

CRAWFORD COUNTY

BRIDGE REPLACEMENT
BRF-030-2(180)--38-24

LETTING DATE
07-18-2028



REVISIONS

TOTAL
100

| |
|-------------------------------|
| PROJECT IDENTIFICATION NUMBER |
| 22-24-030-010 |
| PROJECT NUMBER |
| BRF-030-2(180)--38-24 |
| R.O.W. PROJECT NUMBER |
| NHSN-030-2(181)--2R-24 |

| INDEX OF SHEETS | |
|-----------------|---|
| No. | DESCRIPTION |
| A Sheets | Title Sheets |
| * A.1 | Title Sheet |
| A.2 | Location Map Sheet |
| B Sheets | Typical Cross Sections and Details |
| B.1 - B.5 | Typical Cross Sections and Details |
| D Sheets | Mainline Plan and Profile Sheets |
| * D.1 | Plan & Profile Legend & Symbol Information Sheet |
| * D.2 - D.25 | US 30 Plan and Profile Sheets |
| G Sheets | Survey Sheets |
| G.1 - G.3 | Reference Ties and Bench Marks |
| G.4 - G.7 | Horizontal Control Tabulations |
| J Sheets | Traffic Control and Staging Sheets |
| J.1 - J.5 | Traffic Control Plan, Staging Notes and Tabulations |
| * J.6 | Traffic Control & Staging Legend & Symbol Info. Sheet |
| * J.7 - J.26 | Staging and Traffic Control Sheets |
| * J.27 - J.28 | Detour Sheets |
| V Sheets | Bridge Situation Plans |
| * V.1 - V.5 | Bridge Situation Plans |
| VW Sheets | Culvert Situation Plans |
| * VW.1 | ML030 Culverts |
| W Sheets | Mainline Cross Sections |
| * W.1 | Cross Sections Legend and Information Sheet |
| * W.2 - W.27 | US 30 Cross Sections |
| | * Color Plan Sheets |

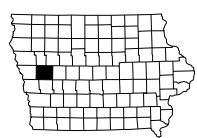
PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
CRAWFORD COUNTY
BRIDGE REPLACEMENT
 US 30 EB/WB BRIDGES OVER UPRR
 Approx. 0.4 mi E of the W Junction of US 59
 SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



For Project Location Map
Refer to Sheet No. A.2



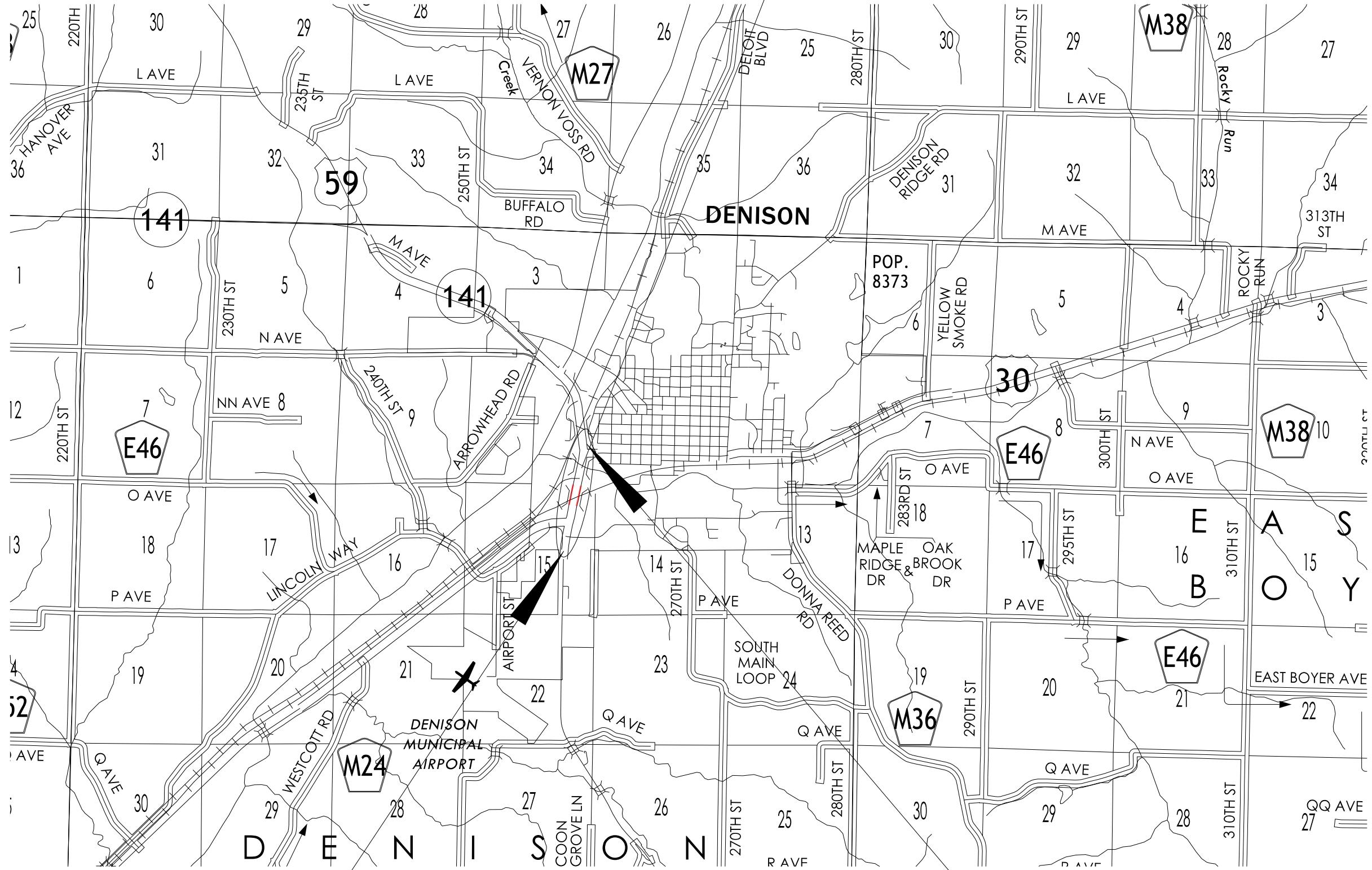
| DESIGN DATA URBAN | | | |
|-------------------|--------------------|--------|--------|
| 2027 | AADT | 9,300 | V.P.D. |
| 2047 | AADT | 10,200 | V.P.D. |
| 2047 | DHV | 1,050 | V.P.H. |
| | TRUCKS | 16 | % |
| | Total Design ESALs | -- | |

PRELIMINARY PLANS

Subject to change by final design.

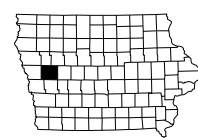
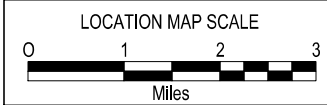
D5 REV - Date: 12/5/2025

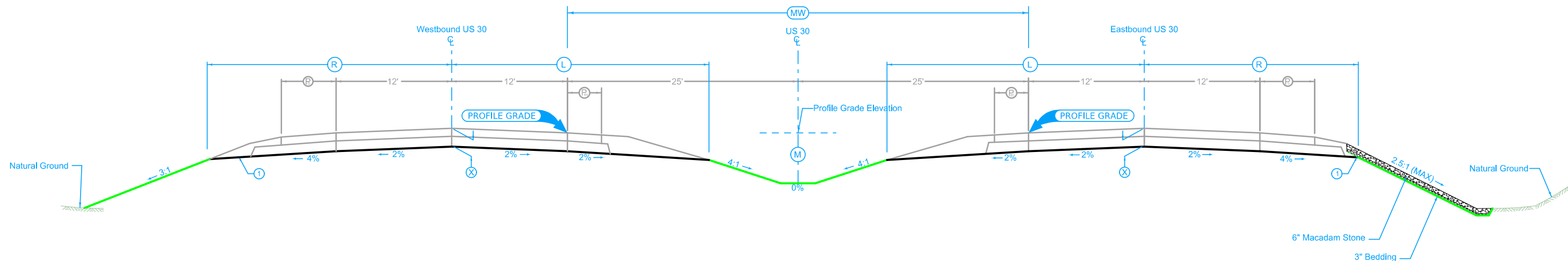
FHWA Numbers: 21330 (E.B.) & 21340 (W.B.)
 Maint. Numbers: 2454.2R030 (E.B.) & 2454.2L030 (W.B.)
 TWIN 432' x 40' CWPG BRIDGE



US 59 STA. 528+75.00
 BEGIN CONSTRUCTION

US 59 STA. 566+50.00
 END CONSTRUCTION





4 Lane Grading

Section view is in the direction of stationing facing north.

| ROAD IDENTIFICATION | LOCATION | | DIMENSIONS | | | | |
|---------------------|-----------|-----------|---------------|-------------|-------------|-------------|--------------|
| | | | (X) Inches | (L) Feet | (R) Feet | (M) Feet | (MW) Feet |
| US 30 EB | 540+20.00 | 540+76.99 | 22 | 27 | 34 | 4.2 - 3.9 | 50 |
| US 30 EB | 546+74.88 | 548+25.00 | 22 | 27 | 34 | 2.9 - 4 | 50 |
| US 30 WB | 546+19.96 | 548+25.00 | 22 | 27 | 34 | 3 - 4 | 50 |
| | | | | | | | |

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

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

**US HIGHWAY 30 / 59
GRADING**

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: BT-2 or L-2
 Transverse joints: CD at 17' spacing

| Direction of Travel | BEGIN STATION | END STATION | (P) Feet |
|---------------------|---------------|-------------|----------|
| WB | 546+19.96 | 546+44.33 | 13-15.7 |
| WB | 546+44.33 | 546+64.33 | 15.7 |
| WB | 546+64.33 | 548+25.00 | 10 |
| | | | |

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: BT-2 or L-2
 Transverse joints: CD at 17' spacing

| Direction of Travel | BEGIN STATION | END STATION | (P) Feet |
|---------------------|---------------|-------------|----------|
| WB | 546+19.69 | 546+35.76 | 7.6 |
| WB | 546+35.76 | 546+83.53 | 7.6-9.5 |
| WB | 546+83.53 | 547+03.53 | 9.5 |
| WB | 547+03.53 | 548+25.00 | 6 |
| | | | |

Full Depth PCC Shoulder

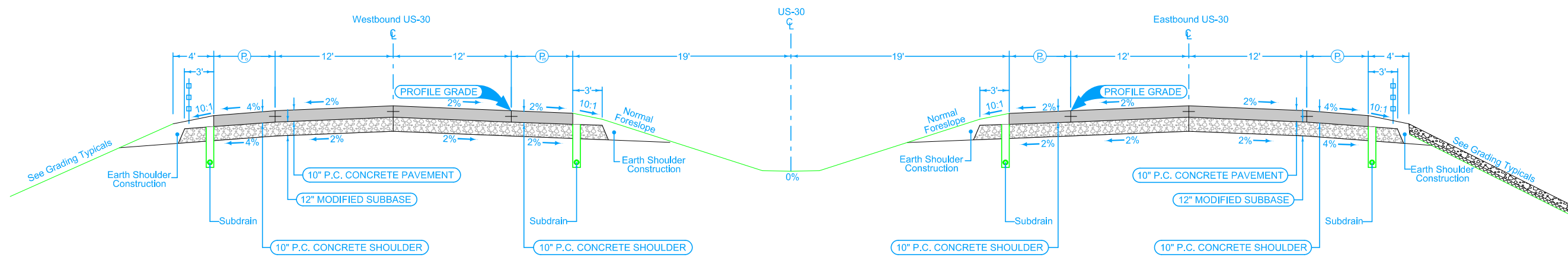
Shoulder Jointing:
 Longitudinal joint: BT-2 or L-2
 Transverse joints: CD at 17' spacing

| Direction of Travel | BEGIN STATION | END STATION | (P) Feet |
|---------------------|---------------|-------------|----------|
| EB | 540+20.00 | 540+60.85 | 9.2-7.6 |
| EB | 540+60.85 | 540+76.99 | 7.6 |
| EB | 546+74.88 | 548+25.00 | 6 |
| | | | |

Full Depth PCC Shoulder

Shoulder Jointing:
 Longitudinal joint: BT-2 or L-2
 Transverse joints: CD at 17' spacing

| Direction of Travel | BEGIN STATION | END STATION | (P) Feet |
|---------------------|---------------|-------------|----------|
| EB | 540+20.00 | 540+32.10 | 10 |
| EB | 540+32.10 | 540+52.10 | 15.7 |
| EB | 540+52.10 | 540+76.99 | 15.7-13 |
| EB | 546+74.88 | 548+25.00 | 10 |
| | | | |



Section shown in the direction of stationing facing north.

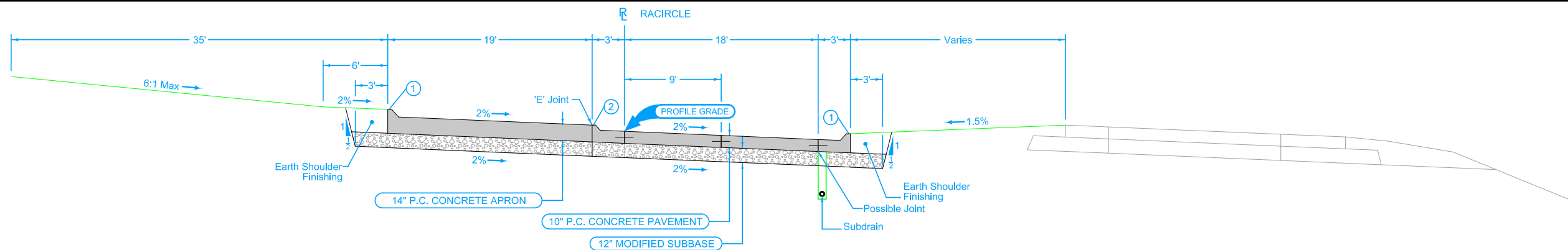
Mainline Jointing:
 Longitudinal joint: L-2
 Transverse joints: CD at 17' spacing

| Direction of Travel | BEGIN STATION | END STATION |
|---------------------|---------------|-------------|
| WB | 546+19.69 | 548+25.00 |
| | | |

Mainline Jointing:
 Longitudinal joint: L-2
 Transverse joints: CD at 17' spacing

| Direction of Travel | BEGIN STATION | END STATION |
|---------------------|---------------|-------------|
| EB | 540+20.00 | 540+76.99 |
| EB | 546+74.88 | 548+25.00 |
| | | |

**US HIGHWAY 30 / 59
 PAVING**



- ① 6" Standard Curb
- ② 4" Sloped Curb

Note: See 'L' Sheets for Jointing Layout

Mainline Jointing:
 Transverse joints: CD refer to L sheets for spacing
 Longitudinal joint: L-2

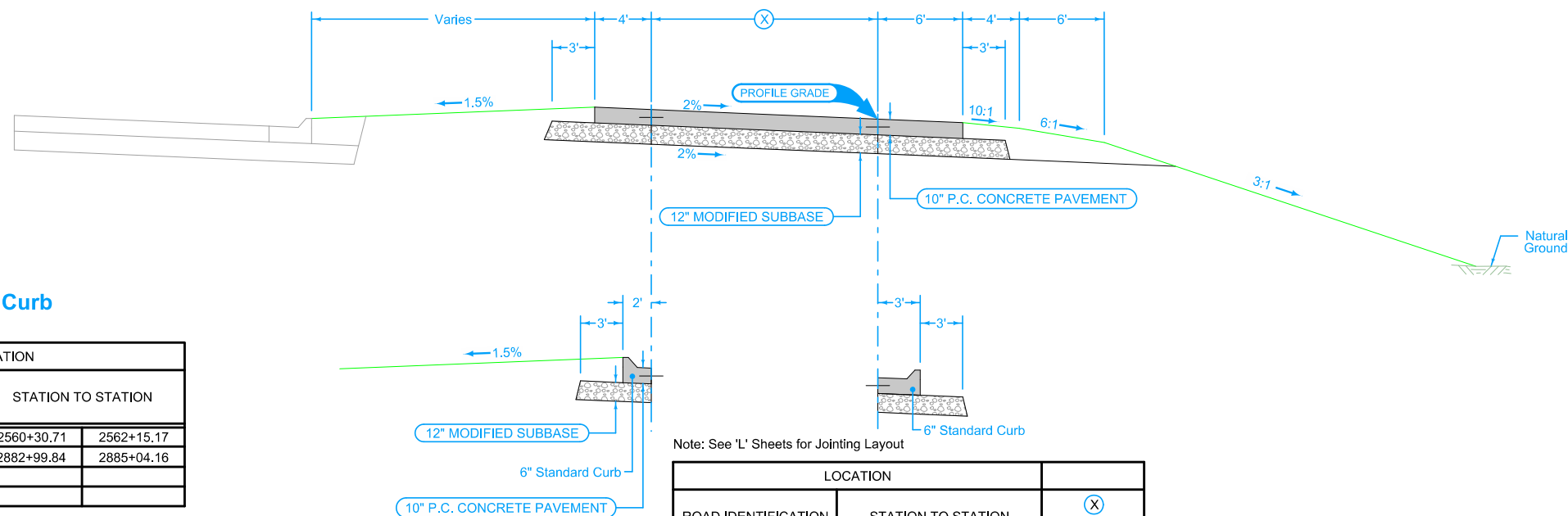
| LOCATION | | |
|---------------------|--------------------|-----------|
| ROAD IDENTIFICATION | STATION TO STATION | |
| US 30 / 59 RA SOUTH | 100+00.00 | 103+58.14 |
| US 30 / 59 RA NORTH | 200+00.00 | 203+58.14 |
| | | |
| | | |

See Tab 100-24 or 100-25 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

Roundabout

PCC Curb

| LOCATION | | |
|---------------------|--------------------|------------|
| ROAD IDENTIFICATION | STATION TO STATION | |
| GEO_RA_NORTH_3 | 2560+30.71 | 2562+15.17 |
| GEO_RA_NORTH_6 | 2882+99.84 | 2885+04.16 |
| | | |
| | | |



Note: See 'L' Sheets for Jointing Layout

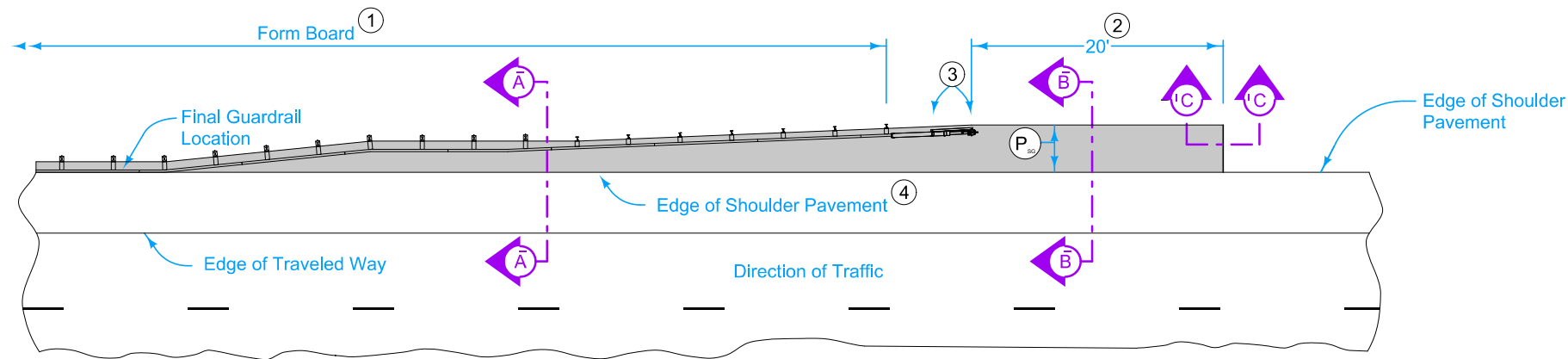
| LOCATION | | | |
|---------------------|--------------------|------------|-----------|
| ROAD IDENTIFICATION | STATION TO STATION | | ⓧ Feet |
| GEO_RA_SOUTH_2 | 1847+92.34 | 1848+72.41 | 13 - 16 |
| GEO_RA_SOUTH_2 | 1848+72.41 | 1850+67.59 | 16 |
| GEO_RA_SOUTH_2 | 1850+67.59 | 1850+89.37 | 16 - 15.7 |
| GEO_RA_SOUTH_5 | 1531+34.63 | 1534+35.50 | 12 |
| GEO_RA_SOUTH_8 | 1849+33.69 | 1853+26.28 | 16 |
| GEO_RA_NORTH_3 | 2560+30.71 | 2562+15.17 | 16 |
| GEO_RA_NORTH_6 | 2883+19.93 | 2885+04.16 | 16 |
| GEO_RA_NORTH_9 | 2561+48.03 | 2564+19.34 | 16 |
| | | | |
| | | | |

PCC Curb

| LOCATION | | |
|---------------------|--------------------|------------|
| ROAD IDENTIFICATION | STATION TO STATION | |
| GEO_RA_NORTH_3 | 2559+36.32 | 2563+68.43 |
| | | |
| | | |

See Tab 100-24 or 100-25 for pavement quantities.
 See Tab 112-9 for shoulder quantities.

Roundabout Bypass Lane



PLAN VIEW

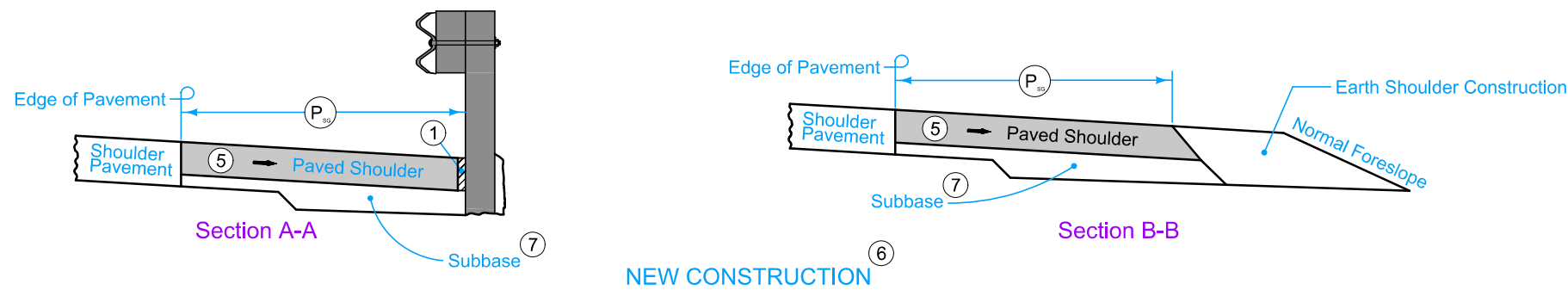
9" HMA Paved Shoulder at guardrail. 8" PCC may be substituted with the following jointing layout:

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

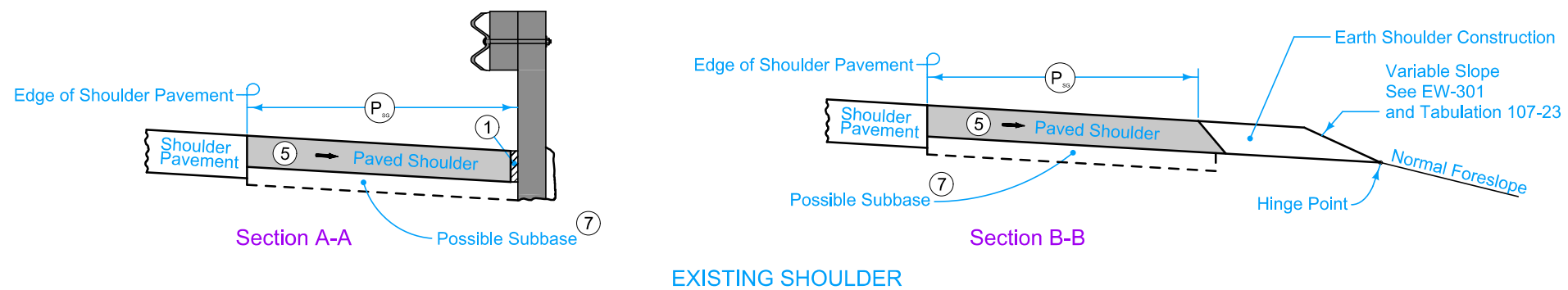
Compaction of HMA is required to face of guardrail post. Hand compaction will be allowed under guardrail. Removal and reinstallation of guardrail will be allowed with no additional payment.

Refer to Tabulation 112-9 for shoulder quantities.

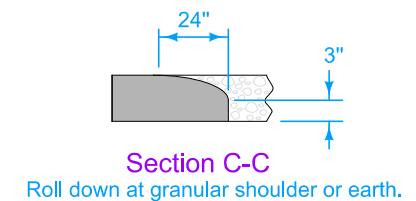
- ① PCC option only: When guardrail posts are installed prior to construction of PCC paved shoulder, fasten form board to the face of guardrail posts for the length shown.
- ② Continue paved shoulder 20 feet beyond the center of the first post.
- ③ Shoulder may be notched for first 2 posts or post sleeves may be installed through pavement. Do not drive posts through pavement.
- ④ 'BT' (per PV-101) joint for PCC shoulder. 'B' (per PV-101) joint for HMA shoulder.
- ⑤ Match shoulder slope.
- ⑥ The Contractor has the option to pave the paved shoulder at guardrail and the full width paved shoulder as one operation.
- ⑦ Refer to other details in the plan.



NEW CONSTRUCTION

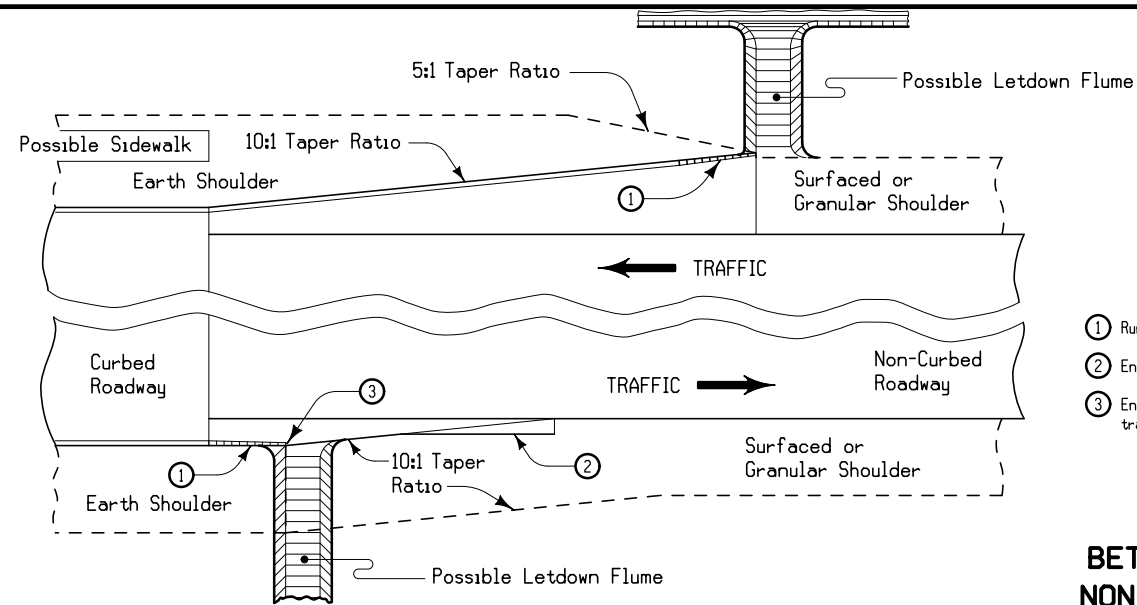


EXISTING SHOULDER



PAVED SHOULDER AT GUARDRAIL (ADJACENT TO FULL WIDTH PAVED SHOULDER)

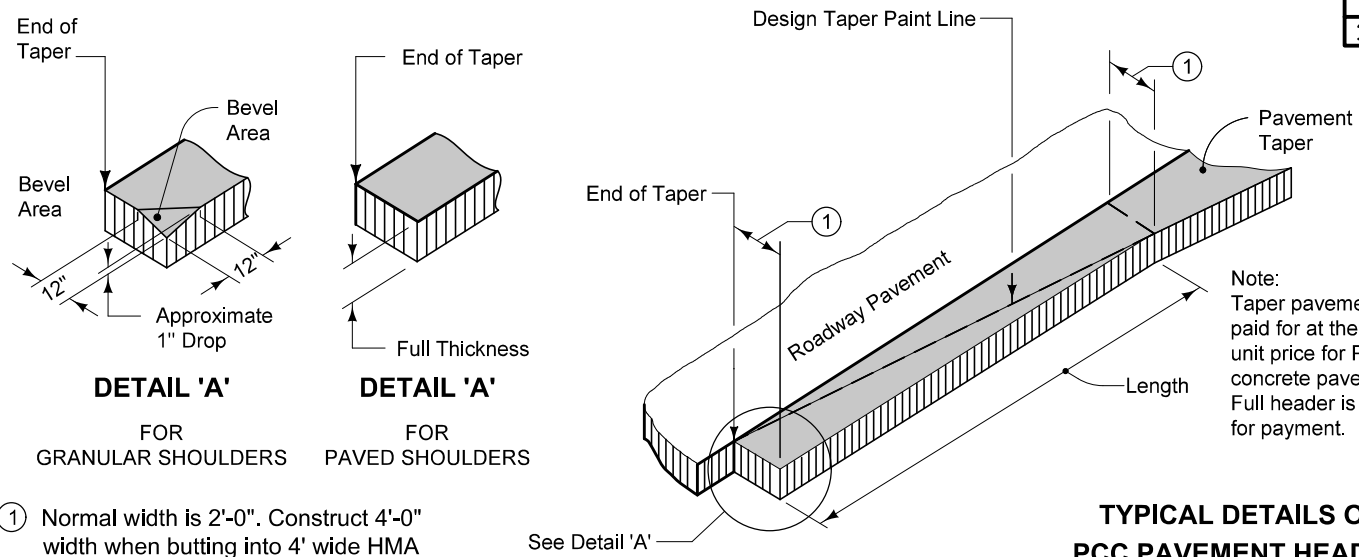
6147
10-20-15



- ① Runout curb according to PV-102
- ② End of Taper Details see Typical Detail 7101
- ③ End earth shoulder at the end of the curb transition when no flume is needed.

**TRANSITION
BETWEEN CURBED AND
NON-CURBED ROADWAYS**

7101
10-19-10



Note:
Taper pavement to be paid for at the contract unit price for P.C. concrete pavement. Full header is included for payment.

**TYPICAL DETAILS OF
PCC PAVEMENT HEADER**

- ① Normal width is 2'-0". Construct 4'-0" width when butting into 4' wide HMA shoulders (See Typical 7154A).

SURVEY SYMBOLS

| | | | |
|--|-----------------------------------|--|------------------------------|
| | Interstate Highway Symbol | | Septic Tank |
| | U.S. Highway Symbol | | Cistern |
| | Iowa Highway Symbol | | L.P. Gas Tank (No Footing) |
| | County Road Highway Symbol | | Underground Storage Tank |
| | Evergreen Tree | | Latrine |
| | Deciduous Tree | | Satellite TV Dish |
| | Fruit Tree | | Water Hook Up |
| | Shrub (Bushes) | | Radio Tower |
| | Timber | | Tower Anchor |
| | Hedge | | Guardrail (Beam or Cable) |
| | Stump | | Guard Post (one or two) |
| | Swamp | | Guard Post (over two) |
| | Rock Outcrop | | Filler Pipe |
| | Broken Concrete | | Gas Valve |
| | Revetment (Rip Rap) | | Water Valve |
| | Cemetery | | Speed Limit Sign |
| | Grave | | Mile Marker Post |
| | Cave | | Sign |
| | Sink Hole | | Traffic Signal Control Box |
| | Board Fence | | Rail Road Signal Control Box |
| | Chain Link or Security Fence | | Telephone Switch Box |
| | Wire Fence | | Electric Box |
| | Terrace | | |
| | Earth Dam or Dike (Existing) | | |
| | Tile Outlet | | |
| | Edge of Water | | |
| | Existing Drainage | | |
| | Right of Way Rail or Lot Corner | | |
| | Concrete Monument | | |
| | Well | | |
| | Windmill | | |
| | Beehive Intake | | |
| | Existing Intake | | |
| | Existing Utility Access (Manhole) | | |
| | Fire Hydrant | | |
| | Water Hydrant (Rural) | | |

UTILITY LEGEND

| | |
|----------------|--|
| - G - | Black Hills Energy Distribution Brad Fleming (402) 221-2714 brad.fleming@blackhillscorp.com |
| - E1 - | Denison Municipal Utilities (Electric/Sanitary/Water) |
| - W - | Justin Gibbons (712) 263-3046 jgibbons@dmuonline.com |
| - SAN - | |
| - FO - | Iowa Communications Network (Fiber/Telephone) Dave Augspurger (515) 725-4604 icnoutsideplantiowaonecall@iowa.gov |
| - FO2 - | Mediacom Communications Corporation (Cable/Fiber) Tim Adreon (515) 233-4646 tadreon@mediacomcc.com |
| - FO3 - | Frontier Communications Fiber Distribution Uranan Thao (515) 573-1268 frontierlocatemapsia@ftr.com |
| | Lumen Centurylink (Fiber/Telephone) Sadie Hull (918) 547-0147 sadie.hull@lumen.com |
| - FO5 - | Western Iowa Networks (Telephone) Mike Ludwig (712) 673-2311 mludwig@westianet.com |

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

| LINEWORK | | Design Color No. | |
|---------------|-------|------------------|--|
| Green | (2) | | Existing Topographic Features and Labels |
| Blue | (1) | | Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation |
| Magenta | (5) | | Existing Utilities |
| SHADING | | Design Color No. | |
| Pink, Dark | (13) | | Temporary Pavement Shading |
| Yellow | (4) | | Proposed Pavement Shading |
| Orange | (6) | | Proposed Granular Shading |
| Orange | (70) | | Proposed Shoulder Granular Shading |
| Yellow | (68) | | Proposed Shoulder Paved Full Depth Shading |
| Yellow | (132) | | Proposed Shoulder Paved Partial Depth Shading |
| Gray, Dark | (112) | | Proposed Grade and Pave Shading "In conjunction with a paving project" |
| Brown, Light | (236) | | Grading Shading |
| Orange, Light | (134) | | Proposed Granular Entrance Shading |
| Yellow | (220) | | Proposed Paved Entrance Shading |
| Tan | (8) | | Proposed Sidewalk Shading |
| Blue, Light | (230) | | Proposed Paved Median |
| Pink | (11) | | Proposed Truck Apron |
| Green, Light | (225) | | Existing Pavement Shading |
| Red | (3) | | Proposed Structure Shading |
| Red | (3) | | Delineates Restricted Areas |
| Gray | (64) | | Revetment, Class E |

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

| LINEWORK | | Design Color No. | |
|-------------|-------|------------------|---------------------------------|
| Green | (10) | | Existing Ground Line Profile |
| Blue | (1) | | Proposed Profile and Annotation |
| Magenta | (5) | | Existing Utilities |
| Blue, Light | (230) | | Proposed Ditch Grades, Left |
| Black | (0) | | Proposed Ditch Grades, Median |
| Rust | (14) | | Proposed Ditch Grades, Right |

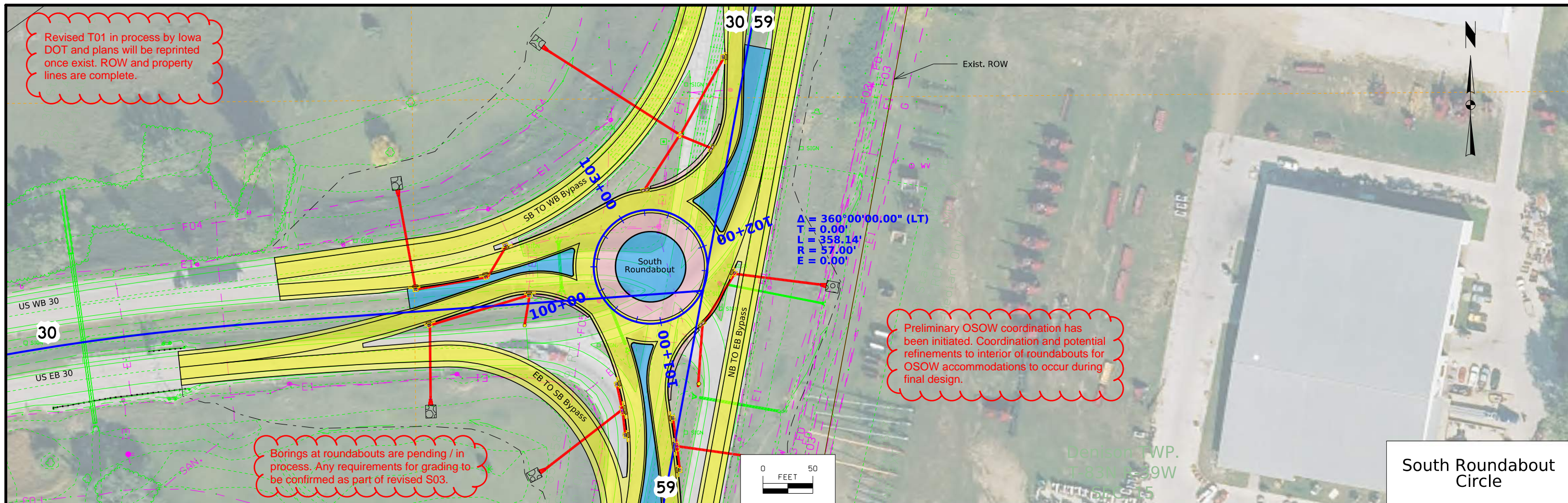
| | | | |
|--|-----------------------------|--|--------------------------|
| | Reference Point | | Survey Line |
| | Station | | Section Corner |
| | Ground Line Intercept | | Saw Cut |
| | Guardrail | | Trench Drain |
| | HighTension Cable Guardrail | | Sheet Pile |
| | Pavement Removal | | Clearing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

RIGHT-OF-WAY LEGEND

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

PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D & F)

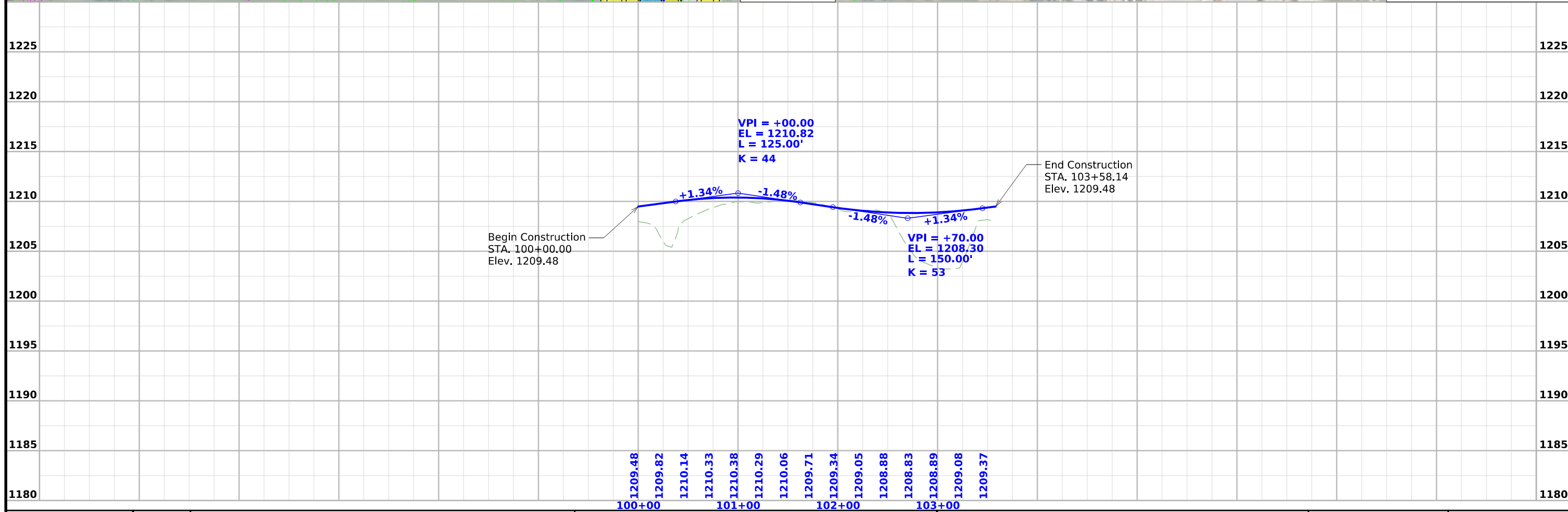


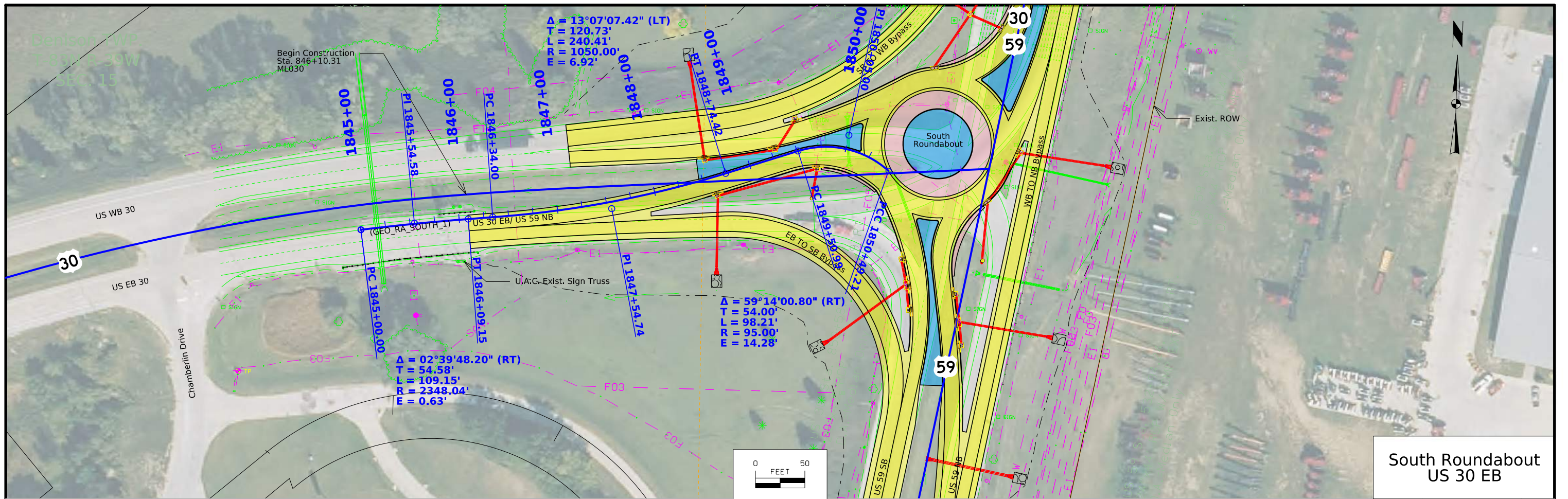
Revised T01 in process by Iowa DOT and plans will be reprinted once exist. ROW and property lines are complete.

Borings at roundabouts are pending / in process. Any requirements for grading to be confirmed as part of revised S03.

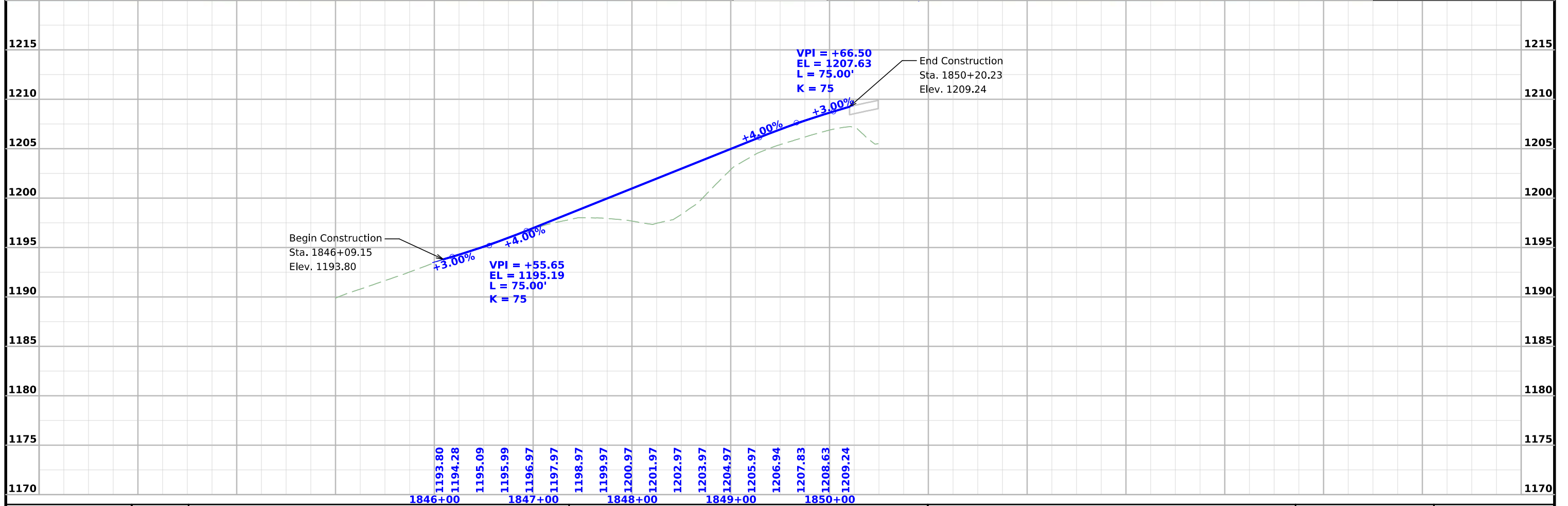
Preliminary OSOW coordination has been initiated. Coordination and potential refinements to interior of roundabouts for OSOW accommodations to occur during final design.

