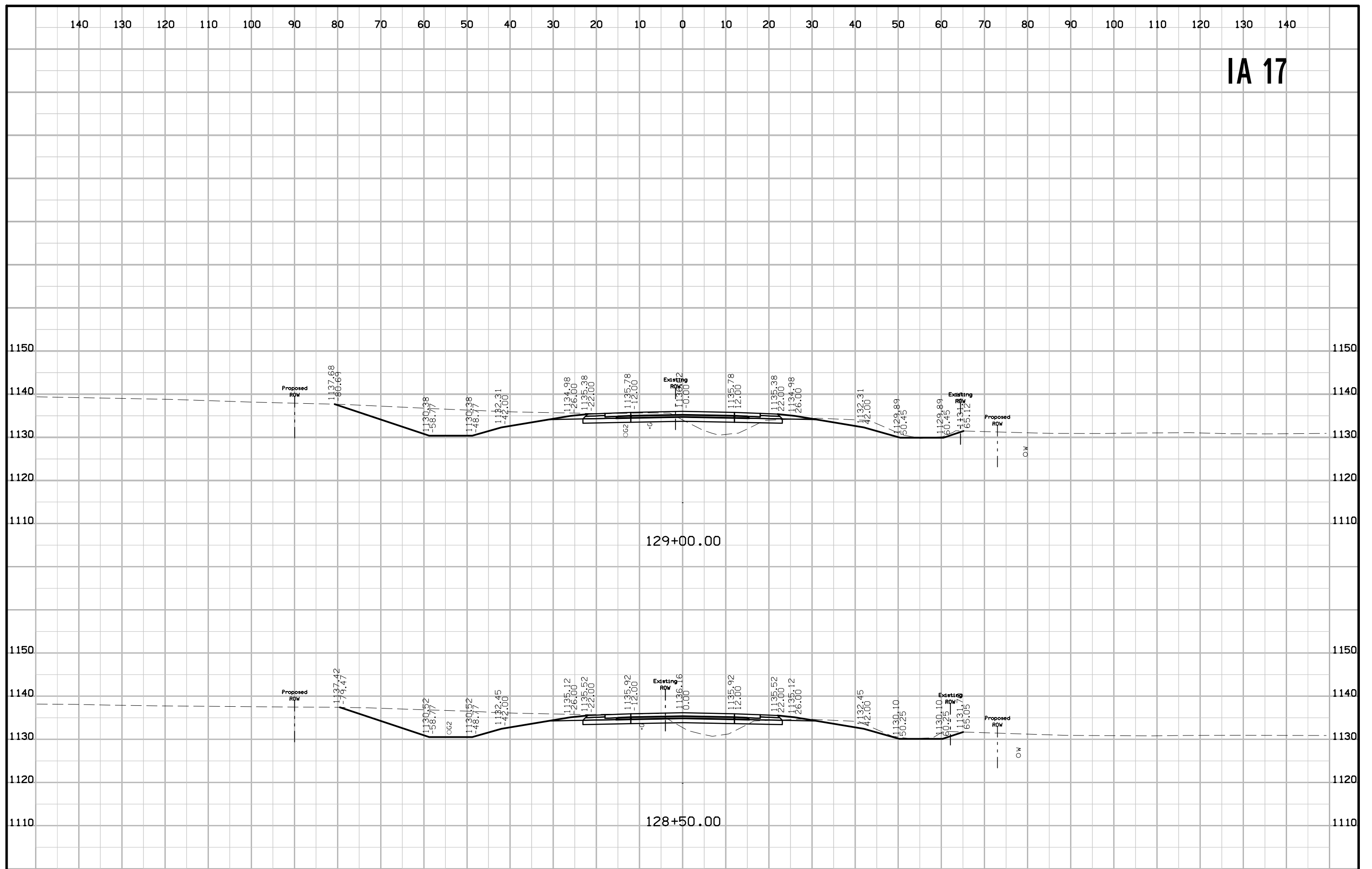
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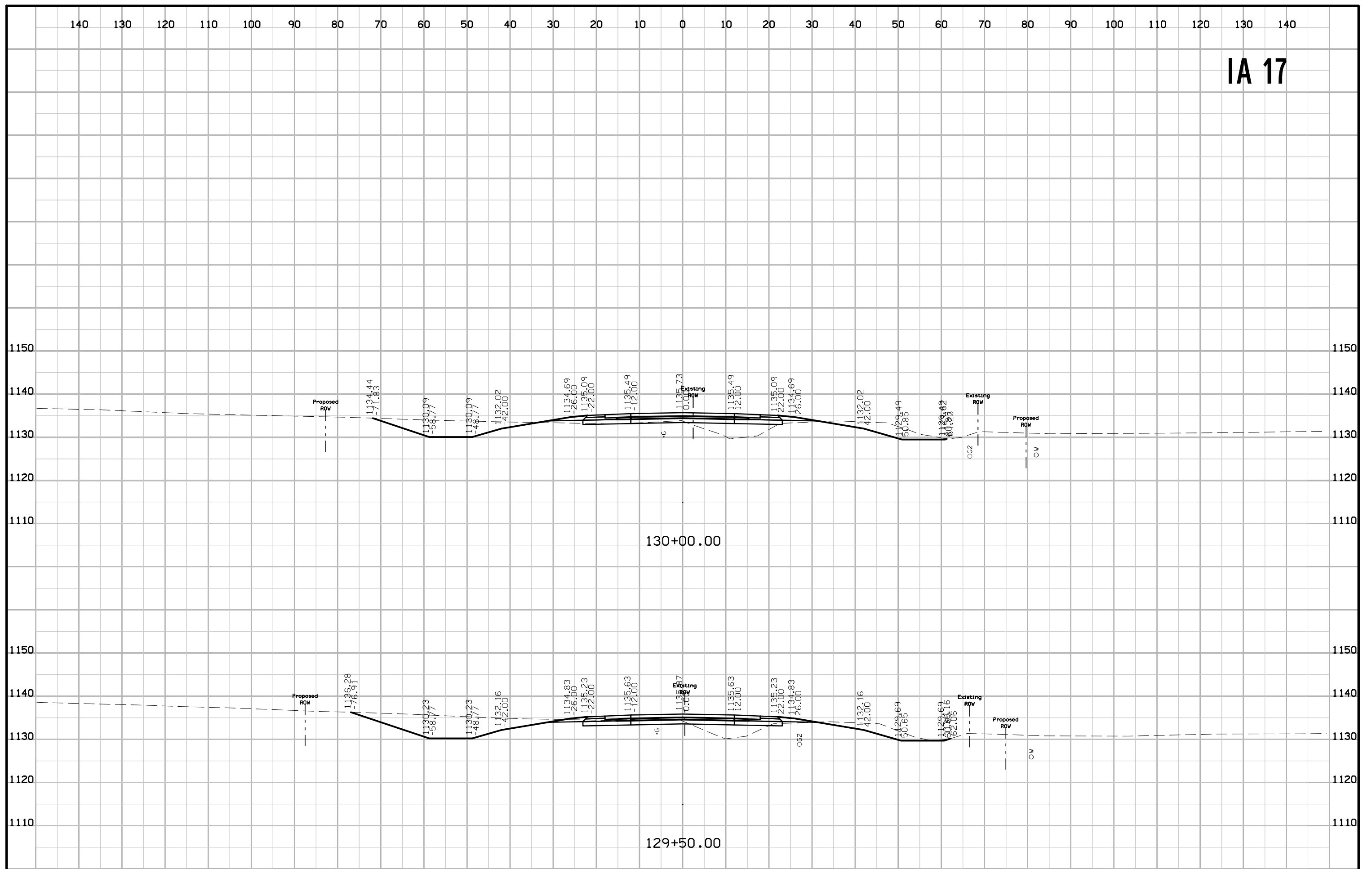
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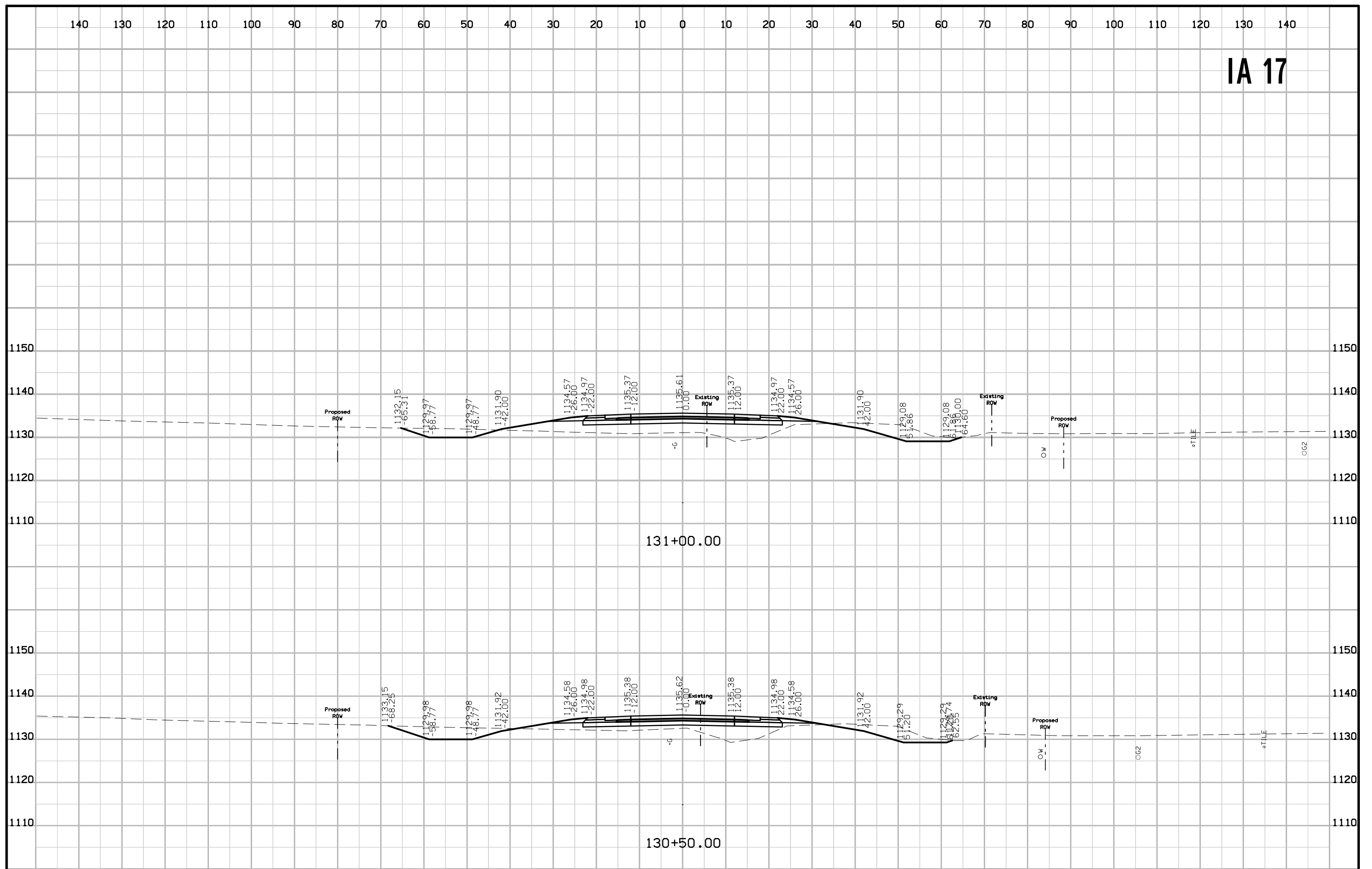
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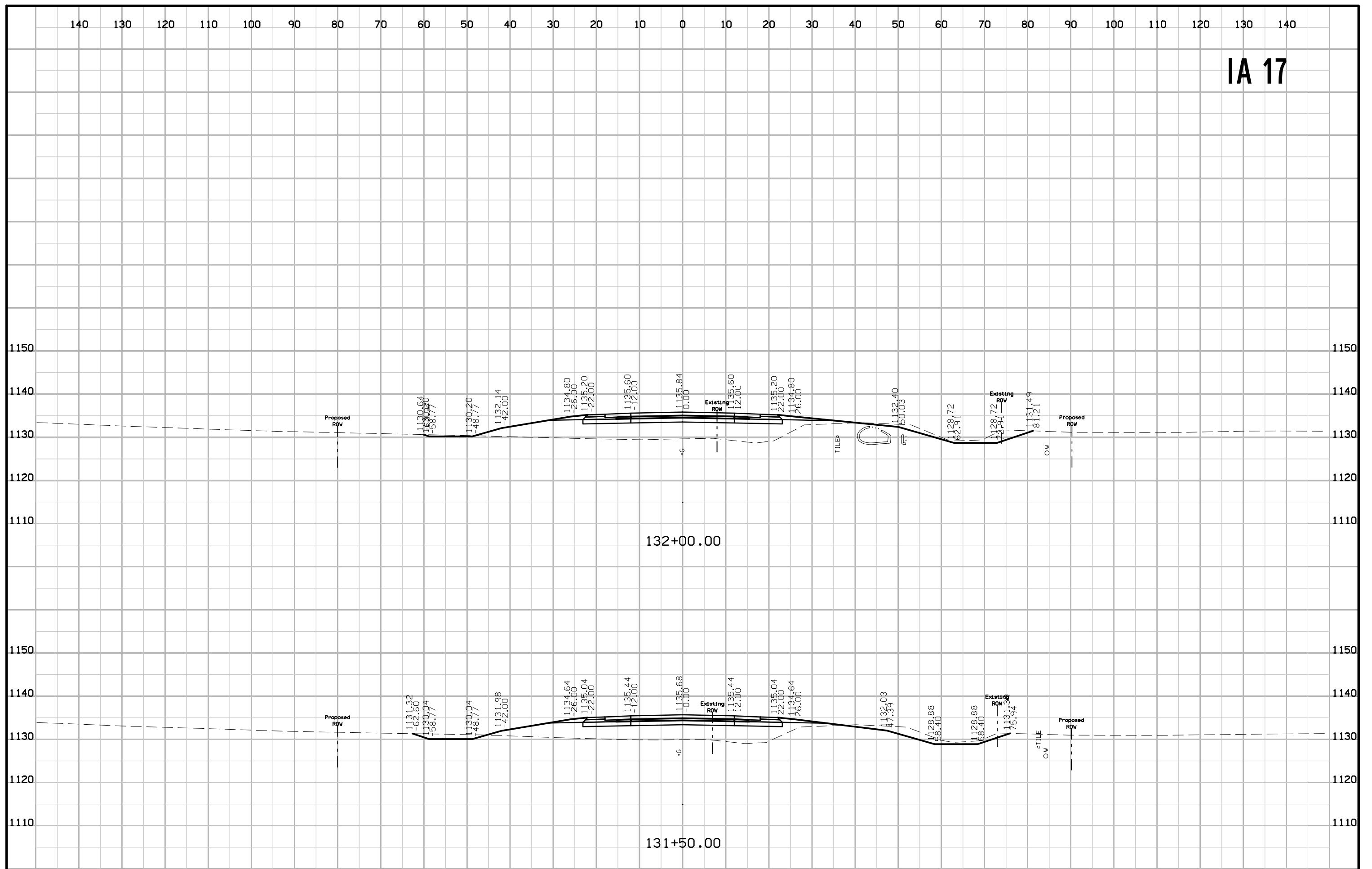
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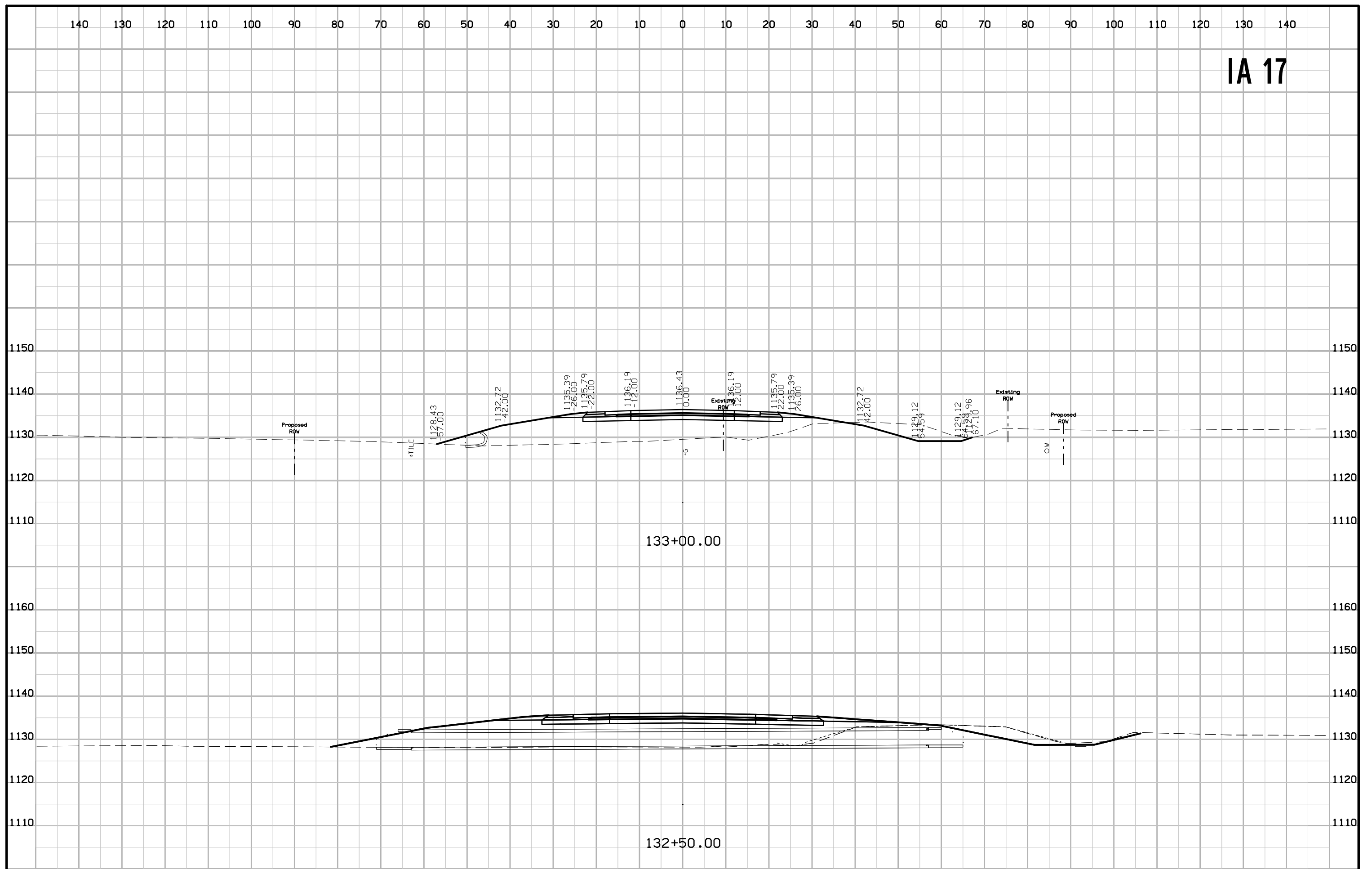
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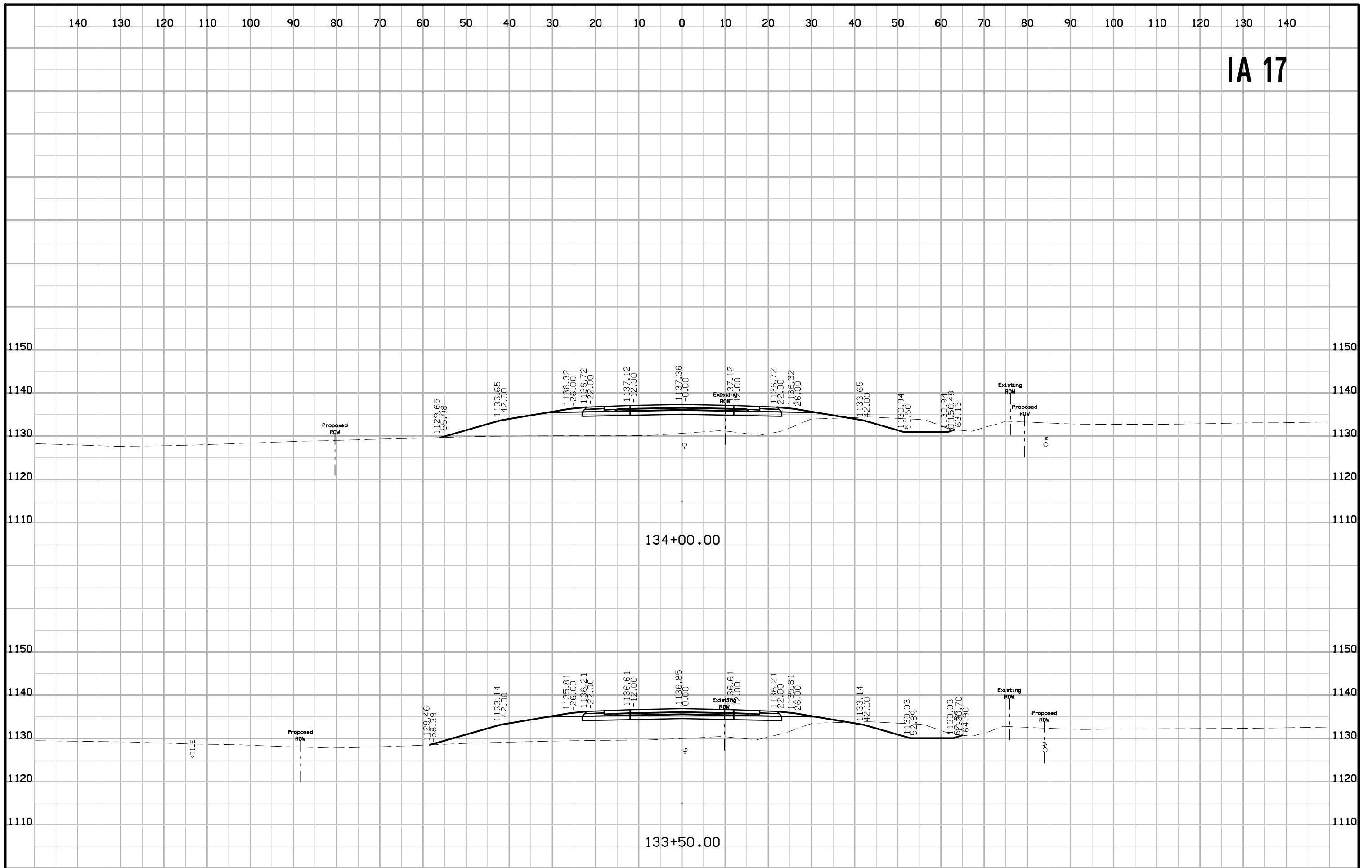
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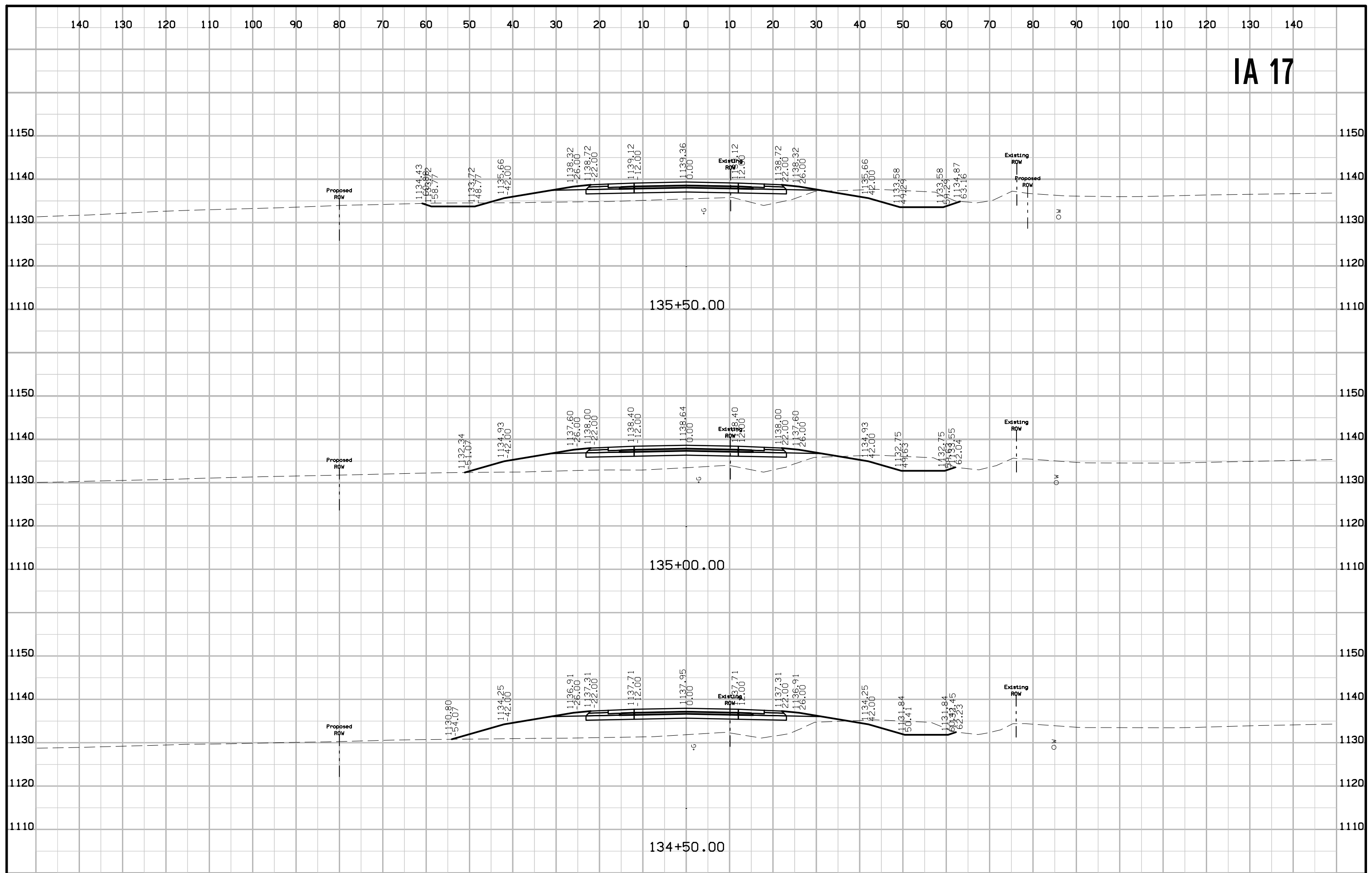
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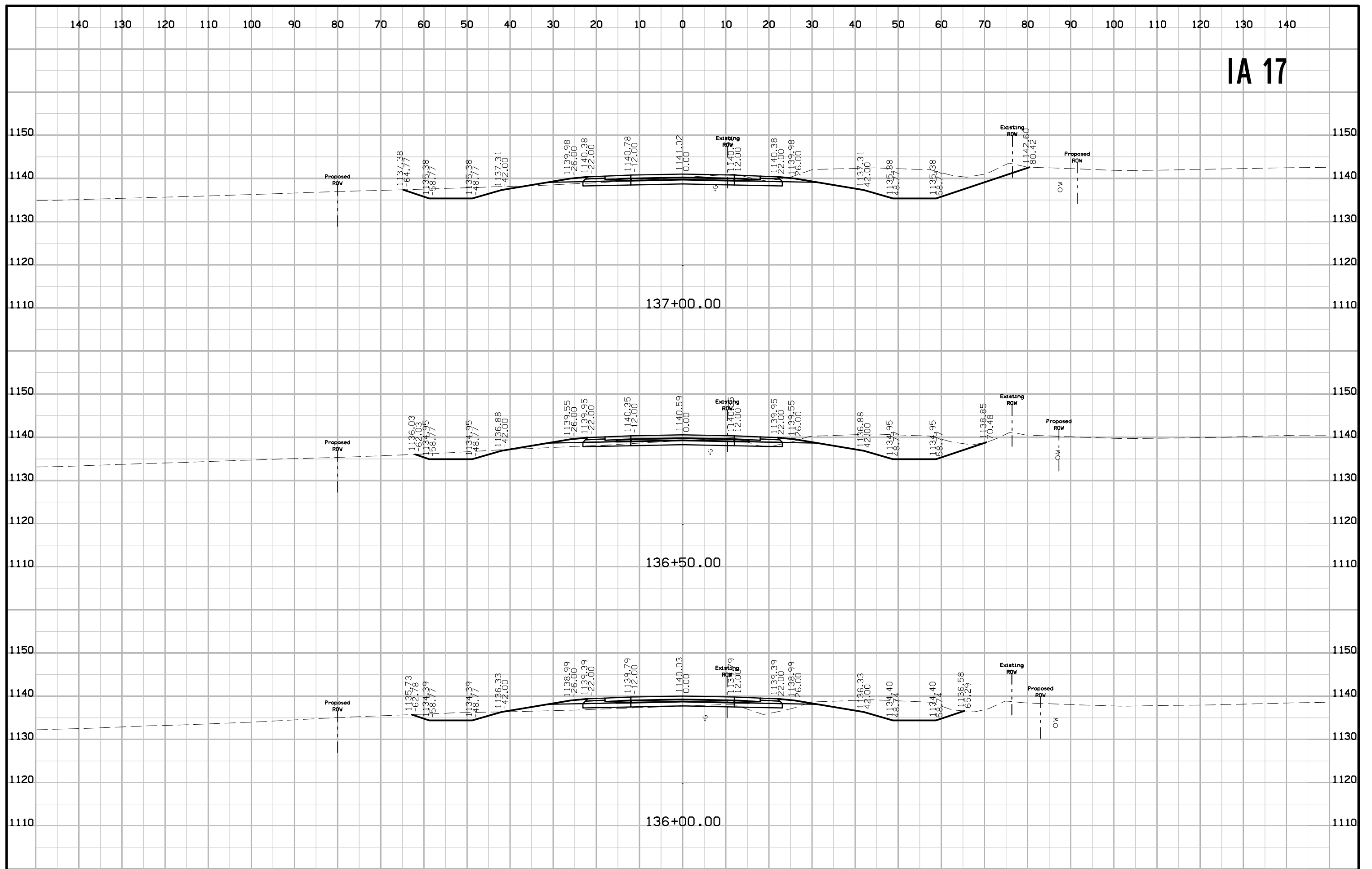
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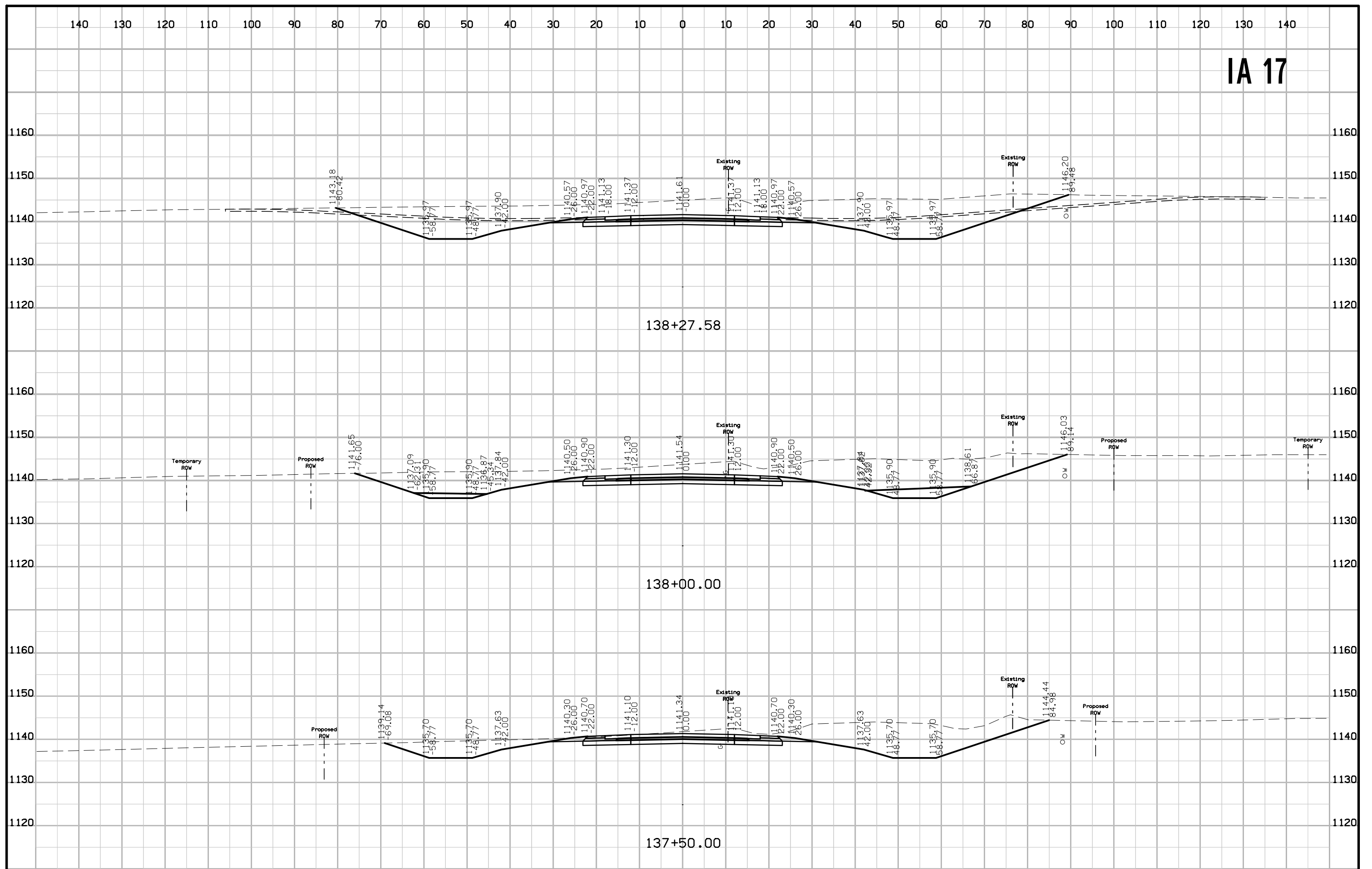
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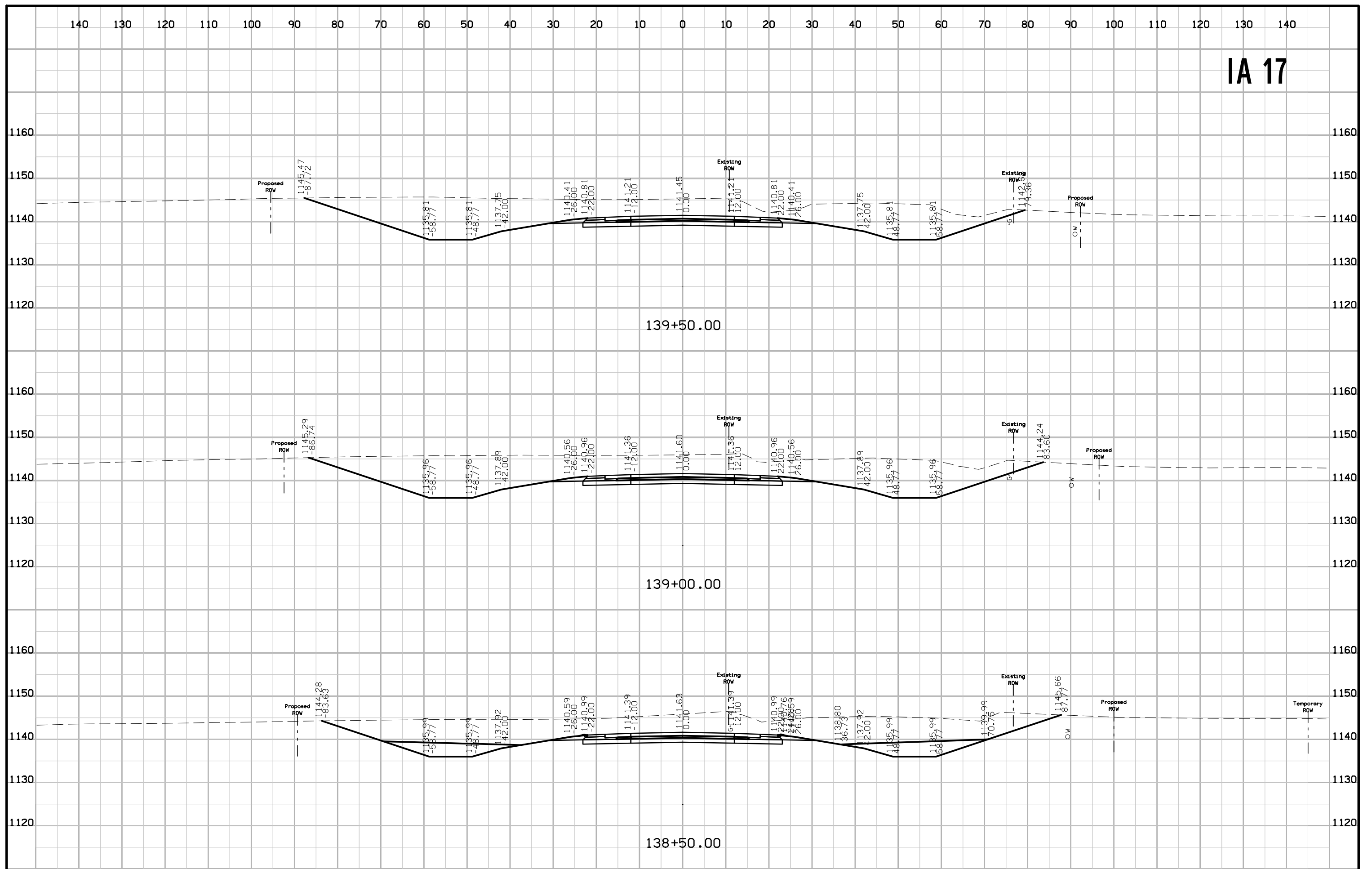
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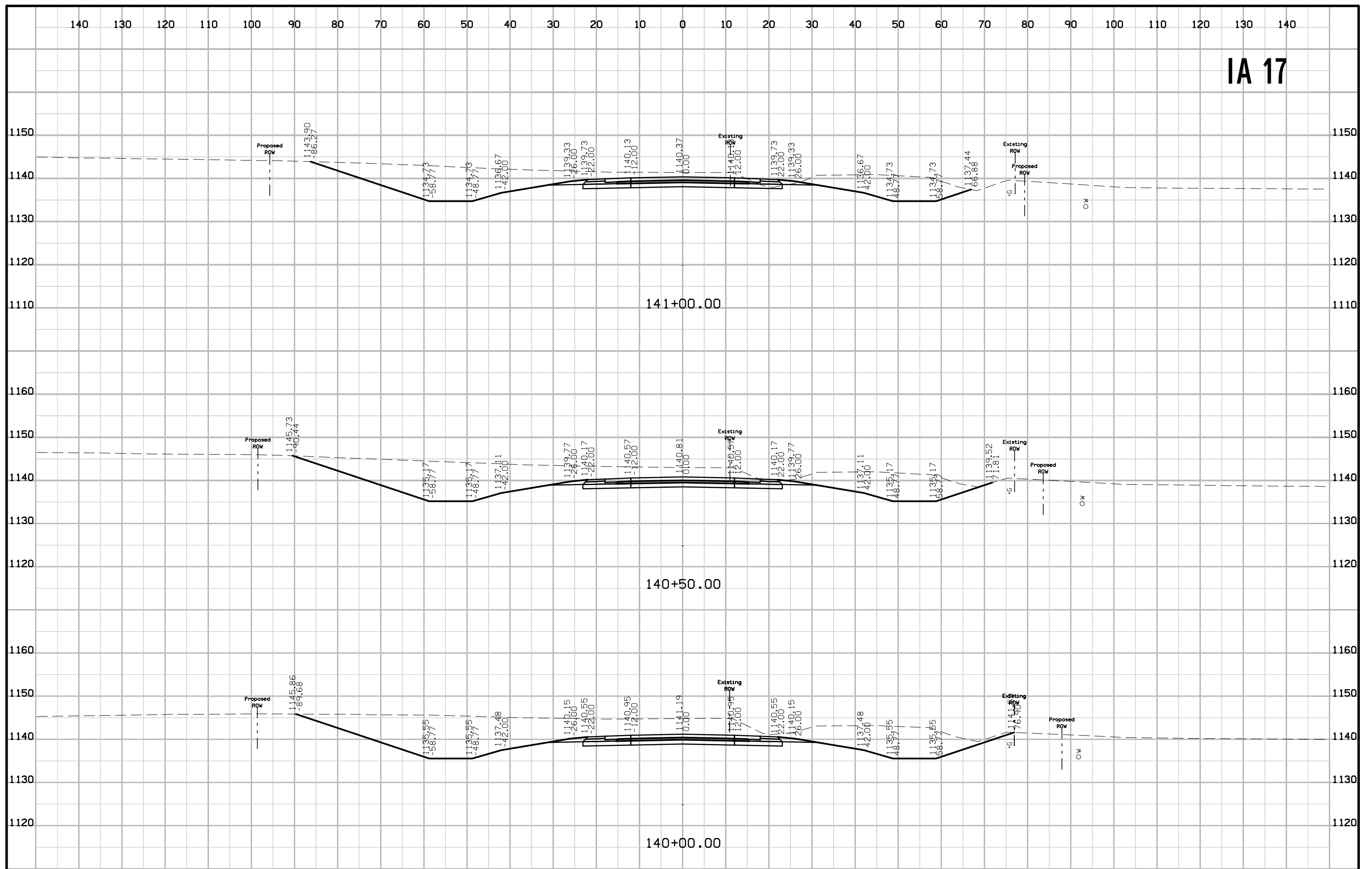
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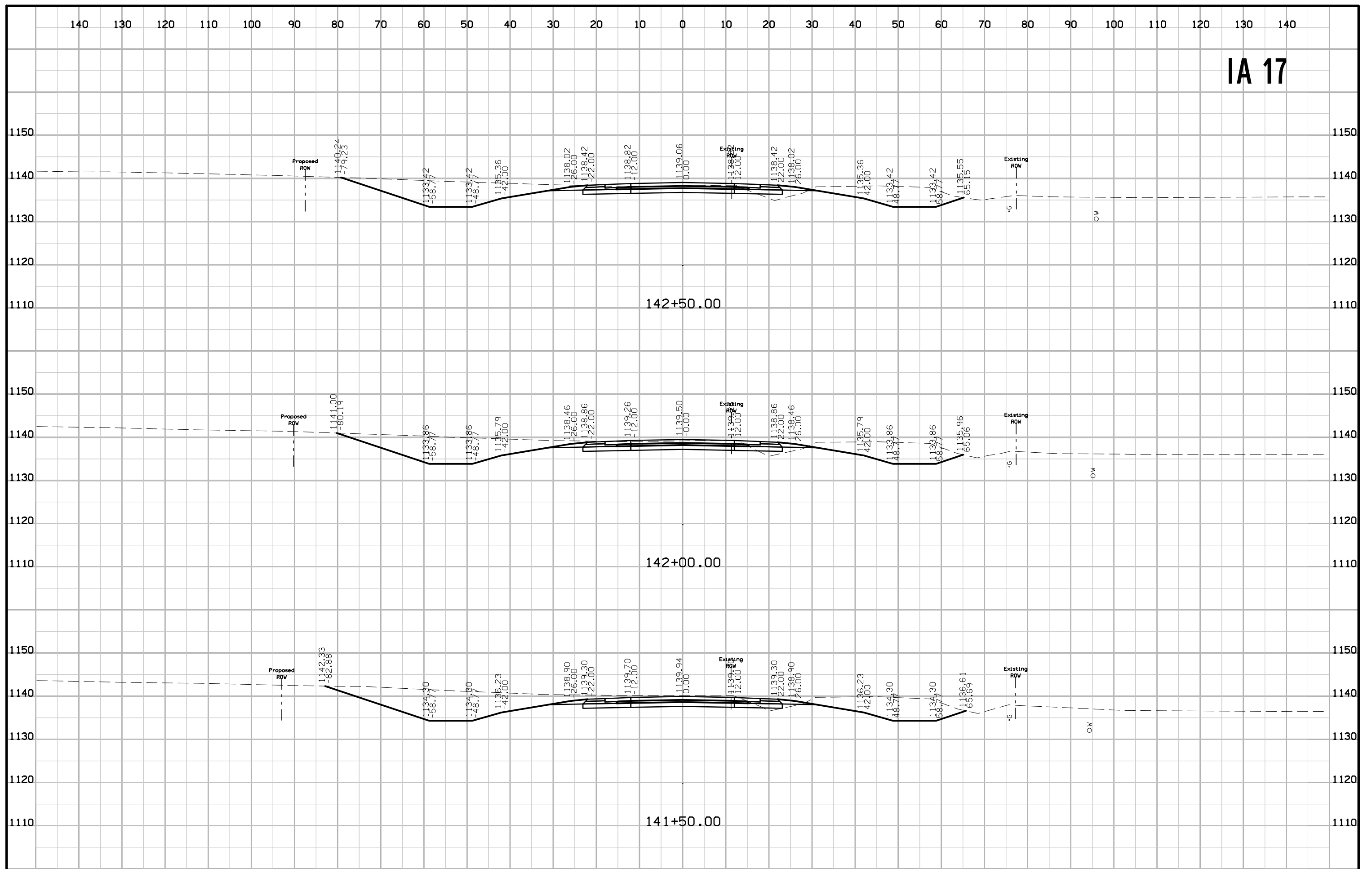
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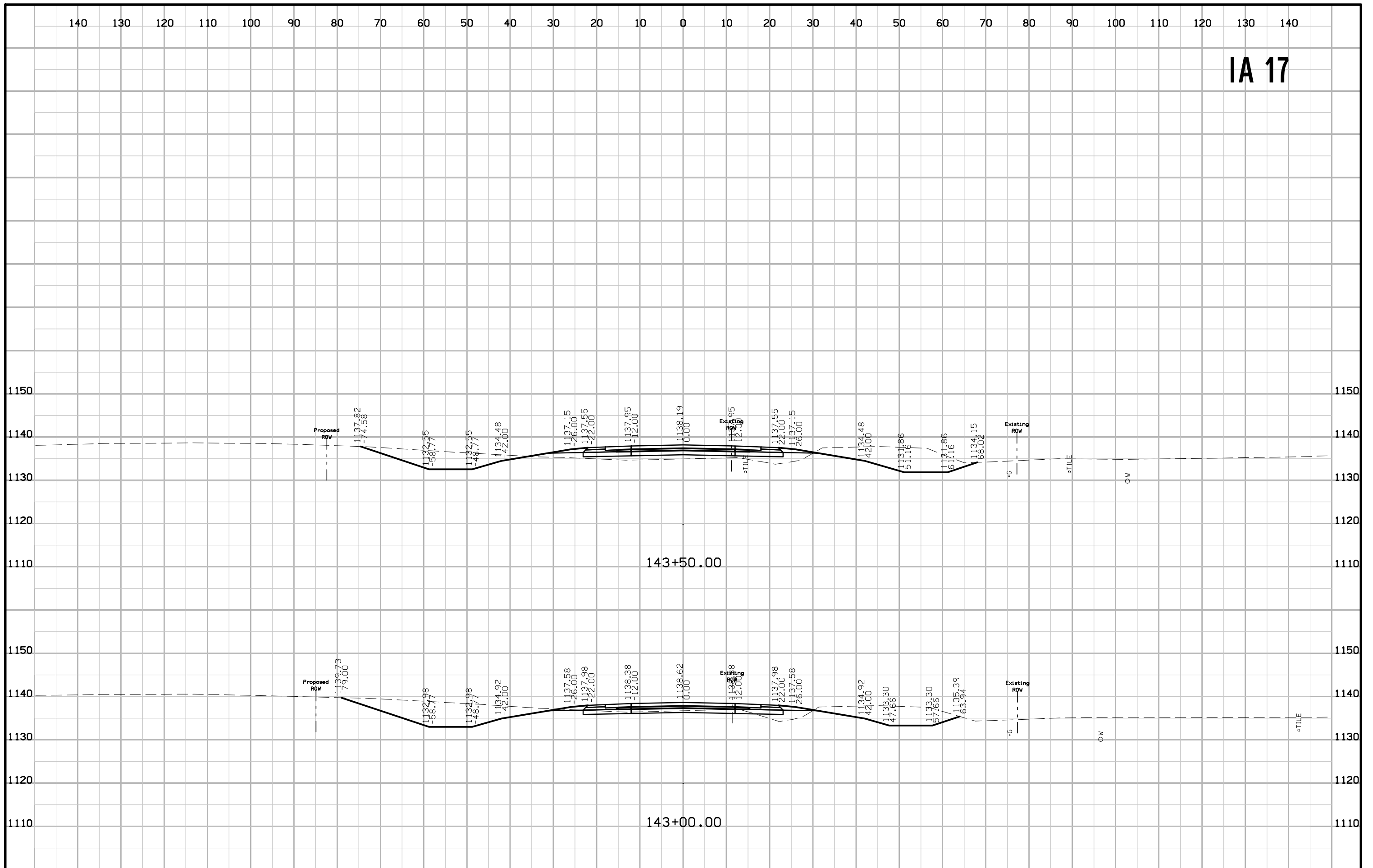


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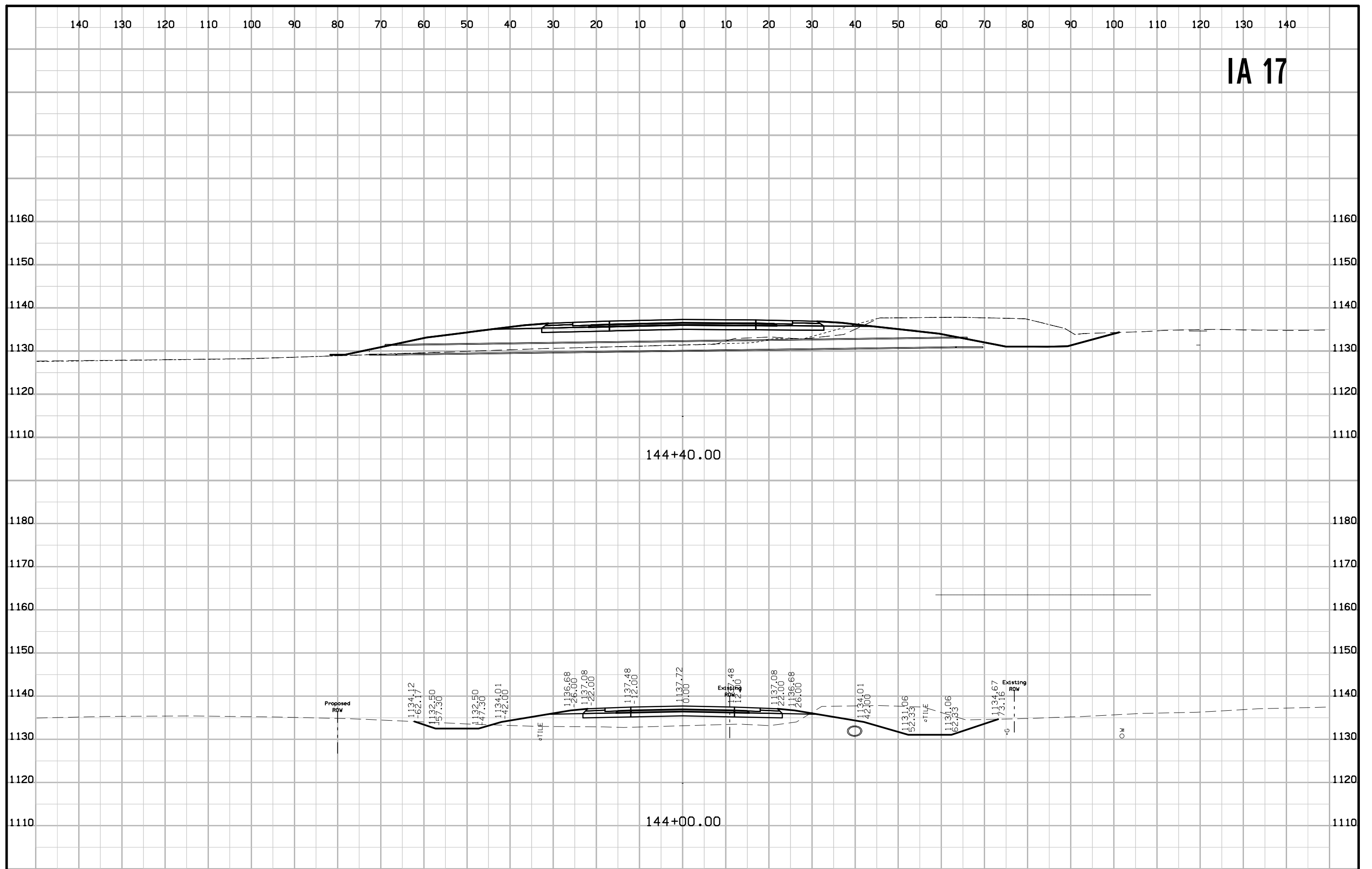


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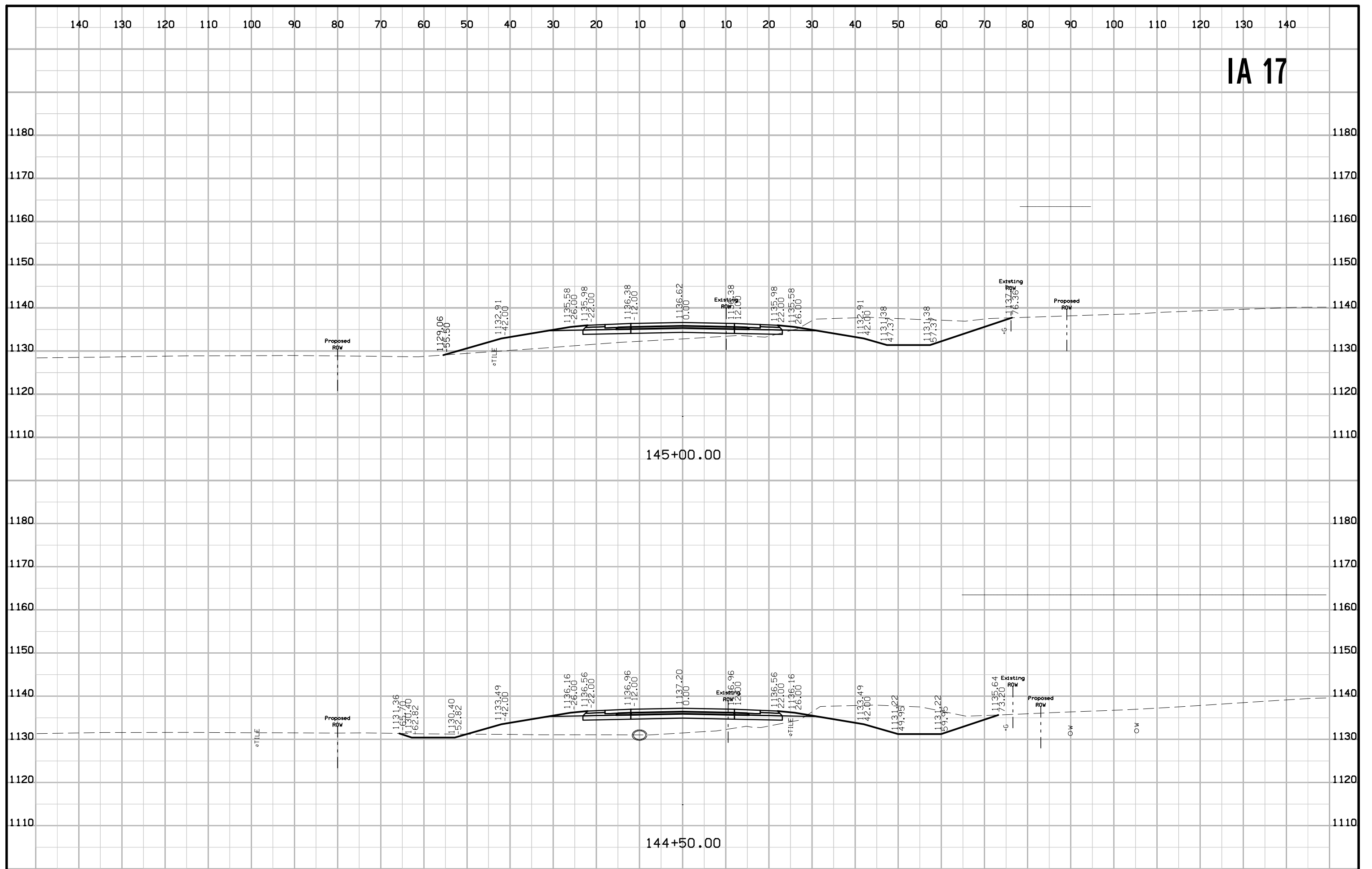




