# North Dakota Department of Transportation

Grant Levi, P.E.
*Director*

Jack Dalrymple
*Governor*


January 26, 2016

**ADDENDUM 1 – JOB 13**

TO: All prospective bidders on project SOIB-7-058(013)000, Job No. 13 scheduled for the February 5, 2016 bid opening.

The following plan and request for proposal revision shall be made:

Plan Revisions:
**See attached summary from William Doerr, PE; Brosz Engineering, dated January 25, 2016 for an explanation.**

Request for Proposal Revisions:
**Remove and replace pages 5-6 and 8-12 of 14 of the Proposal pages located at the beginning of the Request for Proposal, with the enclosed pages revised 1/26/2016.**

Page 5 of 14:

Item 202 0174 REMOVAL OF PIPE ALL TYPES AND SIZES; quantity decreased from 3710 to 3584 LF.
Item 203 0101 COMMON EXCAVATION-TYPE A; quantity increased from 27,840 to 29,723 CY.
Item 203 0108 TOPSOIL-BORROW AREA; quantity increased from 15,833 to 16,100 CY.
Item 203 0109 TOPSOIL; quantity decreased from 60,912 to 58,285 CY.
Item 203 0140 BORROW-EXCAVATION; quantity increased from 158,326 to 179,486 CY.

Page 6 of 14:

Item 210 0210 FOUNDATION FILL; quantity increased from 183 to 188 CY.
Item 216 0100 WATER; quantity increased from 4947 to 5178 M GAL.
Item 260 0200 SILT FENCE SUPPORTED; quantity increased from 2940 to 5940 LF.
Item 260 0201 REMOVE SILT FENCE SUPPORTED; quantity increased from 2940 to 5940 LF.

Page 8 of 14:

Item 602 0130 CLASS AAE-3 CONCRETE; quantity increased from 79.8 to 87.1 CY.
Item 612 0115 REINFORCING STEEL-GRADE 60; quantity increased from 11,933 to 13, 247 LBS.

Page 9 of 14:

Item 714 2165 PIPE CONC REINF ARCH 65IN X 40IN CL III; quantity decreased from 827 to 826 LF.

Page 10 of 14:

Item 714 4106 PIPE CONDUIT 24IN-APPROACH; quantity decreased from 3098 to 3004 LF.
Item 714 4113 PIPE CONDUIT 30IN-APPROACH; quantity decreased from 126 to 58 LF.
Item 714 4116 PIPE CONDUIT 36IN-APPROACH; quantity increased from 118 to 186 LF.
Item 714 7033 PIPE PVC 15IN; 54 LF was added.
Item 720 0110 RIGHT OF WAY MARKERS; quantity decreased from 246 to 238 EA.
Item 720 0130 IRON PIN R/W MONUMENTS; quantity decreased from 188 to 180 EA.
Item 722 3453 GRATE – TYPE I; 2 EA was added.

Page 11 of 14:

Items shifted due to added items.

Page 12 of 14:

Item 764 0151 REMOVE W-BEAM GUARDRAIL & POSTS; quantity decreased from 508 to 208 LF.
Item 910 0696 SLUICE GATE 18IN; 1 EA was deleted.
Item 910 0695 SLUICE GATE 15IN; 2 EA was added.

**Add Special Provision 5086(14) "PERMITS AND ENVIRONMENTAL CONSIDERATIONS"**

**Add the Borrow Area List for Borrow Area No: 1 and the accompanying Material Source Certificate of Approval for MZ-1170.**

Supplemental Information Revisions:
**See attached sheet regarding supplemental design data updates.**

This addendum is to be incorporated into the bidder's proposal for this project.
Expedite bid files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at http://www.bidx.com/ or the Department's web page (http://www.dot.nd.gov) and load it into the Expedite program.

CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER
80:plm
Enclosure

Box 357 • 109 S. Main
Bowman, ND 58623
Ph: 701.523.3340

BROSZ ENGINEERING, INC.
ARCHITECTURE ENGINEERING SURVEYING

January 25, 2016

**ADDENDUM 1**
**JOB NO. 13**

TO: All prospective bidders and suppliers on Project SOIB-7-058(013)000, Job No. 13 in McKenzie and Williams County, scheduled for the February 5, 2016 bid opening.

The following plan revisions shall be made:

Plan Revisions:

**Remove and replace sheets 2-1, 6-2, 6-4, 6-5, 8-1, 8-2, 8-3, 11-1, 11-6, 11-7, 20-8, 20-12, 30-2, 50-2, 51-2, 60-3, 60-4, 60-5, 60-8, 60-9, 60-11, 60-12, 60-13, 60-16, 60-17, 60-18, 60-19, 60-20, 75-1, 75-2, 75-6, 75-11, 75-12, 75-17, 76-5, 76-6, 76-11, 77-5, 77-6, 77-11 & 200-1 thru 200-182 with the enclosed sheets revised 1/20/2016.**

**Remove and replace sheet 6-1 with the enclosed sheet revised 1/22/2016.**

**Add sheets 50-2A & 50-2B dated 1/20/2016.**

Supplemental Design Data (SDD):

**Remove and replace the Supplemental Design Data provided on the ftp site with the new data dated 1/25/2016.**

| | |
|---|---|
| Section 2, Sheet 1: | The total number of Cross Section Sheets was updated. |
| Section 6, Sheet 1: | Plan Notes 100-P01 and 100-P04 were revised. Plan Note 108-P01 was added. Plan Note 201-P01 was moved to Sheet 2. |
| Section 6, Sheet 2: | Plan Note 201-P01 was moved from Sheet 1 to Sheet 2. Plan Note 203-P03 was added. |
| Section 6, Sheet 4: | Plan Note 722-P01 was added. Plan Note 910-P01 was revised. |
| Section 6, Sheet 5: | Environmental Note EC-01 was revised. |

Section 8, Sheet 1: The following bid items had quantities updated:

202-0174 Removal of Pipe All Types & Sizes
203-0101 Common Excavation-Type A
203-0109 Topsoil
203-0140 Borrow-Excavation
210-0210 Foundation Fill
216-0100 Water
602-0130 Class AAE-3 Concrete

The following bid item was deleted:

203-0108 Topsoil-Borrow Area

Section 8, Sheet 2: The following bid items had quantities updated:

612-0115 Reinforcing Steel-Grade 60
714-2165 Pipe Conc Reinf Arch 65IN x 40IN CL III
714-4106 Pipe Conduit 24IN-Approach
714-4116 Pipe Conduit 35IN-Approach
720-0110 Right of Way Markers
720-0130 Iron Pin R/W Monuments

The following bid items were added:

714-7033 Pipe PVC 15IN
722-3453 Grate-Type 1

Section 8, Sheet 3: The following bid item had quantities updated:

764-0151 Remove W-Beam Guardrail & Posts

The following bid item was added:

910-0695 Sluice Gate 15IN

The following bid item was deleted:

910-0696 Sluice Gate 18IN

Section 11, Sheet 1: The Earthwork Summary Table was updated.

Section 11, Sheet 6: The Fill and the Mass Ordinate columns were updated and the Excavation and the Fill totals were updated.

Section 11, Sheet 7: The Right of Way / Reference Monuments & Markers table was updated.

Section 20, Sheet 8: Note #4 was revised to specify the tie bar length.

Section 20, Sheet 12: The dimensions were updated.

Section 30, Sheet 2: The labels and dimensions for the Temporary Embankment were updated.

Section 50, Sheet 2: The size of the irrigation distribution box was revised. The concrete and rebar quantities were updated.

Section 50, Sheet 2A: A cover was added to the distribution box and some details from Sheet 2 were moved to Sheet 2a.

Section 50, Sheet 2B: An irrigation distribution box was added at Station 163+25 Rt.

Section 51, Sheet 2: The Allowable Pipe List was updated as follows: Deleted pipe at Station 172+66 Rt, Added pipe at Station 177+55 Rt, Deleted pipe at Station 185+39 Lt.

Section 60, Sheets 3, 4, 5, 6, 11, 12, 13, 16, 17 & 18:
The location of the McKenzie County Rural Water Line was updated in the topo to reflect the most recent data available.

Section 60, Sheet 4: The pipe at Station 72+25.6 changed from 18" to 15" in diameter.

Section 60, Sheet 8: A pipe removal was added. A 15" sluice gate was added. A 15" PVC pipe was added. A distribution box was added. The pipe and approach at Station 172+65 Rt were removed. The ROW was updated.

Section 60, Sheet 9: A pipe and approach were added at Station 177+55 Rt. A pipe was removed. The ROW was updated.

Section 60, Sheets 11, 19 & 20:
The ROW was updated.

Section 75, Sheets 1, 2 & 6:
The Wetland Impact Table and Summary Impact Table were updated.

Section 75, Sheets 11, 12 & 17:
The ROW was updated.

Section 76, Sheets 5, 6 & 11:
The ROW was updated.

Section 77, Sheets 5, 6 & 11:
The ROW was updated.

Section 200, Sheets 1 thru 182:
The surfacing graphics on the cross sections were updated. The ROW limits were updated.

This Addendum is to be incorporated into the bidder's proposal for this project.

Sincerely,

William Doerr, PE
Project Engineer
Brosz Engineering, Inc.

**Project: SOIB-7-058(013)000 (PCN-20416)**

**Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.**

| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price $$$$$ | Unit Price 000 | Amount $$$$$ | Amount 00 |
|---|---|---|---|---|---|---|---|---|---|
| 001 | 103 | 0100 | CONTRACT BOND | L SUM | 1. | | | | |
| 002 | 103 | 0200 | ESCROW OF BID DOCUMENTATION | L SUM | 1. | | | | |
| 003 | 201 | 0330 | CLEARING & GRUBBING | L SUM | 1. | | | | |
| 004 | 202 | 0112 | REMOVAL OF CONCRETE | SY | 147. | | | | |
| 005 | 202 | 0115 | REMOVAL OF CONCRETE-SITE 1 | L SUM | 1. | | | | |
| 006 | 202 | 0116 | REMOVAL OF CONCRETE-SITE 2 | L SUM | 1. | | | | |
| 007 | 202 | 0123 | REMOVE & SALVAGE AGGREGATE BASE | TON | 16,920. | | | | |
| 008 | 202 | 0135 | REMOVAL OF BITUMINOUS SURFACING | TON | 4,783. | | | | |
| 009 | 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | EA | 29. | | | | |
| 010 | 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | LF | 3,584. | | | | |
| 011 | 203 | 0101 | COMMON EXCAVATION-TYPE A | CY | 29,723. | | | | |
| 012 | 203 | 0108 | TOPSOIL-BORROW AREA | CY | 16,100. | | | | |
| 013 | 203 | 0109 | TOPSOIL | CY | 58,285. | | | | |
| 014 | 203 | 0113 | COMMON EXCAVATION-WASTE | CY | 23,233. | | | | |
| 015 | 203 | 0121 | TOPSOIL-WETLAND | CY | 782. | | | | |
| 016 | 203 | 0140 | BORROW-EXCAVATION | CY | 179,486. | | | | |

**BID ITEMS**

**Project: SOIB-7-058(013)000 (PCN-20416)**

**Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.**

| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price | | Amount | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | $$$$$ | 000 | $$$$$ | 00 |
| 017 | 210 | 0051 | BOX CULVERT EXCAVATION - SITE 1 | EA | 1. | | | | |
| 018 | 210 | 0052 | BOX CULVERT EXCAVATION - SITE 2 | EA | 1. | | | | |
| 019 | 210 | 0202 | FOUNDATION PREPARATION-SITE 1 | L SUM | 1. | | | | |
| 020 | 210 | 0203 | FOUNDATION PREPARATION-SITE 2 | L SUM | 1. | | | | |
| 021 | 210 | 0210 | FOUNDATION FILL | CY | 188. | | | | |
| 022 | 216 | 0100 | WATER | M GAL | 5,178. | | | | |
| 023 | 220 | 0100 | PREPARE STOCKPILE SITE | L SUM | 1. | | | | |
| 024 | 220 | 0200 | RESTORE STOCKPILE SITE | L SUM | 1. | | | | |
| 025 | 251 | 0200 | SEEDING CLASS II | ACRE | 115. | | | | |
| 026 | 251 | 1000 | WETLAND SEED | ACRE | 5. | | | | |
| 027 | 251 | 2000 | TEMPORARY COVER CROP | ACRE | 120. | | | | |
| 028 | 253 | 0101 | STRAW MULCH | ACRE | 240. | | | | |
| 029 | 255 | 0103 | ECB TYPE 3 | SY | 461. | | | | |
| 030 | 256 | 0200 | RIPRAP GRADE II | CY | 260. | | | | |
| 031 | 260 | 0200 | SILT FENCE SUPPORTED | LF | 5,940. | | | | |
| 032 | 260 | 0201 | REMOVE SILT FENCE SUPPORTED | LF | 5,940. | | | | |

**BID ITEMS**

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| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price $$$$$ | Unit Price 000 | Amount $$$$$ | Amount 00 |
|---|---|---|---|---|---|---|---|---|---|
| 049 | 602 | 0130 | CLASS AAE-3 CONCRETE | CY | 87.100 | | | | |
| 050 | 602 | 1131 | CLASS AE-3 CONCRETE-BOX CULVERT | CY | 144.600 | | | | |
| 051 | 606 | 0806 | 8FT X 6FT PRECAST RCB CULVERT | LF | 46. | | | | |
| 052 | 606 | 4806 | 8FT X 6FT PRECAST RCB END SECTION | EA | 2. | | | | |
| 053 | 612 | 0114 | REINFORCING STEEL-GRADE 60-BOX CULVERT | LBS | 20,117. | | | | |
| 054 | 612 | 0115 | REINFORCING STEEL-GRADE 60 | LBS | 13,247. | | | | |
| 055 | 702 | 0100 | MOBILIZATION | L SUM | 1. | | | | |
| 056 | 704 | 0100 | FLAGGING | MHR | 5,000. | | | | |
| 057 | 704 | 1000 | TRAFFIC CONTROL SIGNS | UNIT | 3,570. | | | | |
| 058 | 704 | 1052 | TYPE III BARRICADE | EA | 100. | | | | |
| 059 | 704 | 1060 | DELINEATOR DRUMS | EA | 200. | | | | |
| 060 | 704 | 1067 | TUBULAR MARKERS | EA | 650. | | | | |
| 061 | 704 | 1080 | STACKABLE VERTICAL PANELS | EA | 2,600. | | | | |
| 062 | 704 | 1081 | VERTICAL PANELS-BACK TO BACK | EA | 50. | | | | |
| 063 | 704 | 1185 | PILOT CAR | HR | 2,000. | | | | |
| 064 | 706 | 0400 | FIELD OFFICE | EA | 1. | | | | |

**BID ITEMS**

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| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price $$$$$ | Unit Price 000 | Amount $$$$$ | Amount 00 |
|---|---|---|---|---|---|---|---|---|---|
| 065 | 706 | 0500 | AGGREGATE LABORATORY | EA | 1. | | | | |
| 066 | 706 | 0550 | BITUMINOUS LABORATORY | EA | 1. | | | | |
| 067 | 706 | 0600 | CONTRACTOR'S LABORATORY | EA | 2. | | | | |
| 068 | 709 | 0155 | GEOSYNTHETIC MATERIAL TYPE RR | SY | 552. | | | | |
| 069 | 714 | 0310 | PIPE CONC REINF 18IN CL III | LF | 14. | | | | |
| 070 | 714 | 0615 | PIPE CONC REINF 24IN CL III | LF | 172. | | | | |
| 071 | 714 | 0820 | PIPE CONC REINF 30IN CL III | LF | 2,603. | | | | |
| 072 | 714 | 0905 | PIPE CONC REINF 36IN CL III | LF | 24. | | | | |
| 073 | 714 | 1005 | PIPE CONC REINF 42IN CL III | LF | 1,328. | | | | |
| 074 | 714 | 1105 | PIPE CONC REINF 48IN CL III | LF | 138. | | | | |
| 075 | 714 | 1310 | PIPE CONC REINF 60IN CL III | LF | 72. | | | | |
| 076 | 714 | 1510 | PIPE CONC REINF 72IN CL III | LF | 30. | | | | |
| 077 | 714 | 2165 | PIPE CONC REINF ARCH 65IN X 40IN CL III | LF | 826. | | | | |
| 078 | 714 | 3023 | END SECT-TRAVERSABLE REINF. CONC.24IN | EA | 21. | | | | |
| 079 | 714 | 3033 | END SECT-TRAVERSABLE REINF. CONC.30IN | EA | 2. | | | | |
| 080 | 714 | 3036 | END SECT-TRAVERSABLE REINF. CONC.36IN | EA | 3. | | | | |

**BID ITEMS**

**Project: SOIB-7-058(013)000 (PCN-20416)**

**Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.**

| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price $$$$$ | Unit Price 000 | Amount $$$$$ | Amount 00 |
|---|---|---|---|---|---|---|---|---|---|
| 081 | 714 | 4100 | PIPE CONDUIT 18IN | LF | 1,100. | | | | |
| 082 | 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | LF | 3,004. | | | | |
| 083 | 714 | 4113 | PIPE CONDUIT 30IN-APPROACH | LF | 58. | | | | |
| 084 | 714 | 4116 | PIPE CONDUIT 36IN-APPROACH | LF | 186. | | | | |
| 085 | 714 | 7033 | PIPE PVC 15IN | LF | 54. | | | | |
| 086 | 714 | 9660 | REMOVE & RELAY END SECTION-ALL TYPE & SIZES | EA | 18. | | | | |
| 087 | 720 | 0110 | RIGHT OF WAY MARKERS | EA | 238. | | | | |
| 088 | 720 | 0125 | ALIGNMENT MONUMENTS | EA | 52. | | | | |
| 089 | 720 | 0130 | IRON PIN R/W MONUMENTS | EA | 180. | | | | |
| 090 | 720 | 0135 | IRON PIN REFERENCE MONUMENTS | EA | 58. | | | | |
| 091 | 722 | 0120 | MANHOLE 72IN | EA | 4. | | | | |
| 092 | 722 | 1120 | MANHOLE RISER 72IN | LF | 29. | | | | |
| 093 | 722 | 3453 | GRATE-TYPE 1 | EA | 2. | | | | |
| 094 | 722 | 4565 | MEDIAN DRAIN PRECAST CONCRETE-TYPE A | EA | 2. | | | | |
| 095 | 754 | 0112 | FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING | SF | 29.800 | | | | |
| 096 | 754 | 0115 | FLAT SHEET FOR SIGNS-TYPE IX REFL SHEETING | SF | 119.800 | | | | |

**BID ITEMS**

**Project: SOIB-7-058(013)000 (PCN-20416)**

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| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price $$$$$ | Unit Price 000 | Amount $$$$$ | Amount 00 |
|---|---|---|---|---|---|---|---|---|---|
| 097 | 754 | 0206 | STEEL GALV POSTS-TELESCOPING PERFORATED TUBE | LF | 737.900 | | | | |
| 098 | 754 | 0561 | REFERENCE MARKER-TYPE A | EA | 9. | | | | |
| 099 | 754 | 0592 | RESET SIGN PANEL | EA | 22. | | | | |
| 100 | 754 | 0805 | OBJECT MARKERS - CULVERTS | EA | 184. | | | | |
| 101 | 760 | 0001 | RUMBLE STRIPS - CONCRETE SHOULDER | MILE | 7.300 | | | | |
| 102 | 760 | 0003 | RUMBLE STRIPS - CONCRETE CENTERLINE | MILE | 2.600 | | | | |
| 103 | 760 | 0005 | RUMBLE STRIPS - ASPHALT SHOULDER | MILE | 17.900 | | | | |
| 104 | 760 | 0007 | RUMBLE STRIPS - ASPHALT CENTERLINE | MILE | 2.800 | | | | |
| 105 | 762 | 0112 | EPOXY PVMT MK MESSAGE | SF | 48. | | | | |
| 106 | 762 | 0113 | EPOXY PVMT MK 4IN LINE | LF | 52,799. | | | | |
| 107 | 762 | 0115 | EPOXY PVMT MK 8IN LINE | LF | 530. | | | | |
| 108 | 762 | 0117 | EPOXY PVMT MK 24IN LINE | LF | 23. | | | | |
| 109 | 762 | 0122 | PREFORMED PATTERNED PVMT MK-MESSAGE(GROOVED) | SF | 864. | | | | |
| 110 | 762 | 0430 | SHORT TERM 4IN LINE-TYPE NR | LF | 119,975. | | | | |
| 111 | 762 | 1305 | PREFORMED PATTERNED PVMT MK 4IN LINE-GROOVED | LF | 154,699. | | | | |
| 112 | 762 | 1309 | PREFORMED PATTERNED PVMT MK 8IN LINE-GROOVED | LF | 11,500. | | | | |

**BID ITEMS**

**Project: SOIB-7-058(013)000 (PCN-20416)**

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| Item No. | Spec No. | Code No. | Description | Unit | Approx. Quantity | Unit Price $$$$$ | Unit Price 000 | Amount $$$$$ | Amount 00 |
|---|---|---|---|---|---|---|---|---|---|
| 113 | 762 | 1325 | PREFORMED PATTERNED PVMT MK 24IN LINE-GROOVED | LF | 222. | | | | |
| 114 | 764 | 0131 | W-BEAM GUARDRAIL | LF | 395. | | | | |
| 115 | 764 | 0145 | W-BEAM GUARDRAIL END TERMINAL | EA | 4. | | | | |
| 116 | 764 | 0150 | REMOVE & RESET GUARDRAIL | LF | 300. | | | | |
| 117 | 764 | 0151 | REMOVE W-BEAM GUARDRAIL & POSTS | LF | 208. | | | | |
| 118 | 764 | 2081 | REMOVE END TREATMENT & TRANSITION | EA | 4. | | | | |
| 119 | 766 | 0100 | MAILBOX-ALL TYPES | EA | 11. | | | | |
| 120 | 900 | 1000 | TEMPORARY STREAM DIVERSION | EA | 2. | | | | |
| 121 | 910 | 0695 | SLUICE GATE 15IN | EA | 2. | | | | |
| 122 | 910 | 0702 | SLUICE GATE 42IN | EA | 1. | | | | |
| 123 | 920 | 1240 | ARCHEOLOGIST | L SUM | 1. | | | | |
| 124 | 920 | 1241 | BIOLOGIST | L SUM | 1. | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | **TOTAL SUM BID** | | | | | | |

# NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

## SPECIAL PROVISION

## PERMITS AND ENVIRONMENTAL CONSIDERATIONS

## PROJECT NUMBER: SOIB-7-058(013)000 – PCN 20416

This Special Provision incorporates the US Army Corps of Engineers (USACE) Section 404 Permit obtained by the North Dakota Department of Transportation (NDDOT) into the bidder's proposal. The project as proposed includes widening, turn lanes, culvert extensions, and surfacing.

The Contractor shall be responsible for complying with all the terms and conditions as contained in the permit(s) attached hereto. Bidders shall become familiar with all standard conditions and special conditions of the permit(s) and submit their bid for the construction of this project based on the following:

- **Section 404 Permit**
  The Section 404 Permit number NWO-2014-2289-BIS authorizes 1.18 acres of permanent and 1.32 acres of temporary wetlands impacts and 6385 linear feet of permanent and 3884 linear feet of temporary other water impacts from activities associated with widening, culvert extensions, and riprap. Temporary impacts were assumed by the designer and will be restored to preconstruction contours.

  See the Section 6 Environmental Commitments Sheets and Section 75 sheets of the design plans for the authorized impact footprint and mitigation footprint areas. The Section 404 Permit is attached.

The contractor shall be responsible for obtaining permits for impacts not authorized by the attached Permit obtained by the NDDOT.

**DEPARTMENT OF THE ARMY**
**CORPS OF ENGINEERS, OMAHA DISTRICT**
**NORTH DAKOTA REGULATORY OFFICE**
**1513 SOUTH 12TH STREET**
**BISMARCK ND 58504-6640**

REPLY TO
ATTENTION OF

January 21, 2016

North Dakota Regulatory Office

[NWO-2014-2289-BIS]
Hammond/255-0015

Ms. Cassandra Torstenson
North Dakota Department of Transportation
608 East Boulevard Avenue
Bismarck, North Dakota 58505-0700

Dear Ms. Torstenson:

We have reviewed your request, for Department of the Army (DA) authorization for roadway improvements on Highway 58. Based on the information you provided to this office, it has been determined that this project and the associated work is authorized by DA Nationwide Permit (NWP) No. **23**, found in the February 21, 2012 Federal Register (77 FR 10184), Reissuance of Nationwide Permits. The enclosed fact sheet lists the General Conditions and Section 401 Water Quality Certification Requirements that must be followed for this DA authorization to remain valid. In addition, the Special Conditions listed below must also be adhered to for this DA authorization to remain valid. **Please note that any deviations from the original plans and specifications submitted to this office could require additional authorization from this office.**

This verification will be valid until **March 18, 2017.** If the nationwide permit is modified, suspended, or revoked prior to this date, but is reissued without modification or the activity complies with any subsequent modification, this authorization remains valid until the expiration date. All of the existing nationwide permits are scheduled to be modified, reissued, or revoked prior to **March 18, 2017**. It is incumbent upon you to remain informed of changes to the nationwide permits. We will issue a public notice when the nationwide permits are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve (12) months from the date of the modification or revocation to complete the activity under the present terms and conditions.

The project is located on Highway 58 from the junction of ND Highway 200 to the junction of ND Highway 1804 in McKenzie and Williams County, North Dakota.

Printed on Recycled Paper

In compliance with General Condition 30, **you are required to submit the following project compliance certification within thirty (30) days of project completion.** [Please check all applicable statements.]

[ ] I certify that I have completed the project as permitted.
[ ] I certify that I have completed a modified version of the project.
[ ] I certify that I have completed all required mitigation.

**Permittee's Signature:**_____**Date:**_____

This determination is applicable only to the permit program administered by the US Army Corps of Engineers. It does not eliminate the need to obtain other Federal, state, tribal and local approvals before beginning work.

You are responsible for all work accomplished in accordance with the terms and conditions of this NWP, **including the Regional Conditions specific to projects undertaken in North Dakota**. If a contractor or other authorized representative will be accomplishing the work authorized by this NWP on your behalf, it is strongly recommended that they be provided a copy of this letter and the attached conditions so that they are aware of the limitations of the applicable NWP. Any activity that fails to comply with the terms and conditions of this NWP will be considered unauthorized and may result in an enforcement action.

**SPECIAL CONDITIONS:**

a. **You must carry out wetland mitigation and monitoring in accordance with the submitted "Compensatory Wetland Mitigation Plan, Keenes Corner December 29, 2015."**
b. **Mitigation must be constructed prior to or concurrent with project construction.**
c. **By reference, these requirements become special conditions of this Nationwide Permit verification (NWO-2014-2289-BIS).**

The Omaha District, North Dakota Regulatory Office is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

If you have any questions concerning this determination, please contact Mr. Swade Hammond of this office by letter or telephone at (701) 255-0015, extension 2012 and reference project number **NWO-2014-2289-BIS**.

Sincerely,

TRC

for Patricia L. McQueary
Regulatory Program Manager
North Dakota

Enclosure

**FACT SHEET**
**NATIONWIDE PERMIT 23**
**(2012)**

## APPROVED CATEGORICAL EXCLUSIONS.

Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where:

(a) That agency or department has determined, pursuant to the Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (40 CFR part 1500 et seq.), that the activity is categorically excluded from environmental documentation, because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment; and

(b) The Office of the Chief of Engineers (Attn: CECW-CO) has concurred with that agency's or department's determination that the activity is categorically excluded and approved the activity for authorization under NWP 23.

The Office of the Chief of Engineers may require additional conditions, including pre-construction notification, for authorization of an agency's categorical exclusions under this NWP. (Sections 10 and 404)

Notification: Certain categorical exclusions approved for authorization under this NWP require the permittee to submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 31). The activities that require pre-construction notification are listed in the appropriate Regulatory Guidance Letters.

## Nationwide Permit General Conditions

**Note:** To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer.

**1. Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

**2. Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those

species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species.

**3. Spawning Areas**. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

**4. Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

**5. Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

**6. Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

**7. Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

**8. Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

**9. Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

**10. Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

**11. Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

**12. Soil Erosion and Sediment Controls**. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

**13. Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

**14. Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

**15. Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

**16. Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

**17. Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

**18. Endangered Species.** (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA compliance for the NWP activity, or whether additional ESA consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed

activities will have "no effect" on listed species or critical habitat, or until Section 7 consultation has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWPs.

(e) Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. FWS or the NMFS, The Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.noaa.gov/fisheries.html respectively.

**19. Migratory Birds and Bald and Golden Eagles.** The permittee is responsible for obtaining any "take" permits required under the U.S. Fish and Wildlife Service's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the U.S. Fish and Wildlife Service to determine if such "take" permits are required for a particular activity.

**20. Historic Properties.** (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer

shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

**21. <u>Discovery of Previously Unknown Remains and Artifacts</u>.** If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

**22. <u>Designated Critical Resource Waters</u>.** Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 31, for any activity proposed in the

designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

**23. Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment.

(2) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

(3) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)).

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(5) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan.

(d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream rehabilitation, enhancement, or preservation, to ensure that the activity results in minimal adverse effects on the aquatic environment.

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of

the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

(f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

**24. Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

**25. Water Quality.** Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

**26. Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

**27. Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

**28. Use of Multiple Nationwide Permits.** The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

**29. Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

**30. Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the work and mitigation.

**31. Pre-Construction Notification**—(a) *Timing.* Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the

PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either: (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition
20 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification:* The PCN must be in writing and include the following information: (1) Name, address and telephone numbers of the prospective permittee; (2) Location of the proposed project; (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the United States expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans); (4) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the

delineation has been submitted to or completed by the Corps, as appropriate; (5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan. (6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and (7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act. (c) *Form of Pre-Construction Notification:* The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used. (d) *Agency Coordination:* (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental effects to a minimal level. (2) For all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require pre-construction notification, the district engineer will immediately provide (e.g., via email, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site specific comments. The comments must explain why the agency believes the adverse effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the preconstruction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure the net adverse environmental effects to the aquatic environment of the proposed activity are minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5. (3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section

305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act. (4) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of preconstruction notifications to expedite agency coordination.

**Further Information**

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

**2012 Nationwide Permits**
**Regional Conditions**
**Omaha District**
**State of North Dakota**

The following Nationwide Permit regional conditions will be used in the State of North Dakota. Regional conditions are placed on Nationwide Permits to ensure projects result in less than minimal adverse impacts to the aquatic environment and to address local resources concerns.

## Wetlands Classified as Peatlands – Revoked for Use

All Nationwide Permits, with the exception of 3, 5, 20, 32, 38 and 45, are revoked for use in peatlands in North Dakota.

Peatlands are saturated and inundated wetlands where conditions inhibit organic matter decomposition and allow for the accumulation of peat. Under cool, anaerobic, and acidic conditions, the rate of organic matter accumulation exceeds organic decay. Peatlands can be primarily classified into ombrotrophic bogs and minerotrophic fens; the latter subdivided into poor, moderate-rich, and extreme-rich fens, each with distinctive indicator species, community physiognomy, acidity, alkalinity, and base cation content.

## Wetlands Classified as Peatlands – Pre-construction Notification Requirement

For Nationwide Permits 3, 5, 20, 32, 38, and 45 permittees must notify the Corps in accordance with General Condition 31 (Notification) prior to initiating any regulated activity impacting peatlands in North Dakota.

## Waters Adjacent to Natural Springs – Pre-construction Notification Requirement

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 31 (Notification) for regulated activities located within 100 feet of the water source in natural spring areas in North Dakota. For purposes of this condition, a spring source is defined as any location where there is artesian flow emanating from a distinct point at any time during the growing season. Springs do not include seeps and other groundwater discharge areas where there is no distinct point source.

## Missouri River, including Lake Sakakawea and Lake Oahe within the State of North Dakota – Pre-construction Notification Requirement

For all Nationwide Permits permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity in the Missouri River, including Lake Sakakawea and Lake Oahe, within the State of North Dakota.

## Borrow Site Identification – All Nationwide Permits

The permittee is responsible for ensuring that the Corps is notified of the location of any borrow site that will be used in conjunction with the construction of the authorized activity so that the Corps may evaluate the site for potential impacts to aquatic resources, historic properties, and endangered species. For projects where there is another lead Federal agency, the permittee shall provide the Corps documentation indicating that the lead Federal agency has complied with the National Historic Preservation Act and Endangered Species Act for the borrow site. The permittee shall not initiate work at the borrow site in conjunction with the authorized activity until approval is received from the Corps.

## Counter-sinking Culverts and Associated Riprap – All Nationwide Permits

That culverts and riprap proposed to be installed within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota shall be installed one foot below the natural streambed. The 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

## REGIONAL CONDITIONS APPLICABLE TO SPECIFIC NATIONWIDE PERMITS

## Nationwide Permit 7 – Outfall Structures and Associated Intake Structures and Nationwide Permit 12 – Utility Line Activities

**Intake Structures** - Intake screens with a maximum mesh opening of 1/4-inch must be provided, inspected annually, and maintained. Wire, Johnson-like, screens must have a maximum distance between wires of 1/8-inch. Water velocity at the intake screen shall not exceed ½-foot per second.

Pumping plant sound levels will not exceed 75 dB at 50 feet.

Intakes located in Lake Sakakawea, above river mile 1519, are subject to the following conditions:

- The intakes shall be floating.
- At the beginning of the pumping season, the intake shall be placed over water with a minimum depth of 20 feet.
- If the 20-foot depth is not attainable, then the intake shall be located over the deepest water available.
- If the water depth falls below six feet, the intake shall be moved to deeper water or the maximum intake velocity shall be limited to ¼ foot per second.

Intakes located in Lake Sakakawea, below river mile 1519, and in the Missouri River below Garrison Dam are subject to the following conditions:

- The intakes shall be submerged.
- At the beginning of the pumping season, the intake will be placed at least 20 vertical feet below the existing water level.
- The intake shall be elevated 2 to 4 feet off the bottom of the river or reservoir bed.
- If the 20-foot depth is not attainable, then the intake velocity shall be limited to ¼-foot per second with the intake placed at the maximum practicable attainable depth.

**Nationwide Permit 11 – Temporary Recreational Structures - Boat Docks**

a. If future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

b. No boat dock shall be located on a sandbar or barren sand feature located in or along the banks of the Missouri River.

c. The farthest point riverward on the dock located on the Missouri River proper shall not exceed a total length of 30 feet from the ordinary high water line found along the high bank out into the River. Information Note: Issuance of this permit does not supersede authorization required by the North Dakota State Engineer's Office.

d. Any boat dock located on the Missouri River shall be anchored to the top of the high bank.

e. Any boat dock located within an excavated bay or marina off the main river channel may be anchored to the bay or marina bottom with spuds.

**Nationwide Permit 13 - Bank Stabilization**

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota.

**Nationwide Permit 23 - Approved Categorical Exclusions**

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota. In addition to information required by General Condition 31, permittees must identify the approved categorical exclusion that applies and provide documentation that the project fits the categorical exclusion.

**Nationwide Permit 27 - Aquatic Habitat Restoration, Establishment and Enhancement Activities**

Permittees must notify the Corps in accordance with General Condition No. 31 (Notification) prior to initiating any regulated activity within the State of North Dakota.

## GENERAL CONDITIONS (REGIONAL ADDITIONS)

### General Condition 3- Spawning Areas

No regulated activity within waters of the United States listed as Class III or higher on the 1978 Stream Evaluation Map for the State of North Dakota or on the North Dakota Game and Fish Department's website as a North Dakota Public Fishing Water shall occur between 15 April and 1 June. No regulated activity within the Red River of the North shall occur between 15 April and 1 July. North Dakota Public Fishing Waters can be accessed at: http://gf.nd.gov/fishing/nd-fish-wat.html. The 1978 Stream Evaluation Map for the State of North Dakota can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

### General Condition 6 – Suitable Material

Permittees are reminded that General Condition No. 6 prohibits the use of unsuitable material. In addition, organic debris, some building waste, and materials excessive in fines are not suitable material. Specific verbiage on prohibited materials can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

### General Condition 9 - Management of Water Flows

Permittees are reminded that water flow management addressed in General Condition 9 is applicable to all aspects of a permitted project, including temporary features.

### General Condition 31 – Pre-construction Notification

Prospective permittees should be aware that a **field delineation** may be required for applications where notification is required in accordance with General Condition 31 and/or mitigation may be required. The Corps 1987 Wetland Delineation Manual and applicable Regional Supplements to the Manual can be accessed on the North Dakota Regulatory Office's website at: http://www.nwo.usace.army.mil/html/od-rnd/ndhome.htm.

NORTH DAKOTA
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION
Gold Seal Center, 918 E. Divide Ave.
Bismarck, ND 58501-1947
701.328.5200 (fax)
www.ndhealth.gov

# Construction and Environmental Disturbance Requirements

These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. All projects will be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site.

## Soils

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

## Surface Waters

All construction which directly or indirectly impacts aquatic systems will be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

## Fill Material

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations). This includes, but is not limited to, asphalt, tires, treated lumber, and construction debris. The Department may require testing of fill materials. All temporary fills must be removed. Debris and solid wastes will be removed from the site and the impacted areas restored as nearly as possible to the original condition.

**BORROW AREA LIST**
North Dakota Department of Transportation, Design Division
SFN 9683 (Rev. 01-2015)

Project Control No.: 20416

Project: SOIB-7-058(013)000

Type of Project: Widening, Concrete Paving and HMA Overlay

Borrow Area No.: 1

| Borrow Cu. Yd. | Entered at Station | Approximate Topsoil | Minimum Payment | Cost Per Cu. Yd. | Acreage |
|---|---|---|---|---|---|
| 160,000 | 357+00 | 16,000 | $48,000.00 | $1.00 | 35.40 |

Location: NW¼ NW¼ Section 29, T152N, R104W and E½ NE¼ NE¼ Section 30, T152N, R104W

Owners:

| Tim Langwald | Charlene Langwald |
|---|---|
| 609 Highway 466 | 3038 Bonifay Path |
| Lady Lake, FL 32159 | The Villages, FL 32163 |
| (352) 603-5221 (cell) | (352) 693-5513 (cell) |

Tim Langwald is the contact for Borrow Area #1 but all payment shall be split equally between Tim & Charlene.

Contractor's Responsibilities:

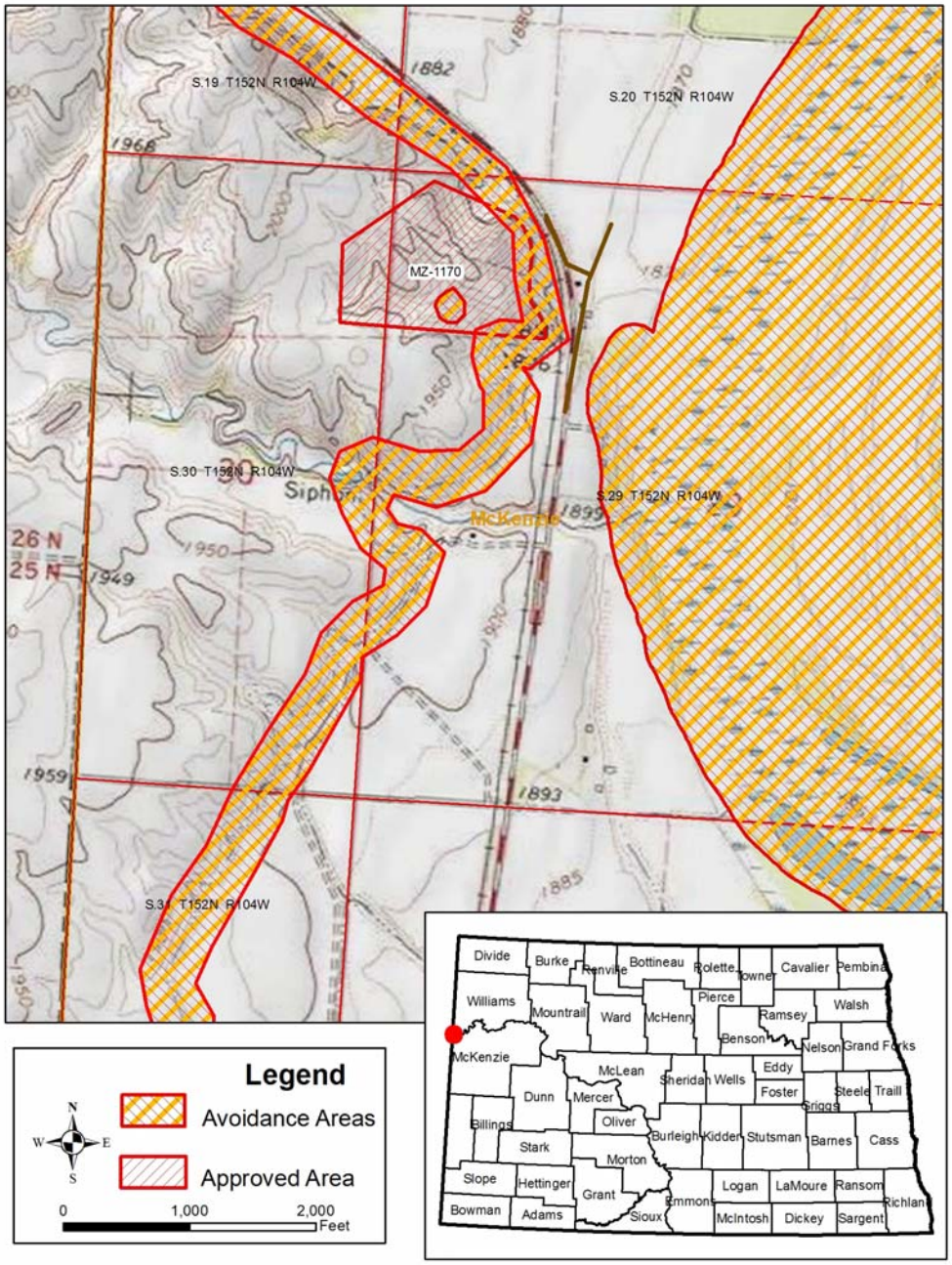
1. Make a minimum payment of $48,000.00 equivalent to 30 percent of the estimated 160,000 cubic yardage. After the contractor has removed the minimum quantity estimated, the contractor shall pay the grantor 80 percent of the minimum payment within 30 days after NDDOT has made payment to the contractor. The balance of the royalty payment shall be paid to the grantor within 30 days after NDDOT makes final payment to the contractor and the contractor has obtained a pit release from the grantor.
2. The contractor will contact the landowner to determine final leveling requirements. A copy of the final plan signed by the owner and contractor will be submitted to the engineer before any borrow is removed.
3. In accordance with Section 203.04 D of the Standard Specifications.
4. A minimum depth of 6" topsoil will be stripped. In those areas where topsoil depth is in excess of 6", a maximum of 12" will be stripped.
5. If the driveway is impacted, reasonable access will be maintained to the house on the property and the area of impacted driveway will be rehabilitated to 20’ wide with 6” of gravel.

N.D. Department of Transportation Responsibilities:

1. Pay cash rent on the disturbed acreage at the rate of $50.00 per acre. If the optioned area is still being utilized for borrow after May 15 of the following year, an additional year's cash rent will be paid.
2. Make an additional rehabilitation payment on the disturbed acreage in the sum of $50.00 per acre.

Total estimated NDDOT responsibility = $3,540.00

# NDDOT Material Source Certificate of Approval




# MZ-1170

Pit Name:
Langwald Pit

S. 29 & 30, 152/104

Conditions:

**This location is approved for use, provided all avoidance areas shown on the map are avoided and all Conditions listed above and below are complied with.**

**NDDOT advises that all applicants (contractors or their representatives) may be subject to meeting certain legal responsibilities pursuant to one or more of the following authorities administered by the USFWS: Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703 et seq.); Endangered Species Act (ESA) (16 U.S.C. 1531 et seq.); and Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668d, 54 Stat. 250). It is the responsibility of the applicants and/or any individual conducting activities at any approved site to fulfill the requirements of these Acts. The contractor will be responsible obtaining all applicable permits outlined in Section 107 of the Standard Specifications for Road and Bridge Construction (SSRBC). Additionally, contractor will be responsible for any impacts to wetlands, including permitting those impacts and mitigating the loss of the wetlands. As with all projects, if cultural artifacts and/or features (e.g., stone tools, fire hearths, stone circles, burials) are encountered, provisions outlined in Section 107.06 of SSRBC shall be followed.**

**This approval does not imply landowner permission to acquire material at this location. An agreement with the landowner is still necessary. If you have any questions regarding material sources please email materialsource@nd.gov**

# Supplemental Design Data – Addendum 1

The provided supplemental design data was purged from the "ftp" site and updated with changes from Addendum 1 on 1/25/16 at 1pm.

SOIB-7-058(013)000, PCN 20416

The NDDOT has provided supplemental design data that may aid the contractor in preparing a bid. These electronic files are located on the NDDOT "ftp" site. The address is as follows:

ftp://ftp.state.nd.us/Supplemental_Bid_Information/

This information can be accessed with the following login information.
User Name: NDDOTContractor
Password: Build123

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## LIST OF SPECIAL PROVISIONS (SP)

| SP# | Description |
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| 03(14) | Temporary Erosion and Sediment Best Management Practices |
| 04(14) | Federal Migratory Bird Treaty Act |
| 233(14) | Stringless Grade Control |
| 234(14) | Dowel Bar Placement |
| 235(14) | Flexible Pavement Surface Tolerance |
| 236(14) | Temporary Water Diversion |
| 237(14) | Winter Suspension |
| 258(14) | Biologist |
| 5086(14) | Permits and Environmental Considerations |

# PLAN NOTES

100-P01 WEEKLY PLANNING/REPORTING MEETING: Organize a weekly meeting to coordinate efforts between subcontractors, utilities, local authorities, and others.

Send a knowledgeable representative to conduct the weekly reporting/planning meeting. Prepare minutes for each meeting and make the appropriate distribution of the minutes. Have the minutes approved by the Engineer before distribution.

Provide a written schedule of the next week's work and a tentative schedule of the following week. Include a discussion of problems encountered during the current week; also include information of interest to local authorities, subcontractors, and utilities.

Provide a suitable meeting facility. Room must be approved by the Engineer.

Invite interested agencies to the meeting. Include the following agencies and any other agencies that are necessary:

A. North Dakota Department of Transportation
B. Local Government Agencies
C. Police department
D. Fire department
E. Ambulance service
F. Telephone Co.
G. Power Co.
H. Cable T.V.
I. Gas Co.
J. Railroad Co.
K. Subcontractors
L. Chamber of Commerce
M. FHWA
N. Lower Yellowstone Irrigation District
O. Buford-Trenton Irrigation District

Include all costs for the Weekly Planning/Reporting Meeting including, but not limited to, providing minutes, schedules and meeting facility room in the price bid for other items.

100-P02 SUGAR BEET HARVEST / PAVING RESTRICTION: No paving will be performed on Hwy 58 during sugar beet harvest unless the Contractor receives written approval from the Sidney Valley receiving yard at Fairview, MT. Sidney Valley is a 50 acre sugar beet stacking yard located on the north end of Fairview. Typical dates for the sugar beet harvest are October 1st to October 15th. The Contractor shall contact a local representative from Sidney Valley to determine the exact harvest dates and the restrictions that may limit paving activities due to farmers hauling beets to the Fairview receiving yard.

100-P03 COORDINATION OF PROJECTS: A number of projects within the vicinity of this project will be under contract during the 2016-2017 construction seasons. One of these projects is SS-7-200(016)004 which is an overlay with widening on Hwy 200 from the Yellowstone River Bridge to Jct US 85.

100-P04 COORDINATION WITH IRRIGATION DISTRICT: This project is located within an active irrigation system administered by the US Bureau of Reclamation and operated and maintained by the Lower Yellowstone Irrigation Project (LYIP) south of the Missouri River and the Buford-Trenton Irrigation District (BTID) north of the Missouri River. Irrigation operations cannot be interrupted at any time and work activities that could impact any parts of the irrigation system must be coordinated with the LYIP and the BTID. See Environmental Note EC-01. Coordinate the project with the following individuals:

James Brower
Project Manager
Lower Yellowstone Irrigation Project
2327 Lincoln Ave South East
Sidney, Montana 59270
(406) 433-1306 Office
(406) 478-4502 Cellular
(406) 433-9188 Fax
jbrower@midrivers.com

Ken Kjos
District Manager
Buford-Trenton Irrigation District
PO Box 27
Trenton, ND 58853
(701) 572-3530 Office
(701) 770-7256 Cellular
btid@nemont.net

100-P05 ACCESS: Do not restrict access to the approach located at Station 208+60 Lt for any period longer than seven consecutive days. Coordinate all closures of this approach with the adjacent landowner.

105-200 UTILITY COORDINATION: A utility coordination meeting is required.

107-710 HAUL ROADS: Before submitting a proposal, contact the appropriate State, County, Township or City officials to determine if there are any roadways that will be designated as “no haul routes”.

107-P01 RAILROAD PROTECTIVE LIABILITY INSURANCE: This project is adjacent to the BNSF Railway Company from RP 3.011 to RP 6.780. The type of work that will be performed within the railroad right of way consists of minor grading and resurfacing of intersecting roads between Highway 58 and the at-grade railroad crossing. Direct inquiries regarding protective liability insurance to:

Marsh USA Inc.
4400 Comerica Bank Tower
1717 Main Street
Dallas, TX 75201-7357, USA

Obtain information regarding crossing numbers from the Federal Railroad Administration website: http//safetydata.fra.dot.gov/Officeofsafety/

108-P01 LIMITED ACCESS: There are areas within this project that will not be available for the Contractor to access until a later date. At the Contractor’s request, the Engineer will stake the affected areas to delineate where Right of Entry is not allowed.

- The Contractor will not be allowed to work outside the existing Right of Way from Station 317+80 to Station 326+00 Right until March 13, 2016.


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# PLAN NOTES

201-P01 CLEARING & GRUBBING: Remove trees from within the work limits at the following locations, as well as any additional locations not listed below but ordered by the Engineer, before March 31 or after October 1. See Environmental Note EC-06. Remove trees according to Section 201 Clearing and Grubbing. Payment for “Clearing and Grubbing” will be lump sum.

- 146+00 Left
- 198+00 Right
- 354+00 Left
- 361+00 Left & Right
- 441+00 Right
- 464+00 Right

202-P01 REMOVAL OF BITUMINOUS SURFACING: Include the cost of the full depth vertical saw cuts adjacent to pavement removal areas, specified in Section 202.04 A “General”, in the contract unit price for “Removal of Bituminous Surfacing.”

202-P02 REMOVAL OF CONCRETE: Remove and dispose of the existing concrete irrigation headwalls and end structures as specified in the plans.

202-P03 REMOVE & SLAVAGE AGGREGATE BASE: Temporary gravel surfacing is necessary to maintain traffic during construction and is shown on the cross sections. The quantity for this temporary gravel surfacing is estimated at 16,920 ton and is included in the plan quantity of salvaged base course. Upon opening the roadway back to two lanes of traffic, remove and dispose of the temporary gravel surfacing.

Include all costs associated with the removal and disposal of the temporary gravel surfacing in the price bid for “Remove & Salvage Aggregate Base.”

203-010 SHRINKAGE: 25 percent additional volume is included for shrinkage in earth embankment.

203-385 AVERAGE HAUL: No average haul has been computed for this project.

203-P01 COMMON EXCAVATION-WASTE: Temporary embankment material is necessary to maintain traffic during construction and is shown on the cross sections. The quantity for this temporary embankment material is estimated at 23,233 cubic yards and is included in the plan quantity of borrow excavation. Upon opening the roadway back to two lanes of traffic, remove and dispose of the temporary embankment material.

Include all costs associated with the removal and disposal of the temporary embankment material in the price bid for “Common Excavation-Waste.” Plan quantity will be used as the measurement for payment of “Common Excavation-Waste.”

203-P02 COMMON EXCAVATION-TYPE A: Determine the optimum moisture and density, as specified in ND T 180, for each type of material encountered that requires compaction control. Perform a multi-point test using a minimum of 4 points. Submit the results to the Engineer along with a split sample of each material.

The Engineer will perform comparison tests using the same procedure on the split sample. The Engineer’s results will be used for determining in place density of material.

203-P03 BORROW-EXCAVATION: Do not excavate within 50’ of the gas lines located within Borrow Site #1. If the driveway is impacted during the borrow excavation, maintain reasonable access to the house on the property. Rehabilitate the impacted driveway to a 20’ width with 6” of gravel surfacing. The cost for rehabilitating the driveway shall be included in the unit price bid for "Borrow-Excavation."

302-P01 TRIMMING BLENDED BASE: Use Surface Tolerance Type B for the blended base. Incorporate excess material removed by the trimming operation from the high points into the low points or into the salvaged base course. The cost for providing the required grade and cross section shall be included in the unit price bid for "Full Depth Reclamation."

430-P01 LONGITUDINAL JOINTS: For the top lift of HBP, paving seams are not allowed in the wheel path of the 12’ driving lanes.

550-P01 LEAVE OUTS: A leave out will consist of only paving half of a crossroad intersection and allowing through traffic on the portion left out. The leave out will not be paved until the concrete overlay has attained a flexural strength of 450 psi or a compressive strength of 3,000 psi. The leave out locations are identified in the plans. Include all costs for this work in the unit price bid for "8.5 IN Non-Reinf Concrete Pvmt CL AE-Doweled."

550-P02 CORRECTIVE ACTION: The Engineer will collect a second profile a maximum of 5 working days after the completion of corrective action. If additional corrective action is necessary, the Engineer will apply a liquidated damage of $1,500 per trip for each profile collected after the second profile.

704-100 TRAFFIC CONTROL SUPERVISOR: Provide a Traffic Control Supervisor.

704-255 TRAFFIC CONTROL FOR SHOULDER DROP-OFF: If the shoulder and adjacent driving lane are not even at the end of the day, the following criteria will apply:

Place the following sign assembly at the locations listed below.

Sign Assembly: Sign No. W8-9a-48 “Shoulder Drop Off” and supplemental plate Sign No. W20-52-54 to identify the distance.

Locations:

- In advance of the drop off;
- Spaced at each mile from the advance sign; and
- At major intersections (CMC routes, state and US Highways, and Interstate Ramps).

If the difference in elevation between the shoulder and the driving lane is 2” or greater, construct a slough on the driving lane that is 4:1 or flatter.

If the difference in elevation between the shoulder and driving lane is less than 2”, no slough is required.

Sign assemblies will be measured and paid for according to Section 704 “Temporary Traffic Control”.


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# PLAN NOTES

706-P01 FIELD OFFICE: Provide a field office which meets the following requirements:

1. Minimum total area of 450 square feet
2. Indoor bathroom facilities and supplies with weekly cleaning services
3. Hookups for heat, electricity, sewer and potable water.
4. Minimum cabinet space of 32 cubic feet
5. Minimum counter space of 40 square feet
6. Air conditioner with a minimum of 20,000 BTUs
7. Lighting with a minimum of 110 foot-candles
8. Supply a photocopier with enough toner to last the length of the project and with the following capabilities:
    a. Printing;
    b. Scanning; and
    c. Producing 11 x 17 photocopies and prints.

Place the field office on the project, or as close to the project as possible. The Contractor is responsible for the pay for the following:

- Rental fees;
- Heating;
- Electrical;
- Sewer; and
- Potable water.

Make the field office available for occupancy one week before the start of the project. The Engineer will approve the location and the condition of the office. Do not remove the field office until the Engineer releases the field office.

The Engineer is responsible for the following items:

- Furnishing office equipment;
- Supplying paper; and
- Supplying and paying for internet service.

All requirements of the Field Office are subject to approval by the Engineer. Include the costs for the field office in the bid item "Field Office".

Schedule for Payments:

- 25% when set up on site.
- 50% when 30% of the work is complete.
- 75% when 60% of the work is complete.
- 100% when project is complete.

714-P01 PIPE BENDS: Where sections of pipe requires bends, install individual prefabricated pipe bend sections that have a maximum deflection of 1.5 degrees.

714-P02 SILTED PIPES: Clear any debris and/or silt from within all pipe that are extended or requiring new end sections. When not within delineated wetland, the silt shall also be removed from the adjacent channel within the right of way up to 15 feet beyond the end of the pipe. The cost of removal and disposal of silt or debris shall be included in the price bid for centerline and approach pipe bid items.

714-P03 RELAYING END SECTIONS: Relayed concrete end sections shall be tied to the new pipe as shown on Standard D-714-22. Include the cost of drilling the required holes and furnishing and installing the tie bolts in the contract unit price bid for “Remove & Relay End Section – All Types & Sizes”.

714-P04 PIPE CONDUIT 18IN: Remove the pipe installed from Station 158+11 to 168+81 when the temporary widening is removed.

Include the cost of removing the pipe in the contract unit price of “Pipe Conduit 18 In.”

722-100 INLETS AND MANHOLES: Inlets and manholes were designed with a minimum 4 foot riser height. Fill the bottom of each drainage structure with concrete, up to the lowest invert elevation.

722-P01 GRATE – TYPE 1: Install removable metal covers on the distribution boxes at Station 76+29 Rt and 163+25 Rt. Use Standard Expanded Metal Grating with a 4 lbs/sq. ft. weight and 3x3x1/4 grade 36 angle iron for the exterior frame and the center supports. All covers shall be shop fabricated. After fabrication, prepare and paint all steel per Section 852 a Lamp Black color.

The dimensions of the metal covers are 10’-3” x 5’-3” and 7’-7” x 4’-7” respectively as shown in the Section 50 plan sheets.

Include the cost of materials, equipment and labor required to furnish and install the metal covers in the contract unit price of “Grate – Type 1.”

762-050 PAVEMENT MARKING: If the Engineer and Contractor agree, plan quantity will be used as the measurement for payment for pavement marking items.

910-P01 SLUICE GATE: Install 15” and 42” sluice gates in the irrigation structure located at Station 76+29 and install a 15” sluice gate in the irrigation structure located at Station 163+25 to control the flow through the outfall pipes. Install the sluice gates in accordance with the manufacturer’s recommendations.

Furnish a Waterman manufactured C-10 canal gate. Design the gate to be mounted inside the concrete structure in front of a flush pipe. Submit Work Drawings to the Engineer showing the installation details.

The floor of the structure has been set below the flow line to allow for the proper installation of the sluice gate.

Include the cost of materials, equipment and labor required to furnish and install the sluice gates in the contract unit price of the appropriate Sluice Gate bid item.

920-P01 ARCHEOLOGIST: See Environmental Note EC-07 for requirements.

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# ENVIRONMENTAL NOTES

EC-01 LOWER YELLOWSTONE IRRIGATION PROJECT: This project is located within the Lower Yellowstone Irrigation Project. The Lower Yellowstone Irrigation Project is owned by the U.S. Bureau of Reclamation and is managed by the Lower Yellowstone Irrigation District. This fully-functioning irrigation system runs parallel to and crosses beneath the project at numerous locations.

No construction activities within the irrigation system will take place during the irrigation season from April 15 to October 1. The timing of all culvert installation, temporary or permanent, during the project implementation shall be coordinated with James Brower, Manager, Lower Yellowstone Irrigation District, Sidney, MT so that any irrigation project operations are not interrupted. Mr. Brower can be reached at (406) 433-1306.

The box culvert extension at Station 477+84 is located within the Buford-Trenton Irrigation District. No construction activities within the Buford-Trenton Irrigation District will take place during the irrigation season from April 15 to October 1. The timing of the box culvert extension shall be coordinated with Ken Kjos, Manager of the Buford-Trenton Irrigation District, Trenton, ND so that any irrigation project operations are not interrupted. Mr. Kjos can be reached at (701) 572-3530.

EC-02 WHOOPING CRANE: The project is located within the migration corridor of the endangered whooping crane, and suitable stopover habitat for the whooping crane is present. The migration periods of the whooping crane are April 1st to May 15th and September 10 to October 31.

Cease all construction activities and notify the Engineer immediately in the event a whooping crane is identified within one mile of the project location. The Engineer will then coordinate with the USFWS, FHWA and NDDOT. Do not resume work within the avoidance area until the Engineer has confirmed that the bird has left the area.

Above ground utility conflicts are not foreseen with this project but if any impacts are required, the Contractor shall contact the NDDOT Utility Engineer to coordinate with the utility company. Bird diverters will be installed by the utility company on overhead utility lines that are shifted due to the proposed action.

EC-03 AQUATIC NUISANCE SPECIES: The Contractor shall prevent the introduction of Aquatic Nuisance Species (ANS) into North Dakota waters, or transport of aquatic vegetation to or from any waters of the state, or transport of any aquatic vegetation into the state.

The Contractor shall follow the North Dakota Game and Fish Department's (NDGFD) Administrative Rules 30-3-06 for compliance with ND Century Code Chapter 20.1-17 on ANS. Contractor shall notify the NDGFD at least 72 hours prior to the placement IN or ON the waters of the State of North Dakota of any and all vehicles, vessels, pumps and equipment that will be used in the project, to allow the NDGFD sufficient time to inspect any and all such equipment for ANS. The NDGFD ANS Coordinator, Fred Ryckman, shall be contacted by phone (701-770-0920) or e-mail fryckman@nd.gov for equipment inspections, or any additional information regarding ANS prevention protocol.

EC-04 FORT BUFORD STATE HISTORIC SITE: The south entrance into the Fort Bufford Historic Site is located within the project area (Station 477+80 Right, 39th Lane NW).

The Contractor shall provide continuous access for the traveling public to use the south entrance into the Fort Bufford Historic Site.

EC-05 NORTHERN LONG-EARED BAT: The project contains structures that are potential roosting habitat of the Northern long-eared bat.

For the work at Structure # 58-002.762 and # 58-009.046, the box culvert will only be lengthened on one end at a time and these construction activities will be limited to 30 minutes after sunrise to 30 minutes before sunset.

EC-06 NORTHERN LONG-EARED BAT: The project contains trees that are potential roosting habitat of the Northern long-eared bat.

Tree removals will only occur during October 1 to March 31, outside of the summer maternity season of the bat (April 1 to September 30).

EC-07 ARCHEOLOGIST: Hire an archeologist to monitor historic site 32WI25 while any construction activities are being performed around the Fort Bufford Historic Site to ensure no archaeology associated with Fort Bufford Historic Site is impacted by construction activities and any discoveries are addressed appropriately. The archeologist must be permitted by the State Historic Preservation Office and will be required to have a tribal monitor present during monitoring. Include all costs for a qualified archeologist and tribal monitor in the unit price bid for "Archeologist".


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| Revised | 1/22/16 | STATE | PROJECT NO. | SECTION | SHEET |
|---|---|---|---|---|---|
| | | ND | SOIB-7-058(013)000 | 8 | 1 |

# ESTIMATE OF QUANTITIES

| SPEC | CODE | ITEM DESCRIPTION | UNIT | MAINLINE | TOTAL |
|---|---|---|---|---|---|
| 103 | 0100 | CONTRACT BOND | L SUM | 1 | 1 |
| 103 | 0200 | ESCROW OF BID DOCUMENTATION | L SUM | 1 | 1 |
| 201 | 0330 | CLEARING & GRUBBING | L SUM | 1 | 1 |
| 202 | 0112 | REMOVAL OF CONCRETE | SY | 147 | 147 |
| 202 | 0115 | REMOVAL OF CONCRETE-SITE 1 | L SUM | 1 | 1 |
| 202 | 0116 | REMOVAL OF CONCRETE-SITE 2 | L SUM | 1 | 1 |
| 202 | 0123 | REMOVE & SALVAGE AGGREGATE BASE | TON | 16,920 | 16,920 |
| 202 | 0135 | REMOVAL OF BITUMINOUS SURFACING | TON | 4,783 | 4,783 |
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | EA | 29 | 29 |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | LF | 3,584 | 3,584 |
| 203 | 0101 | COMMON EXCAVATION-TYPE A | CY | 29,723 | 29,723 |
| 203 | 0108 | TOPSOIL-BORROW AREA | CY | 16,100 | 16,100 |
| 203 | 0109 | TOPSOIL | CY | 58,285 | 58,285 |
| 203 | 0121 | TOPSOIL-WETLAND | CY | 782 | 782 |
| 203 | 0113 | COMMON EXCAVATION-WASTE | CY | 23,233 | 23,233 |
| 203 | 0140 | BORROW-EXCAVATION | CY | 179,486 | 179,486 |
| 210 | 0051 | BOX CULVERT EXCAVATION - SITE 1 | EA | 1 | 1 |
| 210 | 0052 | BOX CULVERT EXCAVATION - SITE 2 | EA | 1 | 1 |
| 210 | 0202 | FOUNDATION PREPARATION-SITE 1 | L SUM | 1 | 1 |
| 210 | 0203 | FOUNDATION PREPARATION-SITE 2 | L SUM | 1 | 1 |
| 210 | 0210 | FOUNDATION FILL | CY | 188 | 188 |
| 216 | 0100 | WATER | M GAL | 5,178 | 5,178 |
| 220 | 0100 | PREPARE STOCKPILE SITE | L SUM | 1 | 1 |
| 220 | 0200 | RESTORE STOCKPILE SITE | L SUM | 1 | 1 |
| 251 | 0200 | SEEDING CLASS II | ACRE | 115 | 115 |
| 251 | 1000 | WETLAND SEED | ACRE | 5 | 5 |
| 251 | 2000 | TEMPORARY COVER CROP | ACRE | 120 | 120 |
| 253 | 0101 | STRAW MULCH | ACRE | 240 | 240 |
| 255 | 0103 | ECB TYPE 3 | SY | 461 | 461 |
| 256 | 0200 | RIPRAP GRADE II | CY | 260 | 260 |
| 260 | 0200 | SILT FENCE SUPPORTED | LF | 5,940 | 5,940 |
| 260 | 0201 | REMOVE SILT FENCE SUPPORTED | LF | 5,940 | 5,940 |
| 261 | 0112 | FIBER ROLLS 12IN | LF | 95,855 | 95,855 |
| 261 | 0113 | REMOVE FIBER ROLLS 12IN | LF | 49,490 | 49,490 |
| 262 | 0100 | FLOTATION SILT CURTAIN | LF | 80 | 80 |
| 262 | 0101 | REMOVE FLOTATION SILT CURTAIN | LF | 80 | 80 |
| 302 | 0100 | SALVAGED BASE COURSE | TON | 116,545 | 116,545 |
| 302 | 0316 | TRAFFIC SERVICE GRAVEL | CY | 200 | 200 |
| 306 | 0510 | FULL DEPTH RECLAMATION | SY | 141,782 | 141,782 |
| 401 | 0050 | TACK COAT | GAL | 9,477 | 9,477 |
| 401 | 0060 | PRIME COAT | GAL | 18,082 | 18,082 |
| 401 | 0160 | BLOTTER MATERIAL CL44 | TON | 545 | 545 |
| 411 | 0105 | MILLING PAVEMENT SURFACE | SY | 1,200 | 1,200 |
| 430 | 0045 | SUPERPAVE FAA 45 | TON | 28,972 | 28,972 |
| 430 | 5828 | PG 58-28 ASPHALT CEMENT | TON | 1,276 | 1,276 |
| 430 | 6434 | PG 64-34 ASPHALT CEMENT | TON | 442 | 442 |
| 430 | 1000 | CORED SAMPLE | EA | 88 | 88 |
| 550 | 0302 | 8.5IN NON-REINF CONCRETE PVMT CL AE-DOWELED | SY | 123,723 | 123,723 |
| 602 | 0130 | CLASS AAE-3 CONCRETE | CY | 87.1 | 87.1 |
| 602 | 1131 | CLASS AE-3 CONCRETE-BOX CULVERT | CY | 144.6 | 144.6 |

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# ESTIMATE OF QUANTITIES

| SPEC | CODE | ITEM DESCRIPTION | UNIT | MAINLINE | TOTAL |
|---|---|---|---|---|---|
| 606 | 0806 | 8FT X 6FT PRECAST RCB CULVERT | LF | 46 | 46 |
| 606 | 4806 | 8FT X 6FT PRECAST RCB END SECTION | EA | 2 | 2 |
| 612 | 0114 | REINFORCING STEEL-GRADE 60-BOX CULVERT | LBS | 20,117.0 | 20,117.0 |
| 612 | 0115 | REINFORCING STEEL-GRADE 60 | LBS | 13,247.0 | 13,247.0 |
| 702 | 0100 | MOBILIZATION | L SUM | 1 | 1 |
| 704 | 0100 | FLAGGING | MHR | 5,000 | 5,000 |
| 704 | 1000 | TRAFFIC CONTROL SIGNS | UNIT | 3,570 | 3,570 |
| 704 | 1052 | TYPE III BARRICADE | EA | 100 | 100 |
| 704 | 1060 | DELINEATOR DRUMS | EA | 200 | 200 |
| 704 | 1067 | TUBULAR MARKERS | EA | 650 | 650 |
| 704 | 1080 | STACKABLE VERTICAL PANELS | EA | 2,600 | 2,600 |
| 704 | 1081 | VERTICAL PANELS-BACK TO BACK | EA | 50 | 50 |
| 704 | 1185 | PILOT CAR | HR | 2,000 | 2,000 |
| 706 | 0400 | FIELD OFFICE | EA | 1 | 1 |
| 706 | 0500 | AGGREGATE LABORATORY | EA | 1 | 1 |
| 706 | 0550 | BITUMINOUS LABORATORY | EA | 1 | 1 |
| 706 | 0600 | CONTRACTOR'S LABORATORY | EA | 2 | 2 |
| 709 | 0155 | GEOSYNTHETIC MATERIAL TYPE RR | SY | 552 | 552 |
| 714 | 0310 | PIPE CONC REINF 18IN CL III | LF | 14 | 14 |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | LF | 172 | 172 |
| 714 | 0820 | PIPE CONC REINF 30IN CL III | LF | 2,603 | 2,603 |
| 714 | 0905 | PIPE CONC REINF 36IN CL III | LF | 24 | 24 |
| 714 | 1005 | PIPE CONC REINF 42IN CL III | LF | 1,328 | 1,328 |
| 714 | 1105 | PIPE CONC REINF 48IN CL III | LF | 138 | 138 |
| 714 | 1310 | PIPE CONC REINF 60IN CL III | LF | 72 | 72 |
| 714 | 1510 | PIPE CONC REINF 72IN CL III | LF | 30 | 30 |
| 714 | 2165 | PIPE CONC REINF ARCH 65IN X 40IN CL III | LF | 826 | 826 |
| 714 | 3023 | END SECT-TRAVERSABLE REINF CONC 24IN | EA | 21 | 21 |
| 714 | 3033 | END SECT-TRAVERSABLE REINF CONC 30IN | EA | 2 | 2 |
| 714 | 3036 | END SECT-TRAVERSABLE REINF CONC 36IN | EA | 3 | 3 |
| 714 | 4100 | PIPE CONDUIT 18IN | LF | 1,100 | 1,100 |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | LF | 3,004 | 3,004 |
| 714 | 4113 | PIPE CONDUIT 30IN-APPROACH | LF | 58 | 58 |
| 714 | 4116 | PIPE CONDUIT 36IN-APPROACH | LF | 186 | 186 |
| 714 | 7033 | PIPE PVC 15IN | EA | 54 | 54 |
| 714 | 9660 | REMOVE AND RELAY END SECTION-ALL TYPES & SIZES | EA | 18 | 18 |
| 720 | 0110 | RIGHT OF WAY MARKERS | EA | 238 | 238 |
| 720 | 0125 | ALIGNMENT MONUMENTS | EA | 52 | 52 |
| 720 | 0130 | IRON PIN R/W MONUMENTS | EA | 180 | 180 |
| 720 | 0135 | IRON PIN REFERENCE MONUMENTS | EA | 58 | 58 |
| 722 | 0120 | MANHOLE 72IN | EA | 4 | 4 |
| 722 | 1120 | MANHOLE RISER 72IN | LF | 29 | 29 |
| 722 | 3453 | GRATE-TYPE 1 | EA | 2 | 2 |
| 722 | 4565 | MEDIAN DRAIN PRECAST CONCRETE-TYPE A | EA | 2 | 2 |
| 754 | 0112 | FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING | SF | 30 | 30 |
| 754 | 0115 | FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING | SF | 120 | 120 |
| 754 | 0206 | STEEL GALV POSTS-TELESCOPING PERFORATED TUBE | LF | 738 | 738 |

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|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 8 | 3 |

# ESTIMATE OF QUANTITIES

| SPEC | CODE | ITEM DESCRIPTION | UNIT | MAINLINE | TOTAL |
|---|---|---|---|---|---|
| 754 | 0561 | REFERENCE MARKER-TYPE A | EA | 9 | 9 |
| 754 | 0592 | RESET SIGN PANEL | EA | 22 | 22 |
| 754 | 0805 | OBJECT MARKERS - CULVERTS | EA | 184 | 184 |
| 760 | 0001 | RUMBLE STRIPS - CONCRETE SHOULDER | MILE | 7.3 | 7.3 |
| 760 | 0003 | RUMBLE STRIPS - CONCRETE CENTERLINE | MILE | 2.6 | 2.6 |
| 760 | 0005 | RUMBLE STRIPS - ASPHALT SHOULDER | MILE | 17.9 | 17.9 |
| 760 | 0007 | RUMBLE STRIPS - ASPHALT CENTERLINE | MILE | 2.8 | 2.8 |
| 762 | 0112 | EPOXY PVMT MK MESSAGE | SF | 48 | 48 |
| 762 | 0113 | EPOXY PVMT MK 4IN LINE | LF | 52,799 | 52,799 |
| 762 | 0115 | EPOXY PVMT MK 8IN LINE | LF | 530 | 530 |
| 762 | 0117 | EPOXY PVMT MK 24IN LINE | LF | 23 | 23 |
| 762 | 0122 | PREFORMED PATTERNED PVMT MK-MESSAGE(GROOVED) | SF | 864 | 864 |
| 762 | 0430 | SHORT TERM 4IN LINE-TYPE NR | LF | 119,975 | 119,975 |
| 762 | 1305 | PREFORMED PATTERNED PVMT MK 4IN LINE-GROOVED | LF | 154,699 | 154,699 |
| 762 | 1309 | PREFORMED PATTERNED PVMT MK 8IN LINE-GROOVED | LF | 11,500 | 11,500 |
| 762 | 1325 | PREFORMED PATTERNED PVMT MK 24IN LINE-GROOVED | LF | 222 | 222 |
| 764 | 0131 | W-BEAM GUARDRAIL | LF | 395 | 395 |
| 764 | 0145 | W-BEAM GUARDRAIL END TERMINAL | EA | 4 | 4 |
| 764 | 0150 | REMOVE & RESET GUARDRAIL | LF | 300 | 300 |
| 764 | 0151 | REMOVE W-BEAM GUARDRAIL & POSTS | LF | 208 | 208 |
| 764 | 2081 | REMOVE END TREATMENT & TRANSITION | EA | 4 | 4 |
| 766 | 0100 | MAILBOX - ALL TYPES | EA | 11 | 11 |
| 900 | 1000 | TEMPORARY STREAM DIVERSION | EA | 2 | 2 |
| 910 | 0695 | SLUICE GATE 15IN | EA | 2 | 2 |
| 910 | 0702 | SLUICE GATE 42IN | EA | 1 | 1 |
| 920 | 1240 | ARCHEOLOGIST | L SUM | 1 | 1 |
| 920 | 1241 | BIOLOGIST | L SUM | 1 | 1 |

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| | ND | SOIB-7-058(013)000 | 10 | 1 |

Removals
Removal of Bituminous Surfacing (includes bituminous surfacing and base) @ 1.9 Ton/CY
Removal of Aggregate @ 1.5 Ton/CY

Surfacing
Salvaged Base Course @ 1.875 Ton/CY
Prime Coat @ 0.25 Gal/SY
Tack Coat @ 0.05 Gal/SY
Superpave FAA 45 @ 2.0 Ton/CY
PG 58-28 Asphalt Cement @ 5.9% (Bottom 3.5" Lifts, Shoulders & Approaches)
PG 64-34 Asphalt Cement @ 5.9% (Top 2" Lift)
Blotter Material CL 44 @ 15 Lbs/SY

Water
25 MGal/Mile for Dust Palliative
20 Gal/Ton for Aggregates
10 Gal/CY for Embankment

Borrow Area
Topsoil: Estimated 20 acres topsoil removed @ 6" depth
= 16,100 CY
Silt Fence Supported:
= 3,000 LF
Remove Silt Fence Supported:
= 3,000 LF

| | | | 36' Finished Top 2 Lane Concrete Section 24' of 8.5" Doweled PCC 6' Asphalt Shoulders Transition Location | | | 36' Finished Top 2 Lane Concrete Section 24' of 8.5" Doweled PCC 6' Asphalt Shoulders | | | 48' Finished Top 3 Lane Concrete Section 36' of 8.5" Doweled PCC 6' Asphalt Shoulders | | | 60' Finished Top 3 Lane Concrete Section SB Right Turn Lane 48' of 8.5" Doweled PCC 6' Asphalt Shoulders | | | 48' Finished Top 2 Lane Concrete Section SB Right Turn Lane 36' of 8.5" Doweled PCC 6' Asphalt Shoulders | | | 60' Finished Top 3 Lane Concrete Section NB Right Turn Lane 48' of 8.5" Doweled PCC 6' Asphalt Shoulders | | | 36' Finished Top 2 Lane Asphalt Section 36' of 5.5" Asphalt | | | 48' Finished Top 2 Lane Asphalt Section SB Right Turn Lane 48' of 5.5" Asphalt | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Begin Station* | End Station* | | Begin Station* | End Station* | | Begin Station* | End Station* | | Begin Station* | End Station* | | Begin Station* | End Station* | | Begin Station* | End Station* | | Begin Station* | End Station* | | Begin Station* | End Station* | | | |
| | | | 4+60 | 11+00 | | 11+00 | 12+84 | | 12+84 | 25+36 | | 25+36 | 32+08 | | 105+67 | 112+38 | | 200+67 | 211+84 | | 330+00 | 362+43 | | 362+43 | 369+63 | | | |
| | | | | | | 83+99 | 105+67 | | 32+08 | 52+84 | | 52+84 | 59+55 | | 317+26 | 323+98 | | 257+67 | 264+39 | | 369+32 | 443+23 | | | | | | |
| | | | | | | 112+38 | 200+67 | | 59+55 | 77+27 | | 77+27 | 83+99 | | | | | | | | 456+21 | 487+00 | | | | | | |
| | | | | | | 323+98 | 330+00 | | 218+51 | 257+67 | | 211+84 | 218+51 | | | | | | | | | | | | | | | |
| | | | | | | | | | 270+97 | 317+26 | | 264+39 | 270+97 | | | | | | | | | | | | | | | |
| **MAINLINE SURFACING QUANTITIES** | | | **Total Stations =** | **6.40** | | **Total Stations =** | **117.83** | | **Total Stations =** | **136.45** | | **Total Stations =** | **33.40** | | **Total Stations =** | **13.43** | | **Total Stations =** | **17.89** | | **Total Stations =** | **137.13** | | **Total Stations =** | **7.20** | | | |
| **Material** | | **Unit** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Width (ft)** | **Quantity per Station** | **Sub-Total** | **Total** | **Unit** |
| 302-0100 | Salvaged Base Course (1.875 Ton/CY) | Ton | - | 415.14 | 2,657 | - | 226.88 | 26,734 | - | 201.81 | 27,537 | - | 312.92 | 10,452 | - | 201.81 | 2,711 | - | 312.92 | 5,599 | - | 116.39 | 15,961 | - | 189.31 | 1,364 | **93,015** | **Ton** |
| 306-0510 | Full Depth Reclamation | SY | - | - | - | 40 | 444.45 | 52,370 | 40 | 444.45 | 60,646 | 40 | 444.45 | 14,845 | 40 | 444.45 | 5,969 | 40 | 444.45 | 7,952 | - | - | - | - | - | - | **141,782** | **SY** |
| 401-0050 | Tack Coat (0.05 Gal/SY) (after 1st Lift) | Gal | 14 | 7.78 | 50 | 14 | 7.78 | 917 | 14 | 7.78 | 1,062 | 14 | 7.78 | 260 | 14 | 7.78 | 105 | 14 | 7.78 | 140 | 41 | 22.78 | 3,124 | 53 | 29.45 | 213 | **9,129** | **Gal** |
| 401-0050 | Tack Coat (0.05 Gal/SY) (after 2nd Lift) | Gal | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 40 | 22.23 | 3,049 | 52 | 28.89 | 209 | | |
| 401-0060 | Prime Coat (0.25 Gal/SY) | Gal | 20 | 55.56 | 356 | 20 | 55.56 | 6,547 | 20 | 55.56 | 7,582 | 20 | 55.56 | 1,856 | 20 | 55.56 | 747 | 20 | 55.56 | 994 | - | 50.00 | 6,857 | - | 83.34 | 601 | **18,082** | **Gal** |
| 401-0160 | Blotter Material CL 44 (15 Lbs/SY) | Ton | 20 | 1.67 | 11 | 20 | 1.67 | 197 | 20 | 1.67 | 228 | 20 | 1.67 | 56 | 20 | 1.67 | 23 | 20 | 1.67 | 30 | - | 1.50 | 206 | - | 2.50 | 18 | **545** | **Ton** |
| 430-0045 | Superpave FAA 45 (2 Ton/CY) | Ton | 12 | 33.19 | 213 | 12 | 33.19 | 3,911 | 12 | 33.19 | 4,529 | 12 | 33.19 | 1,109 | 12 | 33.19 | 446 | 12 | 33.19 | 594 | 36 | 114.67 | 15,725 | 48 | 155.41 | 1,119 | **27,646** | **Ton** |
| 430-5828 | PG 58-28 Asphalt Cement (5.9%)** | Ton | 12 | 1.96 | 13 | 12 | 1.96 | 231 | 12 | 1.96 | 268 | 12 | 1.96 | 66 | 12 | 1.96 | 27 | 12 | 1.96 | 36 | 36 | 4.31 | 592 | 48 | 5.84 | 43 | **1,276** | **Ton** |
| 430-6434 | PG 64-34 Asphalt Cement (5.9%)** | Ton | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | 36 | 2.47 | 339 | 48 | 3.34 | 25 | **364** | **Ton** |
| 550-0302 | 8.5IN Non-Reinf Concrete Pvmt CL AE-Doweled | SY | 24 | 266.67 | 1,707 | 24 | 266.67 | 31,422 | 36 | 400.00 | 54,580 | 48 | 533.34 | 17,814 | 36 | 400.00 | 5,372 | 48 | 533.34 | 9,542 | - | - | - | - | - | - | **120,437** | **SY** |

* For ease of calculations, the station ranges are split in middle of the transition between each section. Construct transitions per Section 90.
** In the Concrete Section, the Asphalt Shoulders will use PG 58-28 oil. In the Asphalt Section, paving will consist of 3 lifts; 1.5" thick bottom lift using PG 58-28 oil, 2" thick second lift using PG 58-28 oil, 2" thick top lift using PG 64-34 oil.

| **RUMBLE STRIPS** | | | | | | |
|---|---|---|---|---|---|---|
| Type | Begin Station | End Station | Length (Miles) | No. of Sides | Total Quantity | |
| Asphalt Outside Shoulder | 4+60 | 443+23 | 8.31 | 2 | 16.62 | |
| Asphalt Outside Shoulder | 456+21 | 489+50 | 0.64 | 2 | 1.28 | |
| **Asphalt Outside Shoulder Total** | | | | | **17.9** | **MILE** |
| Type | Begin Station | End Station | Length (Miles) | No. of Sides | Total Quantity | |
| Asphalt Centerline | 330+00 | 443+23 | 2.15 | 1 | 2.15 | |
| Asphalt Centerline | 456+21 | 489+50 | 0.64 | 1 | 0.64 | |
| **Asphalt Centerline Total** | | | | | **2.8** | **MILE** |
| Type | Begin Station | End Station | Length (Miles) | No. of Sides | Total Quantity | |
| Concrete Centerline | 4+60 | 16+70 | 0.23 | 1 | 0.23 | |
| Concrete Centerline | 85+60 | 202+90 | 2.23 | 1 | 2.23 | |
| Concrete Centerline | 325+70 | 330+00 | 0.09 | 1 | 0.09 | |
| **Concrete Centerline Total** | | | | | **2.6** | **MILE** |
| Type | Begin Station | End Station | Length (Miles) | No. of Sides | Total Quantity | |
| Concrete Inside Shoulder | 16+70 | 85+60 | 1.31 | 2 | 2.62 | |
| Concrete Inside Shoulder | 202+90 | 325+70 | 2.33 | 2 | 4.66 | |
| **Concrete Inside Shoulder Total** | | | | | **7.3** | **MILE** |

See Section 20, Sheets 8 & 9 and D-760-3 for specific installation information.

| **CORED SAMPLES** | | | | | | | |
|---|---|---|---|---|---|---|---|
| | A | B | C | D | | | |
| Location | Distance (Ft) ÷ 2000 | Lanes | Lifts | Sublots (A x B x C) | Quantity (D x 2) | Quantity (1 per mile) | Unit |
| 430.04 I.2.b(1), "General" 330+00 to 443+23, 456+21 to 489+50 | 7 | 2 | 3 | 44 | 88 | N/A | EA |
| 430.04 I.2.b(2), "Pavement Thickness Determination Cores" | | | | | N/A | 0 | EA |
| | | | | **Total** | **88** | **0** | **EA** |

| **MAILBOXES** | | | |
|---|---|---|---|
| Station | | Type | Action |
| 37+59 | Rt | Double | Replace |
| 85+85 | Lt | 9 Boxes | Replace |
| 92+24 | Lt | Single | Replace |
| 127+00 | Rt | Single | Replace |
| 197+07 | Rt | Single | Replace |
| 200+95 | Rt | Double | Replace |
| 316+97 | Rt | Double | Replace |
| 337+35 | Rt | Single | Replace |
| 344+10 | Rt | Single | Replace |
| 349+65 | Rt | Single | Replace |
| 392+31 | Rt | Single | Replace |
| **Total** | | **11** | **EA** |

This document was originally issued and sealed by William Doerr, Registration Number PE- 7113, on 1/22/16 and the original document is stored at the North Dakota Department of Transportation

Basis of Estimate

ND 58

Jct 200 to Jct 1804

| Alignment | Common Excavation Type A (CY) Pay Item | Embankment (CY) | Common Excavation Waste (CY) Pay Item | Borrow Excavation (CY) Pay Item | Topsoil (CY) Pay Item |
|---|---|---|---|---|---|
| ND 58 | 29,723 | 209,209 | 23,233 | 179,486 | 59,067 |
| **Totals =** | **29,723** | **209,209** | **23,233** | **179,486** | **59,067** |

Note: 25 percent additional volume is included for shrinkage in earth embankment.

This document was originally issued and sealed by William Doerr, Registration Number PE- 7113, on 1/20/16 and the original document is stored at the North Dakota Department of Transportation

Earthwork Summary

ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 11 | 6 |

| | End Areas (SF) | | Volume (CY) | | |
|---|---|---|---|---|---|
| | Exca | Fill | Exca | Fill | Mass Ordinate |
| 425+00 | 2.5 | 5.8 | 7.5 | 284.1 | -141394 |
| 426+00 | 1.6 | 10.3 | 7.6 | 37.3 | -141424 |
| 427+00 | 2.2 | 61.0 | 7.0 | 164.9 | -141582 |
| 428+00 | 3.2 | 51.6 | 9.9 | 260.5 | -141832 |
| 429+00 | 2.0 | 44.7 | 9.6 | 222.9 | -142046 |
| 430+00 | 1.7 | 39.1 | 6.9 | 194.1 | -142233 |
| 431+00 | 1.8 | 32.7 | 6.4 | 166.2 | -142393 |
| 432+00 | 1.7 | 35.6 | 6.5 | 158.1 | -142544 |
| 433+00 | 1.9 | 38.6 | 6.7 | 171.7 | -142709 |
| 434+00 | 1.8 | 36.2 | 6.9 | 447.9 | -143150 |
| 435+00 | 4.2 | 21.4 | 11.2 | 133.1 | -143272 |
| 436+00 | 2.5 | 16.4 | 12.4 | 87.4 | -143347 |
| 437+00 | 2.5 | 44.2 | 9.2 | 140.3 | -143478 |
| 438+00 | 0.7 | 118.0 | 5.9 | 375.5 | -143848 |
| 439+00 | 1.5 | 74.8 | 3.9 | 446.2 | -144290 |
| 440+00 | 1.5 | 132.4 | 5.5 | 479.6 | -144764 |
| 440+18 | 1.6 | 137.4 | 1.0 | 109.4 | -144872 |
| 440+83 | 0.8 | 47.7 | 2.9 | 278.4 | -145148 |
| 441+00 | 0.6 | 220.0 | 0.5 | 108.5 | -145256 |
| 441+02 | 0.6 | 46.2 | 0.1 | 13.4 | -145269 |
| 441+54 | 1.0 | 35.8 | 1.5 | 98.0 | -145366 |
| 441+58 | 1.2 | 30.8 | 0.2 | 6.9 | -145372 |
| 442+00 | 3.2 | 305.7 | 3.4 | 324.7 | -145694 |
| 442+90 | 13.6 | 125.3 | 27.8 | 892.8 | -146559 |
| 443+00 | 16.4 | 187.0 | 5.8 | 75.9 | -146629 |
| 443+28 | 14.2 | 580.6 | 15.7 | 491.4 | -147105 |
| 456+00 | 14.8 | 450.7 | 684.5 | 0.0 | -146420 |
| 456+55 | 19.3 | 282.1 | 34.4 | 924.4 | -147310 |
| 457+00 | 27.8 | 9.5 | 39.7 | 307.1 | -147577 |
| 457+86 | 19.4 | 0.8 | 75.0 | 20.5 | -147523 |
| 458+00 | 23.6 | 30.3 | 11.3 | 10.2 | -147522 |
| 458+39 | 5.0 | 5.7 | 20.4 | 32.1 | -147534 |
| 458+61 | 5.8 | 6.2 | 4.4 | 6.1 | -147535 |
| 459+00 | 7.0 | 143.4 | 9.3 | 136.5 | -147662 |
| 459+33 | 4.5 | 81.4 | 7.1 | 173.3 | -147829 |
| 460+00 | 2.2 | 83.1 | 8.3 | 254.1 | -148074 |
| 461+00 | 1.9 | 57.0 | 7.7 | 324.4 | -148391 |
| 461+71 | 1.0 | 38.3 | 3.8 | 156.3 | -148544 |
| 462+00 | 2.6 | 5.0 | 1.9 | 229.2 | -148771 |
| 463+00 | 0.5 | 78.3 | 5.7 | 192.7 | -148958 |
| 464+00 | 0.3 | 78.9 | 1.5 | 363.6 | -149320 |
| 464+23 | 0.2 | 71.6 | 0.2 | 79.7 | -149399 |
| 465+00 | 3.9 | 13.5 | 5.9 | 151.9 | -149545 |
| 466+00 | 0.7 | 51.6 | 8.5 | 150.6 | -149688 |
| 467+00 | 1.2 | 19.4 | 3.4 | 164.3 | -149848 |
| 468+00 | 0.4 | 42.5 | 2.9 | 143.2 | -149989 |
| 469+00 | 2.0 | 38.7 | 4.4 | 188.0 | -150172 |
| 470+00 | 2.4 | 49.8 | 8.2 | 204.9 | -150369 |

| | End Areas (SF) | | Volume (CY) | | |
|---|---|---|---|---|---|
| | Exca | Fill | Exca | Fill | Mass Ordinate |
| 471+00 | 1.5 | 68.7 | 7.2 | 274.4 | -150636 |
| 472+00 | 0.3 | 85.2 | 3.2 | 356.4 | -150990 |
| 473+00 | 0.4 | 99.5 | 1.2 | 427.6 | -151416 |
| 474+00 | 0.8 | 111.2 | 2.2 | 487.9 | -151902 |
| 475+00 | 0.2 | 145.0 | 1.8 | 593.1 | -152493 |
| 476+00 | 1.1 | 150.3 | 2.3 | 783.5 | -153274 |
| 477+00 | 8.1 | 2.9 | 16.9 | 454.5 | -153712 |
| 478+00 | 0.1 | 215.3 | 15.2 | 504.9 | -154201 |
| 479+00 | 0.6 | 52.0 | 1.4 | 618.7 | -154819 |
| 480+00 | 0.4 | 60.5 | 1.9 | 260.5 | -155077 |
| 481+00 | 0.7 | 51.5 | 1.9 | 259.3 | -155335 |
| 482+00 | 0.6 | 52.5 | 2.3 | 240.8 | -155573 |
| 483+00 | 0.9 | 50.4 | 2.8 | 238.2 | -155809 |
| 484+00 | 0.9 | 67.6 | 3.3 | 273.0 | -156078 |
| 485+00 | 8.4 | 44.6 | 17.1 | 259.7 | -156321 |
| 486+00 | 59.1 | 6.4 | 124.8 | 218.0 | -156414 |
| 487+00 | 66.9 | 24.7 | 233.2 | 71.8 | -156253 |
| | | | Volume (CY) | | |
| | | | Exca | Fill | Mass Ordinate |
| Totals | | | 29,723 | 185,976 | |

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Earthwork Values

ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 11 | 7 |

### Right of Way / Reference Monuments & Markers

| Station | Offset | Iron Pin R/W Monument | R/W Marker (Witness Post) | Iron Pin Reference Monument |
|---|---|---|---|---|
| 11+00.00 | 60.00 | X | X | |
| 11+00.00 | 75.00 | X | X | |
| 26+42.03 | -109.95 | | X | X |
| 26+42.03 | 70.00 | | X | X |
| 26+42.03 | 75.00 | | X | X |
| 32+50.00 | 60.00 | X | X | |
| 32+50.00 | 70.00 | X | X | |
| 35+80.15 | -100.00 | X | X | |
| 35+80.17 | -109.96 | X | X | |
| 51+83.88 | -100.00 | | X | X |
| 52+00.00 | 60.00 | X | X | |
| 52+00.00 | 83.51 | | X | X |
| 52+00.00 | 110.00 | X | X | |
| 52+50.51 | 110.00 | X | X | |
| 53+83.06 | 100.00 | | X | X |
| 53+83.51 | -100.00 | | X | X |
| 56+81.28 | 140.00 | X | X | |
| 56+81.37 | 100.00 | X | X | |
| 57+31.51 | -65.00 | X | X | |
| 57+31.59 | -100.00 | X | X | |
| 60+30.94 | 140.00 | X | X | |
| 60+31.03 | 100.00 | X | X | |
| 65+71.44 | -64.98 | X | X | |
| 65+71.67 | -164.96 | X | X | |
| 66+31.46 | -74.96 | X | X | |
| 66+31.67 | -164.96 | X | X | |
| 76+00.00 | -95.00 | X | X | |
| 76+00.00 | -75.00 | X | X | |
| 77+40.79 | -115.00 | X | X | |
| 77+40.79 | -95.00 | X | X | |
| 78+50.00 | 100.00 | X | X | |
| 78+50.00 | 130.00 | X | X | |
| 79+22.73 | -115.00 | | X | X |
| 79+22.73 | -100.00 | | X | X |
| 79+22.73 | 100.00 | | X | X |
| 79+22.73 | 130.00 | | X | X |
| 81+14.27 | 100.00 | X | X | |
| 81+14.27 | 110.00 | X | X | |
| 91+64.27 | 70.00 | X | X | |
| 91+64.27 | 110.00 | X | X | |
| 92+42.49 | -60.00 | X | X | |
| 92+42.58 | -100.00 | X | X | |
| 98+00.00 | 60.00 | X | X | |
| 98+00.00 | 70.00 | X | X | |
| 105+01.95 | 60.00 | | X | X |
| 105+02.21 | -60.00 | | X | X |
| 105+95.09 | -95.00 | X | X | |
| 106+50.00 | -95.00 | X | X | |
| 106+50.00 | -88.05 | | X | X |
| 106+50.00 | -65.00 | X | X | |
| 106+61.51 | 100.00 | | X | X |
| 132+01.45 | -65.00 | | X | X |
| 132+01.45 | 100.00 | | X | X |
| 132+80.71 | 100.00 | X | X | |
| 132+80.82 | 50.00 | X | X | |
| 144+49.23 | -65.00 | X | X | |
| 144+49.23 | 50.00 | X | X | |
| 144+80.19 | -65.00 | X | X | |
| 144+80.22 | -90.00 | X | X | |
| 145+18.76 | 50.00 | X | X | |
| 145+18.76 | 80.00 | X | X | |
| 146+55.15 | -65.00 | X | X | |
| 146+55.25 | -90.00 | X | X | |
| 146+55.25 | 60.00 | X | X | |
| 146+55.25 | 80.00 | X | X | |
| 150+00.37 | -65.00 | X | X | |
| 150+00.37 | 60.00 | X | X | |
| 151+00.25 | 52.23 | X | X | |
| 151+00.25 | 60.00 | X | X | |
| 157+57.88 | -65.00 | | X | X |
| 157+94.88 | 65.60 | | X | X |
| 159+18.47 | 98.87 | | X | X |
| 159+21.13 | -58.57 | | X | X |
| 167+20.53 | -67.07 | X | X | |
| 167+20.53 | 100.00 | X | X | |
| 169+31.31 | -58.03 | X | X | |
| 169+31.31 | -50.00 | X | X | |
| 170+31.31 | 75.00 | X | X | |
| 170+31.31 | 100.00 | X | X | |
| 173+81.31 | -75.00 | X | X | |
| 173+81.31 | -50.00 | X | X | |
| 184+51.79 | -75.00 | X | X | |
| 184+51.79 | 75.00 | X | X | |
| 185+14.25 | -48.21 | | X | X |

### Right of Way / Reference Monuments & Markers

| Station | Offset | Iron Pin R/W Monument | R/W Marker (Witness Post) | Iron Pin Reference Monument |
|---|---|---|---|---|
| 185+14.25 | 75.00 | | X | X |
| 188+00.00 | -75.00 | X | X | |
| 192+79.81 | -58.96 | X | X | |
| 195+26.48 | -60.00 | X | X | |
| 195+26.48 | 75.00 | X | X | |
| 198+48.29 | 58.88 | X | X | |
| 198+49.36 | 75.00 | X | X | |
| 206+24.77 | -85.00 | X | X | |
| 206+24.77 | -60.00 | X | X | |
| 206+89.65 | -85.00 | X | X | |
| 206+89.65 | -60.00 | X | X | |
| 207+83.50 | 82.57 | X | X | |
| 207+83.50 | 95.00 | X | X | |
| 210+41.10 | -60.00 | X | X | |
| 210+41.10 | 95.00 | X | X | |
| 210+81.69 | 95.04 | | X | X |
| 210+98.26 | -59.93 | | X | X |
| 212+49.61 | 75.00 | | X | X |
| 212+55.45 | -100.00 | | X | X |
| 215+00.00 | 75.00 | X | X | |
| 215+00.00 | 105.00 | X | X | |
| 221+19.40 | -100.00 | X | X | |
| 221+19.40 | 105.00 | X | X | |
| 221+19.40 | 115.00 | X | X | |
| 222+34.66 | -100.00 | X | X | |
| 222+34.66 | 115.00 | X | X | |
| 227+26.48 | -100.00 | X | X | |
| 227+26.48 | 115.00 | X | X | |
| 229+00.00 | 100.00 | X | X | |
| 229+00.00 | 115.00 | X | X | |
| 231+92.92 | -100.00 | X | X | |
| 231+92.92 | 100.00 | X | X | |
| 232+79.18 | -100.09 | X | X | |
| 232+79.31 | -60.00 | X | X | |
| 238+01.92 | 100.00 | | X | X |
| 238+05.95 | -60.00 | | X | X |
| 240+47.86 | -60.00 | X | X | |
| 240+47.86 | 100.00 | X | X | |
| 247+31.05 | 85.00 | X | X | |
| 247+31.05 | 100.00 | X | X | |
| 263+45.81 | 85.00 | | X | X |
| 263+70.81 | -60.00 | | X | X |
| 264+70.95 | 85.00 | X | X | |
| 264+90.81 | -60.00 | | X | X |
| 265+00.00 | 65.00 | X | X | |
| 265+00.00 | 69.19 | | X | X |
| 265+00.00 | 85.00 | X | X | |
| 270+98.44 | 65.00 | X | X | |
| 271+00.92 | 95.00 | X | X | |
| 278+00.00 | 75.00 | X | X | |
| 278+00.00 | 95.00 | X | X | |
| 283+00.00 | 75.00 | X | X | |
| 283+00.00 | 85.00 | X | X | |
| 290+83.03 | -60.00 | | X | X |
| 290+83.03 | 85.00 | | X | X |
| 292+00.00 | 65.00 | X | X | |
| 292+00.00 | 85.00 | X | X | |
| 298+00.00 | 65.00 | X | X | |
| 298+00.00 | 85.00 | X | X | |
| 316+68.73 | -60.00 | | X | X |
| 316+69.68 | 85.00 | | X | X |
| 317+90.70 | -60.00 | | X | X |
| 318+42.46 | 85.00 | | X | X |
| 326+00.00 | 75.00 | X | X | |
| 326+00.00 | 85.00 | X | X | |
| 334+90.77 | 60.00 | X | X | |
| 334+90.77 | 75.00 | X | X | |
| 341+40.77 | -85.00 | X | X | |
| 341+40.77 | -60.00 | X | X | |
| 341+40.77 | 60.00 | X | X | |
| 341+40.77 | 100.00 | X | X | |
| 342+40.77 | -85.00 | X | X | |
| 342+40.77 | -75.00 | X | X | |
| 343+40.77 | 75.00 | X | X | |
| 343+40.77 | 100.00 | X | X | |
| 343+87.42 | -75.00 | | X | X |
| 343+87.42 | 75.00 | | X | X |
| 354+62.33 | -80.00 | X | X | |
| 354+62.33 | -75.00 | X | X | |
| 355+62.44 | 65.00 | X | X | |
| 355+62.44 | 75.00 | X | X | |
| 356+92.46 | -80.00 | X | X | |
| 356+92.46 | 65.00 | X | X | |
| 357+54.41 | -80.00 | X | X | |

### Right of Way / Reference Monuments & Markers

| Station | Offset | Iron Pin R/W Monument | R/W Marker (Witness Post) | Iron Pin Reference Monument |
|---|---|---|---|---|
| 366+45.05 | -65.00 | X | X | |
| 366+45.05 | 50.00 | X | X | |
| 369+28.21 | -65.00 | | X | X |
| 370+49.32 | 65.00 | | X | X |
| 371+05.88 | -65.00 | | X | X |
| 372+26.99 | 65.00 | | X | X |
| 382+60.72 | -65.00 | X | X | |
| 382+60.72 | 65.00 | X | X | |
| 388+65.59 | 65.00 | | X | X |
| 388+86.90 | -65.00 | | X | X |
| 394+38.80 | -65.00 | X | X | |
| 394+38.80 | -50.00 | X | X | |
| 397+00.00 | -75.00 | X | X | |
| 397+00.00 | -50.00 | X | X | |
| 397+88.80 | 65.00 | X | X | |
| 397+88.80 | 80.00 | X | X | |
| 398+07.06 | -75.00 | X | X | |
| 398+07.06 | 80.00 | X | X | |
| 398+33.06 | -75.00 | | X | X |
| 398+33.06 | 80.00 | | X | X |
| 399+00.00 | 50.00 | X | X | |
| 399+00.00 | 80.00 | X | X | |
| 399+91.96 | -75.00 | | X | X |
| 399+91.96 | 50.00 | | X | X |
| 406+63.80 | 50.00 | X | X | |
| 406+63.80 | 65.00 | X | X | |
| 418+44.73 | -75.00 | X | X | |
| 418+44.91 | -65.00 | X | X | |
| 423+87.75 | -65.00 | | X | X |
| 424+29.52 | 64.96 | | X | X |
| 424+60.03 | 98.94 | X | X | |
| 425+19.50 | -65.05 | | X | X |
| 425+27.87 | 86.52 | X | X | |
| 425+76.88 | 64.95 | | X | X |
| 436+45.02 | -100.13 | X | X | |
| 436+45.02 | -65.13 | X | X | |
| 436+45.03 | 64.87 | X | X | |
| 436+45.03 | 99.87 | X | X | |
| 442+40.76 | -100.15 | X | X | |
| 442+40.76 | 99.86 | X | X | |
| 442+69.99 | -100.14 | X | X | |
| 442+70.00 | -200.14 | X | X | |
| 443+44.99 | 74.86 | X | X | |
| 443+44.99 | 99.86 | X | X | |
| 443+89.99 | -75.14 | X | X | |
| 443+90.00 | -200.14 | X | X | |
| 449+32.63 | -100.12 | X | X | |
| 449+32.63 | -75.12 | X | X | |
| 449+55.64 | 74.88 | X | X | |
| 449+55.64 | 99.88 | X | X | |
| 455+39.23 | 100.42 | X | X | |
| 455+39.24 | -100.09 | X | X | |
| 455+39.24 | -75.09 | X | X | |
| 462+47.97 | 100.73 | X | X | |
| 462+96.86 | -75.06 | X | X | |
| 463+56.68 | 64.94 | | X | X |
| 463+56.97 | -75.06 | | X | X |
| 464+22.42 | 64.94 | | X | X |
| 464+47.32 | 64.94 | X | X | |
| 464+47.71 | 74.94 | X | X | |
| 476+27.66 | 74.90 | X | X | |
| 476+36.03 | 259.90 | X | X | |
| 476+45.73 | -75.10 | X | X | |
| 476+48.23 | -220.10 | X | X | |
| 477+54.53 | 99.90 | X | X | |
| 477+55.27 | 259.90 | X | X | |
| 478+72.06 | -100.10 | X | X | |
| 478+75.33 | -220.10 | X | X | |
| 486+45.76 | -75.10 | X | X | |
| 486+46.18 | -100.10 | X | X | |
| **Total** | | **180** | **238** | **58** |

### Alignment Monuments

| Station | Offset | Description | Monument per Standard D-720-1 | Point Number |
|---|---|---|---|---|
| 0+00.00 | 0.00 | POT - Intersection | X | 102 |
| 26+42.03 | 0.00 | QTR COR | X | 306 |
| 52+83.51 | 0.00 | SEC COR | X | 103 |
| 79+22.73 | 0.00 | QTR COR | X | 305 |
| 105+61.95 | 0.00 | SEC COR | X | 101 |
| 132+01.45 | 0.00 | QTR COR | X | 304 |
| 144+49.23 | 0.00 | PC | X | |
| 147+24.80 | 1.33 | PI - C11 | X | |
| 150+00.37 | 0.00 | PT | X | |
| 158+10.03 | 0.00 | PC | X | |
| 158+41.19 | -0.11 | SEC - TAN XING | | |
| 162+64.84 | -22.88 | PI - C1015 | X | |
| 164+29.61 | -9.28 | SEC - TAN XING | | |
| 167+19.64 | 0.00 | PT | X | |
| 184+51.79 | 0.00 | TS | X | |
| 185+14.25 | 0.03 | QTR - TAN XING | | |
| 189+89.14 | 12.75 | PI - C19 | X | |
| 195+26.48 | 0.00 | ST | X | |
| 210+41.10 | 0.00 | PC | X | |
| 211+65.86 | 0.34 | SEC - TAN XING | | |
| 215+80.25 | 6.34 | PI - C22 | X | |
| 221+19.40 | 0.00 | PT | X | |
| 222+34.66 | 0.00 | TS | X | |
| 224+80.57 | 2.15 | PI - C25 | X | |
| 227+26.48 | 0.00 | ST | X | |
| 231+92.92 | 0.00 | TS | X | |
| 236+20.39 | -9.66 | PI - C28 | X | |
| 238+04.52 | -2.08 | QTR - TAN XING | | |
| 240+47.86 | 0.00 | ST | X | |
| 264+30.81 | 0.00 | TWP XING | | |
| 290+83.03 | 0.00 | QTR XING | X | 87 |
| 317+40.62 | 0.00 | SEC XING | | |
| 343+87.42 | 0.00 | QTR XING | X | 226 |
| 356+92.46 | 0.00 | TS | X | |
| 361+68.75 | -23.68 | PI - C38 | X | |
| 366+45.05 | 0.00 | ST | X | |
| 370+77.60 | 0.00 | SEC XING | | 85 |
| 382+60.72 | 0.00 | TS | X | |
| 388+69.78 | 38.50 | QTR - TAN XING | | |
| 390+33.89 | 70.48 | PI - C166 | X | 166 |
| 398+07.06 | 0.00 | ST | X | |
| 398+33.06 | 0.00 | QTR XING | | |
| 399+91.96 | 0.00 | QTR XING | | |
| 418+44.73 | 0.00 | TS | X | |
| 424+76.26 | 0.00 | SEC XING | | |
| 430+42.92 | -315.20 | PI - C500 | X | 158 |
| 442+40.76 | 0.00 | ST | X | |
| 462+96.86 | 0.00 | TS | X | |
| 463+56.82 | 0.04 | SEC - TAN XING | | |
| 464+23.01 | 0.39 | QTR - TAN XING | | |
| 476+81.76 | 289.89 | PI - C501 | X | |
| 489+19.50 | 0.00 | PT | X | |
| **Total** | | | **52** | |

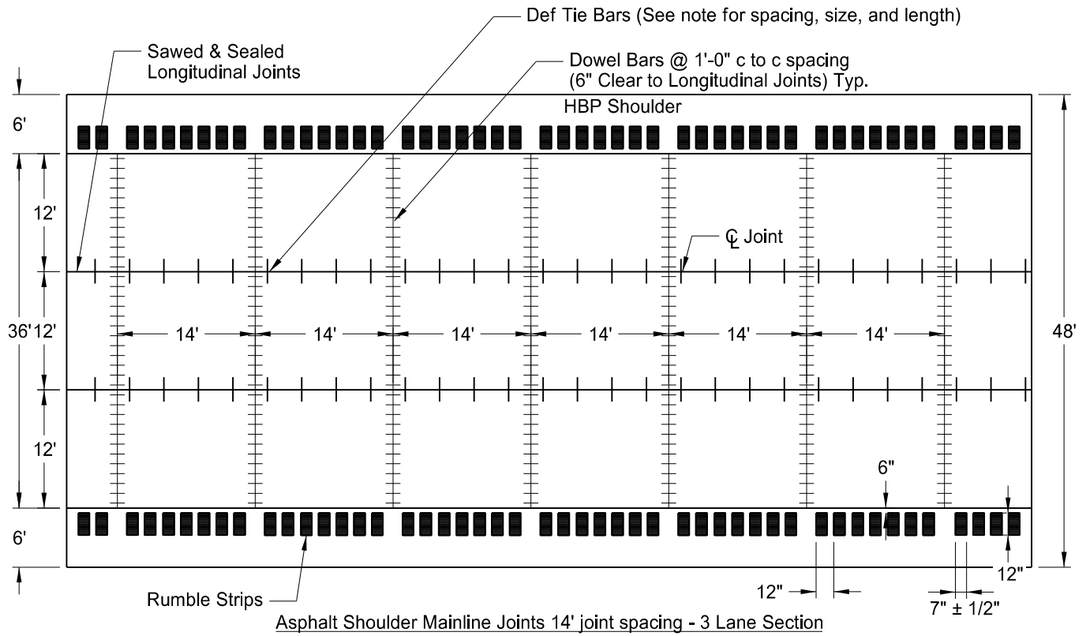
This document was originally issued and sealed by William Doerr, Registration Number PE- 7113, on 1/20/16 and the original document is stored at the North Dakota Department of Transportation

Right of Way Markers

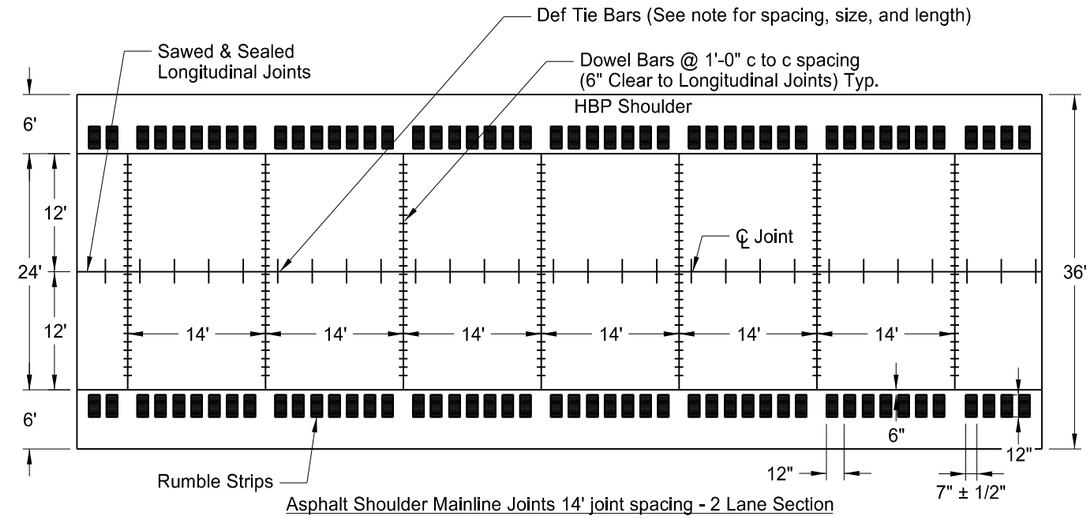
ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 20 | 8 |



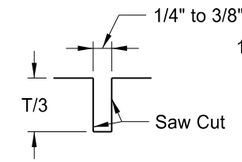

Asphalt Shoulder Mainline Joints 14' joint spacing - 3 Lane Section



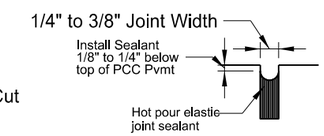

Asphalt Shoulder Mainline Joints 14' joint spacing - 2 Lane Section

Notes:

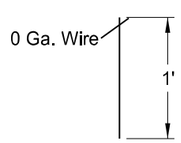
1. T = Pavement Thickness
2. Use 1¼" x 18" Dowel bars.
3. Install Rumble strips according to D-760-3.
4. Use #4 x 36" Grade 60 deformed bars for Tie bars spaced at 34 inches and placed 16 inches from each transverse joint.
5. T = 8.5"



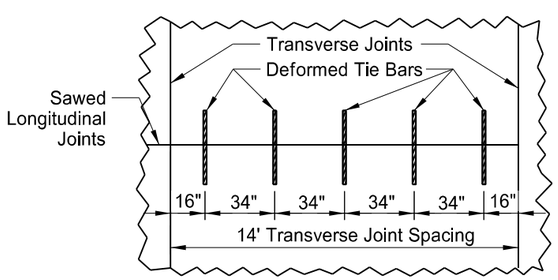

Joint Sawing Detail

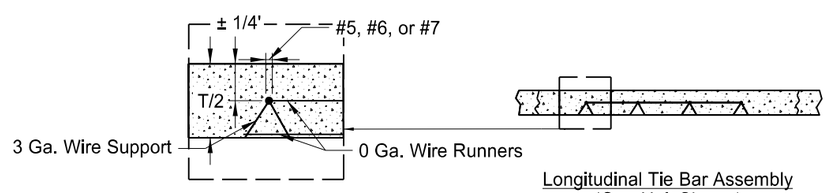



Joint Sealing Detail

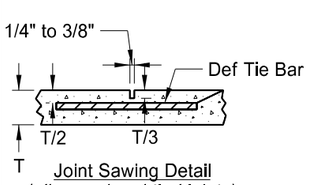



Steel Stake
4/Unit

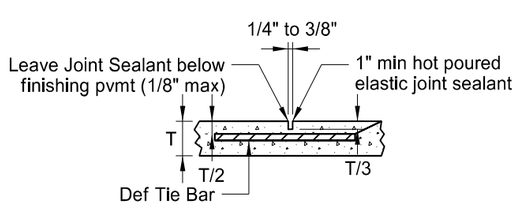


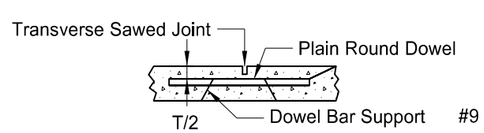

Longitudinal Tie Bar Assembly
(One Unit Shown)



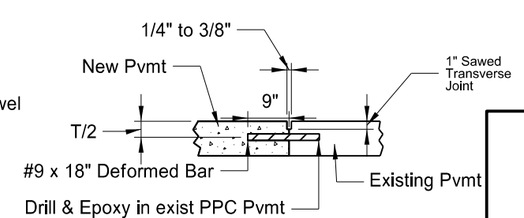

Joint Sawing Detail
(all sawed and tied joints)




Joint Sealing Detail ( all sawed and tied joints)
*Width requirement for top 1" only. Bottom portion of saw cut may be narrower.




Doweled Transverse Joint




Deformed Bar Installation (2'-0" c to c)
(Transverse Joints)

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PCC Pavement Joints

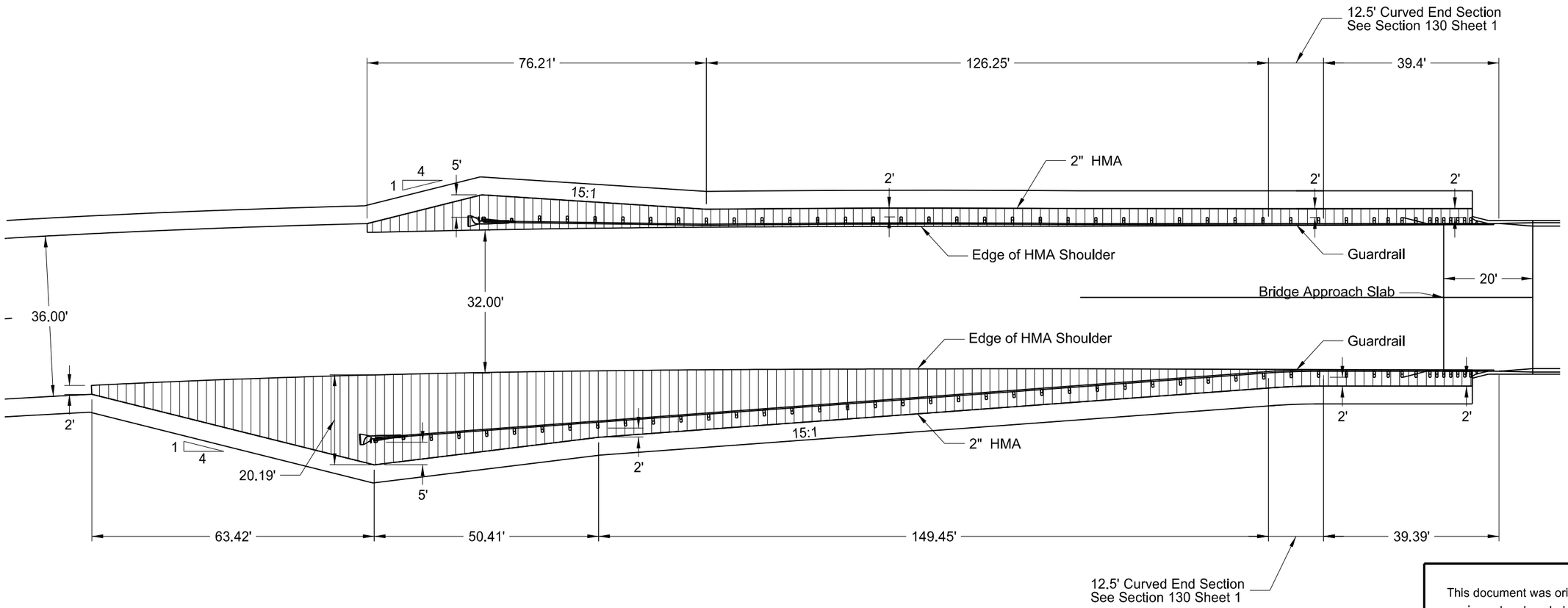
ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 20 | 12 |

| Missouri River Bridge | | | | | |
|---|---|---|---|---|---|
| Sta. 440+79 to Sta. 443+35 | | | | | |
| | UNIT | LT | | UNIT | RT |
| Tack Coat | GAL | 10 | Tack Coat | GAL | 18 |
| Superpave FAA 45 | TON | 22 | Superpave FAA 45 | TON | 41 |
| PG 64-34 | TON | 1.3 | PG 64-34 | TON | 2.4 |
| Salvage Base | TON | 85 | Salvage Base | TON | 153 |

Note: 2" Superpave FAA 45
8" Salvaged Base Course

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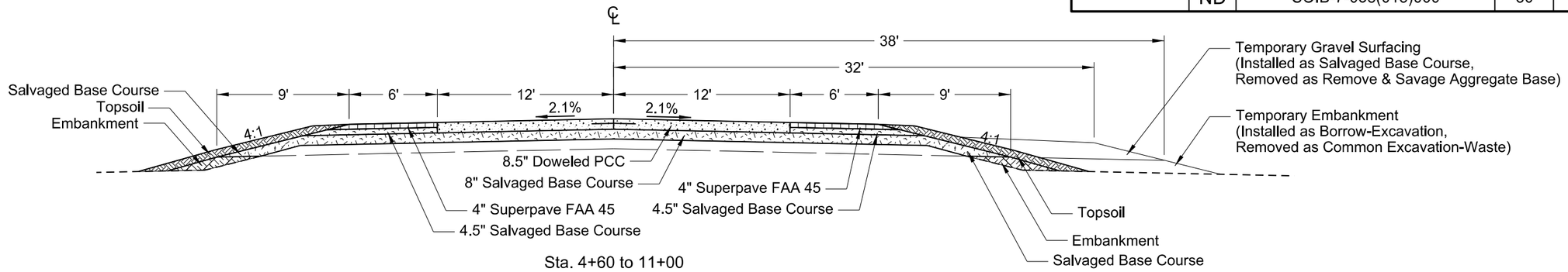
Surfacing at Bridge End With Guardrail

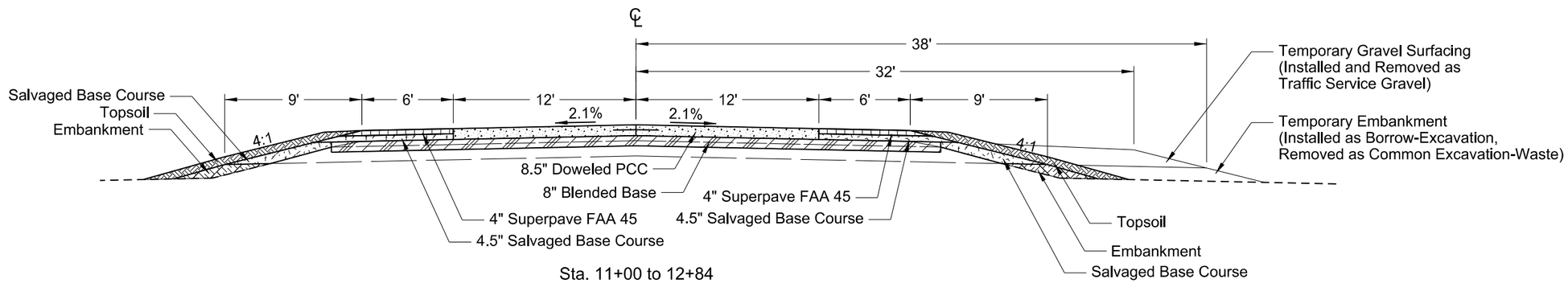
ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 30 | 2 |

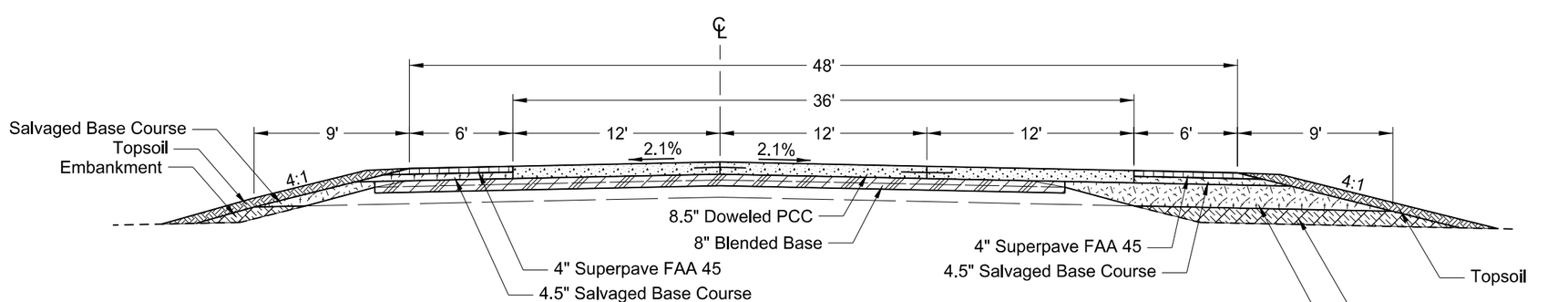



Sta. 4+60 to 11+00




Sta. 11+00 to 12+84
Sta. 83+99 to 105+67
Sta. 112+38 to 200+67
Sta. 323+98 to Sta 330+00

NOTE:
For ease of calculations, the station ranges are split in middle of the transition between each section. Construct transitions per Section 90.