$\Delta = 360^{\circ}00'00.00"$ (LT)
 $T = 0.00'$
 $L = 358.14'$
 $R = 57.00'$
 $E = 0.00'$

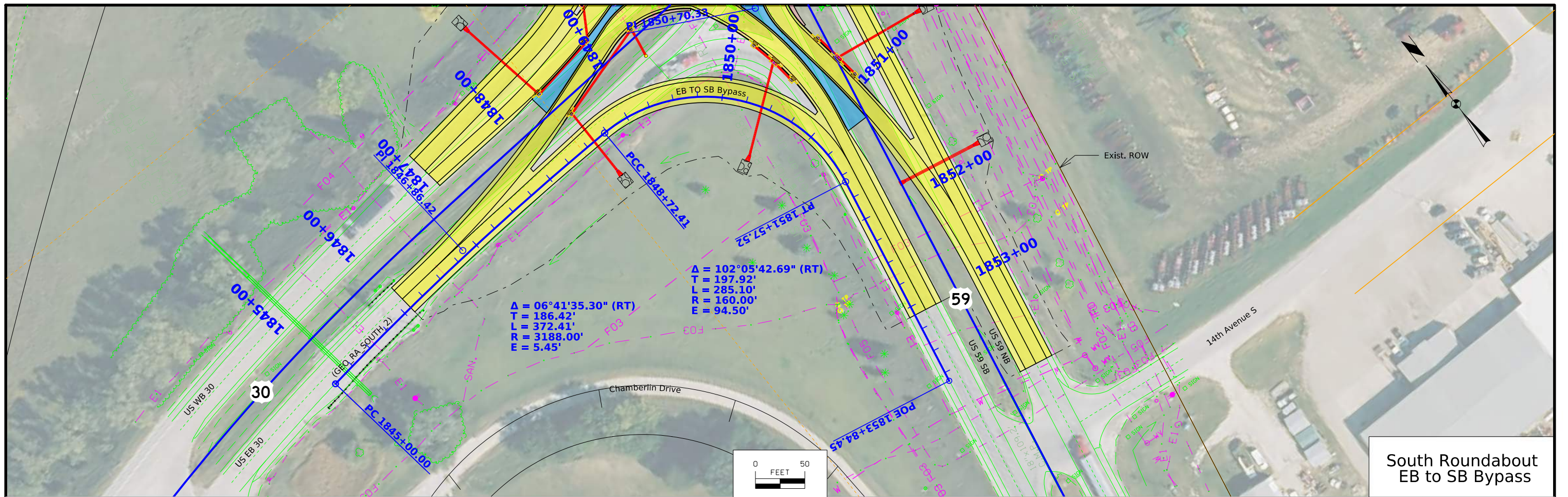




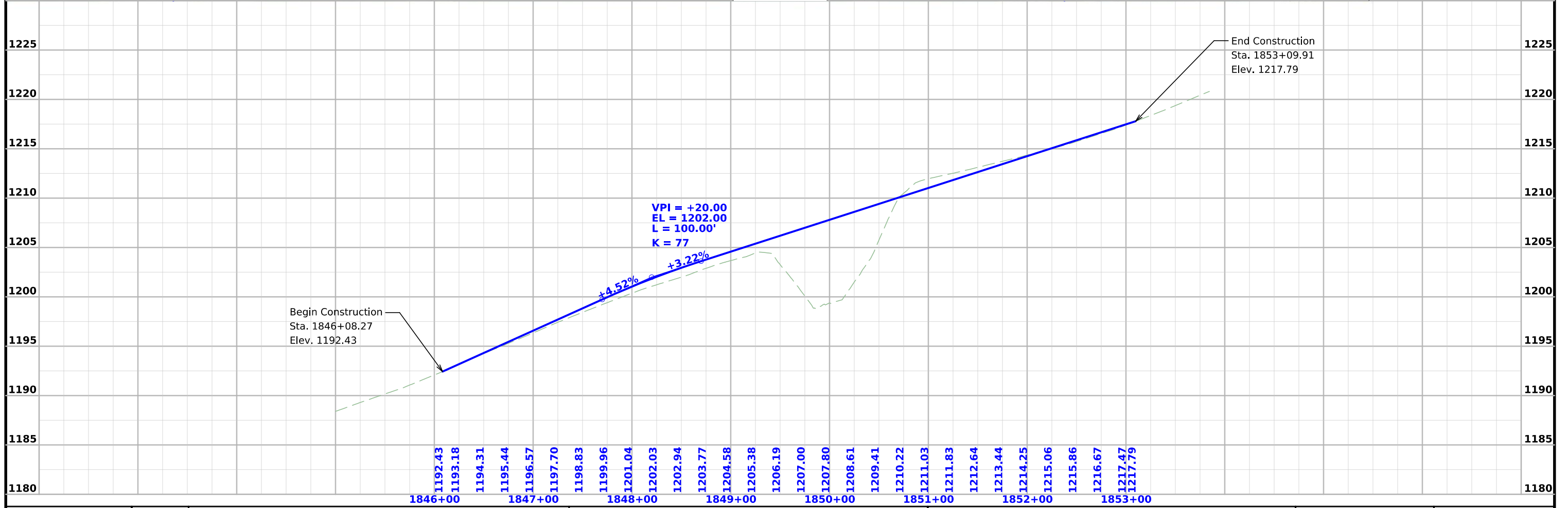
South Roundabout
US 30 EB

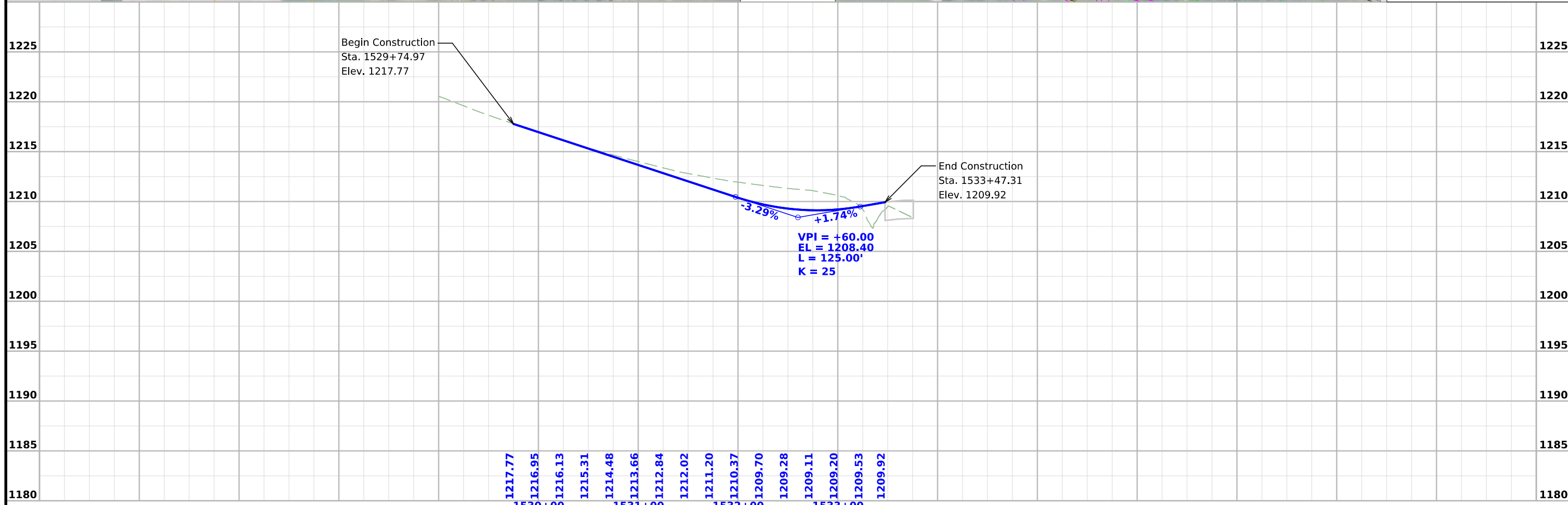
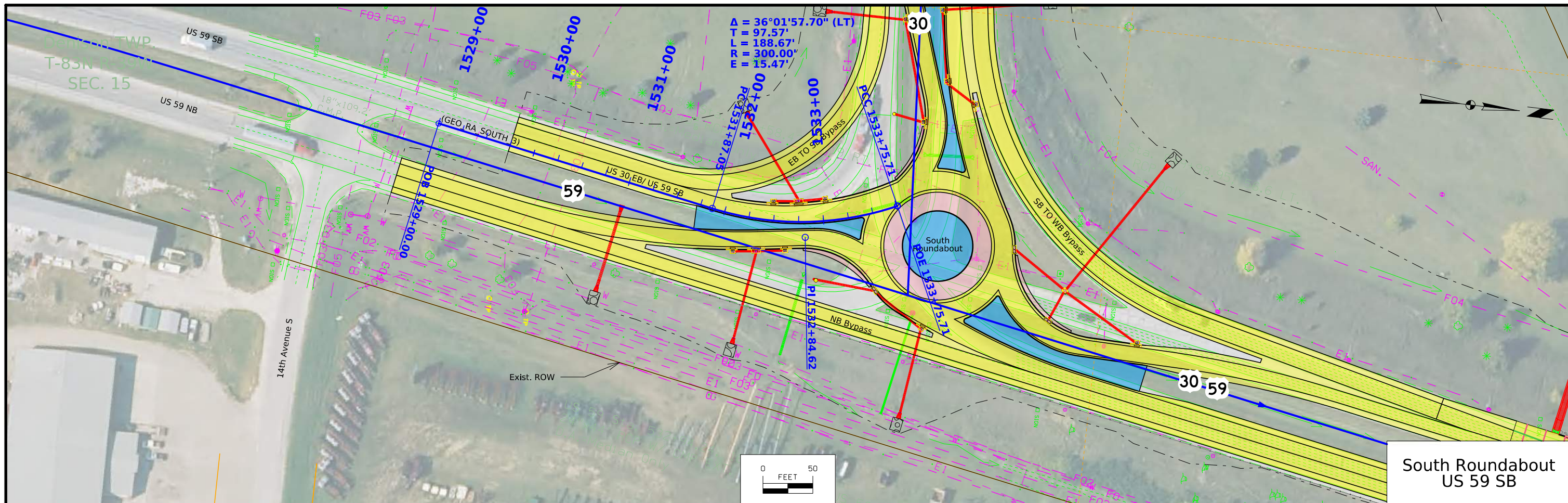


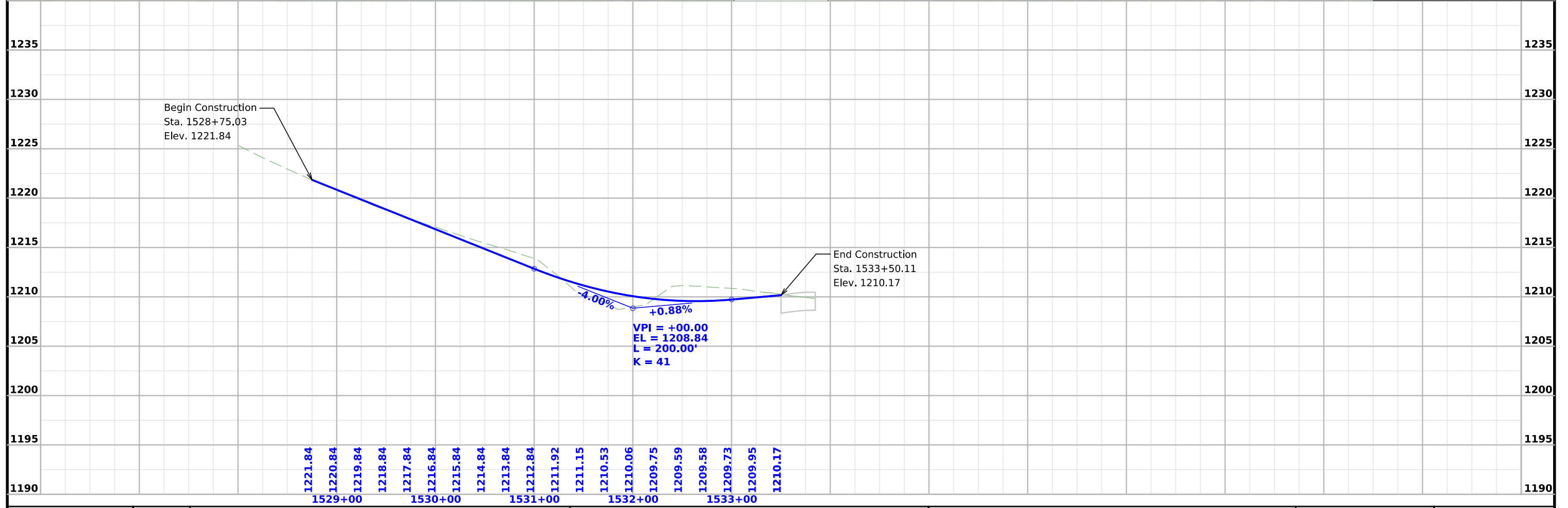
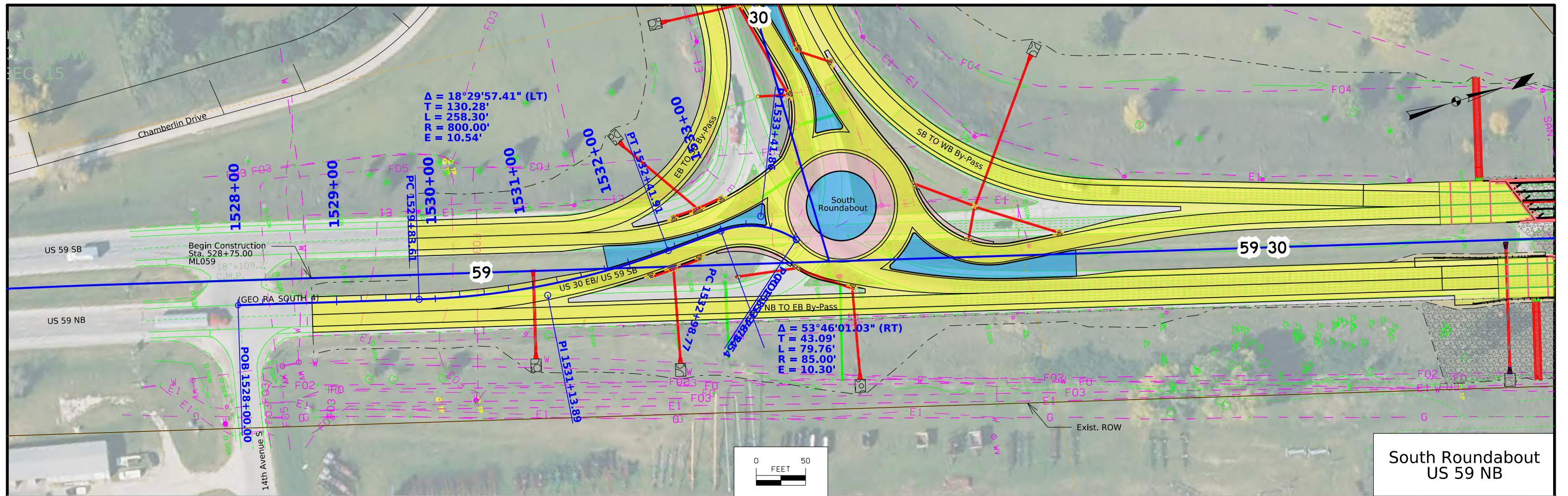
| | | | | | | | | |
|----------|---------|-------------|-----------------|-----------------|----------------|-----------------------|--------------|-----|
| FILE NO. | ENGLISH | DESIGN TEAM | Iowa DOT / HNTB | CRAWFORD COUNTY | PROJECT NUMBER | BRF-030-2(180)--38-24 | SHEET NUMBER | D.3 |
|----------|---------|-------------|-----------------|-----------------|----------------|-----------------------|--------------|-----|

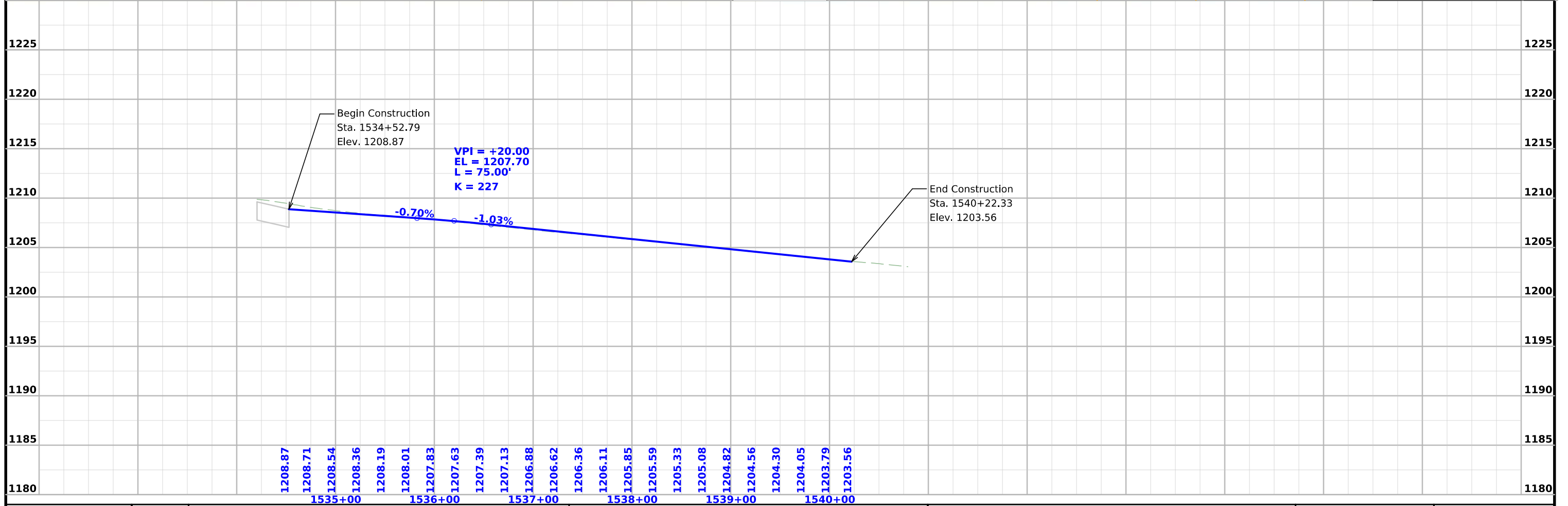
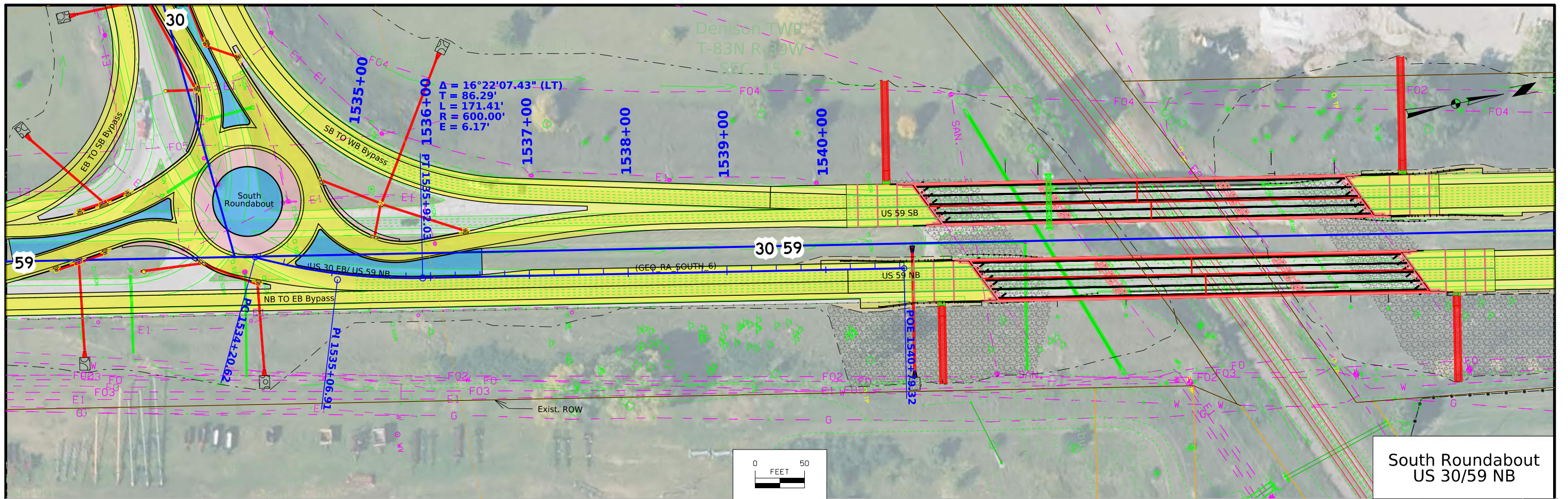


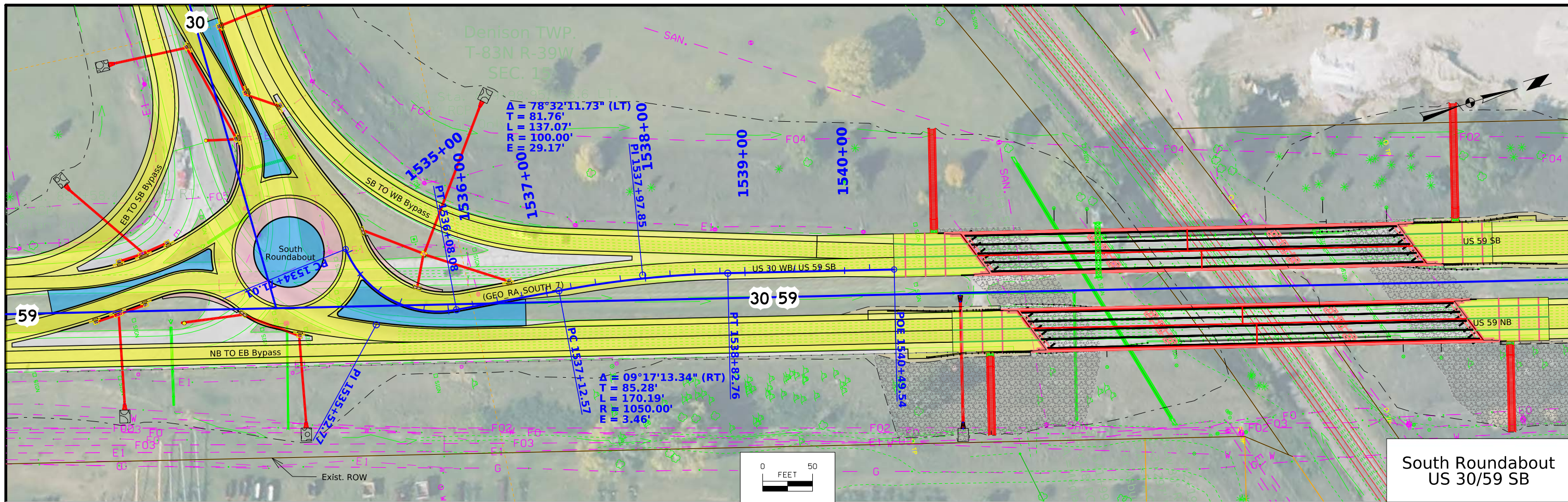
South Roundabout
EB to SB Bypass



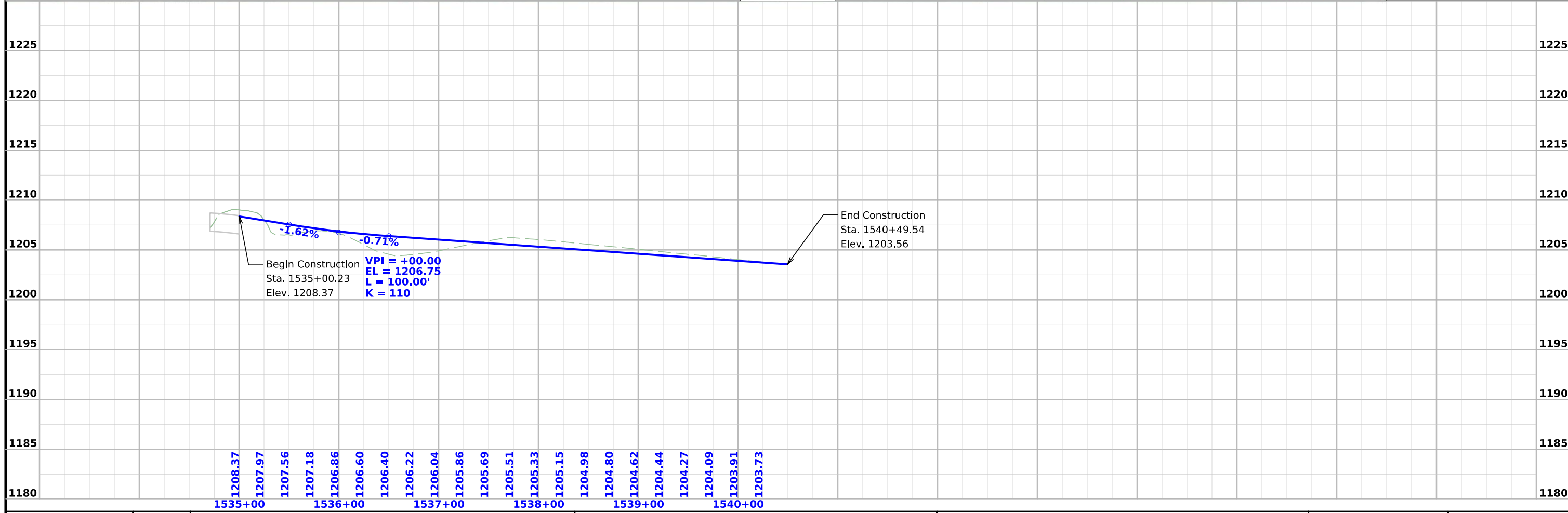


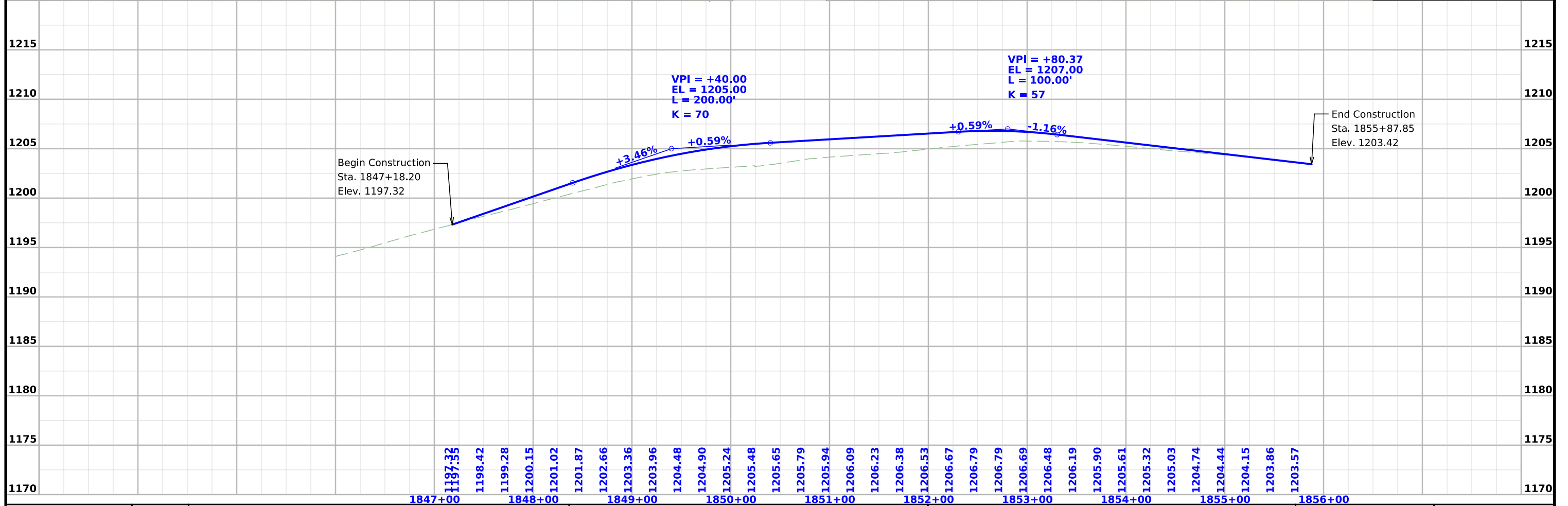
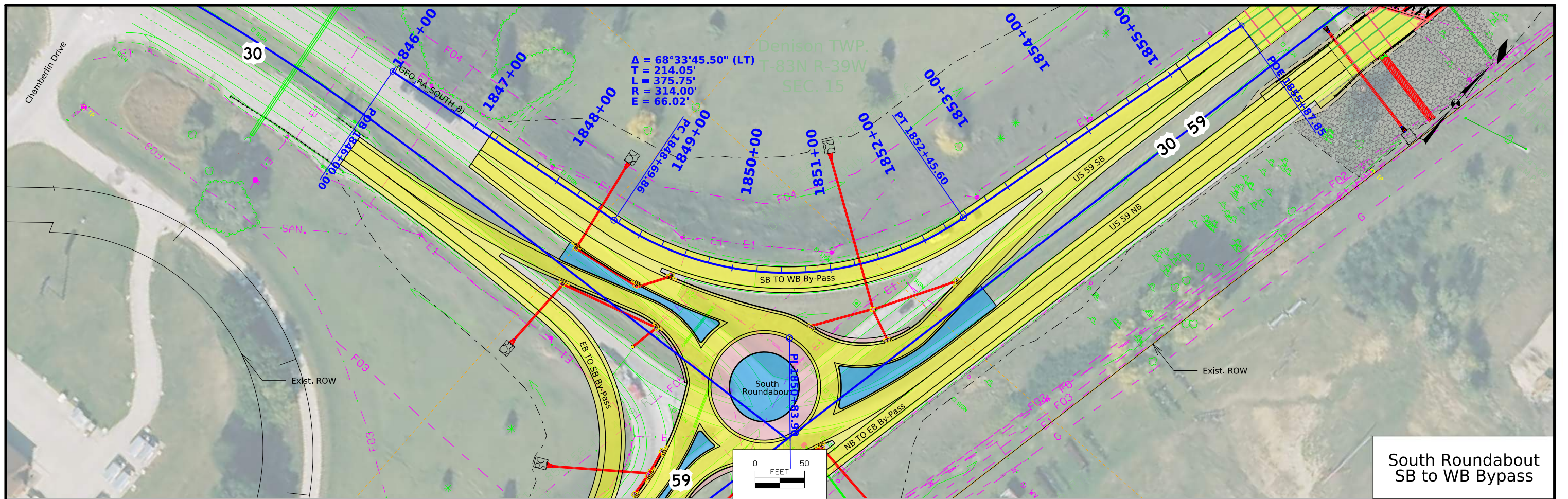


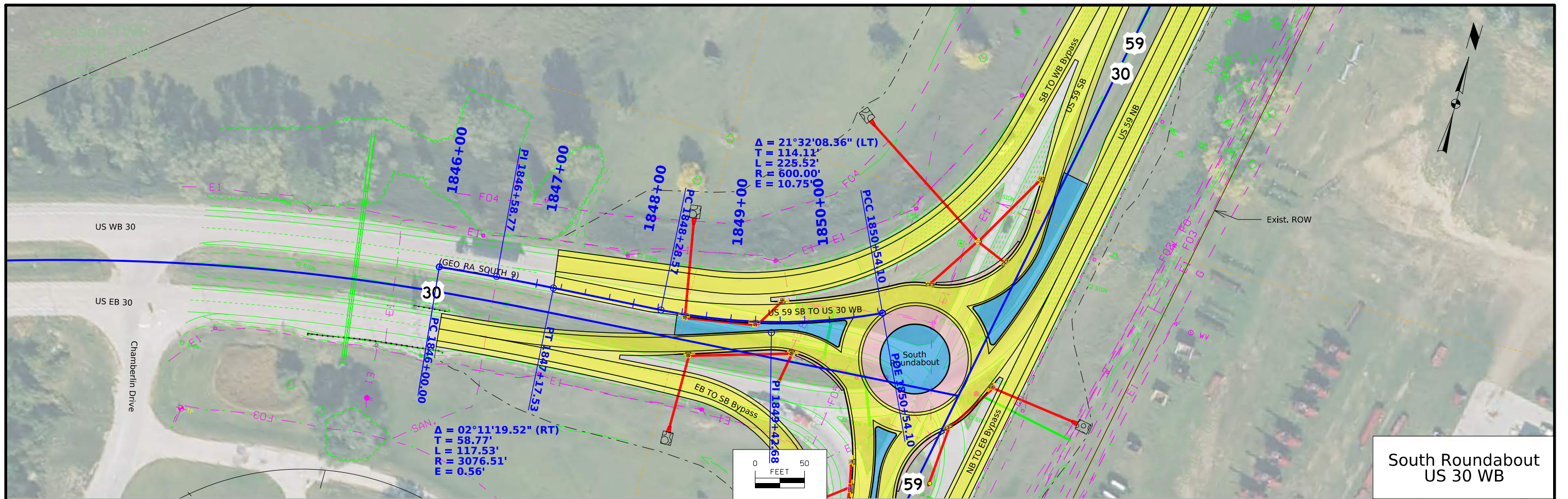




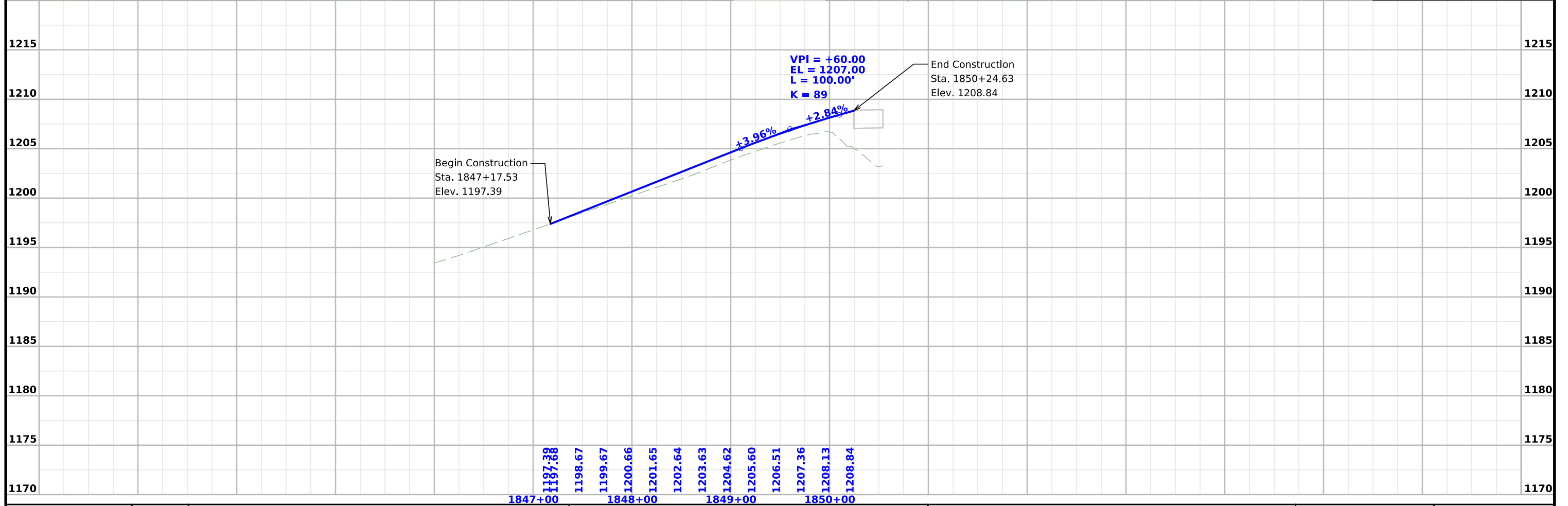
South Roundabout
US 30/59 SB

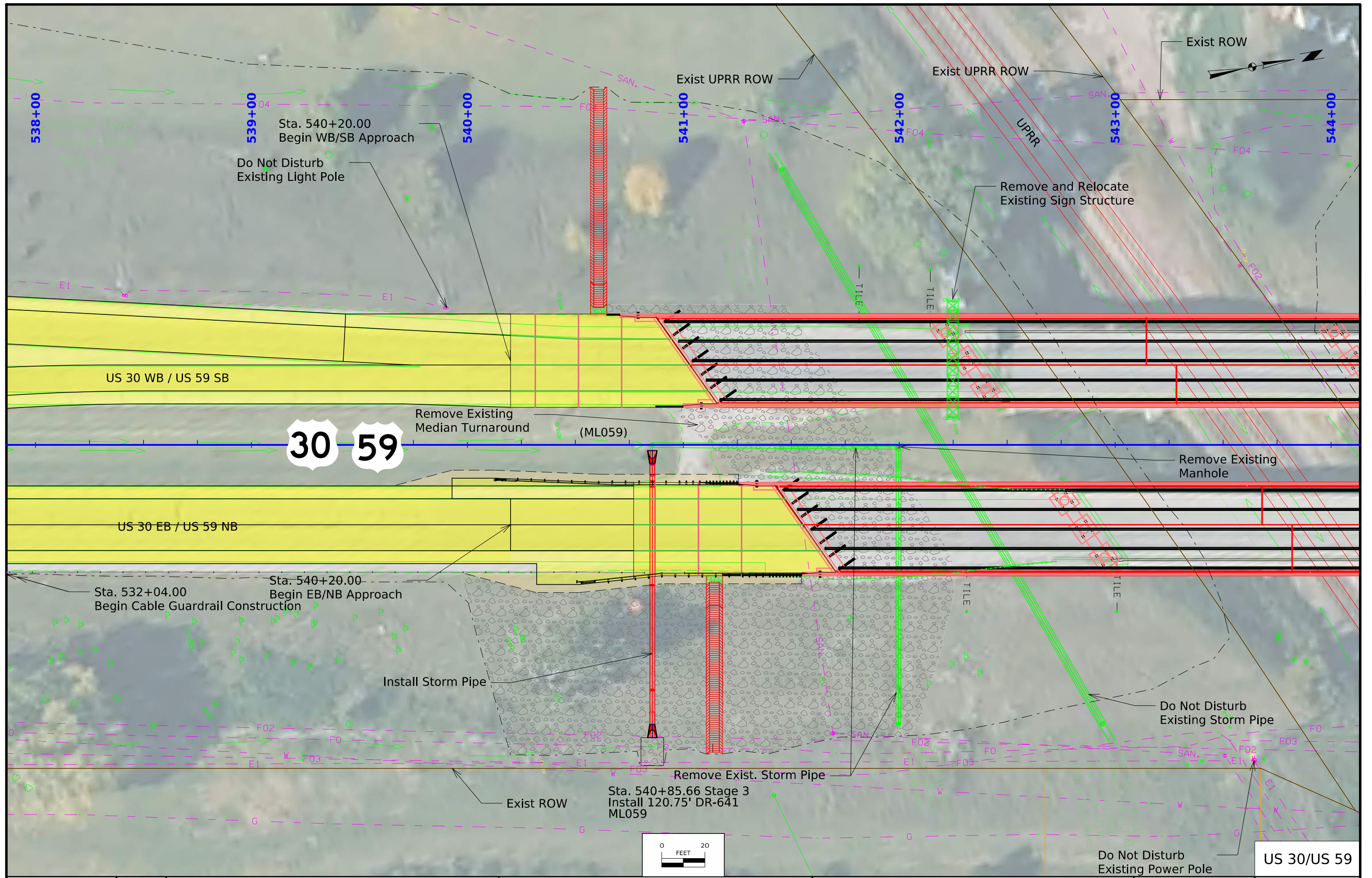


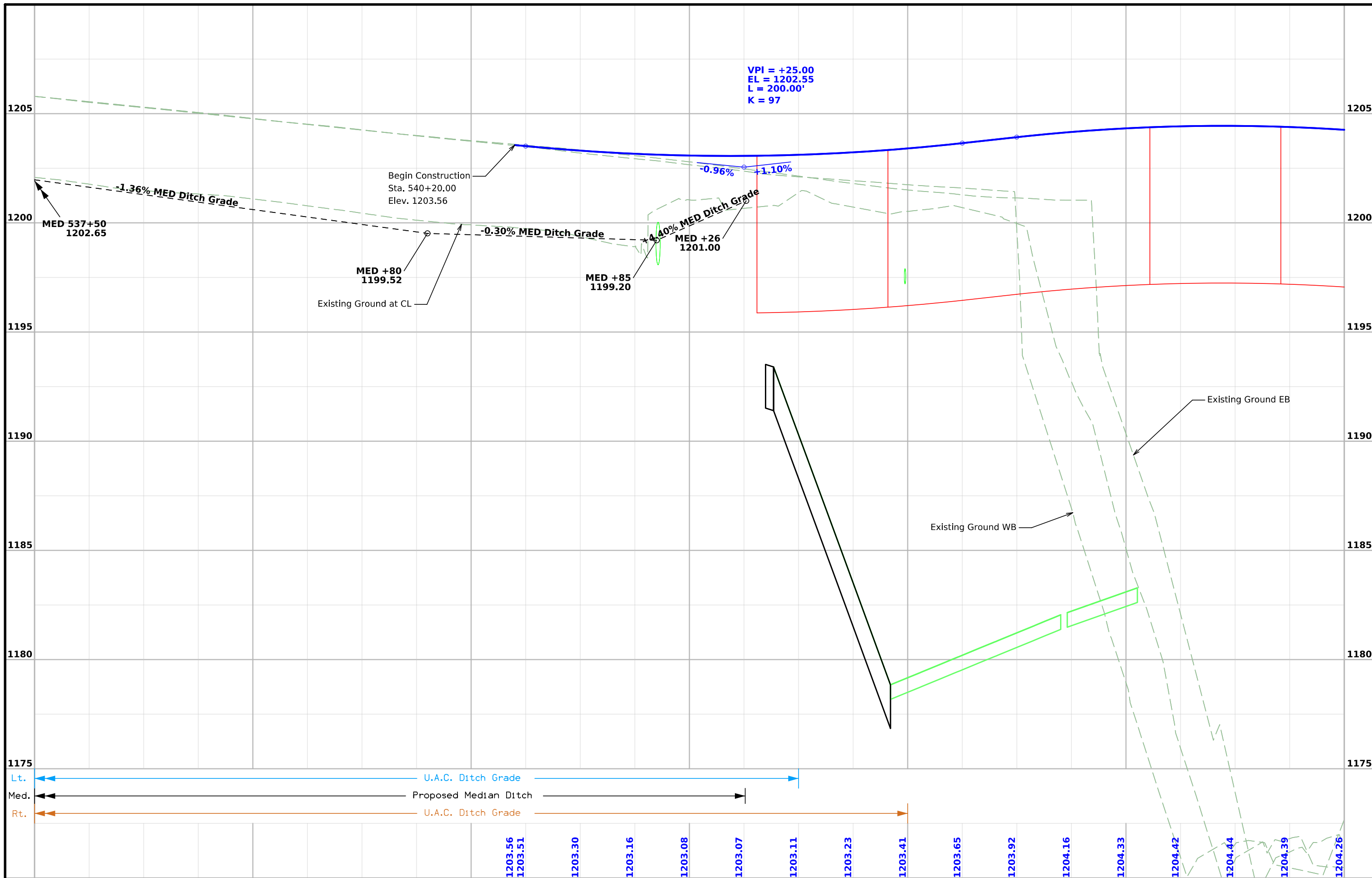




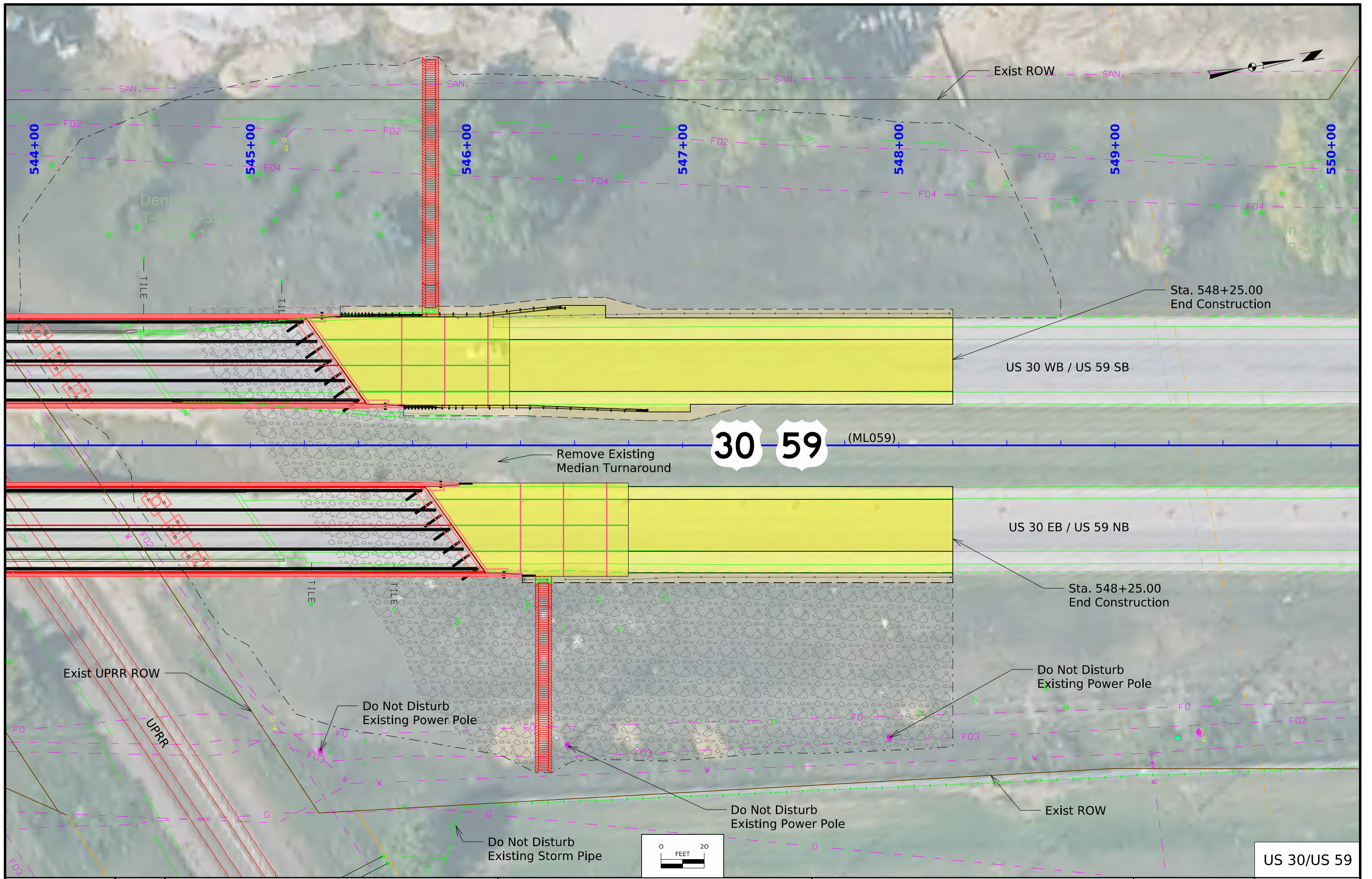
South Roundabout
US 30 WB

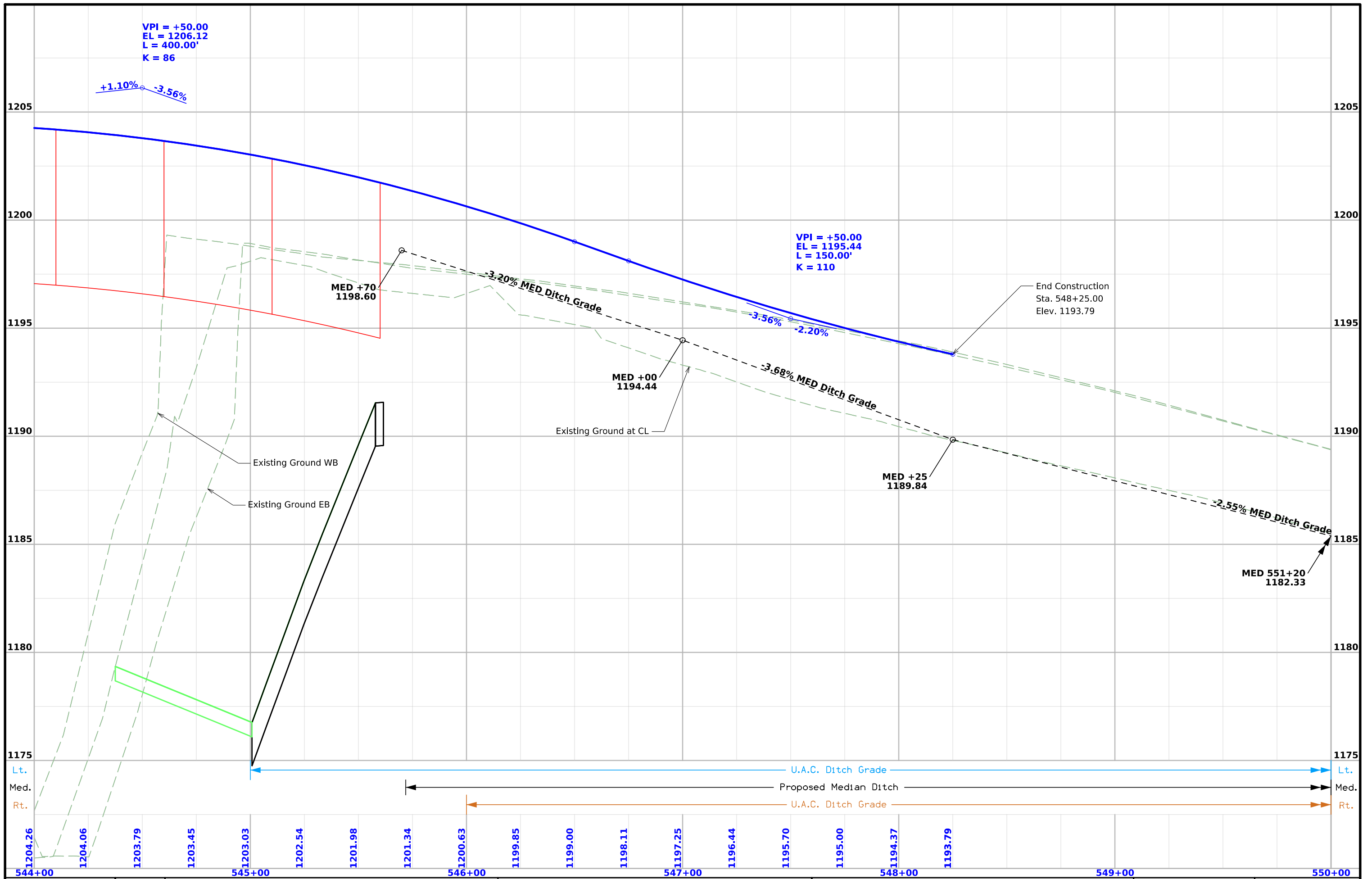


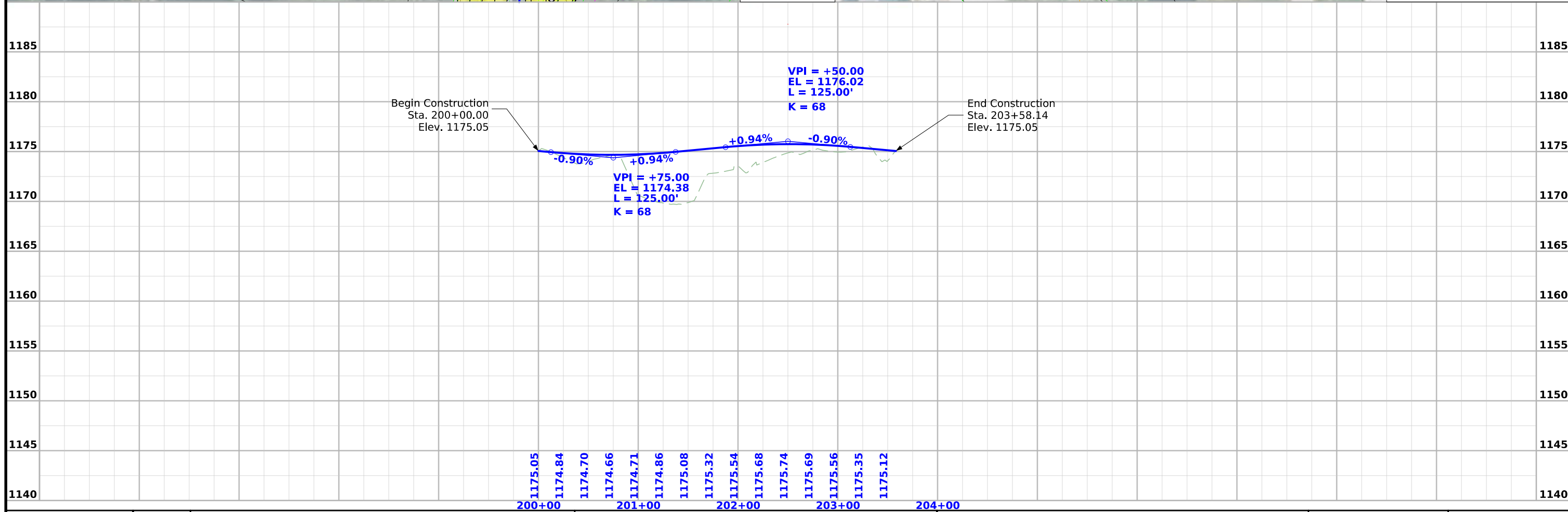
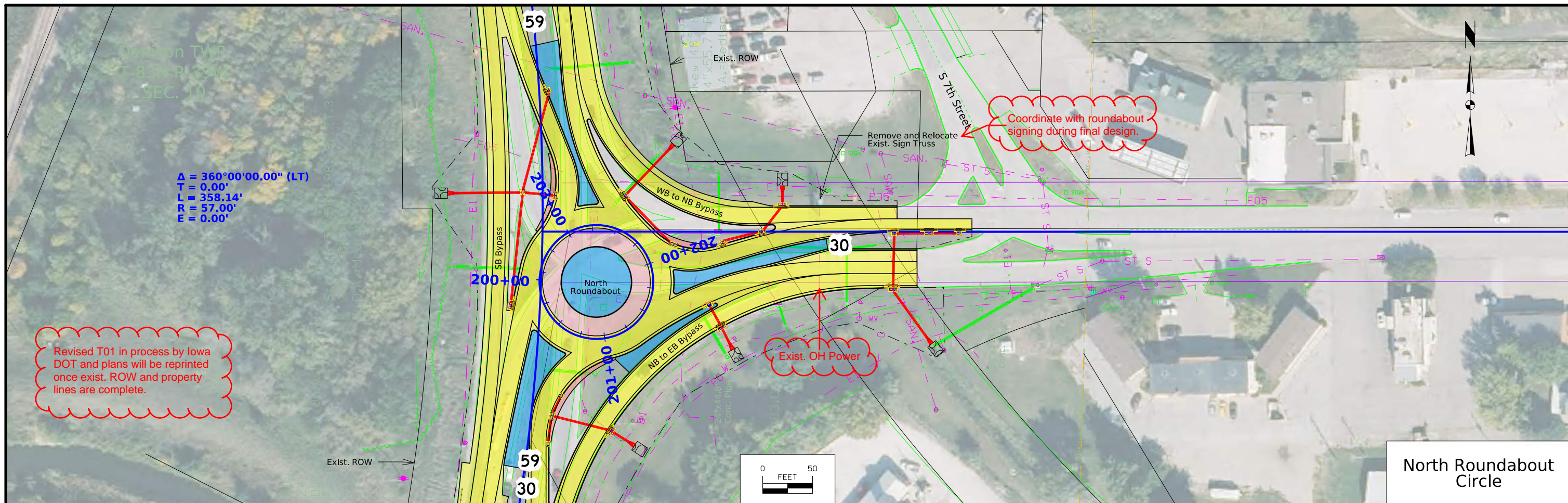