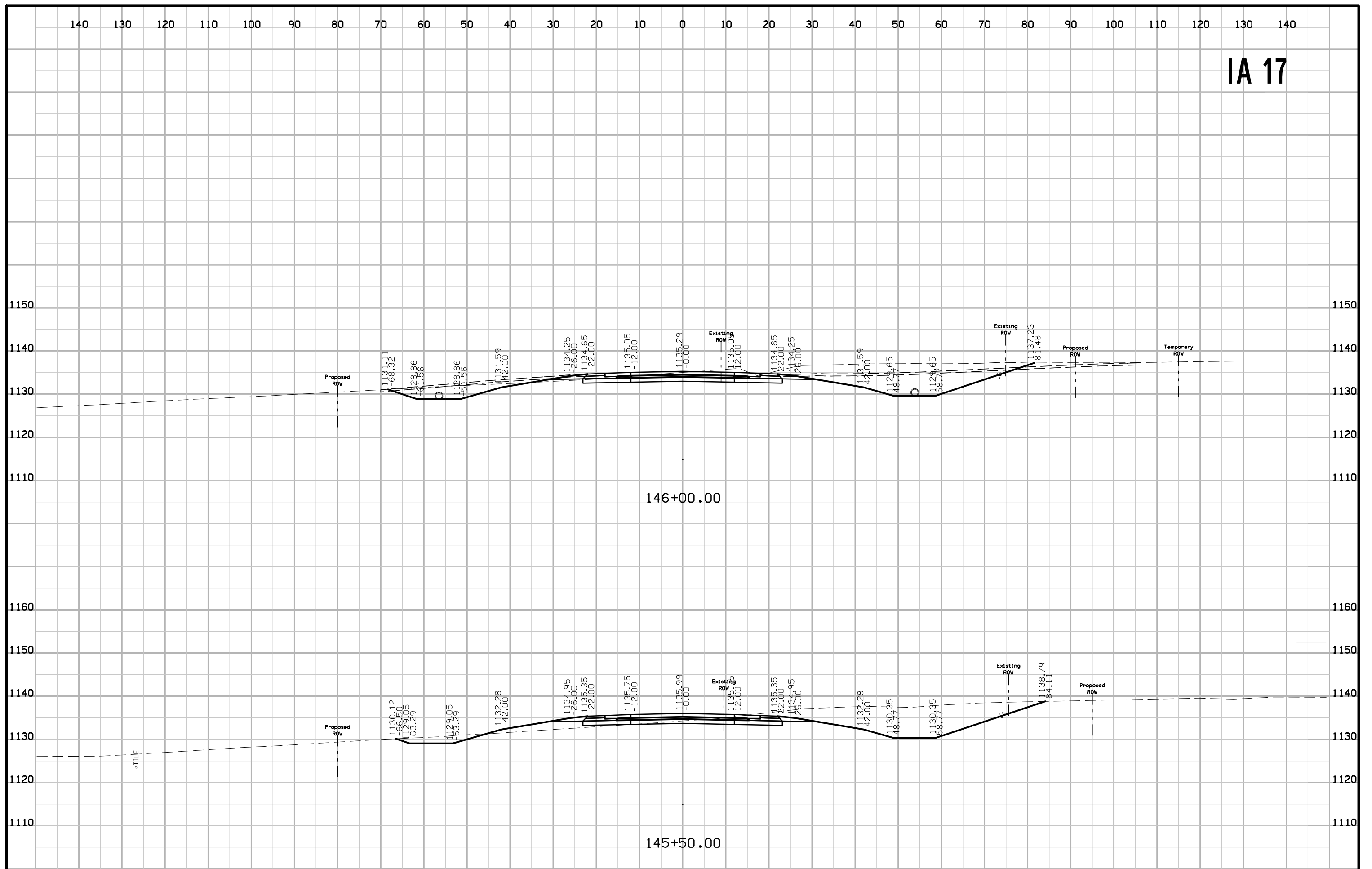
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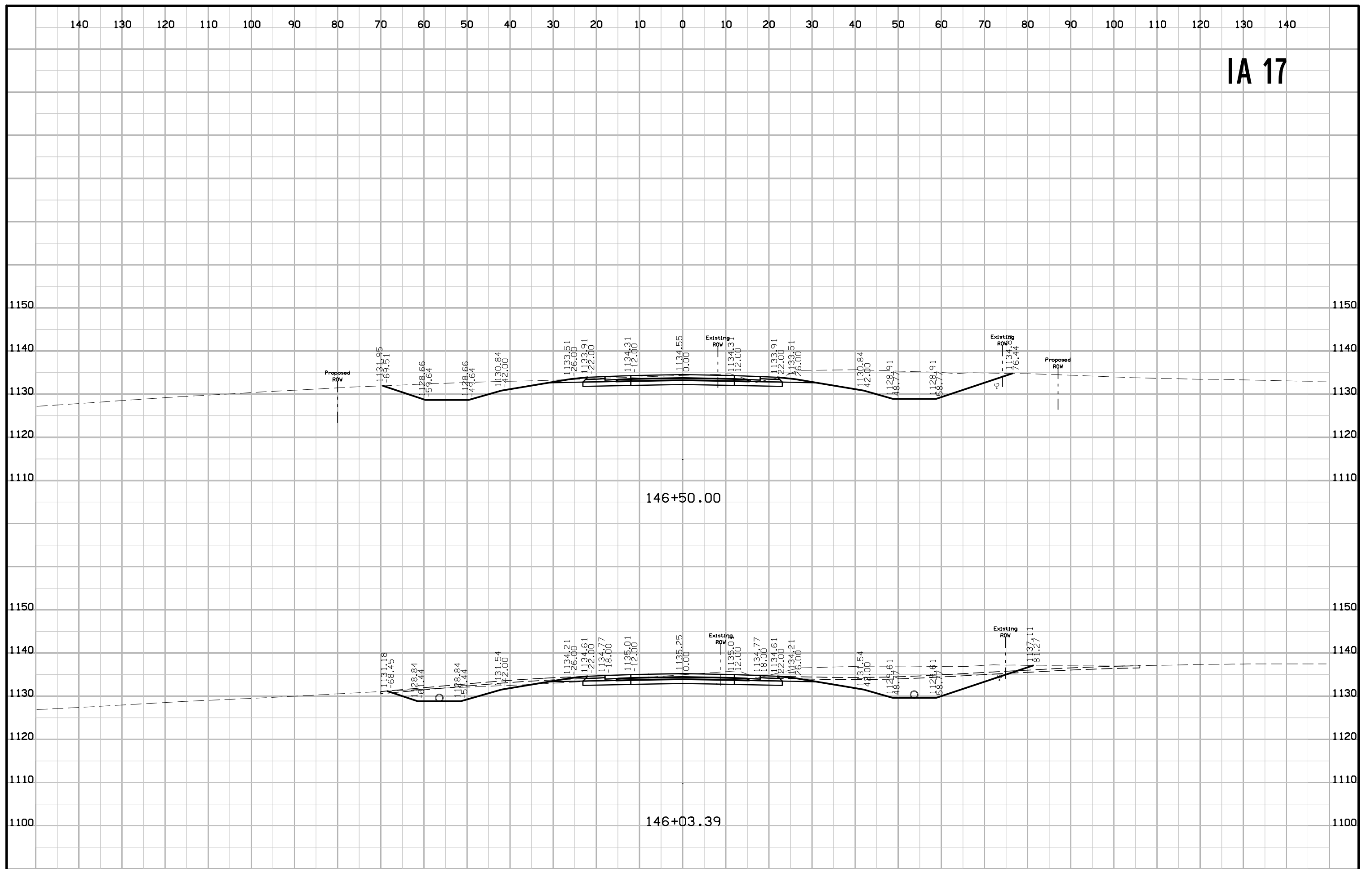
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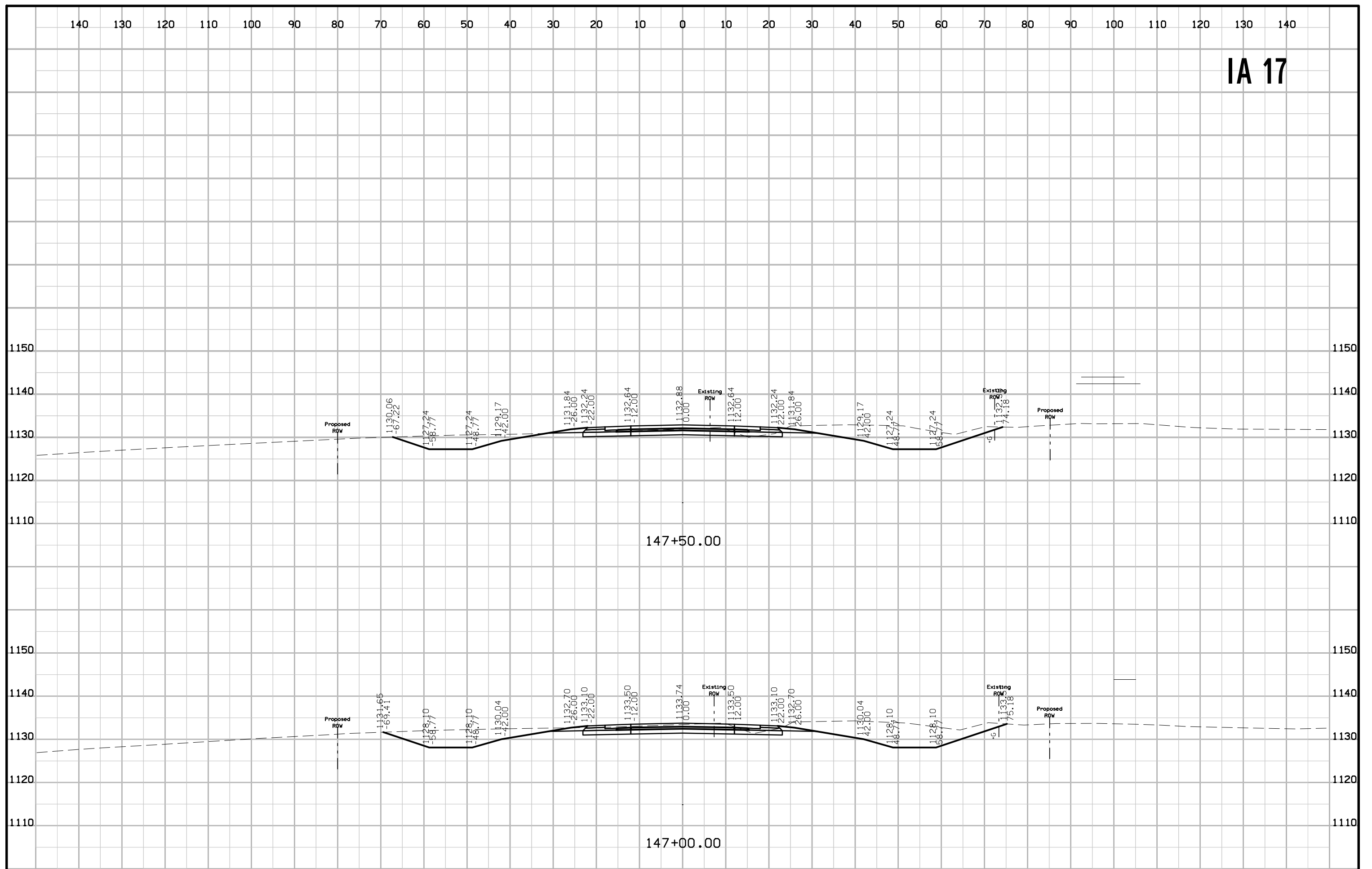
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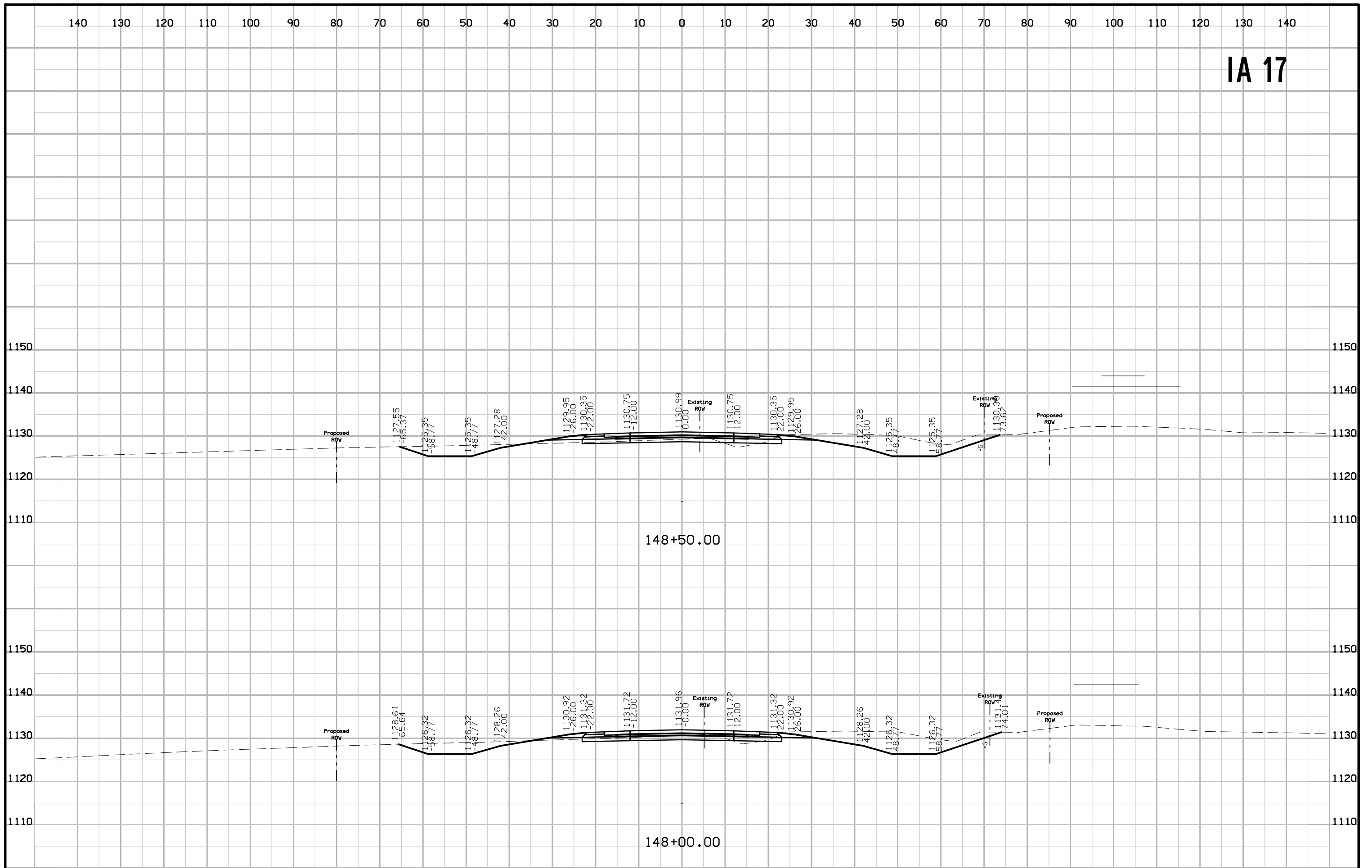
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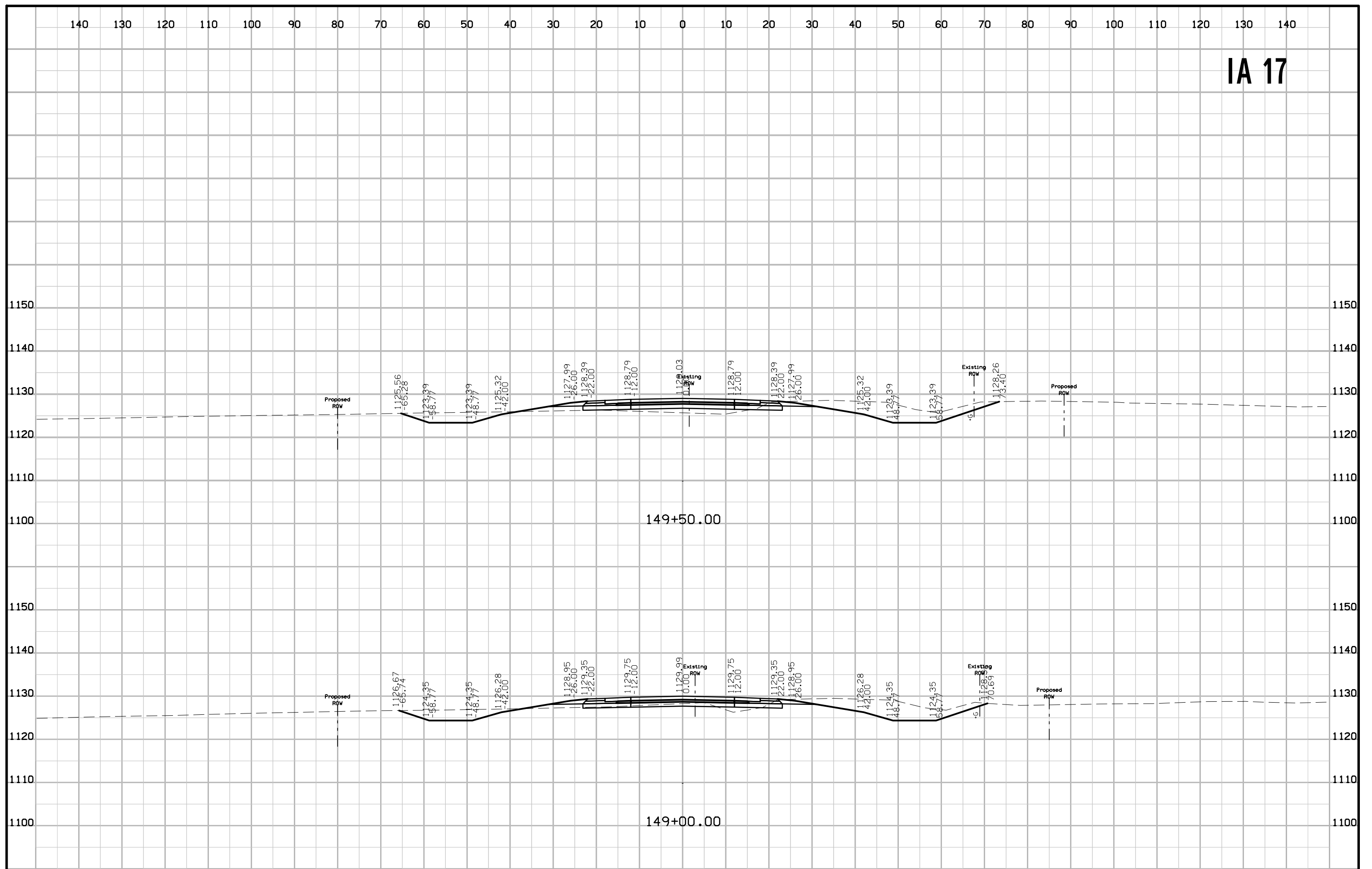
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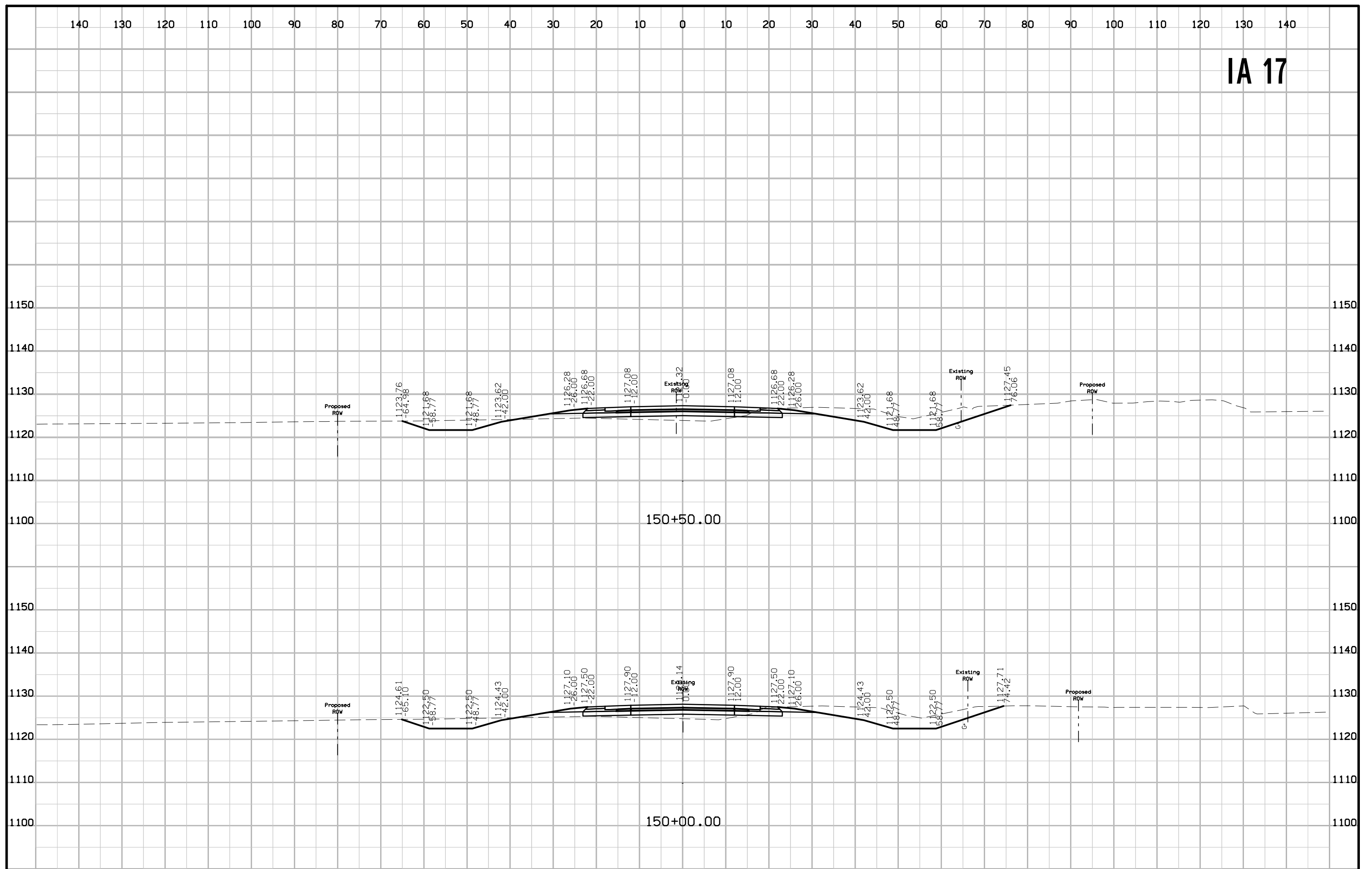
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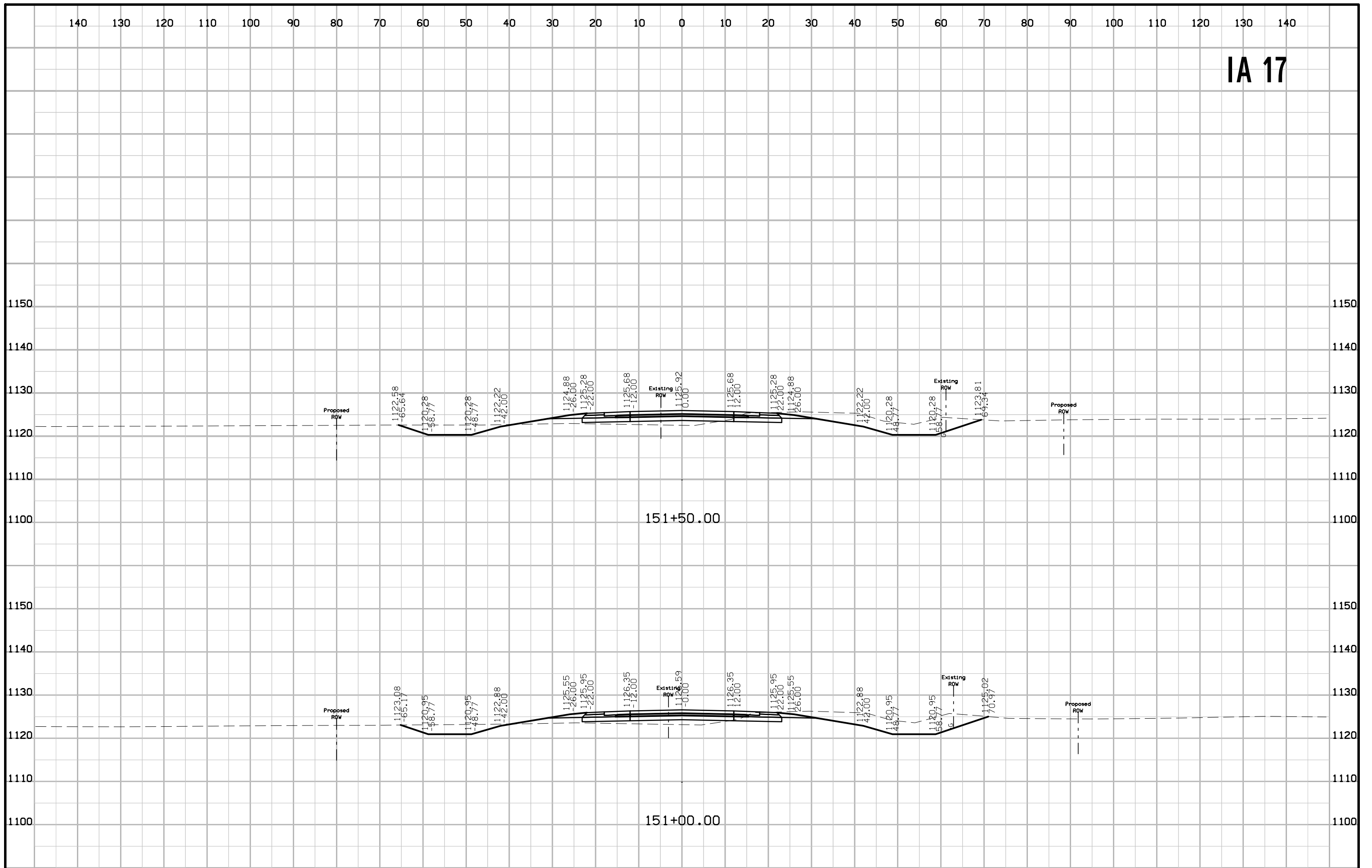
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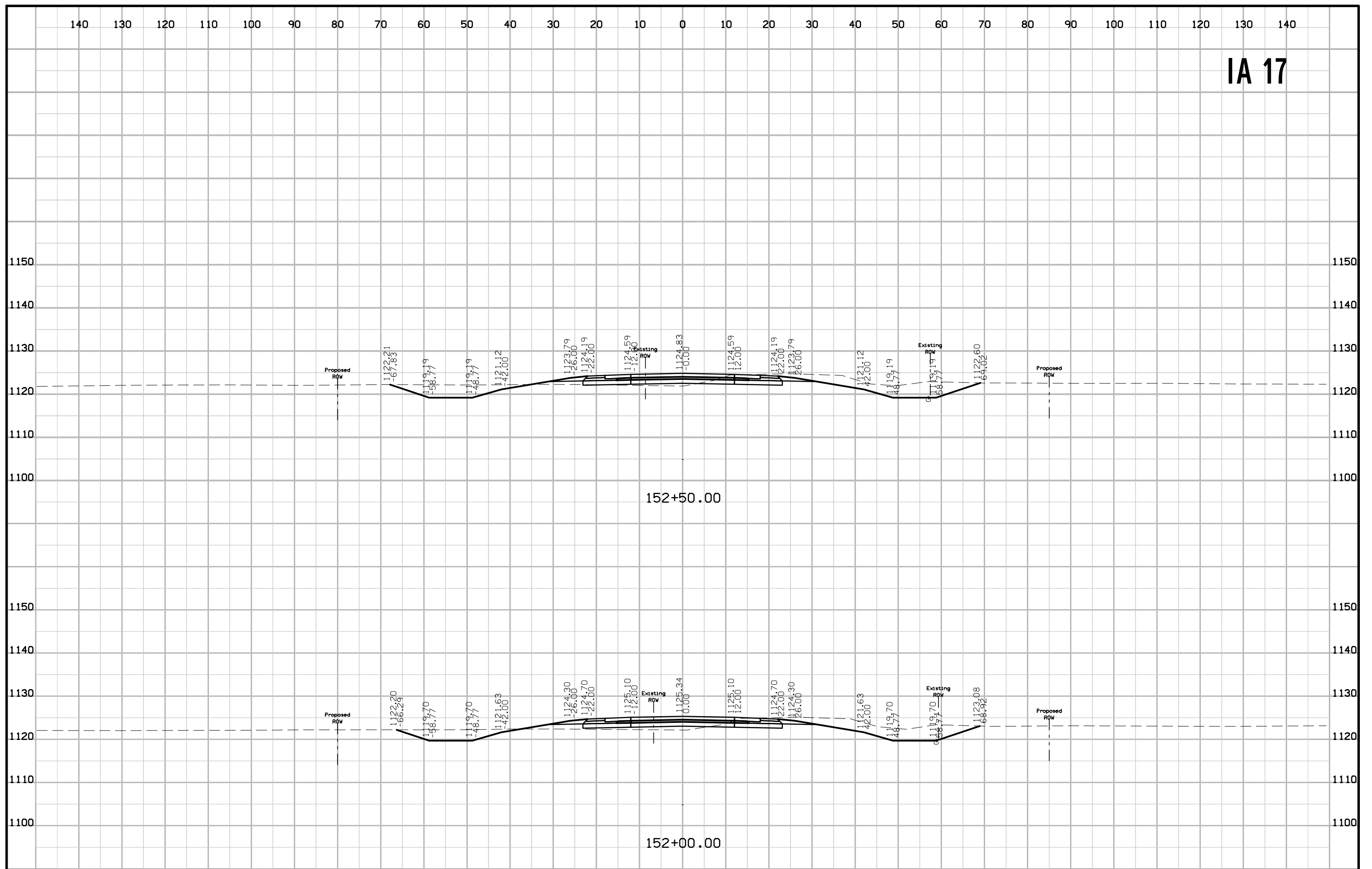
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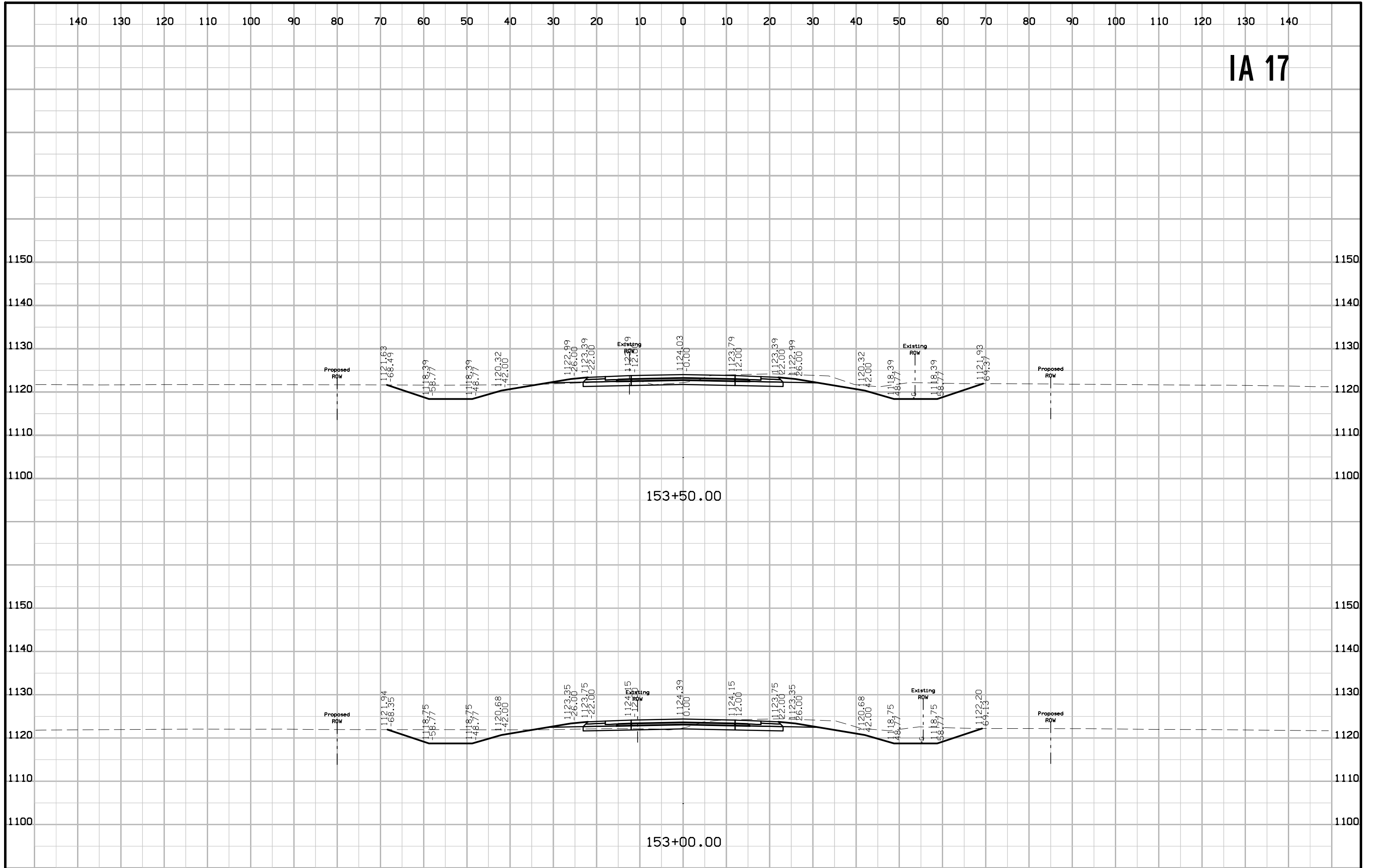
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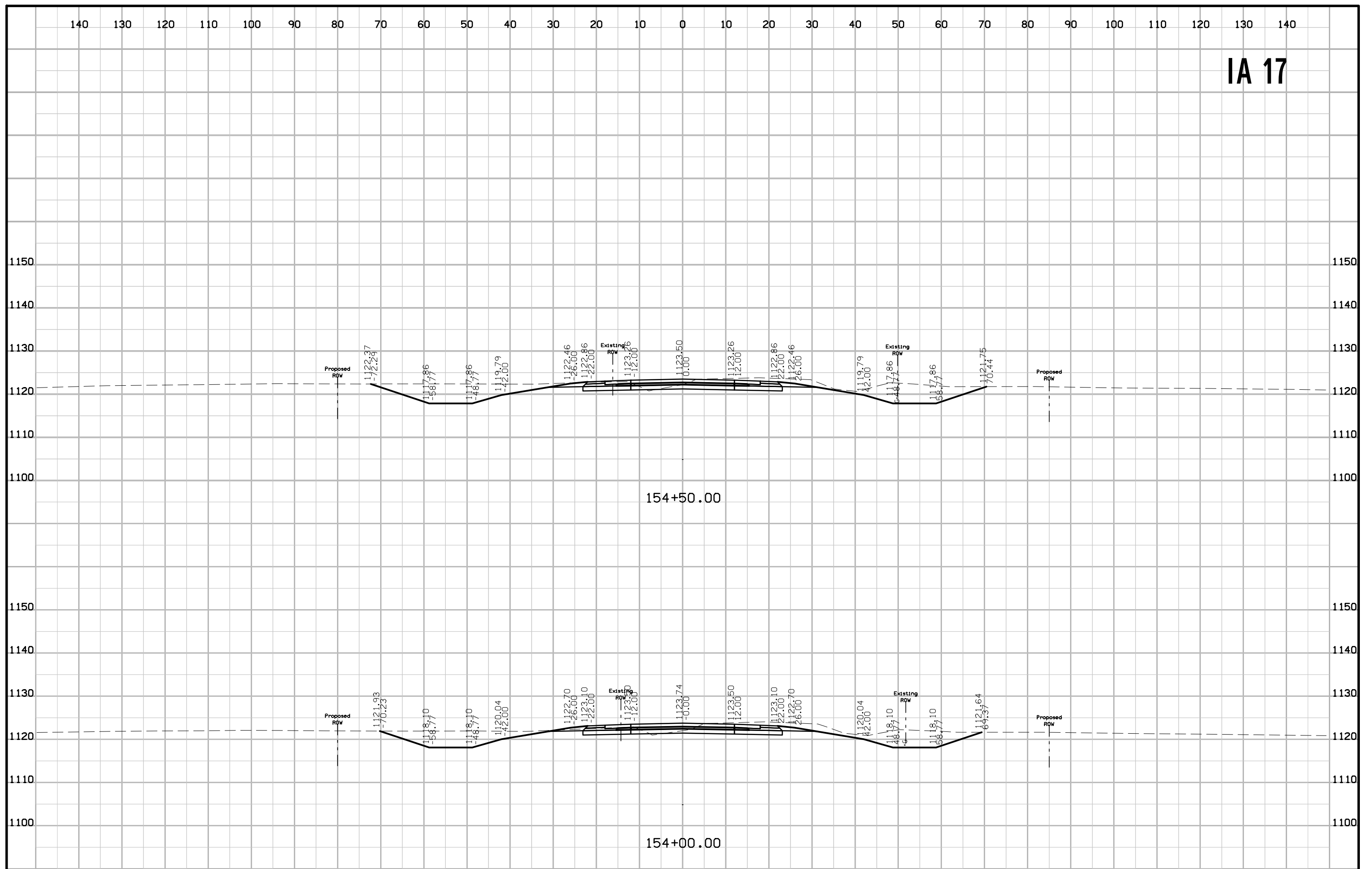
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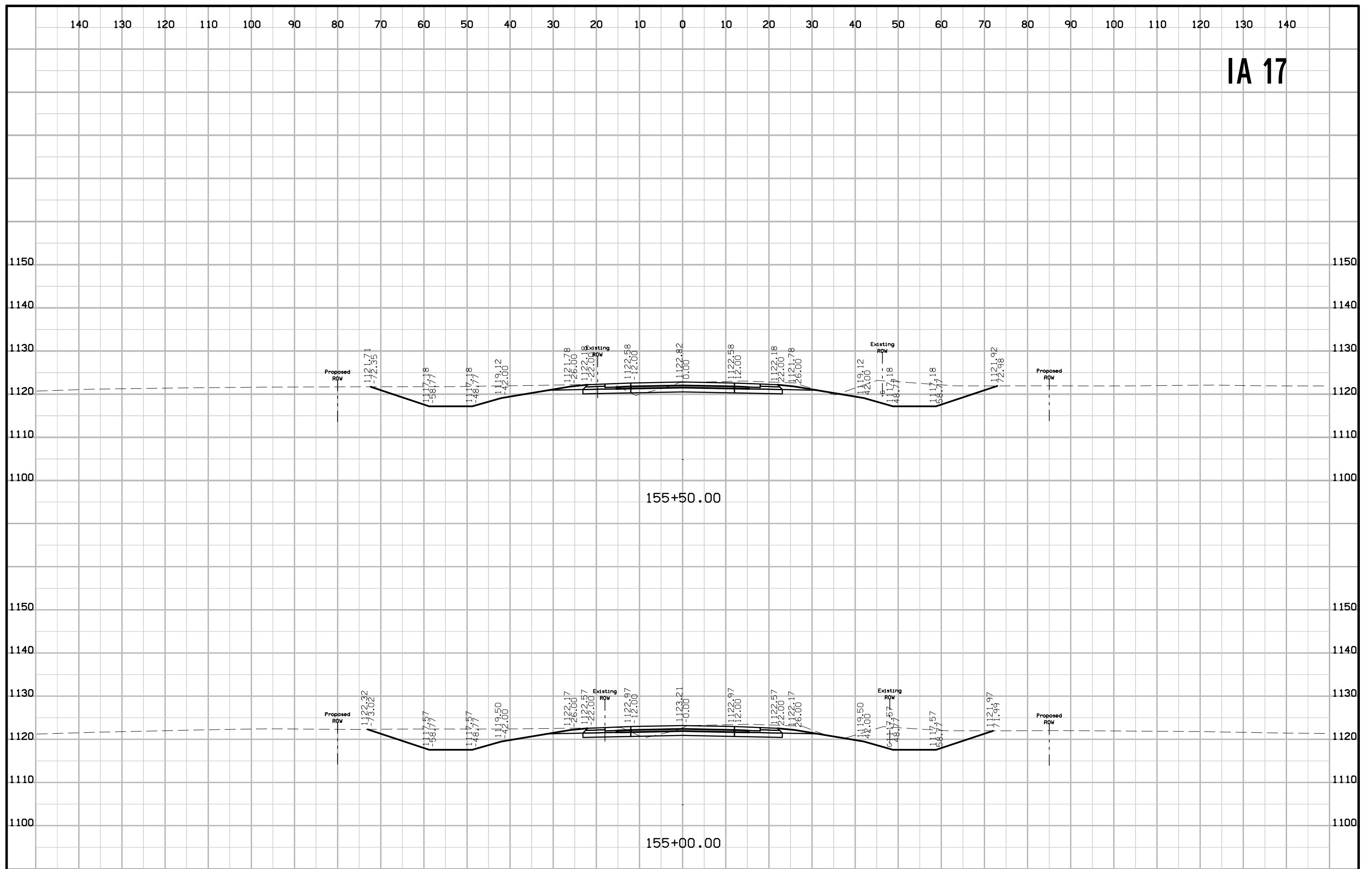
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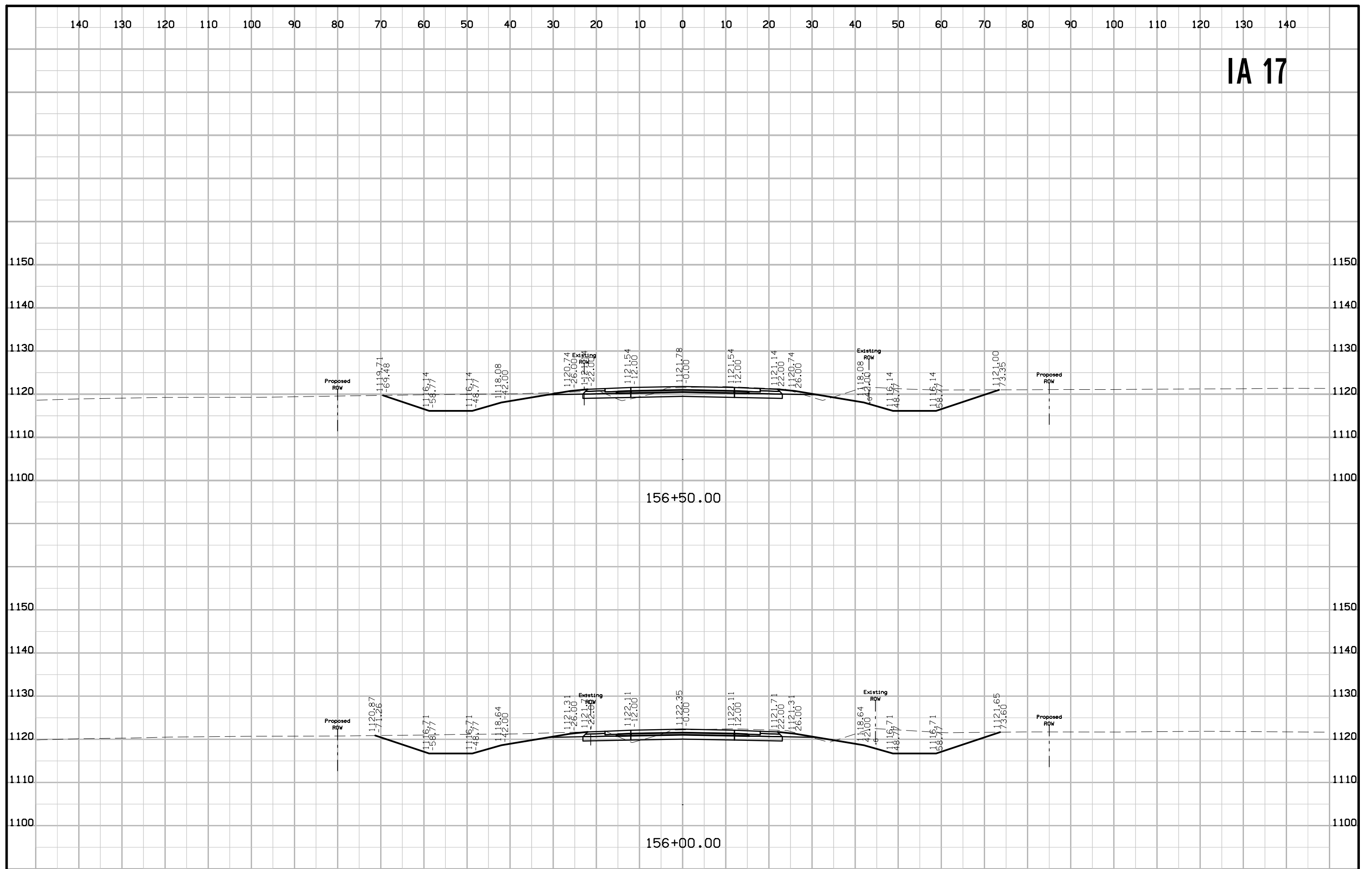
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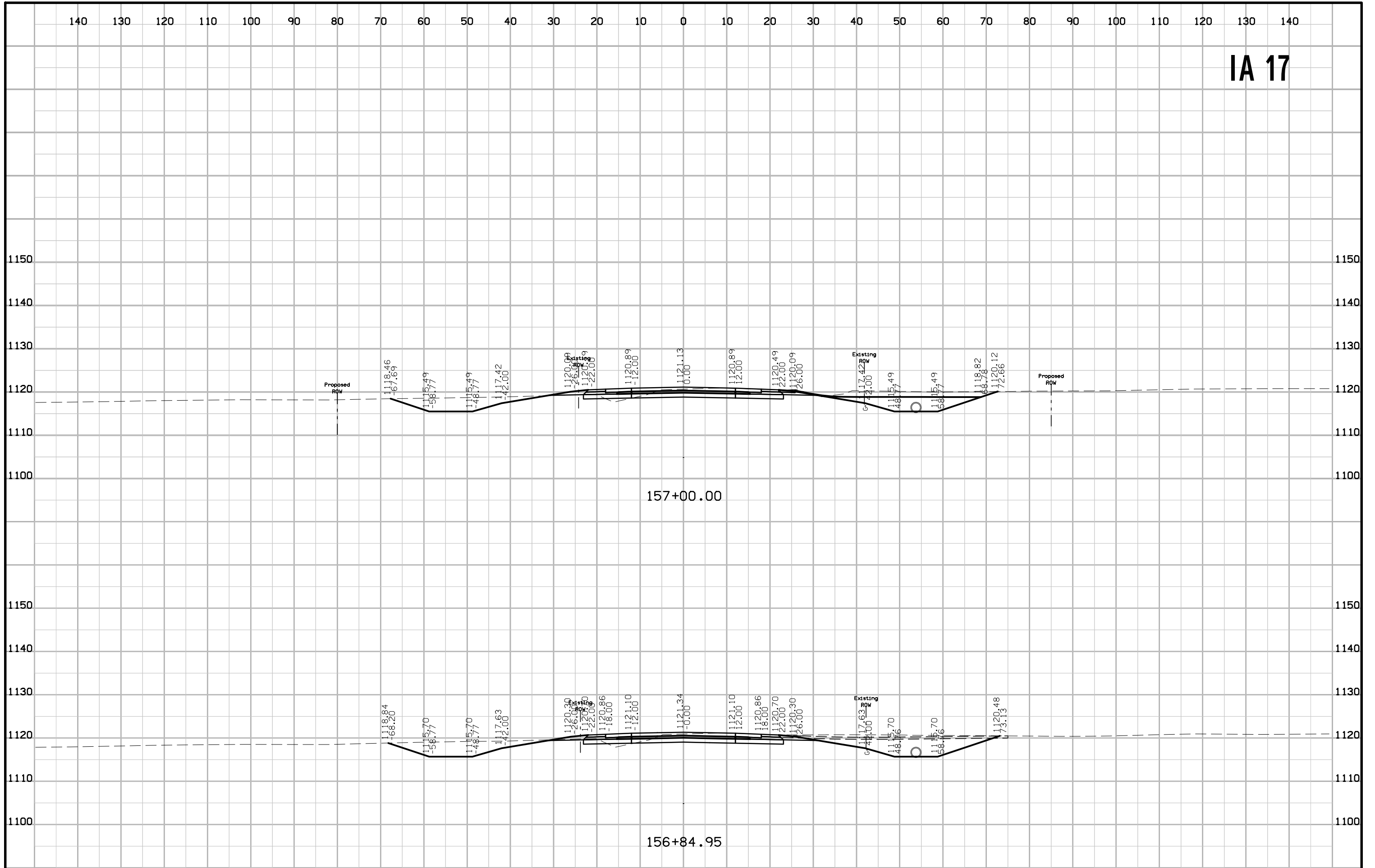
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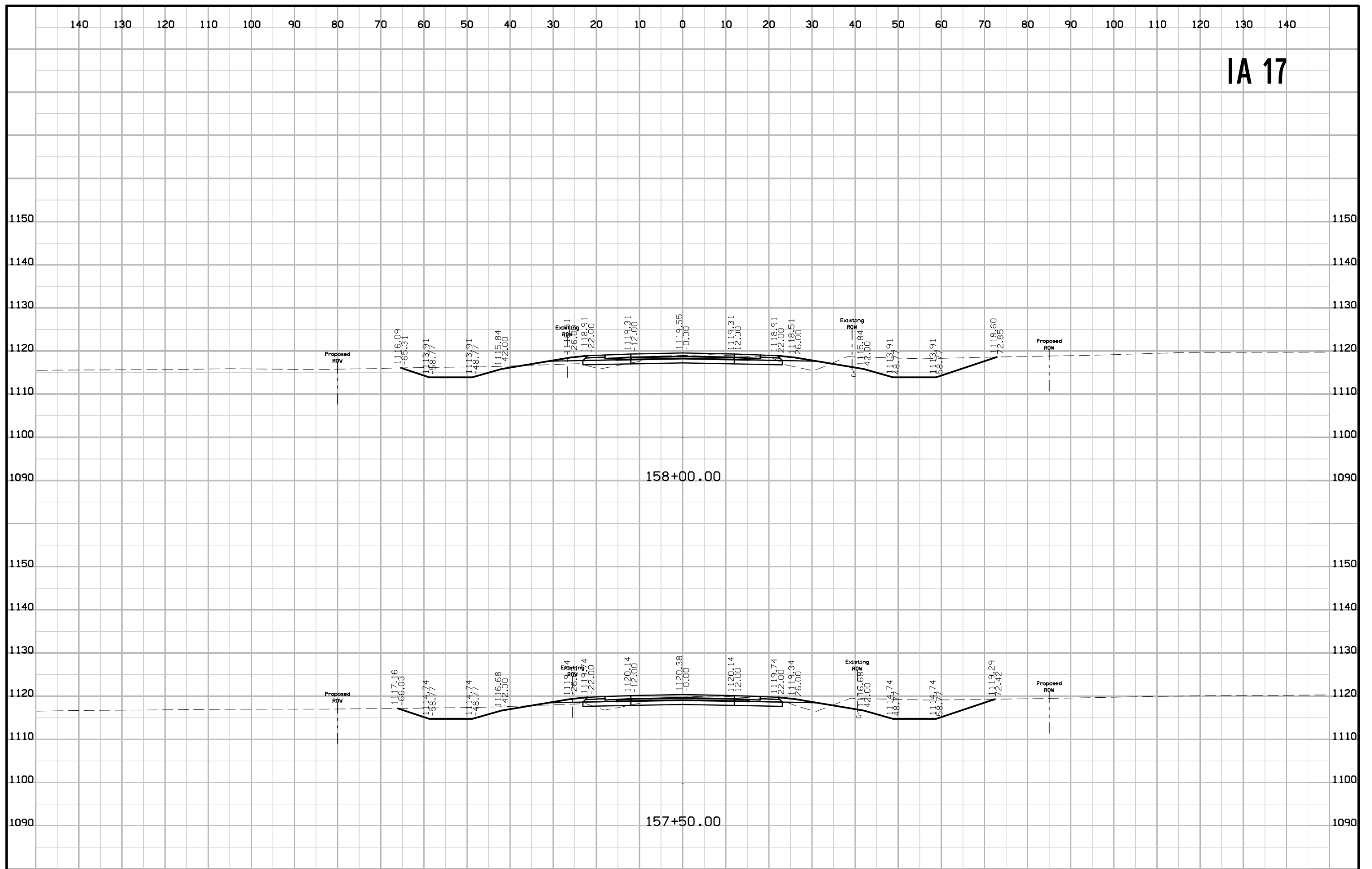
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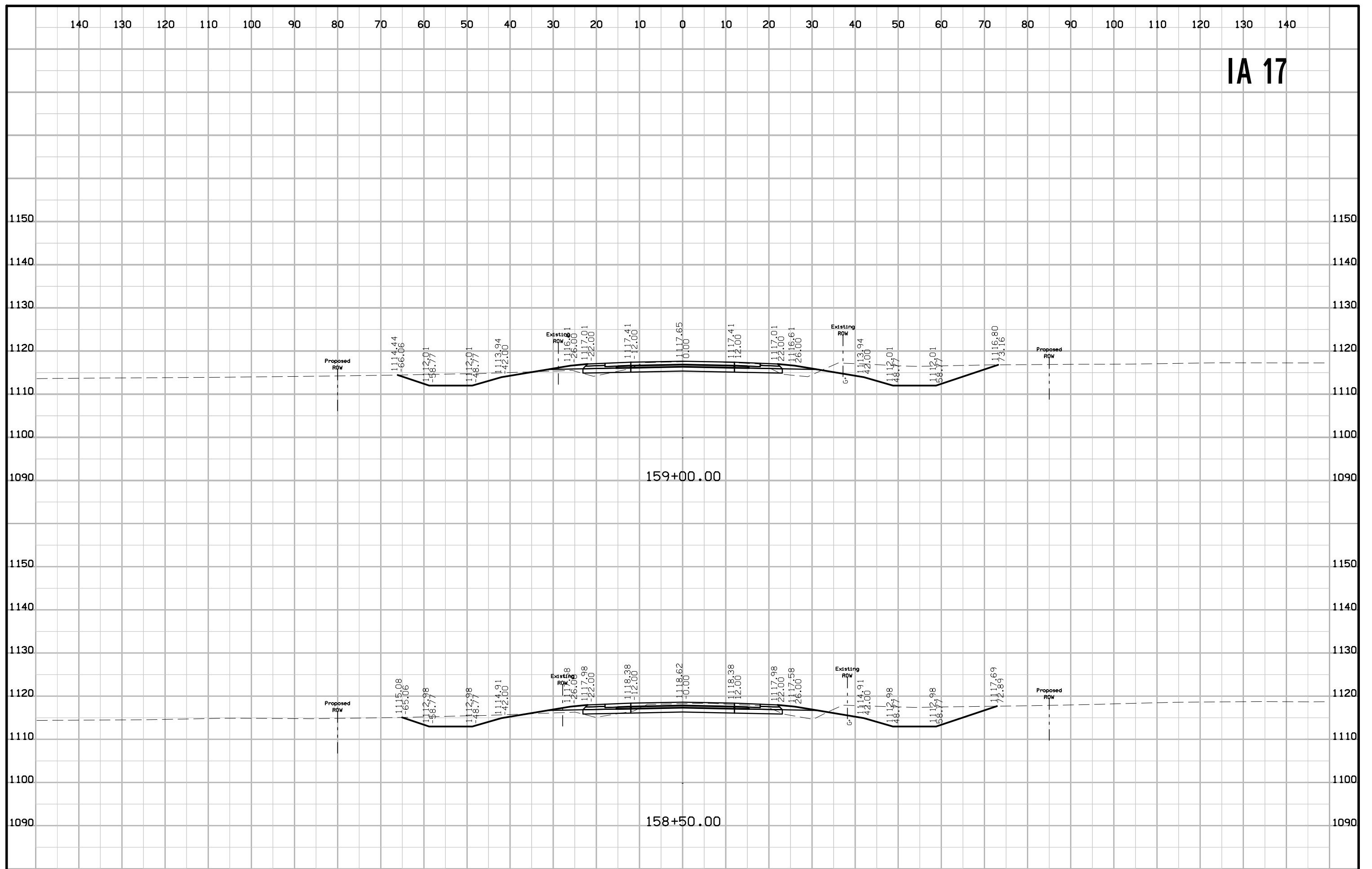
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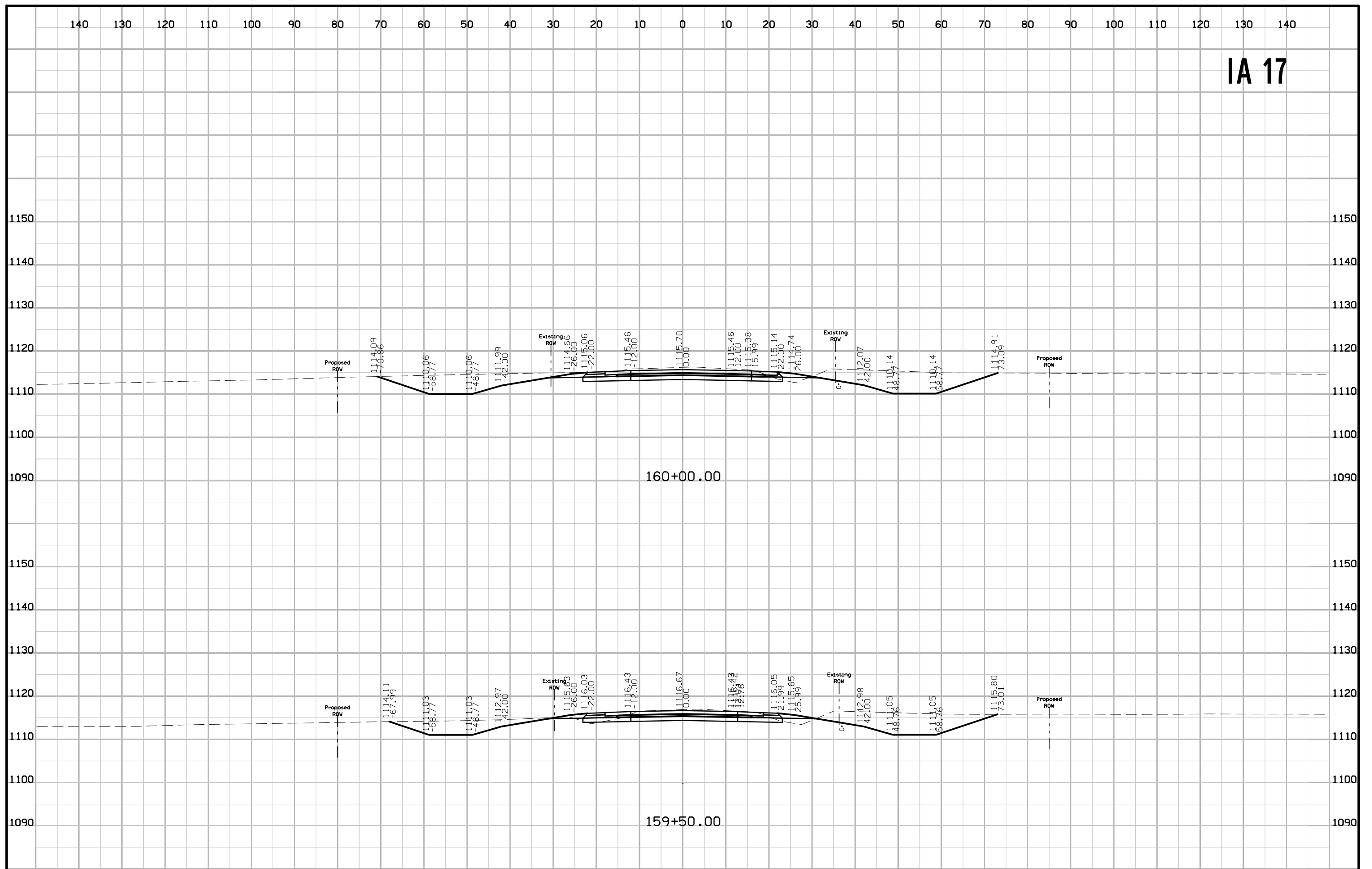
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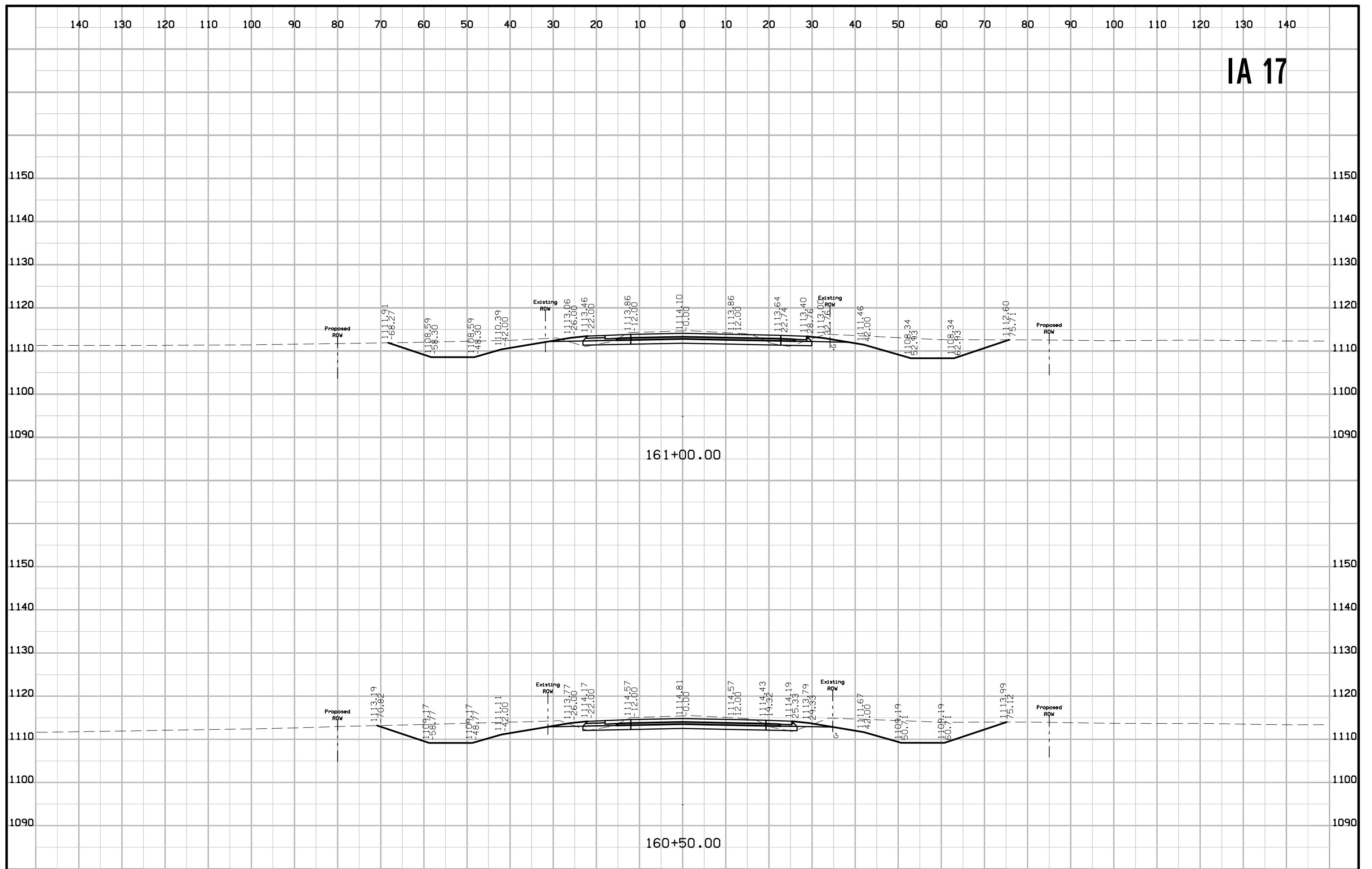
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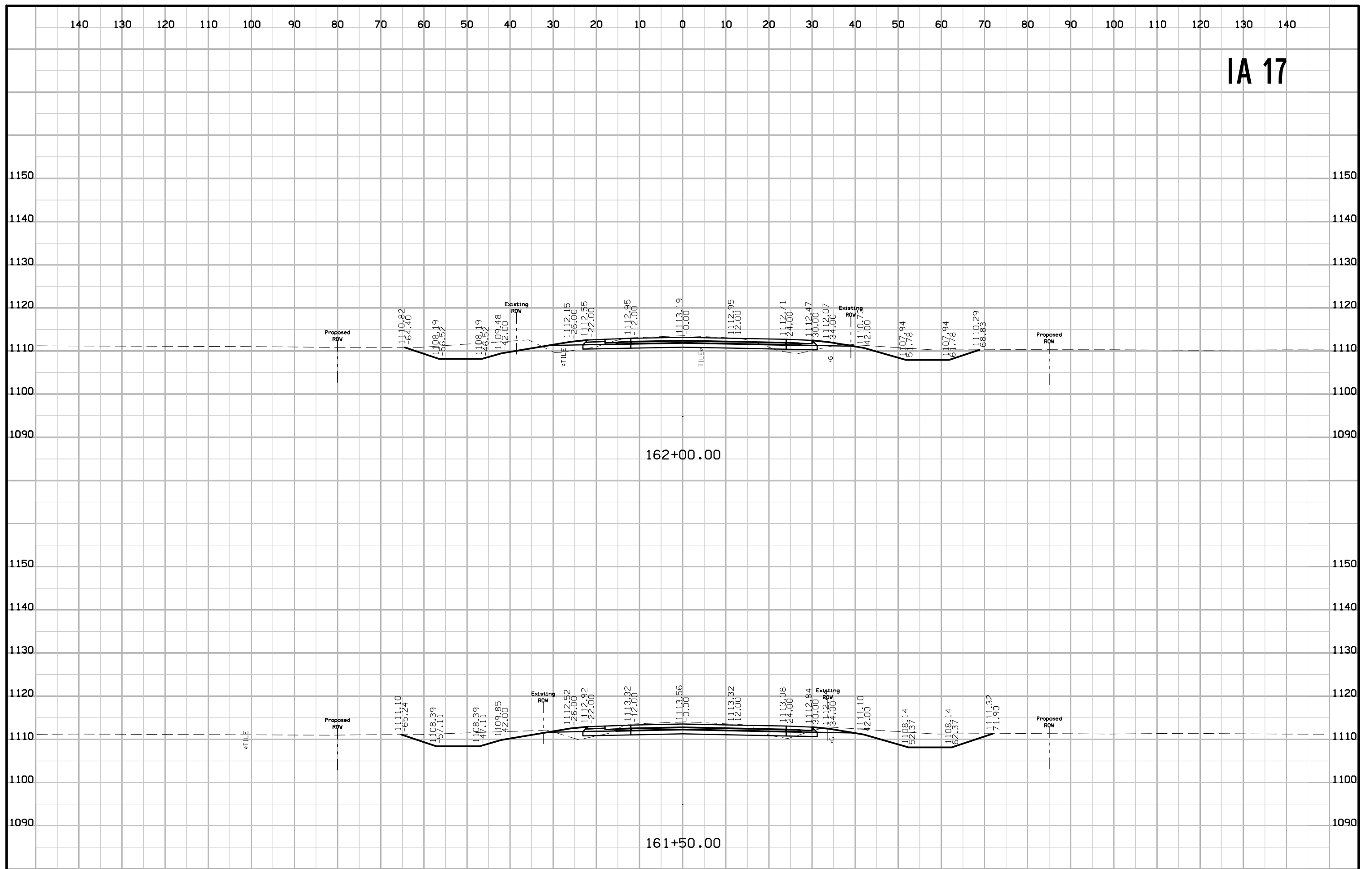
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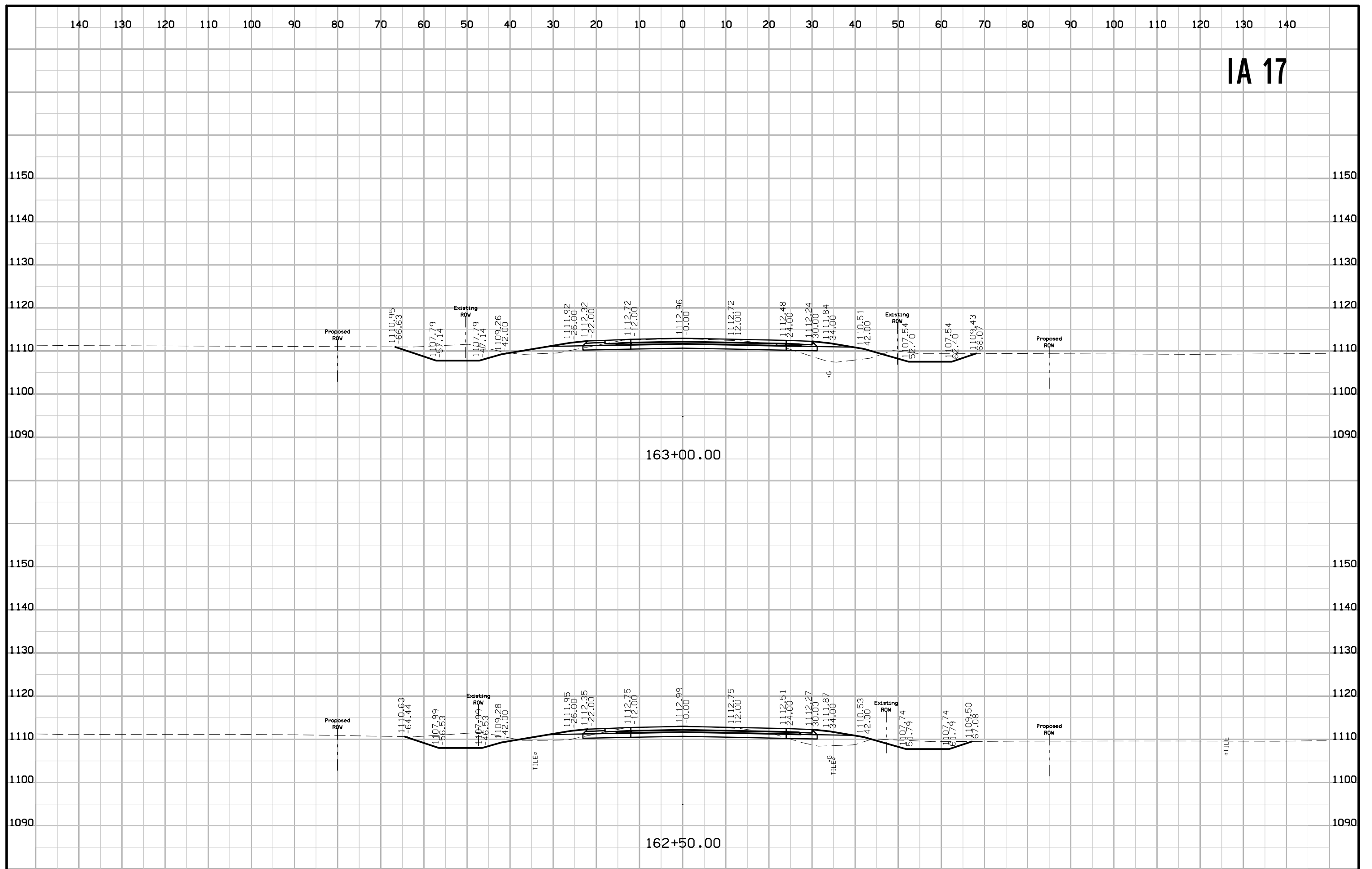
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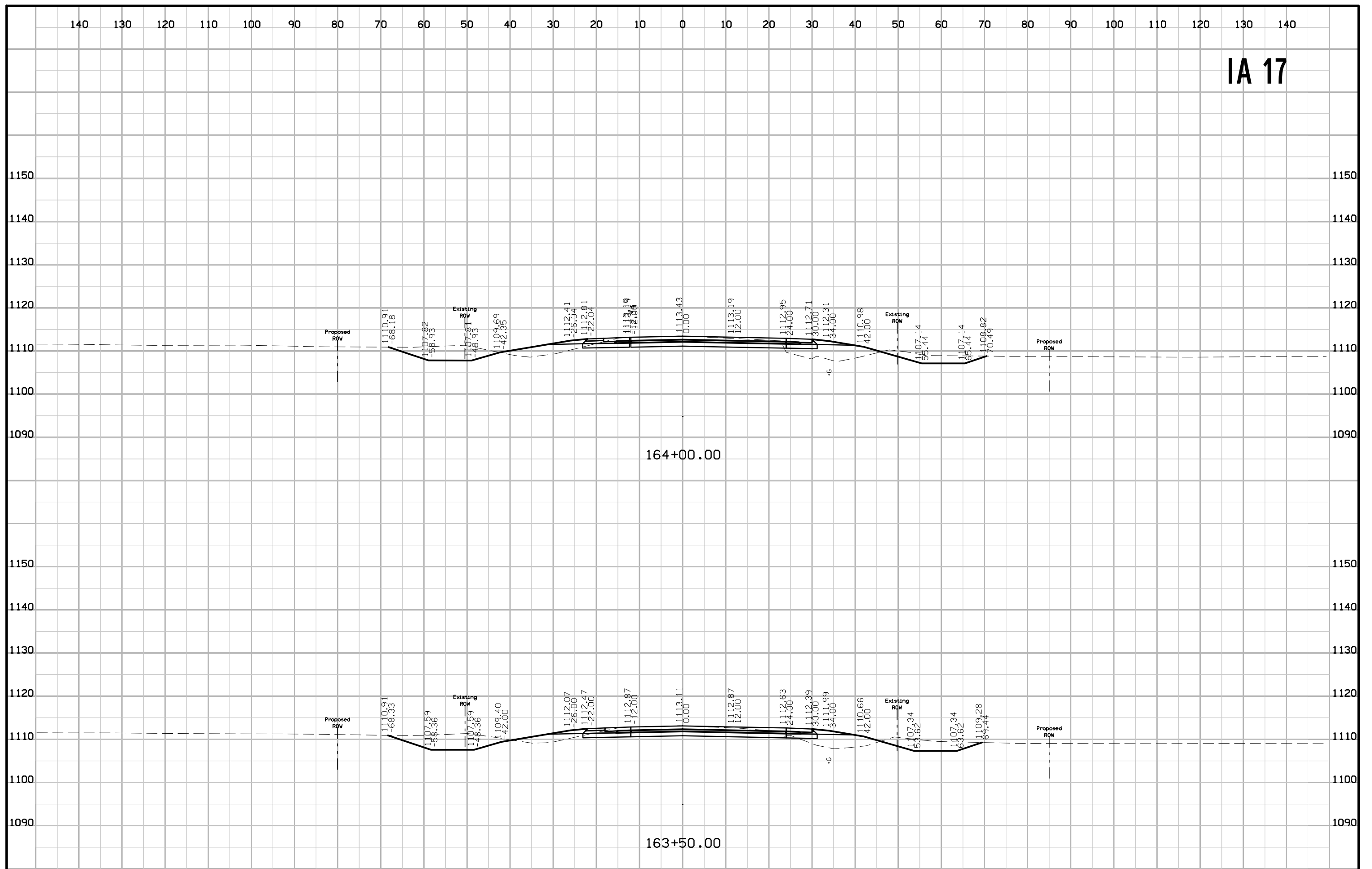
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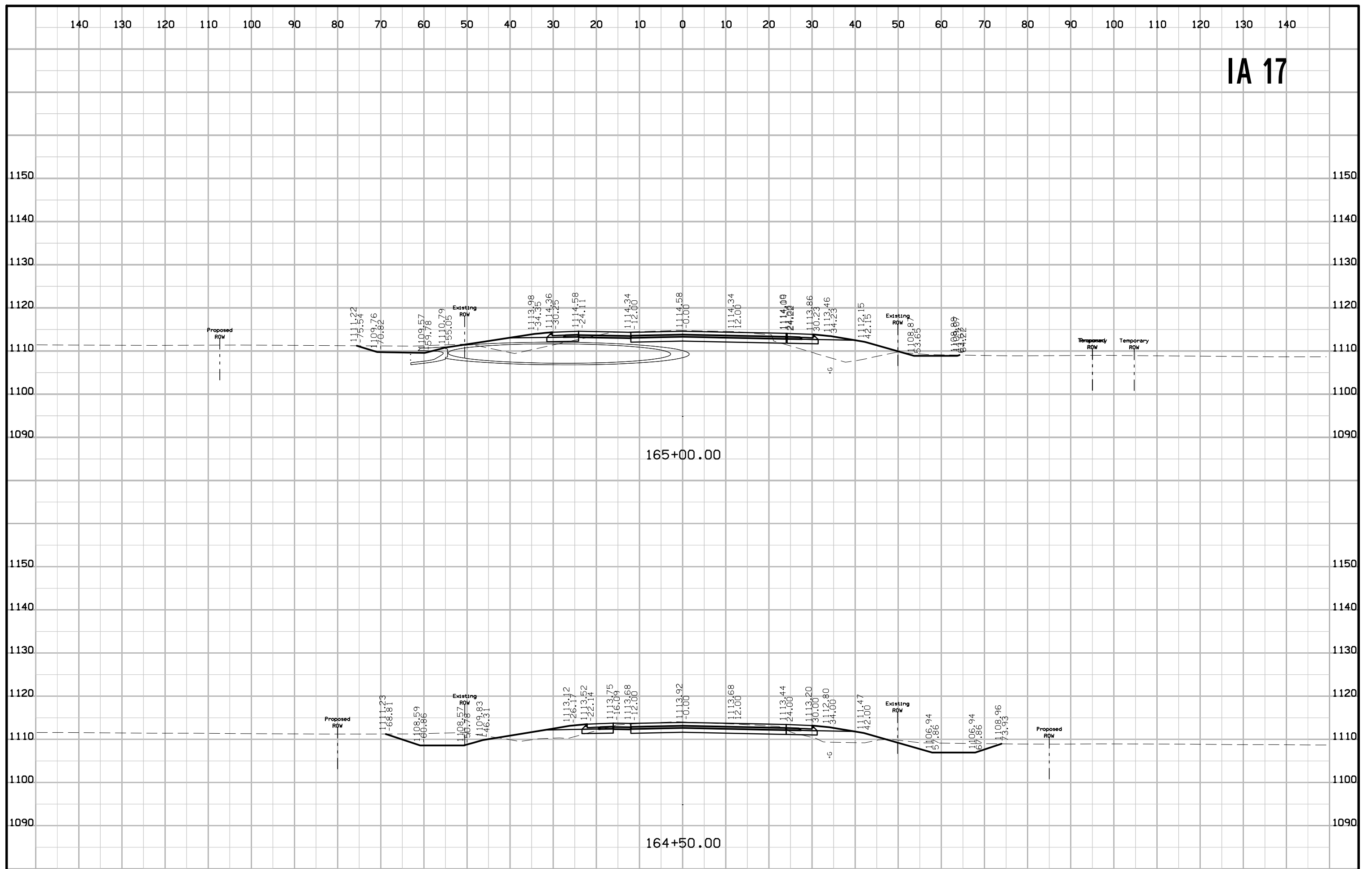
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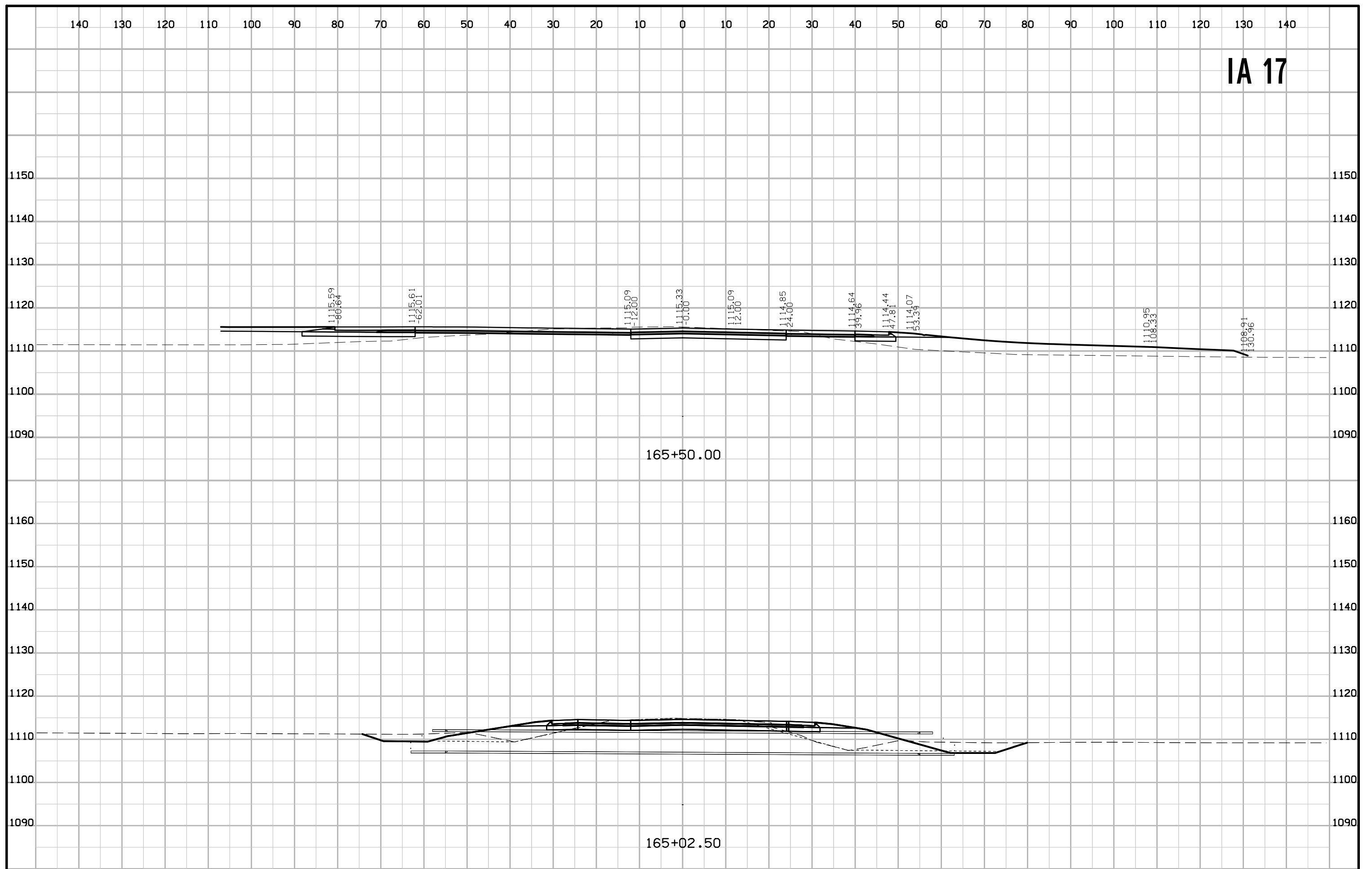
IA 17



IA 17



IA 17



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IA 17

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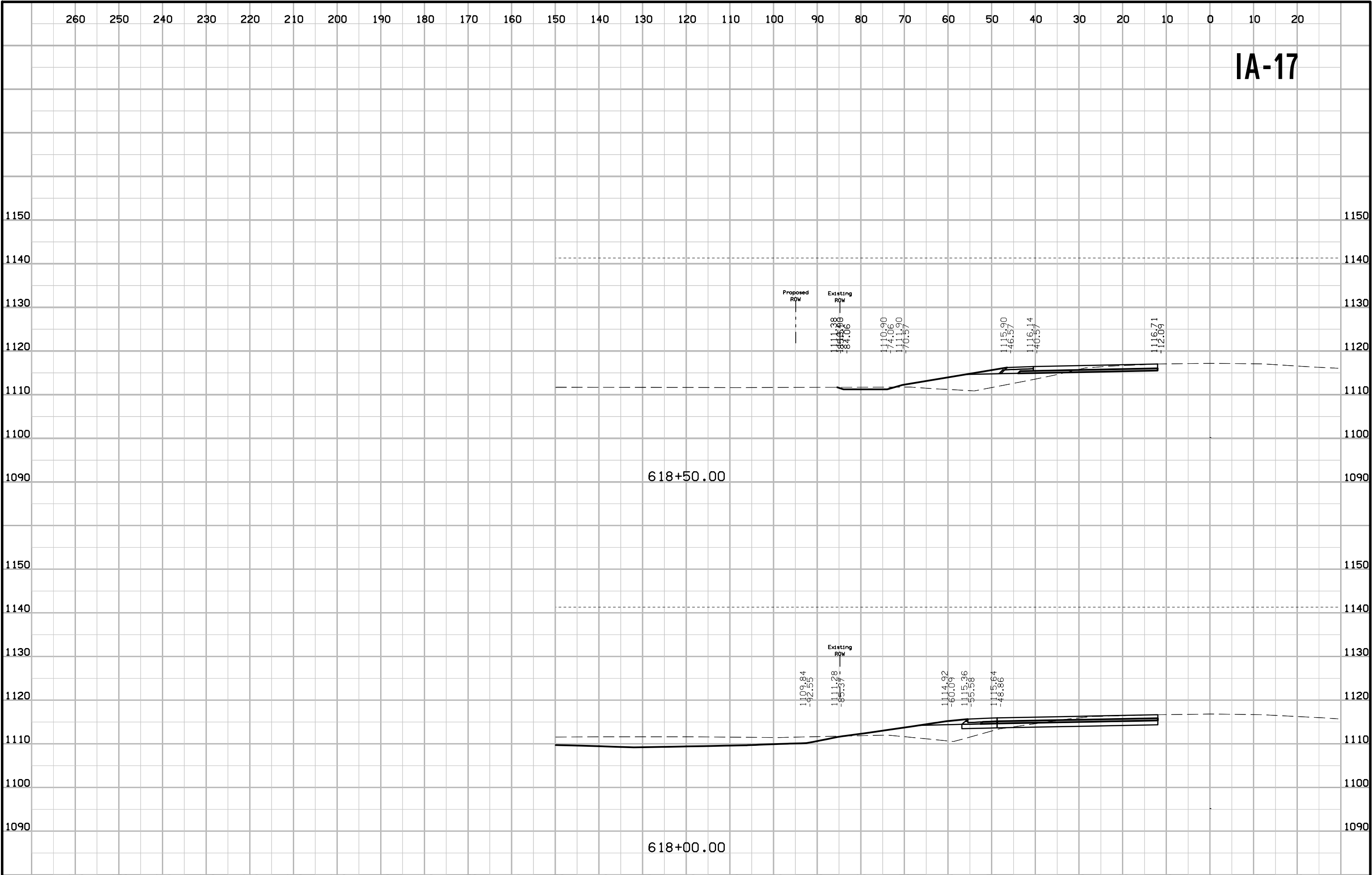
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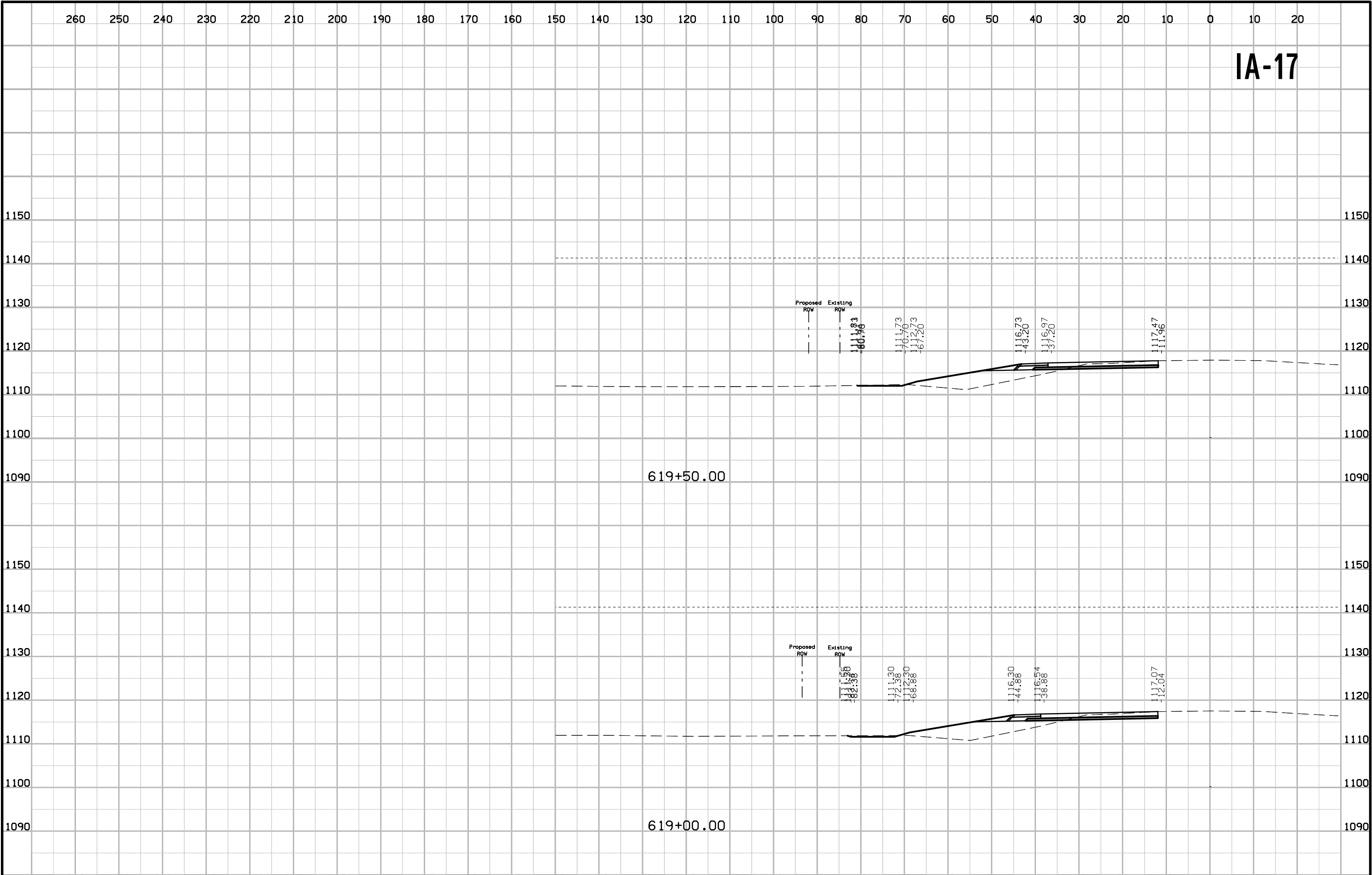
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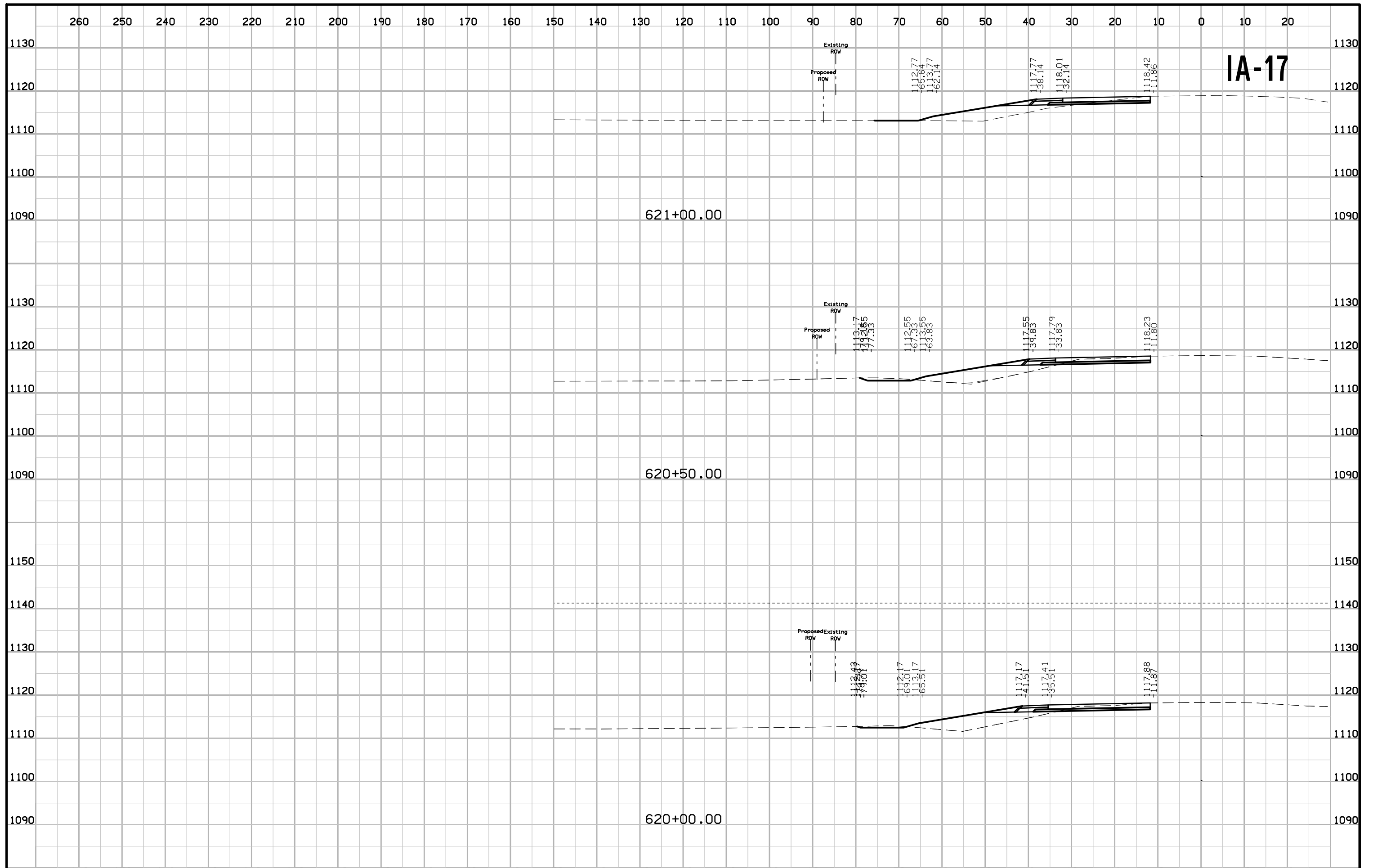
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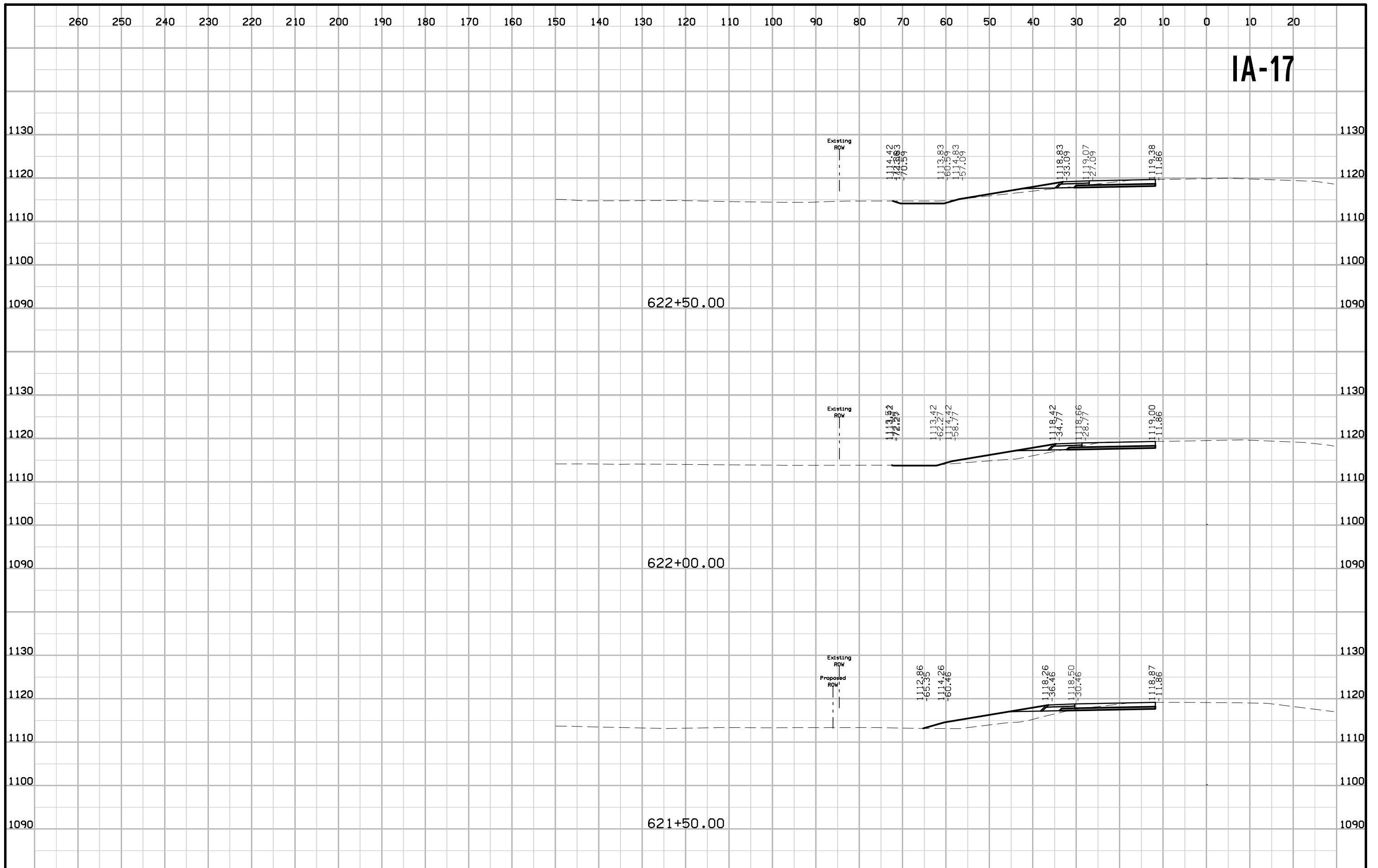


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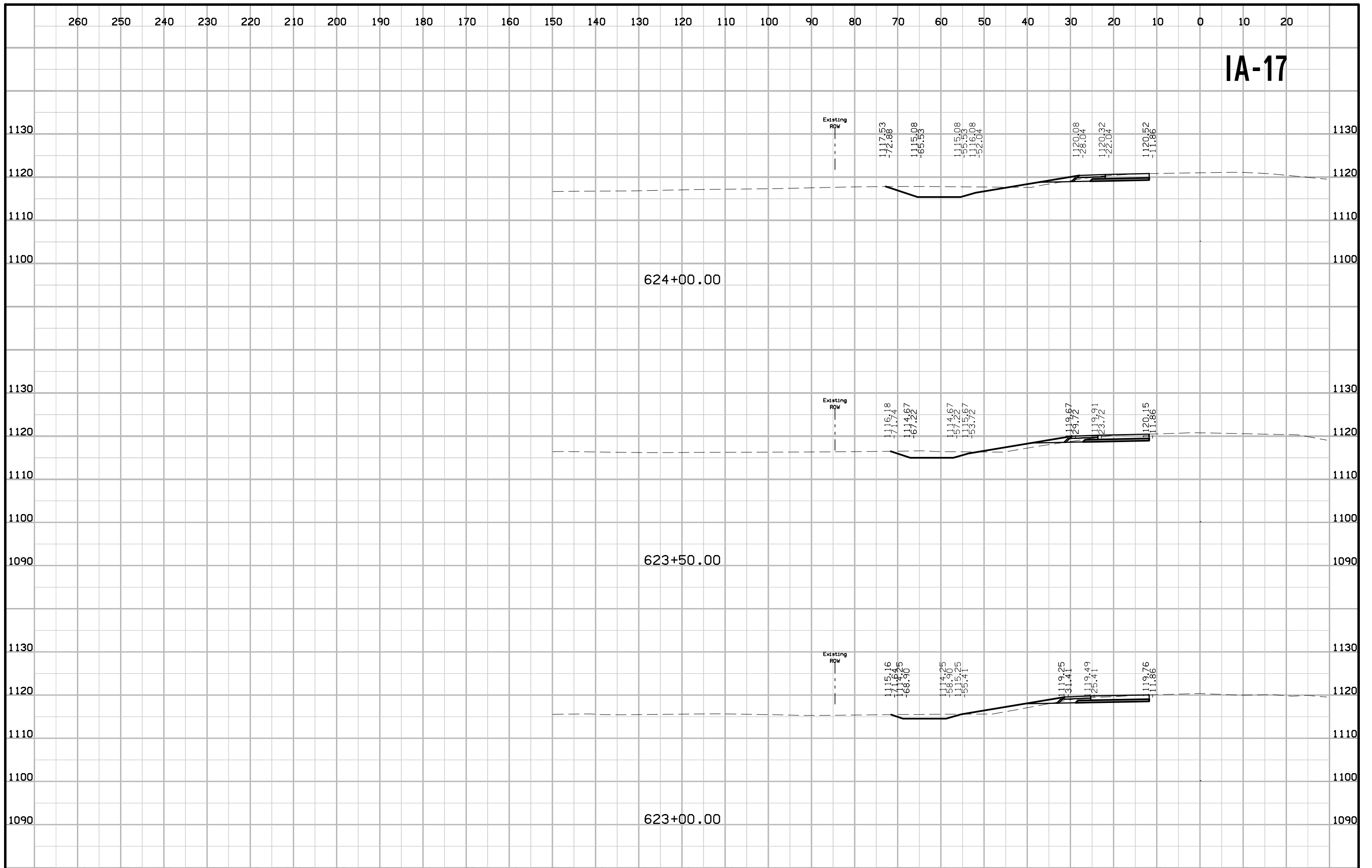




