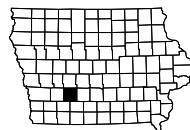


**BUTLER COUNTY**

**RCB CULVERT NEW - TRIPLE BOX  
BRFN-003-5(083)--39-12**

LETTING DATE  
Mar. 18, 2025



| INDEX OF SHEETS |  |
|-----------------|--|
| No.             | DESCRIPTION                                      |
| <b>A Sheets</b> | <b>Title Sheets</b>                              |
| * A.1           | Title Sheet                                      |
| * A.2           | Location Map Sheet                               |
| <b>B Sheets</b> | <b>Typical Cross Sections and Details</b>        |
| B.1 - 3         | Typical Cross Sections and Details               |
| <b>D Sheets</b> | <b>Mainline Plan and Profile Sheets</b>          |
| * D.1           | Plan & Profile Legend & Symbol Information Sheet |
| * D.2           | Iowa Highway 3                                   |
| * D.3           | Iowa Highway 3 Overflow Bridge                   |
| <b>E Sheets</b> | <b>Side Road Plan and Profile Sheets</b>         |
| * E.1 - 4       | Cedar Ave.                                       |
| * ED.1 - 2      | RCB Dike   |
| * ED.3 - 4      | Iowa Highway 3 Low-Flow Ditch                    |
| <b>G Sheets</b> | <b>Survey Sheets</b>                             |
| G.1 - 4         | Reference Ties and Bench Marks                   |
| G.5             | Project Alignments                               |
| G.6 - 7         | Alignment Tabulations                            |
| <b>J Sheets</b> | <b>Traffic Control and Staging Sheets</b>        |
| J.1             | Traffic Control Plan                             |
| * J.2 - 3       | Detour Route                                     |
| <b>U Sheets</b> | <b>500 Series, Mod.Stds. and Detail Sheets</b>   |
| * U.1 - 6       | Removal Plans                                    |
| * U.7           | Parking Lot Relocation Details                   |
| <b>W Sheets</b> | <b>Mainline Cross Sections</b>                   |
| * W.1           | Cross Sections Legend & Symbol Information Sheet |
| * W.2 - 5       | Iowa Highway 3 Cross Sections                    |
| <b>X Sheets</b> | <b>Side Road Cross Sections</b>                  |
| * X.1 - 16      | Cedar Ave. Cross Sections                        |
| <b>Y Sheets</b> | <b>Drainage Channel and Dike Cross Sections</b>  |
| * Y.1 - 6       | RCB Dike Cross Sections                          |
| * Y.100 - 108   | Iowa Highway 3 Low-Flow Ditch Cross Sections     |
|                 | * Color Plan Sheets                              |



PLANS OF PROPOSED IMPROVEMENT ON THE  
**PRIMARY ROAD SYSTEM  
 BUTLER COUNTY**  
**RCB CULVERT NEW - TRIPLE BOX**  
 Hartgrave Creek Overflow  
 0.5 mi W of Co Rd T16

<-- H Sheets

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.

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



| MILEAGE SUMMARY |  |                 |                |
|-----------------|--|-----------------|----------------|
|                 |  | 105-1           |                |
|                 |  | 09-27-94        |                |
| Div.            | Location   | Lin. Ft.        | Miles          |
| 1               | IA Highway 3<br>Sta. 104+55.00 to 109+50.00<br>Sta. 119+09.06 to 119+95.52 | 495.00<br>86.46 | 0.094<br>0.016 |
| 1               | Cedar Ave.<br>Sta. 1107+57.72 to 1128+50.00                                | 2,092.28        | 0.396          |
|                 | Total Length   | 2,673.74        | 0.506          |

| IA 3<br>DESIGN DATA RURAL |      |        |  |
|---------------------------|------|--------|--|
| 2019 AADT                 | 2000 | V.P.D. |  |
| 2039 AADT                 | 2100 | V.P.D. |  |
| 20-- DHV                  | --   | V.P.H. |  |
| TRUCKS                    | 19 % |        |  |
| Total Design ESALs        | --   |        |  |

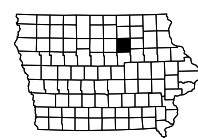
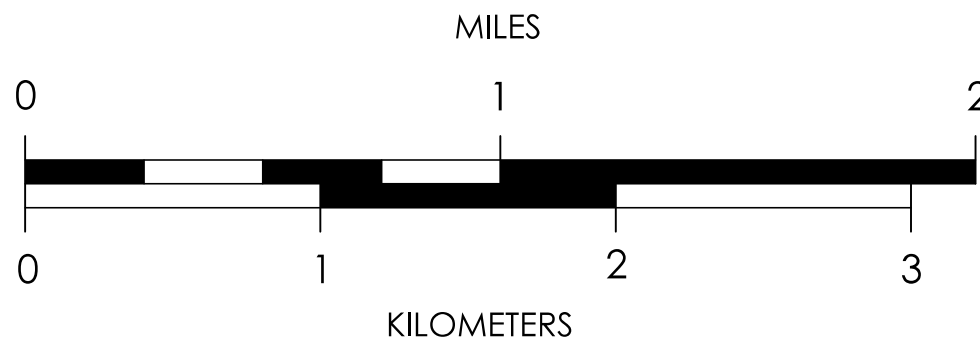
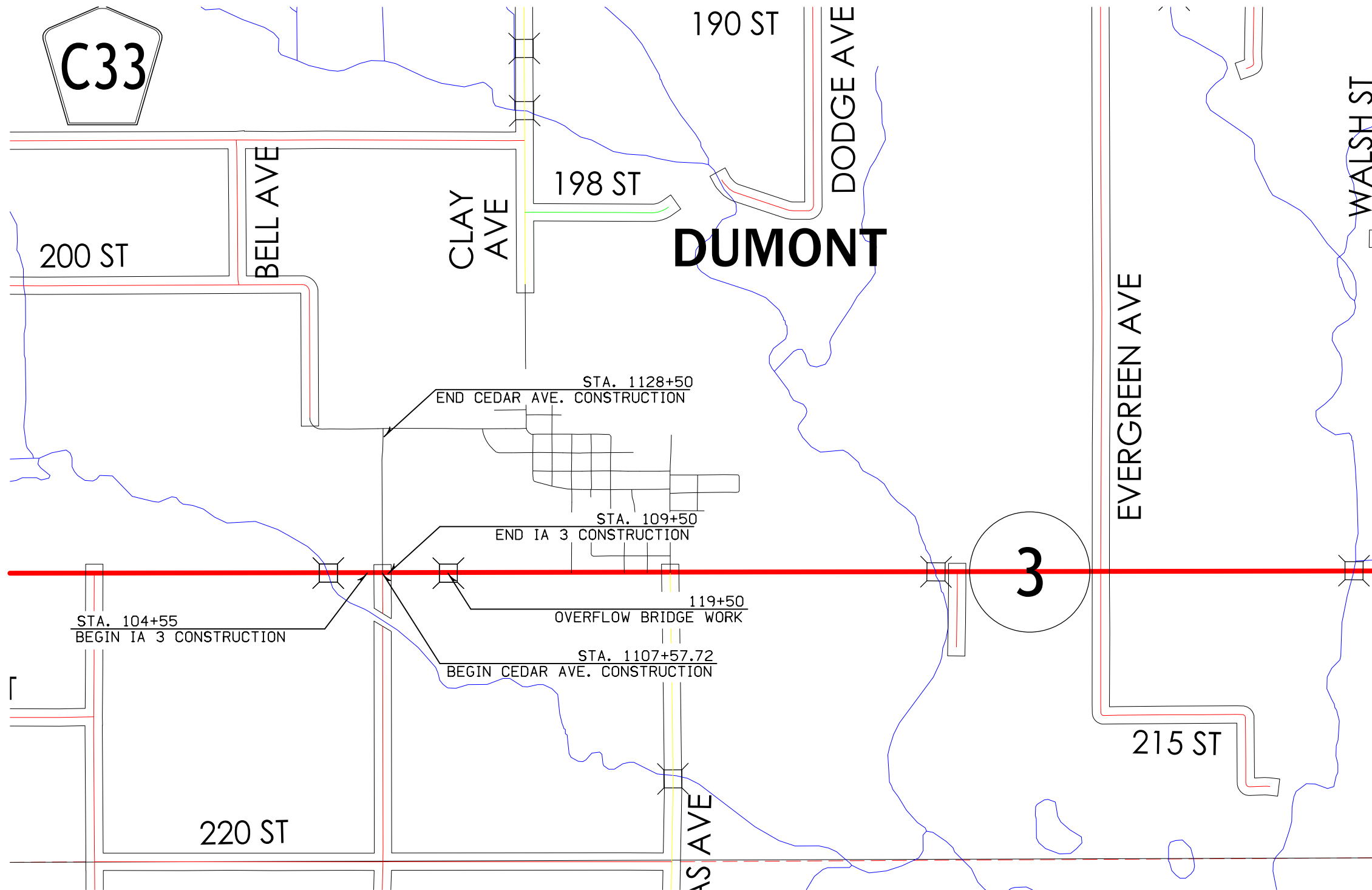
| Cedar Ave<br>DESIGN DATA RURAL |       |        |  |
|--------------------------------|-------|--------|--|
| 2019 AADT                      | 100   | V.P.D. |  |
| 2039 AADT                      | 100   | V.P.D. |  |
| 20-- DHV                       | --    | V.P.H. |  |
| TRUCKS                         | N/A % |        |  |
| Total Design ESALs             | --    |        |  |

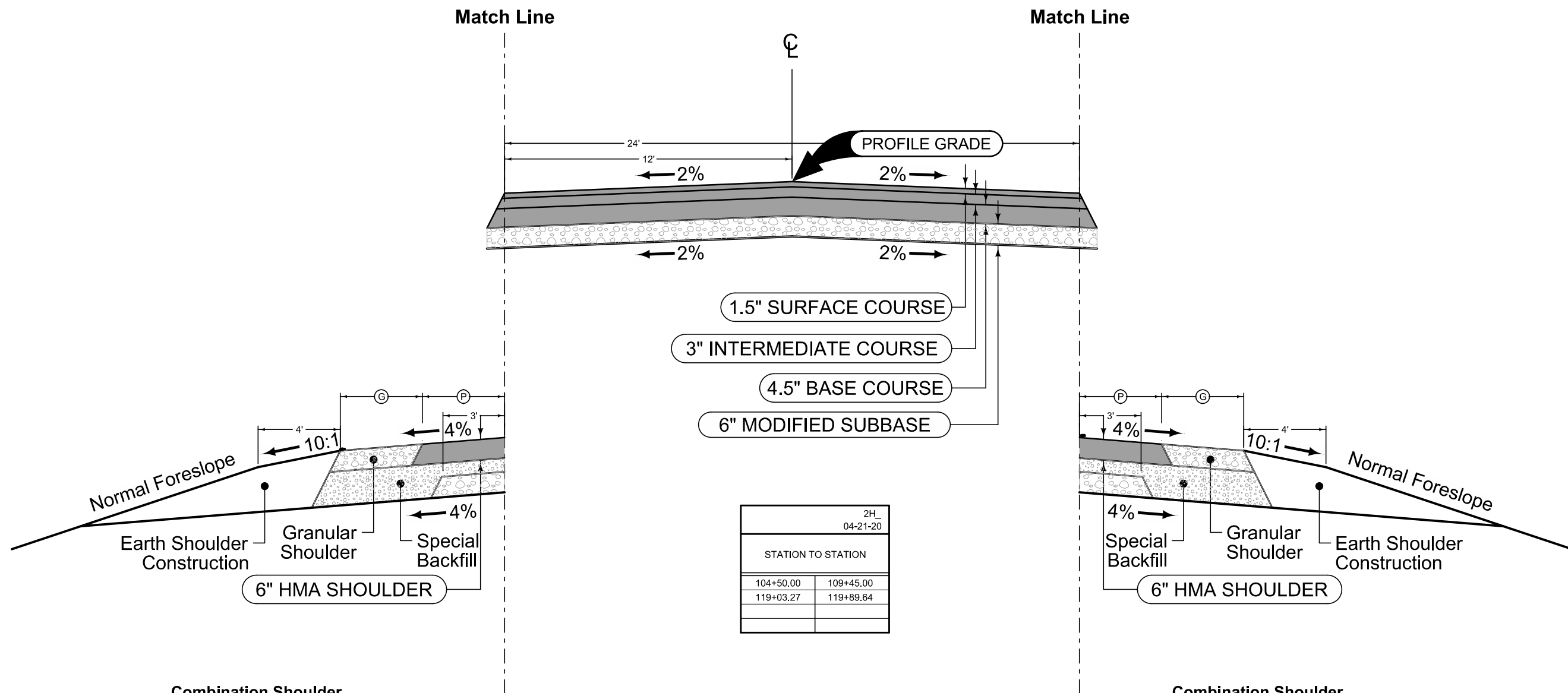
**PRELIMINARY PLANS**

Subject to change by final design.

**D05 - Date: 10/11/2024**

| REVISIONS                     | TOTAL |
|-------------------------------|-------|
|                               | 69    |
| PROJECT IDENTIFICATION NUMBER |       |
| 19-12-003-010                 |       |
| PROJECT NUMBER                |       |
| BRFN-003-5(083)--39-12        |       |
| R.O.W. PROJECT NUMBER         |       |
| BRFN-003-5(83)--39-12         |       |





|                    |           |
|--------------------|-----------|
| 2H_04-21-20        |           |
| STATION TO STATION |           |
| 104+50.00          | 109+45.00 |
| 119+03.27          | 119+89.64 |

**Combination Shoulder**

|                    |           |             |             |
|--------------------|-----------|-------------|-------------|
| 2_C_04-21-20       |           |             |             |
| STATION TO STATION |           | (P)<br>Feet | (G)<br>Feet |
| 104+50.00          | 109+45.00 | 4           | 7           |
| 119+03.27          | 119+89.64 | 4           | 7           |

**Combination Shoulder**

|                    |           |             |             |
|--------------------|-----------|-------------|-------------|
| 2_C_04-21-20       |           |             |             |
| STATION TO STATION |           | (P)<br>Feet | (G)<br>Feet |
| 104+50.00          | 109+45.00 | 4           | 4           |
| 119+03.27          | 119+89.64 | 4           | 4           |

**Iowa Highway 3**

|                    |            |
|--------------------|------------|
| 2H<br>04-21-20     |            |
| STATION TO STATION |            |
| 1107+57.72         | 1128+50.00 |
|                    |            |
|                    |            |

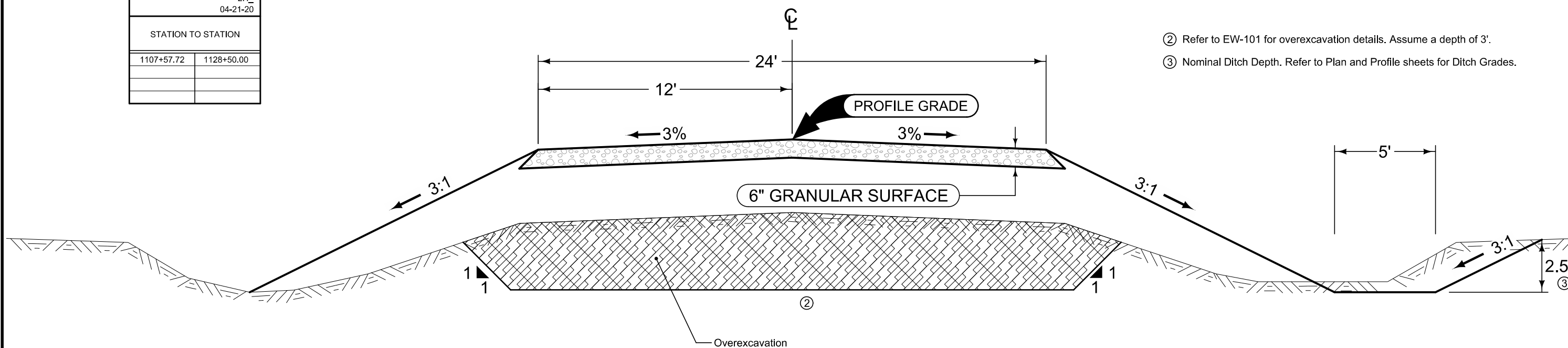
### Cedar Ave.

#### Notes:

Section shown looking North

② Refer to EW-101 for overexcavation details. Assume a depth of 3'.

③ Nominal Ditch Depth. Refer to Plan and Profile sheets for Ditch Grades.

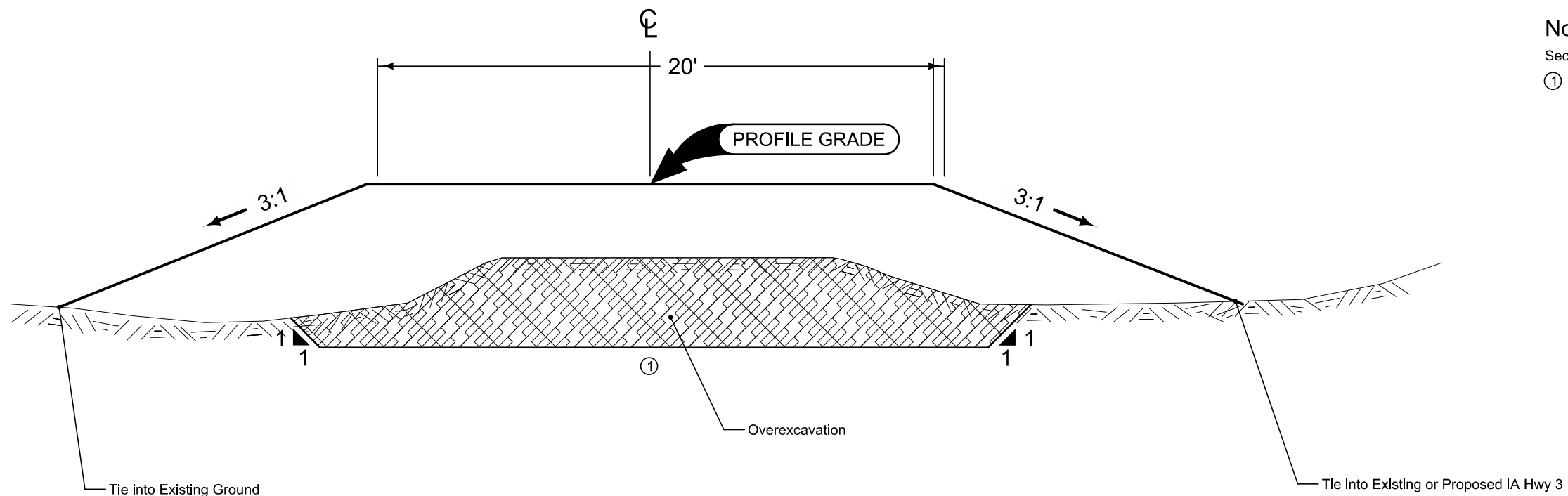


### RCB Dike

#### Notes:

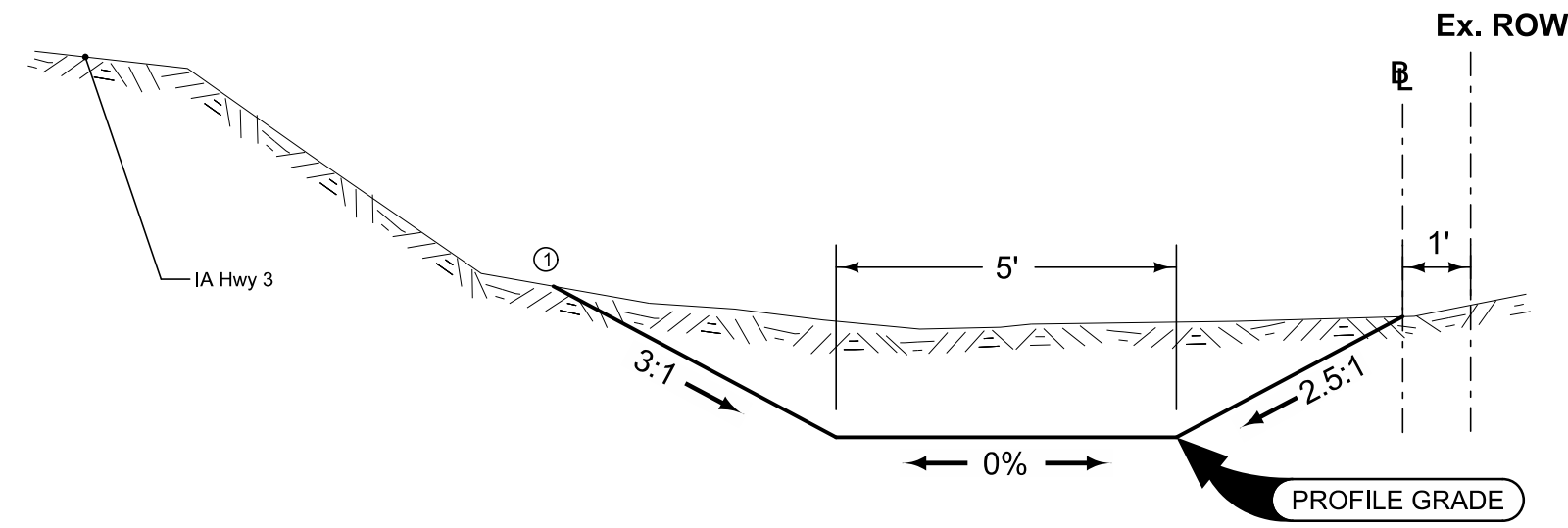
Section shown looking East (Upstation)

① Refer to EW-101 for overexcavation details. Assume a depth of 3'.



### Low-Flow Ditch (IA HWY 3)

Notes:  
Section shown looking East  
① Tie into existing IA 3



### 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 Sign                        |
|  | Sink Hole                         |  | TCB Traffic Signal Control Box   |
|  | Board Fence                       |  | RRB Rail Road Signal Control Box |
|  | Chain Link or Security Fence      |  | TSB Telephone Switch Box         |
|  | Wire Fence                        |  | EB 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

- |  |      |   |
|--|------|---|
|  | E1   | MidAmerican Electric<br>Jordyn Weber<br>319-291-4728<br>jlweber@midamerican.com |
|  | G    | MidAmerican Gas<br>Jordyn Weber<br>319-291-4728<br>jlweber@midamerican.com      |
|  | SAN. | City of Dumont<br>Rhonda Schmidt<br>641-857-3441                                |
|  | TI   | Dumont Telephone<br>Roger Kregel<br>641-857-3211<br>dumontel@netins.net         |

### 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. |  |
| Lavender      | (9)   |                  | 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 Sidewalk Landing Shading                                      |
| Pink          | (11)  |                  | Proposed Sidewalk Ramp Shading   |
| Green, Light  | (225) |                  | Existing Pavement Shading  |
| Red           | (3)   |                  | Proposed Structure Shading   |
| Red           | (3)   |                  | Delineates Restricted Areas  |

### PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

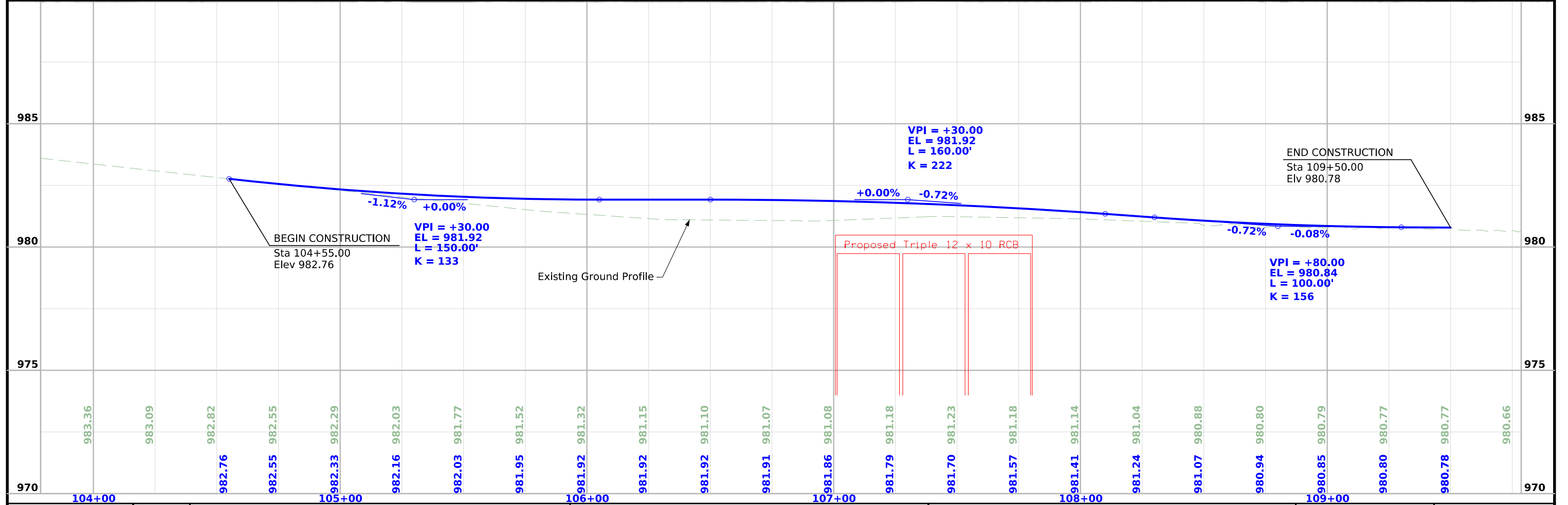
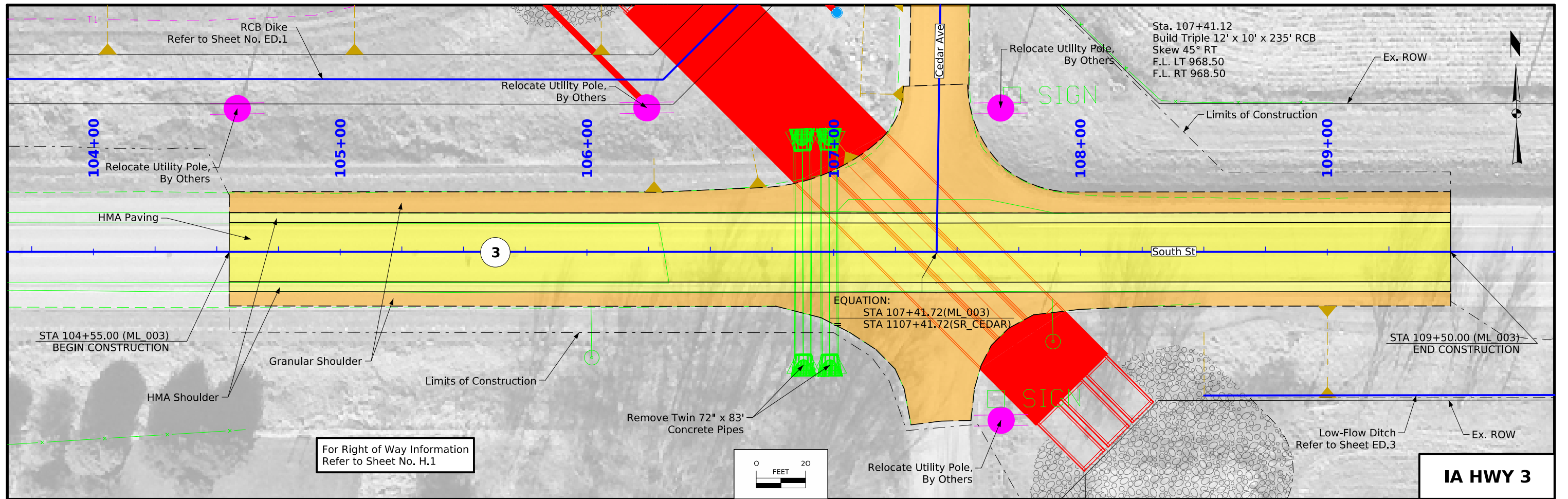
| LINEWORK    |       | Design Color No. |                                 |
|-------------|-------|------------------|---------------------------------|
| Green       | (2)   |                  | Existing Ground Line Profile    |
| Blue        | (1)   |                  | Proposed Profile and Annotation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

- |  |                             |  |                |
|--|-----------------------------|--|----------------|
|  | Reference Point             |  | Survey Line    |
|  | Station                     |  | Section Corner |
|  | Ground Line Intercept       |  | Saw Cut        |
|  | Guardrail                   |  | Trench Drain   |
|  | HighTension Cable Guardrail |  | Sheet Pile     |

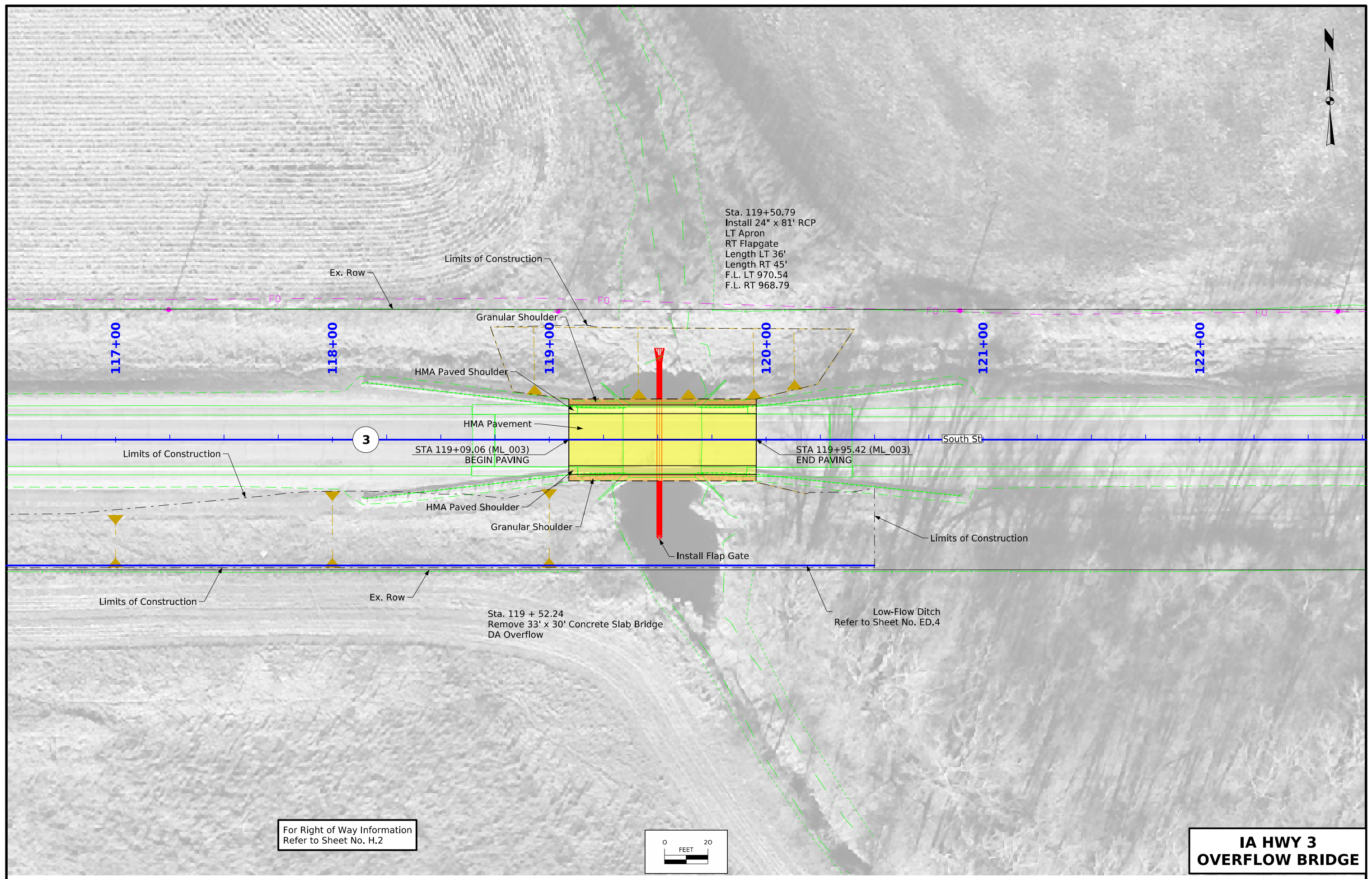
- ### RIGHT-OF-WAY LEGEND
- |  |                                    |
|--|------------------------------------|
|  | Proposed Right-of-Way              |
|  | Existing Right of Way              |
|  | Existing and Proposed Right-of-Way |
|  | Easement and Existing Right-of-Way |
|  | Easement (Temporary)               |
|  | Easement                           |
|  | Access Control                     |
|  | Property Line                      |

## PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

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



|                |         |                        |               |                                       |                  |
|----------------|---------|------------------------|---------------|---------------------------------------|------------------|
| FILE NO. 32181 | ENGLISH | DESIGN TEAM WHKS & Co. | BUTLER COUNTY | PROJECT NUMBER BRFN-003-5(083)--39-12 | SHEET NUMBER D.2 |
|----------------|---------|------------------------|---------------|---------------------------------------|------------------|



Sta. 119+50.79  
 Install 24" x 81' RCP  
 LT Apron  
 RT Flapgate  
 Length LT 36'  
 Length RT 45'  
 F.L. LT 970.54  
 F.L. RT 968.79