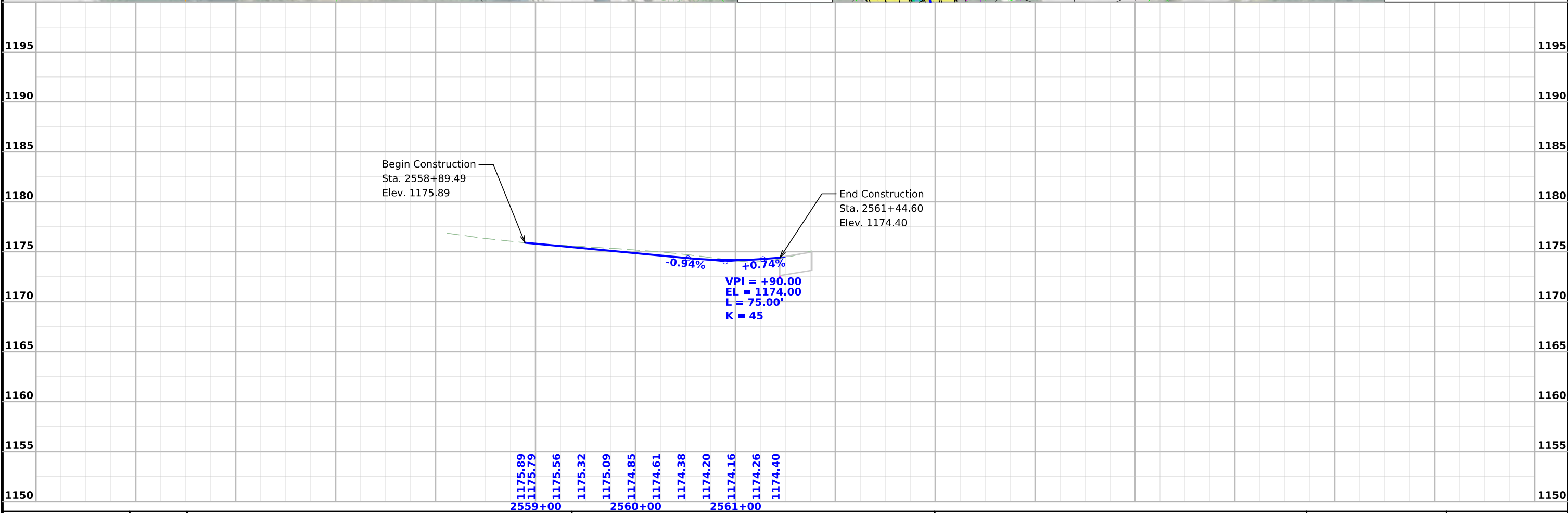
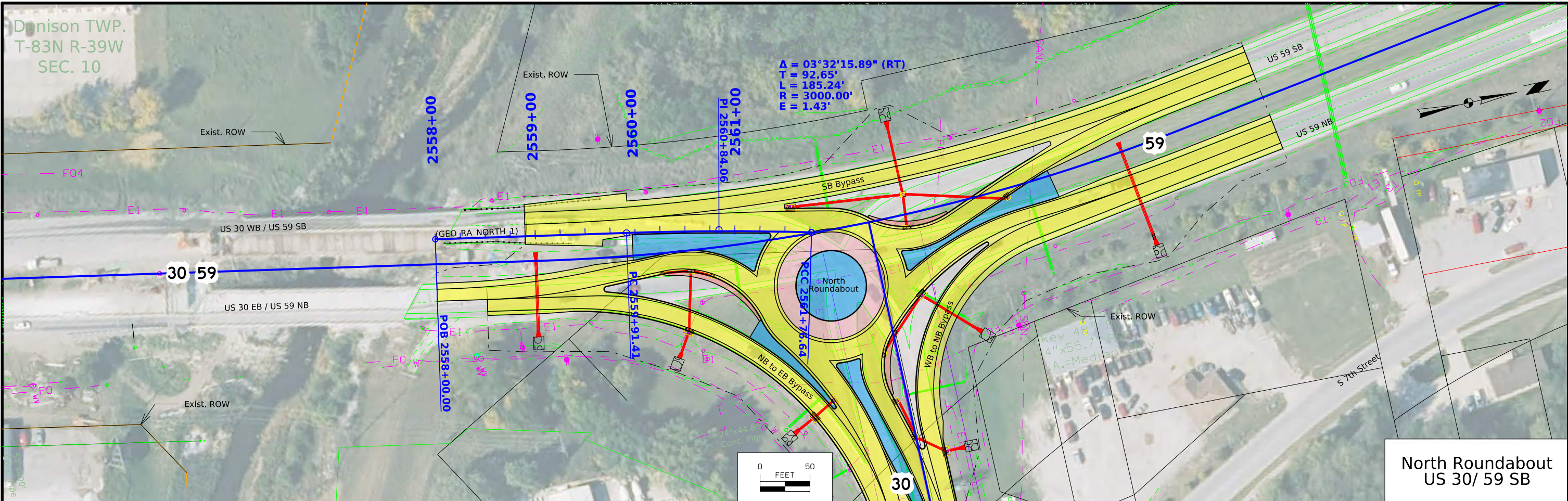


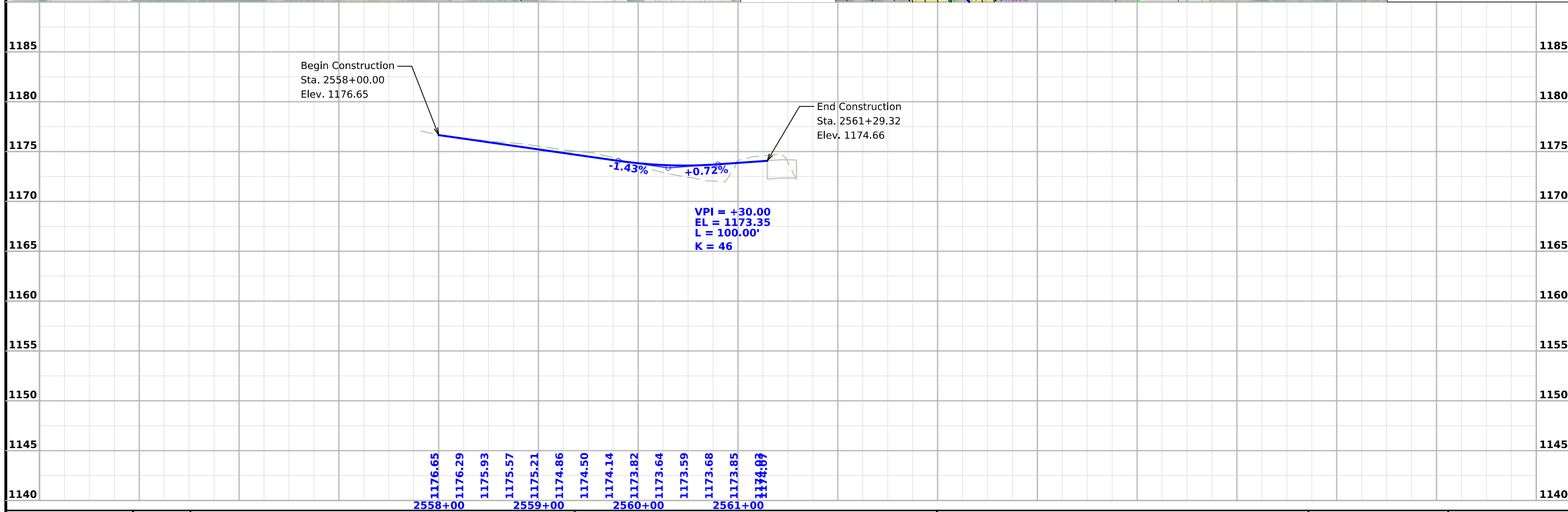
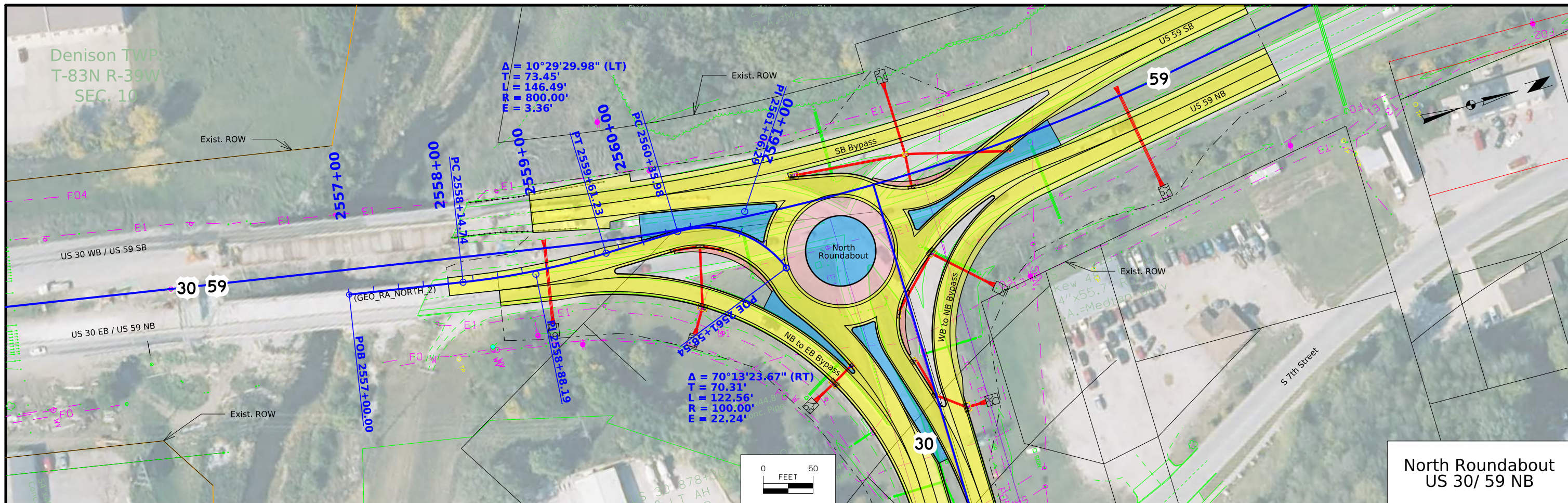
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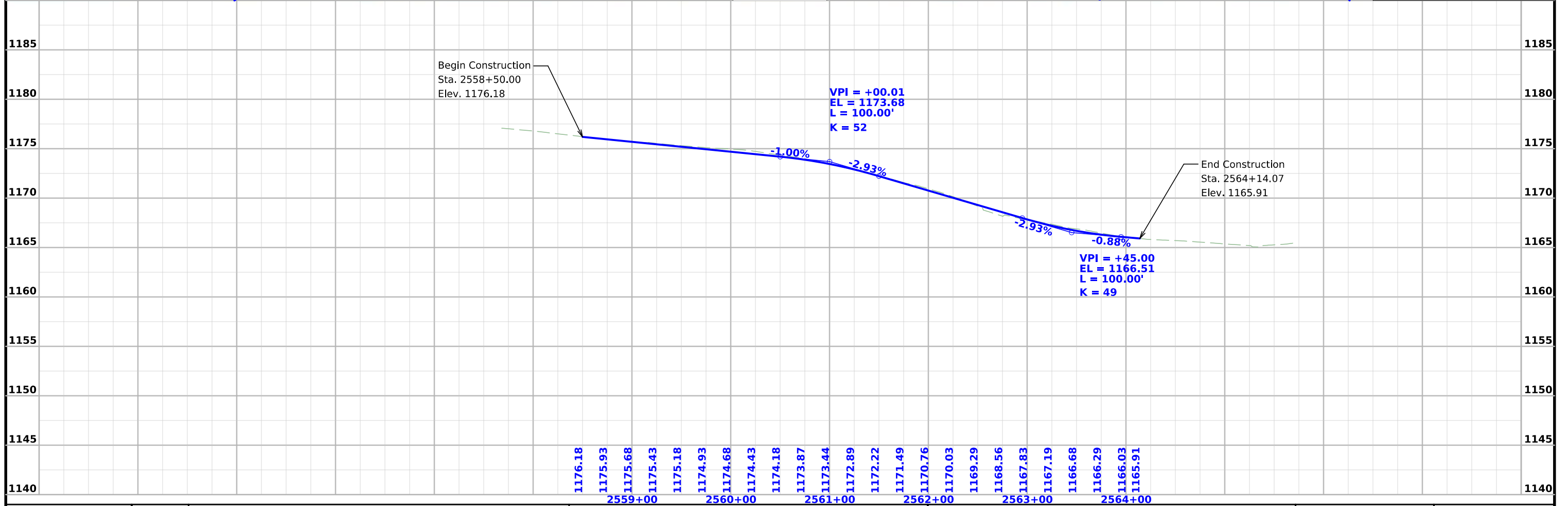
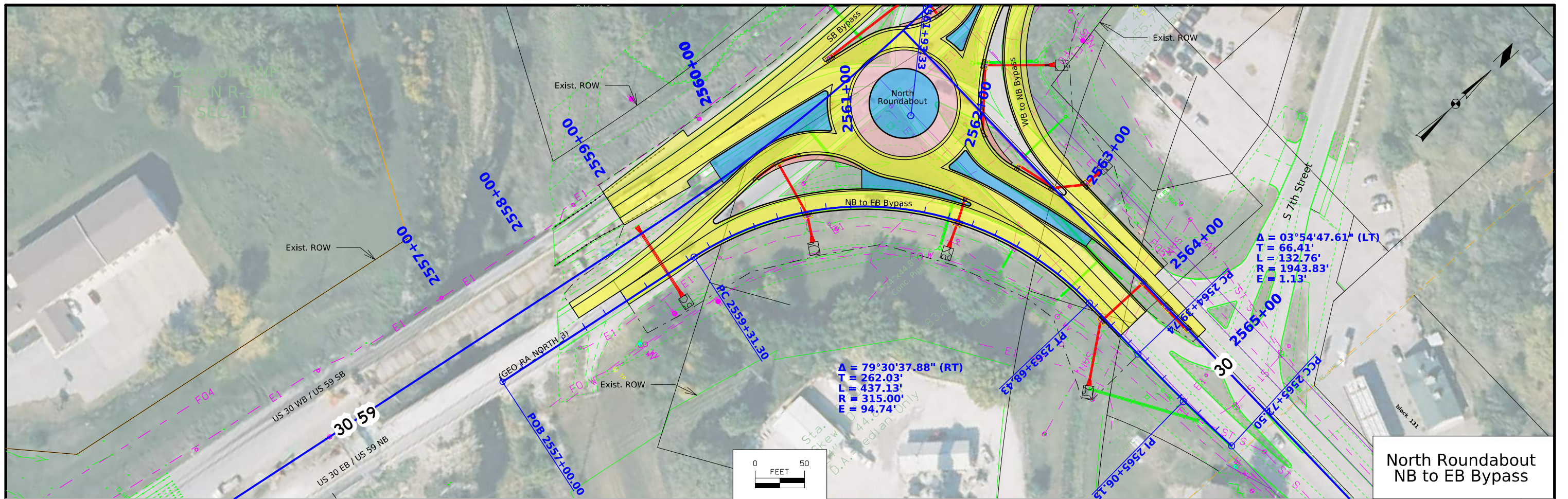


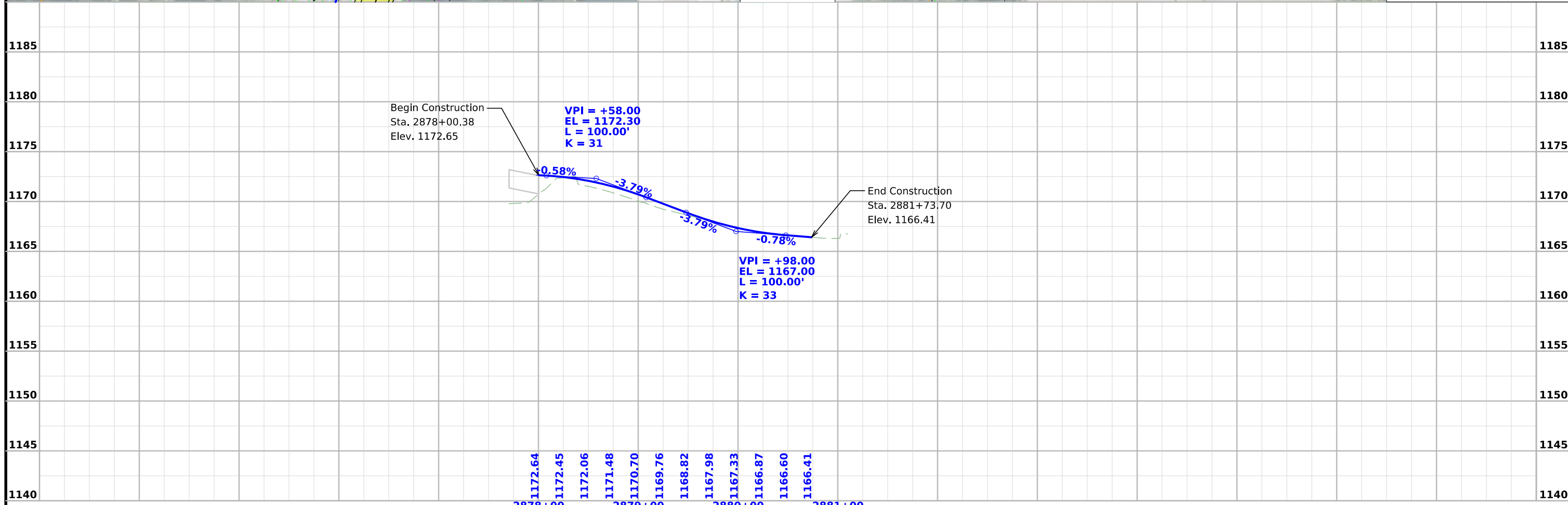
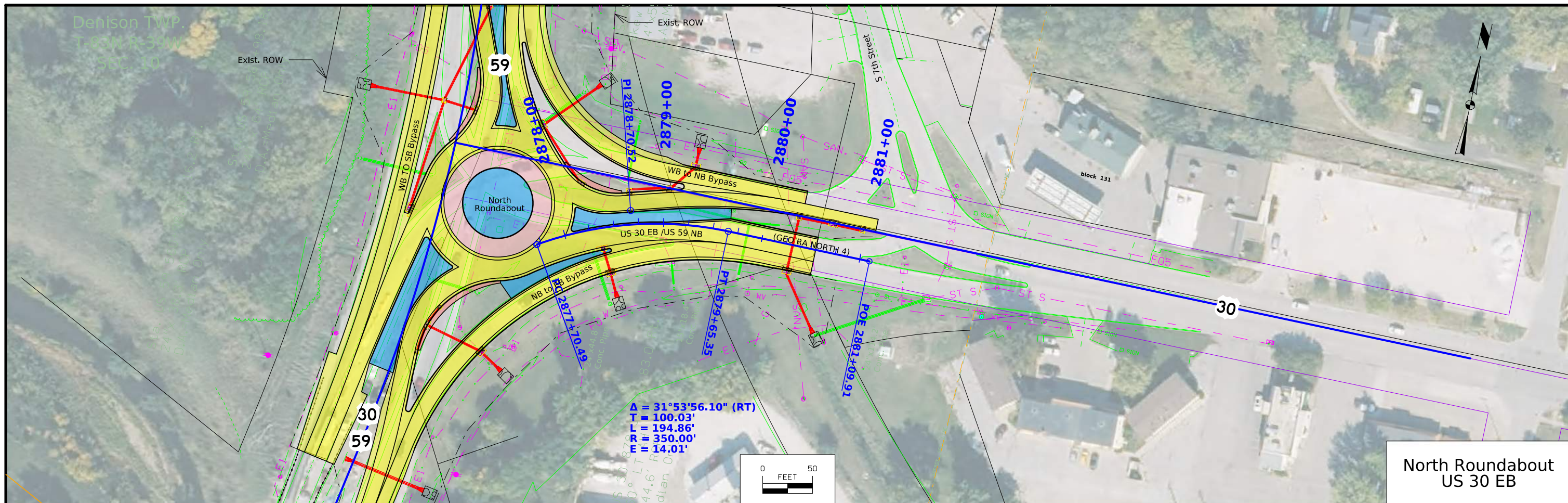


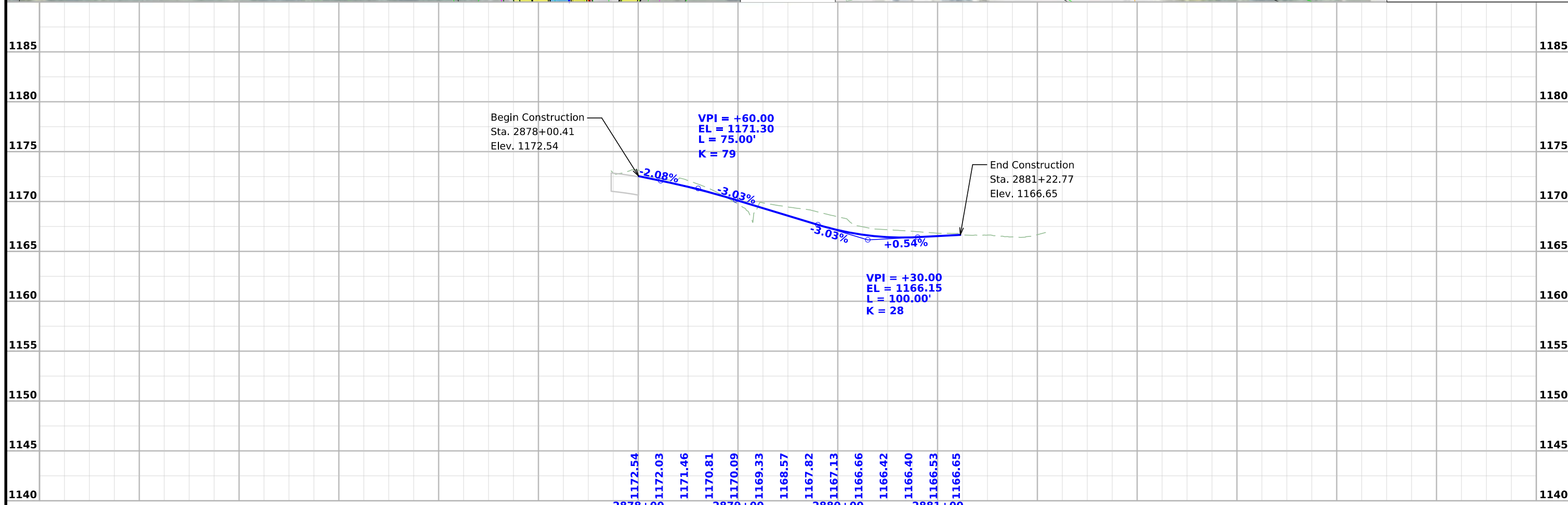
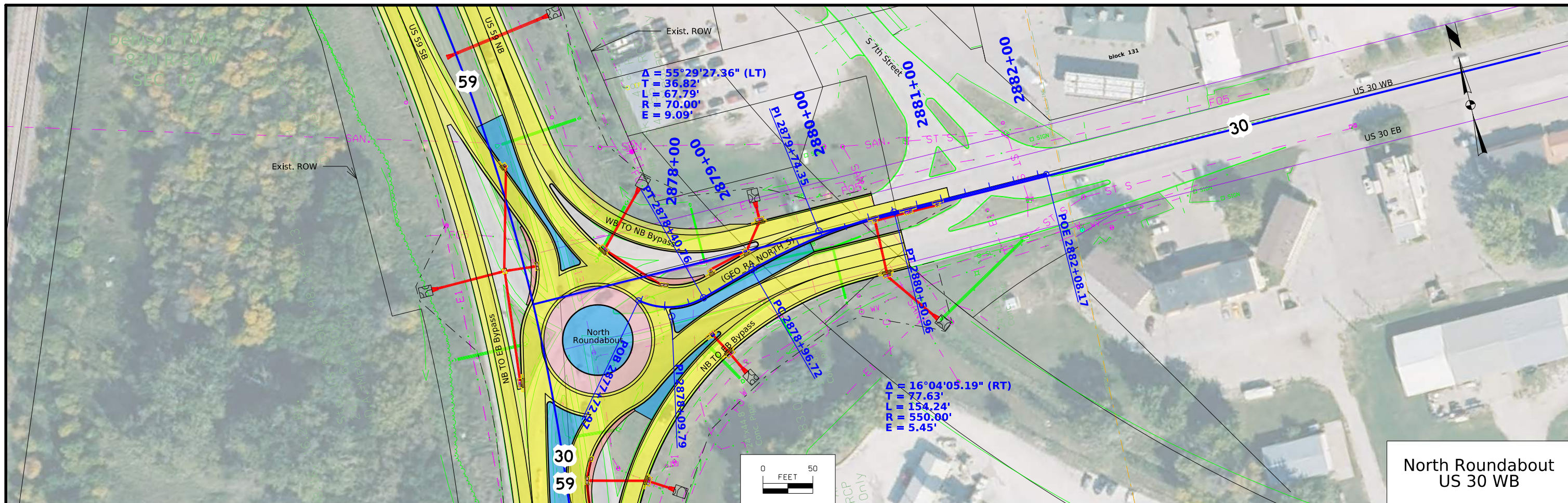


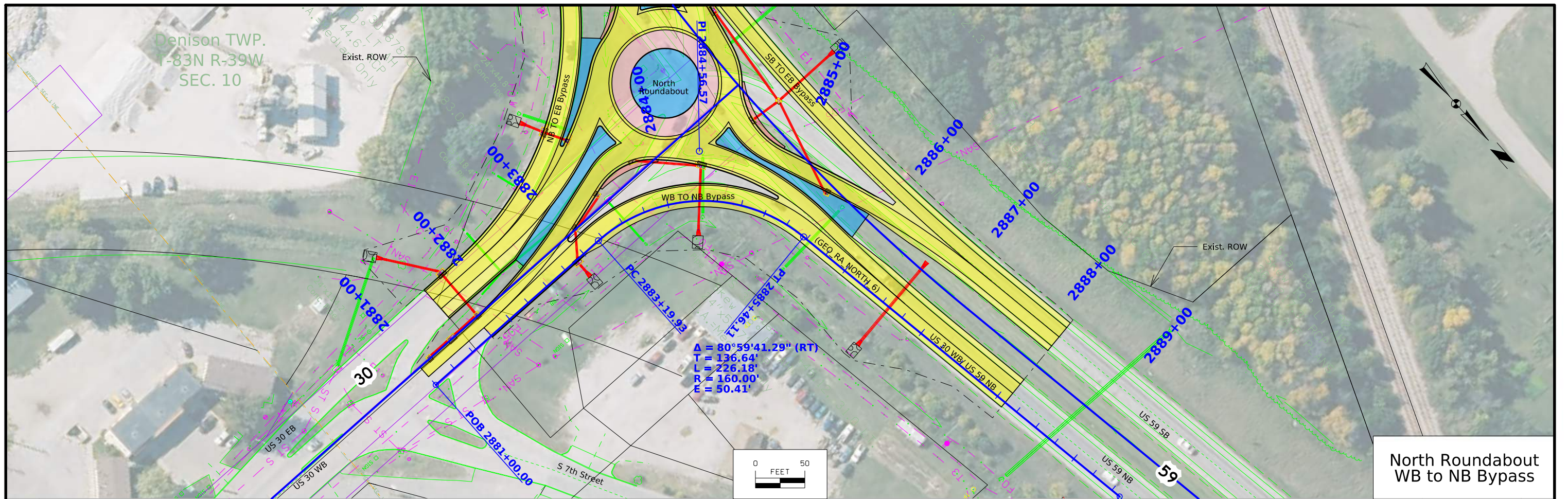




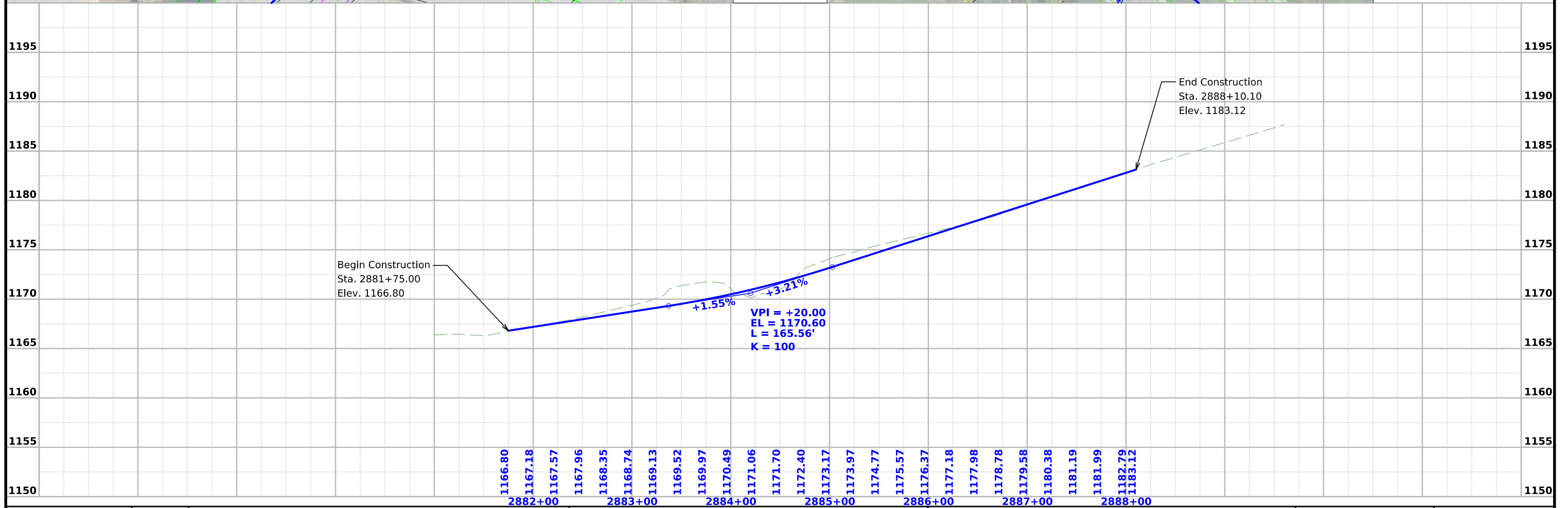


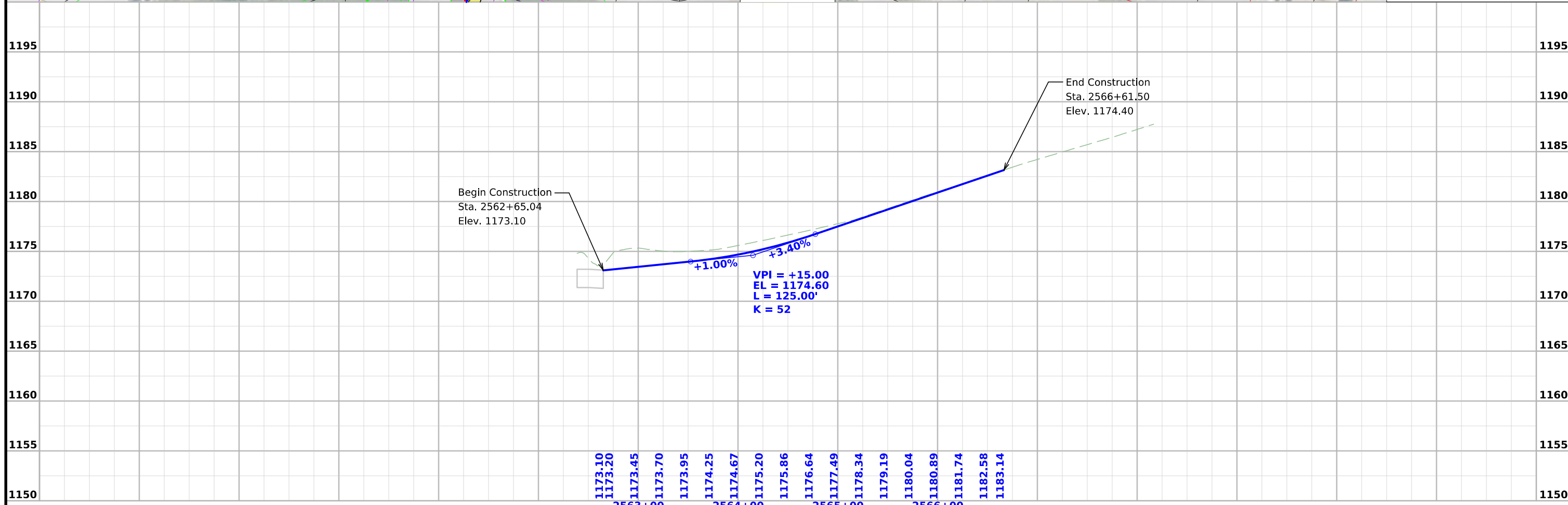
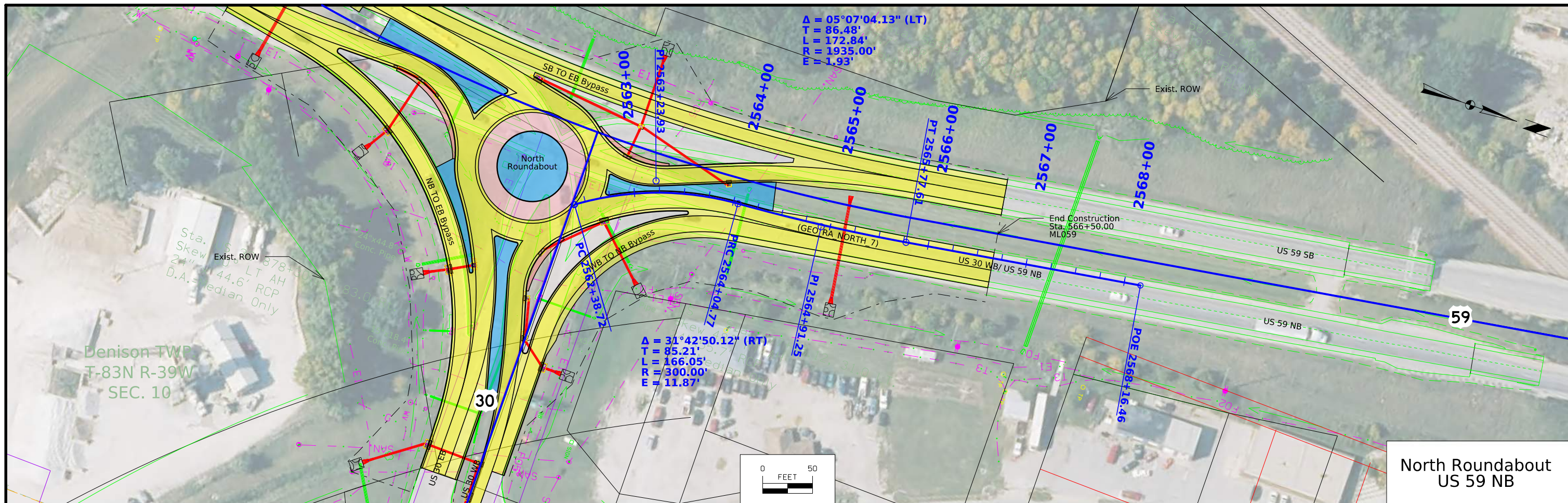


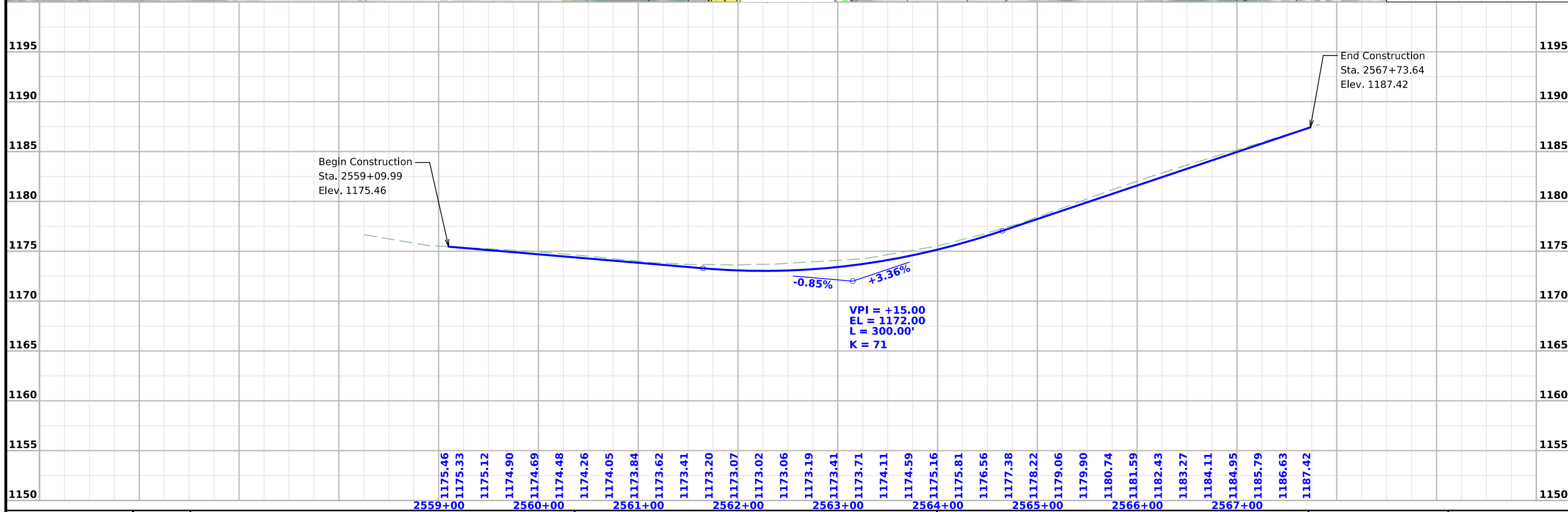
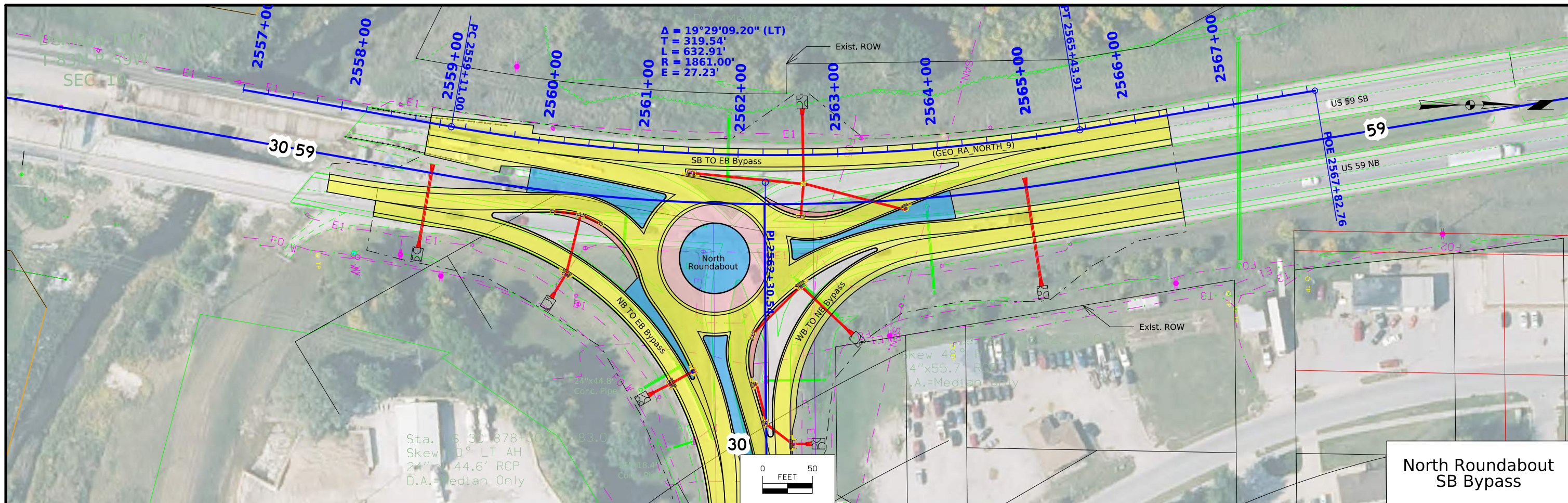




North Roundabout
WB to NB Bypass







Survey Information

SURVEY INDEX

County: Crawford
PIN: 22-24-030-010

Project Number: BRF-030-2(180)--38-24
Location: UP RR 0.4 mile E of W Jct US 59 in Denison (EB/WB)
Type of Work: 2001-Bridge-Unspecified
Project Directory: 2403001022

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 06
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u2

Alignment Information

The horizontal alignment for this survey is a retrace of As-built Plans No. F-FG 1059(3). Survey stationing was equated to the plan POT at Sta. 527+20.23 and carried back and ahead with/without equation throughout the survey.

Survey stationing relates to as built plan stationing as follows:

POT Sta. 527+20.23 As-built Plans Project No. F-FG 1059(3)
Survey POT Sta. 527+20.23

POT Sta. 555+00.00 As-built Plans Project No. F-FG 1059(3)
Survey POT Sta. 555+00.00

Survey Personnel

Wes Shimp – Lead Land Surveyor, PLS
Lee Budde – Geospatial Specialist
Katerina Wyatt – Geospatial Technician
Matt Svec – Survey Party Chief
Nate Theis-Barnett – Survey Party Chief
Alexis Avila – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 02/07/2024
End Date 06/30/2024

General Information

This survey is for US 59 Bridge Replacement over the UP railroad in Denison, Iowa. The corridor starts near the intersection of US 59 and Boyer Valley Road and runs southerly to the intersection of US 30. This project is a Full Field DTM survey.

Utility Information

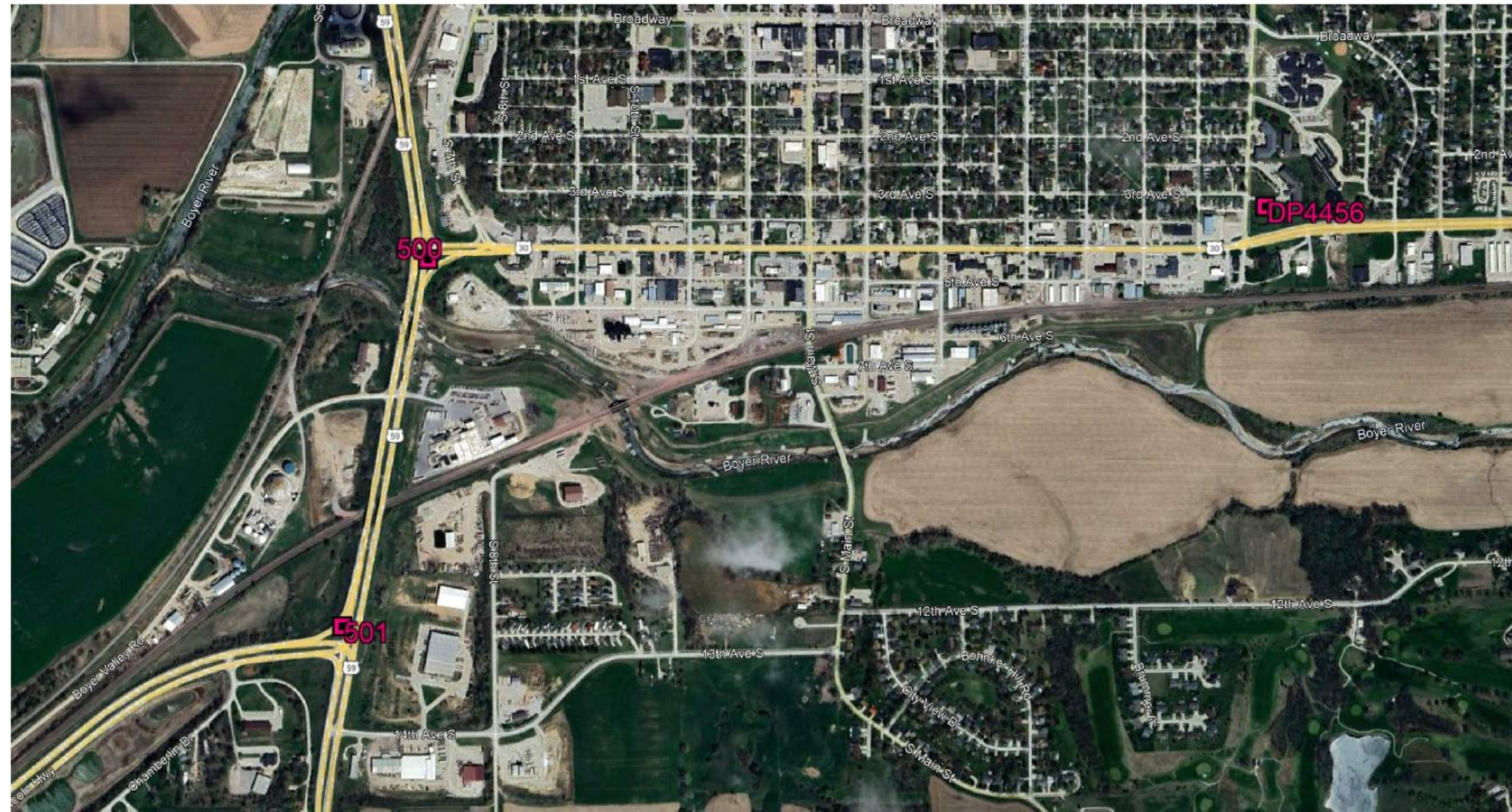
For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the PrelimSurvey project directory.

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Two FENO monuments were set using the following method. Three five-minute observations were taken with a minimum two-hour time span between and used in a weighted average to obtain final coordinate values. A three-minute verification shot was taken on existing point DP4456. For additional details of the control survey, contact the Preliminary Survey department.