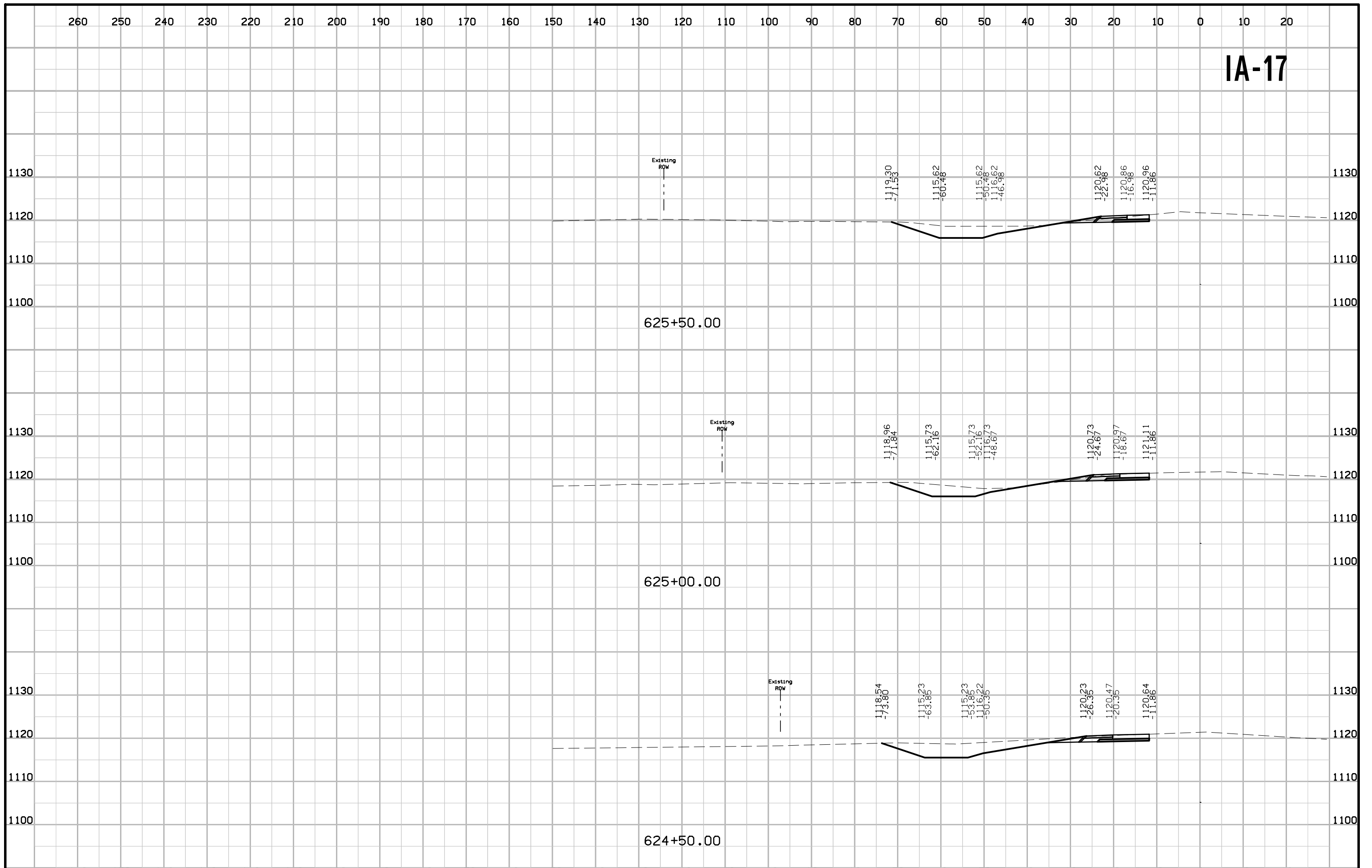
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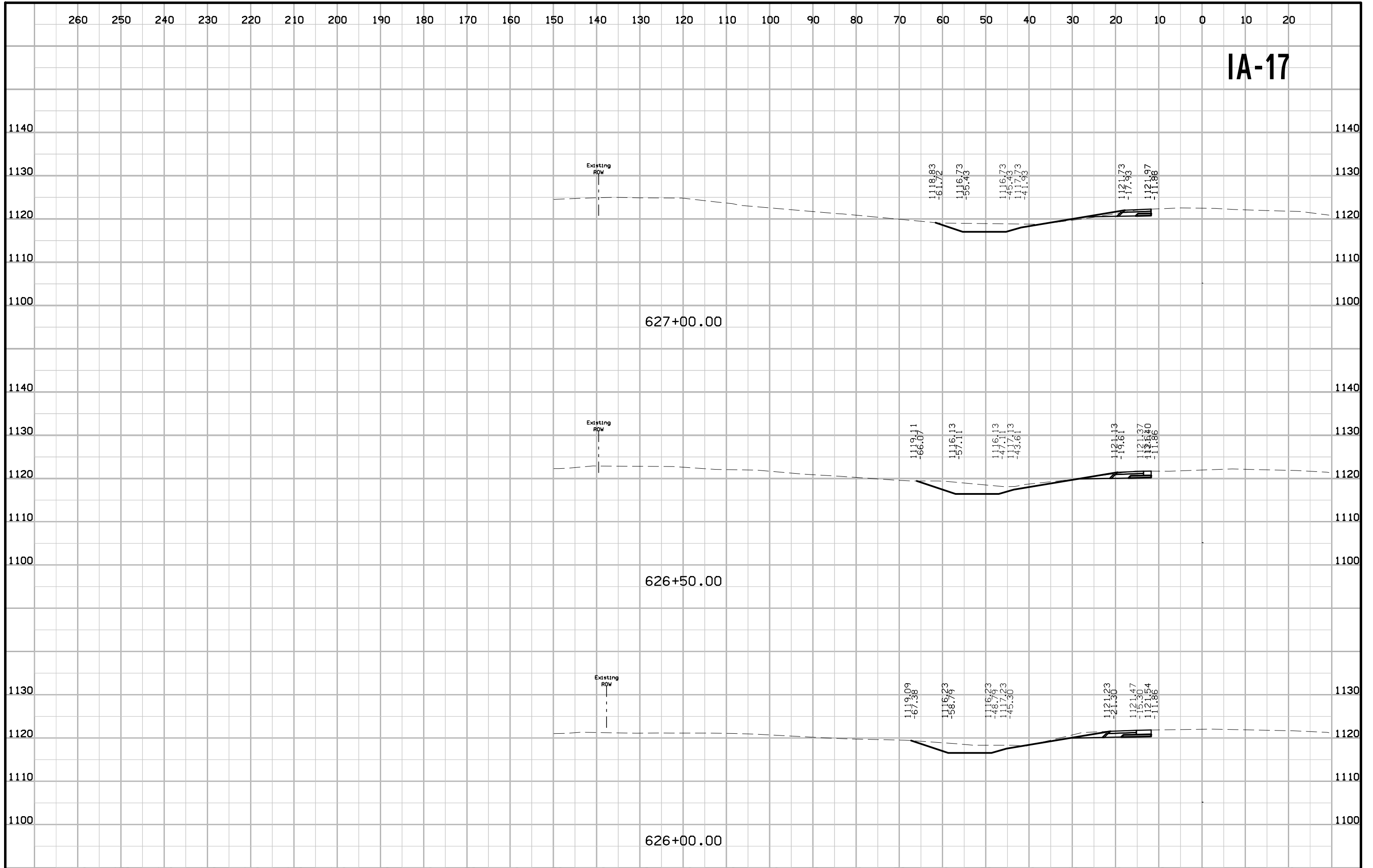
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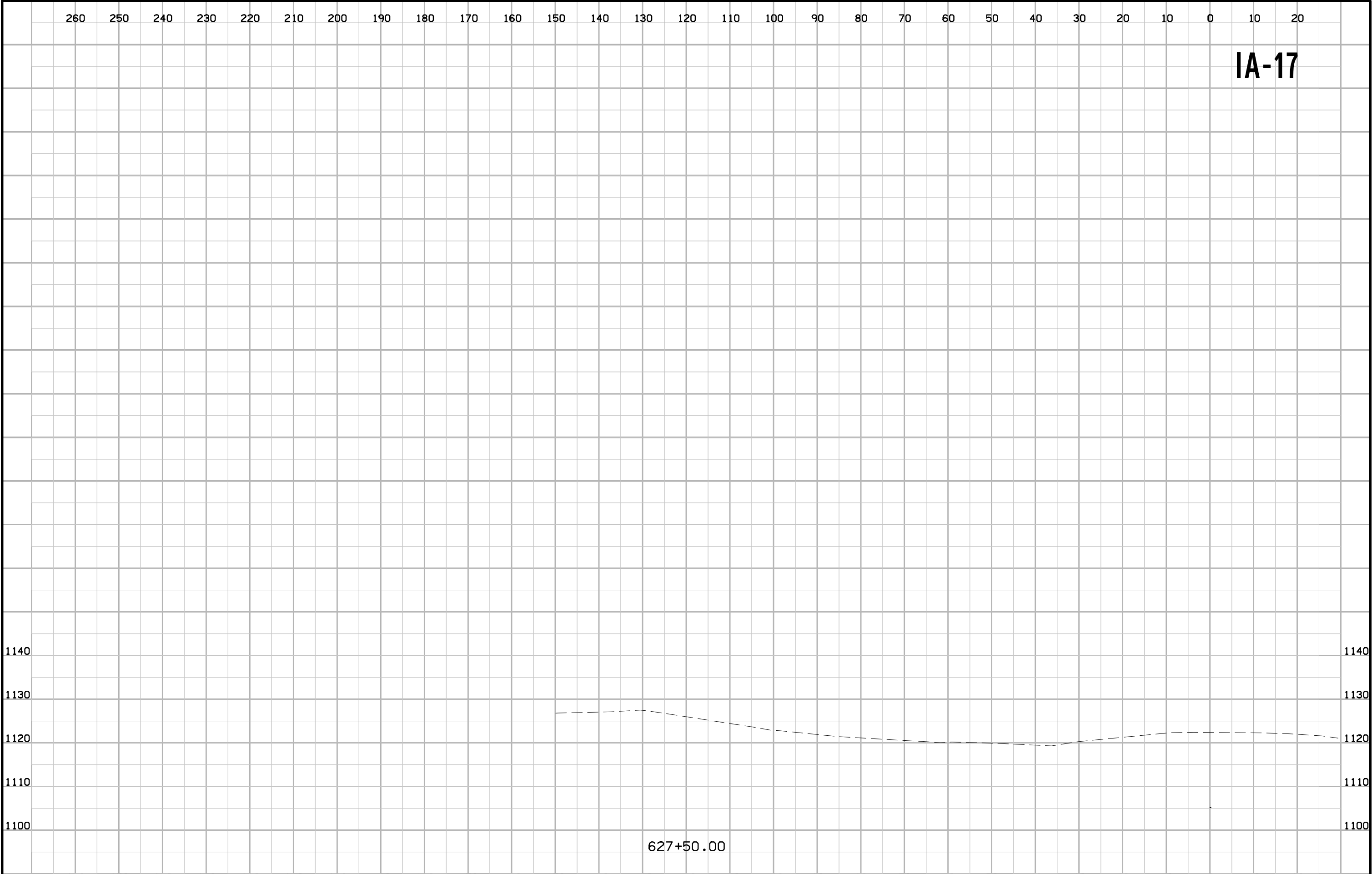
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IA-17

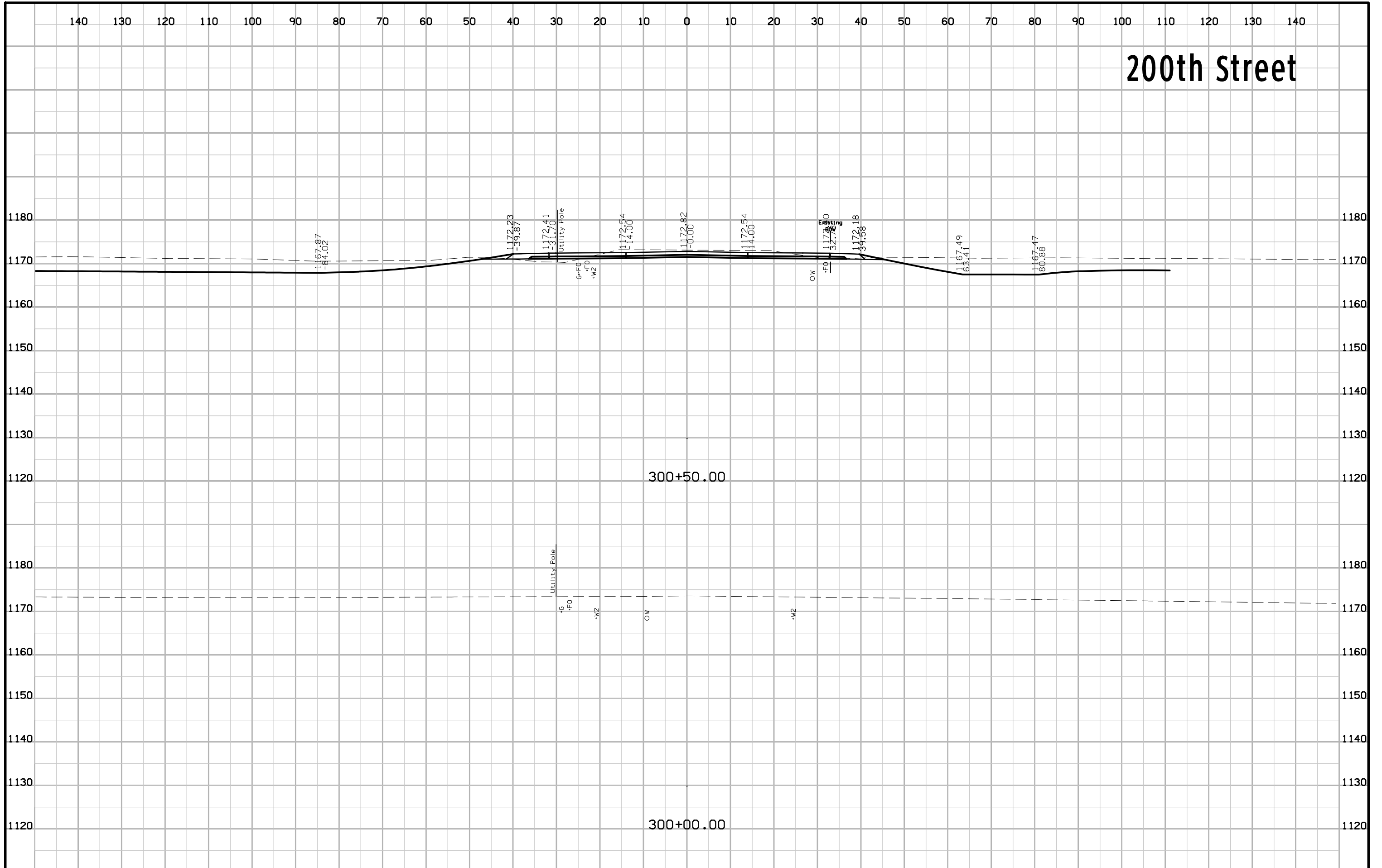


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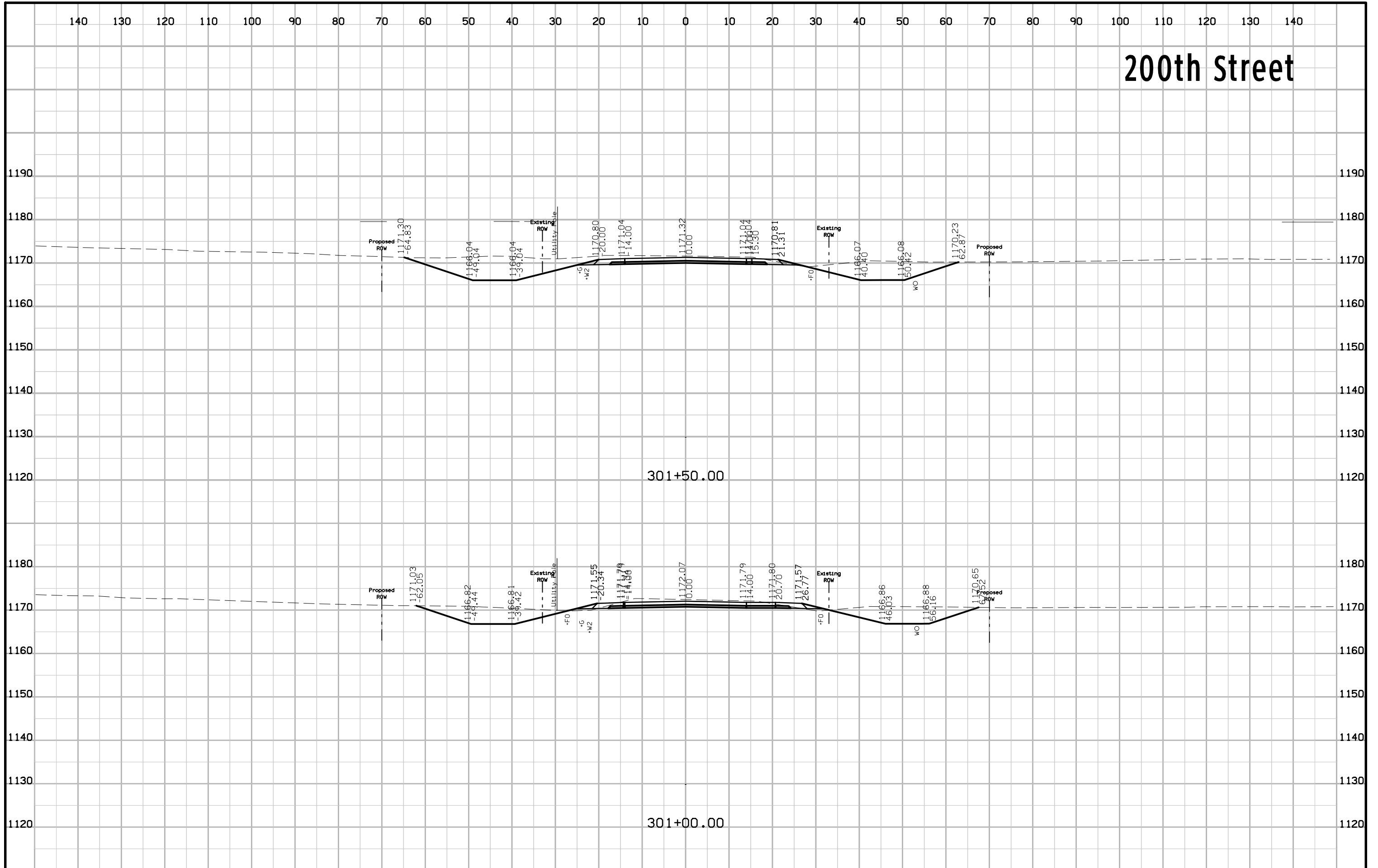