Sta. 12+84 to 25+36
Sta. 32+08 to 52+84
Sta. 59+55 to 77+27
Sta. 218+51 to 257+67
Sta. 270+97 to 317+26

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Proposed Typical Section

ND 58

Jct 200 to Jct 1804

| Revised | 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|---|
| | | ND | SOIB-7-058(013)000 | 50 | 2 |

## BAR LIST - DISTRIBUTION BOX
## STATION 76+29 RT

| SIZE | MARK | NO. | LENGTH | SHAPE |
|---|---|---|---|---|
| 4 | C1 | 2 | 4'-7" | BENT |
| 4 | C2 | 4 | 9'-2" | BENT |
| 4 | D1 | 16 | 2'-6" | STR. |
| 5 | D2 | 18 | 2'-2" | STR. |
| 4 | H1 | 5 | 7'-5" | BENT |
| 4 | H2 | 5 | 7'-7" | BENT |
| 4 | H3 | 5 | 12'-8" | BENT |
| 4 | H4 | 5 | 13'-4" | BENT |
| 4 | H5 | 5 | 7'-10" | BENT |
| 4 | H6 | 5 | 8'-2" | BENT |
| 4 | H7 | 5 | 5'-4" | BENT |
| 4 | H8 | 5 | 5'-7" | BENT |
| 4 | H9 | 14 | 12'-4" | STR. |
| 5 | H10 | 10 | 7'-4" | STR. |
| 5 | H11 | 18 | 6'-2" | STR. |
| 4 | H12 | 1 | 4'-2" | STR. |
| 4 | H13 | 4 | 8'-6" | BENT |
| 4 | H14 | 2 | 7'-2" | STR. |
| 4 | L1 | 4 | 4'-0" | BENT |
| 5 | V1 | 50 | 8'-8" | BENT |
| 4 | V2 | 27 | 6'-7" | BENT |

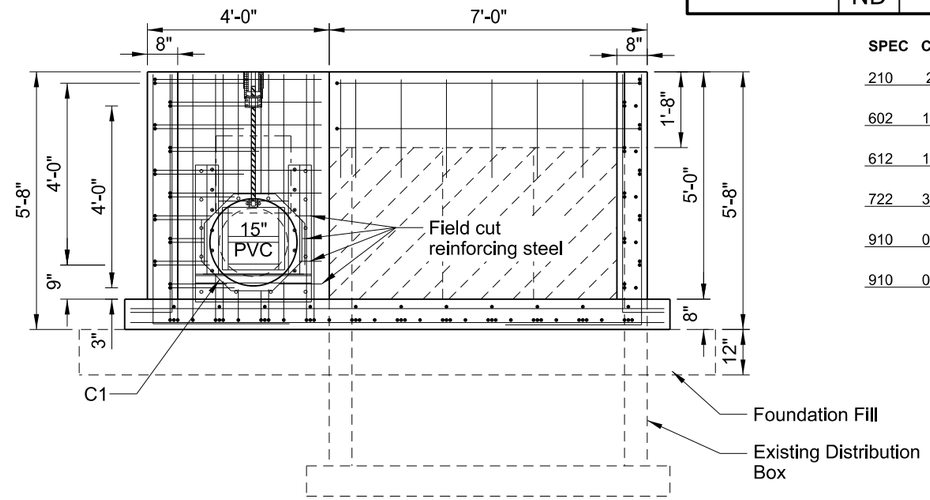
Note: Drill and epoxy all D1 dowels into the existing walls. Center dowels on the existing box wall.

Epoxy to meet the requirements of Section 806.

**DESIGN STRENGTHS:**

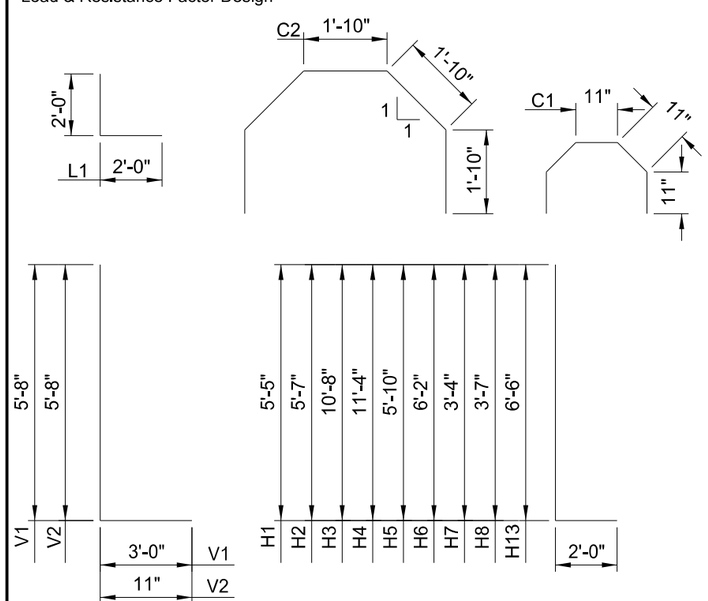
f'c = 4,000 psi ~ Class AAE-3 Concrete
fy = 60,000 psi ~ Reinforcing Steel

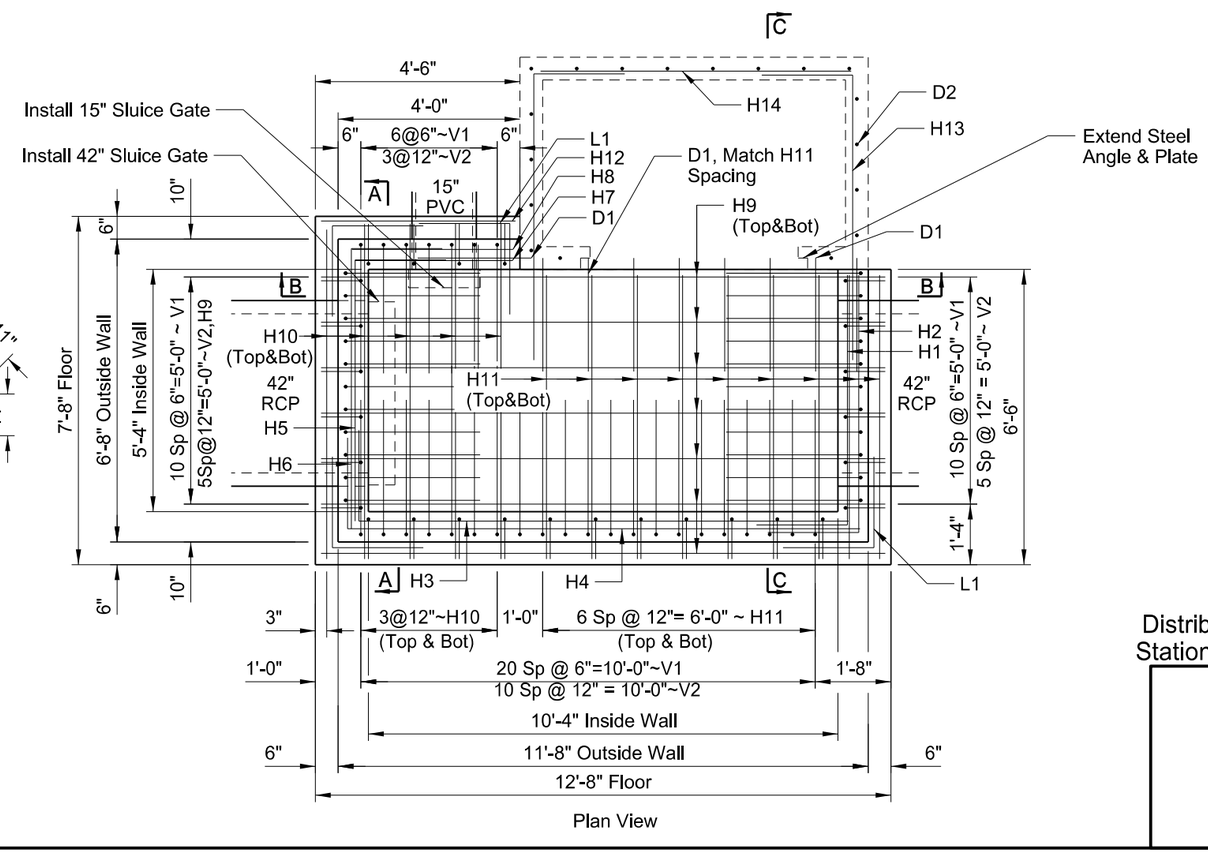
Load & Resistance Factor Design




Section B-B

| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 210 | 210 | FOUNDATION FILL | | |
| | | 76+29 RT | 4.9 | CY |
| 602 | 1130 | CLASS AE-3 CONCRETE | | |
| | | 76+29 RT | 6.0 | CY |
| 612 | 115 | REINFORCING STEEL - GRADE 60 | | |
| | | 76+29 RT | 1,238 | LBS |
| 722 | 3453 | GRATE - TYPE 1 | | |
| | | 76+29 RT | 1 | EA |
| 910 | 0695 | SLUICE GATE 15 IN | | |
| | | 76+29 RT | 1 | EA |
| 910 | 0702 | SLUICE GATE 42 | | |
| | | 76+29 RT | 1 | EA |




Plan View

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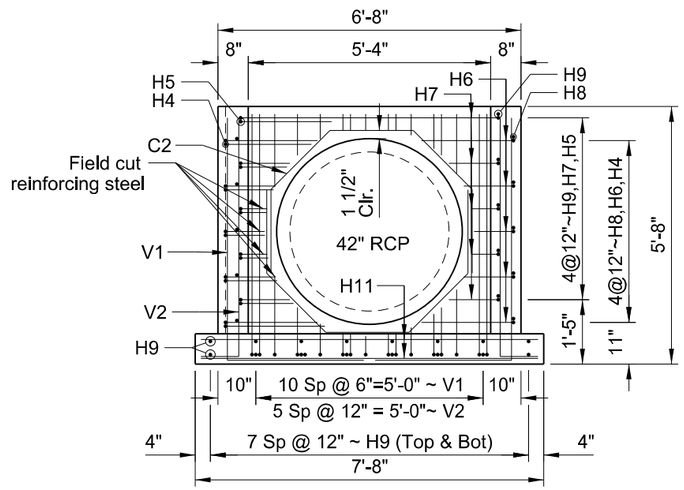
Distribution Box
Station 76+29 Rt

Irrigation Details

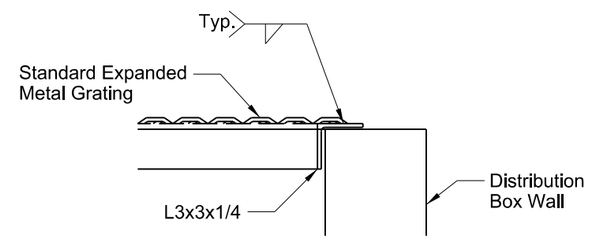
ND 58

Jct 200 to Jct 1804

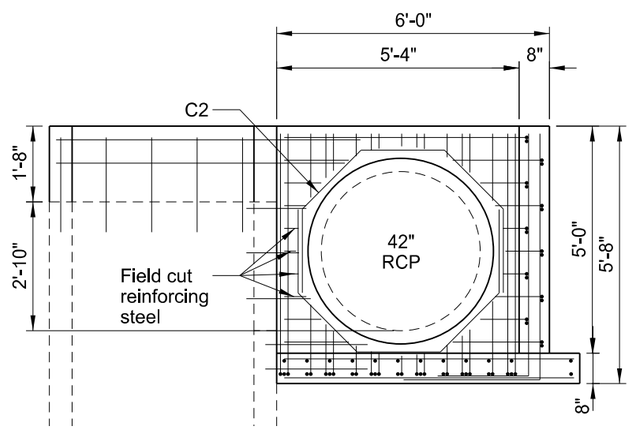
| Added 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 50 | 2A |



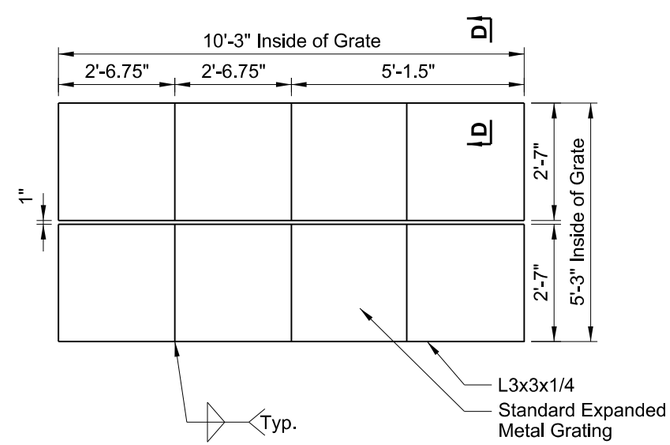

Section A-A




Section "D-D"
(Metal Cover)




Section C-C




Plan View
(Steel Cover Grate)

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Distribution Box
Station 76+29 Rt

Irrigation Details

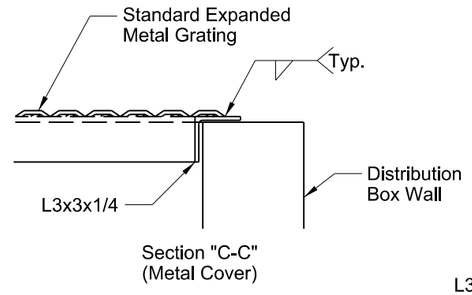
ND 58

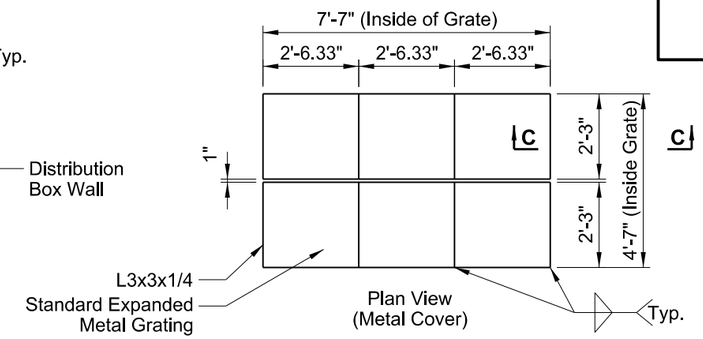
Jct 200 to Jct 1804

| Added | 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|---|
| | | ND | SOIB-7-058(013)000 | 50 | 2B |

## BAR LIST - DISTRIBUTION BOX
## STATION 163+25 Rt

| SIZE | MARK | NO. | LENGTH | SHAPE |
|---|---|---|---|---|
| 4 | C1 | 2 | 4'-7" | BENT |
| 4 | C2 | 2 | 12'-9" | BENT |
| 4 | H1 | 12 | 6'-8" | STR. |
| 4 | H2 | 9 | 9'-4" | STR. |
| 4 | H3 | 14 | 7'-6" | BENT |
| 4 | H4 | 14 | 10'-6" | BENT |
| 4 | H5 | 14 | 7'-0" | BENT |
| 4 | H6 | 14 | 10'-0" | BENT |
| 5 | V1 | 30 | 11'-10" | BENT |
| 4 | V2 | 26 | 8'-1" | BENT |
| 5 | V3 | 18 | 13'-4" | BENT |



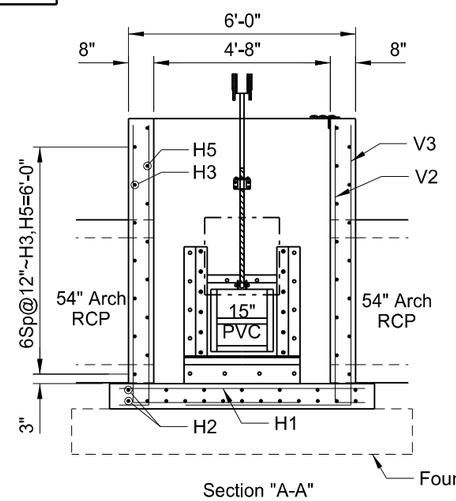




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 210 | 210 | FOUNDATION FILL | | |
| | | 163+25 Rt | 4.0 | CY |
| 602 | 1130 | CLASS AE-3 CONCRETE | | |
| | | 163+25 Rt | 6.5 | CY |
| 612 | 115 | REINFORCING STEEL - GRADE 60 | | |
| | | 163+25 Rt | 1,221 | LBS |
| 722 | 3453 | GRATE - TYPE 1 | | |
| | | 163+25 Rt | 1 | EA |
| 910 | 0695 | SLUICE GATE 15IN | | |
| | | 163+25 Rt | 1 | EA |

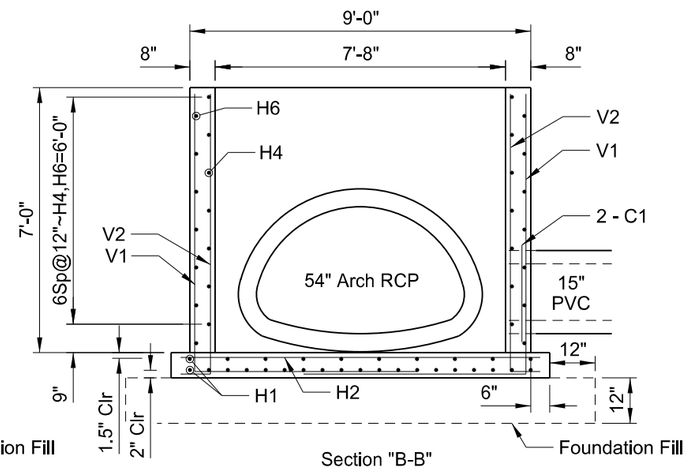
### DESIGN STRENGTHS:

f'c = 4,000 psi ~ Class AAE-3 Concrete
fy = 60,000 psi ~ Reinforcing Steel

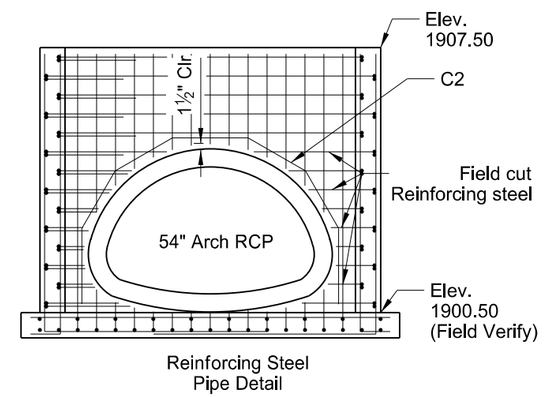
Load & Resistance Factor Design



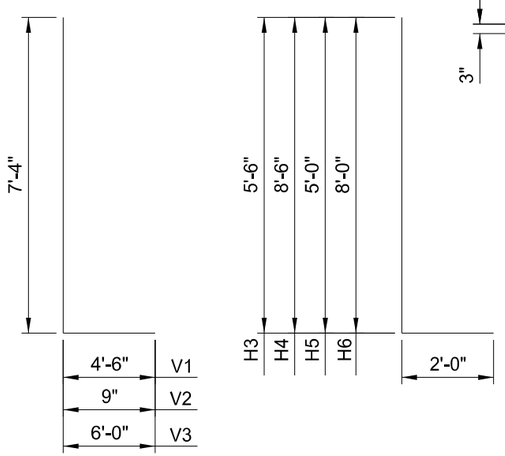

Section "A-A"

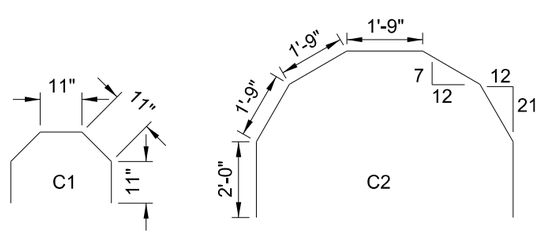


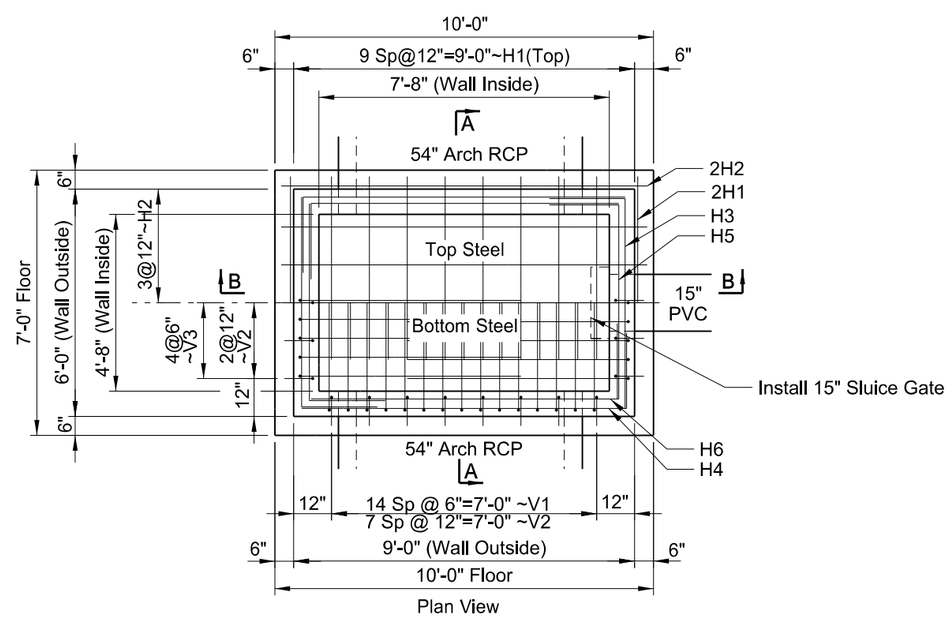

Section "B-B"




Reinforcing Steel Pipe Detail




Plan View

## Distribution Box
## Station 163+25 Rt

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Irrigation Details

ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 51 | 2 |

| Begin Station | Begin Offset | End Station | End Offset | Pay Length LF | Pipe Conduit Pay Size Inches | Pipe Conduit Approach Pay Size Inches | Existing Material | Allowable Material | Required Diameter In | Minimum Thickness In | R1 Fabric (Pay Item) SY | End Sections (A) Begin EA | End Sections (A) End EA | End Sections Remove & Relay EA | End Sections Remove & Salv EA | End Sections Install New EA | Applicable Backfill Detail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 131+82.0 | 38.4 Rt | 132+22.0 | 38.4 Rt | 40 | | 24 | RCP | Reinforced Concrete Pipe - Class III **(barrell length = 40 LF)** | 24 | | | 1 (Trav.) | 1 (Trav.) | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 144+28.0 | 46.7 Rt | 145+12.0 | 46.7 Rt | 84 | | 24 | CSP | Reinforced Concrete Pipe - Class III **(barrell length = 84 LF)** | 24 | | | 1 (Trav.) | 1 (Trav.) | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 144+78.0 | 72.8 Lt | 145+52.0 | 72.8 Lt | 74 | | 24 | CSP | Reinforced Concrete Pipe - Class III **(barrell length = 74 LF)** | 24 | | | 1 (Trav.) | 1 (Trav.) | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 146+24.0 | 58.9 Rt | 146+92.0 | 58.9 Rt | 78 | | 24 | 0 | Reinforced Concrete Pipe - Class III **(barrell length = 78 LF)** | 24 | | | 1 | 1 | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 147+19.0 | 53.8 Lt | 147+93.0 | 53.8 Lt | 80 | | 24 | RCP | Reinforced Concrete Pipe - Class III **(barrell length = 80 LF)** | 24 | | | 1 | 1 | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 150+43.6 | 49.0 Lt | 150+43.6 | 43.0 Lt | 6 | 48 | | RCP | Reinforced Concrete Pipe - Class III (barrel length = 6 LF) | 48 | | | | | 1 | 1 | | 20-14 |
| 157+93.5 | 45.75 Rt | 158+69.5 | 45.75 Rt | 76 | | 24 | RCP | Reinforced Concrete Pipe - Class III **(barrell length = 76 LF)** | 24 | | | 1 (Trav.) | 1 (Trav.) | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 157+96.0 Temp Pipe | 45.0 Rt | 168+82.0 Temp Pipe | 49.0 Rt | 1080 Includes 1 - 5° Bend | | 18 | N/A | Reinforced Concrete Pipe - Class III **(barrell length = 1080 LF)** | 24 | | | 1 (Trav.) | 1 (Trav.) | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 158+11.0 | 76.0 Rt | 166+53.0 | 66' Rt | 828 | Arch 65x40 | | | Reinforced Concrete Pipe - Class III (barrel length = 827 LF) | Arch 65x40 | | | | | | | | 20-14 |
| 168+81.3 | 39.8 Lt | 168+81.3 | 39.8 Lt | 0 | 24 | | RCP | Reinforced Concrete Pipe - Class III (barrel length = 0 LF) | 24 | | | | | | 1 | 1 (Trav.) | 20-14 |
| 168+81.3 | 41.1 Rt | 168+81.3 | 33.1 Rt | 8 | 24 | | RCP | Reinforced Concrete Pipe - Class III (barrel length = 8 LF) | 24 | | | | | | 1 | 1 (Trav.) | 20-14 |
| 177+15.5 | 57.8 Rt | 177+95.5 | 57.8 Rt | 80 | | 24 | RCP | Reinforced Concrete Pipe - Class III **(barrell length = 80 LF)** | 24 | | | 1 | 1 | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 184+04.5 | 60.0 Rt | 185+34.5 | 60.0 Rt | 130 | | 24 | RCP | Reinforced Concrete Pipe - Class III **(barrell length = 130 LF)** | 24 | | | 1 | 1 | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 196+48.5 | 44.0 Rt | 197+00.5 | 44.0 Rt | 52 | | 24 | RCP | Reinforced Concrete Pipe - Class III **(barrell length = 52 LF)** | 24 | | | 1 (Trav.) | 1 (Trav.) | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |
| 198+23.0 | 40.2 Lt | 198+23.0 | 40.2 Lt | 0 | 24 | | RCP | Reinforced Concrete Pipe - Class III (barrel length = 0 LF) | 24 | | | | | | 1 | 1 (Trav.) | 20-14 |
| 198+23.0 | 46.4 Rt | 198+23.0 | 40.4 Rt | 6 | 24 | | RCP | Reinforced Concrete Pipe - Class III (barrel length = 6 LF) | 24 | | | | | | 1 | 1 (Trav.) | 20-14 |
| 198+36.6 | 40.1 Lt | 198+36.6 | 40.1 Lt | 0 | 24 | | RCP | Reinforced Concrete Pipe - Class III (barrel length = 0 LF) | 24 | | | | | | 1 | 1 (Trav.) | 20-14 |
| 198+36.6 | 46.4 Rt | 198+36.6 | 40.4 Rt | 6 | 24 | | RCP | Reinforced Concrete Pipe - Class III (barrel length = 6 LF) | 24 | | | | | | 1 | 1 (Trav.) | 20-14 |
| 198+41.5 | 52.5 Rt | 199+03.5 | 52.5 Rt | 62 | | 24 | RCP | Reinforced Concrete Pipe - Class III **(barrell length = 62 LF)** | 24 | | | 1 (Trav.) | 1 (Trav.) | | | | 714.04A |
| | | | | | | | | Zinc Coated Corrugated Steel (2-2/3" x 1/2" Ribs) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Aluminum Coated Corrugated Steel (Type 2) | 24 | 0.063 | | | | | | | |
| | | | | | | | | Polymeric Coated Steel (over zinc or aluminum coated steel) | 24 | 0.063 | | | | | | | |
| | | | | | | | | High-Density Polyethylene (HDPE) | 24 | | | | | | | | |

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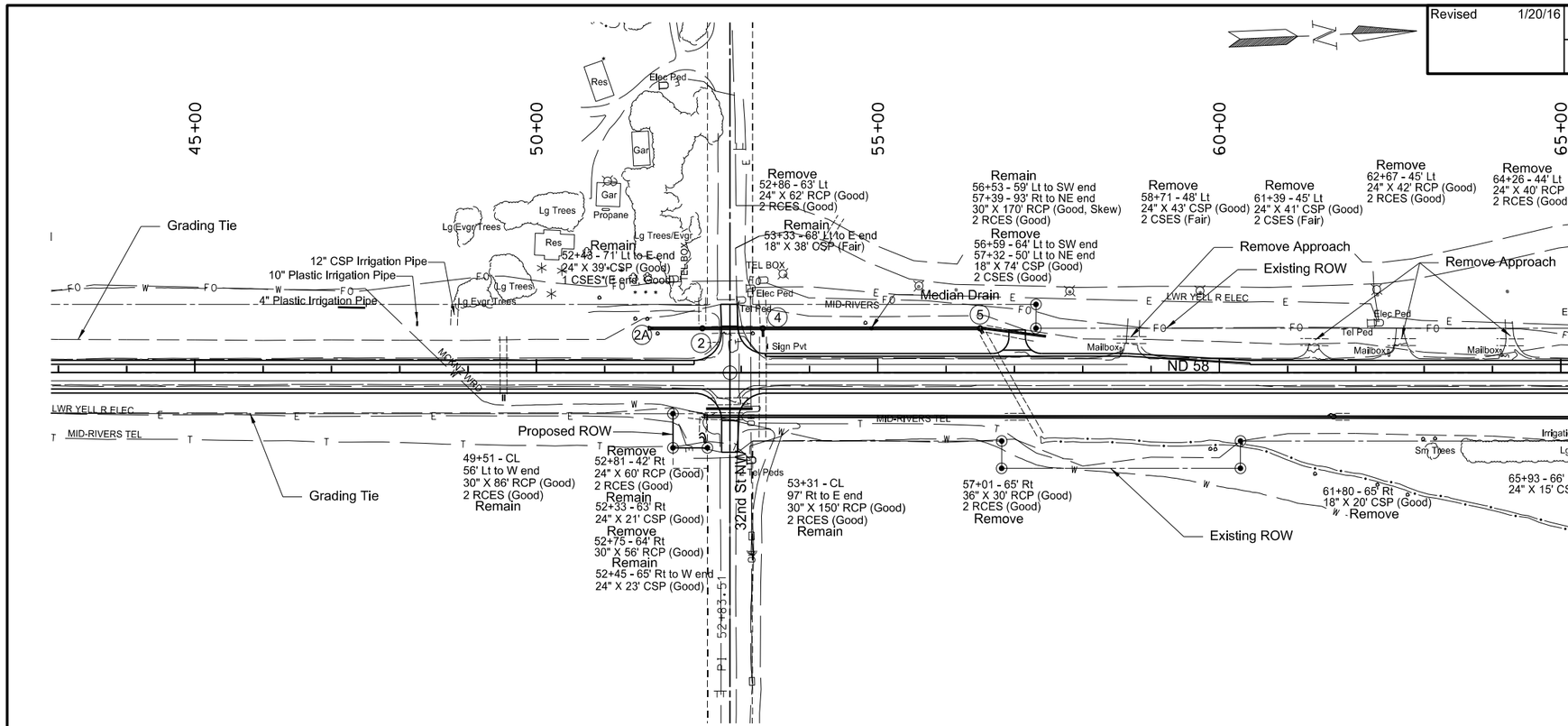
Allowable Pipe List

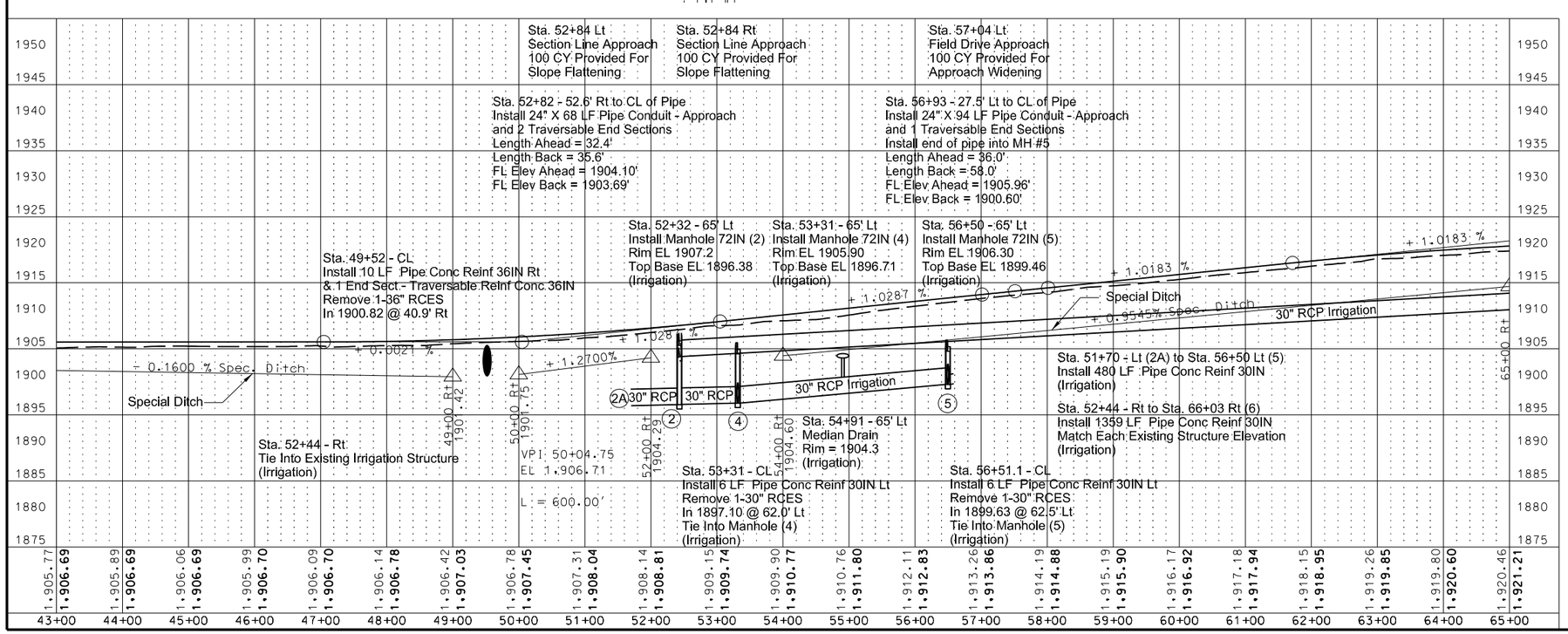
ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 60 | 3 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | | |
| | | 49+51 ℄ - Rt | 1 | EA |
| | | 53+31 ℄ - Lt | 1 | EA |
| | | 56+51 ℄ - Lt | 1 | EA |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 52+33 Rt | 21 | LF |
| | | 52+81 Rt | 60 | LF |
| | | 52+75 Rt | 56 | LF |
| | | 52+86 Lt | 62 | LF |
| | | 56+59 Lt | 74 | LF |
| | | 58+71 Lt | 43 | LF |
| | | 61+39 Lt | 41 | LF |
| | | 62+67 Lt | 42 | LF |
| | | 64+26 Lt | 40 | LF |
| 714 | 0615 | PIPE CONC REINF 24IN CL III (Irrigation) | | |
| | | 54+91 - Lt Riser | 4 | LF |
| 714 | 0820 | PIPE CONC REINF 30IN CL III (Irrigation) | | |
| | | 51+70 Lt (2A) to 56+50 Lt (5) | 480 | LF |
| | | 52+44 Rt (3) to 66+03 Rt (6) | 1359 | LF |
| | | 53+31 ℄ Pipe - Lt | 6 | LF |
| | | 56+51 ℄ Pipe - Lt | 6 | LF |
| 714 | 0905 | PIPE CONC REINF 36IN CL III | | |
| | | 49+52 ℄ Pipe - Rt | 10 | LF |
| 714 | 3036 | END SECT - TRAVERSABLE REINF CONC 36IN | | |
| | | 49+52 ℄ Pipe - Rt | 1 | EA |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 52+82 Rt | 68 | LF |
| | | 56+93 Lt | 94 | LF |
| 722 | 0120 | MANHOLE 72IN (Irrigation) | | |
| | | 52+32 Lt (2) | 1 | EA |
| | | 53+31 Lt (4) | 1 | EA |
| | | 56+50 Lt (5) | 1 | EA |
| 722 | 1120 | MANHOLE RISER 72IN (Irrigation) | | |
| | | 52+32 Lt (2) | 9.15 | LF |
| | | 53+31 Lt (4) | 7.52 | LF |
| | | 56+50 Lt (5) | 5.17 | LF |
| 722 | 4565 | MEDIAN DRAIN PRECAST CONCRETE TYPE-A (Irrigation) | | |
| | | 54+91 Lt | 1 | EA |

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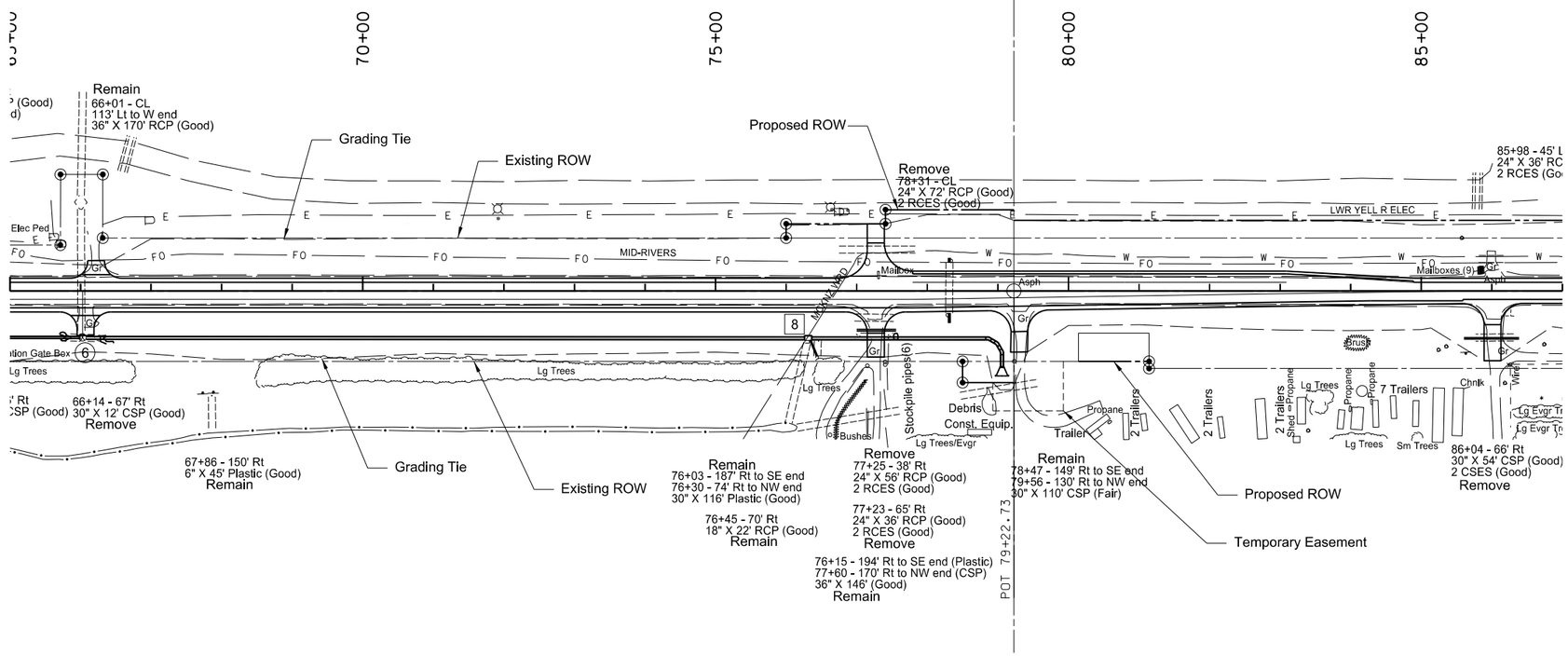
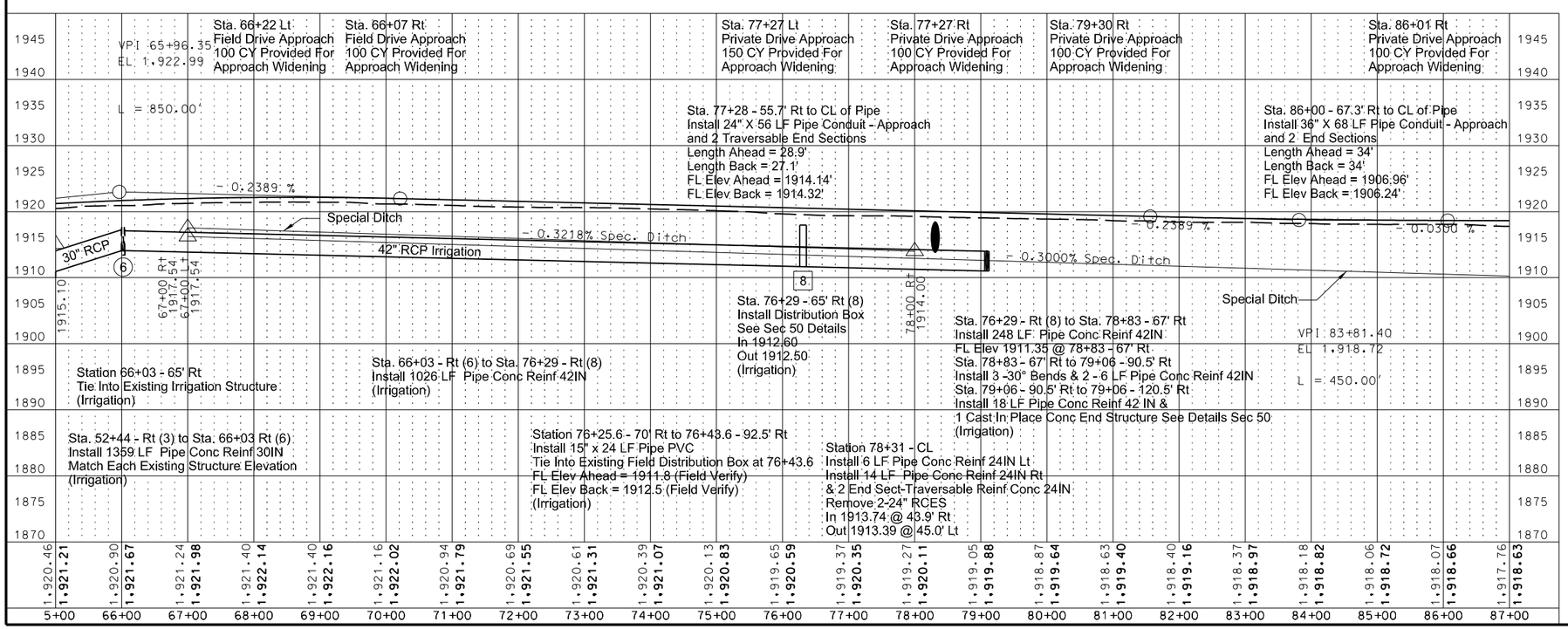
| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 60 | 4 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | | |
| | | 78+31 ℄ | 2 | EA |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 77+23 Rt | 36 | LF |
| | | 77+25 Rt | 56 | LF |
| | | 86+04 Rt | 54 | LF |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | | |
| | | 78+31 ℄ Pipe - Lt | 6 | LF |
| | | 78+31 ℄ Pipe - Rt | 14 | LF |
| 714 | 1005 | PIPE CONC REINF 42IN CL III (Irrigation) | | |
| | | 66+03 Rt (6) to 76+29 Rt (8) | 1026 | LF |
| | | 76+29 Rt (8) to 78+83 Rt | 248 | LF |
| | | 78+83 Rt to 79+06 Rt | 36 | LF |
| | | (Includes 3-30° Bends) | | |
| | | 79+06 Rt to 79+06 Rt | 18 | LF |
| 714 | 3023 | END SECT - TRAVERSABLE REINF CONC 24IN | | |
| | | 78+31 ℄ Pipe - Lt | 1 | EA |
| | | 78+31 ℄ Pipe - Rt | 1 | EA |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 77+28 Rt | 56 | LF |
| 714 | 4116 | PIPE CONDUIT 36IN - APPROACH | | |
| | | 86+00 Rt | 68 | LF |
| 714 | 7033 | PIPE PVC 15IN (Irrigation) | | |
| | | 76+25.6 - 70' Rt to 76+43.6 - 92.5' Rt | 24 | LF |
| SEE DETAILS SEC 50 DISTRIBUTION BOX (Irrigation) | | | | |
| | | 76+29 Rt (8) | 1 | EA |

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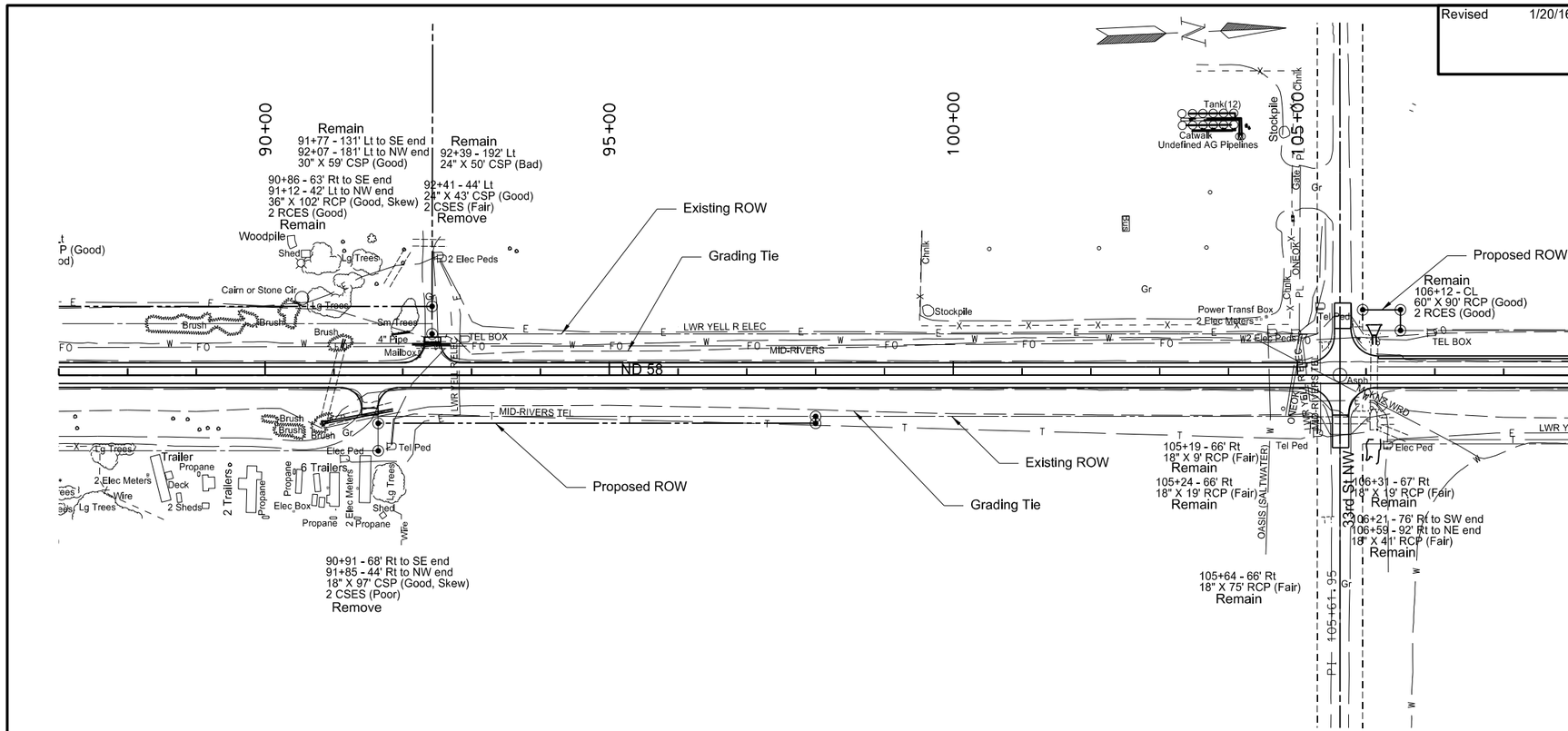
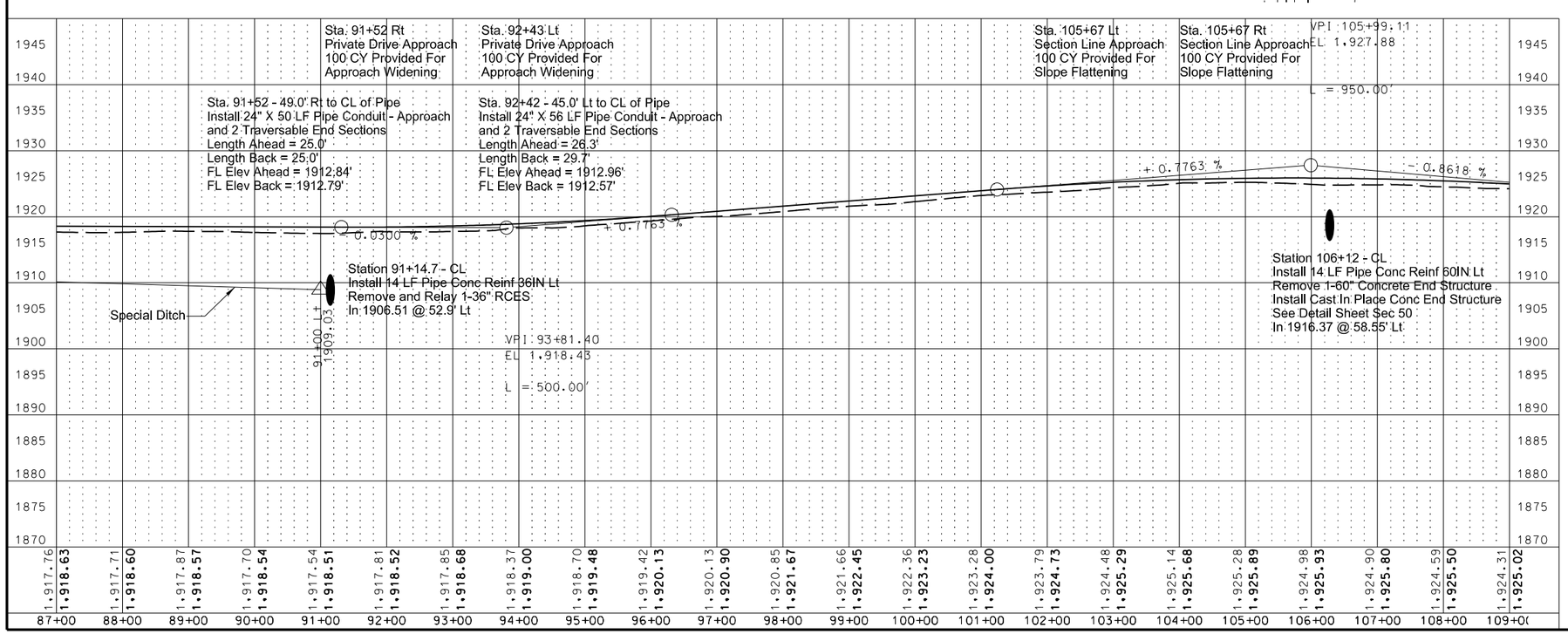
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 60 | 5 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0112 | REMOVAL OF CONCRETE | | |
| | | 106+12 Lt (Irrigation End Structure) | 24 | SY |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 90+91 Rt | 97 | LF |
| | | 92+41 Lt | 43 | LF |
| 714 | 0905 | PIPE CONC REINF 36IN CL III | | |
| | | 91+15 ℄ Pipe - Lt | 14 | LF |
| 714 | 1310 | PIPE CONC REINF 60IN CL III | | |
| | | 106+12 ℄ Pipe - Lt | 14 | LF |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 91+52 Rt | 50 | LF |
| | | 92+42 Lt | 56 | LF |
| 714 | 9660 | REMOVE AND RELAY END SECTION - ALL TYPES & SIZES | | |
| | | 91+15 ℄ Pipe - Lt | 1 | EA |

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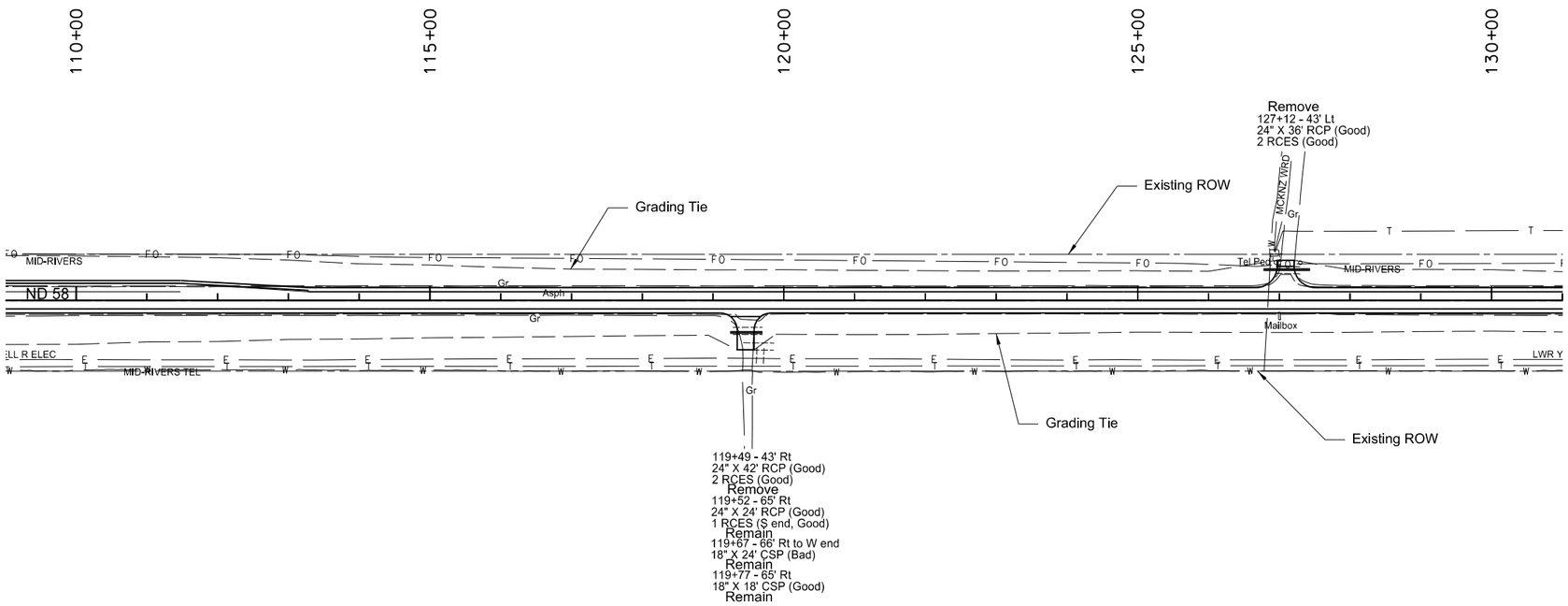
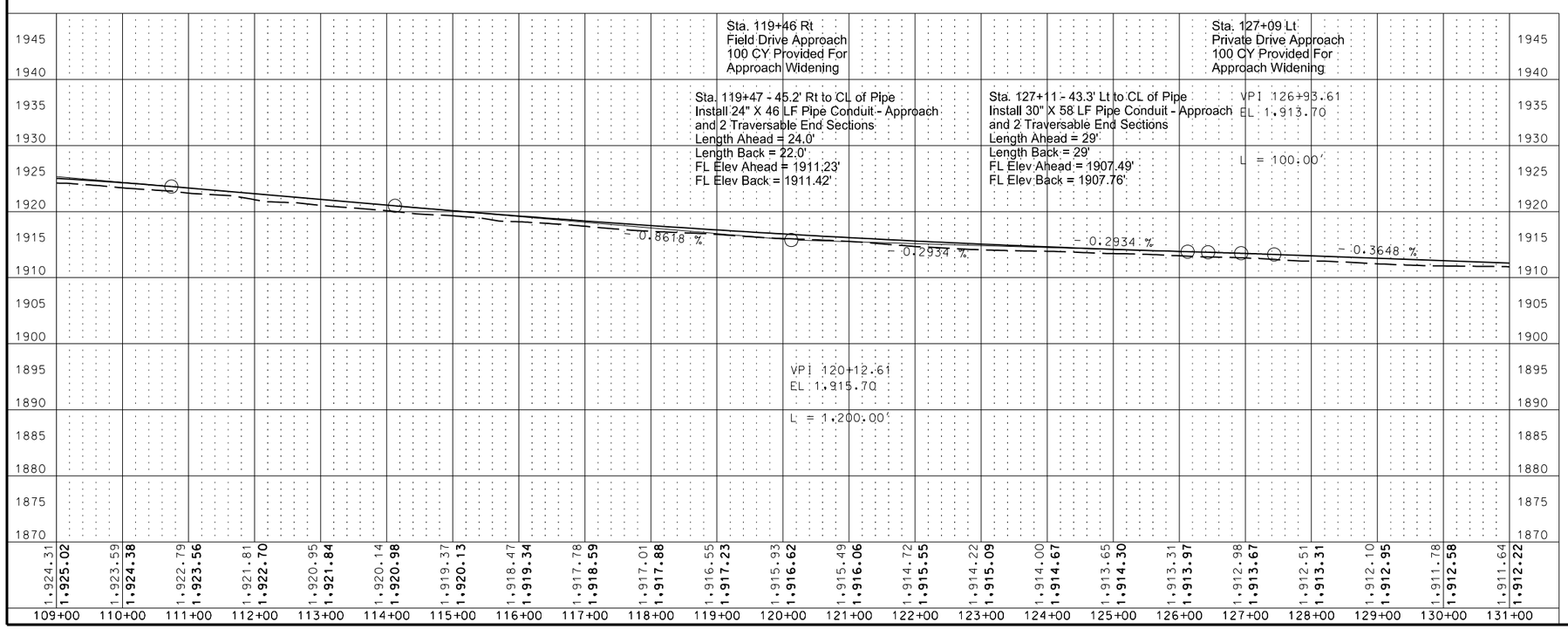
| | | ND | SOIB-7-058(013)000 | 60 | 6 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 119+49 Rt | 42 | LF |
| | | 127+12 Lt | 36 | LF |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 119+47 Rt | 46 | LF |
| 714 | 4113 | PIPE CONDUIT 30IN-APPROACH | | |
| | | 127+11 Lt | 58 | LF |

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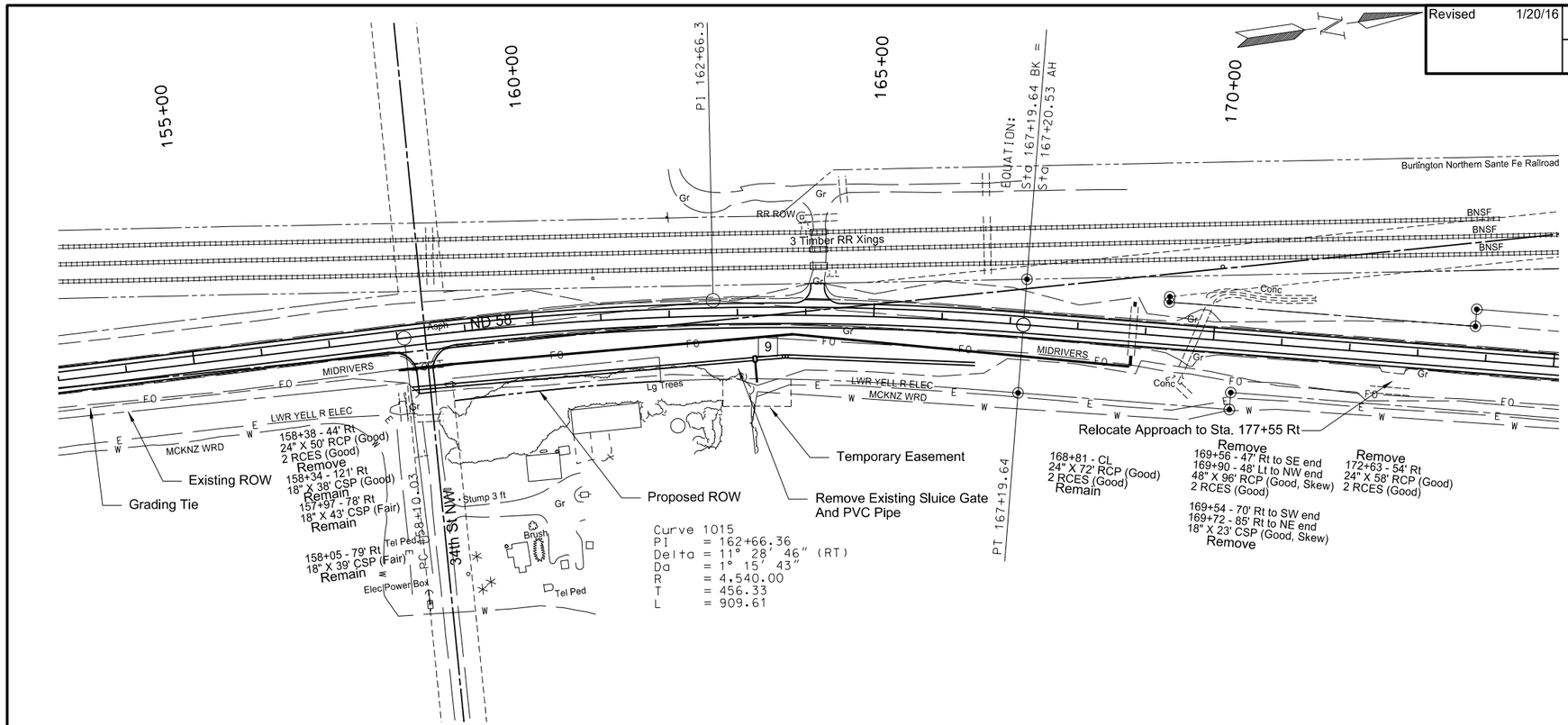
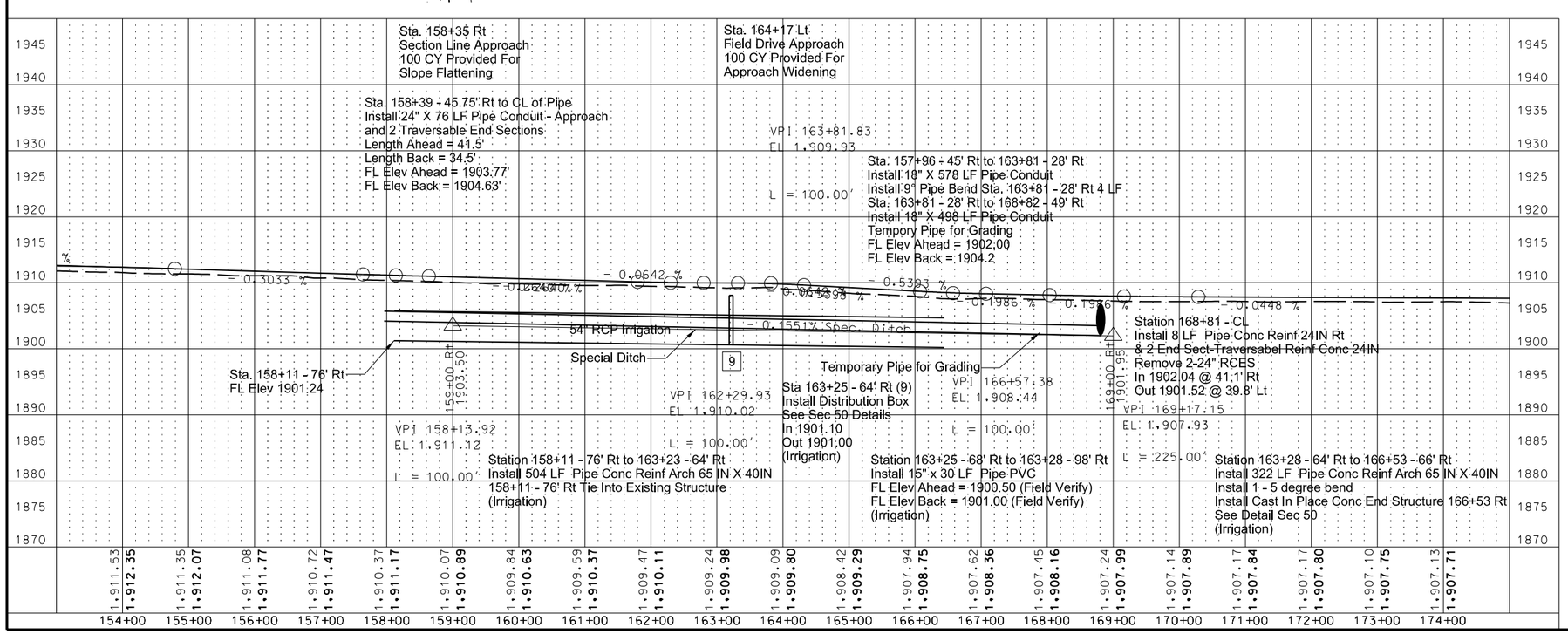
| | ND | SOIB-7-058(013)000 | 60 | 8 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | | |
| | | 168+81 ℄ Pipe - Rt | 1 | EA |
| | | 168+81 ℄ Pipe - Lt | 1 | EA |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 158+38 Rt | 50 | LF |
| | | 163+00 Rt | 30 | LF |
| | | 172+63 Rt | 58 | LF |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | | |
| | | 168+81 ℄ Pipe - Rt | 8 | LF |
| 714 | 2165 | PIPE CONC REINF ARCH 65IN X 40IN CL III (Irrigation) | | |
| | | 158+11 - 76' Rt to 163+22 - 64' Rt | 504 | LF |
| | | 163+28 - 64' Rt to 166+53 - 66' Rt | 322 | LF |
| | | (Includes (1) 5 degree bend) | | |
| 714 | 3023 | END SECT - TRAVERSABLE REINF CONC 24IN | | |
| | | 168+81 ℄ Pipe - Rt | 1 | EA |
| | | 168+81 ℄ Pipe - Lt | 1 | EA |
| 714 | 4100 | PIPE CONDUIT 18IN (Temporary Pipe for Grading) | | |
| | | 157+96 45' Rt to 168+82 49' Rt | 1076 | LF |
| | | (Includes (1) 9 degree bend) | | |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 158+39 Rt | 76 | LF |
| 714 | 7033 | PIPE PVC 15IN (Irrigation) | | |
| | | 163+25 Rt | 30 | LF |
| SEE DETAILS SEC 50 DISTRIBUTION BOX (Irrigation) | | | | |
| | | 163+25 Rt (9) | 1 | EA |

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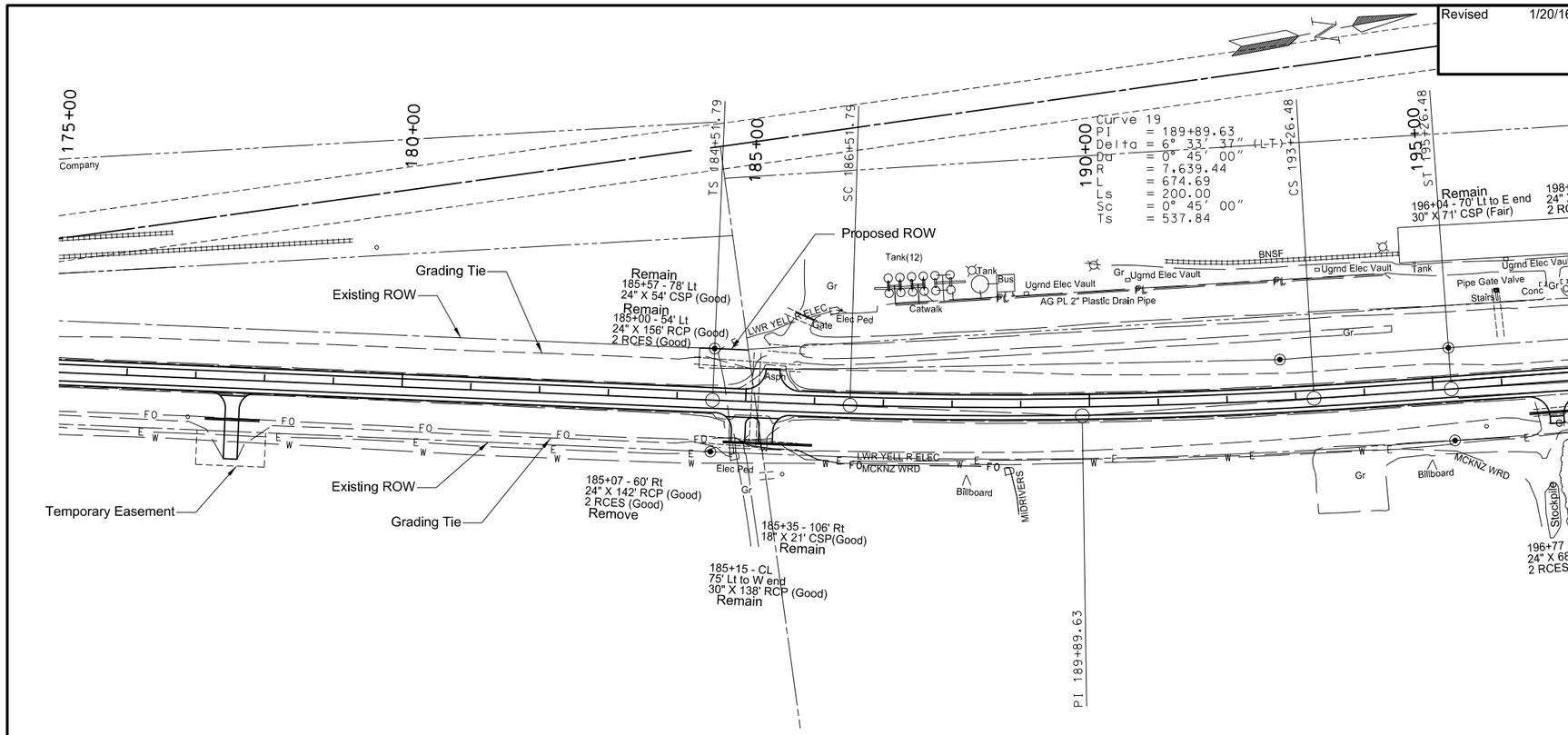
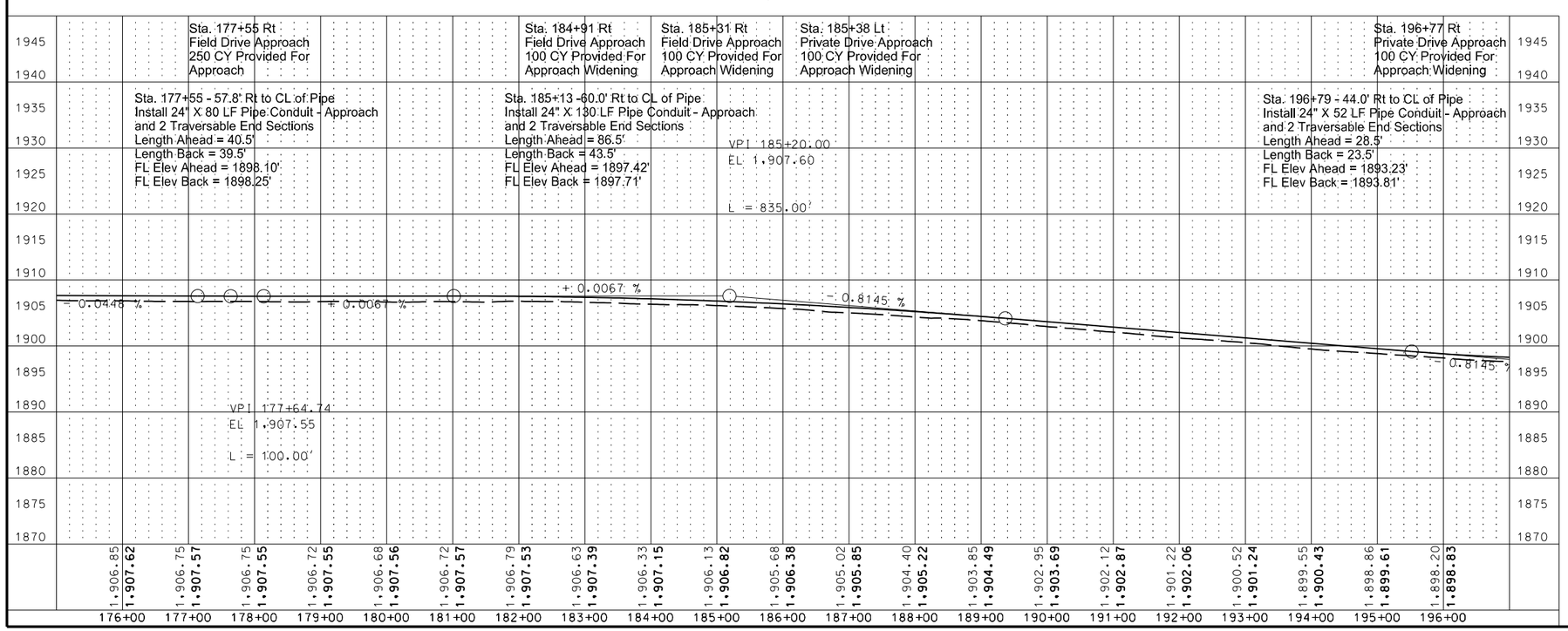
| | ND | SOIB-7-058(013)000 | 60 | 9 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 185+07 Rt | 142 | LF |
| | | 196+77 Rt | 68 | LF |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 177+55 Rt | 80 | LF |
| | | 185+13 Rt | 130 | LF |
| | | 196+79 Rt | 52 | LF |

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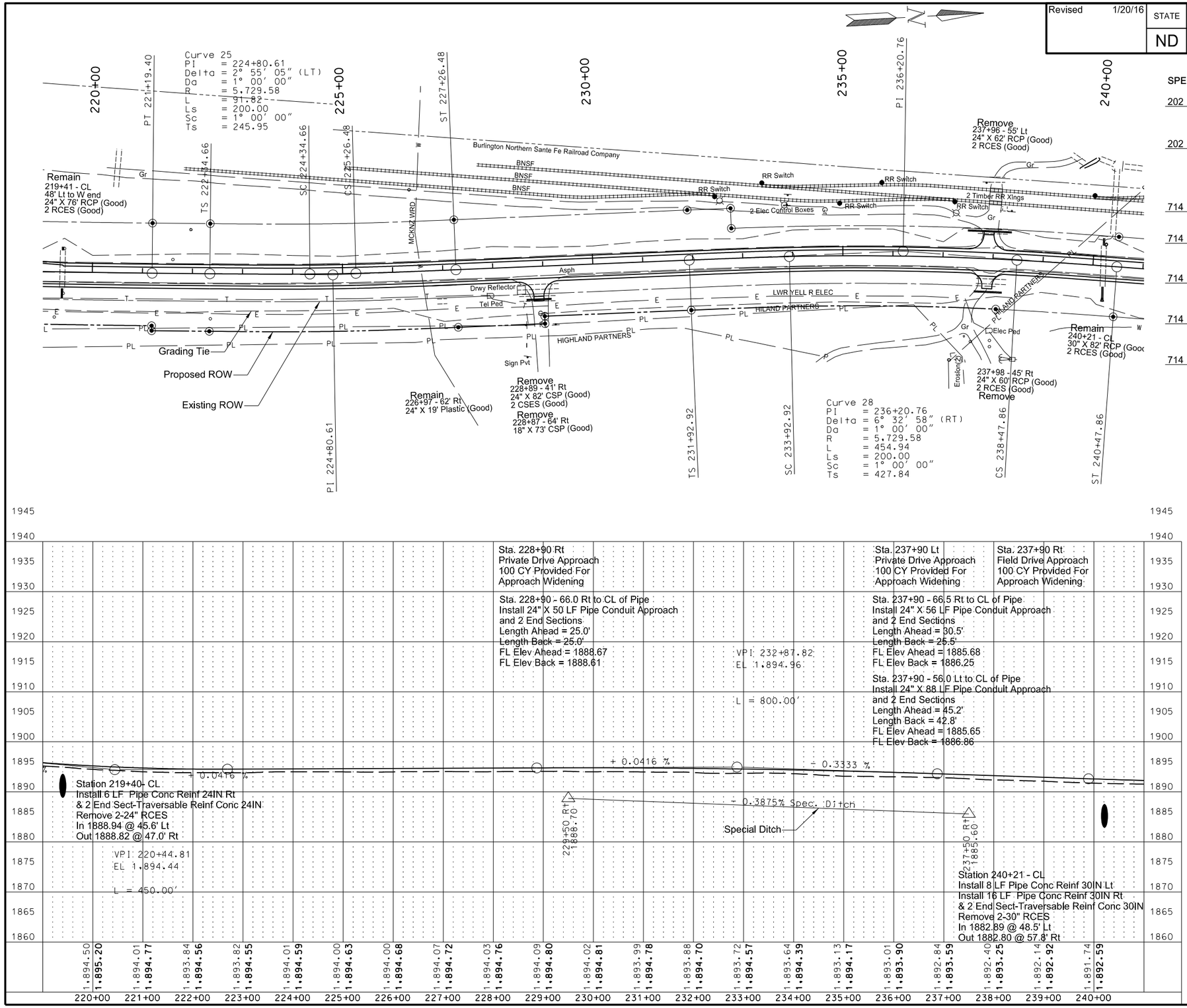
| | ND | SOIB-7-058(013)000 | 60 | 11 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | | |
| | | 219+40 ℄ | 2 | EA |
| | | 240+21 ℄ | 2 | EA |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 228+89 Rt | 82 | LF |
| | | 228+87 Rt | 73 | LF |
| | | 237+96 Lt | 62 | LF |
| | | 237+98 Rt | 60 | LF |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | | |
| | | 219+40 ℄ Pipe - Rt | 6 | LF |
| 714 | 0820 | PIPE CONC REINF 30IN CL III | | |
| | | 240+21 ℄ Pipe - Lt | 8 | LF |
| | | 240+21 ℄ Pipe - Rt | 16 | LF |
| 714 | 3023 | END SECT - TRAVERSABLE REINF CONC 24IN CL III | | |
| | | 219+40 ℄ Pipe - Rt | 1 | EA |
| | | 219+40 ℄ Pipe - Lt | 1 | EA |
| 714 | 3033 | END SECT - TRAVERSABLE REINF CONC 30IN CL III | | |
| | | 240+21 ℄ Pipe - Lt | 1 | EA |
| | | 240+21 ℄ Pipe - Rt | 1 | EA |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 228+90 Rt | 50 | LF |
| | | 237+90 Rt | 56 | LF |
| | | 237+90 Lt | 88 | LF |

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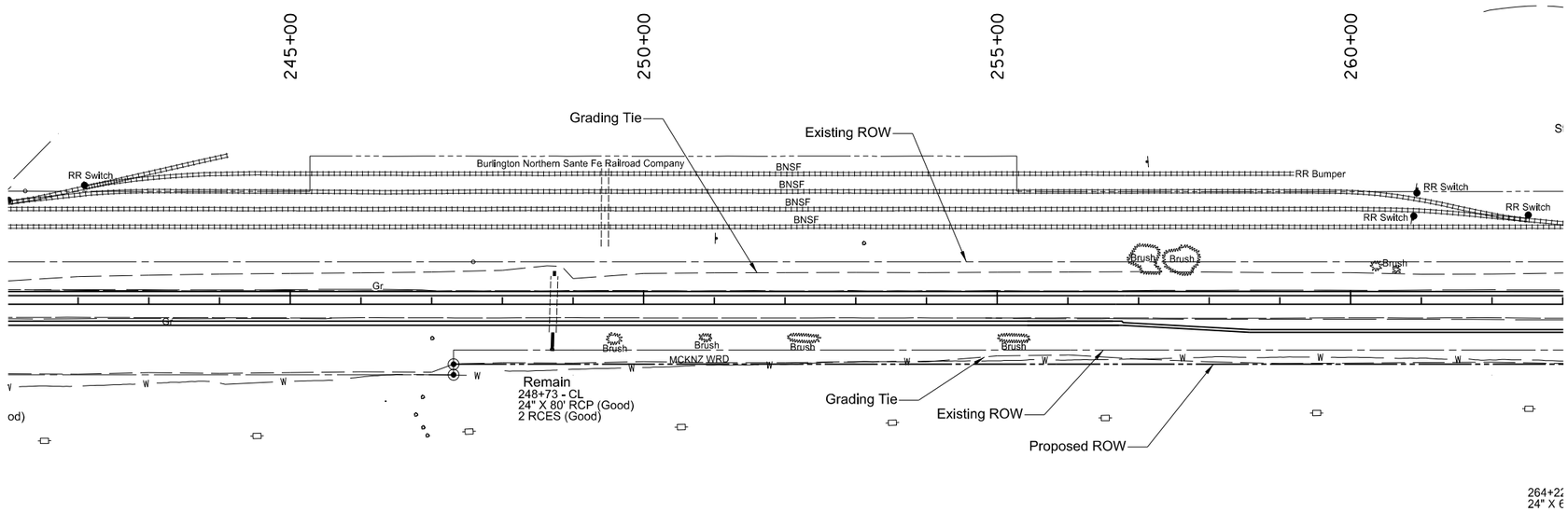
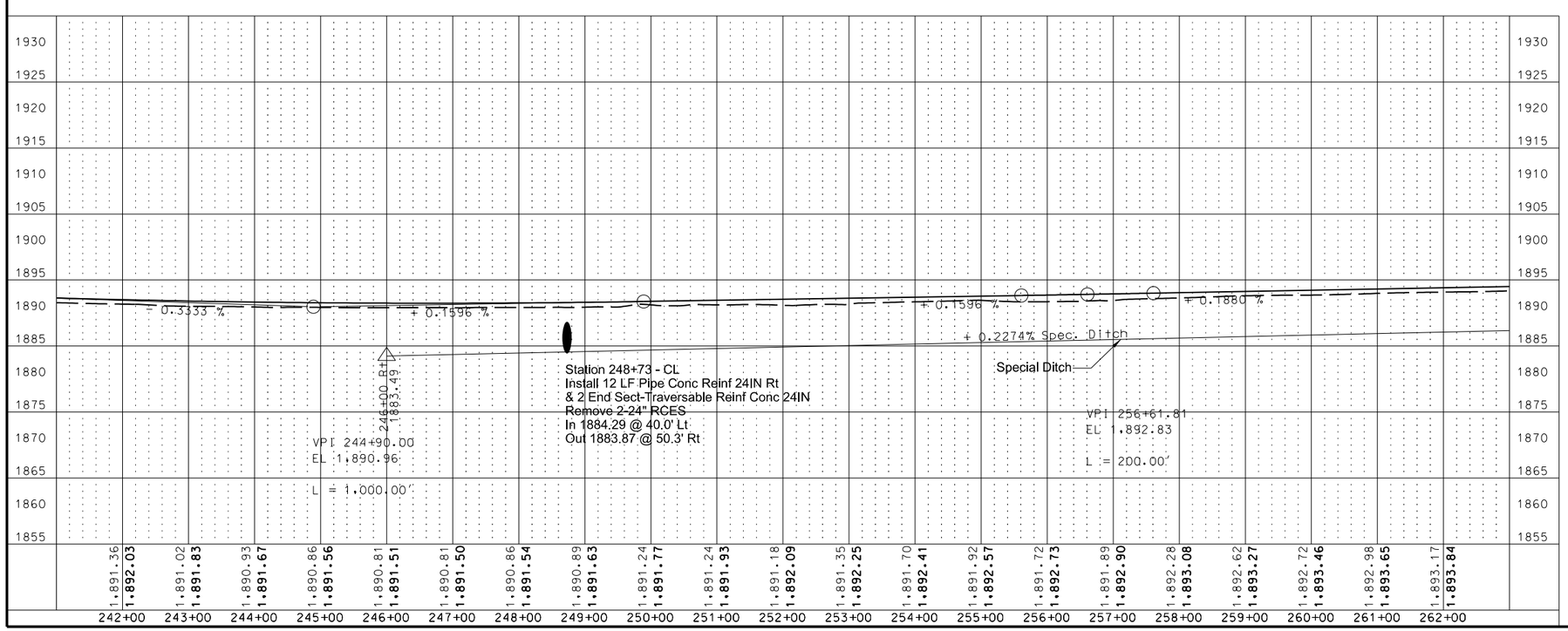
| ND | SOIB-7-058(013)000 | 60 | 12 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | | |
| | | 248+73 ℄ | 2 | EA |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | | |
| | | 248+73 ℄ - Rt | 12 | LF |
| 714 | 3023 | END SECT - TRAVERSABLE REINF CONC 24IN CL III | | |
| | | 248+73 ℄ - Rt | 1 | EA |
| | | 248+73 ℄ - Lt | 1 | EA |

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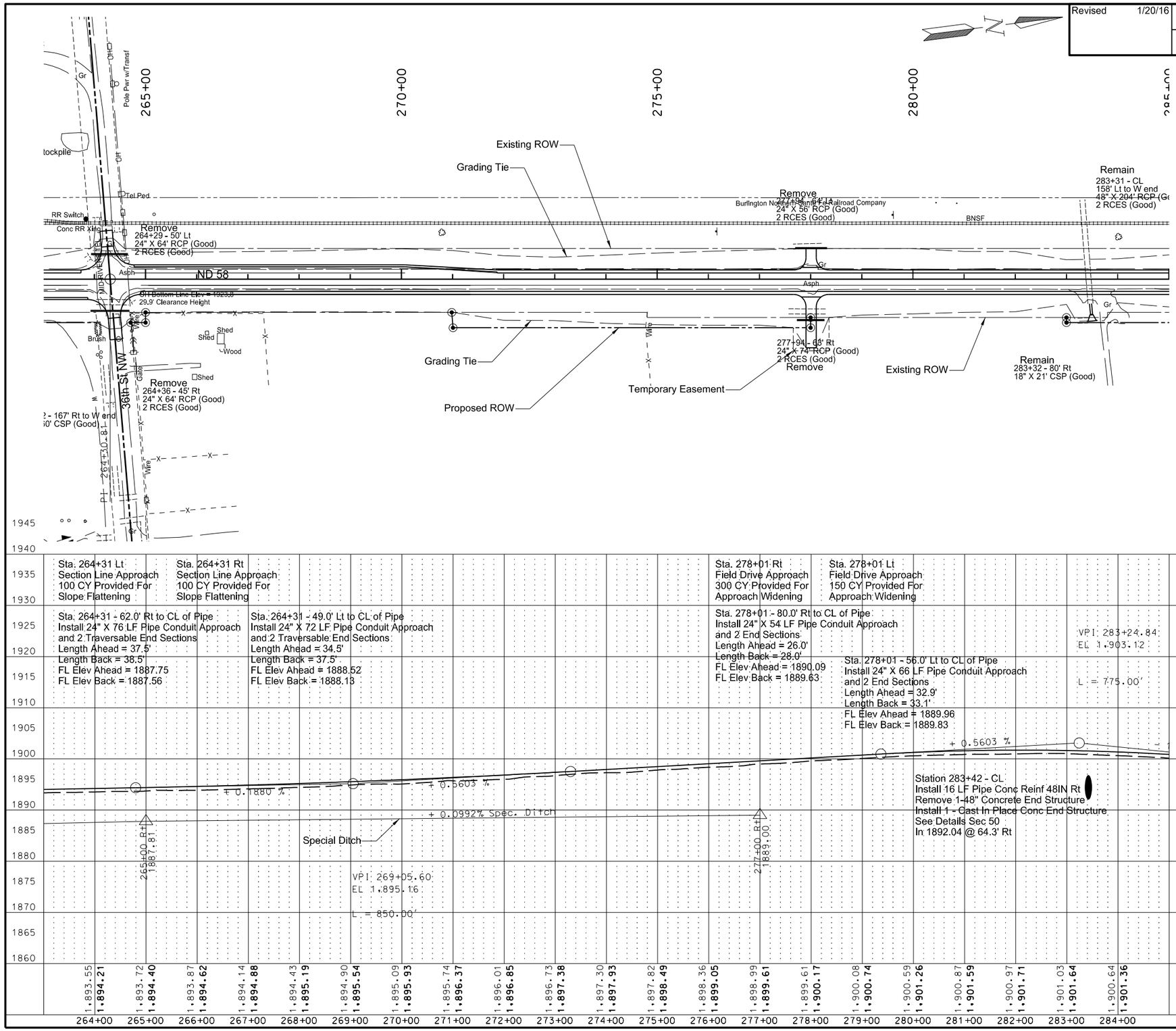
| | ND | SOIB-7-058(013)000 | 60 | 13 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0112 | REMOVAL OF CONCRETE | | |
| | | 283+32 Rt (Irrigation End Structure) | 16 | SY |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 264+29 Lt | 64 | LF |
| | | 264+36 Rt | 64 | LF |
| | | 277+94 Lt | 56 | LF |
| | | 277+94 Rt | 74 | LF |
| 714 | 1105 | PIPE CONC REINF 48IN CL III | | |
| | | 283+42 ℄ Pipe - Rt | 16 | LF |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 264+31 Lt | 72 | LF |
| | | 264+31 Rt | 76 | LF |
| | | 278+01 Lt | 66 | LF |
| | | 278+01 Rt | 54 | LF |

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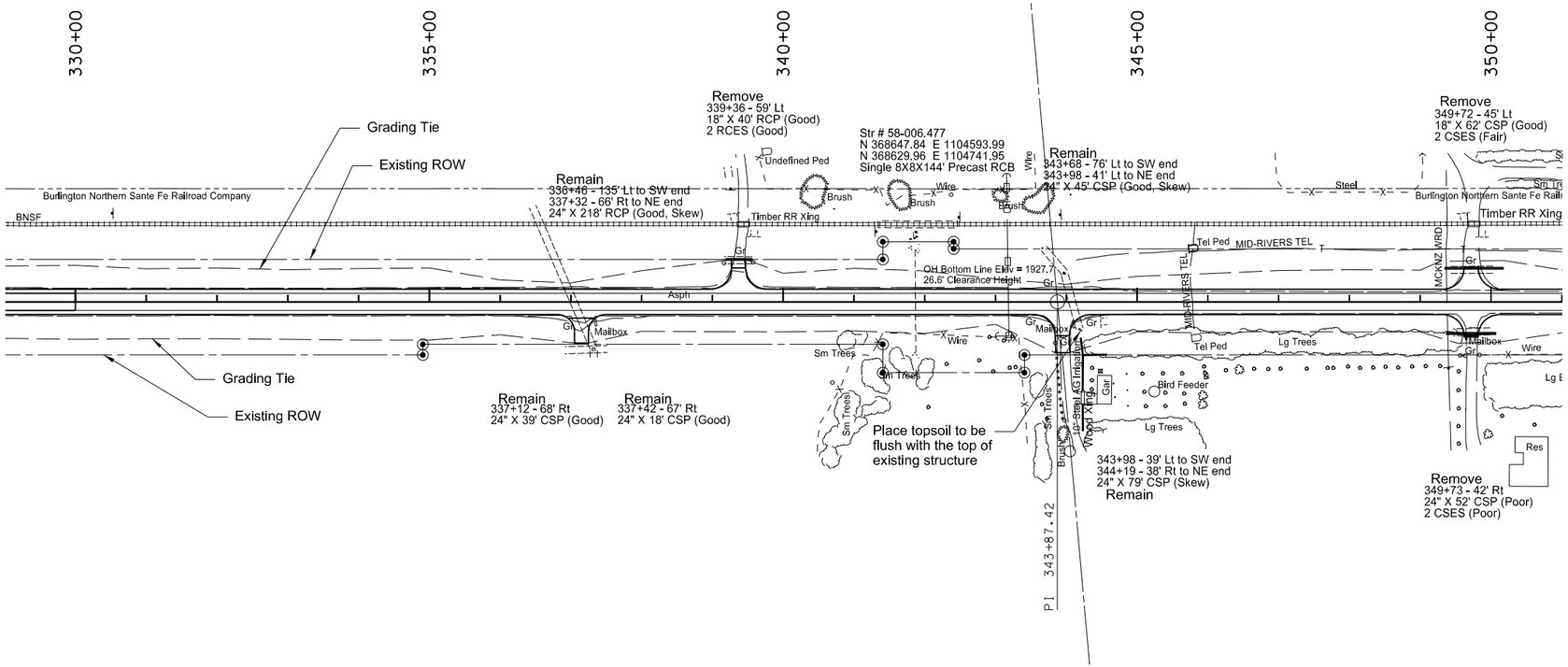
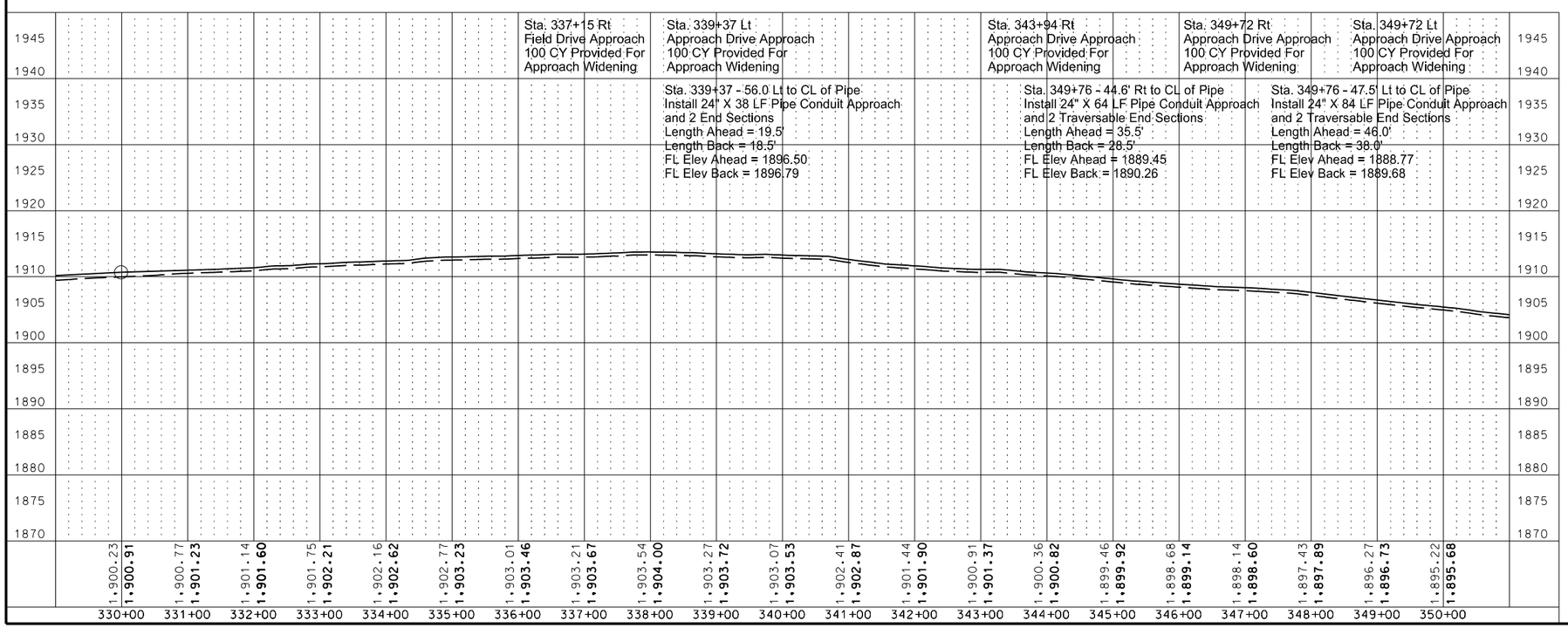
| | ND | SOIB-7-058(013)000 | 60 | 16 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 339+36 Lt | 40 | LF |
| | | 349+72 Lt | 62 | LF |
| | | 349+73 Rt | 52 | LF |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 339+37 Lt | 38 | LF |
| | | 349+76 Lt | 84 | LF |
| | | 349+76 Rt | 64 | LF |

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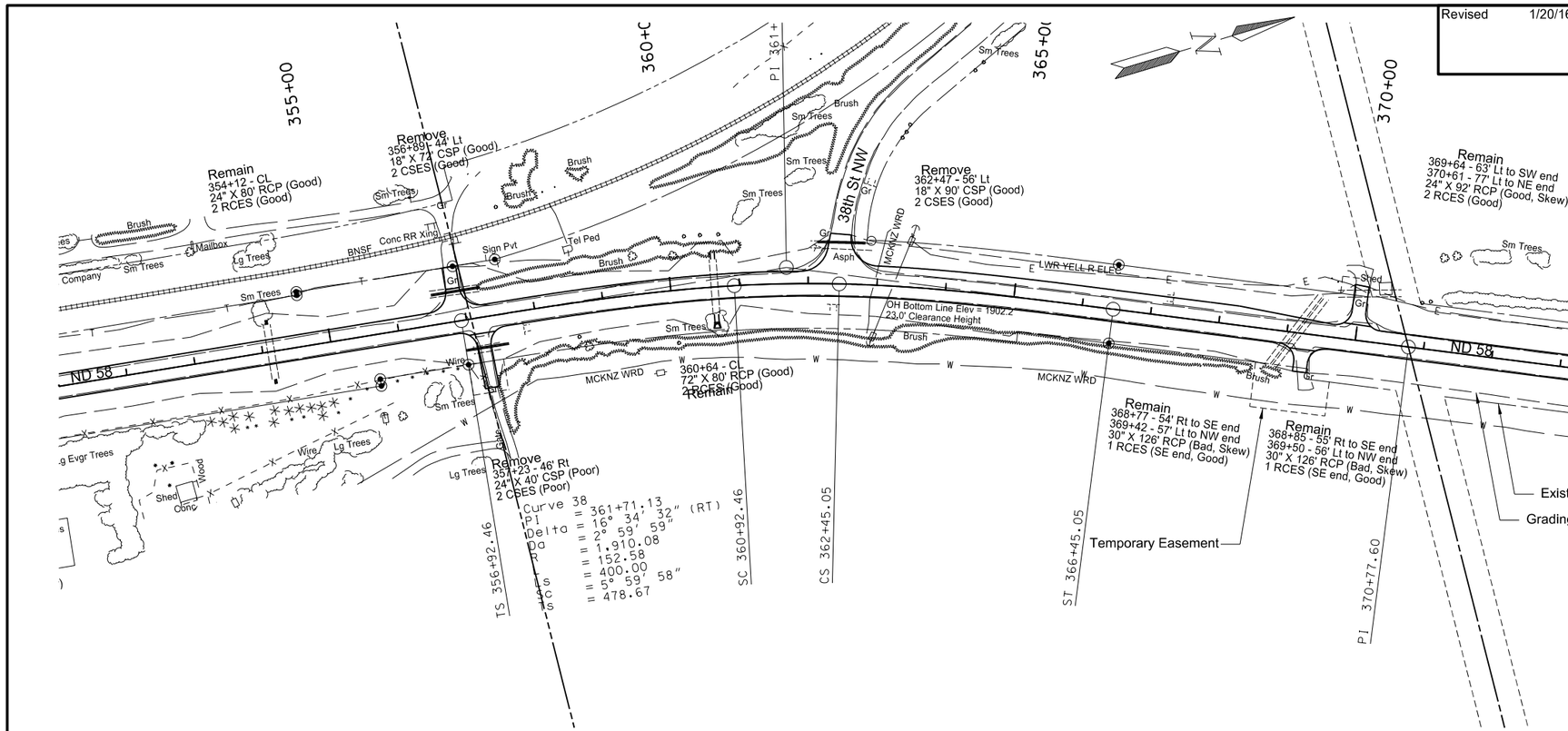
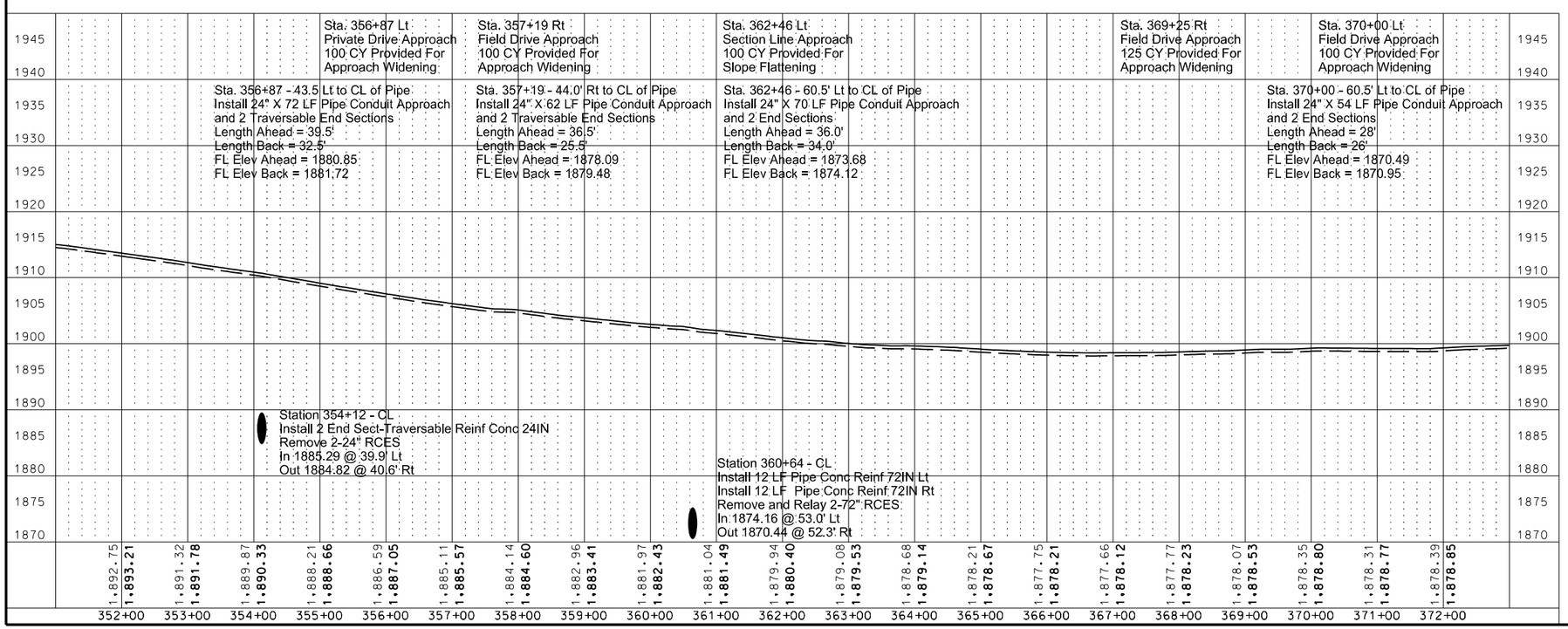



| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | | |
| | | 354+12 ℄ - Lt | 1 | EA |
| | | 354+12 ℄ - Rt | 1 | EA |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 356+89 Lt | 72 | LF |
| | | 357+23 Rt | 40 | LF |
| | | 362+47 Lt | 90 | LF |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | | |
| | | 360+64 ℄ Pipe - Lt | 12 | LF |
| | | 360+64 ℄ Pipe - Rt | 12 | LF |
| 714 | 3023 | END SECT - TRAVERSABLE REINF CONC 24IN CL III | | |
| | | 354+12 ℄ - Rt | 1 | EA |
| | | 354+12 ℄ - Lt | 1 | EA |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 356+87 Lt | 72 | LF |
| | | 357+19 Rt | 62 | LF |
| | | 362+46 Lt | 70 | LF |
| 714 | 9660 | REMOVE AND RELAY END SECTION - ALL TYPES & SIZES | | |
| | | 360+64 ℄ - Rt | 1 | EA |
| | | 360+64 ℄ - Lt | 1 | EA |

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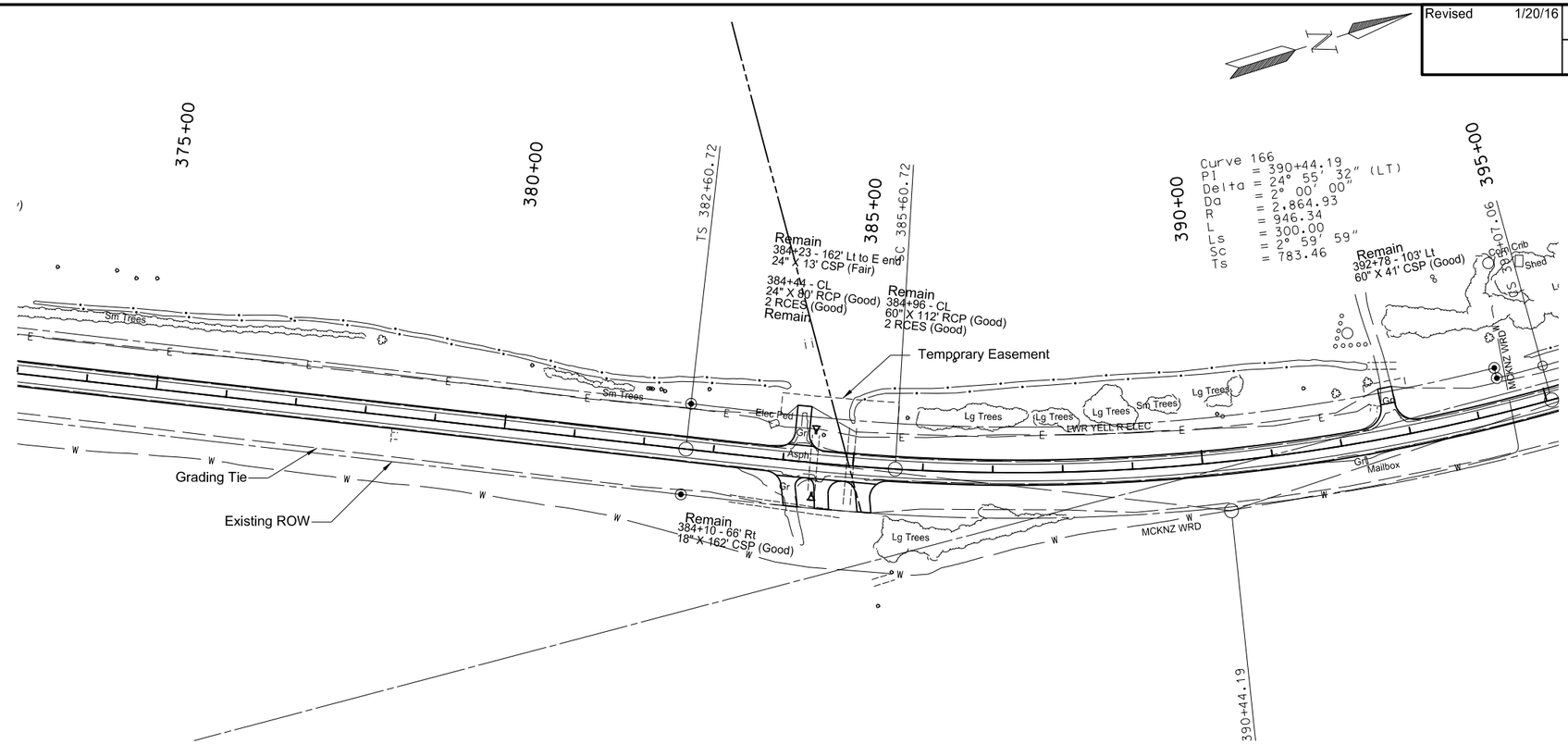
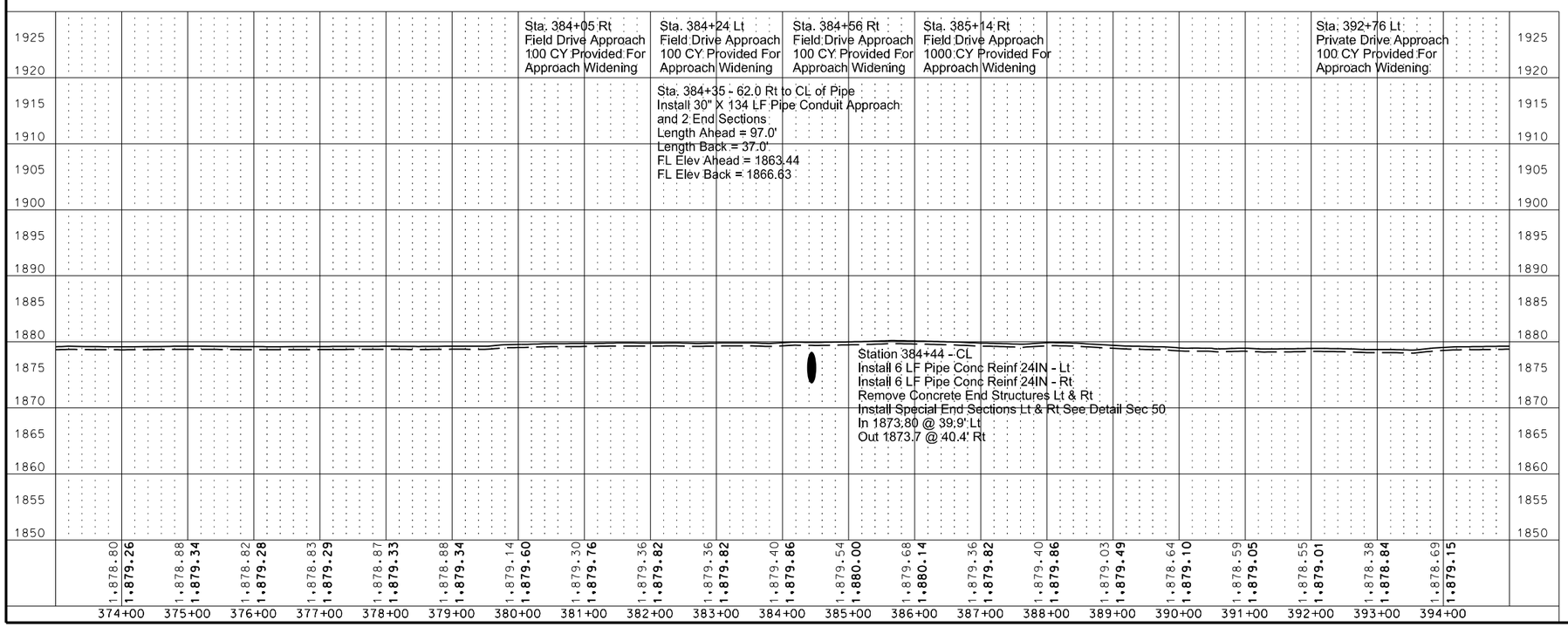
| | ND | SOIB-7-058(013)000 | 60 | 18 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0112 | REMOVAL OF CONCRETE | | |
| | | 384+44 Lt (Irrigation End Structure) | 5 | SY |
| | | 384+44 Rt (Irrigation End Structure) | 5 | SY |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | | |
| | | 384+44 ℄ Pipe - Rt | 6 | LF |
| | | 384+44 ℄ Pipe - Lt | 6 | LF |
| 714 | 1310 | PIPE CONC REINF 60IN CL III | | |
| | | 384+96 ℄ Pipe - Rt | 8 | LF |
| 714 | 9660 | REMOVE AND RELAY END SECTION - ALL TYPES & SIZES | | |
| | | 384+96 ℄ - Rt | 1 | EA |

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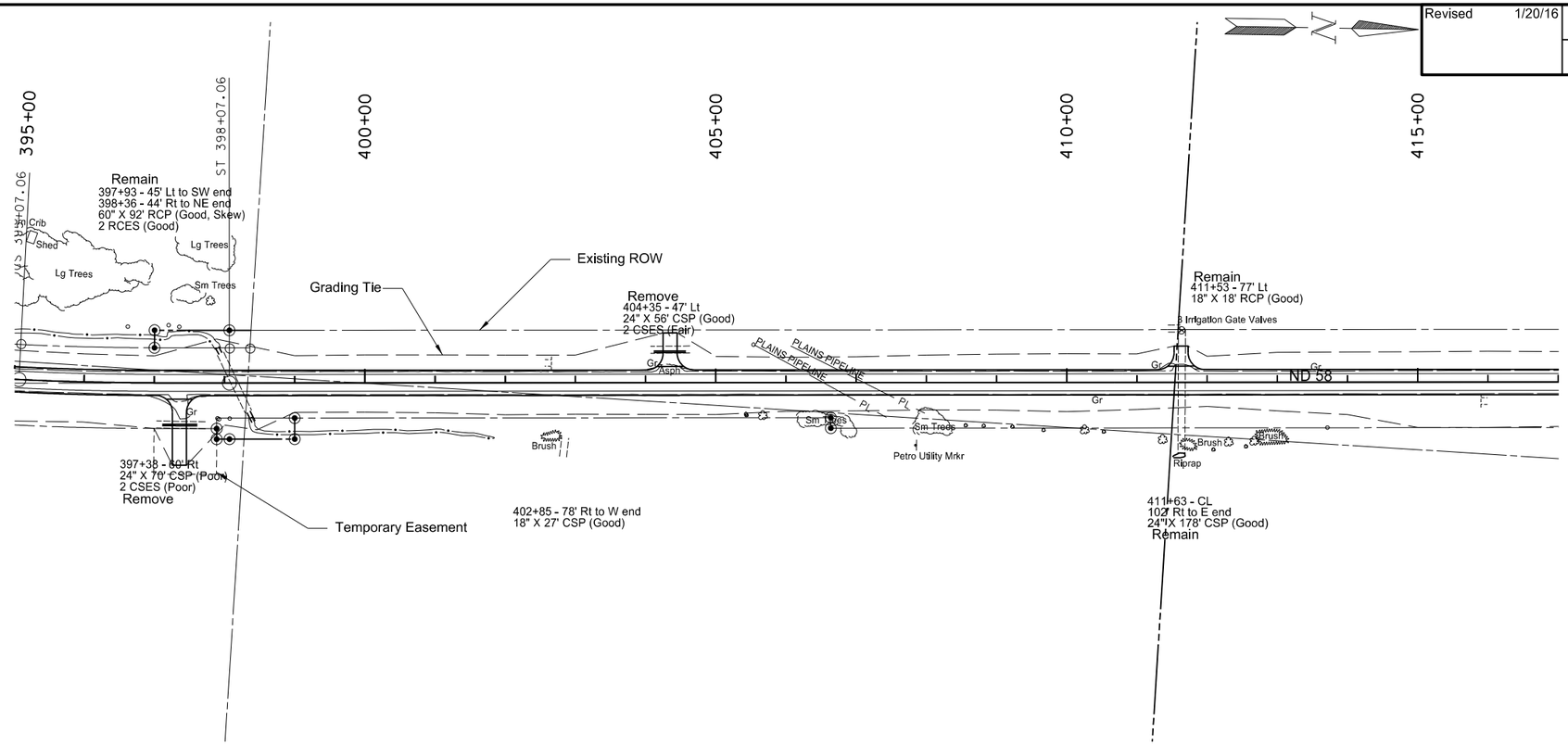
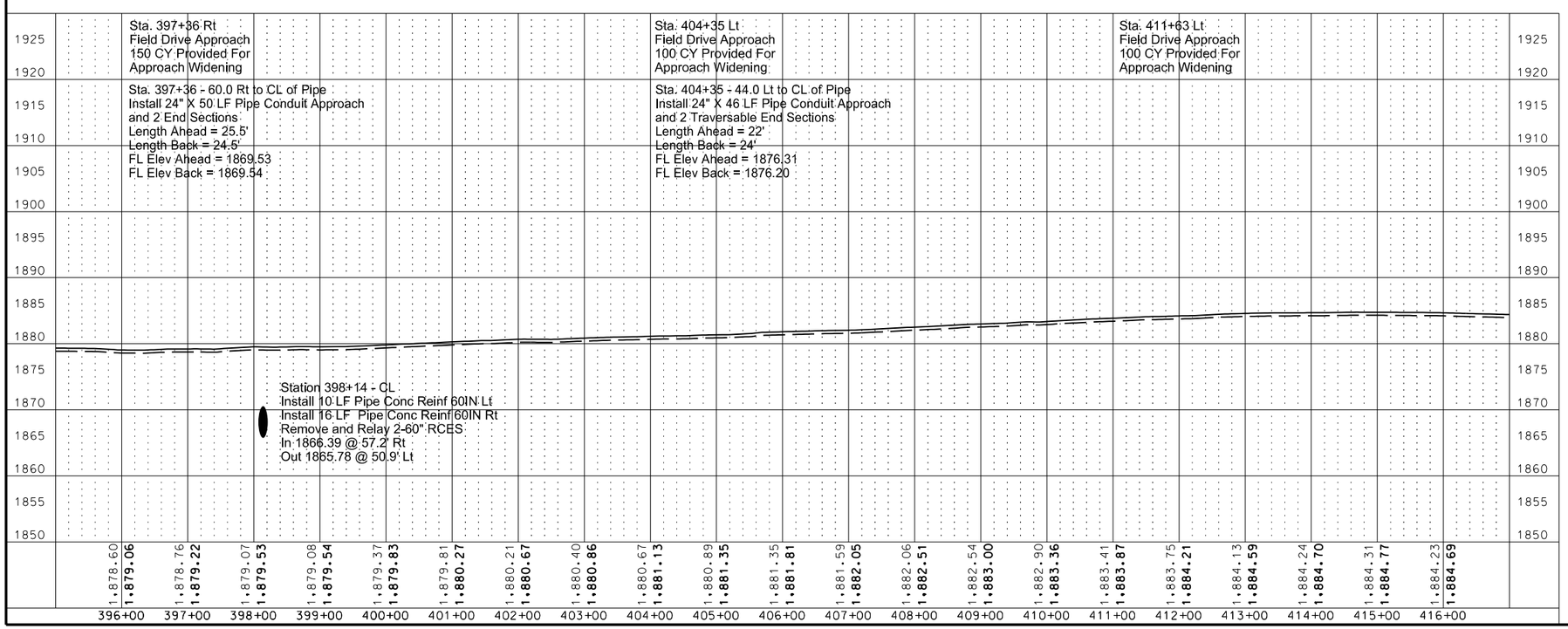
| | ND | SOIB-7-058(013)000 | 60 | 19 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 397+38 Rt | 70 | LF |
| | | 404+35 Lt | 56 | LF |
| 714 | 1310 | PIPE CONC REINF 60IN CL III | | |
| | | 398+14 ℄ Pipe - Lt | 10 | LF |
| | | 398+14 ℄ Pipe - Rt | 16 | LF |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 397+36 Rt | 50 | LF |
| | | 404+35 Lt | 46 | LF |
| 714 | 9660 | REMOVE AND RELAY END SECTION-ALL TYPES & SIZES | | |
| | | 398+14 ℄ Pipe - Lt | 1 | EA |
| | | 398+14 ℄ Pipe - Rt | 1 | EA |

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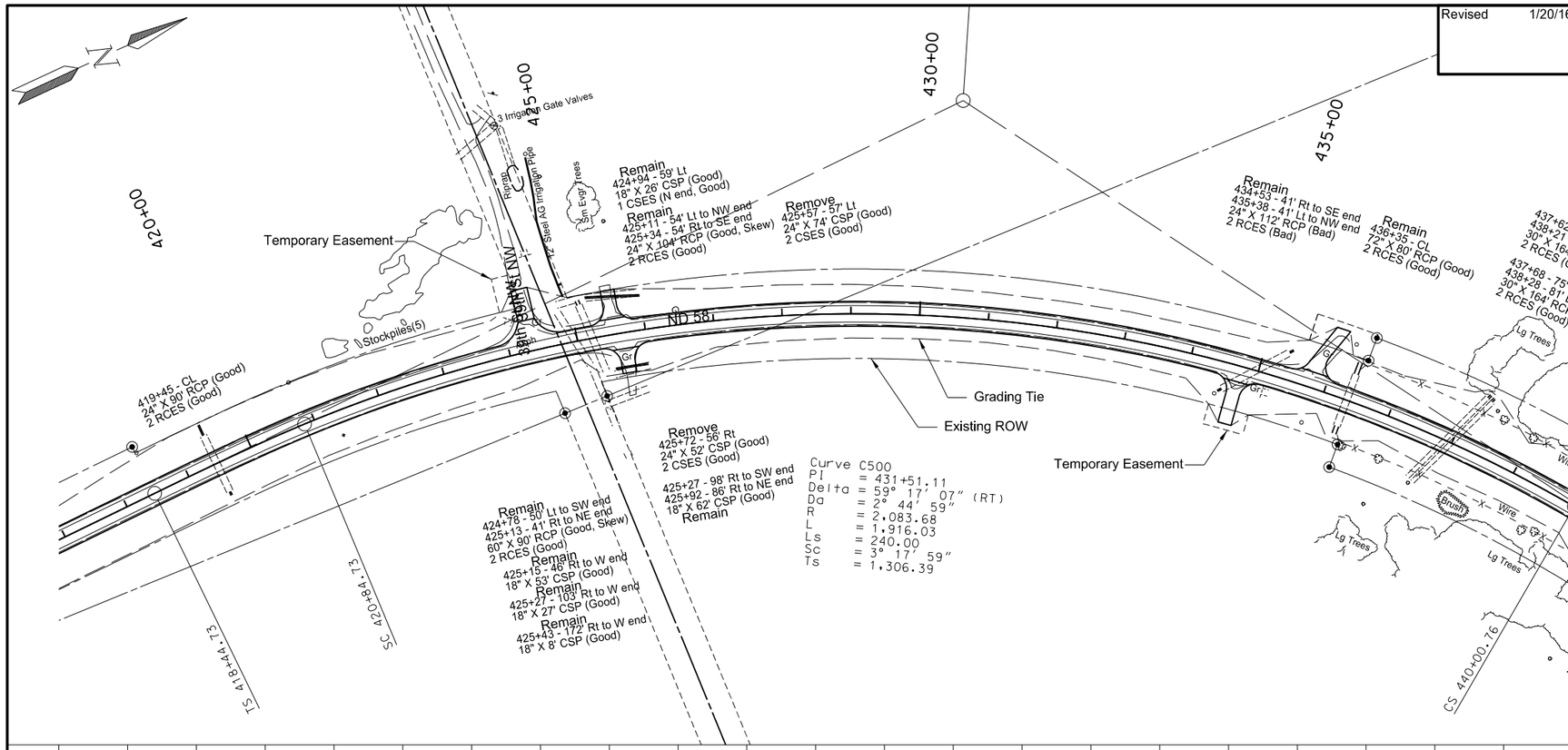
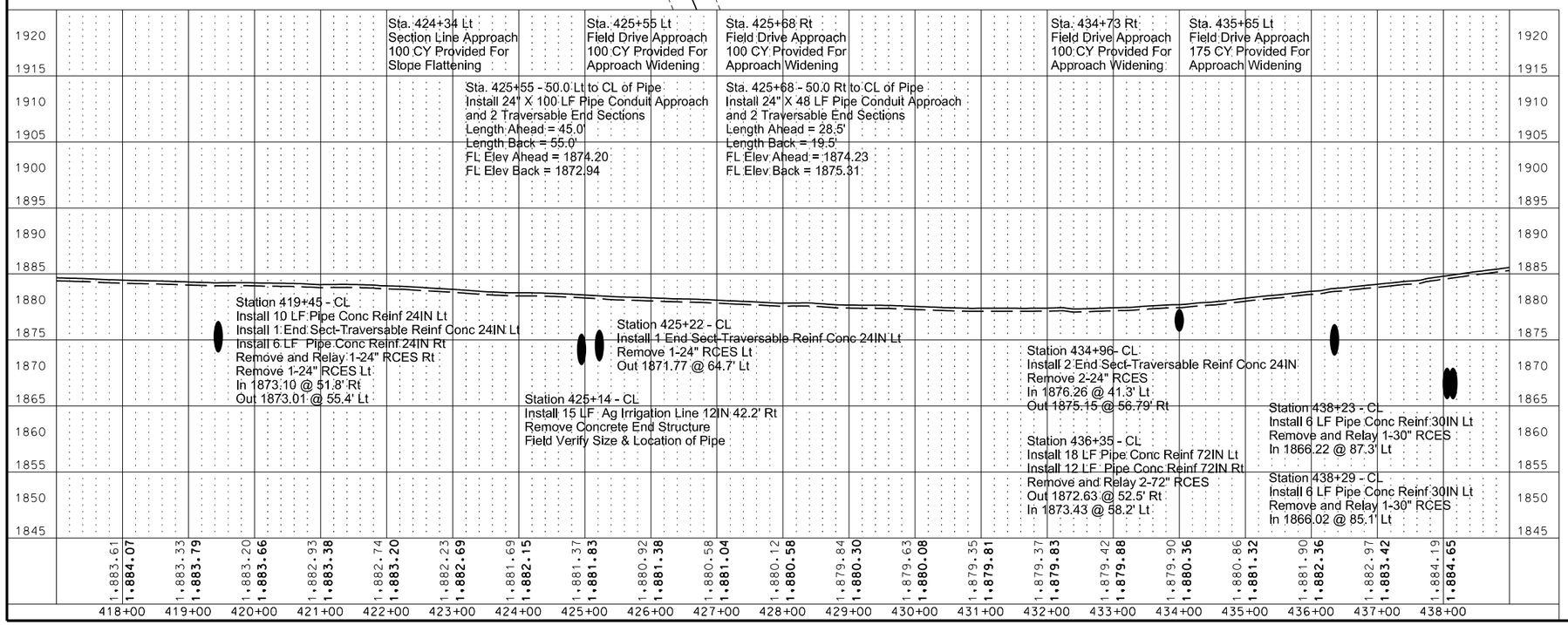
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 60 | 20 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 202 | 0112 | REMOVAL OF CONCRETE | | |
| | | 425+14 Rt (Irrigation Structure) | 1 | SY |
| 202 | 0169 | REMOVAL OF END SECTION-ALL TYPES & SIZES | | |
| | | 419+45 ℄ Pipe - Lt | 1 | EA |
| | | 425+22 ℄ Pipe - Lt | 1 | EA |
| | | 434+96 ℄ Pipe - Lt | 1 | EA |
| | | 434+96 ℄ Pipe - Rt | 1 | EA |
| 202 | 0174 | REMOVAL OF PIPE ALL TYPES AND SIZES | | |
| | | 425+57 Lt | 74 | LF |
| | | 425+72 Rt | 52 | LF |
| 714 | 0615 | PIPE CONC REINF 24IN CL III | | |
| | | 419+45 ℄ Pipe - Lt | 10 | LF |
| | | 419+45 ℄ Pipe - Rt | 6 | LF |
| 714 | 0820 | PIPE CONC REINF 30IN CL III | | |
| | | 438+23 ℄ Pipe - Lt | 6 | LF |
| | | 438+29 ℄ Pipe - Lt | 6 | LF |
| 714 | 1510 | PIPE CONC REINF 72IN CL III | | |
| | | 436+35 ℄ Pipe - Lt | 18 | LF |
| | | 436+35 ℄ Pipe - Rt | 12 | LF |
| 714 | 3023 | END SECT - TRAVERSABLE REINF CONC 24IN CL III | | |
| | | 419+45 ℄ - Lt | 1 | EA |
| | | 425+22 ℄ - Lt | 1 | EA |
| | | 434+96 ℄ - Lt | 1 | EA |
| | | 434+96 ℄ - Rt | 1 | EA |
| 714 | 4106 | PIPE CONDUIT 24IN-APPROACH | | |
| | | 425+55 Lt | 80 | LF |
| | | 425+68 Rt | 48 | LF |
| 714 | 9660 | REMOVE AND RELAY END SECTION - ALL TYPES & SIZES | | |
| | | 419+45 ℄ - Rt | 1 | EA |
| | | 436+35 ℄ - Lt | 1 | EA |
| | | 436+35 ℄ - Rt | 1 | EA |
| | | 438+23 ℄ - Lt | 1 | EA |
| | | 438+29 ℄ - Lt | 1 | EA |

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NOTE:

Unavoidable permanent impacts will be mitigated onsite, adjacent to the project, or at a NDDOT approved mitigation site or bank in accordance with the mitigation guidance.[2,3]

0.92 acres of permanent impacts to USACE jurisdictional waters and 0.05 acres of permanent impacts to EO 11990 wetlands will require mitigation. The NDDOT proposes to mitigate by compensation: For the USACE jurisdictional impacts, 0.61 acres will be mitigated onsite by shifting the ditch and creating a new wetland parallel to existing and 0.31 acres will be mitigated offsite at the PCN 19840 surplus. For EO 11990 impacts, 0.05 acres at the Vollrath 15/21 Mitigation Bank in the Red River Regional Service Area. No mitigation is proposed for Artificial/Jurisdictional Irrigation Canal impacts per USACE and NDDOT discussions. 1.32 acres of temporary wetland impacts and 0.74 acres of temporary other water impacts will result from construction activities. Temporary impact areas will be graded to preconstruction contours.

