KOSSUTH COUNTY

HMA PAVEMENT WIDENING w/ HMA RESURFACING

NHSX-018-3(116)--3H-55

LETTING DATE
MAY 20, 2025

IOWA DOT

PLANS OF PROPOSED IMPROVEMENT ON THE

PRIMARY ROAD SYSTEM

KOSSUTH COUNTY

HMA PAVEMENT WIDENING w/ HMA RESURFACING

ECL in Algona to 0.8 mi east of Sexton

SCALES: As Noted

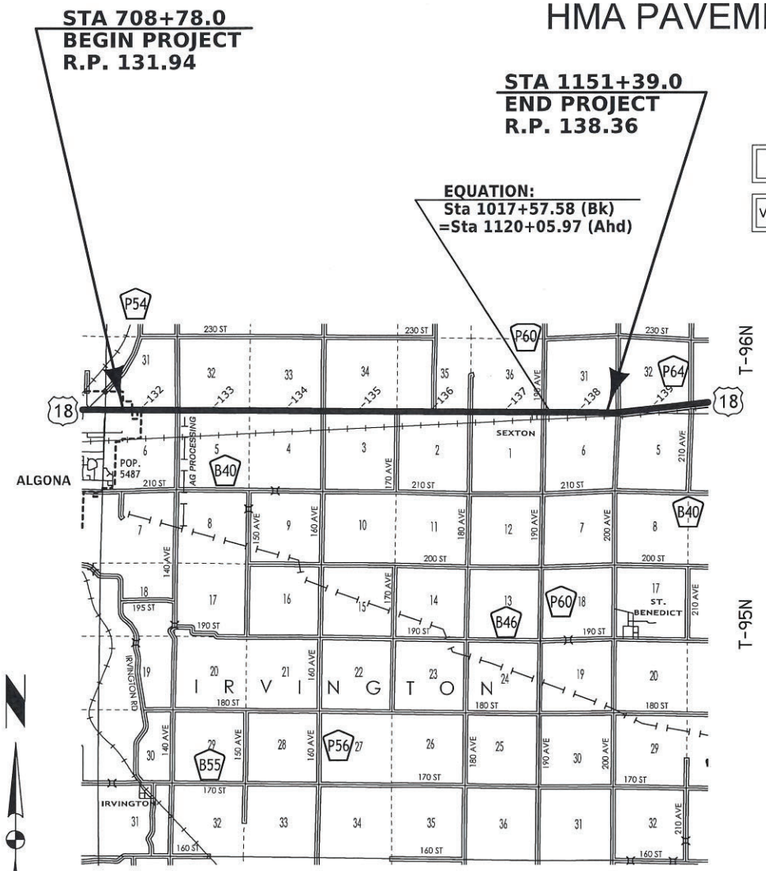
REVISIONS

	TOTAL
	235
PROJECT IDENTIFICATION NUMBER	
23-55-018-010	
PROJECT NUMBER	
NHSX-018-3(116)--3H-55	
R.O.W. PROJECT NUMBER	
NHSX-018-3(118)--2R-55	

STA 708+78.0
BEGIN PROJECT
R.P. 131.94

STA 1151+39.0
END PROJECT
R.P. 138.36

EQUATION:
Sta 1017+57.58 (Bk)
=Sta 1120+05.97 (Ahd)



Refer to the Proposal Form for list of applicable specifications.

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

IOWA ONE CALL
1-800-292-8989 | 811
www.iowaonecall.com

INDEX OF SHEETS

105-3
10-18-05

A.1-A.3	Title sheet, Utility Contacts and Survey Symbols
B.1-B.5	Typical Details
C.1-C.49	Estimate of Quantities, General Notes and Tabulations
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* Color Plan sheets

MILEAGE SUMMARY

105-1
09-27-94

Div.	Location	Lin. Ft.	Miles
	Sta. 708+78.0 to Sta. 1151+39.0	44,261.0	8.382
	Equation: Sta. 1017+57.58 (Bk) =Sta. 1120+05.97 (Ahd)		
	Shortens line	10,248.39	
	Total Net Project Length	34,012.61	6.443

DESIGN DATA RURAL

2025 AADT	3200	V.P.D.
2045 AADT	4000	V.P.D.
2045 DHV	420	V.P.H.
TRUCKS	19	%
Total Design ESALs	1,997,280	

LOCATION MAP SCALE
0 1 2 3
Miles

ROADWAY DESIGN

IOWA LICENSED PROFESSIONAL ENGINEER
Mary K. Kelly
17552

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.

Mary K Kelly 3/17/2025
Signature Date

Mary K. Kelly
Printed or Typed Name

My license renewal date is December 31, 2026

Pages or sheets covered by this seal: A.1-A.3, B.1-B.5, C.1-C.49, CS.1-CS.4, D.1-D.8, E.1, G.1-G.5, J.1-J.9, L.1-L.7, R.1-R.15, T.1-T.11, U.1-U.6, VX1-VX2, VY1, W.1-W.109

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER A.1

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SURVEYED UTILITY OWNER SYMBOLS

Sub-Surface Utility Mapping Quality Level is in accordance with CI/ASCE 38-02 Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data.

Remark Abbreviations
QLA Quality Level A Highest guideline quality level
QLD Quality Level D Lowest guideline quality level

PPA, Power Pole Alliant Energy

E1 ***EL1D, Electric Line Alliant Energy - Quality D***

T1 ***TL1D, Telephone Line Centurylink - Quality D***

TV ***TV1D, TV Cable MEDIACOM - Quality D***

FO ***FO1D, Fiber Optic ICN - Quality D***

PPB, Power Pole Midland Power

PPC, Power Pole Co. ALGONA MUNICIPAL UTILITIES

PPD, Power Pole Co. ALLIANT ENERGY & ALGONA MUNICIPAL UTILITIES *SHARED POWER POLE*

UTILITY CONTACTS

Utility contacts for Hancock County, NHSX-018-4(30)--3H-41 (HMA Pavement Widening/HMA Resurfacing)
Location: HMA Pavement Widening/HMA Resurfacing

Alliant Energy Electric Distribution
Alliant Energy Gas Distribution
Alliant Energy Gas Transmission
Alliant Energy Fiber Transmission
Billie Reid, Real Estate and ROW Representative II
200 1st St SE, Cedar Rapids, IA, 52401
ph: 3197863703
billiereid@alliantenergy.com

Aureon Network Services Fiber Distribution
Aureon Network Services Fiber Transmission
Jeff Klocko, OSP Engineer
7760 Office Plaza Drive South, West Des Moines, IA, 50266
ph: 5158300445
jeff.klocko@aureon.com

Communications 1 Network, Inc. Cable TV
Communications 1 Network, Inc. Telephone
Jayson Keiper, Plant Supervisor
105 South Main, Kanawha, IA, 50447
ph: 6417623772 cell: 6418601204
jkeiper@comm1net.net

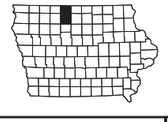
Iowa Department of Transportation Electric Distribution
Iowa Department of Transportation Fiber Distribution
Iowa Department of Transportation Fiber Transmission
Jason Dale, ITS Maintenance Engineer
800 Lincoln Way, Ames, IA, 50010
ph: 515-239-1995
Jason.Dale@iowadot.us
CC: Tina.Greenfield@iowadot.us

Lumen Centurylink Fiber Distribution
Lumen Centurylink Telephone
Lumen Centurylink Fiber Transmission
Steve Parker, Manager of Engineering & Construction
2103 E. University Ave., Des Moines, IA, 50317
ph: 5152650968 cell: 5073581978
Steven.Parker4@lumen.com
CC: ctl-rcmv-ia@lumen.com
CC: relocations@lumen.com

Prairie Energy Cooperative Electric Distribution
Ken Norem, Director of Operations and Engineering
2099 Hwy 3 West, Clarion, IA, 50525
ph: 8007280013 cell: 5152931356
knorem@prairieenergy.coop

Winnebago Cooperative Telecom Association Fiber Distribution
Paul Davis, Network Manager
704 East Main Street, Lake Mills, IA, 50450
ph: 6415926105 cell: 6417810059
pauldavis@wctatel.com

Mediacom Communications Corporate Cable TV
Mike Lawler, Technical Operations Manager
ph: 5155712183
mlawler@mediacomcc.com



SURVEY SYMBOLS

AST, Above Ground Storage Tank
BB, Billboard
BBB, Bottom of Bridge Beam
BCL, Bridge Centerline
BD, Bridge Deck
BIN, Grain Bin
BL, Topo Breakline
BLD, Building or Foundation
BLS, Bridge Low Steel
BM, Bench Mark
BNK, Stream Bank
BRG, Bridge
C, Centerline BL of Road -ML or SR
CAV, Cave
CEL, Cell Phone Tower
CIS, Cistern
CON, Concrete or A/C Slab
CP, Control Point
CRP, Corporation Line
CS, Curve Point
CU, Back of Curb
CUL, Culvert
D, Centerline Draw or Stream -Down
DAB, Drainage Area Boundary
DIK, Centerline of Dike or Dam
DTM, Photogrammetry Elv Control Check
DU, Centerline Draw or Stream -Up
EB, Electrical Box
EG, Edge of Gravel Road
ENP, Edge Paved Entrance and Park Lot
ENT, Centerline BL of Entrance
ENU, Edge Unpaved Entrance and Parking
EP, Edge of Paved Roads -ML or SR
EW, Edge of Water
FCL, Chain Link and Security Fence
FENO, FENO Monument
FHD, Fire Hydrants
FLG, Flag Poles
FP, Filler Pipe
FW, Wire Fence
FWD, Wood Fence
GDC, Guard Rail Cable
GDL, Guard Rail Steel
GP, Guard Post -Less Than 4 Posts
GPR, Guard Post -4 or More Posts
GR, Ground Shot
GRV, Grave
GU, Gutter In Front of Curb
GV, Gas Valve
HDG, Hedge Row
HS, Hydric Soil -Wetlands
HT, Electrical Highline Tower
IN, Storm Sewer Intake
INB, Storm Sewer Beehive Intake
LC, Lot Corner
LIN, Miscellaneous Line
LP, L.P. Tank
LUM, Luminaire
MH, Utility Access -Manhole
MIS, Miscellaneous
MM, Mile Marker Post
OUT, Tile Outlet
PC, Curve Point
PCP, Photo Control Point
PCT, Photo Control Target
PI, Tangent Point
PIP, Pipe Culvert
PL, Location of Photo -Wetlands
PLG, Location of General Photo
POC, Curve Point
POST, Spiral Point

PR, Electic Riser Pole
PRO, Profile Shot
PT, Curve Point
REF, Reference Tie Point
RET, Retaining Walls
RIP, Rip-Rap
ROC, Rock Outcropping
ROW, Right of Way Mark
RR, Centerline of Railroad Tracks
RRB, Railroad Signal Box
RRF, Railroad Frog
RRR, Railroad Rail
RRS, Railroad Signal
RRW, Railroad Switch
RT, Radio Tower
S, Soil Sampling Site -Wetlands
SBR, Size of Bridge
SC, Spiral Point
SCR, Section Corner
SEP, Septic Tank
SF, Silt Fence -Wetlands
SG, Staff Gauge -Wetlands
SH, Paved Shoulder
SHR, Shrub
SI, Sign
SL, Speed Limit Sign
SLN, Section Line
SLO, Silo
SNK, Sink Hole
SNP, Unpaved Shoulder
SP, Stream Profile
STP, Stump
SWK, Sidewalk
SWP, Swamp or Marsh
TA, Tower Anchor
TBO, Telephone Booth
TCB, Traffic Signal Box
TDC, Tree Deciduous
TDL, Trafic Detection Loop
TER, Terrace
TEV, Evergeen Tree
TFR, Tree Fruit
TGP, Telegraph Pole
TIL, Tile Line
TLNL, Tree Line Left
TLNR, Tree Line Right
TOP, Top of Bridge Pier
TPA, Telephone Pole Co. 1
TPB, Telephone Pole Co. 2
TPC, Telephone Pole Co. 3
TR, Telephone Riser Pole
TRL, Trail
TS, Spiral Point
TSB, Telephone Switch Box
TSG, Traffic Signal
TSL, Traffic Signal and Luminare
TV, Satelite TV Dish
TVP, TV Pedestal
TW, Top of Water
UB, Utility Box
UE, Utility Elevation
UPH, Utility Pot Hole - Quality A
UST, Underground Tank
UV, Underground Utility Vault
VS, Channel Cross Section
WC, Wild Card -Misc. Field Shot
WEL, Well
WHD, Water Hydrant
WHU, RV Water Hook Up
WM, Wind Mill
WND, Wind Turbine
WV, Water Valve

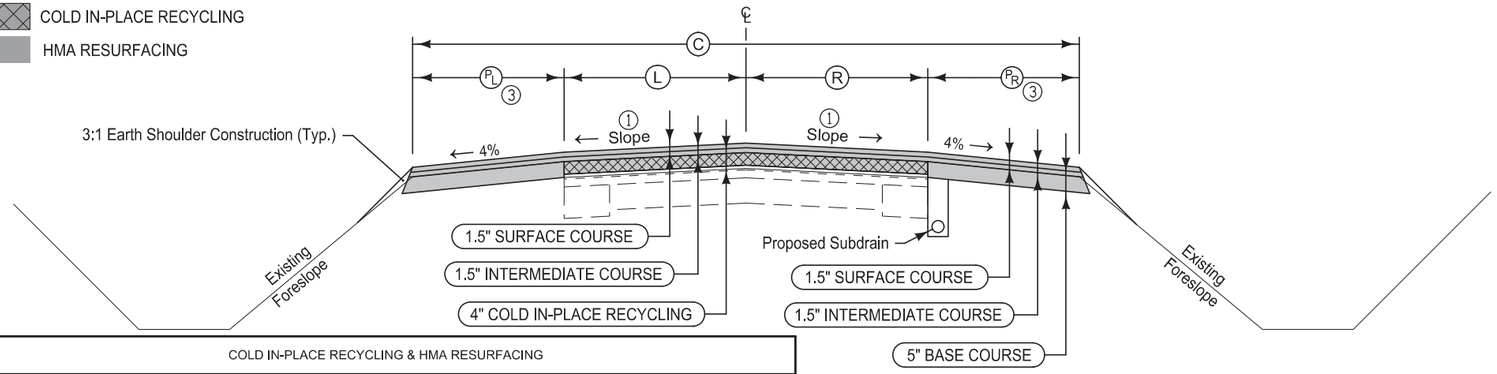
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER A.3

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MK-1

COLD IN-PLACE RECYCLING

HMA RESURFACING



COLD IN-PLACE RECYCLING & HMA RESURFACING

STATION TO STATION		C Feet	L Feet	R Feet	PL Feet	PR Feet	REMARKS
708+78.00	710+28.00	44	12	12	0	0	From BOP
710+28.00	729+10.26	44	12	12	10	10	
752+31.64	844+40.46	44	12	12	10	10	WBL Listed. EBL = See D & L sheets for details
857+14.16	890+00.00	44	12	12	10	10	WBL Listed. EBL = See D & L sheets for details
1123+03.85	1151+39.00	44	12	12	10	10	To EOP (4)

Notes:

(1) Finished slope shall match existing pavement except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %.

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

(3) Refer to Tabulation 100-25 for HMA quantities.

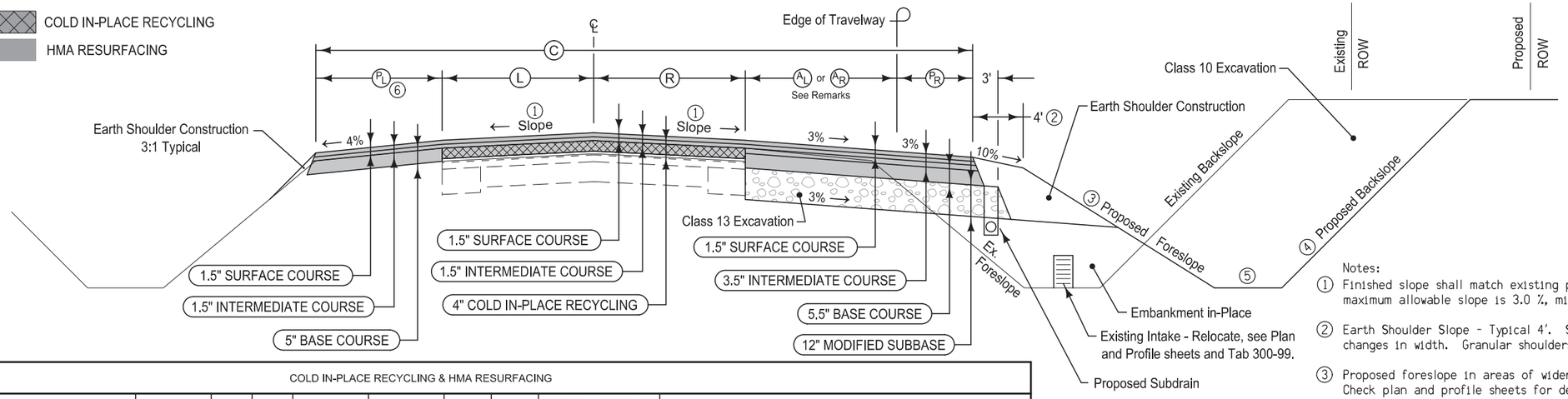
(4) Continue (L) & (R) HMA runout to Sta. 1152+89.0 per Std Rd Plan PR-202, Type 'N3' Taper out with granular shoulder fillet.

TYPICAL CROSS SECTION
COLD IN-PLACE RECYCLING & HMA RESURFACING
w/ FULL WIDTH PAVED SHOULDERS

MK-2

COLD IN-PLACE RECYCLING

HMA RESURFACING



COLD IN-PLACE RECYCLING & HMA RESURFACING

STATION TO STATION		C Feet	L Feet	R Feet	AL Feet	AR Feet	PL Feet	PR Feet	EARTH SHLDR. CONST. Left side	EARTH SHLDR. CONST. Right side	REMARKS
729+10.26	729+11.61	44	12	12		0-0.04	10	10-9.96	0.01	0.01	EB Offset Right turn lane at 140th
729+11.61	737+87.82	44-78.76	12	12	0-16	0.04-24.76			8.76	8.76	EB Lt turn, EB Offset Rt turn lane at 140th
737+87.82	739+68.14	78.76-83.84	12	12	16	24.76-29.85			1.80	1.80	EB Lt turn, EB Offset Rt turn lane at 140th
739+68.14	743+15.63	83.84-60	12	12	16	29.85-0			3.47	3.47	EB/WB left turn lanes and EB returns at 140th
743+15.63	743+55.43	60	12	12	16				0.40		WB Lt turn lanes at 140th St
743+55.43	752+31.64	60-44	12	12	16-0				8.76		WB Lt turn lanes at 140th St
833+88.14	845+51.73	44-67.85	12	12		0-29.85	10	10-4	2.36	11.64	EB Offset Right Turn Lane & Return at 160th
845+51.73	857+14.16	44-67.83	12	12	0-29.83		10	10-4	11.62	2.36	WB Offset Right turn Lane & Return at 160th
890+00.00	896+60.00	44-52	12	12	0-12		10	10-6			Begin WB Passing Lane Taper (2)
896+60.00	937+60.00	52	12	12	12		10	6			WB Passing Lane (2)
937+60.00	939+40.00	52-44	12	12	12-0		10	6-10			End WB Passing Lane Taper (2)
939+40.00	941+20.00	44-52	12	12		0-12	10	10-6			Begin EB Passing Lane Taper (2)
941+20.00	982+33.61	52	12	12		12	10	6			EB Passing lane (2)(7)
1120+05.97	1123+03.85	47.7-44	12	12	15.7-0		10	10	2.98	2.98	Equation beginning. WB Widening for alignment shift (8)

Notes:

(1) Finished slope shall match existing pavement except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %.

(2) Earth Shoulder Slope - Typical 4'. See profile portion of the P & P sheets for changes in width. Granular shoulders adjacent to passing lanes - See Typ. MK-8 for details

(3) Proposed foreslope in areas of widening is 4:1. Check plan and profile sheets for deviations

(4) Proposed backslope in areas of widening is 2.5:1. Check plan and profile sheets for deviations

(5) Check plan and profile sheets for ditch grades and ditch widths.

(6) Refer to Tabulation 100-25 for HMA quantities.

(7) End paving - Taper down HMA paving. Mill in Type 'N3' header joint at Sta 983+83.61.

(8) Begin paving ahead - Mill in Type 'N3' header joint at Sta 1016+07.58.

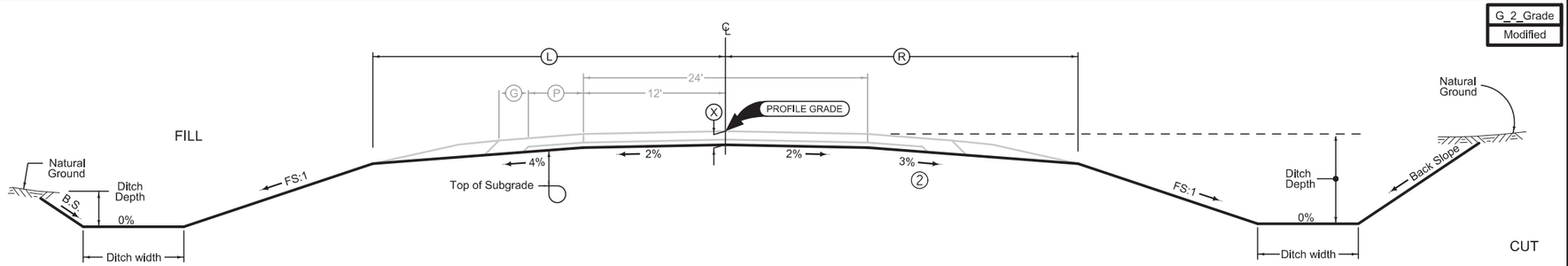
(9) Contractor to extend existing subdrain outlets at Sta 940+00 & Sta 950+00, Rt. Labor and hardware needed to extend outlets are included in subdrain bid.

TYPICAL CROSS SECTION
PROPOSED AUXILIARY LANE w/
HMA RESURFACING & PAVED SHOULDER

ROAD I.D.	LOCATION STATION TO STATION		DIMENSIONS Ⓛ Feet	Ⓡ Feet	Ⓧ Inches	FS ①
US 18	982+33.61	988+93.61	33.78	39.88-33.25	22.5	
US 18	988+93.61	993+22.84	33.78	33.25	22.5	
US 18	993+22.84	994+50.11	33.78-34.46	33.25	22.5	
US 18	994+50.11	1001+62.53	34.46-49.78	33.25-50.04	22.5	
US 18	1001+62.53	1003+00.50	49.78	50.04-54.04	22.5	
US 18	1003+00.50	1004+32.66	49.78	54.04	22.5	
US 18	1004+32.66	1006+37.09	49.78	54.04-38.90	22.5	
US 18	1006+37.06	1007+23.01	49.78	38.9	22.5	
US 18	1007+23.01	1008+25.00	49.87-49.56	38.9-41.0	22.5	
US 18	1008+25.00	1012+25.00	49.56-48.53	41	22.5	
US 18	1012+25.00	1014+80.00	48.53-44.37	41.0-33.78	22.5	
US 18	1014+80.00	1017+57.58	48.53-33.78	33.78	22.5	

① See plan and profile sheets and cross sections

G_2_Grade Modified



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

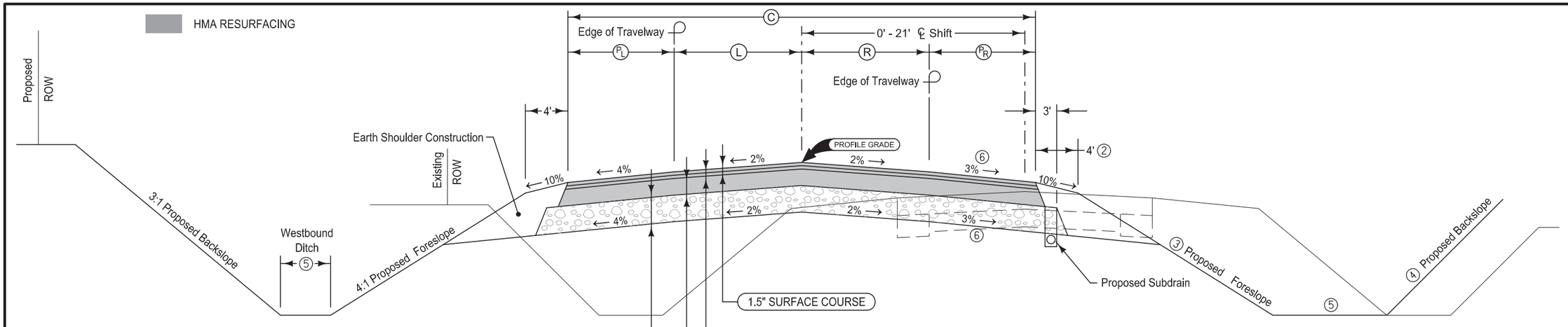
See plan & profile sheets and cross sections for additional details of ditches and backslopes.

2 LANE GRADING

Notes:
② See Note 6 on Typical MK-3

TYPICAL CROSS SECTION PROPOSED MAINLINE GRADING IN MAINLINE SHIFT

MK-3



HMA PAVEMENT - NEW									
STATION TO STATION		Ⓒ Feet	Ⓛ Feet	Ⓡ Feet	Ⓟ L Feet	Ⓟ R Feet	EARTH SHLDR. CONST. Left side	EARTH SHLDR. CONST. Right side	REMARKS
988+93.61	992+37.68	44	12	12	10	10	3.58	3.58	
1004+01.01	1007+23.01	60	28	12	10	10	3.22	3.22	WB Lt Turn Lane at 190th
1007+23.01	1017+57.58	60-47.70	28-15.7	12	10	10	10.35	10.35	Alignment shift from 21' to 0' Ⓐ
									Ⓐ = End Sta is at Equation

Notes:
① Finished slope shall match existing pavement except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %.

② Earth Shoulder Slope - Typical 4'. See profile portion of P & P sheets for changes in width.

③ Proposed foreslope in areas of widening is 4:1. Check plan and profile sheets for deviations

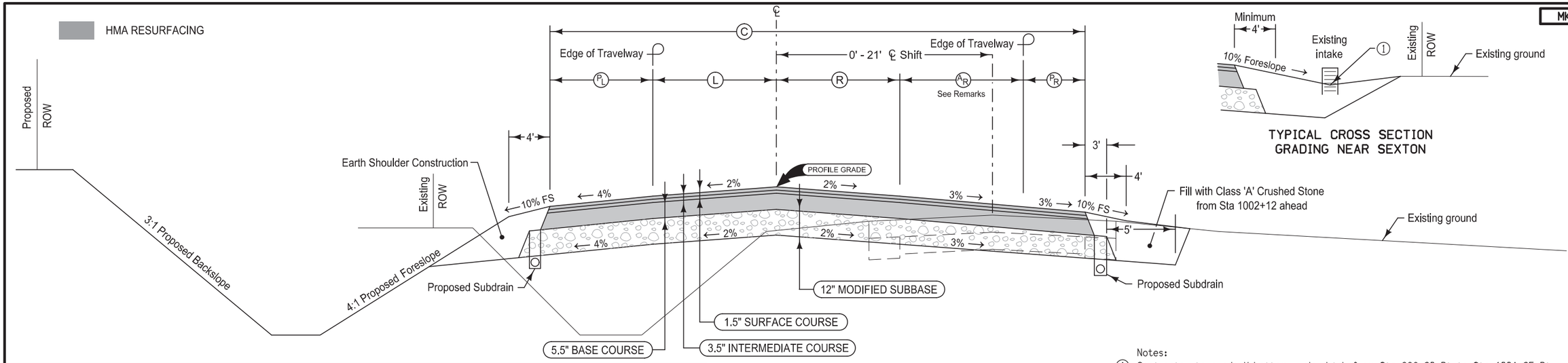
④ Proposed backslope in areas of widening is 2.5:1. Check plan and profile sheets for deviations

⑤ Check plan and profile sheets for ditch grades and ditch widths.

⑥ Slope transitions to 4% at Sta 1005+50

TYPICAL CROSS SECTION HMA PAVEMENT - PROPOSED MAINLINE SHIFT w/ PAVED SHOULDER

MK-4



TYPICAL CROSS SECTION
GRADING NEAR SEXTON

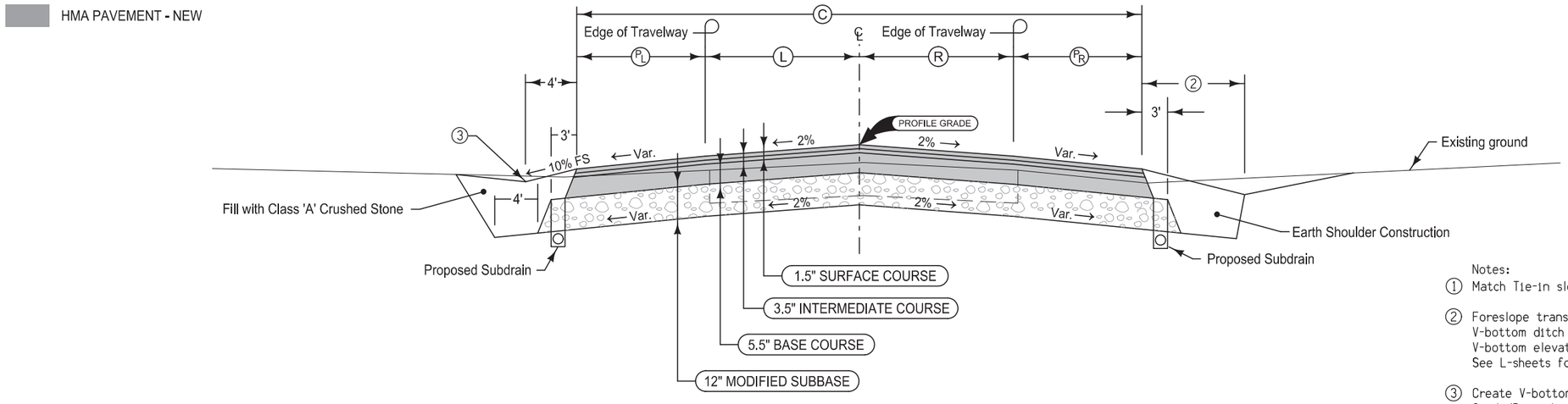
HMA PAVEMENT - NEW

STATION TO STATION		C Feet	L Feet	R Feet	AR Feet	PL Feet	PR Feet	EARTH SHLDR. CONST. Left side	EARTH SHLDR. CONST. Right side	REMARKS
982+33.61	988+93.61	52-44	12	12	12-0	10	6-10	6.60		End EB Passing Lane Taper
992+37.68	993+22.84	44-46.41	12	12	0-2.41	10	10-6.6	0.85	0.85	Begin Offset Right Turn Lane and Left Turn
993+22.84	1004+01.01	46.41-78.01	12-28	12	2.41-30.01	10-4	6.6-4	10.78	10.78	Lanes at 190th St

Notes:
1. Contractor to grade V-bottom swale ditch from Sta 996+20 Rt to Sta 1001+25 Rt. U.A.C. intake locations at Sta 997+22 Rt and Sta 999+62 Rt. Contractor shall grade right side to drain within these limits back and ahead to these intakes. Foreslope may transition to greater than 4' within limits and steeper than 10% and within ROW. Any damage to existing intakes shall be repaired at the Contractors expense. See upper and lower bar diagrams on sheet D.7 for additional information.

TYPICAL CROSS SECTION
HMA PAVEMENT, NEW - PROPOSED MAINLINE SHIFT w/ AUXILIARY LANE & PAVED SHOULDER

MK-5



HMA PAVEMENT - NEW

STATION TO STATION		C Feet	L Feet	R Feet	PL Feet	PR Feet	REMARKS
31003+05.01	31003+32.51	37.52-53.55	15	11	11.52-23.11	0-4.44	See L-sheets for additional information

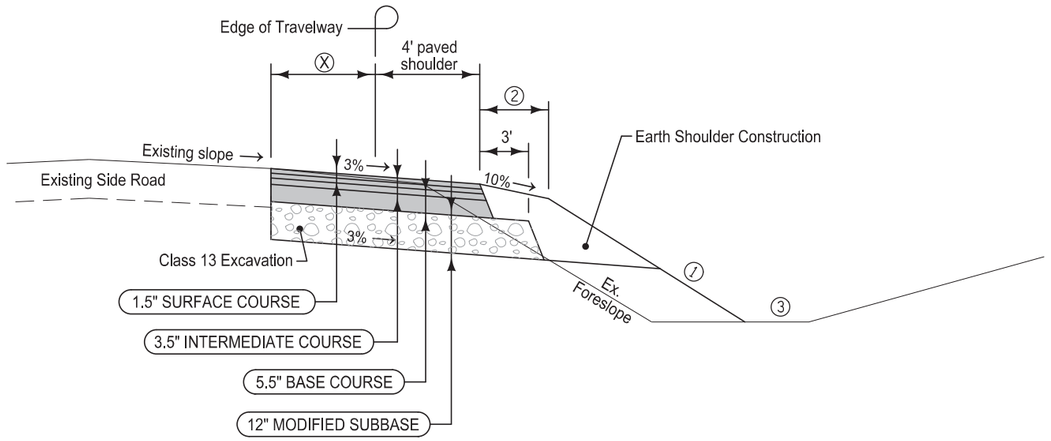
Notes:
1. Match Tie-in slope at Station 31003+05.01
2. Foreslope transitions from 12:1 to 6:1 in 100' around edge of pavement. V-bottom ditch starts at 8' from edge of shoulder and transitions to 14'. V-bottom elevation starts at 1218.39± and transitions to 1216.52±. See L-sheets for additional details.
3. Create V-bottom swale with granular. Also see X-sections and L-sheets. Grade/Drain back from the restaurant sign. Grade/Drain ahead from the restaurant sign.

TYPICAL CROSS SECTION
HMA PAVEMENT - CO RD P60/190th St w/ PAVED SHOULDERS

MK-6

HMA RESURFACING

HMA PAVEMENT - NEW			
STATION TO STATION		Side	(X) Feet
10738+17.65	10739+99.27	Left	0-11
20842+76.53	20844+79.01	Left	0-9.65
20844+36.65	20844+75.73	Right	0-2.93
20846+27.56	20846+61.04	Left	3-0
20846+26.29	20848+33.48	Right	8.25-0
31002+13.25	31003+05.01	Left	1.5-11.9
31004+92.07	31005+26.10	Left	3.35-0
31004+60.70	31006+53.80	Right	23.22-0



Notes:

(1) Refer to Std Road Plan EW-503 for additional information. Mainline Normal foreslope is 4:1 to end of return. Side road Normal Foreslope is 3:1 Contractor to match existing grade when tying in.

(2) Earth Shoulder Slope - Typical 4'. See profile portion of P & P sheets for changes in width.

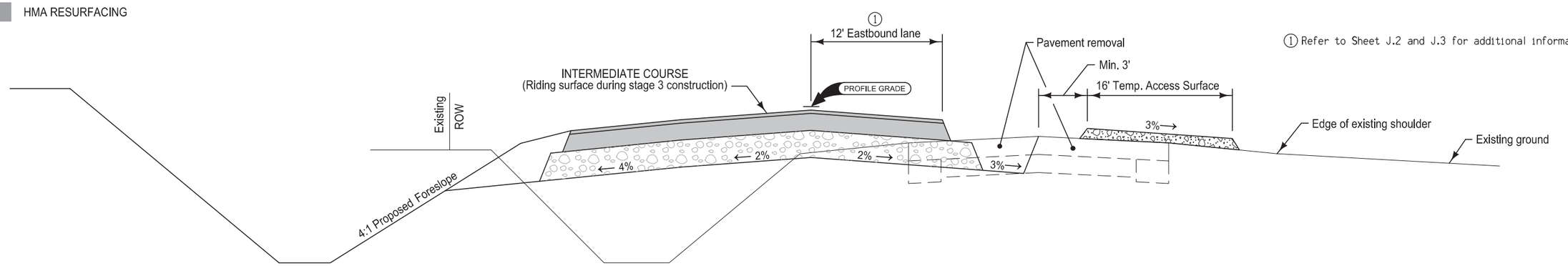
(3) Refer to plan and profile sheets & L-sheets for ditch grades and ditch widths.

(X) Refer to L-Sheets for pavement geometry.

TYPICAL CROSS SECTION
HMA WIDENING & PAVED SHOULDERS
ADJACENT TO EXISTING PAVEMENT

MK-7

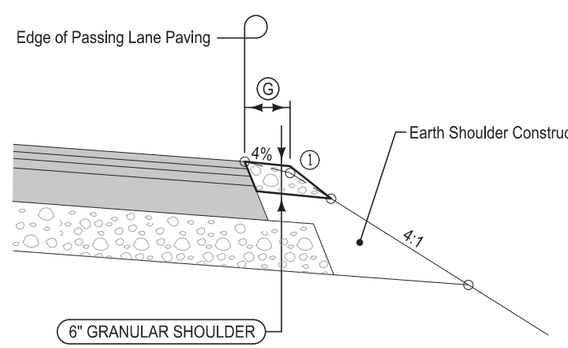
HMA RESURFACING



(1) Refer to Sheet J.2 and J.3 for additional information

TRAFFIC CONTROL
TEMPORARY ACCESS ROAD
APPROX. STA 992+90 - STA 1008+00

MK-8



(1) Granular Shoulder Slope = 4%
Refer to tabulation 112-9 for additional information.

(G) = 2'

Passing Lanes:
WB: 890+00 - 939+40

EB: 939+40 - 988+93.61
Taper from 2' granular shoulder width to 0' in 660' from Sta 982+33.61 to 988+93.61

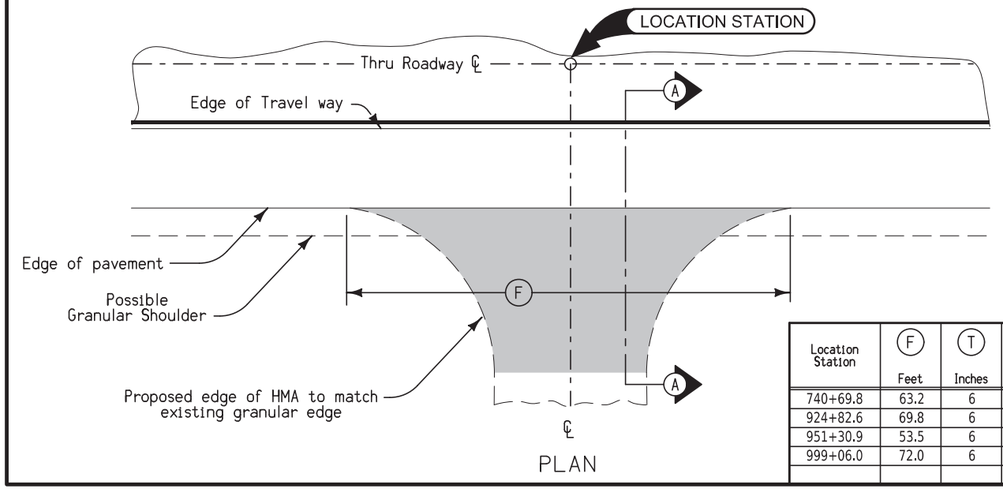
Note: Earth Shoulder Construction cubic yard quantity has been reduced in areas of granular shoulder.

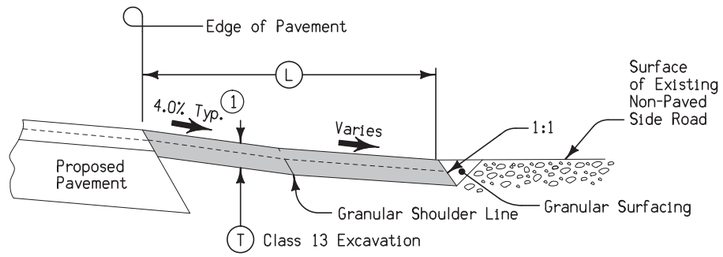
GRANULAR SHOULDER
ADJACENT TO PASSING LANES

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **B.4**

3:10:30 PM 3/12/2025 csuntke pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_B01.dgn

MK-9





SECTION A-A

Special shaping of existing surface prior to placement of fillet or fillet extension may be required by the Engineer and is incidental to other work on the project.

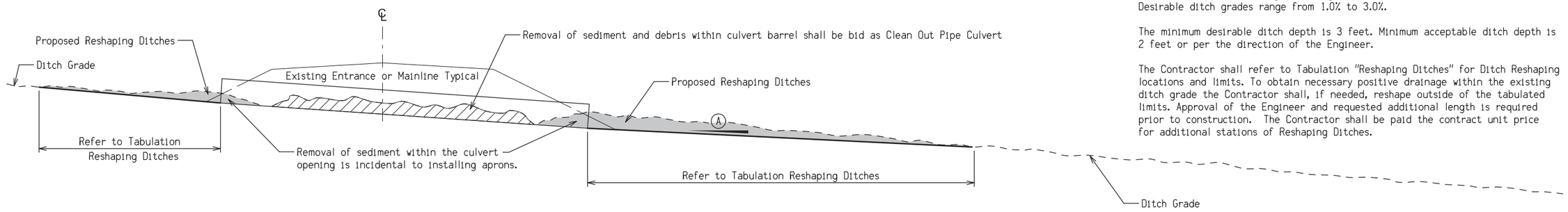
Pavement quantities included in C sheets HMA totals. Assumed 4.5" intermediate and 1.5" surface.

(1) Match proposed shoulder slope.

Location Station	(F) Feet	(T) Inches	(L) Feet	Remarks
740+69.8	63.2	6	40	140th Ave. (north side)
924+82.6	69.8	6	44	175th Ave. (North side)
951+30.9	53.5	6	44	180th Ave. (South side)
999+06.0	72.0	6	46	Sexton Street (South side)

FILLET EXTENSION FOR NON-PAVED SIDE ROADS

MK-10



(A) Contractor to reshape ditch from culvert outlet as follows:

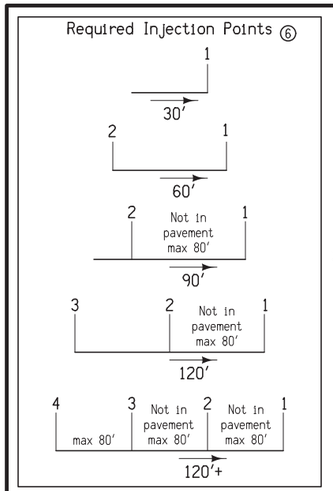
Minimum acceptable ditch grades range from 0.2% to 1.0%.
Desirable ditch grades range from 1.0% to 3.0%.

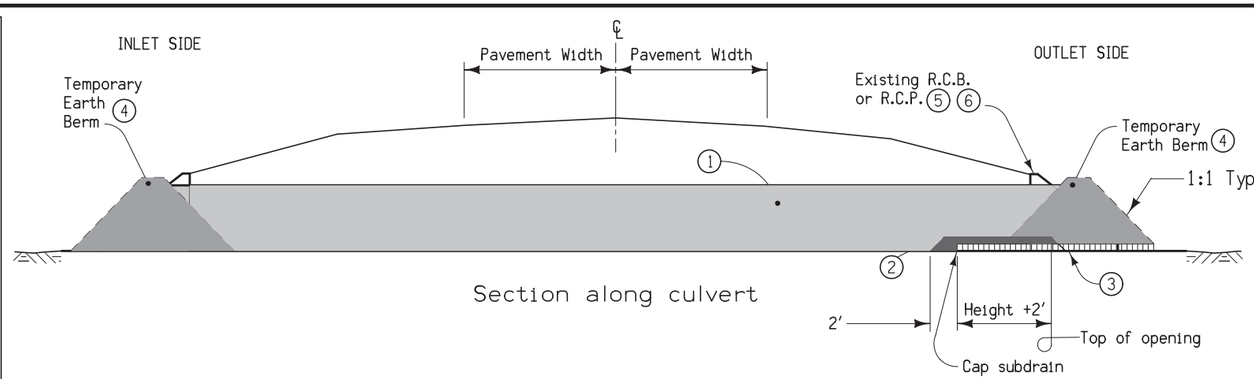
The minimum desirable ditch depth is 3 feet. Minimum acceptable ditch depth is 2 feet or per the direction of the Engineer.

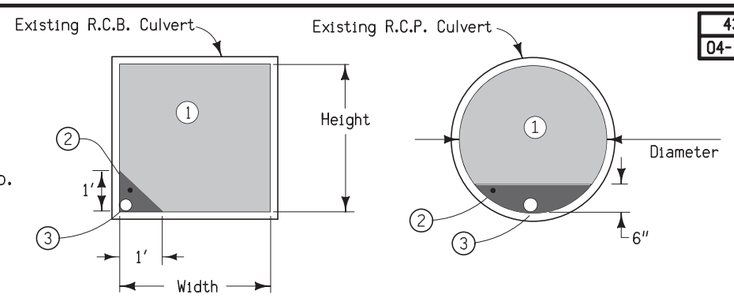
The Contractor shall refer to Tabulation "Reshaping Ditches" for Ditch Reshaping locations and limits. To obtain necessary positive drainage within the existing ditch grade the Contractor shall, if needed, reshape outside of the tabulated limits. Approval of the Engineer and requested additional length is required prior to construction. The Contractor shall be paid the contract unit price for additional stations of Reshaping Ditches.

RESHAPING DITCHES TYPICAL

4315
04-15-08







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

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

ESTIMATED PROJECT QUANTITIES AND REFERENCE NOTES

Division 1 : 3R Mainline
Division 2 : Super 2 Enhancements
Division 3 : Non participating - (County items)

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
1	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	CY		27,592		27,592	Refer to T-Sheets for additional information. Sideroad quantities are included with mainline. Overhaul will not be measured or paid for with this item.
2	2102-2710090	EXCAVATION, CLASS 10, WASTE	CY		5,610		5,610	All waste must be removed from the project site. Contractor is notified that the excavation area is anticipated to be excessively wet and specialized equipment, blocking or mats may be required to complete the work as shown on the plans. An estimated 836 CY of material is needed to build entrances per Tab. 102-3. Bid item Exc. Class 10, waste may be used to construct.
3	2105-8425015	TOPSOIL, STRIP, SALVAGE AND SPREAD	CY		14,885		14,885	Strip 12 inches of topsoil within the limits of grading. Seed the disturbed topsoil stockpile area as per section 2601.05 of the standard specifications. Seeding of the stockpile areas shall be considered incidental to this bid item. All disturbed areas not covered by pavement or gravel shall have a minimum of 4 inches of topsoil. The Contractor shall provide all required topsoil. Topsoil from stripping may be used for placement following approval by the Engineer. Stripping of topsoil for placement of fill is considered incidental to this bid item. Refer to T-Sheets and Tabulation 103-10 for additional information. Removal and replacement of mile markers is considered incidental to this work.
4	2115-0100000	MODIFIED SUBBASE	CY	12,575.2	14,733.9		27,309.1	Refer to Typicals MK-2 through MK-7 and Tabulation 100-25 for additional information.
5	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON		883.7		883.7	Refer to Typical MK-8 and Tabulation 112-9. Earth shoulder construction cubic yard quantity has been reduced by granular shoulder need.
6	2123-7450000	SHOULDER CONSTRUCTION, EARTH	STA		683.89		683.89	Refer to Tabulation 112-9 and MK Typicals for additional information. Estimated at 6.15 Sta for Sideroads and 677.74 Sta for Mainline Material used shall be topsoil and estimated at 8085 CY
7	2125-2225050	RESHAPING DITCHES	STA	10			10	Item for reshaping of ditches at locations of pipe or apron work within resurfacing limits. Refer to Tabulation 104-03 for additional information.
8	2212-5070310	PATCHES, FULL-DEPTH REPAIR	SY	1,411.1			1,411.1	Refer to Tabulation 102-6C for additional information.
9	2212-5070330	PATCHES BY COUNT (REPAIR)	EACH	62			62	

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
10	2213-2713300	EXCAVATION, CLASS 13, FOR WIDENING	CY		6,832.3	100.5	6,932.8	Refer to Tabulation 112-9, Typical MK-9, and D & L sheets for additional information.
11	2213-7100400	RELOCATION OF MAIL BOXES	EACH	3			3	Sta 841+74 Rt, Sta 971+59 Rt, & Sta 1007+80 Lt (two boxes) Item is for the relocation, and subsequent re-relocation of mailboxes on this project. Coordinate mailbox relocation with the U.S. Postal Service. The relocation and subsequent re-relocation of all mailboxes on a single or multiple post will be measured and paid as one mailbox relocation, which payment shall be full payment for this item. Method of measurement and basis of payments shall be at the contract unit price per each mailbox assembly . A mailbox assembly is defined as a group of mailboxes assembled together on a common support which may include a single or multiple posts. For the number of mailboxes and assemblies successfully removed and reinstalled, the contractor will be paid the contract unit price per each. This payment shall be full compensation for all equipment tools, labor and materials necessary to complete the item per the contract documents.
12	2214-5145150	PAVEMENT SCARIFICATION	SY	2,583.3			2,583.3	Refer to Tabulation 102-16 for additional information.
13	2303-1041750	HOT MIX ASPHALT HIGH TRAFFIC, BASE COURSE, 3/4 IN. MIX	TON	3,047.93	26,722.11		29,770.04	Refer to Tabulation 100-25, 102-16, and Typicals for additional information.
14	2303-1042500	HOT MIX ASPHALT HIGH TRAFFIC, INTERMEDIATE COURSE, 1/2 IN. MIX	TON	8,724.51	12,123.18	147.6	20,995.29	Refer to Tabulation 100-25, 102-16, and Typicals for additional information. Refer to Typical MK-9, D-sheets and sheet L.5 for additional information
15	2303-1043504	HOT MIX ASPHALT HIGH TRAFFIC, SURFACE COURSE, 1/2 IN. MIX, FRICTION L-4	TON	7,625.69	7,583.75	49	15,258.44	
16	2303-1258344	ASPHALT BINDER, PG 58-34H, HIGH TRAFFIC	TON	1,163.88	2,785.74	11.8	3,961.42	
17	2303-6911000	HOT MIX ASPHALT PAVEMENT SAMPLES	LS	1			1	
18	2303-7000610	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE LABORATORY VOIDS (FORMULA - BY PAY FACTOR)	EACH	8,757	23,214.5		31,971.5	
19	2303-7000620	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA MIXTURE FIELD VOIDS (FORMULA - BY PAY FACTOR)	EACH	8,757	23,214.5		31,971.5	

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
20	2312-8260051	GRANULAR SURFACING ON ROAD, CLASS A CRUSHED STONE	TON	3,339		32	3,371	Quantity is for replacing removed eastbound pavement on Sheet J.2. Quantity is also for building a Temporary Access Road 16' wide by 6" depth from Sta 992+90 to Sta 1008+00. Refer to Typical MK-7 for additional information. An additional 340 tons is also used for surfacing driveways. See Tabulation 102-3 for locations. An additional 10% has been added to account for irregularities.
21	2317-7000120	PAYMENT ADJUSTMENT INCENTIVE/DISINCENTIVE FOR HMA PAVEMENT SMOOTHNESS (BY SCHEDULE)	EACH	21,775	2,897		24,672	
22	2318-1001100	COLD IN-PLACE RECYCLED ASPHALT PAVEMENT	SY	79,737.9			79,737.9	Refer to Tabulation 100-25 and Typicals for additional information.
23	2318-1001220	ASPHALT STABILIZING AGENT (FOAMED ASPHALT)	TON	352.6			352.6	
24	2401-6745650	REMOVAL OF EXISTING STRUCTURES	LS	1			1	Refer to Tabulation 110-2 for additional information.
25	2416-0100018	APRONS, CONCRETE, 18 IN. DIA.	EACH	24			24	Refer to tabulation 102-3 for additional information.
26	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH		4		4	Refer to Tabulation 104-03 for additional information.
27	2416-0100030	APRONS, CONCRETE, 30 IN. DIA.	EACH		3		3	Refer to Tabulation 104-03 for additional information.
28	2416-0101036	REMOVE AND REINSTALL CONCRETE PIPE APRONS LESS THAN OR EQUAL TO 36 IN.	EACH	3			3	Refer to tabulation 104-3 for additional information. This work will be measured and paid for at the contract unit price per linear foot of pipe removed and reinstalled per the Engineer's satisfaction.
29	2416-0101136	REMOVE AND REINSTALL CONCRETE PIPE APRONS GREATER THAN 36 IN.	EACH		2		2	Refer to tabulation 104-3 for additional information.
30	2416-0102236	APRON, LOW CLEARANCE CONCRETE, EQUIVALENT DIAMETER 36 IN.	EACH	4			4	Refer to Tabulation 104-03 for additional information.
31	2416-1180018	CULVERT, CONCRETE ROADWAY PIPE, 18 IN. DIA.	LF		12		12	Refer to tabulation 104-3 for additional information.
32	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA.	LF		44		44	Refer to Tabulation 104-03 for additional information.
33	2416-1180030	CULVERT, CONCRETE ROADWAY PIPE, 30 IN. DIA.	LF		34		34	
34	2416-1180048	CULVERT, CONCRETE ROADWAY PIPE, 48 IN. DIA.	LF		48		48	Refer to tabulation 104-3 for additional information.
35	2416-1202236	CULVERT, 3000D LOW CLEARANCE CONCRETE ROADWAY PIPE, EQUIVALENT DIAMETER 36 IN.	LF	186			186	Refer to Tabulation 104-03 for additional information.
36	2416-1541036	REMOVE AND REINSTALL RIGID PIPE CULVERT LESS THAN OR EQUAL TO 36 IN.	LF	24			24	Refer to tabulation 104-3 and 102-3 for additional information.

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
37	2417-0225015	APRONS, METAL, 15 IN. DIA.	EACH	2			2	Refer to tabulation 102-3 for additional information.
38	2417-0225018	APRONS, METAL, 18 IN. DIA.	EACH	6			6	
39	2422-0360018	APRONS, UNCLASSIFIED, 18 IN. DIA.	EACH	10			10	
40	2422-1722015	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 15 IN. DIA.	LF	32			32	
41	2422-1722018	CULVERT, UNCLASSIFIED ENTRANCE PIPE, 18 IN. DIA.	LF	192			192	
42	2502-4388050	INTAKE, STANDPIPE, AS PER PLAN	EACH		9		9	Refer to Tabulation 300-99 for additional information. Size of new intake shall either match or exceed the size of the existing intake.
43	2502-8212034	SUBDRAIN, LONGITUDINAL, (SHOULDER) 4 IN. DIA.	LF	39,712			39,712	Refer to Tabulation 104-9 and sheet U.6 for additional information. An additional 36 LF and 2 outlets are added to extend at Sta 940+00 & 950+00, Rt.
44	2502-8225010	SUBDRAIN OUTLET, 500-10	EACH	176			176	
45	2506-4984000	FLOWABLE MORTAR	CY	14.1			14.1	Item is for abandonment of culvert. Refer to Tabulation 110-09 and sheet L.4 for additional information.
46	2507-3250005	ENGINEERING FABRIC	SY	12.8			12.8	Refer to tabulation 100-23 for additional information.
47	2507-6800061	REVETMENT, CLASS E	TON	5.4			5.4	Refer to tabulation 100-23 for additional information.
48	2510-6745850	REMOVAL OF PAVEMENT	SY	11,241.8			11,241.8	Refer to Tabulations 102-5 and 110-1 and sheet J.2 for additional information.
49	2520-3350015	FIELD OFFICE	EACH	1			1	

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
50	2524-6765010	REMOVE AND REINSTALL SIGN AS PER PLAN	EACH	11			11	Refer to Tabulations 190-51, 190-61, 190-62 and 190-66 for sign details. The Contractor shall remove each sign and the hardware used to secure the sign to another sign, posts, or sign support structure. For signs mounted directly to posts, removal of the sign shall include removal of the posts. Posts may be either wood posts or steel breakaway sign posts. The removal of concrete footings for steel breakaway sign posts will be measured and paid for separately. Holes remaining from the removal of wood posts shall be backfilled with suitable earth to the original level or to the natural ground surface in accordance with Article 2402.09 of the Standard Specifications. All steel post and wood posts removed shall become the property of the Contractor. The existing sign shall be removed and safely stored by the Contractor. The Contractor shall furnish all necessary metal posts and hardware to install the signs. When the new installation is similar to the original installation, unless otherwise noted, the existing hardware may be used to reinstall the sign. Signs damaged by the Contractor's activities shall be replaced at the Contractor's expense. Replacement materials shall be new. The DOT will furnish all details necessary for fabrication of the replacement materials. METHOD OF MEASUREMENT: The Engineer will count each sign removed and reinstalled. BASIS OF PAYMENT: For each sign removed and reinstalled, the Contractor shall be paid the contract unit price.
51	2524-6765220	REMOVAL OF TYPE B SIGN ASSEMBLY	EACH	25			25	Refer to Tabulations 190-51, 190-61, 190-62 and 190-66 for sign details. This item for the removal of Type B Sign Assemblies, including the sign panels, sign brackets, supporting structures and hardware. Contractor shall carefully dismantle each sign assembly. Sign posts, brackets and hardware shall become property of the Contractor. All holes resulting from removal of posts shall be filled level with the adjacent grade with backfill material conforming to the Standard Specifications. Measurement: The Engineer will count the number of sign assemblies removed. Payment: The Contractor will be paid the contract unit price for each sign assembly removed.
52	2524-9276010	PERFORATED SQUARE STEEL TUBE POSTS	LF	561			561	Refer to Tabulations 190-51, 190-61, 190-62 and 190-66 for sign details.
53	2524-9325001	TYPE A SIGNS, SHEET ALUMINUM	SF	225.5			225.5	

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
54	2524-9325150	INSTALL TYPE A SIGN	EACH	21			21	Refer to Tabulations 190-51, 190-61, 190-62 and 190-66 for sign details. The Contractor shall furnish all necessary hardware to install the Type A signs except where noted otherwise. Method of Measurement: The Engineer will count each Type A sign installed. Basis of Payment: The Contractor shall be paid the contract unit price for each Type A sign installed. Payment is full compensation for erecting the signs complete, except for the required posts and foundations.
55	2526-8285000	CONSTRUCTION SURVEY	LS	1			1	IDOT will be responsible for the preservation of section corners including the Public Land Survey Corner Certificates and shall be included in bid item. All other construction survey requirements including Monument Preservation Certificates shall apply. Survey information provided in project plans is for reference only and should not be used for purposes related to construction survey. Project plans and associated electronic files are not geo-referenced to a standard coordinate system and should not be used to establish construction survey baselines. Prior to construction, perform a survey to lay out the proposed grading design per Section 2526.01. The GPS Machine Control Grading data files as listed in the current standard specifications will be made available at contractor's request. No additional files or formats will be provided. After finished grading and prior to seeding, the Contractor shall prepare a topographic survey, using the established baselines to show conformance to the proposed grades. The survey shall indicate the established baselines and the finished grades shown in 0.5 foot contours. Survey all grading areas. The Contractor shall provide the Engineer and the Office of Location and Environment with the electronic surface files in LandXML format. Provide electronic data and survey copies to Alan Beddow, Mitigation Construction Engineer Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa, 50010, phone number {515)956-7203, Alan.Beddow@iowadot.us.
56	2527-9263155	PRE-CUT SYMBOLS AND LEGENDS, PREFORMED THERMOPLASTIC MARKING MATERIAL	EACH	16			16	Refer to Tabulation 108-29 for additional information.
57	2527-9263181	PAVEMENT MARKINGS REMOVED	STA	1.99			1.99	Refer to Tabulation 108-22 for additional information.
58	2527-9263209	PAINTED PAVEMENT MARKINGS, WATERBORNE OR SOLVENT-BASED	STA	3,755.19			3,755.19	
59	2527-9270112	GROOVES CUT FOR PAVEMENT MARKINGS	STA	1,106.34			1,106.34	Refer to Tabulation 108-22 for additional information. Grooves shall be cut prior to placement of final pavement markings.
60	2528-2518000	SAFETY CLOSURE	EACH	6			6	Refer to Tabulation 108-13A for additional information.

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
61	2528-8445110	TRAFFIC CONTROL	LS	1			1	Refer to Tabulation 108-23A and J-Sheets for additional information. Contractor shall install and maintain and remove detour signage.
62	2528-8445113	FLAGGERS	EACH	0			0	See Proposal.
63	2528-8445115	PILOT CARS	EACH	0			0	
64	2529-2242304	CD JOINT ASSEMBLY	EACH	8			8	Refer to tabulation 102-6C for additional information.
65	2533-4980005	MOBILIZATION	LS	1			1	- -
66	2548-0000100	MILLED SHOULDER RUMBLE STRIPS, HMA SURFACE	STA	713.2			713.2	Refer to Tabulation 112-10 for additional information.
67	2548-0000115	ENGINEERED EMULSION FOR FOG SEAL (SHOULDER RUMBLE STRIPS)	GAL	772.2			772.2	
68	2548-0000310	MILLED CENTERLINE RUMBLE STRIPS, HMA SURFACE	STA	353.18			353.18	
69	2601-2634100	MULCHING	ACRE		21.66		21.66	Perform mulching according to Article 2601.03, E, 2, of the Standard Specifications. Anchor mulch into the soil using mulch anchoring equipment with a minimum of two passes. Item is included for areas requiring reshaping and seedbed preparation. Use mulch that is Certified Noxious Weed Seed Free Mulch as certified by the Iowa Crop Improvement Association or adjacent states Crop Improvement Associations. Mulch Rate: 1 1/2 tons of dry cereal straw or native grass straw per acre. MULCHING Mulching shall be applied as described in standard specification section 2601. After seeding, mulch all areas disturbed by grading except where slope protection has been applied.
70	2601-2636015	NATIVE GRASS SEEDING	ACRE		10.28		10.28	The Engineer will review the limits with the Contractor prior to seeding. Seeding and seed bed preparation shall be as described in the Standard Specifications Section 2601 and as shown on the plans.
71	2601-2636043	SEEDING AND FERTILIZING (RURAL)	ACRE		11.38		11.38	Seed and fertilize all areas 8 foot adjacent to the shoulder mainline, medians, and side according to Article 2601.03, C, 3, of the Standard Specifications. Use ground driven equipment.

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
72	2601-2642100	STABILIZING CROP - SEEDING AND FERTILIZING	ACRE		21.66		21.66	Item is included for disturbed areas. Seed and fertilize all disturbed areas according to Article 2601.03, C, 1, of the Standard Specifications. If permanent seeding cannot be placed due to the restrictive planting dates, stabilizing crop will need to be placed on all disturbed areas as temporary erosion control. Preparation and seeding shall be performed in accordance with Section 2601. Stabilizing crop will not be used when the application dates in Section 2601 allows permanent seeding. If stabilizing crop must be used, place immediately following completions of finished grading. Reseeding of these areas will be required at contractors expense if damage occurs due to contractors negligence during the contract period. It is not necessary to place stabilizing crop in locations that have be covered by Wood Excelsior Mat.
73	2602-0000020	SILT FENCE	LF	2,075			2,075	Refer to Tab. 100-17. The tabulation includes estimated locations for placement of "Silt Fence" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 25% additional quantity for field adjustments and replacements.
74	2602-0000030	SILT FENCE FOR DITCH CHECKS	LF	3,360			3,360	Refer to Tab 100-18. The tabulation includes estimated locations for placement of "Silt Fence for Ditch Checks" to address erosion to be encountered during construction. Verify the specific locations with the Engineer prior to beginning placement. Bid item includes 50% additional quantity for field adjustments and replacements.
75	2602-0000071	REMOVAL OF SILT FENCE OR SILT FENCE FOR DITCH CHECKS	LF	5,435			5,435	This item is included for silt fence and silt fence for ditch check removal required for staging reasons, removal to allow for replacement (replacement to be paid separately), or for areas that have achieved 70% permanent growth.This item is included for silt fence and silt fence for ditch check removal. Remove silt fence and posts after mulching or vegetation is established and approved by the engineer.
76	2602-0000101	MAINTENANCE OF SILT FENCE OR SILT FENCE FOR DITCH CHECK	LF	543			543	This item is included for clean-out and repair of the silt fence and silt fence for ditch checks during the project. Quantity is 0.1% of Silt Fence plus Silt Fence for Ditch Check total.
77	2602-0000312	PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE, 12 IN. DIA.	LF	700			700	Item to be used at mainline culvert extensions and construction. Estimated at 50 LF per location.
78	2602-0000351	REMOVAL OF PERIMETER AND SLOPE OR DITCH CHECK SEDIMENT CONTROL DEVICE	LF	700			700	
79	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1			1	

Item no.	Item Code	Item	Unit	Quantities				Estimate Reference Notes
				Estimated				
				Division 1	Division 2	Division 3	Total	
80	2602-0010020	MOBILIZATIONS, EMERGENCY EROSION CONTROL	EACH	1			1	

111_25
4/2/24

INDEX OF TABULATIONS

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100_01D
8/15/22

PROJECT DESCRIPTION

Project includes cold in-place recycling and resurfacing from the ECL of Algona to 0.8 mi east of Sexton. Project also includes reconstruction of 3500 LF at the Sexton intersection, adding 8300 LF of passing lanes and adding offset right turn lanes at 140th and 160th Ave and left turn lane at 140th Ave.

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER C.11	

100_17
8/15/22

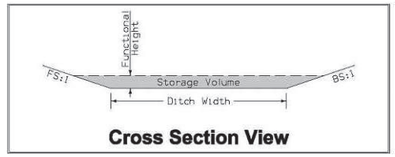
TABULATION OF SILT FENCES

Refer to EC-201

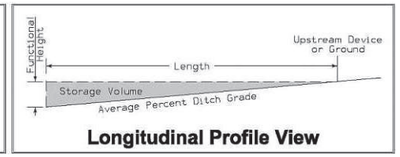
Line No.	Station From	Station To	Side	Length (FT)	Remarks
1.0	725+50.00	726+50.00	Right	100.00	Along ROW. See sheet R.2
2.0	739+00.00	10739+00.00	Right	160.00	SW corner near ROW
3.0	10739+50.00	742+00.00	Right	130.00	SE corner near ROW
4.0	759+60.00	760+60.00	Left	100.00	Along ROW. See sheet R.3
5.0	836+80.00	837+80.00	Right	100.00	Along ROW
6.0	20844+20.00	846+75.00	Right	120.00	SE corner near ROW
7.0	885+18.00	886+18.00	Right	100.00	Along ROW
8.0	932+00.00	933+00.00	Right	100.00	Along ROW
9.0	961+85.00	963+10.00	Right	125.00	Along ROW
10.0	976+10.00	977+95.00	Right	185.00	Along ROW
11.0	996+10.00	998+80.00	Right	270.00	Along ROW
12.0	1144+70.00	1146+40.00	Right	170.00	Along ROW
Total:				**1660**	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



Cross Section View



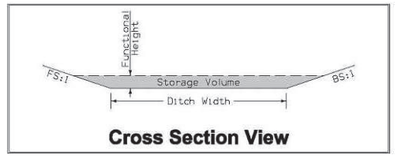
Longitudinal Profile View

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

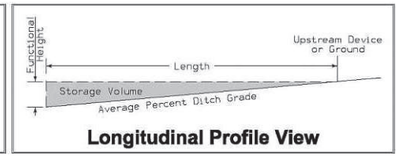
Line No.	Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Volume (CF)	Remarks
1.0		Type 1	734+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.0	1529.85	
2.0		Type 1	735+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.0	1529.85	
3.0		Type 1	737+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.0	1529.85	
4.0		Type 1	738+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.5	987.00	
5.0		Type 1	739+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.5	987.00	
6.0		Type 1	740+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.5	987.00	
7.0		Type 1	741+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.3	987.00	
8.0		Type 1	742+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.3	987.00	
9.0		Type 1	742+90.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.3	987.00	
10.0		Type 1	743+20.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.9	1529.85	
11.0		Type 1	744+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.9	1529.85	
12.0		Type 1	745+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.8	740.25	
13.0		Type 1	746+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.8	740.25	
14.0		Type 1	747+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.8	740.25	
15.0		Type 1	748+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.8	740.25	
16.0		Type 1	749+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.8	740.25	
17.0		Type 1	750+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.8	740.25	
18.0		Type 1	750+90.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	4.0	394.80	
19.0		Type 1	751+30.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	4.0	394.80	
20.0		Type 1	751+70.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	4.0	394.80	
21.0		Type 1	735+50.00	Right	18.0	18.0	18.0	4.0	2.5	4.5	0.4	1875.83	
22.0		Type 1	736+10.00	Right	18.0	18.0	18.0	4.0	2.5	4.9	2.2	373.20	
23.0		Type 1	736+70.00	Right	19.0	19.0	19.0	4.0	2.5	5.4	2.2	393.30	
24.0		Type 1	737+30.00	Right	20.0	20.0	20.0	4.0	2.5	6.1	2.2	421.50	
25.0		Type 1	737+90.00	Right	20.0	20.0	20.0	4.0	2.5	6.7	2.2	445.80	
26.0		Type 1	738+50.00	Right	18.0	18.0	18.0	4.0	2.5	7.2	2.2	981.60	
27.0		Type 1	738+95.00	Right	15.0	15.0	15.0	4.0	2.5	7.6	3.4	361.57	
28.0		Type 1	739+40.00	Right	15.0	15.0	15.0	4.0	2.5	8.0	3.4	373.72	
30.0		Type 1	741+30.00	Right	15.0	15.0	15.0	4.0	2.5	4.0	0.3	1768.73	
32.0		Type 1	837+15.00	Right	12.0	12.0	12.0	4.0	2.5	4.0	2.6	280.75	
33.0		Type 1	837+50.00	Right	12.0	12.0	12.0	4.0	2.5	4.0	3.9	224.60	
34.0		Type 1	837+90.00	Right	20.0	20.0	20.0	4.0	6.0	10.0	2.9	561.25	
35.0		Type 1	838+40.00	Right	20.0	20.0	20.0	4.0	6.0	10.0	2.0	841.88	
36.0		Type 1	839+15.00	Right	16.0	16.0	16.0	4.0	6.0	4.0	1.1	719.50	
37.0		Type 1	840+15.00	Right	12.0	12.0	12.0	4.0	3.0	4.0	0.7	905.20	
38.0		Type 1	844+50.00	Right	12.0	12.0	12.0	3.0	3.0	4.0	0.3	1697.85	
40.0		Type 1	20844+45.00	Left	10.0	10.0	10.0	4.0	6.0	3.0	0.3	2055.38	Install near culvert
42.0		Type 1	846+37.00	Right	16.0	16.0	16.0	4.0	3.0	8.0	0.3	2686.95	
43.0		Type 1	845+00.00	Left	15.0	15.0	15.0	4.0			0.8	279.77	Install near culvert
44.0		Type 1	20846+50.00	Right	16.0	16.0	16.0	4.0	2.5	6.0	0.3	2192.40	
45.0		Type 1	846+70.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.6	1529.85	
46.0		Type 1	848+25.00	Left	15.0	15.0	15.0	4.0	3.0	6.0	0.6	1113.67	
47.0		Type 1	849+80.00	Left	16.0	16.0	16.0	4.0	3.0	6.0	0.6	1113.67	
48.0		Type 1	851+35.00	Left	16.0	16.0	16.0	4.0	2.5	6.0	0.6	1078.80	
49.0		Type 1	852+90.00	Left	16.0	16.0	16.0	4.0	3.0	6.0	0.6	1113.67	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



Cross Section View



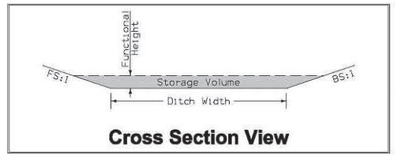
Longitudinal Profile View

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

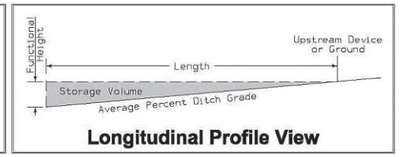
Line No.	Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Volume (CF)	Remarks
50.0		Type 1	890+25.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	0.4	2616.07	
51.0		Type 1	897+00.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	0.4	2616.07	
52.0		Type 1	897+50.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	0.2	2616.07	
53.0		Type 1	899+50.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	0.2	2616.07	
54.0		Type 1	902+65.00	Left	16.0	16.0	16.0	4.0	2.5	6.5	0.2	2297.93	
55.0		Type 1	905+80.00	Left	17.0	17.0	17.0	4.0	2.5	7.2	0.1	2445.97	
56.0		Type 1	911+50.00	Left	15.0	15.0	15.0	4.0	2.5	8.0	0.2	2616.07	
57.0		Type 1	912+00.00	Left	15.0	15.0	15.0	4.0	2.5	8.0	0.9	1287.27	
58.0		Type 1	914+25.00	Left	18.0	18.0	18.0	4.0	2.0	8.0	0.1	2543.63	
59.0		Type 1	920+00.00	Left	12.0	12.0	12.0	4.0	2.5	6.0	0.1	2192.40	
60.0		Type 1	922+20.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	1.0	1287.27	
61.0		Type 1	924+00.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	0.5	2616.07	
62.0		Type 1	927+25.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	0.6	1287.27	
63.0		Type 1	929+00.00	Left	18.0	18.0	18.0	4.0	2.5	8.0	0.2	2616.07	
64.0		Type 1	932+50.00	Left	15.0	15.0	15.0	4.0	2.0	7.0	0.2	2332.58	
65.0		Type 1	932+75.00	Left	15.0	15.0	15.0	4.0	2.0	7.0	0.2	555.38	
66.0		Type 1	935+90.00	Left	16.0	16.0	16.0	4.0	2.5	7.0	0.6	1182.65	
67.0		Type 1	937+45.00	Left	15.0	15.0	15.0	4.0	2.5	7.0	0.3	2403.45	
68.0		Type 1	944+10.00	Right	18.0	18.0	18.0	4.0	2.5	8.0	0.6	1287.27	
69.0		Type 1	945+65.00	Right	18.0	18.0	18.0	4.0	2.5	8.0	0.6	1287.27	
70.0		Type 1	949+00.00	Right	15.0	15.0	15.0	4.0	2.5	7.0	0.6	1182.65	
71.0		Type 1	950+70.00	Right	15.0	15.0	15.0	4.0	2.5	7.0	0.6	1182.65	Install at end of grading
74.0		Type 1	952+25.00	Right	16.0	16.0	16.0	4.0	2.5	8.0	0.3	2616.07	Install at end of grading
75.0		Type 1	955+00.00	Right	18.0	18.0	18.0	4.0	2.5	8.0	0.3	2616.07	
76.0		Type 1	958+65.00	Right	16.0	16.0	16.0	4.0	2.5	7.7	0.5	2551.50	
77.0		Type 1	961+80.00	Right	16.0	16.0	16.0	4.0	2.5	8.0	0.5	2616.07	
78.0		Type 1	962+50.00	Right	16.0	16.0	16.0	4.0	2.5	8.0	1.1	830.50	
79.0		Type 1	963+50.00	Right	16.0	16.0	16.0	4.0	2.5	8.0	0.6	1287.27	
80.0		Type 1	965+05.00	Right	15.0	15.0	15.0	4.0	2.5	7.5	0.3	2508.97	
81.0		Type 1	968+70.00	Right	15.0	15.0	15.0	4.0	2.5	7.0	0.3	2403.45	
82.0		Type 1	969+70.00	Right	15.0	15.0	15.0	4.0	2.5	6.3	1.2	716.00	
83.0		Type 1	970+70.00	Right	14.0	14.0	14.0	4.0	2.5	6.0	1.2	696.00	
84.0		Type 1	971+70.00	Right	14.0	14.0	14.0	4.0	4.0	6.0	1.2	696.00	
85.0		Type 1	972+60.00	Right	14.0	14.0	14.0	4.0	4.0	6.0	1.2	763.50	
86.0		Type 1	974+15.00	Right	14.0	14.0	14.0	4.0	2.5	6.0	0.8	1078.80	
87.0		Type 1	975+70.00	Right	14.0	14.0	14.0	4.0	2.5	6.0	0.8	1078.80	
88.0		Type 1	977+25.00	Right	14.0	14.0	14.0	4.0	2.5	6.0	0.1	2192.40	
89.0		Type 1	980+50.00	Right	18.0	18.0	18.0	4.0	2.5	7.5	0.3	2508.97	
90.0		Type 1	983+00.00	Right	18.0	18.0	18.0	4.0	3.0	8.0	0.8	489.02	
91.0		Type 1	984+55.00	Right	18.0	18.0	18.0	4.0	3.0	8.0	0.8	1322.15	
92.0		Type 1	986+10.00	Right	18.0	18.0	18.0	4.0	3.0	8.0	1.7	639.75	
93.0		Type 1	986+85.00	Right	17.0	17.0	17.0	4.0	3.0	8.0	1.7	639.75	
94.0		Type 1	987+60.00	Right	18.0	18.0	18.0	4.0	3.5	8.0	1.7	656.63	
95.0		Type 1	988+35.00	Right	18.0	18.0	18.0	4.0	5.0	8.0	1.7	707.25	
96.0		Type 1	989+10.00	Right	18.0	18.0	18.0	4.0	6.0	8.0	1.7	741.00	

SILT FENCES FOR DITCH CHECKS

Possible Standard: EC-201



Cross Section View



Longitudinal Profile View

* The functional height used in the volume equation is 85% of effective height. Effective height is 1.58 feet as shown on EC-201.
* Volume equation: [0.5*Spacing*(0.5*H^2*FS+DW*H+0.5*H^2*BS)]

Line No.	Basin No.	Type	Station	Side	Installation (LF)	Maintenance (LF)	Removal (LF)	Foreslope (FS:1)	Backslope (BS:1)	Ditch Width (FT)	Avg. % Slope Ditch Grade	Volume (CF)	Remarks
97.0		Type 1	989+85.00	Right	18.0	18.0	18.0	4.0	7.0	8.0	1.7	774.75	
98.0		Type 1	990+60.00	Right	18.0	18.0	18.0	4.0	3.0	7.8	1.7	629.63	
99.0		Type 1	991+35.00	Right	14.0	14.0	14.0	4.0	3.0	6.7	1.7	574.13	
100.0		Type 1	993+25.00	Right	10.0	10.0	10.0	4.0	4.0	3.3	0.2	1834.88	
101.0		Type 1	982+00.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.8	1529.85	
102.0		Type 1	983+55.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.0	1529.85	
103.0		Type 1	985+10.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.0	1529.85	
104.0		Type 1	986+65.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.0	1529.85	
105.0		Type 1	988+20.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	2.0	740.25	
106.0		Type 1	988+95.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	2.0	740.25	
107.0		Type 1	989+70.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	2.0	740.25	
108.0		Type 1	990+45.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	2.0	740.25	
109.0		Type 1	995+85.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.3	3109.05	
110.0		Type 1	997+40.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.6	1529.85	
111.0		Type 1	997+40.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.6	1529.85	
112.0		Type 1	998+95.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.6	1529.85	
113.0		Type 1	1000+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.6	1529.85	
114.0		Type 1	1002+05.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.6	1529.85	
115.0		Type 1	1003+50.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.6	1529.85	
116.0		Type 1	31005+15.00	Right	20.0	20.0	20.0	4.0	3.0	10.0	1.5	987.00	
117.0		Type 1	1005+05.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	1.5	987.00	
118.0		Type 1	1005+80.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.8	1529.85	
119.0		Type 1	1007+35.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.8	1529.85	
120.0		Type 1	1008+90.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.8	1529.85	
121.0		Type 1	1012+05.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.4	3109.05	
122.0		Type 1	1015+20.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.4	3109.05	
123.0		Type 1	1015+70.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.5	3109.05	
124.0		Type 1	1120+80.00	Left	20.0	20.0	20.0	4.0	3.0	10.0	0.5	3109.05	
126.0		Type 1	10046+50.00	Right	10.0	10.0	10.0	6.0	5.0	1.0	1.1	563.00	
127.0		Type 1	1005+70.00	Right	14.0	14.0	14.0	6.0	3.0	6.0	2.0	606.38	
128.0		Type 1	1006+30.00	Right	14.0	14.0	14.0	6.0	3.0	6.0	2.0	606.38	
129.0		Type 1	1006+90.00	Right	14.0	14.0	14.0	6.0	3.0	6.0	2.0	606.38	
130.0		Type 1	1007+50.00	Right	14.0	14.0	14.0	6.0	3.0	6.6	1.0	1315.95	
131.0		Type 1	1008+95.00	Right	16.0	16.0	16.0	6.0	3.0	8.0	1.0	1461.65	
132.0		Type 1	1010+50.00	Right	16.0	16.0	16.0	6.0	3.0	8.0	0.5	2970.45	
133.0		Type 1	1012+05.00	Right	18.0	18.0	18.0	6.0	3.0	8.0	0.5	2970.45	
134.0		Type 1	1015+20.00	Right	16.0	16.0	16.0	4.0	3.0	8.0	0.4	2686.95	
135.0		Type 1	1015+60.00	Right	16.0	16.0	16.0	4.0	3.0	8.0	0.7	1322.15	
136.0		Type 1	1016+75.00	Right	16.0	16.0	16.0	4.0	3.0	8.0	0.7	1322.15	
Total:					**2240**	**2240**	**2240**						

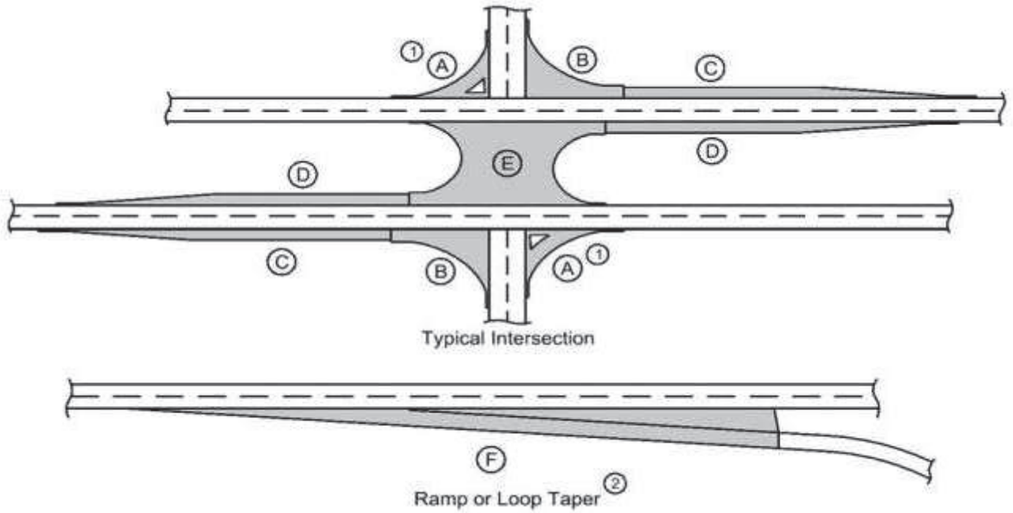
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ROCK EROSION CONTROL

Refer to EC-301 and Detail 570-8

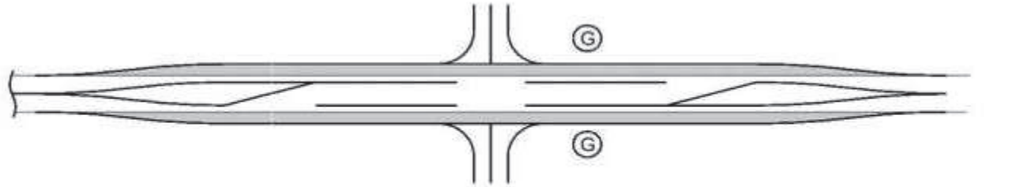
Line No.	Road Identification	Station From	Station To	Side	Length (FT)	Width (FT)	Rock Erosion Control Type	Engineering Fabric (SY)	Class E Revetment (TON)	Erosion Stone (TON)	Remarks
1.0	US 18	885+62.90	885+68.50	Right	5.60	8.0	Type 4 - Rock Splash Basin	12.8	5.400		

HMA PAVEMENT

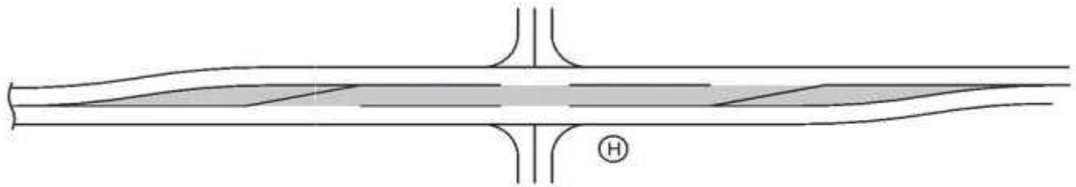


Typical Intersection

Ramp or Loop Taper (2)



Channelized Intersection
Widen Existing Roadway

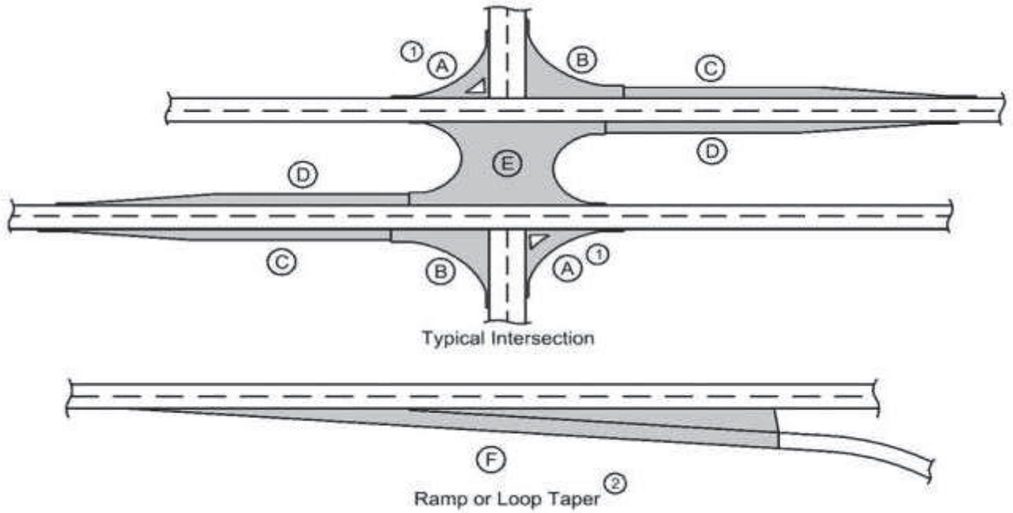


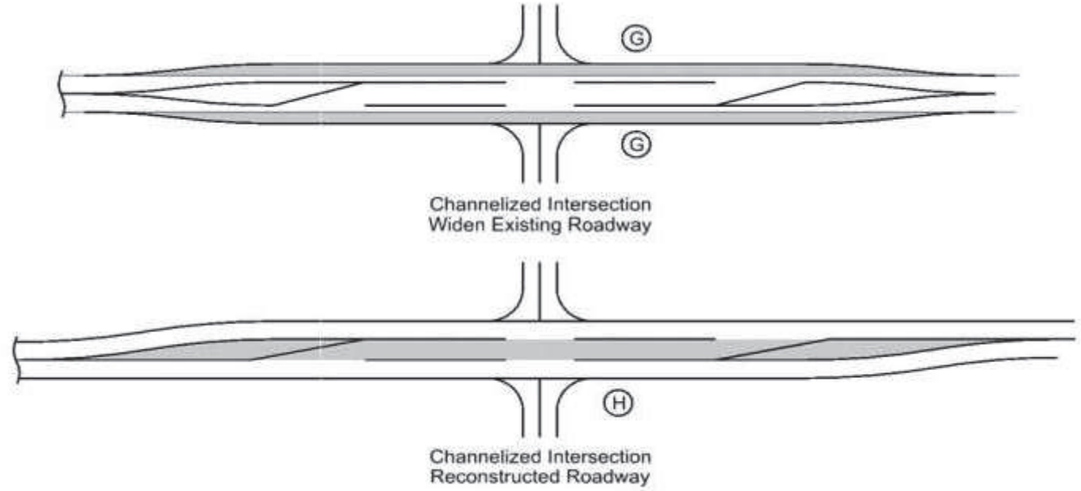
Channelized Intersection
Reconstructed Roadway

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

Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	HMA Pavement Surface (TONS)	HMA Pavement Surface (SY)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	HMA Pavement Base (TONS)	HMA Pavement Base (SY)	CIPR (SY)	Binder Surface (TONS)	Binder Intermediate (TONS)	Binder Base (TONS)	Foamed Ashpalt (TON)	Modified Subbase (CY)	Pavement Scarification (SY)	Remarks
1.0	18 Mainline	EB	708+78.00	710+28.00	24.0	150.00	400.00				33.075	400.00	8.269	400.00		400.00		1.985	0.496					Div. 1
1.2	18 WB Shoulder	EB	710+28.00	729+11.61	10.0	1883.61	2092.90				173.057	2092.90	173.057	2092.90	625.908	2092.90		10.383	10.383	37.554				Div. 2
2.0	18 Mainline	EB	710+28.00	729+10.26	24.0	1882.26	5019.36				415.038	5019.36	415.038	5019.36		5019.36	5019.40	24.902	24.902		22.100			Div. 1
2.5	18 EB Shoulder	EB	710+28.00	729+10.26	10.0	1882.26	2091.40				172.933	2091.40	172.933	2091.40	170.580	2091.40		10.376	10.376	10.235				Div. 2
3.0	18 Mainline	EB	729+10.26	743+15.63	24.0	1405.37	3747.65				309.884	3747.65	309.884	3747.65		3747.65	3747.60	18.593	18.593		16.500			Div. 1
4.0	18 Offset Rt. - Surf/Interm	EB	729+10.26	739+68.14		1057.88				2302.50	190.388	2302.50	190.388	2302.50		2302.50		11.423	11.423					Div. 2 Area C
5.0	18 Offset Rt. - Interm	EB	729+10.26	739+68.14		1057.88				2007.50		2007.50	221.327	2007.50		2007.50			13.280					Div. 2 Area C
6.0	18 Offset Rt. - Base	EB	729+10.26	739+68.14		1057.88				2045.40		2045.40		2045.40	611.702	2045.40				36.702		793.60		Div. 2 Area C
7.0	to SB 140th return - Surf/Interm	EB	739+68.14	740+62.40		94.26			648.60		53.631	648.60	53.631	648.60		648.60		3.218	3.218					Div. 2 Area B
8.0	to SB 140th return - Interm	EB	739+68.14	740+62.40		94.26			328.70			328.70	36.239	328.70		328.70			2.174					Div. 2 Area B
9.0	to SB 140th return - Base	EB	739+68.14	740+62.40		94.26			338.00			338.00		338.00	101.083	338.00				6.065		139.80		Div. 2 Area B
10.0	140th Ave.	NB	10739+98.65	10740+61.58	22.0	62.93	153.83				12.720	153.83	12.720	153.83		153.83		0.763	0.763					Div. 1
11.0	140th to 18 return - Surf/Interm	EB	740+84.40	743+15.63		231.23		441.00			36.465	441.00	36.465	441.00		441.00		2.188	2.188					Div. 2 Area A
12.0	140th to 18 return - Interm	EB	740+84.40	743+15.63		231.23		269.40				269.40	29.701	269.40		269.40			1.782					Div. 2 Area A
13.0	140th to 18 return - Base	EB	740+84.40	743+15.63		231.23		277.80				277.80		277.80	83.080	277.80				4.985		117.10		Div. 2 Area A
13.2	18 WB Shoulder	EB	752+31.64	843+15.45	10.0	9083.81	10093.12				834.575	10093.12	834.575	10093.12	3018.474	10093.12		50.075	50.075	181.108				Div. 2
14.0	18 Mainline	EB	743+15.63	833+88.14	24.0	9072.51	24193.36				2000.488	24193.36	2000.488	24193.36		24193.36	24193.40	120.029	120.029		106.500			Div. 1
14.5	18 EB Shoulder	EB	743+15.63	833+88.14	10.0	9072.51	10080.57				833.537	10080.57	833.537	10080.57	3014.720	10080.57		50.012	50.012	180.883				Div. 2
15.0	18 Mainline	EB	833+88.14	857+14.16	24.0	2326.02	6202.72				512.887	6202.72	512.887	6202.72		6202.72	6202.70	30.773	30.773		27.300			Div. 1
16.0	18 Offset Rt. - Surf/Interm	EB	833+88.14	844+47.70		1059.56				2302.50	190.388	2302.50	190.388	2302.50		2302.50		11.423	11.423					Div. 2 Area C
17.0	18 Offset Rt. - Interm	EB	833+88.14	844+47.70		1059.56				2007.50		2007.50	221.327	2007.50		2007.50			13.280					Div. 2 Area C
18.0	18 Offset Rt. - Base	EB	833+88.14	844+47.70		1059.56				2045.40		2045.40		2045.40	611.702	2045.40				36.702		798.10		Div. 2 Area C
19.0	to SB 160th return - Surf/Interm	EB	844+47.70	845+40.47		92.77			720.40		59.568	720.40	59.568	720.40		720.40		3.574	3.574					Div. 2 Area B
20.0	to SB 160th return - Interm	EB	844+47.70	845+40.47		92.77			355.90			355.90	39.238	355.90		355.90			2.354					Div. 2 Area B

HMA PAVEMENT

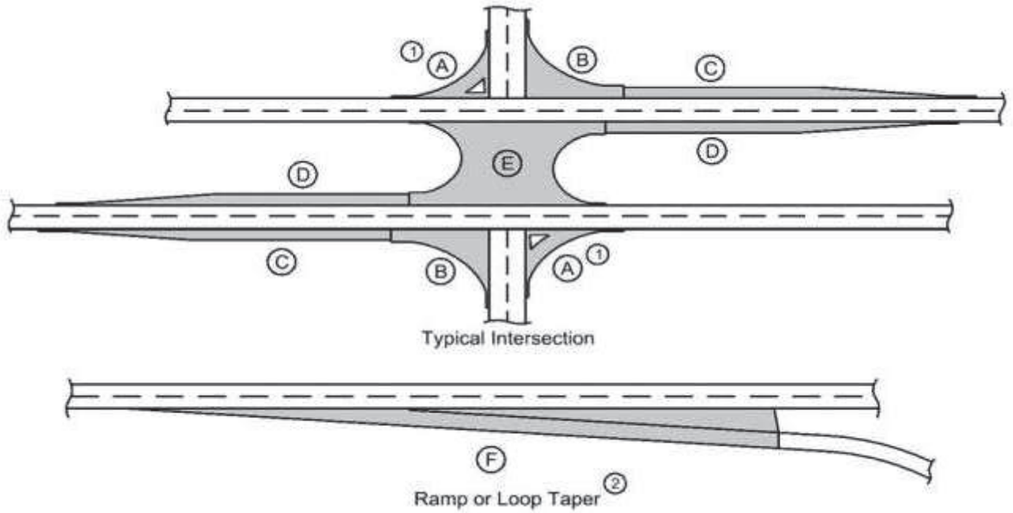


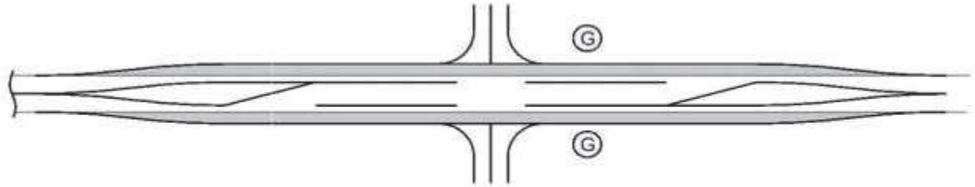


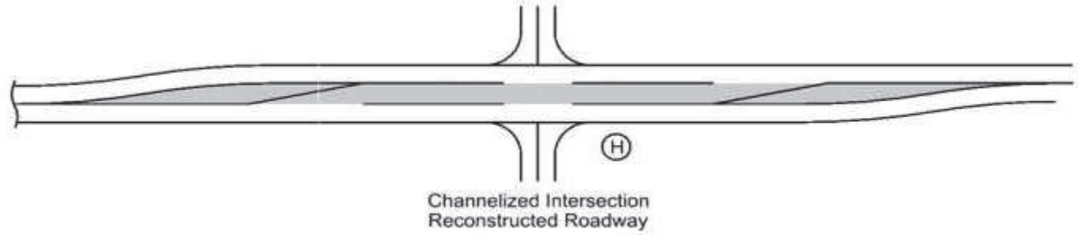
(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	HMA Pavement Surface (TONS)	HMA Pavement Surface (SY)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	HMA Pavement Base (TONS)	HMA Pavement Base (SY)	CIPR (SY)	Binder Surface (TONS)	Binder Intermediate (TONS)	Binder Base (TONS)	Foamed Ashpalt (TON)	Modified Subbase (CY)	Pavement Scarification (SY)	Remarks
21.0	to SB 160th return - Base	EB	844+47.70	845+40.47		92.77			366.00			366.00		366.00	109.457	366.00				6.567		151.20		Div. 2 Area B
22.0	160th to WB 18 rtn. - Surf/Interm	SB	843+15.45	845+40.47		225.02		429.90			35.547	429.90	35.547	429.90		429.90		2.133	2.133					Div. 2 Area A
23.0	160th to WB 18 rtn. - Interm	SB	843+15.45	845+40.47		225.02		339.90				339.90	37.474	339.90		339.90			2.248					Div. 2 Area A
24.0	160th to WB 18 rtn. - Base	SB	843+15.45	845+40.47		225.02		349.70				349.70		349.70	104.582	349.70				6.275		145.30		Div. 2 Area A
25.0	160th - South of 18	NB	20844+36.60	20845+39.96	22.0	103.36	252.66				20.892	252.66	20.892	252.66		252.66		1.254	1.254					Div. 1
26.0	160th - North of 18	NB	20845+64.96	20846+61.08	22.0	96.12	234.96				19.428	234.96	19.428	234.96		234.96		1.166	1.166					Div. 1
27.0	160th to EB 18 rtn. - Surf/Interm	NB	845+62.37	847+88.69		226.32		469.50			38.822	469.50	38.822	469.50		469.50		2.329	2.329					Div. 2 Area A
28.0	160th to EB 18 rtn. - Interm	NB	845+62.37	847+88.69		226.32		397.30				397.30	43.802	397.30		397.30			2.628					Div. 2 Area A
29.0	160th to EB 18 rtn. - Base	NB	845+62.37	847+88.69		226.32		407.30				407.30		407.30	121.808	407.30				7.308		165.10		Div. 2 Area A
30.0	to NB 160th return - Surf/Interm	WB	845+62.37	846+59.48		97.11			699.30		57.823	699.30	57.823	699.30		699.30		3.469	3.469					Div. 2 Area B
31.0	to NB 160th return - Interm	WB	845+62.37	846+59.48		97.11			331.30			331.30	36.526	331.30		331.30			2.192					Div. 2 Area B
32.0	to NB 160th return - Base	WB	845+62.37	846+59.48		97.11			341.70			341.70		341.70	102.190	341.70				6.131		144.00		Div. 2 Area B
33.0	18 Offset Rt. - Surf/Interm	WB	846+59.48	857+14.16		1054.68				2222.20	183.748	2222.20	183.748	2222.20		2222.20		11.025	11.025					Div. 2 Area C
34.0	18 Offset Rt. - Interm	WB	846+59.48	857+14.16		1054.68				1955.10		1955.10	215.550	1955.10		1955.10			12.933					Div. 2 Area C
35.0	18 Offset Rt. - Base	WB	846+59.48	857+14.16		1054.68				1992.80		1992.80		1992.80	595.972	1992.80				35.758		775.60		Div. 2 Area C
35.5	18 WB Shoulder	EB	857+14.16	890+00.00	10.0	3285.84	3650.93				301.886	3650.93	301.886	3650.93	1091.856	3650.93		18.113	18.113	65.511				Div. 2
36.0	18 Mainline	EB	857+14.16	890+00.00	24.0	3285.84	8762.24				724.528	8762.24	724.528	8762.24		8762.24	8762.20	43.472	43.472		38.600			Div. 1
36.5	18 EB Shoulder	EB	847+88.69	939+40.00	10.0	9151.31	10168.12				840.776	10168.12	840.776	10168.12	3040.903	10168.12		50.447	50.447	182.454				Div. 2
37.0	18 Mainline	EB	890+00.00	896+60.00	24.0	660.00	1760.00				145.530	1760.00	145.530	1760.00		1760.00	1760.00	8.732	8.732		7.700			Div. 1
38.0	18 WB Pass. Ln end taper	EB	890+00.00	896+60.00		660.00					85.300		201.900		321.400			5.118	12.114	19.284		428.10		Div. 2 W
39.0	18 Mainline	EB	896+60.00	937+60.00	24.0	4100.00	10933.33				904.050	10933.33	904.050	10933.33		10933.33	10933.30	54.243	54.243		48.100			Div. 1
40.0	18 WB Passing Lane	EB	896+60.00	937+60.00		4100.00					680.400		1606.800		2542.700			40.824	96.408	152.562		3267.10		Div. 2 W
41.0	18 Mainline	EB	937+60.00	939+40.00	24.0	180.00	480.00				39.690	480.00	39.690	480.00		480.00	480.00	2.381	2.381		2.100			Div. 1
42.0	18 WB Pass. Ln begin taper	EB	937+60.00	939+40.00		180.00					23.300		55.100		87.700			1.398	3.306	5.262		116.80		Div. 2 W

HMA PAVEMENT



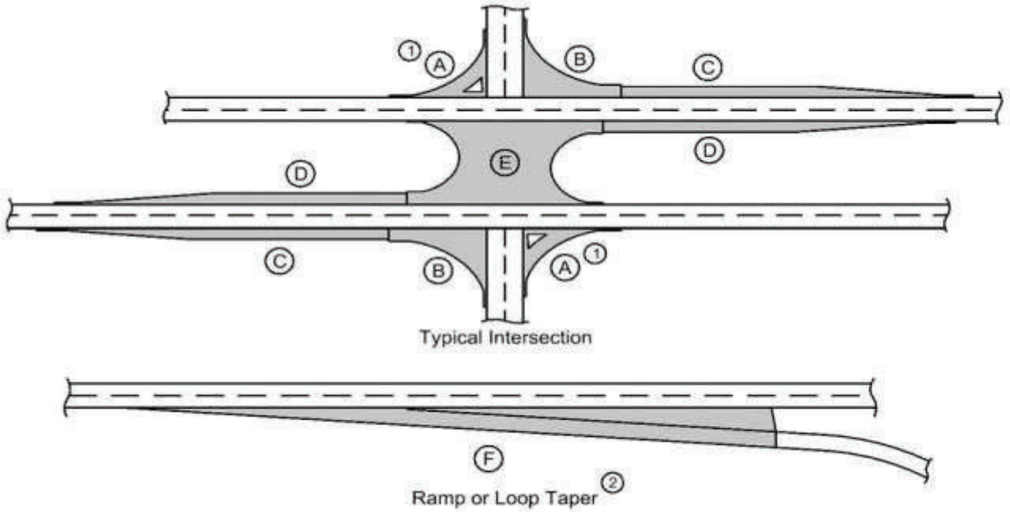




(1) Does not include raised island area or curb. Refer to tabulation 112-4 for quantities.
(2) Refer to PV-410, PV-411, PV-412, and PV-414.
(3) Quantity includes Pavement Header.