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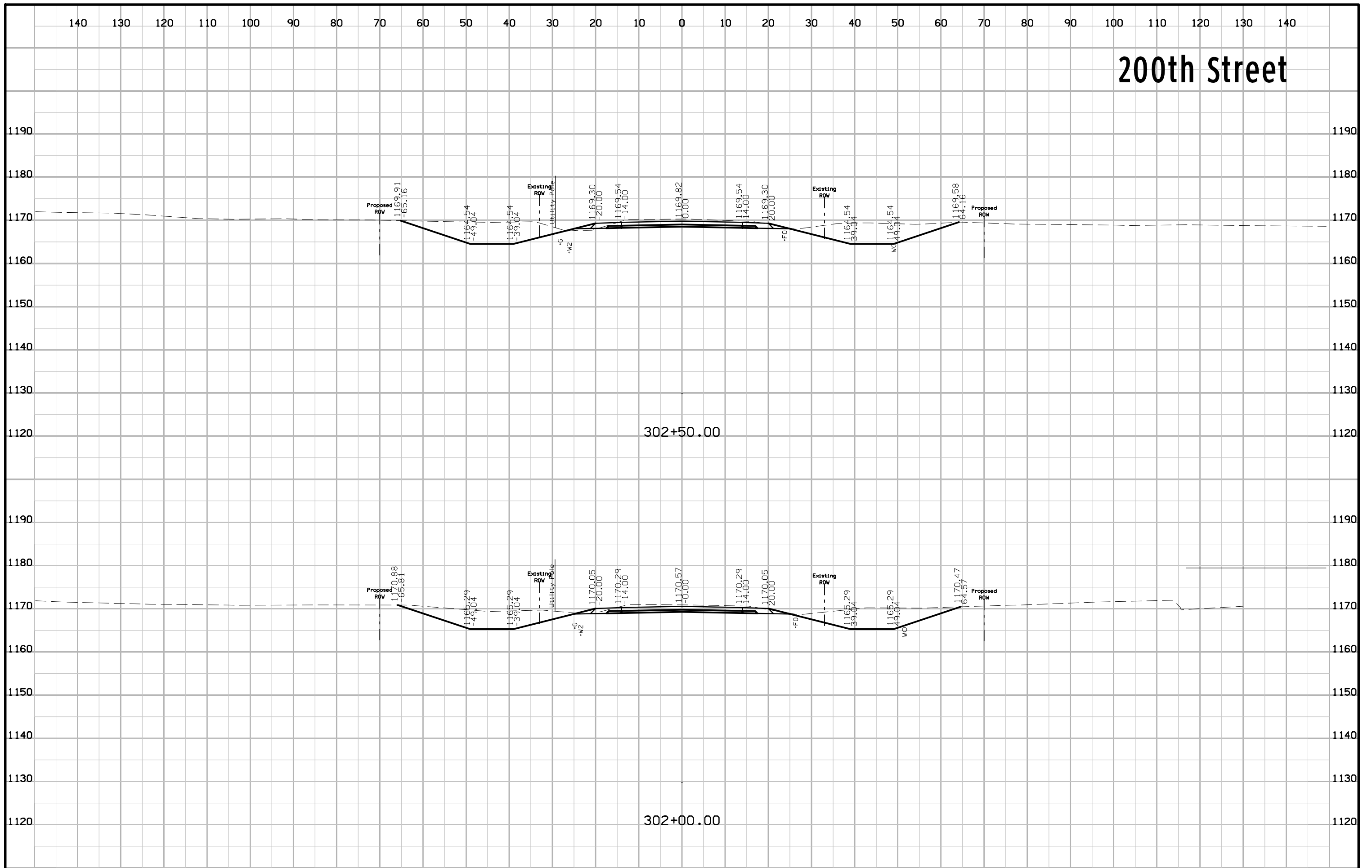
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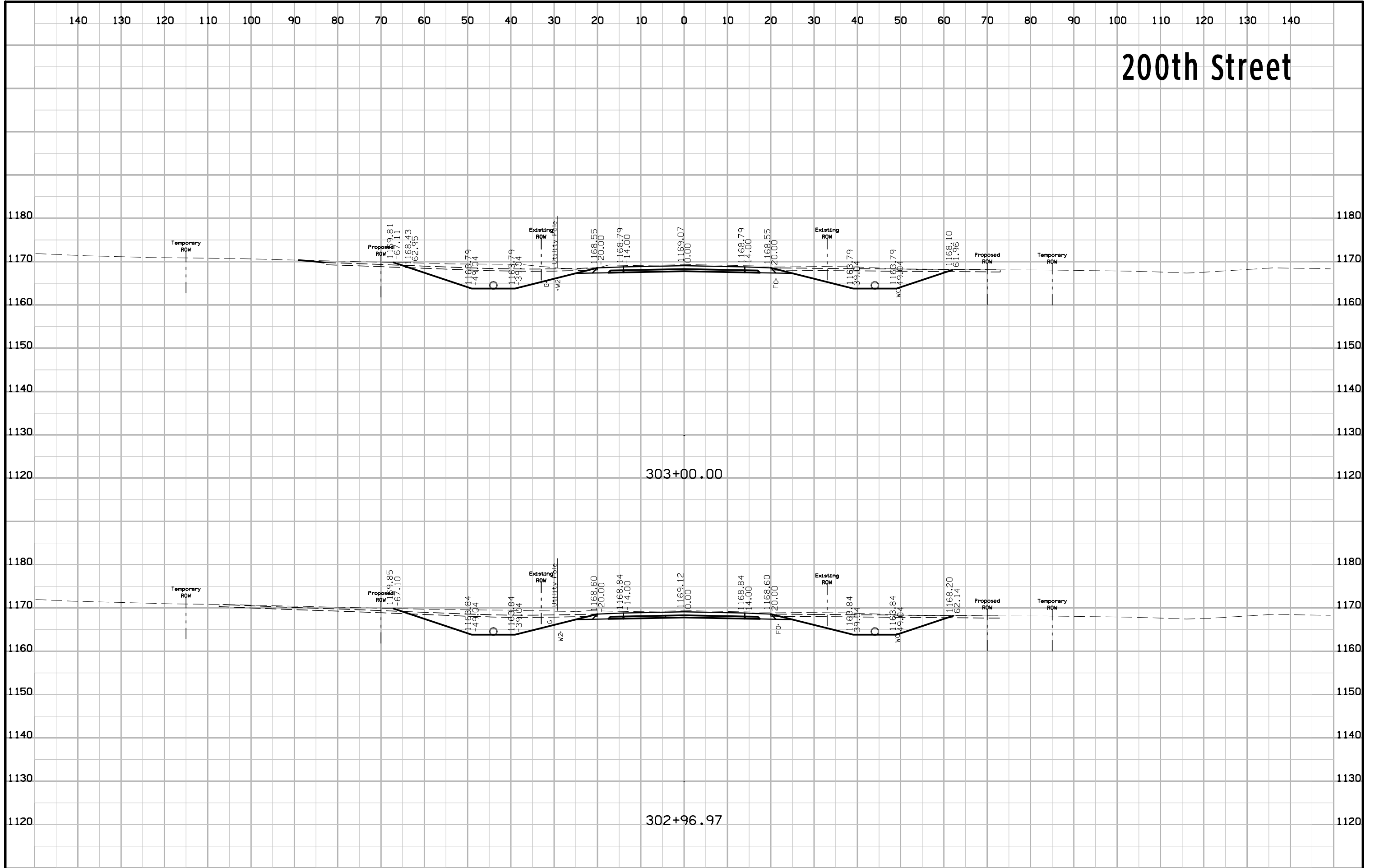
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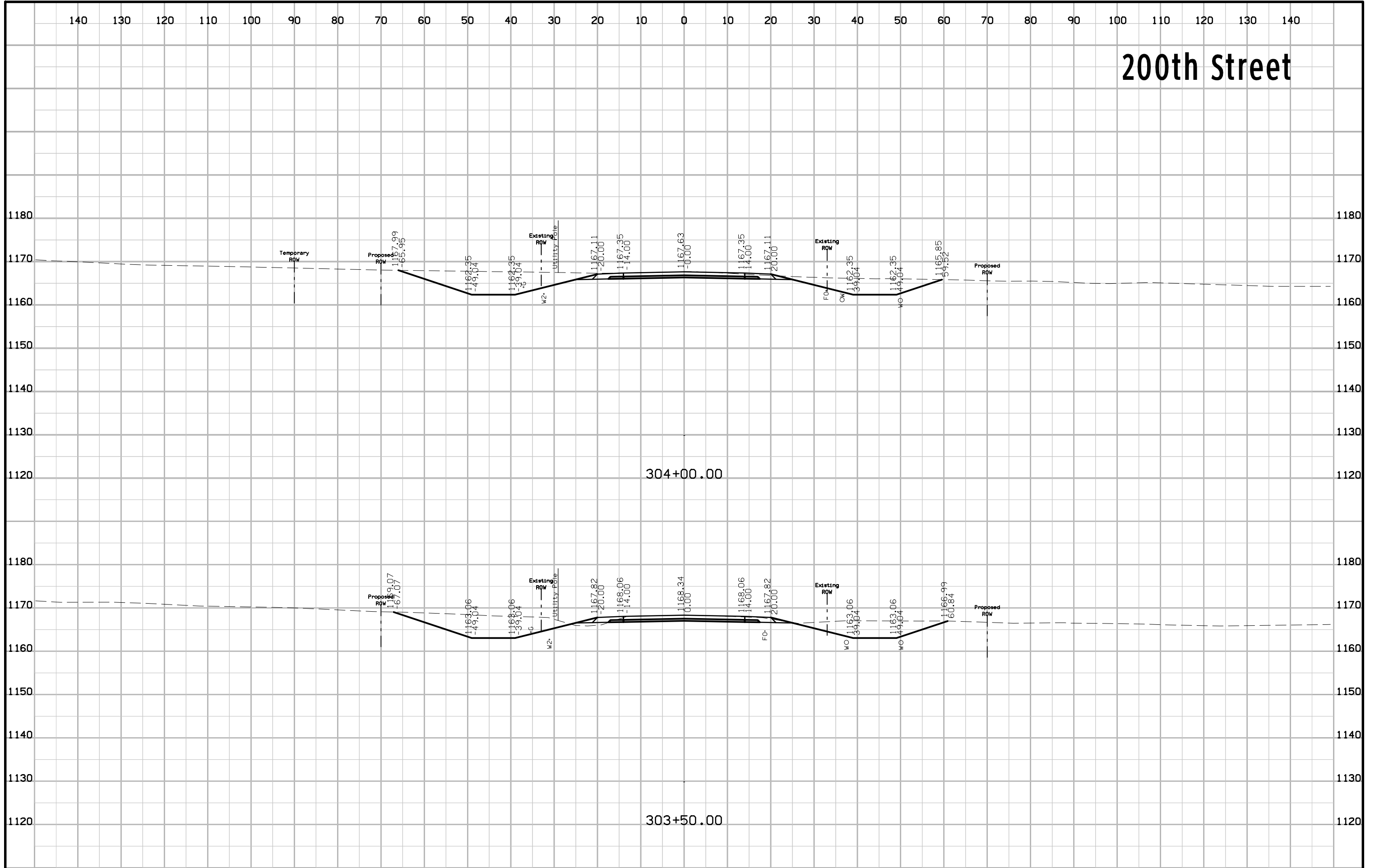
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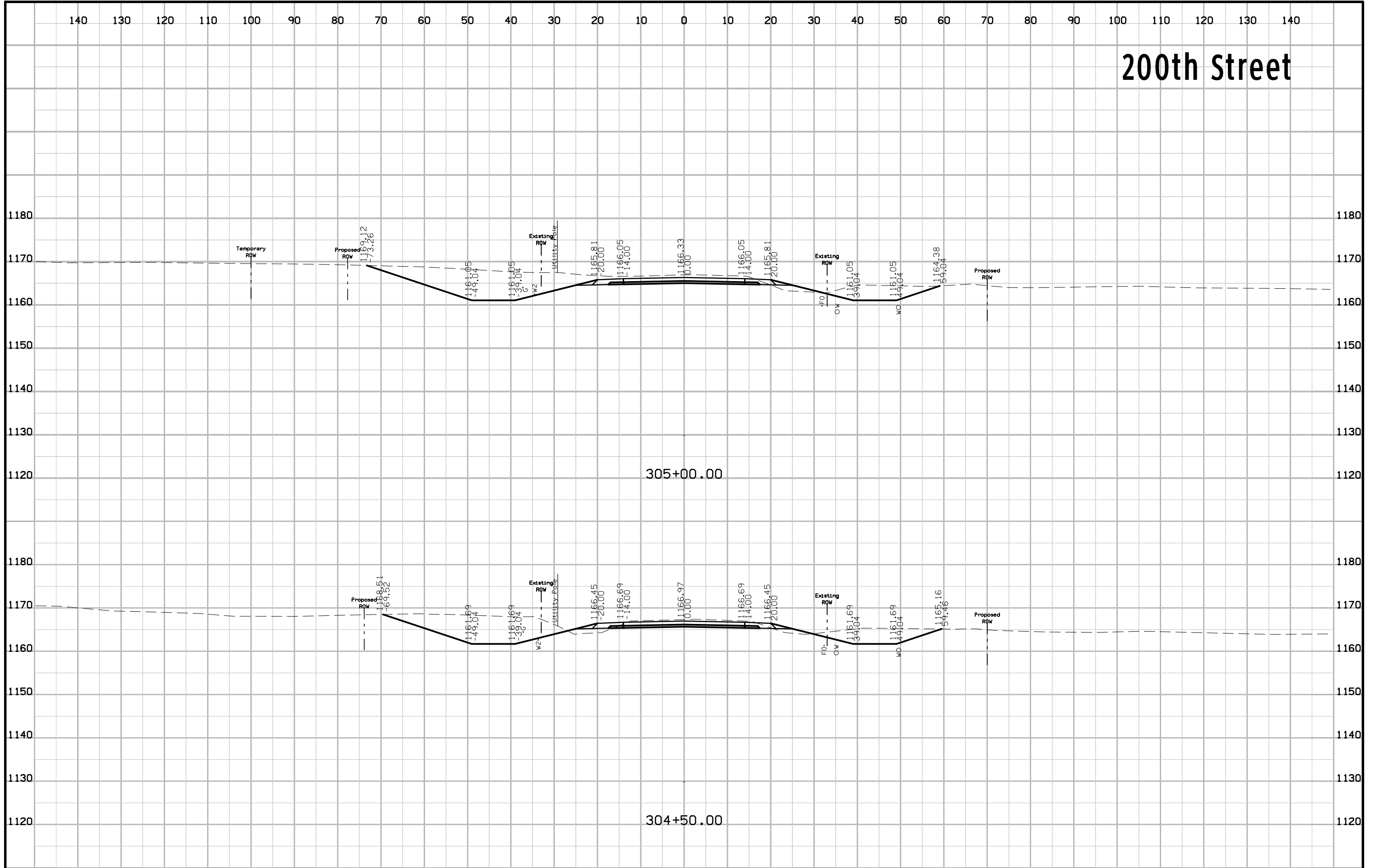
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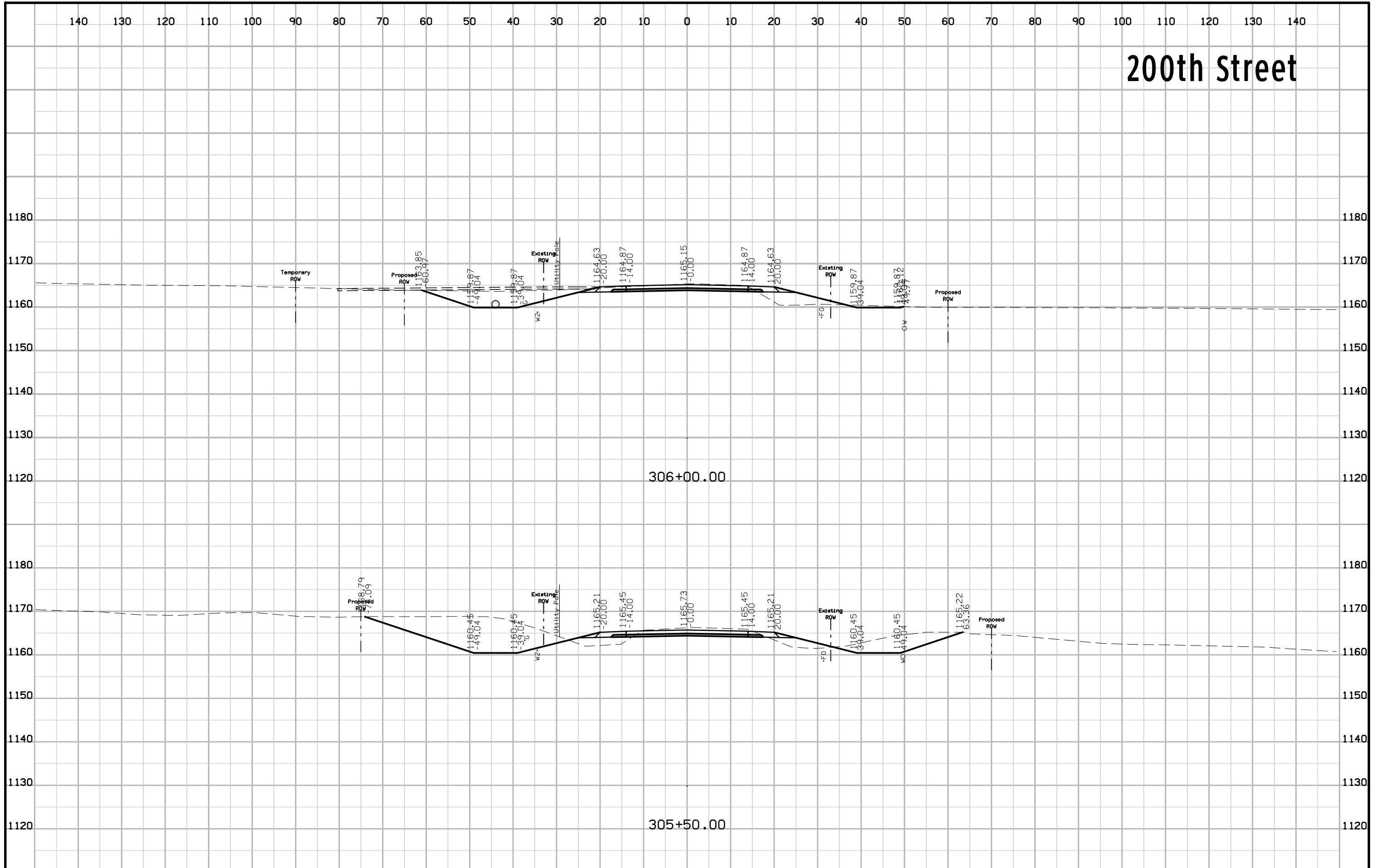
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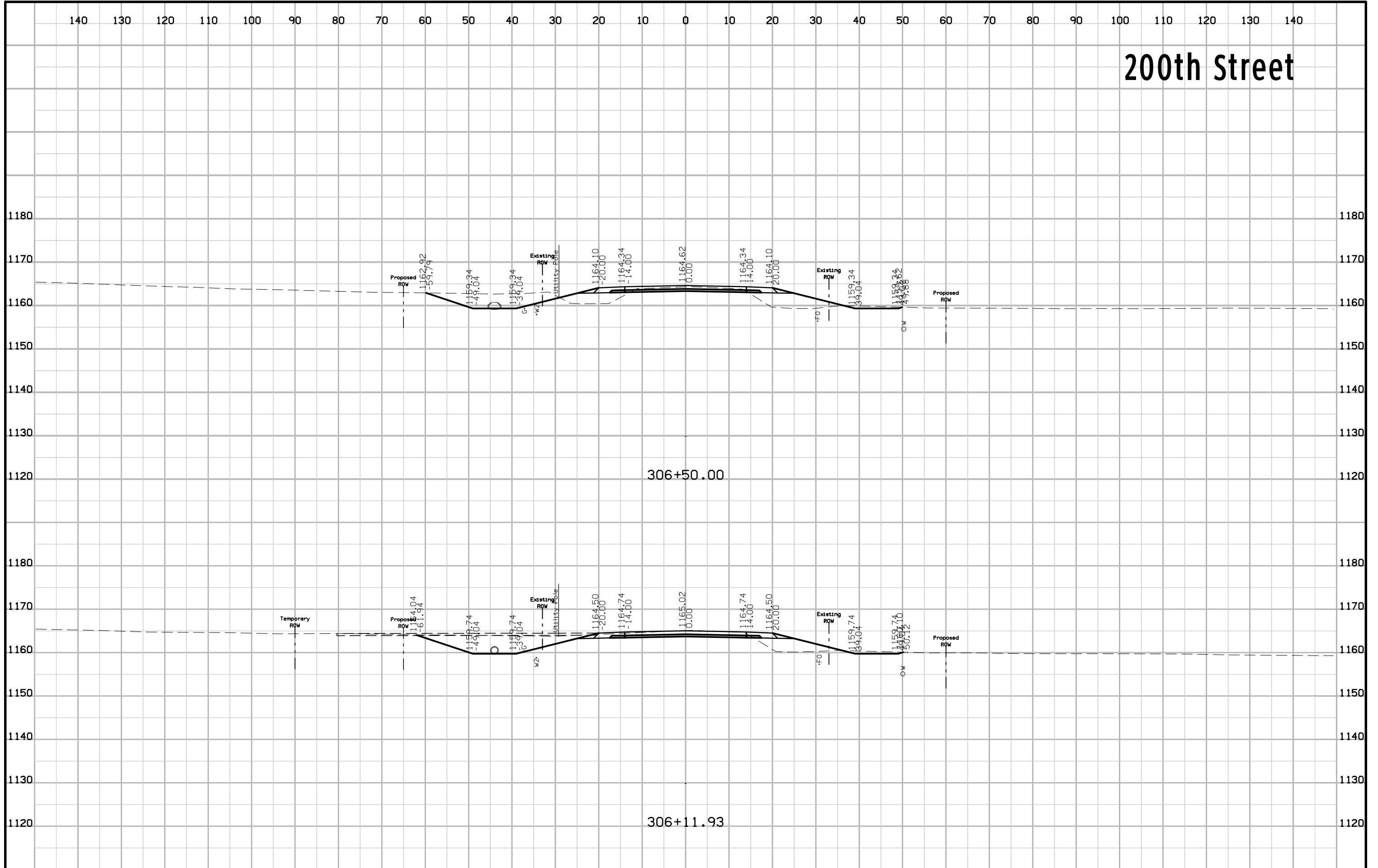
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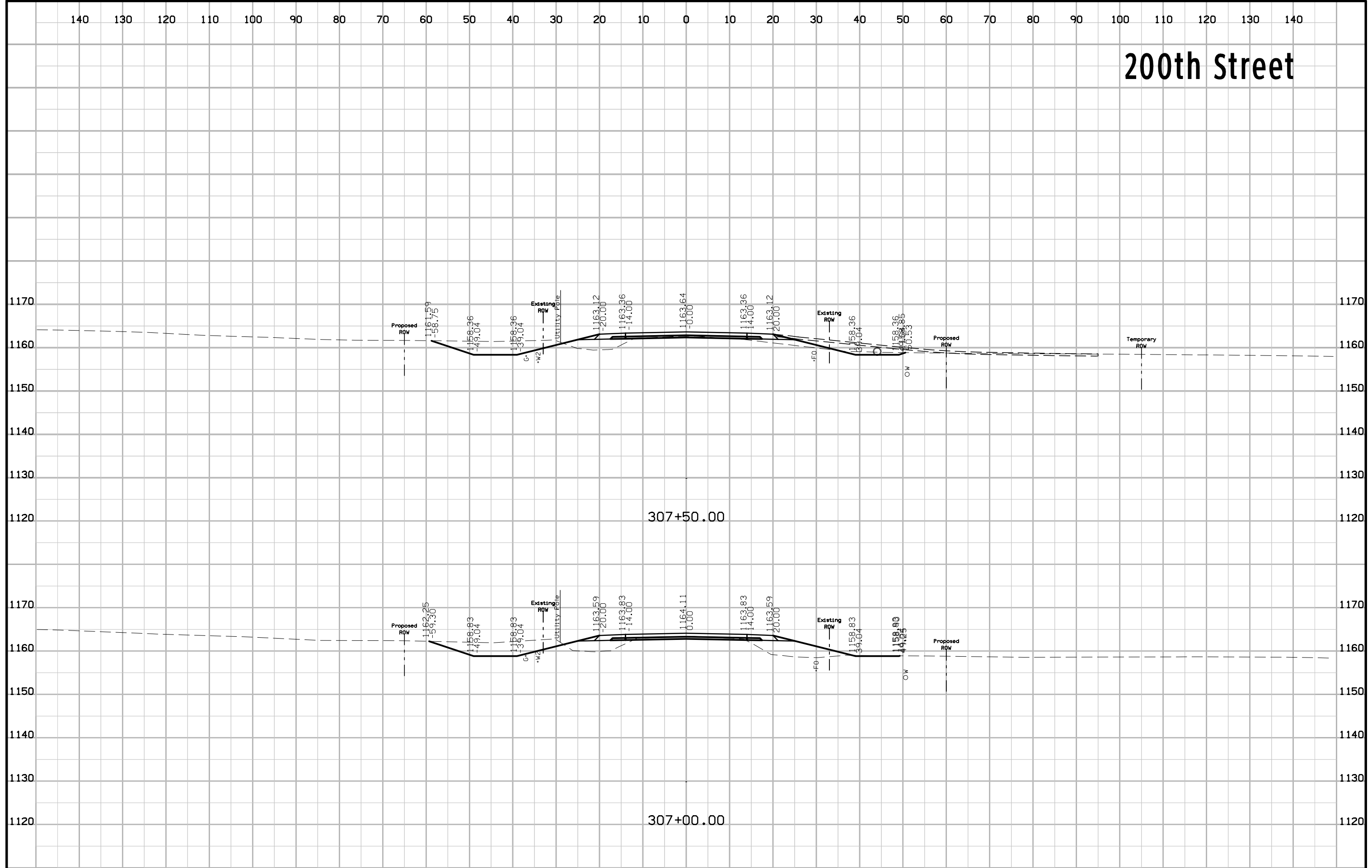
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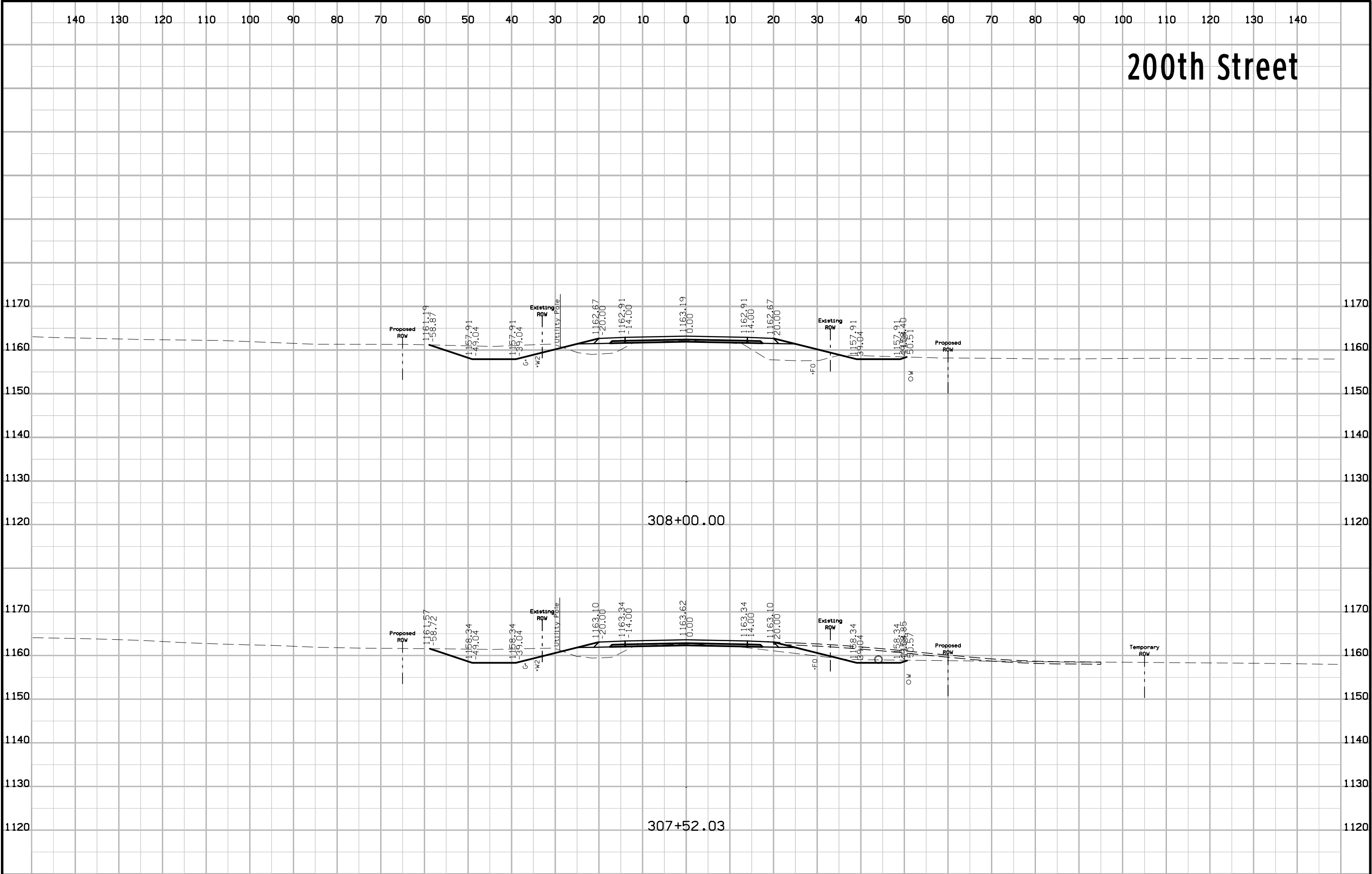
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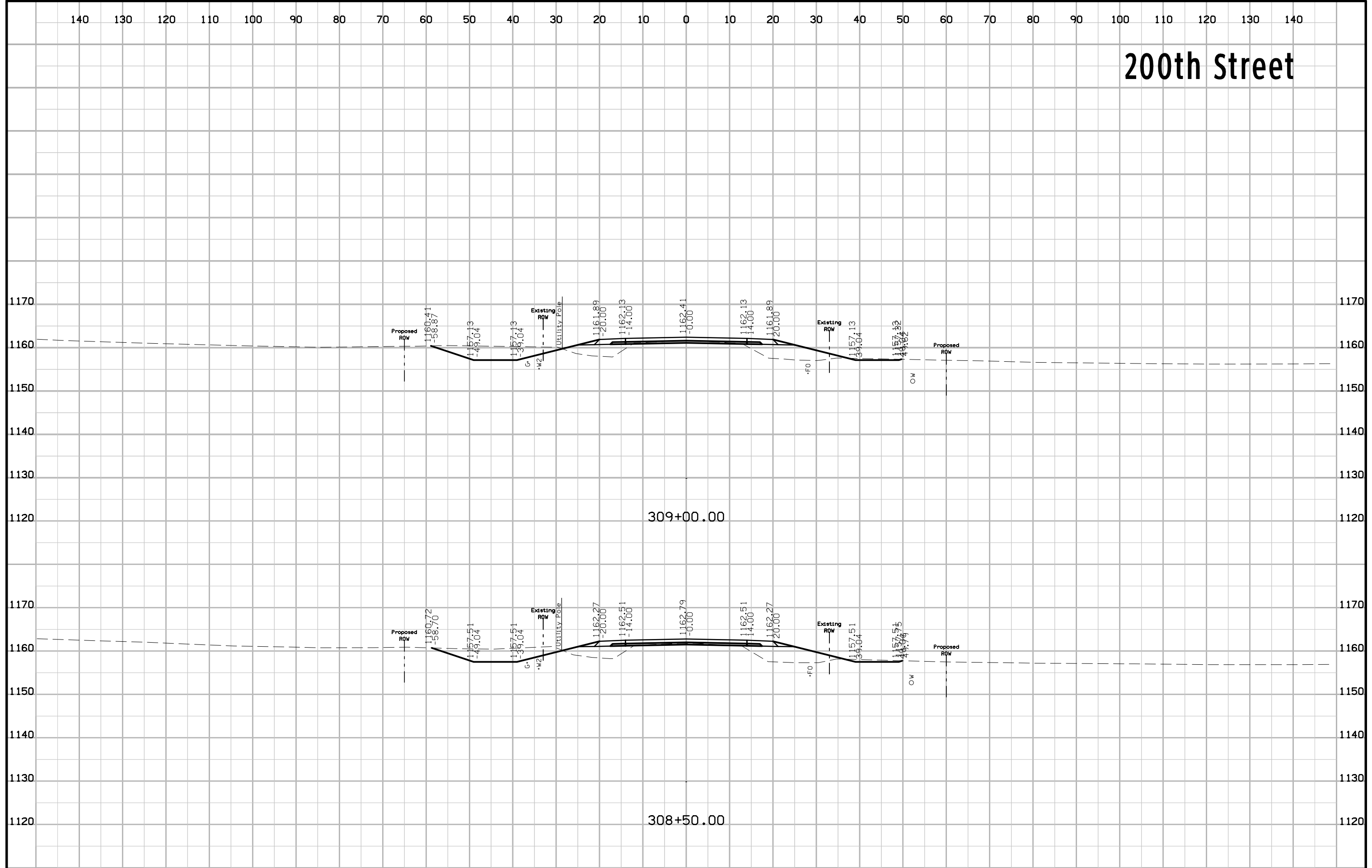
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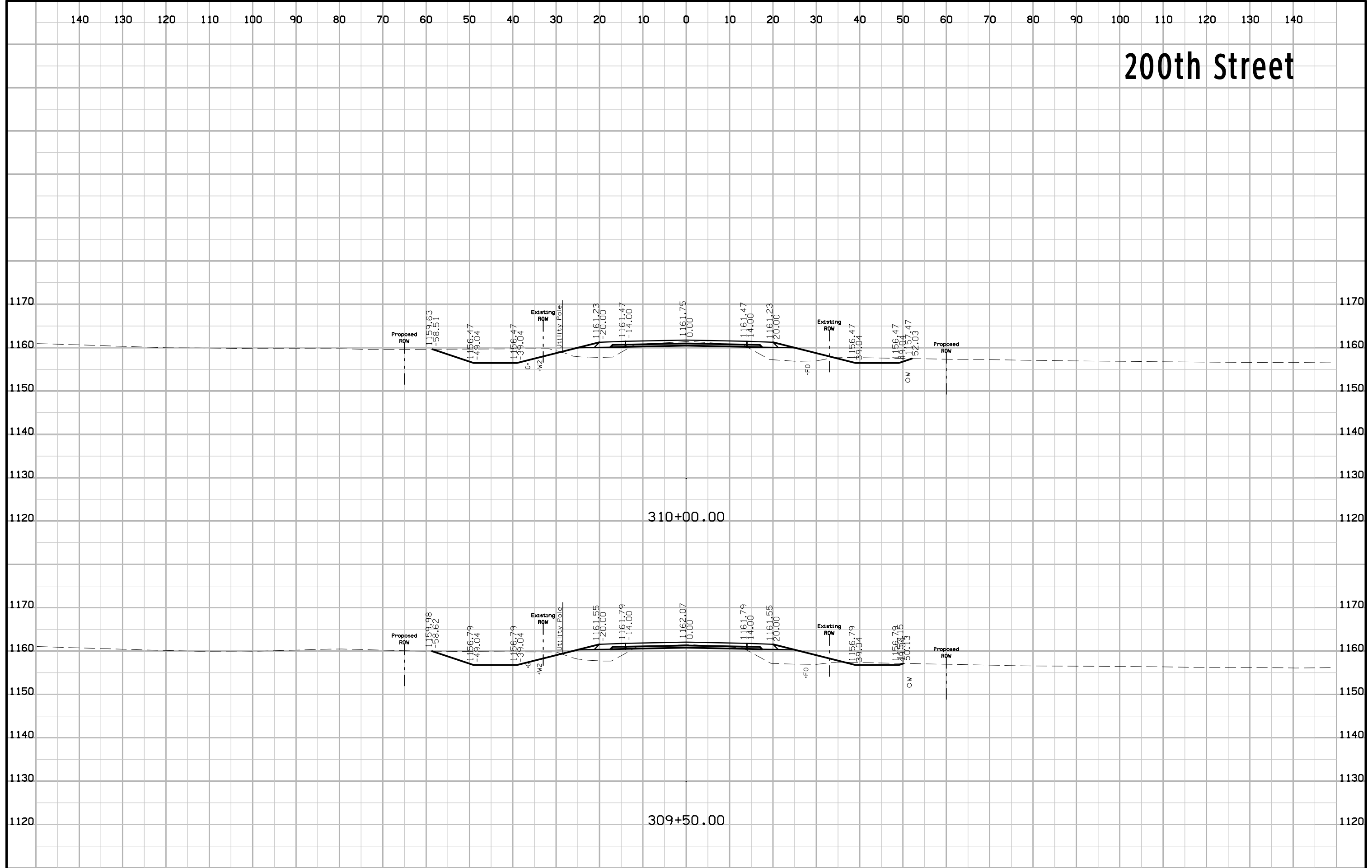
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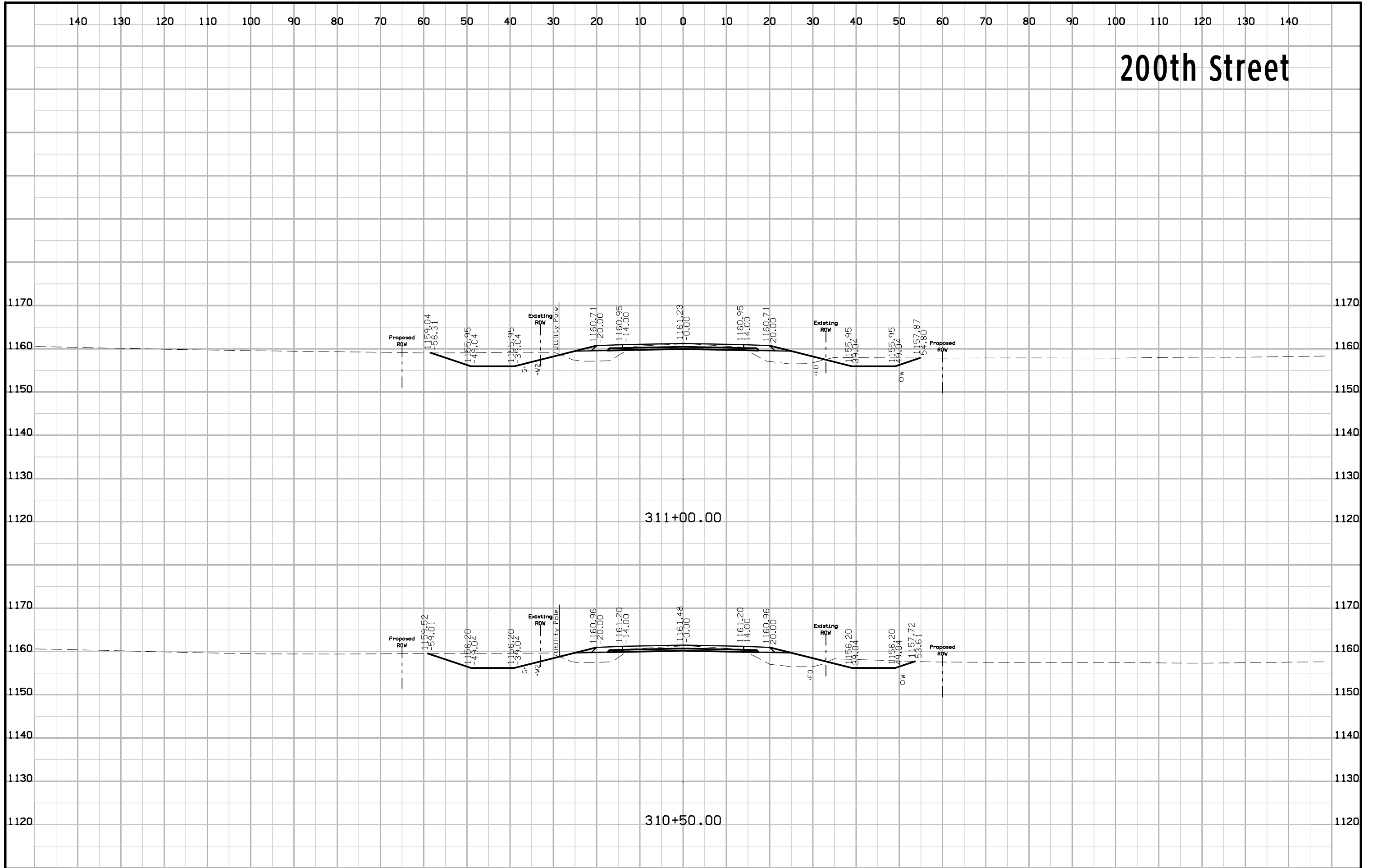
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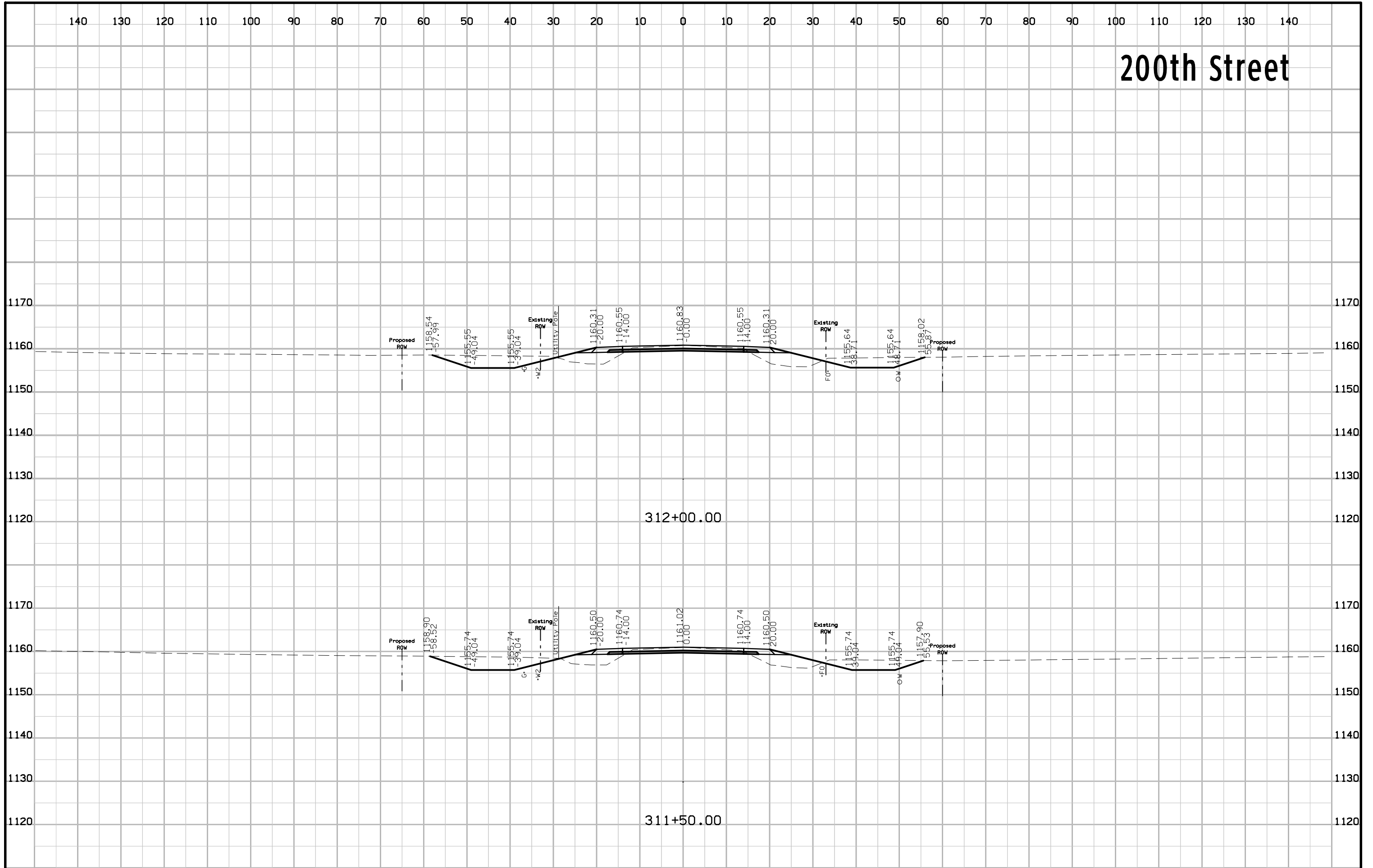
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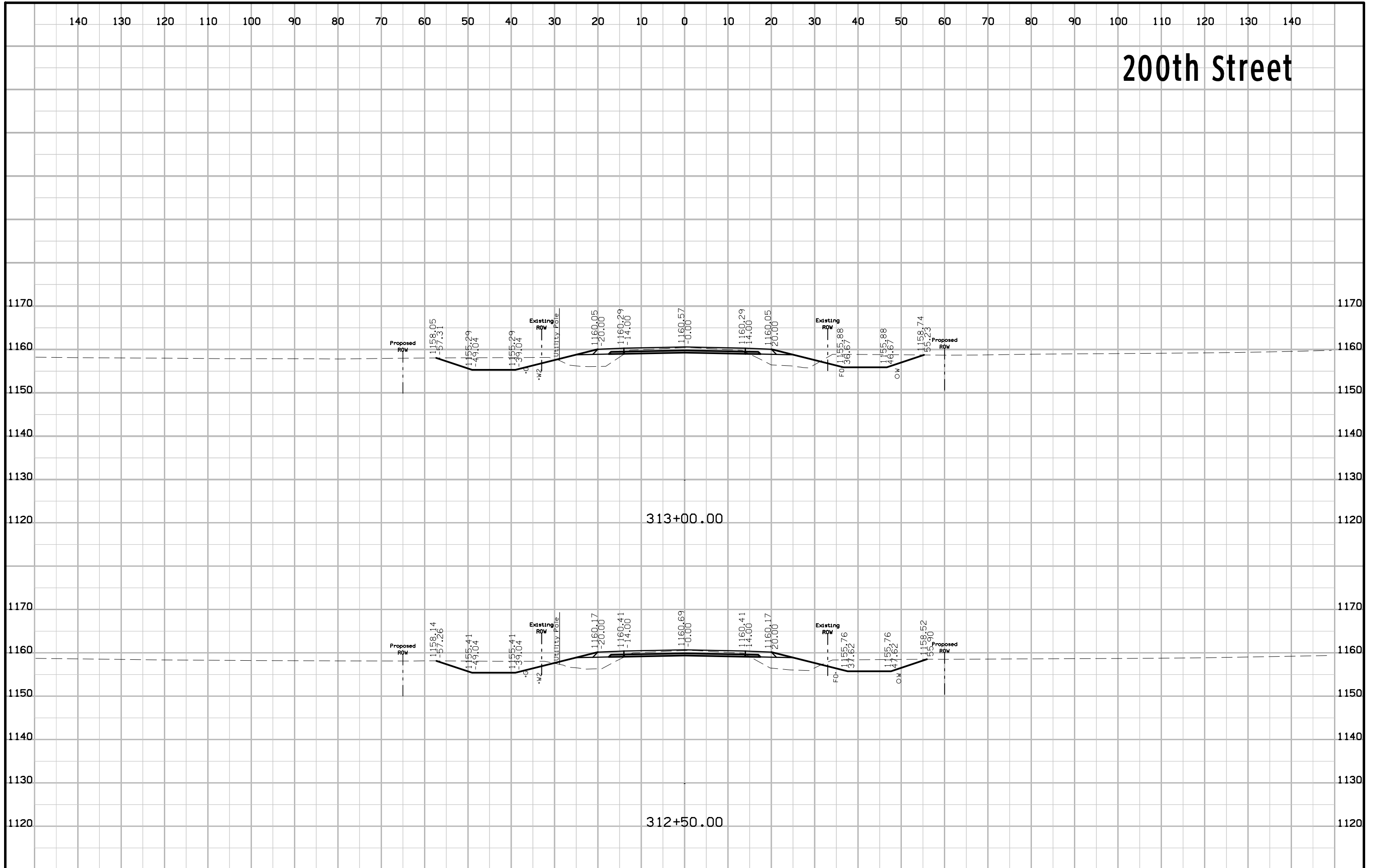
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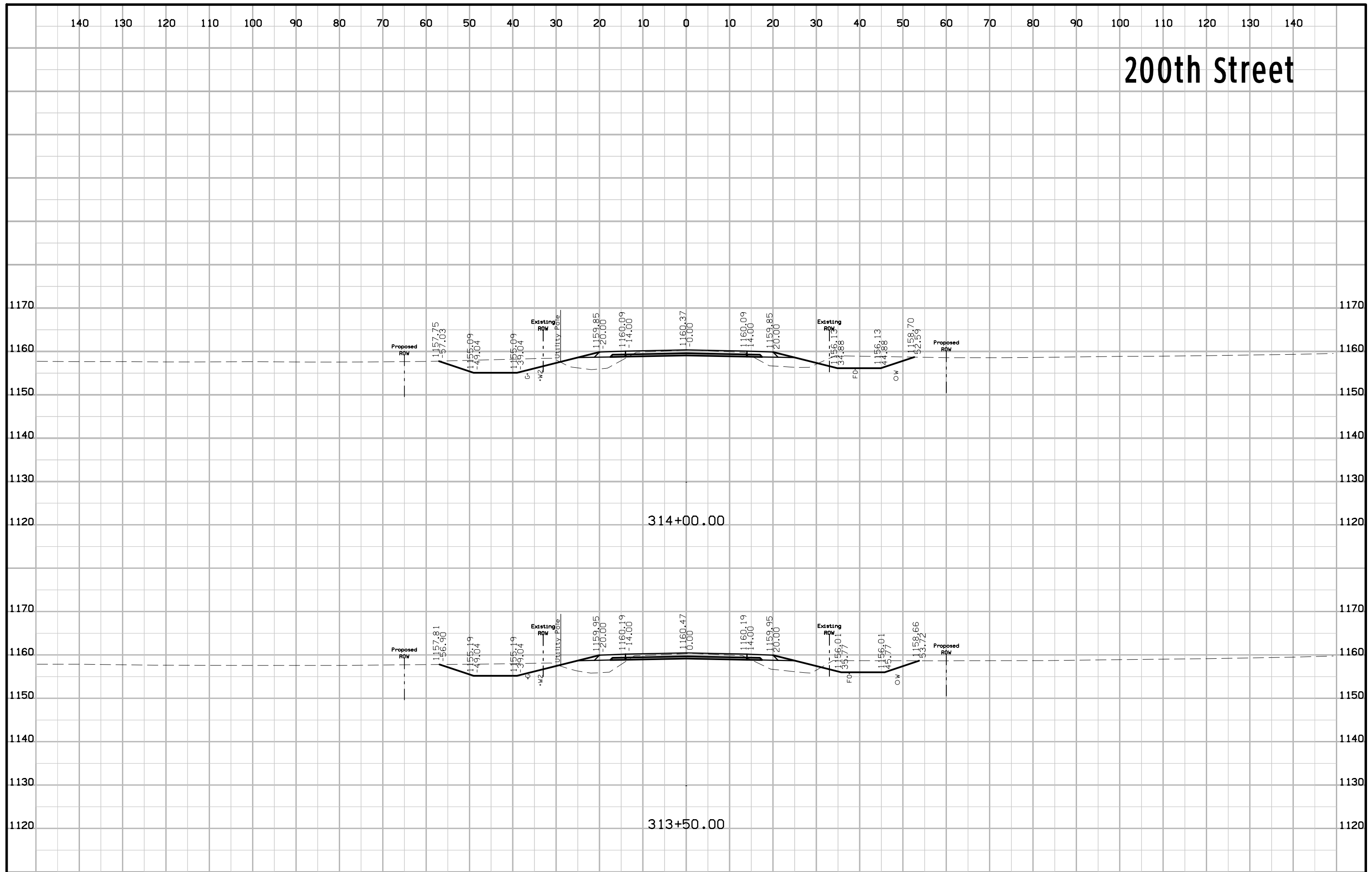
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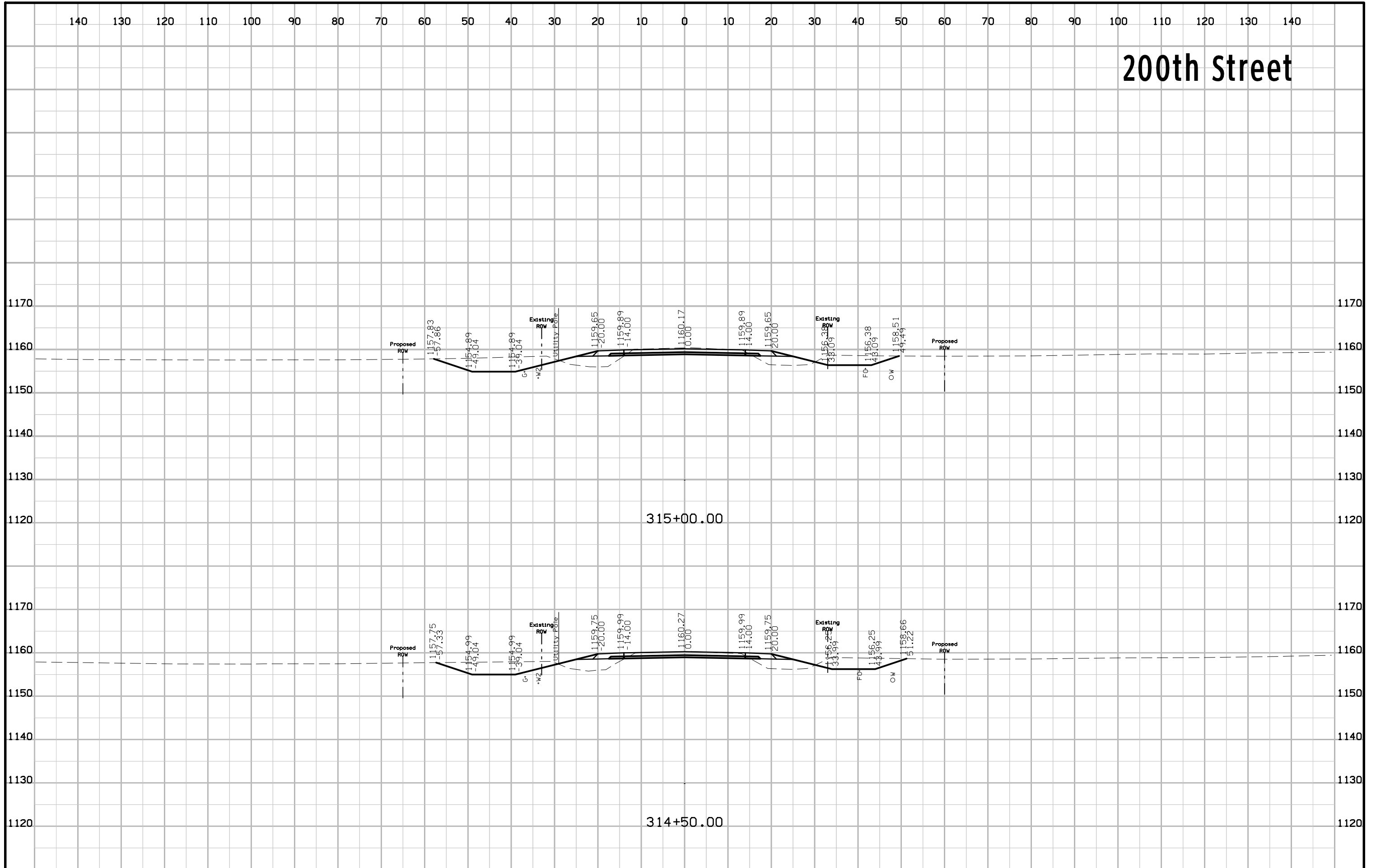
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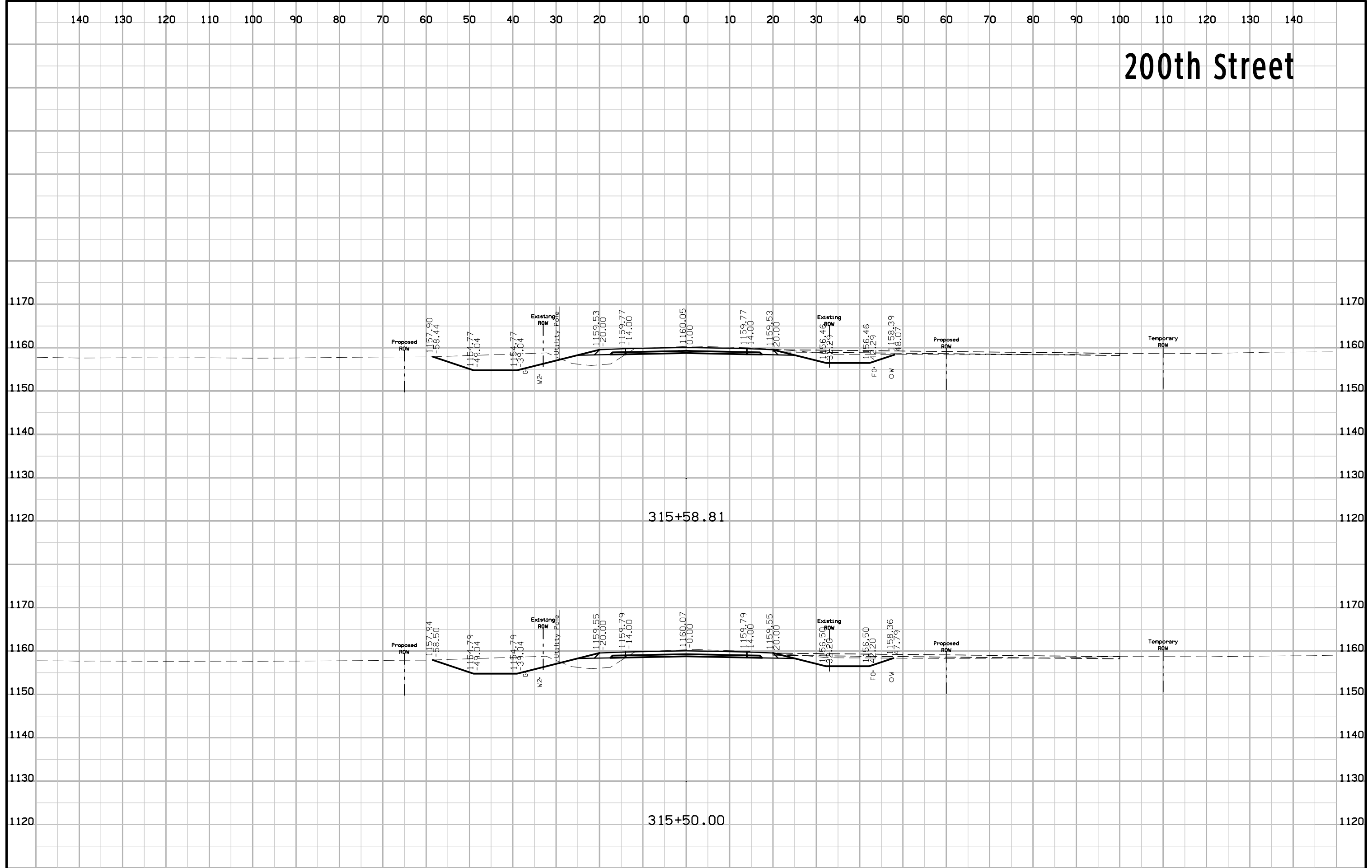
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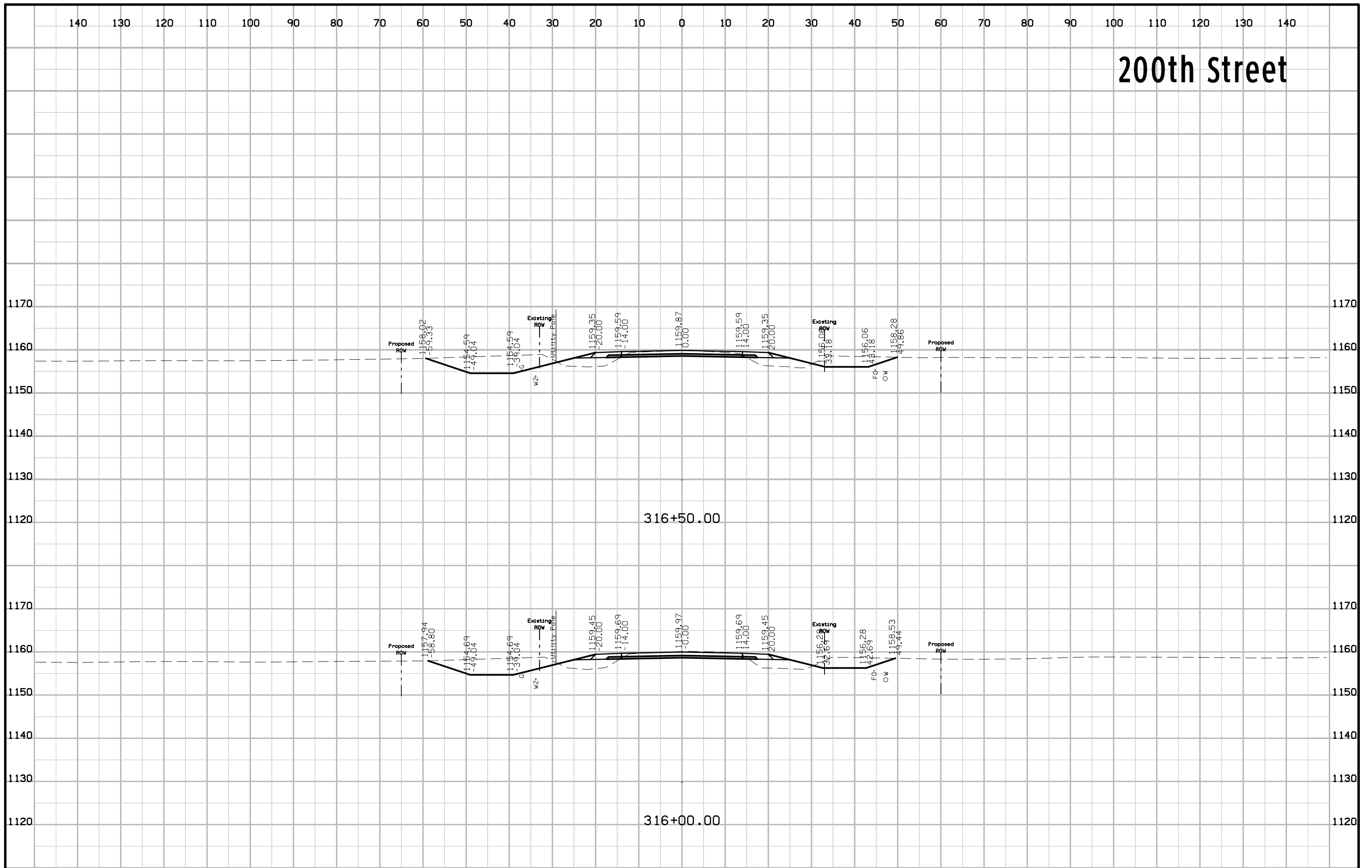
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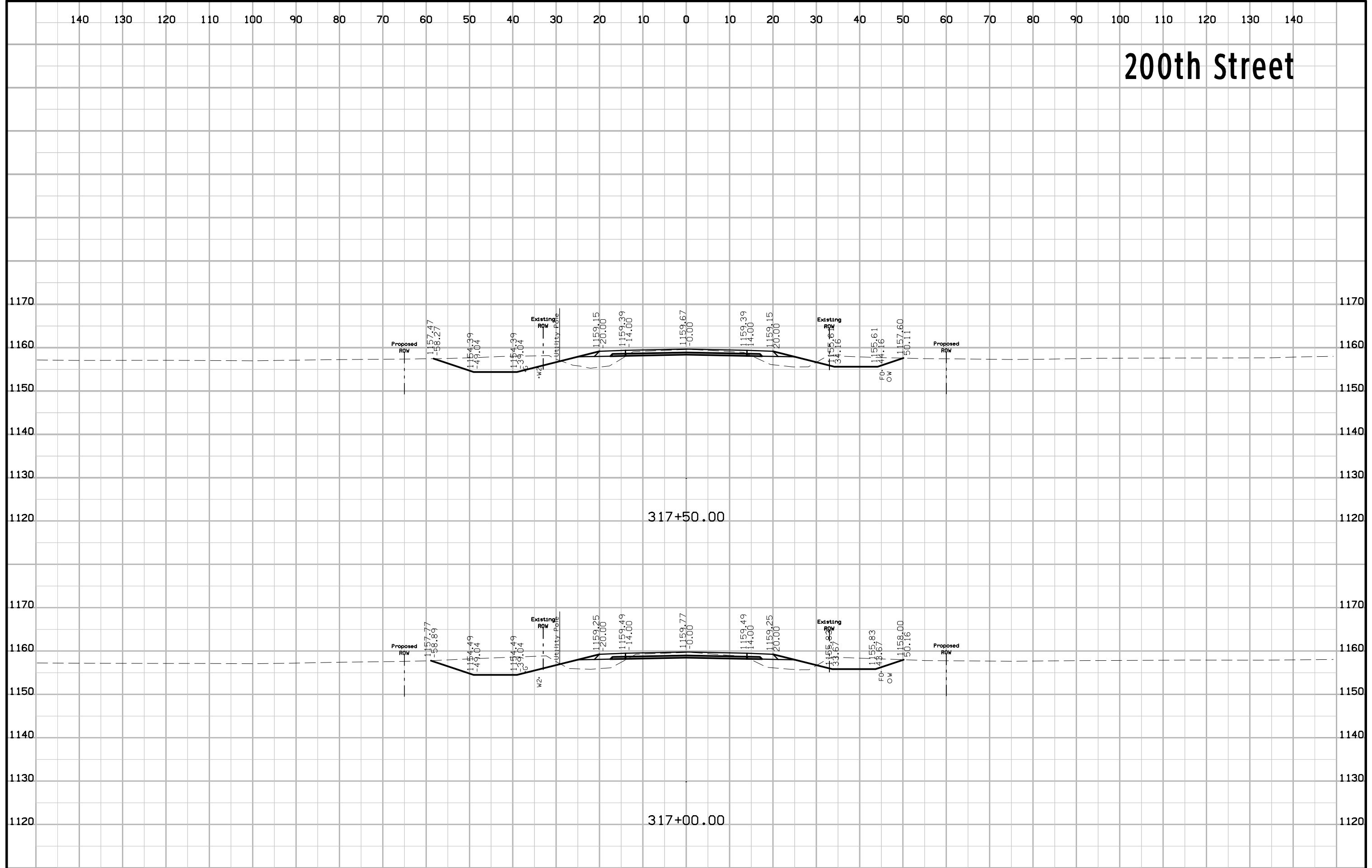
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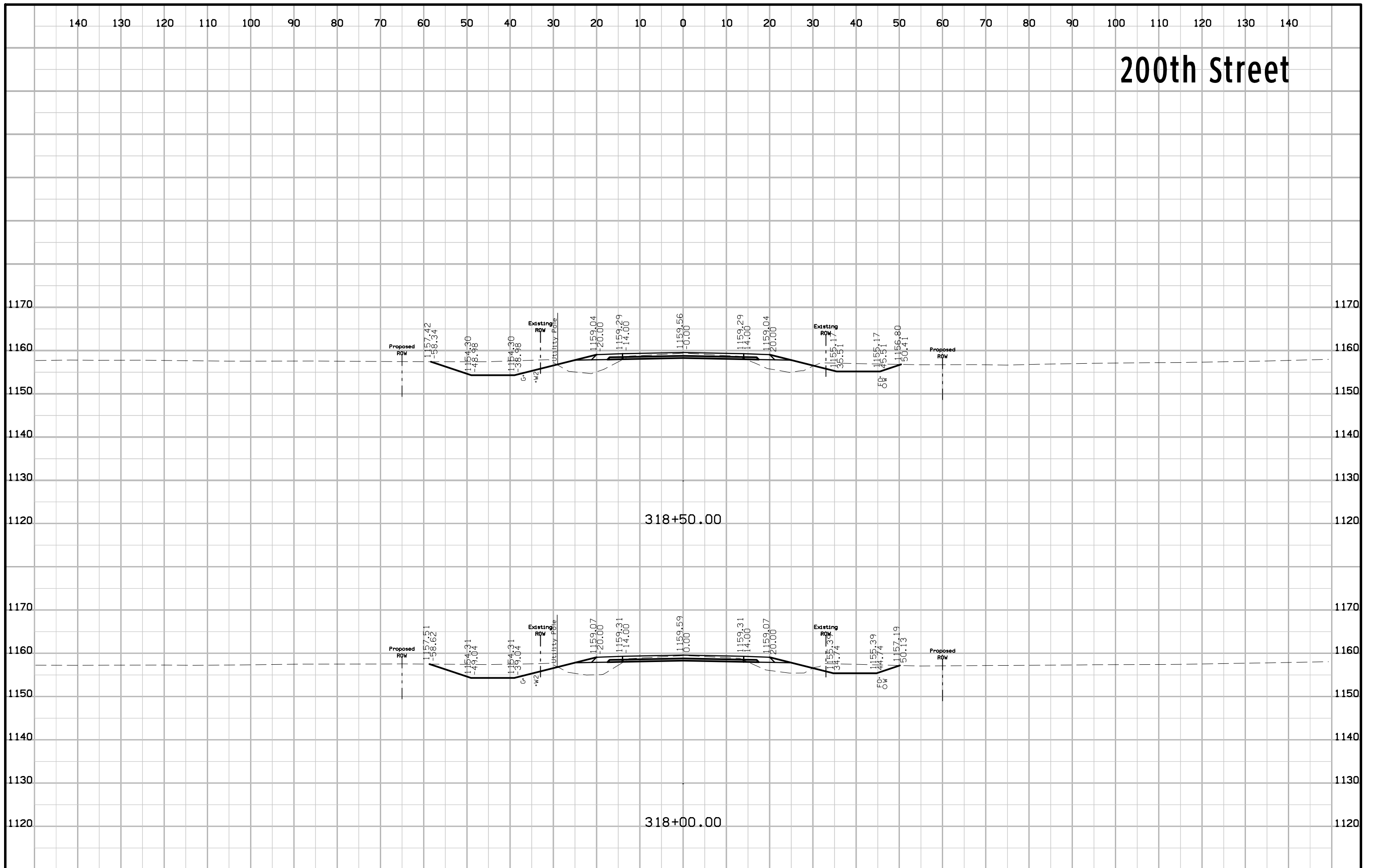
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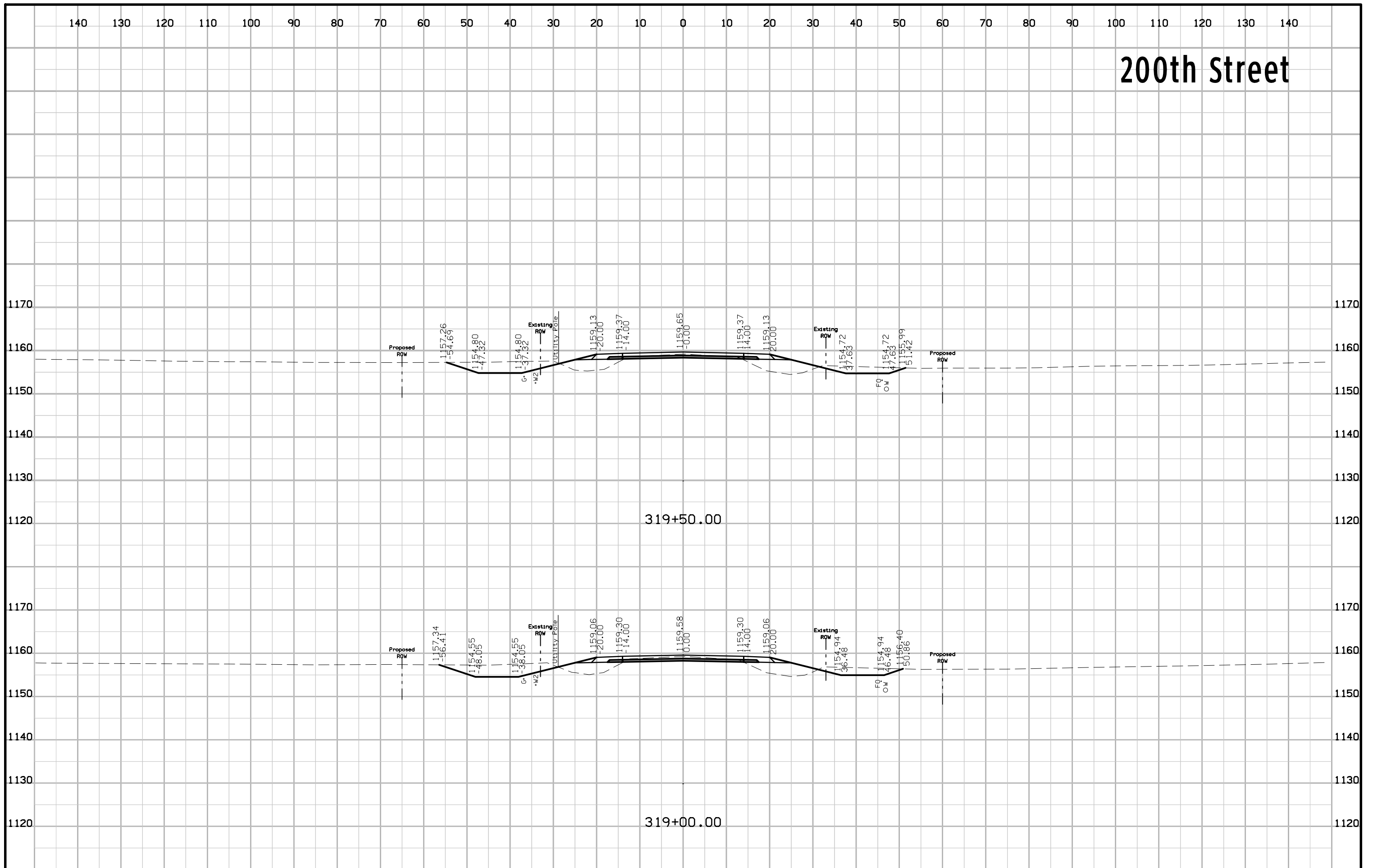
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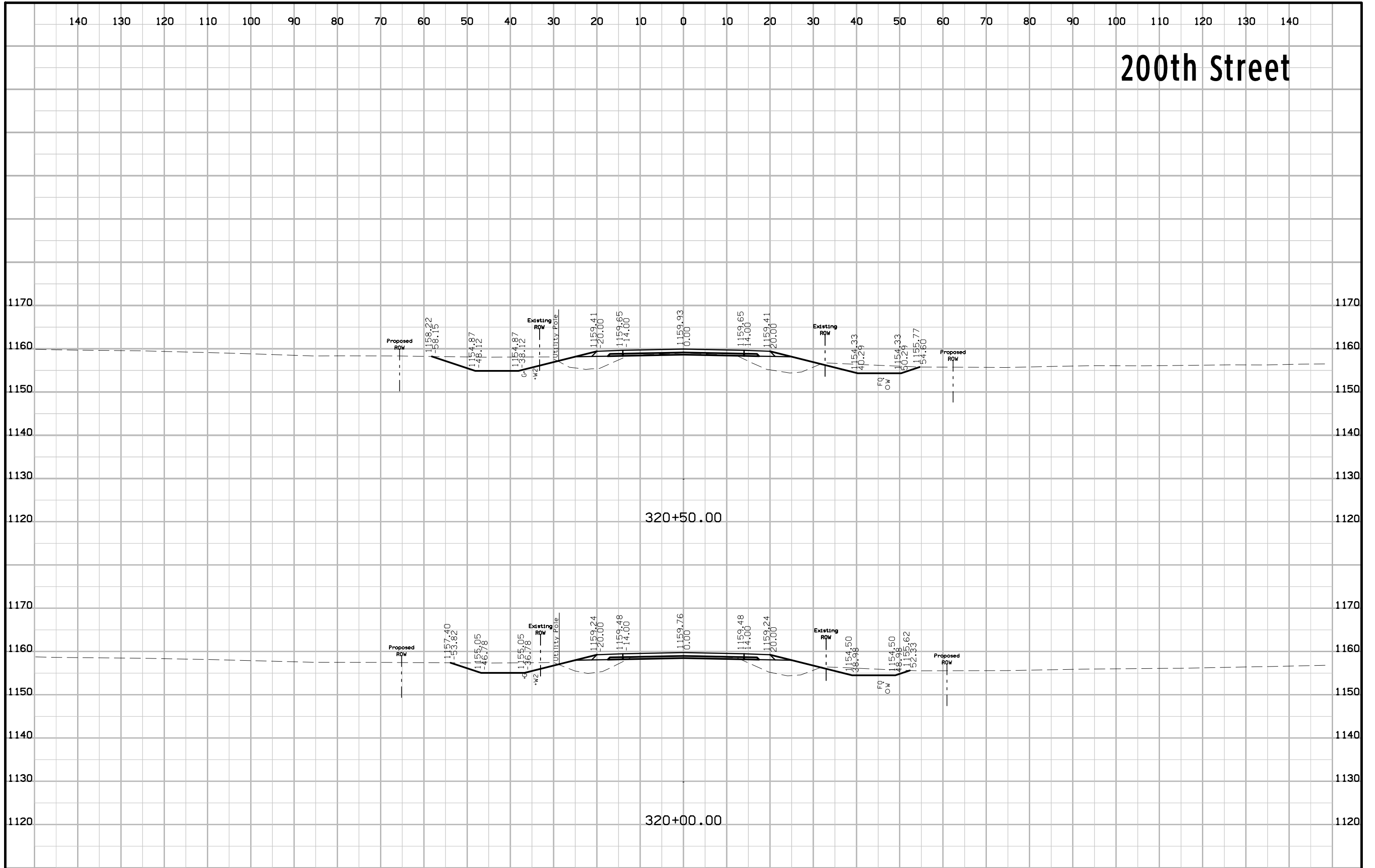
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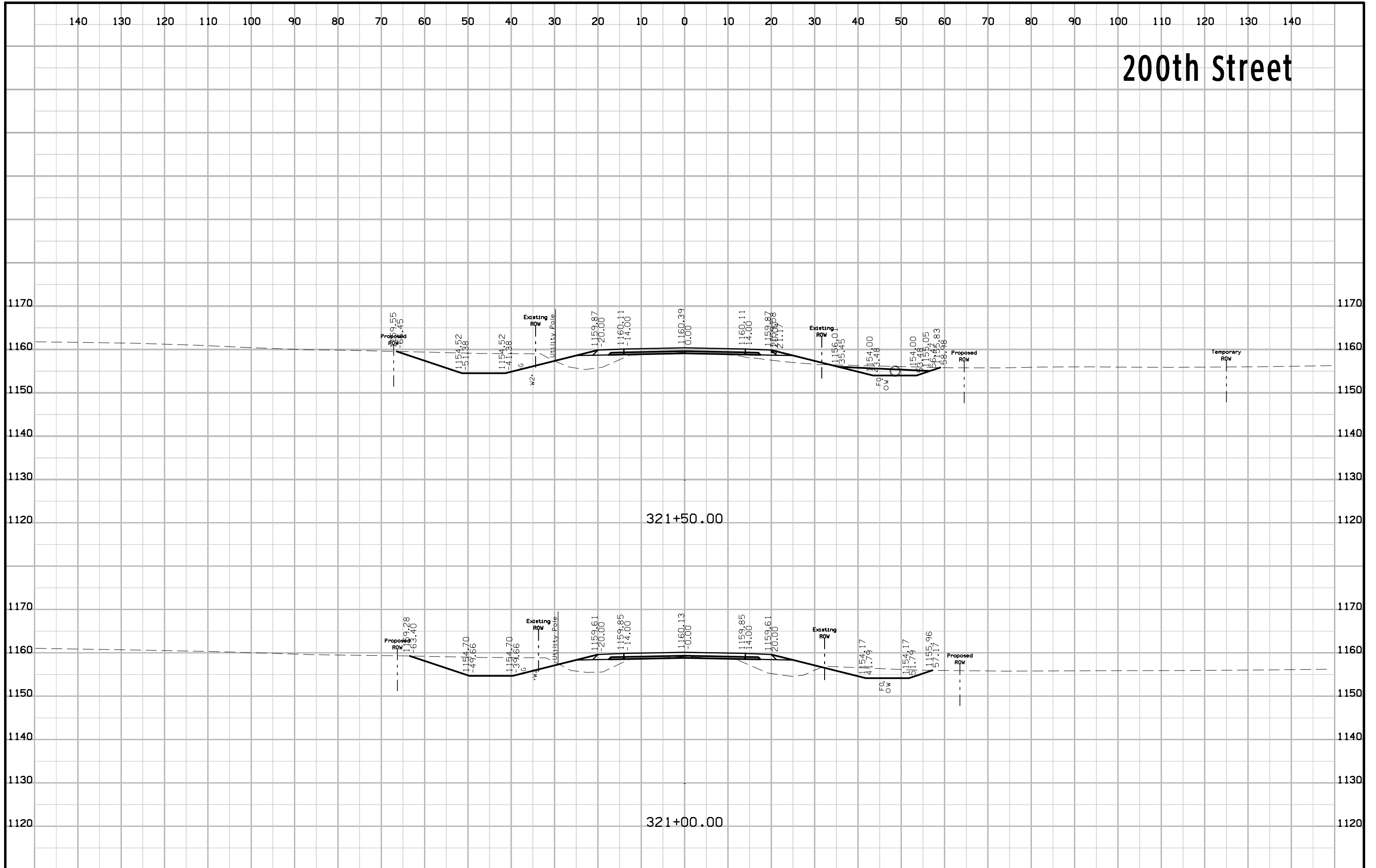
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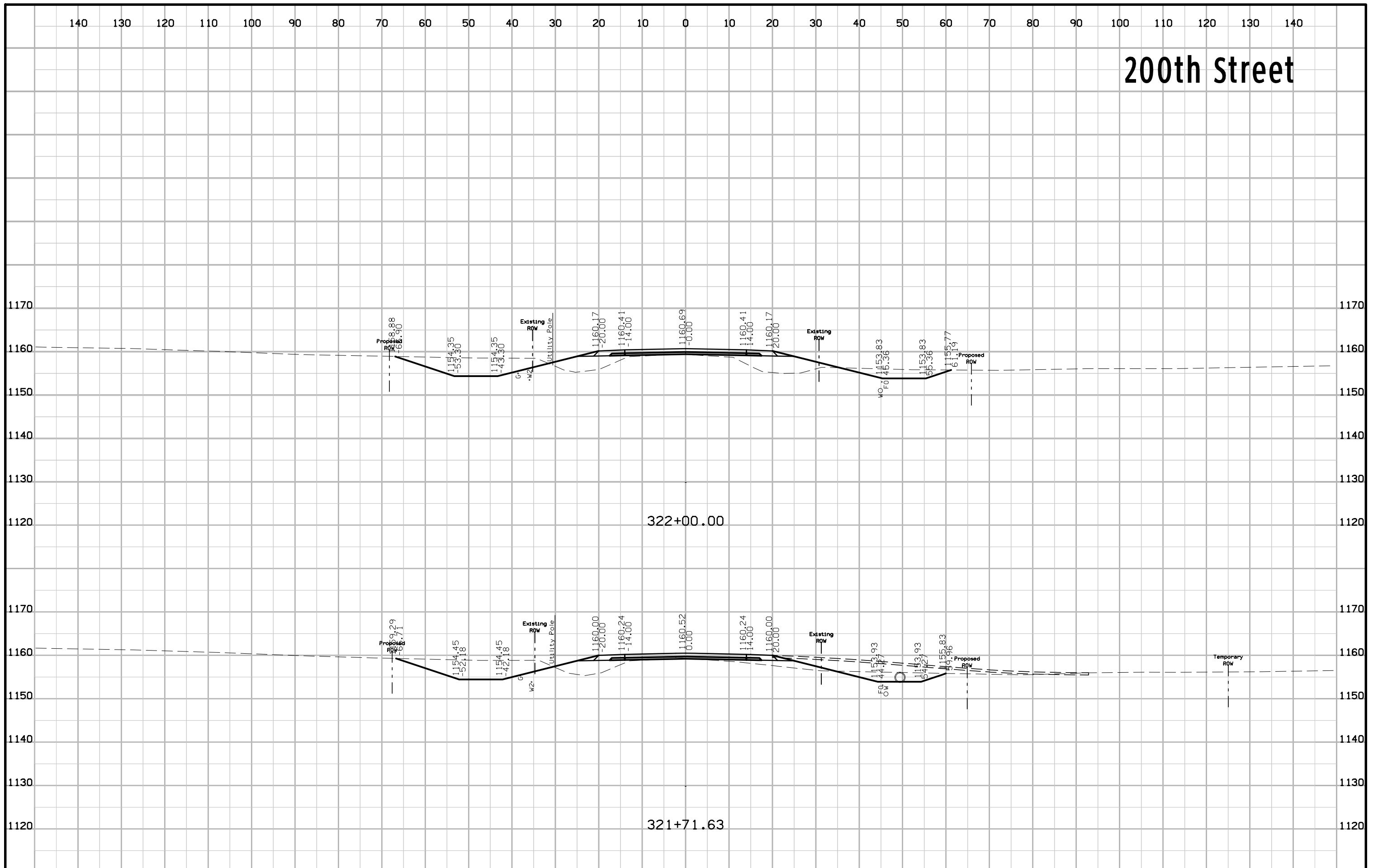
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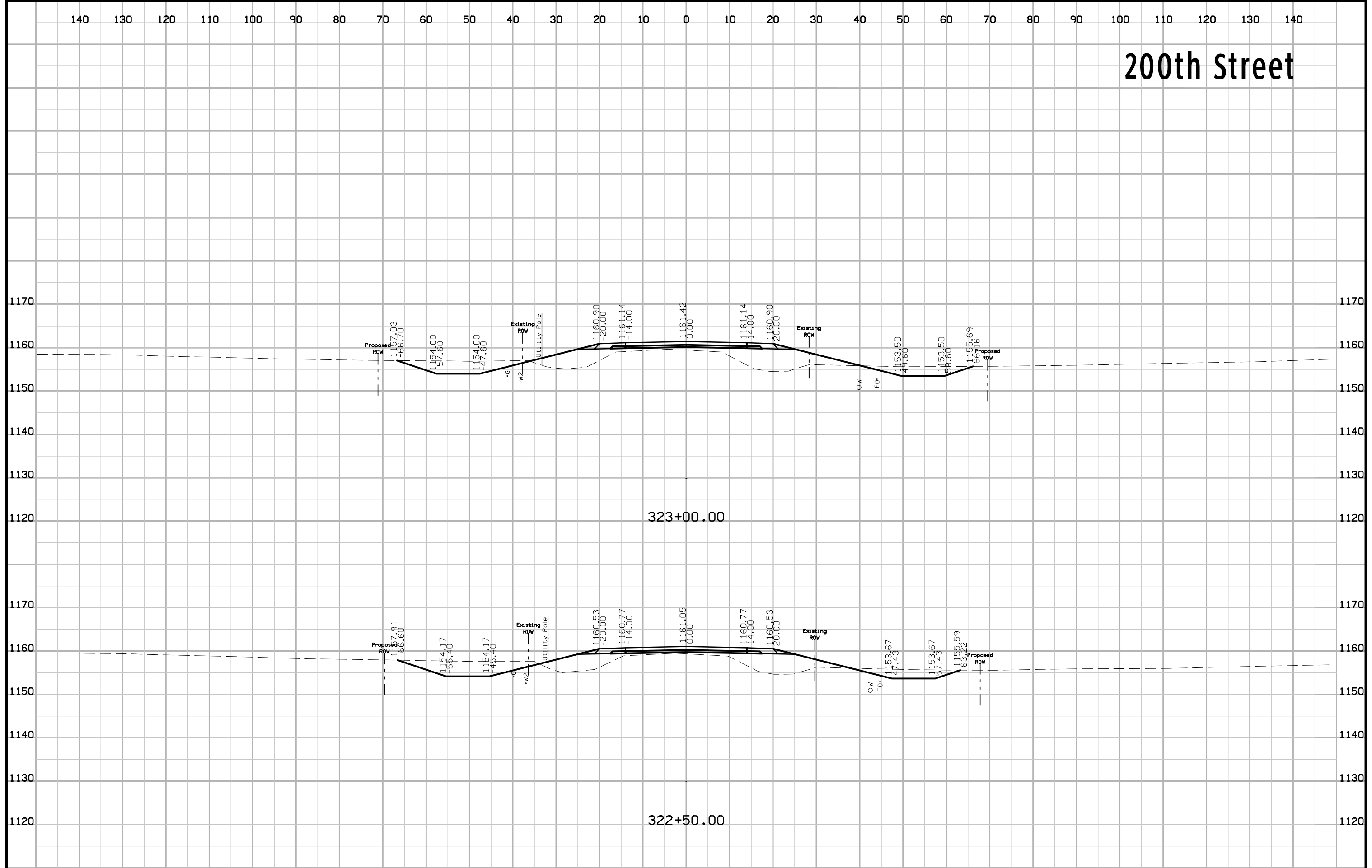
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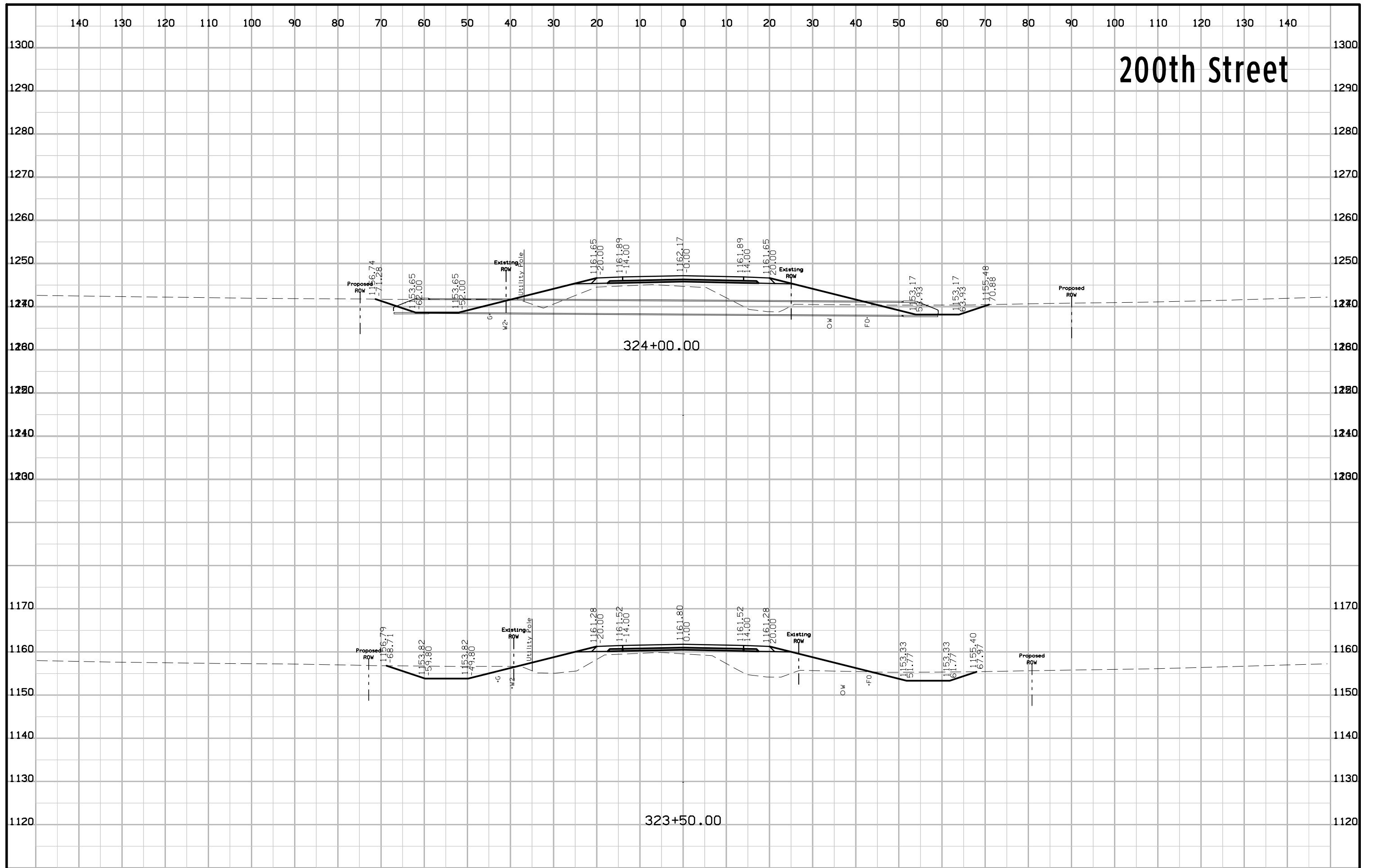
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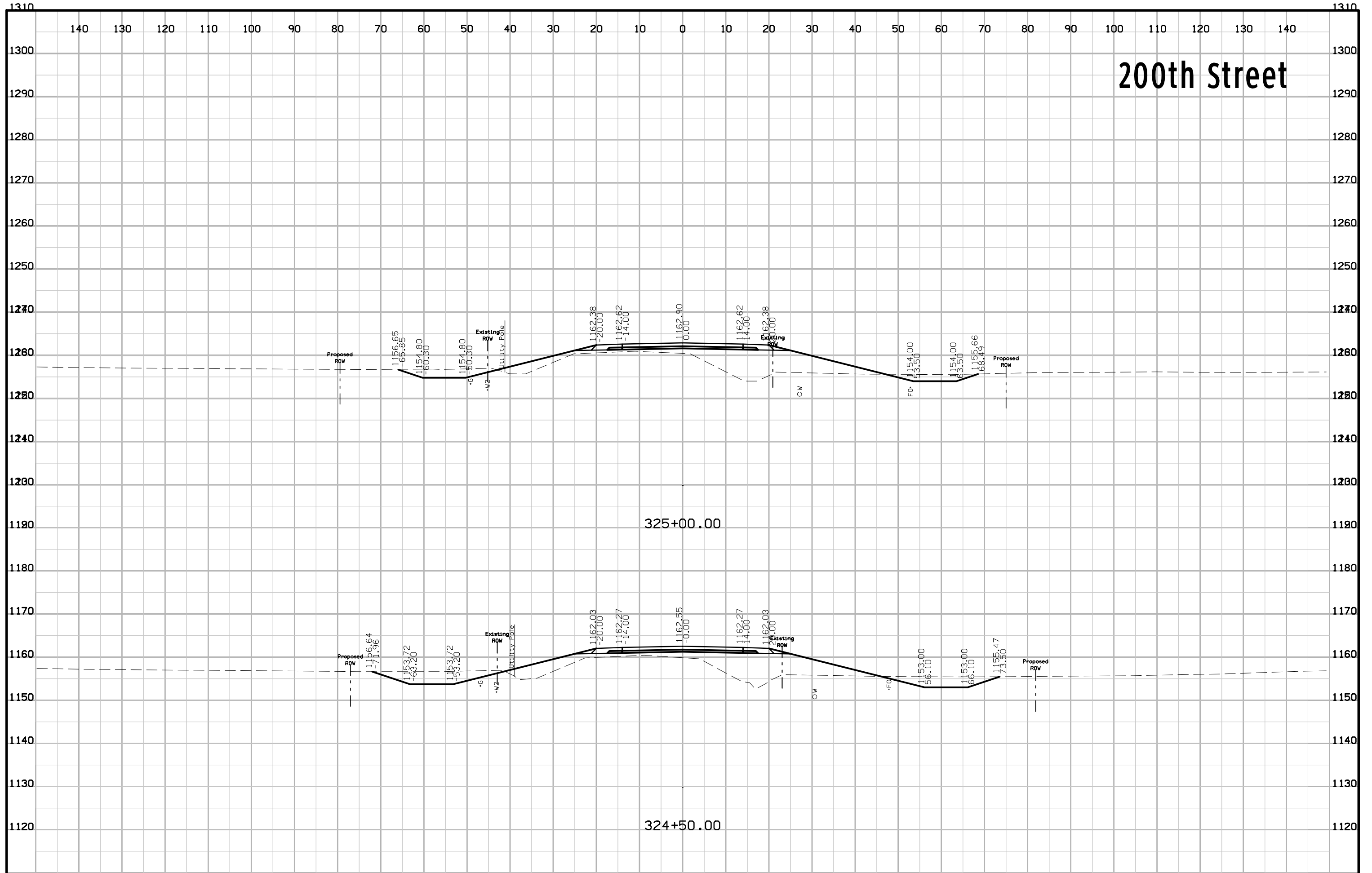
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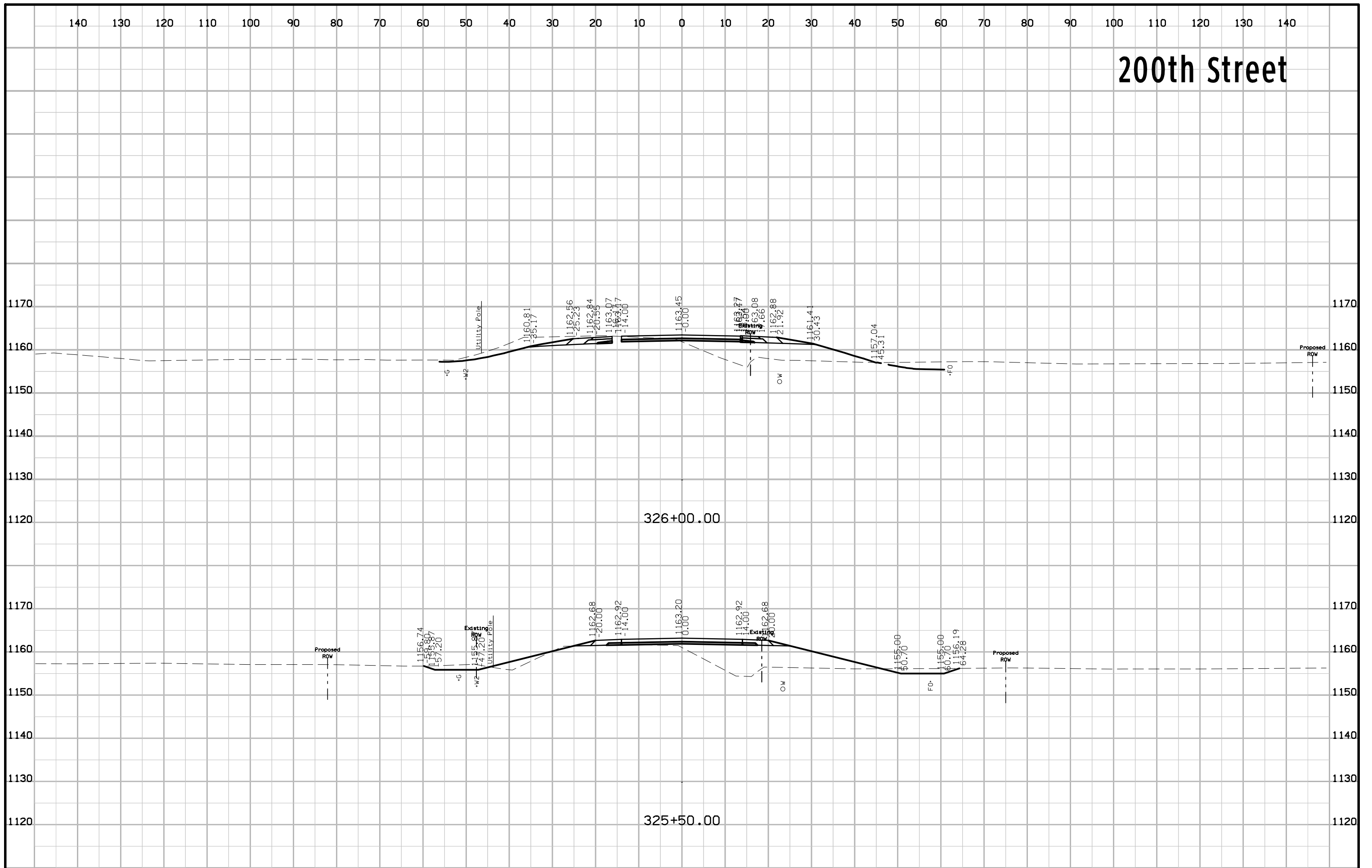
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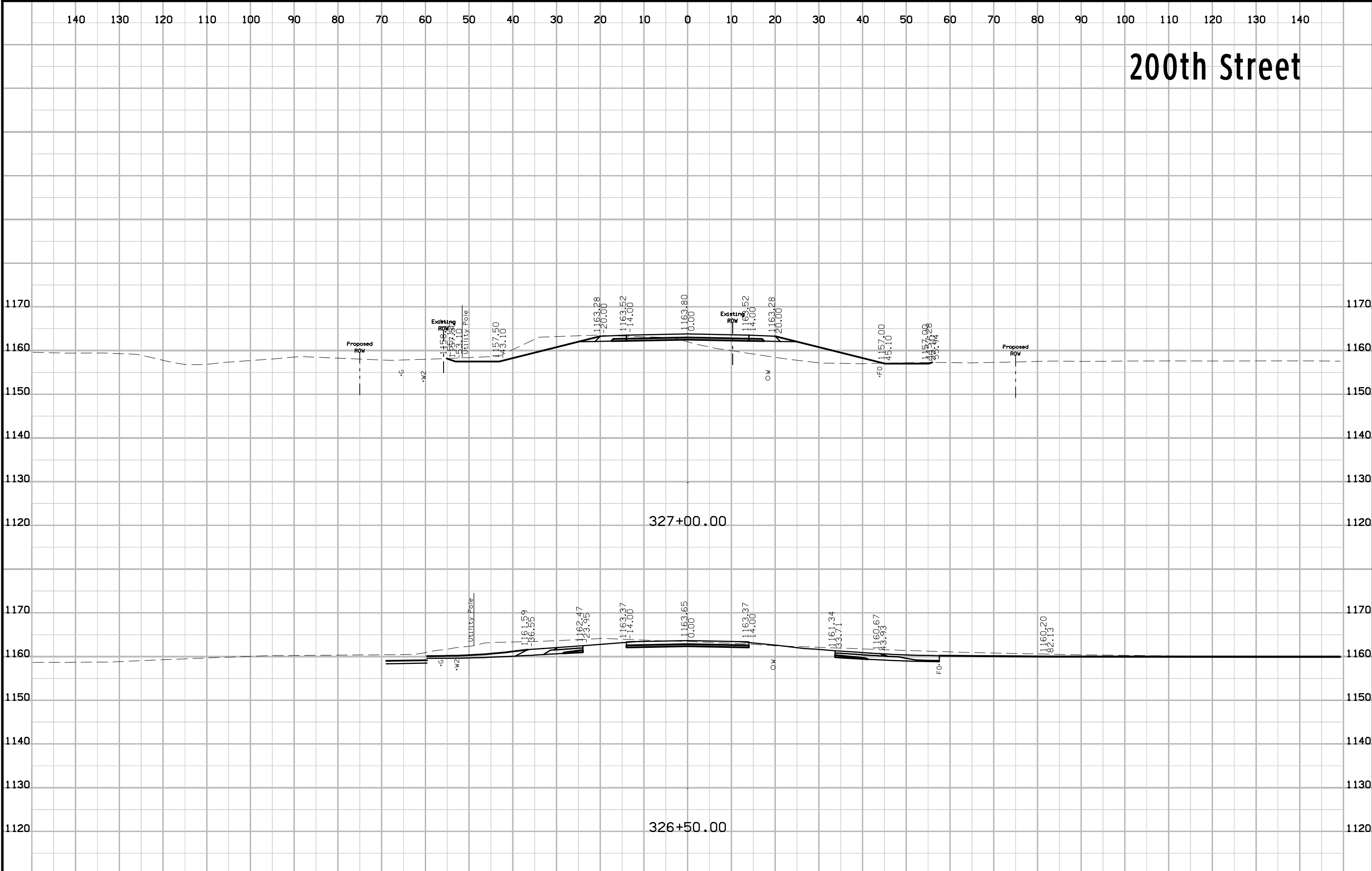
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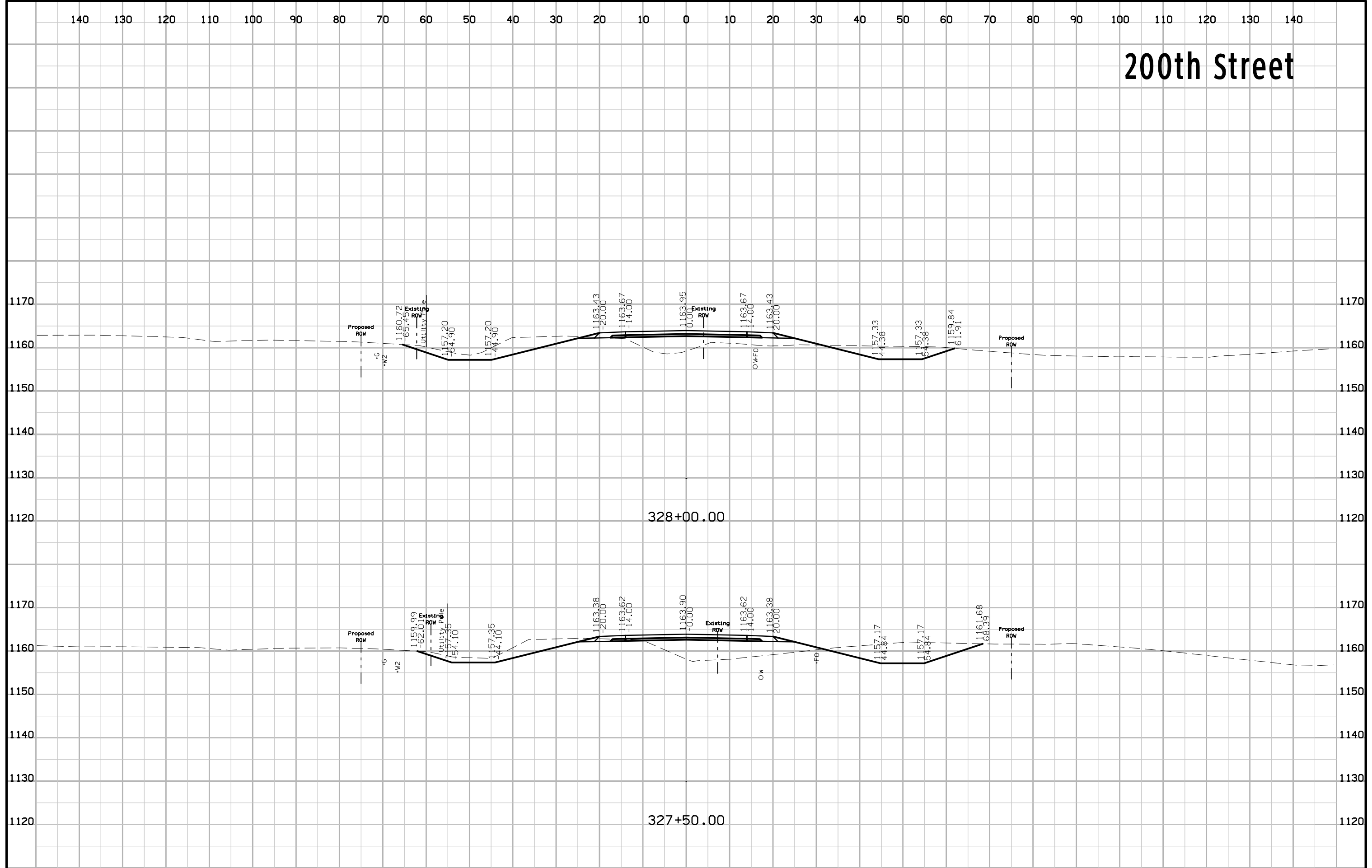
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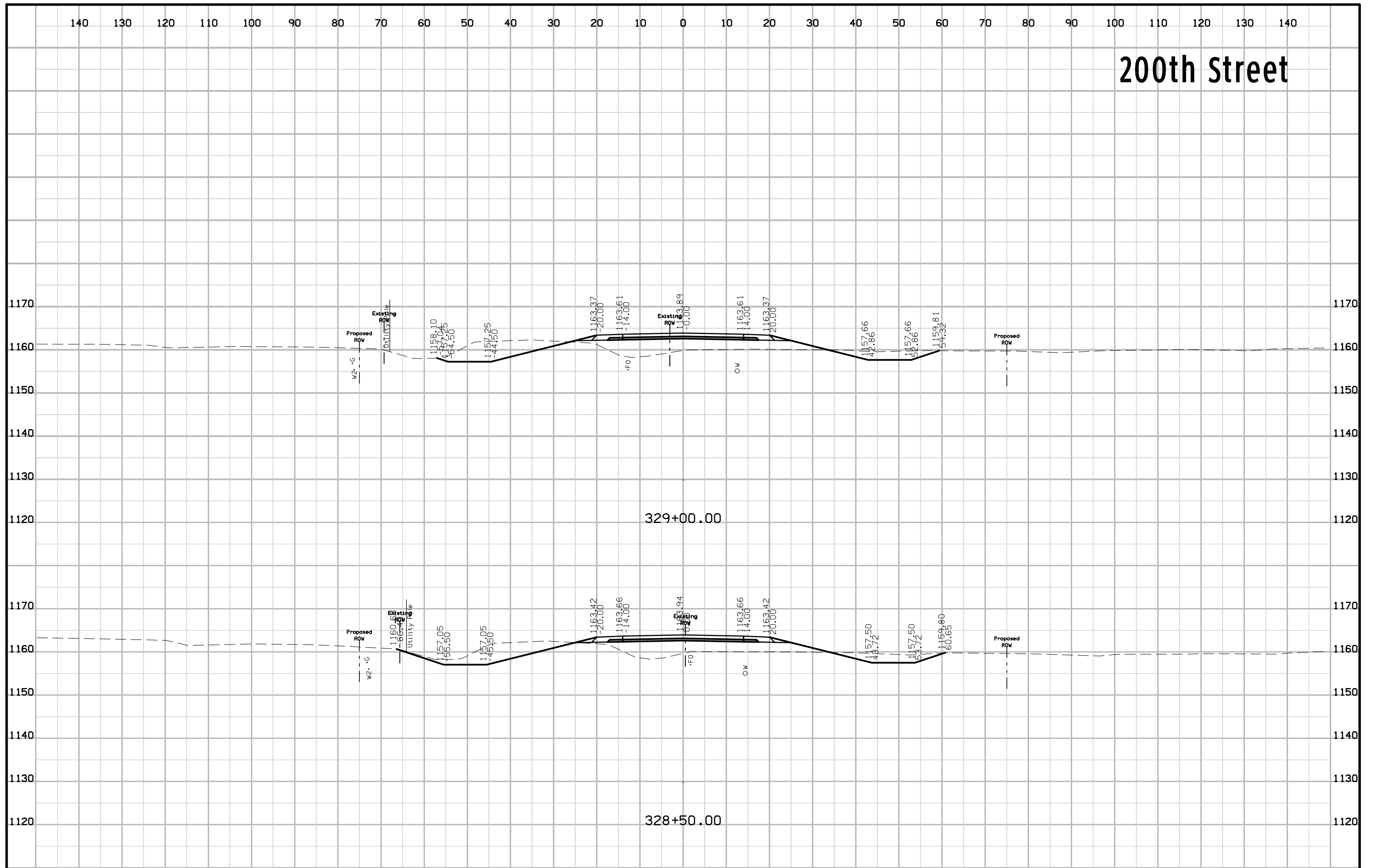
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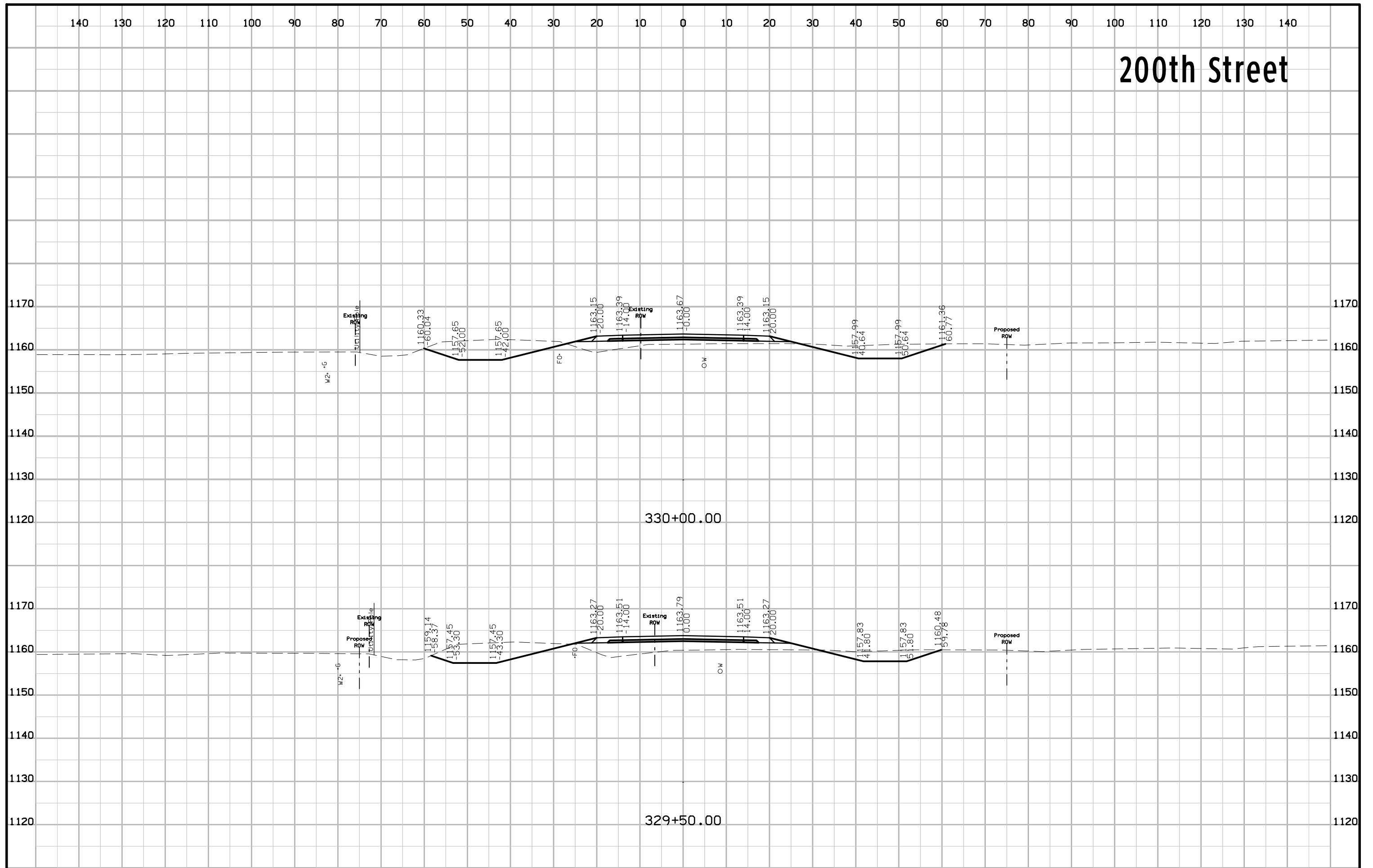
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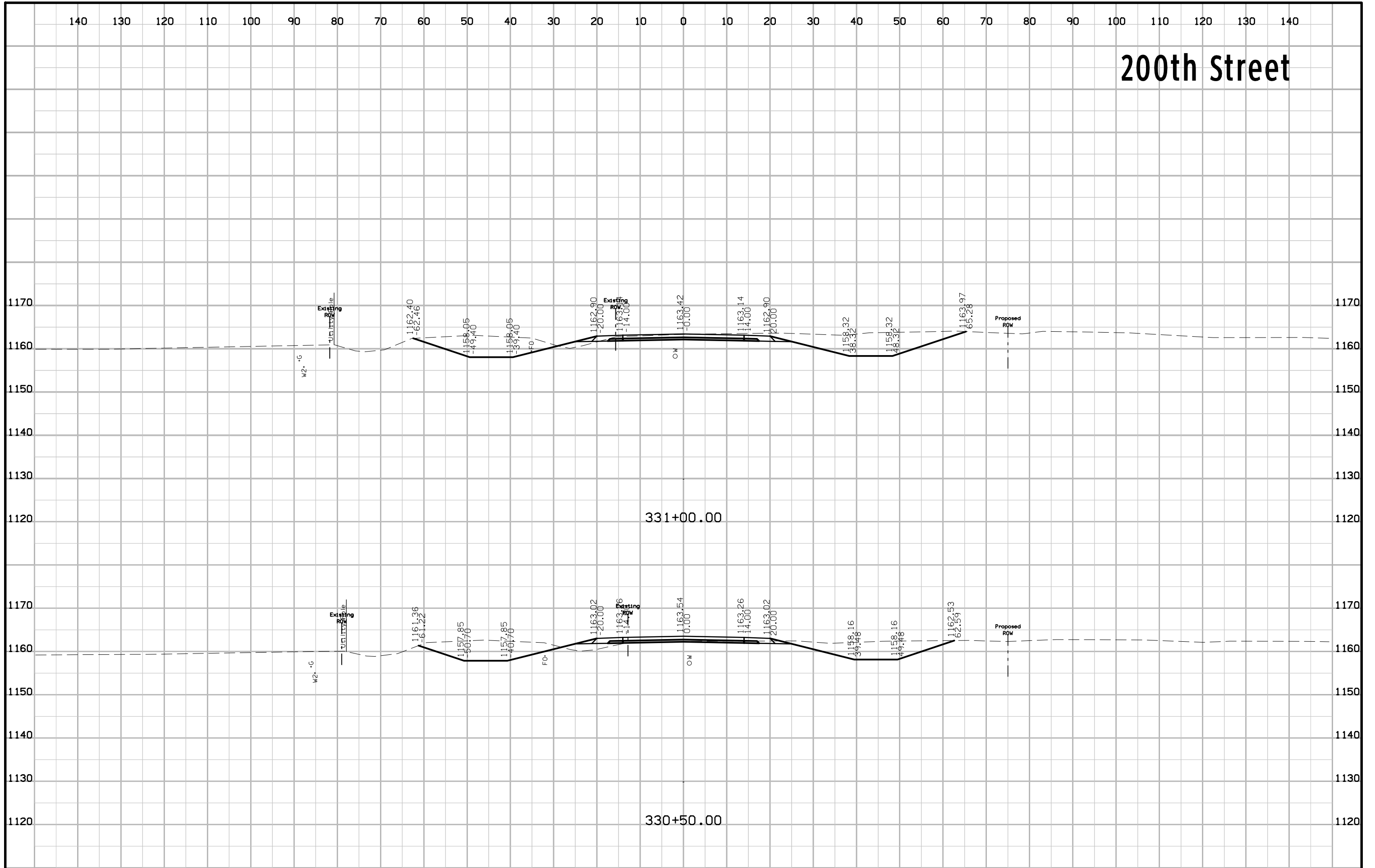
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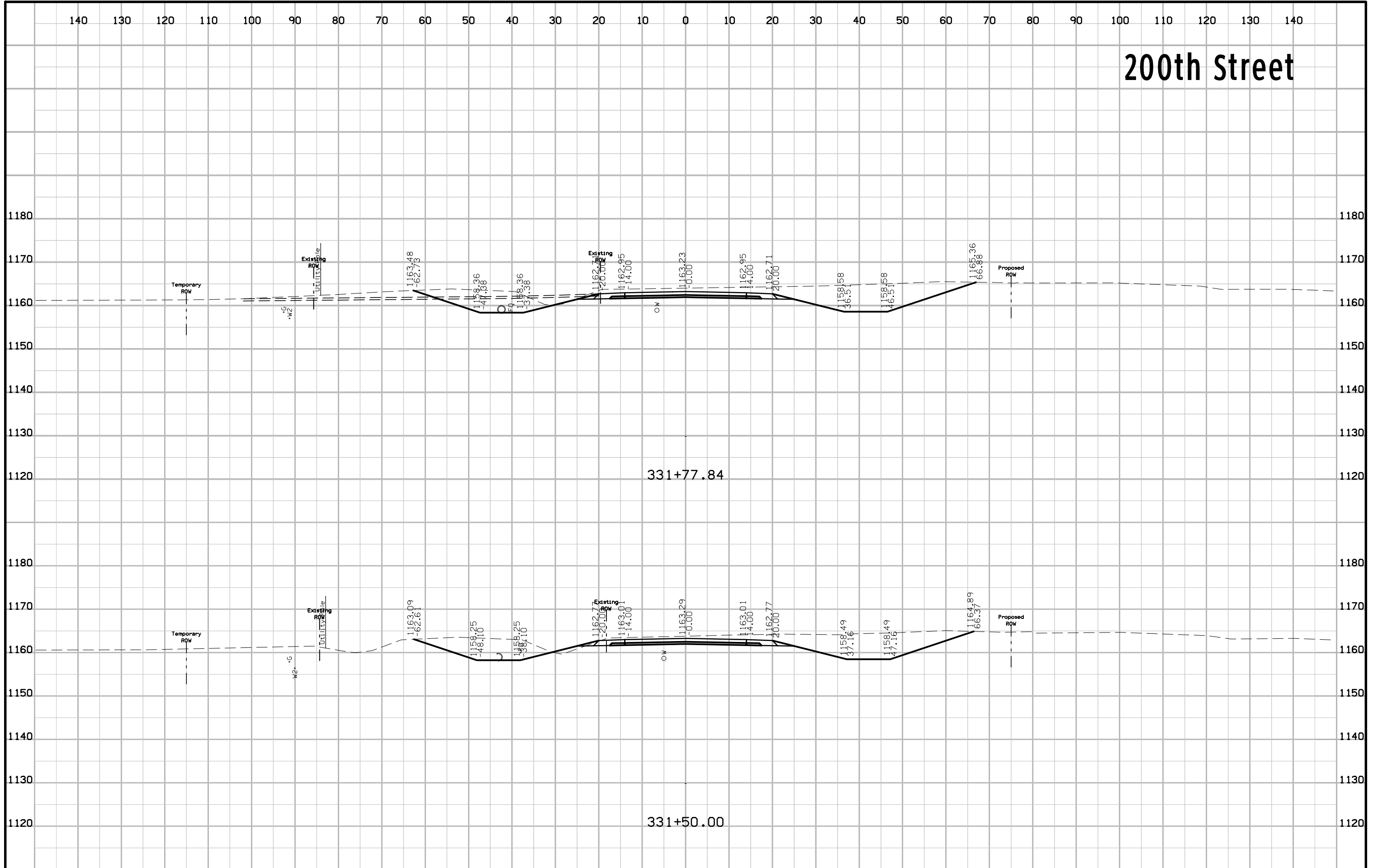
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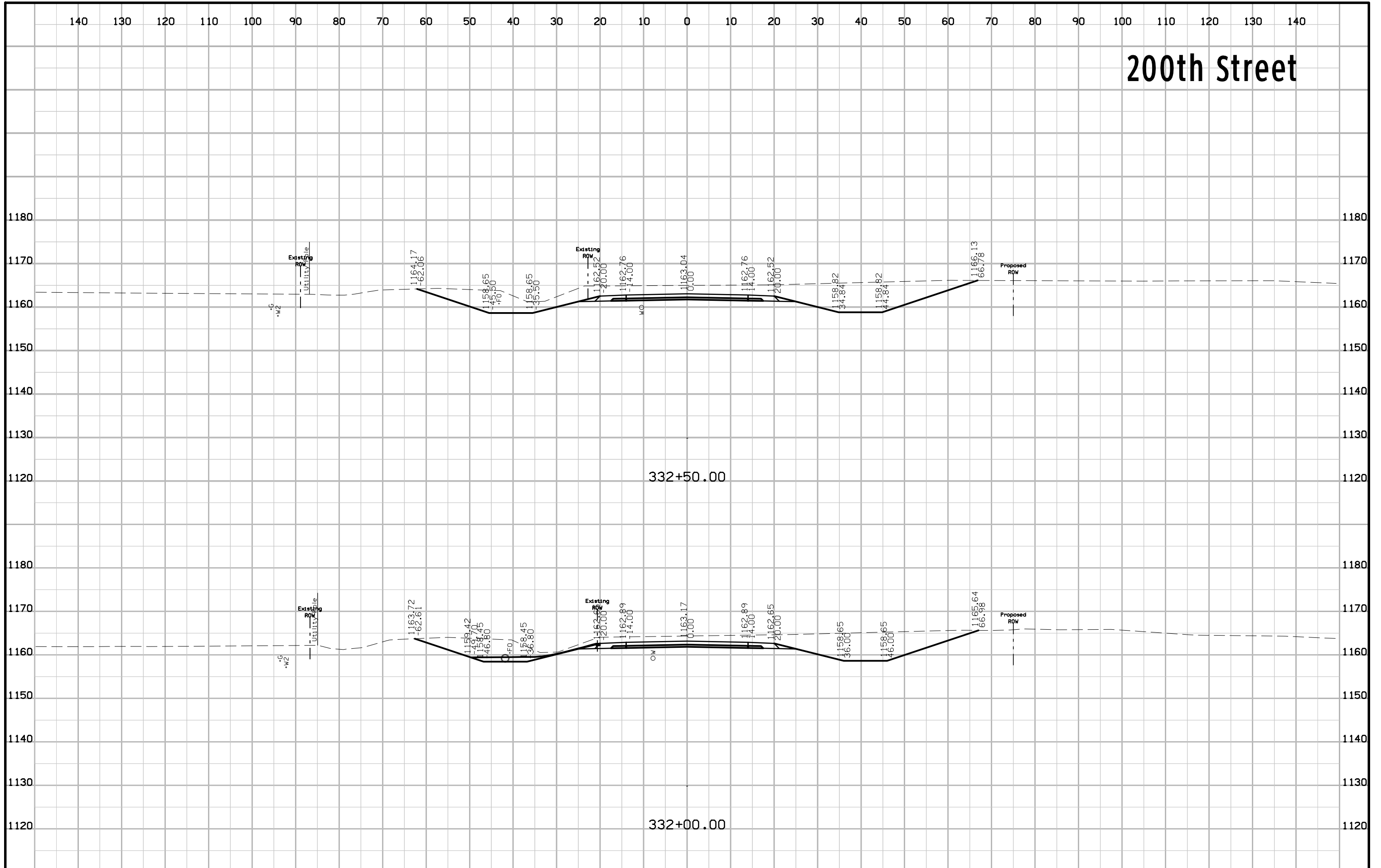
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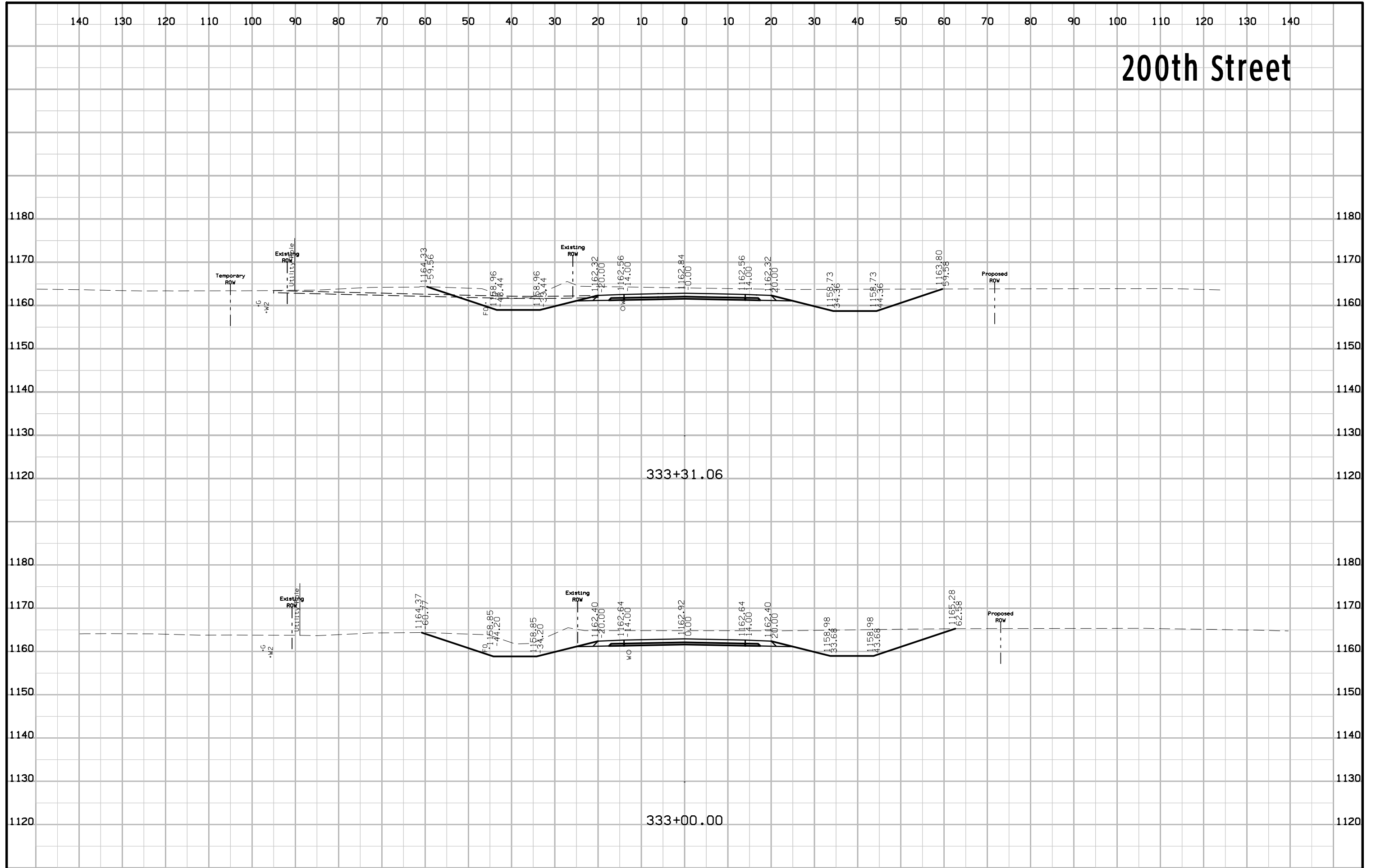
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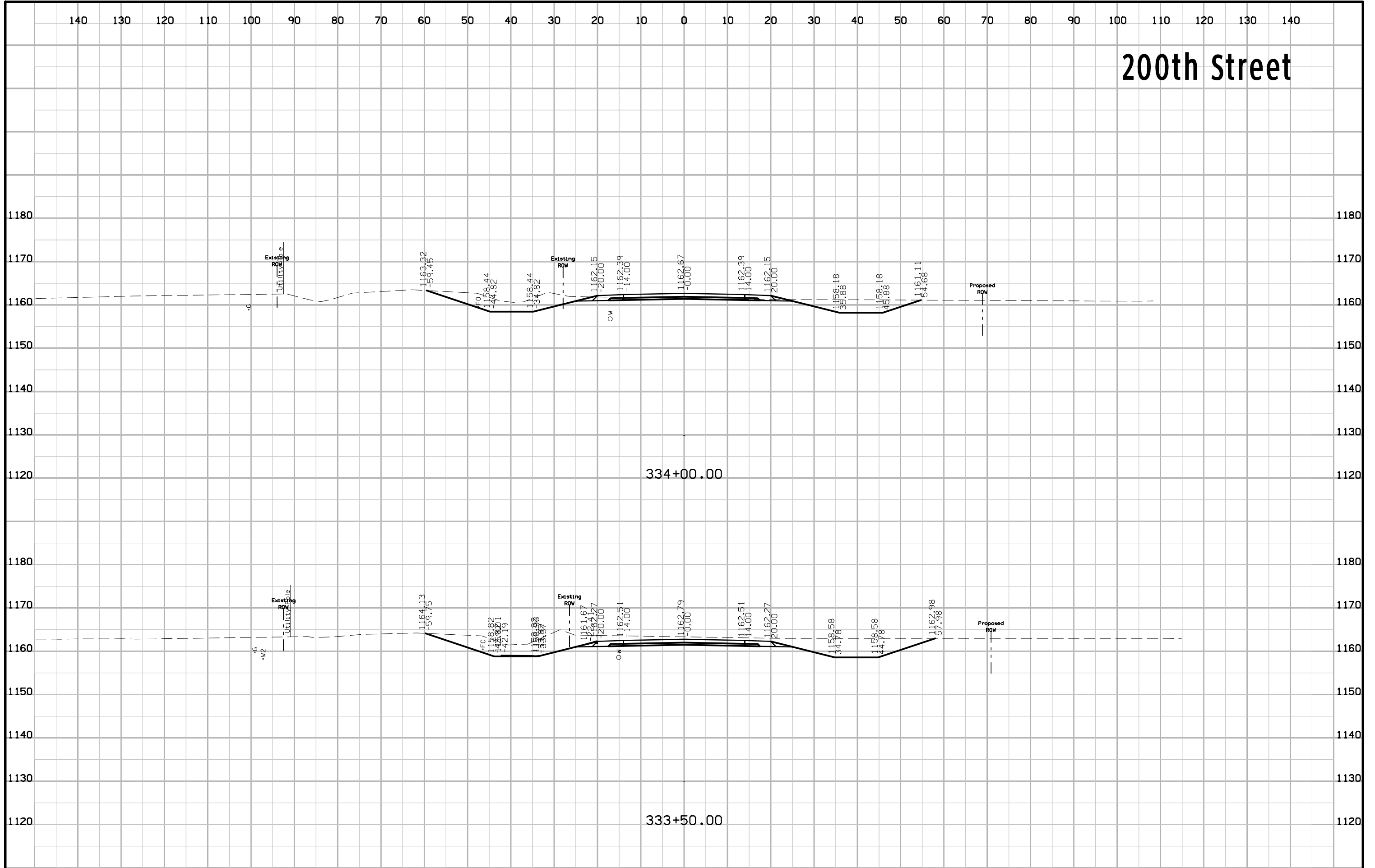
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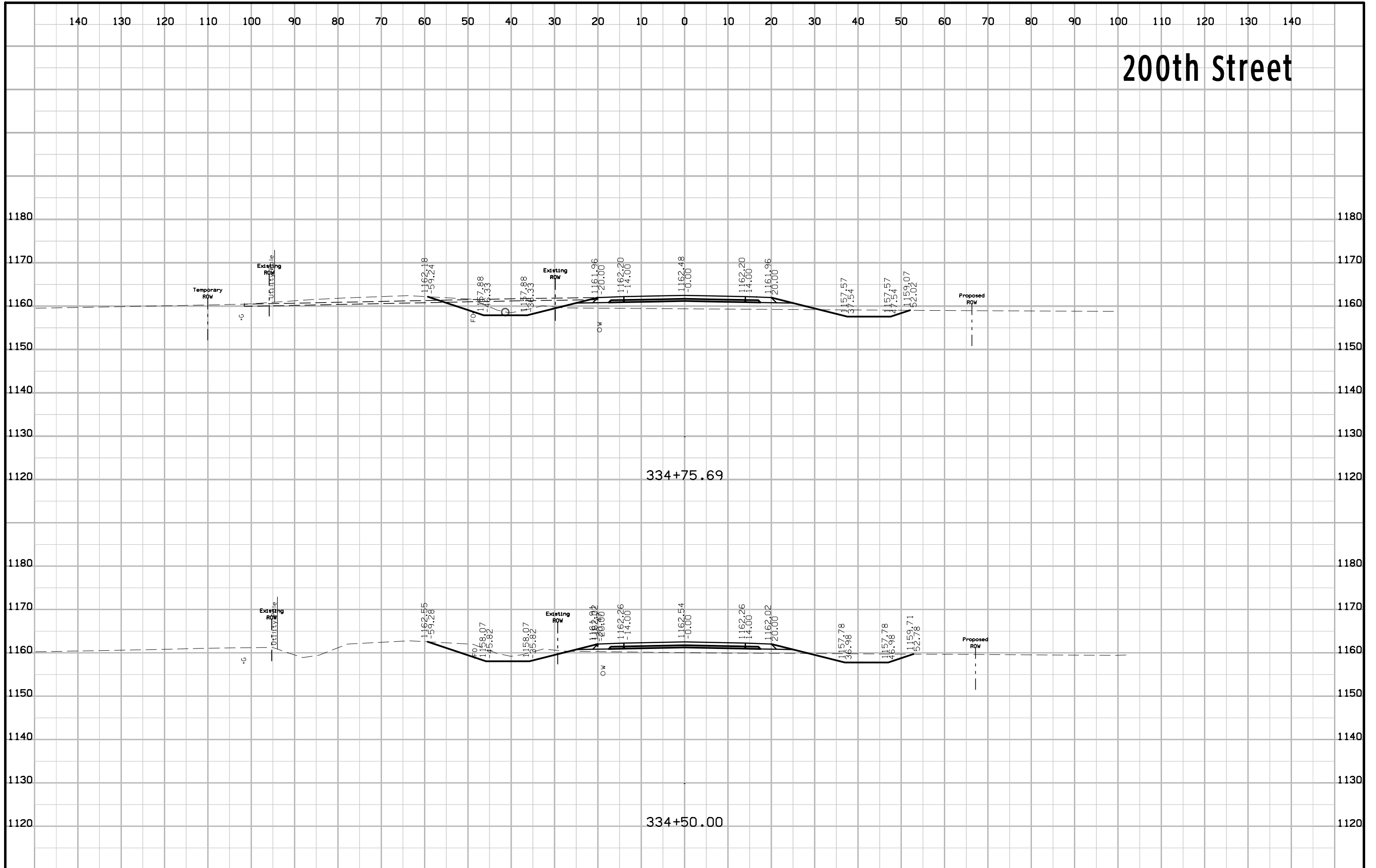
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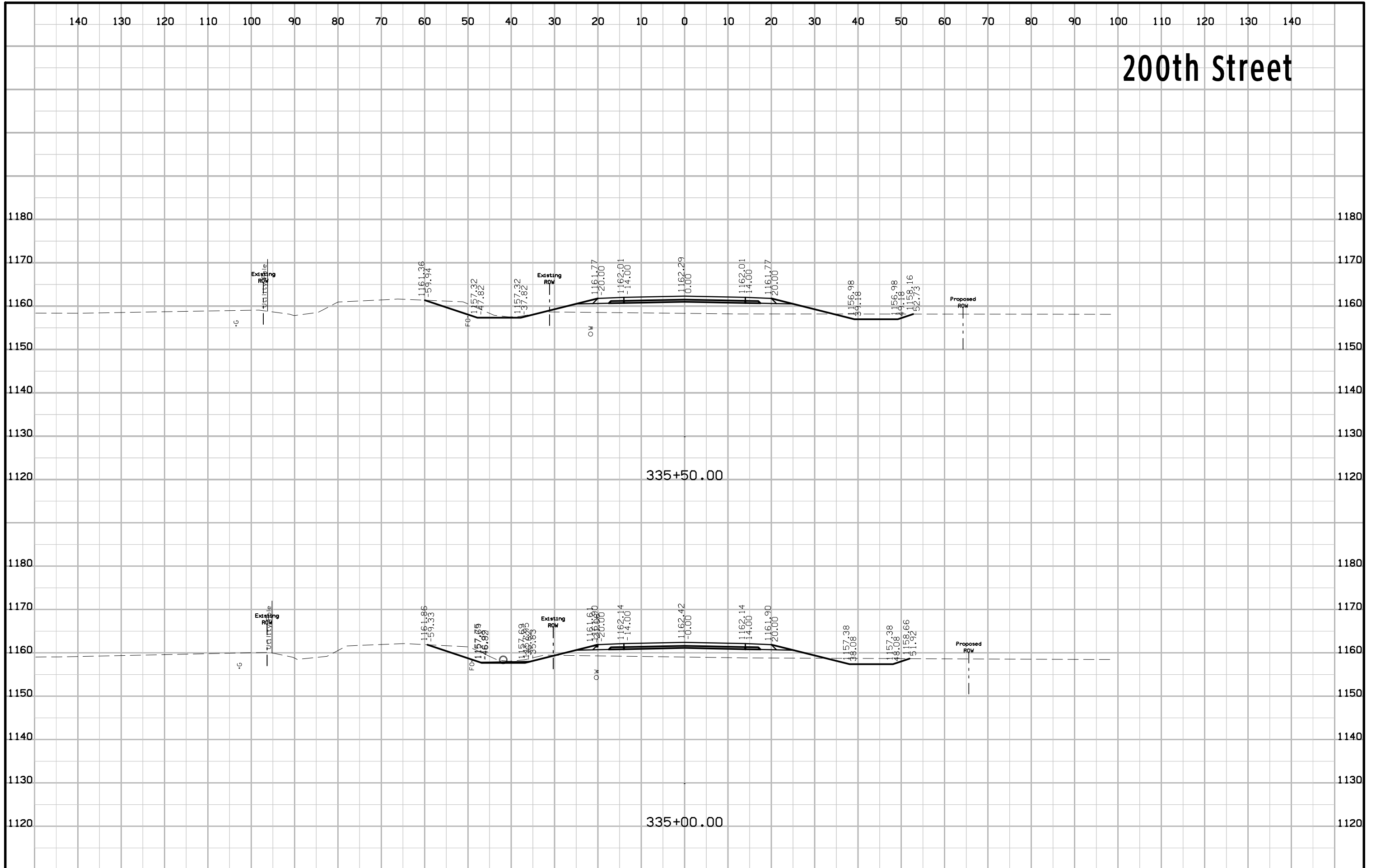
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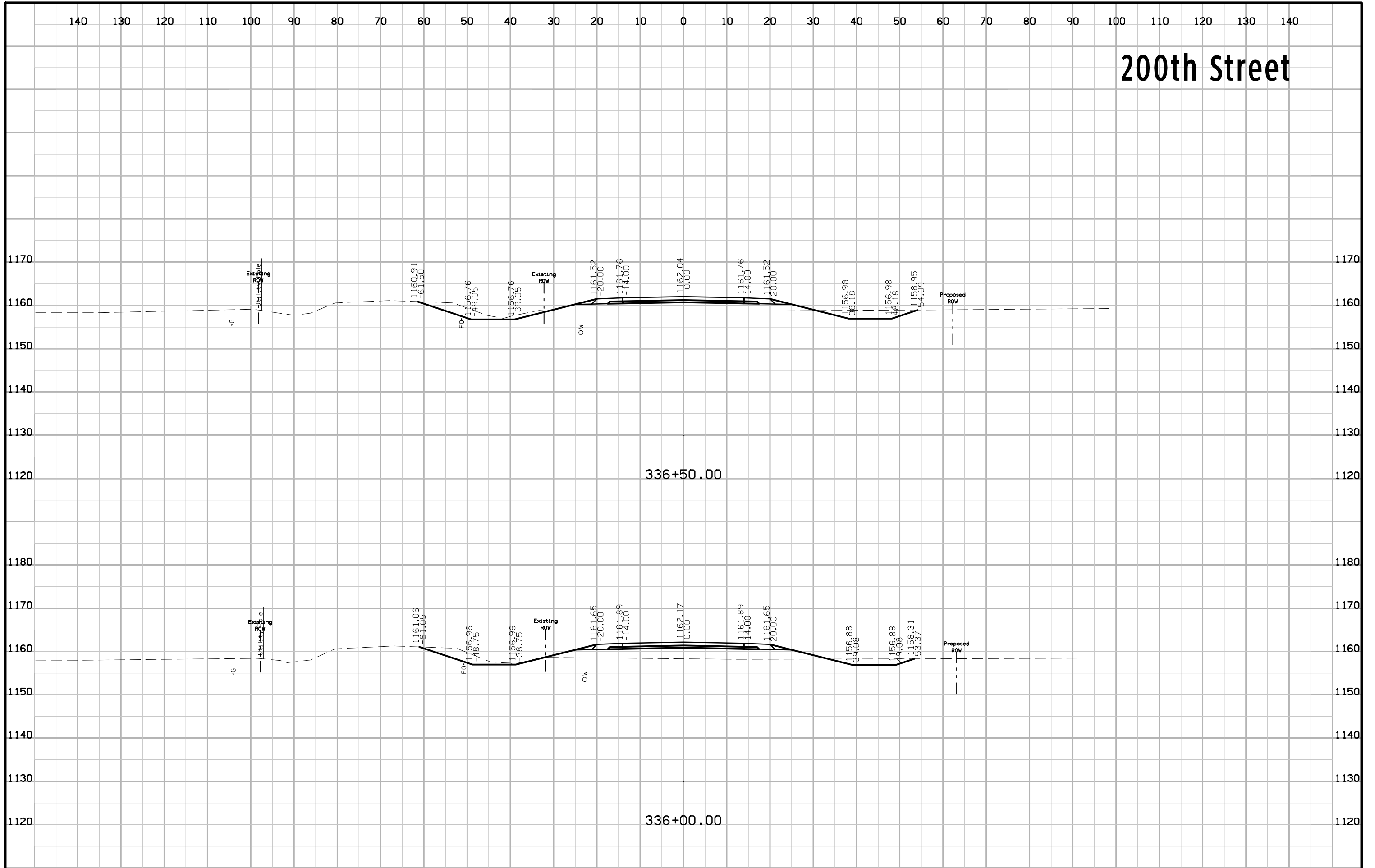