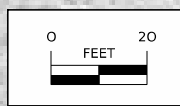
STA 119+09.06 (ML 003)  
 BEGIN PAVING

STA 119+95.42 (ML 003)  
 END PAVING

Sta. 119 + 52.24  
 Remove 33' x 30' Concrete Slab Bridge  
 DA Overflow

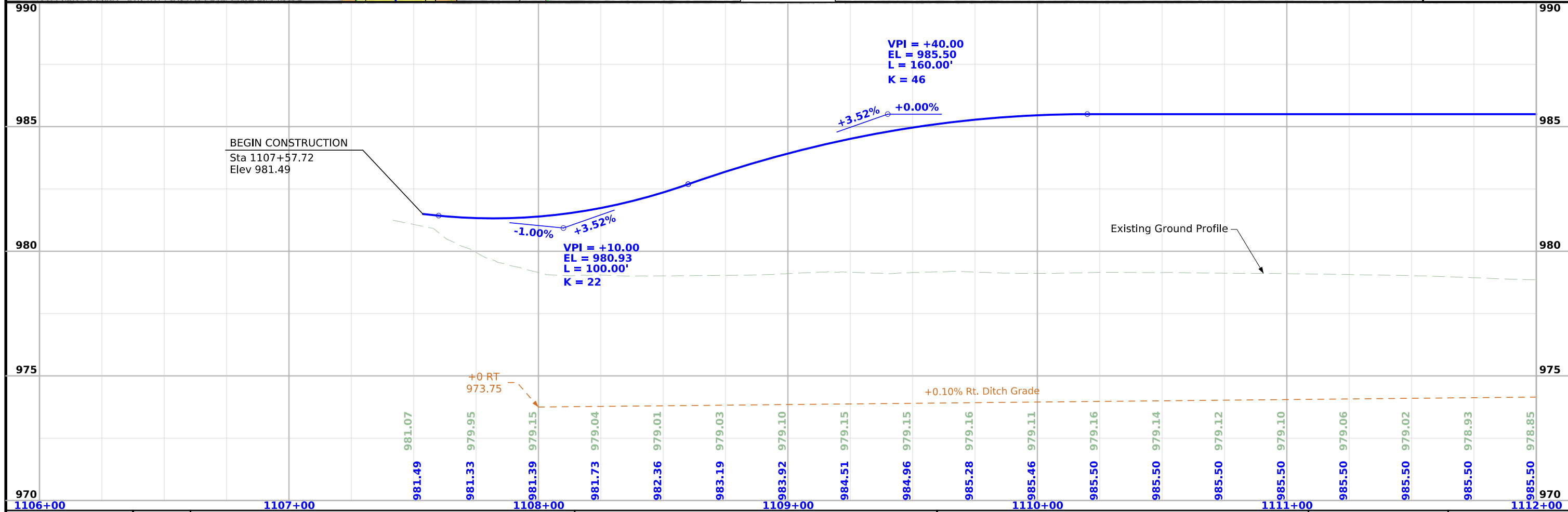
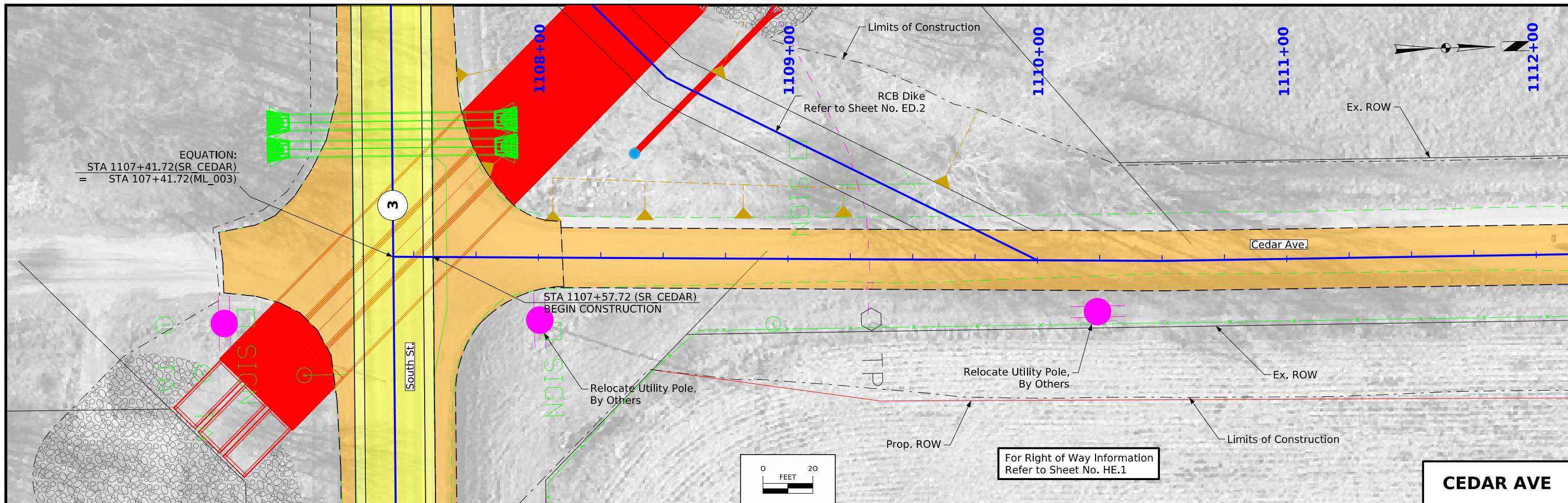
Low-Flow Ditch  
 Refer to Sheet No. ED.4

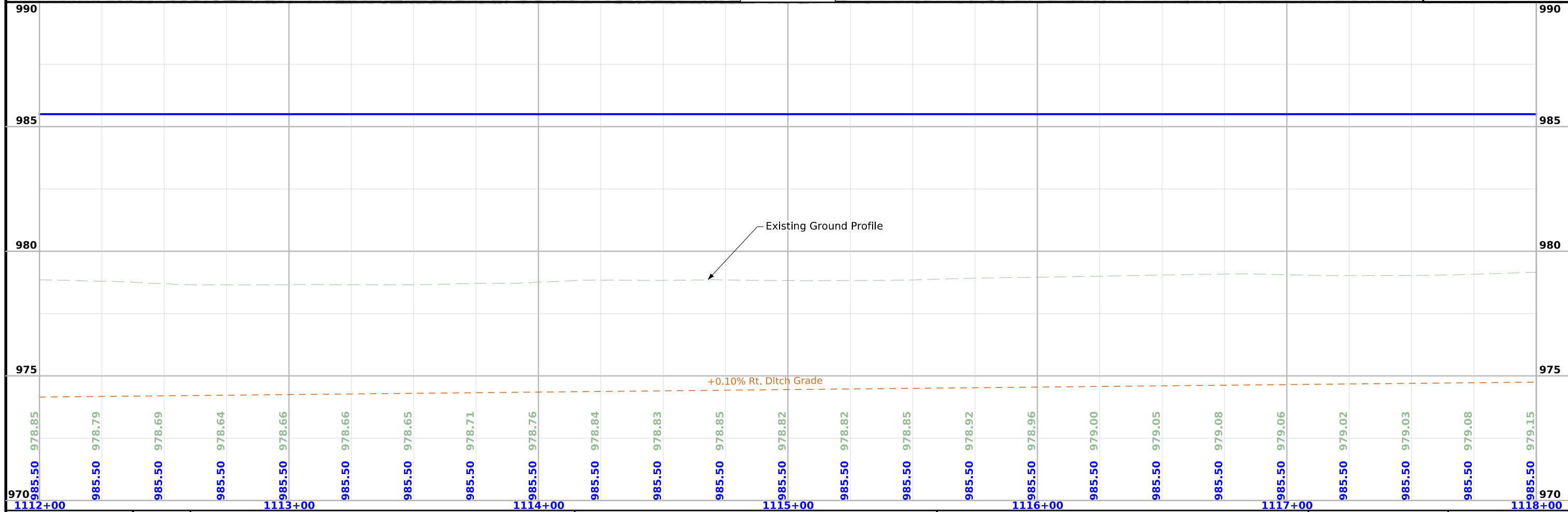
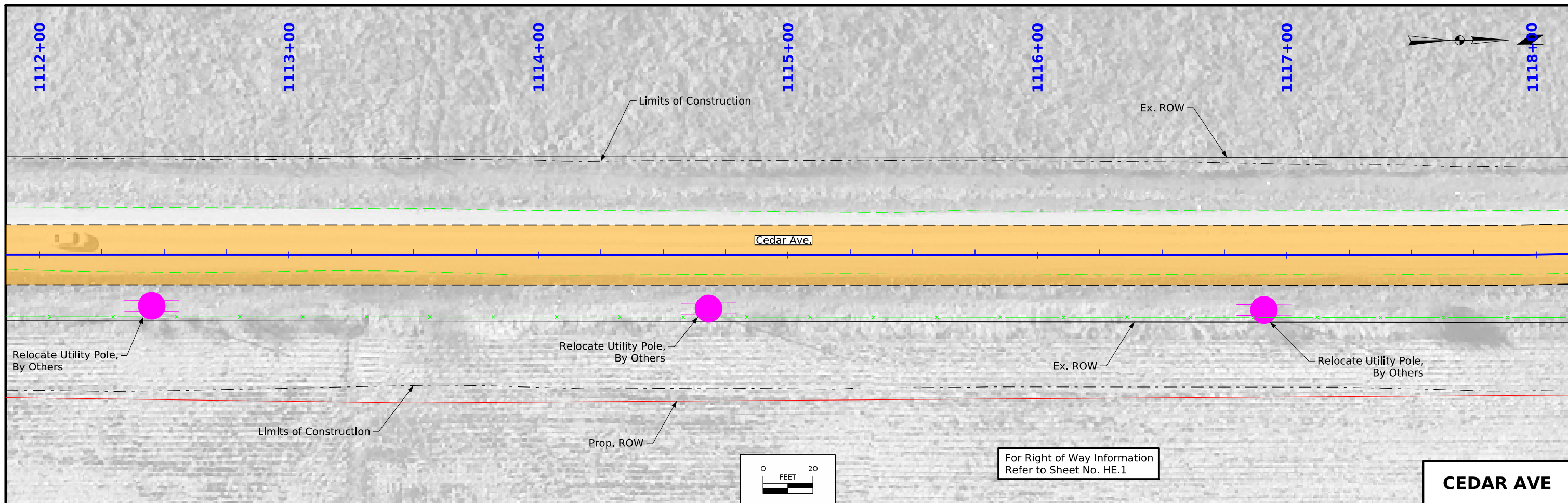
For Right of Way Information  
 Refer to Sheet No. H.2

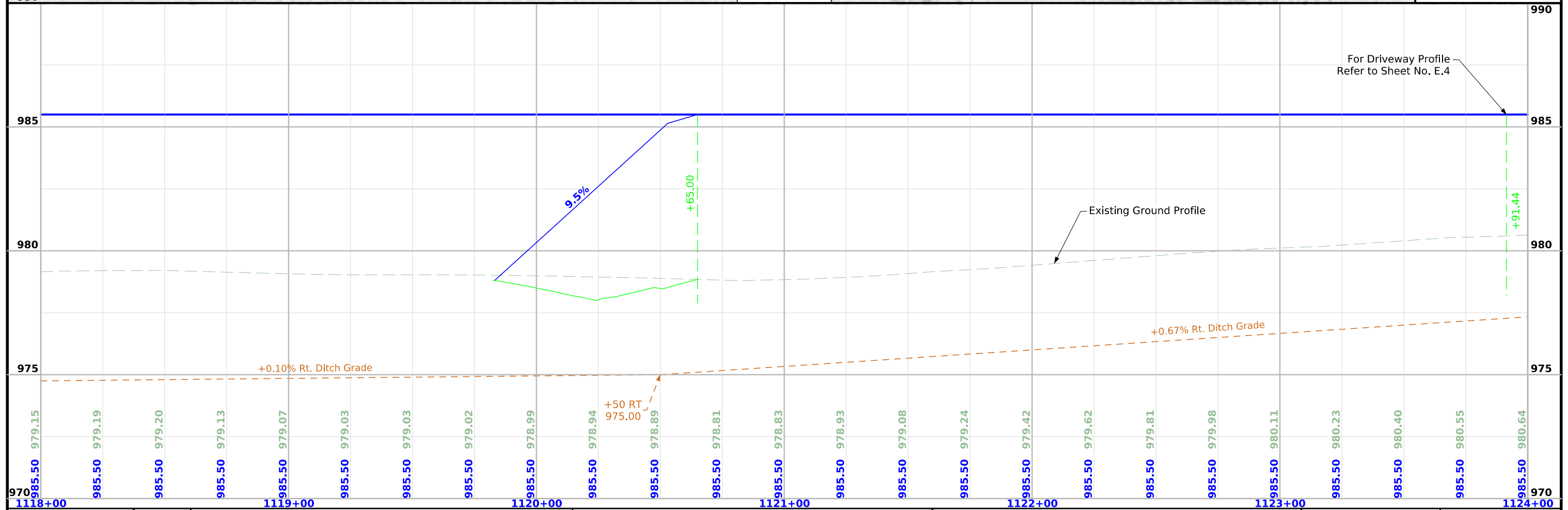
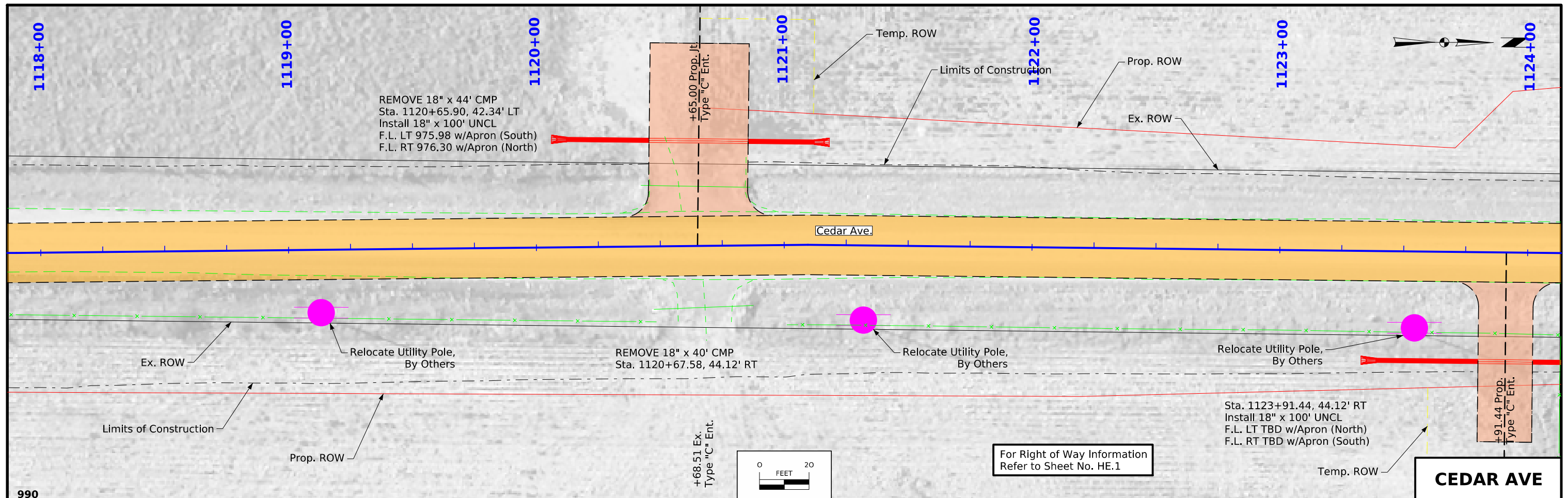


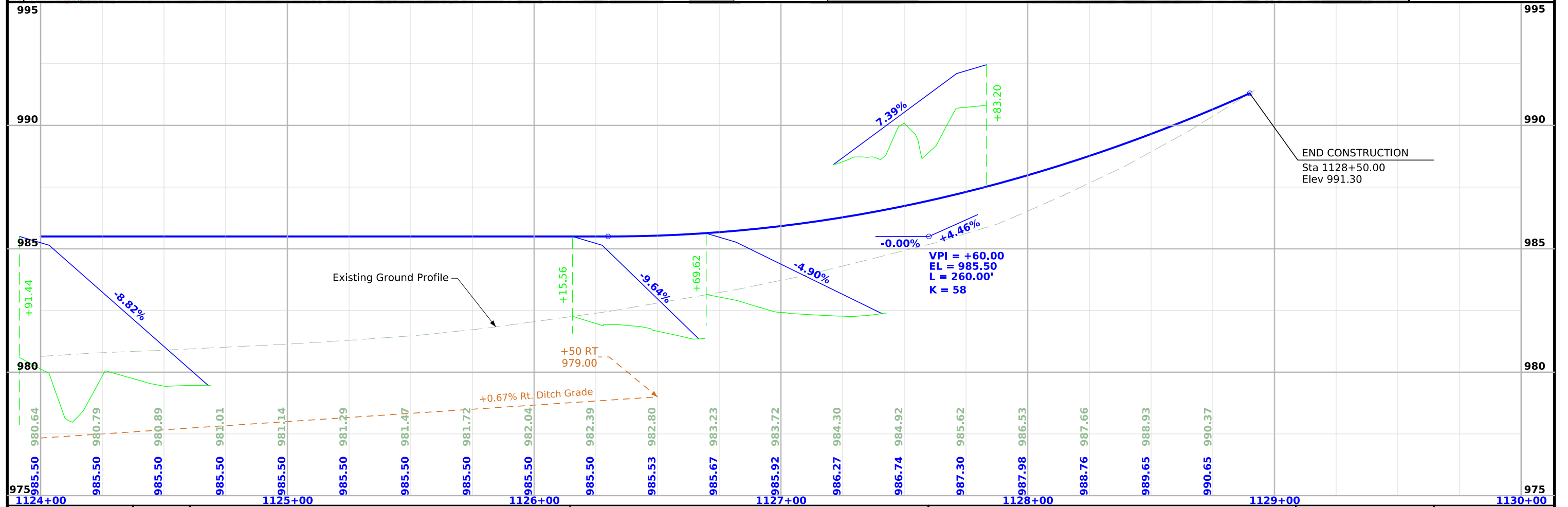
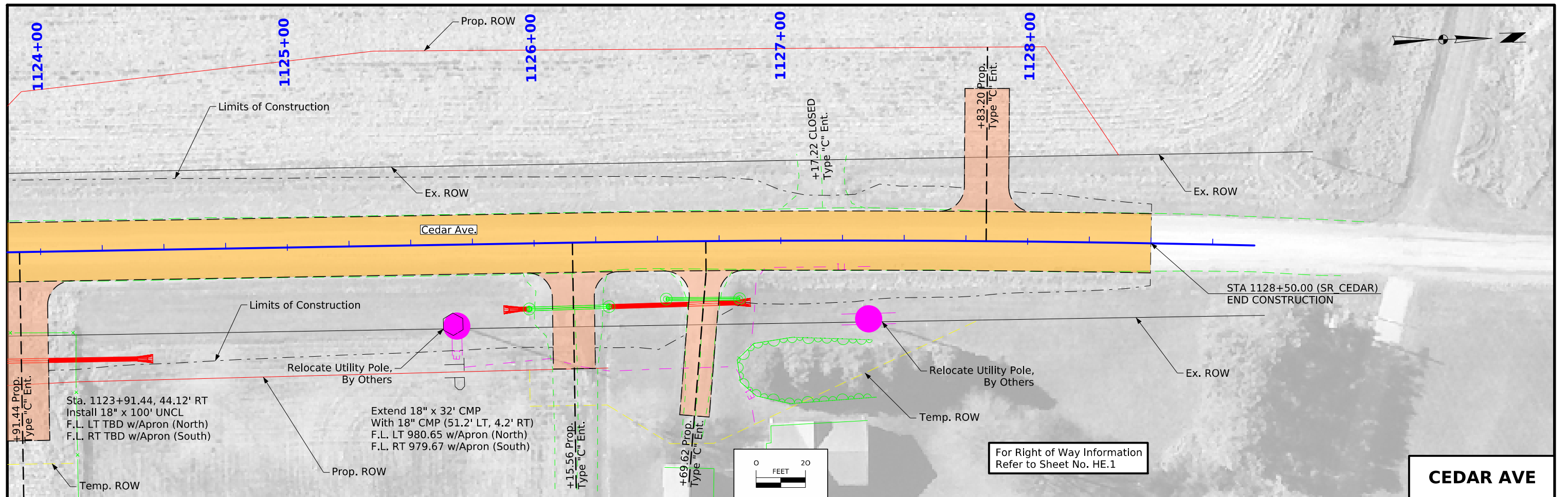
**IA HWY 3  
 OVERFLOW BRIDGE**

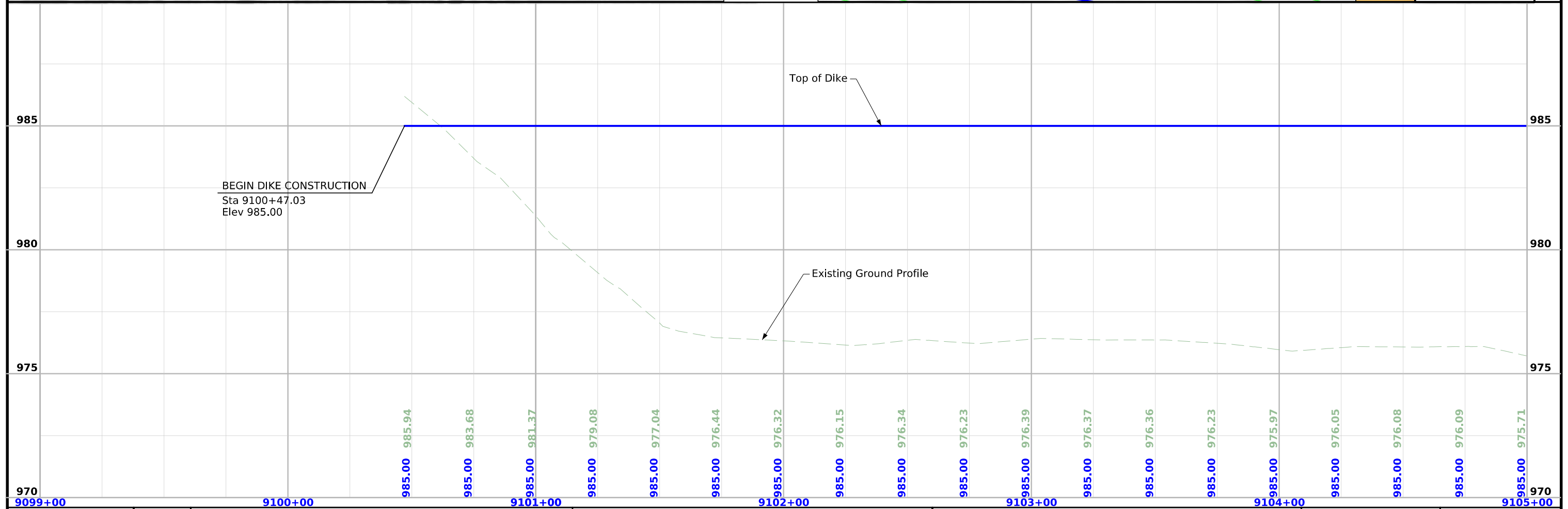
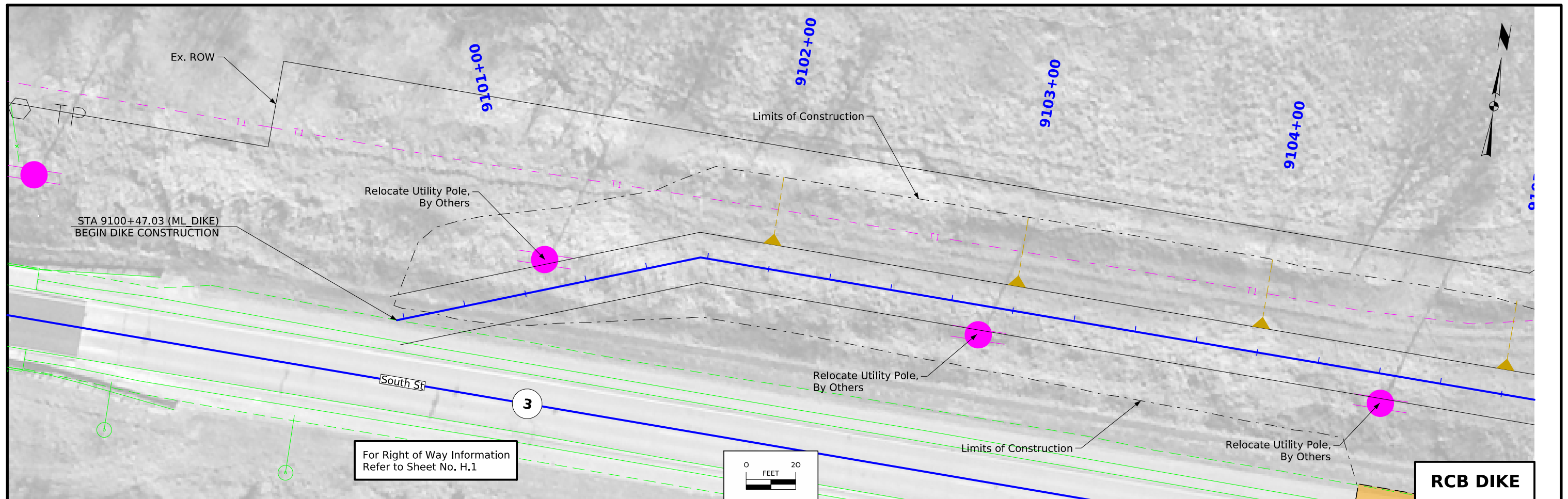


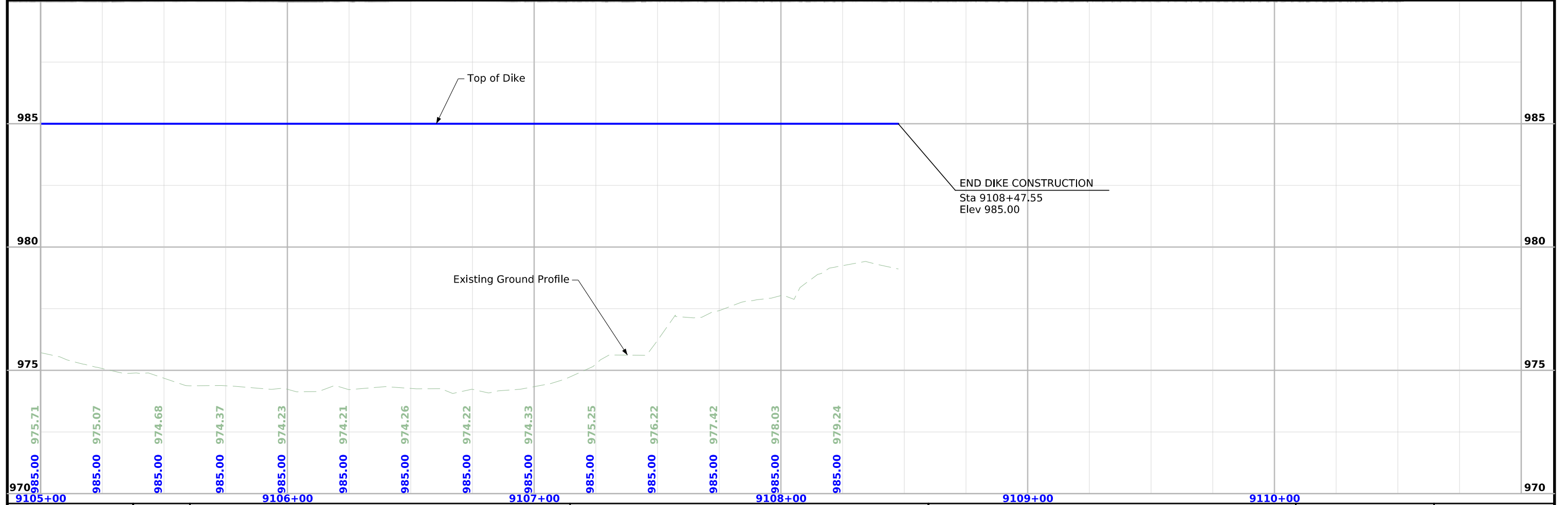
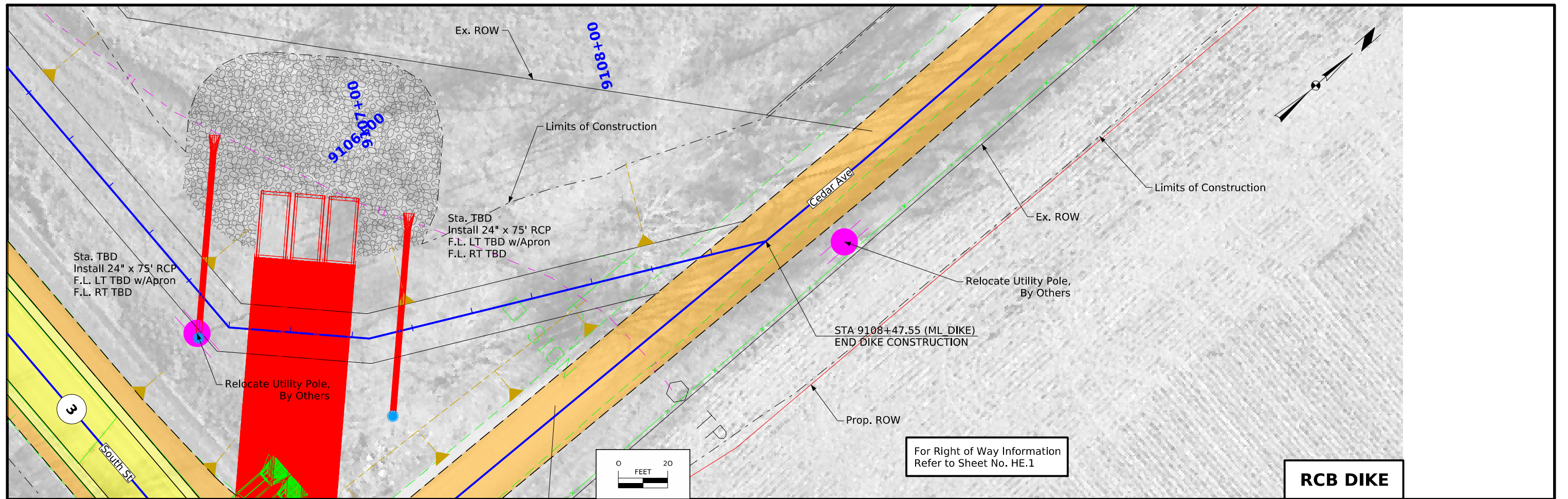


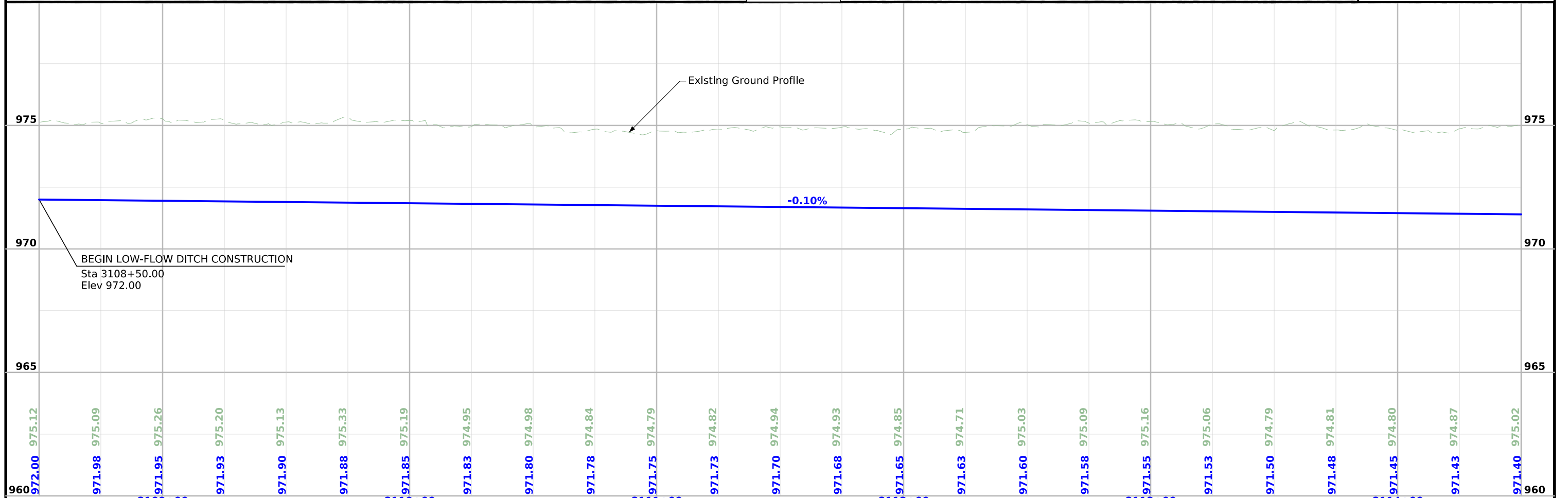
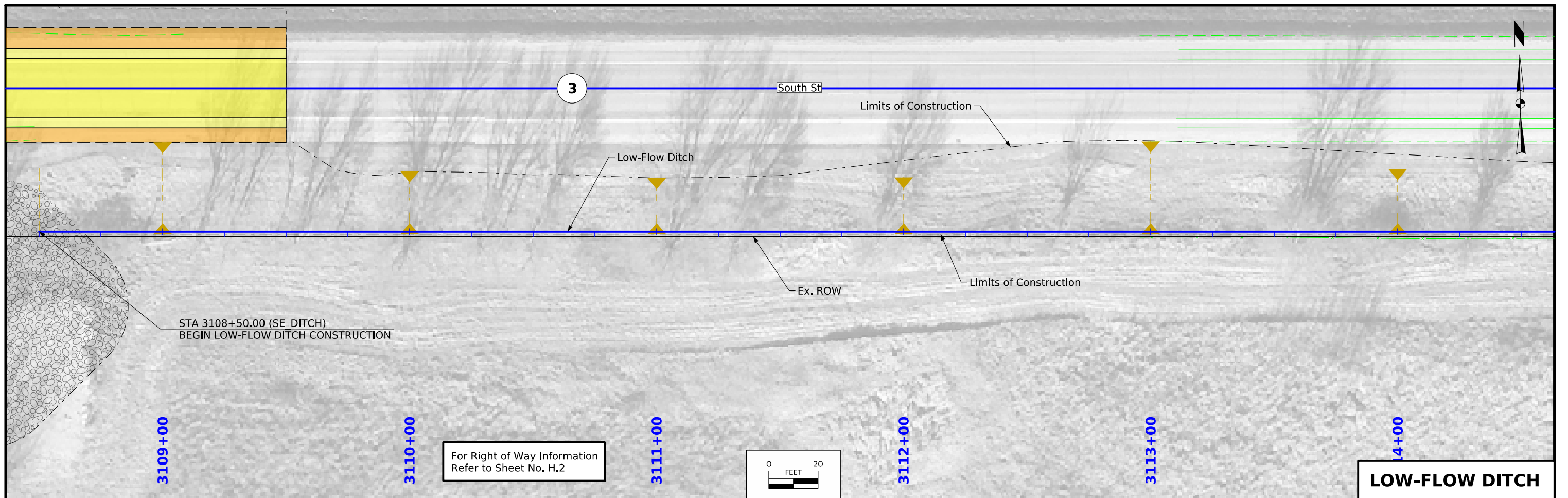