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 06 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u2

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

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING
 HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
 Ia. Regional Coordinate System Zone 06 (U.S. Survey Foot)
 VERT. DATUM: NAVD88
 Geoid Model: 2018u2

| POINT NAME | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|------------|------------|-------------|-----------|---|
| 500 | 7242312.08 | 16600081.63 | 1173.54 | Set FENO Monument in median near the northern intersection of Highway 30 and Highway 59 |
| 501 | 7239745.53 | 16599491.90 | 1205.60 | Set FENO Monument in median near the southern intersection of Highway 30 and Highway 59 |
| DP4456 | 7242707.04 | 16605947.61 | 1183.75 | Found existing flange encased rod as described in the NGS Data Sheet |

ALIGNMENT COORDINATES

| Name | Location | Point 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 |
|------------|---------------------|--------------------------|-----------------------------|----------------------------|----------------------|-------------------------|------------------------|---------------------|------------------------|-----------------------|--------------------------------------|---|--|-------------------|----------------------|---------------------|--------------------|-----------------------|----------------------|
| ML059 | Point ML059_1 | 508+10.36 | 7237023.488 | 16599332.75 | | | | | | | | | | | | | | | |
| | Spiral ML059_1 | | | | 517+95.63 | 7238008.74 | 16599326.19 | | | | 519+28.97 | 7238142.075 | 16599325.3 | | | | 519+95.63 | 7238208.733 | 16599326.6 |
| | Curve ML059_1 | | | | | | | 519+95.63 | 7238208.733 | 16599326.6 | 522+58.61 | 7238471.654 | 16599331.74 | 525+20.75 | 7238731.392 | 16599372.85 | | | |
| | Spiral ML059_2 | | | | 525+20.75 | 7238731.392 | 16599372.85 | | | | 525+87.42 | 7238797.241 | 16599383.28 | | | | 527+20.74 | 7238928.345 | 16599407.56 |
| | Curve ML059_2 | | | | | | | 559+11.57 | 7242065.81 | 16599988.67 | 562+39.53 | 7242388.294 | 16600048.35 | 565+61.15 | 7242712.213 | 16599997.03 | | | |
| | Spiral ML059_3 | | | | 579+90.26 | 7244123.72 | 16599773.43 | | | | 581+56.96 | 7244288.371 | 16599747.35 | | | | 582+40.26 | 7244369.682 | 16599728.95 |
| | Curve ML059_3 | | | | | | | 582+40.26 | 7244369.682 | 16599728.95 | 587+83.06 | 7244899.093 | 16599609.14 | 592+97.97 | 7245286.375 | 16599228.83 | | | |
| | Spiral ML059_4 | | | | 592+97.97 | 7245286.375 | 16599228.83 | | | | 593+81.34 | 7245345.857 | 16599170.41 | | | | 595+47.97 | 7245456.906 | 16599046.08 |
| | Point ML059_2 | 599+84.89 | 7245747.956 | 16598720.22 | | | | | | | | | | | | | | | |
| ML030_WEST | Spiral ML030_WEST_1 | | | | 831+74.20 | 7238988.206 | 16597708.68 | | | | 833+07.55 | 7239072.582 | 16597811.94 | | | | 833+74.20 | 7239112.481 | 16597865.36 |
| | Curve ML030_WEST_1 | | | | | | | 833+74.20 | 7239112.481 | 16597865.36 | 839+90.50 | 7239481.261 | 16598359.15 | 845+78.32 | 7239552.664 | 16598971.3 | | | |
| | Spiral ML030_WEST_2 | | | | 845+78.32 | 7239552.664 | 16598971.3 | | | | 846+45.00 | 7239560.389 | 16599037.53 | | | | 847+78.32 | 7239570.046 | 16599170.53 |
| | Point ML030_WEST_1 | 851+40.03 | 7239596.242 | 16599531.28 | | | | | | | | | | | | | | | |
| ML030_EAST | Point ML030_EAST_1 | 876+69.75 | 7242387.94 | 16600020.53 | | | | | | | | | | | | | | | |
| | Point ML030_EAST_2 | 887+09.25 | 7242387.873 | 16601060.03 | | | | | | | | | | | | | | | |
| RA_SOUTH | Curve RA_SOUTH_1 | | | | | | | 100+00.00 | 7239620.229 | 16599421.82 | | | | 101+79.07 | 7239620.229 | 16599535.82 | | | |
| | Curve RA_SOUTH_2 | | | | | | | 101+79.07 | 7239620.229 | 16599535.82 | | | | 103+58.14 | 7239620.229 | 16599421.82 | | | |
| RA_SOUTH_1 | Curve RA_SOUTH_1_1 | | | | | | | 1845+00.00 | 7239517.609 | 16598897.4 | 1845+54.58 | 7239525.755 | 16598951.37 | 1846+09.15 | 7239531.384 | 16599005.67 | | | |
| | Curve RA_SOUTH_1_2 | | | | | | | 1846+34.00 | 7239533.947 | 16599030.39 | 1847+54.74 | 7239545.785 | 16599150.54 | 1848+74.42 | 7239584.584 | 16599264.87 | | | |
| | Curve RA_SOUTH_1_3 | | | | | | | 1849+50.99 | 7239609.193 | 16599337.39 | 1850+05.00 | 7239626.548 | 16599388.53 | 1850+49.21 | 7239591.483 | 16599429.6 | | | |
| RA_SOUTH_2 | Curve RA_SOUTH_2_1 | | | | | | | 1845+00.00 | 7239493.713 | 16598900.76 | 1846+86.42 | 7239520.609 | 16599085.23 | 1848+72.41 | 7239525.821 | 16599271.57 | | | |
| | Curve RA_SOUTH_2_2 | | | | | | | 1848+72.41 | 7239525.821 | 16599271.57 | 1850+70.33 | 7239531.354 | 16599469.41 | 1851+57.52 | 7239336.744 | 16599433.37 | | | |
| | Point RA_SOUTH_2_1 | 1853+84.45 | 7239113.609 | 16599392.04 | | | | | | | | | | | | | | | |
| RA_SOUTH_3 | Point RA_SOUTH_3_1 | 1529+00.00 | 7239109.183 | 16599415.63 | | | | | | | | | | | | | | | |
| | Curve RA_SOUTH_3_1 | | | | | | | 1531+87.05 | 7239391.429 | 16599467.91 | 1532+84.62 | 7239487.367 | 16599485.68 | 1533+75.71 | 7239575.404 | 16599443.61 | | | |
| RA_SOUTH_4 | Point RA_SOUTH_4_1 | 1528+00.00 | 7239001.698 | 16599446.57 | | | | | | | | | | | | | | | |
| | Curve RA_SOUTH_4_1 | | | | | | | 1529+83.61 | 7239182.235 | 16599480.01 | 1531+13.89 | 7239310.34 | 16599503.74 | 1532+41.91 | 7239439.353 | 16599485.59 | | | |
| | Curve RA_SOUTH_4_2 | | | | | | | 1532+98.77 | 7239495.665 | 16599477.67 | 1533+41.86 | 7239538.337 | 16599471.67 | 1533+78.54 | 7239568.4 | 16599502.54 | | | |
| RA_SOUTH_5 | Point RA_SOUTH_5_1 | 1528+00.00 | 7238997.303 | 16599470.17 | | | | | | | | | | | | | | | |
| | Point RA_SOUTH_5_2 | 1540+77.04 | 7240252.99 | 16599702.74 | | | | | | | | | | | | | | | |
| RA_SOUTH_6 | Curve RA_SOUTH_6_1 | | | | | | | 1534+20.62 | 7239616.39 | 16599535.69 | 1535+06.91 | 7239693.373 | 16599574.68 | 1535+92.03 | 7239778.224 | 16599590.4 | | | |
| | Point RA_SOUTH_6_1 | 1540+79.32 | 7240257.361 | 16599679.14 | | | | | | | | | | | | | | | |
| RA_SOUTH_7 | Curve RA_SOUTH_7_1 | | | | | | | 1534+71.01 | 7239676.56 | 16599487.53 | 1535+52.77 | 7239691.118 | 16599567.98 | 1536+08.08 | 7239772.857 | 16599569.7 | | | |
| | Curve RA_SOUTH_7_2 | | | | | | | 1537+12.57 | 7239877.319 | 16599571.9 | 1537+97.85 | 7239962.584 | 16599573.69 | 1538+82.76 | 7240046.441 | 16599589.22 | | | |
| | Point RA_SOUTH_7_1 | 1540+49.54 | 7240210.43 | 16599619.6 | | | | | | | | | | | | | | | |
| RA_SOUTH_8 | Point RA_SOUTH_8_1 | 1846+00.00 | 7239607.034 | 16598985.58 | | | | | | | | | | | | | | | |
| | Curve RA_SOUTH_8_1 | | | | | | | 1848+69.86 | 7239644.437 | 16599252.83 | 1850+83.90 | 7239674.105 | 16599464.81 | 1852+45.60 | 7239882.263 | 16599514.67 | | | |
| | Point RA_SOUTH_8_2 | 1855+87.85 | 7240215.098 | 16599594.39 | | | | | | | | | | | | | | | |
| RA_SOUTH_9 | Curve RA_SOUTH_9_1 | | | | | | | 1846+00.00 | 7239580.017 | 16598990.1 | 1846+58.77 | 7239586.461 | 16599048.51 | 1847+17.53 | 7239590.669 | 16599107.13 | | | |
| | Curve RA_SOUTH_9_2 | | | | | | | 1848+28.57 | 7239598.62 | 16599217.89 | 1849+42.68 | 7239606.79 | 16599331.71 | 1850+54.10 | 7239656.169 | 16599434.58 | | | |
| RA_NORTH | Curve RA_NORTH_1 | | | | | | | 200+00.00 | 7242339.624 | 16600017.47 | | | | 198+20.93 | 7242335.505 | 16600131.4 | | | |
| | Curve RA_NORTH_2 | | | | | | | 198+20.93 | 7242335.505 | 16600131.4 | | | | 200+00.00 | 7242339.624 | 16600017.47 | | | |
| RA_NORTH_1 | Point RA_NORTH_1_1 | 2558+00.00 | 7241960.66 | 16599943.77 | | | | | | | | | | | | | | | |

ALIGNMENT COORDINATES

| Name | Location | Point 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 |
|------------|--------------------|--------------------------|-----------------------------|----------------------------|----------------------|-------------------------|------------------------|---------------------|------------------------|-----------------------|--------------------------------------|---|--|-------------------|----------------------|---------------------|--------------------|-----------------------|----------------------|
| | Curve RA_NORTH_1_1 | | | | | | | 2559+91.41 | 7242148.867 | 16599978.63 | 2560+84.06 | 7242239.966 | 16599995.5 | 2561+76.64 | 7242329.849 | 16600017.96 | | | |
| RA_NORTH_2 | Point RA_NORTH_2_1 | 2557+00.00 | 7241853.226 | 16599974.72 | | | | | | | | | | | | | | | |
| | Curve RA_NORTH_2_1 | | | | | | | 2558+14.74 | 7241966.047 | 16599995.61 | 2558+88.19 | 7242038.27 | 16600008.99 | 2559+61.23 | 7242111.721 | 16600008.99 | | | |
| | Curve RA_NORTH_2_2 | | | | | | | 2560+35.98 | 7242186.469 | 16600009 | 2561+06.29 | 7242256.781 | 16600009 | 2561+58.54 | 7242280.569 | 16600075.16 | | | |
| RA_NORTH_3 | Point RA_NORTH_3_1 | 2557+00.00 | 7241848.855 | 16599998.32 | | | | | | | | | | | | | | | |
| | Curve RA_NORTH_3_1 | | | | | | | 2559+31.30 | 7242076.286 | 16600040.44 | 2561+93.33 | 7242333.935 | 16600088.16 | 2563+68.43 | 7242333.919 | 16600350.19 | | | |
| | Curve RA_NORTH_3_2 | | | | | | | 2564+39.74 | 7242333.914 | 16600421.5 | 2565+06.15 | 7242333.91 | 16600487.91 | 2565+72.50 | 7242338.438 | 16600554.16 | | | |
| RA_NORTH_4 | Curve RA_NORTH_4_1 | | | | | | | 2877+70.49 | 7242305.077 | 16600121.27 | 2878+70.52 | 7242357.928 | 16600206.2 | 2879+65.35 | 7242357.922 | 16600306.22 | | | |
| | Point RA_NORTH_4_1 | 2881+09.91 | 7242357.912 | 16600450.78 | | | | | | | | | | | | | | | |
| RA_NORTH_5 | Curve RA_NORTH_5_1 | | | | | | | 2877+72.97 | 7242366.152 | 16600123.75 | 2878+09.79 | 7242342.767 | 16600152.19 | 2878+40.77 | 7242352.956 | 16600187.58 | | | |
| | Curve RA_NORTH_5_2 | | | | | | | 2878+96.72 | 7242368.439 | 16600241.34 | 2879+74.35 | 7242389.921 | 16600315.94 | 2880+50.96 | 7242389.916 | 16600393.57 | | | |
| | Point RA_NORTH_5_1 | 2882+08.17 | 7242389.906 | 16600550.78 | | | | | | | | | | | | | | | |
| RA_NORTH_6 | Point RA_NORTH_6_1 | 2881+00.00 | 7242411.912 | 16600450.78 | | | | | | | | | | | | | | | |
| | Curve RA_NORTH_6_1 | | | | | | | 2883+19.93 | 7242411.926 | 16600230.85 | 2884+56.57 | 7242411.935 | 16600094.21 | 2885+46.11 | 7242546.893 | 16600072.83 | | | |
| | Point RA_NORTH_6_2 | 2889+60.10 | 7242955.786 | 16600008.06 | | | | | | | | | | | | | | | |
| RA_NORTH_7 | Curve RA_NORTH_7_1 | | | | | | | 2562+38.72 | 7242390.126 | 16600096.49 | 2563+23.93 | 7242459.416 | 16600046.88 | 2564+04.77 | 7242544.434 | 16600041.11 | | | |
| | Curve RA_NORTH_7_2 | | | | | | | 2564+04.77 | 7242544.434 | 16600041.11 | 2564+91.25 | 7242630.712 | 16600035.26 | 2565+77.61 | 7242716.125 | 16600021.73 | | | |
| | Point RA_NORTH_7_1 | 2568+16.46 | 7242952.031 | 16599984.35 | | | | | | | | | | | | | | | |
| RA_NORTH_8 | Curve RA_NORTH_8_1 | | | | | | | 2562+31.53 | 7242383.506 | 16600040.7 | 2562+76.49 | 7242420.749 | 16600065.87 | 2563+14.23 | 7242462.523 | 16600049.26 | | | |
| | Curve RA_NORTH_8_2 | | | | | | | 2563+96.16 | 7242538.649 | 16600018.99 | 2564+85.08 | 7242621.279 | 16599986.13 | 2565+73.28 | 7242709.109 | 16599972.21 | | | |
| | Point RA_NORTH_8_1 | 2568+11.31 | 7242944.208 | 16599934.97 | | | | | | | | | | | | | | | |
| RA_NORTH_9 | Point RA_NORTH_9_1 | 2557+00.00 | 7241866.703 | 16599901.96 | | | | | | | | | | | | | | | |
| | Curve RA_NORTH_9_1 | | | | | | | 2559+11.00 | 7242074.732 | 16599940.49 | 2562+30.54 | 7242388.94 | 16599998.63 | 2565+43.91 | 7242704.546 | 16599948.64 | | | |
| | Point RA_NORTH_9_2 | 2567+82.76 | 7242940.453 | 16599911.27 | | | | | | | | | | | | | | | |

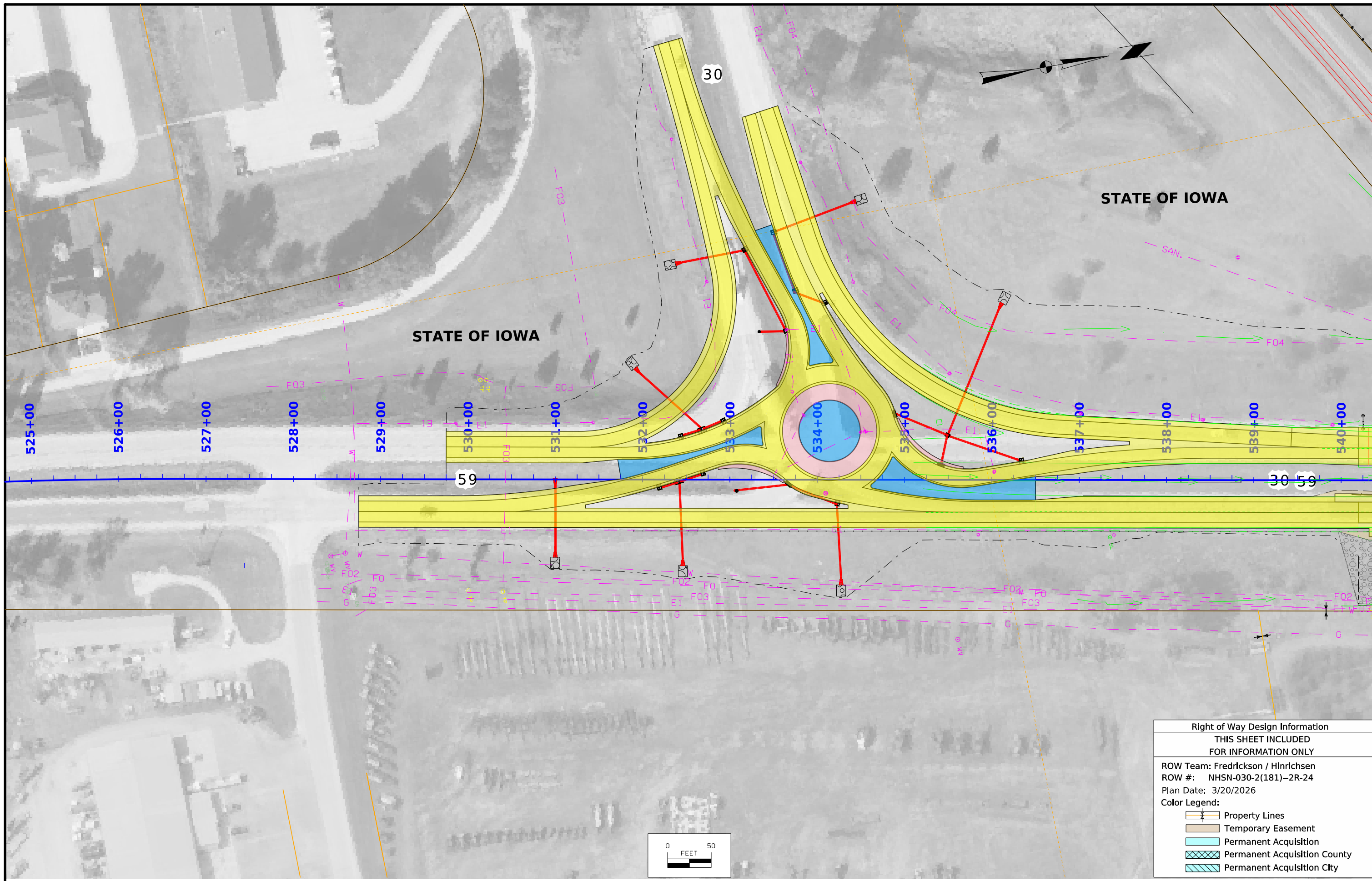
SPIRAL OR CIRCULAR CURVE DATA

| Name | Location | SCS | S | Ls | Ts | Es | Xc | Yc | L.T. | S.T. | C | T | L | R | E | Remarks |
|------------|---------------------|--------|-------|---------|---------|---------|---------|-------|---------|--------|---------|---------|---------|----------|--------|---------|
| ML059 | Spiral ML059_1 | 10.876 | 1.500 | 200.000 | 463.687 | 17.708 | 199.986 | 1.745 | 133.338 | 66.671 | | | | | | |
| ML059 | Curve ML059_1 | | | | | | | | | | 7.876 | 262.972 | 525.115 | 3820 | 9.041 | |
| ML059 | Spiral ML059_2 | | 1.500 | 199.994 | | | 199.980 | 1.745 | 133.334 | 66.669 | | | | | | |
| ML059 | Curve ML059_2 | | | | | | | | | | 19.486 | 327.958 | 649.581 | 1910 | 27.952 | |
| ML059 | Spiral ML059_3 | 39.228 | 3.750 | 250.000 | 806.122 | 119.103 | 249.893 | 5.452 | 166.704 | 83.367 | | | | | | |
| ML059 | Curve ML059_3 | | | | | | | | | | 31.729 | 542.798 | 1057.71 | 1910 | 75.631 | |
| ML059 | Spiral ML059_4 | | 3.750 | 250.000 | | | 249.893 | 5.452 | 166.704 | 83.367 | | | | | | |
| ML030_WEST | Spiral ML030_WEST_1 | 35.100 | 2.500 | 200.000 | 825.097 | 112.656 | 199.962 | 2.908 | 133.347 | 66.679 | | | | | | |
| | Curve ML030_WEST_1 | | | | | | | | | | 30.101 | 616.3 | 1204.12 | 2292 | 81.413 | |
| | Spiral ML030_WEST_2 | | 2.500 | 200.000 | | | 199.962 | 2.908 | 133.347 | 66.679 | | | | | | |
| RA_SOUTH | Curve RA_SOUTH_1 | | | | | | | | | | 180 | 2.127 | 179.071 | 57 | 2.127 | |
| | Curve RA_SOUTH_2 | | | | | | | | | | 180 | 2.127 | 179.071 | 57 | 2.127 | |
| RA_SOUTH_1 | Curve RA_SOUTH_1_1 | | | | | | | | | | 2.663 | 54.584 | 109.149 | 2348.043 | 0.634 | |
| | Curve RA_SOUTH_1_2 | | | | | | | | | | 13.119 | 120.735 | 240.413 | 1050.000 | 6.919 | |
| | Curve RA_SOUTH_1_3 | | | | | | | | | | 59.234 | 54.004 | 98.213 | 95.000 | 14.277 | |
| RA_SOUTH_2 | Curve RA_SOUTH_2_1 | | | | | | | | | | 6.693 | 186.419 | 372.414 | 3188.000 | 5.446 | |
| | Curve RA_SOUTH_2_2 | | | | | | | | | | 102.095 | 197.919 | 285.104 | 160.000 | 94.504 | |
| RA_SOUTH_3 | Curve RA_SOUTH_3_1 | | | | | | | | | | 36.033 | 97.571 | 188.667 | 300.000 | 15.468 | |
| RA_SOUTH_4 | Curve RA_SOUTH_4_1 | | | | | | | | | | 18.499 | 130.283 | 258.299 | 800.000 | 10.539 | |
| | Curve RA_SOUTH_4_2 | | | | | | | | | | 53.767 | 43.092 | 79.765 | 85.000 | 10.299 | |
| RA_SOUTH_6 | Curve RA_SOUTH_6_1 | | | | | | | | | | 16.369 | 86.294 | 171.413 | 600.000 | 6.174 | |
| RA_SOUTH_7 | Curve RA_SOUTH_7_1 | | | | | | | | | | 78.537 | 81.757 | 137.072 | 100.000 | 29.167 | |
| | Curve RA_SOUTH_7_2 | | | | | | | | | | 9.287 | 85.284 | 170.194 | 1050.000 | 3.458 | |
| RA_SOUTH_8 | Curve RA_SOUTH_8_1 | | | | | | | | | | 68.563 | 214.046 | 375.746 | 314.000 | 66.016 | |
| RA_SOUTH_9 | Curve RA_SOUTH_9_1 | | | | | | | | | | 2.189 | 58.770 | 117.526 | 3076.506 | 0.561 | |
| | Curve RA_SOUTH_9_2 | | | | | | | | | | 21.536 | 114.107 | 225.521 | 600.000 | 10.754 | |
| RA_NORTH | Curve RA_NORTH_1 | | | | | | | | | | 180.000 | 3.969 | 179.071 | 57.000 | 3.969 | |
| | Curve RA_NORTH_2 | | | | | | | | | | 180.001 | | 179.072 | 57.000 | | |
| RA_NORTH_1 | Curve RA_NORTH_1_1 | | | | | | | | | | 3.538 | 92.647 | 185.236 | 3000.000 | 1.430 | |
| RA_NORTH_2 | Curve RA_NORTH_2_1 | | | | | | | | | | 10.492 | 73.451 | 146.491 | 800.000 | 3.365 | |
| | Curve RA_NORTH_2_2 | | | | | | | | | | 70.223 | 70.311 | 122.563 | 100.000 | 22.244 | |
| RA_NORTH_3 | Curve RA_NORTH_3_1 | | | | | | | | | | 79.511 | 262.032 | 437.132 | 315.000 | 94.738 | |
| | Curve RA_NORTH_3_2 | | | | | | | | | | 3.913 | 66.406 | 132.761 | 1943.827 | 1.134 | |
| RA_NORTH_4 | Curve RA_NORTH_4_1 | | | | | | | | | | 31.899 | 100.027 | 194.859 | 350.000 | 14.013 | |
| RA_NORTH_5 | Curve RA_NORTH_5_1 | | | | | | | | | | 55.491 | 36.822 | 67.795 | 70.000 | 9.094 | |
| | Curve RA_NORTH_5_2 | | | | | | | | | | 16.068 | 77.631 | 154.243 | 550.000 | 5.452 | |
| RA_NORTH_6 | Curve RA_NORTH_6_1 | | | | | | | | | | 80.995 | 136.640 | 226.180 | 160.000 | 50.406 | |
| RA_NORTH_7 | Curve RA_NORTH_7_1 | | | | | | | | | | 31.714 | 85.214 | 166.054 | 300.000 | 11.868 | |
| | Curve RA_NORTH_7_2 | | | | | | | | | | 5.118 | 86.477 | 172.839 | 1935.000 | 1.931 | |

SPIRAL OR CIRCULAR CURVE DATA

| Name | Location | SCS | S | Ls | Ts | Es | Xc | Yc | L.T. | S.T. | C | T | L | R | E | Remarks |
|------------|--------------------|-----|---|----|----|----|----|----|------|------|--------|---------|---------|----------|--------|---------|
| RA_NORTH_8 | Curve RA_NORTH_8_1 | | | | | | | | | | 55.748 | 44.956 | 82.704 | 85.000 | 11.156 | |
| | Curve RA_NORTH_8_2 | | | | | | | | | | 12.685 | 88.925 | 177.122 | 800.000 | 4.927 | |
| RA_NORTH_9 | Curve RA_NORTH_9_1 | | | | | | | | | | 19.486 | 319.542 | 632.913 | 1861.000 | 27.234 | |

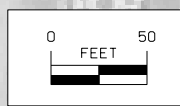
NO ACCESS RIGHTS ARE TO BE ACQUIRED ON THIS PROJECT.

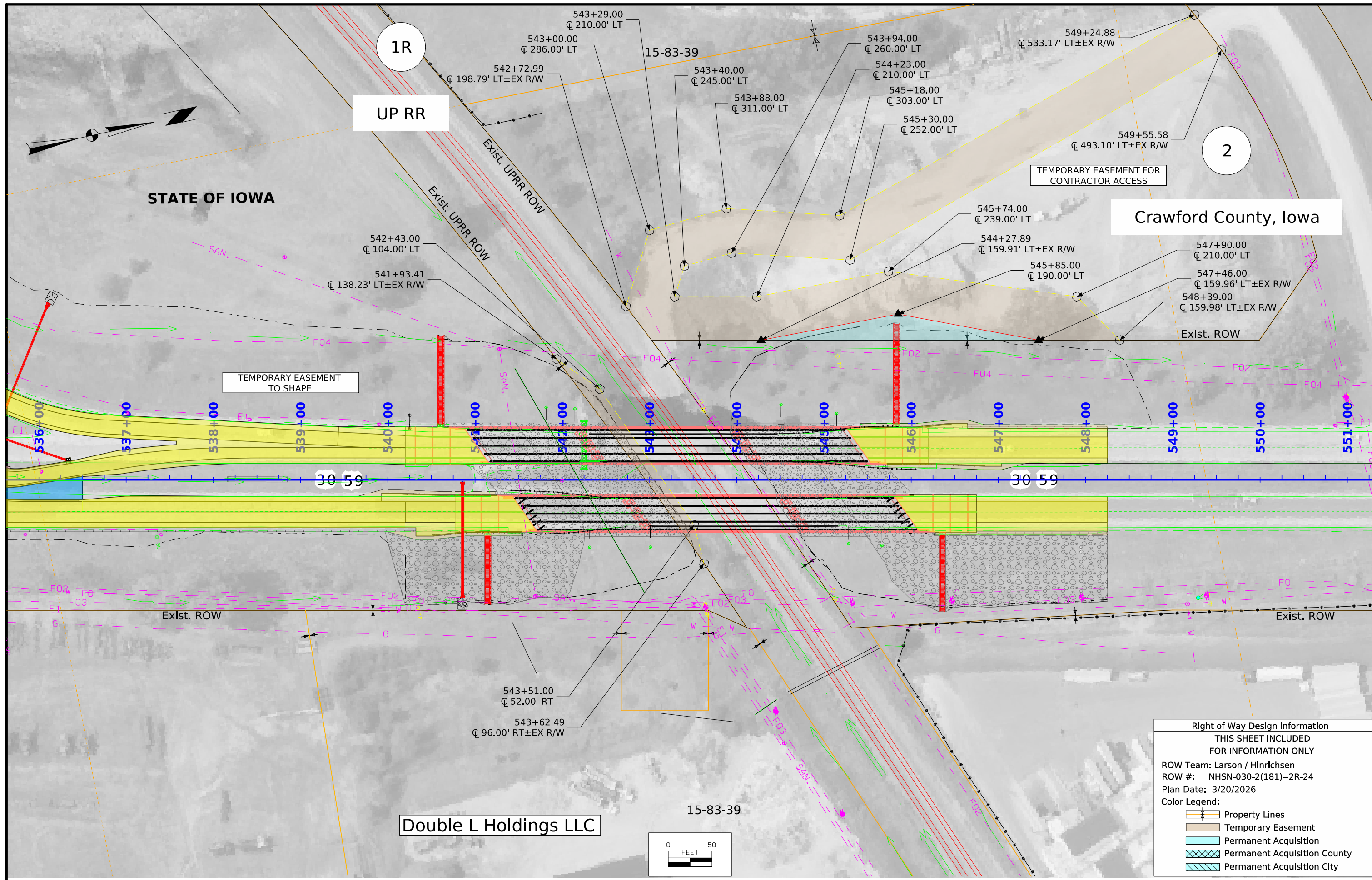


STATE OF IOWA

STATE OF IOWA

| Right of Way Design Information | |
|--|------------------------------|
| THIS SHEET INCLUDED FOR INFORMATION ONLY | |
| ROW Team: Fredrickson / Hinrichsen | |
| ROW #: NHSN-030-2(181)-2R-24 | |
| Plan Date: 3/20/2026 | |
| Color Legend: | |
| | Property Lines |
| | Temporary Easement |
| | Permanent Acquisition |
| | Permanent Acquisition County |
| | Permanent Acquisition City |





1R

UP RR

2

STATE OF IOWA

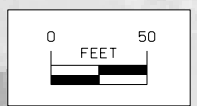
Crawford County, Iowa

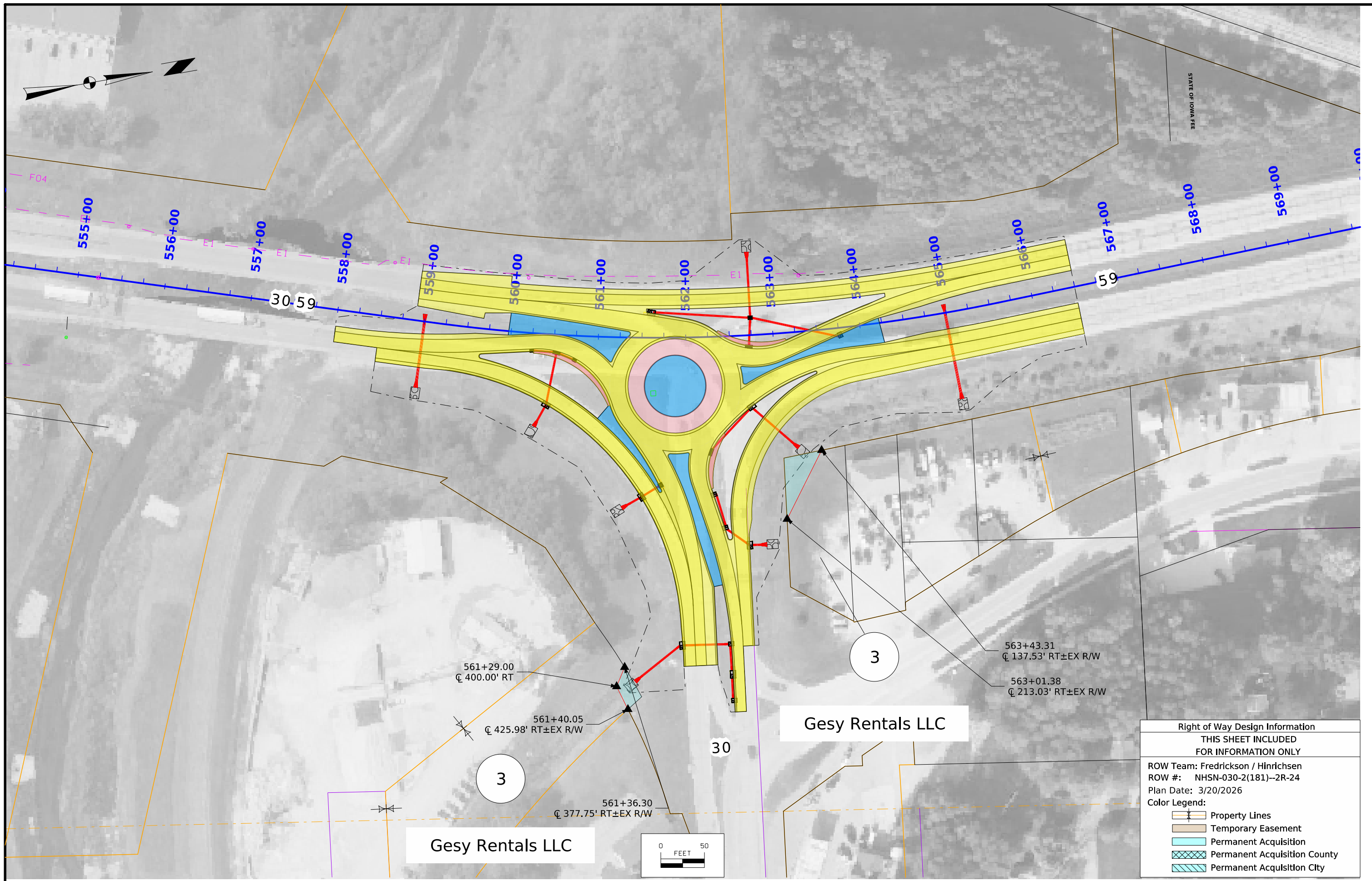
TEMPORARY EASEMENT TO SHAPE

TEMPORARY EASEMENT FOR CONTRACTOR ACCESS

Double L Holdings LLC

| Right of Way Design Information | |
|--|------------------------------|
| THIS SHEET INCLUDED FOR INFORMATION ONLY | |
| ROW Team: Larson / Hinrichsen | |
| ROW #: NHSN-030-2(181)-2R-24 | |
| Plan Date: 3/20/2026 | |
| Color Legend: | |
| | Property Lines |
| | Temporary Easement |
| | Permanent Acquisition |
| | Permanent Acquisition County |
| | Permanent Acquisition City |





| Right of Way Design Information | |
|--|------------------------------|
| THIS SHEET INCLUDED FOR INFORMATION ONLY | |
| ROW Team: Fredrickson / Hinrichsen | |
| ROW #: NHSN-030-2(181)--2R-24 | |
| Plan Date: 3/20/2026 | |
| Color Legend: | |
| | Property Lines |
| | Temporary Easement |
| | Permanent Acquisition |
| | Permanent Acquisition County |
| | Permanent Acquisition City |

TRAFFIC CONTROL PLAN

US 30/59:

Roundabouts will be substantially constructed in Stage 1, with traffic maintained in accordance with the J Sheets. A local and global detour will be required for select movements during Stage 1 for roundabout construction. During bridge construction, roundabouts constructed in Stage 1 will be utilized to maintain traffic at all times in accordance with J Sheets. Traffic will be head to head in Stages 2 and 3, with final roundabout connections constructed in Stage 3B.

Sideroads:

Boyer Valley Road west of the US 30/59 intersection will remain open to local traffic at all times in accordance with J Sheets. Traffic will be right in / right out on Stages 2 and 3A.

The entrance on the east of the US 30/59 and Boyer Valley Road intersection will remain open during construction. Traffic will be right in / right out during Stages 2 and 3A.

Portable DMS shall be deployed two weeks prior to the start of construction.

Refer to Tab. 108-26A for Staging Notes.

For additional information, refer to Part 6 of the Manual on Uniform Traffic Control Devices, Iowa DOT Standard Road Plan TC Series and the current Standard Specifications.

511 TRAVEL RESTRICTIONS

| 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 |
|-------|-----------|--------|----------------------|-----------------|-------------|---|------------------------|-------------------------|-----------------------------|--|--------------------------------------|---------|
|-------|-----------|--------|----------------------|-----------------|-------------|---|------------------------|-------------------------|-----------------------------|--|--------------------------------------|---------|

STAGING NOTES

Prior to Stage 1:

Traffic:
Maintain traffic on US 30/59 at all times in accordance with J Sheets. Close the inside lane on US 30/59 in accordance with Standard Road Plan TC-418 to construct temporary pavement as shown in J Sheets, for crossing traffic during south roundabout construction in Stage 1.

Construction:
Construct temporary pavement in accordance with J Sheets.

Stage 1A:

Traffic:
Maintain traffic at north and south junctions of US 30/59 as shown in J Sheets to construct roundabouts. Maintain movements as shown in J Sheets and implement global and local detours as shown on Sheet J.27 and J.28. EB to NB US 30/59 will be required to use the global detour on Sheet J.27. At the north roundabout, all movements except NB US 30/59 to EB US 30 and SB US 30/59 Thru will be required to use the local detour on Sheet J.28.

Construction: Construct center of each roundabout and legs as shown in J Sheets.

Stage 1B:

Traffic:
Maintain traffic at north and south junctions of US 30/59 as shown in J Sheets to construct roundabouts. Maintain movements as shown in J Sheets and implement global detour as shown on Sheet J.27 for NB US 59 to WB US 30, for construction at the south roundabout. All movements will be open to traffic at the north roundabout using roundabout construction completed in Stage 1A.

Construction:
Construct legs and bypass lanes of south roundabout as shown in J Sheets.

Stage 2:

Traffic:
Shift westbound traffic to the eastbound lanes using roundabouts constructed in Stage 1. Maintain head to head traffic on the existing eastbound bridge in accordance with the J Sheets.
Maintain right-in/right-out access to Boyer Valley Road and the entrance on the east side of Boyer Valley Road and US 30/59 intersection at all times.

Construction:
Remove existing westbound bridge and bridge approach.
Construct new westbound bridge and bridge approach.
Remove and replace the existing guardrail on the north side of the westbound bridge.
Construct new westbound pavement and shoulders.
Construct new high tension cable guardrail on the outside north end of the westbound bridge.
Construct revetment at both abutments of the westbound bridge and slope protection on the side slopes.

Stage 3A:

Traffic:
Shift eastbound traffic to the westbound lanes using roundabouts constructed in Stage 1. Maintain head to head traffic on the new westbound bridge in accordance with the J Sheets.
Maintain access to the entrance on the east side of Boyer Valley Road and US 30 intersection at all times.

Construction:
Remove existing eastbound bridge and bridge approach.
Construct new eastbound bridge and bridge approach.
Remove and replace the existing guardrail on the south side of the eastbound bridge.
Construct new eastbound pavement and shoulders.
Construct new high tension cable guardrail on the outside eastbound shoulder on both sides of the bridge.
Construct revetment at both abutments of the eastbound bridge and slope protection on the side slopes.

Stage 3B:

Traffic:
Maintain traffic on US 30/59 at all times.

Construction:
Construct remaining roundabout legs and curb as shown in J Sheets.

STAGING NOTES

Final:

Traffic: Open all roads to all traffic

Set up pavement marking operations utilizing Standard Road Plan TC-433.

Set up rumble strip operations in accordance with Standard Road Plan TC-432.

Construction:

Complete final pavement marking and mill rumble strips.

111_01
10/14/22

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 |
|-----------------------|--------------|
| BRF-030-2(174)--38-24 | |

CROSS SECTION VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

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

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

| | | | |
|--|---------------------------------|--|---------------------------------|
| | Pavement Removal | | Proposed Granular Shoulder |
| | Proposed Granular Subbase | | Temporary Shoulder |
| | Proposed Special Backfill | | Existing Shoulder Strengthening |
| | Unpinned Temporary Barrier Rail | | Pinned Temporary Barrier Rail |
| | | | Channelizing Device |

PLAN VIEW COLOR LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

| LINEWORK | Design Color No. | |
|--------------|------------------|---|
| Green | (2) | Existing Topographic Features and Labels |
| Magenta | (5) | Pavement Marking Call Outs |
| Blue | (1) | Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation |
| Yellow | (4) | Pavement Markings, Yellow |
| Off White | (254) | Pavement Markings, White |
| Violet | (15) | Temporary barrier rail, Unpinned |
| Flush Orange | (228) | Temporary barrier rail, Pinned |

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

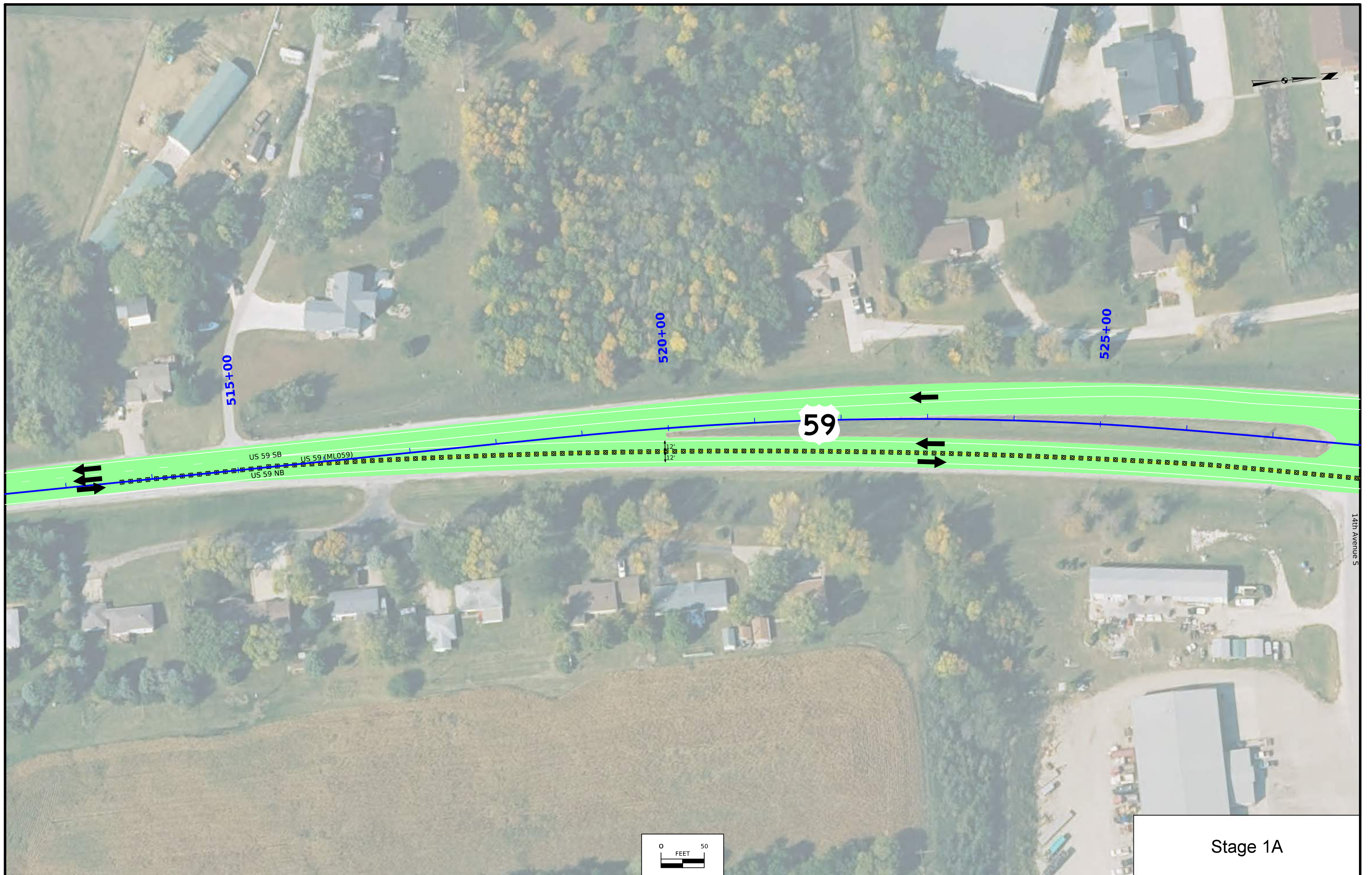
PLAN VIEW PATTERN AND SYMBOL LEGEND OF TRAFFIC CONTROL AND STAGING SHEETS

| | | | |
|--|---------------------------------|--|------------------------------|
| | Channelizing Device | | Crash Cushion (Temp or Perm) |
| | Drum | | Traffic Signal |
| | Temporary Lane Separator | | Flagger |
| | Tubular Marker | | Temporary Floodlighting |
| | Channelizer Marker | | Traffic Sign |
| | Concrete Barrier Marker | | Type III Barricade |
| | Delineator | | Type A Warning Light |
| | Temporary Barrier Rail | | Direction of Traffic |
| | Pavement Removal | | Safety Closure |
| | Temporary Pavement Construction | | Lane Identification |
| | Sand Barrel Layout | | |
| | Temporary Rumble Strips | | |

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

TRAFFIC CONTROL AND STAGING LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES J)