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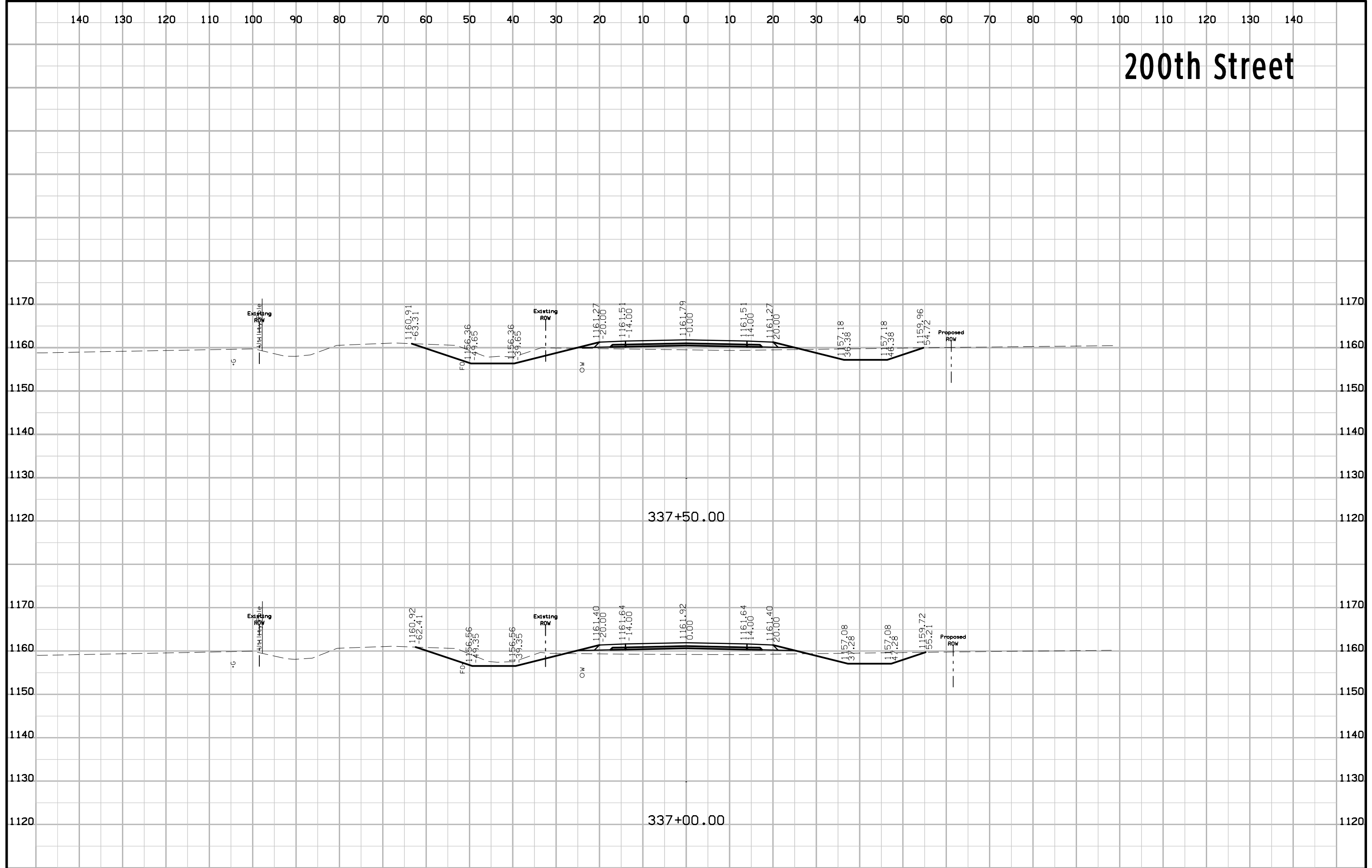
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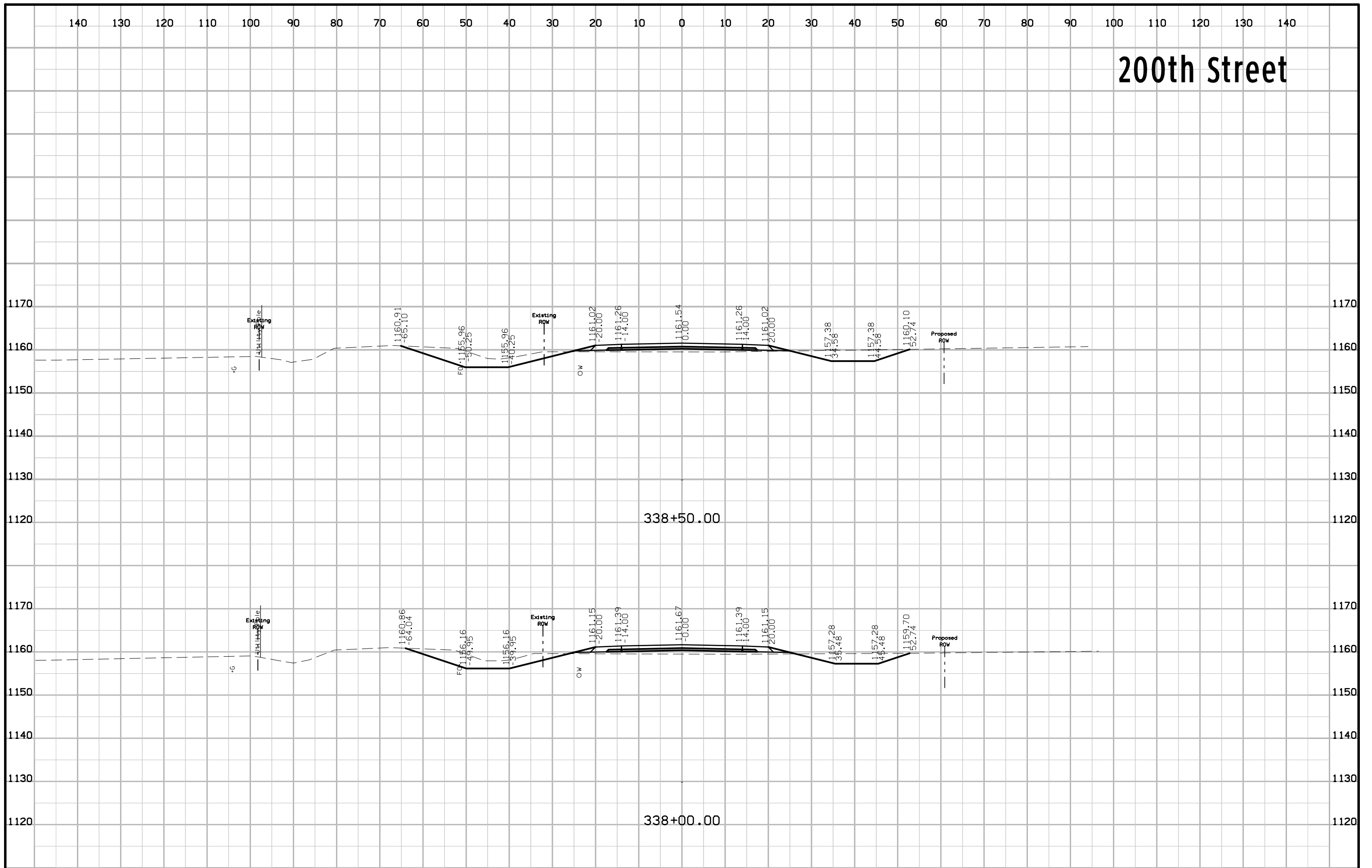
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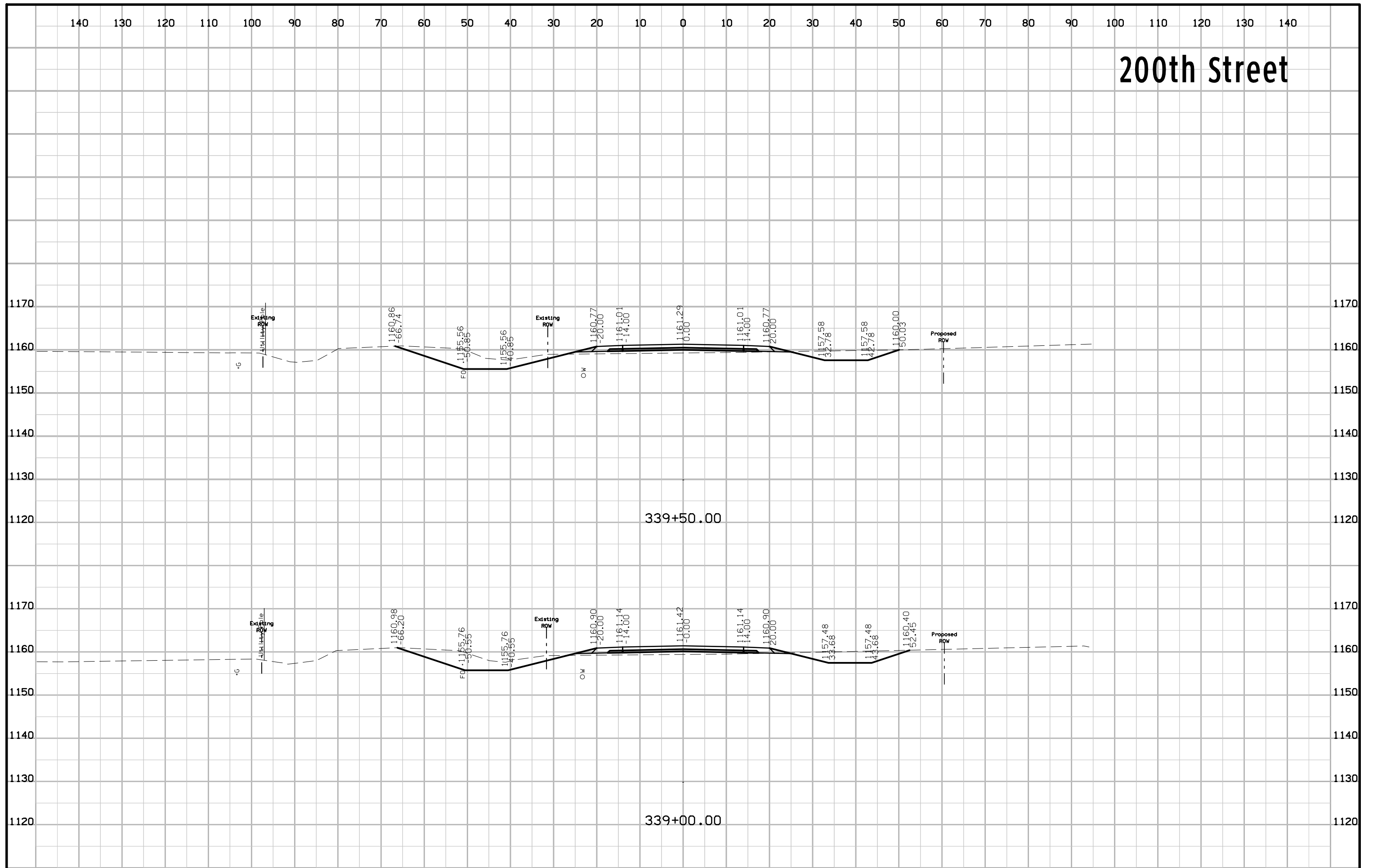
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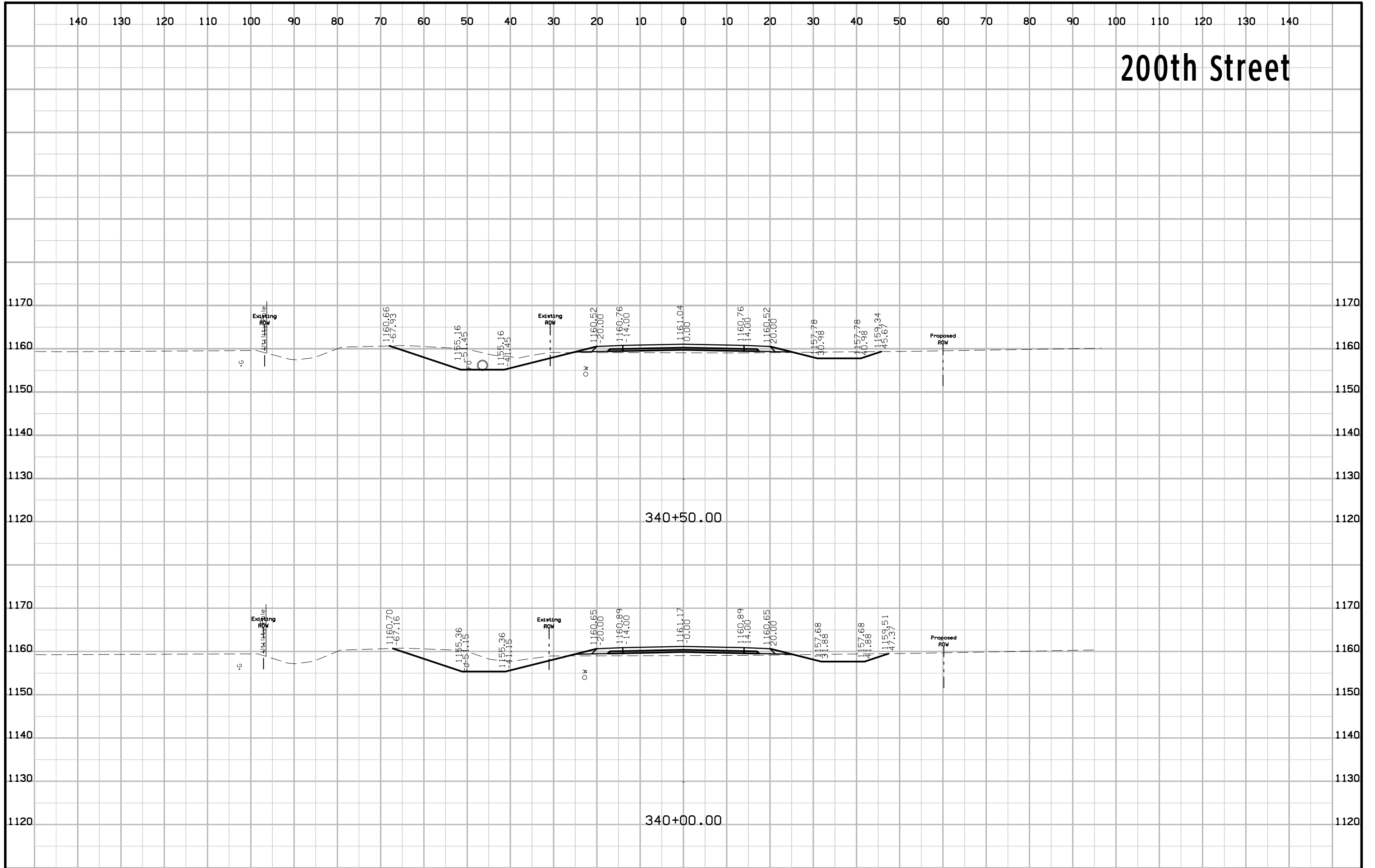
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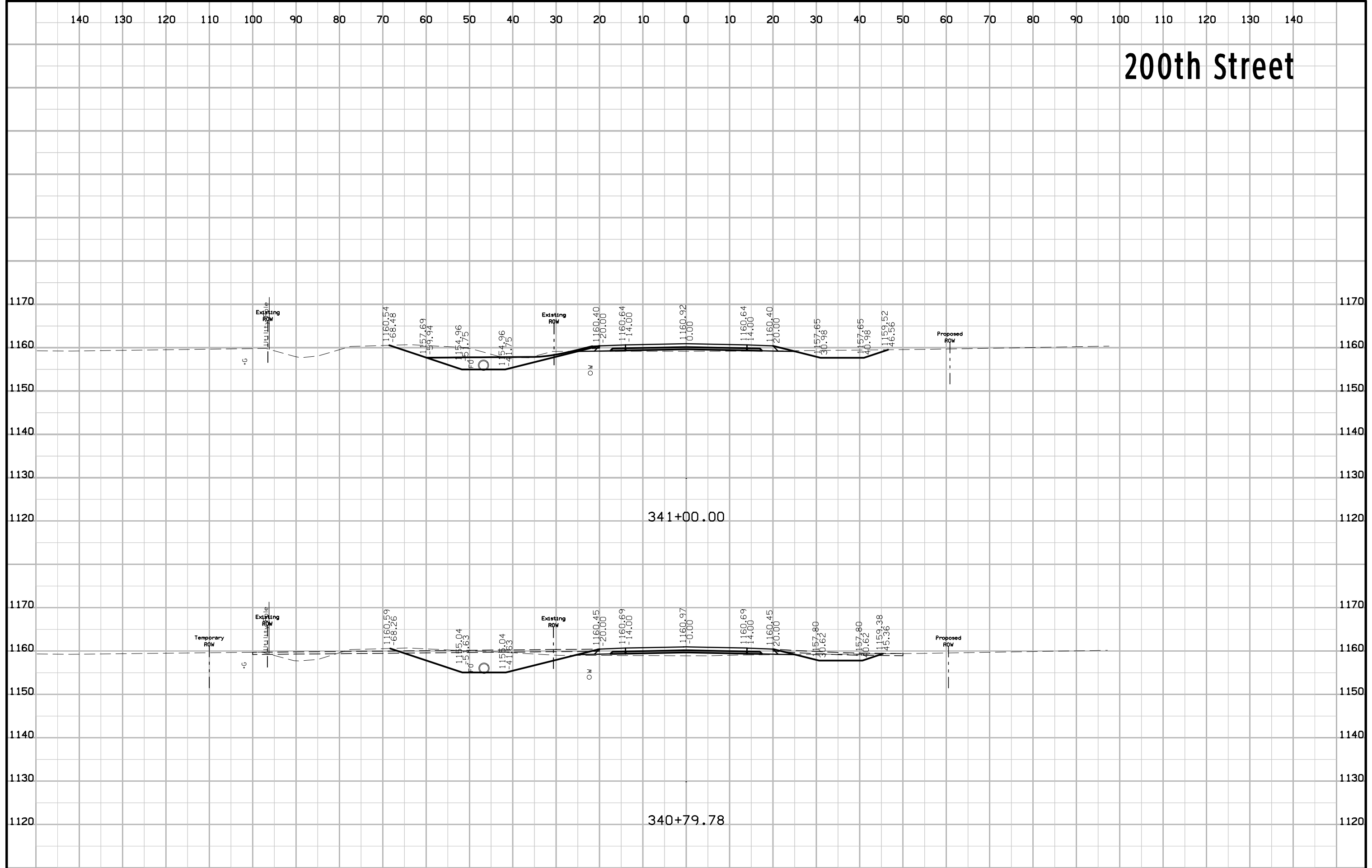
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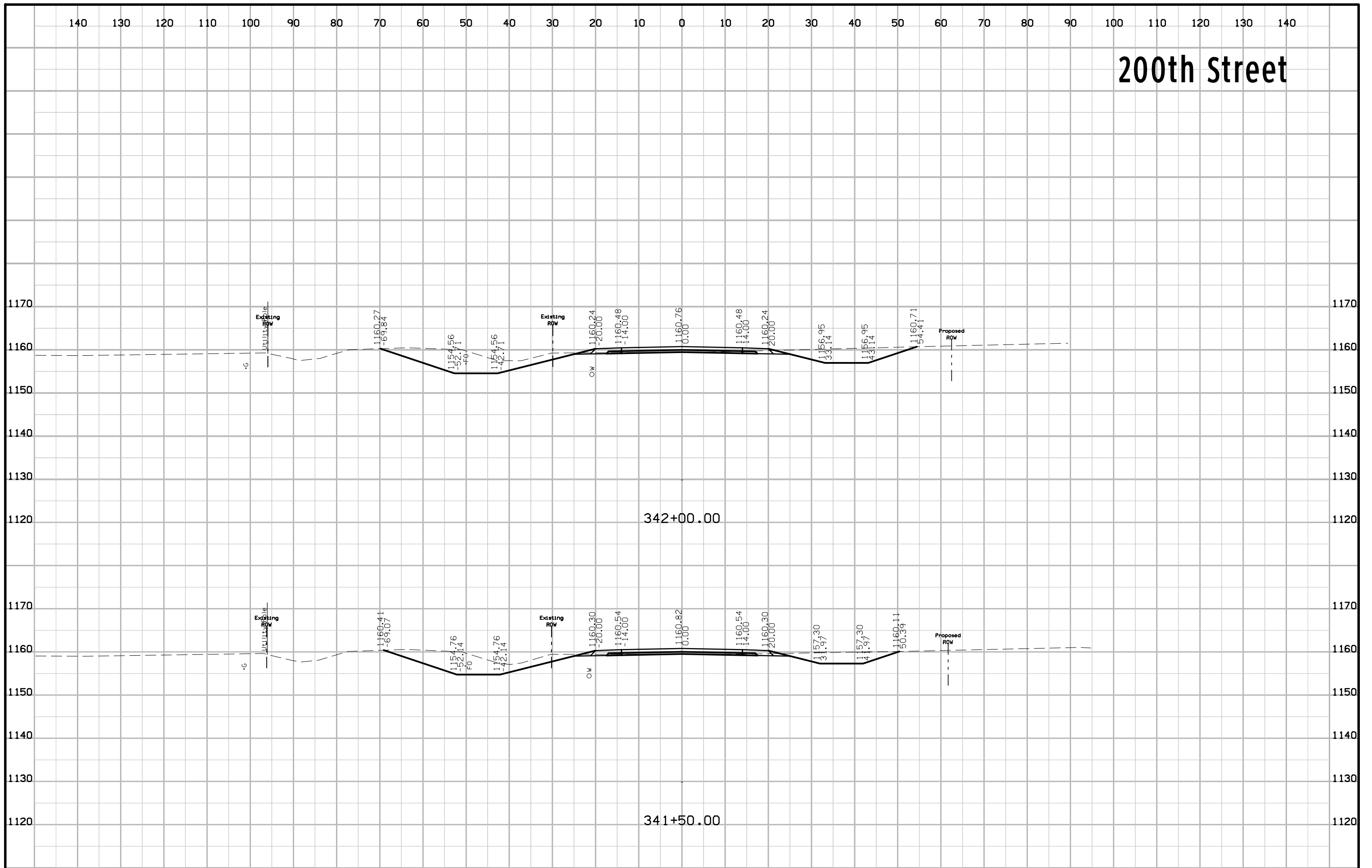
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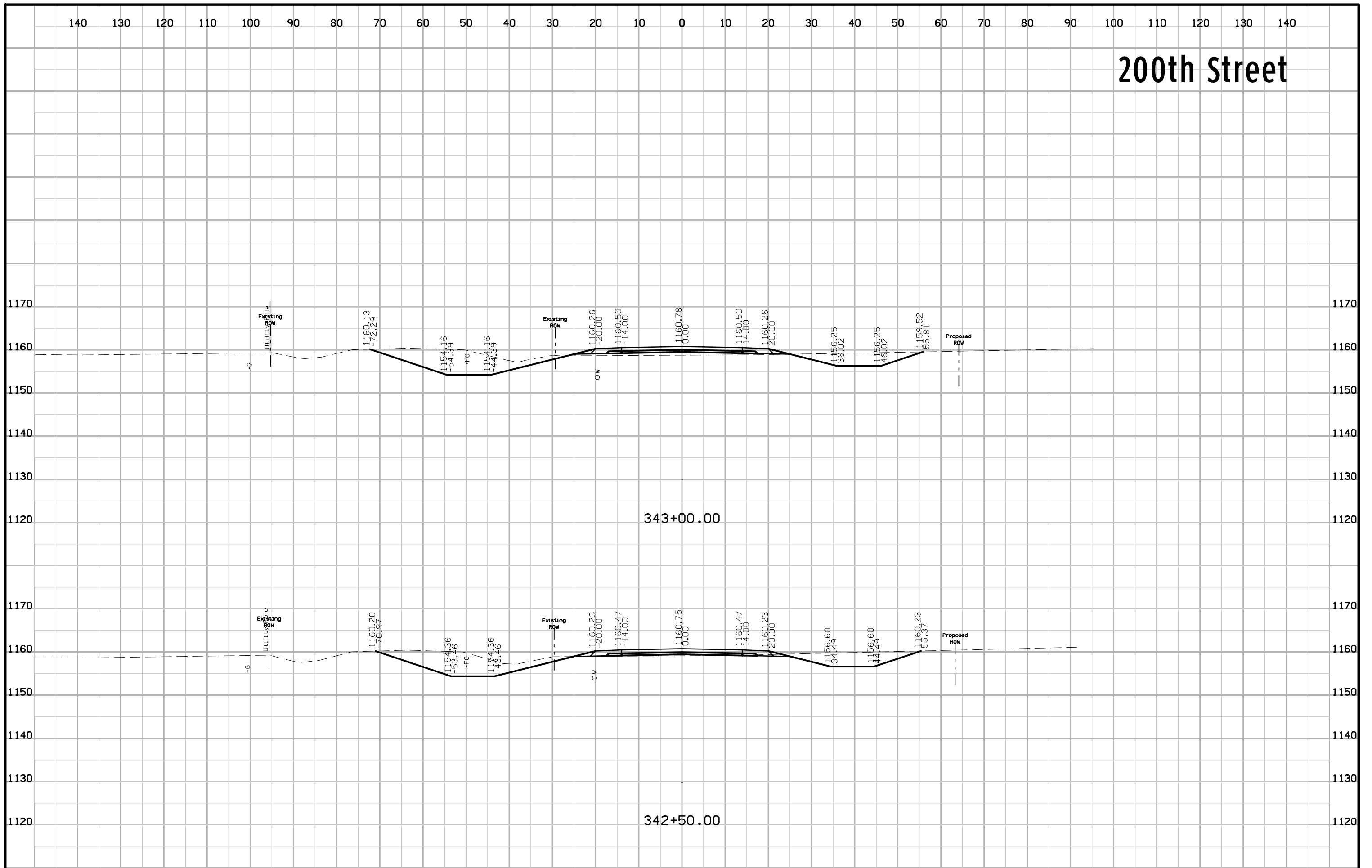
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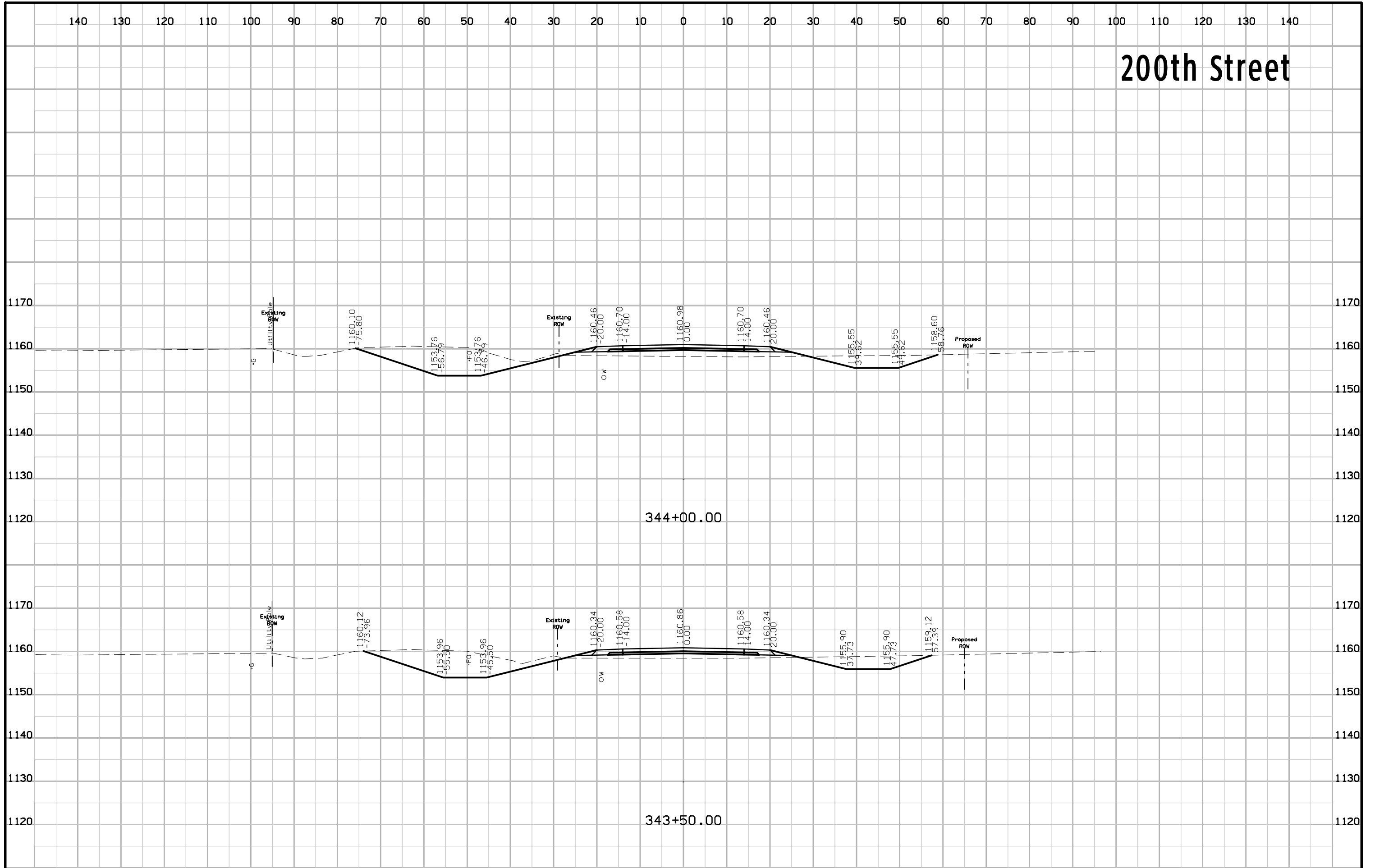
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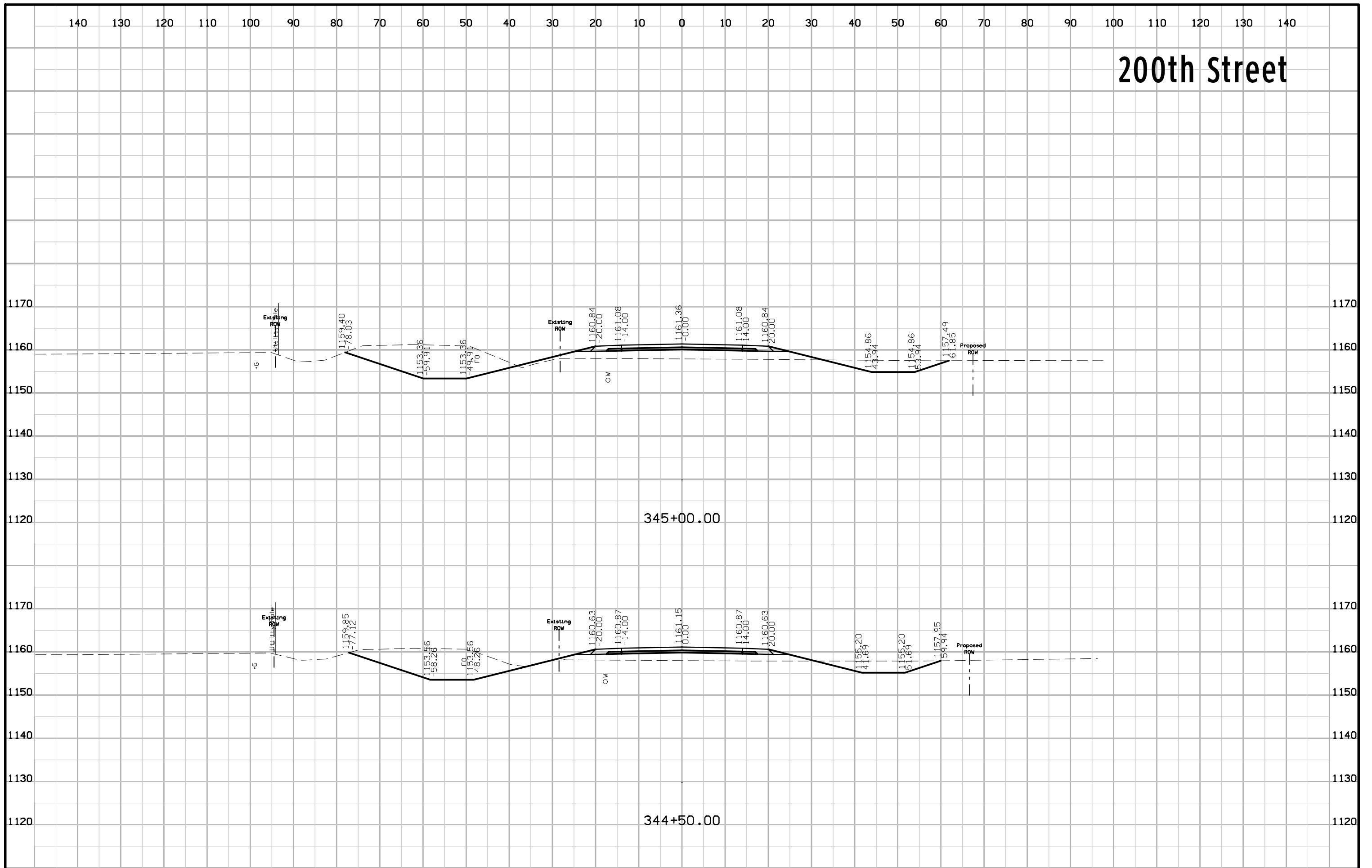
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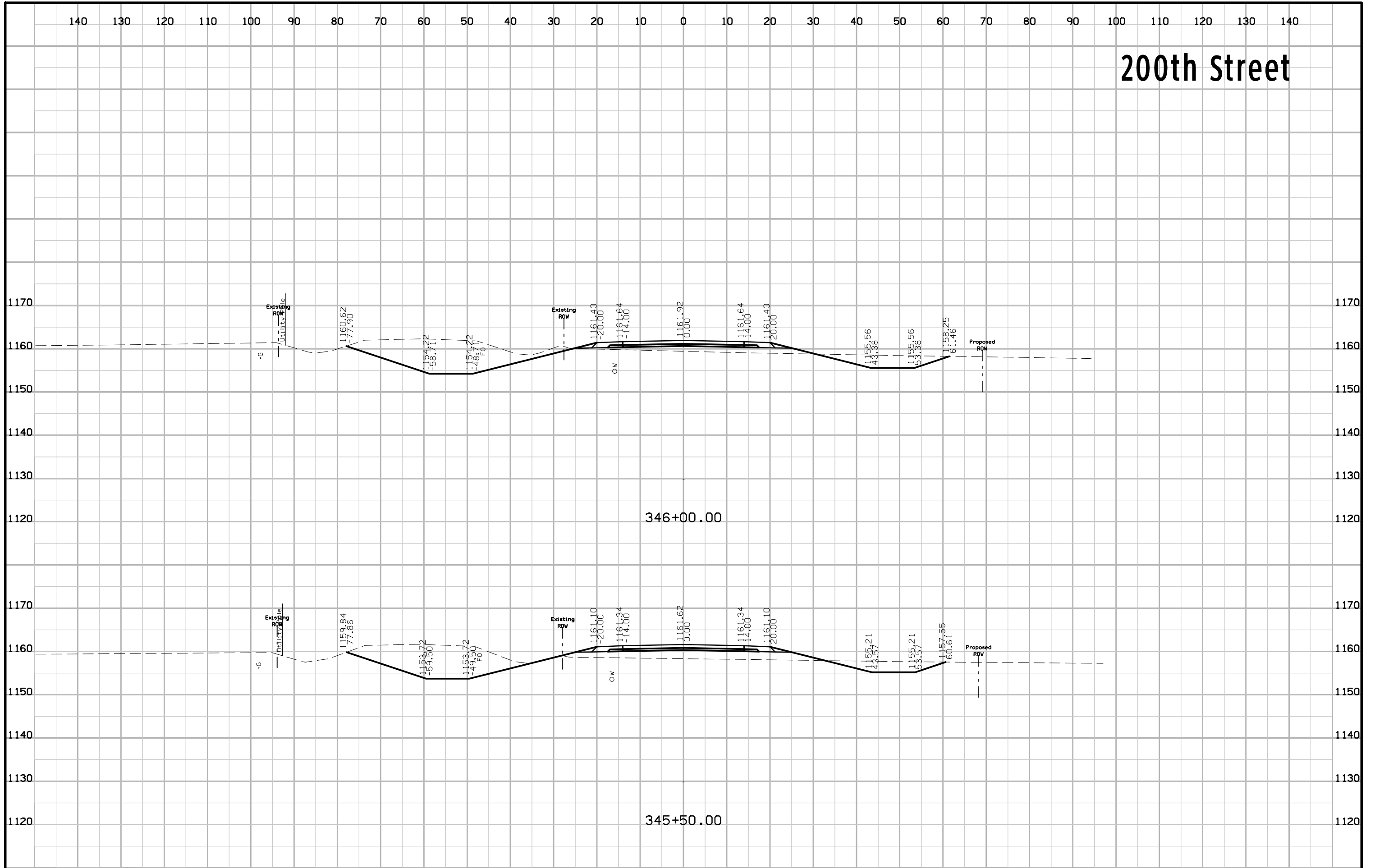
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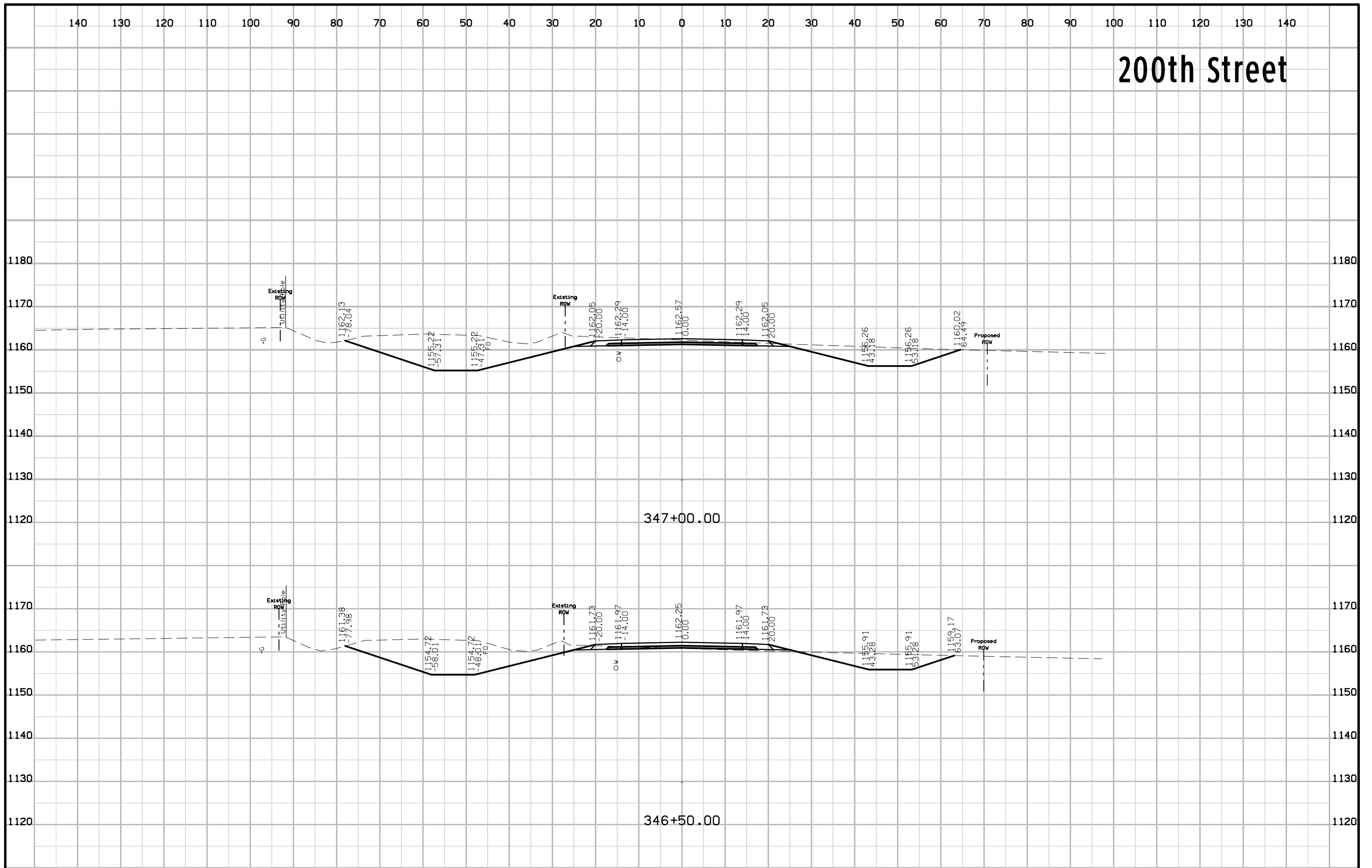
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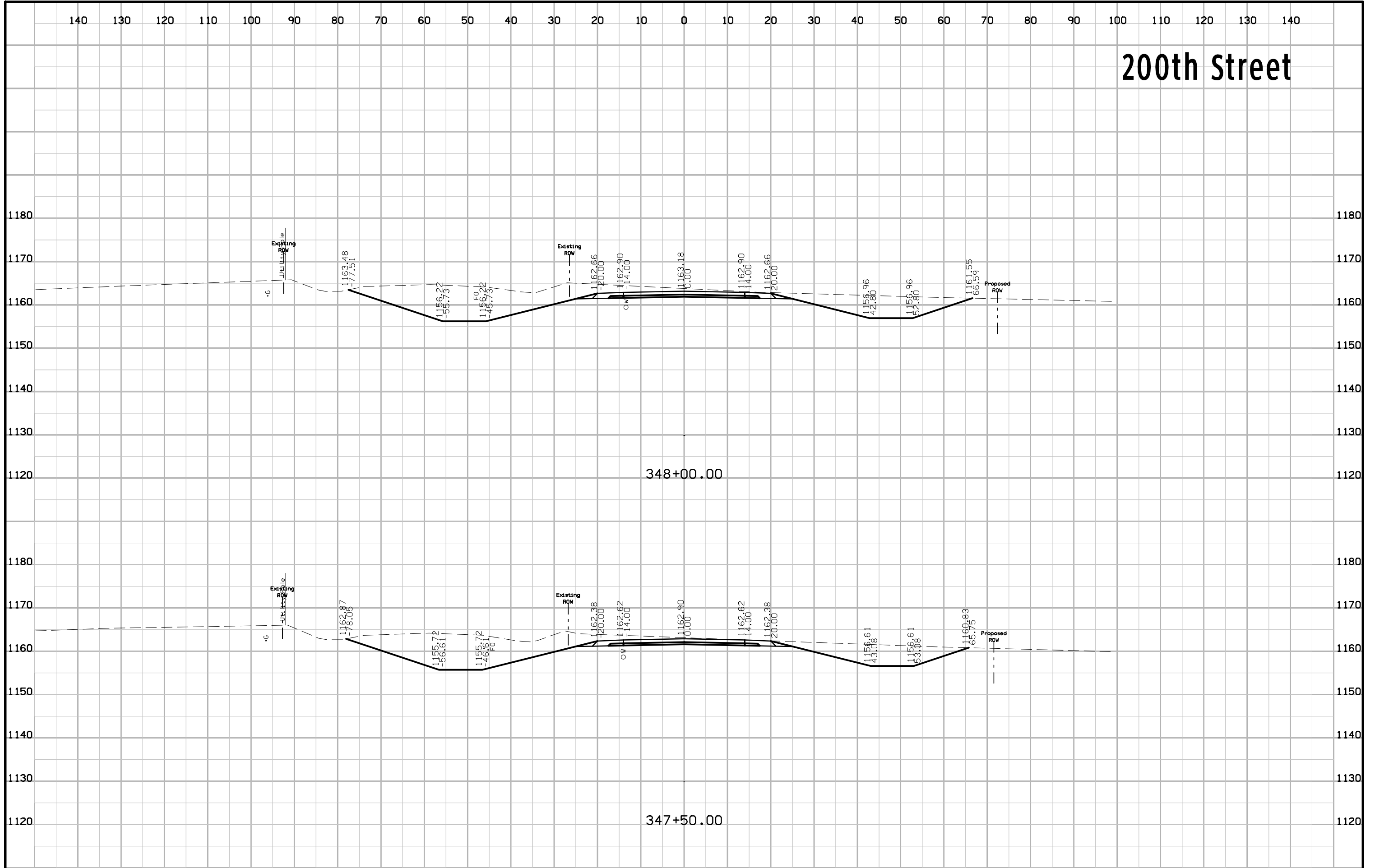
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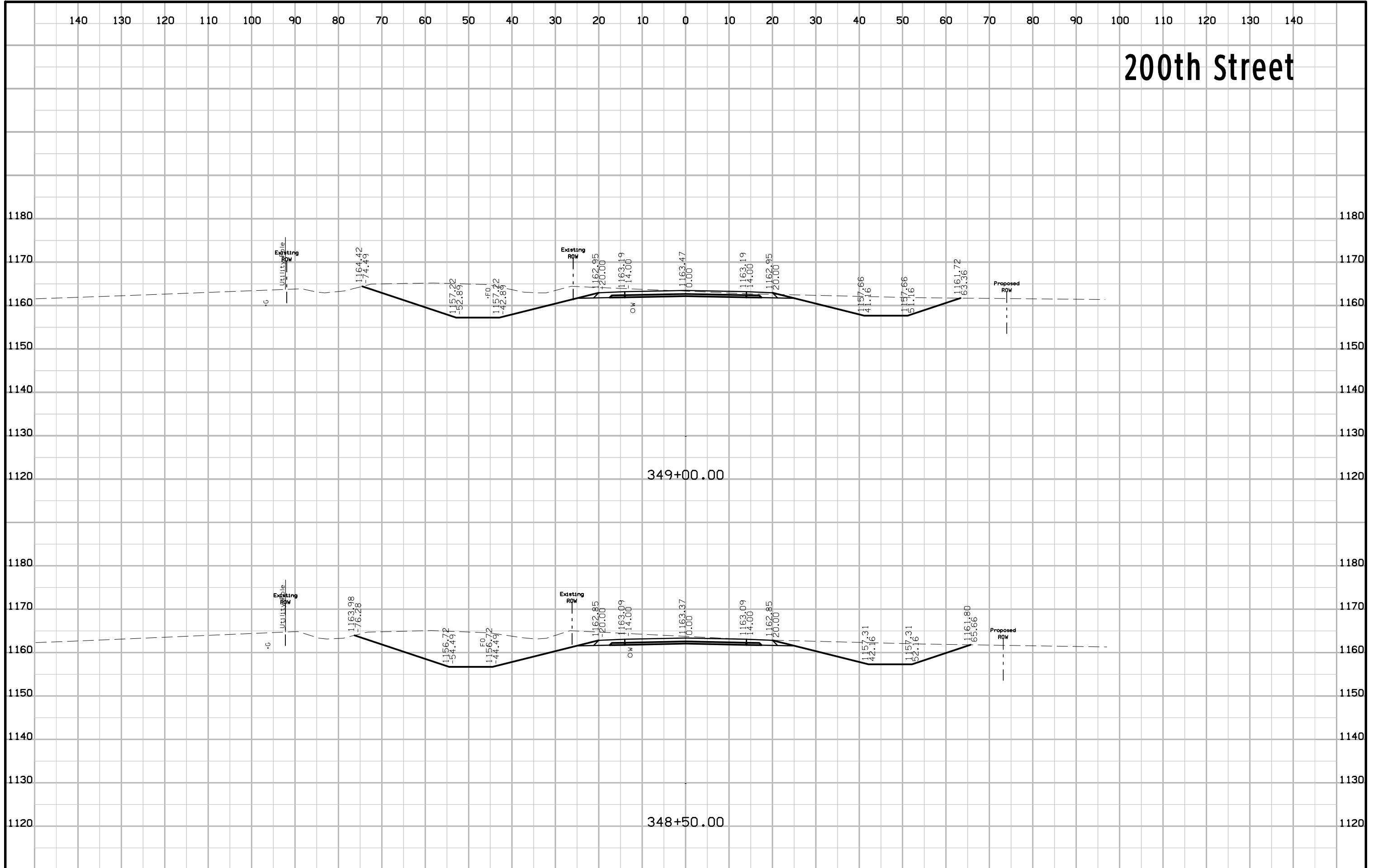
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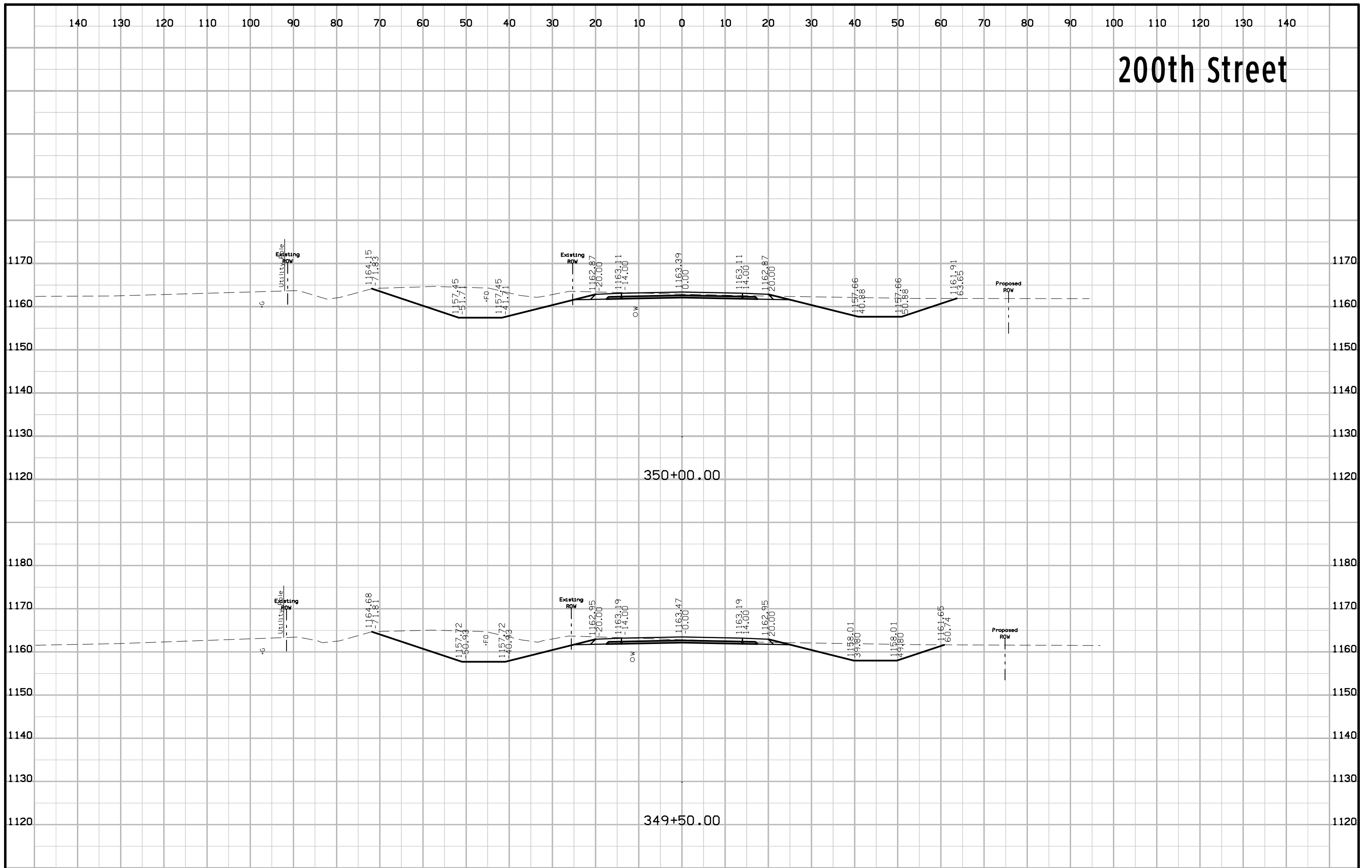
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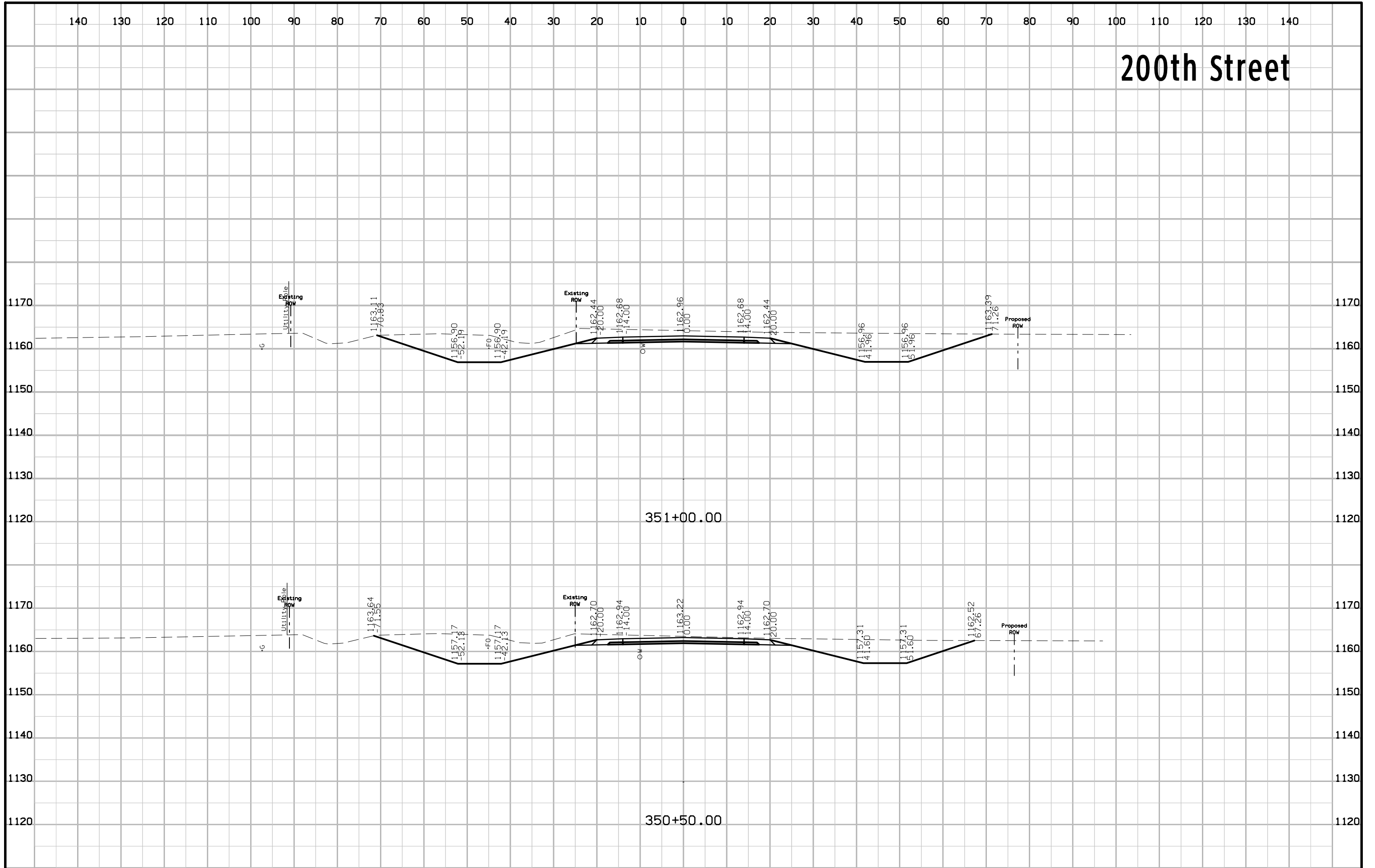
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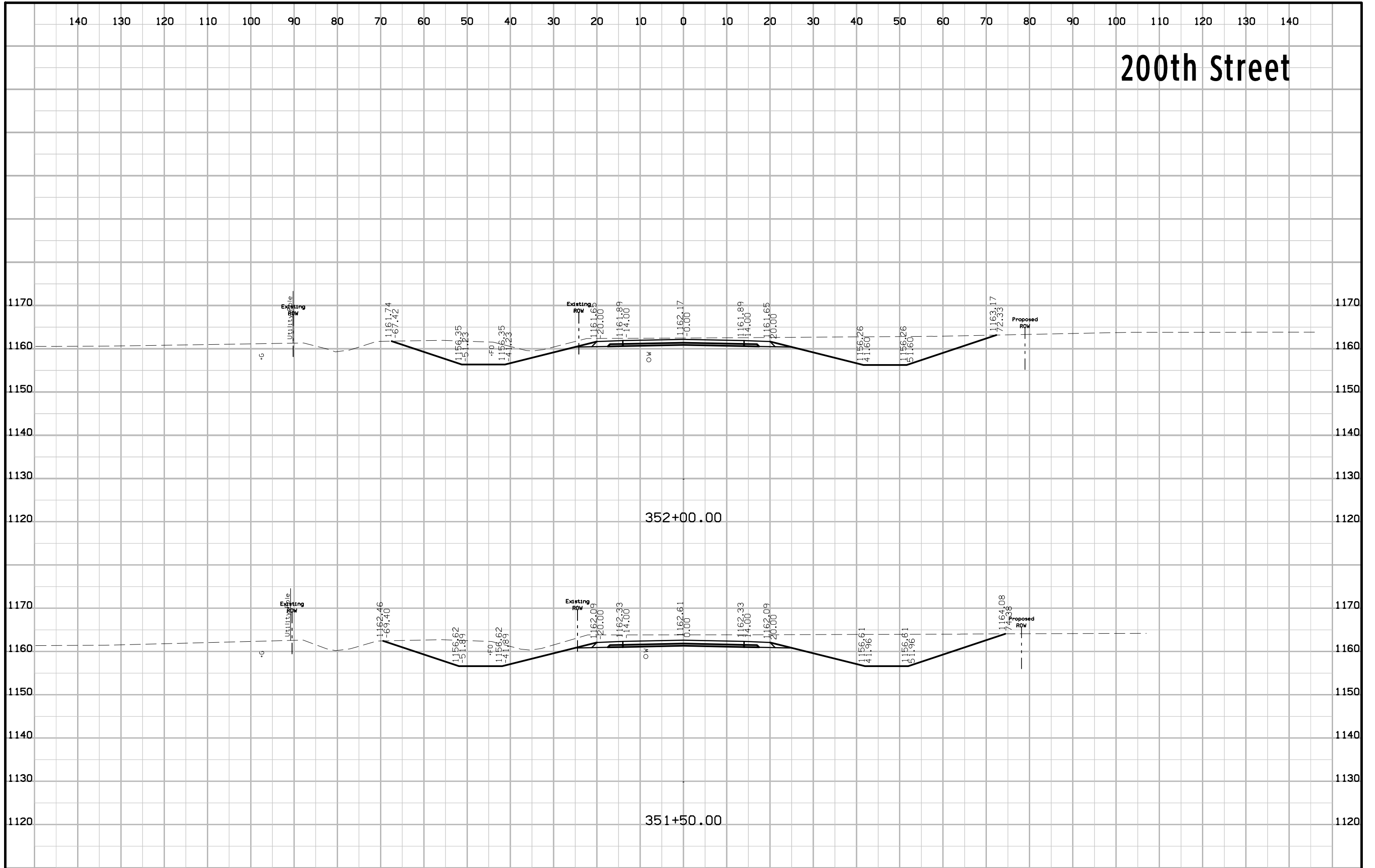
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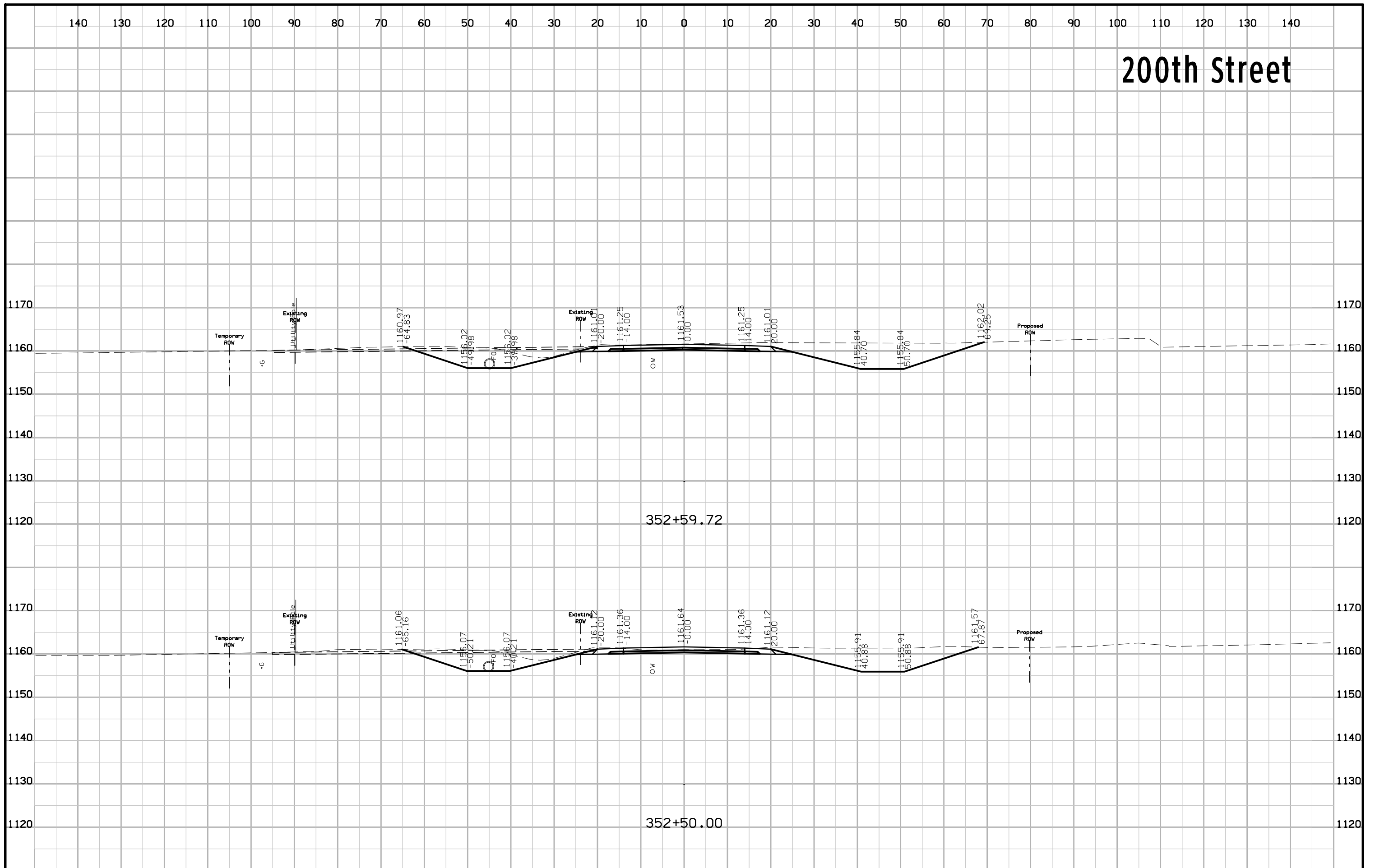
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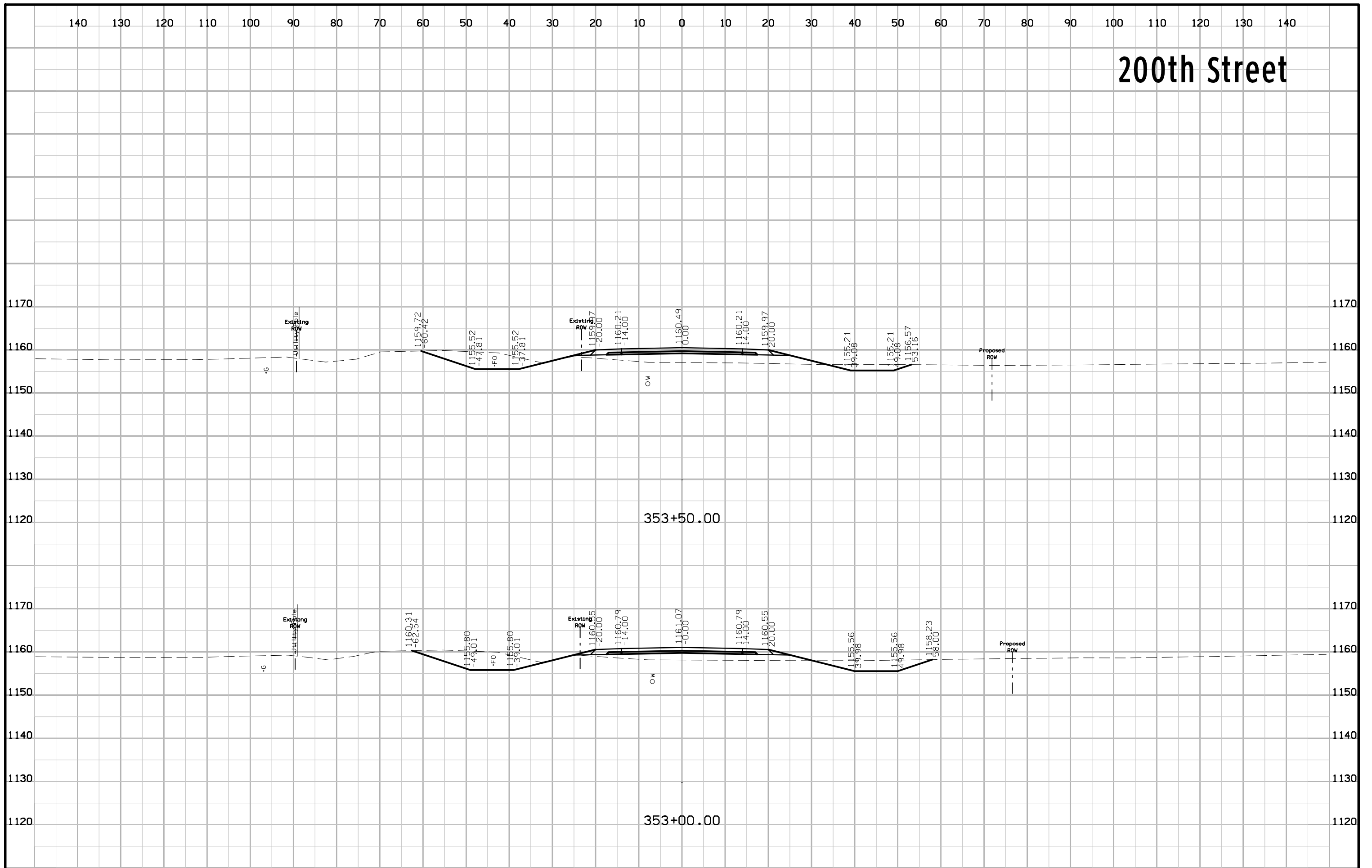
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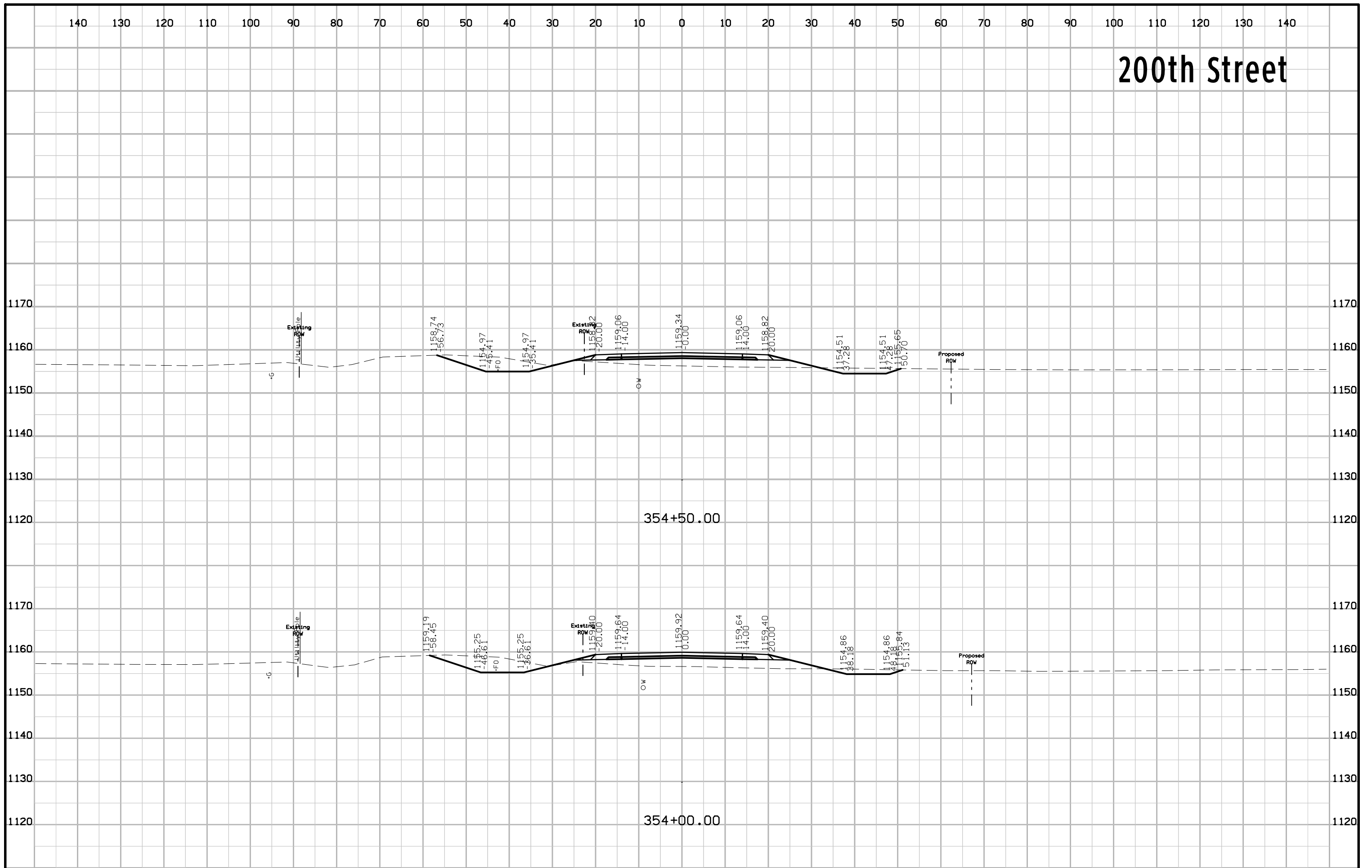
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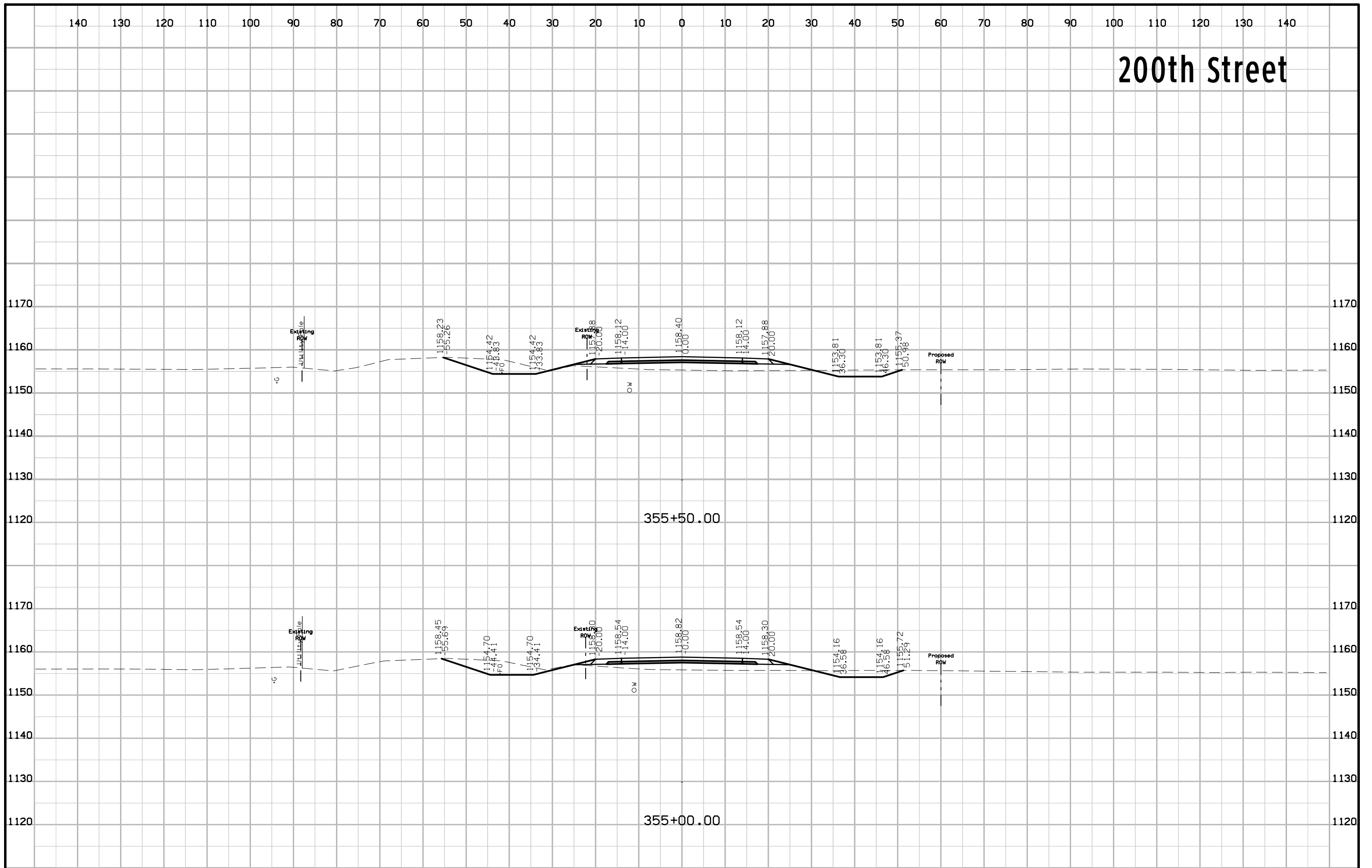
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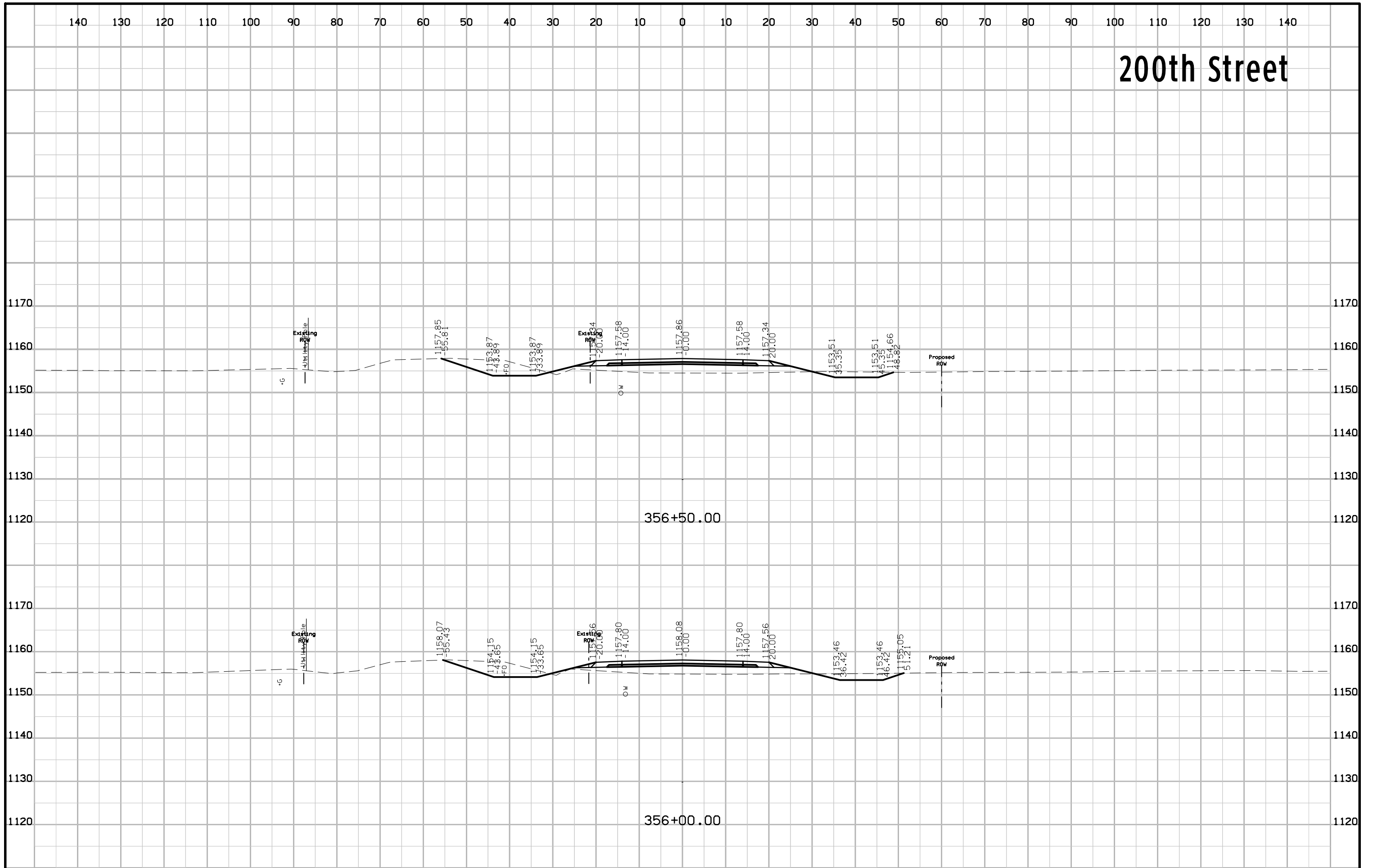
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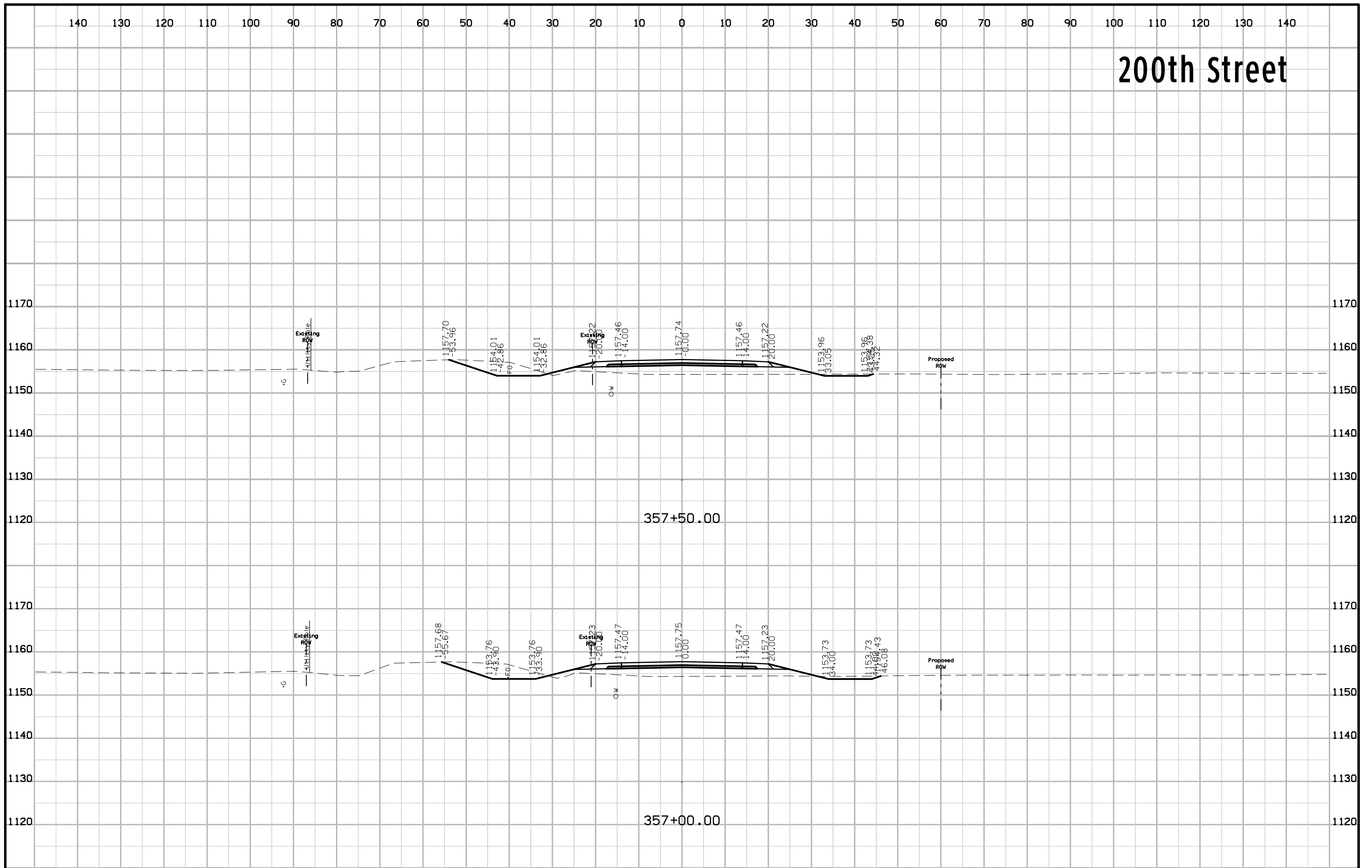
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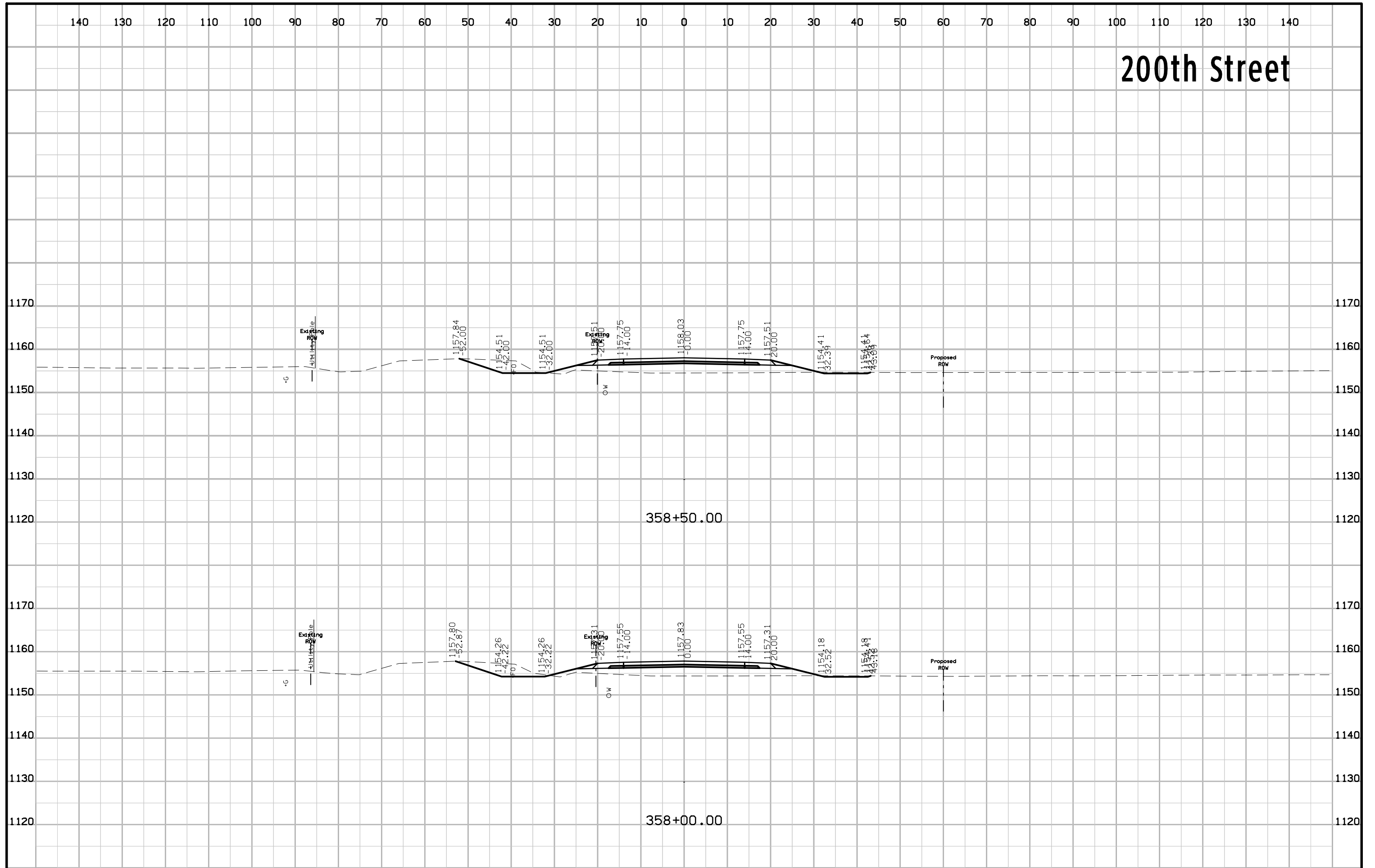
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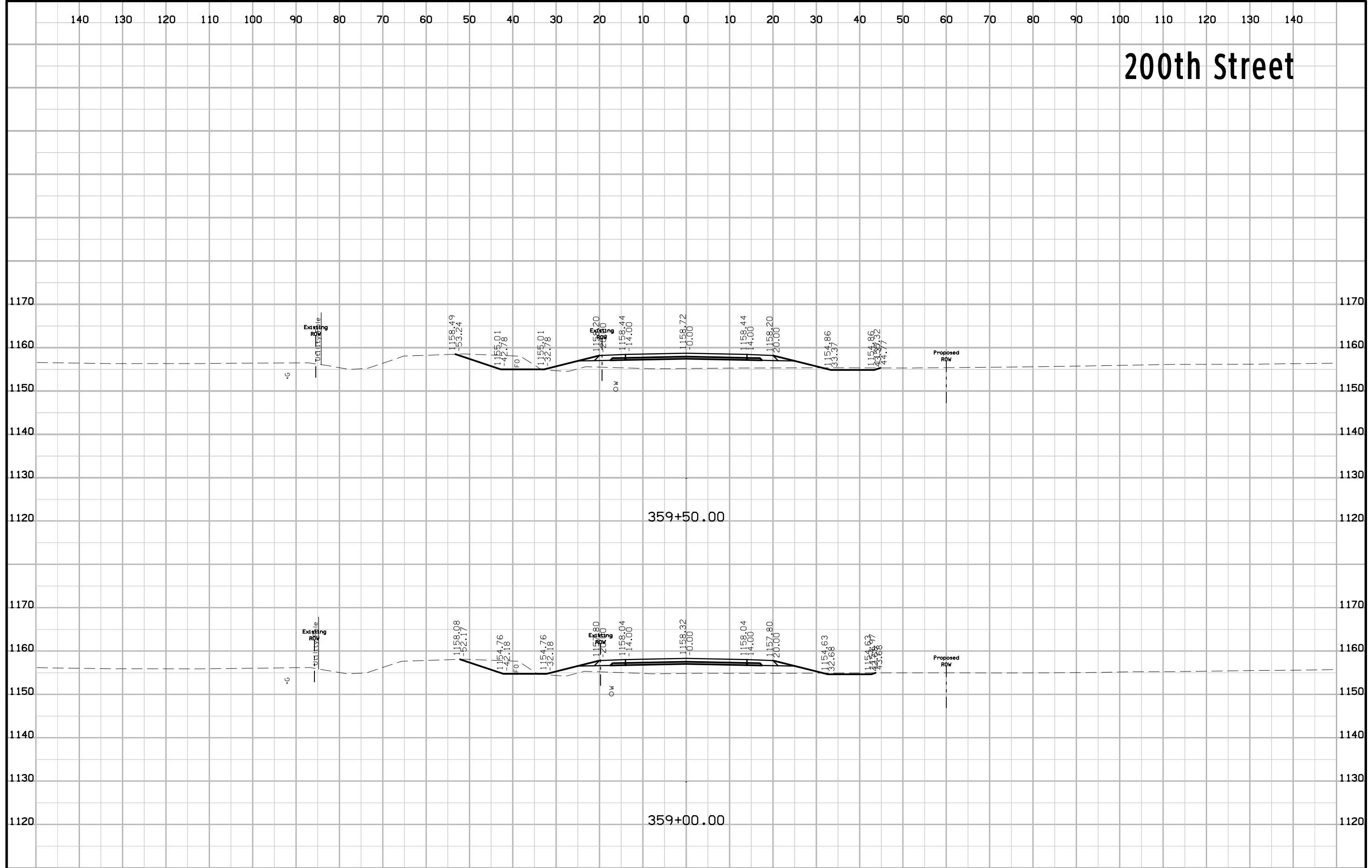
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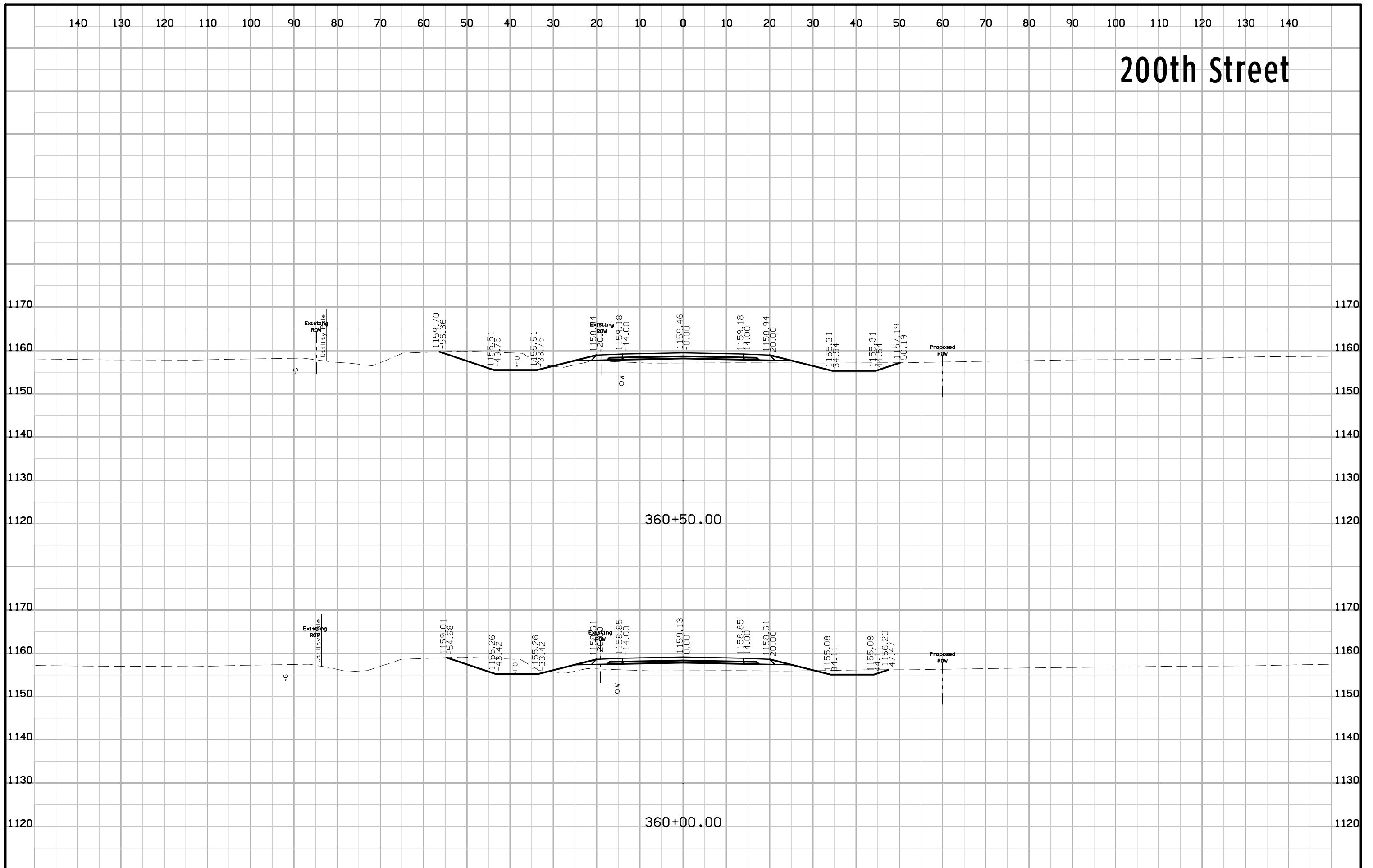
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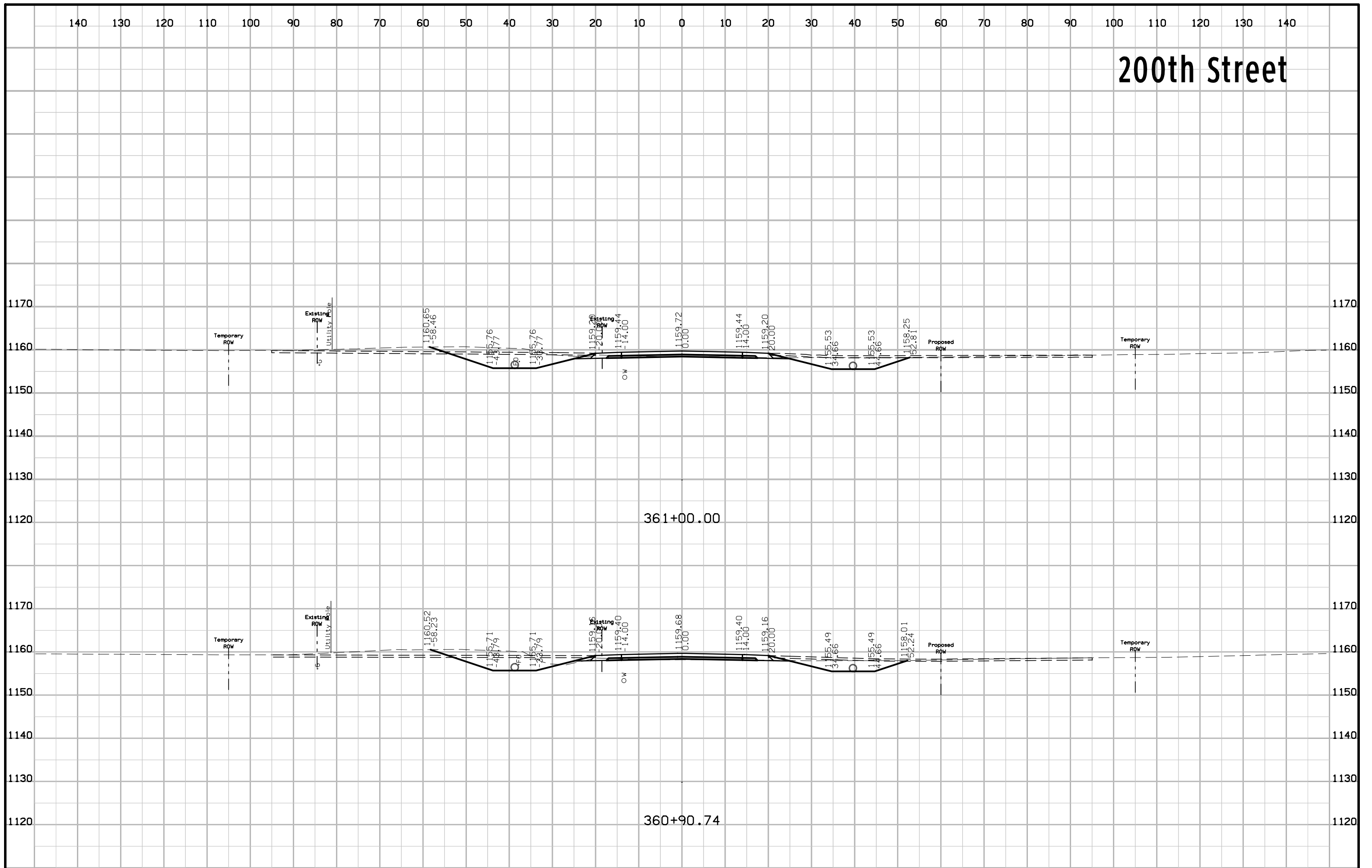
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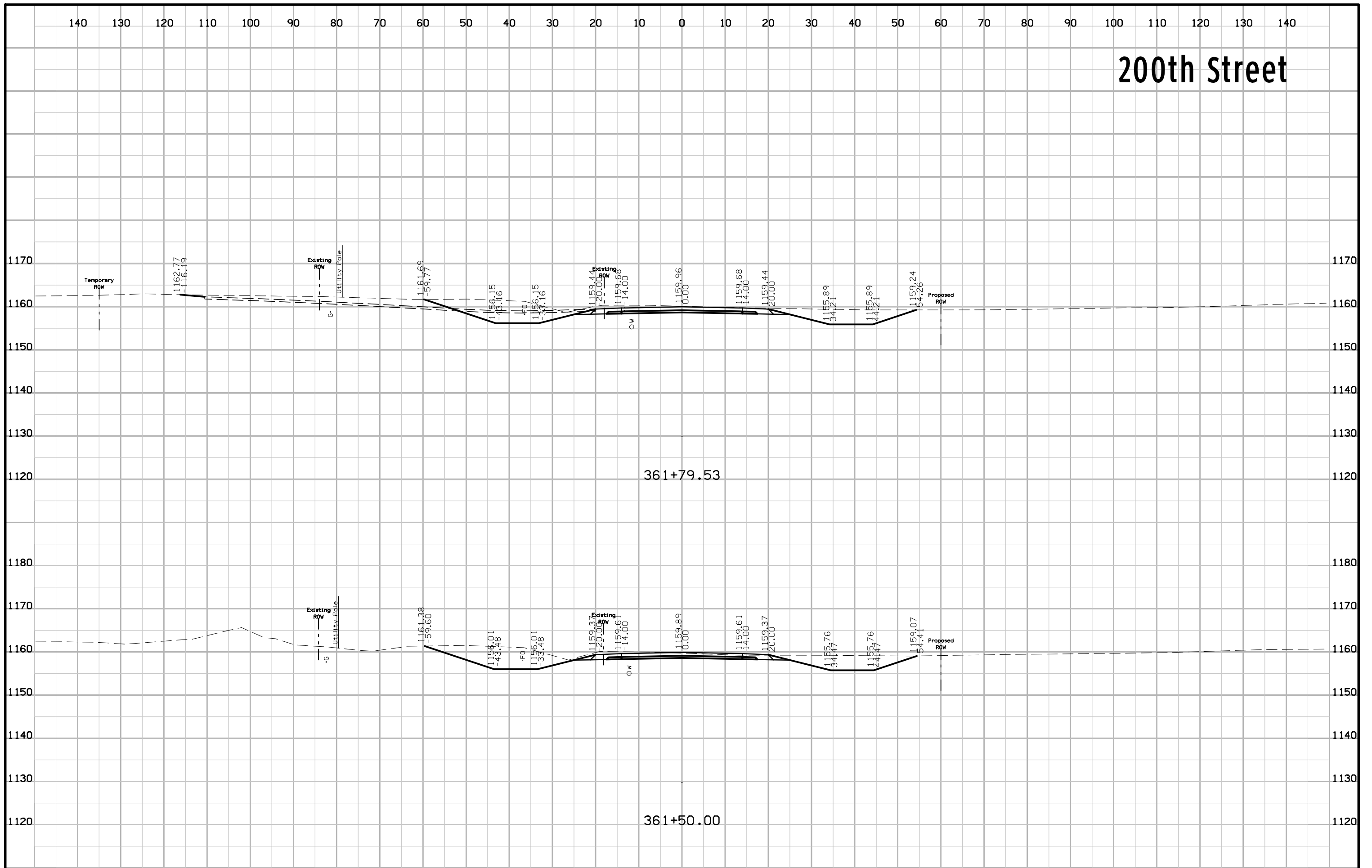
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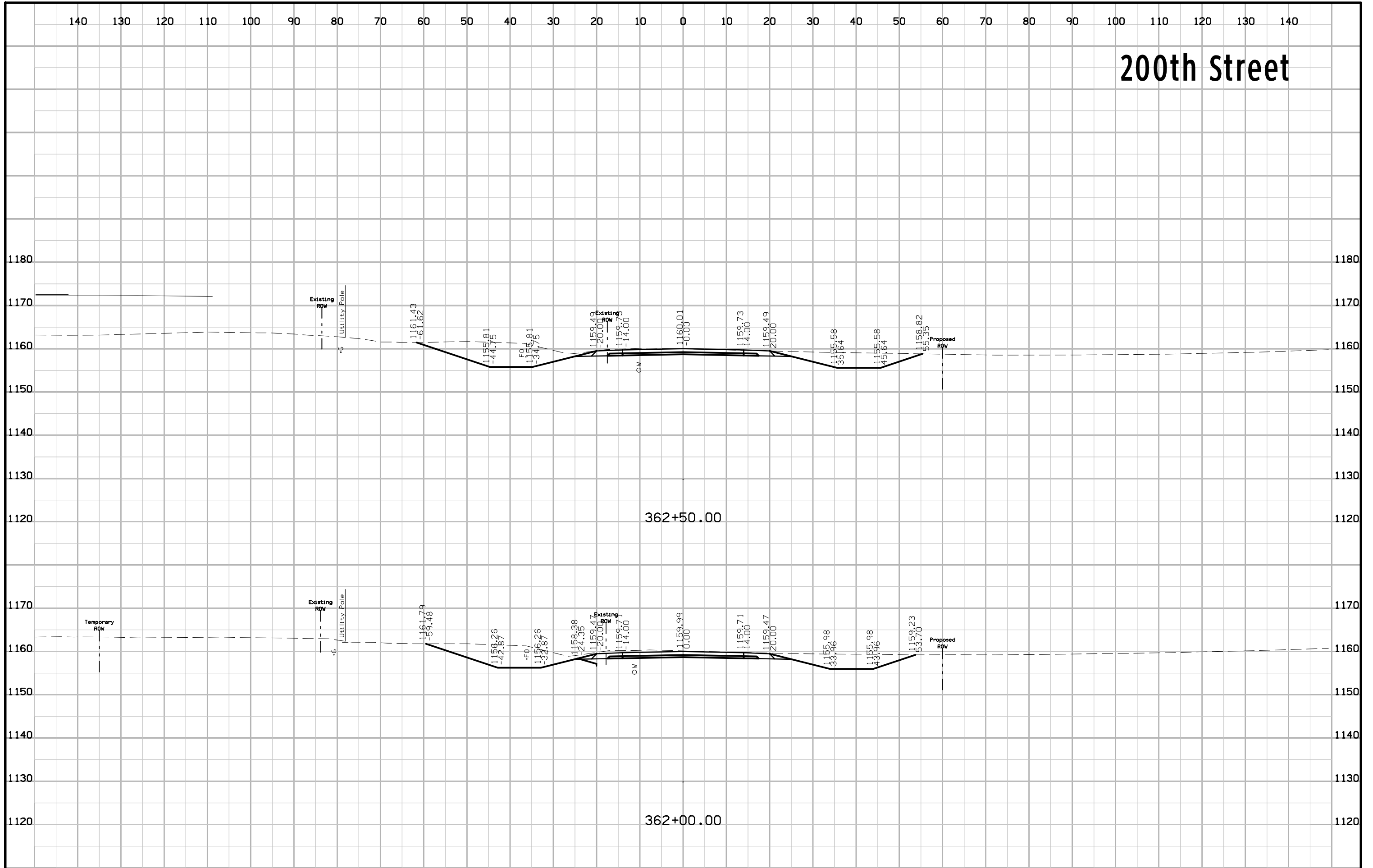
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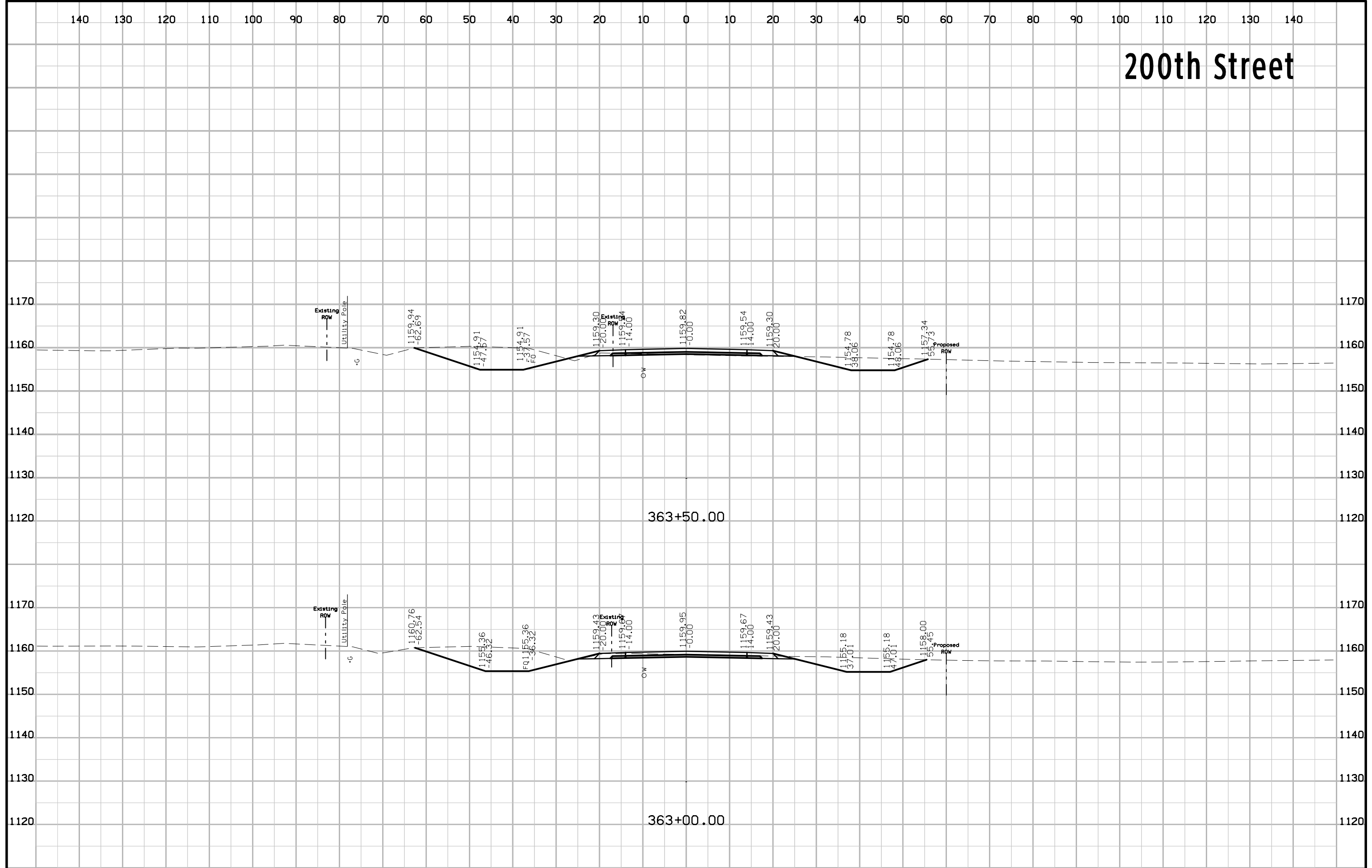
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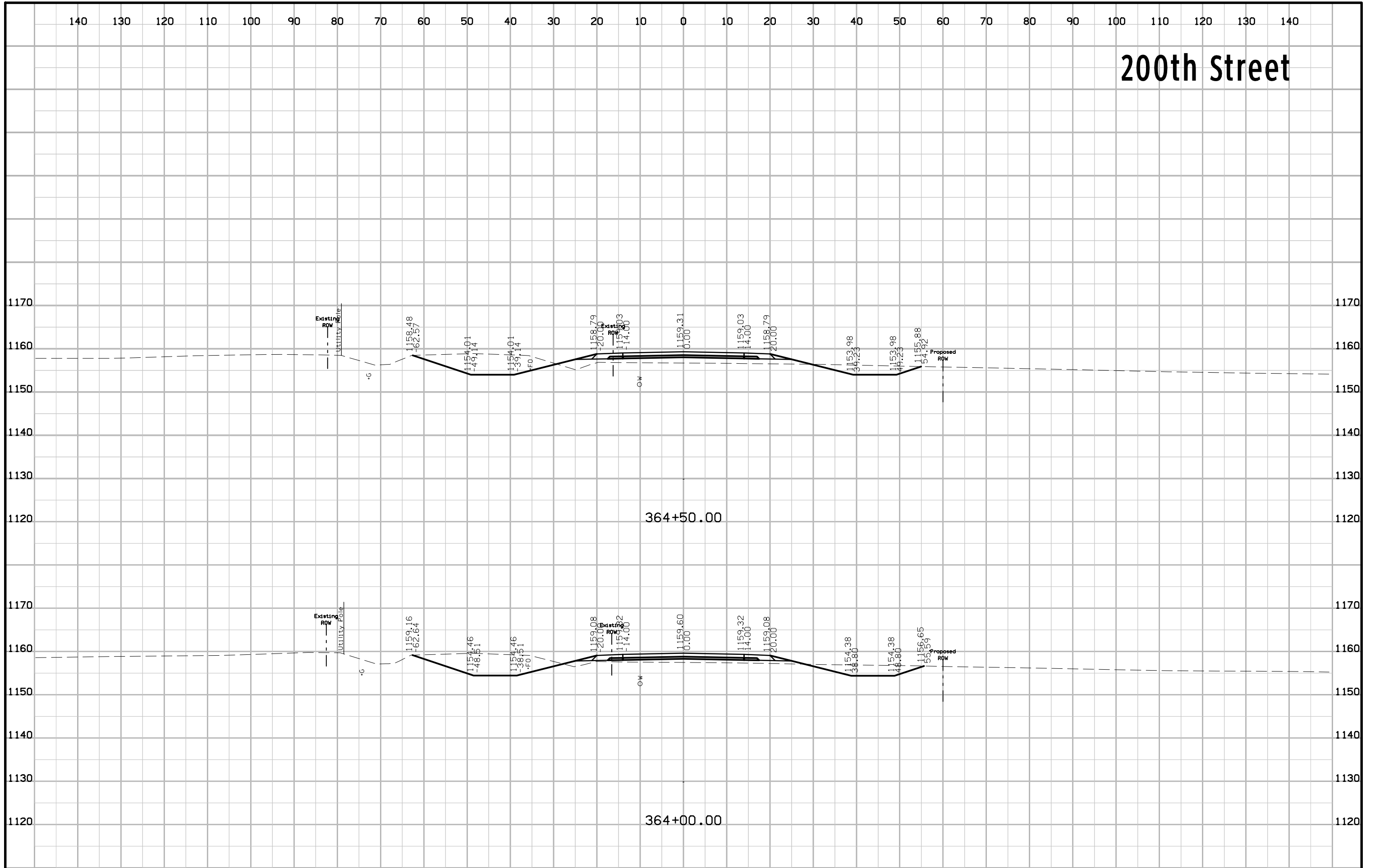
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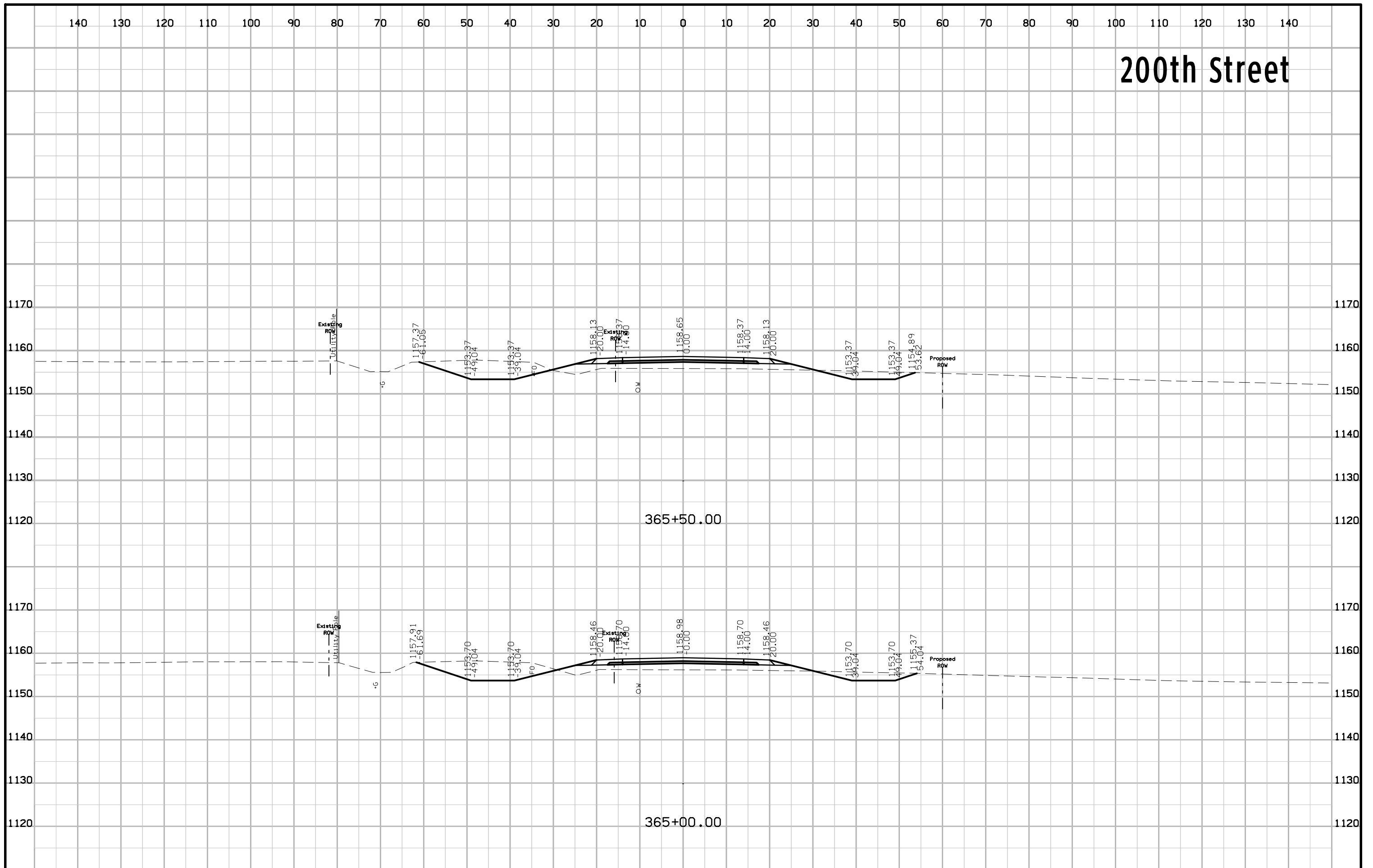
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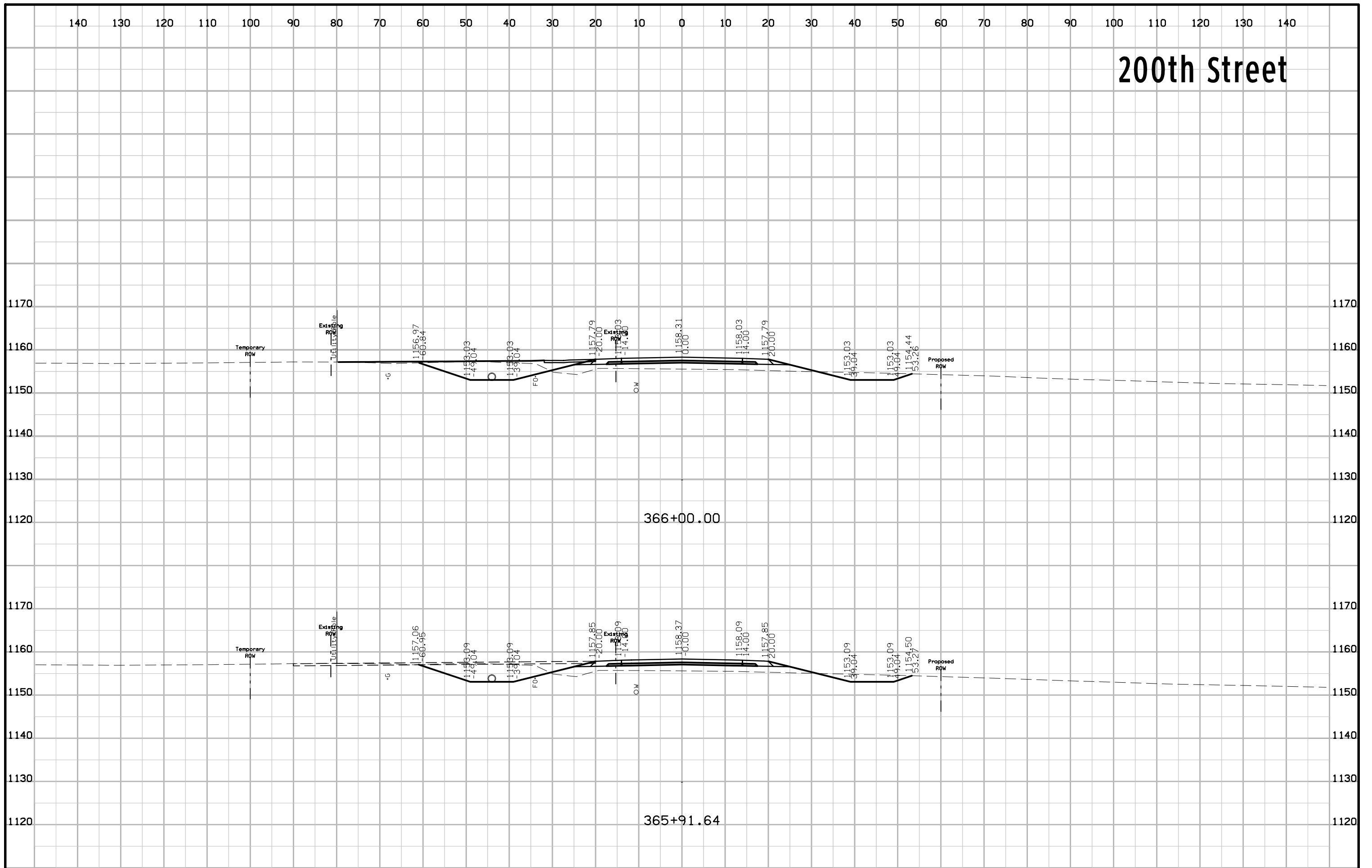
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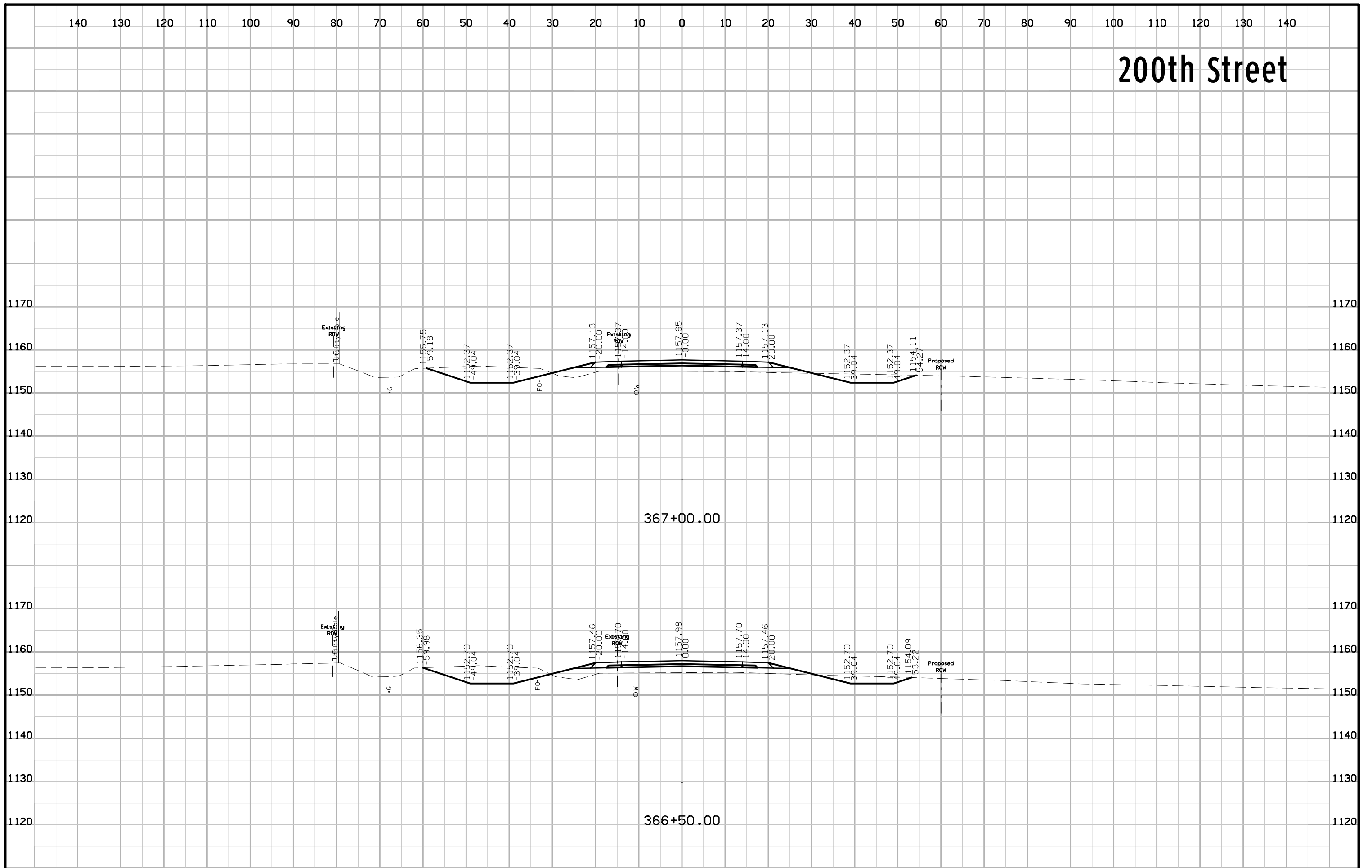
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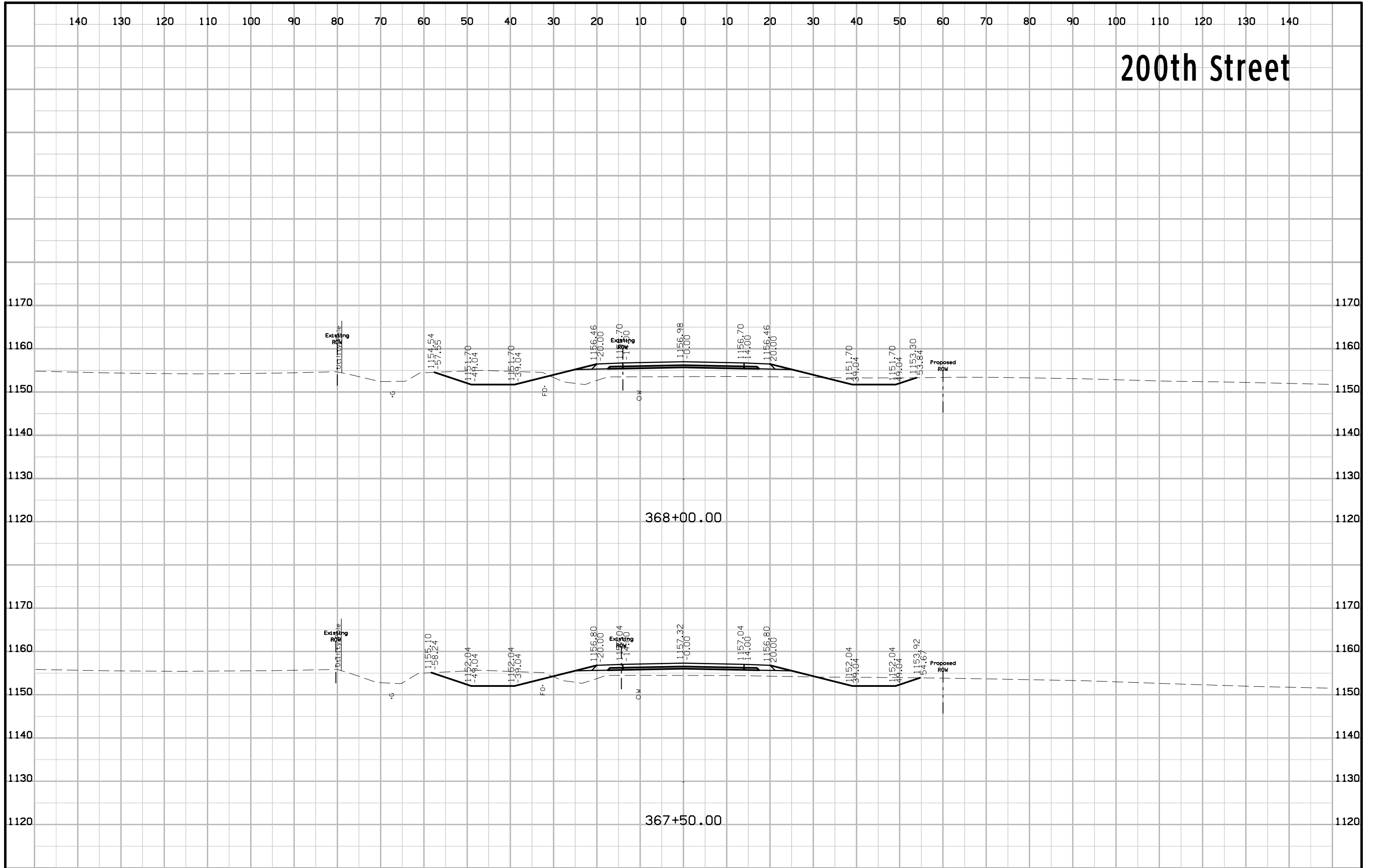
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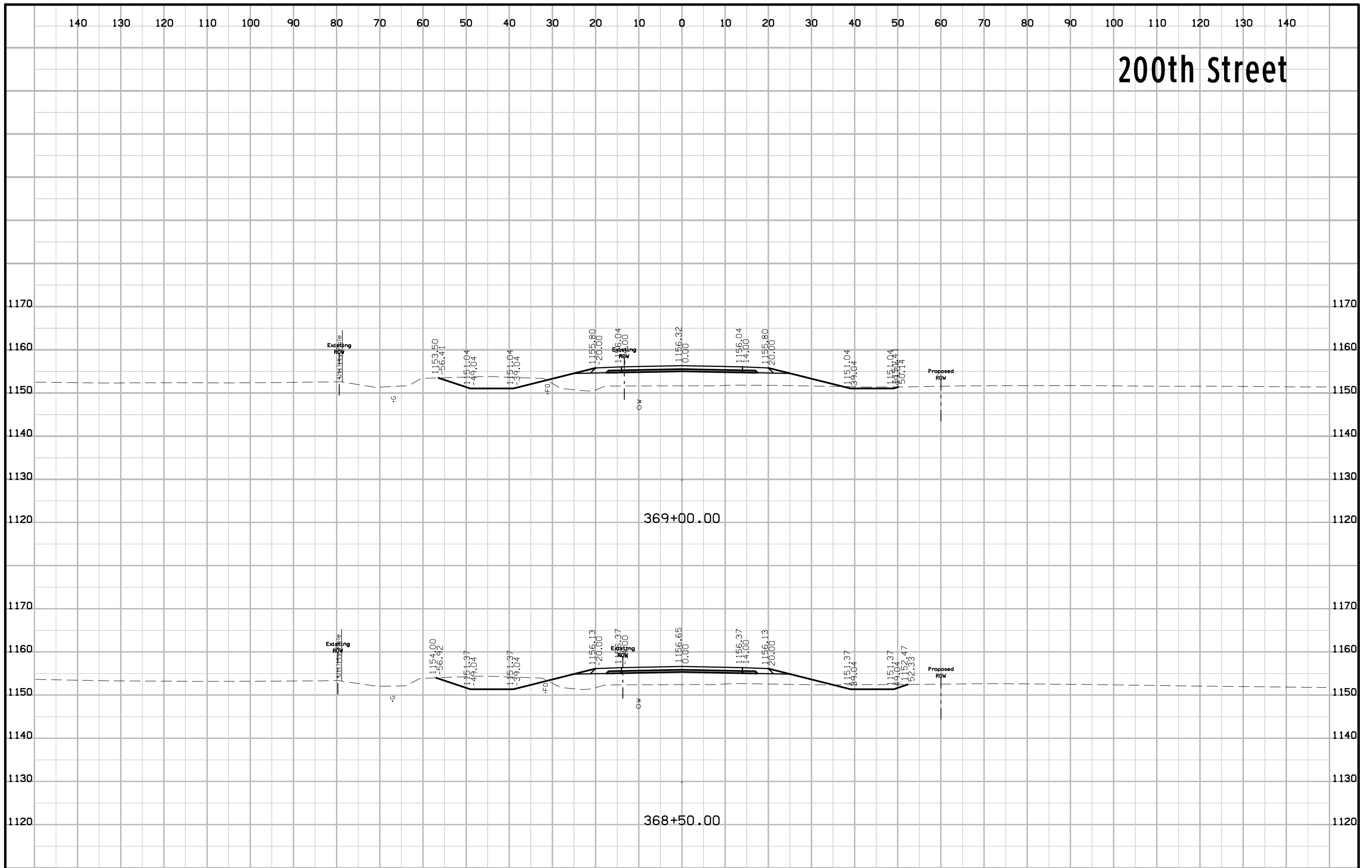
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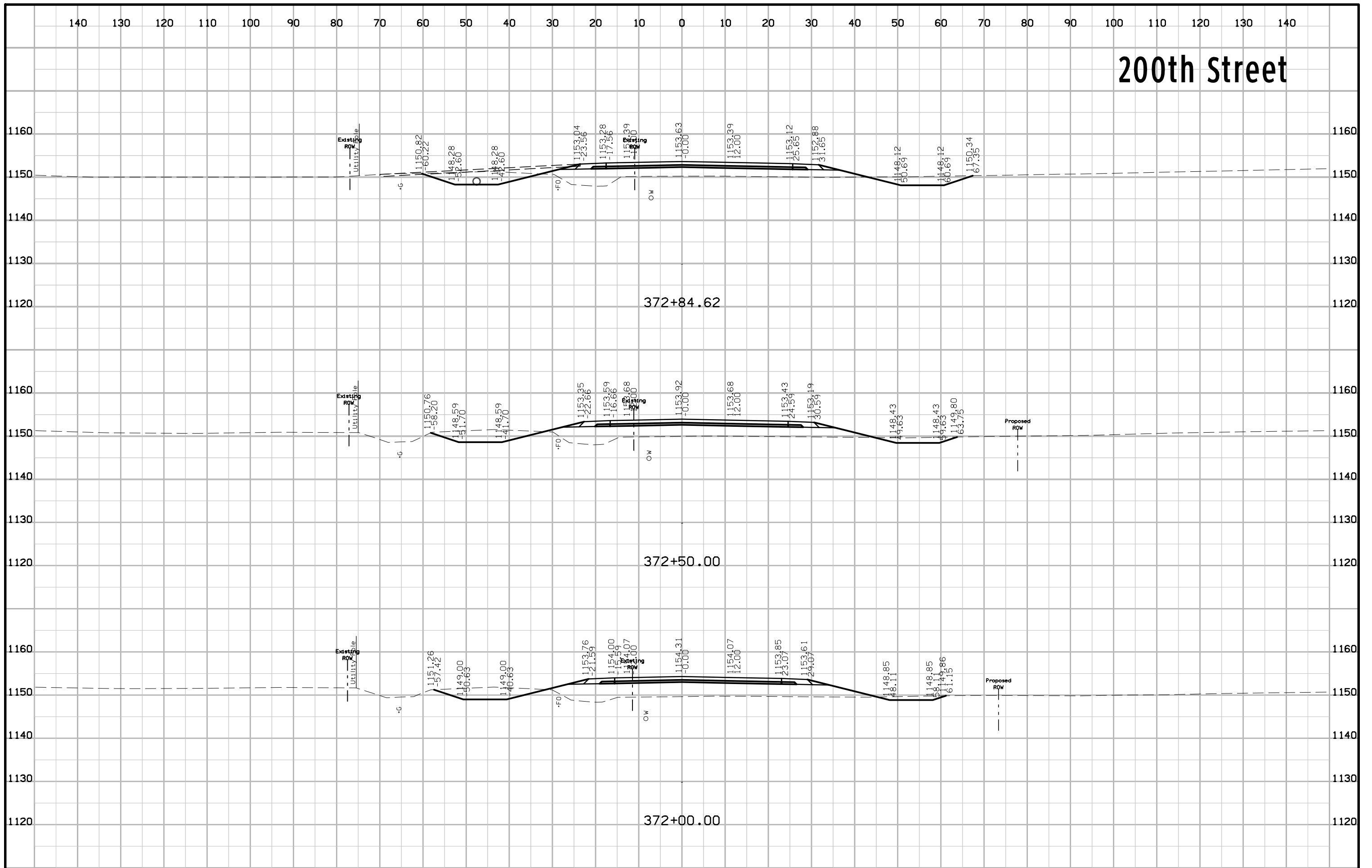
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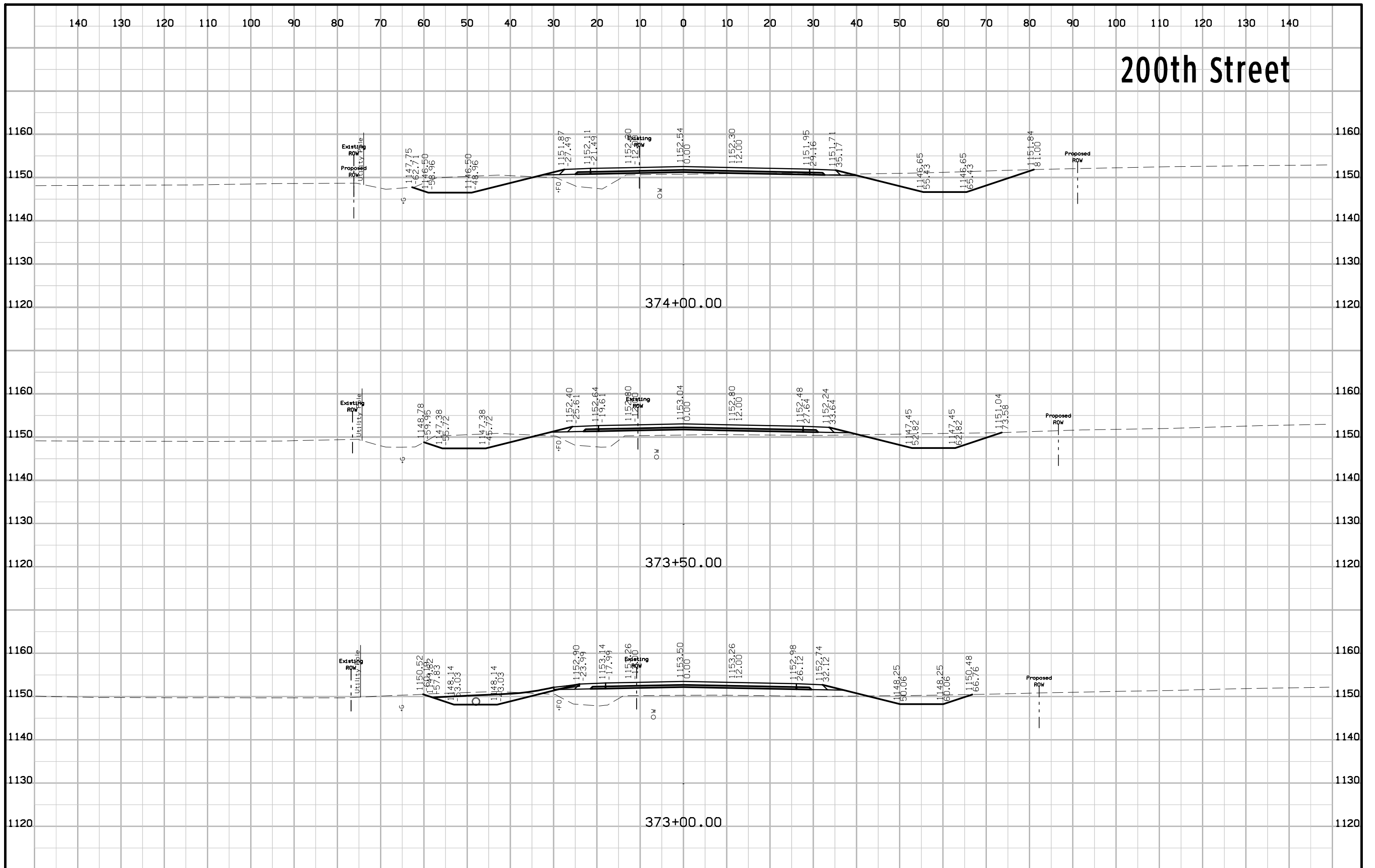
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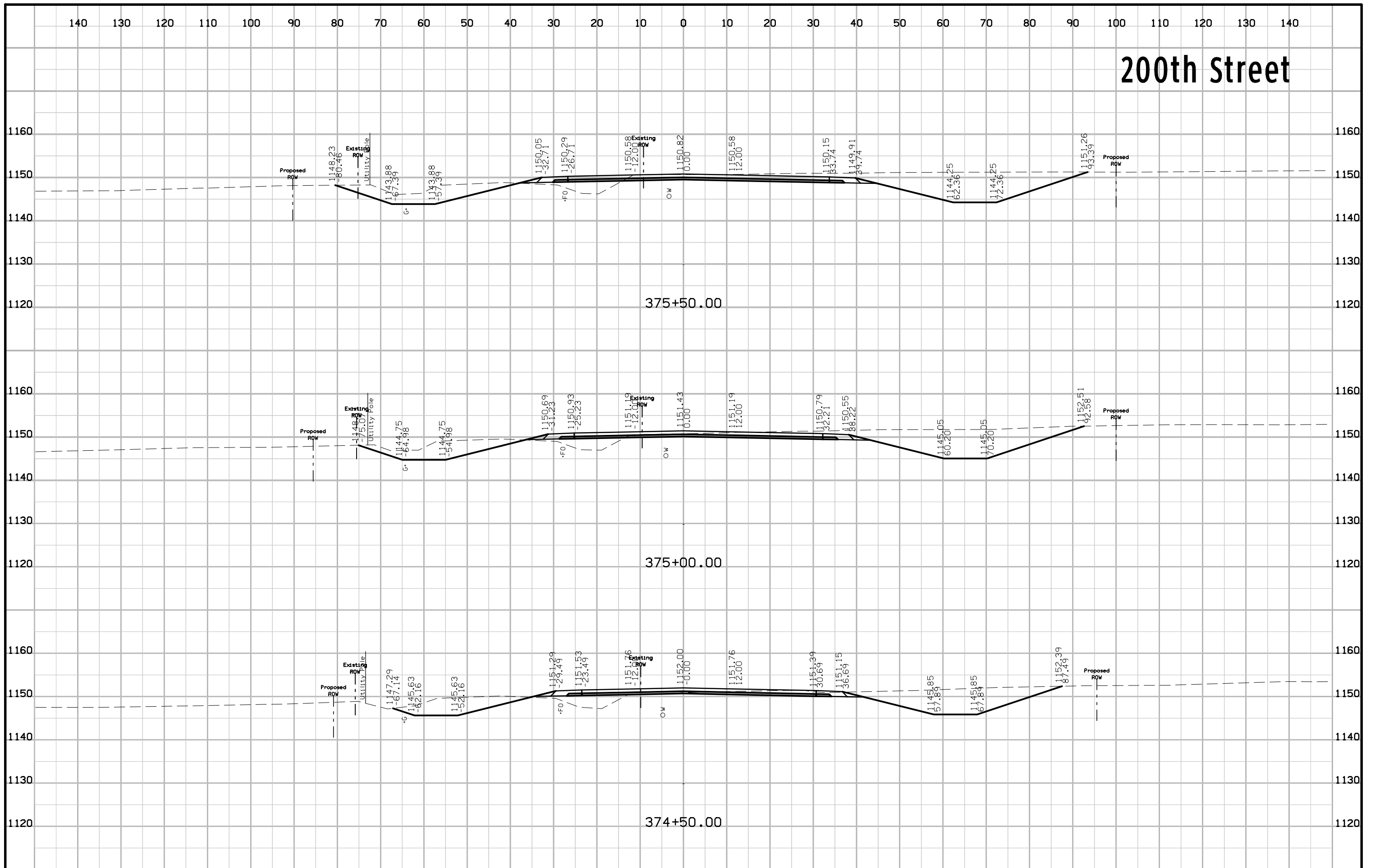
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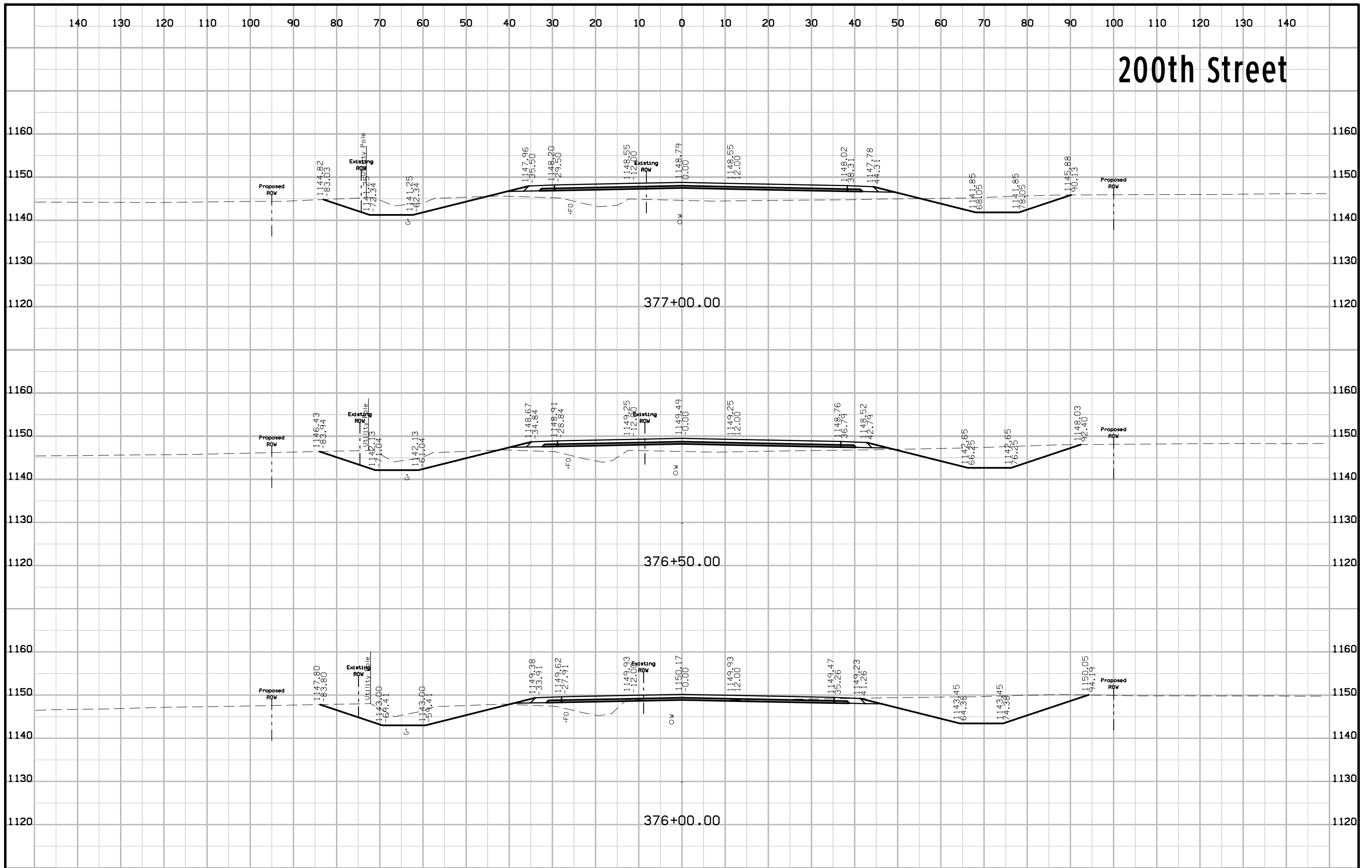
200th Street



