February 12, 2025

ADDENDUM 1

COUNTY ROUTE 1 RECONSTRUCTION

CR 10 TO US HWY 2

PROJECT NO. 01(62)23

TO: All prospective bidders on Project No. 01(62)23, Mountrail County Route 1, County Route 10 to US Highway 2, scheduled for bid opening on February 20, 2025.

The following revisions shall be made:

Clarifications:

1. Straw Mulch & Fiber Rolls: Material requires certification by an North Dakota Department of Agriculture approved inspector. Provide a copy of SFN 59074 "Weed Seed Free Forage Inspection Report and Certification" to the Engineer prior to the material being delivered to the project. Bales shall contain the "Forage Certification Tag" when they are delivered to the project.
2. The placement location for the riprap and ECB are shown on the cross sections.
3. Approach Pipe Conduit: Install approach pipes after grading is complete.
4. The "hatched area on Section 20 Sheet 7 is a temporary beam. Remove the temporary berm after the riprap is in place.
5. The discretionary subcut material is not included in the earthwork calculations. This subcut material shall be wasted outside of the right of way at a location determined by the Contractor and approved by the Engineer.

Provision & Plan revisions are related to an alignment change required due to a right of way issue.

Provision Revisions:

Replace Section C-410 Bid form pages 1-2 with attached pages marked "Revised 02/11/25".
Replace Section C-520 Agreement pages 2-4 with attached pages marked "Revised 02/11/25".

The following Bid items were adjusted or added on both provision sections:

- Common Excavation-Type A

- Topsoil
- Borrow-Excavation
- Water
- Subgrade Preparation-Type A-18IN
- ECB Type 3
- Geosynthetic Material Type G
- Pipe Conduit 24IN
- Pipe Conduit 24IN-Approach
- Pipe Conduit 30IN
- Pipe Conduit 36IN
- Right of Way Markers

Plan Revisions:

Replace the following list of sheets with the enclosed sheets containing "Revised 02/11/25".

- Section 2 Sheet 1
- Section 8 Sheets 1-2 (same bid items modified as in the Provisions)
- Replace Section 10
- Replace Section 11 Sheets 1-9
- Replace Section 20 Sheet 6
- Replace Section 51 Sheet 1
- Replace Section 60 Sheets 1-4
- Replace Section 81 Sheet 1

Include Section 200 – Cross Sections

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

John Sauber Jr. Digitally signed by John Sauber Jr. Date: 2025.02.12 17:41:43 -06'00'

John Sauber Jr., PE/PLS
Sauber Engineering Inc.

BID FORM FOR CONSTRUCTION CONTRACT

COUNTY ROUTE 1 RECONSTRUCTION

PROJECT NO. 01(62)23

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to: **Mountrail County Road & Bridge Department, 8103 61st Street NW, PO Box 275, Stanley, ND 58784**

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted, in a separate envelope, with and made a condition of this Bid:

A. Required Bid security;

B. State of North Dakota Contractors License

ARTICLE 3—BASIS OF BID—UNIT PRICES

3.01 *Unit Price Bids*

A. Bidder will perform the following Work at the indicated unit prices:

Item No.	Spec.	Code	Description	Unit	Quantity	Unit Cost	Extended Cost
1	103	0100	CONTRACT BOND	L SUM	1		
2	201	0330	CLEARING & GRUBBING	L SUM	1		
3	202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES	LF	1,732		
4	202	0312	REMOVE EXISTING FENCE	LF	12,455		
5	203	0101	COMMON EXCAVATION-TYPE A	CY	608,185		
6	203	0109	TOPSOIL	CY	103,351		
7	203	0119	TOPSOIL-IMPORTED	CY	3,325		
8	203	0138	COMMON EXCAVATION-SUBCUT	CY	46,060		
9	203	0140	BORROW-EXCAVATION	CY	231,934		
10	203	0180	ROADWAY OBLITERATION	LF	5,400		
11	216	0100	WATER	M GAL	11,008		
12	230	0172	SUBGRADE PREPARATION-TYPE A-18IN	STA	370		

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Item No.	Spec.	Code	Description	Unit	Quantity	Unit Cost	Extended Cost
13	251	0300	SEEDING CLASS III	ACRE	147.75		
14	251	2000	TEMPORARY COVER CROP	ACRE	147.75		
15	253	0101	STRAW MULCH	ACRE	295.5		
16	255	0103	ECB TYPE 3	SY	58,909		
17	255	0202	TRM TYPE 2	SY	5,183		
18	255	0310	REMOVE CONCRETE EROSION CONTROL BLANKET	SY	2,507		
19	255	0320	RESET CONCRETE EROSION CONTROL BLANKET	SY	2,507		
20	256	0100	RIPRAP GRADE I	CY	4,184		
21	260	0200	SILT FENCE SUPPORTED	LF	18,435		
22	260	0201	REMOVE SILT FENCE SUPPORTED	LF	18,435		
23	261	0112	FIBER ROLLS 12IN	LF	7,320		
24	261	0113	REMOVE FIBER ROLLS 12IN	LF	5,160		
25	261	0120	FIBER ROLLS 20IN	LF	19,560		
26	261	0121	REMOVE FIBER ROLLS 20IN	LF	9,780		
27	262	0100	FLOTATION SILT CURTAIN	LF	9,050		
28	262	0101	REMOVE FLOTATION SILT CURTAIN	LF	9,050		
29	302	0120	AGGREGATE BASE COURSE CL 5	TON	70,519		
30	302	0241	AGGREGATE FOR SUBGRADE REPAIR	TON	86,360		
31	302	0314	TEMPORARY TRAFFIC SURFACE AGGREGATE	TON	10,152		
32	350	0500	GRAVEL SURFACING	TON	36,965		
33	702	0100	MOBILIZATION	L SUM	1		
34	704	0100	FLAGGING	MHR	3,000		
35	704	1000	TRAFFIC CONTROL SIGNS	UNIT	2,955		
36	704	1052	TYPE III BARRICADE	EA	4		
37	704	1080	STACKABLE VERTICAL PANELS	EA	240		
38	704	1185	PILOT CAR	HR	1,500		
39	706	0500	AGGREGATE LABORATORY	EA	1		
40	709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	181,718		
41	709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	51,000		
42	709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	12,669		
43	714	4105	PIPE CONDUIT 24IN	LF	822		
44	714	4106	PIPE CONDUIT 24IN-APPROACH	LF	3,596		
45	714	4110	PIPE CONDUIT 30IN	LF	2,064		
46	714	4115	PIPE CONDUIT 36IN	LF	1,016		
47	714	4125	PIPE CONDUIT 48IN	LF	368		
48	714	4130	PIPE CONDUIT 54IN	LF	98		
49	720	0110	RIGHT OF WAY MARKERS	EA	113		
50	752	0320	FENCE BARBED WIRE 4 STRAND-STEEL POST	LF	4,220		

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Milestones not achieved within the Contract Times, as duly modified. The parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. *Substantial Completion:* Contractor shall pay Owner $**4,000.00** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
2. *Completion of Remaining Work:* After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner $**4,000.00** for each day that expires after such time until the Work is completed and ready for final payment.
3. Milestones: Contractor shall pay Owner $**4,000.00** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for achievement of each Milestone, until each Milestone is achieved, or until the time specified for Substantial Completion is reached, at which time the rate indicated in Paragraph 4.04.A.1 will apply, rather than the Milestone rate.
4. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive, and will not be imposed concurrently.

B. If Owner recovers liquidated damages for a delay in completion by Contractor, then such liquidated damages are Owner's sole and exclusive remedy for such delay, and Owner is precluded from recovering any other damages, whether actual, direct, excess, or consequential, for such delay, except for special damages (if any) specified in this Agreement.

ARTICLE 5—CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:

A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item).

Item No.	Spec.	Code	Description	Unit	Quantity	Unit Cost	Extended Cost
1	103	0100	CONTRACT BOND	L SUM	1		
2	201	0330	CLEARING & GRUBBING	L SUM	1		
3	202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES	LF	1,732		
4	202	0312	REMOVE EXISTING FENCE	LF	12,455		
5	203	0101	COMMON EXCAVATION-TYPE A	CY	608,185		
6	203	0109	TOPSOIL	CY	103,351		
7	203	0119	TOPSOIL-IMPORTED	CY	3,325		
8	203	0138	COMMON EXCAVATION-SUBCUT	CY	46,060		
9	203	0140	BORROW-EXCAVATION	CY	231,934		

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Item No.	Spec.	Code	Description	Unit	Quantity	Unit Cost	Extended Cost
10	203	0180	ROADWAY OBLITERATION	LF	5,400		
11	216	0100	WATER	M GAL	11,008		
12	230	0172	SUBGRADE PREPARATION-TYPE A-18IN	STA	370		
13	251	0300	SEEDING CLASS III	ACRE	147.75		
14	251	2000	TEMPORARY COVER CROP	ACRE	147.75		
15	253	0101	STRAW MULCH	ACRE	295.5		
16	255	0103	ECB TYPE 3	SY	58,909		
17	255	0202	TRM TYPE 2	SY	5,183		
18	255	0310	REMOVE CONCRETE EROSION CONTROL BLANKET	SY	2,507		
19	255	0320	RESET CONCRETE EROSION CONTROL BLANKET	SY	2,507		
20	256	0100	RIPRAP GRADE I	CY	4,184		
21	260	0200	SILT FENCE SUPPORTED	LF	18,435		
22	260	0201	REMOVE SILT FENCE SUPPORTED	LF	18,435		
23	261	0112	FIBER ROLLS 12IN	LF	7,320		
24	261	0113	REMOVE FIBER ROLLS 12IN	LF	5,160		
25	261	0120	FIBER ROLLS 20IN	LF	19,560		
26	261	0121	REMOVE FIBER ROLLS 20IN	LF	9,780		
27	262	0100	FLOTATION SILT CURTAIN	LF	9,050		
28	262	0101	REMOVE FLOTATION SILT CURTAIN	LF	9,050		
29	302	0120	AGGREGATE BASE COURSE CL 5	TON	70,519		
30	302	0241	AGGREGATE FOR SUBGRADE REPAIR	TON	86,360		
31	302	0314	TEMPORARY TRAFFIC SURFACE AGGREGATE	TON	10,152		
32	350	0500	GRAVEL SURFACING	TON	36,965		
33	702	0100	MOBILIZATION	L SUM	1		
34	704	0100	FLAGGING	MHR	3,000		
35	704	1000	TRAFFIC CONTROL SIGNS	UNIT	2,955		
36	704	1052	TYPE III BARRICADE	EA	4		
37	704	1080	STACKABLE VERTICAL PANELS	EA	240		
38	704	1185	PILOT CAR	HR	1,500		
39	706	0500	AGGREGATE LABORATORY	EA	1		
40	709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	181,718		
41	709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	51,000		
42	709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	12,669		
43	714	4105	PIPE CONDUIT 24IN	LF	822		
44	714	4106	PIPE CONDUIT 24IN-APPROACH	LF	3,596		
45	714	4110	PIPE CONDUIT 30IN	LF	2,064		
46	714	4115	PIPE CONDUIT 36IN	LF	1,016		
47	714	4125	PIPE CONDUIT 48IN	LF	368		

EJCDC® C-520, Agreement between Owner and Contractor for Construction Contract (Stipulated Price).
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Item No.	Spec.	Code	Description	Unit	Quantity	Unit Cost	Extended Cost
48	714	4130	PIPE CONDUIT 54IN	LF	98		
49	720	0110	RIGHT OF WAY MARKERS	EA	113		
50	752	0320	FENCE BARBED WIRE 4 STRAND-STEEL POST	LF	4,220		
51	752	0400	FENCE BARBED WIRE 5 STRAND	LF	8,235		
52	752	0905	TEMPORARY FENCE	LF	12,455		
53	752	0993	FENCE TERMINAL	EA	1		
54	752	2100	VEHICLE GATE	EA	7		
55	752	3140	CORNER ASSEMBLY BARBED WIRE	EA	10		
56	752	4100	DOUBLE BRACE ASSEMBLY BARBED WIRE	EA	6		
57	754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	226.8		
58	754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	140.4		
59	754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	743.7		
60	754	0592	RESET SIGN PANEL	EA	3		
61	754	0593	RESET SIGN SUPPORT	EA	3		
62	754	0805	OBJECT MARKERS - CULVERTS	EA	74		
63	766	0100	MAILBOX-ALL TYPES	EA	3		
Total of All Unit Price Bid Items							

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

B. For all Work, at the prices stated in Contractor's Bid.

ARTICLE 6—PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Engineer will prepare progress estimates for payment in accordance with Article 15 of the Supplementary Conditions and provide the progress estimates to the Owner.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of the progress estimates on or about the **20th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such estimates have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

EJCDC® C-520, Agreement between Owner and Contractor for Construction Contract (Stipulated Price).
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D-203-8	Standard Rural Approaches
D-255-2	Erosion And Siltation Control - Erosion Control Blanket Installation
D-260-1	Erosion And Siltation Controls - Silt Fence
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SAUBER ENGINEERING

Estimated Quantities

SAUBER ENGINEERING

Revised 2/11/2025

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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SPEC	CODE	ITEM DESCRIPTION	UNIT	TOTAL
103	0100	CONTRACT BOND	L SUM	1
201	0330	CLEARING & GRUBBING	L SUM	1
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES	LF	1732
202	0312	REMOVE EXISTING FENCE	LF	12455
203	0101	COMMON EXCAVATION-TYPE A	CY	608185
203	0109	TOPSOIL	CY	103351
203	0119	TOPSOIL-IMPORTED	CY	3325
203	0138	COMMON EXCAVATION-SUBCUT	CY	46060
203	0140	BORROW-EXCAVATION	CY	231934
203	0180	ROADWAY OBLITERATION	LF	5400
216	0100	WATER	M GAL	11008
230	0172	SUBGRADE PREPARATION-TYPE A-18IN	STA	370
251	0300	SEEDING CLASS III	ACRE	147.75
251	2000	TEMPORARY COVER CROP	ACRE	147.75
253	0101	STRAW MULCH	ACRE	295.5
255	0103	ECB TYPE 3	SY	58909
255	0202	TRM TYPE 2	SY	5183
255	0310	REMOVE CONCRETE EROSION CONTROL BLANKET	SY	2507
255	0320	RESET CONCRETE EROSION CONTROL BLANKET	SY	2507
256	0100	RIPRAP GRADE I	CY	4184
260	0200	SILT FENCE SUPPORTED	LF	18435
260	0201	REMOVE SILT FENCE SUPPORTED	LF	18435
261	0112	FIBER ROLLS 12IN	LF	7320
261	0113	REMOVE FIBER ROLLS 12IN	LF	5160
261	0120	FIBER ROLLS 20IN	LF	19560
261	0121	REMOVE FIBER ROLLS 20IN	LF	9780
262	0100	FLOTATION SILT CURTAIN	LF	9050
262	0101	REMOVE FLOTATION SILT CURTAIN	LF	9050
302	0120	AGGREGATE BASE COURSE CL 5	TON	70519
302	0241	AGGREGATE FOR SUBGRADE REPAIR	TON	86360
302	0314	TEMPORARY TRAFFIC SURFACE AGGREGATE	TON	10152
350	0500	GRAVEL SURFACING	TON	36965
702	0100	MOBILIZATION	L SUM	1
704	0100	FLAGGING	MHR	3000
704	1000	TRAFFIC CONTROL SIGNS	UNIT	2955
704	1052	TYPE III BARRICADE	EA	4
704	1080	STACKABLE VERTICAL PANELS	EA	240
704	1185	PILOT CAR	HR	1500
706	0500	AGGREGATE LABORATORY	EA	1
709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	181718
709	0151	GEOSYNTHETIC MATERIAL TYPE R1	SY	51000
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	12669
714	4105	PIPE CONDUIT 24IN	LF	822
714	4106	PIPE CONDUIT 24IN-APPROACH	LF	3596
714	4110	PIPE CONDUIT 30IN	LF	2064
714	4115	PIPE CONDUIT 36IN	LF	1016
714	4125	PIPE CONDUIT 48IN	LF	368

Estimated Quantities

SAUBER ENGINEERING

Revised 2/11/2025	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	8	2

SPEC	CODE	ITEM DESCRIPTION	UNIT	TOTAL
714	4130	PIPE CONDUIT 54IN	LF	98
720	0110	RIGHT OF WAY MARKERS	EA	113
752	0320	FENCE BARBED WIRE 4 STRAND-STEEL POST	LF	4220
752	0400	FENCE BARBED WIRE 5 STRAND	LF	8235
752	0905	TEMPORARY FENCE	LF	12455
752	0993	FENCE TERMINAL	EA	1
752	2100	VEHICLE GATE	EA	7
752	3140	CORNER ASSEMBLY BARBED WIRE	EA	10
752	4100	DOUBLE BRACE ASSEMBLY BARBED WIRE	EA	6
754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	226.8
754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	140.4
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	743.7
754	0592	RESET SIGN PANEL	EA	3
754	0593	RESET SIGN SUPPORT	EA	3
754	0805	OBJECT MARKERS - CULVERTS	EA	74
766	0100	MAILBOX-ALL TYPES	EA	3

Basis of Estimate

Revised 02/11/25	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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Materials

Aggregate Base Course Class 5	1.875 Tons/CY
Temporary Traffic Surface Aggregate	1,000 Tons/Mile
Gravel Surfacing	1.875 Tons/CY

Water

Dust Palliative	25 MGal/Mile
Aggregate Base Course Class 5	20 Gal/Ton
Temporary Traffic Surface Aggregate	20 Gal/Ton
Gravel Surfacing	20 Gal/Ton
Embankment	10 Gal/CY

Topsoil

6" Depth - Construction Limits minus existing road surface

Seeding, Mulching, Temporary Cover Crop

Based on a width 10' outside the construction limits.

Fiber Rolls

12IN Inlet Protection	4,320 LF
12IN Weirs/As Directed by Engineer	3,000 LF
20IN Ditch Checks	19,560 LF

Temporary Fence

Install Temporary Fence (actual quantity will be subject to landowner needs)

Traffic Control

Stackable Vertical Panels based on 2 miles of shoulder drop-off

OBJECT MARKERS - CULVERTS

Location	Quantity (EA)
Sta. 782+75 (Lt & Rt)	2
Sta. 795+65 (Lt & Rt)	2
Sta. 803+05 Lt	1
Sta. 803+65 Rt	1
Sta. 814+00 (Lt & Rt)	2
Sta. 820+85 (Lt & Rt)	2
Sta. 827+20 (Lt & Rt)	2
Sta. 857+16 (Lt & Rt)	2
Sta. 865+21 (Lt & Rt)	2
Sta. 869+64 (Lt & Rt)	2
Sta. 884+99 Lt	1
Sta. 885+56 Rt	1
Sta. 892+79 Rt	1
Sta. 893+13 Lt	1
Sta. 908+97 (Lt & Rt)	2
Sta. 924+50 (Lt & Rt)	2
Sta. 939+25 Lt	1
Sta. 939+50 Rt	1
Sta. 951+60 (Lt & Rt)	2
Sta. 959+20 (Lt & Rt)	2
Sta. 985+39 Rt	1
Sta. 986+06 Lt	1
Sta. 991+83 (Lt & Rt)	2
Sta. 1015+00 (Lt & Rt)	2
Sta. 1029+51 (Lt & Rt)	2
Sta. 1043+65 (Lt & Rt)	2
Sta. 1059+80 (Lt & Rt)	2
Sta. 1064+20 (Lt & Rt)	2
Sta. 1074+62 (Lt & Rt)	2
Sta. 1088+00 (Lt & Rt)	2
Sta. 1117+19 (Lt & Rt)	2
Sta. 1125+95 (Lt & Rt)	2
Sta. 1129+17 (Lt & Rt)	2
Sta. 1153+70 Lt	1
Sta. 1153+89 Rt	1
Sta. 1182+35 (Lt & Rt)	2
Sta. 1213+84 (Lt & Rt)	2
Sta. 1218+95 (Lt & Rt)	2
Sta. 1231+15 (Lt & Rt)	2
Sta. 1238+30 (Lt & Rt)	2
Sta. 1268+15 (Lt & Rt)	2
Sta. 1274+68 (Lt & Rt)	2
Sta. 1285+88 (Lt & Rt)	2
Total	74

Subgrade Preperation Location

Station	to	Station	Sta
766+00	to	768+00	2
774+00	to	793+00	19
800+00	to	812+00	12
815+00	to	819+00	4
822+00	to	832+00	10
837+00	to	872+00	35
875+00	to	892+00	17
895+00	to	898+00	3
904+00	to	906+00	2
911+00	to	922+00	11
930+00	to	933+00	3
936+00	to	938+00	2
943+00	to	949+00	6
952+00	to	961+00	9
967+00	to	975+00	8
979+00	to	990+00	11
994+00	to	1023+00	29
1026+00	to	1029+00	3
1034+00	to	1037+00	3
1040+00	to	1042+00	2
1046+00	to	1049+00	3
1052+00	to	1054+00	2
1066+00	to	1071+00	5
1080+00	to	1098+00	18
1106+00	to	1129+00	23
1136+00	to	1148+00	12
1157+00	to	1179+00	22
1184+00	to	1210+00	26
1214+00	to	1223+00	9
1230+00	to	1233+00	3
1236+00	to	1238+00	2
1245+00	to	1262+00	17
1265+00	to	1302+00	37
		Total	370

RIGHT OF WAY MARKERS

Station	Offset	Station	Offset	Station	Offset
765+38.46	75' Rt & Lt	895+00	100' Rt	1046+00	75' Rt
791+01.00	97.65' Lt	895+00	75' Rt	1046+58.33	75' Lt
791+01.77	55.65' Lt	896+67.72	75' Rt & Lt	1055+81.69	85.92' Rt
791+03.53	52.33' Rt	905+00	75' Rt	1055+81.69	85.37' Lt
795+00	45.90' Rt	905+00	95' Rt	1065+68.96	75' Rt & Lt
795+00	65.89' Rt	905+00	75' Lt	1088+72.32	75' Rt & Lt
799+00	47.78' Rt	905+00	90' Lt	1090+38.13	75' Lt
799+00	67.75' Rt	910+00	95' Rt	1091+33.87	75' Lt
800+95.70	53.37' Lt	910+00	75' Rt	1092+03.81	75' Rt
800+97.4	95.33' Lt	911+00	90' Lt	1093+07.67	75' Rt
804+20.27	68.32' Rt	911+00	75' Lt	1095+74.69	75' Rt & Lt
804+26.54	81.58' Lt	922+31.23	75' Rt & Lt	1116+13.96	75' Rt & Lt
813+00	75' Rt	923+81.23	100' Rt	1121+51.13	75' Rt
813+00	85' Rt	923+81.23	85' Lt	1123+28.03	75' Rt
815+00	85'Rt	928+00	100' Rt	1126+17.30	75' Rt & Lt
815+00	75' Rt	928+00	75' Rt	1129+48.86	75' Rt & Lt
816+59.10	75' Rt	928+00	85' Lt	1155+19	75' Rt & Lt
816+59.10	75' Lt	928+00	75' Lt	1156+69	75' Rt & Lt
818+08.74	44.91' Rt	949+44.78	75' Rt & Lt	1182+48.27	75' Rt & Lt
818+08.74	105.09' Lt	975+08.16	75' Rt & Lt	1208+27.54	75' Rt & Lt
843+81.62	75' Rt & Lt	976+58.16	75' Rt & Lt	1209+77.54	75' Rt & Lt
869+54.28	75' Rt & Lt	1002+24.38	75' Rt & Lt	1235+24.07	75' Rt & Lt
871+04.28	75' Rt & Lt	1027+90.70	75' Rt & Lt	1260+63.49	75' Rt & Lt
892+00	75' Rt	1029+40.70	75' Rt & Lt	1262+13.49	75' Rt & Lt
892+00	100' Rt	1037+88.35	75' Rt & Lt	1287+77.89	75' Rt & Lt
892+00	75' Lt	1043+00	75' Rt	1300+34.15	75' Lt
892+00	85' Lt	1043+00	90' Rt	1300+93.56	75' Rt
894+00	85' Lt	1043+30.05	75' Rt		
894+00	75' Lt	1046+00	90' Rt		
				Total	113

MAILBOXES

Station	Type	Number	Work
1219+70 Lt	Single	1	Replace
1295+14 Lt	Single	1	Replace
1295+20 Lt	Single	1	Replace

SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-3214
LS-6427
DATE 2/11/25
NORTH DAKOTA

Basis of Estimate

Reconstruction
County Route 1

Mountrail County, ND

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
765+00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
766+00	1.25	31.43	58.20	9.53	17.65	22.06	36.14	28.37	52.54
767+00	1.25	192.46	414.61	0.00	17.65	22.06	428.69	36.65	120.41
768+00	1.25	500.65	1283.54	0.00	0.00	0.00	1,712.23	60.71	180.30
769+00	1.25	726.57	2272.63	0.00	0.00	0.00	3,984.86	66.71	235.96
770+00	1.25	823.59	2870.67	0.00	0.00	0.00	6,855.53	65.39	244.63
771+00	1.25	860.43	3118.56	0.00	0.00	0.00	9,974.08	71.86	254.17
772+00	1.25	839.61	3148.22	0.00	0.00	0.00	13,122.31	73.90	269.93
773+00	1.25	886.07	3195.70	0.00	0.00	0.00	16,318.01	73.20	272.41
774+00	1.25	597.40	2747.17	0.00	0.00	0.00	19,065.18	65.93	257.65
775+00	1.25	448.35	1936.57	0.00	0.00	0.00	21,001.75	70.25	252.19
776+00	1.25	104.29	1023.41	1.95	3.61	4.51	22,020.64	39.87	203.93
777+00	1.25	41.92	270.76	76.02	144.39	180.49	22,110.92	43.53	154.44
778+00	1.25	0.00	77.63	234.94	575.85	719.81	21,468.73	39.42	153.61
779+00	1.25	0.00	0.00	305.09	1000.06	1250.07	20,218.66	40.39	147.80
780+00	1.25	0.00	0.00	389.86	1286.94	1608.68	18,609.98	40.36	149.54
781+00	1.25	52.02	96.33	437.30	1531.78	1914.72	16,791.59	53.18	173.22
782+00	1.25	0.00	96.33	533.85	1798.43	2248.03	14,639.89	40.81	174.06
783+00	1.25	0.00	0.00	660.22	2211.24	2764.05	11,875.84	43.27	155.70
784+00	1.25	27.51	50.94	445.91	2048.39	2560.49	9,366.30	50.68	173.98
785+00	1.25	382.24	758.80	11.15	846.41	1058.01	9,067.09	48.65	183.94
786+00	1.25	690.98	1987.44	0.00	20.65	25.81	11,028.72	50.63	183.85
787+00	1.25	459.49	2130.50	1.03	1.91	2.38	13,156.84	47.16	181.09
788+00	1.25	800.17	2332.70	0.00	1.91	2.38	15,487.16	56.21	191.43
789+00	1.25	472.71	2357.19	77.77	144.02	180.02	17,664.32	42.75	183.26
789+81	1.25	-	0.00	-	160.00	200.00	17,464.32	-	-
790+00	1.25	922.63	2583.96	0.00	144.02	180.02	19,868.26	56.78	184.31
791+00	1.25	629.50	2874.31	0.00	400.00	500.00	22,242.57	47.32	192.78
792+00	1.25	189.40	1516.48	63.88	118.30	147.87	23,611.19	38.51	158.94
793+00	1.25	13.00	374.81	261.43	602.43	753.03	23,232.97	31.79	130.19
794+00	1.25	0.00	24.07	355.49	1142.44	1428.06	21,828.99	35.04	123.76
795+00	1.25	0.00	0.00	430.22	1455.02	1818.77	20,010.21	38.77	136.69
796+00	1.25	0.00	0.00	525.83	1770.46	2213.08	17,797.13	42.82	151.09
797+00	1.25	0.00	0.00	712.25	2292.74	2865.93	14,931.21	46.41	165.24
798+00	1.25	0.00	0.00	749.25	2706.48	3383.10	11,548.11	47.09	173.15
799+00	1.25	0.00	0.00	452.58	2225.61	2782.01	8,766.09	41.78	164.57
800+00	1.25	90.24	167.11	152.08	1119.74	1399.68	7,533.53	36.23	144.46
801+00	1.25	457.51	1014.35	30.26	337.67	422.08	8,125.80	49.40	158.57
802+00	1.25	391.79	1572.78	63.45	173.54	216.92	9,481.65	49.48	183.11
803+00	1.25	30.53	782.07	387.39	834.89	1043.61	9,220.12	42.30	169.96
804+00	1.25	0.00	56.54	642.05	1906.37	2382.96	6,893.69	38.38	149.41
805+00	1.25	0.00	0.00	242.94	1638.87	2048.59	4,845.10	25.57	118.43
806+00	1.25	249.58	462.19	14.53	476.80	596.00	4,711.29	53.33	146.11
806+58	1.25	-	0.00	-	160.00	200.00	4,511.29	-	-
807+00	1.25	487.44	1364.85	4.68	35.57	44.47	5,831.68	60.89	211.52
808+00	1.25	138.72	1159.56	157.92	301.11	376.39	6,614.84	56.80	217.94
809+00	1.25	79.04	403.26	69.93	421.94	527.43	6,490.67	37.43	174.50
810+00	1.25	173.33	467.35	4.11	137.11	171.39	6,786.63	47.01	156.37
811+00	1.25	28.86	374.43	66.18	130.17	162.71	6,998.35	33.34	148.80
812+00	1.25	0.00	53.44	548.07	1137.50	1421.88	5,629.92	34.98	126.52
813+00	1.25	0.00	0.00	1566.19	3915.30	4894.12	735.80	58.64	173.37
814+00	1.25	0.00	0.00	1546.73	5764.67	7205.83	-6,470.03	59.74	219.22
815+00	1.25	0.00	0.00	879.87	4493.70	5617.13	-12,087.16	47.16	197.96
816+00	1.25	158.54	293.59	51.15	1724.11	2155.14	-13,948.71	52.40	184.37
817+00	1.25	899.19	1958.76	0.00	94.72	118.40	-12,108.35	57.54	203.59
817+24	1.25	-	0.00	-	160.00	200.00	-12,308.35	-	-
817+29	1.25	-	0.00	-	160.00	200.00	-12,508.35	-	-
818+00	1.25	285.36	2193.61	38.44	71.19	88.98	-10,403.72	58.15	214.24
819+00	1.25	74.63	666.65	540.86	1072.78	1340.97	-11,078.05	54.65	208.89
820+00	1.25	0.00	138.20	982.54	2821.11	3526.39	-14,466.23	47.06	188.35
821+00	1.25	0.00	0.00	1002.32	3675.67	4594.58	-19,060.81	49.11	178.09
822+00	1.25	0.00	0.00	663.19	3084.28	3855.35	-22,916.16	41.34	167.50
823+00	1.25	488.93	905.43	0.00	1228.13	1535.16	-23,545.90	58.03	184.02
824+00	1.25	1121.67	2982.59	0.00	0.00	0.00	-20,563.31	82.29	259.85
824+32	1.25	-	0.00	-	160.00	200.00	-20,763.31	-	-
824+85	1.25	-	0.00	-	160.00	200.00	-20,963.31	-	-
825+00	1.25	336.74	2700.76	0.09	0.17	0.21	-18,262.75	45.88	237.35
826+00	1.25	0.00	623.59	336.24	622.83	778.54	-18,417.70	37.62	154.63
827+00	1.25	0.00	0.00	586.06	1707.96	2134.95	-20,552.66	45.64	154.19
828+00	1.25	0.00	0.00	736.01	2448.28	3060.35	-23,613.00	45.65	169.06
829+00	1.25	0.00	0.00	717.82	2692.28	3365.35	-26,978.35	42.20	162.69
830+00	1.25	36.78	68.11	198.26	1696.44	2120.56	-29,030.80	42.15	156.20
831+00	1.25	487.70	971.26	0.00	367.15	458.94	-28,518.47	57.84	185.17
832+00	1.25	782.28	2351.81	0.00	0.00	0.00	-26,166.66	63.03	223.83
833+00	1.25	642.25	2638.02	0.00	0.00	0.00	-23,528.64	53.45	215.70
834+00	1.25	816.75	2701.85	0.00	0.00	0.00	-20,826.79	59.60	209.35
834+89	1.25	-	0.00	-	400.00	500.00	-21,326.79	-	-
835+00	1.25	1039.37	3437.26	0.00	0.00	0.00	-17,889.53	64.19	229.24
836+00	1.25	925.34	3638.35	0.00	0.00	0.00	-14,251.18	67.15	243.22
836+95	1.25	-	0.00	-	400.00	500.00	-14,751.18	-	-

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 02/11/25	ND	01(62)23	11	1

SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-3914
LS-8427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 02/11/25	ND	01(62)23	11	2

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
837+00	1.25	679.10	2971.19	0.00	0.00	0.00	-11,779.99	61.77	238.74
838+00	1.25	275.95	1768.61	0.00	0.00	0.00	-10,011.38	46.77	201.00
839+00	1.25	141.21	772.52	42.63	78.94	98.68	-9,337.54	36.13	153.52
840+00	1.25	274.27	769.41	10.43	98.26	122.82	-8,690.96	46.94	153.83
841+00	1.25	457.96	1355.98	0.00	19.31	24.14	-7,359.12	50.37	180.20
842+00	1.25	428.30	1641.22	0.00	0.00	0.00	-5,717.90	51.04	187.80
843+00	1.25	355.61	1451.69	0.00	0.00	0.00	-4,266.21	48.12	183.63
843+90	1.25	-	0.00	-	400.00	500.00	-4,766.21	-	-
844+00	1.25	662.86	1886.06	0.00	0.00	0.00	-2,880.16	58.36	197.19
845+00	1.25	696.56	2517.44	0.00	0.00	0.00	-362.71	56.23	212.20
845+78	1.25	-	0.00	-	160.00	200.00	-562.71	-	-
846+00	1.25	869.87	2900.80	0.00	0.00	0.00	2,338.08	63.15	221.07
847+00	1.25	374.41	2304.22	0.00	0.00	0.00	4,642.31	51.69	212.67
848+00	1.25	12.32	716.17	75.87	140.50	175.63	5,182.85	32.77	156.41
848+20	1.25	-	0.00	-	400.00	500.00	4,682.85	-	-
849+00	1.25	0.00	22.81	283.51	665.52	831.90	3,873.76	33.96	123.57
850+00	1.25	4.16	7.70	297.81	1076.52	1345.65	2,535.82	38.38	133.96
851+00	1.25	76.33	149.06	165.85	858.63	1073.29	1,611.59	58.79	179.94
852+00	1.25	463.04	998.83	41.17	383.37	479.21	2,131.21	66.69	232.37
853+00	1.25	458.37	1706.31	52.86	174.13	217.66	3,619.86	78.91	269.63
854+00	1.25	31.82	907.76	225.94	516.30	645.37	3,882.25	37.61	215.78
855+00	1.25	0.00	58.93	492.39	1330.24	1662.80	2,278.37	34.47	133.48
856+00	1.25	0.00	0.00	719.61	2244.44	2805.56	-527.18	42.13	141.85
857+00	1.25	0.00	0.00	702.46	2633.46	3291.83	-3,819.01	43.33	158.26
858+00	1.25	0.00	0.00	321.22	1895.70	2369.63	-6,188.64	31.04	137.72
859+00	1.25	163.42	302.63	12.30	617.63	772.04	-6,658.05	46.12	142.89
860+00	1.25	807.71	1798.39	0.00	22.78	28.47	-4,888.13	68.03	211.39
860+31	1.25	-	0.00	-	160.00	200.00	-5,088.13	-	-
860+46	1.25	-	0.00	-	160.00	200.00	-5,288.13	-	-
861+00	1.25	665.60	2728.35	0.00	0.00	0.00	-2,559.78	64.83	246.04
862+00	1.25	103.64	1424.52	63.08	116.81	146.02	-1,281.28	38.99	192.26
863+00	1.25	28.79	245.24	328.85	725.80	907.25	-1,943.28	43.11	152.04
864+00	1.25	5.76	63.98	561.59	1648.96	2061.20	-3,940.50	42.15	157.89
865+00	1.25	5.15	20.20	634.03	2214.11	2767.64	-6,687.94	44.55	160.56
866+00	1.25	8.84	25.91	524.31	2145.07	2681.34	-9,343.38	42.98	162.09
867+00	1.25	149.20	292.67	148.28	1245.54	1556.92	-10,607.63	49.15	170.61
868+00	1.25	198.57	644.02	60.81	387.20	484.00	-10,447.62	49.27	182.26
869+00	1.25	28.28	420.09	190.20	464.83	581.04	-10,608.56	41.59	168.26
870+00	1.25	8.37	67.87	145.60	621.85	777.31	-11,318.01	34.96	141.76
870+29	1.25	-	0.00	-	160.00	200.00	-11,518.01	-	-
870+36	1.25	-	0.00	-	160.00	200.00	-11,718.01	-	-
871+00	1.25	286.58	546.20	19.98	306.63	383.29	-11,555.09	49.70	156.78
872+00	1.25	734.28	1890.48	0.00	37.00	46.25	-9,710.86	64.67	211.80
873+00	1.25	987.70	3188.85	0.00	0.00	0.00	-6,522.01	69.12	247.76
874+00	1.25	931.88	3554.78	0.00	0.00	0.00	-2,967.23	68.23	254.35
875+00	1.25	831.59	3265.69	0.00	0.00	0.00	298.45	66.02	248.61
876+00	1.25	471.02	2412.24	0.00	0.00	0.00	2,710.69	55.52	225.07
877+00	1.25	183.31	1211.72	55.19	102.20	127.75	3,794.66	46.22	188.41
878+00	1.25	123.08	567.39	150.96	381.76	477.20	3,884.85	54.11	185.80
879+00	1.25	329.40	837.93	29.53	334.24	417.80	4,304.98	56.05	204.00
880+00	1.25	798.81	2089.28	0.00	54.69	68.36	6,325.90	76.15	244.81
881+00	1.25	1533.32	4318.76	0.00	0.00	0.00	10,644.66	90.76	309.09
882+00	1.25	381.55	3546.06	0.00	0.00	0.00	14,190.71	60.32	279.78
883+00	1.25	0.00	706.57	312.24	578.22	722.78	14,174.51	30.94	169.00
884+00	1.25	128.25	237.50	379.46	1280.93	1601.16	12,810.85	53.10	155.63
884+80	1.25	-	0.00	-	400.00	500.00	12,310.85	-	-
885+00	1.25	0.00	237.50	270.79	1204.17	1505.21	11,043.14	23.15	141.20
886+00	1.25	110.28	204.22	207.76	886.20	1107.75	10,139.61	53.58	142.09
887+00	1.25	295.16	750.81	27.85	436.31	545.39	10,345.03	54.49	200.13
888+00	1.25	401.93	1290.91	2.71	56.59	70.74	11,565.20	52.35	197.85
889+00	1.25	236.30	1181.91	71.28	137.02	171.27	12,575.83	57.87	204.11
889+90	1.25	-	0.00	-	400.00	500.00	12,075.83	-	-
890+00	1.25	192.35	793.80	125.89	365.13	456.41	12,413.22	51.31	202.19
891+00	1.25	106.37	553.19	281.25	753.96	942.45	12,023.95	48.55	184.93
892+00	1.25	14.02	222.94	876.33	2143.67	2679.58	9,567.31	52.34	186.83
893+00	1.25	0.00	25.96	2118.07	5545.19	6931.48	2,661.79	69.44	225.52
894+00	1.25	0.00	0.00	1561.97	6814.89	8518.61	-5,856.82	58.53	236.98
895+00	1.25	0.00	0.00	543.02	3898.13	4872.66	-10,729.48	33.25	169.96
896+00	1.25	146.75	271.76	101.50	1193.56	1491.94	-11,949.67	44.21	143.44
896+20	1.25	-	0.00	-	160.00	200.00	-12,149.67	-	-
896+71	1.25	-	0.00	-	160.00	200.00	-12,349.67	-	-
897+00	1.25	764.37	1687.26	0.00	187.96	234.95	-10,897.36	66.27	204.59
897+57	1.25	-	0.00	-	160.00	200.00	-11,097.36	-	-
898+00	1.25	1110.55	3472.07	0.00	0.00	0.00	-7,625.29	69.04	250.57
899+00	1.25	976.12	3864.20	0.00	0.00	0.00	-3,761.08	65.85	249.80
900+00	1.25	577.29	2876.69	0.00	0.00	0.00	-884.40	47.13	209.22
901+00	1.25	955.34	2838.20	0.00	0.00	0.00	1,953.81	61.33	200.85
902+00	1.25	2261.42	5956.96	0.00	0.00	0.00	7,910.77	94.82	289.17
903+00	1.25	3366.23	10421.57	0.00	0.00	0.00	18,332.34	105.89	371.69
904+00	1.25	2796.26	11412.02	0.00	0.00	0.00	29,744.36	102.11	385.19

SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-6914
LS-8427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
905+00	1.25	594.87	6279.87	0.00	0.00	0.00	36,024.23	54.11	289.30
906+00	1.25	0.00	1101.61	1584.21	2933.72	3667.15	33,458.69	65.28	221.09
907+00	1.25	0.00	0.00	2391.12	7361.72	9202.15	24,256.54	71.49	253.28
908+00	1.25	0.00	0.00	2449.53	8964.17	11205.21	13,051.33	71.64	265.06
909+00	1.25	0.00	0.00	2359.68	8905.94	11132.43	1,918.90	71.71	265.46
910+00	1.25	0.00	0.00	1561.94	7262.26	9077.82	-7,158.93	57.90	240.02
911+00	1.25	81.18	150.33	438.26	3704.07	4630.09	-11,638.69	45.28	191.07
912+00	1.25	67.93	276.13	115.84	1026.11	1282.64	-12,645.19	33.93	146.69
913+00	1.25	222.88	538.54	20.25	252.02	315.02	-12,421.68	38.12	133.43
914+00	1.25	178.50	743.30	19.77	74.11	92.64	-11,771.02	38.31	141.54
914+53	1.25	-	0.00	-	320.00	400.00	-12,171.02	-	-
915+00	1.25	1.16	332.70	412.31	800.15	1000.19	-12,838.50	41.37	147.56
916+00	1.25	0.00	2.15	560.30	1801.13	2251.41	-15,087.77	38.20	147.35
917+00	1.25	0.00	0.00	221.57	1447.91	1809.88	-16,897.65	27.37	121.43
918+00	1.25	315.33	583.94	0.46	411.17	513.96	-16,827.67	42.39	129.19
918+36	1.25	-	0.00	-	160.00	200.00	-17,027.67	-	-
919+00	1.25	975.63	2390.67	0.00	0.85	1.06	-14,638.06	62.56	194.35
920+00	1.25	1563.48	4702.06	0.00	0.00	0.00	-9,936.01	81.54	266.85
921+00	1.25	1038.59	4818.65	0.00	0.00	0.00	-5,117.36	76.62	292.89
922+00	1.25	63.82	2041.50	526.68	975.33	1219.17	-4,295.03	69.89	271.31
923+00	1.25	0.00	118.19	1535.01	3817.94	4772.43	-8,949.27	61.19	242.74
924+00	1.25	0.00	0.00	1799.15	6174.37	7717.96	-16,667.24	64.02	231.87
925+00	1.25	0.00	0.00	1707.78	6494.31	8117.89	-24,785.13	61.14	231.78
926+00	1.25	0.00	0.00	1505.45	5950.43	7438.03	-32,223.16	61.26	226.67
927+00	1.25	0.00	0.00	1302.96	5200.76	6500.95	-38,724.11	56.18	217.48
928+00	1.25	0.00	0.00	1085.12	4422.37	5527.96	-44,252.07	48.80	194.41
929+00	1.25	1.67	3.09	820.76	3529.41	4411.76	-48,660.74	47.56	178.44
930+00	1.25	0.00	3.09	640.33	2705.72	3382.15	-52,039.80	39.24	160.74
931+00	1.25	0.00	0.00	413.68	1951.87	2439.84	-54,479.64	34.47	136.50
932+00	1.25	103.35	191.39	69.50	894.78	1118.47	-55,406.72	27.44	114.65
933+00	1.25	1347.77	2687.26	0.00	128.70	160.88	-52,880.34	77.98	195.22
934+00	1.25	3670.78	9293.61	0.00	0.00	0.00	-43,586.73	114.37	356.20
935+00	1.25	3950.19	14112.91	0.00	0.00	0.00	-29,473.82	112.45	420.04
936+00	1.25	2250.66	11483.06	0.00	0.00	0.00	-17,990.77	102.16	397.43
937+00	1.25	246.00	4623.44	44.94	83.22	104.03	-13,471.35	48.06	278.19
938+00	1.25	0.00	455.56	748.03	1468.46	1835.58	-14,851.38	40.85	164.65
939+00	1.25	0.00	0.00	1283.21	3761.56	4701.94	-19,553.32	51.87	171.70
940+00	1.25	0.00	0.00	1376.36	4925.13	6156.41	-25,709.73	53.37	194.89
941+00	1.25	0.00	0.00	1166.76	4709.48	5886.85	-31,596.58	28.01	150.70
942+00	1.25	0.00	0.00	992.29	3998.24	4997.80	-36,594.38	47.61	140.04
943+00	1.25	0.00	0.00	425.53	2625.59	3281.99	-39,876.38	33.46	150.13
943+50	1.25	-	0.00	-	1360.00	1700.00	-41,576.38	-	-
944+00	1.25	427.28	791.26	0.00	788.02	985.02	-41,770.14	60.75	174.46
945+00	1.25	1284.14	3169.30	0.00	0.00	0.00	-38,600.84	80.92	262.35
946+00	1.25	1459.68	5081.15	0.00	0.00	0.00	-33,519.69	79.61	297.28
947+00	1.25	1063.97	4673.43	0.00	0.00	0.00	-28,846.27	63.98	265.91
948+00	1.25	335.25	2591.15	0.00	0.00	0.00	-26,255.12	47.97	207.31
949+00	1.25	9.55	638.52	402.48	745.33	931.67	-26,548.27	39.85	162.63
950+00	1.25	0.00	17.69	1087.70	2759.59	3449.49	-29,980.07	50.42	167.17
951+00	1.25	0.00	0.00	1045.89	3951.09	4938.87	-34,918.94	79.65	240.87
952+00	1.25	0.00	0.00	783.11	3387.04	4233.80	-39,152.74	128.63	385.70
953+00	1.25	0.00	0.00	431.42	2249.13	2811.41	-41,964.15	80.04	386.43
954+00	1.25	0.00	0.00	205.48	1179.44	1474.31	-43,438.45	37.10	216.93
955+00	1.25	42.04	77.85	46.48	466.59	583.24	-43,943.84	31.25	126.57
956+00	1.25	186.83	423.83	0.00	86.07	107.59	-43,627.60	41.64	134.98
956+36	1.25	-	0.00	-	160.00	200.00	-43,827.60	-	-
957+00	1.25	183.93	686.59	0.05	0.09	0.12	-43,141.13	39.28	149.85
958+00	1.25	70.26	470.72	27.24	50.54	63.17	-42,733.57	36.80	140.89
959+00	1.25	0.00	130.11	106.25	247.20	309.00	-42,912.47	26.15	116.57
960+00	1.25	45.54	84.33	40.31	271.41	339.26	-43,167.39	24.45	93.70
961+00	1.25	977.36	1894.26	0.00	74.65	93.31	-41,366.44	64.66	165.02
962+00	1.25	1804.65	5151.87	0.00	0.00	0.00	-36,214.57	84.27	275.80
962+43	1.25	-	0.00	-	160.00	200.00	-36,414.57	-	-
963+00	1.25	1289.86	5730.57	0.00	0.00	0.00	-30,684.00	79.06	302.46
964+00	1.25	822.25	3911.31	0.00	0.00	0.00	-26,772.69	64.97	266.72
965+00	1.25	1103.98	3567.09	0.00	0.00	0.00	-23,205.59	70.26	250.43
966+00	1.25	1562.74	4938.37	0.00	0.00	0.00	-18,267.22	80.65	279.46
966+15	1.25	-	0.00	-	160.00	200.00	-18,467.22	-	-
966+40	1.25	-	0.00	-	160.00	200.00	-18,667.22	-	-
967+00	1.25	845.29	4459.31	0.00	0.00	0.00	-14,207.91	71.25	281.30
968+00	1.25	54.63	1666.52	14.01	25.94	32.43	-12,573.82	34.19	195.26
969+00	1.25	0.00	101.17	124.69	256.85	321.06	-12,793.72	23.23	106.33
970+00	1.25	0.37	0.69	192.91	588.15	735.19	-13,528.22	27.43	93.81
971+00	1.25	0.00	0.69	203.58	734.24	917.80	-14,445.33	25.48	97.98
972+00	1.25	2.82	5.22	124.24	607.07	758.84	-15,198.95	29.80	102.37
973+00	1.25	76.15	146.24	20.44	267.93	334.91	-15,387.62	37.21	124.09
973+92	1.25	-	0.00	-	400.00	500.00	-15,887.62	-	-
974+00	1.25	402.33	886.07	0.00	37.85	47.31	-15,048.86	47.43	156.74
975+00	1.25	412.91	1509.70	0.00	0.00	0.00	-13,539.16	46.96	174.80
975+81	1.25	-	0.00	-	160.00	200.00	-13,739.16	-	-

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 02/11/25	ND	01(62)23	11	3

SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-4214
LS-8427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
975+85	1.25	-	0.00	-	160.00	200.00	-13,939.16	-	-
976+00	1.25	903.71	2438.19	0.00	0.00	0.00	-11,500.97	36.16	153.93
977+00	1.25	1134.49	3774.44	0.00	0.00	0.00	-7,726.53	70.13	196.83
978+00	1.25	895.12	3758.54	0.00	0.00	0.00	-3,967.99	58.47	238.15
979+00	1.25	612.13	2791.20	0.00	0.00	0.00	-1,176.79	56.73	213.33
979+48	1.25	-	0.00	-	160.00	200.00	-1,376.79	-	-
980+00	1.25	309.36	1706.46	0.00	0.00	0.00	329.68	45.51	189.33
981+00	1.25	208.62	959.22	0.00	0.00	0.00	1,288.90	39.78	157.94
982+00	1.25	149.92	663.96	1.56	2.89	3.61	1,949.25	37.88	143.81
983+00	1.25	113.65	488.09	11.17	23.57	29.47	2,407.87	38.63	141.69
984+00	1.25	169.21	523.81	4.69	29.37	36.71	2,894.98	50.42	164.91
985+00	1.25	0.00	313.35	165.95	316.00	395.00	2,813.33	25.74	141.04
986+00	1.25	31.14	57.67	134.97	557.26	696.57	2,174.42	43.84	128.85
987+00	1.25	80.26	206.30	39.68	323.43	404.28	1,976.44	38.68	152.81
988+00	1.25	116.77	364.87	95.68	250.67	313.33	2,027.97	44.25	153.57
989+00	1.25	6.54	228.35	261.01	660.54	825.67	1,430.65	32.54	142.20
990+00	1.25	126.59	246.54	676.51	1736.15	2170.19	-493.00	60.93	173.09
991+00	1.25	20.72	272.80	1121.16	3329.02	4161.27	-4,381.47	59.10	222.28
992+00	1.25	0.00	38.37	1277.92	4442.74	5553.43	-9,896.53	50.95	203.80
993+00	1.25	0.00	0.00	1168.49	4530.39	5662.99	-15,559.51	49.66	186.31
994+00	1.25	0.00	0.00	419.31	2940.37	3675.46	-19,234.98	32.26	151.70
995+00	1.25	361.74	669.89	0.00	776.50	970.63	-19,535.71	51.24	154.63
996+00	1.25	822.09	2192.28	0.00	0.00	0.00	-17,343.44	60.26	206.48
997+00	1.25	447.60	2351.28	1.56	2.89	3.61	-14,995.77	49.75	203.72
998+00	1.25	31.08	886.44	184.02	343.67	429.58	-14,538.91	40.67	167.44
999+00	1.25	11.97	79.72	358.45	1004.57	1255.72	-15,714.90	41.99	153.07
1000+00	1.25	33.01	83.30	267.26	1158.72	1448.40	-17,080.01	43.81	158.89
1001+00	1.25	0.00	61.13	194.73	855.54	1069.42	-18,088.30	26.56	130.31
1002+00	1.25	308.03	570.43	18.93	395.67	494.58	-18,012.46	57.62	155.89
1002+29	1.25	-	0.00	-	160.00	200.00	-18,212.46	-	-
1002+36	1.25	-	0.00	-	160.00	200.00	-18,412.46	-	-
1003+00	1.25	377.54	1269.57	8.83	51.41	64.26	-17,207.14	60.80	219.30
1004+00	1.25	3.99	706.54	230.03	442.33	552.92	-17,053.52	34.63	176.72
1005+00	1.25	0.00	7.39	370.00	1111.17	1388.96	-18,435.09	37.42	133.43
1006+00	1.25	38.99	72.20	200.07	1055.69	1319.61	-19,682.50	37.67	139.06
1007+00	1.25	347.07	714.93	47.86	459.13	573.91	-19,541.48	50.71	163.67
1008+00	1.25	83.59	797.52	56.30	192.89	241.11	-18,985.07	38.34	164.91
1009+00	1.25	0.00	154.80	192.02	459.85	574.81	-19,405.09	28.55	123.87
1010+00	1.25	60.80	112.59	50.17	448.50	560.63	-19,853.13	35.19	118.04
1011+00	1.25	471.60	985.93	0.00	92.91	116.13	-18,983.33	52.66	162.69
1012+00	1.25	1029.92	2780.59	0.00	0.00	0.00	-16,202.74	71.06	229.11
1013+00	1.25	538.39	2904.28	0.00	0.00	0.00	-13,298.46	65.09	252.13
1014+00	1.25	25.27	1043.81	119.01	220.39	275.49	-12,530.13	34.18	183.83
1015+00	1.25	0.00	46.80	183.11	559.48	699.35	-13,182.69	89.45	228.94
1016+00	1.25	99.70	184.63	54.82	440.61	550.76	-13,548.82	45.56	250.02
1017+00	1.25	648.08	1384.78	0.00	101.52	126.90	-12,290.94	63.26	201.52
1018+00	1.25	518.55	2160.43	0.00	0.00	0.00	-10,130.52	57.86	224.30
1019+00	1.25	19.04	995.54	121.62	225.22	281.53	-9,416.51	31.19	164.91
1020+00	1.25	0.00	35.26	389.70	946.89	1183.61	-10,564.86	33.69	120.15
1021+00	1.25	0.00	0.00	366.66	1400.67	1750.83	-12,315.69	34.01	125.37
1022+00	1.25	215.87	399.76	17.37	711.17	888.96	-12,804.89	50.63	156.74
1023+00	1.25	882.85	2034.67	0.00	32.17	40.21	-10,810.44	64.09	212.44
1024+00	1.25	1012.79	3510.44	0.00	0.00	0.00	-7,299.99	70.77	249.74
1024+97	1.25	-	0.00	-	400.00	500.00	-7,799.99	-	-
1025+00	1.25	1318.06	4316.39	0.00	0.00	0.00	-3,483.60	70.81	262.19
1025+05	1.25	-	0.00	-	400.00	500.00	-3,983.60	-	-
1026+00	1.25	1075.32	4432.19	0.00	0.00	0.00	448.58	71.06	262.72
1027+00	1.25	335.94	2613.44	0.00	0.00	0.00	3,062.03	56.68	236.56
1028+00	1.25	0.00	622.11	259.43	480.43	600.53	3,083.61	29.05	158.76
1028+38	1.25	-	0.00	-	400.00	500.00	2,583.61	-	-
1029+00	1.25	0.00	0.00	803.63	1968.63	2460.79	122.82	50.65	147.59
1030+00	1.25	2.33	4.31	891.58	3139.28	3924.10	-3,796.96	105.63	289.41
1031+00	1.25	86.14	163.83	755.36	3049.89	3812.36	-7,445.49	61.84	310.13
1032+00	1.25	84.11	315.28	375.11	2093.46	2616.83	-9,747.04	45.49	198.76
1033+00	1.25	37.70	225.57	363.74	1368.24	1710.30	-11,231.77	51.84	180.24
1034+00	1.25	15.25	98.06	504.79	1608.39	2010.49	-13,144.20	49.86	188.33
1035+00	1.25	0.00	28.24	550.70	1954.61	2443.26	-15,559.22	38.11	162.91
1036+00	1.25	246.41	456.31	0.00	1019.81	1274.77	-16,377.68	48.18	159.80
1037+00	1.25	1208.73	2694.70	0.00	0.00	0.00	-13,682.97	67.96	215.07
1038+00	1.25	1459.18	4940.57	0.00	0.00	0.00	-8,742.40	75.37	265.43
1039+00	1.25	1670.07	5781.61	0.00	0.00	0.00	-2,960.79	83.15	293.56
1039+36	1.25	-	0.00	-	160.00	200.00	-3,160.79	-	-
1039+39	1.25	-	0.00	-	160.00	200.00	-3,360.79	-	-
1040+00	1.25	1150.10	5222.82	0.00	0.00	0.00	1,862.03	71.32	286.06
1041+00	1.25	410.72	2895.62	0.00	0.00	0.00	4,757.65	49.85	224.39
1042+00	1.25	24.24	807.54	212.95	393.72	492.15	5,073.04	27.34	142.94
1043+00	1.25	18.64	80.41	1172.04	2553.79	3192.23	1,961.22	55.85	154.06
1044+00	1.25	39.51	109.56	1821.70	5519.13	6898.91	-4,828.13	68.06	229.46
1045+00	1.25	64.29	196.29	1379.61	5904.36	7380.46	-12,012.30	73.29	261.76
1046+00	1.25	167.29	439.28	838.94	4090.01	5112.51	-16,685.52	81.47	286.59