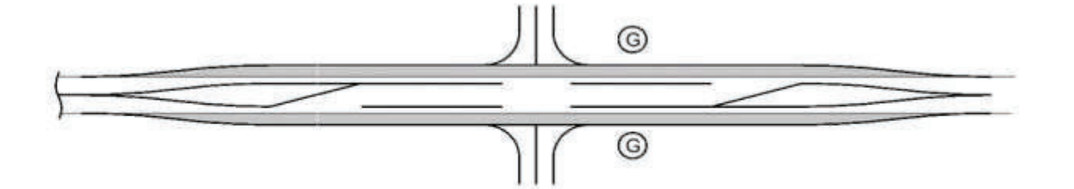
Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	HMA Pavement Surface (TONS)	HMA Pavement Surface (SY)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	HMA Pavement Base (TONS)	HMA Pavement Base (SY)	CIPR (SY)	Binder Surface (TONS)	Binder Intermediate (TONS)	Binder Base (TONS)	Foamed Ashpalt (TON)	Modified Subbase (CY)	Pavement Scarification (SY)	Remarks
42.5	18 WB Shoulder	EB	939+40.00	982+33.61	10.0	4293.61	4770.68				394.476	4770.68	394.476	4770.68	1426.731	4770.68		23.669	23.669	85.604				Div. 2
43.0	18 Mainline	EB	939+40.00	941+20.00	24.0	180.00	480.00				39.690	480.00	39.690	480.00		480.00	480.00	2.381	2.381		2.100			Div. 1
44.0	18 EB Pass. Ln begin taper	EB	939+40.00	941+20.00		180.00					23.300		55.100		87.700			1.398	3.306	5.262		116.80		Div. 2 W
45.0	18 Mainline	EB	941+20.00	982+33.61	24.0	4113.61	10969.63				907.051	10969.63	907.051	10969.63		10969.63	10969.60	54.423	54.423		48.300			Div. 1
46.0	18 EB Passing Lane	EB	941+20.00	982+33.61		4113.61					682.700		1612.100		2551.100			40.962	96.726	153.066		3277.90		Div. 2 W
47.0	18 Mainline	EB	982+33.61	988+93.61	24.0	660.00	1760.00				145.530	1760.00	339.570	1760.00	526.350	1760.00		8.732	20.374	31.581		586.70		Div. 1
48.0	18 EB Pass. Ln end taper incl WB shldr	EB	982+33.61	988+93.61		660.00					146.300		347.600		555.500			8.778	20.856	33.330		759.20		Div. 2 W
49.0	18 Mainline	EB	988+93.61	992+37.68	24.0	344.07	917.52				75.867	917.52	177.024	917.52	274.396	917.52		4.552	10.621	16.464		305.80		Div. 1
50.0	18 Mainline (shoulders only)	EB	988+93.61	992+37.68		344.07					63.600		151.700		243.900			3.816	9.102	14.634		344.80		Div. 2 W
51.0	18 Mainline	EB	992+37.68	1004+01.01	24.0	1163.33	3102.21				256.514	3102.21	598.533	3102.21	927.755	3102.21		15.391	35.912	55.665		1034.10		Div. 1
52.0	190th to WB 18 rtn. & ML - Surf	SB	993+22.84	1003+89.70		1066.86		2498.20			206.570	2498.20		2498.20		2498.20		12.394						Div. 2 Area A
53.0	190th to WB 18 rtn. & ML - Interm	SB	993+22.84	1003+89.70		1066.86		2540.90				2540.90	490.235	2540.90		2540.90			29.414					Div. 2 Area A
54.0	190th to WB 18 rtn. & ML - Base	SB	993+22.84	1003+89.70		1066.86		2580.90				2580.90		2580.90	771.850	2580.90				46.311		977.90		Div. 2 Area A
55.0	18 Offset Rt. - Surf	EB	992+37.68	1003+00.50		1062.82				2315.40	191.455	2315.40		2315.40		2315.40		11.487						Div. 2 Area C
56.0	18 Offset Rt. - Interm	EB	992+37.68	1003+00.50		1062.82				2356.00		2356.00	454.561	2356.00		2356.00			27.274					Div. 2 Area C
57.0	18 Offset Rt. - Base	EB	992+37.68	1003+00.50		1062.82				2394.00		2394.00		2394.00	715.956	2394.00				42.957		910.20		Div. 2 Area C
58.0	to SB 190th return - Surf	EB	1003+00.50	1003+89.70		89.20			587.70		48.595	587.70		587.70		587.70		2.916						Div. 2 Area B
59.0	to SB 190th return - Interm	EB	1003+00.50	1003+89.70		89.20			643.80			643.80	124.213	643.80		643.80			7.453					Div. 2 Area B
60.0	to SB 190th return - Base	EB	1003+00.50	1003+89.70		89.20			651.60			651.60		651.60	194.869	651.60				11.692		239.70		Div. 2 Area B
61.0	190th - South of 18	NB	31003+05.12	31003+89.01	22.0	83.89	205.06				16.956	205.06	16.956	205.06		205.06		1.017	1.017			68.30		Div. 1
62.0	190th - North of 18	NB	31004+13.01	31005+26.01	22.0	113.00	276.22				22.840	276.22	22.840	276.22		276.22		1.370	1.370					Div. 1
63.0	to NB 190th return - Surf	WB	1004+12.00	1005+05.66		93.66			597.30		49.389	597.30		597.30		597.30		2.963						Div. 2 Area B
64.0	to NB 190th return - Interm	WB	1004+12.00	1005+05.66		93.66			606.40			606.40	116.997	606.40		606.40			7.020					Div. 2 Area B
65.0	to NB 190th return - Base	WB	1004+12.00	1005+05.66		93.66			614.60			614.60		614.60	183.804	614.60				11.028		177.60		Div. 2 Area B

HMA PAVEMENT

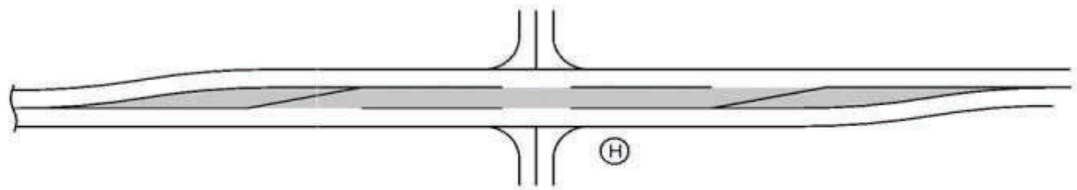


Typical Intersection

Ramp or Loop Taper (2)



Channelized Intersection
Widen Existing Roadway



Channelized Intersection
Reconstructed Roadway

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

Line No.	Road Identification	Direction of Travel	Station From	Station To	Width (FT)	Length (FT)	Area (SY)	Area A(1) (SY)(3)	Area B (SY)(3)	Area C (SY)(3)	HMA Pavement Surface (TONS)	HMA Pavement Surface (SY)	HMA Pavement Intermediate (TONS)	HMA Pavement Intermediate (SY)	HMA Pavement Base (TONS)	HMA Pavement Base (SY)	CIPR (SY)	Binder Surface (TONS)	Binder Intermediate (TONS)	Binder Base (TONS)	Foamed Ashpalt (TON)	Modified Subbase (CY)	Pavement Scarification (SY)	Remarks
66.0	190th to 18 return - Surf	EB	1004+12.00	1006+37.09		225.09		433.30			35.828	433.30		433.30		433.30		2.150						Div. 2 Area A
67.0	190th to 18 return - Interm	EB	1004+12.00	1006+37.09		225.09		443.30				443.30	85.529	443.30		443.30			5.132					Div. 2 Area A
68.0	190th to 18 return - Base	EB	1004+12.00	1006+37.09		225.09		452.80				452.80		452.80	135.416	452.80				8.125		178.00		Div. 2 Area A
69.0	18 ML - Shifted align. EB Ln & WB trn Ln	EB	1004+01.01	1123+03.85	24.0	1654.45	4411.87				364.807	4411.87	851.215	4411.87	1319.425	4411.87		21.888	51.073	79.165		10580.30		Div. 1 EQU.
70.0	18 Shifted align. - WB lanes - Surf	WB	1005+05.66	1123+03.85		1549.80				3605.40	298.122	3605.40		3605.40		3605.40		17.887						Div. 2 Area C
71.0	18 Shifted align. - WB lanes - Interm	WB	1005+05.66	1123+03.85		1549.80				3664.70		3664.70	707.058	3664.70		3664.70			42.423					Div. 2 Area C
72.0	18 Shifted align. - WB lanes - Base	WB	1005+05.66	1123+03.85		1549.80				3720.20		3720.20		3720.20	1112.572	3720.20				66.754				Div. 2 Area C
73.0	18 10' EB Paved Shoulder - Surf	EB	1006+37.09	1123+03.85		1418.37	1576.00				130.315	1576.00		1576.00		1576.00		7.819						Div. 2
74.0	18 10' EB Paved Shoulder - Interm	EB	1006+37.09	1123+03.85		1418.37	1630.20					1630.20	314.527	1630.20		1630.20			18.872					Div. 2
75.0	18 10' EB Paved Shoulder - Base	EB	1006+37.09	1123+03.85		1418.37	1680.90					1680.90		1680.90	502.694	1680.90				30.162		710.00		Div. 2
75.5	18 WB Shoulder	EB	1123+03.85	1151+39.00	10.0	2835.15	3150.17				260.480	3150.17	260.480	3150.17	942.098	3150.17		15.629	15.629	56.526				Div. 2
76.0	18 Mainline	EB	1123+03.85	1151+39.00	24.0	2835.15	7560.40				625.151	7560.40	625.151	7560.40		7560.40	7189.70	37.509	37.509		33.300			Div. 1
76.5	18 EB Shoulder	EB	1123+03.85	1151+39.00	10.0	2835.15	3150.17				260.480	3150.17	260.480	3150.17	942.098	3150.17		15.629	15.629	56.526				Div. 2
77.0	18 Mainline	EB	1151+39.00	1152+89.00	24.0	150.00	400.00				33.075	400.00	33.075	400.00		400.00		1.985	1.985					Div. 1
Total:											**15209.445**		**20847.693**		**29770.031**		**79737.9**	**912.566**	**1250.861**	**1786.198**	**352.6**	**27309.1**		

Remarks "W" - Quantity calculated with end areas
Refer to L-Sheets for pavement width variations.

ACCESS POINTS AND SAFETY RAMPS

Refer to Cross-Sections

Length of Unclassified Pipe calculated is based on using Corrugated Metal Pipe.
(1) Refer to MI-210.
(2) Refer to EW-501.
(3) Refer to EW-501 or EW-502.
*Predetermined for access point not constructed with this project.

Line No.	Station	Side	Access Type	Case	Curb Type	Curb Length (1) (LF)	Width (FT)	PR (1) (2) (FT)	SR (2) (FT)	Pipe Culvert (H) (3) (FT)	Pipe Culvert Size (3) (IN)	Culvert Length (3) (LF)	Pipe Culvert Lt. (3) (LF)	Pipe Culvert Rt. (3) (LF)	Culvert Aprons (3) (No.)	Driveway Surface Type	Driveway Surface Area (SY)	Driveway Surfacing Material (TON)	Remarks
1.0	717+90.00	Left	C								18.0				2				H I
2.0	752+72.00	Left	C								18.0				2				H
3.0	767+15.00	Left	C								18.0				2				H
4.0	868+18.00	Left	C								18.0				2				H
5.0	880+18.00	Left	C								18.0				2				H I K
6.0	883+00.00	Left	C								18.0				2				L M
7.0	898+64.00	Left	D				35.0			1.0	18.0	44.0	24.58	24.58	2			39.000	A B 106 CY Fill
8.0	963+25.00	Left	C								18.0				2				H I
9.0	992+96.00	Left	C				30.0											37.000	214 CY Fill
10.0	1007+80.00	Left	C				30.0			1.1	18.0	41.0	24.38	21.78	2			40.000	B F 152 CY Fill
11.0	1123+93.00	Left	C								18.0				2				L
12.0	1140+88.00	Left	C								18.0				2				H K
13.0	718+96.00	Right	C								18.0				2				H I
14.0	753+62.00	Right	C								18.0				2				H I
15.0	756+33.00	Right	C								18.0				2				H I
16.0	767+13.00	Right	C								18.0				2			40.000	H I J
17.0	834+17.00	Right	C								18.0				2				H I
18.0	971+49.00	Right	C				20.0			1.2	18.0	37.0	19.38	22.78	2			20.000	A B 94 CY Fill
19.0	993+06.00	Right	C				20.0			1.0	18.0	32.0	19.58	17.58	2			23.000	B C 94 CY Fill
20.0	993+86.00	Right	C				20.0			1.0	15.0	32.0	18.46	17.86	2			20.000	B D 62 CY Fill
21.0	995+85.00	Right	C				60.0											53.000	G
22.0	999+06.00	Right	C				30.0											18.000	G
23.0	1005+75.00	Right	C				26.0			1.1	18.0	38.0	20.08	23.08	2			50.000	B E 114 CY Fill
24.0	1143+39.00	Right	C								18.0				2				L
Total:												**224**			**42**			**340**	

Driveway surface material is Class 'A' crushed stone
A Lay culvert next to toe of foreslope
B Surfacing material spread to a depth of 6"
C Lay culvert in center of ditch. Surface slope from edge of pavement is -6% to culvert. Break back back to natural ground/ROW line
D Lay culvert in center of ditch. Surface slope from edge of pavement is -6% for 15' then break back to natural ground/ROW line
E Lay culvert in center of ditch
F Lay culvert in center of ditch. Surface slope from edge of pavement is -4% for 21' then break back to natural ground/ROW line
G Surface slope from edge of pavement is -6% for 10' then break back to natural ground/ROW line
H Add DR-201 aprons. Contractor to use excavation from apron installation and/or from ditch cleaning as foreslope embankment over apron.
I Ditch cleaning needed. See Tabulation Reshaping Ditches
J Regrade & Shape entrance (finished surface) to -4% from paved shoulder to center of culvert and up to existing ground at ROW. See EW-501. 30 CY of CL 10 Estimated for excavation. Install 40' + 40' of silt fence for erosion control.
K Remove and reinstall 1 section of pipe on west end. Contractor to verify.
L Add DR-203 aprons. Existing pipe is HDPE. Contractor to use excavation from apron installation and/or from ditch cleaning as foreslope embankment over apron
M Remove 3' on west end. Ditch cleaning needed.

EXISTING PAVEMENT

Line No.	County	Route	Direction of Travel	Begin Ref. Location Sign	End Ref. Location Sign	Year	Type	Project Number	Surface Type	Surface Depth (IN)	Base Type	Base Depth (IN)	Subbase Type	Subbase Depth (IN)	Removal Type	Removal Depth (IN)	Coarse Aggregate Source	Coarse Aggregate Type	Course Aggregate Durability Class	Reinforcement Type	Remarks
1.0	Kossuth	18	EB	131.94	132.16	1987		FN-18-3(59)--21-55	AAC	5.5							Hodges	C. Lst			
2.0	Kossuth	18	EB	131.94	132.16	1974		FN-18-3(29)--21-55	ASC	1.0							Bradgate	C. Lst			Hot sand mix
3.0	Kossuth	18	EB	131.94	132.16	1960		F-130(5)	AAC	1.5	AAC	1.5					Bradgate	C. Lst			
4.0	Kossuth	18	EB	131.94	132.16	1922		FA-140	PCC	8.0							Mason City	C. Lst	I		
5.0																					
6.0	Kossuth	18	EB	132.16	132.64	1987		FN-18-3(59)--21-54	AAC	4.0							Hodges	C. Lst			
7.0	Kossuth	18	EB	132.16	132.64	1960			PCC	10.0											
8.0																					
9.0	Kossuth	18	EB	132.64	138.36	1987		FN-18-3(59)--21-55	AAC	5.5							Hodges	C. Lst			
10.0	Kossuth	18	EB	132.64	138.36	1974		FN-18-3(29)--21-55	ASC	1.0							Bradgate	C. Lst			Hot sand mix
11.0	Kossuth	18	EB	132.64	138.36	1960		F-130(5)	AAC	1.5	AAC	1.5					Bradgate	C. Lst			
12.0	Kossuth	18	EB	132.64	138.36	1922		FA-140	PCC	8.0							Mason City	C. Lst	I		

FULL-DEPTH PATCHES

Line No.	Count	Station	Reference Location Sign	Lane	Length (FT)	Width (FT)	Total Patch Area (SY)	Patch Thickness (IN)	Patch Repair or Finish	PCC Patch Type	PCC Patch Quantity (SY)	HMA Patches (SY)	Composite HMA (TON)	Subbase Patches (PR-140) (SY)	Subbase Patch with 'EF' Joint (PR-101) (SY)	Patch Subdrain PR-101 or PR-140 (No.)	'CD' Joints (No.)	'CT' Joints (No.)	'EF' Joints PR-101 (No.)	Remarks
1.0	1	712+25.00		Left	22.0	12.0	29.3	17.5	Repair	PCC With Dowels (PR-103)	29.3									
2.0	1	713+01.00		Left	14.0	12.0	18.7	17.5	Repair	PCC With Dowels (PR-103)	18.7									
3.0	1	717+79.00		Left	6.0	12.0	8.0	17.5	Repair	PCC With Dowels (PR-103)	8.0									
4.0	1	726+15.00		Left	22.0	12.0	29.3	14.0	Repair	PCC With Dowels (PR-103)	29.3									
5.0	1	726+15.00		Right	6.0	12.0	8.0	14.0	Repair	PCC With Dowels (PR-103)	8.0									
6.0	1	732+60.00		Right	22.0	12.0	29.3	14.0	Repair	PCC With Dowels (PR-103)	29.3									
7.0	1	746+60.00		Left	20.0	12.0	26.7	14.0	Repair	PCC With Dowels (PR-103)	26.7									
8.0	1	747+50.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
9.0	1	754+07.00		Left	15.0	12.0	20.0	17.5	Repair	PCC With Dowels (PR-103)	20.0									
10.0	1	762+53.00		Right	18.0	12.0	24.0	17.5	Repair	PCC With Dowels (PR-103)	24.0									
11.0	1	762+65.00		Left	30.0	12.0	40.0	17.5	Repair	PCC With Dowels (PR-103)	40.0						1			
12.0	1	770+86.00		Left	25.0	12.0	33.3	17.5	Repair	PCC With Dowels (PR-103)	33.3						1			
13.0	1	770+86.00		Right	25.0	12.0	33.3	17.5	Repair	PCC With Dowels (PR-103)	33.3						1			
14.0	1	782+24.00		Right	15.0	12.0	20.0	17.5	Repair	PCC With Dowels (PR-103)	20.0									
15.0	1	782+24.00		Left	15.0	12.0	20.0	17.5	Repair	PCC With Dowels (PR-103)	20.0									
16.0	1	787+25.00		Right	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
17.0	1	798+14.00		Left	8.0	12.0	10.7	17.5	Repair	PCC With Dowels (PR-103)	10.7									
18.0	1	798+14.00		Right	8.0	12.0	10.7	17.5	Repair	PCC With Dowels (PR-103)	10.7									
19.0	1	803+85.00		Left	16.0	12.0	21.3	17.5	Repair	PCC With Dowels (PR-103)	21.3									
20.0	1	803+85.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
21.0	1	805+19.00		Left	18.0	12.0	24.0	17.5	Repair	PCC With Dowels (PR-103)	24.0									
22.0	1	811+06.00		Left	15.0	12.0	20.0	17.5	Repair	PCC With Dowels (PR-103)	20.0									
23.0	1	811+06.00		Right	15.0	12.0	20.0	17.5	Repair	PCC With Dowels (PR-103)	20.0									
24.0	1	819+41.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
25.0	1	819+41.00		Left	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
26.0	1	823+29.00		Left	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
27.0	1	833+28.00		Left	10.0	12.0	13.3	17.5	Repair	PCC With Dowels (PR-103)	13.3									
28.0	1	833+28.00		Right	10.0	12.0	13.3	17.5	Repair	PCC With Dowels (PR-103)	13.3									
29.0	1	837+51.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
30.0	1	840+79.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
31.0	1	840+79.00		Left	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
31.5	2	846+52.00		Both	40.0	12.0	106.7	16.0	Repair	PCC C R C (PR-104)	106.7									A
32.0	1	850+89.00		Left	6.0	12.0	8.0	17.5	Repair	PCC With Dowels (PR-103)	8.0									
33.0	1	854+71.00		Left	10.0	12.0	13.3	17.5	Repair	PCC With Dowels (PR-103)	13.3									
34.0	1	857+19.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7						1			
35.0	1	857+19.00		Left	35.0	12.0	46.7	17.5	Repair	PCC With Dowels (PR-103)	46.7						1			
36.0	1	872+13.00		Right	6.0	12.0	8.0	17.5	Repair	PCC With Dowels (PR-103)	8.0									
37.0	1	872+13.00		Left	6.0	12.0	8.0	17.5	Repair	PCC With Dowels (PR-103)	8.0									
38.0	1	885+00.00		Right	32.0	12.0	42.7	17.5	Repair	PCC With Dowels (PR-103)	42.7						1			
39.0	1	886+43.00		Left	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
40.0	1	888+10.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
41.0	1	891+50.00		Left	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
42.0	1	898+20.00		Right	8.0	12.0	10.7	17.5	Repair	PCC With Dowels (PR-103)	10.7									
43.0	1	898+20.00		Left	8.0	2.0	10.7	17.5	Repair	PCC With Dowels (PR-103)	10.7									
44.0	1	901+43.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
45.0	1	901+43.00		Left	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
46.0	1	906+04.00		Left	6.0	12.0	8.0	17.5	Repair	PCC With Dowels (PR-103)	8.0									
47.0	1	918+16.00		Right	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
48.0	1	927+05.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
49.0	1	930+82.00		Right	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
50.0	1	949+25.00		Right	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
51.0	1	949+25.00		Left	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
52.0	1	957+12.00		Right	18.0	12.0	24.0	17.5	Repair	PCC With Dowels (PR-103)	24.0									
53.0	1	967+94.00		Left	10.0	12.0	13.3	17.5	Repair	PCC With Dowels (PR-103)	13.3									
54.0	1	971+98.00		Right	10.0	12.0	13.3	17.5	Repair	PCC With Dowels (PR-103)	13.3									
55.0	1	974+80.00		Left	30.0	12.0	40.0	17.5	Repair	PCC With Dowels (PR-103)	40.0						1			

FULL-DEPTH PATCHES

Line No.	Count	Station	Reference Location Sign	Lane	Length (FT)	Width (FT)	Total Patch Area (SY)	Patch Thickness (IN)	Patch Repair or Finish	PCC Patch Type	PCC Patch Quantity (SY)	HMA Patches (SY)	Composite HMA (TON)	Subbase Patches (PR-140) (SY)	Subbase Patch with 'EF' Joint (PR-101) (SY)	Patch Subdrain PR-101 or PR-140 (No.)	'CD' Joints (No.)	'CT' Joints (No.)	'EF' Joints PR-101 (No.)	Remarks
56.0	1	1138+79.00		Left	20.0	12.0	26.7	17.5	Repair	PCC With Dowels (PR-103)	26.7									
57.0	1	1139+75.00		Left	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
58.0	1	1145+50.00		Right	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
59.0	1	1145+50.00		Left	12.0	12.0	16.0	17.5	Repair	PCC With Dowels (PR-103)	16.0									
60.0	1	1148+36.00		Left	22.0	12.0	29.3	17.5	Repair	PCC With Dowels (PR-103)	29.3						1			
Total:	**62**						**1411.1**				**1411.1**						**8**			

A - Twin pipes to be installed per sheet VX1. An estimated 360 CY of culvert excavation to be included in bid. See Tab 104-3 for additional information.

102_16
8/15/22

NOTCHES AND RUNOUTS FOR RESURFACING

Refer to PR-201 and PR-202.

(1) Bid item. Applies only to Types 'N1' and 'N3' on PR-202. Refer to 100-25 for remaining values.

Line No.	Station	Type of Notch or Runout	S (IN)	I (IN)	DI (IN)	L (FT)	M (IN)	Pavement Scarification (SY) (1)	Remarks
0.3	708+78.00	Type N3	1.5	1.5		150.0	1.5	733.3	Begin project
0.4	983+83.61	Type N3	1.5	1.5		150.0	1.5	433.3	Runout onto new surface
0.5	1016+07.58	Type N3	1.5	1.5		150.0	1.5	366.7	Runout onto new surface
0.7	1152+39.00	Type N3	1.5	1.5		150.0	1.5	400.0	End project on nearest joint
1.0	10739+77.00	Type N3	1.5	1.5		30.0	1.5	171.0	140th Ave
2.0	20846+61.00	Type N3	1.5	1.5		30.0	1.5	133.0	160th North side
3.0	20844+36.60	Type N3	1.5	1.5		30.0	1.5	124.0	160th Ave South side
4.0	31005+26.00	Type N2	1.5			37.5	1.5	222.0	A 190th Ave north side
Total:								**2583.3**	

A Refer to Sheet L.6 for additional information

TOPSOIL STRIPPING AND PLACEMENT

Line No.	Road Identification	Dir. of Traffic	Station From	Station To	Topsoil Stripping Thickness (IN)	Topsoil Placement Thickness (IN)	Remarks
1.0	US 18	EB	729+10.00	740+50.00	12	6	
2.0	US 18	EB	741+00.00	742+50.00	12	6	
3.0	US 18	EB	833+88.00	845+25.00	12	6	
4.0	US 18	EB	845+75.00	847+50.00	12	6	
5.0	US 18	WB	844+00.00	845+25.00	12	6	
6.0	US 18	WB	845+85.00	857+14.00	12	6	
7.0	US 18	WB	890+00.00	939+40.00	12	6	
8.0	US 18	WB	982+33.00	1003+50.00	12	6	
8.0	US 18	EB	939+40.00	995+00.00	12	6	
9.0	US 18	WB	1004+50.00	1123+03.00	12	6	
10.0	US 18	EB	1004+50.00	1017+57.00	12	6	

DRAINAGE STRUCTURE BY ROAD CONTRACTOR

Length of unclassified pipe calculated is based on using Reinforced Concrete Pipe.
* Not a bid item
(1) Diameter or equivalent diameter
(2) UNCL = Unclassified Pipe CMP = Corrugated Metal Pipe RCP = Reinforced Concrete Pipe LCP = Arch or Elliptical Low Clearance Pipe SARC = Steel Arch Pipe
(3) Backfill according to DR-101

Drainage Area (ACRE)	Location	Type	Size (IN) (1)	Pipe Classification	Kind of Pipe (2)	Length New Const. (LF)	Length of total that is Trenchless	Bedding Class	Design Cover (H) (FT)	Camber* (DR-102) (FT)	Apron No. (IN)	Apron No. (OUT)	Apron Guard* (DR-213) (No.)	Elbow* (DR-141) (No.)	Diaphragm* (DR-501) (No.)	Tee Section* (DR-142) (No.)	"D" Section* (DR-141) (No.)	Reducer* (No.)	Type 'C' Conn.* (DR-122)	Type 'C' Conn.* (No.)	Connected Pipe Joint* (DR-121)	4" Perforated Subdrain* (FT)	Flow Line Elevation LT.	Flow Line Elevation RT.	Flow Line Elevation Other	Flow Line Elevation Other	Dimensions Lineal Feet Total (Left)	Dimensions Lineal Feet Total (Right)	Dimensions Lineal Feet Extensions	Dimensions Lineal Feet Extensions	Skew Ahead Degrees (Left)	Skew Ahead Degrees (Right)	Dike Location	Dike Station	Dike Elevation	Dike Type	Class 20 (CY)	Flowable Mortar	Floodable Backfill* (A)	Porous Backfill* (B)	Flooded Backfill(A+B)	Remarks
	932+65.00	DR-621	18.0	2000D	RCP	12.0		B	2.00												Type 3		1203.75	1203.62			43.00		12.00												A D H
						12																																		
Size (IN)				**(1) 18.0:**																																				
	1015+45.60	**DR-621**	24.0	2000D	RCP	16.0		B	1.60		1										Type 3		1208.33	1207.88			44.80		16.00												A D E
	1015+45.60	DR-621	24.0	2000D	RCP	6.0		B	2.00			1									Type 3		1207.75	1207.75				38.90		6.00											A D
	1145+58.98	DR-601	24.0																		Type 3																				D F G
	20846+19.93	DR-621	24.0	2000D	RCP	2.0		B	1.80		1										Type 3		1190.87	1190.87			35.61		2.00												160th A D
	20846+19.93	DR-621	24.0	2000D	RCP	20.0		B	1.80			1									Type 3		1190.81	1190.79				59.24		20.00											160th A D
						44					2	2																												
Size (IN)				**(1) 24.0:**																																				
100	**837+24.77**	**DR-621**	30.0	2000D	RCP	2.0		B	4.30		1										Type 3		1186.35	1186.26			38.28		2.00												A D
	837+24.77	DR-621	30.0	2000D	RCP	8.0		B	4.30			1									Type 3		1185.64	1185.46				51.97		8.00											A D
22	885+68.00	DR-621	30.0	2000D	RCP	12.0		B	2.00												Type 3								6.00	6.00											A C D H I
68	977+44.81	DR-621	30.0	2000D	RCP	12.0		B	3.10			1	1								Type 3		1198.07	1198.03				46.38		12.00											A D
						34					1	2																												
Size (IN)				**(1) 30.0:**																																				
87	**846+47.00**	**DR-601**	44.0	2000D	LCP	94.0		B	1.90		1	1									Type 3		1190.68	1189.97			62.58	45.41								32.0	163.0	19.7	182.7	A B D J
	846+57.00	DR-601	44.0	2000D	LCP	92.0		B	2.00		1	1									Type 3		1190.68	1190.00			61.91	44.40												A B D
						186					2	2																								32			182.7	
Size (IN)				**(1) 44.0:**																																				
38	**742+97.10**	**DR-621**	48.0	2000D	RCP	24.0		B	4.80												Type 3		1176.49	1176.32			64.68		24.00												A D H
38	743+06.60	DR-621	48.0	2000D	RCP	24.0		B	4.80												Type 3		1176.49	1175.92			64.79		24.00												A D H
						48																																		
Size (IN)				**(1) 48.0:**																																				
Total:						**324**					**5**	**6**																								**32**			**182.7**	

A - Place erosion control per Road Design Detail 570-11.
B - Install new 44"x27"(36") LCP.
C - Special berm, per DR-103 is required at extension.
D - Tie new pipe to old pipe with Type 3 connection.
E - Lt Flowline buried 0.22'
F - Remove and reinstall 12' of Rt side culvert.
G - U.A.C. Flowline
H - Remove and reinstall apron(s)
I - Extended per DR-621. Culvert extension slope to be min 1% and max of 2%. Set flowlines accordingly. See R-sheets for original FL elevations.
J - Patch location combined with Sta 846+57. Flowable mortar and Flooded backfill combined with Sta 846+57.

STANDARDS

The following Standards apply to construction work on this project.

Number	Date	Title
DR-101	04-18-17	Pipe Culvert (Bedding and Backfill)
DR-102	04-21-15	Pipe Culvert (Cover and Camber)
DR-103	04-21-15	Pipe Culvert (Installation Details)
DR-104	04-19-16	Depth of Cover Tables for Concrete and Corrugated Pipe
DR-121	04-18-23	Connected Pipe Joints
DR-141	04-18-17	Pipe Bends
DR-201	10-17-23	Concrete Aprons
DR-202	10-17-23	Low Clearance Concrete Pipe Aprons
DR-203	04-21-20	Metal Pipe Aprons and Beveled Ends
DR-302	04-18-23	Subdrains Standard (Farm Tile Replacement)
DR-303	10-17-17	Subdrains (Longitudinal)
DR-601	04-18-17	Reinforced Concrete Pipe Culvert
DR-621	04-18-17	Pipe Extension
DR-651	04-18-17	Unclassified Pipe Culvert
EC-201	04-20-21	Silt Fence
EC-204	10-19-21	Perimeter, Slope and Ditch Check Sediment Control Devices
EC-502	04-21-15	Seeding in Rural Areas
EW-101	10-17-17	Embankment and Rebuilding Embankments
EW-105	04-21-15	Reshaping Slopes and Ditches
EW-501	10-17-23	Rural Entrance
EW-503	10-20-15	Side Road Grading
PM-110	10-15-24	Line Types
PM-111	04-21-20	Symbols and Legends
PM-115	04-15-25	Grooving for Line Types
PM-116	04-16-24	Grooving for Symbols and Legends
PM-120	10-15-24	Stop Lines and Islands
PM-210	10-15-24	Separation in Two-Lane Roadway
PM-222	10-15-24	Passing Lane (Super Two Highway)
PM-420	10-15-24	Two-Lane Roadway with no Turn Lanes (One-Way Stop Condition)
PM-520	10-15-24	Two-Lane Roadway with no Turn Lanes (Two-Way Stop Condition)
PM-522	10-15-24	Two-Lane Roadway with Left Turn Lanes
PR-103	10-17-23	Full Depth PCC Patch with Dowels
PR-202	10-21-14	Notches for Resurfacing (with or without Runout)
PV-12	04-16-24	Milled Shoulder Rumble Strips
PV-13	04-16-24	Milled Centerline Rumble Strips
PV-101	04-15-25	Joints
PV-202	04-21-20	Hot Mix Asphalt Resurfacing
SI-101	04-19-16	Locations - Type 'A' Signs
SI-121	10-16-18	Fabrication - Sign Legend Components
SI-131	10-18-16	Installation - Type 'A' Signs
SI-133	10-17-17	Installation - Type 'A' Sign Shim
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-282	10-15-19	Uneven Lanes
TC-252	04-21-20	Routes Closed to Traffic
TC-214	04-18-23	Lane Closure with Flaggers for use with Pilot Car

PLOWING AND SHAPING

Refer to Standard Road Plan EW-101

Line No.	Station From	Station To	D (FT)	Remarks
1.0	982+33.00	1017+57.00	2.0	Std Rd Plan EW-101

108_13A
10/4/23

SAFETY CLOSURES

Refer to Section 2518 of the Standard Specifications

Station	Road Closure Qty.	Hazard Closure Qty.	Remarks
846+00.00	1		West of culvert replacement
847+00.00	1		East of culvert replacement
982+00.00	1		West of Sexton
1123+15.00	1		East of Sexton
31006+60.00	1		North of US 18
31000+00.00	1		South of US 18
Total:	**6**		

Stations are approximate only. Contractor to adjust in field.

PAVEMENT MARKING LINE TYPES

Line factors based on 6-inch wide continuous line.
*BCY4 - Place on the same side of the roadway to match existing markings near the project.
**NPY4 - For estimating purposes only. No Passing Zone Lines will be located in the field.
***MNY6 - Factor of 1.00 as value includes number of 6-inch passes to cover median nose area.

BCY4: Broken Centerline (Yellow) @ 0.17
BCY6: Broken Centerline (Yellow) @ 0.25
BLC6: Broken Line Contrast (White/Black) @ 0.50
BLW4: Broken Lane Line (White) @ 0.17
BLW6: Broken Lane Line (White) @ 0.25
CBW6: Crosswalk Bar (White) @ 10.00
CHW8: Channelizing Line (White) @ 1.33
CHW10: Channelizing Line (White) @ 1.67
CHY8: Channelizing Line (Yellow) @ 1.33
CHY10: Channelizing Line (Yellow) @ 1.67
CLW6: Crosswalk Line (White) @ 2.00
DCY4: Double Centerline (Yellow) @ 1.34
DCY6: Double Centerline (Yellow) @ 2.00
DDY4: Double Dotted Line (Yellow) @ 0.44
DDY6: Double Dotted Line (Yellow) @ 0.67
DLW4: Dotted Line (White) @ 0.22
DLW6: Dotted Line (White) @ 0.33
DLY4: Dotted Line (Yellow) @ 0.22
DLY6: Dotted Line (Yellow) @ 0.33
ELW4: Edge Line Right (White) @ 0.67
ELW6: Edge Line Right (White) @ 1.00
ELY4: Edge Line Left (Yellow) @ 0.67
ELY6: Edge Line Left (Yellow) @ 1.00
LDW8: Lane Drop (White) @ 0.33
LDW10: Lane Drop (White) @ 0.42
MNY6: Median Nose (Yellow) @ 1.00
NPY4: No Passing Zone Line (Yellow) @ 0.84
NPY6: No Passing Zone Line (Yellow) @ 1.25
RLW4: Ramp Edge Line Right (White) @ 0.67
RLW6: Ramp Edge Line Right (White) @ 1.00
RLY4: Ramp Edge Line Left (Yellow) @ 0.67
RLY6: Ramp Edge Line Left (Yellow) @ 1.00
SLW2: Stop Line (White) @ 4.00
SLW4: Solid Lane Line (White) @ 0.67
SLW6: Solid Lane Line (White) @ 1.00
SPW4: Sloped Curb 4" (White) @ 2.16
SPW6: Sloped Curb 6" (White) @ 2.28
SPY4: Sloped Curb 4" (Yellow) @ 2.16
SPY6: Sloped Curb 6" (Y

Road ID	Station From	Station To	Lane	Marking Type	Left	Center	Right	BCY4* (STA)	BCY4* Factored	BCY6 (STA)	BCY6 Factored	BLW6 (STA)	BLW6 Factored	CHW10 (STA)	CHW10 Factored	CHY10 (STA)	CHY10 Factored	DCY4 (STA)	DCY4 Factored	DCY6 (STA)	DCY6 Factored	DLW6 (STA)	DLW6 Factored	ELW4 (STA)	ELW4 Factored	ELW6 (STA)	ELW6 Factored	NPY4** (STA)	NPY4** Factored	NPY6** (STA)	NPY6** Factored	SLW2 (STA)	SLW2 Factored	SLW6 (STA)	SLW6 Factored	Remarks
18	708+78.00	1152+89.00	Center	Grooves Cut for Pavement Markings		X						66.13	16.53																				6.00	6.00	
18	708+78.00	1152+89.00	Left	Grooves Cut for Pavement Markings	X																	4.30	1.42			337.07	337.07					0.85	3.40			
18	708+78.00	1152+89.00	Right	Grooves Cut for Pavement Markings			X							80.22	133.97	155.82	260.22					12.80	4.22			337.07	337.07					1.61	6.44			
													16.53		133.97		260.22						5.64				674.14						9.84		6	
Marking Type Grooves Cut for Pavement Markings:																																			
18	**1120+05.90**	**1123+03.80**	**Left**	Removal of Paint	X																			2.97	1.99											A
																									1.99										
Marking Type Removal of Paint:																																			
18	**982+33.60**	**993+22.80**	**Center**	Waterborne/Solvent Paint		X																								10.89	13.61					A
18	982+33.60	1123+03.80	Left	Waterborne/Solvent Paint	X																	4.25	1.40			38.22	38.22					0.42	1.68			A
18	982+33.60	1123+03.80	Right	Waterborne/Solvent Paint			X							20.06	33.50							4.25	1.40			38.22	38.22					0.53	2.12			A
18	982+33.60	1123+03.80	Center	Waterborne/Solvent Paint		X										97.36	162.59																	3.00	3.00	A
18	708+78.00	1152+89.00	Center	Waterborne/Solvent Paint		X		150.64	25.61									9.82	13.16									138.39	116.25							B
18	708+78.00	1152+89.00	Left	Waterborne/Solvent Paint	X																			298.85	200.23											B
18	708+78.00	1152+89.00	Right	Waterborne/Solvent Paint			X																	298.85	200.23											B
18	708+78.00	1152+89.00	Center	Waterborne/Solvent Paint		X		150.64	25.61									9.82	13.16									138.39	116.25							C
18	708+78.00	1152+89.00	Left	Waterborne/Solvent Paint	X																			298.85	200.23											C
18	708+78.00	1152+89.00	Right	Waterborne/Solvent Paint			X																	298.85	200.23											C
18	708+78.00	1152+89.00	Center	Waterborne/Solvent Paint		X				151.13	37.78	66.13	16.53			58.46	97.63			1.50	3.00									127.58	159.47			3.00	3.00	D
18	708+78.00	1152+89.00	Left	Waterborne/Solvent Paint	X																	4.30	1.42			298.85	298.85					0.43	1.72			D
18	708+78.00	1152+89.00	Right	Waterborne/Solvent Paint			X							60.16	100.47							8.55	2.82			298.85	298.85					1.08	4.32			D
18	708+78.00	1152+89.00	Center	Waterborne/Solvent Paint		X				151.13	37.78	66.13	16.53							1.50	3.00									127.58	159.47			6.00	6.00	E
18	708+78.00	1152+89.00	Left	Waterborne/Solvent Paint	X																	4.30	1.42			337.07	337.07					0.85	3.40			E
18	708+78.00	1152+89.00	Right	Waterborne/Solvent Paint			X							80.22	133.97	155.82	260.22					12.80	4.22			337.07	337.07					1.61	6.44			E
Sider				Waterborne/Solvent Paint	X	X	X																	16.00	10.72			8.00	6.72							D
oads									51.22		75.56		33.06		267.94		520.44		26.32		6		11.28		811.64		1348.28		239.22		332.55		19.68		12	
Marking Type Waterborne/Solvent Paint:																																			
Total:									**51.22**		**75.56**		**49.59**		**401.91**		**780.66**		**26.32**		**6**		**16.92**		**813.63**		**2022.42**		**239.22**		**332.55**		**29.52**		**18**	

Equation lengths have been factored.
Stop lines are located within mainline stationing.
4" lines are used in all applications other than final. 6" used for final surface and after grooving.
A Following Phase 2 Construction - See U-sheets
B Following Cold in-place recycling (skipping Sexton reconstruction) - See U-sheets
C Following intermediate course (skipping Sexton reconstruction) - See U-sheets
D Following surface course (skipping Sexton reconstruction) - See U-sheets
E Final markings to follow grooving
Note - Channelizing lines not to be painted until surface course (D)

PAVEMENT MARKING SYMBOLS AND LEGENDS

Refer to PM-111

Line No.	Roadway Identification	Station	Side	Pavement Symbol	Quantity (EA)	Remarks
1.0	US 18	738+68.00	Right	RTAW	1	
2.0	US 18	739+43.00	Right	RTAW	1	
3.0	US 18	739+58.00	Left	LTAW	1	
4.0	US 18	740+33.00	Left	LTAW	1	
5.0	US 18	741+10.00	Left	LTAW	1	
6.0	US 18	741+85.00	Left	LTAW	1	
7.0	US 18	843+48.00	Right	RTAW	1	
8.0	US 18	844+23.00	Right	RTAW	1	
9.0	US 18	846+85.00	Left	RTAW	1	
10.0	US 18	847+60.00	Left	RTAW	1	
11.0	US 18	1002+00.00	Right	RTAW	1	
12.0	US 18	1002+75.00	Right	RTAW	1	
13.0	US 18	1002+49.00	Left	LTAW	1	
14.0	US 18	1003+24.00	Left	LTAW	1	
15.0	US 18	1004+78.00	Left	LTAW	1	
16.0	US 18	1005+53.00	Left	LTAW	1	
Total:					**16**	

110_01
4/5/24

REMOVAL OF PAVEMENT

Refer to Tabulation 102-5.

* Not a bid item.

Line No.	Station From	Station To	Side	Pavement Type	Area (SY)	Saw Cut* (LF)	Remarks
1.0	924+31.00	925+32.00	Left	HMA	34.0	101.0	Existing fillet
2.0	951+01.00	951+80.00	Left	HMA	28.4	79.0	Existing fillet
3.0	950+81.00	951+77.00	Right	HMA	78.4	96.0	Existing fillet
4.0	982+33.61	1017+57.58	Both	HMA	11101.0	48.0	A
Total:					**11241.8**		

A - Refer to Sheet J.2 for additional information. Includes a portion of 190th Ave sideroad, entrance fillets and turn lanes.

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REMOVAL OF EXISTING STRUCTURES

Line No.	Location	Description	Remarks
1.0	837+24.7	Left & Right aprons	
2.0	20846+19.9	Left & Right aprons	160th Ave
3.0	845+91.2	Left & Right aprons	
4.0	898+64.0	18" x 81' CMP	Entrance, Lt
5.0	904+27.0	18" x 32.8' Conc. Pipe	Entrance, Lt
6.0	971+59.0	18" x 32.2' Conc. Pipe	Entrance, Rt
7.0	977+44.8	Right apron	
8.0	1001+50.0	15" x 55' RCP	Entrance, Rt
9.0	1007+75.0	18" x 41.3' HDPE	Entrance, Rt
10.0	1007+80	18" x 57' HDPE	Entrance, Lt
11.0	1015+45.6	Left & Right aprons	

CULVERT ABANDONMENT

Refer to Details 4315 and 4316

* Not a bid item

Line No.	Station	Description	Flowable Mortar (CY)	Granular Backfill* (TON)	4" Perforated Subdrain* (LF)	Remarks
1.0	845+91.20	2' x 2' x 36.9' RCB w/ 30" Exts.	14.1	0.300	10.0	Refer to Typ. 4315

POLLUTION PREVENTION PLAN

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

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

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

I. ROLES AND RESPONSIBILITES

A. Designer:
1. Prepares Base PPP included in the project plan.
2. Prepares Notice of Intent (NOI) submitted to Iowa DNR.
3. Is signature authority on the Base PPP. If consultant designed, signature from Contracting Authority is also required.

B. Contractor:
1. Signs a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP. All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Designates a Water Pollution Control Manager (WPCM), who has the duties and responsibilities as defined in Section 2602 of the Standard Specifications.
3. Submits an Erosion Control Implementation Plan (ECIP) and ECIP updates according to Section 2602 of the Standard Specifications.
4. Installs and maintains appropriate controls. This work may be subcontracted as documented through Subcontractor Request Forms (Form 830231).
5. Supervises and implements good housekeeping practices according to Paragraph III, C, 2.
6. Conducts joint required inspections of the site with inspection staff. When Contractor is not mobilized on site, Contractor may delegate this responsibility to a trained or certified subcontractor. Contracting Authority also may waive joint inspection requirement during winter shutdown. In both circumstances, WPCM (or trained or certified delegate from the Contractor) is still responsible to review and sign inspection reports.
7. Complies with training and certification requirements of Section 2602 of the Standard Specifications.
8. Submits amended PPP site map according to Section 2602 of the Standard Specifications.

C. Subcontractors:
1. Sign a co-permittee certification statement adhering to the requirements of the NPDES permit and this PPP if: responsible for sediment or erosion controls; involved in land disturbing activities; or perorming work that is a source of potential pollution as defined in this PPP. Subcontracted work items are identified in Subcontractor Request Forms (Form 830231). All co-permittees are legally required under the Clean Water Act and the Iowa Administrative Code to ensure compliance with the terms and conditions of this PPP.
2. Implement good housekeeping practices according to Paragraph III, C, 2.

D. RCE/Project Engineer:
1. Is Project Storm Water Manager.
2. On projects where DOT is the Contracting Authority, is current with erosion control training or certification.
3. Takes actions necessary to ensure compliance with storm water requirements including, where appropriate, issuing stop work orders, and directing additional inspections at construction project sites that are experiencing problems with achieving permit compliance.
4. Orders the taking of measures to cease, correct, prevent, or minimize the consequences of non-compliance with the storm water requirements of the Applicable Permit.
5. Supervises all work necessary to meet storm water requirements at the Project, including work performed by contractors and subcontractors.
6. Requires employees, contractors, and subcontractors to take appropriate responsive action to comply with storm water requirements, including requiring any such person to cease or correct a violation of storm water requirements, and to order or recommend such other actions as necessary to meet storm water requirements.
7. Is familiar with the Project PPP and storm water site map.
8. On projects where DOT is Contracting Authority, is responsible for periodically monitoring inspection reports to determine whether deficiencies identified in inspection reports were adequately and timely addressed, and if not, has the authority and responsibility to direct immediate actions to correct the deficiencies.
9. Is the point of contact for the Project for regulatory officials, Inspector, contractors, and subcontractors regarding storm water requirements.
10. Is signature authority on Notice of Discontinuation.
11. Maintains an up-to-date record of contractors, subcontractors, and subcontracted work items through Subcontractor Request Forms (Form 830231).
12. Makes information to determine permit compliance available to the DNR upon their request.

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POLLUTION PREVENTION PLAN

E. Inspector:
1. Updates PPP through fieldbook entries and storm water site inspection reports if there is a change in design, construction, operation, or maintenance which has a significant effect on the discharge of pollutants from the project.
2. Makes information to determine permit compliance available to the DNR upon their request.
3. Conducts joint required inspections of the site with the contractor/subcontractor.
4. Completes an inspection report after each inspection.
5. Is signature authority on storm water inspection reports.

II. PROJECT SITE DESCRIPTION

A. This Pollution Prevention Plan (PPP) is for the resurfacing and reconstruction of a two lane highway.

B. This PPP covers approximately 99 acres with an estimated 38 acres being disturbed. The portion of the PPP covered by this contract has 38 acres disturbed.

C. The PPP is located in an area of Clarion - Nicollet - Webster soil association. The estimated weighted average runoff coefficient number for this PPP after completion will be 0.48.

D. Storm Water Site Map is located in the R sheets. Proposed slopes are shown in cross sections, details, or standard road plans. Supplemental information is located in the Tabulations in the C or CE sheets.

E. The base storm water site map is amended by contract modifications and progress payments (fieldbook entries) of completed erosion control work. Also, due to project phasing, erosion and sediment controls shown on project plans may not be installed until needed, based on site conditions. For example, silt fence ditch checks will typically not be installed until the ditch has been installed. Installed locations may also be modified from tabulation locations by field staff. Installed locations will be documented by fieldbook entries and amended PPP site map.

F. Runoff from this work will flow into road ditches to: Purcell Creek to East Fork Des Moines River to the Mississippi River.

III. CONTROLS

A. The Contractor’s ECIP specified in Article 2602.03 of the Standard Specifications for accomplishment of storm water controls should clearly describe the intended sequence of major activities, and for each activity define the control measure and the timing during the construction process that the measure will be implemented.

B. Preserve vegetation in areas not needed for construction.

C. Sections 2601 and 2602 of the Standard Specifications define requirements to implement erosion and sediment control measures. Actual quantities used and installed locations may vary from the Base PPP and amendment of the plan will be documented via fieldbook entries, amended PPP site map, or by contract modification. Additional erosion and sediment control items may be required as determined by the inspector and/or contractor during storm water site inspections. If the work involved is not applicable to any contract items, the work will be paid for according to Article 1109.03 paragraph B of the Standard Specifications.

1. EROSION AND SEDIMENT CONTROLS

a. Stabilization Practices
1) Site plans will ensure that existing vegetation or natural buffers are preserved where attainable and disturbed portions of the site will be stabilized.
2) Initialize stabilization of disturbed areas immediately after clearing, grading, excavating, or other earth disturbing activities have:
a) Permanently ceased on any portion of the site, or
b) Temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days.
3) Staged permanent and/or temporary stabilizing seeding and mulching shall be completed as the disturbed areas are completed. Incomplete areas shall be stabilized according to paragraph III, C, 1, a, 2, b above.
4) Permanent and Temporary Stabilization practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation (105-4) in the C or R sheets.
5) Preservation of existing vegetation within right-of-way or easements will act as vegetative buffer strips.
6) Preservation of topsoil: Bid items to be used for this project are located in the Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets. Additional information may be found in the Tabulations in the C or T Tabulation sheets, or is referenced in Section 2105 of the Standard Specifications.

b. Structural Practices
1) Structural practices will be implemented to divert flows from exposed soils and detain or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Additionally, structural practices may include: silt basins that provide 3600 cubic feet of storage per acre drained or equivalent sediment controls, outlet structures that withdraw water from surface when discharging basins, and controls to direct storm water to vegetated areas.
2) Structural practices to be used for this project are located in the storm water site map, Estimated Project Quantities (100-0A, 100-1A, or 100-1C), and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the devices to be used on this project can be found on the B or R sheets or are referenced in the Standard Road Plans Tabulation (105-4) located in the C or R sheets.

POLLUTION PREVENTION PLAN

c. Storm Water Management
Measures shall be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. This may include velocity dissipation devices at discharge locations and along length of outfall channel as necessary to provide a non-erosion velocity flow from structure to water course. If included with this project, these items are located in the storm water site map and Estimated Project Quantities (100-0A, 100-1A, or 100-1C) and Estimate Reference Information (100-4A) located in the C or R sheets, as well as all other item specific Tabulations. Typical drawings detailing construction of the practices to be used on this project are referenced in the Standard Road Plans Tabulation. The installation of these devices may be subject to Section 404 of the Clean Water Act.

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

a. Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
b. Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
c. Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
d. Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
e. Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean up spills and prevent material discharges to the storm drain system and waters of the state.
f. Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
g. Concrete Grooving/Grinding Slurry – Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
h. Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
i. Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.
j. Dewatering – Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

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

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

V. INSPECTION REQUIREMENTS
A. Inspections shall be made jointly by the Contractor and the Contracting Authority's inspector at least once every seven calendar days. Storm water site inspections will include:
1. Date of the inspection.
2. Summary of the scope of the inspection.
3. Name and qualifications of the personnel making the inspection.
5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
6. Major observations related to the implementation of the PPP.
7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

B. Include storm water site inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES

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POLLUTION PREVENTION PLAN

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

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

VIII. DEFINITIONS
A. Base PPP - Initial Pollution Prevention Plan.
B. Amended PPP - Base PPP amended during construction. May include Plan Revisions or Contract Modifications for new items, storm water site inspection reports, fieldbook entries made by the inspector, amended PPP site map by the Contractor, ECIP, NOI, co-permittee certifications, and Subcontractor Request Forms. Items amending the PPP are stored electronically and are readily available upon request.
C. Fieldbook Entries – This contains the inspector's daily diary and bid item postings.
D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
E. Signature Authority - Representative authorized to sign various storm water documents.

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

Mary K Kelly
Signature

Mary K Kelly
Printed or Typed Name

Signature

Printed or Typed Name

SHOULDERS

(1) Lane(s) to which the shoulder is adjacent.
(2) See Typ. 7156, 7157, or 7158.
(3) Bid Item.
(4) Applies only for Paved Shoulders constructed on project with existing granular shoulders.
(5) Bid Item. Typ. 7156, 7157, or 7158.
(6) Does not include shrink.
(7) Paved shoulder thickness specified in Remarks.
(8) Subbase type specified in Remarks.

Roadway Identification	Direction of Traffic (1)	Station From	Station To	Side	P Start Width (FT)	P End Width (FT)	P Width (FT)	P SG Width (2) (FT)	G Start Width (FT)	G End Width (FT)	G Width (FT)	L Length (FT)	Class 13 Excavation (CY)(3)(4)	HMA (TON)	HMA (TON/ STA)	Binder (TONS)	Paved Shoulder (3) (SY)	Special Backfill HMA Alt. (3) (TON)	Special Backfill HMA Alt. (TON/STA)	Subbase (3) (8) (CY)	Granular Shoulder (3) (TON)	Granular Shoulder (TON/STA)	Shoulder Const. Alt (3) (STA)	Shoulder Const. Alt HMA (6) (CY)	Remarks
18	WB	710+28.00	729+11.61	Left	0.0	0.0			0.0	0.0		1883.61	290.2										18.84	69.76	Div 2
18	WB	752+31.64	843+15.45	Left	0.0	0.0			0.0	0.0		9083.81	1399.6										90.84	336.44	Div 2
18	WB	857+14.16	890+00.00	Left	0.0	0.0			0.0	0.0		3285.84	506.2										32.86	121.70	Div 2
18	WB	939+40.00	982+33.61	Left	0.0	0.0			0.0	0.0		4293.61	661.5										42.94	159.02	Div 2
18	WB	1123+03.85	1151+50.00	Left	0.0	0.0			0.0	0.0		2846.15	438.5										28.46	105.41	Div 2
18	EB	710+28.00	729+10.26	Right	0.0	0.0			0.0	0.0		1882.26	290.0										18.82	69.71	Div 2
18	EB	743+15.63	833+88.14	Right	0.0	0.0			0.0	0.0		9072.51	1397.8										90.73	336.02	Div 2
18	EB	847+88.69	939+40.00	Right	0.0	0.0			0.0	0.0		9151.31	1410.0										91.51	338.94	Div 2
18	EB	1123+03.85	1151+50.00	Right	0.0	0.0			0.0	0.0		2846.15	438.5										28.46	105.41	Div 2
					0.0	0.0			0.0	0.0															
Passing lanes					0.0	0.0			0.0	0.0															
18	WB	890+00.00	939+40.00	Left	0.0	0.0			2.0	2.0		4940.00									456.456	9.240	49.40	951.41	A Div 2
18	EB	939+40.00	982+33.61	Right	0.0	0.0			2.0	2.0		4293.61									396.730	9.240	42.94	823.74	A Div 2
18	EB	982+33.61	988+93.61	Right	0.0	0.0			2.0	0.0		660.00									30.500	9.240	6.60	126.62	A Div 2
Total:													**6832.3**								**883.686**		**542.4**	**3544.18**	

Class 13 Excavation width for shoulders is 10' and 5" deep. See tab 100-25 for HMA shoulder quantities.
A Refer to Typ. MK-8 for additional information.

MILLED RUMBLE STRIPS

* Calculated at 18" width for Shoulder.

Line No.	Road Identification	Station From	Station To	Shoulder Pavement Type	Rumble Strip Type	L (IN)	PCC Length (STA)	HMA Length (STA)	Fog Seal* Shoulder (GAL)	Effective Shoulder Width PCC (FT)	Effective Shoulder Width HMA (FT)	Effective Shoulder Width Granular\Earth (FT)	Remarks
6.0	US 18	708+78.00	1151+39.00		Centerline	12"		340.12					Refer to Std Rd Plan PV-13
6.2	US 18	996+00.00	999+79.00		Centerline	12"		3.79					Refer to Std Rd Plan PV-13
6.5	US 18	1008+23.00	1017+50.00		Centerline	12"		9.27					Refer to Std Rd Plan PV-13
								353.18					
Rumble Strip Type Centerline:													
1.0	**US 18**	**708+78.00**	**843+15.00**	**HMA**	Left Shoulder	12"		134.37	145.6		10.0		
2.0	US 18	845+65.00	852+00.00	HMA	Left Shoulder	12"		6.35	6.9				WB channelized gore area - adjacent to mainline
3.0	US 18	845+65.00	852+00.00	HMA	Left Shoulder	12"		6.35	6.9				WB channel gore area - adjacent to offset rt tn ln
4.0	US 18	846+25.00	1001+62.00	HMA	Left Shoulder	12"		155.37	168.3		10.0		Transition from 4' shoulder to 10' shoulder
5.0	US 18	1004+76.00	1151+39.00	HMA	Left Shoulder	12"		44.15	47.8		10.0		From 190th to end of project
								346.59	375.5				
Rumble Strip Type Left Shoulder:													
7.0	**US 18**	**708+78.00**	**739+99.00**	**HMA**	Right Shoulder	12"		31.21	33.8		10.0		Transition from 10' shoulder to 4' shoulder
8.0	US 18	734+50.00	740+60.00	HMA	Right Shoulder	12"		6.10	6.4				EB channelized gore area - adjacent to mainline
9.0	US 18	734+50.00	740+60.00	HMA	Right Shoulder	12"		6.10	6.4				EB channel gore area - adjacent to offset rt tn ln
10.0	US 18	743+15.00	844+79.00	HMA	Right Shoulder	12"		101.64	110.1		10.0		Transition from 10' shoulder to 4' shoulder
11.0	US 18	839+50.00	845+40.00	HMA	Right Shoulder	12"		5.92	6.4				EB channelized gore area - adjacent to mainline
12.0	US 18	839+50.00	845+40.00	HMA	Right Shoulder	12"		5.92	6.4				EB channel gore area - adjacent to offset rt tn ln
13.0	US 18	847+88.00	1003+26.00	HMA	Right Shoulder	12"		155.38	168.3		10.0		Transition from 10' shoulder to 4' shoulder
14.0	US 18	998+00.00	1003+88.00	HMA	Right Shoulder	12"		5.90	6.4				EB channelized gore area - adjacent to mainline
15.0	US 18	998+00.00	1003+88.00	HMA	Right Shoulder	12"		5.90	6.4				EB channel gore area - adjacent to offset rt tn ln
16.0	US 18	1006+37.00	1151+39.00	HMA	Right Shoulder	12"		42.54	46.1		10.0		From 190th to end of project
								366.61	**396.7**				
Rumble Strip Type Right Shoulder:													
Total:								**1066.38**	**772.2**				

MATERIALS FOR TYPE 'A' SIGNS

Refer to SI-101, SI-111, SI-119 and N Sheets.

Line No.	Type A Signing Typicals	Sign Number	Dir. of Travel	Sign Location Station	Wood Posts (No.)	4 x 6 Leg 1 (FT)	4 x 6 Leg 2 (FT)	Perf. Sq. Steel Leg 1 (FT)	Perf. Sq. Steel Leg 2 (FT)	Perf. Sq. Steel Leg 3 (FT)	Perf. Sq. Anchor Type	Anchor Quantity (EA)	Steel Rect. Tube (No)	Steel Rect. Tube (FT)	Rect. Tube Anchors (EA)	Type A Bracket One Post	Type A Bracket Two Post	Type A Bracket Auxiliary	Type A Bracket (H)	Type A Bracket (F)	Type A Bracket (F1)	Install. Type	Install. Dim X (FT)	Install. Signing Notes	Remarks
1.0		D17-3	WB	885+00.00				18.0			Concrete	1										1	18.0	IA	X = 3 MILES
2.0		W4-2	WB	904+10.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
3.0		W9-2	WB	907+10.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
4.0		R4-3	WB	937+60.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
5.0		W14-3	WB	944+40.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
6.0		M1-4	WB	1001+03.00				18.0			Concrete	1										1	18.0	IA	
7.0		M3-4P	WB	1001+03.00																		1	18.0	IA	Combine w/ line 6
8.0		D1-1af	WB	1007+05.00				18.0			Concrete	1										1	18.0	IA	<-- Lu Verne 12
9.0		12-A	WB	1010+05.00				18.0			Concrete	1										1	18.0	IA	Sexton
10.0		W14-3	WB	1129+04.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-210
11.0		D17-4	WB	1147+48.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
12.0		D17-4	EB	833+80.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
13.0		W14-3	EB	934+40.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
14.0		R4-3	EB	941+20.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
15.0		W9-2	EB	971+84.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
16.0		W4-2	EB	974+84.00				18.0			Concrete	1										1	18.0	IA	Refer to PM-222
17.0		D17-3	EB	1010+00.00				16.0			Concrete	1										1	18.0	IA	X = 7 MILES
18.0		12-A	EB	990+25.00				15.0			Concrete	1										1	18.0	IA	Sexton
19.0		D1-1af	EB	1000+88.00				15.0			Concrete	1										1	18.0	IA	Lu Verne 12 -->
20.0		M1-4	EB	1006+48.00				15.0			Concrete	1										1	18.0	IA	
21.0		M3-2P	EB	1006+48.00																		1	18.0	IA	Combine w/ line 20
22.0		R1-1	NB	31003+60.00				16.0			Concrete	1										1	18.0	IA	
23.0		R1-1	SB	31004+60.00				16.0			Concrete	1										1	18.0	IA	
Total:								**363**				**21**													

"Install. Signing Notes" column - IA
Refer to Tab 259-1.
DOT Maintenance to install Co Rd P60 sign.
Contractor to verify post length in field.

EXISTING SIGNS TO BE REINSTALLED

Line No.	Sign Description	Direction of Travel	Location Station	Number of Posts	Square Tube Steel Posts	Wood Posts 4"x4" (LF)	Wood Posts 4"x6" (LF)	Installation Type	Installation Dim 'X'	See Signing Notes
1.0	Plum Creek Winery	EB	835+71.00		2			1	24.0	A Est. Ref. Note
2.0	Co Rd P56	EB	838+88.00		1			1	24.0	A Est. Ref. Note
3.0	US 18 and WEST	WB	844+05.00		1			1	24.0	A Est. Ref. Note
4.0	US 18 and EAST	EB	848+00.00		1			1	24.0	A Est. Ref. Note
5.0	US 18 and 160th Street Sign		846+00.00							B Est. Ref. Note
7.0	Plum Creek Winery	WB	852+84.00		2			1	24.0	A Est. Ref. Note
8.0	No Passing Zone	WB	974+82.00		1			1	24.0	A Est. Ref. Note
9.0	US 18 and 190th Street Sign		1004+50.00							B Est. Ref. Note
10.0	STOP	NB	10740+30.00		1			1	24.0	A Est. Ref. Note
11.0	STOP	NB	20845+10.00		1			1	24.0	A Est. Ref. Note
12.0	STOP	SB	20846+10.00		1			1	24.0	A Est. Ref. Note
Total:					**11**					

A Contractor shall provide new 18' square steel tube post, anchor and all hardware per sign reinstallation. Verify length in field.
B Reuse metal post

EXISTING SIGNS TO BE REMOVED

Line No.	Sign Number or Description	Location Station	Direction of Travel	Type 'A' Sign Assembly (RA) (EA)	Type 'B' Sign Assembly (RB) (EA)	Type 'A' Remove and Reinstall (RR) (EA)	Type 'B' Remove and Reinstall (RR) (EA)	Concrete Foundation (RF) (EA)	Support Structure & Foundation (RS) (EA)	Applicable Signing Notes	Remarks
1.0	Plum Creek Winery	835+71.00	EB	1							Reinstall
2.0	Co Rd P56	838+88.00	EB	1							Reinstall
3.0	Adopt a Highway	838+88.00	EB	1							
4.0	US 18 and WEST	844+05.00	WB	1							Reinstall
5.0	US 18 and EAST	846+50.00	EB	1							Reinstall
6.0	US 18 and 160th Street Sign	846+00.00	EB								Reinstall
7.0	Adopt a Highway	848+55.00	WB	1							
9.0	Plum Creek Winery	852+84.00	WB	1							Reinstall
10.0	Adopt a Highway	948+00.00	EB	1							
11.0	No Passing Zone	960+12.00	EB	1							
12.0	No Passing Zone	974+82.00	WB	1							
13.0	No Passing Zone	982+71.00	EB	1							
14.0	SEXTON	990+24.00	EB	1							
15.0	Co Rd P60, JCT & <->	997+09.00	EB	1							
16.0	No Passing Zone	1000+15.00	WB	1							
17.0	Lu Verne 12 -->	1000+90.00	EB	1							
18.0	US 18 and WEST	1001+03.00	WB	1							
19.0	US 18 and 190th Street Sign	1004+50.00									Reinstall
20.0	US 18 and EAST	1006+48.00	EB	1							
21.0	<-- Lu Verne 12	1007+05.00	WB	1							
22.0	SEXTON	1010+05.00	WB	1							
23.0	JCT & Co RD P60 & < >	1010+05.00	WB	1							
24.0	STOP	10740+30.00	NB	1							Reinstall
25.0	STOP	20845+10.00	NB	1							Reinstall
26.0	STOP	20846+10.00	SB	1							Reinstall
27.0	STOP	31003+20.00	NB	1							
28.0	STOP	31004+44.00	SB	1							
Total:				**25**							

190_66
9/29/23

SUMMARY OF TYPE 'A' SIGNS

Line No.	Sign Number	Non-Standard Sign Number or Name	Quantity (EA)	Size (IN)	Total Sign Area (SF)
1.0		D1-1af	2	72 x 16	16.0
2.0		D17-3	2	48 x 42	28.0
3.0		D17-4	2	48 x 42	28.0
4.0		12-A	2	36 x 16	8.0
5.0	M1-4		2	24 x 24	8.0
6.0		M3-2P	1	24 x 12	2.0
7.0		M3-4P	1	24 x 12	2.0
8.0	R1-1		2	36 x 36	18.0
9.0		R4-3	2	36 x 48	24.0
10.0	W14-3		3	64 x 64 x 48	27.5
11.0	W4-2		2	48 x 48	32.0
12.0	W9-2		2	48 x 48	32.0
Total:					**225.5**

SIGNING NOTES

The following tolerances will be allowed on all signs:

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

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

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

Type B signs can be separated into two categories:
- Major Guide Signs.
- Minor Guide Signs.

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

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

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

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

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

Apply the following during the replacement or modification of signs:
- No more than one of the major guide signs for each direction of travel at an interchange out of service at any one time.
- No major guide sign out of service for more than 8 hours.
- No minor guide out of service for more than 24 hours.

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

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

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

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

The following notes apply to the corresponding sign installations shown on the plan sheets and listed in the tabulations.

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

Install new signs at the location identified in the plans.

For installation of new signs on existing posts:

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

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

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

MS MODIFY EXISTING SIGN

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

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

Install the new copy as needed to make sign modifications.

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

MB INSTALL SPECIAL MOUNTING BRACKET

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

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

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

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

RR REMOVE AND REINSTALL SIGN:

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

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

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

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

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

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

Type B Sign Assembly consists of the main sign, all auxiliary signs and brackets, and the wood or steel posts.

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

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

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

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

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

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

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

RF REMOVE EXISTING CONCRETE FOOTING FOR STEEL POST

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

RS REMOVE EXISTING TYPE B SIGN SUPPORT STRUCTURE

The following are considered Type B Sign Support Structures:
- Overhead sign truss and foundation,
- Cantilevered sign truss and foundation, or
- Bridge mounted brackets.

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

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

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

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

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

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

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

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

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

259_01
9/28/22

SIGNING NOTES

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

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

SIGN INSTALLATION QUALITY CONTROL NOTES

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

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

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

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

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

-elevation difference from the edge of pavement to the bottom of the sign within 6 inches of the dimension shown.

-elevation difference of less than 2 inches between the top of the highest post and the lowest post at a site.

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

300_99
Modified

RELOCATING FIELD INTAKES

Refer to Standard Road Plan DR-302

Line No.	Station	Side	Existing Type	New Location	Remarks
1	846+00	Lt	6" Orange Poly Stand	25' Northeast along tile line	Remove and provide new, Refer to sheet L4.
2	897+16	Lt	26" Beehive, Concrete	52' north of CL	Remove and provide new
3	911+74	Lt	8" Hickenbottom	52' north of CL	Remove and provide new
4	932+53	Lt	12" Hickenbottom	50' north of CL	Remove and provide new
5	932+57	Lt	6" Hickenbottom	48' north of CL	Remove and provide new
5.7	962+63	Rt.	18" Beehive, Concrete	55' south of CL	Remove and provide new
6	976+60	Rt	6" Hickenbottom	52' south of CL	Remove and provide new
7	997+06	Lt	18" Beehive, Concrete	56' north of OR CL	Remove and provide new
8	1015+50	Lt	6" Hickenbottom	54' north of OR CL	Remove and provide new

Relocated intakes to be surrounded with Type 2 Silt Fence.

Removing and reinstalling "INTAKE" sign shall be considered incidental.

301_99
Modified

RESHAPING DITCHES

Reshaping ditches at entrance culverts

Line No.	Station	Side	Length	Remarks
1.0	717+90	Left	1	A
2.0	718+96	Right	1	A
3.0	753+62	Right	1	A
4.0	756+33	Right	1	A
5.0	767+13	Right	1	A
6.0	834+17	Right	1	A
7.0	880+18	Left	1	A
8.0	880+30	Left	1	A
9.0	963+25	Left	2	A
Total:			**10**	

A Refer to R and D sheets for location and Typical MK-10 for additional information. 20% of the length to be applied to the inlet side.

302_99
Modified

SPECIAL EVENTS

Event	Dates	Remarks
ABATE Freedom Rally	July 3 - 7	Near Algona

ABATE contact person: Dave Dufy 1-319-330-8559

262_04
9/28/22

AUTOMATIC TRAFFIC RECORDER

Automatic Traffic Recorder (ATR) installation(s) are located within this project’s construction limits at Sta 729+85. Notify the Iowa DOT’s Office of Systems Planning (telephone number 515-239-1664) a minimum of 7 days prior to working near the ATR installation(s). Transportation Data personnel will locate and mark the ATR(s) one time. Treat these ATR systems similar to other public utilities. The Contractor is responsible for paying for unapproved damage they have caused to the ATR system(s).

262_05
9/28/22

UTILITIES (POINT 25 PROJECT)

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

LONGITUDINAL SUBDRAIN SHOULDER

* Not a bid item.

Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
1.0	US 18	710+28.00	713+00.00	Left	30.0	4.0	302.0	710+28.00	500-10	18.6	
2.0	US 18			Left	30.0	4.0	30.0	713+00.00	500-10	1.9	
3.0	US 18	713+00.00	716+00.00	Left	30.0	4.0	330.0	713+00.00	500-10	20.4	
4.0	US 18			Left	30.0	4.0	30.0	716+00.00	500-10	1.9	
5.0	US 18	716+00.00	718+25.00	Left	30.0	4.0	255.0	716+00.00	500-10	15.7	
6.0	US 18			Left	30.0	4.0	30.0	718+25.00	500-10	1.9	
7.0	US 18	718+25.00	722+00.00	Left	30.0	4.0	405.0	718+25.00	500-10	25.0	
8.0	US 18			Left	30.0	4.0	30.0	722+00.00	500-10	1.9	
9.0	US 18	722+00.00	725+75.00	Left	30.0	4.0	405.0	722+00.00	500-10	25.0	
10.0	US 18			Left	30.0	4.0	30.0	725+75.00	500-10	1.9	
11.0	US 18	744+00.00	749+00.00	Left	30.0	4.0	530.0	744+00.00	500-10	32.7	
12.0	US 18			Left	30.0	4.0	30.0	749+00.00	500-10	1.9	
13.0	US 18	749+00.00	754+00.00	Left	30.0	4.0	530.0	749+00.00	500-10	32.7	
14.0	US 18			Left	30.0	4.0	30.0	754+00.00	500-10	1.9	
15.0	US 18	755+50.00	759+80.00	Left	30.0	4.0	460.0	755+50.00	500-10	28.4	
16.0	US 18			Left	30.0	4.0	30.0	759+80.00	500-10	1.9	
17.0	US 18	768+00.00	773+00.00	Left	30.0	4.0	530.0	768+00.00	500-10	32.7	
18.0	US 18			Left	30.0	4.0	30.0	773+00.00	500-10	1.9	
19.0	US 18	773+00.00	778+00.00	Left	30.0	4.0	530.0	773+00.00	500-10	32.7	
20.0	US 18			Left	30.0	4.0	30.0	778+00.00	500-10	1.9	
21.0	US 18	778+00.00	782+00.00	Left	30.0	4.0	430.0	778+00.00	500-10	26.5	
22.0	US 18			Left	30.0	4.0	30.0	782+00.00	500-10	1.9	
23.0	US 18	782+00.00	787+15.00	Left	30.0	4.0	545.0	782+00.00	500-10	33.6	
24.0	US 18			Left	30.0	4.0	30.0	787+15.00	500-10	1.9	
25.0	US 18	787+50.00	792+50.00	Left	30.0	4.0	530.0	787+50.00	500-10	32.7	
26.0	US 18			Left	30.0	4.0	30.0	792+50.00	500-10	1.9	
27.0	US 18	792+50.00	797+50.00	Left	30.0	4.0	530.0	792+50.00	500-10	32.7	
28.0	US 18			Left	30.0	4.0	30.0	797+50.00	500-10	1.9	
29.0	US 18	797+50.00	802+50.00	Left	30.0	4.0	530.0	797+50.00	500-10	32.7	
30.0	US 18			Left	30.0	4.0	30.0	802+50.00	500-10	1.9	
31.0	US 18	802+50.00	806+50.00	Left	30.0	4.0	430.0	802+50.00	500-10	26.5	
32.0	US 18			Left	30.0	4.0	30.0	806+50.00	500-10	1.9	
33.0	US 18	806+50.00	811+00.00	Left	30.0	4.0	480.0	806+50.00	500-10	29.6	
34.0	US 18			Left	30.0	4.0	30.0	811+00.00	500-10	1.9	
35.0	US 18	811+00.00	815+00.00	Left	30.0	4.0	430.0	811+00.00	500-10	26.5	
36.0	US 18			Left	30.0	4.0	30.0	815+00.00	500-10	1.9	
37.0	US 18	815+00.00	820+00.00	Left	30.0	4.0	530.0	815+00.00	500-10	32.7	
38.0	US 18			Left	30.0	4.0	30.0	820+00.00	500-10	1.9	
39.0	US 18	820+00.00	823+50.00	Left	30.0	4.0	380.0	820+00.00	500-10	23.5	
40.0	US 18			Left	30.0	4.0	30.0	823+50.00	500-10	1.9	
41.0	US 18	823+50.00	828+20.00	Left	30.0	4.0	500.0	823+50.00	500-10	30.9	
42.0	US 18			Left	30.0	4.0	30.0	828+20.00	500-10	1.9	
43.0											
44.0											
45.0	US 18	837+35.00	841+20.00	Left	30.0	4.0	415.0	837+35.00	500-10	25.6	
46.0	US 18			Left	30.0	4.0	30.0	841+20.00	500-10	1.9	
47.0	US 18	841+20.00	845+30.00	Left	30.0	4.0	440.0	841+20.00	500-10	27.2	
48.0	US 18			Left	30.0	4.0	30.0	845+00.00	500-10	1.9	Around return
49.0											
50.0											
51.0	US 18	846+60.00	851+90.00	Left	30.0	4.0	560.0	846+60.00	500-10	34.6	Avoid new culverts
52.0	US 18			Left	30.0	4.0	30.0	851+90.00	500-10	1.9	
53.0	US 18	851+90.00	857+20.00	Left	30.0	4.0	560.0	851+90.00	500-10	34.6	
54.0	US 18			Left	30.0	4.0	30.0	857+20.00	500-10	1.9	
55.0	US 18	857+20.00	862+20.00	Left	30.0	4.0	530.0	857+20.00	500-10	32.7	

LONGITUDINAL SUBDRAIN SHOULDER

* Not a bid item.

Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
56.0	US 18			Left	30.0	4.0	30.0	862+20.00	500-10	1.9	
57.0	US 18	862+20.00	867+20.00	Left	30.0	4.0	530.0	862+20.00	500-10	32.7	
58.0	US 18			Left	30.0	4.0	30.0	867+20.00	500-10	1.9	
59.0	US 18	867+20.00	872+20.00	Left	30.0	4.0	530.0	867+20.00	500-10	32.7	
60.0	US 18			Left	30.0	4.0	30.0	872+20.00	500-10	1.9	
61.0	US 18	872+20.00	877+20.00	Left	30.0	4.0	530.0	872+20.00	500-10	32.7	
62.0	US 18			Left	30.0	4.0	30.0	877+20.00	500-10	1.9	
63.0	US 18	877+20.00	879+70.00	Left	30.0	4.0	280.0	877+20.00	500-10	17.3	
64.0	US 18			Left	30.0	4.0	30.0	879+70.00	500-10	1.9	
65.0	US 18	879+70.00	885+50.00	Left	30.0	4.0	610.0	879+70.00	500-10	37.7	
66.0	US 18			Left	30.0	4.0	30.0	885+50.00	500-10	1.9	
67.0	US 18	886+20.00	891+20.00	Left	30.0	4.0	530.0	886+20.00	500-10	32.7	
68.0	US 18			Left	30.0	4.0	30.0	891+20.00	500-10	1.9	
69.0	US 18	891+20.00	896+20.00	Left	30.0	4.0	530.0	891+20.00	500-10	32.7	Refer to Typ. MC-2
70.0	US 18			Left	30.0	4.0	30.0	896+20.00	500-10	1.9	
71.0	US 18	896+20.00	901+20.00	Left	30.0	4.0	530.0	896+20.00	500-10	32.7	
72.0	US 18			Left	30.0	4.0	30.0	901+20.00	500-10	1.9	
73.0	US 18	901+20.00	906+20.00	Left	30.0	4.0	530.0	901+20.00	500-10	32.7	
74.0	US 18			Left	30.0	4.0	30.0	906+20.00	500-10	1.9	
75.0	US 18	906+20.00	911+20.00	Left	30.0	4.0	530.0	906+20.00	500-10	32.7	
76.0	US 18			Left	30.0	4.0	30.0	911+20.00	500-10	1.9	
77.0	US 18	911+20.00	916+20.00	Left	30.0	4.0	530.0	911+20.00	500-10	32.7	
78.0	US 18			Left	30.0	4.0	30.0	916+20.00	500-10	1.9	
79.0	US 18	916+20.00	921+20.00	Left	30.0	4.0	530.0	916+20.00	500-10	32.7	
80.0	US 18			Left	30.0	4.0	30.0	921+20.00	500-10	1.9	
81.0	US 18	921+20.00	926+20.00	Left	30.0	4.0	530.0	921+20.00	500-10	32.7	
82.0	US 18			Left	30.0	4.0	30.0	926+20.00	500-10	1.9	
83.0	US 18	926+20.00	930+00.00	Left	30.0	4.0	410.0	926+20.00	500-10	25.3	
84.0	US 18			Left	30.0	4.0	30.0	930+00.00	500-10	1.9	
85.0	US 18	930+00.00	935+00.00	Left	30.0	4.0	530.0	930+00.00	500-10	32.7	
86.0	US 18			Left	30.0	4.0	30.0	935+00.00	500-10	1.9	
87.0	US 18	935+00.00	940+00.00	Left	30.0	4.0	530.0	935+00.00	500-10	32.7	
88.0	US 18			Left	30.0	4.0	30.0	940+00.00	500-10	1.9	
89.0											
90.0	US 18			Left	30.0	4.0	30.0	982+33.00	500-10	1.9	A
91.0	US 18	982+33.00	987+20.00	Left	30.0	4.0	517.0	982+33.00	500-10	31.9	Begin reconstruction
92.0	US 18				30.0	4.0	30.0	987+20.00	500-10	1.9	
93.0	US 18	987+20.00	992+00.00	Left	30.0	4.0	510.0	987+20.00	500-10	31.5	
94.0	US 18				30.0	4.0	30.0	992+00.00	500-10	1.9	
95.0	US 18	992+00.00	997+10.00	Left	30.0	4.0	540.0	992+00.00	500-10	33.3	
96.0	US 18				30.0	4.0	30.0	997+10.00	500-10	1.9	
97.0	US 18	997+10.00	1002+00.00	Left	30.0	4.0	520.0	997+10.00	500-10	32.1	
98.0	US 18				30.0	4.0	30.0	1002+00.00	500-10	1.9	
99.0	US 18	1002+00.00	31005+20.00	Left	30.0	4.0	260.0	1002+00.00	500-10	16.0	
100.0	US 18				30.0	4.0	30.0	31005+20.00	500-10	1.9	West side of 190th
101.0	US 18	31005+20.00	1008+50.00	Left	30.0	4.0	515.0	31005+20.00	500-10	31.8	East side of 190th
102.0	US 18				30.0	4.0	30.0	1008+50.00	500-10	1.9	
103.0	US 18	1008+50.00	1012+00.00	Left	30.0	4.0	380.0	1008+50.00	500-10	23.5	
104.0	US 18				30.0	4.0	30.0	1012+00.00	500-10	1.9	
105.0	US 18	1012+00.00	1015+30.00	Left	30.0	4.0	360.0	1012+00.00	500-10	22.2	
106.0	US 18				30.0	4.0	30.0	1015+30.00	500-10	1.9	
107.0	US 18	1015+55.00	1122+78.00	Left	30.0	4.0	475.0	1015+55.00	500-10	29.3	Equation
108.0	US 18				30.0	4.0	30.0	1122+78.00	500-10	1.9	
109.0	US 18	1122+78.00	1127+00.00	Left	30.0	4.0	452.0	1122+78.00	500-10	27.9	
110.0	US 18				30.0	4.0	30.0	1127+00.00	500-10	1.9	

LONGITUDINAL SUBDRAIN SHOULDER

* Not a bid item.

Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
111.0	US 18	1127+00.00	1132+00.00	Left	30.0	4.0	530.0	1127+00.00	500-10	32.7	
112.0	US 18				30.0	4.0	30.0	1132+00.00	500-10	1.9	
113.0	US 18	1132+00.00	1137+00.00	Left	30.0	4.0	530.0	1132+00.00	500-10	32.7	
114.0	US 18				30.0	4.0	30.0	1137+00.00	500-10	1.9	
115.0	US 18	1137+00.00	1142+00.00	Left	30.0	4.0	530.0	1137+00.00	500-10	32.7	
116.0	US 18				30.0	4.0	30.0	1142+00.00	500-10	1.9	
117.0	US 18	1142+00.00	1145+50.00	Left	30.0	4.0	380.0	1142+00.00	500-10	23.5	
118.0	US 18				30.0	4.0	30.0	1145+50.00	500-10	1.9	
119.0	US 18	1145+70.00	1150+00.00	Left	30.0	4.0	460.0	1145+70.00	500-10	28.4	
120.0	US 18				30.0	4.0	30.0	1150+00.00	500-10	1.9	EOP
121.0											
122.0											
123.0	US 18	726+25.00	731+00.00	Right	30.0	4.0	505.0	726+25.00	500-10	31.2	
124.0	US 18			Right	30.0	4.0	30.0	731+00.00	500-10	1.9	
125.0	US 18	731+00.00	735+00.00	Right	30.0	4.0	430.0	731+00.00	500-10	26.5	Existing shldr subdrain present. Remove appx 568'
126.0	US 18			Right	30.0	4.0	30.0	735+00.00	500-10	1.9	
127.0	US 18	735+00.00	740+00.00	Right	30.0	4.0	530.0	735+00.00	500-10	32.7	Existing shldr subdrain present. Remove appx 568'
128.0	US 18			Right	30.0	4.0	30.0	740+00.00	500-10	1.9	
129.0											
130.0	US 18			Right		4.0	30.0	837+06.00	500-10	-0.5	"Extend outlet
131.0	US 18	837+35.00	839+50.00	Right	30.0	4.0	245.0	837+35.00	500-10	15.1	
132.0	US 18			Right	30.0	4.0	30.0	839+50.00	500-10	1.9	
133.0	US 18	839+50.00	844+50.00	Right	30.0	4.0	530.0	839+50.00	500-10	32.7	
134.0	US 18			Right	30.0	4.0	30.0	844+50.00	500-10	1.9	
135.0	US 18	844+50.00	20844+60.00	Right	30.0	4.0	125.0	844+50.00	500-10	7.7	
136.0	US 18			Right	30.0	4.0	30.0	20844+60.00	500-10	1.9	West side of 160th
137.0											
138.0											
139.0	US 18	939+00.00	944+00.00	Right	30.0	4.0	530.0	939+00.00	500-10	32.7	Existng shldr subdrain present. Remove appx 1000'
140.0	US 18			Right	30.0	4.0	30.0	944+00.00	500-10	-0.3	
141.0	US 18	944+00.00	949+00.00	Right	30.0	4.0	530.0	944+00.00	500-10	32.7	"from Sta 940+00 to Sta 950+00
142.0	US 18			Right	30.0	4.0	30.0	949+00.00	500-10	1.9	
143.0	US 18	949+00.00	953+00.00	Right	30.0	4.0	430.0	949+00.00	500-10	26.5	
144.0	US 18			Right	30.0	4.0	30.0	953+00.00	500-10	1.9	
145.0	US 18	953+00.00	957+00.00	Right	30.0	4.0	430.0	953+00.00	500-10	26.5	
146.0	US 18			Right	30.0	4.0	30.0	957+00.00	500-10	1.9	
147.0	US 18	957+00.00	961+50.00	Right	30.0	4.0	480.0	957+00.00	500-10	29.6	
148.0	US 18			Right	30.0	4.0	30.0	961+50.00	500-10	1.9	
149.0	US 18	961+50.00	967+00.00	Right	30.0	4.0	580.0	961+50.00	500-10	35.8	
150.0	US 18			Right	30.0	4.0	30.0	967+00.00	500-10	1.9	
151.0	US 18	967+00.00	969+75.00	Right	30.0	4.0	305.0	967+00.00	500-10	18.8	
152.0	US 18			Right	30.0	4.0	30.0	969+75.00	500-10	1.9	
153.0	US 18	969+75.00	975+00.00	Right	30.0	4.0	555.0	969+75.00	500-10	34.3	
154.0	US 18			Right	30.0	4.0	30.0	975+00.00	500-10	1.9	
155.0	US 18	975+00.00	977+30.00	Right	30.0	4.0	260.0	975+00.00	500-10	16.0	
156.0	US 18			Right	30.0	4.0	30.0	977+30.00	500-10	1.9	
157.0	US 18	977+60.00	982+33.00	Right	30.0	4.0	503.0	977+60.00	500-10	31.0	
158.0	US 18			Right	30.0	4.0	30.0	982+33.00	500-10	1.9	
159.0	US 18	982+33.00	986+50.00	Right	30.0	4.0	447.0	982+33.00	500-10	27.6	Begin reconstruction
160.0	US 18			Right	30.0	4.0	30.0	986+50.00	500-10	1.9	
161.0	US 18	986+50.00	990+20.00	Right	30.0	4.0	400.0	986+50.00	500-10	24.7	
162.0	US 18			Right	30.0	4.0	30.0	990+20.00	500-10	1.9	
163.0	US 18	990+20.00	995+20.00	Right	30.0	4.0	530.0	990+20.00	500-10	32.7	
164.0	US 18			Right	30.0	4.0	30.0	995+20.00	500-10	1.9	
165.0											

LONGITUDINAL SUBDRAIN SHOULDER

* Not a bid item.

Line No.	Road or Lane Identification	Station From	Station To	Side	Depth (IN) (D)	Subdrain Size (IN)	Length (FT)	Outlet Station	Outlet Type	Porous Backfill* (CY)	Remarks
166.0											
167.0	US 18	1004+70.00	1008+30.00	Right	30.0	4.0	390.0	1004+70.00	500-10	24.1	
168.0	US 18			Right	30.0	4.0	30.0	1008+30.00	500-10	1.9	
169.0	US 18	1008+30.00	1011+75.00	Right	30.0	4.0	375.0	1008+30.00	500-10	23.1	
170.0	US 18			Right	30.0	4.0	30.0	1011+75.00	500-10	1.9	
171.0	US 18	1011+75.00	1015+30.00	Right	30.0	4.0	385.0	1011+75.00	500-10	23.8	
172.0	US 18			Right	30.0	4.0	30.0	1015+30.00	500-10	1.9	
173.0	US 18	1015+55.00	1122+78.00	Right	30.0	4.0	475.0	1015+55.00	500-10	29.3	Equation
174.0	US 18				30.0	4.0	30.0	1122+78.00	500-10	1.9	
Total:							**39676**				

A - Existing longitudinal shoulder drains exist from approx. Sta 977+61 to 997+00, Left. Cut and outlet.
Removal shall be incidental to longitudinal shoulder subdrain.
Total of 162 outlets

John L. Scuffham
Helen Scuffham

Sec. No. 31

Jerry Grandgenett
Roberta Grandgenett

Refer to Typ. MK-9 for side road fillet extension

Plum Creek Twp.
T-96N R-28W
Sec. No. 32

Mary Gilbride
Dwight Gilbride

Sta. 742+97.1
48"x80' RCP
D.A.=Part of 38 A-F Plans
Remove existing apron Lt. & ext. 24' - 48" RCP, reinstall apron
Lt. FL = 1176.49

Sta. 743+06.6
48"x80' RCP
D.A.=Part of 38 A-F Plans
Remove existing apron Lt. & ext. 24' - 48" RCP, reinstall apron
Lt. FL = 1176.49

Sta. 10741+90.1
24"x43' RCP
U.A.C.

POE 10742+77.29

140th Ave, N

725+00 730+00 735+00 740+00 745+00 750+00 755+00

STA. 740+69.82 (SUR US 18)
= STA. 10740+69.82 (140th AVE, N)

STA. 740+73.40 (SUR US 18)
= STA. 10740+73.40 (140th AVE, S)

Limits of construction

Limits of construction

Intake **Relocate**

Limits of construction

℄ Survey

10240+00

Sta. 10738+79.4
73"x45"x56.3' ARCH RCP
D.A.=Part of 53 A-F
U.A.C.

Sta. 10738+65.2
73"x45"x56.2' ARCH RCP
D.A.=Part of 53 A-F
U.A.C.

Dean L. Benschoter
Cleo Benschoter

Mark L. Ferstl

140th Ave, S

Sec. No. 8

Irvington TWP.
T-95N R-28W
Sec. No. 5

0 100 FEET

POB 10736+30.16

REFER TO L-SHEETS FOR ADDITIONAL TURN LANE DETAILS

Lt Backslope 3:1 3:1
Lt Foreslope 4:1 4:1

2′ Rt Earth Shoulder Slope
3:1 Rt Foreslope
2½:1 Rt Backslope

Existing surface

+74.49 Rt 90.32
+21.65 Lt 91.24
-0.96% Lt. D. Gr
-0.41% Rt. D. Grade
+50.77 Rt 88.77
-2.16% Rt Ditch Grade
+03.61 Lt 87.53
-1.49% L. D. G.
-3.35% Rt.
+50.56 Rt 82.30
+79.16 Rt 77.99
+30.90 Lt 82.54
+99.96 Lt 79.04
-1.34% L.D.Gr
0.26%
+27.93 Rt 76.21
+90.26 Lt 76.49
+49.72 Rt 76.53
+15.91 Lt 76.49
0.86% Lt. D. Gr.
+95.61 Lt 78.03
1.80% Left Ditch Grade
+53.94 Lt 88.08
4.00% L. D. G.
+01.66 Lt 94.00

Ditch Grade Ditch Width = 10′
Ditch Grade Ditch Width = 4′
Ditch Grade Ditch Width = 4′ to 8′
Ditch Grade Ditch Width = 10″
D.G. D.W.= 4′

1230 1220 1210 1200 1190 1180 1170 1160 Lt Rt

730+00 735+00 740+00 745+00 750+00 755+00

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.1**

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Mark L Ferstl

Sec. No. 33

Patrick J. Grandgenett
Becky J. Grandgenett

Plum Creek Twp.
T-96N R-28W
Sec. No. 34

Lickteig Land, LLC

Sta. 837+24.77
2'x2'x37.6' RCB
W/30" RCP Extensions
D.A.=100 A-F Plans
Remove existing apron Lt. & ext. 2' - 30" RCP w/ apron
Lt. FL = 1186.35
Remove existing apron Rt. & ext. 8' - 30" RCP w/ apron
Rt. FL = 1185.46

Sta. 20846+19.9
21"x60.6' RCP
D.A.=Equalizer A-F Plans
Remove existing apron Lt. & ext. 2' - 24" RCP w/ apron
Lt. FL = 1190.87
Remove existing apron Rt. & ext. 20' - 24" RCP w/ apron
Rt. LF = 1190.79

POE 20848+66.01

Sta. 845+91.23
2'x2'x36.9' RCB
W/30" RCP Extensions
D.A.=87 A-F Plans
Remove aprons
Plug and Abandon
Sta. 846+47.0 (Open cut)
Install 44" x 24" x 94' RCP
F.L. Lt. 1190.68
Rt. 1189.97
Sta. 846+57.0 (Open cut)
Install 44" x 24" x 92' RCP
F.L. Lt. 1190.68
Rt. 1190.00

835+00 | 840+00 | 845+00 | 850+00 | 855+00 | 860+00

Intake
Relocate

Limits of construction

℄ Survey

18

20845+00

Contractor to protect intake during culvert extension

Limits of construction

+16.0 Res. Ent.
Prop. Type 'C' Ent.
18" x 40.7' C.M.P.
U.A.C.

+75.0 Res. Ent.
U.A.C.

STA 845+51.73 (SUR ML 18)
= STA 20845+51.73 (160th AVE)

POB 20842+32.21

160th Ave

Sta. 20842+67.1
24"x61.6' RCP
D.A.=Equalizer A-F Plans
U.A.C.

Gary Erpelding
Paula A Erpelding

Sec. No. 4

Joan E. Raney
James A. Raney

Irvington Twp.
T-96N R-28W
Sec. No. 3

0 100 FEET

REFER TO L-SHEETS FOR ADDITIONAL TURN LANE DETAILS

1240 / 1230 / 1220 / 1210 / 1200 / 1190 / 1180 / 1170 / Lt / Rt

Rt Earth Shoulder Slope 4′ — Trans. 4′ to 2′ — 2′ — 2′ — Trans. 2′ to 4′ — 4′ — Transition 4′ to 2′

Rt Foreslope 4:1 — Trans. 4:1 to 3:1 — 3:1

Rt Backslope 2½:1 — 3:1

-2.58% | 3.85% | 2.0% | 1.13% | 0.66% Rt. D. Gr. | -0.32% | 0.17% Lt. | -0.79% D.Gr. | -0.03% Lt. | 0.30% | 1.4% Rt | 0.58% Lt. Ditch Grade

+42.2 Rt 87.55 | +28.52 Rt 85.33 | +99.95 Rt 88.08 | +78.59 Rt 89.66 | +67.21 Rt 90.66 | +73.09 Rt 92.02 | +99.91 Lt 90.73 | +03.33 Rt 91.28 | +87.89 Rt 90.61 | +00.82 Lt. 91.07 | +12.95 Lt 90.70 | +47.00 Lt 90.69 | +57.00 Lt 90.69 | +98.28 Rt 89.82 | +57.32 Rt 90.00 | +49.68 Rt 91.29 | +56.32 Lt 95.36

Existing surface

Ditch Grade — Ditch Grade D.W. = 4′

D.G. D.W.=10′ to 6′ — Ditch Grade, Ditch Width = 6′ — D.G. D.W.=8′ to 10′

835+00 | 840+00 | 845+00 | 850+00 | 855+00 | 860+00

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.2**

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STA. 890+00
BEGIN WB TAPER FOR PASSING LANE

Plum Creek Twp.
T-96N R-28W
Sec. No. 34

STA. 896+60
WB PASSING LANE

Sec. No. 35

William J. Erpelding Trust

875+00 | 880+00 | 885+00 | 890+00 | 895+00 | 900+00

+64 Field Ent.
Prop. Type 'D' Ent.
w/ 18" Uncl. w/ aprons

18" x 81.2' CMP
Remove

Limits of construction

Intake
Relocate

55:1 Lane Drop

FO TILE

18

170th Ave.

Larry Mergen
Thomas Mergen
Gerald Mergen

Sec. No. 2

Irvington Twp.
T-95N R-28W
Sec. No. 3

0 100
FEET

Lt Earth Shoulder Slope

2'

Existing surface

0.35% Lt D. Gr.

-0.10% Prop. Lt. Ditch Grade

0.20%

-0.00%

0.22% Lt. Ditch Grade

+22.66 Lt 06.65
+85.52 Lt 07.92
+14.67 Lt 07.59
+18.40 Lt 07.60
+18.47 Lt 07.80
+04.33 Lt 07.80

Ditch Grade, Ditch Width = 8'

Trans.

1250 1240 1230 1220 1210 1200 1190 1180 Lt Rt

875+00 | 880+00 | 885+00 | 890+00 | 895+00 | 900+00

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.3**

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William J. Erpelding Trust

Plum Creek Twp.
T-96N R-28W
Sec. No. 35

Ferstl Farms, Inc.

Ferstl Farms, Inc.

Sta. 932+65
18" x 52' RCP
Remove existing Lt. apron &
ext. 12' - 18" RCP
Reinstall apron
Lt. FL = 1203.75

+27 Field Ent.
Close

905+00 | **910+00** | **915+00** | **920+00** | 175th AVE **U.A.C.** **925+00** | **930+00**

Refer to Typ. MK-9 for side road fillet extension
Contractor shall maintain access.
Grade to drain

18" x 32.8' Conc. Pipe
Remove

Intake
Relocate

Limits of construction

24" x 38.7' Conc. Pipe
U.A.C.