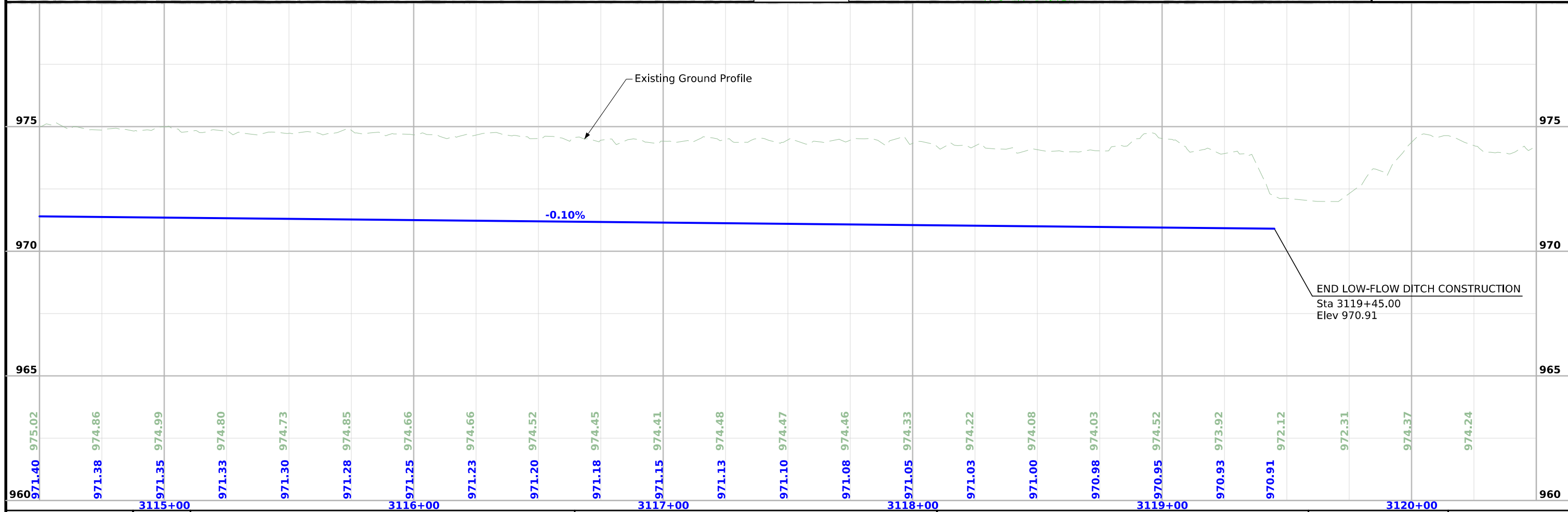
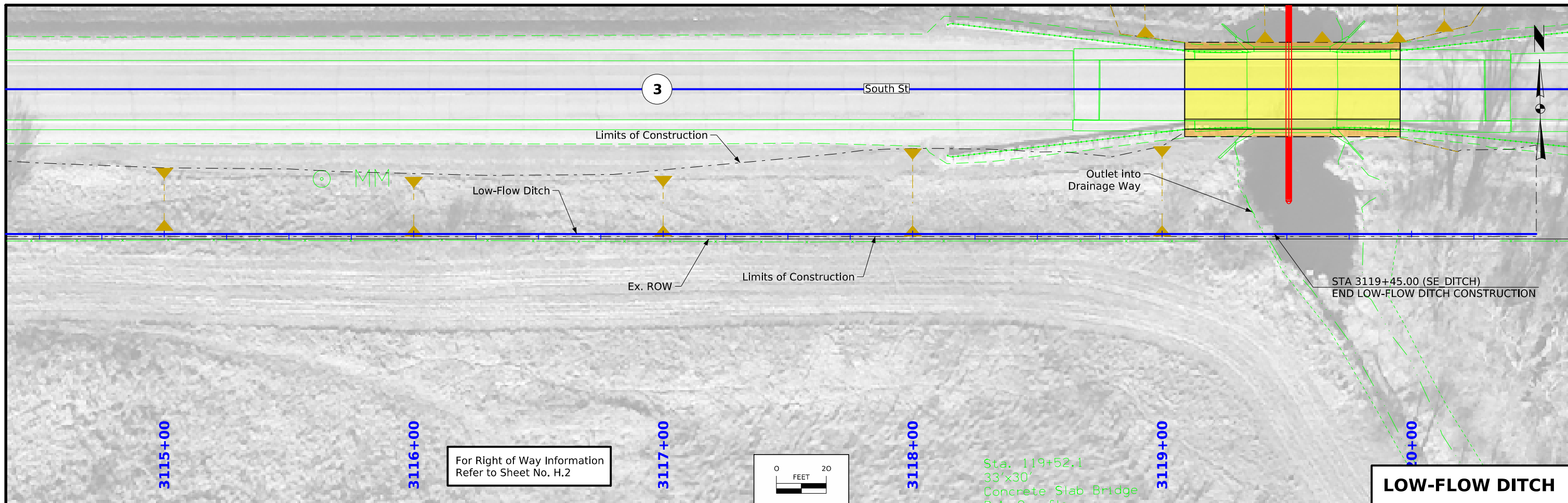








|                |         |                        |               |                                       |                   |
|----------------|---------|------------------------|---------------|---------------------------------------|-------------------|
| FILE NO. 32181 | ENGLISH | DESIGN TEAM WHKS & Co. | BUTLER COUNTY | PROJECT NUMBER BRFN-003-5(083)--39-12 | SHEET NUMBER ED.3 |
|----------------|---------|------------------------|---------------|---------------------------------------|-------------------|





## Survey Information

**Butler County**  
**BRFN-003-8(68)--39-12**  
**PIN 19-12-003-010**  
**IA 3 Additional Survey of IA 3 at Hartgrave Creek, Cedar Ave, and T-16 intersections**  
**SAP 0588.3**

### **General Information**

Measurement units for this survey are US survey feet. Project datum and control was established using previously established control. This is an additional survey of IA 3. Starting 300 feet West and 300 feet East of Hartgrave Creek, from IA 3 North 2000 feet along Cedar Ave., and 700 feet West and 900 feet East of intersection T-16.

### **Vertical Control**

Vertical datum for this survey is relative to NAVD88. Geoid 18 was used in this survey. CP1,CP2,K29,I29,105, and 171 were then calibrated from CP100. Additional benchmarks were placed throughout the project using RTK GPS.

BM#500 EL=975.929, Set RR Spk E Side Fence Post  
BM#501 EL=974.582, Fd IHC on InHdwl  
BM#502 EL=990.717, Fd IHC NE Wing of Br  
BM#503 EL=991.232, Fd IHC SW Wing of Br  
BM#504 EL=978.338, Set RR Spk S Side PP  
BM#505 EL=981.423, Set RR Spk S Side PP  
BM#506 EL=976.890, Set RR Spk S Side PP  
BM#507 EL=977.712, Set RR Spk W Side PP  
BM#508 EL=983.603, Set RR Spk W Side PP  
BM#509 EL=975.959, Set RR Spk S Side PP  
BM#510 EL=974.515, Fd IHC on InHdwl

### **Horizontal Control**

The project coordinate system for this survey is IaRCS Zone 12(U.S. Survey Feet). This survey control is relative to 2-hour static sessions that were processed using OPUS. We establish 4 control points surrounding the perimeter of the project limits, observing each for 180 epochs. CP101-CP104 were then calibrated from CP100. Additional control points were placed throughout the project using GNSS Base-Rover setup relative to CP100.

### **Alignment Information**

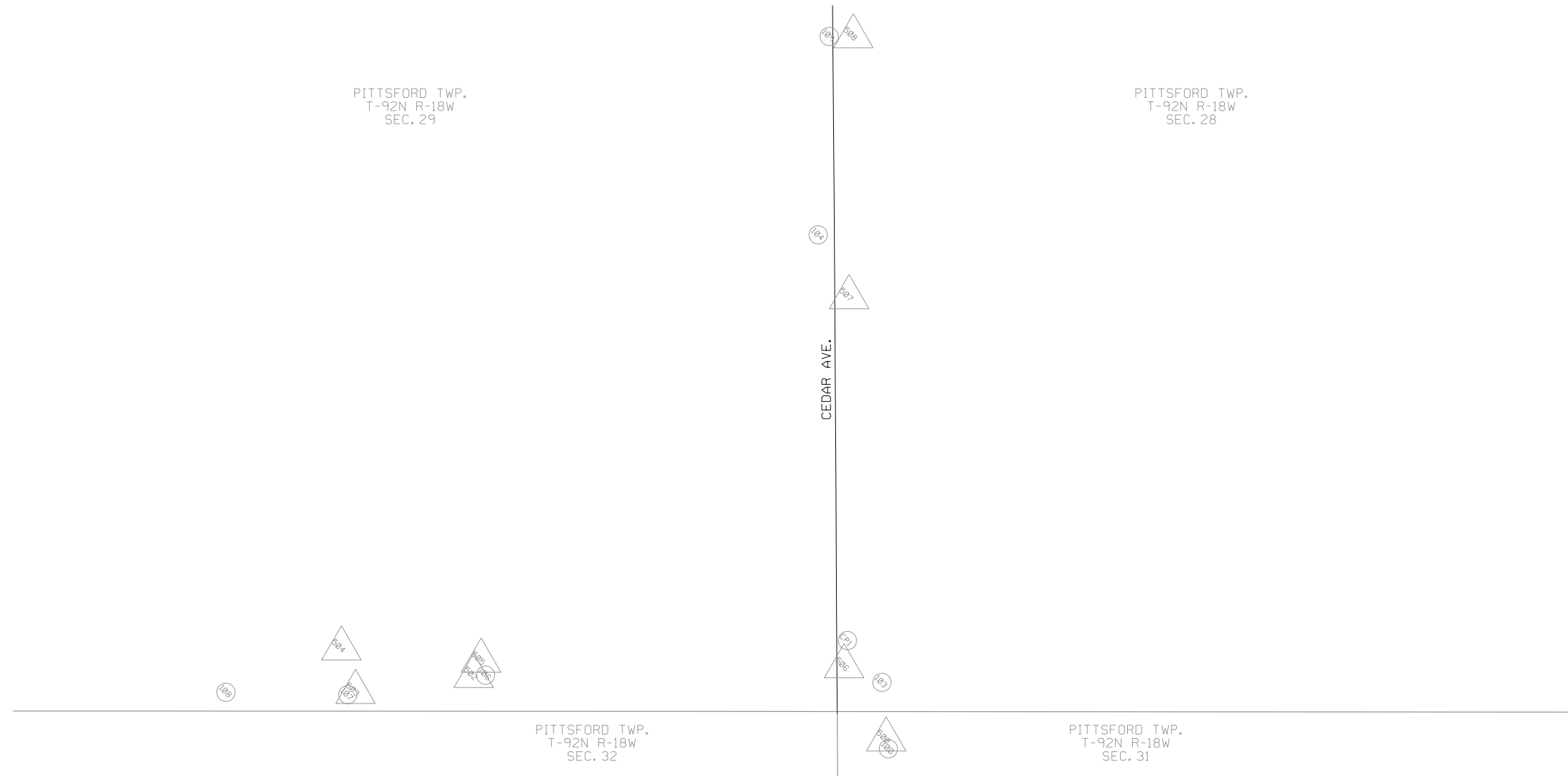
The horizontal alignment for this survey is a retrace of As-Built Grading & Paving Plans BRF-3-5(32)38-12. Survey stationing was equated to the plan POT at STA 107+41.70 at point #5559, Found Mag Nail Flush in Pavement, and run back and forward without equation to the throughout the survey.

Survey stationing relates to as-built plan stationing as follows:

POT Sta. 107+41.70 Project BRF-3-5(32)38-12  
Survey PI Sta. 9107+41.70

# CONTROL POINT VICINITY MAP

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



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 5

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

# CONTROL POINT VICINITY MAP

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



HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

Ia. Regional Coordinate System Zone 5

Coordinate listing from next sheet will be used with IaRTN for monument  
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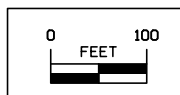
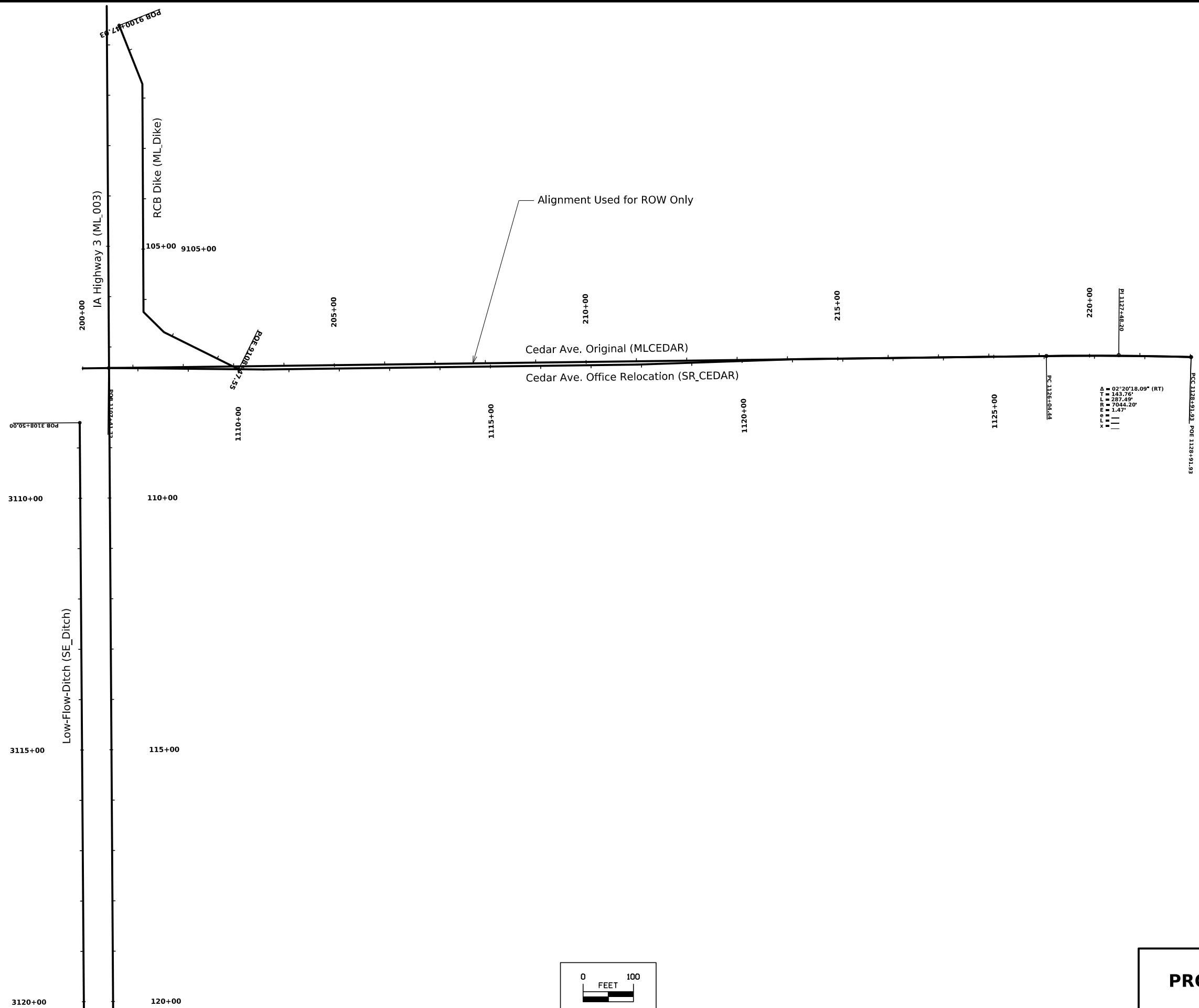
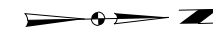
# HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) EPOCH 2010.00

VERT. DATUM: NAVD88

1a. Regional Coordinate System Zone 5

| Point Name | Northing    | Easting      | Elevation | Feature Definition | Description                           |
|------------|-------------|--------------|-----------|--------------------|---------------------------------------|
| 100        | 8935343.862 | 15302436.852 | 975.177   | CP                 | Set Rebar                             |
| 101        | 8935442.788 | 15306702.644 | 974.912   | CP                 | Cut "X" on SW Corner of Intake        |
| 102        | 8935461.931 | 15305073.316 | 976.061   | CP                 | Set Rebar 6" Deep                     |
| 103        | 8935500.988 | 15302421.493 | 979.908   | CP                 | Set Rebar 6" Deep                     |
| 104        | 8936800.317 | 15302270.392 | 978.460   | CP                 | Set Rebar 6" Deep                     |
| 105        | 8930888.341 | 15291547.783 | 998.738   | CP                 | FD Butler Co GPS 98-105               |
| 106        | 8935518.539 | 15301470.039 | 987.706   | CP                 | Set Rebar 6" Deep                     |
| 107        | 8935472.251 | 15301164.757 | 987.756   | CP                 | Set Rebar 6" Deep                     |
| 108        | 8935477.650 | 15300866.643 | 986.537   | CP                 | Set Rebar 6" Deep                     |
| 171        | 8930104.231 | 15307574.092 | 971.825   | CP                 | FD Butler Co GPS 171                  |
| CP1        | 8935600.139 | 15302339.894 | 977.008   | CP                 | FD IDOT ROW Rail Drilled Hole in Ball |
| CP2        | 8935506.222 | 15304635.695 | 976.919   | CP                 | FD IDOT ROW Rail Drilled Hole in Ball |
| J29        | 8941284.354 | 15291757.551 | 990.649   | CP                 | FD USC&GS BM J29                      |
| K29        | 8938176.729 | 15300994.796 | 990.474   | CP                 | FD USC&GS BM K29                      |
| 500        | 8935364.127 | 15302436.356 | 975.929   | BM                 | RR Spk E Side Fence Post              |
| 501        | 8935454.838 | 15306275.709 | 974.582   | BM                 | Fd IHC on InHdwl                      |
| 502        | 8935514.086 | 15301458.490 | 990.717   | BM                 | Fd IHC NE Wing of Br                  |
| 503        | 8935476.383 | 15301178.422 | 991.232   | BM                 | Fd IHC SW Wing of Br                  |
| 504        | 8935579.425 | 15301145.026 | 978.338   | BM                 | Set RR Spk S Side PP                  |
| 505        | 8935550.529 | 15301476.135 | 981.423   | BM                 | Set RR Spk S Side PP                  |
| 506        | 8935537.476 | 15302336.516 | 976.890   | BM                 | Set RR Spk S Side PP                  |
| 507        | 8936650.762 | 15302348.535 | 977.712   | BM                 | Set RR Spk W Side PP                  |
| 508        | 8937473.008 | 15302358.448 | 983.603   | BM                 | Set RR Spk W Side PP                  |
| 509        | 8935452.281 | 15306290.887 | 975.959   | BM                 | Set RR Spk S Side PP                  |
| 510        | 8935459.694 | 15305927.501 | 974.515   | BM                 | Fd IHC on InHdwl                      |



### PROJECT ALIGNMENTS

**ALIGNMENT COORDINATES**

| Line No. | Name           | Location | Poin on Tangent Station | Point on Tangent Y Northing | Point on Tangent X Easting | Begin Spiral Station | Begin Spiral Y Northing | Begin Spiral X Easting | Begin Curve Station | Begin Curve Y Northing | Begin Curve X Easting | Simple Curve PI or Master PI Station | Simple Curve PI or Master PI Y Northing | Simple Curve PI or Master PI X Easting | End Curve Station | End Curve Y Northing | End Curve X Easting | End Spiral Station | End Spiral Y Northing | End Spiral X Easting |
|----------|----------------|----------|-------------------------|-----------------------------|----------------------------|----------------------|-------------------------|------------------------|---------------------|------------------------|-----------------------|--------------------------------------|---|--|-------------------|----------------------|---------------------|--------------------|-----------------------|----------------------|
| 1.0      | IA HWY 3       |          |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 2.0      | 1              | ML_003   | 74+00.00                | 8935533.696                 | 15298967.949               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 3.0      | 2              | ML_003   | 107+41.72               | 8935479.505                 | 15302309.230               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 4.0      | 3              | ML_003   | 160+10.44               | 8935404.872                 | 15307577.424               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 5.0      |                |          |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 6.0      | CEDAR AVE      | OR       |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 7.0      | 1              | SR_CEDAR | 1107+41.72              | 8935479.505                 | 15302309.230               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 8.0      | 2              | SR_CEDAR | 1110+50.05              | 8935787.695                 | 15302318.596               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 9.0      | 3              | SR_CEDAR | 1113+90.18              | 8936127.815                 | 15302321.447               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 10.0     | 4              | SR_CEDAR | 1117+90.18              | 8936527.801                 | 15302324.801               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 11.0     | 5              | SR_CEDAR | 1121+09.56              | 8936847.150                 | 15302320.718               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 12.0     | 6              | SR_CEDAR |                         |                             |                            |                      |                         |                        | 1126+04.44          | 8937342.014            | 15302324.867          | 1127+48.21                           | 8937485.773                             | 15302326.072                           | 1128+91.93        | 8937629.363          | 15302333.142        |                    |                       |                      |
| 13.0     |                |          |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 14.0     | RCB DIKE       |          |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 15.0     | 1              | ML_Dike  | 9100+47.03              | 8935514.937                 | 15301629.424               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 16.0     | 2              | ML_Dike  | 9101+72.14              | 8935558.638                 | 15301746.651               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 17.0     | 3              | ML_Dike  | 9106+25.00              | 8935551.295                 | 15302199.450               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 18.0     | 4              | ML_Dike  | 9108+47.55              | 8935737.666                 | 15302317.076               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 19.0     |                |          |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 20.0     | LOW-FLOW DITCH |          |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 21.0     | 1              | SE_Ditch | 3108+50.00              | 8935419.977                 | 15302416.677               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 22.0     | 2              | SE_Ditch | 3114+00.00              | 8935412.186                 | 15302966.622               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 23.0     | 3              | SE_Ditch | 3120+50.00              | 8935402.979                 | 15303616.557               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 24.0     |                |          |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 25.0     | CEDAR AVE *    | Original |                         |                             |                            |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 26.0     | 1              | MLCEDAR  | 200+00.00               | 8935427.937                 | 15302308.819               |                      |                         |                        |                     |                        |                       |                                      |   |  |                   |                      |                     |                    |                       |                      |
| 27.0     | 2              | MLCEDAR  |                         |                             |                            |                      |                         |                        | 219+14.14           | 8937342.014            | 15302324.867          | 220+57.91                            | 8937485.773                             | 15302326.072                           | 222+01.63         | 8937629.363          | 15302333.142        |                    |                       |                      |

\* Used for ROW only

**SPIRAL OR CIRCULAR CURVE DATA**

| Line No. | Name      | Location | SCS | S | Ls | Ts | Es | Xc | Yc | L.T. | S.T. | C           | T        | L        | R         | E      | Remarks |
|----------|-----------|----------|-----|---|----|----|----|----|----|------|------|-------------|----------|----------|-----------|--------|---------|
| 1.0      | SR_CEDAR  | 4        |     |   |    |    |    |    |    |      |      | 2.338 Right | 143.764' | 287.488' | 7044.195' | 1.467' |         |
| 2.0      |           |          |     |   |    |    |    |    |    |      |      |             |          |          |           |        |         |
| 3.0      | MLCEDAR * | 2        |     |   |    |    |    |    |    |      |      | 2.338 Right | 143.764' | 287.488' | 7044.195' | 1.467' |         |

\* Used for ROW only






IOWA DEPARTMENT OF  
NATURAL RESOURCES

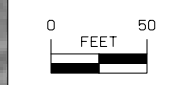
PROPERTY RIGHTS OBTAINED  
VIA SOVEREIGN LAND PERMIT

IA 3

CEDAR AVE

PITTSFORD TWP.  
T-92N R-18W  
SEC. 32

|   |                       |
|---|-----------------------|
| Right of Way Design Information   |                       |
| THIS SHEET INCLUDED FOR INFORMATION ONLY  |                       |
| ROW Team:   | CARMAN / CUVA         |
| ROW #:  | NHSN-003-5(84)--2R-12 |
| Plan Date:  | 04/19/2022            |
| Color Legend:   |                       |
|  | Property Lines        |
|  | Temporary Easement    |
|  | Permanent Acquisition |







2

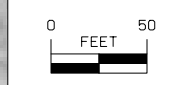
J. DAVID SCHUSTER

1

IOWA DEPARTMENT OF  
NATURAL RESOURCES

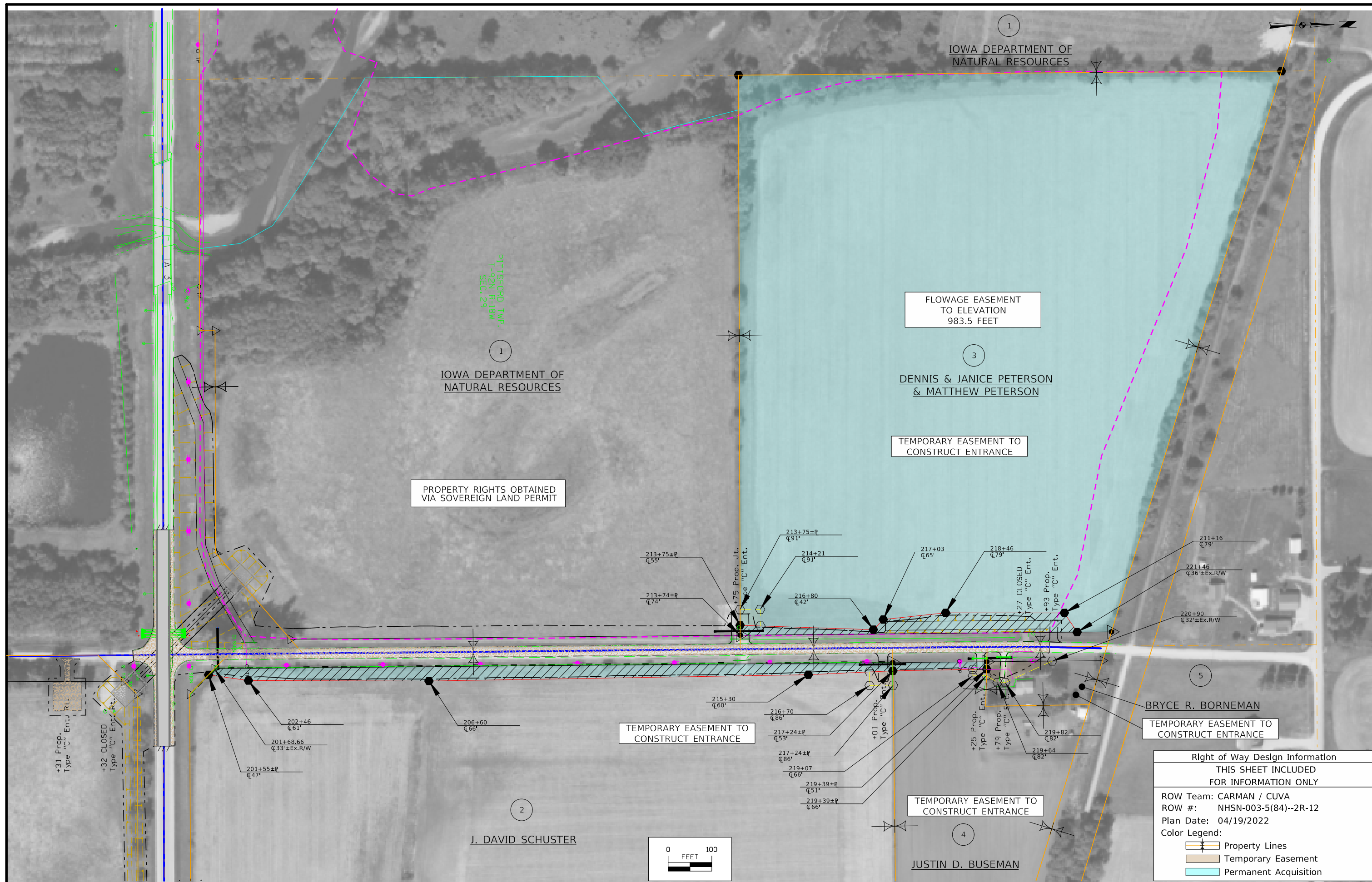
PROPERTY RIGHTS OBTAINED  
VIA SOVEREIGN LAND PERMIT

PITTSFORD TWP.  
T-92N R-18W  
SEC. 33



|  |                       |
|--|-----------------------|
| Right of Way Design Information          |                       |
| THIS SHEET INCLUDED FOR INFORMATION ONLY |                       |
| ROW Team: CARMAN / CUVA                  |                       |
| ROW #: NHSN-003-5(84)--2R-12             |                       |
| Plan Date: 04/19/2022                    |                       |
| Color Legend:                            |                       |
|  | Property Lines        |
|  | Temporary Easement    |
|  | Permanent Acquisition |





PROPERTY RIGHTS OBTAINED VIA SOVEREIGN LAND PERMIT

FLOWAGE EASEMENT TO ELEVATION 983.5 FEET

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

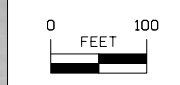
TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

TEMPORARY EASEMENT TO CONSTRUCT ENTRANCE

Right of Way Design Information  
THIS SHEET INCLUDED FOR INFORMATION ONLY

ROW Team: CARMAN / CUVA  
ROW #: NHSN-003-5(84)--2R-12  
Plan Date: 04/19/2022

Color Legend:  
 Property Lines  
 Temporary Easement  
 Permanent Acquisition



### TRAFFIC CONTROL PLAN





This project will utilize a full road closure per the Standard Road Plans listed in Tab. 105-4 on the C Sheets.

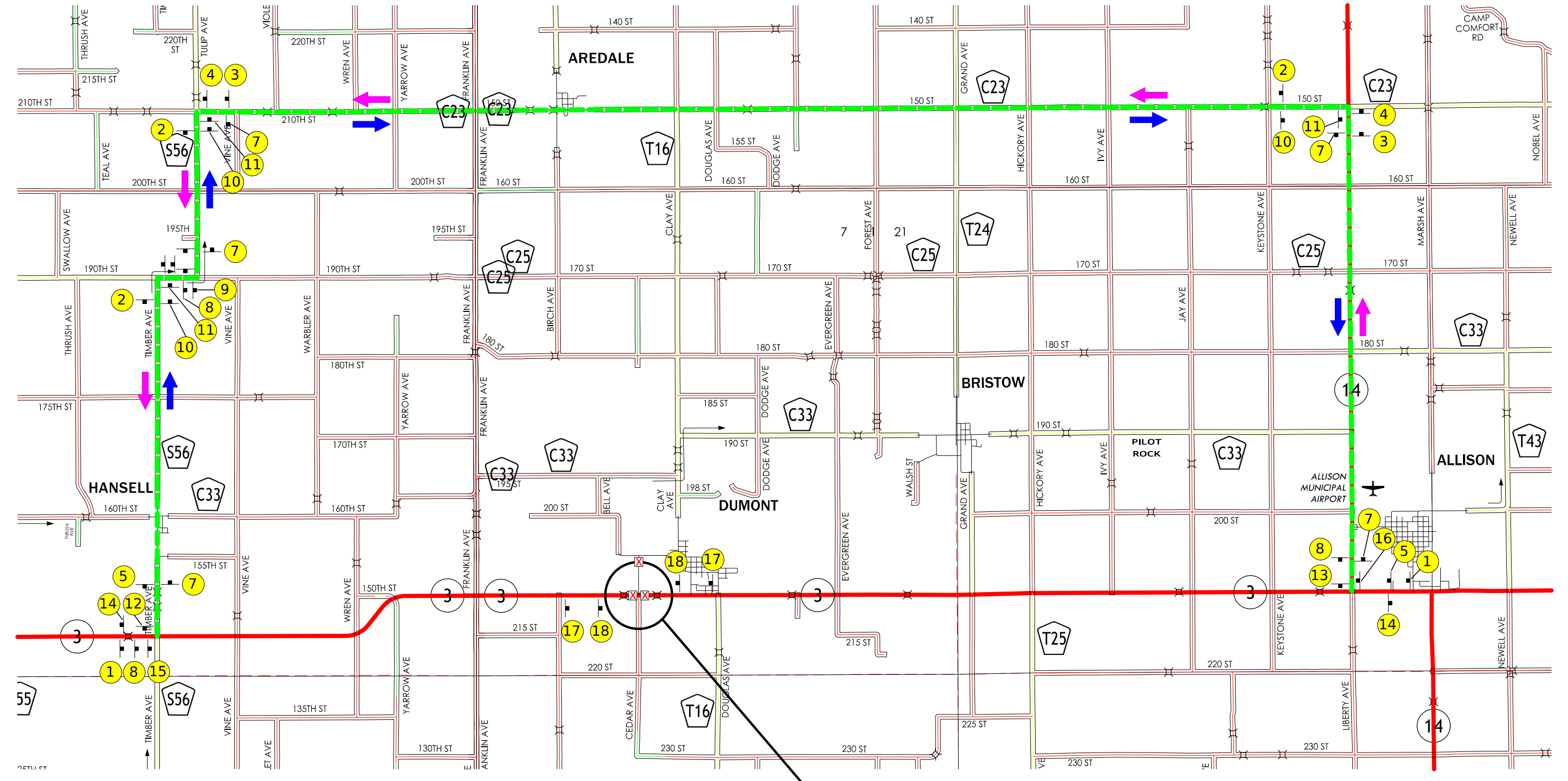
EB & WB traffic on IA 3 will be detoured around the project. Refer to Sheet J.2 for detour details. The detour route is as follows:

EB Detour: Traffic will travel North on Timber Ave. (6.2 miles West of the project) from IA 3 to 190th St. for 4.5 miles. Then travel East to Tulip Ave. for 0.5 miles. Then travel North to County Road C23 for 2 miles. Then travel East to Clay Ave. for 6 miles. Then travel South to Broadway St. in Dumont for 5.6 miles. Then travel East to Main St. for 0.1 miles. Then travel South to IA 3 for 0.5 miles. Total detour length is 19.2 miles. Refer to Detour Route Details on Sheet J.2 for details and sign locations.