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 02/11/25	ND	01(62)23	11	4

SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-3914
LS-6427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
1047+00	1.25	255.70	804.84	667.13	2774.97	3468.72	-19,349.40	85.32	308.87
1048+00	1.25	519.16	1473.27	118.92	1450.00	1812.50	-19,688.63	80.74	307.52
1048+57	1.25	-	0.00	-	160.00	200.00	-19,888.63	-	-
1049+00	1.25	1444.64	3698.44	0.00	219.72	274.65	-16,464.84	94.73	324.94
1050+00	1.25	2988.91	8263.69	0.00	0.00	0.00	-8,201.15	107.36	374.24
1051+00	1.25	2846.86	10831.00	0.00	0.00	0.00	2,629.85	91.92	369.04
1052+00	1.25	1708.09	8447.33	0.00	0.00	0.00	11,077.18	77.31	313.39
1053+00	1.25	842.45	4722.71	0.00	0.00	0.00	15,799.89	64.28	262.20
1054+00	1.25	165.40	1859.47	192.21	356.53	445.66	17,213.71	47.53	207.06
1055+00	1.25	0.00	304.28	658.59	1578.70	1973.37	15,544.62	36.06	154.80
1056+00	1.25	0.00	0.00	960.65	3006.86	3758.57	11,786.05	47.66	155.04
1057+00	1.25	0.00	0.00	831.79	3328.95	4161.18	7,624.86	41.83	165.72
1058+00	1.25	0.00	0.00	635.75	2723.33	3404.17	4,220.70	38.10	148.02
1059+00	1.25	0.00	0.00	773.06	2616.04	3270.05	950.65	43.88	151.81
1060+00	1.25	0.00	0.00	750.61	2833.97	3542.46	-2,591.81	46.27	166.94
1060+31	1.25	-	0.00	-	400.00	500.00	-3,091.81	-	-
1061+00	1.25	39.13	71.34	584.70	2484.73	3105.91	-6,126.38	57.49	192.15
1062+00	1.25	39.40	143.19	538.07	2087.42	2609.27	-8,592.46	55.38	209.02
1063+00	1.25	1.62	74.81	626.38	2162.27	2702.84	-11,220.49	47.81	191.09
1064+00	1.25	0.00	2.96	575.44	2227.85	2784.82	-14,002.34	34.09	151.67
1065+00	1.25	10.56	19.92	620.16	2215.07	2768.84	-16,751.26	48.96	153.80
1066+00	1.25	108.66	222.19	334.74	1771.02	2213.77	-18,742.84	66.13	213.13
1067+00	1.25	718.03	1530.91	0.25	620.35	775.44	-17,987.37	92.89	294.48
1068+00	1.25	859.53	2921.41	0.00	0.46	0.58	-15,066.54	94.66	347.31
1069+00	1.25	727.68	2939.28	32.86	60.85	76.06	-12,203.33	89.78	341.56
1070+00	1.25	473.25	2223.94	158.80	354.93	443.66	-10,423.04	90.85	334.50
1071+00	1.25	266.97	1370.78	348.76	939.93	1174.91	-10,227.17	82.59	321.19
1072+00	1.25	317.53	1082.41	421.97	1427.28	1784.10	-10,928.86	80.68	302.35
1073+00	1.25	258.58	1066.87	492.16	1692.83	2116.04	-11,978.03	74.20	286.81
1074+00	1.25	62.12	593.89	591.36	2006.52	2508.15	-13,892.29	54.79	238.87
1075+00	1.25	64.75	234.94	632.96	2267.26	2834.07	-16,491.42	56.66	206.39
1076+00	1.25	33.57	182.07	662.61	2399.20	2999.00	-19,308.35	50.59	198.61
1077+00	1.25	26.21	110.70	589.90	2319.46	2899.33	-22,096.98	52.77	191.41
1078+00	1.25	65.52	169.87	480.29	1981.83	2477.29	-24,404.40	61.21	211.07
1079+00	1.25	184.09	462.24	310.87	1465.11	1831.39	-25,773.55	67.88	239.06
1080+00	1.25	262.93	827.81	179.22	907.57	1134.47	-26,080.20	73.78	262.33
1081+00	1.25	352.10	1138.94	118.62	551.56	689.44	-25,630.70	70.46	267.11
1082+00	1.25	180.84	986.93	137.22	473.78	592.22	-25,236.00	55.63	233.50
1083+00	1.25	53.20	433.41	145.92	524.33	655.42	-25,458.01	36.78	171.13
1084+00	1.25	77.56	242.15	158.48	563.70	704.63	-25,920.49	39.51	141.28
1085+00	1.25	145.56	413.19	200.52	664.81	831.02	-26,338.32	58.82	182.09
1086+00	1.25	253.46	738.93	223.48	785.19	981.48	-26,580.88	71.04	240.48
1087+00	1.25	210.43	859.06	201.34	786.70	983.38	-26,705.20	70.06	261.30
1088+00	1.25	326.46	994.24	150.11	650.83	813.54	-26,524.50	69.18	257.85
1089+00	1.25	587.42	1692.37	0.00	277.98	347.48	-25,179.61	59.24	237.81
1090+00	1.25	806.12	2553.87	0.00	0.00	0.00	-22,625.74	66.00	231.93
1091+00	1.25	843.59	3030.66	0.00	0.00	0.00	-19,595.08	52.02	218.56
1092+00	1.25	953.07	3307.62	0.00	0.00	0.00	-16,287.46	24.45	141.61
1093+00	1.25	758.26	3153.04	0.00	0.00	0.00	-13,134.42	57.08	150.98
1093+17	1.25	-	0.00	-	160.00	200.00	-13,334.42	-	-
1094+00	1.25	672.28	2641.17	1.36	2.52	3.15	-10,696.40	65.57	227.13
1095+00	1.25	518.38	2205.20	61.24	116.20	145.26	-8,636.46	67.38	246.20
1096+00	1.25	357.62	1625.97	156.05	403.12	503.90	-7,514.39	70.07	254.54
1097+00	1.25	270.86	1163.85	199.54	658.50	823.13	-7,173.66	77.00	272.35
1098+00	1.25	176.05	827.61	315.36	953.52	1191.90	-7,537.95	83.98	298.11
1099+00	1.25	163.72	629.20	527.33	1560.54	1950.67	-8,859.41	95.02	331.48
1100+00	1.25	198.93	671.57	837.94	2528.28	3160.35	-11,348.19	103.77	368.13
1101+00	1.25	162.69	669.67	1567.56	4454.63	5568.29	-16,246.81	106.84	390.02
1102+00	1.25	171.60	619.06	1778.17	6195.80	7744.75	-23,372.50	123.84	427.19
1103+00	1.25	170.78	634.04	1757.75	6548.00	8185.00	-30,923.46	129.64	469.41
1104+00	1.25	153.24	600.04	1549.15	6123.89	7654.86	-37,978.28	137.89	495.43
1105+00	1.25	171.67	601.69	742.15	4243.15	5303.94	-42,680.53	140.75	516.00
1106+00	1.25	204.25	696.15	384.86	2087.06	2608.82	-44,593.20	141.46	522.61
1107+00	1.25	337.30	1002.87	247.50	1171.04	1463.80	-45,054.13	150.64	540.93
1108+00	1.25	734.29	1984.43	114.84	671.00	838.75	-43,908.45	155.85	567.57
1109+00	1.25	1248.38	3671.61	67.49	337.65	422.06	-40,658.90	150.93	568.11
1110+00	1.25	1695.08	5450.85	1.64	128.02	160.02	-35,368.08	141.71	541.93
1111+00	1.25	1550.45	6010.24	2.81	8.24	10.30	-29,368.14	130.32	503.76
1111+50	1.25	-	0.00	-	160.00	200.00	-29,568.14	-	-
1112+00	1.25	804.89	4361.74	16.81	36.33	45.42	-25,251.81	102.18	430.56
1113+00	1.25	667.59	2726.81	16.92	62.46	78.08	-22,603.08	85.20	347.00
1114+00	1.25	683.21	2501.48	53.92	131.19	163.98	-20,265.58	87.14	319.15
1115+00	1.25	584.78	2348.13	83.16	253.85	317.31	-18,234.76	83.78	316.52
1116+00	1.25	484.46	1980.07	165.62	460.70	575.88	-16,830.57	86.63	315.57
1117+00	1.25	179.89	1199.25	207.09	686.44	858.05	-16,489.36	67.56	285.54
1118+00	1.25	326.05	896.29	109.20	585.29	731.61	-16,324.68	74.70	263.44
1119+00	1.25	627.31	1744.16	28.14	252.68	315.85	-14,896.37	79.01	284.65
1120+00	1.25	679.83	2432.50	15.76	80.66	100.83	-12,564.70	68.23	272.67
1121+00	1.25	528.68	2256.27	0.00	29.22	36.53	-10,344.96	52.21	223.04
1122+00	1.25	554.14	2039.68	0.00	480.00	600.00	-8,905.28	53.94	196.57

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 02/11/25	ND	01(62)23	11	5

SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-3914
LS-5427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
1123+00	1.25	324.97	1679.03	26.73	48.54	60.68	-7,286.93	35.98	166.52
1124+00	1.25	42.96	706.39	215.52	439.95	549.94	-7,130.48	36.37	133.98
1125+00	1.25	0.00	82.24	361.63	1054.74	1318.43	-8,366.67	35.50	133.09
1126+00	1.25	0.00	0.00	406.19	1412.94	1766.17	-10,132.84	34.67	129.94
1127+00	1.25	0.00	0.00	363.48	1425.31	1781.64	-11,914.48	33.71	126.63
1128+00	1.25	0.00	0.00	336.95	1297.09	1621.37	-13,535.85	31.76	121.24
1129+00	1.25	0.00	0.00	402.73	1369.78	1712.22	-15,248.07	33.55	120.94
1130+00	1.25	0.00	0.00	483.96	1642.02	2052.52	-17,300.59	37.84	132.20
1131+00	1.25	0.00	0.00	613.18	2031.74	2539.68	-19,840.27	40.58	145.22
1131+99	1.25	-	0.00	-	400.00	500.00	-20,340.27	-	-
1132+00	1.25	0.00	0.00	742.28	2510.11	3137.64	-23,477.91	41.66	152.30
1133+00	1.25	0.00	0.00	842.82	2935.37	3669.21	-27,147.12	45.55	161.50
1134+00	1.25	0.00	0.00	799.61	3041.54	3801.92	-30,949.04	44.49	166.74
1135+00	1.25	0.00	0.00	751.80	2872.98	3591.23	-34,540.27	42.97	161.96
1136+00	1.25	0.00	0.00	686.38	2663.30	3329.12	-37,869.39	41.90	157.17
1137+00	1.25	0.00	0.00	347.96	1915.44	2394.31	-40,263.70	33.48	139.59
1138+00	1.25	0.09	0.17	142.46	908.19	1135.23	-41,398.76	29.42	116.48
1139+00	1.25	0.00	0.17	166.43	572.02	715.02	-42,113.62	23.61	98.20
1139+07	1.25	-	0.00	-	400.00	500.00	-42,613.62	-	-
1140+00	1.25	0.00	0.00	716.23	1634.56	2043.19	-44,656.81	43.27	123.85
1141+00	1.25	0.00	0.00	985.28	3150.94	3938.68	-48,595.49	49.42	171.65
1142+00	1.25	0.00	0.00	882.46	3458.78	4323.47	-52,918.97	44.49	173.91
1143+00	1.25	0.00	0.00	463.46	2492.44	3115.56	-56,034.52	33.69	144.78
1144+00	1.25	10.29	19.06	76.73	1000.35	1250.44	-57,265.91	31.22	120.20
1145+00	1.25	278.81	535.37	0.00	142.09	177.62	-56,908.15	43.13	137.69
1146+00	1.25	484.04	1412.69	0.00	0.00	0.00	-55,495.47	50.07	172.59
1146+15	1.25	-	0.00	-	160.00	200.00	-55,695.47	-	-
1147+00	1.25	35.20	961.56	58.82	108.93	136.16	-54,870.07	30.31	148.85
1148+00	1.25	0.00	65.19	518.13	1068.43	1335.53	-56,140.41	36.18	123.13
1149+00	1.25	0.00	0.00	914.27	2652.59	3315.74	-59,456.16	45.41	151.09
1150+00	1.25	0.00	0.00	1218.06	3948.76	4935.95	-64,392.10	50.22	177.09
1151+00	1.25	0.00	0.00	1466.71	4971.80	6214.75	-70,606.85	53.08	191.30
1152+00	1.25	0.00	0.00	1565.50	5615.20	7019.00	-77,625.85	53.78	197.89
1153+00	1.25	0.00	0.00	1608.47	5877.72	7347.15	-84,973.01	55.65	202.65
1154+00	1.25	0.00	0.00	1469.00	5699.02	7123.77	-92,096.78	54.05	203.15
1155+00	1.25	0.00	0.00	1060.67	4684.57	5855.72	-97,952.50	47.30	187.69
1155+92	1.25	-	0.00	-	800.00	1000.00	-98,952.50	-	-
1155+94	1.25	-	0.00	-	400.00	500.00	-99,452.50	-	-
1156+00	1.25	0.00	0.00	497.30	2885.13	3606.41	-103,058.91	4.13	95.24
1157+00	1.25	0.00	0.00	379.20	1623.15	2028.94	-105,087.84	29.71	62.67
1158+00	1.25	0.00	0.00	218.28	1106.44	1383.06	-106,470.90	24.61	100.59
1159+00	1.25	5.24	9.70	106.07	600.65	750.81	-107,212.01	26.18	94.06
1160+00	1.25	39.54	82.93	35.93	262.96	328.70	-107,457.78	35.97	115.09
1161+00	1.25	48.15	162.39	25.18	113.17	141.46	-107,436.85	35.56	132.46
1162+00	1.25	44.19	171.00	31.32	104.63	130.79	-107,396.64	35.90	132.33
1163+00	1.25	63.86	200.09	16.39	88.35	110.44	-107,306.99	37.60	136.11
1164+00	1.25	132.69	363.98	3.37	36.59	45.74	-106,988.75	39.37	142.54
1164+73	1.25	-	0.00	-	160.00	200.00	-107,188.75	-	-
1165+00	1.25	230.11	671.85	0.12	6.46	8.08	-106,524.97	32.29	132.70
1166+00	1.25	195.78	788.69	0.00	0.22	0.28	-105,736.57	38.78	131.61
1167+00	1.25	76.35	503.94	17.51	32.43	40.53	-105,273.16	28.32	124.26
1168+00	1.25	54.22	241.80	40.53	107.48	134.35	-105,165.71	30.45	108.83
1169+00	1.25	34.58	164.44	56.08	178.91	223.63	-105,224.90	31.30	114.35
1170+00	1.25	56.13	167.98	44.88	186.96	233.70	-105,290.62	35.24	123.22
1171+00	1.25	99.44	288.09	11.92	105.19	131.48	-105,134.01	29.95	120.72
1172+00	1.25	228.55	607.39	0.00	22.07	27.59	-104,554.22	39.34	128.31
1172+58	1.25	-	0.00	-	160.00	200.00	-104,754.22	-	-
1172+74	1.25	-	0.00	-	160.00	200.00	-104,954.22	-	-
1173+00	1.25	412.75	1187.59	0.00	0.00	0.00	-103,766.62	46.47	158.91
1174+00	1.25	428.05	1557.04	0.00	0.00	0.00	-102,209.59	48.03	175.00
1175+00	1.25	419.57	1569.67	0.00	0.00	0.00	-100,639.92	46.92	175.83
1176+00	1.25	358.73	1441.30	0.00	0.00	0.00	-99,198.62	45.64	171.41
1177+00	1.25	1.66	667.39	54.38	100.70	125.88	-98,657.11	20.53	122.54
1178+00	1.25	0.00	3.07	473.72	977.96	1222.45	-99,876.49	38.62	109.54
1179+00	1.25	0.00	0.00	551.31	1898.20	2372.75	-102,249.25	36.18	138.52
1180+00	1.25	0.00	0.00	485.62	1920.24	2400.30	-104,649.55	33.82	129.63
1181+00	1.25	0.00	0.00	560.21	1936.72	2420.90	-107,070.45	34.68	126.85
1182+00	1.25	0.00	0.00	601.73	2151.74	2689.68	-109,760.13	38.86	136.19
1183+00	1.25	0.00	0.00	565.42	2161.39	2701.74	-112,461.86	36.63	139.80
1184+00	1.25	0.00	0.00	486.61	1948.20	2435.25	-114,897.12	35.97	134.44
1185+00	1.25	9.73	18.02	313.00	1480.76	1850.95	-116,730.05	42.12	144.61
1186+00	1.25	140.72	278.61	20.79	618.13	772.66	-117,224.10	43.11	157.83
1187+00	1.25	233.16	692.37	1.32	40.94	51.18	-116,582.91	38.54	151.20
1188+00	1.25	123.89	661.20	33.74	64.93	81.16	-116,002.86	36.12	138.26
1189+00	1.25	35.25	294.70	63.71	180.46	225.58	-115,933.74	29.99	122.43
1189+52	1.25	-	0.00	-	160.00	200.00	-116,133.74	-	-
1190+00	1.25	6.09	76.56	165.70	424.83	531.04	-116,588.22	31.91	114.63
1191+00	1.25	0.00	11.28	257.80	784.26	980.32	-117,557.27	26.38	107.94
1192+00	1.25	0.00	0.00	269.29	976.09	1220.12	-118,777.39	24.90	94.96
1193+00	1.25	0.00	0.00	229.23	923.19	1153.98	-119,931.37	22.80	88.33

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-3914
LS-6427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
1194+00	1.25	0.00	0.00	143.51	690.26	862.82	-120,794.19	18.55	76.57
1195+00	1.25	17.52	32.44	38.32	336.72	420.90	-121,182.65	32.24	94.06
1196+00	1.25	163.70	335.59	0.00	70.96	88.70	-120,935.76	37.91	129.91
1197+00	1.25	327.18	909.04	0.00	0.00	0.00	-120,026.72	41.89	147.78
1198+00	1.25	389.01	1326.28	0.00	0.00	0.00	-118,700.45	43.87	158.81
1199+00	1.25	323.51	1319.48	0.00	0.00	0.00	-117,380.97	41.88	158.80
1199+61	1.25	-	0.00	-	160.00	200.00	-117,580.97	-	-
1200+00	1.25	131.33	842.30	0.00	0.00	0.00	-116,738.67	34.59	141.61
1201+00	1.25	47.95	332.00	26.82	49.67	62.08	-116,468.75	28.22	116.31
1202+00	1.25	67.71	214.19	10.17	68.50	85.63	-116,340.19	26.98	102.22
1203+00	1.25	114.01	336.52	1.31	21.26	26.57	-116,030.25	34.15	113.20
1204+00	1.25	203.41	587.81	0.00	2.43	3.03	-115,445.47	40.31	137.89
1205+00	1.25	272.94	882.13	0.00	0.00	0.00	-114,563.34	42.75	153.81
1206+00	1.25	207.19	889.13	0.00	0.00	0.00	-113,674.21	40.50	154.17
1207+00	1.25	62.13	498.74	11.57	21.43	26.78	-113,202.25	34.16	138.26
1208+00	1.25	18.17	148.70	146.06	291.91	364.88	-113,418.43	29.94	118.70
1209+00	1.25	0.00	33.65	330.48	882.48	1103.10	-114,487.88	27.23	105.87
1210+00	1.25	0.00	0.00	482.34	1505.22	1881.53	-116,369.41	33.08	111.69
1211+00	1.25	0.00	0.00	516.67	1850.02	2312.52	-118,681.93	34.35	124.87
1212+00	1.25	0.00	0.00	443.33	1777.78	2222.22	-120,904.16	31.65	122.22
1213+00	1.25	0.00	0.00	511.35	1767.93	2209.91	-123,114.06	33.20	120.09
1214+00	1.25	0.00	0.00	632.92	2119.02	2648.77	-125,762.84	37.81	131.50
1214+48	1.25	-	0.00	-	400.00	500.00	-126,262.84	-	-
1215+00	1.25	0.00	0.00	525.58	2145.37	2681.71	-128,944.55	35.61	135.96
1215+19	1.25	-	0.00	-	400.00	500.00	-129,444.55	-	-
1216+00	1.25	11.04	20.44	189.70	1324.59	1655.74	-131,079.84	36.56	133.65
1217+00	1.25	94.60	195.63	93.25	523.98	654.98	-131,539.19	45.61	152.17
1218+00	1.25	84.84	332.30	134.55	421.85	527.31	-131,734.21	43.31	164.67
1219+00	1.25	10.97	177.43	466.00	1112.13	1390.16	-132,946.95	40.25	154.74
1219+56	1.25	-	0.00	-	160.00	200.00	-133,146.95	-	-
1220+00	1.25	352.73	673.52	6.54	875.07	1093.84	-133,567.27	46.48	160.61
1221+00	1.25	630.16	1820.17	0.00	12.11	15.14	-131,762.24	58.70	194.78
1222+00	1.25	186.63	1512.57	84.10	155.74	194.68	-130,444.34	50.10	201.48
1223+00	1.25	0.00	345.61	652.57	1364.20	1705.25	-131,803.99	38.20	163.52
1224+00	1.25	0.00	0.00	1439.24	3873.72	4842.15	-136,646.14	53.66	170.11
1225+00	1.25	0.00	0.00	1706.24	5824.96	7281.20	-143,927.34	56.29	203.61
1226+00	1.25	1.15	2.13	1752.85	6405.72	8007.15	-151,932.37	61.03	217.26
1227+00	1.25	0.94	3.87	1559.94	6134.80	7668.50	-159,596.99	57.86	220.17
1228+00	1.25	60.44	113.67	1136.87	4994.09	6242.62	-165,725.94	77.25	250.20
1229+00	1.25	68.30	238.41	822.61	3628.67	4535.83	-170,023.37	55.67	246.15
1230+00	1.25	139.35	384.54	515.58	2478.13	3097.66	-172,736.49	57.68	209.91
1231+00	1.25	0.00	258.06	396.59	1689.20	2111.50	-174,589.94	39.04	179.11
1232+00	1.25	155.12	287.26	0.00	734.43	918.03	-175,220.72	20.73	110.69
1233+00	1.25	1076.67	2281.09	0.00	0.00	0.00	-172,939.62	59.21	148.04
1234+00	1.25	2164.64	6002.43	0.00	0.00	0.00	-166,937.20	87.38	271.46
1235+00	1.25	2406.90	8465.81	0.00	0.00	0.00	-158,471.38	92.07	332.31
1236+00	1.25	1321.15	6903.80	0.00	0.00	0.00	-151,567.59	82.16	322.65
1237+00	1.25	0.00	2446.57	217.01	401.87	502.34	-149,623.35	34.78	216.56
1238+00	1.25	0.00	0.00	961.77	2182.93	2728.66	-152,352.01	92.94	236.52
1239+00	1.25	0.00	0.00	1204.72	4012.02	5015.02	-157,367.03	51.19	266.91
1240+00	1.25	0.00	0.00	1333.21	4699.87	5874.84	-163,241.87	49.84	187.09
1241+00	1.25	0.00	0.00	1325.29	4923.15	6153.94	-169,395.80	48.45	182.02
1242+00	1.25	5.82	10.78	1178.92	4637.43	5796.78	-175,181.81	51.50	185.09
1243+00	1.25	0.00	10.78	1212.53	4428.61	5535.76	-180,706.79	46.97	182.35
1244+00	1.25	0.00	0.00	1008.20	4112.46	5140.58	-185,847.37	44.79	169.93
1245+00	1.25	25.66	47.52	462.47	2723.46	3404.33	-189,204.18	48.52	172.80
1246+00	1.25	86.57	207.83	102.45	1046.15	1307.69	-190,304.03	35.17	154.98
1247+00	1.25	774.62	1594.80	0.00	189.72	237.15	-188,946.39	69.61	194.04
1248+00	1.25	922.45	3142.72	0.00	800.00	1000.00	-186,803.67	50.47	222.37
1249+00	1.25	647.30	2906.94	0.00	0.00	0.00	-183,896.72	58.04	200.94
1250+00	1.25	316.23	1784.31	1.57	2.91	3.63	-182,116.04	51.09	202.09
1251+00	1.25	0.08	585.76	204.53	381.67	477.08	-182,007.37	25.94	142.65
1252+00	1.25	5.81	10.91	729.94	1730.50	2163.13	-184,159.59	49.90	140.44
1253+00	1.25	0.00	10.76	1031.79	3262.46	4078.08	-188,226.91	52.51	189.65
1254+00	1.25	0.00	0.00	869.05	3520.07	4400.09	-192,627.00	48.22	186.54
1255+00	1.25	0.00	0.00	276.93	2122.19	2652.73	-195,279.73	33.29	150.94
1256+00	1.25	280.20	518.89	0.00	512.83	641.04	-195,401.88	37.24	130.61
1257+00	1.25	703.57	1821.80	0.00	0.00	0.00	-193,580.09	47.74	157.37
1258+00	1.25	782.94	2752.80	0.00	0.00	0.00	-190,827.29	51.35	183.50
1259+00	1.25	560.28	2487.44	0.00	0.00	0.00	-188,339.84	52.11	191.59
1260+00	1.25	59.96	1148.59	4.45	8.24	10.30	-187,201.55	22.71	138.56
1261+00	1.25	0.00	111.04	606.66	1131.69	1414.61	-188,505.12	47.54	130.09
1262+00	1.25	0.00	0.00	1264.89	3465.83	4332.29	-192,837.41	60.14	199.41
1263+00	1.25	0.00	0.00	1276.32	4705.94	5882.43	-198,719.84	59.10	220.81
1264+00	1.25	0.00	0.00	785.46	3818.11	4772.64	-203,492.48	42.86	188.81
1264+29	1.25	-	0.00	-	800.00	1000.00	-204,492.48	-	-
1264+37	1.25	-	0.00	-	400.00	500.00	-204,992.48	-	-
1265+00	1.25	0.00	0.00	469.42	2323.85	2904.81	-207,897.30	40.75	154.83
1266+00	1.25	0.00	0.00	363.13	1541.76	1927.20	-209,824.50	53.88	175.24
1267+00	1.25	0.00	0.00	254.07	1142.96	1428.70	-211,253.20	62.17	214.91

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SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-3914
LS-6427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

Earthwork Quantities Report

Station	Factor	Cut Area (SF)	Cut Volume (CY)	Fill Area (SF)	Fill Volume (CY)	Facotred Fill Volume (CY)	Mass Ordinate (CY)	Topsoil Area (SF)	Topsoil Volume (CY)
1268+00	1.25	0.00	0.00	138.35	726.70	908.38	-212,161.58	31.01	172.56
1269+00	1.25	10.88	20.15	53.16	354.65	443.31	-212,584.74	20.17	94.78
1270+00	1.25	9.09	36.98	38.98	170.63	213.29	-212,761.05	19.32	73.13
1271+00	1.25	24.26	61.76	25.12	118.70	148.38	-212,847.67	23.48	79.26
1272+00	1.25	12.77	68.57	36.64	114.37	142.96	-212,922.06	17.38	75.67
1273+00	1.25	6.75	36.15	73.09	203.20	254.00	-213,139.91	24.15	76.91
1274+00	1.25	7.32	26.06	79.85	283.22	354.03	-213,467.89	25.91	92.70
1275+00	1.25	6.96	26.44	75.95	288.52	360.65	-213,802.09	25.40	95.02
1276+00	1.25	11.16	33.56	112.40	348.80	436.00	-214,204.53	30.12	102.81
1277+00	1.25	9.03	37.39	149.61	485.20	606.50	-214,773.65	34.60	119.85
1278+00	1.25	7.84	31.24	119.59	498.52	623.15	-215,365.55	27.94	115.81
1279+00	1.25	4.57	22.98	152.40	503.69	629.61	-215,972.18	29.19	105.80
1280+00	1.25	87.22	169.98	131.30	525.37	656.71	-216,458.91	60.60	166.28
1281+00	1.25	266.01	654.13	95.23	419.50	524.38	-216,329.16	68.51	239.09
1282+00	1.25	341.81	1125.59	68.36	302.94	378.68	-215,582.24	64.27	245.89
1283+00	1.25	379.00	1334.83	0.00	126.59	158.24	-214,405.65	42.84	198.35
1284+00	1.25	313.76	1282.89	0.00	0.00	0.00	-213,122.76	37.43	148.65
1285+00	1.25	45.25	664.83	39.59	73.31	91.64	-212,549.57	32.18	128.91
1286+00	1.25	0.00	83.80	324.93	675.04	843.80	-213,309.57	37.64	129.30
1287+00	1.25	0.00	0.00	553.27	1626.30	2032.87	-215,342.44	42.70	148.78
1288+00	1.25	2.33	4.31	712.94	2344.83	2931.04	-218,269.17	47.97	167.91
1289+00	1.25	2.16	8.31	615.00	2459.15	3073.94	-221,334.79	40.77	164.33
1290+00	1.25	5.00	13.26	492.98	2051.81	2564.77	-223,886.30	32.35	135.41
1291+00	1.25	5.05	18.61	337.70	1538.30	1922.87	-225,790.56	29.49	114.52
1292+00	1.25	0.00	9.35	206.05	1006.94	1258.68	-227,039.89	10.14	73.39
1292+06	1.25	-	0.00	-	400.00	500.00	-227,539.89	-	-
1292+10	1.25	-	0.00	-	400.00	500.00	-228,039.89	-	-
1293+00	1.25	7.60	14.07	319.84	973.87	1217.34	-229,243.15	33.38	80.59
1294+00	1.25	4.59	22.57	296.25	1140.91	1426.13	-230,646.71	38.81	133.69
1295+00	1.25	35.23	73.74	116.01	763.44	954.31	-231,527.28	20.72	110.24
1295+10	1.25	-	0.00	-	400.00	500.00	-232,027.28	-	-
1296+00	1.25	6.01	76.37	57.92	322.09	402.62	-232,353.52	27.95	90.13
1297+00	1.25	163.47	313.85	8.18	122.41	153.01	-232,192.68	28.79	105.07
1297+76	1.25	-	0.00	-	160.00	200.00	-232,392.68	-	-
1298+00	1.25	180.28	636.57	0.00	15.15	18.94	-231,775.04	20.45	91.19
1298+63	1.25	-	0.00	-	160.00	200.00	-231,975.04	-	-
1299+00	1.25	15.83	363.17	76.06	140.85	176.06	-231,787.94	23.25	80.93
1300+00	1.25	4.28	37.24	83.82	296.07	370.09	-232,120.79	23.30	86.20
1301+00	1.25	2.35	12.28	24.73	201.02	251.27	-232,359.78	24.59	88.69
1302+00	1.25	129.33	243.85	0.08	45.94	57.43	-232,173.36	33.68	107.91
1303+00	1.25	0.00	239.50	0.00	0.15	0.19	-231,934.05	0.00	62.37
			608185.47		Total	840119.52		Total	103350.85

203 0119
Topsoil Imported (CY)

Station	CY
791+70 to 798+70 Lt	246
794+00 to 798+50 Rt	158
825+05 to 829+00 Rt	139
905+85 to 909+75 Rt	137
906+10 to 910+50 Lt	155
922+05 to 927+30 Lt	185
922+75 to 928+30 Rt	195
949+90 to 955+05 Rt	181
950+15 to 959+70 Lt	336
1027+80 to 1030+60 Rt	99
1059+90 to 1065+70 Lt	204
1082+20 to 1089+20 Lt	246
1099+05 to 1101+00 Lt	69
1123+70 to 1131+00 Lt	257
1266+30 to 1282+90 Lt	584
1285+15 to 1288+95 Lt	134
Total	**3325**

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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Approach Quantities

Station	Factored Fill Volume (CY)	Station	Factored Fill Volume (CY)
789+81 Lt	200	1002+36 Rt	200
791+00 Rt	500	1024+97 Lt	500
806+58 Lt	200	1025+05 Rt	500
817+24 Lt	200	1028+38 Lt	500
817+29 Rt	200	1039+36 Rt	200
824+32 Rt	200	1039+39 Lt	200
824+85 Lt	200	1048+57 Lt	200
834+89 Lt	500	1060+31 Rt	500
836+95 Rt	500	1093+17 Rt	200
843+90 Lt	500	1111+50 Lt	200
845+78 Rt	200	1122+00 Rt	600
848+20 Lt	500	1131+99 Lt	500
860+31 Lt	200	1139+07 Rt	500
860+46 Rt	200	1146+15 Lt	200
870+29 Lt	200	1155+92 Lt	1000
870+36 Rt	200	1155+94 Rt	500
884+80 Rt	500	1164+73 Rt	200
889+90 Lt	500	1172+58 Rt	200
896+20 Lt	200	1172+74 Lt	200
896+71 Rt	200	1189+52 Lt	200
897+57 Lt	200	1199+61 Rt	200
914+53 Lt & Rt	400	1214+48 Lt	500
918+36 Lt	200	1215+19 Rt	500
943+50 Lt & Rt	1700	1219+56 Rt	200
956+36 Rt	200	1248+00 Lt & Rt	1000
962+43 Rt	200	1264+29 Lt	1000
966+15 Rt	200	1264+37 Rt	500
966+40 Lt	200	1292+06 Lt	500
973+92 Rt	500	1292+10 Rt	500
975+81 Rt	200	1295+10 Rt	500
975+85 Lt	200	1297+76 Rt	200
979+48 Lt	200	1298+63 Lt	200
1002+29 Lt	200	Total	23800

*Approach quantities are included in the earthwork summary table and mass diagram

SAUBER ENGINEERING

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-3014
LS-8427
DATE 2/11/25
NORTH DAKOTA

Earthwork Summary

Reconstruction
County Route 1

Mountrail County, ND

Revised 02/11/25	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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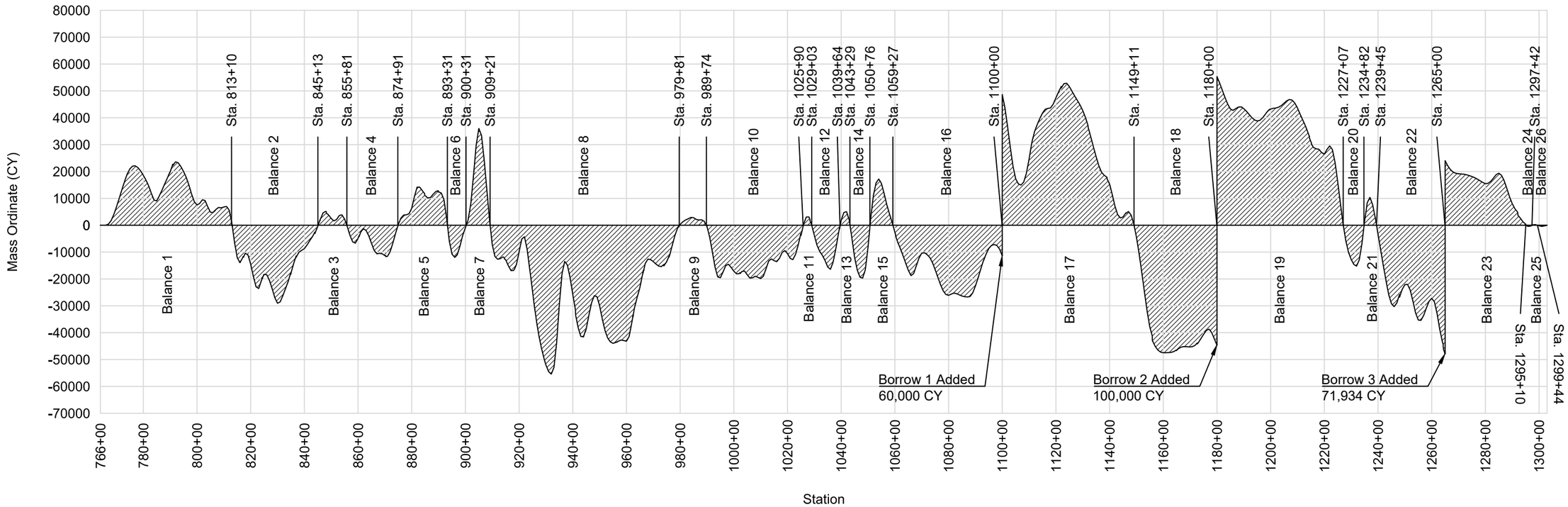
CR 1 Mass Diagram



Balance 1
Haul = 589,757 CY Sta
Excavation Hauled = 41,914 CY
Average Haul for Balance = 14.07 Sta

Balance 2
Haul = 493,992 CY Sta
Excavation Hauled = 40,159 CY
Average Haul for Balance = 12.30 Sta

Balance 3
Haul = 31,628 CY Sta
Excavation Hauled = 7,650 CY
Average Haul for Balance = 4.13 Sta

Balance 4
Haul = 121,342 CY Sta
Excavation Hauled = 17,655 CY
Average Haul for Balance = 6.87 Sta

Balance 5
Haul = 164,774 CY Sta
Excavation Hauled = 16,964 CY
Average Haul for Balance = 9.71 Sta

Balance 6
Haul = 50,445 CY Sta
Excavation Hauled = 12,550 CY
Average Haul for Balance = 4.02 Sta

Balance 7
Haul = 165,589 CY Sta
Excavation Hauled = 36,024 CY
Average Haul for Balance = 4.60 Sta

Balance 8
Haul = 1,827,558 CY Sta
Excavation Hauled = 120,219 CY
Average Haul for Balance = 15.20 Sta

Balance 9
Haul = 18,977 CY Sta
Excavation Hauled = 2,947 CY
Average Haul for Balance = 6.44 Sta

Balance 10
Haul = 511,573 CY Sta
Excavation Hauled = 32,389 CY
Average Haul for Balance = 15.79 Sta

Balance 11
Haul = 6,396 CY Sta
Excavation Hauled = 3,084 CY
Average Haul for Balance = 2.07 Sta

Balance 12
Haul = 102,077 CY Sta
Excavation Hauled = 16,777 CY
Average Haul for Balance = 6.08 Sta

Balance 13
Haul = 12,358 CY Sta
Excavation Hauled = 5,073 CY
Average Haul for Balance = 2.44 Sta

Balance 14
Haul = 95,520 Sta
Excavation Hauled = 19,888 CY
Average Haul for Balance = 4.80 Sta

Balance 15
Haul = 85,506 CY Sta
Excavation Hauled = 17,214 CY
Average Haul for Balance = 4.97 Sta

Balance 16
Haul = 675,909 CY Sta
Excavation Hauled = 40,439 CY
Average Haul for Balance = 16.71 Sta

Balance 17
Haul = 1,460,582 CY Sta
Excavation Hauled = 89,772 CY
Average Haul for Balance = 16.27 Sta

Balance 18
Haul = 1,216,890 CY Sta
Excavation Hauled = 54,175 CY
Average Haul for Balance = 22.46 Sta

Balance 19
Haul = 1,797,703 CY Sta
Excavation Hauled = 67,945 CY
Average Haul for Balance = 26.46 Sta

Balance 20
Haul = 77,357 CY Sta
Excavation Hauled = 15,211 CY
Average Haul for Balance = 5.08 Sta

Balance 21
Haul = 29,266 CY Sta
Excavation Hauled = 10,377 CY
Average Haul for Balance = 2.82 Sta

Balance 22
Haul = 699,841 CY Sta
Excavation Hauled = 64,395 CY
Average Haul for Balance = 10.70 Sta

Balance 23
Haul = 459,539 CY Sta
Excavation Hauled = 27,947 CY
Average Haul for Balance = 16.44 Sta

Balance 24
Haul = 638 CY Sta
Excavation Hauled = 419 CY
Average Haul for Balance = 1.52 Sta

Balance 25
Haul = 267 CY Sta
Excavation Hauled = 546 CY
Average Haul for Balance = 0.49 Sta

Balance 26
Haul = 810 Sta
Excavation Hauled = 425 CY
Average Haul for Balance = 1.91 Sta

Haul for Project
Haul = 10,696,294 CY Sta
Excavation Hauled = 763,168 CY
Average Haul for Balance = 14.02 Sta

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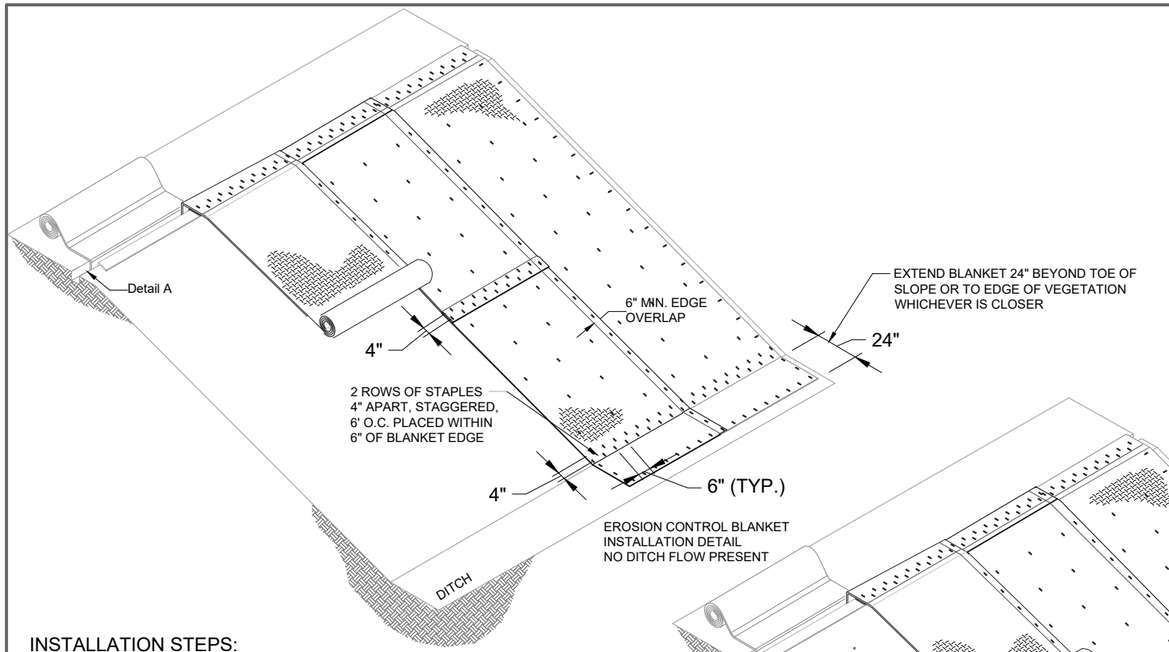
LS-5427
DATE 2/11/25
NORTH DAKOTA

Mass Diagram

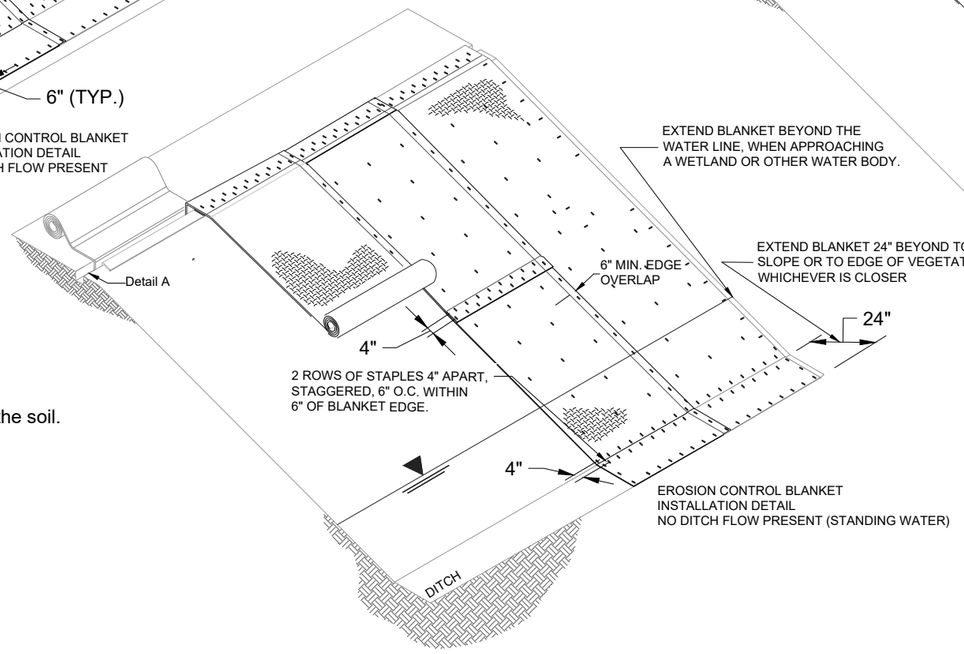
Reconstruction
County Route 1

Mountrail County, ND

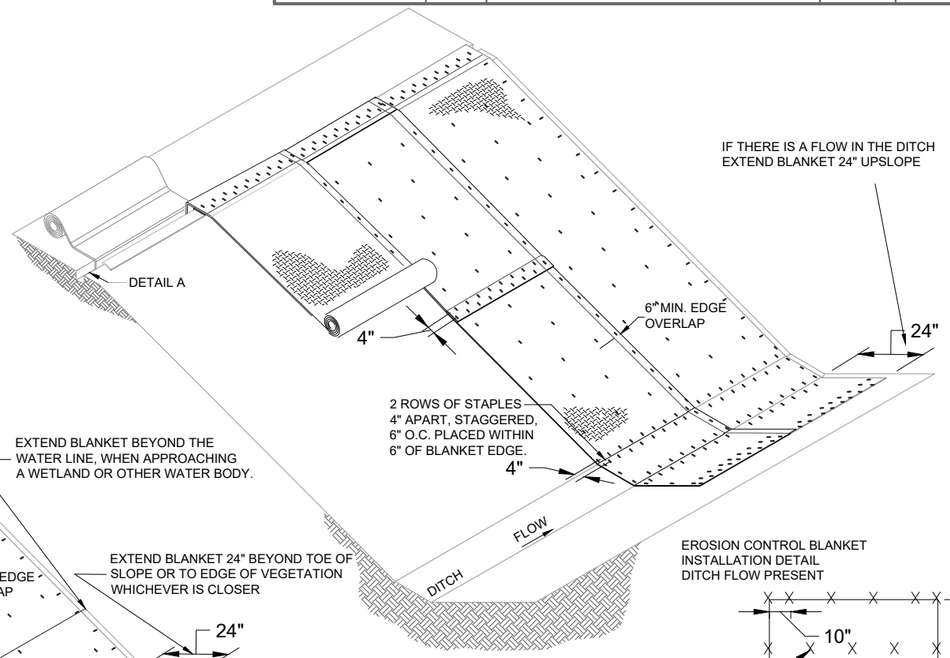
Revised 02/11/25	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	20	6



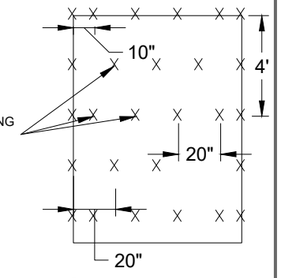
EROSION CONTROL BLANKET INSTALLATION DETAIL
NO DITCH FLOW PRESENT



EROSION CONTROL BLANKET INSTALLATION DETAIL
NO DITCH FLOW PRESENT (STANDING WATER)



EROSION CONTROL BLANKET INSTALLATION DETAIL
DITCH FLOW PRESENT

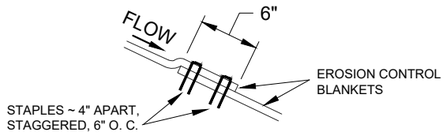


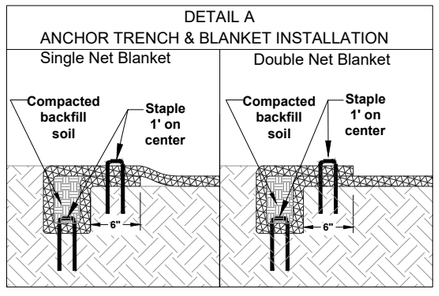
3.8 STAPLES PER SQUARE YARD USING 8-INCH 11 GAUGE WIRE "U" STAPLES

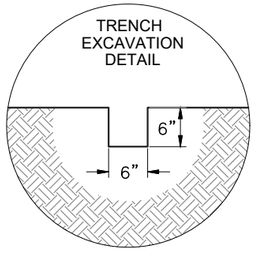
STAPLE PATTERN

INSTALLATION STEPS:

1. Prepare smooth slope per spec. section 255
2. Amend soil and seed, as specified.
3. Dig anchor trench. Set aside native soil removed from trench.
4. Secure blanket in anchor trench, staking or stapling blanket as shown.
5. Replace native soil previously removed from trench.
6. Staple blanket as shown so there are no gaps between the blanket and the soil. Staple while unrolling blanket to minimize walking on blanket.
7. Install splices a minimum 24 inches prior to toe of slope.







NOTE:
Install Single Net Blanket with netting on top of installed blanket.

Erosion Control Blanket	
Location to be Protected Station	Total Quantity Type 3 (SY)
777+50 - 778+50 Rt	256
782+50 - 783+50 Rt	244
796+50 - 798+50 Lt	511
796+50 - 797+50 Rt	233
812+50 - 815+50 Rt	1,067
812+50 - 814+50 Lt	667
819+50 - 822+50 Lt	867
826+50 - 828+50 Rt	467
828+50 - 829+50 Lt	222
851+50 - 852+50 Rt	383
852+50 - 853+50 Lt	383
856+50 - 857+50 Rt	215
863+50 - 866+50 Lt	710

Erosion Control Blanket	
Location to be Protected Station	Total Quantity Type 3 (SY)
877+50 - 878+50 Rt	201
891+50 - 894+50 Rt	1,333
892+50 - 894+50 Lt	722
902+50 - 903+50 Rt	393
902+50 - 904+50 Lt	767
905+50 - 910+50 Lt	2,499
905+50 - 910+50 Rt	2,917
914+50 - 916+50 Rt	587
919+50 - 921+50 Rt	777
921+50 - 928+50 Lt	2,548
922+50 - 928+50 Rt	2,096
934+50 - 936+50 Rt	780
937+50 - 941+50 Lt	964
938+50 - 942+50 Rt	1,328
949+50 - 952+50 Rt	930
949+50 - 952+50 Lt	757
989+50 - 993+50 Lt	1,059
990+50 - 993+50 Rt	839

Erosion Control Blanket	
Location to be Protected Station	Total Quantity Type 3 (SY)
998+50 - 999+50 Lt	216
1028+50 - 1031+50 Rt	829
1028+50 - 1031+50 Lt	788
1034+50 - 1035+50 Rt	234
1042+50 - 1047+50 Rt	2,071
1054+50 - 1063+50 Lt	3,030
1067+50 - 1070+50 Rt	1,167
1139+50 - 1142+50 Rt	866
1148+50 - 1155+50 Lt	2,743
1149+50 - 1154+50 Rt	1,317
1181+50 - 1183+50 Lt	422
1213+50 - 1215+50 Lt	502
1218+50 - 1219+50 Lt	344
1219+50 - 1221+50 Rt	778
1223+50 - 1231+50 Lt	2,439
1223+50 - 1227+50 Rt	1,281
1237+50 - 1244+50 Lt	2,018
1237+50 - 1241+50 Rt	1,323

Erosion Control Blanket	
Location to be Protected Station	Total Quantity Type 3 (SY)
1242+50 - 1244+50 Rt	473
1251+50 - 1254+50 Lt	1,012
1252+50 - 1254+50 Rt	578
1260+50 - 1264+50 Rt	1,171
1260+50 - 1265+50 Lt	1,638
1286+50 - 1288+50 Lt	467
Total SY	55,429

Note: Place ECB on all disturbed slopes steeper than 3:1

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Slope Erosion Control Blanket Installation Details

Reconstruction
County Route 1

Mountrail County, ND

Revised 02/11/25	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	51	1

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item)			Allowable Material	Required Diameter	Steel Pipe Coatings	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness	Geosythetic Material - Type G (Pay Item)	(*) End Sections		Applicable Backfill
				In	Bid Item	LF		In	Type		In	SY	Begin EA	End EA	
782+75	46' Lt	782+75	58' Rt	30	Pipe Conduit	104'	Reinforced Concrete Pipe - Class II **(barrel length = 101 LF)**	30				75	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	30	P	2	0.064				
							Spiral Rib Steel Pipe	30	P	3/4, 1	0.064				
789+50	45' Lt	790+36	45' Lt	24	Pipe Conduit - Approach	86'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
790+74	45' Rt	791+44	45' Rt	24	Pipe Conduit - Approach	70'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
795+65	52' Lt	795+65	52' Rt	30	Pipe Conduit	104'	Reinforced Concrete Pipe - Class III **(barrel length = 101 LF)**	30				75	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	30	P	2	0.064				
							Spiral Rib Steel Pipe	30	P	3/4, 1	0.064				
803+05	46' Lt	803+65	44' Rt	36	Pipe Conduit	108'	Reinforced Concrete Pipe - Class II **(barrel length = 103 LF)**	36				84	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	36	P	2	0.064				
							Spiral Rib Steel Pipe	36	P	3/4, 1	0.064				
806+01	45' Lt	806+93	45' Lt	24	Pipe Conduit - Approach	92'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
814+00	68' Lt	814+00	70' Rt	30	Pipe Conduit	138'	Reinforced Concrete Pipe - Class III **(barrel length = 135 LF)**	30				100	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	30	P	2	0.064				
							Spiral Rib Steel Pipe	30	P	3/4, 1	0.064				
816+82	45' Lt	817+84	45' Lt	24	Pipe Conduit - Approach	102'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
816+92	45' Rt	817+82	45' Rt	24	Pipe Conduit	90'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Standard D-714-27
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
820+85	64' Lt	820+85	54' Rt	30	Pipe Conduit	118'	Reinforced Concrete Pipe - Class II **(barrel length = 115 LF)**	30				85	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	30	P	2	0.064				
							Spiral Rib Steel Pipe	30	P	3/4, 1	0.064				
823+92	45' Rt	824+64	45' Rt	24	Pipe Conduit - Approach	72'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
827+20	56' Lt	827+20	58' Rt	30	Pipe Conduit	114'	Reinforced Concrete Pipe - Class III **(barrel length = 111 LF)**	30				82	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	30	P	2	0.064				
							Spiral Rib Steel Pipe	30	P	3/4, 1	0.064				
834+58	45' Lt	835+18	45' Lt	24	Pipe Conduit - Approach	60'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
836+58	45' Rt	837+30	45' Rt	24	Pipe Conduit - Approach	72'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
843+52	45' Lt	844+42	45' Lt	24	Pipe Conduit - Approach	90'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
845+53	45' Rt	846+19	45' Rt	24	Pipe Conduit - Approach	66'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
847+97	45' Lt	848+67	45' Lt	24	Pipe Conduit - Approach	70'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
857+16	44' Lt	857+16	54' Rt	54	Pipe Conduit	98'	Reinforced Concrete Pipe - Class II **(barrel length = 93 LF)**	54				93	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	54	P	2	0.079				
							Corrugated Steel Pipe	54	P	3, 5	0.064				
							Spiral Rib Steel Pipe	54	P	3/4	0.079				
							Spiral Rib Steel Pipe	54	P	1	0.064				
859+96	45' Lt	860+70	45' Lt	24	Pipe Conduit - Approach	74'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
860+10	45' Rt	860+88	45' Rt	24	Pipe Conduit - Approach	78'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
865+21	62' Lt	865+21	36' Rt	24	Pipe Conduit	98'	Reinforced Concrete Pipe - Class III **(barrel length = 93 LF)**	24				65	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	24	P	2	0.064				
							Spiral Rib Steel Pipe	24	P	3/4, 1	0.064				
869+64	56' Lt	869+64	32' Rt	24	Pipe Conduit	88'	Reinforced Concrete Pipe - Class III **(barrel length = 83 LF)**	24				59	FES	FES	Standard D-714-25
							Corrugated Steel Pipe	24	P	2	0.064				
							Spiral Rib Steel Pipe	24	P	3/4, 1	0.064				
870+06	45' Rt	870+60	45' Rt	24	Pipe Conduit - Approach	54'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				
884+35	45' Rt	885+16	68' Rt	24	Pipe Conduit - Approach	84'	Corrugated Steel Pipe	24	Z, A, P	2	0.064		FES	FES	Specification 714.04 A
							Spiral Rib Steel Pipe	24	Z, A, P	3/4, 1	0.064				

Corrugations: **2** = 2-2/3"x1/2"
3 = 3"x1"
5 = 5"x1"

Coatings: **Z** = Zinc
A = Aluminum
P = Polymeric (over Zinc or Aluminum)

Spiral Ribs: **3/4** = 3/4"x3/4"@7-1/2"
1 = 3/4"x1"@11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section
(^) Culvert lengths adjusted around the horizontal curve.