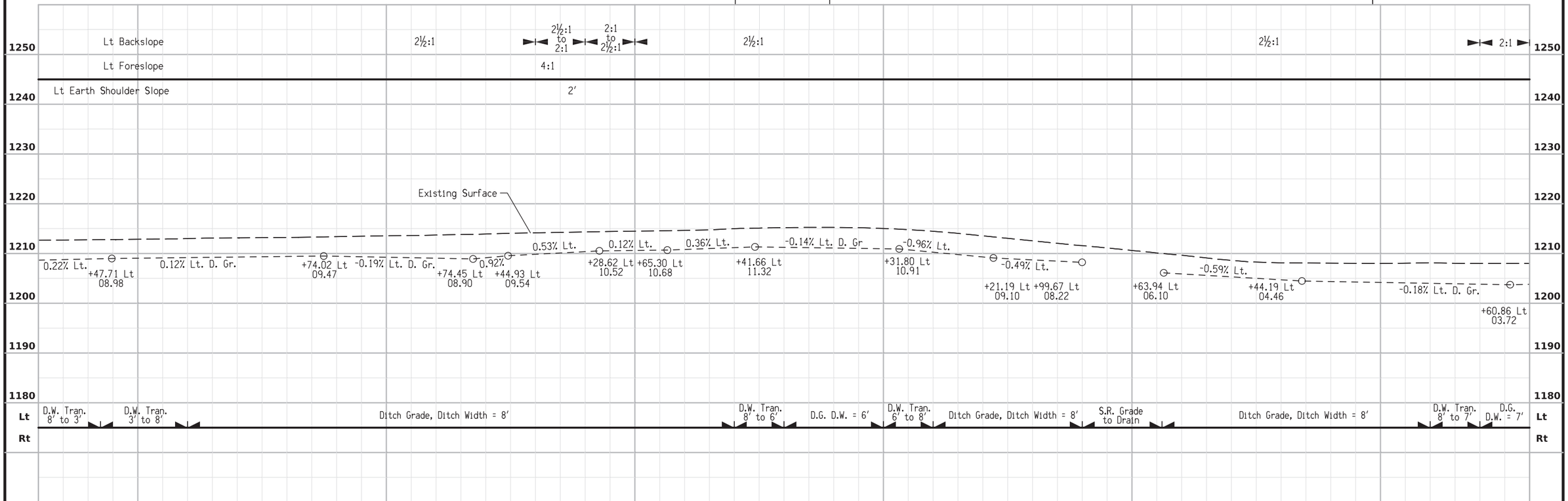
Intakes
Relocate

Irvington Twp.
T-95N R-28W
Sec. No. 2

Larry Mergen
Thomas J. Mergen
Gerald Mergen

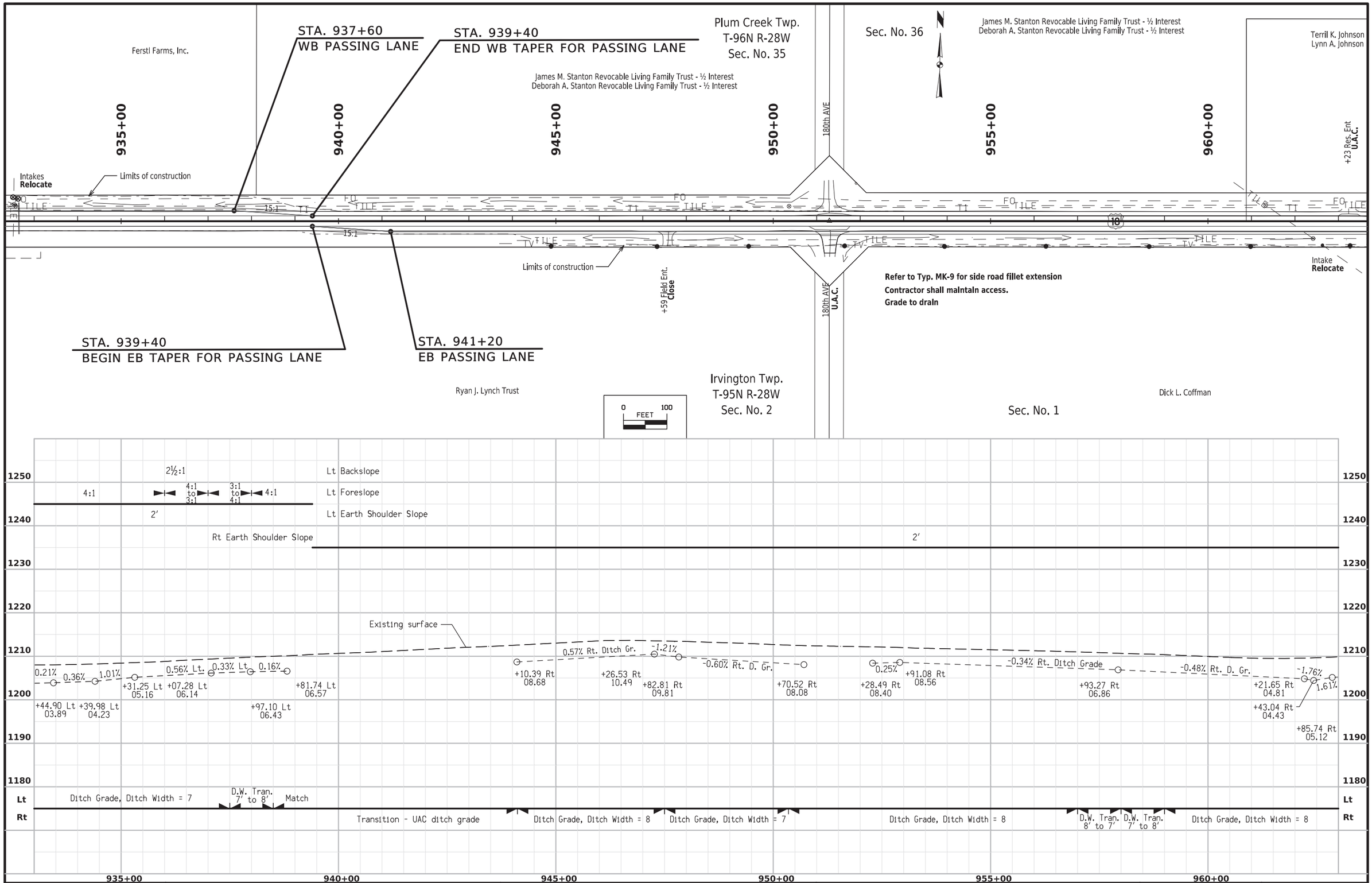
Ryan J. Lynch Trust

0 FEET 100



FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.4**

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FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.5**

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Terril K. Johnson
Lynn A. Johnson

James M. Stanton Revocable Living Family Trust - ½ Interest
Deborah A. Stanton Revocable Living Family Trust - ½ Interest

Plum Creek Twp.
T-96N R-28W
Sec. No. 36

Blackrock Farms, LLC.

+23 Res. Ent
U.A.C.

965+00 | 970+00 | 975+00 | 980+00 | 985+00 | 990+00

+96 Farm Ent.
Prop. Type 'C' Ent.

STA. 982+33.61
BEGIN ALIGNMENT SHIFT
Begin removal of pavement & reconstruction

Sta. 977+44.81
2' x 2' x 33' RCB
w/ 30" RCP extensions
D.A. = 68 A-F Plans
Remove existing Rt. apron &
ext. 12' - 30" RCP w/ apron
Rt. FL = 1198.03

Limits of construction

EO TILE | TV TILE | TILE | TV | TRED

Intake
Relocate

18" x 38.2' Conc. Pipe
Remove

+59 Res. Ent.
Prop. Type 'C' Ent.
w/ 18" Uncl. w/ aprons

Limits of construction

Intake
Relocate

Gerald L. Janssen

STA. 982+33.61
EB PASSING LANE

STA. 988+93.61
END EB TAPER FOR PASSING LANE

+06 Res. Ent.
Prop. Type 'C' Ent.
w/ 18" Uncl w/ aprons

Richard Penton
Kelli Penton

0 100 FEET

Irvington Twp.
T-95N R-28W
Sec. No. 1

Dick L. Coffman

REFER TO L-SHEETS FOR ADDITIONAL ALIGNMENT SHIFT DETAILS

1250 | 1240 | 1230 | 1220 | 1210 | 1200 | 1190 | 1180

Rt Earth Shoulder Slope — 2′ — Trans. from 2′ to 4′

Rt Foreslope — 4:1 — Trans. 4:1 to 3:1 — 3:1 — Trans. 3:1 to 4:1 — 4:1

Rt Backslope — 2½:1 — Trans. 2½:1 to 4:1 — 4:1 — Trans. 4:1 to 2½:1 — Trans. 2½:1 to 3:1 — Trans. 3:1 to 2:1 — Trans. 2:1 to 2½:1 — 2½:1 — Trans. 2½:1 to 3:1 — 3:1 — Trans. 3:1 to 10:1 — Trans. 10:1 to 3:1 — 3:1

Existing surface

0.63% Rt. D. Gr. — +83.24 Rt 06.37
0.29% Rt. D. Gr — +64.00 Rt 06.89
-0.33% Rt. D. Gr — +55.85 Rt 06.26
-1.21% Rt. Ditch Grade — +66.00 Rt 01.29
-0.82% Rt Ditch Gr. — 0.03% — 1.50% Rt — 0.28% Rt. D. Gr. — +76.11 Rt 97.93 — +42.82 Rt 97.95 — +36.18 Rt 99.35

+33.61
Tie-in
Elev. 1205.02

+64.59 Rt 00.29 — 0.75% Rt. — 0.80% Lt. — +07.00 Lt 00.21

VPI = +70.00
ELV = 1205.70
L = 250.00
K = 151

+0.29% — +1.94% — 1.69% Rt. — 0.98% Lt. — 2.07% Lt. — +33.94 Rt 3.08 — +43.81 Lt 4.31

+1.94% — **-0.50%** — 0.84% Lt. — 0.18% Rt. — +27.18 Lt 12.28 — +43.02 Rt 3.38 — +31.46 Lt 14.00

VPI = +30.00
ELV = 1218.52
L = 400.00
K = 164

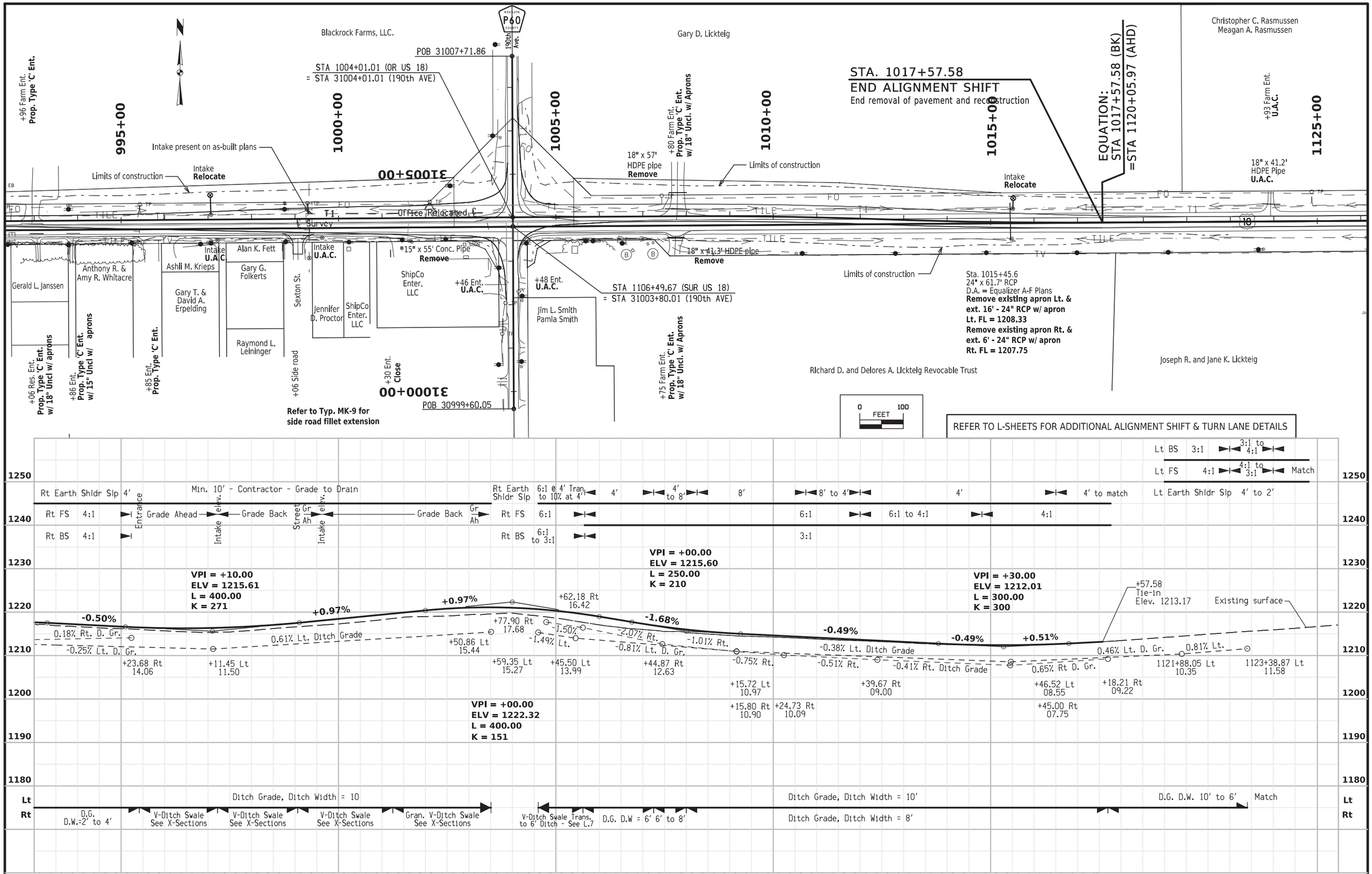
Lt / Rt

D.G. D.W. = 8′ — D.G. D.W.=8′ to 7′ — Ditch Grade D.W. = 7′ — D.G. D.W.=7′ to 6′ — Ditch Grade Ditch Width = 6′ — D.G. D.W.=6′ to 8′ — Ditch Grade Ditch Width = 8′ — Ditch Grade Ditch Width = 10′ — +30 — D.G. D.W.=8′ to 6′ — 6′ to 3′ — 3′ to 4′

965+00 | 970+00 | 975+00 | 980+00 | 985+00 | 990+00

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.6**

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FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.7**

2:58:45 PM 12/11/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_D01.dgn

Christopher C. Rasmussen

Meagan A. Rasmussen

Gary D. Lickteig

Wesley Twp.
T-96N R-27W
Sec. No. 31

1125+00 | 1130+00 | 1135+00 | 1140+00 | 1145+00

+36 Field Ent.
U.A.C.

+88 Farm Ent.
U.A.C.

+86 Field Ent.
U.A.C.

POE 1148+52.47

18" x 38.6' RCP
U.A.C.

FO
TILE
TV
TP
T1

+04 Farm Ent.
U.A.C.

+37 Farm Ent.
U.A.C.

18" x 78.5'
HDPE Pipe
U.A.C.

+39 Field Ent.
U.A.C.

18" x 52.3' CMP
U.A.C.

Sta. 1145+58.98
24" x 73.5' RCP
D.A. = Equalizer A-F Plans
Remove and reinstall 12' of pipe - Rt side

Joseph R. and Jane K. Lickteig

Prairie Twp.
T-95N R-27W
Sec. No. 6

0 FEET 100

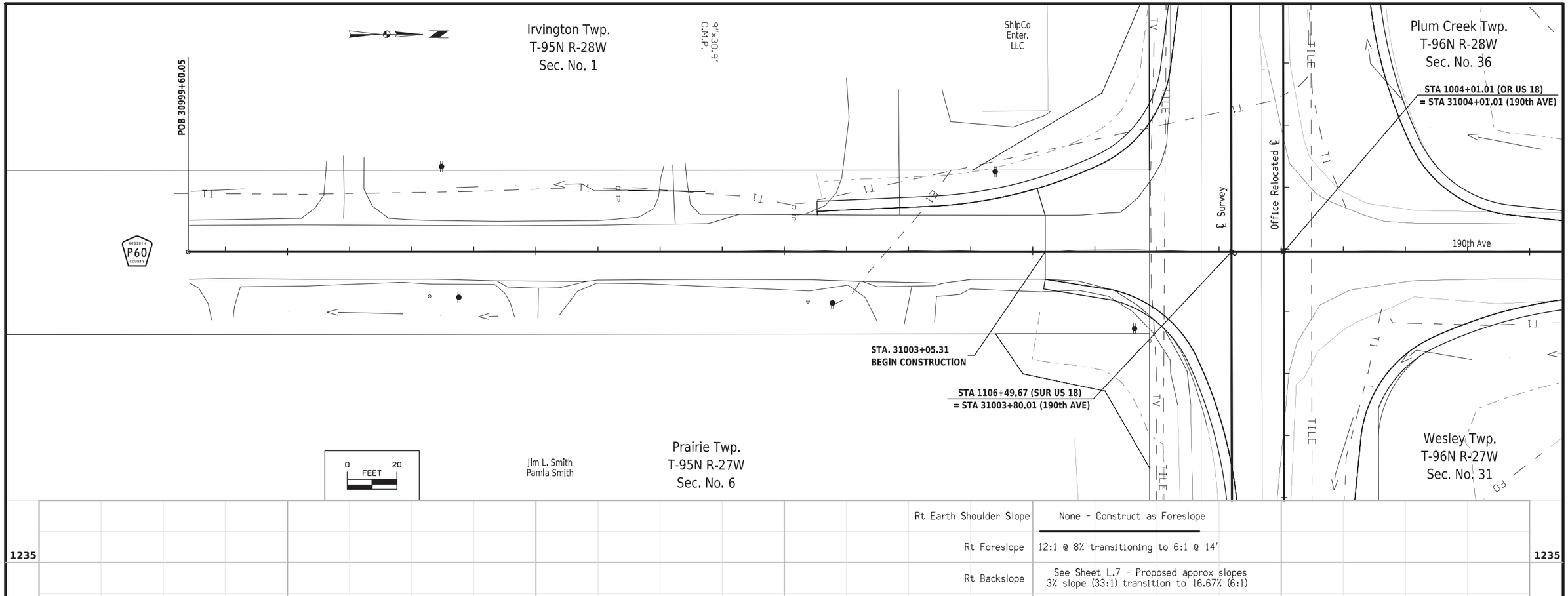
Existing surface

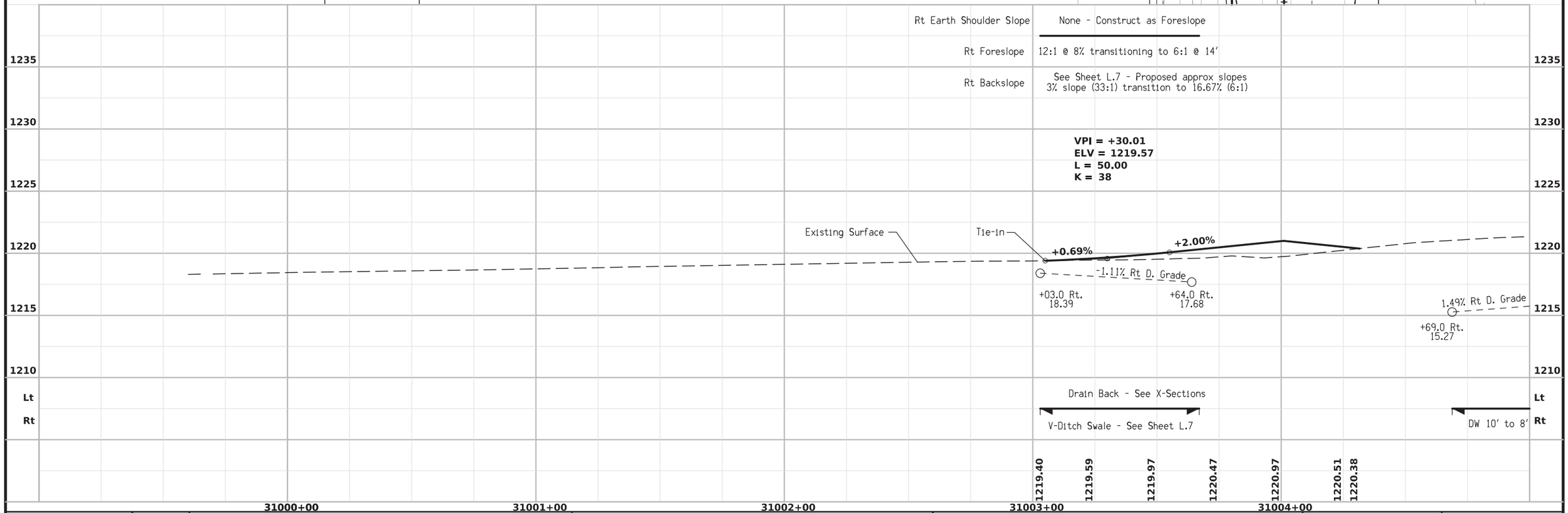
1250 | 1240 | 1230 | 1220 | 1210 | 1200 | 1190 | 1180

1130+00 | 1135+00 | 1140+00 | 1145+00

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **D.8**

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FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	KOSSUTH COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **E.1**

3:11:30 PM 12/11/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_D01.dgn

SURVEY INDEX

County: Kossuth
PIN: 23-55-018-010
Project Number: NHSN-018-3(118)--2R-55
Location: ECL Algona to 0.8 mi E of Co Rd P60
Type of Work: Undecided
Project Directory: 5501801023

Survey Personnel

Jason Arn – Survey Party Chief
Clayton Henningsen – Survey Party Chief
Dan Duncan – Assistant Survey Party Chief

Date(s) of Survey

Begin Date	07/17/2023
End Date	08/21/2023

General Information

This survey is for US Hwy 18 at locations from ECL Algona to 0.8 mi E of Co Rd P60. This survey request was for the US Hwy 18 corridor only. This project is a Full Field DTM survey.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the PrelimSurvey project directory.

Project Control

Coordinates were determined for primary project control points by conducting concurrent six-hour static observations. Post processing is constrained to nearby Iowa Real Time Network reference stations. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 01 (U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

Alignments for this survey are based off points collected by the district 2 survey office.

SURML18A
The horizontal alignment for U.S. Hwy 18 this survey is a retrace of Grading Plans No. F-140(7) and PCC Paving Plans FA 140 (1930). Survey stationing was equated to the grading plans PI at Sta. 688+434.7 and carried ahead without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

PI Sta. 688+34.7 Grading Plans Project No. F-140(7)
PI Sta. 791+02.6 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 688+34.7

PI Sta. 843+39.6 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 740+75.91

POT Sta. 767+02.6 Grading Plans Project No. F-140(7)
PI Sta. 869+88.8 PCC Paving Plans Project No. FA-140(1930)
Survey POT Sta. 767+02.1

Survey Information

SURML18B
The horizontal alignment for U.S. Hwy 18 this survey is a retrace of Grading Plans No. F-140(7) and PCC Paving Plans FA 140 (1930). Survey stationing was equated to the grading plan PI at Sta. 819+10.2 and carried ahead with an equation at survey station 997+51=1100+00.

Survey stationing relates to as built plan stationing as follows:

PI Sta. 819+10.2 Grading Plans Project No. F-140(7)
PI Sta. 921+73.1 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 819+10.2

PI Sta. 845+51.7 Grading Plans Project No. F-140(7)
PI Sta. 948+14.0 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 845+52.17

PI Sta. 898+40.3 Grading Plans Project No. F-140(7)
PI Sta. 1000+98.7 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 898+40.89

PI Sta. 924+80.9 Grading Plans Project No. F-140(7)
PI Sta. 1027+37.1 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 924+82.24

PI Sta. 951+27.3 Grading Plans Project No. F-140(7)
PI Sta. 1053+83.0 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 951+29.03

PI Sta. 1106+49.7 Grading Plans Project No. F-140(7)
PI Sta. 1106+52.9 PCC Paving Plans Project No. FA-140(1930)
Survey PI Sta. 1106+49.70

POT Sta. 1133+53.0 PCC Paving Plans Project No. FA-140(1930)
Survey POT Sta. 1133+52.46

CONTROL POINT VICINITY MAP

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





HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 01 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

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

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **G.3**

11:48:38 AM 4/22/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_G01.dgn

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
Ia. Regional Coordinate System Zone 01 (U.S. Survey Foot)

VERT. DATUM: NAVD88
Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Feature Definition-Description
550181325	9559143.29	11783797.68	1185.33	CP SET FENO MONUMENT NW QUAD INTERSECTION US 18 & 140TH AVE
550181335	9559231.30	11789085.89	1199.31	CP FD CONC MONUMENT IN NORTH ROW US HWY 18
581	9559372.52	11794305.40	1192.00	CP FD KOSSUTH CO GPS MONUMENT AS DESCRIBED IN GOOD CONDITION
550181355	9559369.73	11799585.14	1208.96	CP FD CONC MONUMENT IN NW QUAD INTERSECTION US 18 & 210TH AVE
550181365	9559474.93	11804991.23	1211.72	CP FD CONC MONUMENT IN NE QUAD INTERSECTION US 18 & 180TH AVE
582	9559525.84	11810847.19	1214.14	CP FD KOSSUTH CO GPS MONUMENT AS DESCRIBED IN GOOD CONDITION
550181386	9559517.28	11816025.48	1213.23	CP FD CONC MONUMENT IN NORTH ROW OLD US 18 APPROX 400 FT EAST OF 200TH AVE
583	9560629.46	11826106.39	1194.64	CP FD KOSSUTH CO GPS MONUMENT AS DESCRIBED IN GOOD CONDITION

ALIGNMENT COORDINATES

Line No.	Name	Location	Poin on Tangent Station	Point on Tangent Y Northing	Point on Tangent X Easting	Begin Spiral Station	Begin Spiral Y Northing	Begin Spiral X Easting	Begin Curve Station	Begin Curve Y Northing	Begin Curve X Easting	Simple Curve PI or Master PI Station	Simple Curve PI or Master PI Y Northing	Simple Curve PI or Master PI X Easting	End Curve Station	End Curve Y Northing	End Curve X Easting	End Spiral Station	End Spiral Y Northing	End Spiral X Easting
1.0	SURML18A	START	688+34.70	9559014.599	11778639.42															
2.0	SURML18A	HPI	714+41.33	9559048.36	11781245.83															
3.0	SURML18A	HPI	740+75.91	9559082.379	11783880.19															
4.0	SURML18A	END	767+02.10	9559127.186	11786506															
5.0																				
6.0	ORSR140	START	10736+30.17	9558639.133	11783881.99															
7.0	ORSR140	END	10740+73.40	9559082.347	11783877.68															
8.0																				
9.0	ORML18B	START	819+10.20	9559199.178	11791713.3															
10.0	ORML18B	HPI	845+52.17	9559225.611	11794355.14															
11.0	ORML18B	HPI	898+40.89	9559311.582	11799643.16															
12.0	ORML18B	HPI	924+82.24	9559352.437	11802284.19															
13.0	ORML18B	HPI	951+29.03	9559387.912	11804930.74															
14.0	ORML18B	PC							982+33.61	9559426.275	11808035.09									
15.0	ORML18B	PI										984+84.66	9559429.378	11808286.12						
16.0	ORML18B	PRC													987+35.64	9559442.976	11808536.81			
17.0	ORML18B	PI										989+86.70	9559456.575	11808787.49						
18.0	ORML18B	PT													992+37.68	9559459.677	11809038.52			
19.0	ORML18B	HPI	1004+01.01	9559474.053	11810201.77															
20.0	ORML18B	PC							1007+53.51	9559477.997	11810554.25									
21.0	ORML18B	PI										1010+04.56	9559480.806	11810805.29						
22.0	ORML18B	PRC													1012+55.54	9559473.114	11811056.22			
23.0	ORML18B	PI										1015+06.60	9559465.421	11811307.16						
24.0	ORML18B	PT EQU BK													1017+57.58	9559468.23	11811558.19			
25.0	ORML18B	HPI EQU AHD	1120+05.97	9559468.23	11811558.19															
26.0	ORML18B	END	1148+52.47	9559500.082	11814404.51															
27.0																				
28.0	GEOMBL3 (160th)	START	20842+32.21	9558906.175	11794362.26															
29.0	GEOMBL3 (160th)	END	20848+66.01	9559539.852	11794349.84															
30.0																				
31.0	ORSR190	START	30999+60.05	9559033.117	11810206.19															
32.0	ORSR190	END	31007+71.86	9559844.887	11810198.39															

108_23A
8/15/22

TRAFFIC CONTROL PLAN

US 18 road closures are as follows -

Site 1:

New US 18 culvert construction 100' east of Co Rd P56 / 160th Ave.:

Proposed detour will use County Roads P56, B40 and P60. See sheet J.8

Open to traffic once completed.

Site 2:

US 18 Reconstruction at Sexton:

US 18 at Sexton shall be closed and traffic detoured per sheet J.9. Segment to be opened back up when construction is complete.

All other thru traffic shall be maintained during construction. No lane closures will be allowed from July 3 - 7, 2025 and July 2 - 6, 2026 for ABATE Freedom Rally.

User name: christopher.suntken@dot.iowa.gov

511 TRAVEL RESTRICTIONS

Line No.	Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No. or Structure ID or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
				No travel restrictions anticipated				None					

108_26A
8/15/22

STAGING NOTES

Phase 1:

Culvert construction just east of P56 / 160th St.

Traffic to be detoured using detour layout on sheet J.8.

Phase 2:

Traffic to be detoured using detour layout on sheet J.9.

Reconstruct road from Sta 982+33.61 to Sta 1017+57.576 at Sexton. See Stage 1-3 on sheets J.5-J.7.

Pave surface lift and pavement markings from Sta 982+33.61 to Sta 1017+57.576.

Open to traffic.

Phase 3:

Build embankment for passing lanes and turning lanes.

Phase 4:

Cold in-place from BOP to Sta 982+33.61 and from Sta 1120+05.97 to EOP.

Offset right turn lanes and passing lanes shall remain closed using TC-202.

Phase 5:

Pave base and intermediate lift to match existing edge of pavement in areas of offset turn lanes and passing lanes. Pave base only in areas of retrofit paved shoulders.

Offset right turn lanes and passing lanes shall remain closed.

Phase 6:

Pave intermediate and surface courses and groove in pavement markings. Open to traffic.

If contractor performs CIR before the winter season, at least one lift of HMA shall be paved over the CIR surface prior to winter shut down.

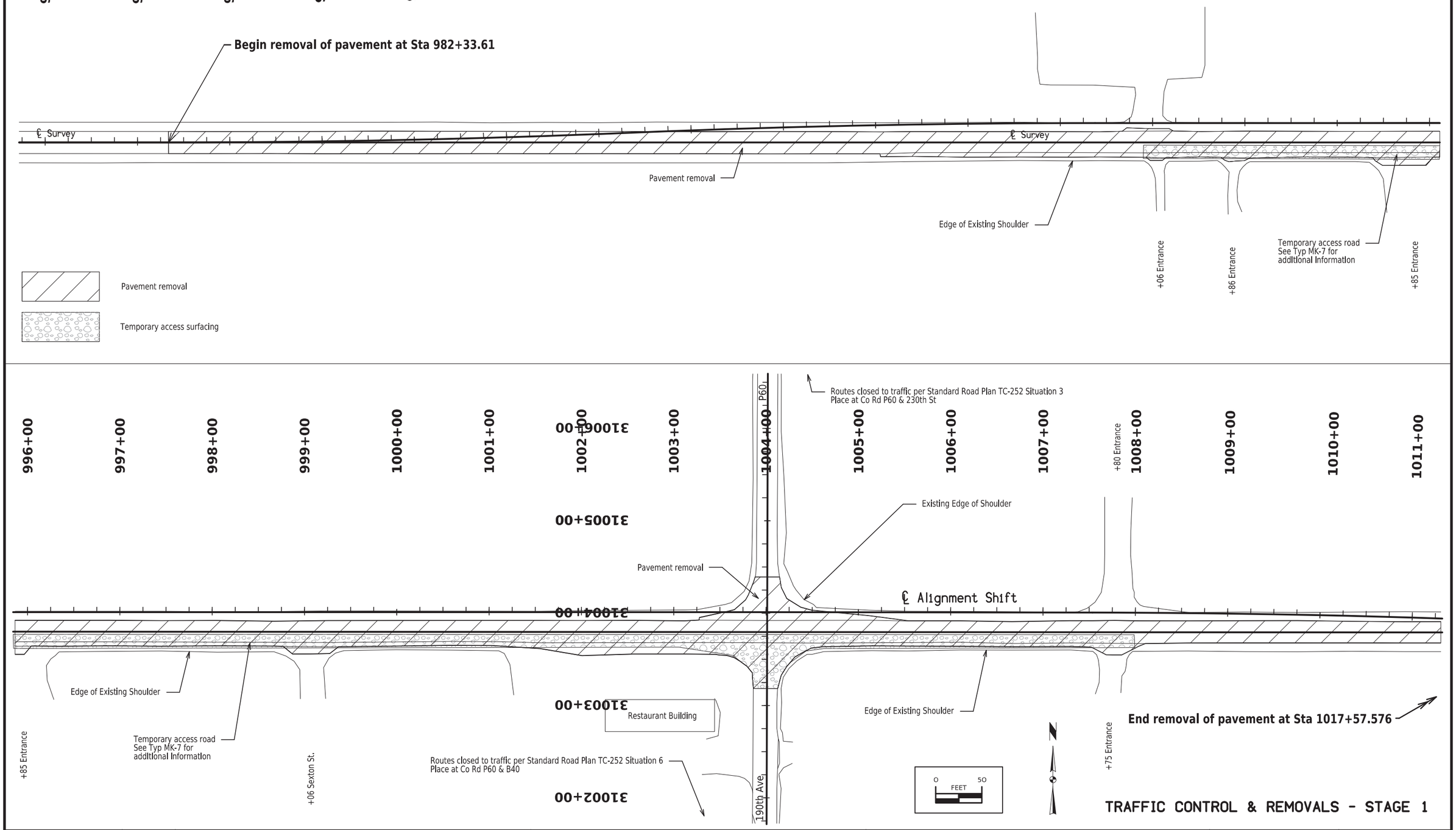
Temporary pavement markings shall be in place and no drop offs shall exist prior to the end of the construction season.

christopher.suntken@dot.iowa.gov

COORDINATED OPERATIONS

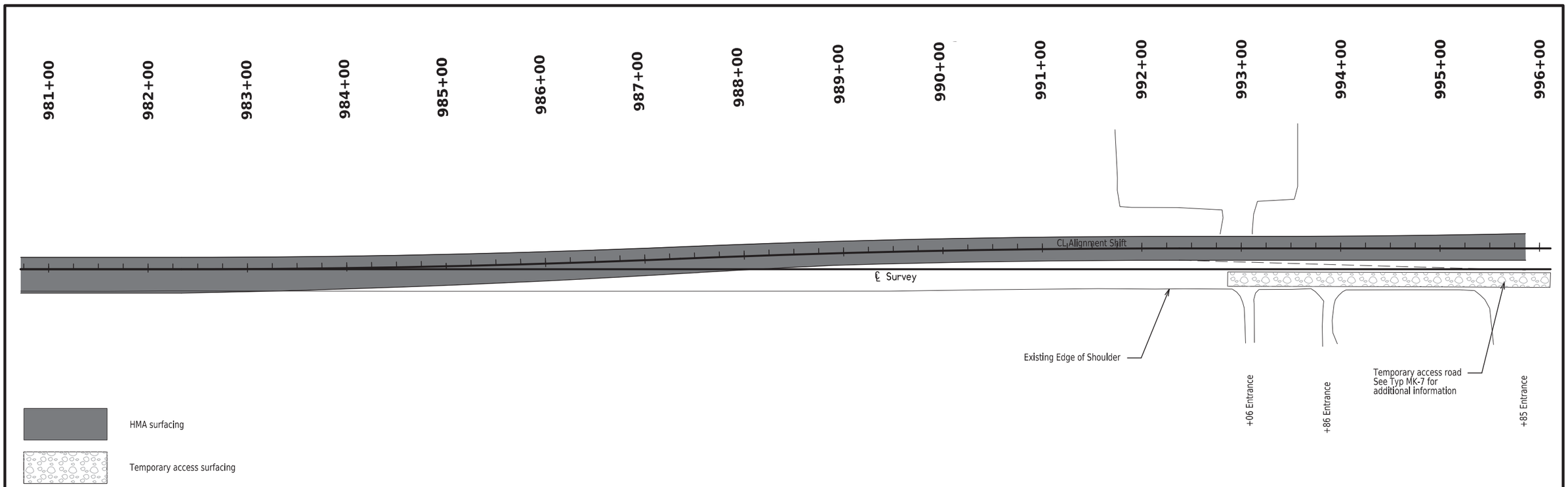
Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

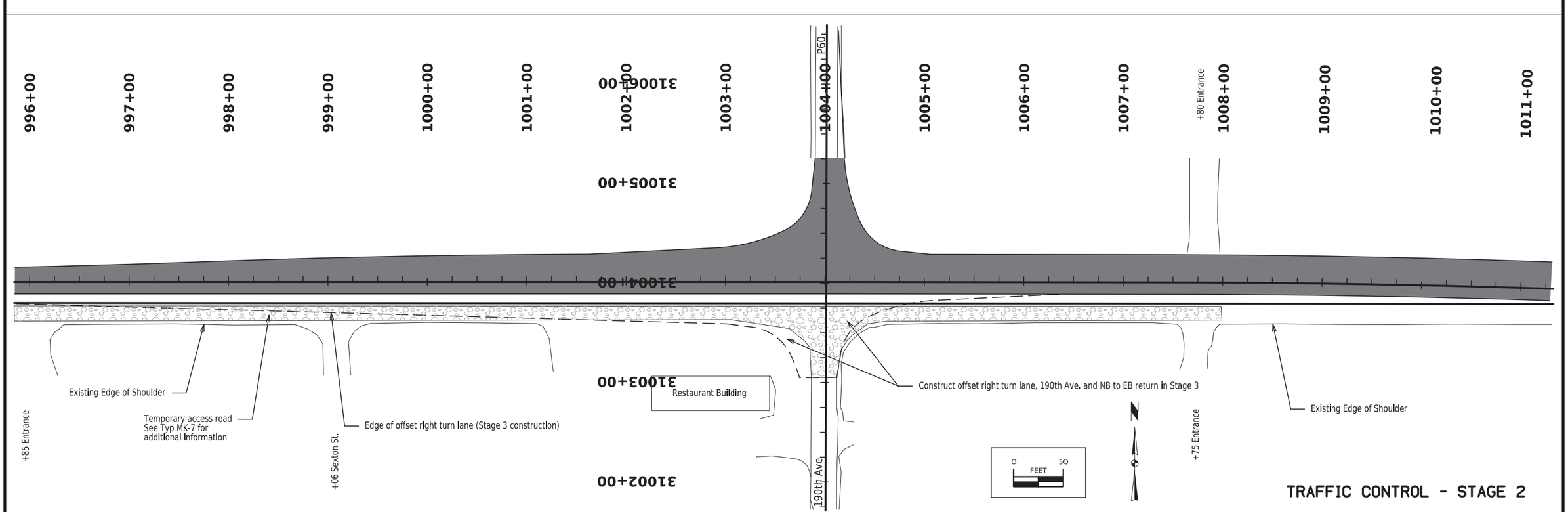
Project	Type of Work
HSIPX-000-T(358)--3L-00	Centerline rumble strips



FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **J.5**

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FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **J.6**	

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981+00 982+00 983+00 984+00 985+00 986+00 987+00 988+00 989+00 990+00 991+00 992+00 993+00 994+00 995+00 996+00

Stage 3 construction includes offset right turn lane and 190th Ave and returns

+06 Entrance

+86 Entrance

+85 Entrance

HMA surfacing

Temporary access surfacing

996+00 997+00 998+00 999+00 1000+00 1001+00 1002+00 1003+00 1004+00 1005+00 1006+00 1007+00 1008+00 1009+00 1010+00 1011+00

P60

3100+00 3100+00 3100+00 3100+00 3100+00

Caution: Intake location
Sta 997+10+/- Rt. 48'

Additional granular surfacing

Stage 3 construction includes offset right turn lane and 190th Ave and returns

Restaurant Building

Contractor to continue to provide access to homeowners and businesses during Stage 3 construction via newly constructed and paved mainline.

+85 Entrance

+06 Sexton St.

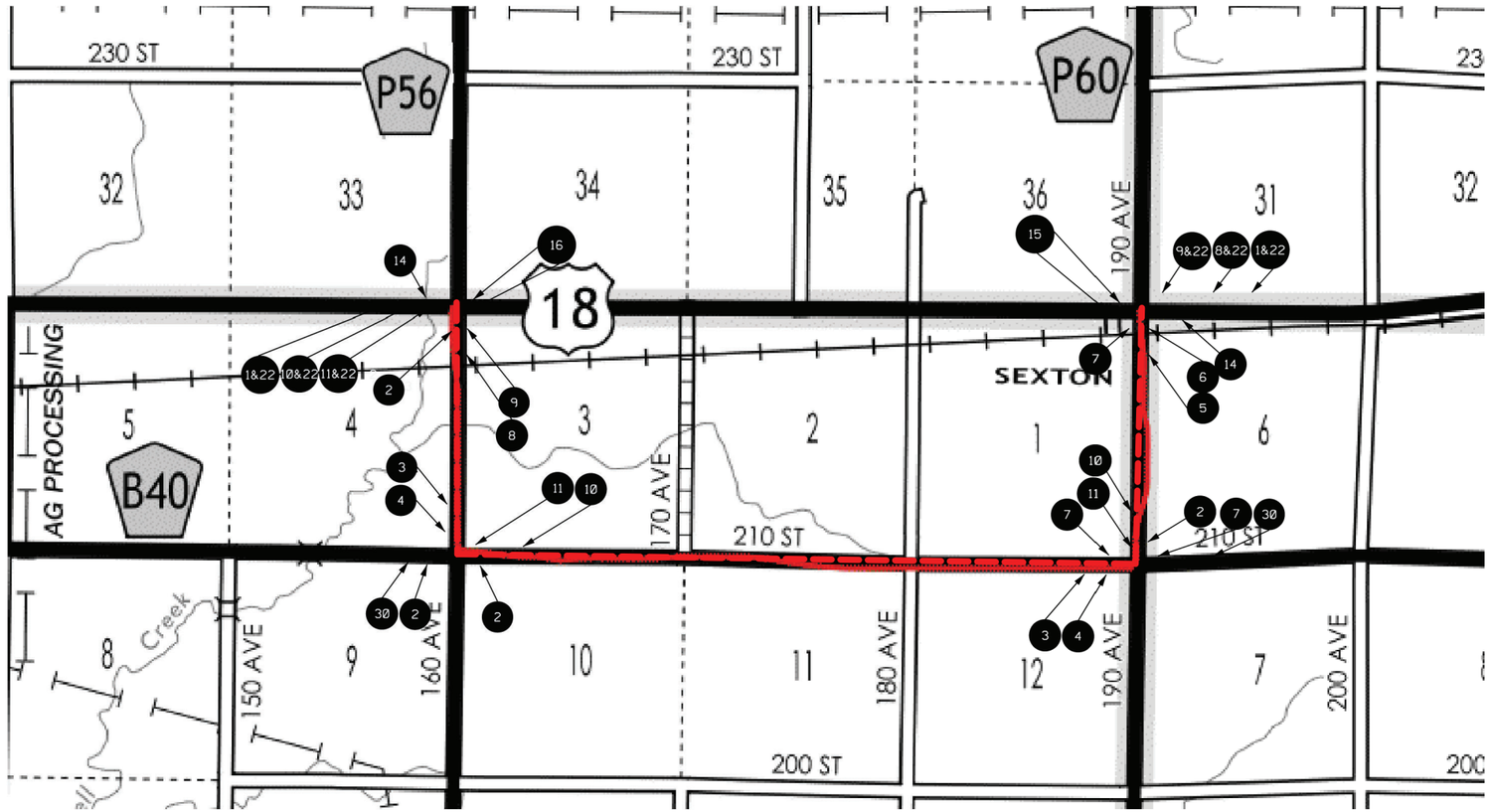
190th Ave.

0 FEET 50

TRAFFIC CONTROL - STAGE 3

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **J.7**

8:18:37 AM 3/17/2025 csuntke pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_J01.dgn



1 DETOUR 1500 FT

2 DETOUR EAST 18

3 DETOUR EAST 18

4 DETOUR EAST 18

5 DETOUR EAST 18

6 DETOUR EAST 18

7 DETOUR WEST 18

8 DETOUR WEST 18

9 DETOUR WEST 18

10 DETOUR WEST 18

11 DETOUR WEST 18

12 DETOUR WEST 18

13 DETOUR EAST 18

17 JCT DETOUR EAST 18

18 JCT DETOUR WEST 18

30 JCT DETOUR 18

14 END DETOUR THANK YOU

15 ROAD CLOSED 2 MILES LOCAL TRAFFIC ONLY / DETOUR
* Type 3 Barricade

16 ROAD CLOSED MILES LOCAL TRAFFIC ONLY / DETOUR
* Type 3 Barricade

19 ROAD CLOSED
* Type 3 Barricade

20 ROAD CLOSED 1000 FT

21 ROAD CLOSED 500 FT

22 High Level Warning Devices (Flag Trees)

No Scale

SIGN INVENTORY FOR DETOUR

	I.D. number	Size
JCT	M2-1	24" x 12"
DETOUR	M4-8	24" x 12"
EAST	M3-2	24" x 12"
WEST	M3-4	24" x 12"
←	M6-1	24" x 12"
↰	M5-1B	24" x 24"
↱	M5-1	24" x 24"
↔	M6-4	24" x 24"
↲	M6-6	24" x 24"
↑	M6-3	24" x 12"
↗	M5-2	24" x 24"
18	M1-4	24" x 24"
ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY	R11-3a	60" x 30"
DETOUR	M4-10	48" x 18"
END DETOUR	M4-8a	24" x 18"
DETOUR 1500 FT	W20-2	48" x 48"
High Level Warning Devices (Flag Trees)	Refer to section 6F.62 in the MUTCD	

US 18 DETOUR

SIGN INVENTORY FOR DETOUR

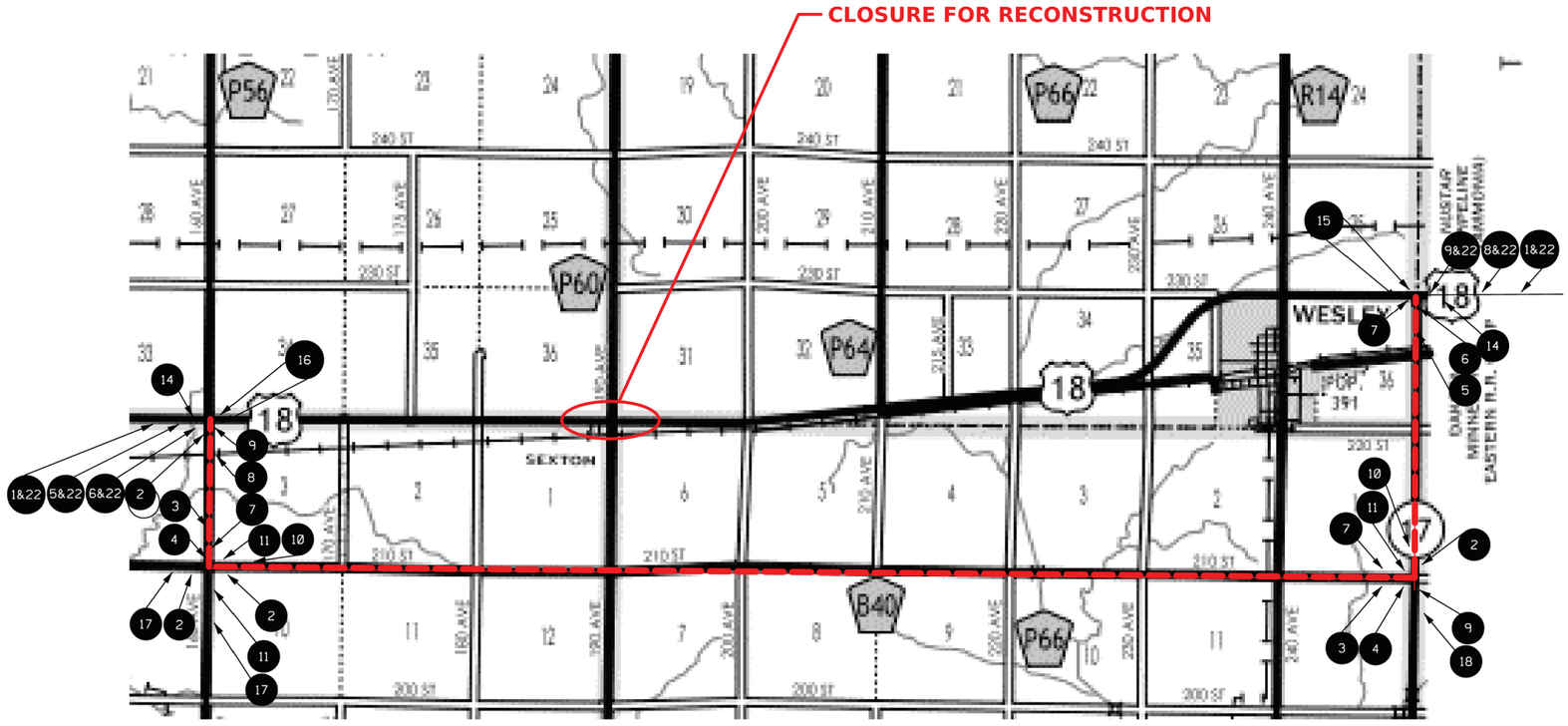
	I.D. number	Size
JCT	M2-1	24" x 12"
DETOUR	M4-8	24" x 12"
EAST	M3-2	24" x 12"
WEST	M3-4	24" x 12"
←	M6-1	24" x 12"
↰	M5-1B	24" x 24"
↱	M5-1	24" x 24"
↔	M6-4	24" x 24"
↲	M6-6	24" x 24"
↑	M6-3	24" x 12"
↗	M5-2	24" x 24"
18	M1-4	24" x 24"
ROAD CLOSED _ MILES AHEAD LOCAL TRAFFIC ONLY	R11-3a	60" x 30"
DETOUR	M4-10	48" x 18"
END DETOUR	DOT stock # 812 514056	60" x 36"
DETOUR 1500 FT	W20-2	48" x 48"
High Level Warning Devices (Flag Trees)	Refer to section 6F.62 in the MUTCD	

DETOUR ROUTE

TRAFFIC CONTROL - DETOUR SIGNING, CULVERT @ 160th AVE

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **J.8**	

8:41:40 AM 12/17/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_J01.dgn



1 DETOUR 1500 FT

2 DETOUR EAST 18

3 DETOUR EAST 18

4 DETOUR EAST 18

5 DETOUR EAST 18

6 DETOUR EAST 18

7 DETOUR WEST 18

8 DETOUR WEST 18

9 DETOUR WEST 18

10 DETOUR WEST 18

11 DETOUR EAST 18

12 DETOUR WEST 18

13 DETOUR EAST 18

17 JCT DETOUR EAST 18

18 JCT DETOUR WEST 18

22 JCT DETOUR 18

14 END DETOUR THANK YOU

15 ROAD CLOSED 4 MILES LOCAL TRAFFIC ONLY DETOUR
w/ Type 3 Barricade

16 ROAD CLOSED 5 MILES LOCAL TRAFFIC ONLY DETOUR
w/ Type 3 Barricade

19 ROAD CLOSED
w/ Type 3 Barricade

20 ROAD CLOSED 1000 FT

21 ROAD CLOSED 500 FT

22 US 18 DETOUR

No Scale

SIGN INVENTORY FOR DETOUR

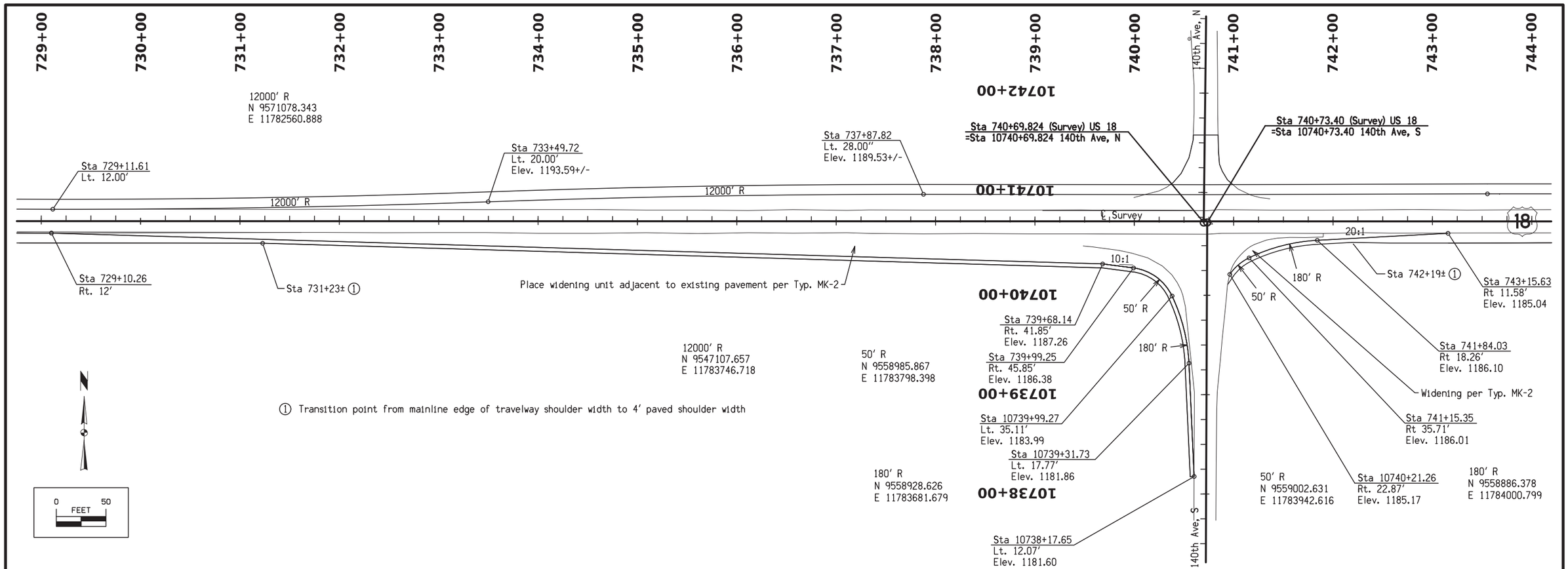
	I.D. number	Size
JCT	M2-1	24" x 12"
DETOUR	M4-8	24" x 12"
EAST	M3-2	24" x 12"
WEST	M3-4	24" x 12"
	M6-1	24" x 12"
	M5-1B	24" x 24"
	M5-1	24" x 24"
	M6-4	24" x 24"
	M6-6	24" x 24"
	M6-3	24" x 12"
	M5-2	24" x 24"
18	M1-4	24" x 24"
ROAD CLOSED _ MILES AHEAD LOCAL TRAFFIC ONLY	R11-3a	60" x 30"
DETOUR	M4-10	48" x 18"
END DETOUR	DOT stock # 812 514056	60" x 36"
DETOUR 1500 FT	W20-2	48" x 48"
	High Level Warning Devices (Flag Trees)	Refer to section 6F.62 in the MUTCD

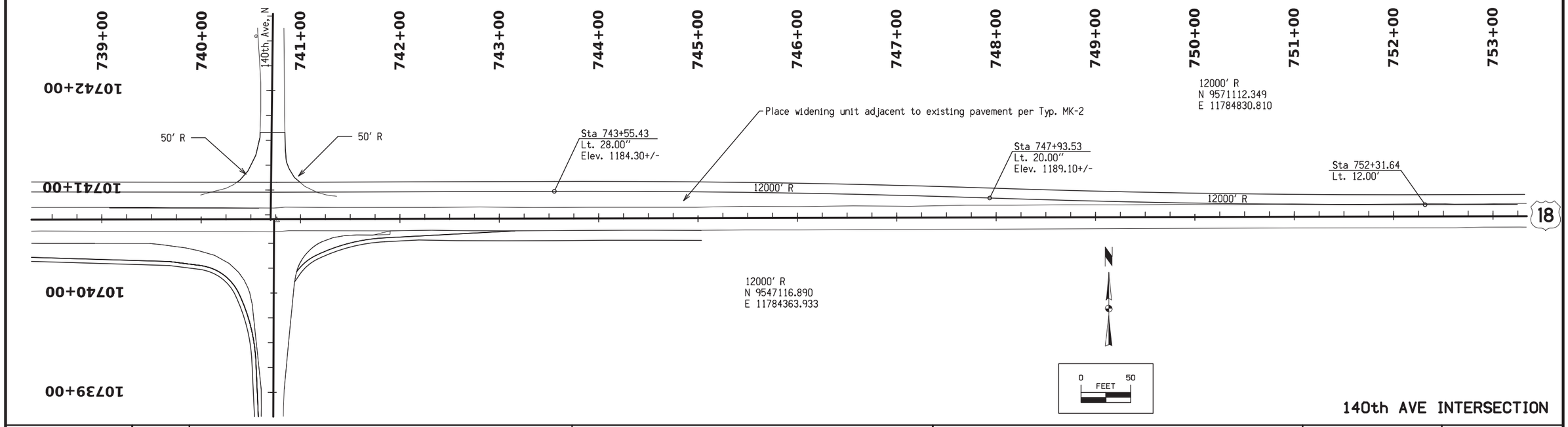
DETOUR ROUTE

TRAFFIC CONTROL - DETOUR SIGNING, SEXTON

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **J.9**

7:25:21 AM 3/17/2025 csuntke pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_J01.dgn





140th AVE INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER L.1

7:50:10 AM 12/17/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_L01.dgn

Sta 740+69.824 (Survey) US 18
=Sta 10740+69.824 140th Ave, N

Sta 740+73.40 (Survey) US 18
=Sta 10740+73.40 140th Ave

140th Ave, N

10741+00

18

℄ Survey

12'

2%

Edge of Travelway

2%

3%

3%

3%

EB Offset right turn lane

4' Paved Shoulder

10740+00

Contractor to shape HMA

Var.

4' Paved Shoulder

2' @ 10%

Contractor to shape HMA

Var.

3:1

U.A.C. south end of culverts

Transition new grading into existing grading

Existing ROW

4' Ditch

Match exist. slope

Sta 10739+77
End Type 'N3' Notch

Existing ROW

10739+00

Place widening unit at 3% per Typ. MK-6

U.A.C. culverts

End grading at culvet openings

140th Ave, S

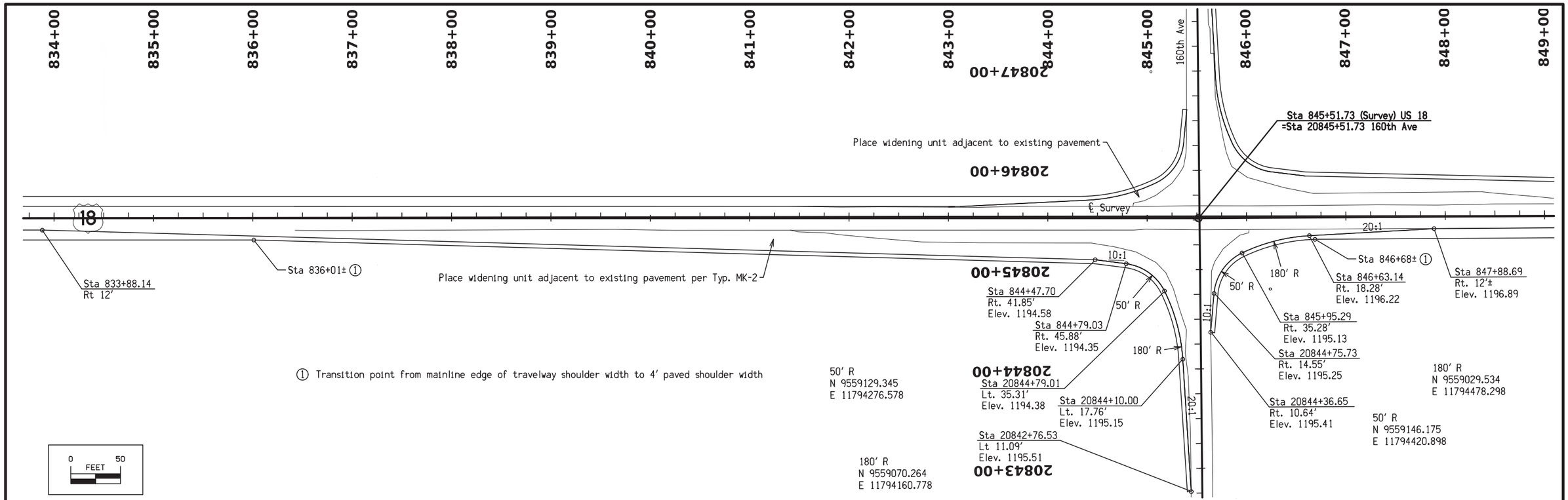
N

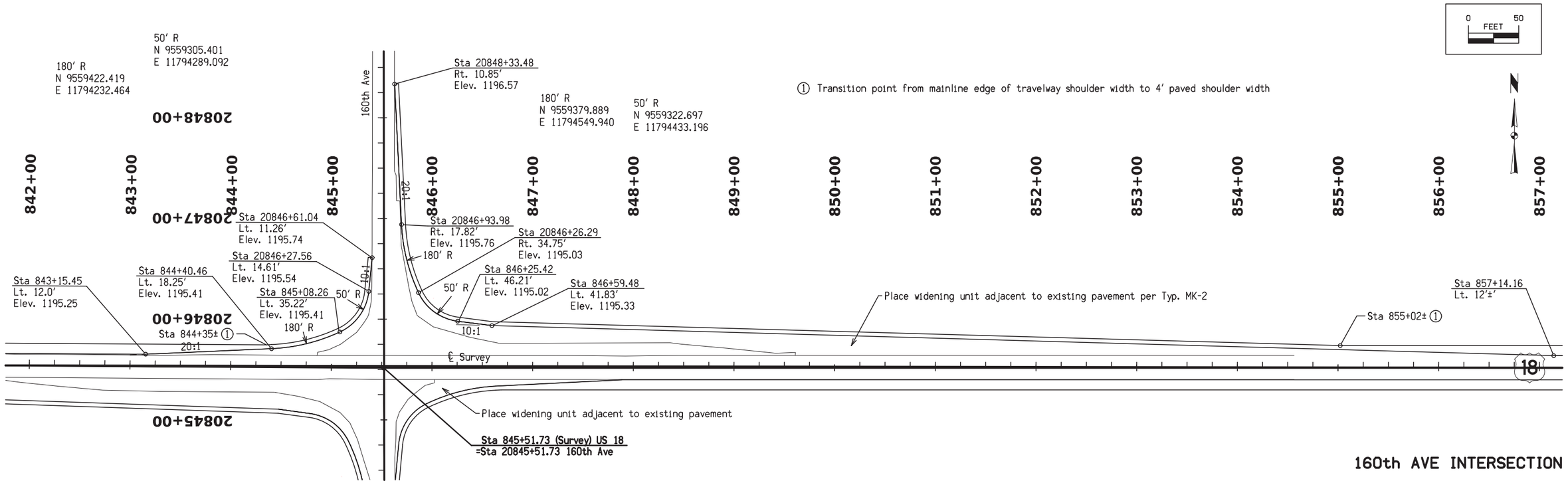
0 20
FEET

140th AVE INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **L.2**	

7:50:11 AM 12/17/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_L01.dgn

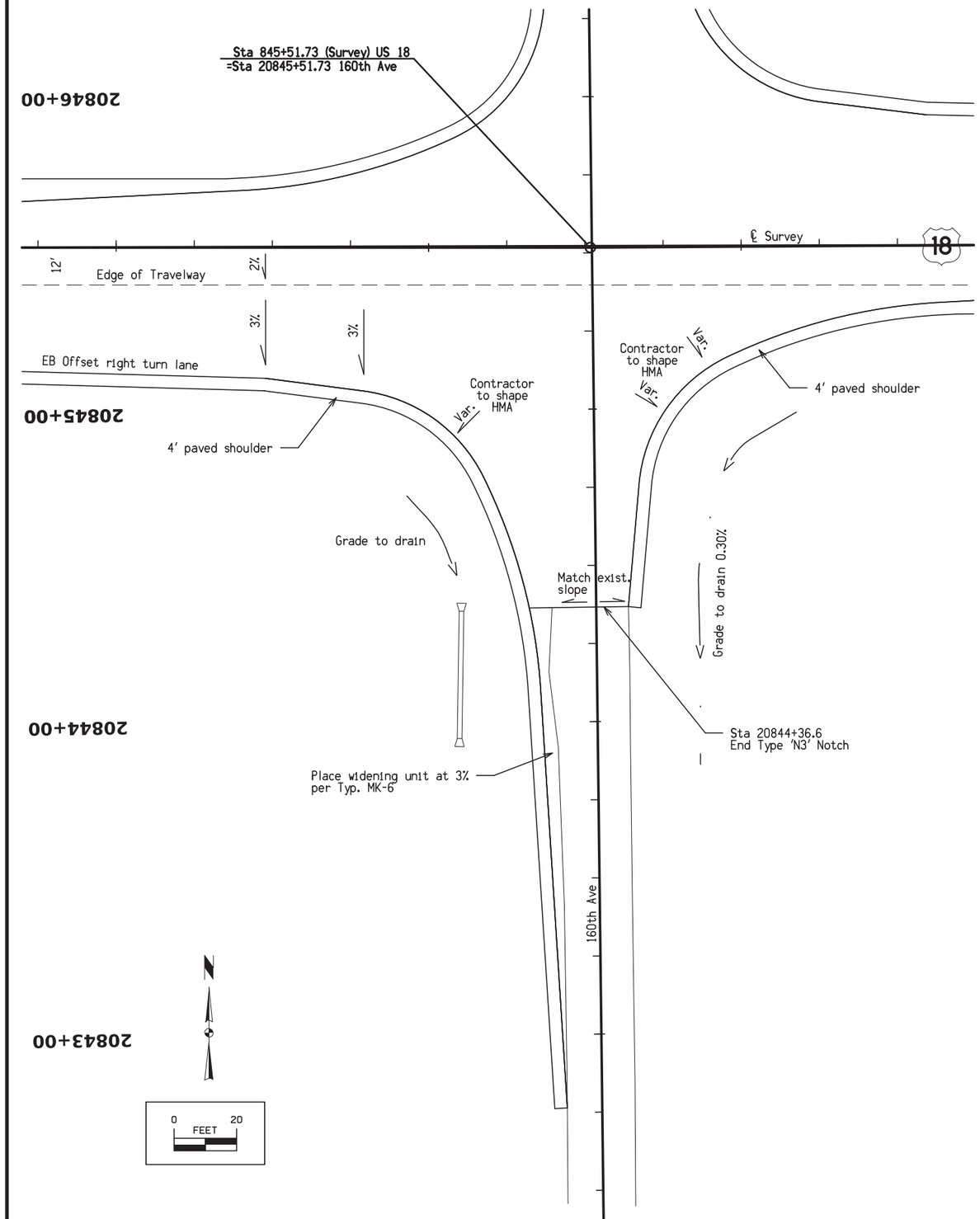


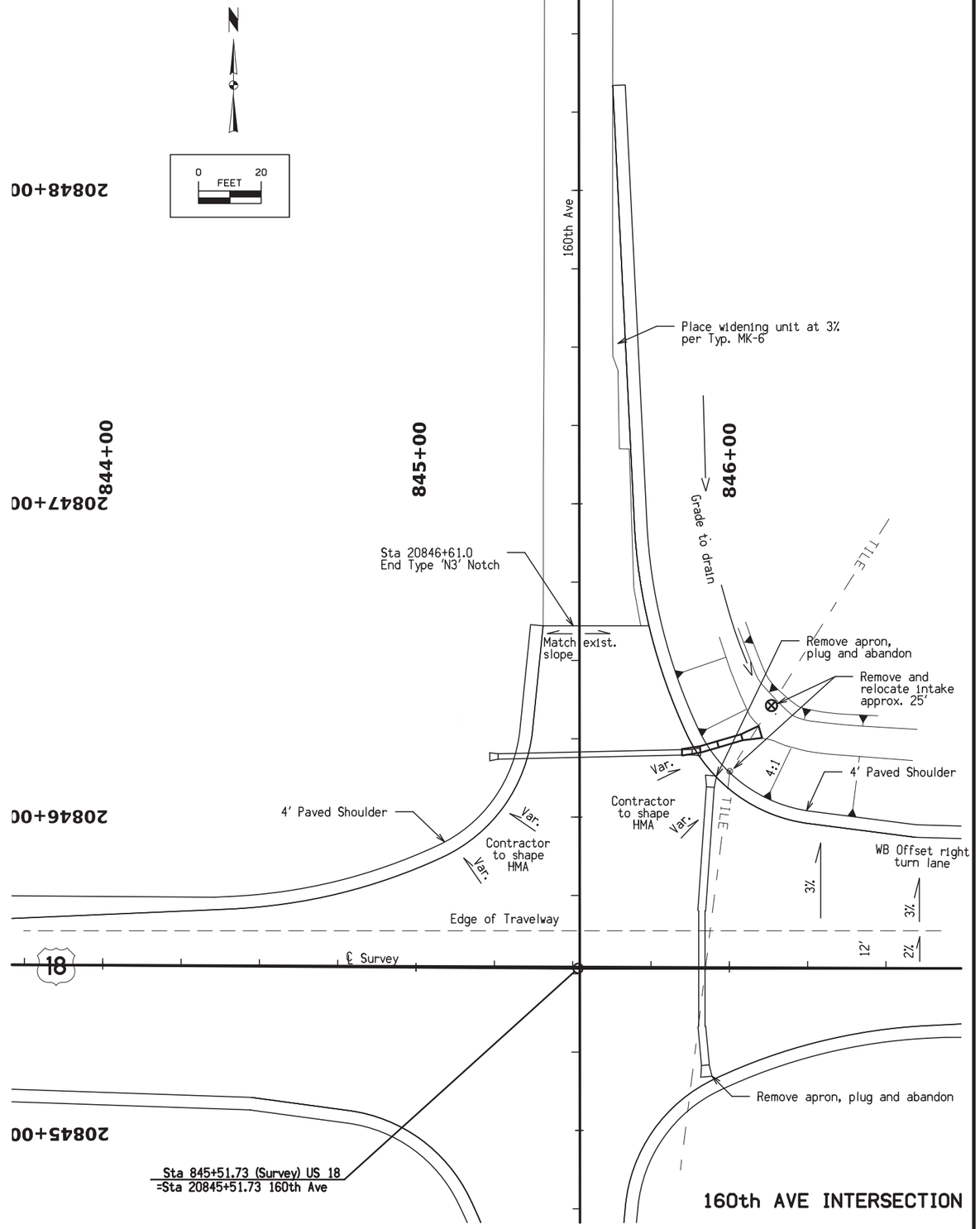


160th AVE INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **L.3**

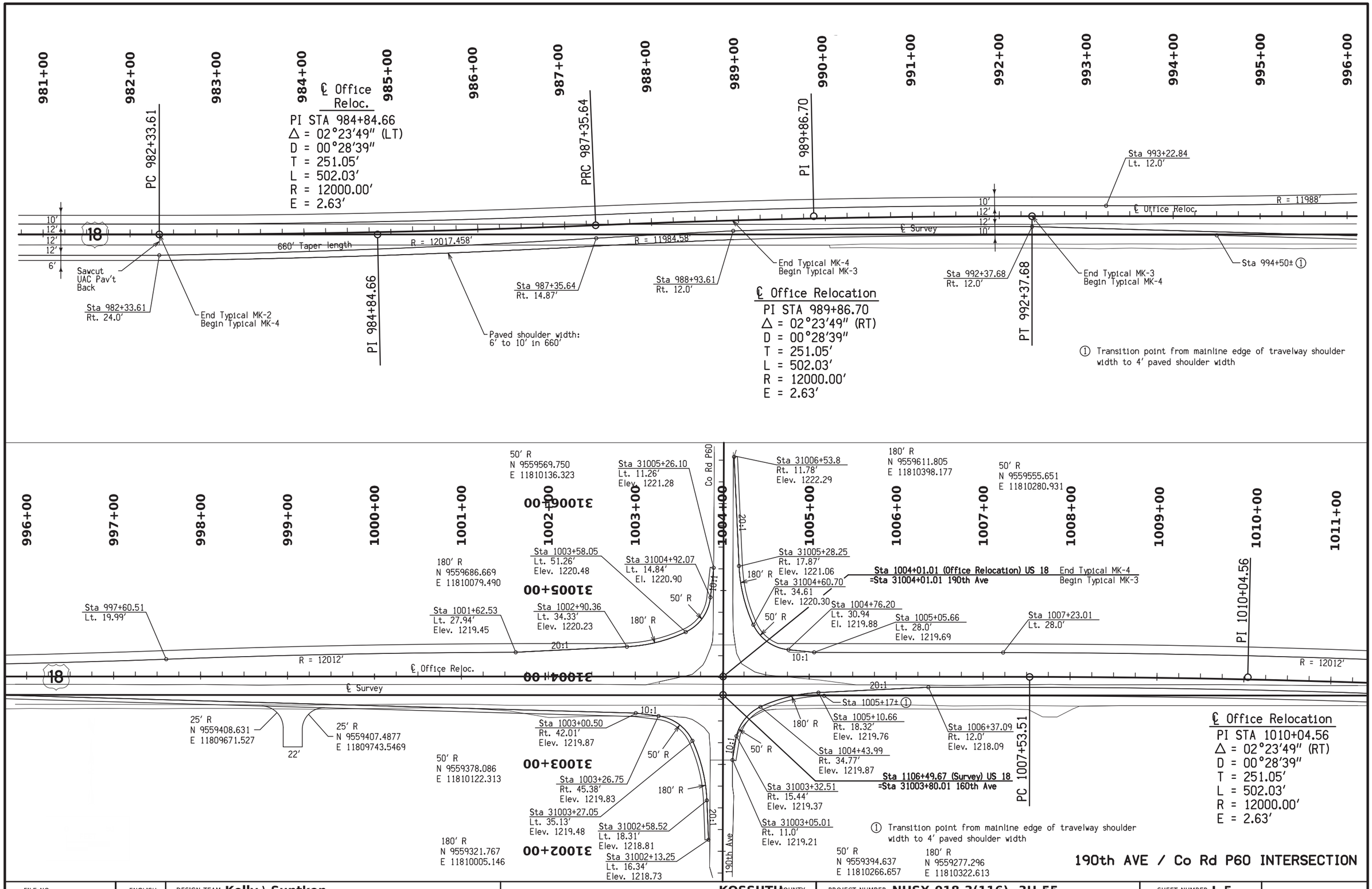
8:36:13 AM 3/17/2025 csuntke pw:\\NTPwint1.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_L01.dgn





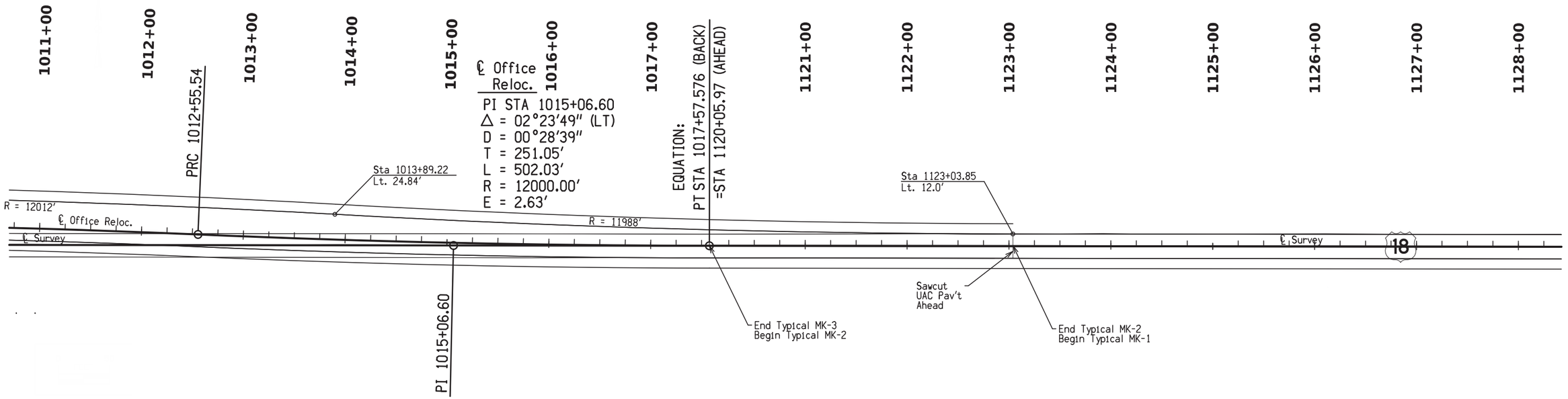
FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **L.4**

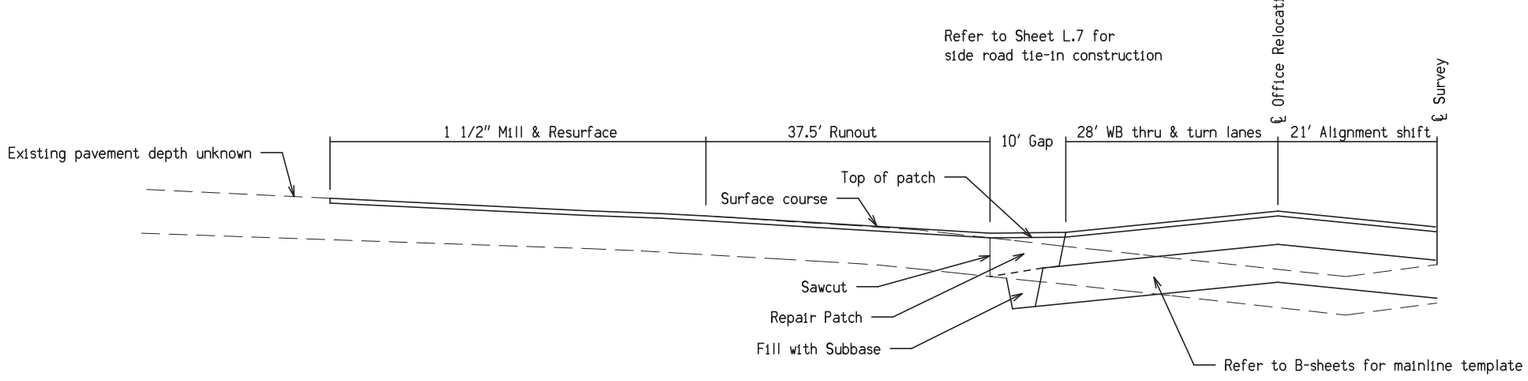
7:50:12 AM 12/17/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_L01.dgn



FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	KOSSUTH COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **L.5**

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Section of 190th Ave / Co Rd P60 Tie-in to US 18 WB

190th AVE / Co Rd P60 INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **L.6**

7:50:14 AM 12/17/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_L01.dgn

① Transition point from mainline edge of travelway shoulder width to 4′ paved shoulder width

190th Ave
Co Rd P60

1003+00
1004+00
1005+00

31006+00
31005+00
31004+00
31003+00
31002+00

Refer to Sheet L.6 for side road tie-in construction

Sta 31005+26.1
End Type 'N2' Notch

Match exist. slope

Sta 31004+76.4
Begin Type 'N2' Notch

Place widening unit at 3%
Adjacent to existing road

Place widening unit at 3%
Adjacent to exist road
per Typ. MK-6

4′ paved shoulder

Repair patch. See sheet L.6 for details

Sta 1002+78± ①

Var.
Contractor to shape HMA

Var.
Contractor to shape HMA

Sta 1004+64± ①

Edge of WB Travelway

10′ gap

Sawcut 190th pavement

WB Thru lane 2% 12′

WB Left turn lane 2% 16′

℄ Office Reloc.

18

℄ Survey

EB Left Turn Lane 16′

EB Thru lane 12′

2% 2% Edge of Travelway 2%

℄ Survey

3% 3%

EB Offset right turn lane

V-ditch See X-sec for details

Sign

See also plan & profile sheets for additional information

Var.
Contractor to shape HMA
Var.

2%

4′ paved shoulder

Match exist. slope

Var.
Contractor to shape HMA
Var.

6:1

2%

12:1

4′ paved shoulder

Building

Sta 31003+05
End Type 'N3' Notch

Refer to sheet E.1 for side road details

Place widening unit at 3%
Adjacent to exist road
per Typ. MK-6

N

0 20
FEET

190th Ave
Co Rd P60

190th AVE / Co Rd P60 INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **L.7**

7:50:15 AM 12/17/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_L01.dgn

Property Owners:
R - Ray B. Schilmoeller
V - Columbia Hall Assoc.
W - Weidenhoff Inc.
X - E.E. Robinson
Y - John D. Cash
Z - Arthur L. Benschoter
AA - W.C. Taylor

PURCHASED FROM Columbia Hall Assoc. 0.33 Acres
ACQUIRED Nov. 2, 1961
CONSIDERATION 388.00
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 376
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

PURCHASED FROM E. E. & Ruth M. Robinson
ACQUIRED Nov. 2, 1961
CONSIDERATION 267.00
TITLE BY Warranty Deed
RECORDED IN BOOK 90 PAGE 589
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

PURCHASED FROM Weidenhoff Corp. 0.80 Acres
ACQUIRED Nov. 30, 1961
CONSIDERATION 600.00
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 406
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

PURCHASED FROM John D. Cash
ACQUIRED
CONSIDERATION
TITLE BY Condemnation
RECORDED IN BOOK PAGE
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

PURCHASED FROM W.C. Taylor 0.81 Acres
ACQUIRED Nov. 30, 1961
CONSIDERATION 1,210.00
TITLE BY Warranty Deed
RECORDED IN BOOK 95 PAGE 10
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

PURCHASED FROM Arthur L. Benschoter
ACQUIRED Feb. 12, 1962
CONSIDERATION
TITLE BY Contract Recorded
RECORDED IN BOOK 142 PAGE 594
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		140(7)		6	124

PLUM CREEK TWP.
T96N R28W
Sec. 31

IRVINGTON TWP.
T95N R28W
Sec. 6

Ref. To P.O.T. Sta. 714+41.8

Ref. To P.O.T. Sta. 721+35.1

STA 708+78±
BEGIN PROJECT

Sta. 708+53-37' Lt.
Installed RA-16 Intake
Elev. ~~22.40~~ 621.83

12" ϕ Beehive Intake
D.A. = 6 Ac. ±
~~Removed~~

P.O.T. Sta. 714+41.8

P.O.T. Sta. 721+35.1
P.O.T. Sta. 324+00
1930 Plans

+86-60' Lt.
R.O.W. Rail

Sta. 699+00-39' Rt.
Installed RA-16 Intake
Elev. 19.85

~~Sta. 708+68-37' Rt.~~
~~Install RA-16 Intake~~
~~Elev. 23.20~~

721+35.1 BK
=824+00.0 AHD

STA. 721+35.10
~~STOP GRADING~~
~~(SHOULDERS)~~

Waste Area "A"

Waste Area "C"

No. 10A Sta. 706+95-90' Rt. Set R.R. Spk. in 18" Maple Root — EL. 630.09

BENCH MARKS:
~~No. 10 Sta. 700+02-60' Rt. Set R.R. Spk. In N. Root Twin 15" Maple — EL. 620.74~~
No. 11 Sta. 718+70-67' Rt. Set R.R. Spk. In N. Root 30" Elm — EL. 619.76

LEGEND
N.W. Bell Tel. Co.
Algona Municipal Utilities

0 50 100
Scale

C = 1839 F+60% = 575
Waste in "A" = 1264
(1000 cu. yds. within 250'ℓ)
C = F+60% = 1466

C = F+60% = 732

C: 1398 F+60% = 570
Waste in "A" = 828

C: 1197 F+60% = 524
Waste in "C" = 613
(80'-90'ℓ)

C = 1889 F+60% = 714
Waste in "A" = 1175

C = F+60% = 515

Comm. Ent. Rt.
Comm. Ent. Lt.
Hall Ent. Lt.
Field Ent. Lt.
Field Ent. Rt.
Farm Ent. Rt.
Farm Ent. Lt.

0.0%
+0.53±%
+0.39±%
-1.80±%
V.C. = 200'
V.C. = 300'
-0.14±%
-0.42±% Lt.
-0.12% Lt.
0.1% Rt.

+00 18.22 Lt. & Rt.
Rt. +00 23.37
Rt. +68 23.20
1.50 22.77 Lt.
V53 22.40 Lt.
+00 16.35

TYPICAL CROSS SECTION
COMMERCIAL DRIVE
Rt. of Sta. 692+00

2" Temporary Surfacing Material
10' 24' 10' 44'
3% 3%

Note:
Grade to be set by Res. Engr.
Tie to existing drive approx. 250' Rt. of ℓ
Fill material available from waste to be hauled to Waste Area "A".

Ditch Grade
Ditch Grade
4' Ditch
4' Ditch
Ditch Grade
Ditch Grade
4' Ditch
4' Ditch
Ditch Grade Lt.
Ditch Grade Rt.

690 695 700 705 710 715 720

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.1

2:15:24 PM 12/11/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_R01.dgn

ESTABLISHED WIDTH OF RIGHT OF WAY ____ FT.

THIS PLAN SHEET IS NOT PART OF THE 1960s RESURFACING, AS SHOWN IN THE REST OF THE AS-BUILT PLANS.
STATIONS IN RED SHOW APPROXIMATE LOCATIONS BASED ON CURRENT SHEET A.1 STATIONING.

FED. ROAD DIST. No.	STATE	FED. AID PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
		for 140W		9	22

725+00 730+00 735+00 740+00 140TH AVE 745+00

0.90 Acres W.C. TAYLOR
Acquired 11-14-57 Consideration ____
Title by Warrenty Deed Book 91 Page 63A
Kossuth Co. Recorder

Detour Surfacing Slope 0.03 ft. per ft.
35' to ℄ 3:1 Fore Slope
15' 15'
Typical Cross Section Detour

CENTRAL STATES THEATER CORP. 0.75 Acres
Acquired November 22, 1957
Consideration $795.00
Title by Warrenty Deed
Book 91 Page 520
Kossuth Co. Recorder
SEC. 31
DRIVE IN THEATER
Screen

SEC. 32
Sta 843+33.6 - 300' Lt.
15'W X 40' Conc. Pipe Culv.
D.A. = 14 Ac. R
Road contractor to remove present structure, furnish and place 24" x 42' (21' W. and 21' E.) concrete roadway pipe culvert at Sta. 843 + 39.6 - 70' Lt. Class 20 Exc. = 29 cu. yds.

LEWIS GILBRIDGE 0.39 Acres
Acquired 11-7-57 Consideration $255.75
Title by Warrienty Deed Book 91 Page 23B
Kossuth Co. Recorder

STA. 849+50.0
~~STOP CONST. DIV. 3~~
849+50.0 BK
=746+84.2 AHD

PASTURE
Remove & Replace With Std. Intake To Tile Drain
℄ Detour
Intake
Borrow "A"
12" X 20' Corr Pipe
℄ Prop. Detour
CULTIVATED
Remove & Replace With Standard Intake To Tile Drain
Prop. 100 Lin. Ft. 16" ℄ Tile Drain Extra Quality
Prop. 30 Lin. Ft. 16" ℄ Tile Drain (Extra Quality)
Pl. Sta 843+32.6 Δ = 0°12'
Silt fence
EC-201 Silt Fence at intake
Pl. Pavt. In Place
Sta. 824+00 to Sta. 828+00 Rd. Contr. to remove & dispose of 800 Sq. Yds. of present conc. pavement
STA. 824+00.0
~~BEG. CONST. DIV. 3~~
721+35.1 BK
=824+00.0 AHD
Sta. 828+00 to Sta. 831+50 Rd. Contr. to break up 700 Sq. Yds. of present conc. pavement.
Sta. 831+50 to Sta. 841+50 Rd. Contr. to remove & dispose of 2000 Sq. Yds. of present conc. pavement
Sta. 841+50 to Sta. 843+00 Rd. Contr. to break up 300 Sq. Yds. of present conc. pavement
Sta. 843+39.6 - 195' Rt. 36"W X 36" Conc. Pipe Culv. D.A. = 14 Ac. R.
Road contractor to furnish 12 Lin. Ft. of 36" conc. rdwy. pipe culv. and extend present strtc. 5' Rt. and 5' Lt. Road contractor to furnish and place 54" x 48" (24' W and 24' E.) conc. rdwy. pipe culv. at Sta. 843 + 39.6 - Rt. 205'. Class 20 Exc. = 90 cu. yds.
Sta. 845+72.9 - 3'X 2' X 30' Conc. Box Culv. D.A. = 626 Ac. F-Tiled. Rd. Contr. to remove pres. struct. Road contractor to furnish 132 lineal ft. of 48" concrete roadway pipe culvert and place twin pipes (57' Lt. and 39' Rt.) at Sta. 845 + 63 and Sta. 845 + 73. Salvage 36 Lin. Ft. (18' each pipe) at [redacted] inlet when detour is removed. Pipe to remain property of the State. Class 20 Exc. = 71 cu. yds.
Sta. 845+00 to Sta. 846+75 Rd. Contr. to break up 350 Sq. Yds of present conc. pavement
Sta. 846+75 to Sta. 849+50 Rd. Contr. to remove & dispose of 550 Sq. Yds. of present conc. pavement

RAY L. McCORKLE 0.53 Acres
Acquired December 3, 1957
Consideration $ 319.75
Title by Warrenty Deed
Book 91 Page 530
Kossuth Co. Recorder

1.62 Acres A.L. BENSCHOTER
Acquired 11-14-57 Consideration $900.00
Title by Warrenty Deed Book 91 Page 534
Kossuth Co. Recorder

Sta. 829+10.6 2'X 2' X 31' Conc. Box Culv. D.A. = 320 Ac. F-Tiled
Road contractor to remove present structure, furnish and place 54" x 102' (60' Lt. and 42' Rt.) concrete roadway pipe culvert. Salvage 18 lineal ft. of pipe at inlet when detour is removed. Pipe to remain property of the State. Class 20 Exc. = 38 cu. yds.

Removal of Pavement (800 Sq. Yds.) | Breaking Up Of Pavement (700 Sq. Yd.) | Removal Of Pavement (2000 Sq. Yds.) | Breaking Up Of Pavement 300 Sq. Yds. | Breaking Up of Pavement 350 Sq. Yds. | Removal Of Pavement 550 Sq. Yds.

Bench Marks
No. 100R Sta. 829+48 R.R. SPIKE in N. Side Power Pole 70' Rt. ---------- EL. 614.98
No. 101R Sta. 845+00 R.R. SPIKE in N. Side Power Pole ---------- EL. 609.40
No. 102A Sta. 850+00 R.R. SPIKE in S. Side 70" Cottonwood 72 Lt. ---- EL. 620.83

IRVINGTON TWP. T 98 N R 28 W

Prop. Lt. Ditch 5' Deep
Prop. Rt. Ditch 5' Deep
No. Prop. Lt. Ditch
Prop. Rt. Ditch 5' Deep
Prop. Lt. Ditch 4' Deep
Prop. Rt. Ditch 4' Deep
Prop. Lt. Ditch 5' Deep
Prop. Rt. Ditch 5' Deep
No. Prop. Lt. Ditch
No. Prop. Rt. Ditch
Prop. Lt. Ditch
Prop. Rt. Ditch 5' Deep
Prop. Lt. Ditches
Prop. Rt. Ditches

Profile Of Detour
Prop. Grade
Prop. Subgrade
Prop. FL
Prop. Rt. Rt. 613.50
Prop. Lt. Lt. 618.60
Prop. Rt. Rt. 613.9
Prop. Lt. Lt. 614.0
Prop. Rt. Rt. 607.9
Prop. Lt. Lt. 608.0
Prop. FL Rt. 603.00
Prop. FL Lt. 608.30
Prop. FL E 606.00 W 606.00
Prop. FL E 606.00 W 605.90
Side road Pipes
Prop. FL E 612.90 W. 612.65
Side road Pipe
Detour Grade
Sta. 828 + 66 to Sta. 832 + 00 Proposed Subgrade Treatment: Trench Excavation (included in roadway and culvert estimate) = F cu. yds. = R + 1.50T = ___ cu. yds. 1" = ___ tons of select crushed rock fill (Granular Clay). See Sheet No. 28.
Sta. 832 + 66 to Sta. 841 + 66 Proposed Subgrade Treatment: Trench Excavation (included in roadway and culvert estimate) = 256 cu. yds. 1" = ___ tons of special backfill. See Sheet No. 38.
Sta. 832 + 66 to Sta. 836 + 66 Proposed Subgrade Treatment: Trench Excavation (included in roadway and culvert estimate) = 419 cu. yds. F + 96" = 1,047 tons of special backfill. See Sheet No. 38.
Sta. 841 + 66 to Sta. 849 + 66 Proposed Subgrade Treatment: Trench Excavation (included in roadway and culvert estimate) = 96 cu. yds. F + 30" = 1,051 cu. yds. of selected backfill (Glacial Clay). See Sheet No. 38.

825 830 835 840 845 850

PLATE 1 PLAN-PROFILE OF P.R.A.R.F. STANDARD

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.2

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		140(7)		7	124

Property Owners:
AB - Lewis A. Gilbride
AC - Roy L. Mc Corkle

Ref. To P.O.T. Sta. 746+84.2

Ref. To P.O.T. Sta. 754+49.2

PLUM CREEK TWP.
T96N R28W
Sec.32

Ref. To P.O.T. Sta. 767+02.6

Void — Set Stubby — Found Stubby

Nail In Station Marker #870

PURCHASED FROM Lewis A. Gilbride
ACQUIRED
CONSIDERATION
TITLE BY Condemnation
RECORDED IN BOOK PAGE
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

Waste Area "D"

Encr. ℄ 350'

750 — 751+68 — 755 — 760 — 765 — 770 — 775+00

℄ 60' Line

℄ 70' Line

Sta. 775+00 ℄ 60'

Match Line ℄ 65'

+34 - 60' Lt. R.O.W. Rail

+34 - 70' Rt. R.O.W. Rail

P.O.T. Sta. 746+84.2
=P.O.T. Sta. 849+50
1930 Plans

P.O.T. Sta. 767+02.6
℄ N. ¼ Cor. Sec. 5
=P.O.T. Sta. 869+68.8
1930 Plans

P.O.T. Sta. 754+49.2

Asphalt Over 24 Conc.

18"x34' Conc. Pipe

18"x32' Conc. Pipe

42" Farm Ent.

33" Farm Ent.

Field Ent.

Hedge

Barbed Wire Fence

Wire Fence

Steel Posts

Signs

Shed

Hog House

Ho.

Gar.

Dike

Closed

6" Tile

Silt fence

(Removed 6" ϕ Beehive Intake

Sta. 760+13 - 70' Lt. Install ϕRA-16 Intake Elev. 620.08

Sta. 760+13.5
2'X 2'X 36.4' R.C.B.
With 30" ϕ X 6' Conc. Pipe Ext. Rt. & Lt.
D.A. = 1.3 Ac. G.R.
Extend 42' Rt. with 30" ϕ F-1
Extend 42' Lt. with 2'X2' R.C.B. and Flume Outlet.
Lt. 624.2
Fl. Rt. 624.24

12" ϕ Beehive Intake
D.A. = 7 Ac. F.
(Removed
Sta. 767+42 - 37' Rt.
Install ϕRA-16 Intake
Elev. 621.40

12" ϕ Beehive Intake
D.A. = 18 Ac. F.
(Removed
Sta. 773+65 - 37' Rt.
Install ϕRA-16 Intake
Elev. 621.10

+13 Approx. ¼ Cor. Sec. 5

+13 Field Ent.

767 +03

See Above

STA. 746+84.20
~~RESUME GRADING (SHOULDERS)~~

849+50.0 BK
=746+84.2 AHD

PURCHASED FROM Ray L. Mc Corkle 1.42 Acres
ACQUIRED Nov. 28, 1961
CONSIDERATION 2,165.00
TITLE BY Warranty Deed
RECORDED IN BOOK 90 PAGE 576
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

LEGEND:
N.W. Bell Tel. Co.
Iowa Elec. Light & Power Co.

0 50 100
Scale

IRVINGTON TWP.
T95N R28W
Sec.5

BENCH MARKS:
No. 14A Sta. 752-75' Rt. Set RR. Spk. in N. Side of 24" Ash ____ EL. 633.99
~~No. 14 Sta. 747+42 -34' Lt. Found R.R. Spk. in S. Root 30" Cottonwood EL. 620.49~~
No. 15 Sta. 759+14 -116' Rt. Set R.R. Spk. In E. Root 10" Maple Clump ____ EL. 625.63
~~No. 16 Sta. 771+43 -29' Rt. Set 2-60d Spks. in S. Side Power Pole ____ EL. 626.56~~

C = 932 — Haul from Sta. 761± (Rt. Side) = 578 / 1510
F + 60% = 1510
C = 13.3%
Waste in "D" = 730
F + 60% = 606
C = F + 60% = 779
C = 5.905
C = 414 — Haul from Sta. 762± (Rt. Side) = 1113 / 1527
F + 60% = 1527
F + 60% = 984
Haul to Sta. 752± (Lt.) = 578
Haul to Sta. 768± (Lt.) = 1113 / 2675
Waste in "D" = 3,230

Lt. / Rt.

Farm Ent. Rt. — +62 — +33
Farm Ent. Rt.
Field Ent. Rt. — +13
+2.1±%
V.C. = 400'
-0.69±%
-0.08±%
+2.4% Rt. Ditch Grade
+2.6% Rt. Ditch Grade
100 Rt. 627.58
100 Rt. 626.21
+13 Rt. 624.40
Fl. Rt. 624.4
Lt. 624.2
+1.5% Lt. Ditch Grade
+1.6% Rt. Ditch Grade
100 Lt. = Rt. 12.18
Farm Ent. Lt. — +72
Farm Ent. Lt. — +42
Farm Ent. Rt. — +54
Farm Ent. Lt. — +104

640 / 630 / 620 / 610

Ditch Grade / Ditch Grade
4' Ditch / 4' Ditch
3' Ditch / 3' Ditch
4' Ditch
No Ditch / 4' Ditch Ditch Grade
4' Ditch / 4' Ditch
No Ditch
No Ditch — 4' Ditch

750 — 755 — 760 — 765 — 770 — 775

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.3

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Property Owners:
AB-Lewis A. Gilbride
AD-Elmer F. & Melvin J. Bay

PURCHASED FROM Melvin, Ruth, Elmer & Jane Bay 5.11 Acres
ACQUIRED Dec. 29, 1961
CONSIDERATION 3,221.00
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 405
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		F 140(7)		8	124

PLUM CREEK TWP
T96N R28W

Ref. To P.I. Sta. 793+33.2

Found Stubby

Conc. Nail

Sec. 32 | Sec. 33

Sta. 775+00

Match Line

Sta. 781+92 - 37' Lt. Install RA-16 Elev. ~~620.58~~ 619.97

(Removed) 12" ø Beehive Intake D.A. = Side Ditch

Sta. 787+38 - 40' Lt Installed RA-16 Intake Elev. 17.68

P.I. Sta. 793+33.2 & N.E. Cor. Sec. 5 = P.I. Sta. 855+98 1930 Plans

5" Drain

Farm Ent.

Cribs

(Remove) 12" ø Beehive Intake D.A. = 2½ Ac. F.

Sta. 803+15 - 37' Lt. Install RA-16 Intake 625.56 Elev. ~~626.10~~

Sta. 805+00

Match Line

R.O.W. & C.A.

Asphalt Over 24' Conc.

6" Tile

8" Tile

Sign

Signs

Field Ent.

Sta. 782+09 - 37' Rt. Install RA-16 intake Elev. ~~620.58~~ 619.83

Removed 12" ø Beehive Intake D.A. = 20 Ac. F

Sta. 787+22.4 2'X2'X33.7' RCB 30" With ~~36"~~ ø X 5' Conc. Pipe Ext. Lt. & ~~36"~~ ø X 6' Conc. Pipe Ext. Rt. D.A. = 50 Ac. F.

Extend 12' Lt. & 10' Rt. with ~~36"~~ ø F-1 Lt. 618.0 30" FL Rt. 618.4

(Removed) 12" ø Beehive Intake D.A. = Side Ditch

Sta. 787+65 - 40' Rt. Install RA-16 intake Elev. 618.~~68~~.40

P.C. Sta. 790+33.2 Not Set

Sec. 5 | Sec. 4

Approx. Sec. Line

Δ = 0°22' Rt.
D = 0°03'40"
T = 300'
L = 600'
E = 0.48'
R = 93,763.8'

P.T. Sta. 796+33.2 Not Set

Field Ent.

Hy

12" ø Beehive Intake D.A. = 13 Ac. F (Removed)

Sta. 802+64 - 37' Rt. Install RA-16 intake Elev. 626.~~68~~.05

Irvington Twp.
T95N R28W

LEGEND:
N.W. Bell Tel. Co.
Io. Elec. Light & Po. Co.

Scale 0 50 100

BENCH MARKS:
No. 16A Sta. 780+60-65' Rt. R.R. Spk. in N. Side of P. Pole ——— EL. 626.04
No. 17A Sta. 798+35-60' Rt. R.R. Spk. in N. Side P. Pole ——— EL. 629.68
~~No. 17 Sta. 786+46-29' Rt. Set 2-60d Spks. in N. Side Po. Pole ——— EL. 626.32~~
~~No. 18 Sta. 787+75-95' Lt. Set 2-60d Spks. in S. Side Po. Pole ——— EL. 631.11~~

C = 195 Ft 60% = 1380
Haul from Sta 792± = 1185
1380

C = F + 60% = 1350

C = F + 60% = 1728

C = 2466
Waste in "E" = 1734
Ft 60% = 732

C = 2700
Ft 60% = 1373
Haul to Sta. 780± = 1185
Waste in "F" = 142
2558

Field Ent. Rt.
+0.08±%
150
620.44
Rt-Lt
+2.24
18.00
Lt
0.49±%
+1.85 Lt
Ditch Grade
-0.9% Lt Ditch Grade
-0.75% Rt. Ditch Grade
150
620.36
Lt-Rt
V.C. = 2.50'
+2.41±%
FL Rt 618.4
Lt 618.0
-0.56±%
V.C. = 2.50'
100
626.67
Lt-Rt
+0.07±%
-0.1% Lt Ditch Grade
-0.1% Rt. Ditch Grade
164
626.21
Rt
115
626.10
Lt
Farm Ent Lt. Field Ent Rt.
4' Ditch
4' Ditch
Ditch Grade
Ditch Grade
4' Ditch
4' Ditch
Ditch Grade
Ditch Grade
4' Ditch
4' Ditch
Lt
Rt.
630
620
775
780
785
790
795
800
805

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.4

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Property Owners:
AD-Elmer F. & Melvin J. Boy
AE-Clyde Priebe
AF-Alphons P. Erpelding

PLUM CREEK TWP.
T96N R28W
SEC. 33

Ref. To P.I. Sta. 819+10.2
Conc. Nail
Found Stubby
Void

PURCHASED FROM Clyde Priebe 1.90 Acres
ACQUIRED Jan. 6, 1962
CONSIDERATION 1,240.00
TITLE BY Warranty Deed
RECORDED IN BOOK 95 PAGE 13
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		140(7)		9	124

Sta. 805+00
Match Line
R.O.W. ℄ C.A. ℄
18
Asphalt Over 12" Conc.
6" Tile
8" Tile
5" Tile
Sta. 807+00
Sta. 808+00
See Page 8
Sta. 815+43-37' Lt. Install IRA-16 intake Elev. ~~625.10~~ 624.97 (Removed) 12"ø Beehive Intake D.A.=Side Ditch
P.I. Sta. 819+10.2 Δ=0°02' Rt. ℄ N. 1/4 Cor. Sec. 4 = P.I. Sta. 921+73.1 1930 Plans
Sign
Sta. 814+98-37' Rt. Install IRA-16 intake F.L. Elev. ~~625.14~~ 624.62
12"ø Beehive Intake D.A.=22 Ac. F. (Removed)
Sta. 821+47-34' Lt. Install IRA-16 intake Elev. 626.~~55~~.18 (Removed) 12"ø Beehive Intake D.A.=SAC.F.
Sta. 821+48-~~38~~' Rt. Install IRA-16 intake Elev. 626.~~50~~.30 12"ø Beehive Intake D.A.=Side Ditch (Removed)
Sta. 825+77-34' Rt. Install IRA-16 intake Elev. ~~626.92~~ 627.51 12"ø Beehive Intake D.A.=6 Ac. F. (Removed)
Waste Area "F"
Farm Ent. ±30 Lt. ±06
Encr. ±300
Encr. ±300
Sta. 835+00
Match Line
Field Ent. ±60 Lt. ±06
18"ø 32' Conc. Pipe CMP
±65
±06

PURCHASED FROM Alphons P. Erpelding
ACQUIRED Dec. 4, 1961
CONSIDERATION Warranty Deed
TITLE BY 1295.50
RECORDED IN BOOK 90 PAGE 571
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

IRVINGTON TWP.
T95N R28W
SEC. 4

Waste Area "E"
1000 ± South ℄ Sta. 825+00

LEGEND:
N.W. Bell Tel. Co.
~~Ia.~~ Elec. Light & Po. Co.