WB Detour: Traffic will travel North on Main St. from IA 3 to Broadway St. in Dumont for 0.5 miles. Then travel West to Clay Ave. for 0.1 miles. Then travel North to County Road C23 for 5.6 miles. Then travel West to Tulip Ave. for 6 miles. Then travel South to 190th St. for 2 miles. Then travel West to Timber Ave. for 0.5 miles. Then travel South to IA 3 for 4.5 miles (6.2 miles West of the project). Total detour length is 19.2 miles. Refer to Detour Route Details on Sheet J.2 for details and sign locations.

Installation, maintenance, and removal of detour signage shall be the responsibility of the Contractor.

 **EB Detour Direction**  
 **WB Detour Direction**  
 **Detour Route**  
 **Road Closure**



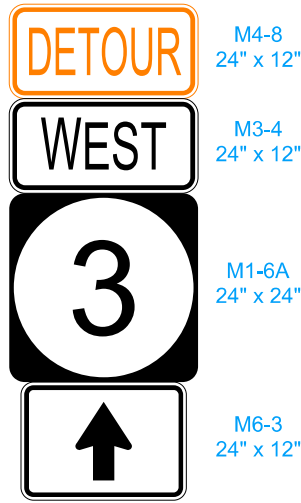
Map Not to Scale

**IA 3 DETOUR ROUTE**



W20-2  
48" x 48"

1



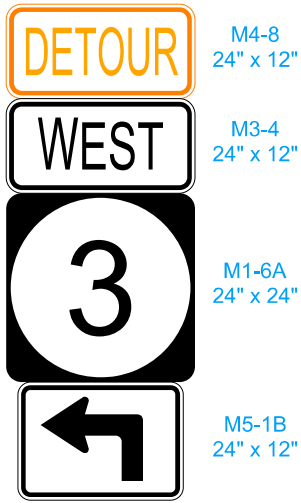
M4-8  
24" x 12"

M3-4  
24" x 12"

M1-6A  
24" x 24"

M6-3  
24" x 12"

2



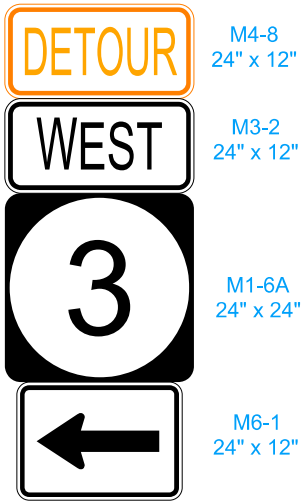
M4-8  
24" x 12"

M3-4  
24" x 12"

M1-6A  
24" x 24"

M5-1B  
24" x 12"

3



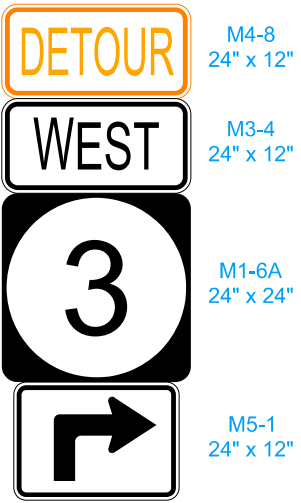
M4-8  
24" x 12"

M3-2  
24" x 12"

M1-6A  
24" x 24"

M6-1  
24" x 12"

4



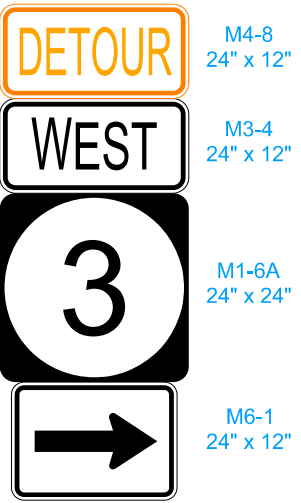
M4-8  
24" x 12"

M3-4  
24" x 12"

M1-6A  
24" x 24"

M5-1  
24" x 12"

5



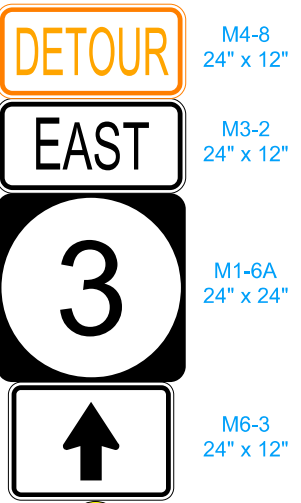
M4-8  
24" x 12"

M3-4  
24" x 12"

M1-6A  
24" x 24"

M6-1  
24" x 12"

6



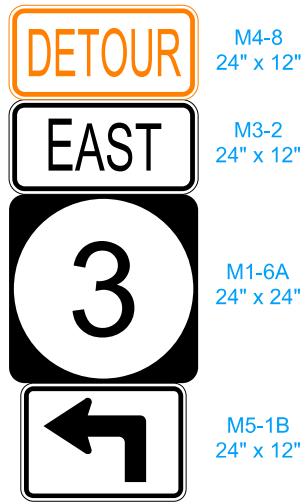
M4-8  
24" x 12"

M3-2  
24" x 12"

M1-6A  
24" x 24"

M6-3  
24" x 12"

7



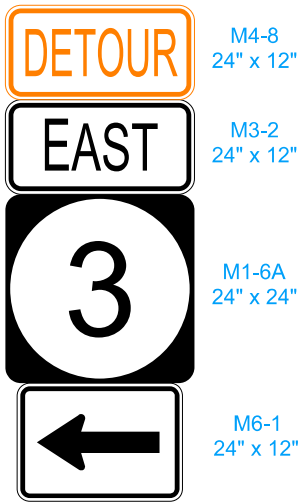
M4-8  
24" x 12"

M3-2  
24" x 12"

M1-6A  
24" x 24"

M5-1B  
24" x 12"

8



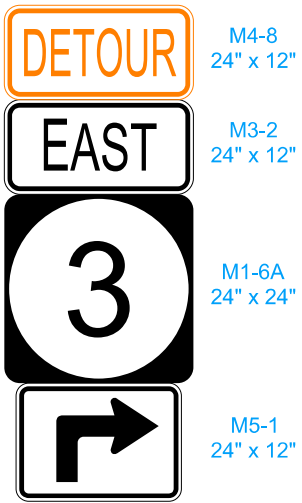
M4-8  
24" x 12"

M3-2  
24" x 12"

M1-6A  
24" x 24"

M6-1  
24" x 12"

9



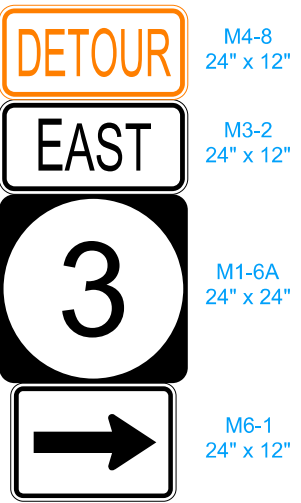
M4-8  
24" x 12"

M3-2  
24" x 12"

M1-6A  
24" x 24"

M5-1  
24" x 12"

10



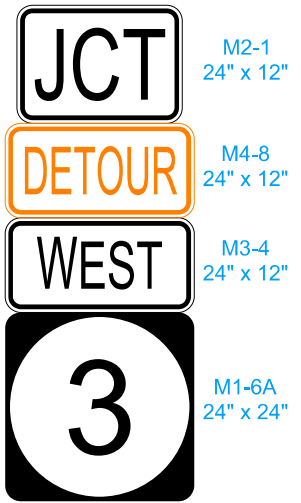
M4-8  
24" x 12"

M3-2  
24" x 12"

M1-6A  
24" x 24"

M6-1  
24" x 12"

11



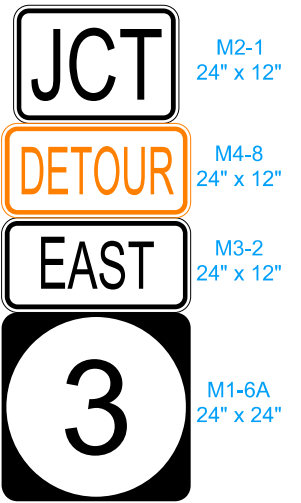
M2-1  
24" x 12"

M4-8  
24" x 12"

M3-4  
24" x 12"

M1-6A  
24" x 24"

12



M2-1  
24" x 12"

M4-8  
24" x 12"

M3-2  
24" x 12"

M1-6A  
24" x 24"

13



DOT Stock  
812 514056  
60" x 36"

14



R11-3a  
60" x 30"



M4-10L  
60" x 36"

15



R11-3a  
60" x 30"



M4-10R  
48" x 18"

16



W20-3  
48" x 48"

17



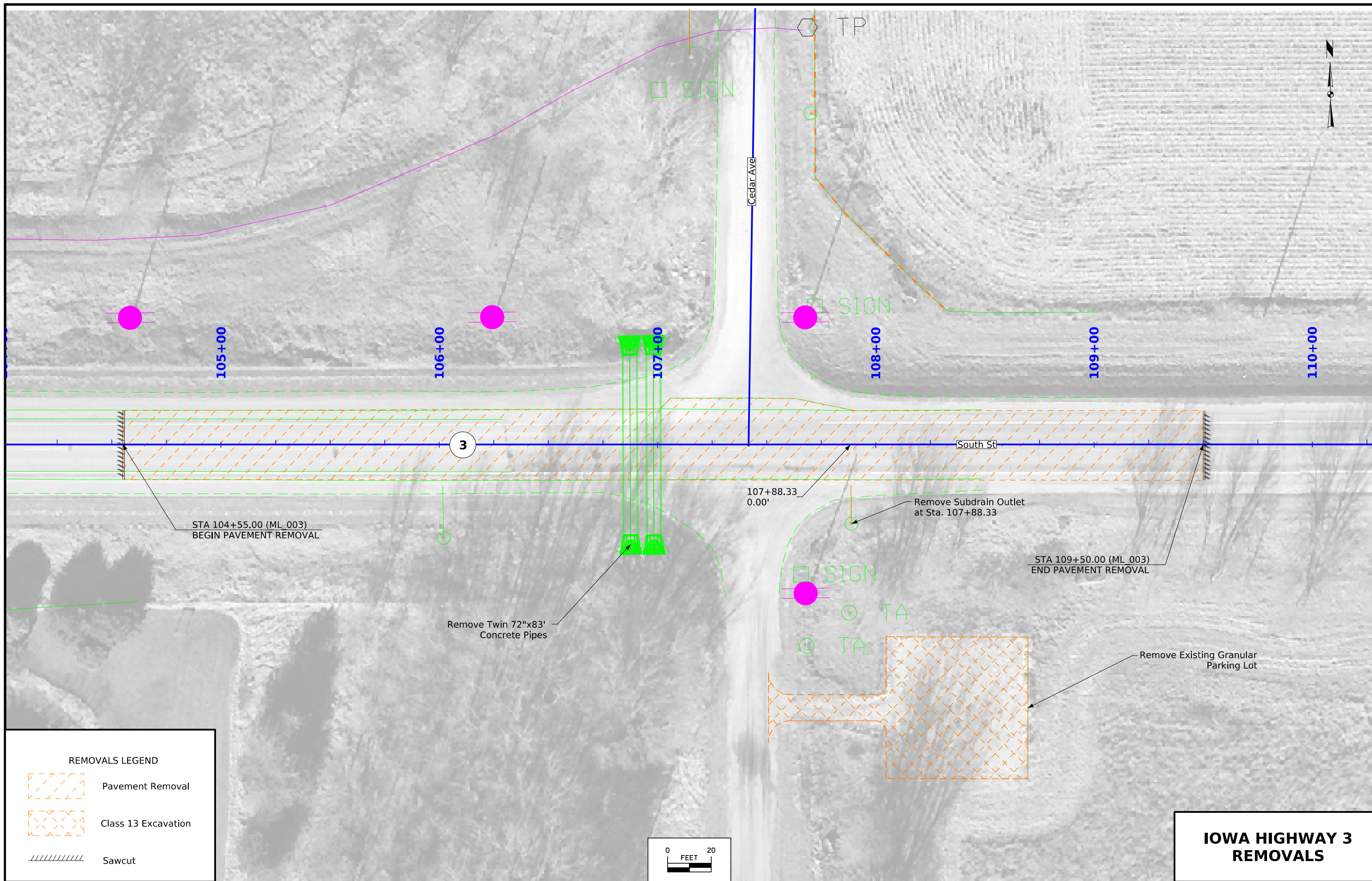
W20-3  
48" x 48"

18



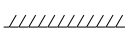


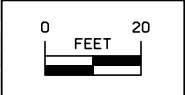
19

SIGN LEGEND

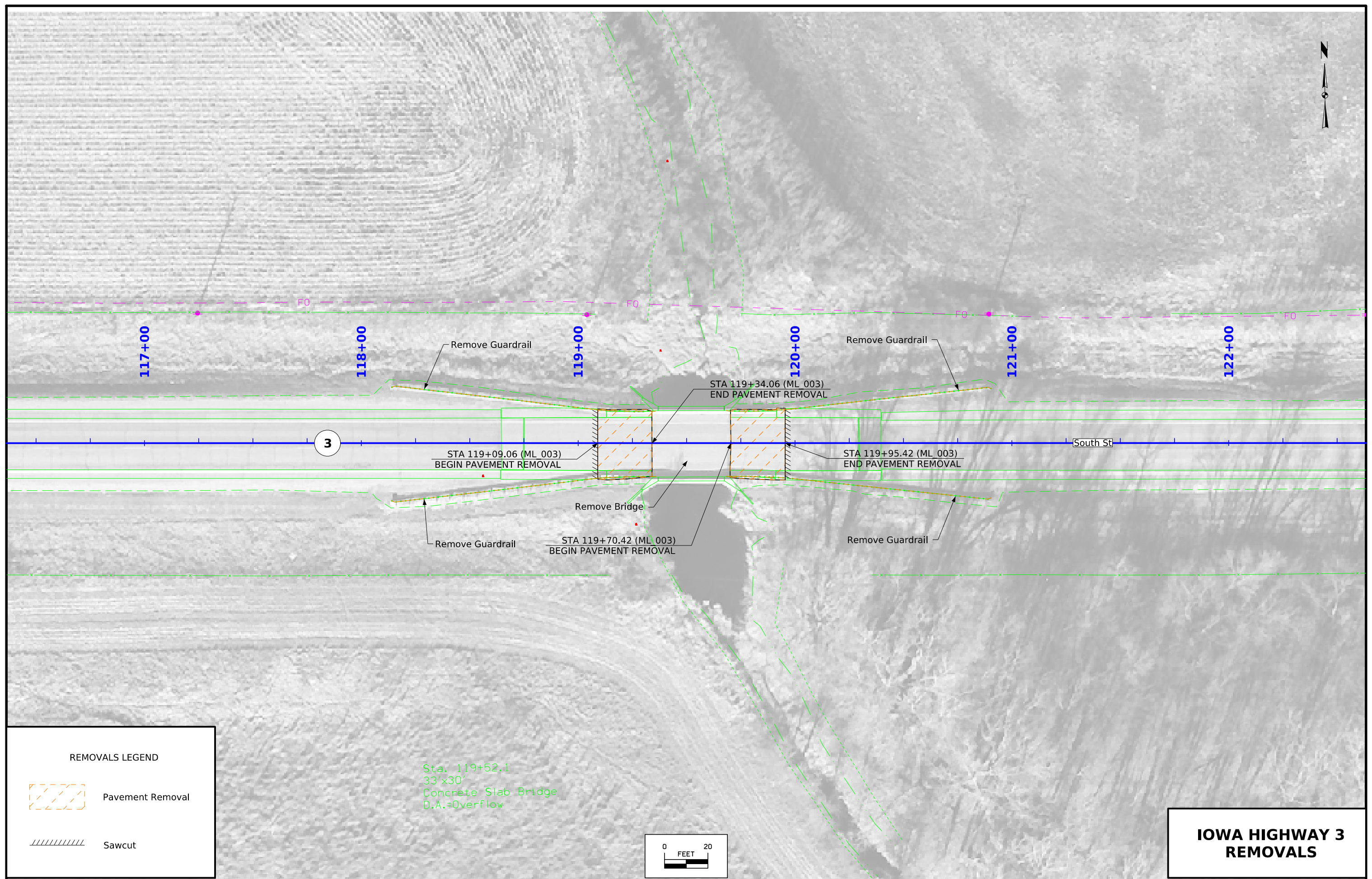


**REMOVALS LEGEND**

-  Pavement Removal
-  Class 13 Excavation
-  Sawcut



**IOWA HIGHWAY 3  
REMOVALS**

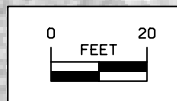


REMOVALS LEGEND

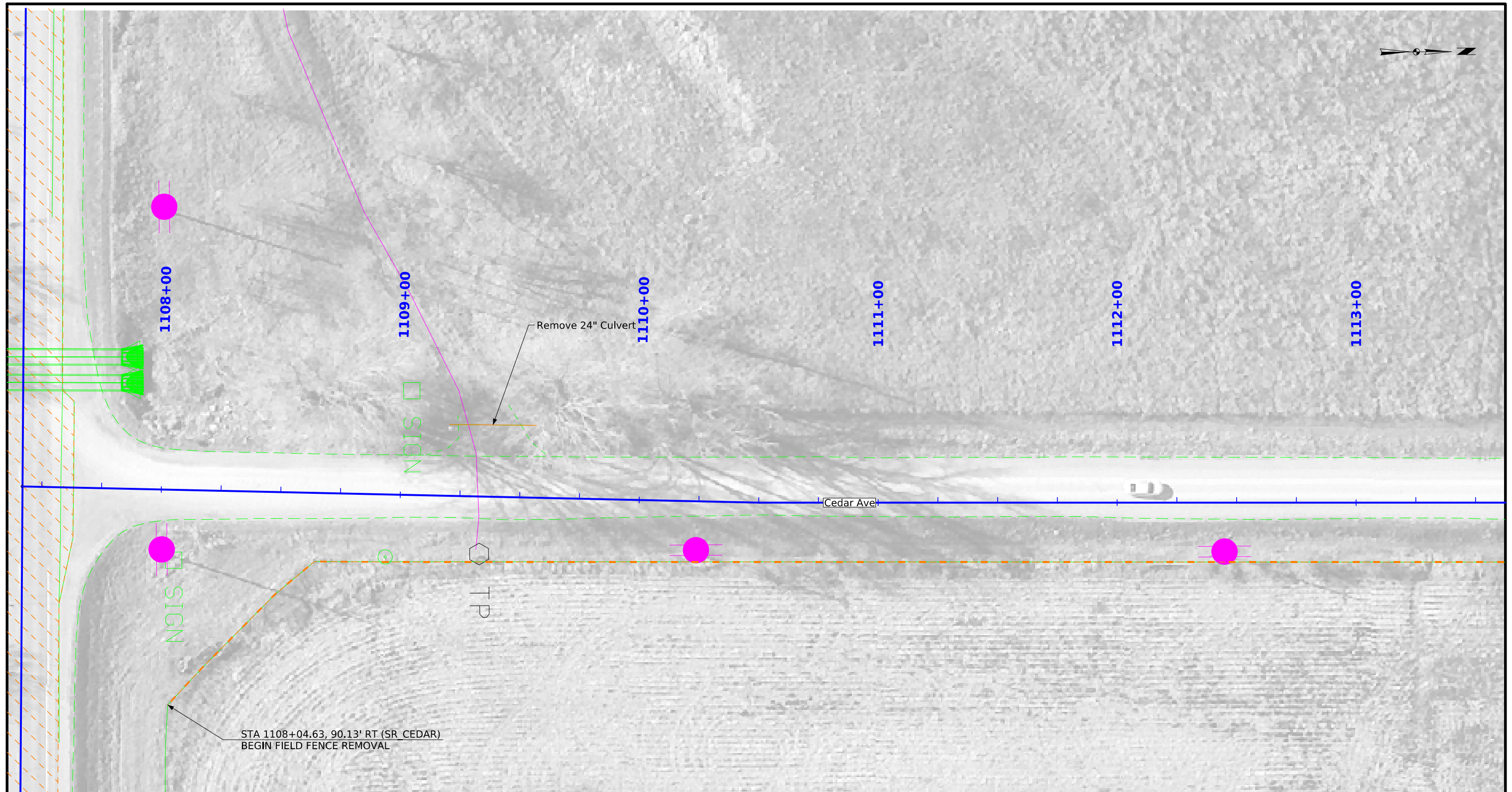
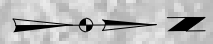
 Pavement Removal

 Sawcut


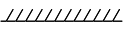
Sta. 119+52.1  
33'x30'  
Concrete Slab Bridge  
D.A.=Overflow

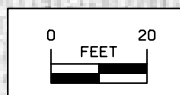


**IOWA HIGHWAY 3  
REMOVALS**



REMOVALS LEGEND

-  Pavement Removal
-  Sawcut



**CEDAR AVE  
REMOVALS**





1114+00

1115+00

1116+00

1117+00

1118+00

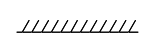
1119+00

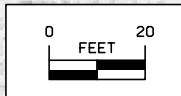
Cedar Ave

Remove Field Fence

REMOVALS LEGEND

 Pavement Removal

 Sawcut



**CEDAR AVE  
REMOVALS**



1120+00

1121+00

1122+00

1123+00

1124+00

1125+00

Remove 18" Culvert

Cedar Ave

STA 1120+48.14, 30.46' RT (SR CEDAR)  
STOP FIELD FENCE REMOVAL


STA 1121+00.72, 32.14' RT (SR CEDAR)  
RESUME FIELD FENCE REMOVAL

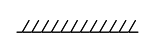
STA 1124+13.47, 51.71' RT (SR CEDAR)  
END FIELD FENCE REMOVAL

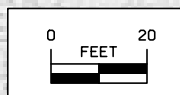
Remove Existing  
Granular Entrance

Remove 18" Culvert

REMOVALS LEGEND

 Pavement Removal

 Sawcut



**CEDAR AVE  
REMOVALS**



1126+00

1127+00

1128+00

Cedar Ave

UAC 18" Culvert

Remove 15" Culvert

TP

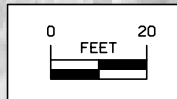
REMOVALS LEGEND



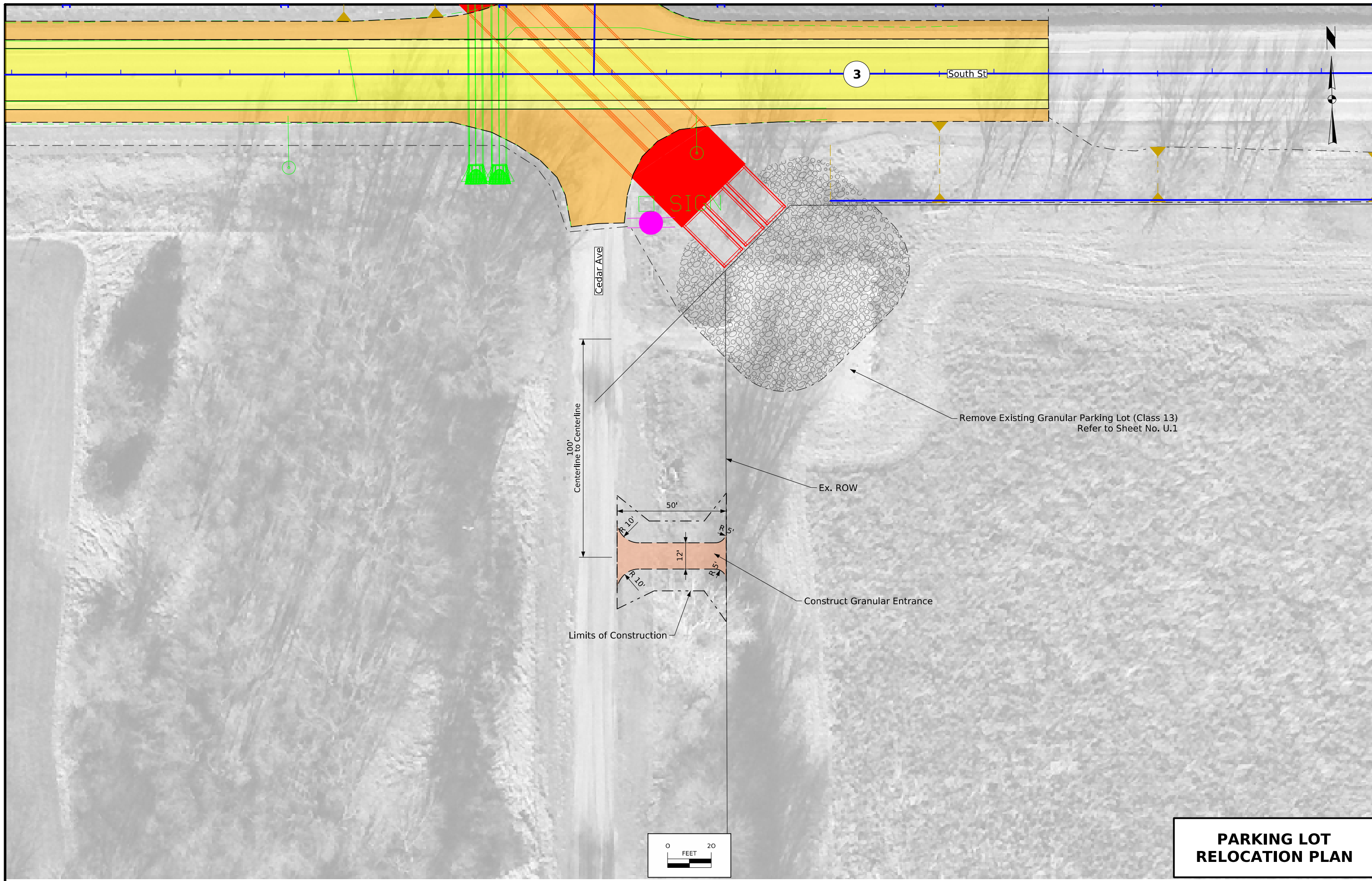
Pavement Removal



Sawcut



**CEDAR AVE  
REMOVALS**



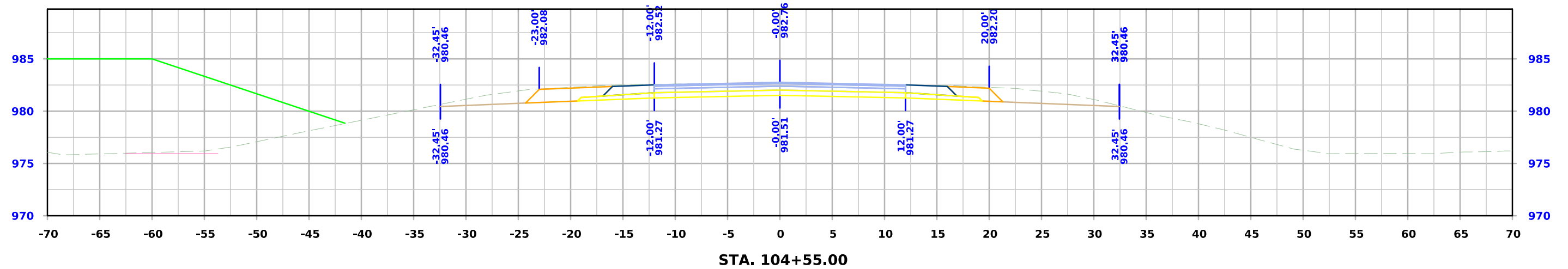
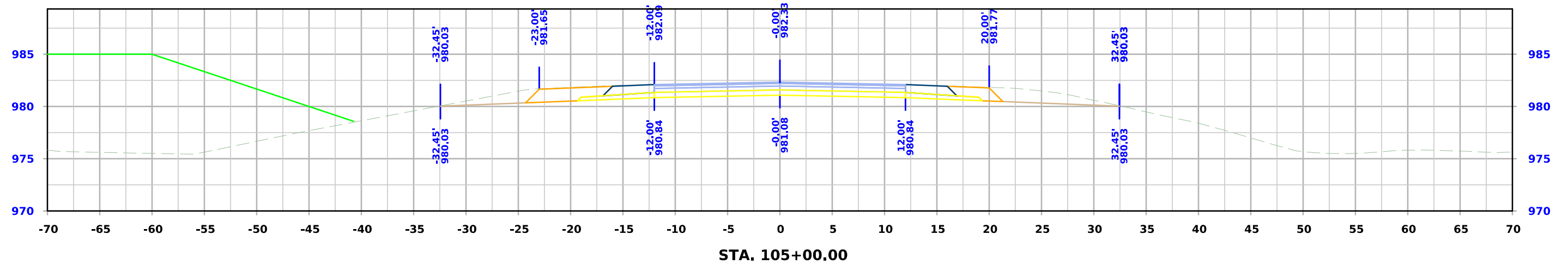
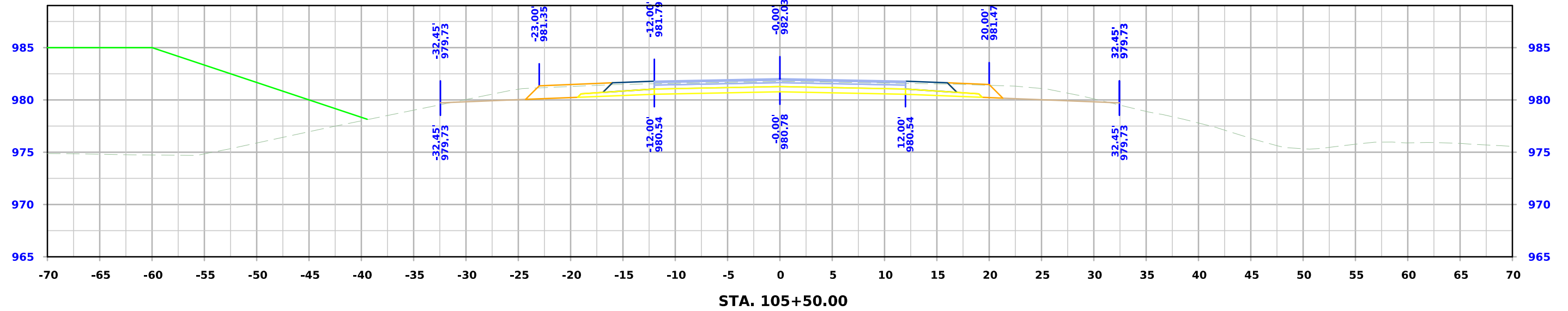
**CROSS SECTION VIEW COLOR LEGEND**

| Design Color No. | Feature                   | Design Color No.          | Feature                         |
|------------------|---------------------------|---------------------------|---------------------------------|
| <b>Aggregate</b> |                           |                           |                                 |
| (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         |                           |                                 |
| (188)            | Revetment Class D         | <b>Grading</b>            |                                 |
| (28)             | Revetment Class E         | (8)                       | Behind Curb Cut                 |
| (12)             | Shoulder Special Backfill | (6)                       | Granular                        |
| (12)             | Special Backfill          | (13)                      | Granular Back Fill              |
| (20)             | Subbase                   | (48)                      | Rock Undercut                   |
| (20)             | Subbase Lower             | (8)                       | Shoulder Earth Fill             |
| (20)             | Subbase Upper             | (2)                       | Side Slopes                     |
| (118)            | Subgrade Treatment        | (226)                     | Side Slopes Dressing            |
| <b>Asphalt</b>   |                           |                           |                                 |
| (207)            | HMA Base Course           | <b>Substrata</b>          |                                 |
| (207)            | HMA Interim Course        | (128)                     | Boulder Substrata               |
| (207)            | HMA Surface Course        | (48)                      | Broken Weathered Substrata      |
| <b>Concrete</b>  |                           |                           |                                 |
| (0)              | Barrier Concrete          | (3)                       | Core Out Substrata              |
| (0)              | Barrier Concrete Footing  | (203)                     | Existing Pavement Substrata     |
| (0)              | Curb Gutter               | (6)                       | Loam Substrata                  |
| (48)             | Flowable Mortar           | (80)                      | Rock Substrata                  |
| (0)              | Median Concrete           | (4)                       | Select Sand Substrata           |
| (0)              | PCC Pavement              | (3)                       | Shale Substrata                 |
| (0)              | Sidewalk                  | (10)                      | Topsoil Substrata               |
| <b>Shoulder</b>  |                           |                           |                                 |
| (209)            | Shoulder HMA              | <b>Unsuitable / Waste</b> |                                 |
| (0)              | Shoulder PCC              | (3)                       | Unsuitable Type A               |
| (6)              | Shoulder Granular         | (13)                      | Unsuitable Type B               |
| <b>Existing</b>  |                           |                           |                                 |
| (0)              | Existing Pavement         | (11)                      | Unsuitable Type C               |
|                  |                           | (3)                       | Waste                           |