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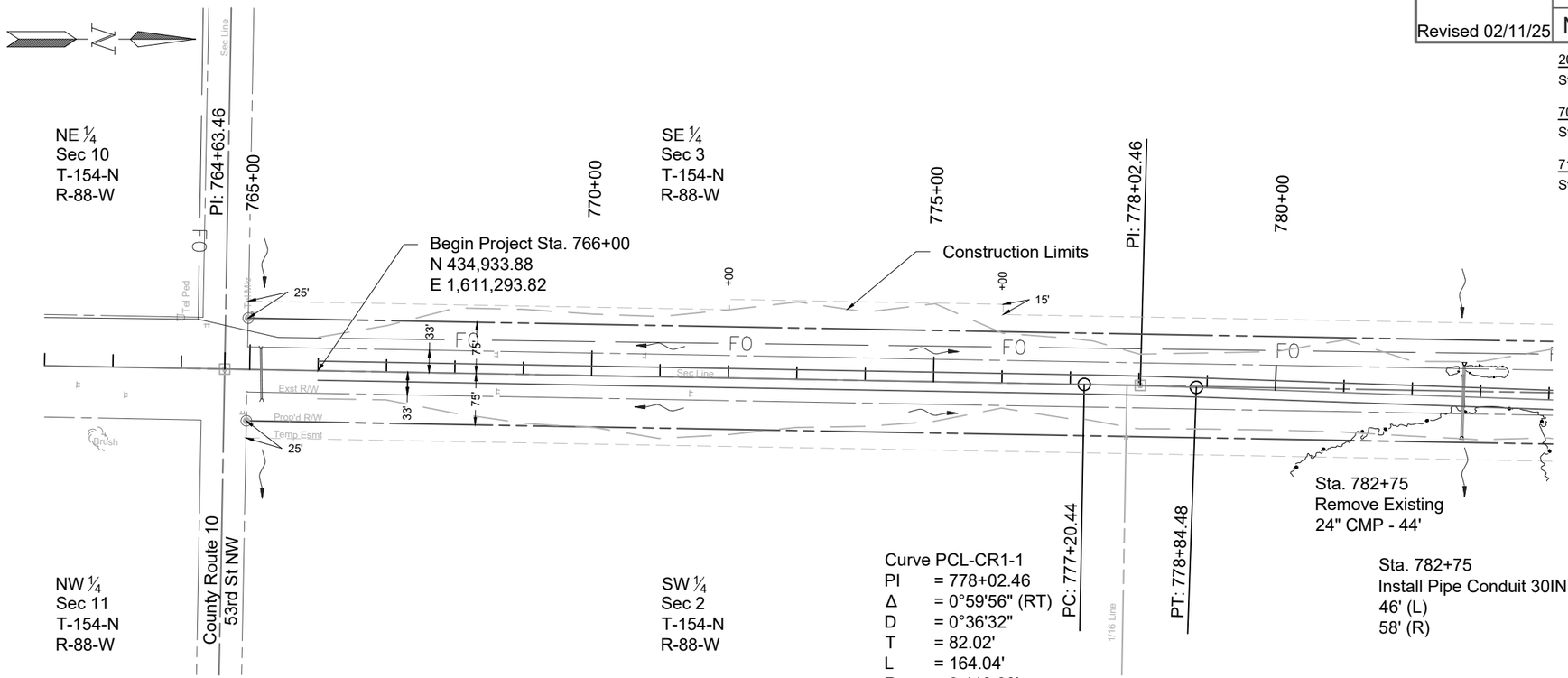
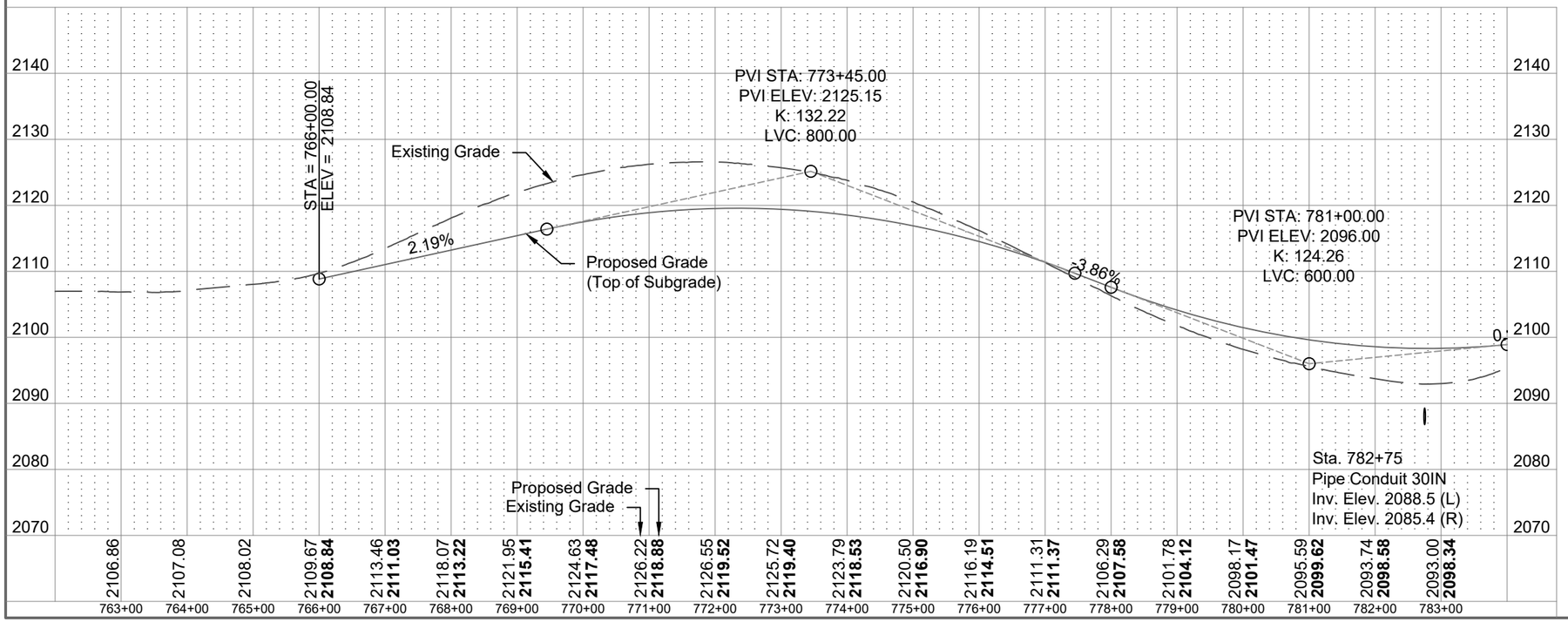
Allowable Pipe List

Reconstruction
County Route 1

Mountrail County, ND

Revised 02/11/25	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	60	1





202 0170 REMOVAL OF CULVERTS-ALL TYPES AND SIZES
Sta. 782+75 44 LF

709 0100 GEOSYNTHETIC MATERIAL TYPE G
Sta. 782+75 75 SY

714 4110 PIPE CONDUIT 30IN
Sta. 782+75 104 LF

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PE-3914
LS-6427
DATE 2/11/25
NORTH DAKOTA

Plan & Profile
Sta. 763+00 to Sta. 783+00
Reconstruction
County Route 1

Mountrail County, ND

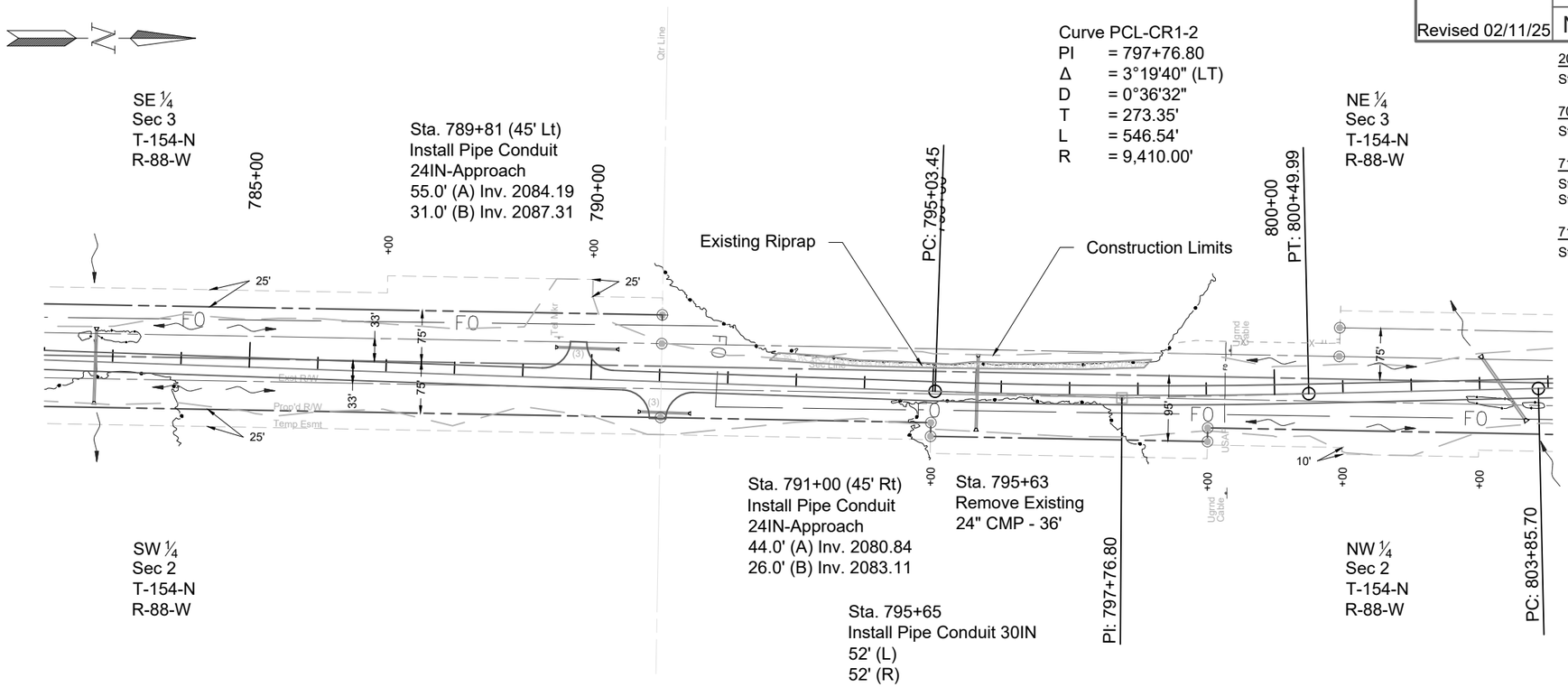
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
Revised 02/11/25	ND	01(62)23	60	2

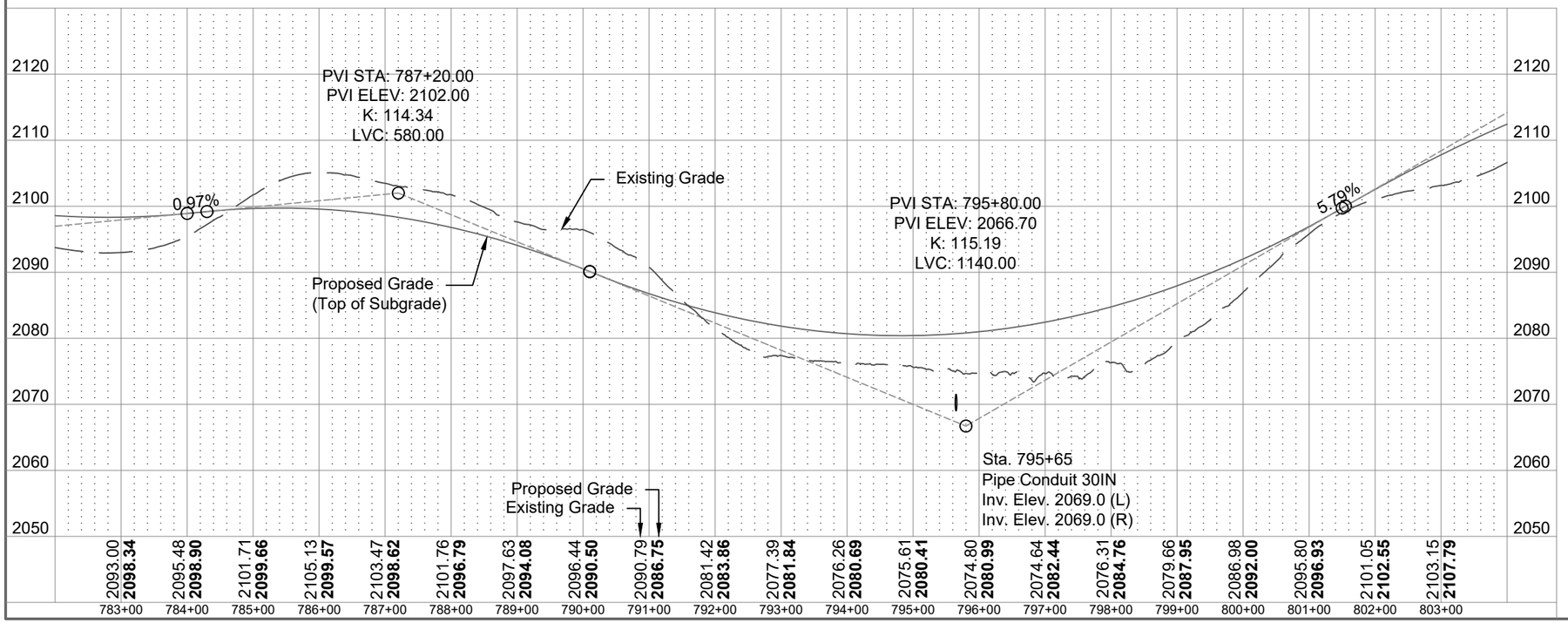
202 0170 REMOVAL OF CULVERTS-ALL TYPES AND SIZES
Sta. 795+63 36 LF

709 0100 GEOSYNTHETIC MATERIAL TYPE G
Sta. 795+65 75 SY

714 4106 PIPE CONDUIT 24IN-APPROACH
Sta. 789+81 Lt 86 LF
Sta. 791+00 Rt 70 LF

714 4110 PIPE CONDUIT 30IN
Sta. 795+65 104 LF





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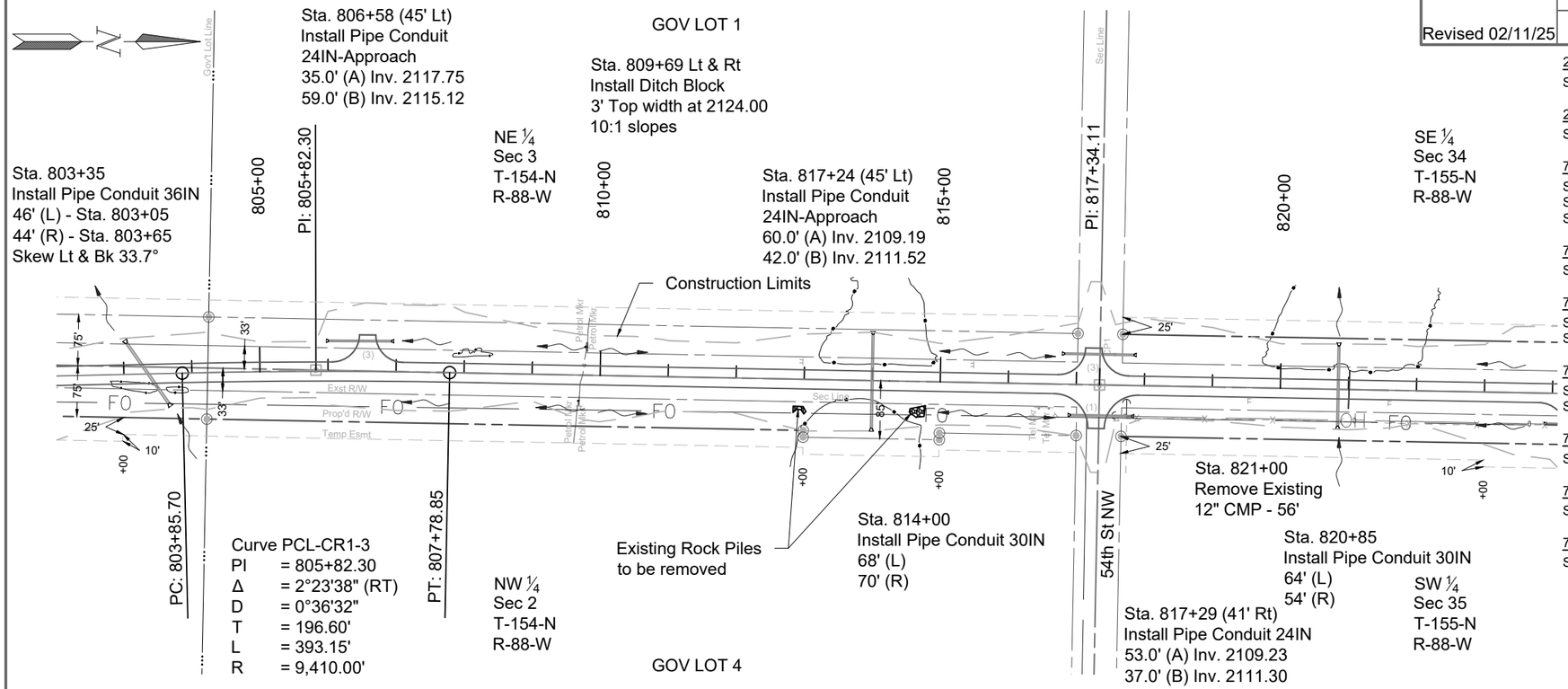
LS-8427
DATE 2/11/25
NORTH DAKOTA

Plan & Profile
Sta. 783+00 to Sta. 803+00
Reconstruction
County Route 1

Mountrail County, ND

Revised 02/11/25	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	60	3



202 0170 REMOVAL OF CULVERTS-ALL TYPES AND SIZES
Sta. 821+00 56 LF

202 0312 REMOVE EXISTING FENCE
Sta. 817+73 to Sta. 823+00 Rt 580 LF

709 0100 GEOSYNTHETIC MATERIAL TYPE G
Sta. 803+35 84 SY
Sta. 814+00 100 SY
Sta. 820+85 85 SY

714 4105 PIPE CONDUIT 24IN
Sta. 817+29 Rt 90 LF

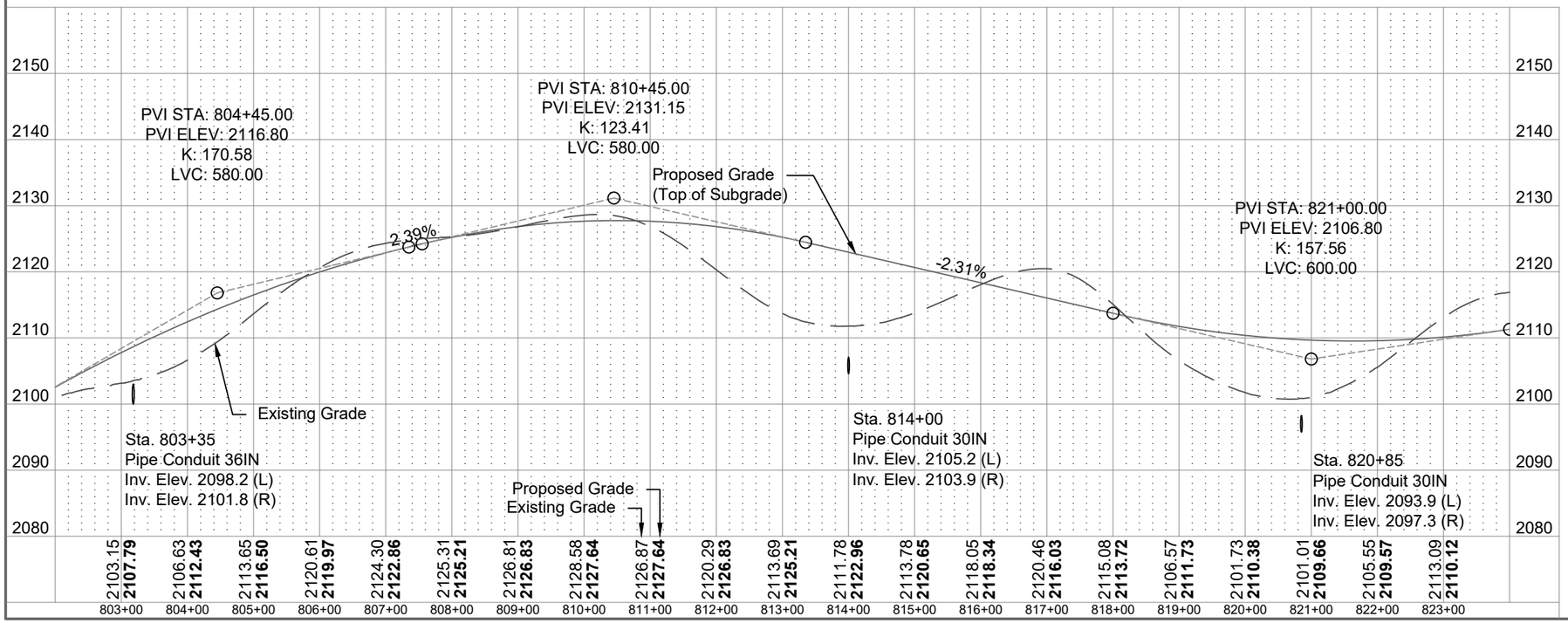
714 4106 PIPE CONDUIT 24IN-APPROACH
Sta. 806+58 Lt 92 LF
Sta. 817+24 Lt 102 LF

714 4110 PIPE CONDUIT 30IN
Sta. 814+00 138 LF
Sta. 820+85 118 LF

714 4115 PIPE CONDUIT 36IN
Sta. 803+35 108 LF

752 0400 FENCE BARBED WIRE 5 STRAND
Sta. 817+73 to Sta. 823+00 Rt 580 LF

752 3140 CORNER ASSEMBLY BARBED WIRE
Sta. 817+74 Rt 1 EA



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JOHN D. SAUBER JR.
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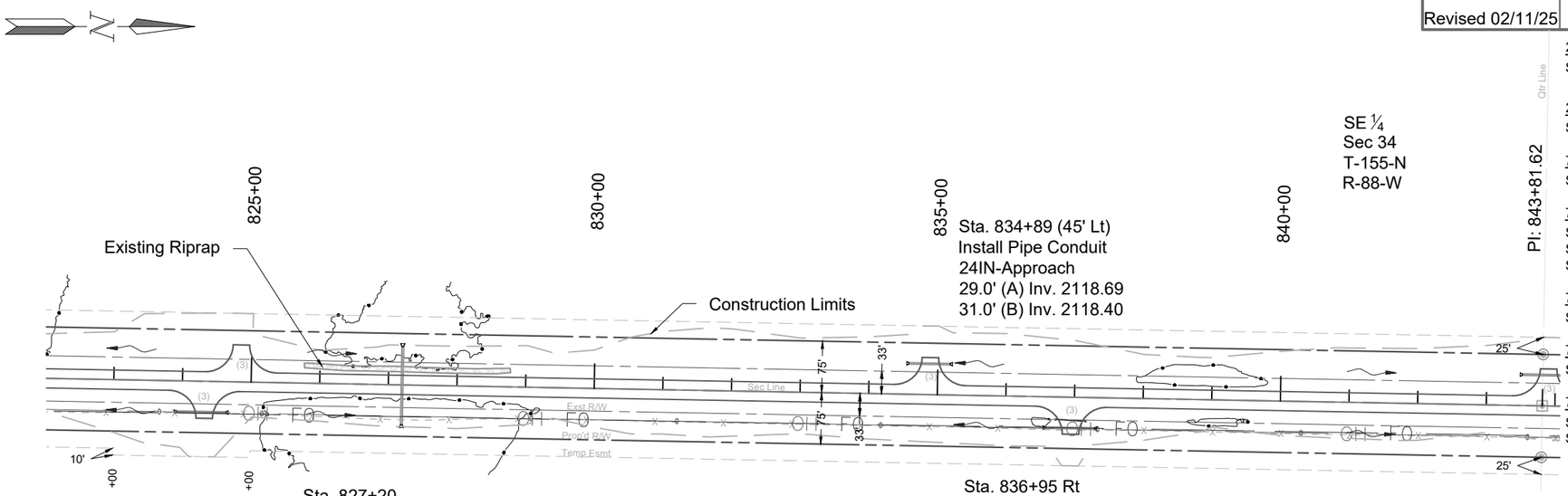
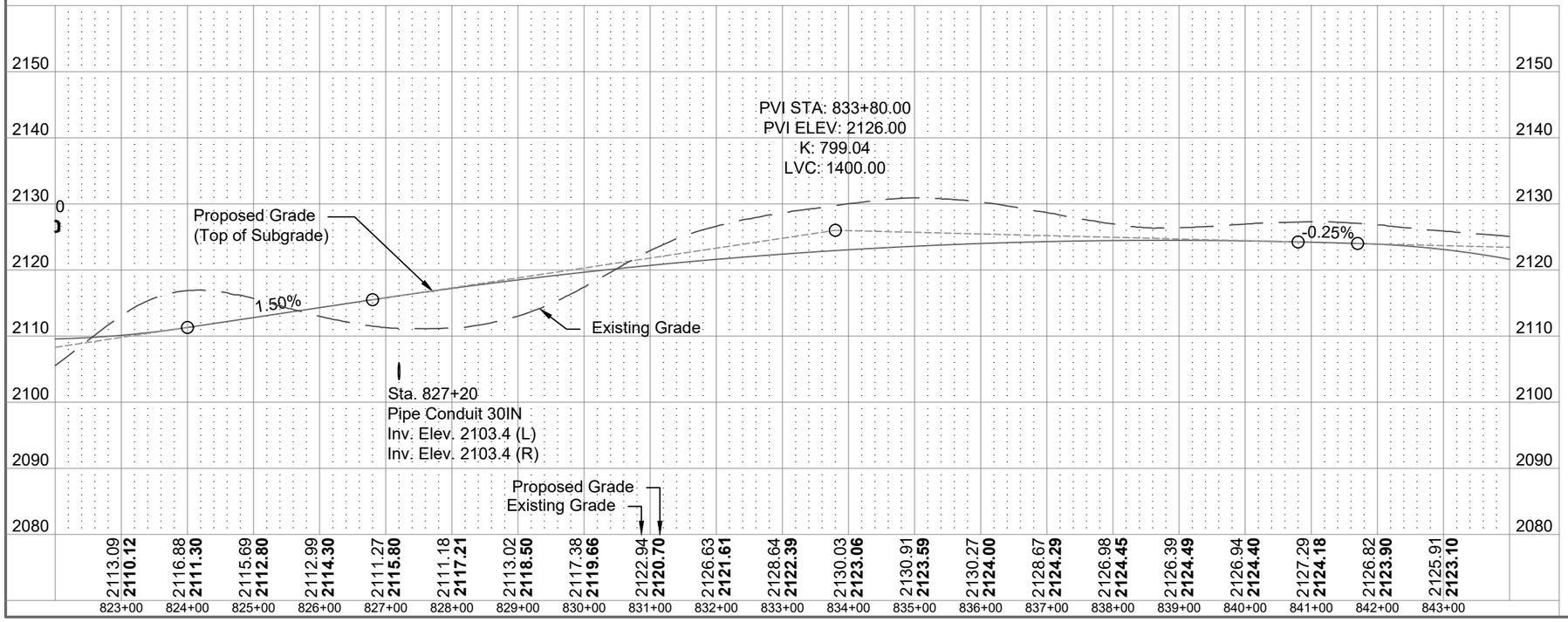
LS-8427
DATE 2/11/25
NORTH DAKOTA

Plan & Profile
Sta. 803+00 to Sta. 823+00
Reconstruction
County Route 1

Mountrail County, ND

Revised 02/11/25	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	60	4





202 0170 REMOVAL OF CULVERTS-ALL TYPES AND SIZES
Sta. 836+95 Rt 44 LF

202 0312 REMOVE EXISTING FENCE
Sta. 823+00 to Sta. 843+00 Rt 2,000 LF

709 0100 GEOSYNTHETIC MATERIAL TYPE G
Sta. 827+20 82 SY

714 4106 PIPE CONDUIT 24IN-APPROACH
Sta. 824+32 Rt 72 LF
Sta. 834+89 Lt 60 LF
Sta. 836+95 Rt 72 LF

714 4110 PIPE CONDUIT 30IN
Sta. 827+20 114 LF

752 0400 FENCE BARBED WIRE 5 STRAND
Sta. 823+00 to Sta. 843+00 Rt 2,000 LF

752 2100 VEHICLE GATE
Sta. 824+32 Rt 1 EA
Sta. 836+95 Rt 1 EA

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NORTH DAKOTA

Plan & Profile
Sta. 823+00 to Sta. 843+00
Reconstruction
County Route 1

Mountrail County, ND

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - COUNTY ROUTE 1

Revised 02/11/25

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	01(62)23	81	1

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING
PI	764+63.46	434,797.36	1,611,291.38
PC	777+20.44	436,054.14	1,611,313.83
PI	778+02.46	436,136.15	1,611,315.30
PT	778+84.48	436,218.12	1,611,318.19
PC	795+03.45	437,836.08	1,611,375.32
PI	797+76.80	438,109.26	1,611,384.96
PT	800+49.99	438,382.54	1,611,378.73
PC	803+85.70	438,718.16	1,611,371.08
PI	805+82.30	438,914.71	1,611,366.60
PT	807+78.85	439,111.28	1,611,370.33
PI	817+34.11	440,066.37	1,611,388.48
PI	843+81.62	442,713.43	1,611,437.16
PI	870+29.28	445,360.64	1,611,485.69
PI	896+67.72	447,998.57	1,611,537.95
PI	923+06.23	450,636.56	1,611,590.33
PI	949+44.78	453,274.64	1,611,640.22
PI	975+83.16	455,912.54	1,611,690.23
PI	1002+24.38	458,553.33	1,611,737.91
PI	1028+65.70	461,194.22	1,611,785.74
PC	1037+88.35	462,116.73	1,611,801.65
PI	1052+53.93	463,582.10	1,611,826.91
PT	1065+68.96	464,604.96	1,612,876.52
PC	1088+72.32	466,212.52	1,614,526.13
PI	1092+24.33	466,458.19	1,614,778.23
PT	1095+74.69	466,658.47	1,615,067.71
PC	1116+13.96	467,818.76	1,616,744.71
PI	1121+56.78	468,127.61	1,617,191.10
PT	1126+17.30	468,670.33	1,617,201.41
PI	1155+94.00	471,646.49	1,617,257.94
PI	1209+02.54	476,954.11	1,617,356.86
PI	1235+24.07	479,575.10	1,617,410.14
PI	1261+38.50	482,188.98	1,617,463.51
PI	1287+77.89	484,827.92	1,617,512.72
PI	1314+17.33	487,466.90	1,617,561.69

CURVE DATA

ARC DEFINITION

Curve PCL-CR1-1	Curve PCL-CR1-5
PI Sta = 778+02.46	PI Sta = 1052+53.93
Delta = 0°59'56" (RT)	Delta = 44°45'07" (RT)
Da = 0°36'32"	Da = 1°36'34"
R = 9,410.00'	R = 3,560.00'
T = 82.02'	T = 1,465.58'
L = 164.04'	L = 2,780.61'
Curve PCL-CR1-2	**Curve PCL-CR1-6**
PI Sta = 797+76.80	PI Sta = 1092+24.33
Delta = 03°19'40" (LT)	Delta = 09°34'54" (RT)
Da = 0°36'32"	Da = 1°21'51"
R = 9,410.00'	R = 4,200.00'
T = 273.35'	T = 352.01'
L = 546.54'	L = 702.37'
Curve PCL-CR1-3	**Curve PCL-CR1-7**
PI Sta = 805+82.30	PI Sta = 1121+56.78
Delta = 02°23'38" (RT)	Delta = 54°13'59" (LT)
Da = 0°36'32"	Da = 5°24'19"
R = 9,410.00'	R = 1,060.00'
T = 196.60'	T = 542.82'
L = 393.15'	L = 1,003.34'

NOTES:

Date Survey Completed: 9/7/23

US PUBLIC LAND SURVEY DATA

DESC.	SEC-TWP-RGE	NORTHING	EASTING
SE Sec Cor	3-154-88	434,797.36	1,611,291.38
E Qtr Cor	3-154-88	437,435.94	1,611,338.52
NE Sec Cor	3-154-88	440,066.37	1,611,388.47
E Qtr Cor	34-155-88	442,713.43	1,611,437.16
NE Sec Cor	34-155-88	445,360.64	1,611,485.69
E Qtr Cor	27-155-88	447,998.57	1,611,537.95
NE Sec Cor	27-155-88	450,636.56	1,611,590.33
E Qtr Cor	22-155-88	453,274.64	1,611,640.22
NE Sec Cor	22-155-88	455,912.54	1,611,690.23
E Qtr Cor	15-155-88	458,553.33	1,611,737.91
NE Sec Cor	15-155-88	461,194.22	1,611,785.74
E Qtr Cor	10-155-88	463,834.93	1,611,831.26
N Qtr Wit.Cor	11-155-88	466,413.04	1,614,667.07
NE Sec Wit.Cor	11-155-88	466,577.12	1,617,161.65
NE Sec Cor	2-155-88	471,646.49	1,617,257.94
NE Sec Cor	35-156-88	476,954.11	1,617,356.86
E Qtr Cor	26-156-88	479,575.10	1,617,410.14
NE Sec Cor	26-156-88	482,188.98	1,617,463.51
E Qtr Cor	23-156-88	484,827.92	1,617,512.72
NE Sec Cor	23-156-88	487,466.90	1,617,561.69

☐ Assumed Coordinates

☒ All coordinates on this sheet are Mountrail County ground coordinates. They are derived from the "North Dakota Coordinate System of 1983", NAD83 (2011), North Zone Combination Factor (cf) = 1.0001650272

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET
CP1	440,088.76	1,611,343.73	2119.92	817+56	45.2 (LT)
CP2	445,395.96	1,611,533.81	2064.23	870+66	47.4 (RT)
CP3	450,398.29	1,611,539.84	2108.63	920+67	45.8 (LT)
CP4	455,959.92	1,611,734.59	2119.69	976+31	43.5 (RT)
CP5	461,124.08	1,611,821.84	2113.23	1027+96	37.4 (RT)
CP6	475,969.09	1,617,380.26	2225.73	1199+18	41.8 (RT)

SAUBER ENGINEERING

All coordinates and measurements on this document derived from the International Foot definition.

INITIALIZING BENCH MARK

☒ NAVD-88

☐ _____

☐ GEOID12B ☐ _____

☒ GEOID18

REGISTERED PROFESSIONAL ENGINEER & REGISTERED LAND SURVEYOR
JOHN D. SAUBER JR.
PE-2914
LS-8427
DATE 2/11/25
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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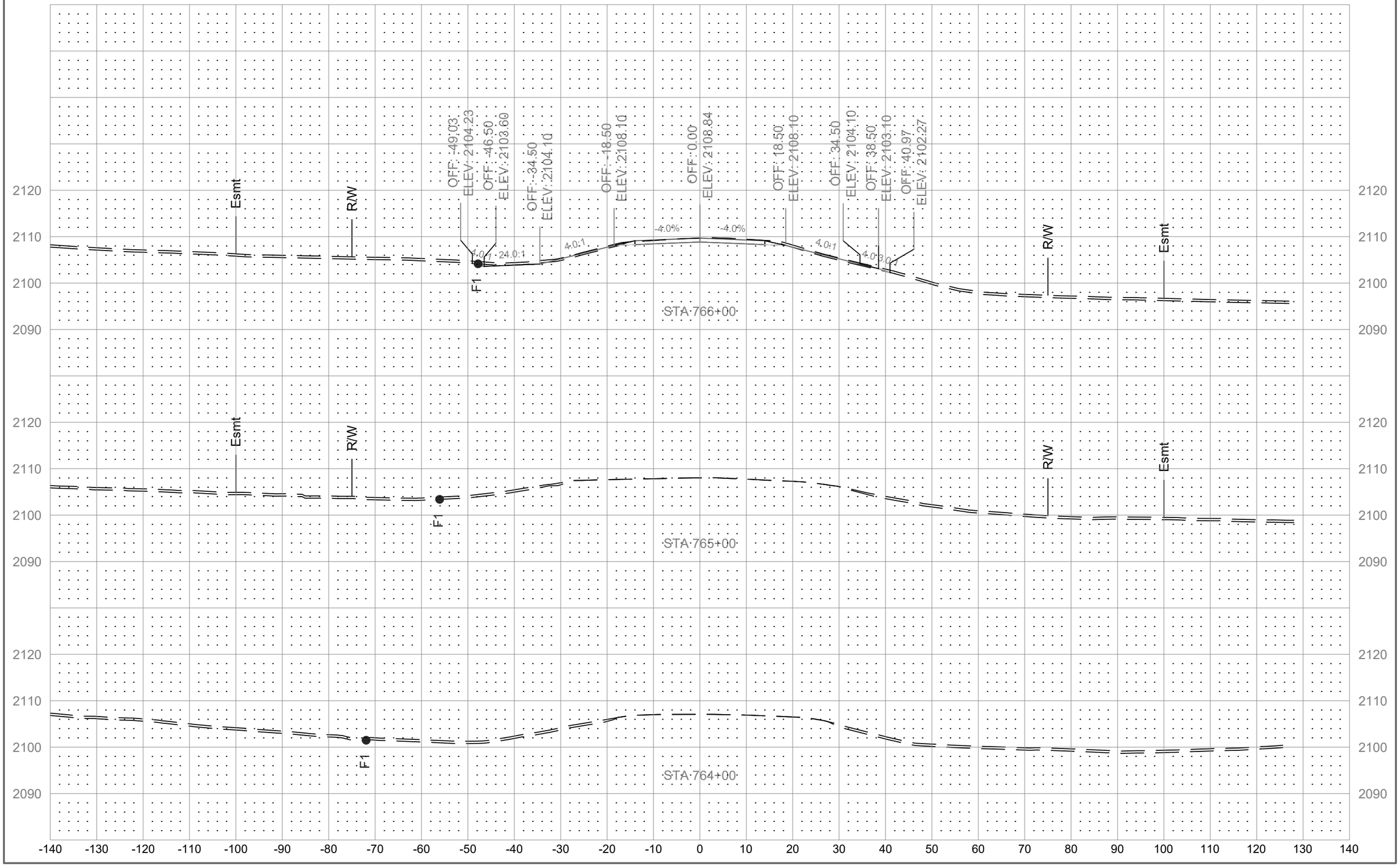

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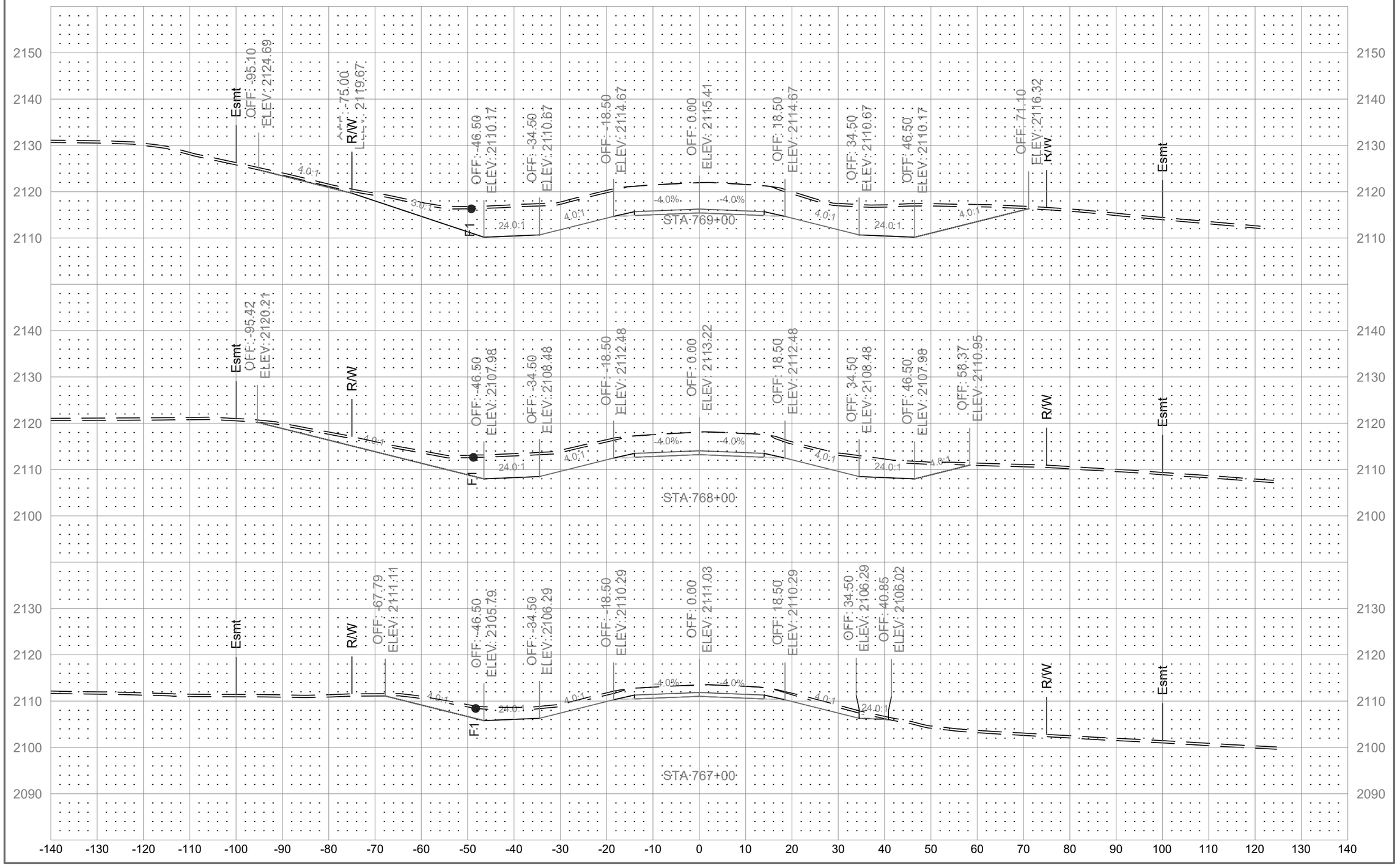

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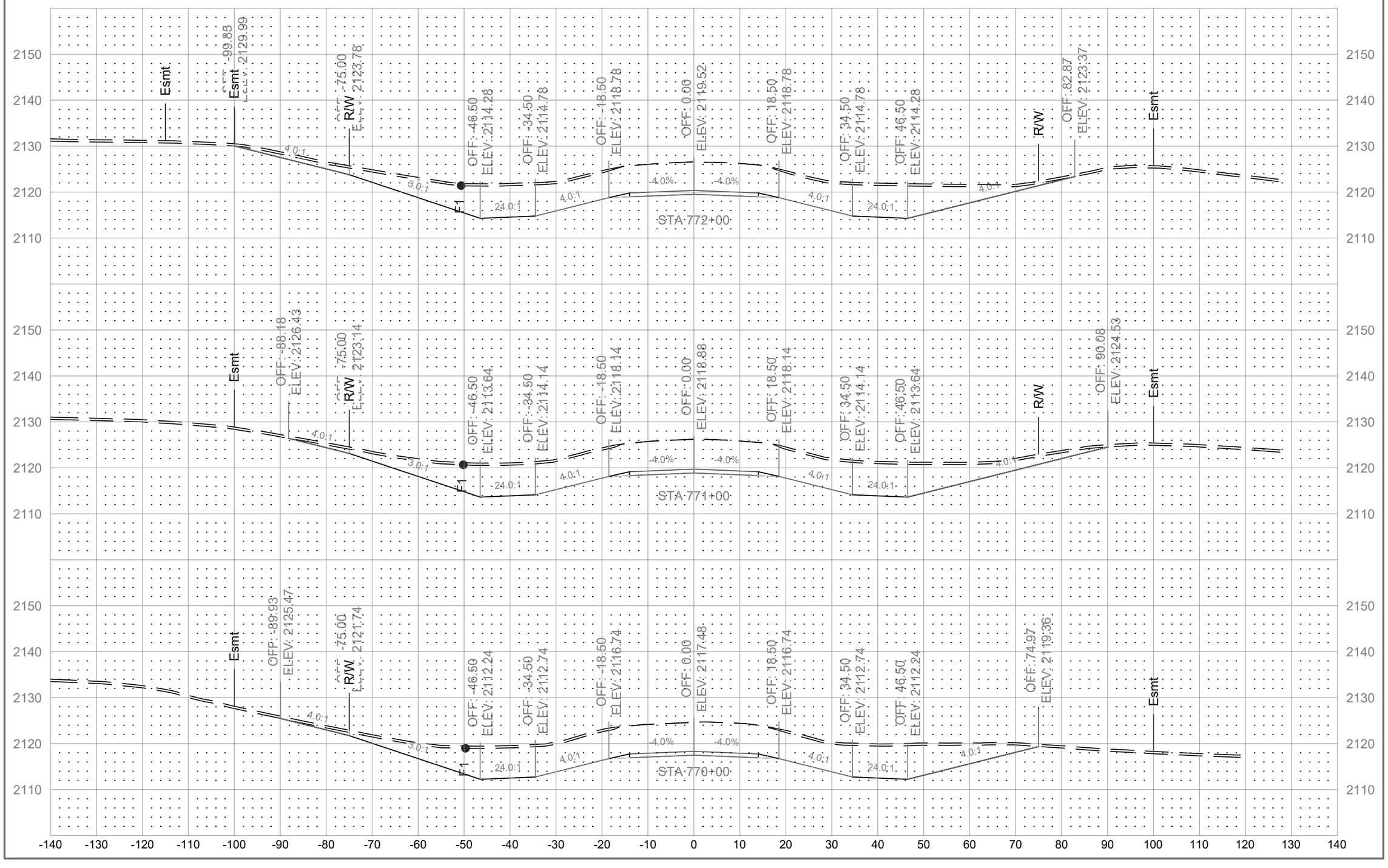

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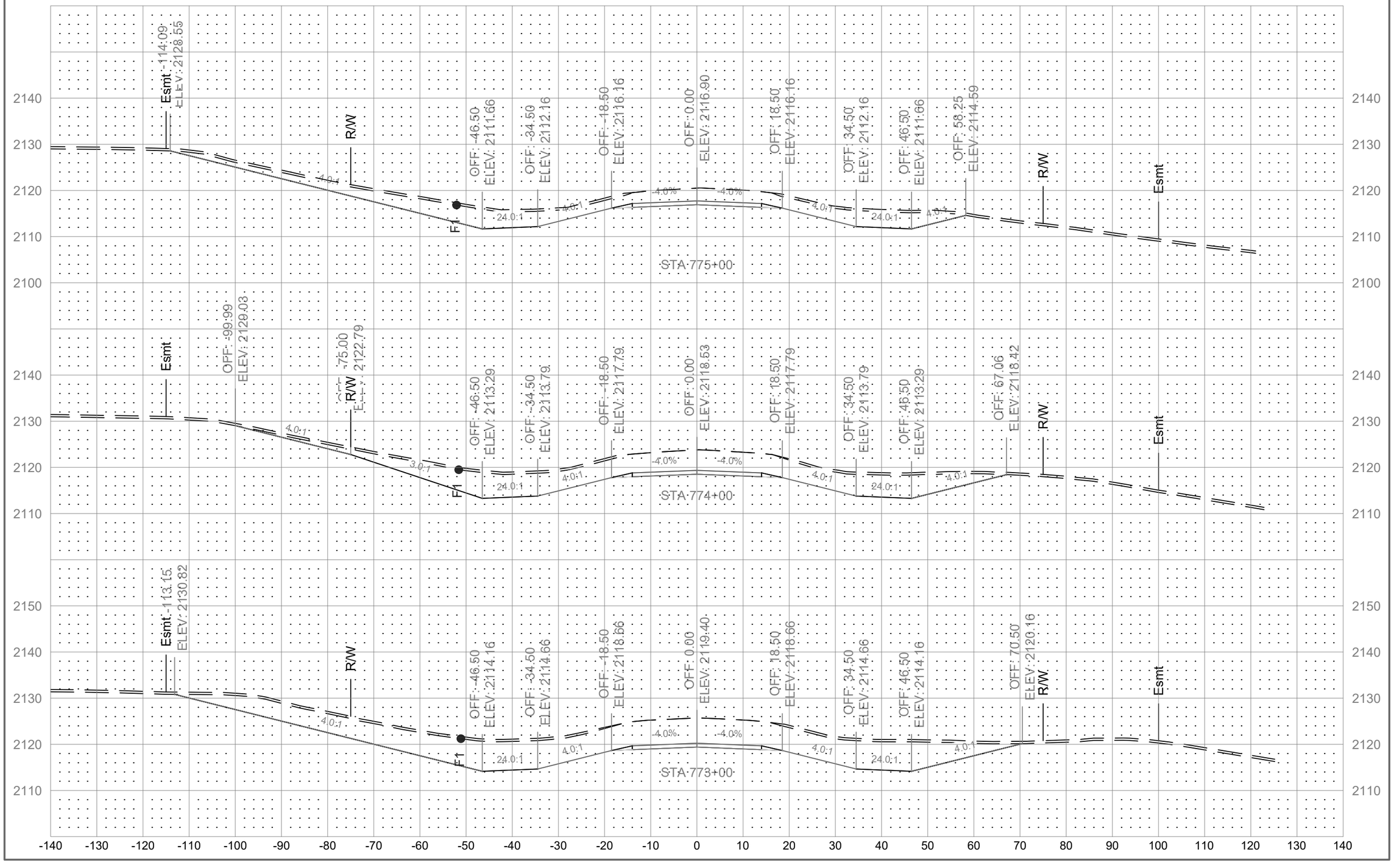

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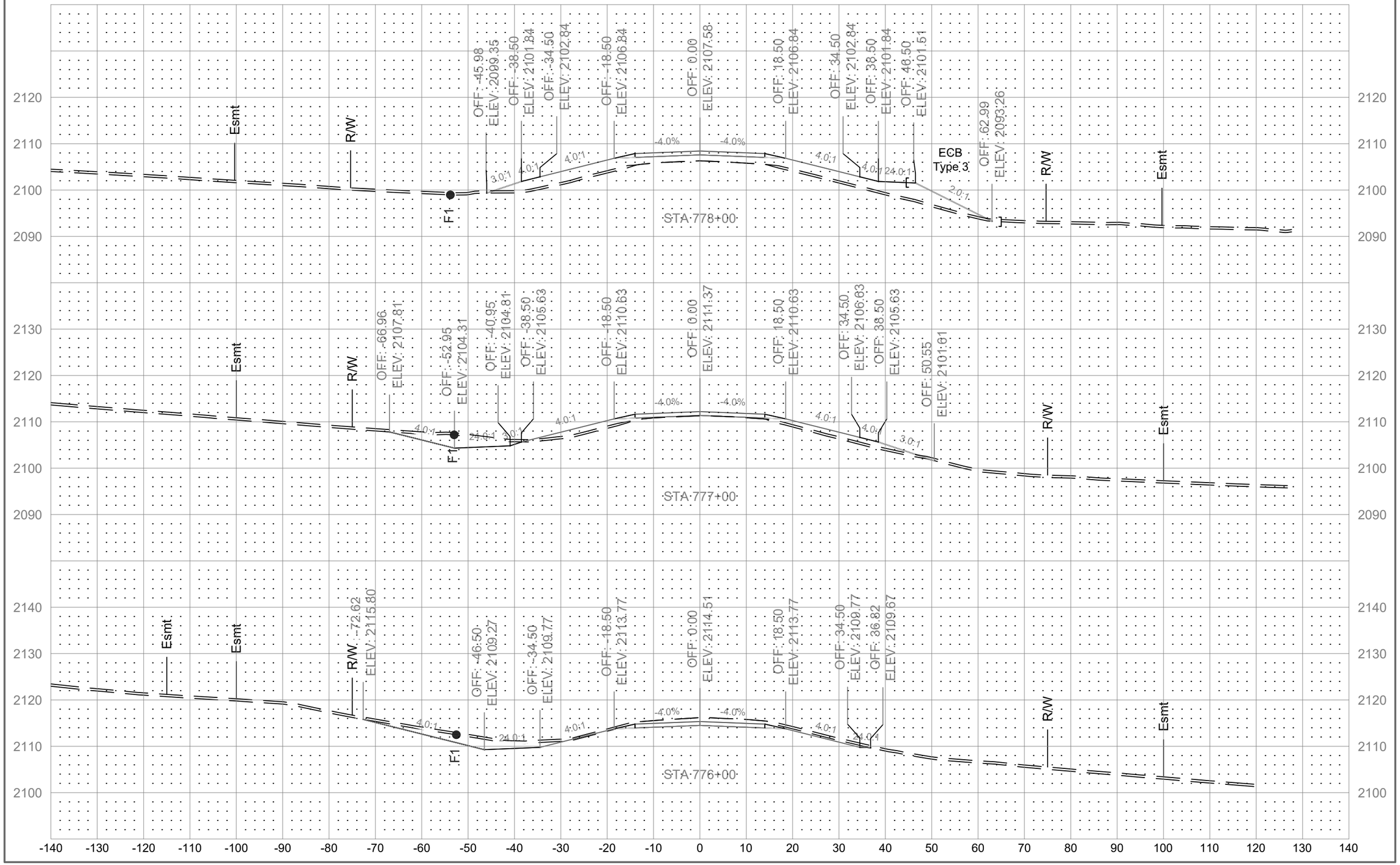

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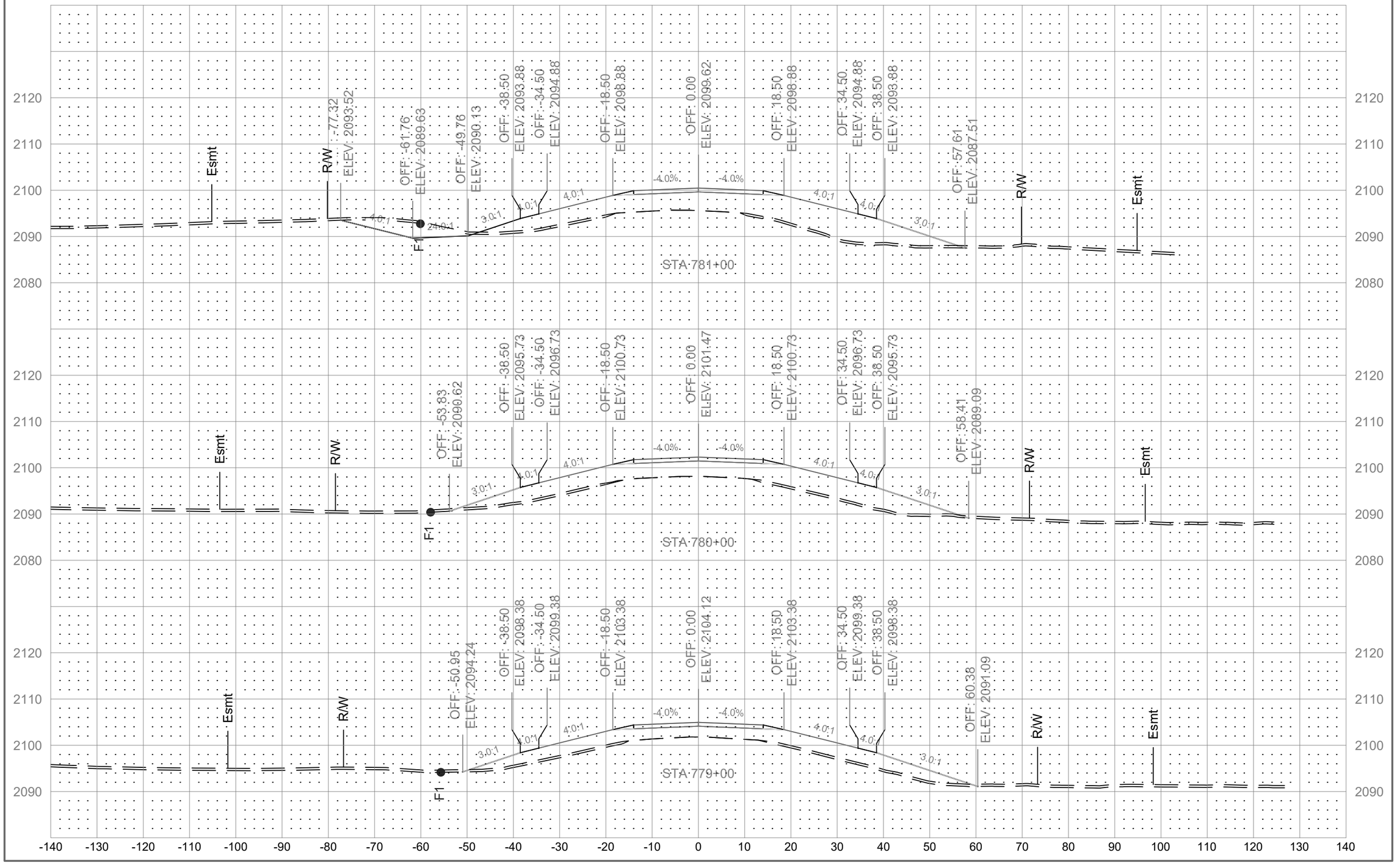