0 50 100
Scale

BENCH MARKS:
~~No. 19 Sta. 813+37-32' Rt. Set 2-60d Spks. in N. Side Fo. Pole EL. 628.66~~
~~No. 20 Sta. 822+35-33' Rt. Set 2-60d Spks. in N. Side Fo. Pole EL. 631.16~~
No. 20A Sta. 819+10-300' Rt. RR. Spk. in N. Side of P. Pole EL. 632.34

C = F + 60% = 1337
C = 1794 F + 60% = 862
Waste in "E" = 932
C = 2456 F + 60% = 1685
Waste "E" 771
C = 600 F + 60% = 173
Waste in "F" 427
C = F + 60% = 1506

Lt.
Rt.
640
630
620

-0.5±%
+1.19% Rt. Ditch Grade
+00 625.34 Lt. Rt.
+43 25.10 Lt.
+90 26.35 Lt. Rt.
-0.1% Lt. Ditch Grade
-0.1% Rt. Ditch Grade
+2.19% Lt. Ditch Grade
+98 25.14 Rt.
+0.10±%
+00 26.80 Lt. Rt.
-0.1% Lt. Ditch Grade
-0.12% Rt. Ditch Grade
+47 Lt. 26.55
+48 Rt. 26.50
+0.13% Lt. Ditch Grade
+0.32% Rt. Ditch Grade
+50 Rt. 27.15
-0.1% Rt. Ditch Grade
+77 26.92 Rt.
+00 Lt. & Rt. 627.25
-0.27% Rt. Ditch Grade
V.C. = 300'
-2.44±%
Field Ent. Rt.
Farm Ent. Lt.
Field Ent. Rt.

4' Ditch / 4' Ditch
Ditch Grade / Ditch Grade
3' Ditch / 3' Ditch
Ditch Grade / Ditch Grade
3' Ditch / 3' Ditch
4' Ditch / 4' Ditch
5' Ditch / 5' Ditch

805 810 815 820 825 830 835

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.5

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Property Owners:
AE - Clyde Priebe
AF - Alphons P. Erpelding
AG - Catherine Detrick
AH - Mae Raney

Ref. To P.I. Sta. 845+51.7

Conc. Nail

Tan. Void Tan.

Found Stubby

PLUM CREEK TWP.
T96N R28W
SEC. 33 SEC. 34

Δ = 0°21' Lt.
D = 0°03'30"
T = 300'
L = 600'
E = 0.46'
R = 98,229.1'

PC Sta. 842+51.7 Not Set

PT Sta. 848+51.7 Not Set

ROAD (22' Block Top)

EC-201 Silt Fence at relocated intake

Sta. 846+16-37' Lt.
Install RA-16 intake
Elev. ~~625.14~~ 621.80

12" ϕ Beehive Intake
D.A. = 1.2 Ac. F.
(Removed)

Sta. 837+52-42' Lt.
Install RA-16 intake
Elev. ~~618.18~~ 617.53

(Removed)
15" ϕ Beehive Intake

18" Tile

8" Tile

Asphalt over 24" Conc.

6" Tile

Match Line

Sta. 835+00

Sta. 837+64-42' Rt.
Install RA-16 intake
Elev. 618.18

12" ϕ Beehive Intake
(Removed)

Sta. 837+24.7
2'X2'X3'-6" R.C.B.
D.A. = 1.00 Ac. F.
Extended 20' Rt. & 16' Lt.
with 30" ϕ F-1
FL Lt. 617.78
Rt. 617.~~16~~.11

EC-201 Silt Fence at intake

Silt fence

18"x38" Conc. Pipe

Conc. Fruit Res. Ent

Ho.

15"X32" Conc. Pipe

P.I. Sta. 845+51.7
N.E. Cor. Sec. 4
= P.I. Sta. 948+14.0
1930 Plans

Silt fence

Sta. 845+31.2
2'X2'X3'-6" R.C.B.
With 30" ϕ X 6' Conc. Pipe Exts. Rt. & Lt.
D.A. = 8.7 Ac. F.
Extended 6' Lt. & 10' Rt.
with 30" ϕ F-1
FL Lt. 622.0
Rt. 621.5

EC-201 Silt Fence at intake

EC-201 Silt Fence at intake

SEC. 4 SEC. 3

IRVINGTON TWP.
T95N R28W

260TH AVE (Gravel)

Approx. Sec. Line

R.O.W. & C.A.F.

R.O.W. & C.A.F.

Sta. 858+75

Sta. 859+38-37' Lt.
Install RA-16 intake
Elev. ~~628.13~~ 627.56

12" ϕ Beehive Intake
D.A. = 1.0 Ac. F.
Removed

Sta. 865+00

Match Line

Sta. 860+16-37' Rt.
Elev. ~~628.23~~ 627.61
Install RA-16 intake

12" ϕ Beehive Intake
D.A. = 1.3 Ac. F.
Removed

See Below

PURCHASED FROM Catherine Detrick 1.08 Acres
ACQUIRED Nov. 21, 1961
CONSIDERATION 687.00
TITLE BY Warranty Deed
RECORDED IN BOOK 90 Deeds PAGE 110
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

PURCHASED FROM Mae Raney 3.35 Acres
ACQUIRED Dec. 29, 1961
CONSIDERATION 2267.50
TITLE BY Warranty Deed
RECORDED IN BOOK 95 PAGE 10
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		F 140(7)		10	124

LEGEND:
N.W. Bell Tel. Co.
Iowa Elec. Light & Power Co.

0 50 100
Scale

BENCH MARKS:
No. 21 Sta. 837+24.7 19.4' Lt. Cut(+) on N. Hdwl. 2"X2" R.C.B. EL. 619.52
No. 22A Sta. 845+20-154' Lt. RR. Spk. in S. Side P. Pole EL. 624.55
~~No. 21 Sta. 837+24.7 19.4' Lt. Cut(+) on N. Hdwl. 2"X2" R.C.B.~~ ~~EL. 621.31~~
~~No. 22 Sta. 845+20 -154' Lt. Set 2-60d Spks in W. Side Po. Pole~~ ~~EL. 625.78~~
~~No. 23 Sta. 859+53 -32' Lt. Set 2-60d Spks in N. Side Po. Pole~~ ~~EL. 630.38~~
No. 23A Sta. 856+50-65' Rt. RR. Spk. in N. Side P. Pole EL. 632.35

C = 968 F+60% = 103
Waste in "F" = 865

C = F+60% = 1669

C = 1343 F+60% = 936
Waste in "G" = 407

C = F+60% = 1258

C = 2111 F+60% = 849
Waste in "G" = 1262

C = 1326 F+60% = 844
Waste in "G" = 482

C = F+60% = 807

+51.7
27.03
+73.7
26.50

Lt. Local Road Rt. (Grave Road)
U.A.C.

Res. Ent. Rt.

+0.35% V.C. = 300'

+2.27% V.C. = 400'

Rt. 617.5
Lt. 617.8

Rt. 621.5
Lt. 622.0

5' Ditch 6' Ditch 4' Ditch 5' Ditch 4' Ditch

Local Gravel Road Vert.

Lt. Rt. 640 630 620

835 840 845 850 855 860 865

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.6

2:15:34 PM 12/11/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_R01.dgn

Property Owners:
AH-Mae Raney
AI-Harry Woods
AJ-State of Iowa
AK-William J. Erpelding
AL-John H. Seeman

Ref. To P.O.T. Sta. 869+32.2

Ref. To P.O.T. Sta. 879+88.1

PLUM CREEK TWP.
T96N R28W
SEC. 34

IRVINGTON TWP.
T95N R28W
SEC. 3

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		F 140(77)		11	124

PURCHASED FROM John H Seeman
ACQUIRED Nov. 21, 1961
CONSIDERATION 1,103.00
TITLE BY Warranty Deed
RECORDED IN BOOK 90 PAGE 572
COUNTY RECORDED Kossuth
_____ ACCESS CONTROL ACQUIRED

STA 890+00
END WB PASSING LANE
R.P. 135.38

Set Frost Nail
Void
Conc. Nail
See Page 10
Sta. 870+26.37' Lt.
Install RA-16 Intake
Elev. 640.~~39~~.31
(Removed)
12"ϕ Beehive
Intake
D.A. = 7 Ac. F.
P.O.T. Sta. 869+32.2
18"X32' Conc. Pipe
Field Ent.
Asphalt Over 24' Conc.
R.O.W. & C.A. 7
Match Line
Sta. 865+00
Sta. 895+00
12"ϕ Beehive
Intake
D.A. = 7 Ac. F.
(Removed)
Sta. 869+86.37' Rt.
Install RA-16 Intake
Elev. ~~640.46~~
639.66
Approx. 1/4 Sec.
18"X38' Conc. Pipe
Farm Ent.
P.O.T. Sta. 879+88.1
Note: d/d Contr. ~~Shall~~ not disturb small trees right of Sta. 877+
Sta. 880+13.37' Lt.
Install RA-16 Intake
Elev. ~~634.33~~ 634.01
12"ϕ Beehive
Intake
(Removed
Fruit
Silt fence
Sta. 885+68.7
2'X2'X32.5' R.C.B.
With 30"ϕ X 6' Conc.
Pipe Exts. Rt. & Lt.
D.A. = 22 Ac. F.
Extended 10' Lt. & 16' Rt.
With 30"ϕ F-1
Fl. Lt. 634.2.4
Rt. 633.4
12"ϕ Beehive
Intake
(Removed)
Sta. 886+~~31~~39' Rt.
Install RA-16 Intake
Elev. ~~634.12~~ 633.37

PURCHASED FROM Wm. J. Erpelding 1.46 Acres
ACQUIRED _____
CONSIDERATION _____
TITLE BY Condemnation
RECORDED IN BOOK _____ PAGE _____
COUNTY RECORDED Kossuth
_____ ACCESS CONTROL ACQUIRED

LEGEND:
—●—●— N.W. Bell Tel. Co.
—#—#— Io. Elec. Light & Po. Co.

Scale: 0 50 100

BENCH MARKS:
No. 24 Sta. 870+59 -110 Rt. Set R.R. Spk. in N.W. Root 12" Willow Clump — EL. 643.~~52~~.46
~~No. 25 Sta. 886+34 32' Rt. Set 2-60d Spks. in N. Side Po. Pole — EL. 635.95~~
No. 25A Sta. 883+05-135' Lt. Set R.R. Spk. in S. Side of 18" Elm — EL. 645.33

C = 1437 F+60% = 959
Waste in "G" = 478
C = 1061 F+60% = 617
Waste in "G" = 444
C = 1904 F+60% = 166
Waste in "G" = 1738
C = F+60% = 1726
C = F+60% = 2219

PURCHASED FROM Harry Woods 0.02 Acres
ACQUIRED Jan. 5, 1962
CONSIDERATION 45.00
TITLE BY Warranty Deed
RECORDED IN BOOK 142 PAGE 595
COUNTY RECORDED Kossuth
_____ ACCESS CONTROL ACQUIRED

+0.03±% +0.54±% -1.22±% -0.07±% +1.56±%
+00 40.60 Rt.
0.11% Ditch Grade
+86 40.40 Rt.
V.C. = 300'
V.C. = 200'
Farm Ent. Rt.
Farm Ent. Lt.
+00 Lt. & Rt. 35.78
Ditch Grade -0.5% Lt. -1.4% Rt. Ditch Gr.
+0.83% Lt. Ditch Gr.
+1.2% Rt. Ditch Gr.
+68.7 Lt. 34.20
+68.7 Rt. 33.40
+00 Lt. & Rt. 36.14
FL Rt. 633.4 Lt. 634.2
4' Ditch Grade
Ditch Grade
4' Ditch
4' Ditch
Ditch Grade
Ditch Grade
4' Ditch
4' Ditch

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.7

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Property Owners:
AK-William J. Erpelding
AL-John H. Seeman
AM-Grace Long
AN-~~M. P. Weaver~~
AO-De Maude Lathrop
AN- Eugene A. & Mart P. Schemel and Vesta M. Menzel

Ref. To P.I. Sta. 858+40.3

PLUM CREEK TWP
T90N R28W

Sec. 34 | Sec. 35

Sta. 897+15-37' Lt. Install ~~8~~ RA-16 Intake Elev. 638.~~32~~.30

12"ø Beehive Intake D.A.=Side Ditch (Removed)

EC-201 Silt Fence at relocated intake

P.I. Sta. 898+40.3
Δ=0°03' Rt.
& N.E. Cor. Sec. 3
=P.I. Sta. 1000+98.7
1930 Plans

Sec. 4 Line

Asphalt Over 24" Conc.

6" Tile

Sta. 895+00

Match Line

8"ø Beehive Intake D.A.=3Ac.F. (Removed)

Pres. Field Entr. Move South on Local Road

12"ø Beehive Intake D.A.=Side Ditch (Removed)

Sta. 898+69-37' Rt. Install RA-16 Intake Elev. 639.16

Sta. 898+~~30~~-37' Rt. Install RA-16 Intake Elev. 638.~~32~~.30

Waste Area "G" (Local Road)

170TH AVE

±40.3 Approx. ±27 Local Road Ditch

Sec. 3 | Sec. 2

IRVINGTON TWP
T95N R28W

Waste Area "H" (1000' South of & Sta. 903+00)

Tan. Vol. Tan.

Found Frost Nail

Born 2101

18"x38 Conc. Pipe

12" Farm Ent.

±76 | ±72 | ±36

905 | 910 | 915 | 920 | 925

Sta. 911+61-37' Lt. Install RA-16 Intake Elev. 640.~~84~~.15

4" Tile

6" Tile

EC-201 Silt Fence at relocated intakes

12"ø Beehive Intake D.A.=12 Ac.F. (Removed)

12"ø Beehive Intake D.A.=9 Ac.F. (Removed)

Sta. 911+80-37' Rt. Install RA-16 Intake Elev. 640.~~80~~.30

R.O.W. & C.A.

Vesta M. Menzel and Eugene A. & Mart P. Schemel 1.78 Acres
ACQUIRED Dec. 6, 1961
CONSIDERATION 1664.50
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 400
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

FURCHASED FROM Grace Long Et Al. 0.82 Acres
ACQUIRED
CONSIDERATION
TITLE BY Condemnation
RECORDED IN BOOK PAGE
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

FURCHASED FROM DeMaude Lathrop
ACQUIRED Dec. 12, 1961
CONSIDERATION 1073.00
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 379
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

Ref. To P.I. Sta. 924+80.5

Found Frost Nail

Dike elev. ~~to be~~ set on construction

Dike Local Road Ditches

175TH AVE

P.I. Sta. 924+80.5
Δ=0°07' Rt.
& N ¼ Cor. Sec. 2
=P.I. Sta. 1027+37.1
1930 Plans

Sta. 926+00

Sta. 924+80.9-75' Lt. Install ~~24~~"ø F-1
FL W. 638.0
E. 637.5

Crib | Chick Ho. | GARDEN | Ho

Approx. ¼ Sec.

Match Line

No. 26A Sta. 904+00-125' Lt. R.R. Spk. in S.W. Side of Yard Pole EL. 646.30
BENCH MARKS: No. 27A Sta. 917+65-75' Rt. R.R. Spk. in N. Side of 24" Maple EL. 648.64
~~No. 26 Sta. 898+22-32' Rt. Set 2 60d Spks. in S. Side Po. Pole EL. 641.73~~
~~No. 27 Sta. 911+23-30' Lt. Set 2 60d Spks. in S. Side Tel Pole EL. 641.69~~
~~No. 28 Sta. 924+77-31' Rt. Set 2 60d Spks. in N. Side Po. Pole EL. 642.13~~

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		~~F~~ 140(7)		12	124

LEGEND:
N.W. Bell Tel. Co.
Ia. Elec. Light & Po. Co.

0 50 100
Scale

Appx. 1:400 Dike Fill=10

C=1607 F+60%=623
Waste in "H"=984

C=1703 F+60%=1117
Waste in "H"=586

C=1761 F+60%=681
Waste in "I"=1080

C=F+60%=1336

C=1733 F+60%=613
Waste in "I"=1120

C=F+60%=463

C=1831 F+60%=208
Waste in "J"=1623

Local Rd. Rt. | Waste Area "G"

Match existing width

Res. Engineer Will set grades on Construction

3% | 3% | Vari. | Vari.

Existing Road

TYPICAL WASTE CROSS SECTION

Note: Waste material to be placed in such a manner as to raise the grade of local road. Surface of local road to be crowned as shown upon completion of wasting operation.

+0.13% | +0.15% | -1.05%

Farm Ent. Lt. | Farm Ent. Rt.

4' Ditch | Ditch Grade

+00 41.87 Rt.
+0.98% Rt. Ditch Grade
-0.12% Rt. Ditch Grade
+54 42.40 Rt.
V.C.=200'
+00 42.22 Rt. & Lt.
+0.13% Lt. Ditch Grade
+36 42.40 Lt.
-1.17% Lt. Ditch Grade
+00 41.52 Lt.

102.9 41.38
3.0% | 100' V.C. | -1.0%
Local Road
180.9 41.83

Lt. | Rt. | 650 | 640

895 | 900 | 905 | 910 | 915 | 920 | 925

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.8

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Property Owners
~~AN - M.P. Wagner~~
AO - DeMoude Lathrop
AP - Esther Burke Life Est.
AQ - Mark R. Stanton
AR - Kristine Didriksen
AN - Eugene A. & Mart P. Schemel and Vesta M. Menzel

STA 939+40
BEGIN WB PASSING LANE
R.P. 136.31

Ref. To P.I. Sta. 951+27.3
105.28 106.18 Conc. Nail
105.65 105.86
Found Frost Nail
Tan. Tan. Void

PURCHASED FROM Mark R. Stanton
ACQUIRED
CONSIDERATION
TITLE BY Condemnation
RECORDED IN BOOK ____ PAGE ____
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		F 140(7)		13	184

PLUM CREEK TWP.
T96N R28W
Sec. 35 Sec. 36

930 935 940 945 950 955

Sta. 926+00 Sta. 955+00 Match Line

Sta. 932+52-37' Lt.
Install RA-16 Intake
Elev. ~~634.00~~ 633.64
12"ϕ Beehive Intake
D.A. = 28 Ac. F.
Removed

EC-201 Silt Fence at relocated intake

Sta. 932+52-37' Rt.
Install RA-16 Intake
Elev. ~~634.00~~ 633.57
12"ϕ Beehive Intake
D.A. = 22 Ac. F.
Removed

Silt fence

18" Asphalt over 24" Conc.
6" Tile
R.O.W. & C.A.
R.R.

Mary Adine Lynch and
PURCHASED FROM Esther Burk Life Est. 1.35 Acres
ACQUIRED Nov. 30, 1961
CONSIDERATION 897.50
TITLE BY Warranty Deed
RECORDED IN BOOK 193 PAGE 385
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

STA 939+40
BEGIN EB PASSING LANE
R.P. 136.31

Sta. 950+34-37' Lt.
Install RA-16 Intake
Elev. ~~639.47~~ 639.16
12"ϕ Beehive Intake
D.A. = Side Ditch
Removed

P.I. Sta. 951+27.3
Δ = 0°03' Rt.
¼ N.E. Cor. Sec. 2
= P.I. Sta. 1053+83.0
1930 Plans

Waste Area "I"
300' South of Sta. 943

Waste Area "J"
600' South of Sta. 948

Waste Area "K"
700' South of Sta. 955

Sec. 2 Sec. 1
IRVINGTON TWP.
T95N R28W

180TH AVE

LEGEND
N.W. Bell Tel. Co.
Iowa Elec. Light & Power Co.

0 50 100
Scale

BENCH MARKS: No. 29A Sta. 930+75-60' Rt. R.R. Spk. in N. Side P. Pole — EL. 636.76
~~No. 29 Sta. 933+77-31' Rt. Set 2-60d Spks. in N. Side Po. Pole — EL. 636.85~~
~~No. 30 Sta. 951+57-67' Lt. Set 2-60d Spks. in S. Side Po. Pole — EL. 642.18~~
No. 30A Sta. 947+30-130' Rt. R.R. Spk. in N. Side of Maple — EL. 645.00

App. C = 750

C = F + 60% = 885
C = F + 60% = 1624
C = 1998 F + 60% = 751
Waste in "K" = 1247
C = 1953 F + 60% = 829
Waste in "K" = 1124
C = 2183 F + 60% = 844
Waste in "L" = 1339
C = 896 F + 60% = 584
Waste in "L" = 312
App. C = 800

-0.4% Lt. & Rt. Ditch Grade
+100 36.63
+0.58% Lt. & Rt. Ditch Grade
+52 34.00
+100 35.45
+0.5±%
-0.20%
Farm Ent. Rt.
50' V.C. 100' V.C.
+10% -10%
Lt. Local Rd. Rt.
100' V.C. 100' V.C.
4' Ditch 4' Ditch
Ditch Grade Ditch Grade
4' Ditch 4' Ditch
Vari. 4' Ditch
Local Road
4' Ditch 4' Ditch

Lt. Rt. 650 640 630

926 930 935 940 945 950 955

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.9

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		F 140(7)		14	124

Property Owners:
AQ-Mark R. Stanton
~~AR-Kristine Didriksen~~
AS-Glenn E. Gabrielson
AT-George A. Hix
AR-Alfred G. Miller

PURCHASED FROM Mark R. Stanton
ACQUIRED
CONSIDERATION
TITLE BY Condemnation
RECORDED IN BOOK ____ PAGE ____
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

PLUM CREEK TWP.
T96N R28W
SEC. 36

Ref. To P.O.T. Sta. 977+67.3

STA 982+33.61
BEGIN ALIGNMENT SHIFT
R.P. 137.12

Sta. 961+36-38' Lt.
Install RA-16 Intake
Elev. 636.~~36~~.10
8" Beehive
Intake
D.A. = 12 Ac. F
Removed

6" ϕ Beehive
Intake
D.A. = Side Ditch
(Removed

18" X 38' Conc. Pipe

Asphalt Over 24 Conc.

ROW ℄ C.A.

Sta. 962+~~15~~-37' Rt.
Install RA-16 Intake
Elev. ~~36.41~~ 635.87

EC-201 Silt Fence at relocated intake

Silt fence

PURCHASED FROM Alfred G. Miller 1.65 Acres
ACQUIRED Nov. 30, 1961
CONSIDERATION 2,550.50
TITLE BY Warranty Deed
RECORDED IN BOOK 90 PAGE 575
COUNTY RECORDED Kossuth
____ ACCESS CONTROL ACQUIRED

Sta. 977+12-37' Lt
Install RA-16 Intake
Elev. ~~630.20~~ 629.80
12" ϕ Beehive
Intake
D.A. = Side Ditch
(Removed

P.O.T. Sta. 977+67.3

Hedge
Rasberries
(Removed
15" ϕ Beehive Intake
D.A. = 20 Ac. Part of 68 Ac. F

Shed Chick. Ho.

160' Farm Ent.

Waste Area "L"
300' So. of Sta. 971

Sta. 976+64-37' Rt.
Install RA-16 Intake
Elev. ~~630.30~~
629.03

Sta. 977+42.7
2'X2'X.33' R.C.B.
With 30" ϕ X.G. Conc.
Pipe Exts. Rt. & Lt.
D.A. = 68 Ac. F
Extend 42' Lt. 10' Rt.
With 30" ϕ F.I
FL Lt. 629.5
Rt. 629.~~5~~4

Silt fence

EC-201 Silt Fence at relocated intake

IRVINGTON TWP.
T95N R28W
SEC. 1

LEGEND:
N. W. Bell Tel. Co.
Io. Elec. Light & Po. Co.

0 50 100
Scale

BENCH MARKS:
No. 31A Sta. 964+30-80' Lt. R.R. Spk. in S. Side 24" Elm — EL. 645.25
~~No. 31 Sta. 964+23-63' Lt. Set R.R. Spk. in S.E. Root 40" Elm~~ — ~~EL. 644.50~~
~~No. 32 Sta. 977+42.7 17.5' Rt. Cut (X) on S. Hdwl. 2'X2' R.C.B.~~ — ~~EL. 634.26~~
No. 32A Sta. 978+10-60' Rt. Set R.R. Spk. in N. Side P. Pole — EL. 633.33

C = 1890 F+60% = 738
Waste in "M" = 1152

C = 2504 F+60% = 592
Waste in "M" = 1912

C = 959 F+60% = 838
Waste in "M" = 121

C = F+60% = 2306

C+F+60% = 1411

Lt.
Rt.
650
640
630

-0.20±%
V.C. = 100'
+0.50±%
-0.10% Dif.
+00
36.56 Rt.
1+18
36.44 Rt.
1.25
Farm Ent. Lt.
V.C. = 500'
-1.5±%
Farm Ent. Rt.
160'
V.C. = 200'
+0.1±%
-0.4% Lt & Rt. Ditch Grade
+00
31.81
Lt-Rt.
+40
30.03
Lt. Rt.
+0.4% Lt & Rt. Ditch Grade
1+75
30.04
Lt-Rt.
FL Rt 630.0
Lt 630.0
V.C. = 400'
+00
32.19
Lt. Rt.

4' Ditch
4' Ditch
Ditch Grade
Varies
4' Ditch
4' Ditch
Ditch Grade
Ditch Grade
Varies
Ditch Grade
Ditch Grade
4' Ditch Grade
4' Ditch Grade
Lt
Rt.

955 960 965 970 975 980 985

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.10

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Property Owners:
AS-Glenn E Gabrielson
AT-George A. Hix
AU-Ralph E & Agnes S. Withom
AV-Herman Wise

PURCHASED FROM Glenn E. Gabrielson 1.94 Acres
ACQUIRED Nov. 16, 1961
CONSIDERATION 1681.00
TITLE BY Warranty
RECORDED IN BOOK 93 PAGE 399
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

PURCHASED FROM George A. Hix 0.91 Acres
ACQUIRED Nov. 15, 1961
CONSIDERATION 507.00
TITLE BY Warranty Deed
RECORDED IN BOOK 90 PAGE 608
COUNTY RECORDED Kossuth
ACCESS CONTROL ACQUIRED

Ref. To P.O.T. Sta. 992+35.6

PLUM CREEK TWP
T96N R28W
SEC. 36

Waste Area "M"
500' North of Sta. 993

Ref. To P.O.T. Sta. 997+49.2
= P.O.T. Sta. 1100+00

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		F 140(7)		15	124

Sta. 985+00
Match Line
Asphalt Over 24' Conc.
6" Tile
R.O.W. & C.A.
Shed
Fruit
Hedge
Contr. to worked around this tree
Ho.
Hog Ho.
Farm Ent.
Plum Thicket
Approx Town Limits
P.O.T. Sta. 992+35.6
Church
Res. Ent.
Town Of Sexton
(Unincorporated)
Irvington Twp.
T95N R28W
Sec. 1
Existing R.O.W. &
Pump Isles
Oil Tank
Well
Sign
57 Street Gravel
Sta. 997+00 - 37' Lt.
Install RA-16 intake
Elev. 42.48 - .27
12" Ø Beehive Intake
D.A. = 7 Ac. F.
Removed
EC-201 Silt Fence at relocated intake
~~P.O.T. Sta. 997+49.2~~
~~= P.O.T. Sta. 1100+00 FA 94~~
1958 Survey
~~P.O.T. Sta. 1055+96.8 FA 140~~
Old Plans
EC-201 Silt Fence at intake
Silt fence

STA. ~~990+71.0~~
~~END GRADING (SHOULDERS) ON RIGHT SIDE~~

STA 988+93.6
END EB TAPER FOR PASSING LANE
R.P. 137.25

Legend:
N.W. Bell Tel. Co.
Ia. Elec. Light & Po. Co.

0 25 50
Scale

Bench Marks:
No. 33 Sta. 996+55-72' Rt. Found R.R. Spk. in N. Side 24" Boxelder
= B.M. #1 Sta. 1059+05-72' Rt. Foltz 1958 Survey FN-94 EL 1214.90 EL-646.14

C = 1266 F 160% = 771
Waste in "M" = 495
C = 1203 F 160% = 545
Waste in "M" = 658
C = 1034 F 160% = 691
Waste in "M" = 343
171 Stop Construction on Rt. Side.
V.C. = 400'
+1.93% 0.66% V.C. = 300'
V.C. = 400'
Farm Ent. Lt.
Res. Ent. Rt.
Street Rt.
Lt. Rt.
4' Ditch
4' Ditch
650 645 640 635
985 990 995
Revised Jan. 13, 1964
Use as constructed

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.11

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
		140(7)		16	124

ESTABLISHED WIDTH OF RIGHT OF WAY.....FT.

AW- Charles Mc Mahon

Ref. To P.O.T. Sta. 1100+00

Nail In Tel. Pole

Void

Nail In Po. Pole

Nail In 15" Boxelder

Ref. To P.I. Sta. 1106+49.7

Conc. Nail

Cut X on Return

PLUM CREEK TWP. T96N R28W SEC. 36

WESLEY TWP. T96N R27W SEC. 31

1000+00

1005+00

1100

1105

1110

Ref. To P.I. Sta. 1106+49.7

Nail In Po. Pole

Void

Found (X)

Nail In Po. Pole

Nail In Tel. Pole

Waste Area "N" 200' N. of Sta. 1111

Sta. 1101+73.37 Lt. Install RA-16 Intake Elev. 1212.68

EC-201 Silt Fence at relocated intake

EC-201 Silt Fence at intake

Equation: P.O.T. Sta. 937+43.34 = P.O.T. Sta. 1100+00 Ref. to Survey P.O.T. Sta. 1099+96.8 Old Plans

P.I. Sta. 1106+49.7 = Δ = 0°04' Rt. P.I. Sta. 1106+62.9 F.A. 140 Plans

Removed Filler Pipes

See Below

STA. 1109+93.90 END GRADING (SHOULDERS) & PROJECT

Note: Pavement from Sta. 1109+93.9 Ahead has been widened as part of project No. 140(6)

ROW. & C.A.

Local Road Twp. Line

Grace Pole

Sign

Gas Pipe

6" Tile

12" Tile

18" Asphalt Over 24' Conc.

Approx. Town Limits

Existing R.O.W.

Grocery Store & Post Office

Barn

Garage

Conc.

Fruit

Ho.

Cistern

Lumber Yard

18" X41' Conc. Pipe

Com. Ent.

Existing R.O.W.

Gas Pipe

Sign

Well

Oil Sta.

Filler Pipes

Grease Pit

Bushes

Pump Isle

Oil Sta.

Gar.

Sign

Pump Isle

18" X41' Conc. Pipe

Shrubs

Bush

Ho.

18" X25' Conc. Pipe

Chick House

Steel Bin

Old Conc. Found.

Chick House

Existing R.O.W.

Res. Ent.

Conc.

Street

Asphalt (Black Top)

Approx.

190th Ave

Co Rd P60

TOWN OF SEXTON (UNINCORPORATED)

IRVINGTON TWP. T95N R28W SEC. 1.

PRAIRIE TWP. T95N R27W SEC. 6.

0 25 50 Scale

BENCH MARKS:

No. 1 Sta. 1099+05-72' Rt. RR Spk. In N. Side 24" Boxelder — EL. 1214.90

No. 2 Sta. 1105+89-33 Rt. Sq. On E. End 15" X 2.5' Pump Isle — EL. 1221.03

℄ = 1663 F + 60% 339 Waste in N. = 1324

Lt.

Lt. Local Rd. U.A.C.

Street Rt. U.A.C.

Com. Ent. Rt.

Com. Ent. Rt.

Res. Ent. Rt.

Street Rt.

V.C. = 300'

+1.10±%

V.C. = 200'

-1.2±%

Res. Ent. Rt.

Com. Ent. Lt.

4' Ditch

11 A.C.

Local Road

Vari. Width

3' Ditch

4' Ditch

Vari. Ditch

4' Ditch

Match existing ditches ahead (4')

Revised Jan 13, 1964

Lt.

1220

1215

1210

1100

1105

1110

Lt. Rt.

PURCHASED FROM Charles Mc Mahon 0.9 Acres

ACQUIRED Feb. 9, 1962

CONSIDERATION 3,592.00

TITLE BY Warranty Deed

RECORDED IN BOOK 93 PAGE 402

COUNTY RECORDED Kossuth

ACCESS CONTROL ACQUIRED

PLATE 1—PLAN-PROFILE O.P.R.A.B.F. STANDARD

Sheet No. 16

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.12

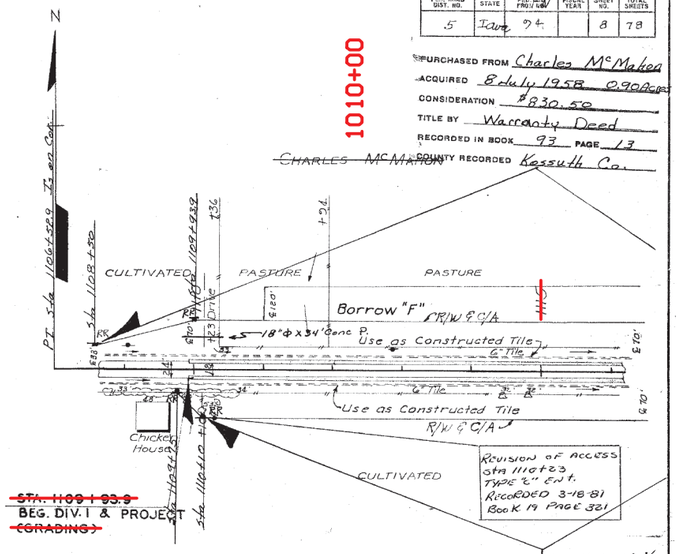
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ESTABLISHED WIDTH OF
RIGHT OF WAY ..... FT.

WESLEY TWP.
T-96N R-27W
SEC. 31

PRAIRIE TWP.
T-95N R-27W
SEC. 6

FED. AID PROJ. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	Iowa	94		8	78



CHARLES MC MAHON

PURCHASED FROM Charles McMahon
ACQUIRED 8 July 1958 0.90 Acres
CONSIDERATION $830.50
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 13
COUNTY RECORDED Kossuth Co.

ELMER & RUTH G PHILLIPS

PURCHASED FROM Elmer & Ruth G. Phillips
ACQUIRED 23 June 1958 0.89 Acres
CONSIDERATION $661.75
TITLE BY Warranty Deed
RECORDED IN BOOK 91 PAGE 596
COUNTY RECORDED Kossuth Co.

Bench Marks:
#1 Sta 1099+03 RR. Sph in N. Side 24" Boxelder 72' Rt —— El 1214.90
#2 1105+89 (0) on E End 15'x2.5 Pump Isle, 33' Rt —— El 1221.03

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.13

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ESTABLISHED WIDTH OF RIGHT OF WAY ..... FT.

1015+00

CHARLES McMAHON

END ALIGNMENT SHIFT EQUATION:
1017+57.58 BK
=1120+05.97AHD

WESLEY TWP.
T-96N R-27W
SEC. 31

PRAIRIE TWP.
T-95N R-27W
SEC. 6

Ref. to P.O.T. & ¼ Cor. Not Reset
Nail in Car Post — Nail in Fence Post — Four Steel Plug — Nail in Car Post — Cut "X" — Nail in Power Pole — Nail in Fence Post

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	TOTAL	SHEET NO.	TOTAL SHEETS
5	Iowa	FN 34		9	78

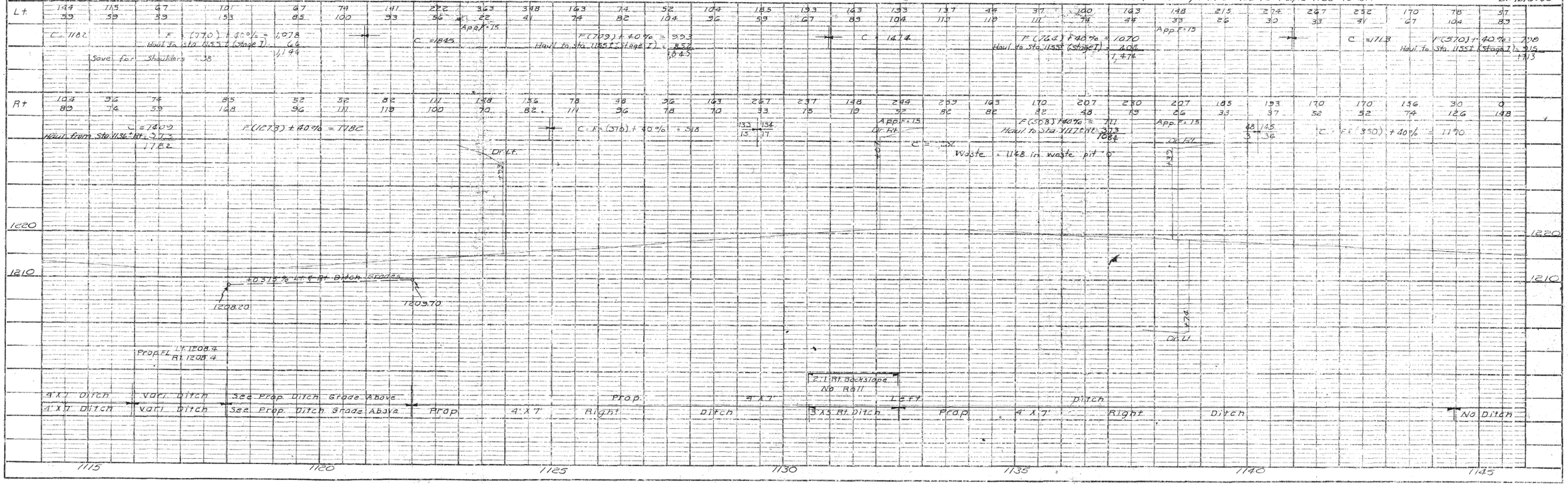
PURCHASED FROM Charles McMahon, Trustee for Francis P. McMahon
ACQUIRED 8 July 1958 1.17 Acres
CONSIDERATION $804.75
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 12
COUNTY RECORDED Kossuth Co.

PURCHASED FROM Mamie Bailey
ACQUIRED 24 June 1958 1.12 Acres
CONSIDERATION $605.00
TITLE BY Warranty Deed
RECORDED IN BOOK 91 PAGE 589
COUNTY RECORDED Kossuth Co.

PURCHASED FROM ARTHUR A. & IRENE P. KLEIN
ACQUIRED 3 July 1958 3.71 Acres
CONSIDERATION $2441.50
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 1
COUNTY RECORDED Kossuth Co.

EC-201 Silt Fence at intake
Borrow "F"
Intake Removed furnish & placed standard intake to tile drain 35 Lft-10 Lin ft 8" tile drain req.
Prop. 10 Sq. yds. Full Depth Patch By Rd. Contr.
Sta. 1117+94 D.A. .36 Ac. R.F. Rd. Contr. to furnish & placed 24"ø X 60' (30' Lt. 30' Rt.) Conc. Rdwy. Pipe Culv. of Sta. 1118+25 Class 2C exc. = 23 cu yds.
Use as Constructed Tile
Intake Removed furnish & placed standard intake to tile drain 38 Rt-10 lin ft. 12" tile drain req.
Remove & Replace with std. intake to tile drain 10 Lin ft. 8" tile drain req. Deleted
18"ø X 38' Conc Pipe
18"ø X 34' Conc Pipe
Dike
Silt fence
EC-201 Silt Fence at intake
ELMER & RUTH G. PHILLIPS

Bench Marks
#3A Sta. 1116+70 R.R. Spk. in S. Side Tel. Pole 272' Lt. — El. 1213.95
#3 Sta. 1116+94 R.R. Spk. in S. Side Tel. Pole 32' Lt. — El. 1211.78
#4 Sta. 1125+12 R.R. Spk. in S. Side Tel. Pole 33' Lt. — El. 1216.98
#5 Sta. 1135+26 R.R. Spk. in N. Side Power Pole 36' Rt. — El. 1219.76
#6 Sta. 1144+83 R.R. Spk. in N. Side Power Pole 35' Rt. — El. 1213.34
#7 Sta. 1147+76 (T) on Top Bolt NE Cor. Signal Relay Box 121' Rt. — El. 1219.14
#9A Sta. 1125+80 RR Spk in S Side 15" Maple Tree 90' Lt. — El. 1216.30



AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.14

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOT. SHEETS
5	Iowa	94		10	78

ESTABLISHED WIDTH OF RIGHT OF WAY ..... FT.

Ref. to P.C. Sta. 1151+48.9

Ref To PC Sta 1151+48.9

Ref To PI Sta 1158+35.5

Ref To P.O.C Sta 1160+15.0

Ref To PT Sta 1165+20.6

Ref. to P.O.T. Sta. 1165+20.6

WESLEY TWP.
T 96 N R 27 W

Sta. 1150+00 To Sta. 1161+65 (To Tracks)
Paving contr. to remove 2320 sq yds. present conc. pvmt.

STA 1151+39.0
END PROJECT

For Details of Intersection See side road, sheet No. 20

PURCHASED FROM Mary B McMahon
ACQUIRED 8 July 1958 1.84 Acres
CONSIDERATION $870.00
TITLE BY Warranty Deed
RECORDED IN BOOK 91 PAGE 607
COUNTY RECORDED Kossuth County

PURCHASED FROM JOSEPH KRIEPS
ACQUIRED 17 June 1958 8.46 Acres
CONSIDERATION $1,133.50
TITLE BY Warranty Deed
RECORDED IN BOOK 93 PAGE 3
COUNTY RECORDED Kossuth COUNTY

MAMIE BAILEY

MARY B McMAHON

ARTHUR & IRENE KLEIN

SEC. 31 SEC 32 SEC. 6 SEC. 5

PRAIRIE TWP T 95 N R 27 W

CULTIVATED

Remove & replaced with std. intake to tile drain 10 Lin. Ft. 8" ϕ tile drain req.

Prop. 10 sq. yds of full depth patch by Rd. Contr.

Prop. 80 Lin. ft. 8" ϕ drain (Extra quality)

Prop one std. intake to tile drain and 80 lin. ft. of 18" ϕ tile drain (Extra Quality)

Rd. Contr. Furnished & Placed 24" ϕ X 48' Conc rdwy pipe Culv.

Prop. Detour PASTURE

U.A.C. Tile

Intake D.A. 1.4Ac. F-Tiled

Removed & replaced with std intake to tile drain 10 Lin. ft. 8" ϕ tile drain req.

Silt fence

Waste Pit "O"

Sta. 1145+60
D.A.= Equalizer
Rd contr. to furnish & placed 24" ϕ X 72' (36' Lt & 36' Rt) conc. rdwy pipe culv. Class 20 exc. = 55 cu. yds.

Sta. 1159+80-036' Rt Sta. 1159+80
4'X3'X44' Conc Box Culv.
D.A. 600 Ac. F-Tiled
Culv. contr. to remove 14' from north end of pres. struct. Build 54' (30' Lt & 24' Rt.) of prop. 6'X4' X 48' Conc. Box Culv. at Sta 1159+77.5 skew 5°
Remainder of pres. struct. to be removed & remaining 8' (Rt) of prop. struct. to be built at time of paving.
Compaction of Backfill = 32 cu. yds. by Rd. Contr.

Sta. 1160+40
D.A.=

Sta 1170+50
D.A.=34 Ac. F
Rd contr. to furnish & placed 24" X 72' (36' Lt & 36' Rt) conc. rdwy. pipe culv. class 20 exc. = 30 cu. yds.

Prop. DIKE Top elev. 1216.0

TIMBER

SWAMP

Prop. 60° Str. to R.R. Curve R=250'

R/W & C/A

100' Taper APPROX

TWP LINE

PACIFIC RAILROAD

R.R. X-ing Sign

Battery Box

Plank X-ing

Intake

U.S. #18

24"X30' Conc Pipe

36"X30' Conc Pipe

12"X22' Corr Pipe

Prop. Dike

Bench Marks:
No. 72 - Sta. 1160+76 (X) on Top Bolt N.E. Cor Signal Relay Box 121' Rt. El. 1219.14
No. 73 - Sta. 1175+56 R.R. Spk. in N. Side of Power Pole 232' Rt. El. 1212.08

Stage I (Rd. Contr.)

Lt	78 / 104	57 / 89	133 / 74	178 / 44	267 / 44	311 / 33	267 / 89	237 / 89	311 / 96	326 / 89	296 / 89	178 / 126	74 / 207	89 / 193	37 / 222	0 / 592
	App F=13							Haul From Sta 1155+00 = 1782				F = (3,072 - 190) + 40% = 4,035				
Stage II (Rd. Contr.)		15 / 74	104 / 170	67 / 193	52 / 207	52 / 200	37 / 185	30 / 193	30 / 148	82 / 74	2 / 19					
								Haul From Sta 1156+00 = 1782				F = (1648) + 40% = 2,307				
Stage III (Paving Contr.)																
Lt	30 / 126	0 / 148	71 / 119	156 / 39	178 / 82	178 / 104	89 / 34	37 / 37	37 / 37	0 / 89	0 / 126	0 / 185	0 / 215	0 / 252	0 / 252	0 / 142
												F = (1,260 - 711) + 40% = 603				
												Add for Shoulders = 1,755				
												F = 2,460 + 40% = 3,444				
												Use for Shoulders = 2,796				
																37,546
																+0.16%
Stage IV (Paving Contr.)		178 / 0	319 / 0	356 / 0	363 / 0	341 / 0	304 / 15	252 / 37	207 / 44	178 / 74	192 / 38	222 / 38				

Stage Construction (See Cross Section)
Stage I Partial Construction of subgrade by Rd. Contractor
Stage II Construction of Detour By Rd. Contractor
Stage III Completion of subgrade construction by paving contractor
Stage IV Removal of Detour by Paving Contractor

Prop. Lt 1209.9 Rt 1209.9

Prop. Lt 1210.8 Rt 1210.9

Prop. Lt 1210.9 Rt 1210.9

Prop. Lt 1211.0 Rt 1211.0

Treatment by Paving Contractor
Sta 1160+00 to Sta. 1161+65
Prop. Subgrade Treatment
Trench excavation (included in Grading Operations est. = 174 cu. yds.)
F + 20% = 2442 cu. yds. of Selected backfill (Glacial Clay)
See Sheet No. 4A

Sta. 1160+00 to Sta. 1165+00
Prop. Subgrade Treatment
F + 20% = 1332 cu. yds. of Selected backfill (Glacial clay). See Sheet No. 4A.

Sta. 1165+00 To Sta. 1168+00
Proposed subgrade treatment
Trench excavation (incl. in row) & borrow est.) = 352 cu. yds.
Fill 120% = 199 cu. yds. of selected backfill (Glacial clay)
See Sheet No. 4A

Sta. 1168+00 To Sta. 1182+00
Proposed subgrade treatment
Trench excavation (incl. in row) & borrow est. mate.) = 411 cu. yds. Fill + 20% = 3730 cu. yds. of selected backfill (Glacial Clay)
See Sheet No. 4A

Prop. Ditch

Lt	348 / 1352	467 / 783	689 / 726	711 / 600	956 / 349	1319 / 74	1111 / 148	333 / 333	371 / 770	271 / 763	333 / 606	985 / 371	1333 / 30	953 / 178	793 / 321
			T.C. = 352 C. = 540 60 ft²				910 41 1331 16	T.C. = 771 C. = 261					Diff. ε = 50 421.04 5°25		
												F = (3,093 - 997) + 40% = 2,732				

Prop. 4X7 Lt Ditch — No Ditch — 4X7 Ditch — Vari. Ditch — Vari.

Prop. Lt. Ditch 6' Deep — Prop. 6' Deep X 12' Wide Rt. Ditch

No Prop. Lt Ditch

Prop. 6' Deep Rt. X 12' Wide Lt Ditch

Sta. 1160+00 to Sta. 1165+00
Prop. Subgrade Treatment
F + 20% = 1332 cu. yds. of Selected backfill (Glacial clay). See Sheet No. 4A.

Sta. 1169+00 to Sta. 1171+00
Template quantities include 178 cu. yds. of gumbo fill. For disposition see Art. 2106.03 1956 Std. Spec.

Gumbo fill
89 89

Railroad Profile -0.48%

Lacal Rd Lt

Rt. El. 1210.9
Lt. El. 1210.9

VC 300'

E 1218.39

1220
1215
1210
1205

1145 1150 1155 1160

AS-BUILT PLANS - FOR INFORMATION ONLY

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER R.15

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Westof140th																						
732+00.00																						
732+50.00	101	48	52	48	0		0	0	48	0	0	52	16	23	30							
733+00.00	104	52	53	52	0		0	0	52	0	0	53	16	23	30							
733+50.00	109	56	54	56	0		0	0	56	0	0	54	17	24	30							
734+00.00	118	62	56	62	0		0	0	62	0	0	56	19	26	30							
734+50.00	135	73	62	73	0		0	0	73	0	0	62	23	32	31							
735+00.00	158	88	70	88	0		0	0	88	0	0	70	28	39	31							
735+50.00	184	109	75	109	0		0	0	109	0	0	75	31	43	31							
736+00.00	217	140	77	140	0		0	0	140	0	0	77	33	46	32							
736+50.00	244	164	79	164	2		2	3	162	0	0	79	34	48	32							
737+00.00	242	163	79	163	4		4	5	158	0	0	79	34	48	32							
737+50.00	208	132	77	132	4		4	5	127	0	0	77	32	45	31							
738+00.00	159	85	74	85	4		4	5	81	0	0	74	30	43	31							
738+50.00	128	55	73	55	5		5	6	49	0	0	73	30	42	31							
739+00.00	121	43	78	43	9		9	12	32	0	0	78	33	46	32							
739+50.00	117	30	87	30	12		12	16	14	0	0	87	34	48	40							
740+00.00	113	19	95	19	10		10	13	6	0	0	95	37	52	43							
741+50.00	210	65	145	65	281		281	366	-301	0	0	145	63	88	57							
742+00.00	33	33	0	33	159		159	206	-173	0	0	0	0	0	0							
742+50.00	40	40	0	40	132		132	171	-132	0	0	0	0	0	0							
743+00.00	20	20	0	20	63		63	82	-62	0	0	0	0	0	0							
Westof140th																						
Totals:	2,762	1,476	1,286	1,476	685	0	685	891	587	0	0	1,286	510	715	572							

FILE NO.		DESIGN TEAM Kelly\Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER T.1	

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Westof160th																						
836+50.00																						
837+00.00	87	32	55	32	58	40	98	127	-96	0	0	55	25	35	21							
837+50.00	85	34	52	34	57	37	94	122	-89	0	0	52	24	34	17							
838+00.00	99	57	42	57	42	29	71	92	-35	0	0	42	19	26	16							
838+50.00	92	60	33	60	29	23	52	68	-8	0	0	33	13	19	14							
839+00.00	90	62	27	62	26	18	44	57	5	0	0	27	11	15	12							
839+50.00	92	66	25	66	21	14	35	46	21	0	0	25	10	14	12							
840+00.00	102	69	33	69	21	13	34	45	25	0	0	33	15	21	12							
840+50.00	112	72	40	72	24	13	37	49	23	0	0	40	20	28	13							
841+00.00	114	75	39	75	24	12	36	47	29	0	0	39	19	27	13							
841+50.00	119	81	37	81	17	11	28	37	45	0	0	37	18	25	12							
842+00.00	117	78	39	78	16	13	29	38	40	0	0	39	15	21	18							
842+50.00	116	74	42	74	20	16	36	46	27	0	0	42	16	23	20							
843+00.00	133	89	44	89	19	15	34	44	46	0	0	44	28	40	4							
843+50.00	166	121	45	121	18	14	32	42	80	0	0	45	33	47	-2							
844+00.00	194	149	45	149	21	14	35	46	103	0	0	45	33	47	-2							
Westof160th																						
Totals:	1,718	1,119	599	1,119	414	283	696	905	215	0	0	599	300	420	180							

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Eastof160th																						
847+00.00	221	111	110	111	86	55	141	183	-72	0	0	110	48	67	43							
847+50.00	176	93	83	93	74	48	122	159	-66	0	0	83	29	41	43							
848+00.00	151	74	77	74	75	49	124	162	-87	0	0	77	22	31	46							
848+50.00	145	69	76	69	83	50	134	174	-104	0	0	76	21	30	46							
849+00.00	139	68	71	68	89	48	138	179	-112	0	0	71	20	29	43							
849+50.00	131	65	66	65	86	45	131	171	-106	0	0	66	19	27	39							
850+00.00	122	61	60	61	79	41	120	156	-94	0	0	60	19	27	34							
850+50.00	120	62	58	62	79	39	117	153	-91	0	0	58	19	27	31							
851+00.00	124	63	61	63	79	41	120	156	-93	0	0	61	20	28	33							
851+50.00	125	64	62	64	71	40	111	145	-81	0	0	62	20	28	33							
852+00.00	124	65	59	65	61	36	97	127	-62	0	0	59	21	30	29							
852+50.00	125	66	59	66	54	33	87	113	-47	0	0	59	24	33	26							
853+00.00	123	65	58	65	49	31	80	103	-38	0	0	58	24	34	24							
853+50.00	120	63	58	63	44	30	74	96	-34	0	0	58	24	33	25							
854+00.00	115	60	55	60	38	28	65	85	-25	0	0	55	22	31	25							
854+50.00																						
Eastof160th																						
Totals:	2,062	1,049	1,014	1,049	1,049	613	1,662	2,161	-1,113	0	0	1,014	353	495	520							

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
WBPassing																						
890+00.00																						
890+50.00	74	34	39	34	15	15	30	39	-5	0	0	39	10	15	25							
891+00.00	85	35	50	35	15	15	30	39	-4	0	0	50	21	30	20							
891+50.00	101	51	50	51	15	15	29	38	13	0	0	50	21	29	20							
892+00.00	86	37	49	37	14	14	29	38	-1	0	0	49	21	29	20							
892+50.00	72	23	48	23	14	14	28	37	-14	0	0	48	20	28	20							
893+00.00	88	39	49	39	15	14	29	38	1	0	0	49	20	29	20							
893+50.00	107	55	52	55	17	15	33	42	12	0	0	52	22	31	21							
894+00.00	109	55	54	55	19	16	35	46	10	0	0	54	24	34	20							
894+50.00	110	56	54	56	20	17	36	48	9	0	0	54	25	35	19							
895+00.00	111	57	54	57	20	17	37	48	10	0	0	54	25	35	19							
895+50.00	110	56	54	56	21	16	37	48	8	0	0	54	24	34	21							
896+00.00	108	54	54	54	25	16	41	54	0	0	0	54	24	33	21							
896+50.00	93	54	40	54	28	16	44	58	-4	0	0	40	24	33	7							
897+00.00	93	53	40	53	33	16	49	64	-11	0	0	40	24	33	7							
897+50.00	105	53	52	53	37	16	52	68	-16	0	0	52	23	32	21							
898+00.00	103	52	51	52	31	15	46	60	-8	0	0	51	22	30	20							
898+50.00	94	42	52	42	22	15	37	48	-6	0	0	52	22	31	20							
899+00.00	100	48	52	48	17	15	33	43	5	0	0	52	23	32	21							
899+50.00	116	64	52	64	25	15	40	52	13	0	0	52	22	31	21							
900+00.00	117	66	51	66	30	15	46	60	6	0	0	51	23	32	19							
900+50.00	118	67	51	67	31	16	46	60	7	0	0	51	23	32	19							
901+00.00	119	67	52	67	31	16	46	60	7	0	0	52	23	32	21							
901+50.00	116	64	51	64	31	15	47	61	4	0	0	51	22	31	21							
902+00.00	114	63	51	63	33	15	48	63	0	0	0	51	22	31	21							
902+50.00	115	63	51	63	34	15	50	65	-1	0	0	51	22	31	20							
903+00.00	117	65	52	65	33	15	49	63	2	0	0	52	22	31	21							
903+50.00	120	68	52	68	30	15	45	59	9	0	0	52	23	32	21							
904+00.00	124	71	53	71	26	16	42	55	17	0	0	53	23	32	21							
904+50.00	129	76	53	76	22	16	38	50	27	0	0	53	24	33	19							
905+00.00	130	77	53	77	19	16	35	45	32	0	0	53	24	34	19							
905+50.00	123	70	53	70	19	16	35	46	25	0	0	53	23	32	21							
906+00.00	117	66	51	66	24	15	39	51	15	0	0	51	22	31	20							
906+50.00	111	62	49	62	27	15	42	54	8	0	0	49	21	29	20							
907+00.00	107	60	47	60	27	14	41	54	7	0	0	47	19	27	20							
907+50.00	106	62	45	62	25	13	38	50	12	0	0	45	18	25	20							
908+00.00	107	63	44	63	23	13	36	46	17	0	0	44	17	24	20							
908+50.00	107	63	45	63	22	13	35	45	18	0	0	45	17	25	20							
909+00.00	108	62	46	62	23	14	36	47	15	0	0	46	19	26	20							
909+50.00	109	61	48	61	26	14	40	52	10	0	0	48	20	28	20							
910+00.00	106	59	47	59	29	14	43	56	2	0	0	47	19	27	20							
910+50.00	100	56	44	56	33	14	47	62	-6	0	0	44	19	27	17							
911+00.00	85	54	31	54	39	14	53	69	-15	0	0	31	20	28	3							
911+50.00	90	53	37	53	46	15	61	79	-26	0	0	37	22	30	6							
912+00.00	104	53	51	53	46	15	62	80	-27	0	0	51	22	31	21							
912+50.00	103	54	50	54	41	15	56	72	-19	0	0	50	21	30	20							
913+00.00	106	56	50	56	38	15	52	68	-12	0	0	50	21	30	21							
913+50.00	111	59	52	59	36	15	51	66	-7	0	0	52	22	32	21							
914+00.00	114	61	53	61	33	16	49	64	-3	0	0	53	23	33	21							
914+50.00	114	61	53	61	31	16	47	61	0	0	0	53	23	33	21							
915+00.00	116	63	53	63	30	16	45	59	4	0	0	53	23	32	21							
915+50.00	117	66	51	66	28	15	43	56	10	0	0	51	22	31	21							
916+00.00	116	67	49	67	27	14	41	54	13	0	0	49	20	28	20							
916+50.00	113	65	47	65	27	14	41	54	12	0	0	47	19	27	20							
917+00.00	112	63	49	63	28	14	42	55	9	0	0	49	20	29	20							
917+50.00	114	63	51	63	27	15	43	55	8	0	0	51	22	31	20							
918+00.00	115	64	51	64	28	15	43	56	8	0	0	51	22	30	20							
918+50.00	114	64	50	64	30	15	45	59	6	0	0	50	21	30	20							
919+00.00	114	64	50	64	31	15	46	59	5	0	0	50	21	30	20							
919+50.00	112	63	48	63	29	14	44	57	7	0	0	48	20	28	20							
920+00.00	108	64	44	64	26	13	39	51	13	0	0	44	17	24	20							
920+50.00	107	64	43	64	22	12	35	45	19	0	0	43	16	23	20							
921+00.00	108	63	45	63	23	13	36	47	16	0	0	45	18	25	20							
921+50.00	107	60	47	60	30	14	44	57	3	0	0	47	19	27	20							
922+00.00	106	59	47	59	33	14	47	61	-2	0	0	47	19	27	20							
922+50.00	106	61	45	61	30	11	42	54	7	0	0	45	19	27	18							
923+00.00	110	64	46	64	26	12	38	50	14	0	0	46	21	29	18							
923+50.00	118	65	52	65	23	16	39	51	14	0	0	52	23	32	21							
Subtotals:	7,222	3,944	3,278	3,944	1,814	989	2,804	3,648	298	0	0	3,278	1,416	1,987	1,294							

FILE NO.		DESIGN TEAM Kelly\Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER T.4	

5/14/2024 10:27:00 AM csuntke c:\pw_work\pwmain\csuntke\d2425626\55018116_T01.xlsm

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
923+50.00	120	65	54	65	22	16	38	50	15	0	0	54	24	34	21							
924+00.00	122	75	47	75	16	14	30	39	36	0	0	47	19	27	20							
924+50.00	131	86	45	86	13	13	26	34	52	0	0	45	18	25	20							
925+00.00	126	77	48	77	15	14	30	39	39	0	0	48	20	28	20							
925+50.00	114	65	49	65	18	14	33	43	22	0	0	49	21	29	20							
926+00.00	112	64	48	64	19	14	33	43	21	0	0	48	20	28	20							
926+50.00	109	66	43	66	16	12	28	36	30	0	0	43	16	23	20							
927+00.00	108	67	41	67	15	12	26	34	33	0	0	41	15	21	20							
927+50.00	106	65	41	65	16	12	28	36	29	0	0	41	15	21	20							
928+00.00	104	61	43	61	19	12	32	41	20	0	0	43	16	23	20							
928+50.00	102	58	44	58	22	13	35	46	12	0	0	44	17	24	20							
929+00.00	102	57	44	57	24	13	37	48	9	0	0	44	17	25	20							
929+50.00	102	57	45	57	26	13	39	51	6	0	0	45	18	25	20							
930+00.00	105	57	48	57	29	14	43	55	2	0	0	48	20	28	20							
930+50.00	109	58	51	58	32	15	47	61	-4	0	0	51	22	31	21							
931+00.00	112	59	53	59	33	16	49	64	-5	0	0	53	23	33	21							
931+50.00	111	59	53	59	32	16	47	61	-3	0	0	53	23	32	21							
932+00.00	108	57	52	57	36	15	52	67	-10	0	0	52	22	31	21							
932+50.00	108	56	52	56	41	16	57	74	-18	0	0	52	23	32	21							
933+00.00	110	58	52	58	36	15	52	67	-9	0	0	52	23	32	21							
933+50.00	111	60	51	60	30	15	45	59	1	0	0	51	22	30	20							
934+00.00	112	61	51	61	28	15	43	56	5	0	0	51	22	31	21							
934+50.00	113	62	51	62	25	15	40	52	10	0	0	51	22	30	20							
935+00.00	115	64	51	64	23	15	38	49	15	0	0	51	22	30	21							
935+50.00	119	66	53	66	21	16	37	48	18	0	0	53	23	32	21							
936+00.00	120	66	54	66	21	16	37	48	18	0	0	54	24	34	20							
936+50.00	117	65	52	65	20	16	35	46	19	0	0	52	25	35	18							
937+00.00	116	64	52	64	21	15	36	47	17	0	0	52	24	34	18							
937+50.00	117	63	54	63	22	16	39	50	13	0	0	54	24	34	20							
938+00.00	115	63	51	63	28	25	53	69	-6	0	0	51	12	17	34							
938+50.00	109	64	45	64	31	31	62	81	-17	0	0	45	0	0	45							
939+00.00																						
WBPassing																						
Totals:	10,706	5,910	4,796	5,910	2,567	1,465	4,031	5,245	668	0	0	4,796	2,029	2,846	1,955							

FILE NO.		DESIGN TEAM Kelly\Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER T.5	

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
EBPassing																						
945+00.00																						
945+50.00	89	59	29	59	29	14	43	56	4	0	0	29	21	29	0							
946+00.00	98	60	37	60	28	15	43	56	5	0	0	37	22	31	6							
946+50.00	114	63	51	63	25	15	40	52	11	0	0	51	22	30	21							
947+00.00	114	66	47	66	19	14	33	43	23	0	0	47	19	27	20							
947+50.00	124	77	48	77	16	14	30	39	38	0	0	48	20	27	20							
948+00.00	127	76	51	76	18	15	33	43	34	0	0	51	22	30	20							
948+50.00	115	63	52	63	25	16	41	53	10	0	0	52	23	32	21							
949+00.00	113	60	53	60	32	16	48	62	-2	0	0	53	23	33	21							
949+50.00	114	60	54	60	36	16	52	67	-7	0	0	54	24	33	21							
950+00.00	98	59	39	59	37	16	53	69	-10	0	0	39	23	33	7							
950+50.00	96	57	39	57	47	25	72	94	-37	0	0	39	12	16	23							
951+00.00	118	66	52	66	36	26	62	81	-15	0	0	52	0	0	52							
951+50.00	130	80	50	80	16	16	31	41	40	0	0	50	10	14	35							
952+00.00	125	77	48	77	16	14	31	40	38	0	0	48	20	28	20							
952+50.00	116	67	49	67	21	14	35	46	22	0	0	49	20	28	20							
953+00.00	115	63	52	63	24	15	39	51	12	0	0	52	22	31	21							
953+50.00	113	60	53	60	26	16	42	54	6	0	0	53	23	32	21							
954+00.00	97	59	39	59	29	16	45	58	1	0	0	39	23	32	7							
954+50.00	96	58	38	58	31	15	47	61	-3	0	0	38	23	32	6							
955+00.00	107	56	51	56	31	15	46	60	-4	0	0	51	22	30	20							
955+50.00	105	55	50	55	29	15	44	57	-2	0	0	50	21	30	20							
956+00.00	91	55	36	55	27	15	42	54	1	0	0	36	21	30	6							
956+50.00	94	57	36	57	27	15	42	55	3	0	0	36	22	30	6							
957+00.00	96	59	37	59	28	15	43	56	3	0	0	37	22	31	6							
957+50.00	97	59	38	59	28	15	44	57	2	0	0	38	22	32	6							
958+00.00	113	59	54	59	28	16	44	57	2	0	0	54	23	33	21							
958+50.00	114	61	53	61	27	16	43	56	5	0	0	53	23	33	21							
959+00.00	112	60	51	60	28	15	43	56	4	0	0	51	22	31	21							
959+50.00	107	58	49	58	31	14	46	59	-2	0	0	49	20	29	20							
960+00.00	88	56	32	56	33	14	47	61	-5	0	0	32	19	26	6							
960+50.00	85	54	31	54	35	13	48	63	-9	0	0	31	18	25	6							
961+00.00	100	55	46	55	36	13	49	64	-9	0	0	46	18	26	20							
961+50.00	103	55	48	55	36	14	51	66	-11	0	0	48	20	27	20							
962+00.00	93	56	37	56	41	15	56	73	-17	0	0	37	22	31	6							
962+50.00	95	56	39	56	51	16	67	87	-30	0	0	39	23	33	7							
963+00.00	110	57	53	57	50	16	66	85	-28	0	0	53	23	33	21							
963+50.00	112	59	53	59	40	16	56	73	-14	0	0	53	23	32	21							
964+00.00	109	57	52	57	37	16	53	69	-12	0	0	52	23	32	21							
964+50.00	108	56	52	56	35	16	51	66	-10	0	0	52	23	32	21							
965+00.00	108	56	52	56	34	16	49	64	-9	0	0	52	22	31	21							
965+50.00	110	58	52	58	33	15	48	63	-6	0	0	52	23	32	21							
966+00.00	97	59	39	59	33	16	48	63	-5	0	0	39	23	32	6							
966+50.00	100	61	39	61	32	16	48	62	-1	0	0	39	23	33	7							
967+00.00	116	62	54	62	29	16	45	58	4	0	0	54	24	33	21							
967+50.00	117	63	54	63	26	16	43	55	8	0	0	54	24	33	21							
968+00.00	116	63	53	63	27	16	43	56	6	0	0	53	23	33	21							
968+50.00	114	62	53	62	28	16	44	57	5	0	0	53	23	32	21							
969+00.00	114	61	53	61	29	16	45	58	3	0	0	53	23	32	21							
969+50.00	115	62	52	62	32	16	47	61	1	0	0	52	23	32	21							
970+00.00	115	63	52	63	36	15	51	67	-4	0	0	52	23	32	21							
970+50.00	112	61	51	61	43	16	59	77	-16	0	0	51	22	31	21							
971+00.00	110	59	50	59	48	15	64	83	-24	0	0	50	21	30	20							
971+50.00	116	67	49	67	33	15	48	62	5	0	0	49	21	29	20							
972+00.00	115	67	48	67	29	15	44	57	10	0	0	48	20	28	20							
972+50.00	106	56	50	56	41	15	56	73	-18	0	0	50	21	30	20							
973+00.00	93	55	38	55	38	15	53	69	-14	0	0	38	22	31	6							
973+50.00	95	58	37	58	33	15	48	63	-5	0	0	37	22	31	6							
974+00.00	112	59	52	59	31	15	46	60	-1	0	0	52	23	32	21							
974+50.00	108	56	52	56	32	16	48	62	-6	0	0	52	22	32	21							
975+00.00	105	55	50	55	36	15	51	67	-12	0	0	50	21	30	21							
975+50.00	104	55	49	55	40	17	56	73	-18	0	0	49	21	29	19							
976+00.00	101	52	48	52	39	16	55	72	-19	0	0	48	22	31	18							
976+50.00	100	50	50	50	40	15	54	71	-21	0	0	50	24	33	17							
977+00.00	102	49	53	49	45	16	61	80	-31	0	0	53	26	36	17							
977+50.00	104	50	54	50	52	16	68	89	-39	0	0	54	26	37	17							
978+00.00	104	52	52	52	49	16	64	84	-31	0	0	52	25	35	17							
978+50.00	104	52	51	52	43	17	60	79	-26	0	0	51	24	33	18							
Subtotals:	7,162	3,996	3,166	3,996	2,198	1,047	3,245	4,222	-228	0	0	3,166	1,438	2,016	1,153							

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
978+50.00	104	52	52	52	46	17	63	82	-30	0	0	52	23	32	20							
979+00.00	103	52	52	52	46	15	61	79	-28	0	0	52	22	31	21							
979+50.00	104	53	51	53	44	15	59	77	-25	0	0	51	22	31	21							
980+00.00	105	54	52	54	42	15	57	75	-21	0	0	52	22	31	21							
980+50.00	93	55	38	55	41	16	57	74	-19	0	0	38	23	32	7							
981+00.00	94	56	39	56	40	16	55	72	-17	0	0	39	23	32	6							
981+50.00	108	56	52	56	35	15	51	66	-10	0	0	52	23	32	21							
982+00.00																						
EBPassing																						
Totals:	7,873	4,371	3,503	4,371	2,492	1,158	3,649	4,748	-378	0	0	3,503	1,596	2,238	1,268							

FILE NO.		DESIGN TEAM Kelly\Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER T.7	

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Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Westof190th																						
982+50.00																						
983+00.00	218	218	0	218	15		15	20	198	0	0	0	46	64	-64							
983+50.00	227	227	0	227	8		8	10	217	0	0	0	47	66	-66							
984+00.00	226	226	0	226	4		4	5	221	0	0	0	50	70	-70							
984+50.00	212	212	0	212	4		4	5	207	0	0	0	47	66	-66							
985+00.00	199	199	0	199	4		4	5	194	0	0	0	41	57	-57							
985+50.00	200	200	0	200	6		6	9	192	0	0	0	41	57	-57							
986+00.00	204	204	0	204	12		12	16	188	0	0	0	43	61	-61							
986+50.00	211	211	0	211	19		19	25	187	0	0	0	46	64	-64							
987+00.00	217	217	0	217	26		26	34	182	0	0	0	46	64	-64							
987+50.00	225	225	0	225	33		33	43	182	0	0	0	45	63	-63							
988+00.00	245	245	0	245	39		39	50	195	0	0	0	45	63	-63							
988+50.00	272	272	0	272	43		43	57	216	0	0	0	48	67	-67							
989+00.00	304	304	0	304	44		44	58	246	0	0	0	52	73	-73							
989+50.00	333	333	0	333	42		42	55	278	0	0	0	55	78	-78							
990+00.00	353	353	0	353	43		43	56	297	0	0	0	57	81	-81							
990+50.00	360	360	0	360	46		46	60	300	0	0	0	56	78	-78							
991+00.00	362	362	0	362	47		47	61	301	0	0	0	51	72	-72							
991+50.00	357	357	0	357	45		45	59	298	0	0	0	48	68	-68							
992+00.00	348	348	0	348	49		49	63	285	0	0	0	48	67	-67							
992+50.00	359	359	0	359	42		42	55	304	0	0	0	51	71	-71							
993+00.00	404	404	0	404	15		15	20	384	0	0	0	54	76	-76							
993+50.00	366	366	0	366	34		34	44	322	0	0	0	51	71	-71							
994+00.00	292	292	0	292	74		74	96	197	0	0	0	48	67	-67							
994+50.00	274	274	0	274	83		83	108	166	0	0	0	46	64	-64							
995+00.00	248	248	0	248	83		83	108	140	0	0	0	41	57	-57							
995+50.00	245	245	0	245	72		72	94	151	0	0	0	33	47	-47							
996+00.00	257	257	0	257	59		59	77	179	0	0	0	28	39	-39							
996+50.00	251	251	0	251	66		66	86	166	0	0	0	28	40	-40							
997+00.00	230	230	0	230	91		91	119	111	0	0	0	29	41	-41							
997+50.00	214	214	0	214	98		98	127	88	0	0	0	29	41	-41							
998+00.00	199	199	0	199	87		87	114	85	0	0	0	27	39	-39							
998+50.00	190	190	0	190	87		87	113	77	0	0	0	26	37	-37							
999+00.00	189	189	0	189	93		93	121	68	0	0	0	26	36	-36							
999+50.00	184	184	0	184	107		107	139	45	0	0	0	26	37	-37							
1000+00.00	178	178	0	178	119		119	154	24	0	0	0	27	38	-38							
1000+50.00	181	181	0	181	122		122	159	23	0	0	0	29	40	-40							
1001+00.00	208	208	0	208	119		119	155	53	0	0	0	31	44	-44							
1001+50.00	243	243	0	243	111		111	145	99	0	0	0	34	48	-48							
Westof190th Totals:	9,786	9,786	0	9,786	2,093	0	2,093	2,722	7,066	0	0	0	1,578	2,211	-2,211							

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
Station	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
US18and190th																						
1002+00.00																						
1002+50.00	185	104	81	104	180	24	204	266	-161	0	0	81	40	56	25							
1003+00.00	180	103	78	103	233	23	256	333	-231	0	0	78	38	53	25							
1003+50.00	195	133	62	133	247	19	266	345	-212	0	0	62	23	32	30							
1004+00.00	237	211	26	211	121	8	129	168	43	0	0	26	6	8	18							
1004+50.00	262	156	107	156	105	33	138	180	-24	0	0	107	42	59	48							
1005+00.00	199	36	163	36	222	50	272	354	-318	0	0	163	64	89	74							
1005+50.00	141	21	120	21	233	35	268	349	-328	0	0	120	48	68	53							
US18and190th																						
Totals:	1,400	764	636	764	1,342	193	1,535	1,995	-1,232	0	0	636	261	365	272							

Refer to Standard Road Plans EW-101 and EW-102.

TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Eastof190th																						
1006+00.00																						
1006+50.00	157	34	123	34	129	35	164	213	-179	0	0	123	47	65	58							
1007+00.00	167	46	121	46	105	34	139	181	-135	0	0	121	45	64	58							
1007+50.00	167	62	105	62	85	35	120	156	-94	0	0	105	46	64	41							
1008+00.00	213	106	107	106	54	35	89	115	-9	0	0	107	46	65	42							
1008+50.00	244	122	123	122	51	34	85	111	11	0	0	123	44	62	61							
1009+00.00	228	105	122	105	69	34	102	133	-28	0	0	122	44	61	61							
1009+50.00	239	113	125	113	67	35	102	132	-19	0	0	125	46	64	62							
1010+00.00	251	122	129	122	66	36	102	132	-11	0	0	129	48	67	62							
1010+50.00	244	129	115	129	66	37	103	133	-4	0	0	115	50	70	45							
1011+00.00	247	131	116	131	65	37	102	133	-2	0	0	116	51	72	44							
1011+50.00	262	129	133	129	64	38	101	132	-3	0	0	133	52	73	60							
1012+00.00	237	127	110	127	63	38	101	132	-5	0	0	110	54	75	35							
1012+50.00	236	127	109	127	60	38	99	128	-1	0	0	109	54	76	33							
1013+00.00	258	129	129	129	53	37	90	118	12	0	0	129	53	74	55							
1013+50.00	256	130	125	130	47	36	82	107	23	0	0	125	52	72	53							
1014+00.00	251	131	120	131	43	34	77	100	31	0	0	120	49	69	51							
1014+50.00	249	134	114	134	42	32	74	96	38	0	0	114	46	65	50							
1015+00.00	248	137	111	137	43	31	75	97	40	0	0	111	45	63	48							
1015+50.00	248	138	110	138	50	31	81	106	32	0	0	110	45	63	48							
1016+00.00	250	140	111	140	48	31	79	103	37	0	0	111	45	63	48							
1016+50.00	253	143	111	143	39	31	70	91	52	0	0	111	45	63	48							
1017+00.00	219	143	76	143	35	31	65	85	58	0	0	76	44	62	14							
1017+50.00	214	144	70	144	41	39	80	104	41	0	0	70	33	46	24							
1120+50.00	189	104	84	104	40	36	76	99	6	0	0	84	24	34	51							
1121+00.00	123	57	65	57	29	24	53	68	-11	0	0	65	24	34	31							
1121+50.00	125	58	67	58	29	24	54	70	-12	0	0	67	25	36	32							
1122+00.00	128	57	71	57	31	27	58	75	-19	0	0	71	27	38	33							
1122+50.00	129	54	75	54	34	31	65	85	-31	0	0	75	28	39	36							
1123+00.00	136	64	73	64	33	33	65	85	-22	0	0	73	29	41	32							
Eastof190th																						
Totals:	6,168	3,117	3,051	3,117	1,581	973	2,553	3,320	-203	0	0	3,051	1,240	1,737	1,316							

Refer to Standard Road Plans EW-101 and EW-102.

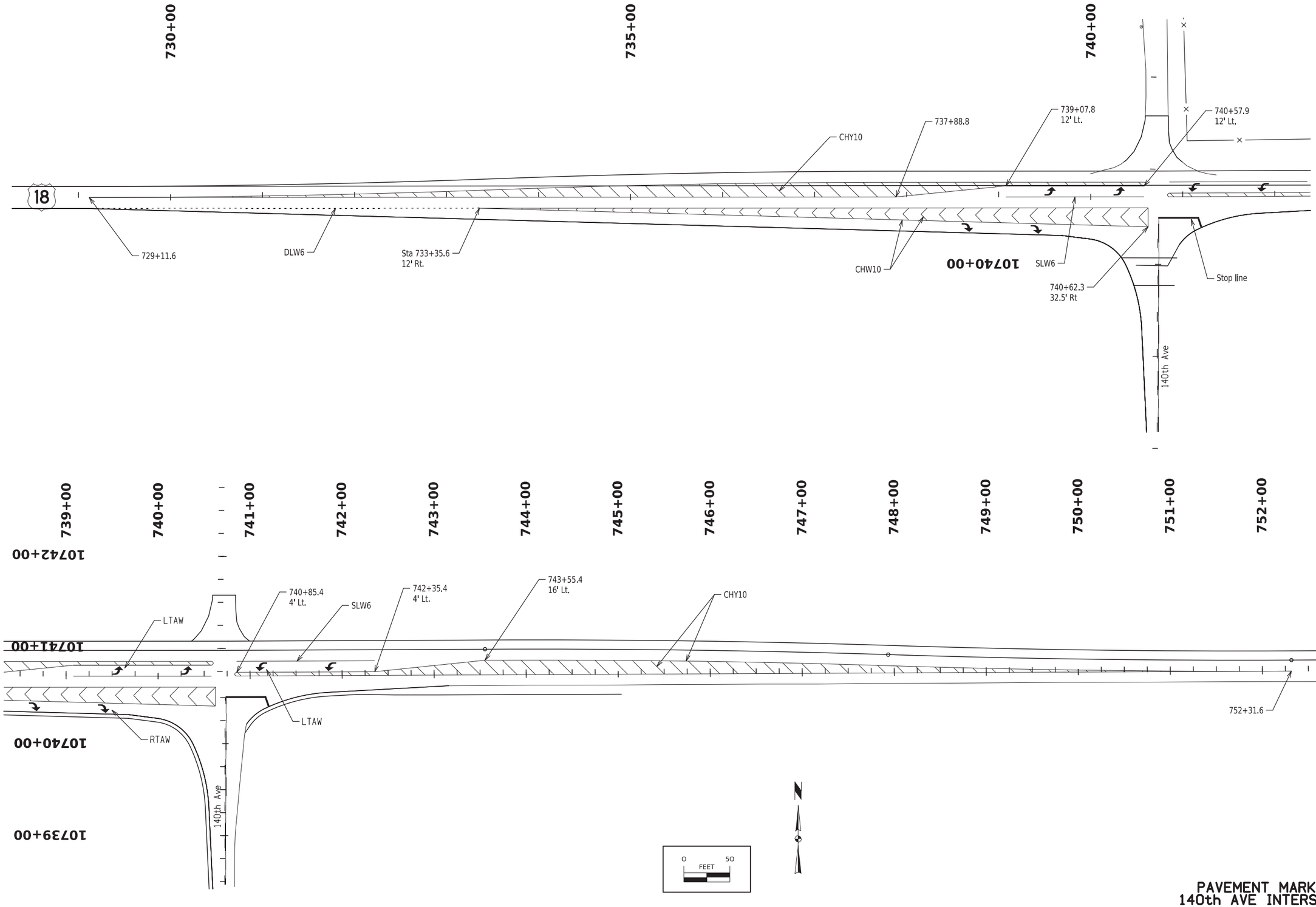
TABULATION OF TEMPLATE QUANTITIES AND ADJUSTMENTS

107-28
04-21-15

Station	Cut				Fill					Checks (EW-102)		Topsoil										
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
	Total Cut Unadjusted Volume	Total Class 10 Unadjusted Volume	Topsoil Cut Volume	Total Cut Adjusted	Total Fill Unadjusted Volume	Existing Topsoil Stripping Undercut (+ Fill)	Total Fill Adjusted	Total Fill Adjusted w/ Weighted Average 1.3 Shrink Factor	Total Cut Adjusted Minus Fill w/ Shrink	Approx. Fill Vol. Below 5' & Above 20' w/ Shrink	Approx. Fill Volume Below 3' w/ Shrink	Topsoil Stripping Undercut Volume	Topsoil Placement Undercut Volume	Topsoil Placement With 1.4 Shrink Factor	Topsoil Stripping Minus Topsoil Placement w/Shrink							
Summary:																						
Westof140th	2,762	1,476	1,286	1,476	685	0	685	891	587	0	0	1,286	510	715	572							
Westof160th	1,718	1,119	599	1,119	414	283	696	905	215	0	0	599	300	420	180							
Eastof160th	2,062	1,049	1,014	1,049	1,049	613	1,662	2,161	-1,113	0	0	1,014	353	495	520							
WBPassing	10,706	5,910	4,796	5,910	2,567	1,465	4,031	5,245	668	0	0	4,796	2,029	2,846	1,955							
EBPassing	7,873	4,371	3,503	4,371	2,492	1,158	3,649	4,748	-378	0	0	3,503	1,596	2,238	1,268							
Westof190th	9,786	9,786	0	9,786	2,093	0	2,093	2,722	7,066	0	0	0	1,578	2,211	-2,211							
US18and190th	1,400	764	636	764	1,342	193	1,535	1,995	-1,232	0	0	636	261	365	272							
Eastof190th	6,168	3,117	3,051	3,117	1,581	973	2,553	3,320	-203	0	0	3,051	1,240	1,737	1,316							
Project Totals:	42,475	27,592	14,885	27,592	12,223	4,685	16,904	21,987	5,610	0	0	14,885	7,867	11,027	3,872							

FILE NO.		DESIGN TEAM Kelly\Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER T.11	

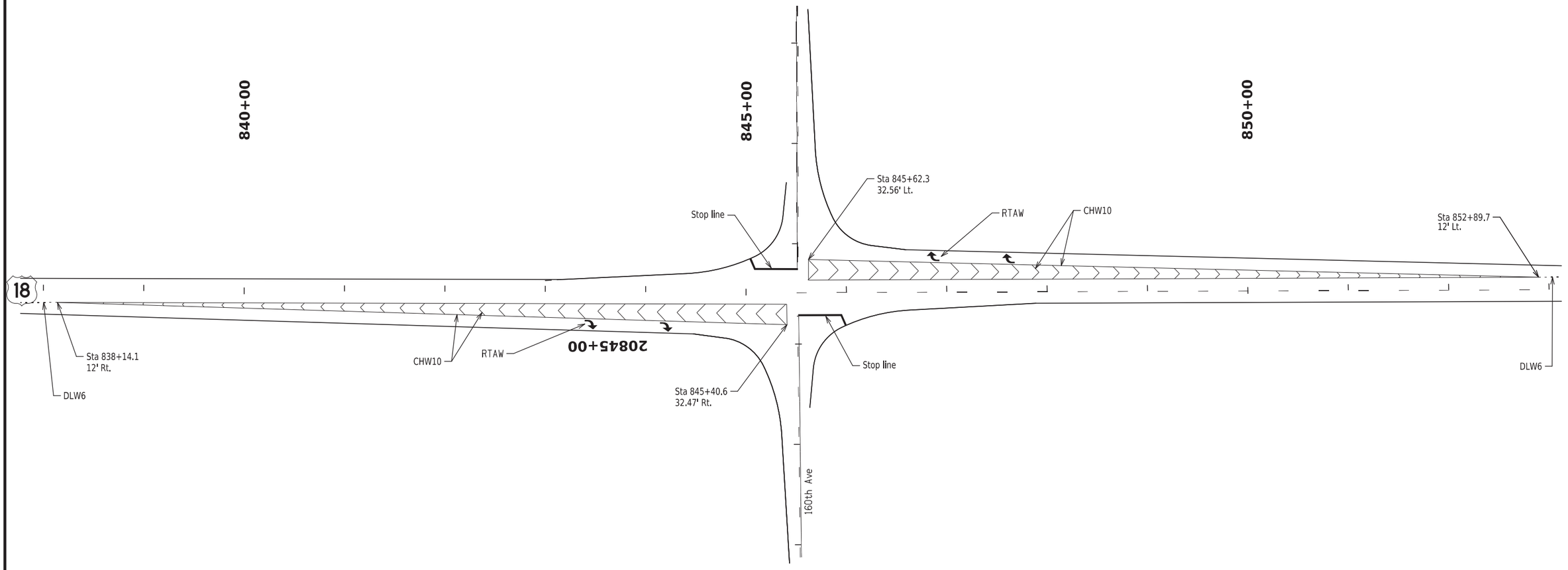
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PAVEMENT MARKINGS
140th AVE INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER U.1

12:01:24 PM 12/13/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_U01.dgn



PAVEMENT MARKINGS
160th AVE INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **U.2**	

12:01:45 PM 12/13/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_U01.dgn

985+00

995+00

CHY10

Sta 993+22.8

DLW6

18

NOTE: PM-222 "PASSING LANE" MARKINGS TO BE USED BACK

Co Rd P60

1000+00

1005+00

31005+00

Stop line

LTAW

4' wide island per PM-522

CHY10

SLW6

Sta 1004+53
4' Lt

Sta 1006+03
4' Lt.

Sta 1007+23
16' Rt.

LTAW

12' lane

12' lane

18

12' lane

Sta 996+62.8
12' Rt.

CHW10

Sta 1000+79

Sta 1000+99
12' Lt.

RTAW

SLW6

Sta 1003+49
12' Lt.

Sta 1003+89.9
32.25' Rt.

Stop line

4' wide island per PM-522

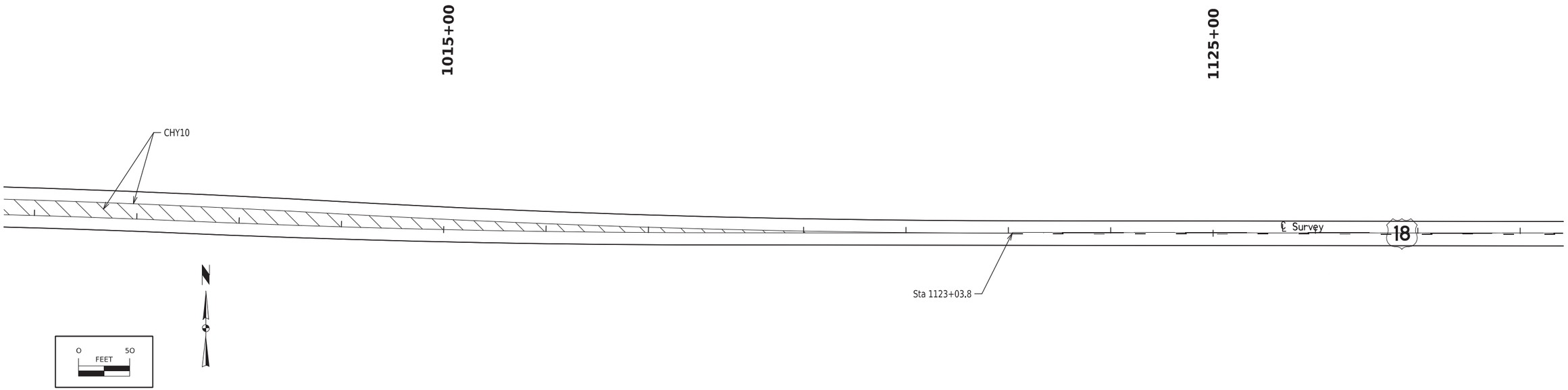
190th Ave

0 50
FEET

PAVEMENT MARKINGS
190th AVE / Co Rd P60 INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **U.3**

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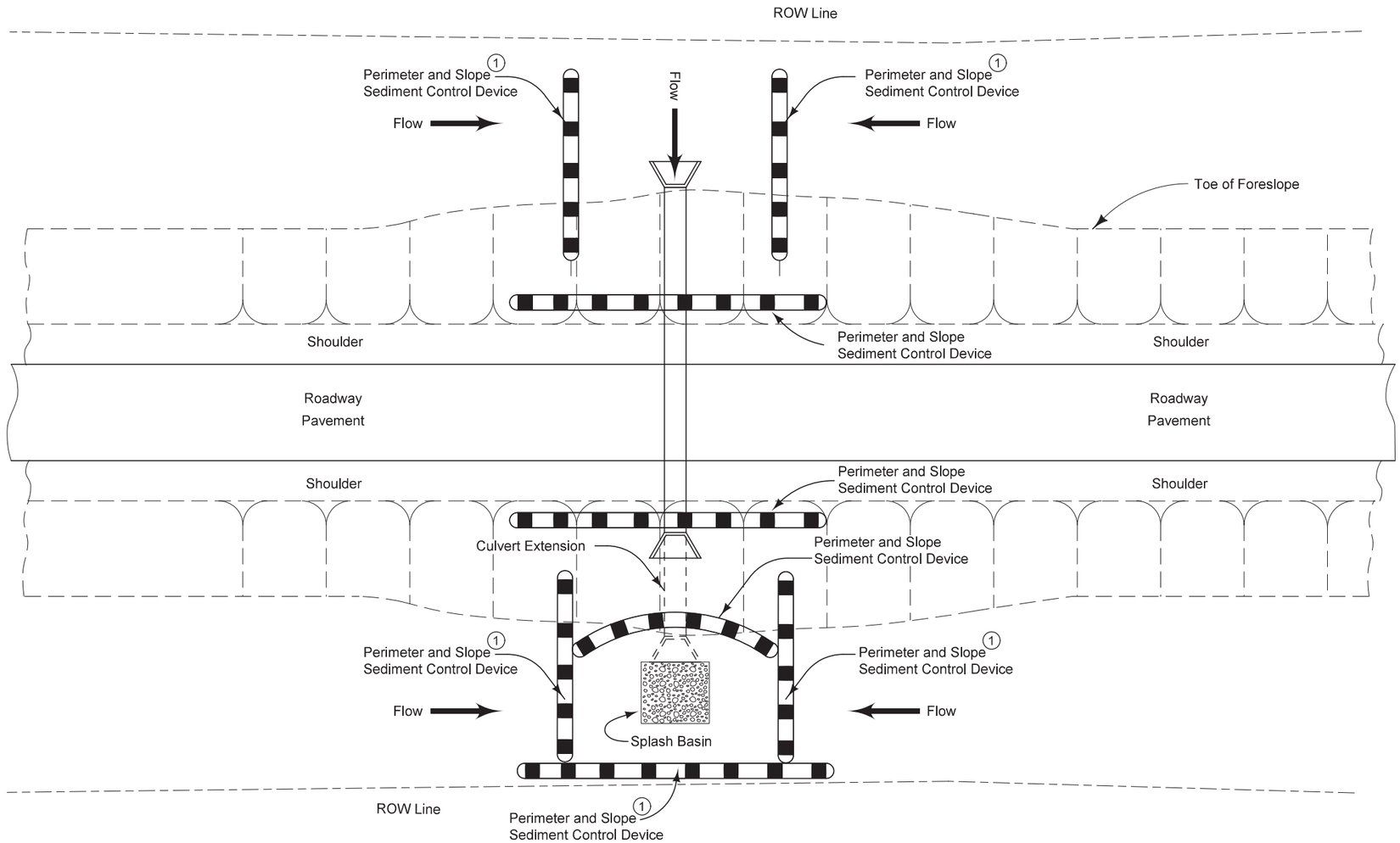


PAVEMENT MARKINGS
190th AVE / Co Rd P60 INTERSECTION

FILE NO.	ENGLISH	DESIGN TEAM **Kelly \ Suntken**	**KOSSUTH** COUNTY	PROJECT NUMBER **NHSX-018-3(116)--3H-55**	SHEET NUMBER **U.4**	

12:02:27 PM 12/13/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\55018116_U01.dgn

See Standard Road Plans EC-201, EC-204, and EC-301 for installation details.



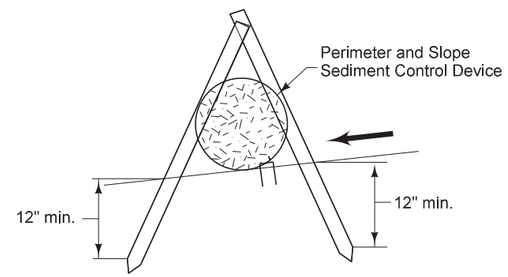
1 Silt Fence for Ditch Check may be substituted at no additional cost to the Contracting Authority.

Possible Contract Items:

- Perimeter and Slope Sediment Control Device
- Erosion Stone
- Class E Revetment
- Engineering Fabric

Possible Tabulations:

- 100-19
- 100-23
- 100-34



IOWA DOT

ROAD DESIGN DETAIL

REVISION	
1	10-19-21

570-11

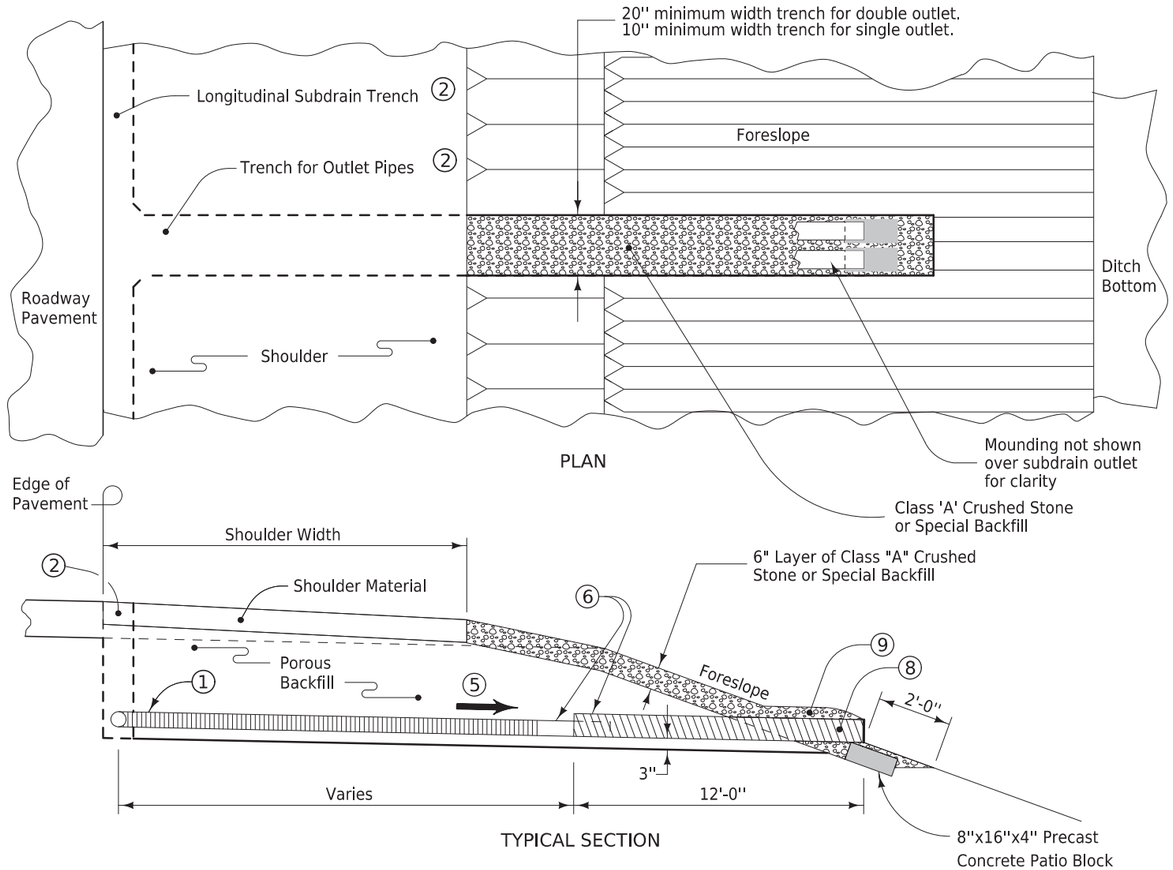
SHEET 1 of 1

REVISIONS: Added cross section for staking details.

TEMPORARY SEDIMENT CONTROL FOR CULVERT EXTENSION WITH EXPOSED SOIL

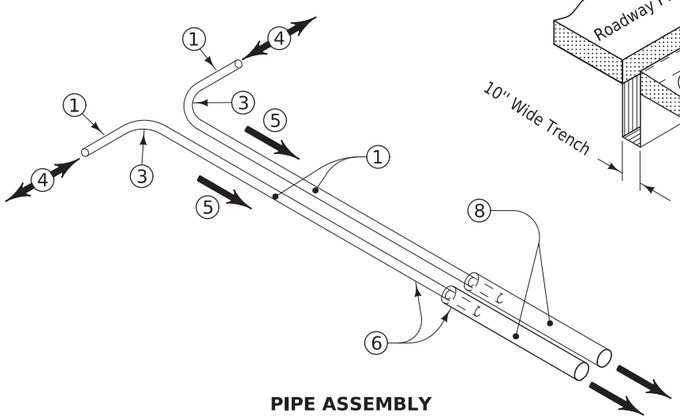
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER U.5	

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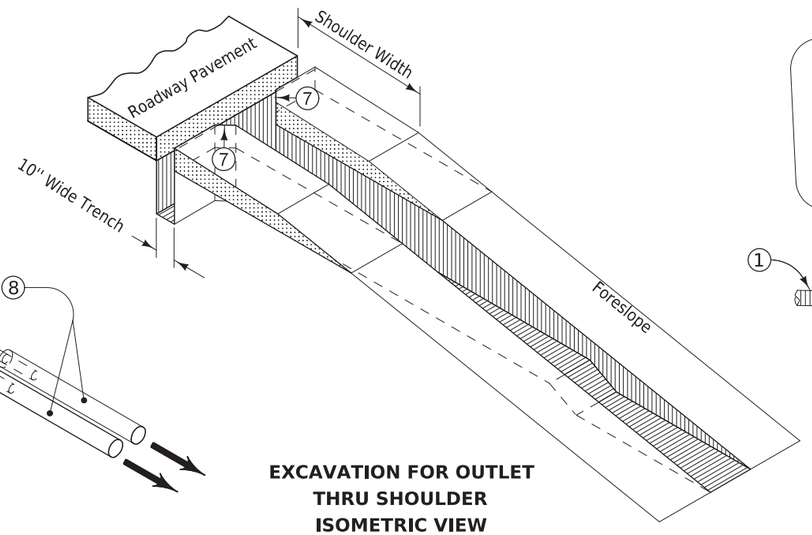


LONGITUDINAL AND TRANSVERSE OUTLETS

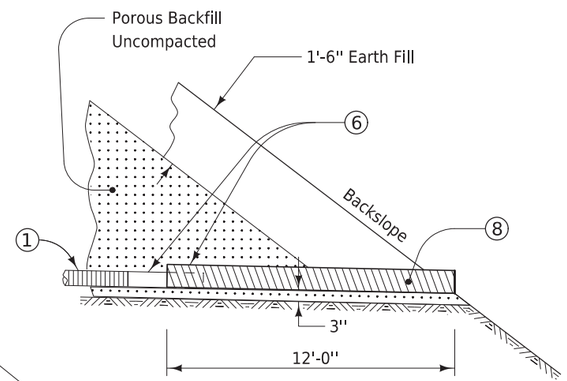
1. Perforated Subdrain (Polyethylene Corrugated Tubing).
2. On projects where existing shoulder material is removed, replace the shoulder material according to Article 2502.03, C of the Standard Specifications.
3. 'Y' or 'T' connection will not be allowed. Place subdrain on 1 foot minimum radius.
4. Direction of flow.
5. 6 inch minimum drop in elevation between longitudinal subdrain and outlet. 12 inch minimum drop for projects using recycled PCC subbase.
6. Corrugated metal pipe outlet 2 inches larger than subdrain pipe or corrugated double-walled PE or PVC pipe of the same diameter as the subdrain pipe with an appropriate coupler. If metal pipe is used, the pipes should be coupled in one of the following ways: (1) Use an inside fit reducer coupler (insert coupler a minimum of 12 inches into CMP); or (2) Insert 1 inch of the 4 inch subdrain into the 6 inch metal outlet pipe, then fully seal the entire opening with grout.
7. Bevel the trench to provide a minimum of 3 inches of porous backfill surrounding all portions of subdrain pipe.
8. Corrugated metal pipe outlet 2 inches larger than existing subdrain pipe, or corrugated double-walled PE or PVC pipe of the same diameter as the existing subdrain pipe.
9. Place class 'A' crushed stone or Special Backfill over outlet and carefully compact to avoid damaging outlet pipe.