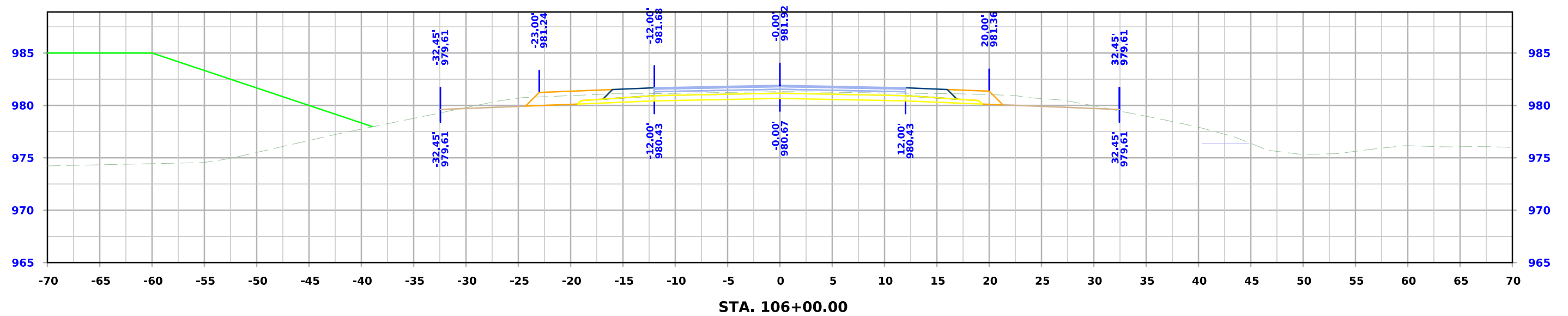
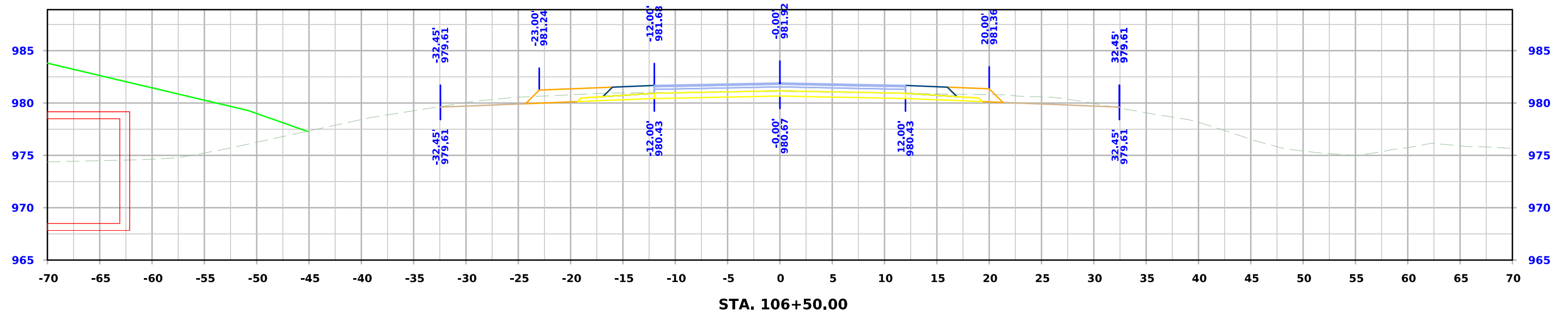
**CROSS SECTIONS  
LEGEND AND INFORMATION SHEET**

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

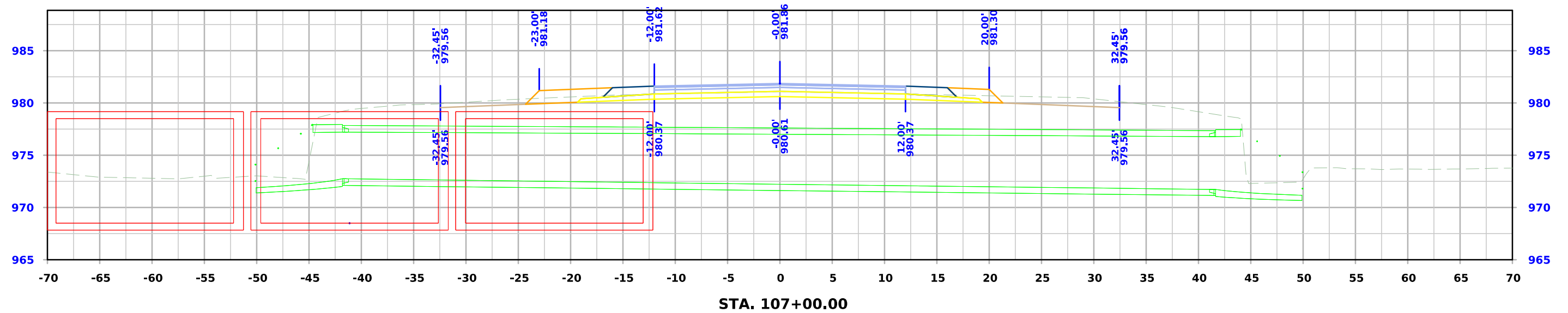
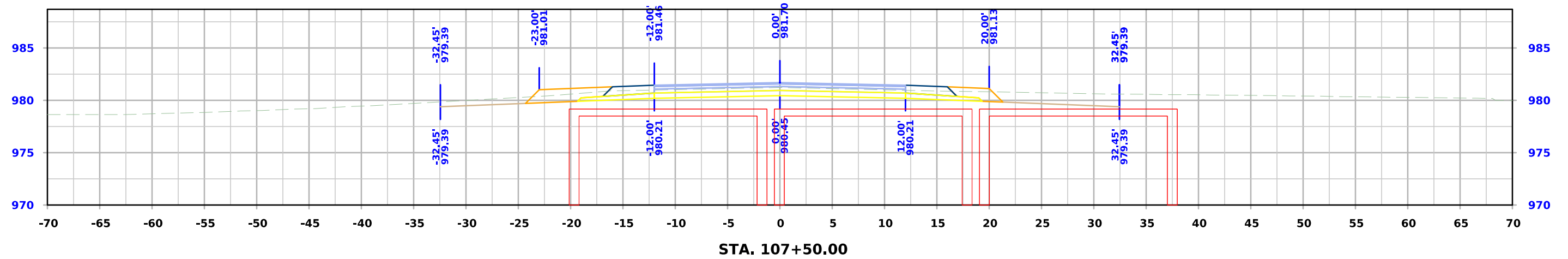
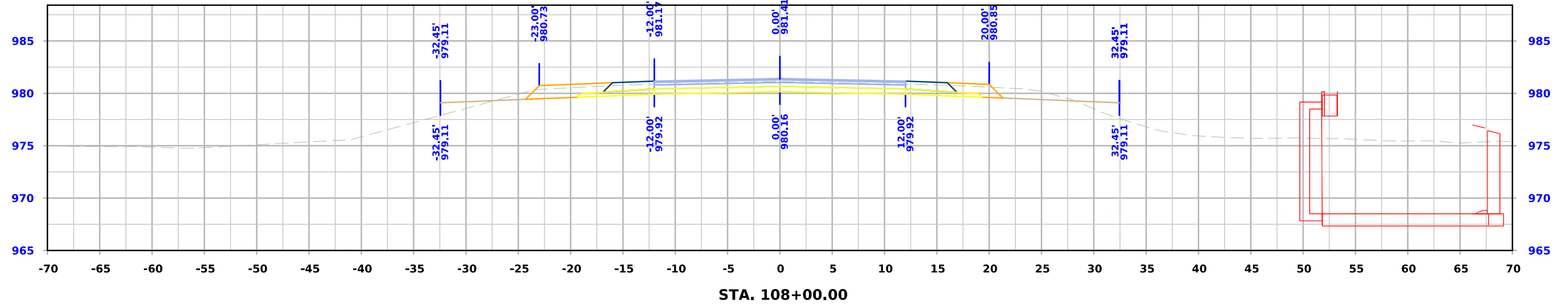
# IA HWY 3



# IA HWY 3

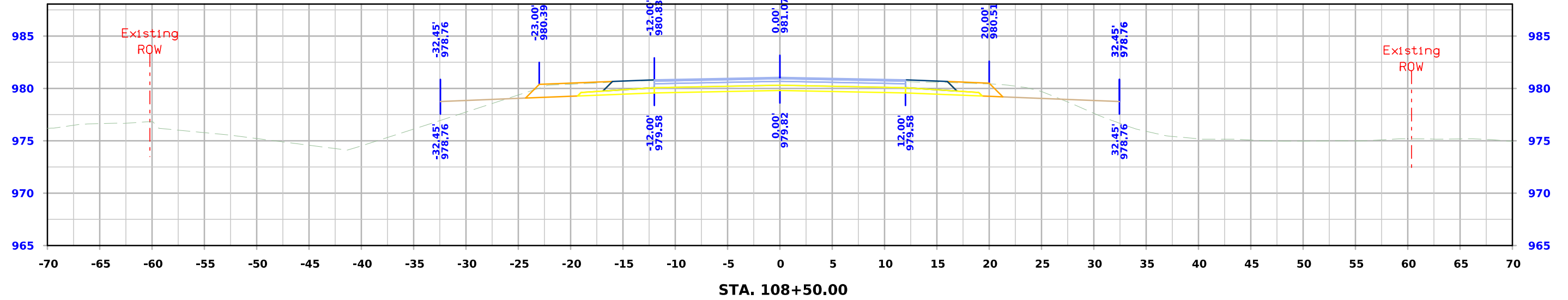
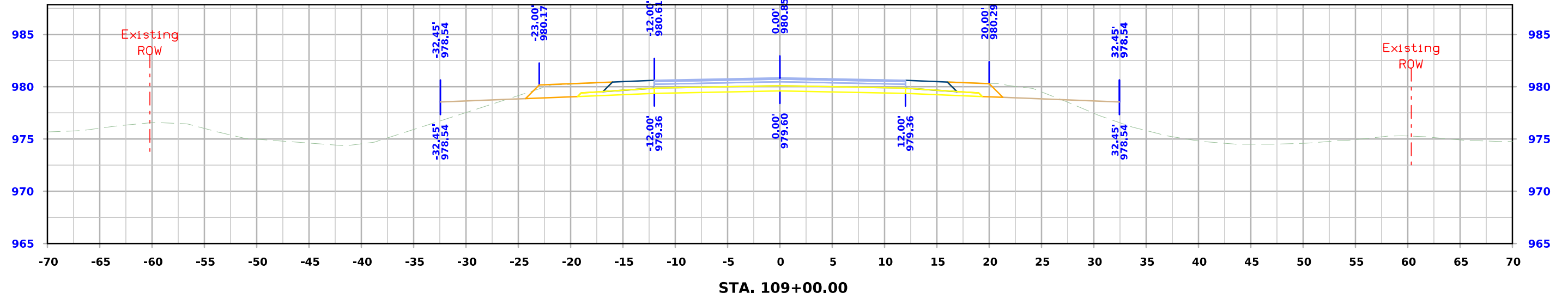
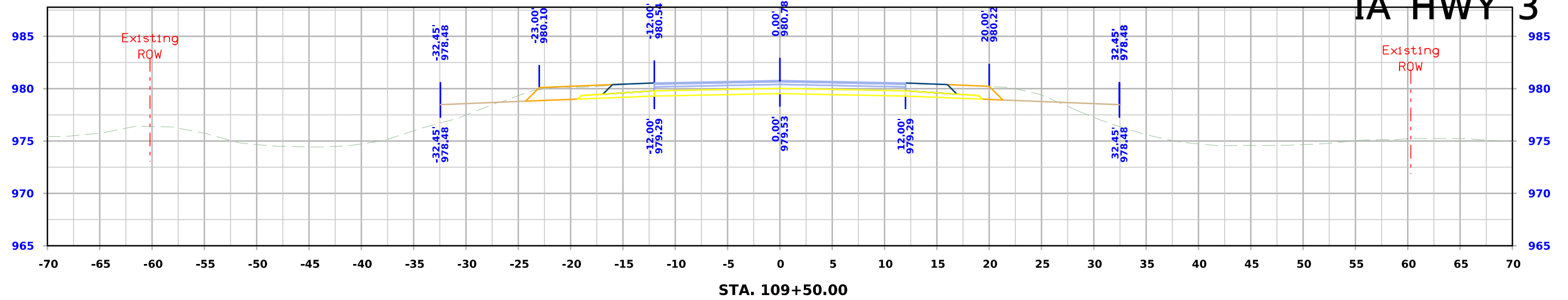


# IA HWY 3

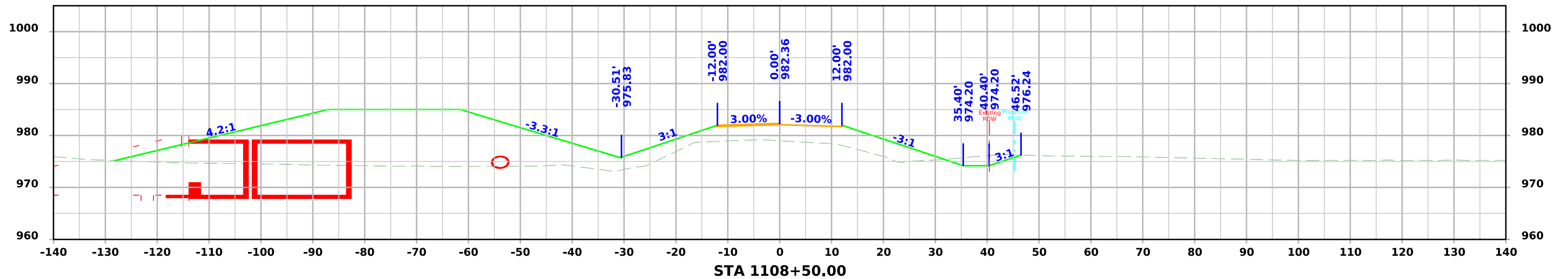
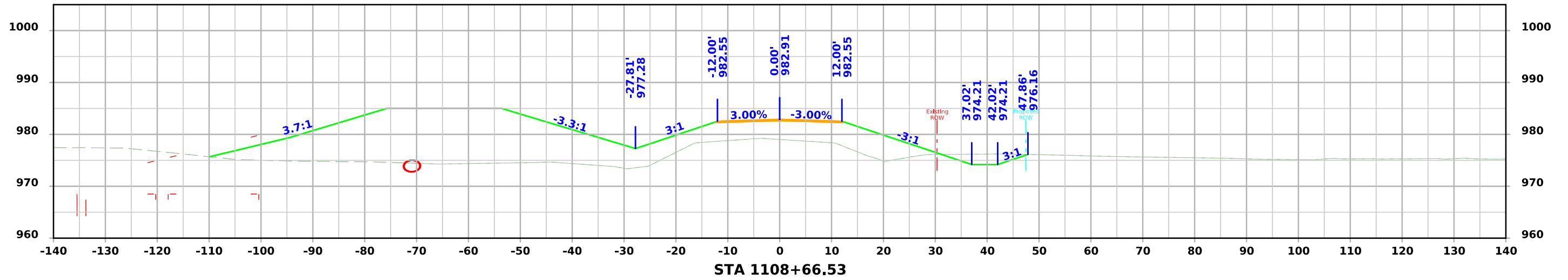
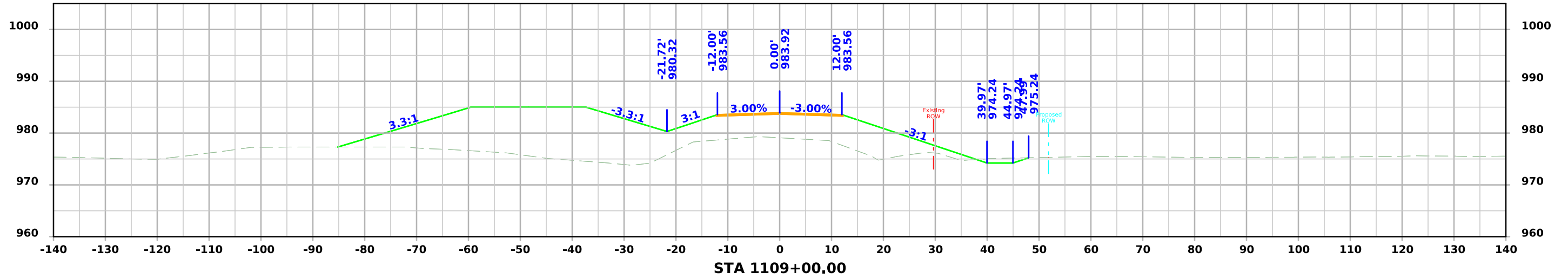




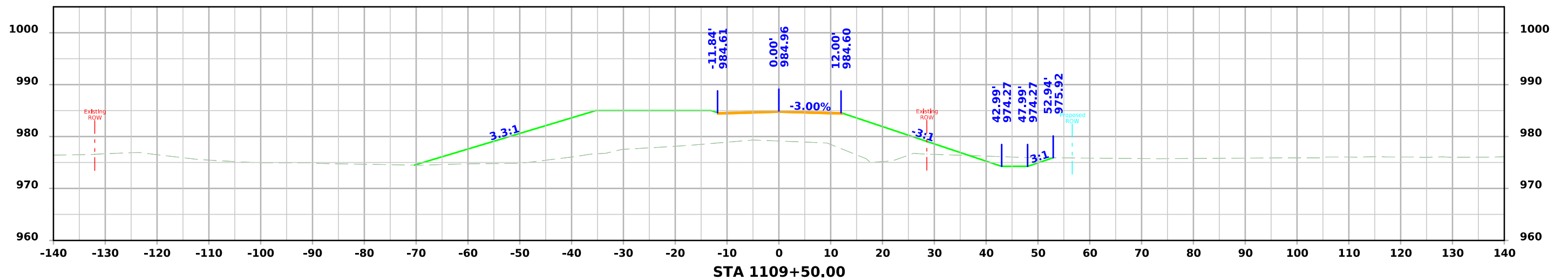
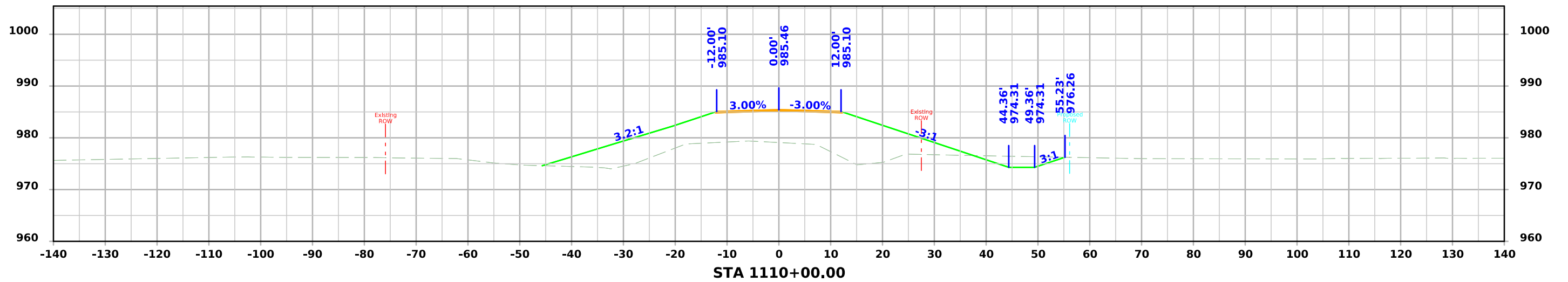
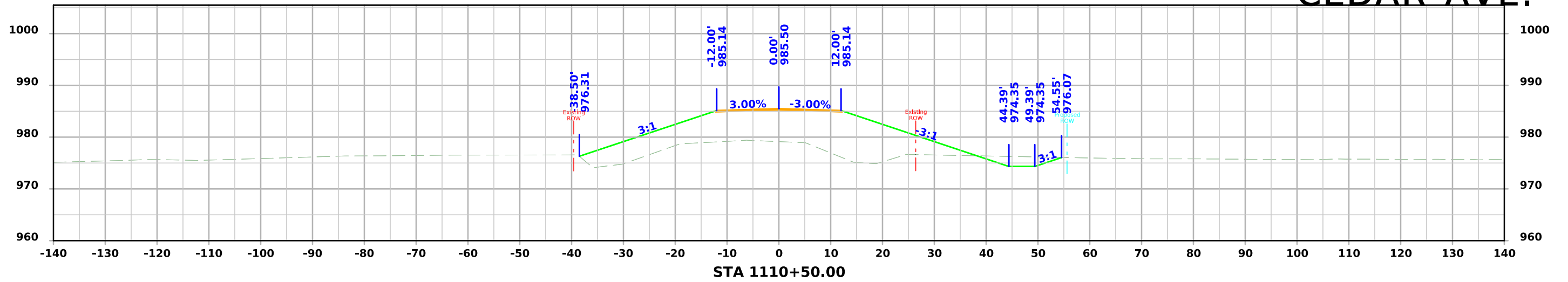
# IA HWY 3



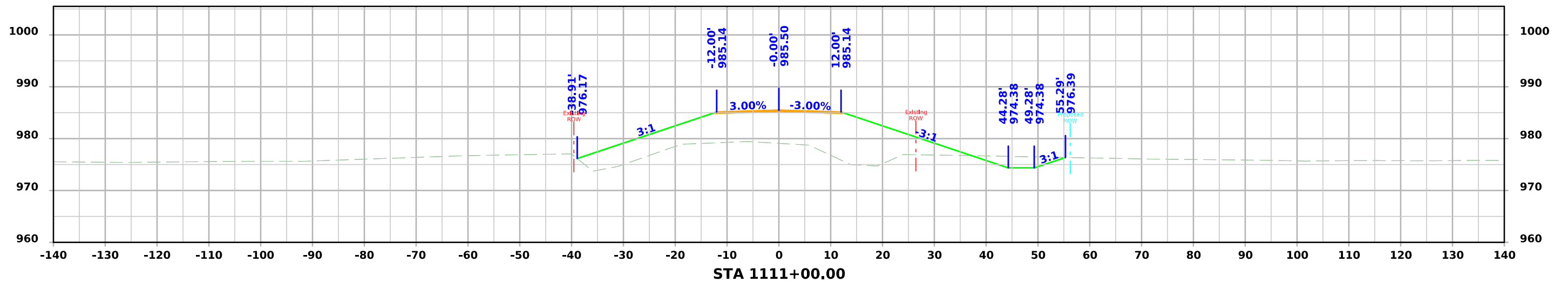
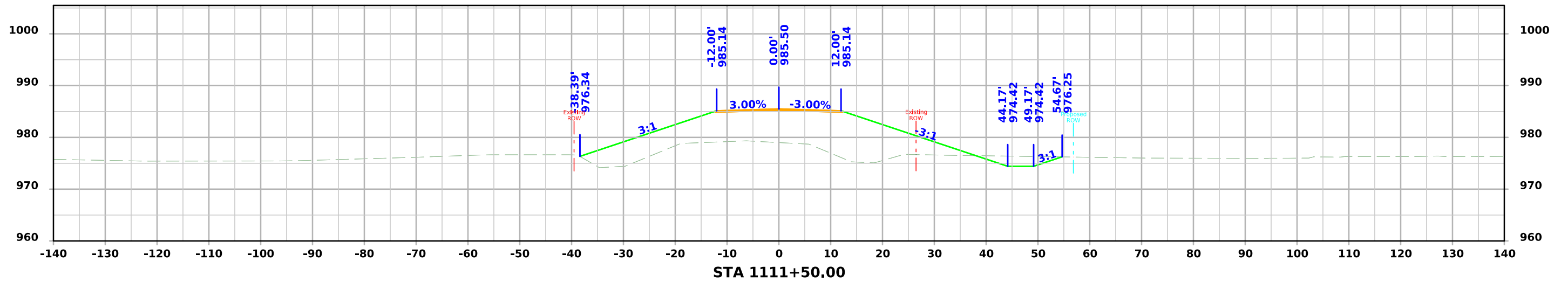
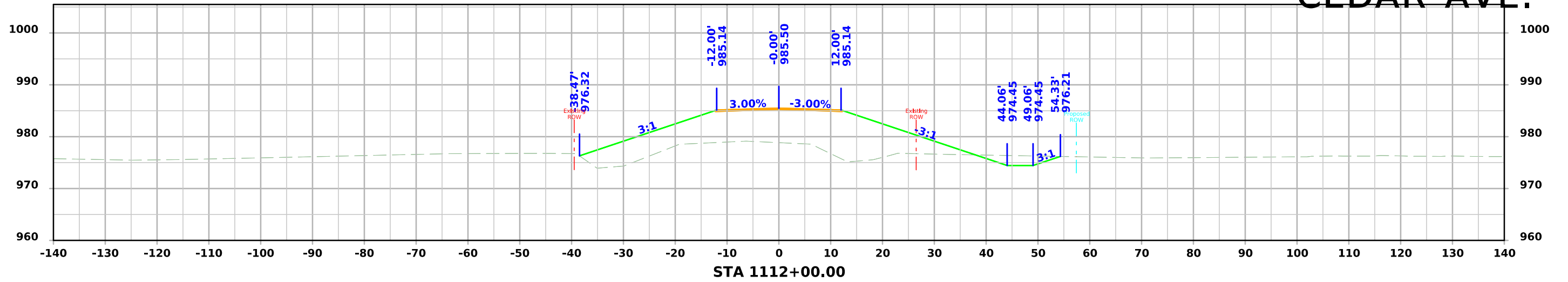
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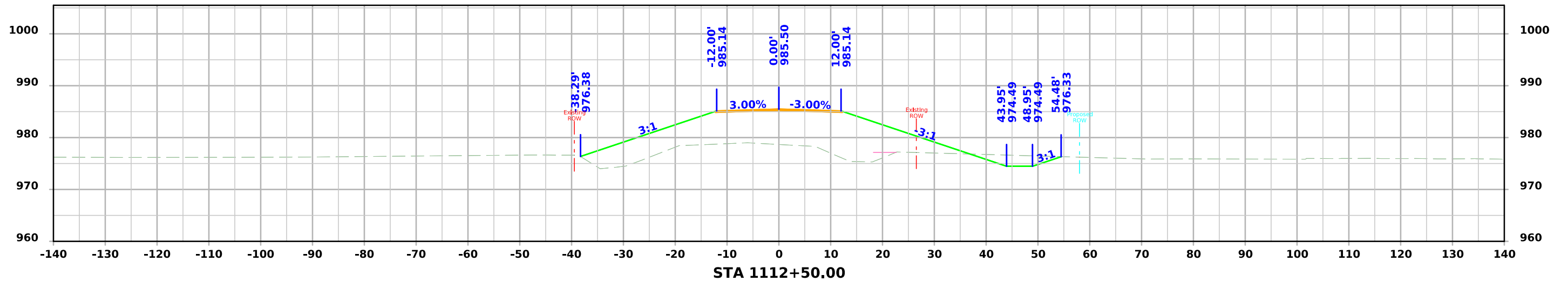
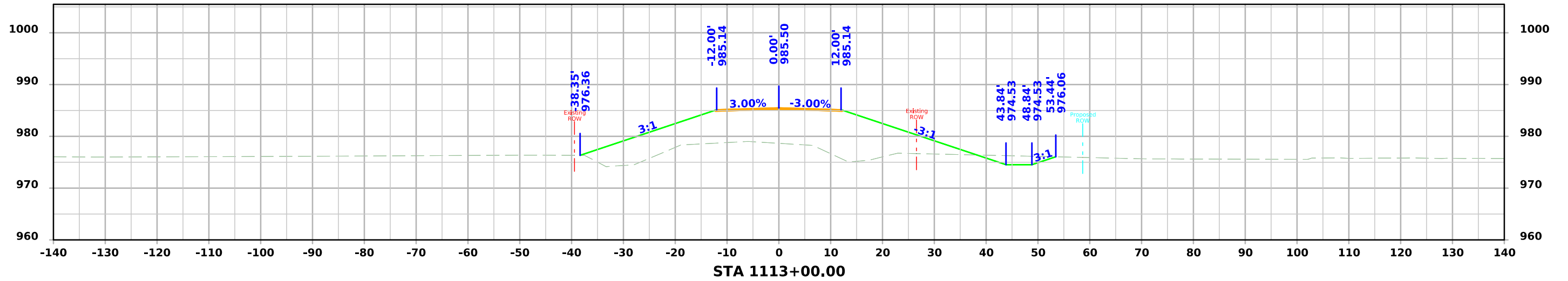
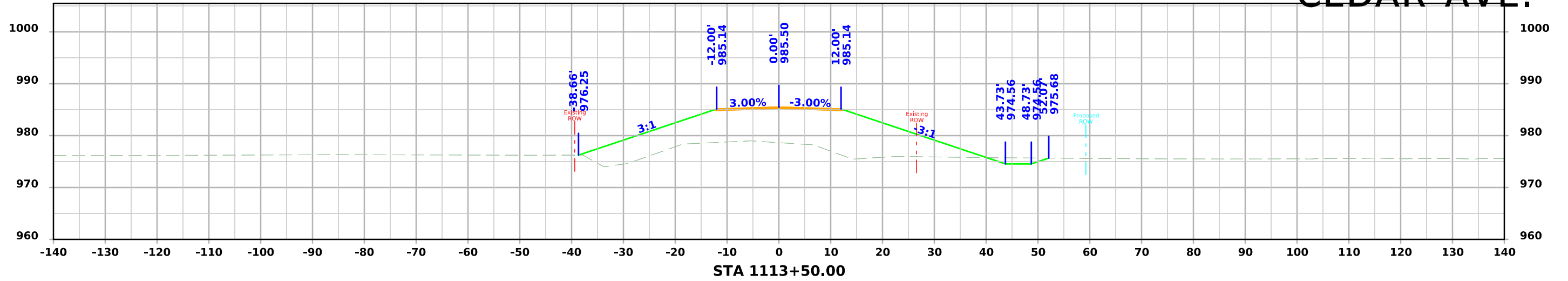
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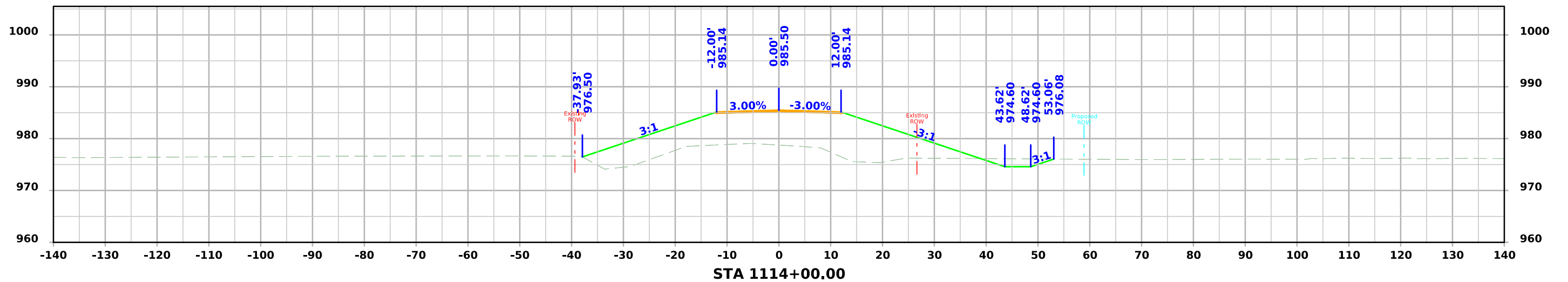
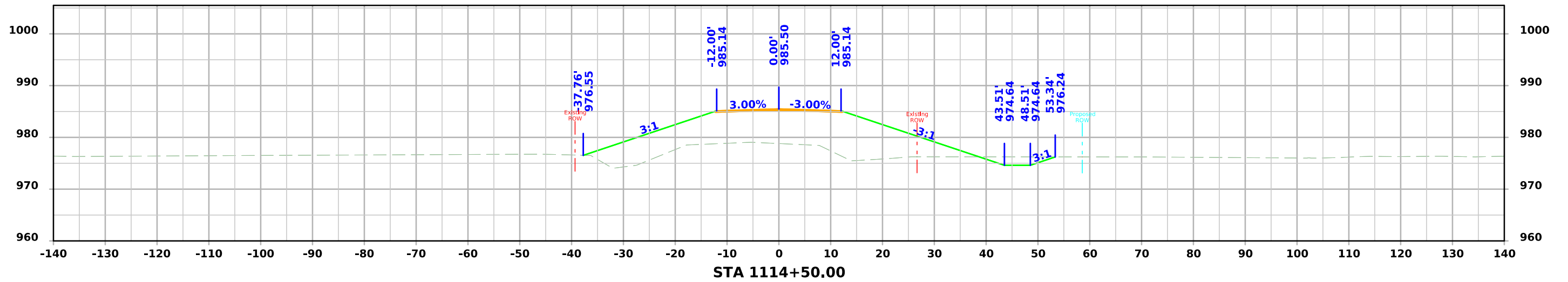
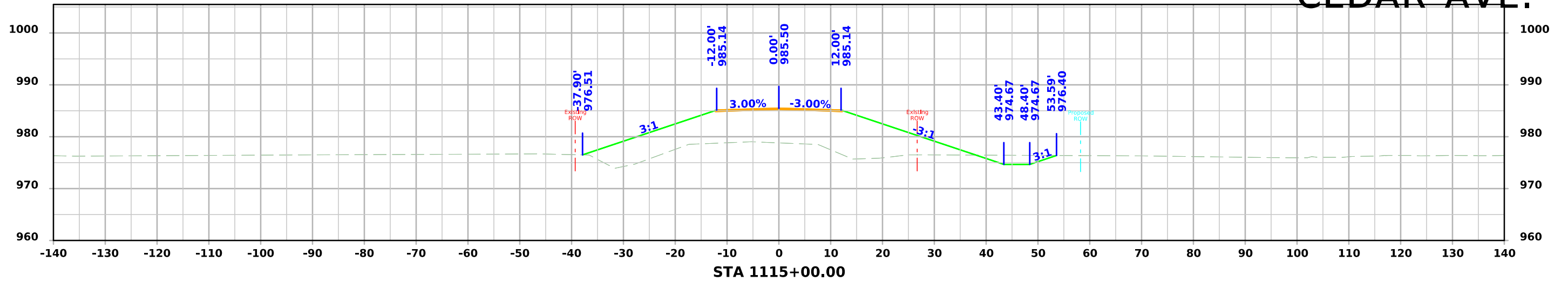
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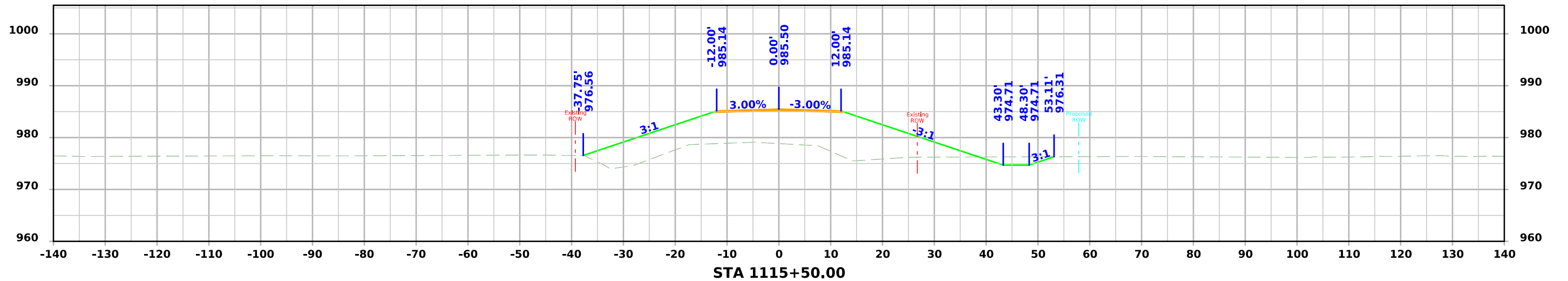
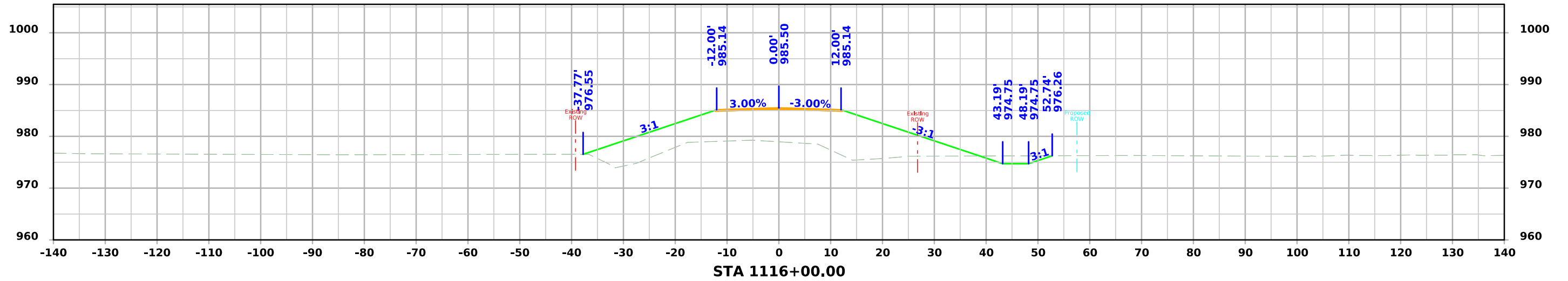
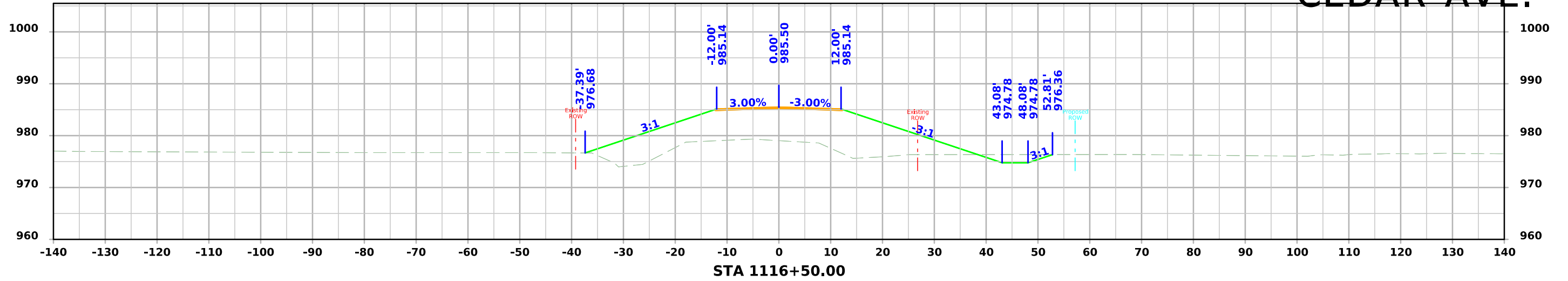
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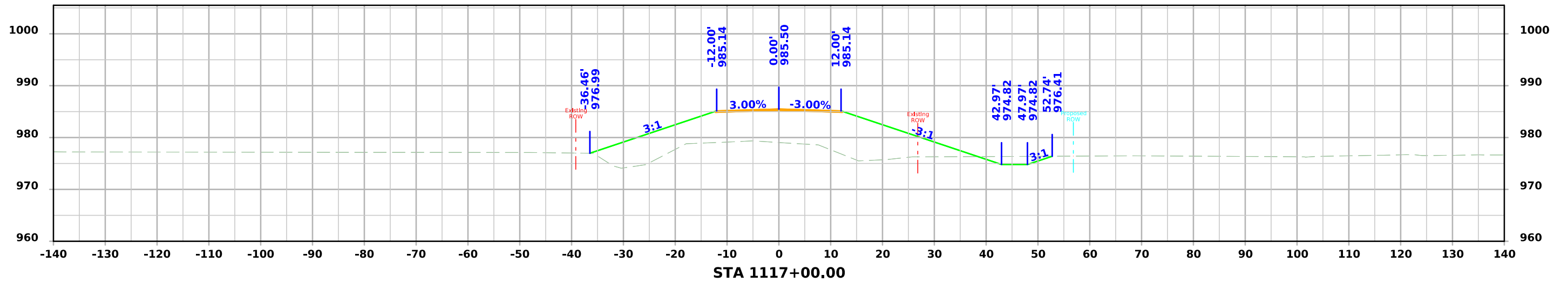
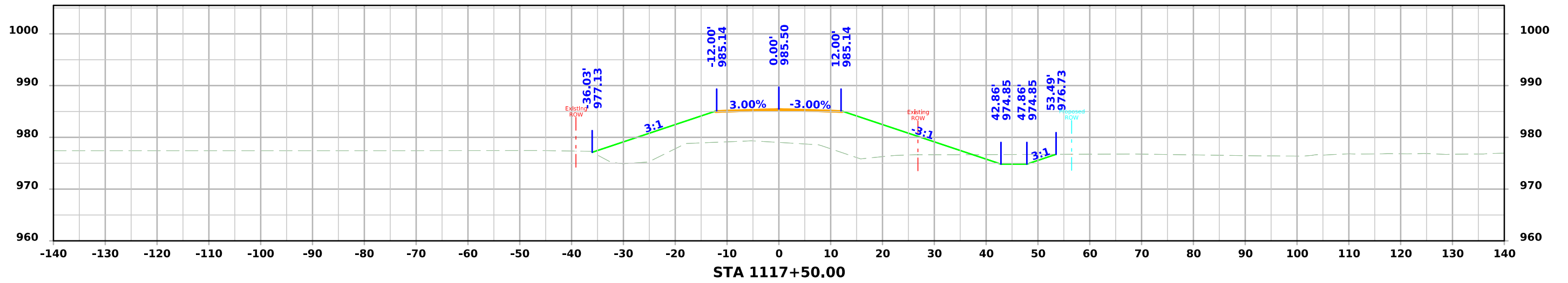
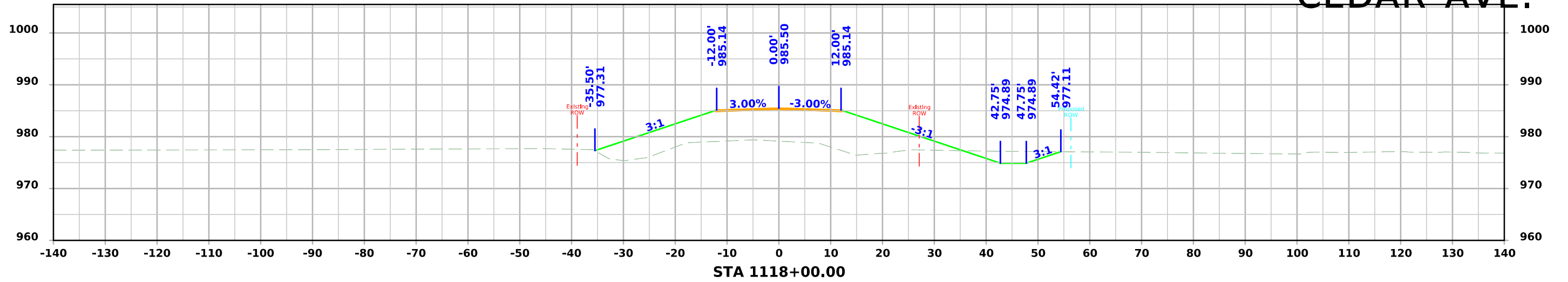
# CEDAR AVE.