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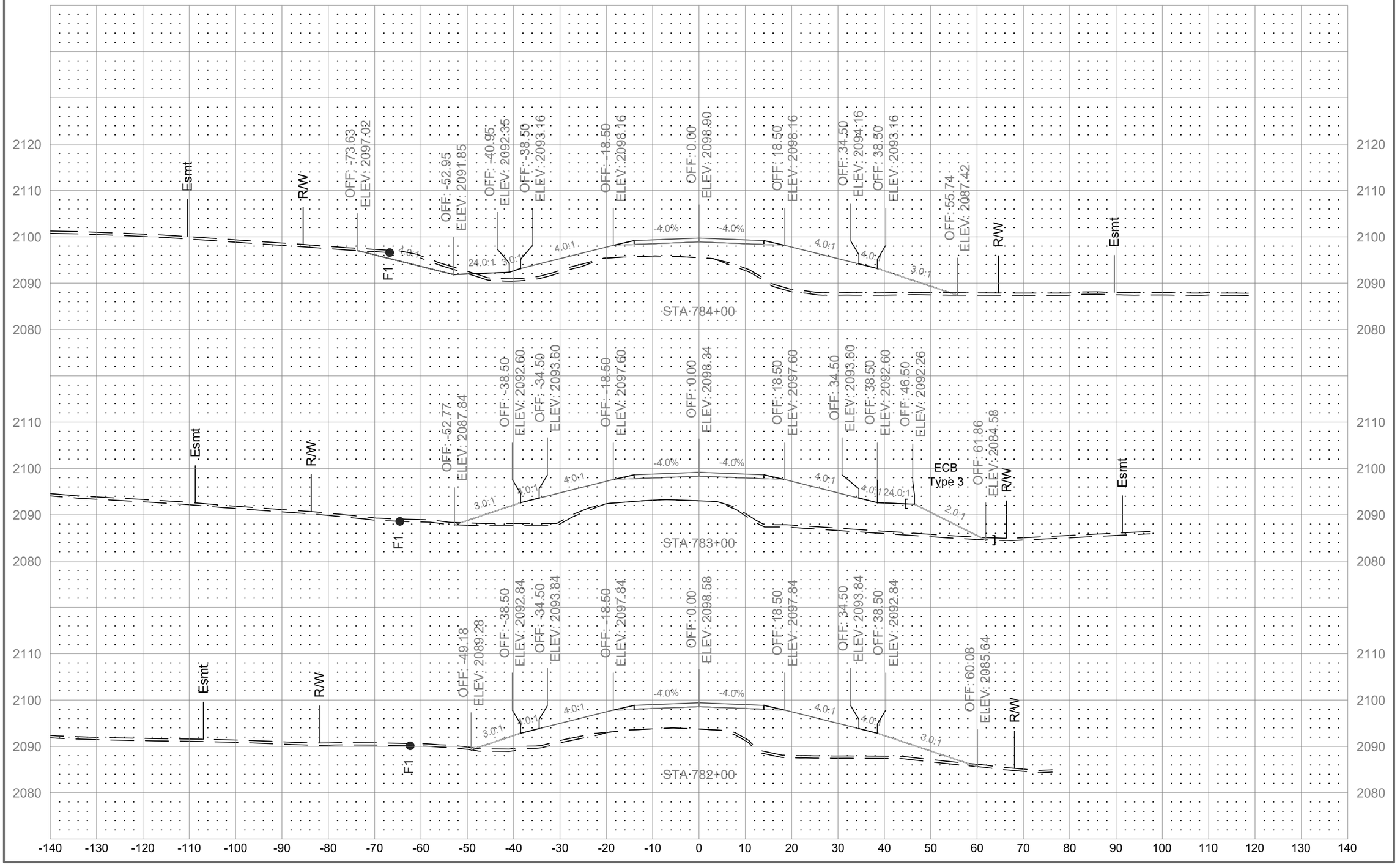

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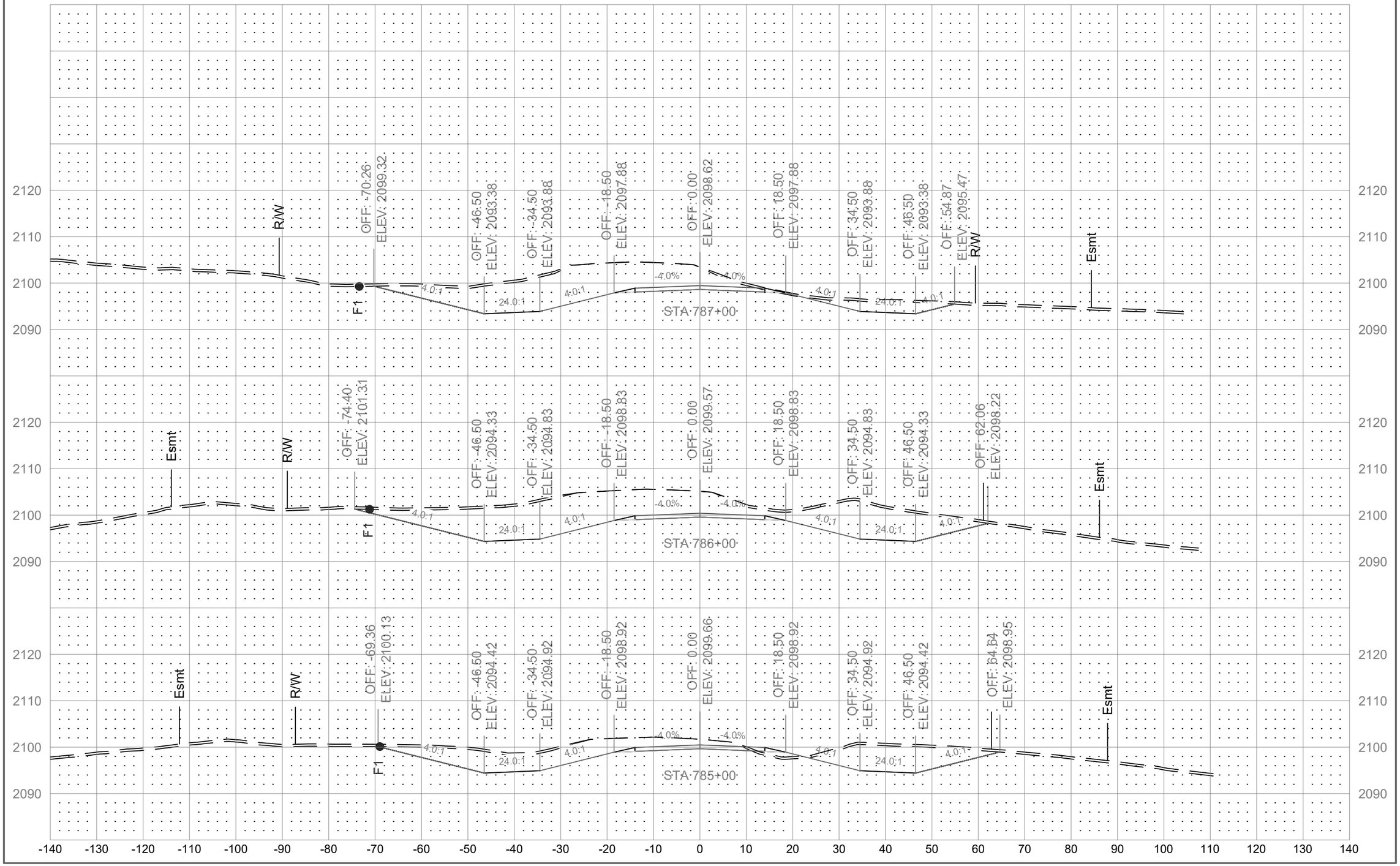

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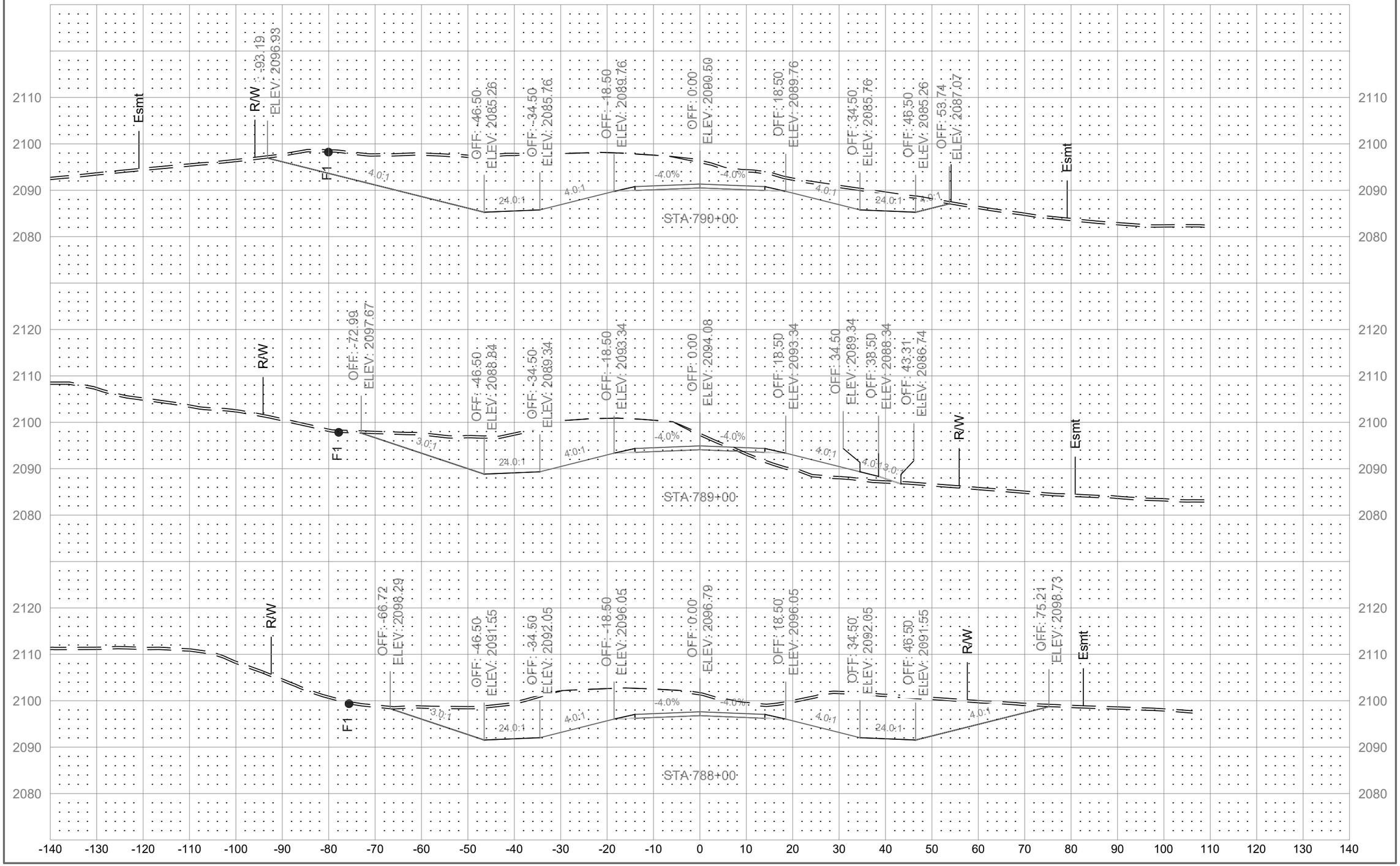

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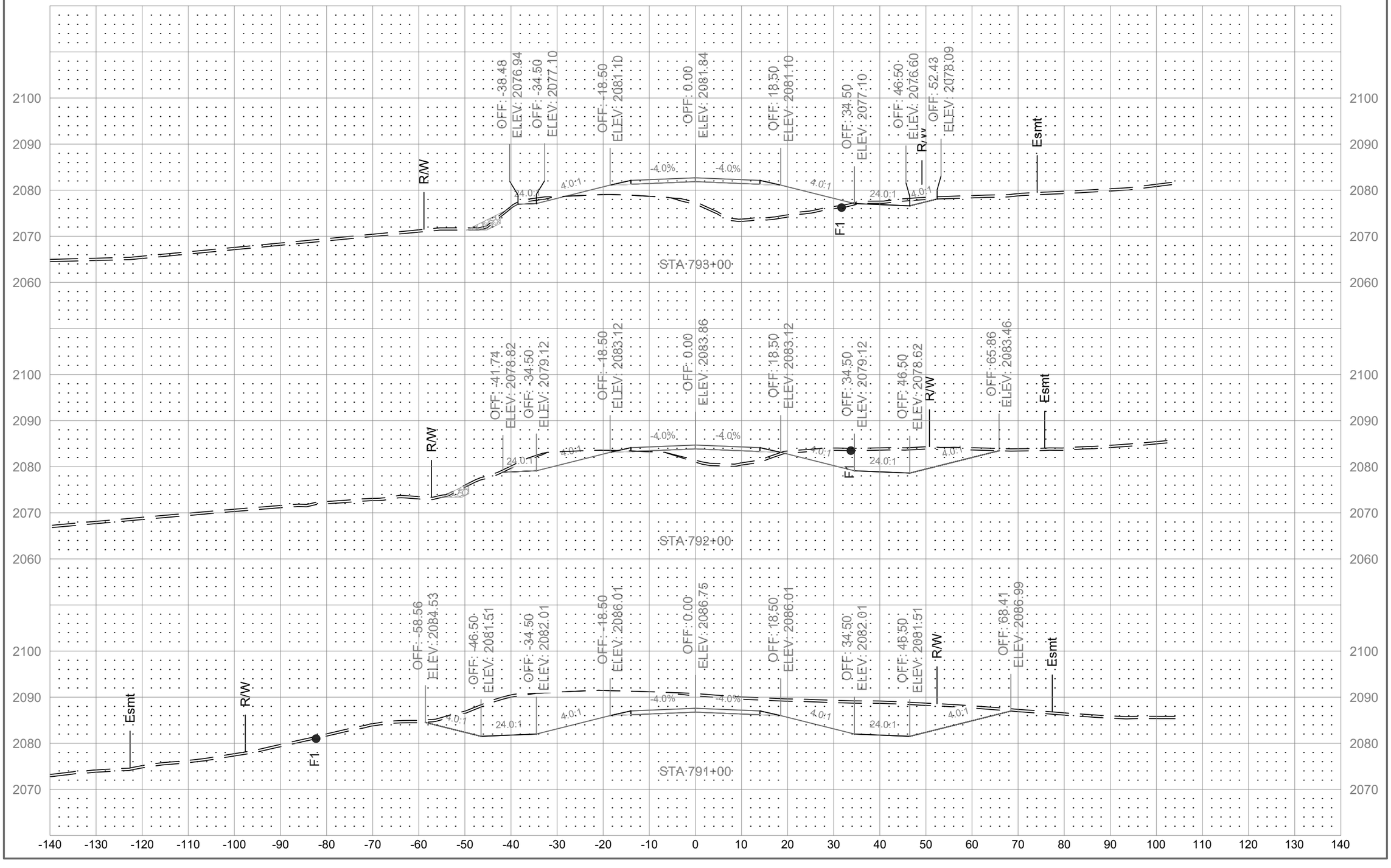

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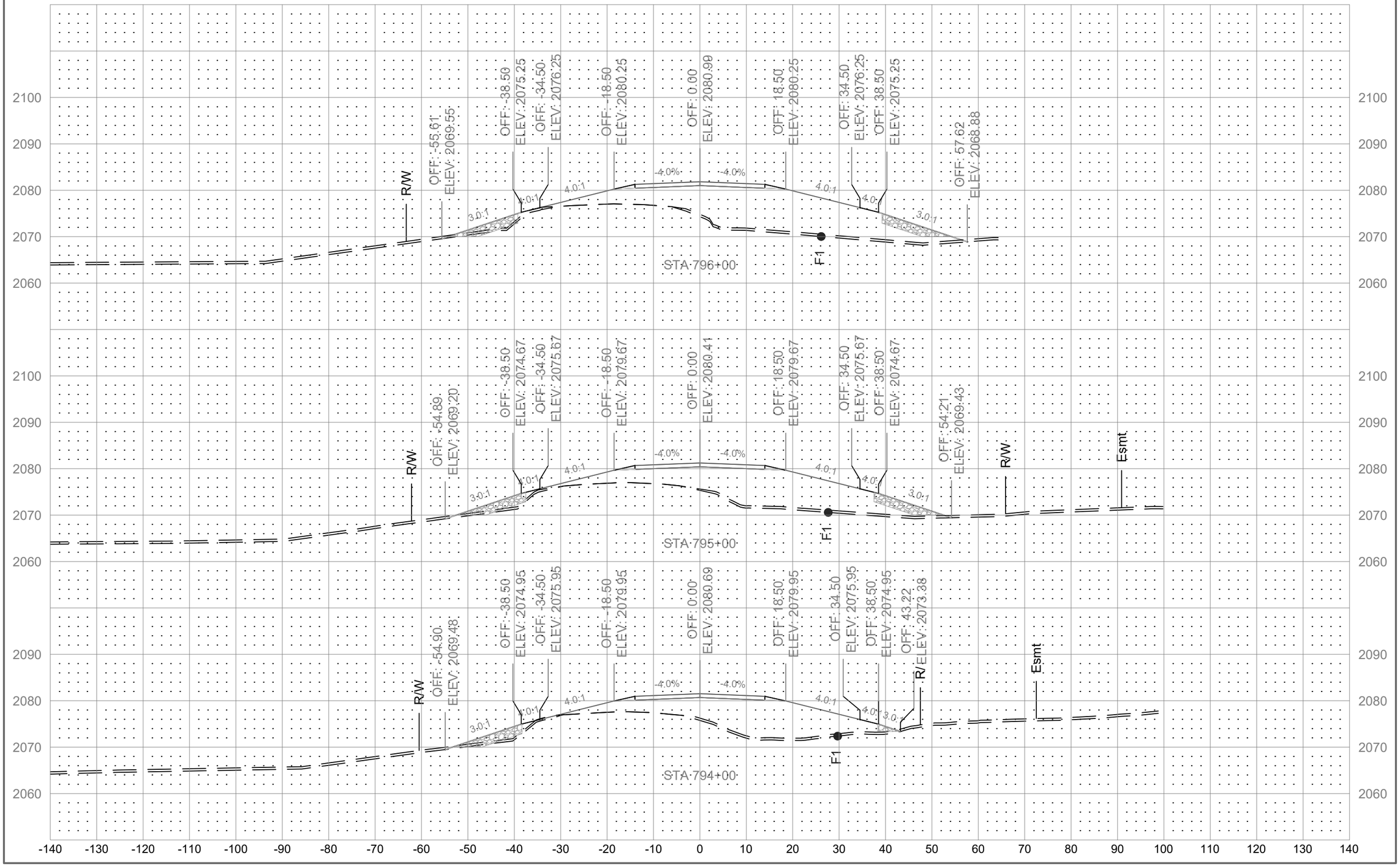

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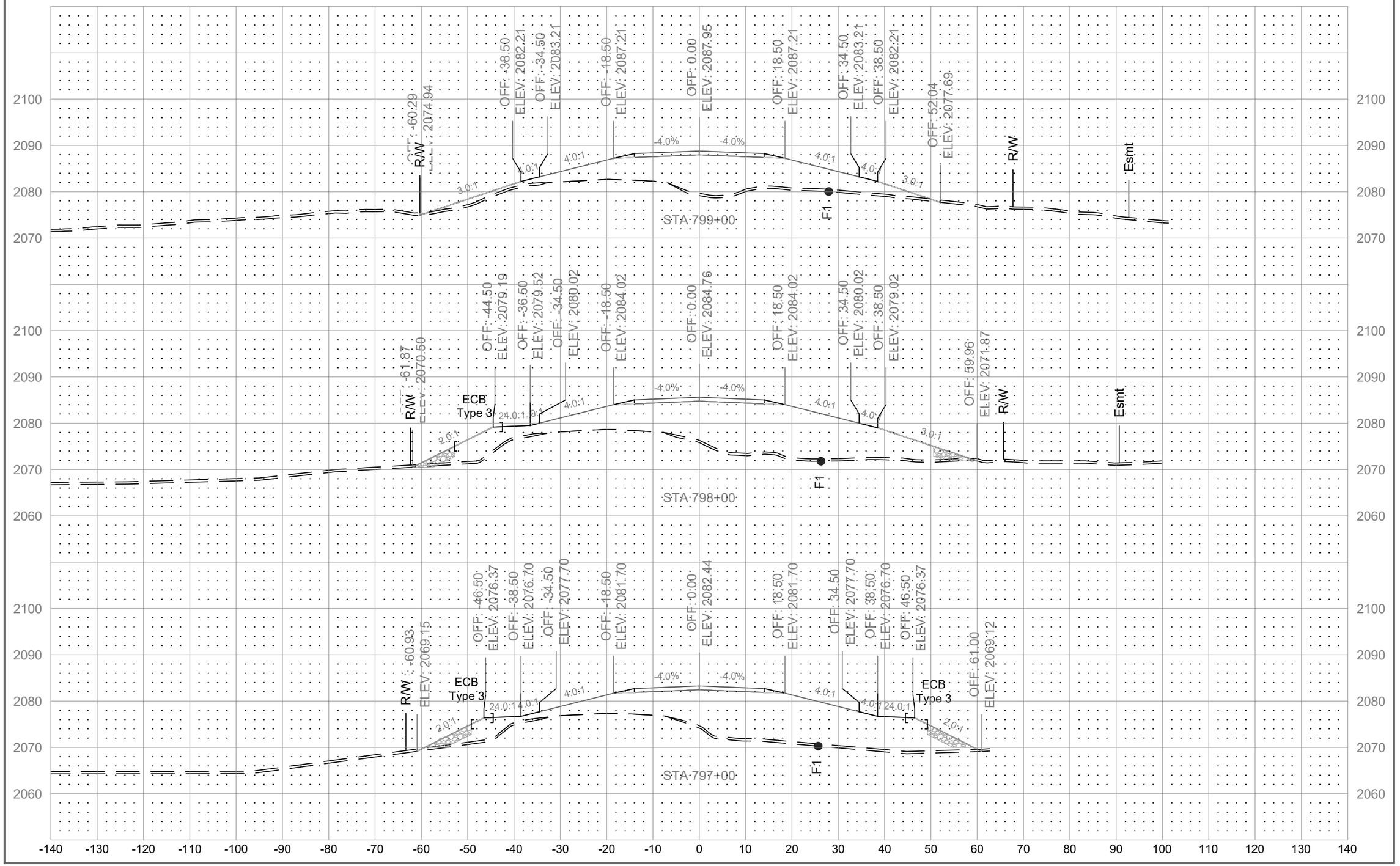

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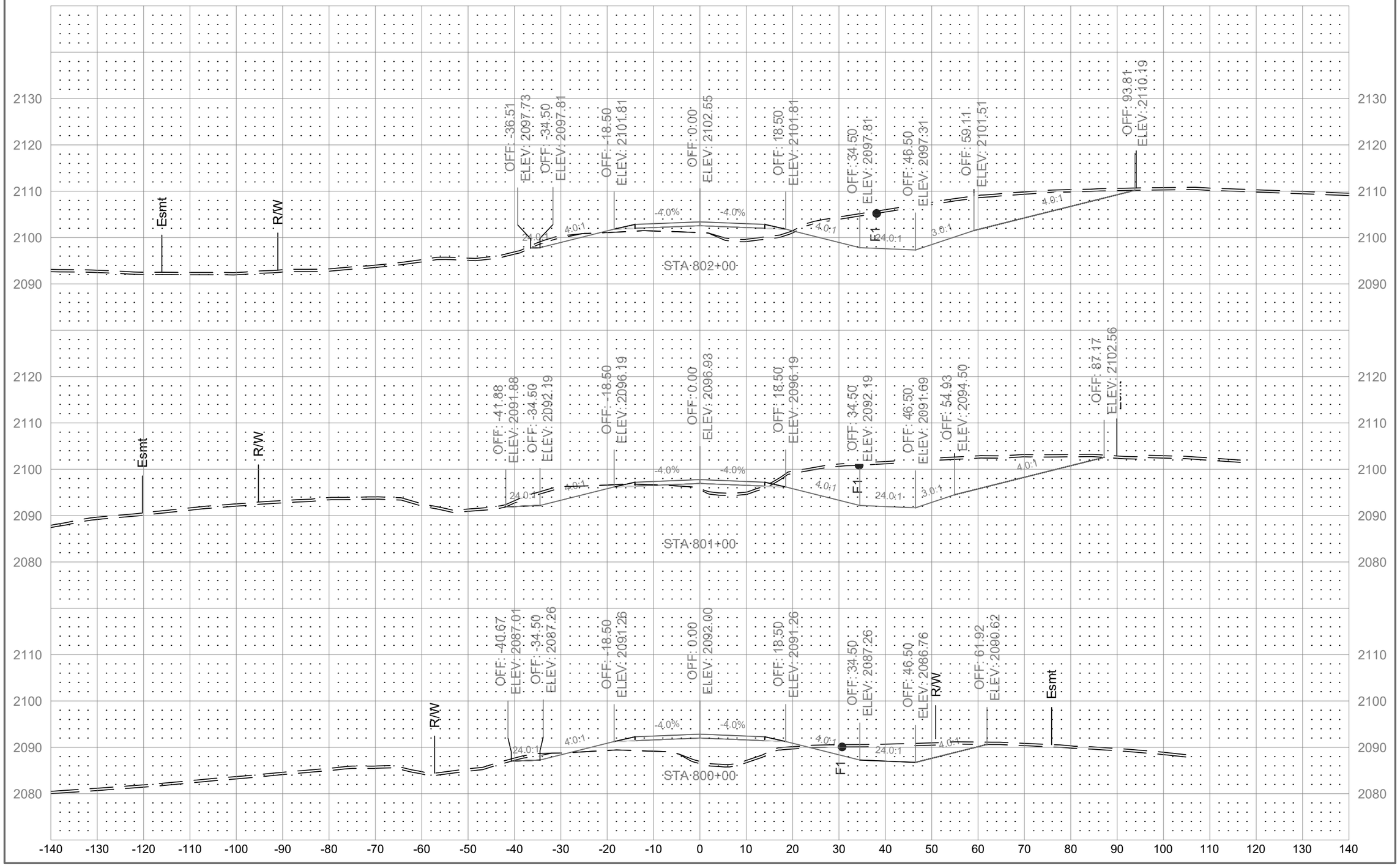

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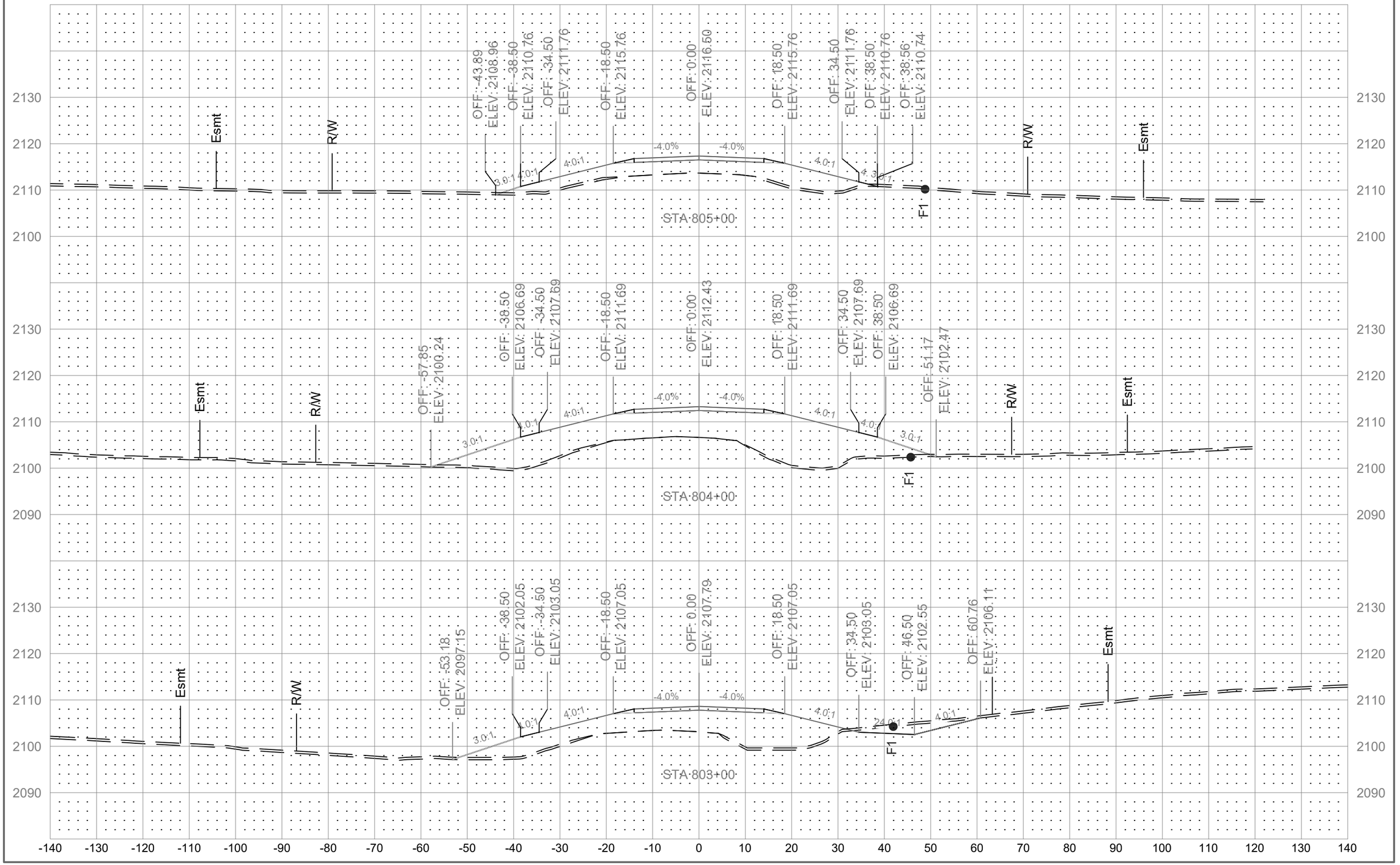

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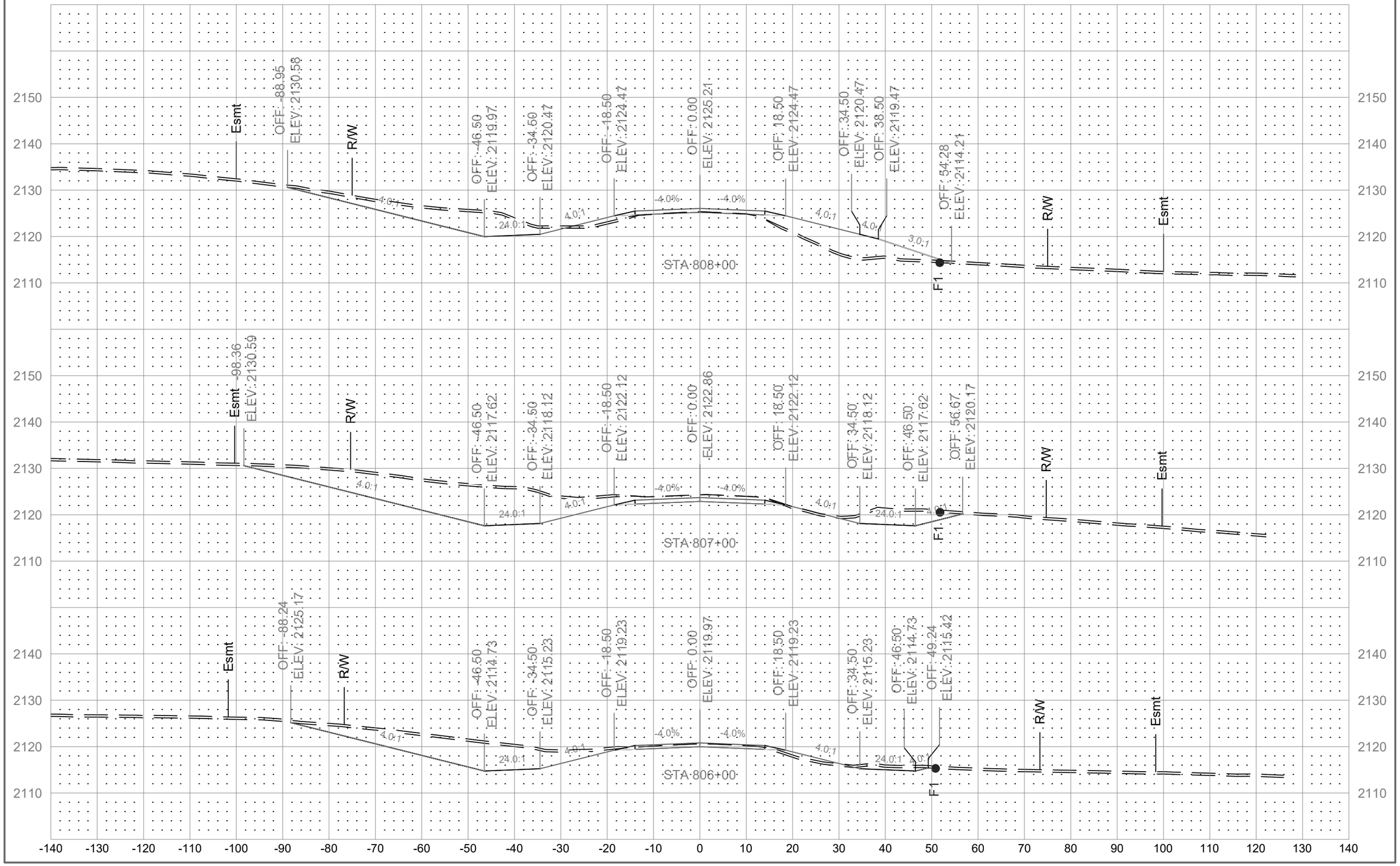

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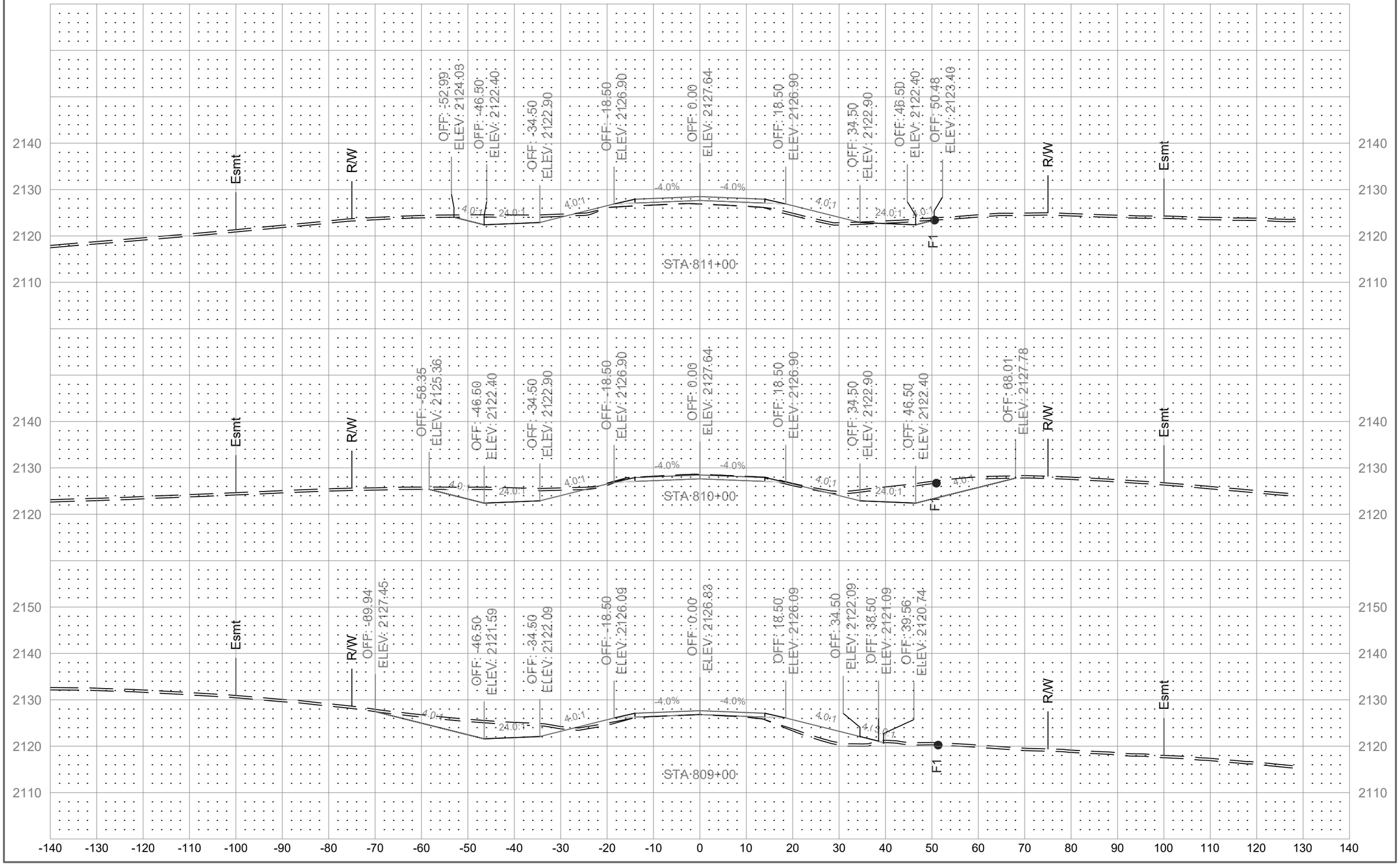

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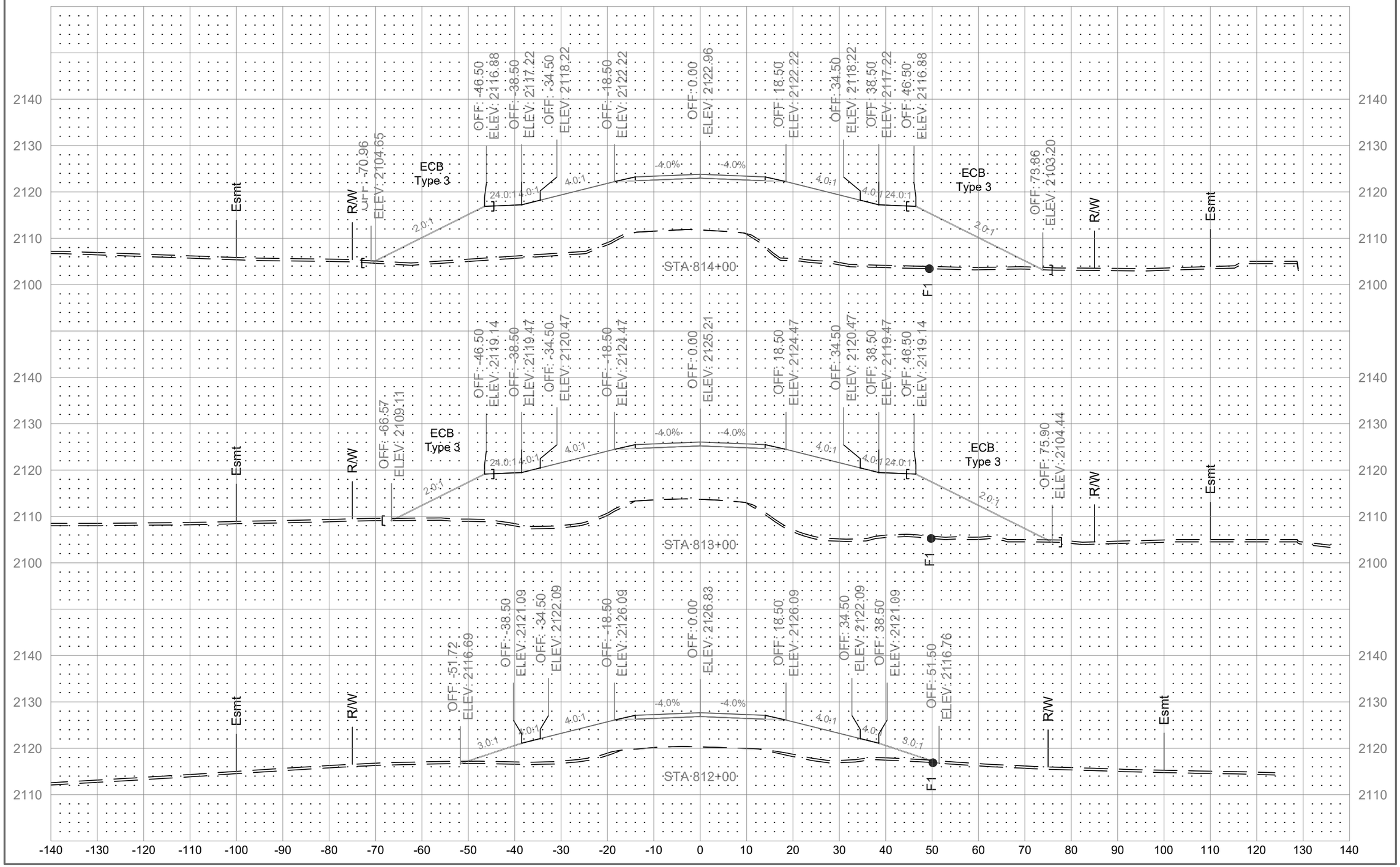

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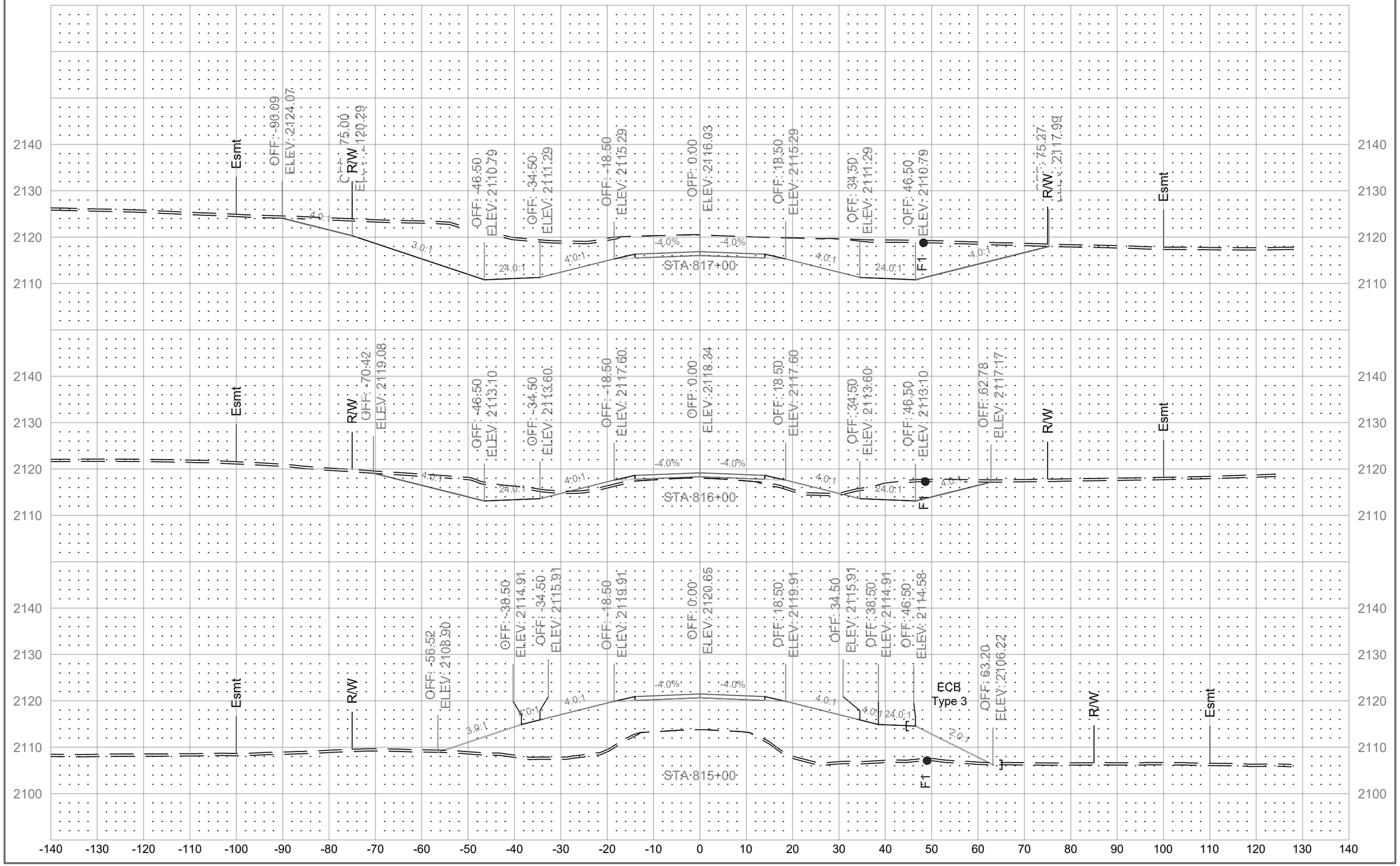

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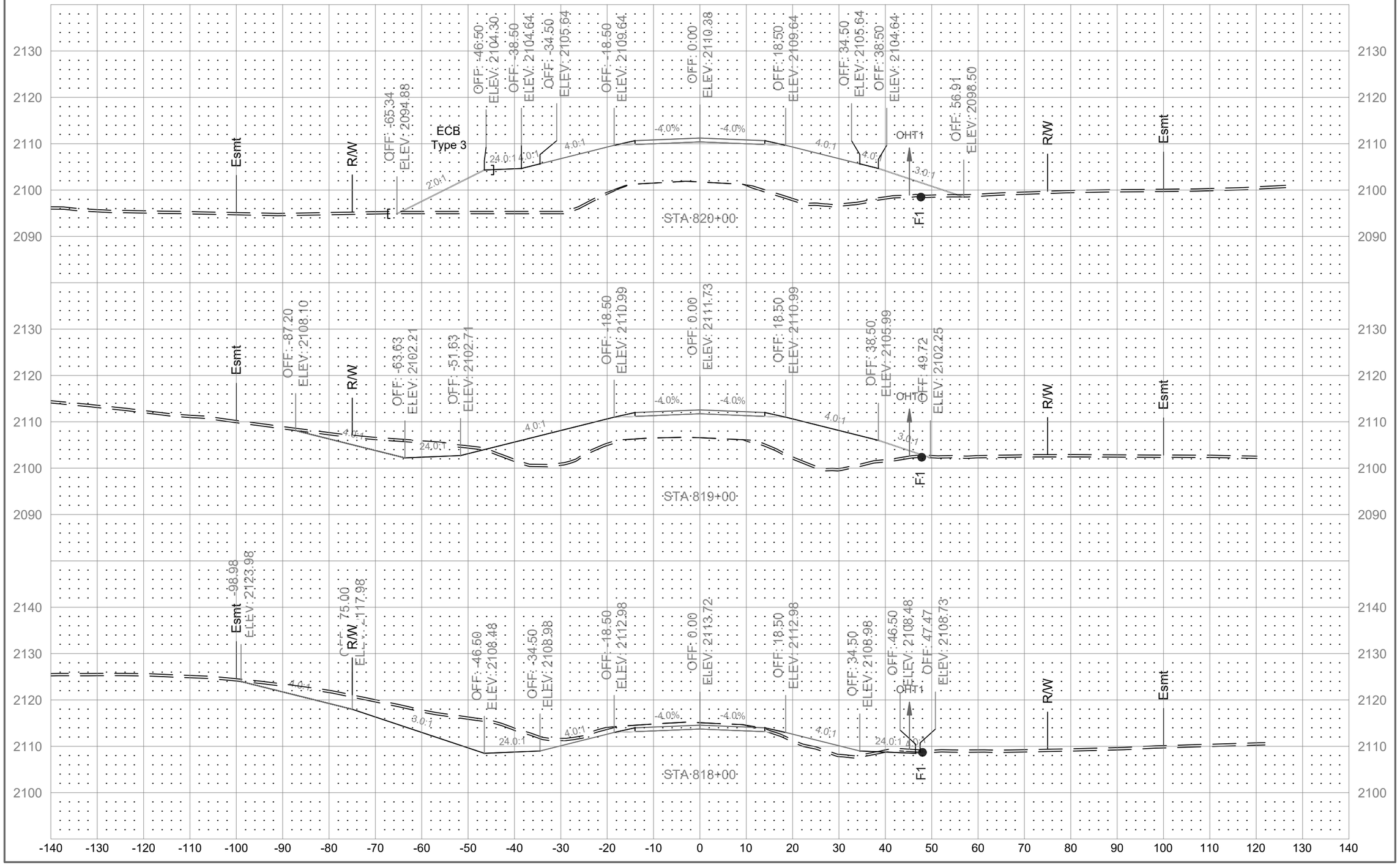

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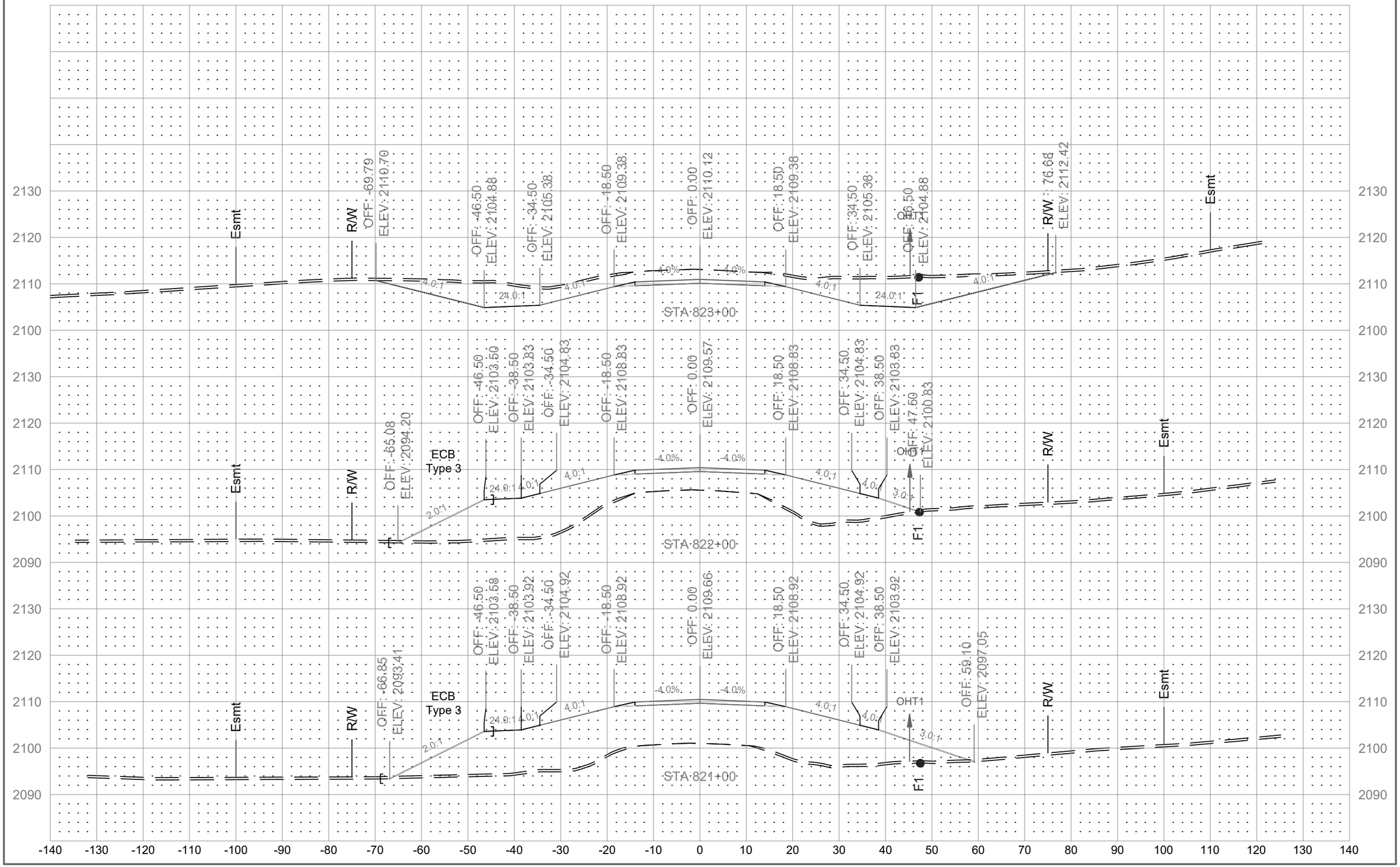

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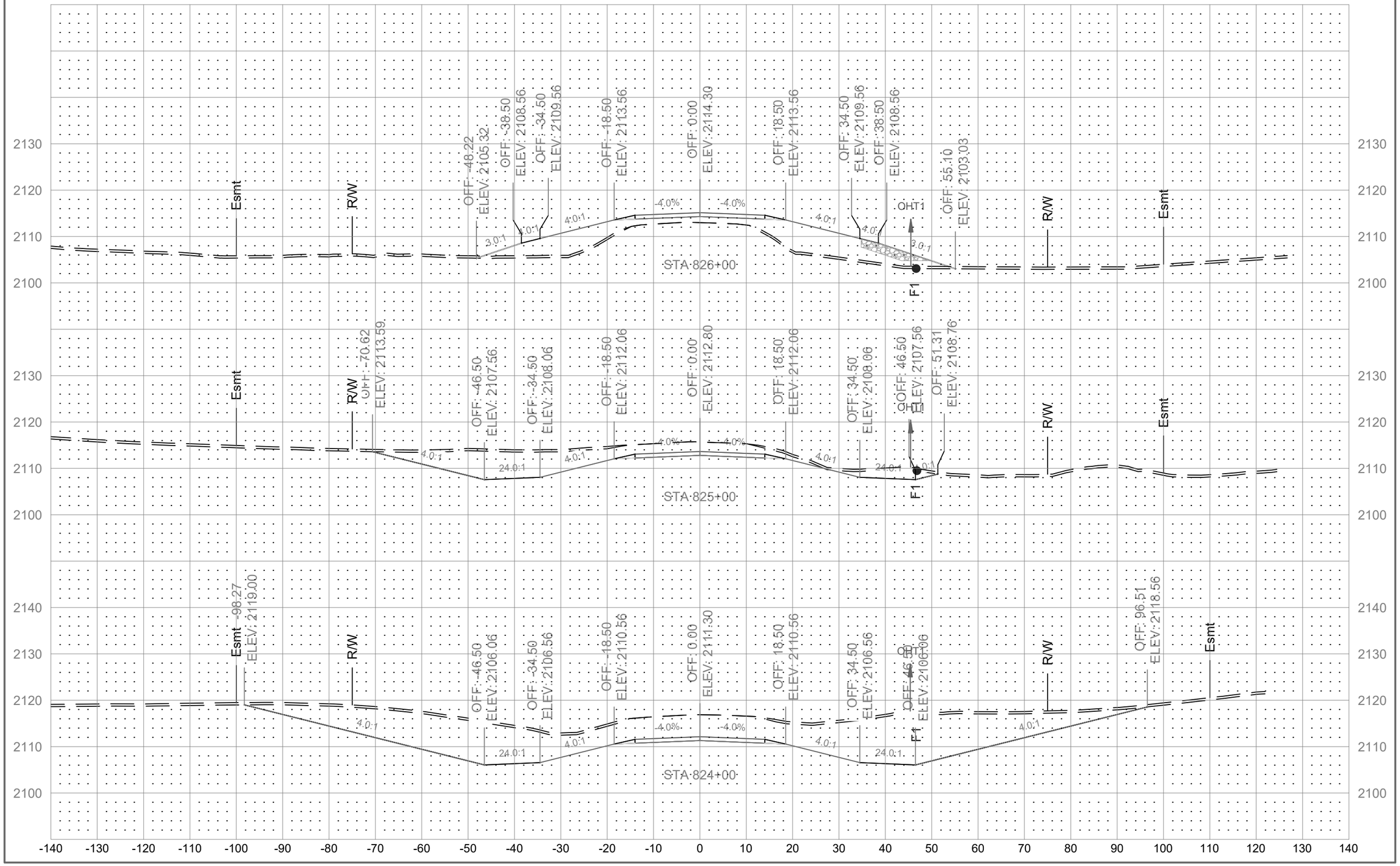

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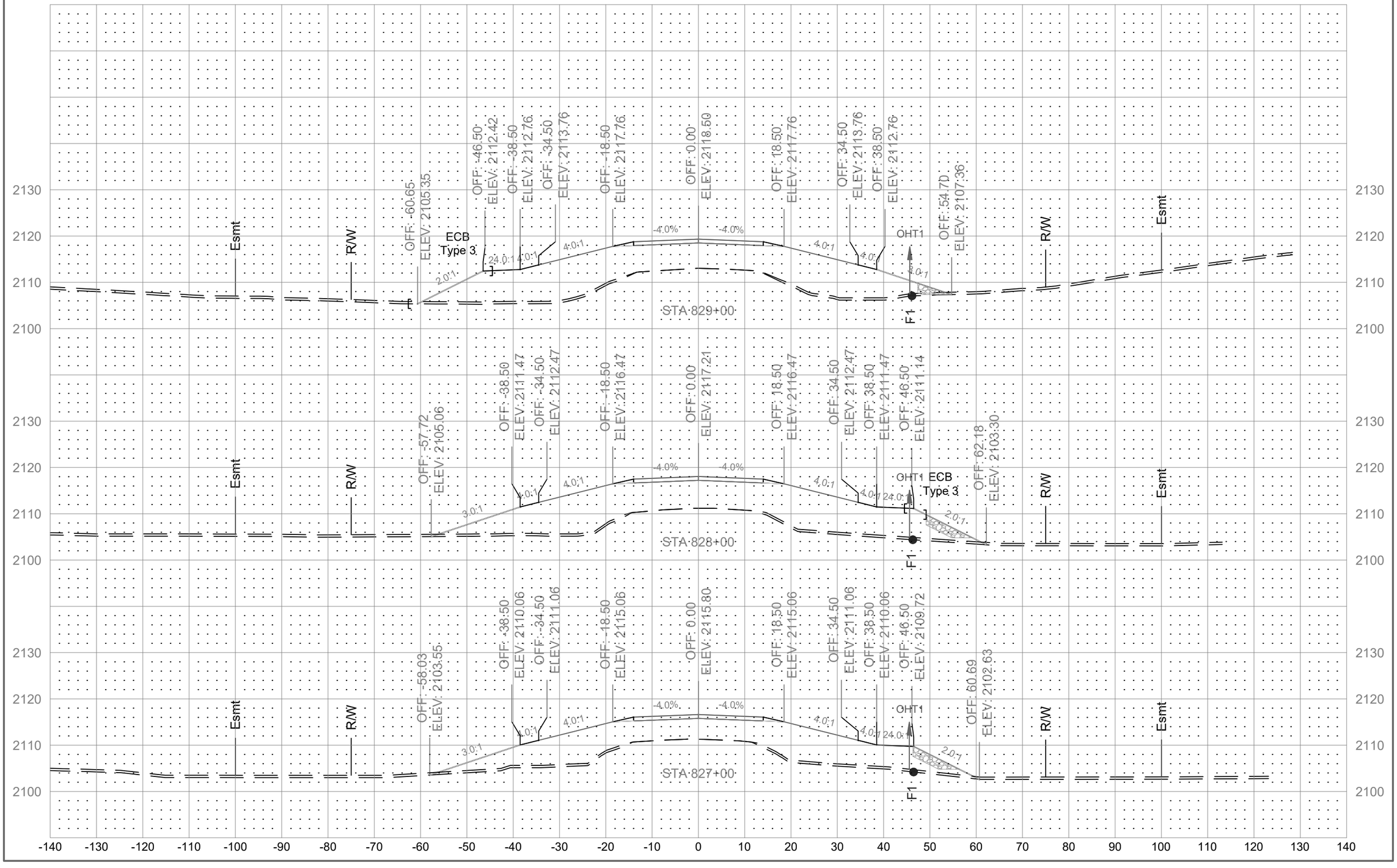