PIPE ASSEMBLY ISOMETRIC VIEW



EXCAVATION FOR OUTLET THRU SHOULDER ISOMETRIC VIEW



BACKSLOPE OUTLET TYPICAL SECTION

Possible Contract Item:
Subdrain Outlet, 500-10

Possible Tabulations:
104-5C
104-6

IOWA DOT

REVISION
NEW 10-17-17

ROAD DESIGN DETAIL

500-10

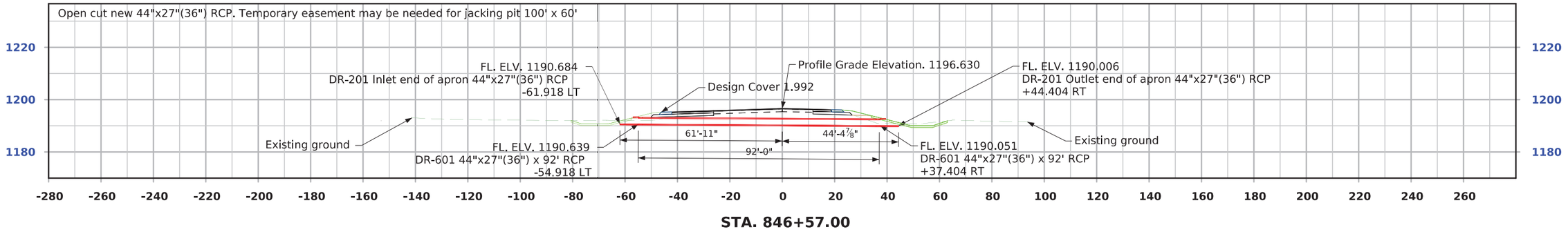
SHEET 1 of 1

REVISIONS: New, replaced DR-304

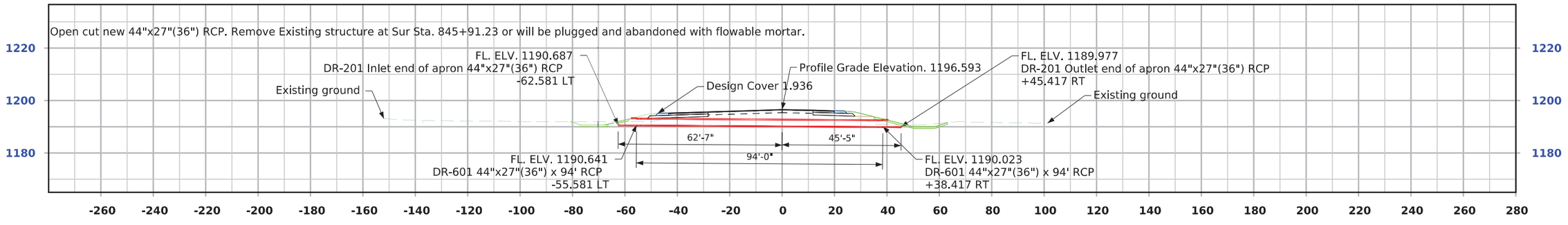
OUTLETS FOR LONGITUDINAL, TRANSVERSE AND BACKSLOPE SUBDRAINS

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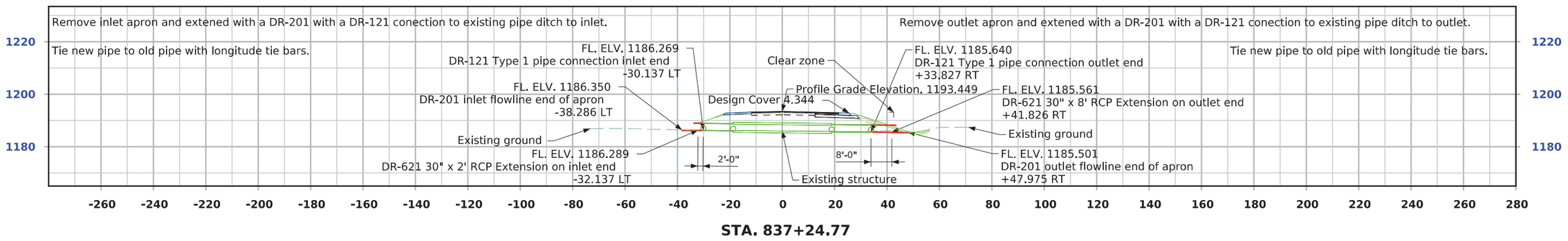
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STA. 846+57.00



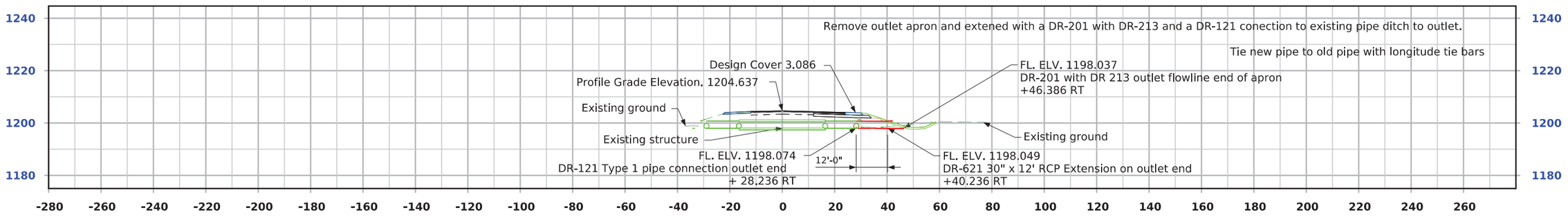
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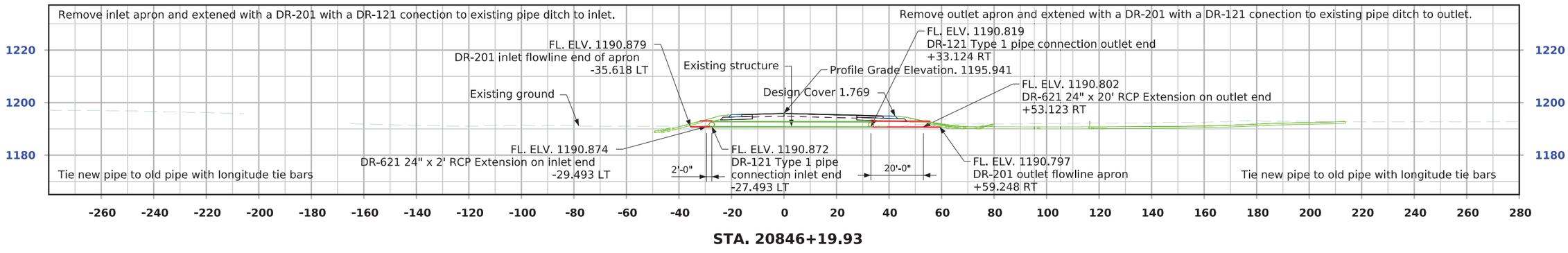


STA. 977+44.81

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160th Ave.

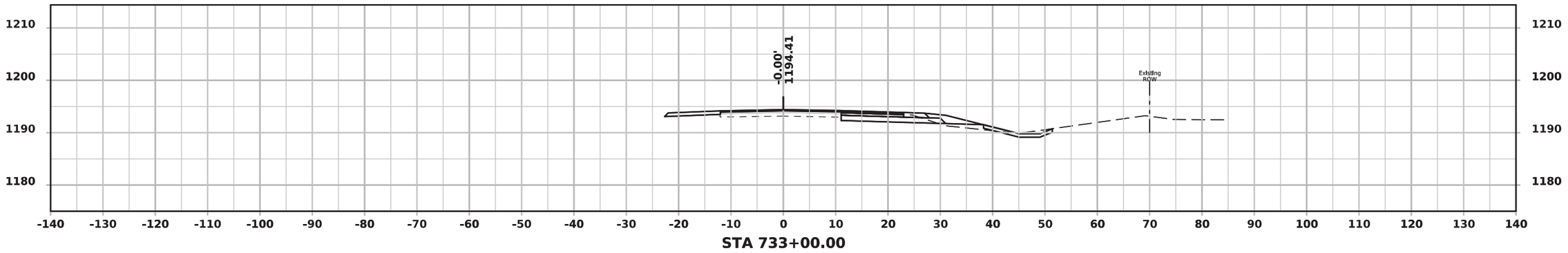


STA. 20846+19.93

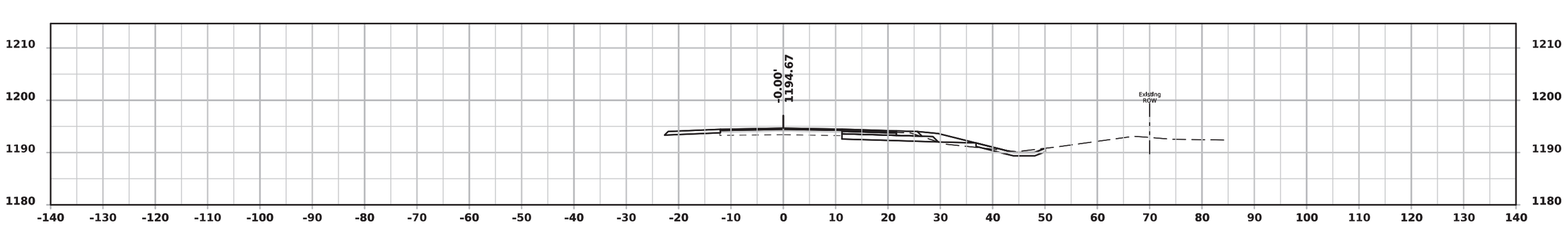
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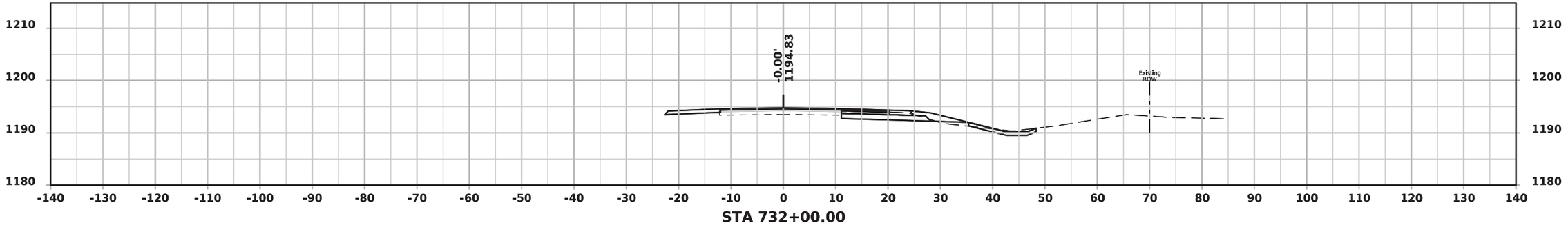
US 18 near 140th



STA 733+00.00



STA 732+50.00

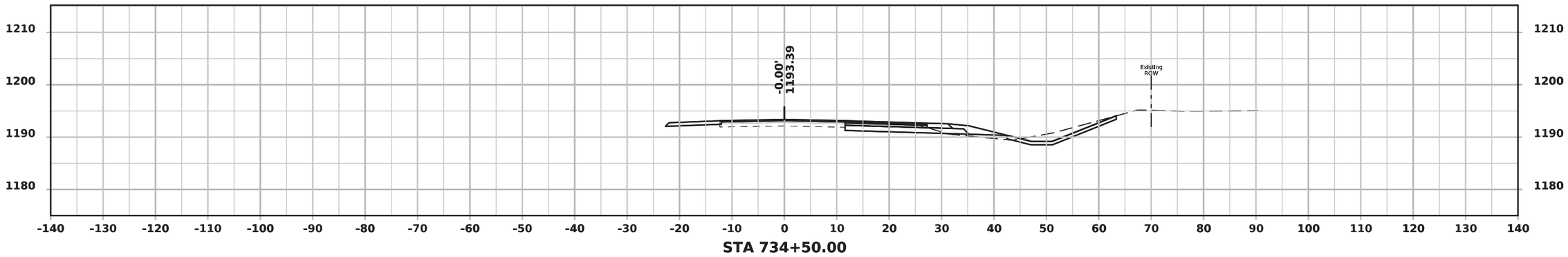


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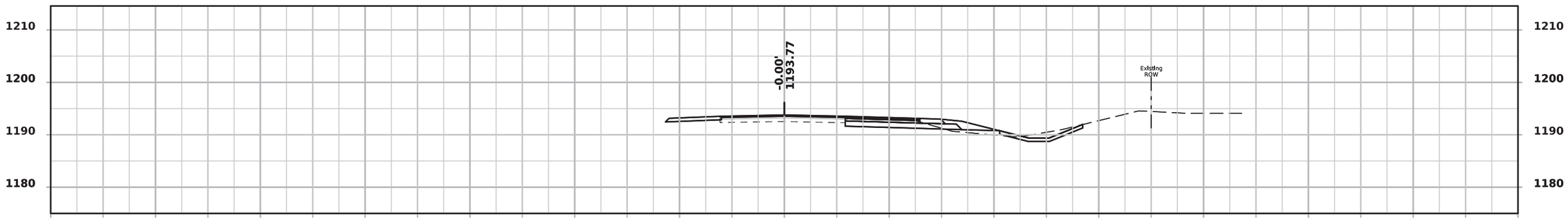
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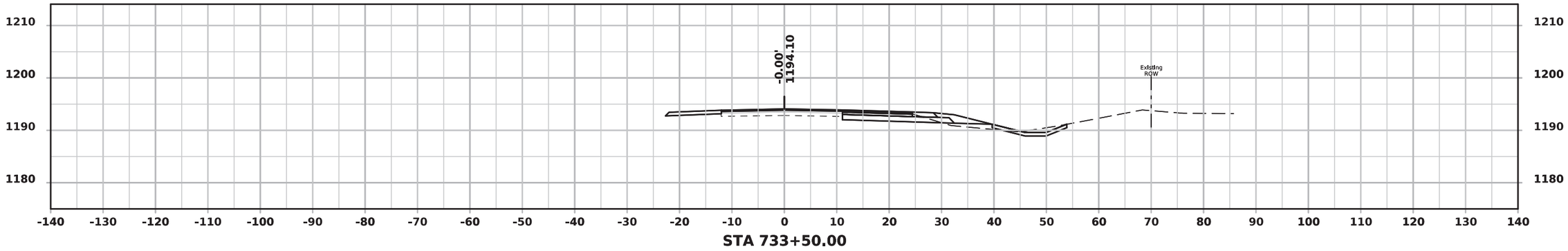
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STA 734+50.00



STA 734+00.00

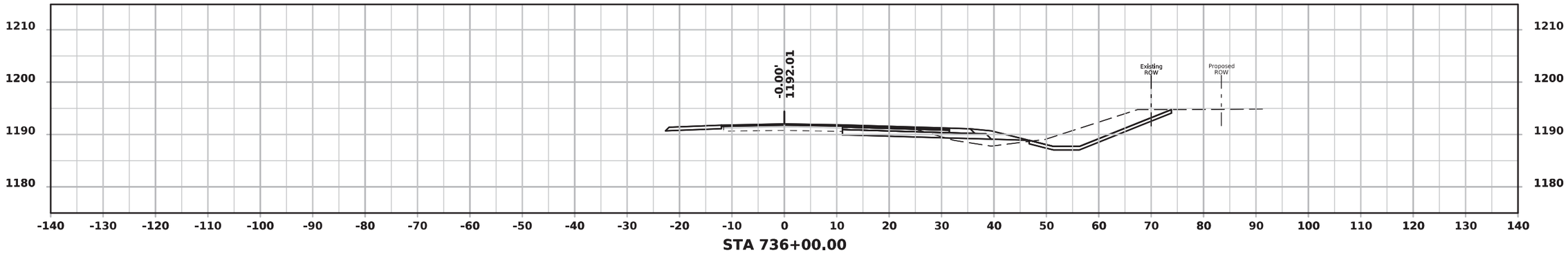


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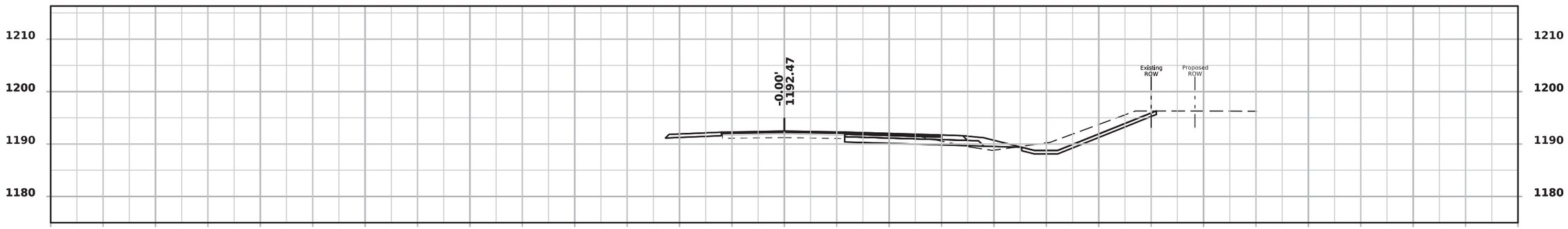
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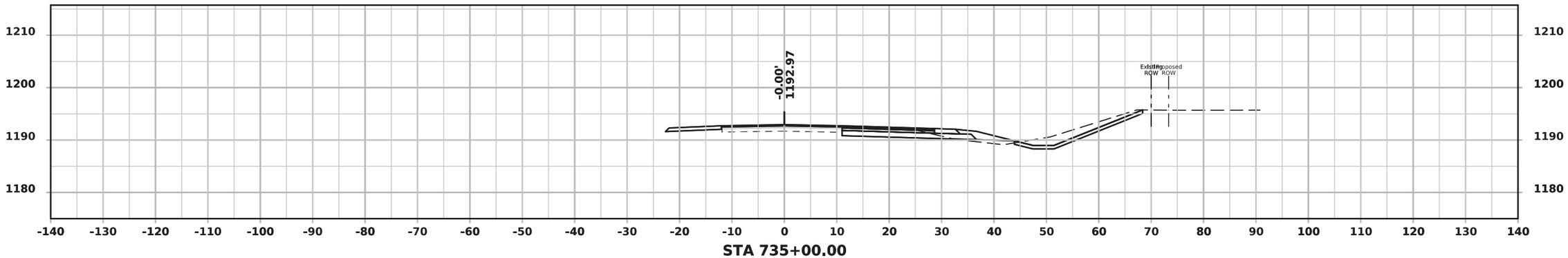
US 18 near 140th



STA 736+00.00



STA 735+50.00

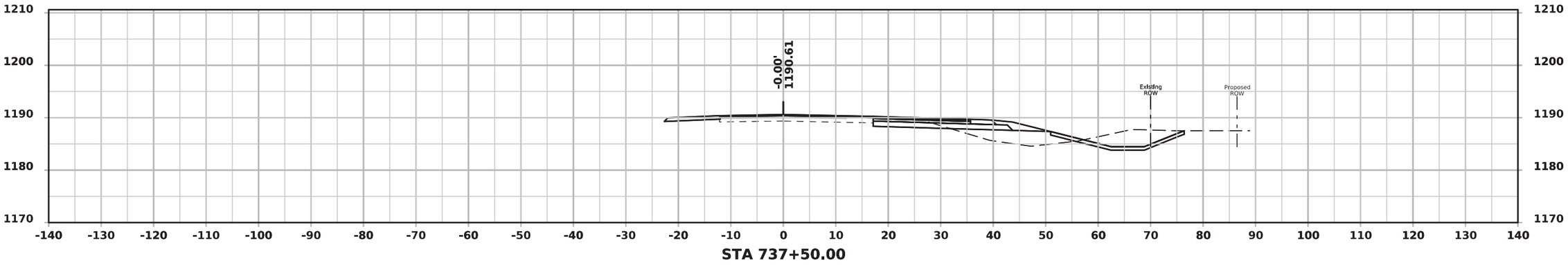


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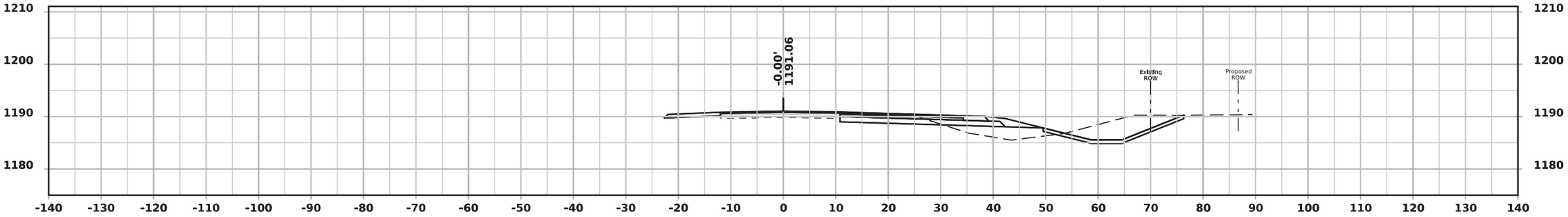
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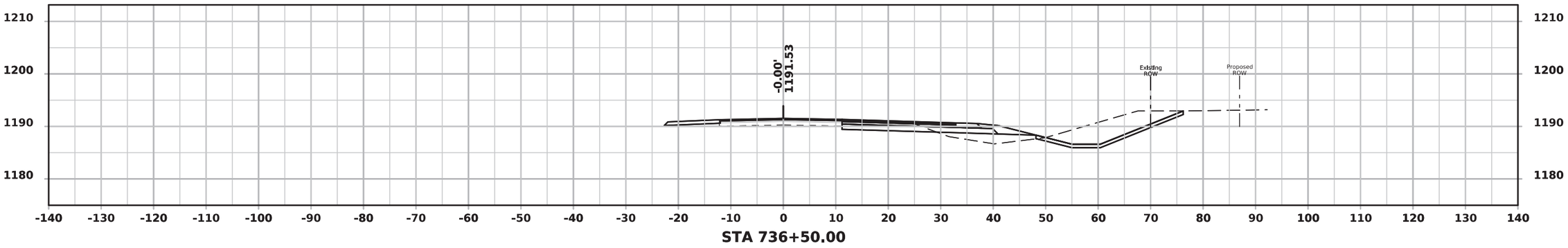
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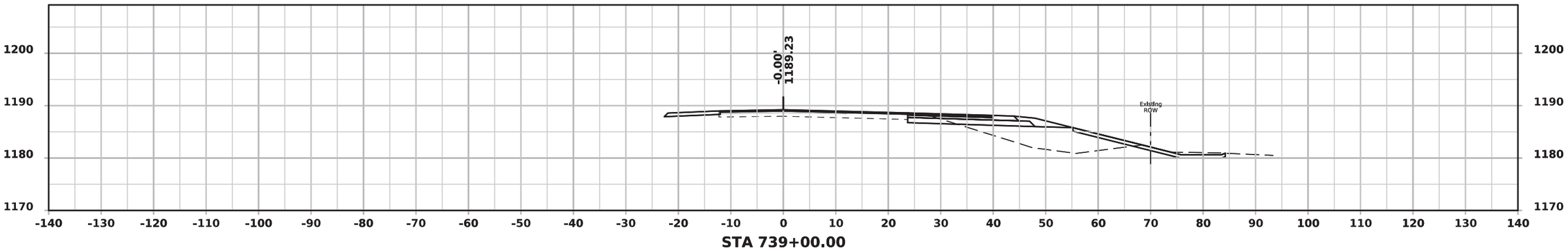


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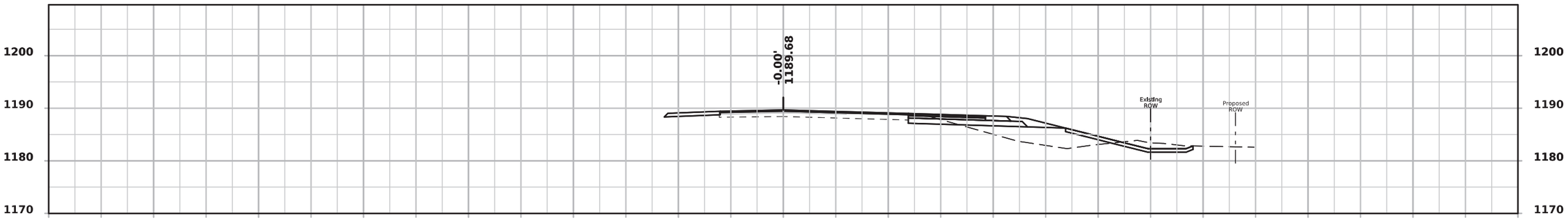
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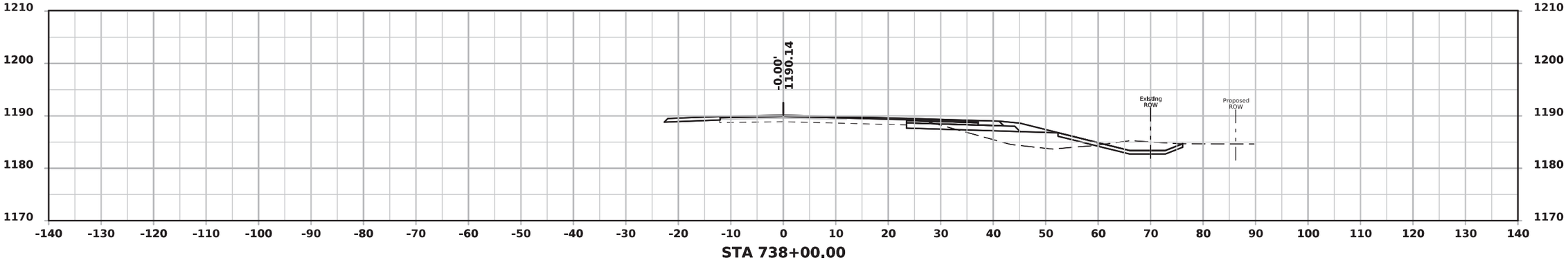
US 18 near 140th



STA 739+00.00



STA 738+50.00

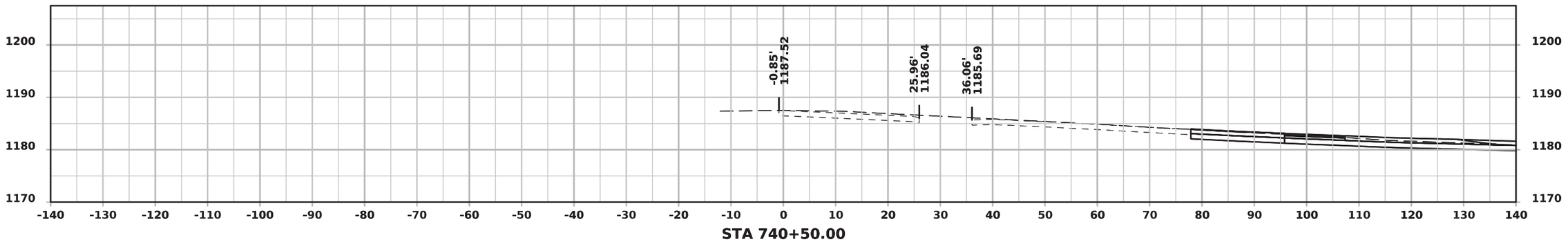


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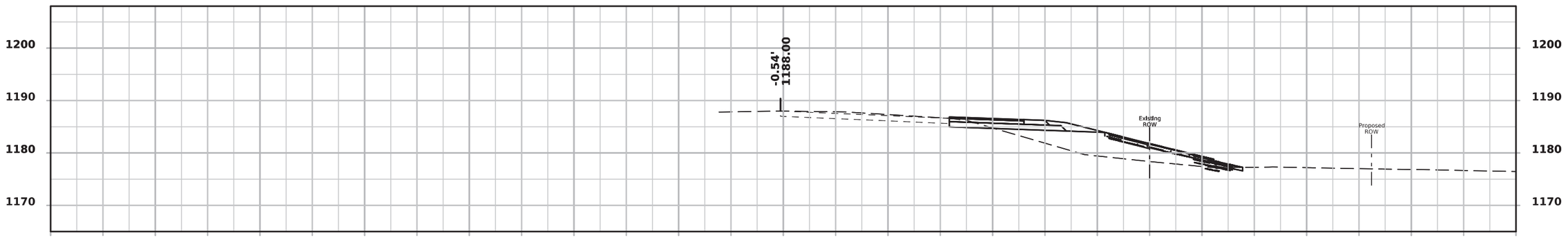
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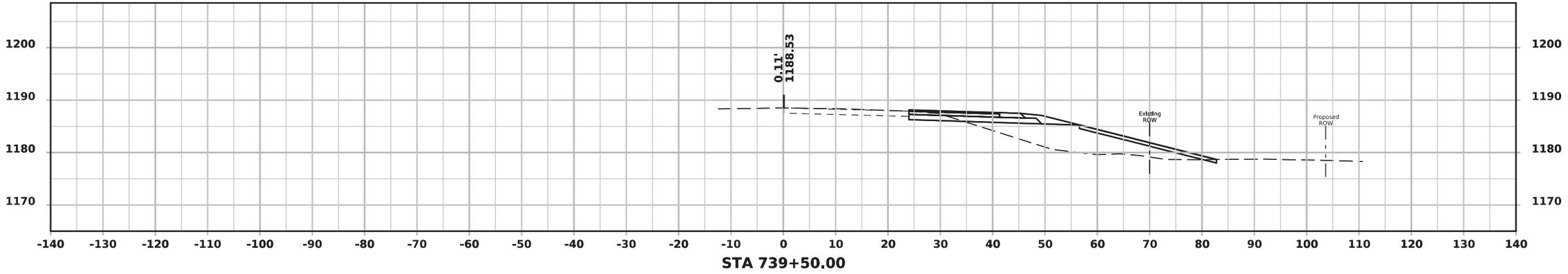
US 18 near 140th



STA 740+50.00



STA 740+00.00

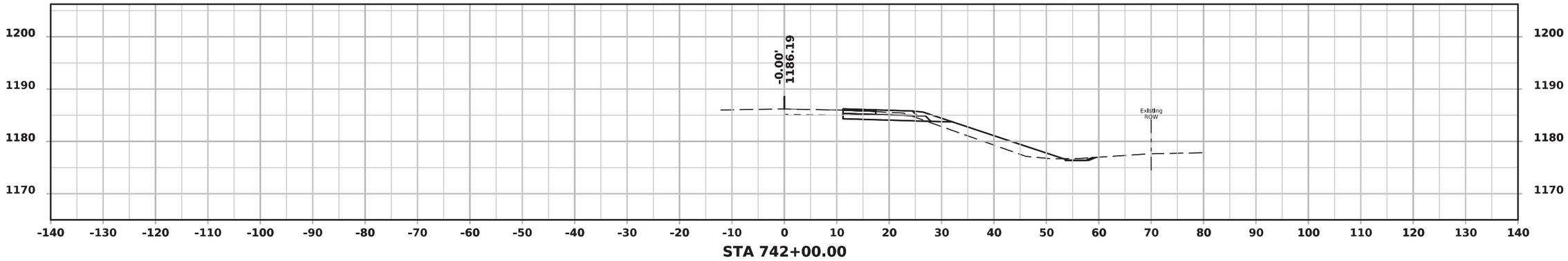


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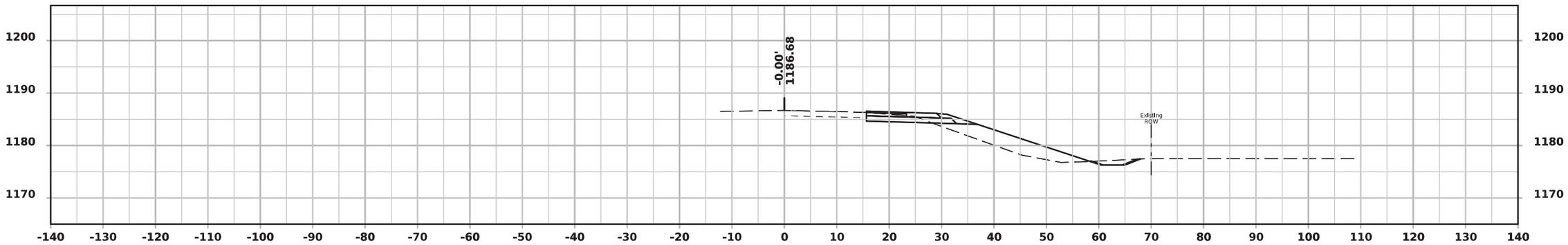
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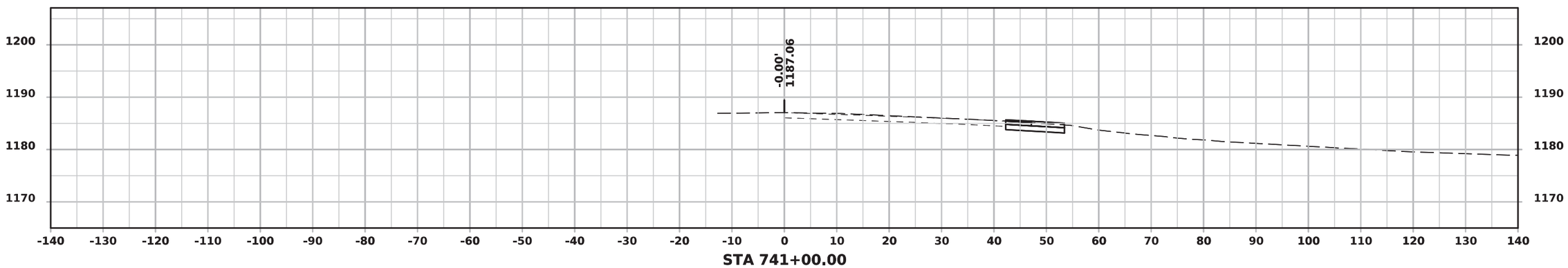
US 18 near 140th



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STA 741+50.00

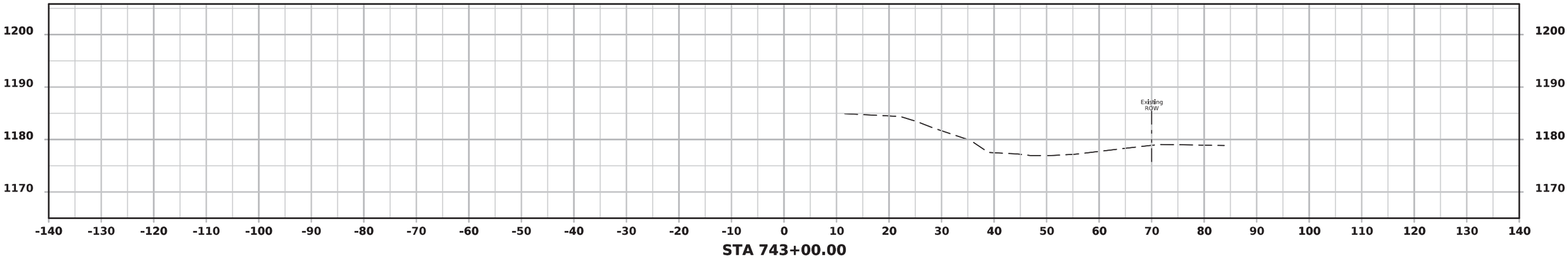


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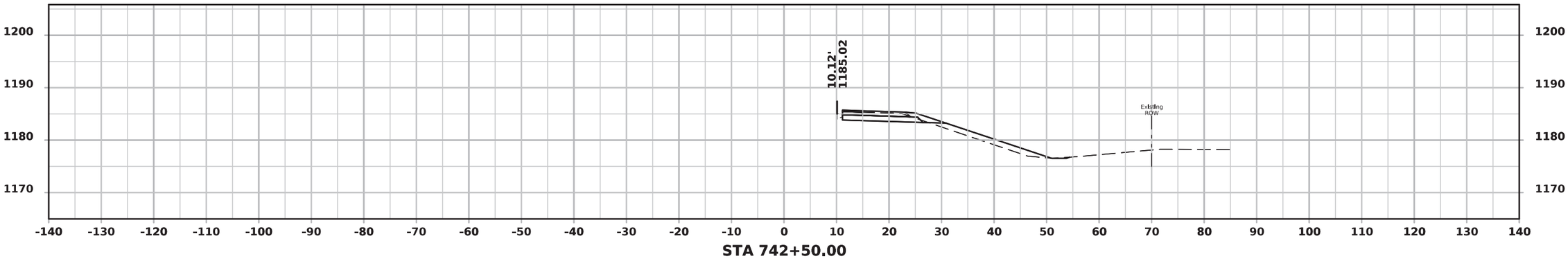
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US 18 near 140th



STA 743+00.00

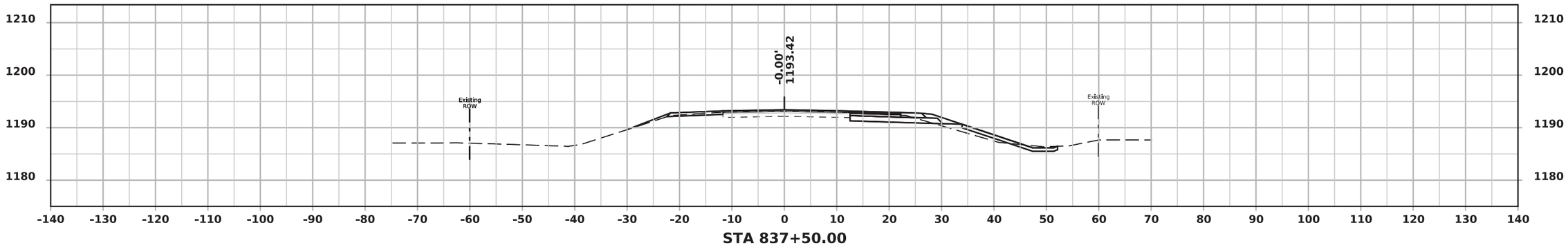


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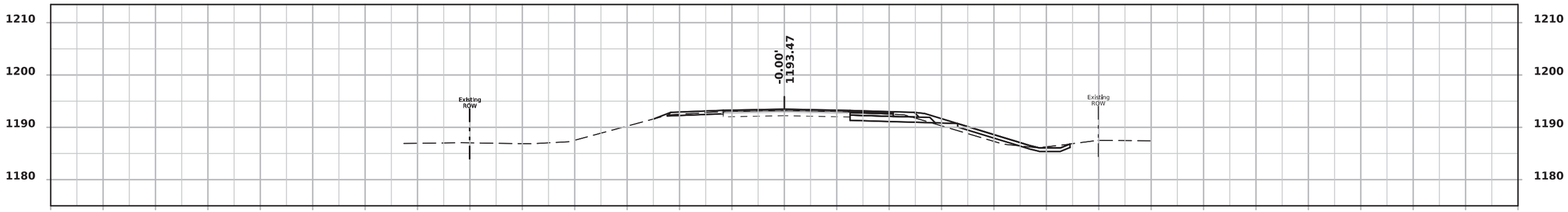
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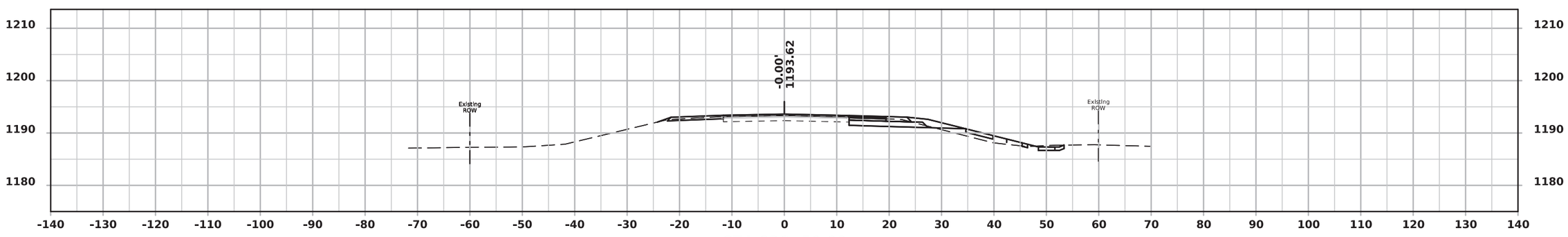
US 18 near 160th



STA 837+50.00



STA 837+00.00

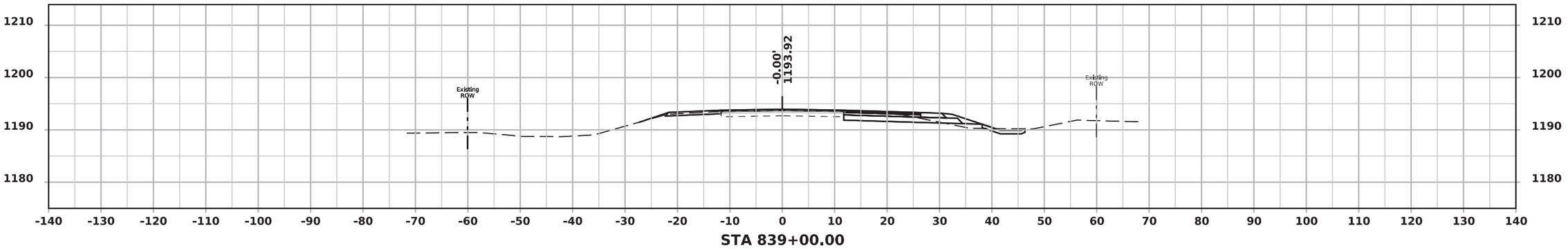


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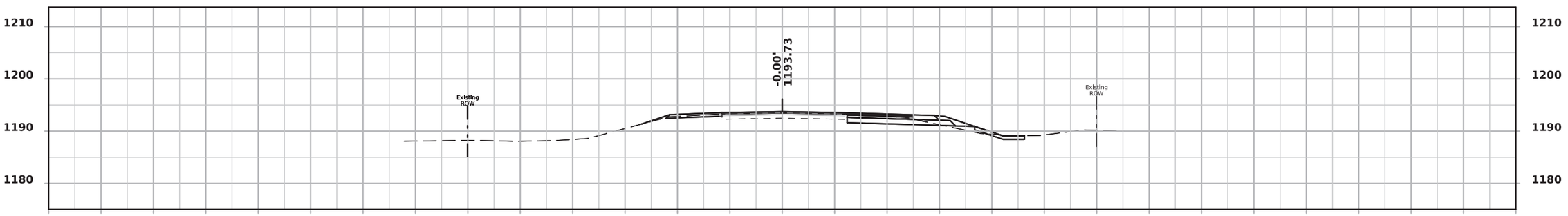
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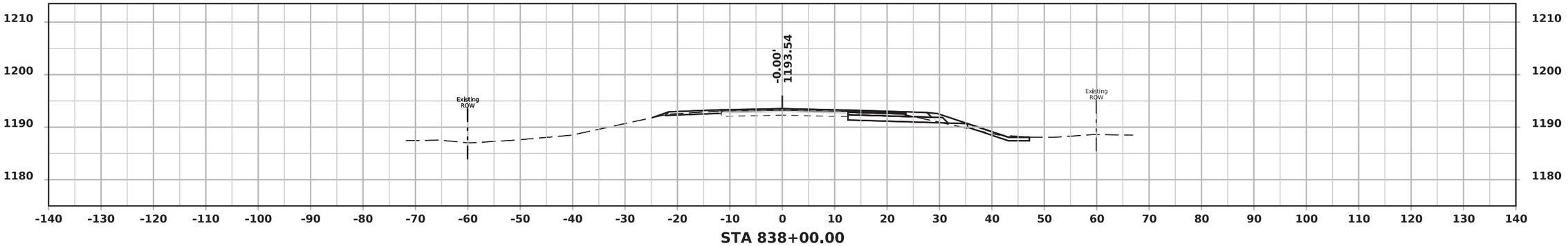
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STA 839+00.00



STA 838+50.00

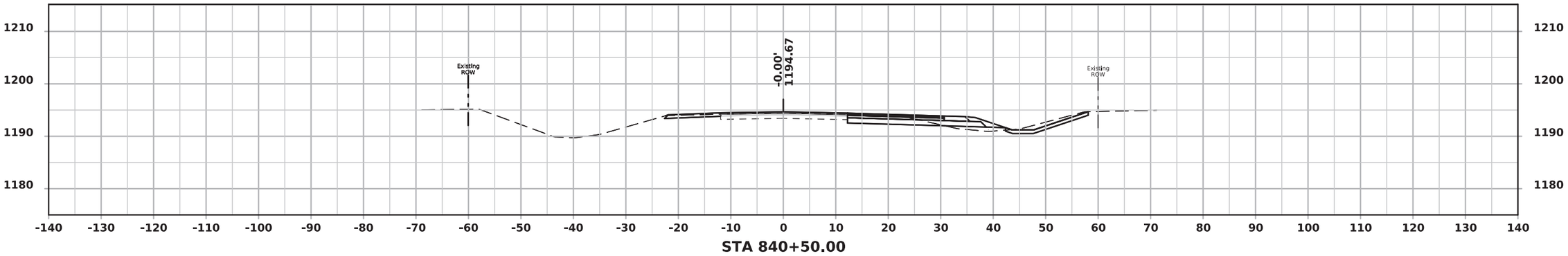


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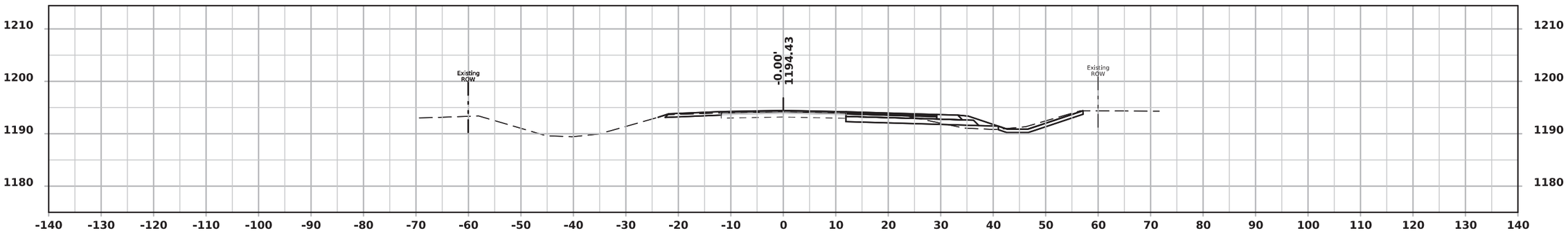
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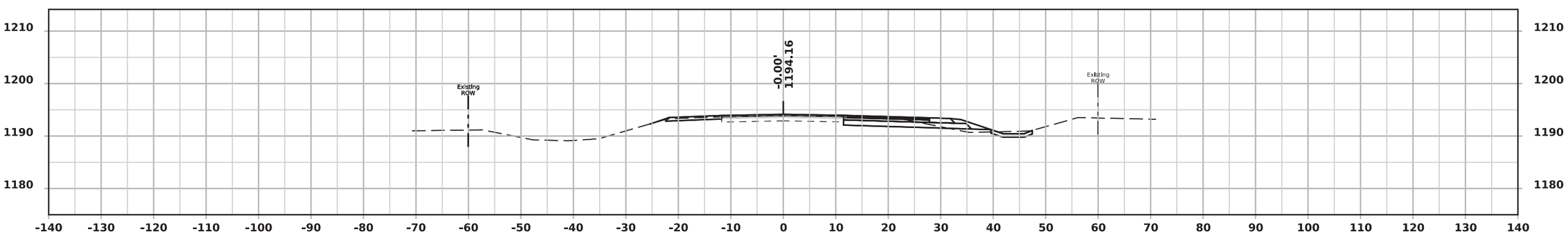
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STA 840+00.00

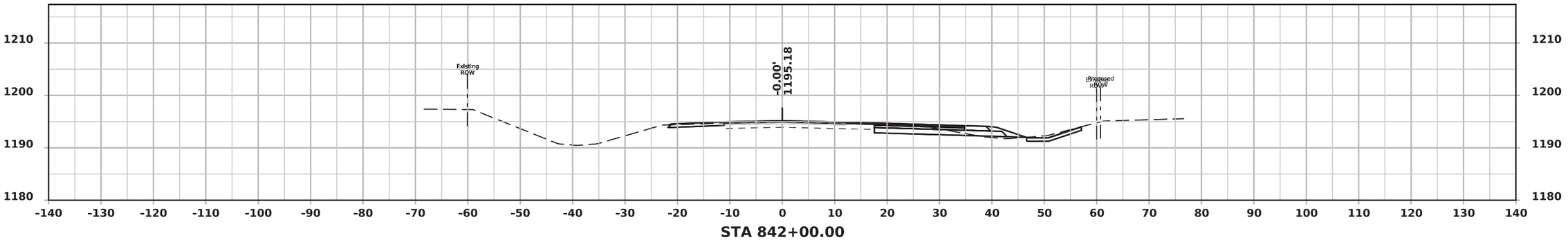


STA 839+50.00

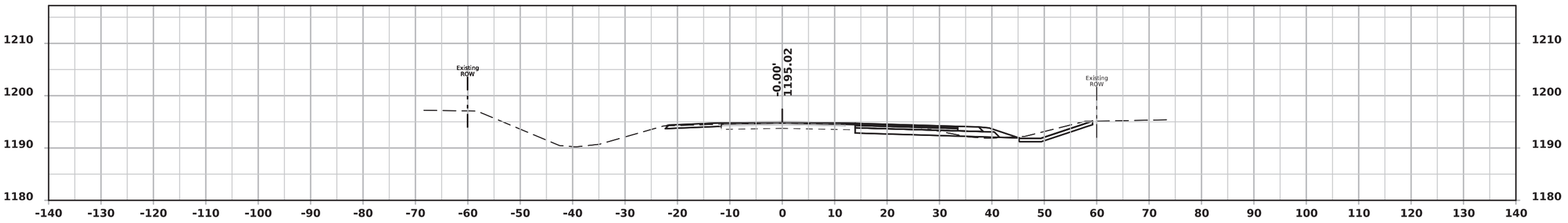
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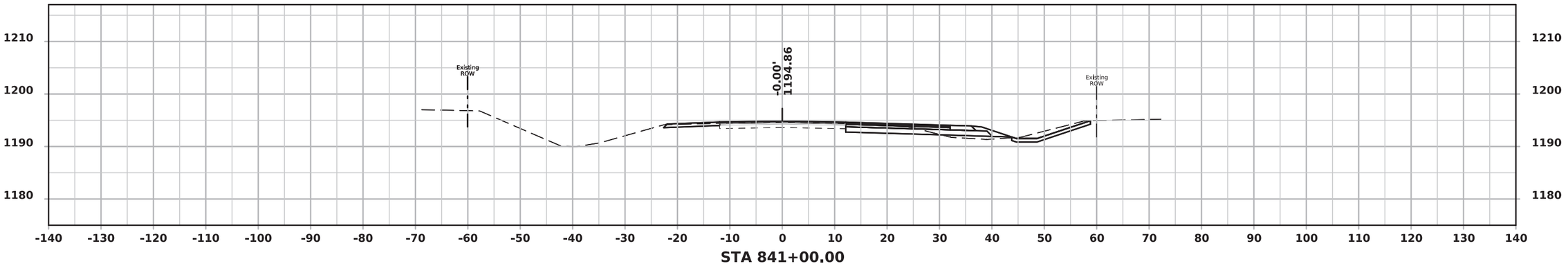
US 18 near 160th



STA 842+00.00



STA 841+50.00

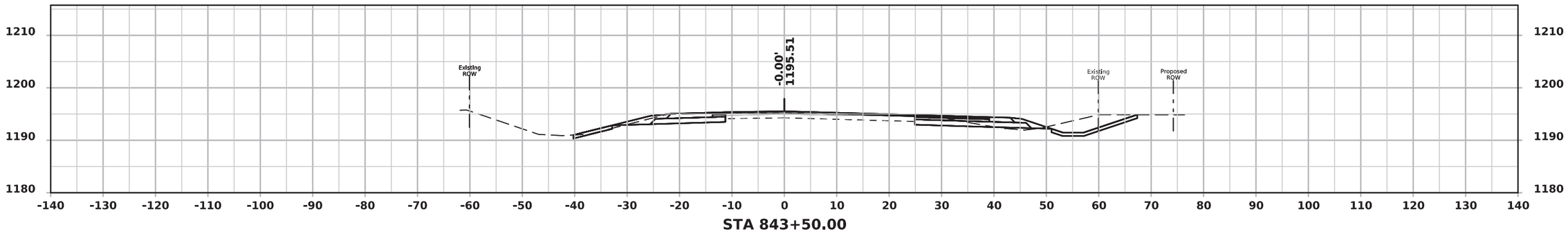


STA 841+00.00

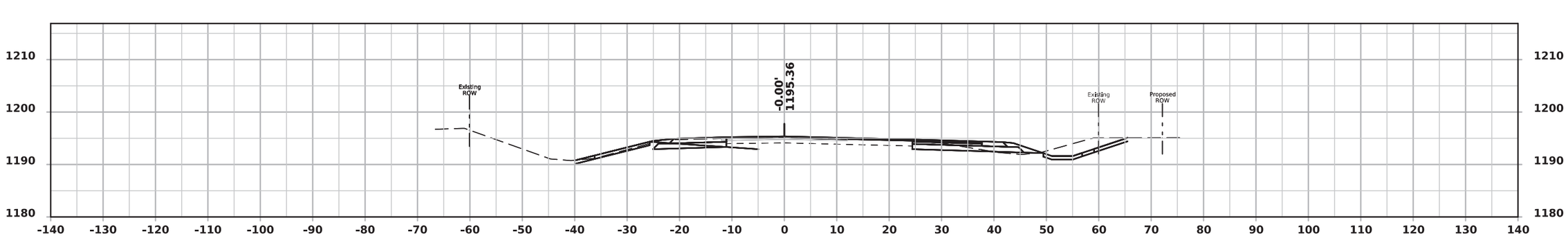
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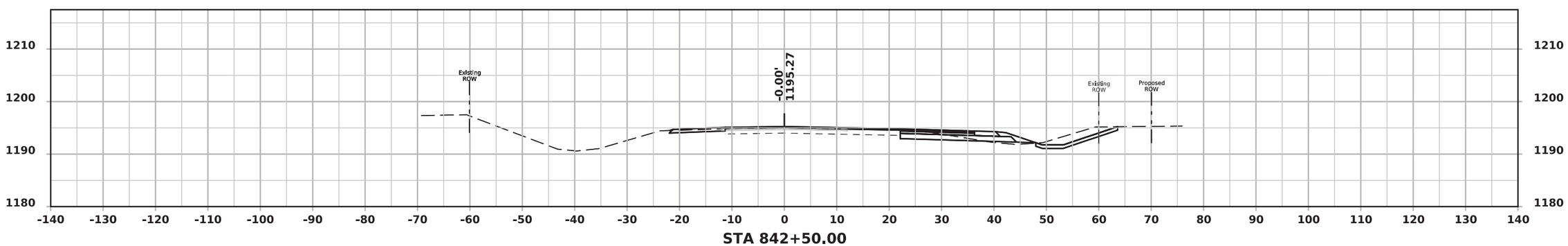
US 18 near 160th



STA 843+50.00



STA 843+00.00

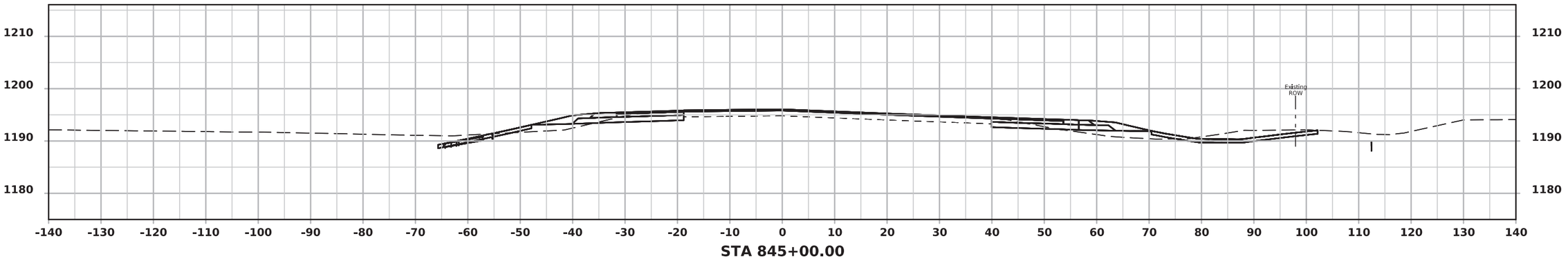


STA 842+50.00

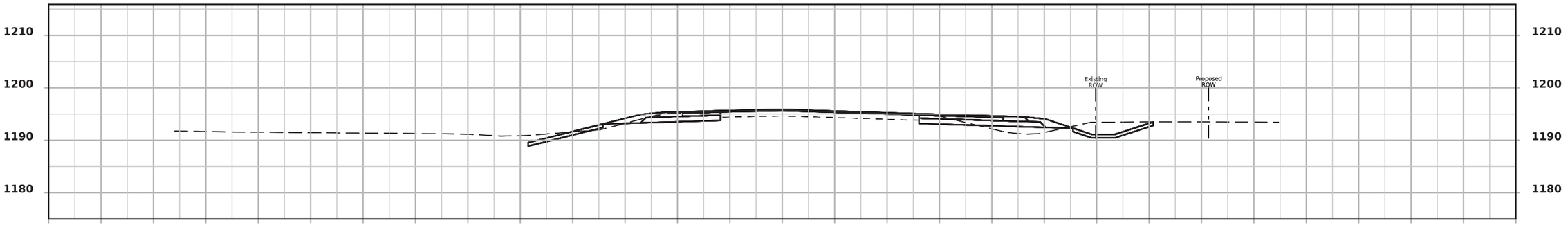
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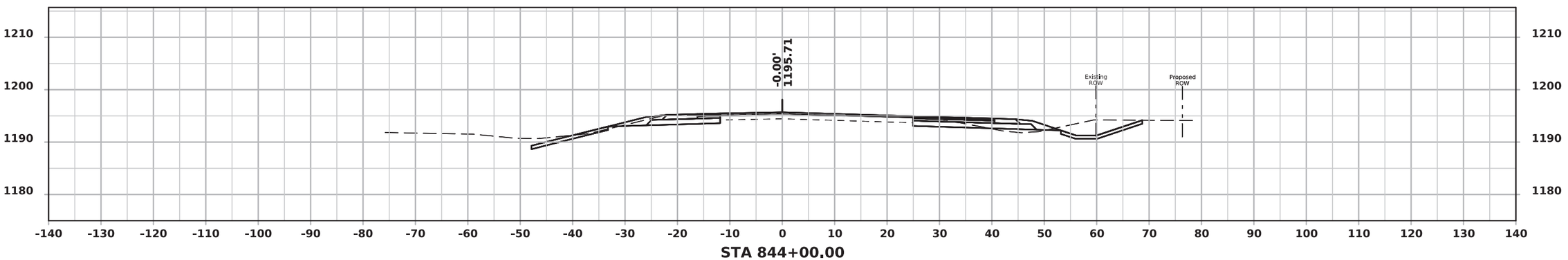
US 18 near 160th



STA 845+00.00



STA 844+50.00

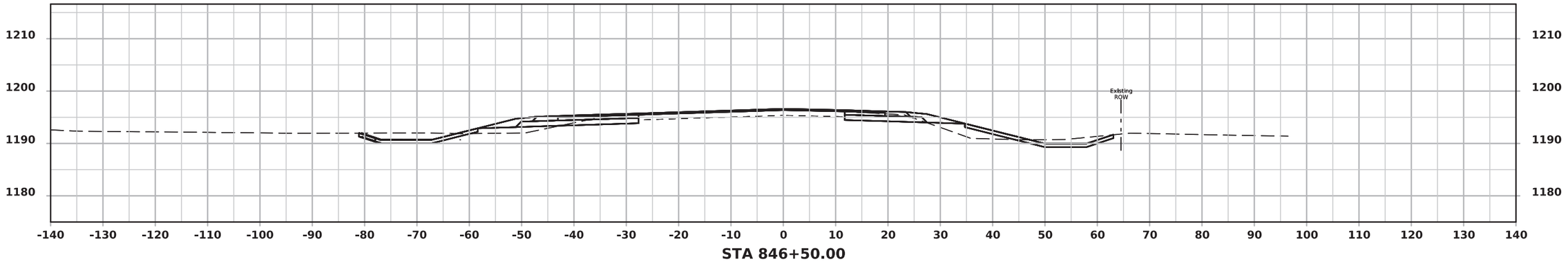


STA 844+00.00

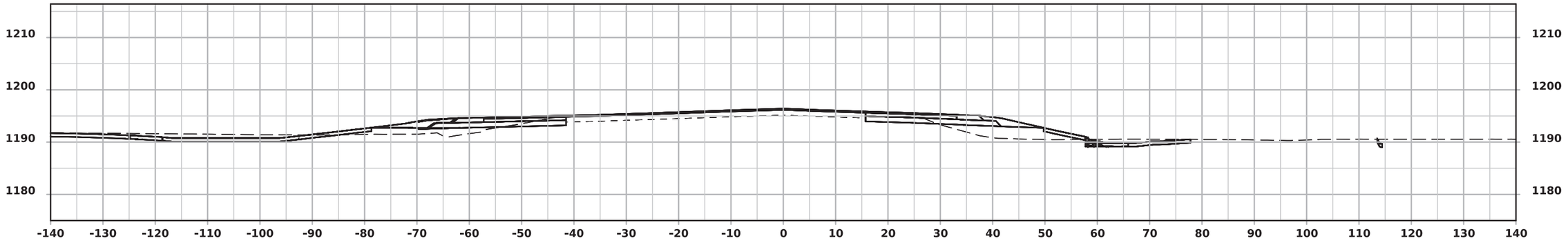
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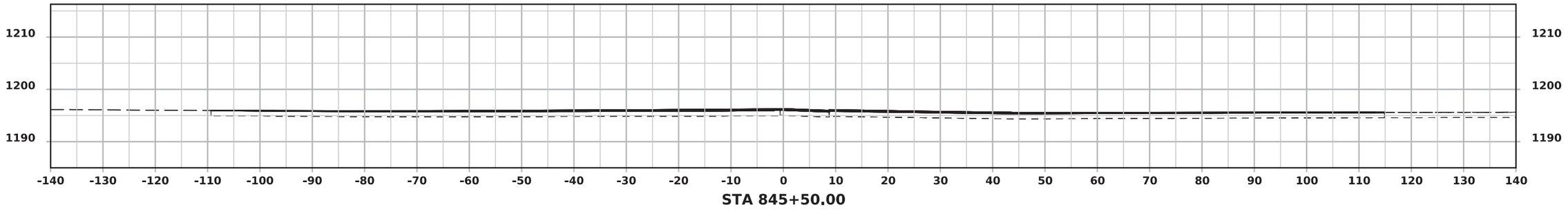
US 18 near 160th



STA 846+50.00



STA 846+00.00

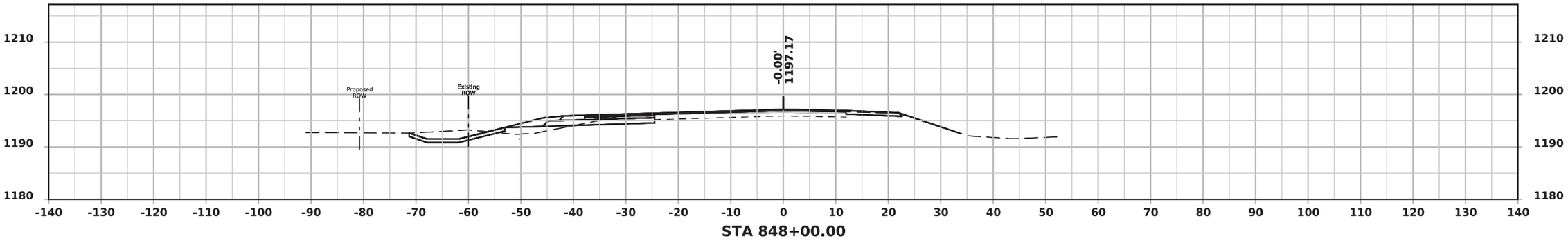


STA 845+50.00

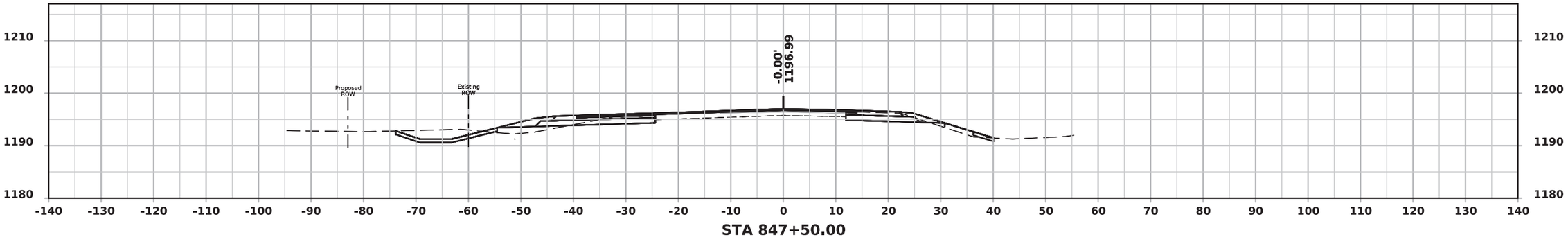
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.15

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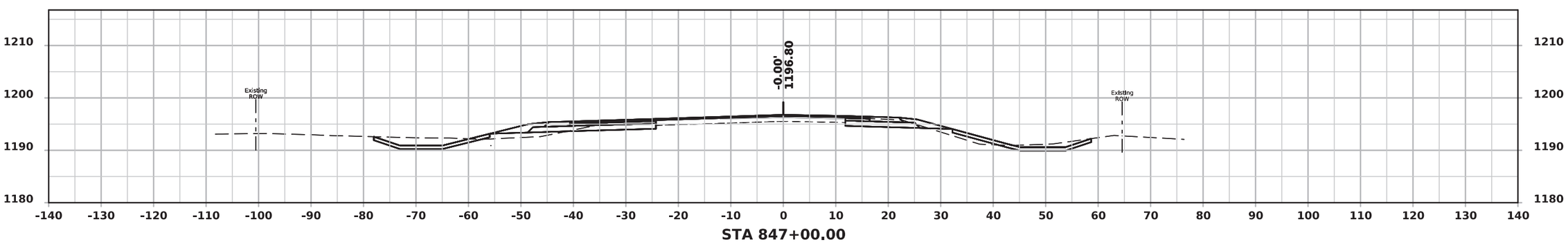
US 18 near 160th



STA 848+00.00



STA 847+50.00

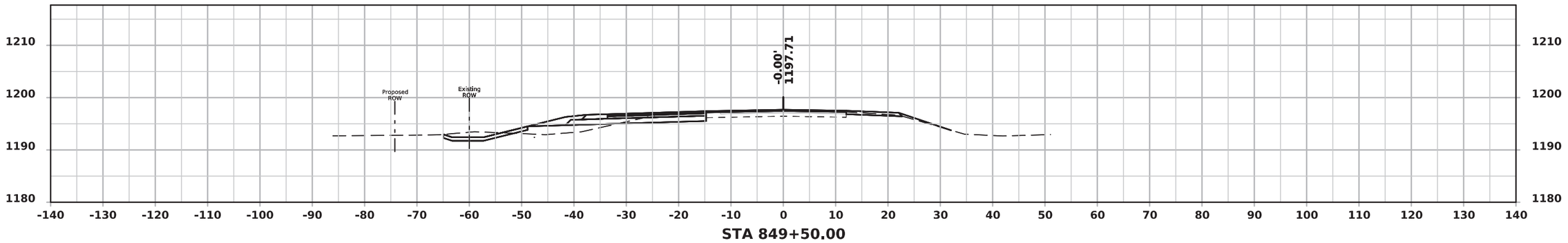


STA 847+00.00

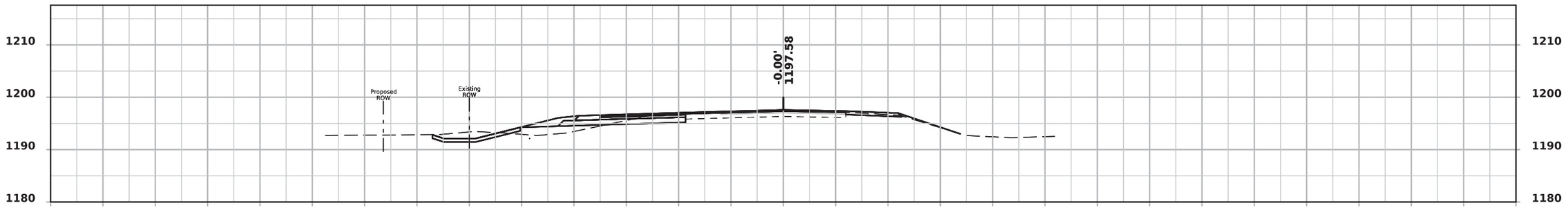
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.16

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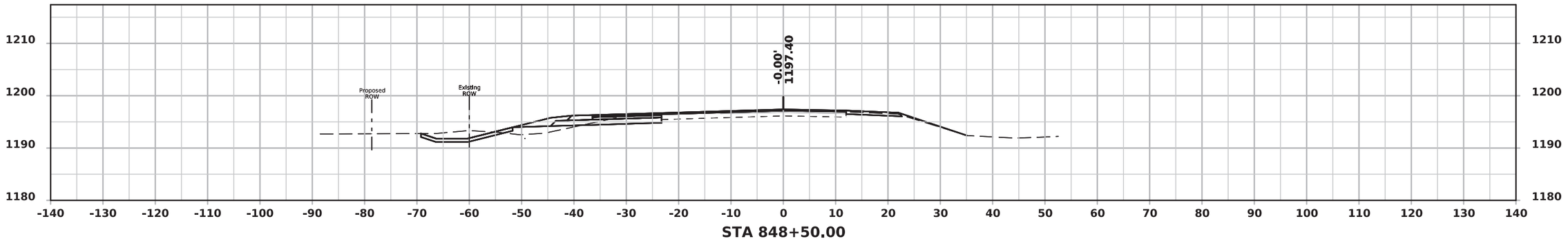
US 18 near 160th



STA 849+50.00



STA 849+00.00

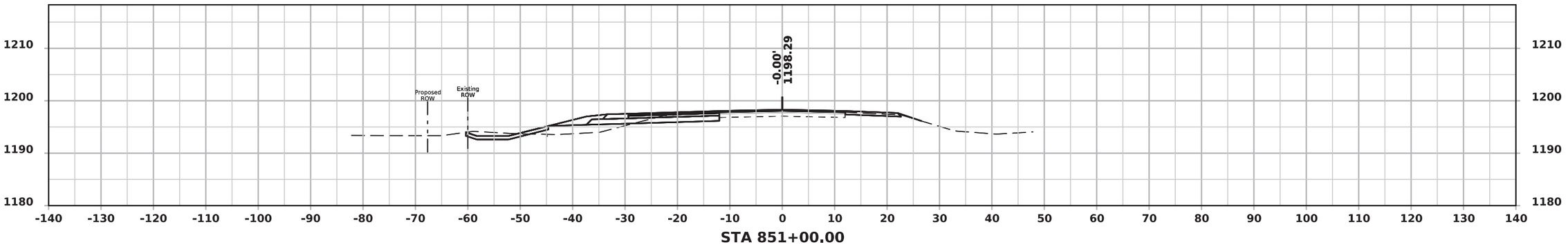


STA 848+50.00

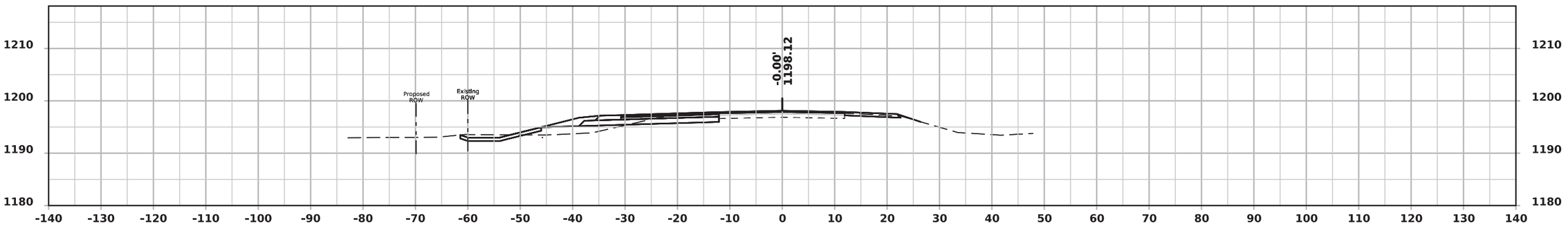
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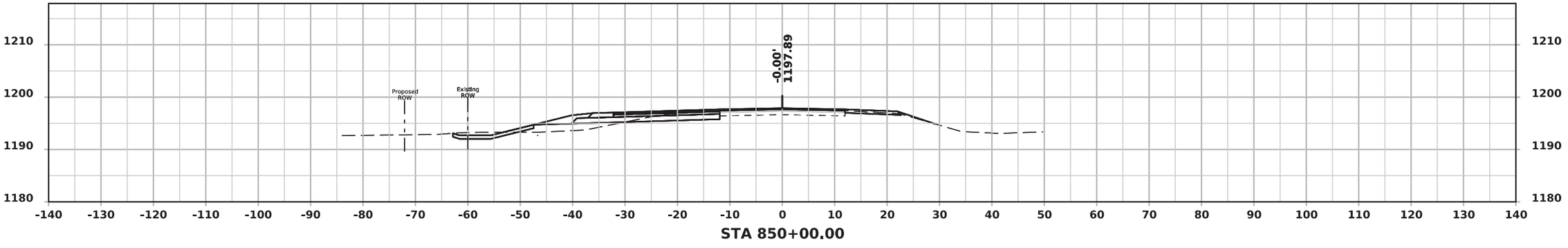
US 18 near 160th



STA 851+00.00



STA 850+50.00

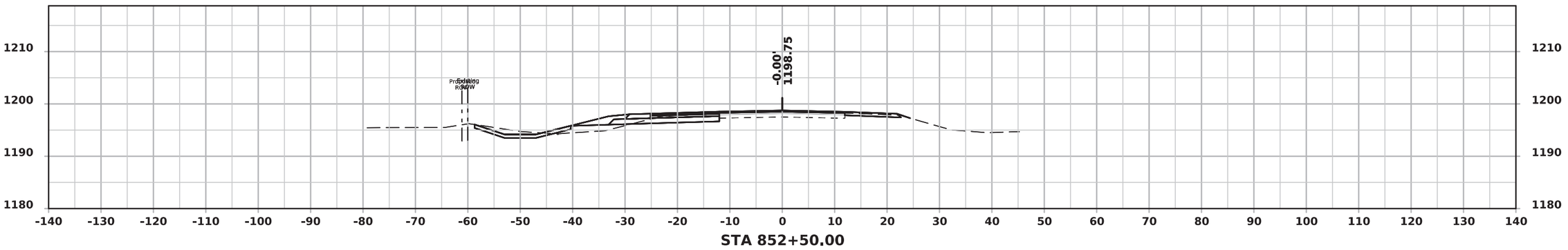


STA 850+00.00

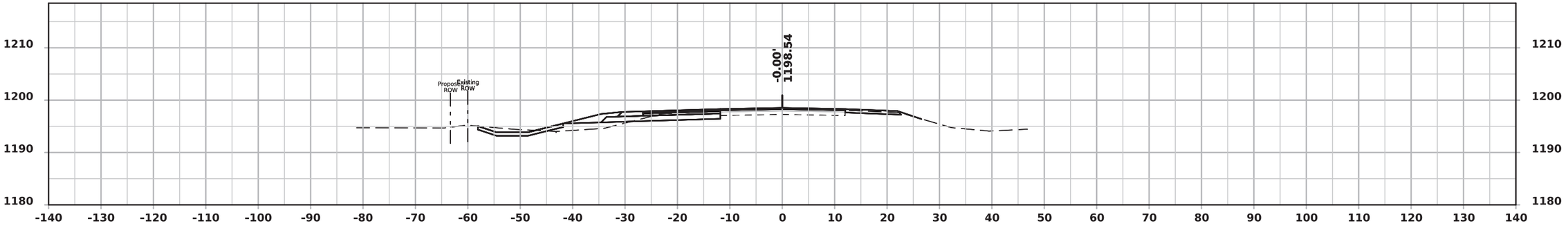
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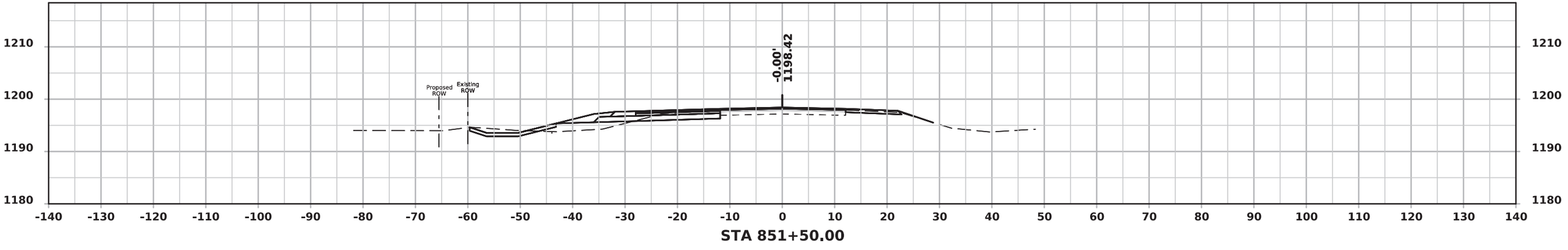
US 18 near 160th



STA 852+50.00



STA 852+00.00

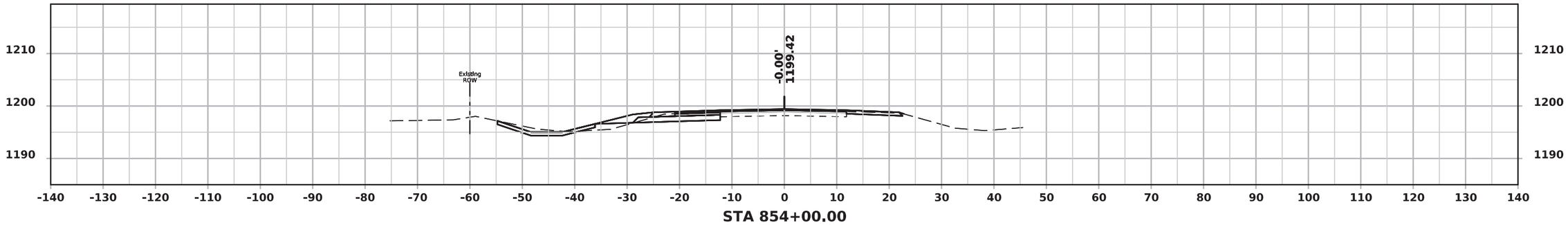


STA 851+50.00

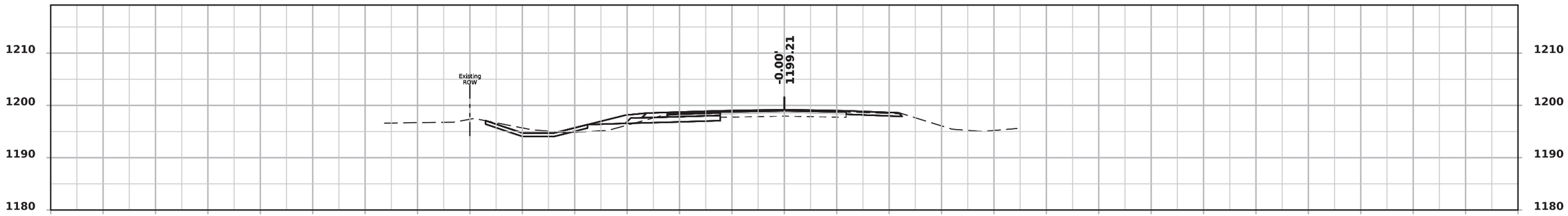
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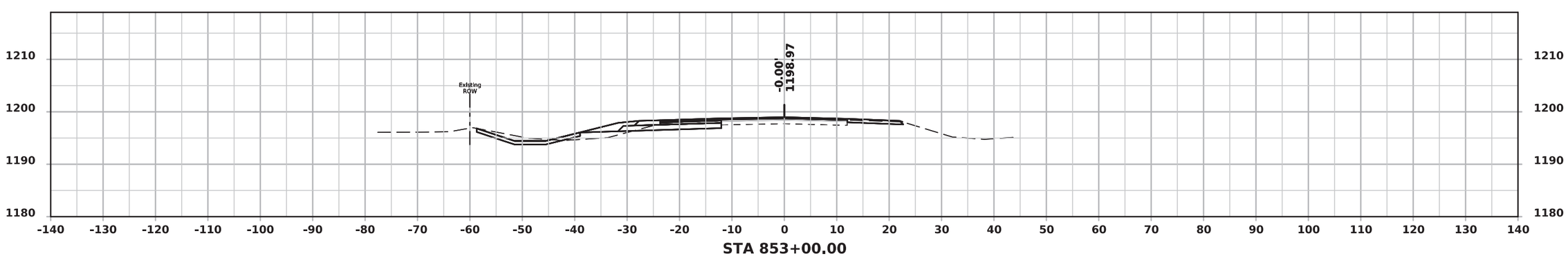
US 18 near 160th



STA 854+00.00



STA 853+50.00

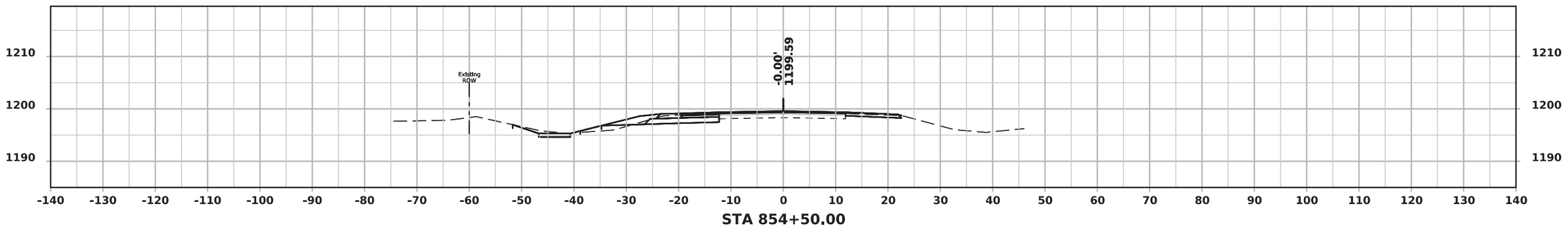


STA 853+00.00

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.20	

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US 18 near 160th

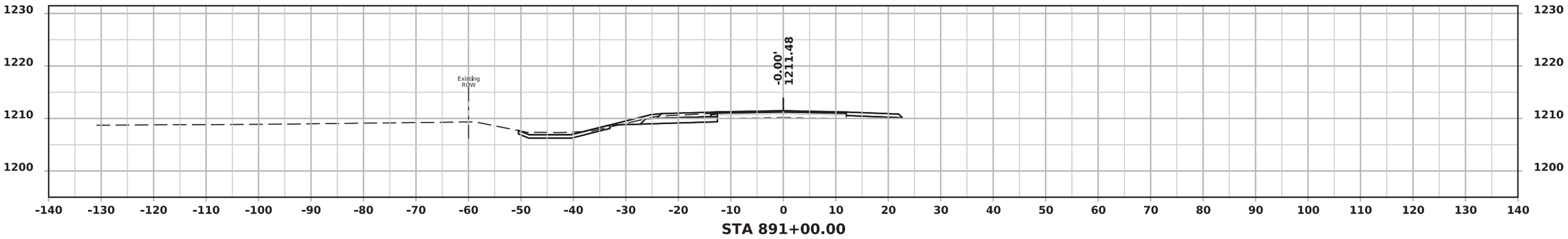


STA 854+50.00

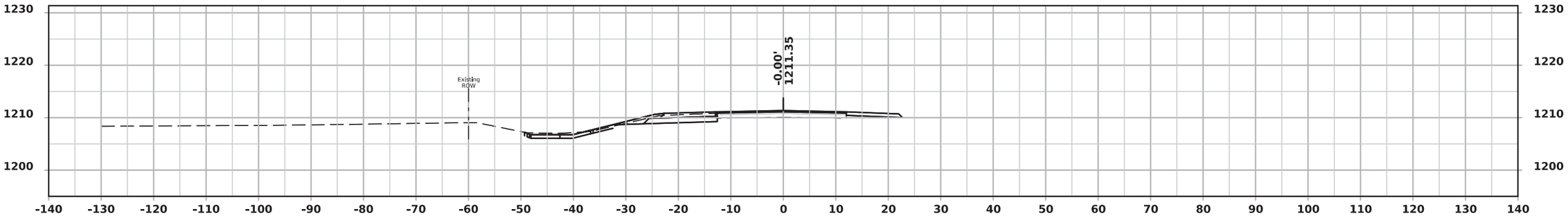
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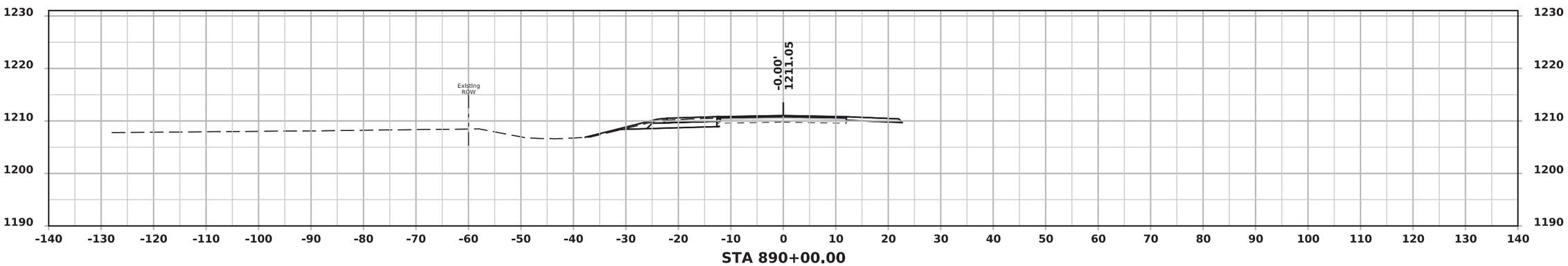
US 18 WB passing lane



STA 891+00.00



STA 890+50.00

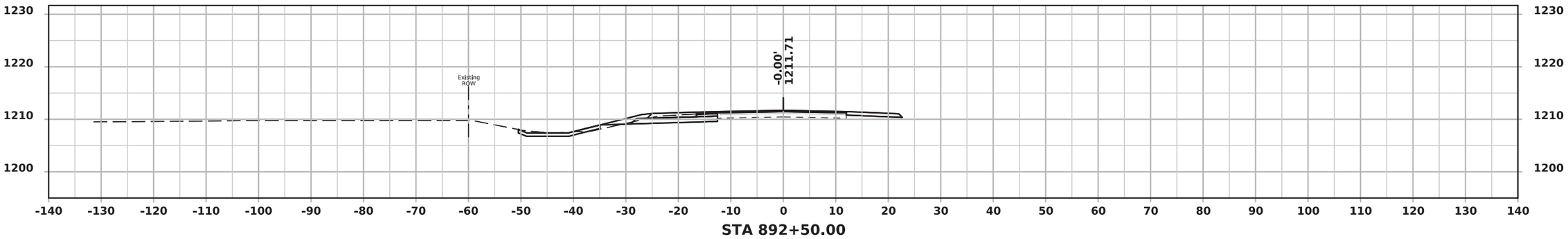


STA 890+00.00

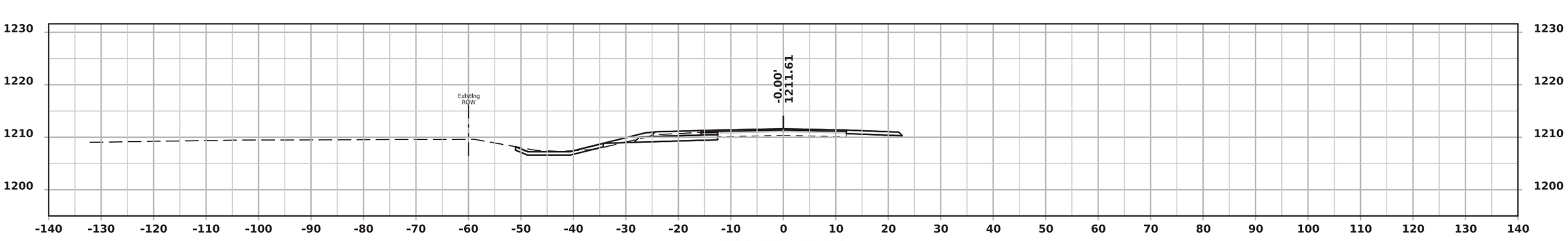
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.22	

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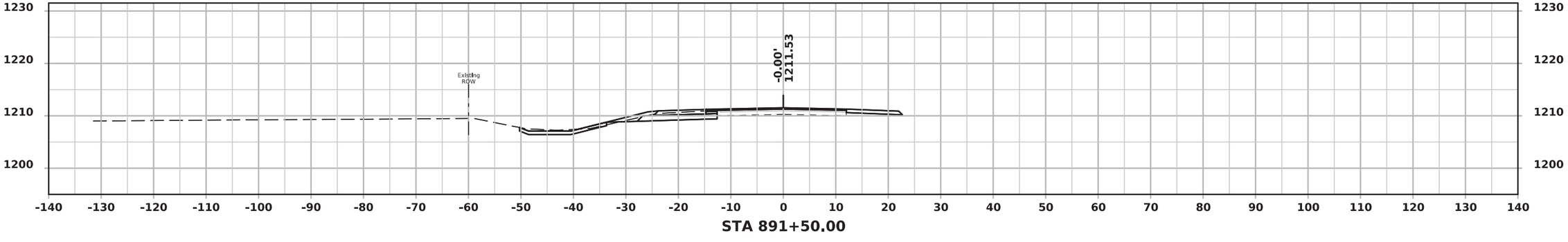
US 18 WB passing lane



STA 892+50.00



STA 892+00.00

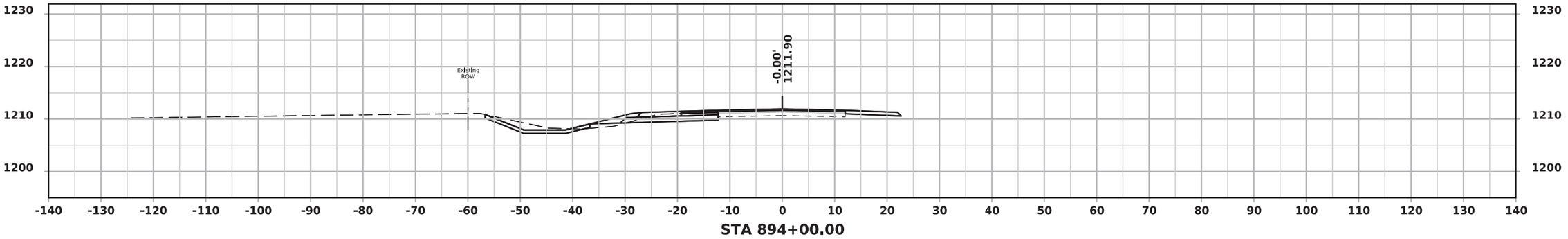


STA 891+50.00

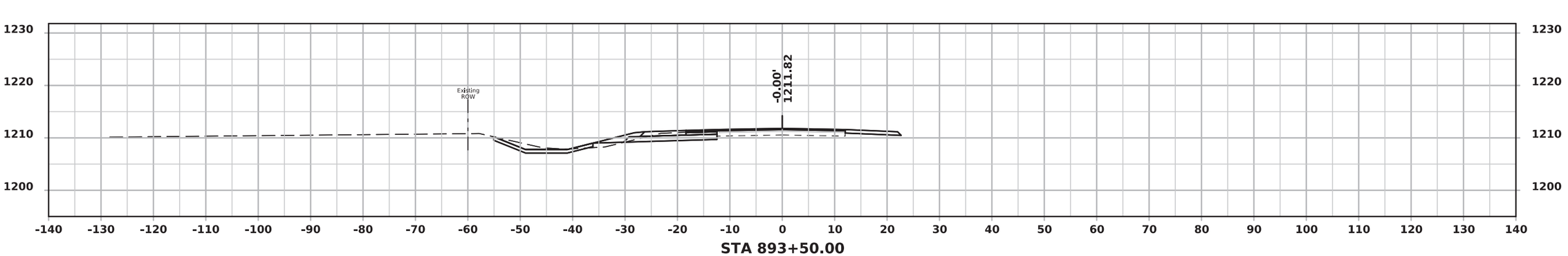
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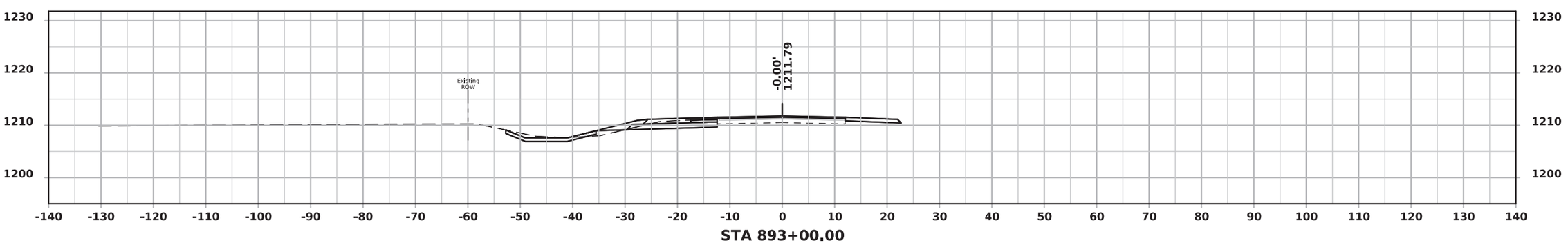
US 18 WB passing lane



STA 894+00.00



STA 893+50.00

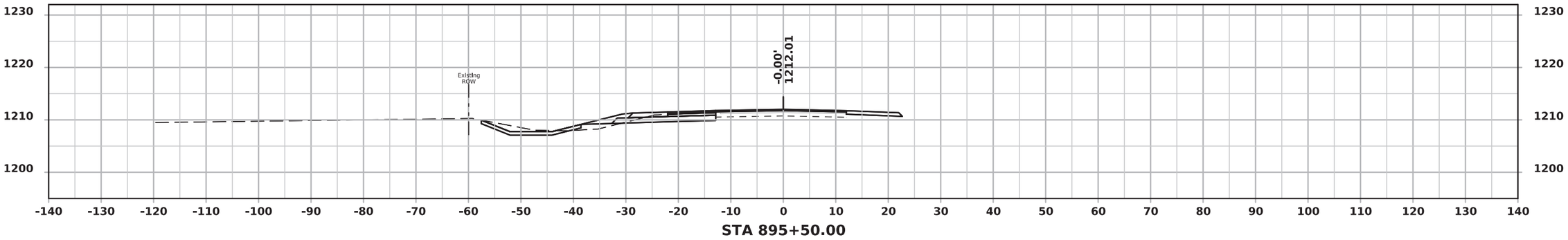


STA 893+00.00

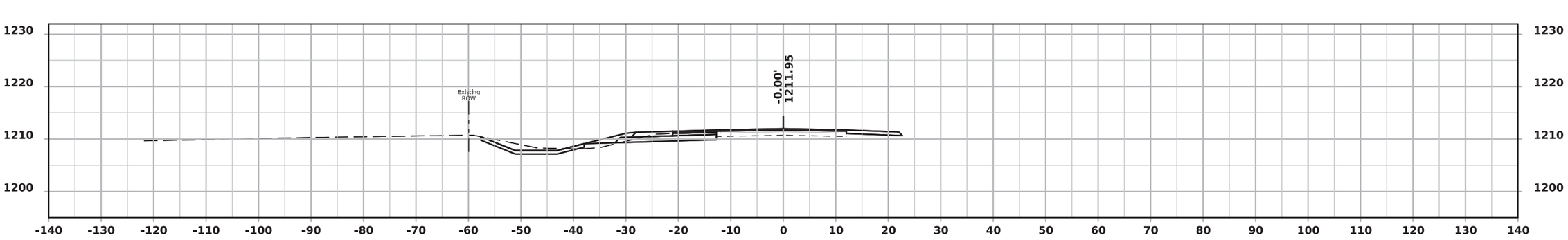
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.24	

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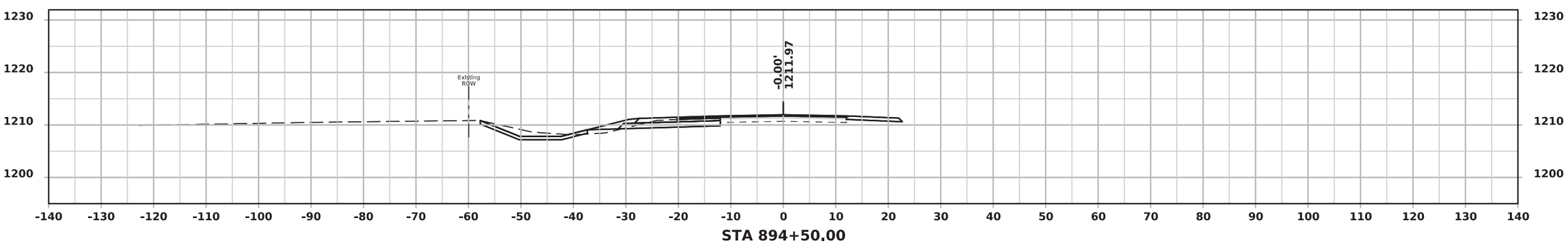
US 18 WB passing lane



STA 895+50.00



STA 895+00.00

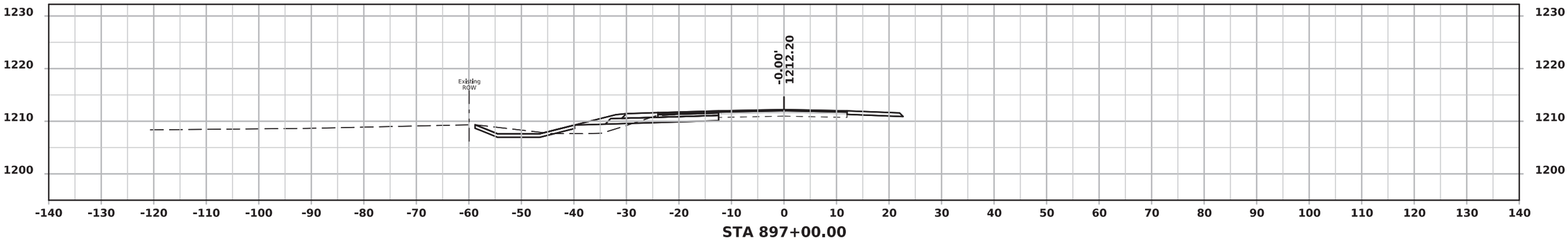


STA 894+50.00

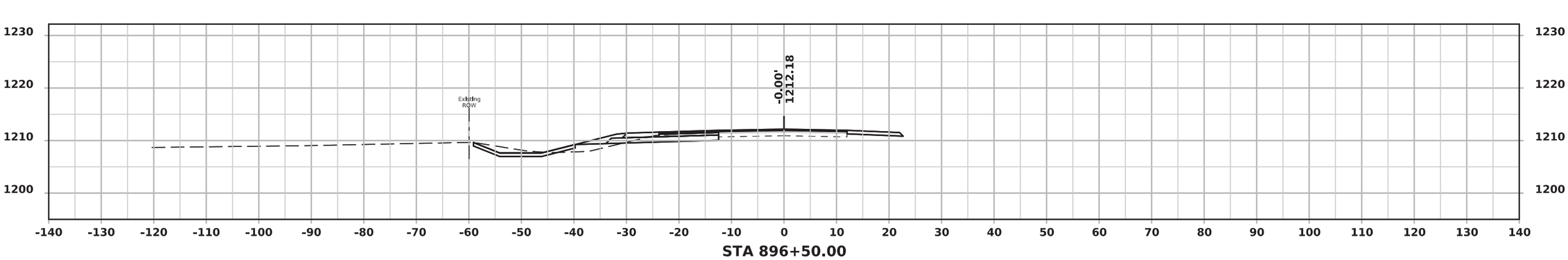
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.25

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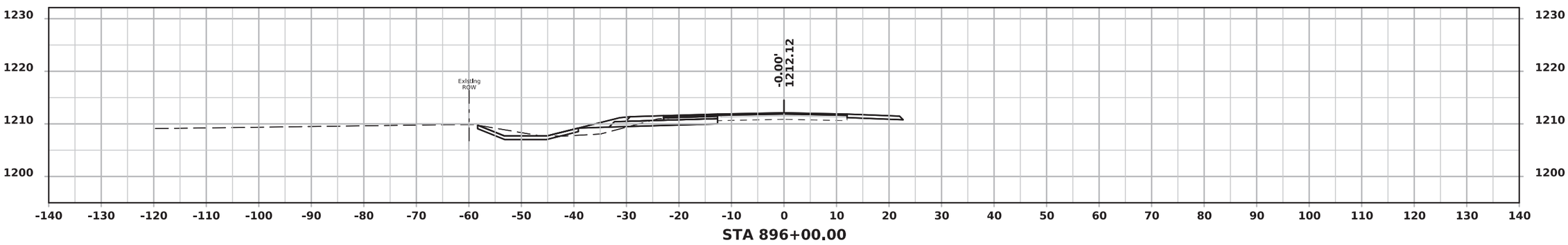
US 18 WB passing lane



STA 897+00.00



STA 896+50.00

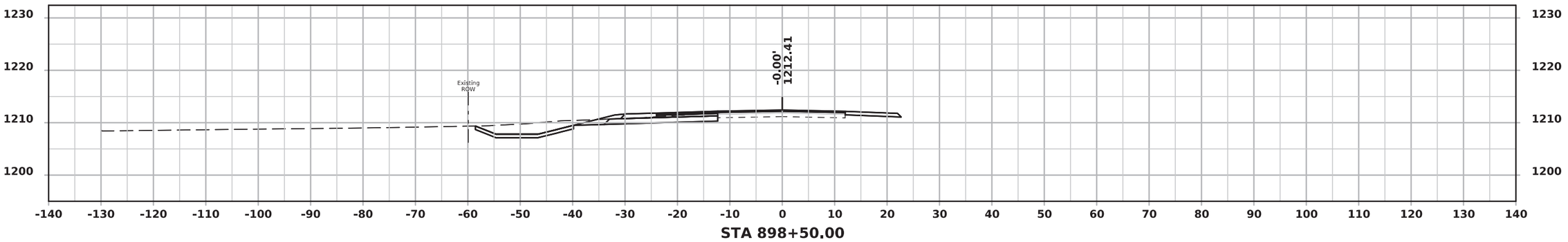


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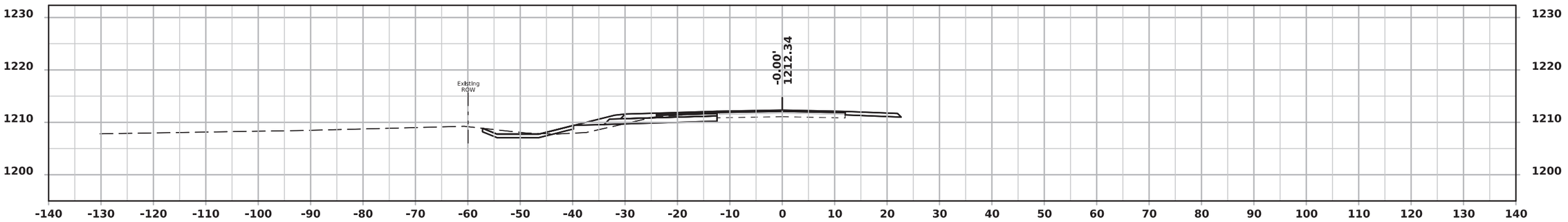
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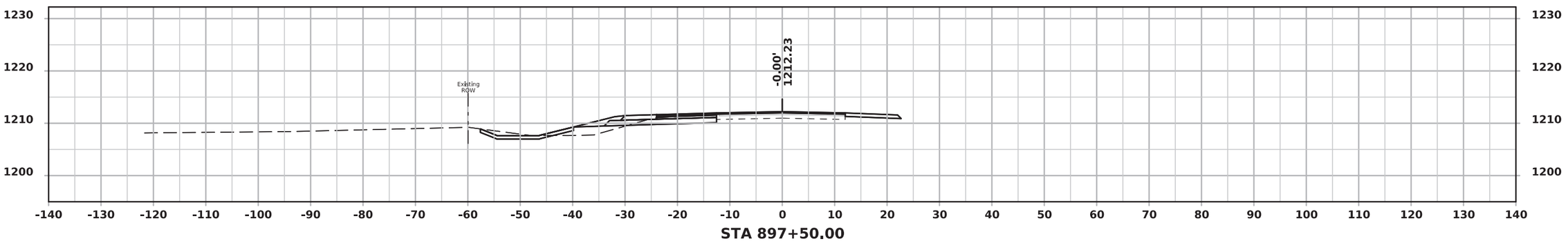
US 18 WB passing lane