**Wetland Impact Table**

| Wetland Number | Location | Cowardin Class. | Wetland Type | Wetland Size (acres) | Wetland Feature | USACE Jurisdictional Wetlands[1] | Wetland Impacts (acres) | | USFWS Easement Impacts (acres) | | Wetland Mitigation | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mitigation Required | | | Bank | | Onsite | | | |
| | | | | | | | Temp. | Perm. | Temp. | Perm. | EO 11990 | USACE | USFWS | Location | acres | Mitigation Location; Ratio | acres | Constructed Site # | Constructed size (acres) |
| 1 | Sec. 32, T151N, R104W | PEMA | Basin | 0.11 | Natural | Yes | | | | | No | No | No | | | | | | |
| 2 | Sec. 29, T151N, R104W | PEMAx | Ditch | 0.02 | Artificial | Yes | | | | | No | No | No | | | | | | |
| 3a | Sec. 5, T151N, R104W | PEMAx | Ditch | 0.46 | Artificial | Yes | 0.00 | 0.46 | | | No | Yes | No | | | 1:1 at Wetland 3a | 0.46 | | 0.46 |
| 3b | Sec. 32, T152N, R104W | PEMAx | Ditch | 0.15 | Artificial | Yes | 0.01 | 0.14 | | | No | Yes | No | | | 1:1 at Wetland 3b | 0.14 | | 0.15 |
| 3c | Sec. 32, T152N, R104W | PEMAx | Ditch | 0.00 | Artificial | Yes | 0.00 | 0.01 | | | No | Yes | No | | | 1:1 at Wetland 3b | 0.01 | | |
| 4 | Sec. 5, T151N, R104W | PEMAx | Ditch | 0.01 | Artificial | Yes | 0.01 | 0.01 | | | No | No | No | | | | | | |
| 5 | Sec. 32, T152N, R104W | PEMAx | Ditch | 0.02 | Artificial | Yes | | | | | No | No | No | | | | | | |
| 6a | Sec. 5, T151N, R104W | PEMAx | Ditch | 1.13 | Artificial | Yes | 0.33 | 0.06 | | | No | Yes | No | | | 1:1 at PCN 19840 (Offsite) | 0.06 | | |
| 6b | Sec. 32, T152N, R104W | PEMAx | Ditch | 0.52 | Artificial | Yes | 0.22 | 0.25 | | | No | Yes | No | | | 1:1 at PCN 19840 (Offsite) | 0.25 | | |
| 6c | Sec. 32, T152N, R104W | PEMAx | Ditch | 0.02 | Artificial | Yes | 0.01 | 0.00 | | | No | No | No | | | | | | |
| 7a | Sec. 32, T152N, R104W | PEMAx | Ditch | 0.62 | Artificial | Yes | 0.52 | 0.03 | | | No | No | No | | | | | | |
| 7b | Sec. 29, T152N, R104W | PEMAx | Ditch | 0.03 | Artificial | Yes | 0.01 | 0.03 | | | No | No | No | | | | | | |
| 8 | Sec. 29, T152N, R104W | PEMA | Slope | 0.05 | Natural | Yes | | | | | No | No | No | | | | | | |

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Wetland Impact Table

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## Wetland Impact Table

| Wetland Number | Location | Cowardin Class. | Wetland Type | Wetland Size (acres) | Wetland Feature | USACE Jurisdictional Wetlands[1] | Wetland Impacts (acres) | | USFWS Easement Impacts (acres) | | Wetland Mitigation | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | Mitigation Required | | | Bank | | Onsite | | | |
| | | | | | | | Temp. | Perm. | Temp. | Perm. | EO 11990 | USACE | USFWS | Location | acres | Mitigation Location; Ratio | acres | Constructed Site # | Constructed size (acres) |
| 9 | Sec. 29, T152N, R104W | PEMA | Slope | 0.10 | Natural | Yes | | | | | No | No | No | | | | | | |
| 10a | Sec. 29, T152N, R104W | PEMAx | Ditch | 0.10 | Artificial | Yes | 0.04 | 0.05 | | | No | No | No | | | | | | |
| 10b | Sec. 29, T152N, R104W | PEMAx | Ditch | 0.01 | Artificial | Yes | 0.00 | 0.01 | | | No | No | No | | | | | | |
| 11a | Sec. 29, T152N, R104W | PEMAx | Ditch | 0.06 | Artificial | Yes | 0.02 | 0.04 | | | No | No | No | | | | | | |
| 11b | Sec. 29, T152N, R104W | PEMAx | Ditch | 0.13 | Artificial | Yes | 0.05 | 0.04 | | | No | No | No | | | | | | |
| 12 | Sec. 29, T152N, R104W | PEMA | Slope | 0.56 | Natural | No | | | | | No | No | No | | | | | | |
| 15 | Sec. 29, T152N, R104W | PEMAx | Ditch | 0.02 | Artificial | Yes | | | | | No | No | No | | | | | | |
| 14 | Sec. 17, T152N, R104W | PEMC | Riverine | 0.20 | Natural | Yes | | | | | No | No | No | | | | | | |
| 13 | Sec. 17, T152N, R104W | PEMC | Riverine | 0.62 | Natural | Yes | 0.06 | 0.03 | | | Yes | No | No | 1:1 at Vollrath 15/21 | 0.03 | | | | |
| 16 | Sec. 17, T152N, R104W | PEMAx | Riverine | 1.98 | Natural | Yes | 0.04 | 0.02 | | | Yes | No | No | 1:1 at Vollrath 15/21 | 0.02 | | | | |
| | | | **Totals** | **6.92** | | | **1.32** | **1.18** | **0.00** | **0.00** | | | | | **0.05** | | **0.92** | | **0.61** |

## Other Waters Impact Table

| Other Waters | | | | | | | | | | | Other Water Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Size | | | | Impacts to Other Waters | | | | Mitigation Required | | | | |
| | | | | | | | Acres | | Linear Feet | | | | | | |
| Number | Location | Type | Acres | Linear Feet | Feature | USACE Jurisdictional[1] | Temp | Perm | Temp | Perm | EO 11990 | USACE | USFWS | Mitigation Location; ratio | Method |
| OW 1a | Sec.32, T151N, R104W | Irrigation Canal | 0.00 | 65.00 | Artificial | Yes | | | | | No | No | No | | |
| OW 1b | Sec.31, T151N, R104W | Irrigation Canal | 0.18 | 400.00 | Artificial | Yes | | | | | No | No | No | | |
| OW 1c | Sec.29, T151N, R104W | Irrigation Canal | 0.01 | 140.00 | Artificial | Yes | | | | | No | No | No | | |

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Wetland Impact Table

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## Other Waters Impact Table

| Other Waters | | | | | | | | | | | Other Water Mitigation | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Size | | | | Impacts to Other Waters | | | | Mitigation Required | | | | |
| | | | | | | | Acres | | Linear Feet | | | | | | |
| Number | Location | Type | Acres | Linear Feet | Feature | USACE Jurisdictional[1] | Temp | Perm | Temp | Perm | EO 11990 | USACE | USFWS | Mitigation Location; ratio | Method |
| OW 22 | Sec.17, T152N, R104W | Missouri River | 6.52 | 985.00 | Natural | Yes | | | | | No | No | No | | |
| OW 23a | Sec.16, T152N, R104W | Irrigation Canal | 0.22 | 423.00 | Natural | Yes | 0.01 | 0.01 | 11.00 | 24.00 | No | No | No | | |
| OW 23b | Sec.16, T152N, R104W | Irrigation Canal | 0.28 | 461.00 | Artificial | Yes | 0.01 | 0.01 | 12.00 | 40.00 | No | No | No | | |
| | | **Totals** | **14.54** | **32235.00** | | | **0.74** | **1.59** | **3884.00** | **6385.00** | | | | | |

[1] A wetland Jurisdictional Determination was issued by the USACE on 12/03/2014; NWO-2014-2289-BIS.

[2] All impacts to natural wetlands (natural/jurisdictional and natural/non-jurisdictional), regardless of size, as well as impacts greater than 0.10 acre to artificial/jurisdictional wetlands require mitigation.

[3] All artificial/non-jurisdictional, deep water (impacts greater than 6.6 feet), Other Waters less than 300 linear feet (determined by the USACE on a case by case), and temporary impacts do not require mitigation.

## Summary Impact Table

| Total Permanent Impact Summary | | Temporary Impacts and additional information | |
|---|---|---|---|
| Wetland Type | Total (Acres) | Wetland Type | Total (Acres/Lf) |
| Natural/JD | 0.05 | Temporary JD | 1.32 |
| Natural/Non-JD | 0.00 | Non-JD Temporary | 0.00 |
| Artificial/JD | 1.13 | Permanent JD > 0.10 | 0.92 |
| Artificial /Non-JD | 0.00 | Permanent OW | 1.59 ac 6385 ft. |
| Total | 1.18 | Temporary OW | 0.74 ac 3884 ft. |

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Wetland Impact Table

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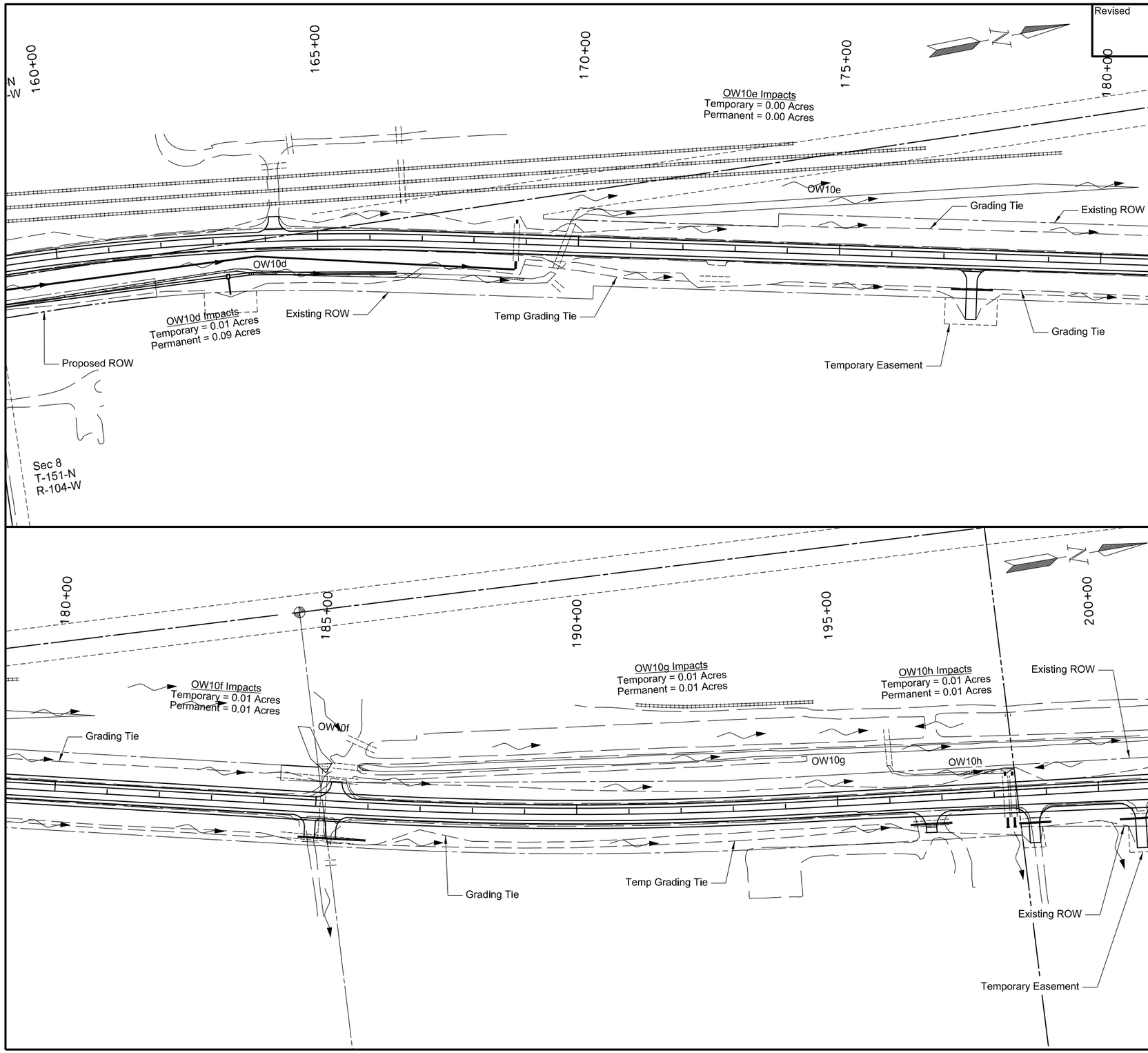


Other Water Permanent Impacts

Other Water Temporary Impacts

Permanent Wetland Impact

Temporary Wetland Impact

Wetland Mitigation

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Wetland, Mitigation & Environmental

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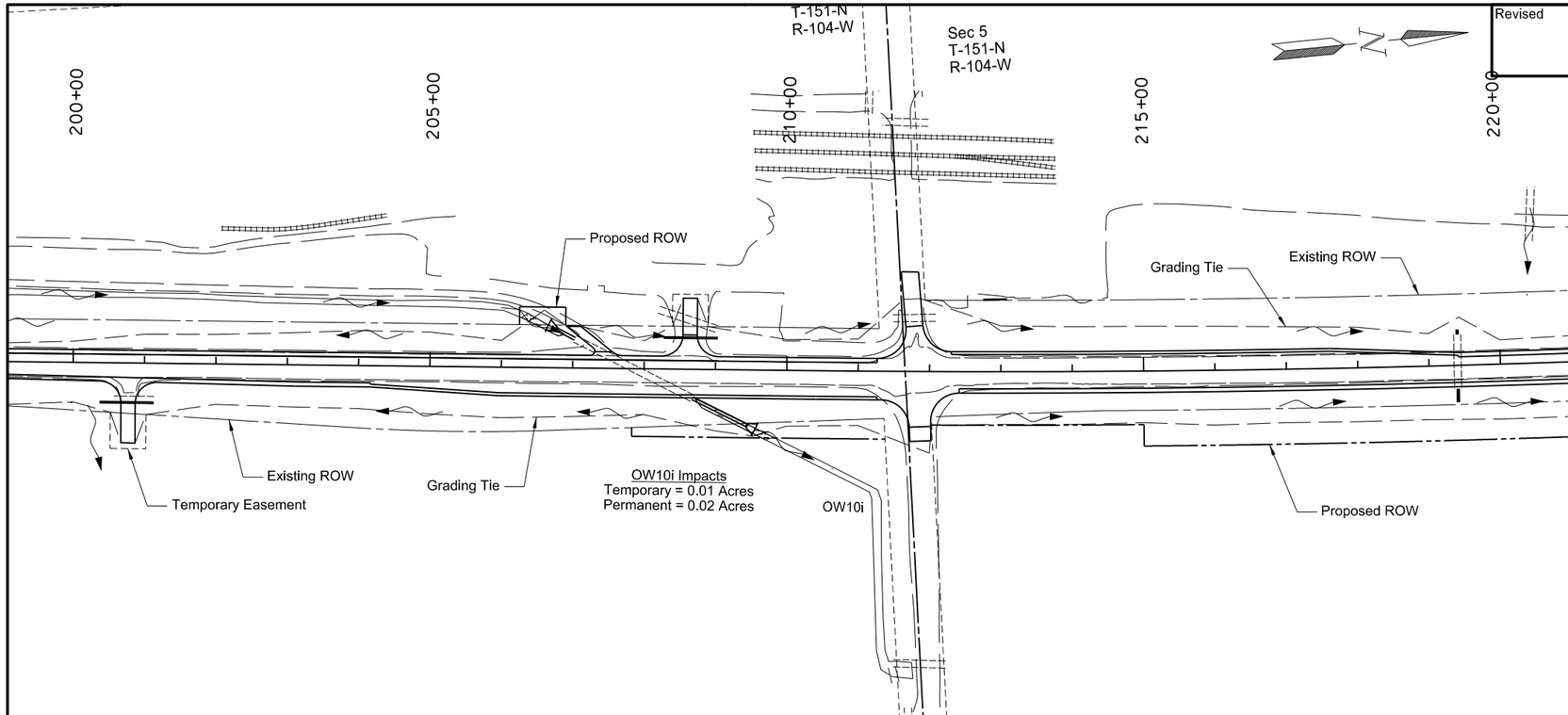


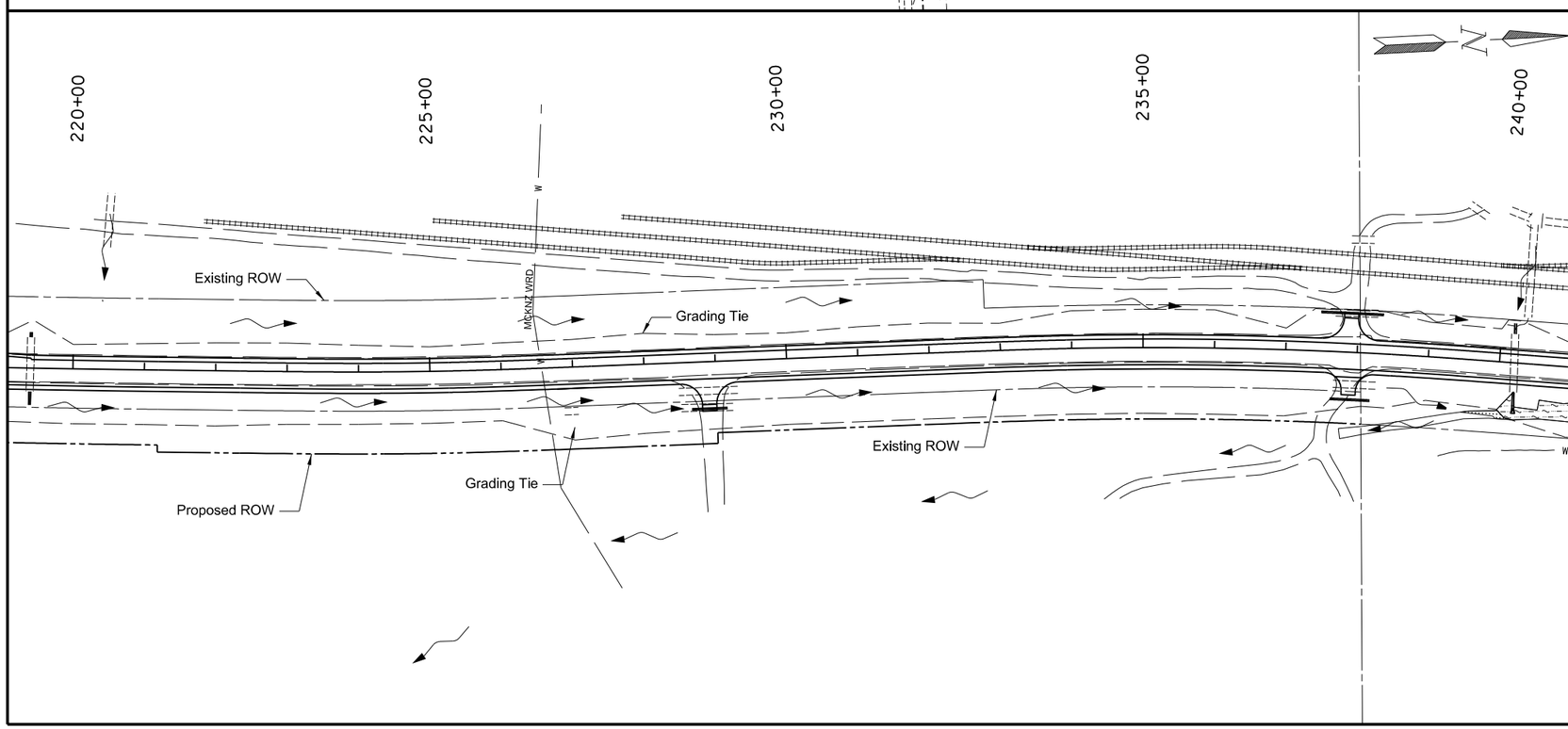


Other Water Permanent Impacts

Other Water Temporary Impacts

Permanent Wetland Impact

Temporary Wetland Impact

Wetland Mitigation

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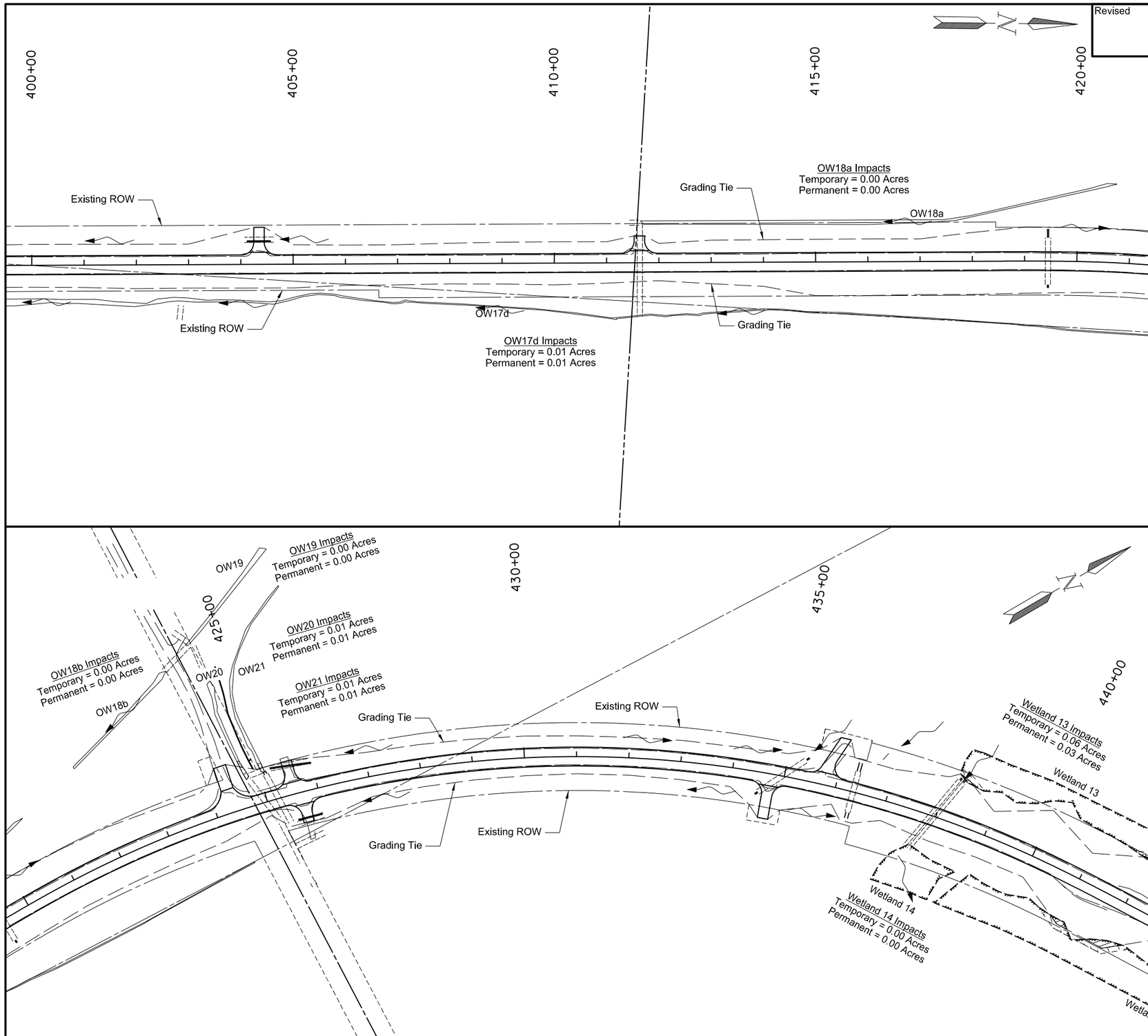
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 75 | 17 |




Other Water Permanent Impacts

Other Water Temporary Impacts

Permanent Wetland Impact

Temporary Wetland Impact

Wetland Mitigation

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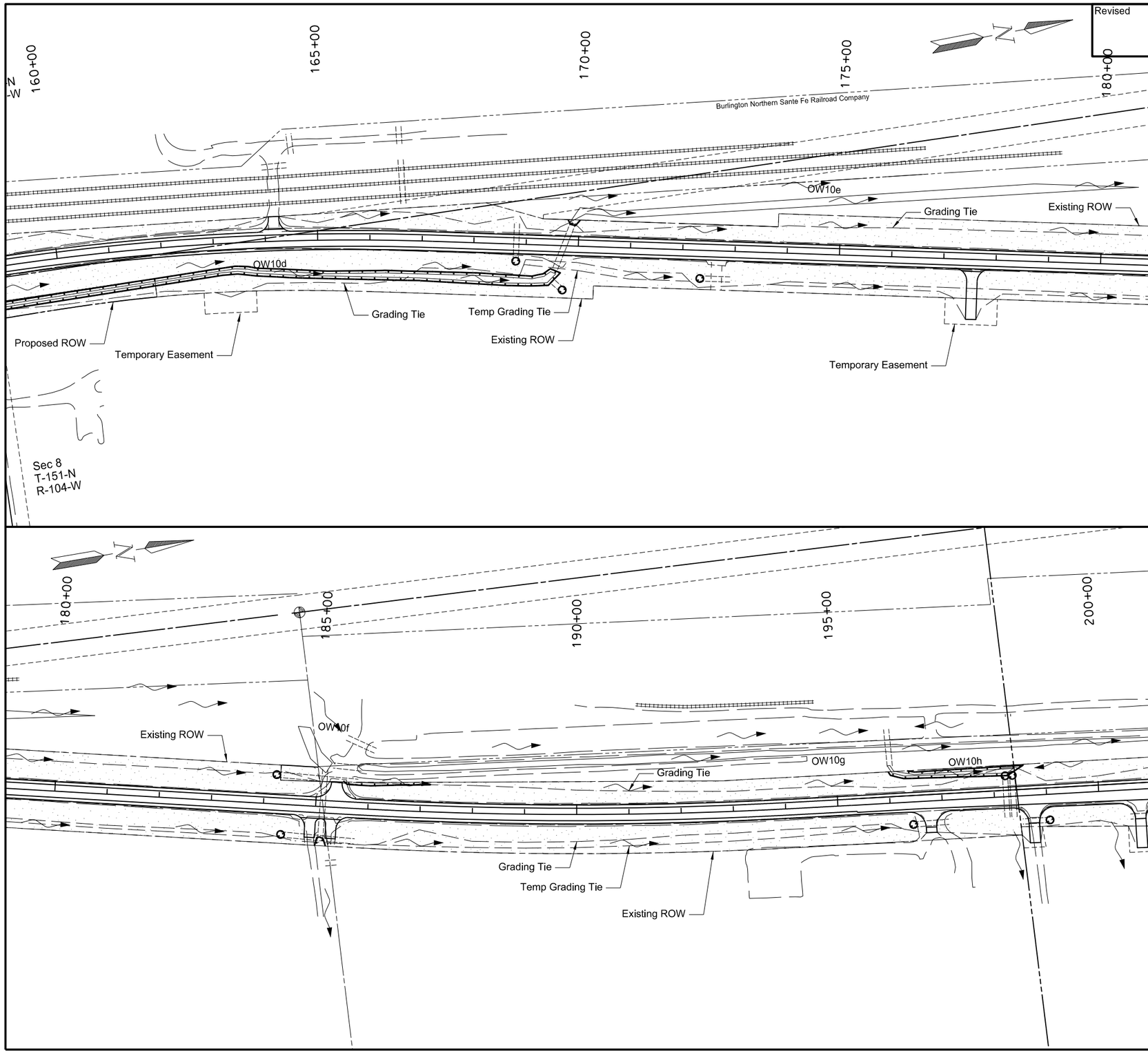
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 76 | 5 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 261 | 0112 | FIBER ROLLS 12IN | | |
| | | 160+00 RT to 169+67 RT (Wetland Area) | 1930 | LF |
| | | 168+81 RT (Culvert Inlet) | 30 | LF |
| | | 169+72 RT (Culvert Inlet) | 30 | LF |
| | | 169+79 LT to 170+02 LT (Wetland Area) | 35 | LF |
| | | 172+34 RT (Culvert Inlet) | 30 | LF |
| | | 184+22 LT (Culvert Inlet) | 30 | LF |
| | | 184+36 RT (Culvert Inlet) | 30 | LF |
| | | 185+02 RT to 185+23 RT (Wetland Area) | 45 | LF |
| | | 185+76 LT to 187+45 LT (Wetland Area) | 170 | LF |
| | | 196+00 LT to 198+58 LT (Wetland Area) | 490 | LF |
| | | 196+43 RT (Culvert Inlet) | 30 | LF |
| | | 198+23 LT (Culvert Inlet) | 30 | LF |
| | | 198+36 LT (Culvert Inlet) | 30 | LF |
| | | 199+04 RT (Culvert Inlet) | 30 | LF |
| 261 | 0113 | REMOVE FIBER ROLLS 12IN | | |
| | | 160+00 RT to 169+67 RT (Wetland Area) | 1930 | LF |
| | | 168+81 RT (Culvert Inlet) | 30 | LF |
| | | 169+72 RT (Culvert Inlet) | 30 | LF |
| | | 169+79 LT to 170+02 LT (Wetland Area) | 35 | LF |
| | | 172+34 RT (Culvert Inlet) | 30 | LF |
| | | 184+22 LT (Culvert Inlet) | 30 | LF |
| | | 184+36 RT (Culvert Inlet) | 30 | LF |
| | | 185+02 RT to 185+23 RT (Wetland Area) | 45 | LF |
| | | 185+76 LT to 187+45 LT (Wetland Area) | 170 | LF |
| | | 196+00 LT to 198+58 LT (Wetland Area) | 490 | LF |
| | | 196+43 RT (Culvert Inlet) | 30 | LF |
| | | 198+23 LT (Culvert Inlet) | 30 | LF |
| | | 198+36 LT (Culvert Inlet) | 30 | LF |
| | | 199+04 RT (Culvert Inlet) | 30 | LF |

Fiber Rolls

Supported Silt Fence

Temporary Seeding & Temporary Mulch

Wetland Mitigation

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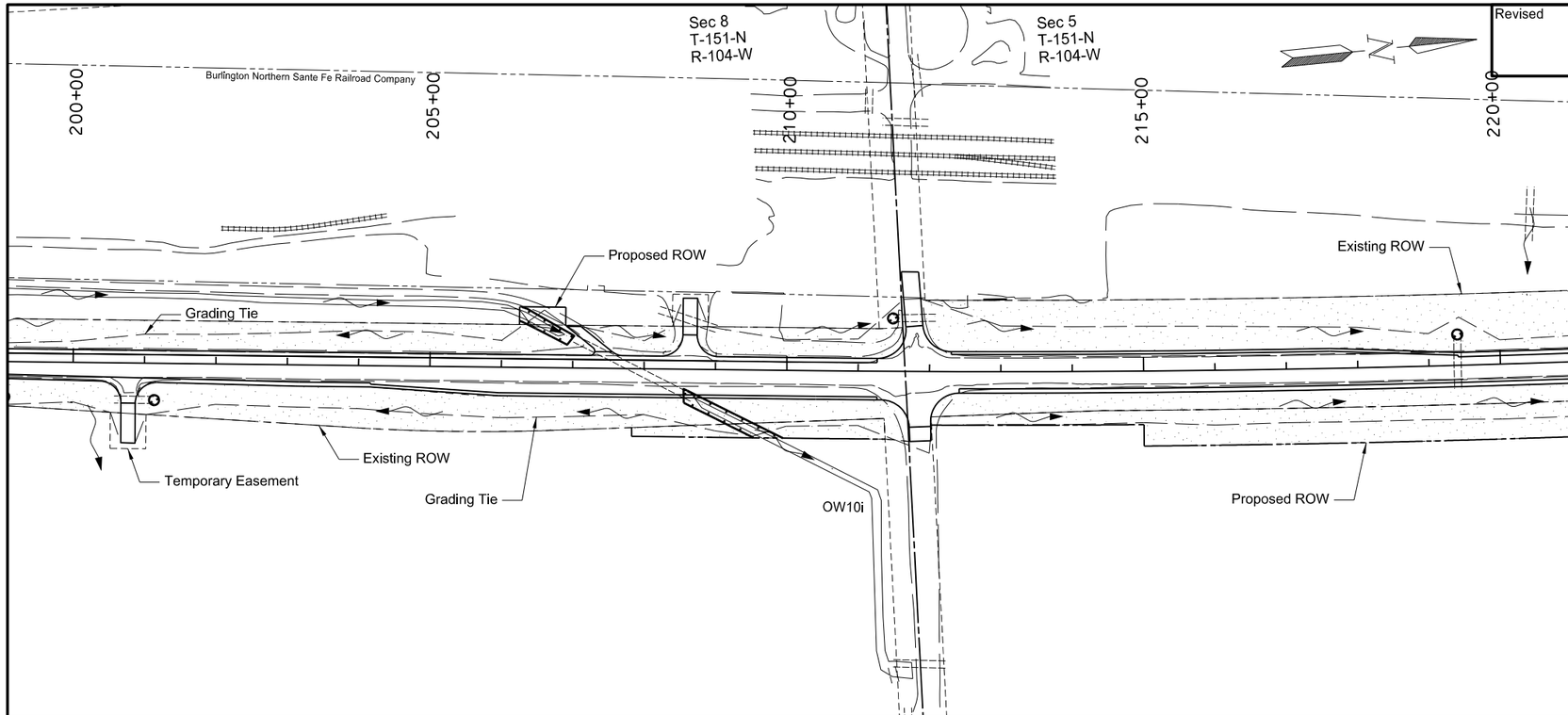
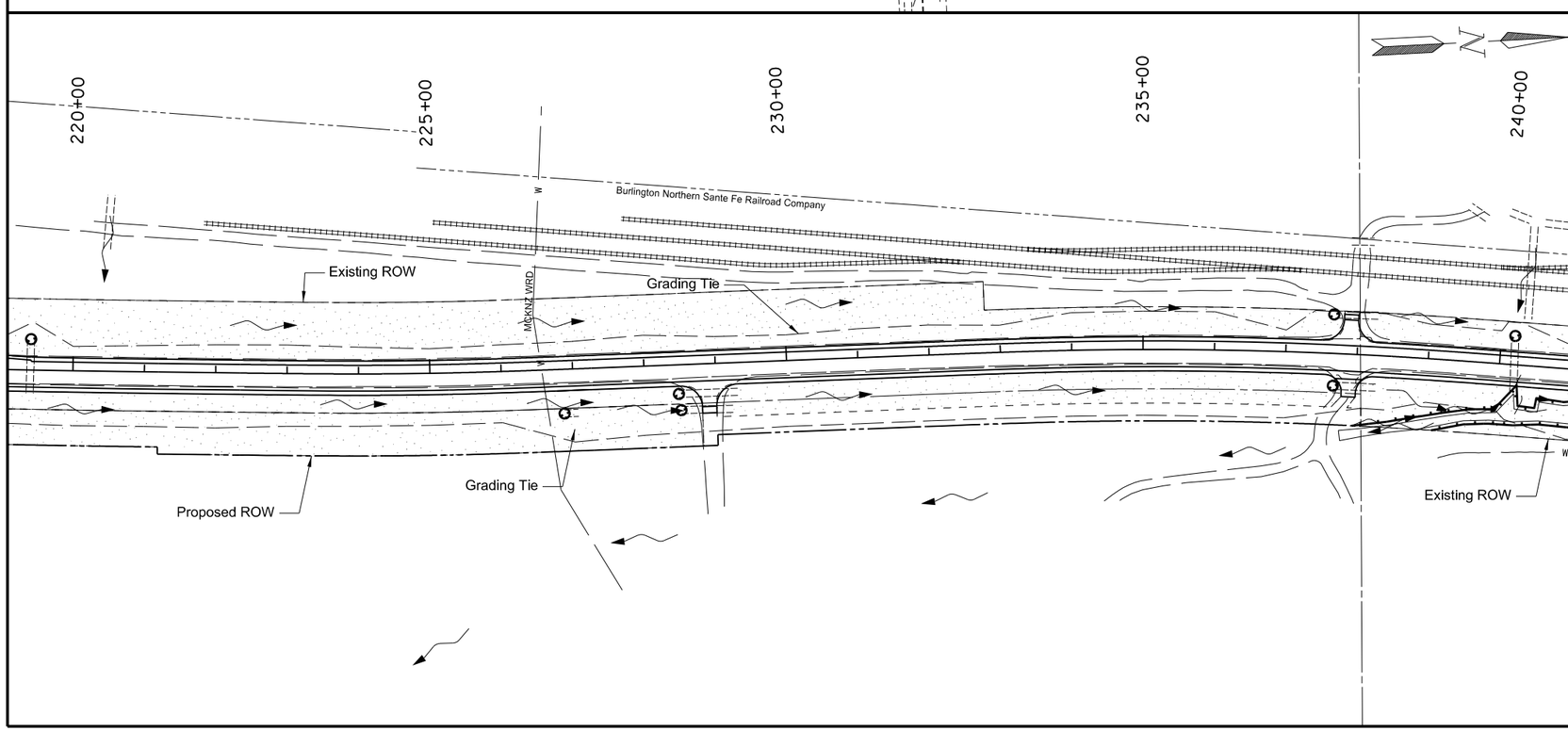
Temporary Sediment & Erosion Control

ND 58

Jct 200 to Jct 1804

| Revised | 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|---|
| | | ND | SOIB-7-058(013)000 | 76 | 6 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 261 | 0112 | FIBER ROLLS 12IN | | |
| | | 201+14 RT (Culvert Inlet) | 30 | LF |
| | | 206+25 LT to 207+02 LT (Wetland Area) | 175 | LF |
| | | 208+56 RT to 209+96 RT (Wetland Area) | 285 | LF |
| | | 211+48 LT (Culvert Inlet) | 30 | LF |
| | | 219+41 LT (Culvert Inlet) | 30 | LF |
| | | 226+87 RT (Culvert Inlet) | 30 | LF |
| | | 228+48 RT (Culvert Inlet) | 30 | LF |
| | | 228+50 RT (Culvert Inlet) | 30 | LF |
| | | 237+66 LT (Culvert Inlet) | 30 | LF |
| | | 237+68 RT (Culvert Inlet) | 30 | LF |
| | | 237+97 RT to 240+00 RT (Wetland Area) | 205 | LF |
| | | 239+10 RT to 240+00 RT (Wetland Area) | 90 | LF |
| 261 | 0113 | REMOVE FIBER ROLLS 12IN | | |
| | | 201+14 RT (Culvert Inlet) | 30 | LF |
| | | 206+25 LT to 207+02 LT (Wetland Area) | 175 | LF |
| | | 208+56 RT to 209+96 RT (Wetland Area) | 285 | LF |
| | | 211+48 LT (Culvert Inlet) | 30 | LF |
| | | 219+41 LT (Culvert Inlet) | 30 | LF |
| | | 226+87 RT (Culvert Inlet) | 30 | LF |
| | | 228+48 RT (Culvert Inlet) | 30 | LF |
| | | 228+50 RT (Culvert Inlet) | 30 | LF |
| | | 237+66 LT (Culvert Inlet) | 30 | LF |
| | | 237+68 RT (Culvert Inlet) | 30 | LF |
| | | 237+97 RT to 240+00 RT (Wetland Area) | 205 | LF |
| | | 239+10 RT to 240+00 RT (Wetland Area) | 90 | LF |

Fiber Rolls

Supported Silt Fence

Temporary Seeding & Temporary Mulch

Wetland Mitigation

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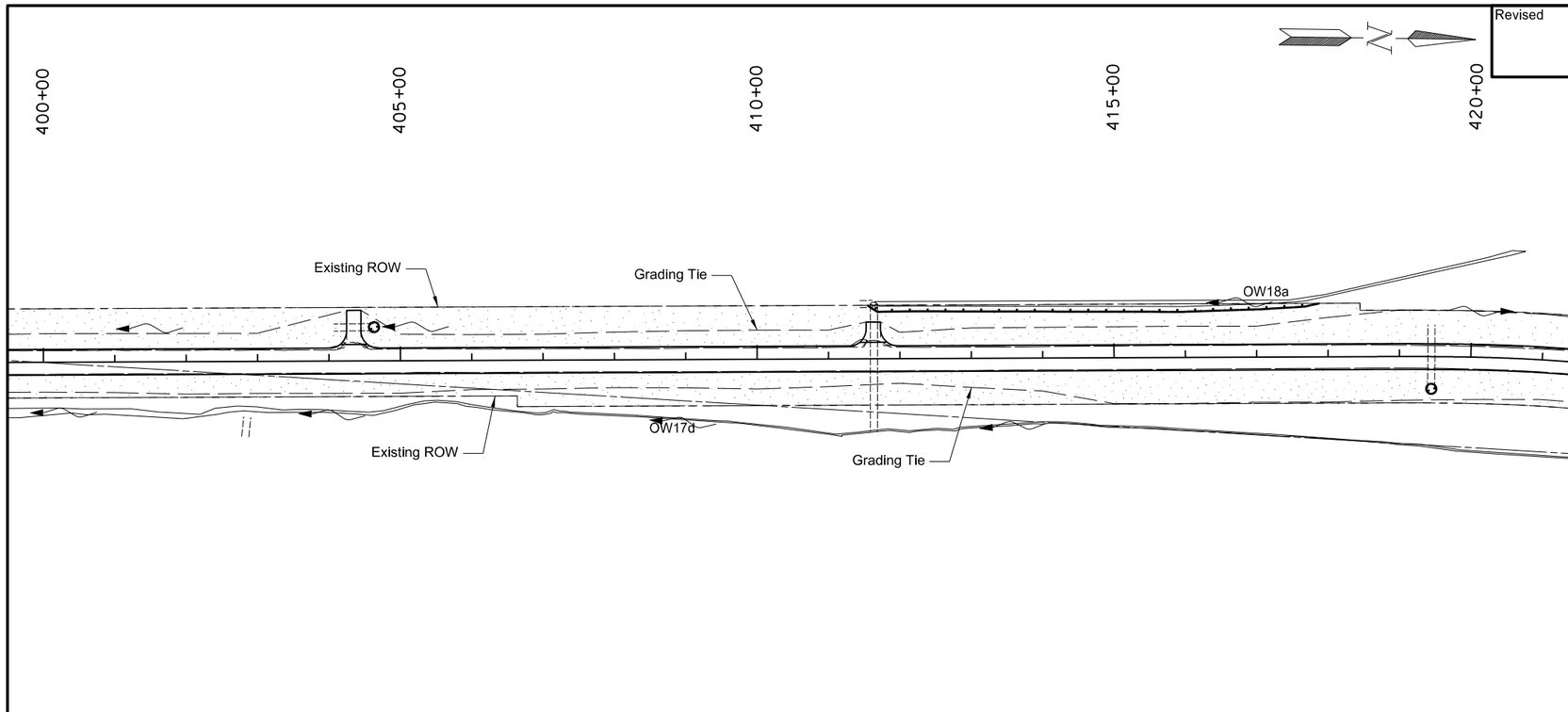
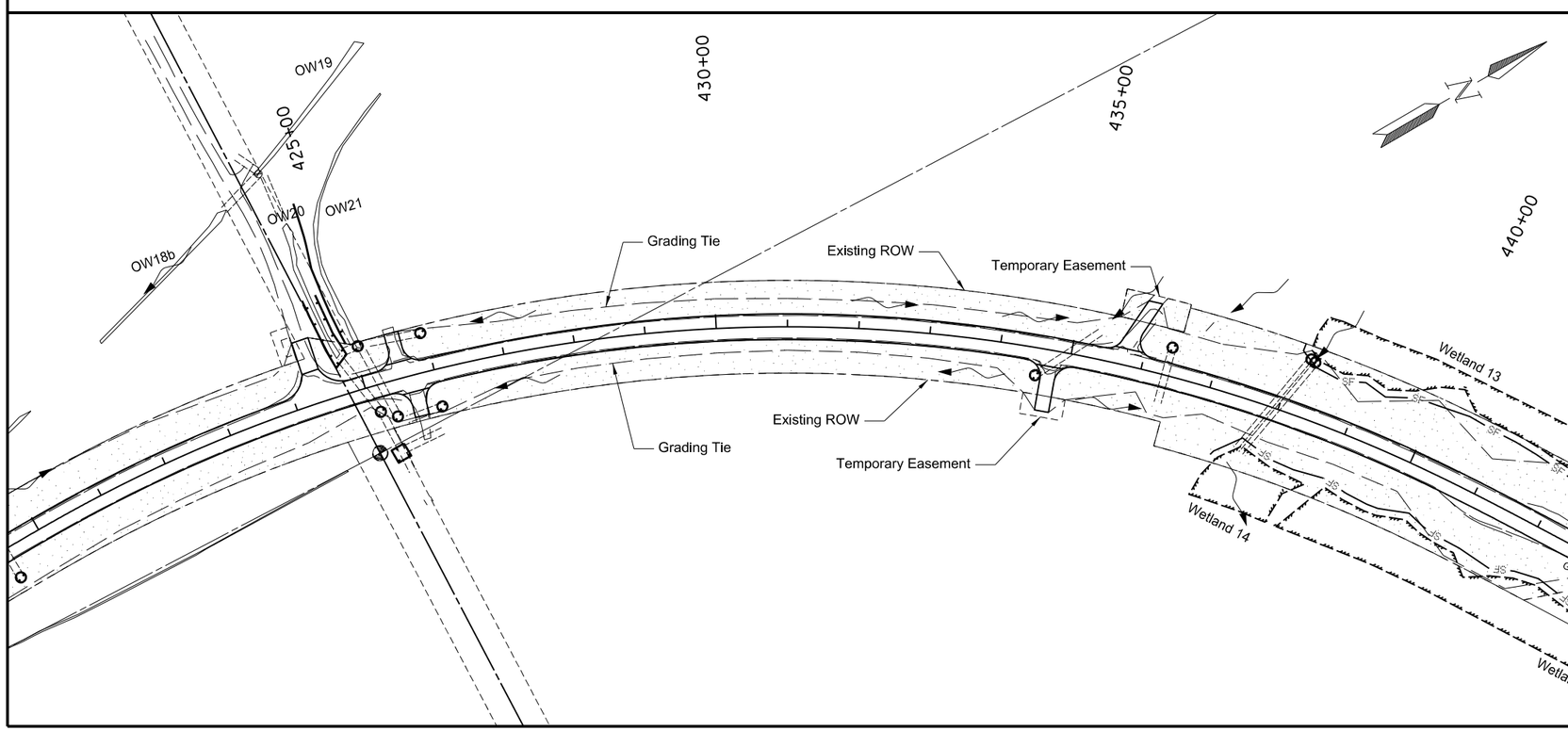
Temporary Sediment & Erosion Control

ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 76 | 11 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 260 | 0200 | SILT FENCE SUPPORTED | | |
| | | 437+22 RT to 440+00 RT (Wetland Area) | 295 | LF |
| | | 438+07 LT to 440+00 LT (Wetland Area) | 220 | LF |
| 260 | 0201 | REMOVE SILT FENCE SUPPORTED | | |
| | | 437+22 RT to 440+00 RT (Wetland Area) | 295 | LF |
| | | 438+07 LT to 440+00 LT (Wetland Area) | 220 | LF |
| 261 | 0112 | FIBER ROLLS 12IN | | |
| | | 404+63 LT (Culvert Inlet) | 30 | LF |
| | | 411+54 LT to 417+88 LT (Wetland Inlet) | 635 | LF |
| | | 419+45 RT (Culvert Inlet) | 30 | LF |
| | | 424+53 LT to 424+89 LT (Wetland Inlet) | 225 | LF |
| | | 425+07 LT (Culvert Inlet) | 30 | LF |
| | | 425+11 RT to 425+37 RT (Wetland Inlet) | 80 | LF |
| | | 425+12 RT (Culvert Inlet) | 30 | LF |
| | | 425+34 RT (Culvert Inlet) | 30 | LF |
| | | 425+94 LT (Culvert Inlet) | 30 | LF |
| | | 425+99 RT (Culvert Inlet) | 30 | LF |
| | | 434+55 RT (Culvert Inlet) | 30 | LF |
| | | 436+35 LT (Culvert Inlet) | 30 | LF |
| | | 438+21 LT (Culvert Inlet) | 30 | LF |
| | | 438+27 LT (Culvert Inlet) | 30 | LF |
| 261 | 0113 | REMOVE FIBER ROLLS 12IN | | |
| | | 404+63 LT (Culvert Inlet) | 30 | LF |
| | | 411+54 LT to 417+88 LT (Wetland Inlet) | 635 | LF |
| | | 419+45 RT (Culvert Inlet) | 30 | LF |
| | | 424+53 LT to 424+89 LT (Wetland Inlet) | 225 | LF |
| | | 425+07 LT (Culvert Inlet) | 30 | LF |
| | | 425+11 RT to 425+37 RT (Wetland Inlet) | 80 | LF |
| | | 425+12 RT (Culvert Inlet) | 30 | LF |
| | | 425+34 RT (Culvert Inlet) | 30 | LF |
| | | 425+94 LT (Culvert Inlet) | 30 | LF |
| | | 425+99 RT (Culvert Inlet) | 30 | LF |
| | | 434+55 RT (Culvert Inlet) | 30 | LF |
| | | 436+35 LT (Culvert Inlet) | 30 | LF |
| | | 438+21 LT (Culvert Inlet) | 30 | LF |
| | | 438+27 LT (Culvert Inlet) | 30 | LF |

Fiber Rolls

Supported Silt Fence

Temporary Seeding & Temporary Mulch

Wetland Mitigation

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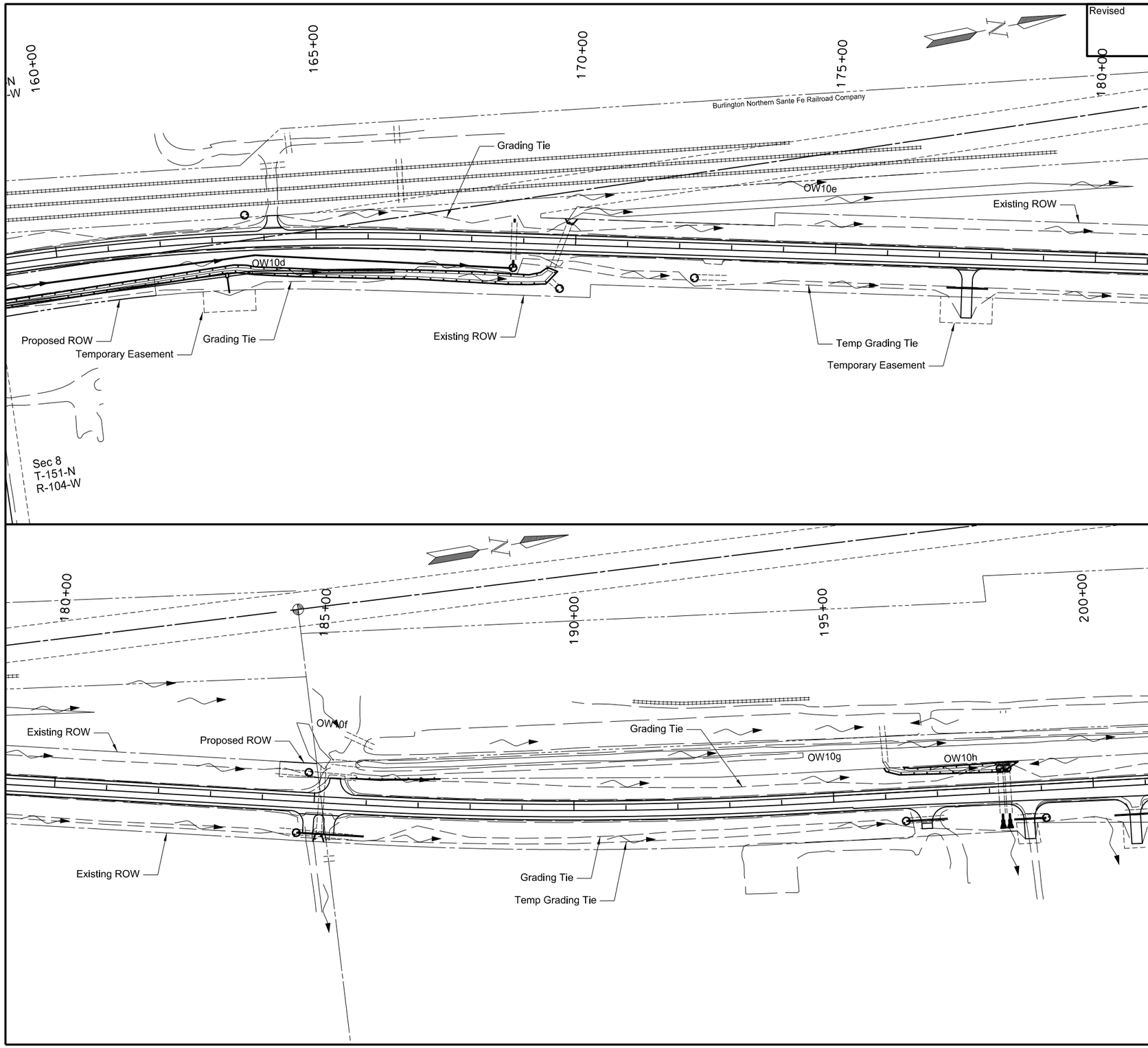
Temporary Sediment & Erosion Control

ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 77 | 5 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 255 | 0103 | ECB TYPE 3 | | |
| | | 198+23 - LT | 20 | SY |
| | | 198+37 - LT | 20 | SY |
| 256 | 0200 | RIPRAP GRADE II | | |
| | | 198+23 - RT | 10 | CY |
| | | 198+37 - RT | 10 | CY |
| 261 | 0112 | FIBER ROLLS 12IN | | |
| | | 160+00 RT to 169+67 RT (Wetland Area) | 1930 | LF |
| | | 163+65 LT (Culvert Inlet) | 30 | LF |
| | | 168+81 RT (Culvert Inlet) | 30 | LF |
| | | 169+72 RT (Culvert Inlet) | 30 | LF |
| | | 169+79 LT to 170+02 LT (Wetland Area) | 35 | LF |
| | | 172+30 RT (Culvert Inlet) | 30 | LF |
| | | 184+69 RT (Culvert Inlet) | 30 | LF |
| | | 184+87 LT (Culvert Inlet) | 30 | LF |
| | | 185+02 RT to 185+23 RT (Wetland Area) | 45 | LF |
| | | 185+76 LT to 187+45 LT (Wetland Area) | 170 | LF |
| | | 196+00 LT to 198+58 LT (Wetland Area) | 490 | LF |
| | | 196+37 RT (Culvert Inlet) | 30 | LF |
| | | 198+23 LT (Culvert Inlet) | 30 | LF |
| | | 198+37 LT (Culvert Inlet) | 30 | LF |
| | | 199+06 RT (Culvert Inlet) | 30 | LF |

Fiber Rolls

ECB Type 3

Riprap

Wetland Seeding

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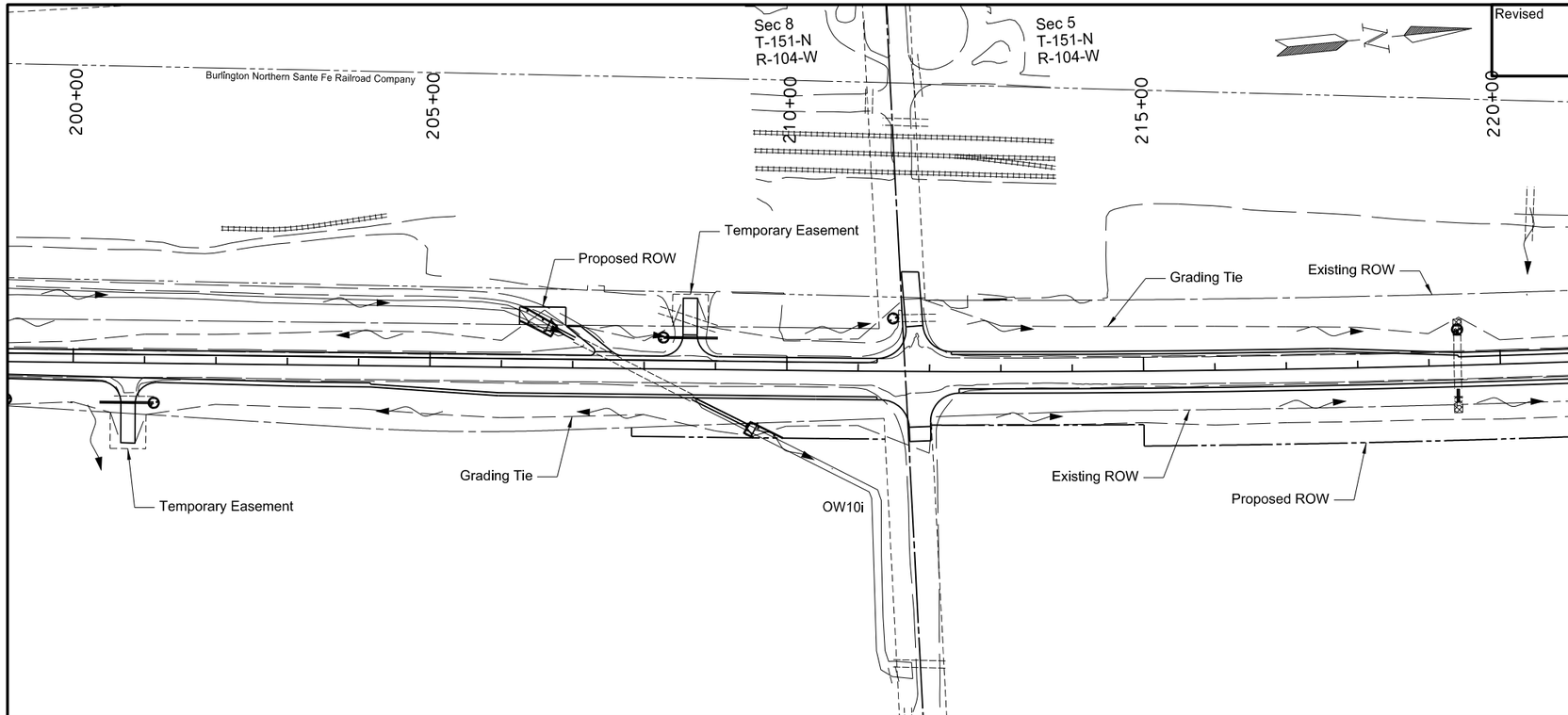
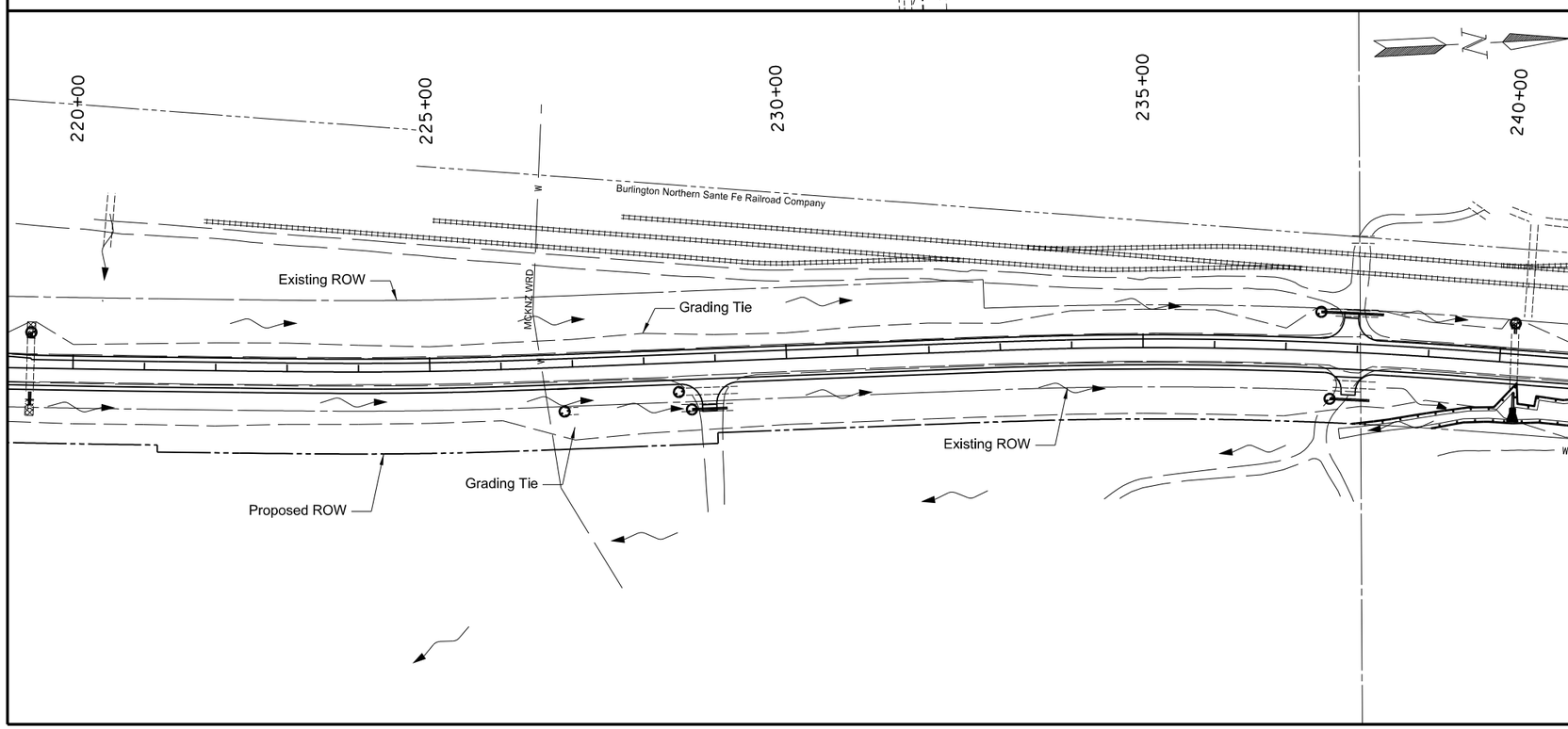
Permanent Sediment & Erosion Control

ND 58

Jct 200 to Jct 1804

| Revised | 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|---|
| | | ND | SOIB-7-058(013)000 | 77 | 6 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 255 | 0103 | ECB TYPE 3 | | |
| | | 219+40 - LT & RT | 48 | SY |
| | | 240+21 - LT | 22 | SY |
| 256 | 0200 | RIPRAP GRADE II | | |
| | | 240+21 - RT | 16 | CY |
| 261 | 0112 | FIBER ROLLS 12IN | | |
| | | 201+14 RT (Culvert Inlet) | 30 | LF |
| | | 206+25 LT to 206+77 LT (Wetland Area) | 125 | LF |
| | | 208+27 LT (Culvert Inlet) | 30 | LF |
| | | 209+41 RT to 209+96 RT (Wetland Area) | 85 | LF |
| | | 211+48 LT (Culvert Inlet) | 30 | LF |
| | | 219+41 LT (Culvert Inlet) | 30 | LF |
| | | 226+87 RT (Culvert Inlet) | 30 | LF |
| | | 228+48 RT (Culvert Inlet) | 30 | LF |
| | | 228+65 RT (Culvert Inlet) | 30 | LF |
| | | 237+48 LT (Culvert Inlet) | 30 | LF |
| | | 237+64 RT (Culvert Inlet) | 30 | LF |
| | | 237+97 RT to 240+00 RT (Wetland Area) | 205 | LF |
| | | 239+10 RT to 240+00 RT (Wetland Area) | 90 | LF |
| | | 240+21 LT (Culvert Inlet) | 30 | LF |

Fiber Rolls
ECB Type 3
Riprap
Wetland Seeding

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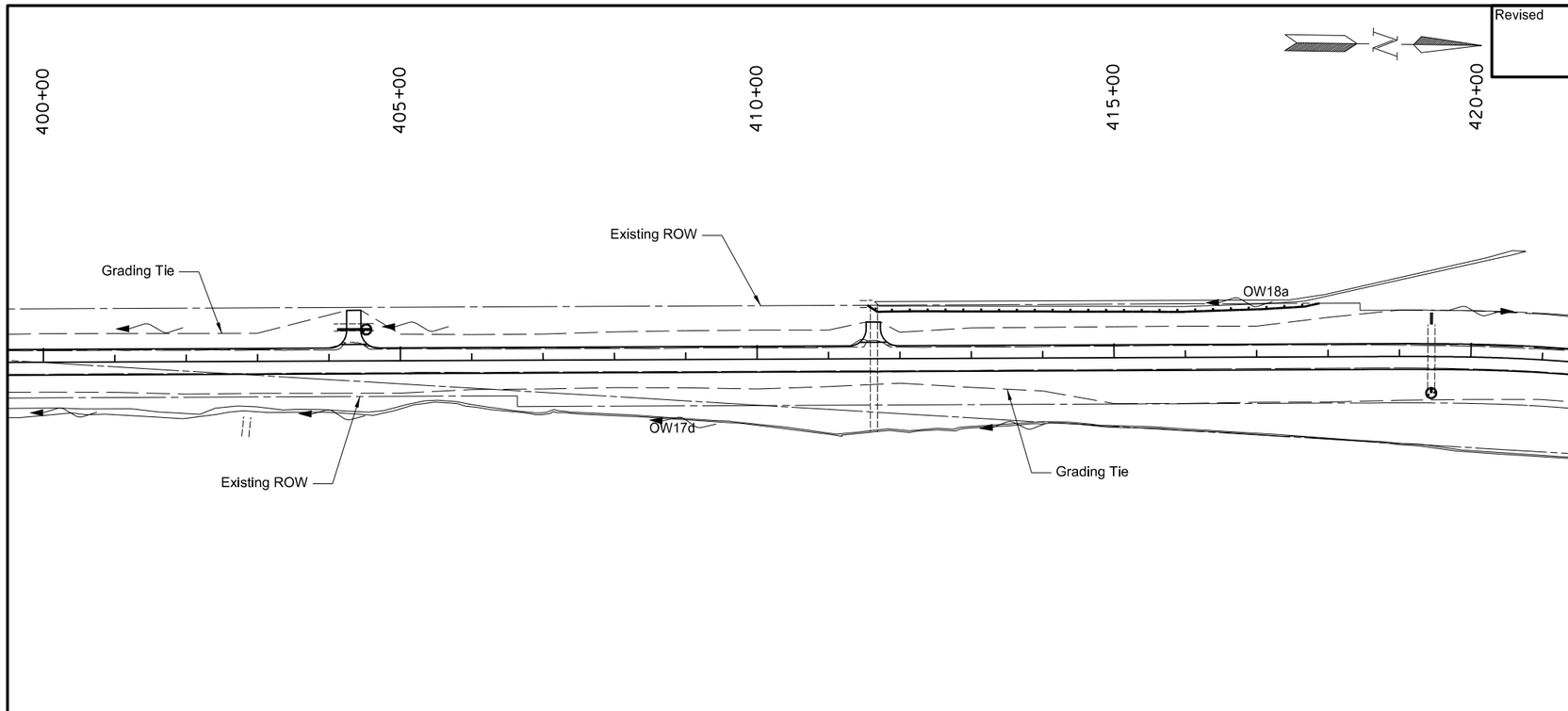
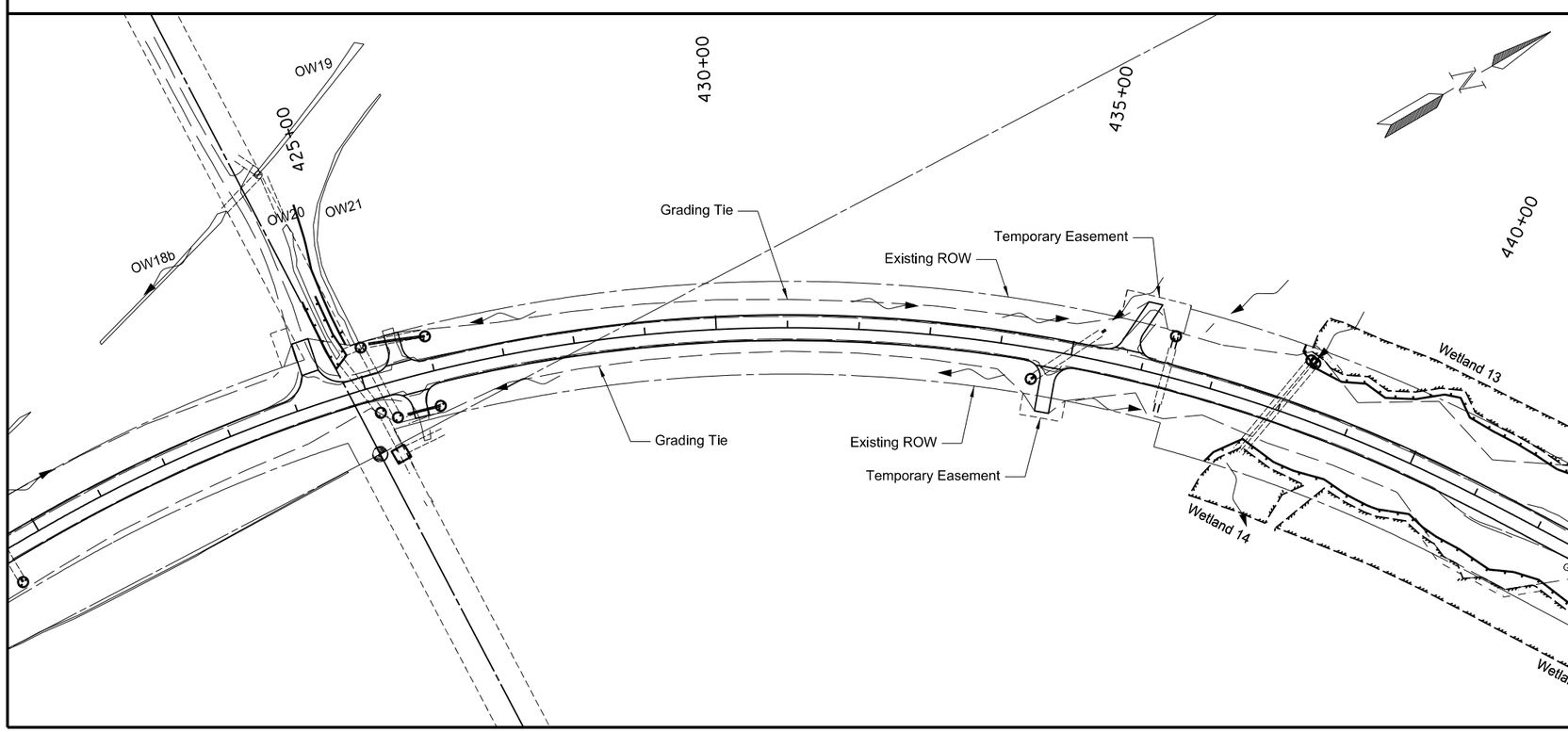
Permanent Sediment & Erosion Control

ND 58

Jct 200 to Jct 1804

| Revised | 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|---|
| | | ND | SOIB-7-058(013)000 | 77 | 11 |




| SPEC | CODE | BID ITEM | QUANTITY | UNIT |
|---|---|---|---|---|
| 261 | 0112 | FIBER ROLLS 12IN | | |
| | | 404+52 LT (Culvert Inlet) | 30 | LF |
| | | 411+54 LT to 417+88 LT (Wetland Area) | 635 | LF |
| | | 419+45 RT (Culvert Inlet) | 30 | LF |
| | | 424+53 LT to 424+89 LT (Wetland Area) | 225 | LF |
| | | 425+10 LT (Culvert Inlet) | 30 | LF |
| | | 425+11 RT to 425+37 RT (Wetland Area) | 80 | LF |
| | | 425+12 RT (Culvert Inlet) | 30 | LF |
| | | 425+34 RT (Culvert Inlet) | 30 | LF |
| | | 425+97 RT (Culvert Inlet) | 30 | LF |
| | | 425+99 LT (Culvert Inlet) | 30 | LF |
| | | 434+50 RT (Culvert Inlet) | 30 | LF |
| | | 436+35 LT (Culvert Inlet) | 30 | LF |
| | | 437+22 RT to 440+00 RT (Wetland Area) | 295 | LF |
| | | 438+07 LT to 440+00 LT (Wetland Area) | 230 | LF |

Fiber Rolls

ECB Type 3

Riprap

Wetland Seeding

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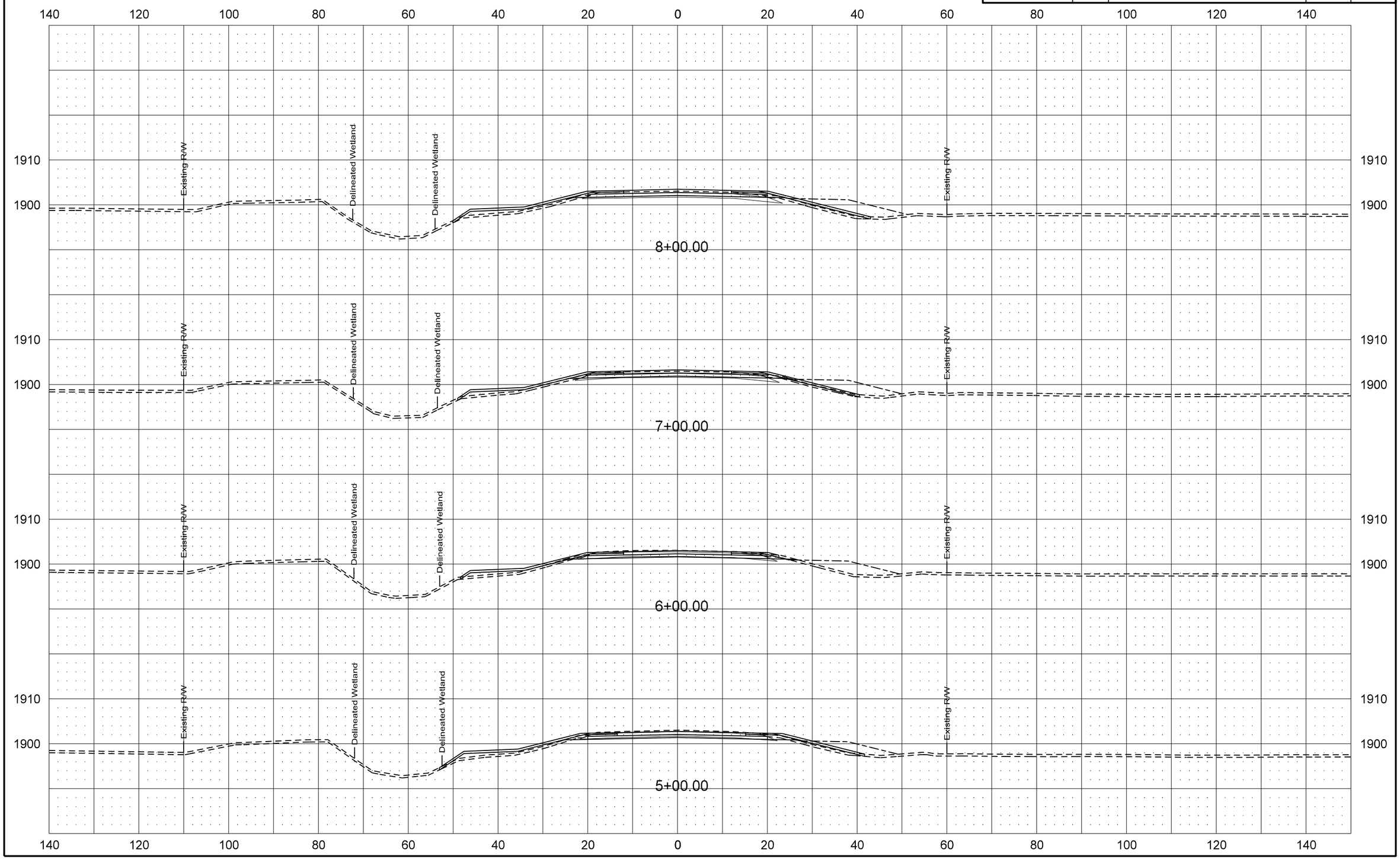
Permanent Sediment & Erosion Control

ND 58

Jct 200 to Jct 1804

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 1 |



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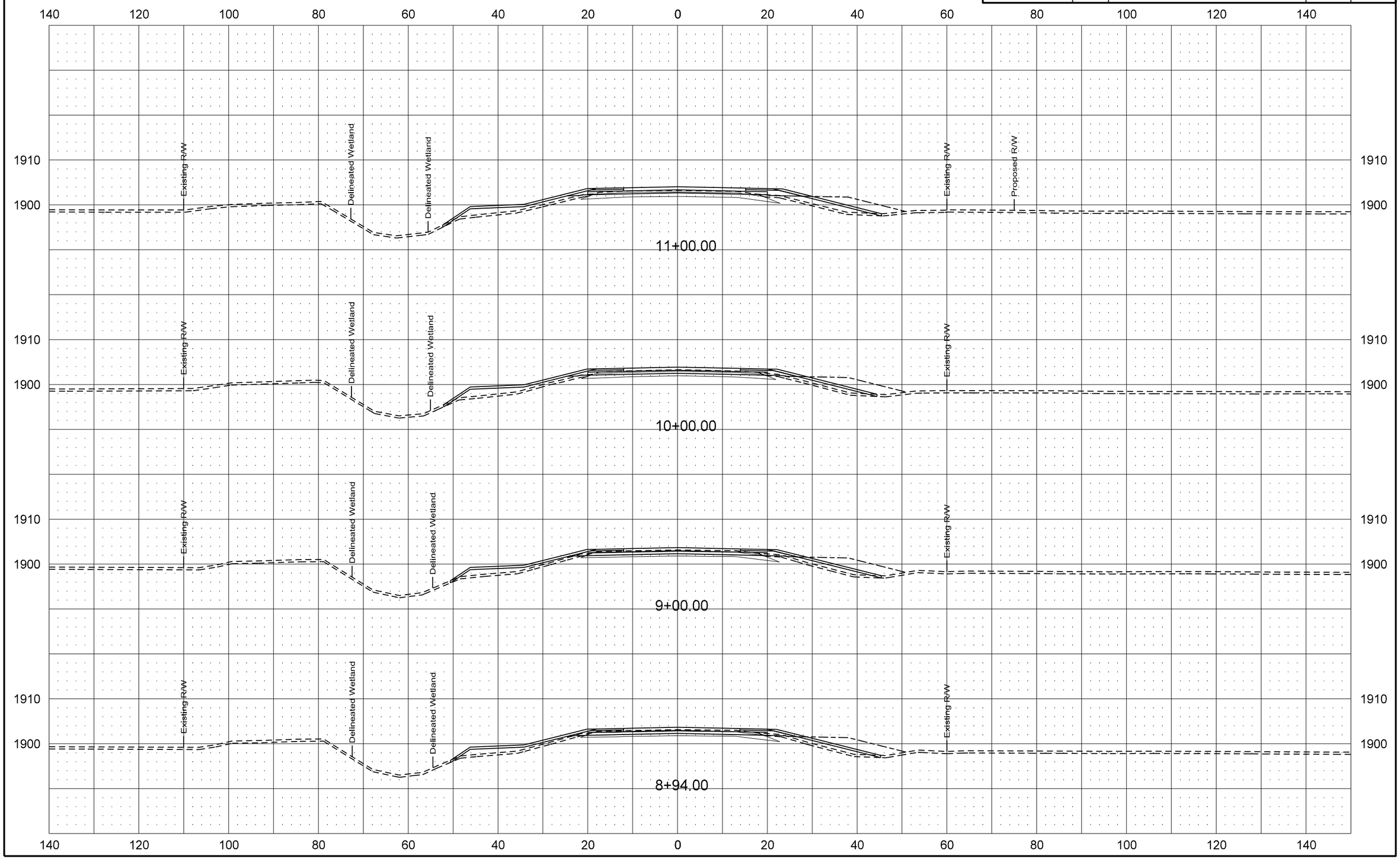
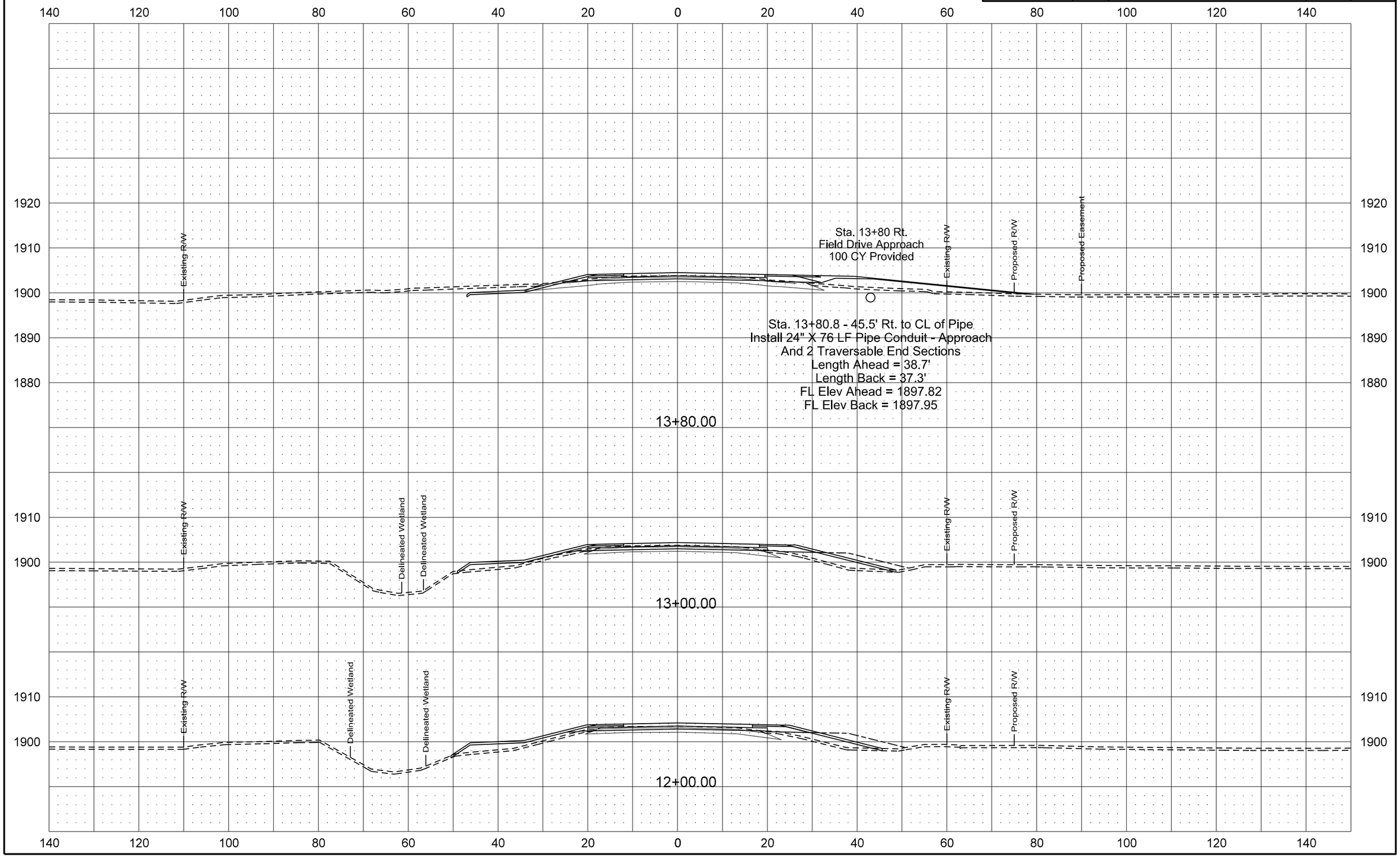
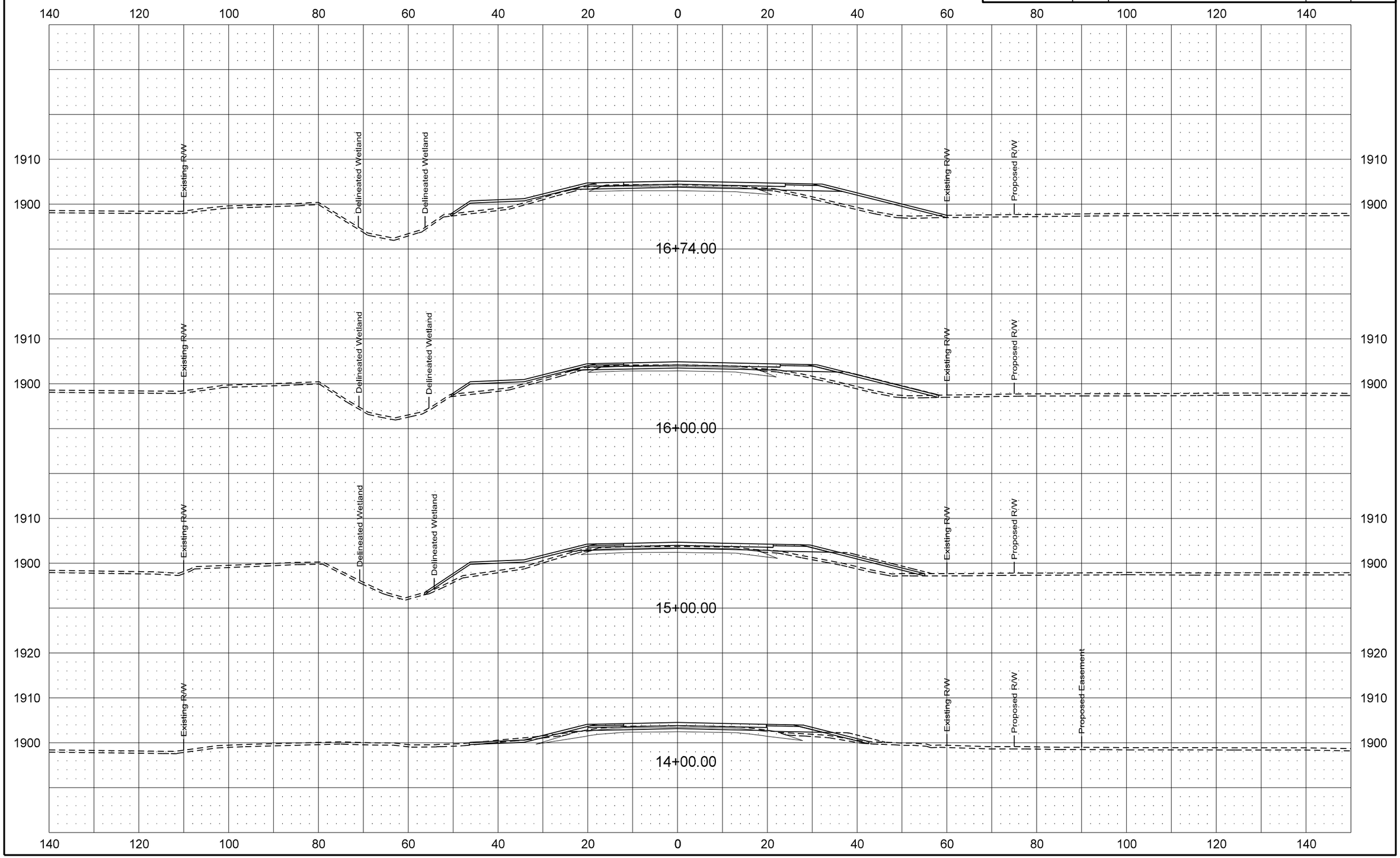
| | ND | SOIB-7-058(013)000 | 200 | 2 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 3 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 4 |

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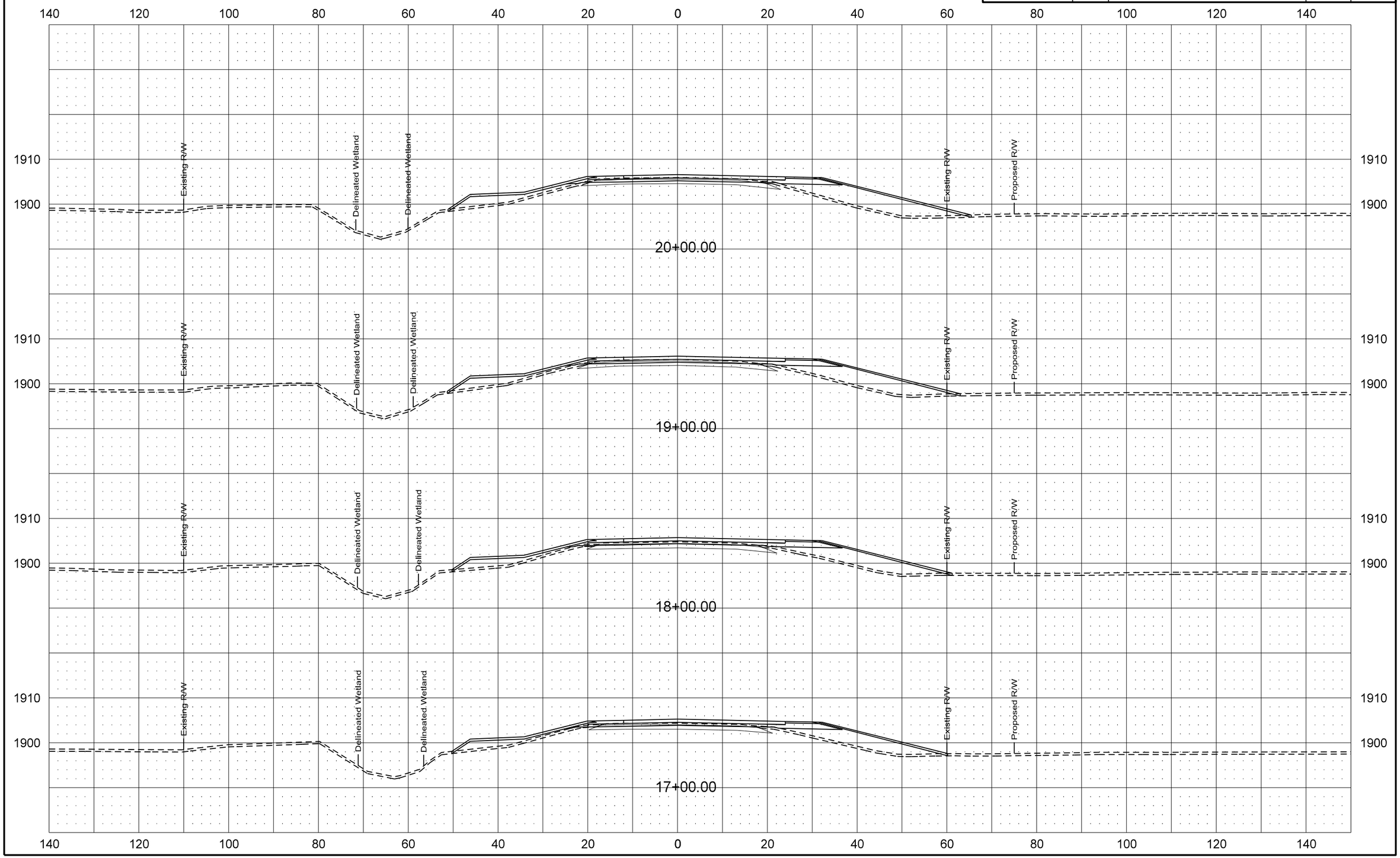
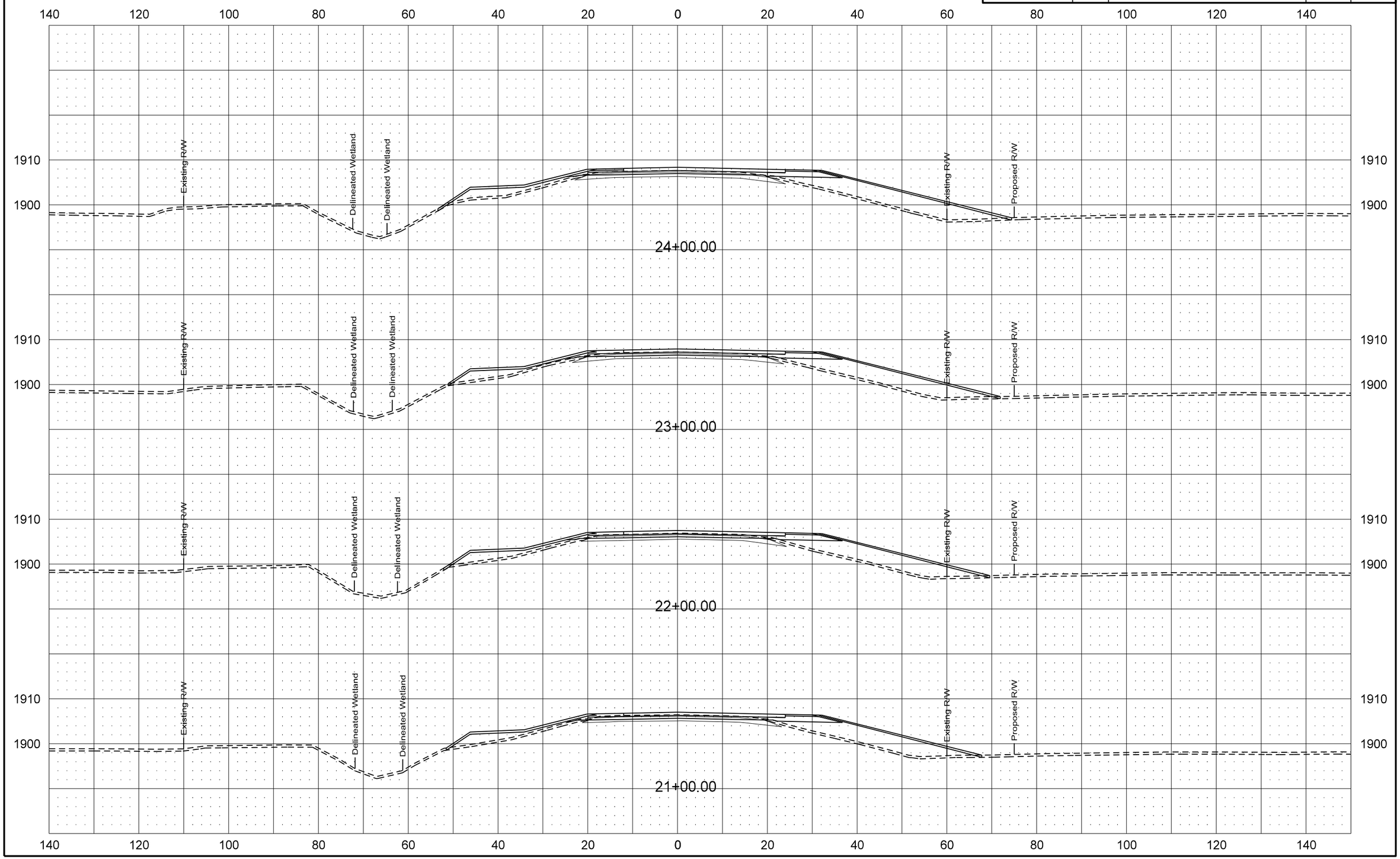
| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 5 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 6 |



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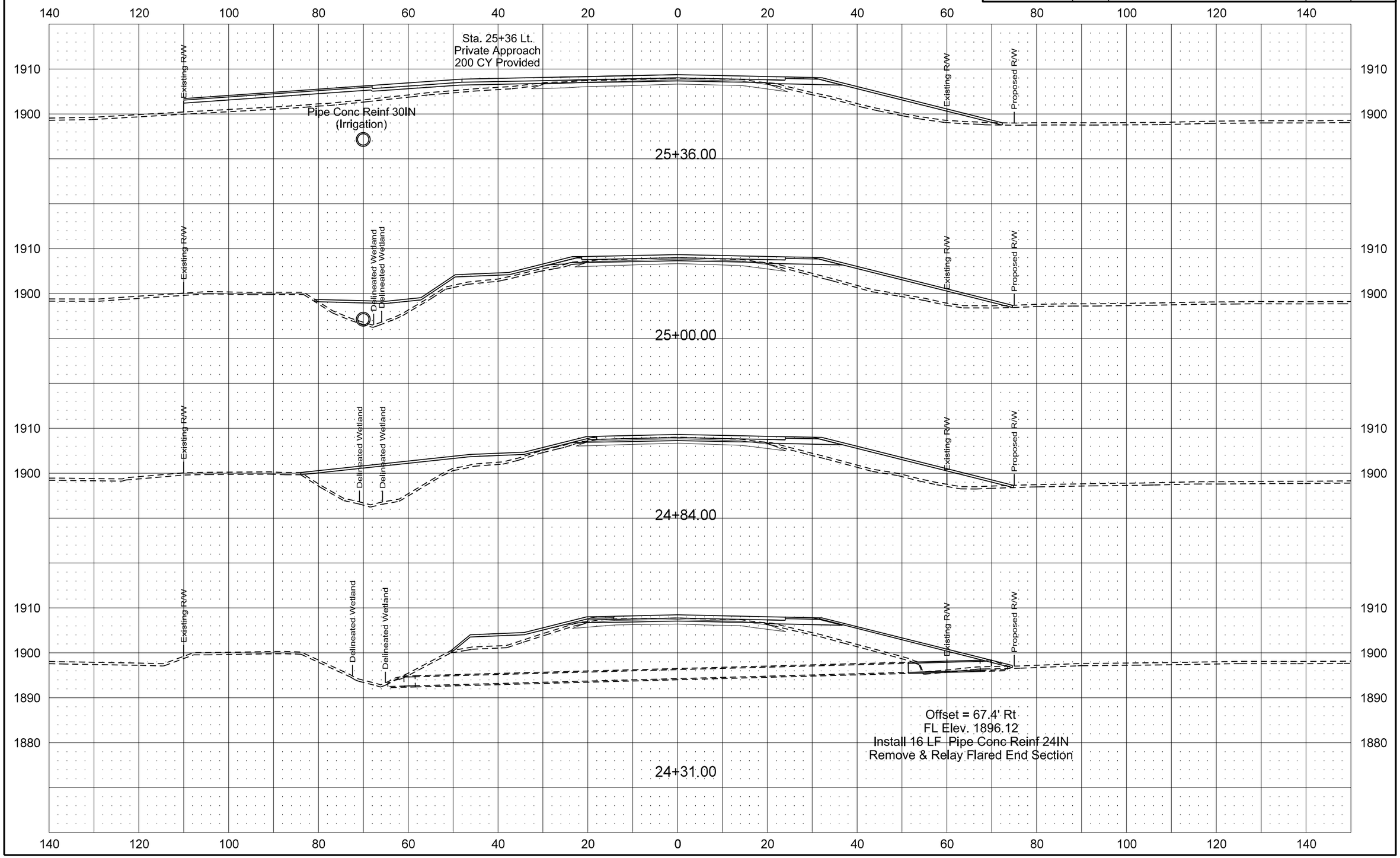
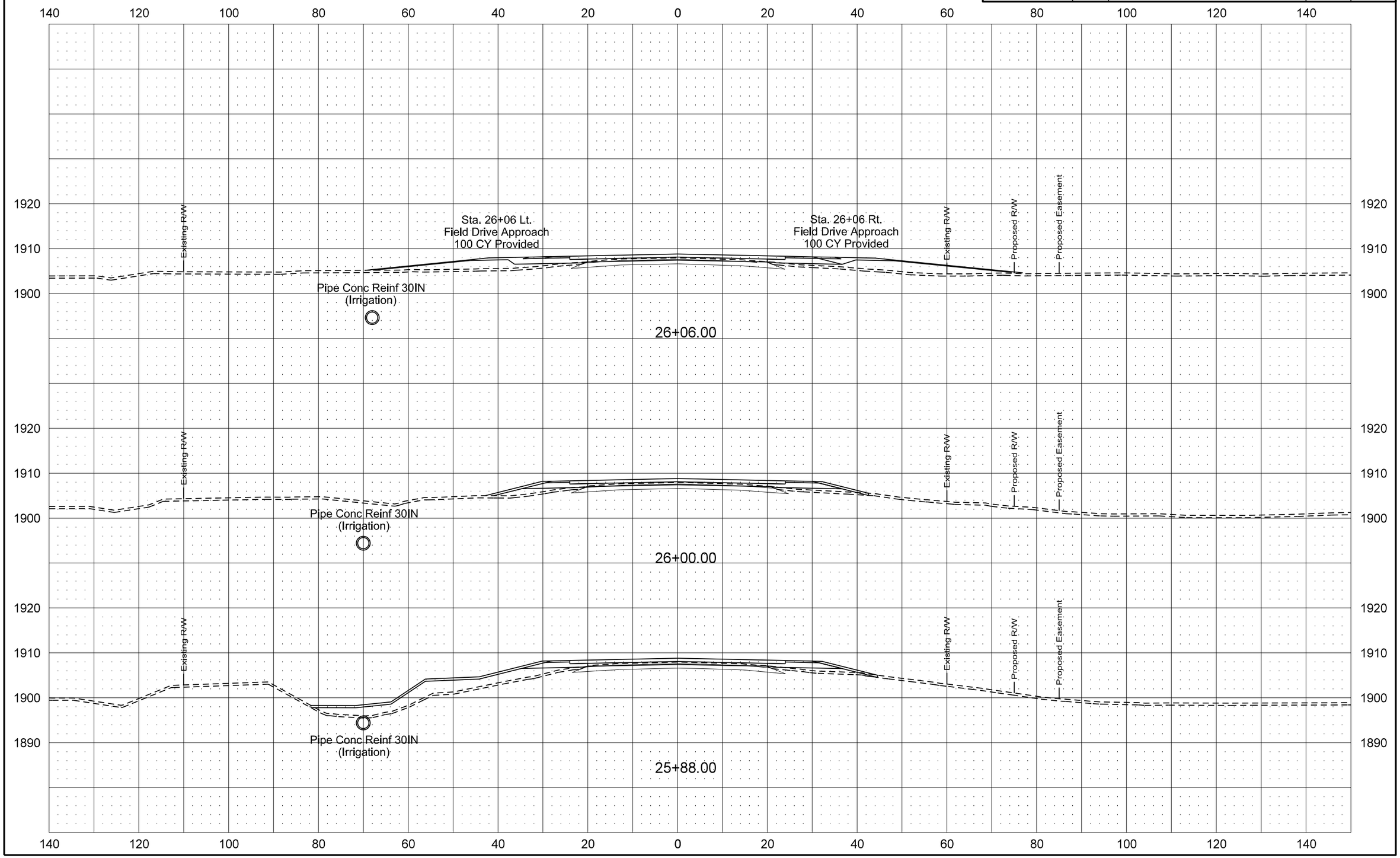
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 7 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 8 |



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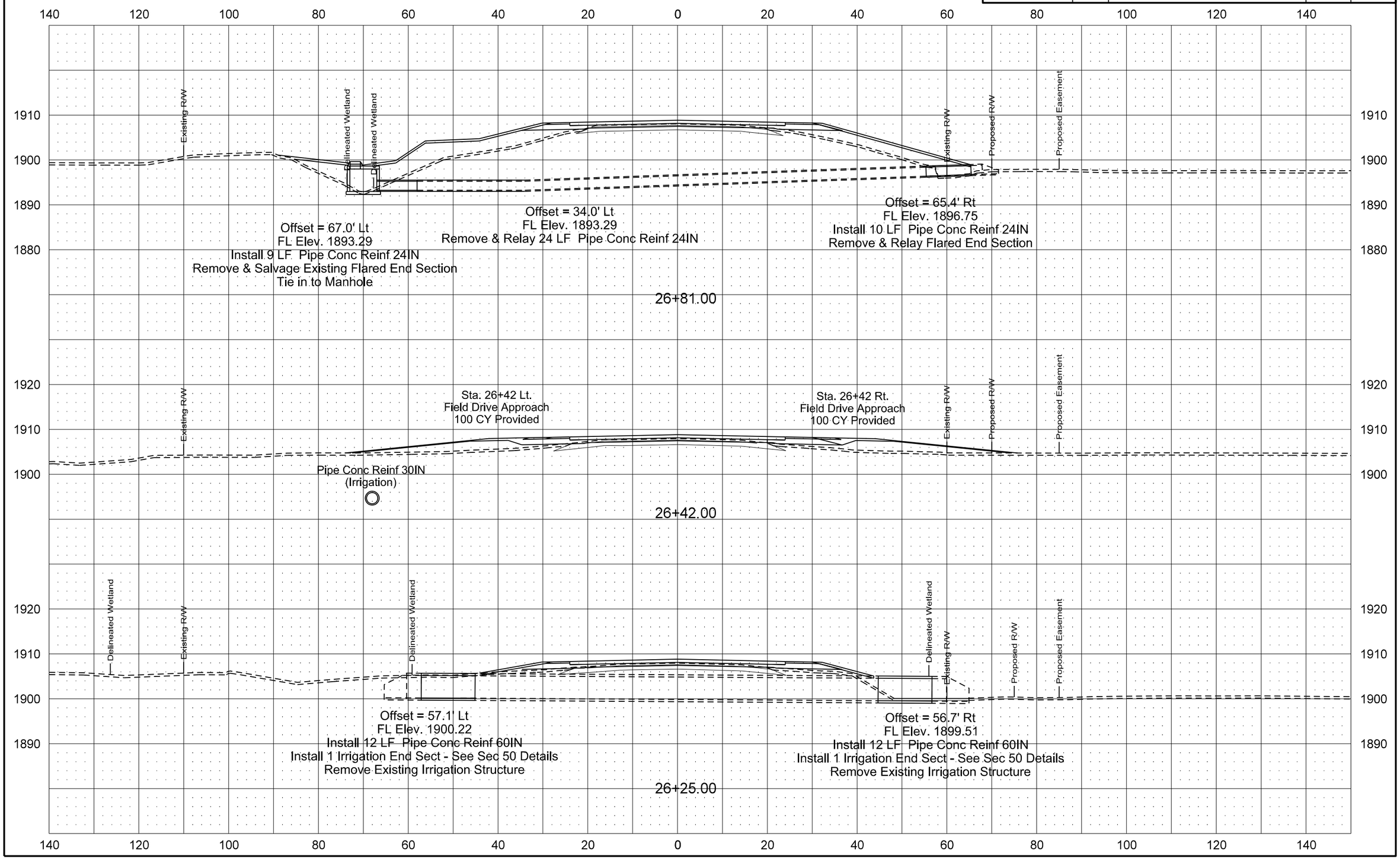
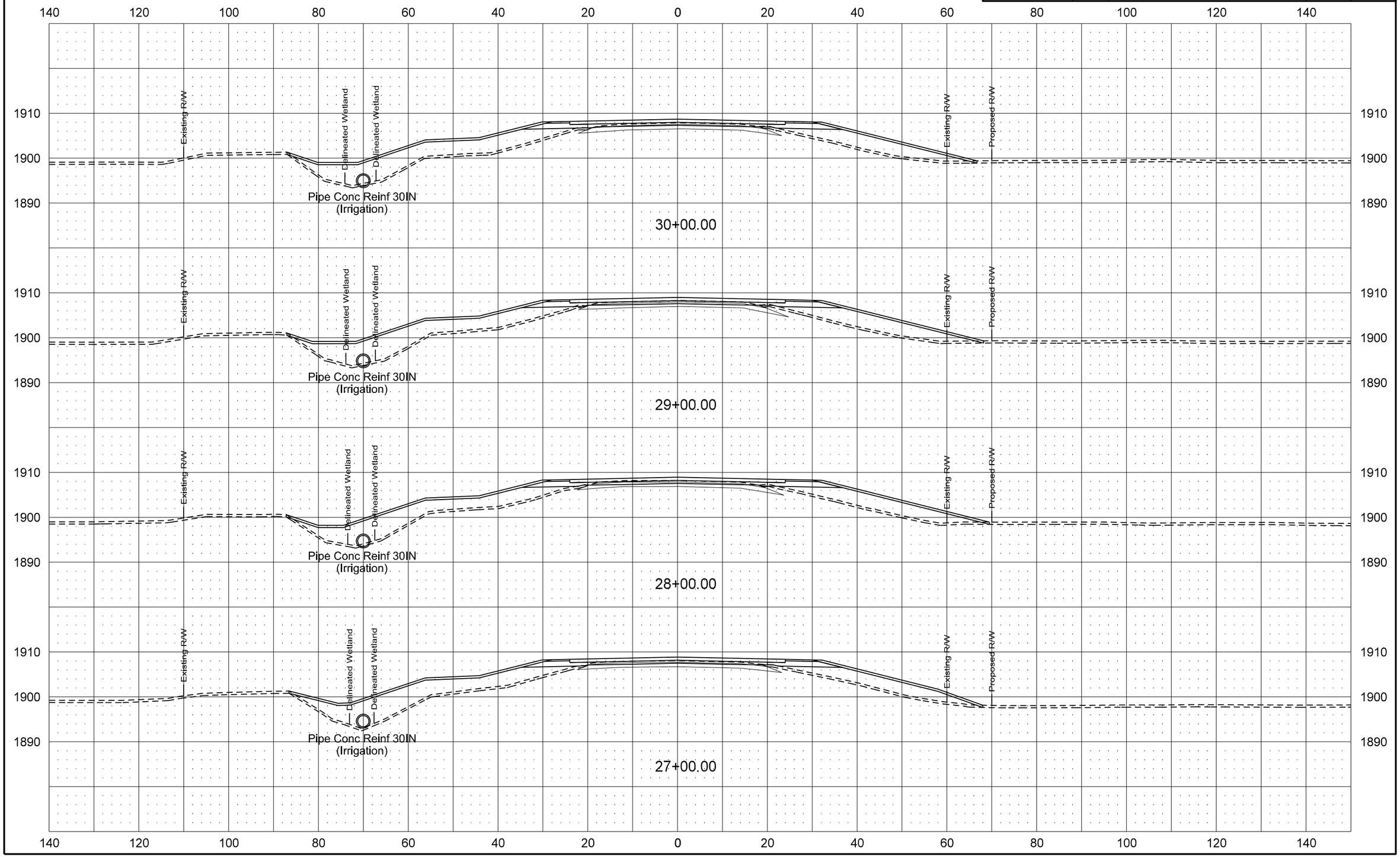
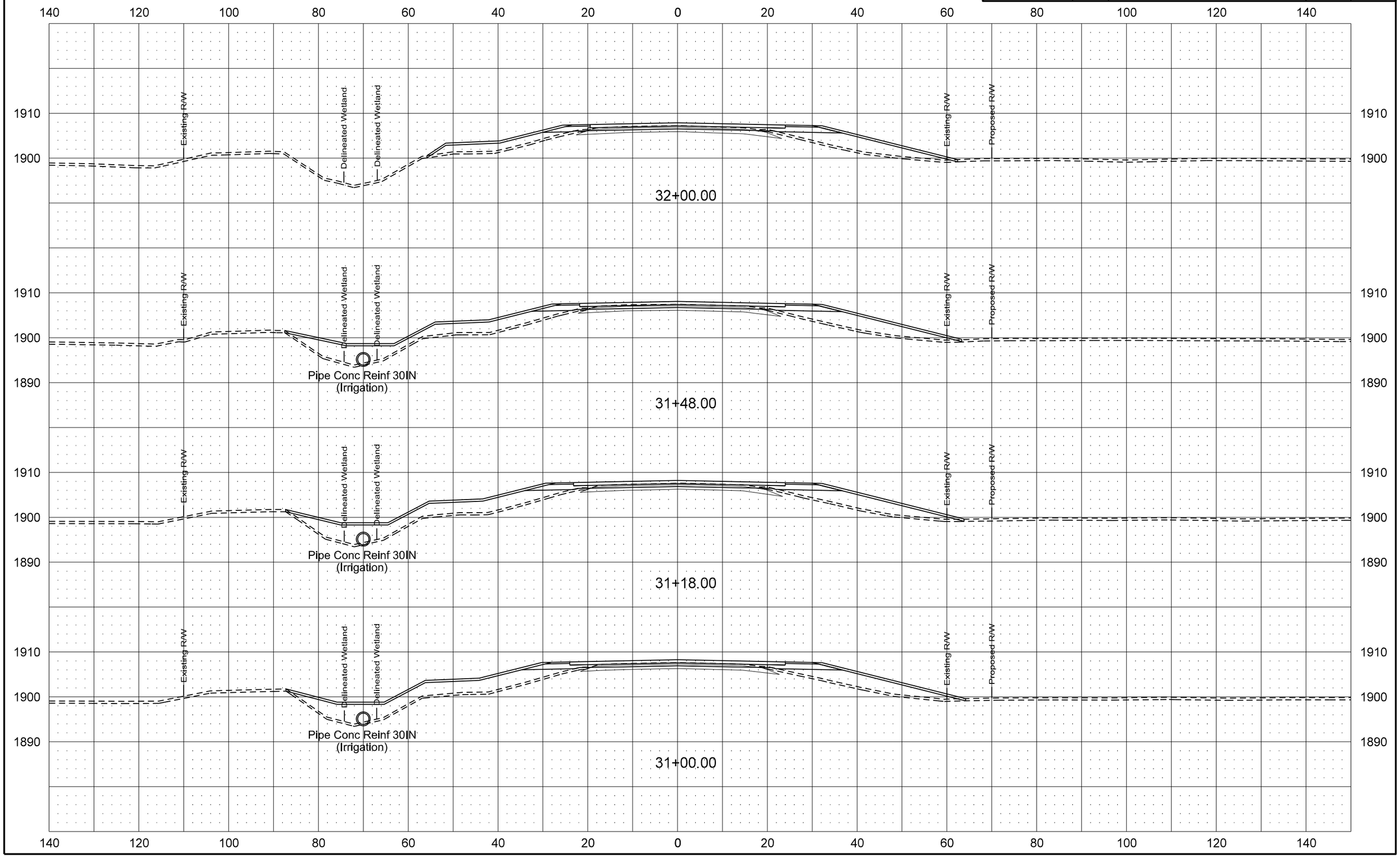
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 9 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 10 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 11 |



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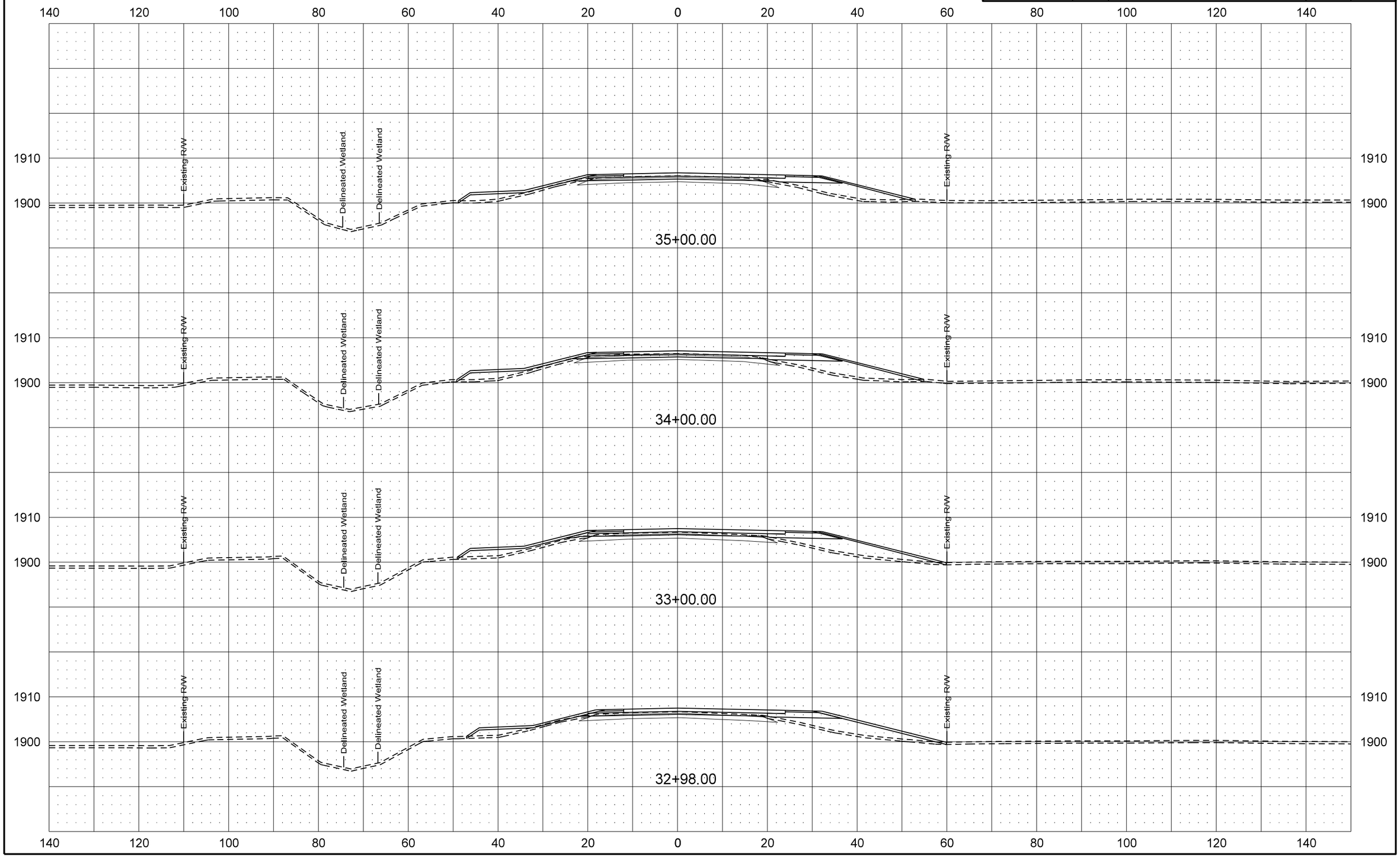
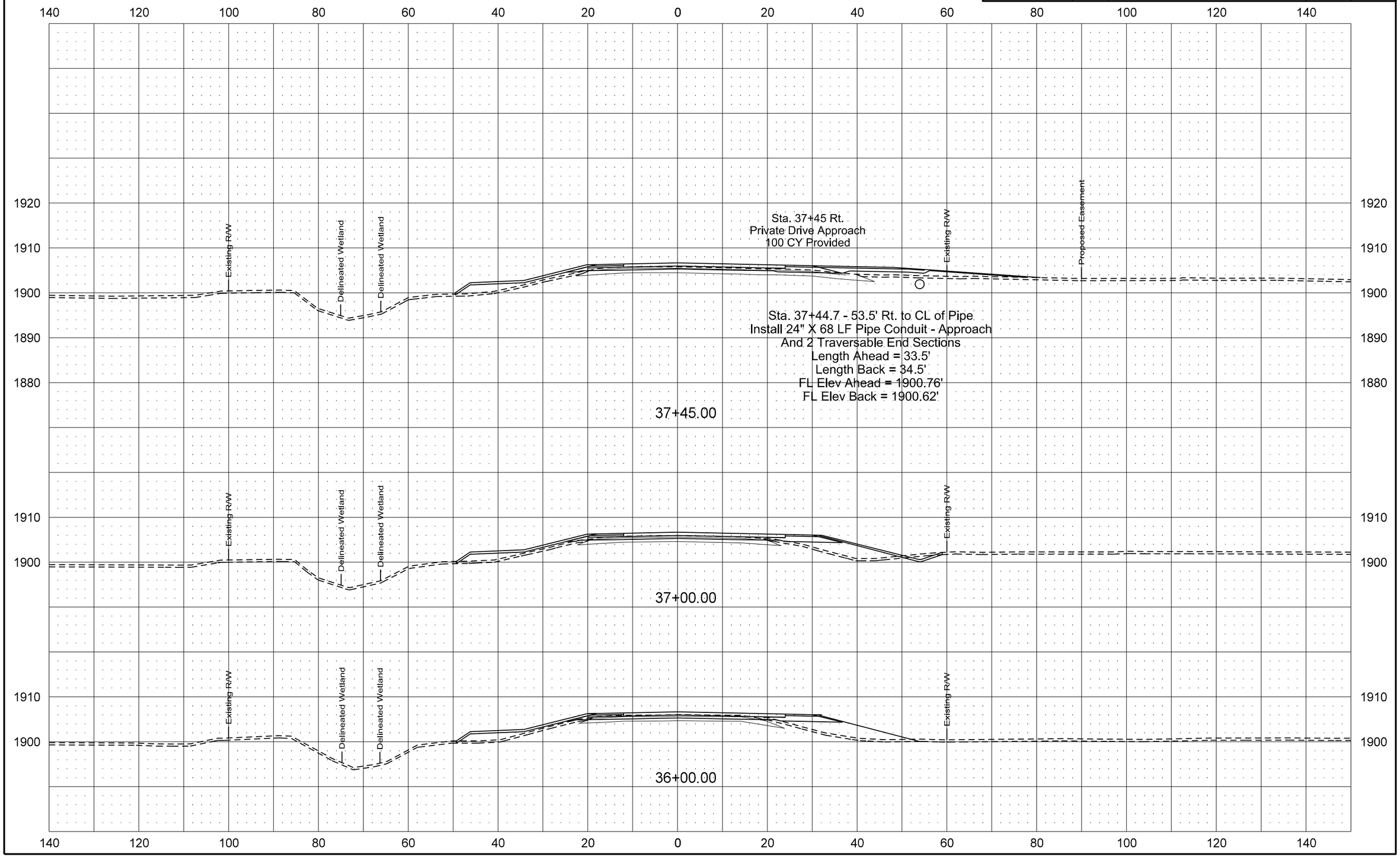
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 12 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 13 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
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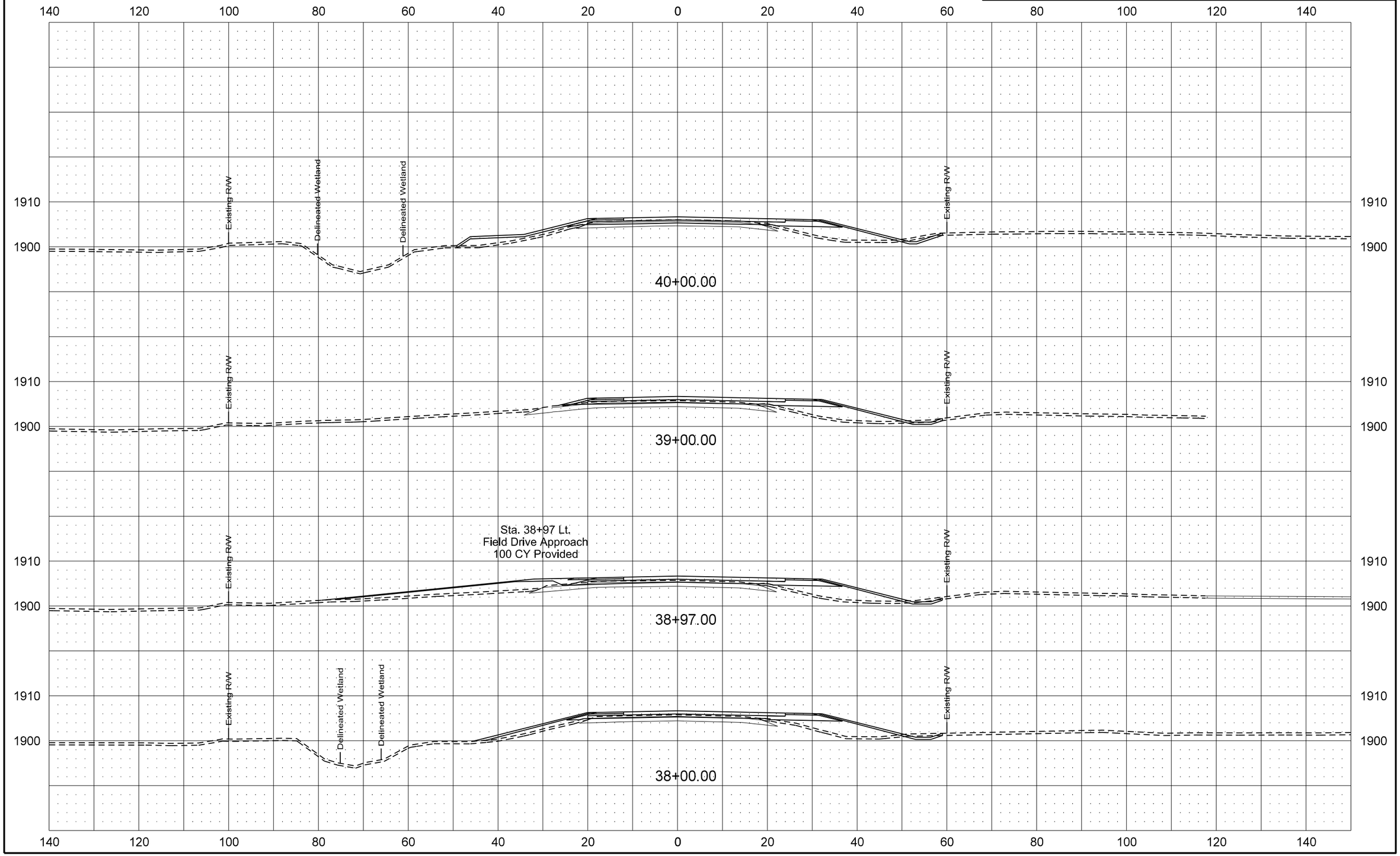
| | ND | SOIB-7-058(013)000 | 200 | 14 |