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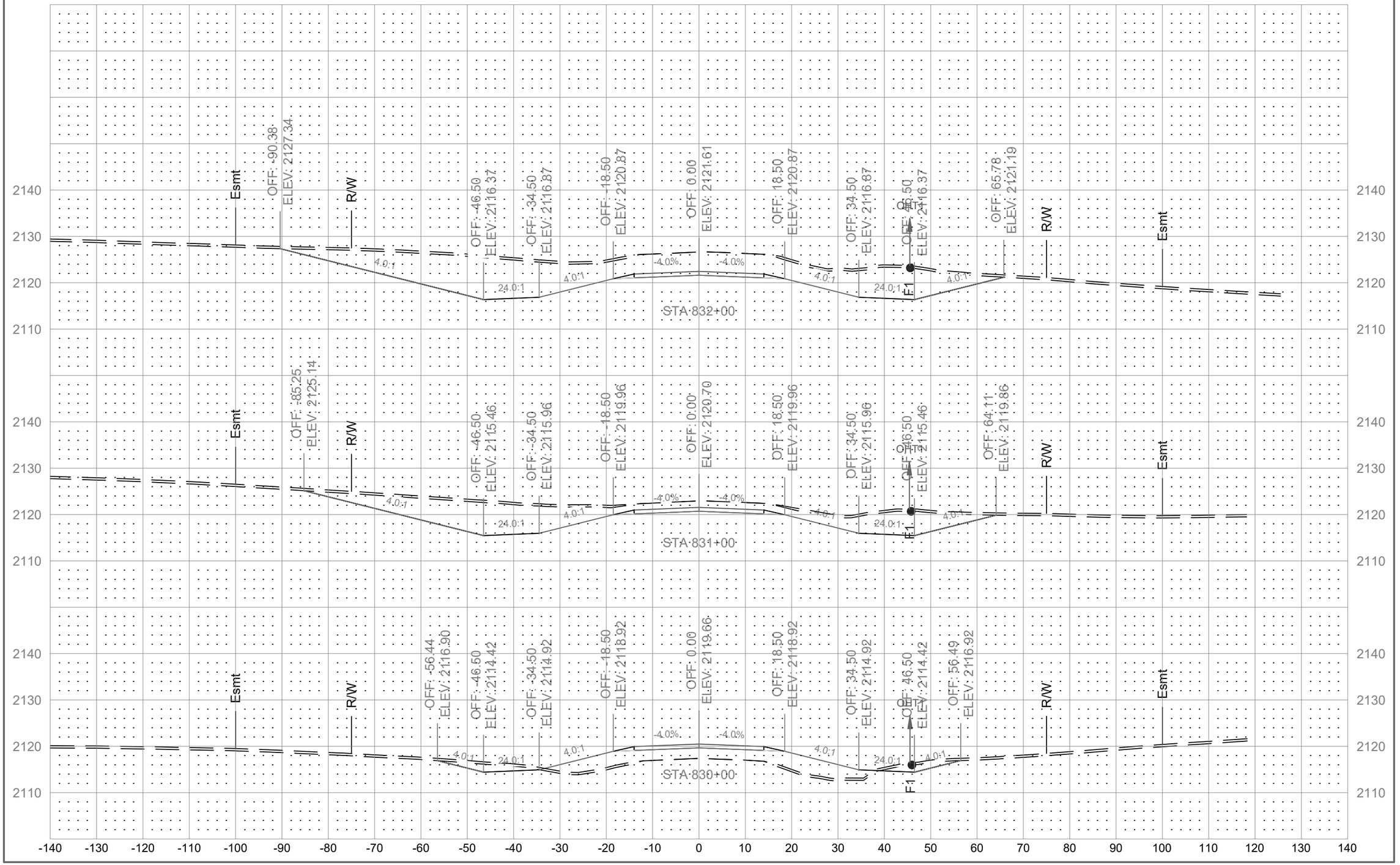

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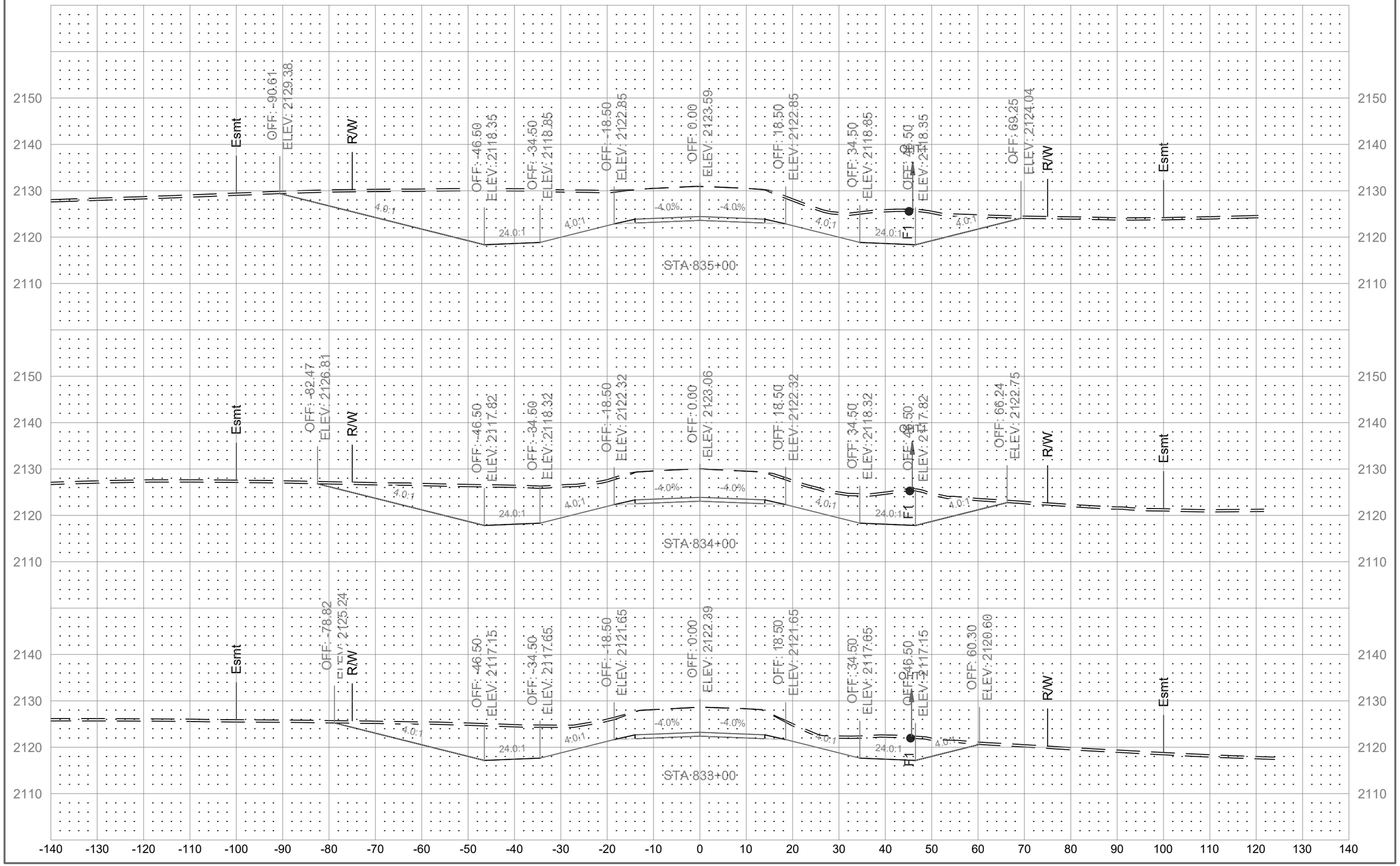

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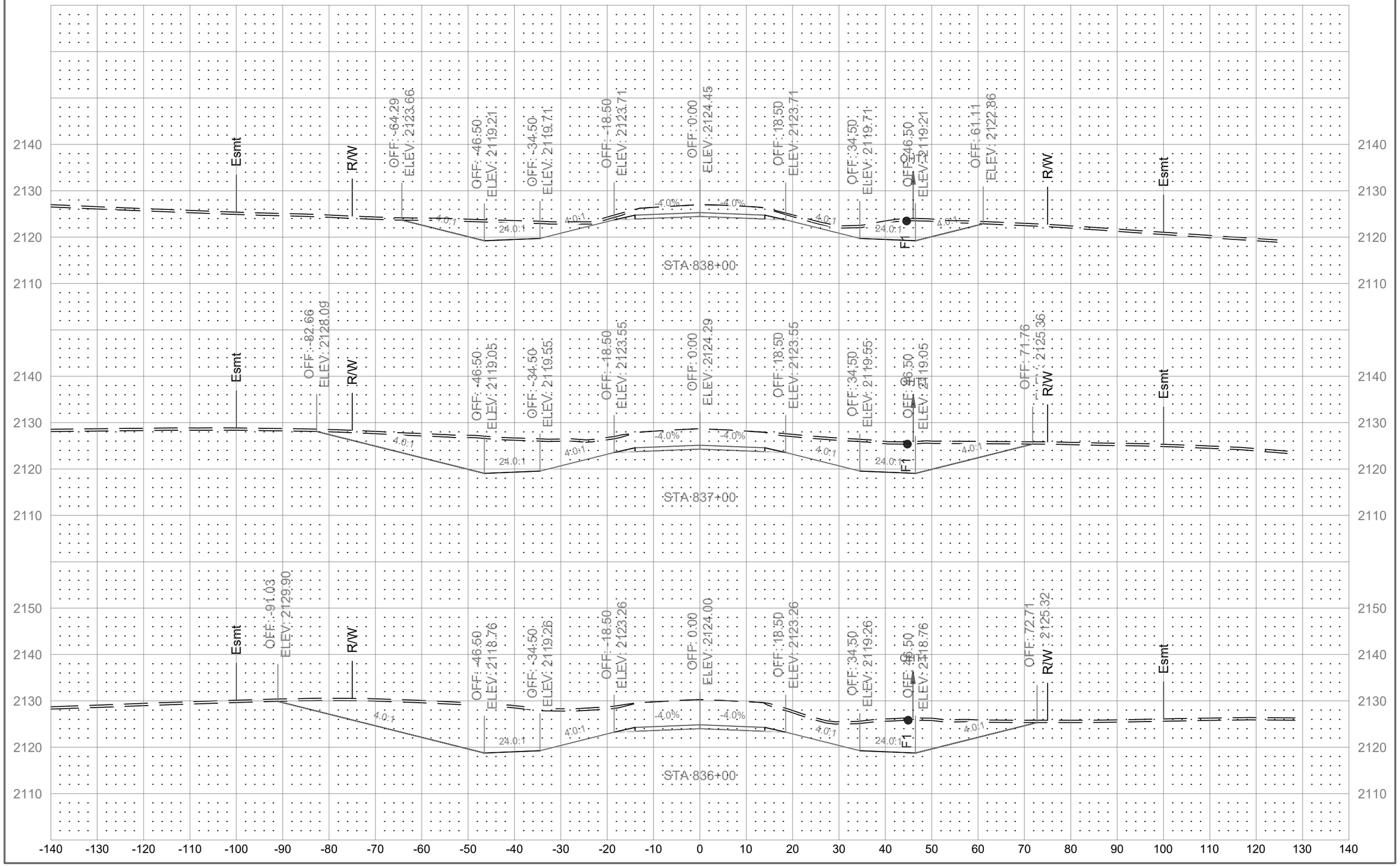

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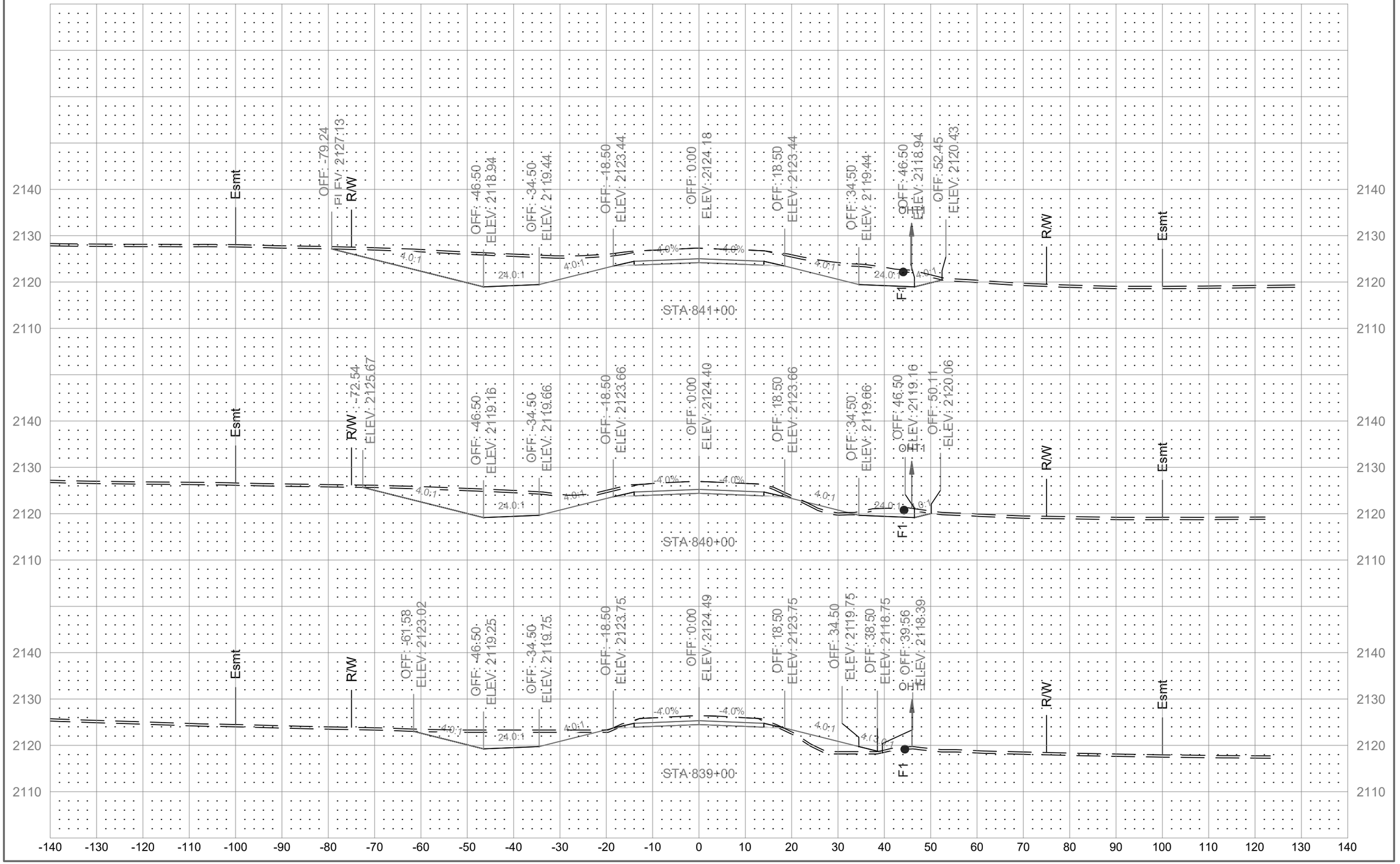

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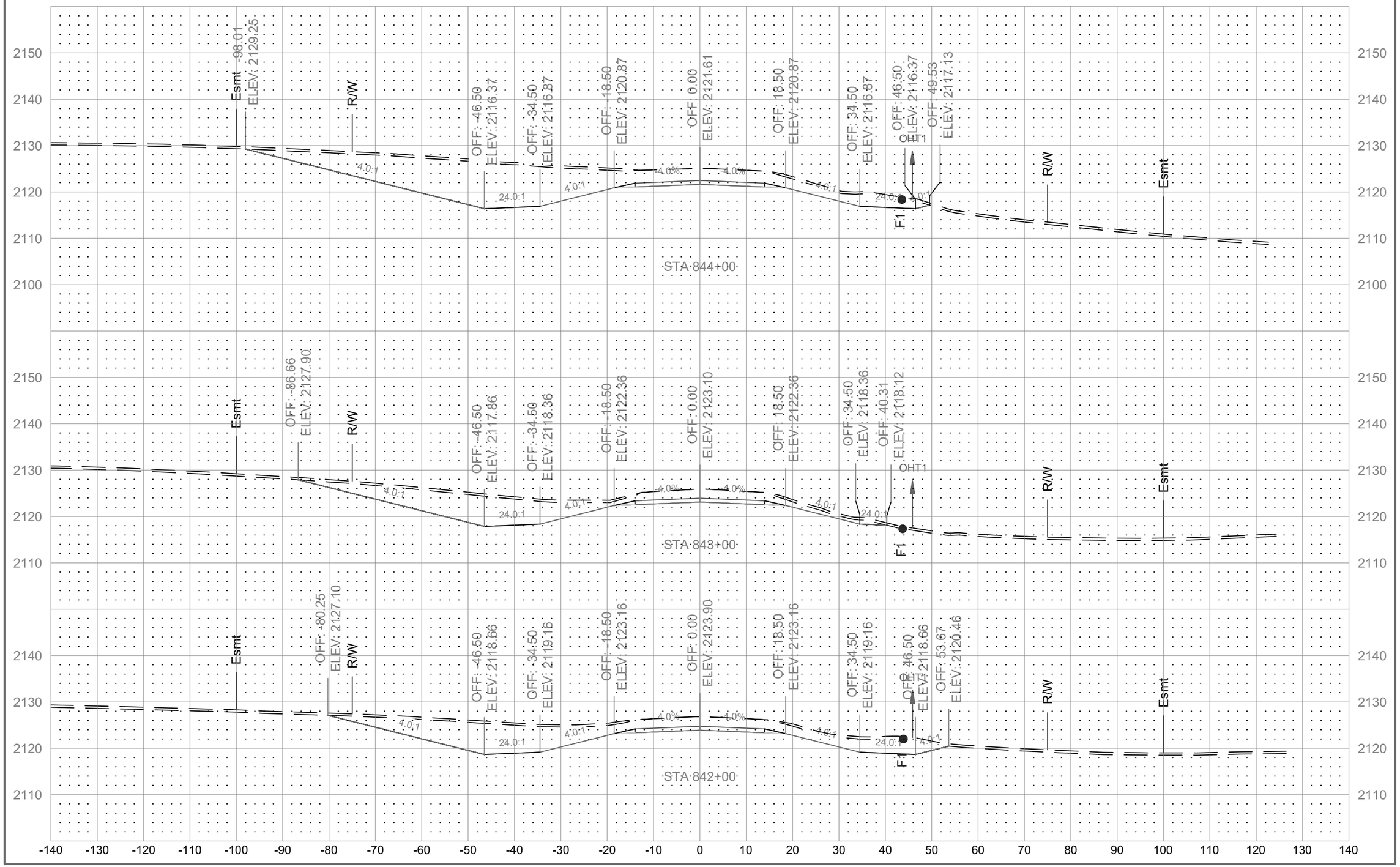

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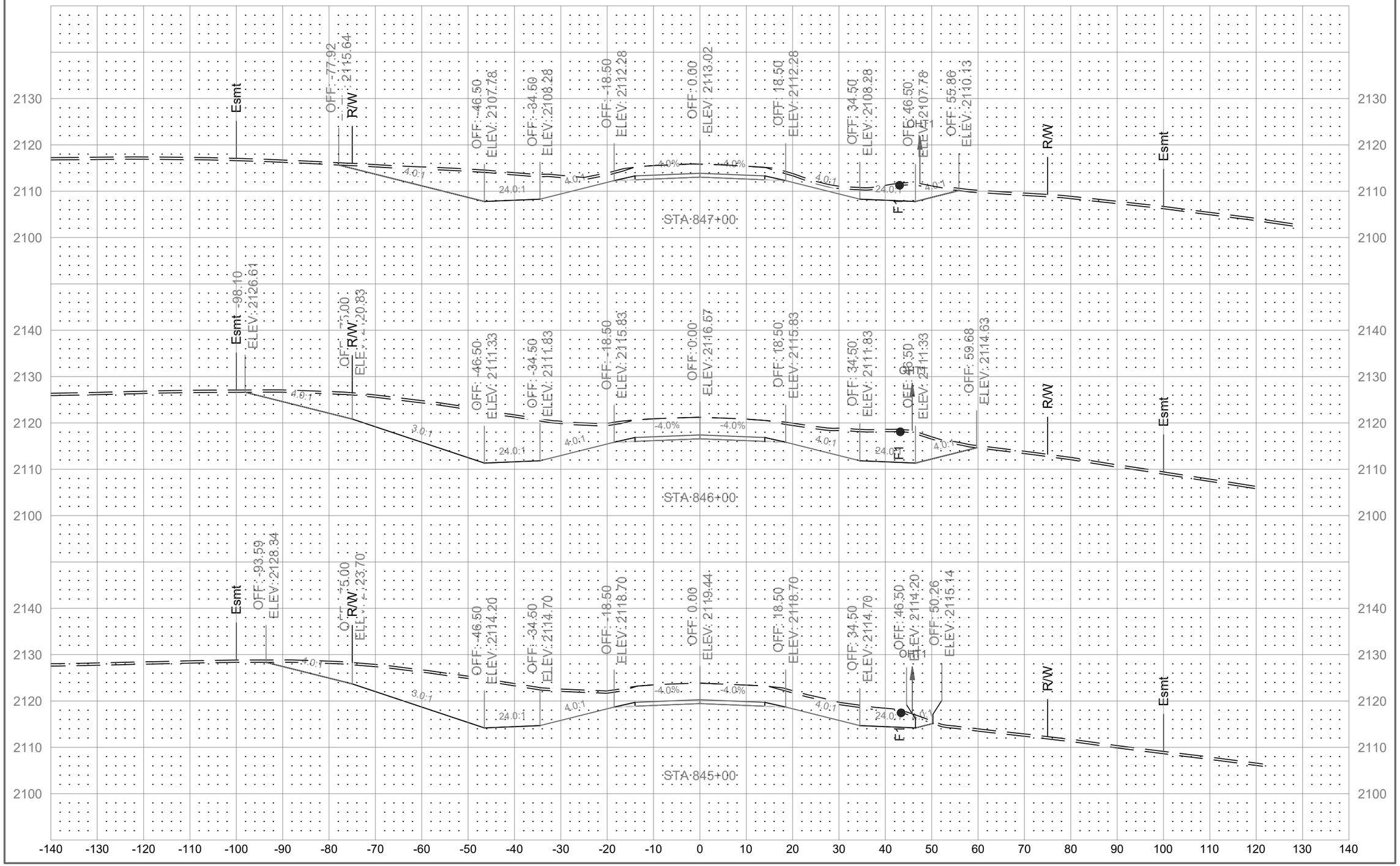

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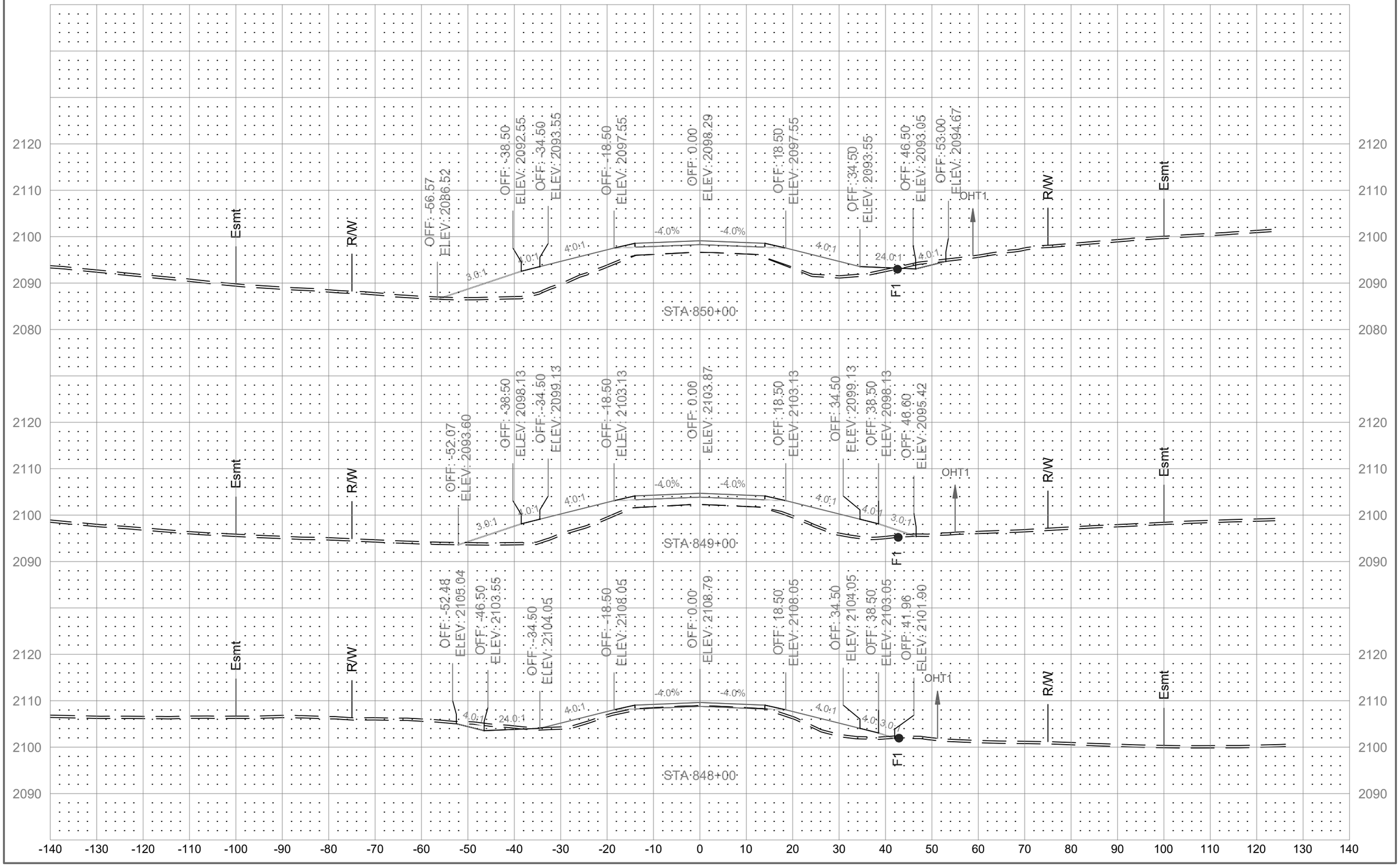

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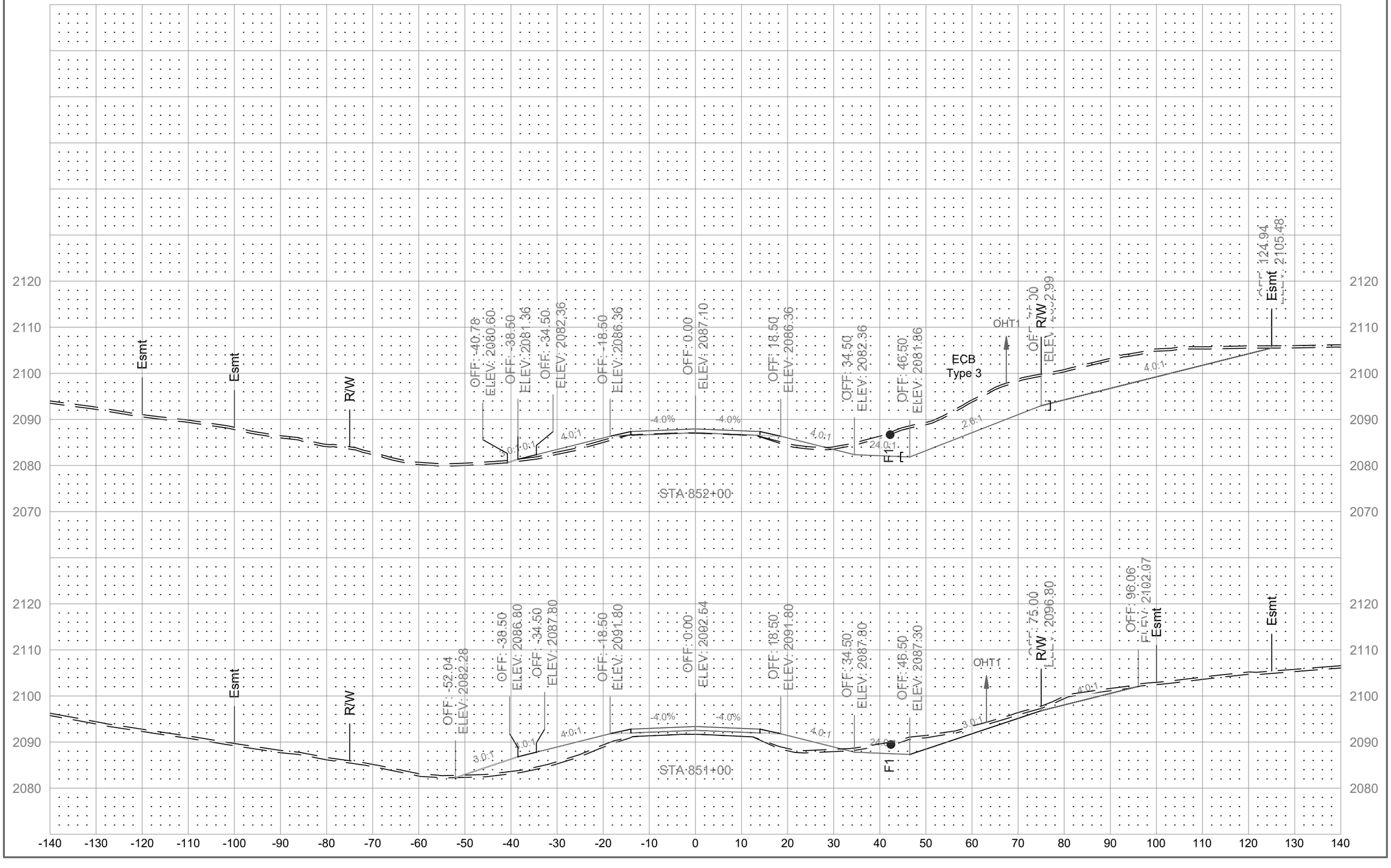

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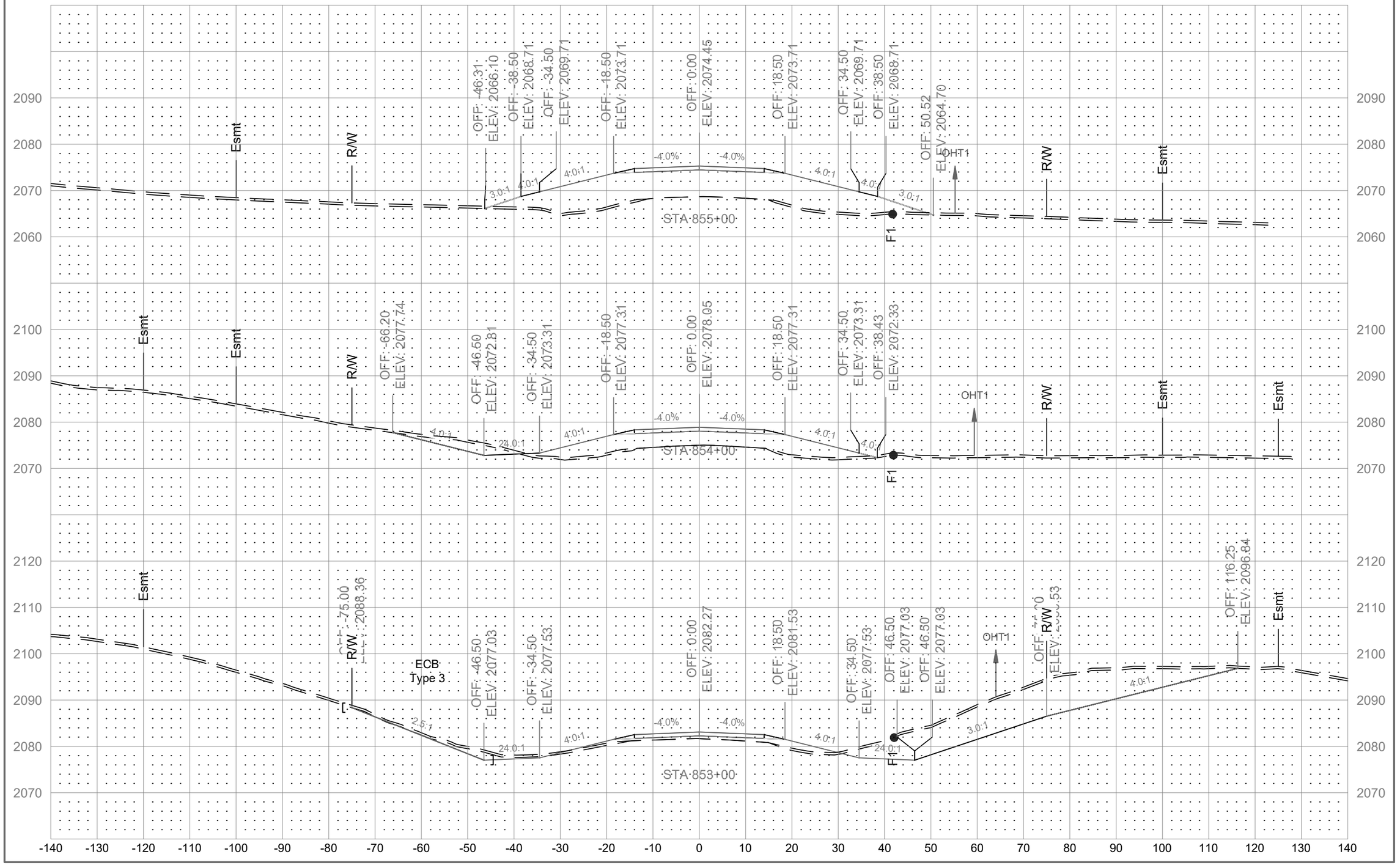

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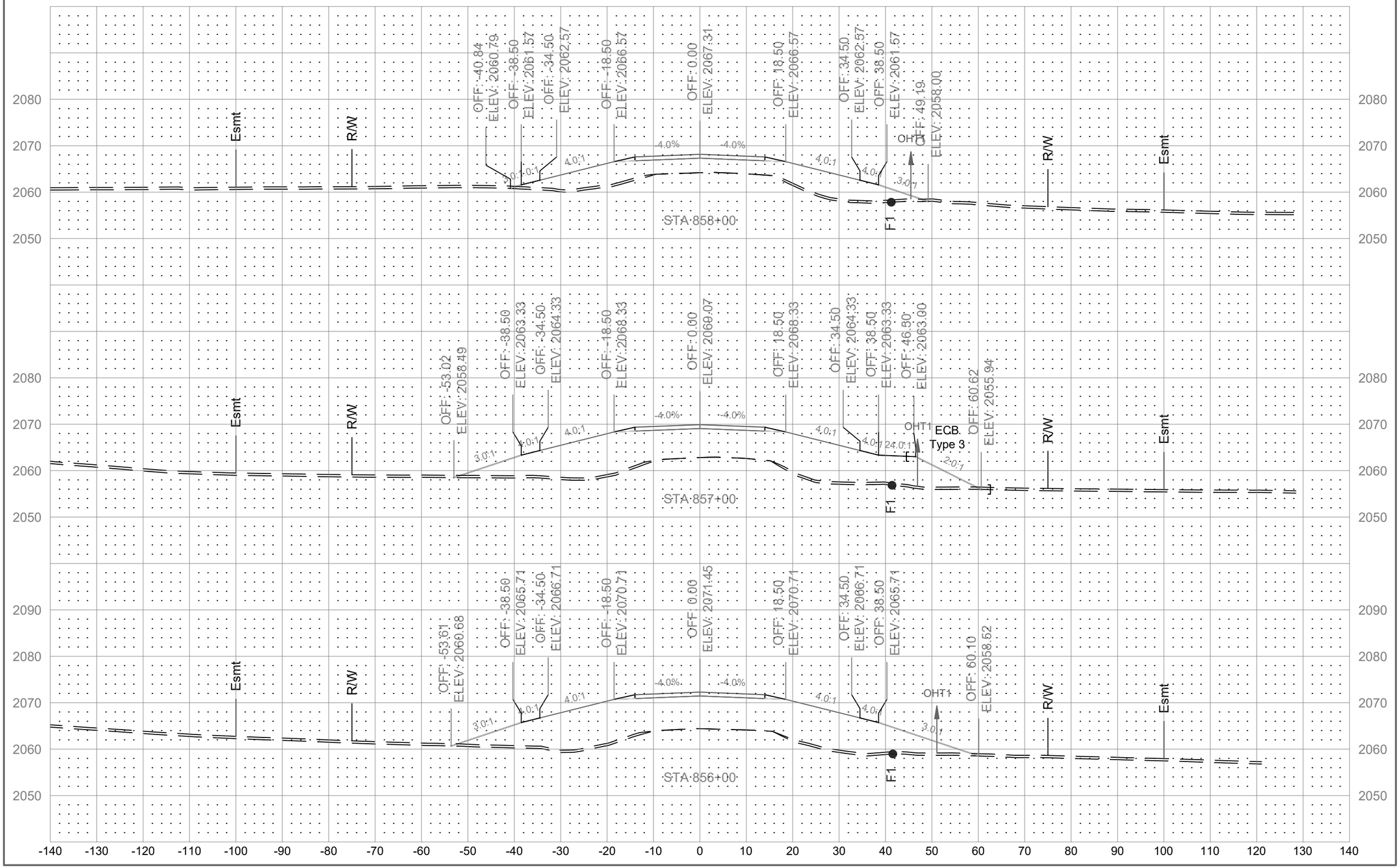

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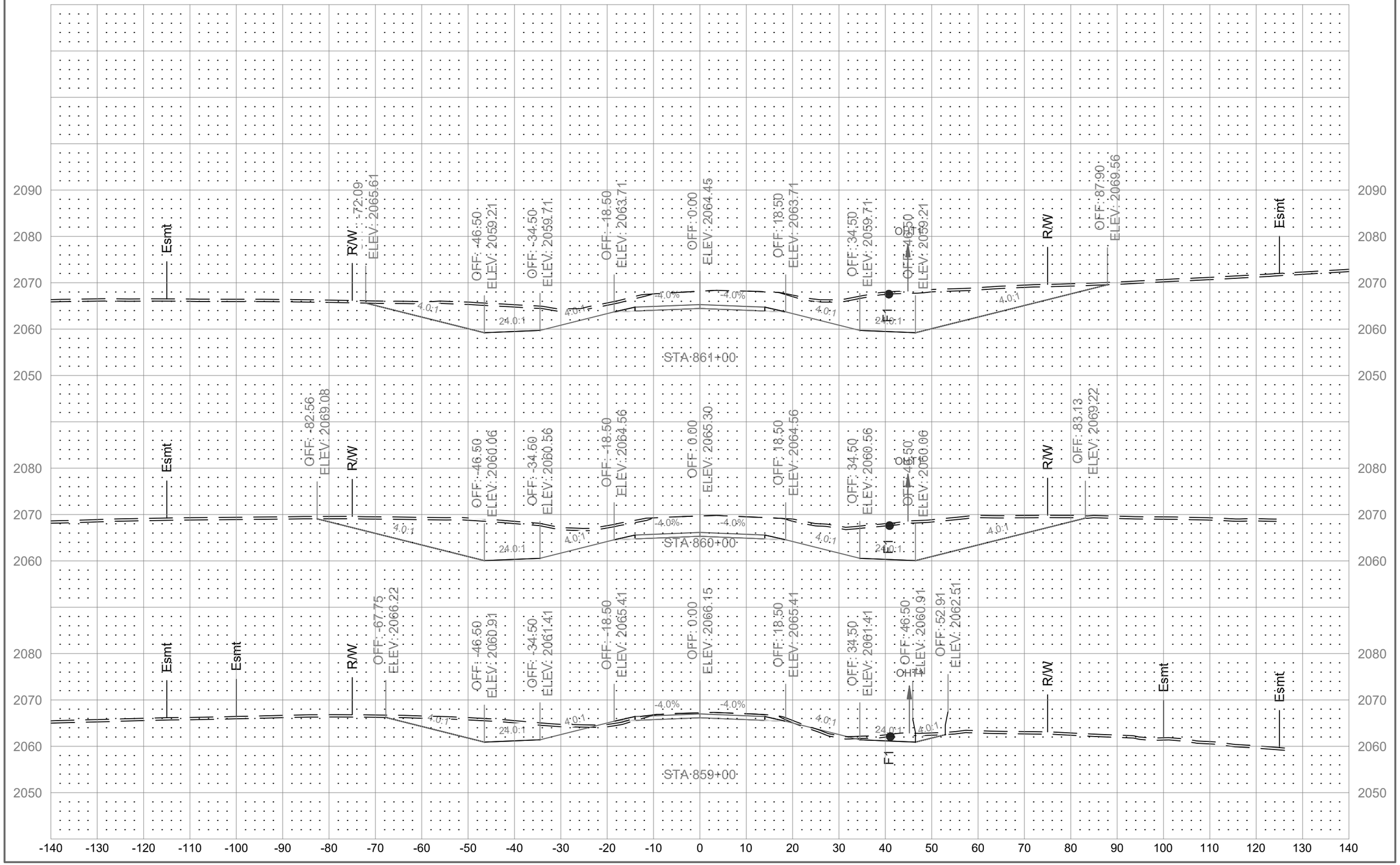

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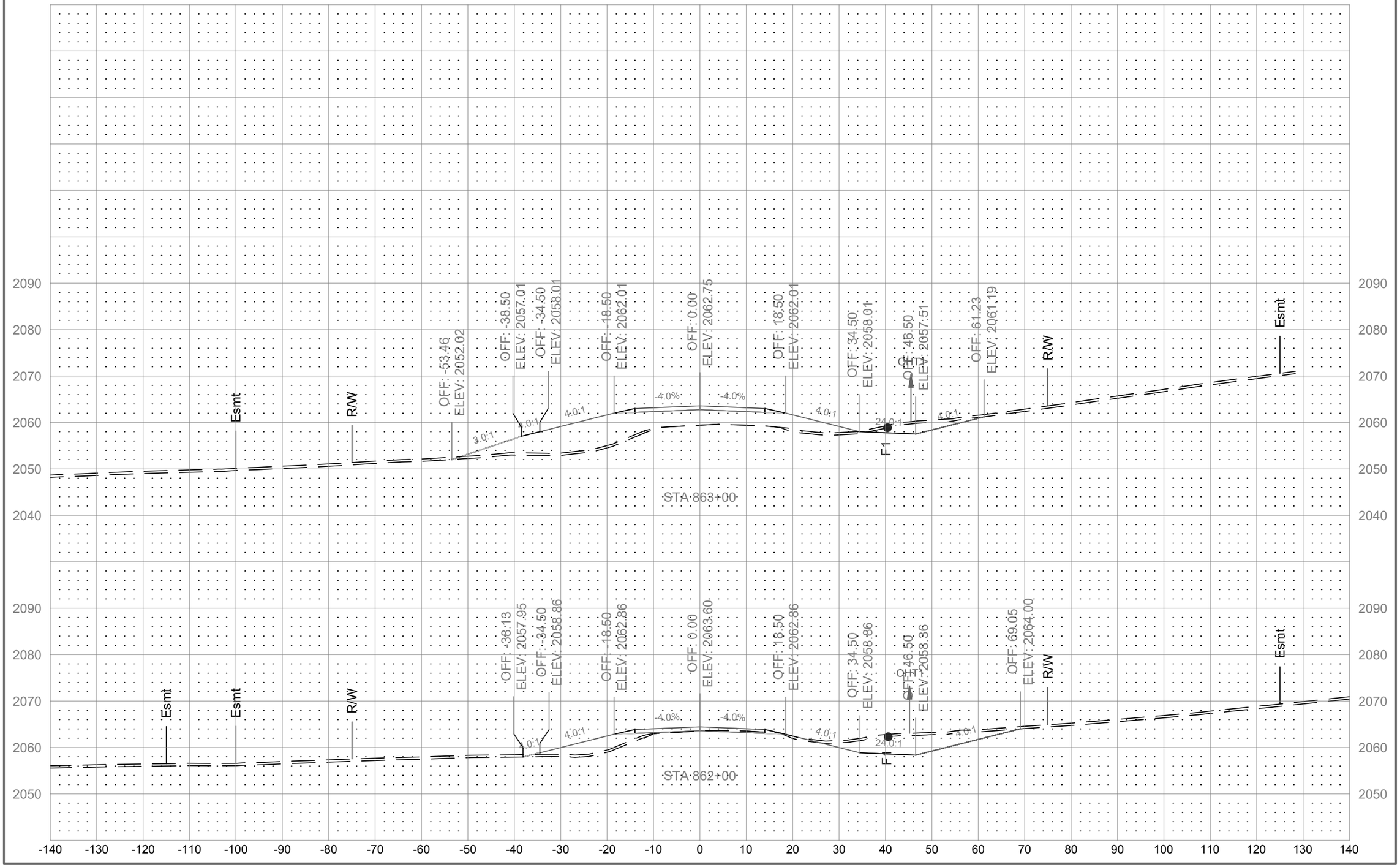
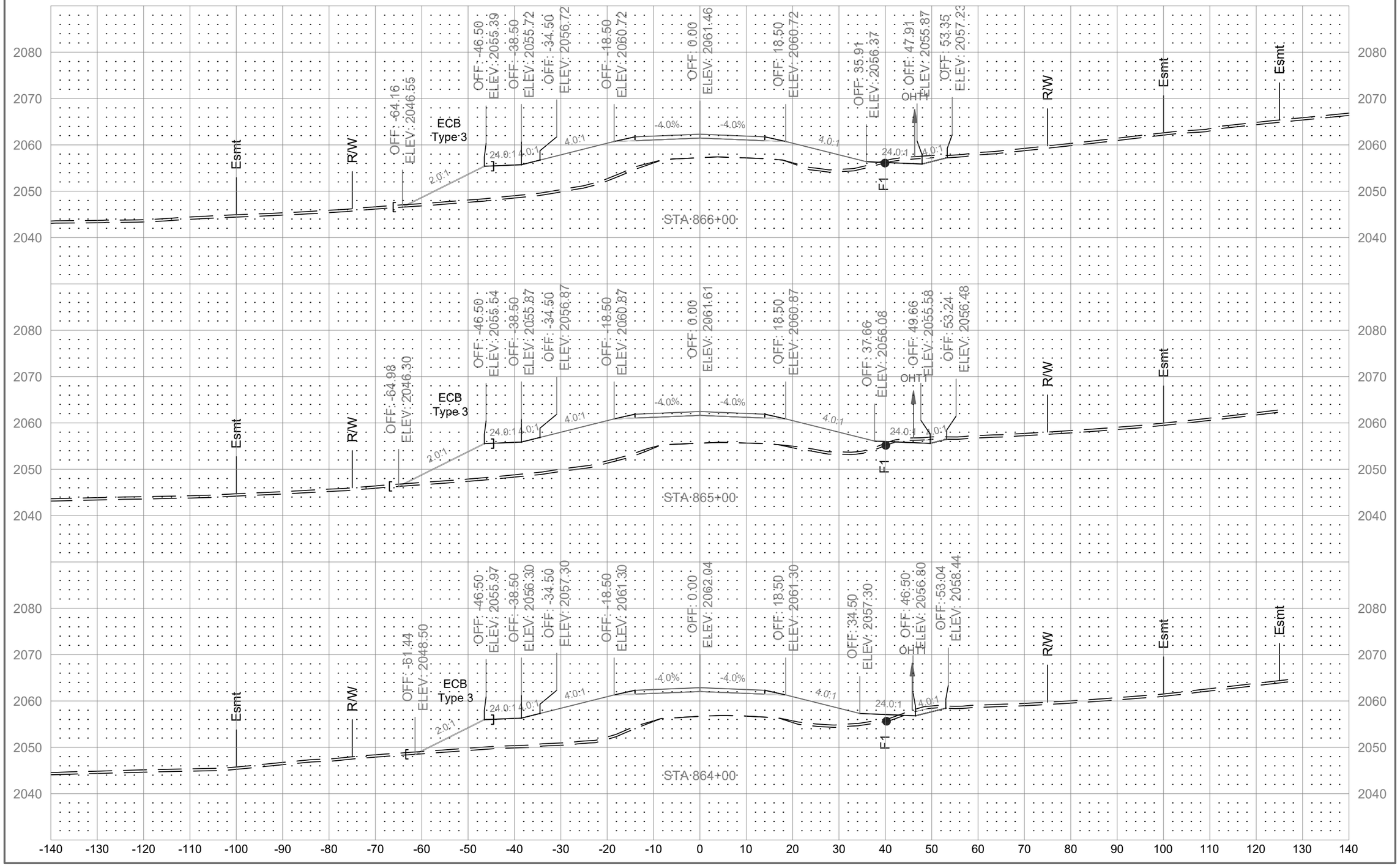
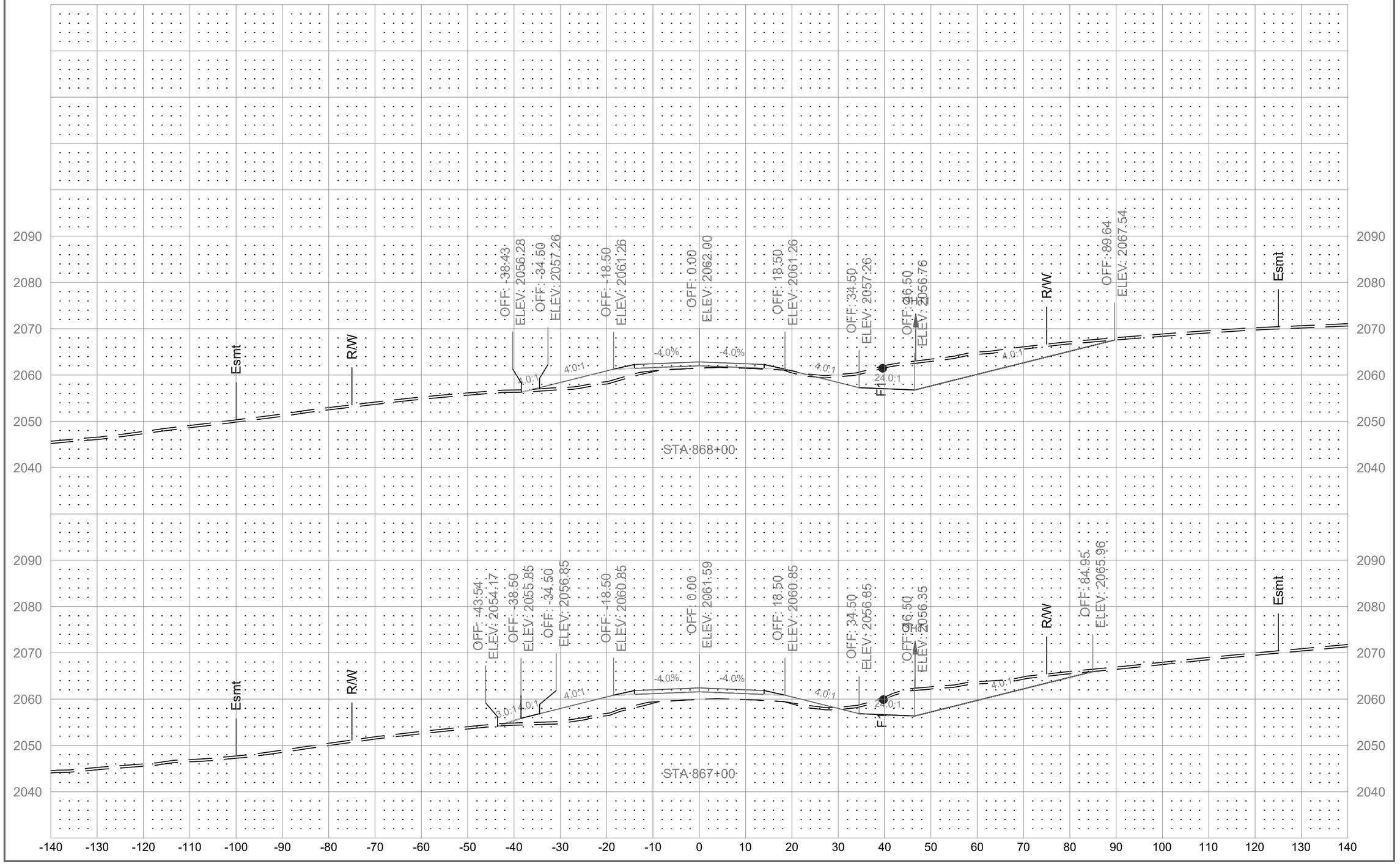


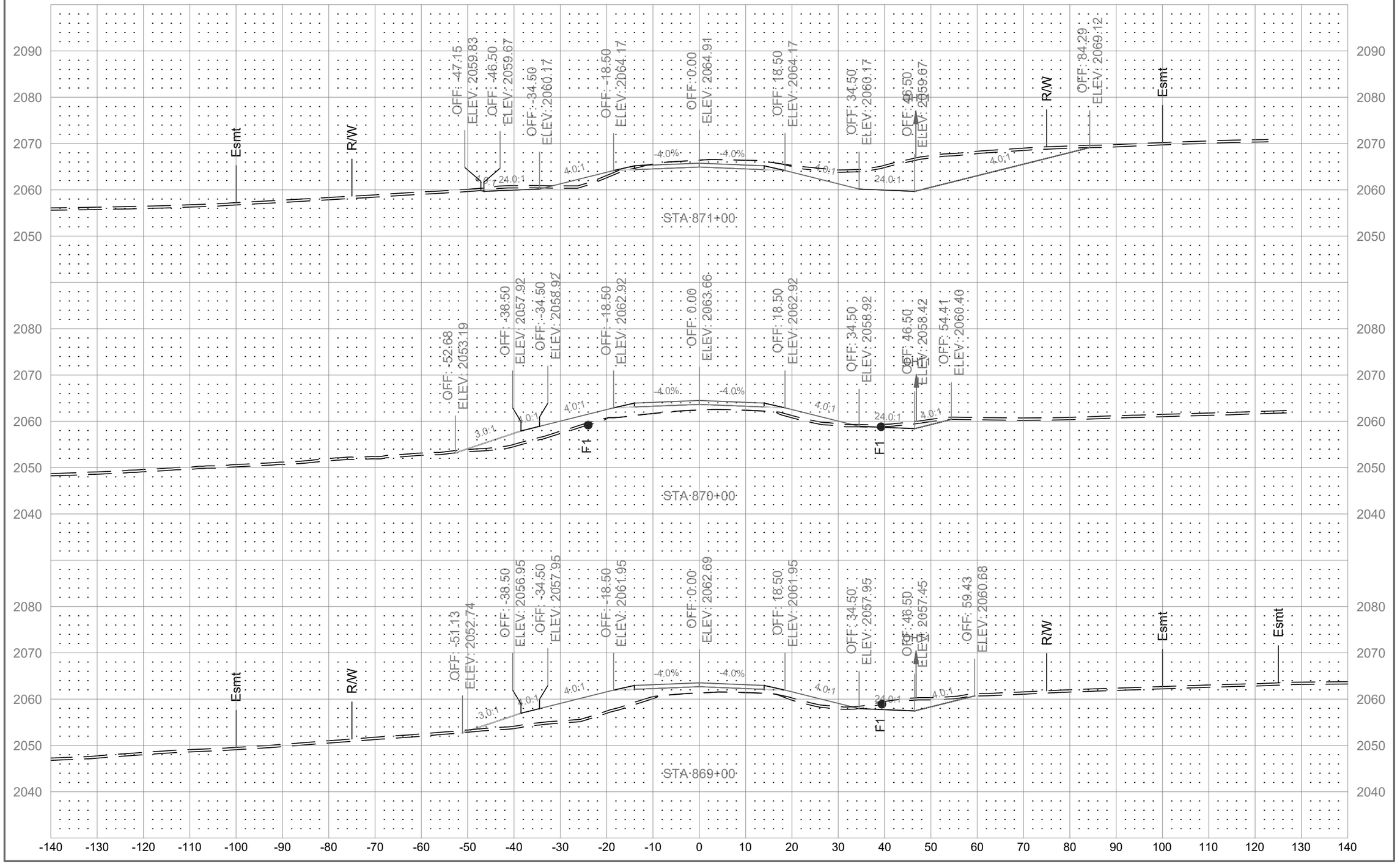
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	35