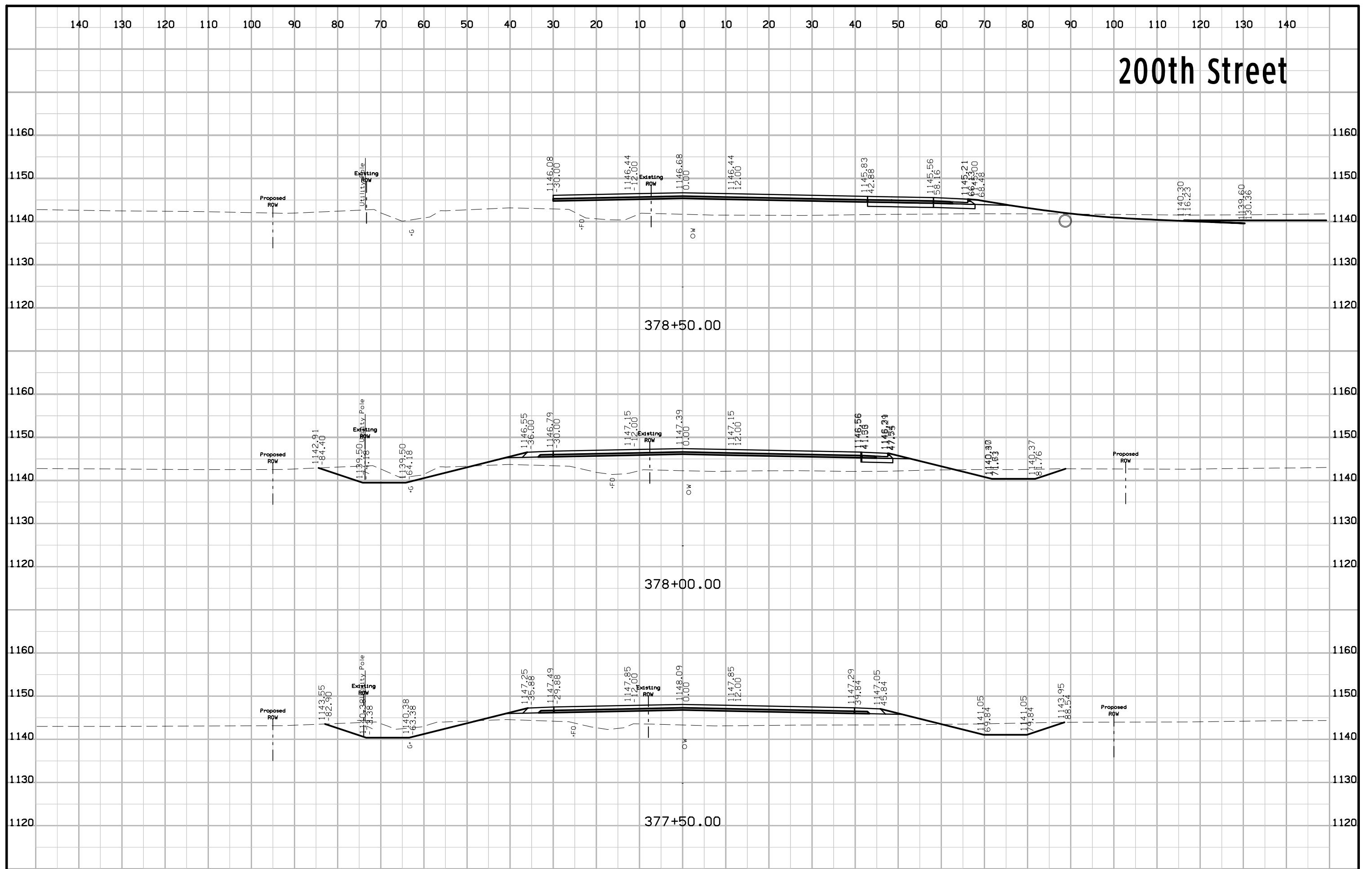
200th Street



200th Street

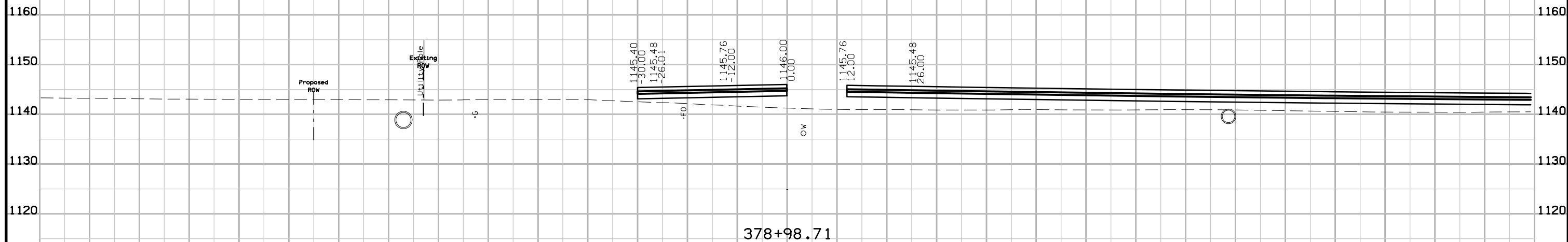


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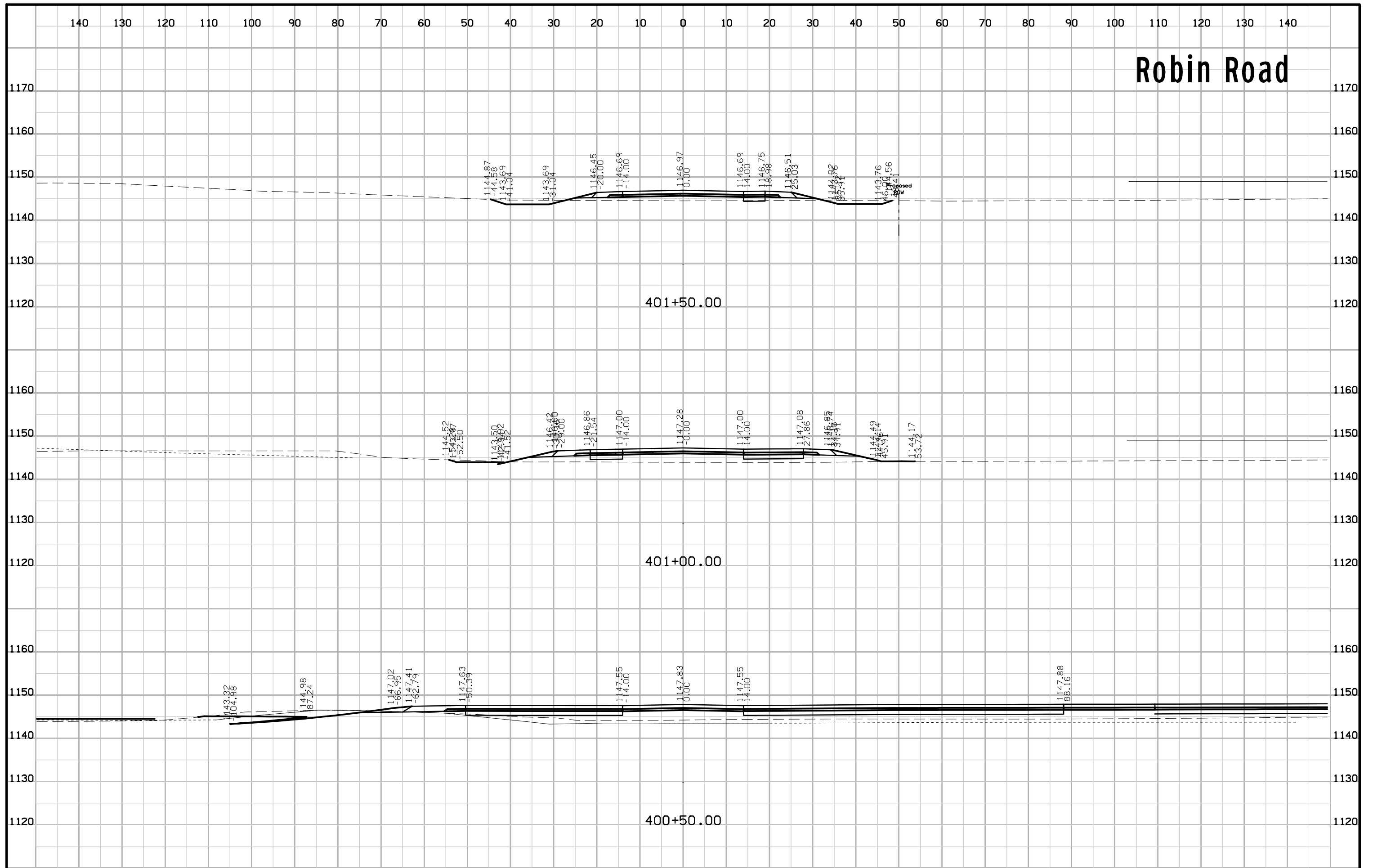


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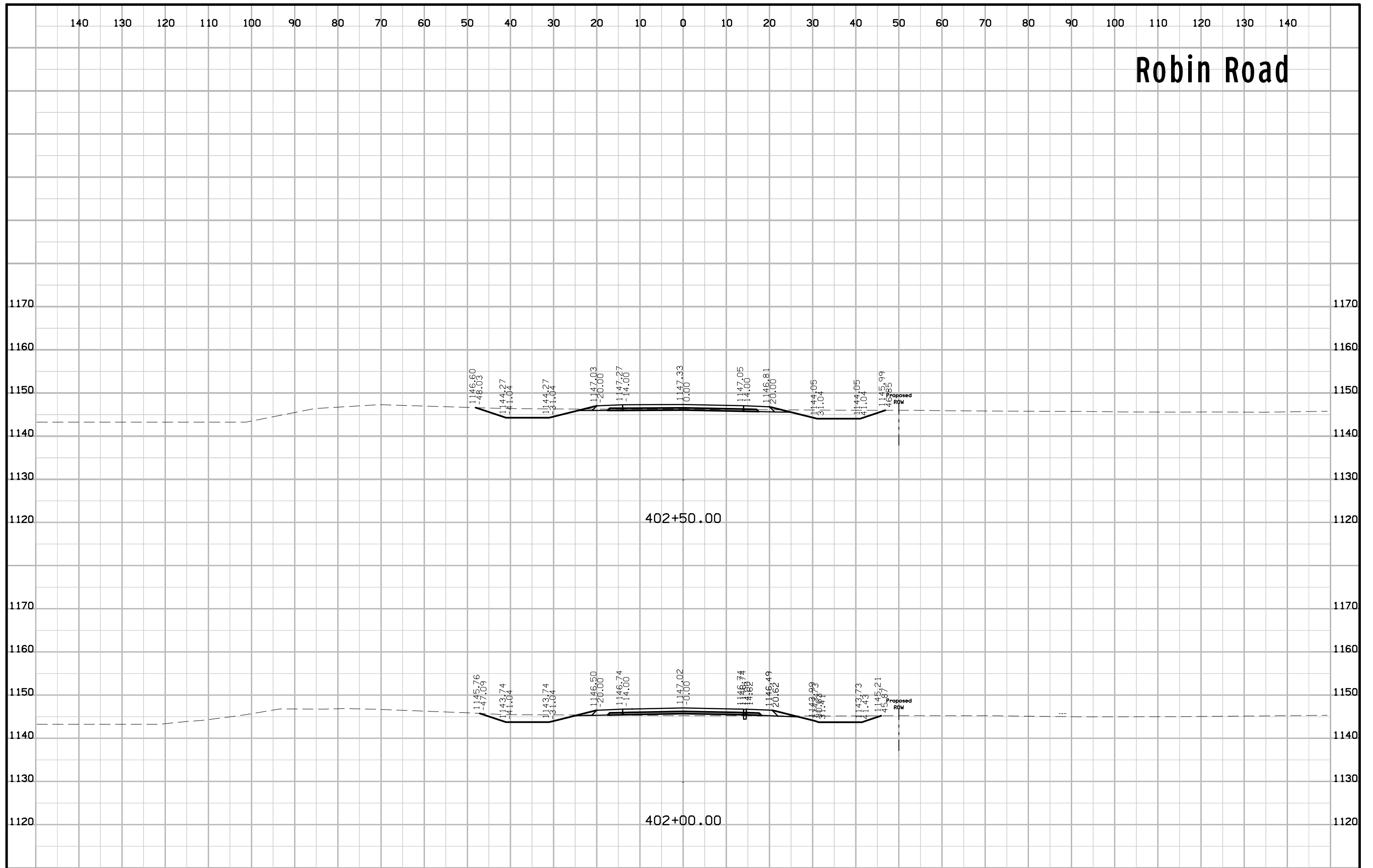
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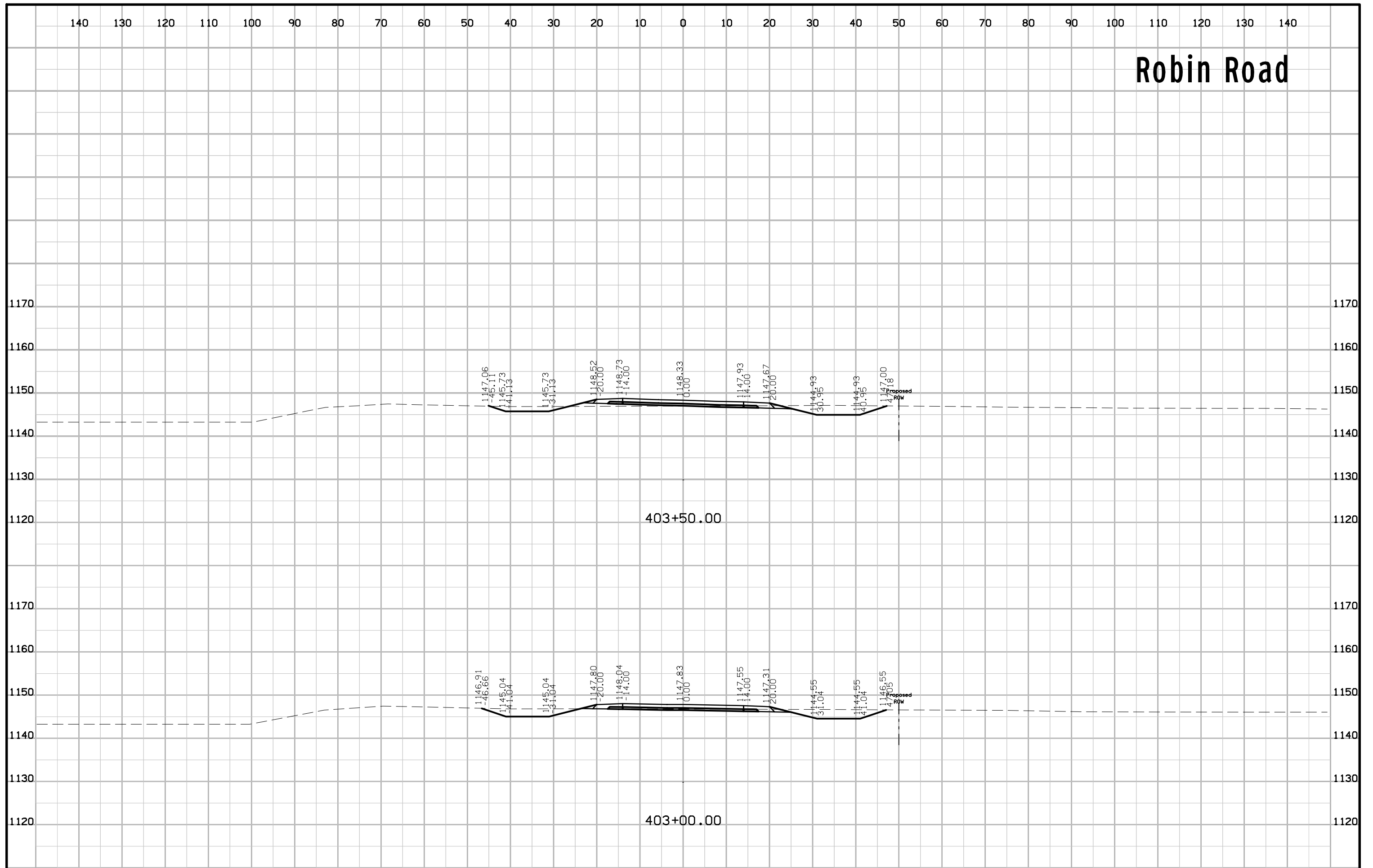
Robin Road