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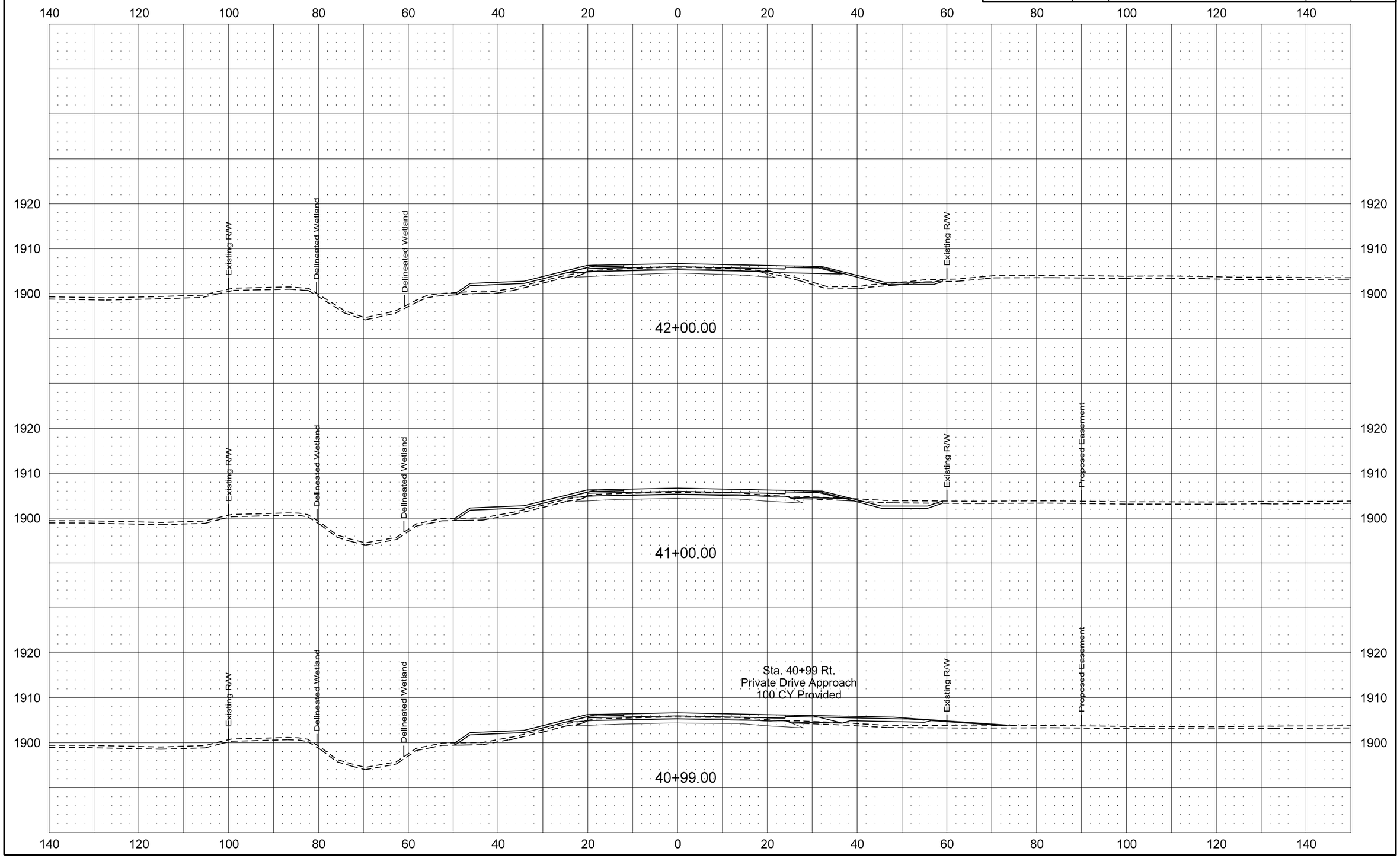

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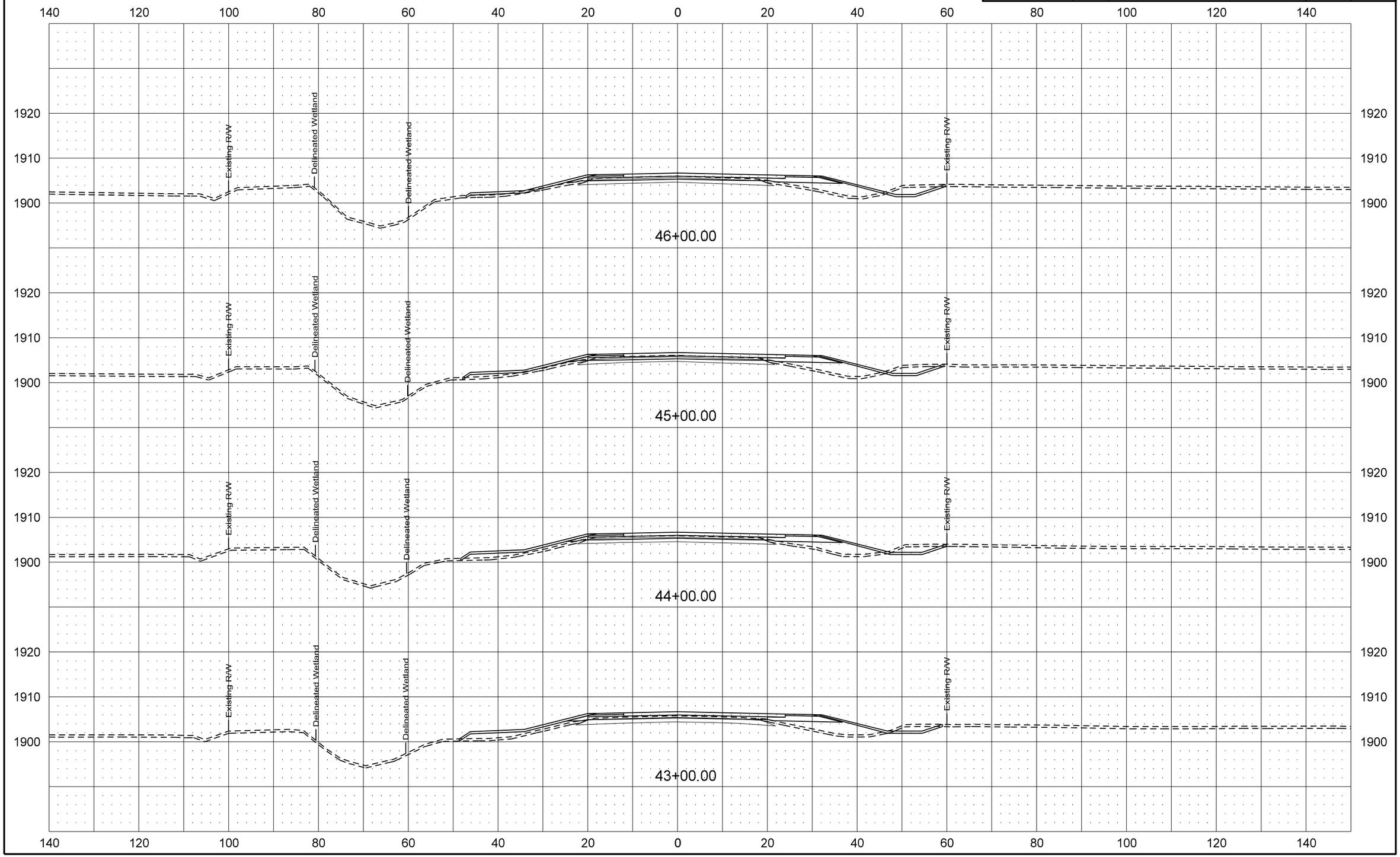

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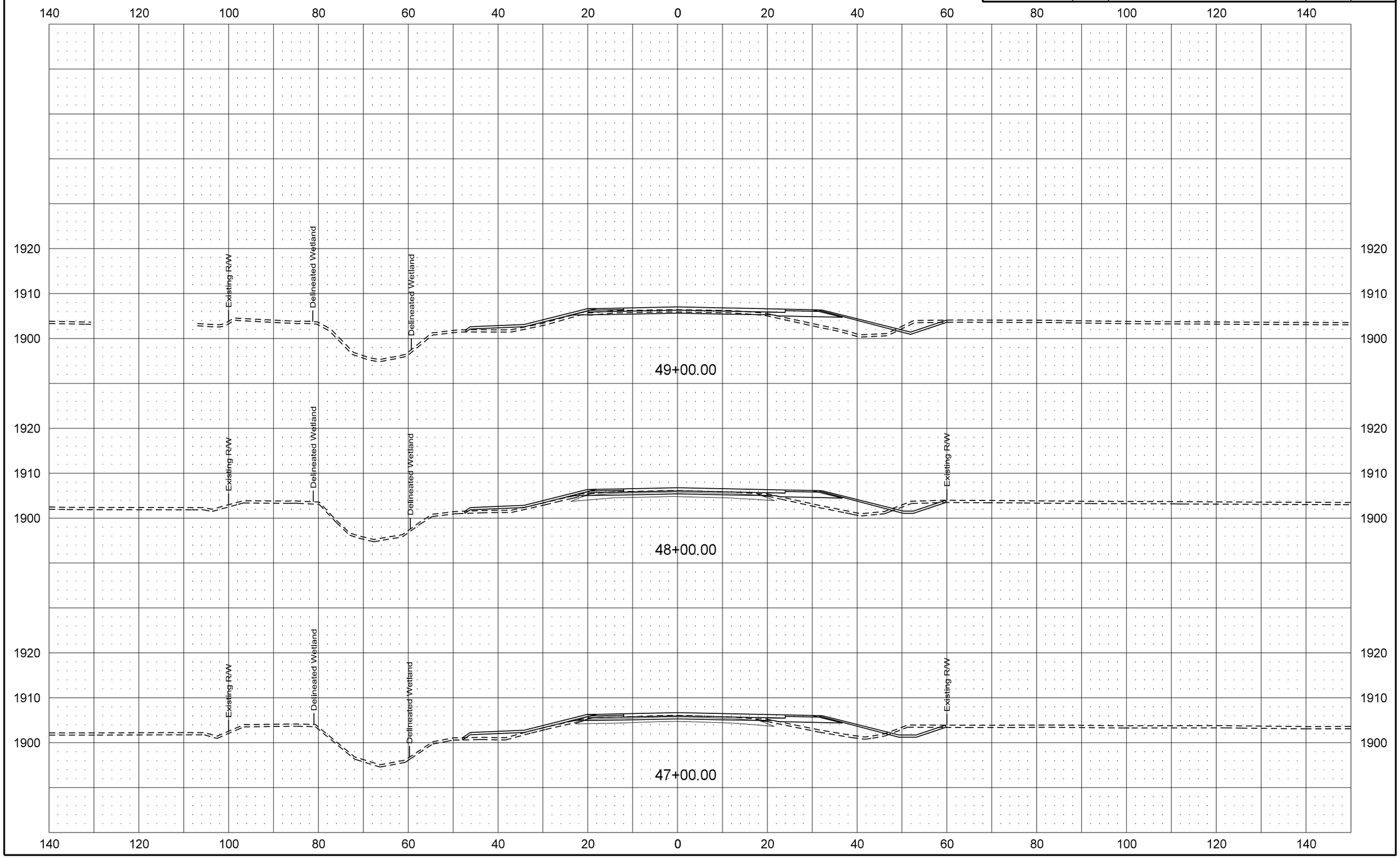

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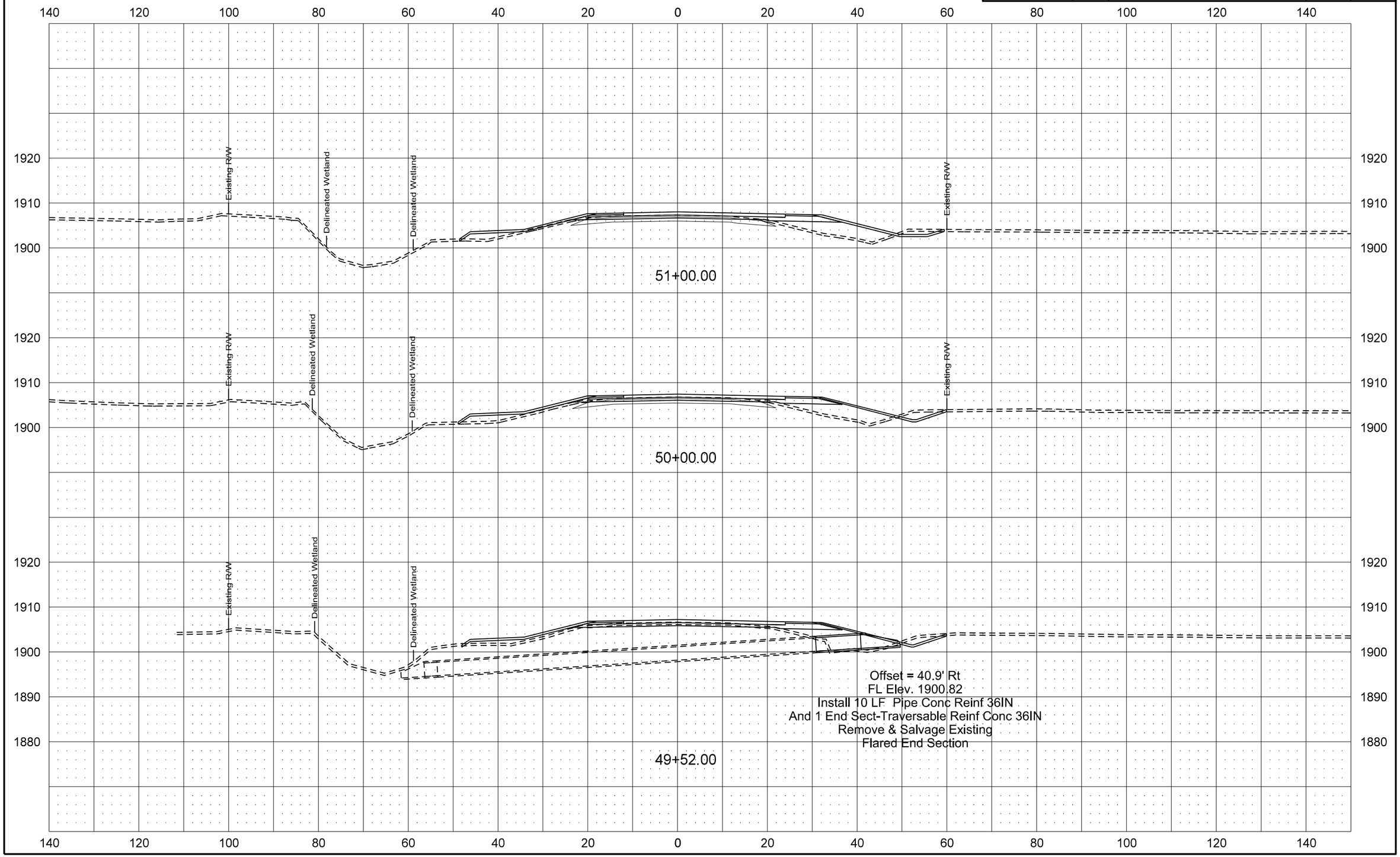

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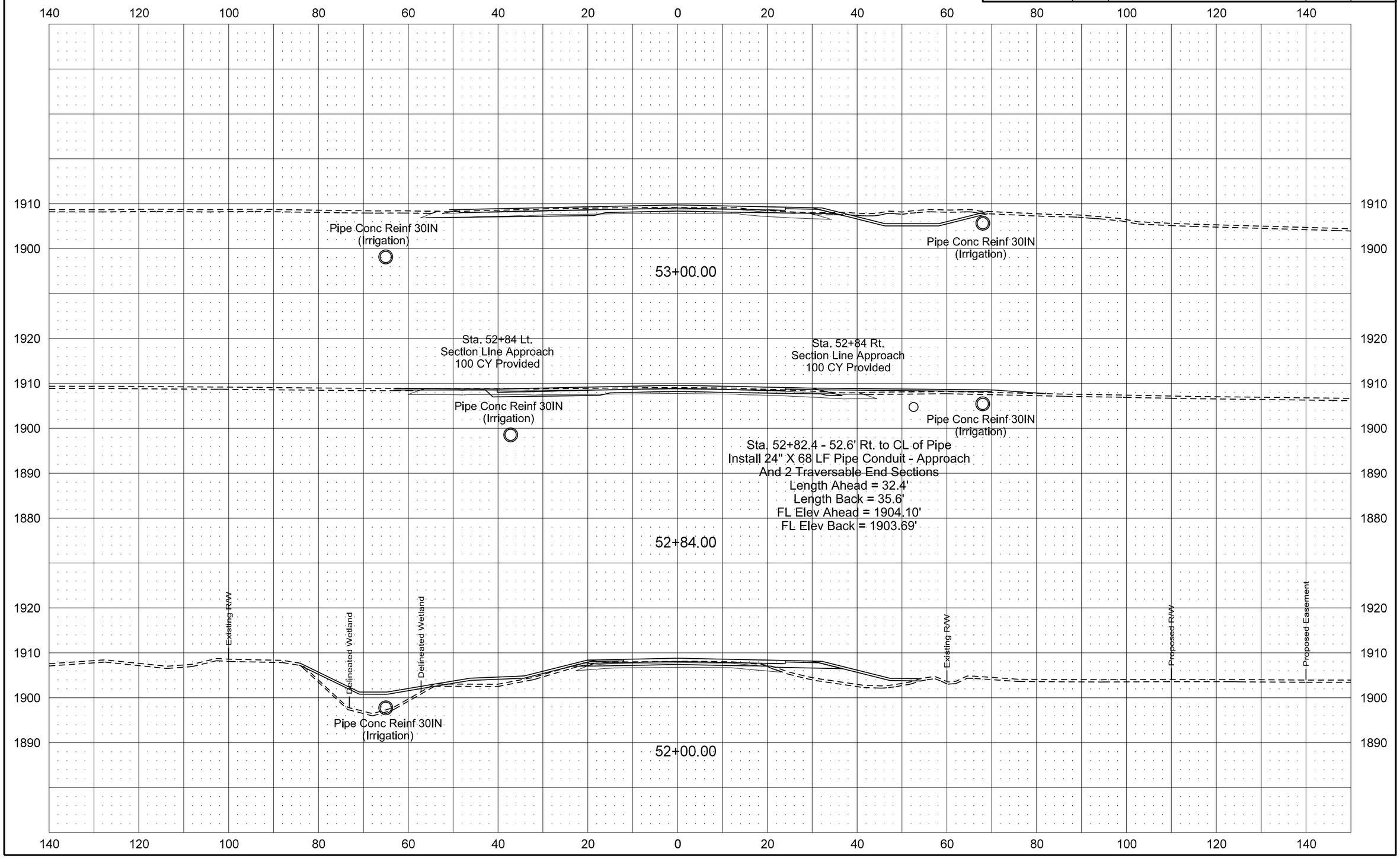

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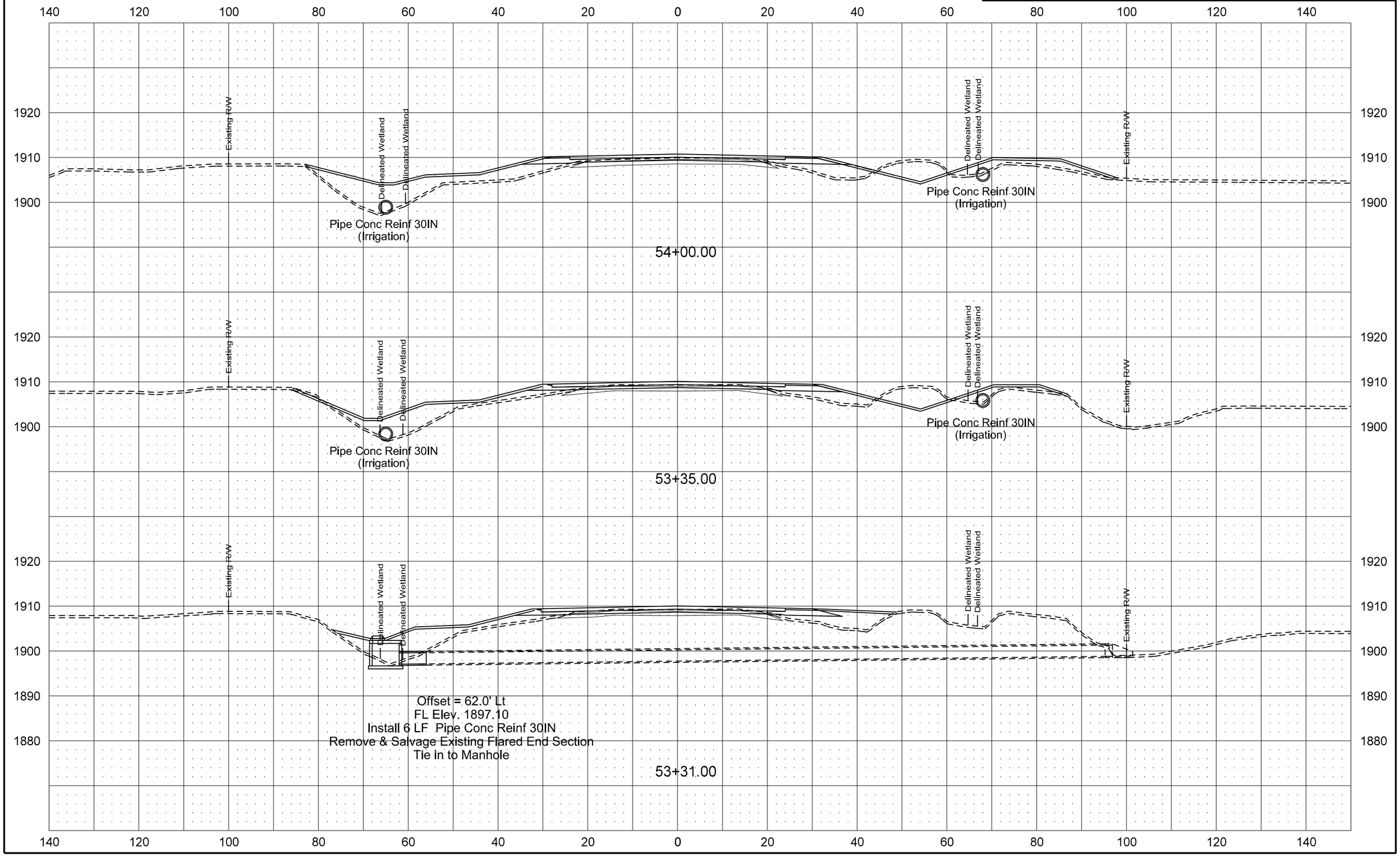

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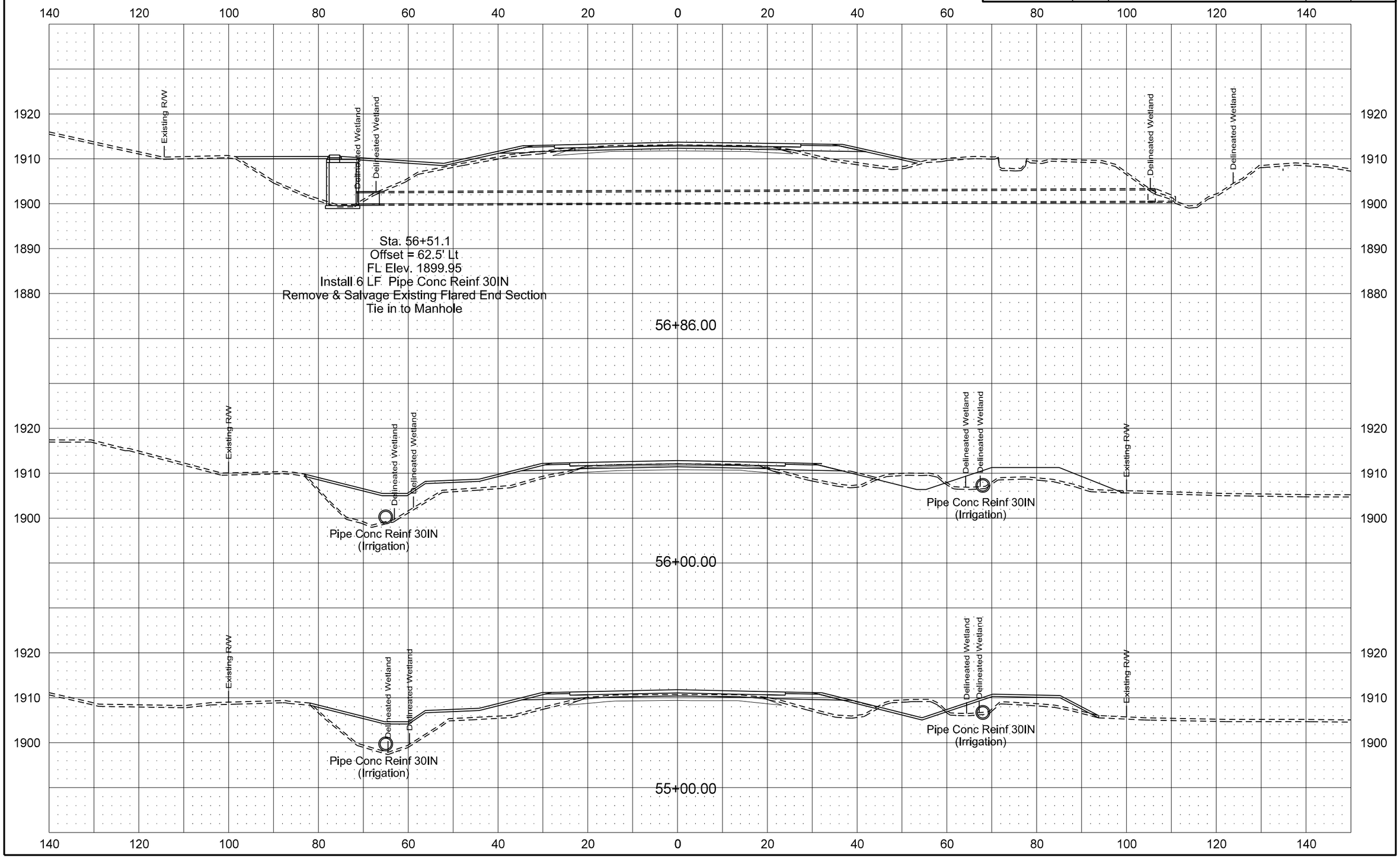

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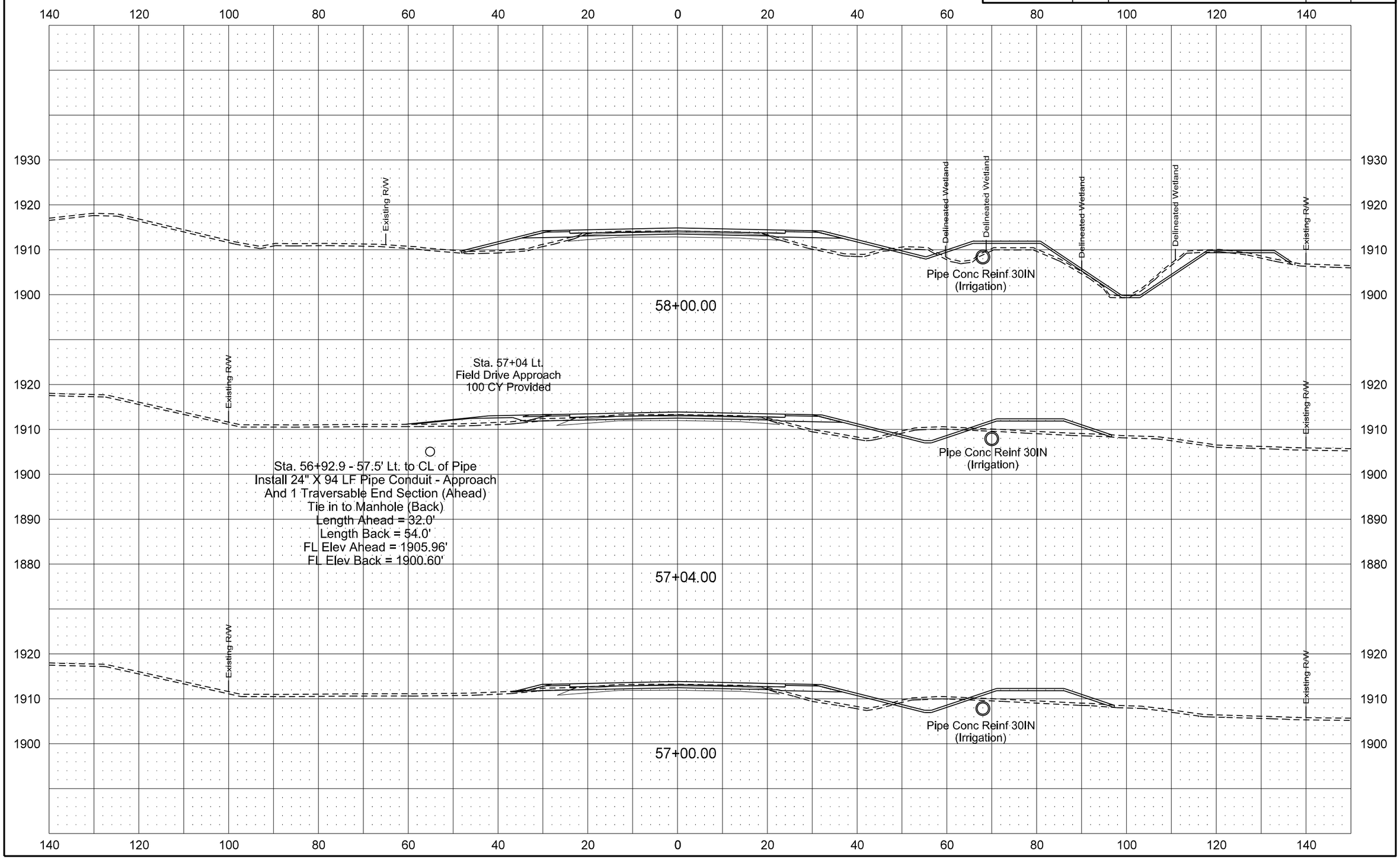

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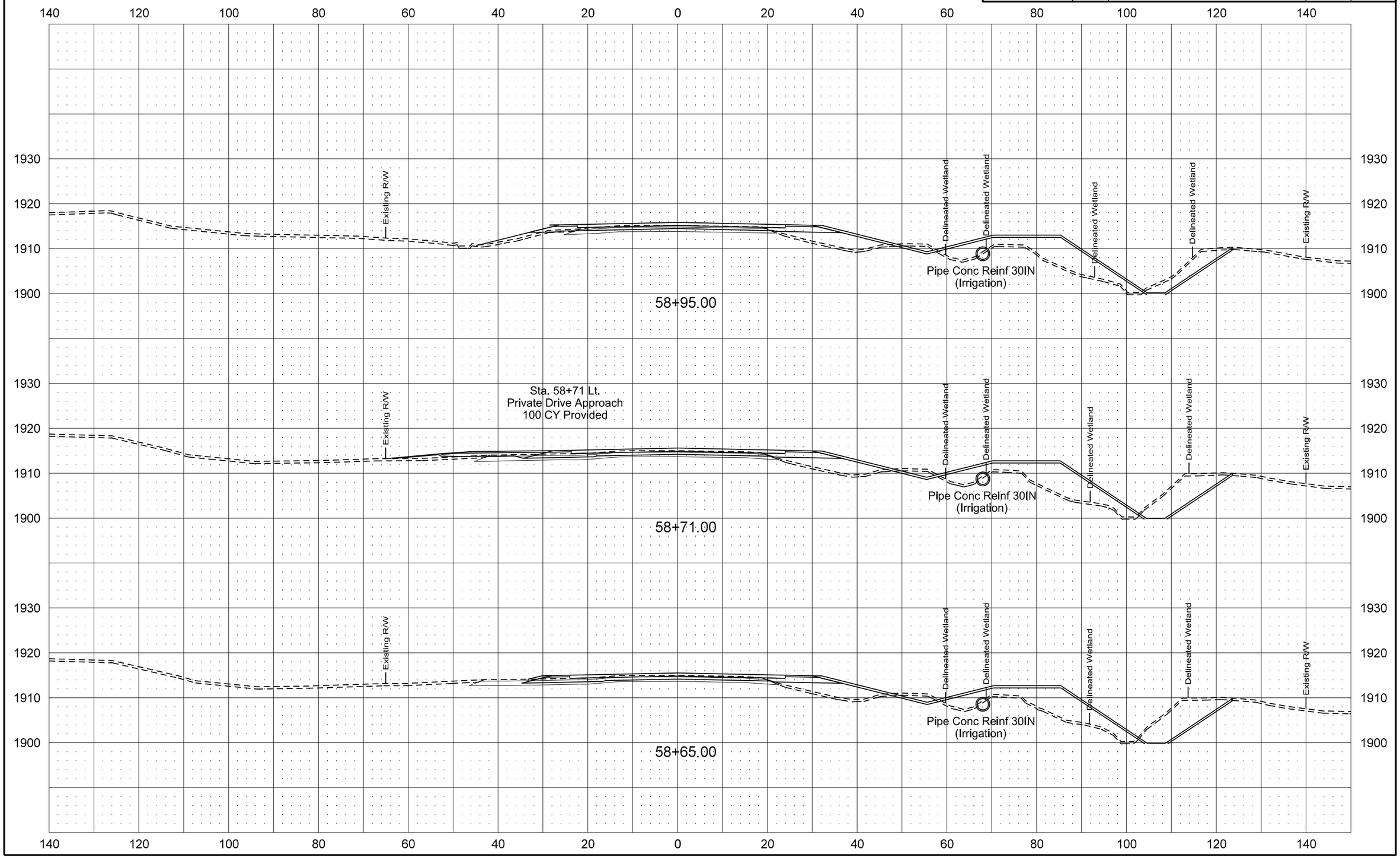

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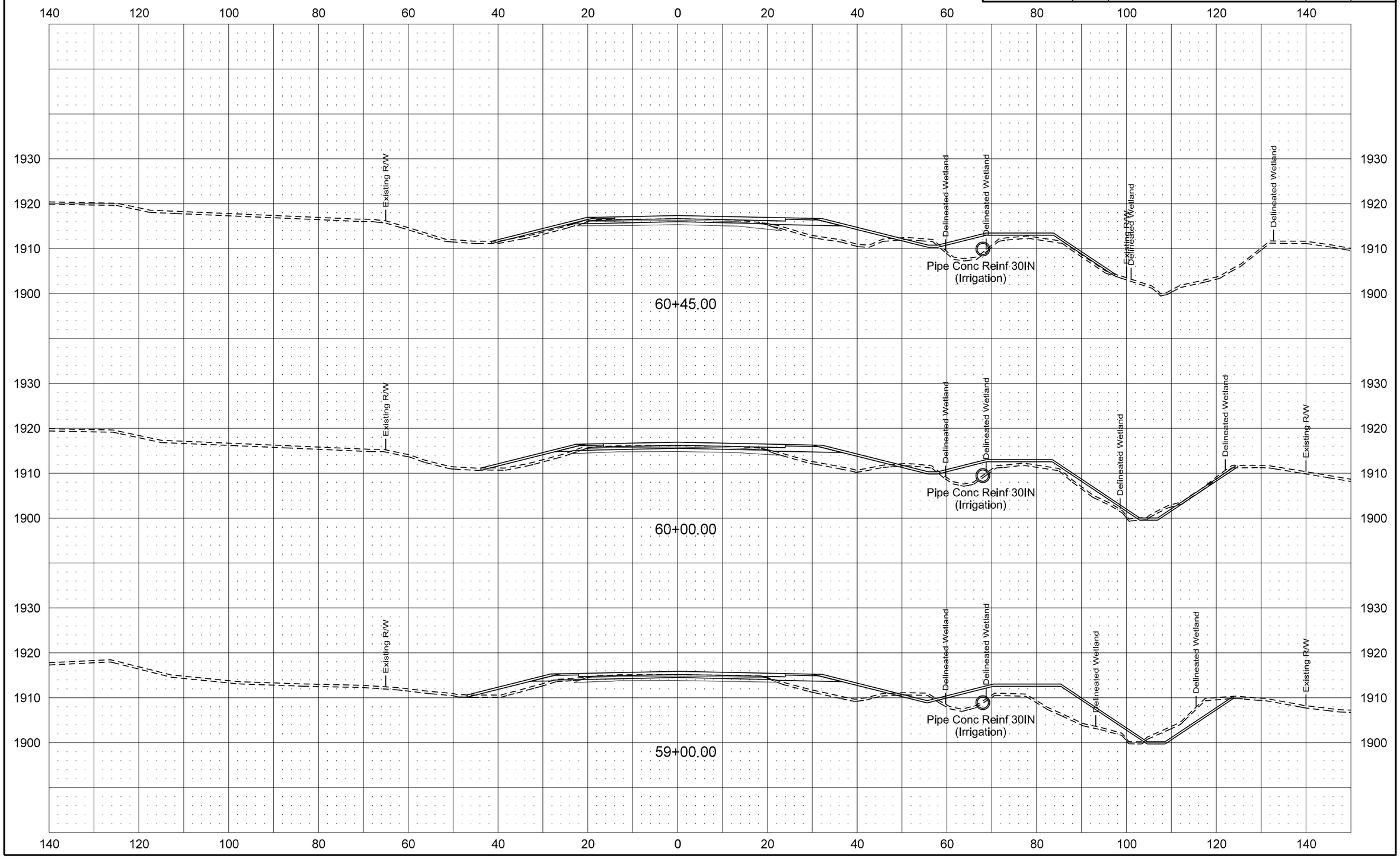


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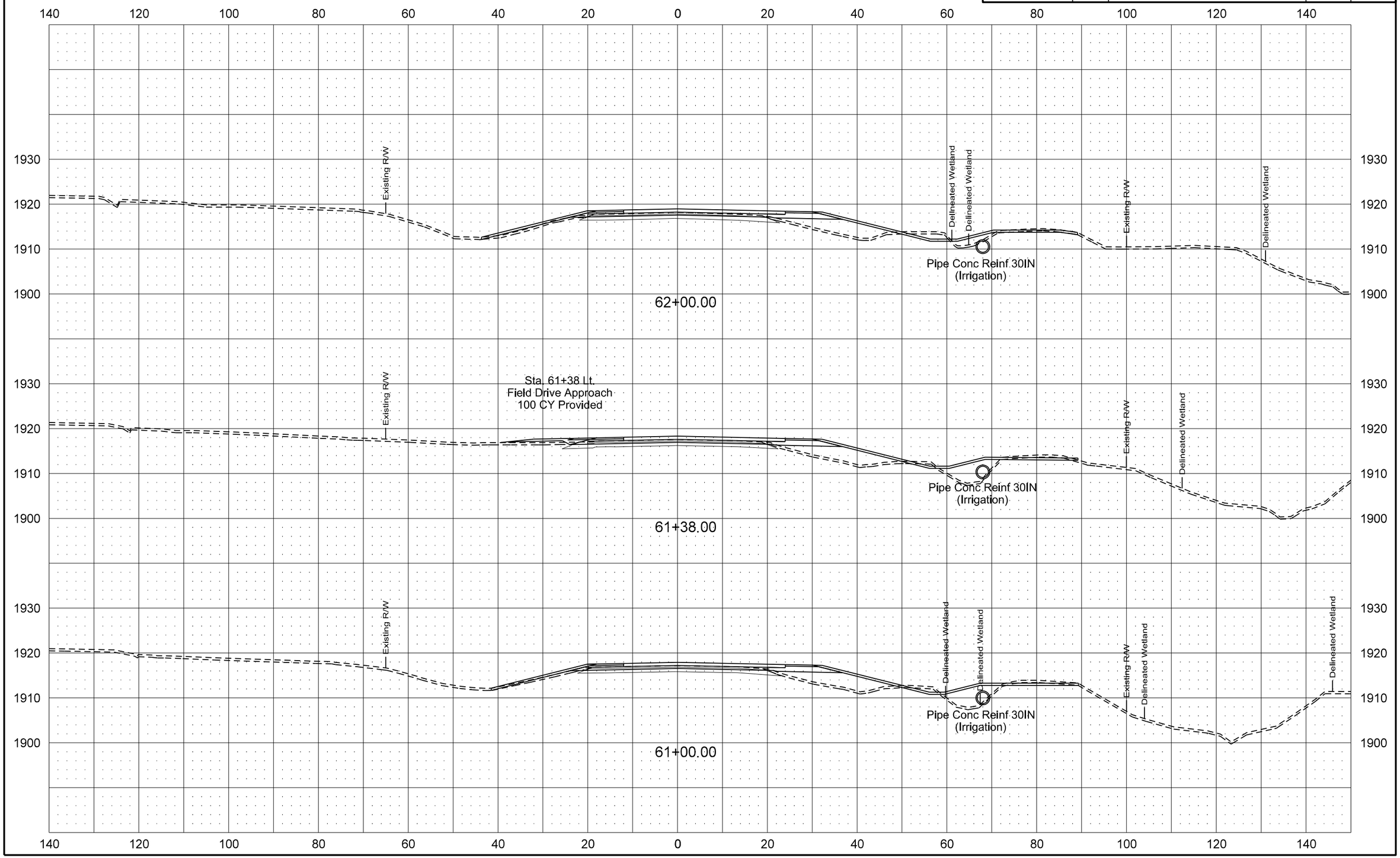


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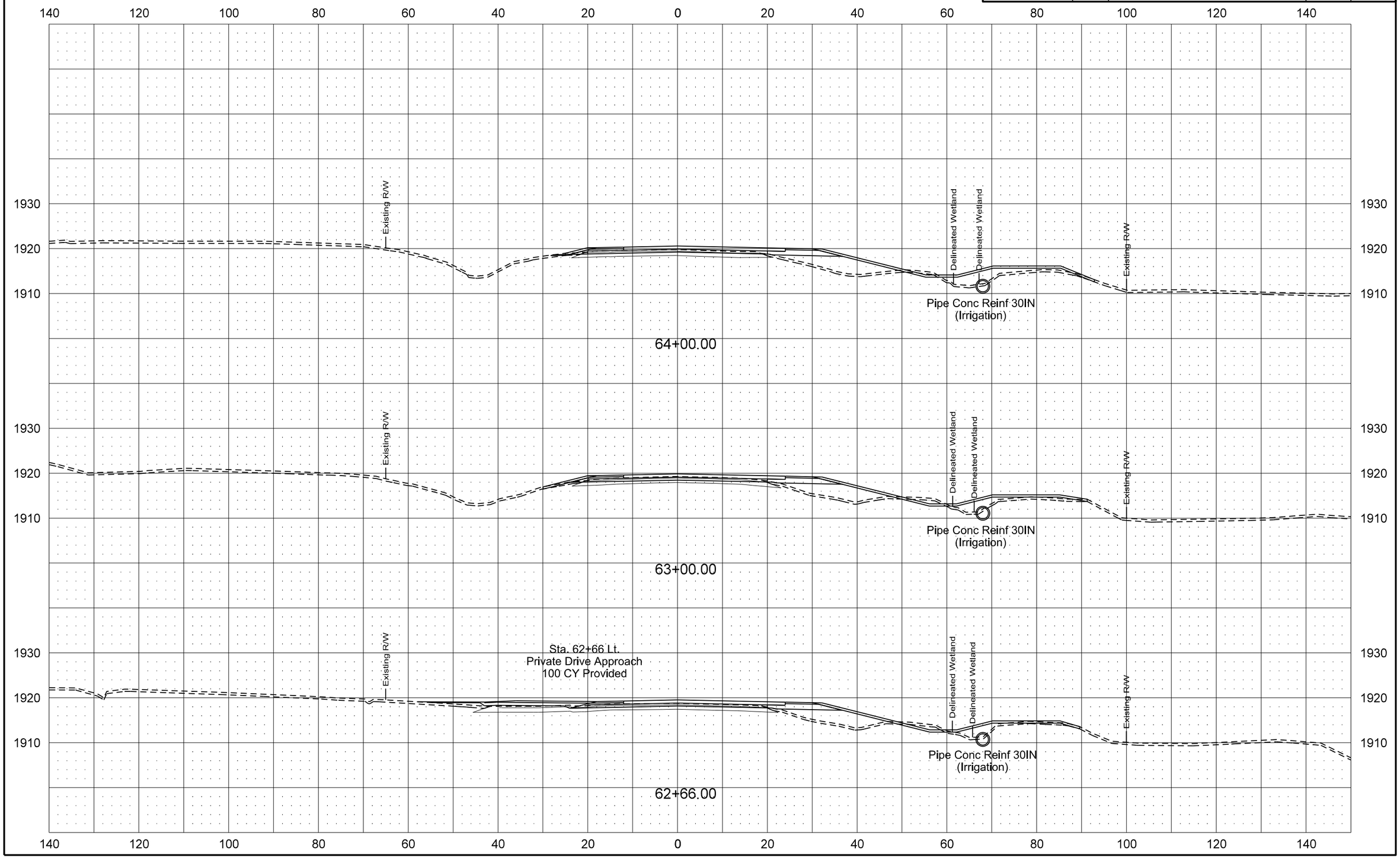


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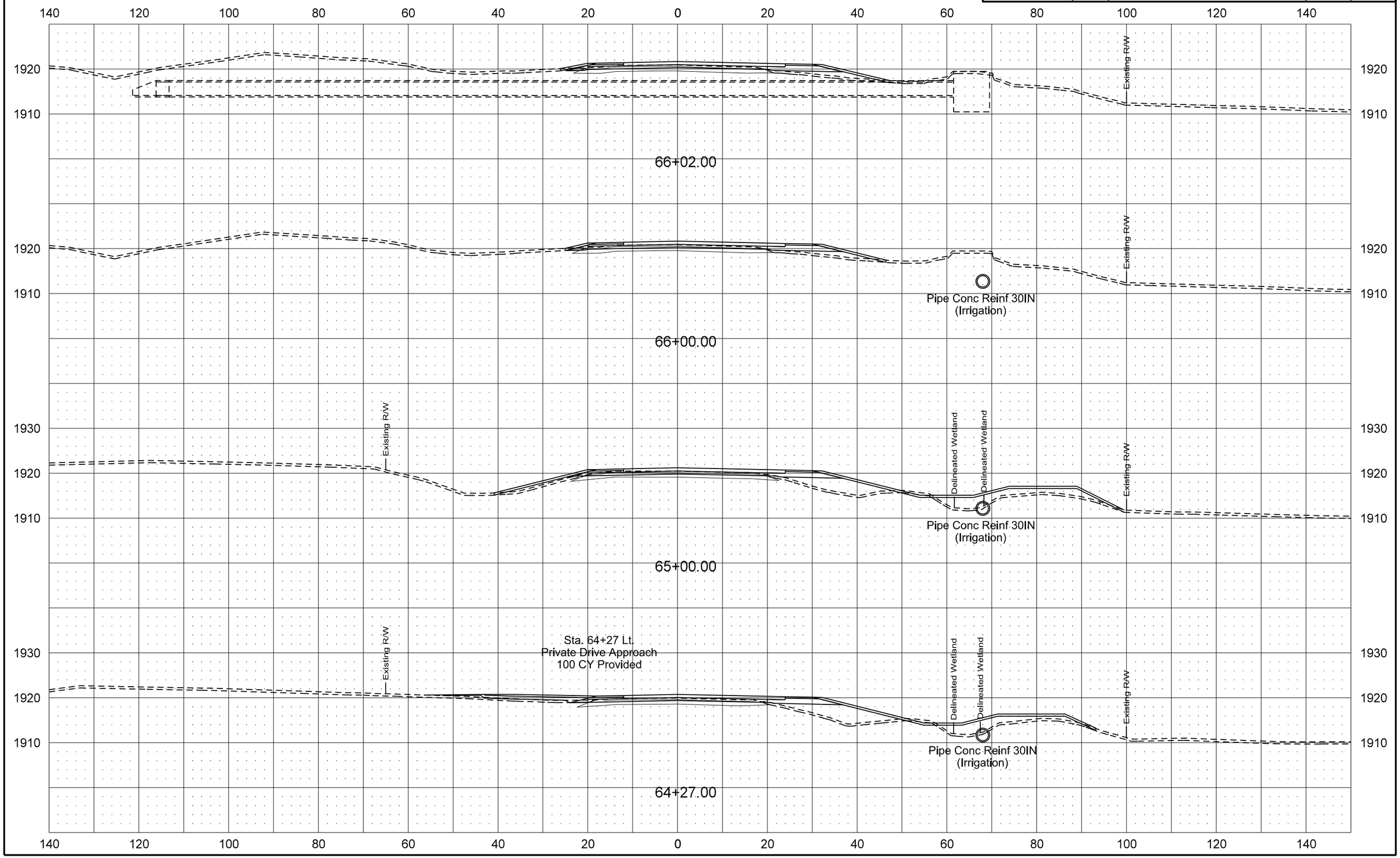

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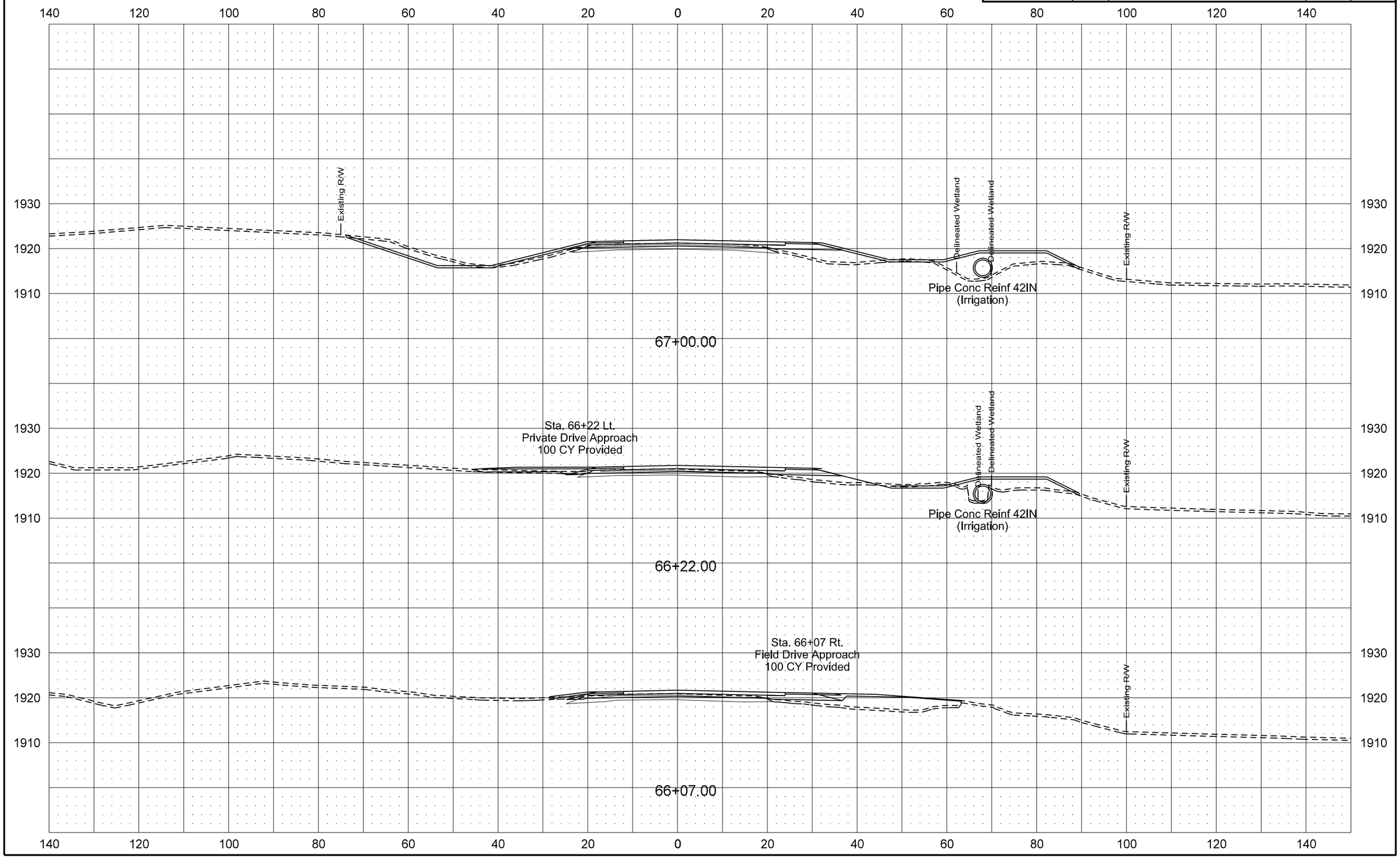

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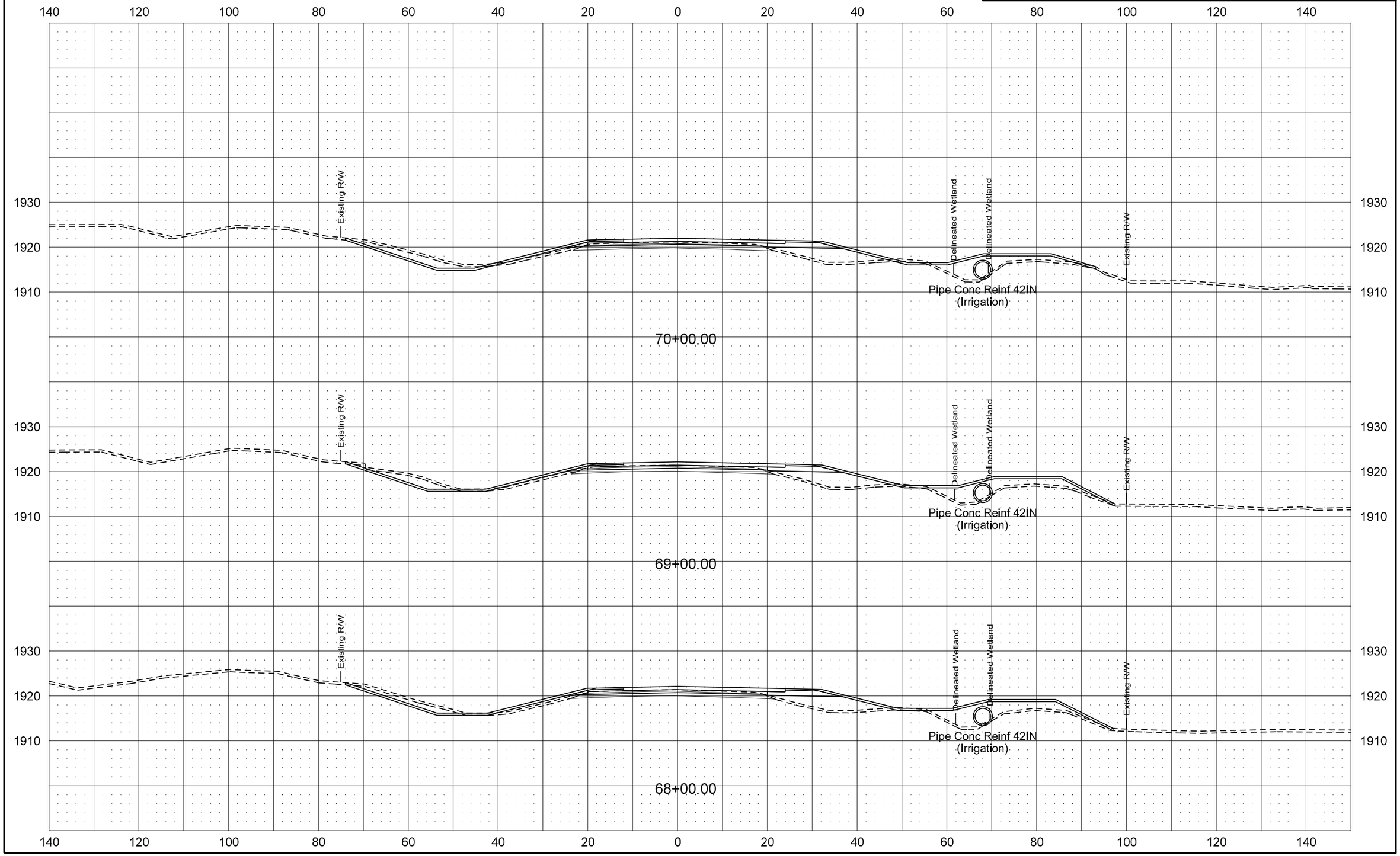


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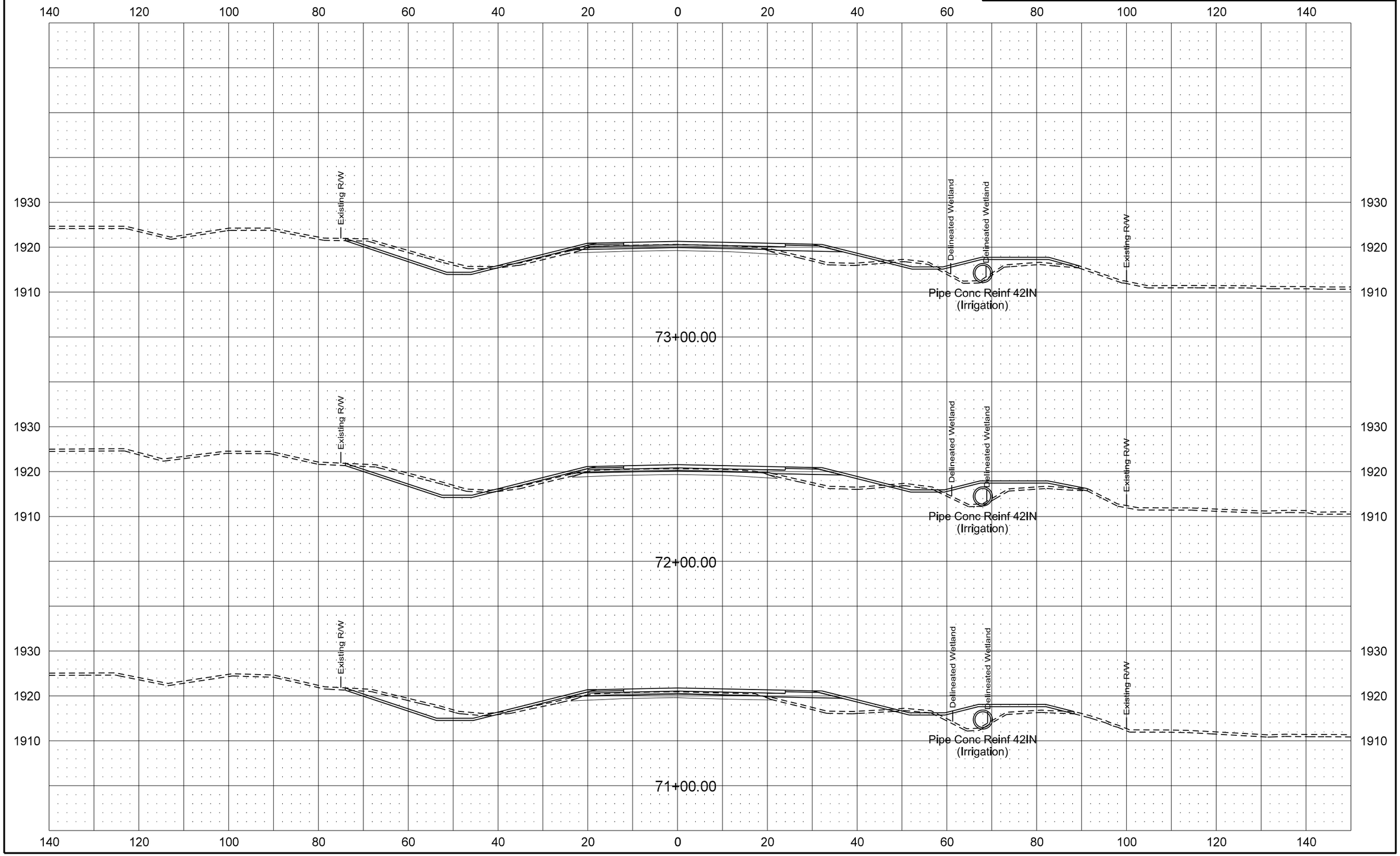

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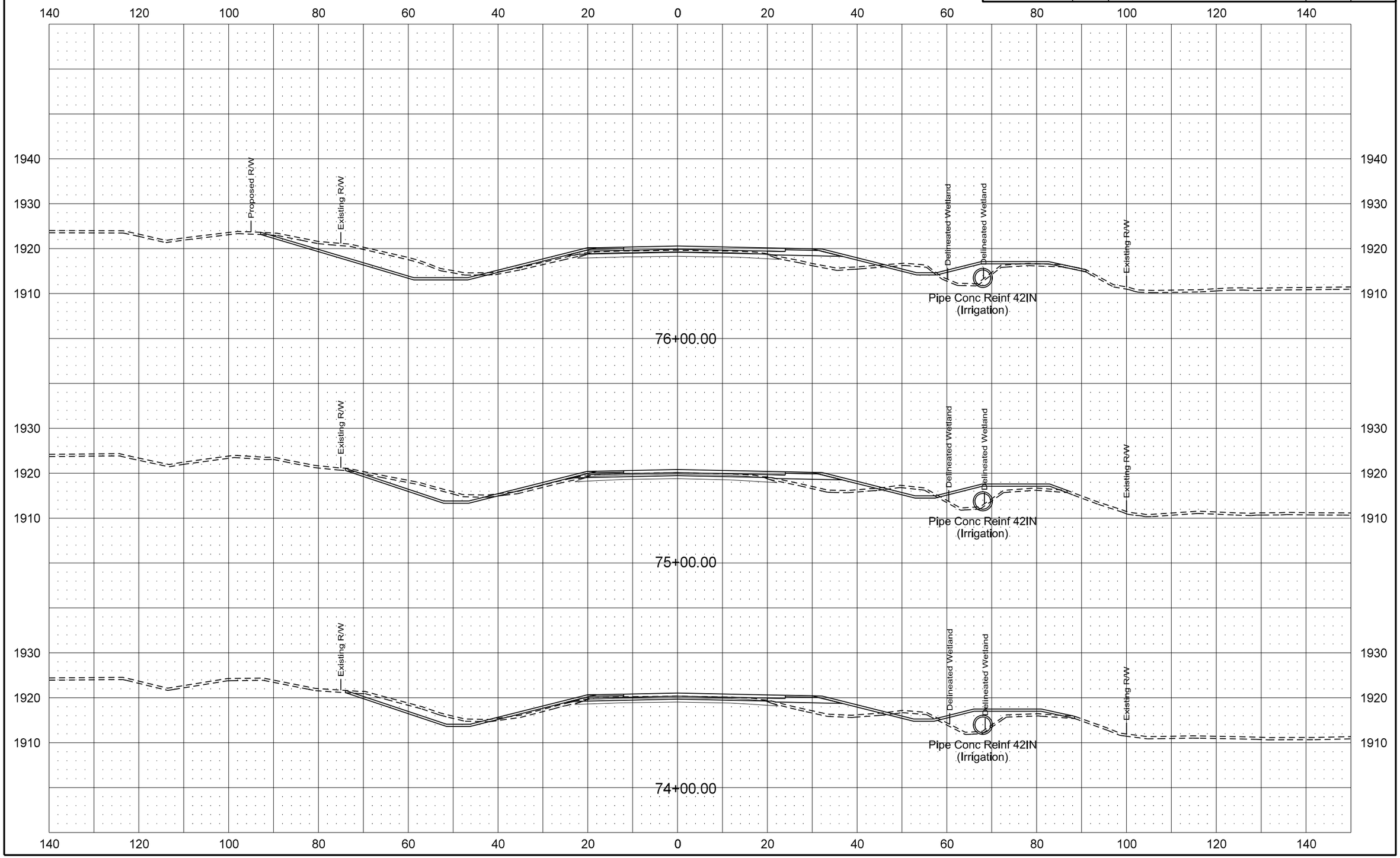

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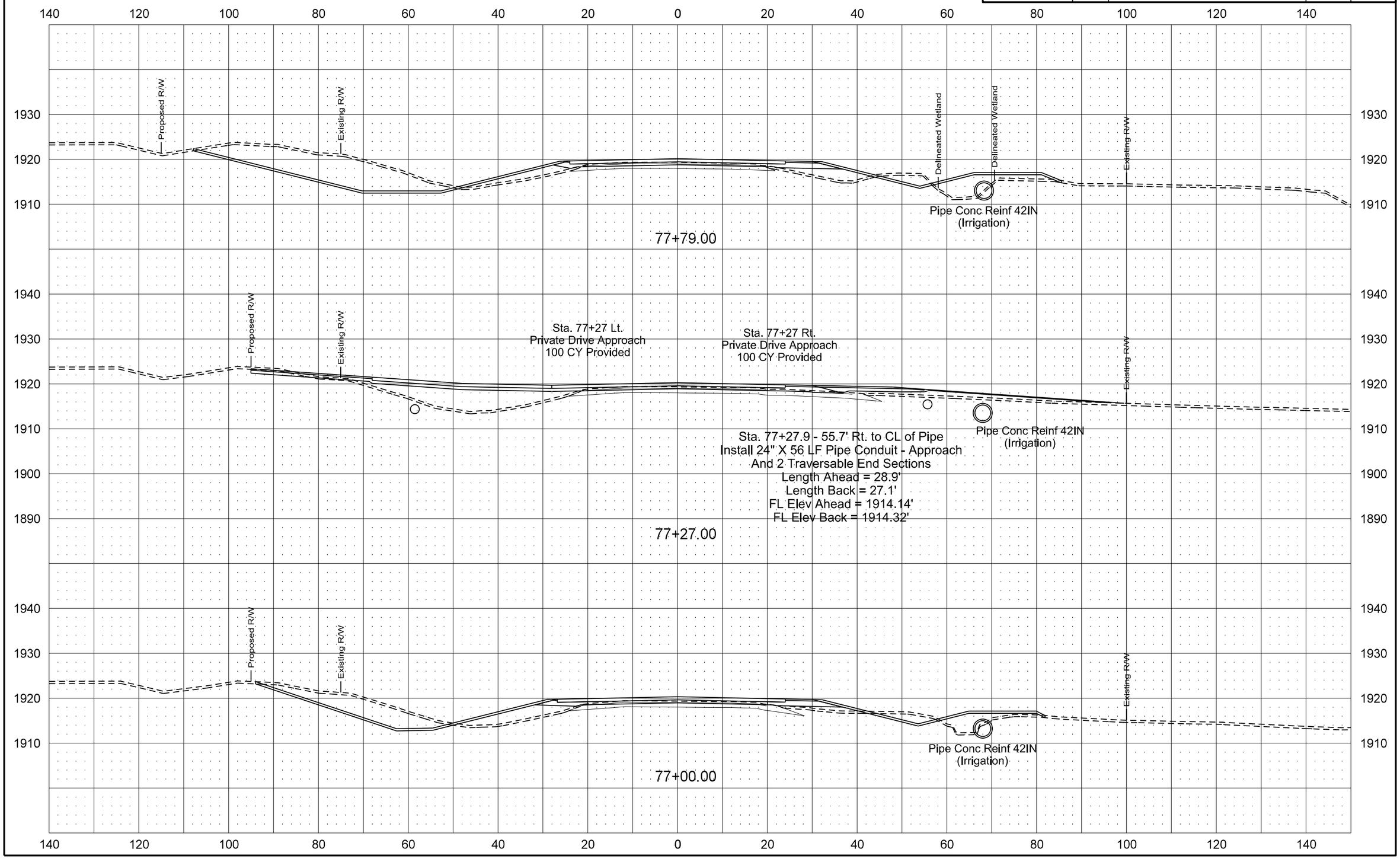

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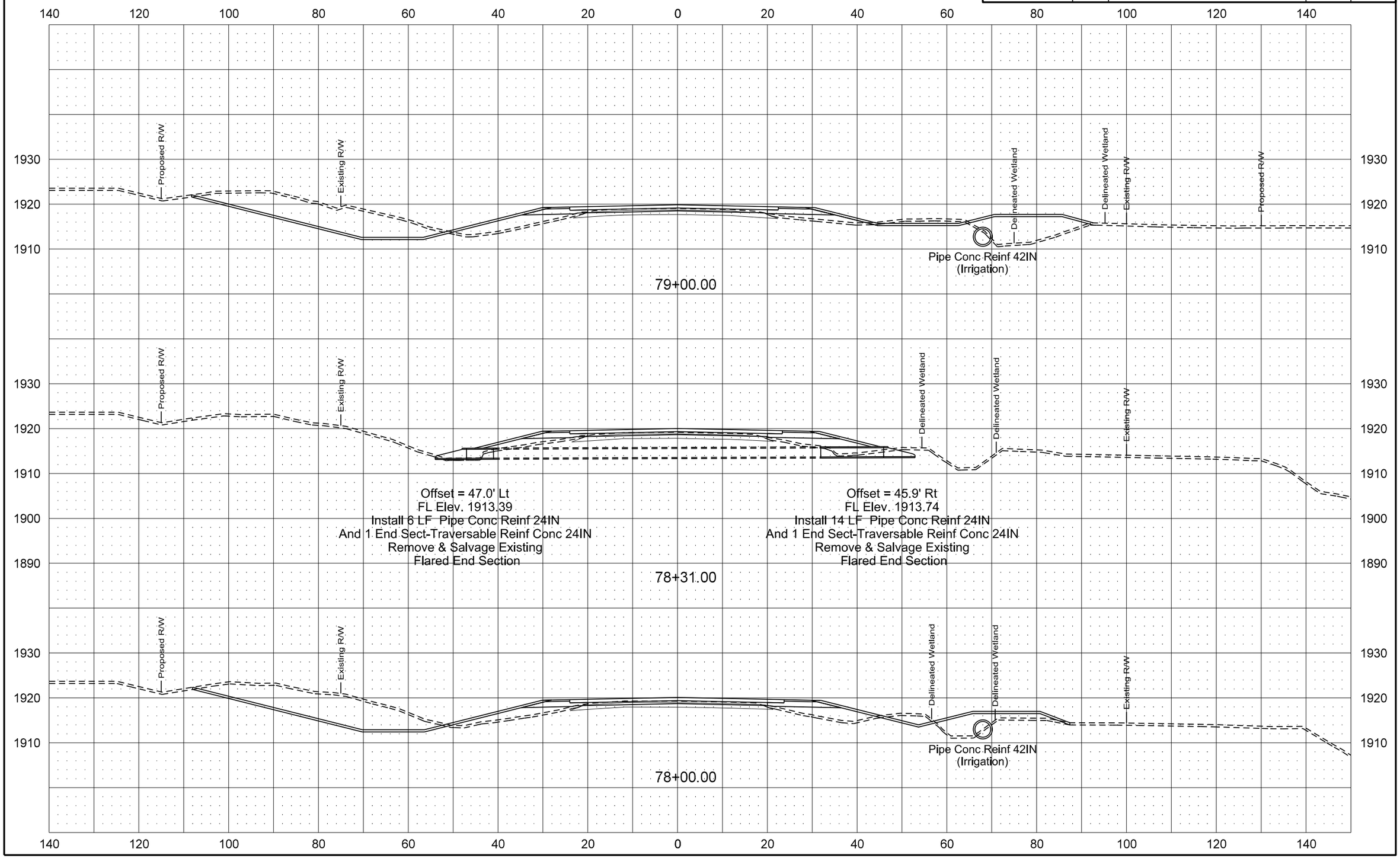

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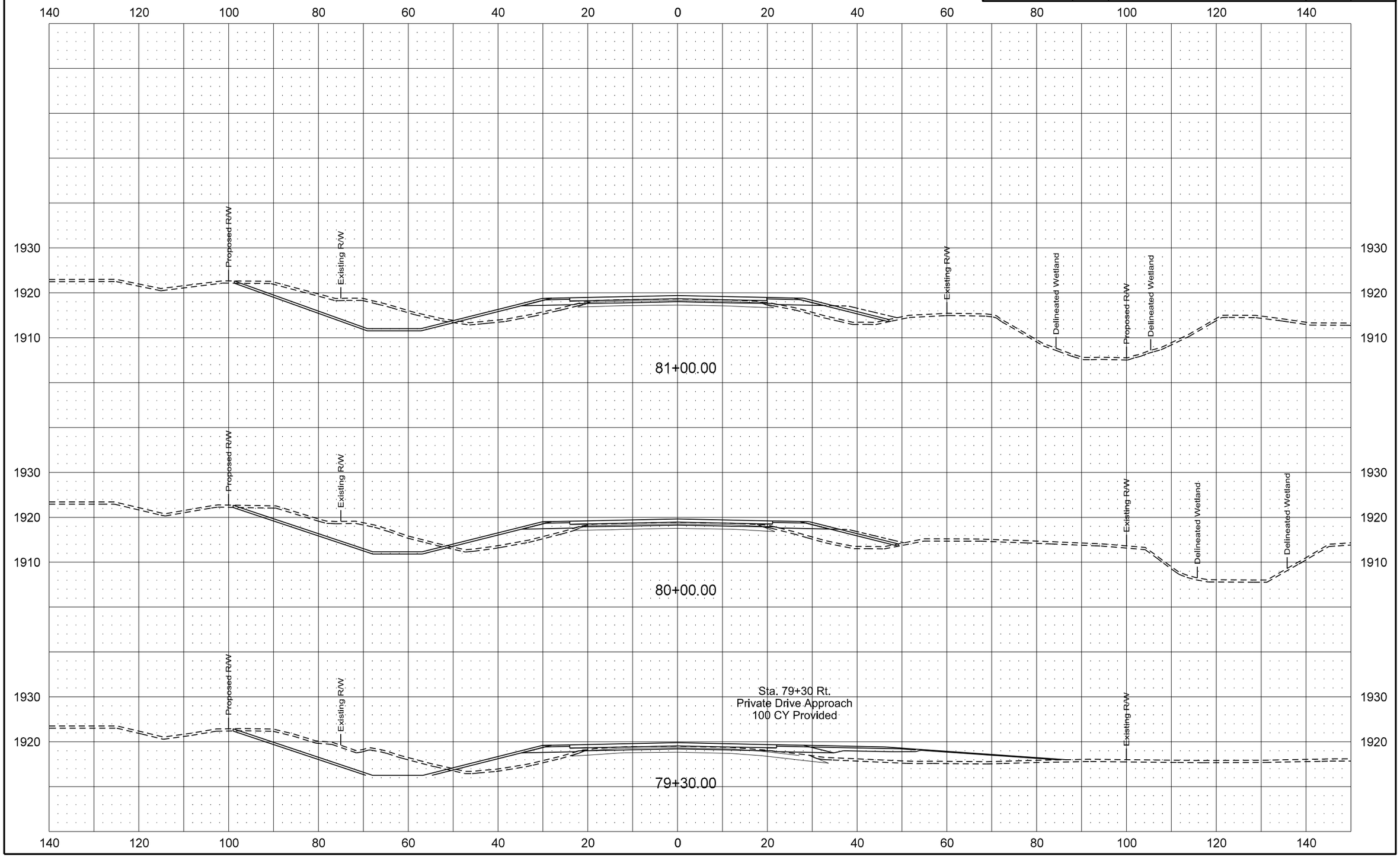

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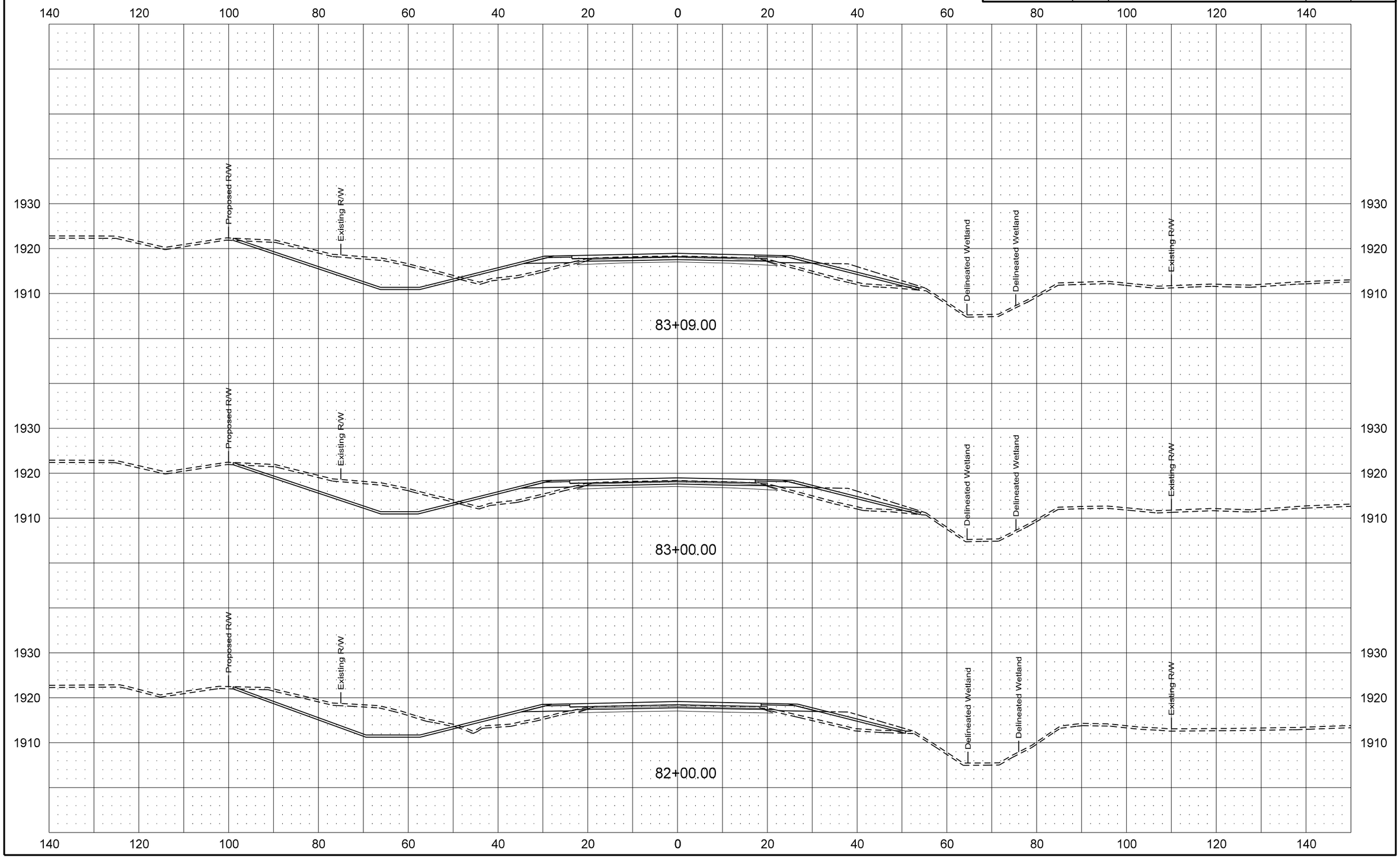

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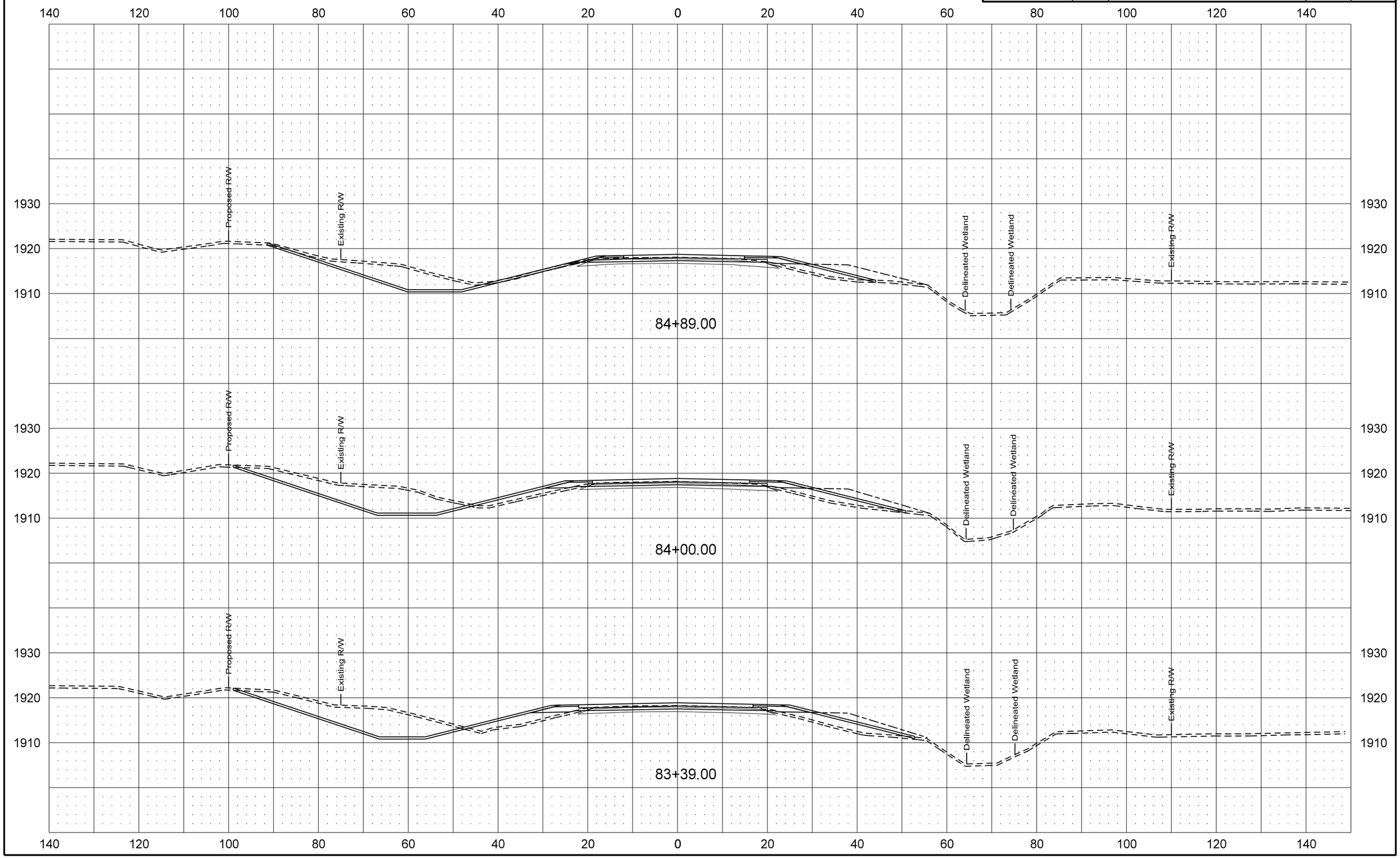

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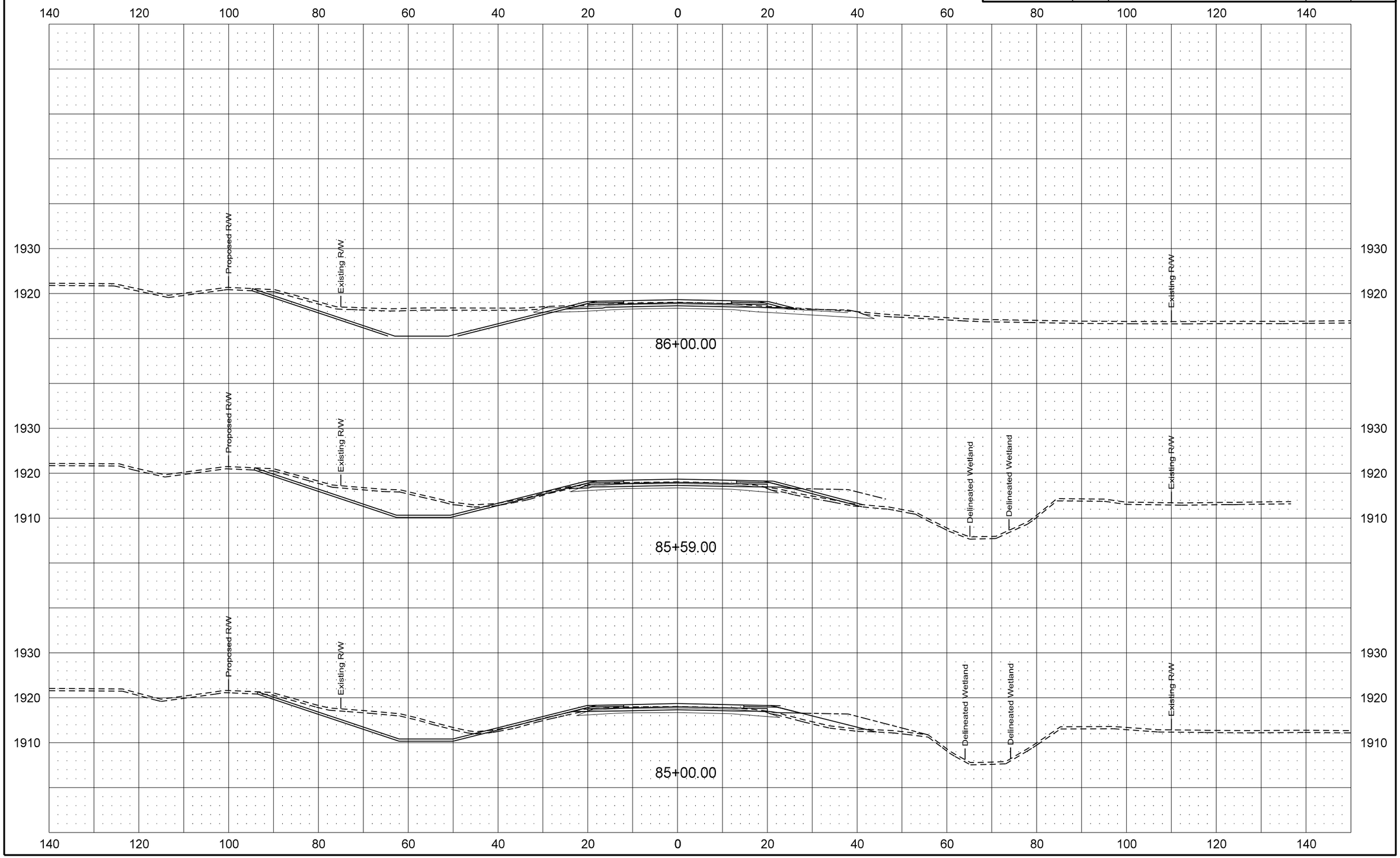

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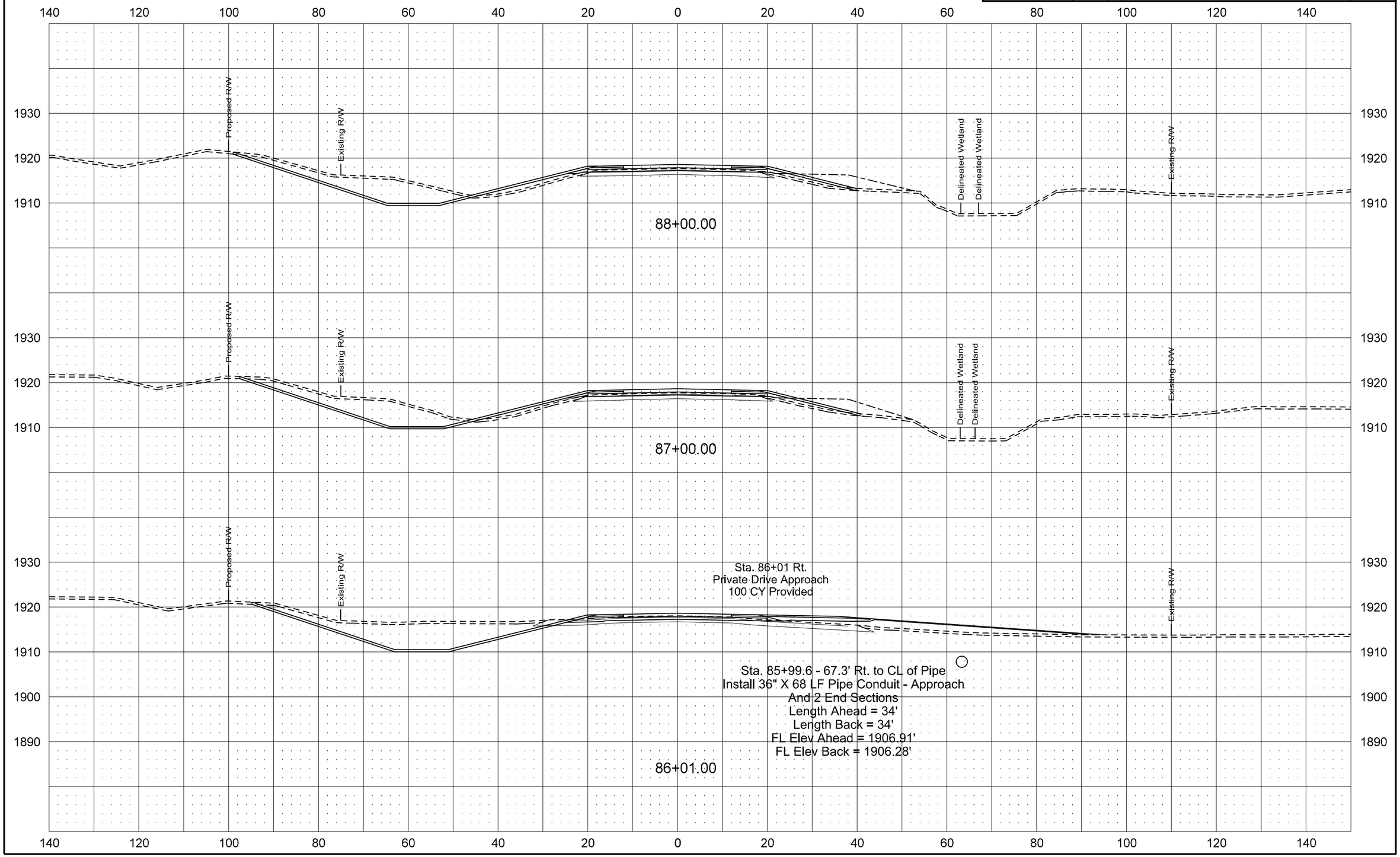

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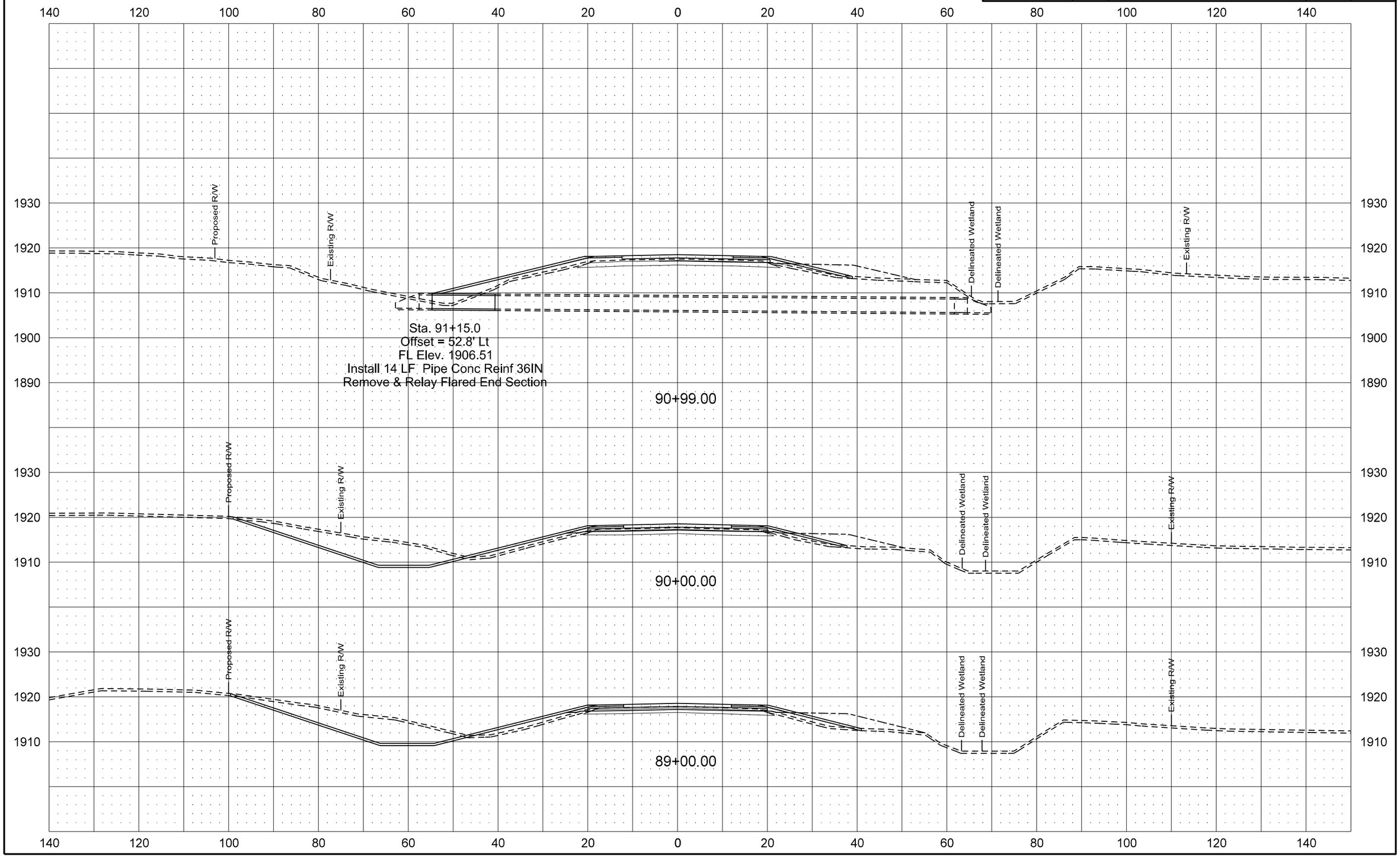

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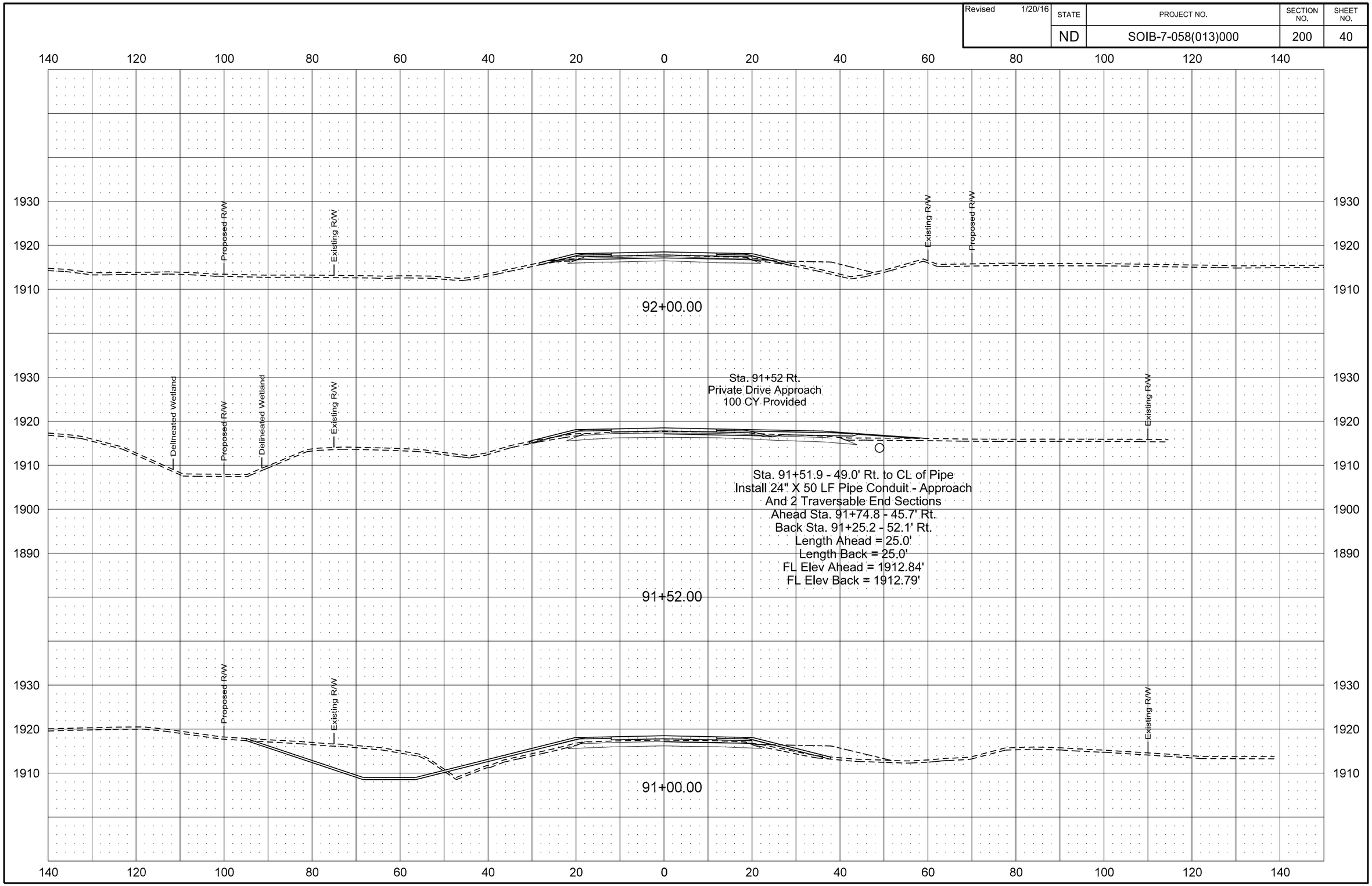

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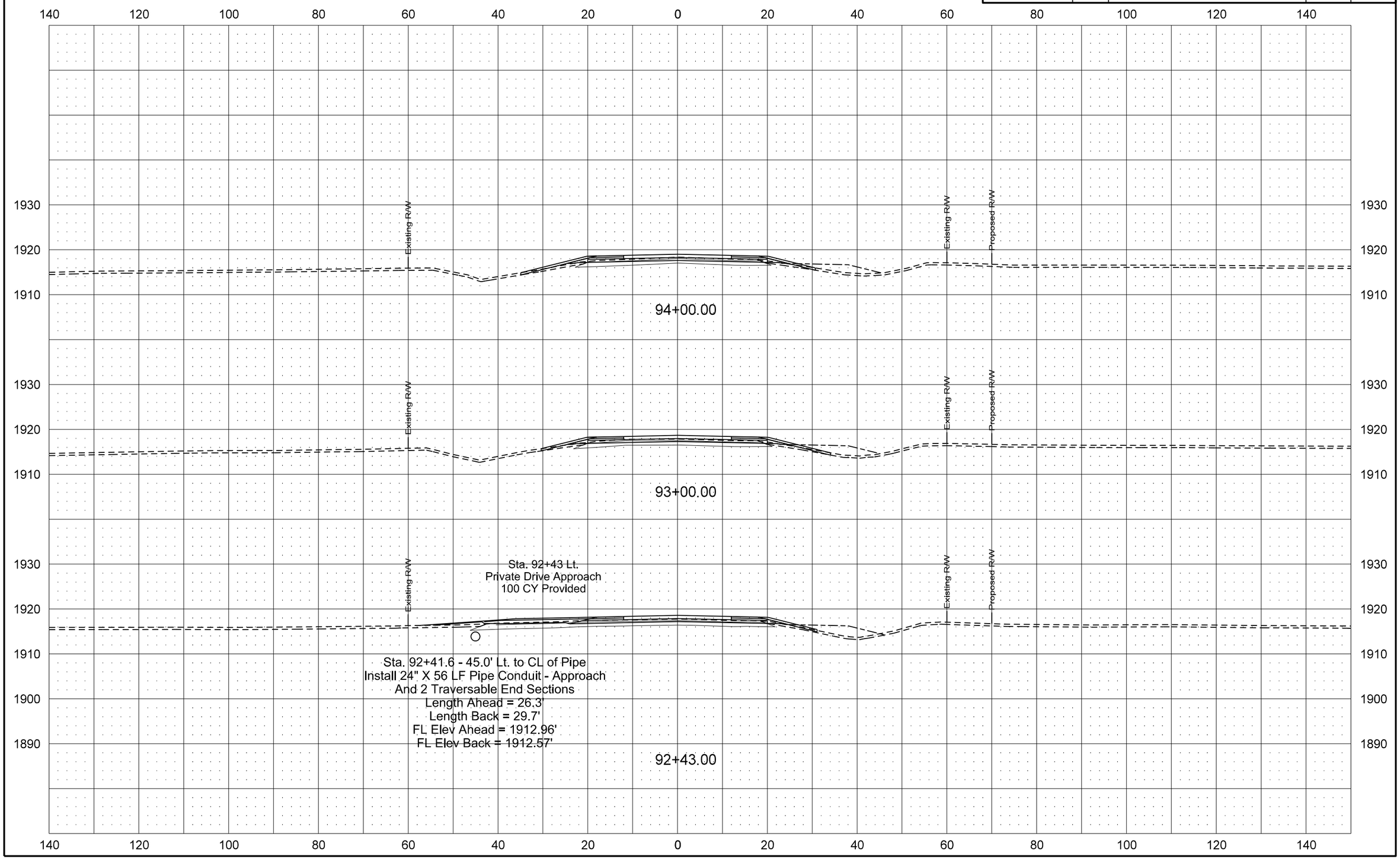

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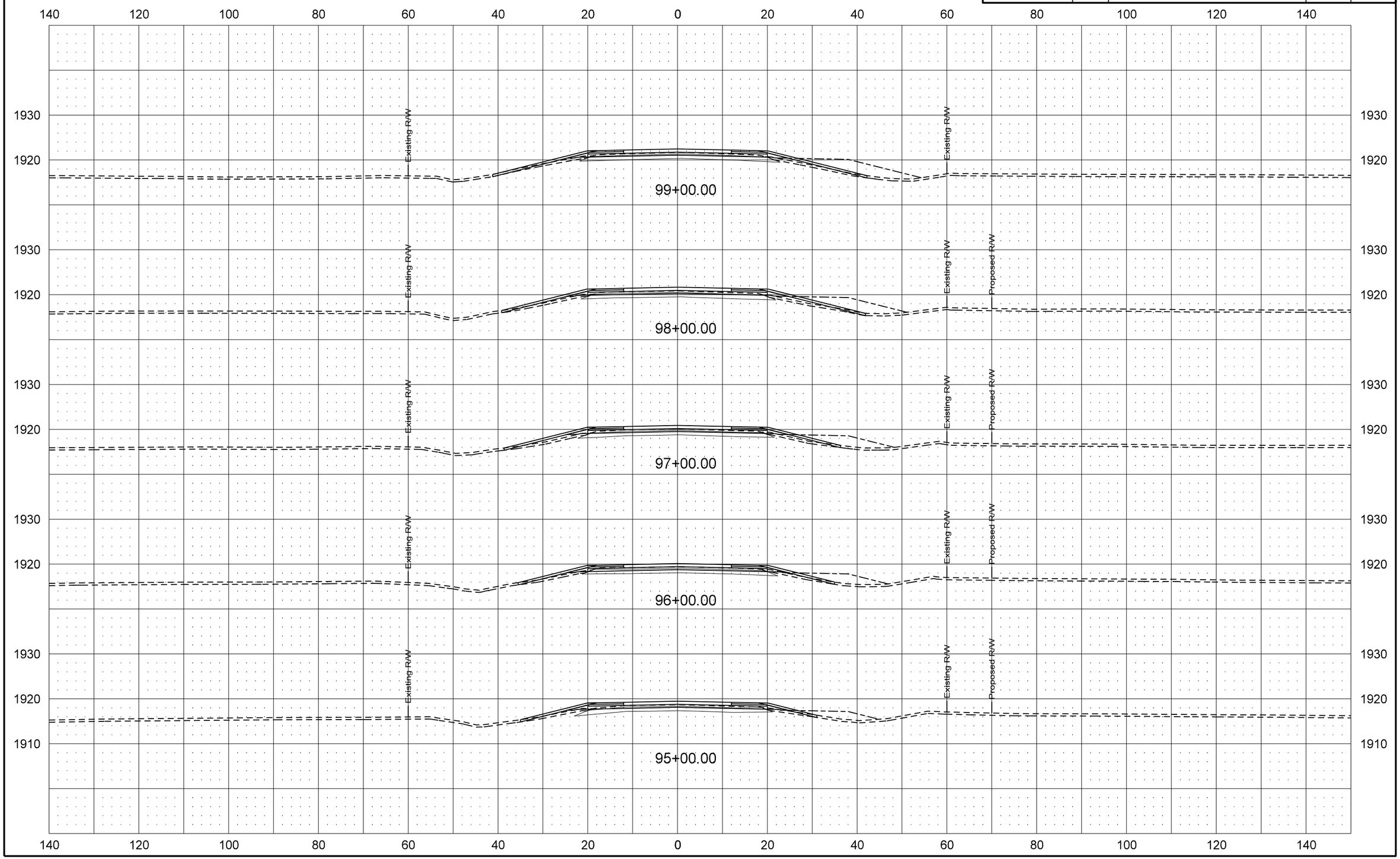

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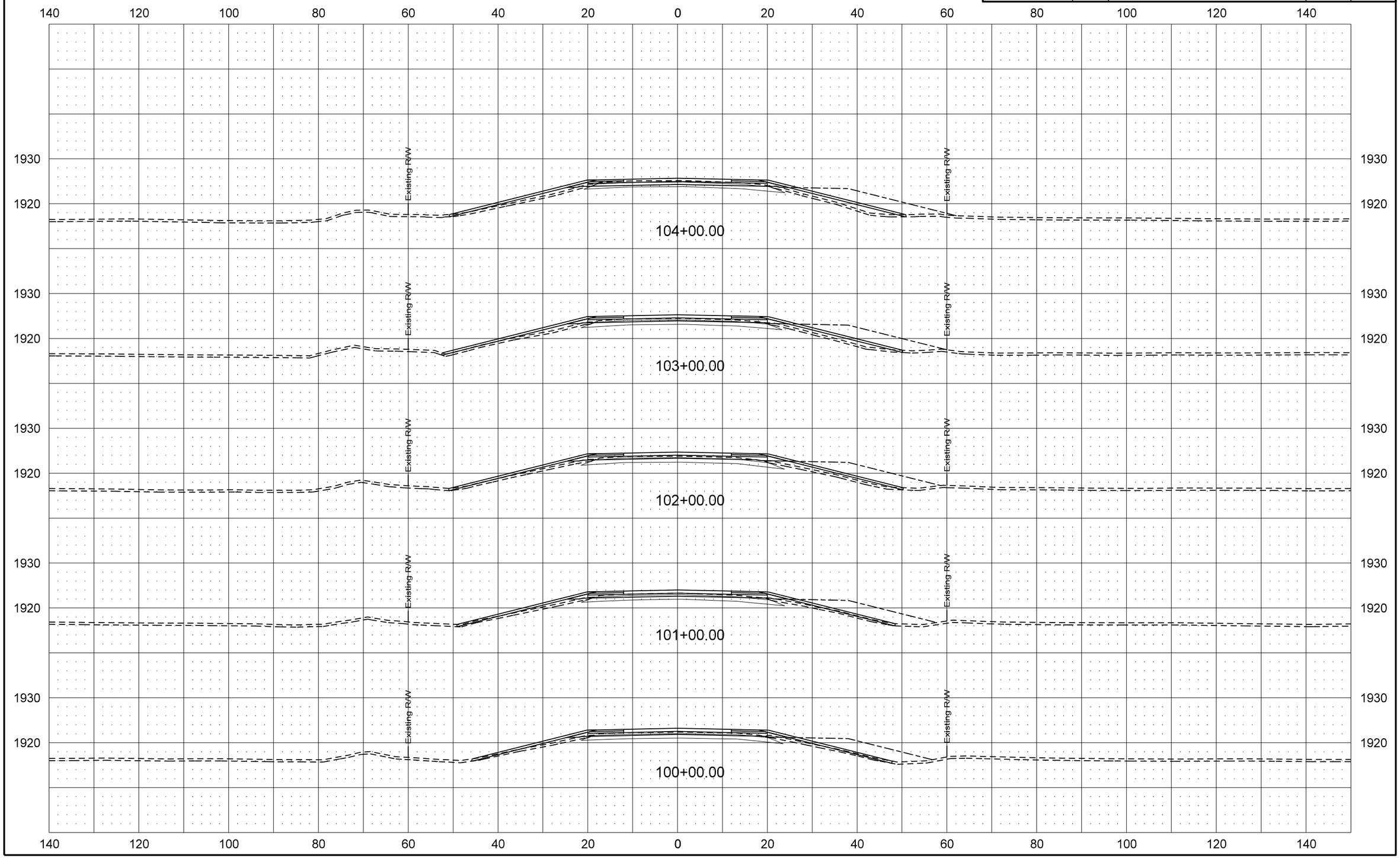

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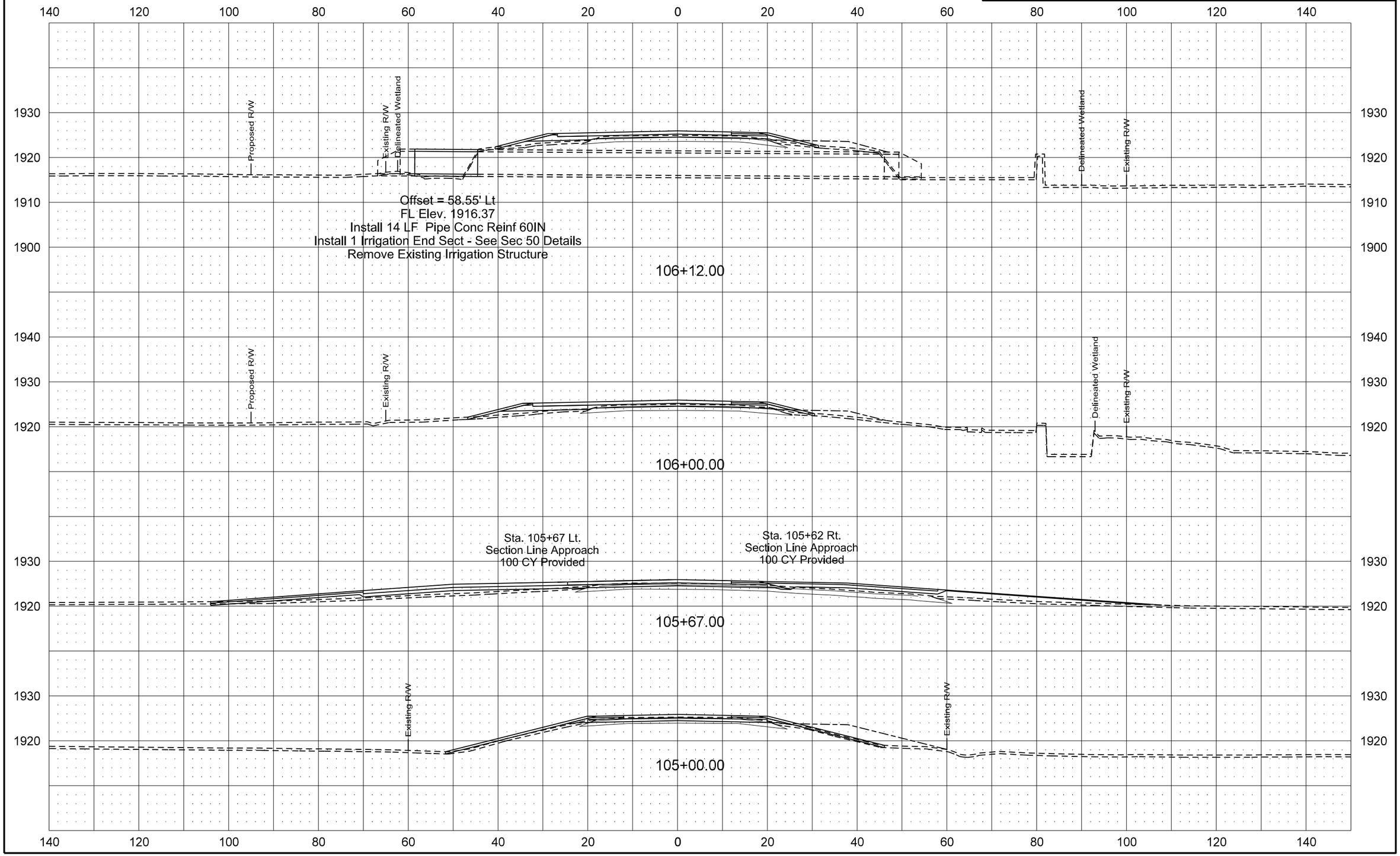

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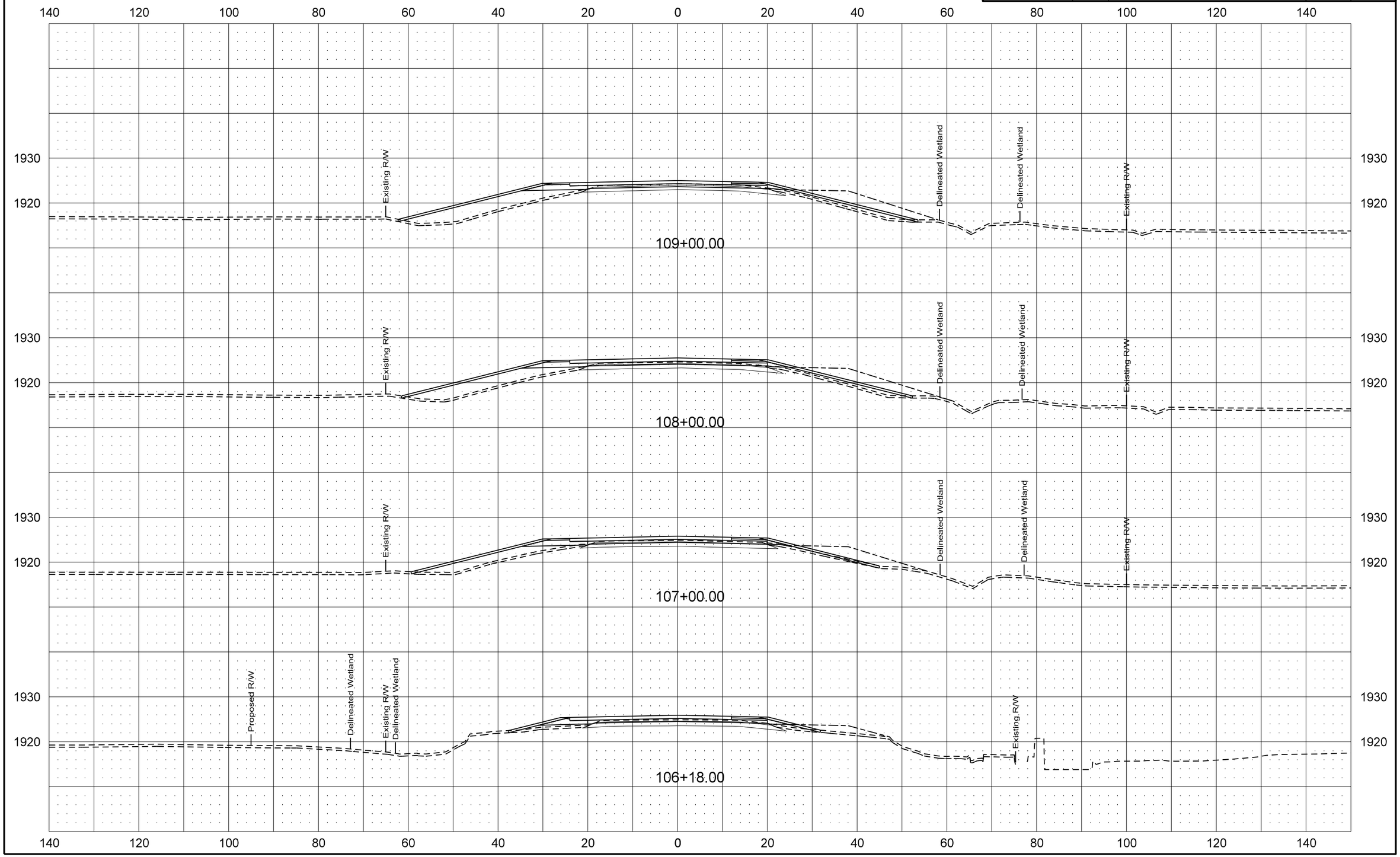

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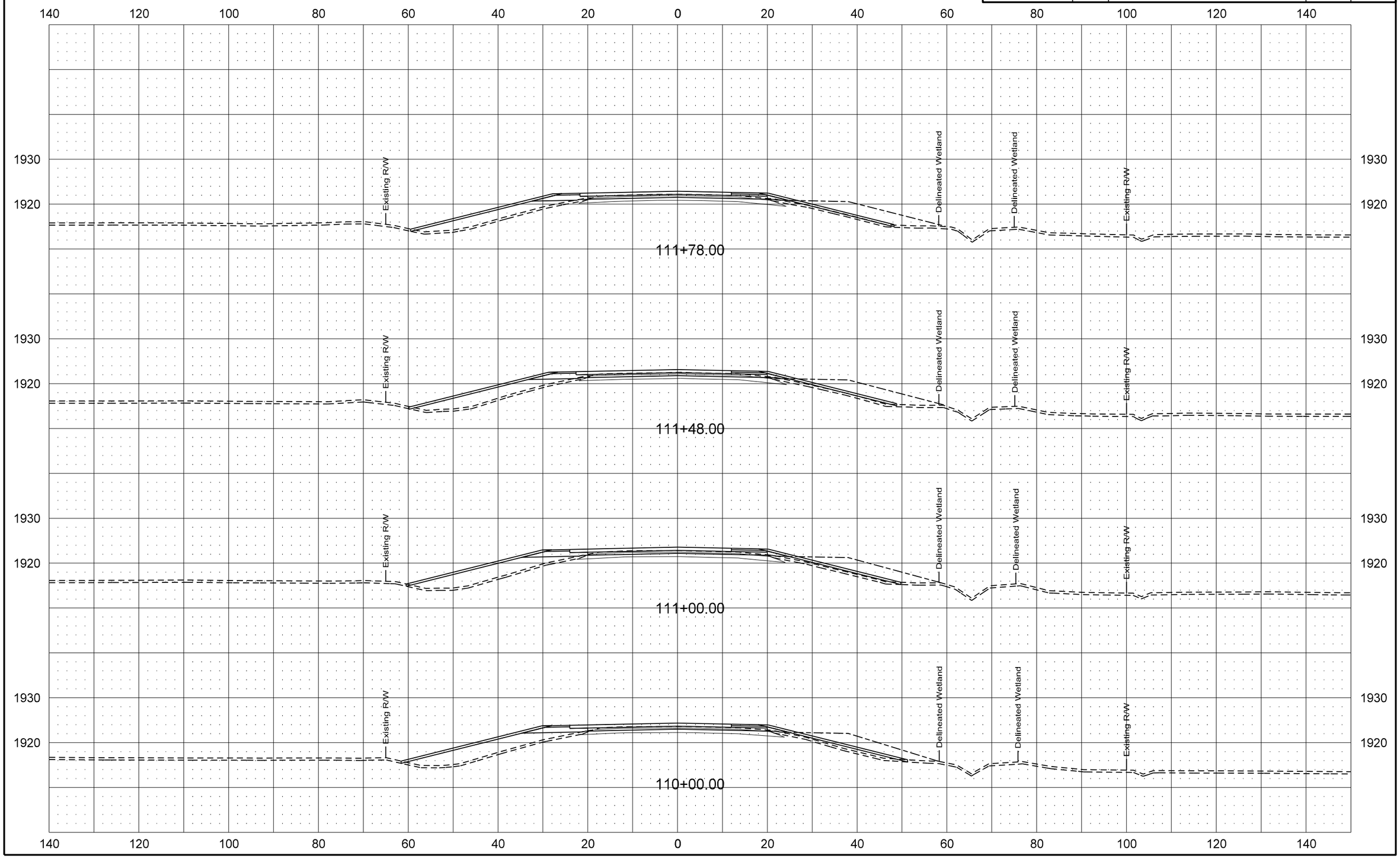

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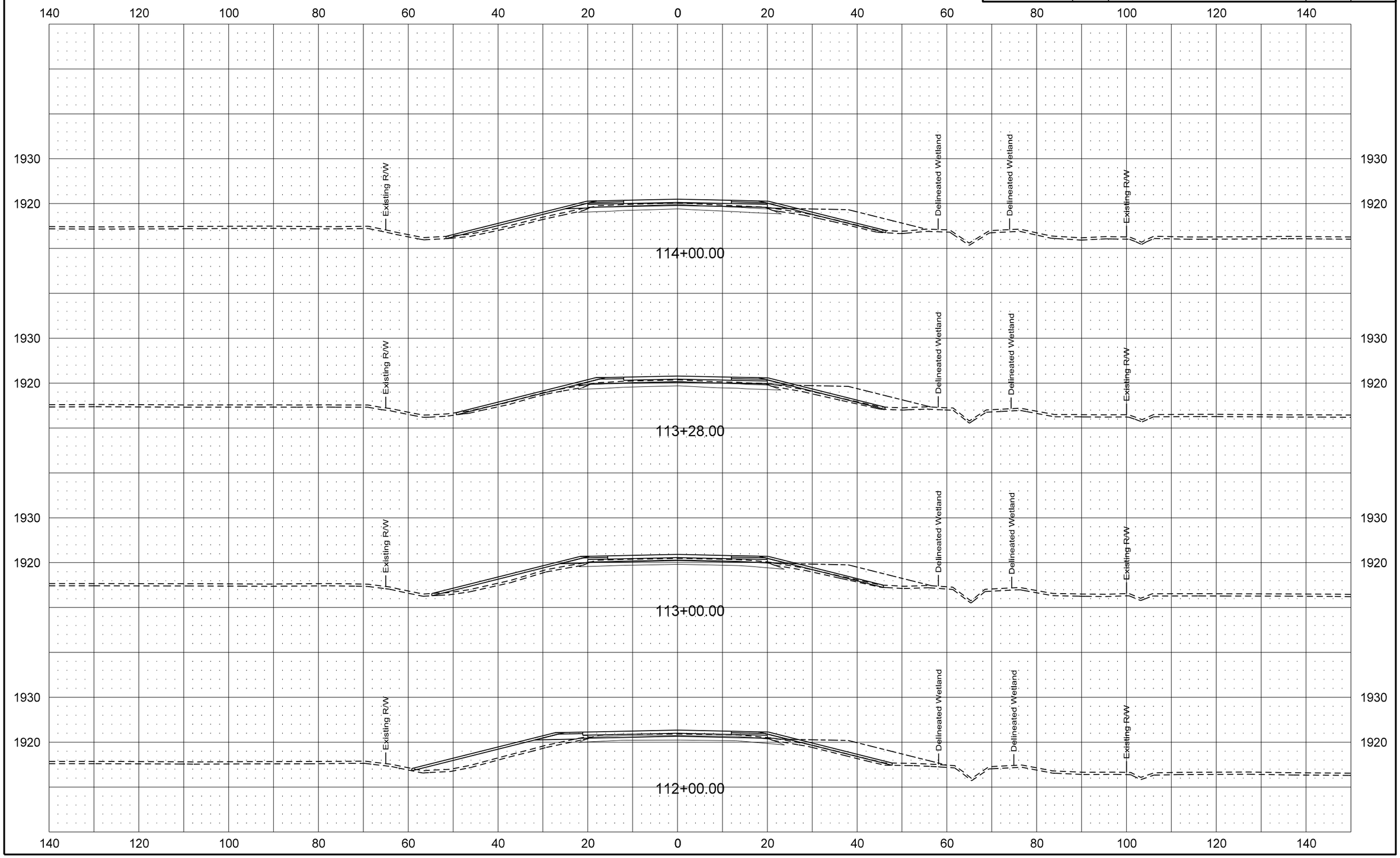

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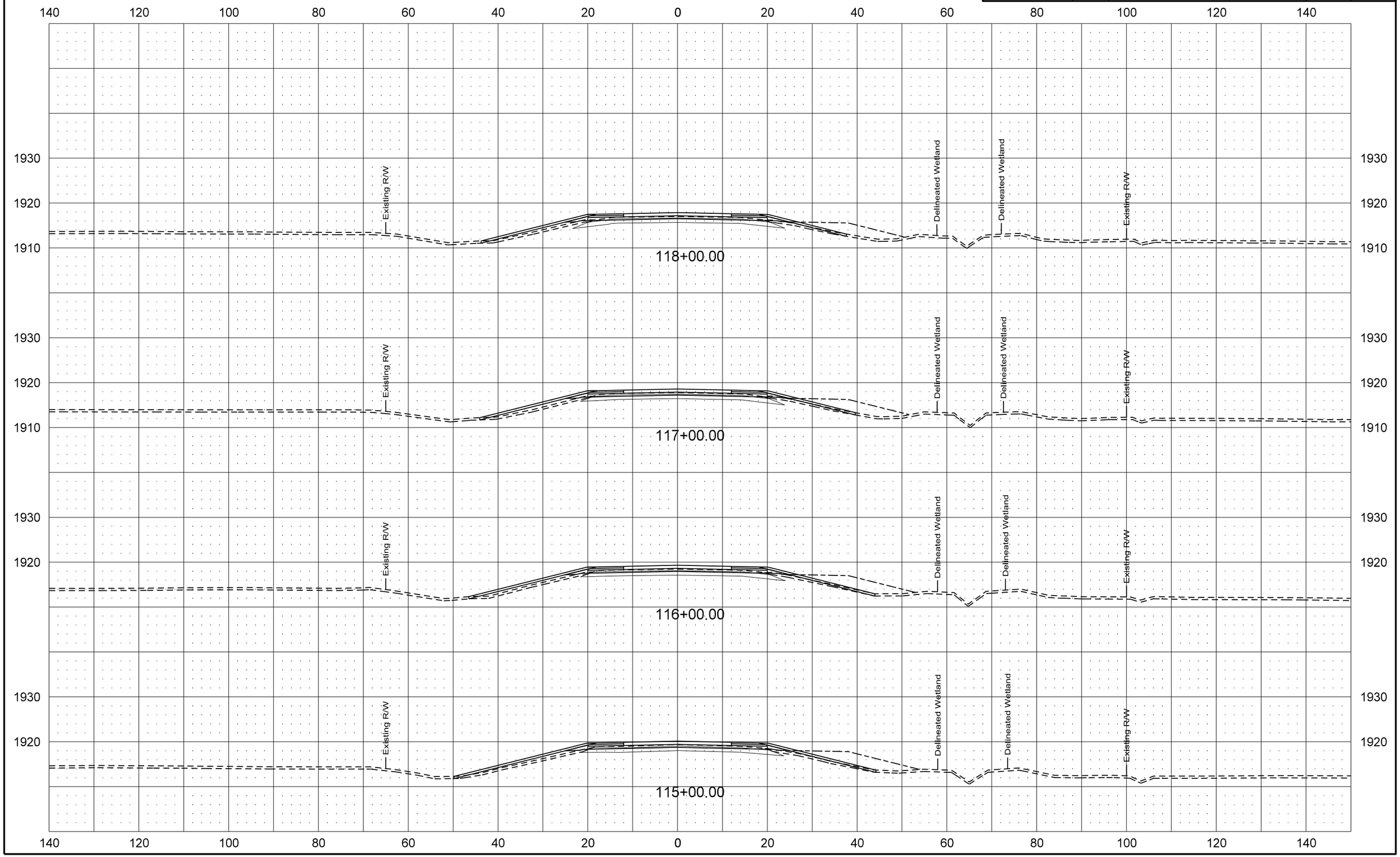