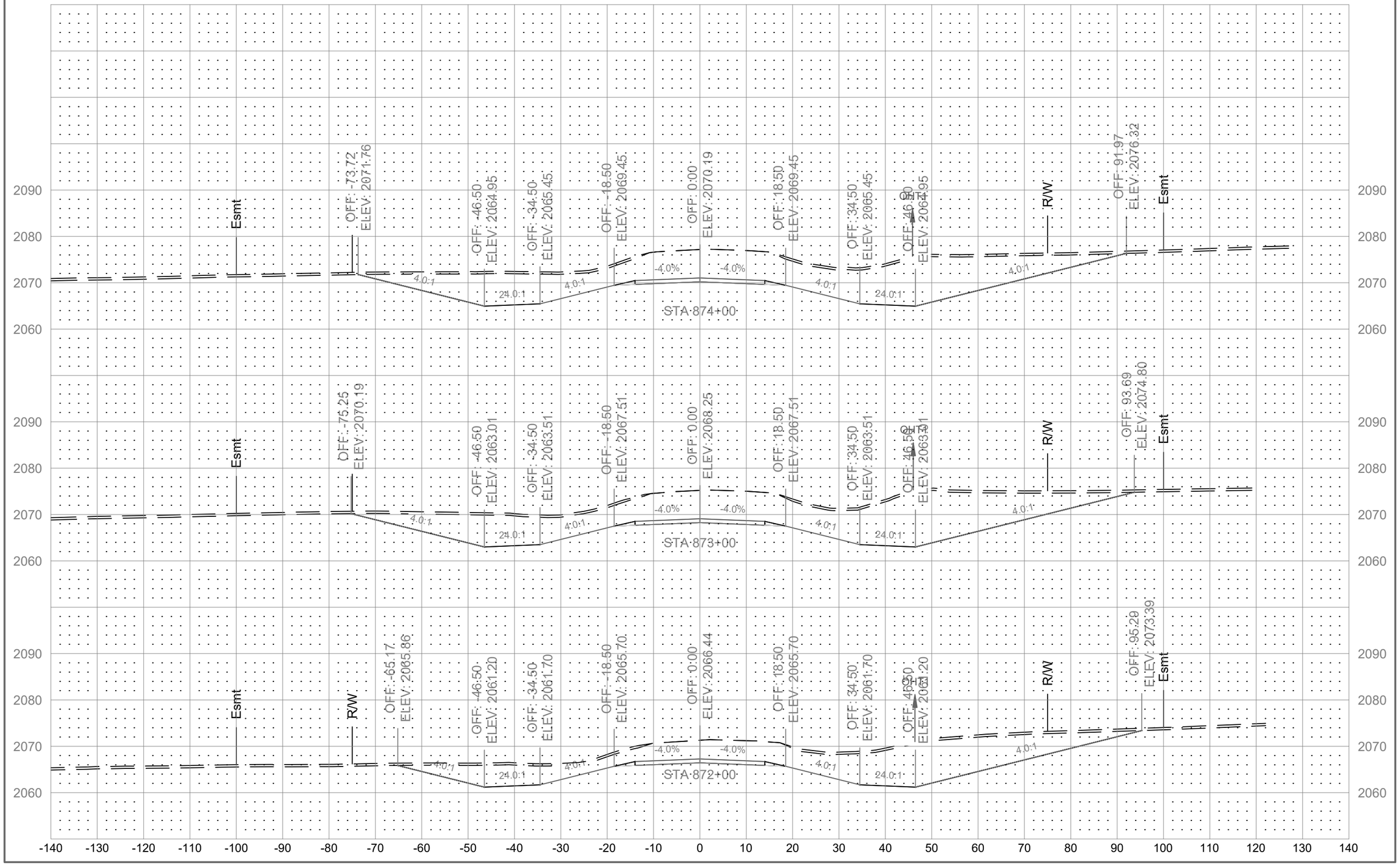
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	36



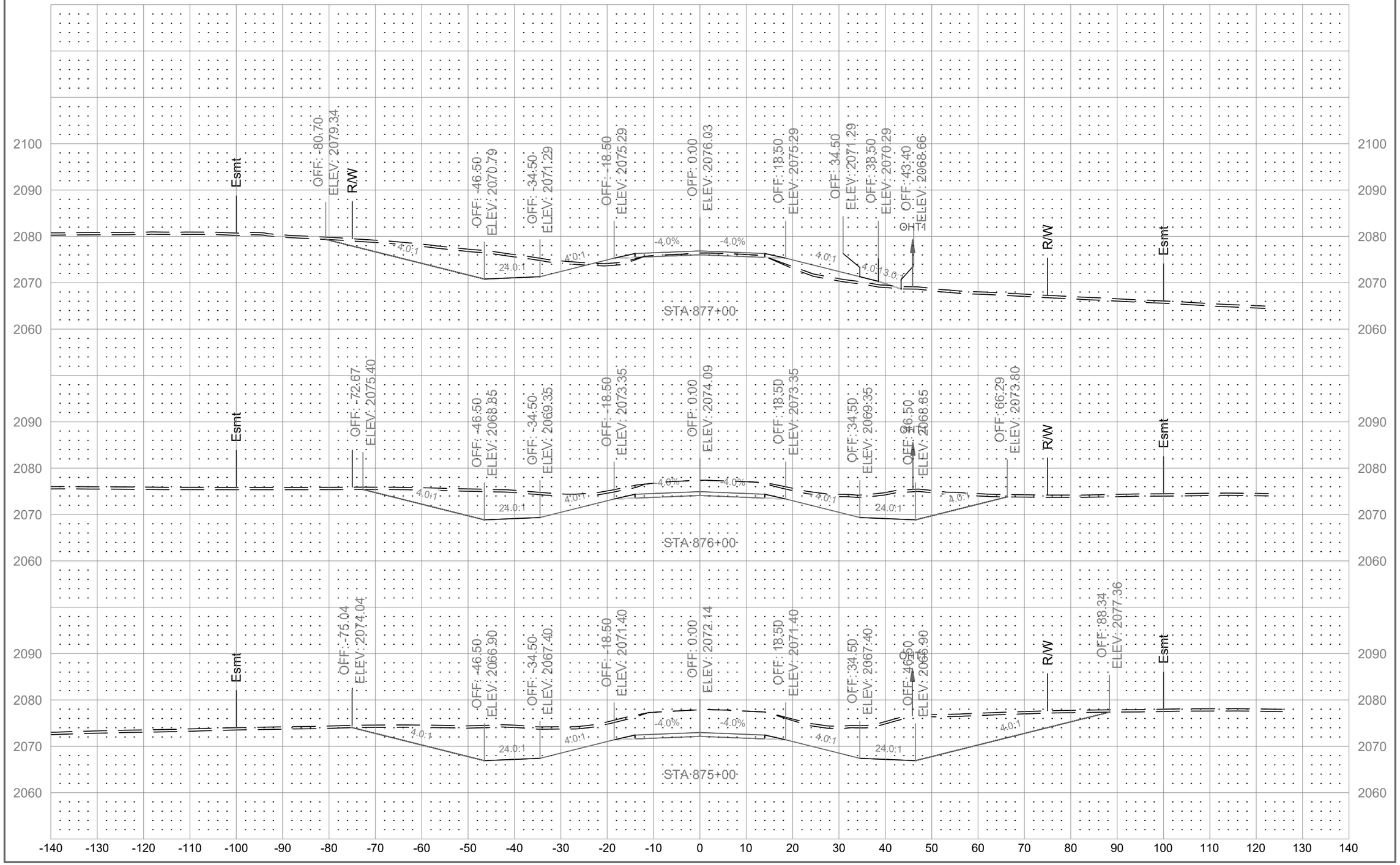
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	37



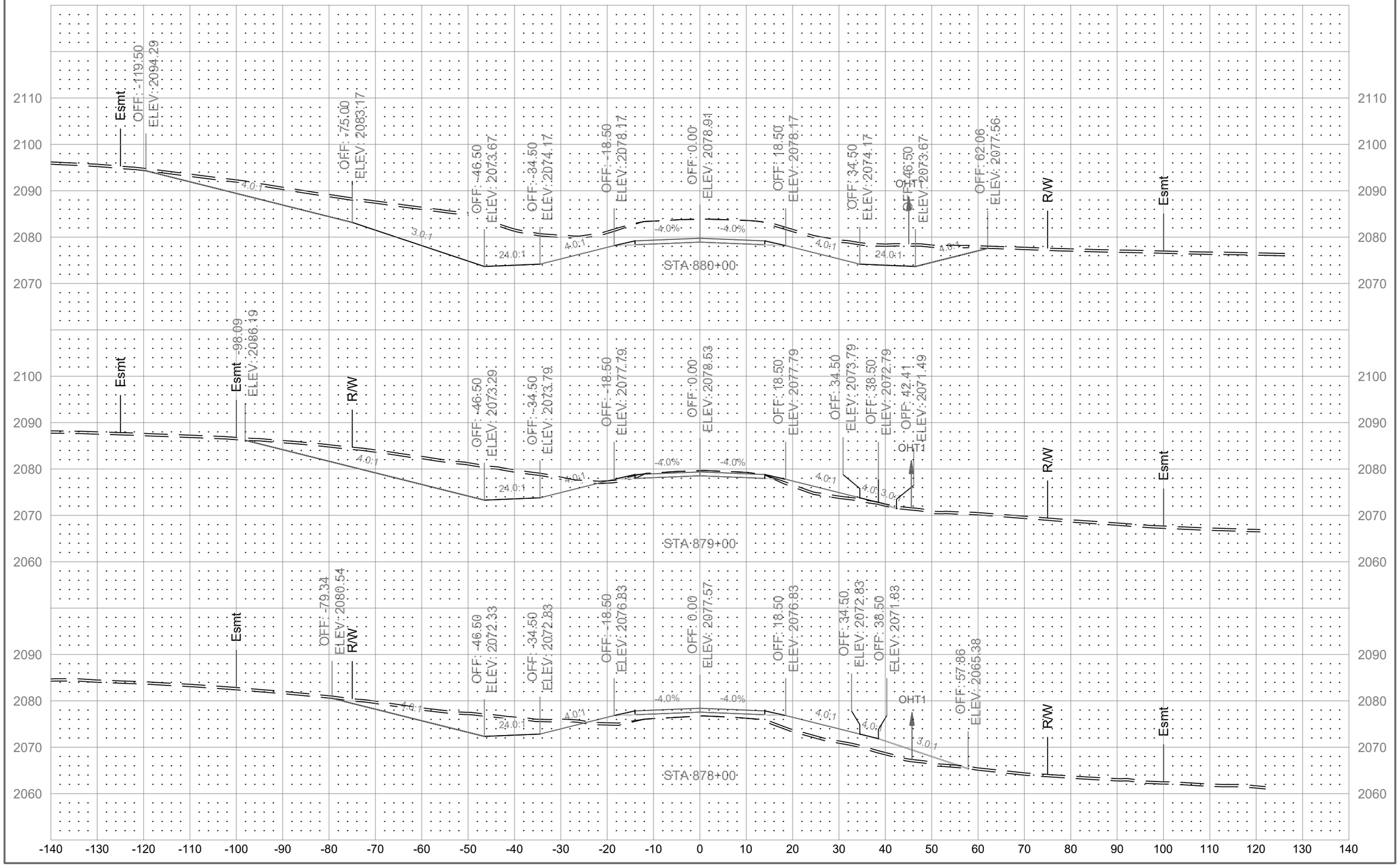
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	38



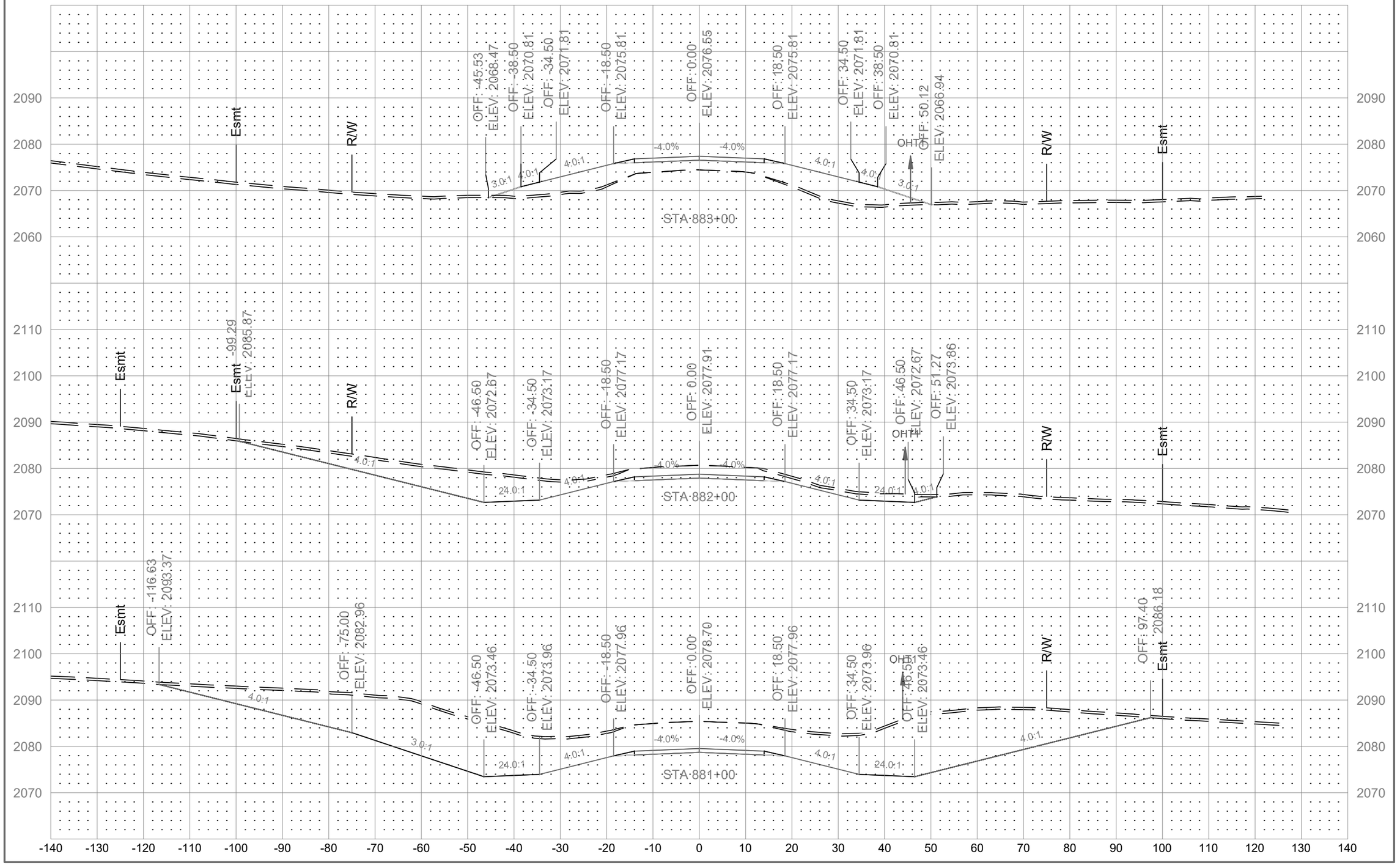
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	39



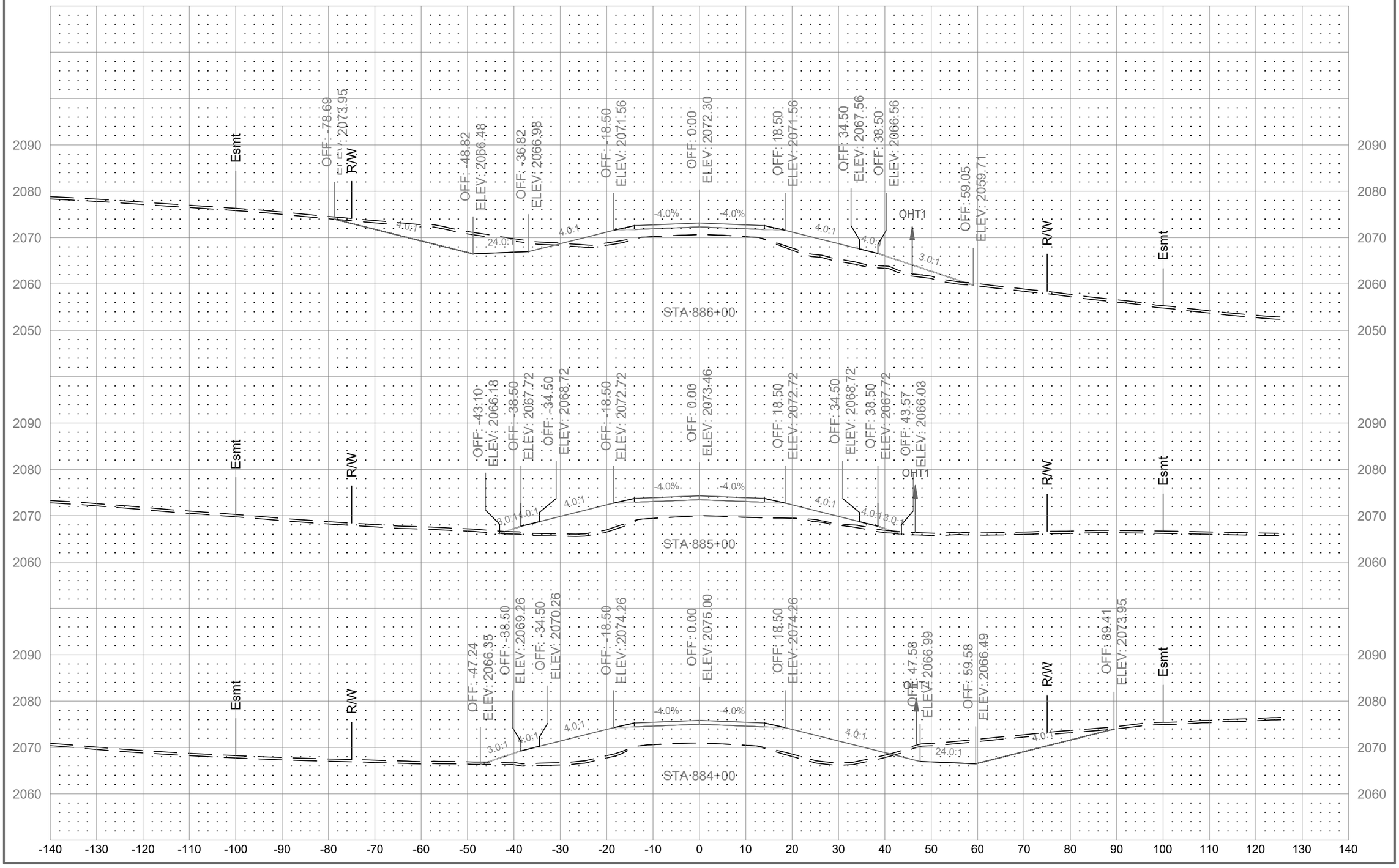
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	40



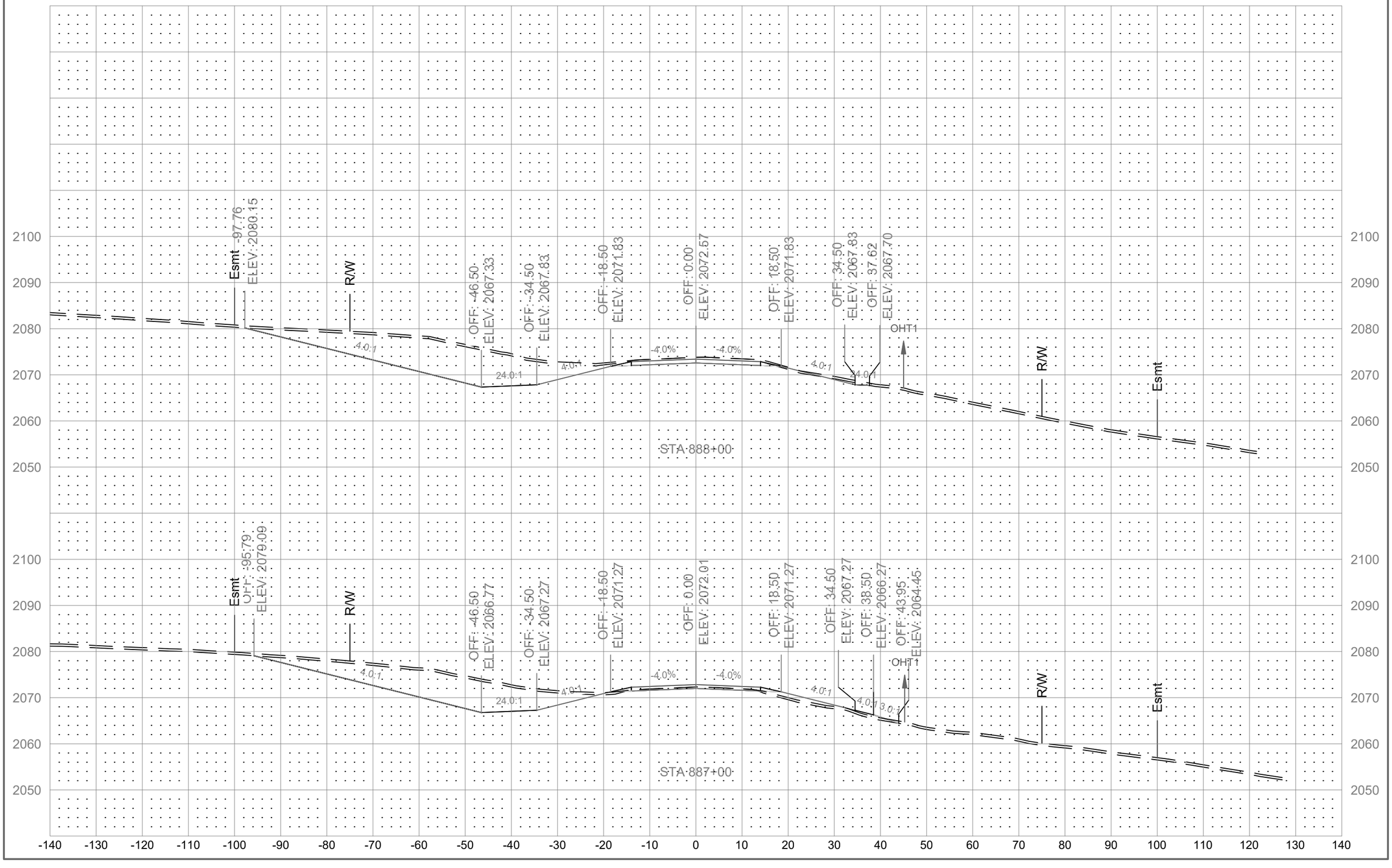
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	41



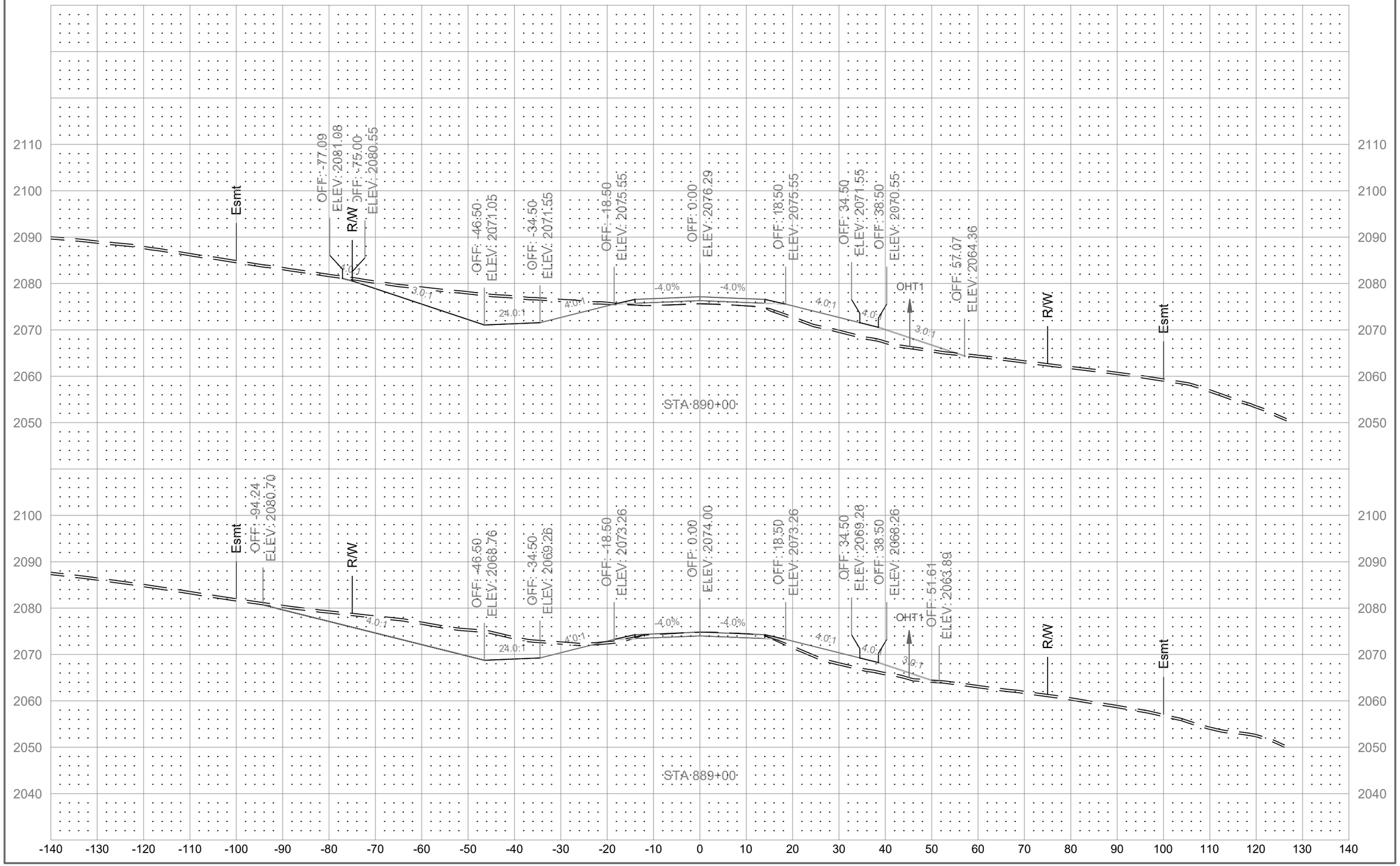
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	42



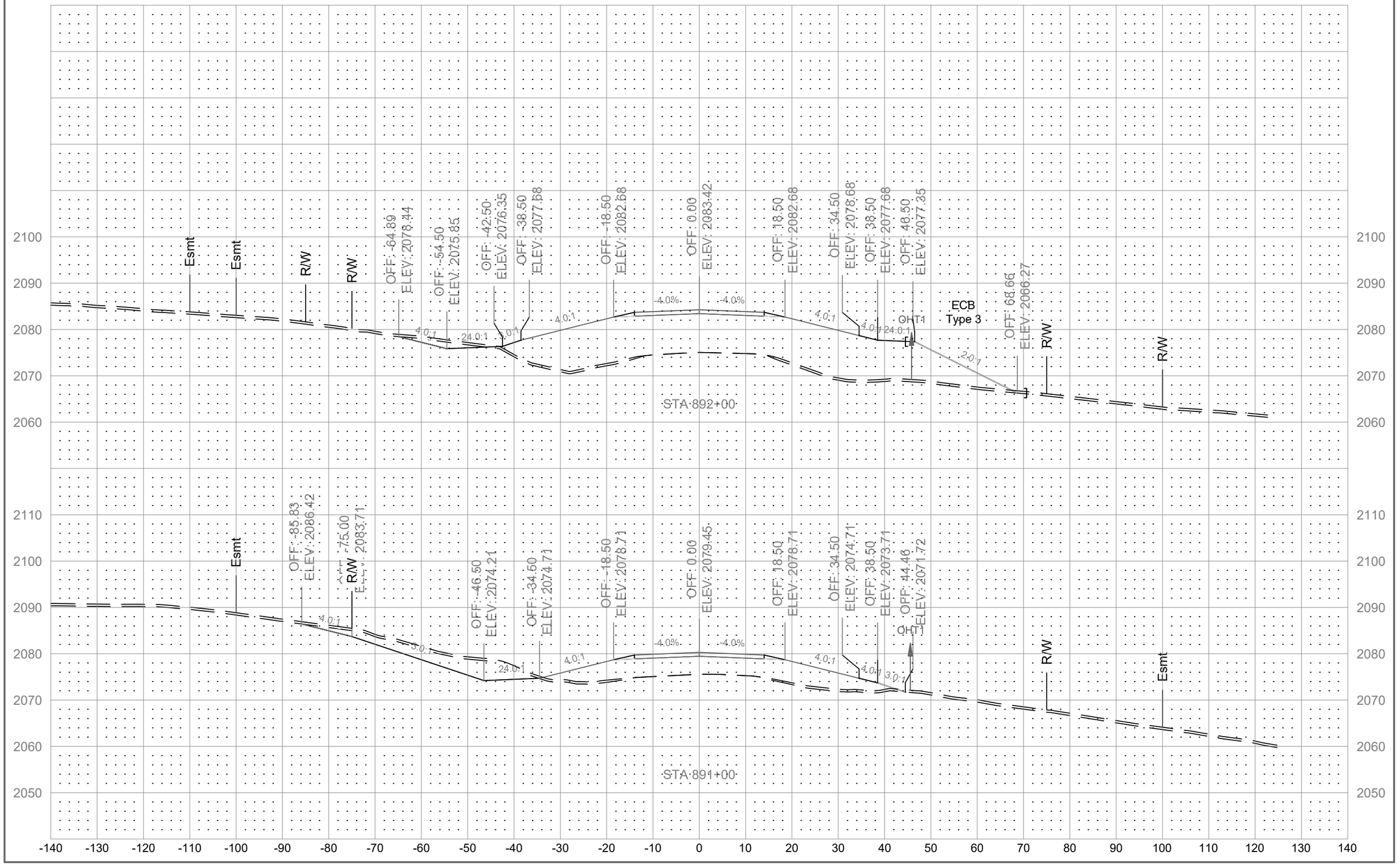
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	43



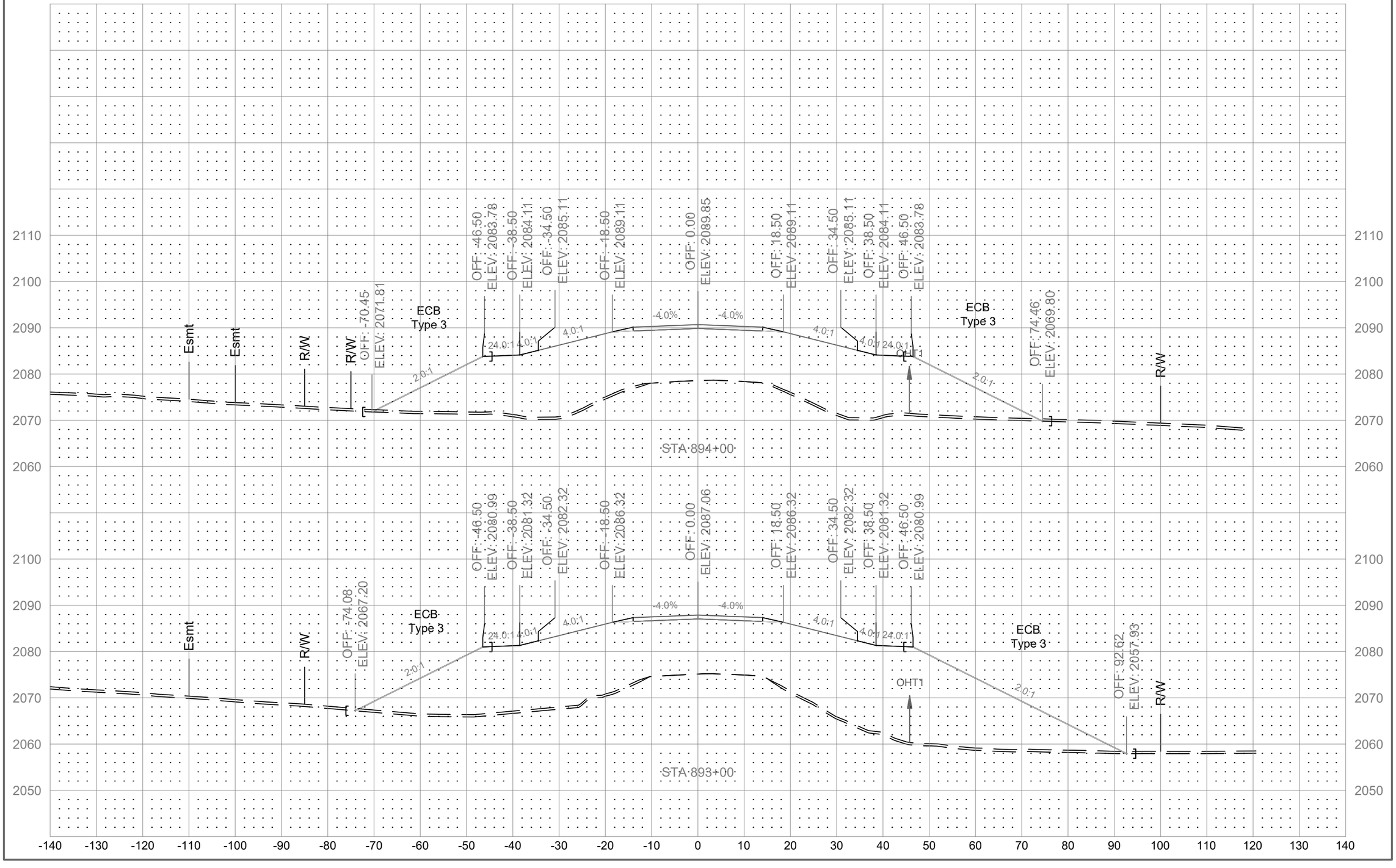
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	44



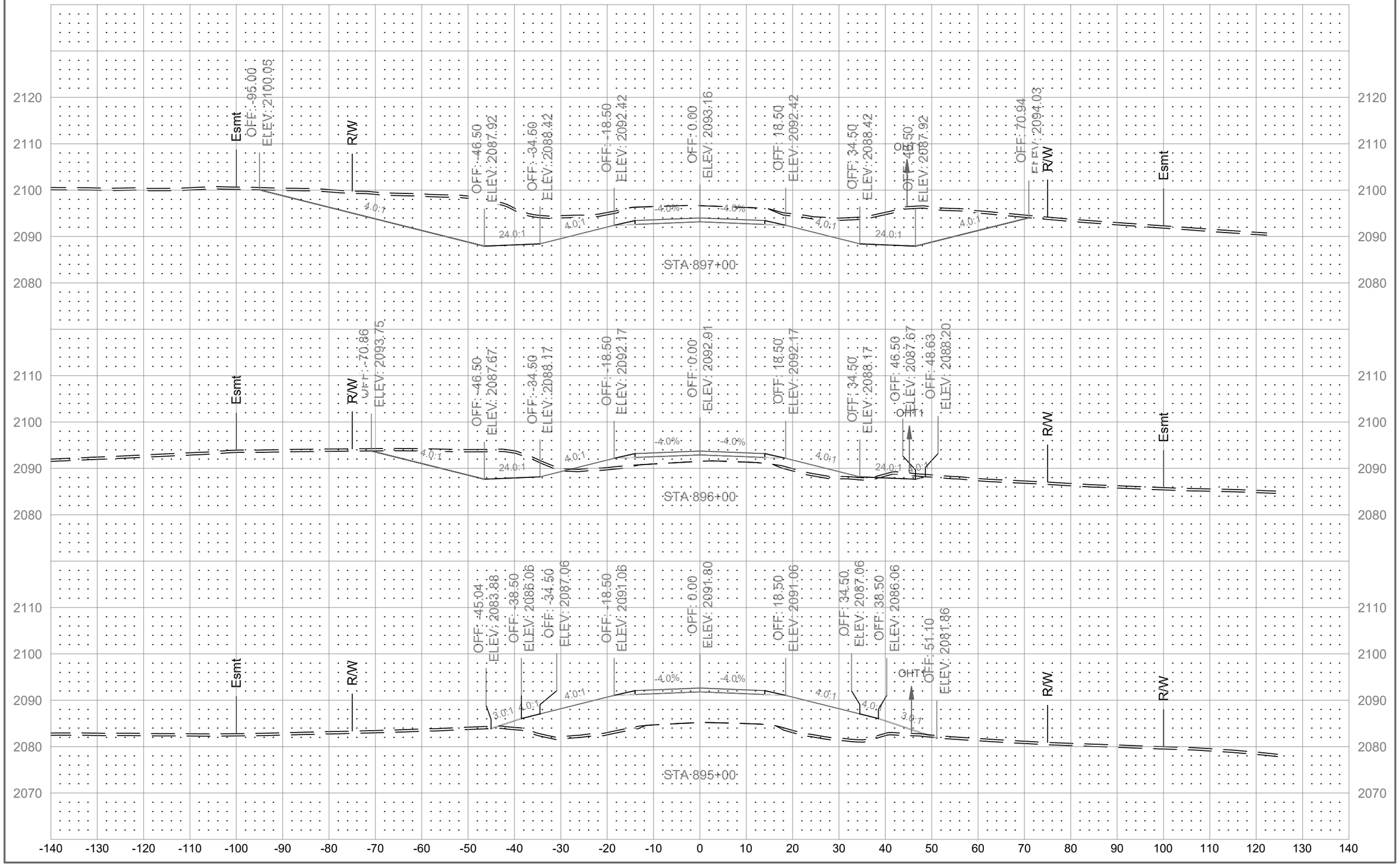
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	45



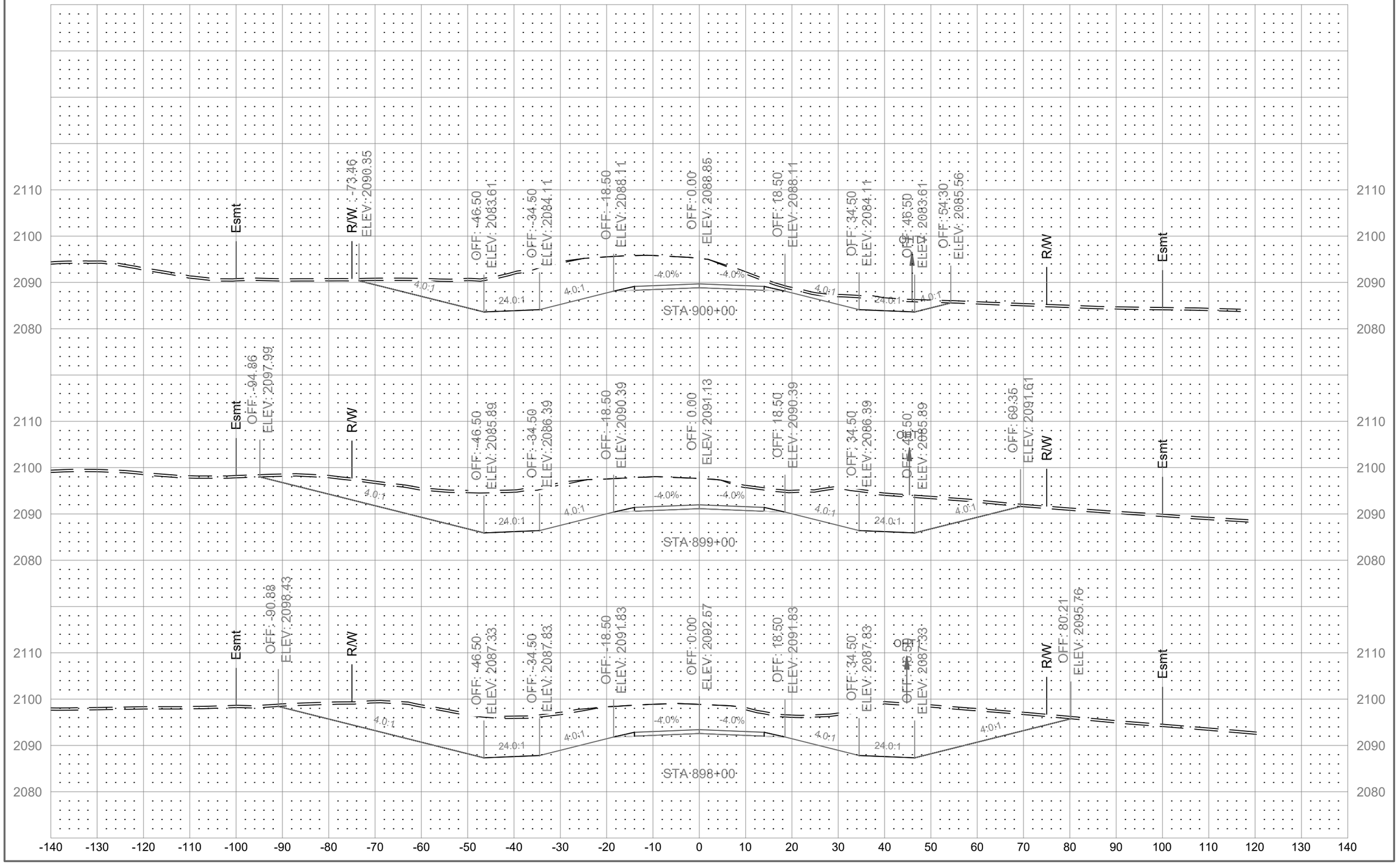
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	46



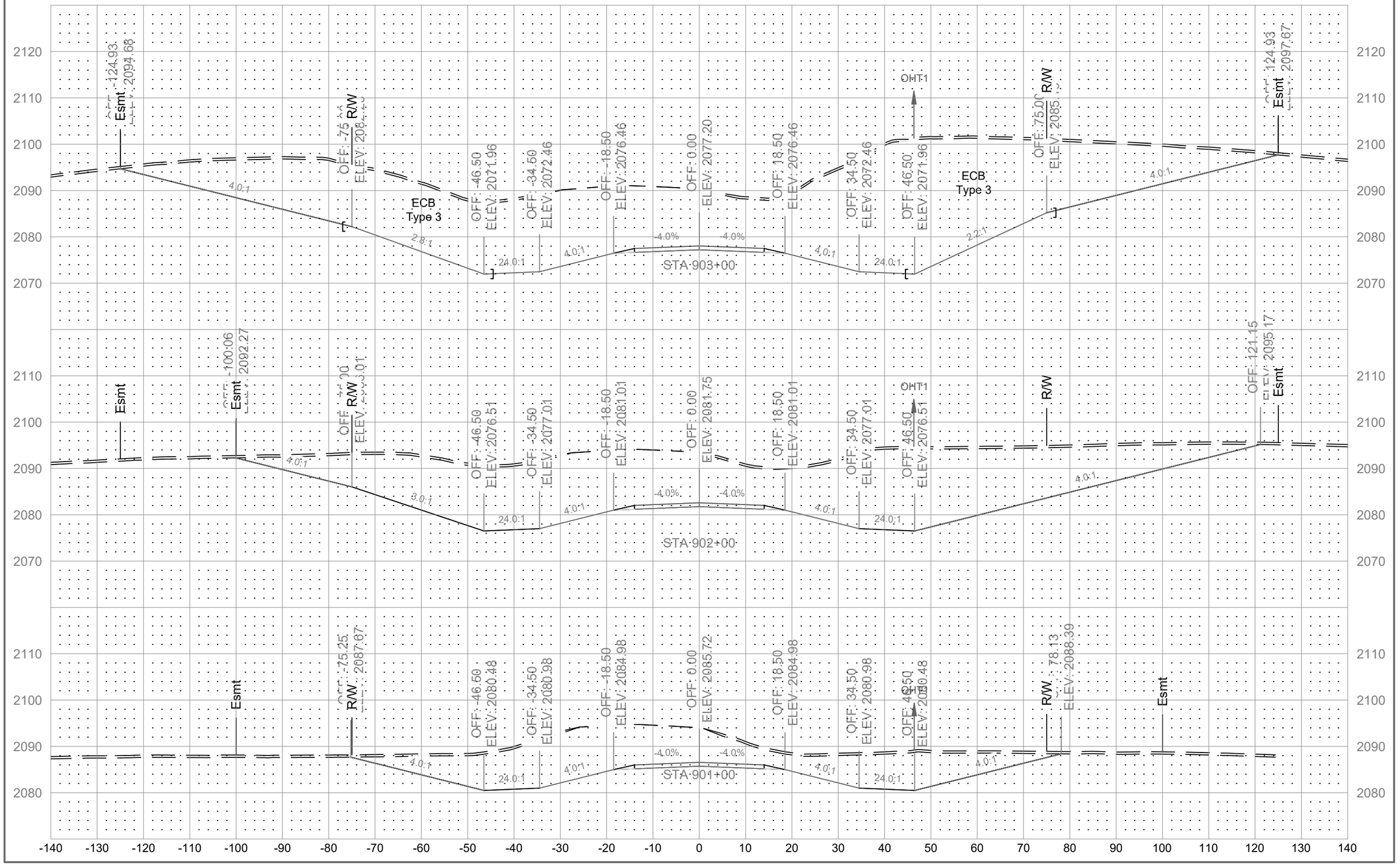
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	47



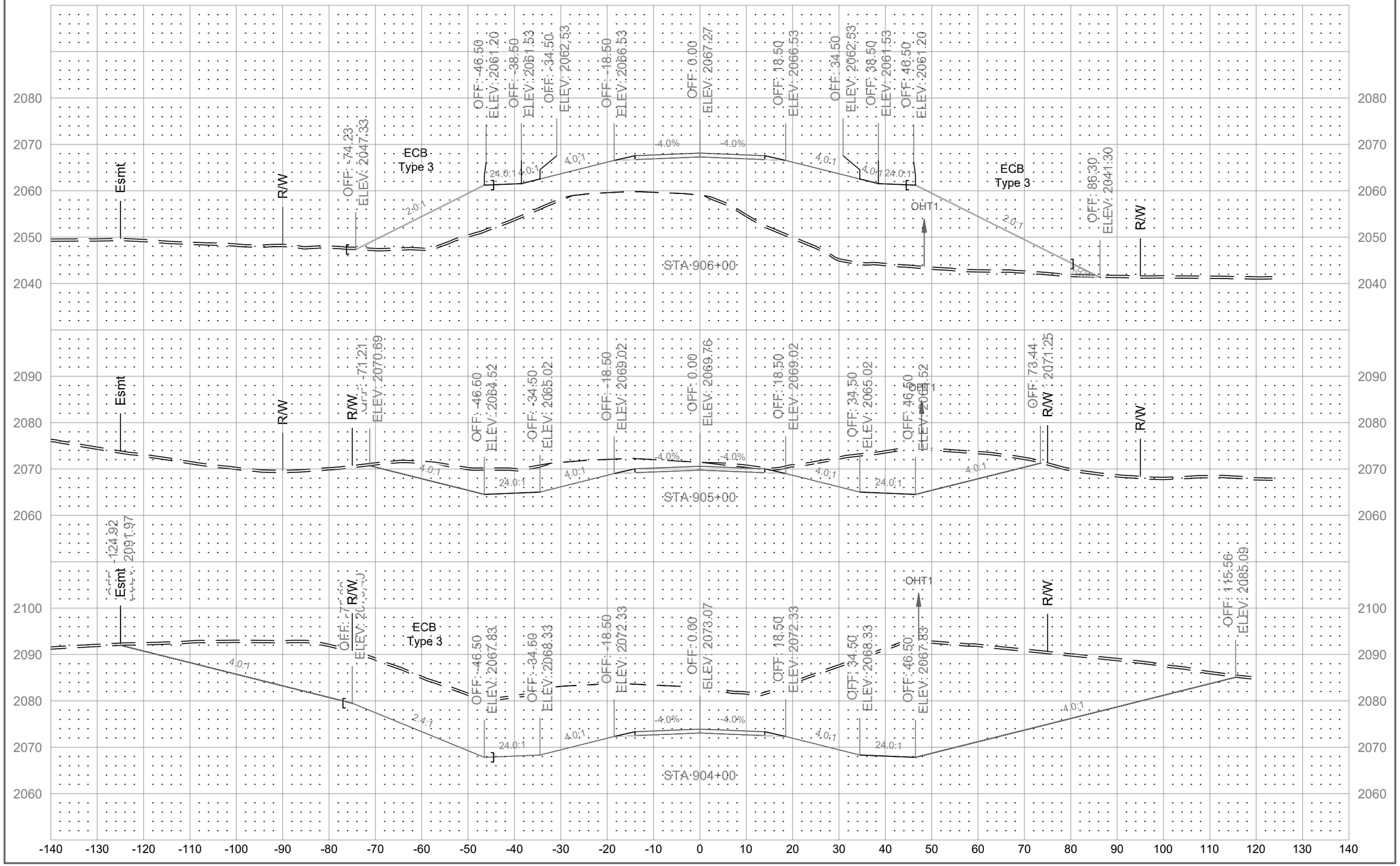
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	48



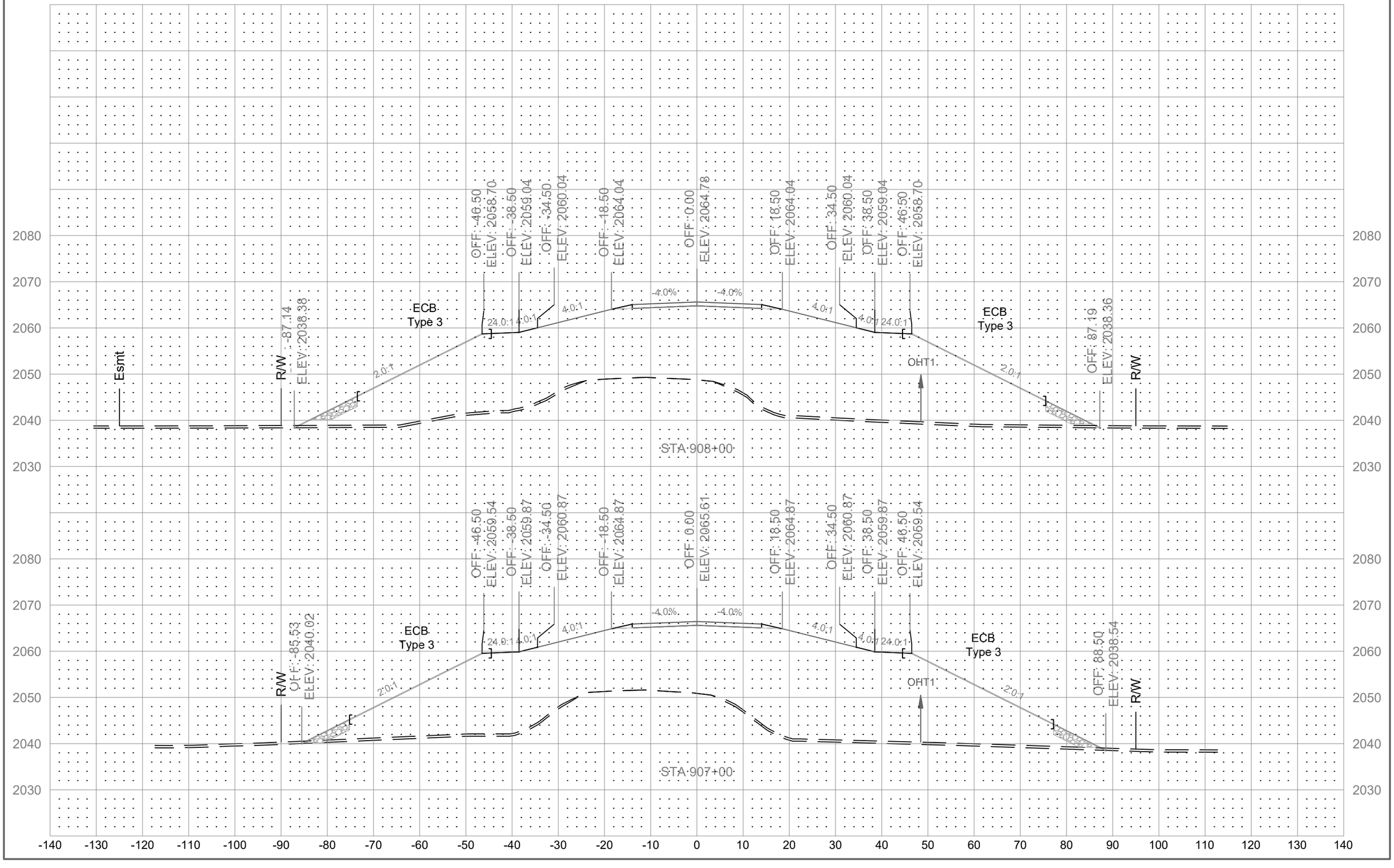
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	49



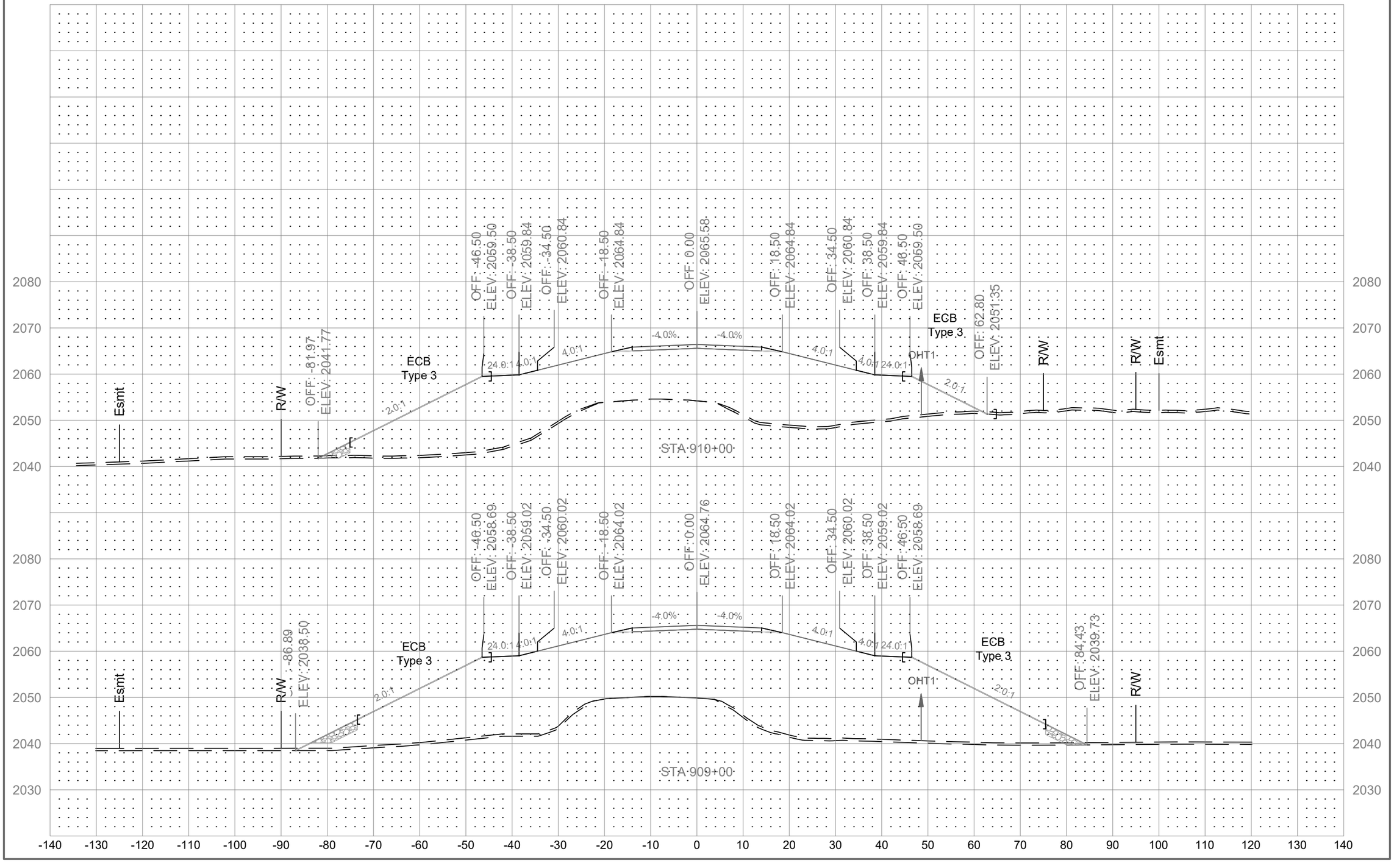
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	50