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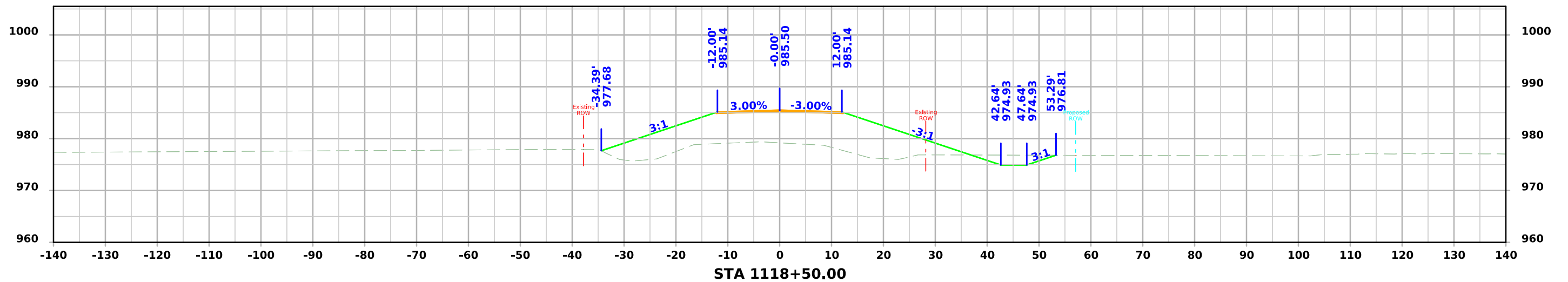
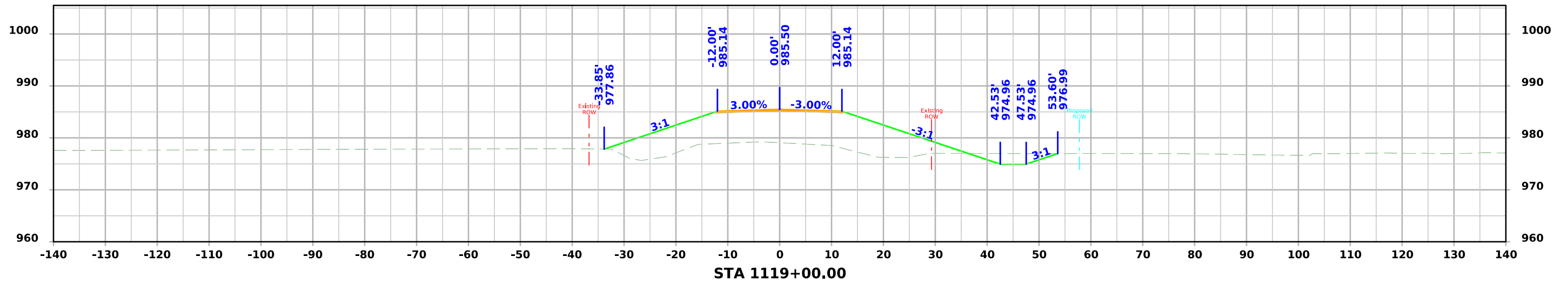
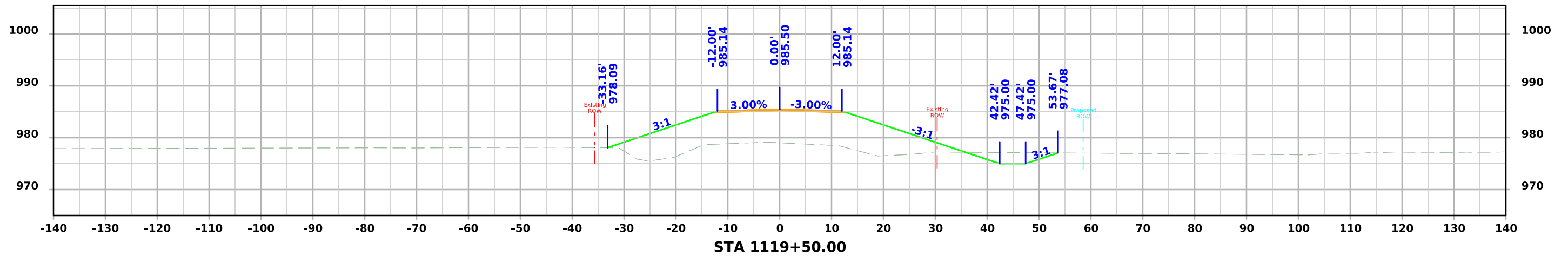


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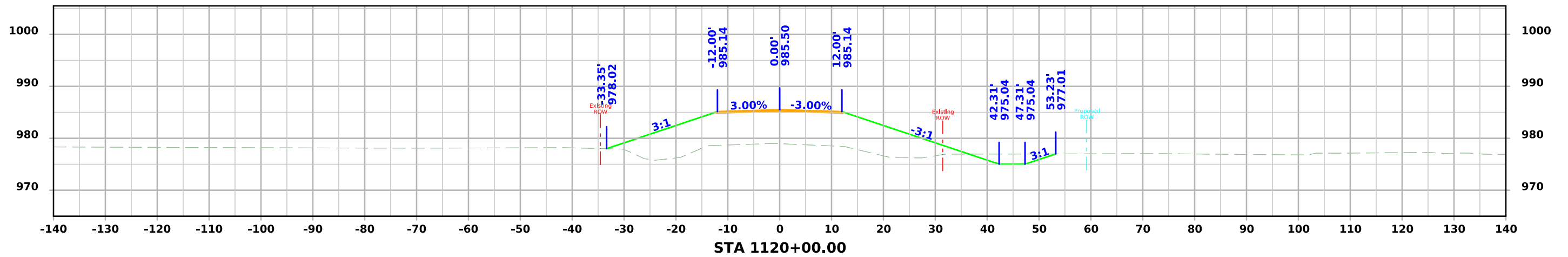
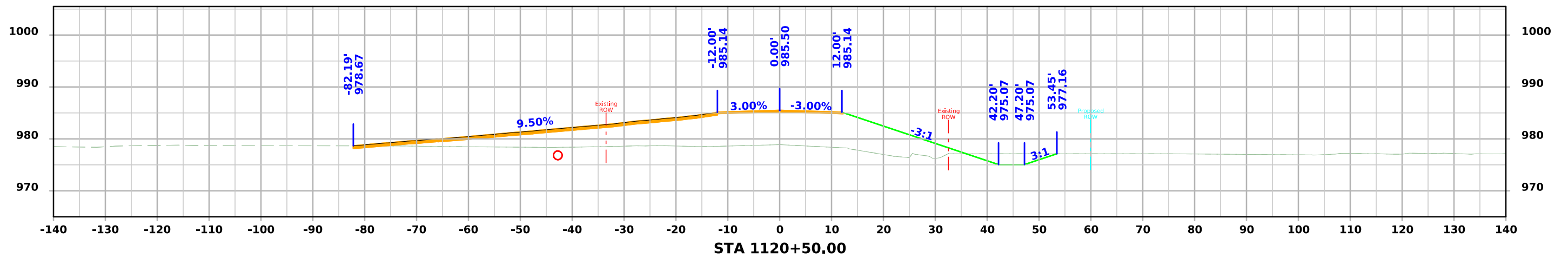
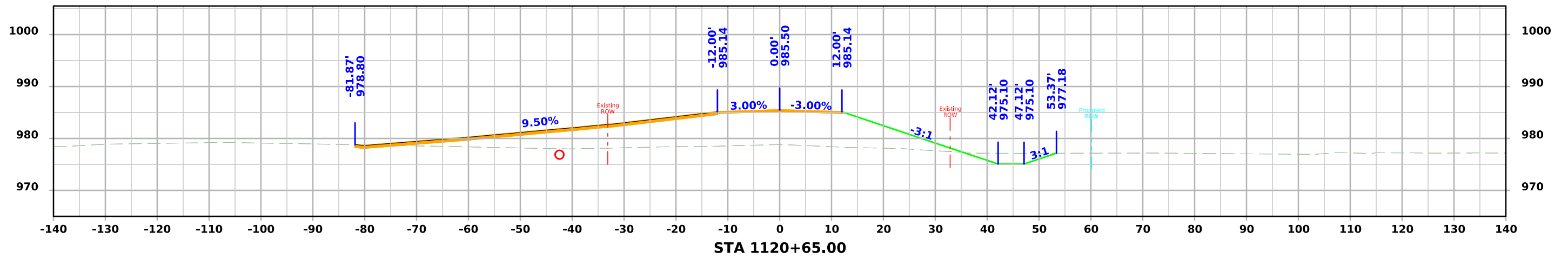




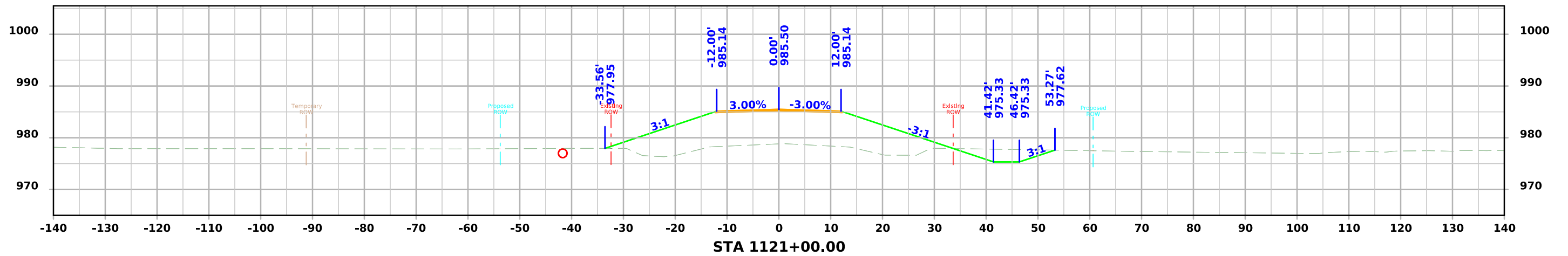
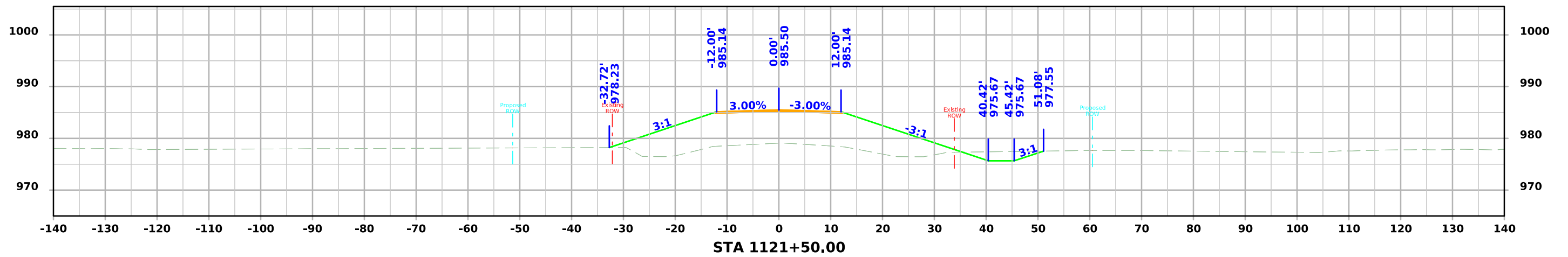
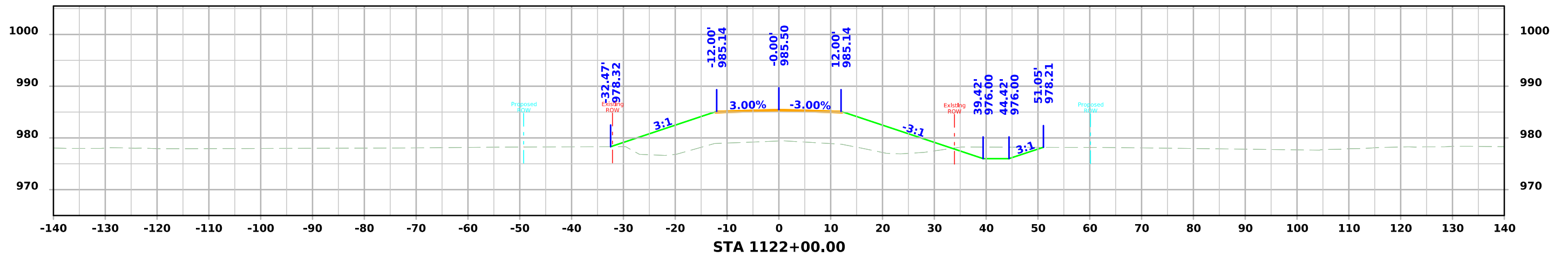
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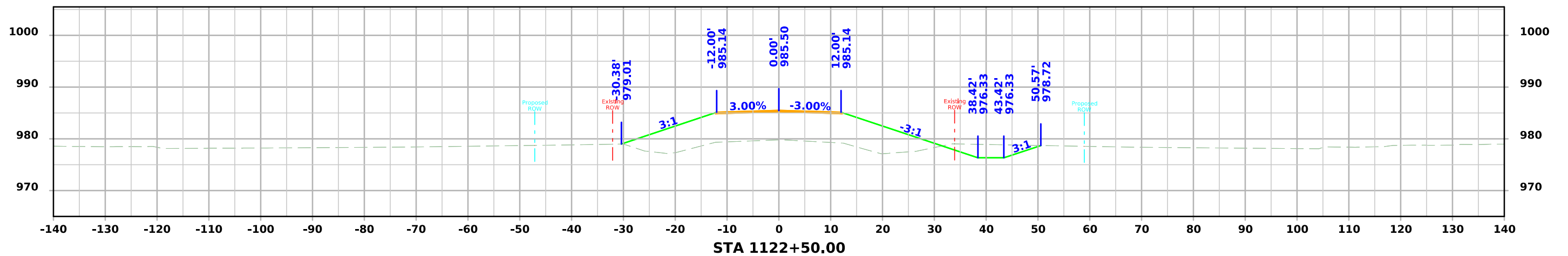
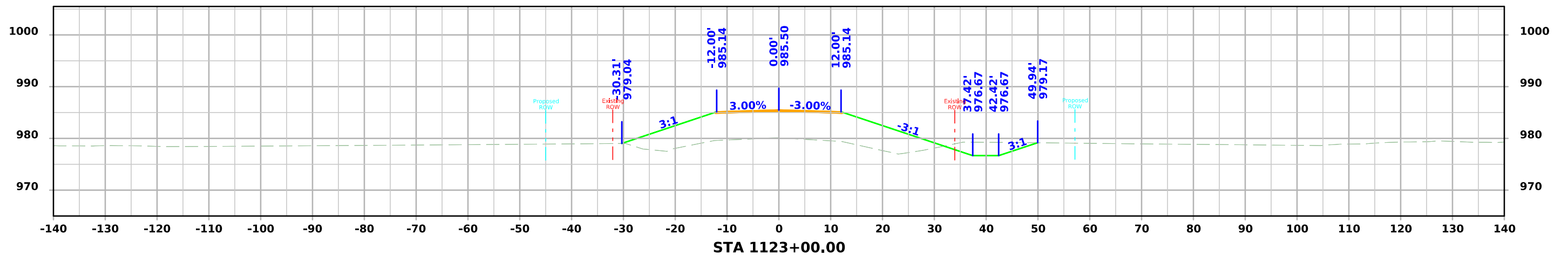
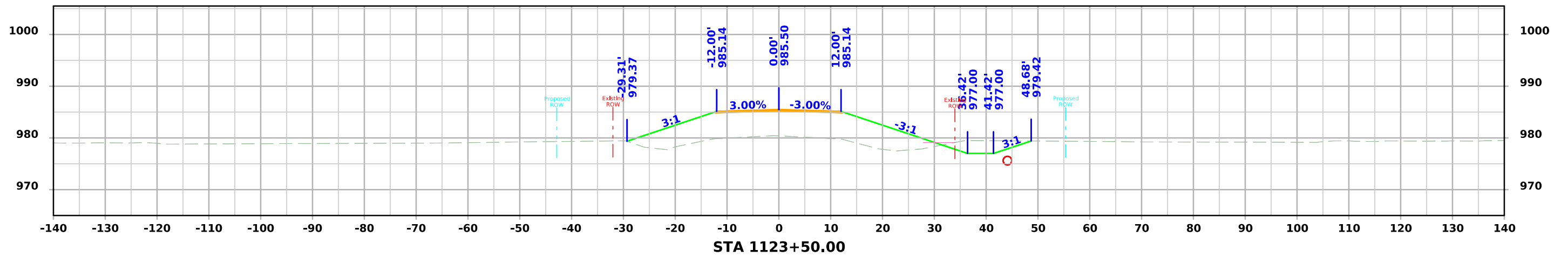
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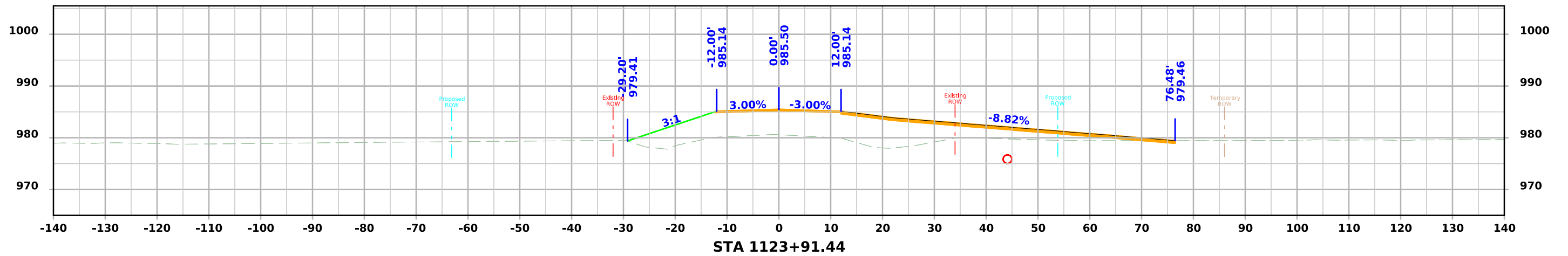
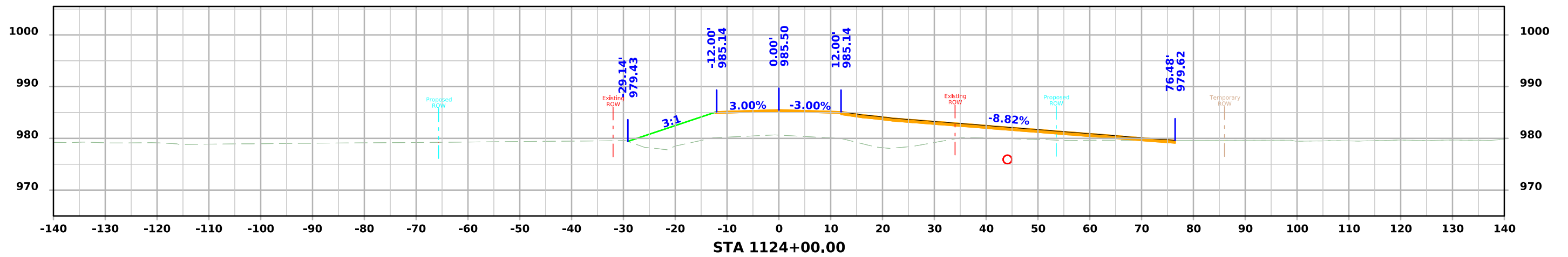
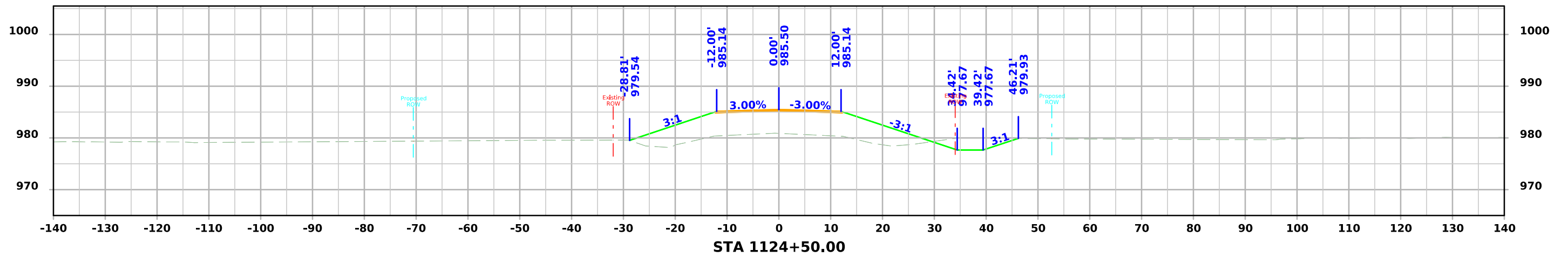
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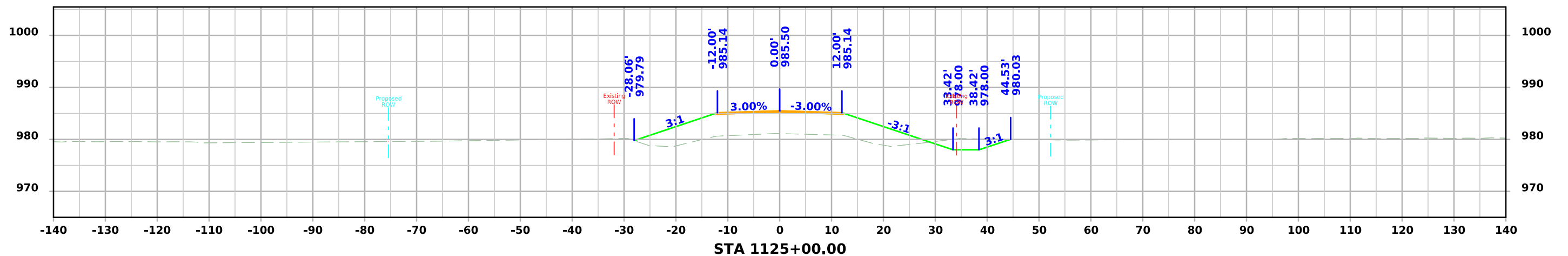
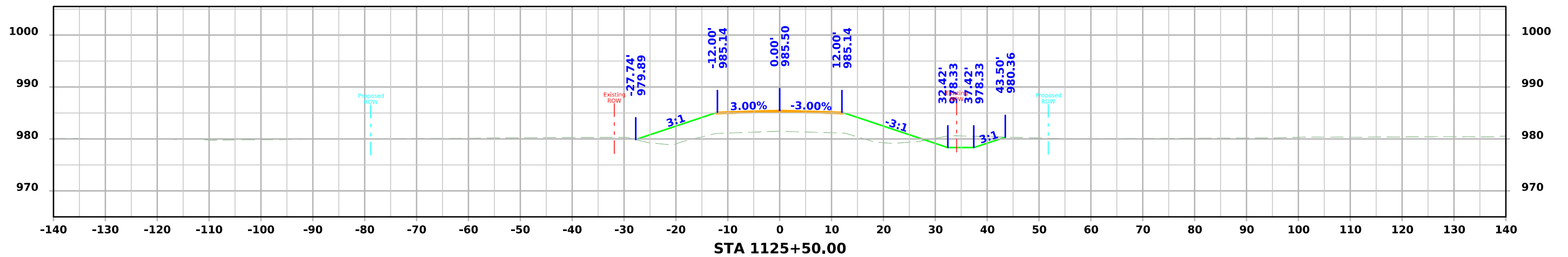
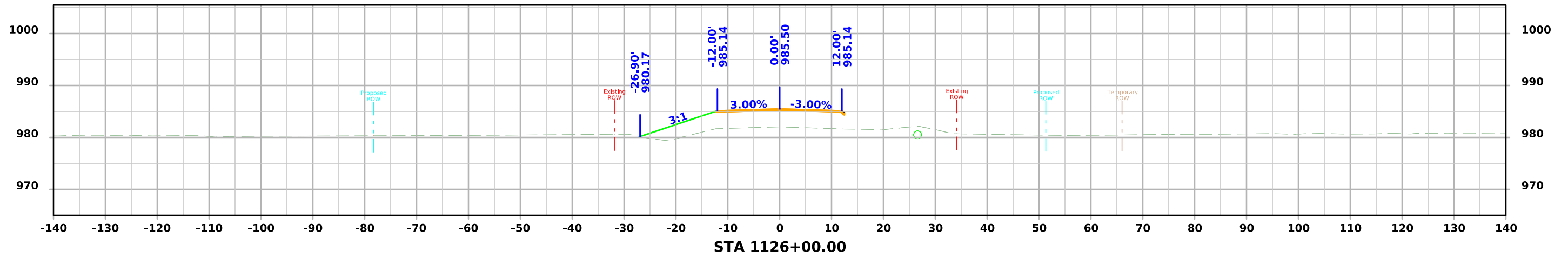
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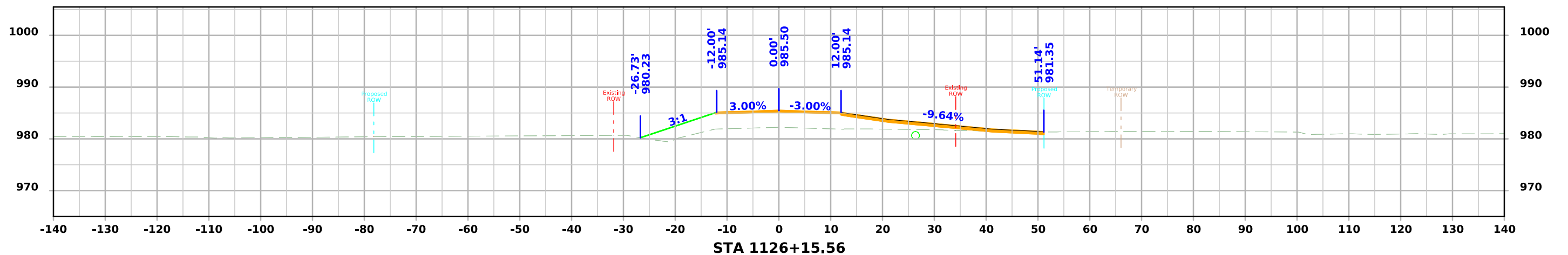
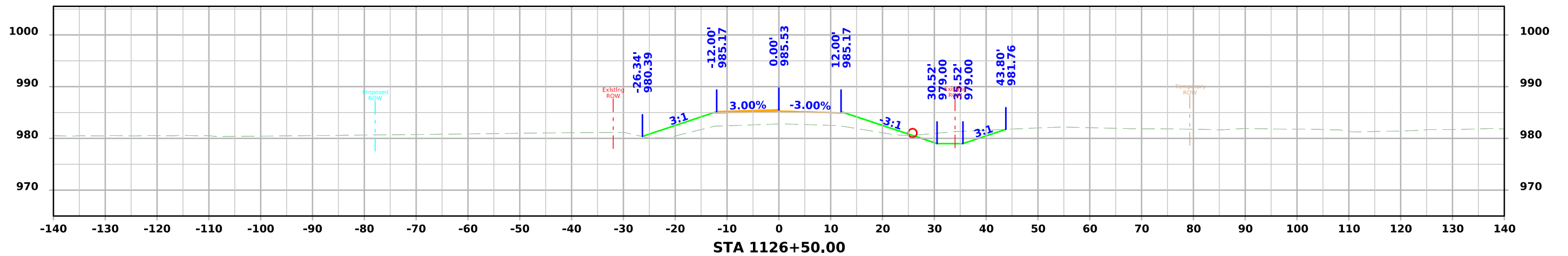
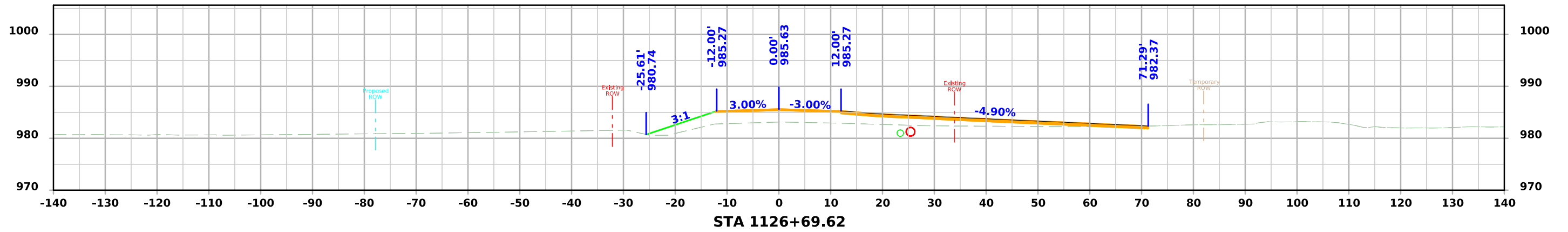
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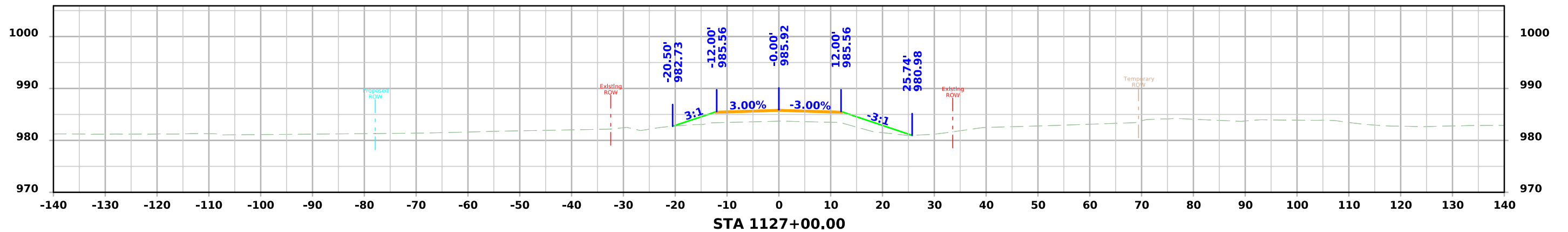
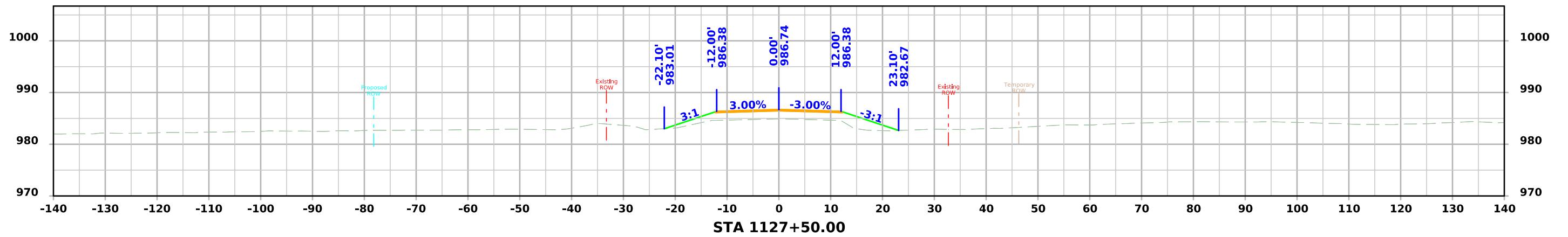
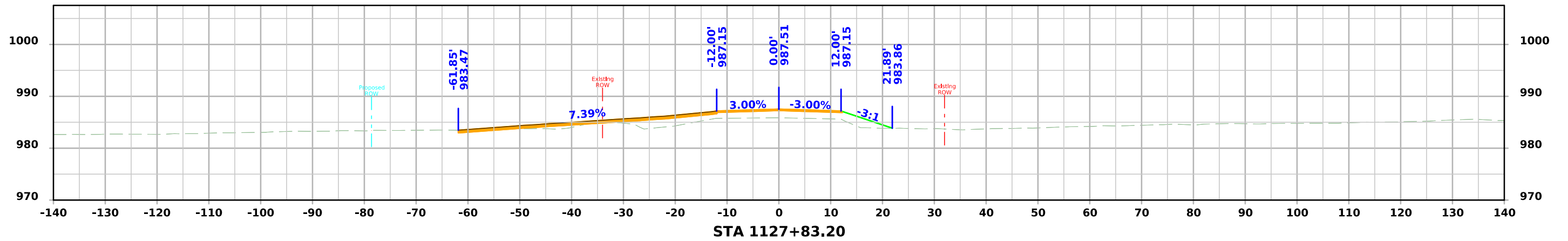
# CEDAR AVE.