515+00

520+00

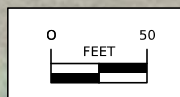
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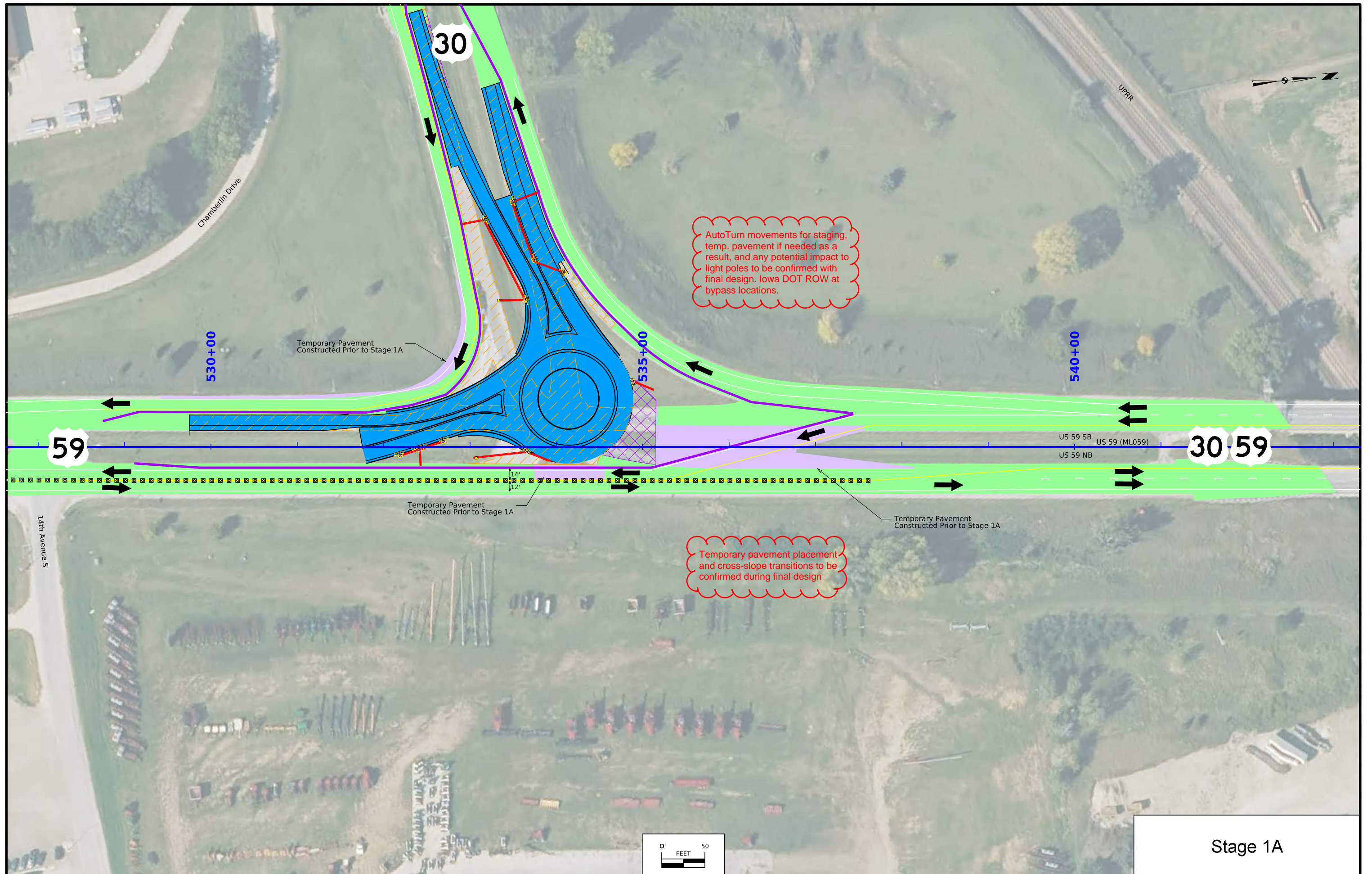
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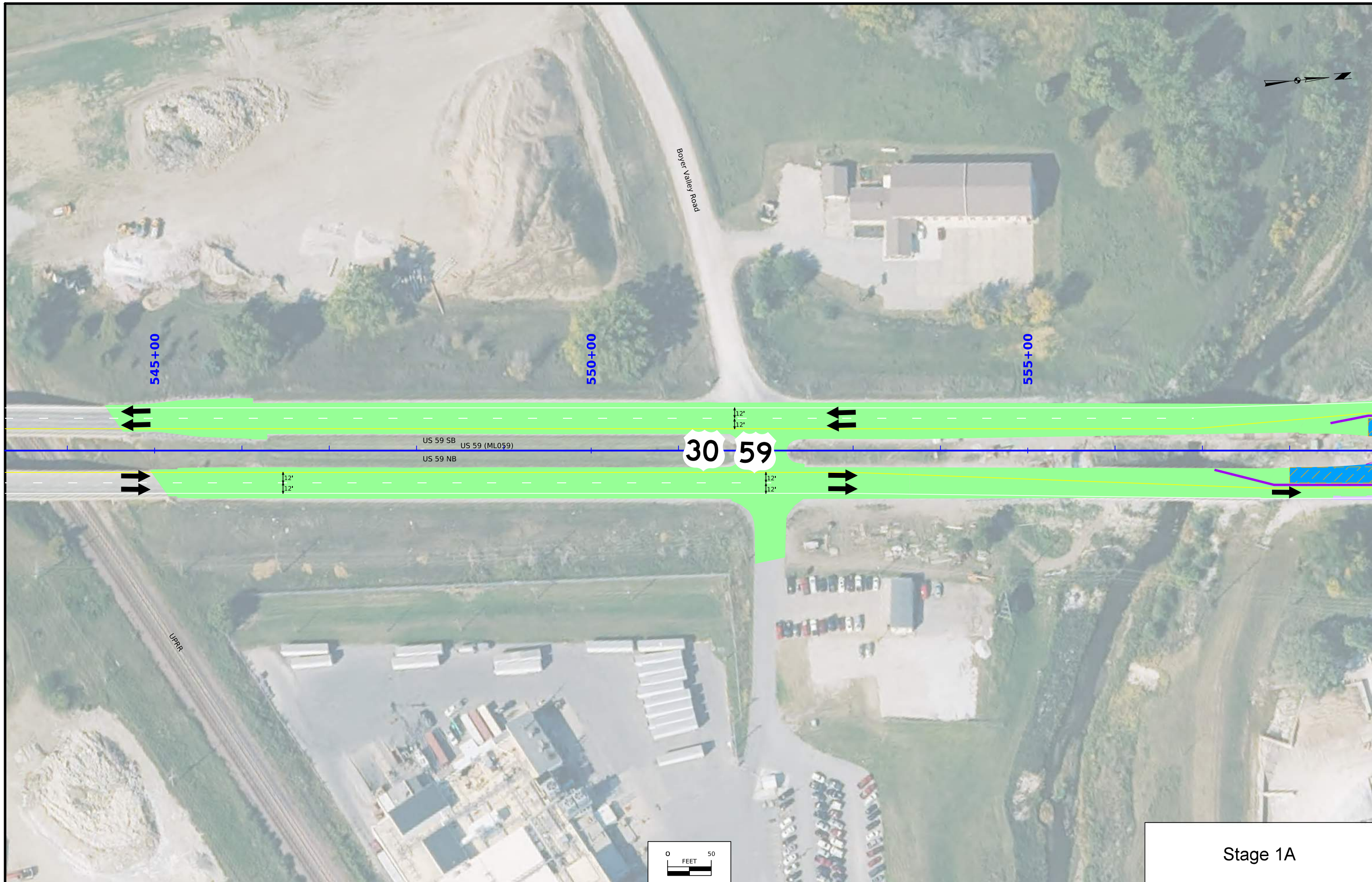
US 59 SB
US 59 (ML059)
US 59 NB

14th Avenue S

Stage 1A







30 59

545+00

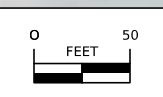
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555+00

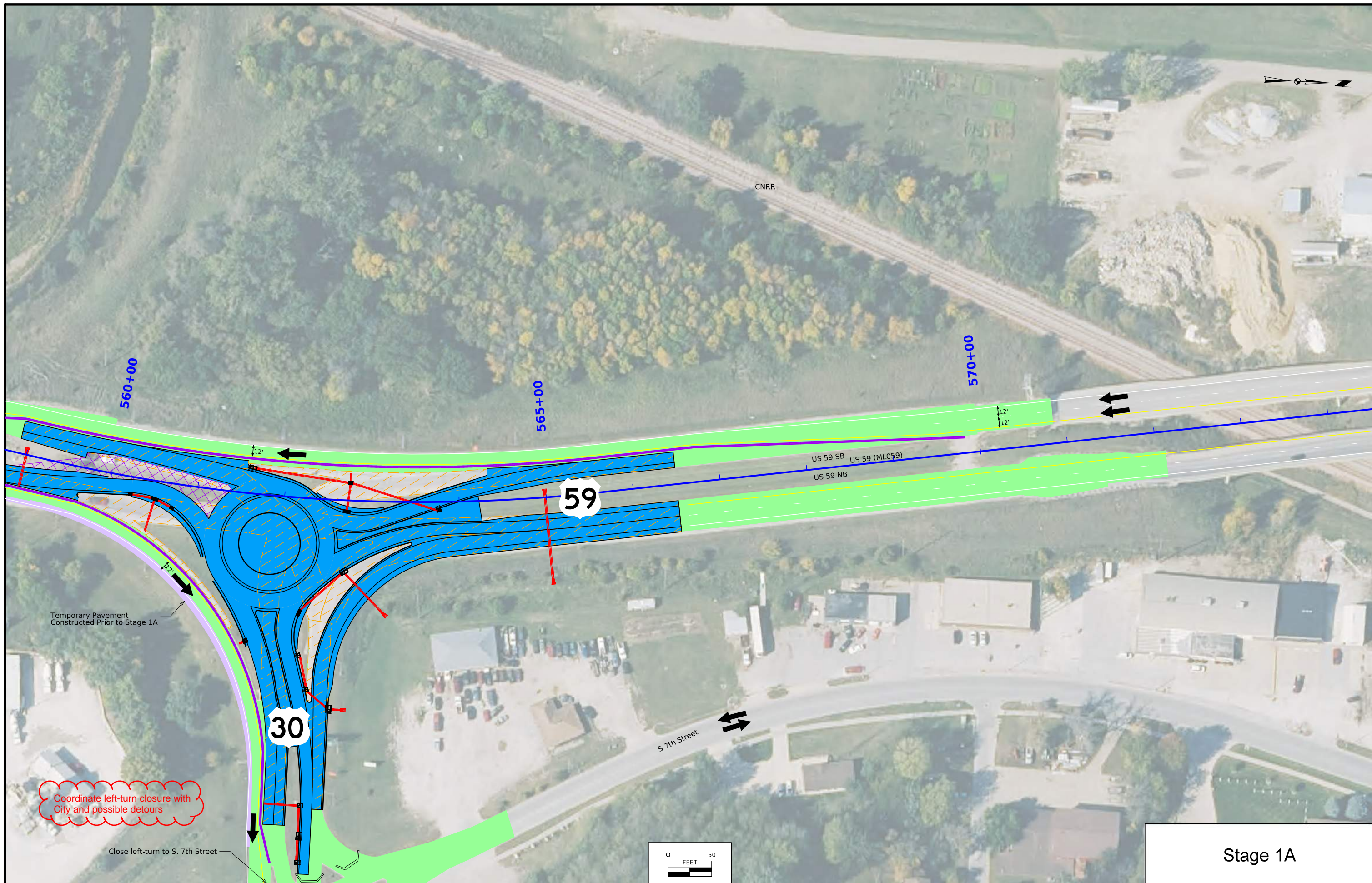
US 59 SB
US 59 (ML059)

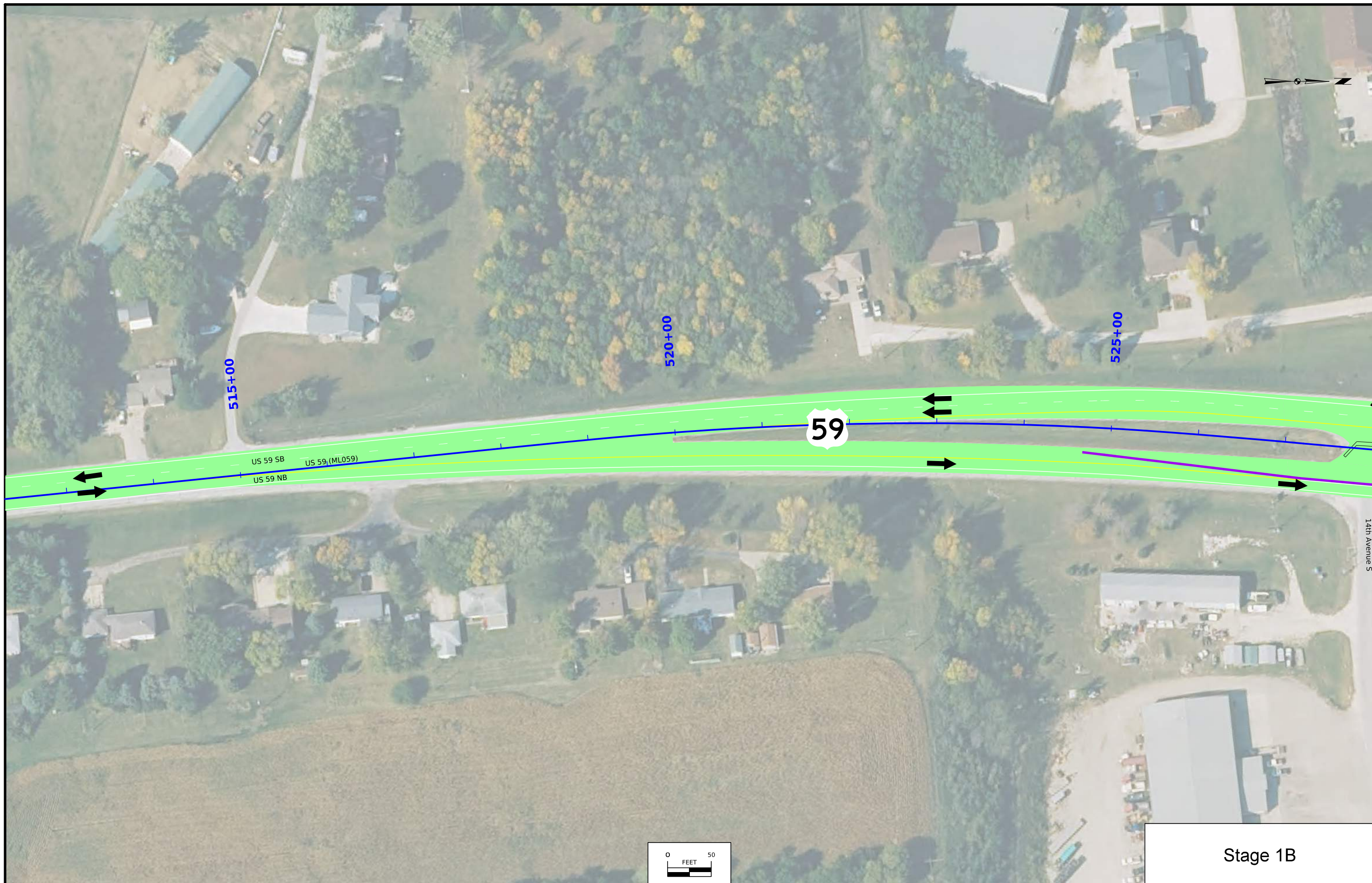
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UPRR

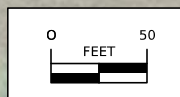


Stage 1A



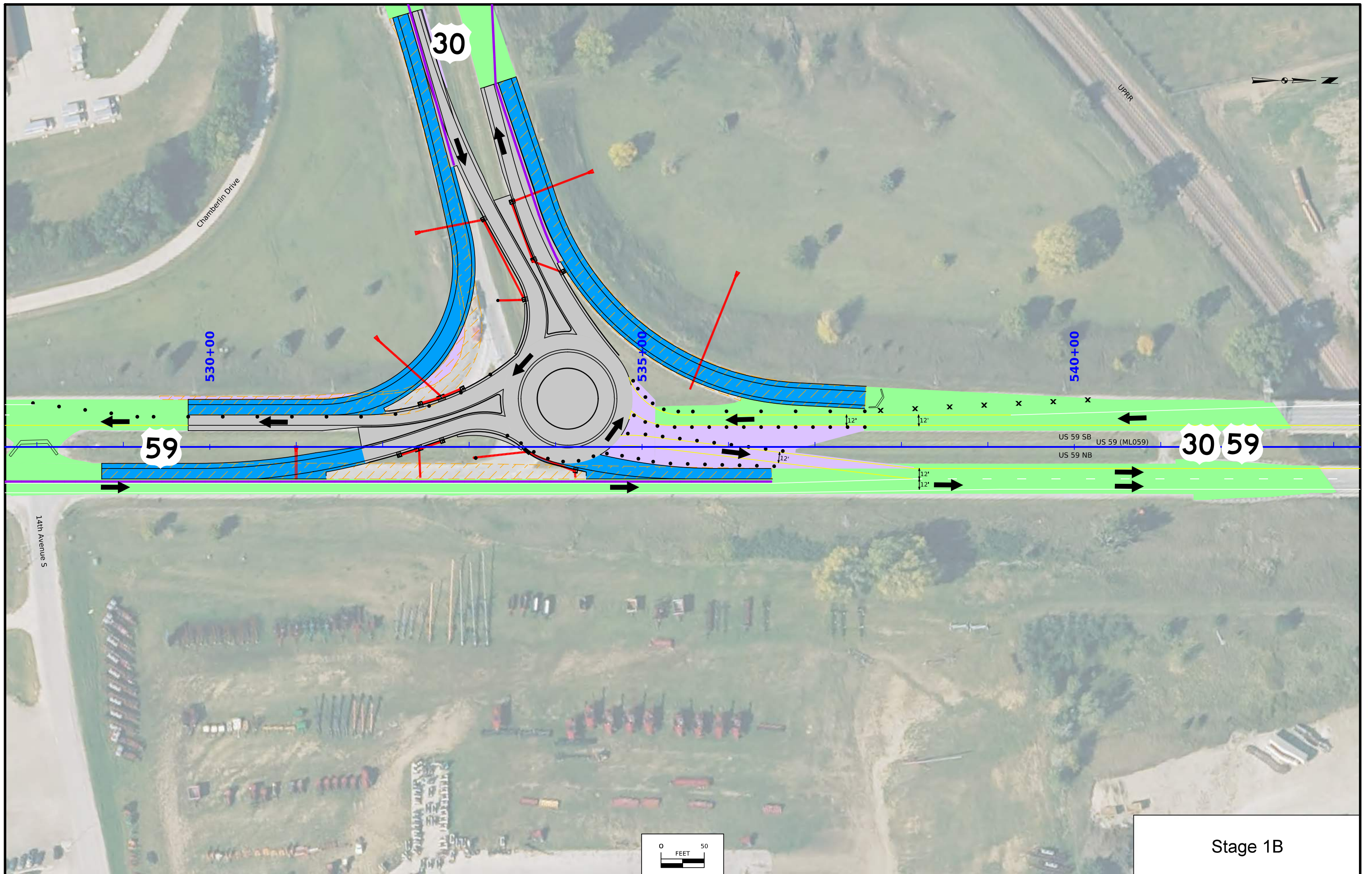


14th Avenue S

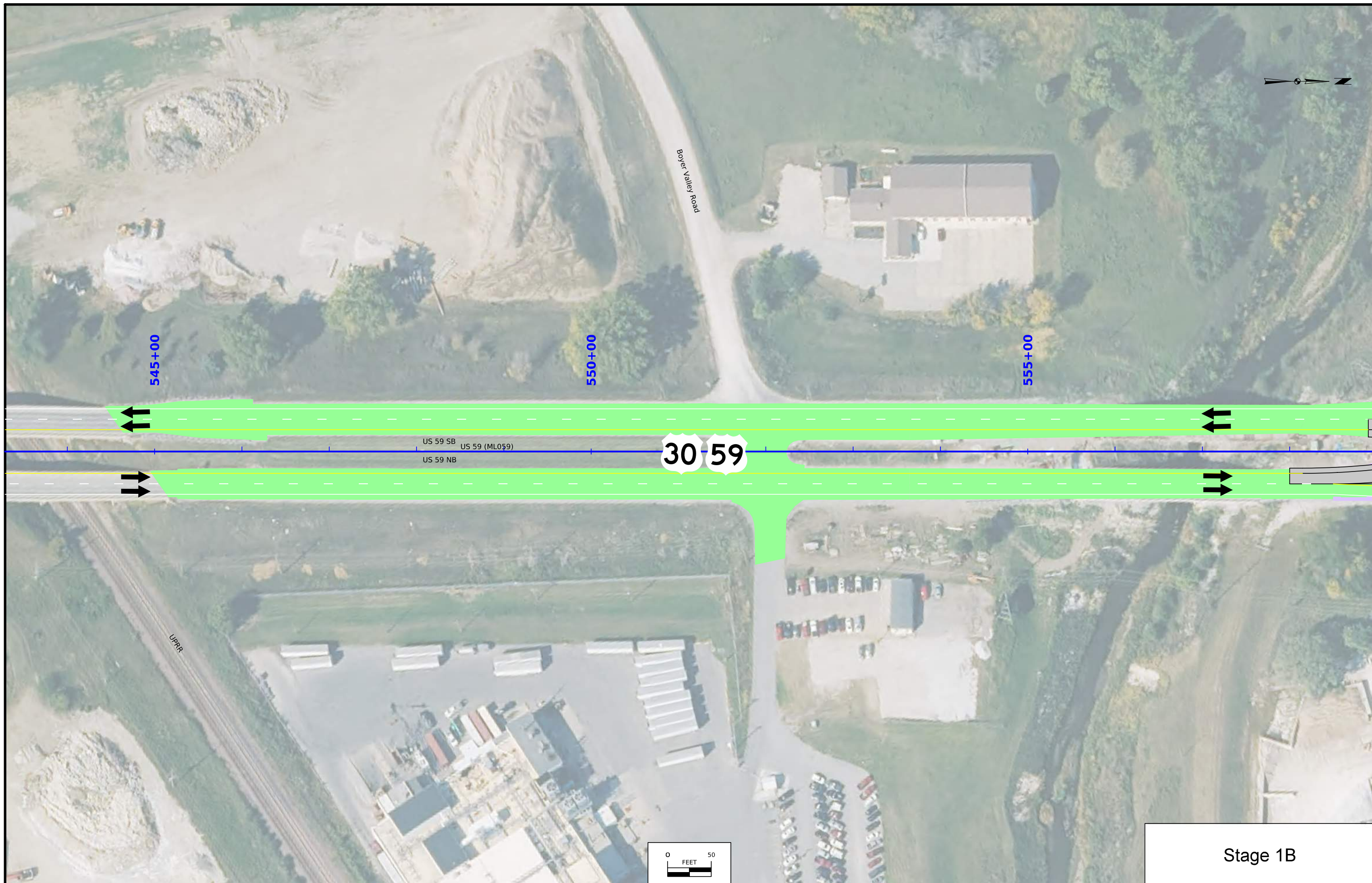


Stage 1B

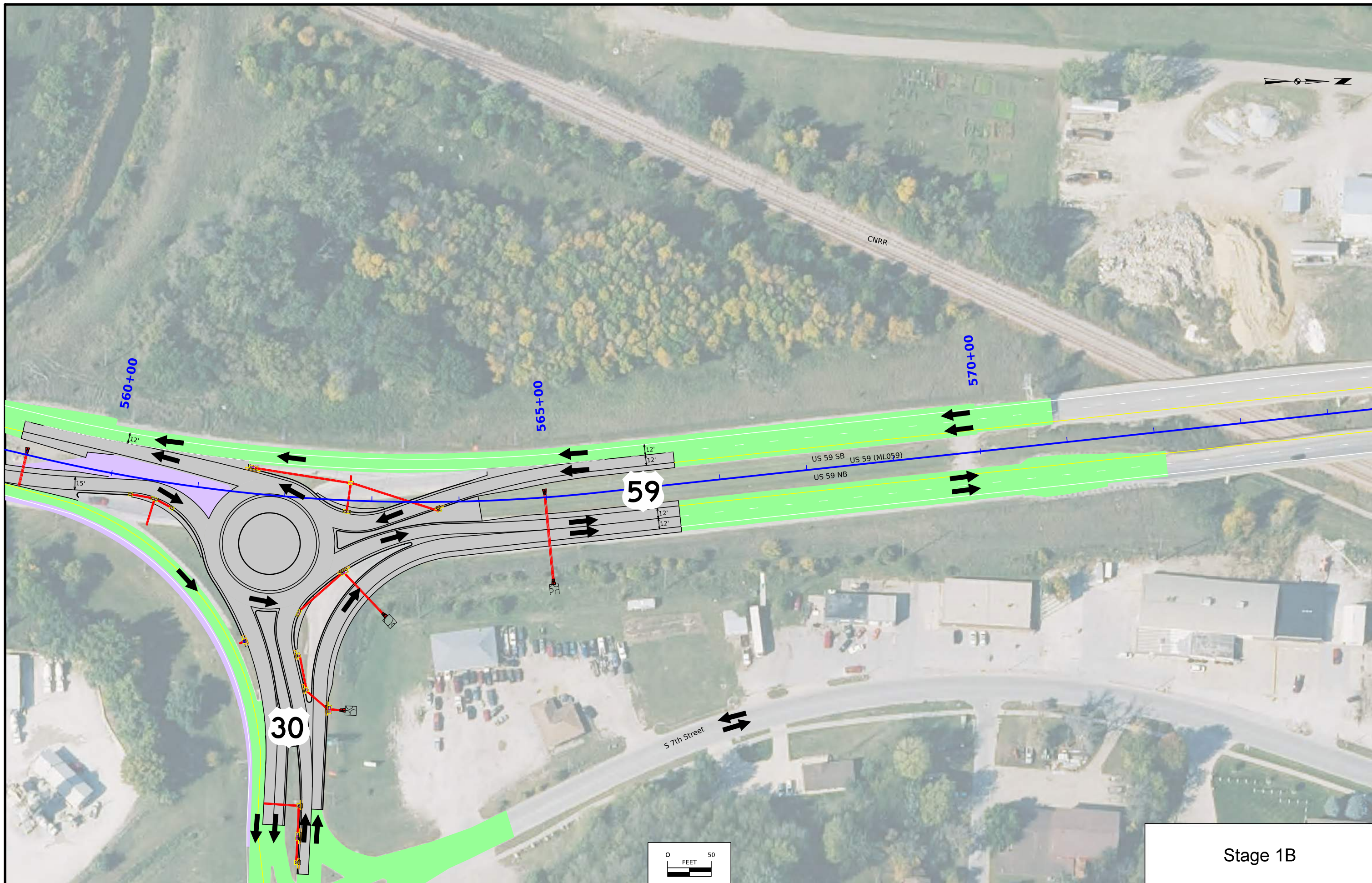
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|----------|---------|------------------------------------|------------------------|---|--------------------------|



Stage 1B



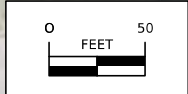
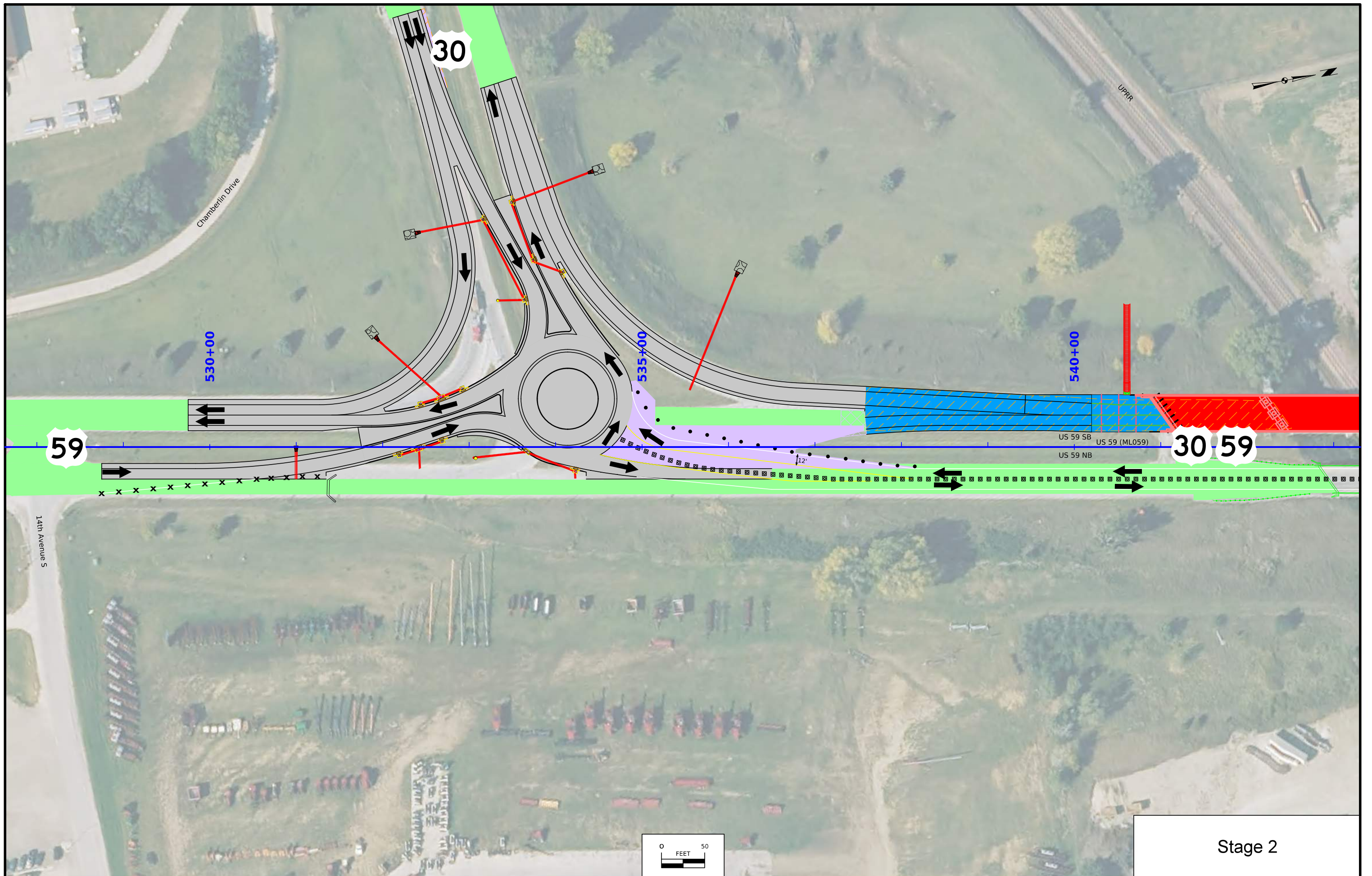
Stage 1B



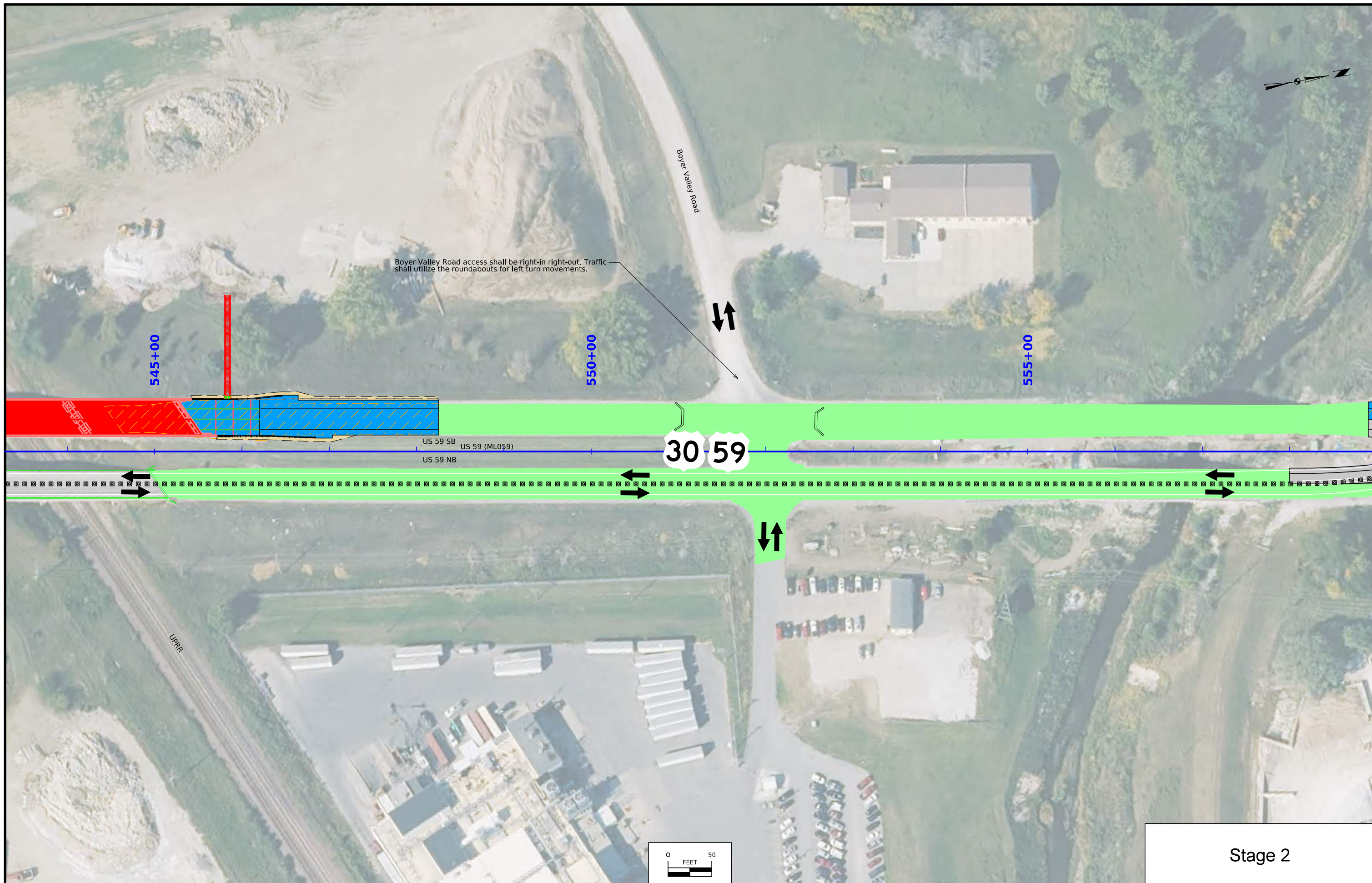
Stage 1B



Stage 2



Stage 2



Boyer Valley Road access shall be right-in right-out. Traffic shall utilize the roundabouts for left turn movements.

30 59

US 59 SB
US 59 (ML059)
US 59 NB

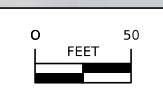
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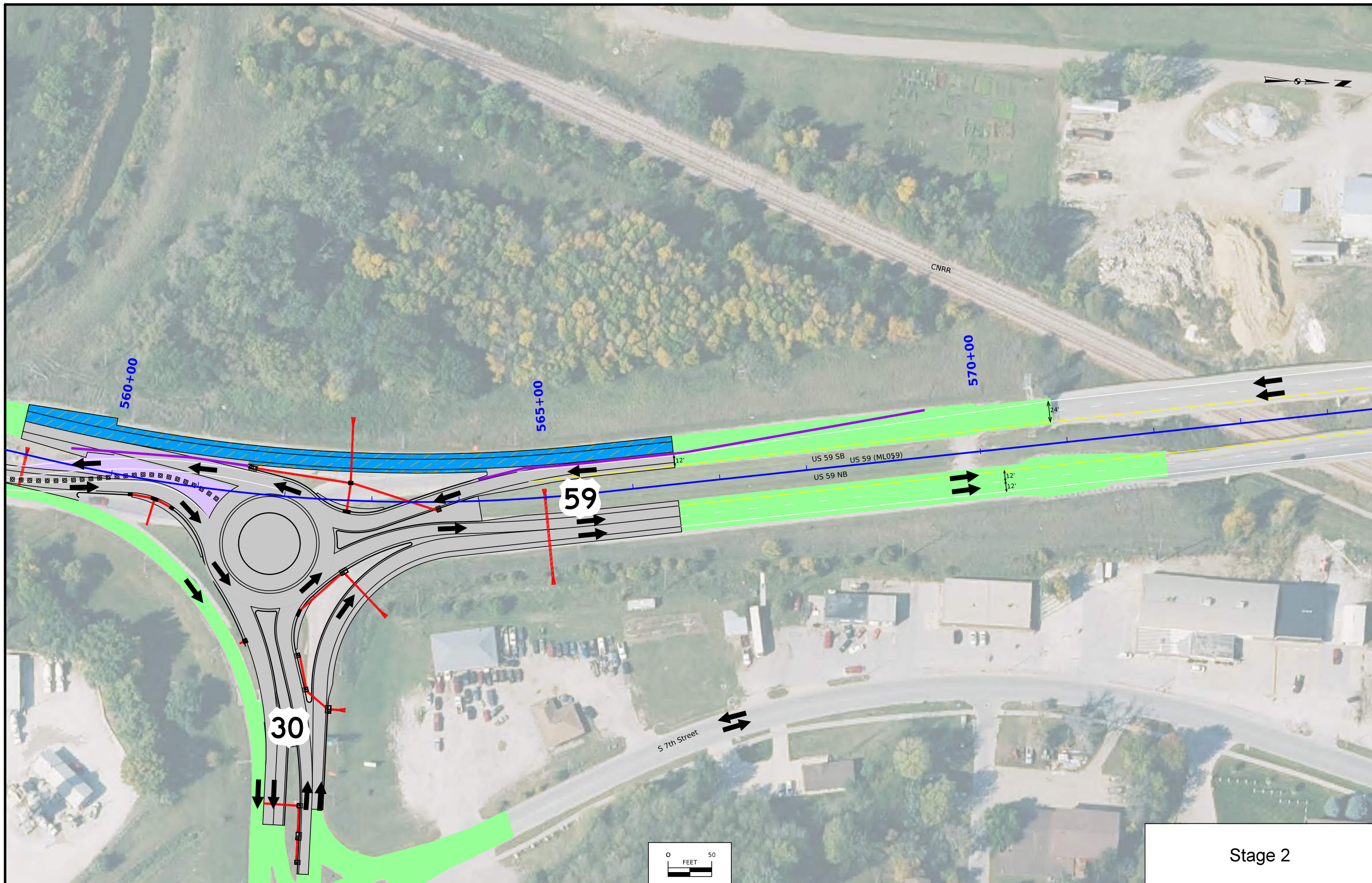
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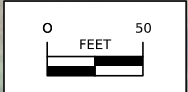
UPRR

Stage 2



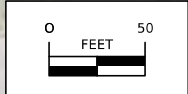
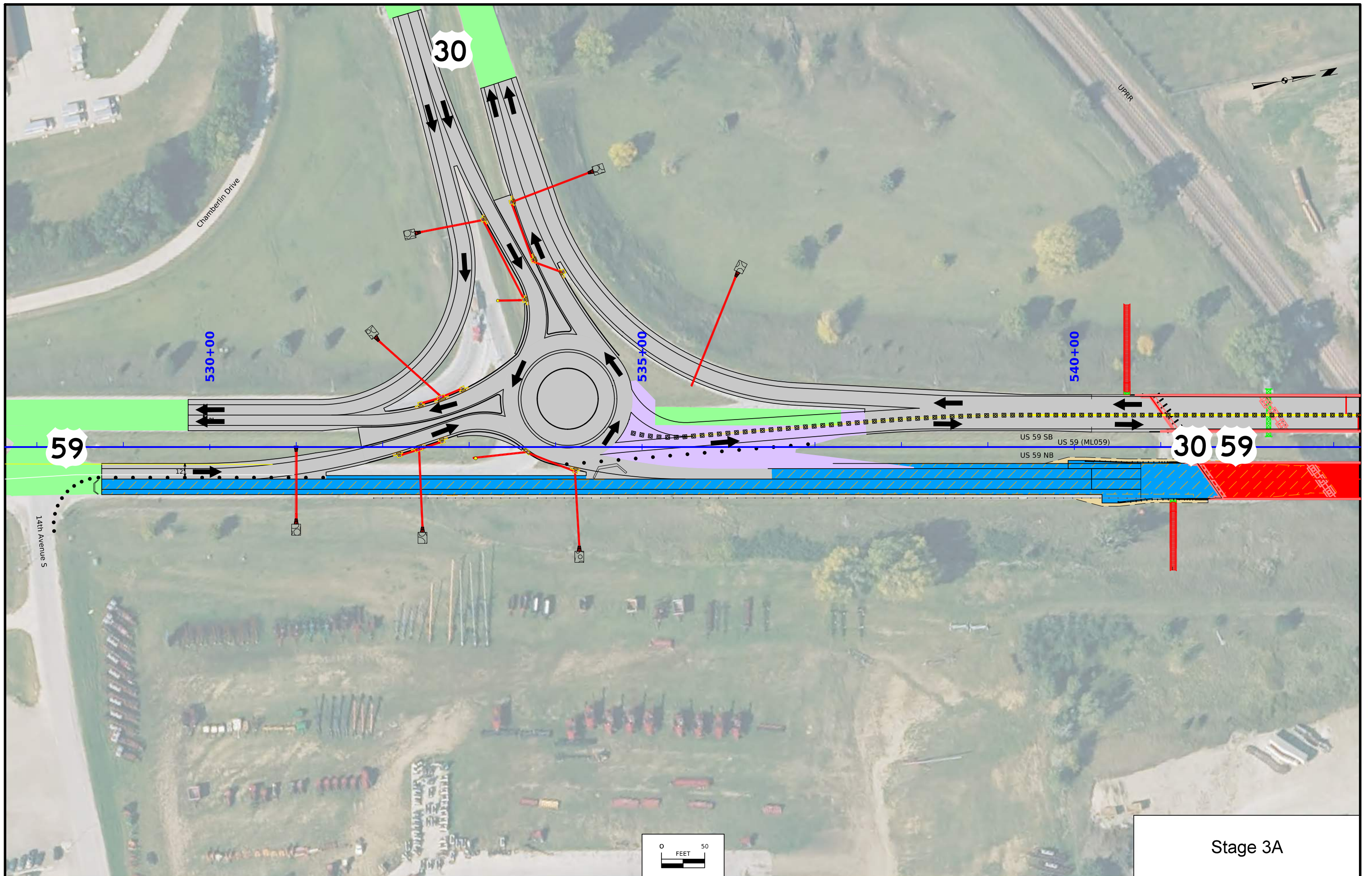


Stage 2

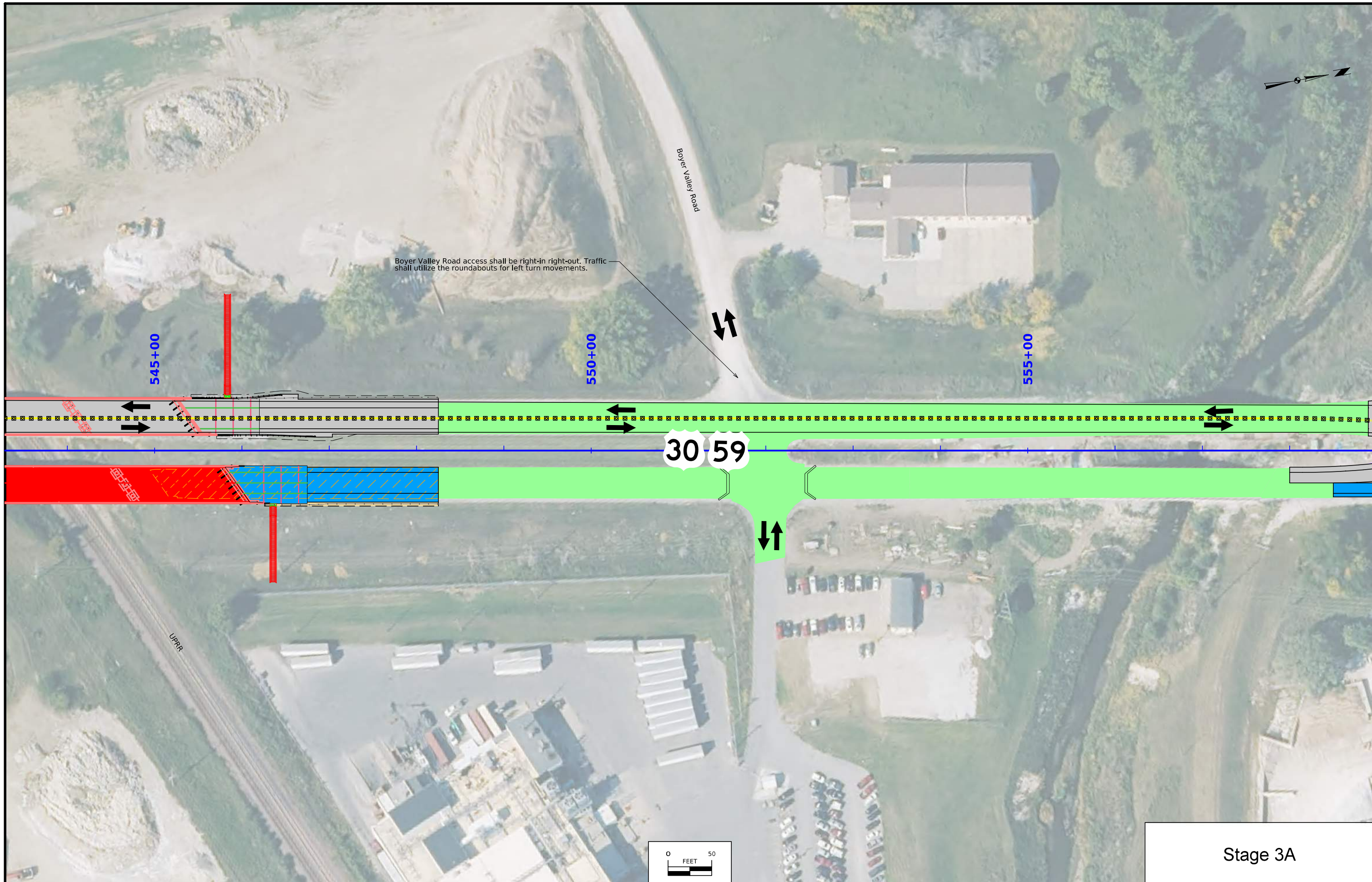


Stage 3A

| | | | | | |
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|----------|---------|------------------------------------|------------------------|---|--------------------------|



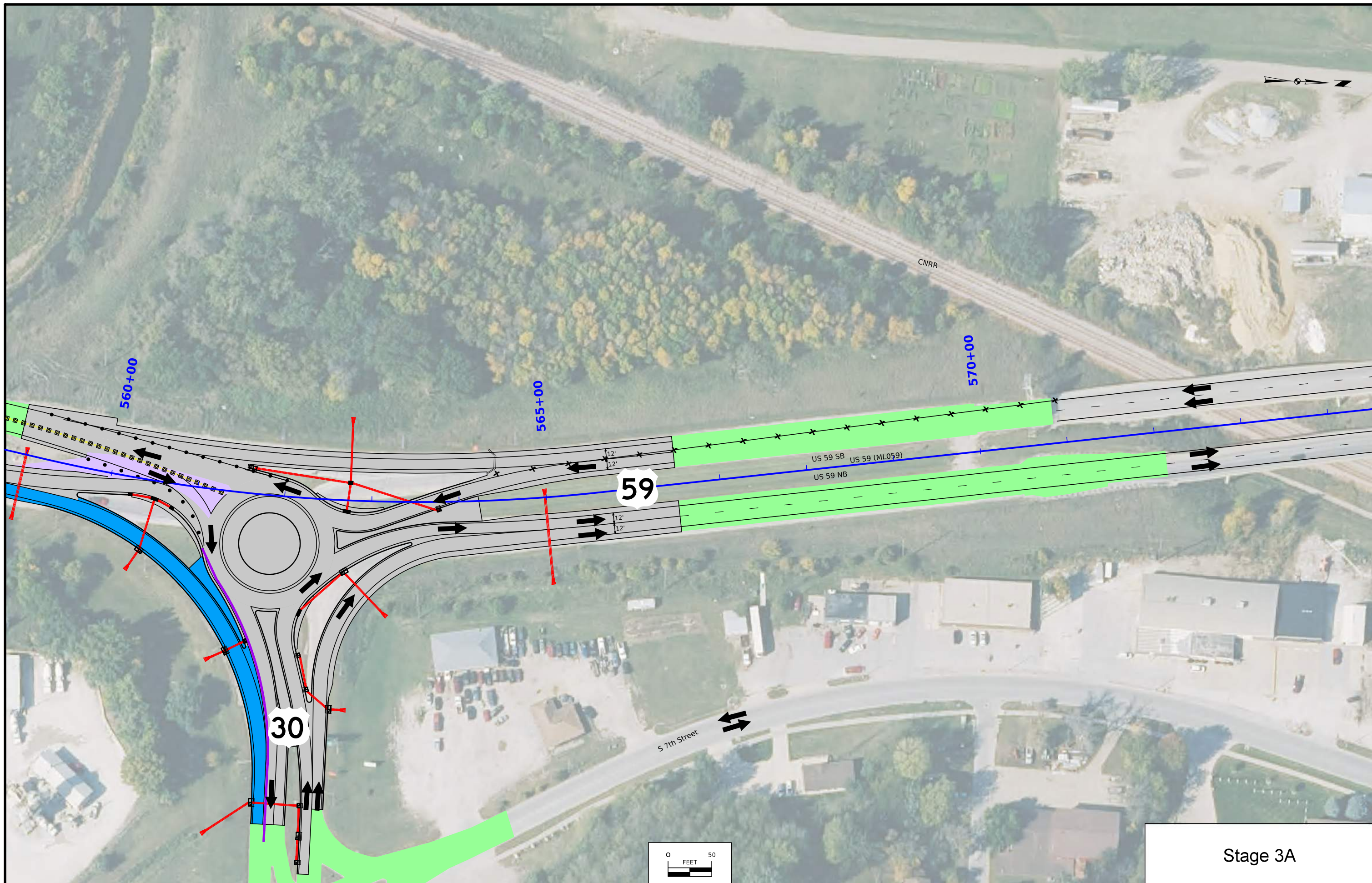
Stage 3A



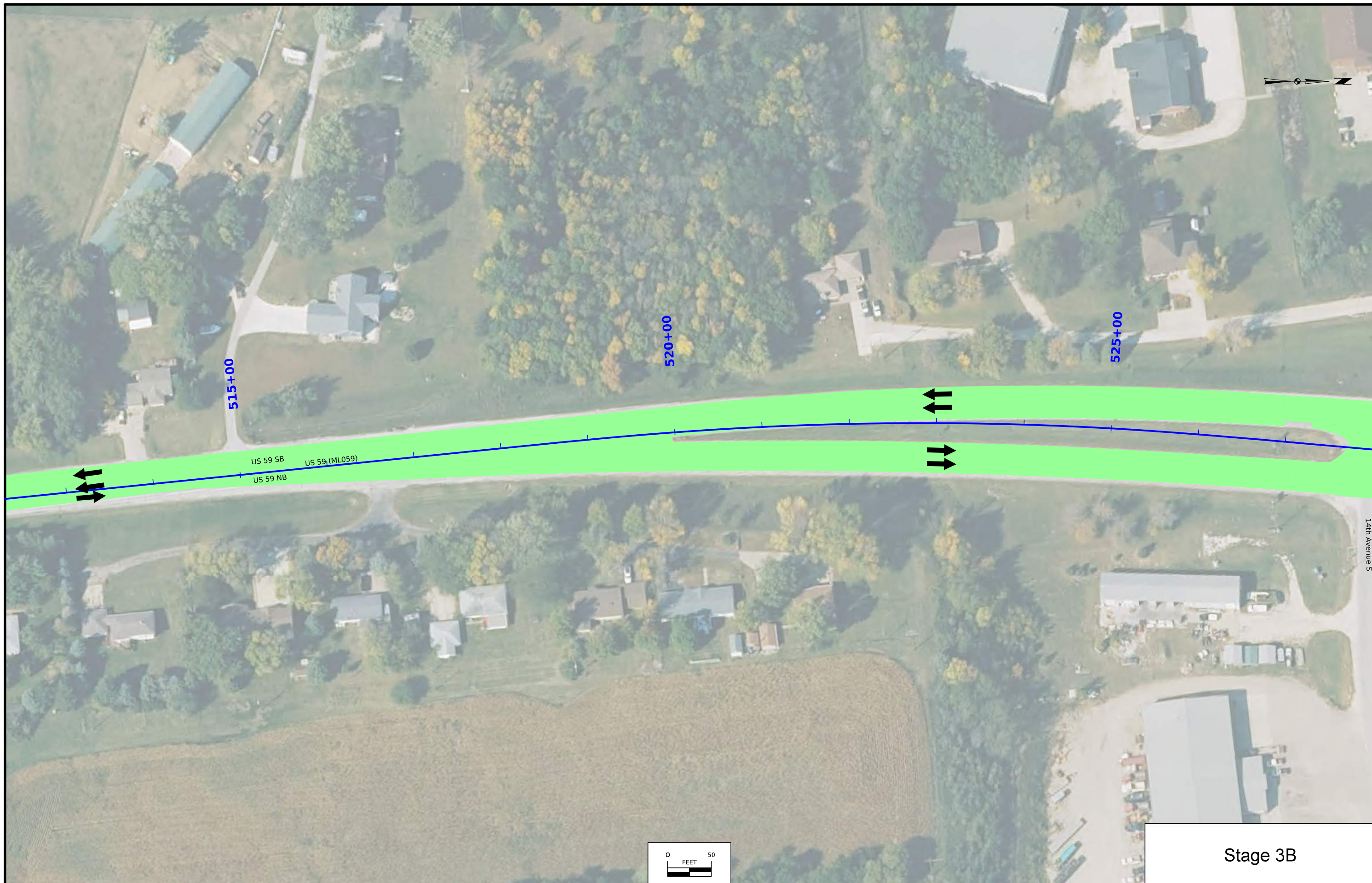
Boyer Valley Road access shall be right-in right-out. Traffic shall utilize the roundabouts for left turn movements.