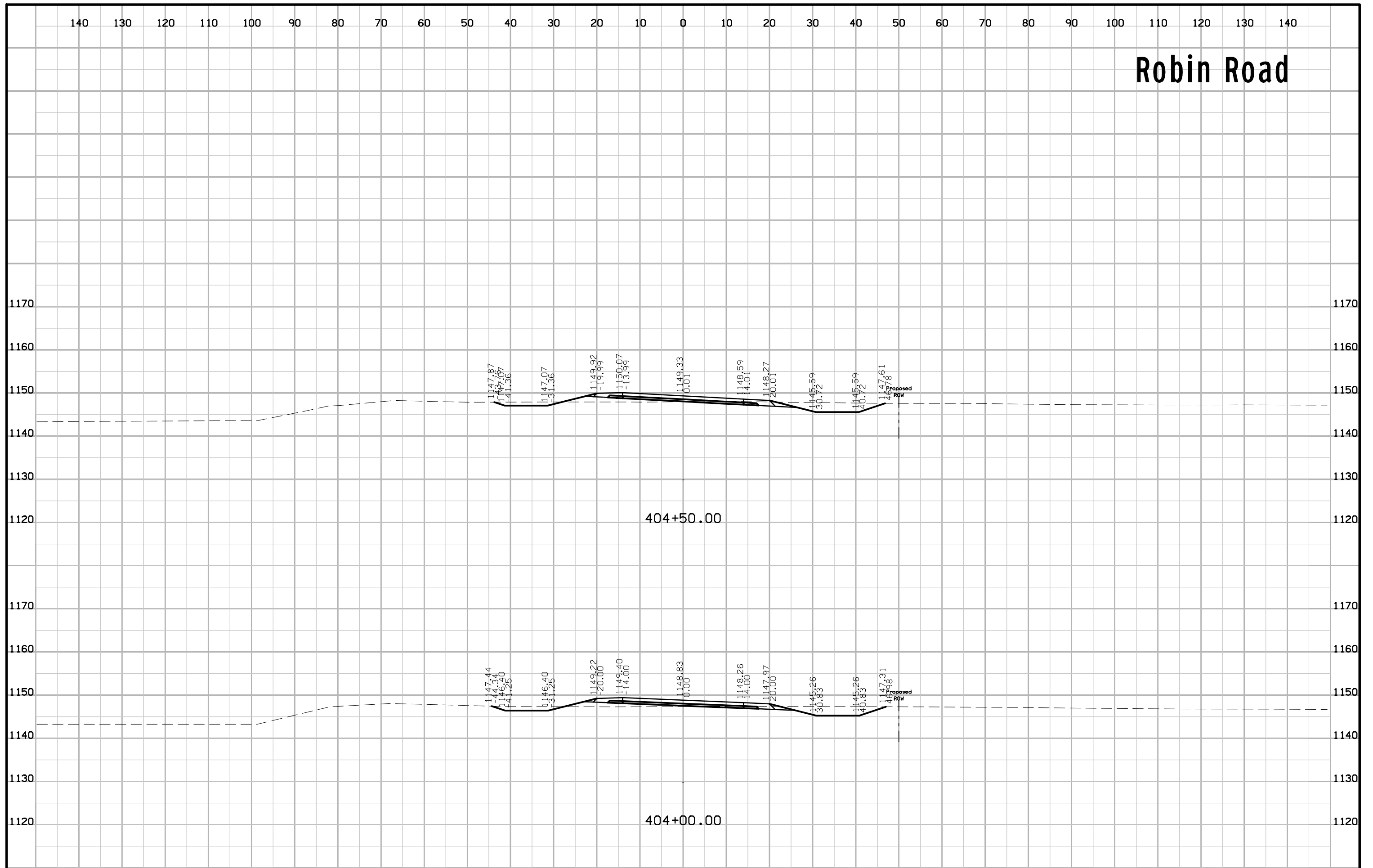
Robin Road



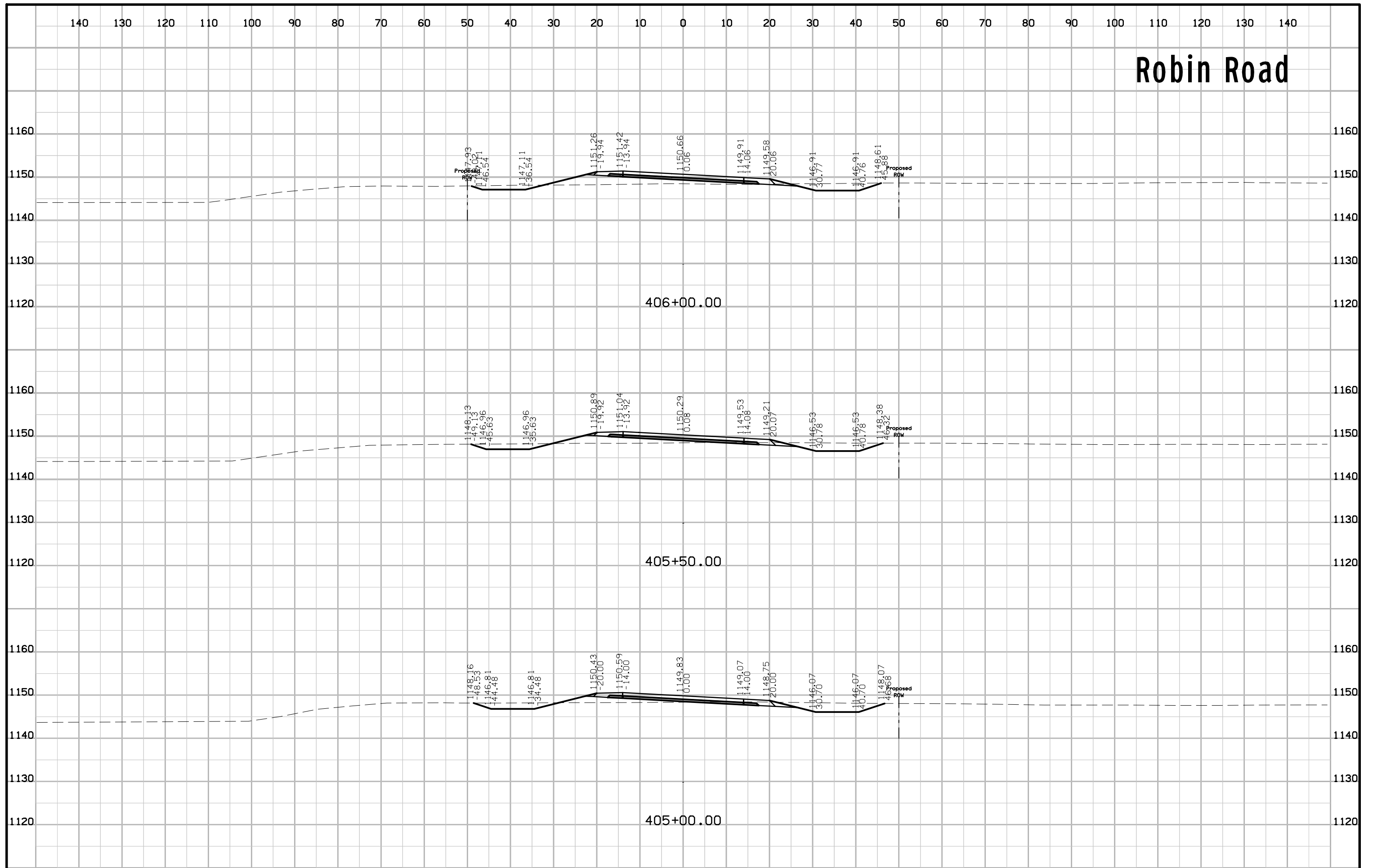
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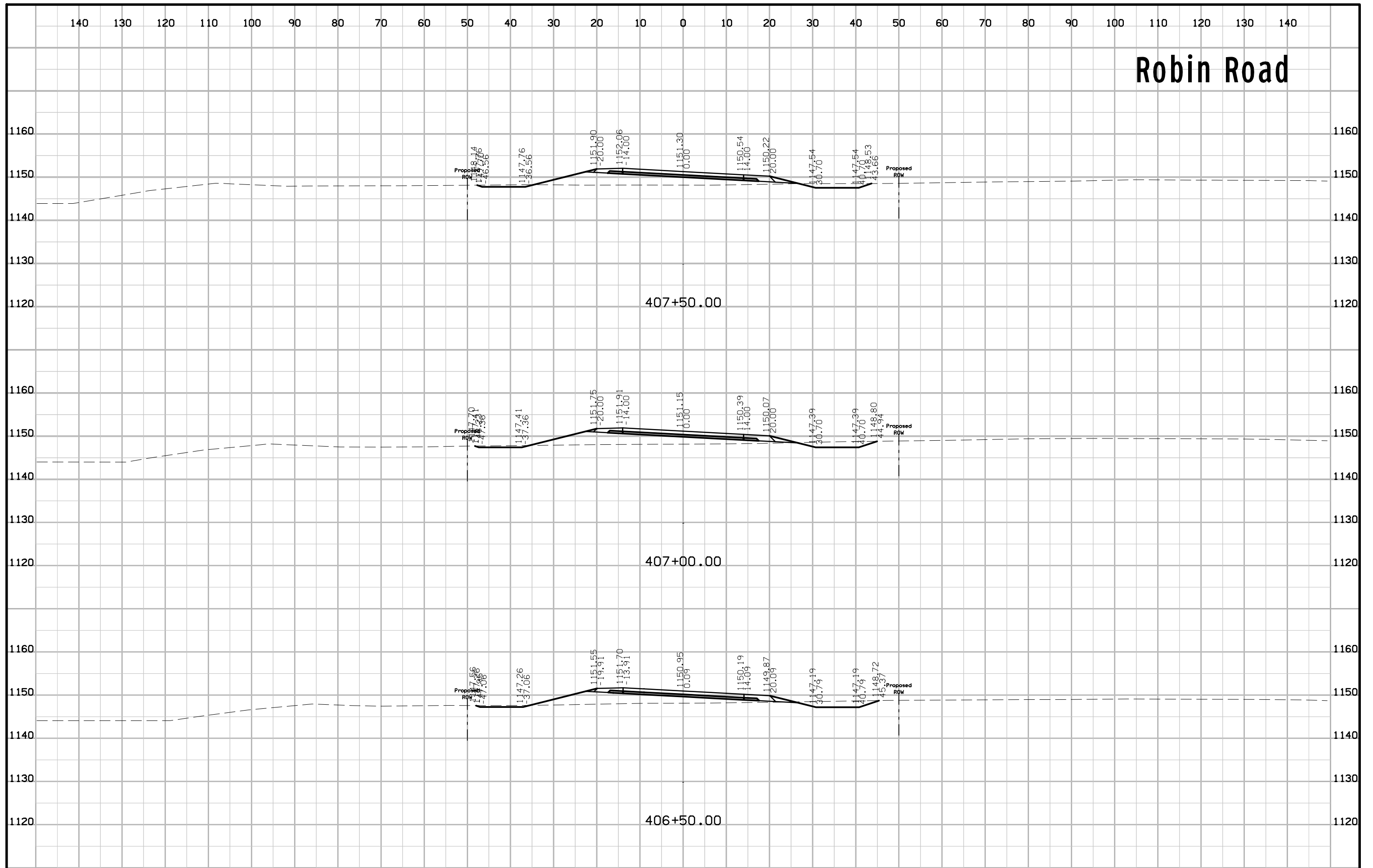
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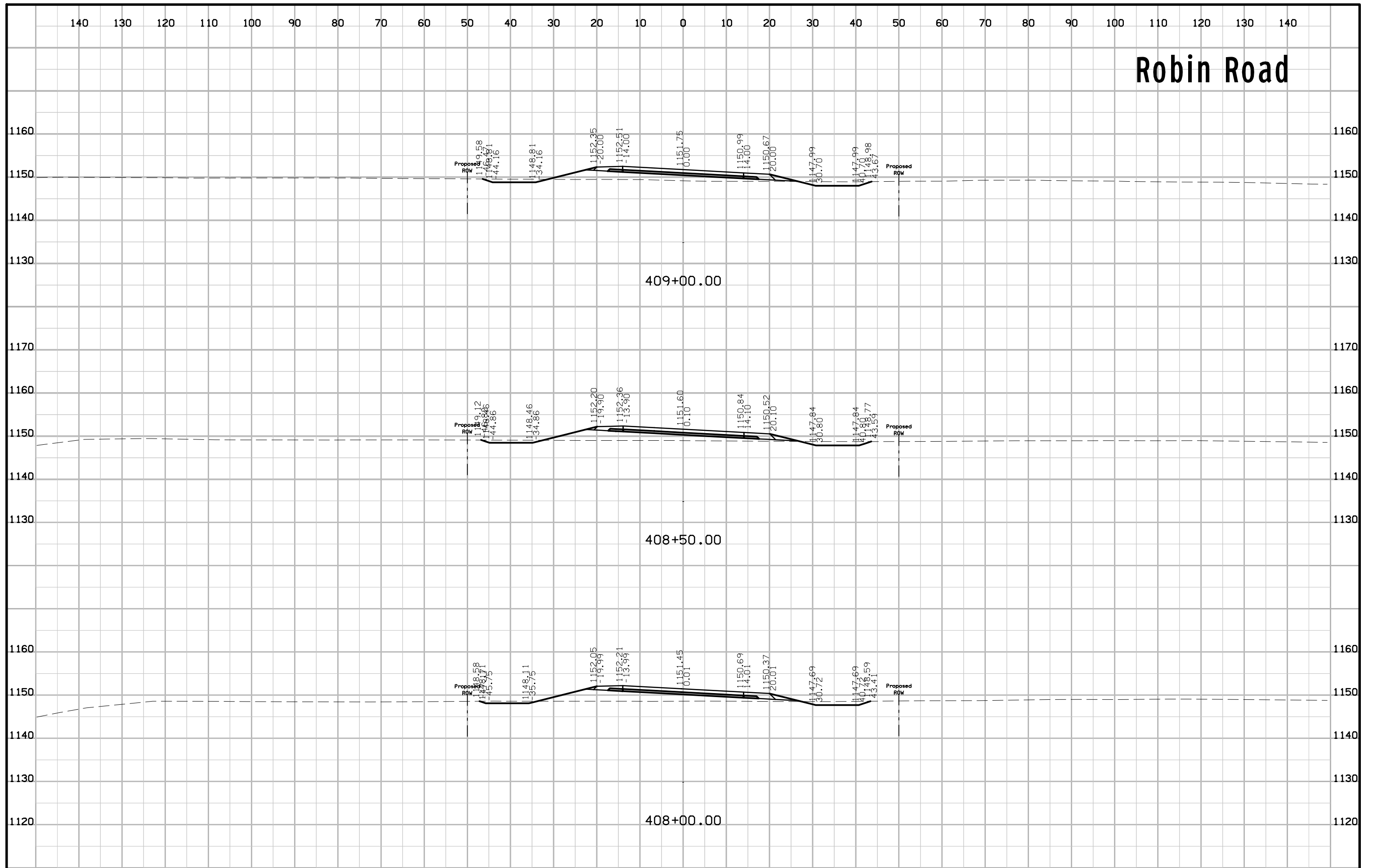
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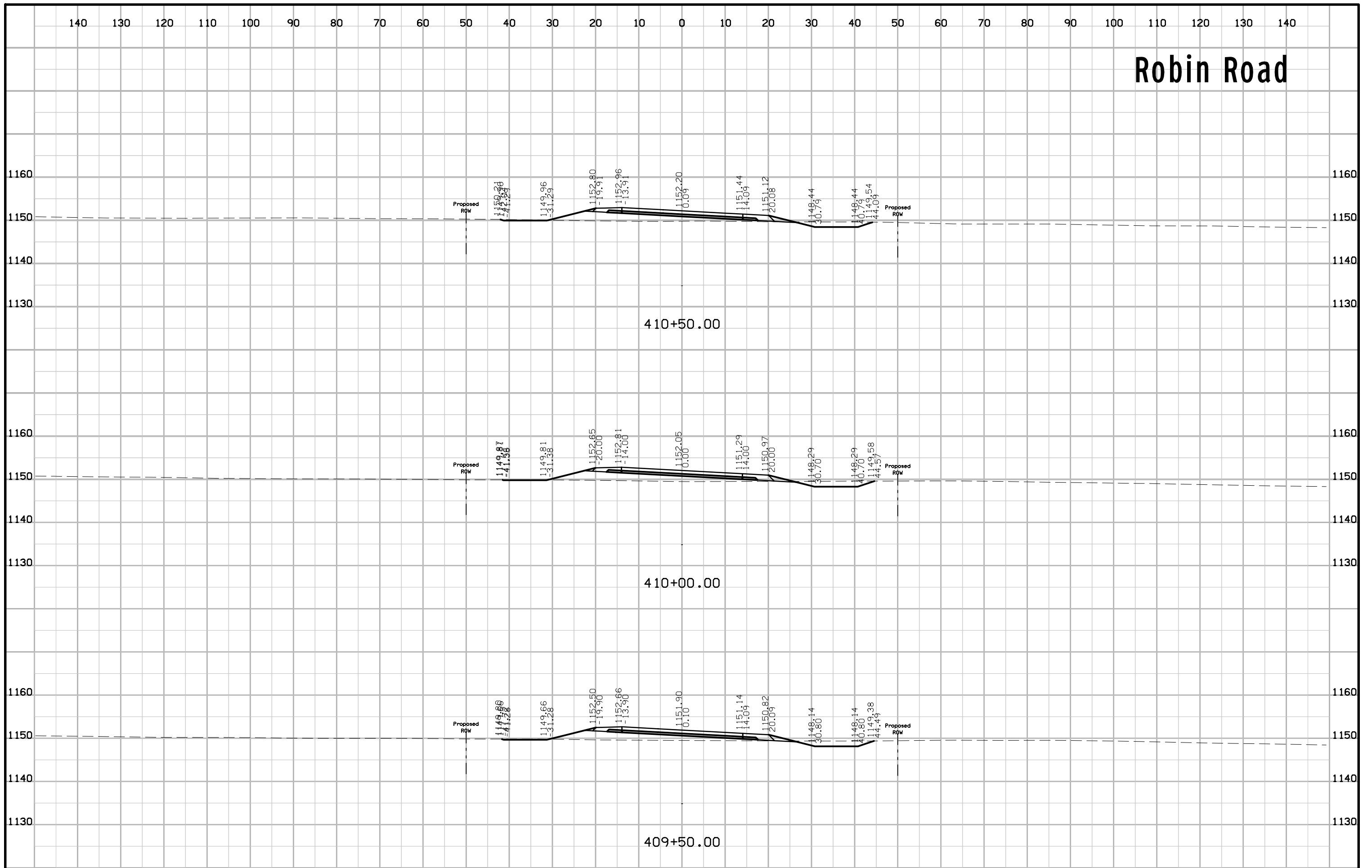
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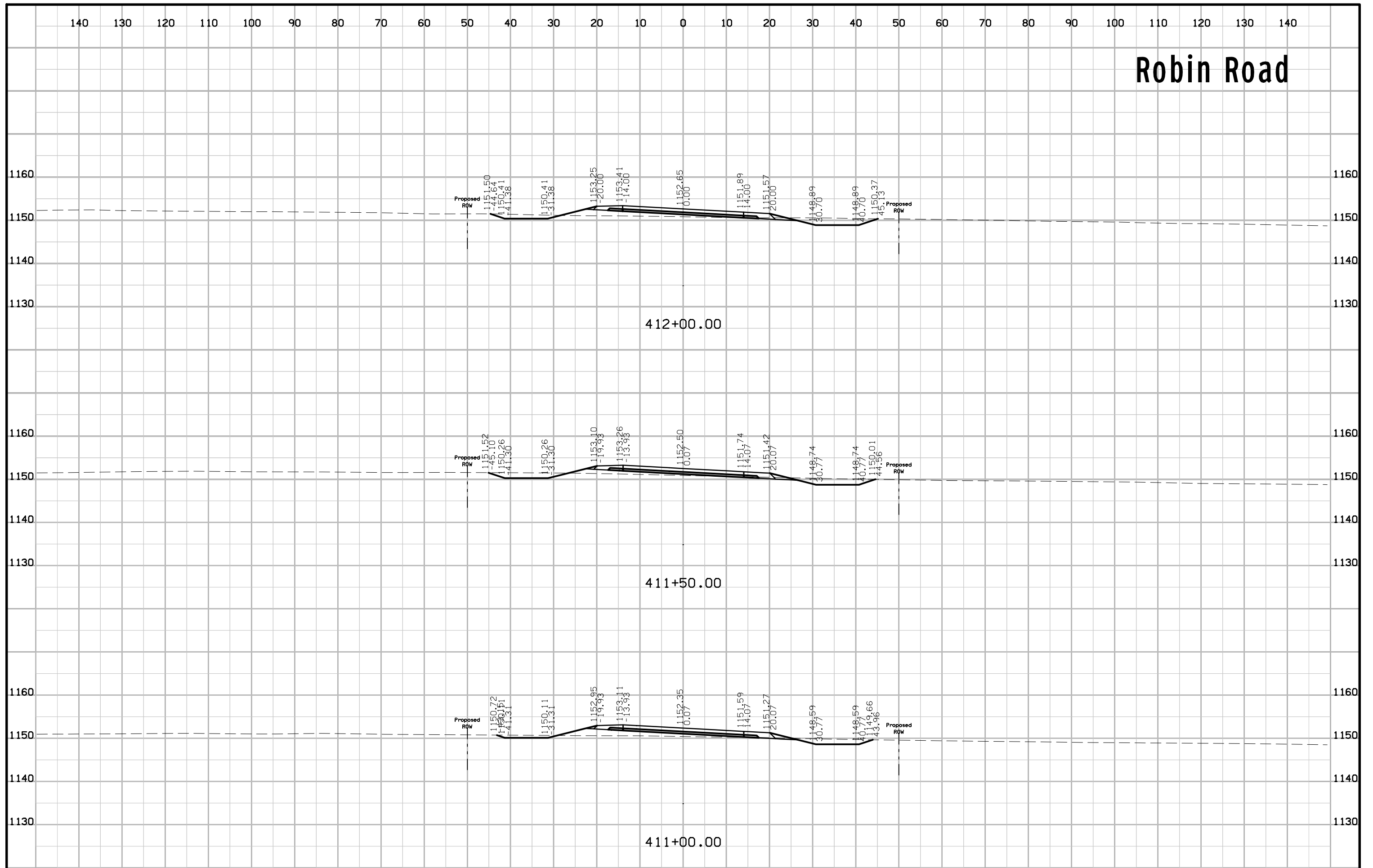
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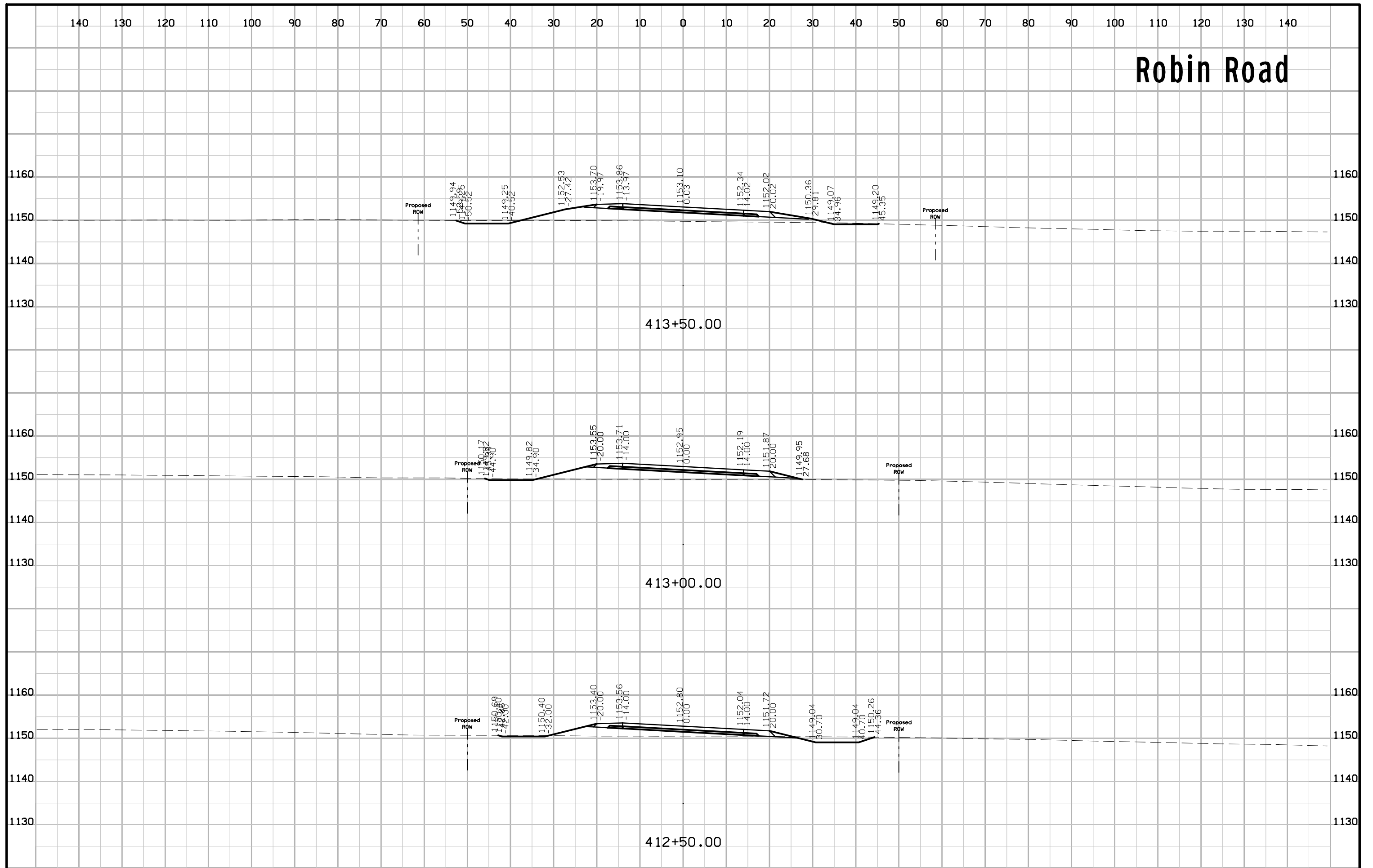
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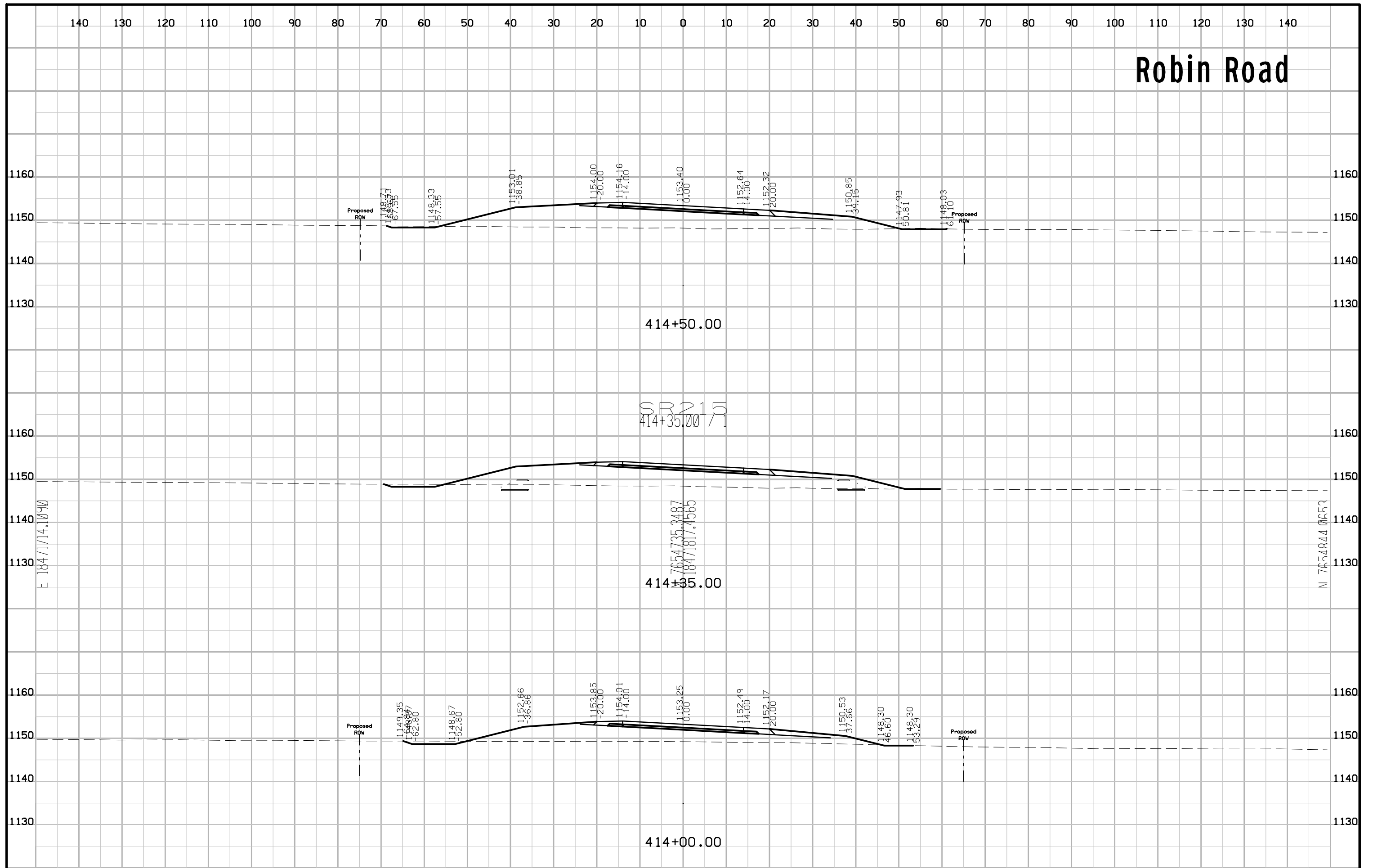
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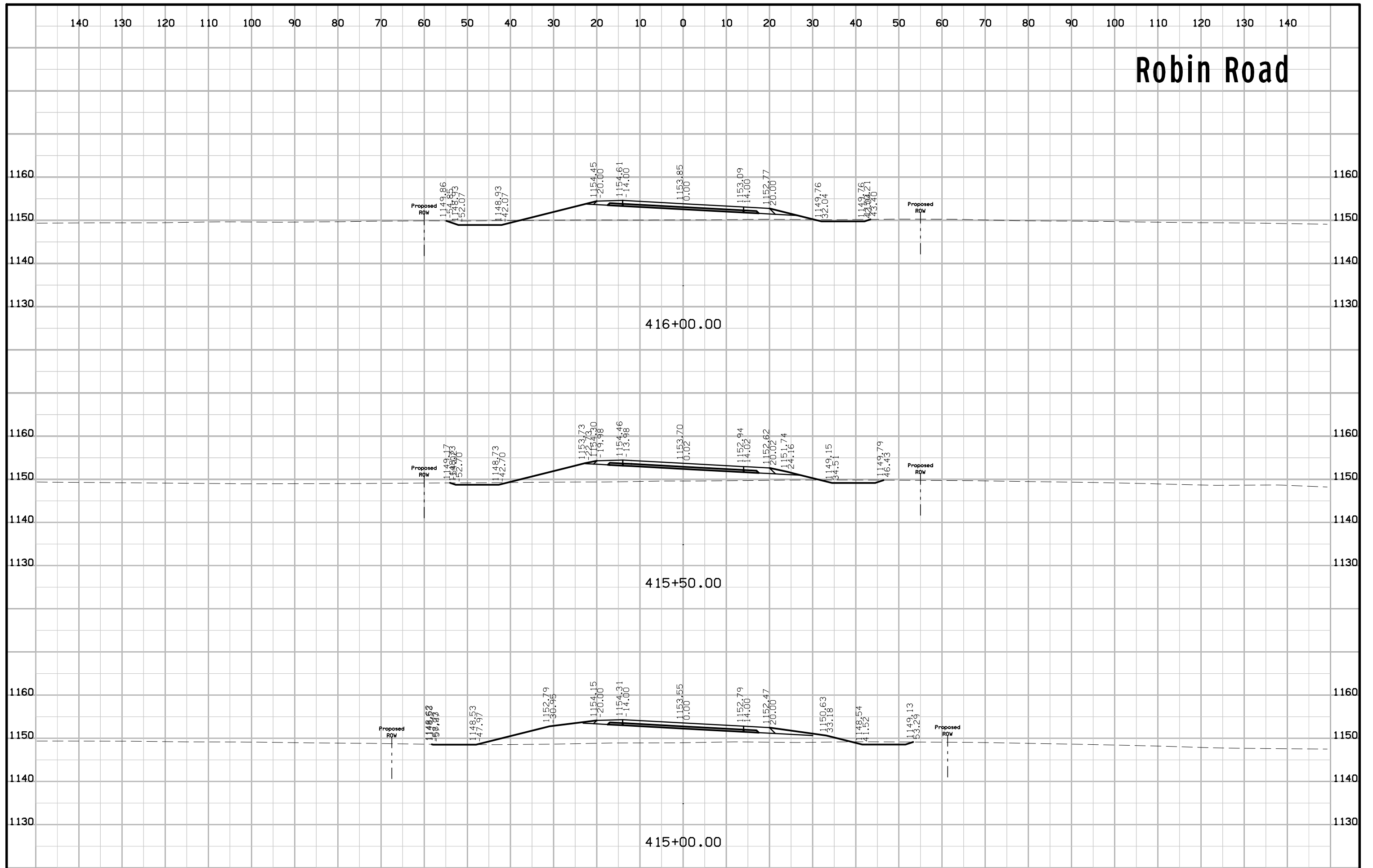
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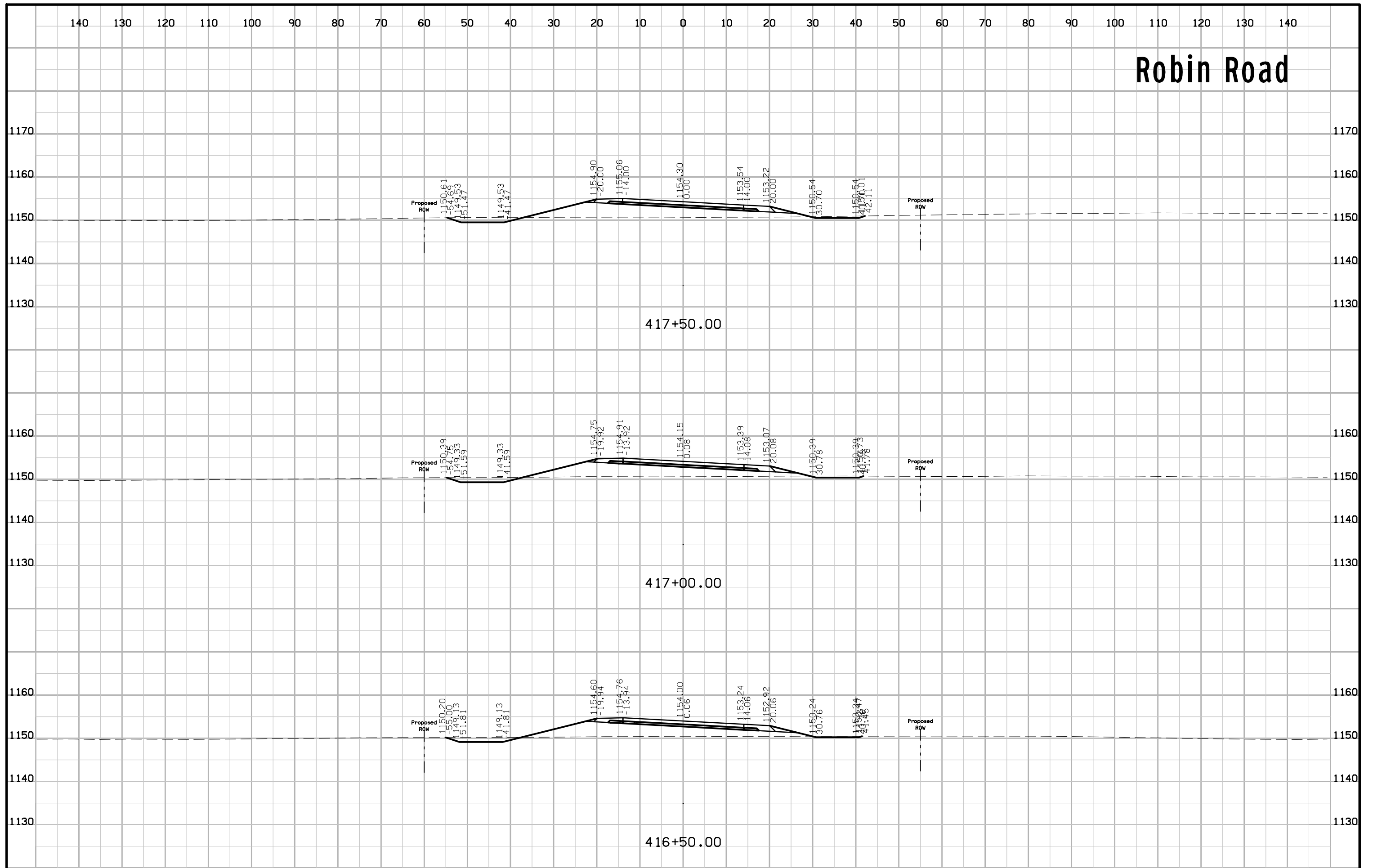
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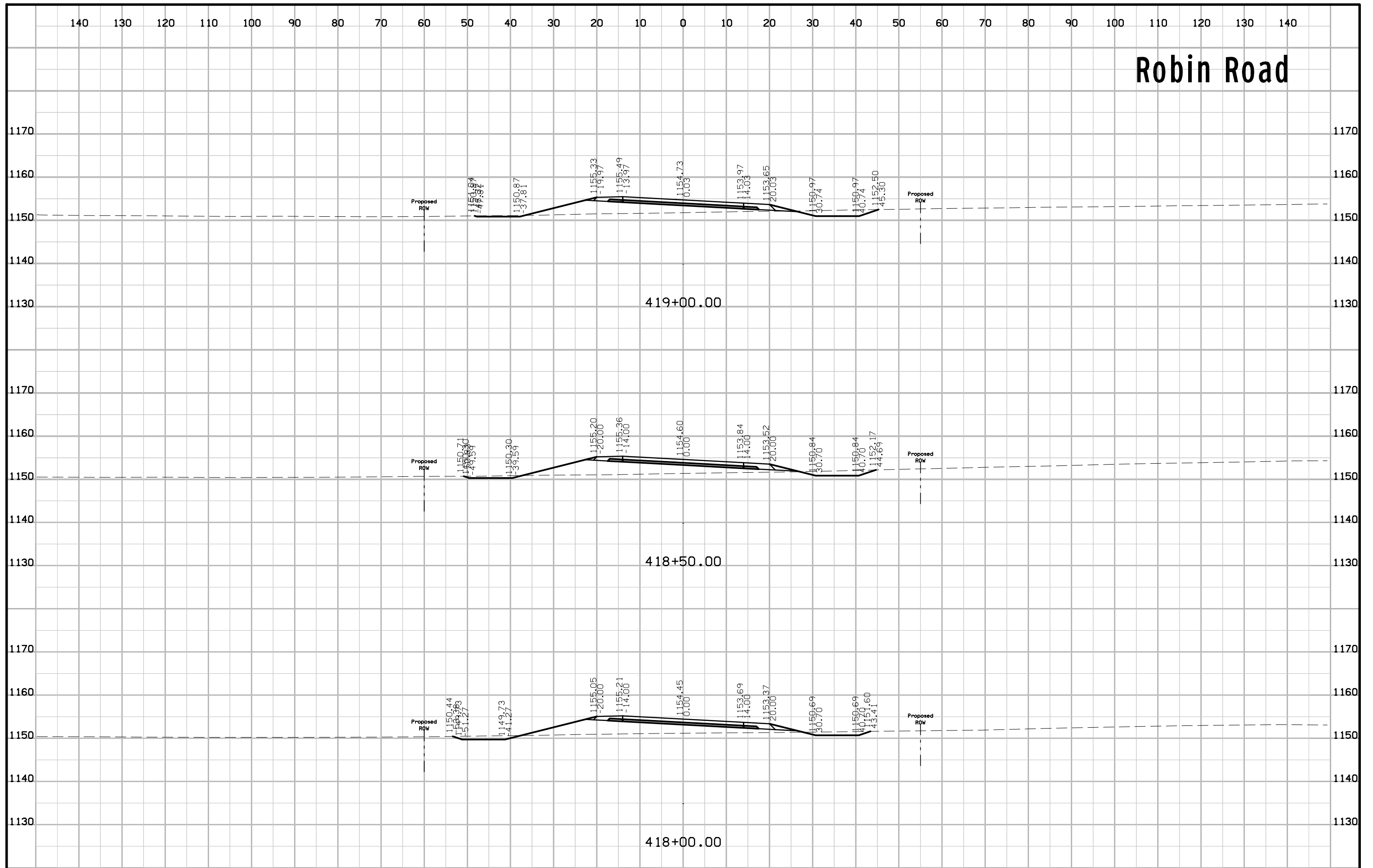
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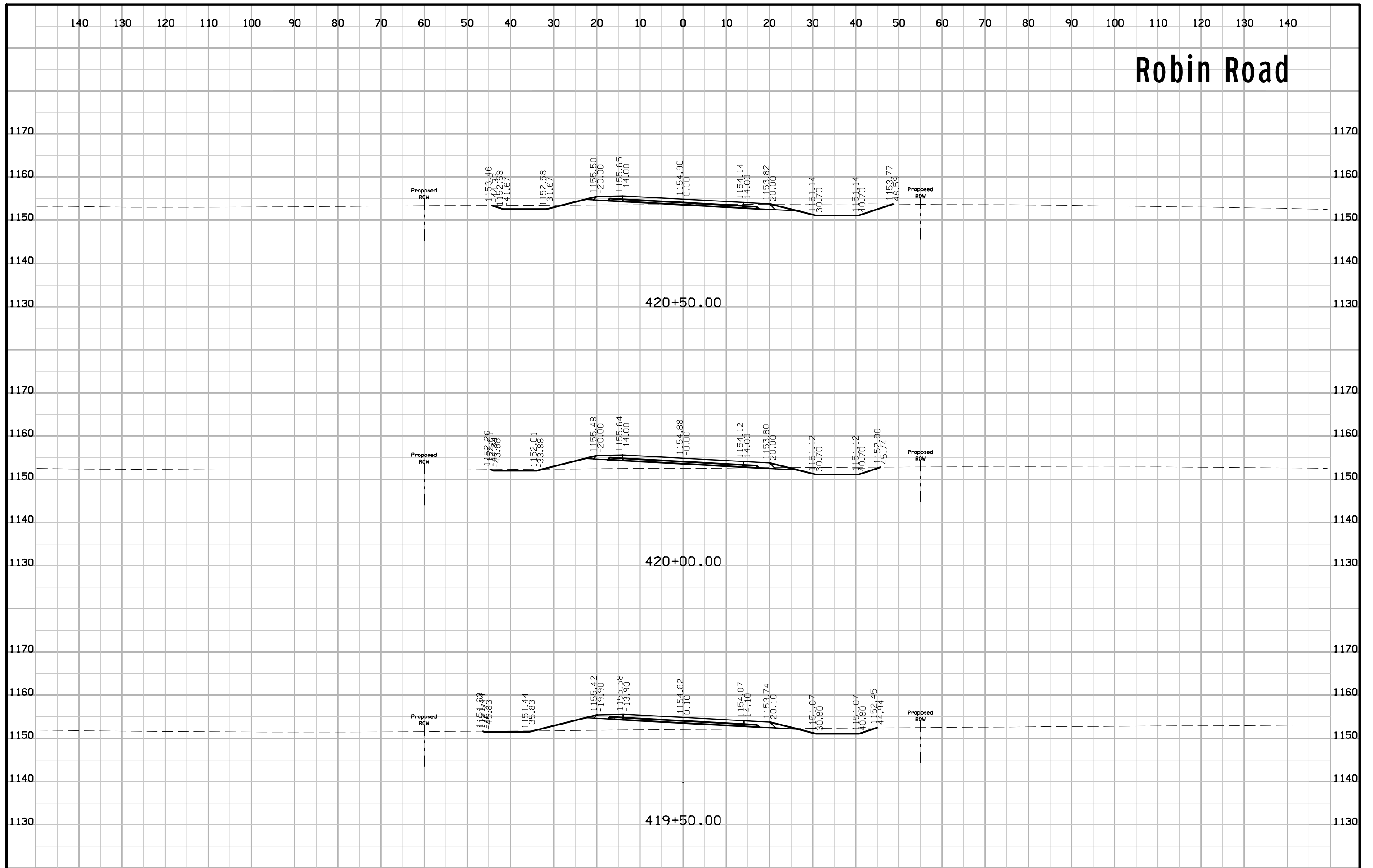
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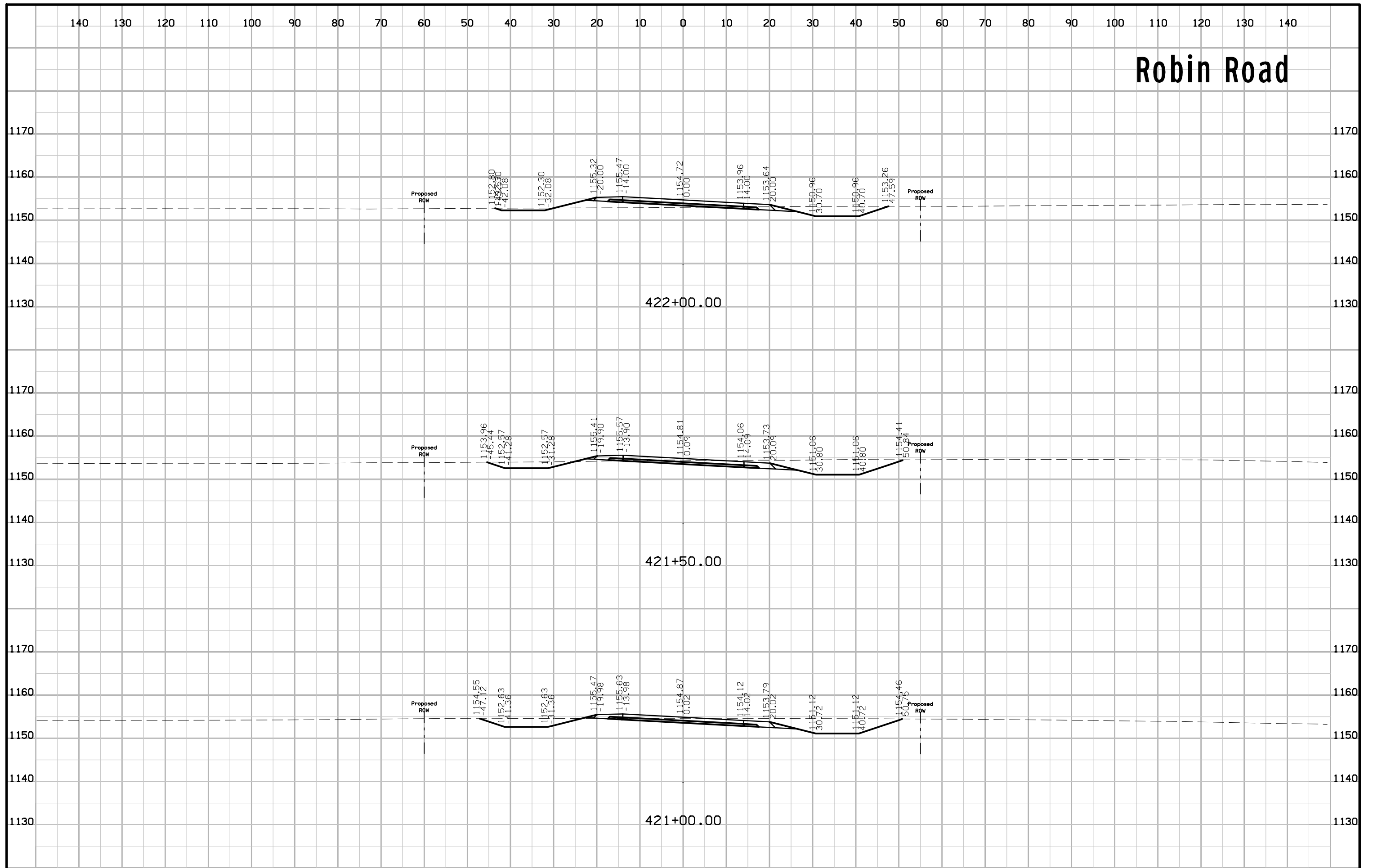
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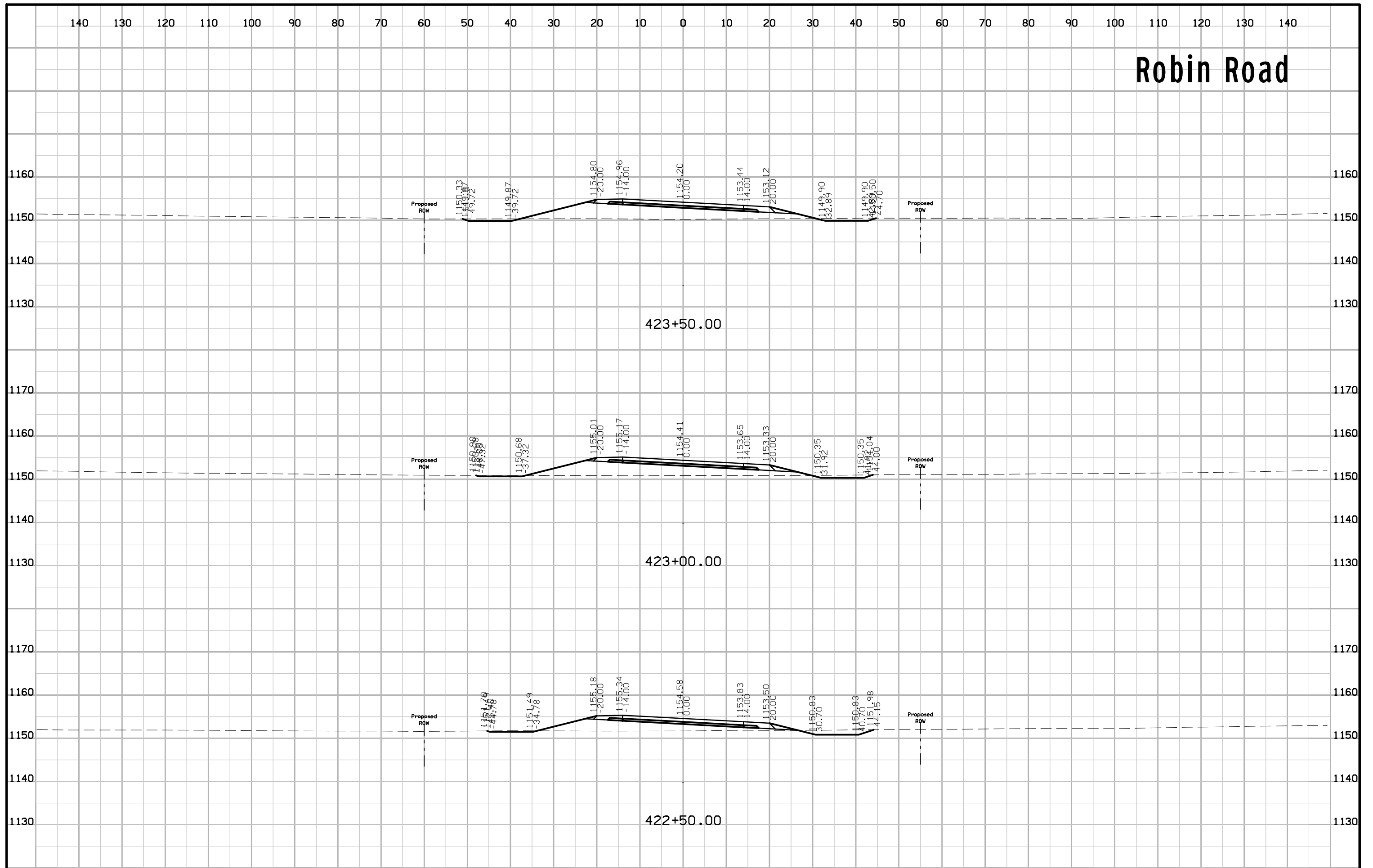
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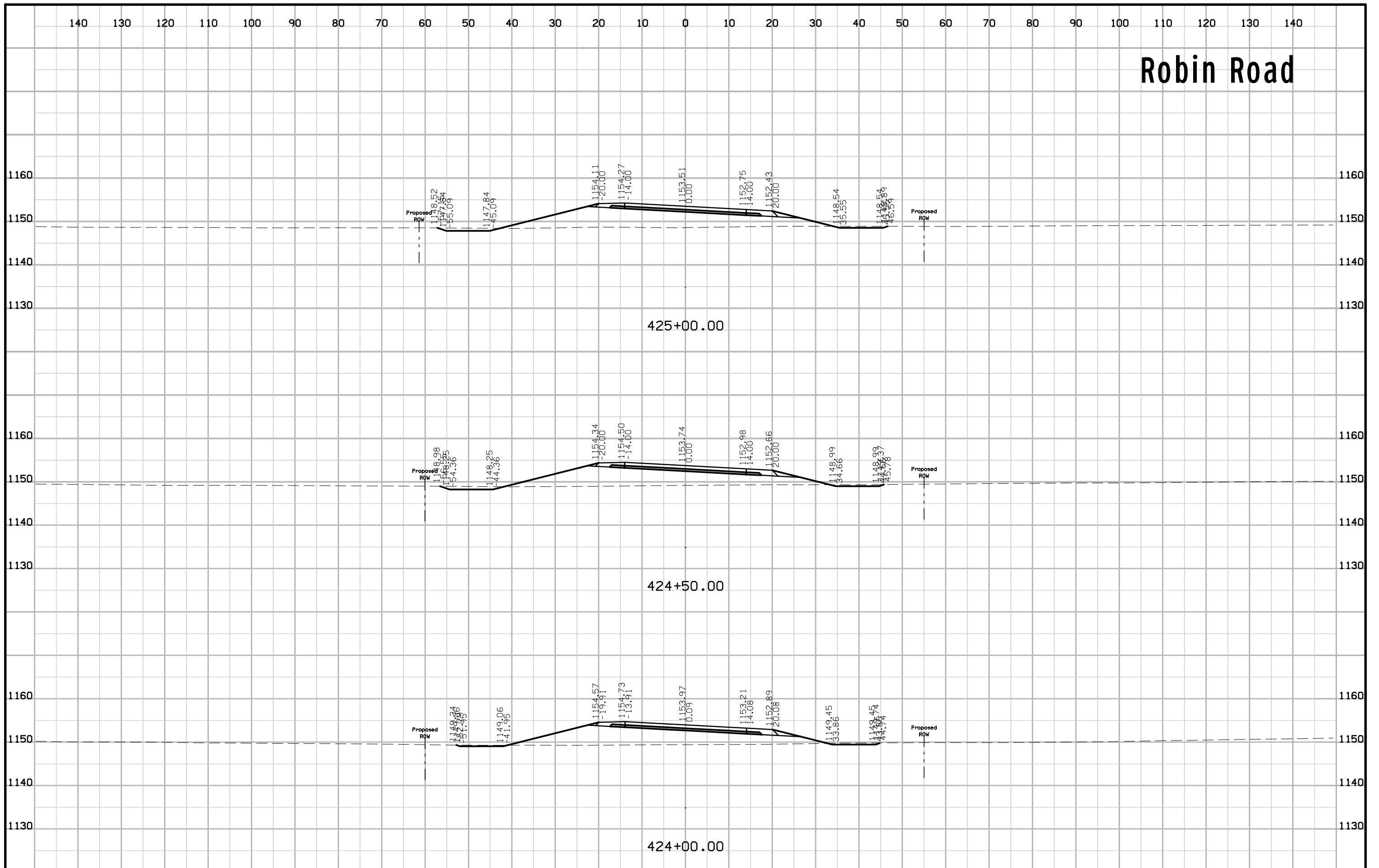
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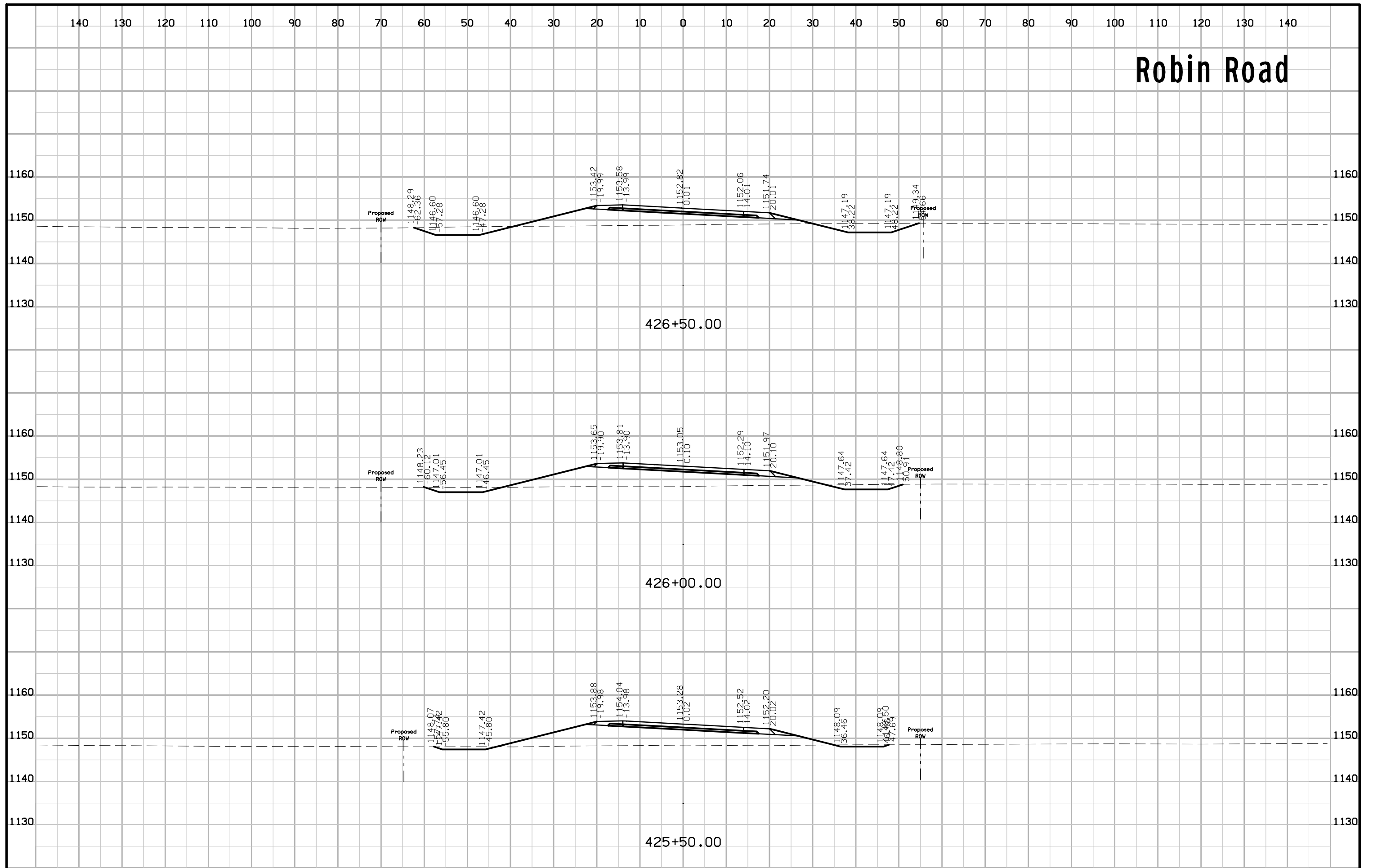
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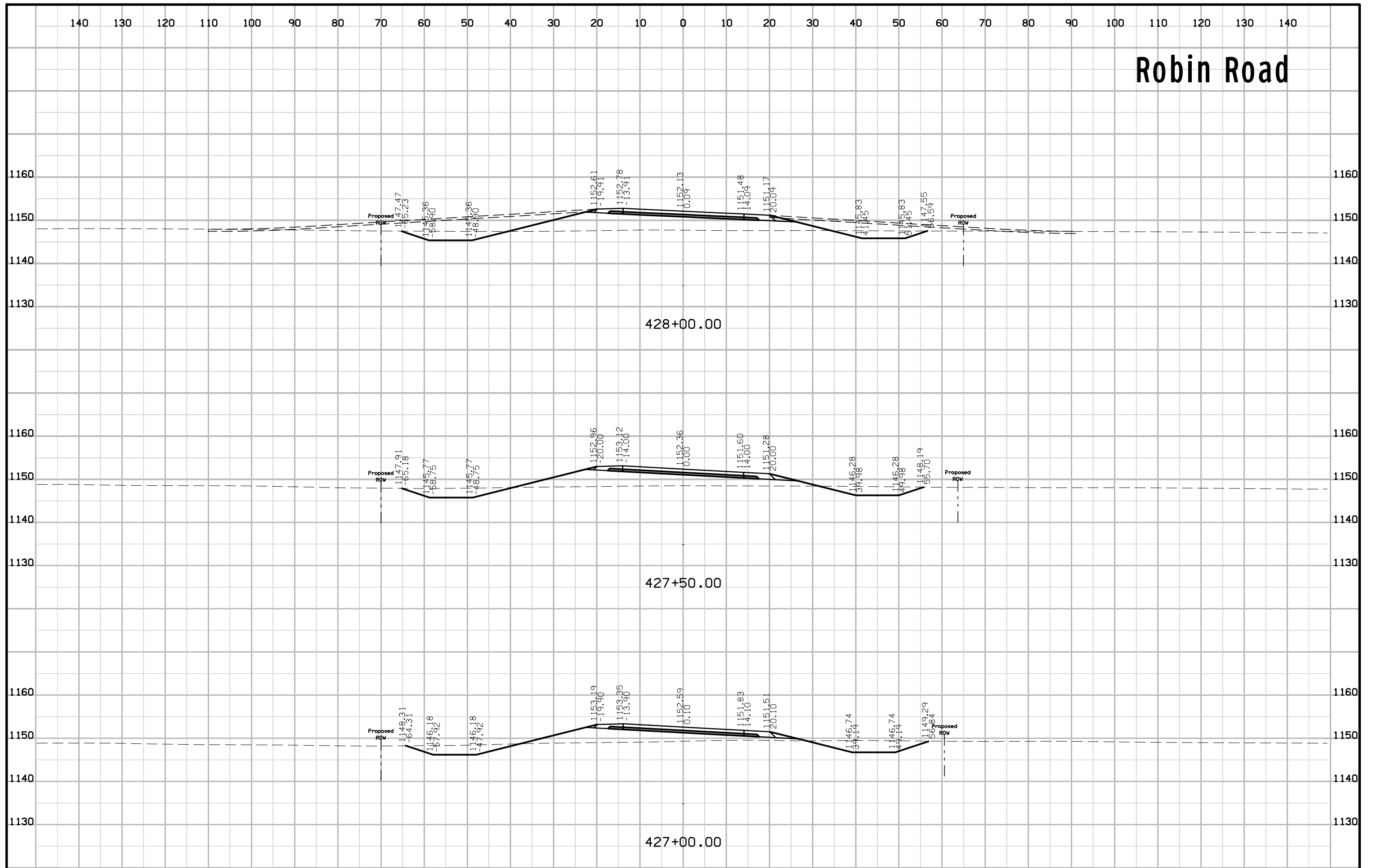
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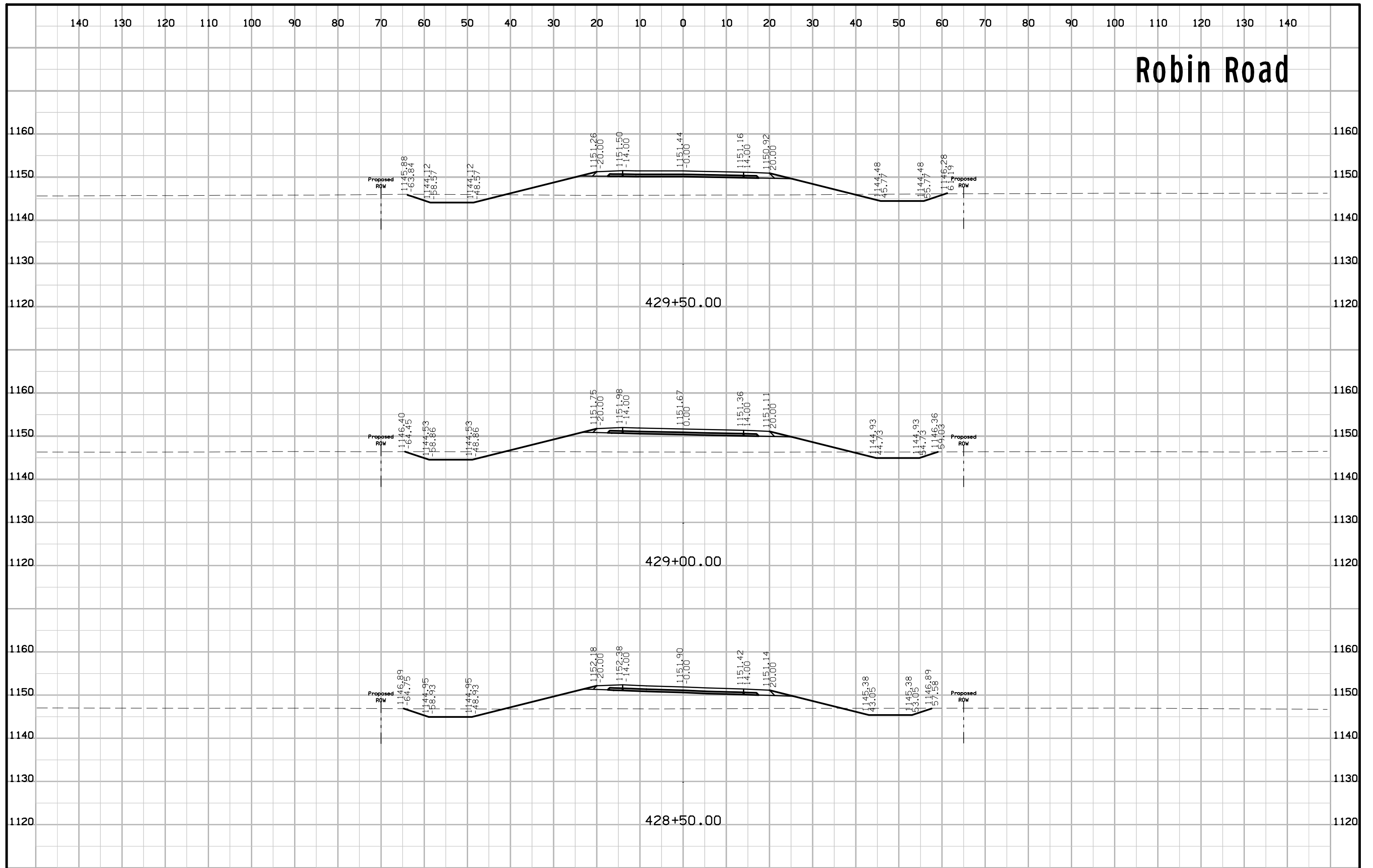
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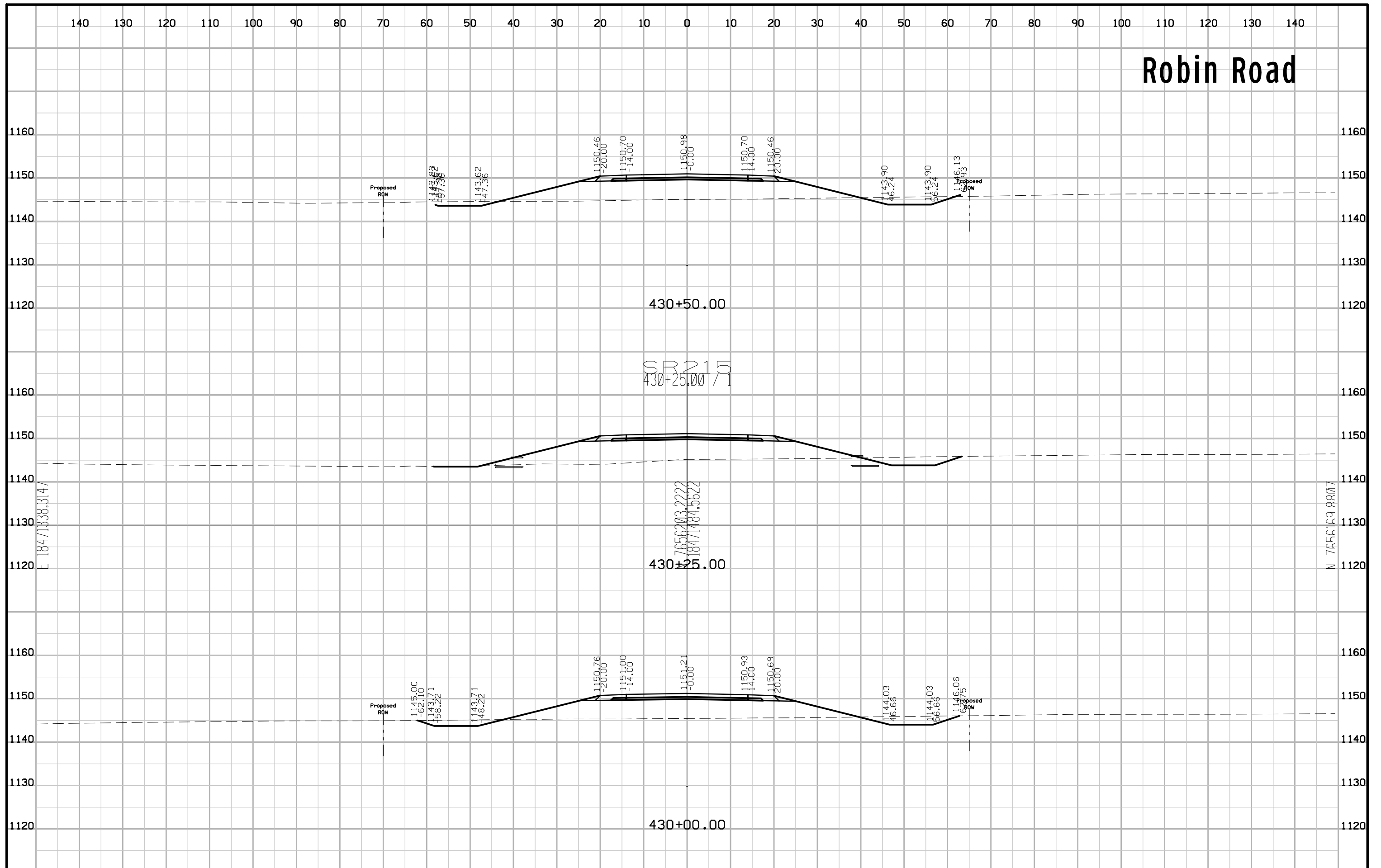
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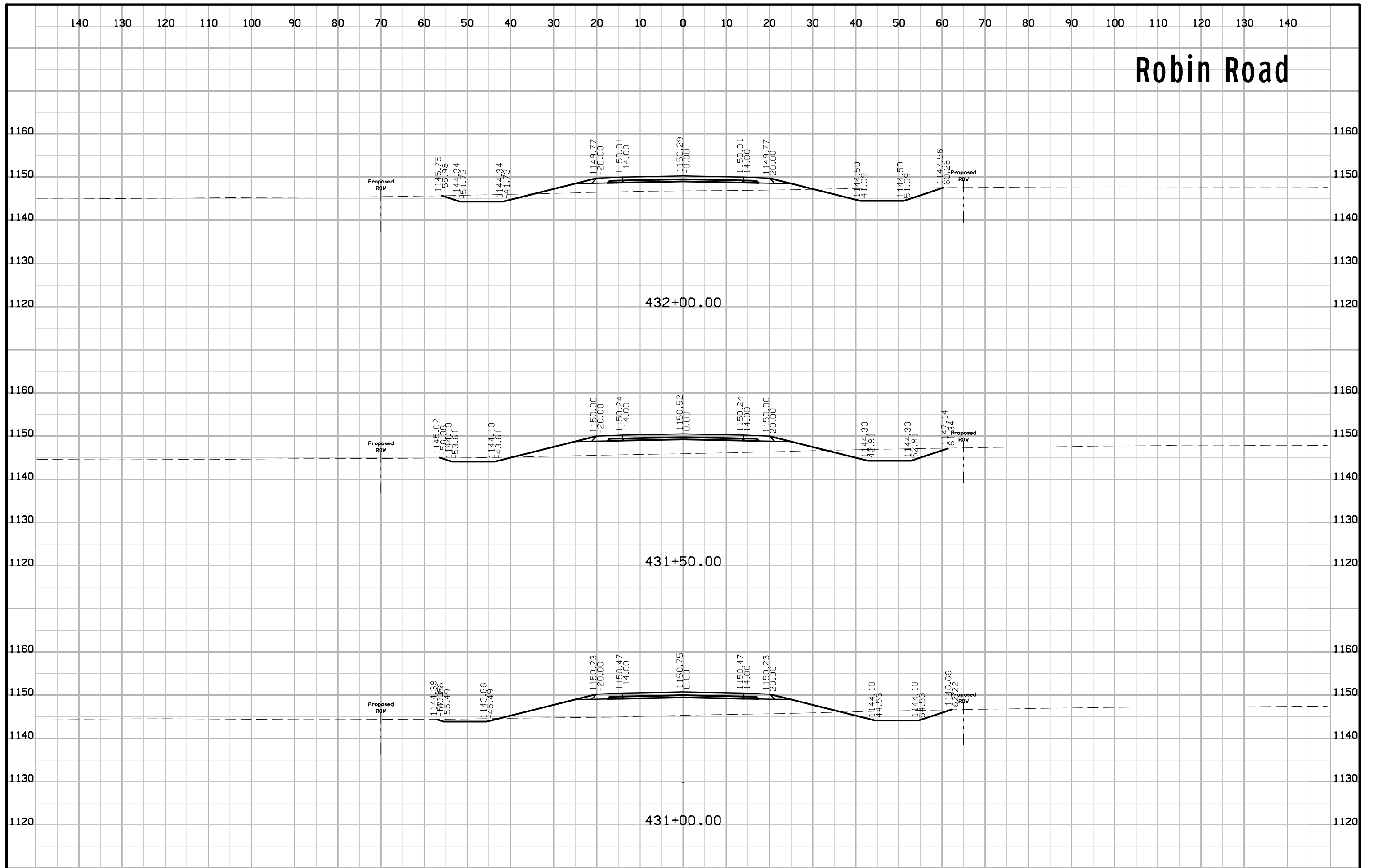
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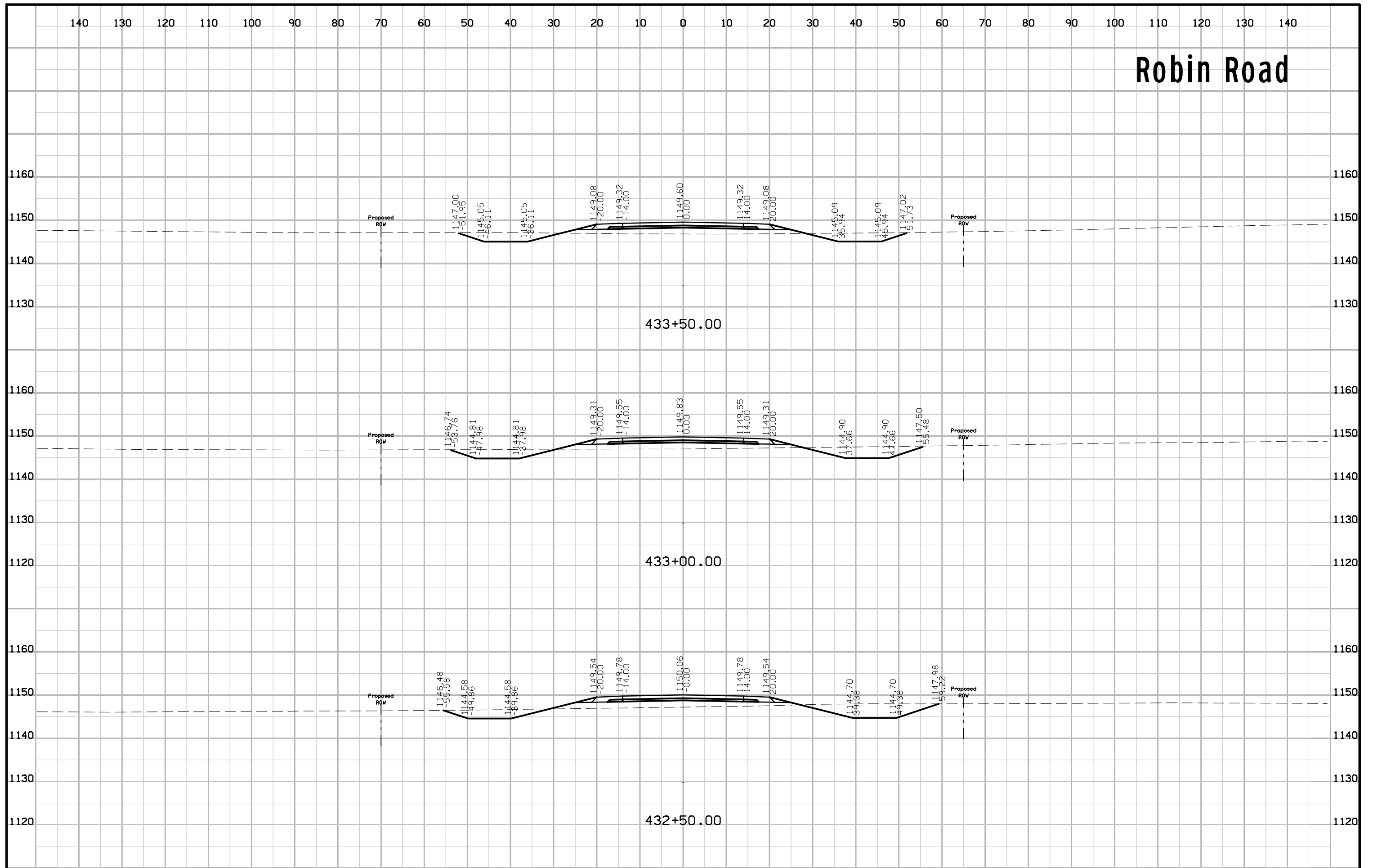
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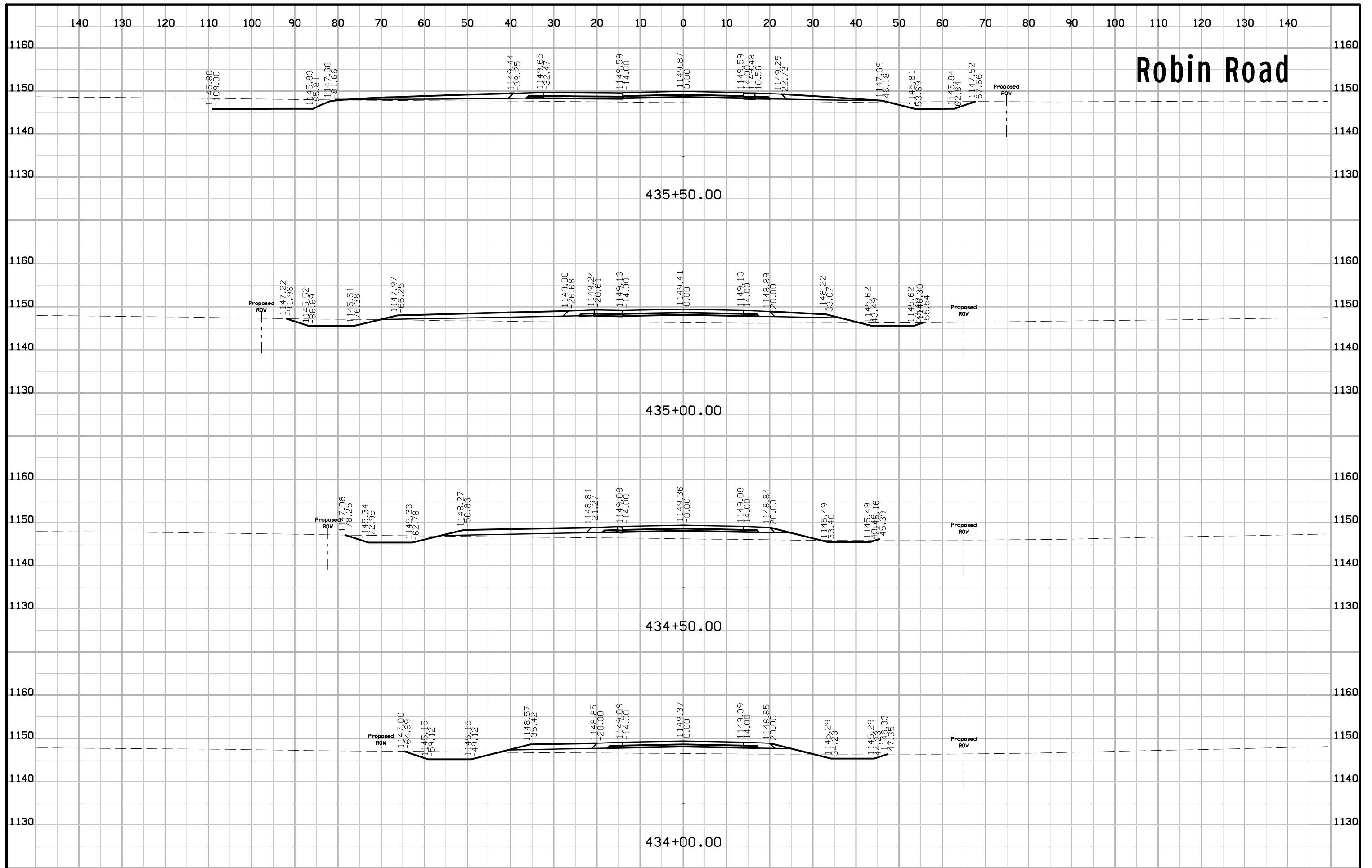


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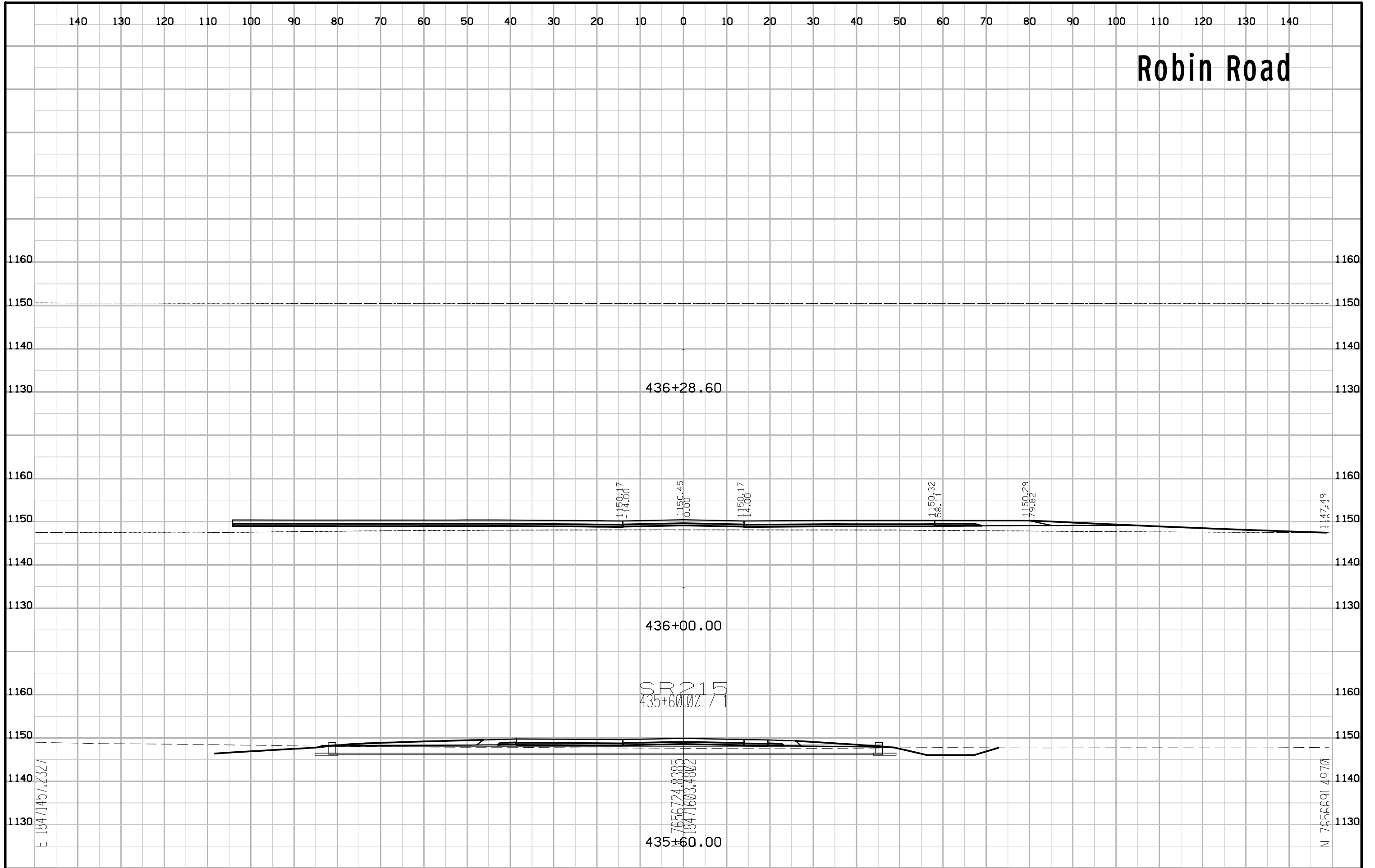