# CEDAR AVE.

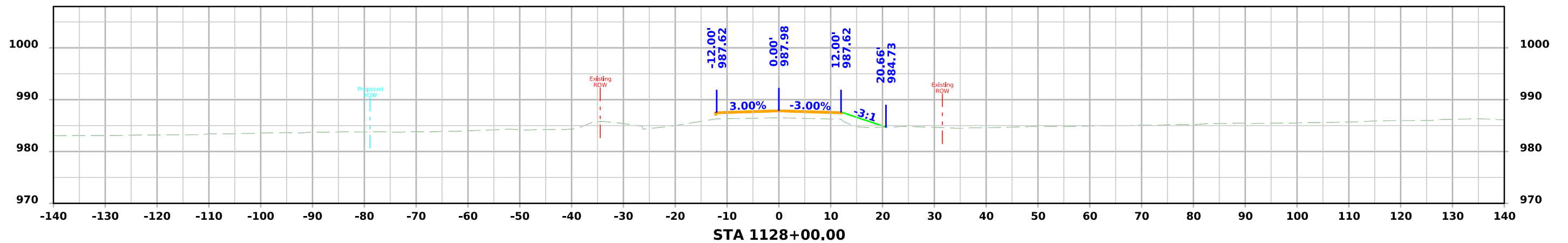
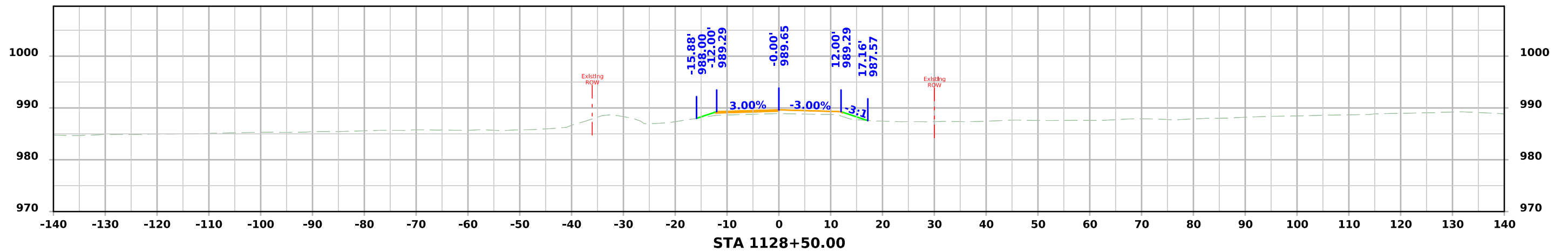


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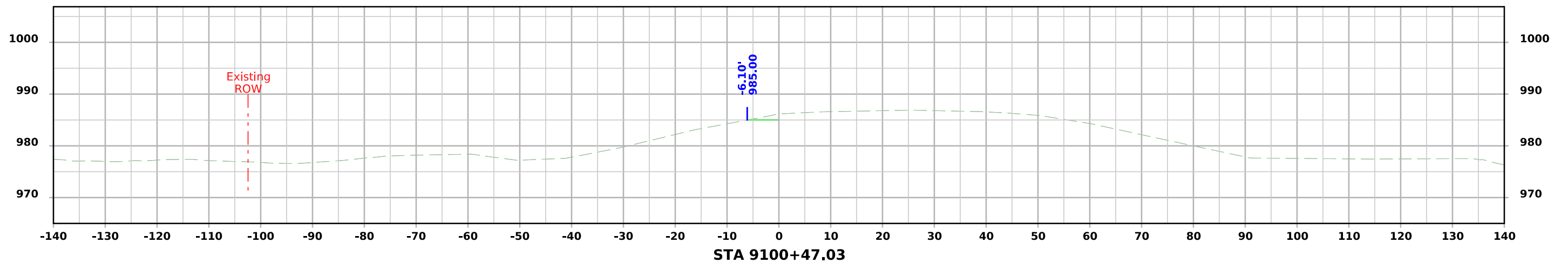
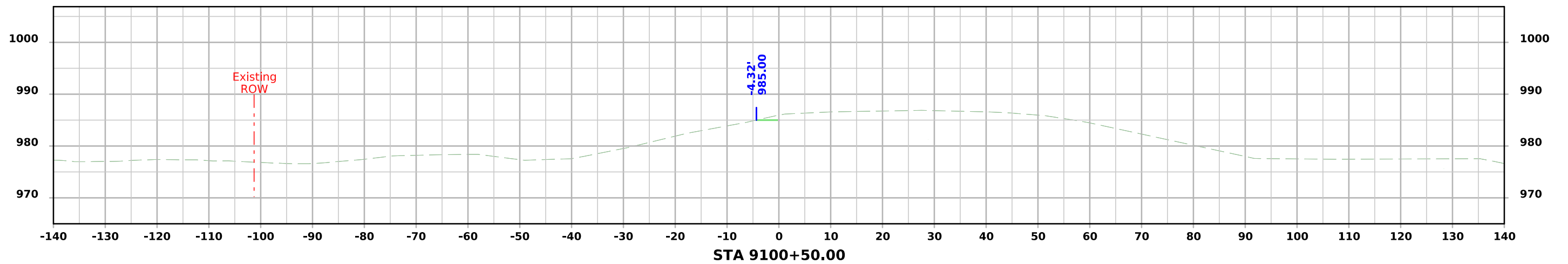
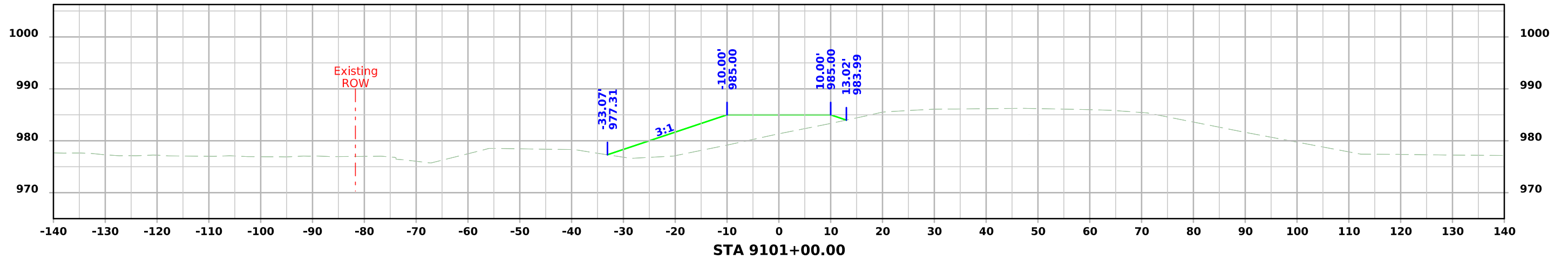




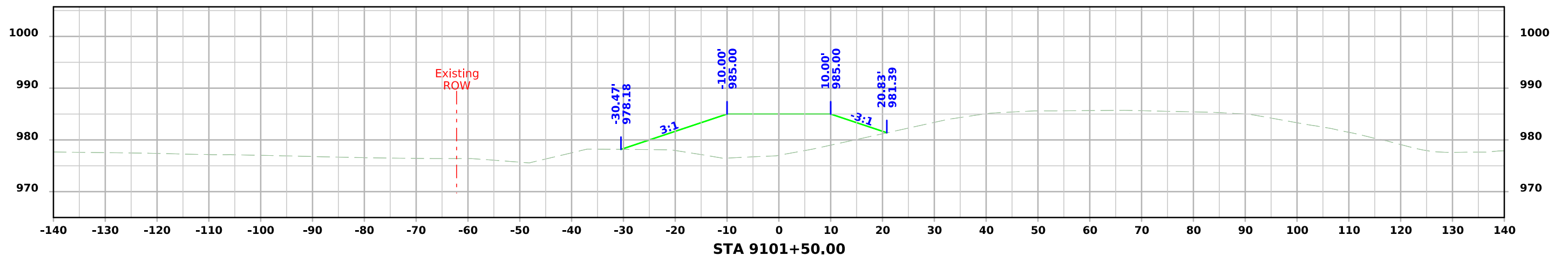
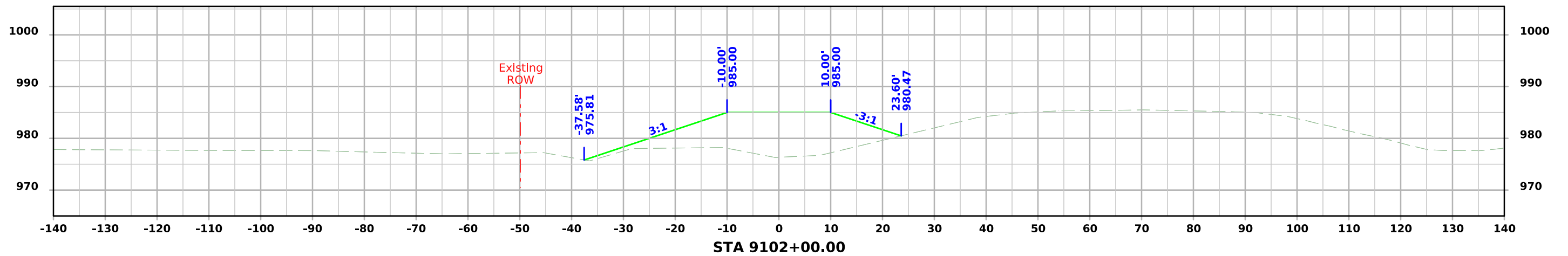
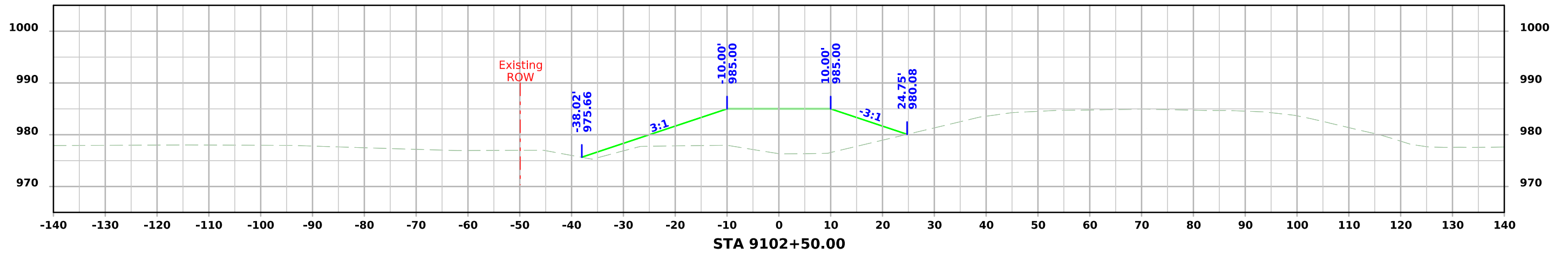
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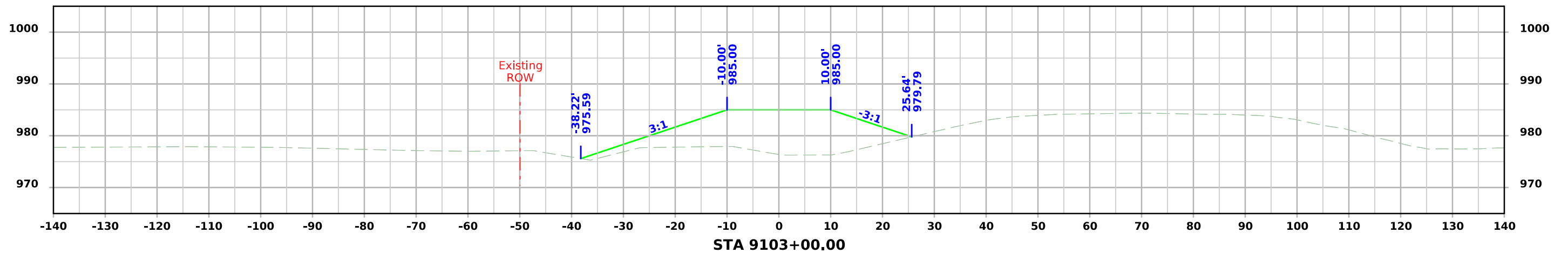
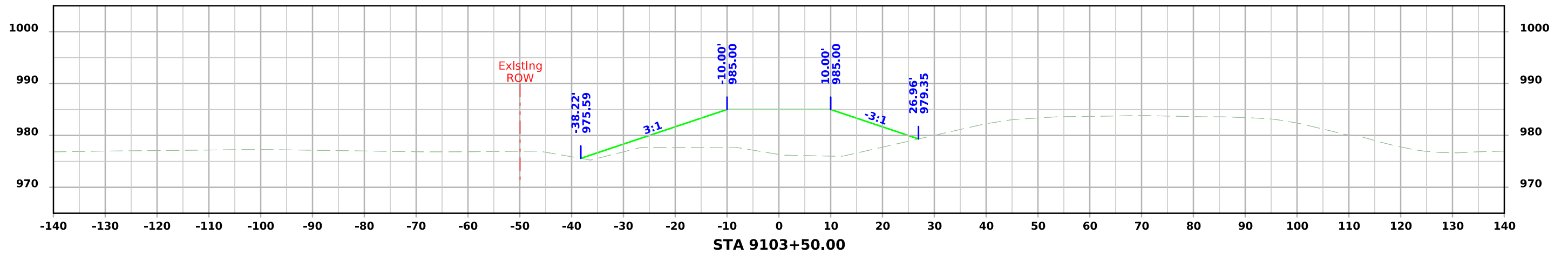
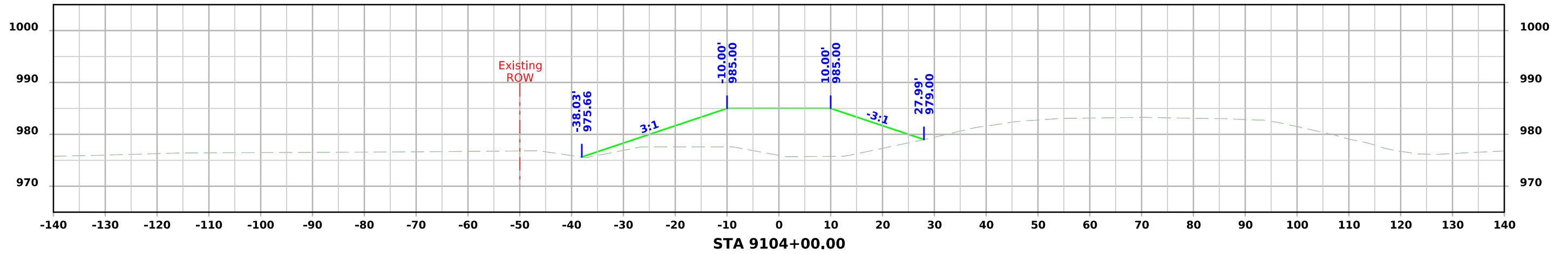
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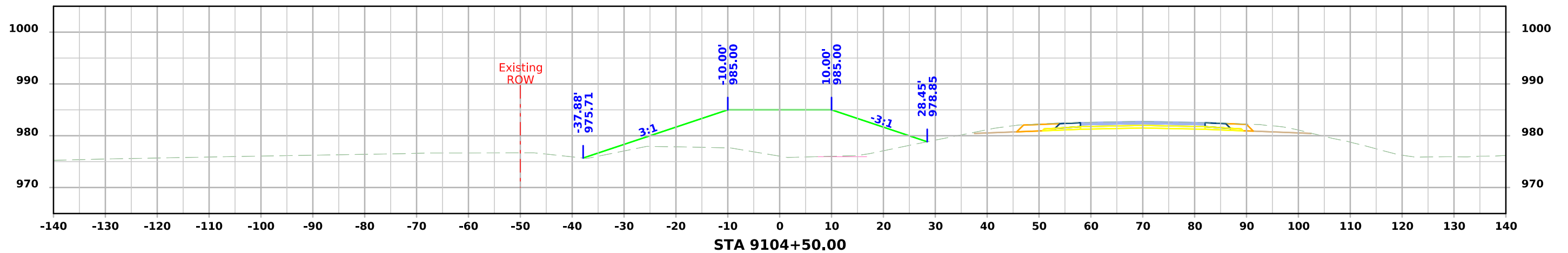
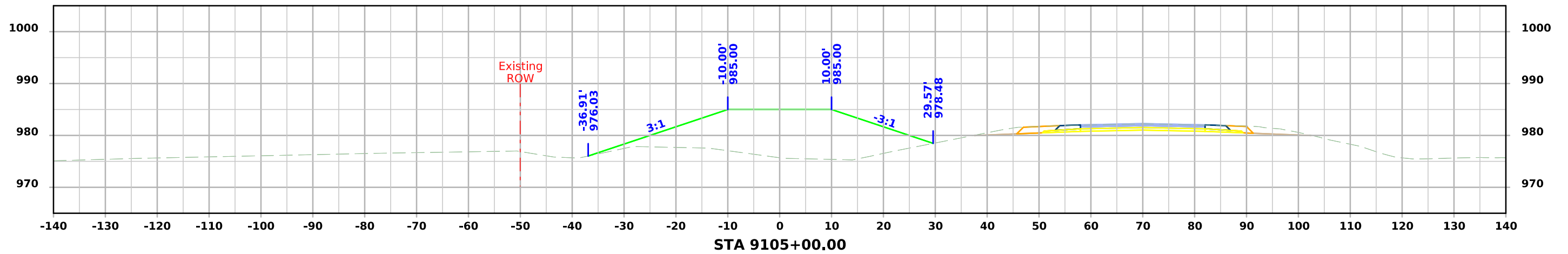
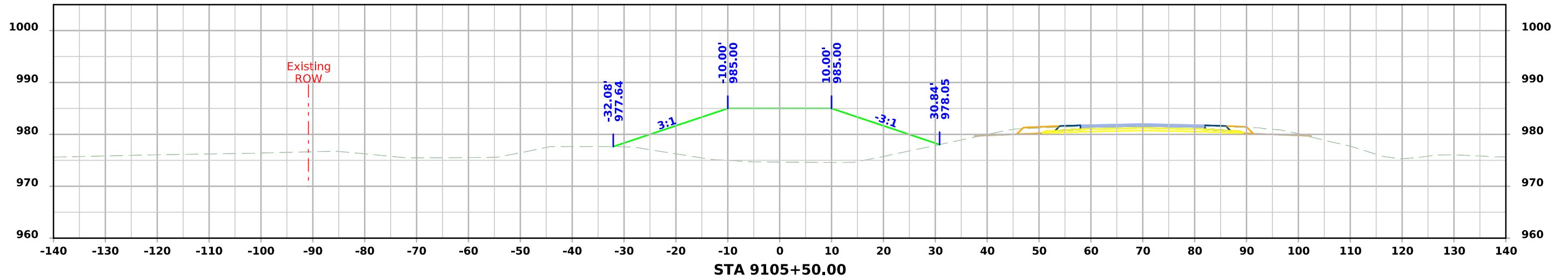
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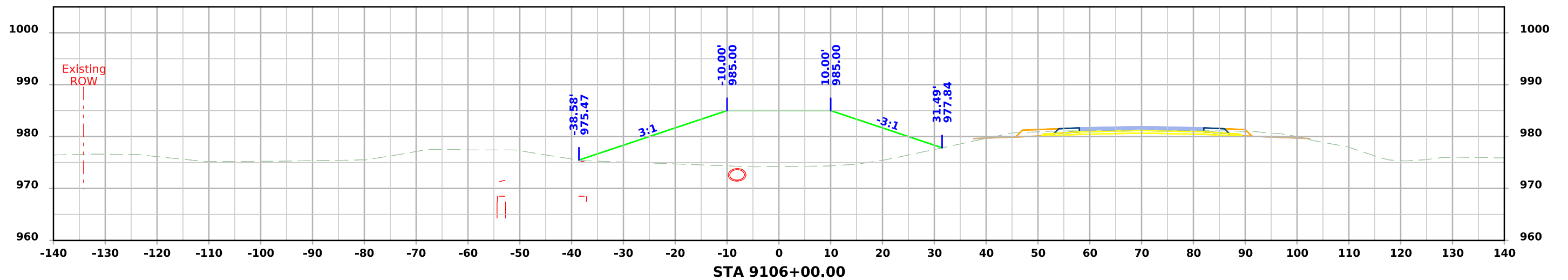
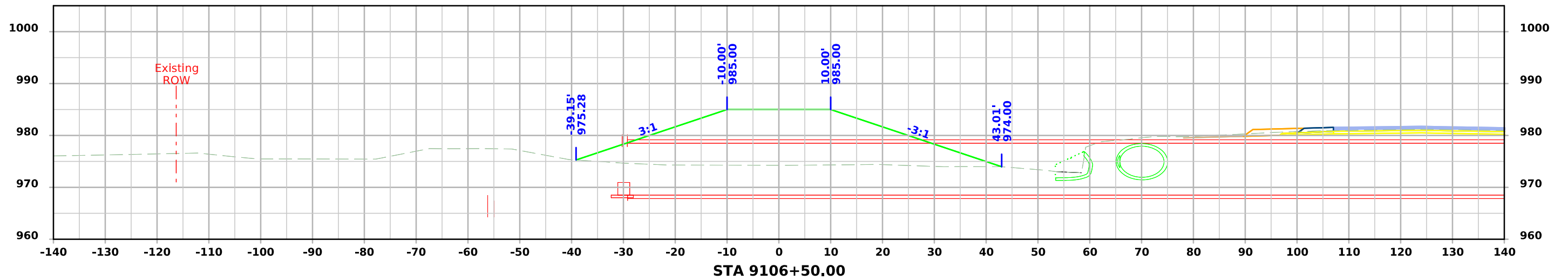
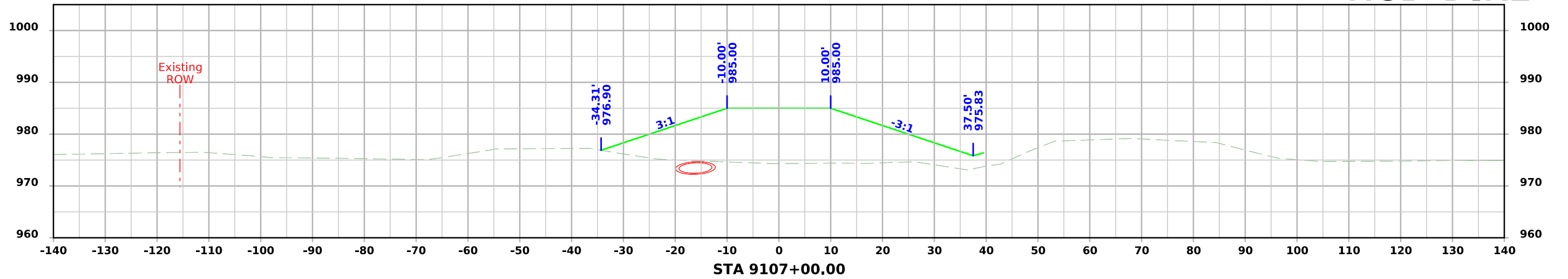
# RCB DIKE



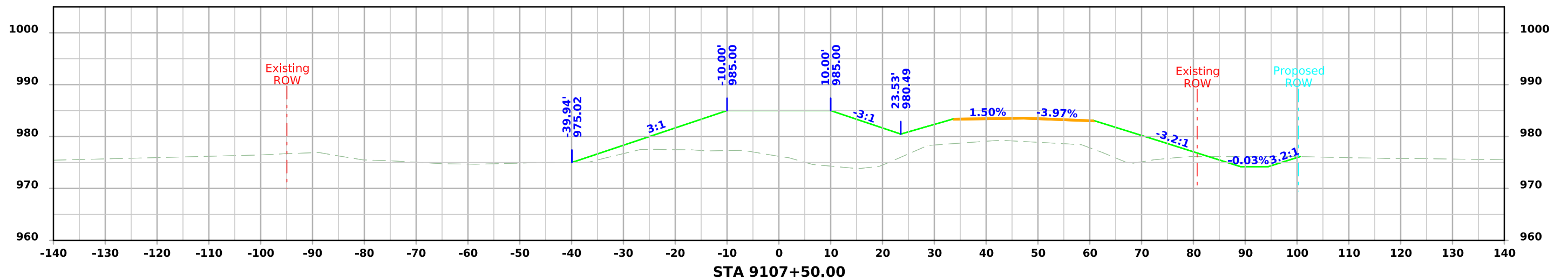
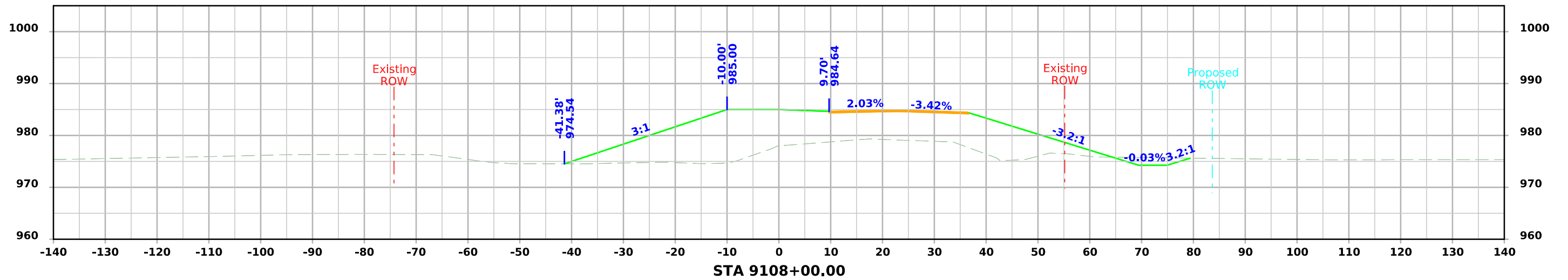
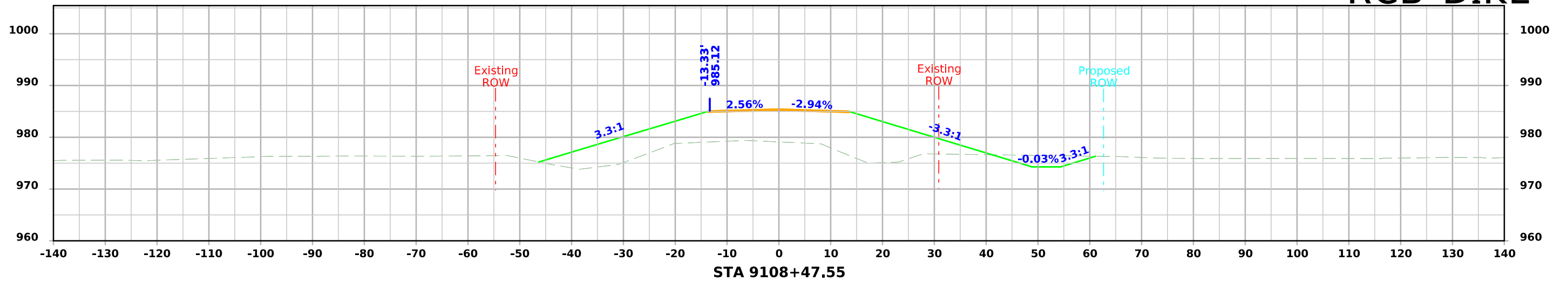
# RCB DIKE