30 59

Stage 3A



Stage 3A

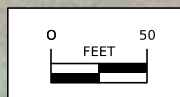
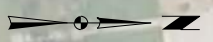


US 59 SB
US 59 NB

515+00

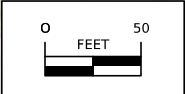
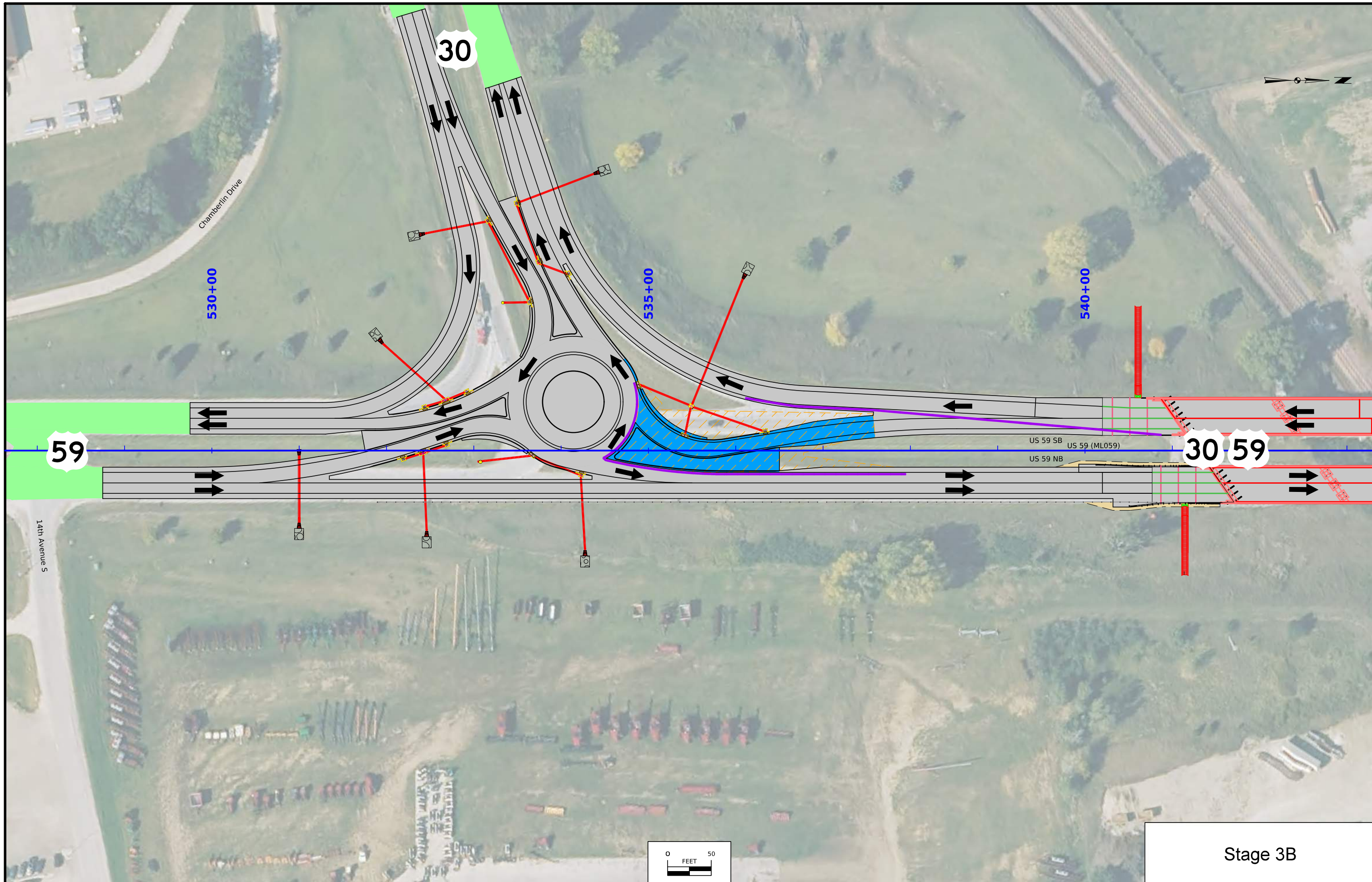
520+00

525+00

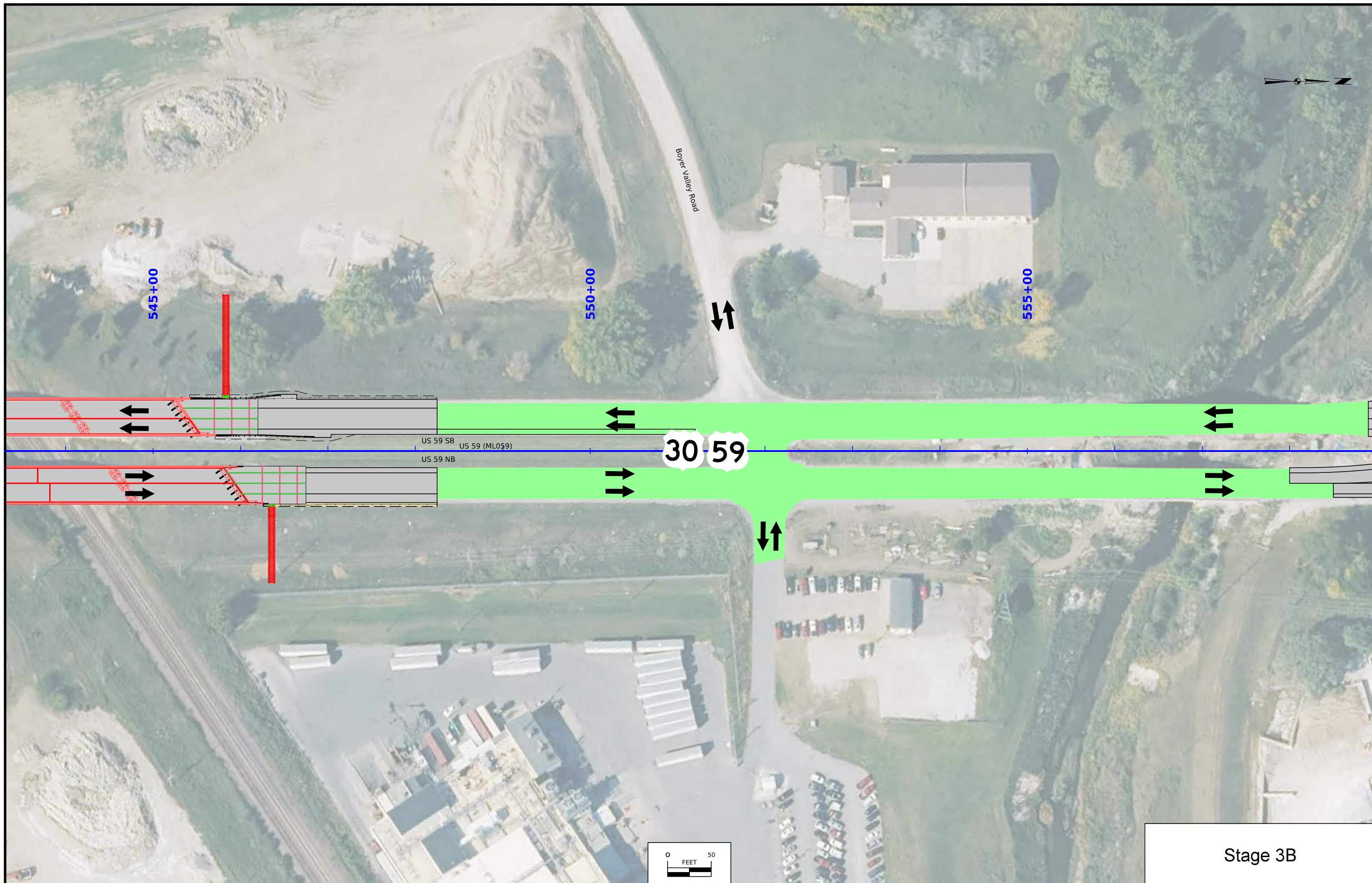


Stage 3B

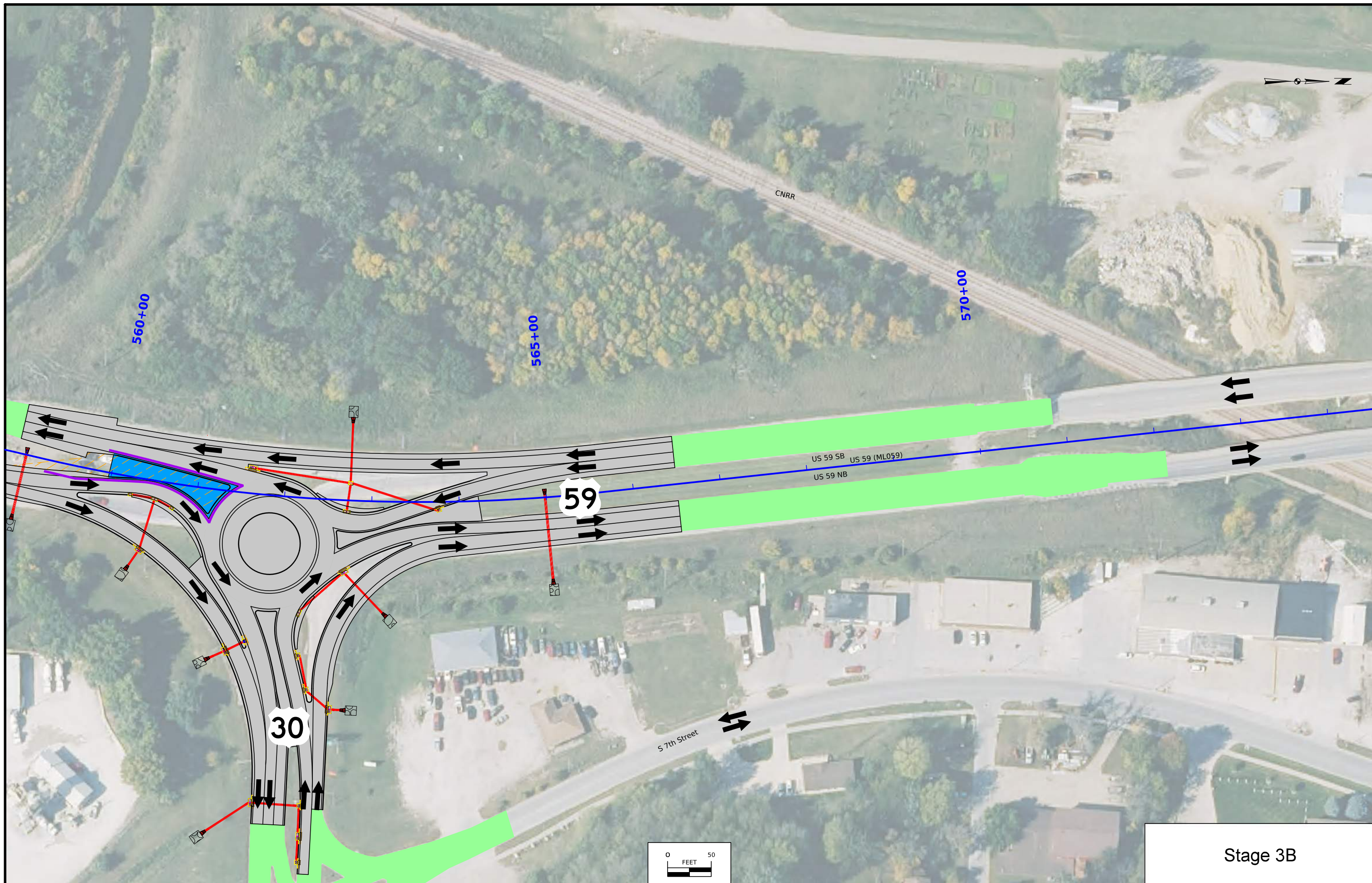
14th Avenue S



Stage 3B



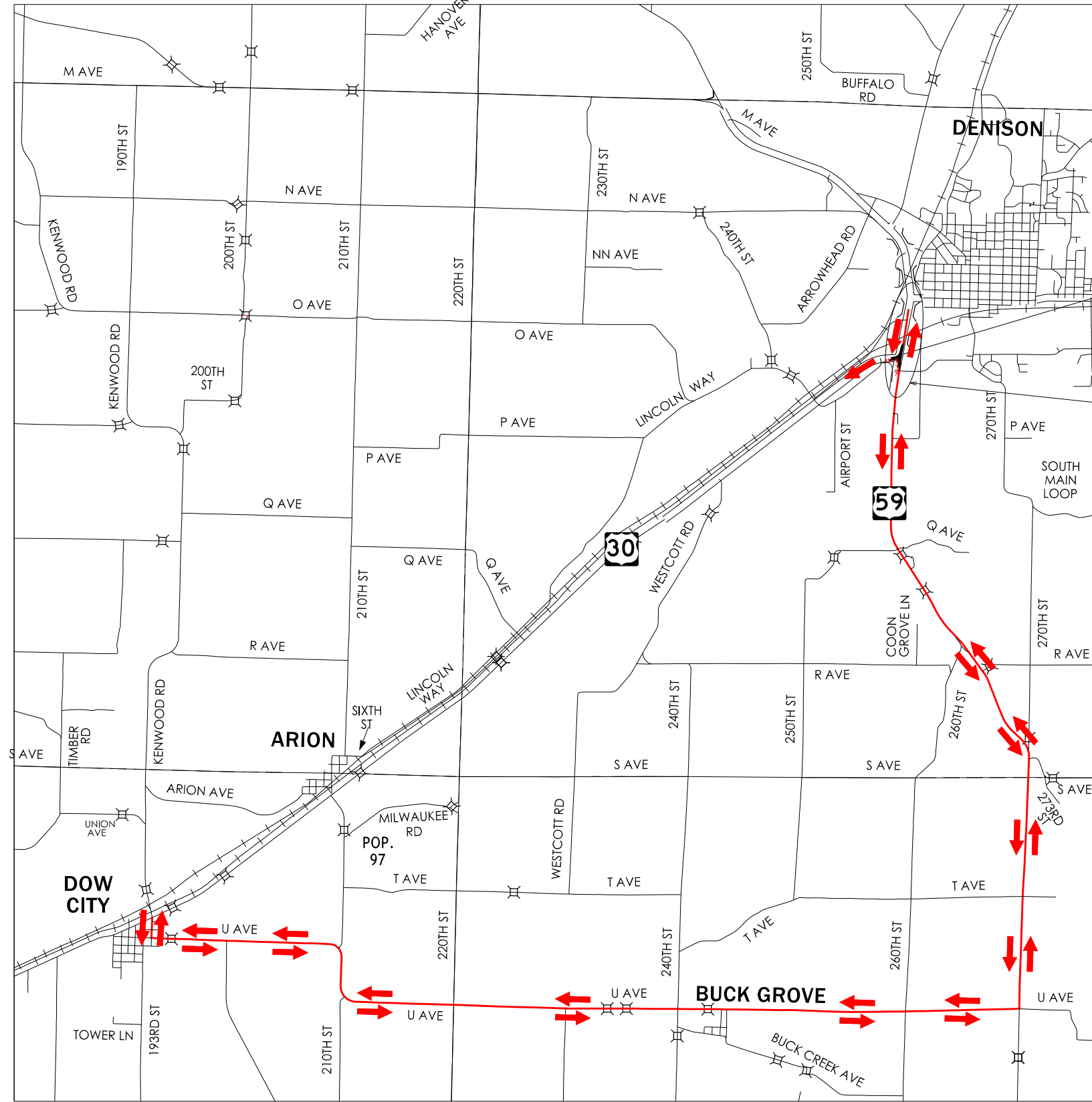
Stage 3B



Stage 3B



- NOTES:**
1. Contractor to supply, install, maintain, and remove all detour signing installed on Iowa DOT routes as well as City and country routes, for the duration of the project.
 2. All sign locations are approximate and may be adjusted to fit field conditions.
 3. For road closure details, see Standard Road Plan TC-252 and Standard Specification 2528.



US-30 NB CLOSED AT SOUTH JUNCTION DURING CONSTRUCTION OF SOUTH ROUNDABOUT

Project Location

Note: Install detour signage prior to construction of N. Junction Roundabout.

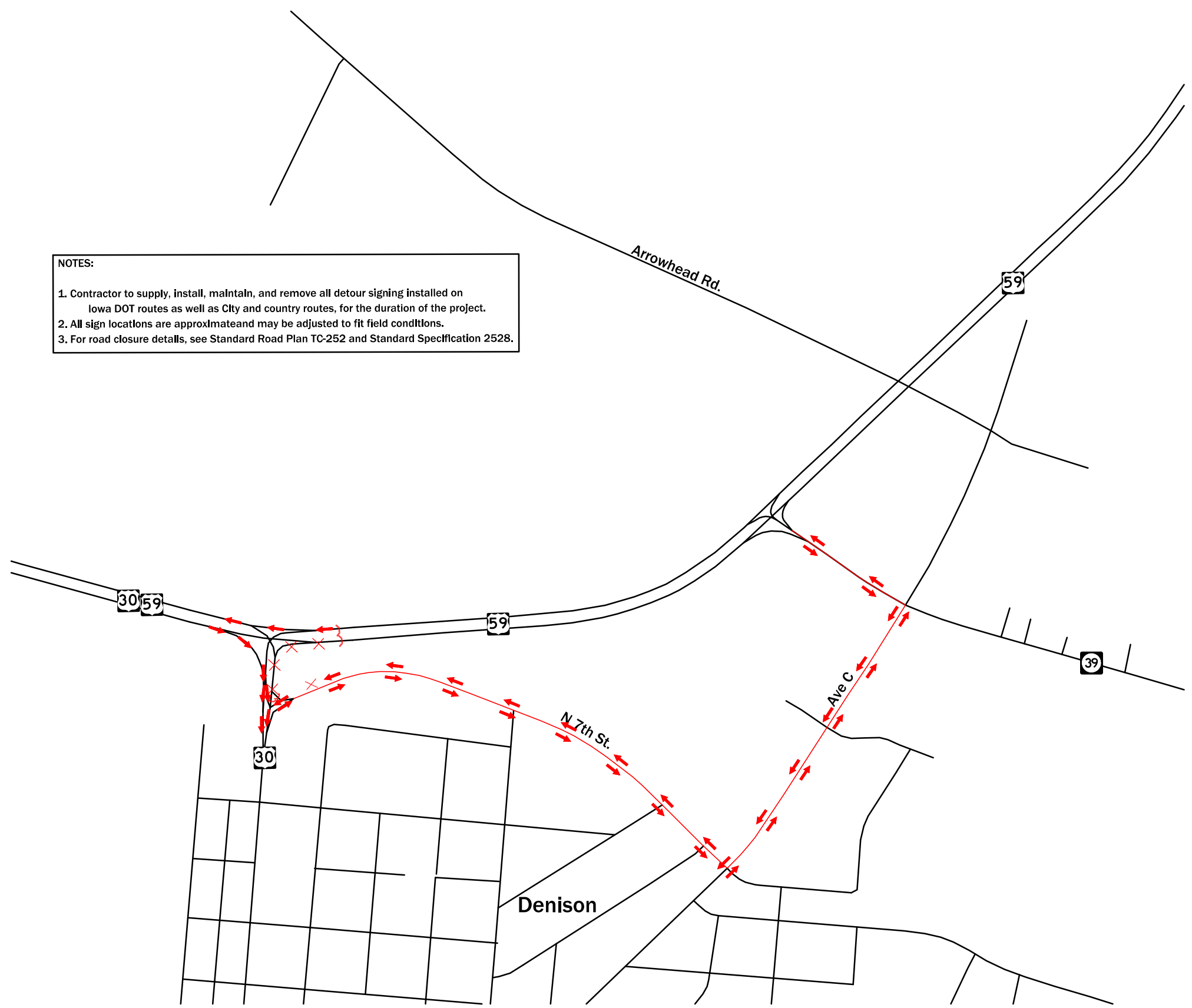
DETOUR MAP
NTS

DETOUR ROUTE
STAGES 1A and 1B
SOUTH ROUNDABOUT



NOTES:

1. Contractor to supply, install, maintain, and remove all detour signing installed on Iowa DOT routes as well as City and country routes, for the duration of the project.
2. All sign locations are approximate and may be adjusted to fit field conditions.
3. For road closure details, see Standard Road Plan TC-252 and Standard Specification 2528.

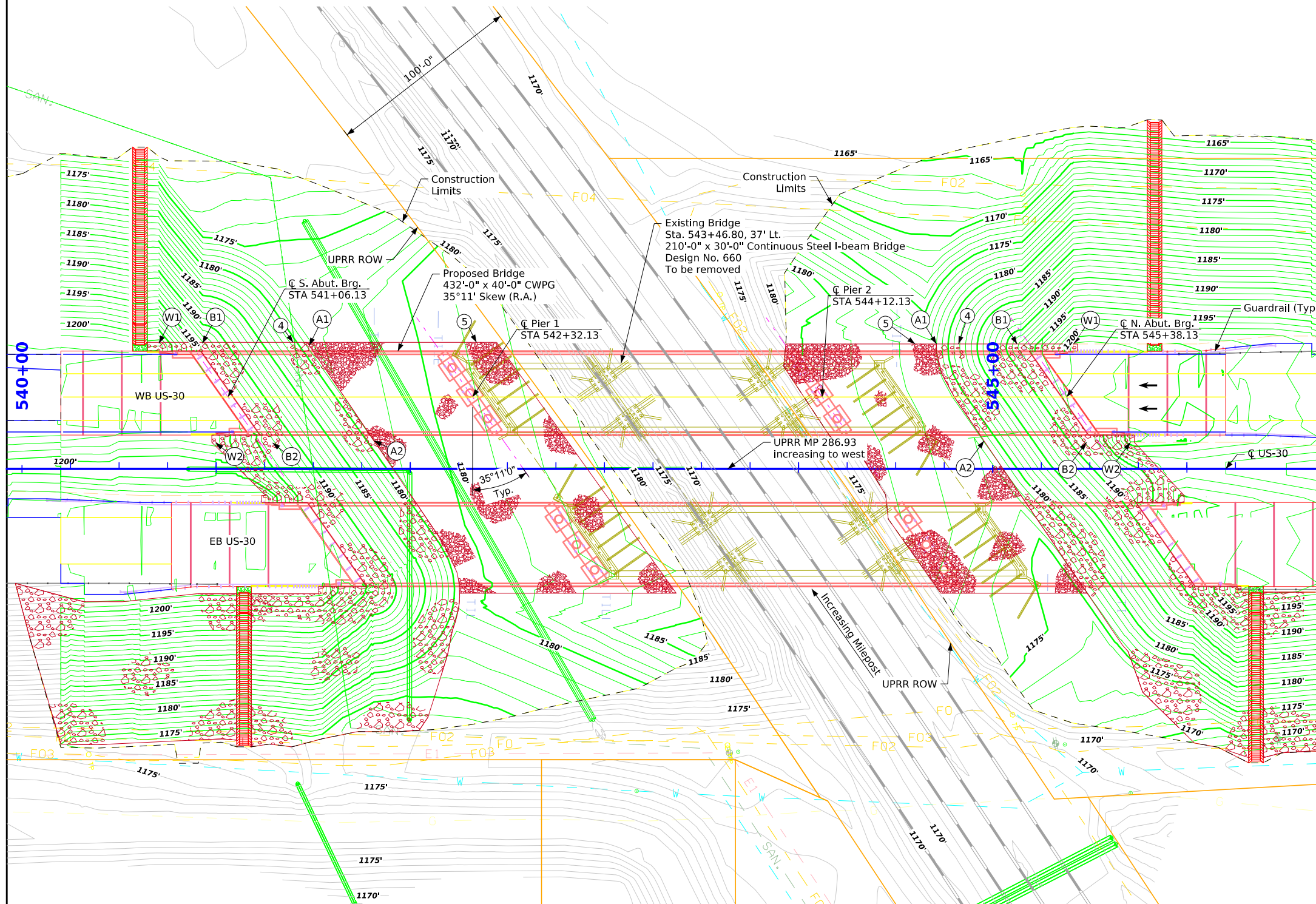


Note: Install detour signage prior to construction of N. Junction Roundabout.

DETOUR MAP
NTS

DETOUR ROUTE
STAGE 1A and 1B
NORTH ROUNDABOUT

Control Point: N 7239745.53, E 16599491.90; Set FENO Monument in median near the southern intersection of Highway 30 and Highway 59. Elev. 1205.60



- ④ Macadam Stone Slope Protection (Embedded)
- ⑤ Class A Crushed Stone (Embedded)

| Points | South Abutment | | | North Abutment | | |
|--------|----------------|------------|---------|----------------|------------|---------|
| | Station | Offset | Elev. | Station | Offset | Elev. |
| A1 | 541+50.91 | 63.58' Lt. | 1177.78 | 544+69.02 | 63.58' Lt. | 1177.32 |
| A2 | 541+82.77 | 14.42' Lt. | 1178.61 | 544+91.40 | 14.42' Lt. | 1176.98 |
| B1 | 540+93.81 | 63.58' Lt. | 1193.37 | 545+12.97 | 63.58' Lt. | 1192.33 |
| B2 | 541+28.47 | 14.42' Lt. | 1193.37 | 545+47.63 | 14.42' Lt. | 1192.33 |
| W1 | 540+70.56 | 63.58' Lt. | 1202.63 | 545+41.62 | 63.58' Lt. | 1201.42 |
| W2 | 540+99.82 | 14.42' Lt. | 1202.70 | 545+70.93 | 14.42' Lt. | 1200.93 |

Berm slope elevations reflect the grading surface.

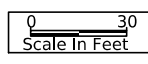


- Design Notes**
- TSS TL-5 Bridge Railing Proposed (3'-8" Barrier Height)
 - Frame Type Pier Proposed assumed 4'-0" column width, pier type may change in final design and will require a review of heavy construction requirements.
 - Substantial shoring is required to build the buried pile cap. During final design, consider replacing piles, pile cap and columns with drilled shafts installed from EL 1190 ±. Final grading below Pier No. 1 and the south approach would occur after traffic is shifted to the new WB bridge, thereby minimizing the need for shoring. If drilled shafts are used, they shall be designed and constructed with a permanent casing to protect the track against cave-in, subsidence and/or displacement of the surrounding ground. The casing shall be designed for live loads due to the Railroad surcharge in addition to all other applicable loads.

Site Plan

PRELIMINARY

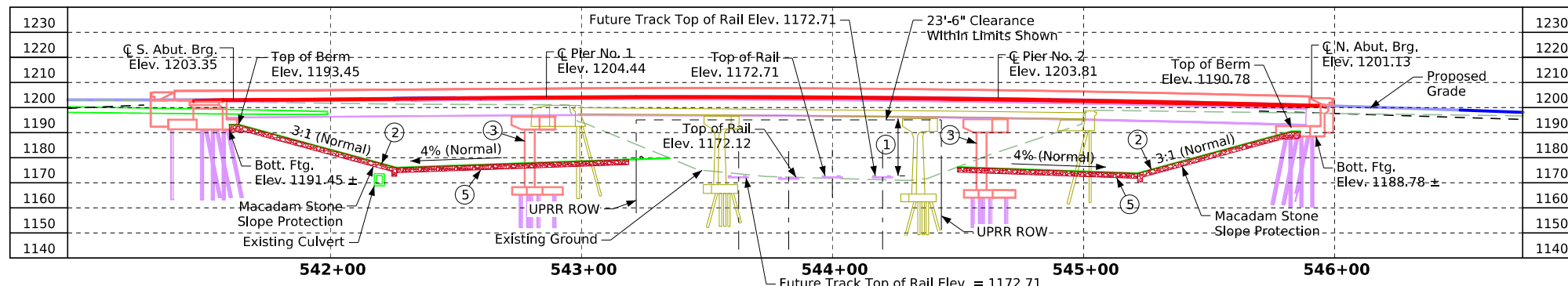
Design For 35°11' Skew (R.A.)
432'-0" x 40'-0" Continuous Welded Plate Girder Bridge
 126'-0" End Spans 180'-0" Interior Span
Situation Plan-Site
 STA. 543+22.13 (US 30 WB) Turn-in Date: Jul. 2025
Crawford County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. 0229 Design Sheet No. 2 of 5 FHWA No. 021341



Control Point: N 7239745.53, E 16599491.90; Set FENO Monument in median near the southern intersection of Highway 30 and Highway 59. Elev. 1205.60

- ① Minimum vertical clearance = 23.58'
- ② Grading Surface
- ③ Frame Pier
- ④ Macadam Stone Slope protection (Embedded)
- ⑤ Class A Crushed Stone (Embedded)

Note:
Top of bridge deck at centerline roadway is 0.21' above the profile grade to account for deck cross slope and parabolic crown.



Longitudinal Section Along EB US 30

Traffic Estimate

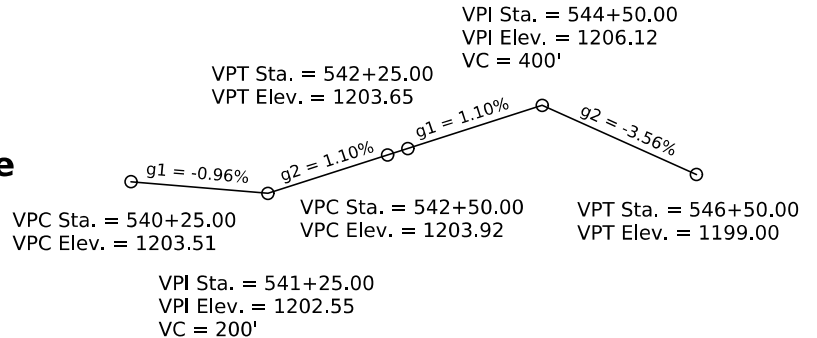
| US-30 | |
|--------------------|---------------|
| 2027 AADT | 9,300 V.P.D. |
| 2047 AADT | 10,200 V.P.D. |
| 2047 DHV | 1,050 V.P.H. |
| TRUCKS | 16 % |
| Total Design ESALs | -- |

Design Notes

- TSS TL-5 Bridge Railing Proposed (3'-8" Barrier Height)
- Frame Type Pier Proposed assumed 4'-0" column width, pier type may change in final design and will require a review of heavy construction requirements. If drilled shafts are used, drilled shafts within the influence of track surcharge shall be designed and constructed with a permanent casing to protect the track against cave-in, subsidence and/or displacement of the surrounding ground. The casing shall be designed for live loads due to railroad surcharge in addition to all other applicable loads.
- Wing extensions are 11'-0".
- Note possible pile conflicts at Pier 2. Review need for pre-drilling of proposed pile.
- This design is for the replacement of the existing 210'-0" x 30'-0" continuous steel I-beam bridge, Crawford Design No. 660, FHWA No. 021330, Maint. No. 2454.2L030.
- Bridge Deck Drainage shall be collected and discharged outside of the UPRR ROW. Deck drainage discharge shall drain away from the UPRR ROW. The proposed bridge structure will not change the quantity and characteristics of the flow in the railroad ditches and drainage structures.
- The final designer shall coordinate with final sign truss designer on relocated location and bridge accommodations as needed.
- The existing bridge shall be removed by cut and pick, beginning with the middle span and working outward. Rubblization is not preferred but a variance may be requested by the Contractor to UPRR. Falsework plans will need to be reviewed by UPRR in advance of bridge demolition. Any jack and bore will need to be reviewed for vibrations zones.

Minimum Vertical Clearance

Overhead Station = 544+56.67, Offset 57.08' Rt.
Overhead Elevation = 1203.54
Depth of Superstructure = 7.2 ft.
Deck Thickness = 8.5 in.
Estimated Haunch = 2 in.
Beam Depth = 6.325 ft.
Underpass Station = 9+08.08, 32.82' Rt.
Top of Rail Elevation = 1172.76
Minimum Vertical Clearance = 23.58'



Proposed Profile Grade US-30 WB

Utilities Note:

Utilities shown on this sheet are for information only. See Road Design sheets for utility information.

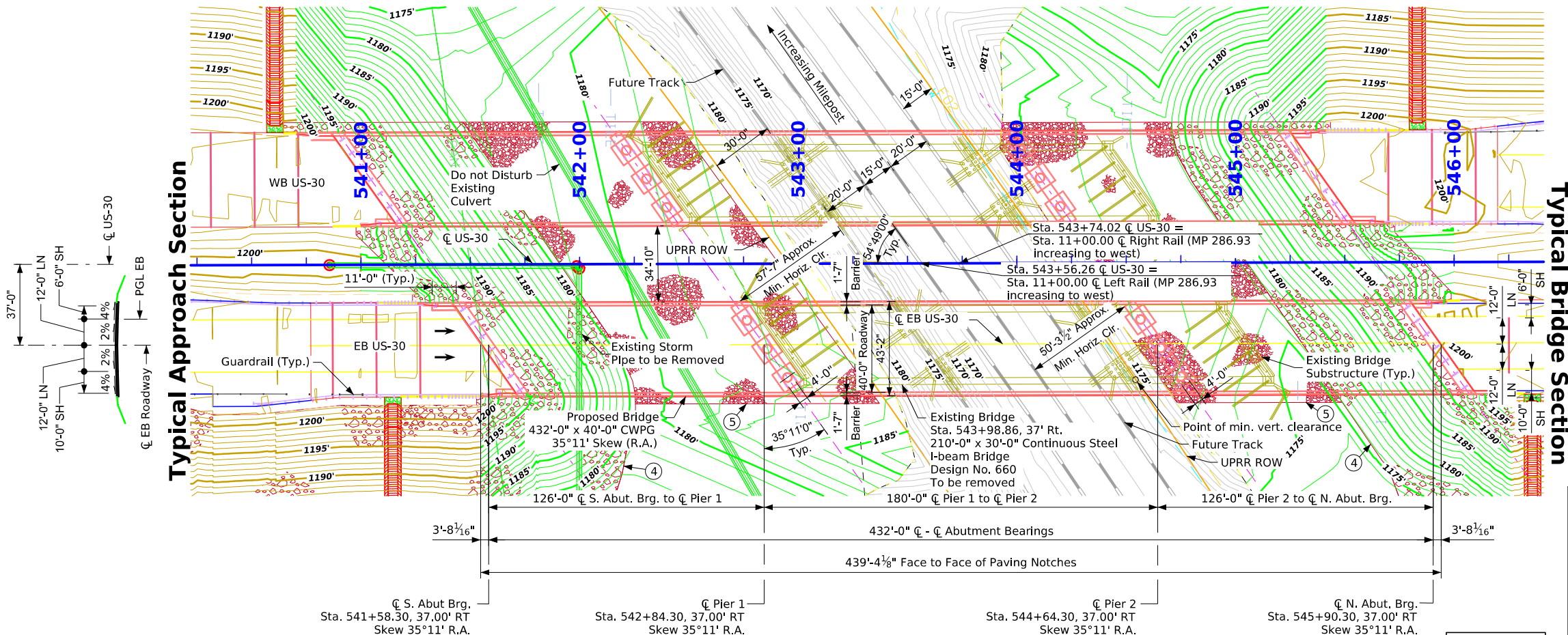
General Utility Symbols:

- E - Electric Line
- G - Gas Line
- SAN. - Sanitary Sewer
- T - Telephone Line
- W - Water Line
- FO - Fiber Optic Line
- GHP - Gas High Pressure
- ST S - Storm Sewer
- TV - TV
- Power Poles

Location

EB US-30 over UPRR
T-83N R-39W
Section 15
Denison Township
Crawford County
FHWA No. 021331
Latitude 42.007027°
Longitude -95.366470°

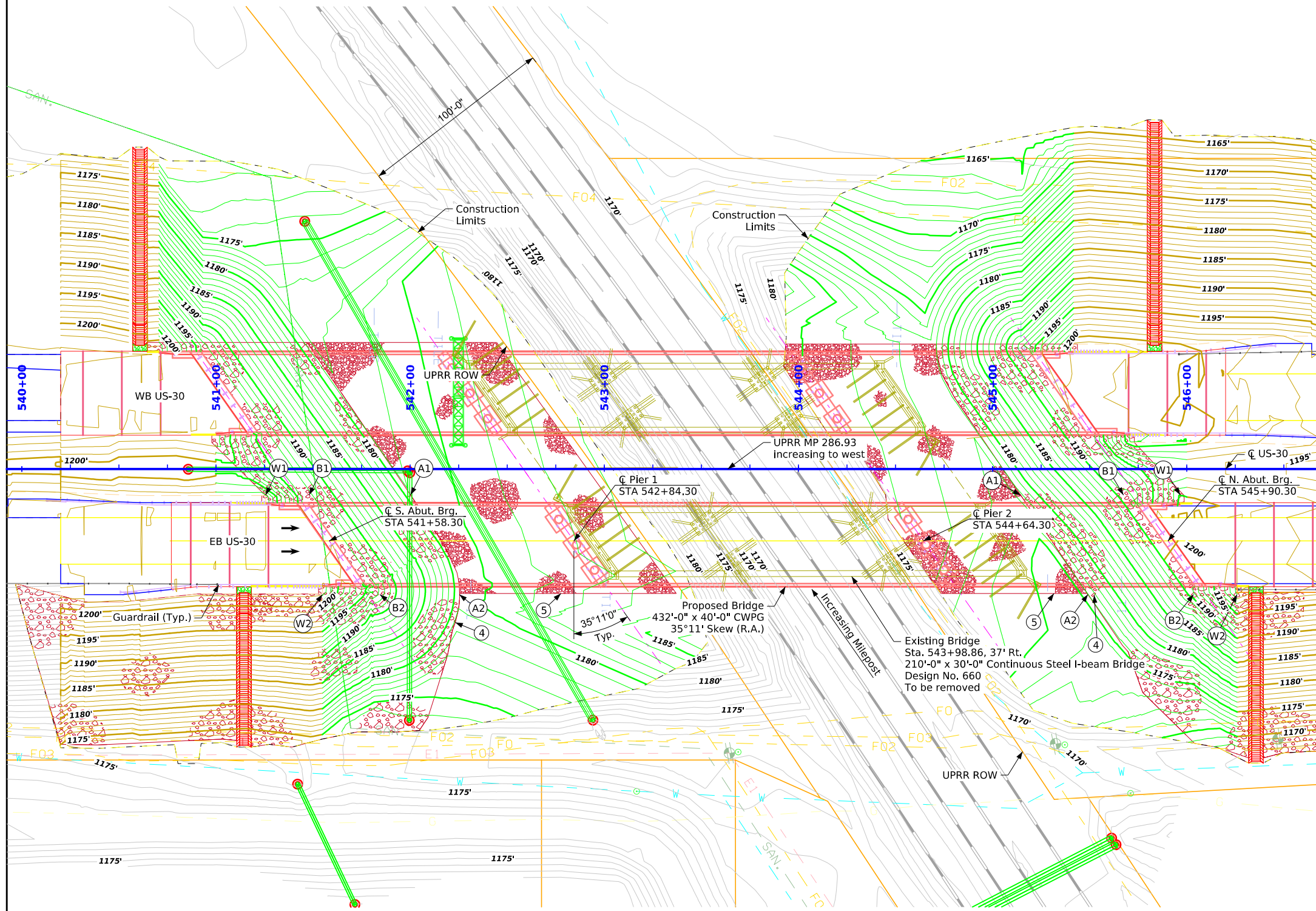
PRELIMINARY



Situation Plan

Design For 35°11' Skew (R.A.)
432'-0" x 40'-0" Continuous Welded Plate Girder Bridge
126'-0" End Spans 180'-0" Interior Span
Situation Plan
STA. 543+74.30 (US 30 EB) Turn-in Date: Jul. 2025
Crawford County
IOWA DEPARTMENT OF TRANSPORTATION
Design No. 0129 Design Sheet No. 3 of 5 FHWA No. 021331

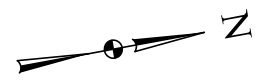
Control Point: N 7239745.53, E 16599491.90; Set FENO Monument in median near the southern intersection of Highway 30 and Highway 59. Elev. 1205.60



- ④ Macadam Stone Slope Protection (Embedded)
- ⑤ Class A Crushed Stone (Embedded)

| Berm Slope Location Table | | | | | | |
|---------------------------|----------------|------------|---------|----------------|------------|---------|
| Points | South Abutment | | | North Abutment | | |
| | Station | Offset | Elev. | Station | Offset | Elev. |
| A1 | 542+01.47 | 14.42' Rt. | 1179.07 | 545+10.10 | 14.42' Rt. | 1176.43 |
| A2 | 542+24.44 | 63.58' Rt. | 1179.44 | 545+41.98 | 63.58' Rt. | 1174.23 |
| B1 | 541+48.80 | 14.42' Rt. | 1193.45 | 545+67.96 | 14.42' Rt. | 1190.78 |
| B2 | 541+83.46 | 63.58' Rt. | 1193.45 | 546+02.62 | 63.58' Rt. | 1190.78 |
| W1 | 541+25.55 | 14.42' Rt. | 1202.68 | 545+96.61 | 14.42' Rt. | 1200.26 |
| W2 | 541+54.81 | 63.58' Rt. | 1202.57 | 546+25.86 | 63.58' Rt. | 1199.28 |

Berm slope elevations reflect the grading surface.

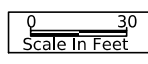


- Design Notes**
- TSS TL-5 Bridge Railing Proposed (3'-8" Barrier Height)
 - Frame Type Pier Proposed assumed 4'-0" column width, pier type may change in final design and will require a review of heavy construction requirements. If drilled shafts are used, drilled shafts within the influence of track surcharge shall be designed and constructed with a permanent casing to protect the track against cave-in, subsidence and/or displacement of the surrounding ground. The casing shall be designed for live loads due to railroad surcharge in addition to all other applicable loads.

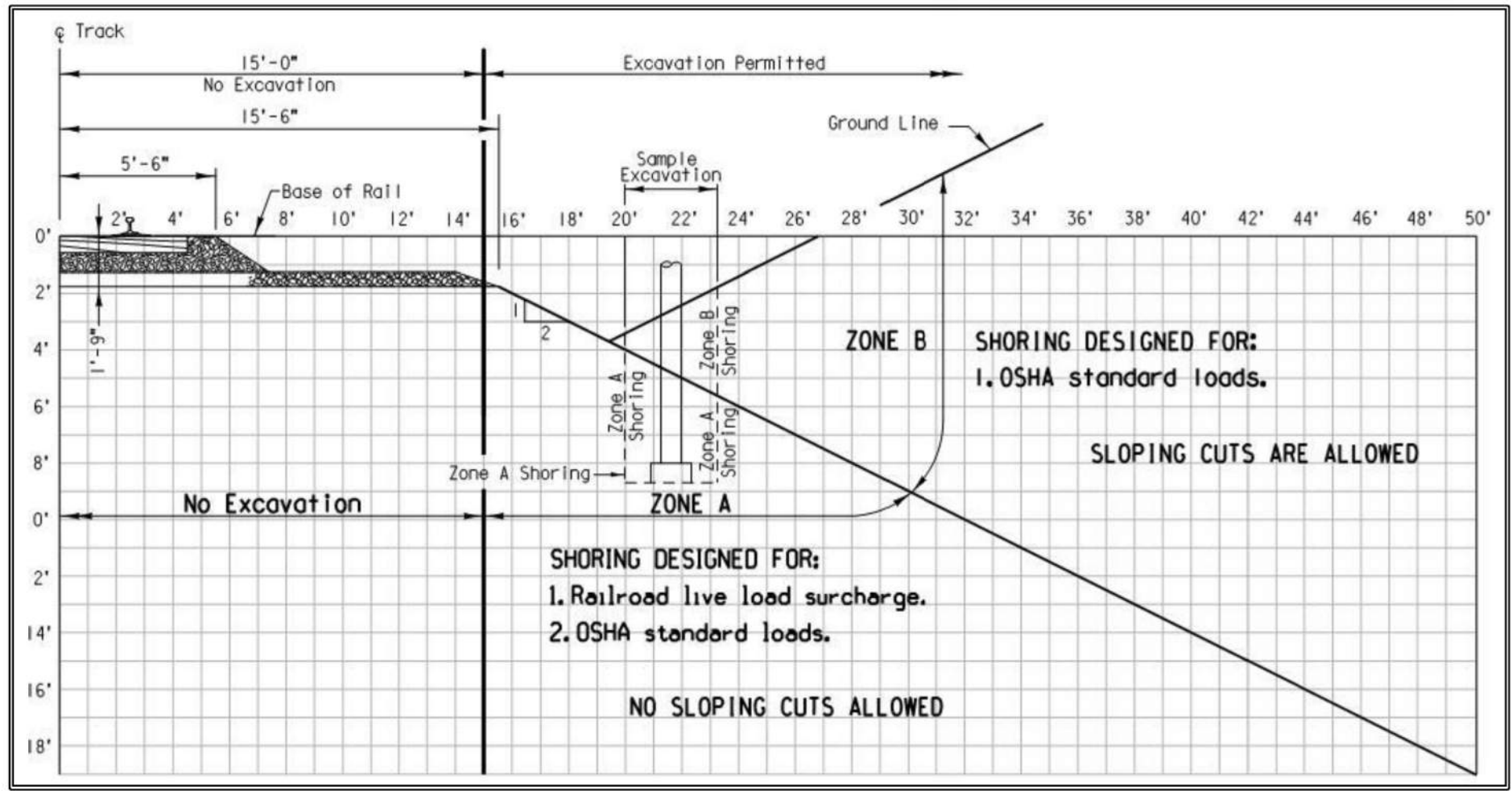
Site Plan

PRELIMINARY

Design For 35°11' Skew (R.A.)
432'-0" x 40'-0" Continuous Welded Plate Girder Bridge
 126'-0" End Spans 180'-0" Interior Span
Situation Plan-Site
 STA. 543+74.30 (US 30 EB) Turn-in Date: Jul. 2025
Crawford County
 IOWA DEPARTMENT OF TRANSPORTATION
 Design No. 0129 Design Sheet No. 4 of 5 FHWA No. 021331



Revised 07-2019: For UPRR, Changed Horizontal Distance of Minimum Construction Clearance Envelope to 15'-0" (Was 12'-0").
 Revised 03-2022: Updated "General Excavation Zones" Detail and "General Shoring Notes" to Follow the "UPRR & BNSF Guidelines for Temporary Shoring, 2021".
 Issued 12-2008.
 MiscellaneousBridges.dgn - 1067 - This Sheet Re-Issued 11-2023. Sheet Format Update.



General Excavation Zones
 Source: UPRR Guideline for Temporary Shoring, 2021

Railroad General Notes:

Railroad review and approval of shoring, erection, demolition, and falsework is required. Allow a minimum of four weeks for the review and approval of each submittal.

The proposed grade separation project shall not increase the quantity and/or characteristics of the flow in the railroad's ditches and/or drainage structures.

The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the railroad prior to construction.

The Contractor must submit a proposed method of erosion and sediment control and have the method approved by the railroad.

All shoring systems that impact the railroad's operations and/or supports the railroad's embankment shall be designed and constructed per current railroad guidelines for temporary shoring.

All demolitions within the railroad's right-of-way and/or demolition that may impact the railroad's tracks or operations shall be in compliance with the railroad's demolition guidelines.

Erection over the railroad's right-of-way shall be designed to cause no interruption to the railroad's operation, enabling the track(s) to remain open to traffic per the railroad's requirements.

All construction phasing that may impact the railroad operations shall be designed to cause no interruption to the railroad's operation, enabling the track(s) to remain open to traffic per the railroad's requirements.

False-work clearances shall comply with minimum construction clearances.

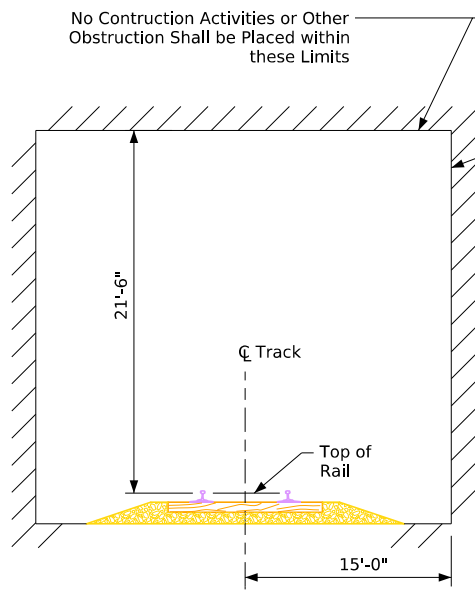
All permanent clearances shall be verified before project closing.