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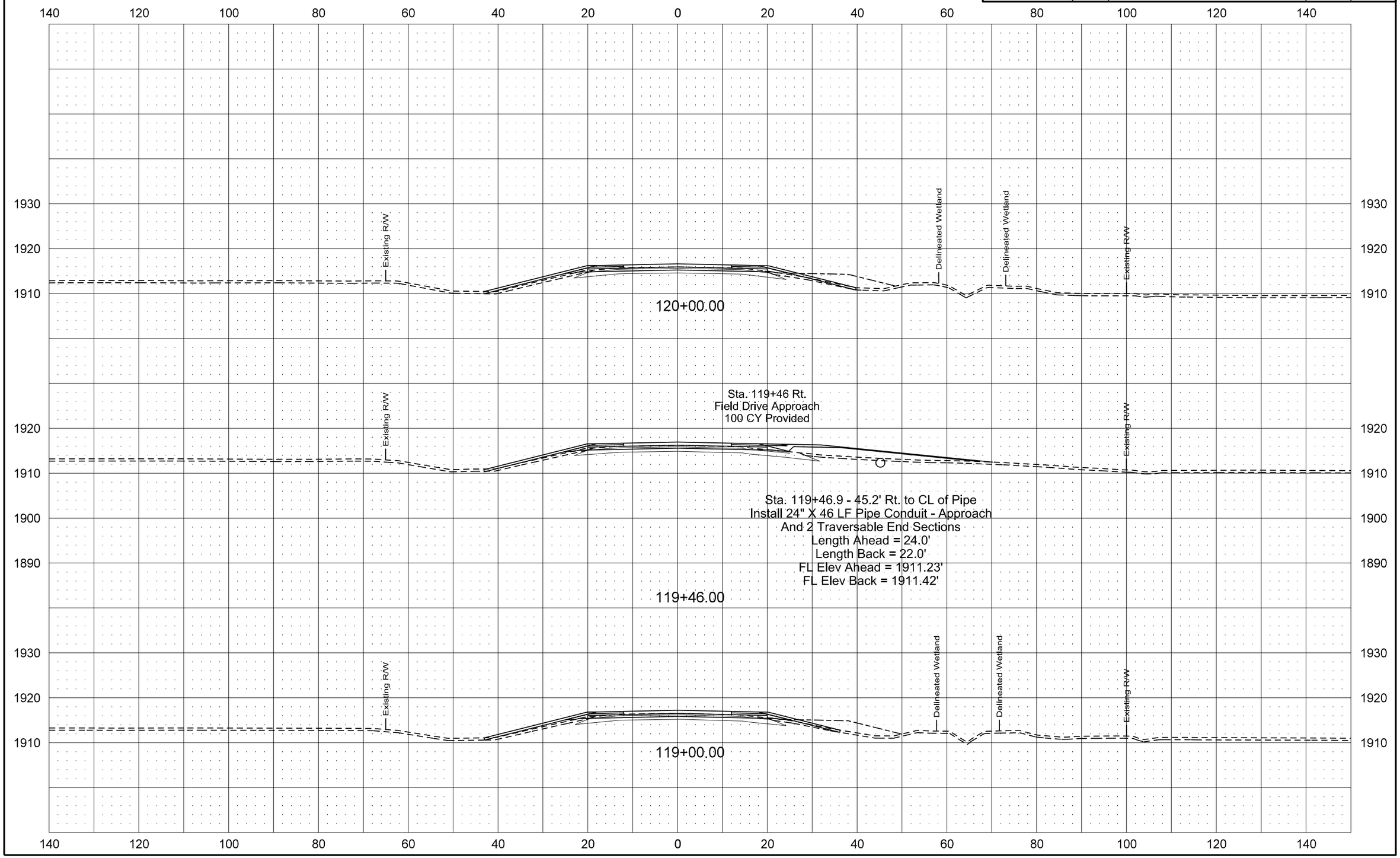

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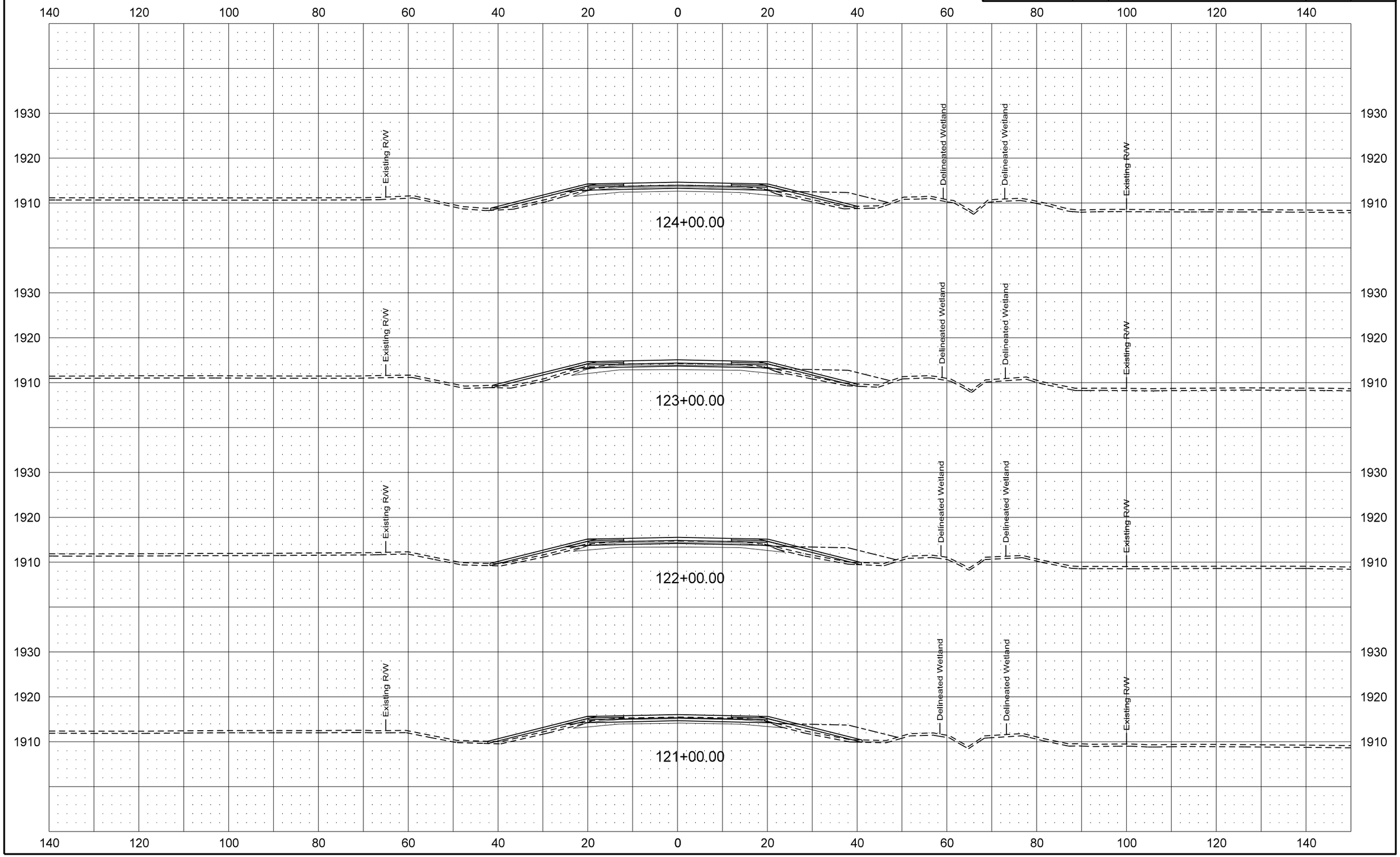

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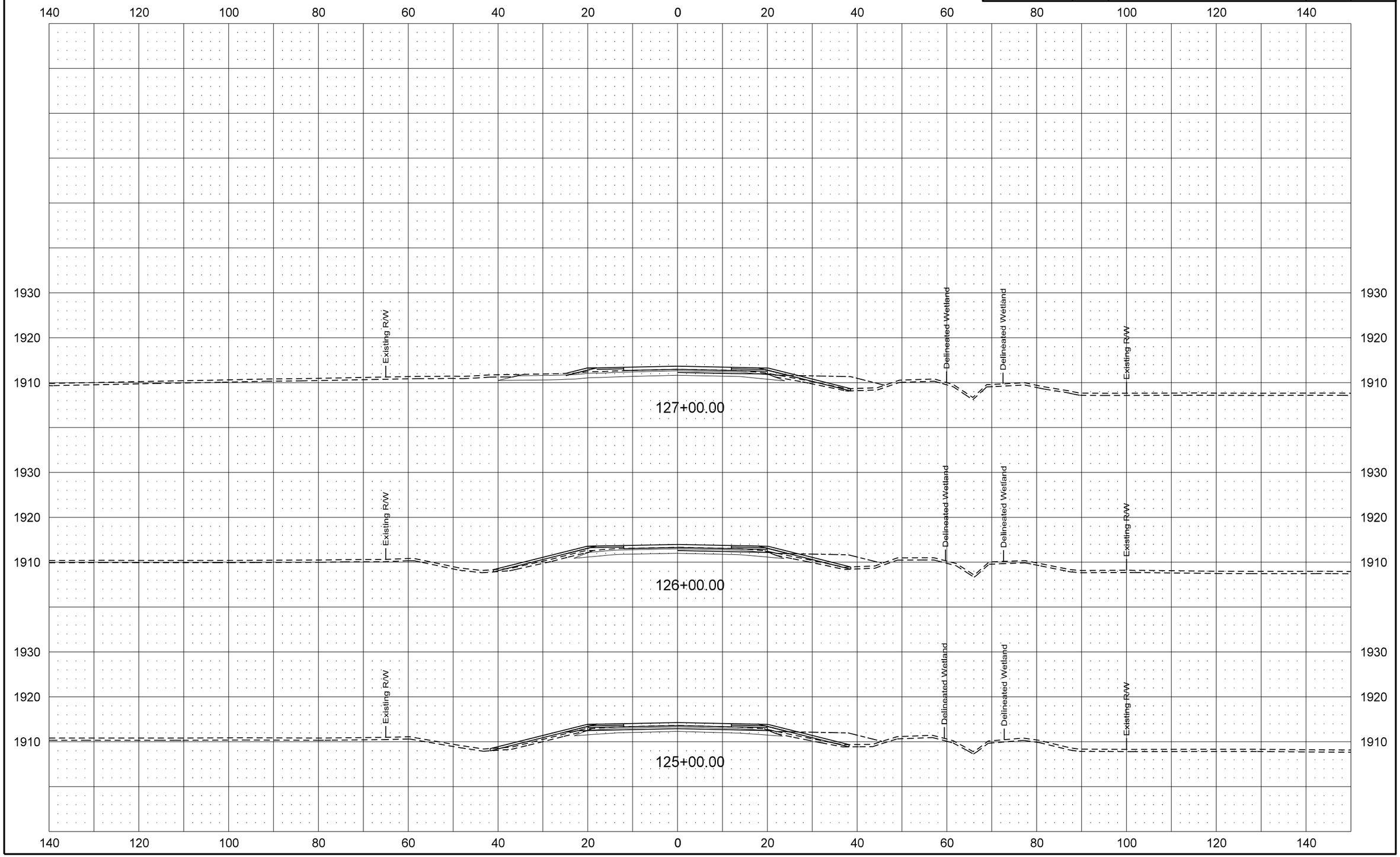

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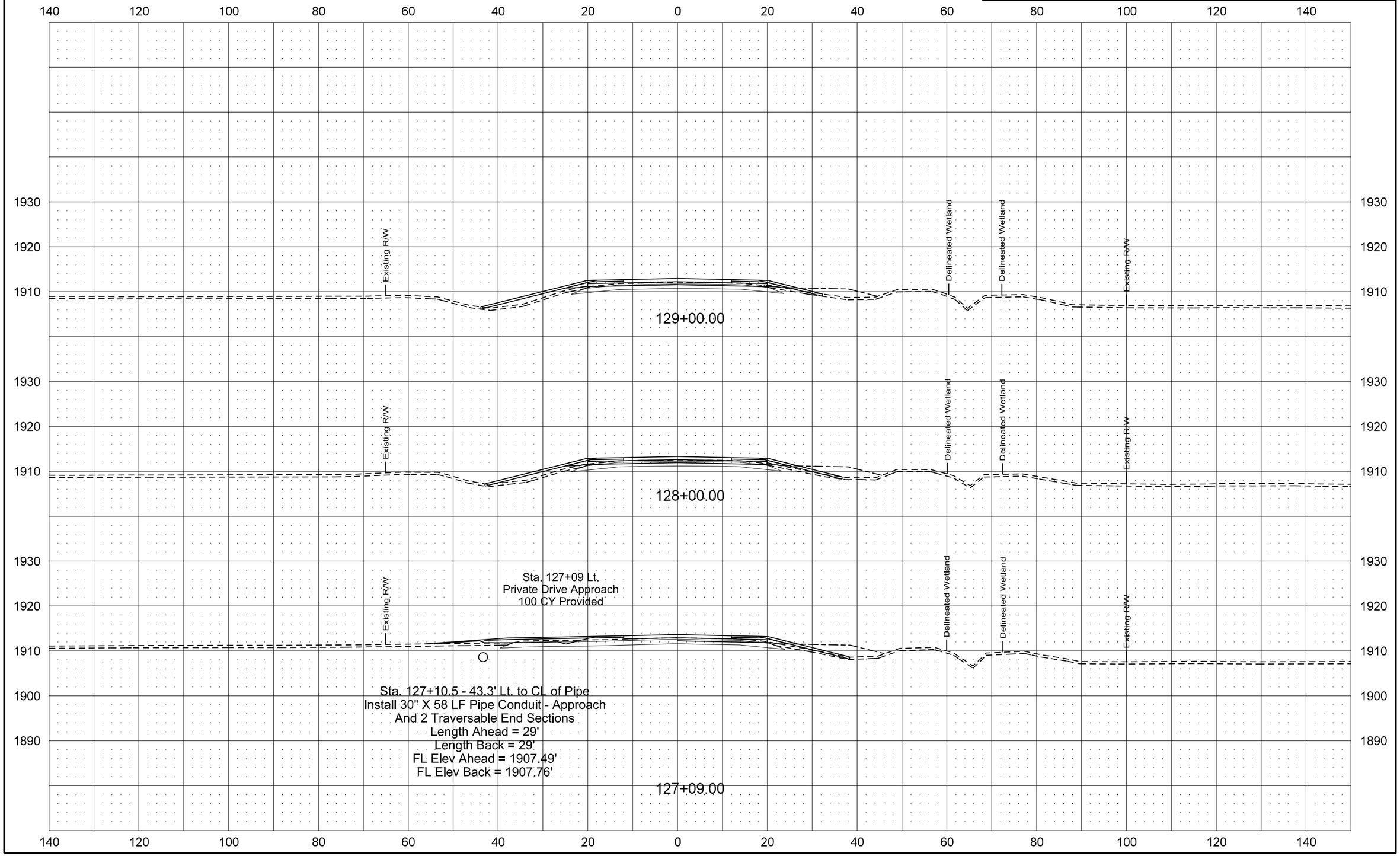

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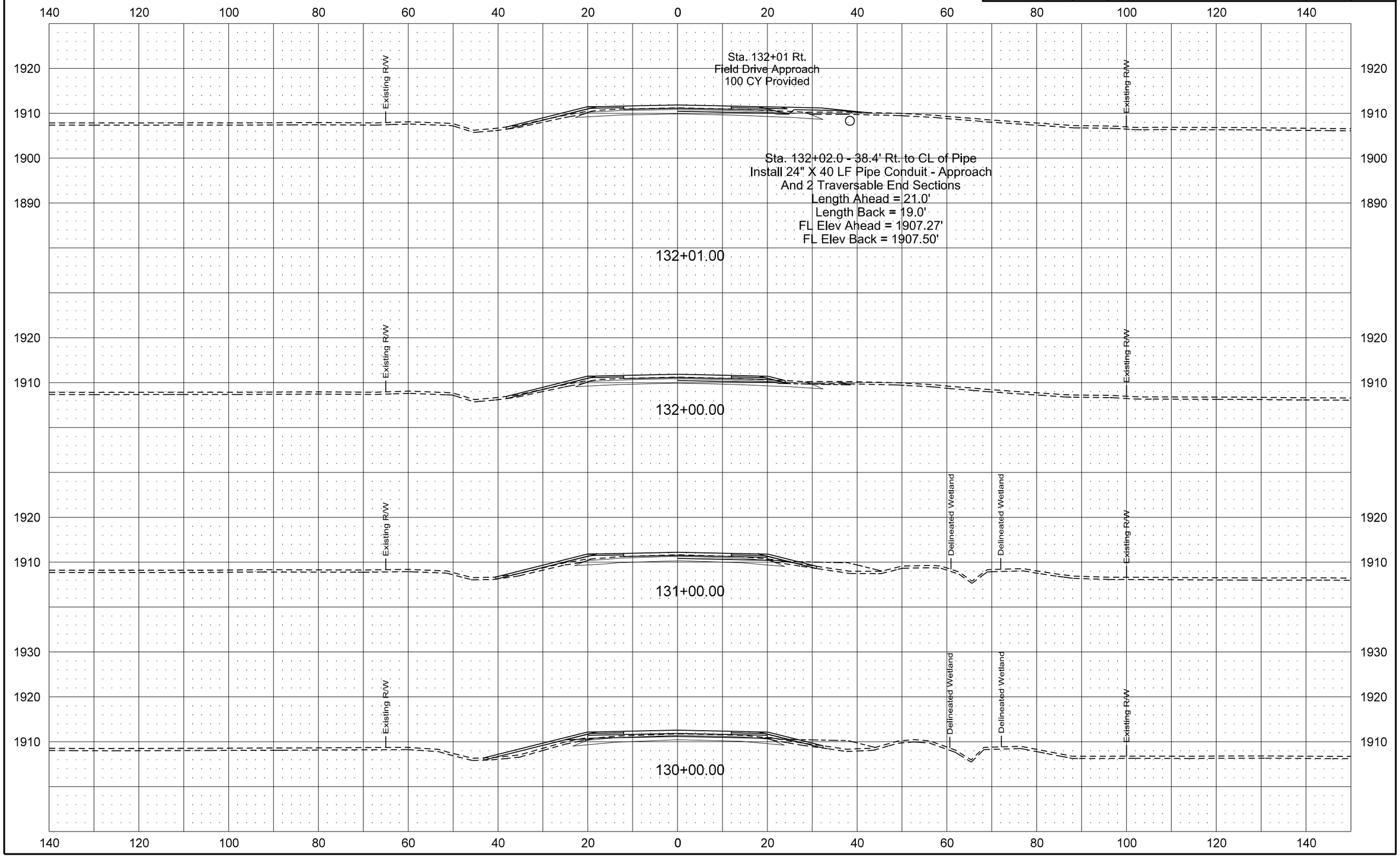

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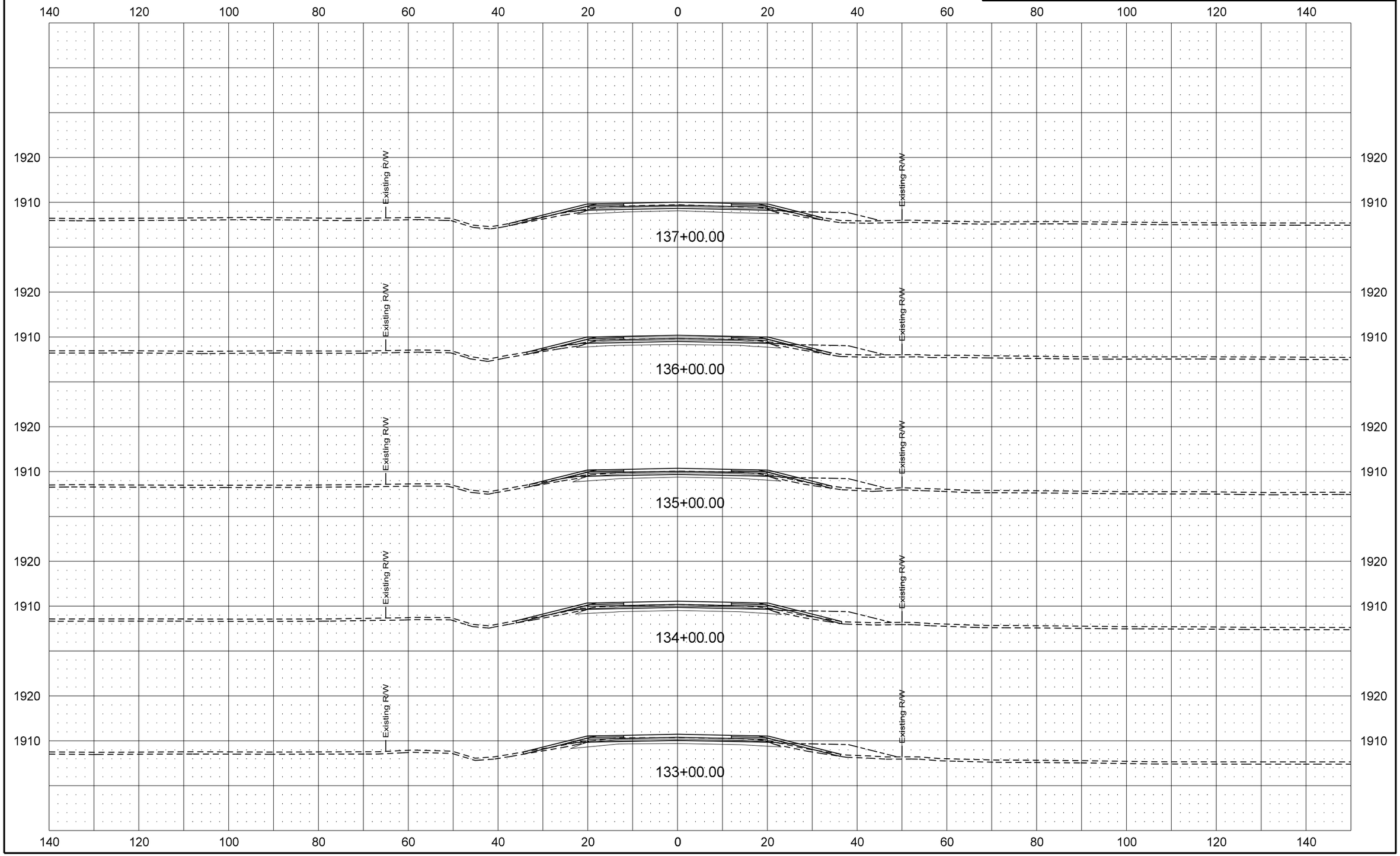

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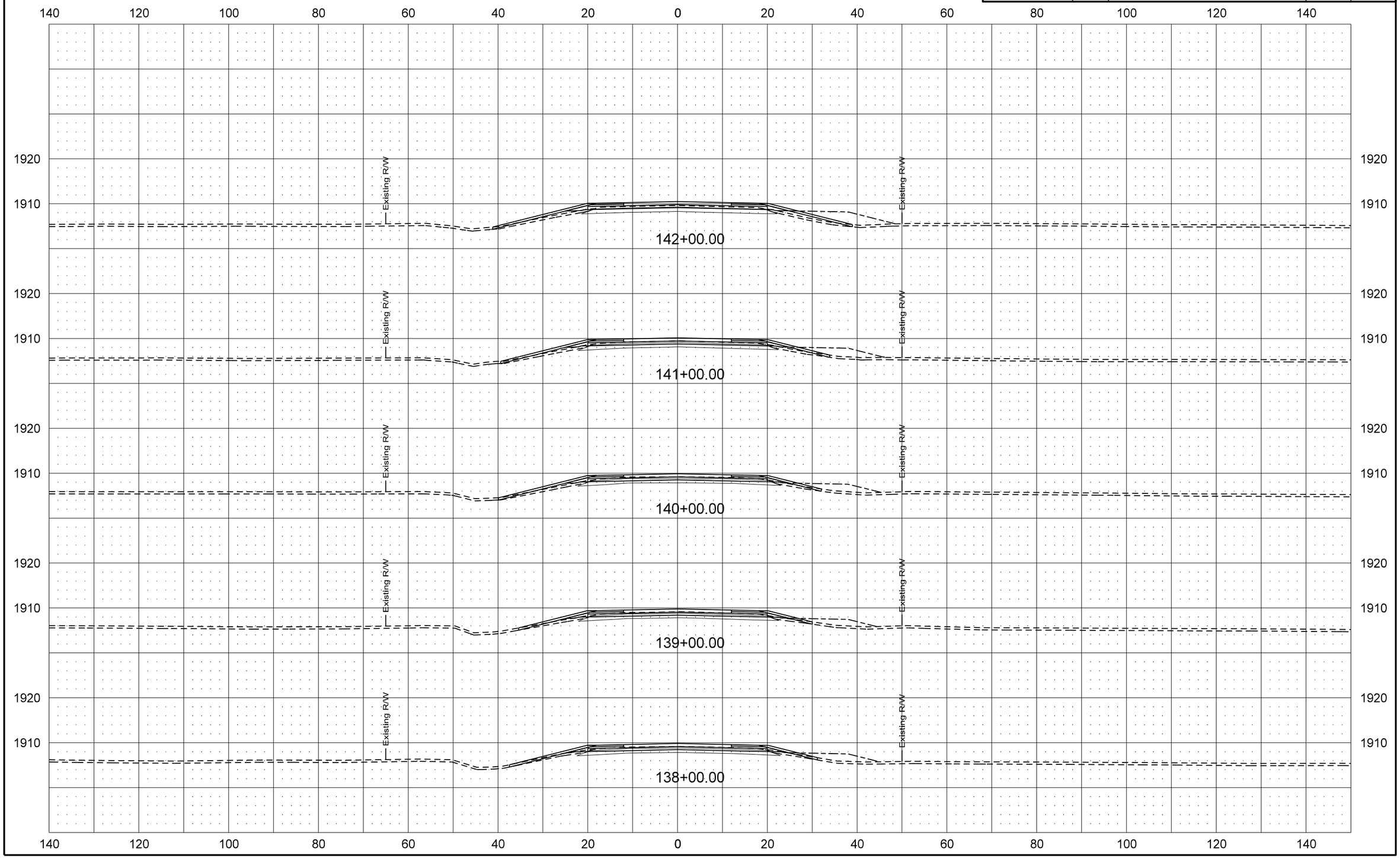

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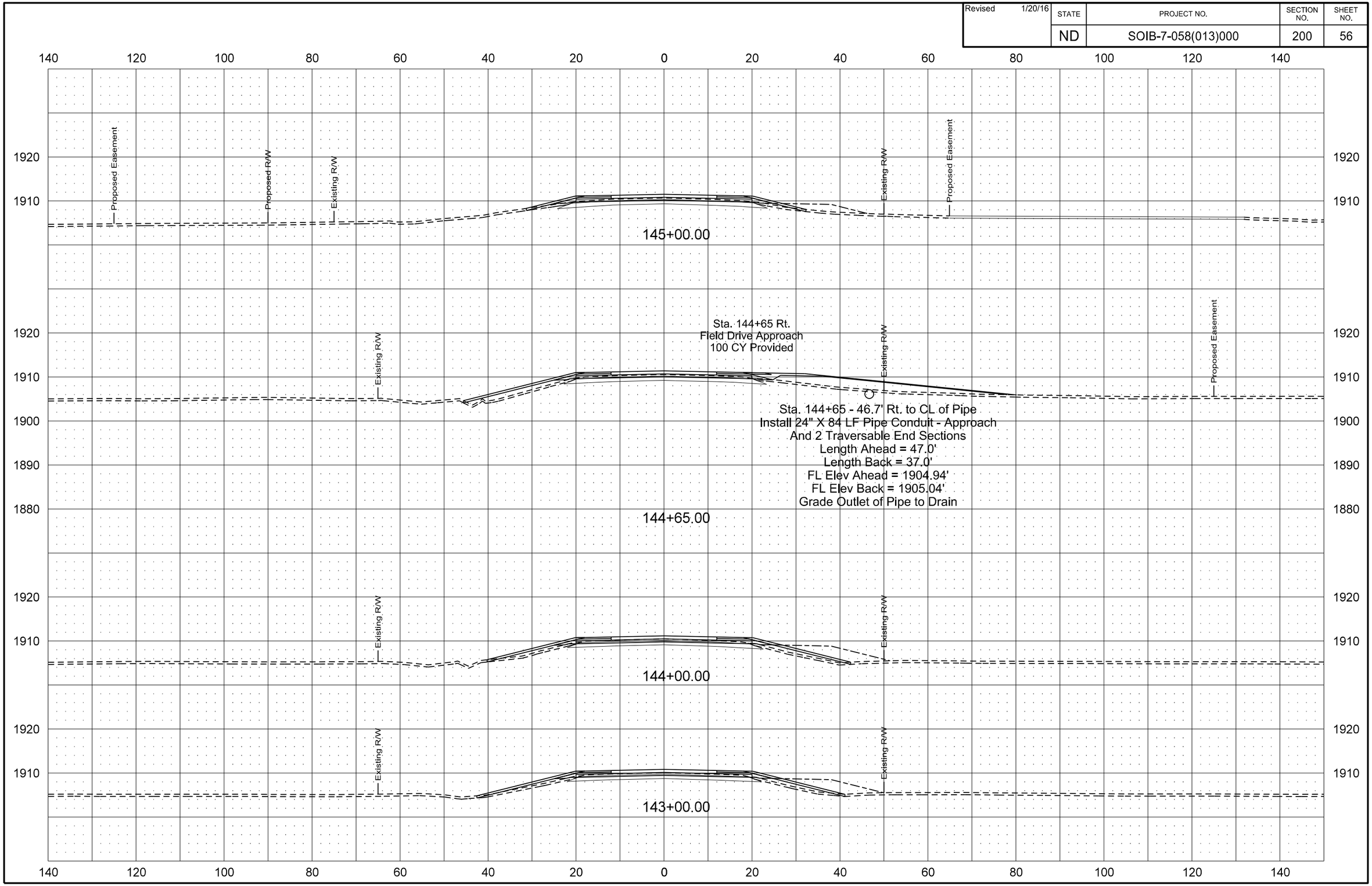

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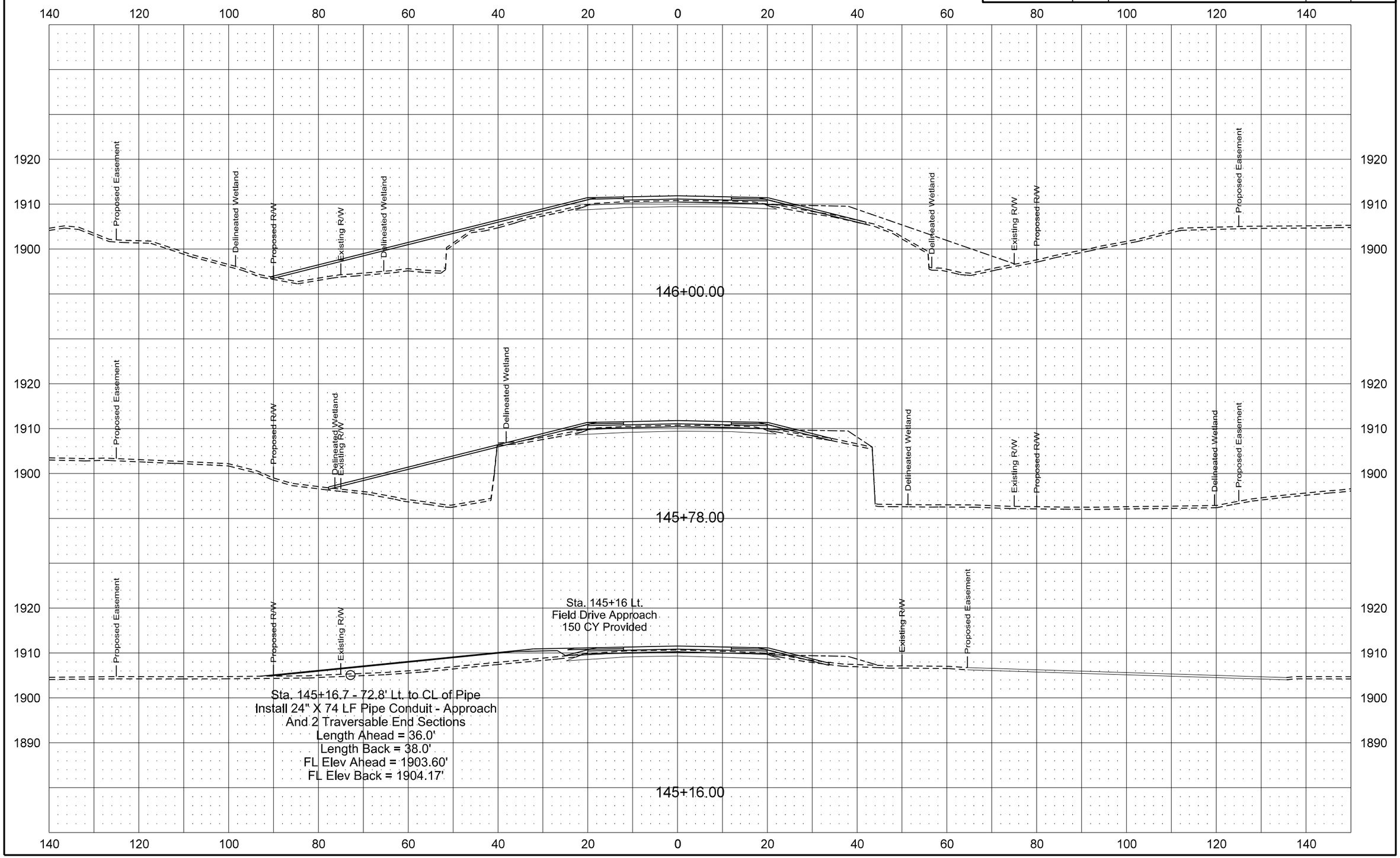
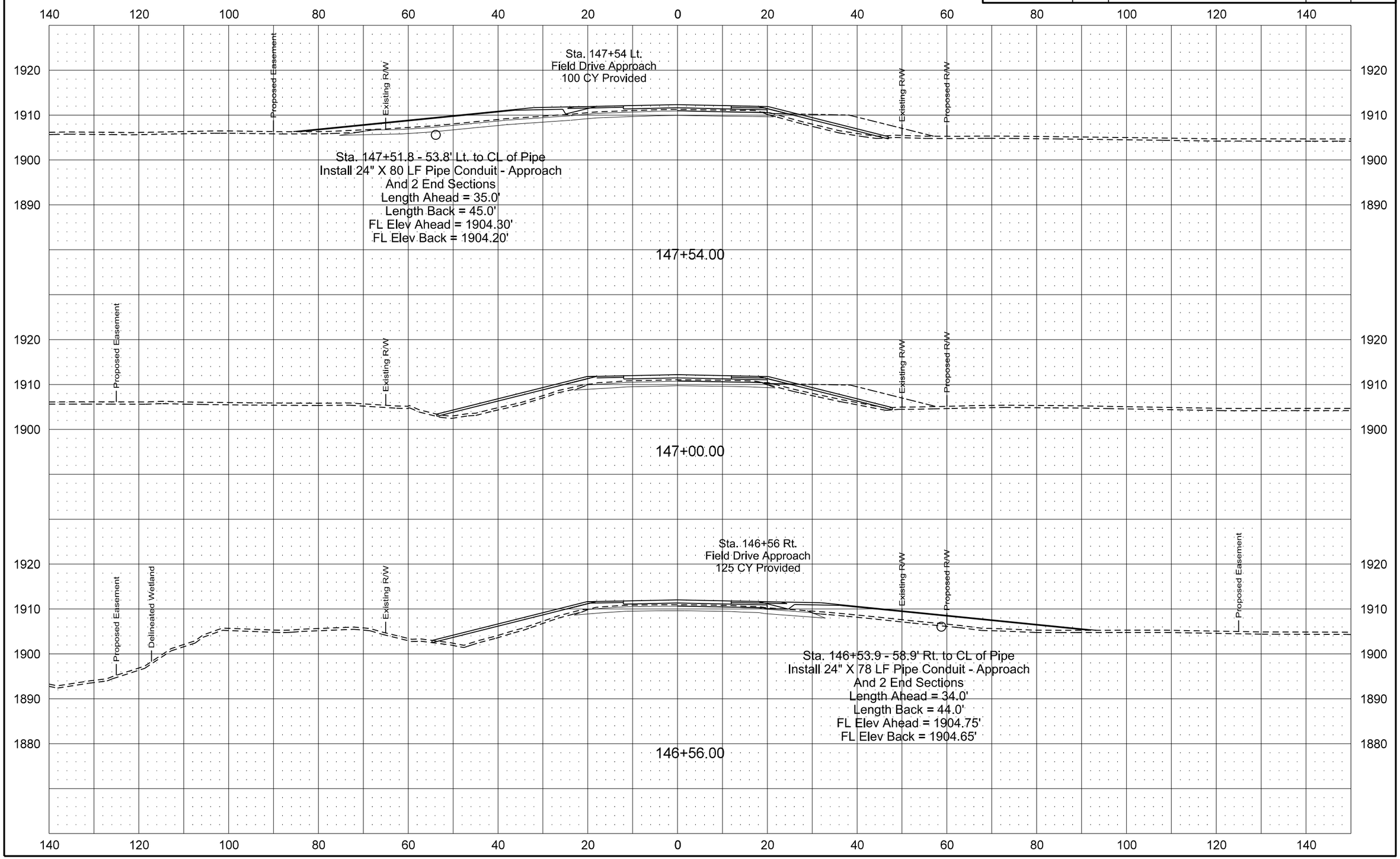
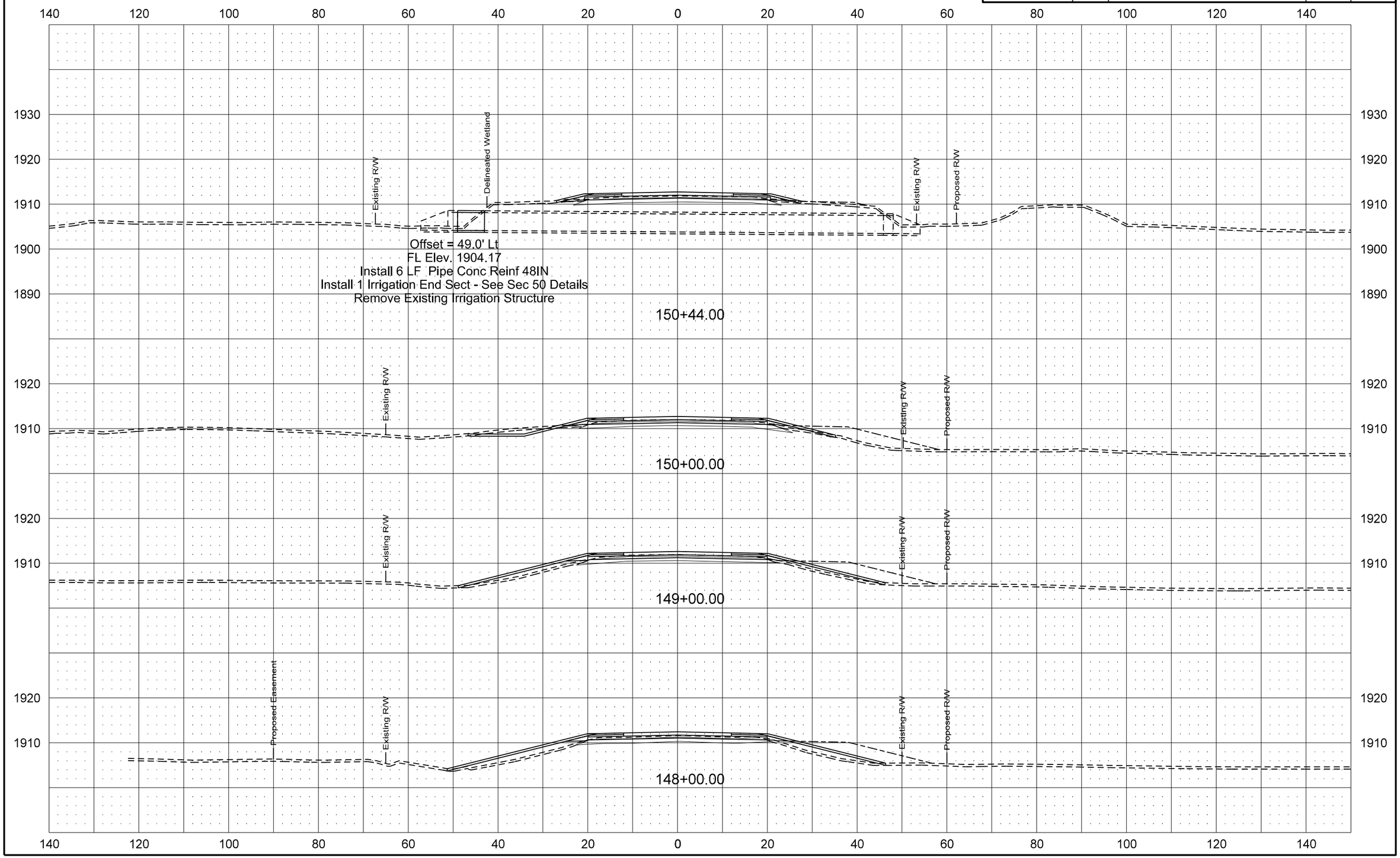
| | ND | SOIB-7-058(013)000 | 200 | 57 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 58 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 59 |



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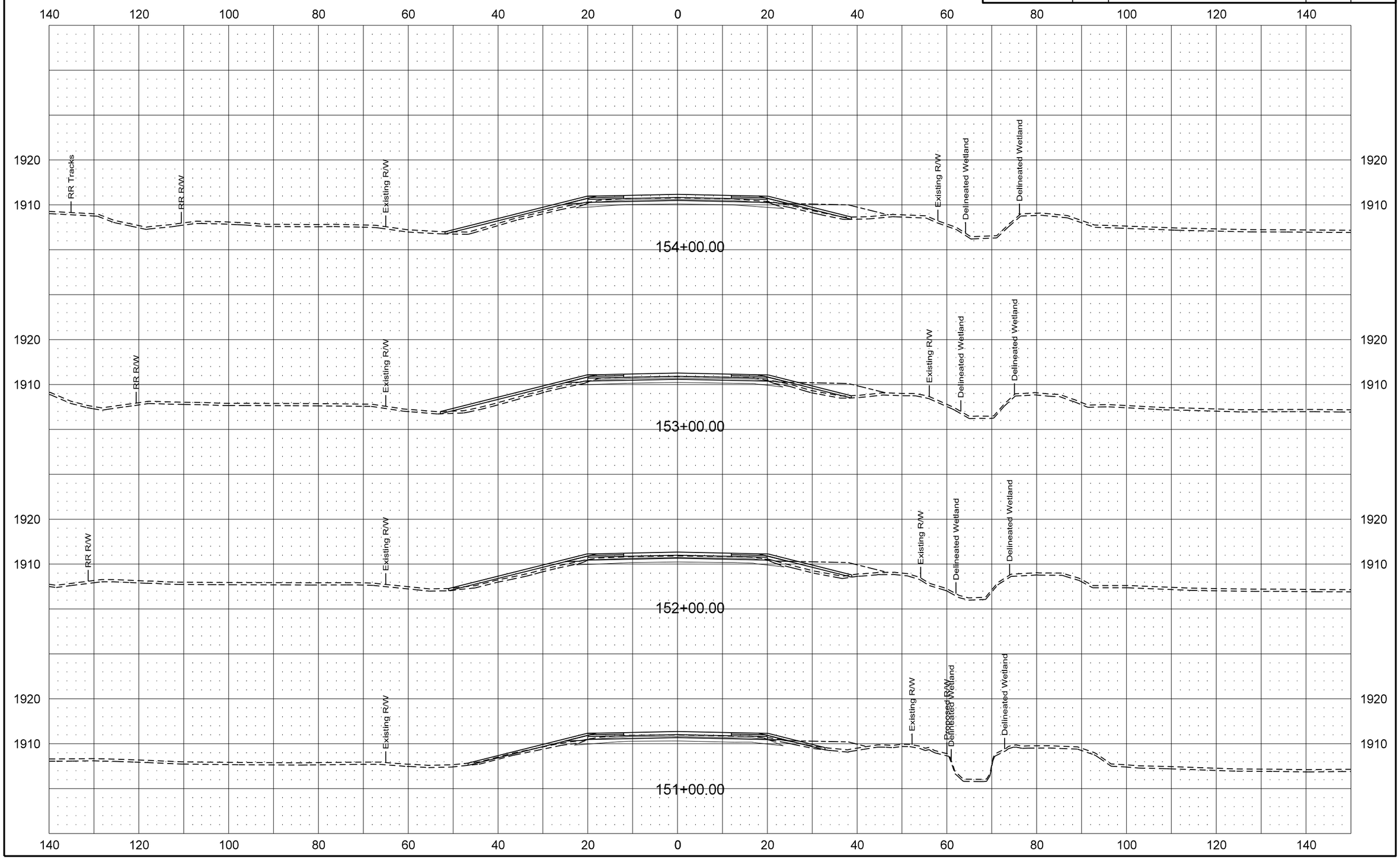
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 60 |

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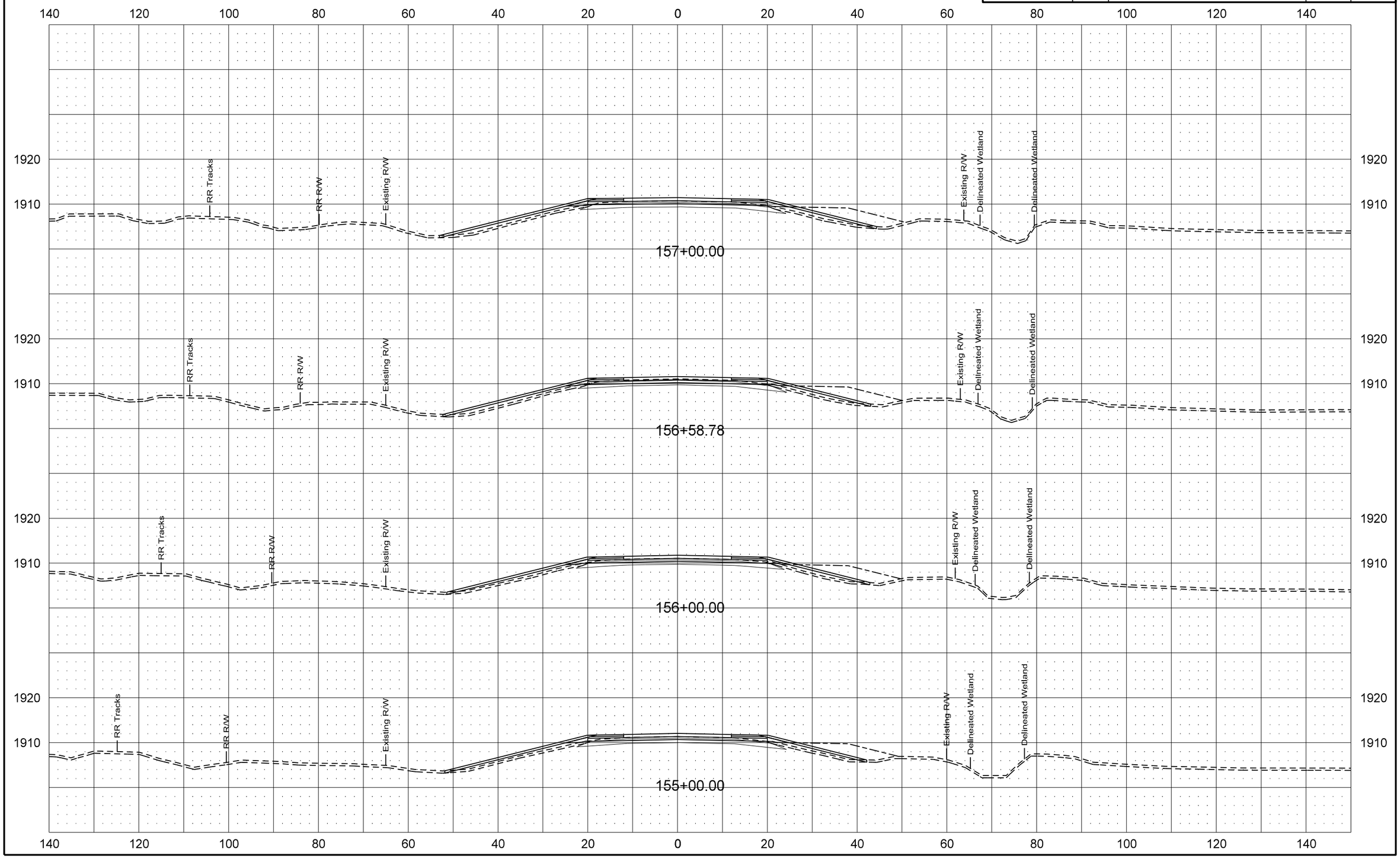
| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 61 |

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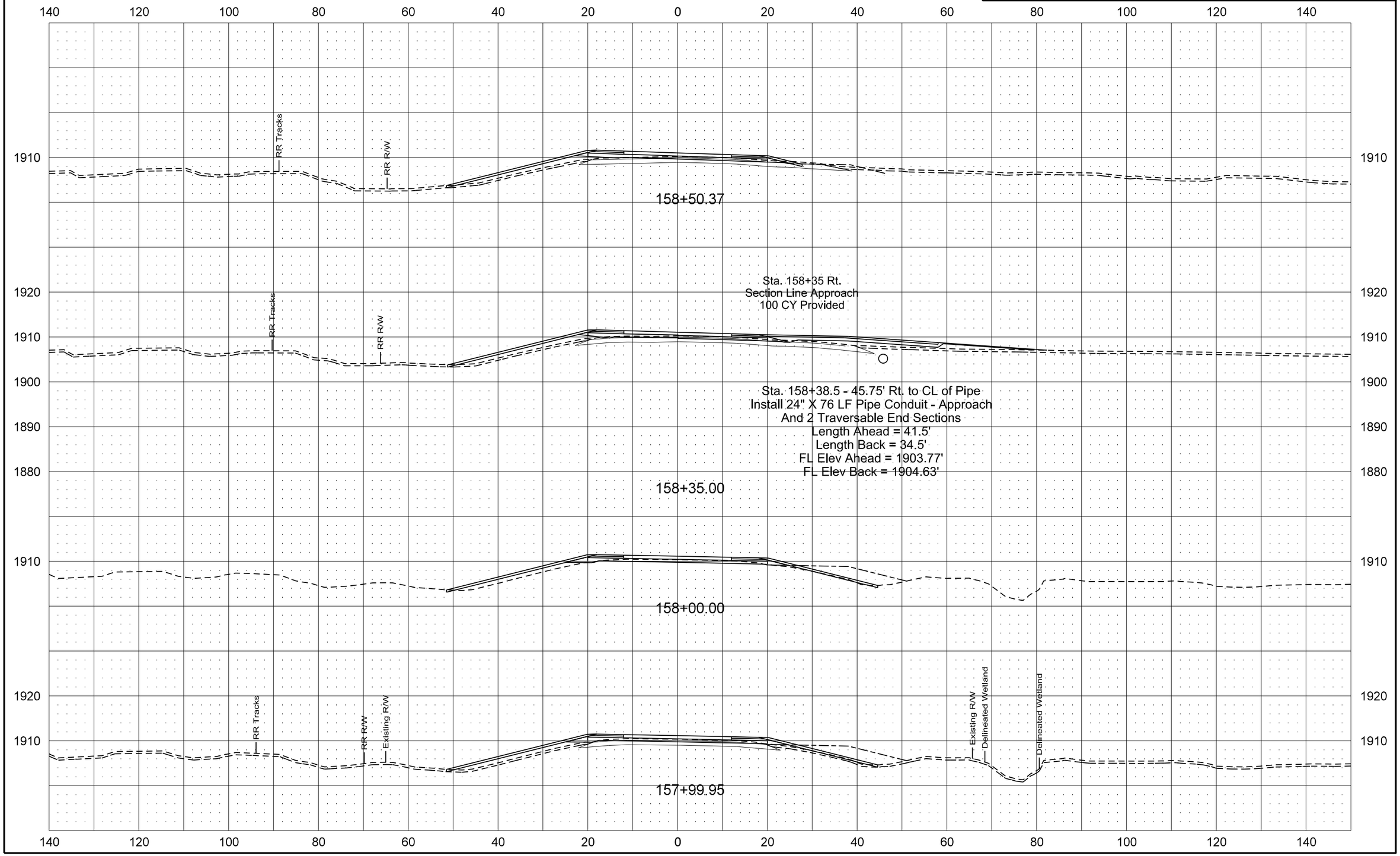
| | ND | SOIB-7-058(013)000 | 200 | 62 |

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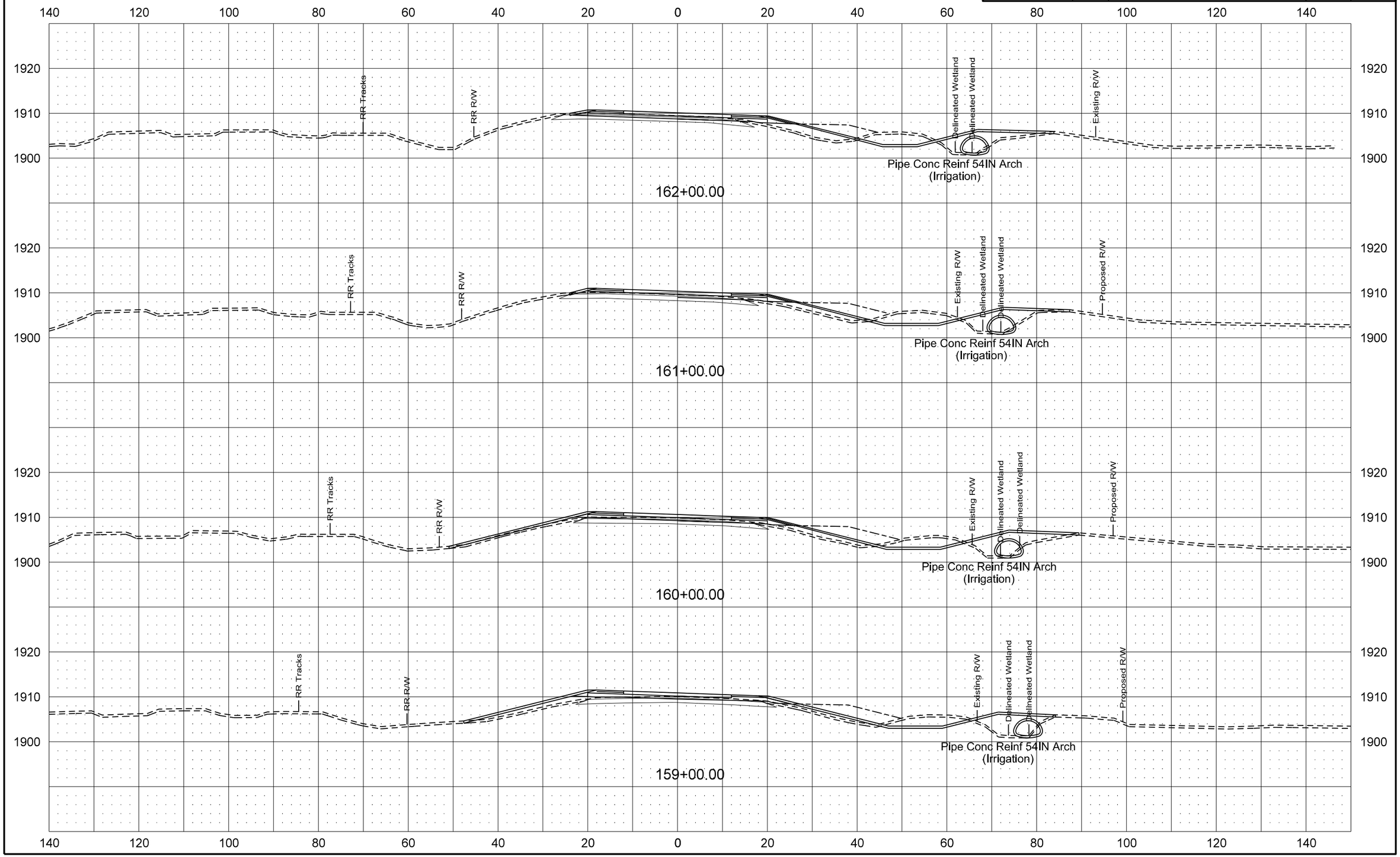

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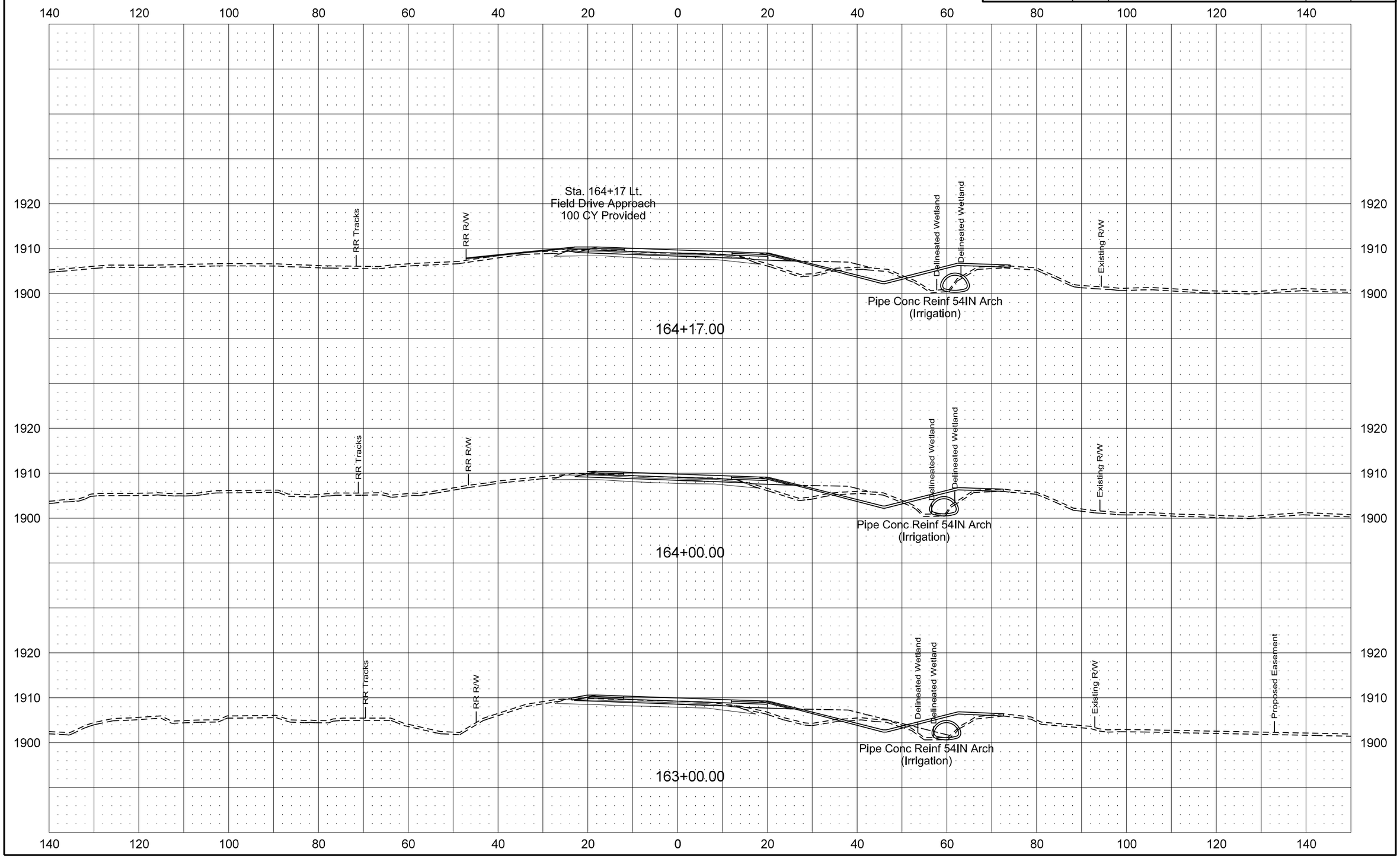


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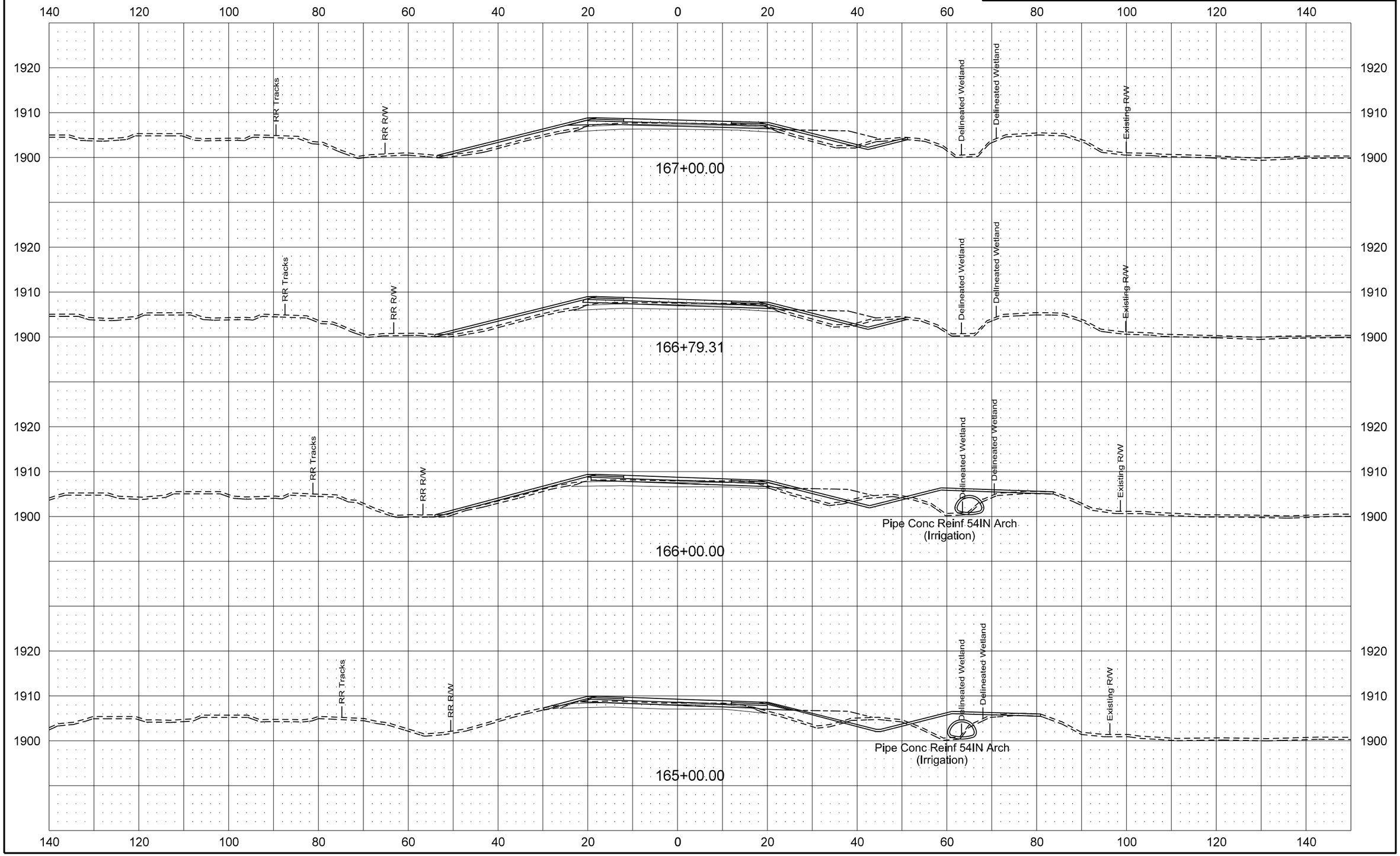

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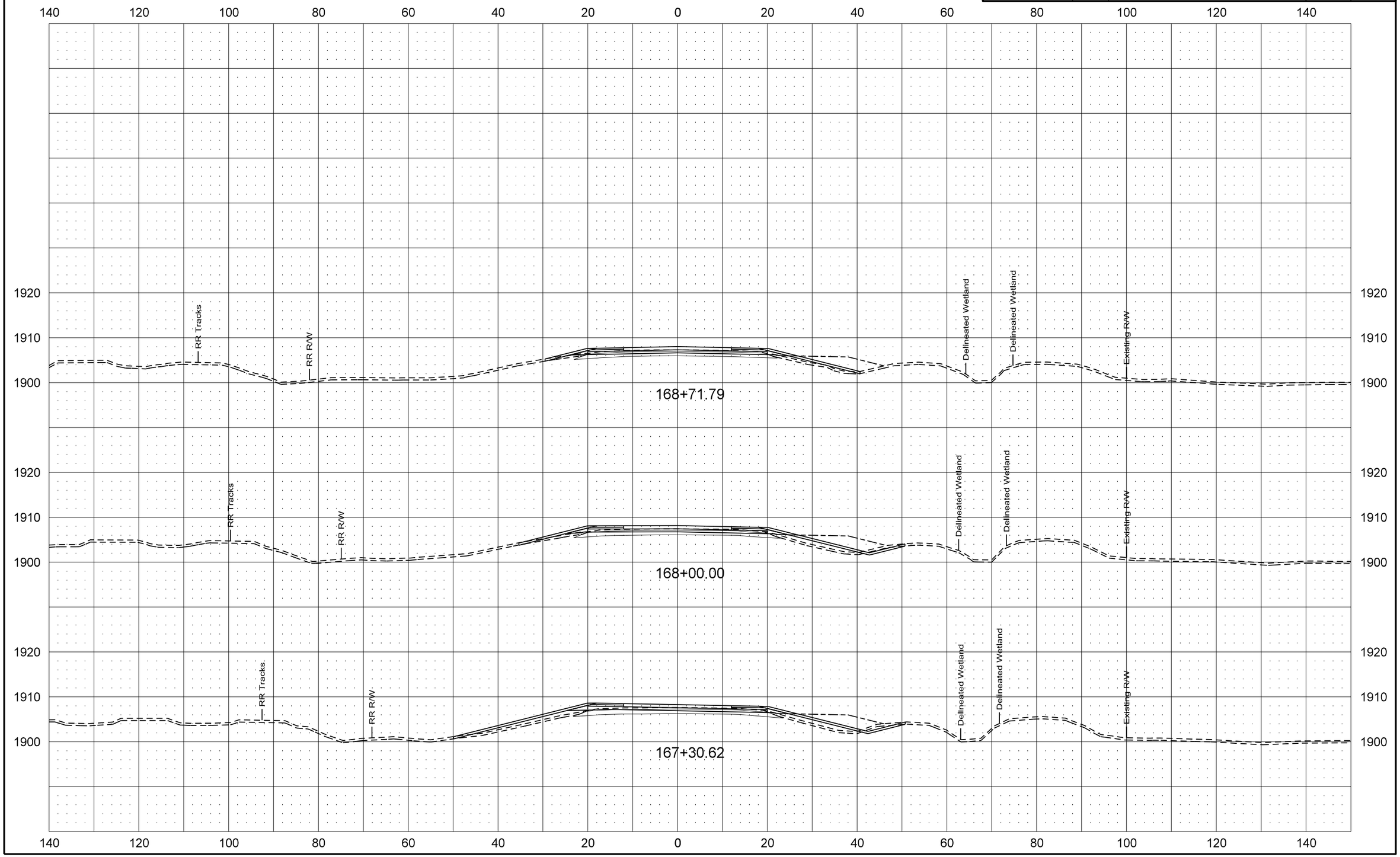

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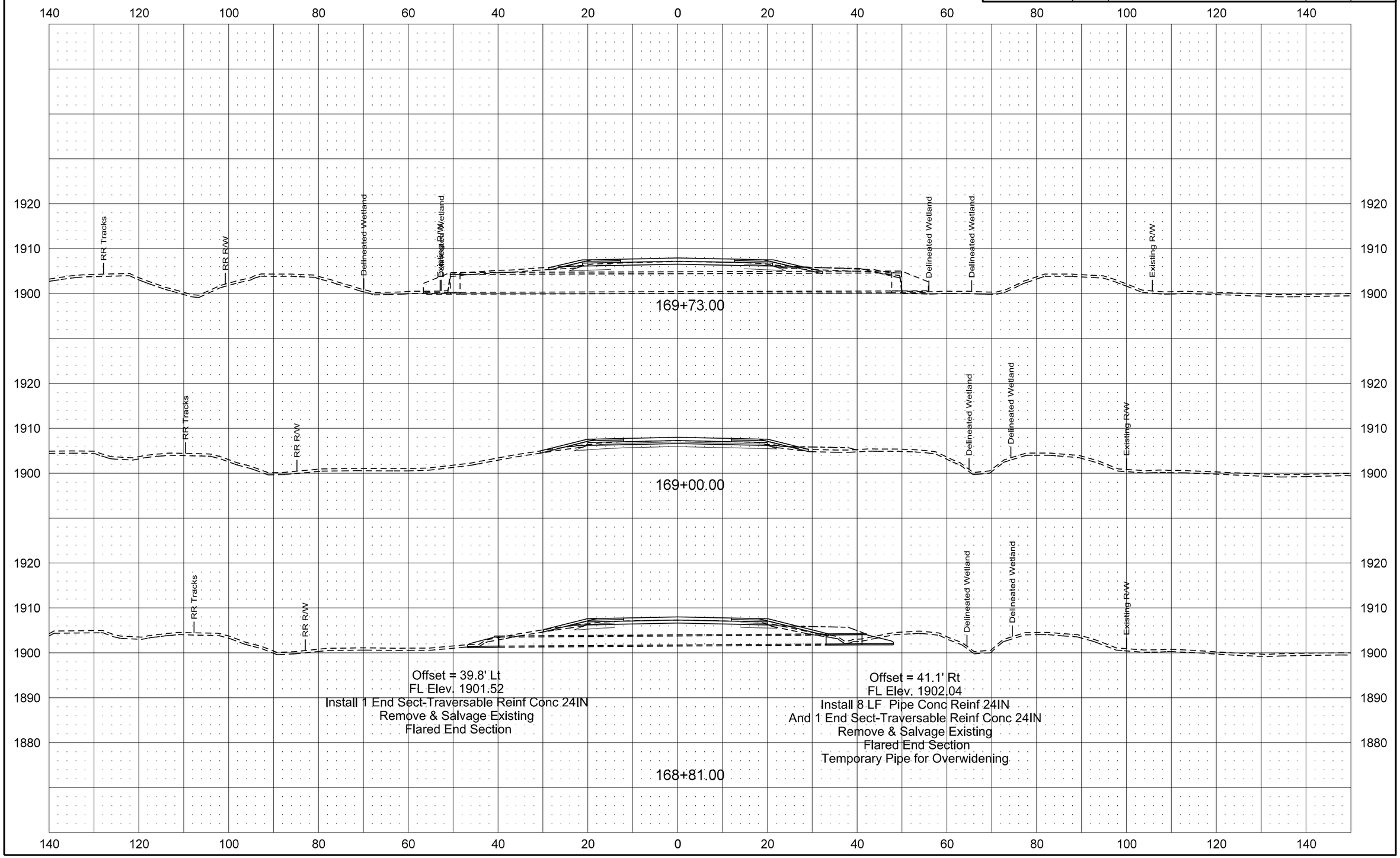

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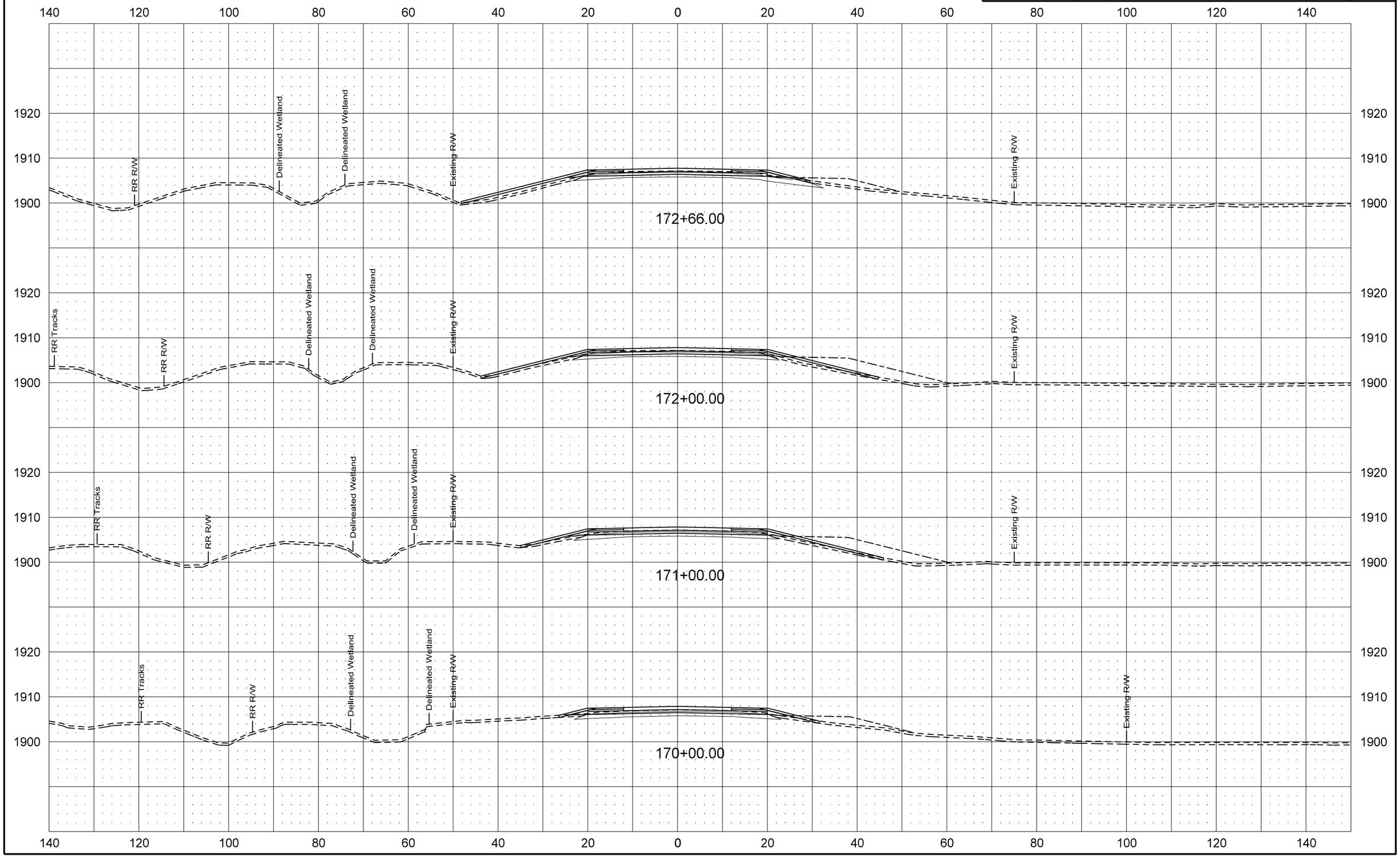

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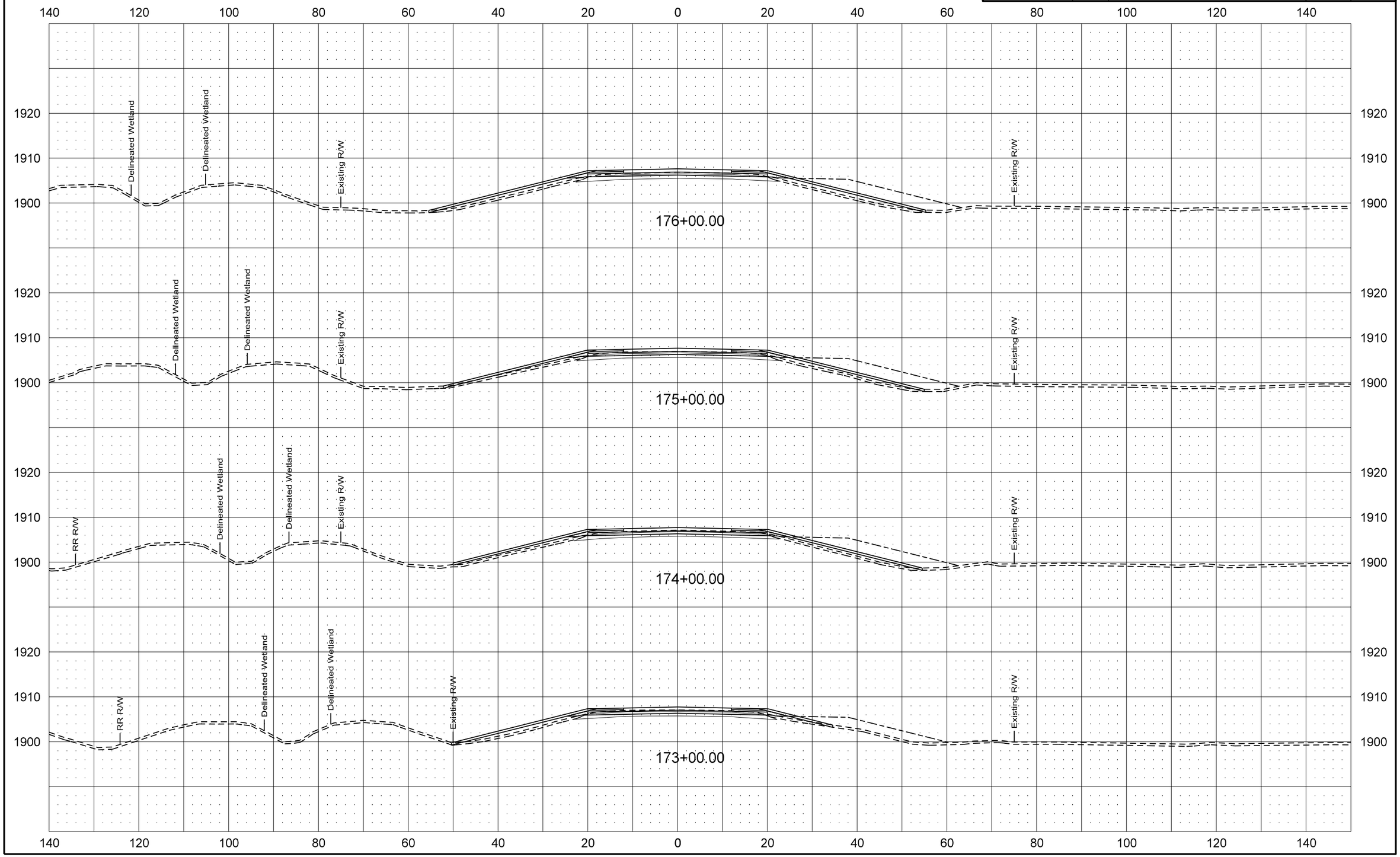

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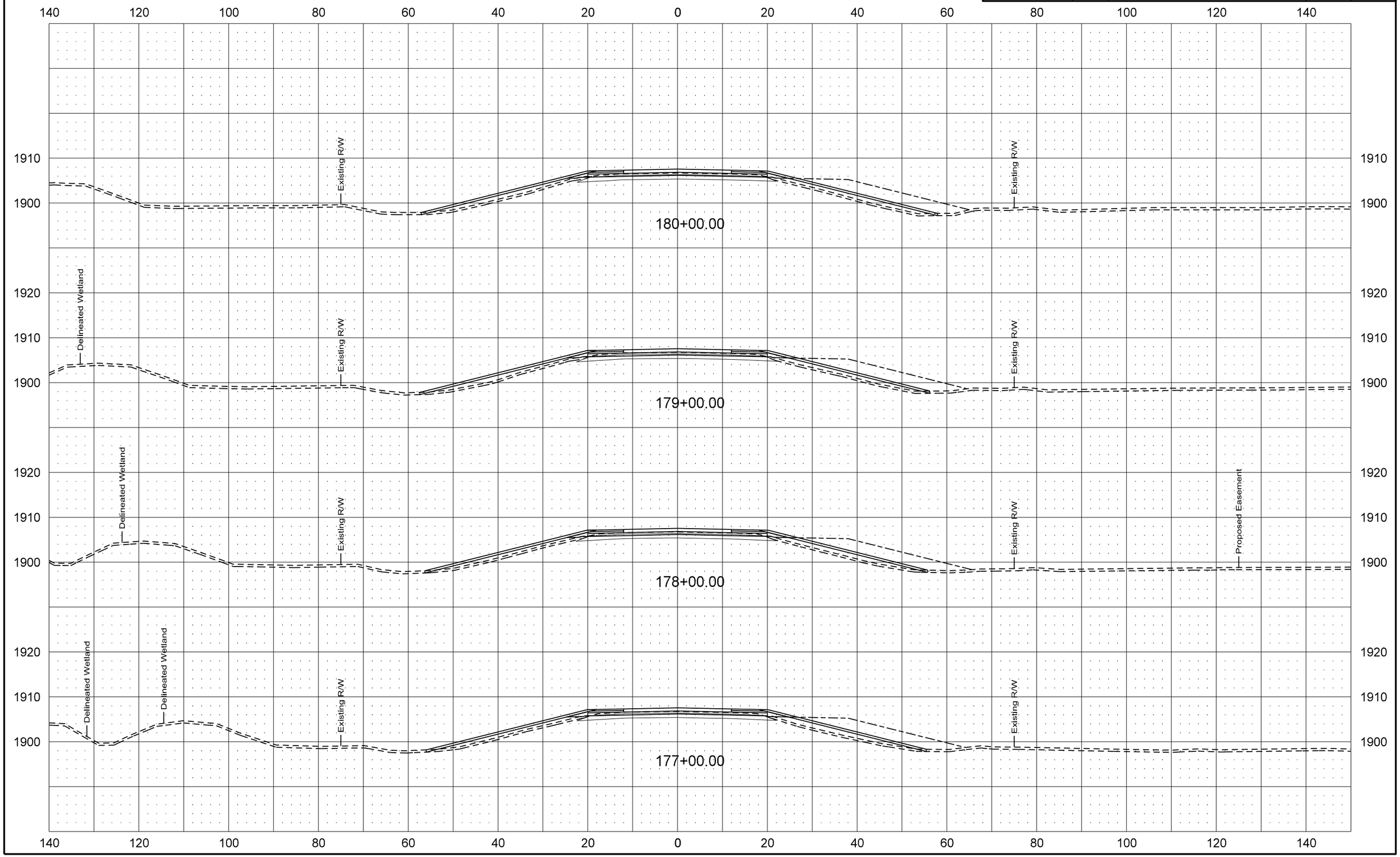

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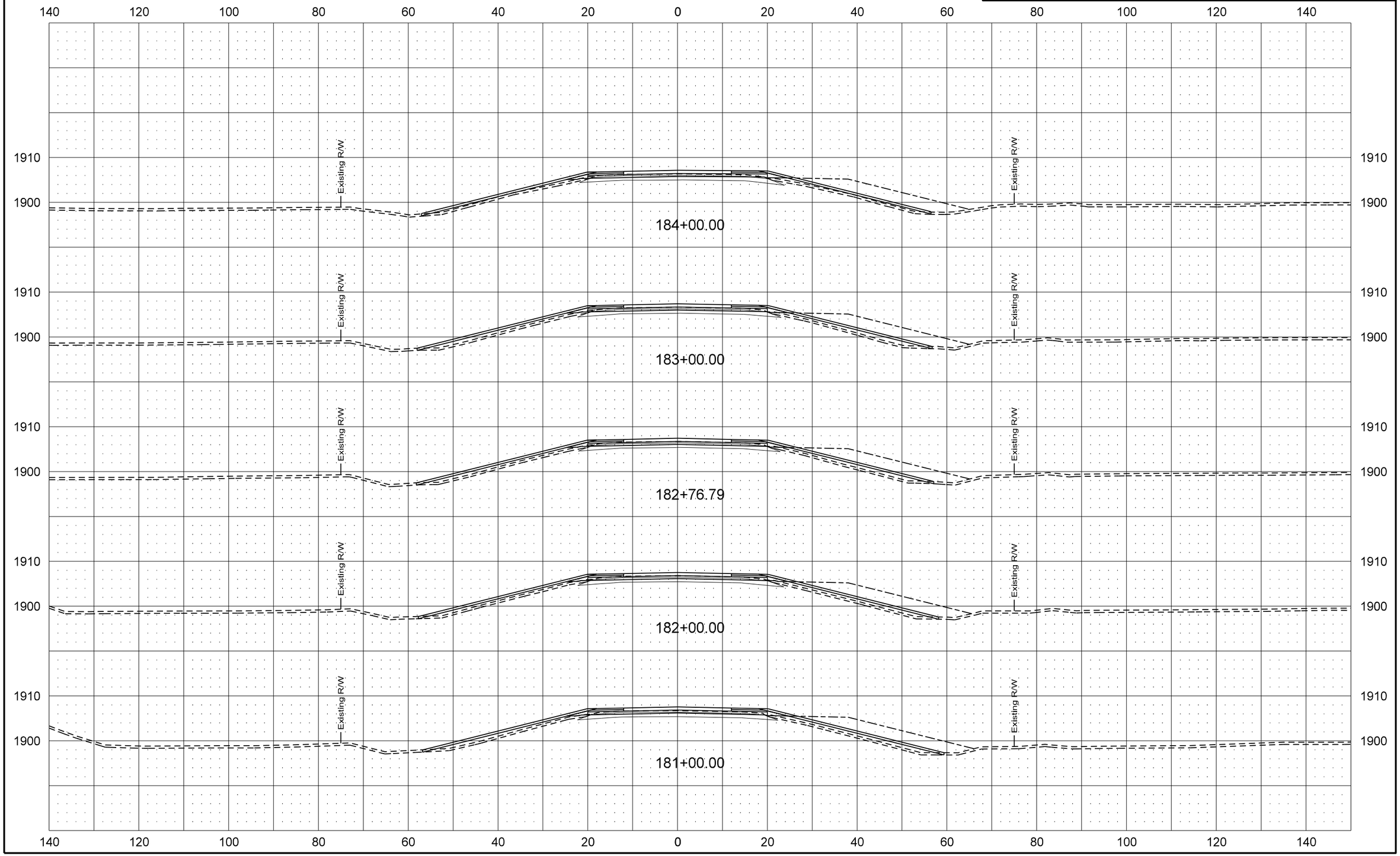

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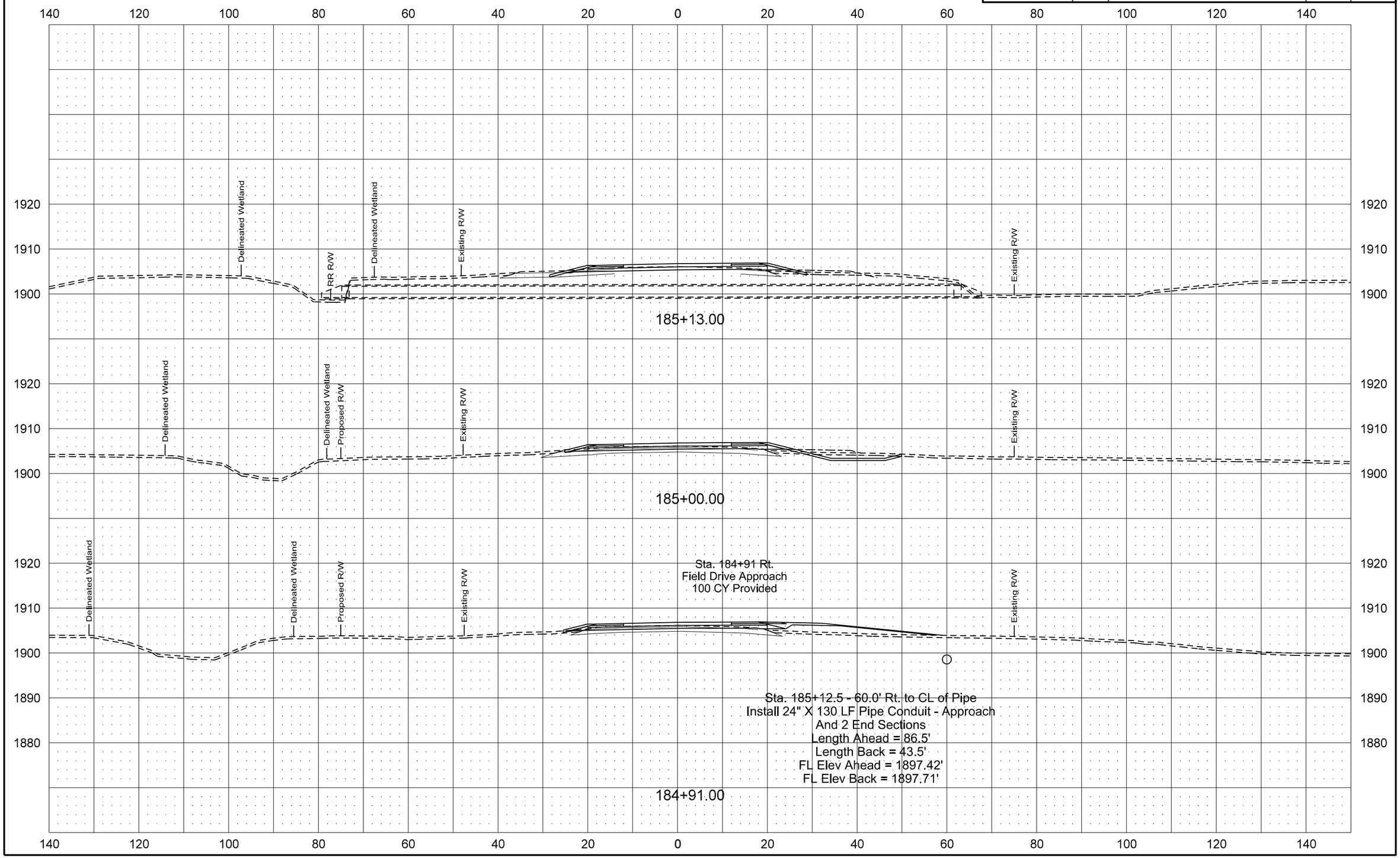

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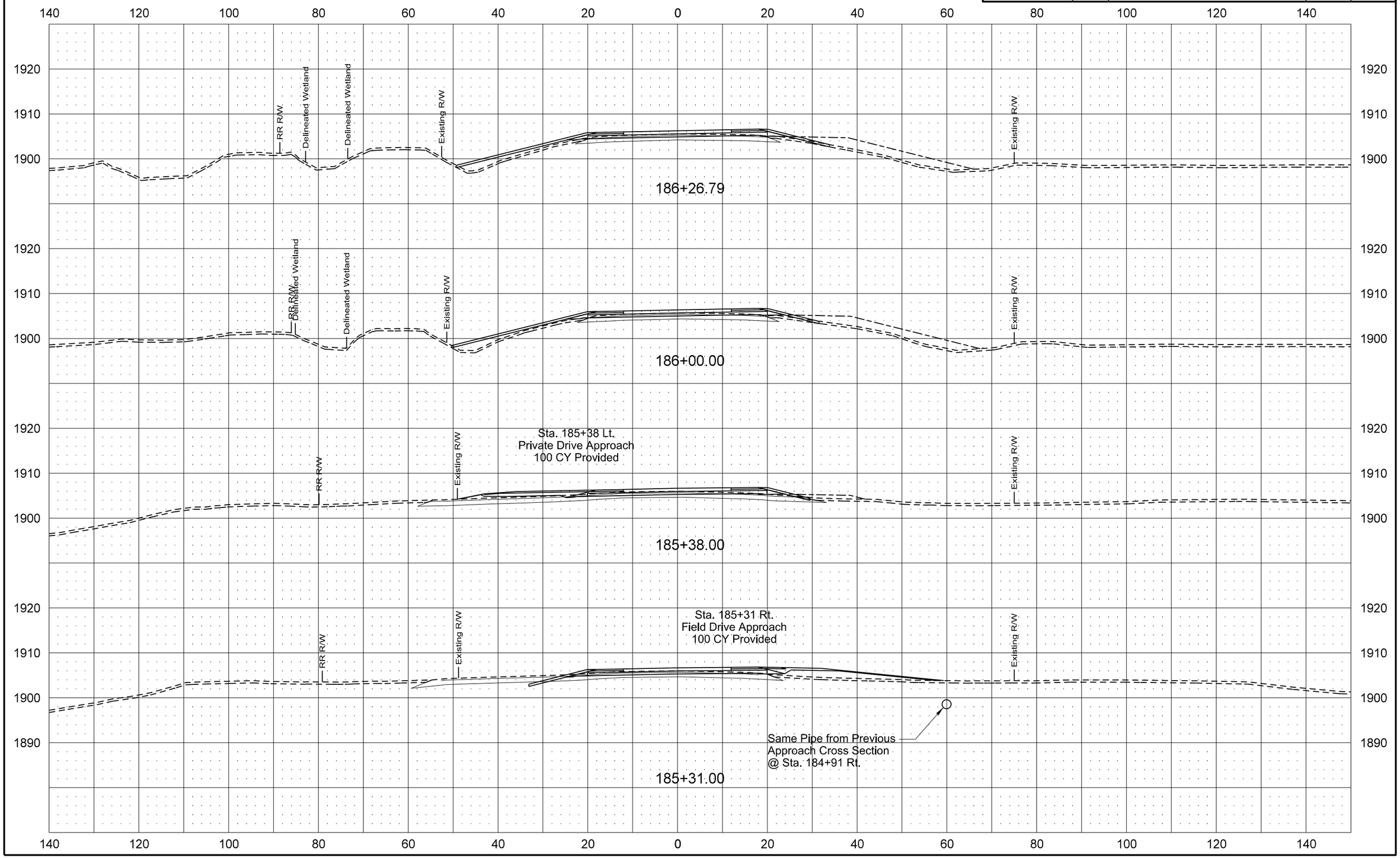

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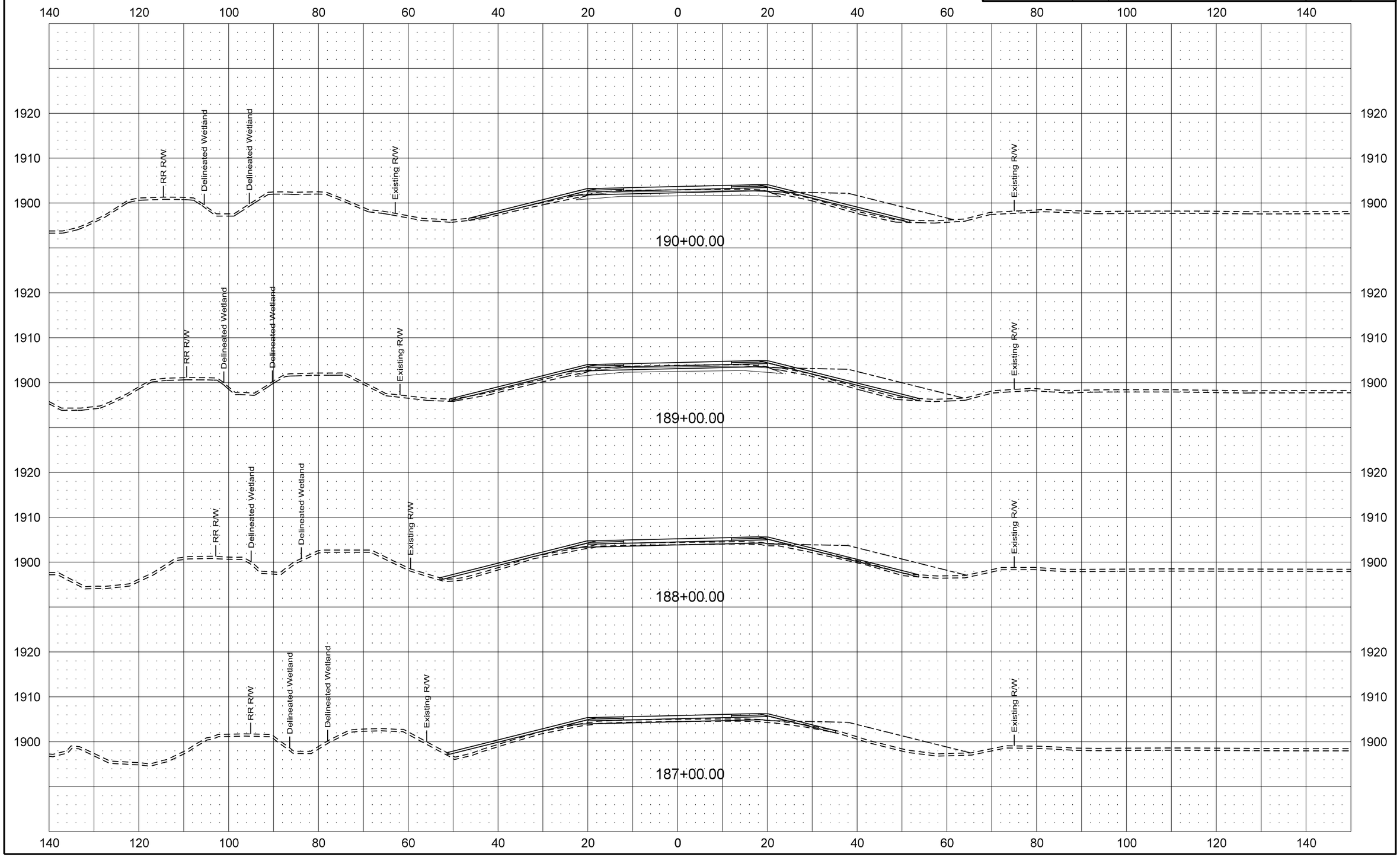

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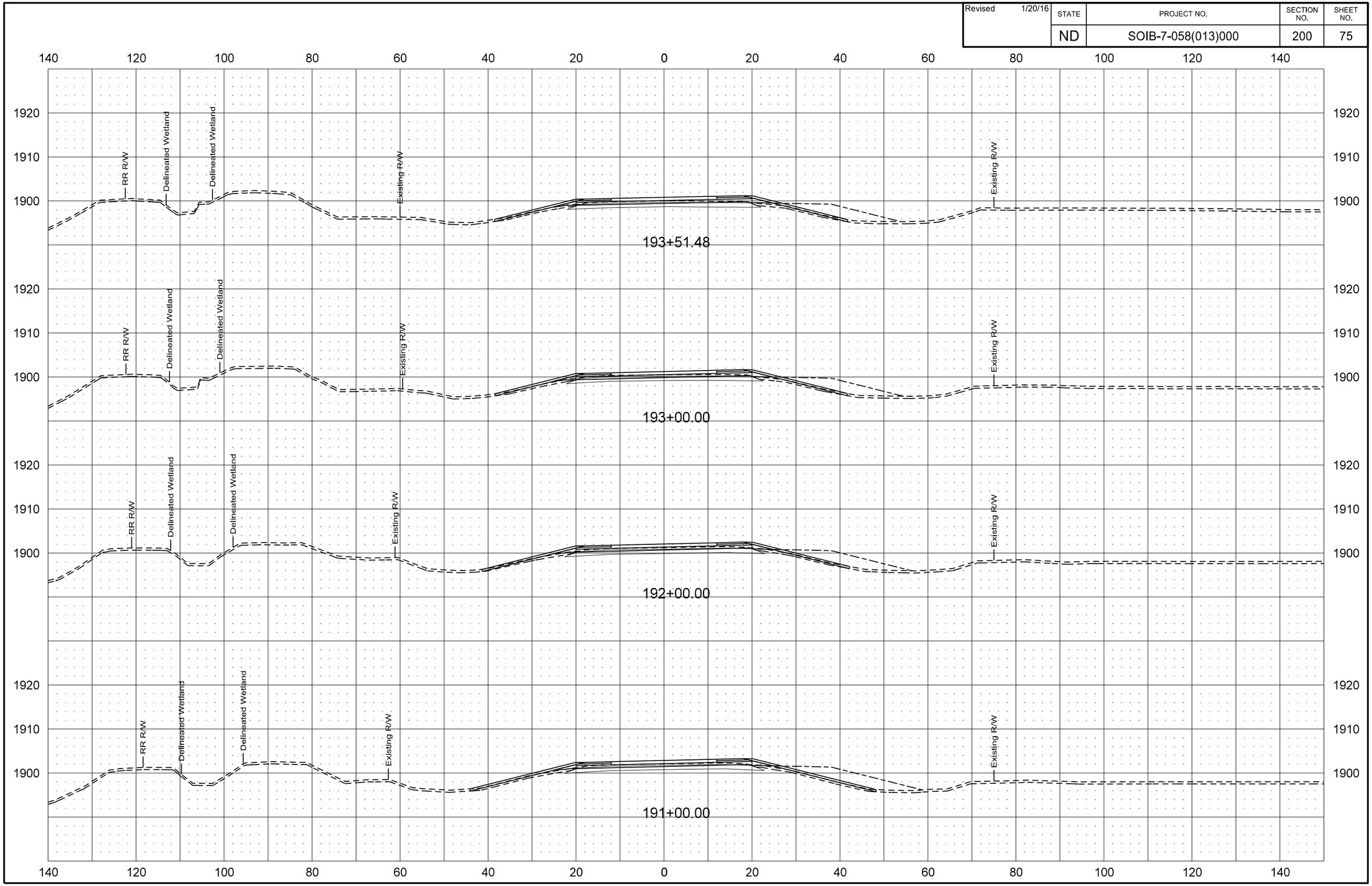

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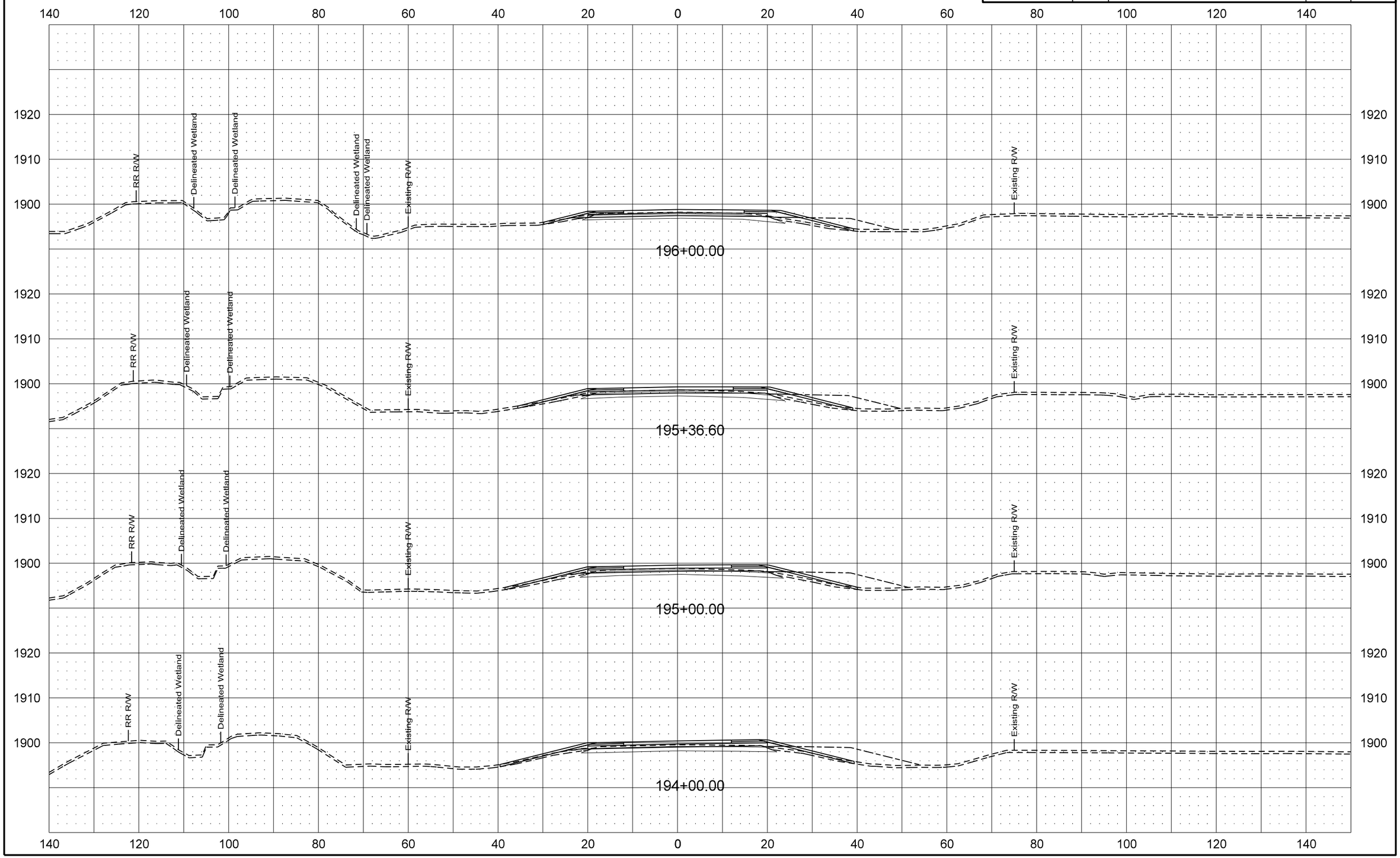

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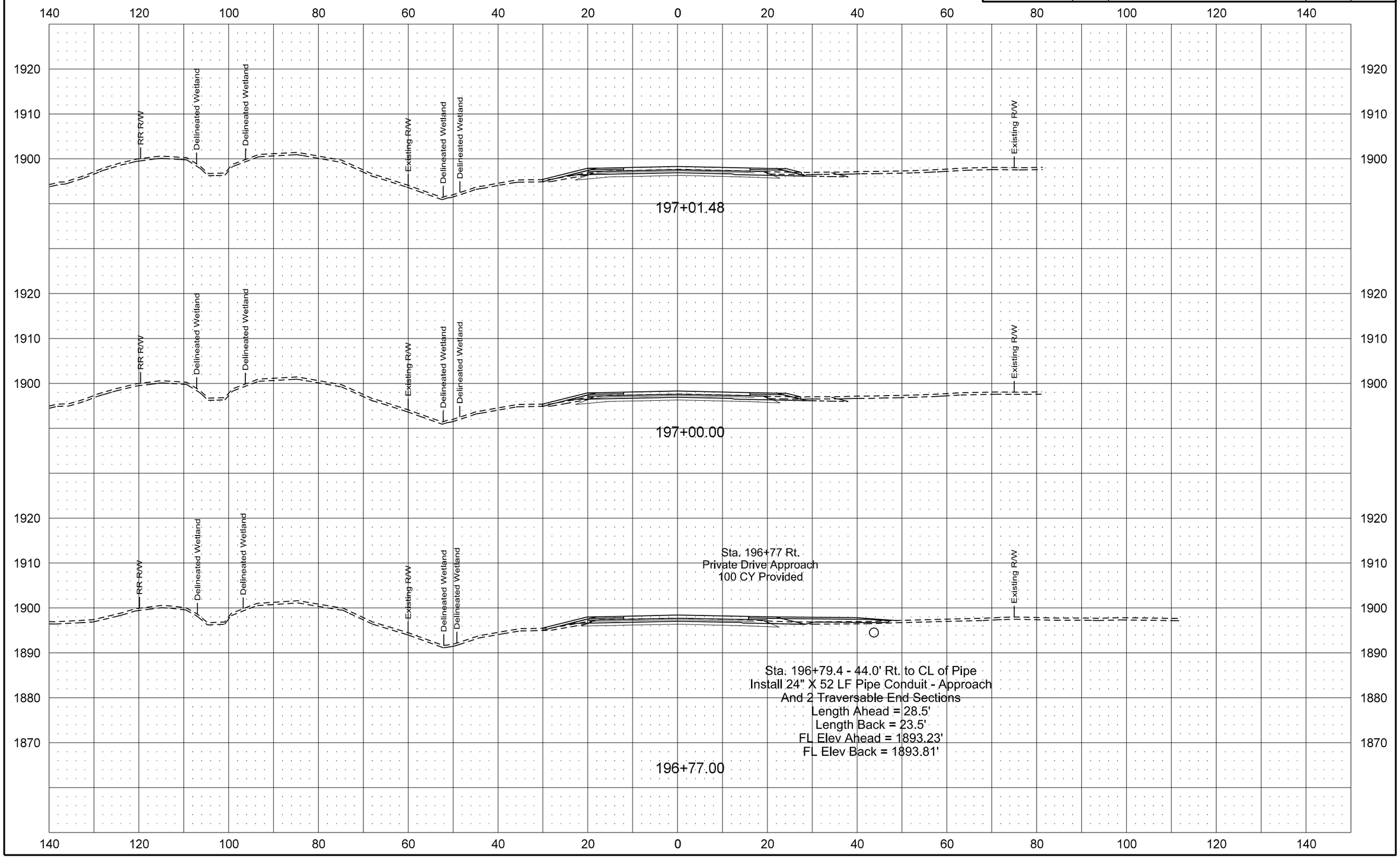

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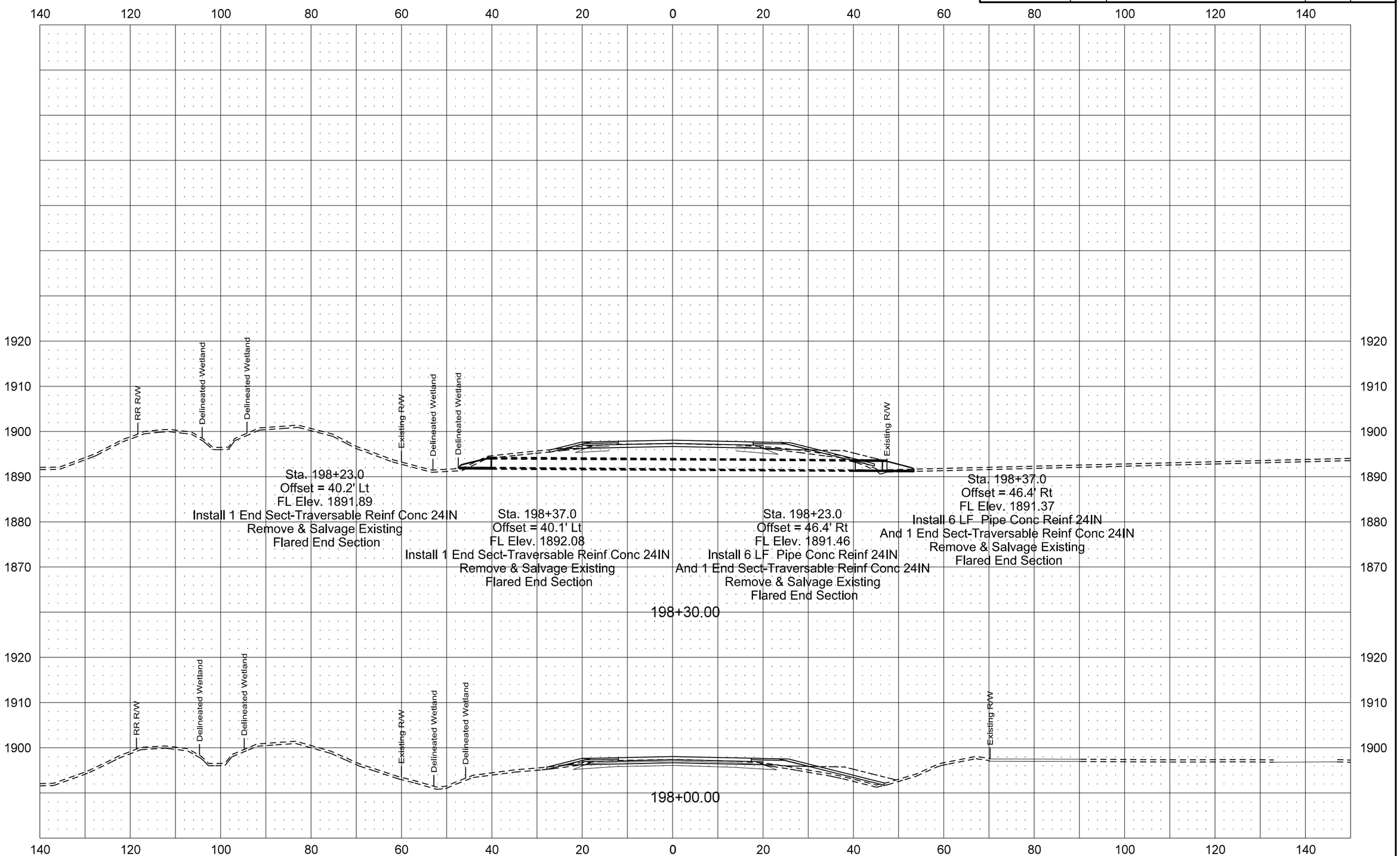

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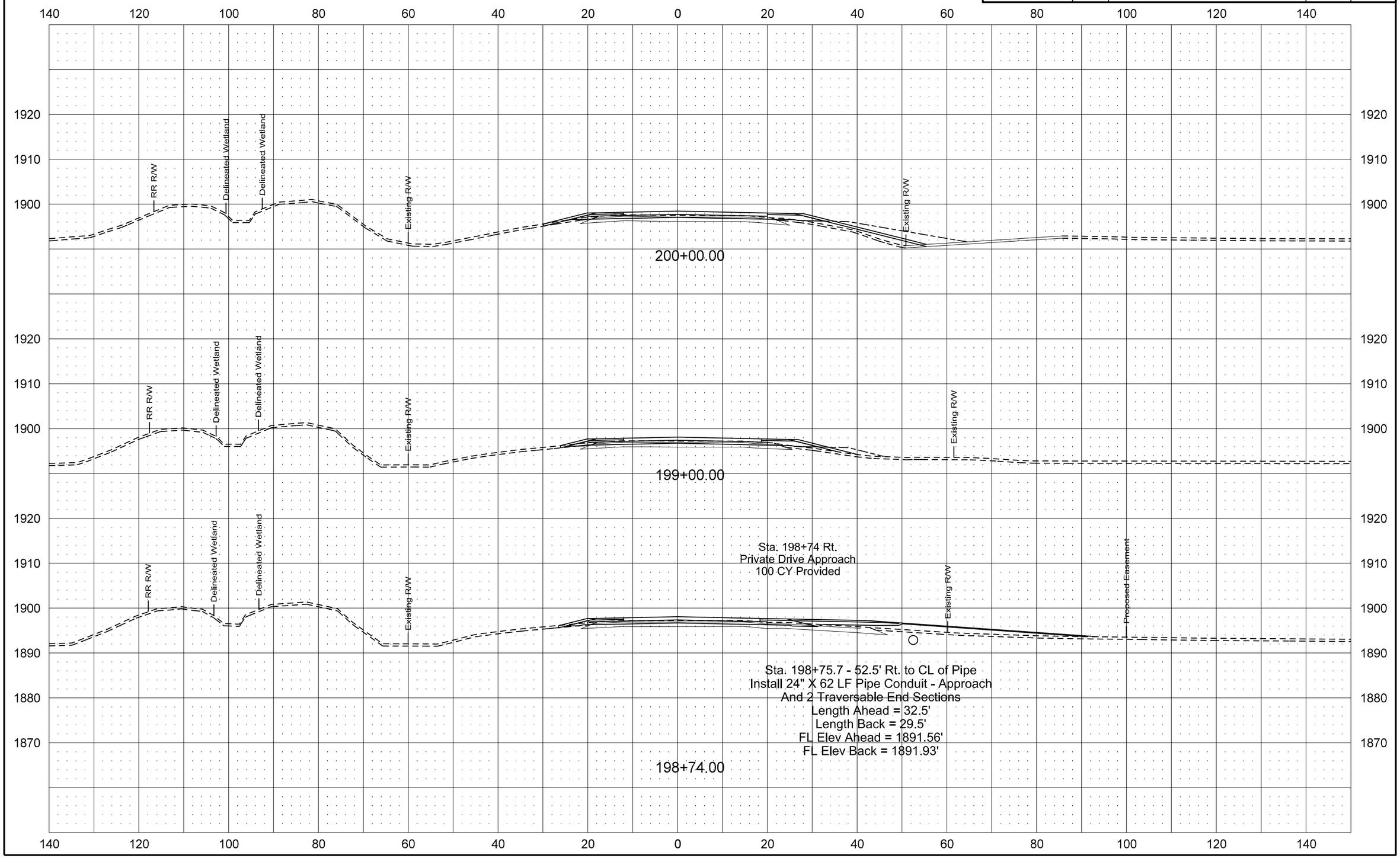

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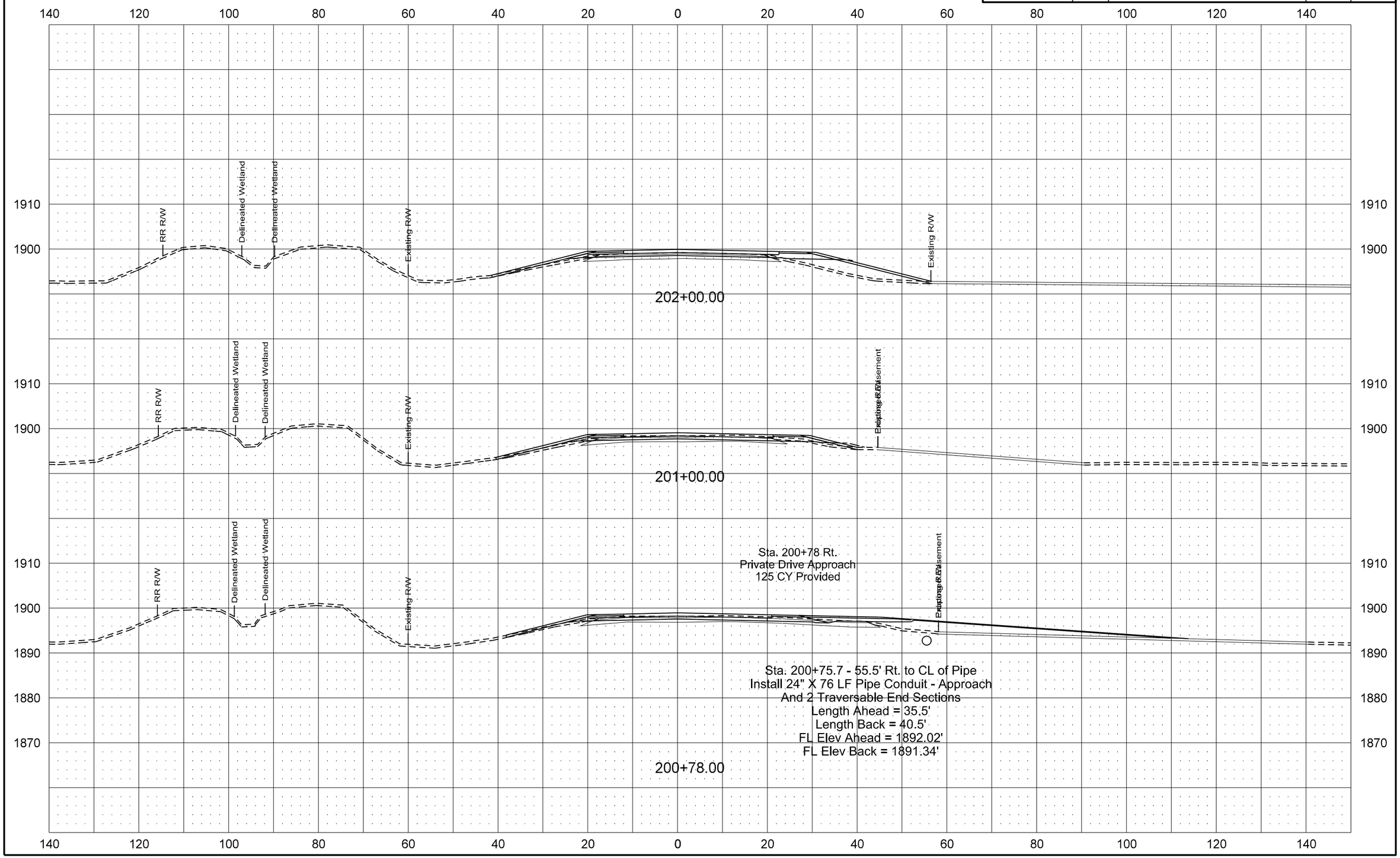

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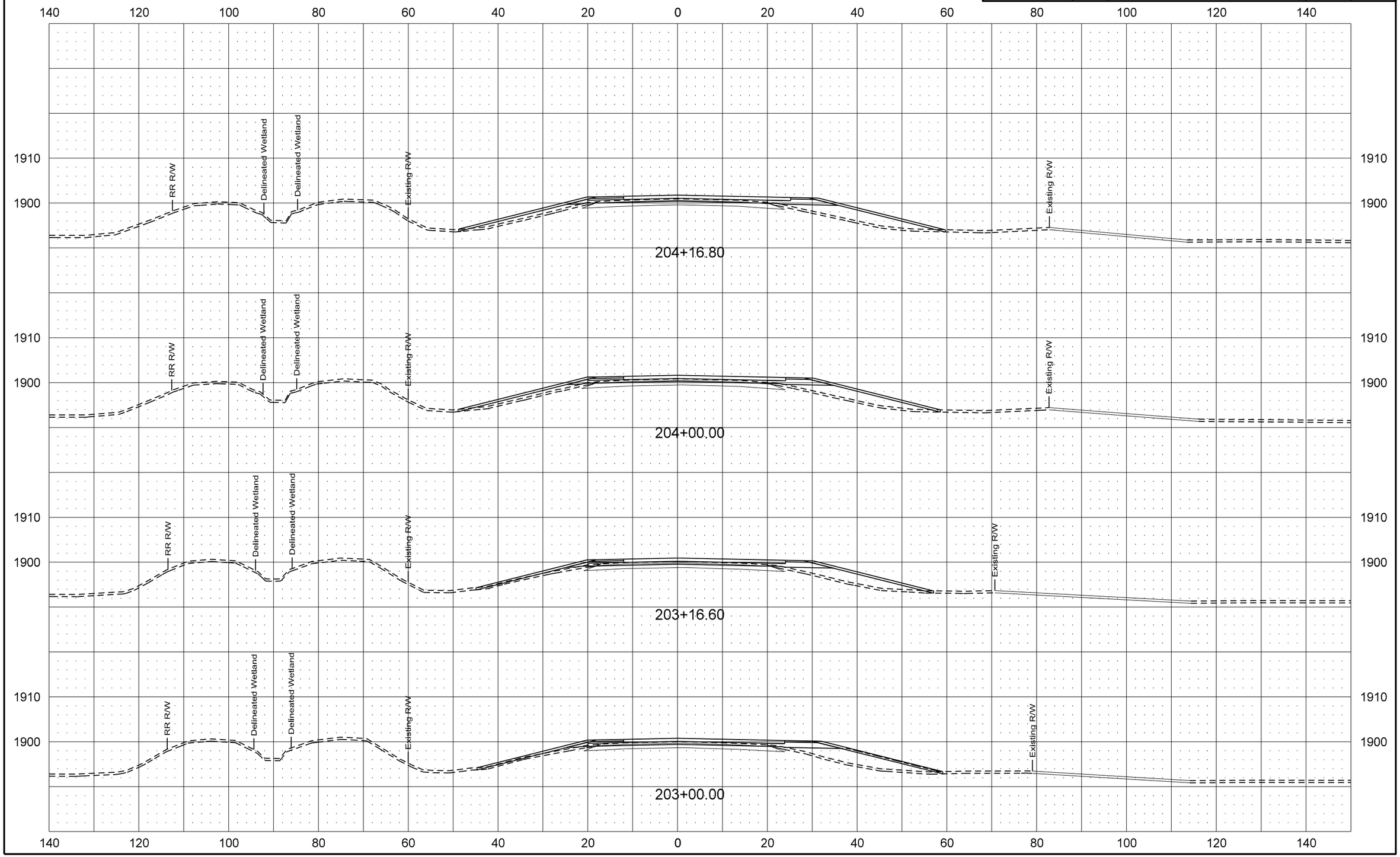