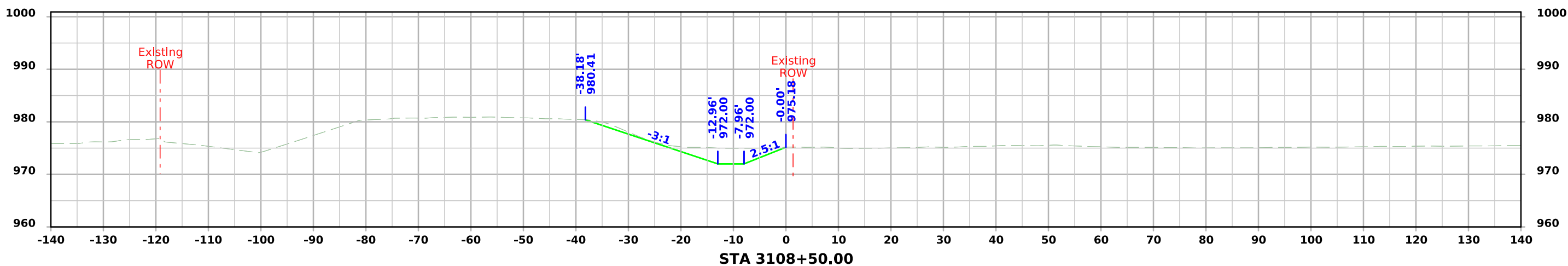
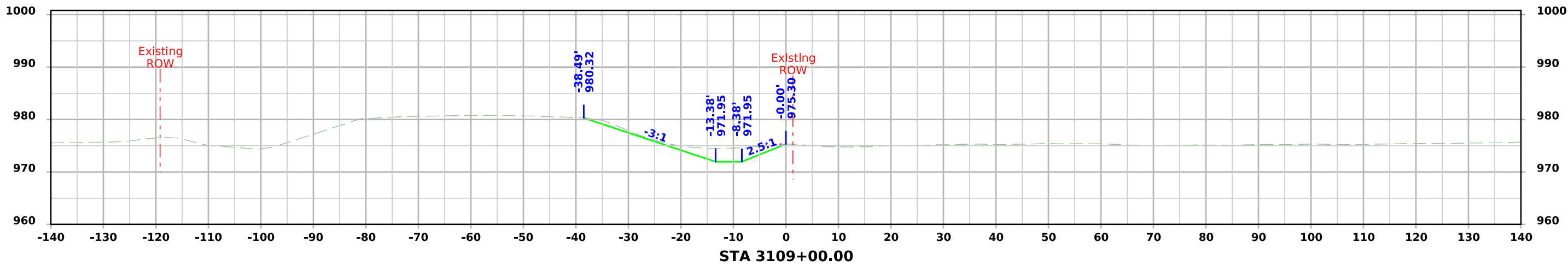
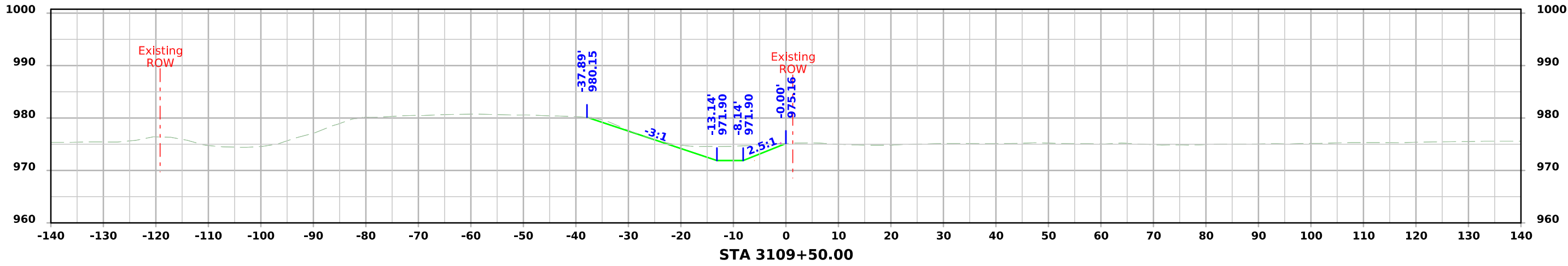
# RCB DIKE



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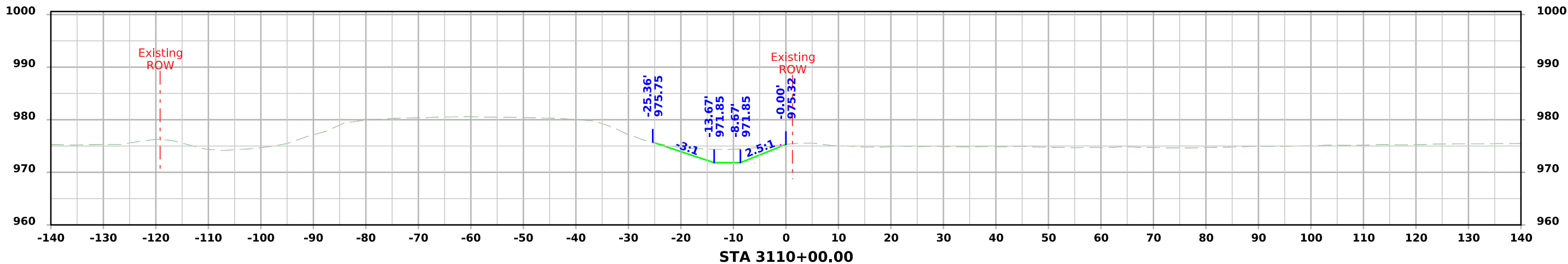
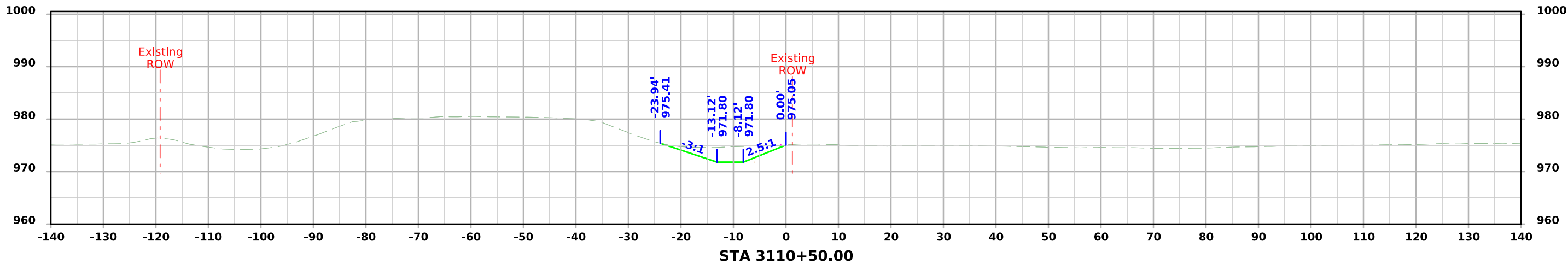
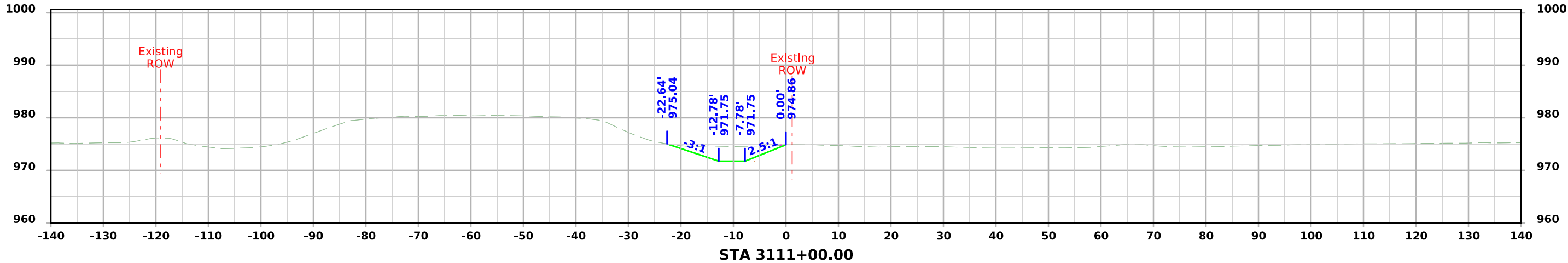


# IA HWY 3 LOW-FLOW DITCH

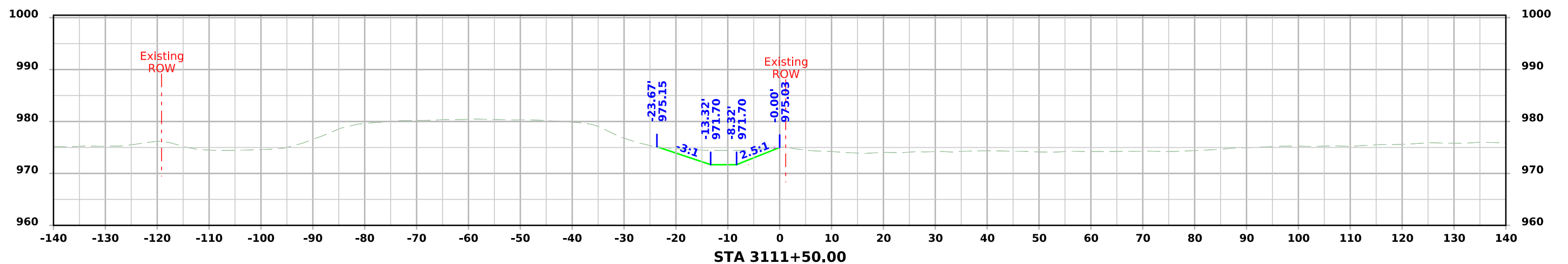
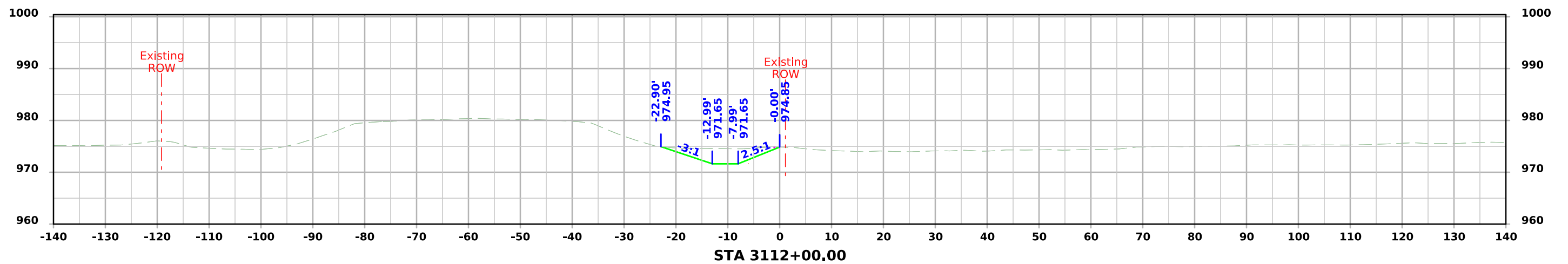
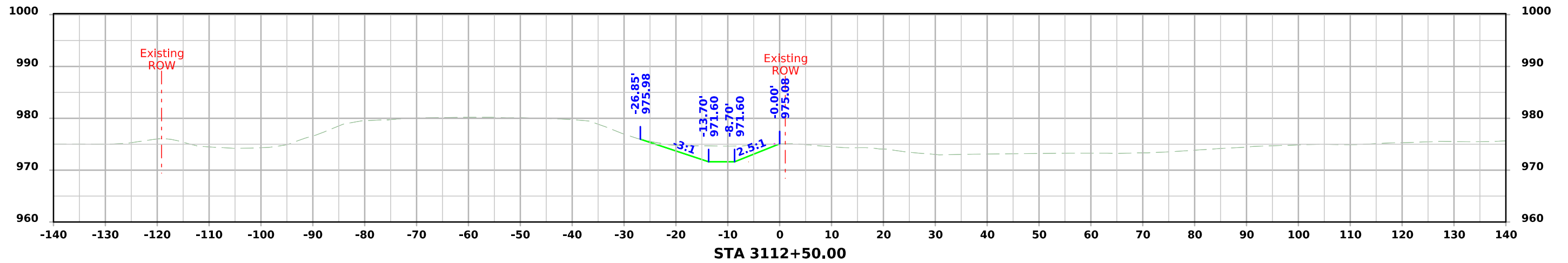




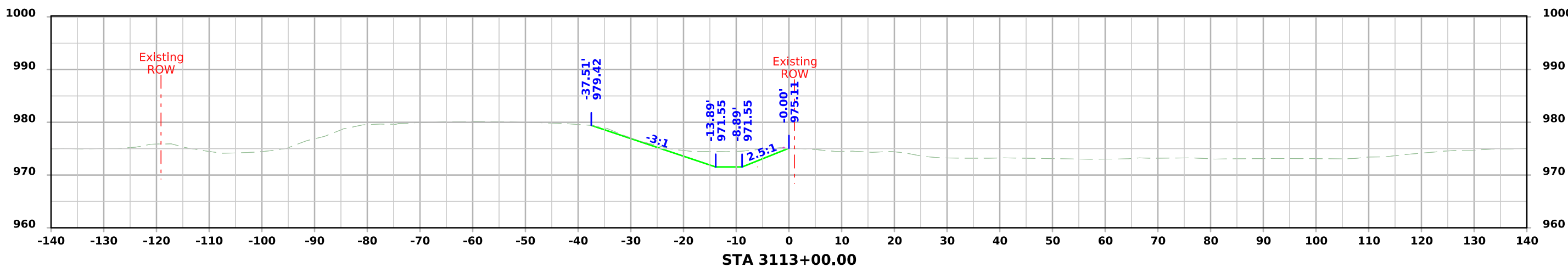
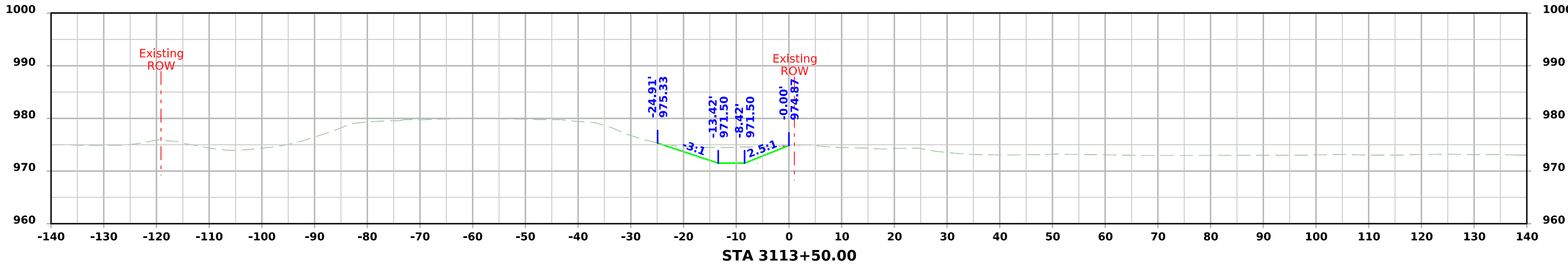
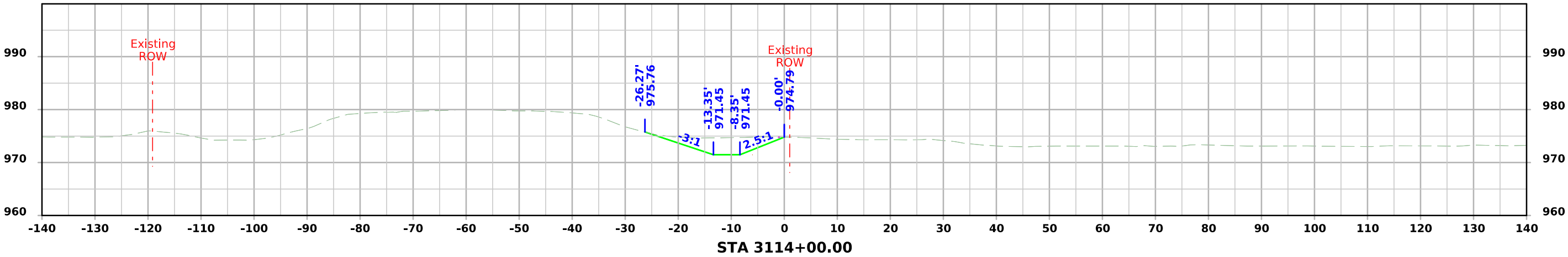
# IA HWY 3 LOW-FLOW DITCH



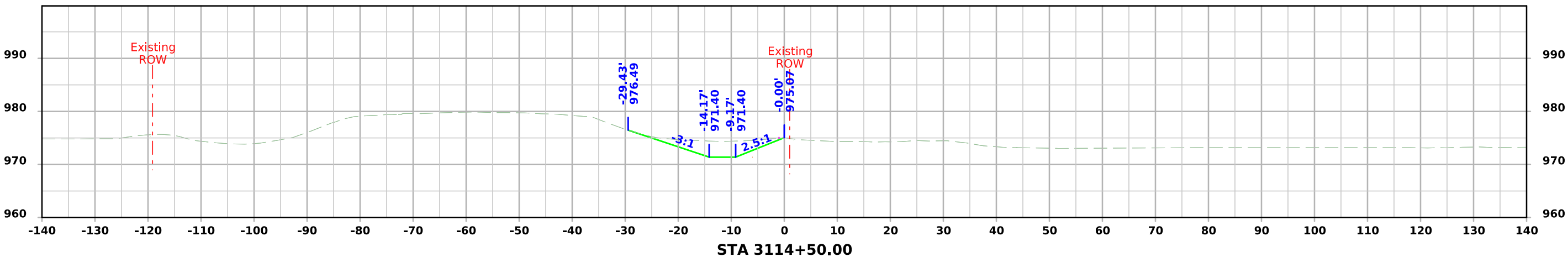
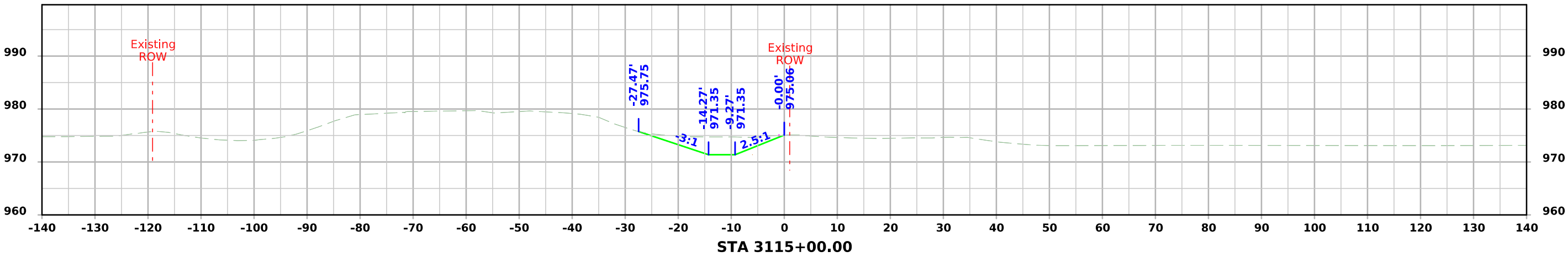
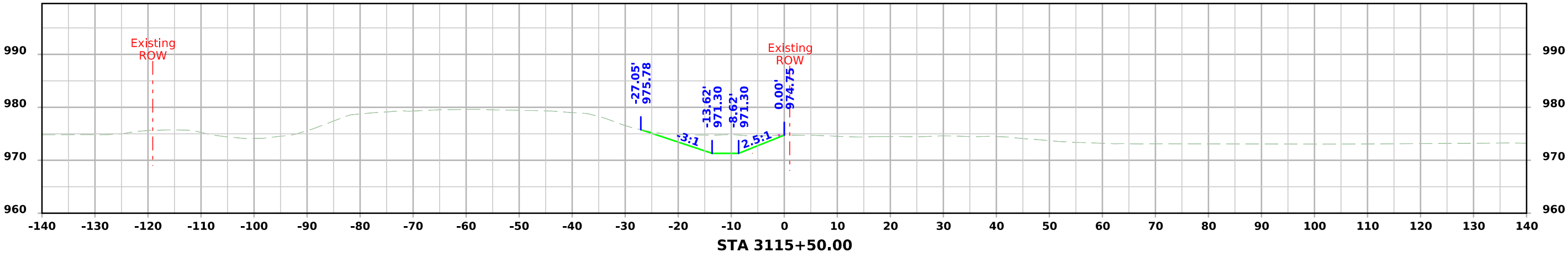
# IA HWY 3 LOW-FLOW DITCH



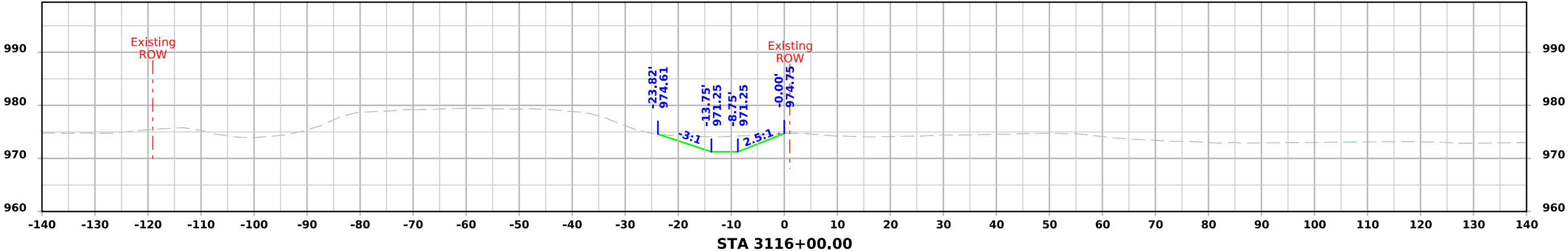
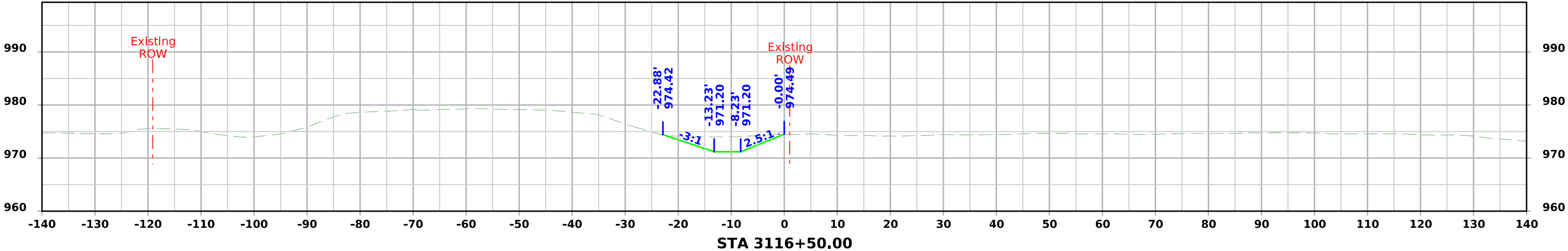
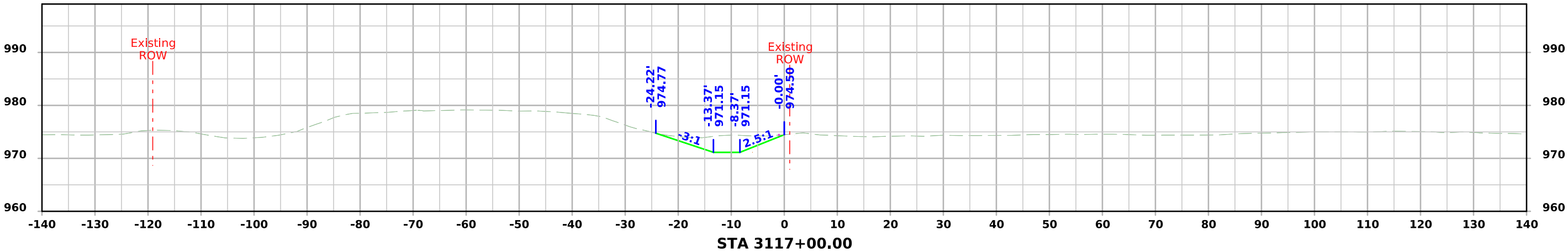
# IA HWY 3 LOW-FLOW DITCH



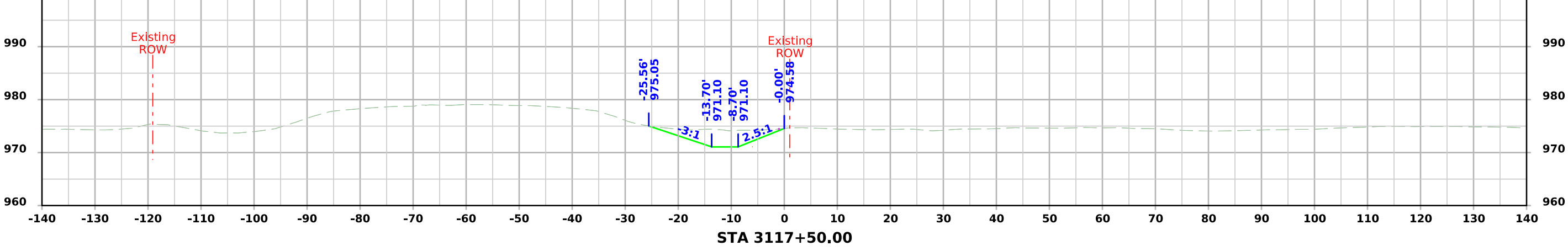
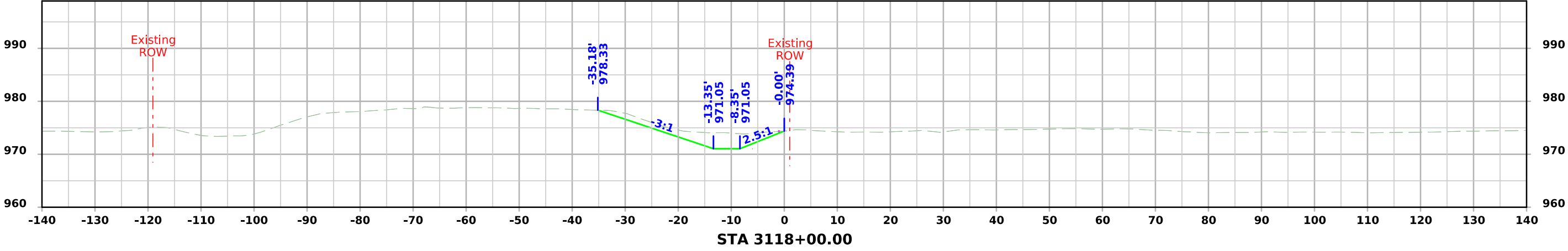
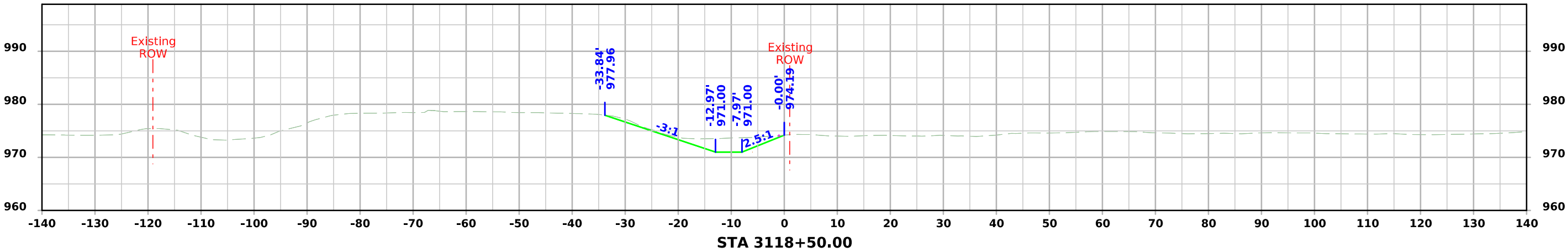
# IA HWY 3 LOW-FLOW DITCH



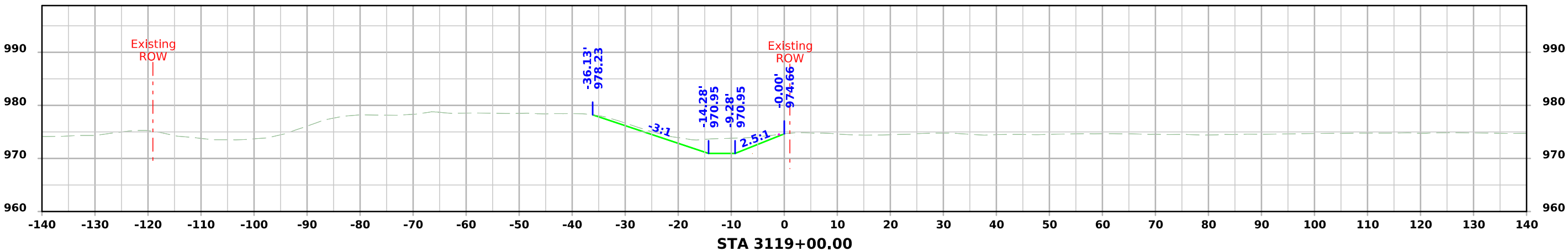
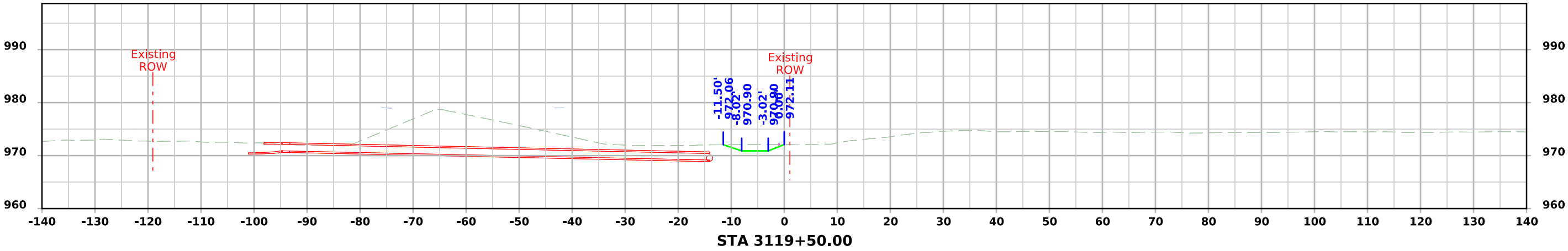
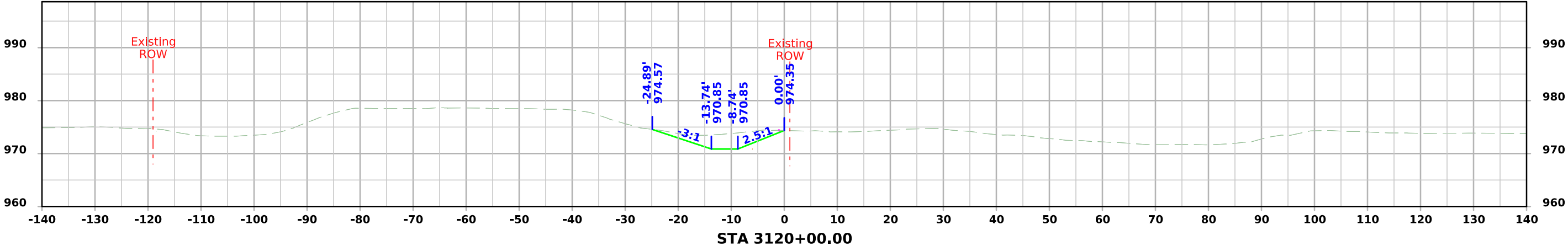
# IA HWY 3 LOW-FLOW DITCH



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