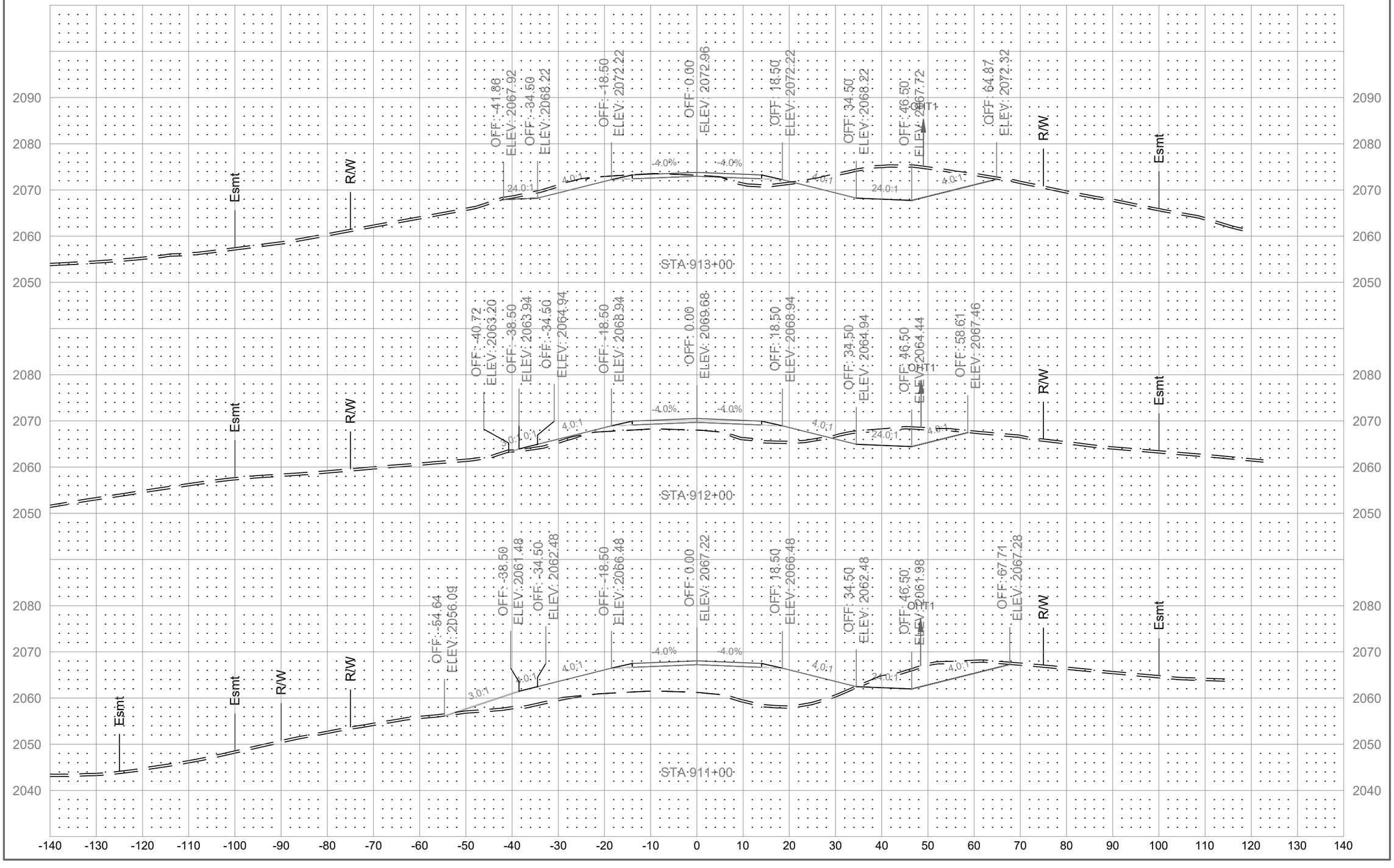
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	51



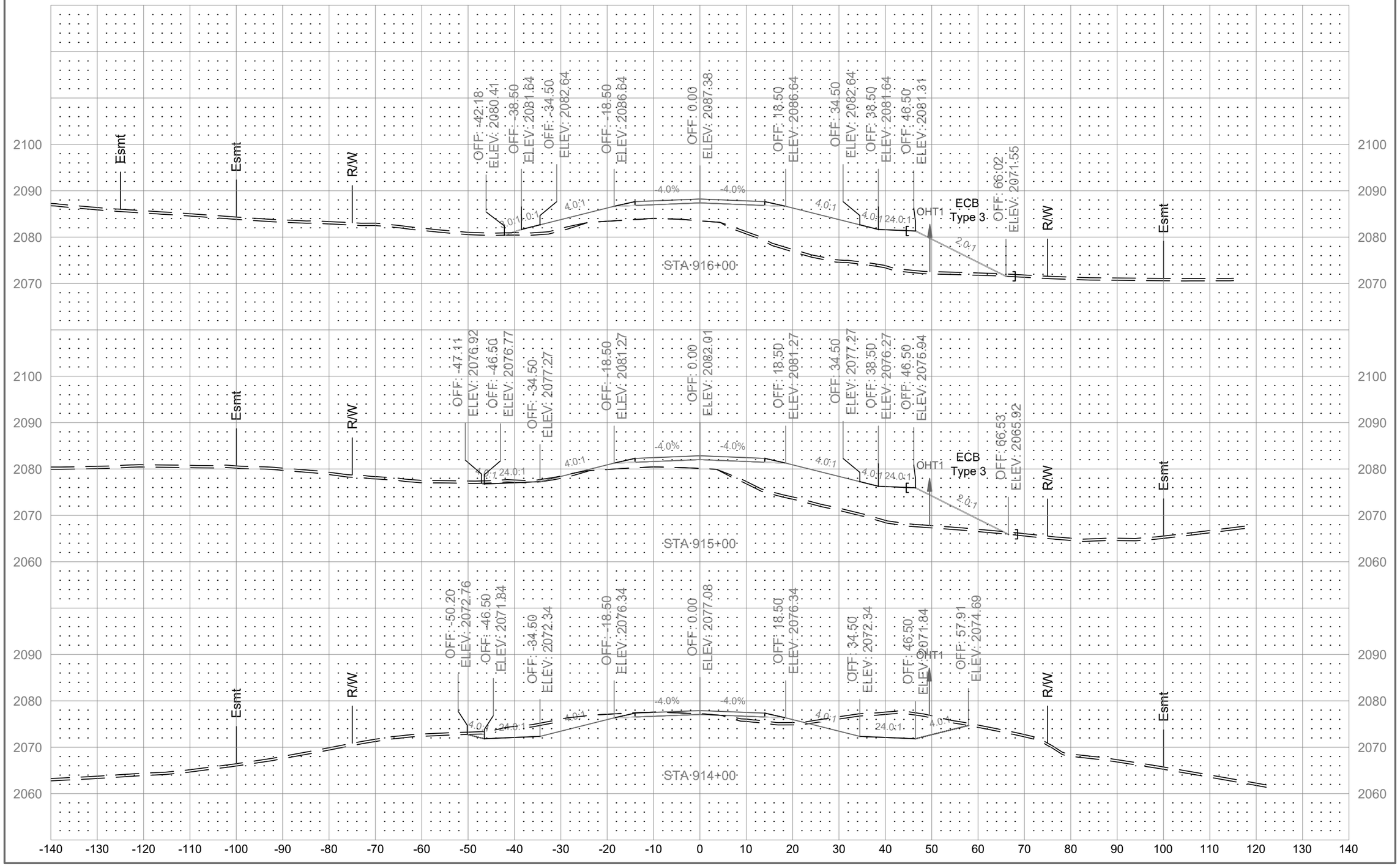
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	52



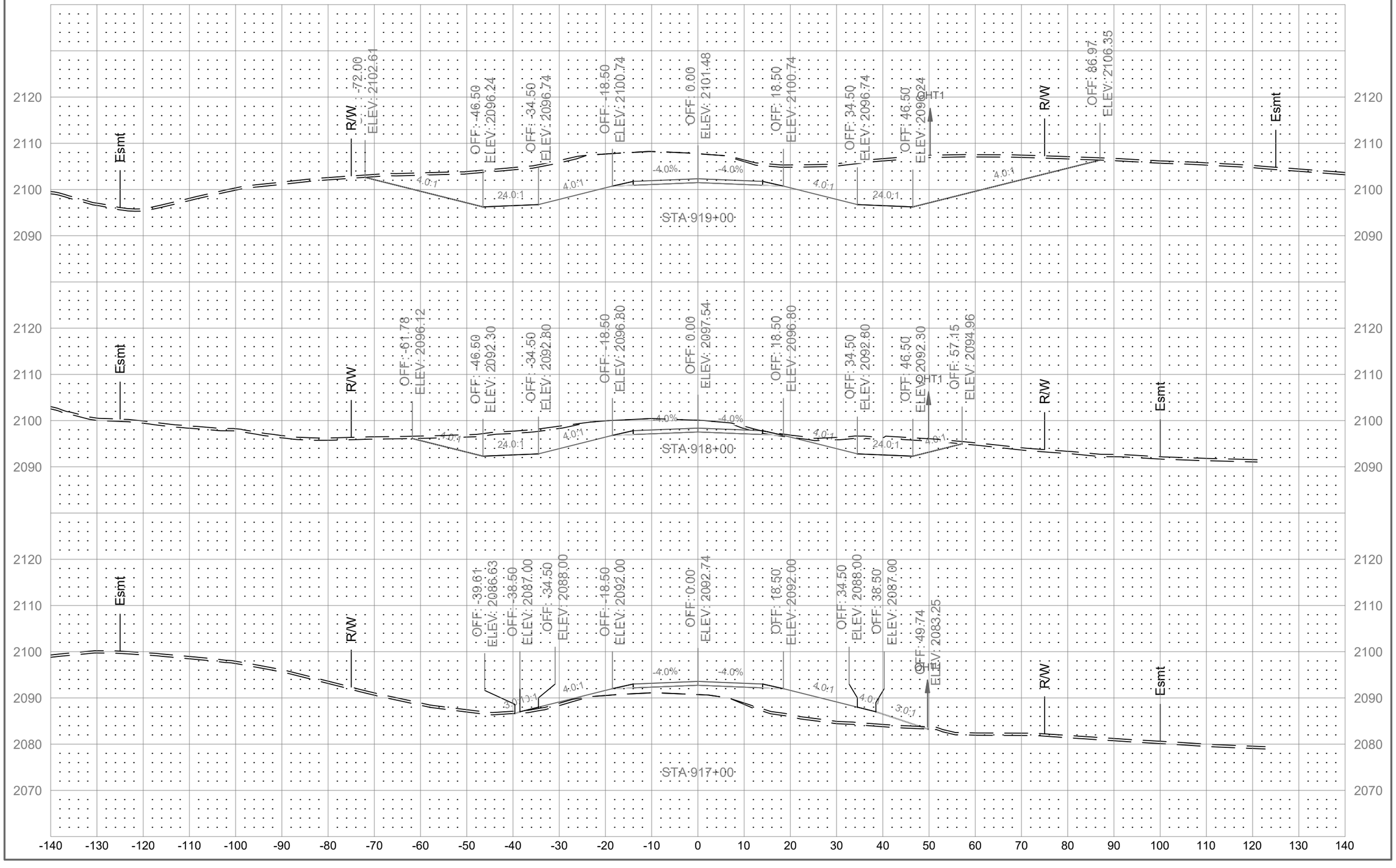
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	53



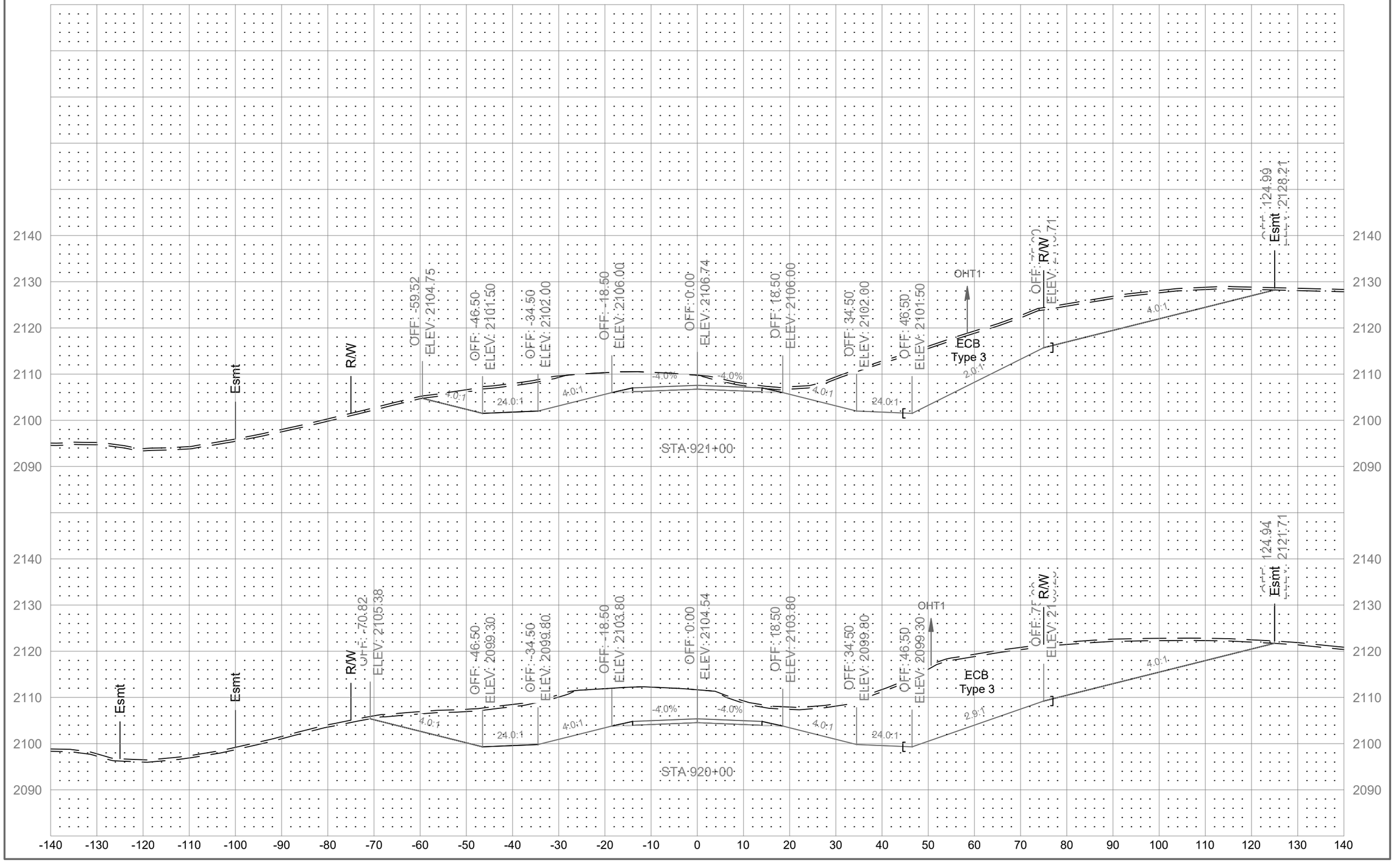
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	54



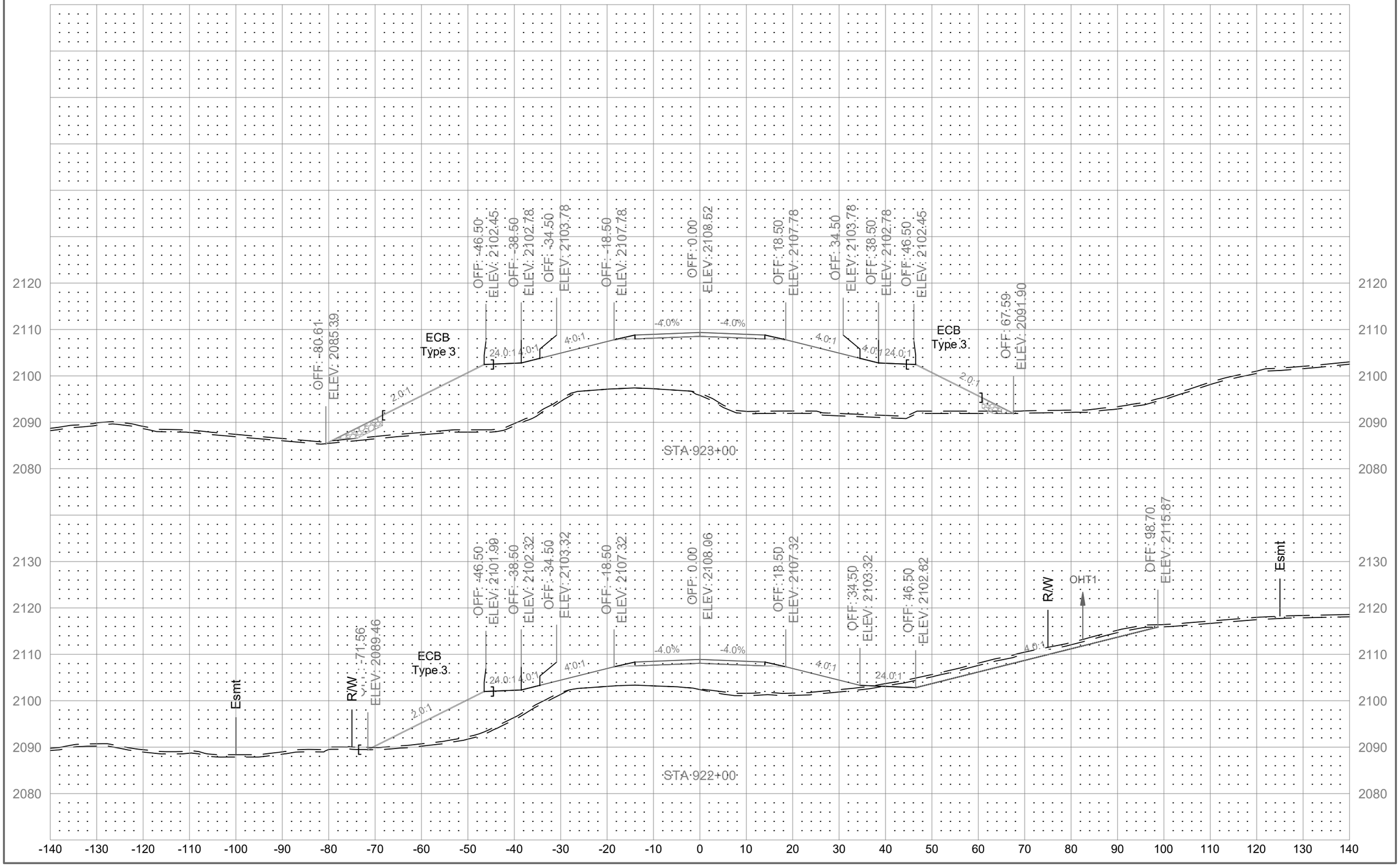
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	55



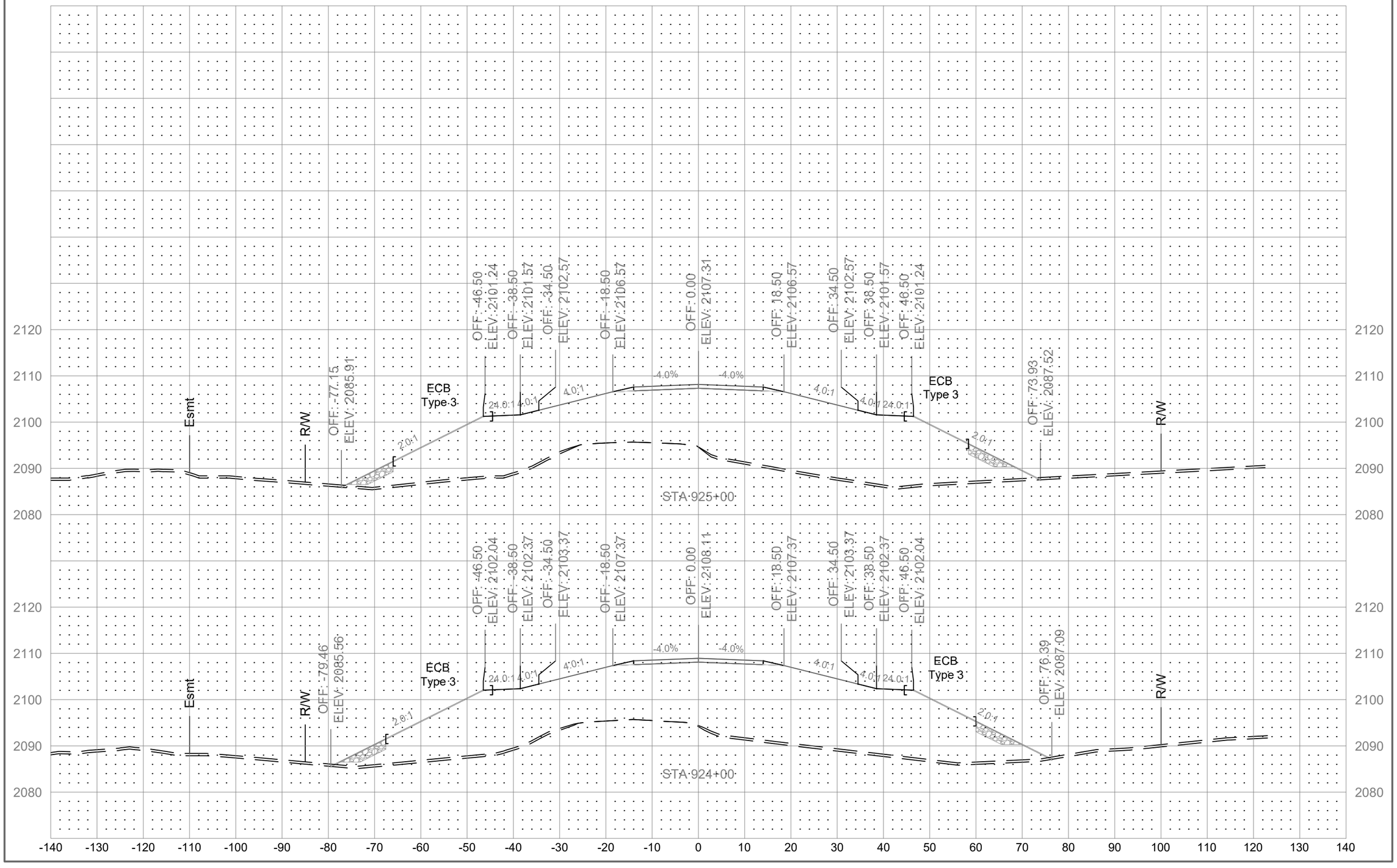
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	56



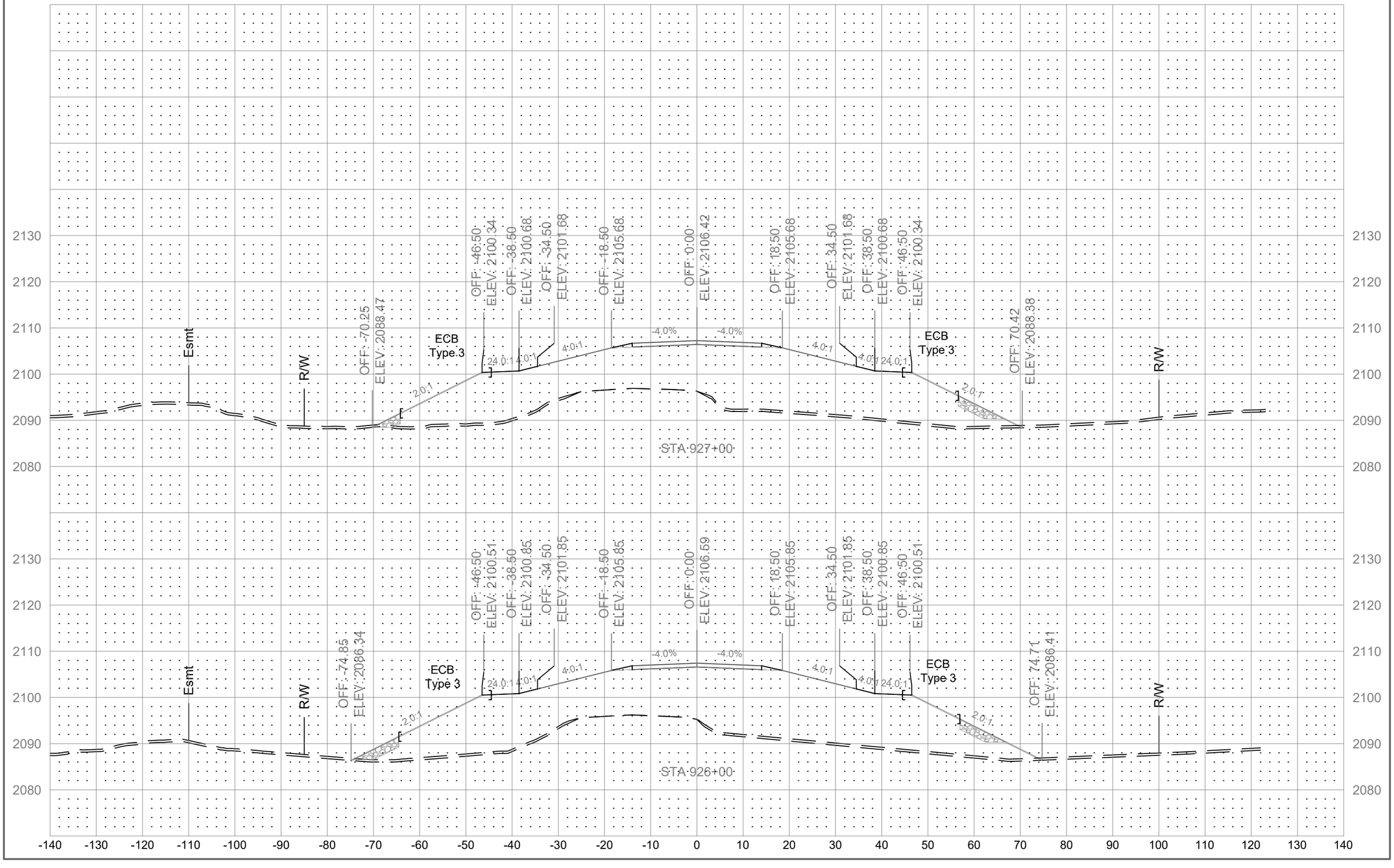
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	57



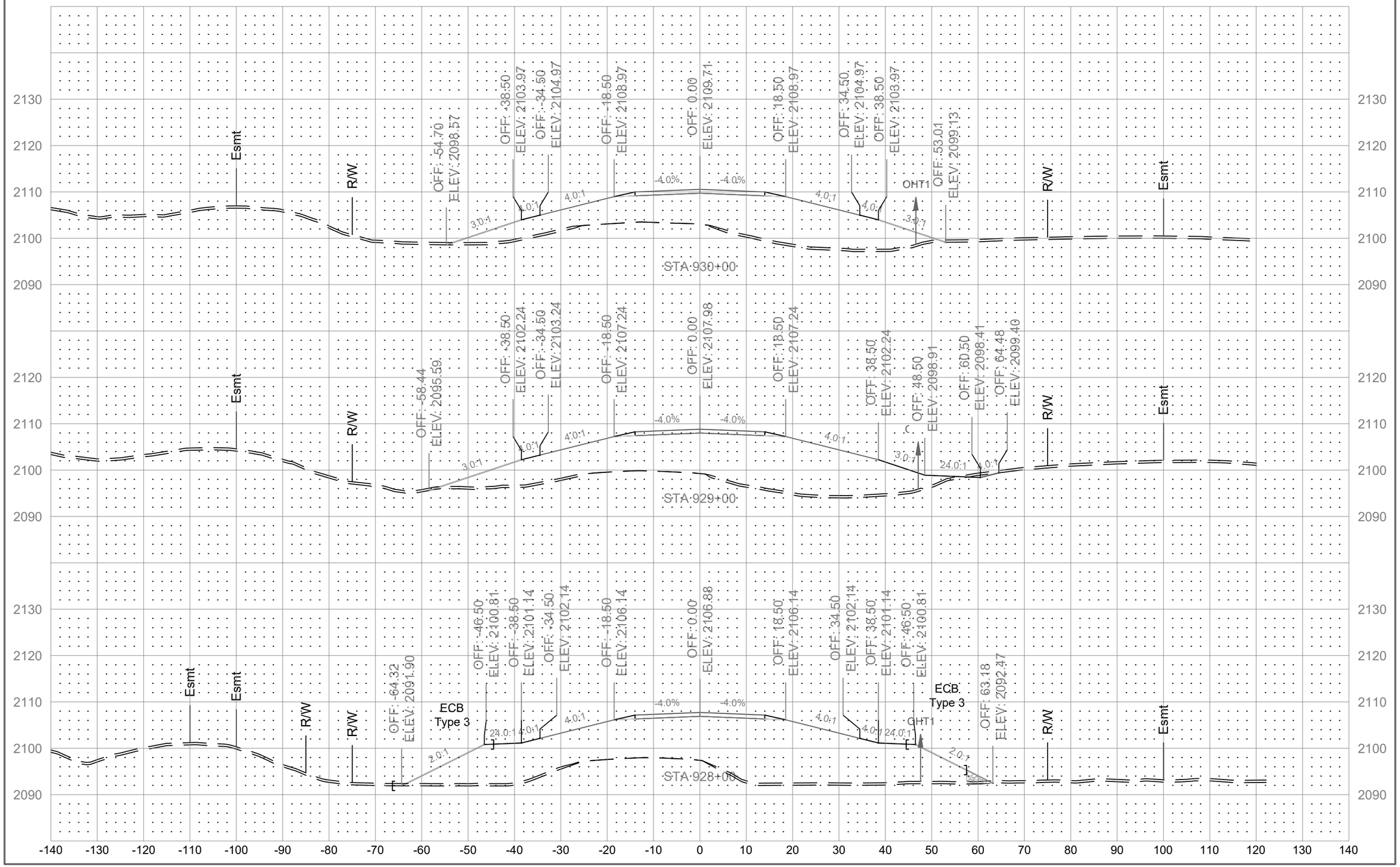
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	58



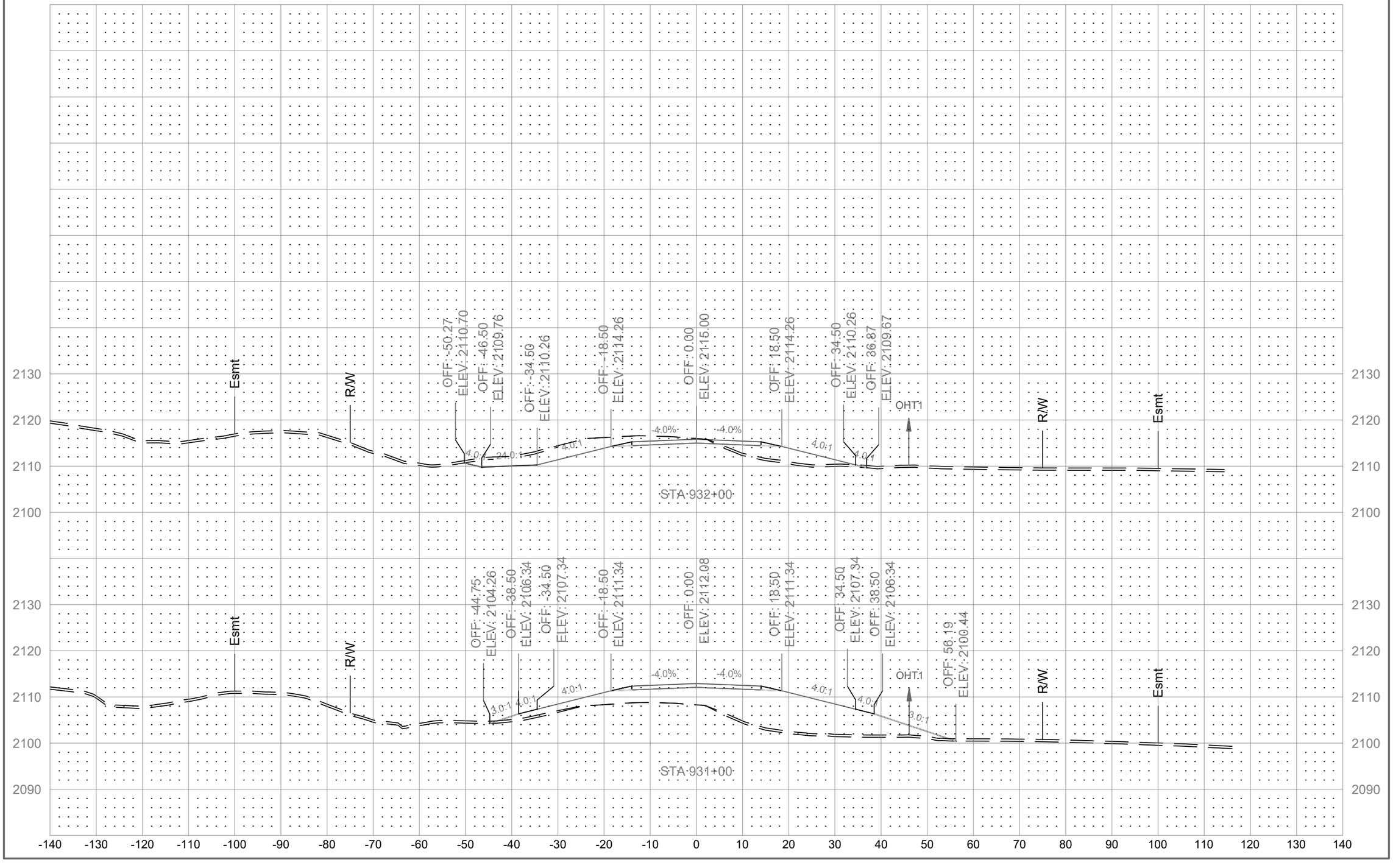
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	59



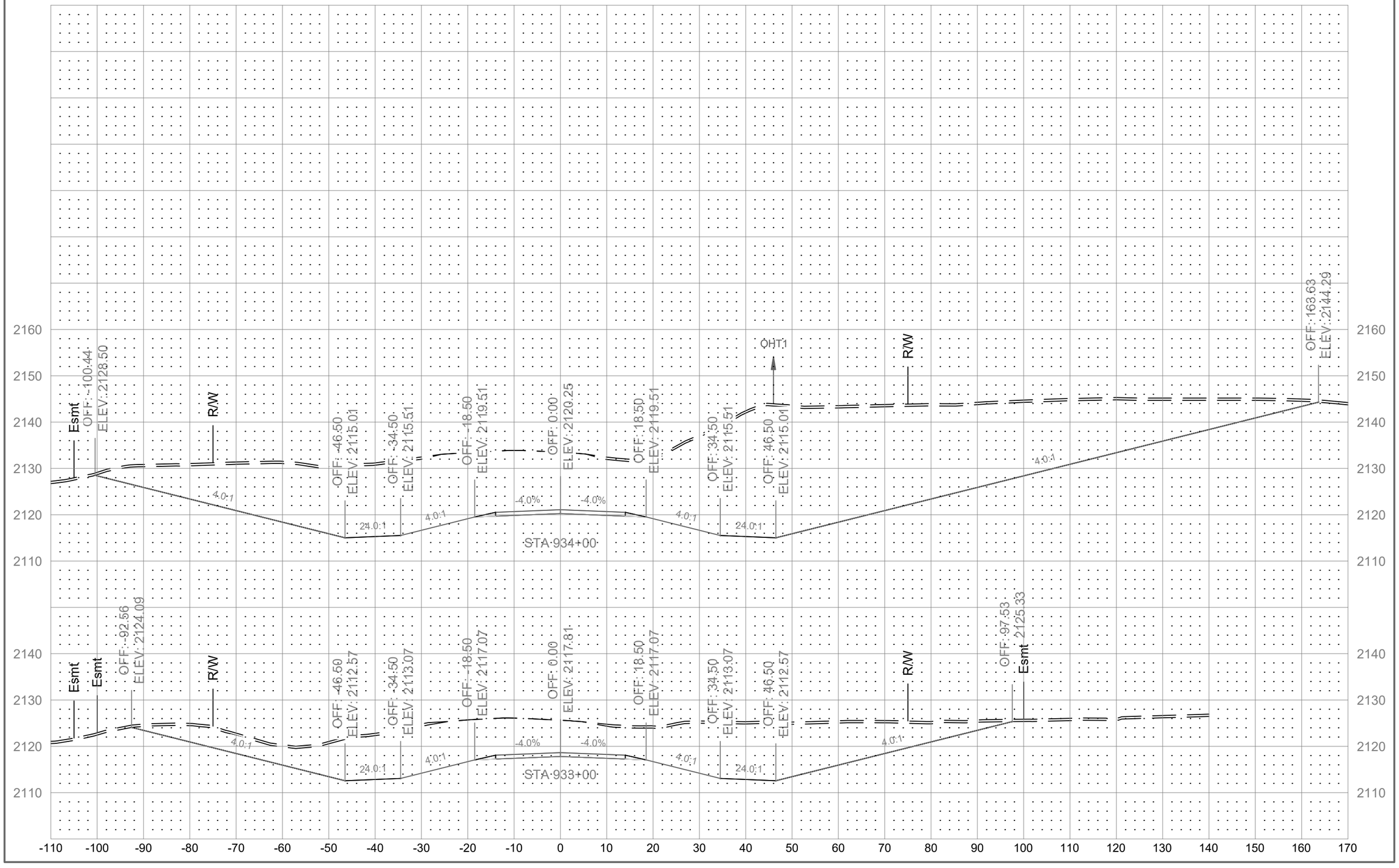
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	60



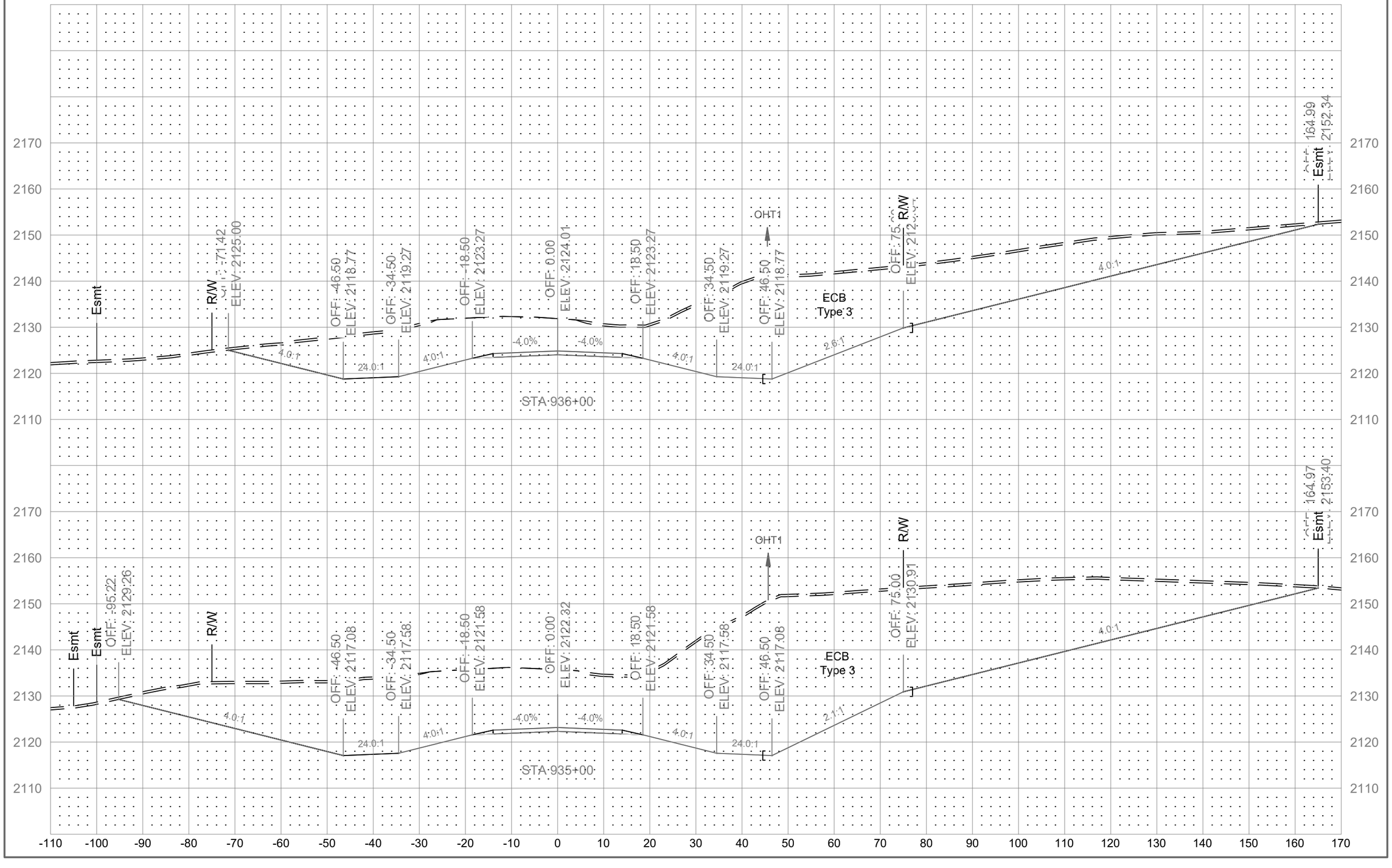
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	61



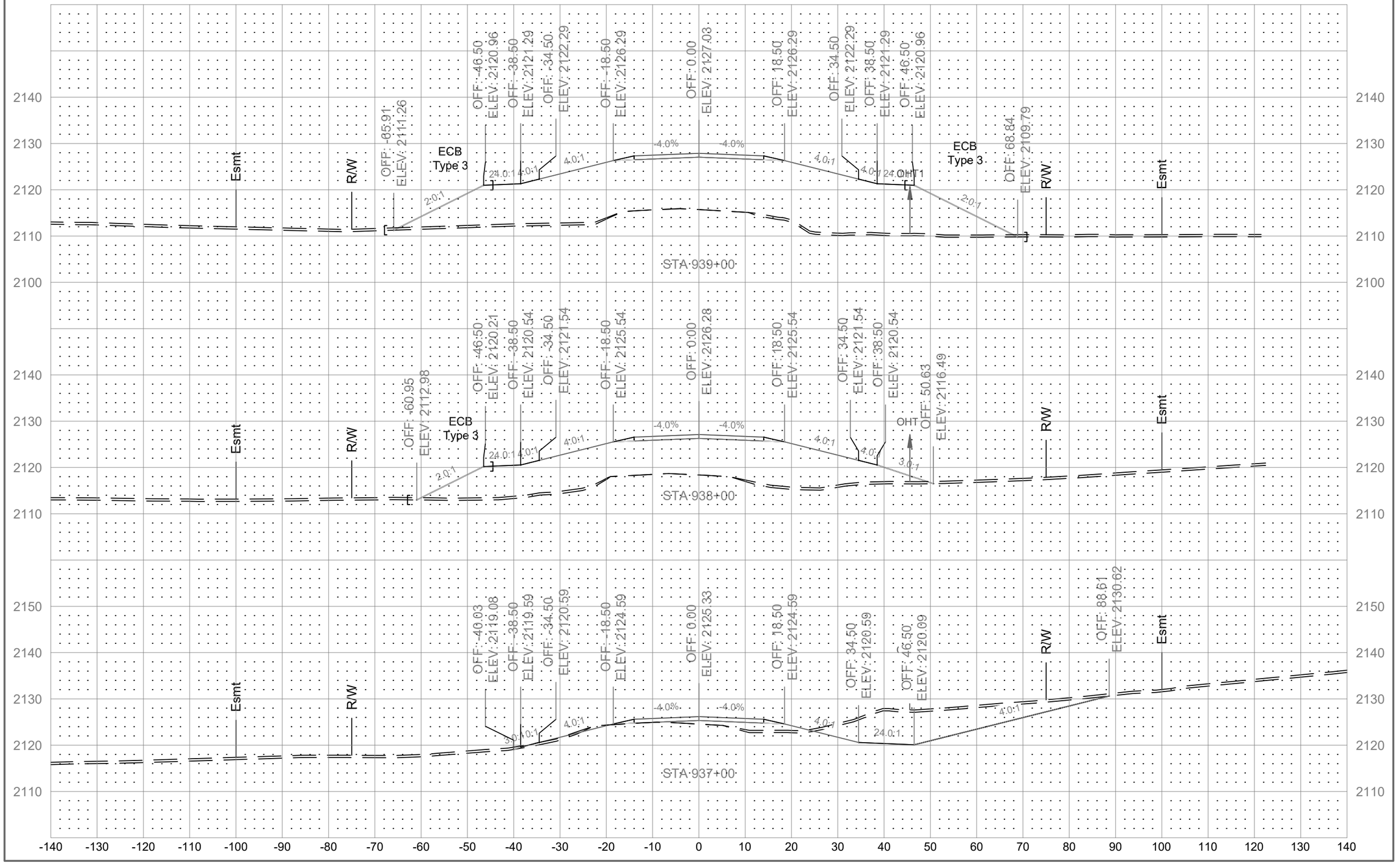
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	62



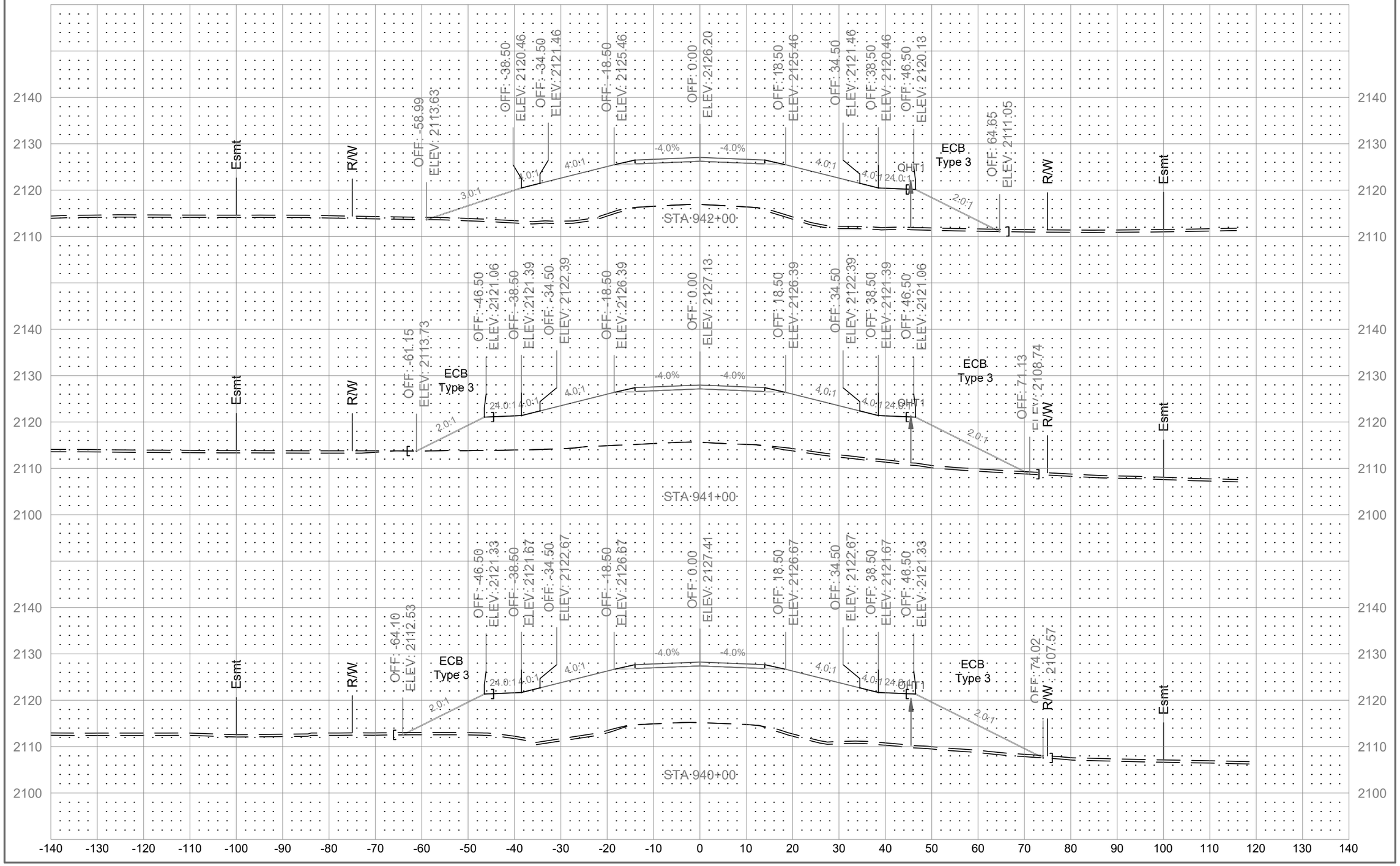
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	63



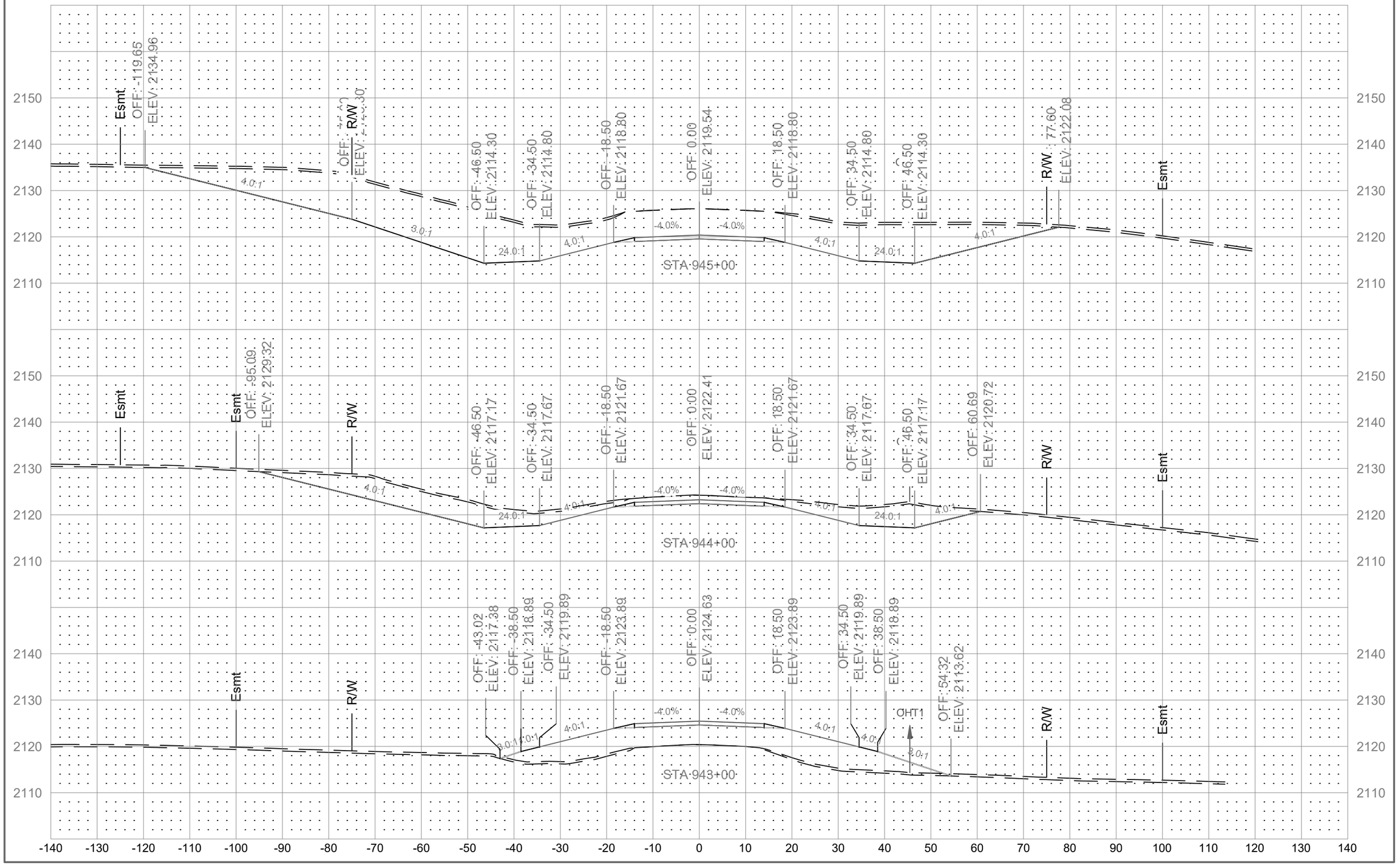
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	64



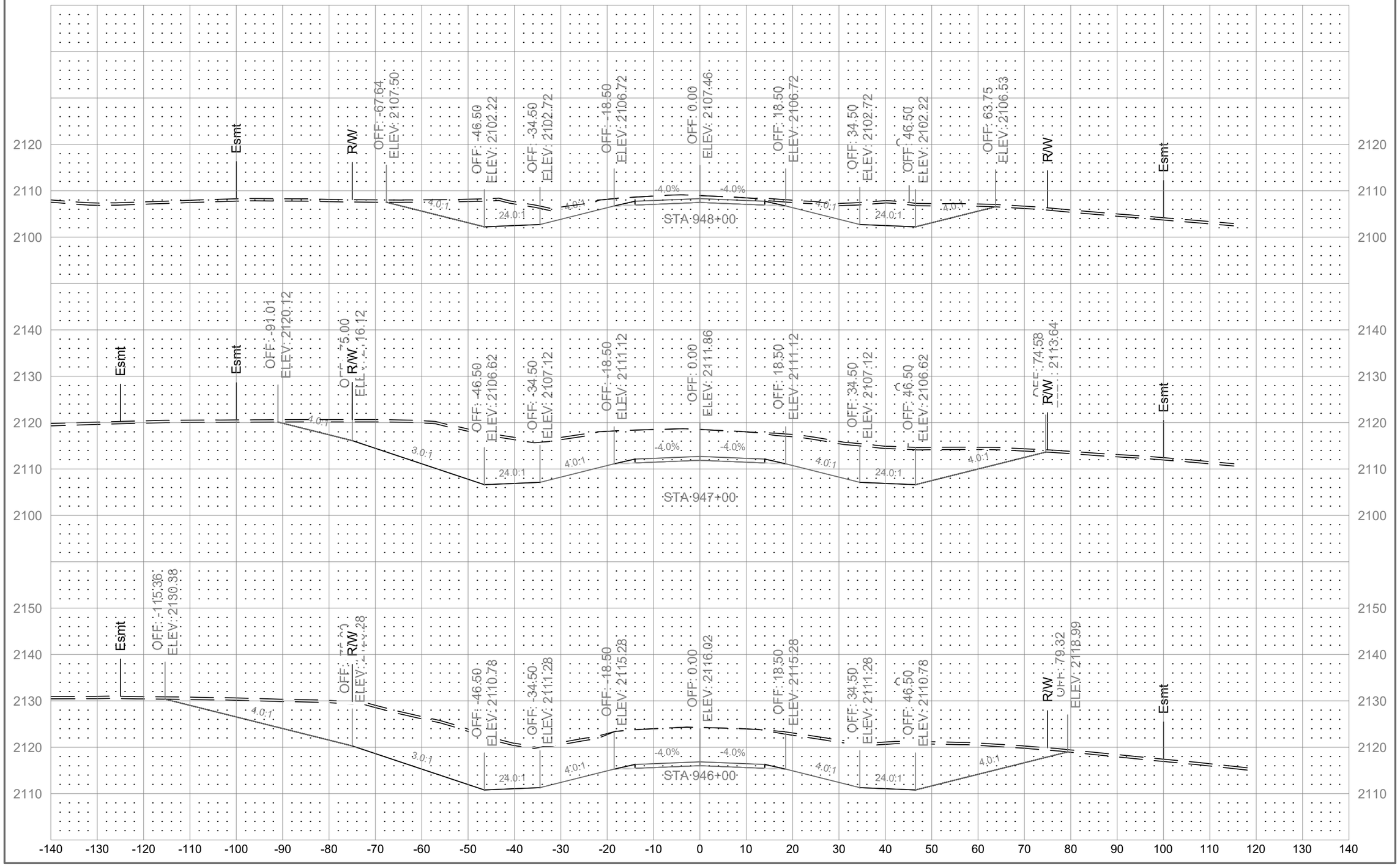
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	65



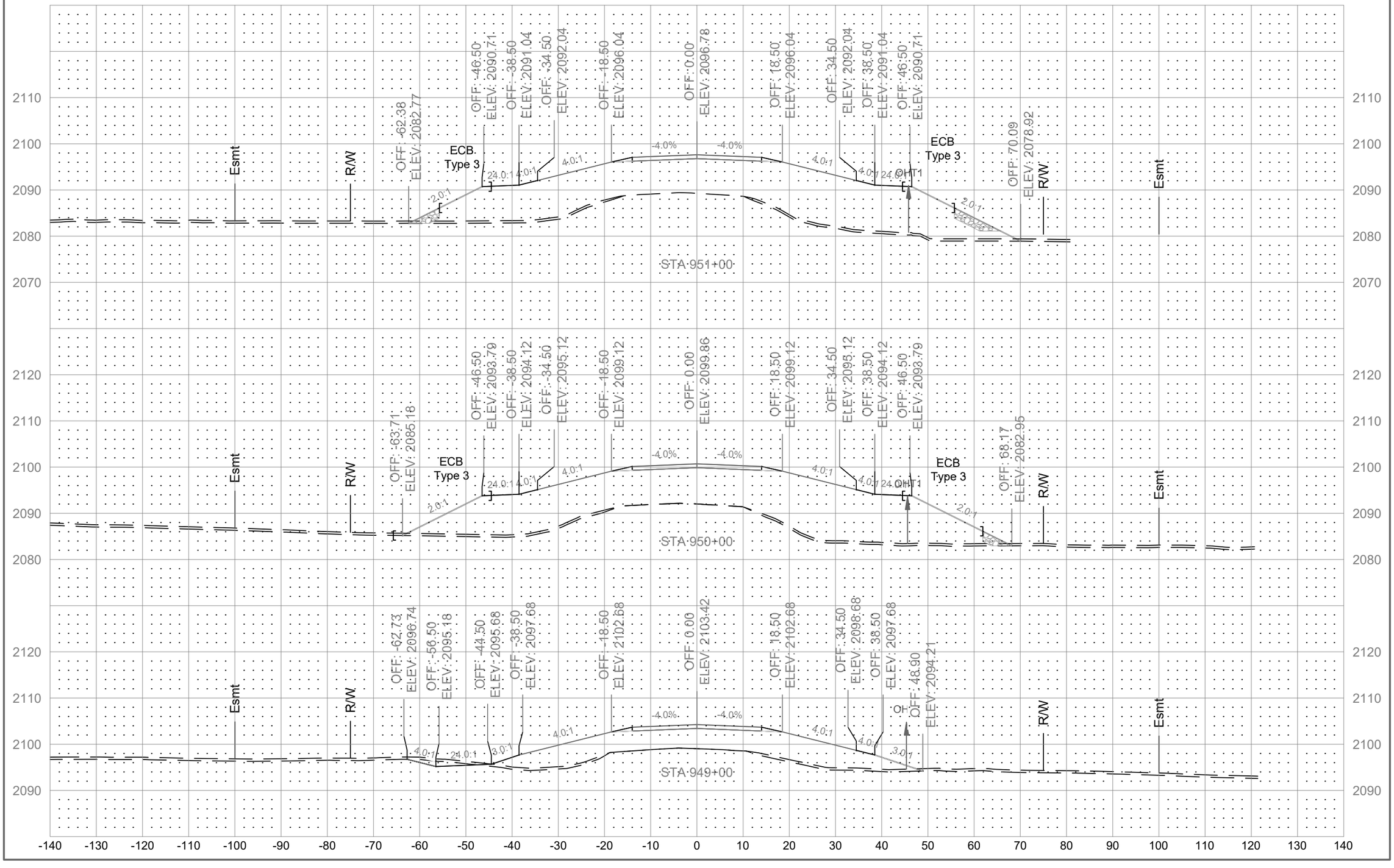
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	66