For railroad coordination please refer to the railroad coordination requirements as part of special provisions.

General Shoring Notes:

All dimensions are measured perpendicular to track. Prior to commencing any work, the Contractor shall submit for approval by the Railroad detailed plans indicating the nature and extent of the track protection shoring proposed. The Contractor shall install the temporary shoring system per the approved plans. Design of the temporary shoring system to comply with UPRR Guidelines for Temporary Shoring.

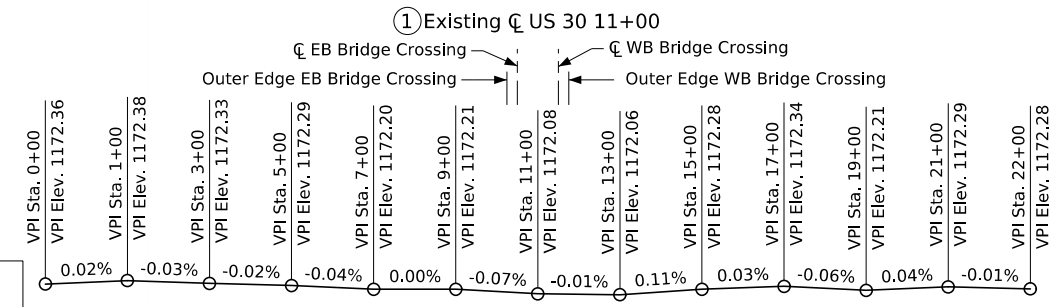
For excavations which encroach into Zone A or B, shoring plans shall be accompanied by design calculations. Plans and calculations must be signed and stamped by a Professional Engineer registered in the State of Iowa.



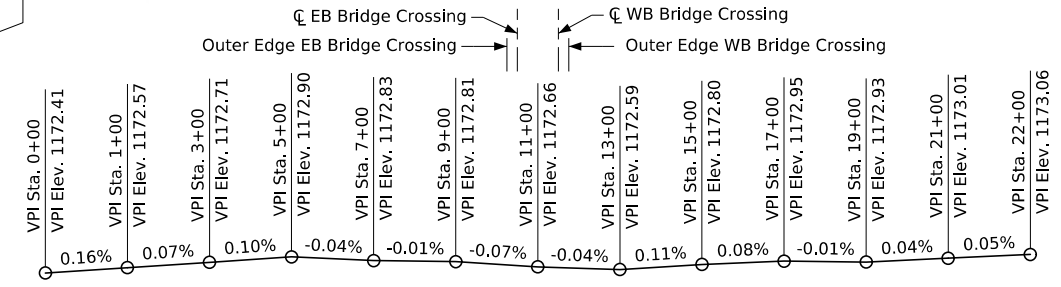
Minimum Construction Clearance Envelope
 (Normal to Railroad)

Top of Rail Elevations
 (Stations Increase with Milepost Increase)

| Main Line | | | |
|----------------------|-----------|-----------------------|-----------|
| Alignment: Left Rail | | Alignment: Right Rail | |
| Station | Elevation | Station | Elevation |
| 0+00 | 1172.36 | 0+00 | 1172.41 |
| 1+00 | 1172.38 | 1+00 | 1172.57 |
| 2+00 | 1172.38 | 2+00 | 1172.62 |
| 3+00 | 1172.33 | 3+00 | 1172.71 |
| 4+00 | 1172.33 | 4+00 | 1172.87 |
| 5+00 | 1172.29 | 5+00 | 1172.90 |
| 6+00 | 1172.21 | 6+00 | 1172.82 |
| 7+00 | 1172.20 | 7+00 | 1172.83 |
| 8+00 | 1172.20 | 8+00 | 1172.85 |
| 9+00 | 1172.21 | 9+00 | 1172.81 |
| 10+00 | 1172.15 | 10+00 | 1172.79 |
| ① 11+00 | 1172.08 | ① 11+00 | 1172.66 |
| 12+00 | 1172.05 | 12+00 | 1172.58 |
| 13+00 | 1172.06 | 13+00 | 1172.59 |
| 14+00 | 1172.16 | 14+00 | 1172.80 |
| 15+00 | 1172.28 | 15+00 | 1172.80 |
| 16+00 | 1172.35 | 16+00 | 1172.98 |
| 17+00 | 1172.34 | 17+00 | 1172.95 |
| 18+00 | 1172.32 | 18+00 | 1172.86 |
| 19+00 | 1172.21 | 19+00 | 1172.93 |
| 20+00 | 1172.24 | 20+00 | 1172.93 |
| 21+00 | 1172.29 | 21+00 | 1173.01 |
| 22+00 | 1172.28 | 22+00 | 1173.06 |



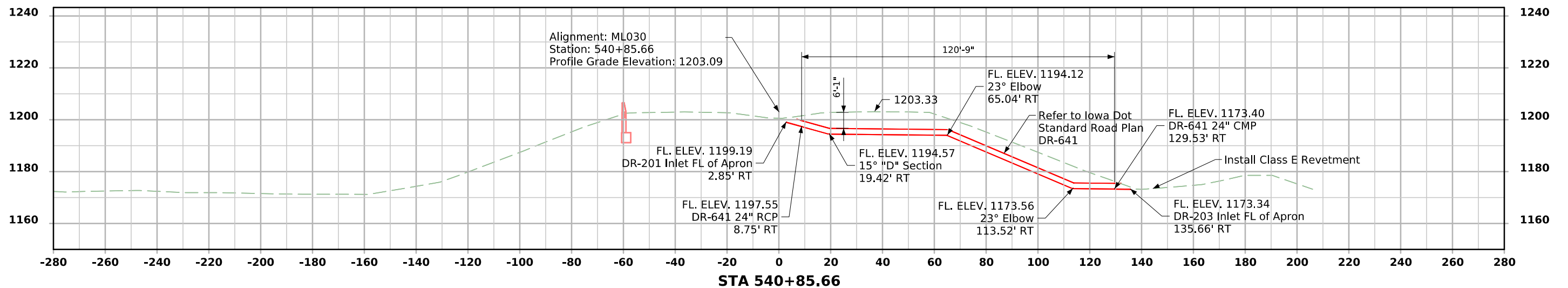
Left Rail Profile



Right Rail Profile

UPRR General Notes & Shoring Details

Refer to Iowa Dot Standard Road Plan DR-641.
Construct during Stage 3.



CROSS SECTION VIEW COLOR LEGEND

| Design Color No. | Feature | Design Color No. | Feature |
|------------------|---------------------------|---------------------------|---------------------------------|
| Aggregate | | | |
| (64) | Choke Stone | (112) | Noise Wall |
| (42) | Engineering Fabric | (112) | Noise Wall Footing |
| (8) | Flooded Backfill | (112) | Retaining Wall Back |
| (92) | Macadam Stone | (112) | Retaining Wall Back Excavate |
| (20) | Modified | (112) | Retaining Wall Face |
| (12) | Plowing Shaping | (112) | Retaining Wall Front Excavate |
| (14) | Porous Backfill | (112) | Retaining Wall Front Footing |
| (8) | Revetment Class A | (112) | Retaining Wall MSE Gutter |
| (6) | Revetment Class B | (112) | Retaining Wall Reinforced Earth |
| (62) | Revetment Class C | Grading | |
| (188) | Revetment Class D | (8) | Behind Curb Cut |
| (28) | Revetment Class E | (6) | Granular |
| (12) | Shoulder Special Backfill | (13) | Granular Back Fill |
| (12) | Special Backfill | (48) | Rock Undercut |
| (20) | Subbase | (8) | Shoulder Earth Fill |
| (20) | Subbase Lower | (2) | Side Slopes |
| (20) | Subbase Upper | (226) | Side Slopes Dressing |
| (118) | Subgrade Treatment | Substrata | |
| Asphalt | | | |
| (207) | HMA Base Course | (128) | Boulder Substrata |
| (207) | HMA Interim Course | (48) | Broken Weathered Substrata |
| (207) | HMA Surface Course | (3) | Core Out Substrata |
| Concrete | | | |
| (0) | Barrier Concrete | (203) | Existing Pavement Substrata |
| (0) | Barrier Concrete Footing | (6) | Loam Substrata |
| (0) | Curb Gutter | (80) | Rock Substrata |
| (48) | Flowable Mortar | (4) | Select Sand Substrata |
| (0) | Median Concrete | (3) | Shale Substrata |
| (0) | PCC Pavement | (10) | Topsoil Substrata |
| (0) | Sidewalk | Unsuitable / Waste | |
| Shoulder | | | |
| (209) | Shoulder HMA | (3) | Unsuitable Type A |
| (0) | Shoulder PCC | (13) | Unsuitable Type B |
| (6) | Shoulder Granular | (11) | Unsuitable Type C |
| (3) | | (3) | Waste |
| Existing | | | |
| (0) | Existing Pavement | | |

NOTES:

Text

NOTES:

Text

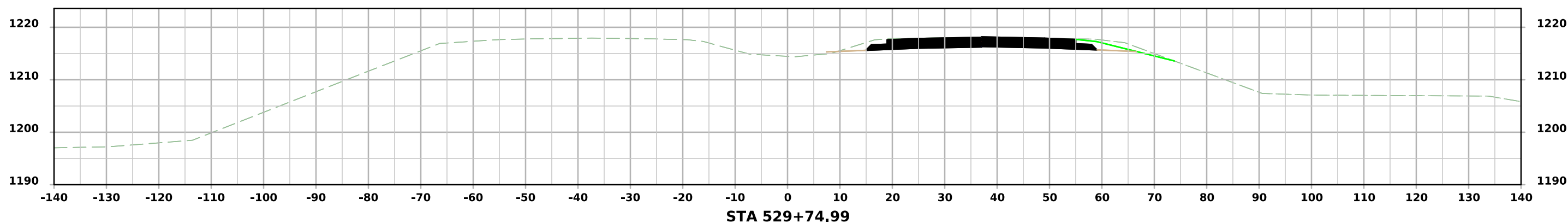
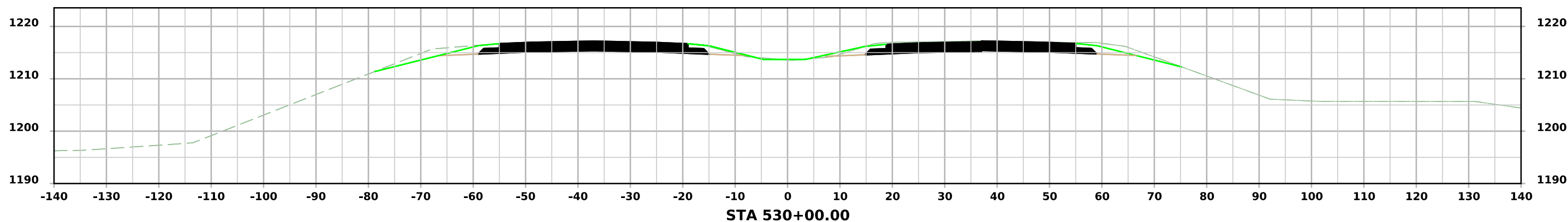
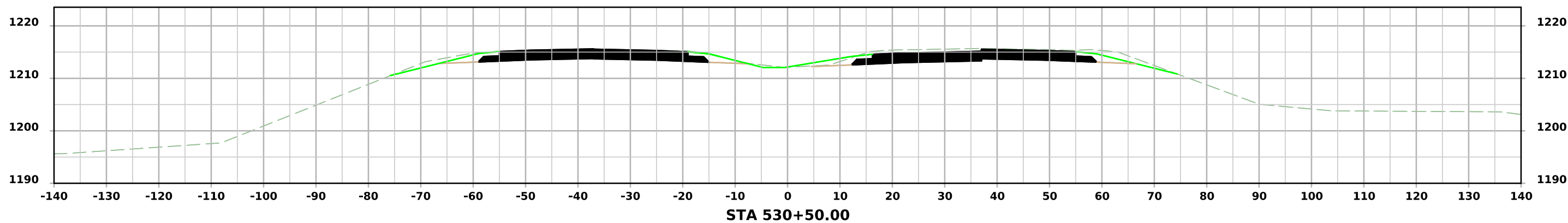
CROSS SECTIONS LEGEND AND INFORMATION SHEET

(COVERS SHEET SERIES W)

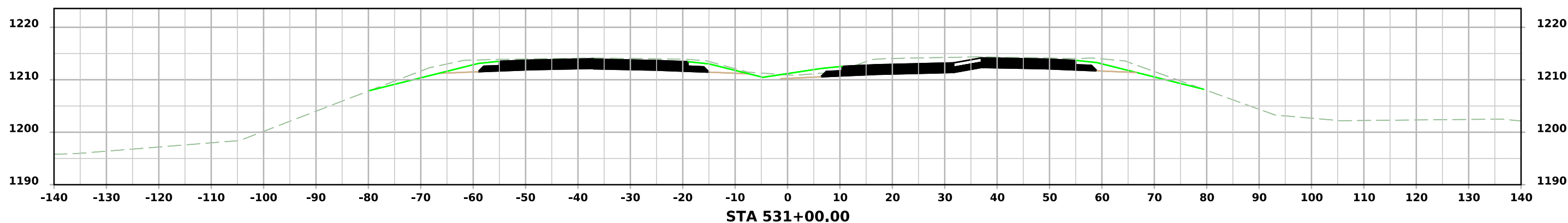
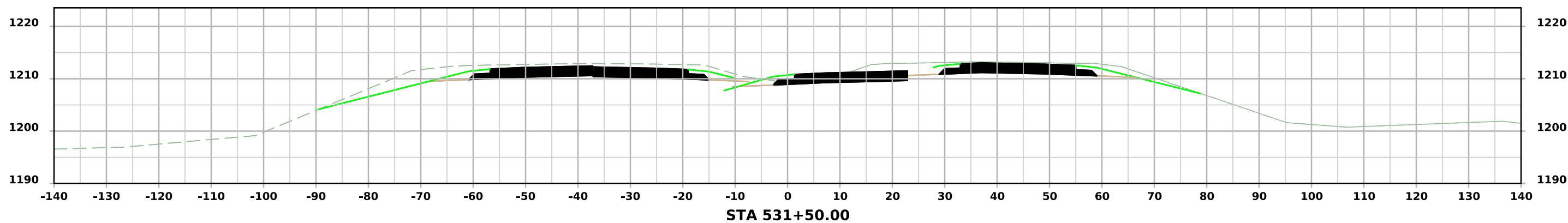
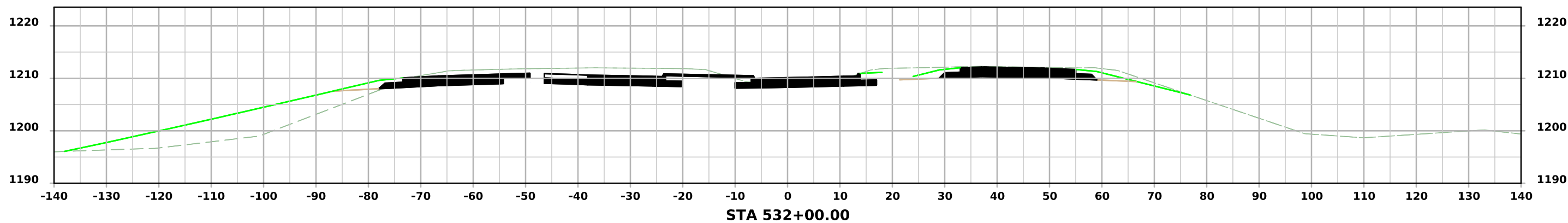
US 59

Revised D05 focused on exterior to identify potential impact to ROW. Interior modeling for roundabouts will occur during final design.

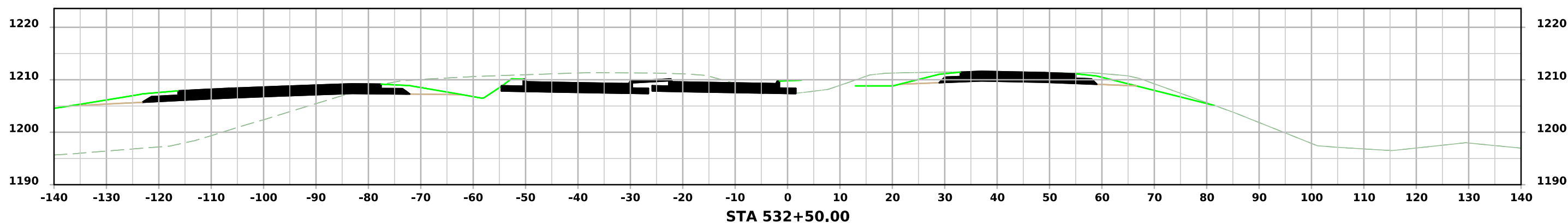
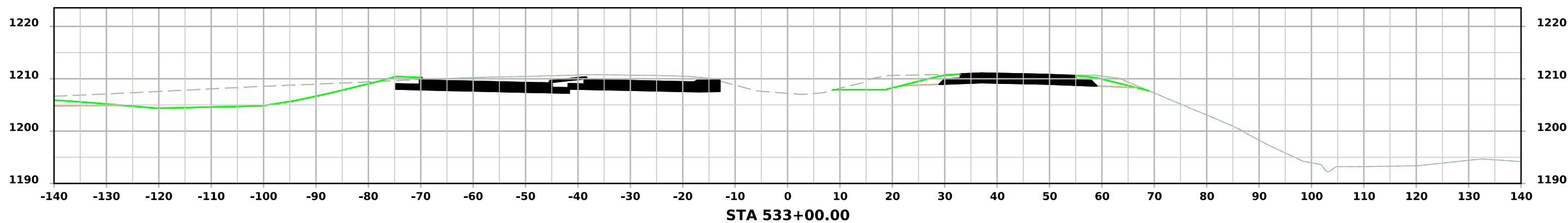
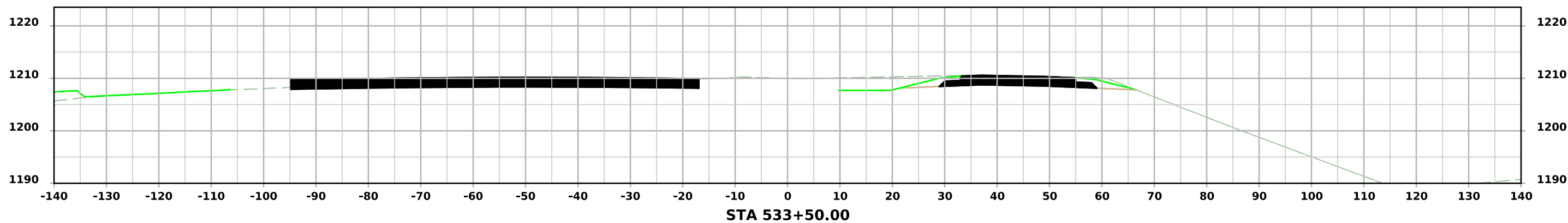
Revised T01 in process by Iowa DOT and XS will be reprinted with all exist. ROW labels once complete.



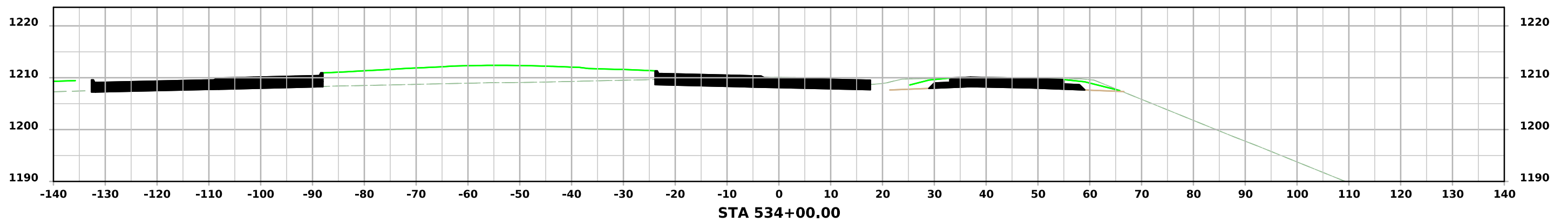
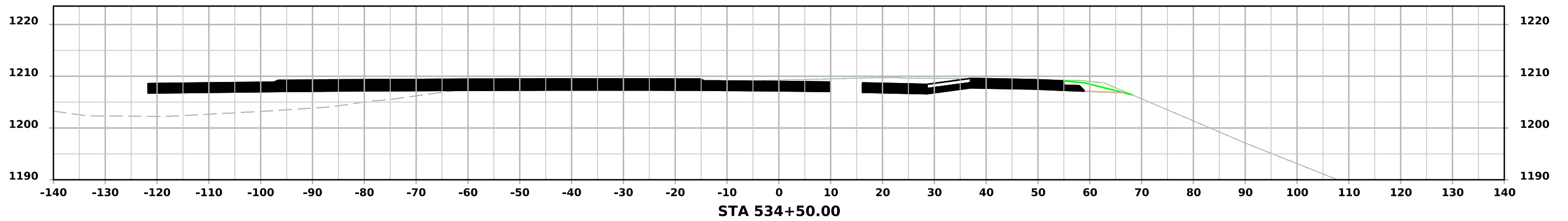
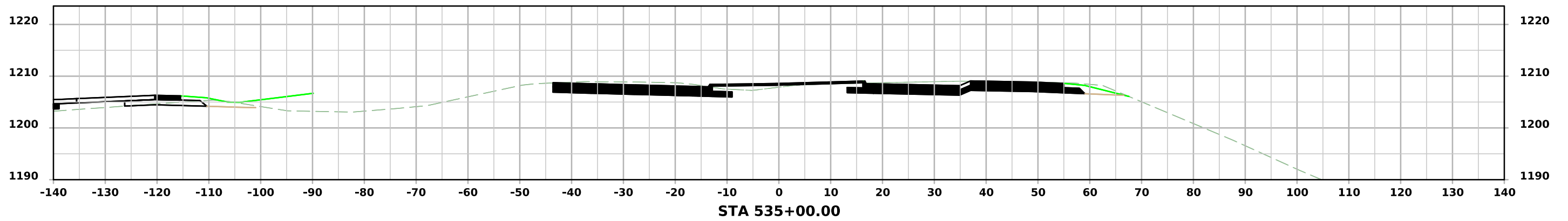
US 59



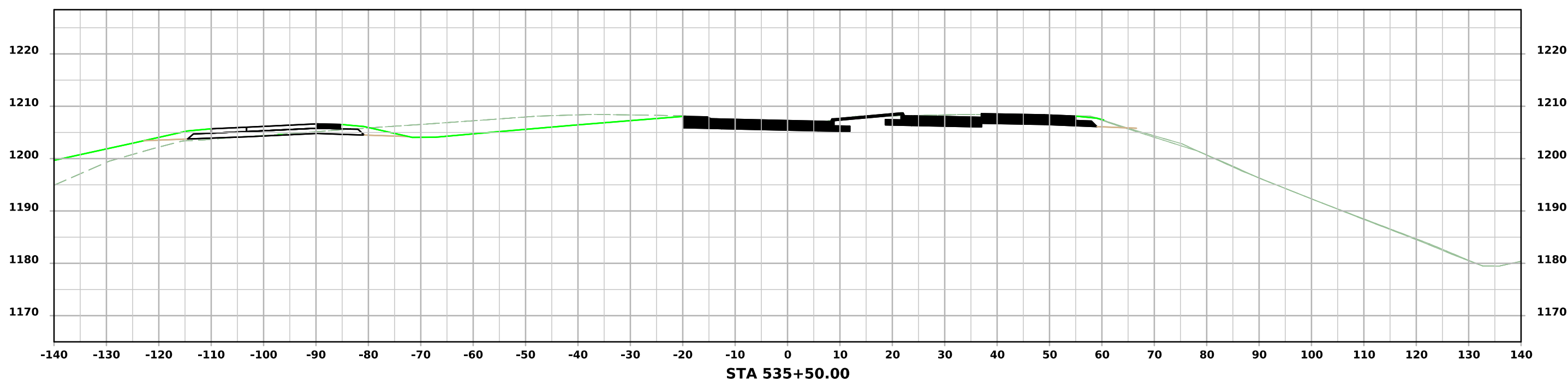
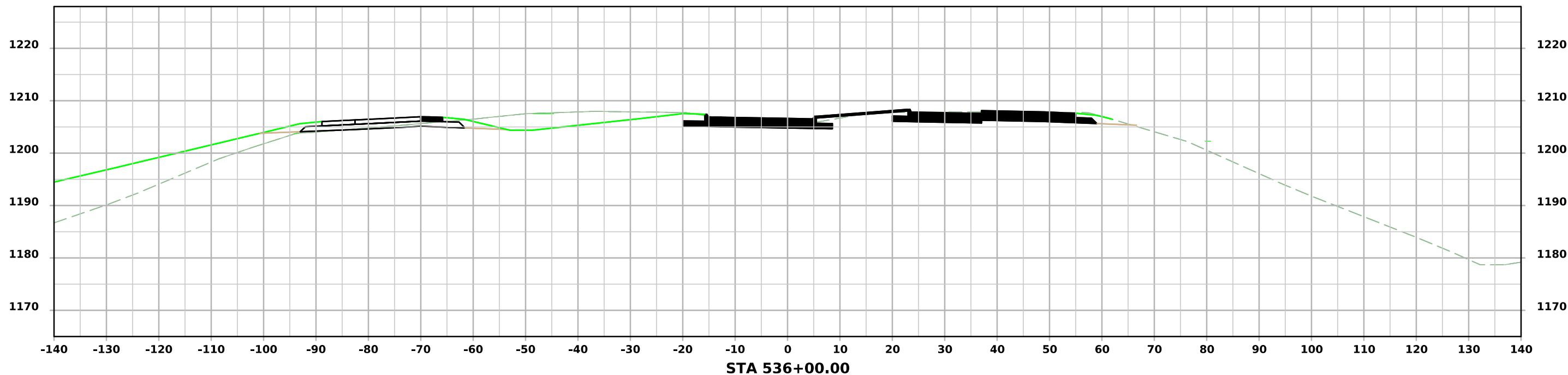
US 59



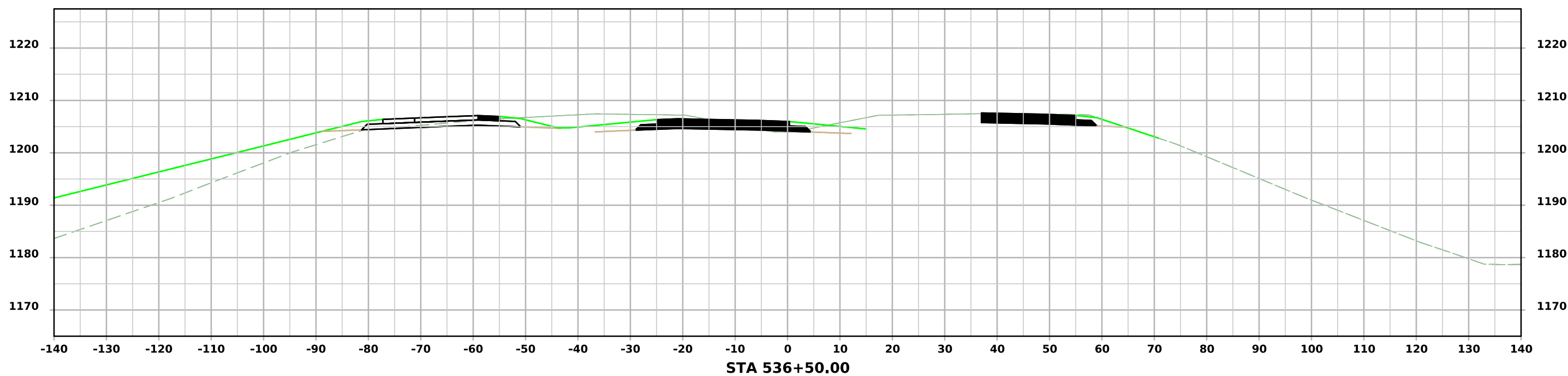
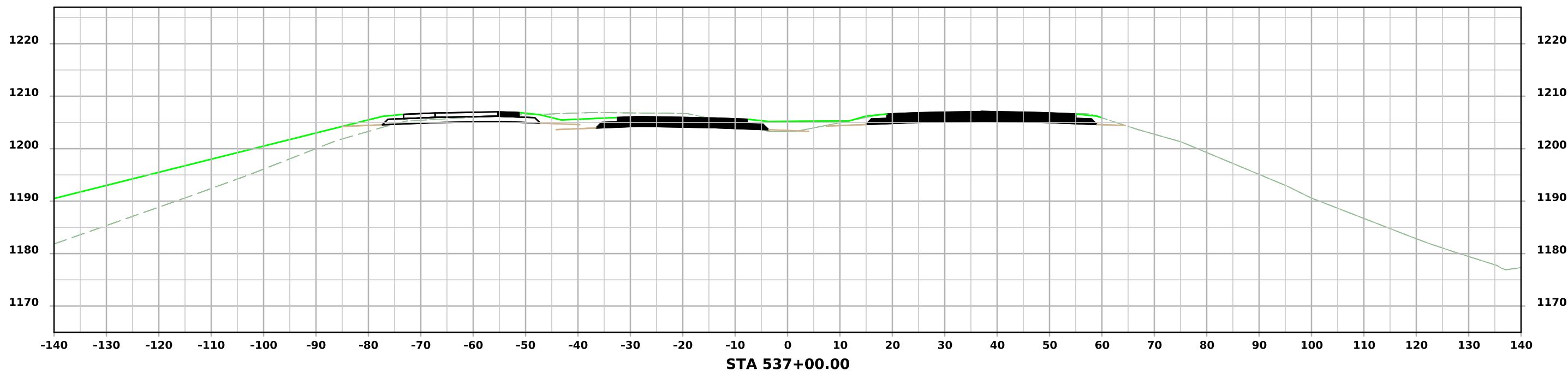
US 59