STA 898+50.00



STA 898+00.00

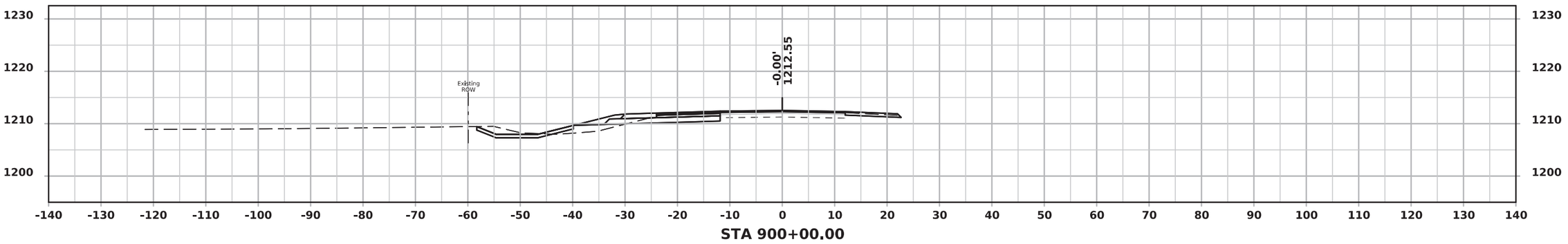


STA 897+50.00

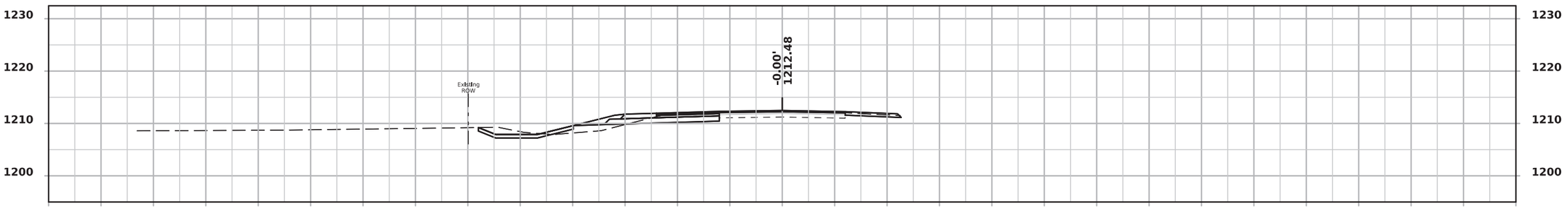
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.27

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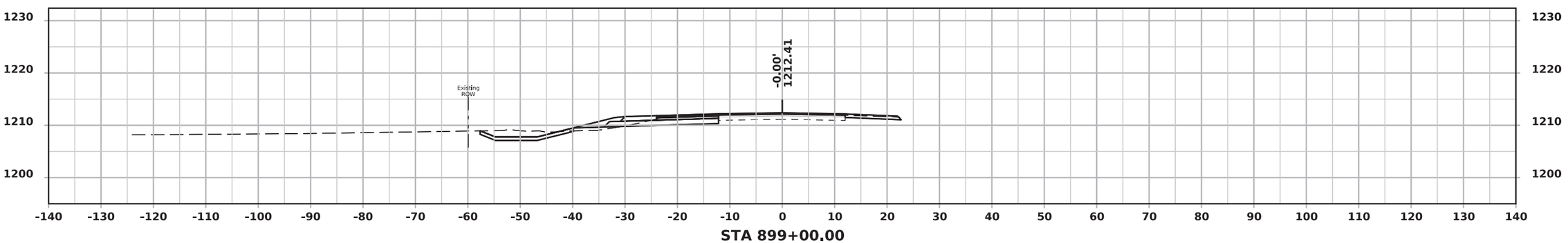
US 18 WB passing lane



STA 900+00.00



STA 899+50.00

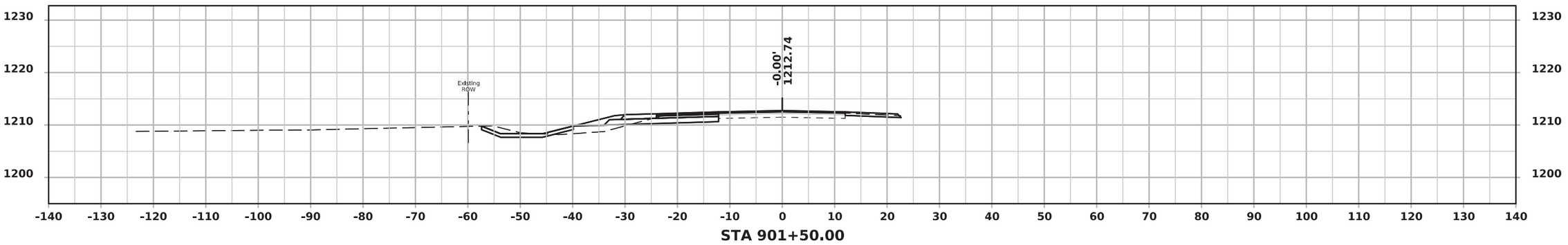


STA 899+00.00

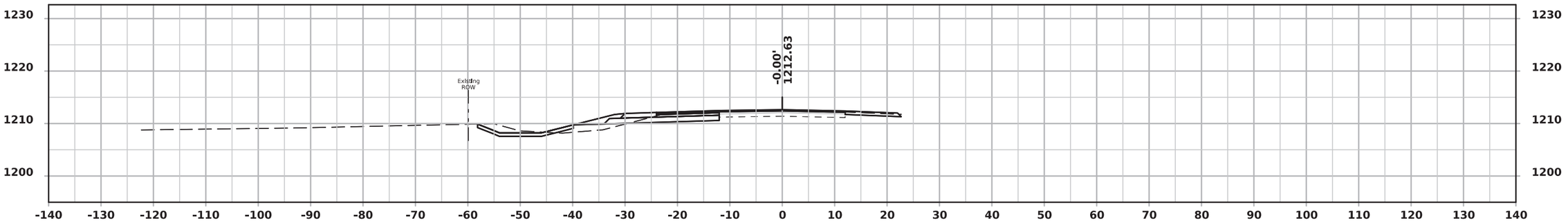
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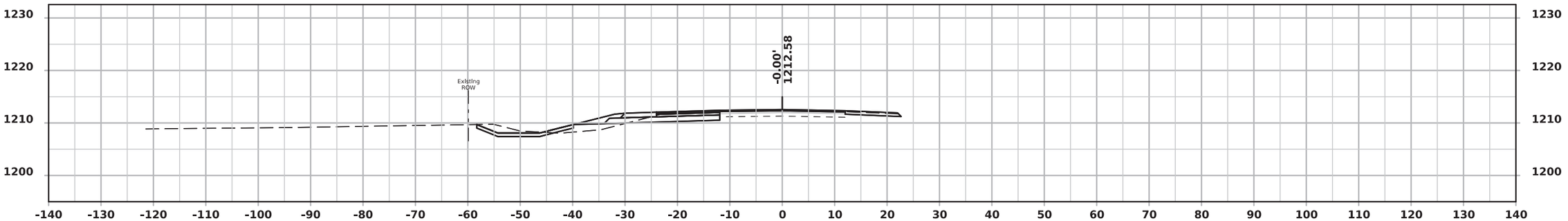
US 18 WB passing lane



STA 901+50.00



STA 901+00.00

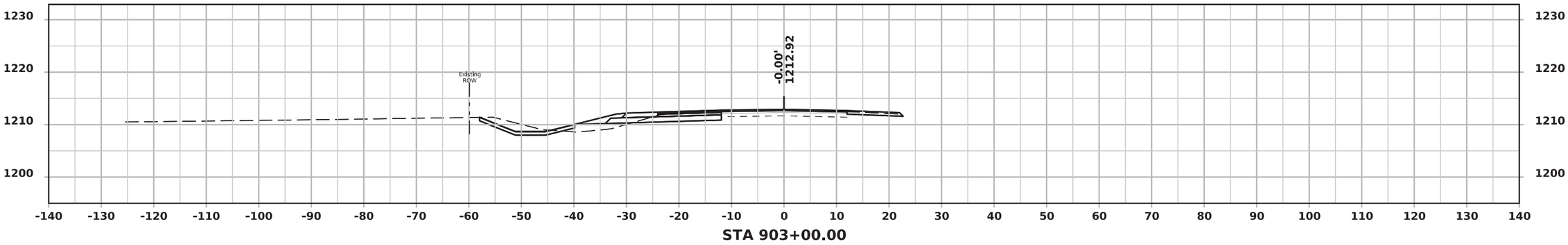


STA 900+50.00

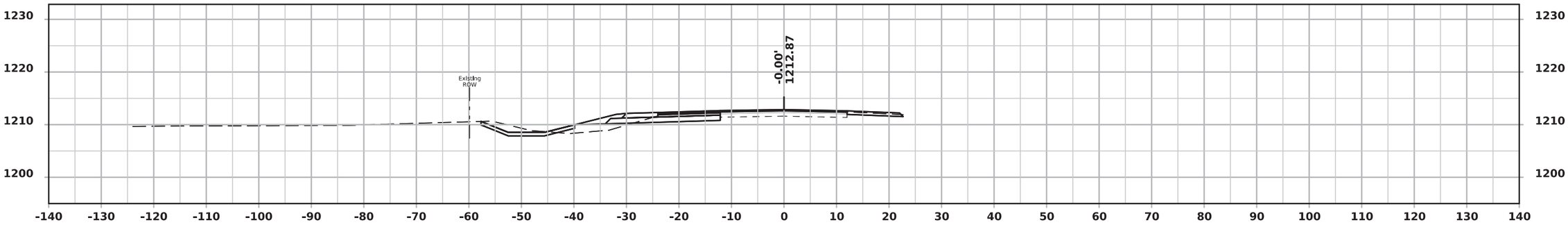
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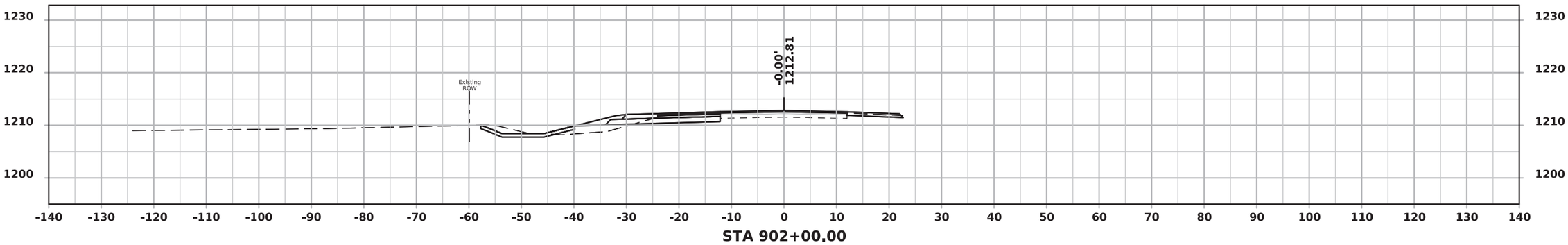
US 18 WB passing lane



STA 903+00.00



STA 902+50.00

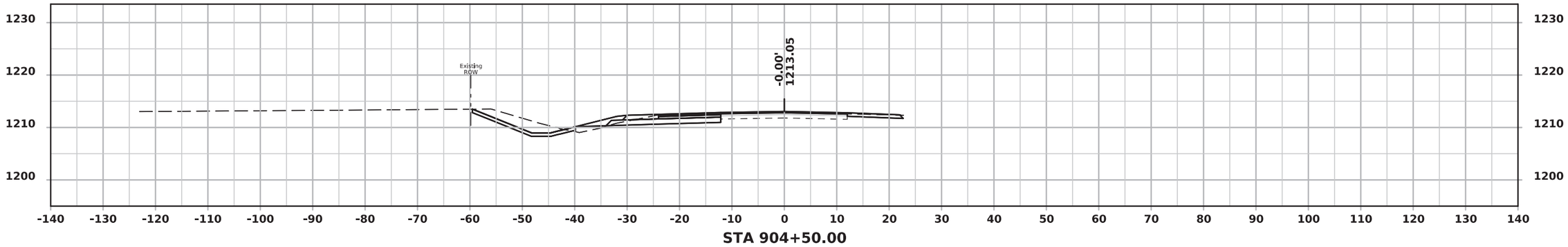


STA 902+00.00

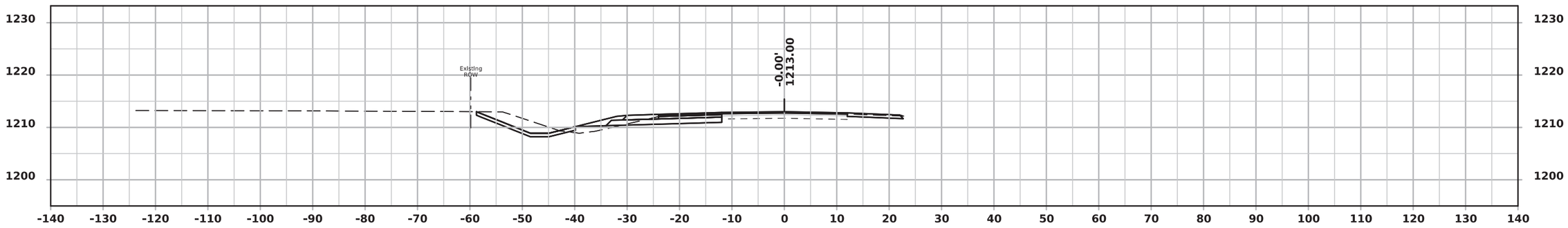
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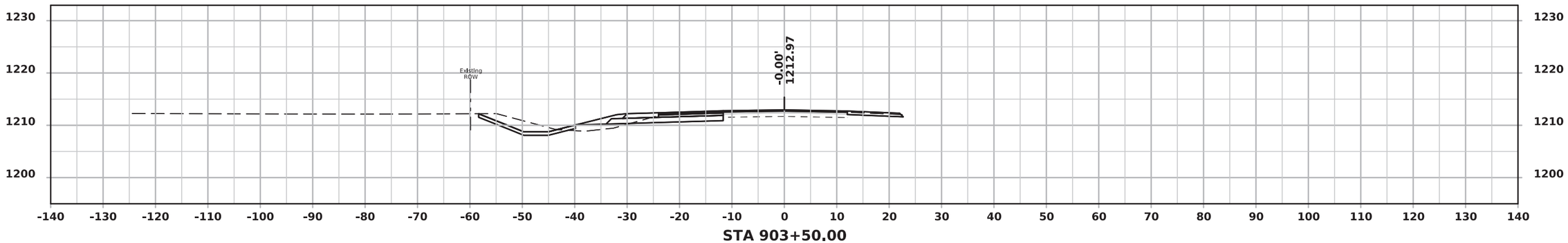
US 18 WB passing lane



STA 904+50.00



STA 904+00.00

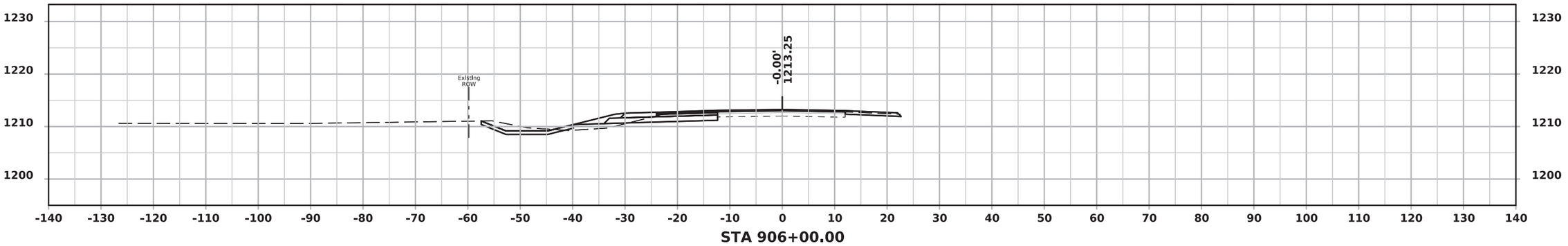


STA 903+50.00

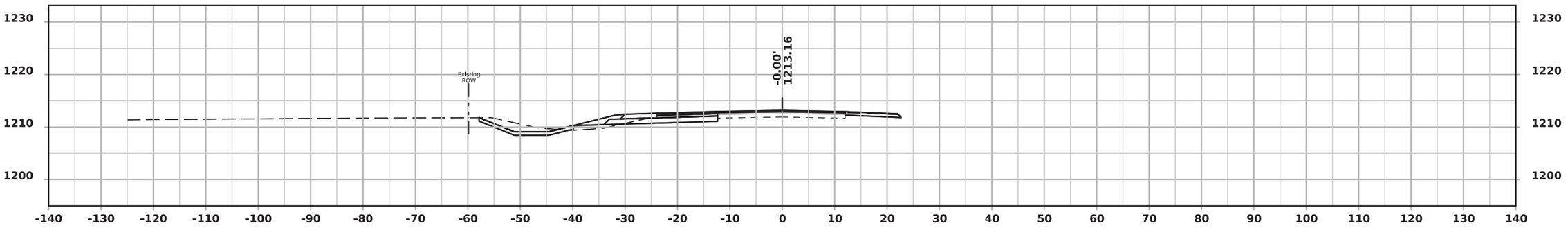
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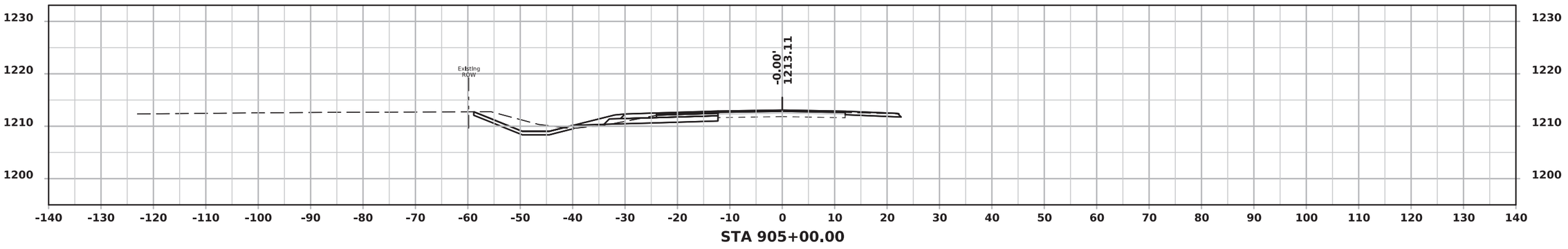
US 18 WB passing lane



STA 906+00.00



STA 905+50.00

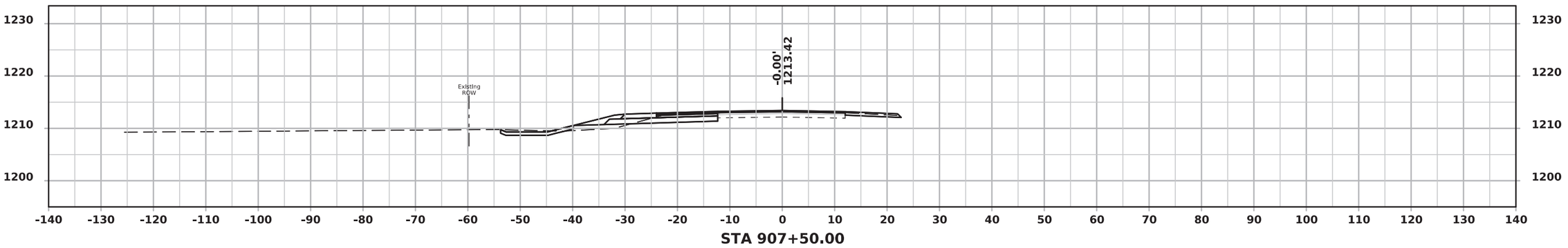


STA 905+00.00

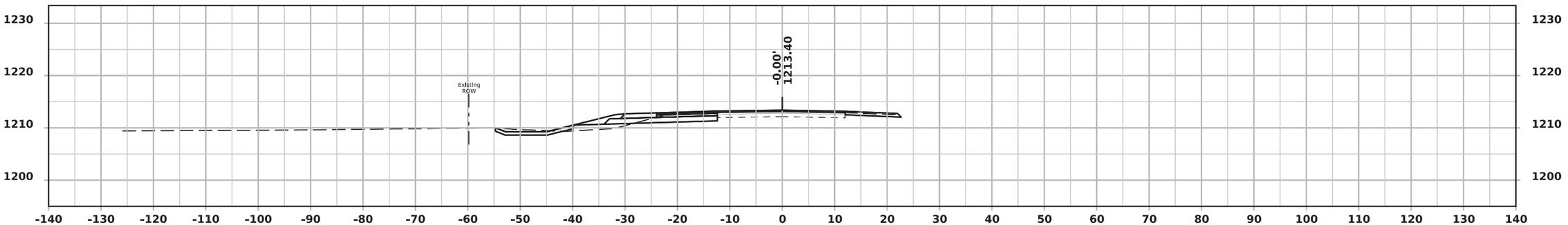
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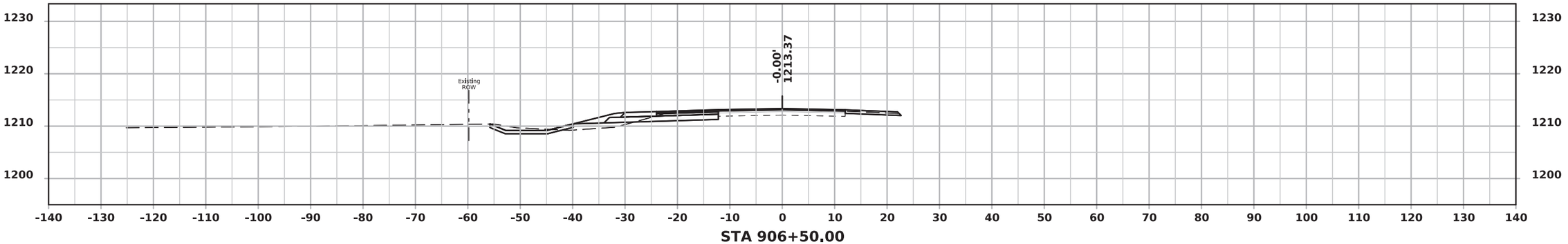
US 18 WB passing lane



STA 907+50.00



STA 907+00.00

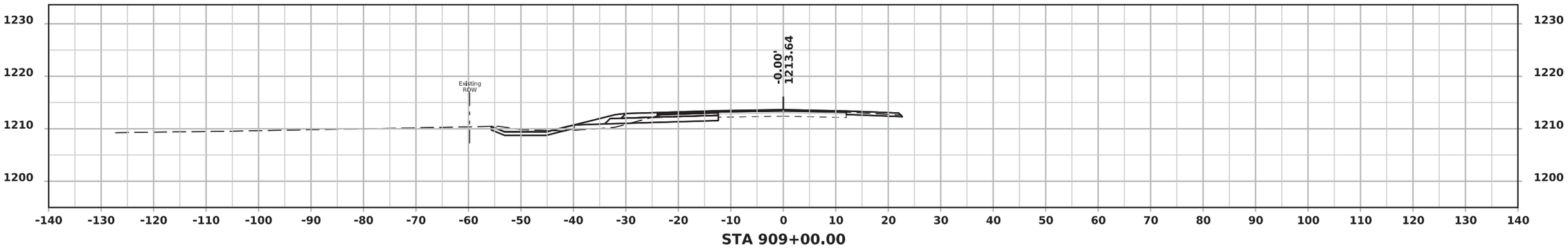


STA 906+50.00

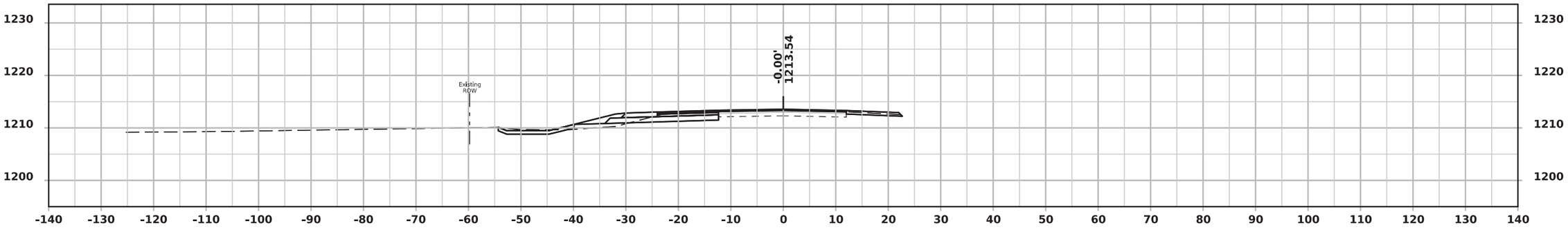
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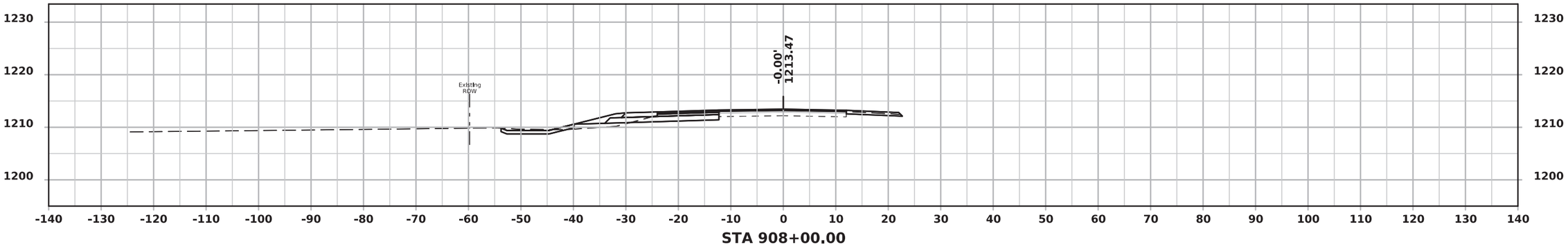
US 18 WB passing lane



STA 909+00.00



STA 908+50.00

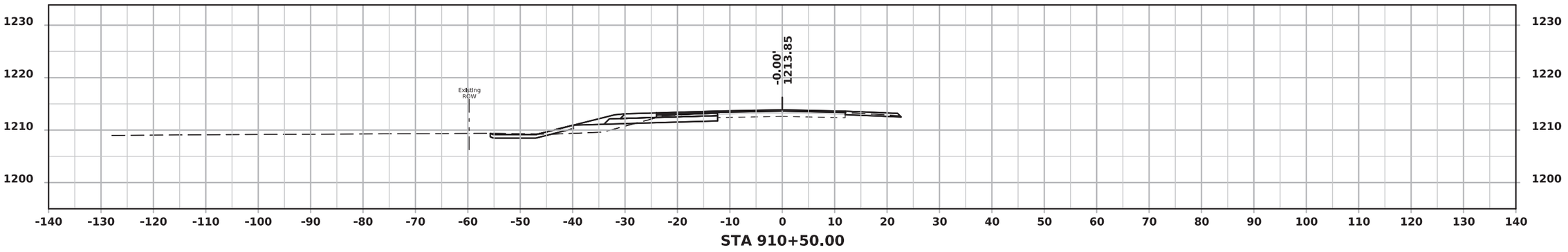


STA 908+00.00

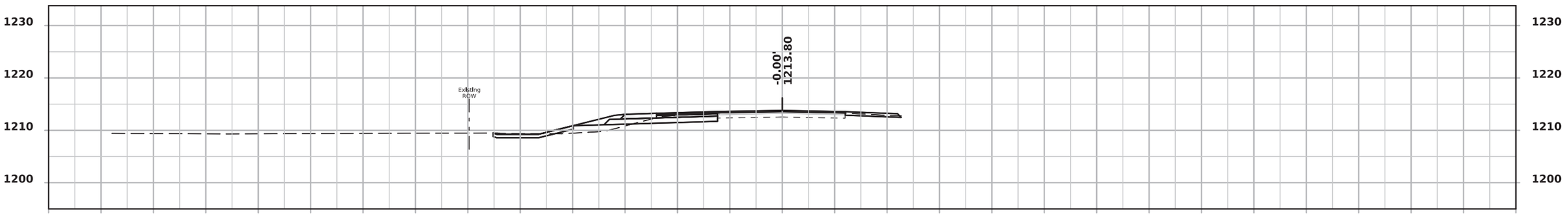
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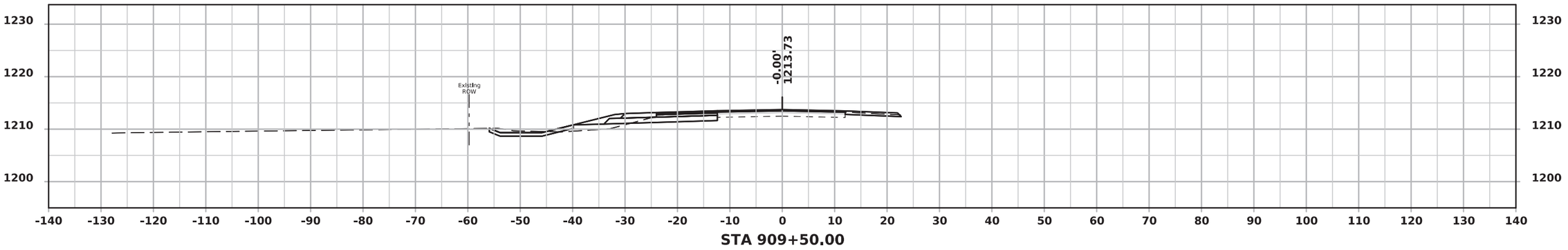
US 18 WB passing lane



STA 910+50.00



STA 910+00.00

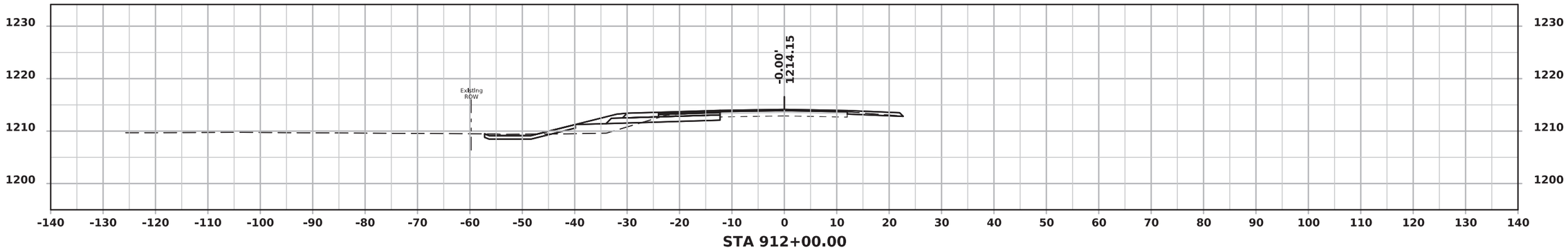


STA 909+50.00

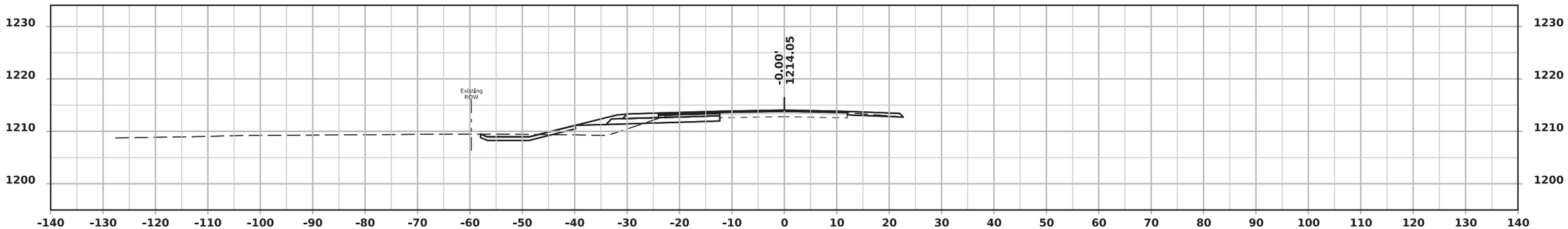
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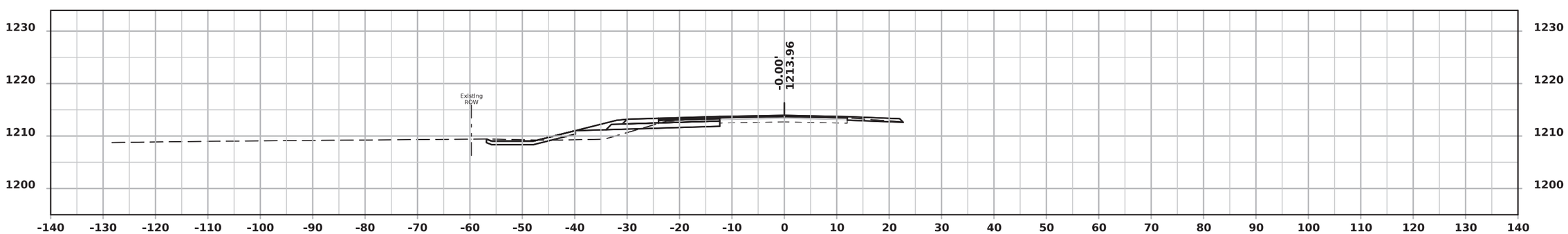
US 18 WB passing lane



STA 912+00.00



STA 911+50.00

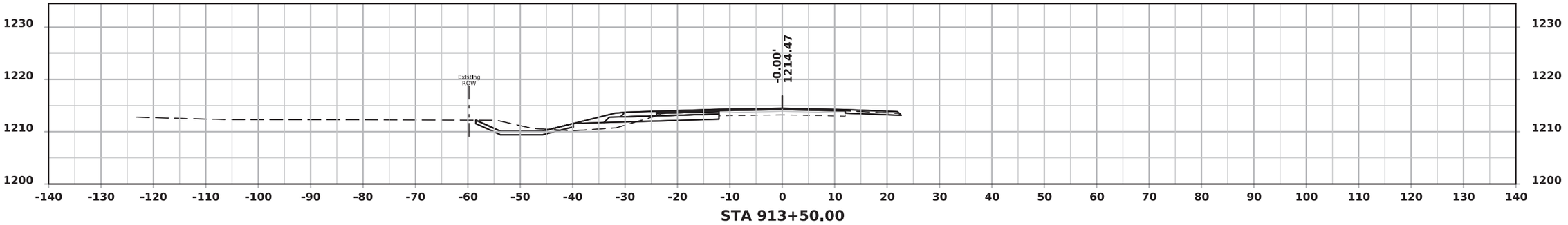


STA 911+00.00

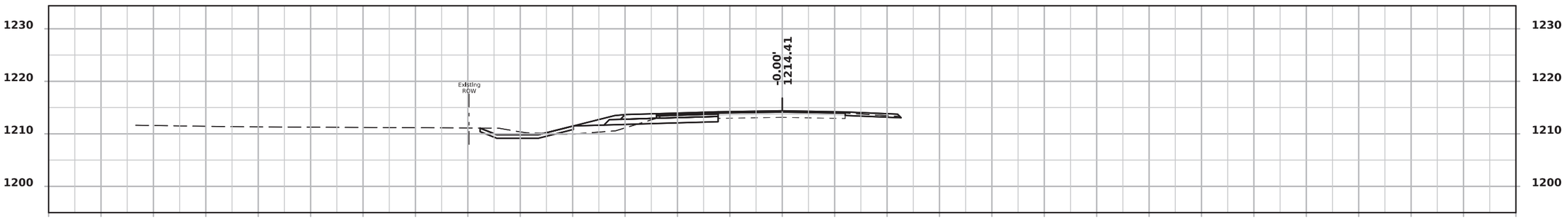
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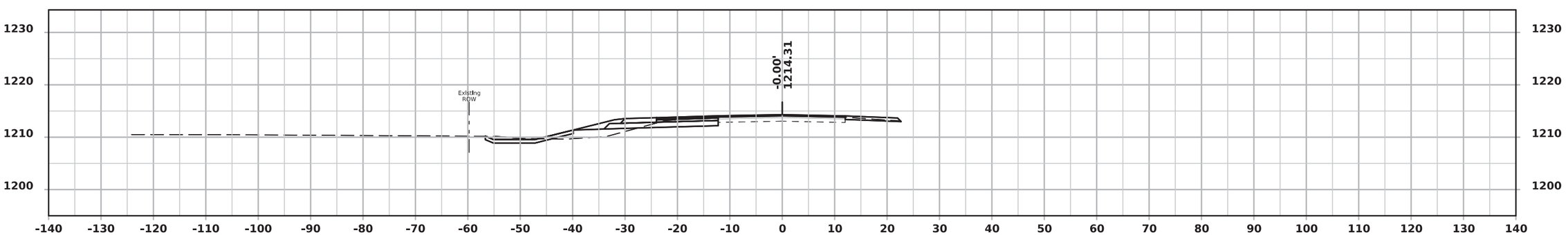
US 18 WB passing lane



STA 913+50.00



STA 913+00.00

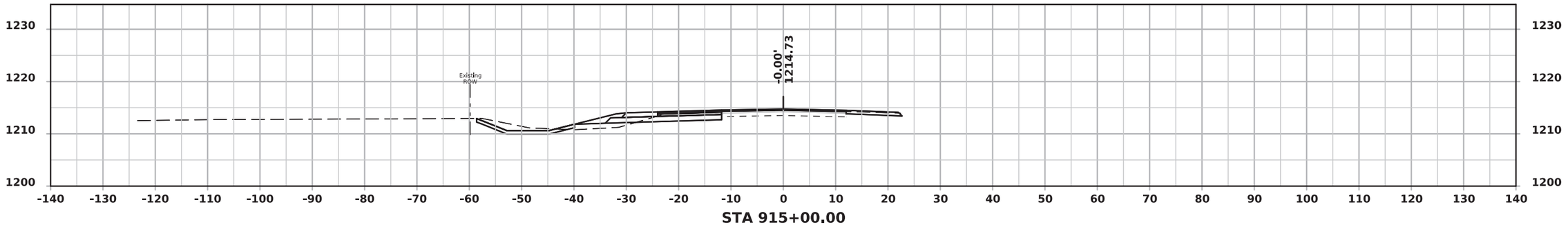


STA 912+50.00

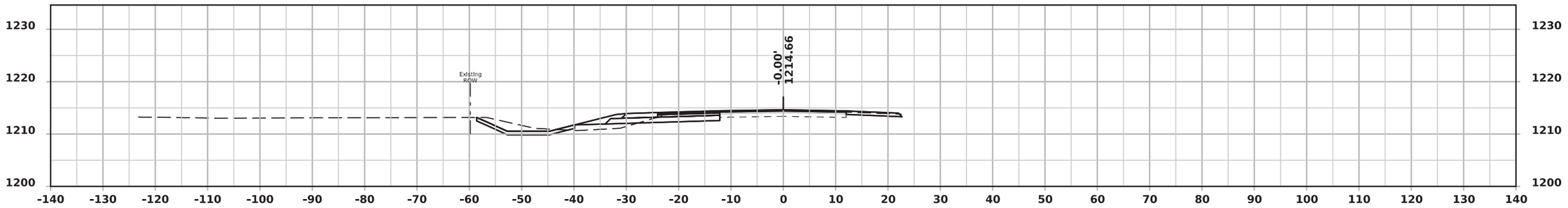
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.37	

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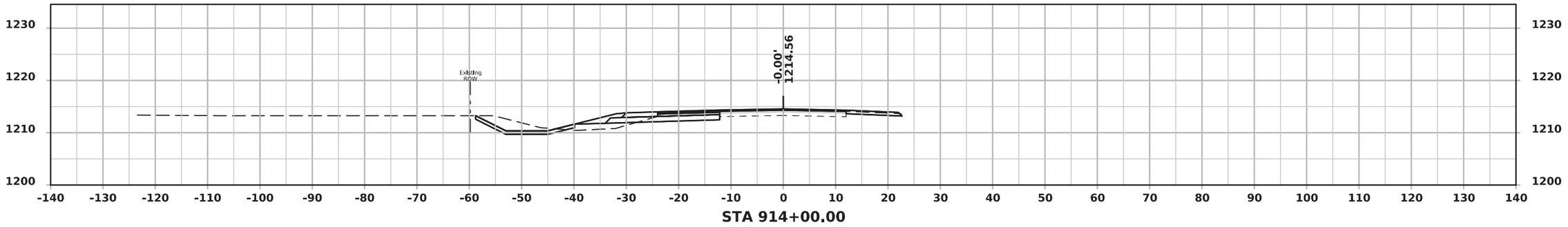
US 18 WB passing lane



STA 915+00.00



STA 914+50.00

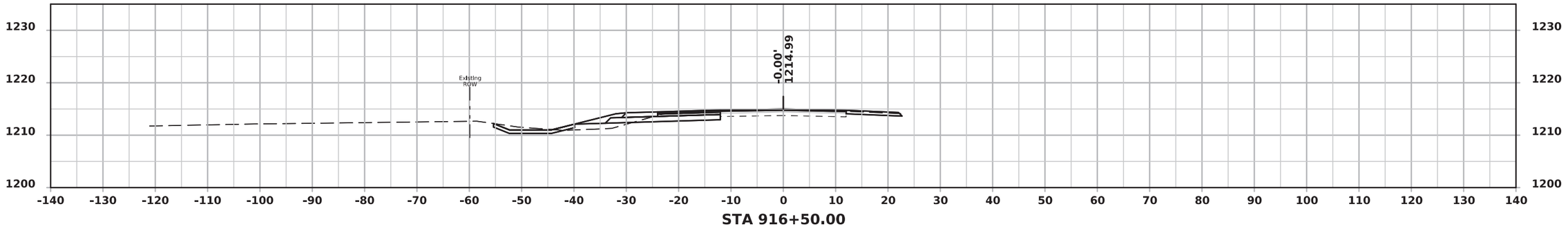


STA 914+00.00

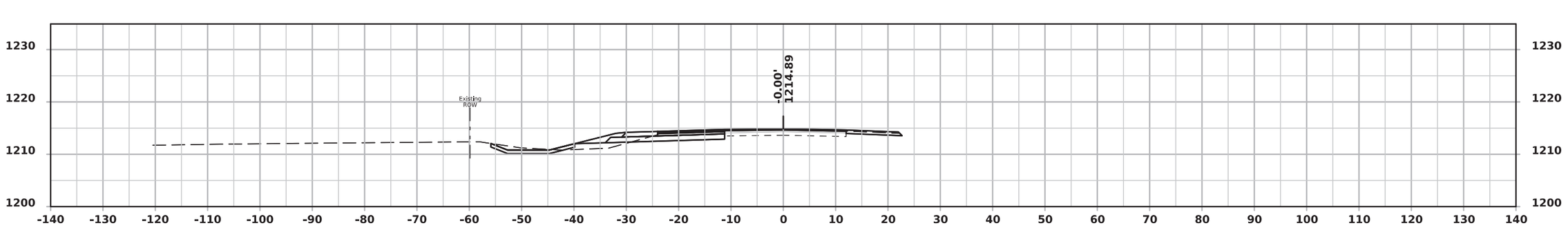
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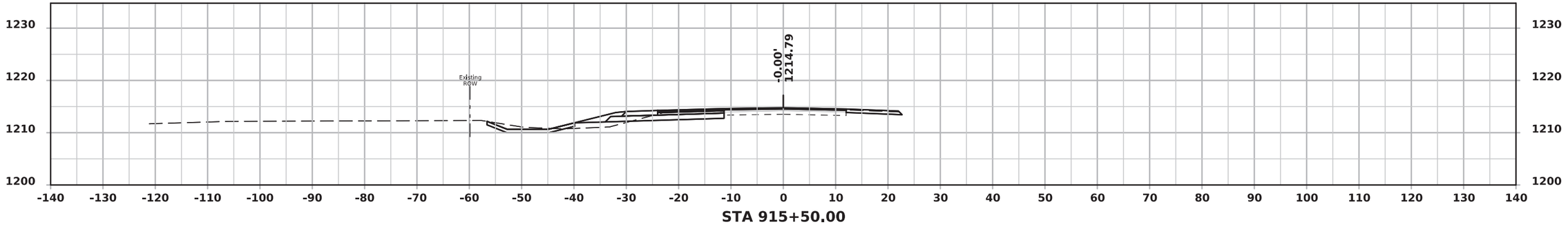
US 18 WB passing lane



STA 916+50.00



STA 916+00.00

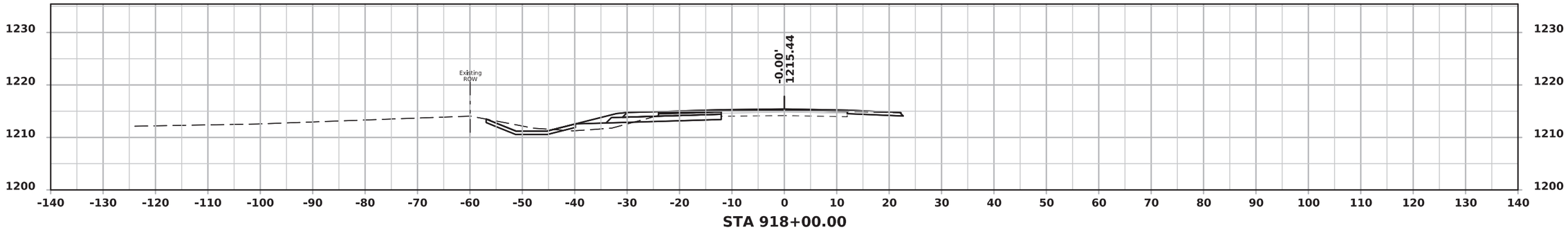


STA 915+50.00

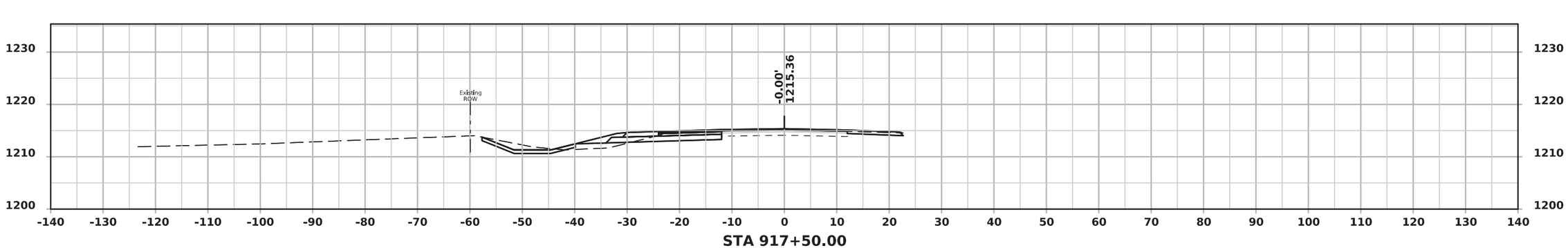
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.39	

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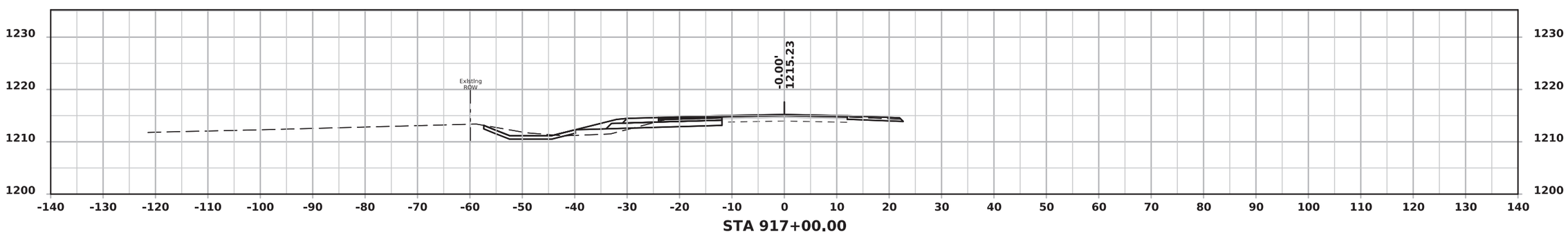
US 18 WB passing lane



STA 918+00.00



STA 917+50.00

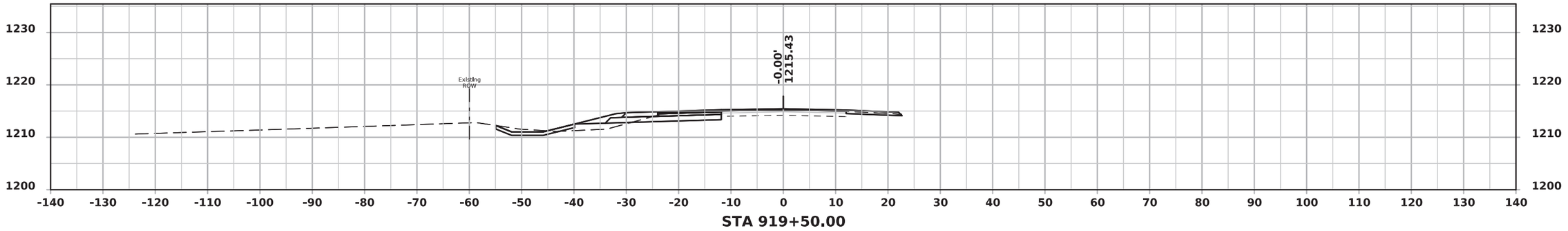


STA 917+00.00

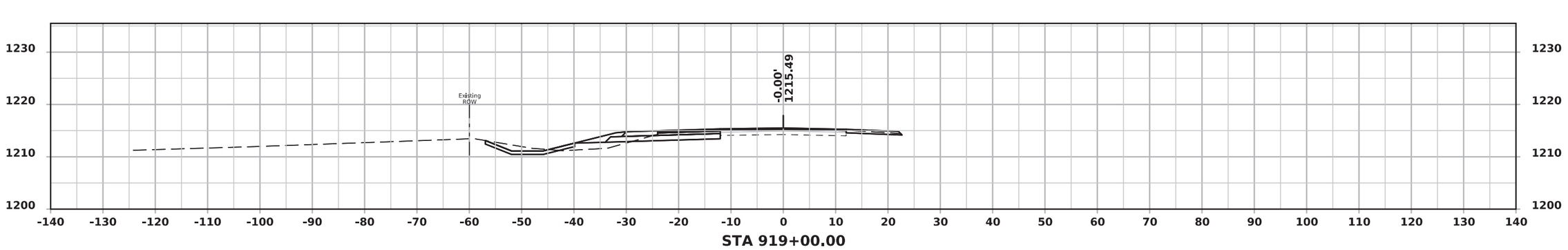
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.40

1:56:39 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_WB_passing.dgn

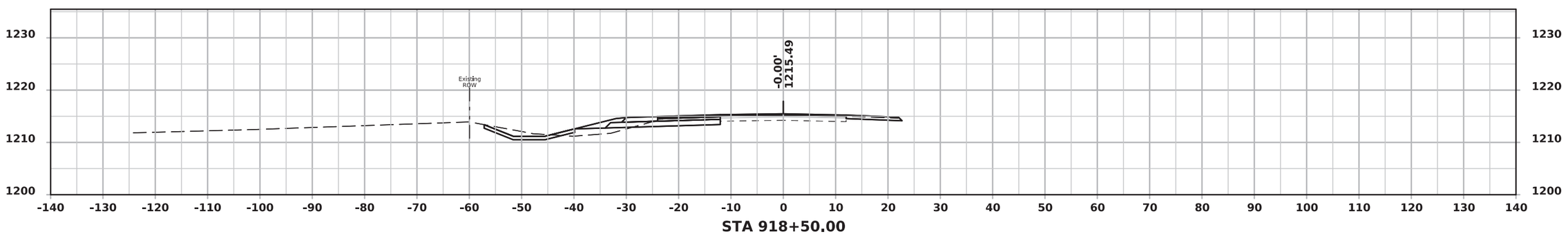
US 18 WB passing lane



STA 919+50.00



STA 919+00.00

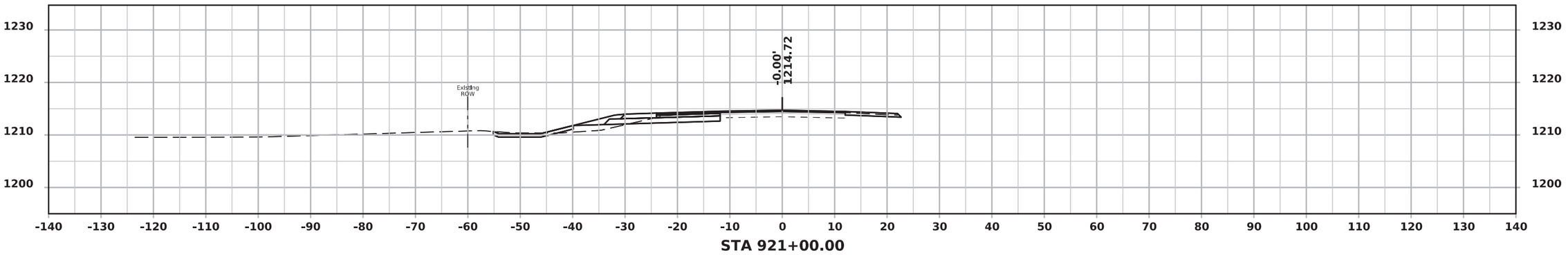


STA 918+50.00

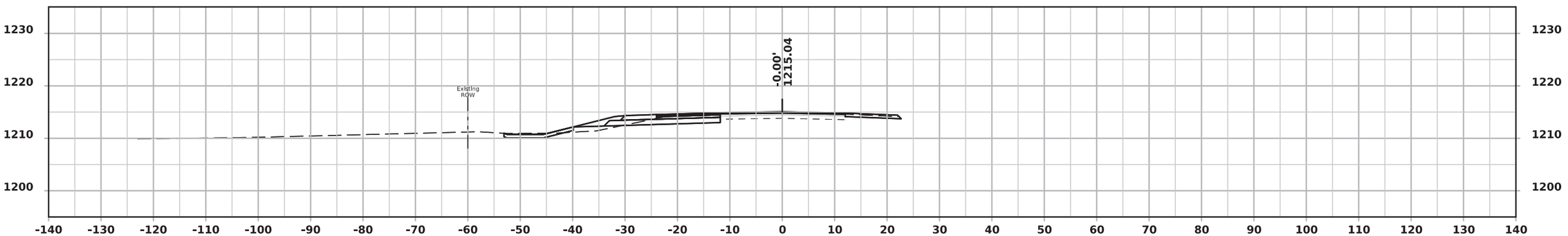
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.41

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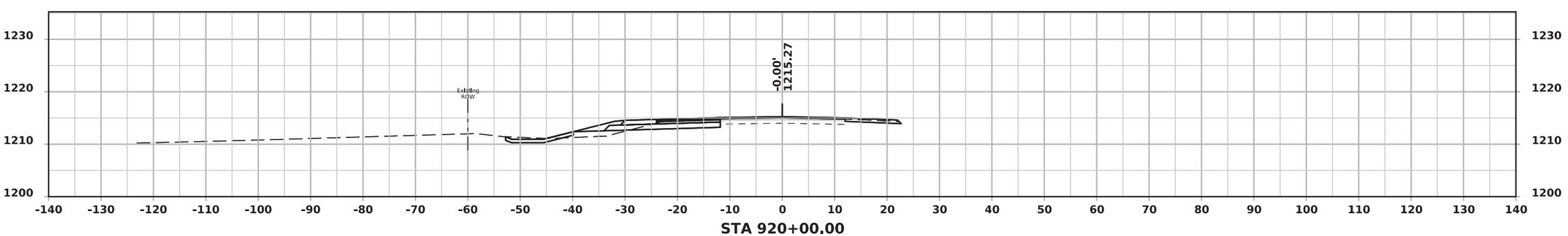
US 18 WB passing lane



STA 921+00.00



STA 920+50.00

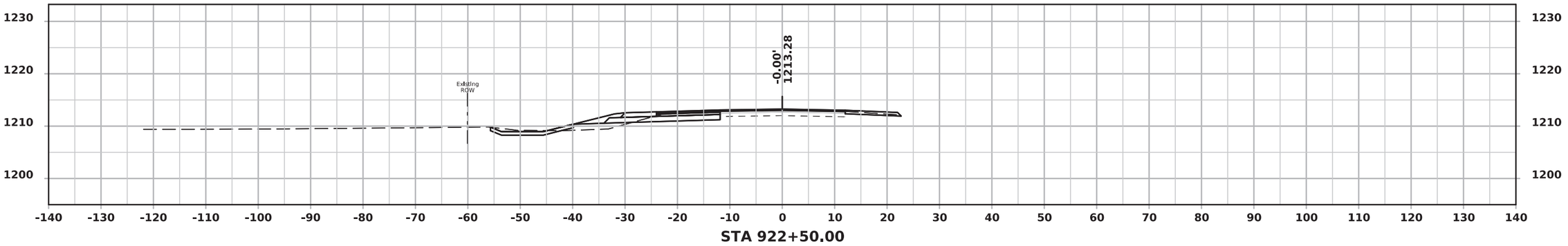


STA 920+00.00

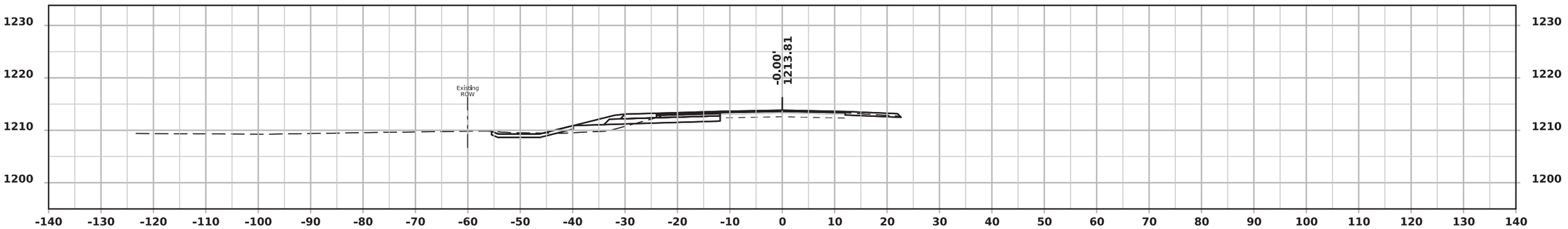
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.42	

1:56:41 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_WB_passing.dgn

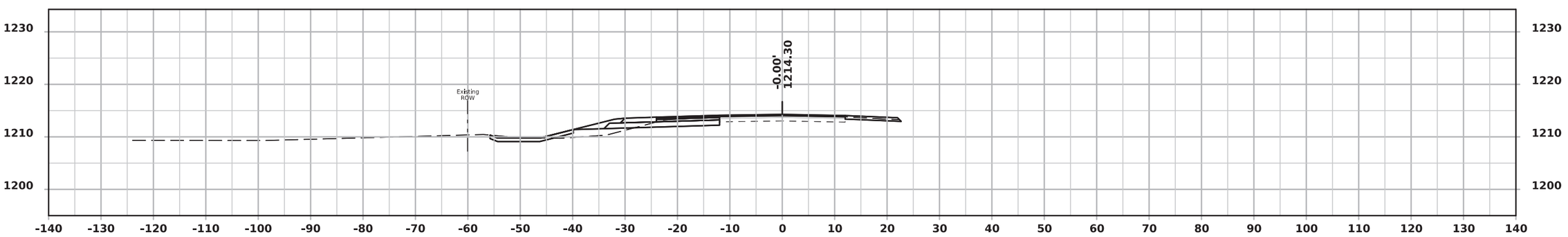
US 18 WB passing lane



STA 922+50.00



STA 922+00.00

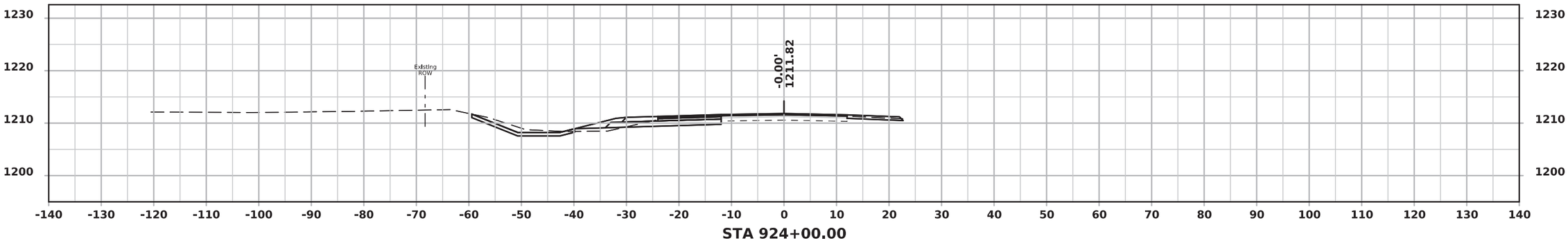


STA 921+50.00

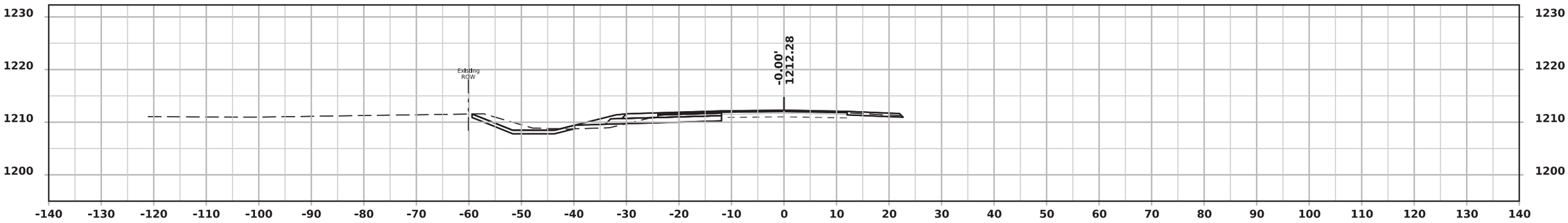
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.43	

1:56:42 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_WB_passing.dgn

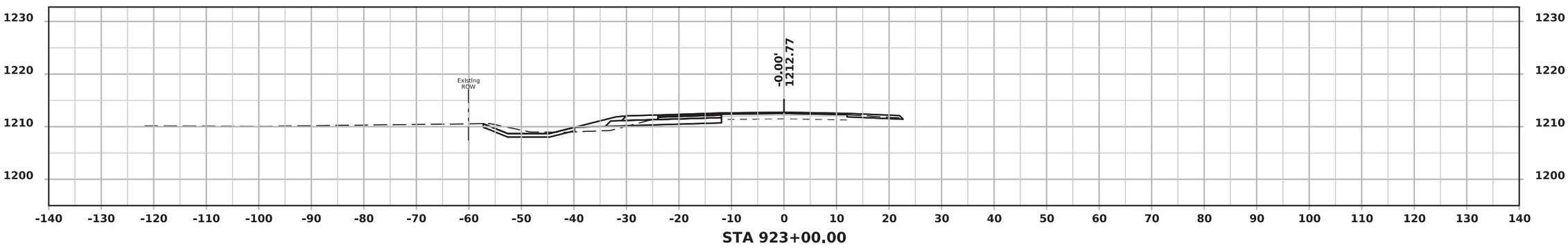
US 18 WB passing lane



STA 924+00.00



STA 923+50.00

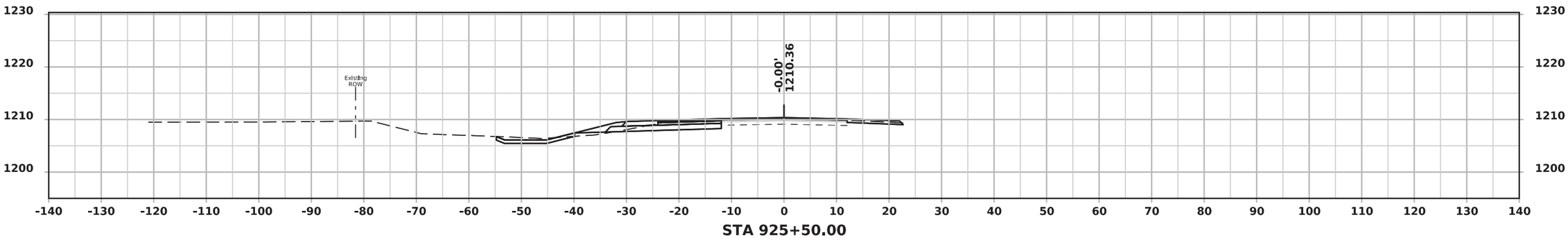


STA 923+00.00

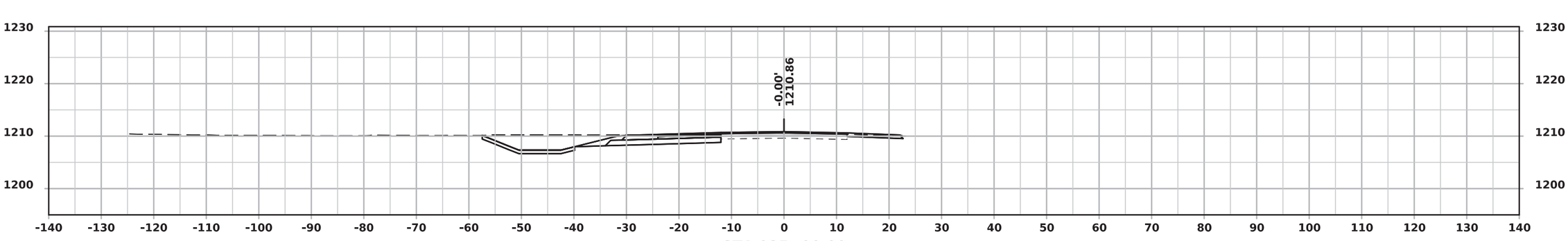
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.44

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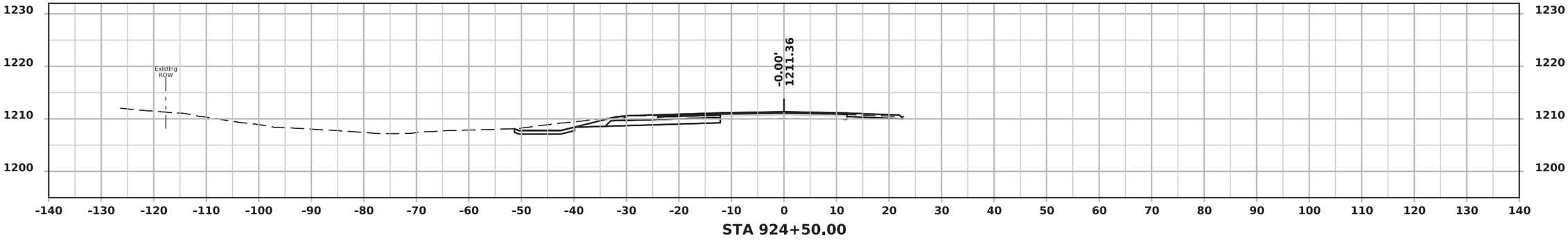
US 18 WB passing lane



STA 925+50.00



STA 925+00.00

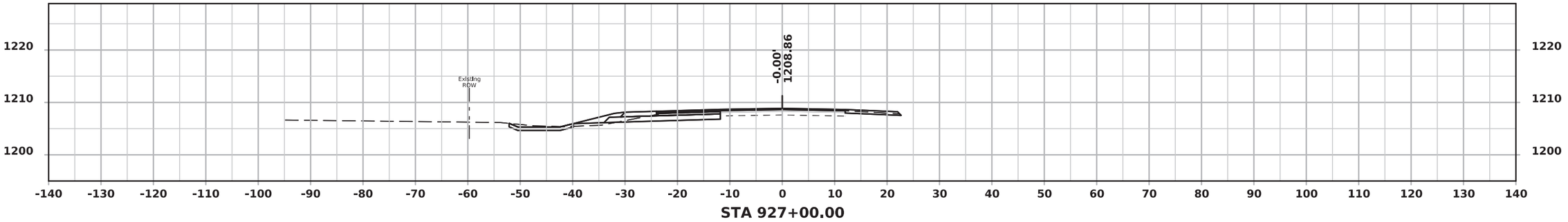


STA 924+50.00

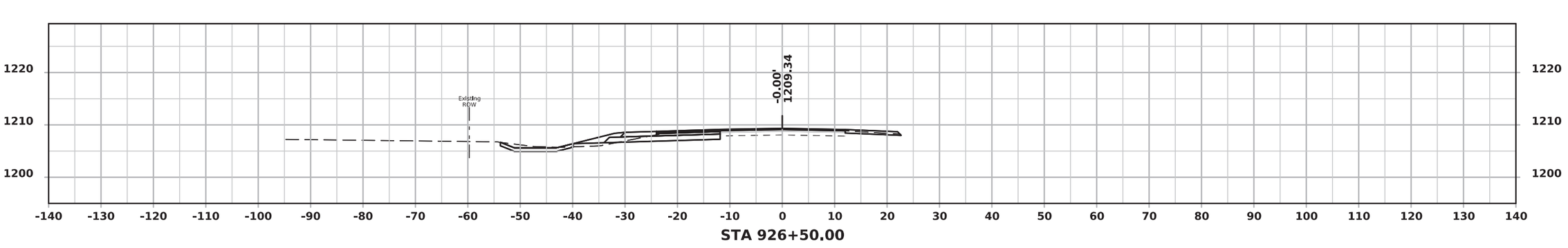
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.45

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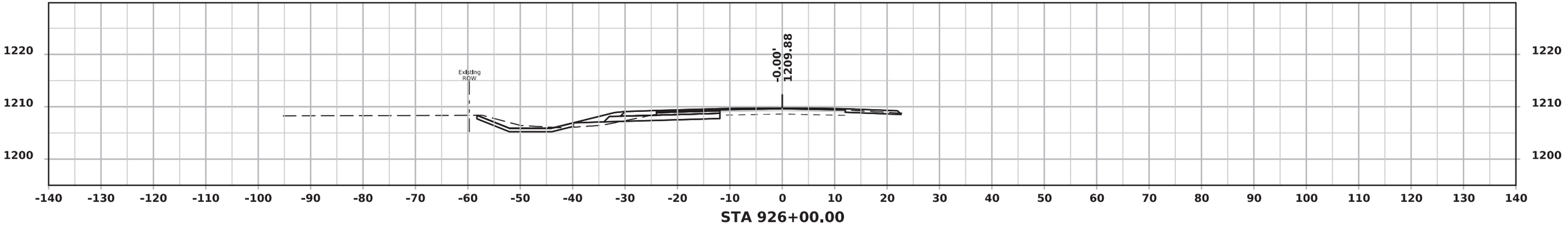
US 18 WB passing lane



STA 927+00.00



STA 926+50.00

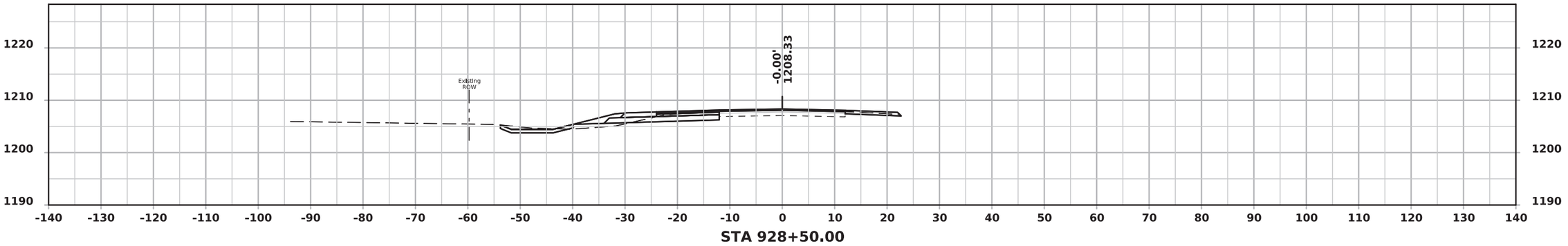


STA 926+00.00

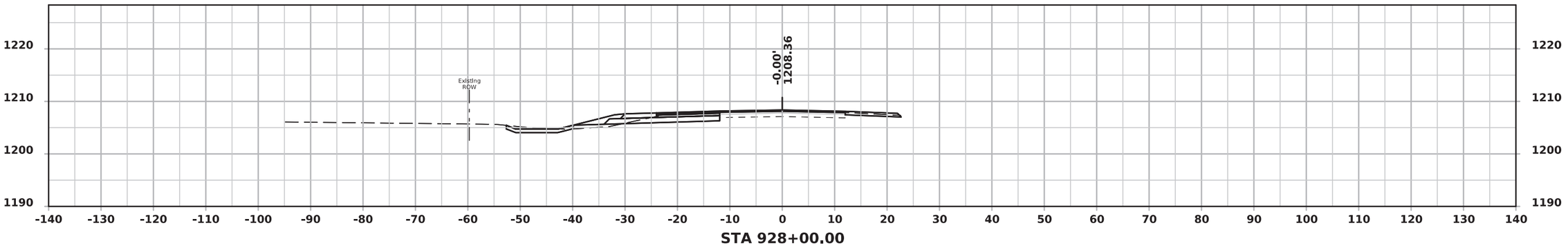
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.46

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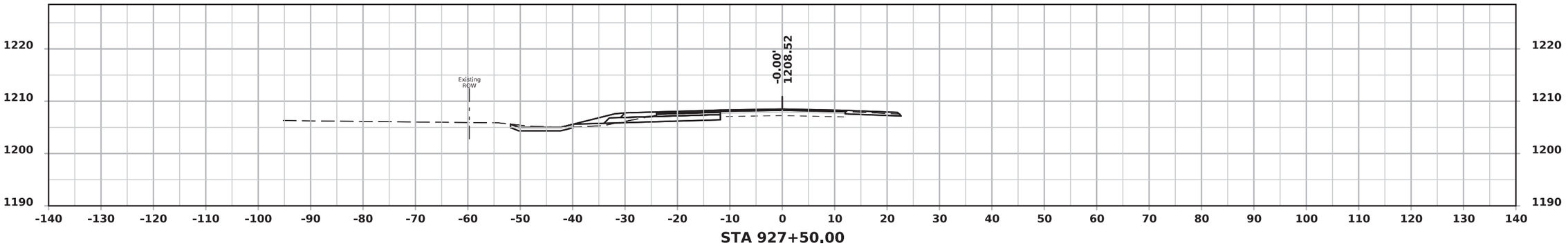
US 18 WB passing lane



STA 928+50.00



STA 928+00.00

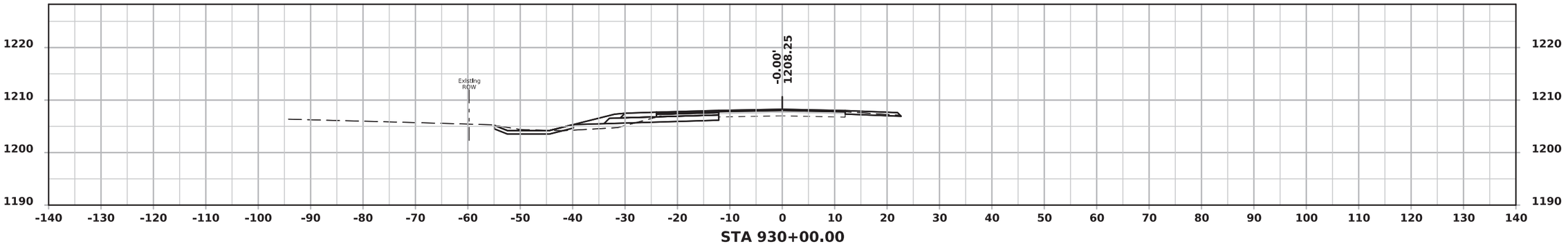


STA 927+50.00

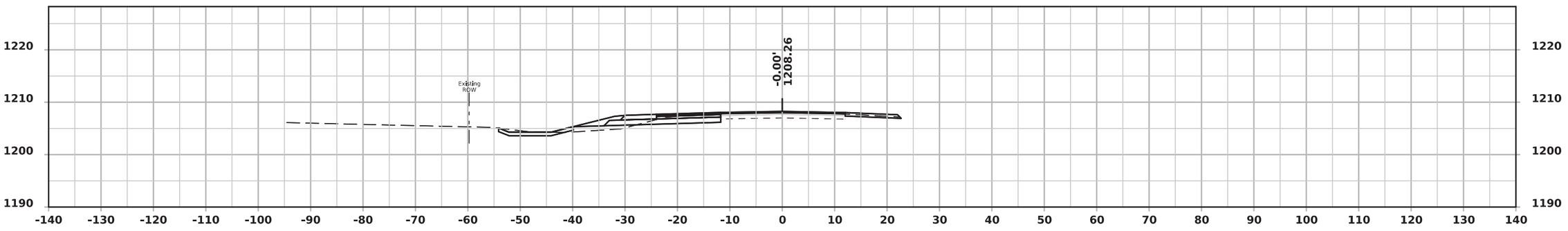
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.47	

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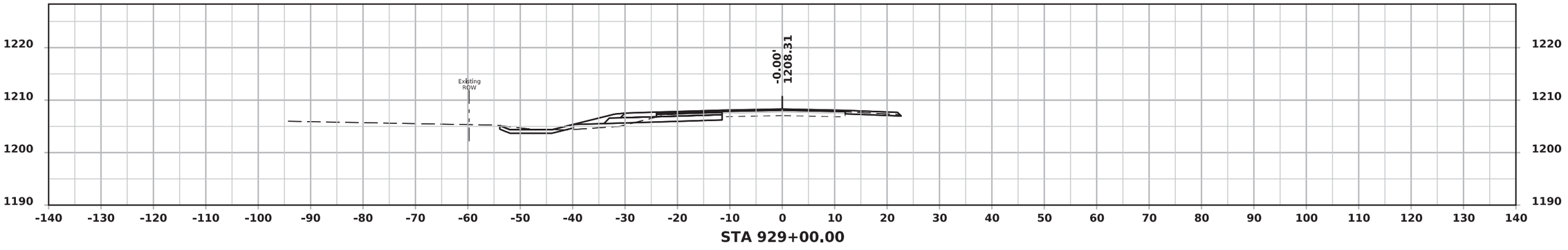
US 18 WB passing lane



STA 930+00.00



STA 929+50.00

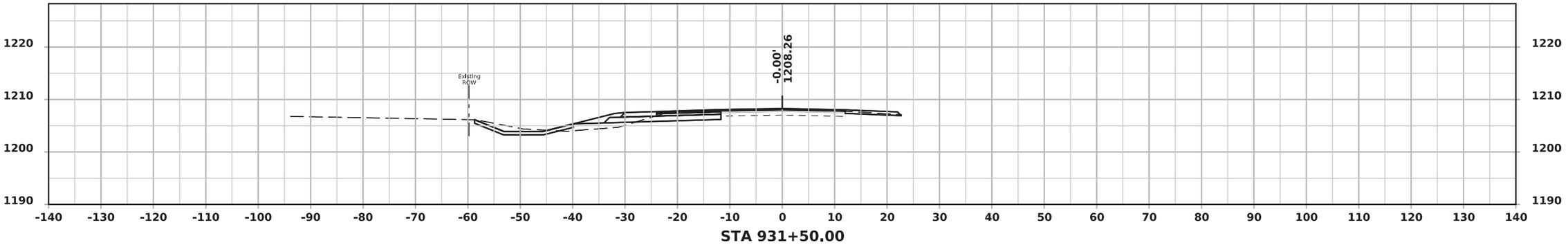


STA 929+00.00

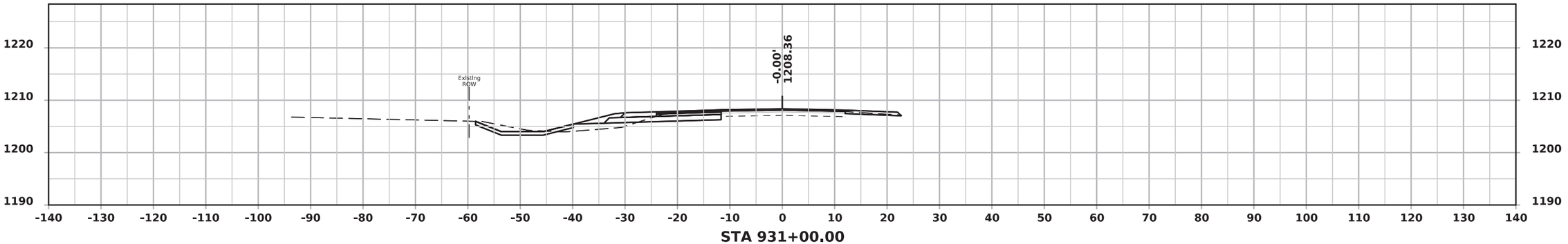
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.48	

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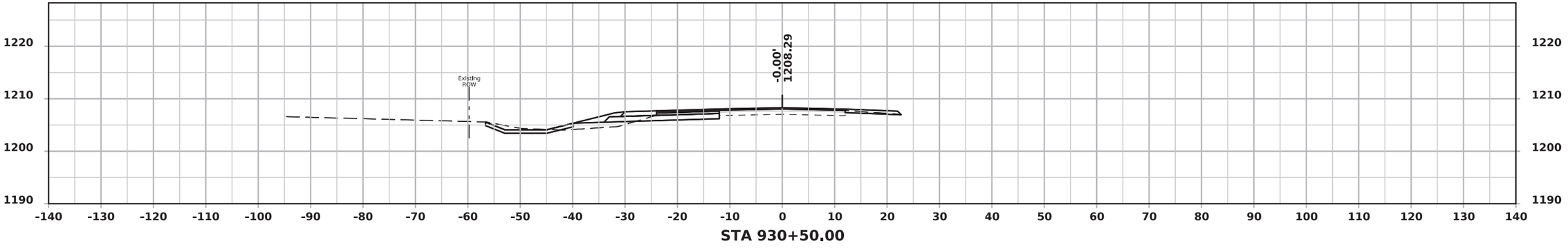
US 18 WB passing lane



STA 931+50.00



STA 931+00.00

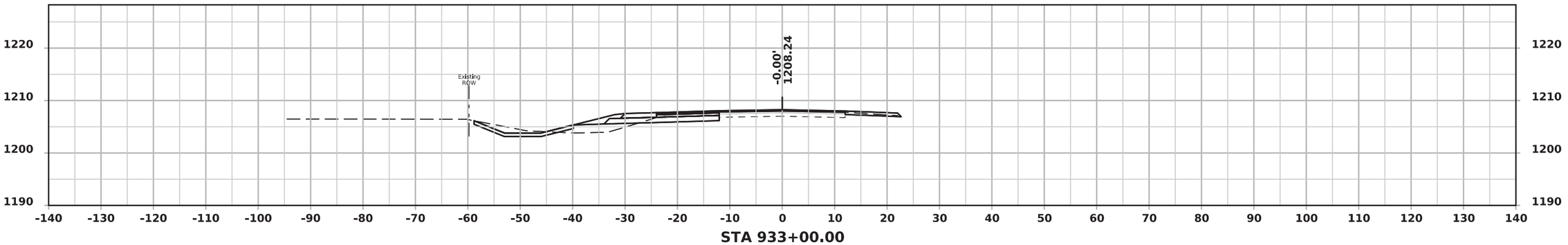


STA 930+50.00

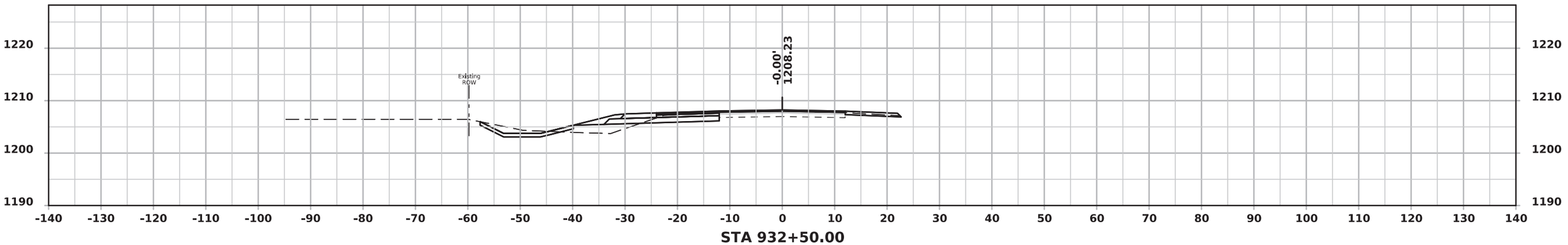
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.49	

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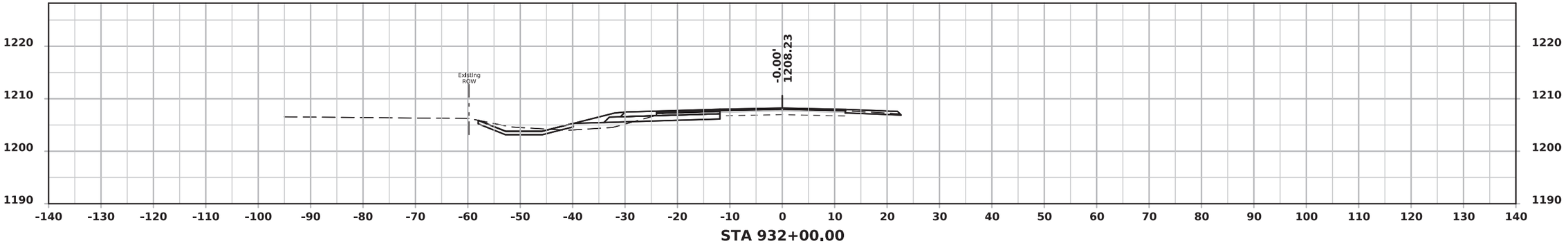
US 18 WB passing lane



STA 933+00.00



STA 932+50.00

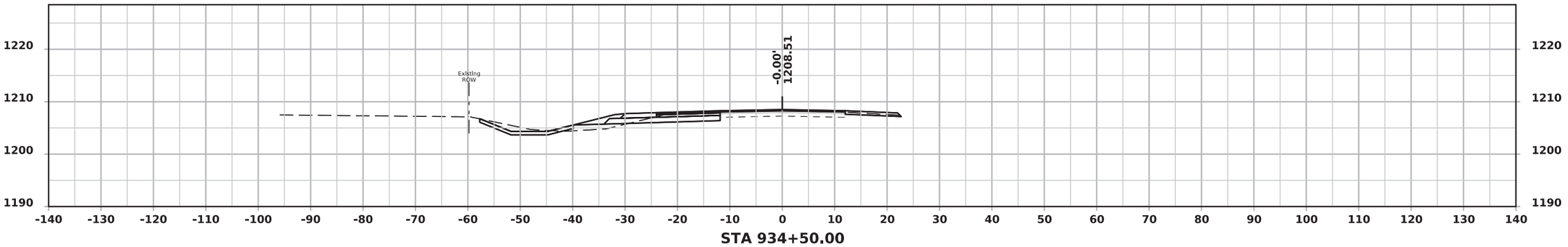


STA 932+00.00

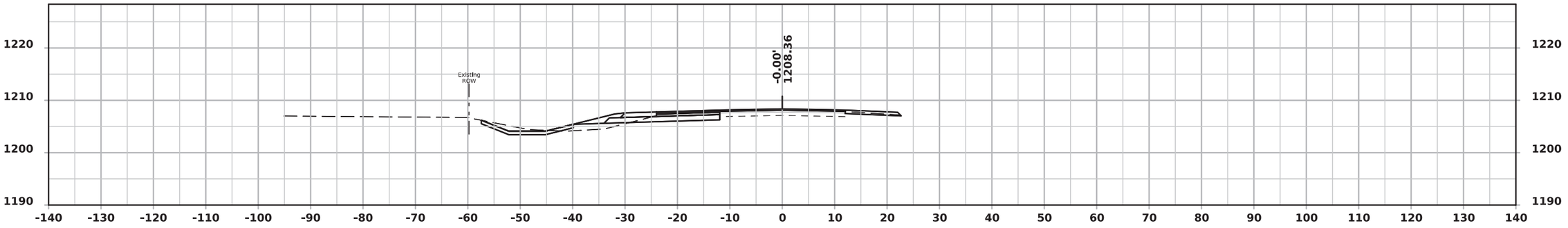
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.50	

1:56:51 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_WB_passing.dgn

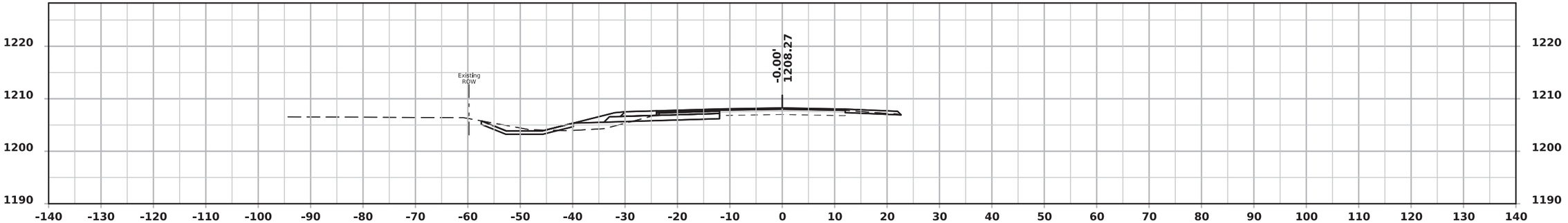
US 18 WB passing lane



STA 934+50.00



STA 934+00.00

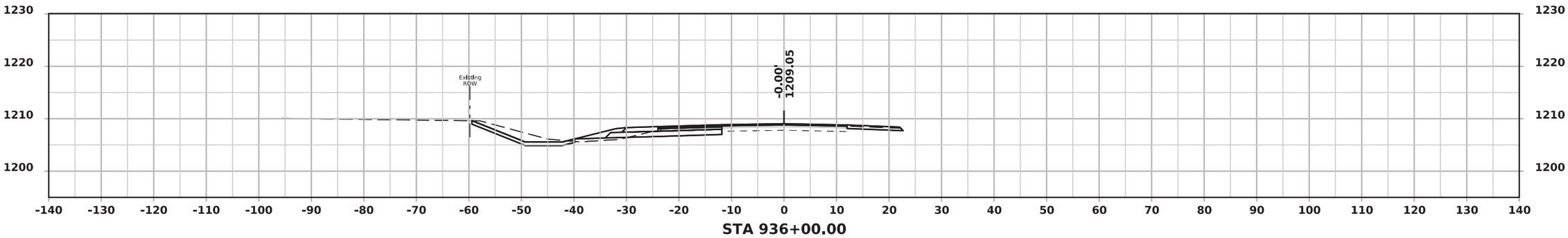


STA 933+50.00

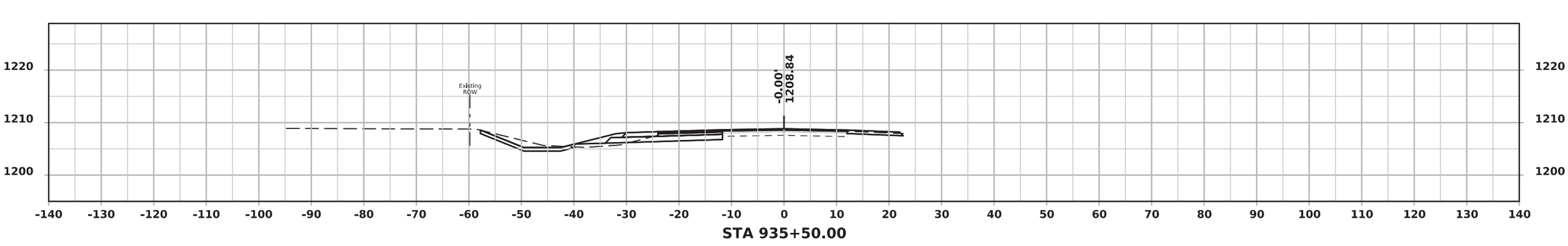
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.51	

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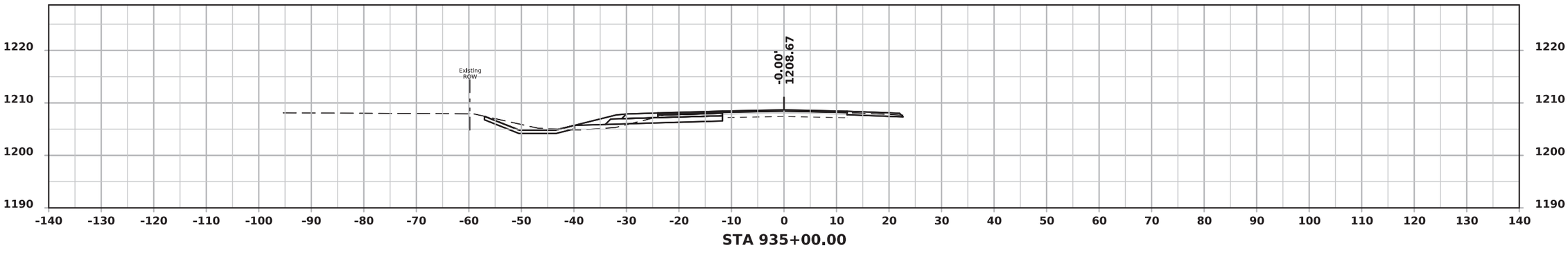
US 18 WB passing lane



STA 936+00.00



STA 935+50.00

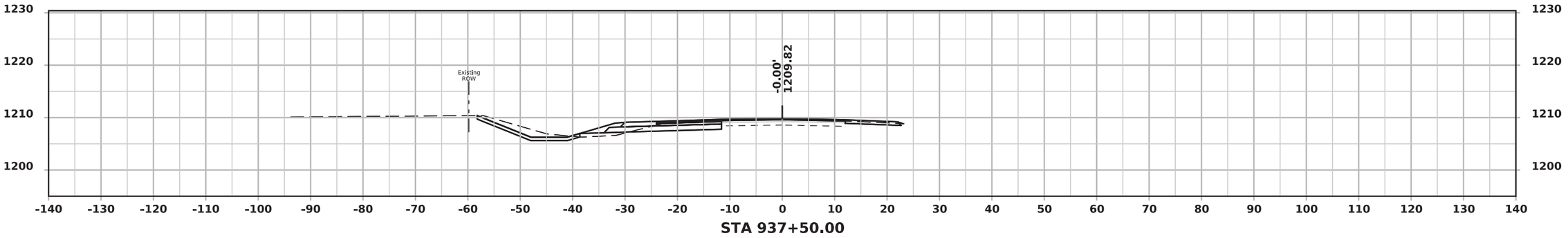


STA 935+00.00

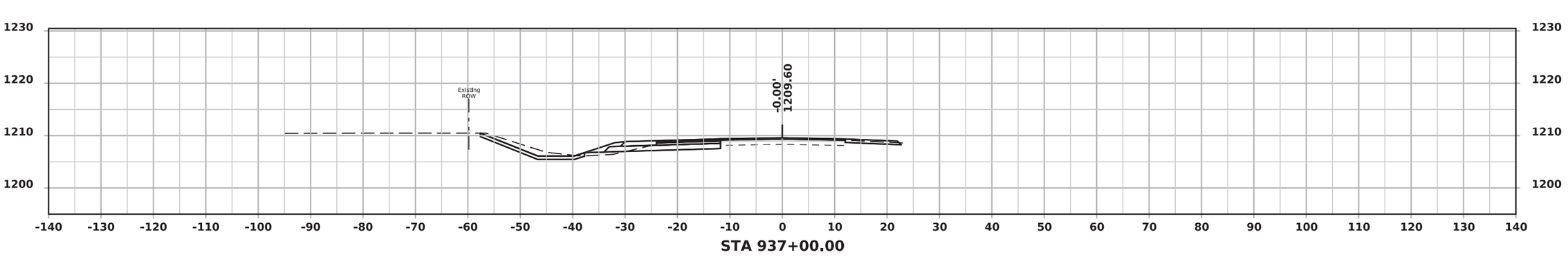
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.52

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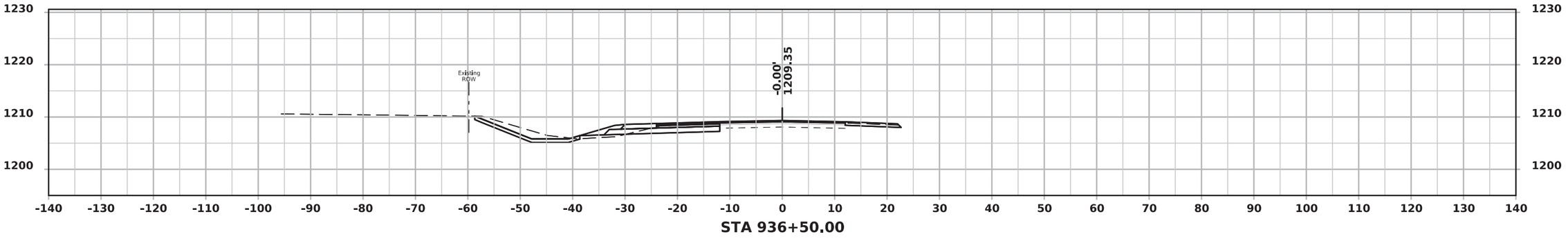
US 18 WB passing lane



STA 937+50.00



STA 937+00.00

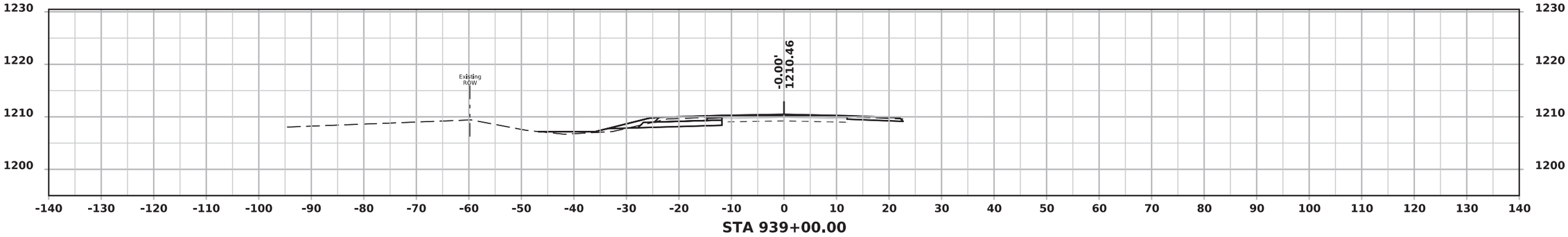


STA 936+50.00

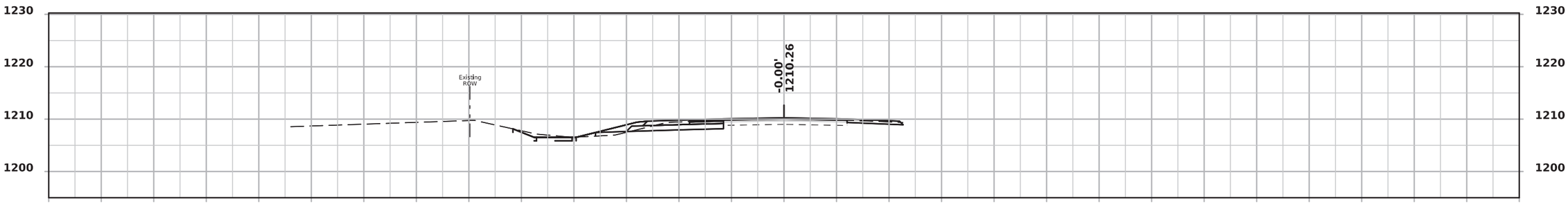
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.53