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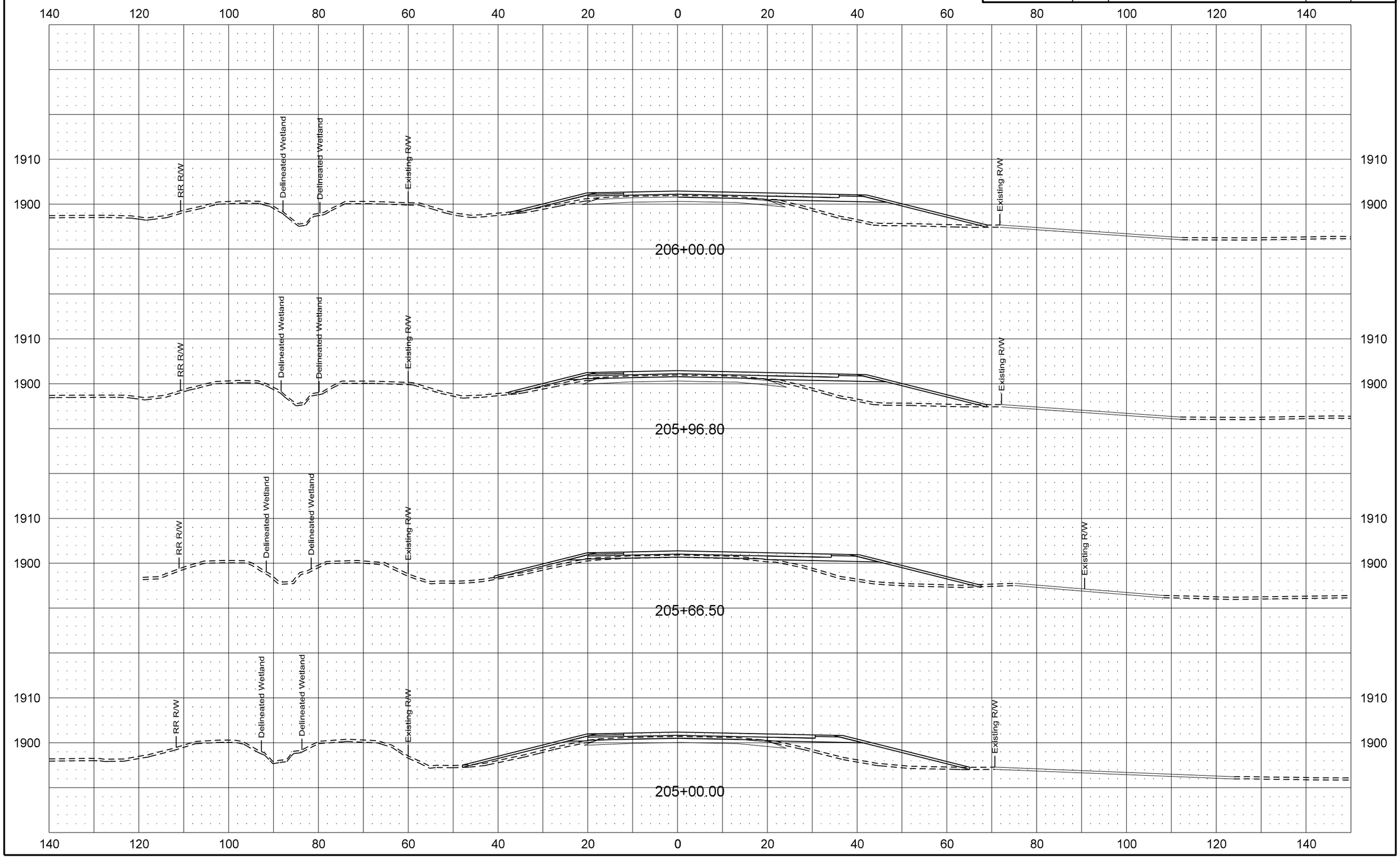

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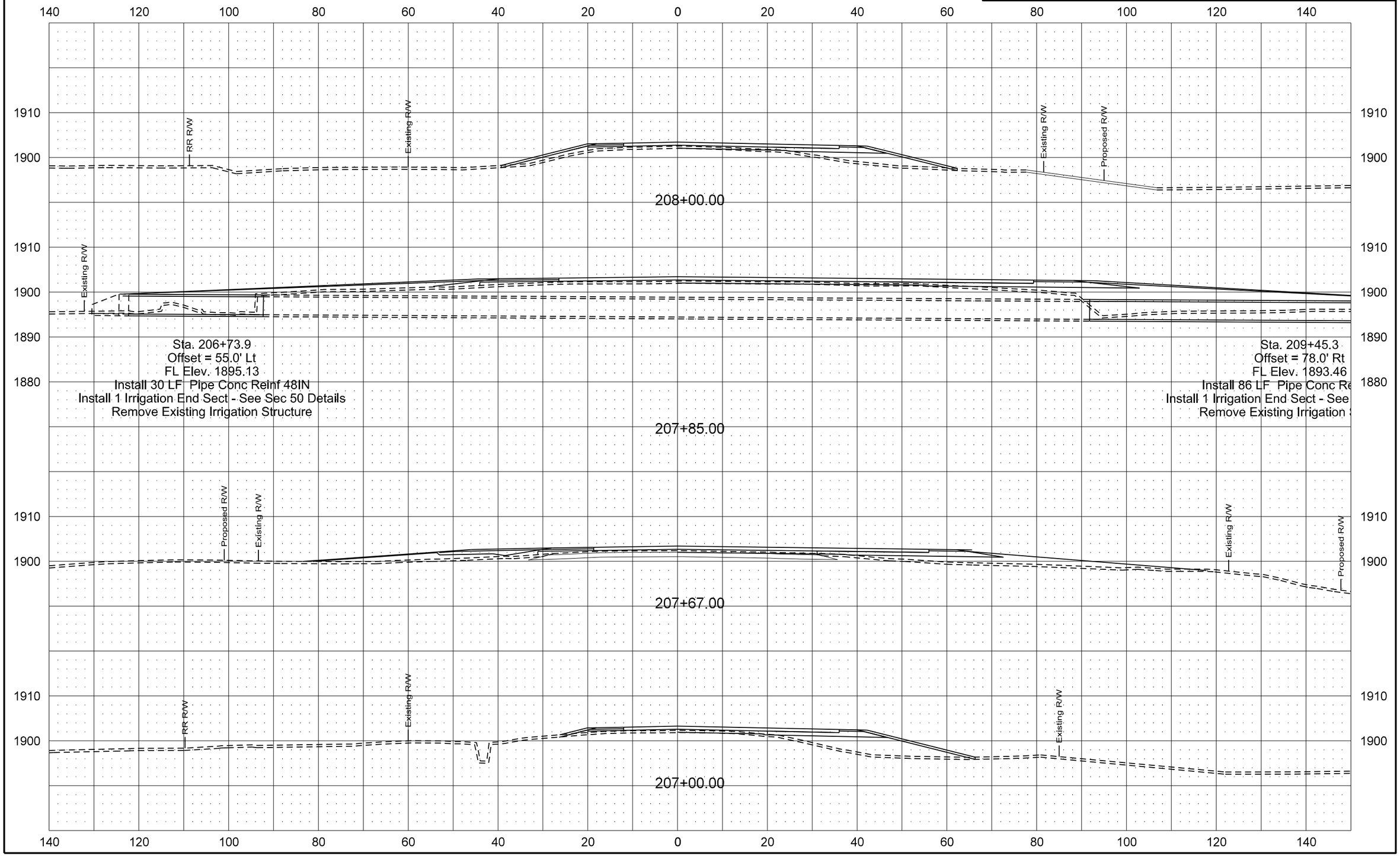

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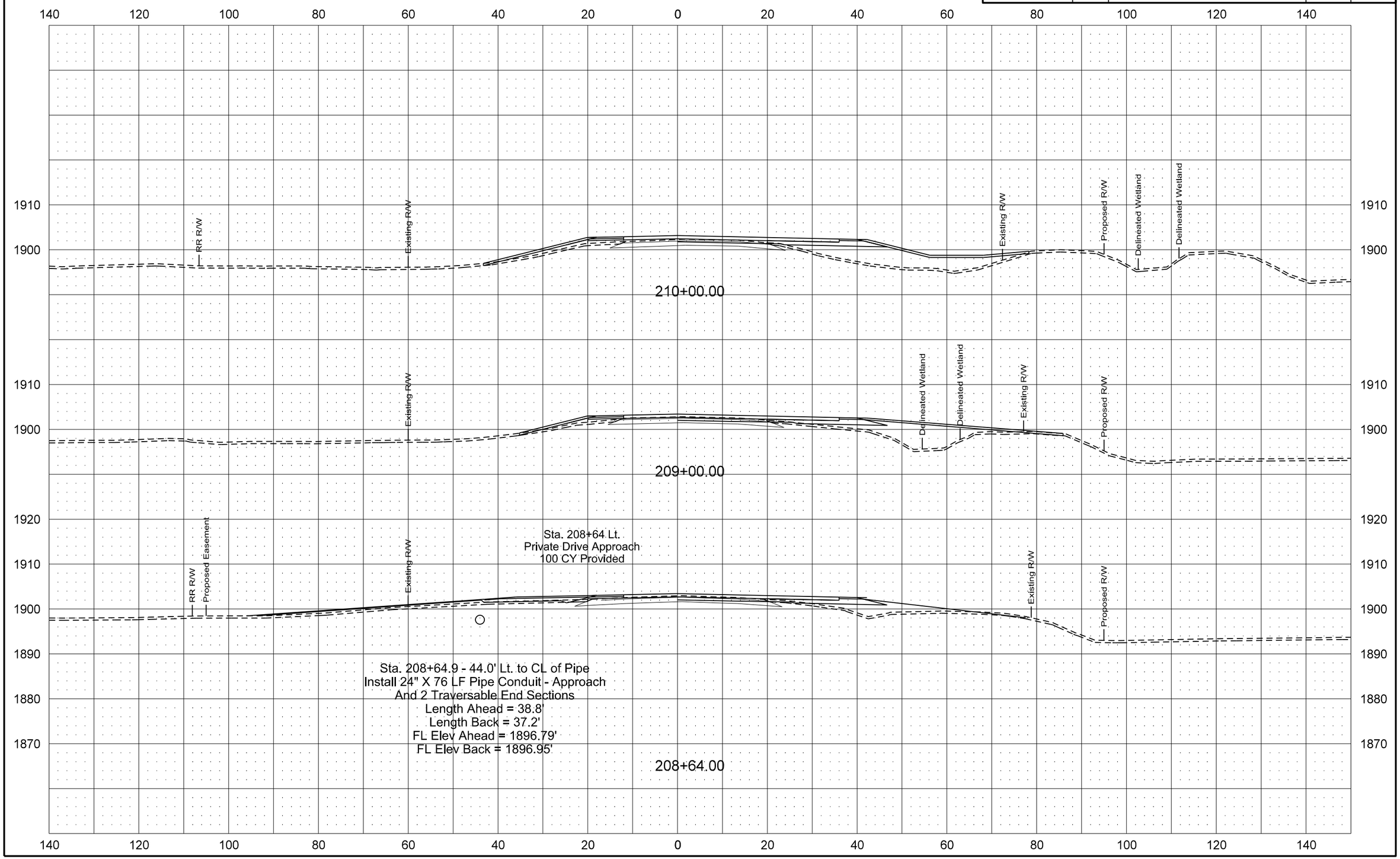

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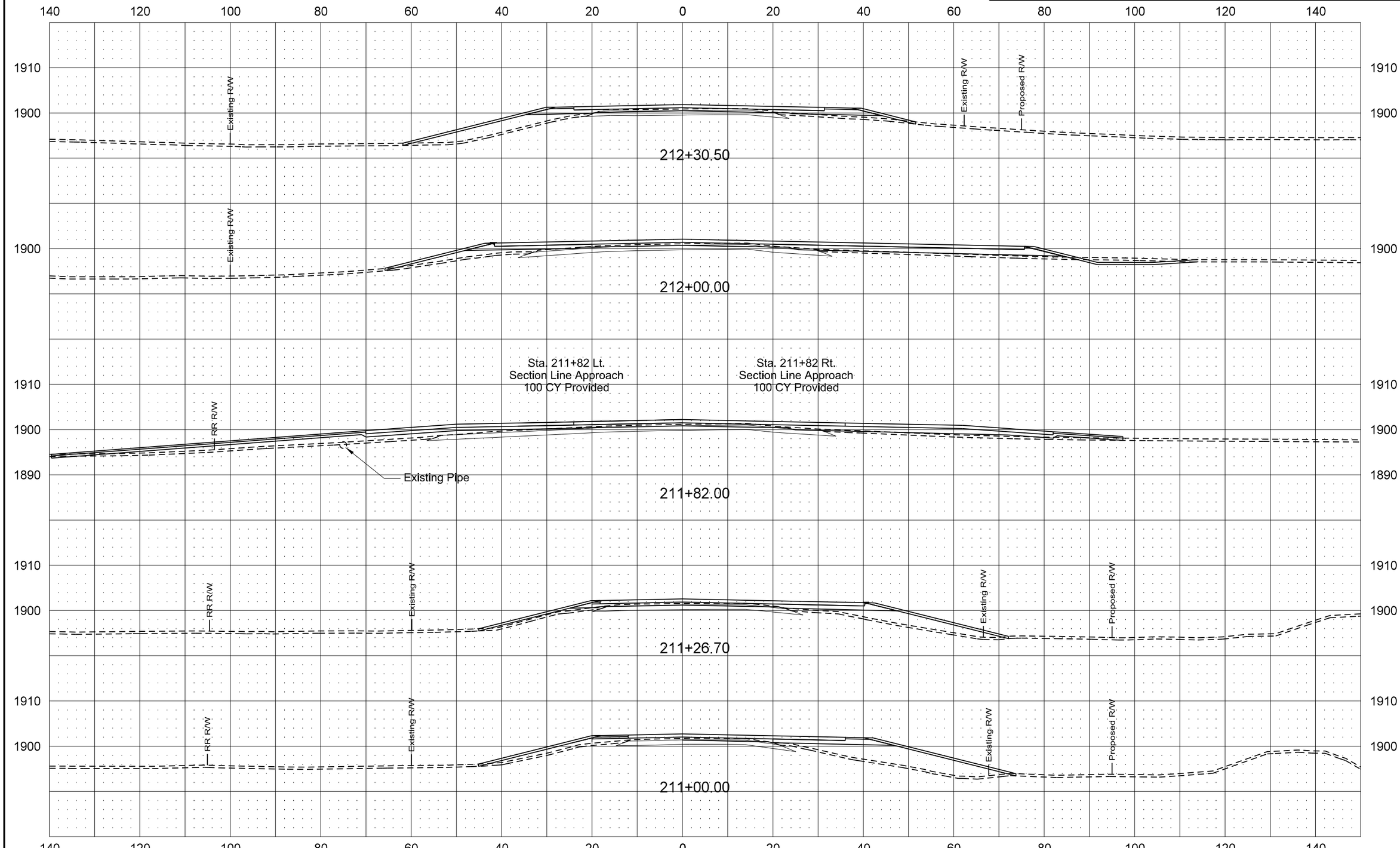

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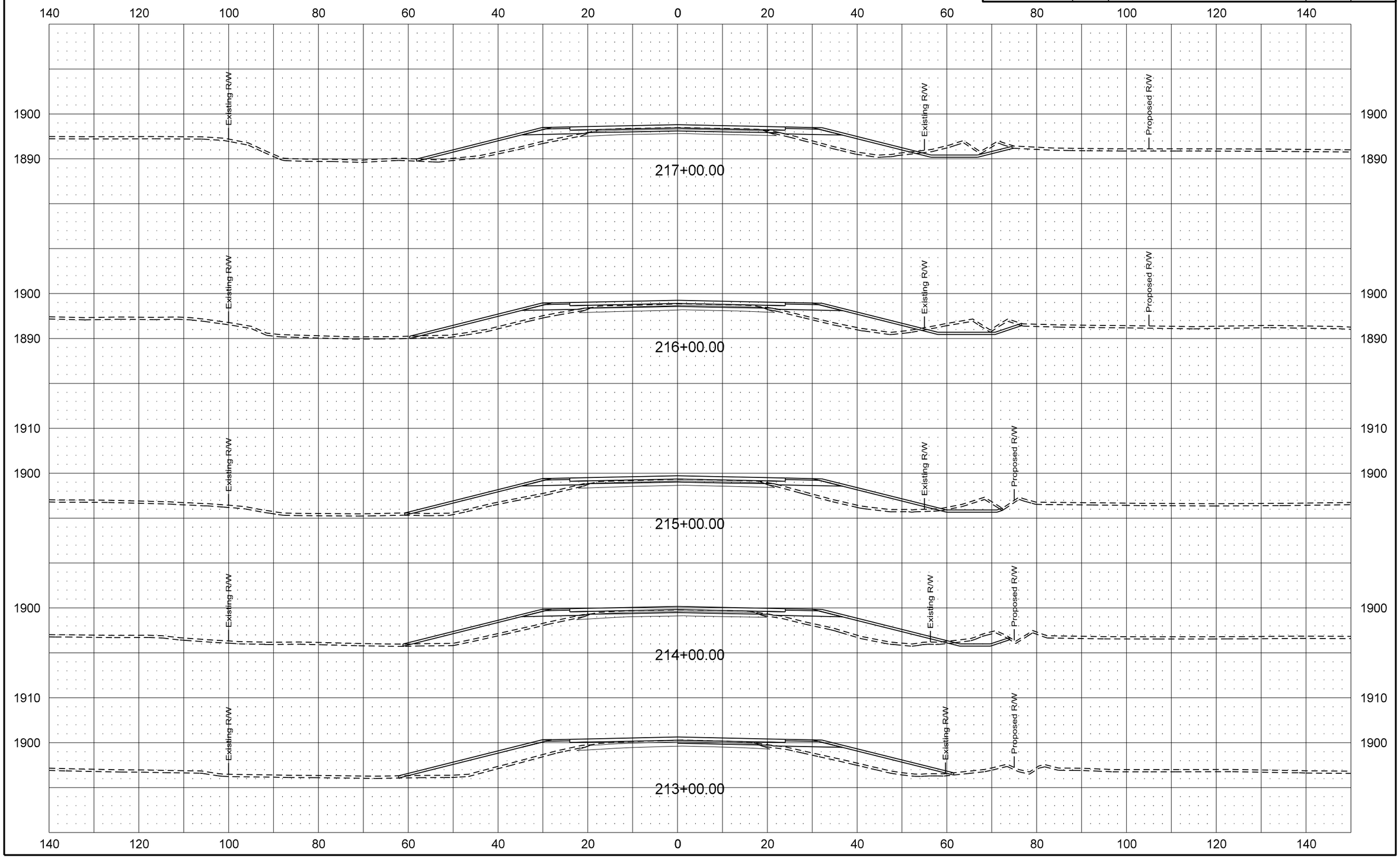

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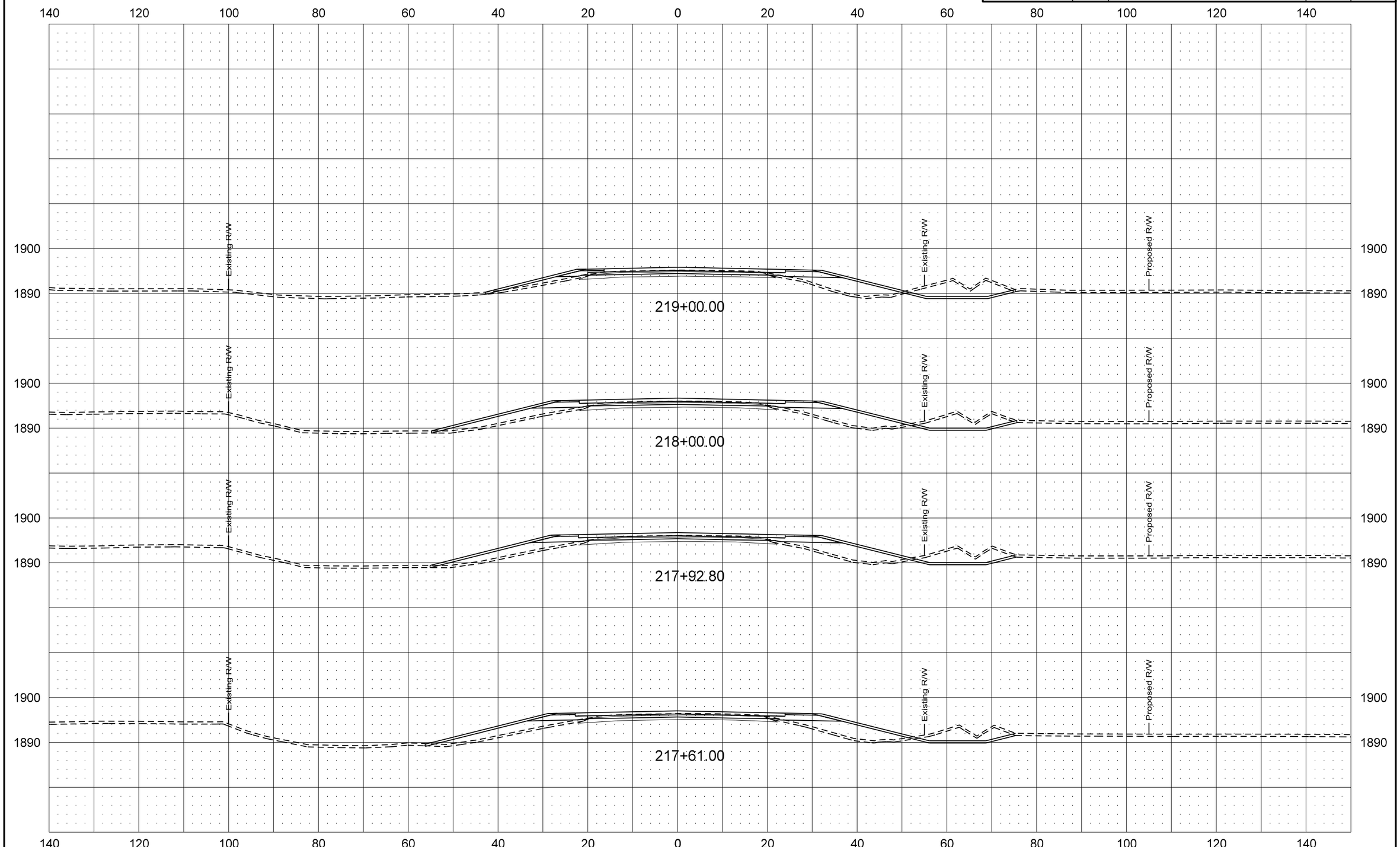

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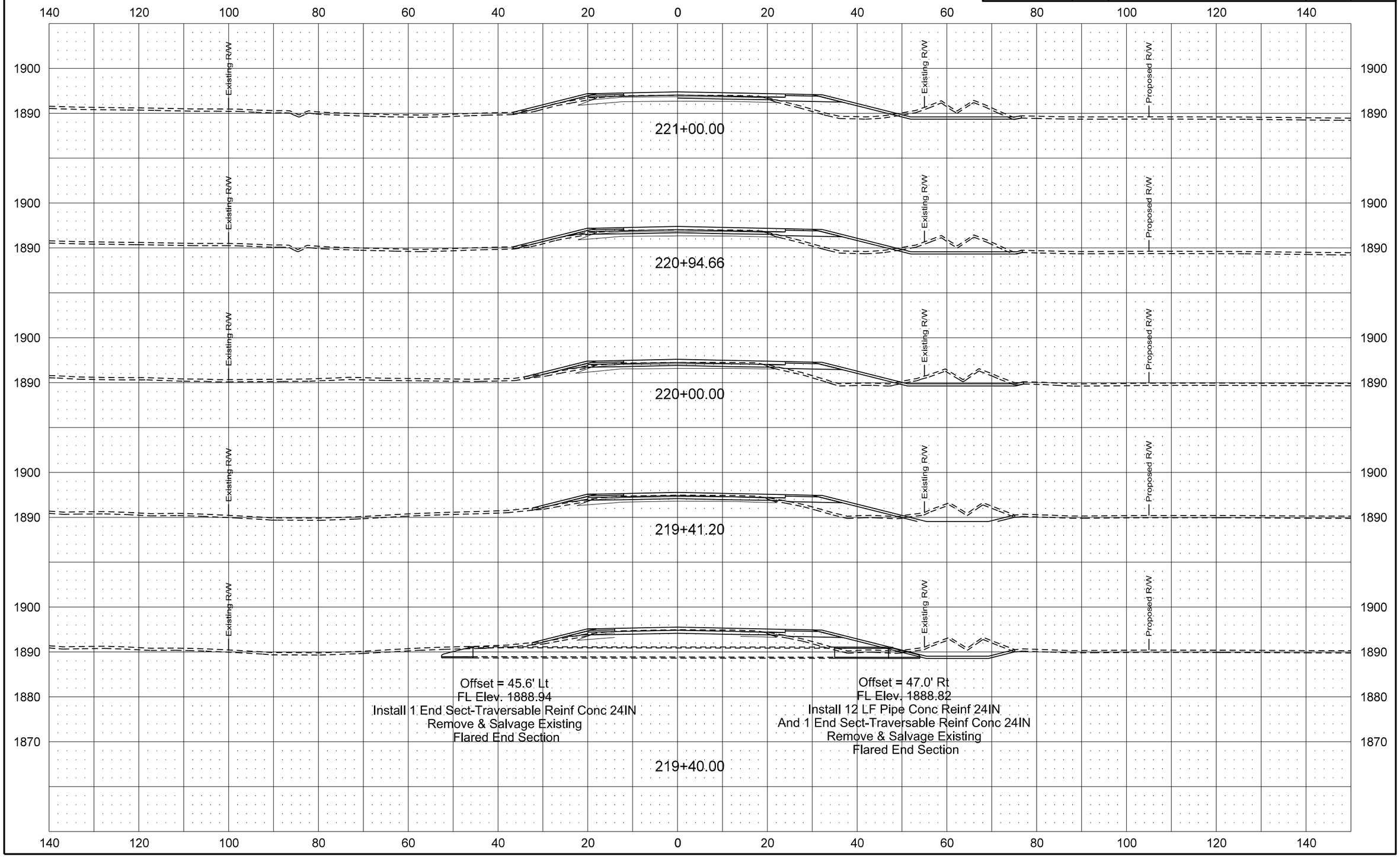

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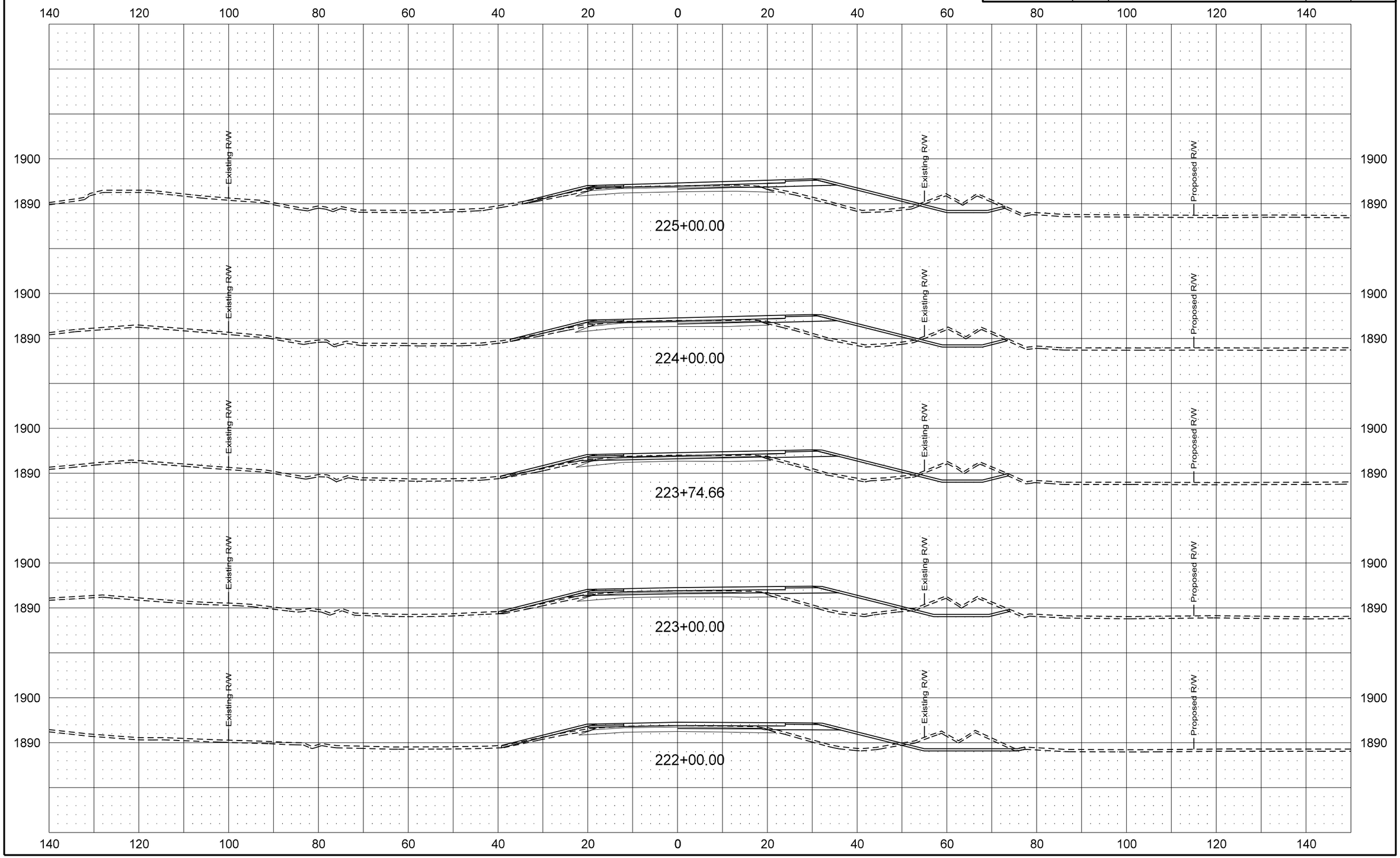

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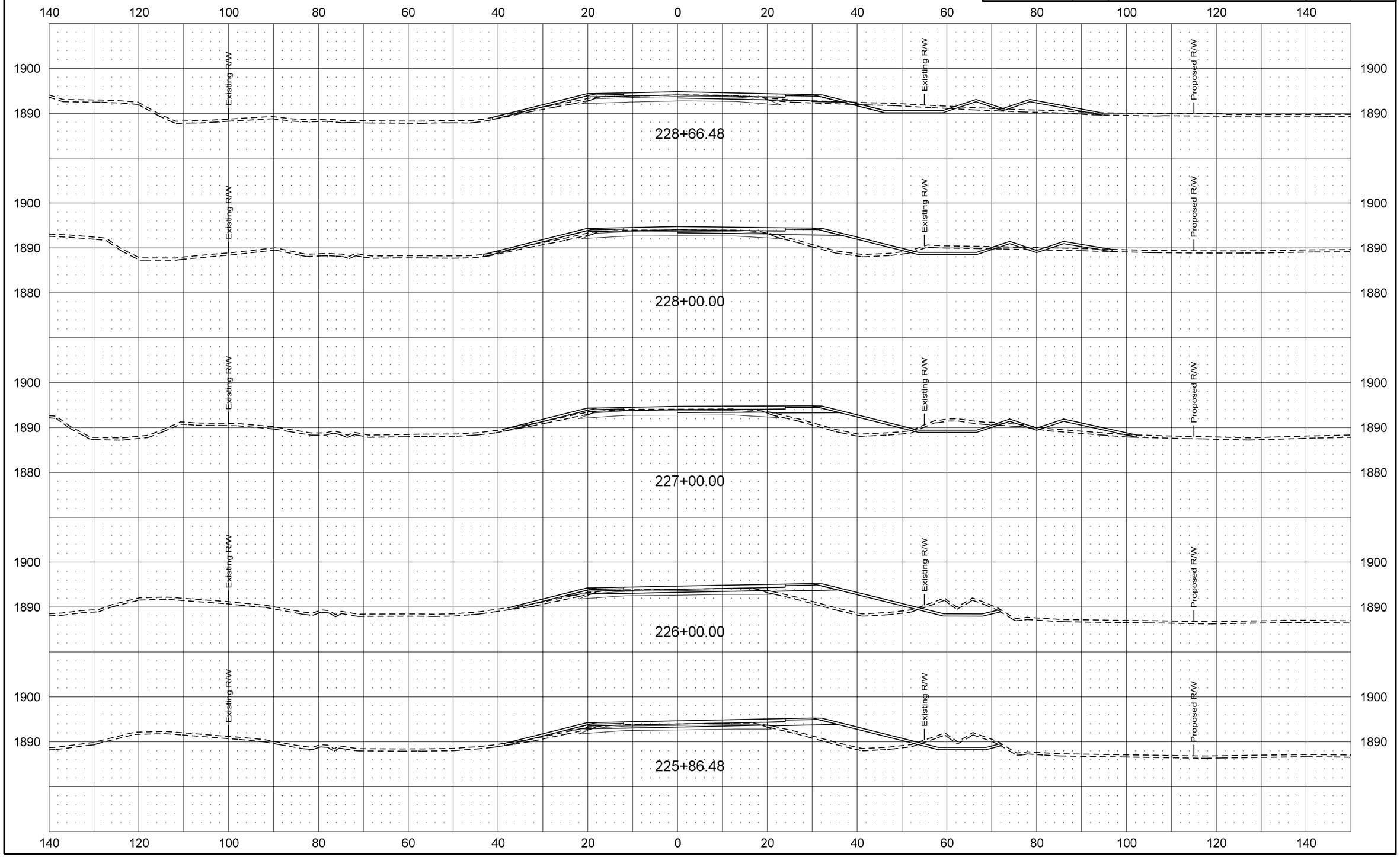

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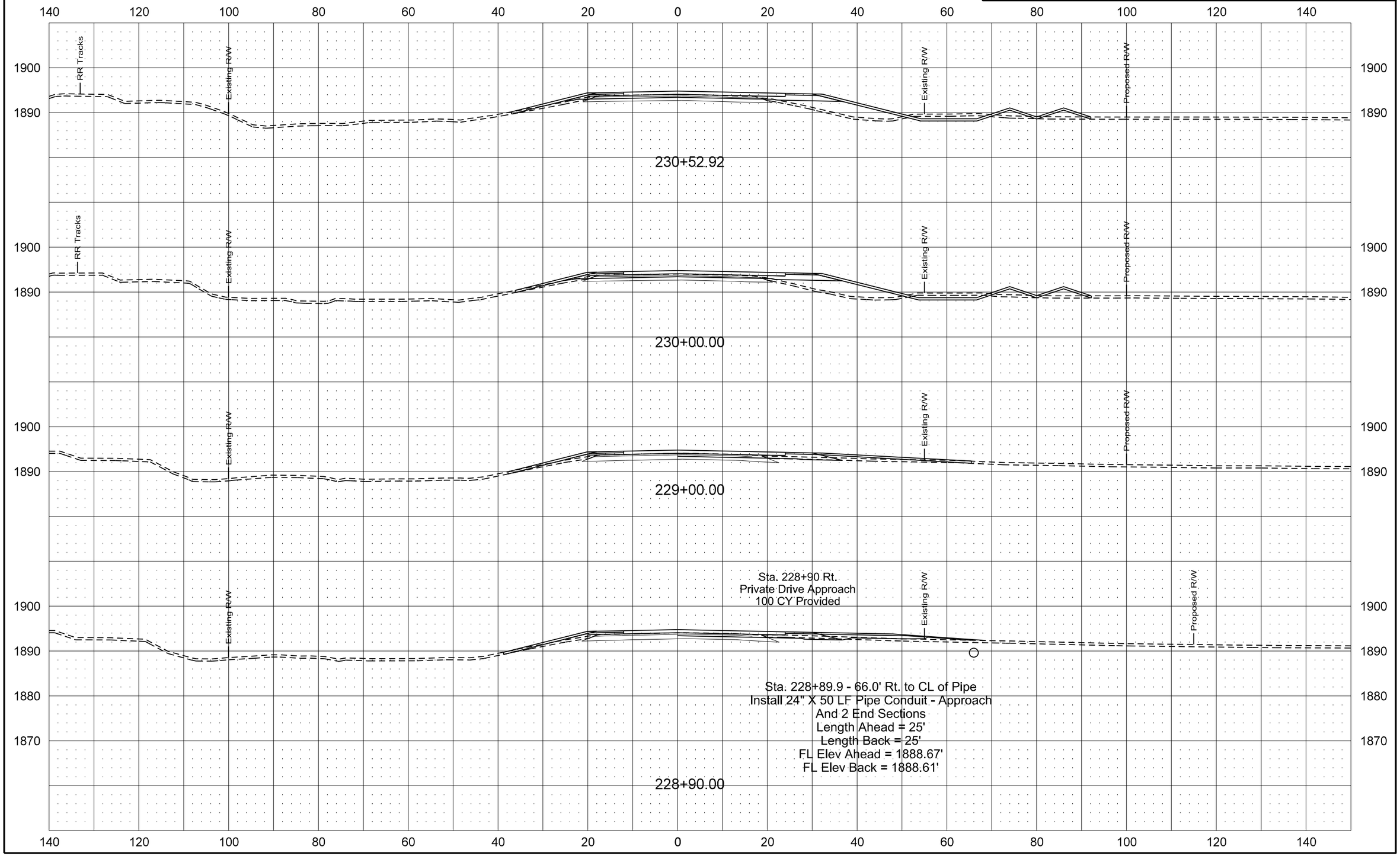

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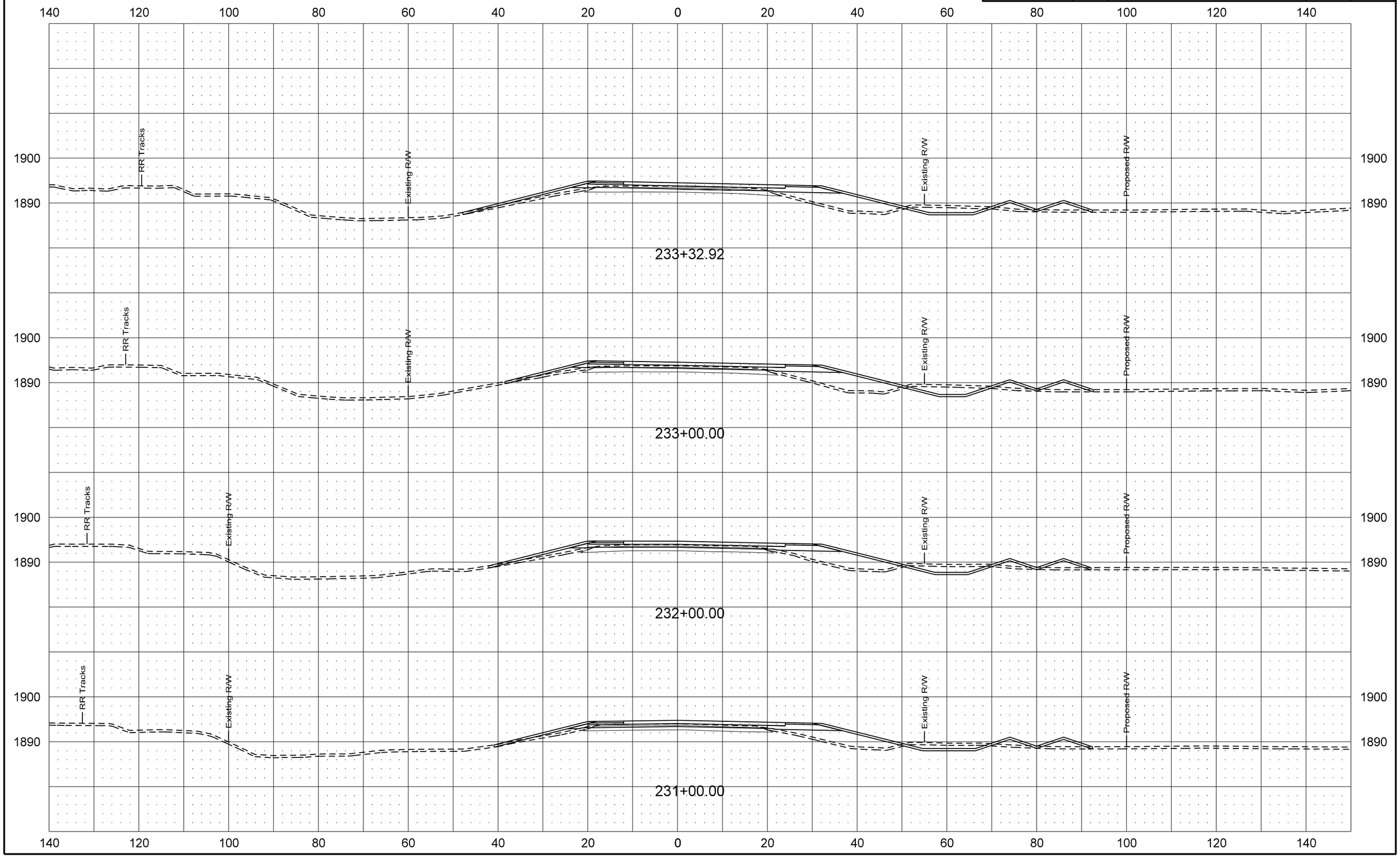

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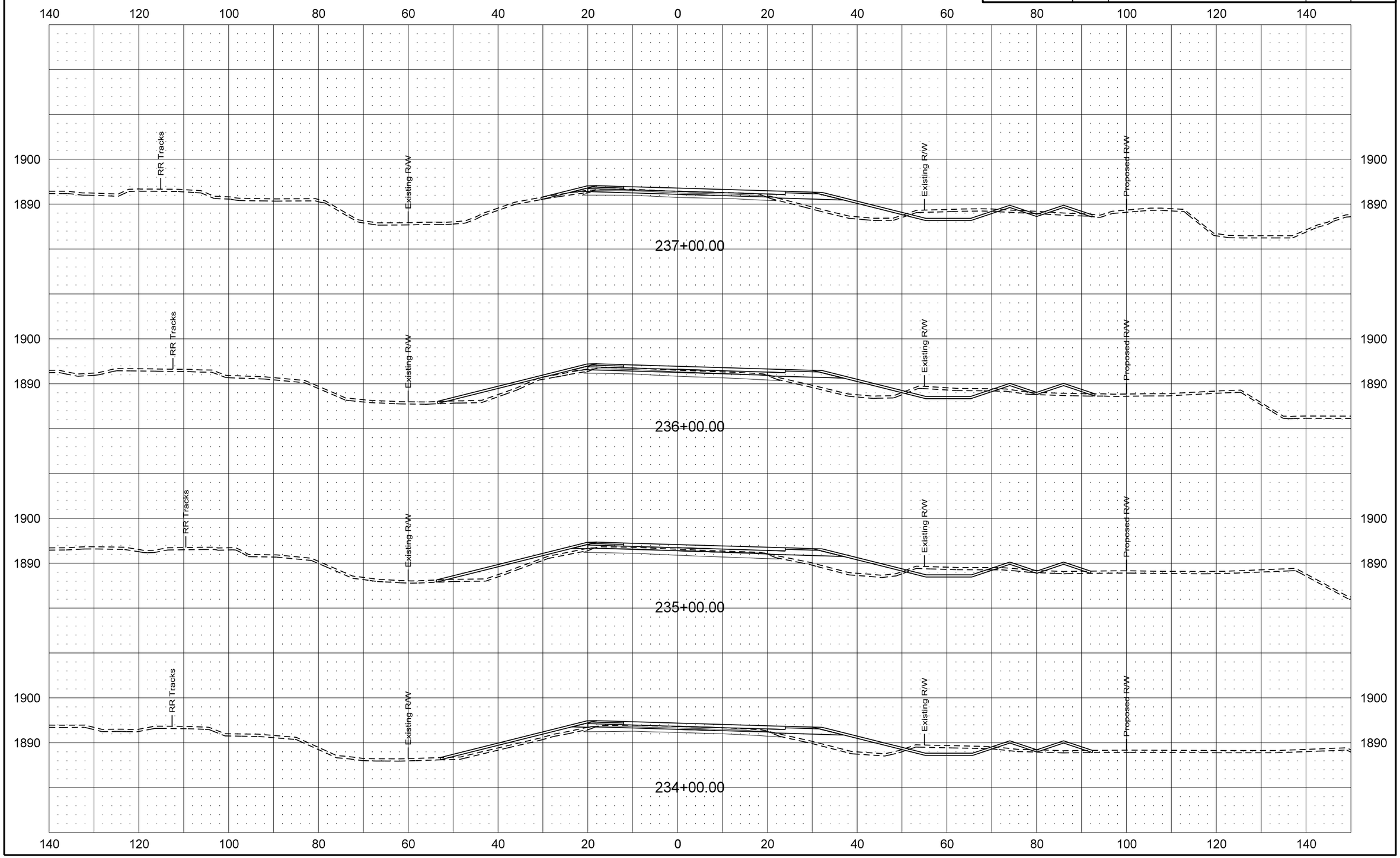

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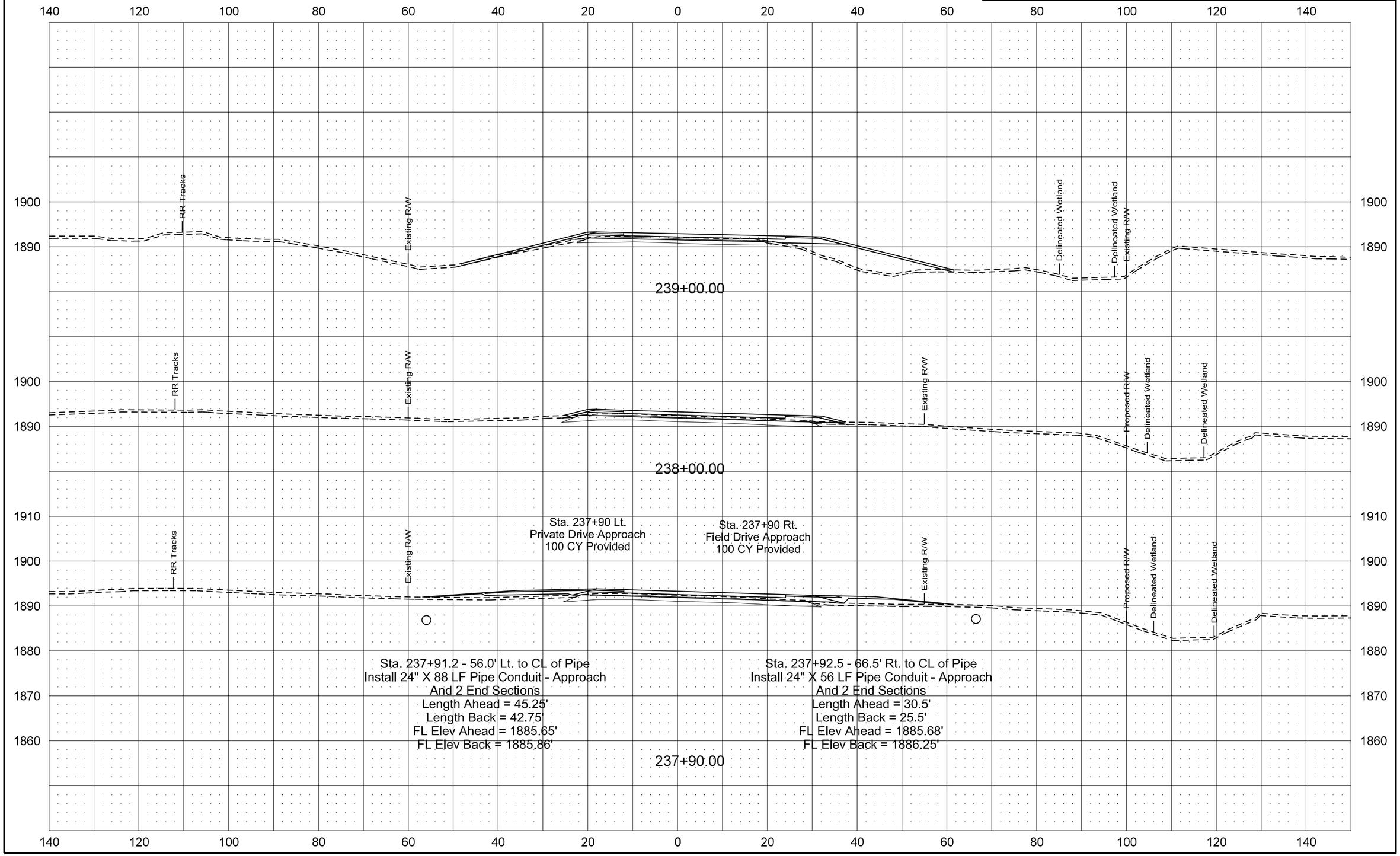

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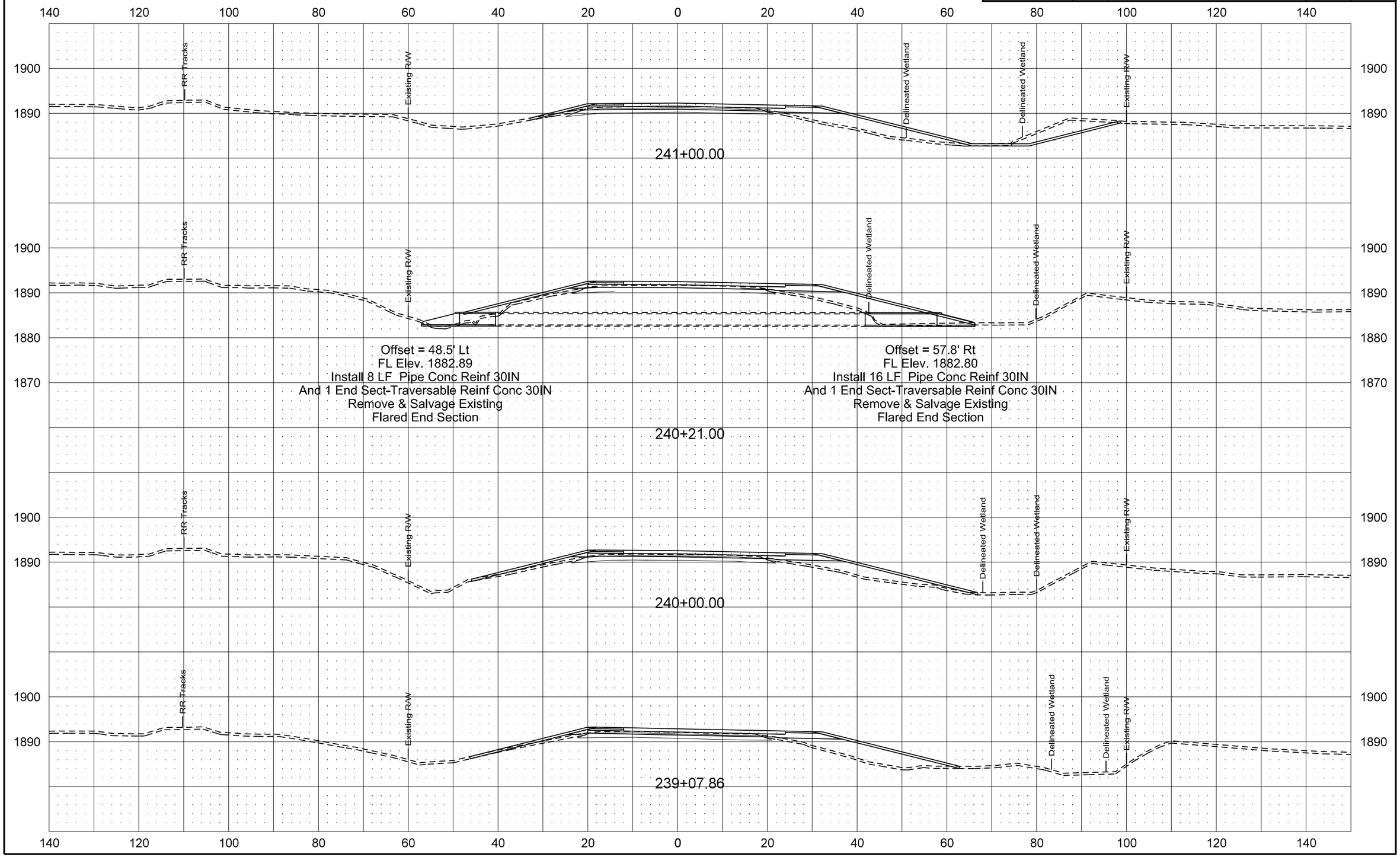

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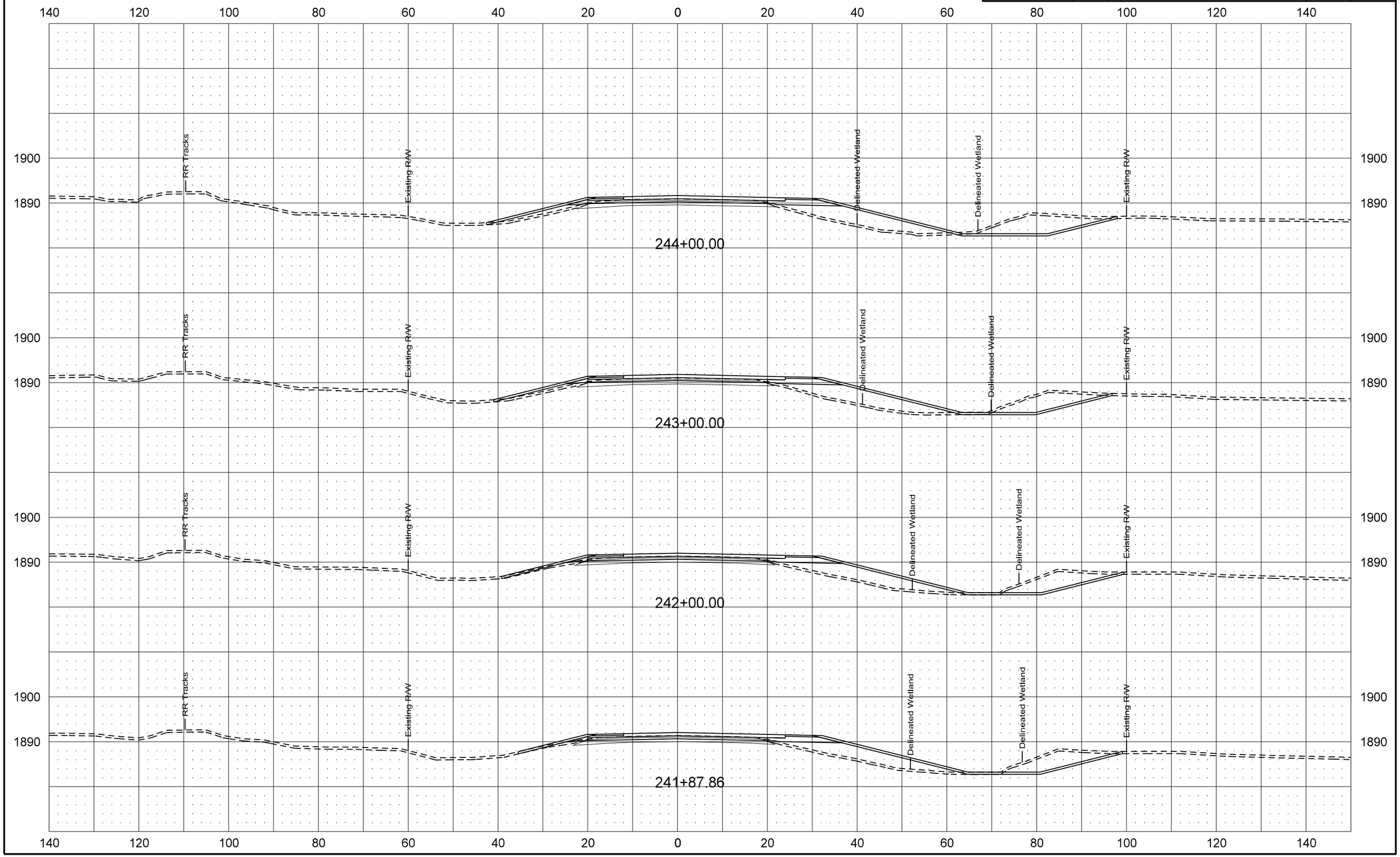


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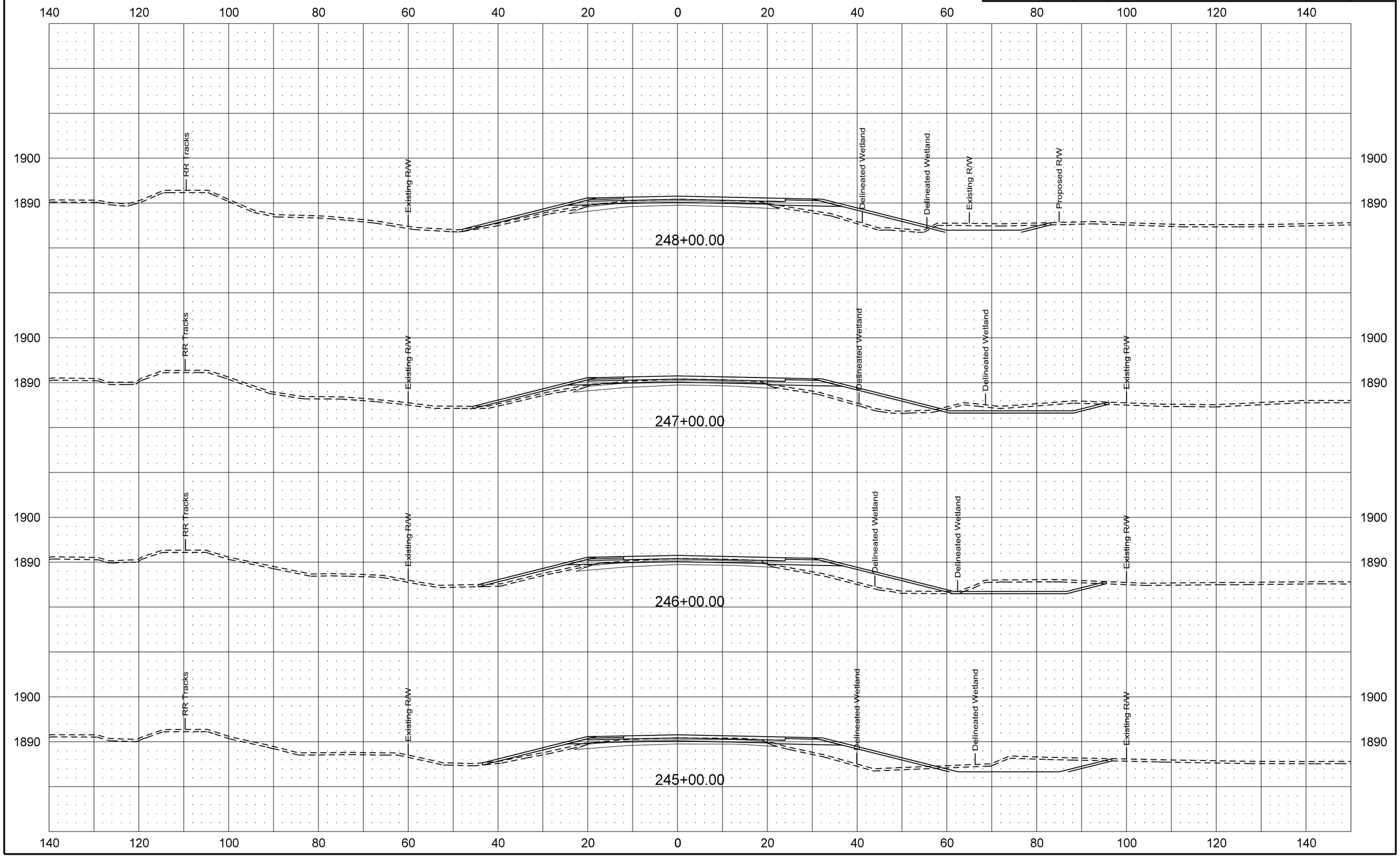

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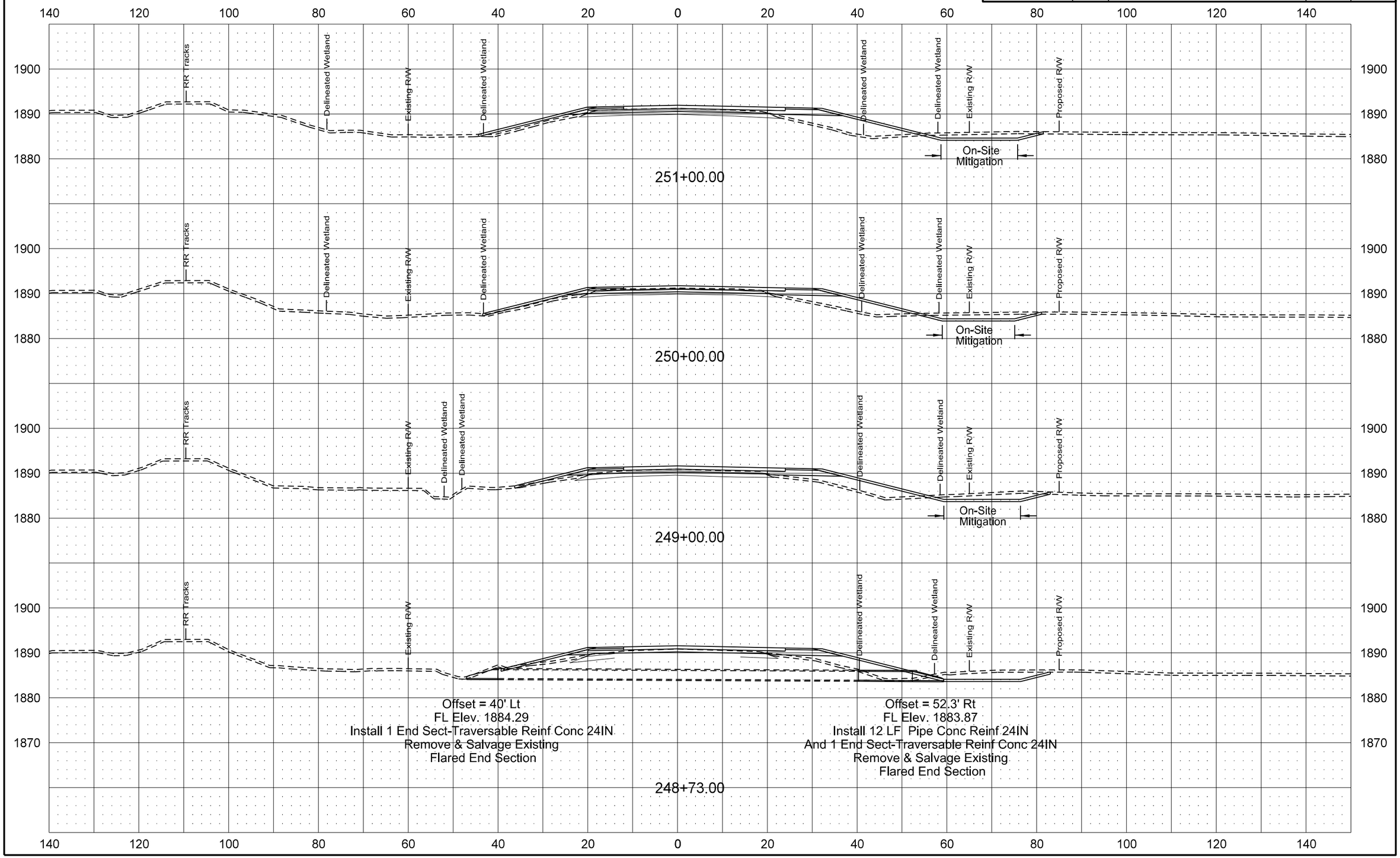

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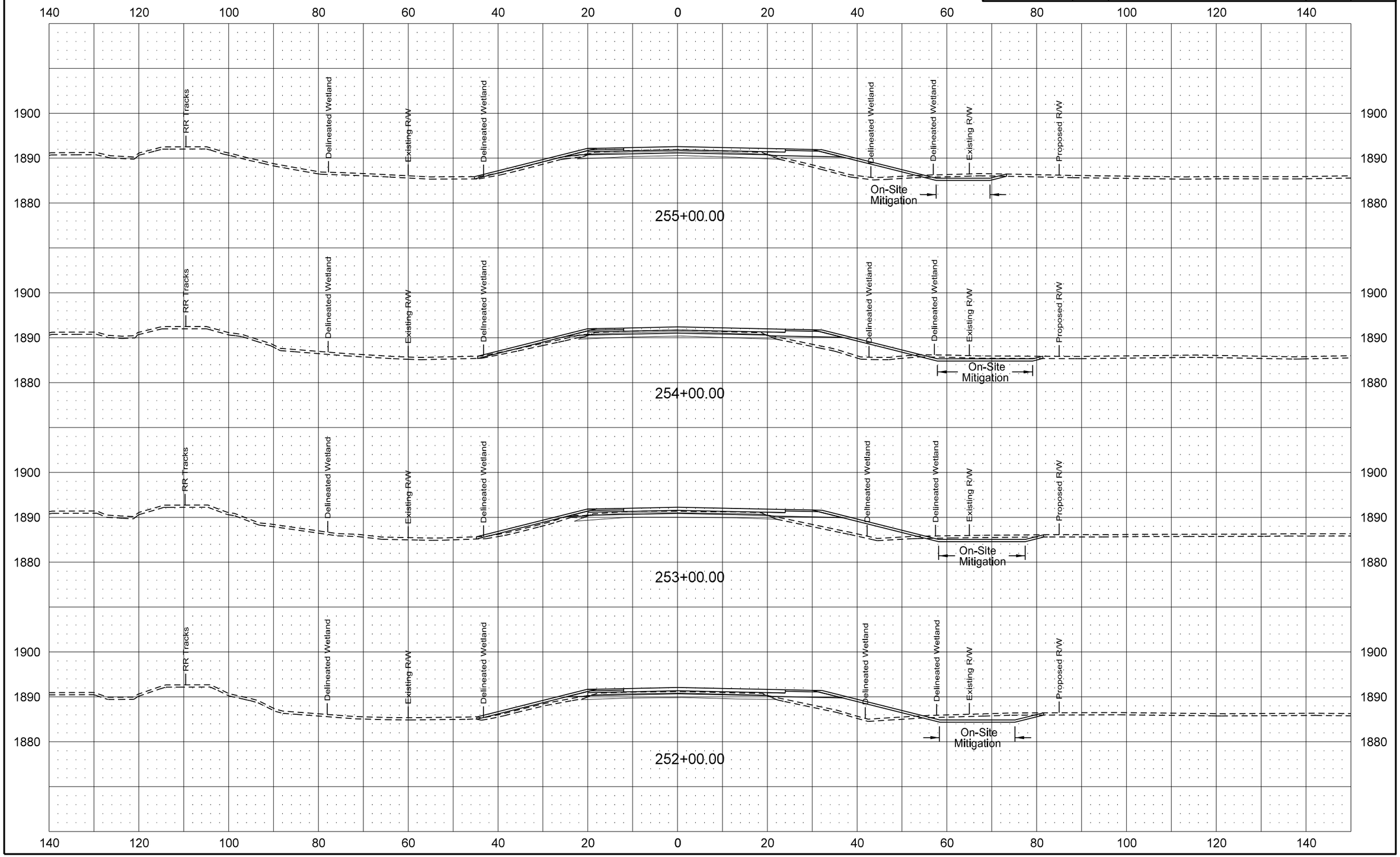


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| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
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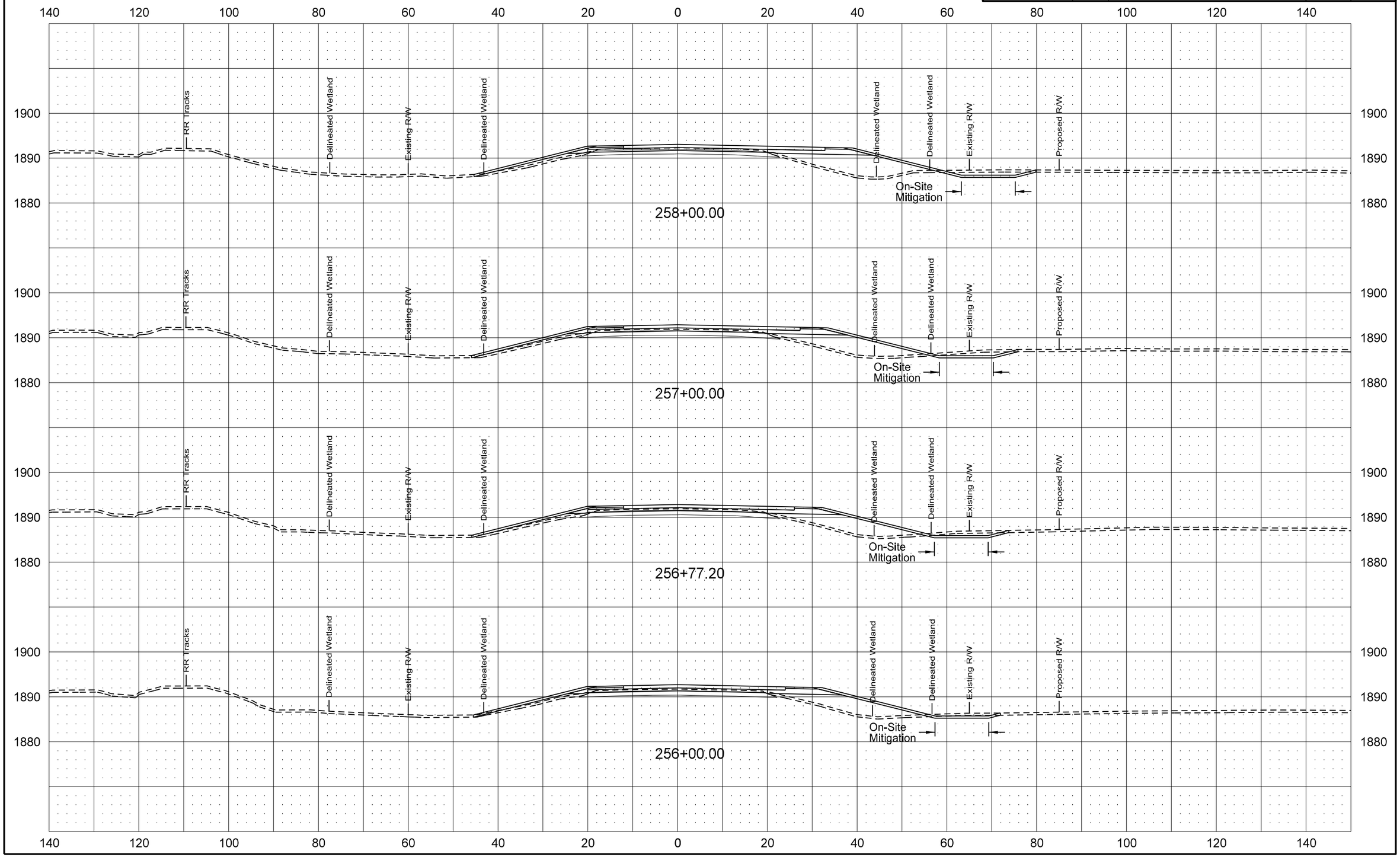

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
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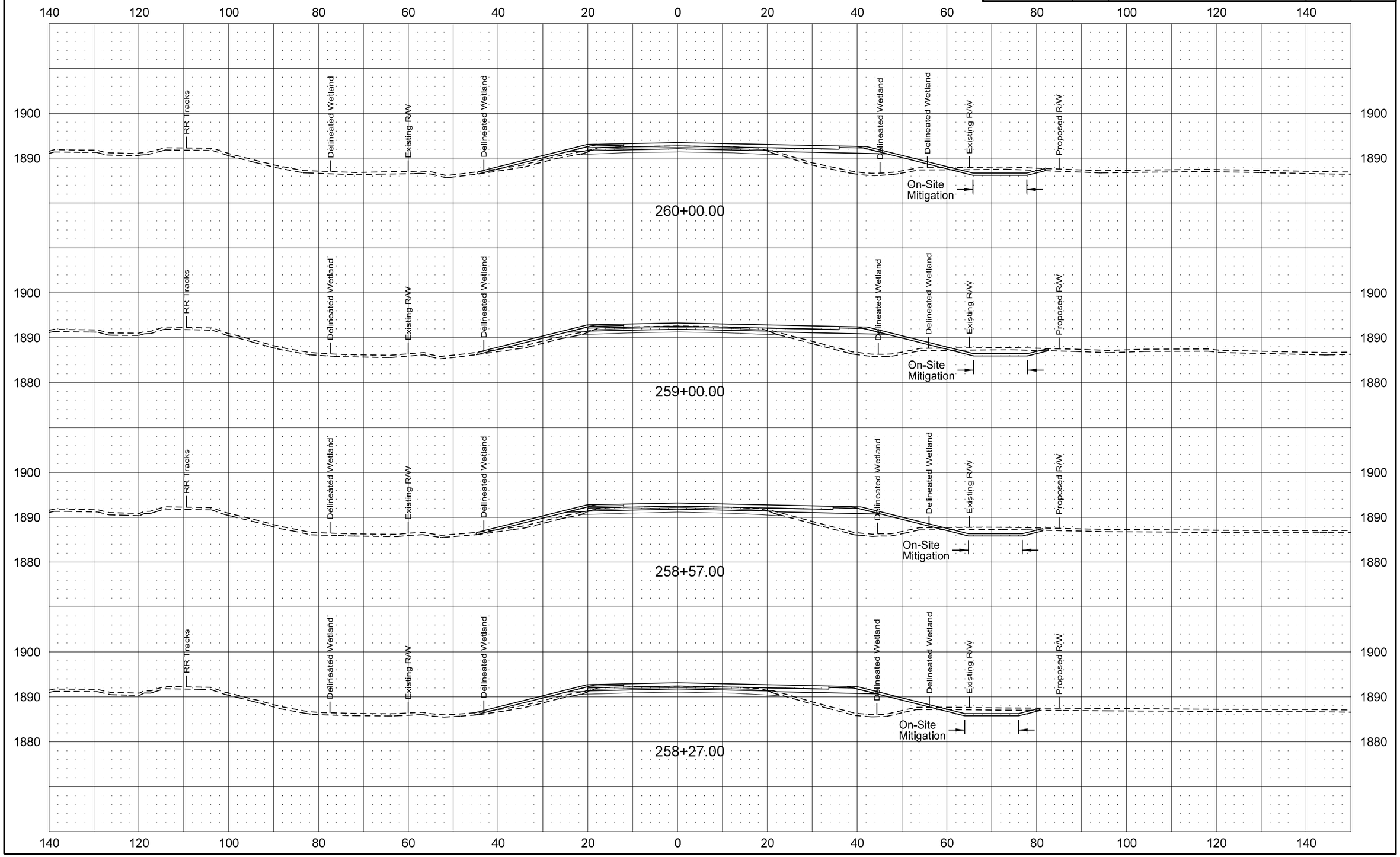

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|---|---|---|---|---|
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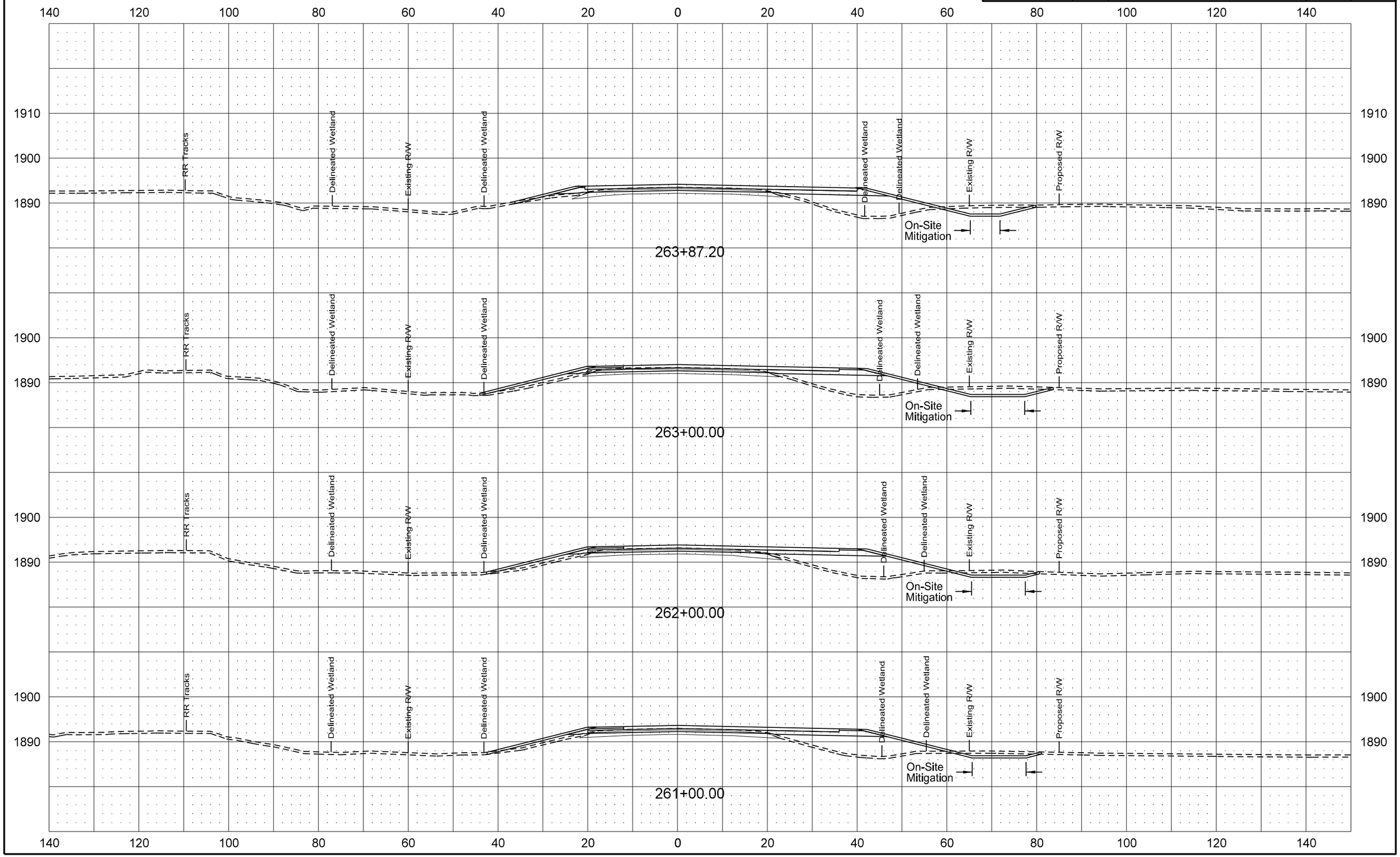

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|---|---|---|---|---|
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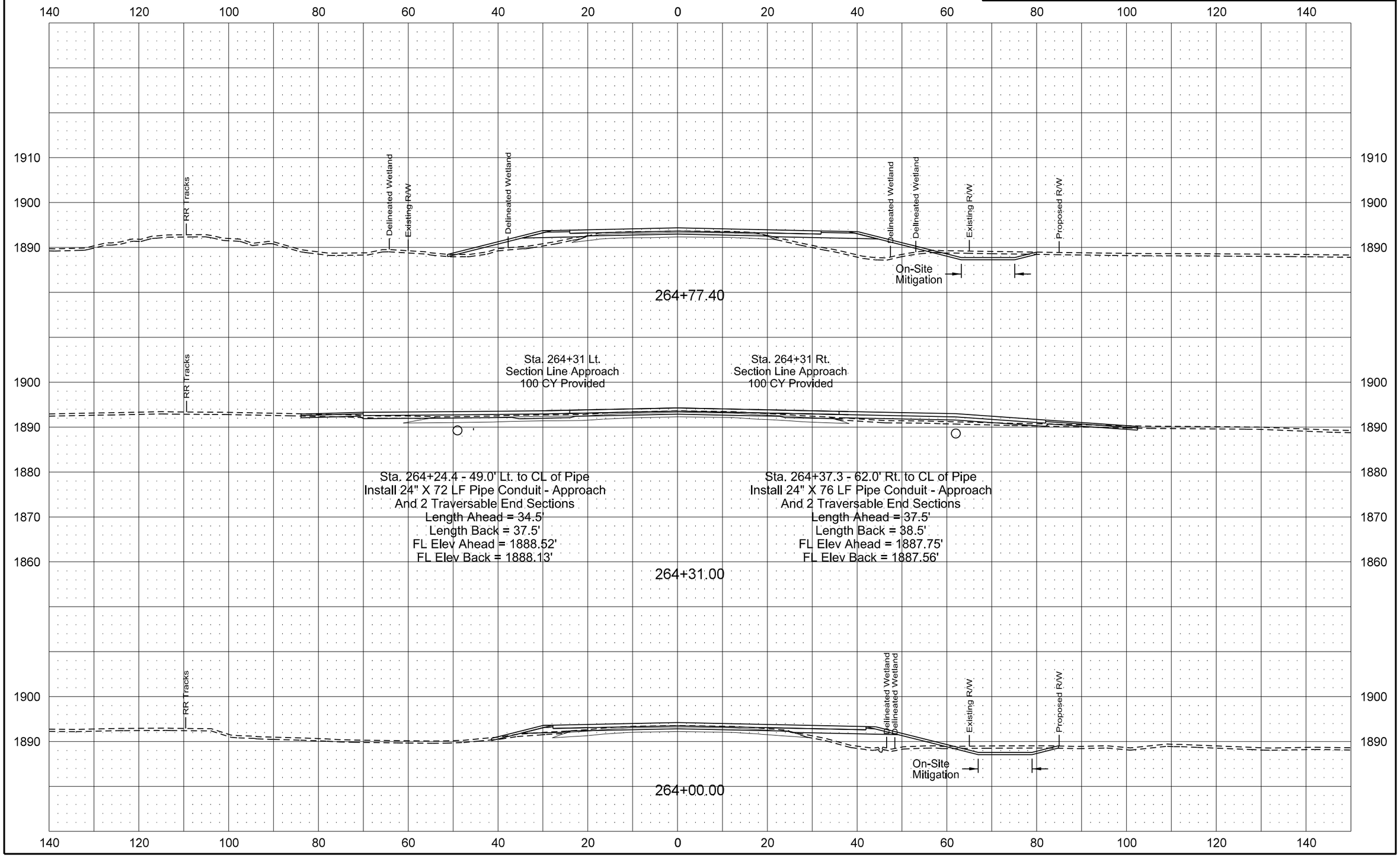

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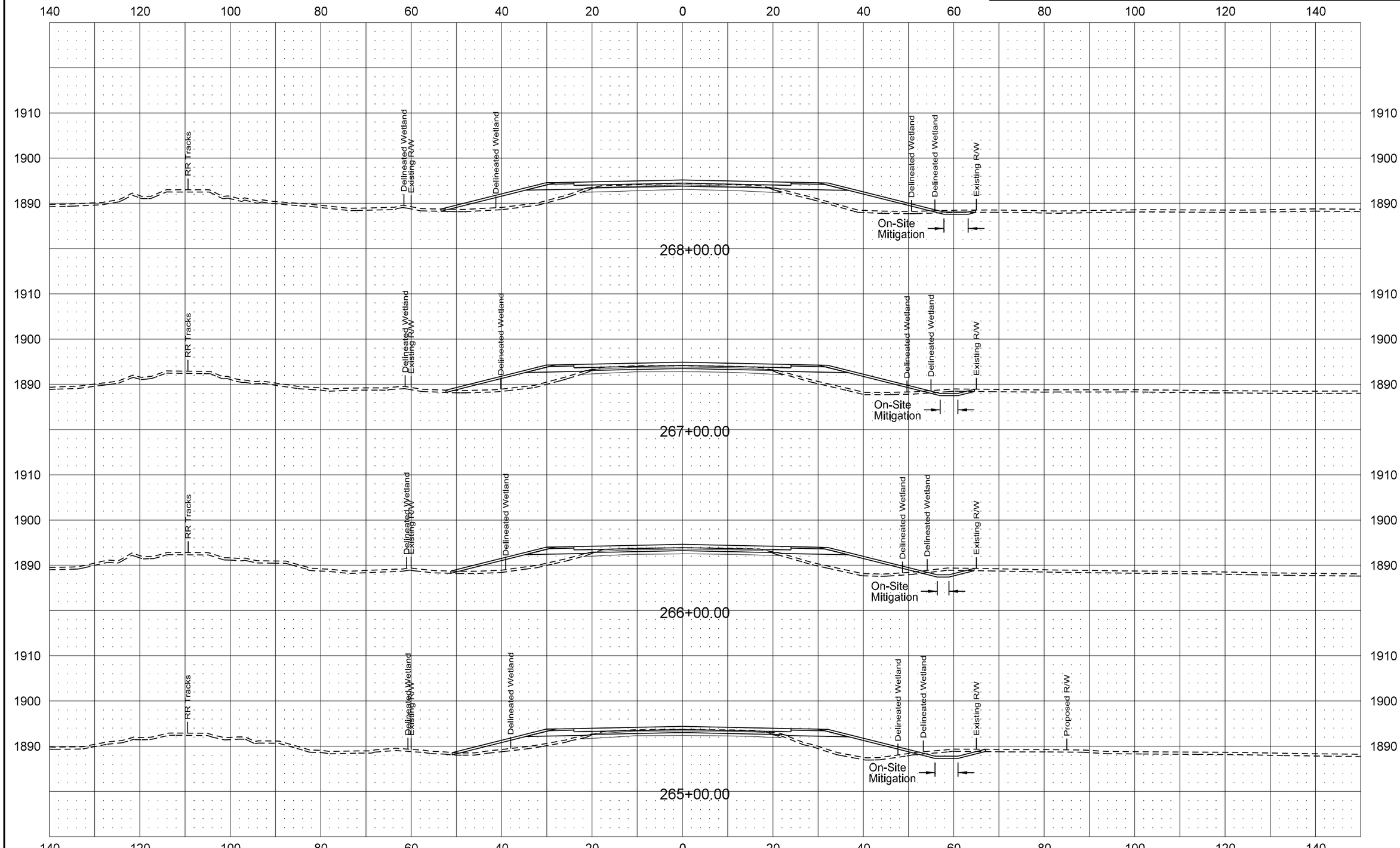

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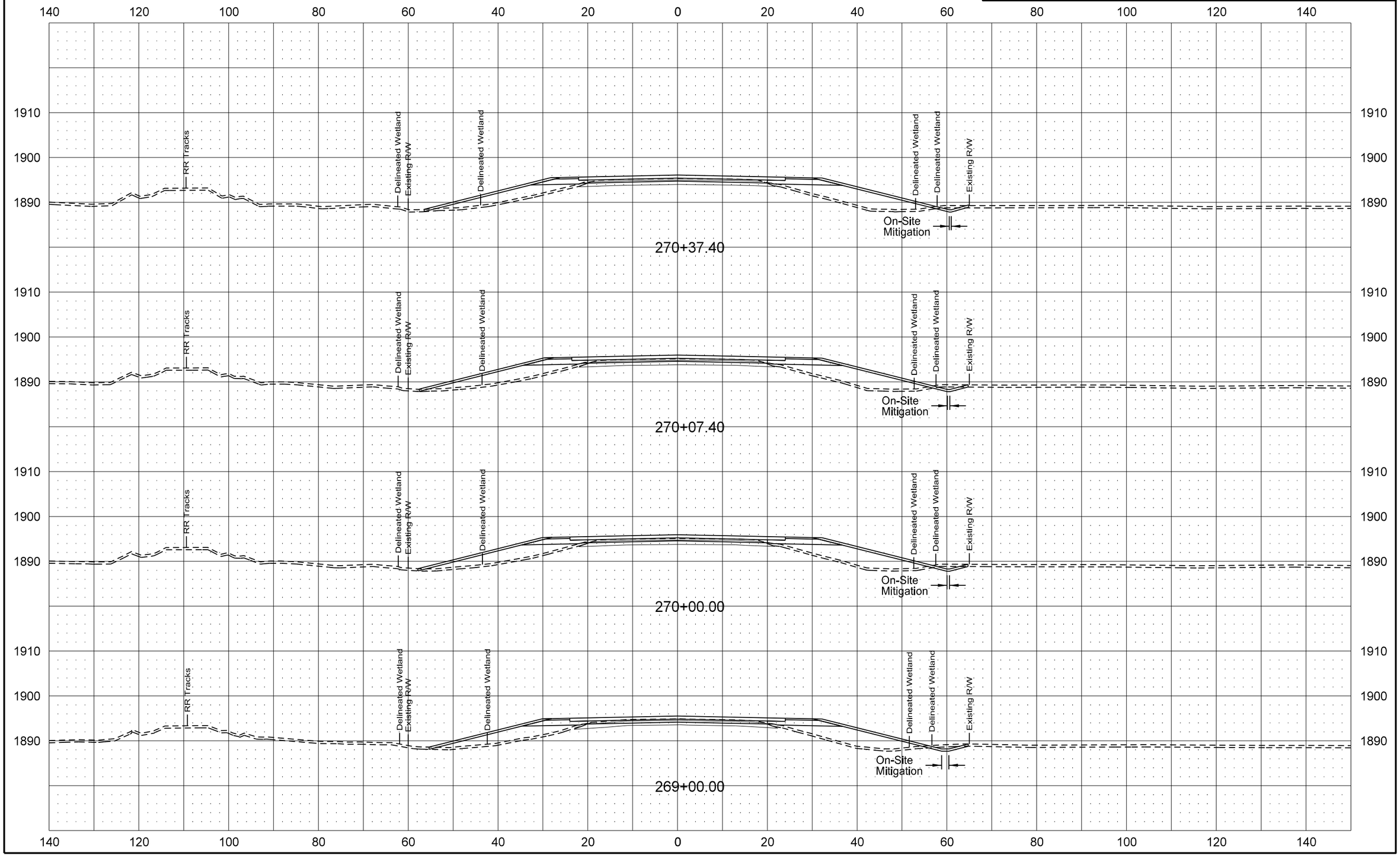


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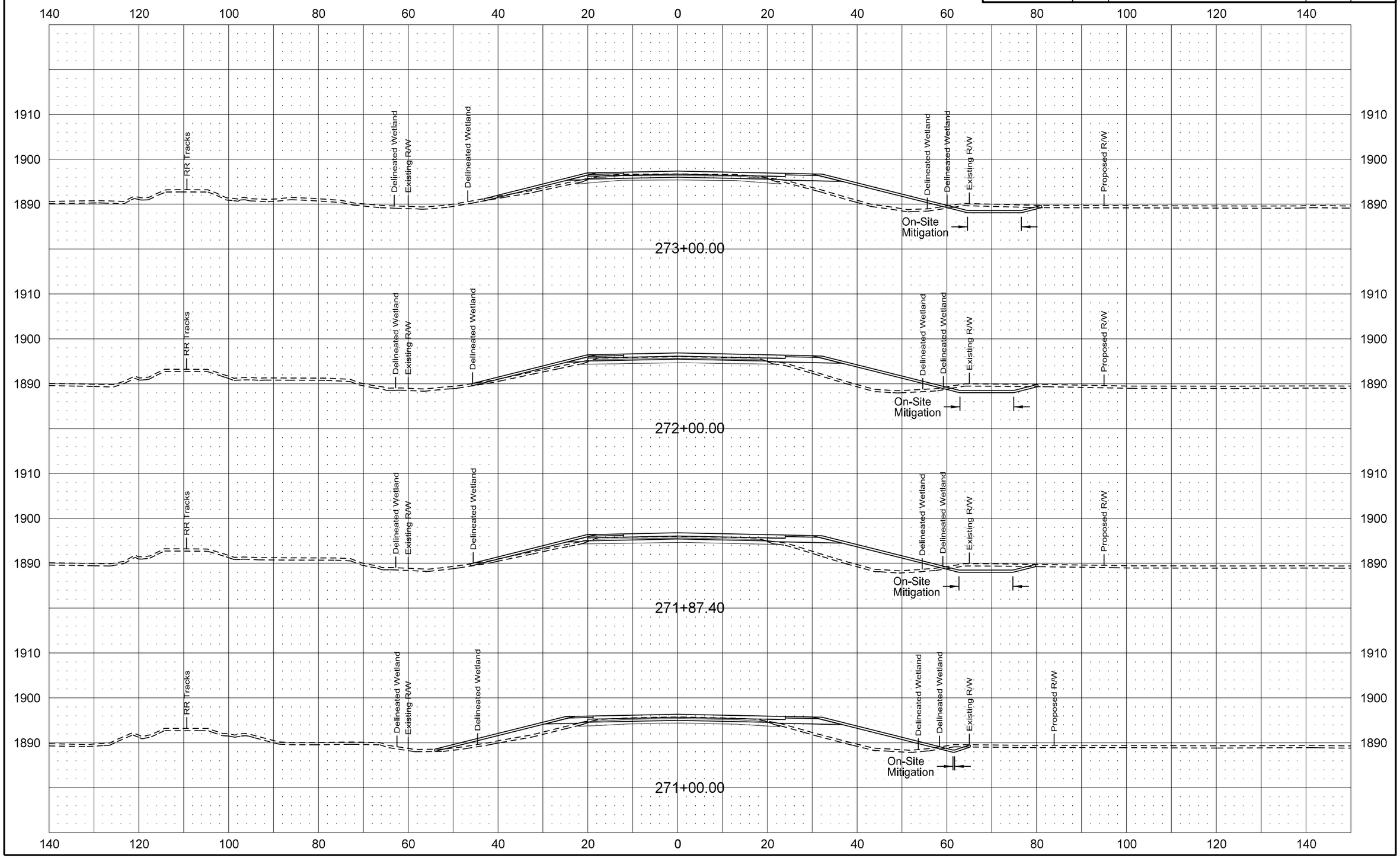

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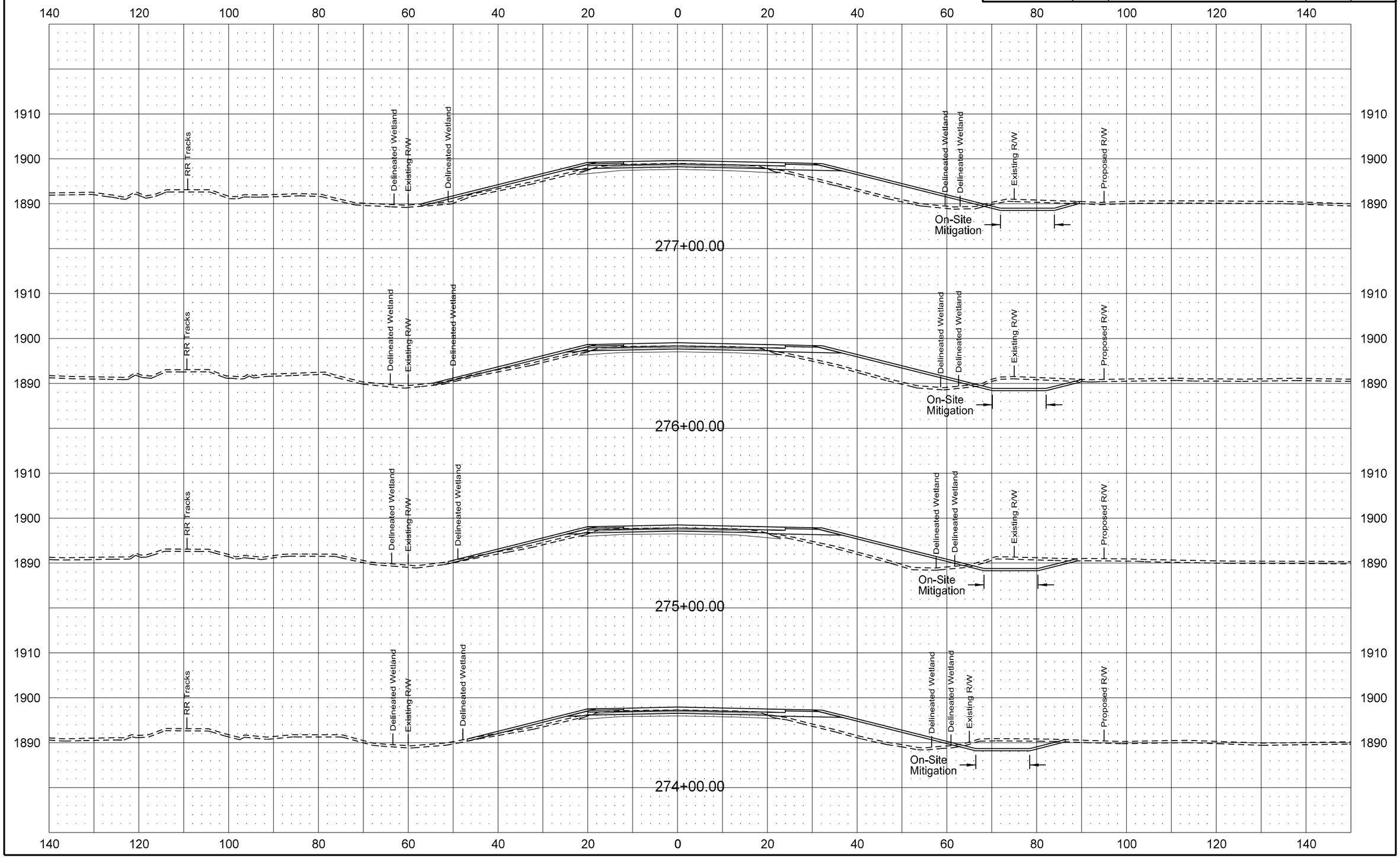


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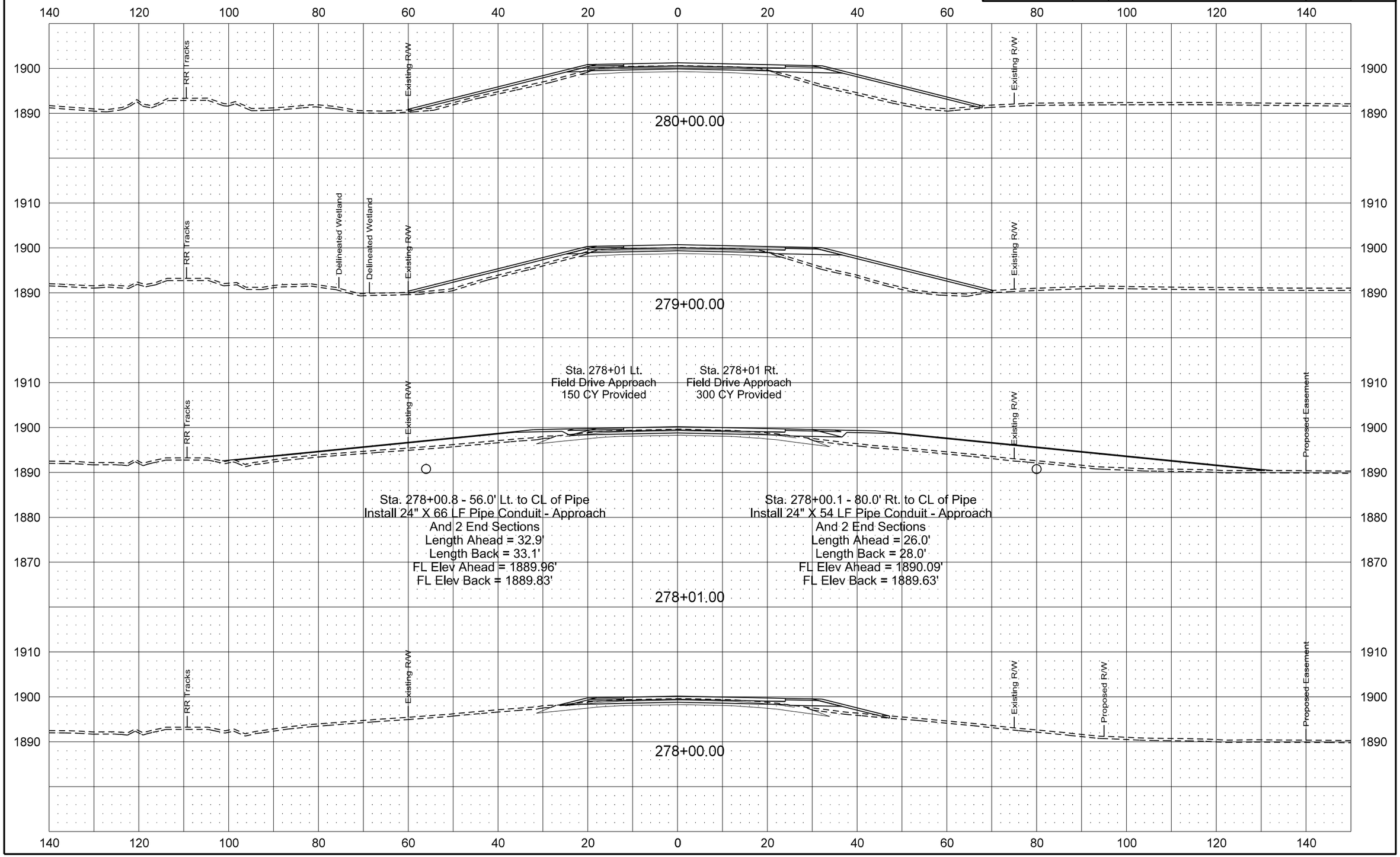

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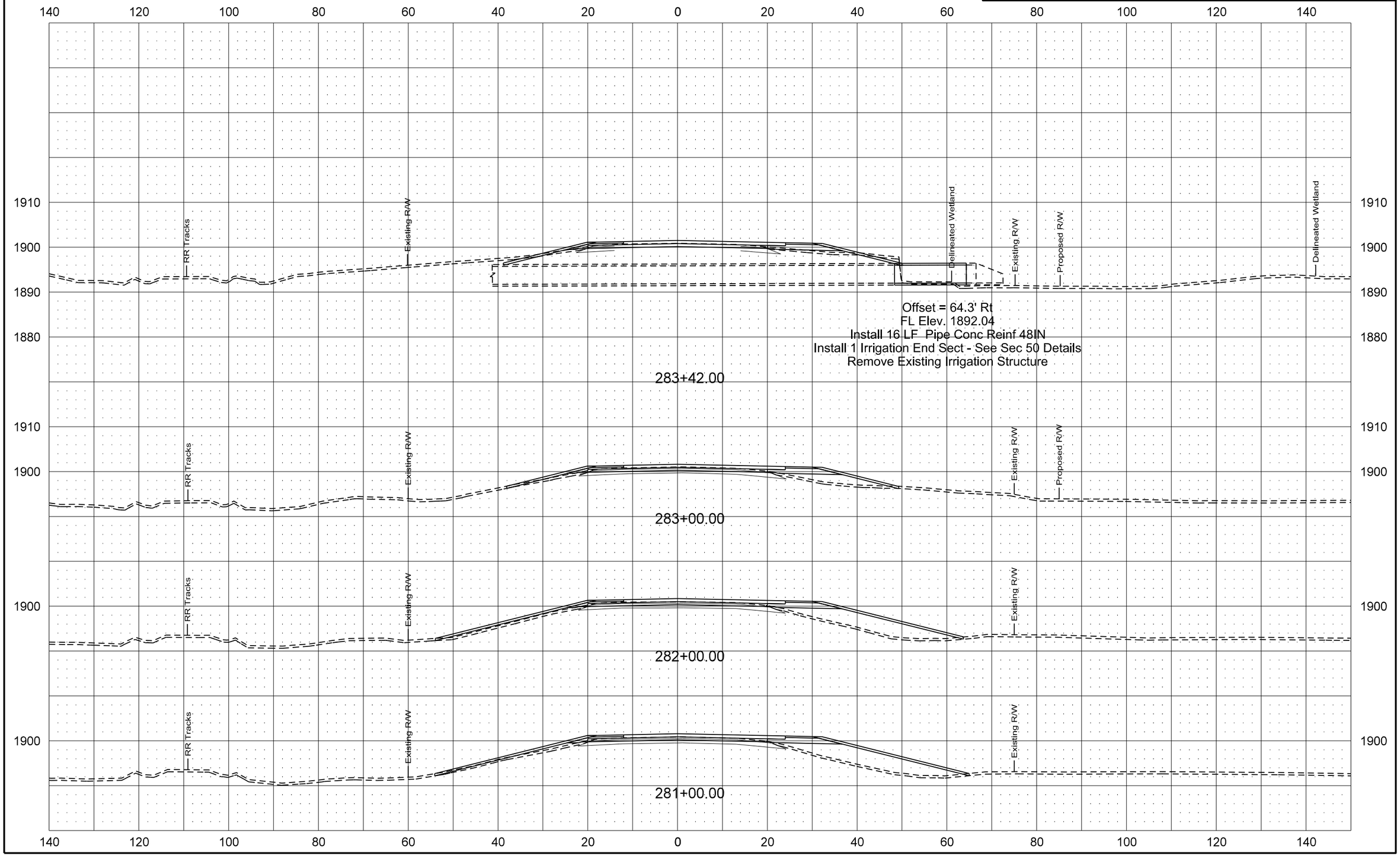

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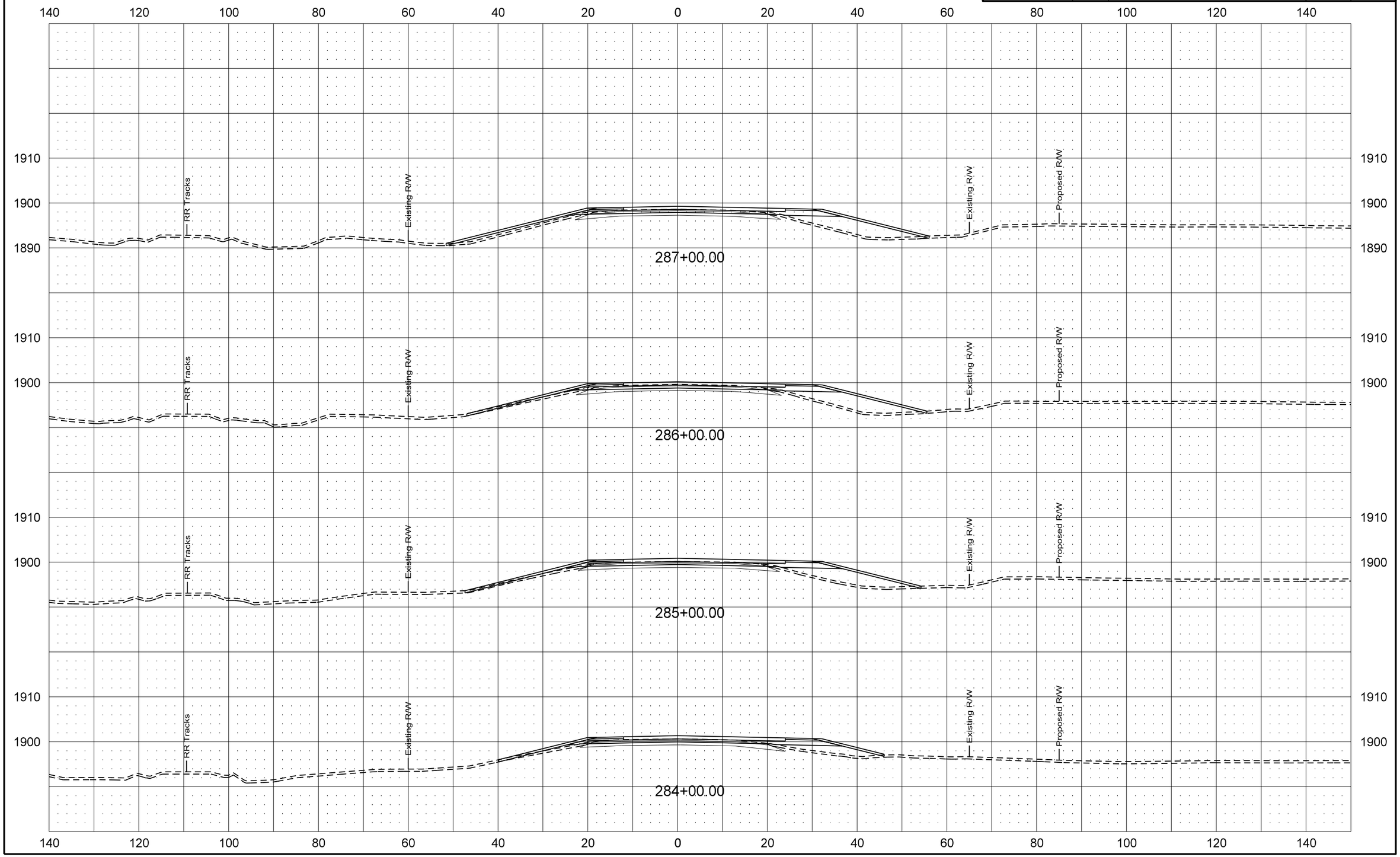

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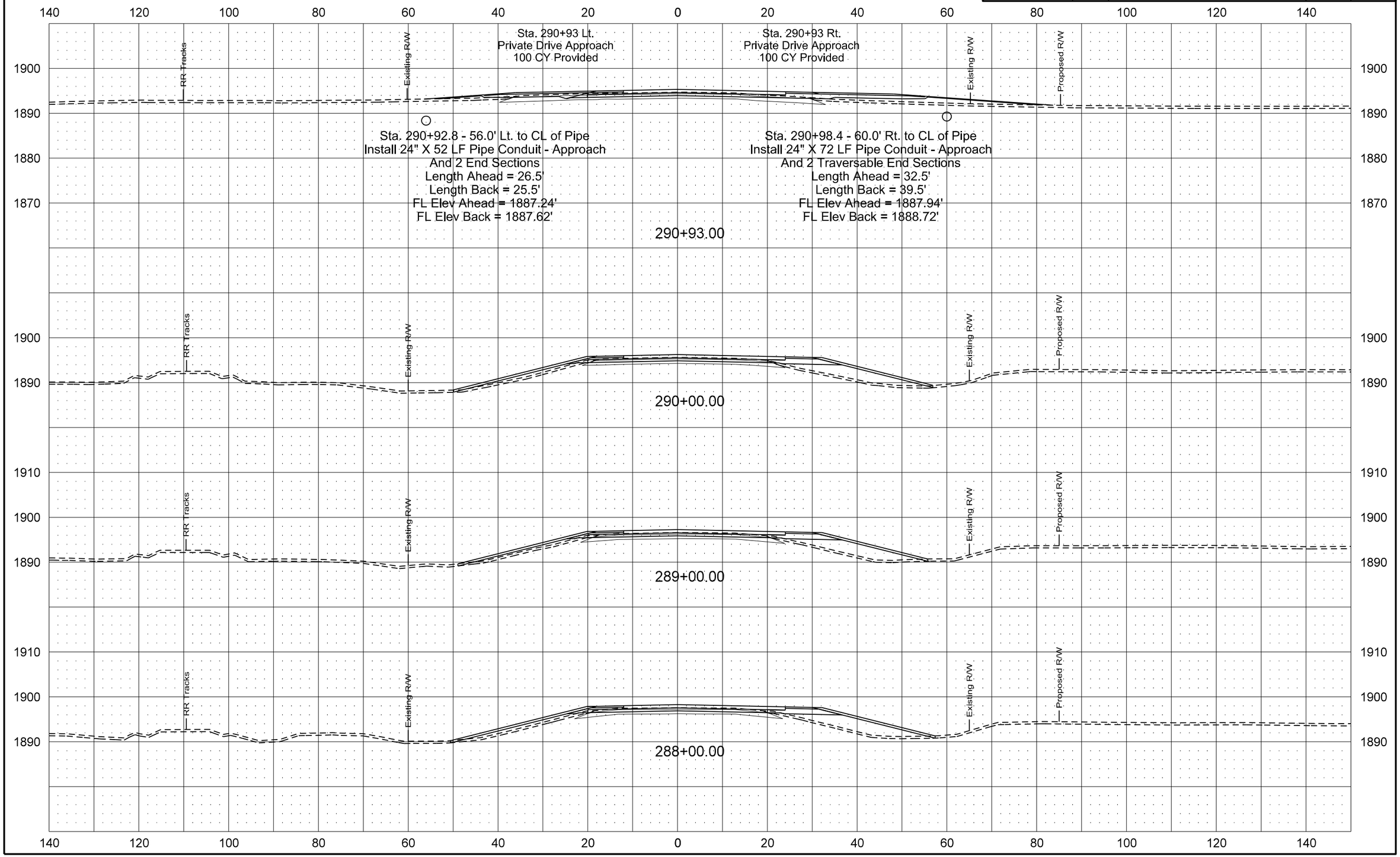

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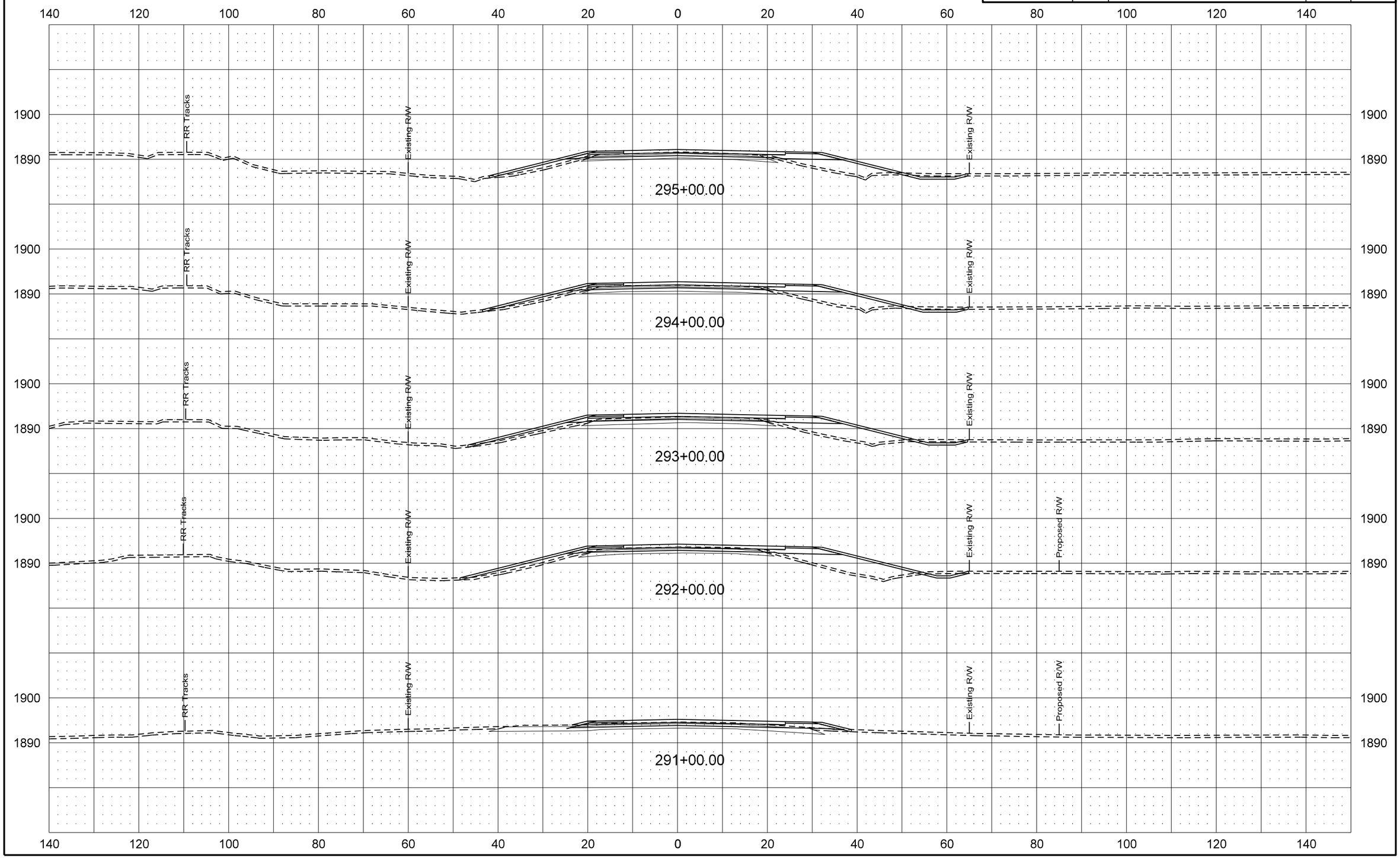

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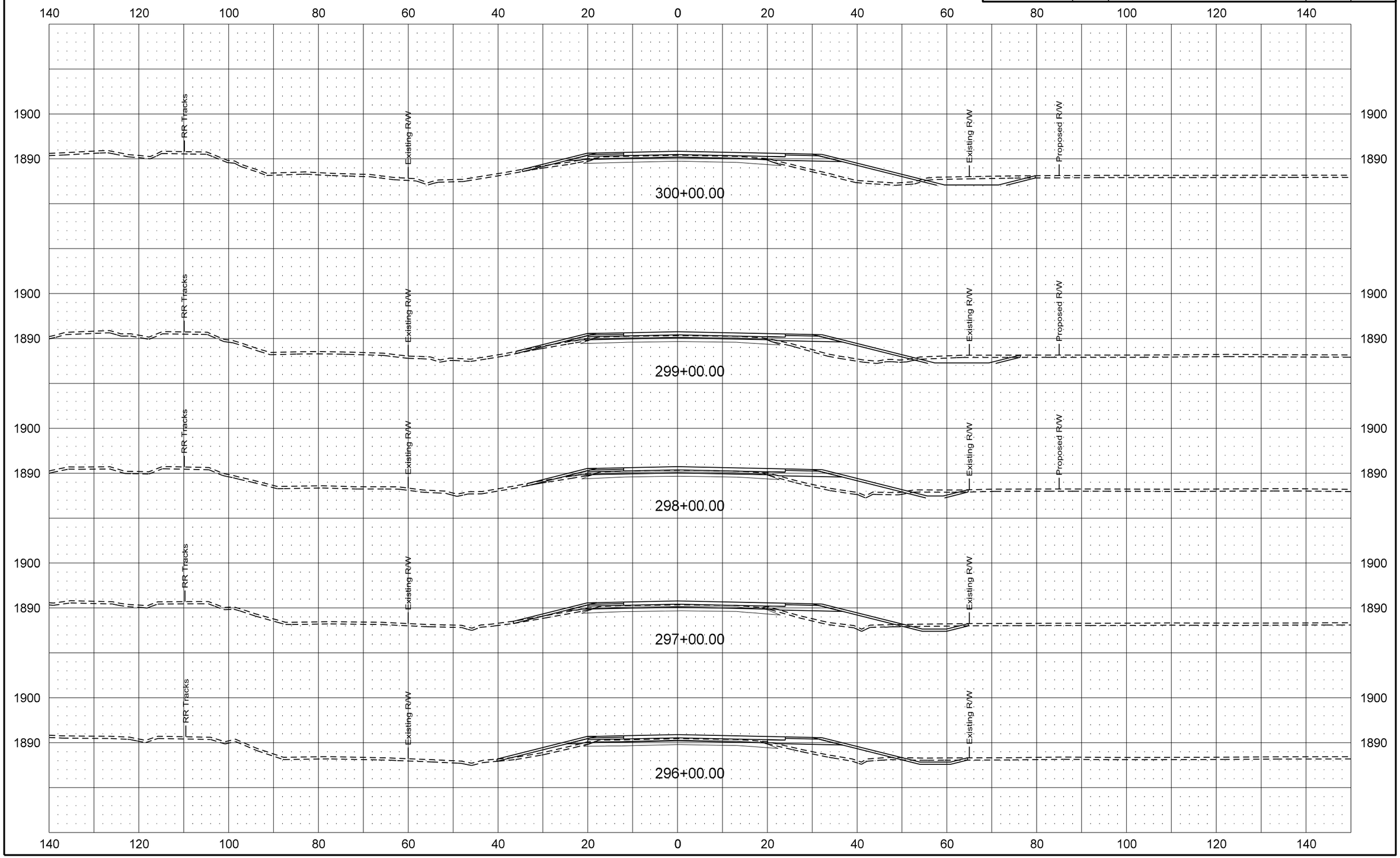

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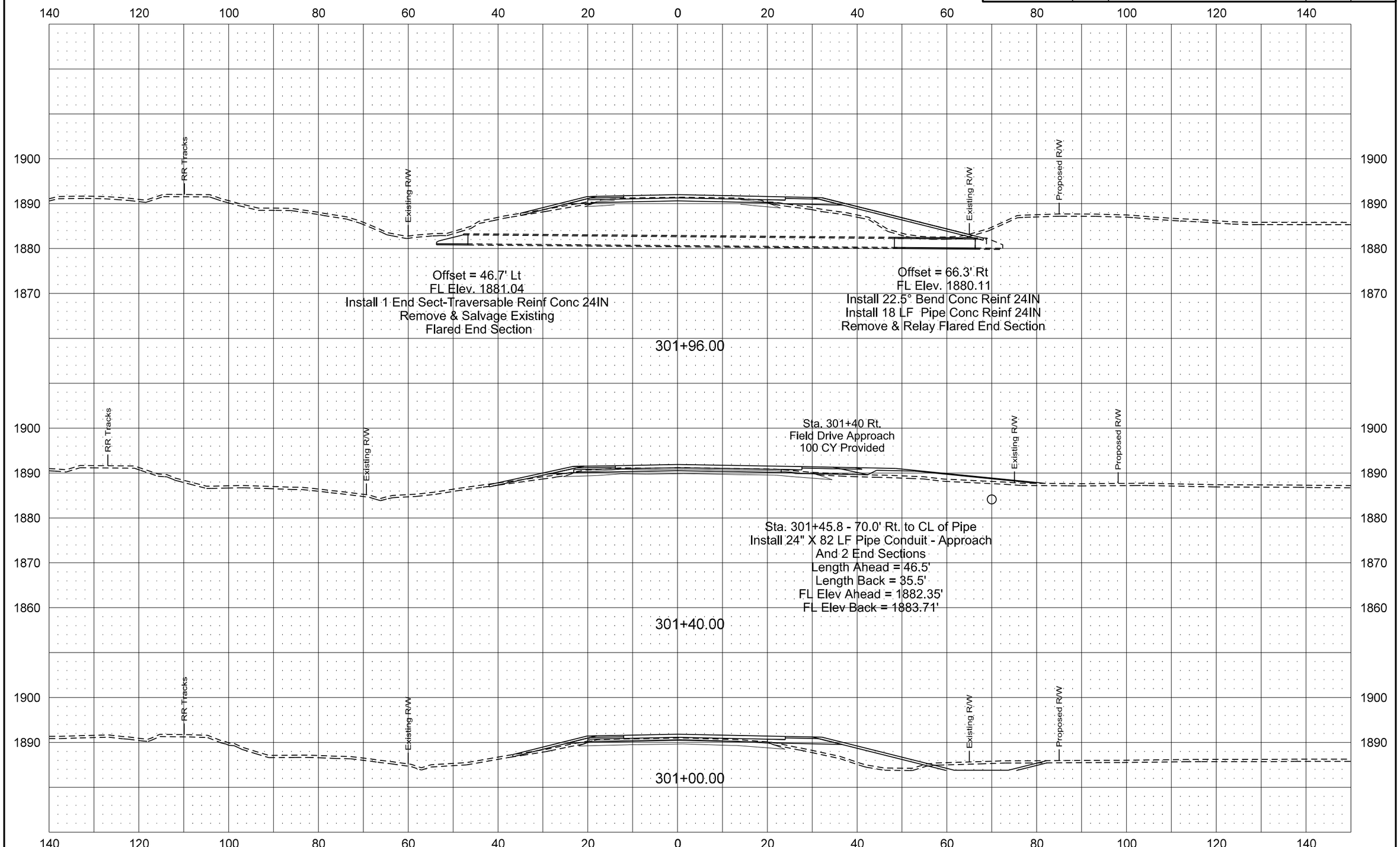

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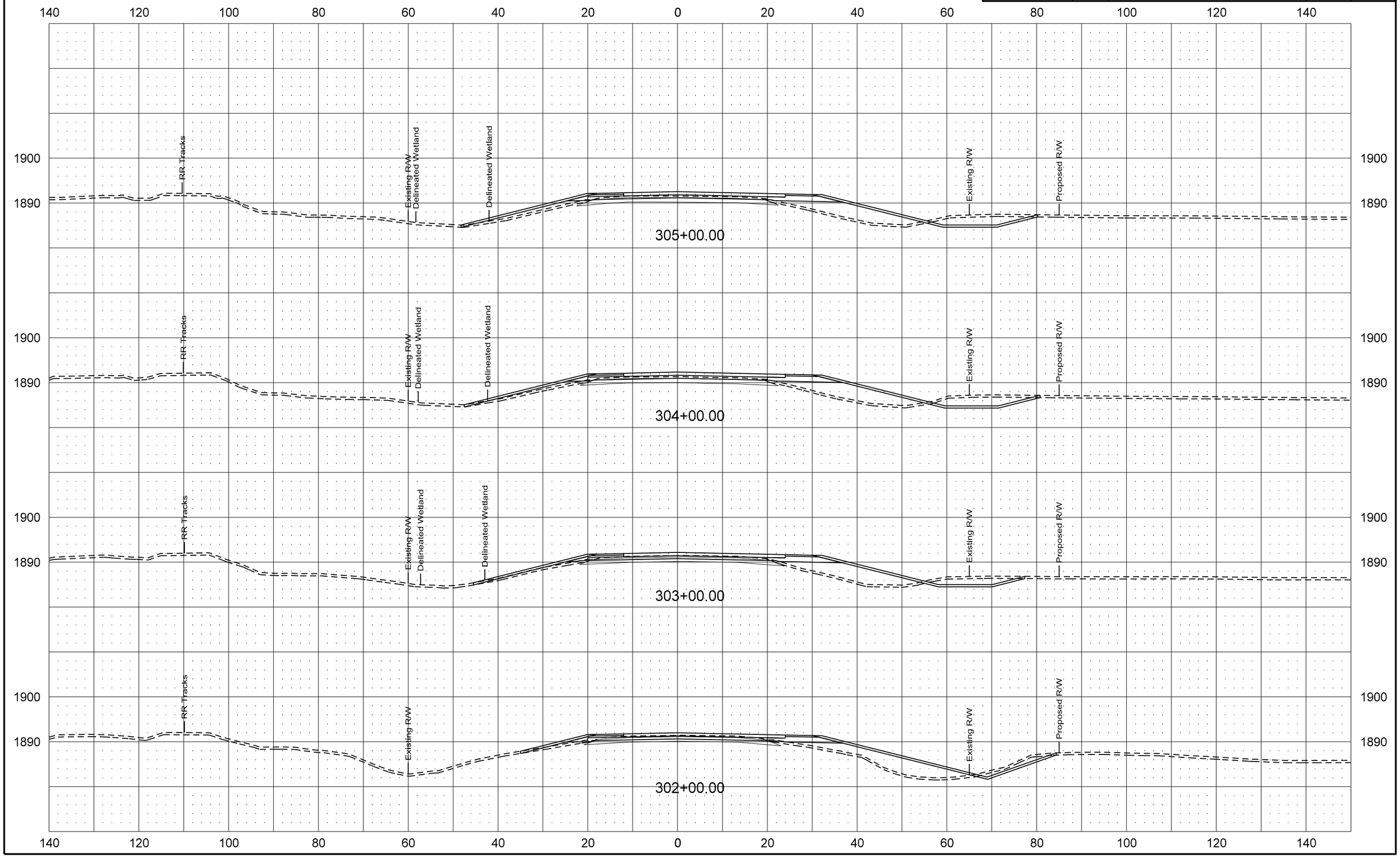