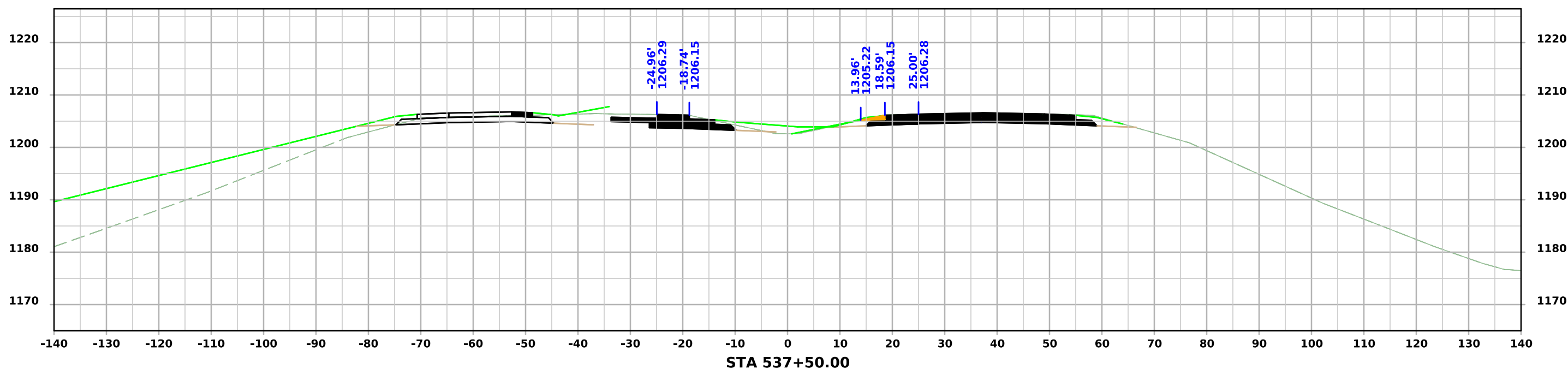
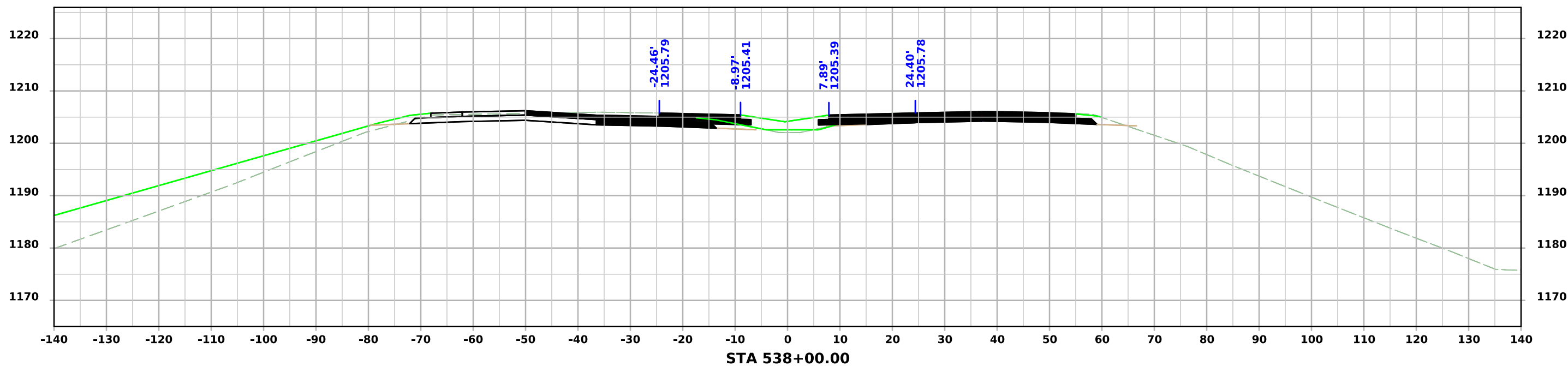
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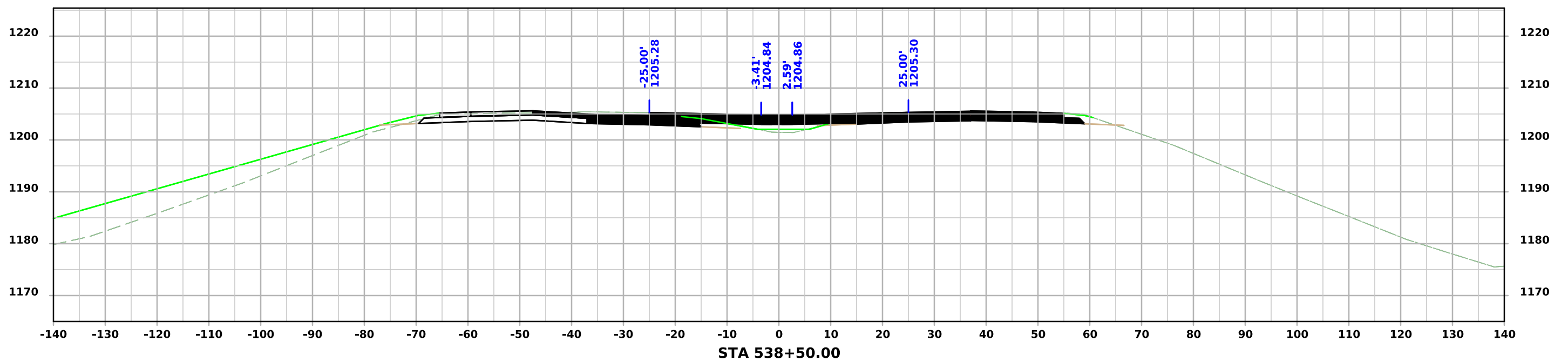
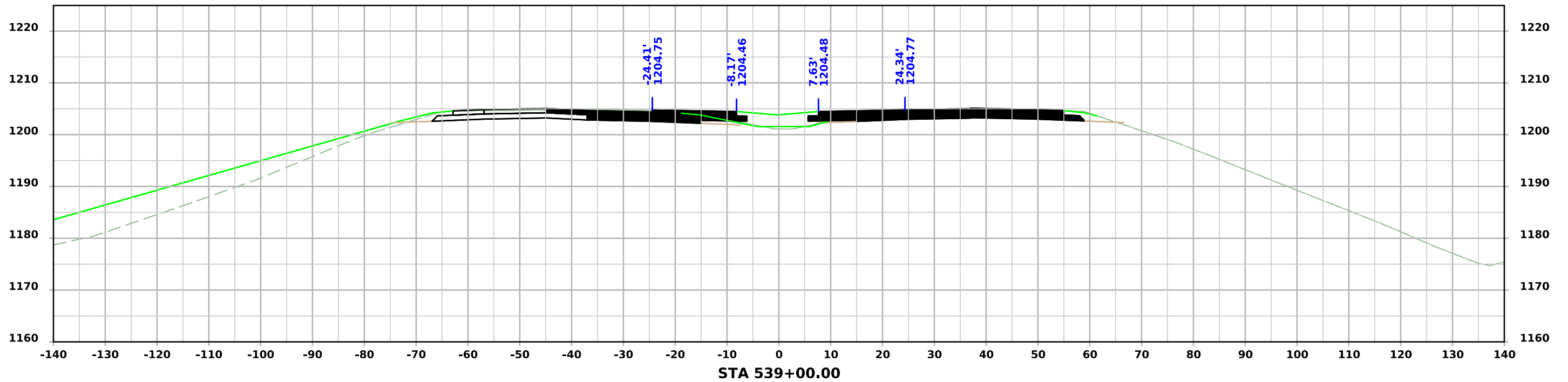
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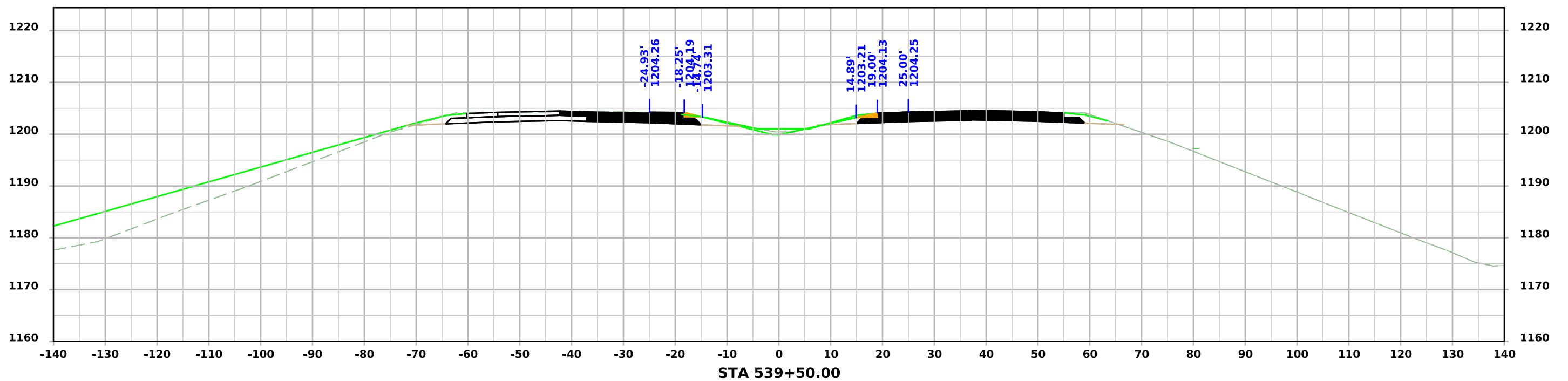
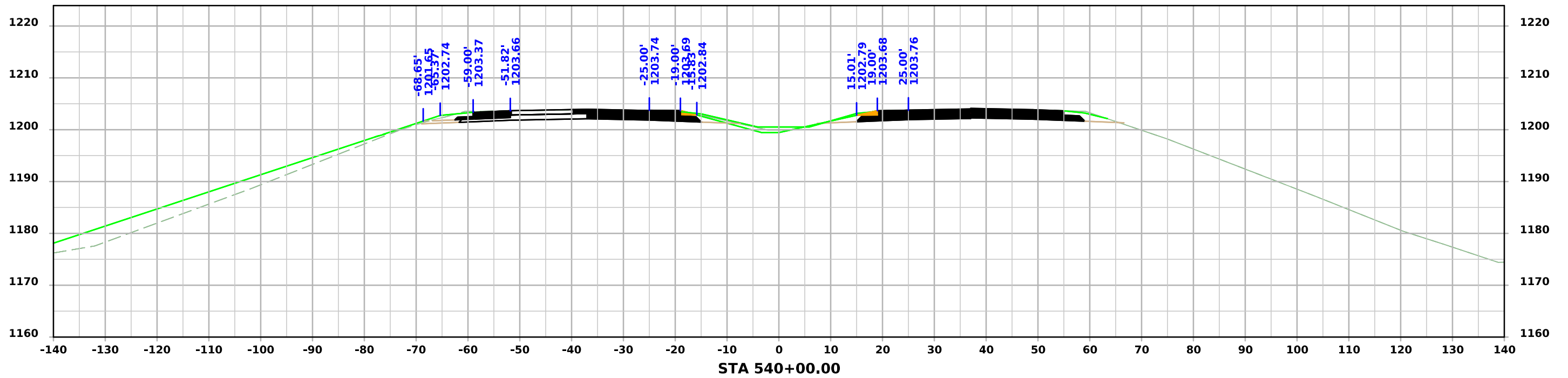
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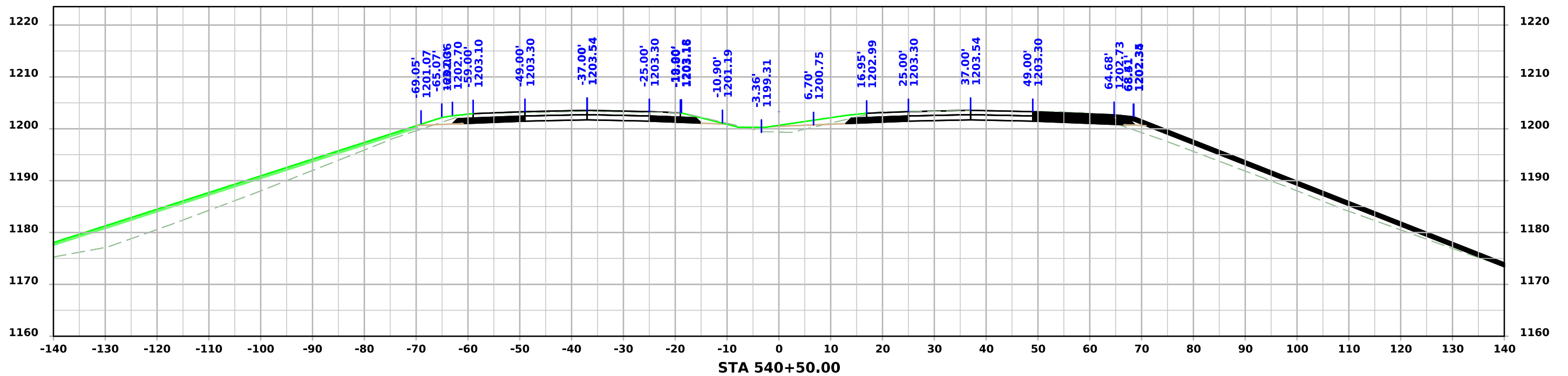
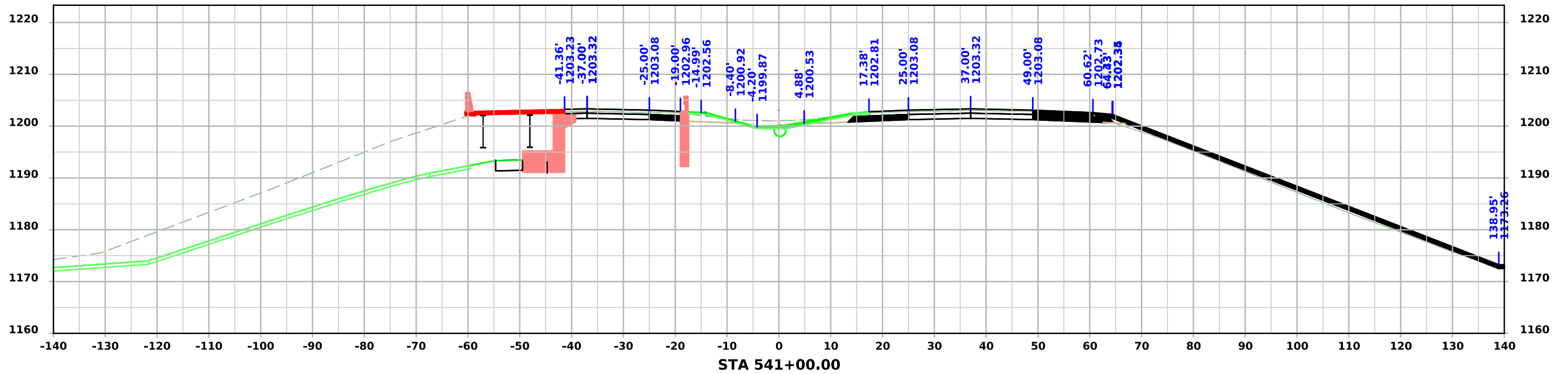
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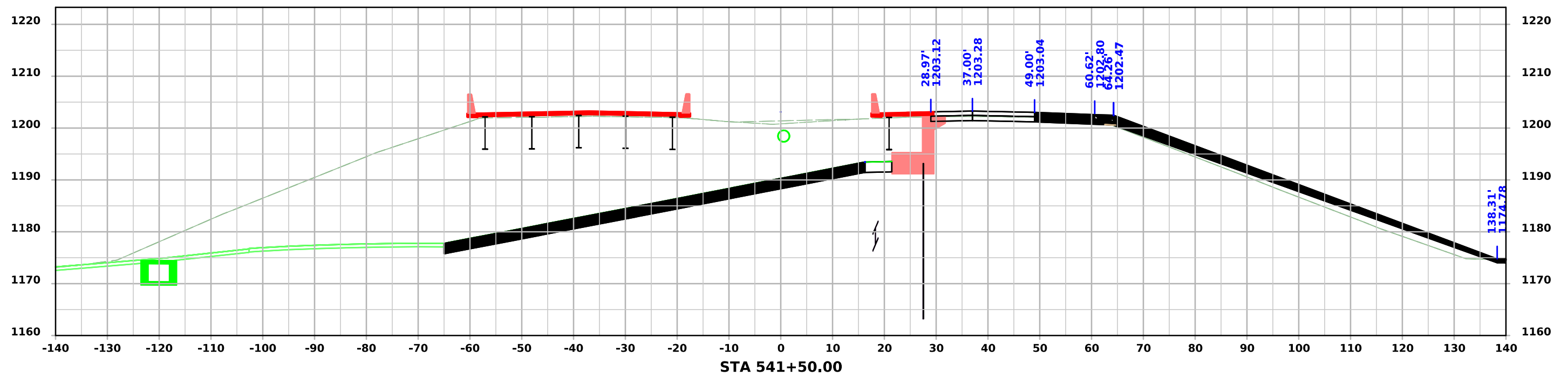
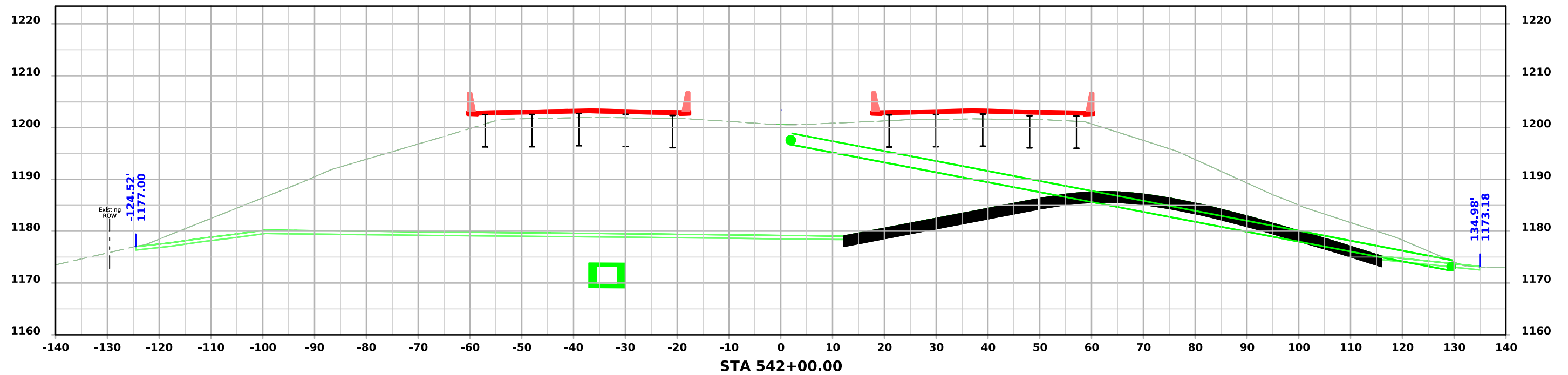
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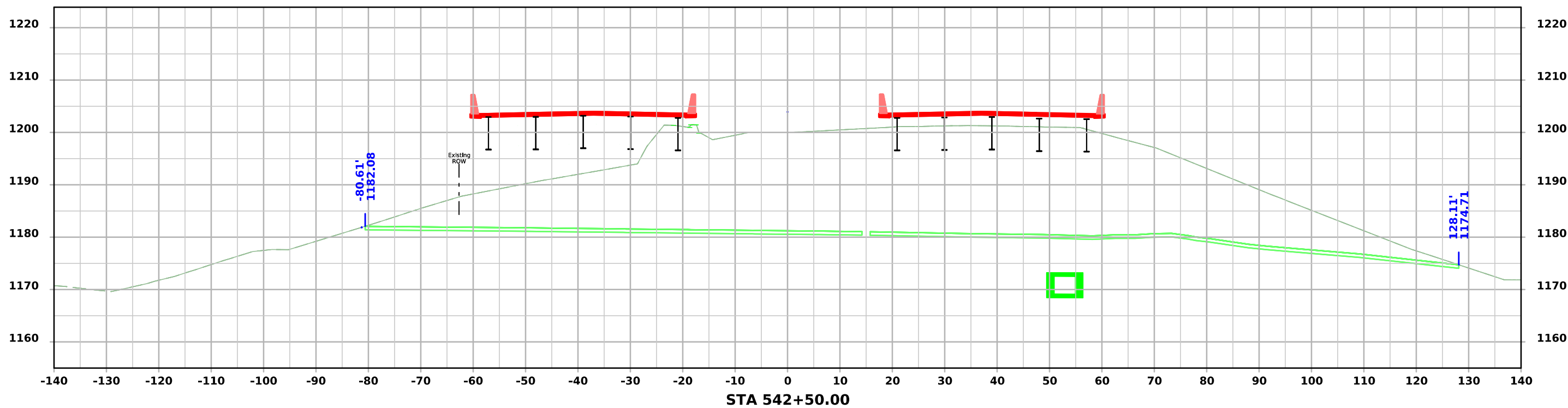
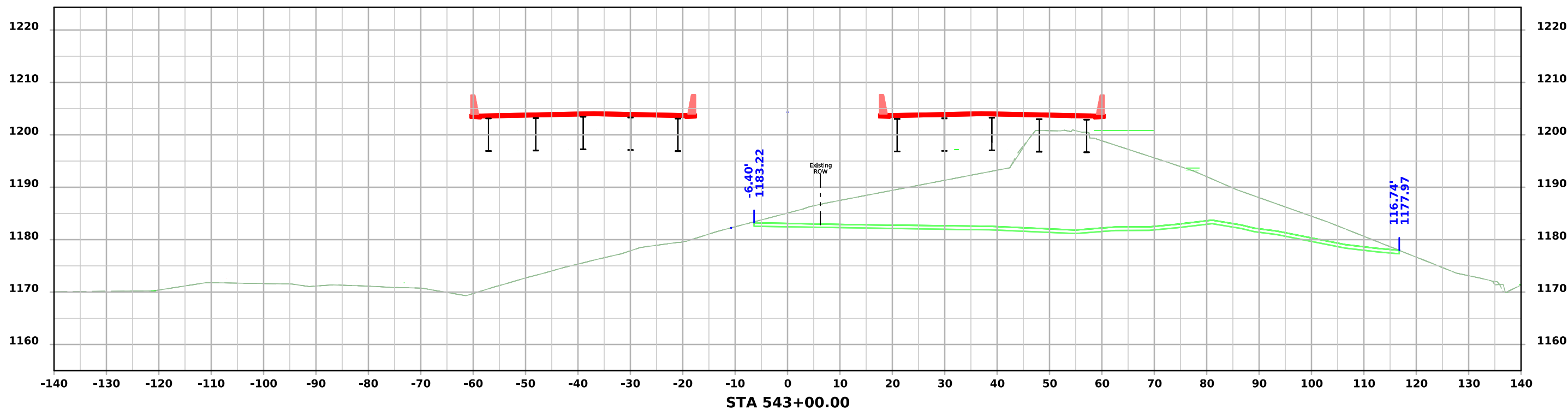
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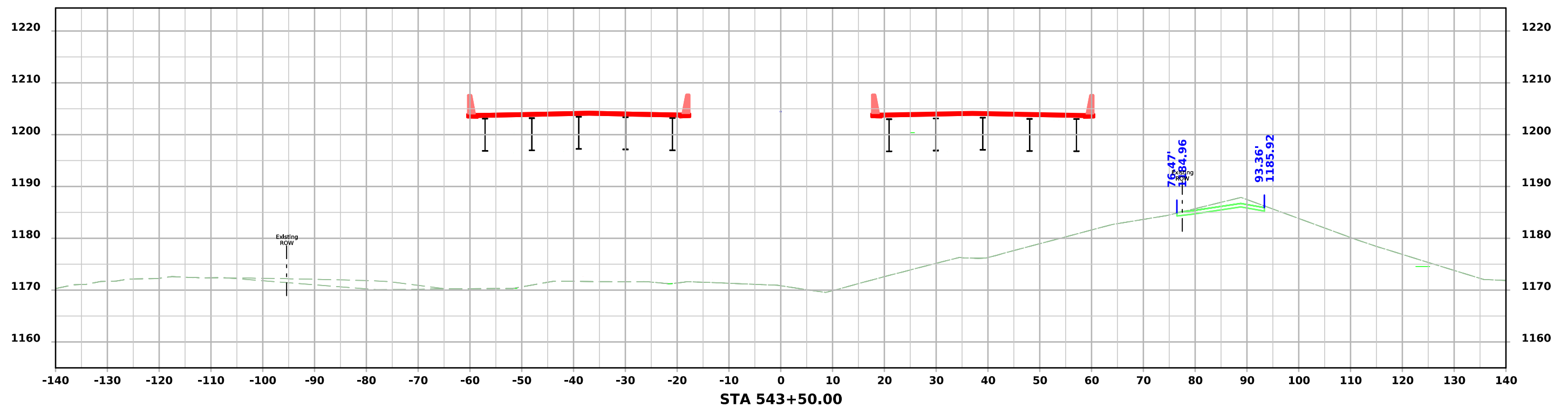
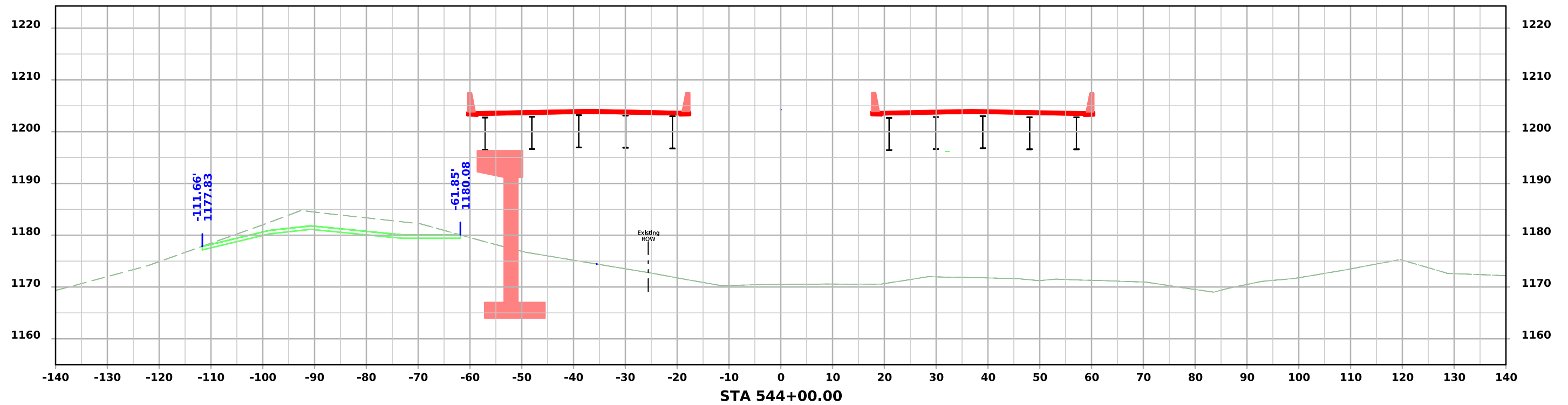
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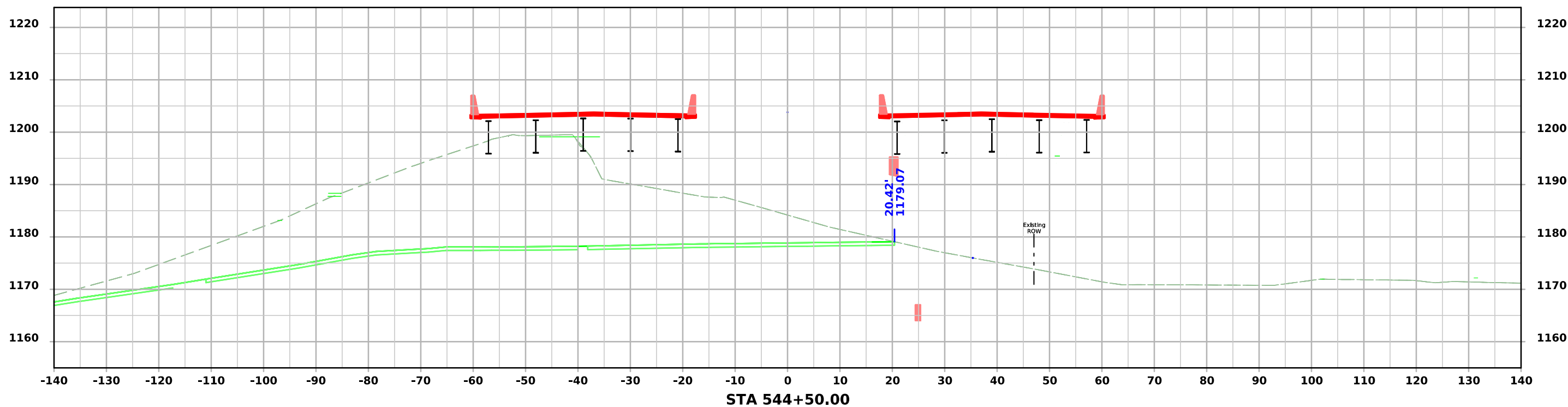
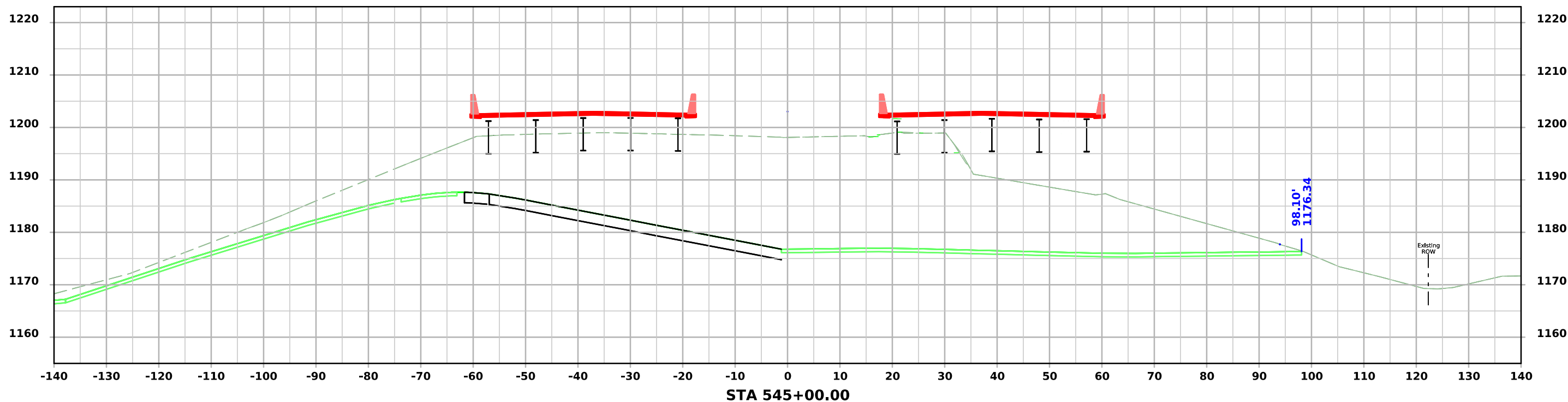
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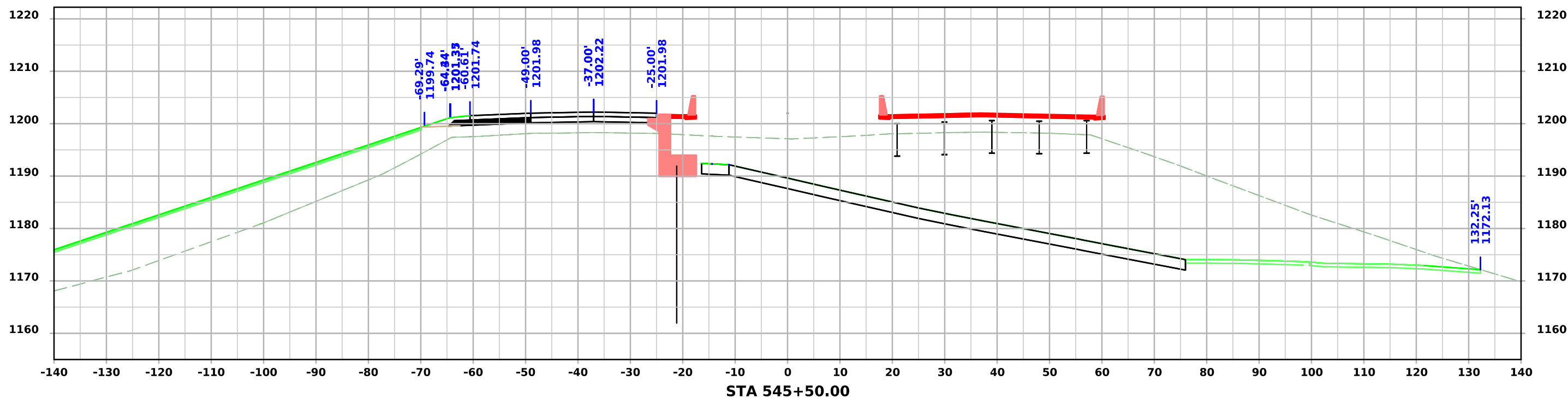
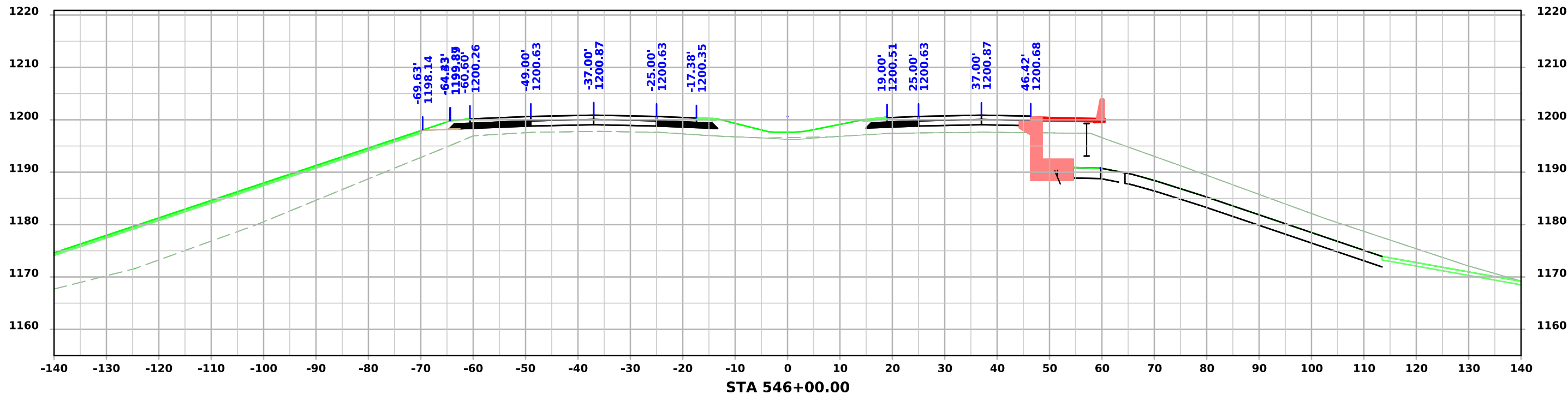
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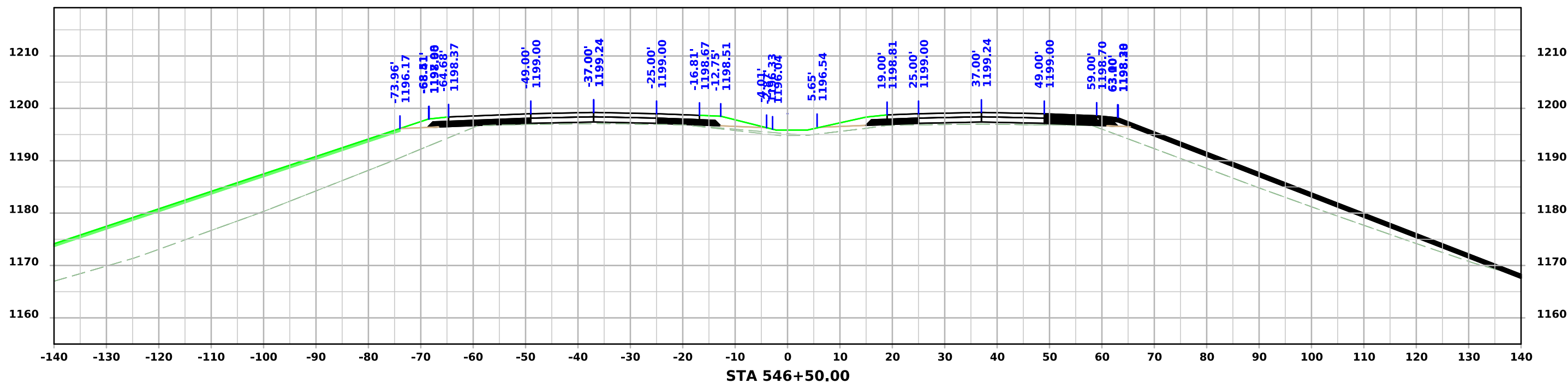
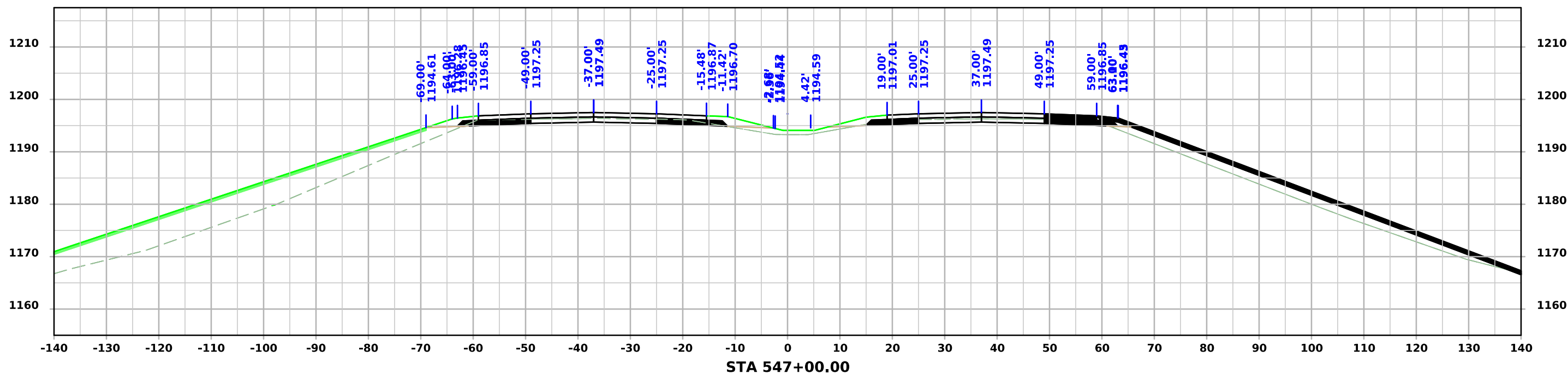
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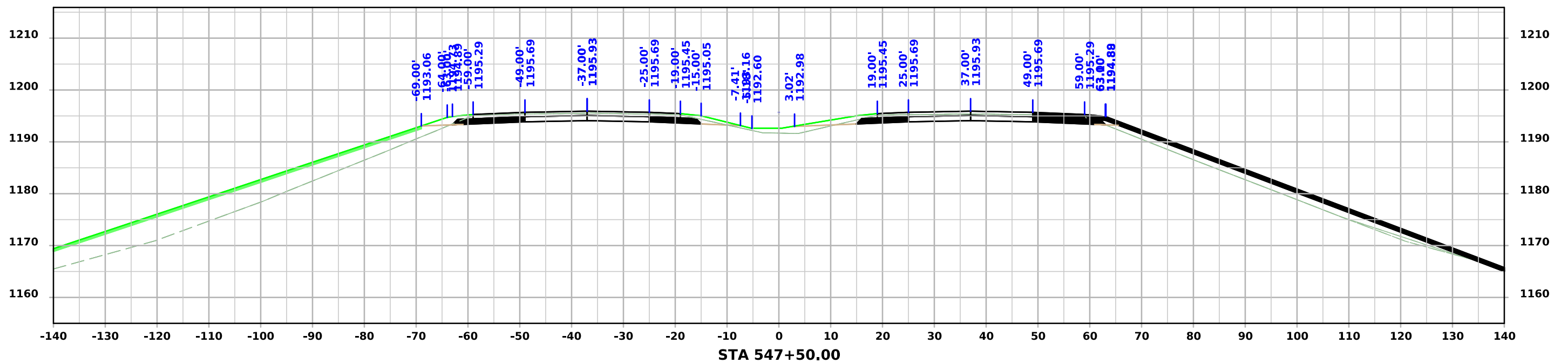
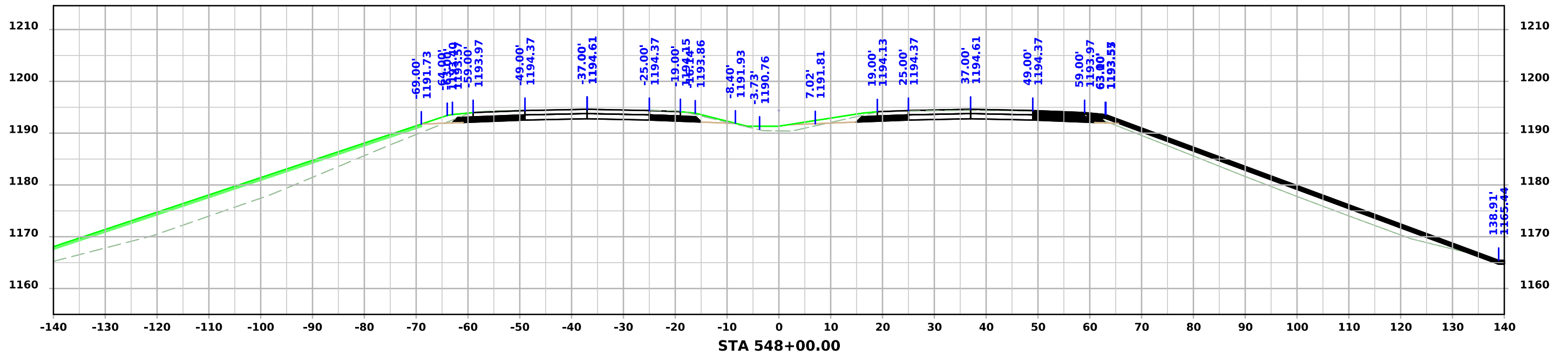
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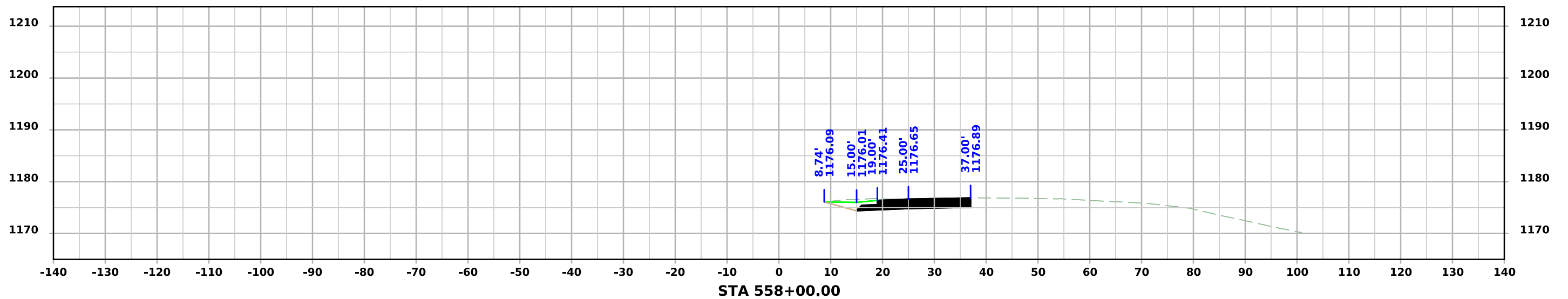
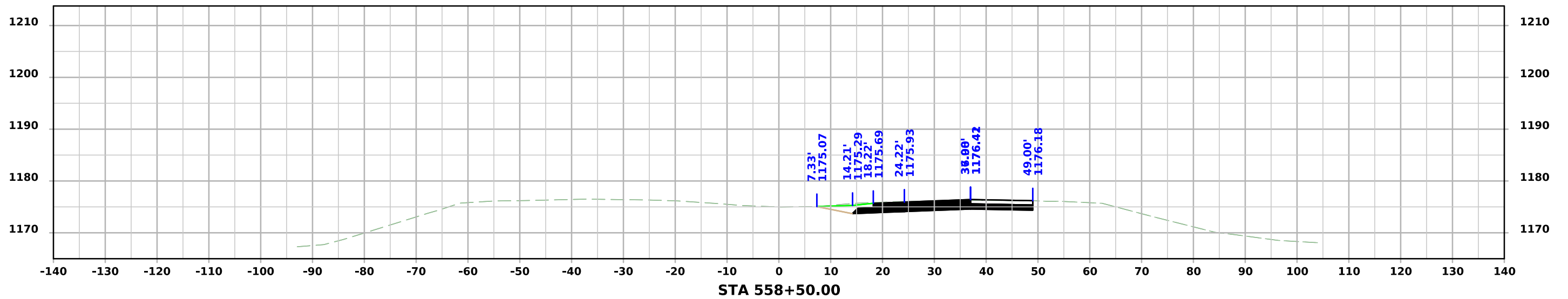


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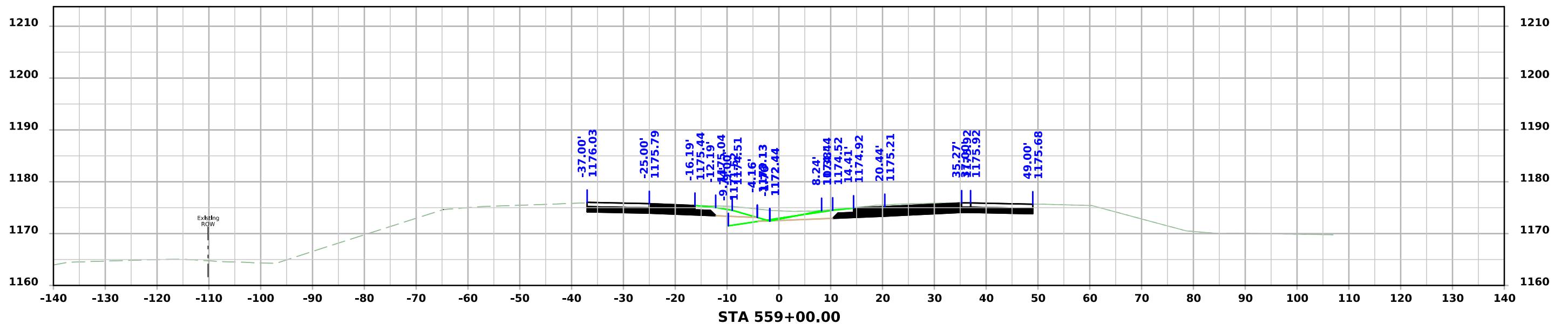
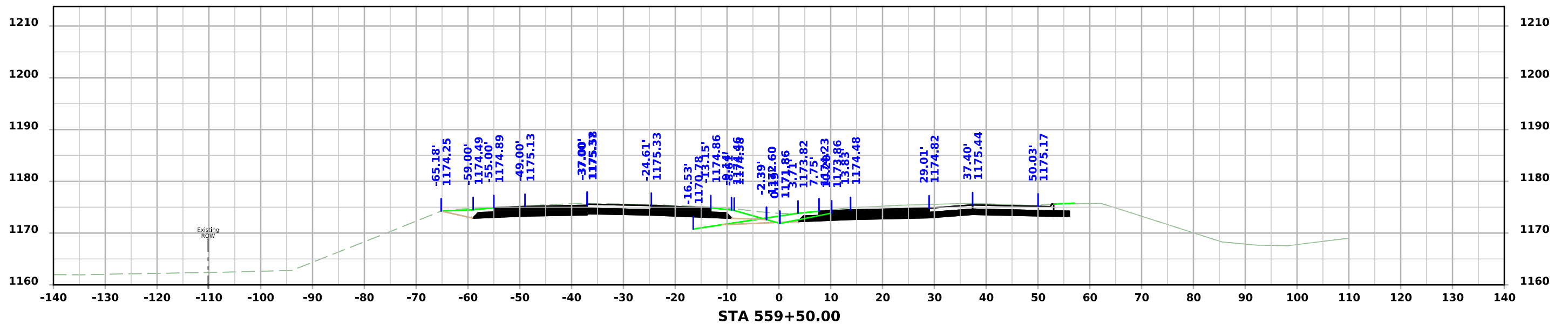


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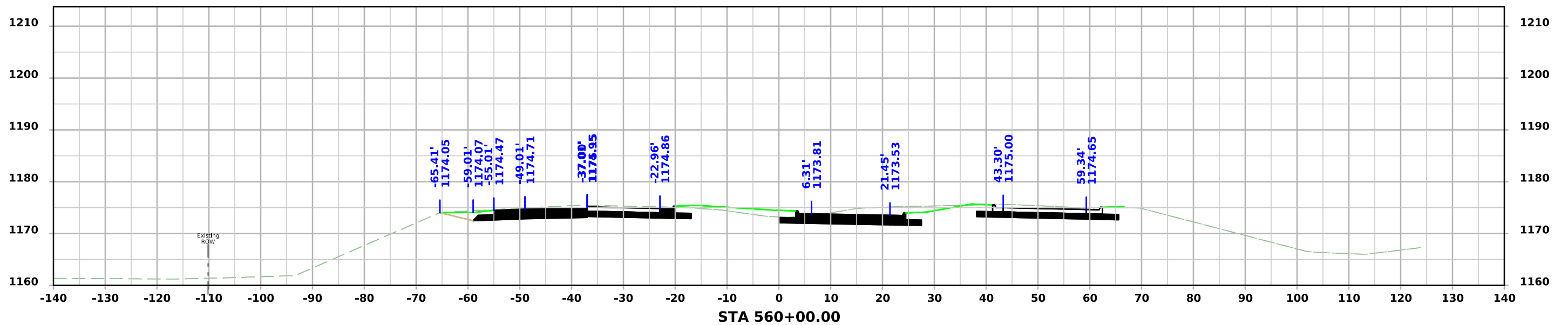
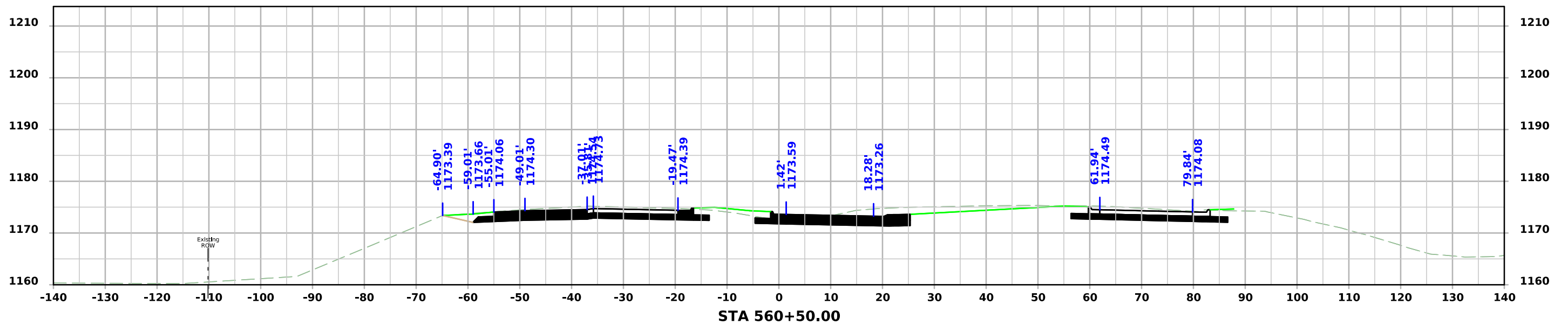




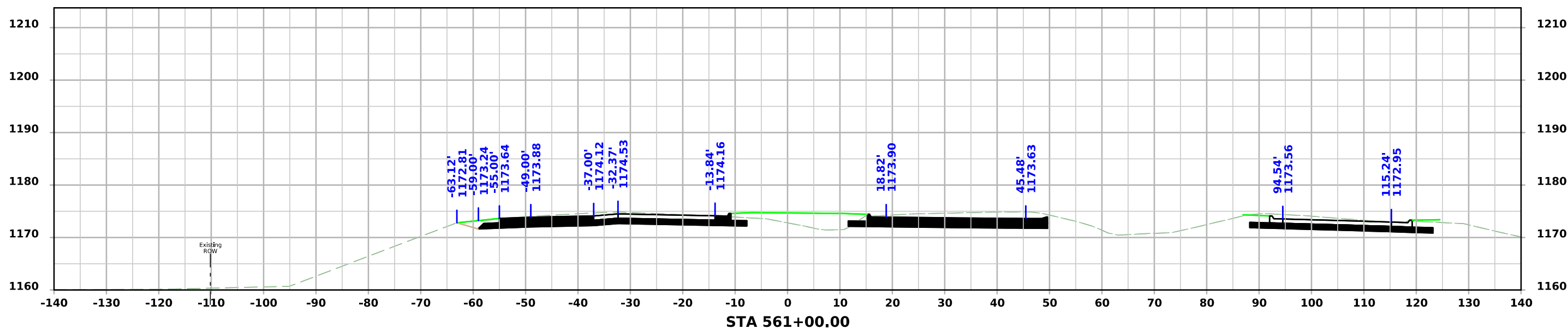
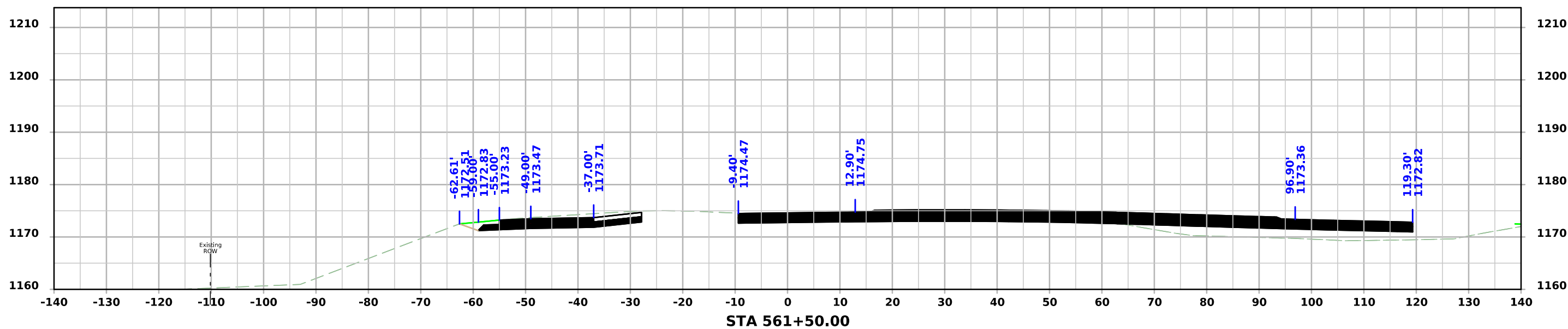
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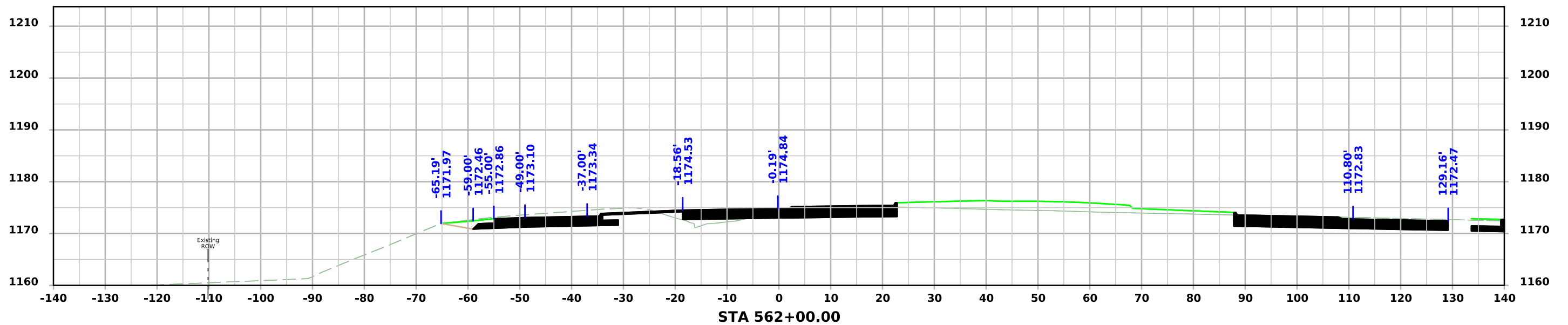
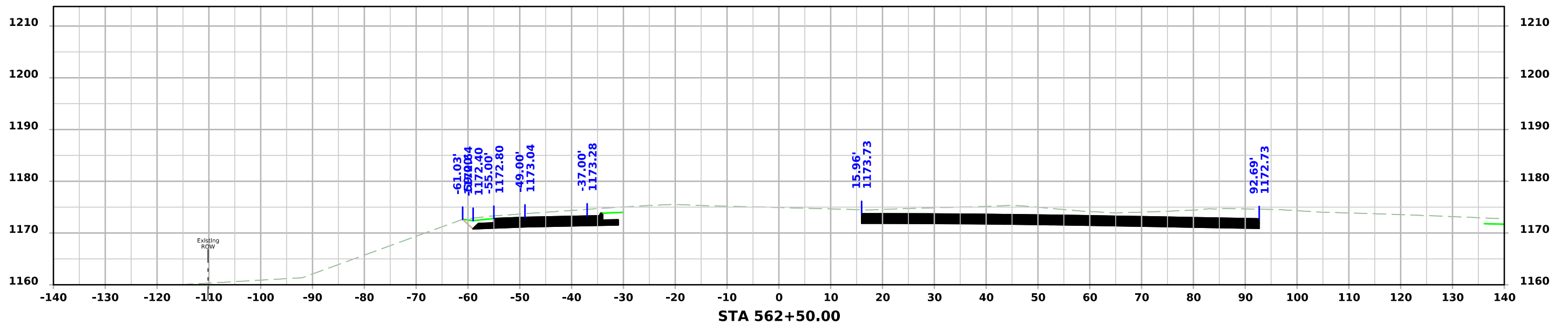
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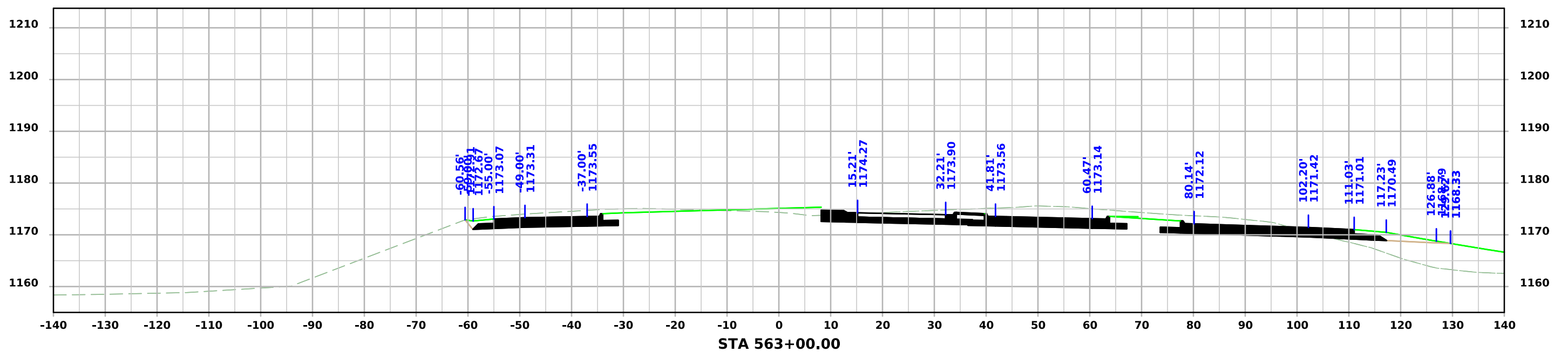
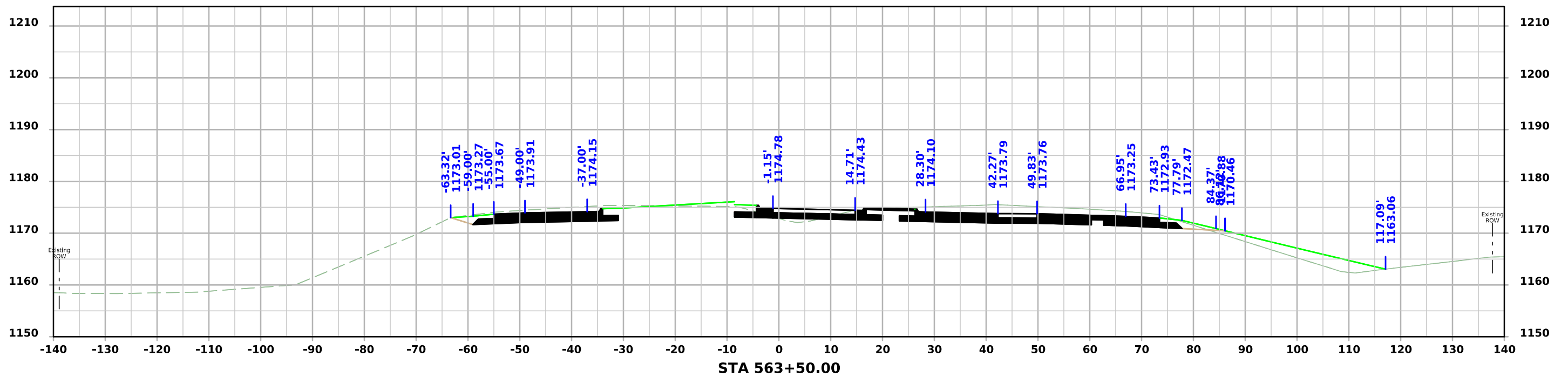
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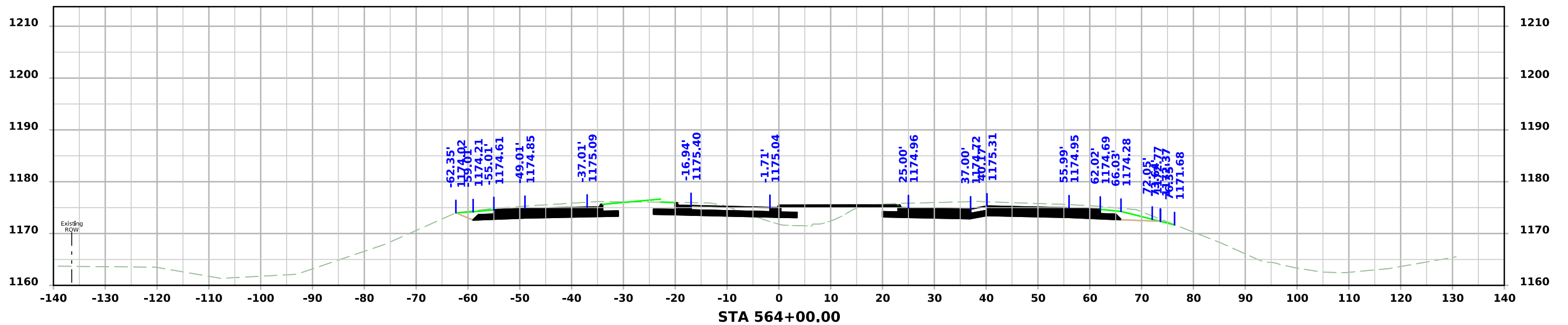
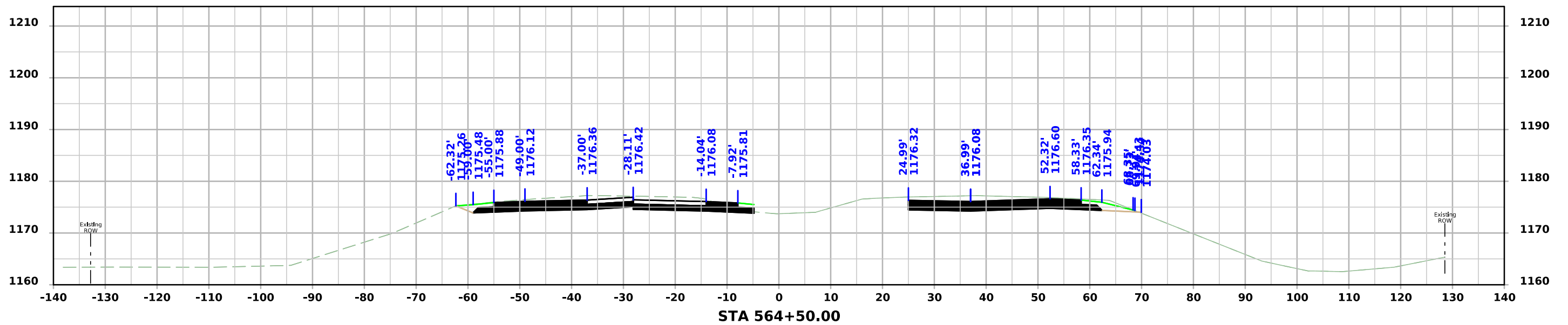
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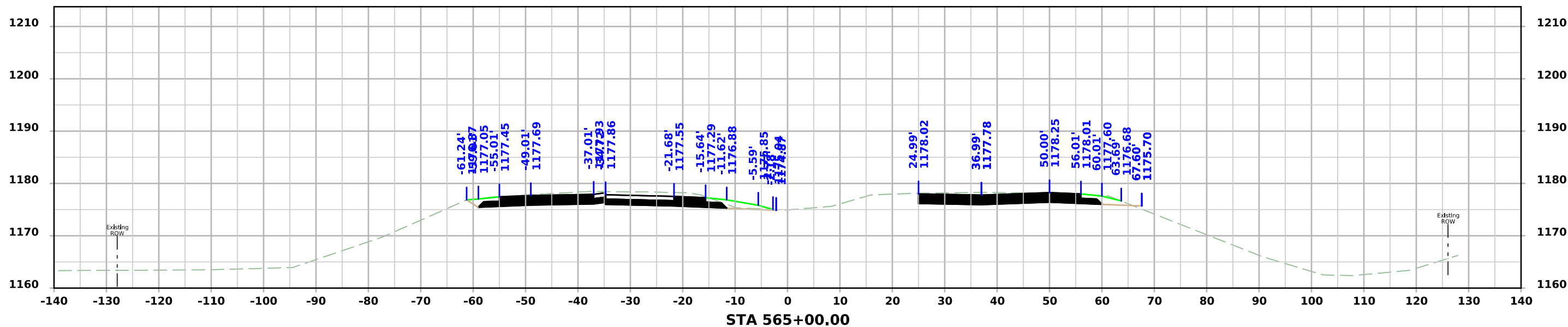
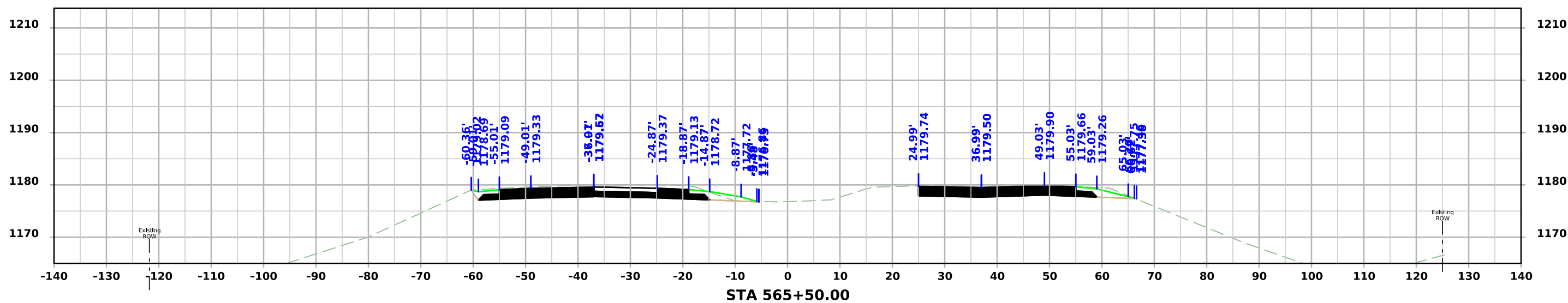
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