Robin Road

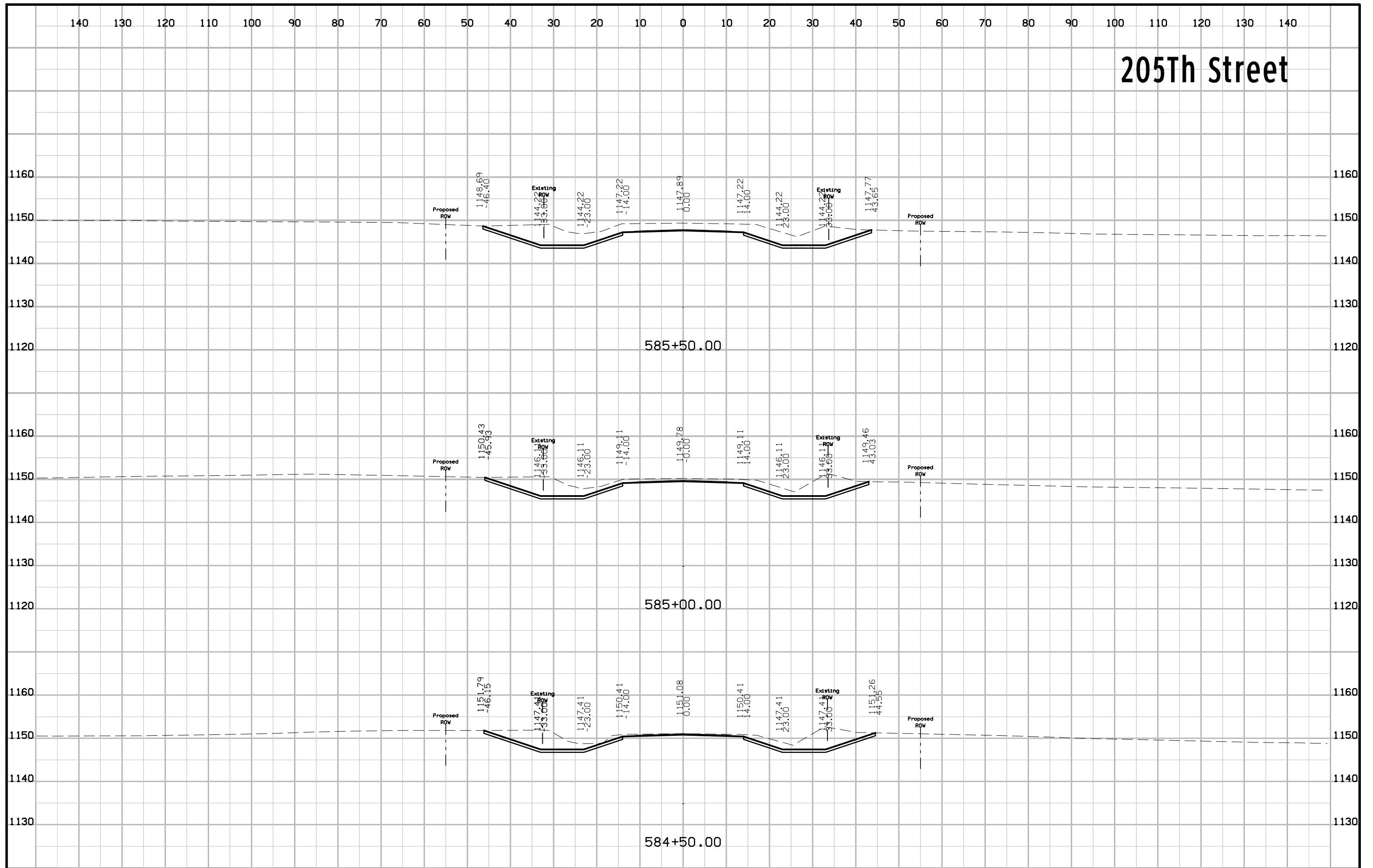




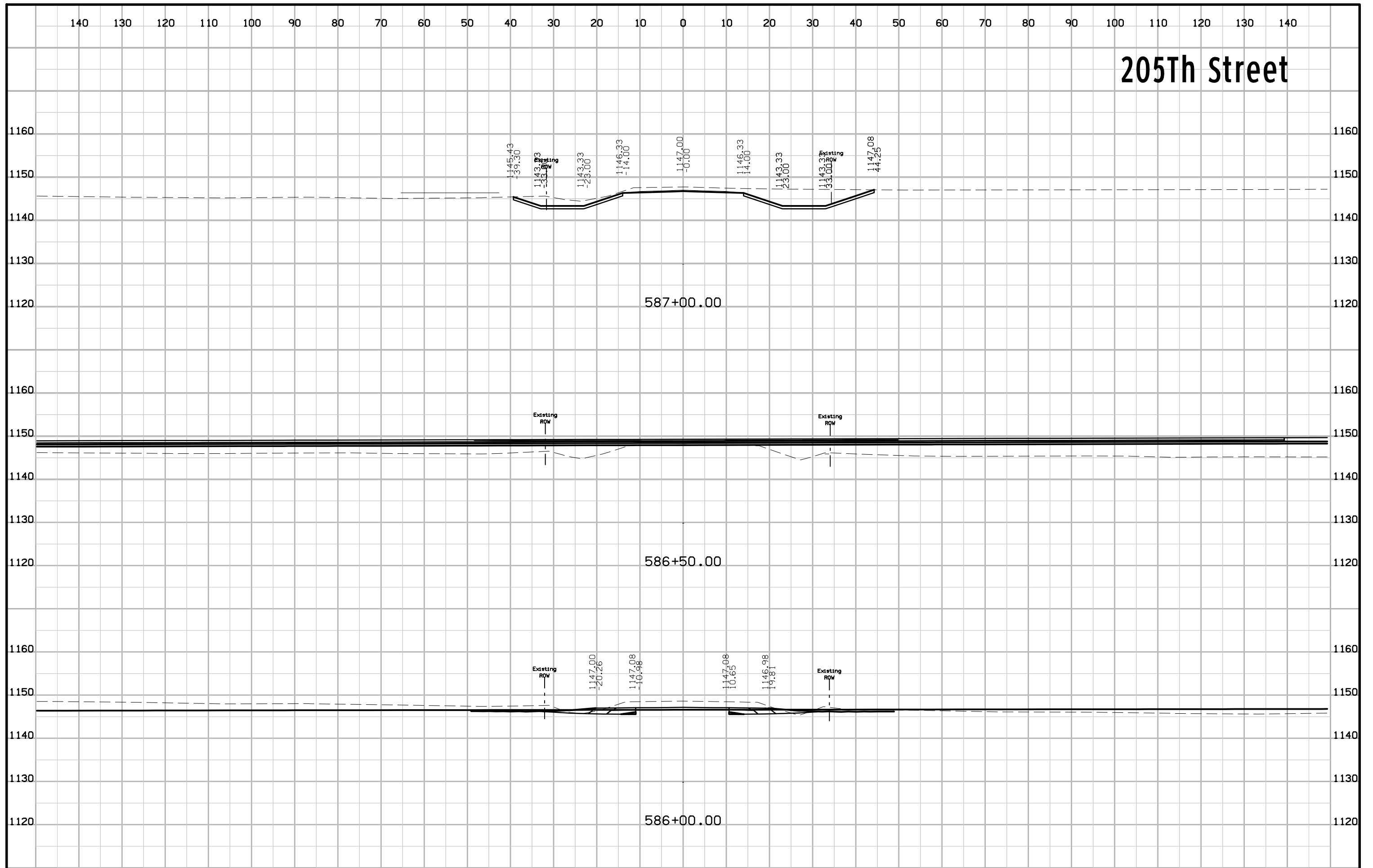
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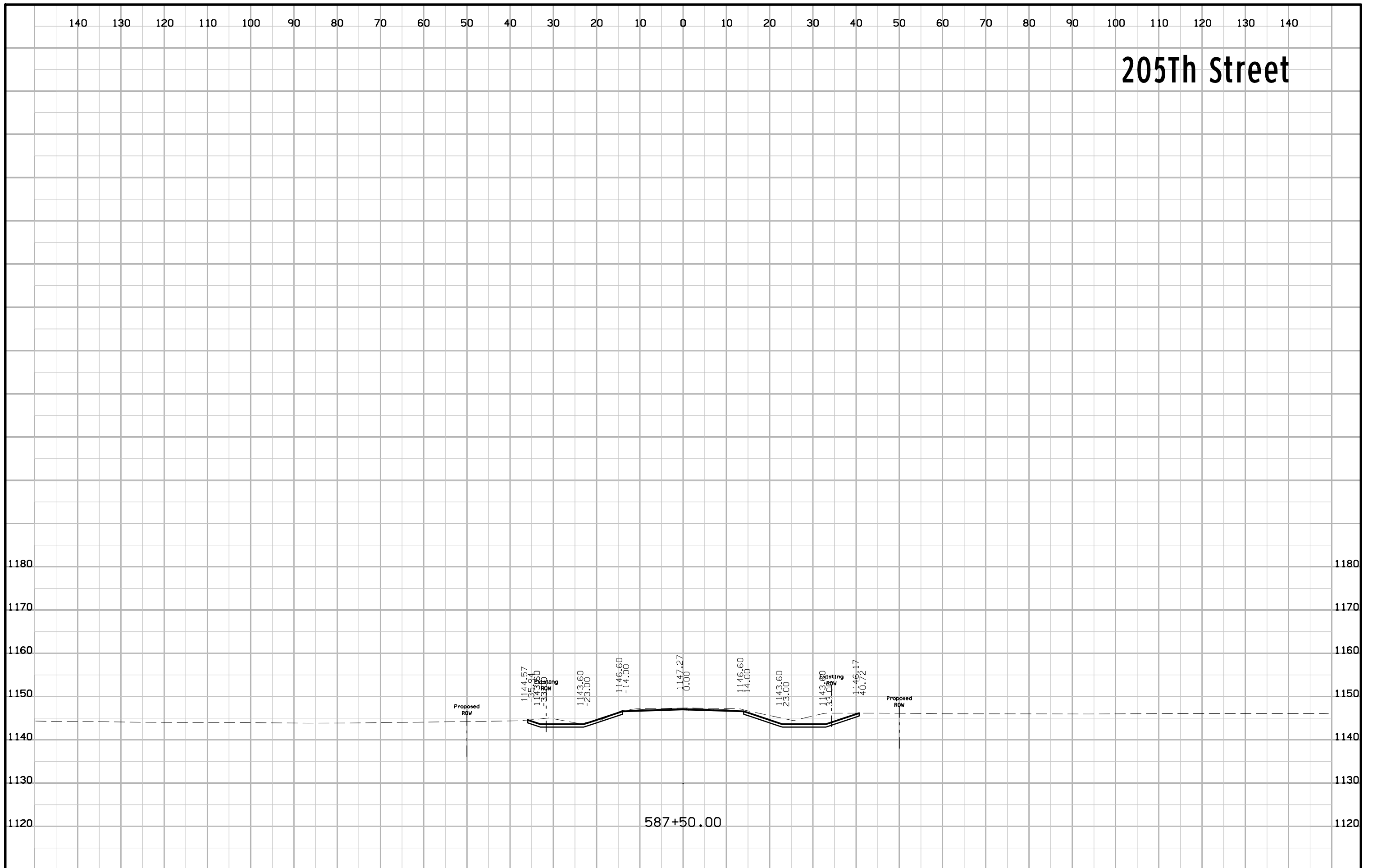
205Th Street



205Th Street

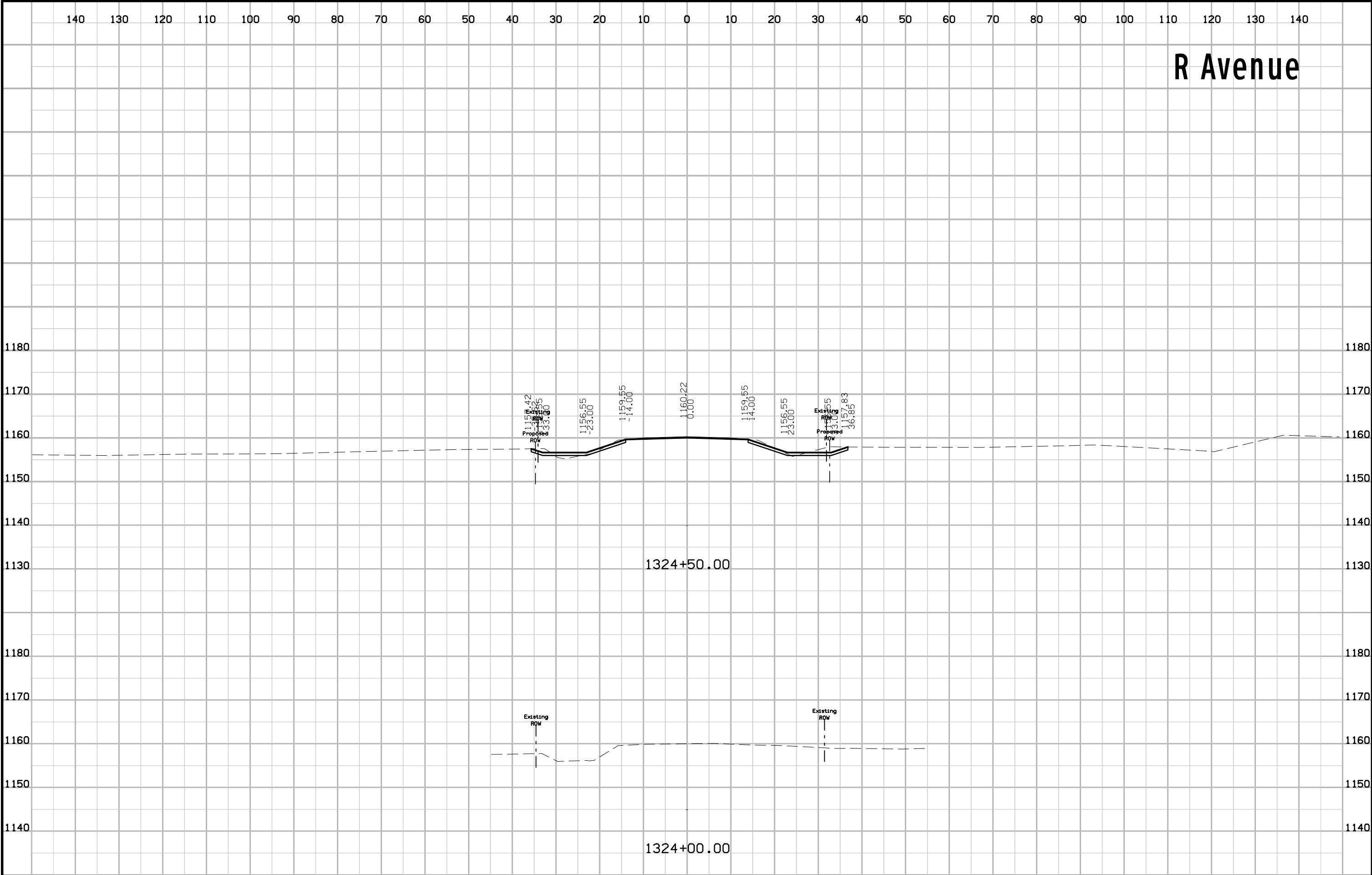


205Th Street

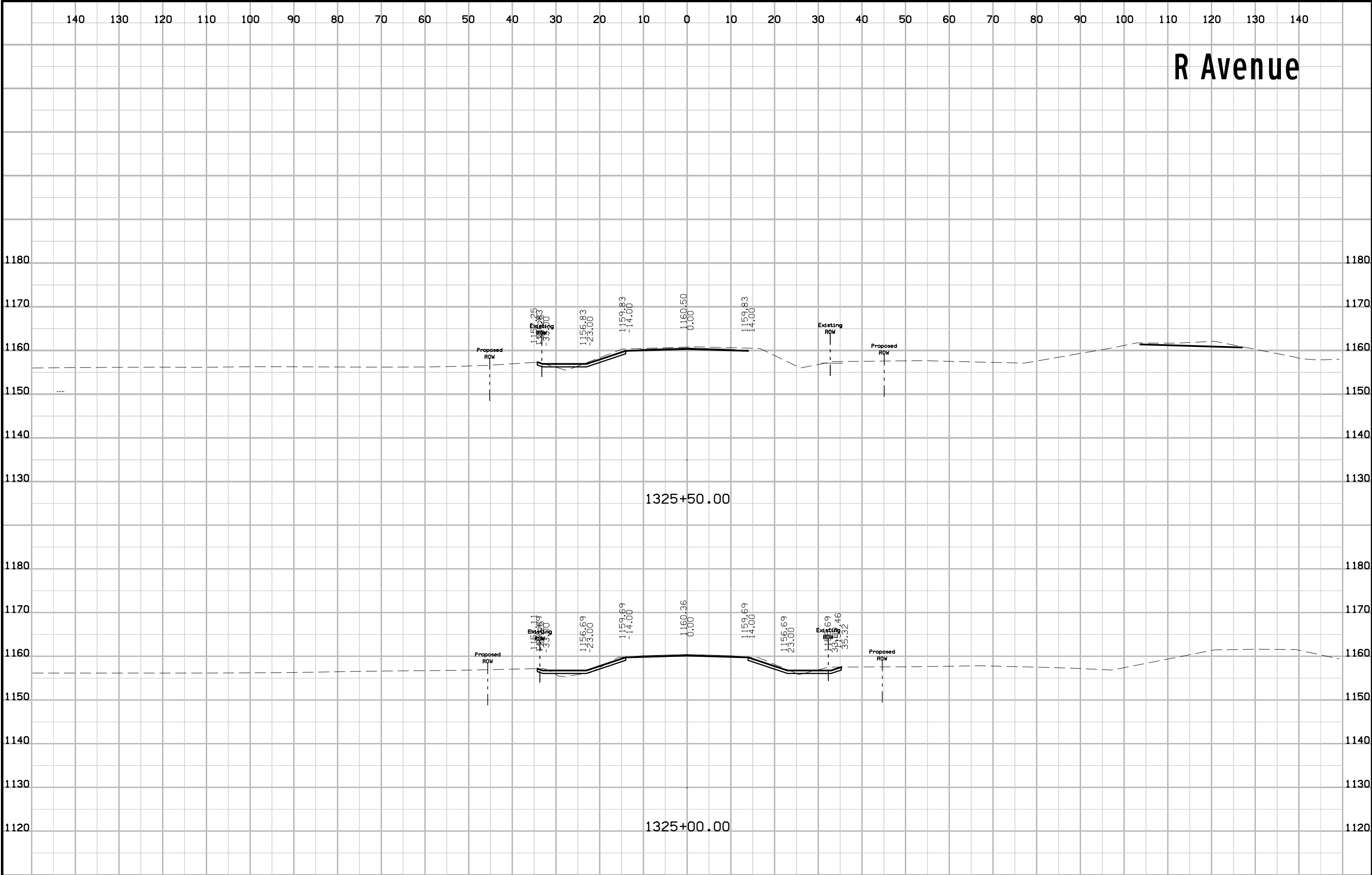


587+50.00

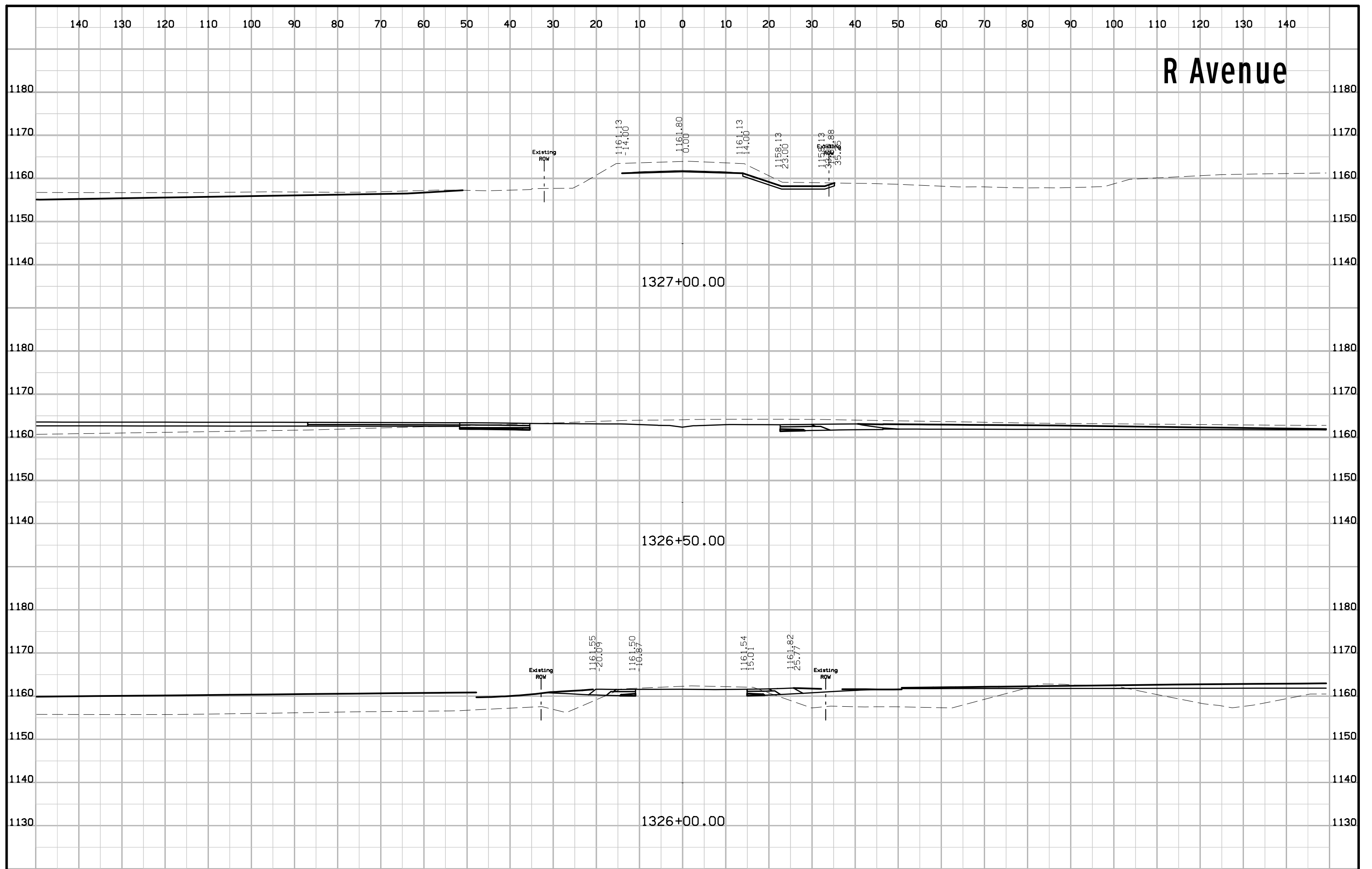
R Avenue



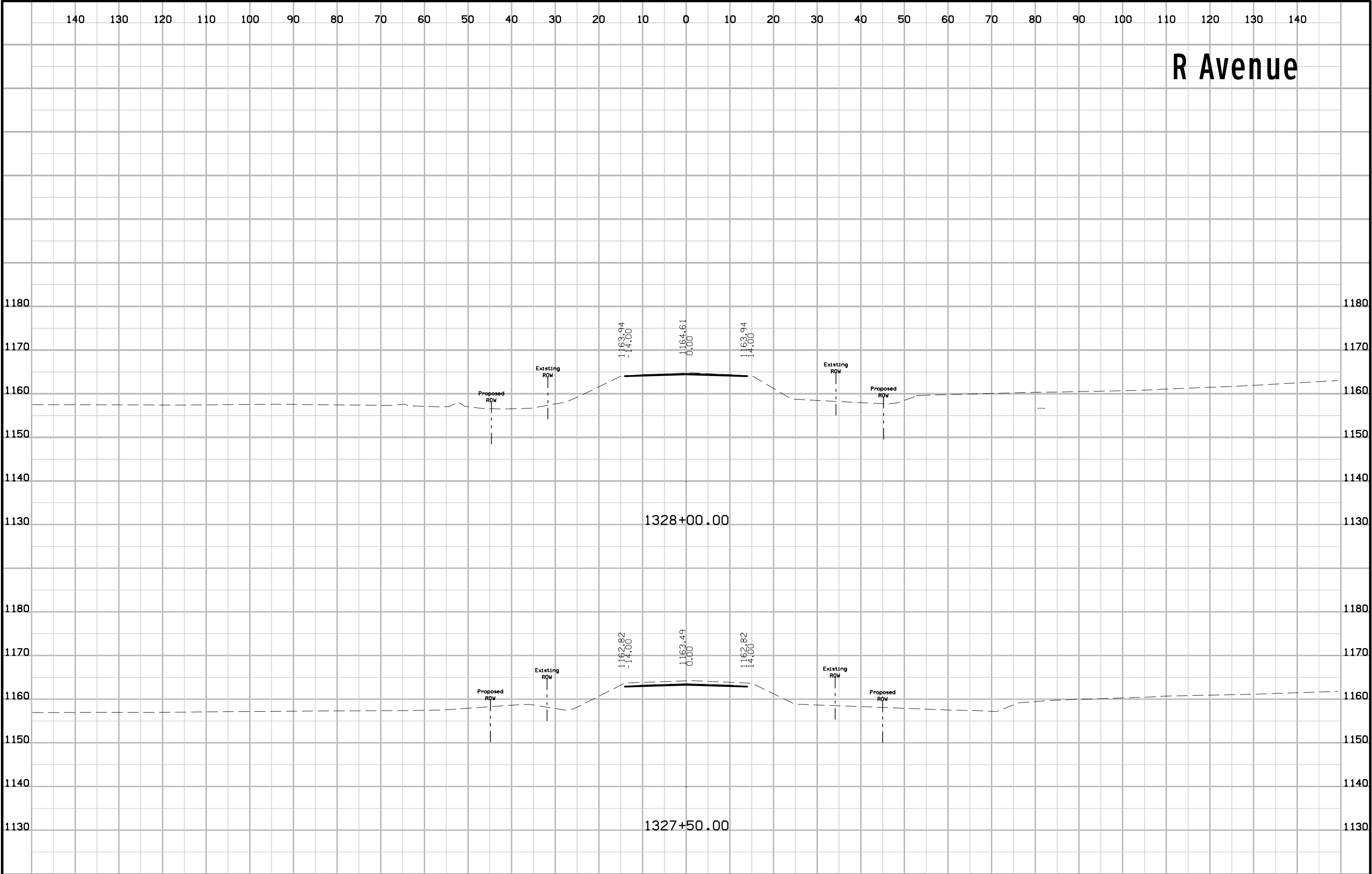
R Avenue



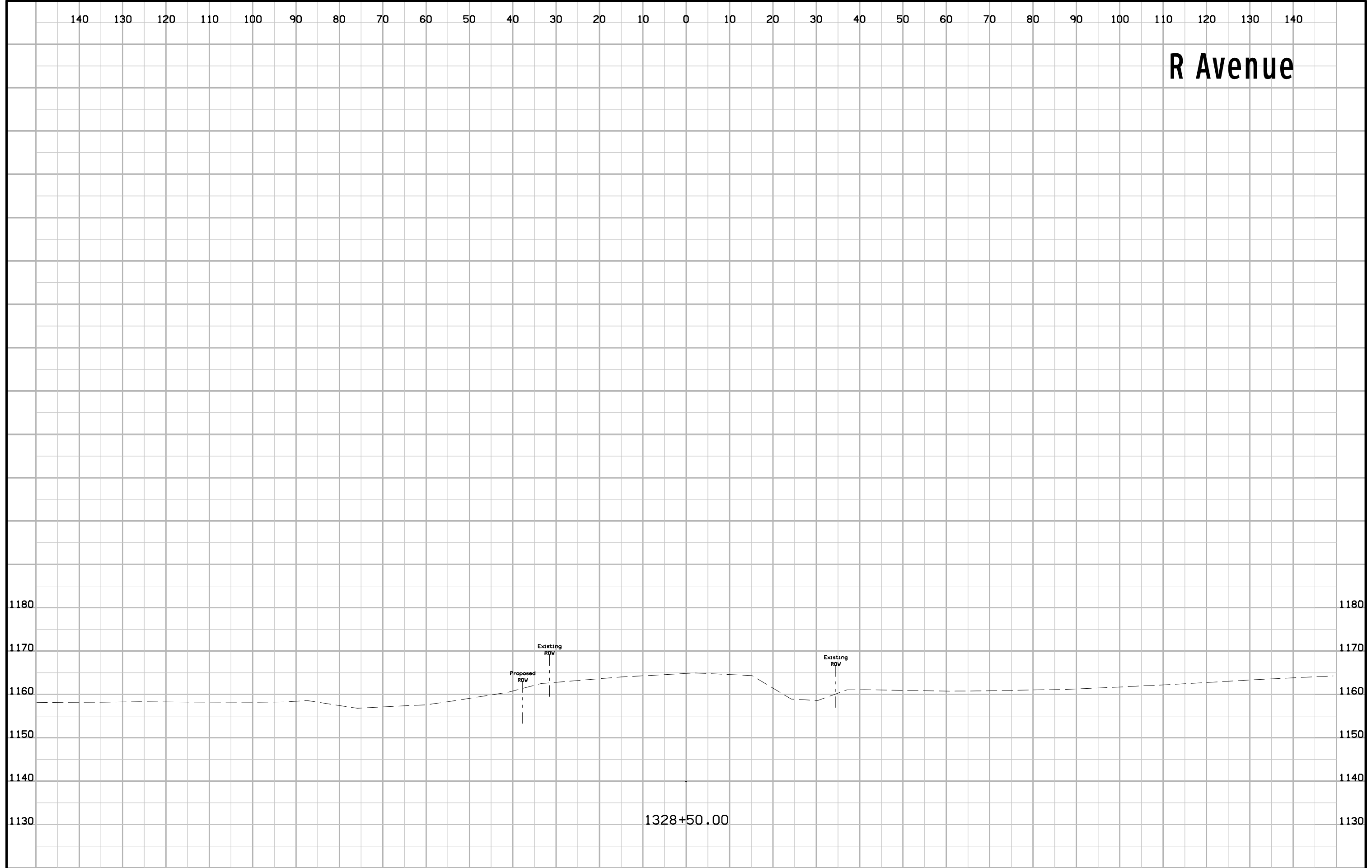
R Avenue



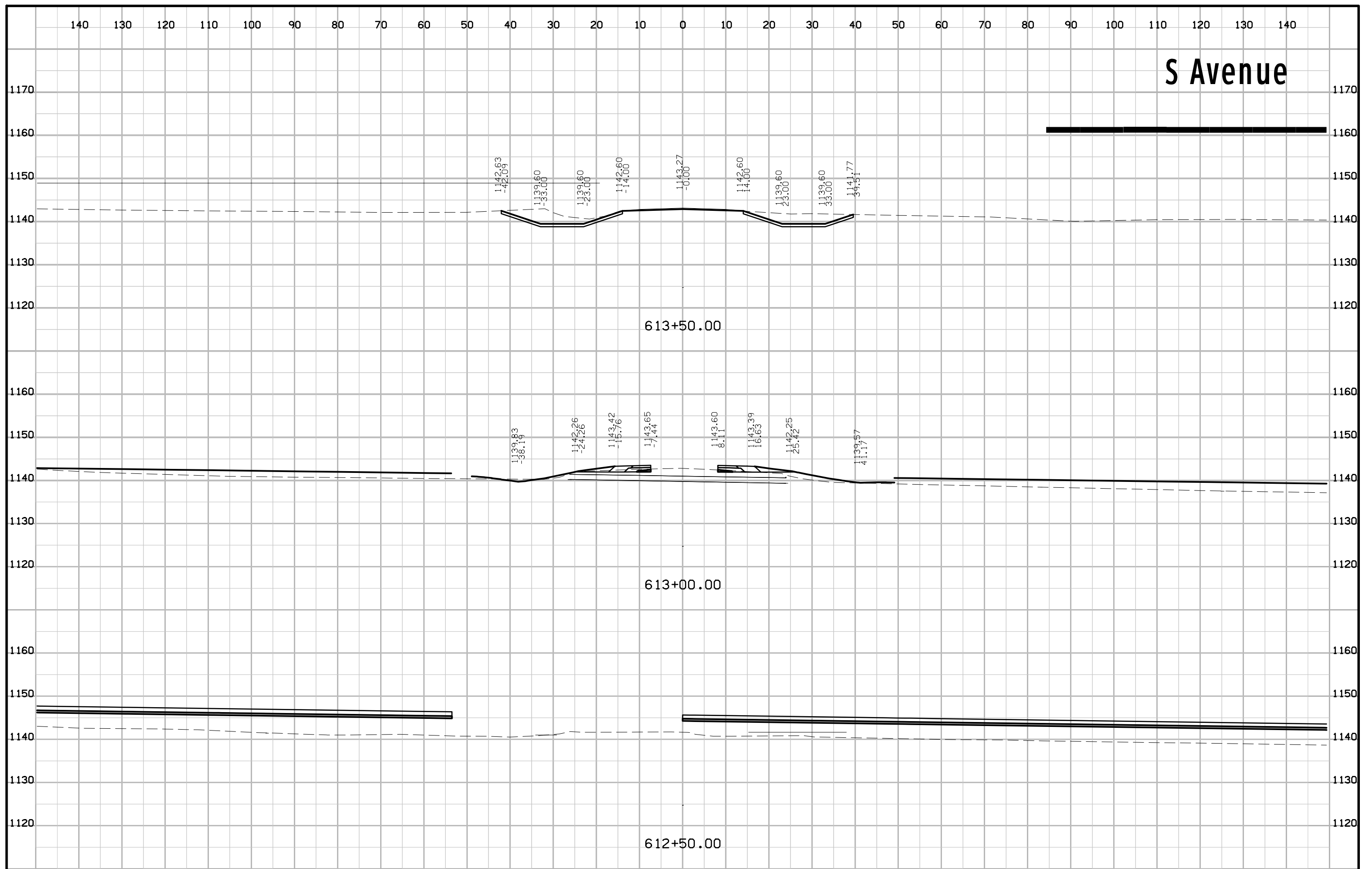
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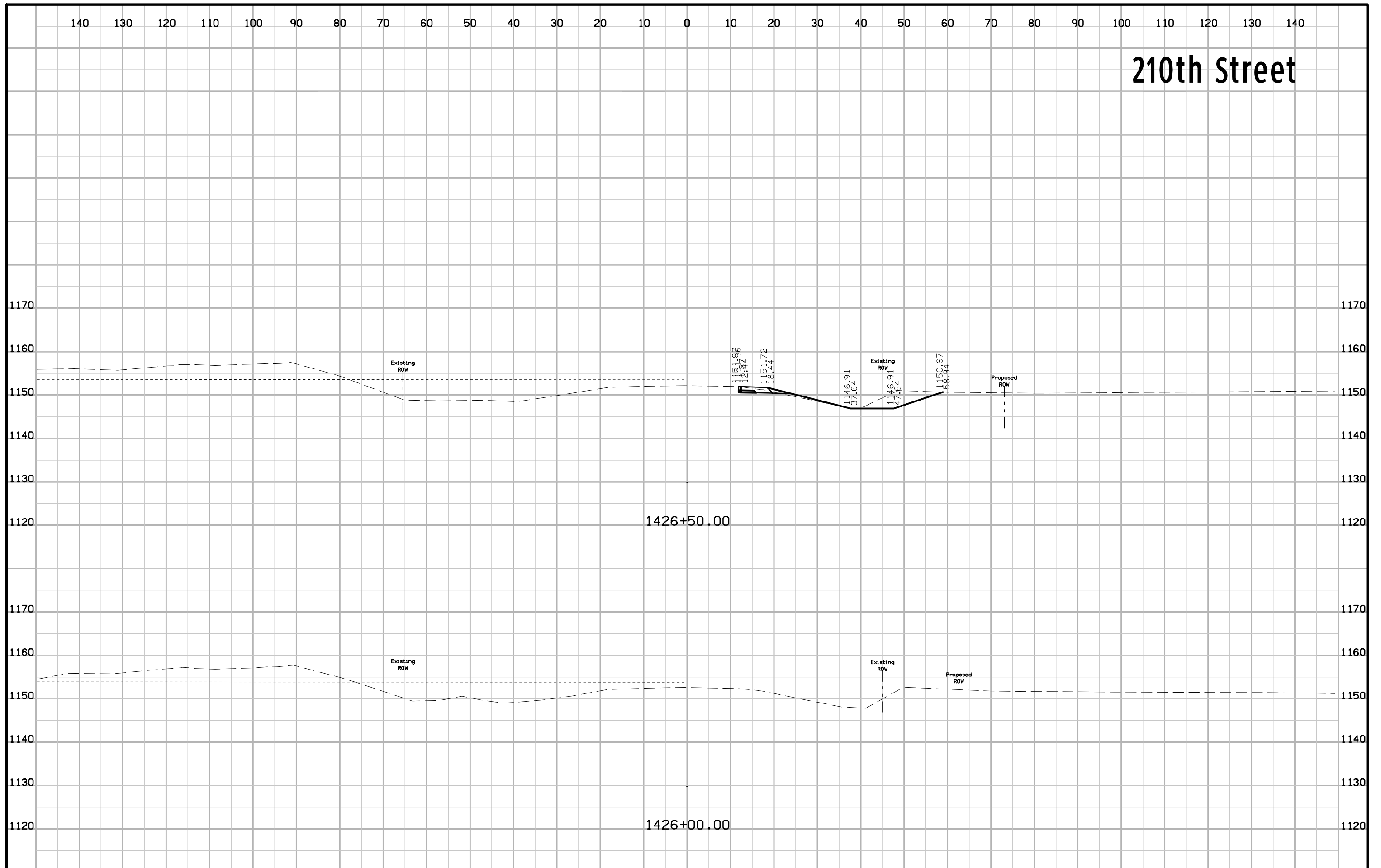
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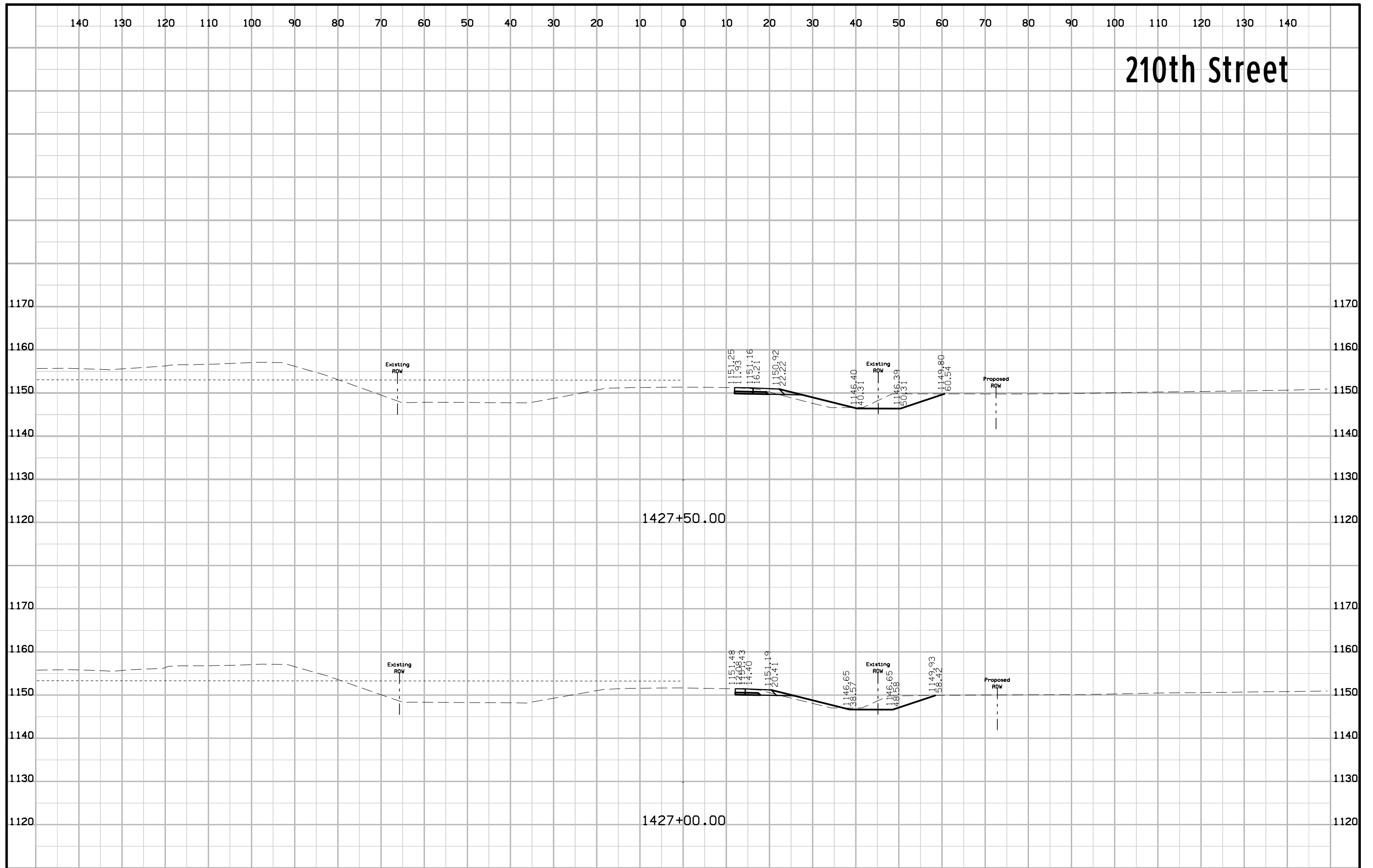
S Avenue



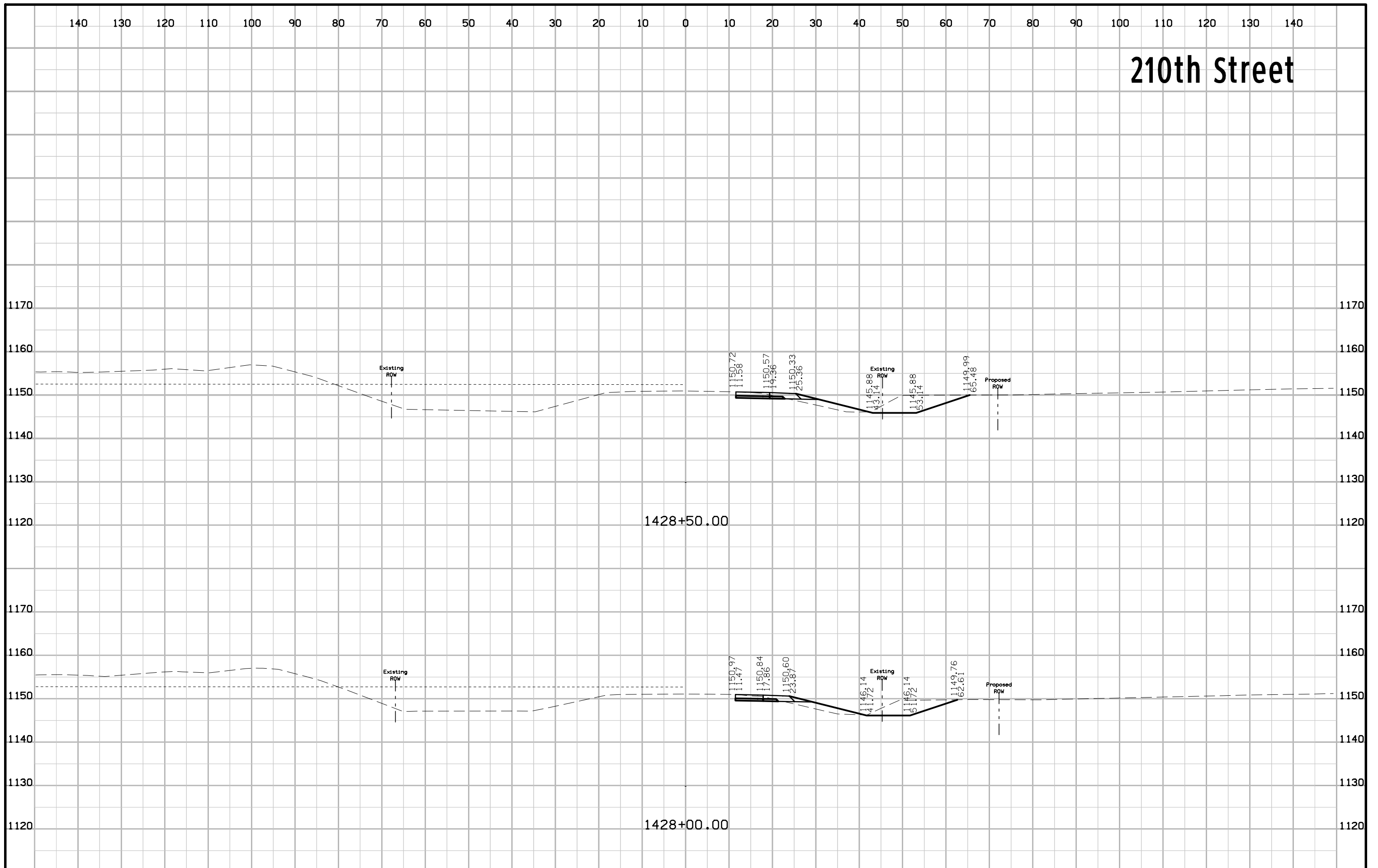
210th Street



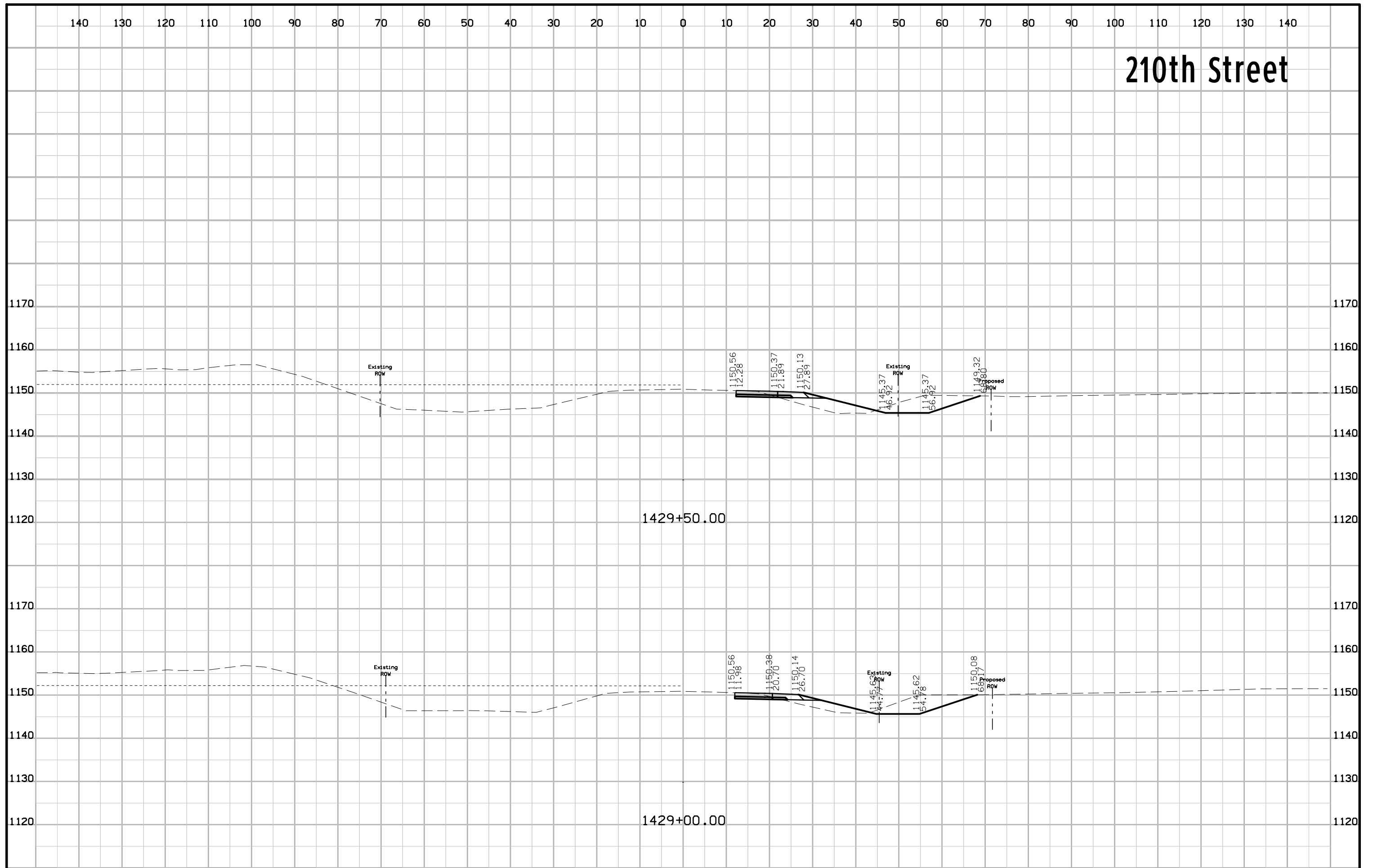
210th Street



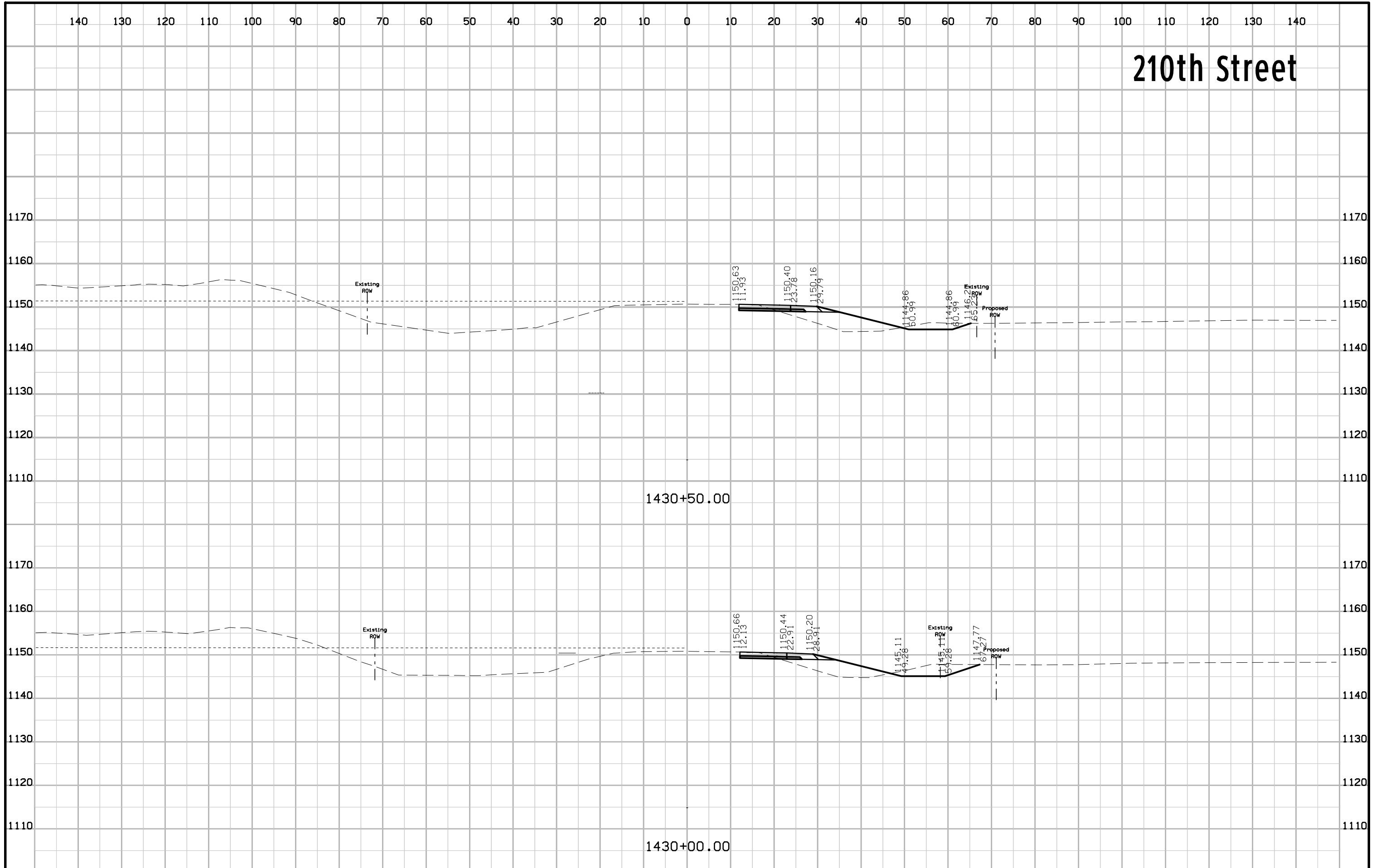
210th Street



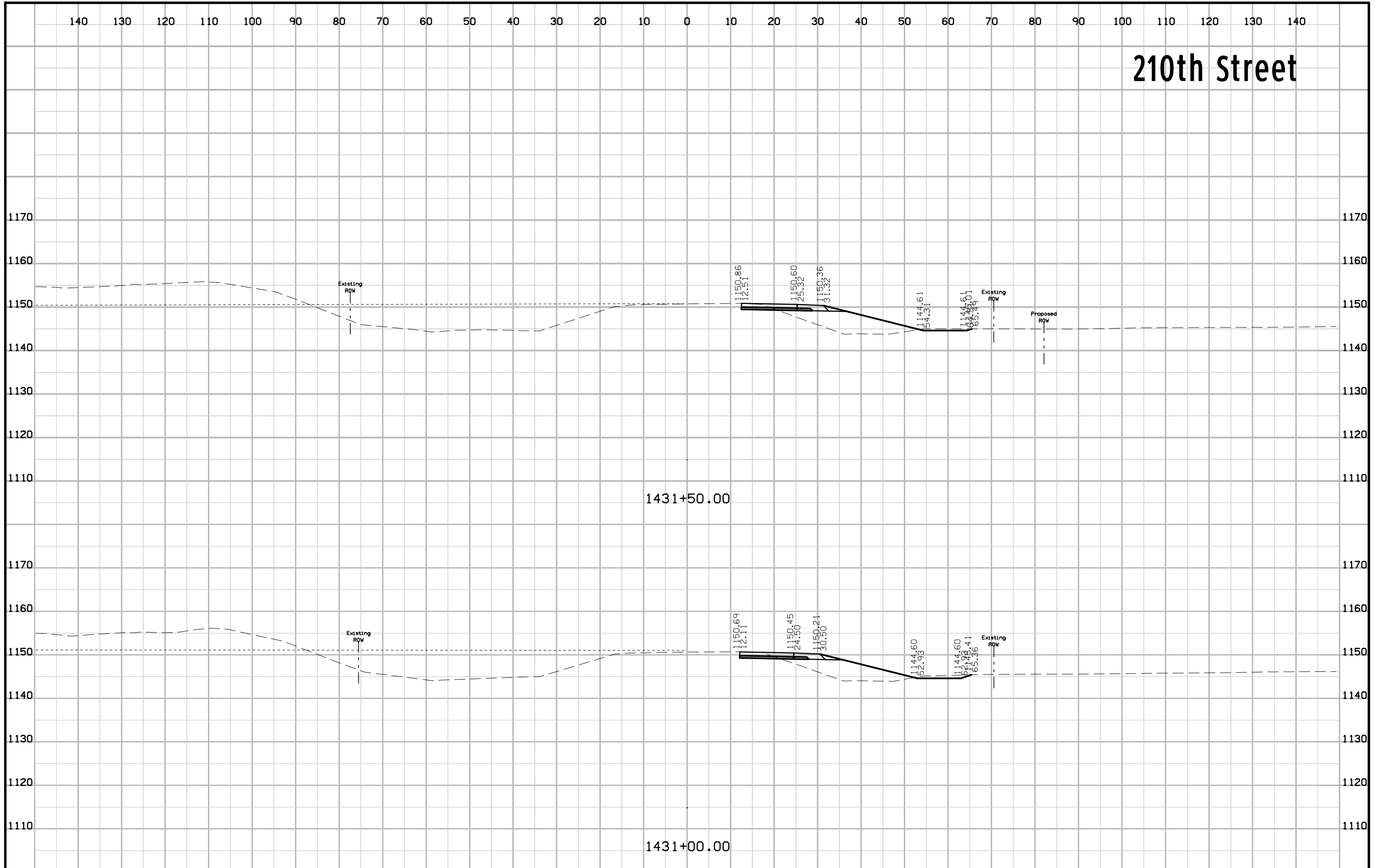
210th Street



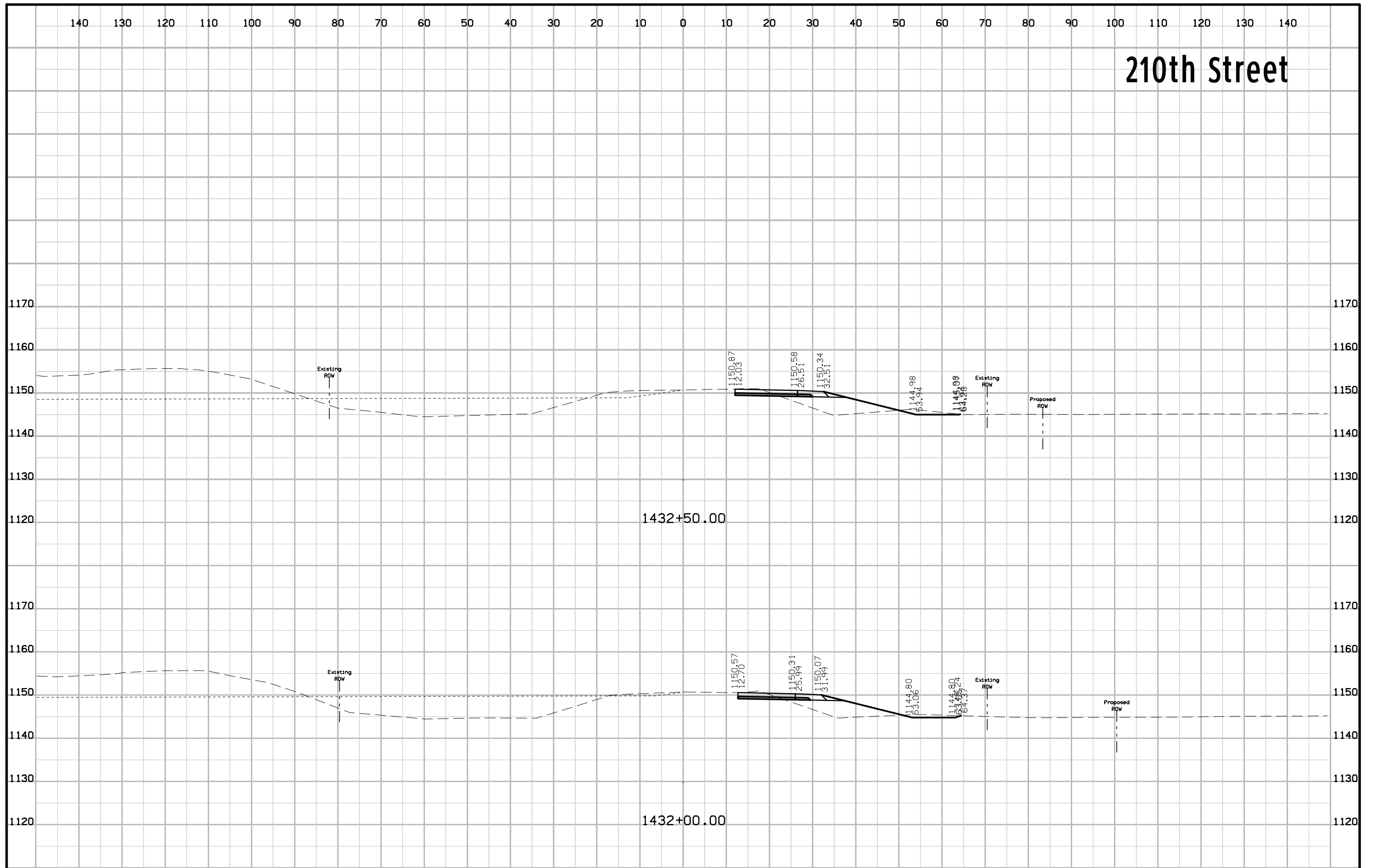
210th Street



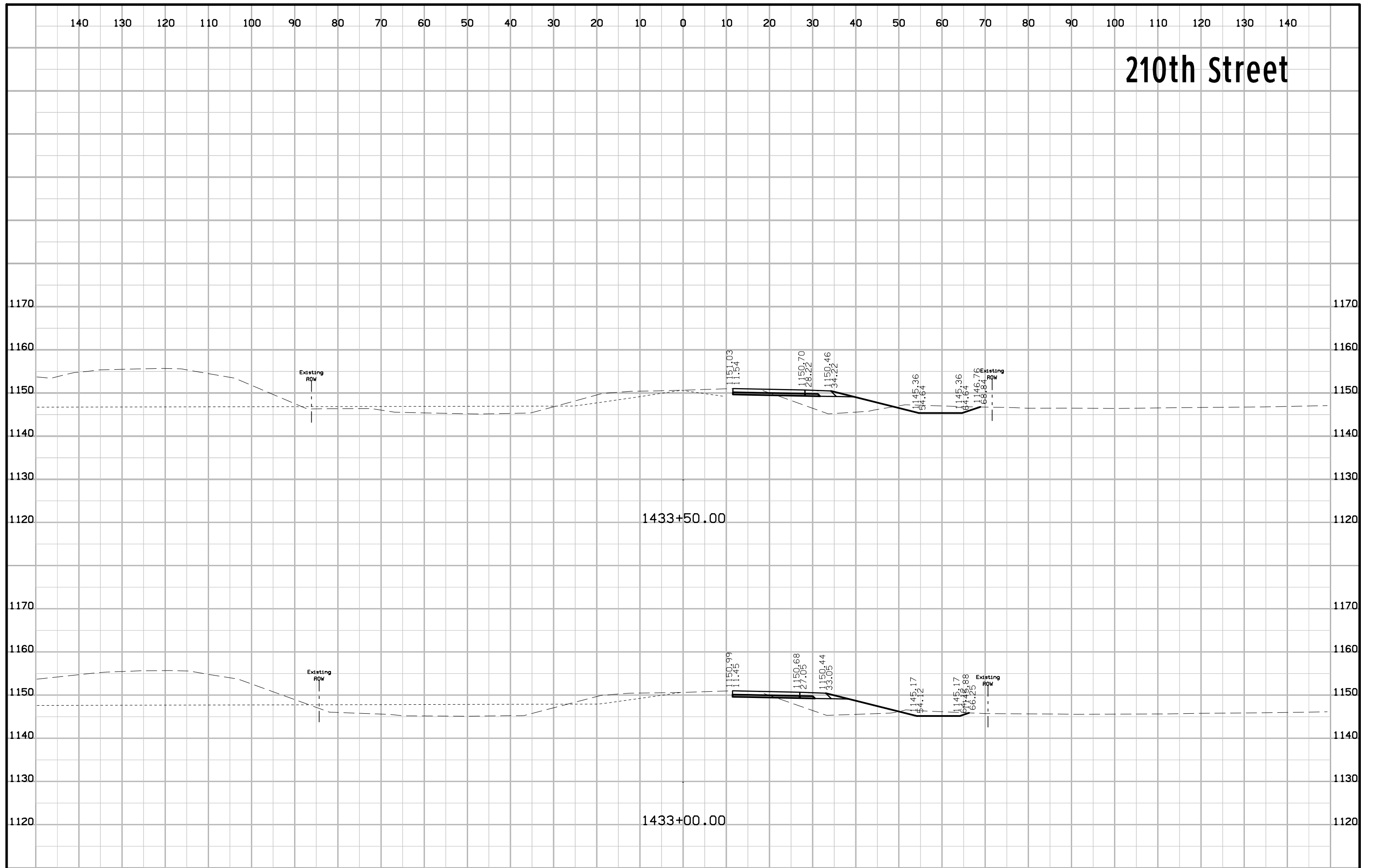
210th Street



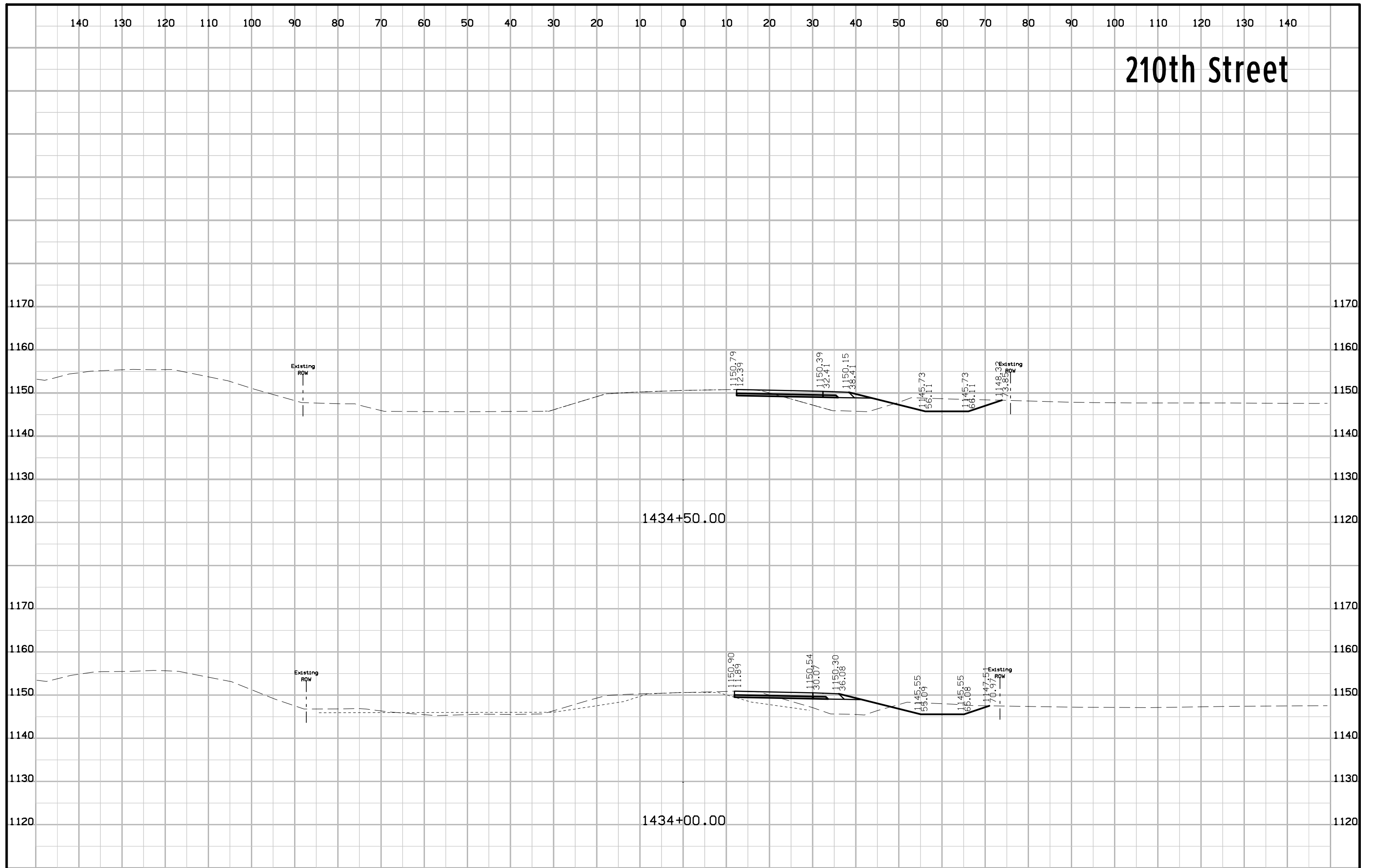
210th Street



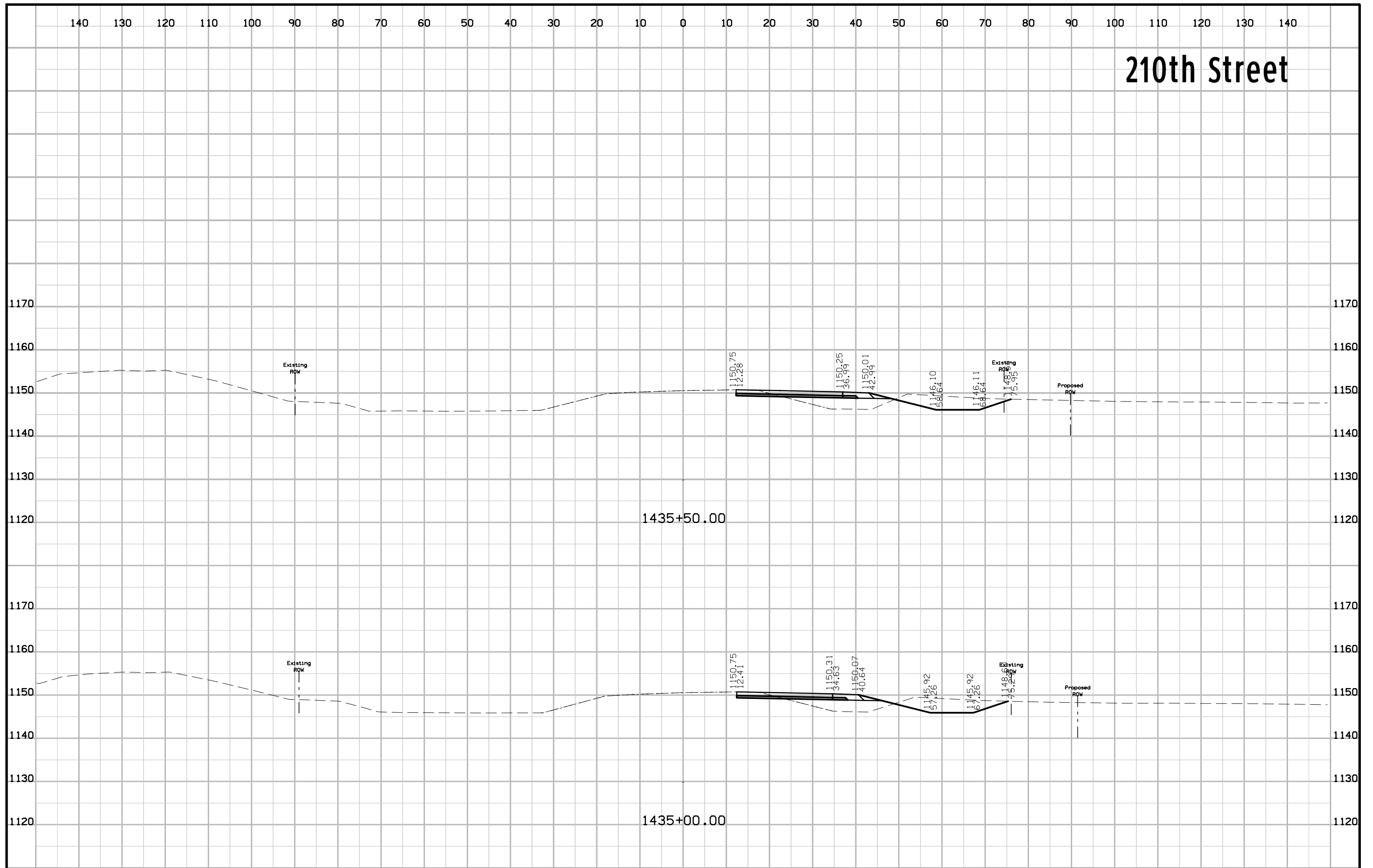
210th Street



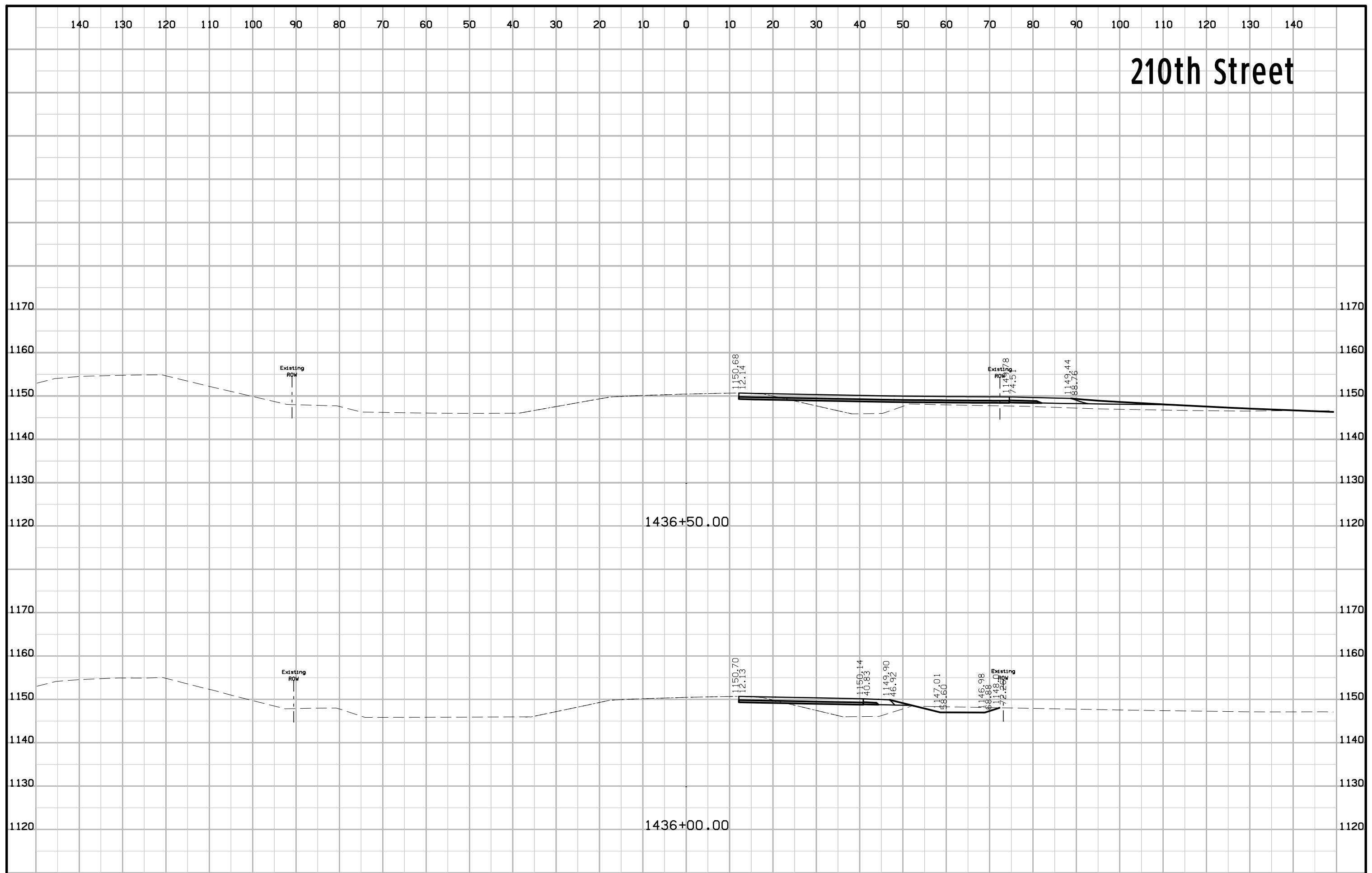
210th Street



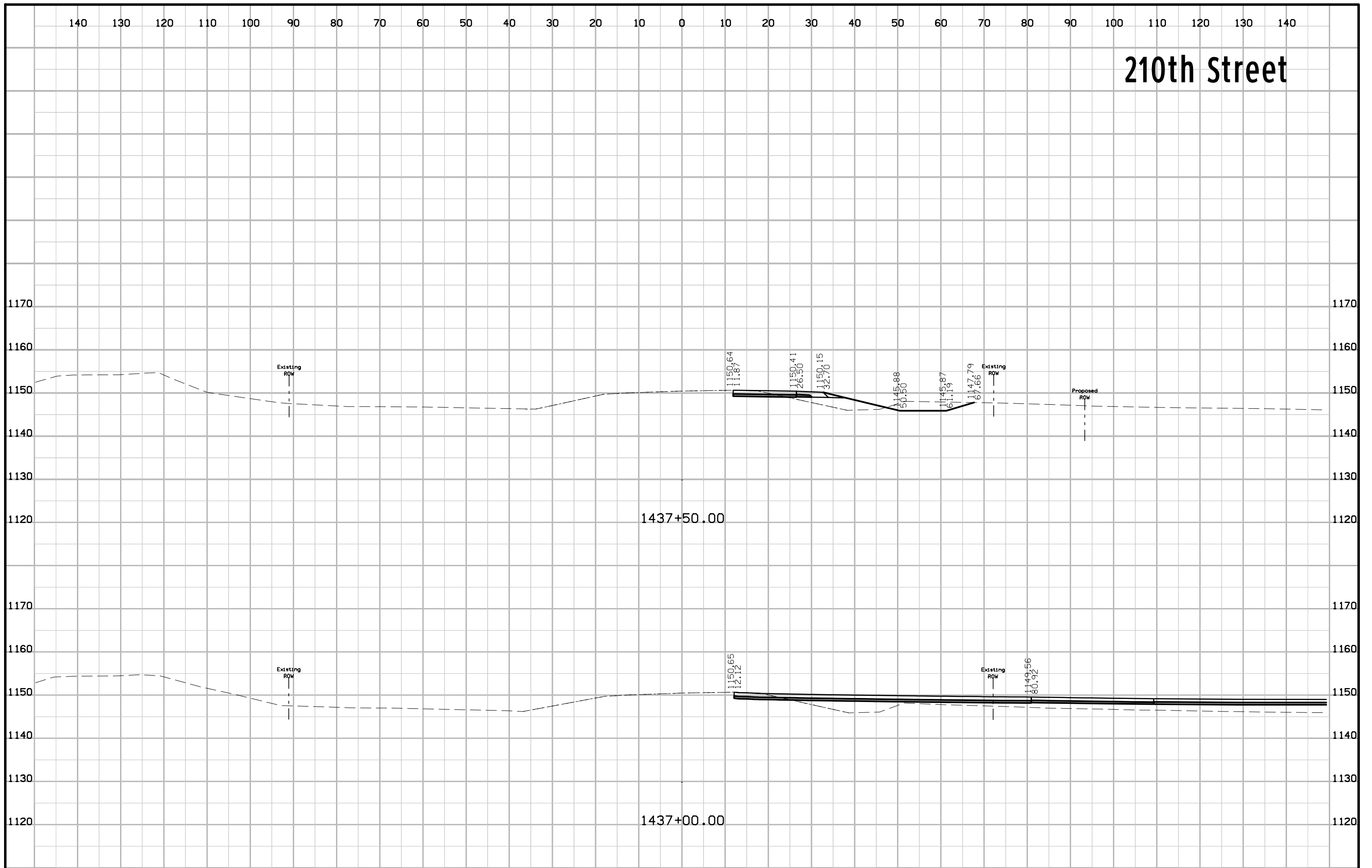
210th Street



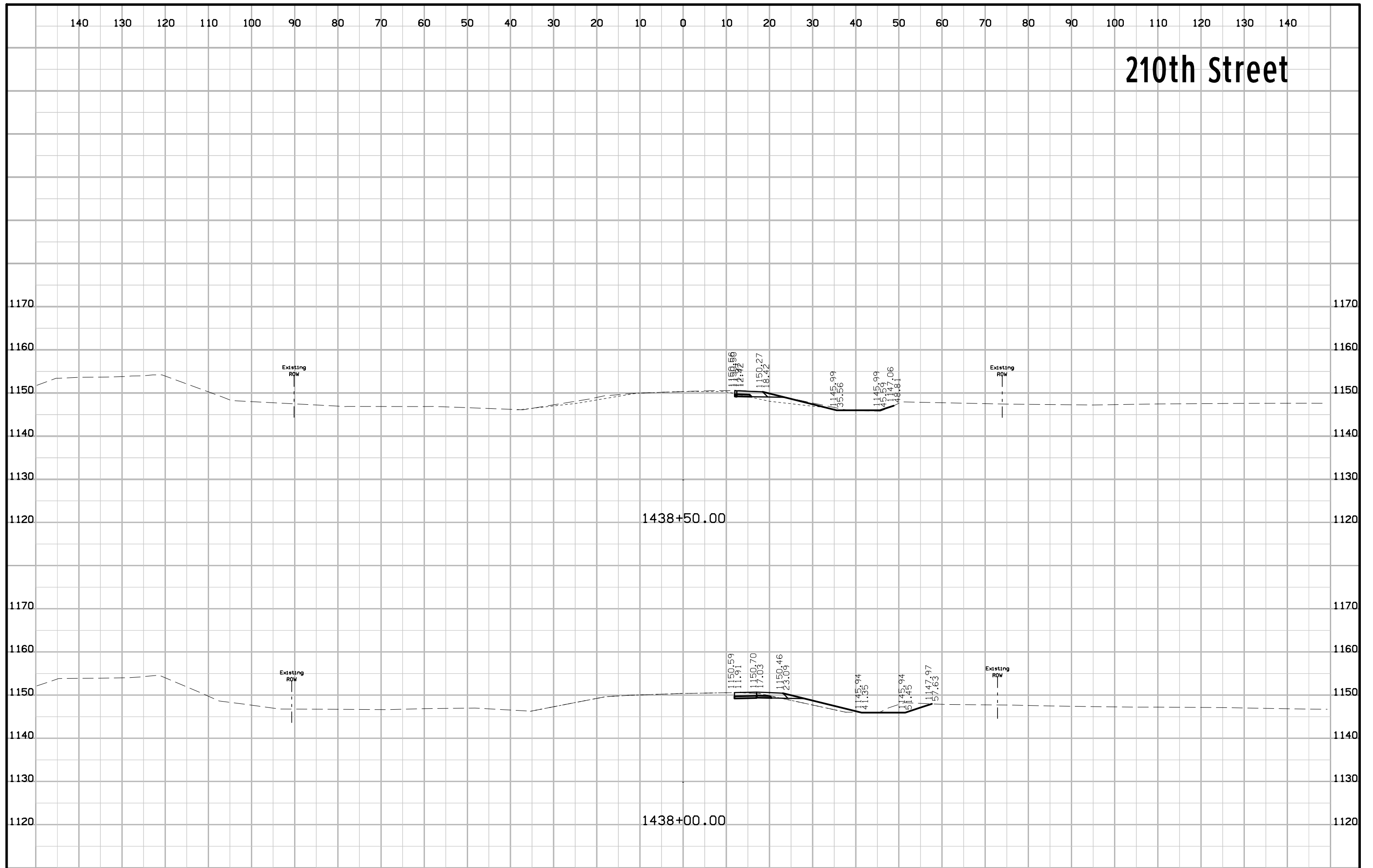
210th Street



210th Street



210th Street



210th Street