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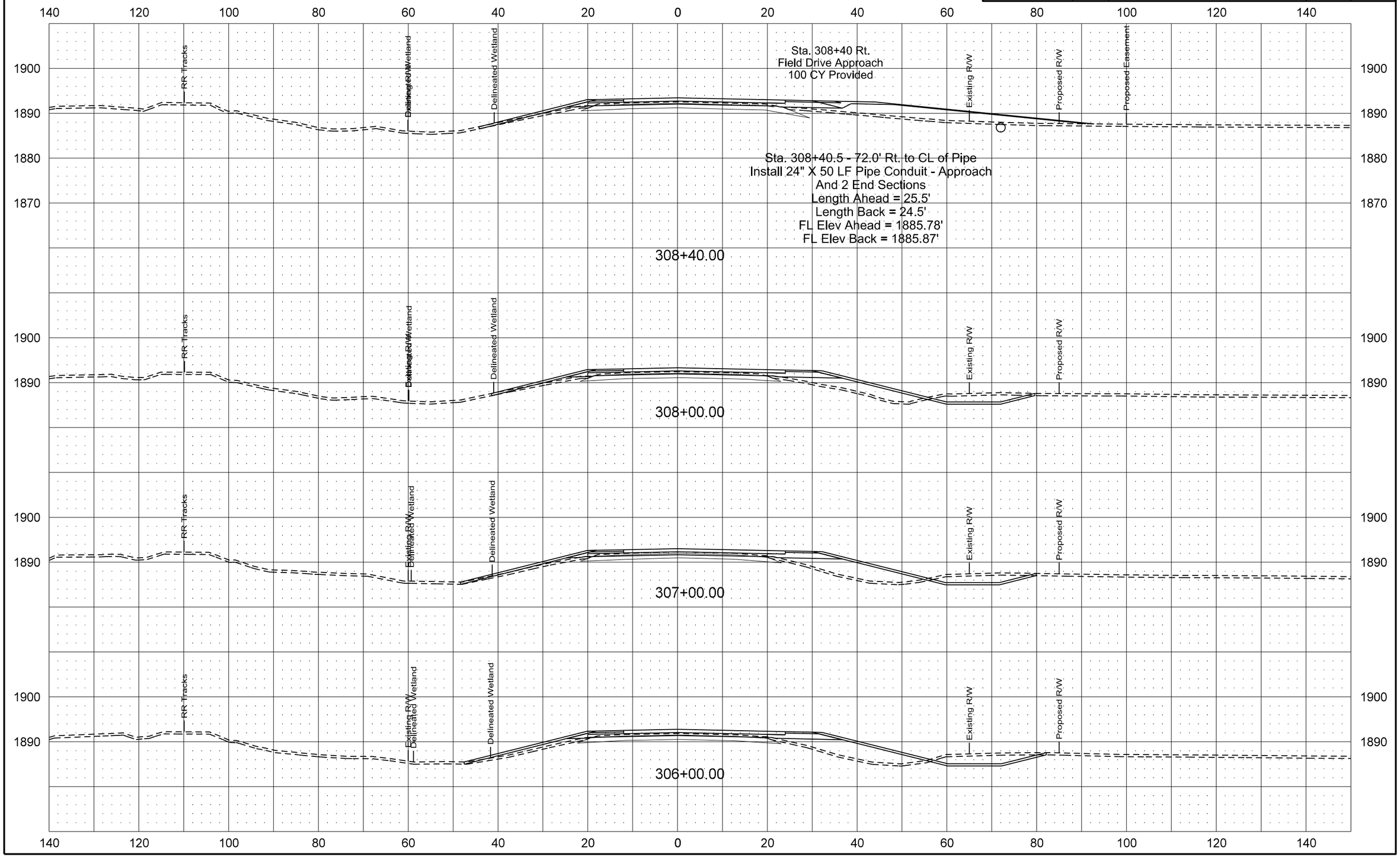

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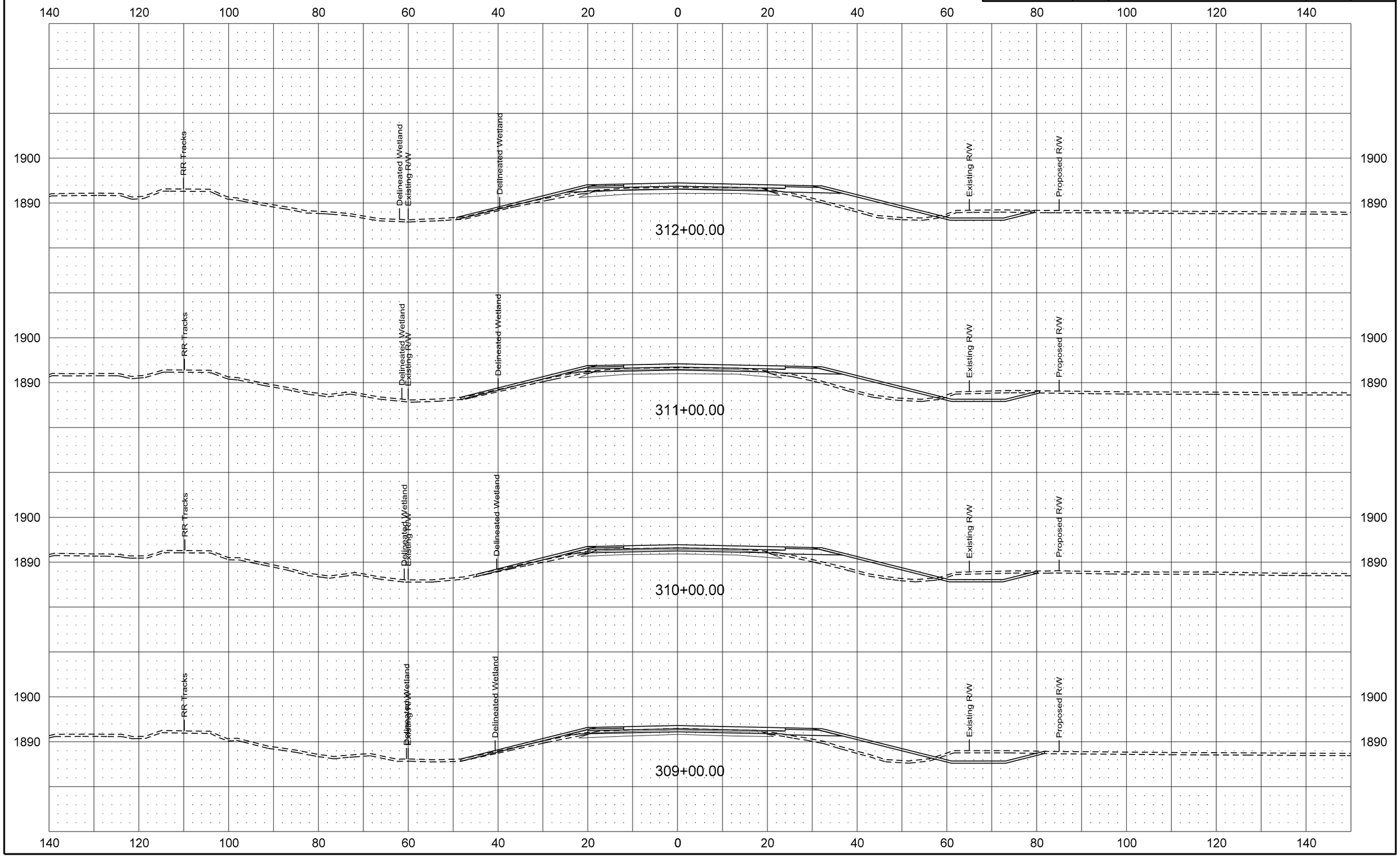

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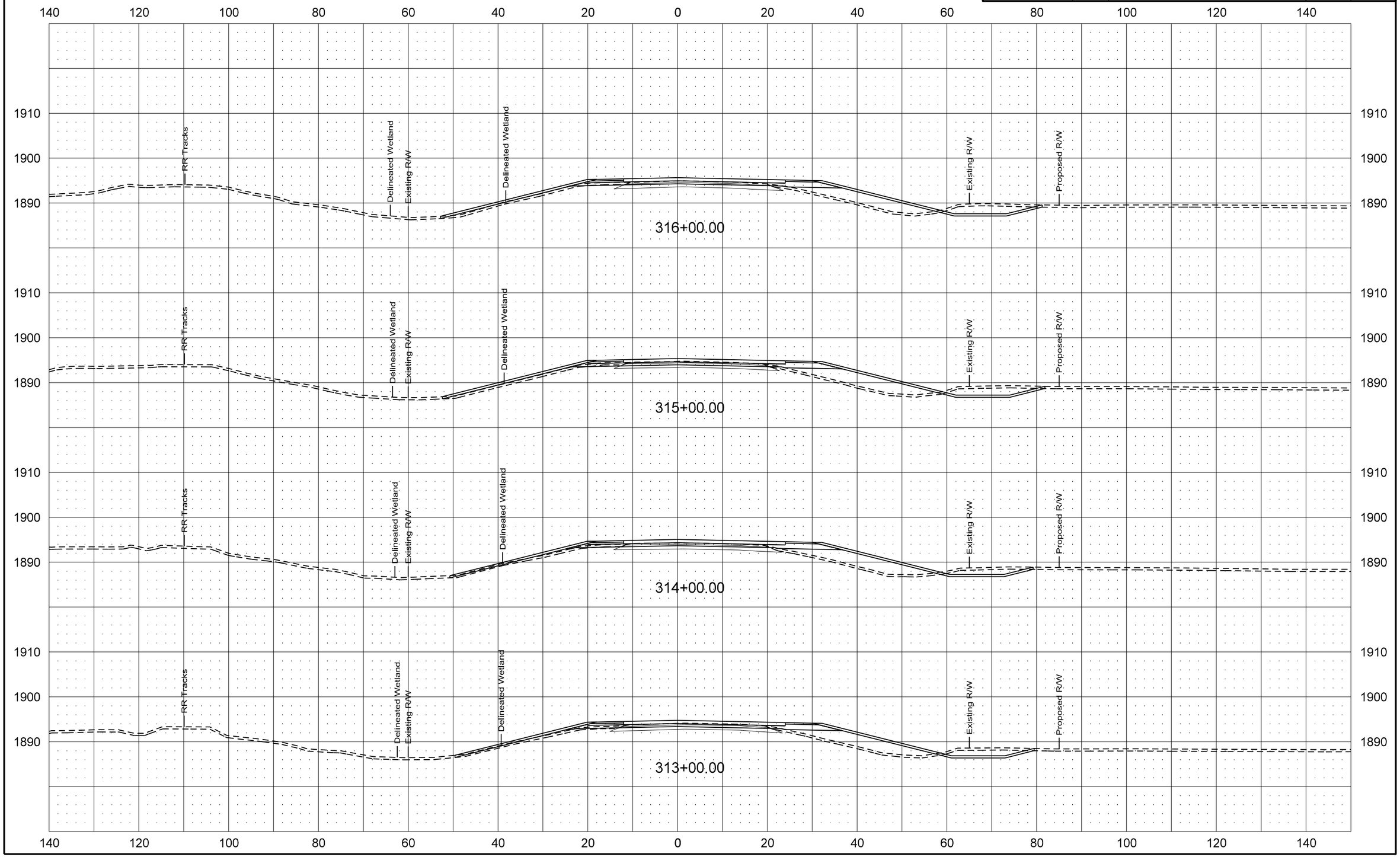

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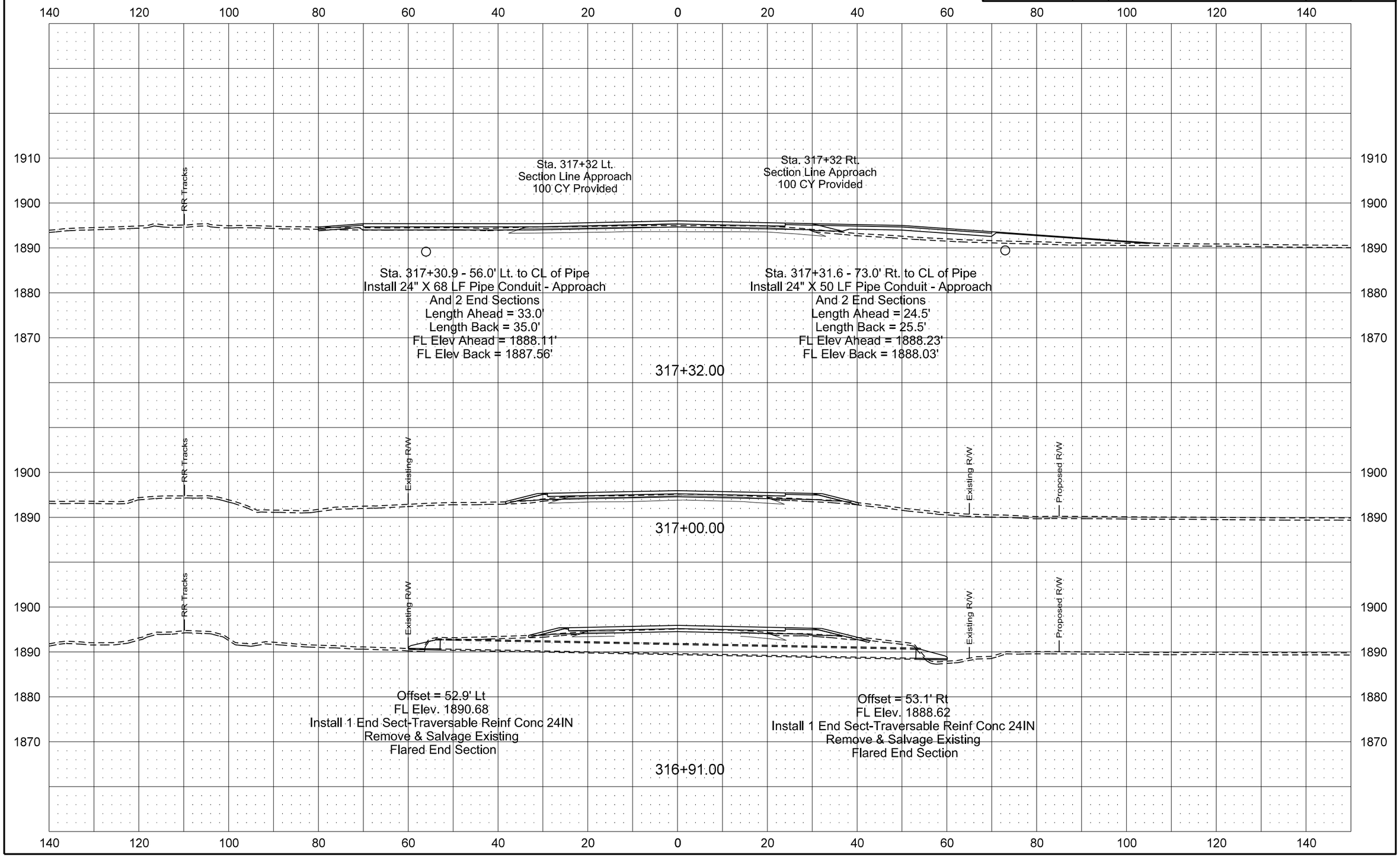

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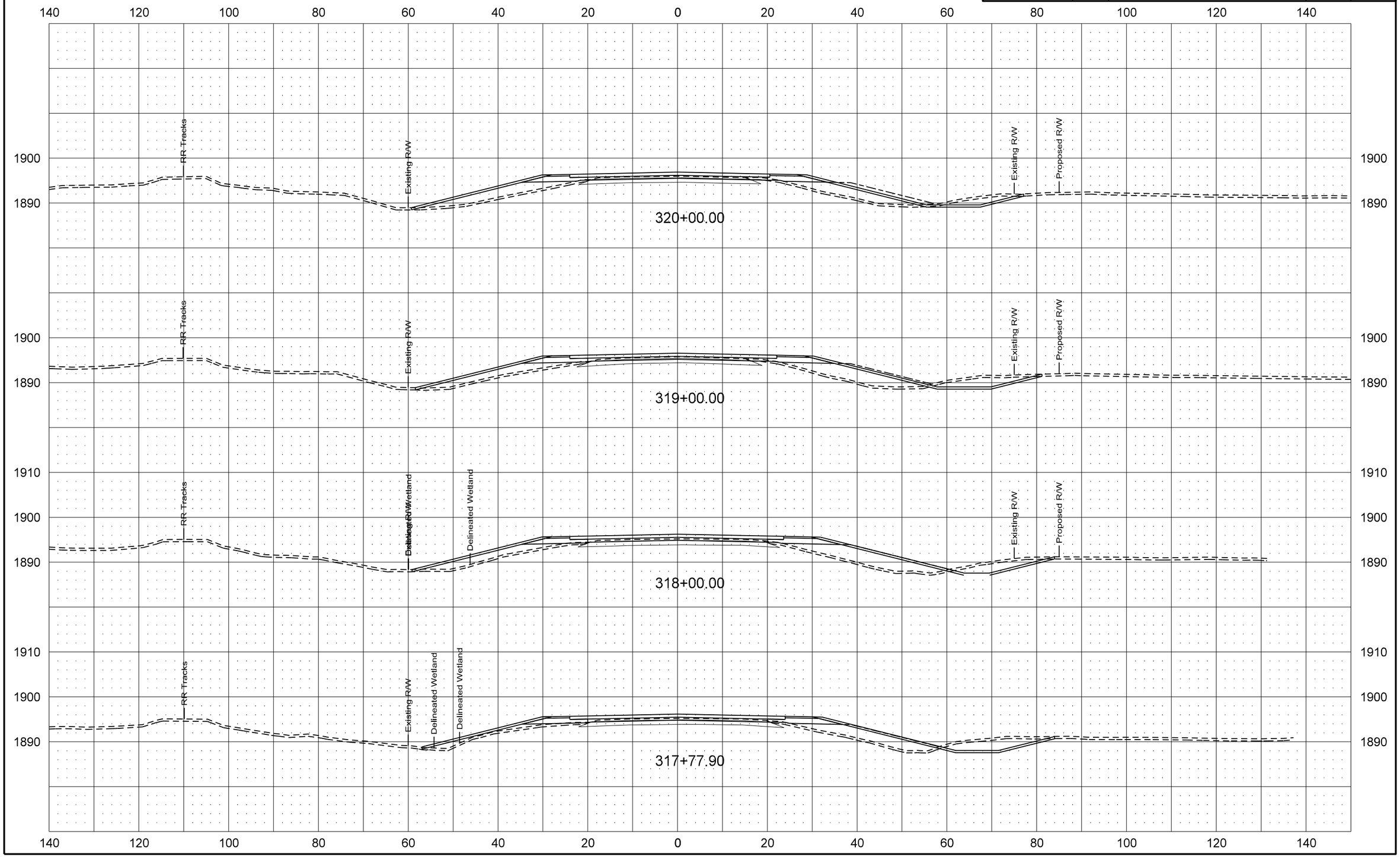

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|---|---|---|---|---|
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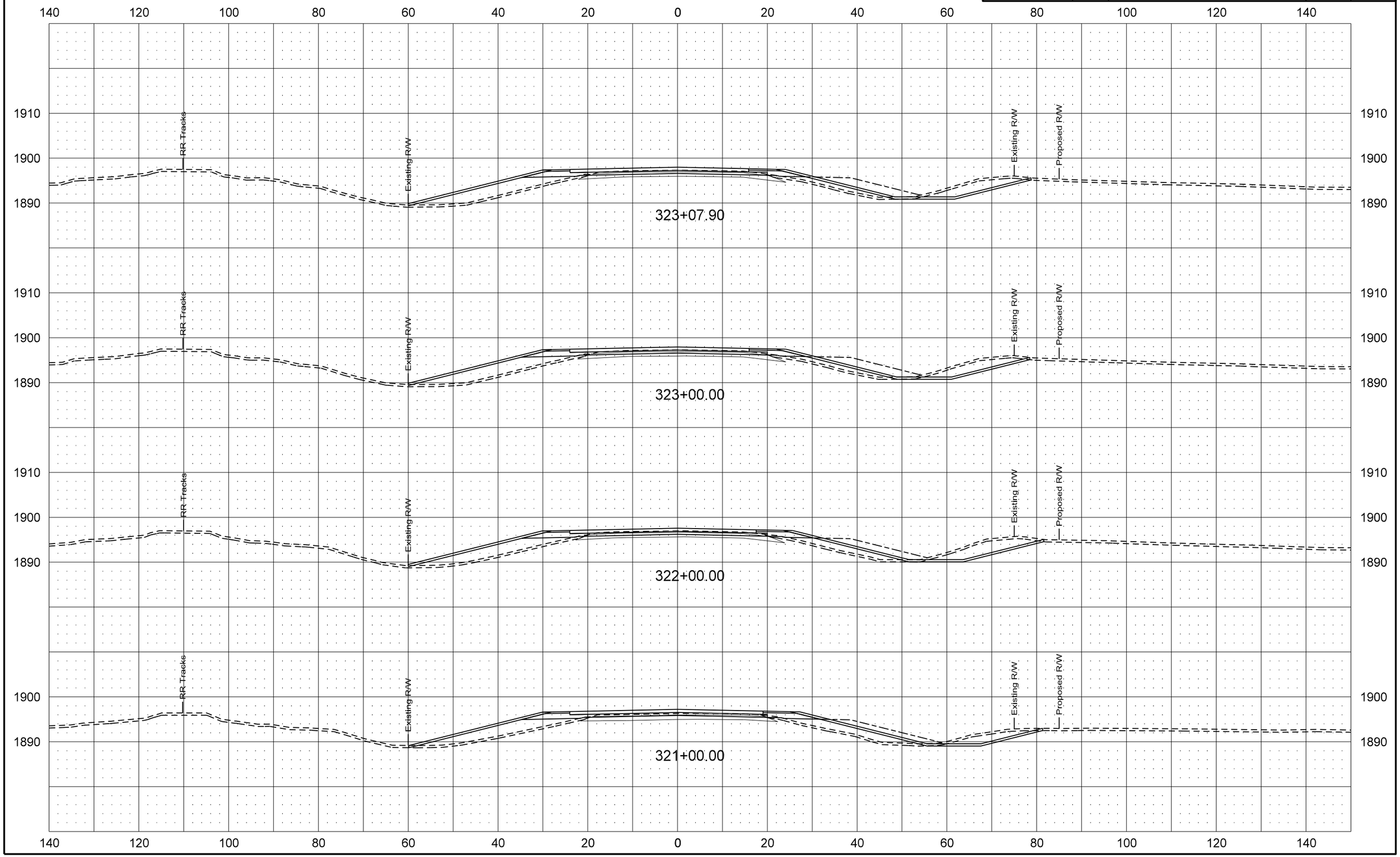

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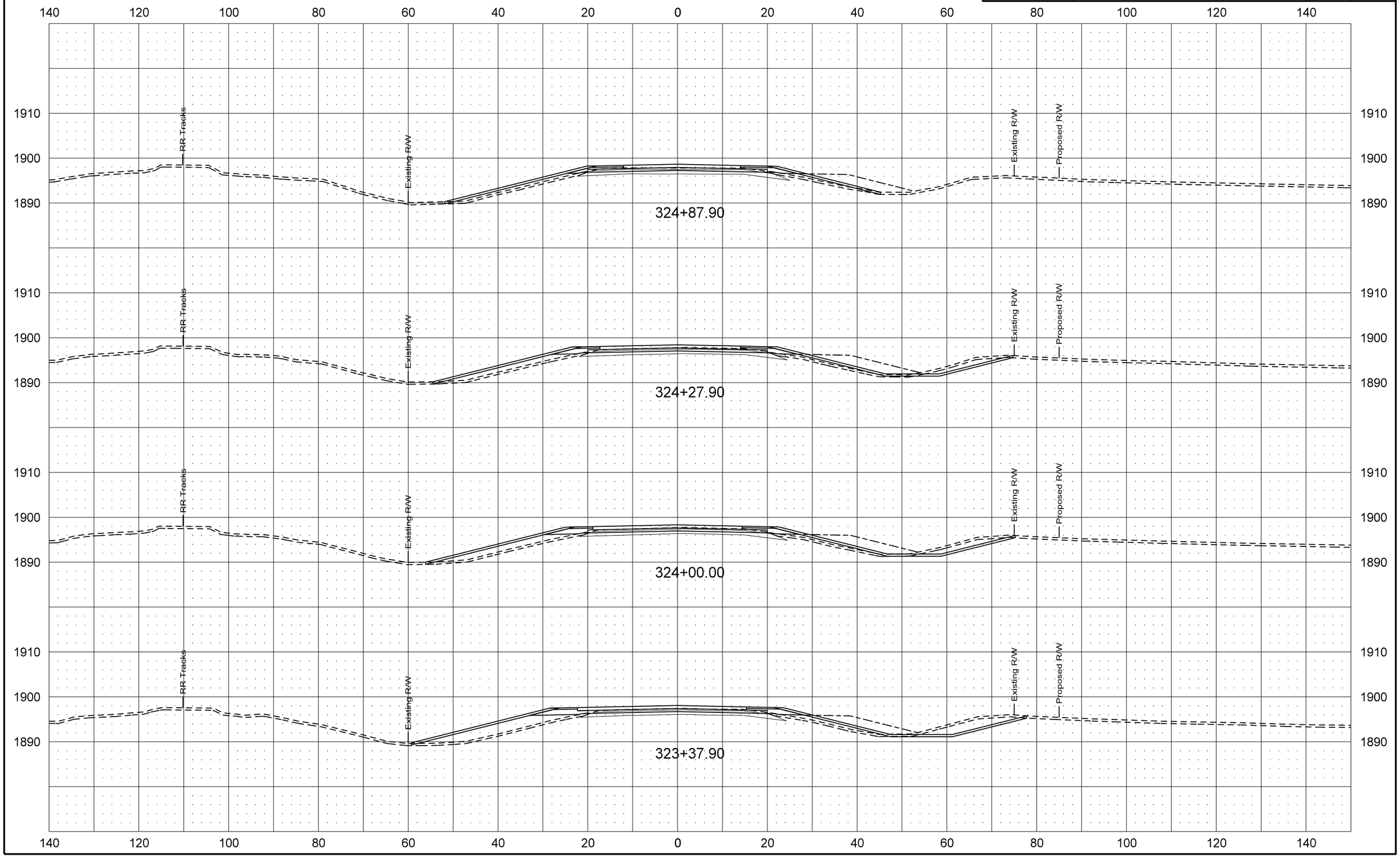

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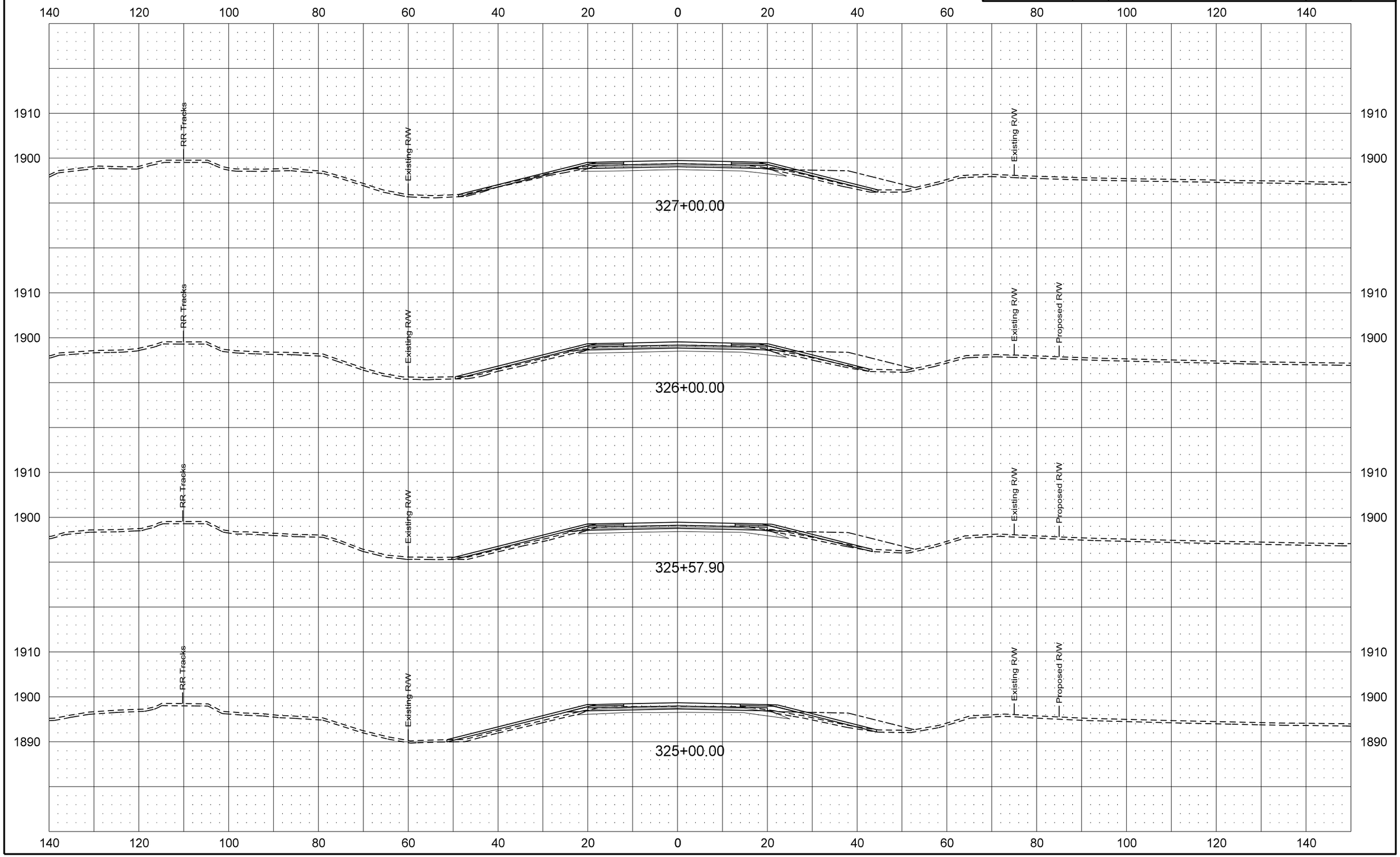

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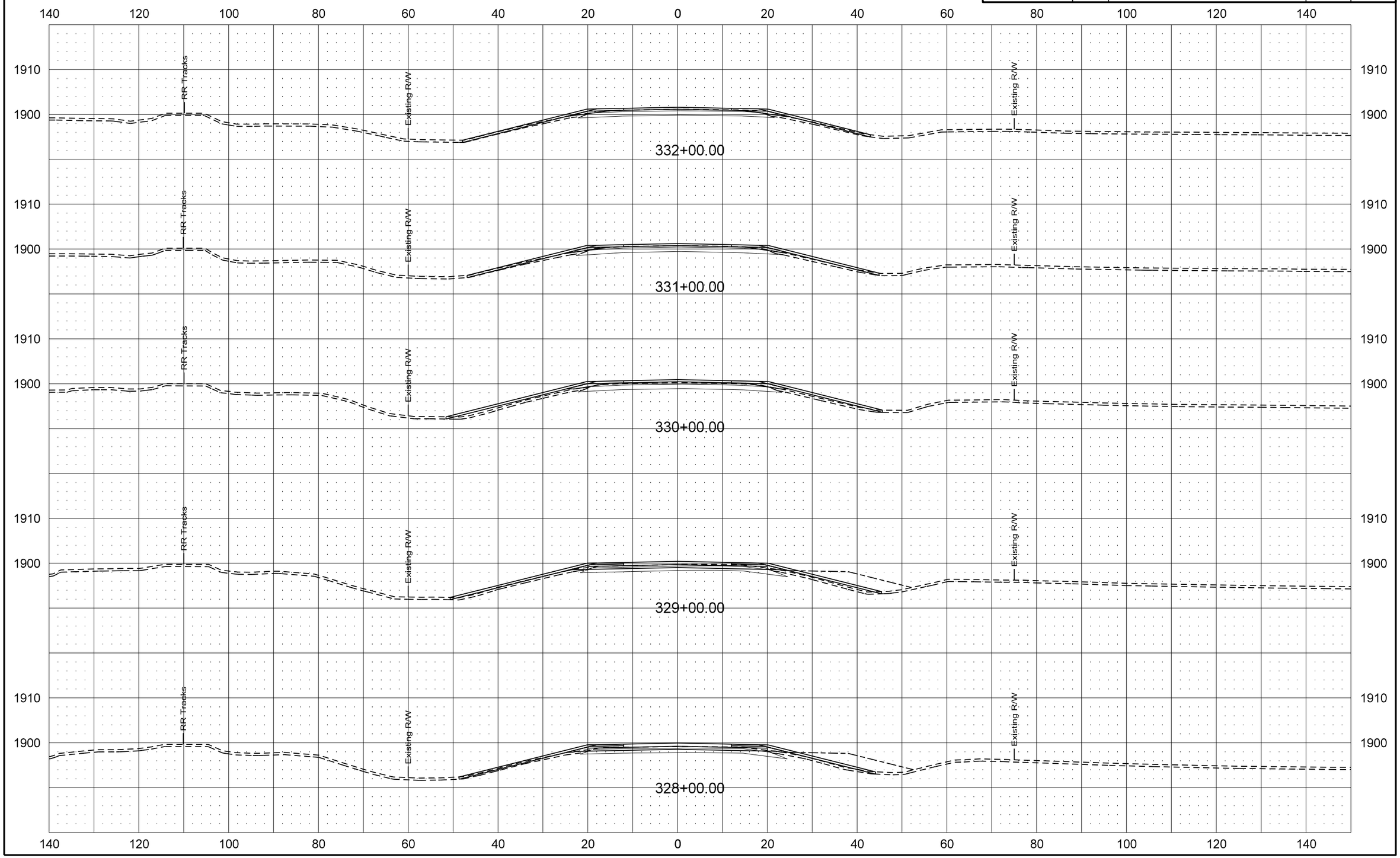

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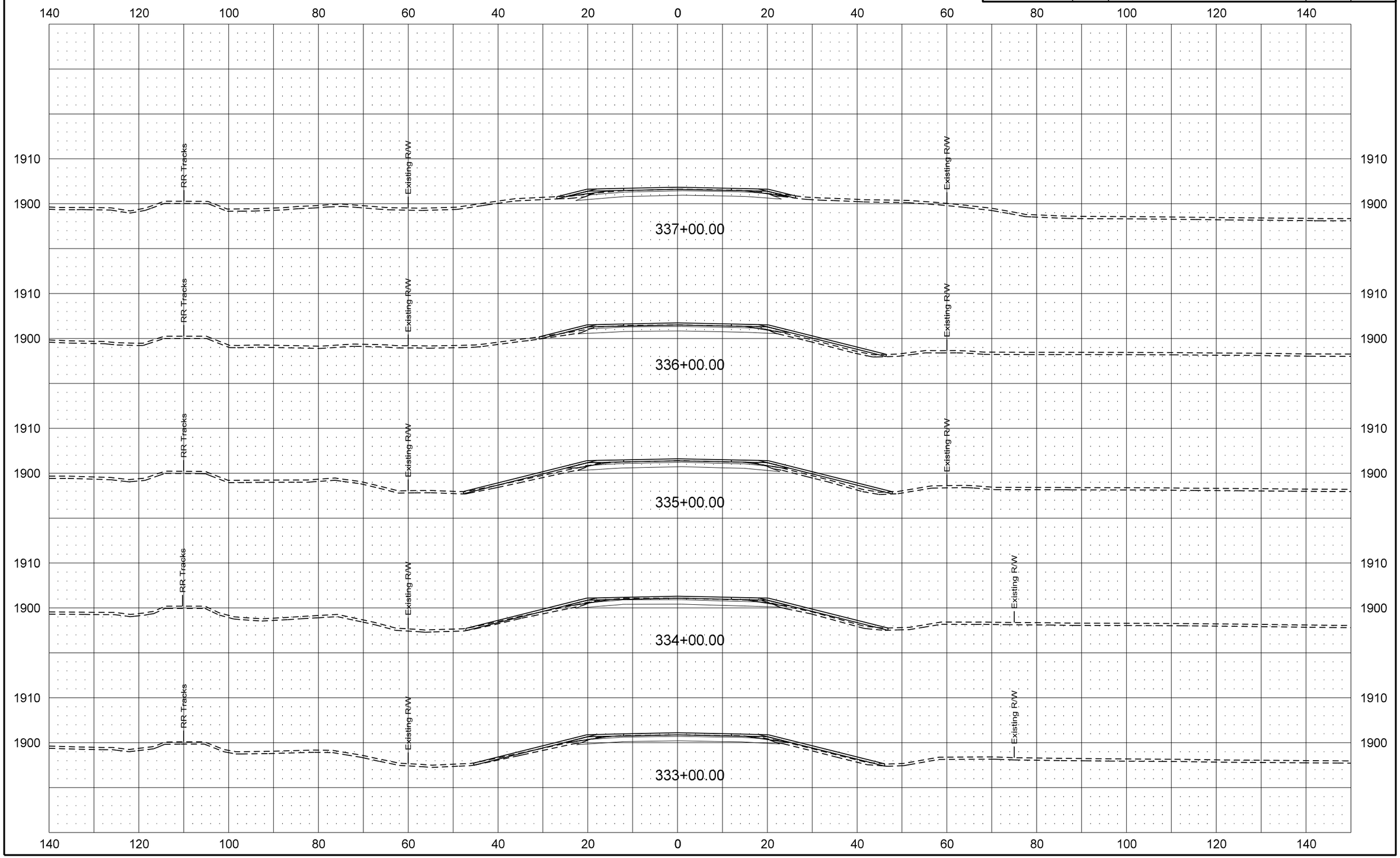

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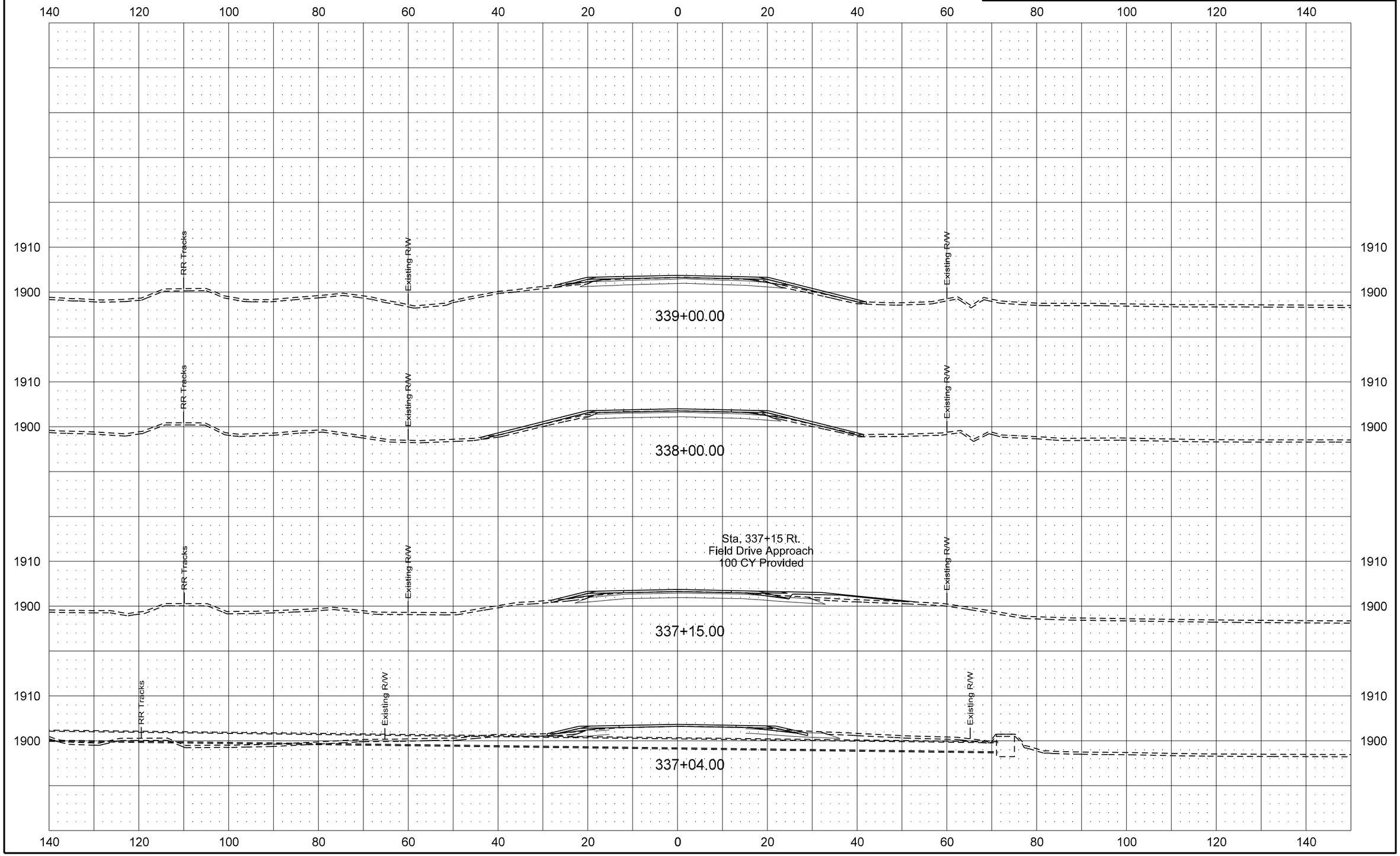

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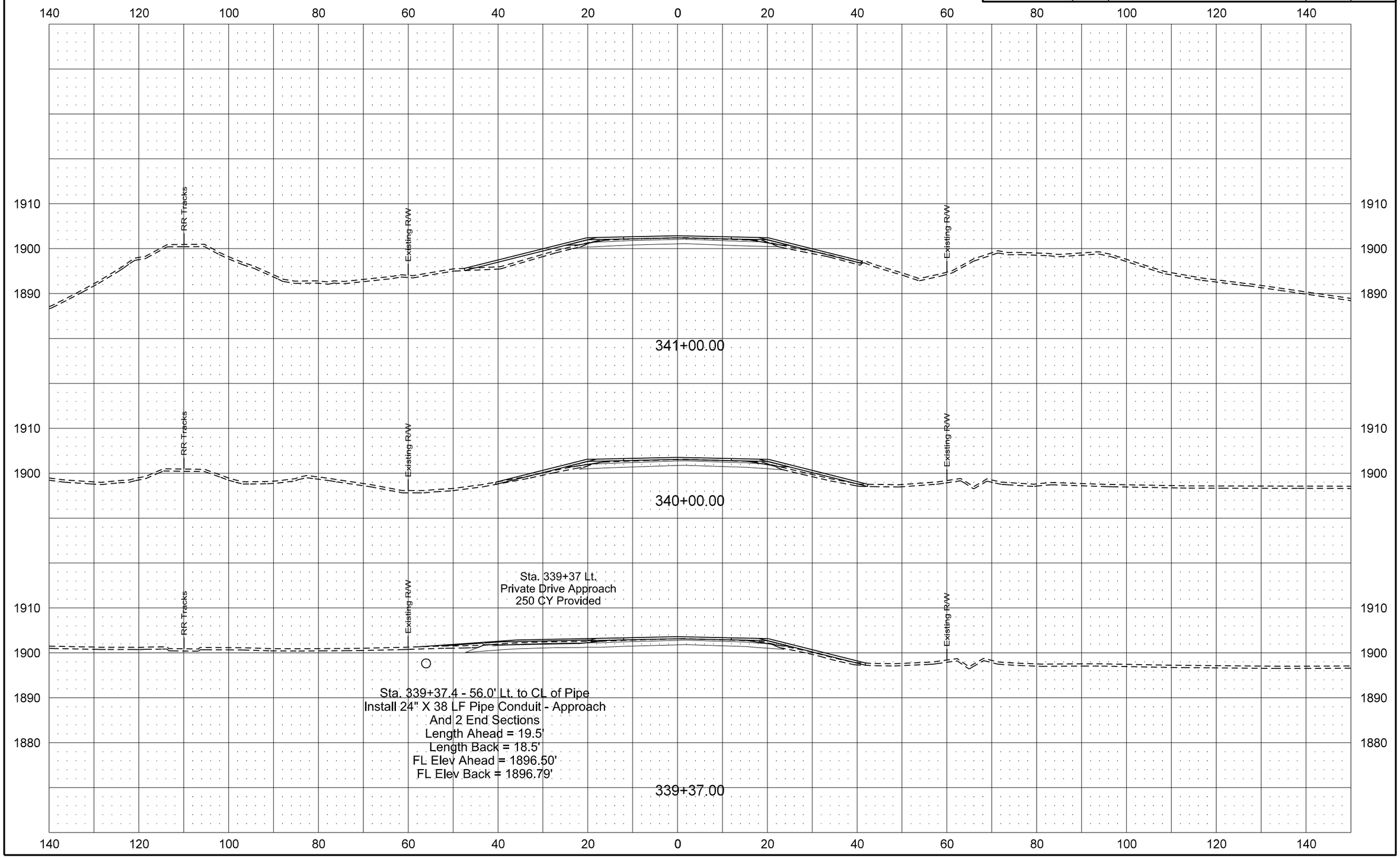

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|---|---|---|---|---|
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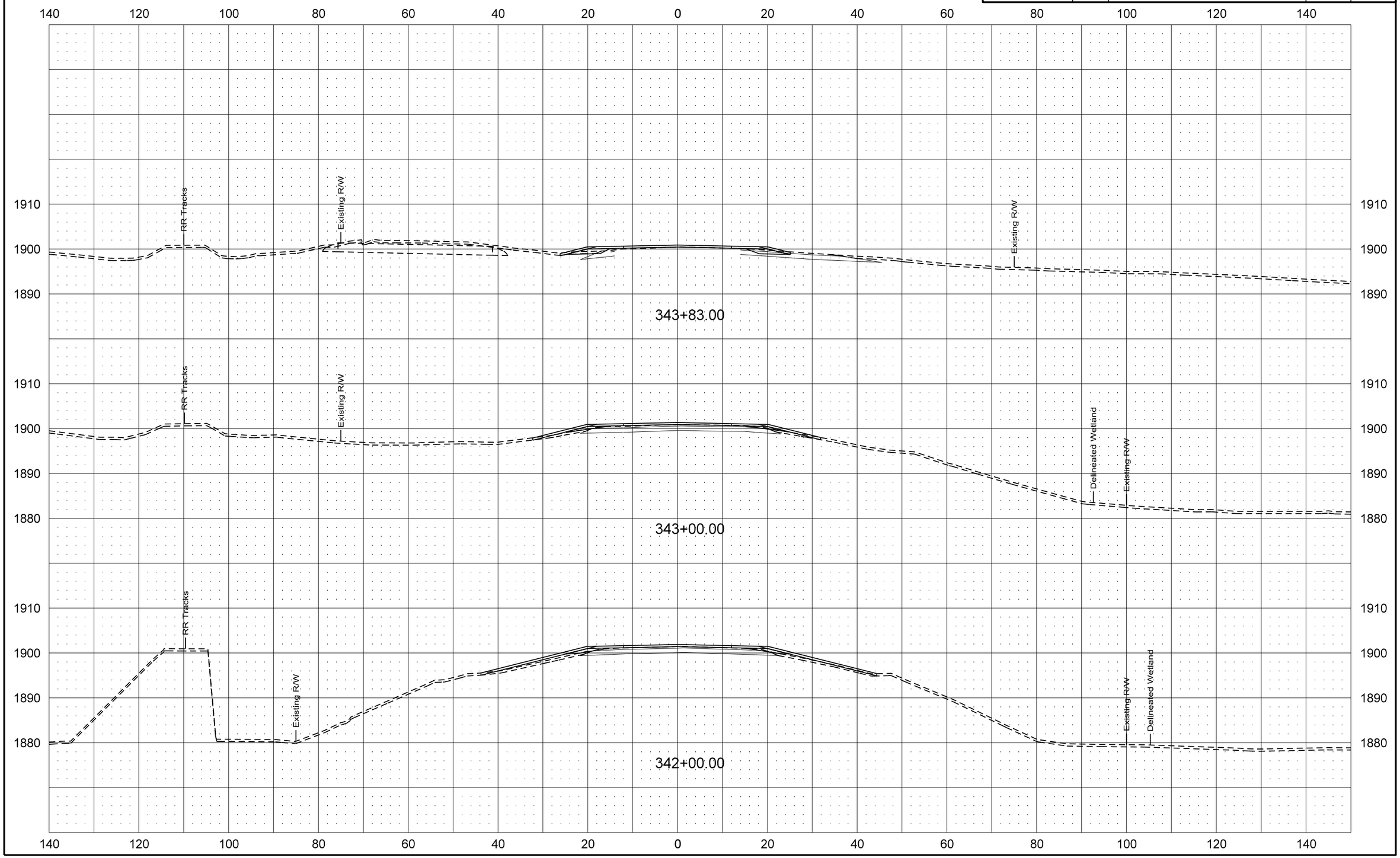


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| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
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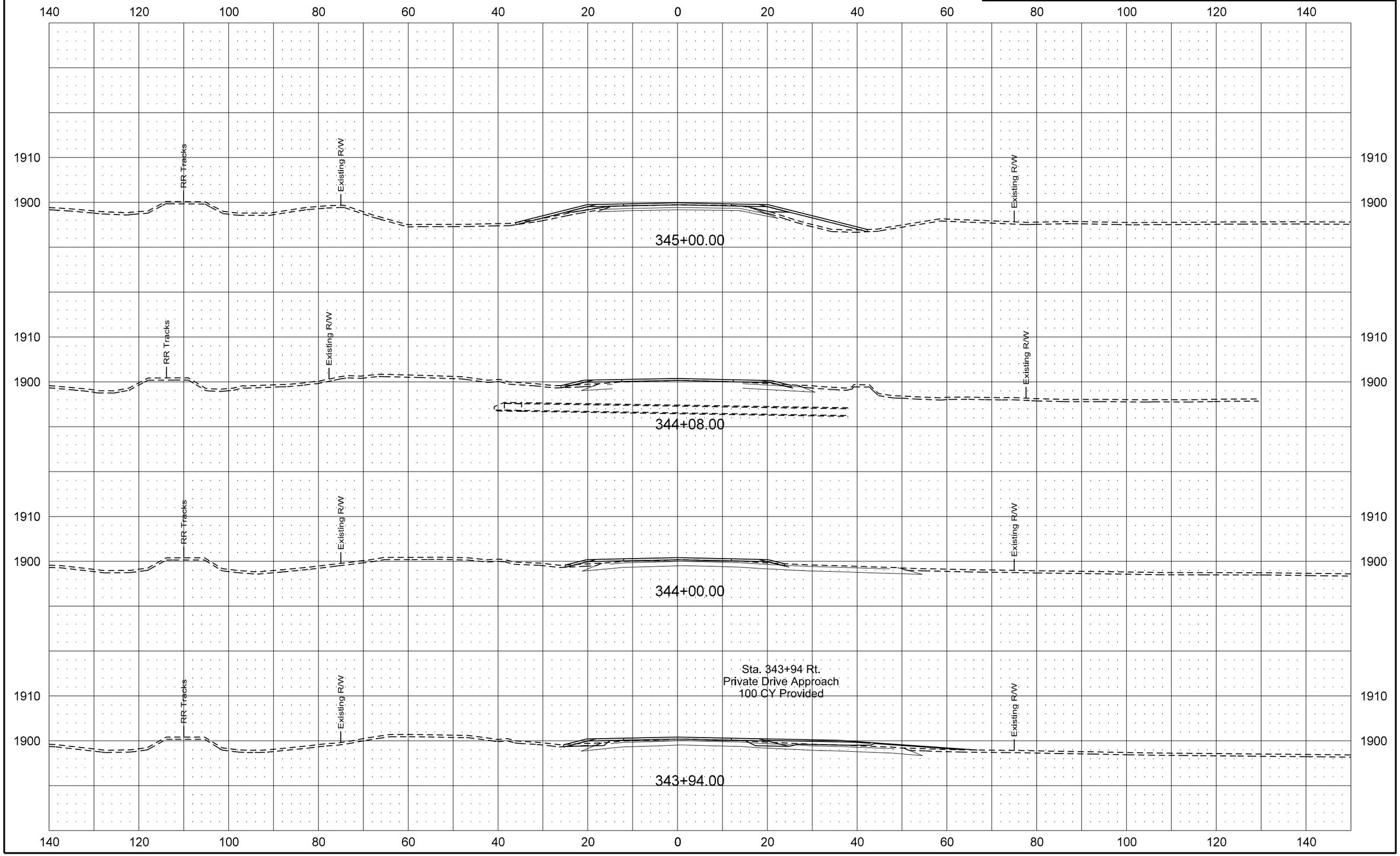

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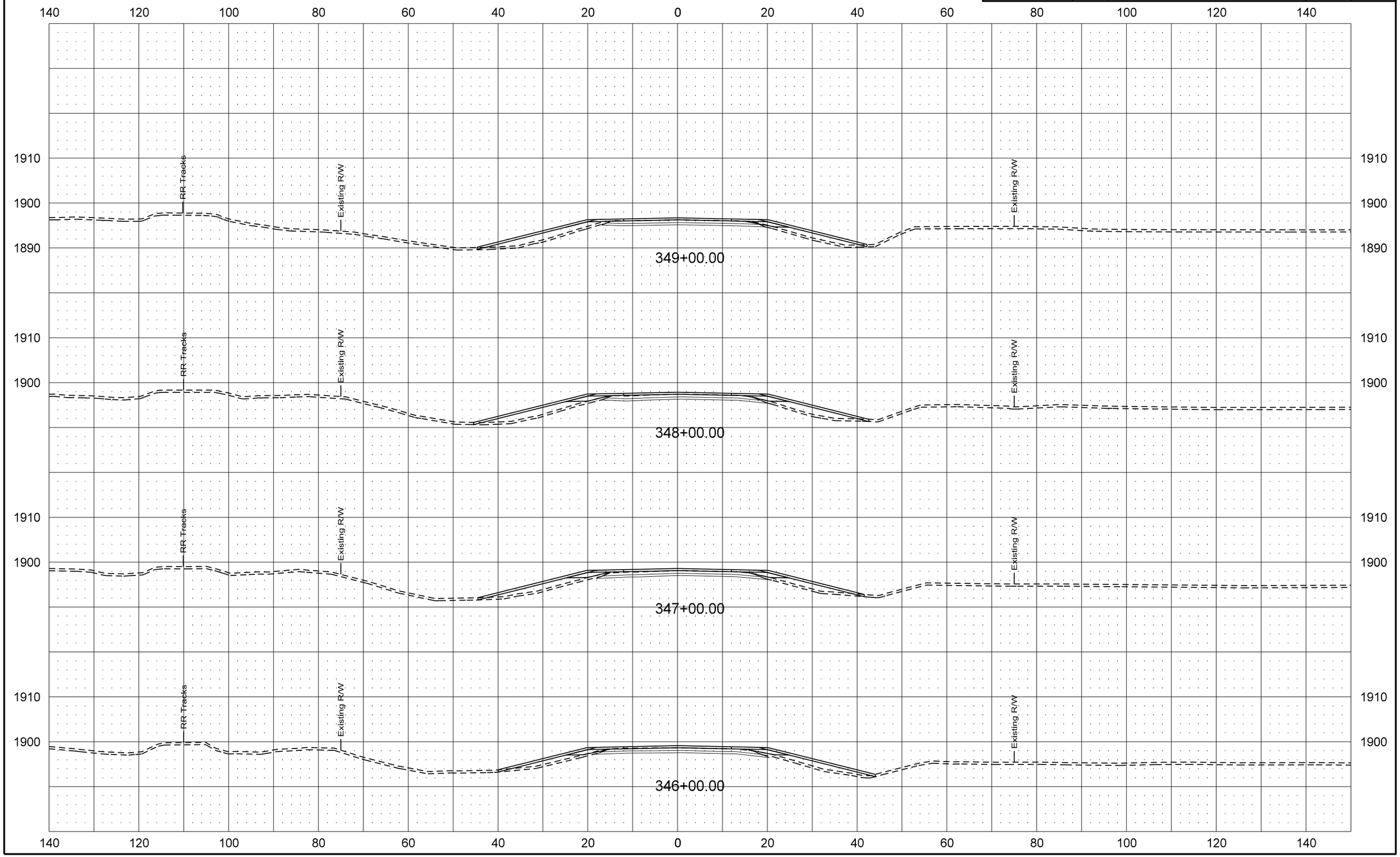

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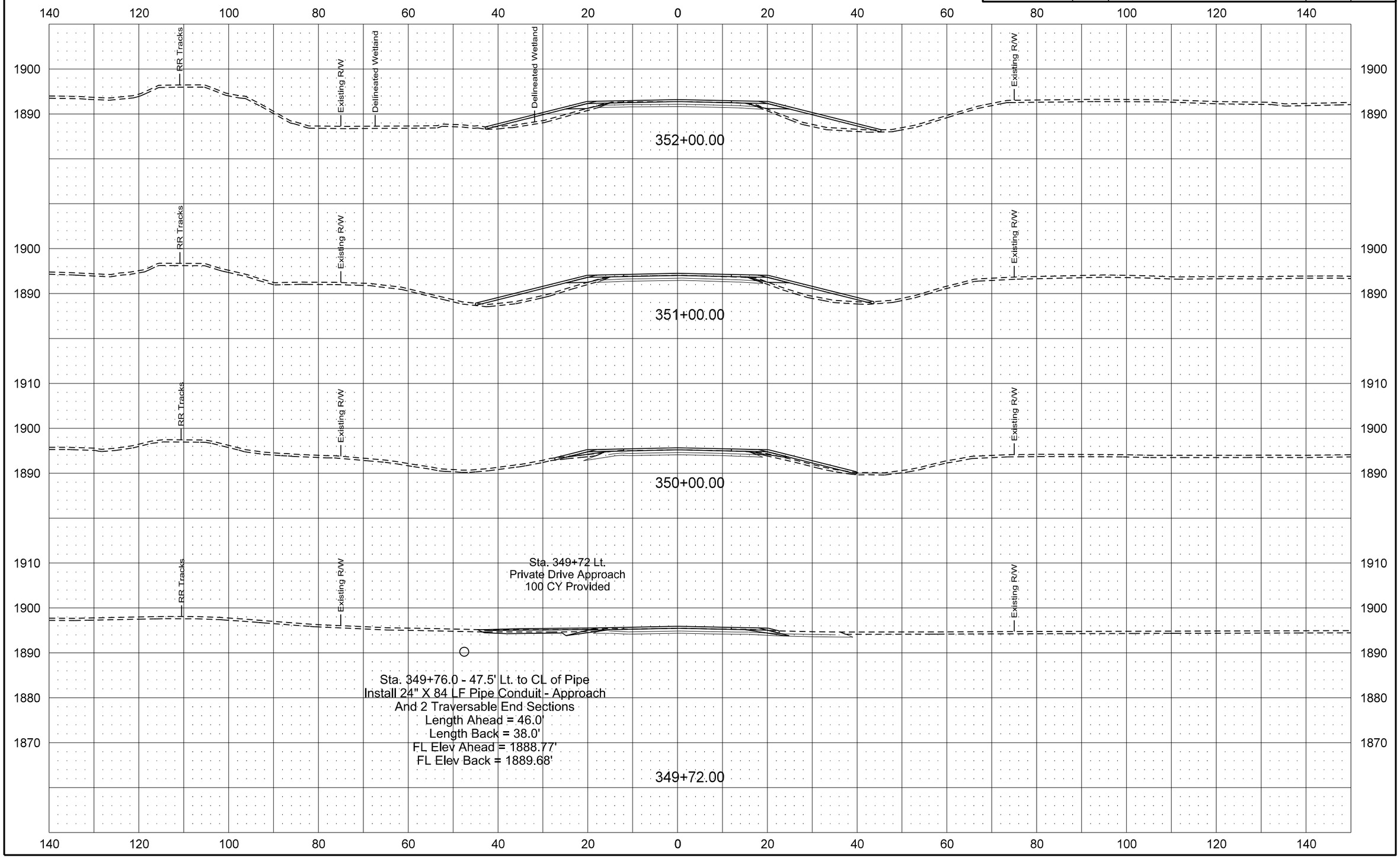

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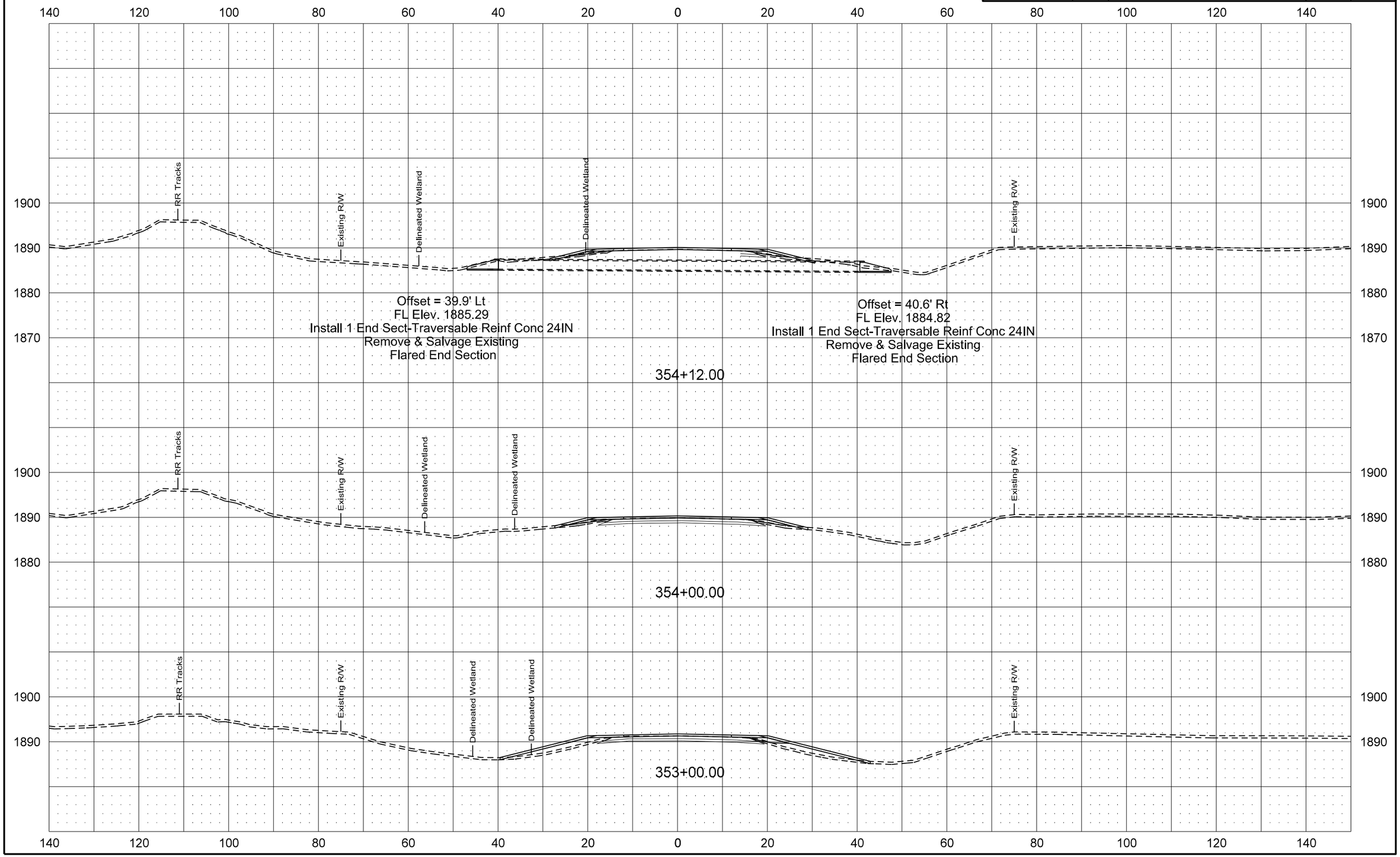

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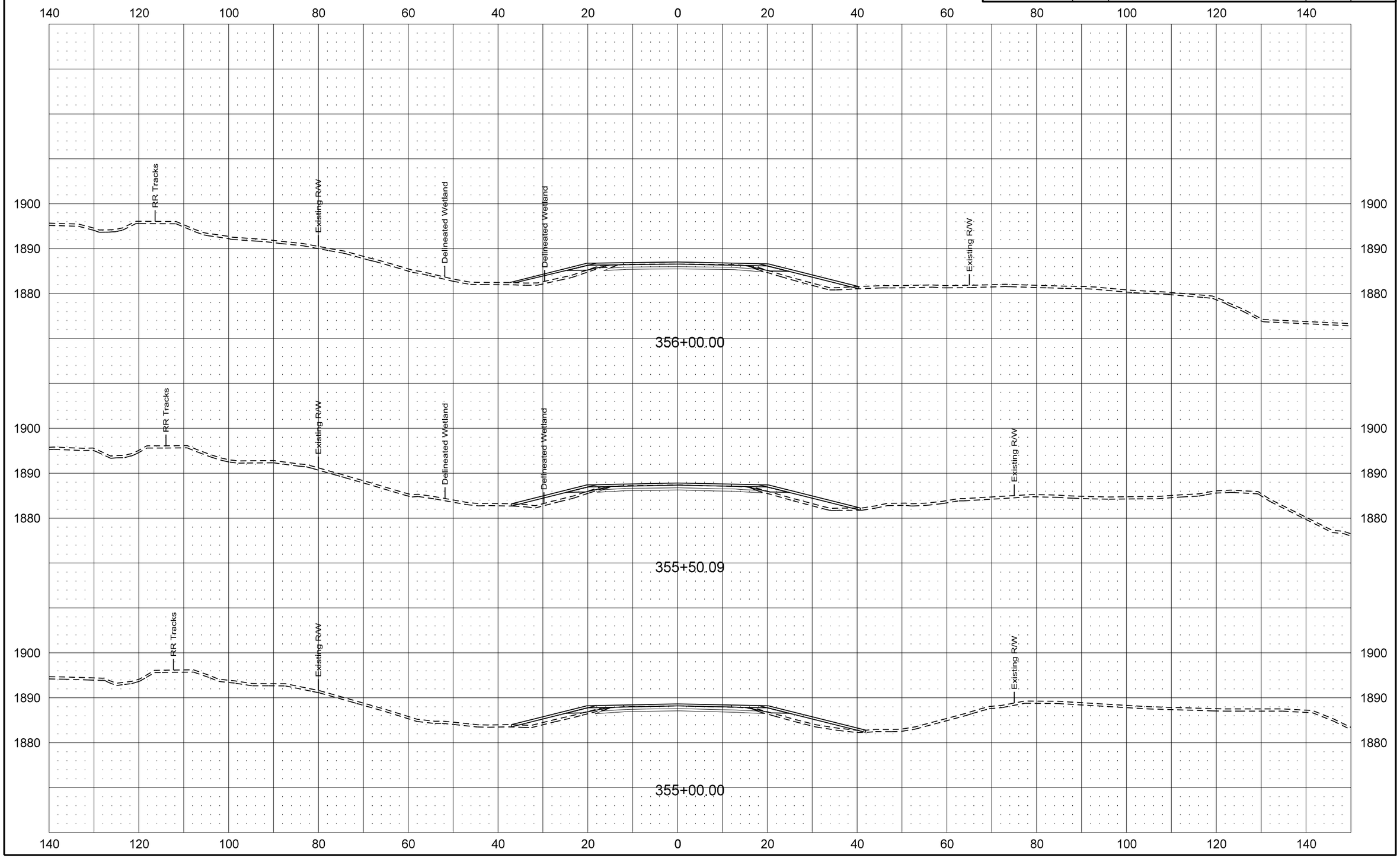

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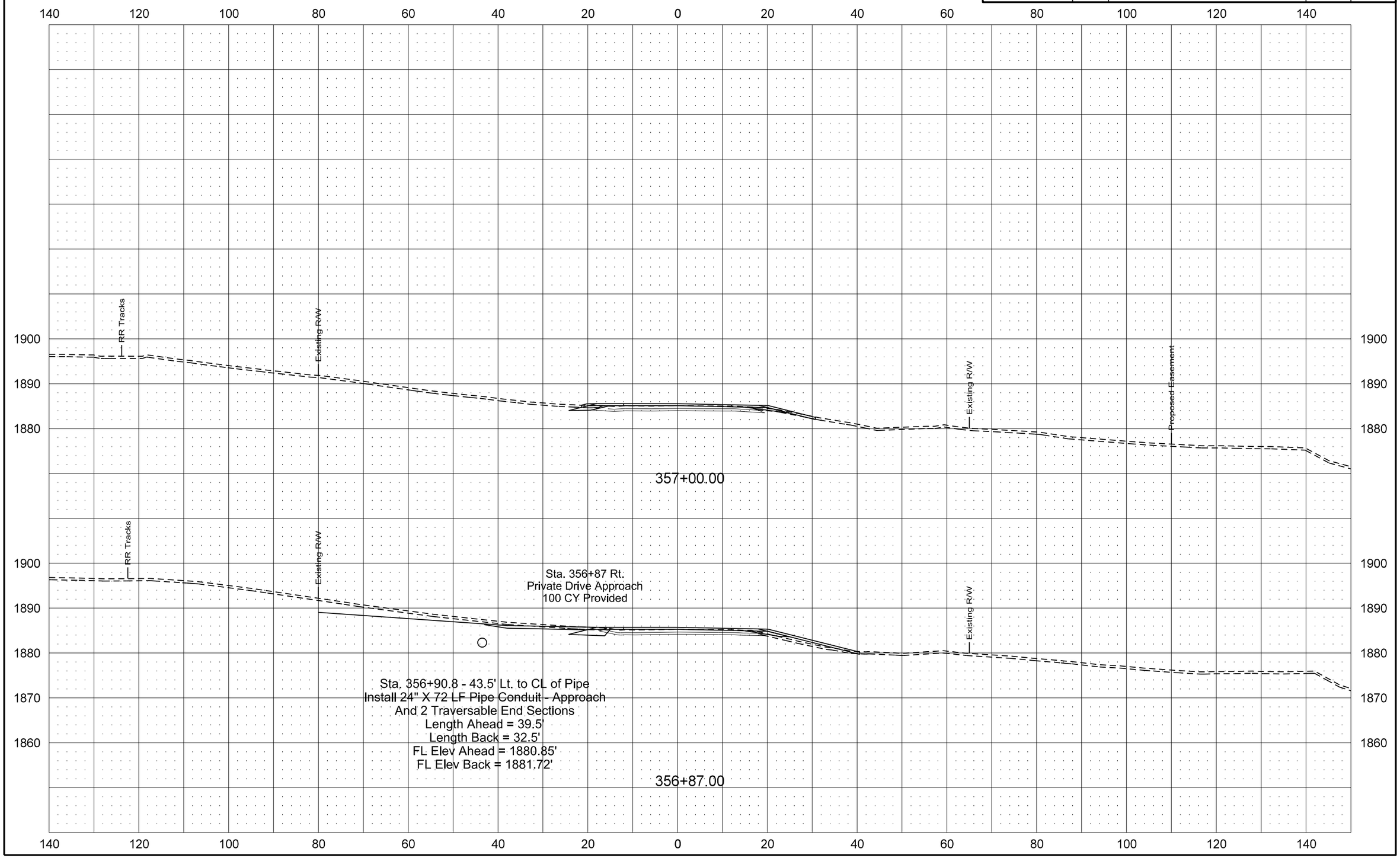

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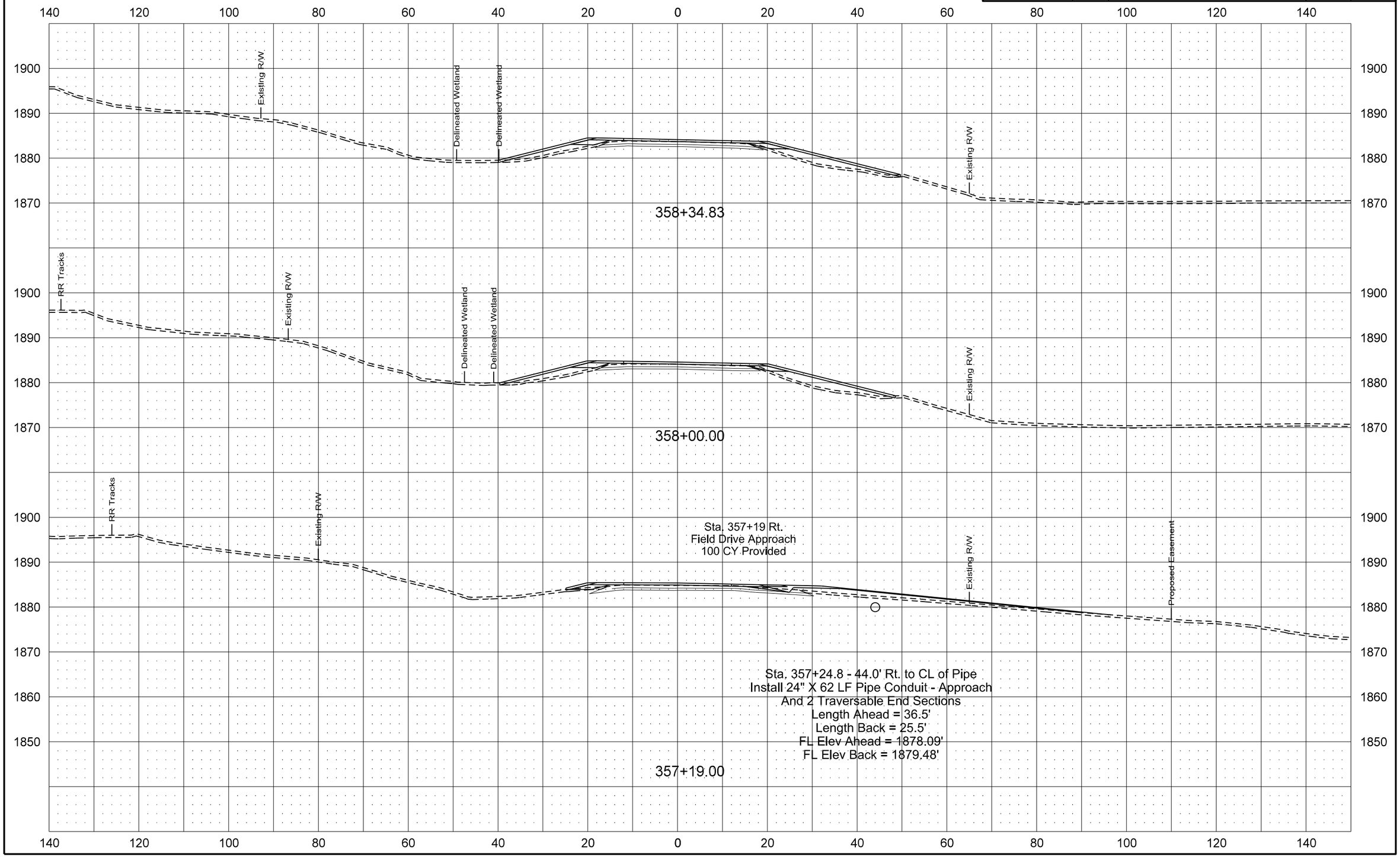

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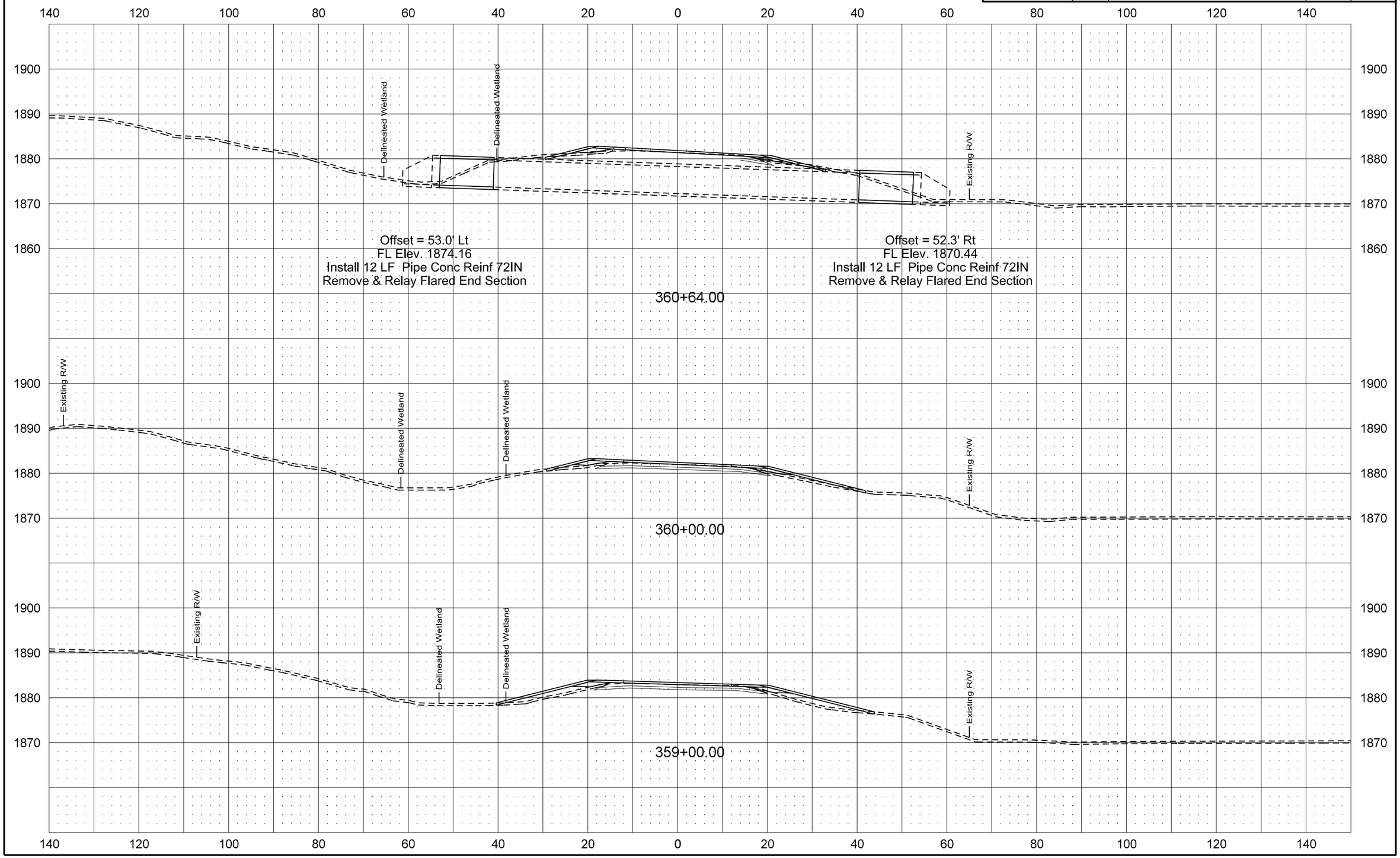

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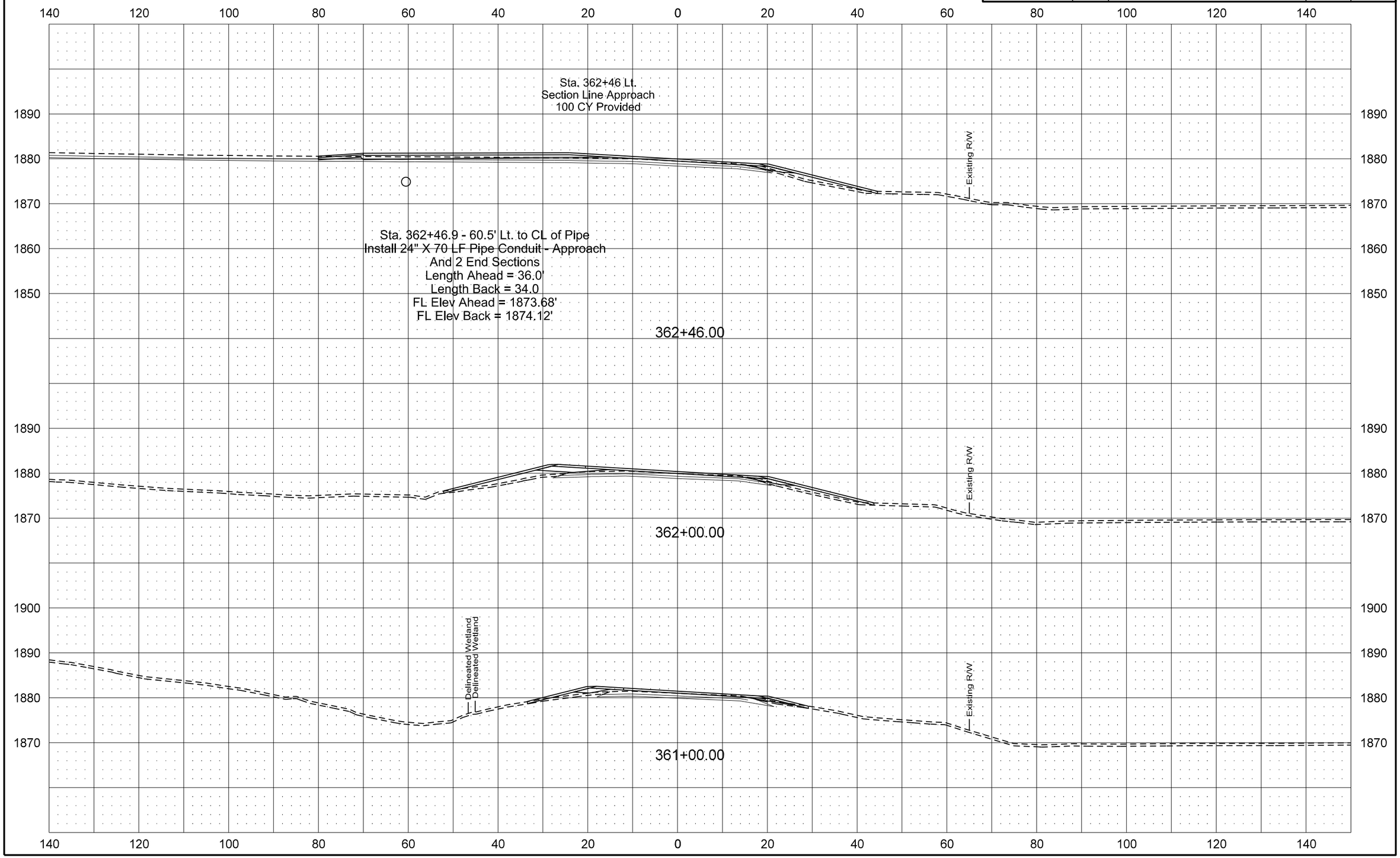

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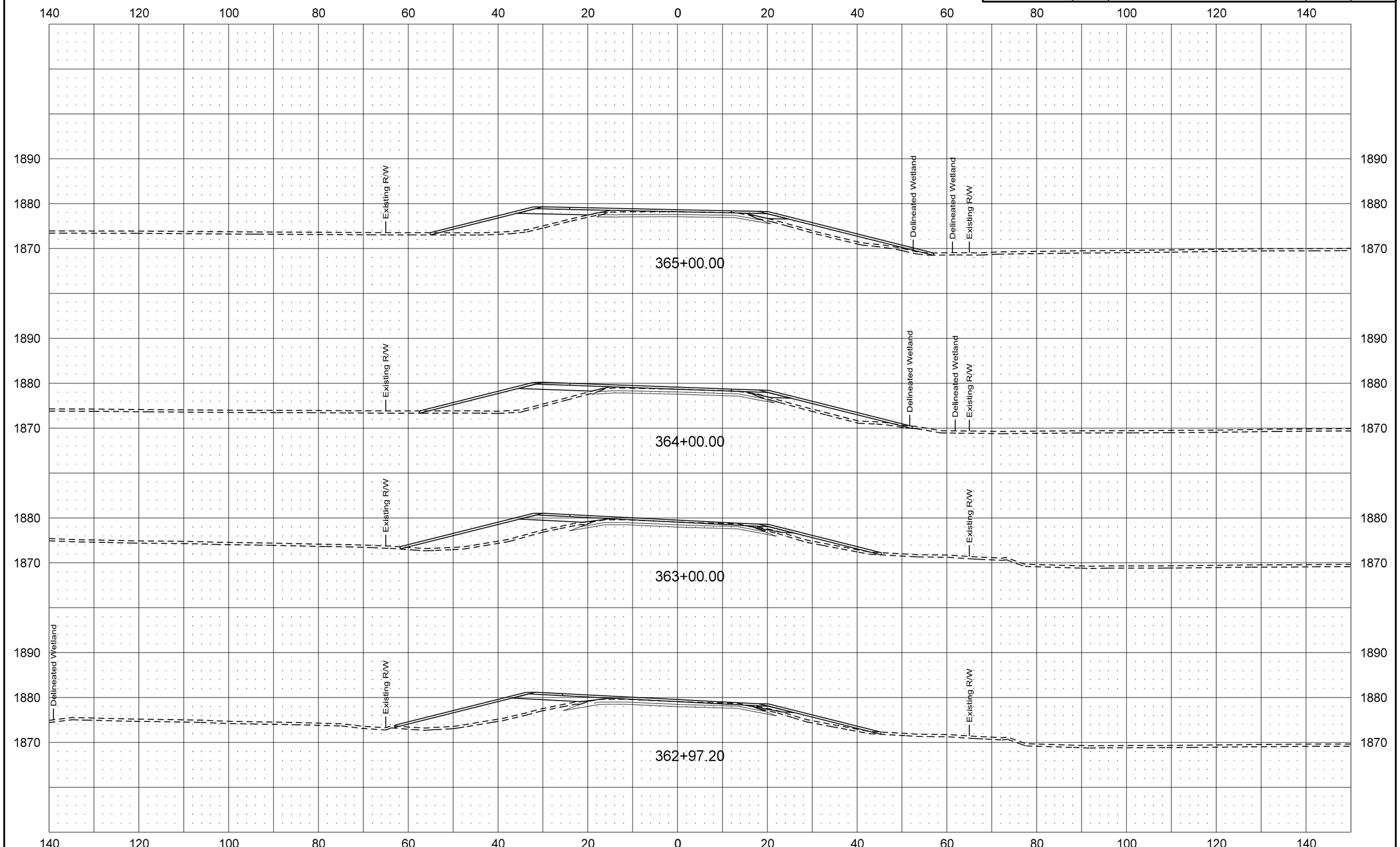

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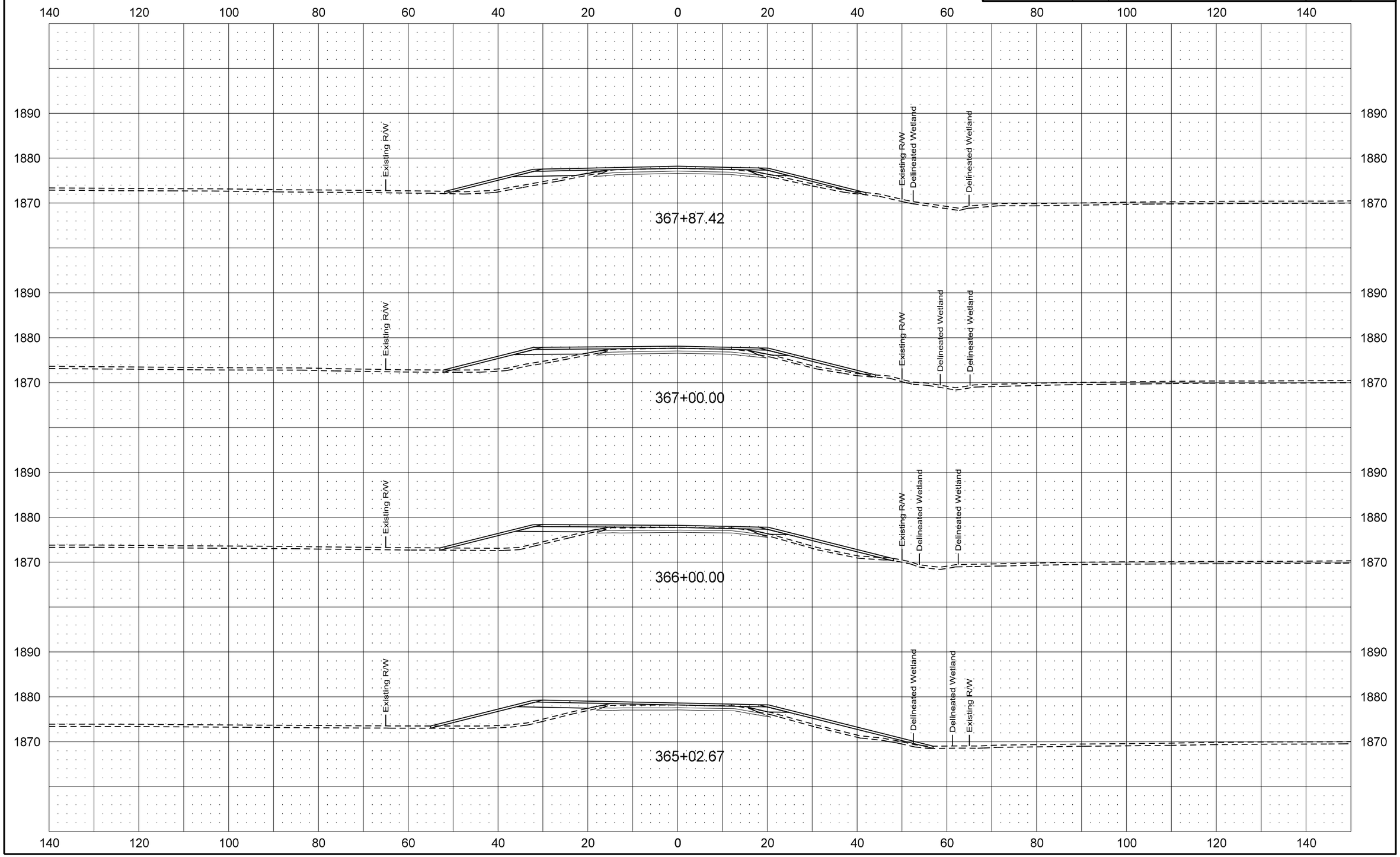

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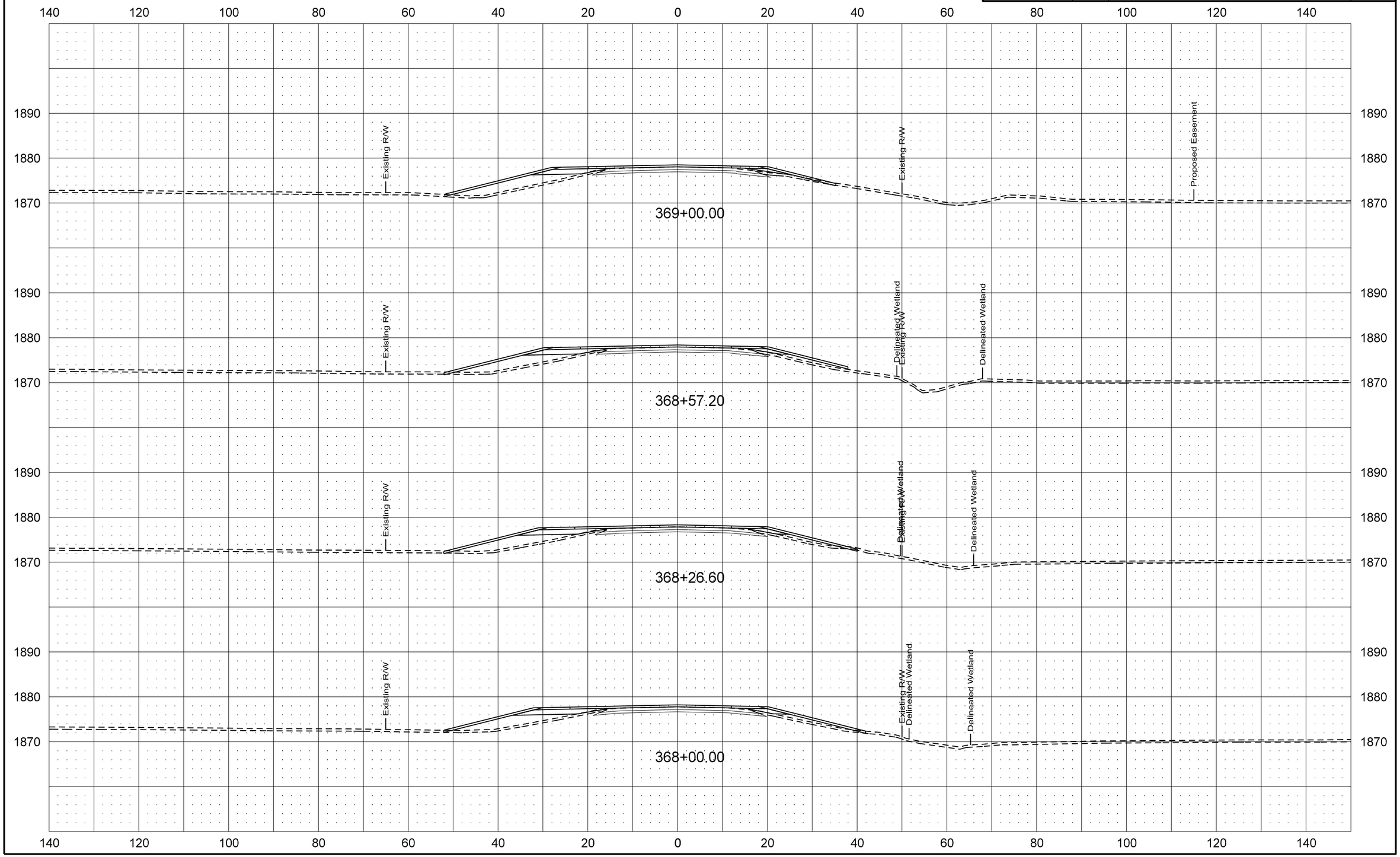

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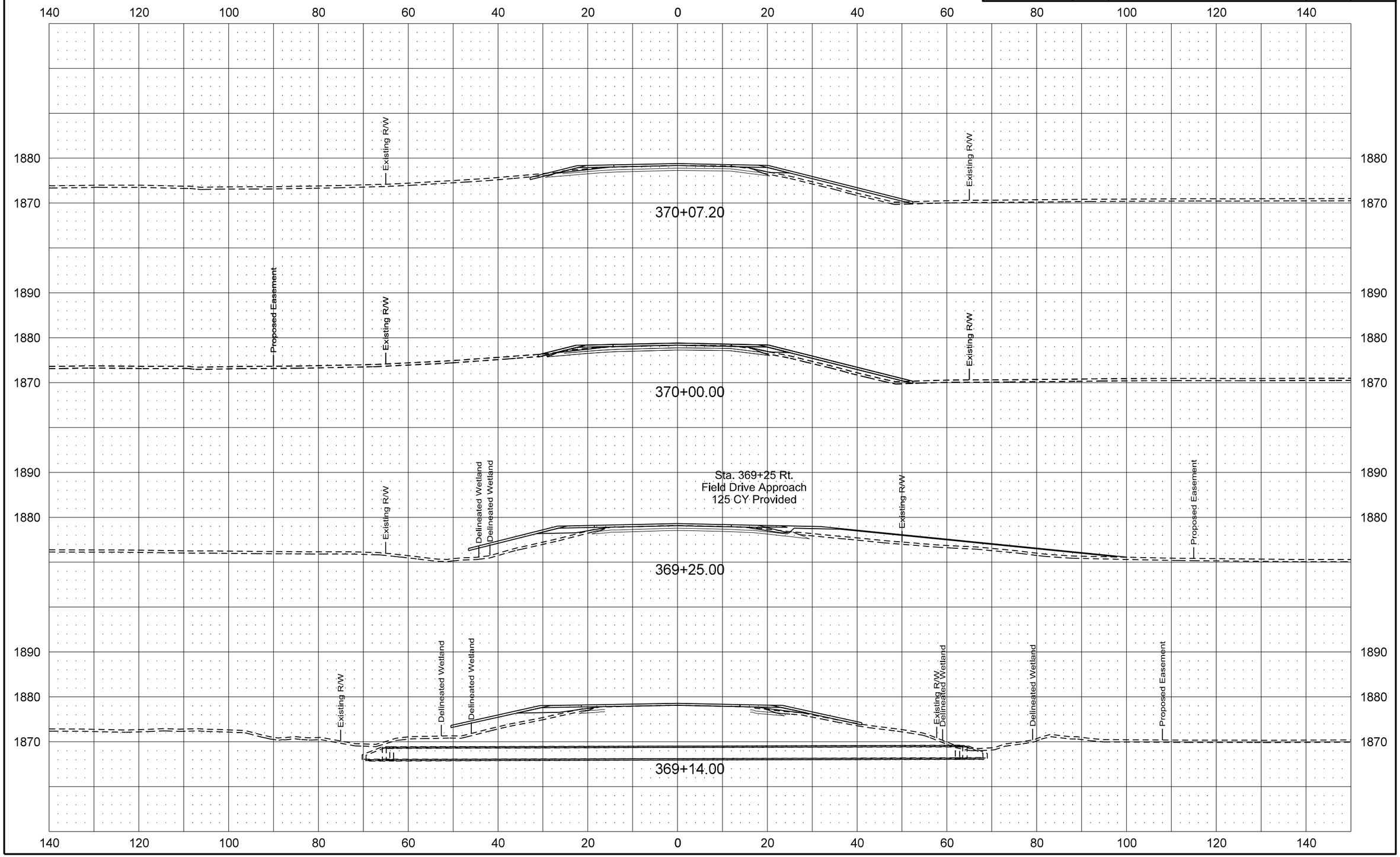

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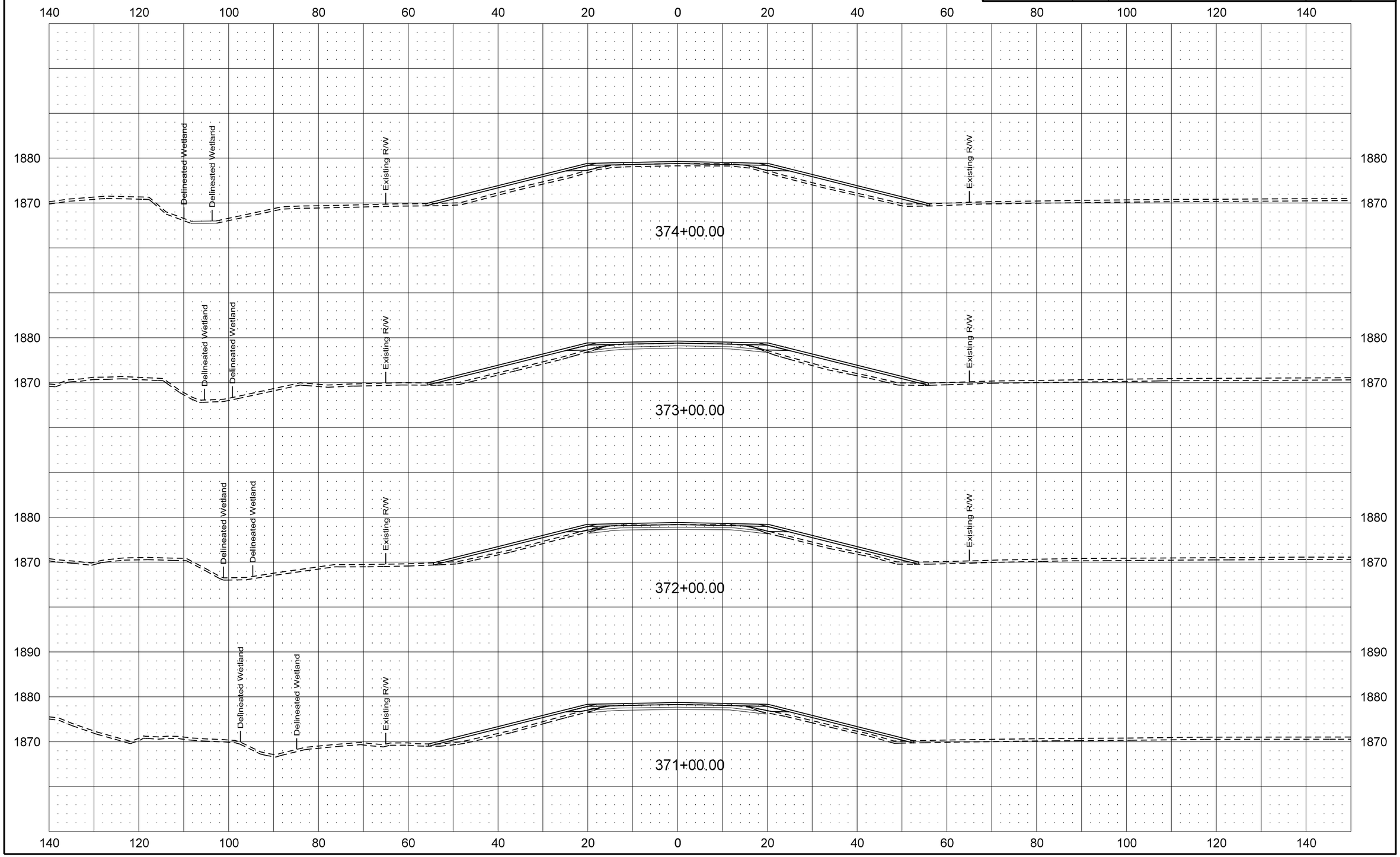
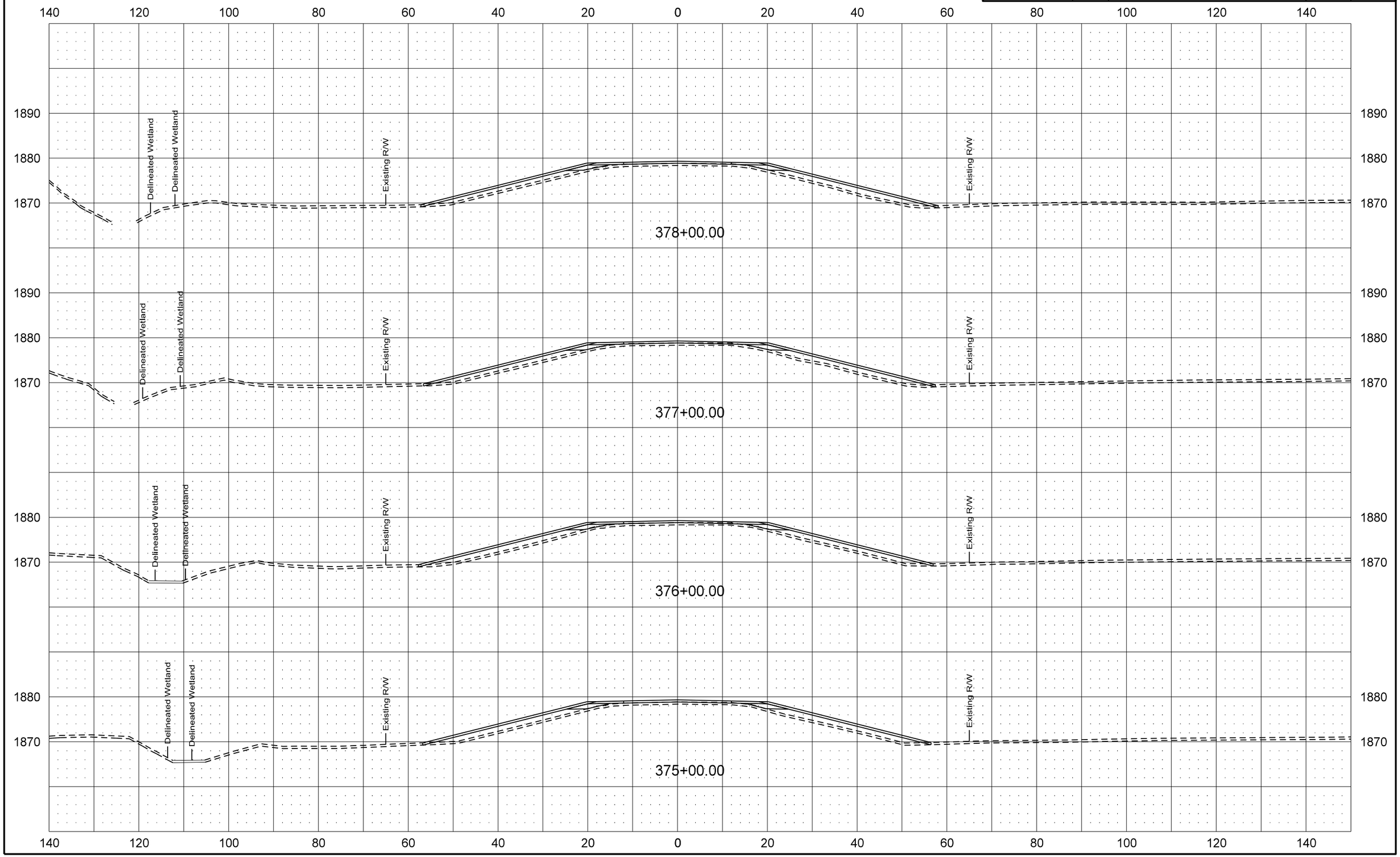
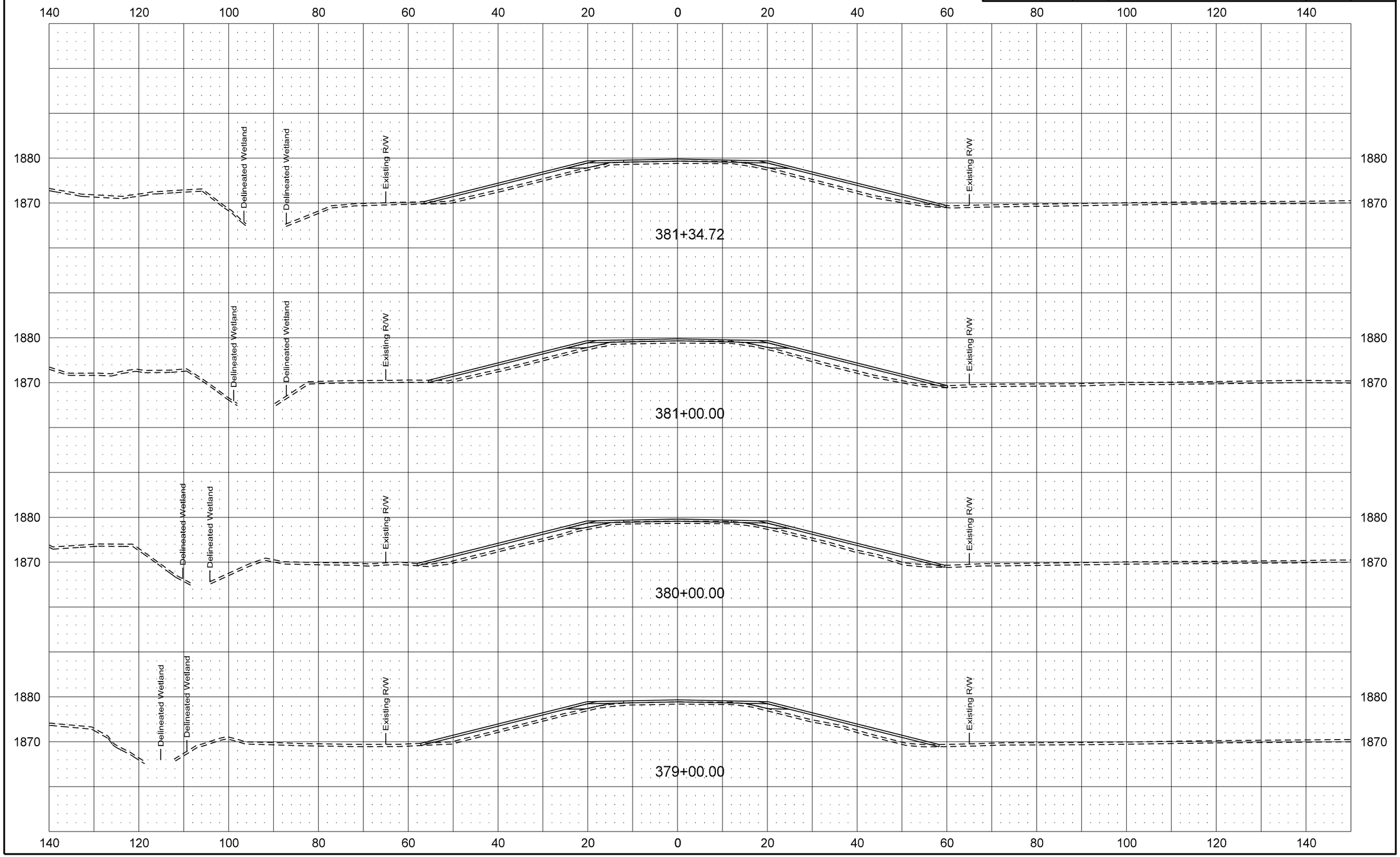


| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 143 |



| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 144 |



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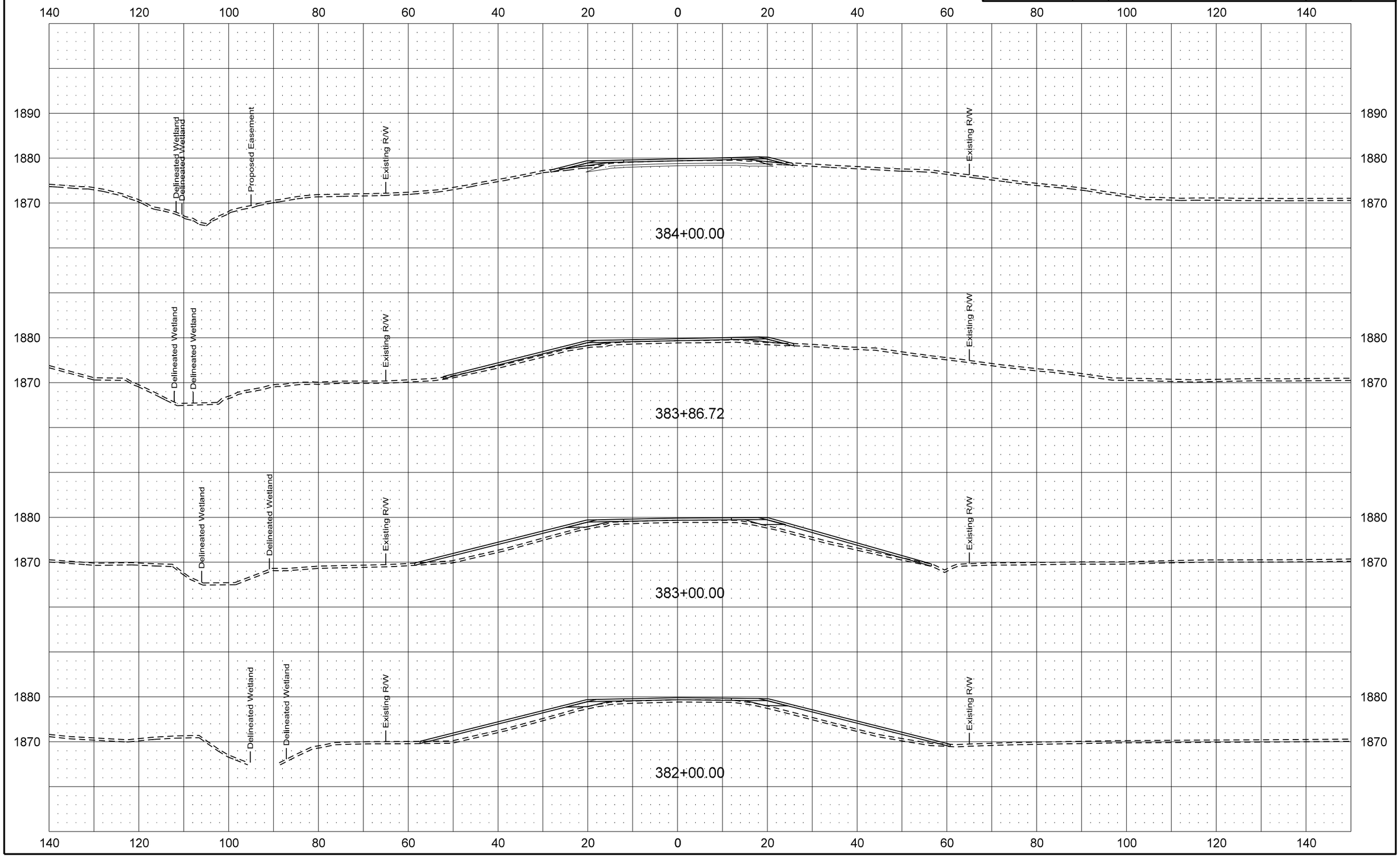
| | ND | SOIB-7-058(013)000 | 200 | 145 |



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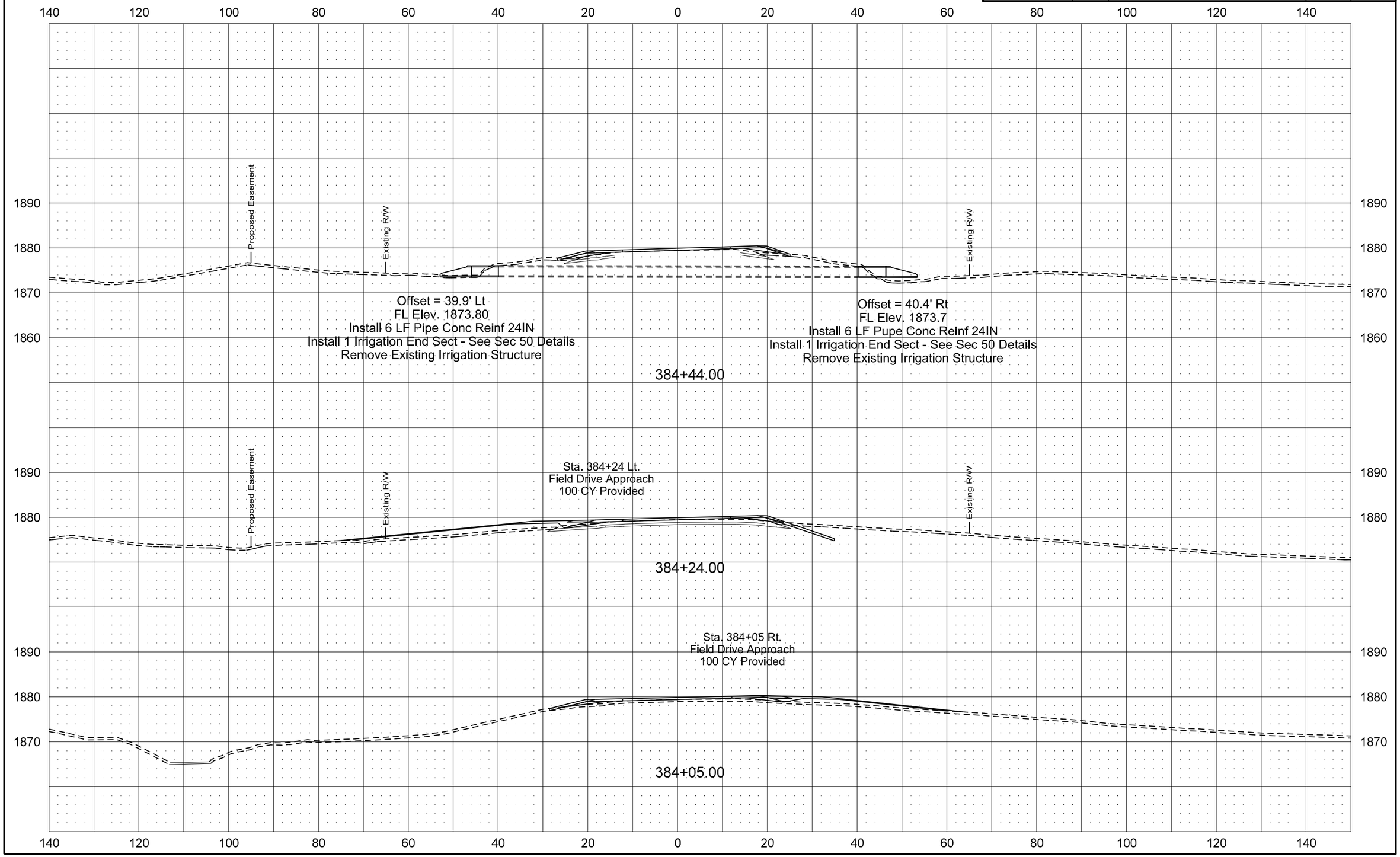
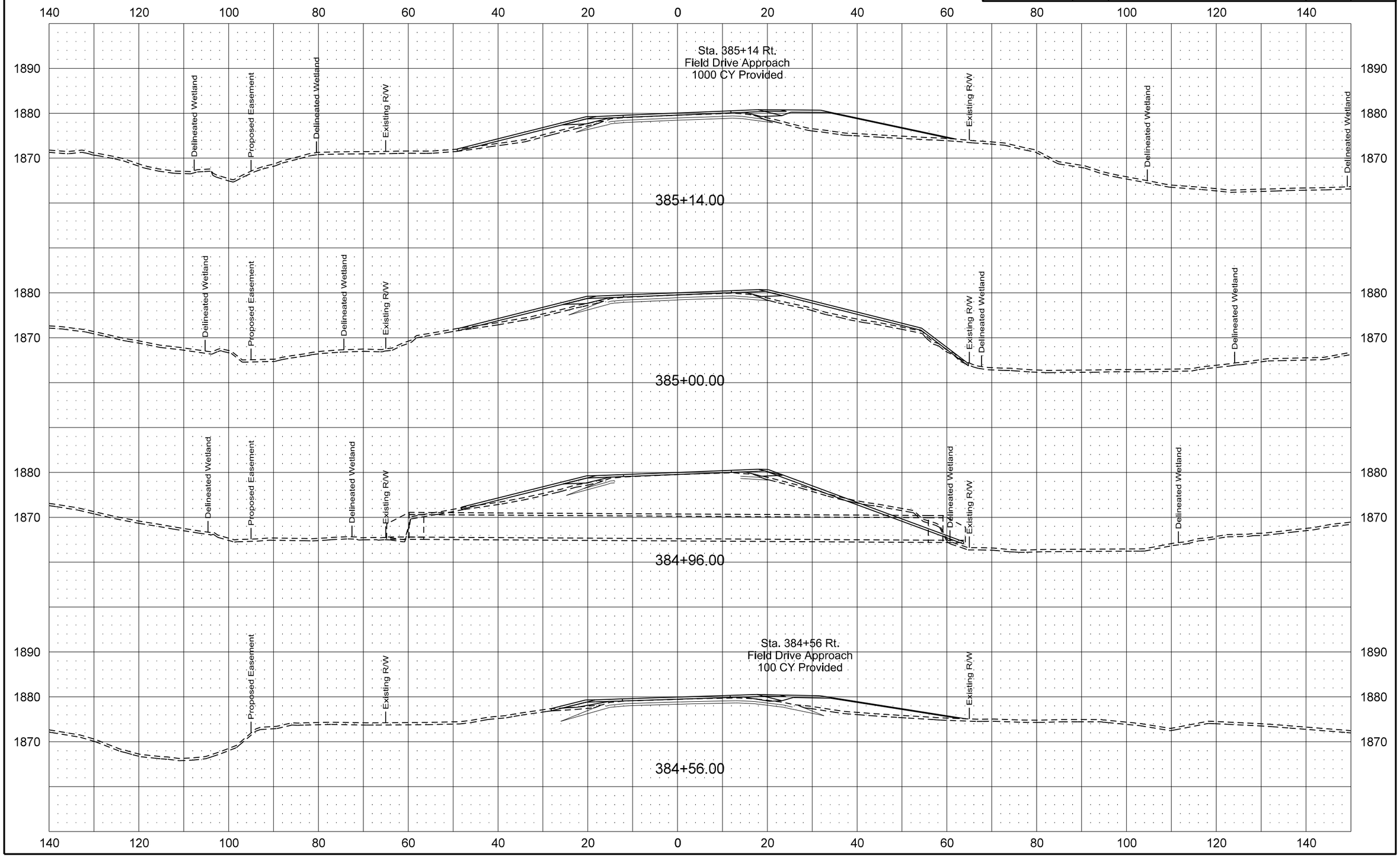


| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 147 |

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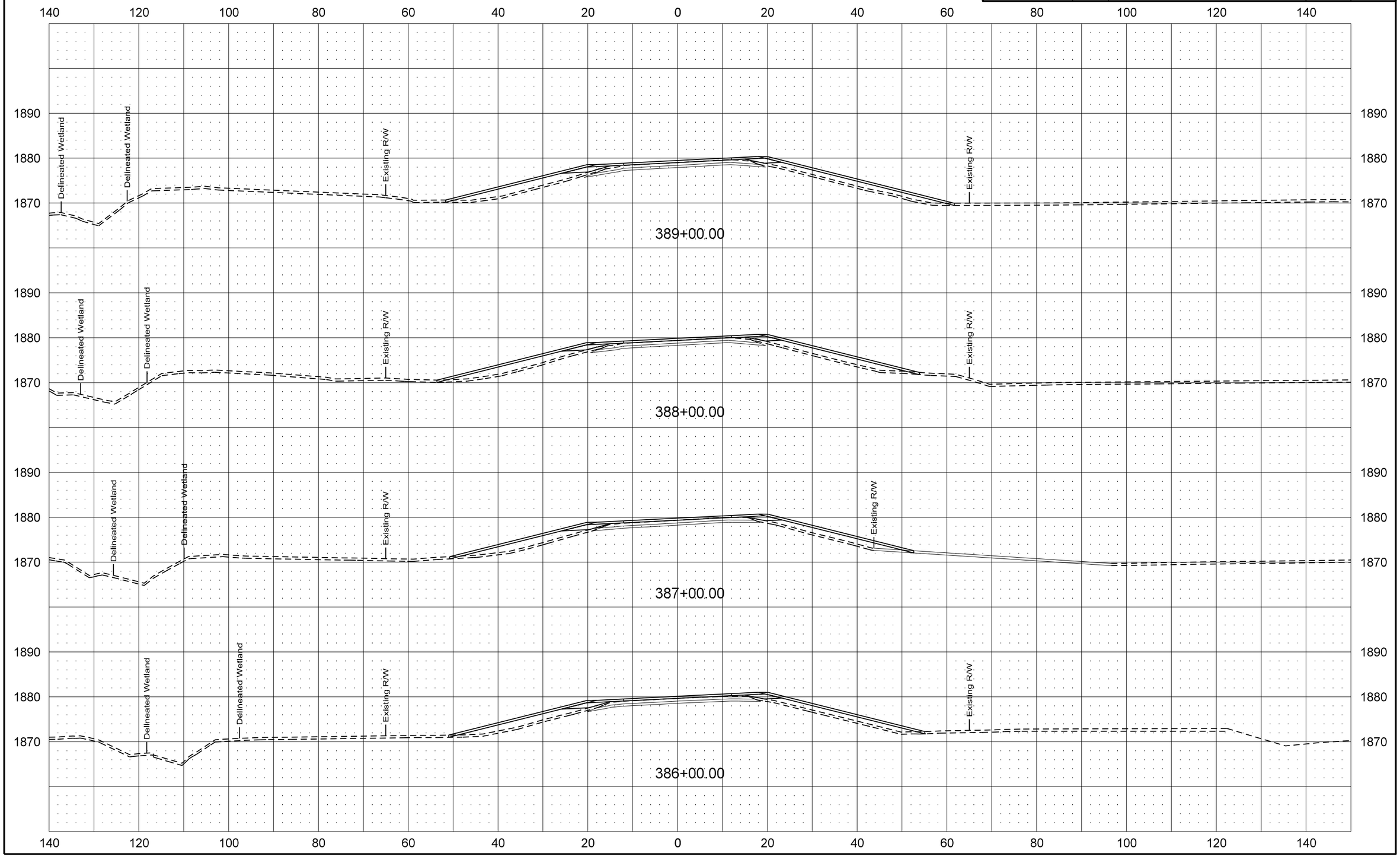
| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
| | ND | SOIB-7-058(013)000 | 200 | 148 |