1:56:58 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_WB_passing.dgn

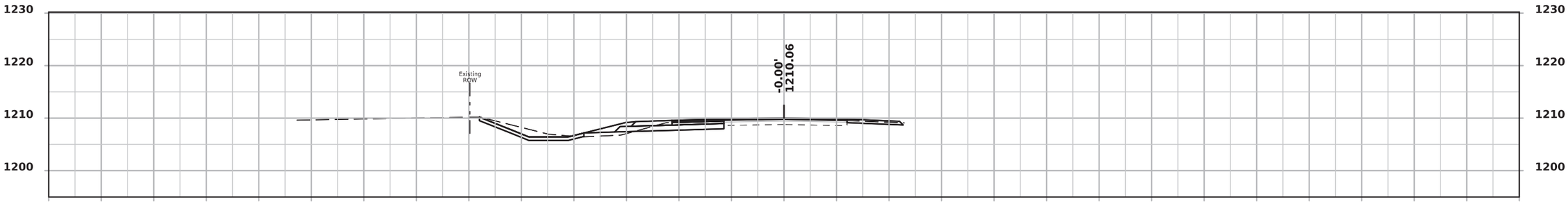
US 18 WB passing lane



STA 939+00.00



STA 938+50.00

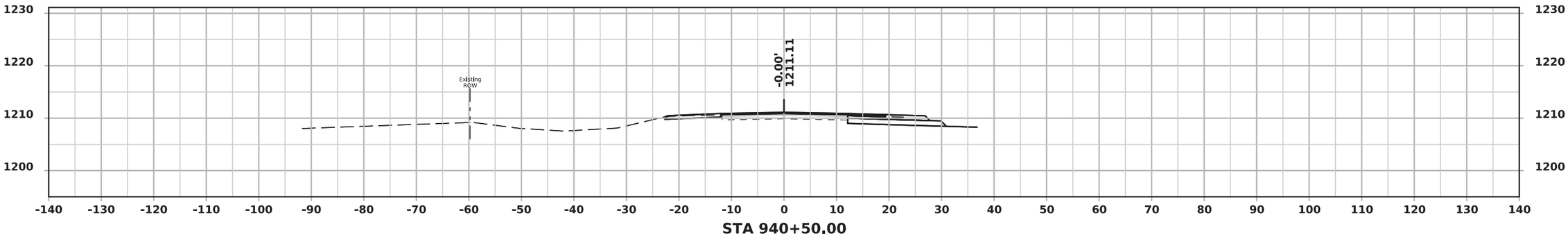


STA 938+00.00

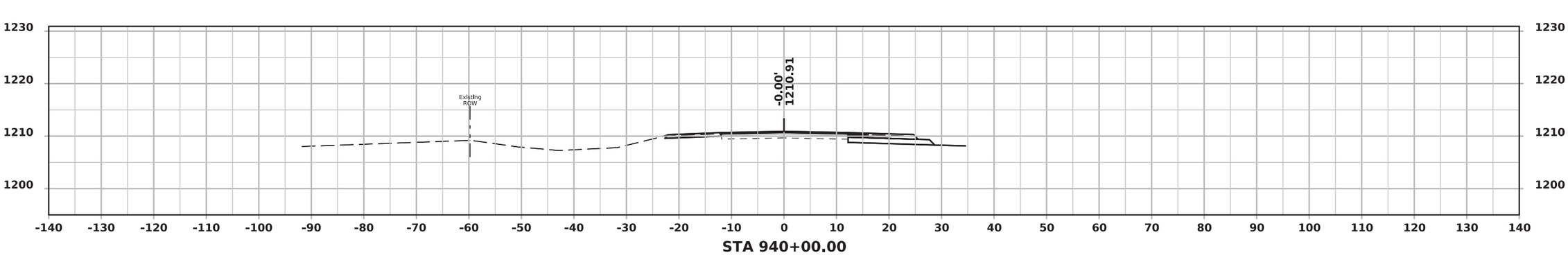
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.54	

1:56:59 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_WB_passing.dgn

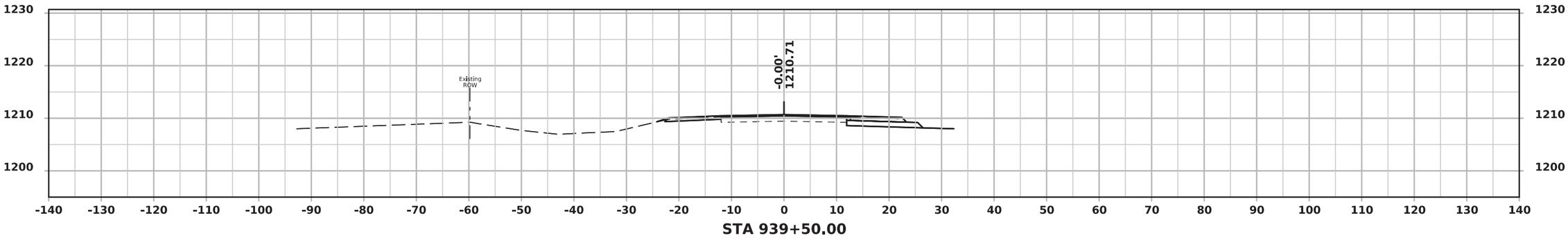
US 18 EB passing lane



STA 940+50.00



STA 940+00.00

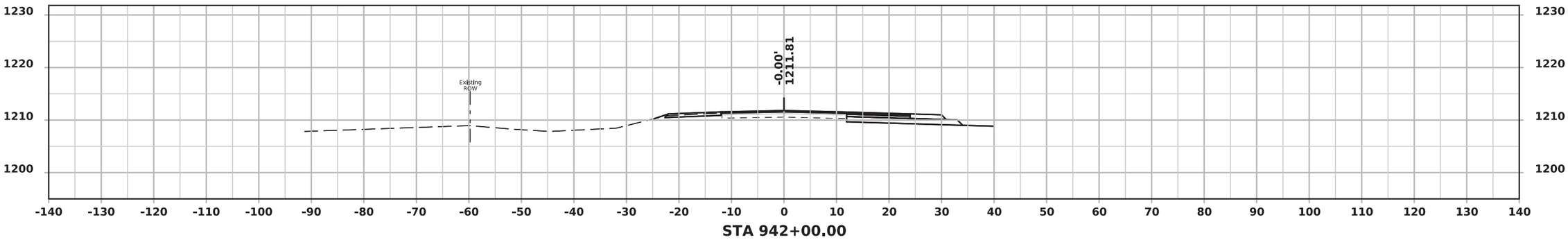


STA 939+50.00

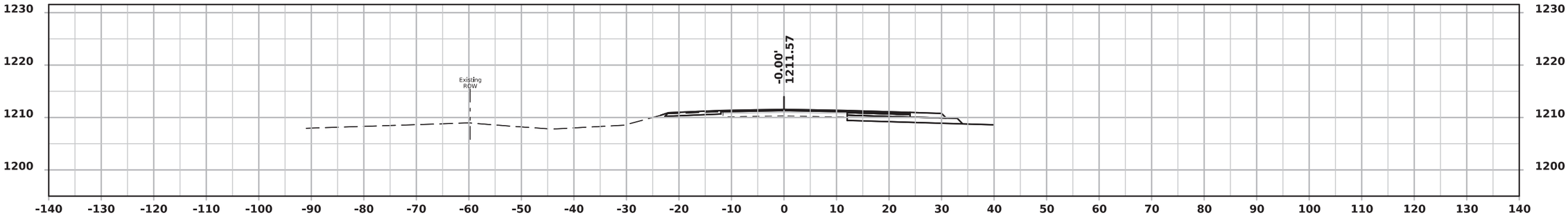
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.55

2:12:59 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

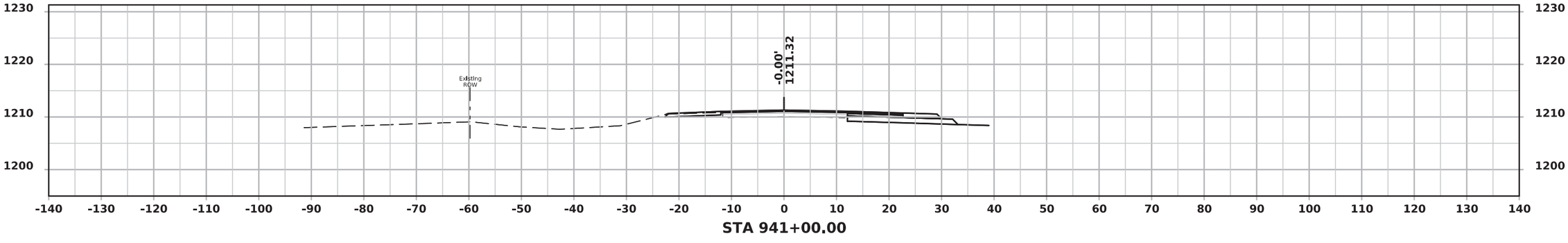
US 18 EB passing lane



STA 942+00.00



STA 941+50.00

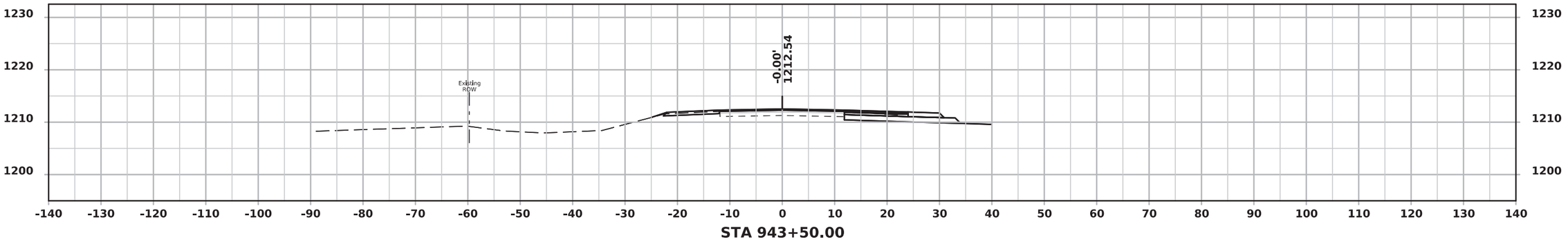


STA 941+00.00

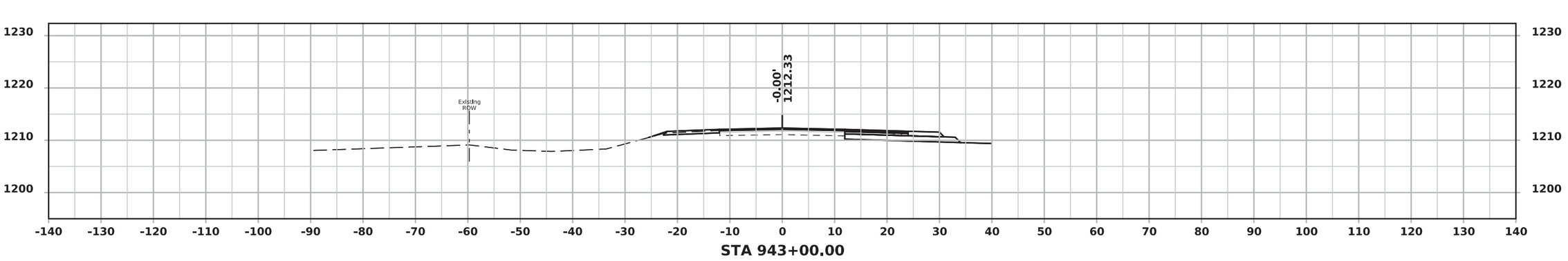
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.56	

2:13:01 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

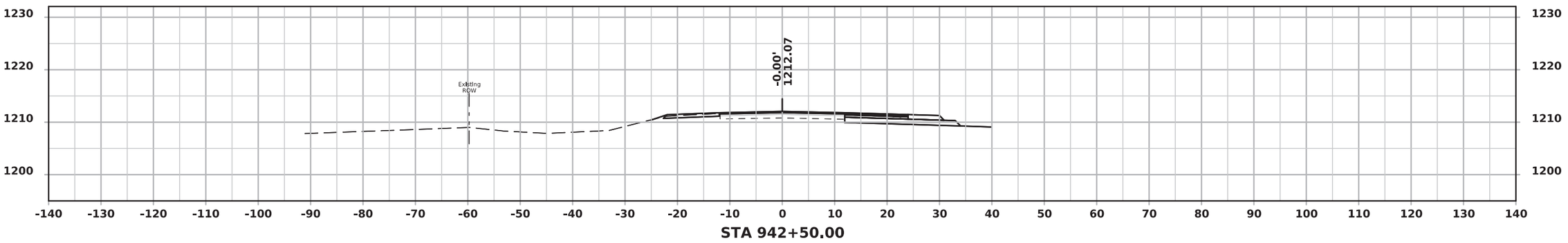
US 18 EB passing lane



STA 943+50.00



STA 943+00.00

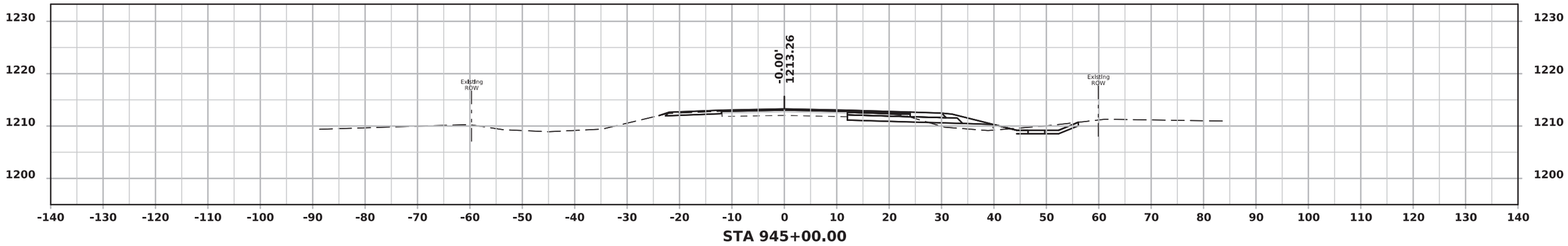


STA 942+50.00

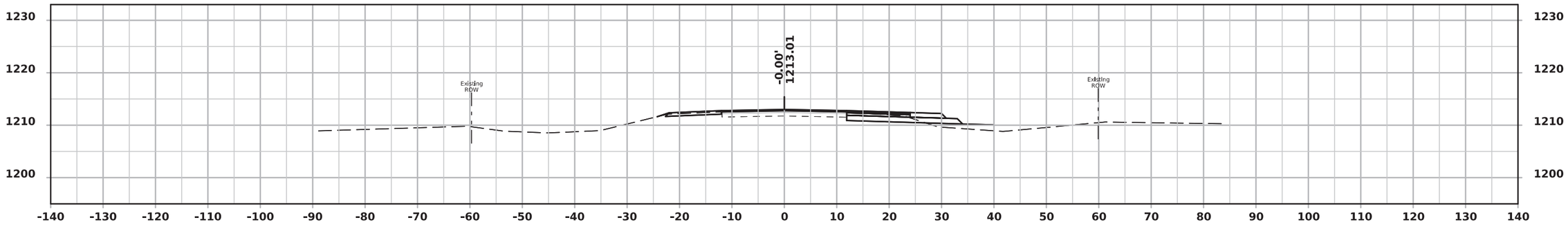
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.57

2:13:02 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

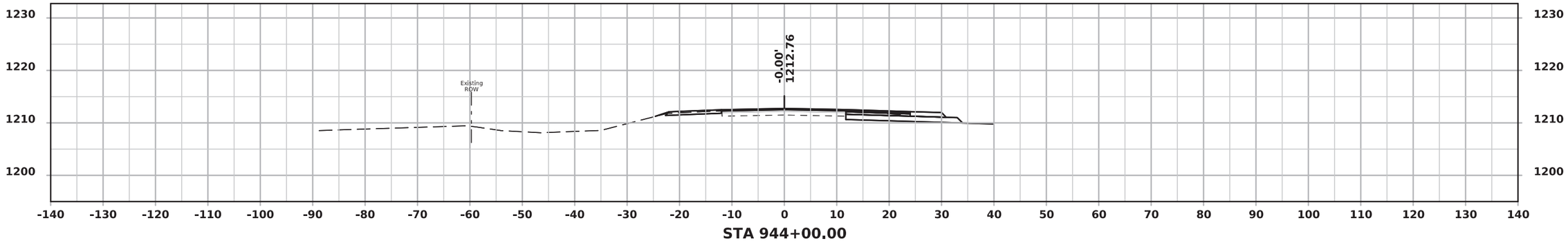
US 18 EB passing lane



STA 945+00.00



STA 944+50.00

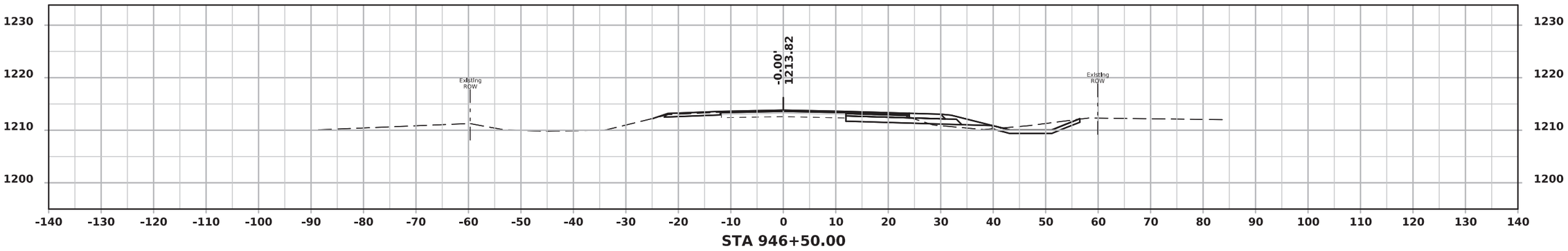


STA 944+00.00

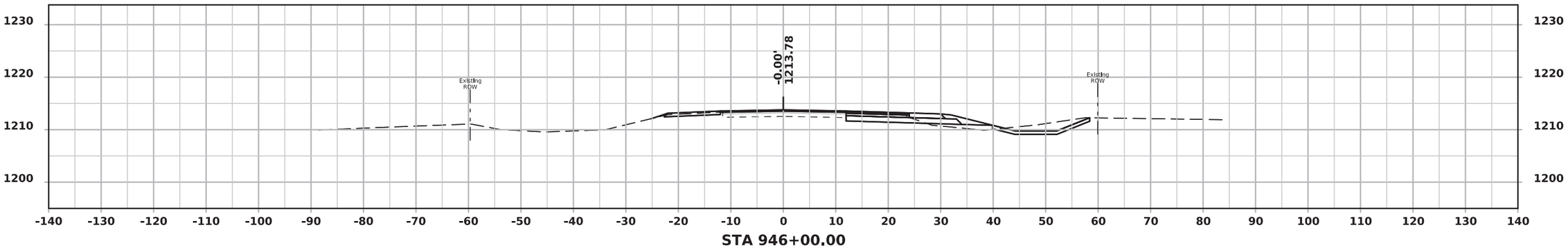
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.58

2:13:03 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

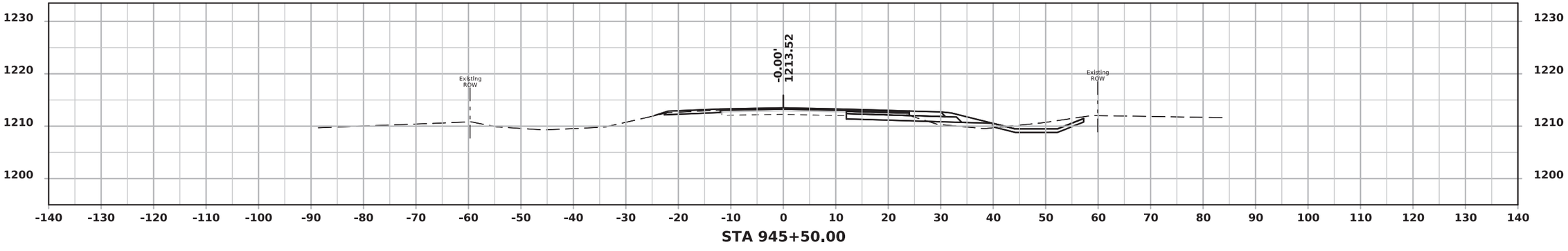
US 18 EB passing lane



STA 946+50.00



STA 946+00.00

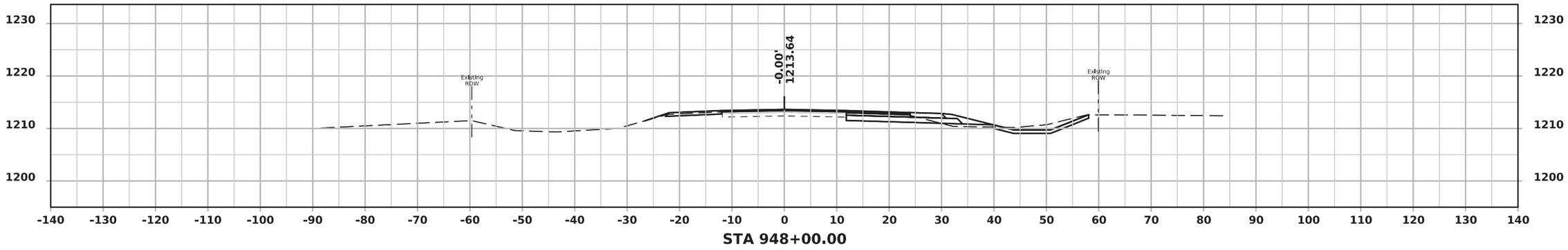


STA 945+50.00

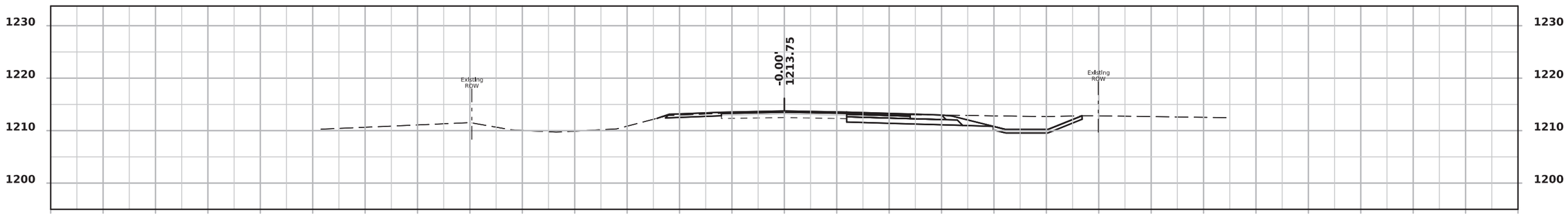
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.59	

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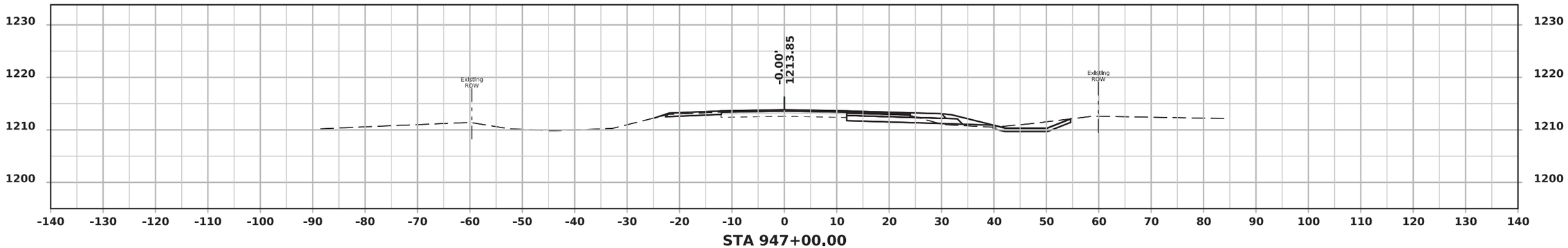
US 18 EB passing lane



STA 948+00.00



STA 947+50.00

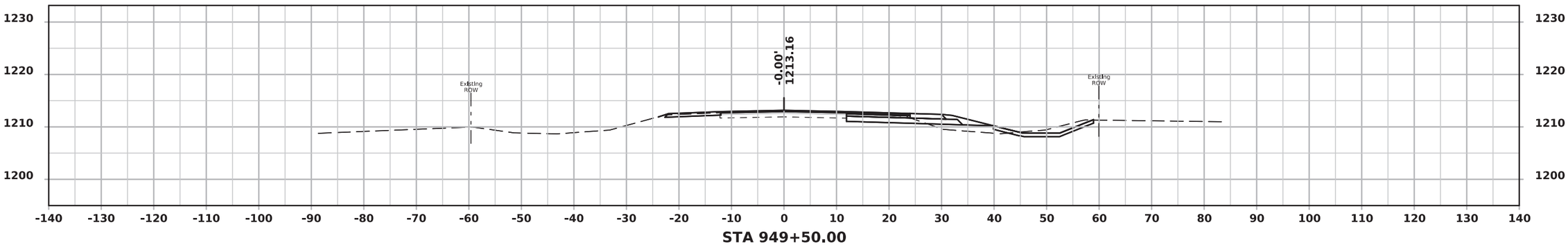


STA 947+00.00

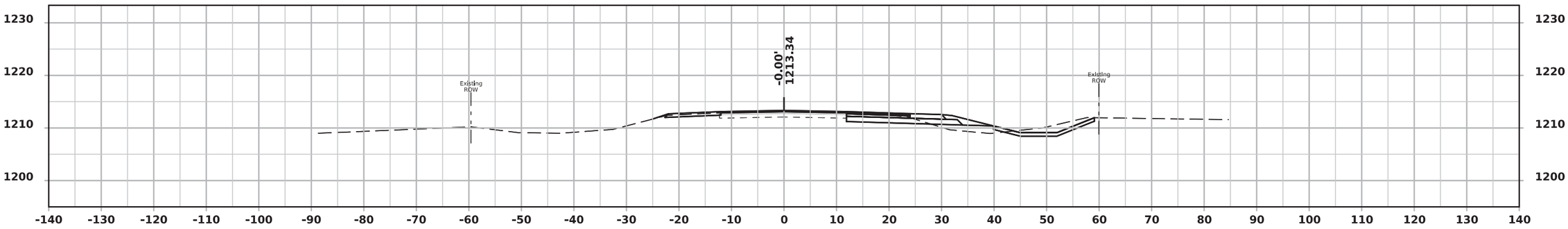
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.60

2:13:06 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

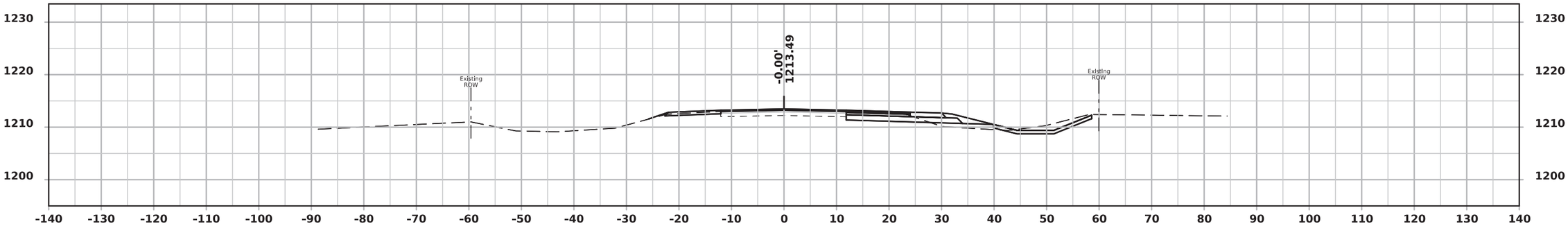
US 18 EB passing lane



STA 949+50.00



STA 949+00.00

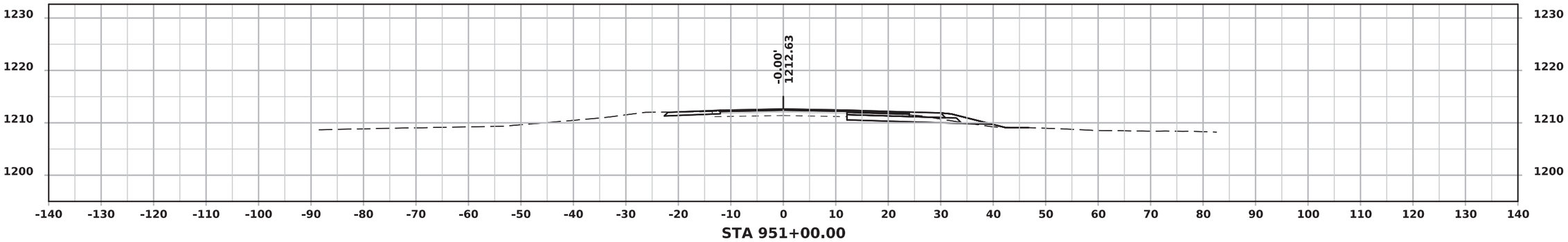


STA 948+50.00

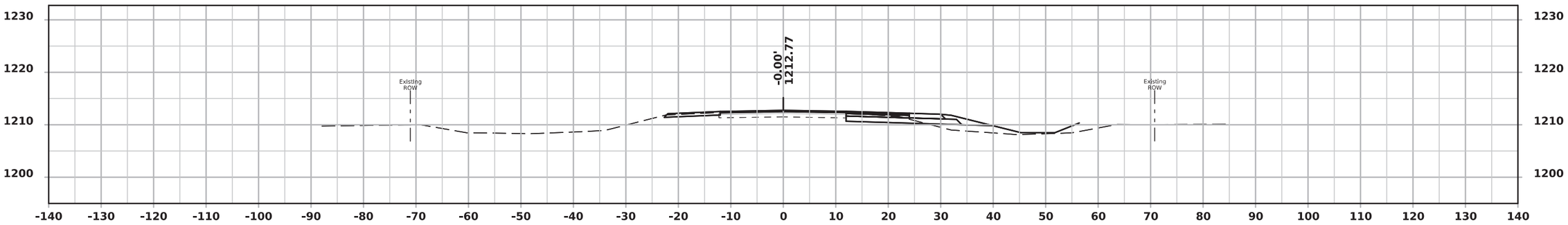
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.61	

2:13:07 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

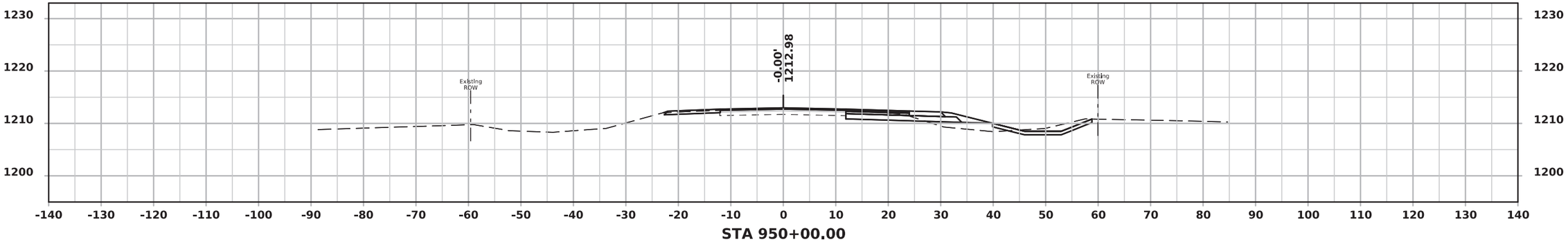
US 18 EB passing lane



STA 951+00.00



STA 950+50.00

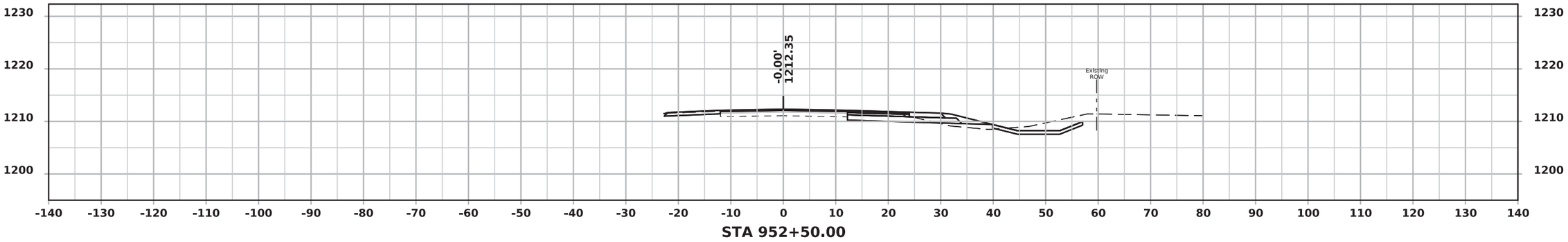


STA 950+00.00

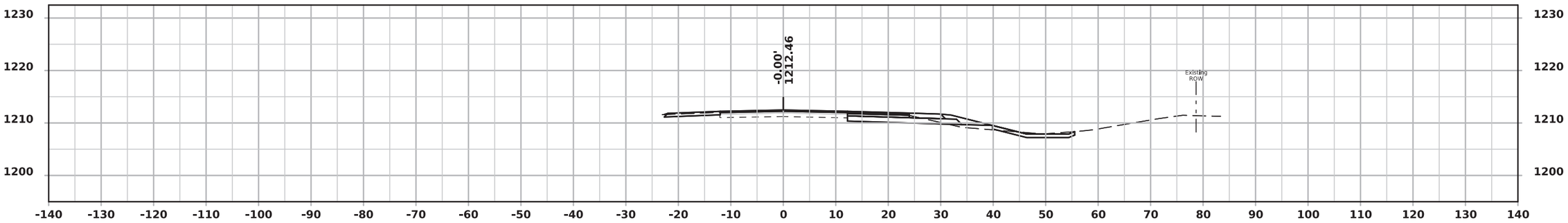
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.62

2:13:08 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

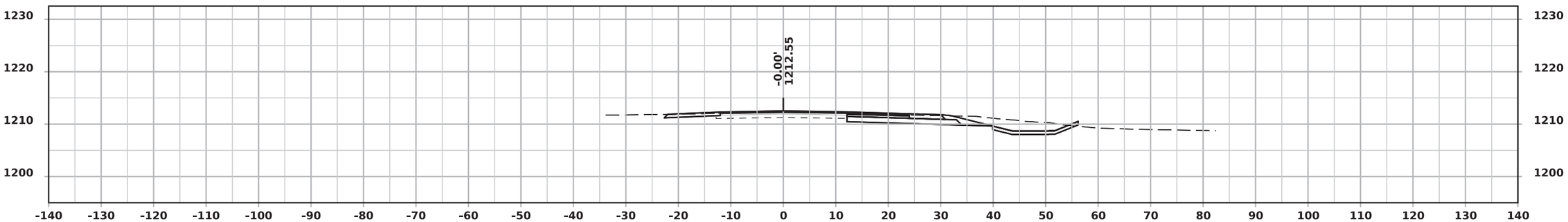
US 18 EB passing lane



STA 952+50.00



STA 952+00.00

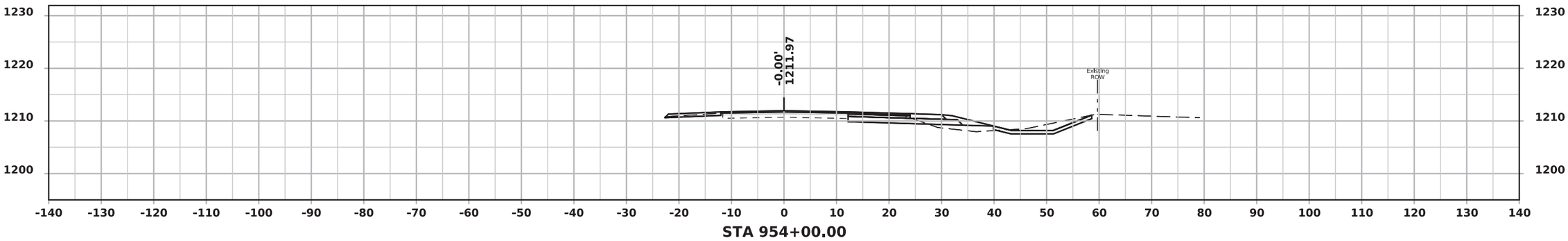


STA 951+50.00

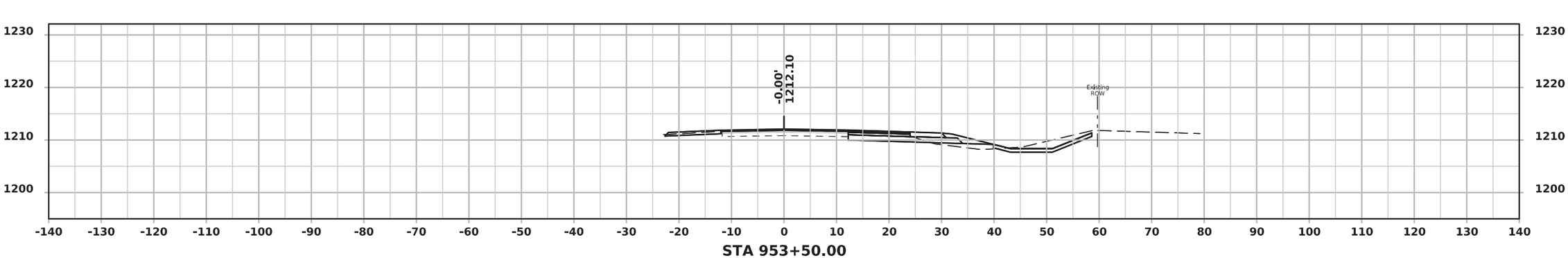
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.63

2:13:09 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

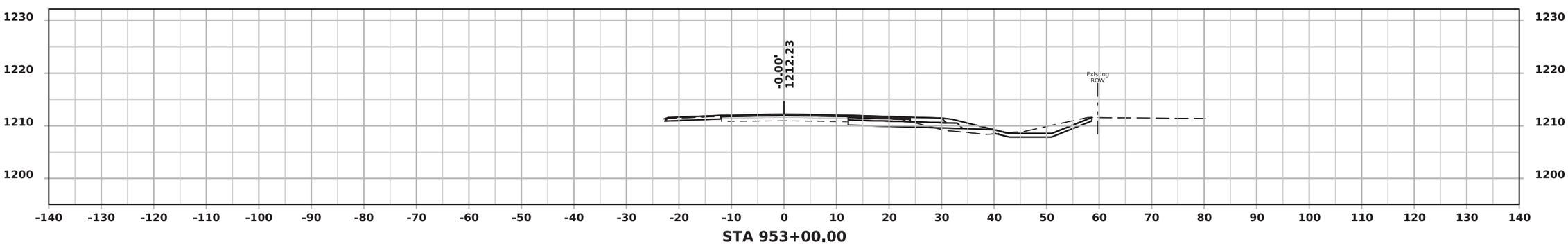
US 18 EB passing lane



STA 954+00.00



STA 953+50.00

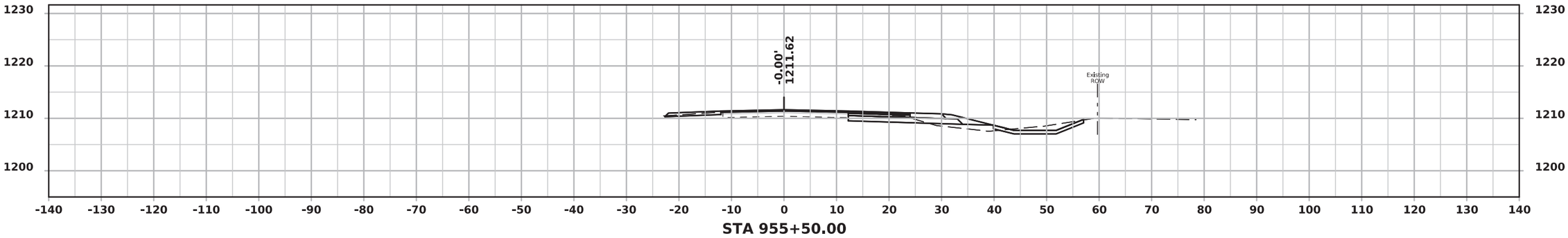


STA 953+00.00

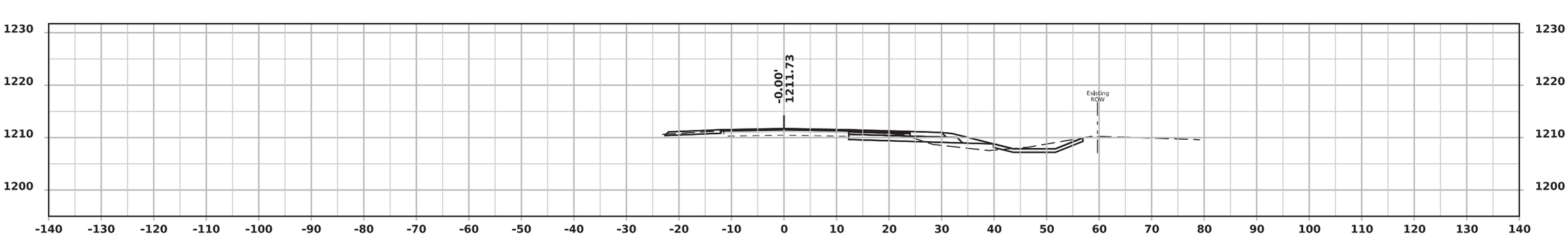
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.64

2:13:11 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

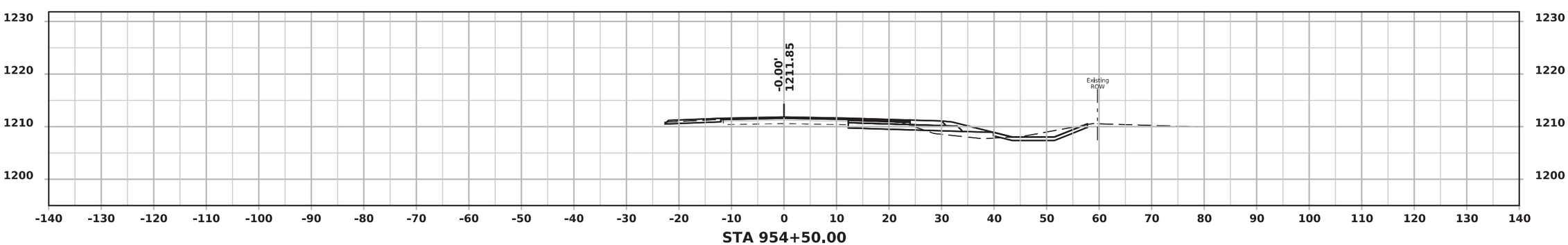
US 18 EB passing lane



STA 955+50.00



STA 955+00.00

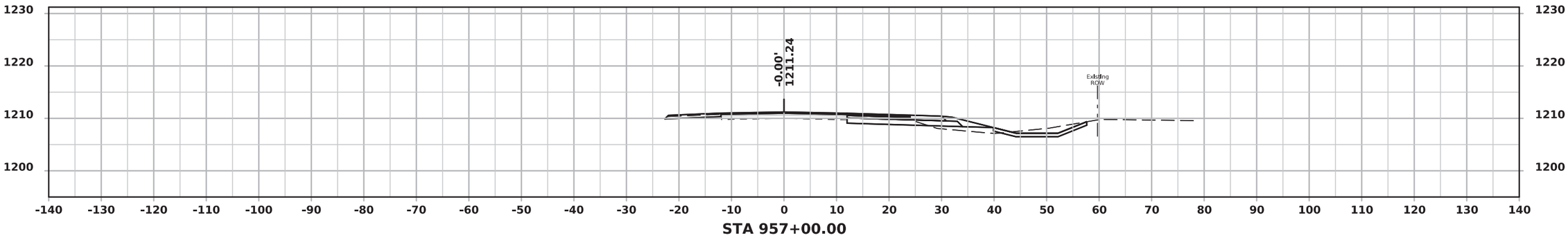


STA 954+50.00

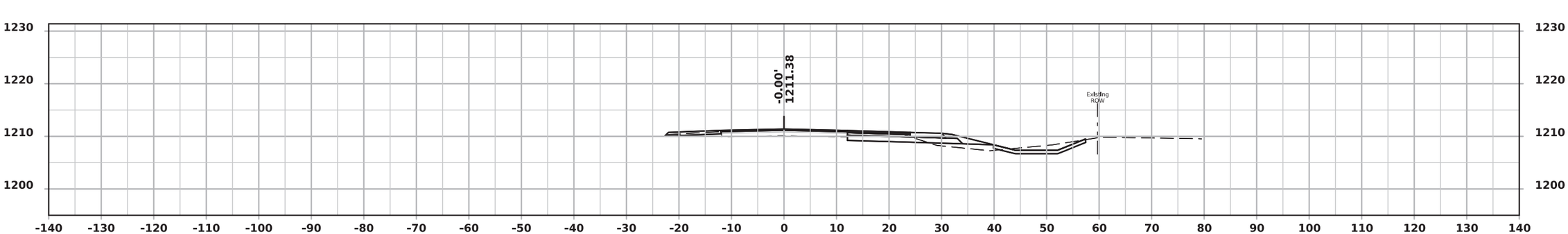
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.65	

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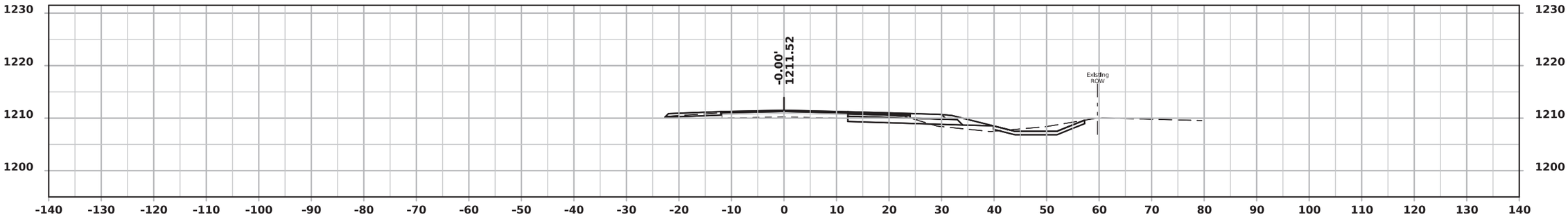
US 18 EB passing lane



STA 957+00.00



STA 956+50.00

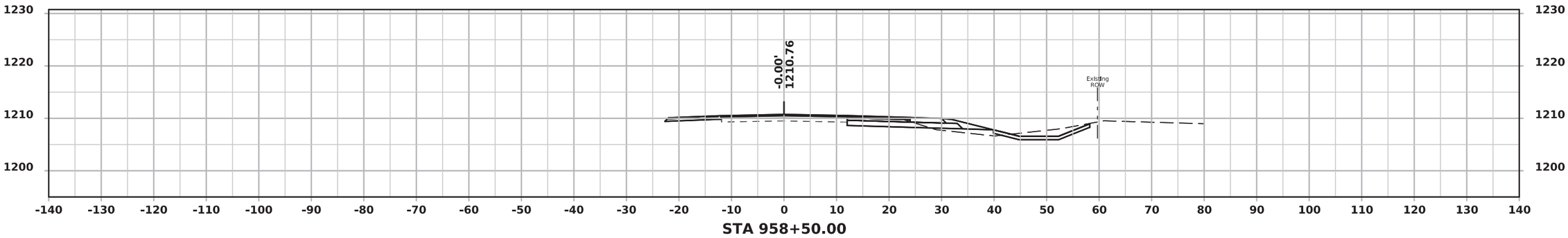


STA 956+00.00

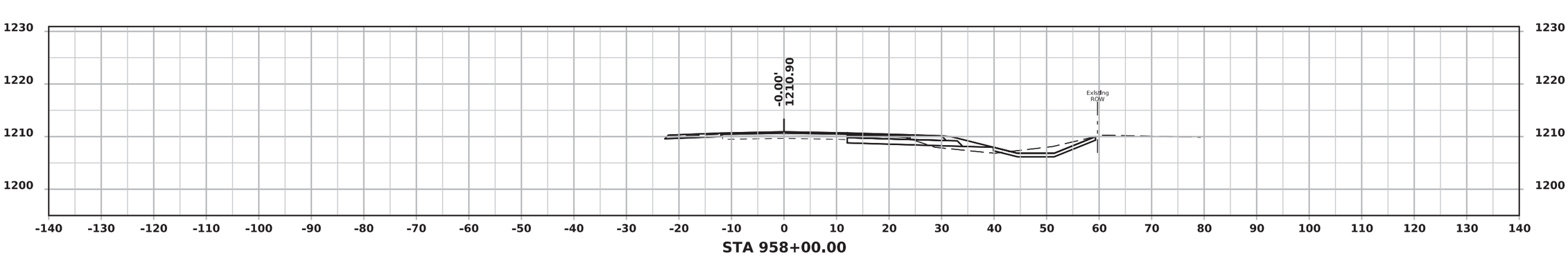
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.66	

2:13:13 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

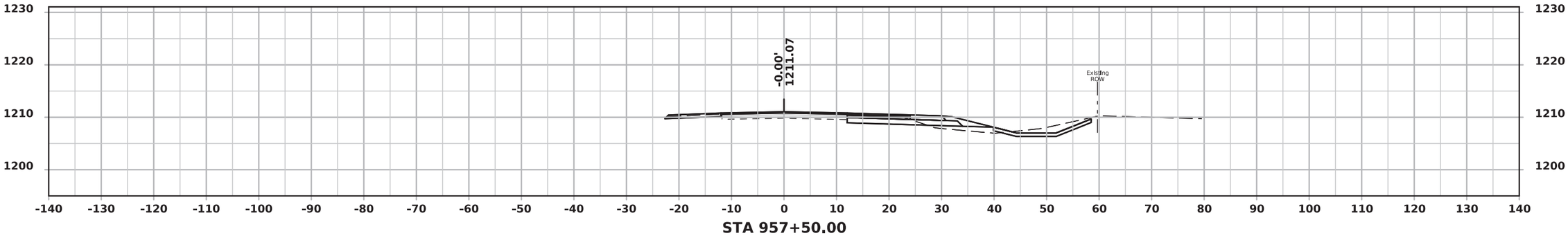
US 18 EB passing lane



STA 958+50.00



STA 958+00.00

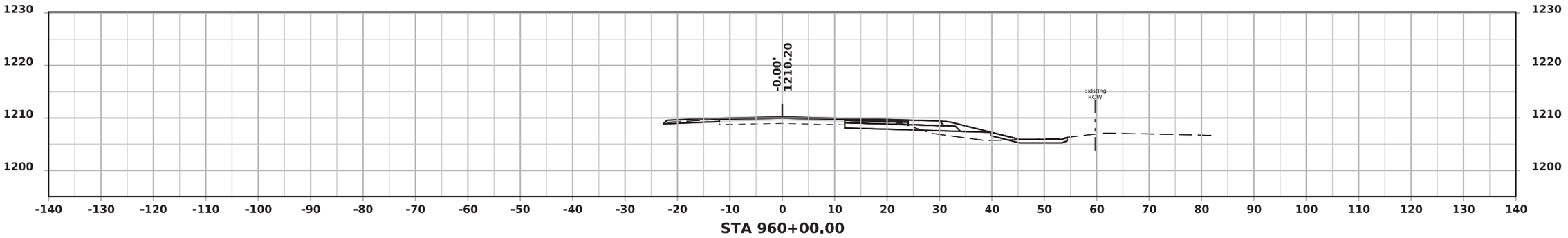


STA 957+50.00

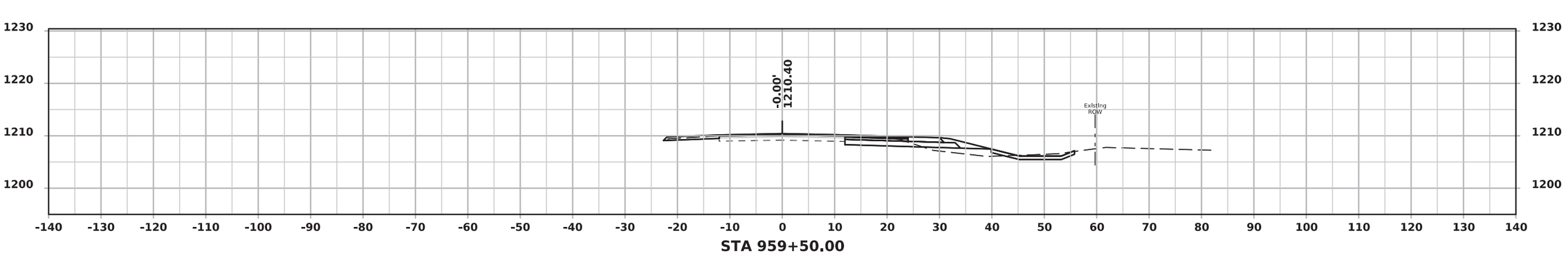
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.67

2:13:14 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

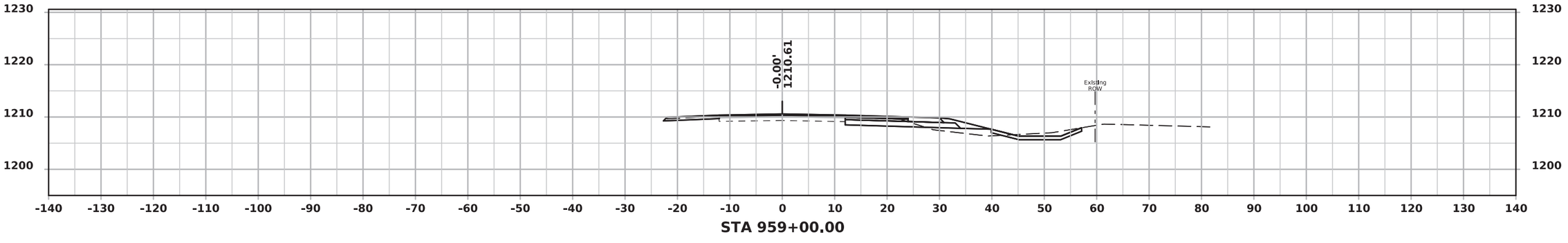
US 18 EB passing lane



STA 960+00.00



STA 959+50.00

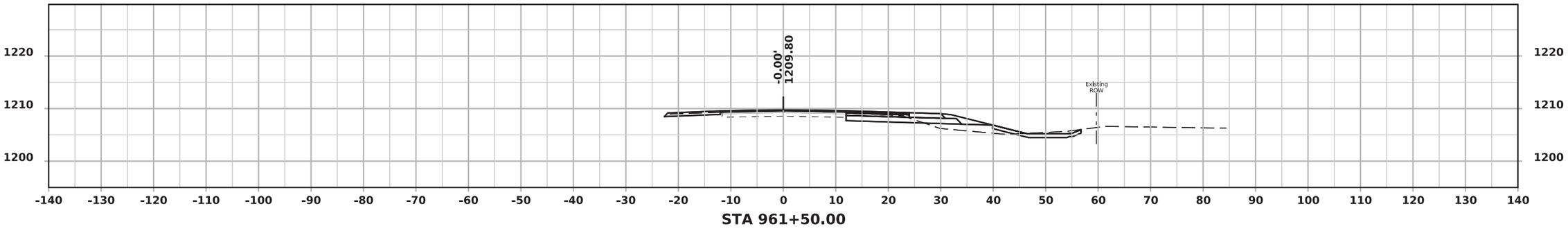


STA 959+00.00

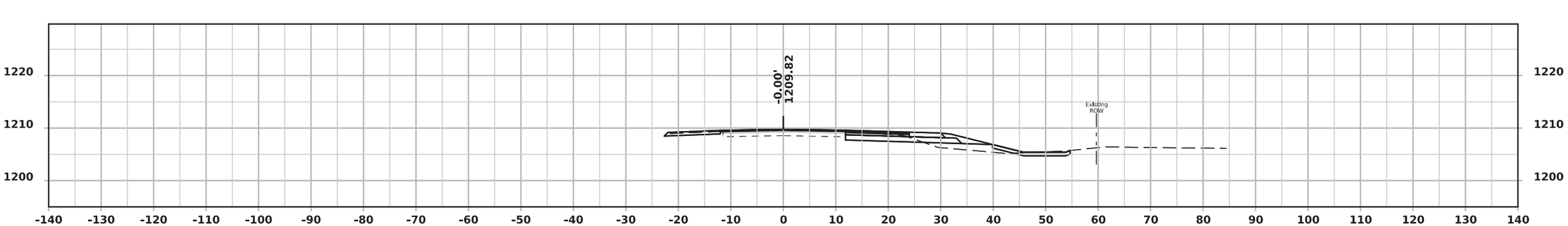
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.68

2:13:15 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

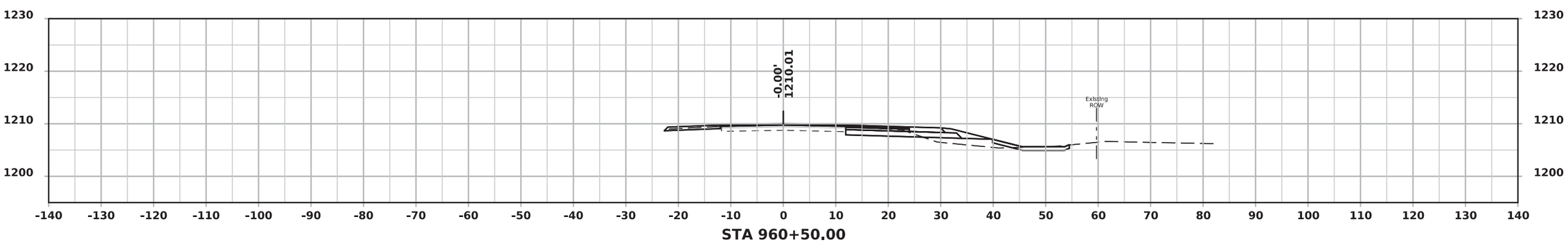
US 18 EB passing lane



STA 961+50.00



STA 961+00.00

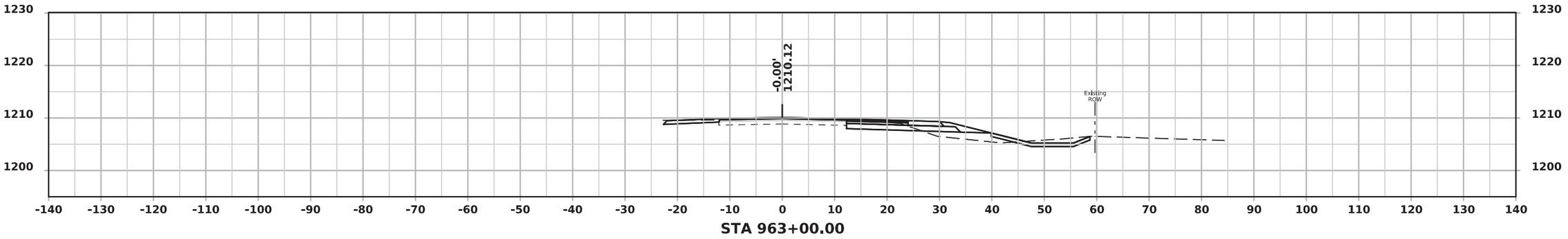


STA 960+50.00

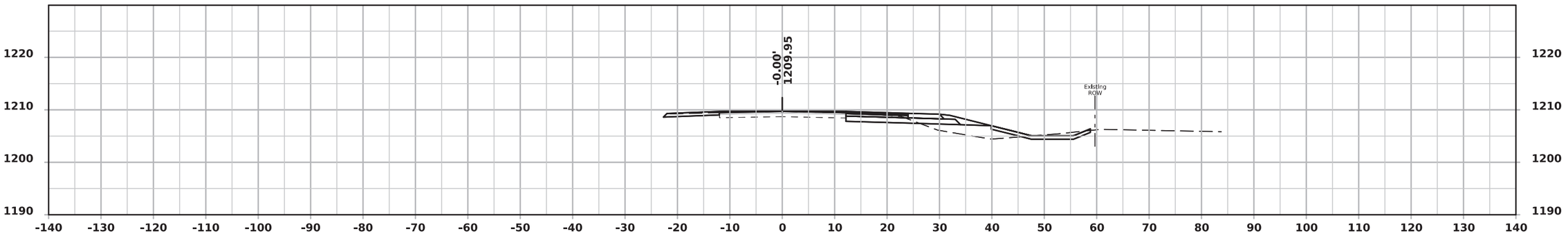
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.69	

2:13:16 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

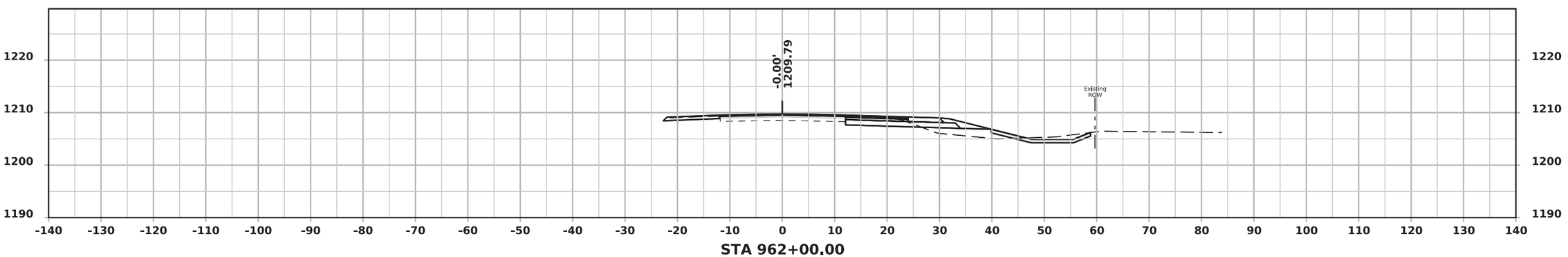
US 18 EB passing lane



STA 963+00.00



STA 962+50.00

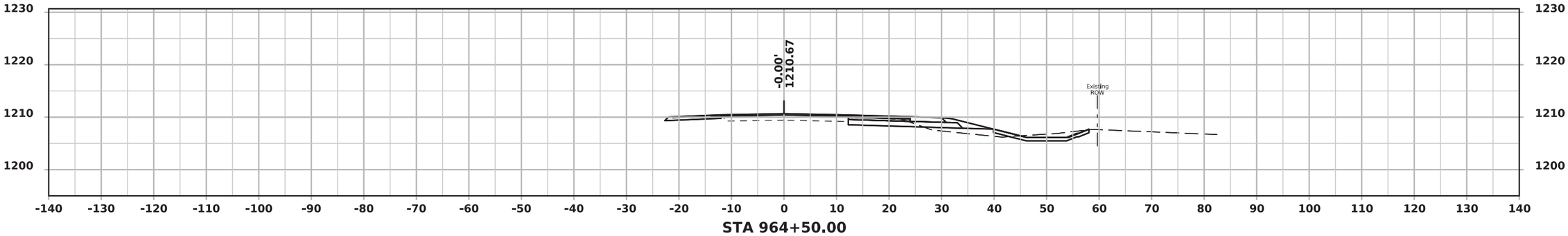


STA 962+00.00

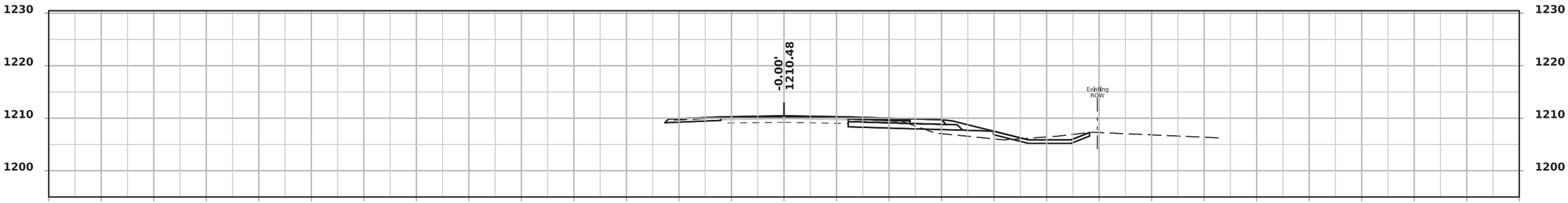
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.70	

2:13:18 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

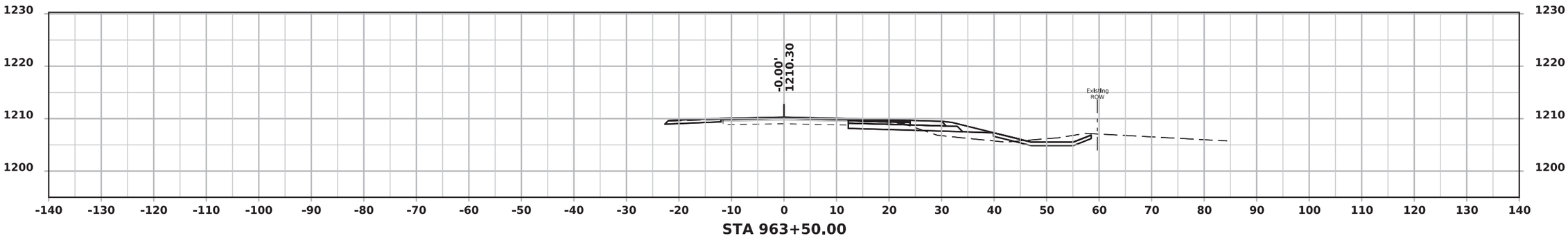
US 18 EB passing lane



STA 964+50.00



STA 964+00.00

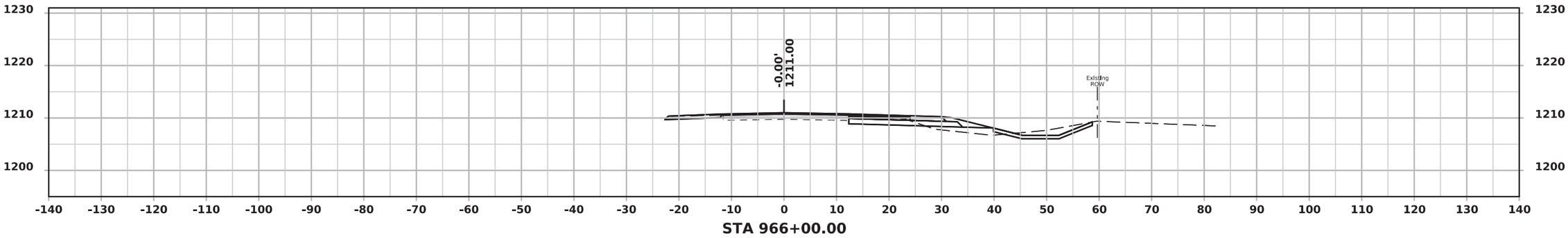


STA 963+50.00

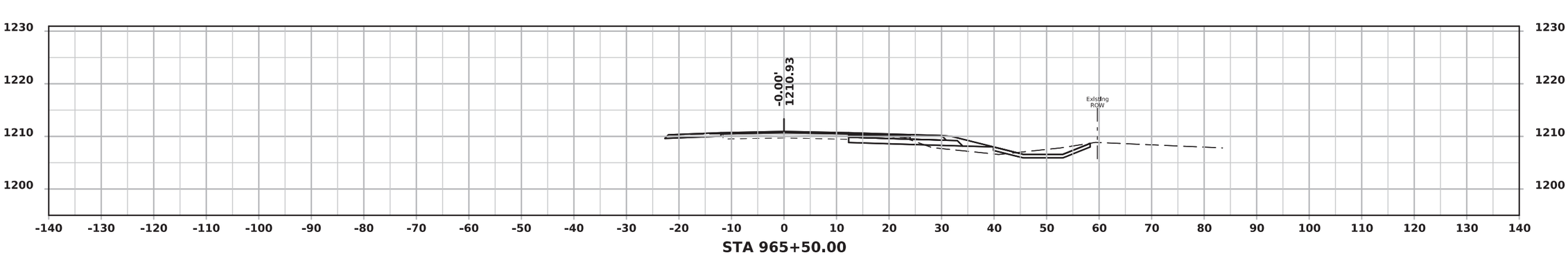
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.71

2:13:19 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

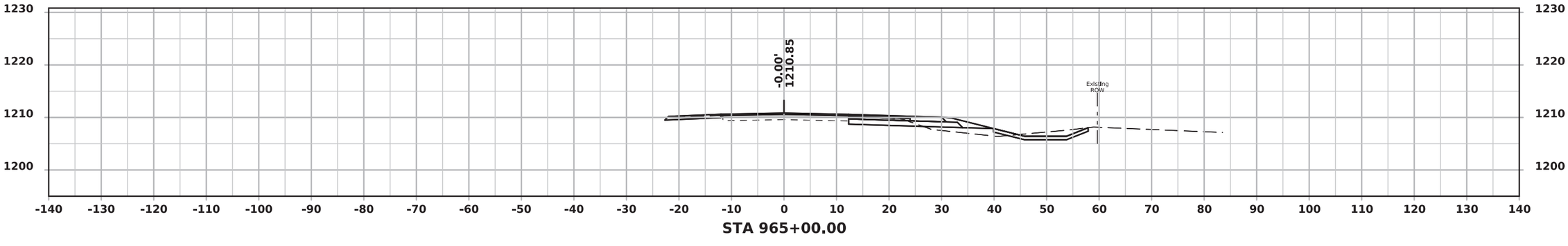
US 18 EB passing lane



STA 966+00.00



STA 965+50.00

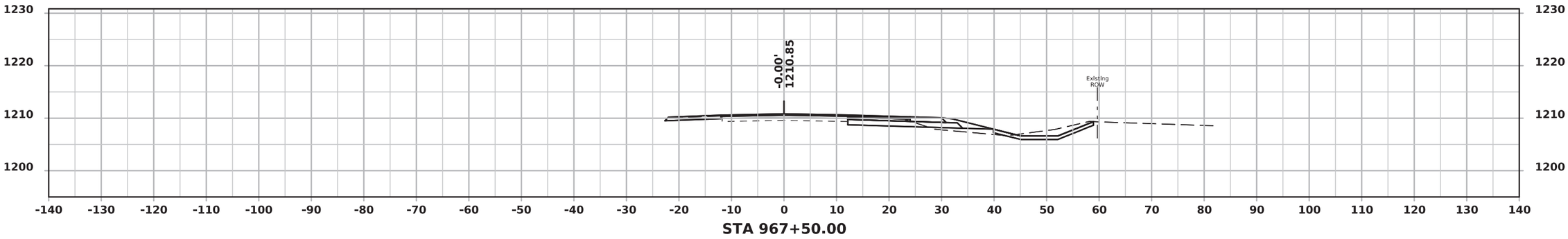


STA 965+00.00

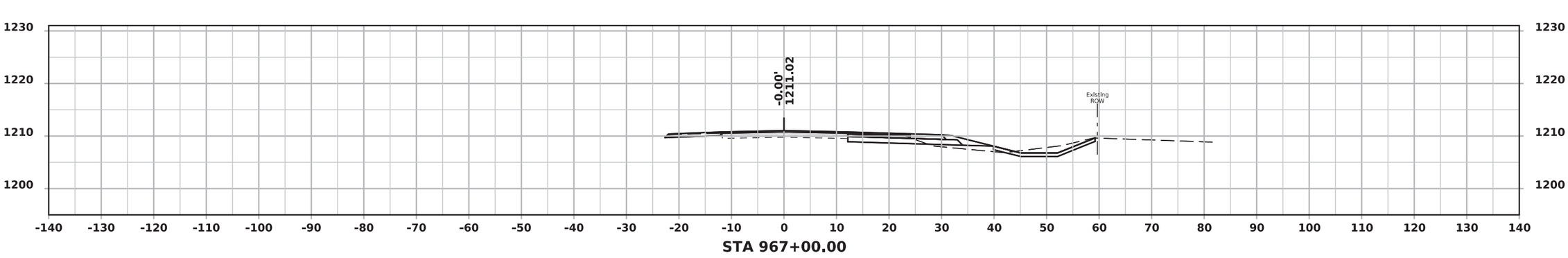
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.72

2:13:20 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

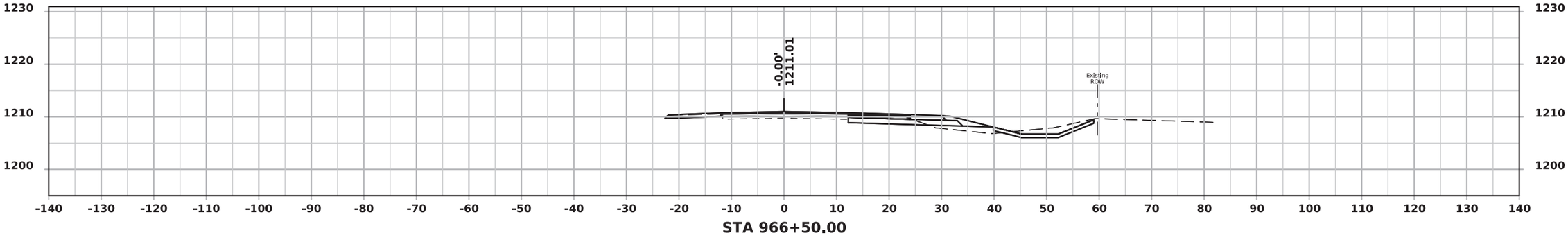
US 18 EB passing lane



STA 967+50.00



STA 967+00.00

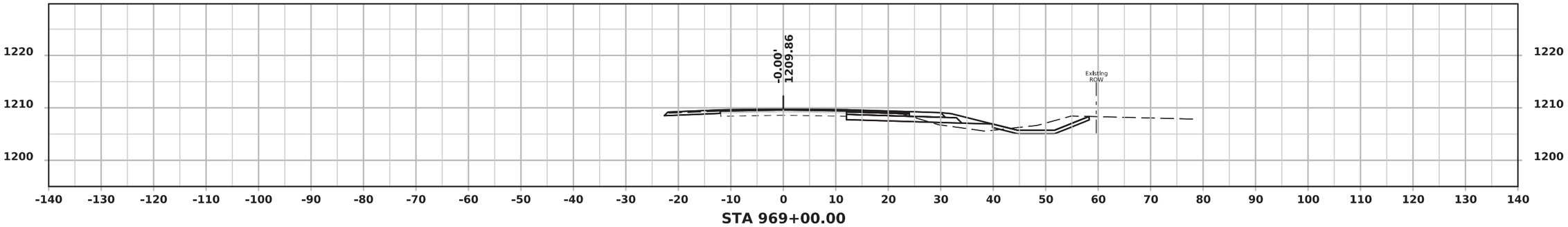


STA 966+50.00

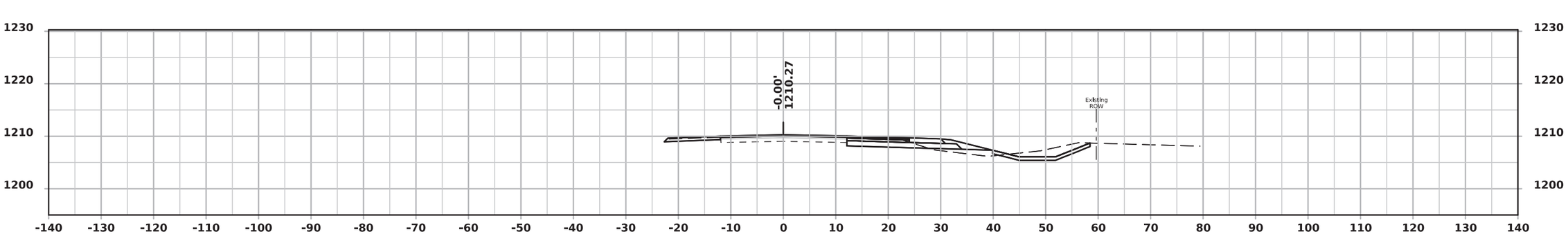
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.73

2:13:21 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

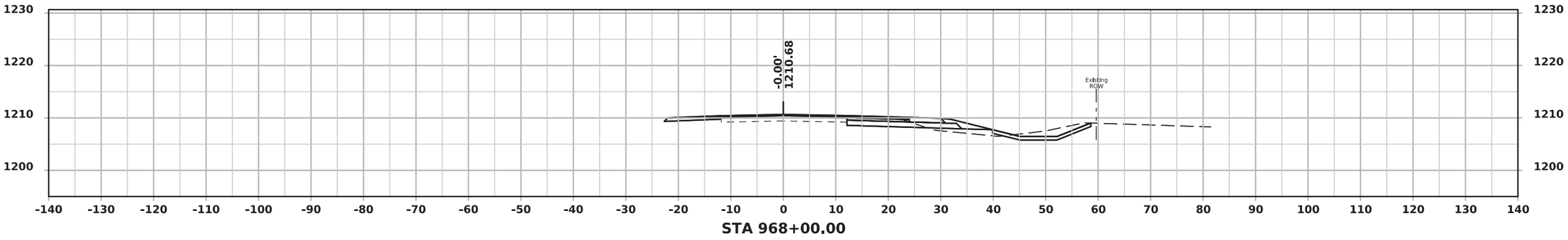
US 18 EB passing lane



STA 969+00.00



STA 968+50.00

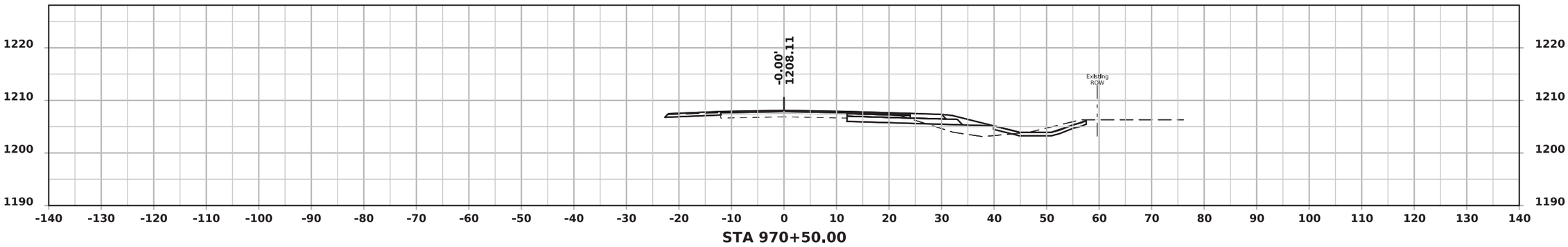


STA 968+00.00

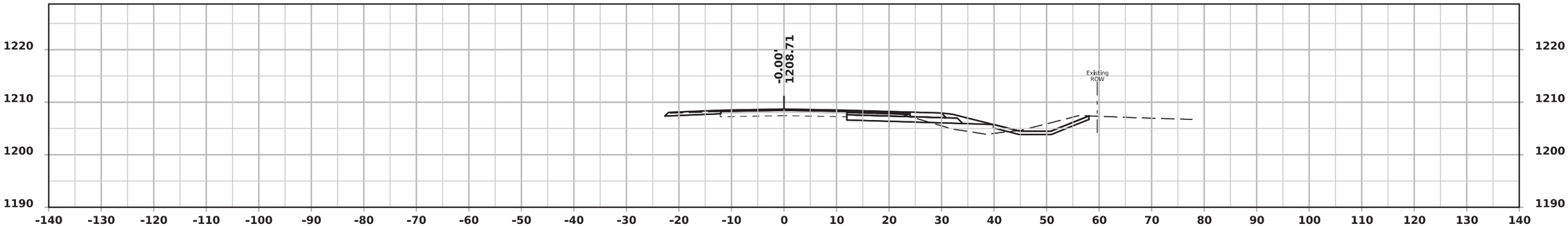
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.74

2:13:22 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

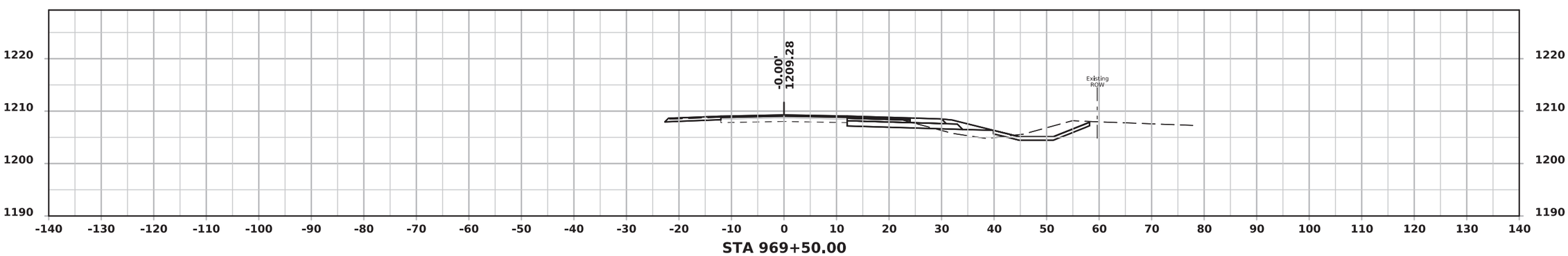
US 18 EB passing lane



STA 970+50.00



STA 970+00.00

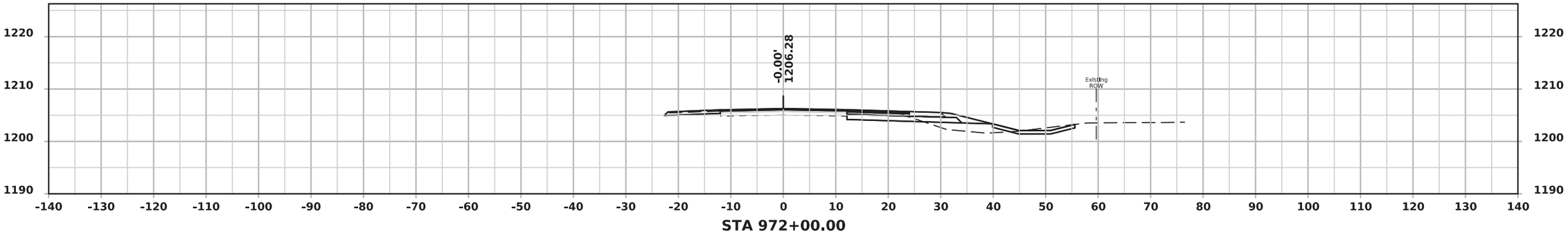


STA 969+50.00

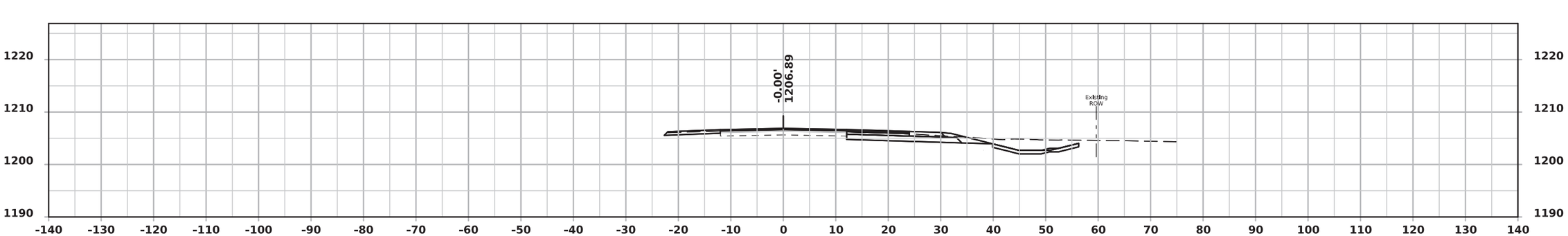
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.75	

2:13:24 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

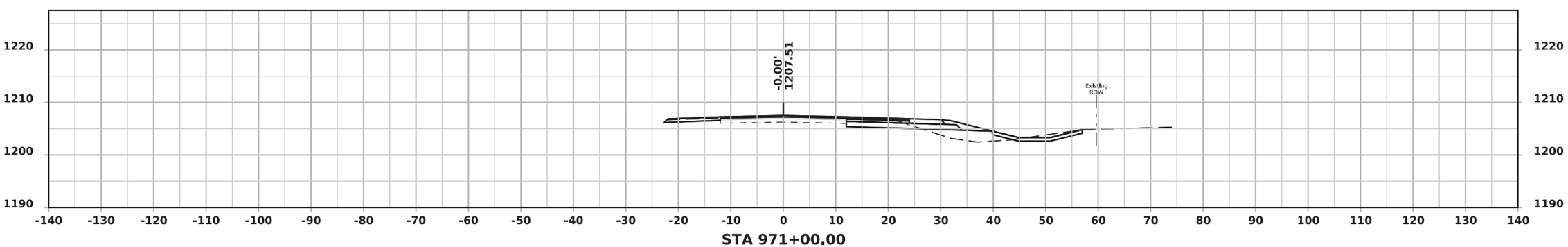
US 18 EB passing lane



STA 972+00.00



STA 971+50.00

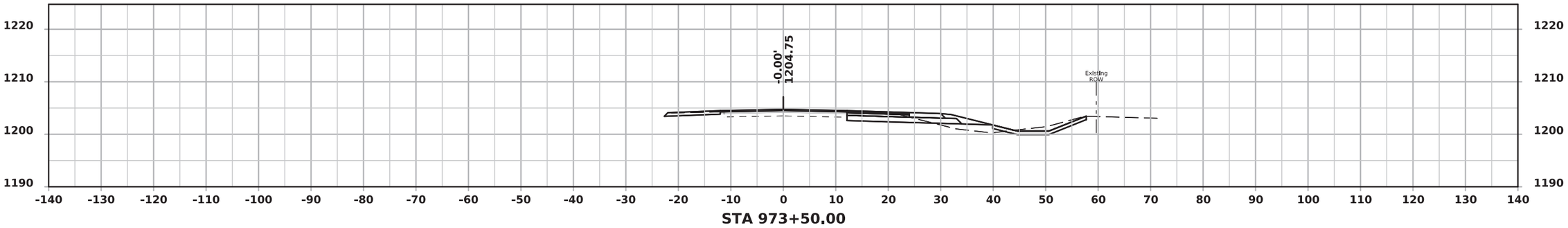


STA 971+00.00

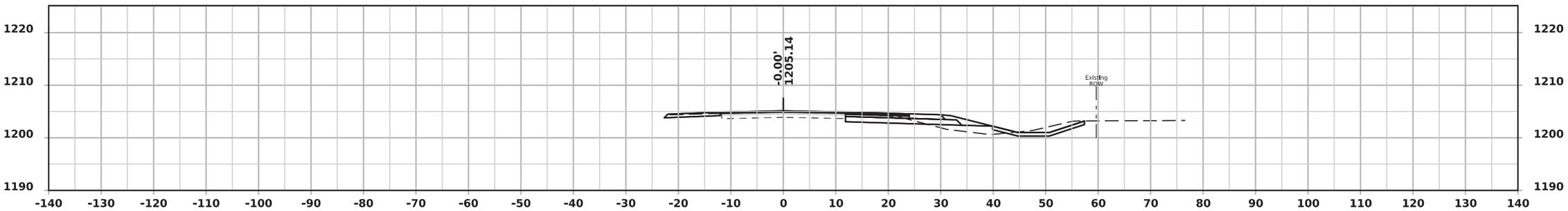
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.76

2:13:25 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

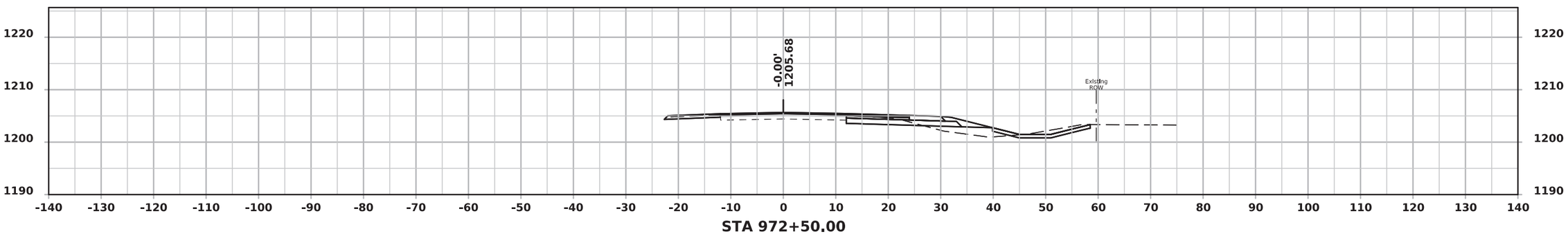
US 18 EB passing lane



STA 973+50.00



STA 973+00.00

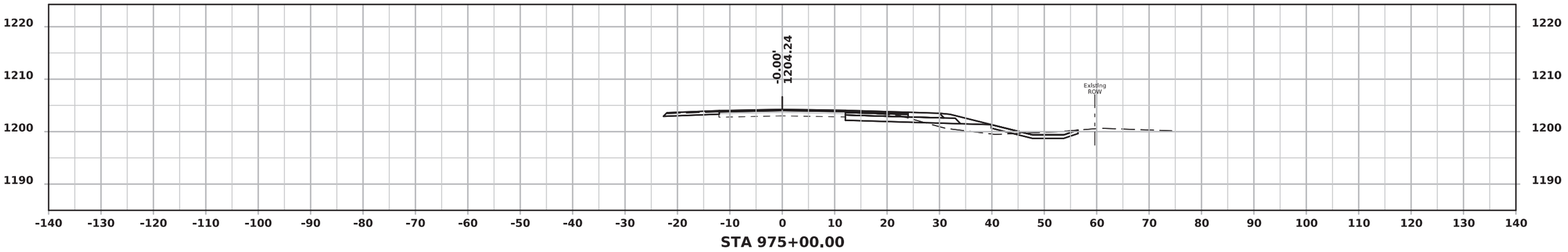


STA 972+50.00

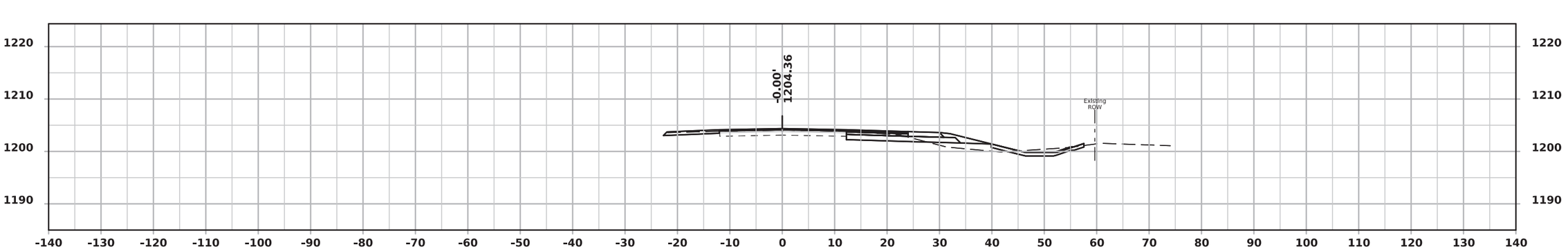
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.77	

2:13:26 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

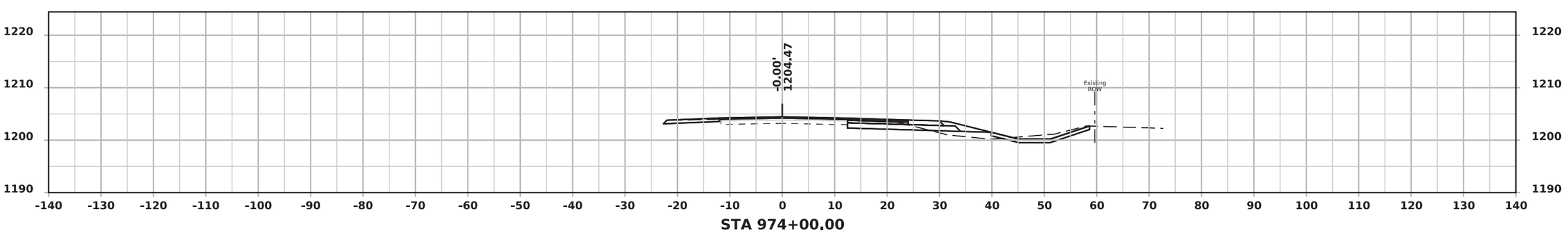
US 18 EB passing lane



STA 975+00.00



STA 974+50.00

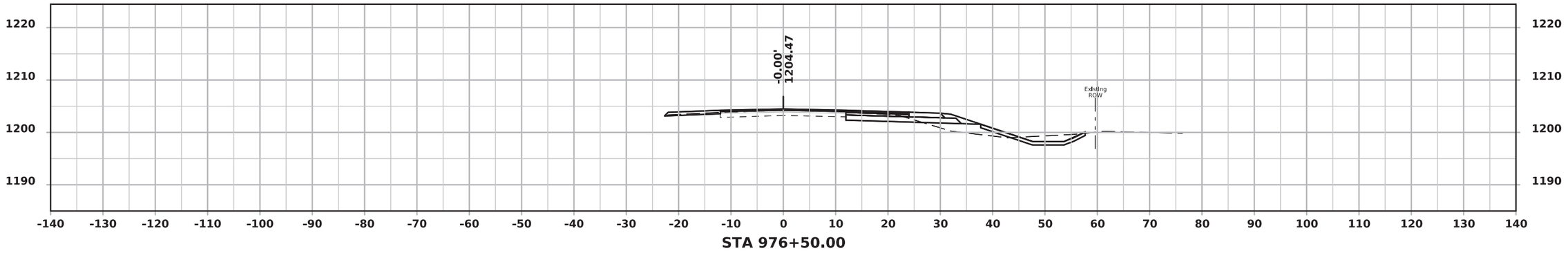


STA 974+00.00

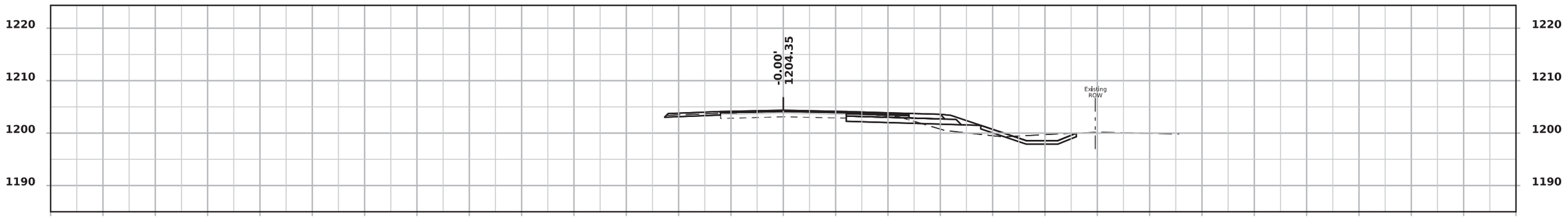
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.78	

2:13:27 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

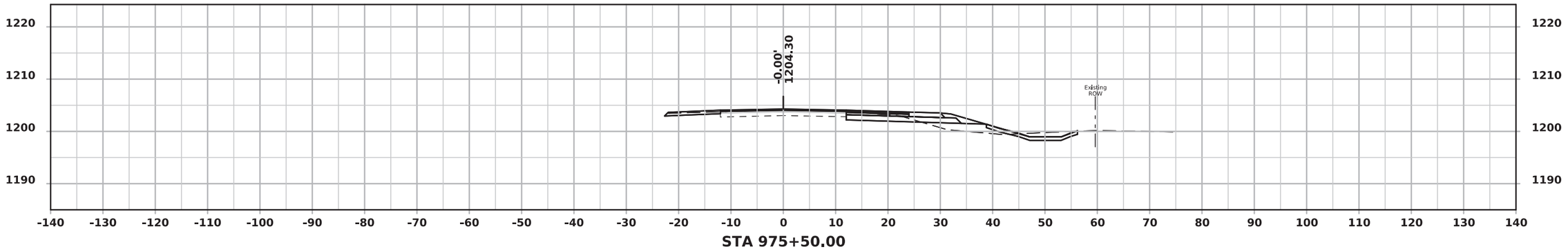
US 18 EB passing lane



STA 976+50.00



STA 976+00.00

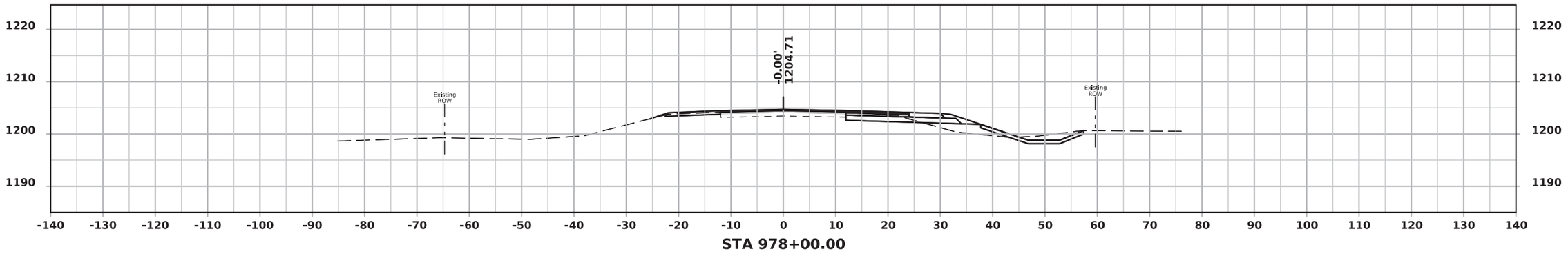


STA 975+50.00

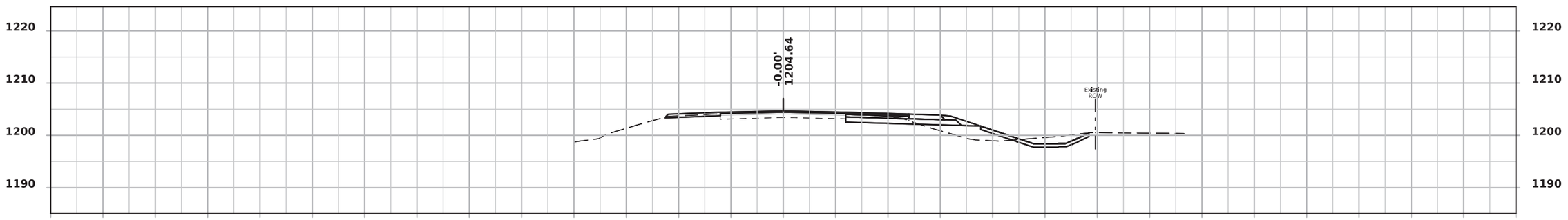
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.79

2:13:28 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

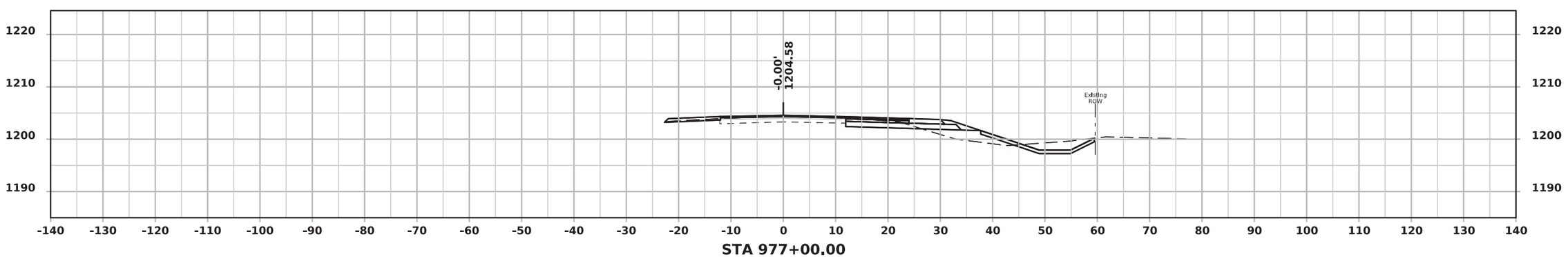
US 18 EB passing lane



STA 978+00.00



STA 977+50.00

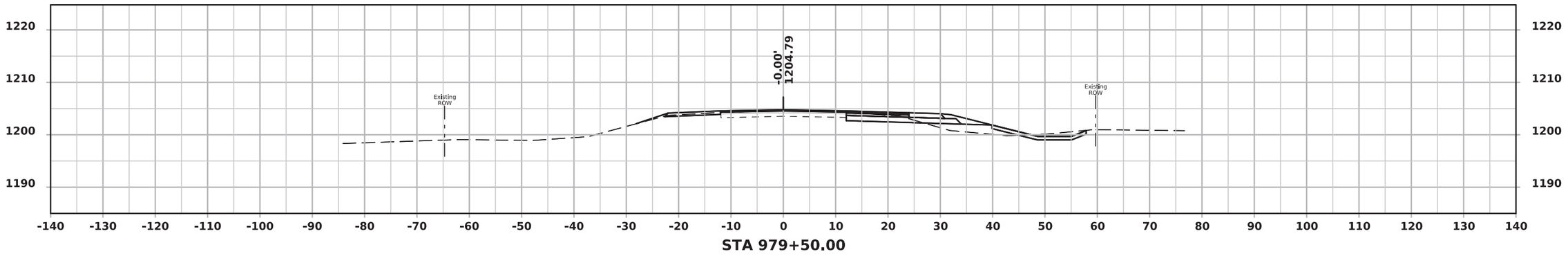


STA 977+00.00

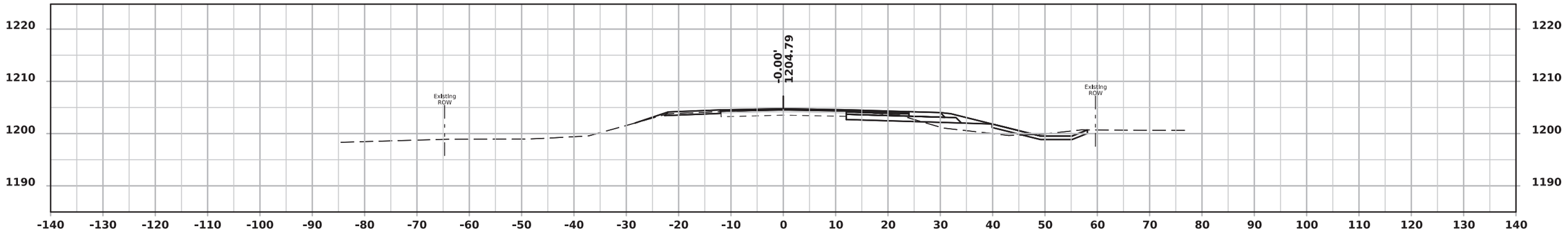
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.80	

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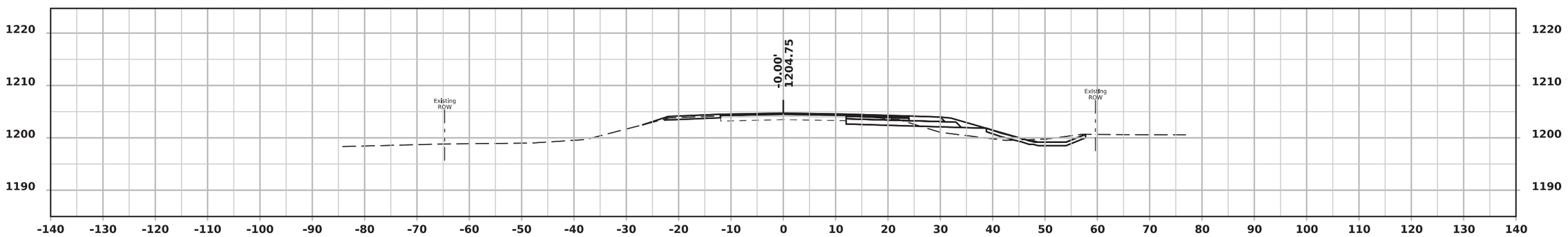
US 18 EB passing lane