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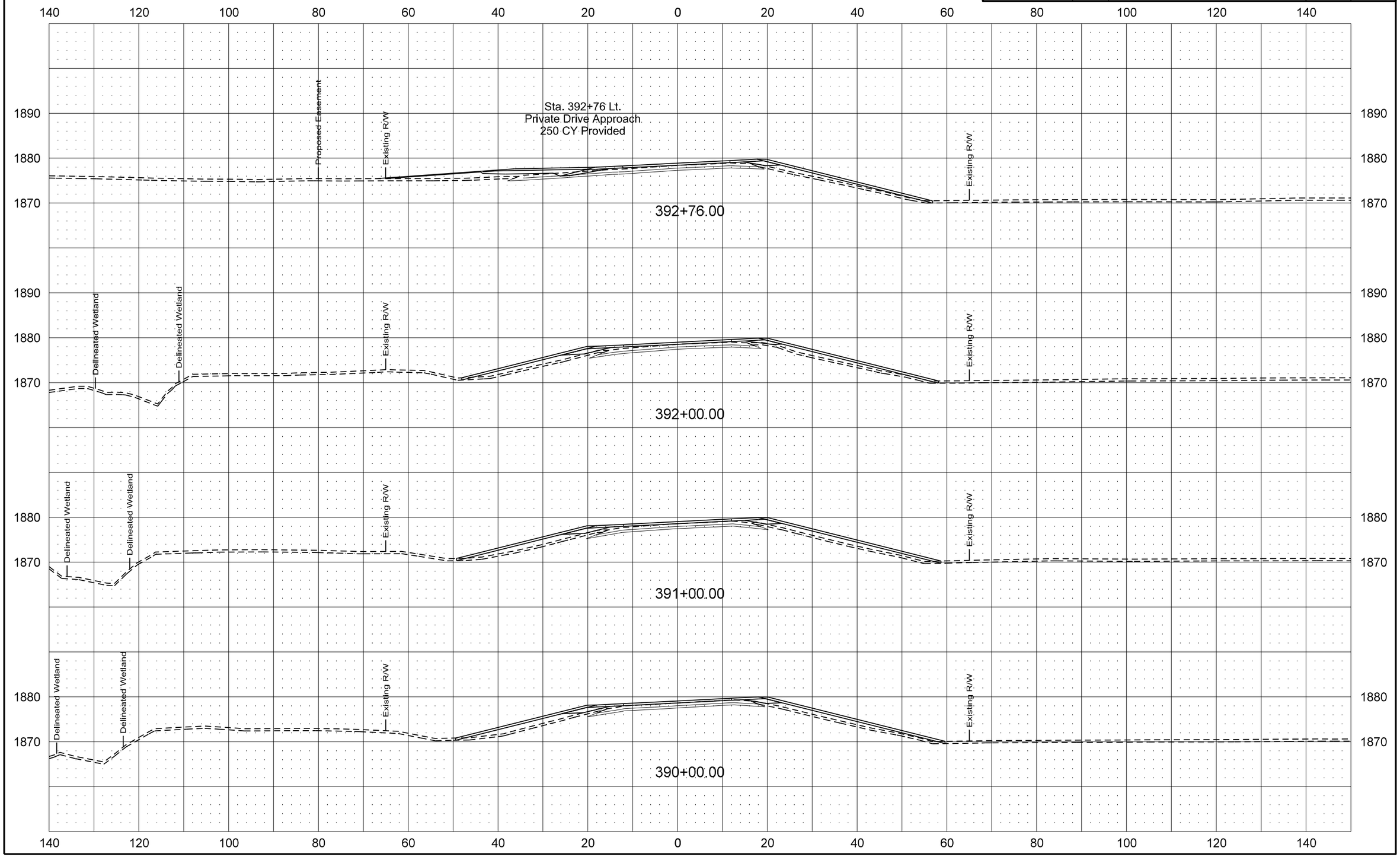

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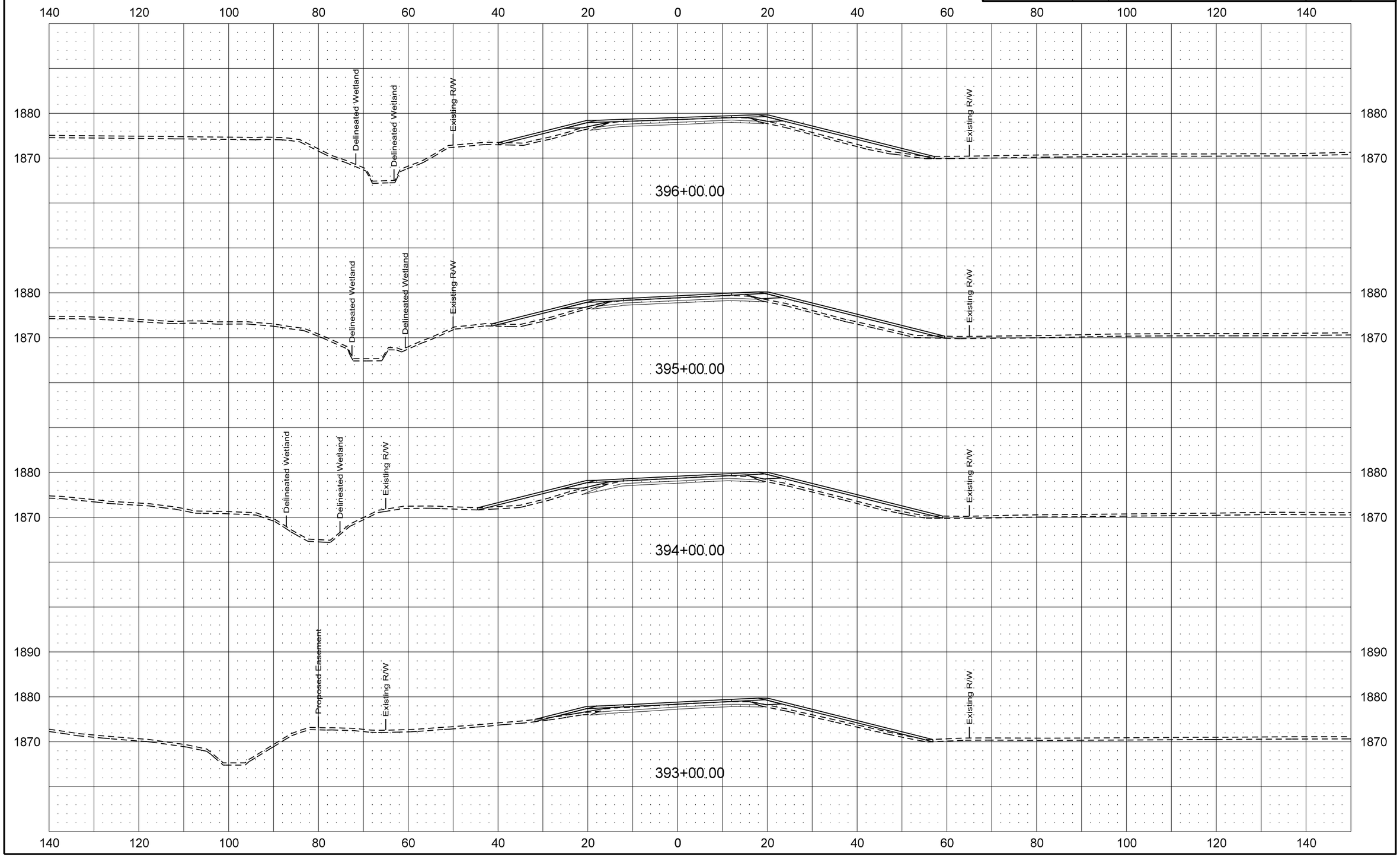

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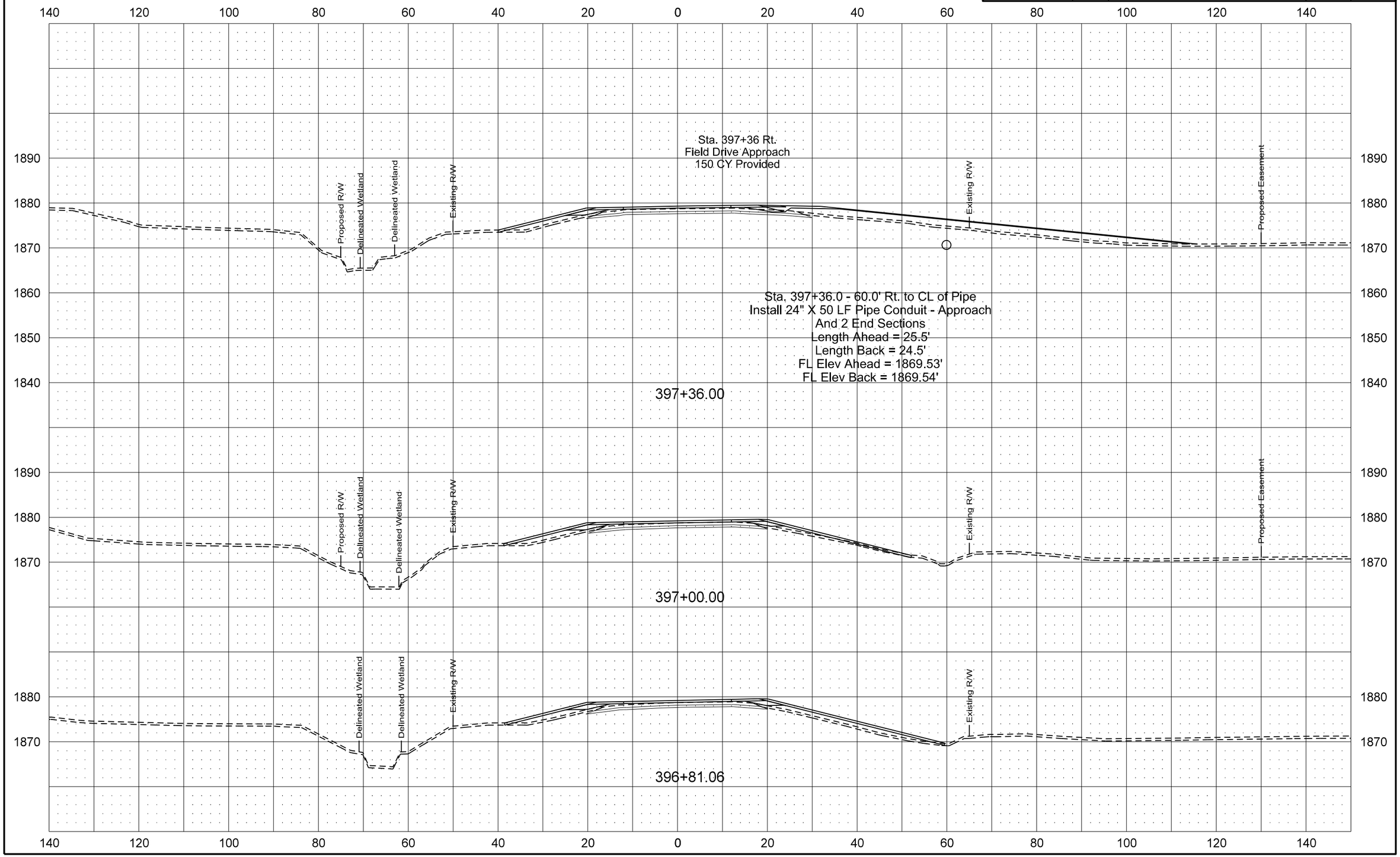

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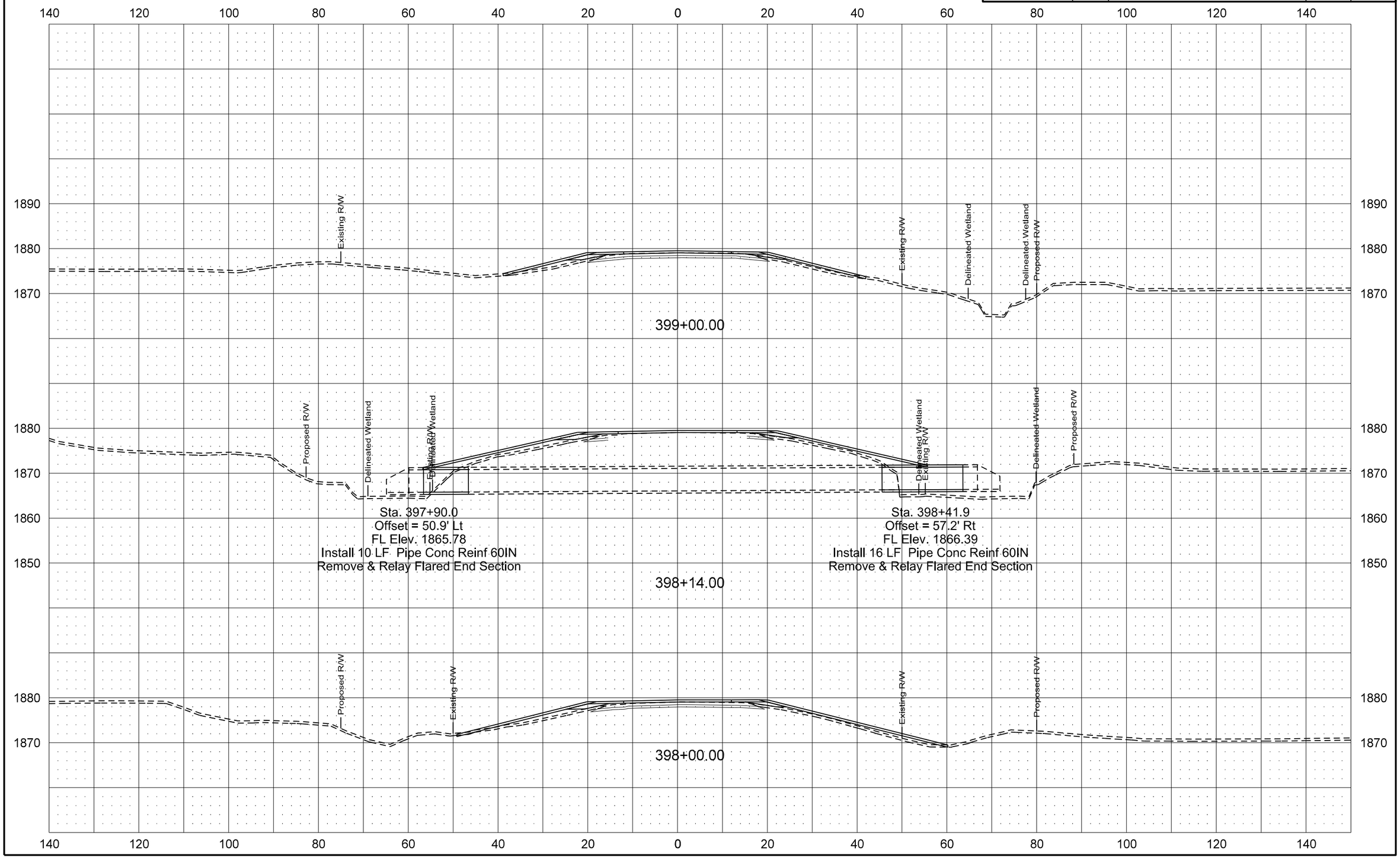

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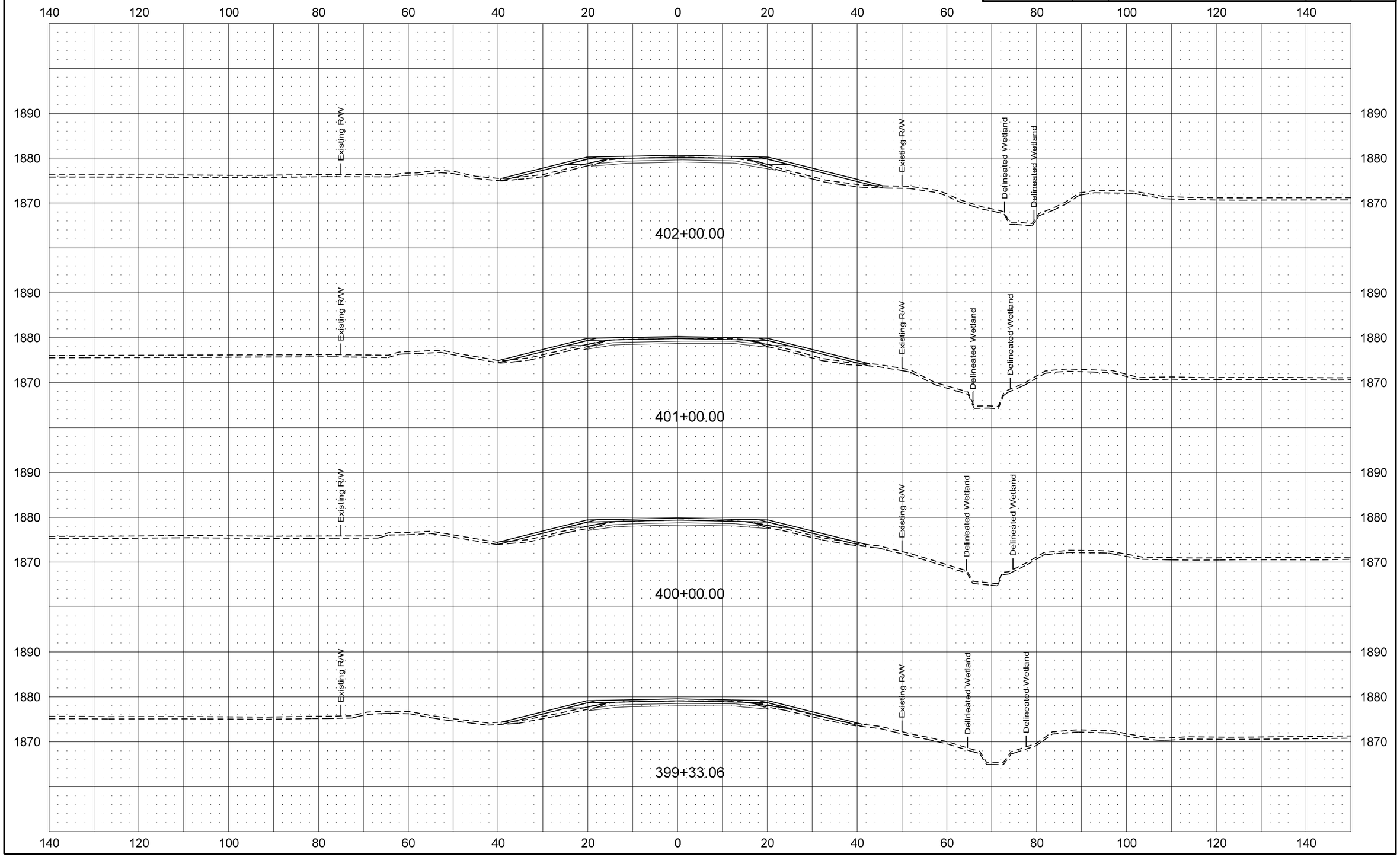

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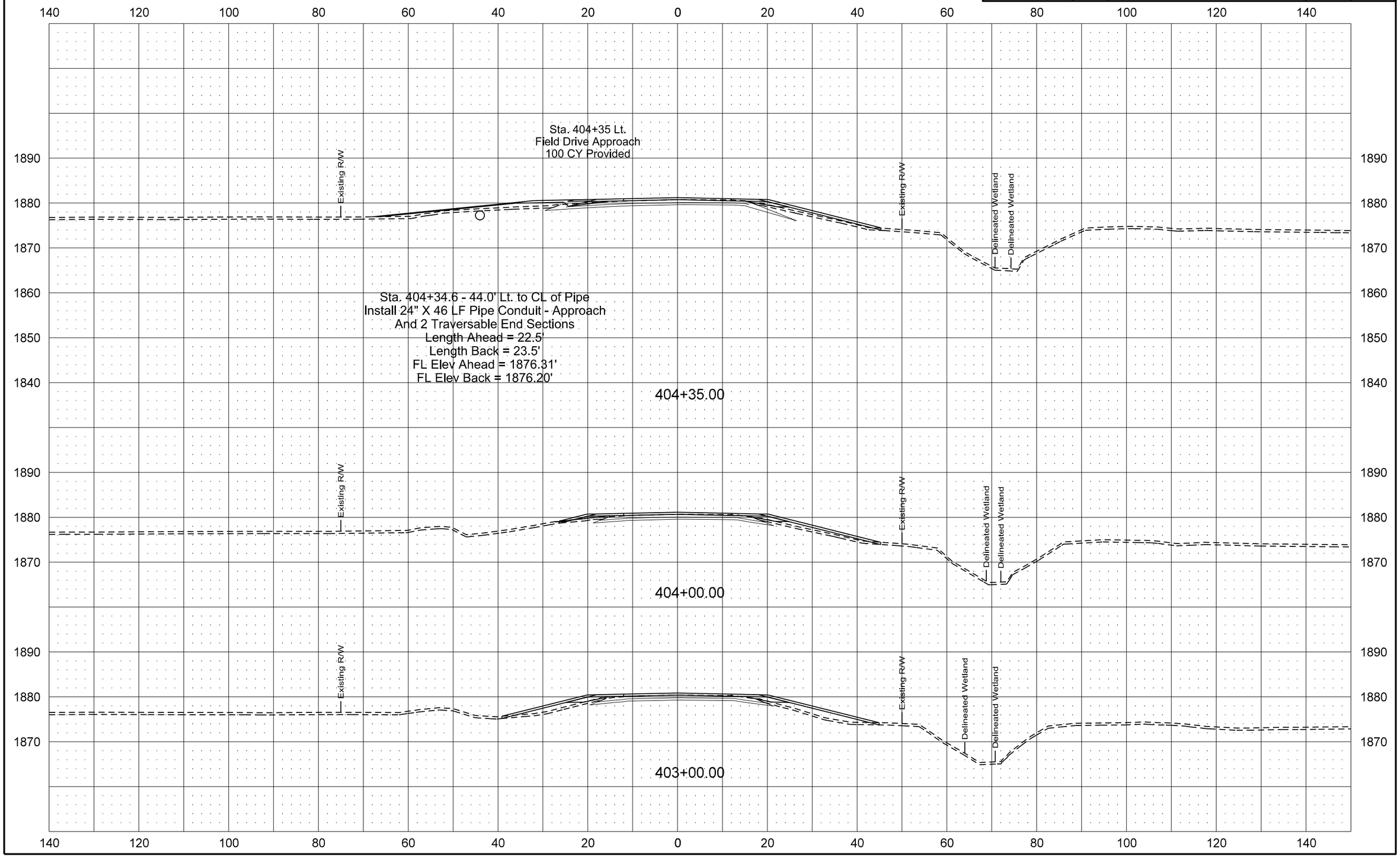

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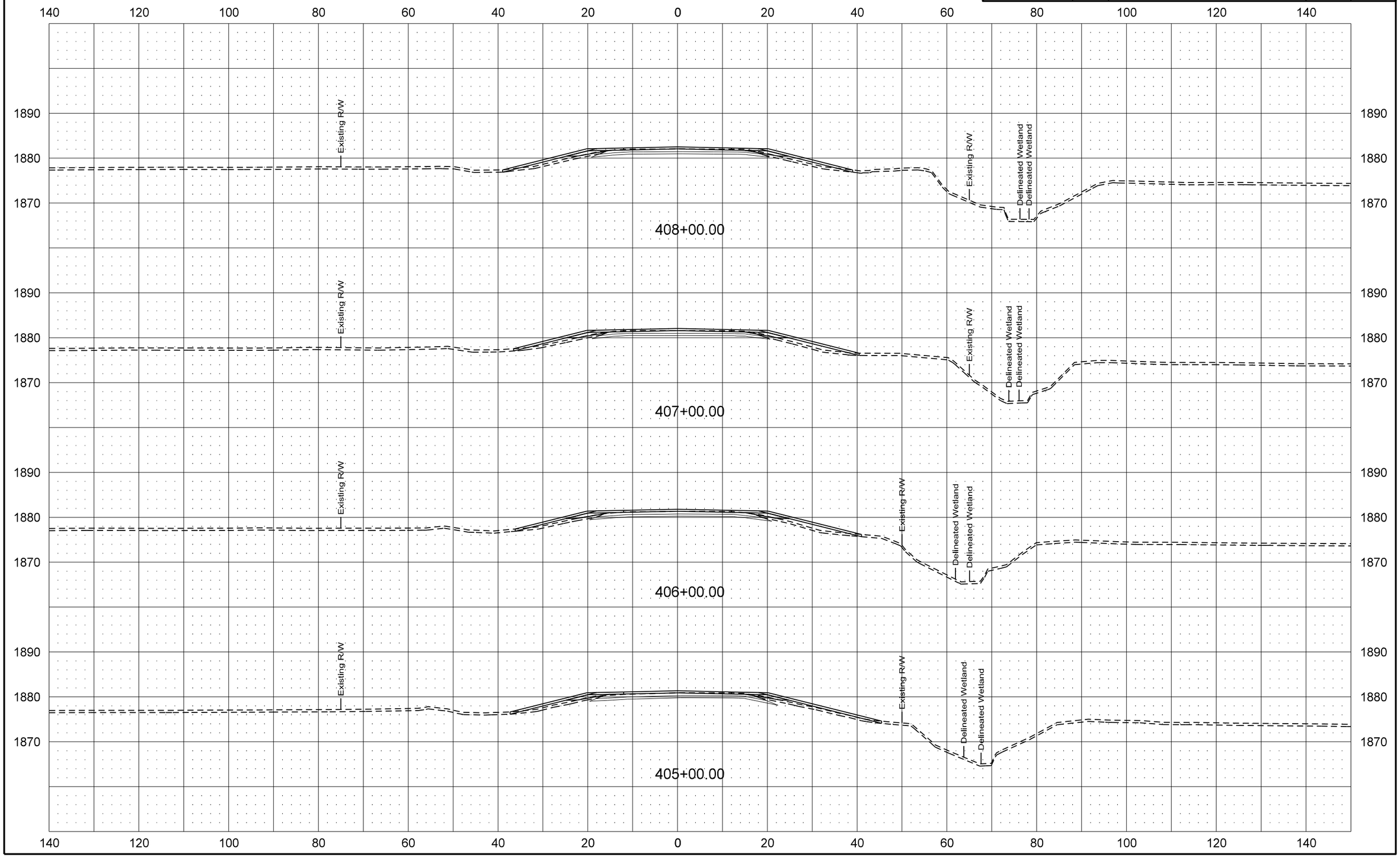

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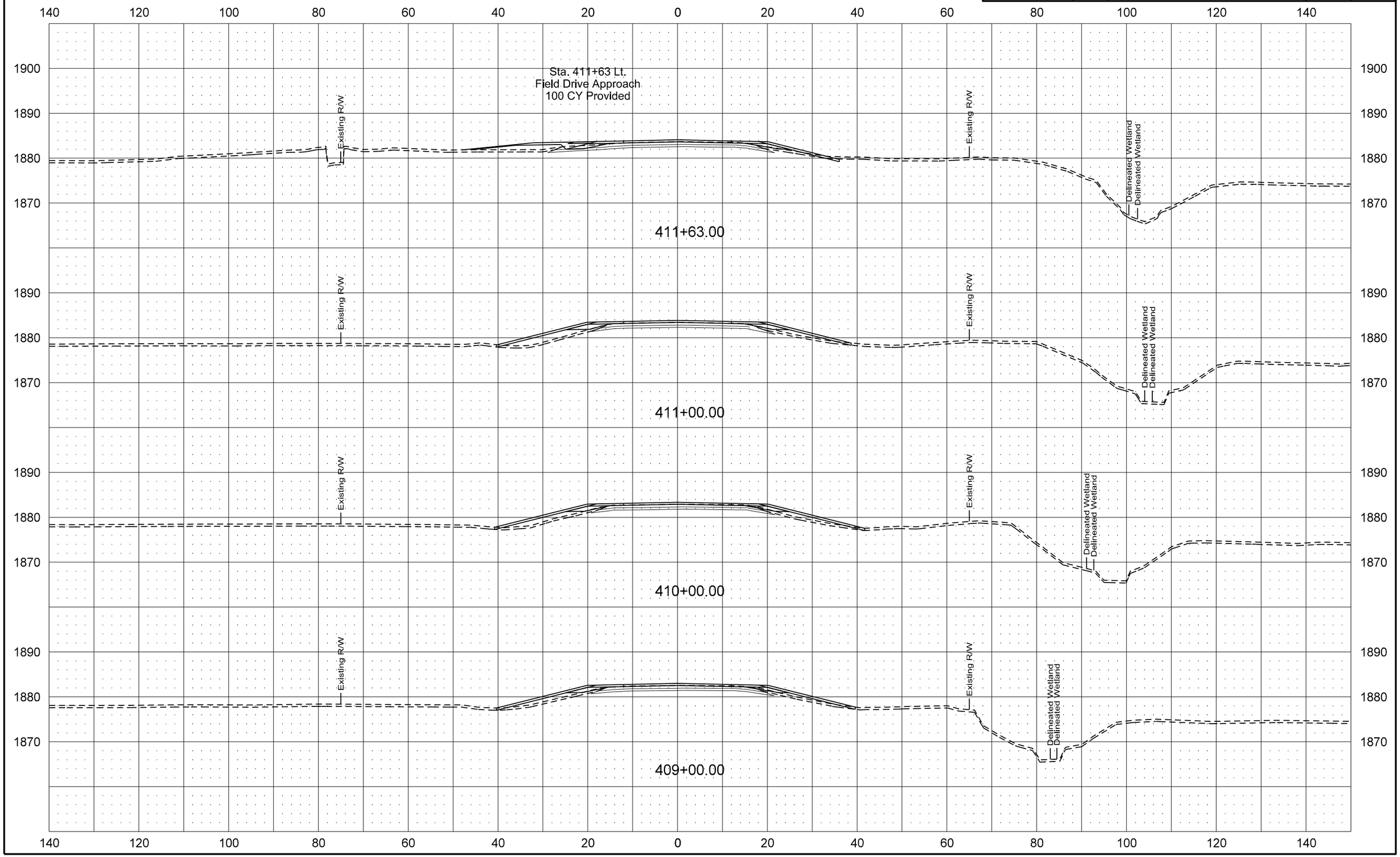

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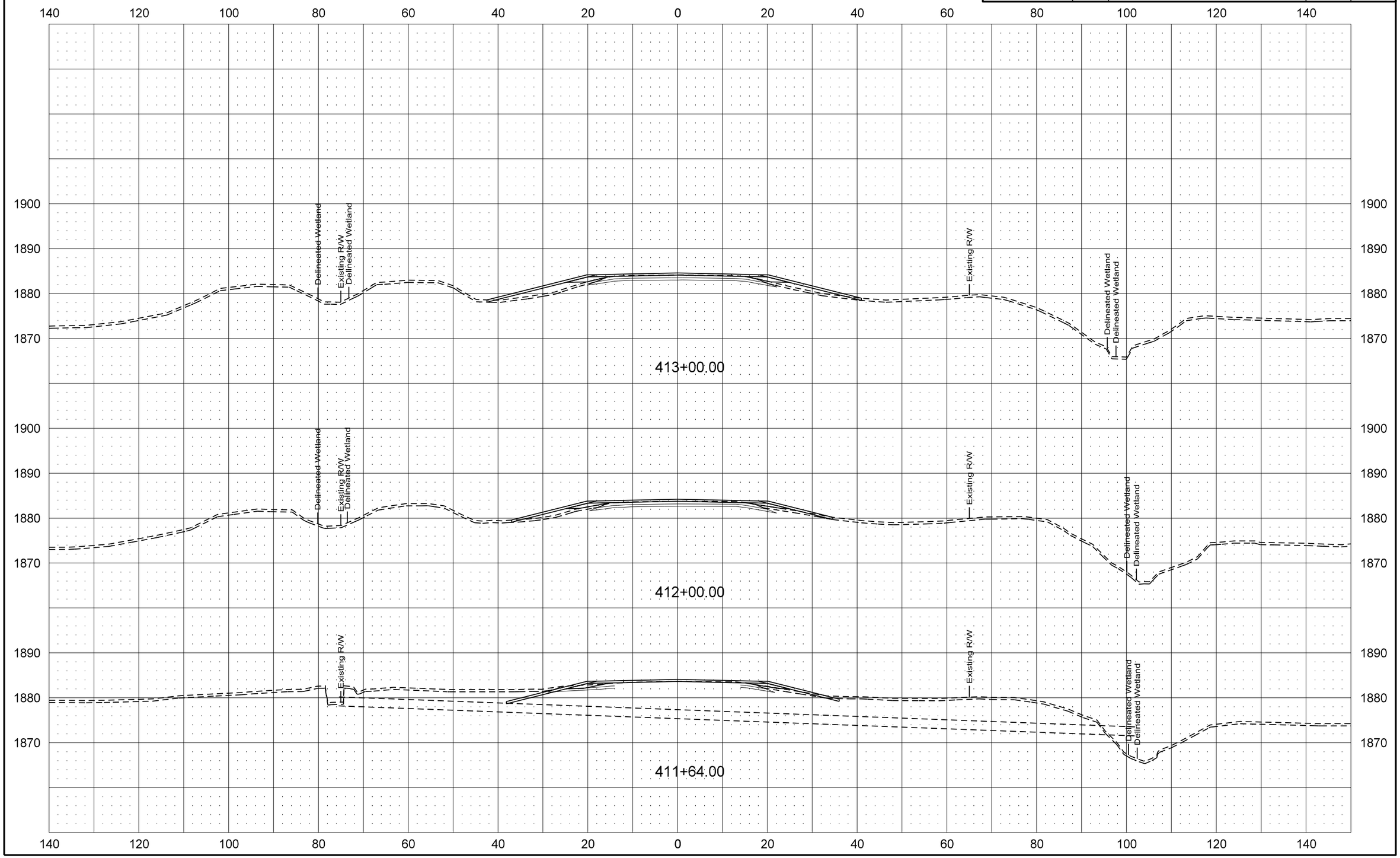

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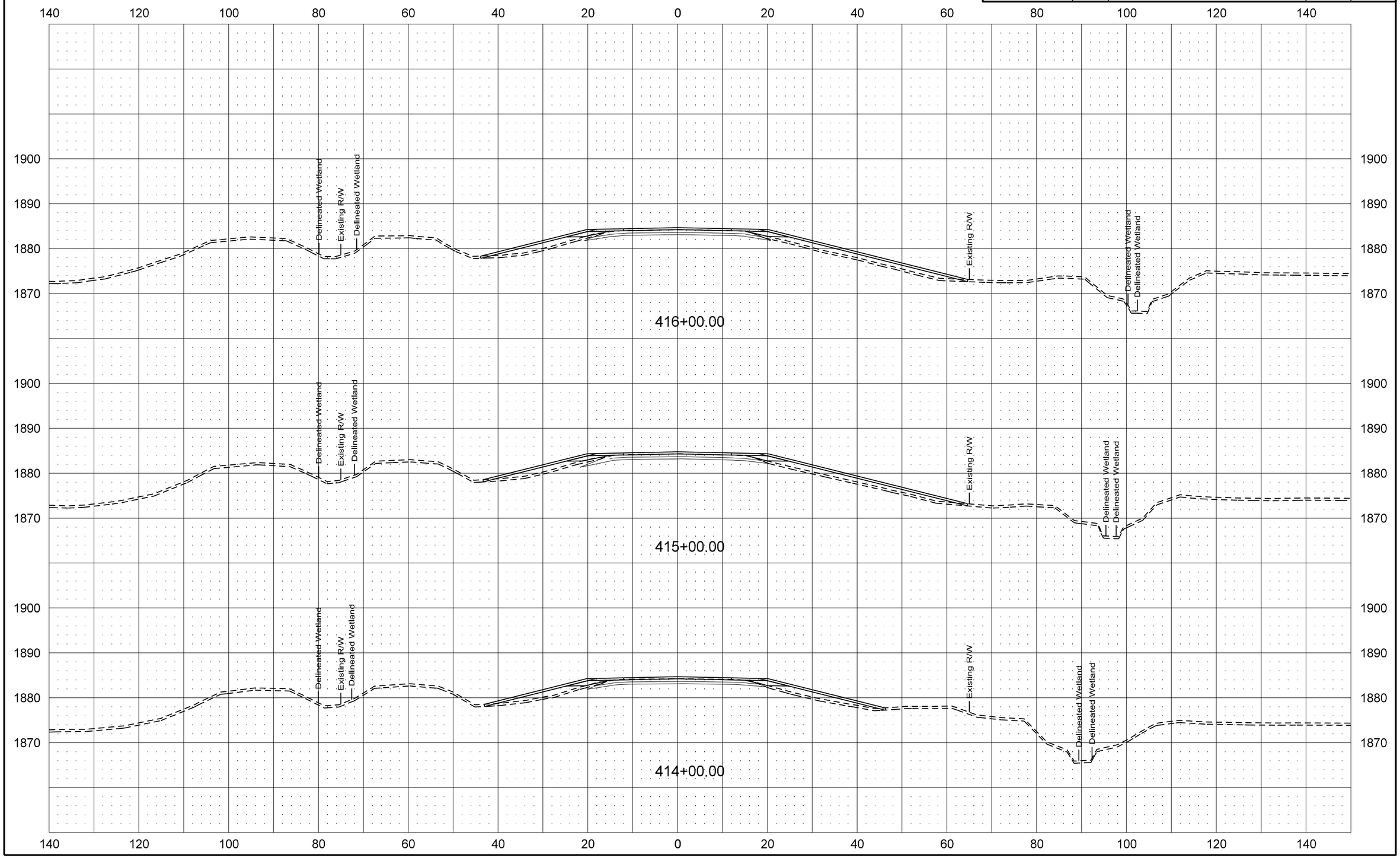

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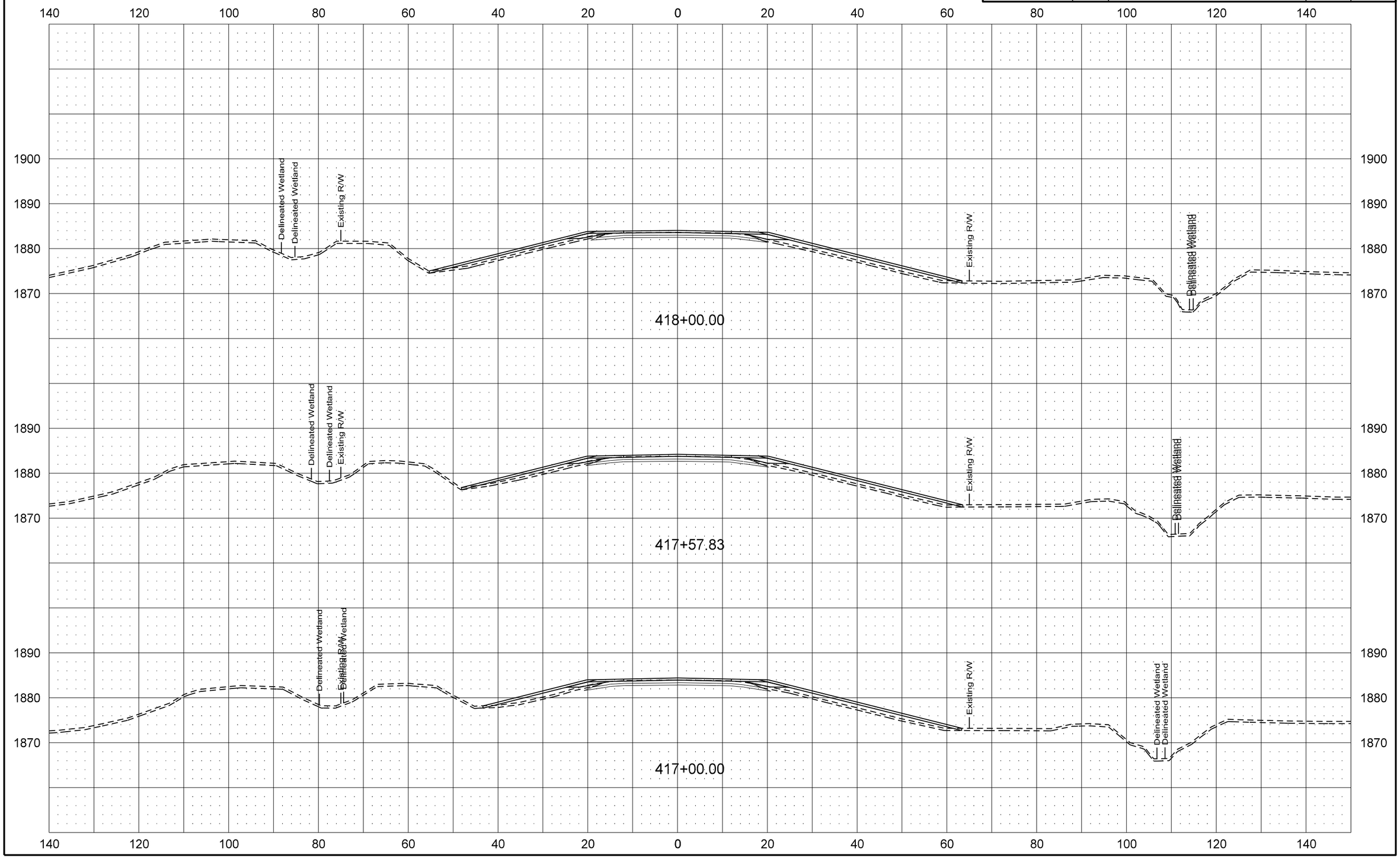

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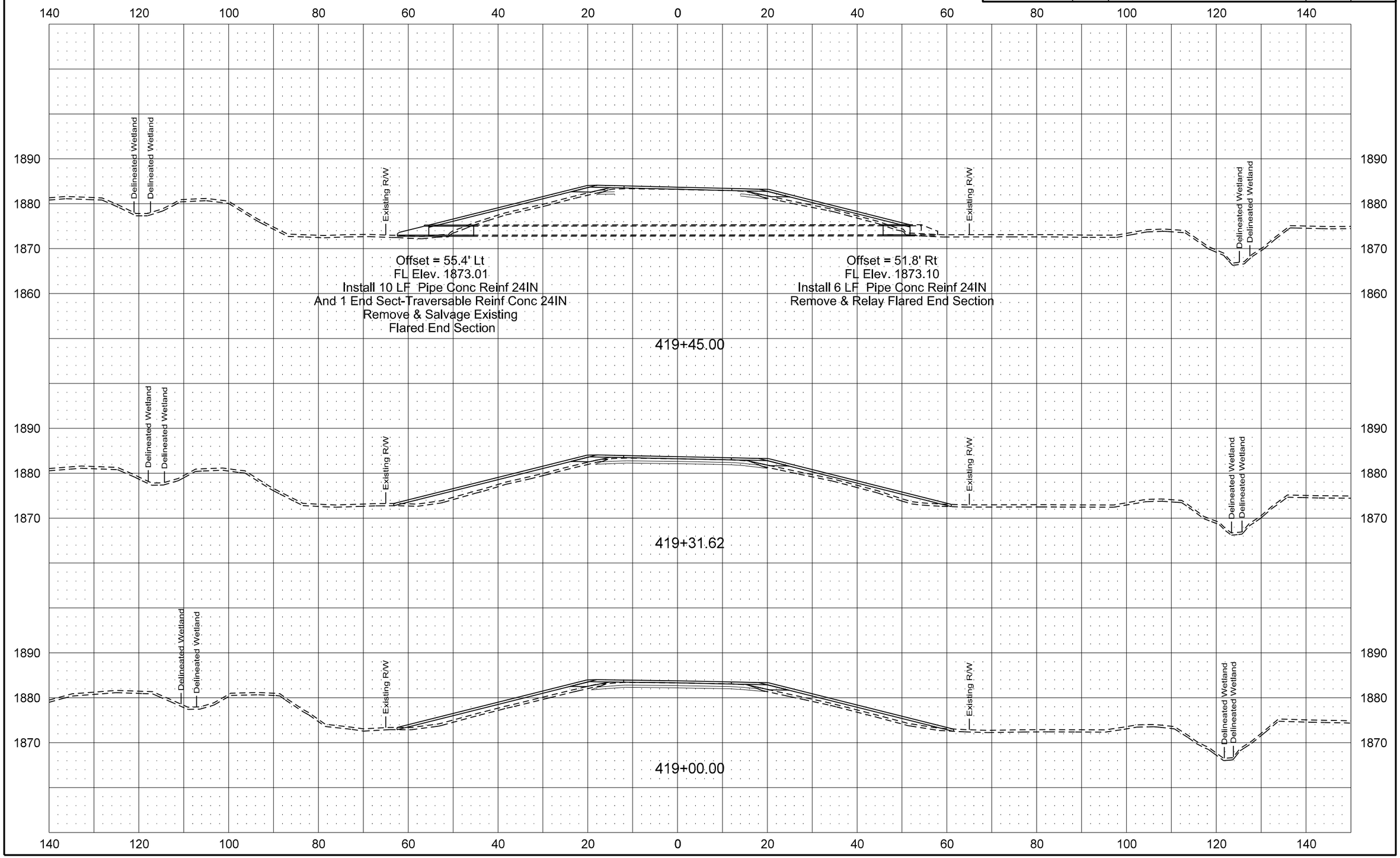

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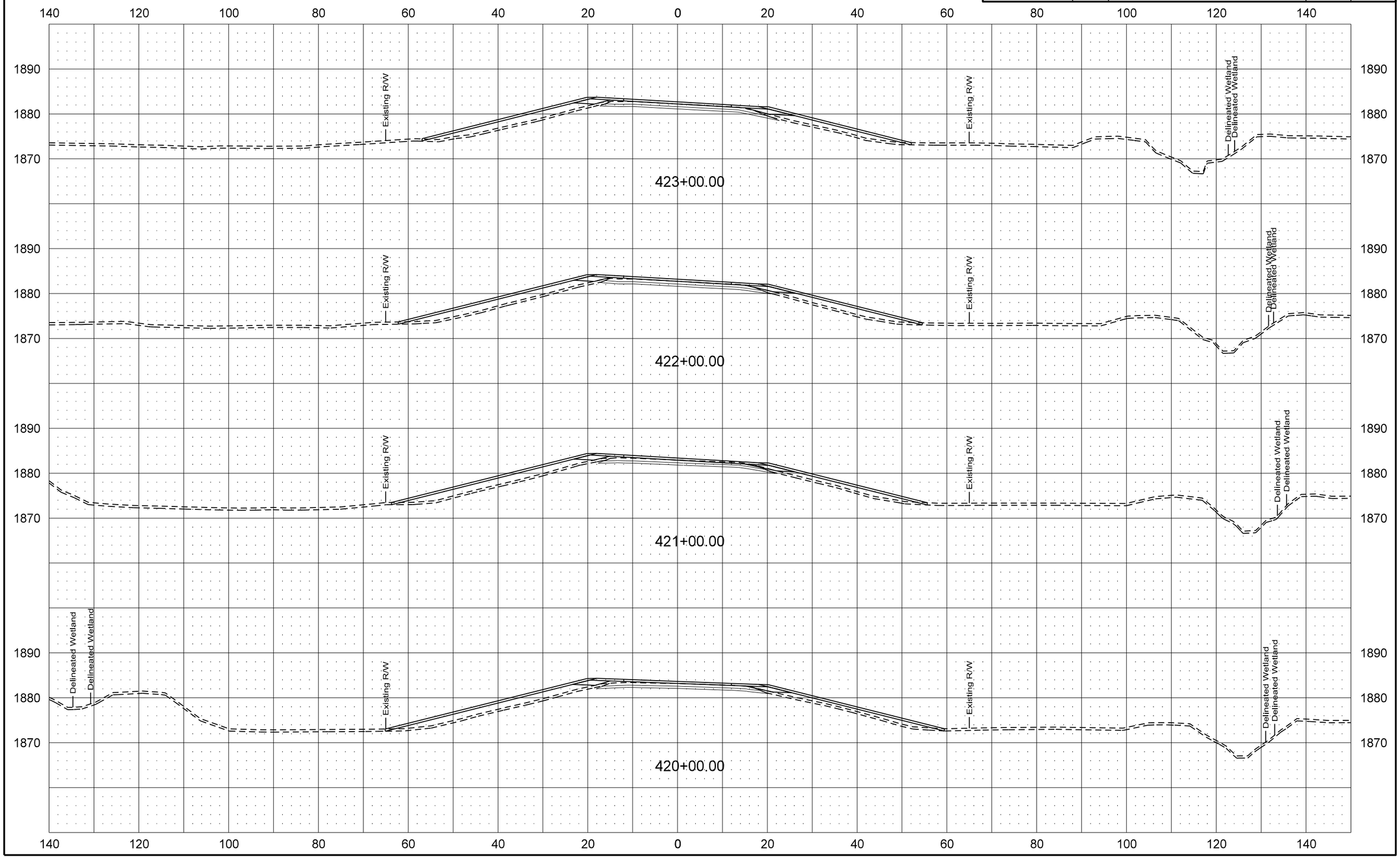

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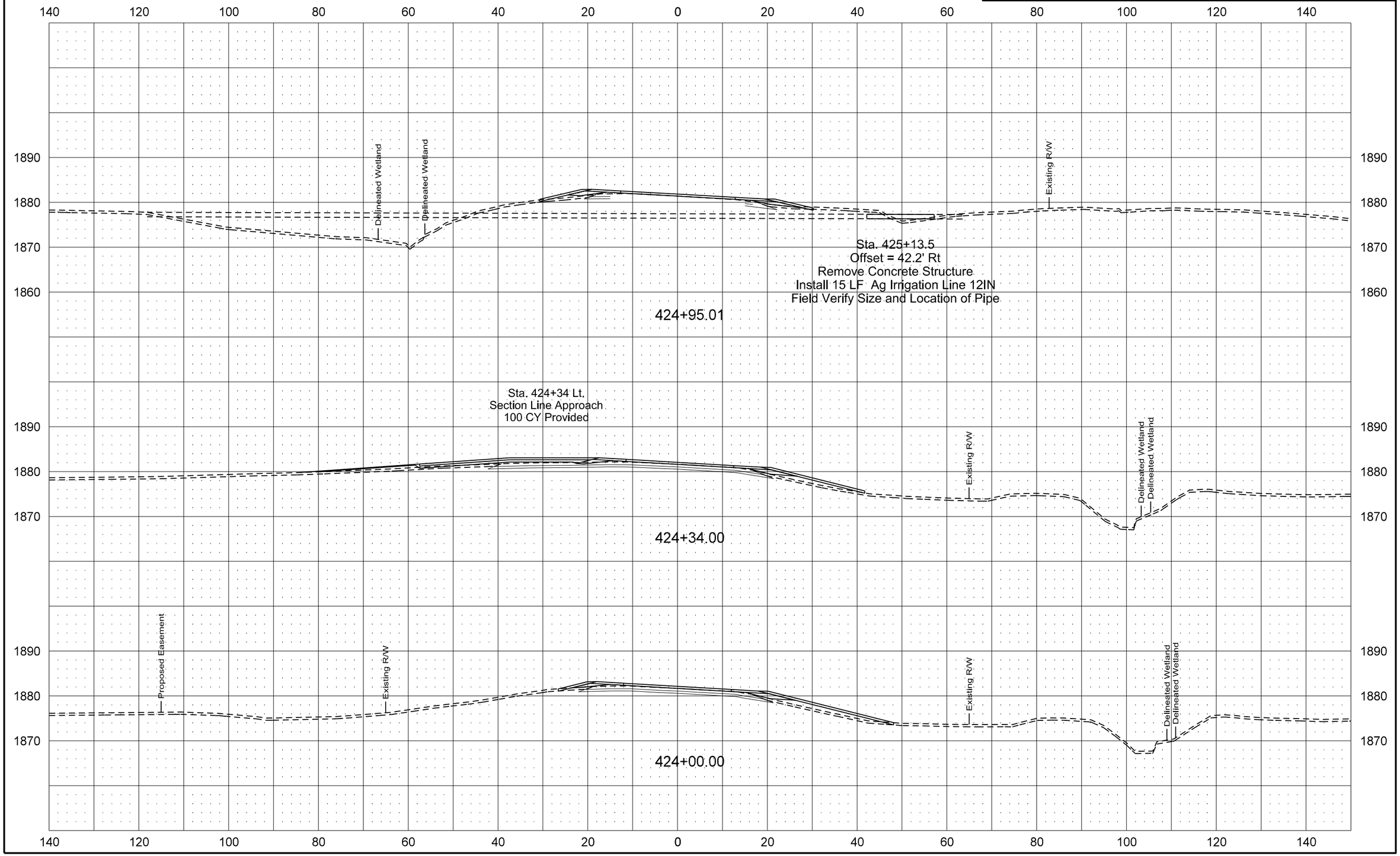

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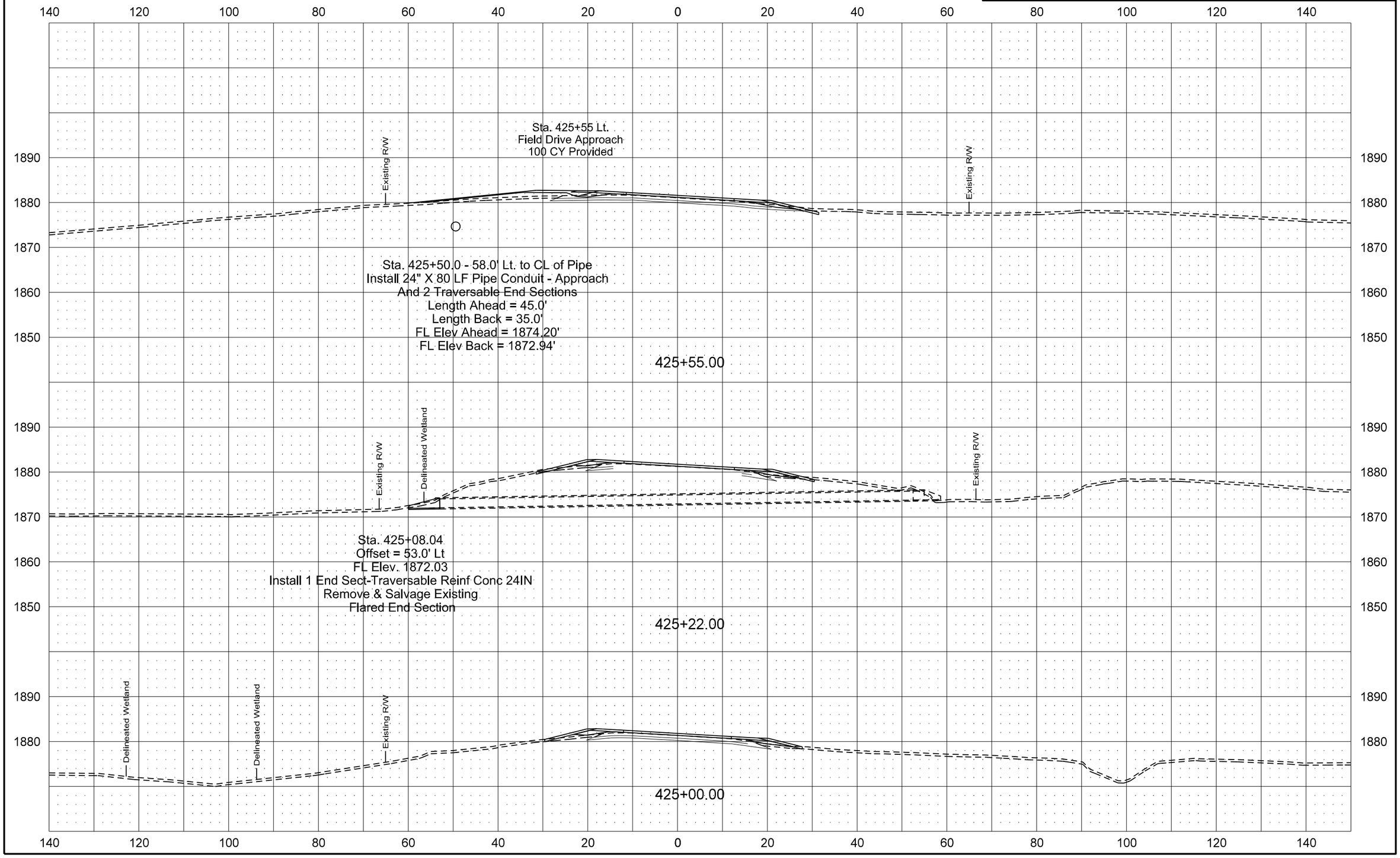

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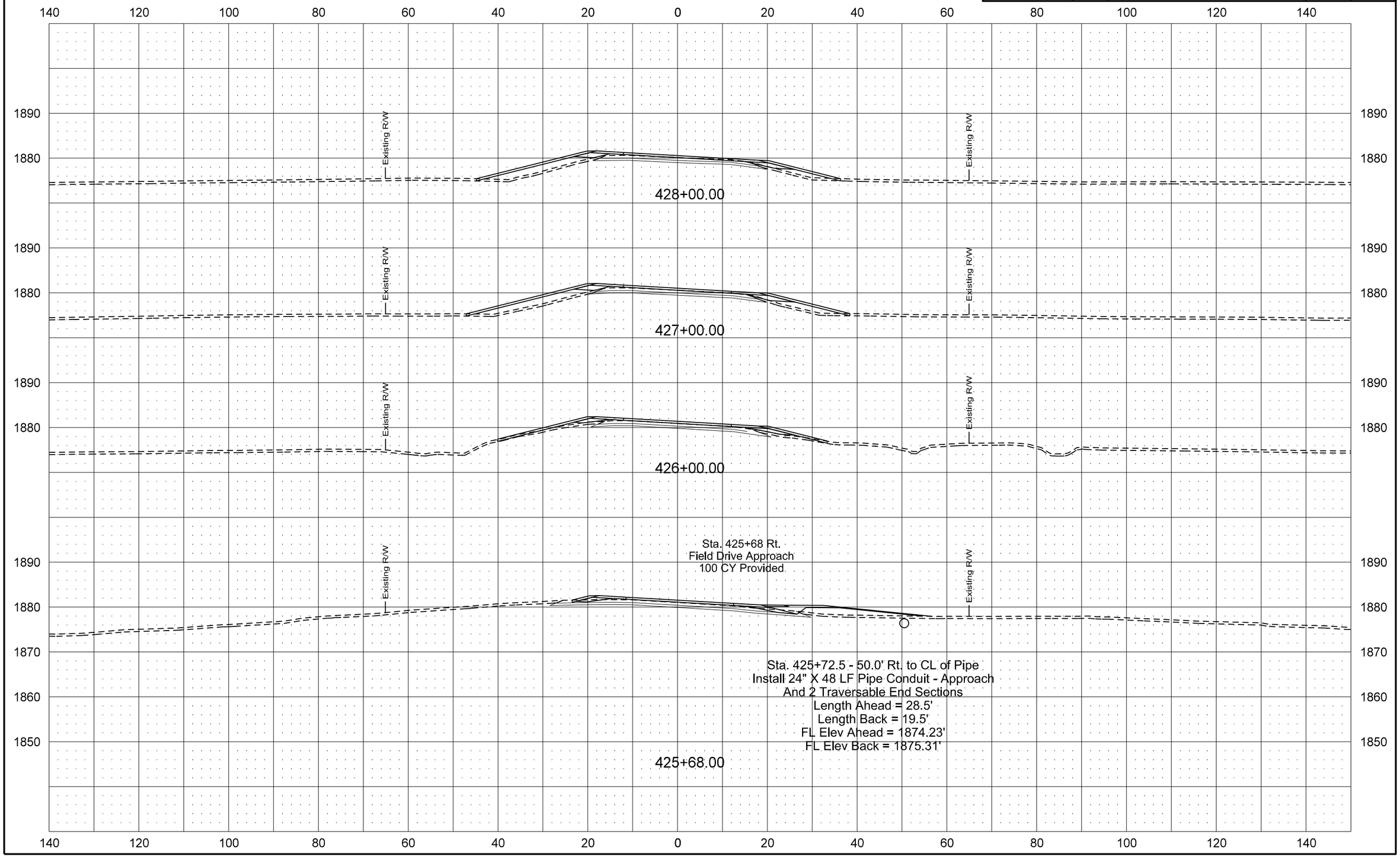

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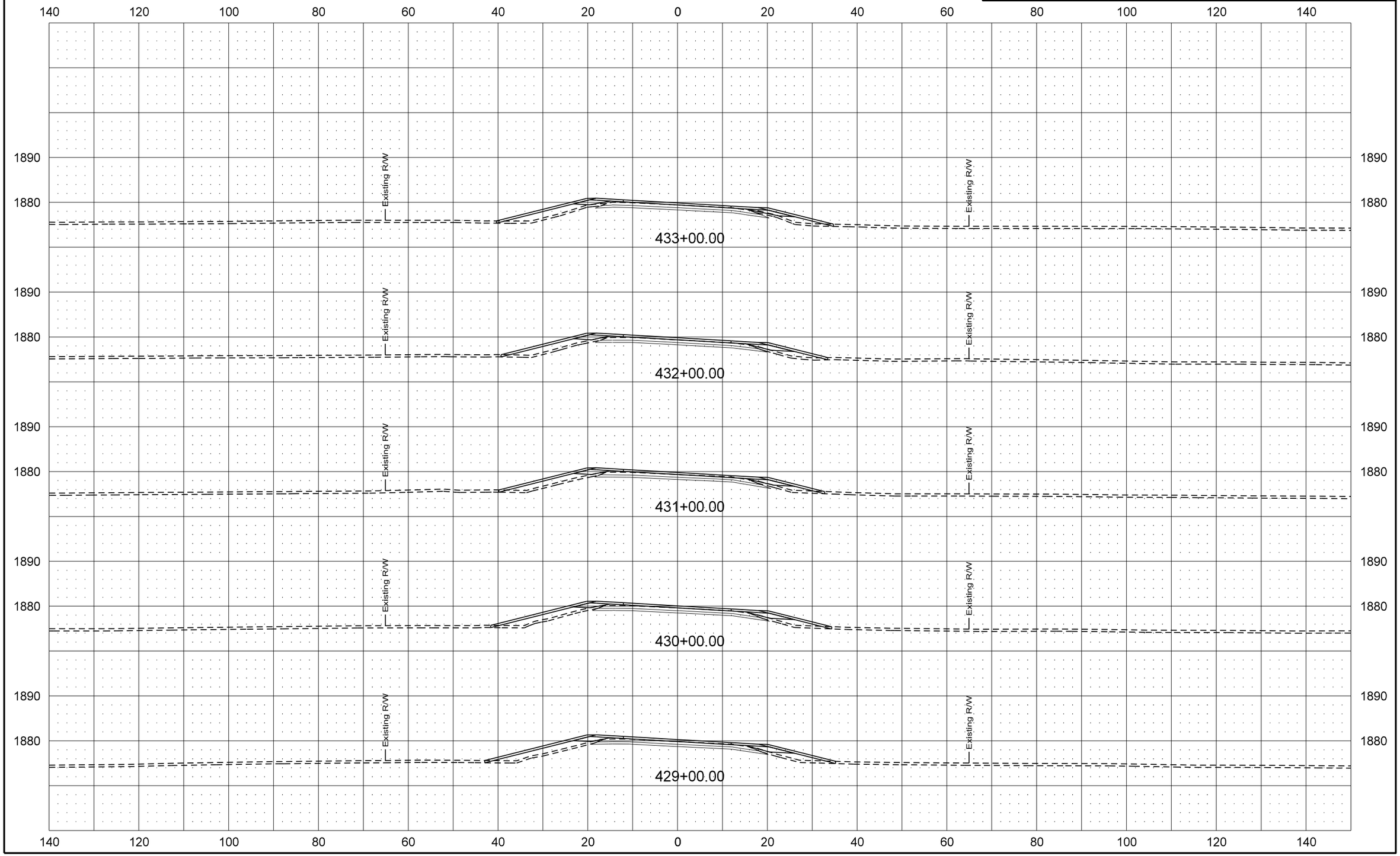

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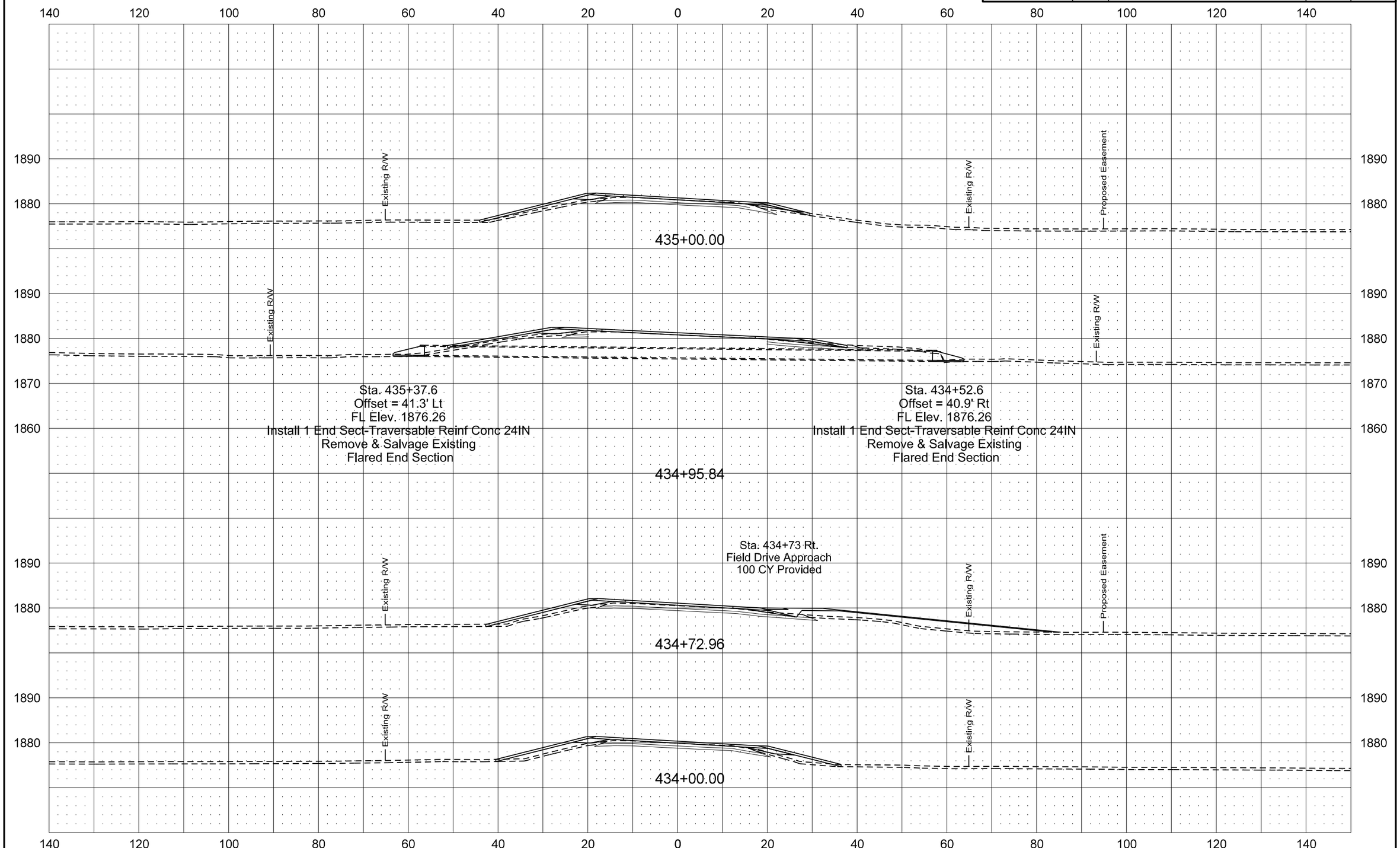

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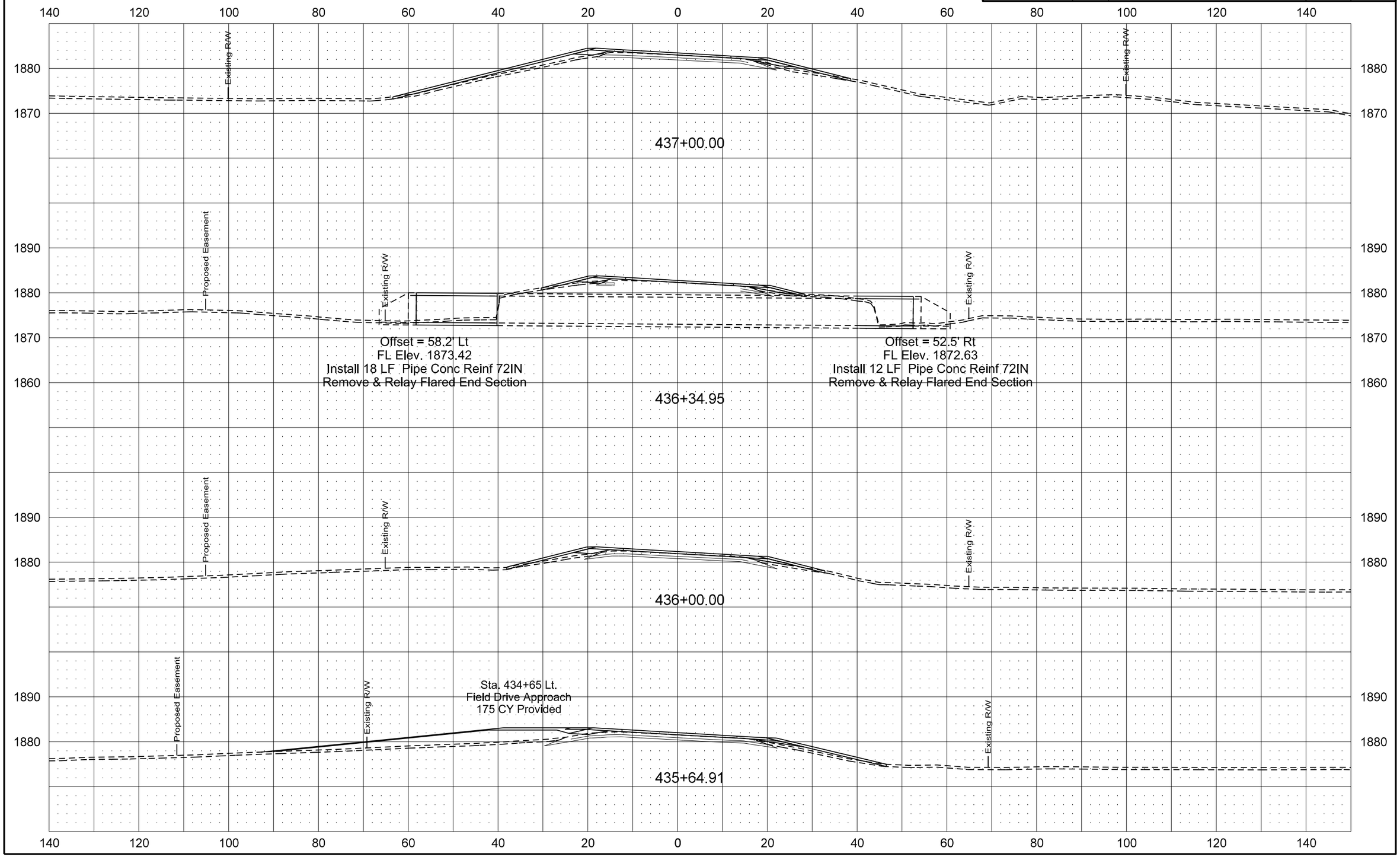

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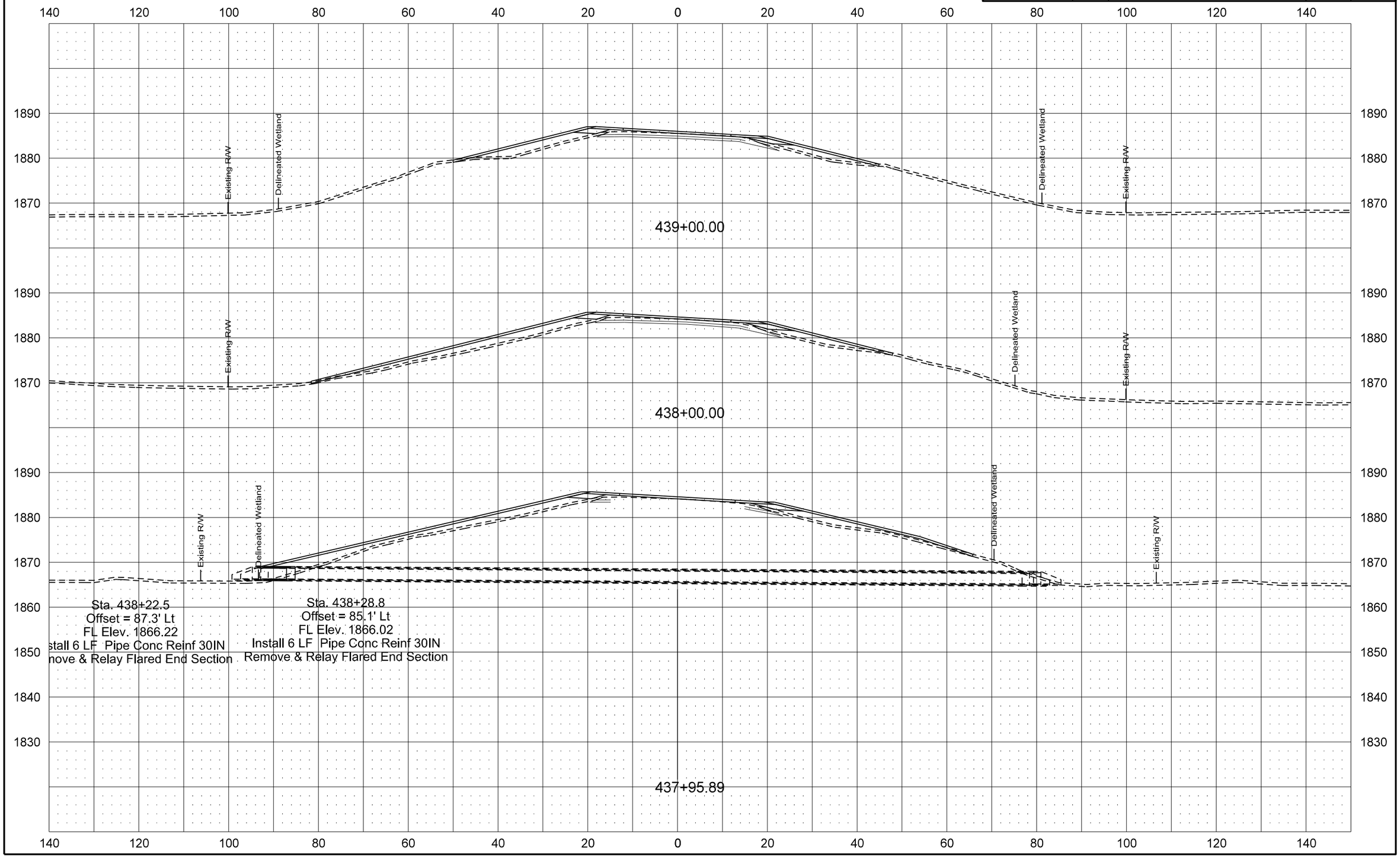

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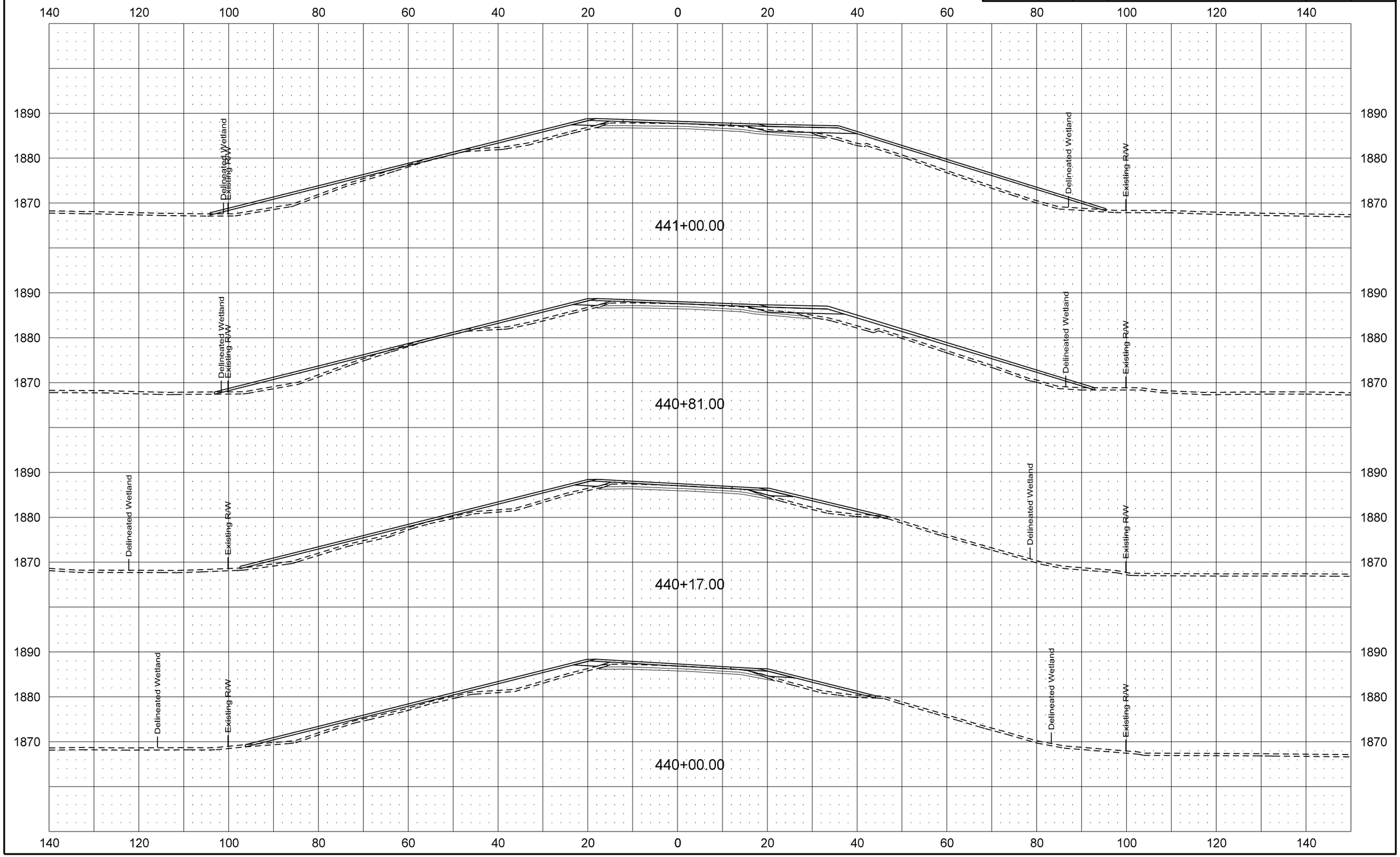

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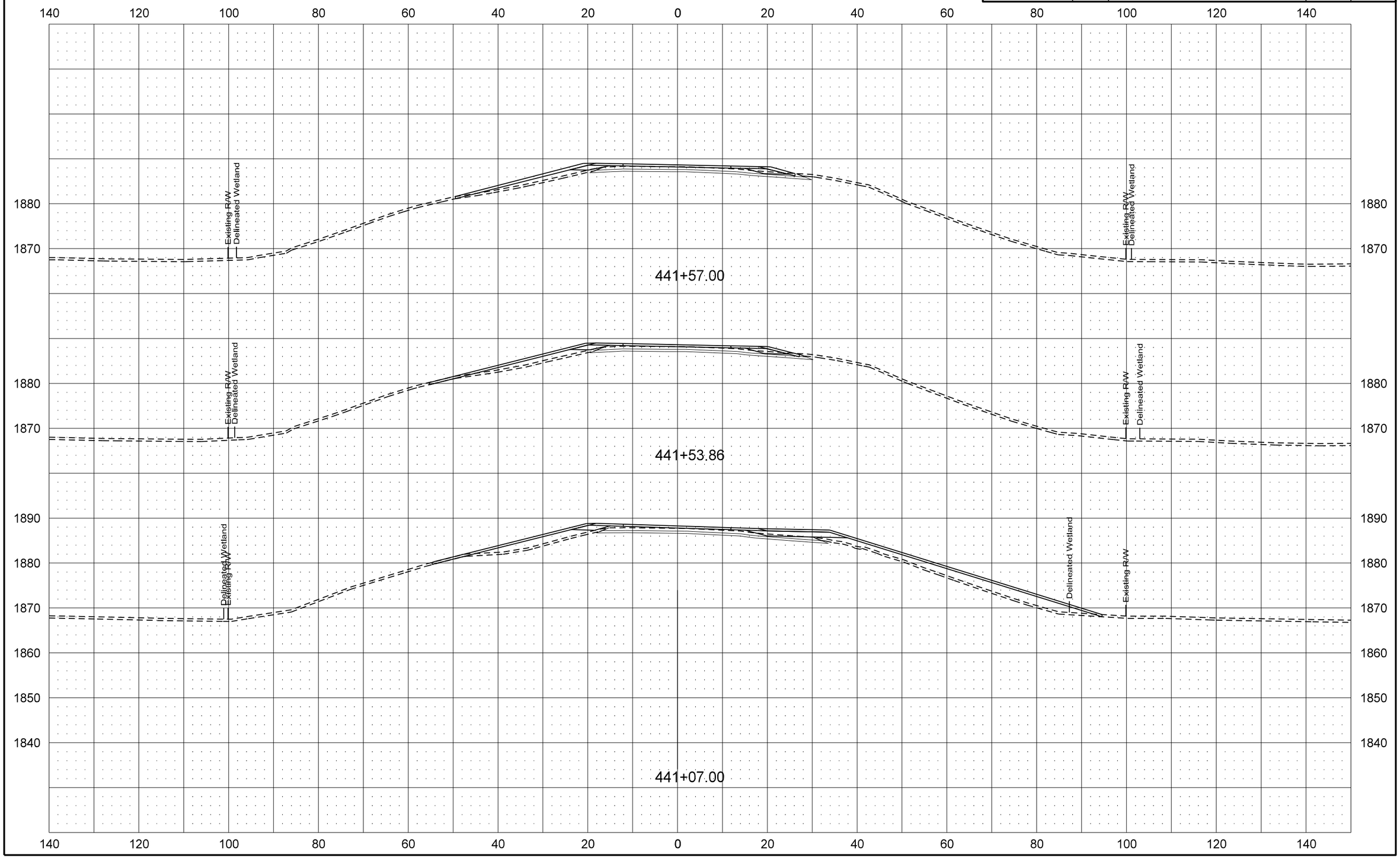

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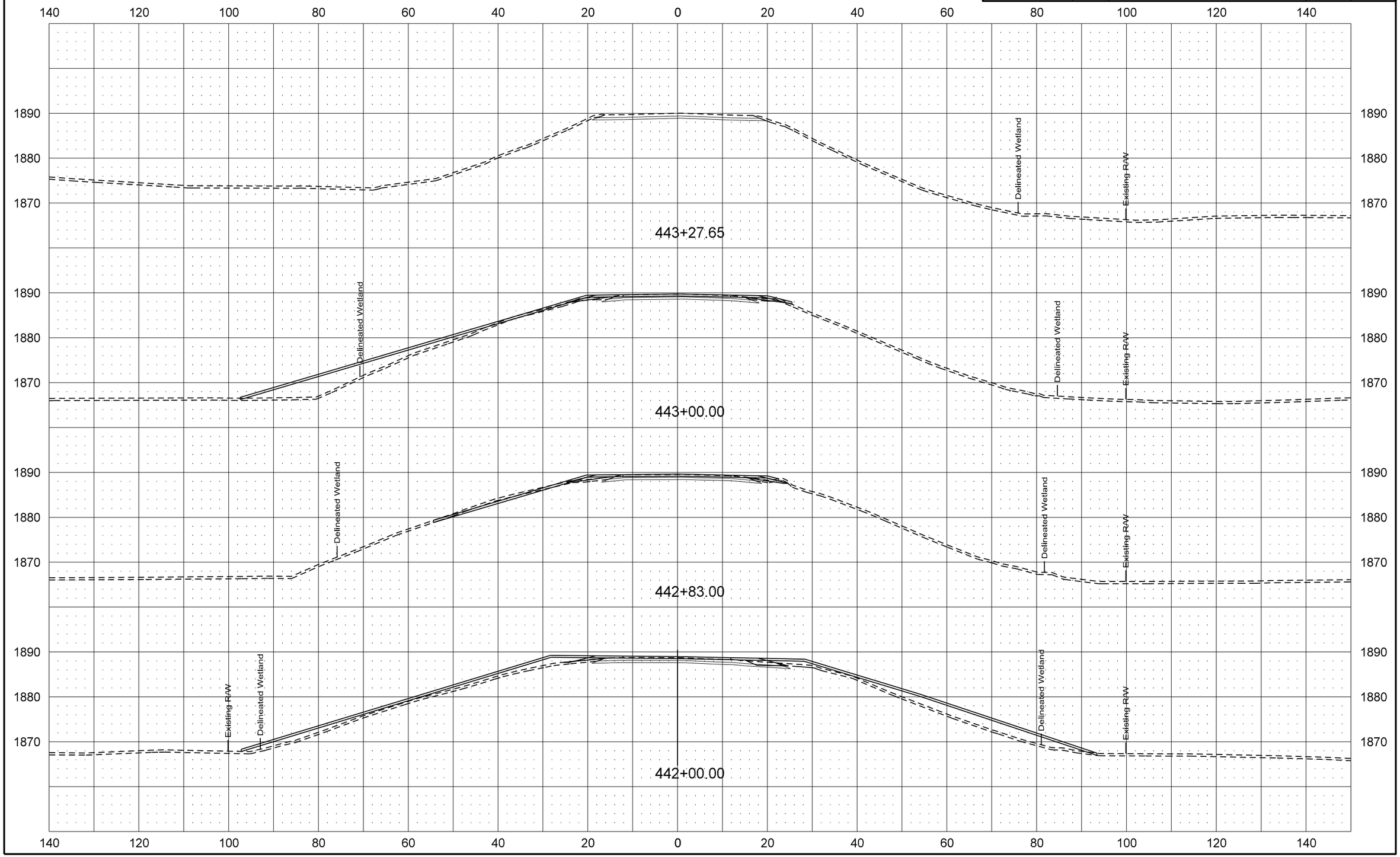

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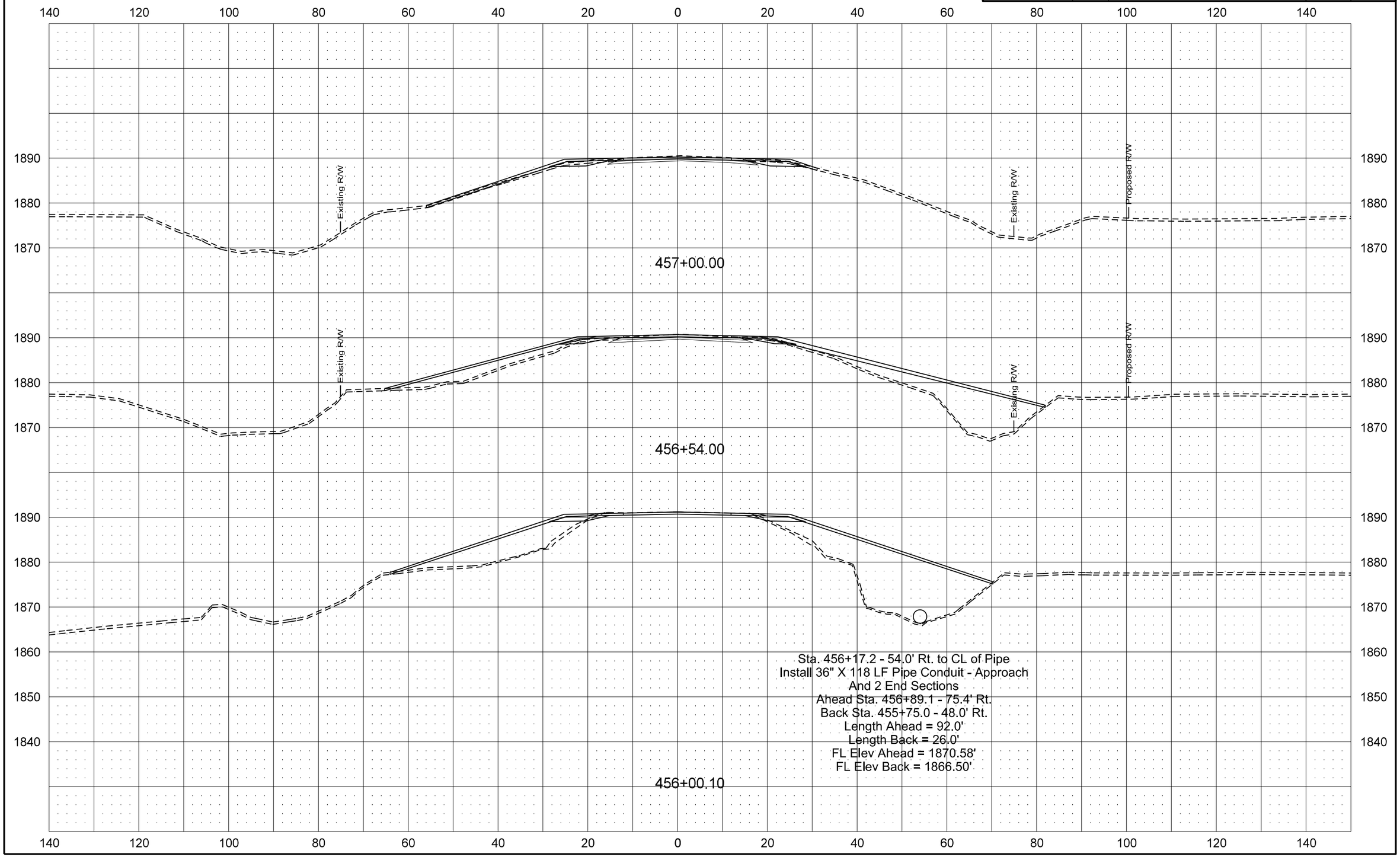

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
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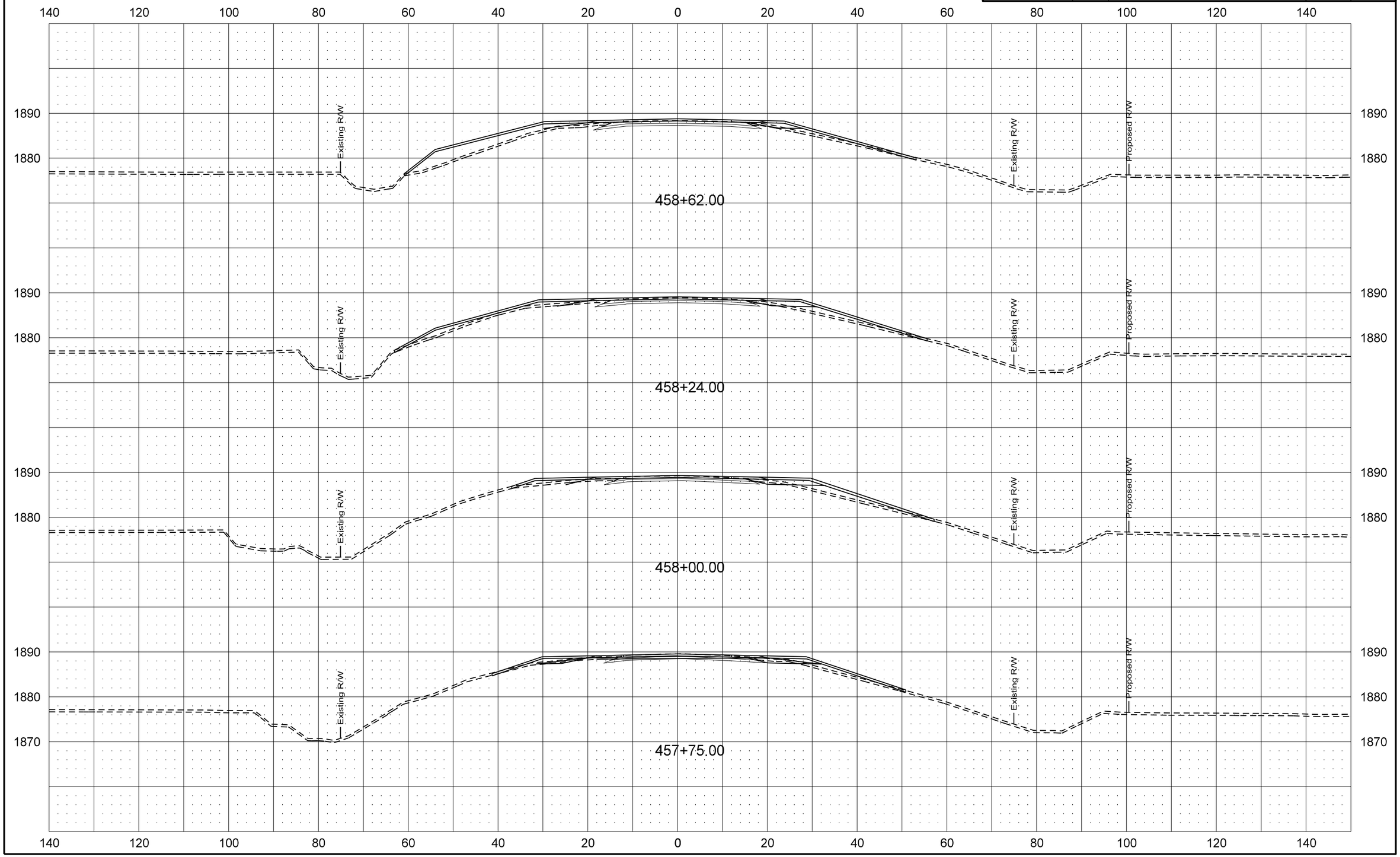

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
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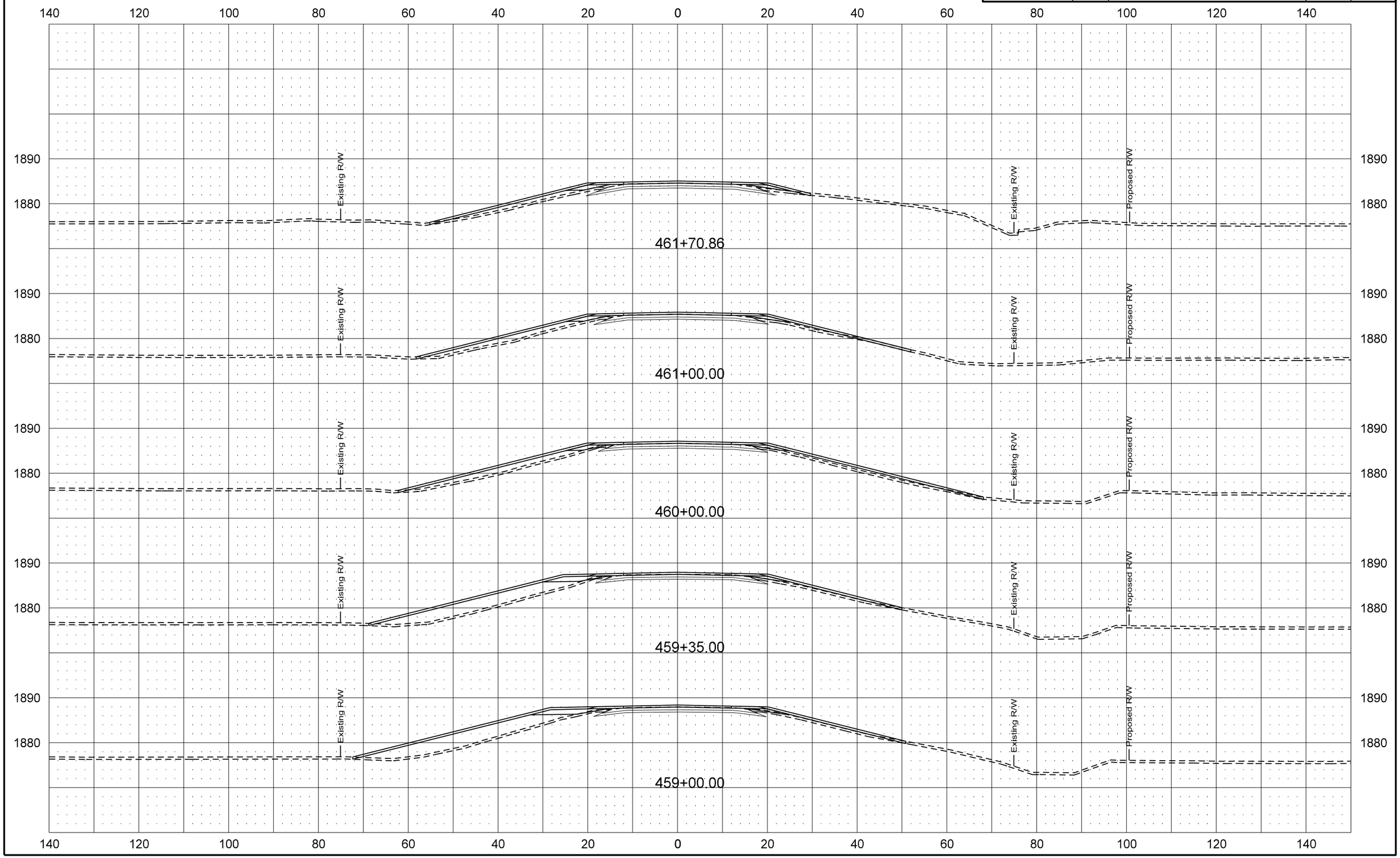

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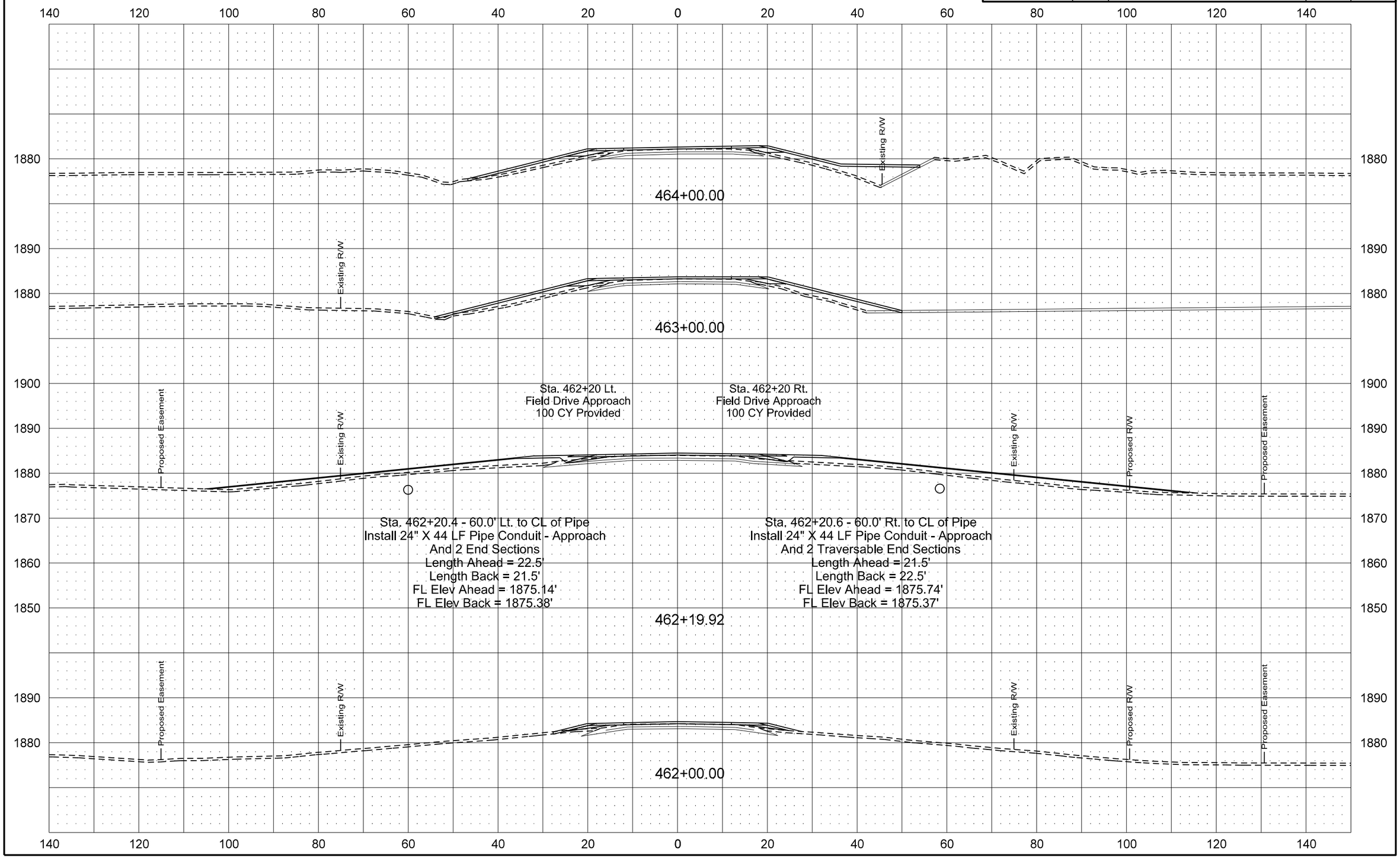


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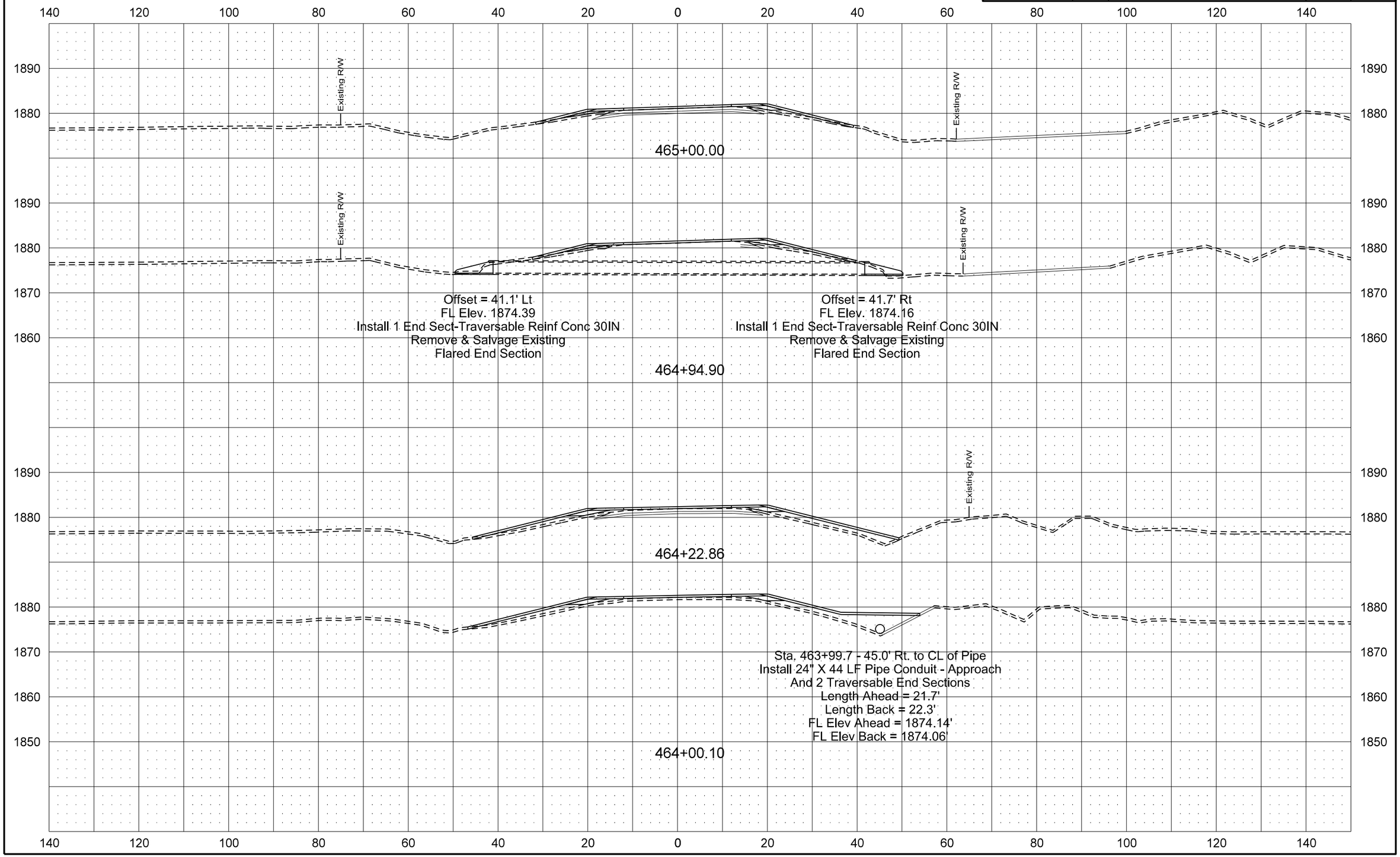

| Revised 1/20/16 | STATE | PROJECT NO. | SECTION NO. | SHEET NO. |
|---|---|---|---|---|
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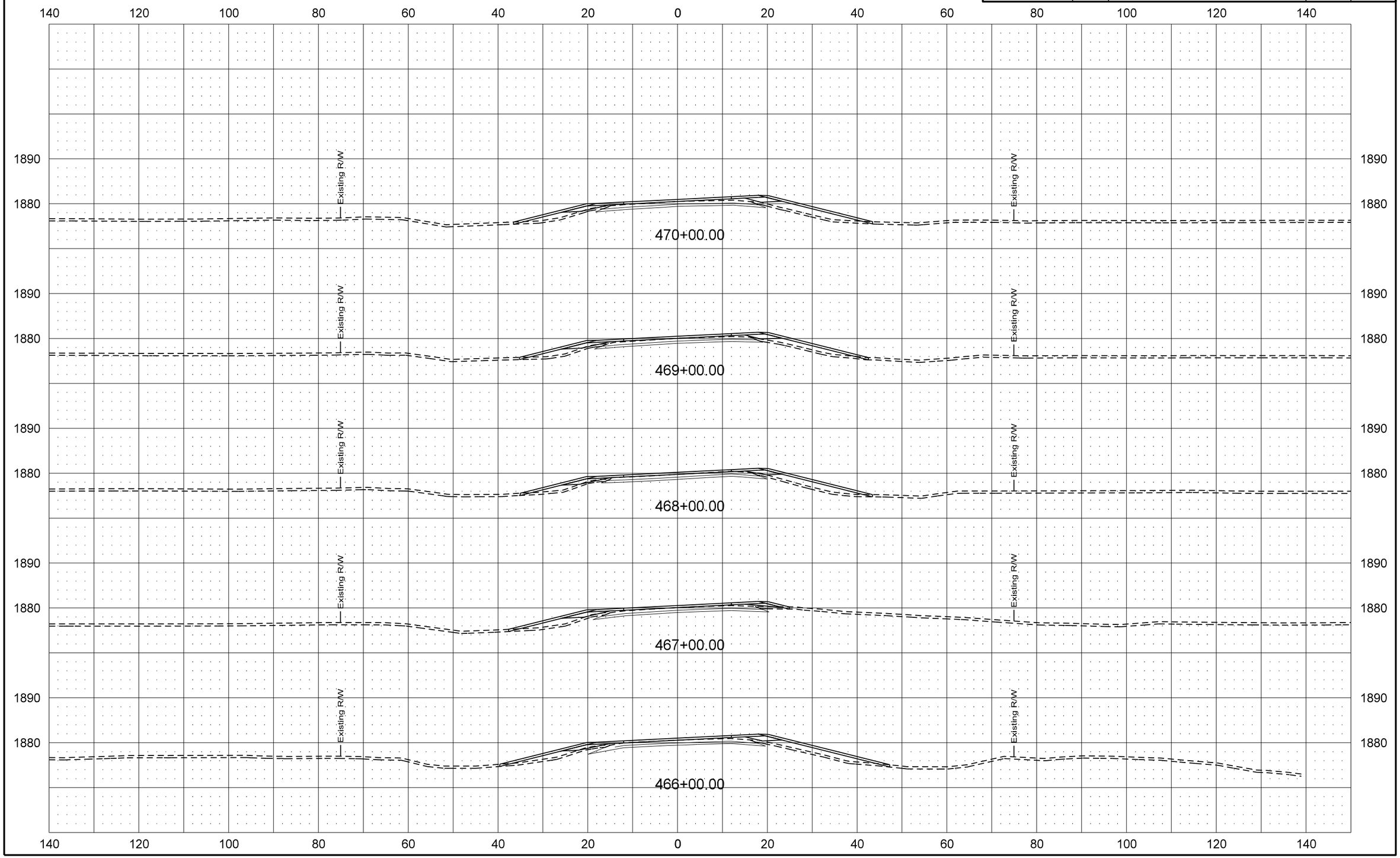

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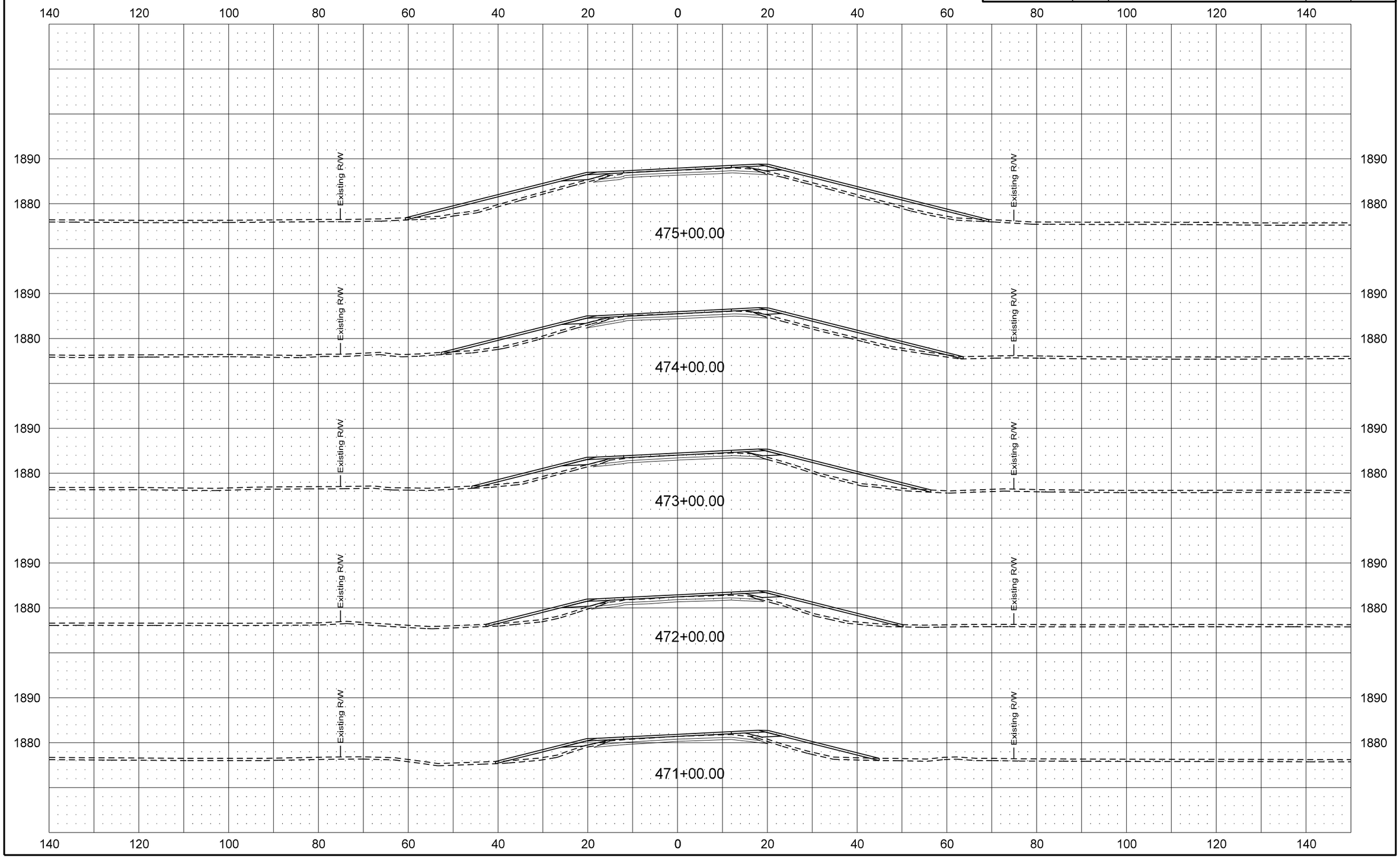

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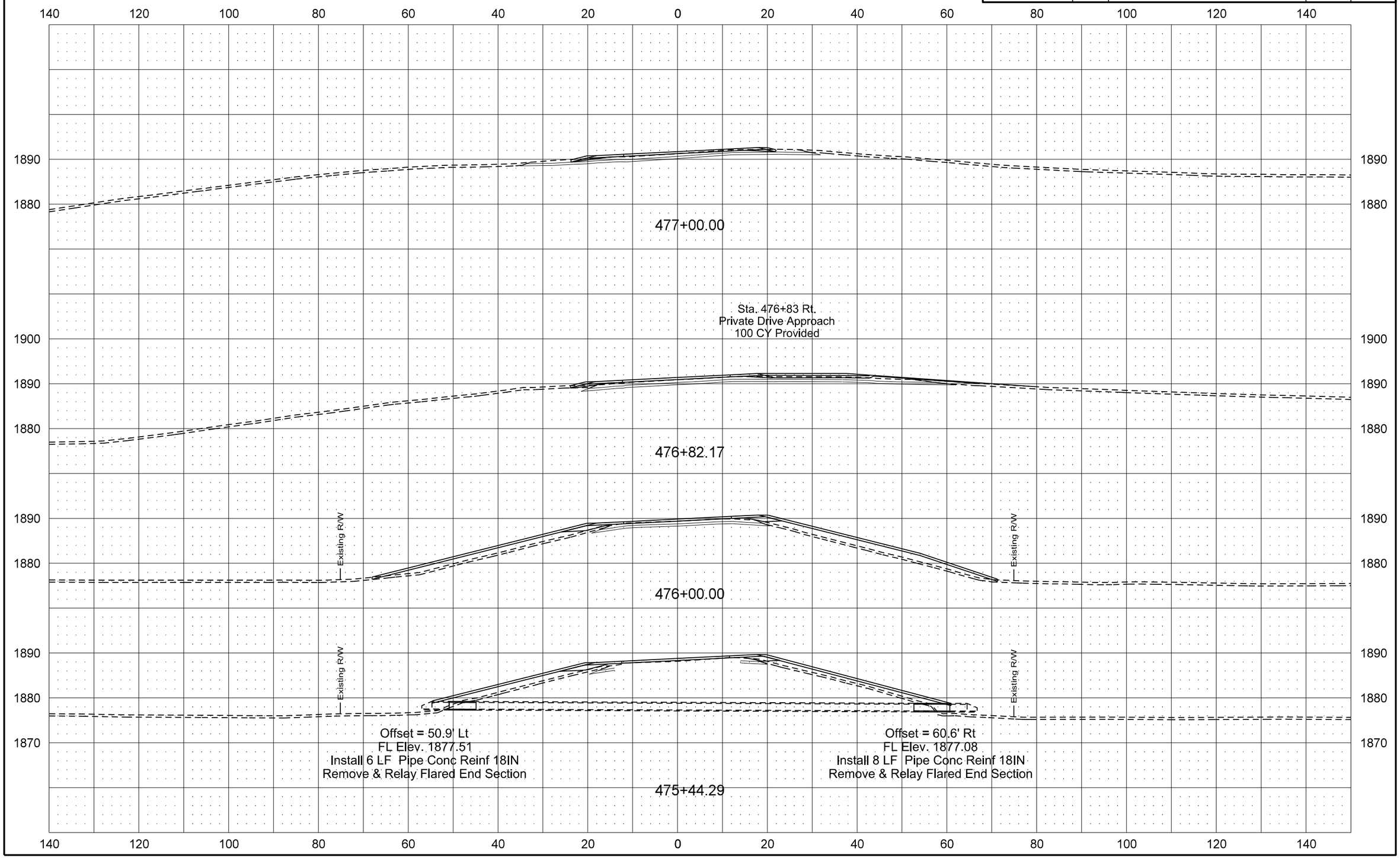

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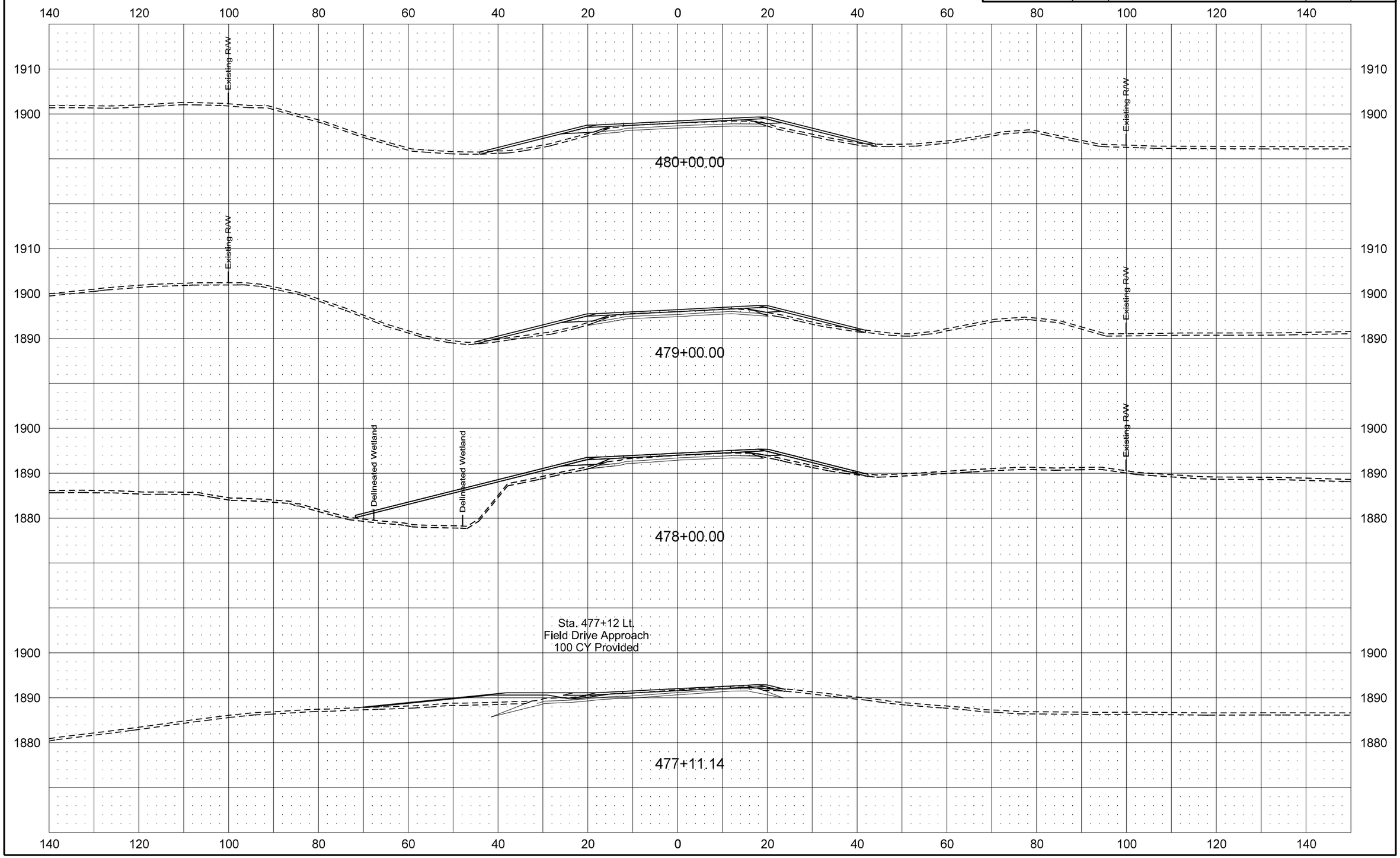

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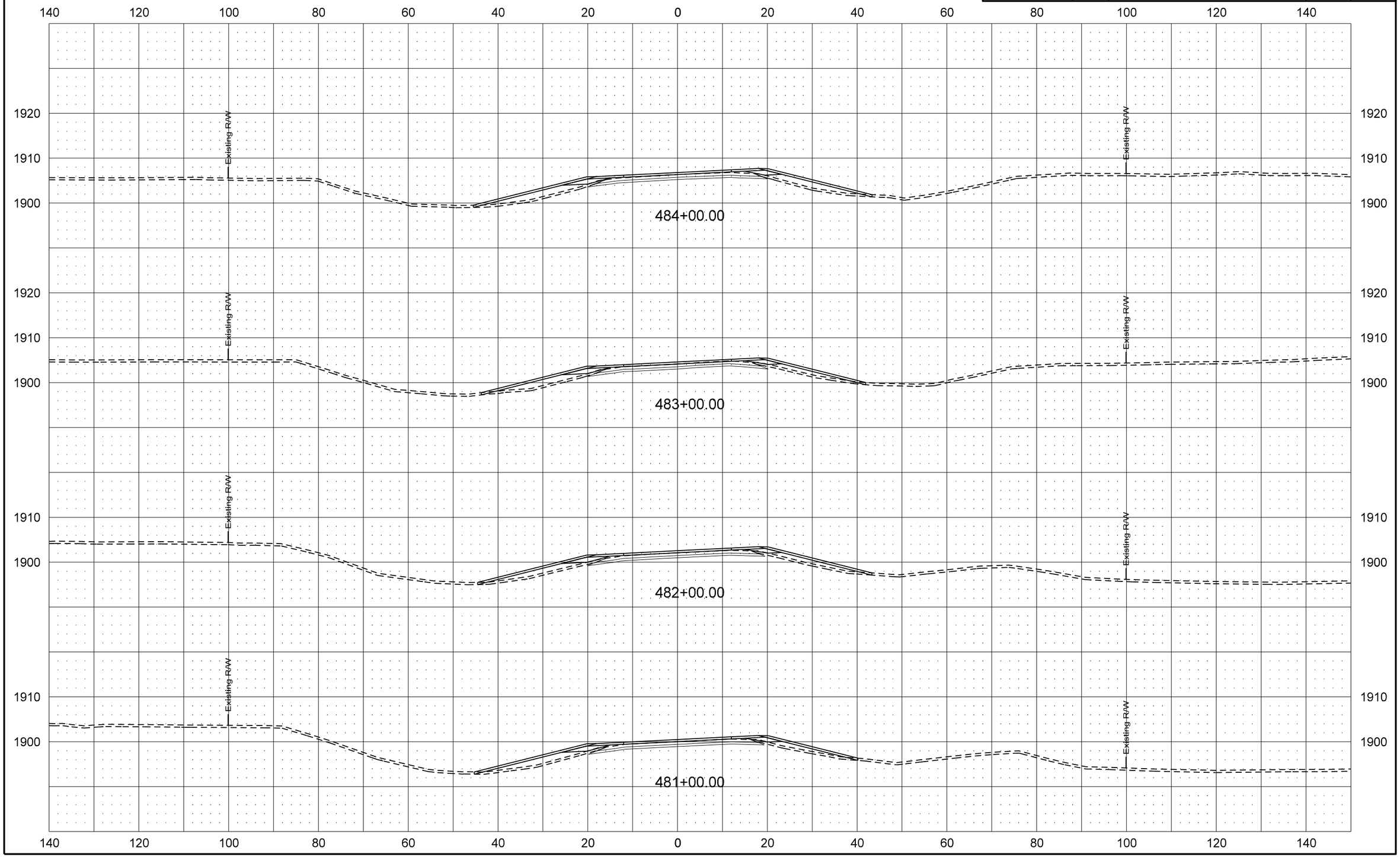
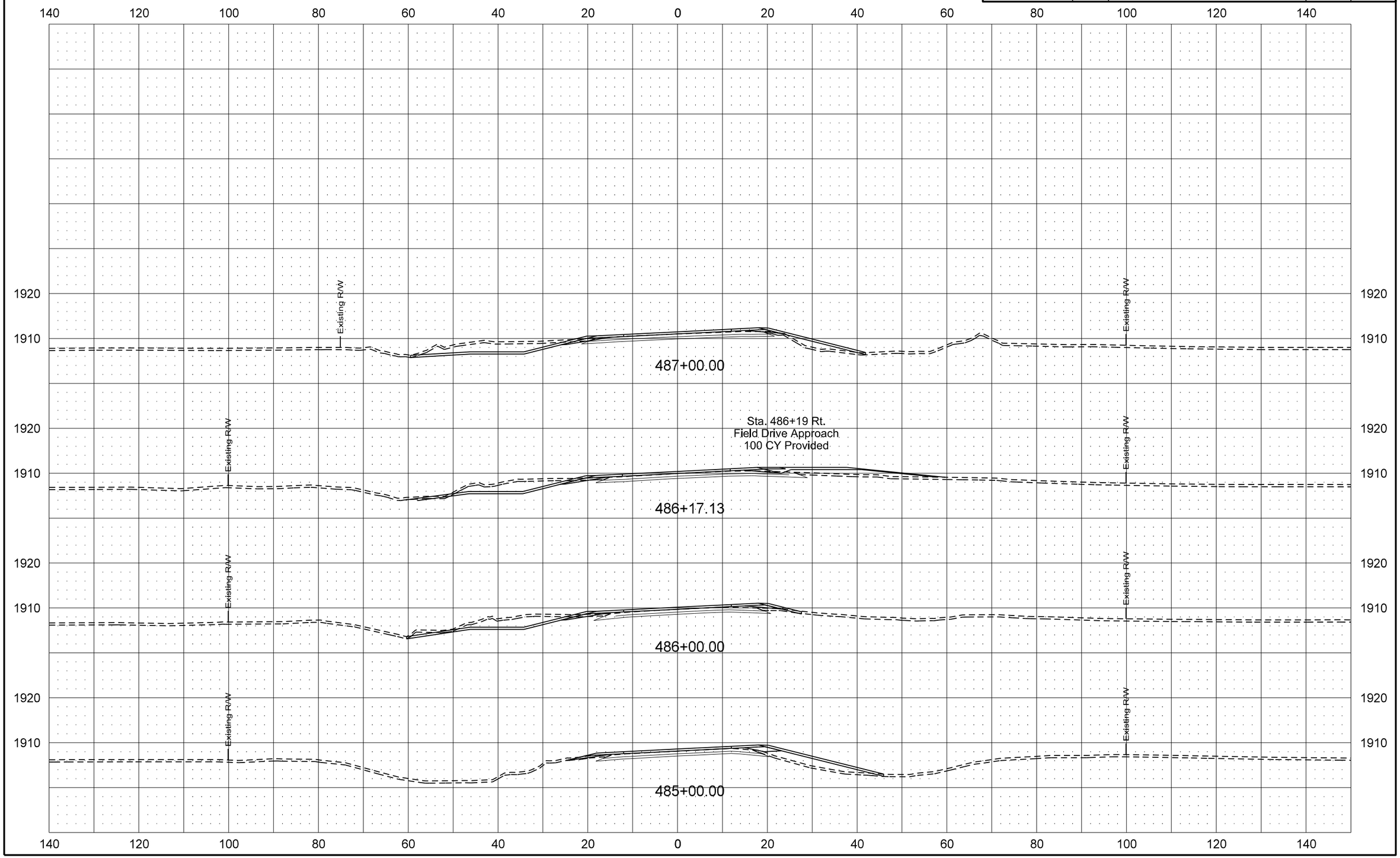
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