STA 979+50.00



STA 979+00.00

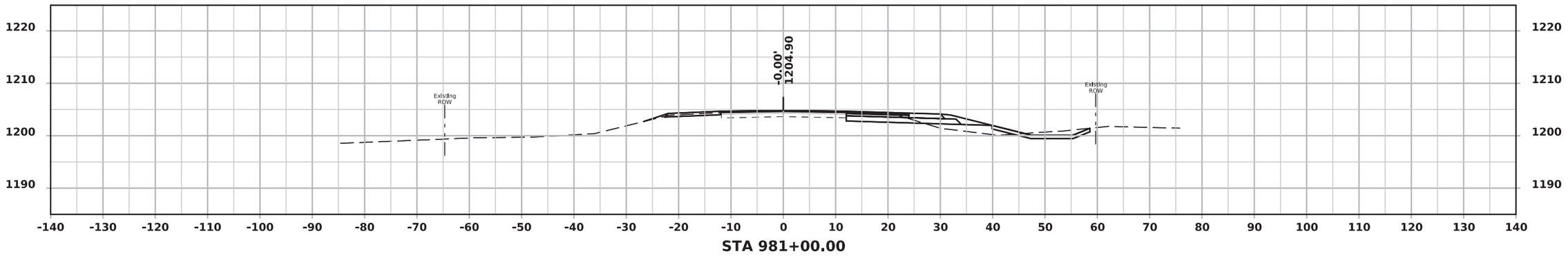


STA 978+50.00

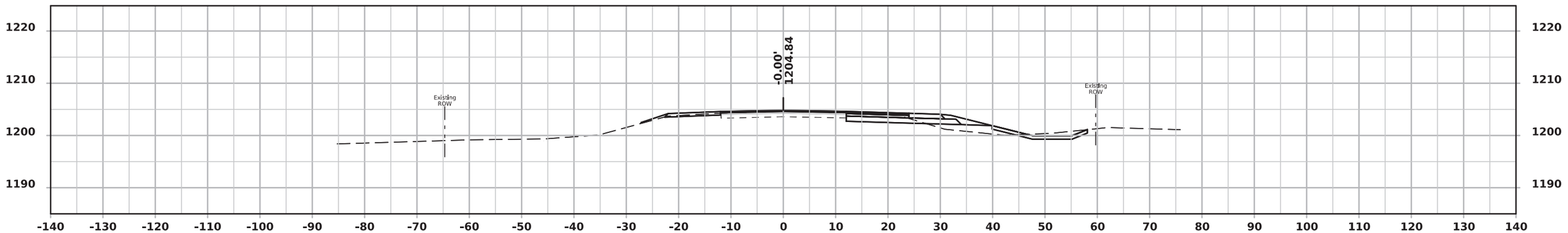
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.81

2:13:31 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

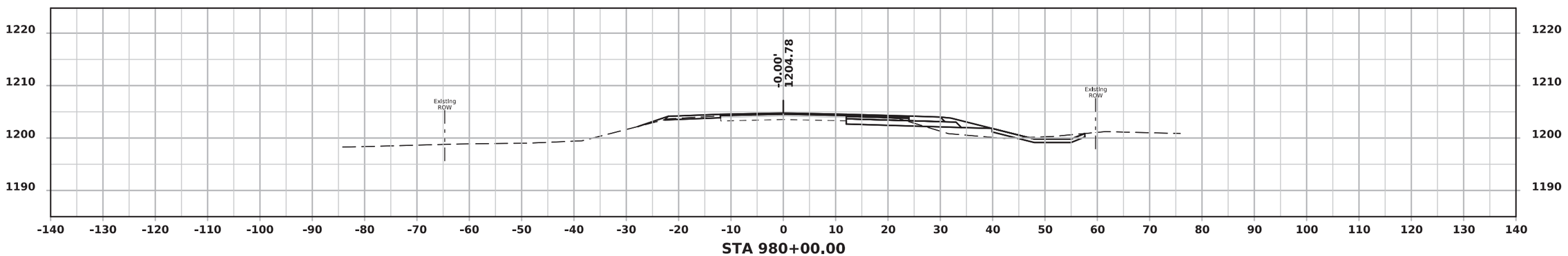
US 18 EB passing lane



STA 981+00.00



STA 980+50.00

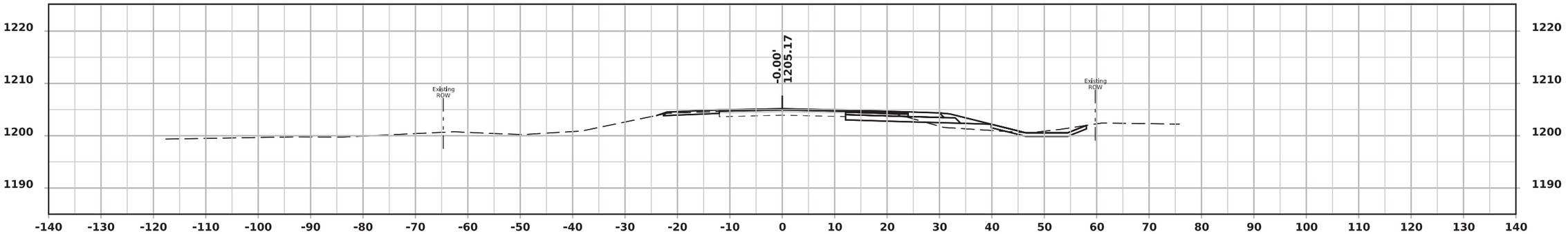


STA 980+00.00

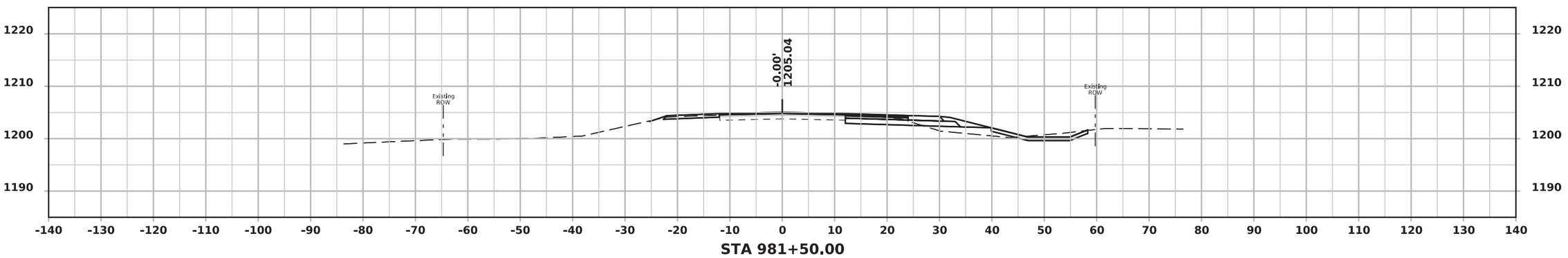
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.82	

2:13:32 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

US 18 EB passing lane



STA 982+00.00

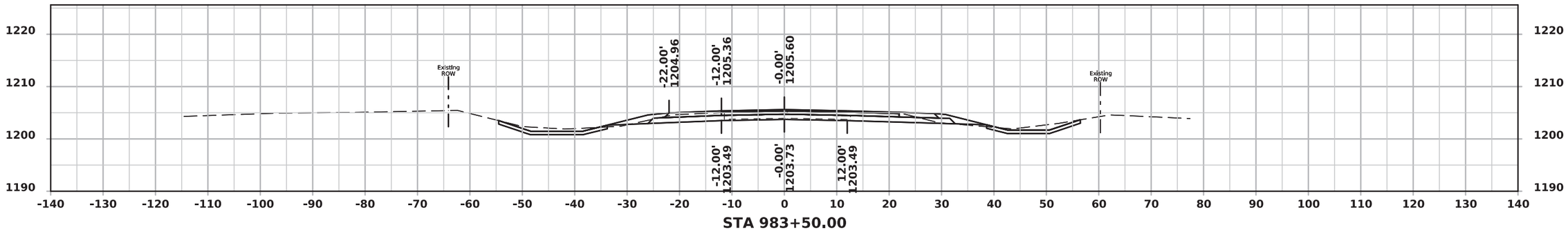


STA 981+50.00

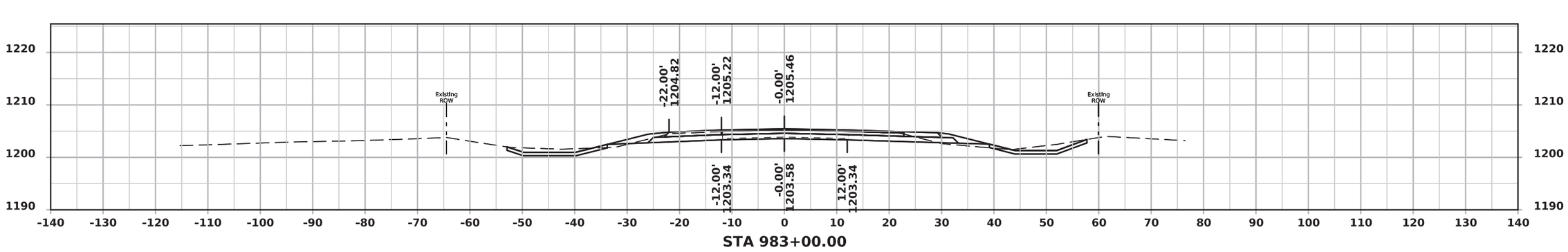
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.83	

2:13:33 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_EB_passing.dgn

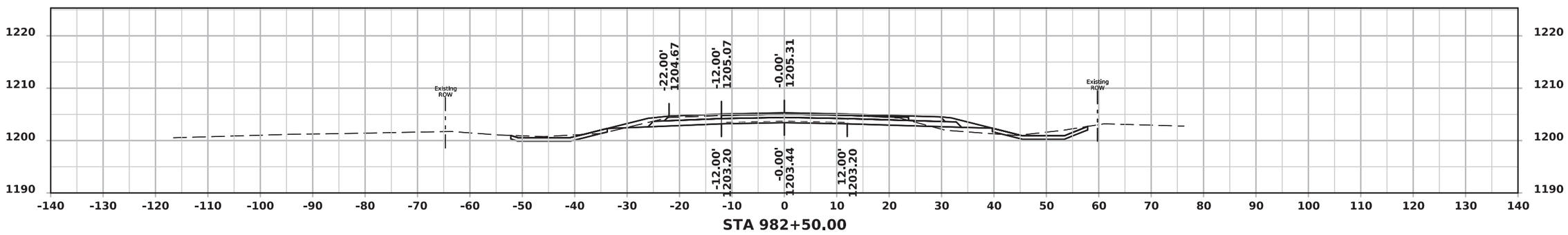
US 18 near 190th



STA 983+50.00



STA 983+00.00

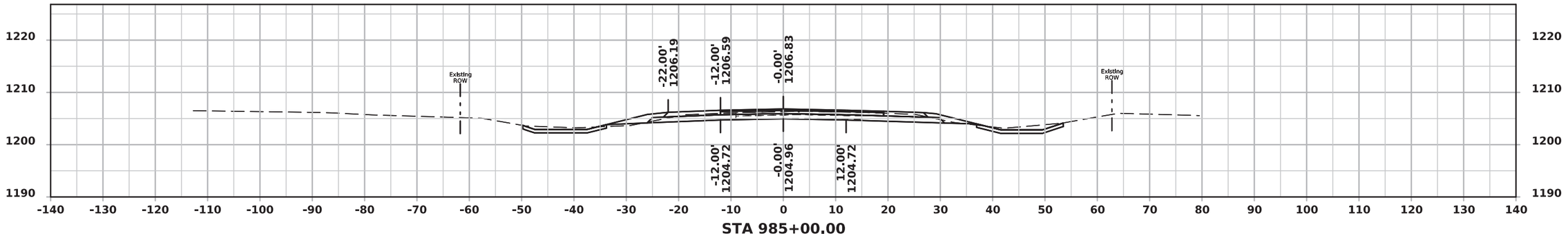


STA 982+50.00

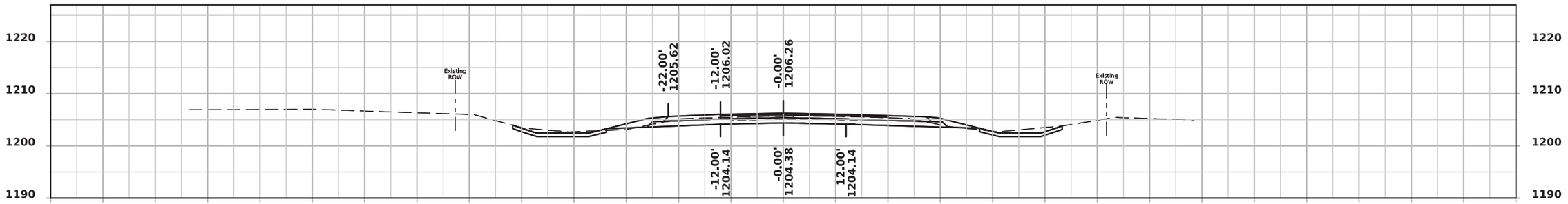
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.84

3:38:43 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_near_190th.dgn

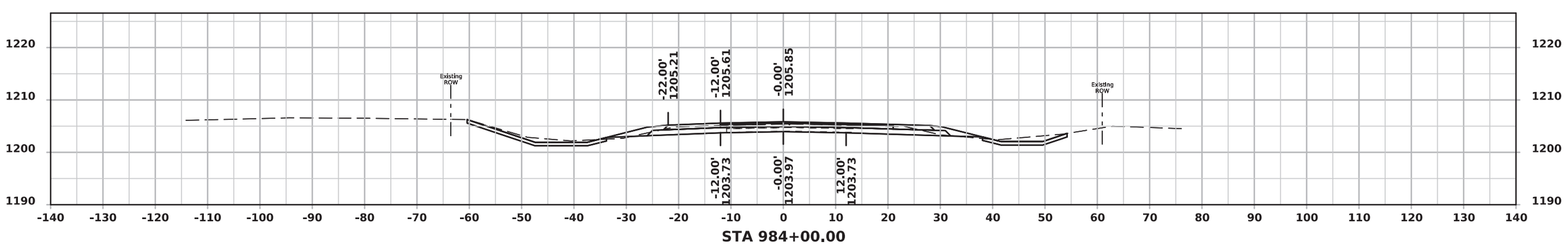
US 18 near 190th



STA 985+00.00



STA 984+50.00

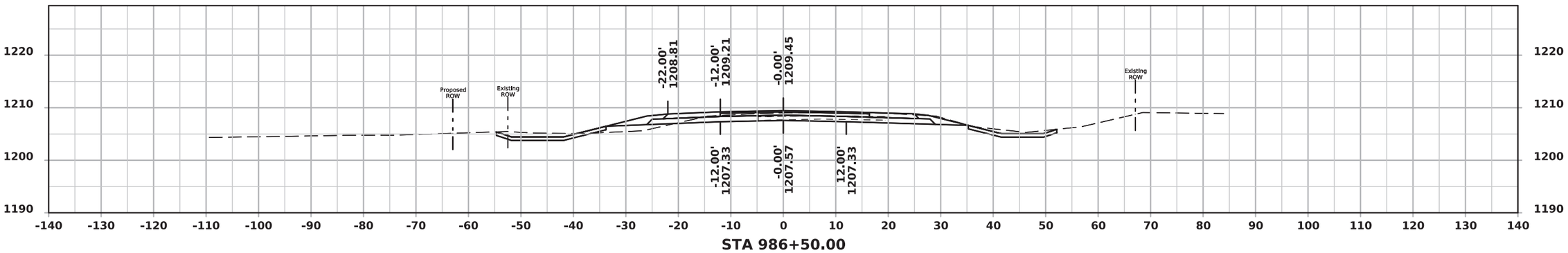


STA 984+00.00

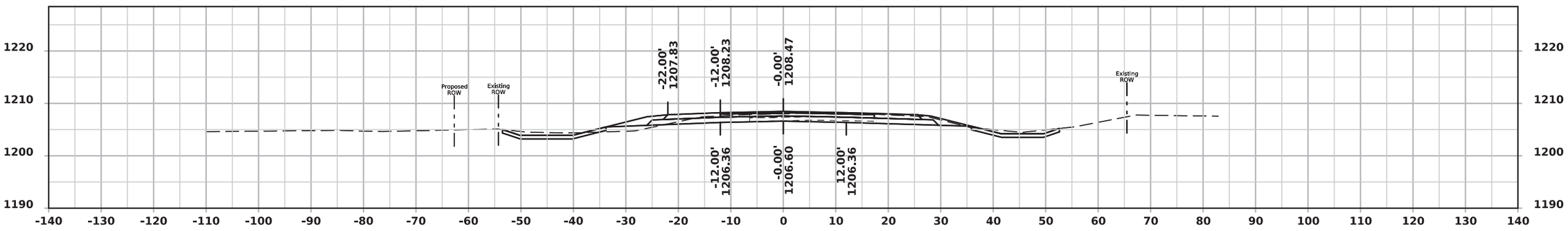
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.85	

3:38:45 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_near_190th.dgn

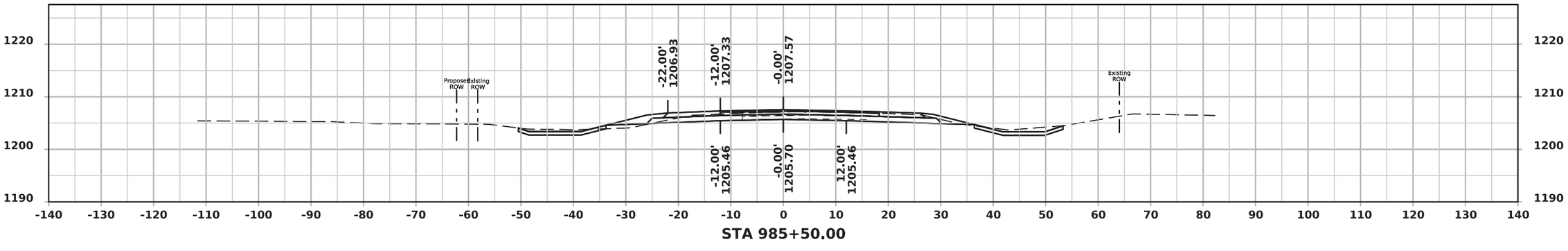
US 18 near 190th



STA 986+50.00



STA 986+00.00

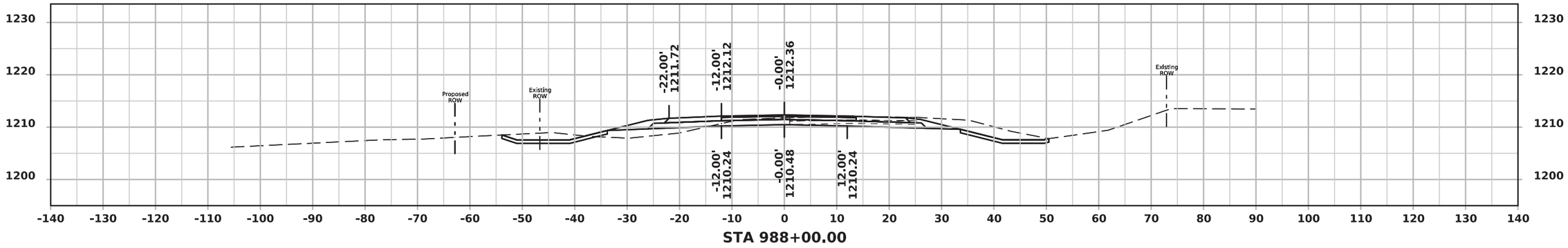


STA 985+50.00

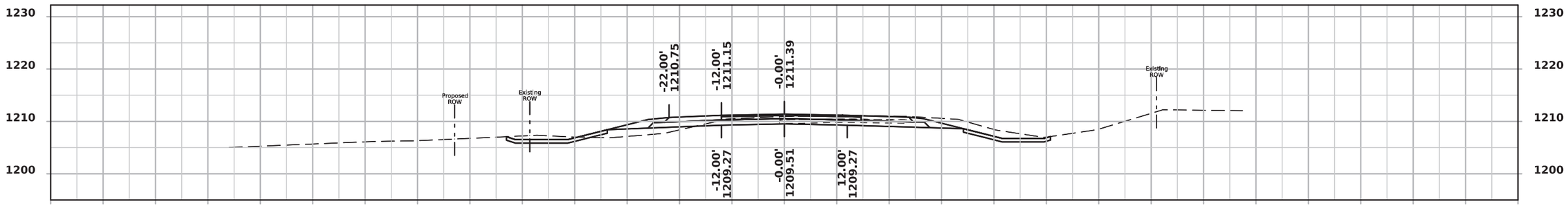
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.86	

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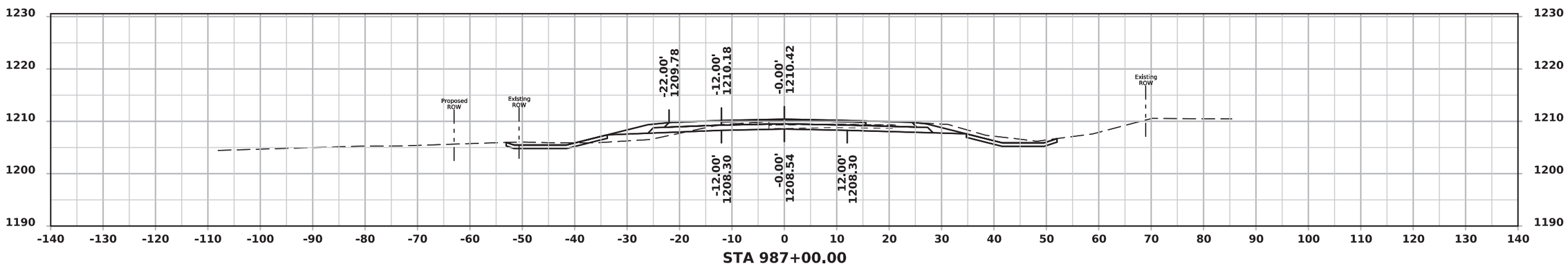
US 18 near 190th



STA 988+00.00



STA 987+50.00

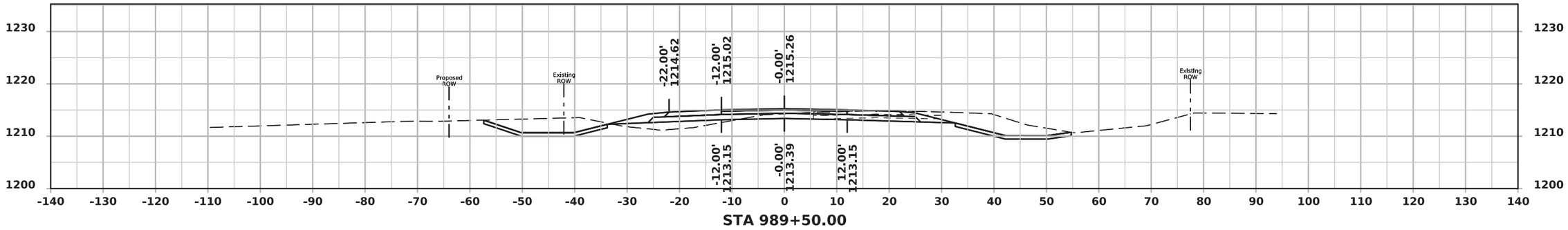


STA 987+00.00

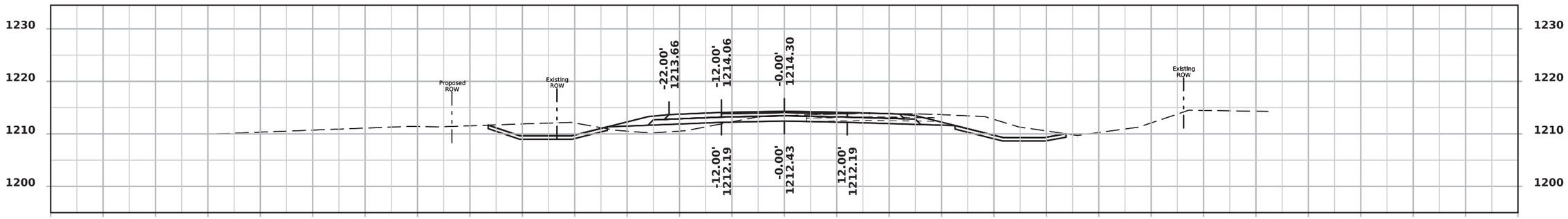
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.87

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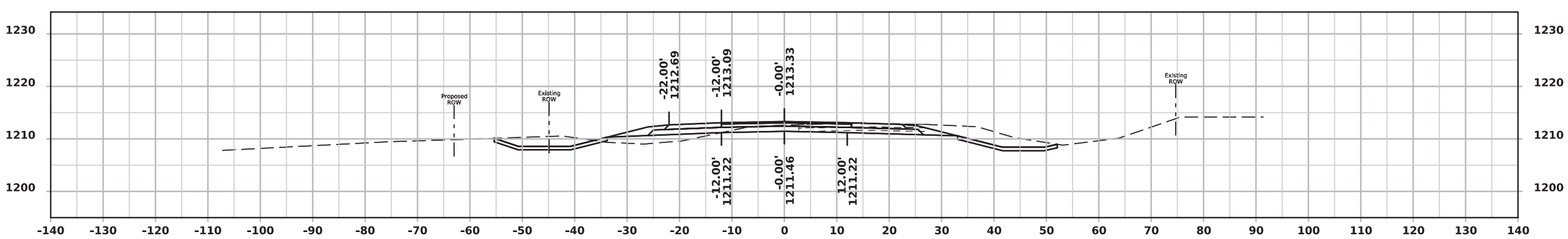
US 18 near 190th



STA 989+50.00



STA 989+00.00

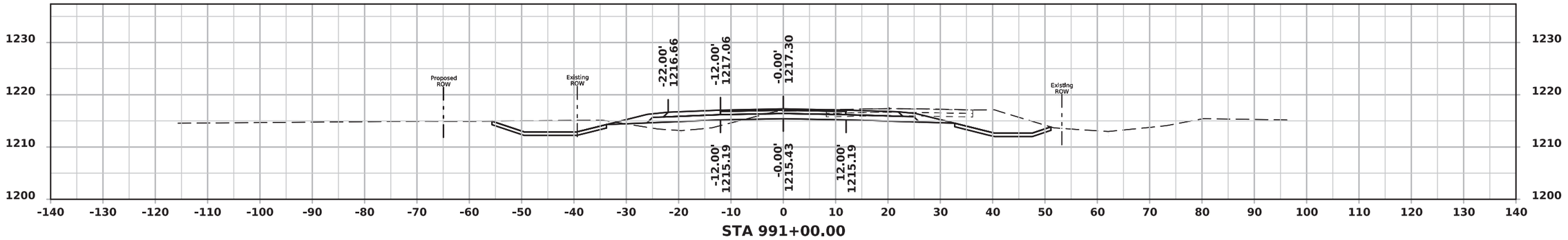


STA 988+50.00

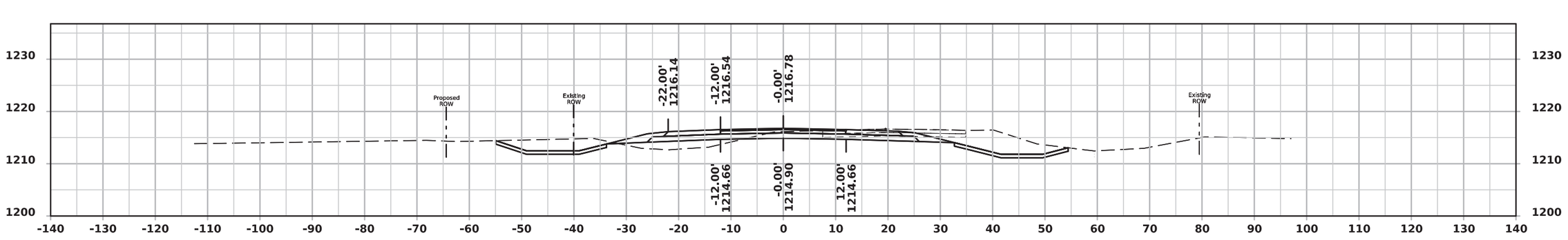
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.88	

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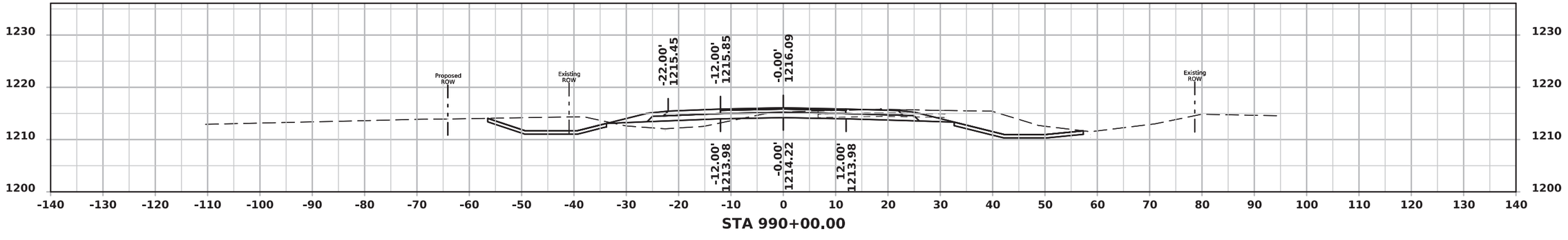
US 18 near 190th



STA 991+00.00



STA 990+50.00

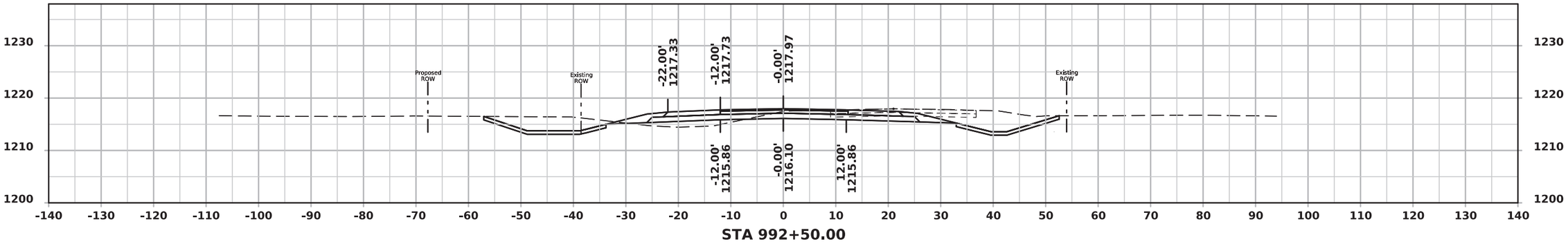


STA 990+00.00

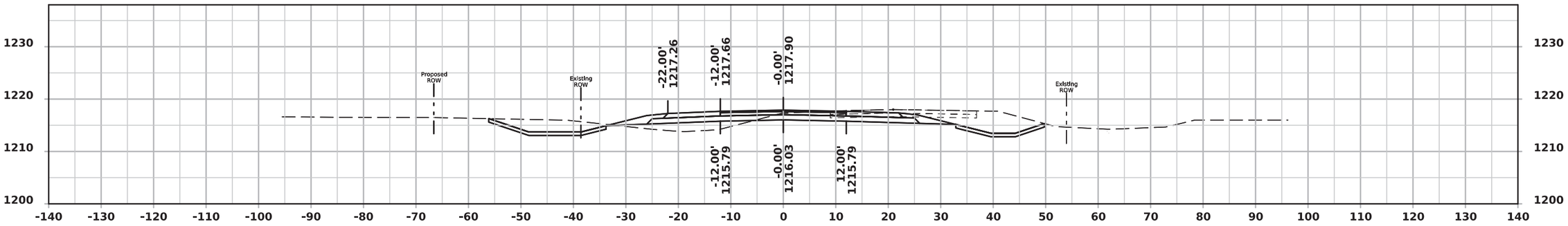
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.89	

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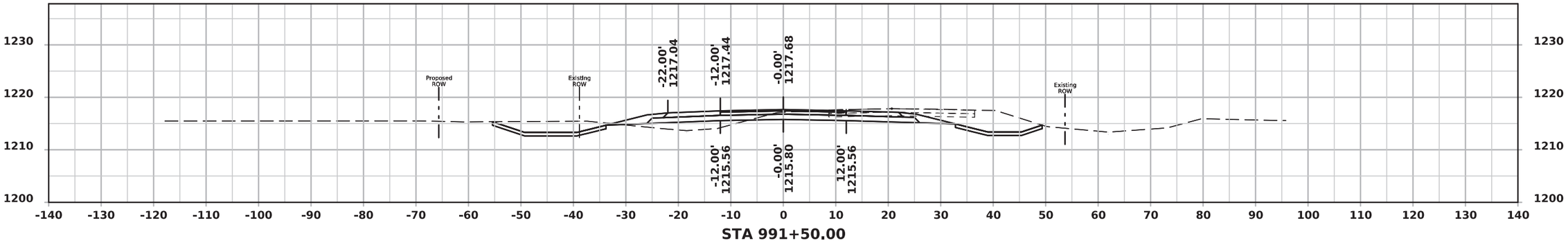
US 18 near 190th



STA 992+50.00



STA 992+00.00

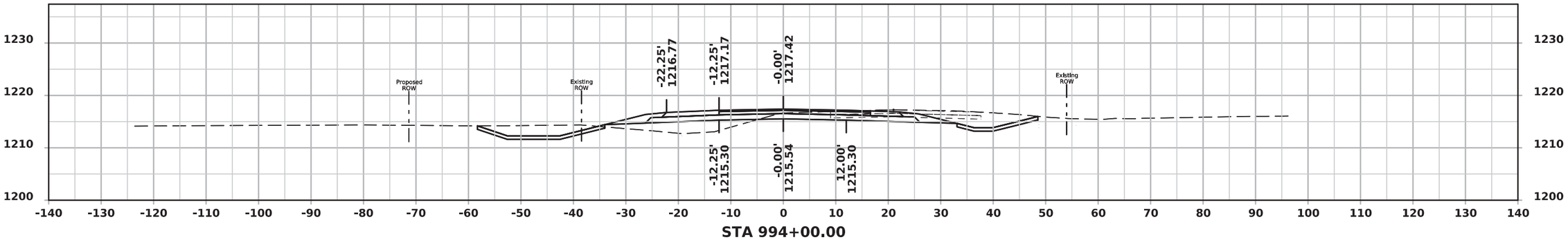


STA 991+50.00

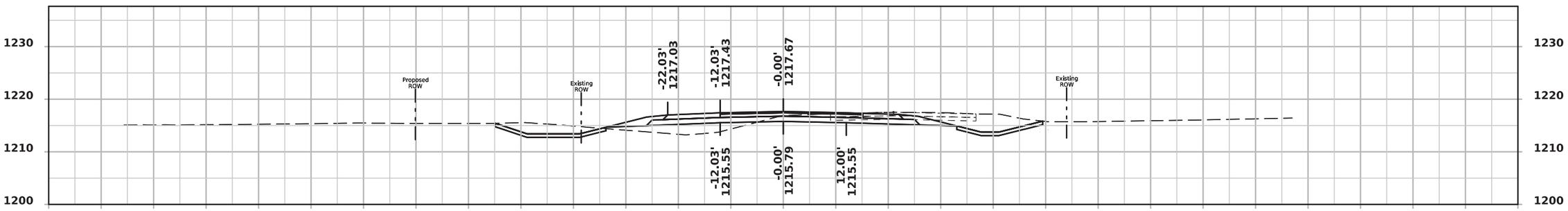
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.90	

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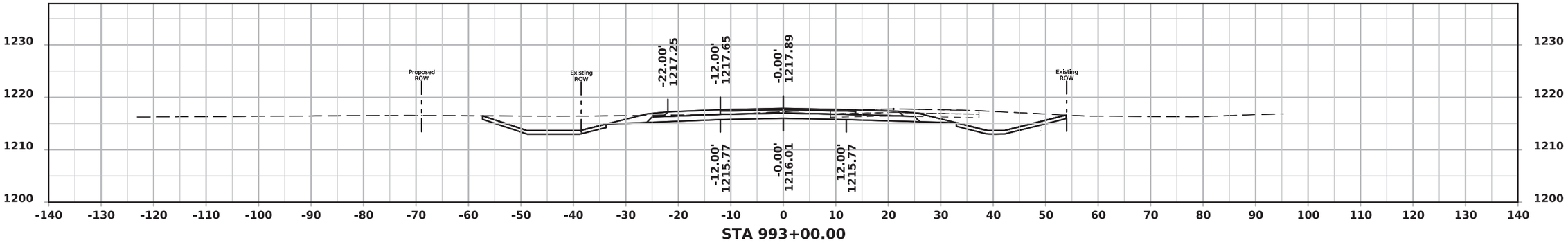
US 18 near 190th



STA 994+00.00



STA 993+50.00

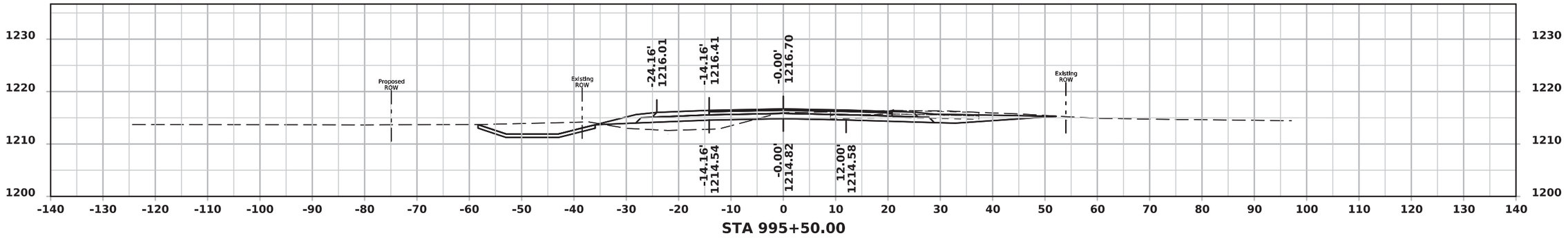


STA 993+00.00

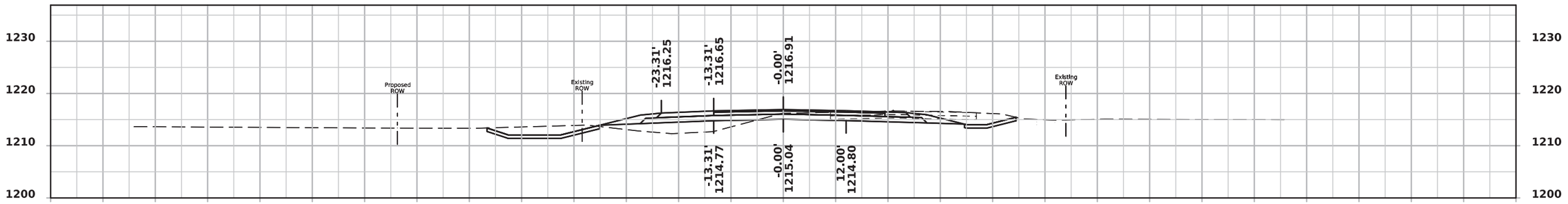
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.91	

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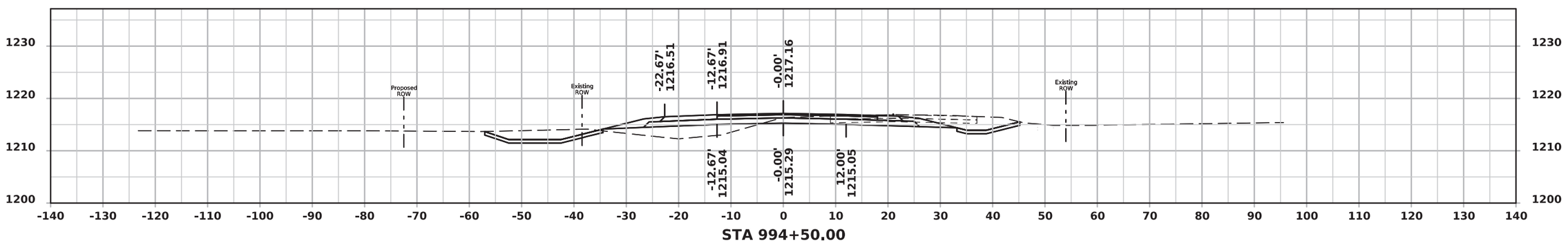
US 18 near 190th



STA 995+50.00



STA 995+00.00

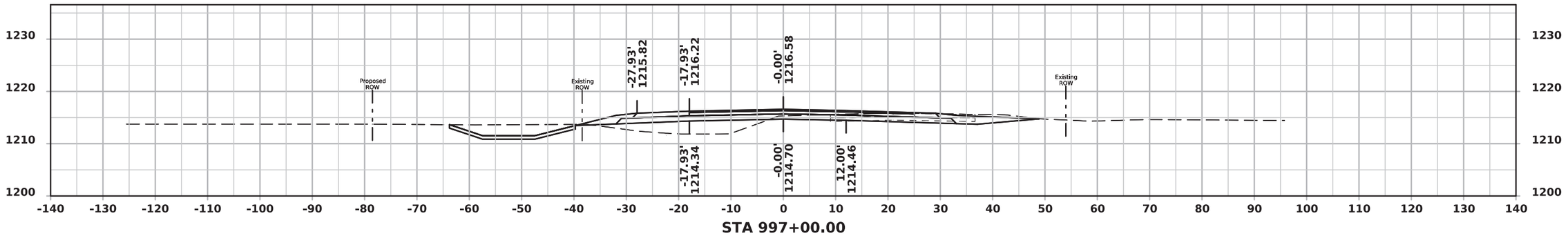


STA 994+50.00

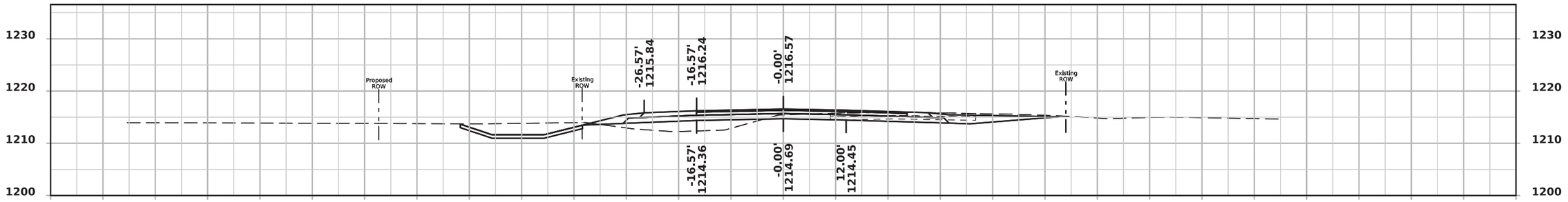
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.92

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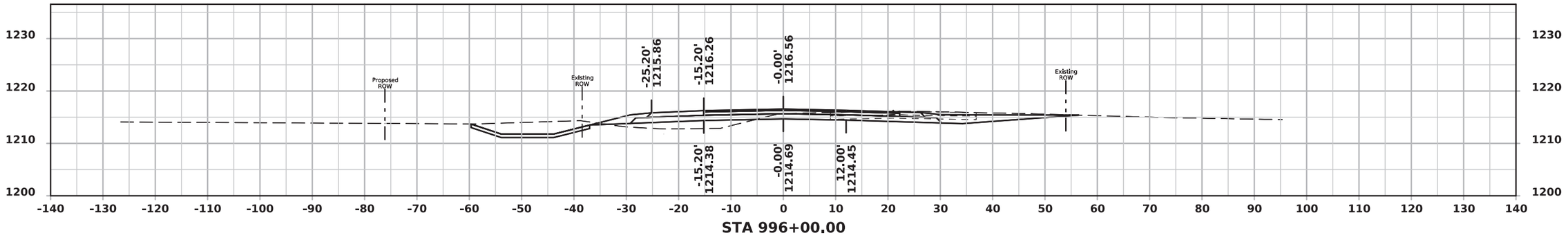
US 18 near 190th



STA 997+00.00



STA 996+50.00

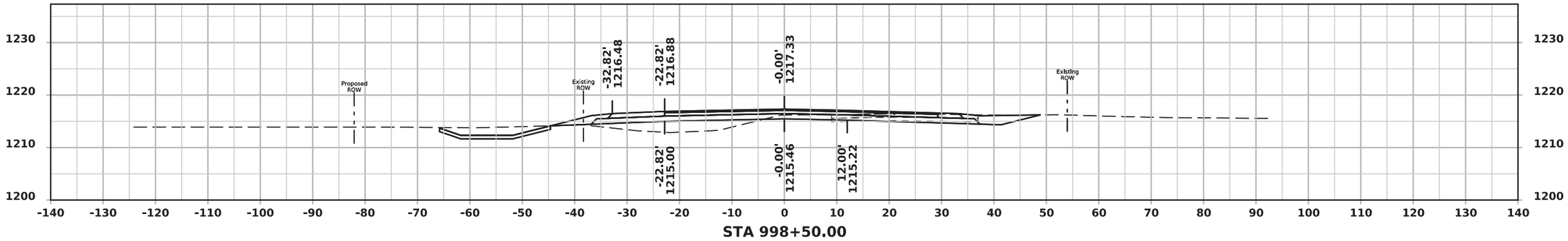


STA 996+00.00

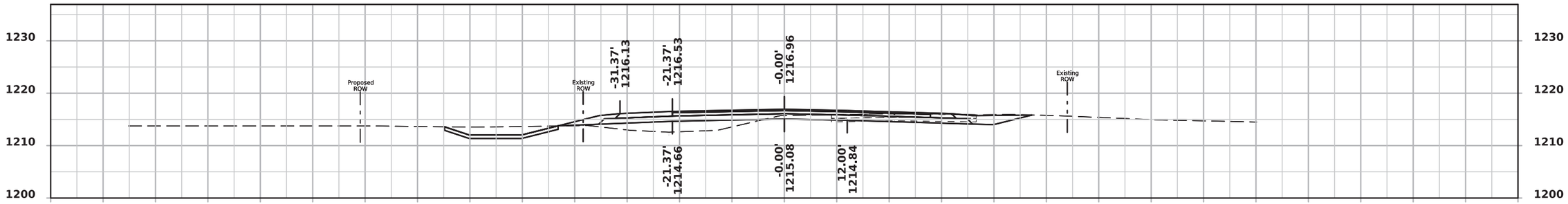
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.93	

3:39:00 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_near_190th.dgn

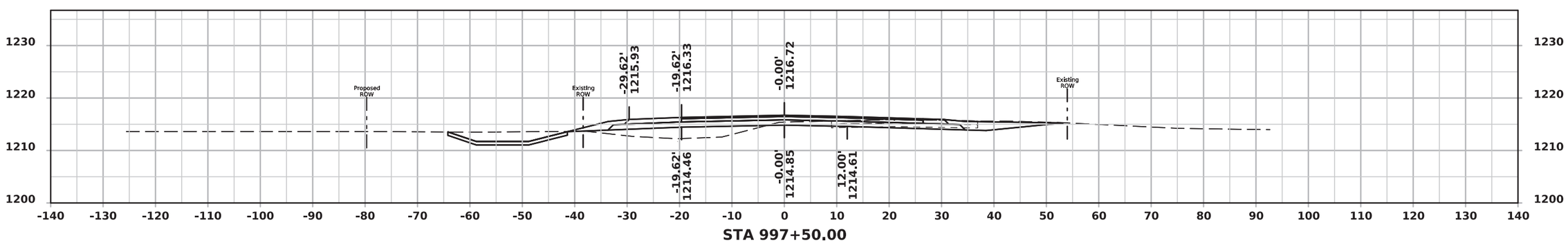
US 18 near 190th



STA 998+50.00



STA 998+00.00

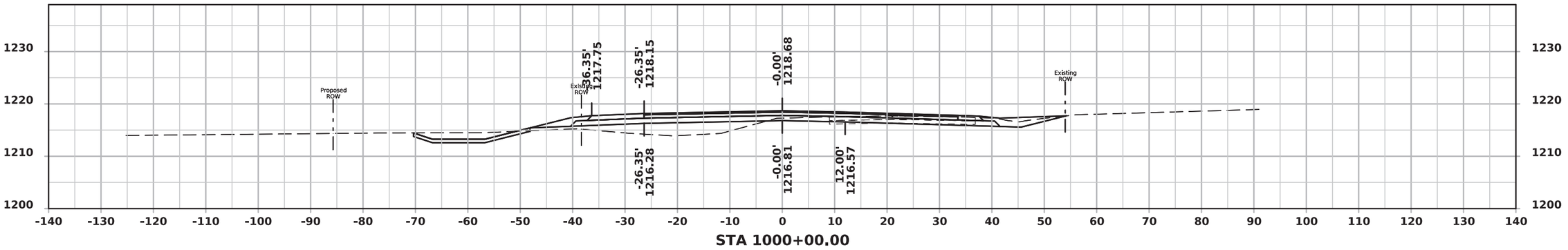


STA 997+50.00

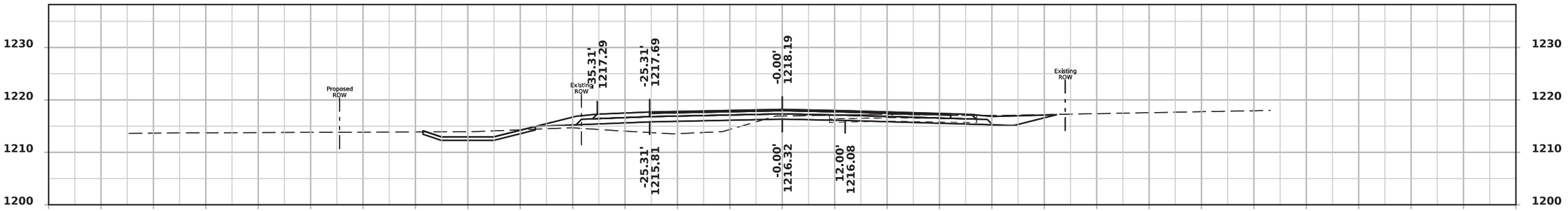
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.94

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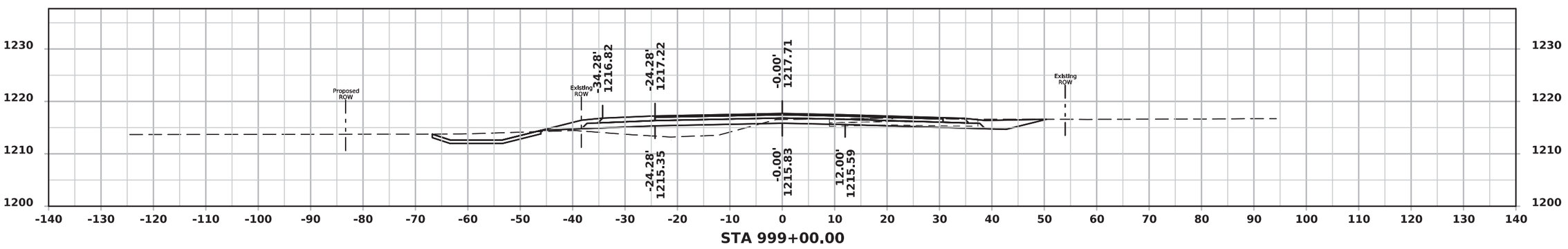
US 18 near 190th



STA 1000+00.00



STA 999+50.00

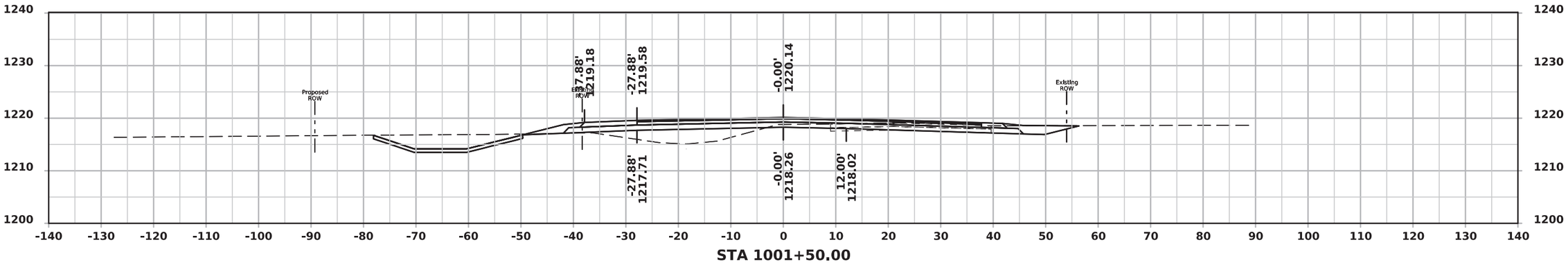


STA 999+00.00

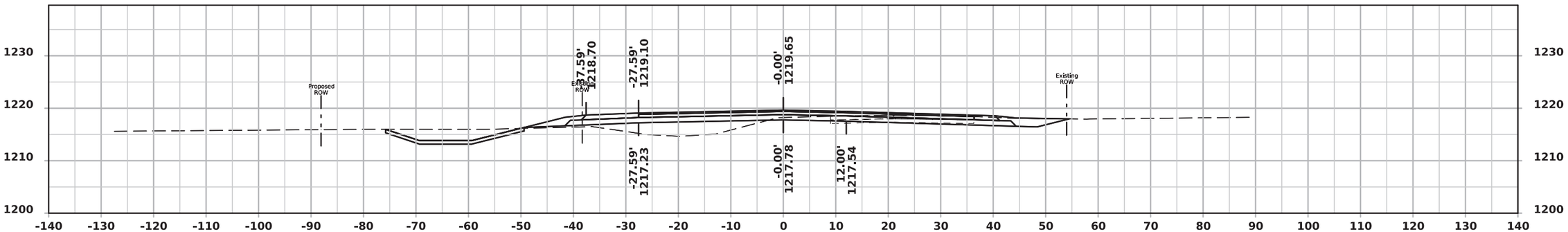
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.95

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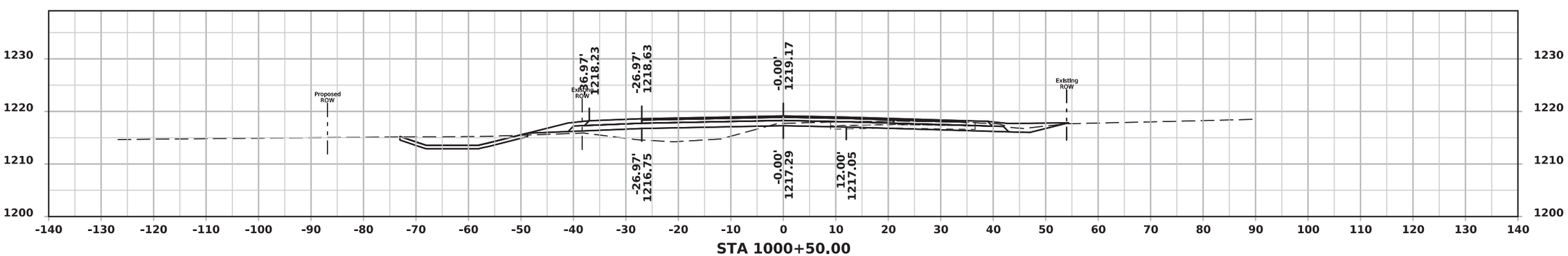
US 18 near 190th



STA 1001+50.00



STA 1001+00.00

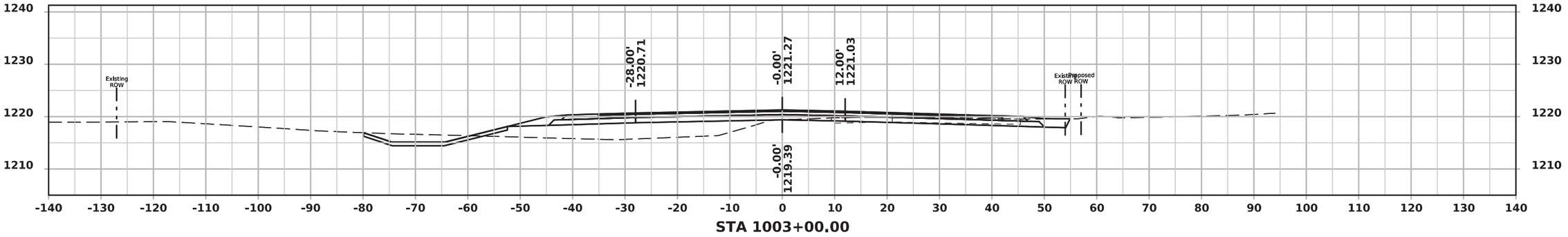


STA 1000+50.00

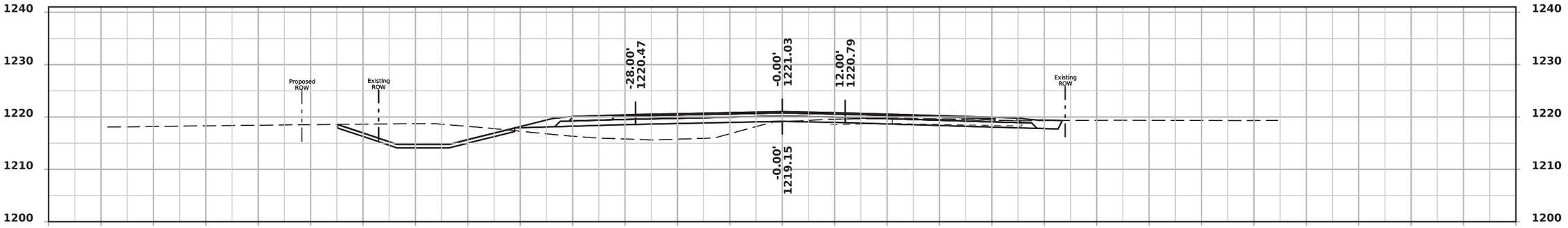
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.96	

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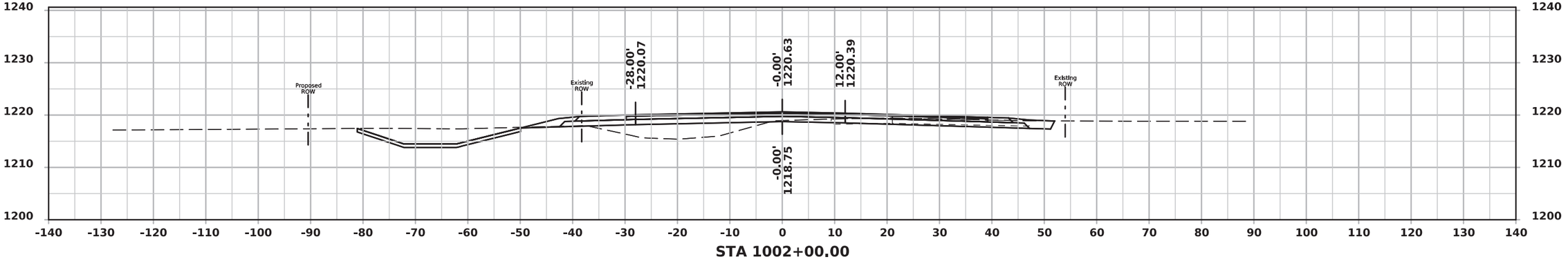
US 18 near 190th



STA 1003+00.00



STA 1002+50.00

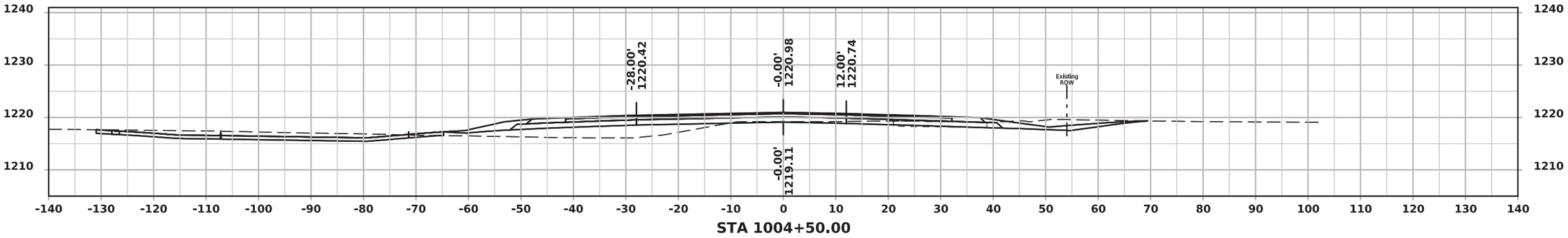


STA 1002+00.00

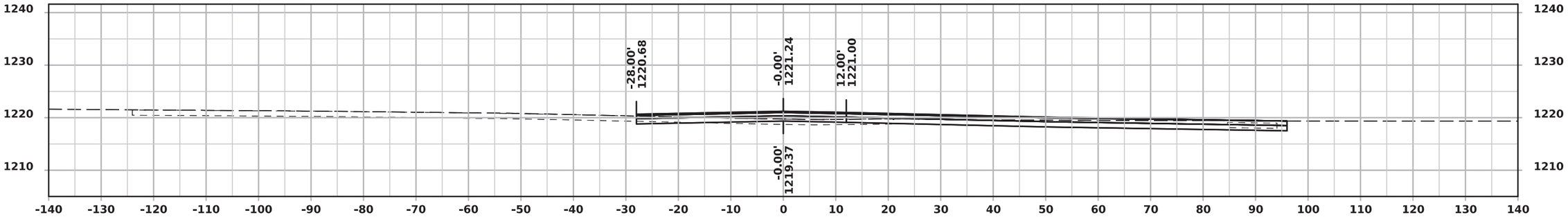
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.97

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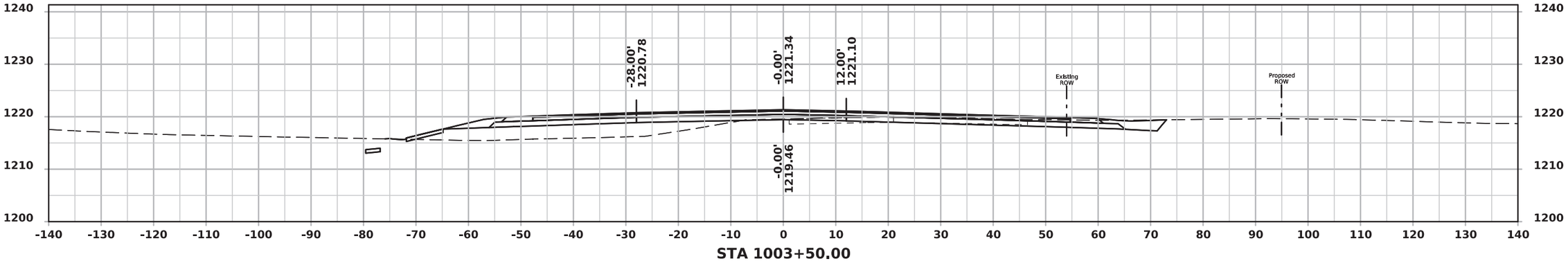
US 18 near 190th



STA 1004+50.00



STA 1004+00.00

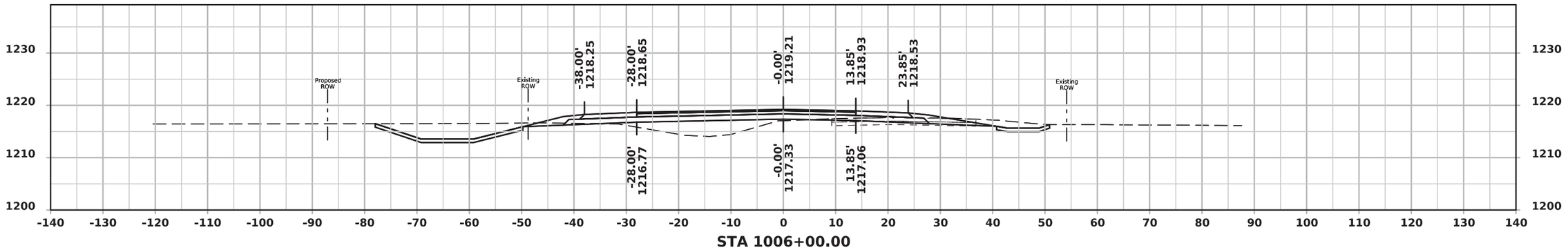


STA 1003+50.00

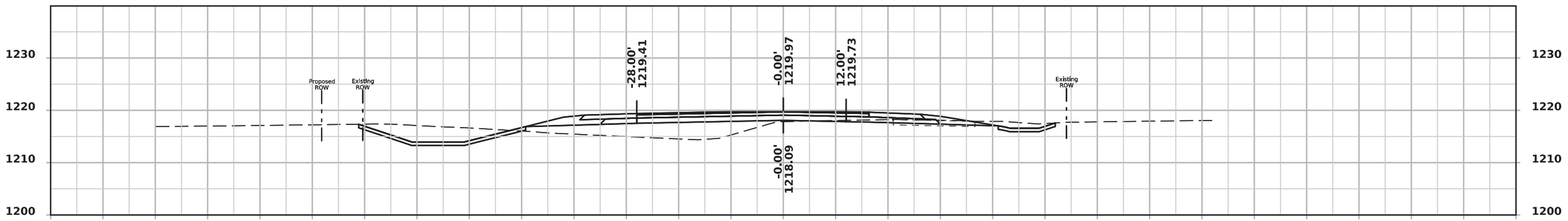
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.98

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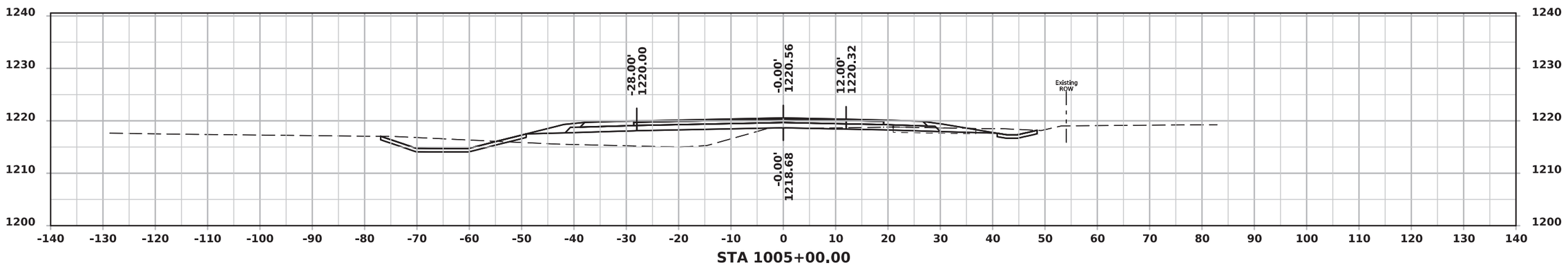
US 18 near 190th



STA 1006+00.00



STA 1005+50.00

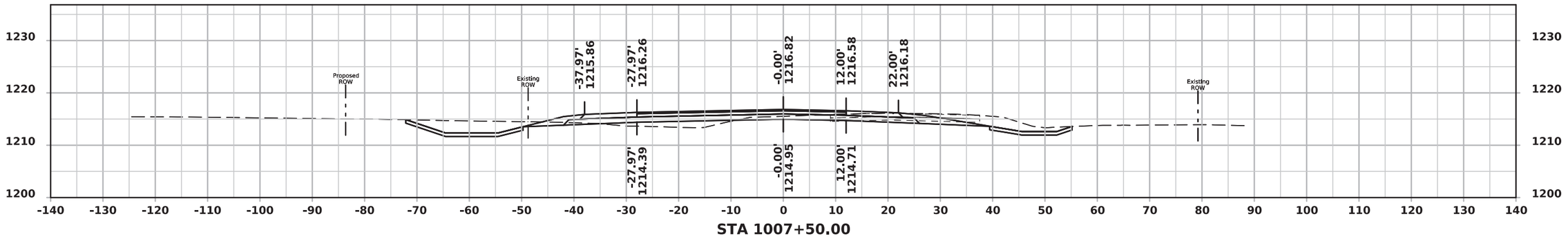


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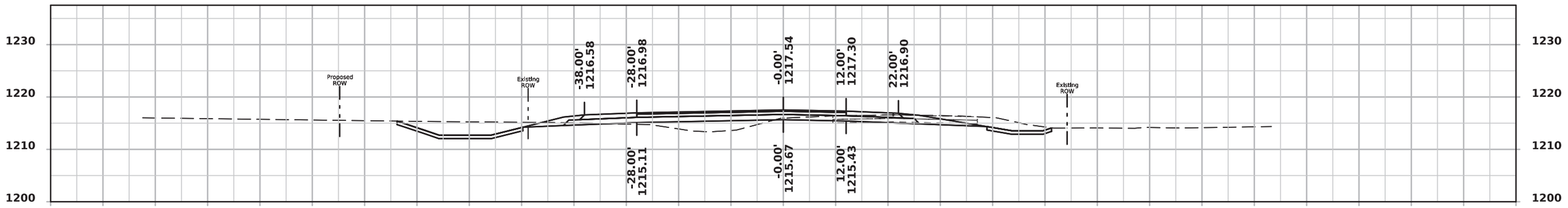
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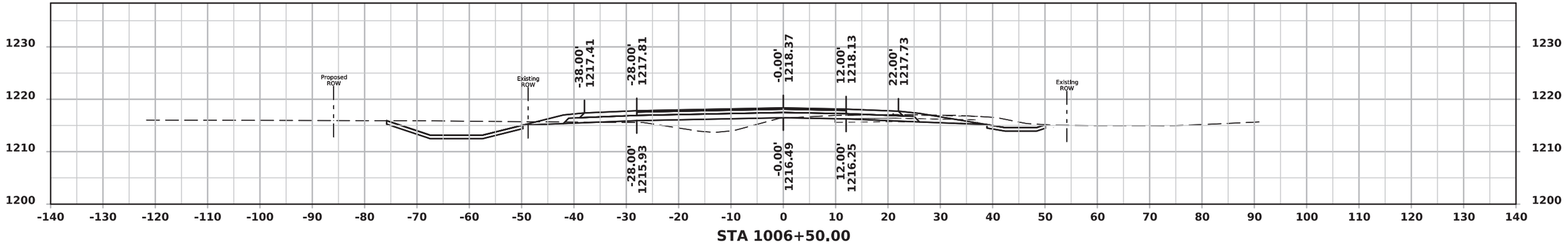
US 18 near 190th



STA 1007+50.00



STA 1007+00.00

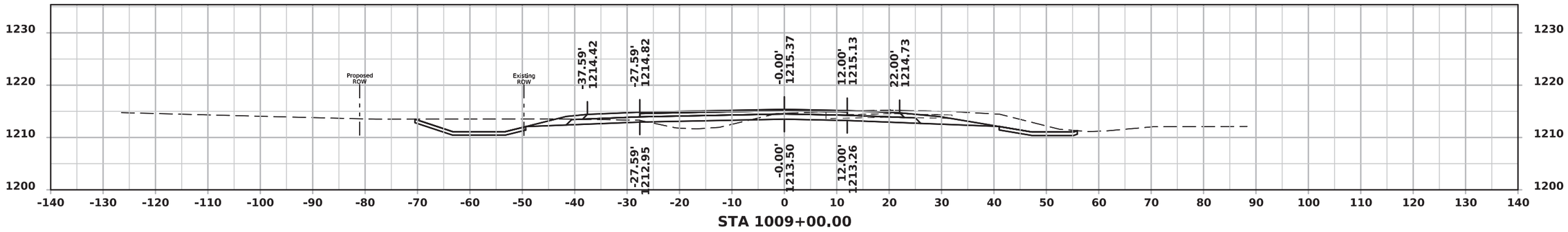


STA 1006+50.00

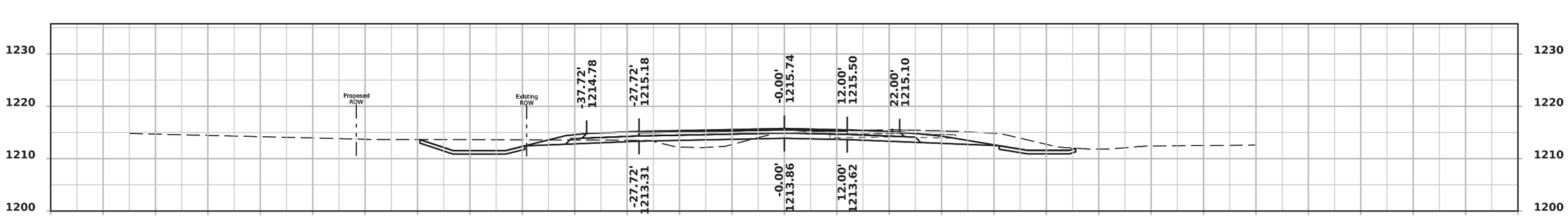
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.100

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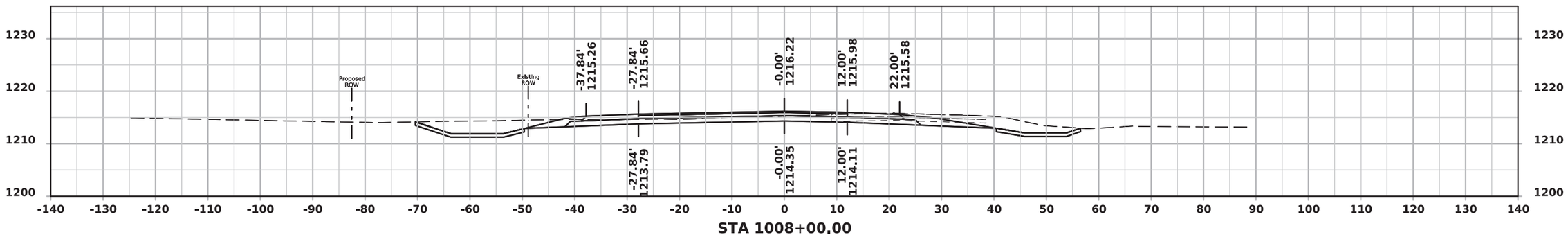
US 18 near 190th



STA 1009+00.00



STA 1008+50.00

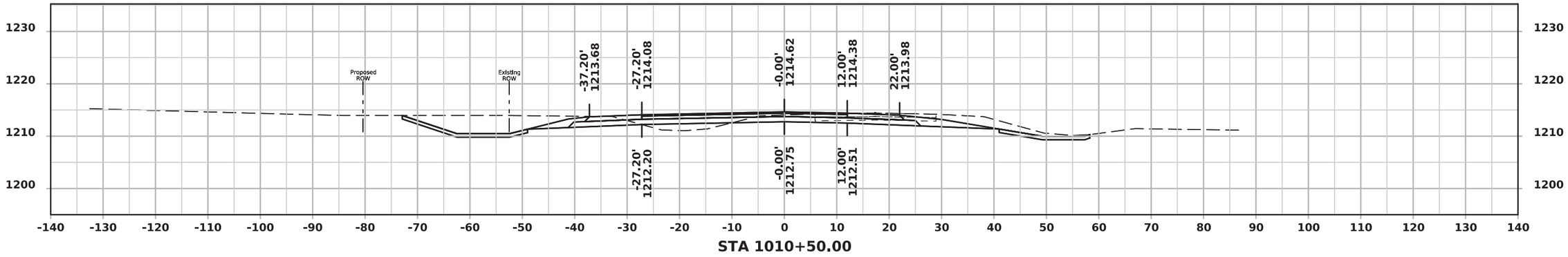


STA 1008+00.00

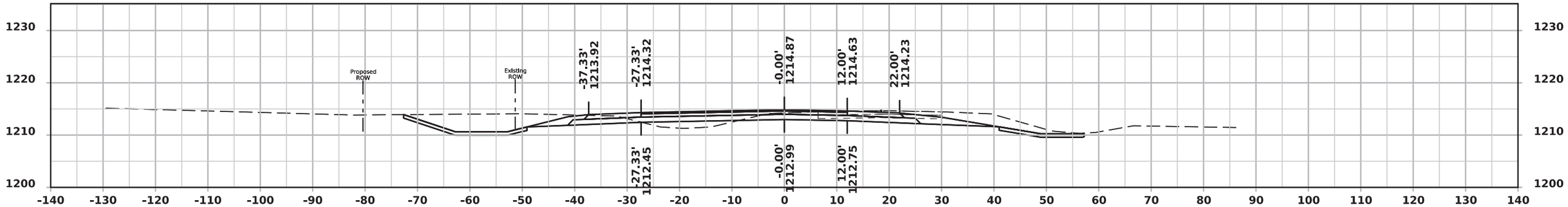
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.101

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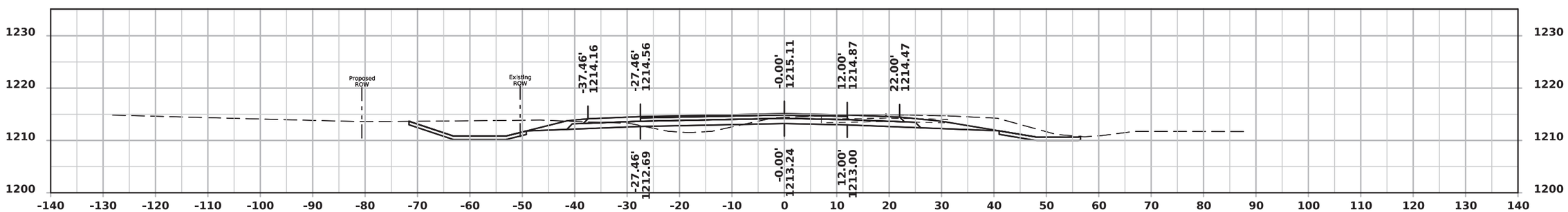
US 18 near 190th



STA 1010+50.00



STA 1010+00.00

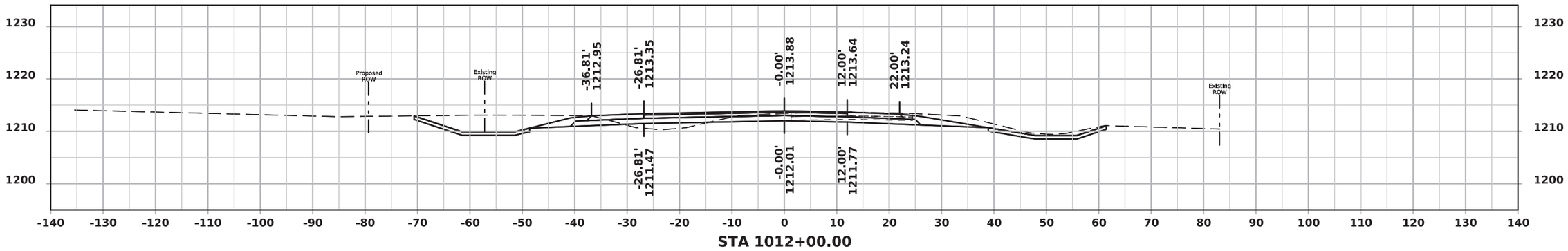


STA 1009+50.00

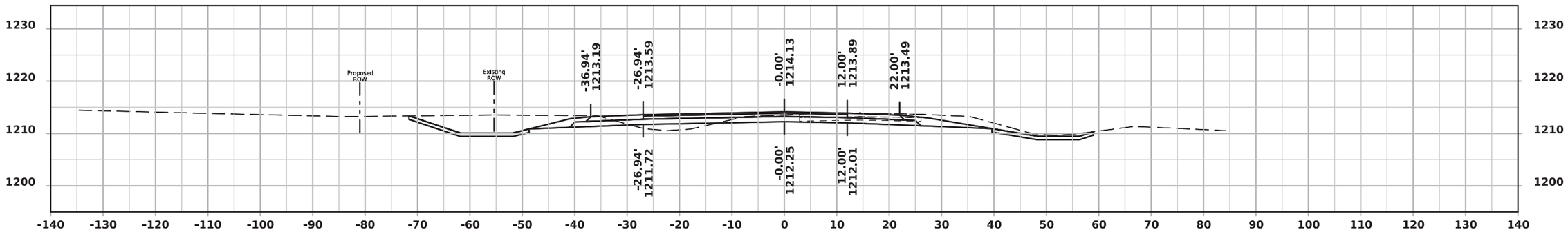
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.102

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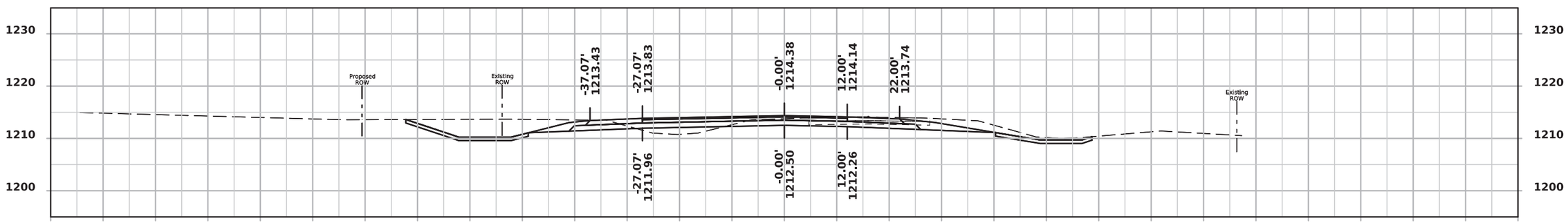
US 18 near 190th



STA 1012+00.00



STA 1011+50.00

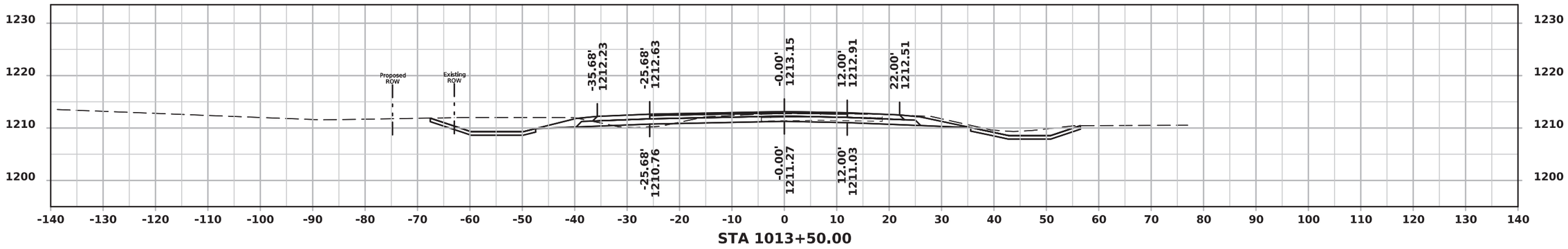


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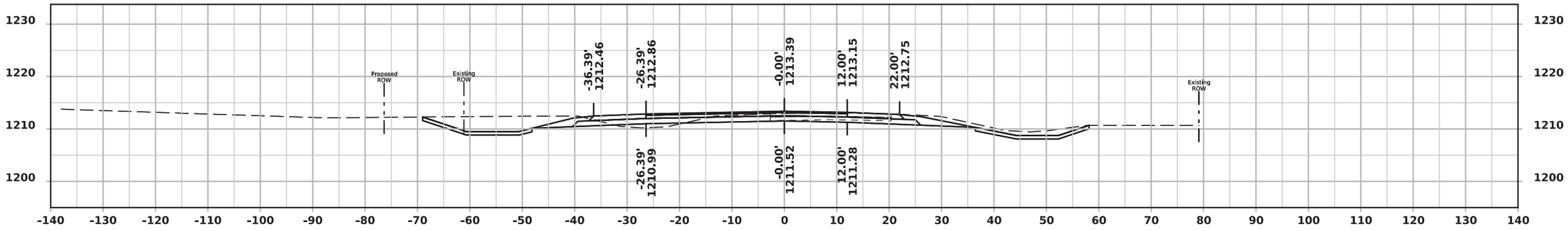
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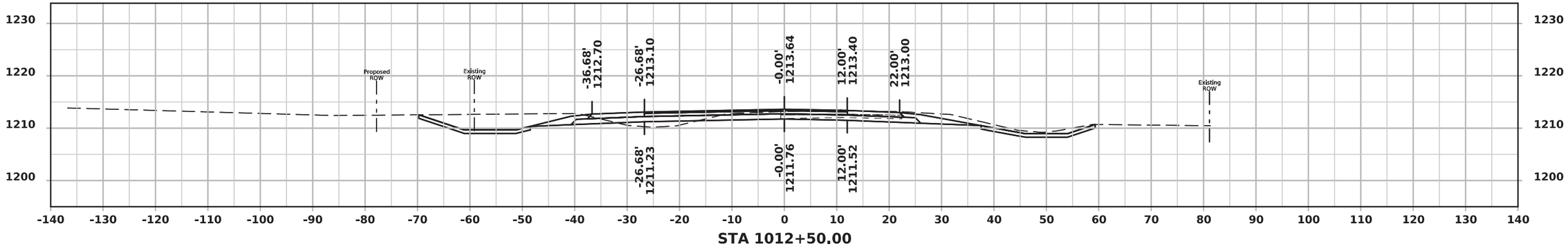
US 18 near 190th



STA 1013+50.00



STA 1013+00.00

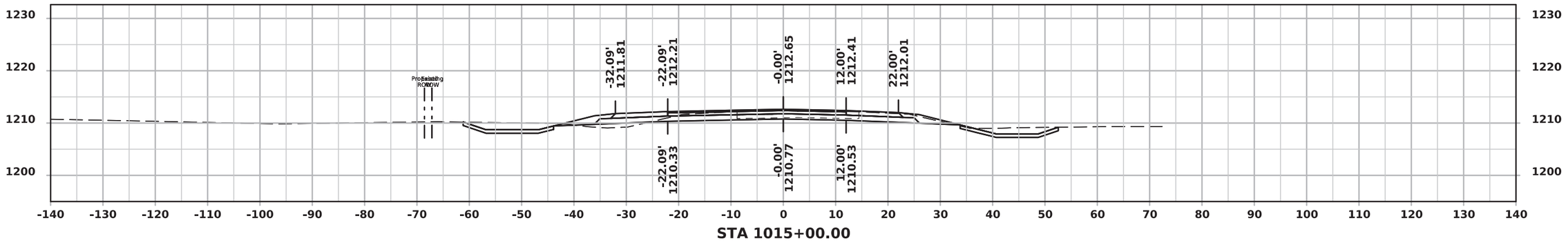


STA 1012+50.00

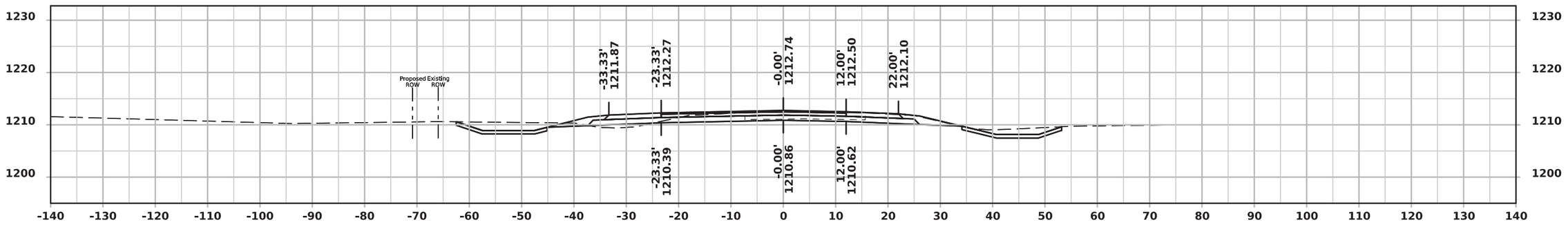
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.104	

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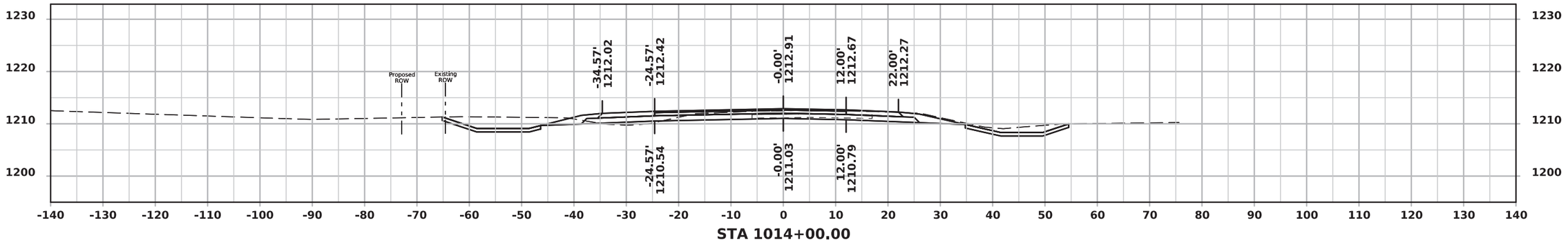
US 18 near 190th



STA 1015+00.00



STA 1014+50.00

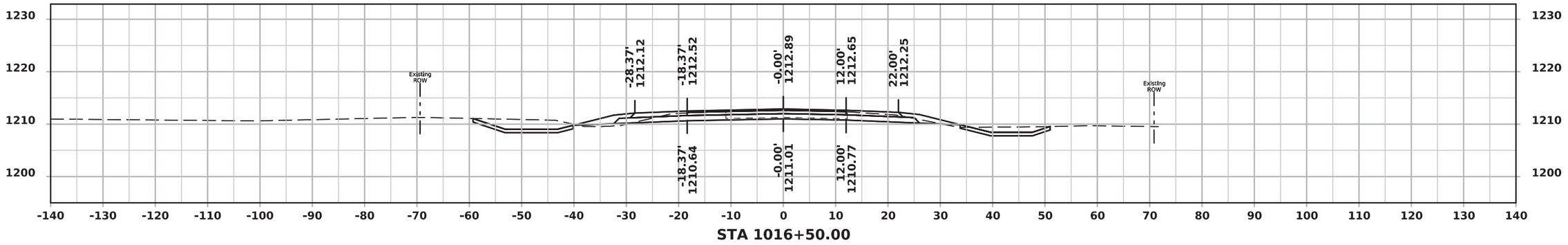


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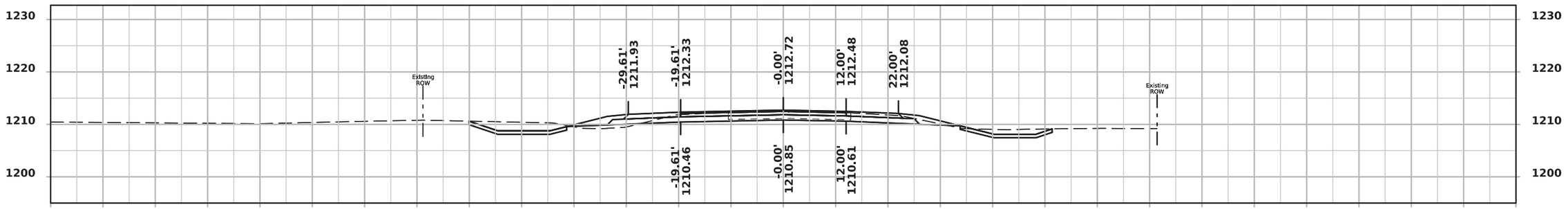
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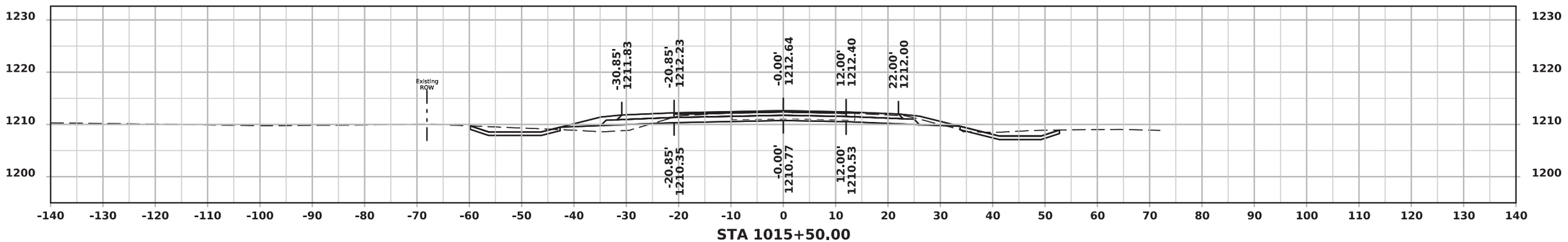
US 18 near 190th



STA 1016+50.00



STA 1016+00.00

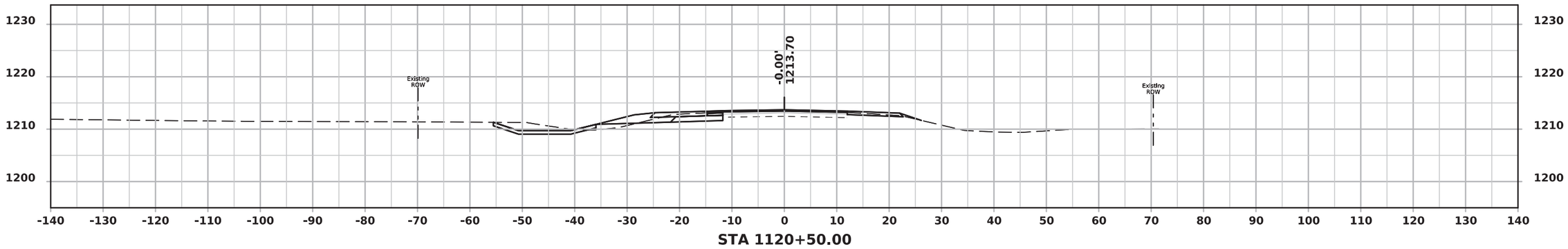


STA 1015+50.00

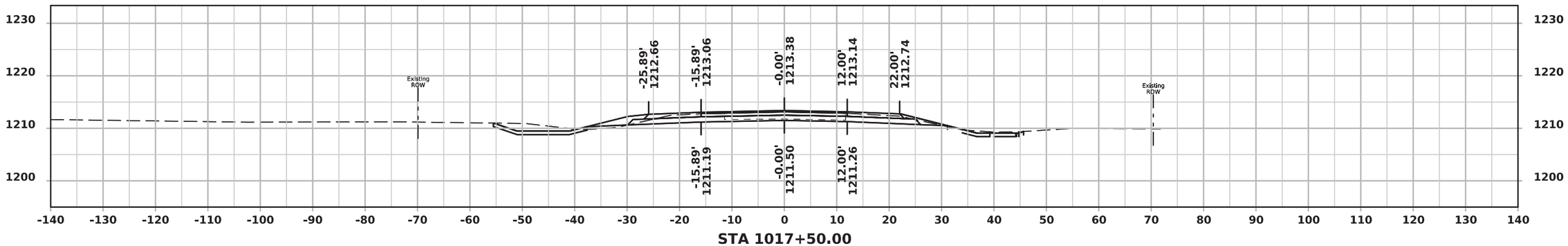
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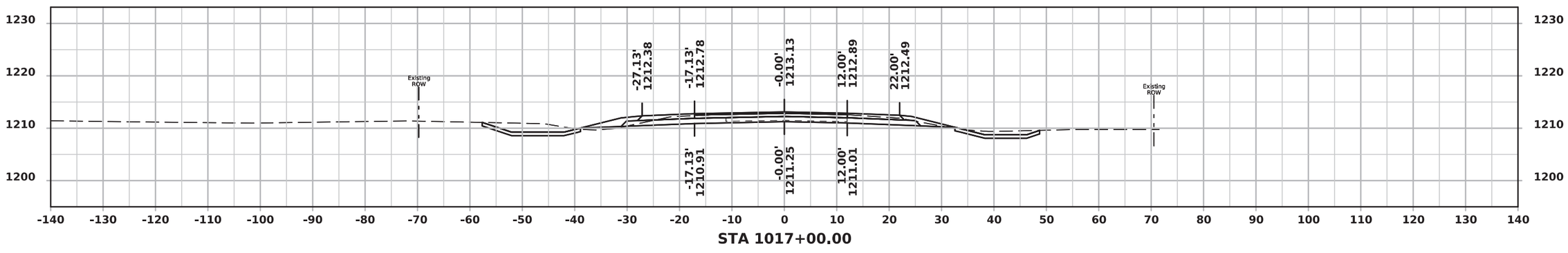
US 18 near 190th



STA 1120+50.00



STA 1017+50.00

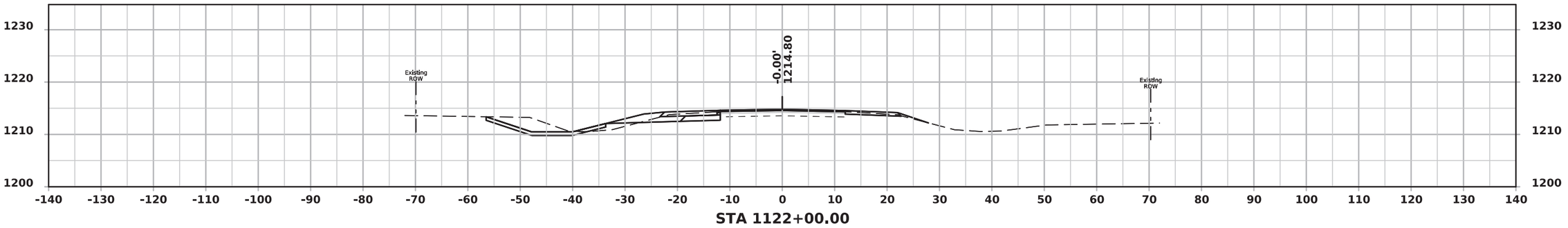


STA 1017+00.00

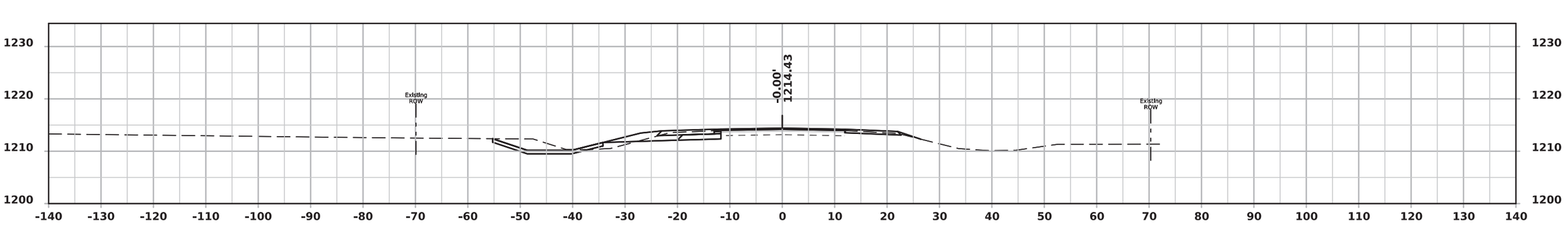
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.107

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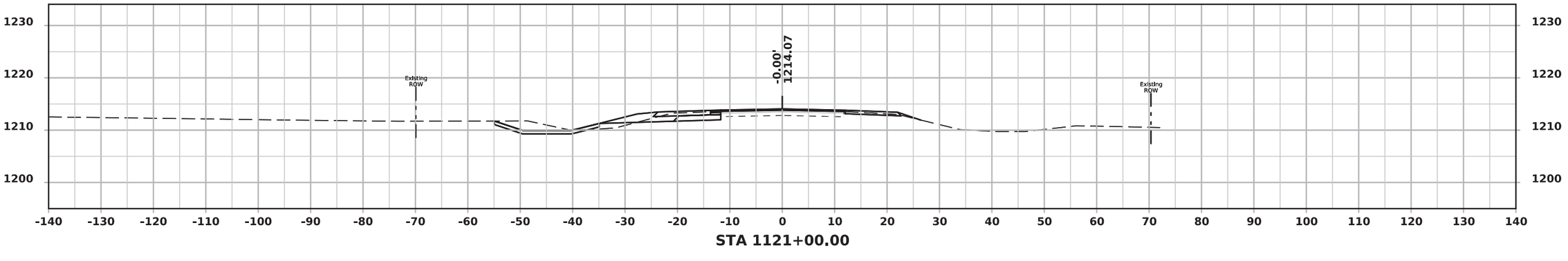
US 18 near 190th



STA 1122+00.00



STA 1121+50.00

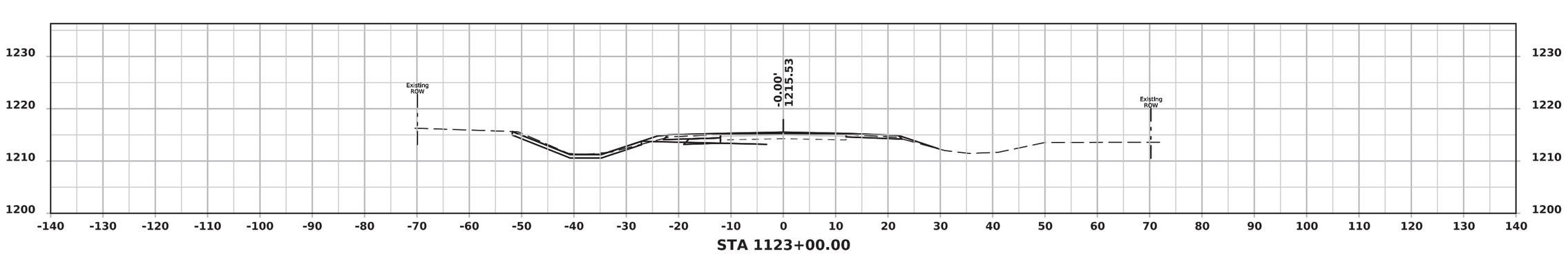


STA 1121+00.00

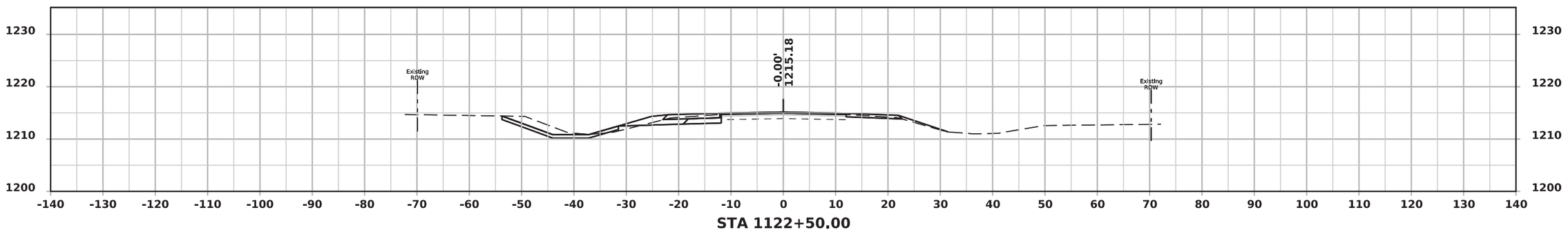
FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.108	

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US 18 near 190th



STA 1123+00.00



STA 1122+50.00

FILE NO.	ENGLISH	DESIGN TEAM Kelly \ Suntken	KOSSUTH COUNTY	PROJECT NUMBER NHSX-018-3(116)--3H-55	SHEET NUMBER W.109

3:39:26 PM 5/8/2024 csuntke pw:\\projectwise.dot.int.lan:PWMain\Documents\Projects\5501801023\DistrictDesign\CADD\Cross_Sections\Final_XS_near_190th.dgn