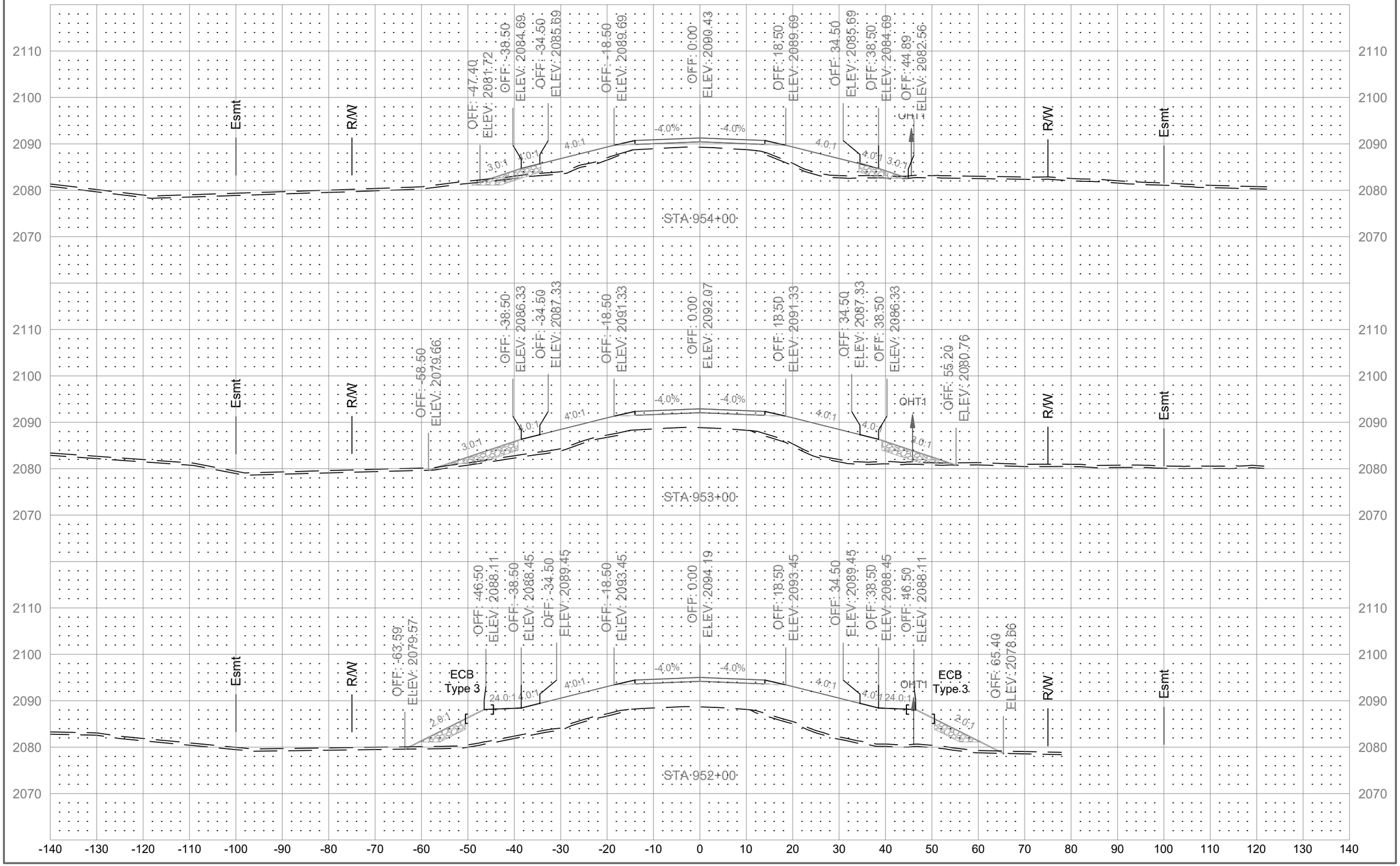
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	67



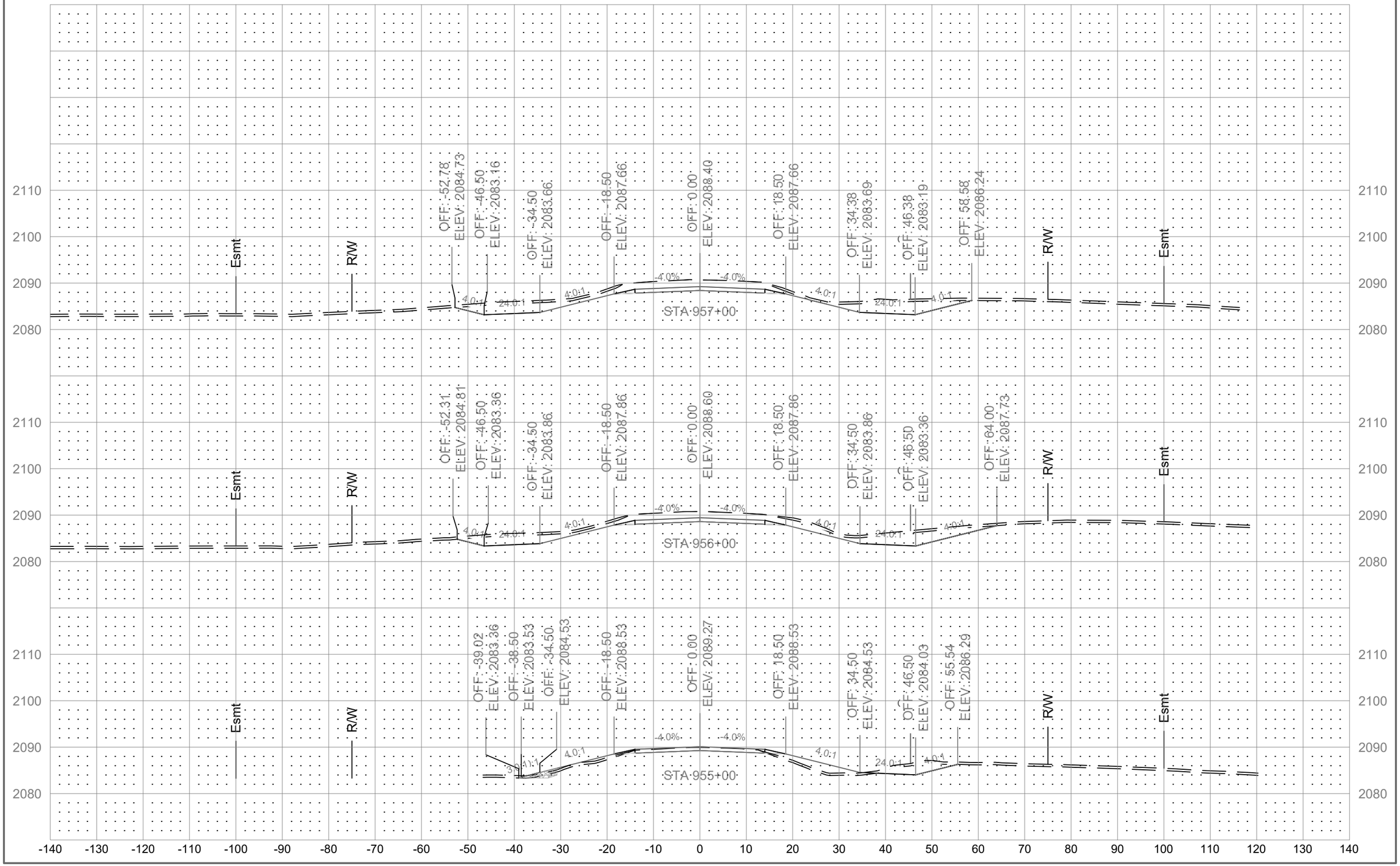
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	68



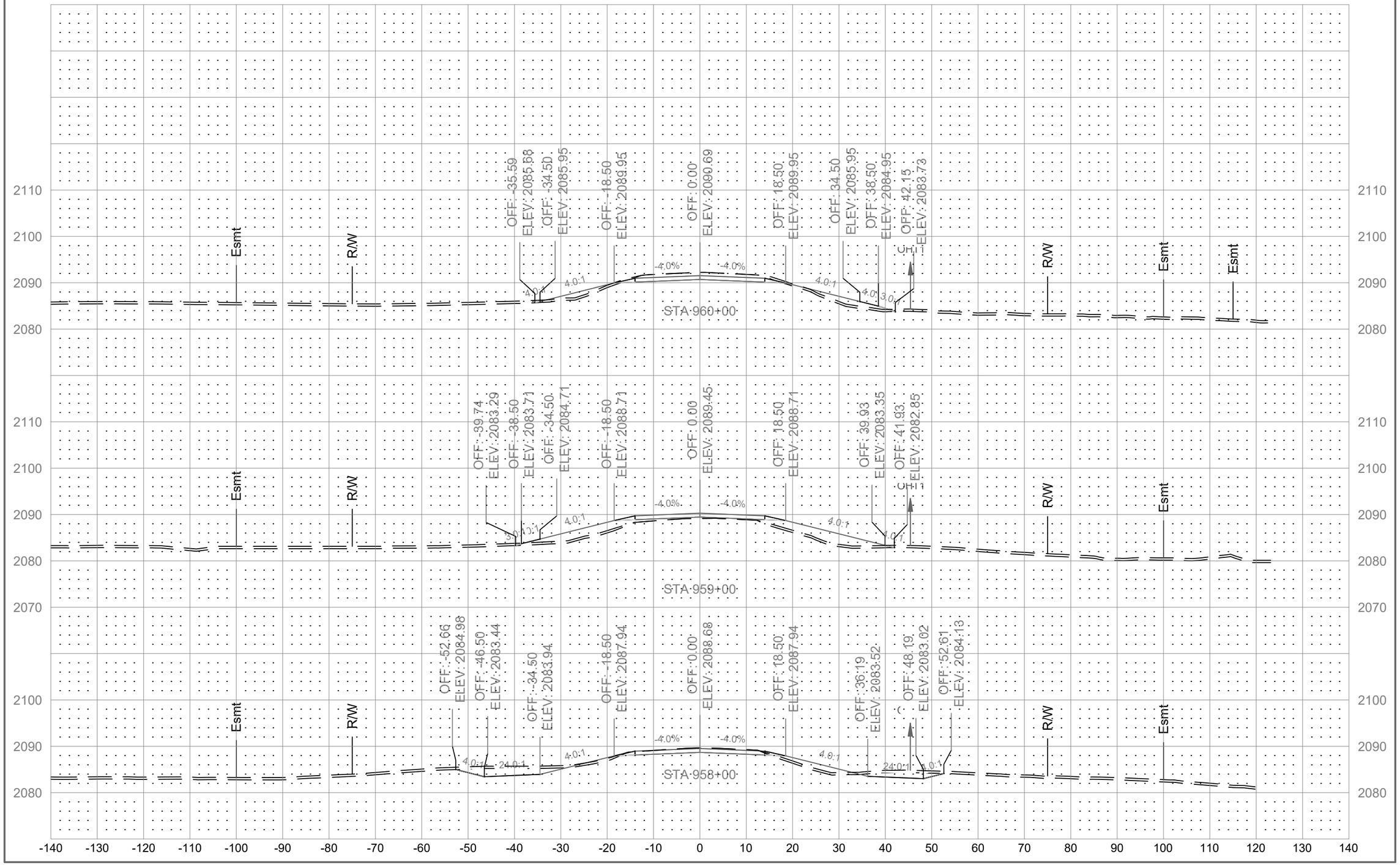
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	69



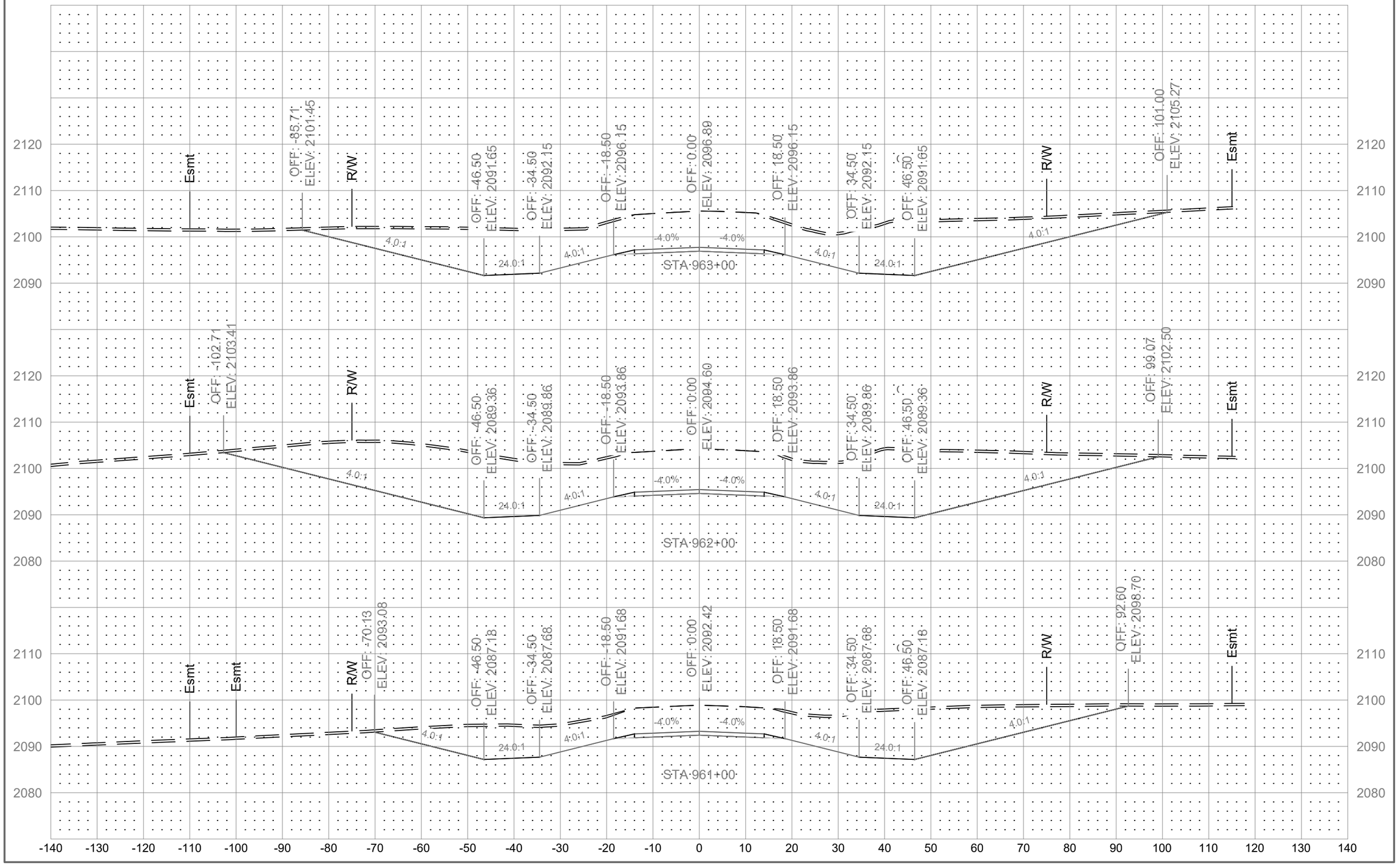
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	70



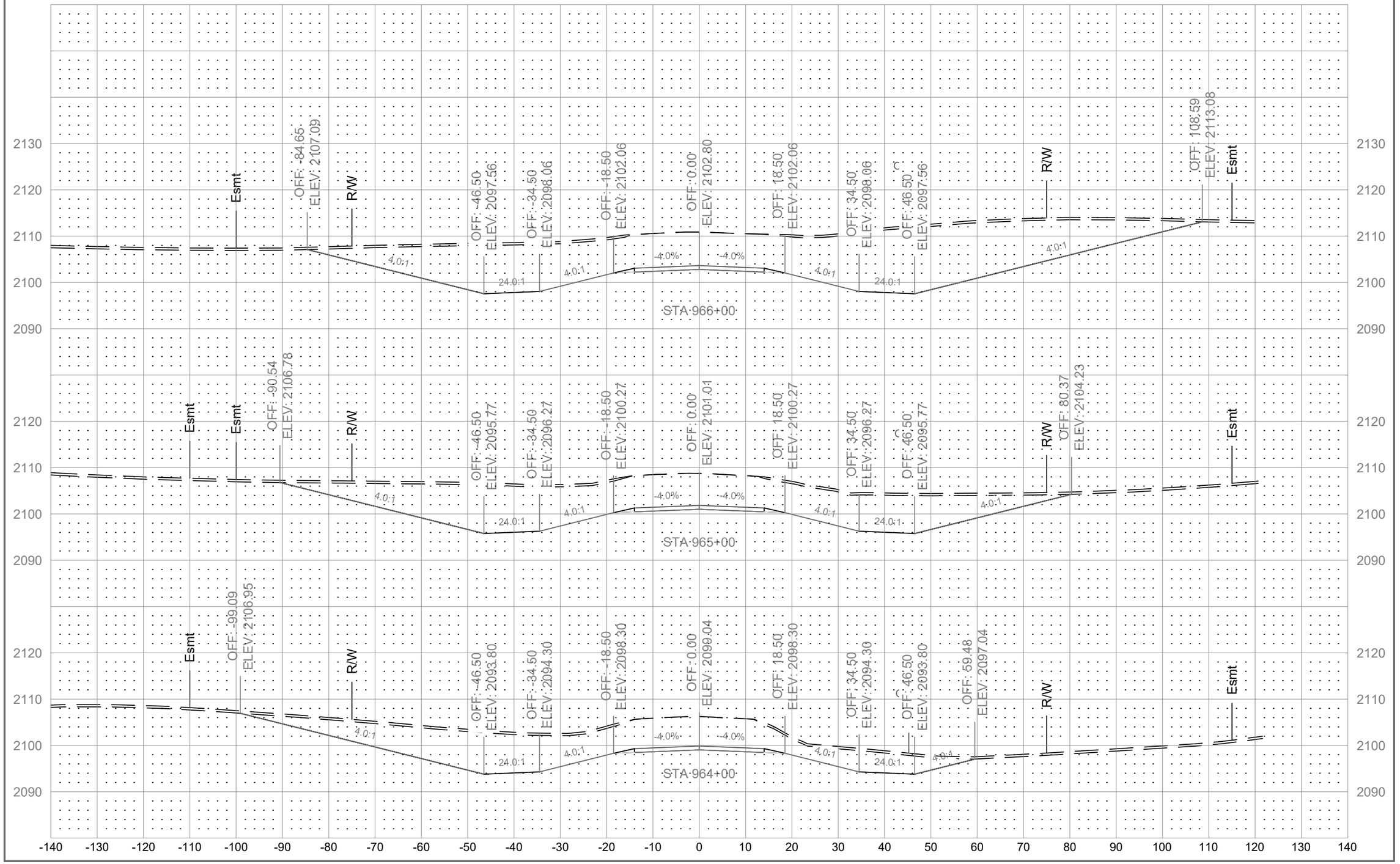
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	71



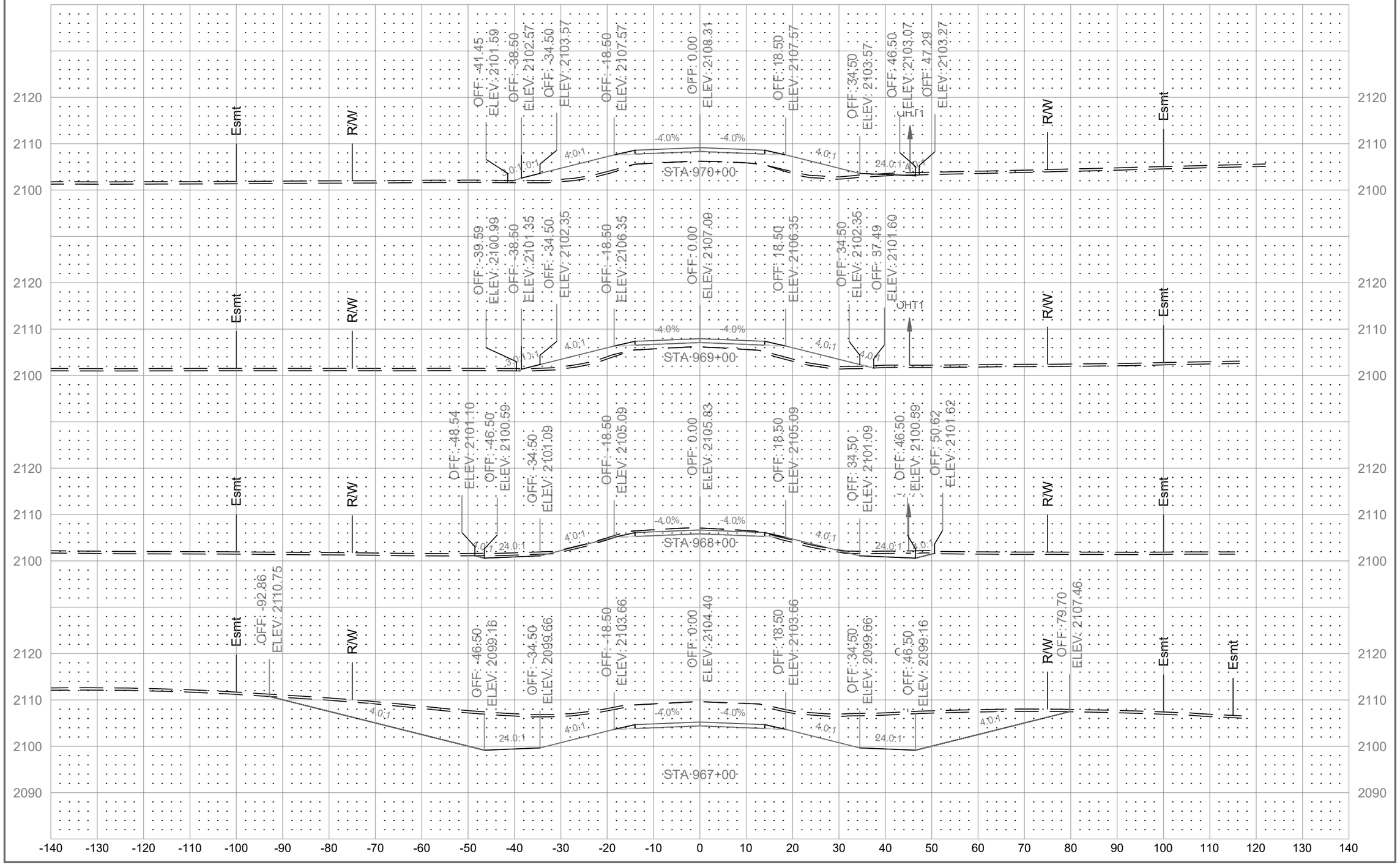
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	72



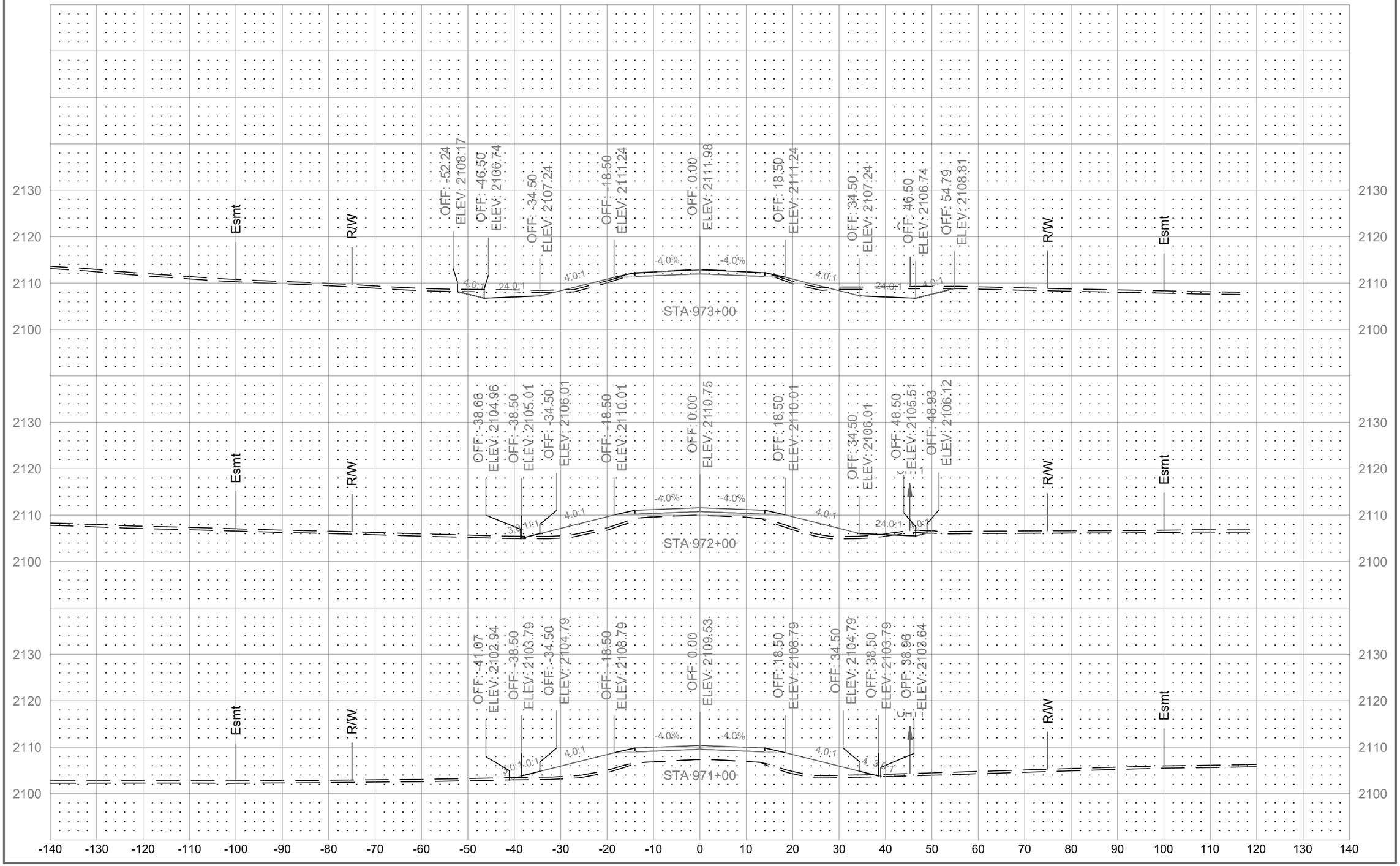
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	73



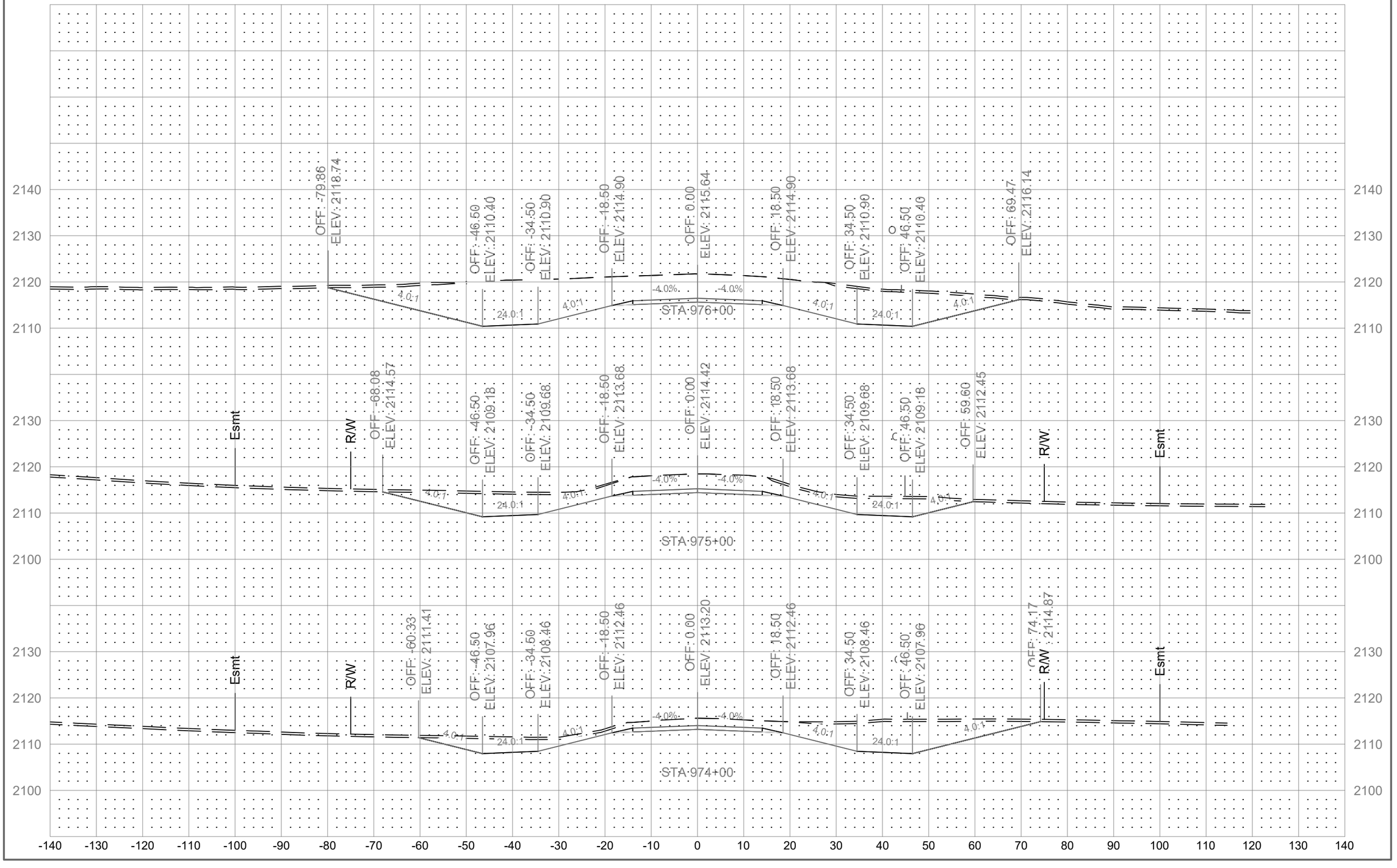
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	74



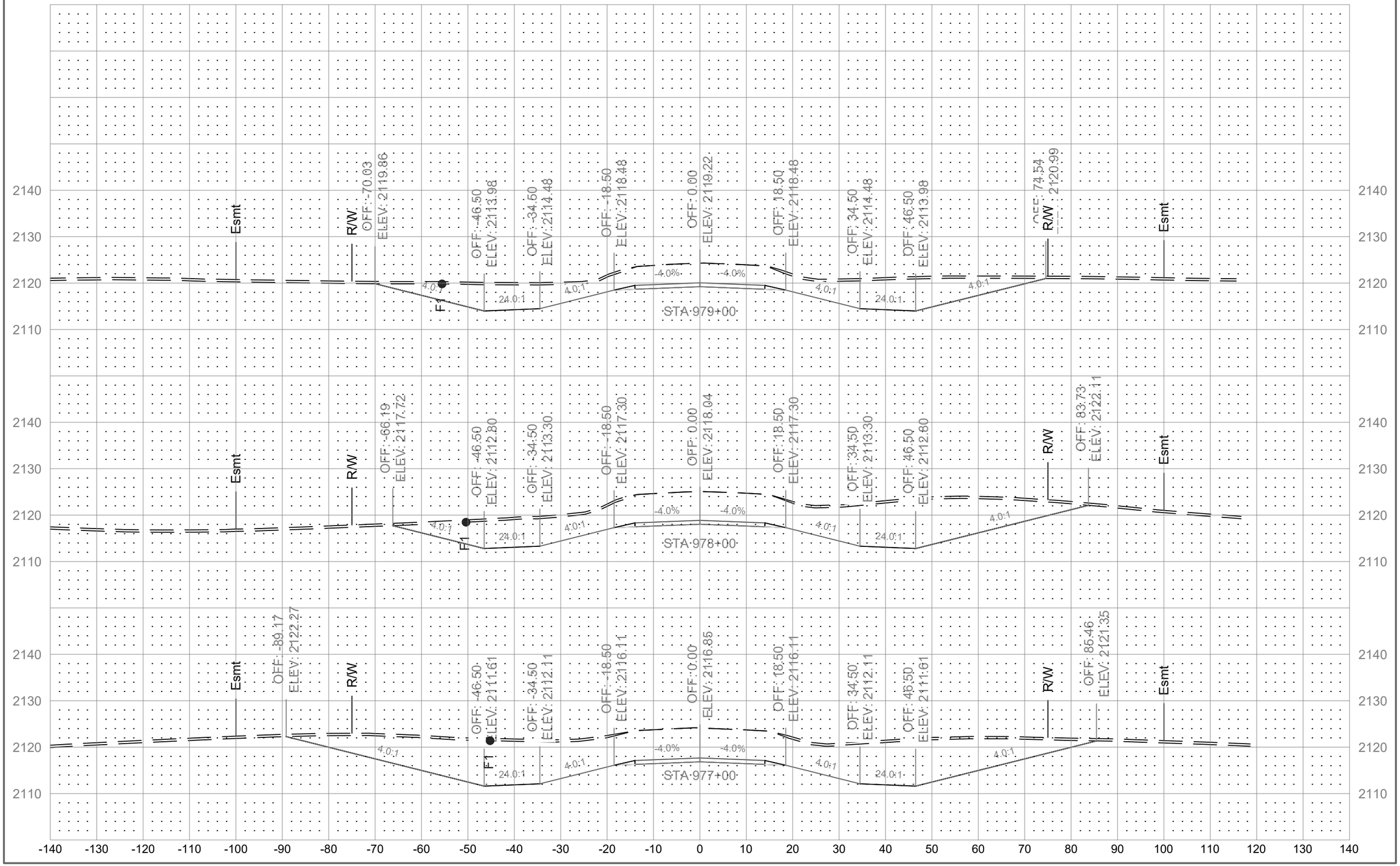
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	75



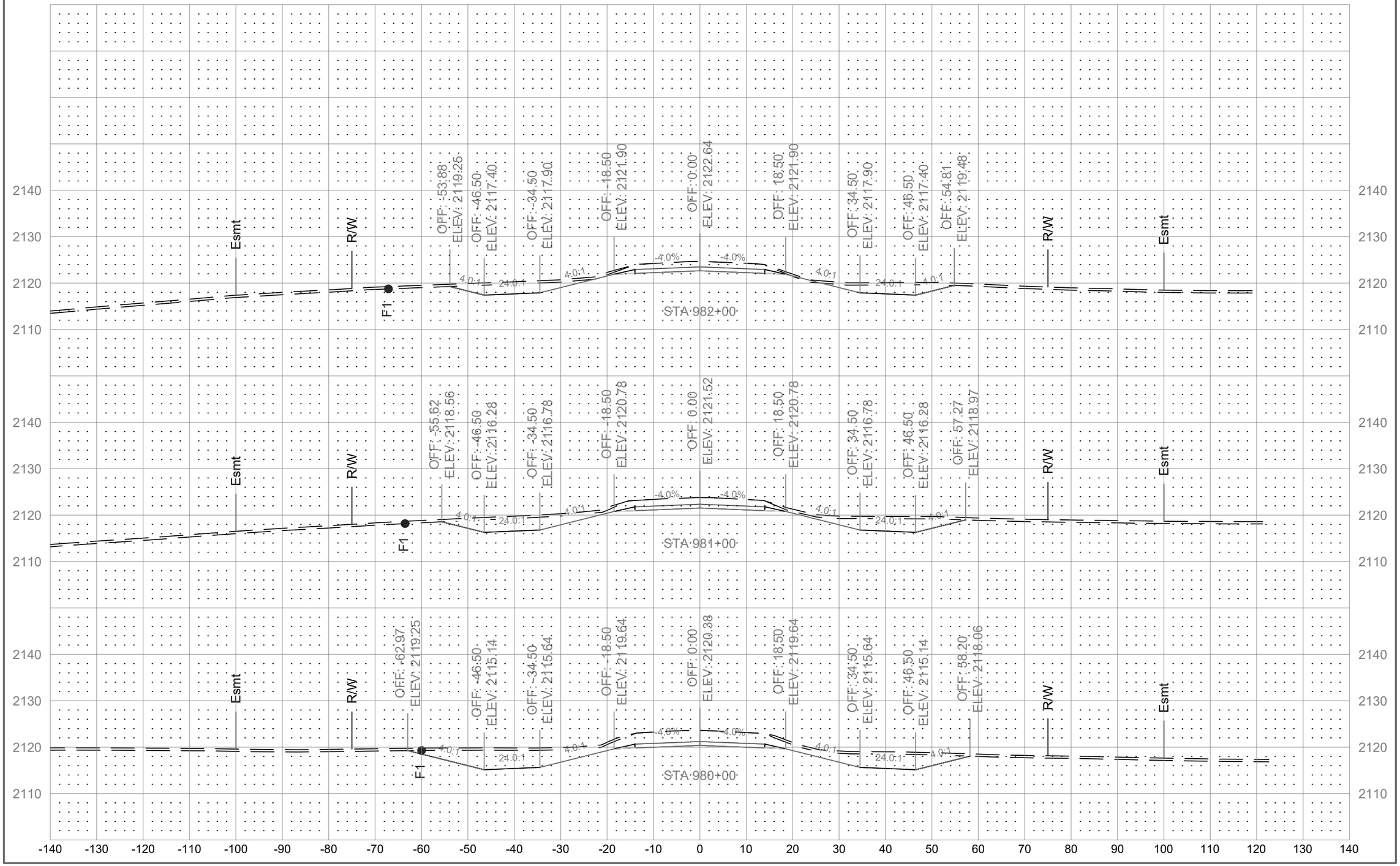
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	76



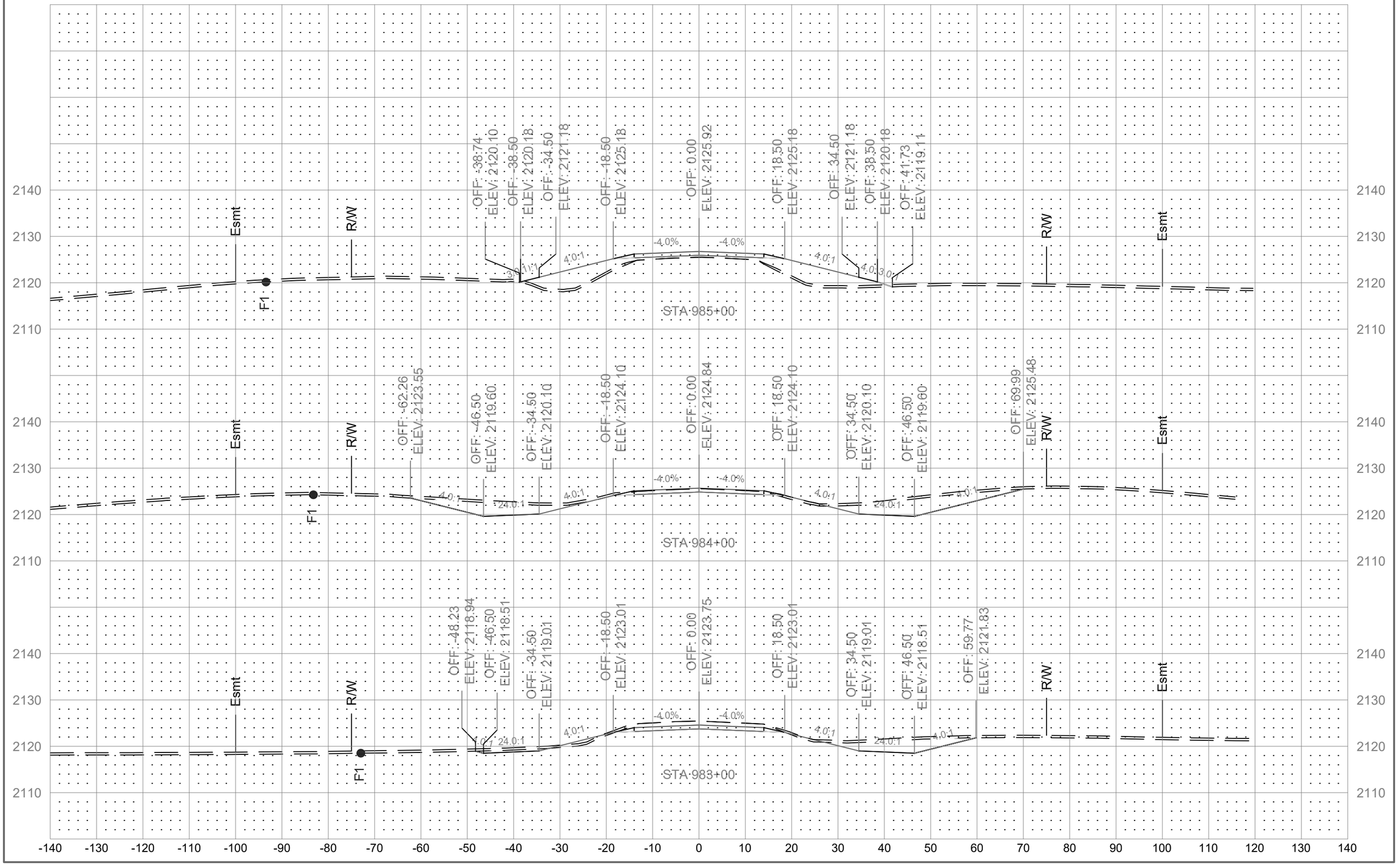
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	77



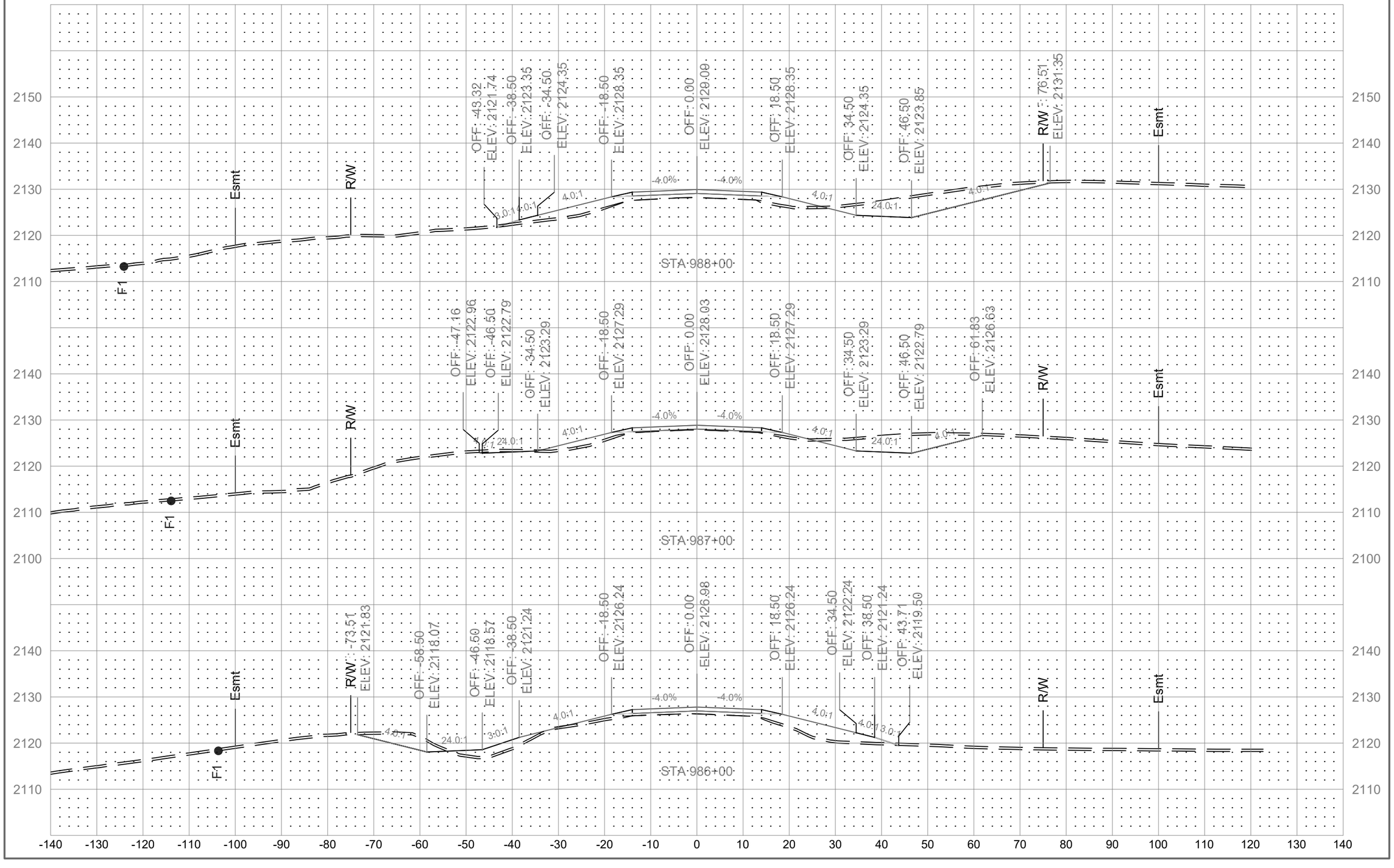
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	78



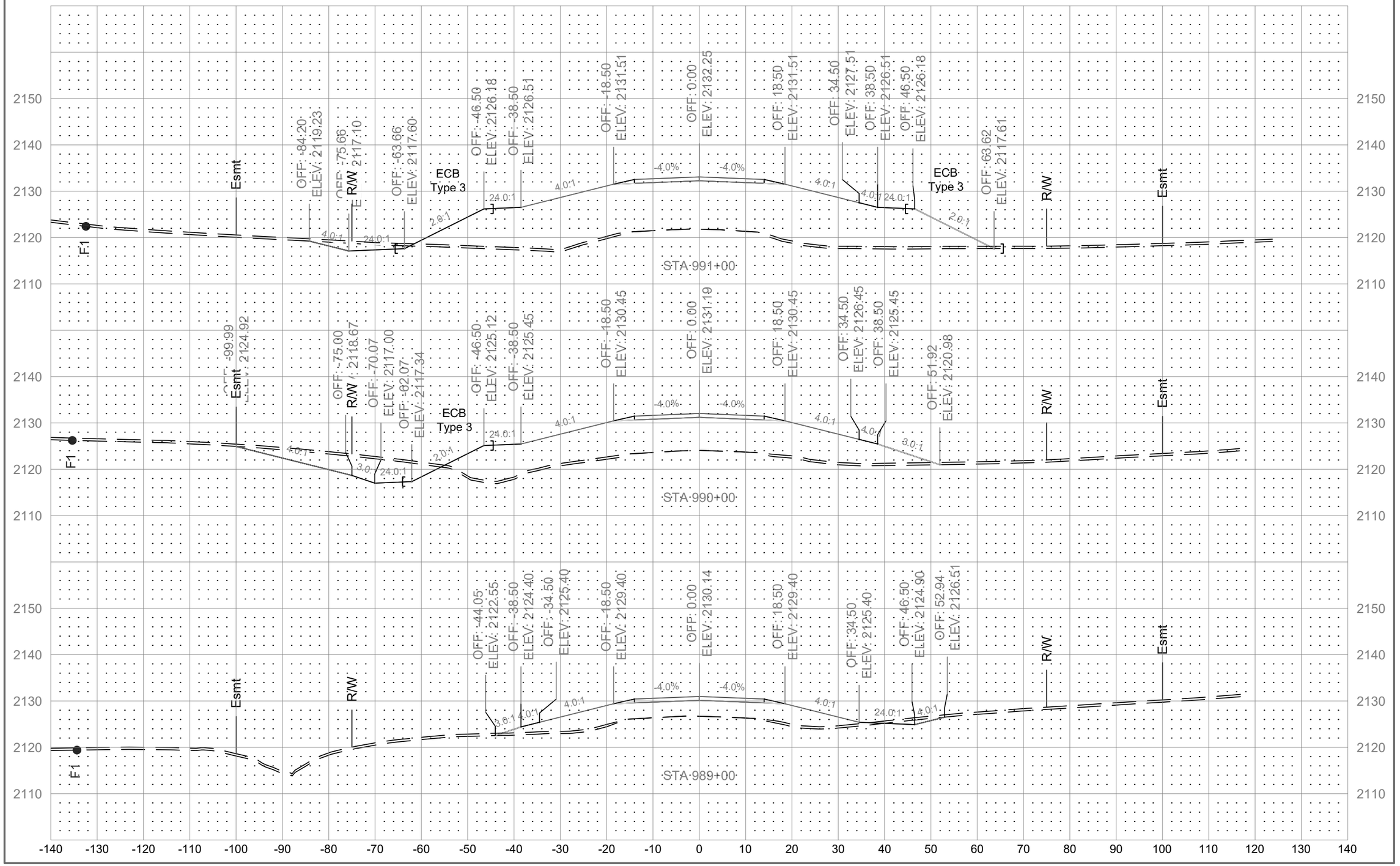
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	79



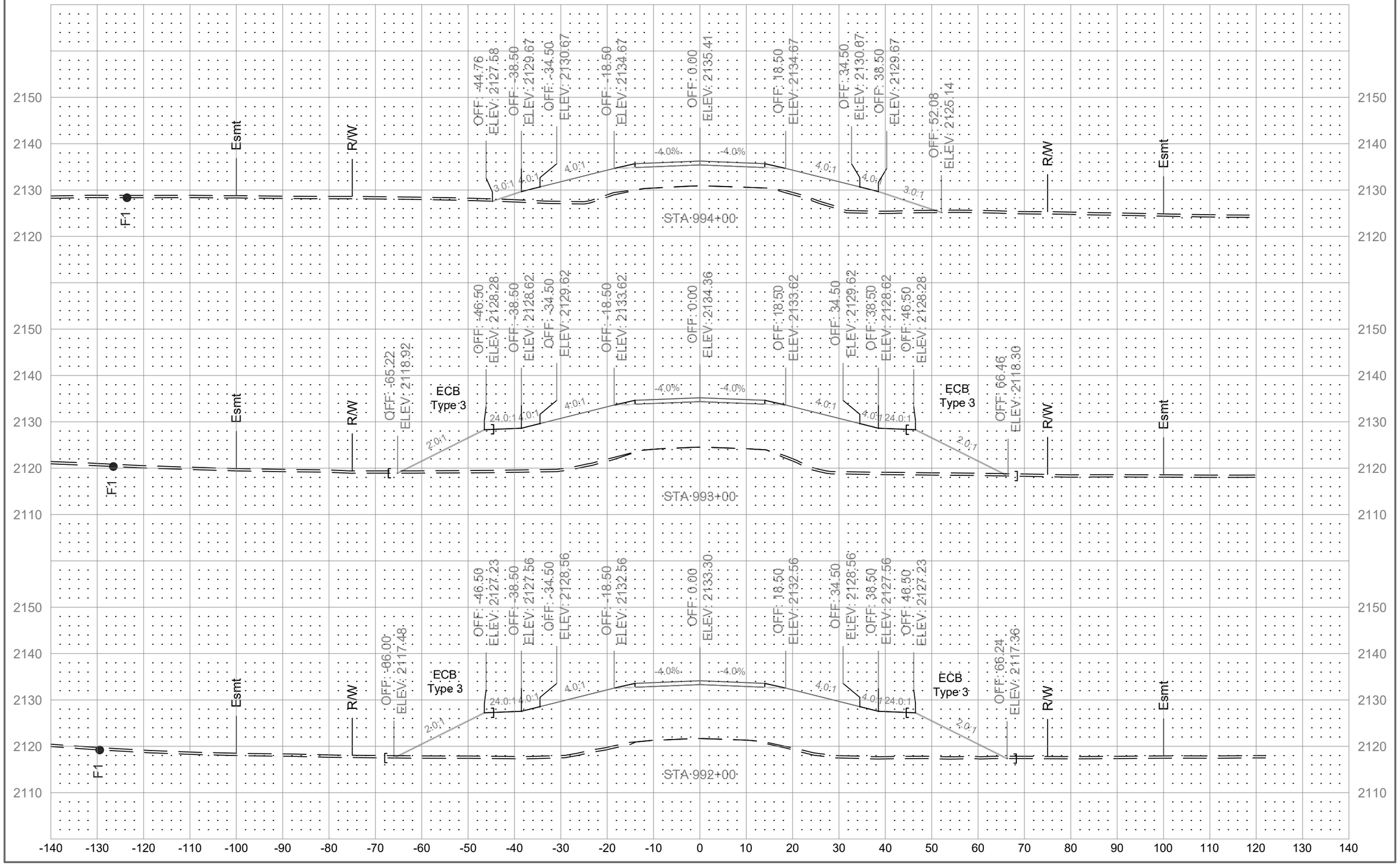
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	80



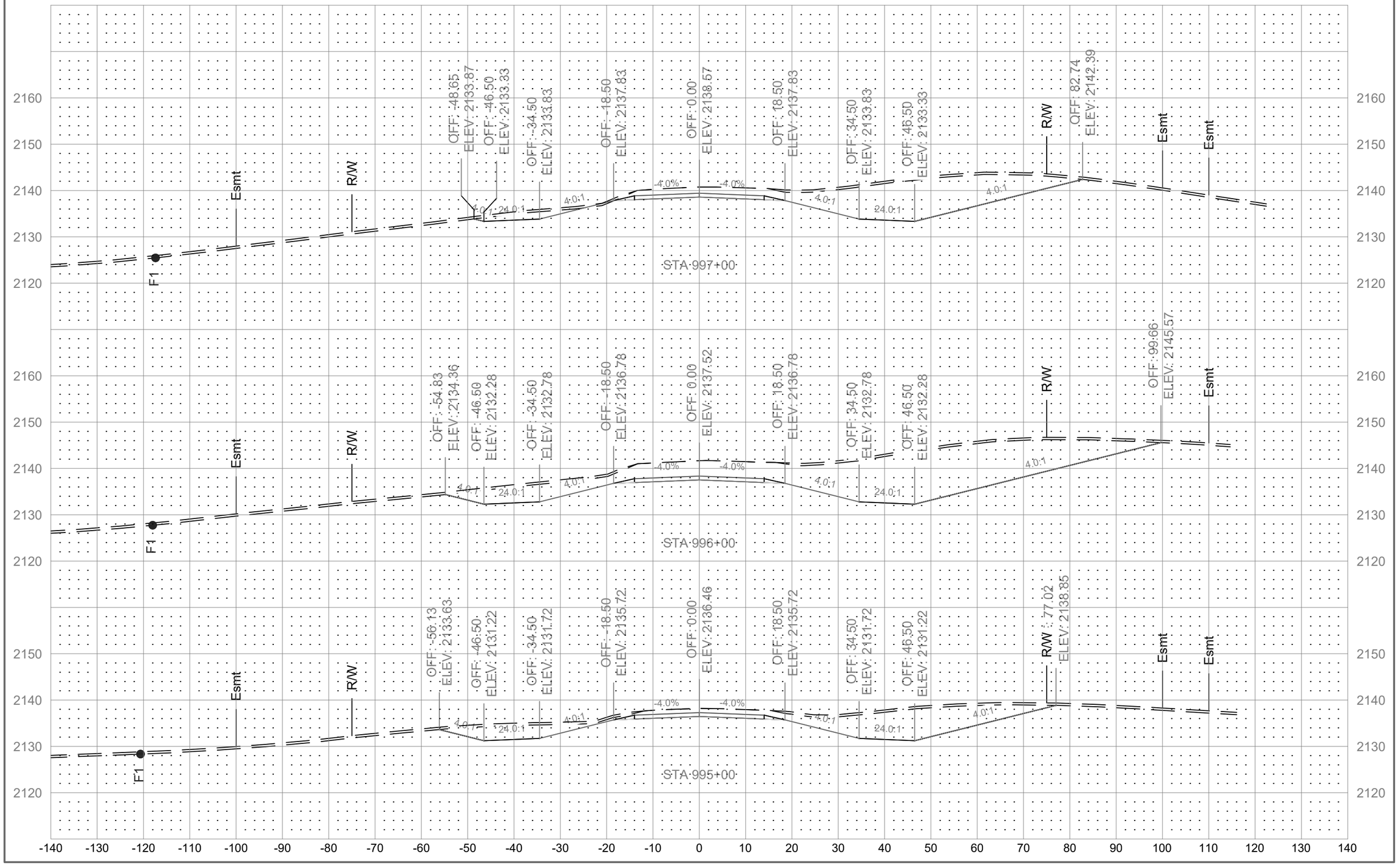
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	81



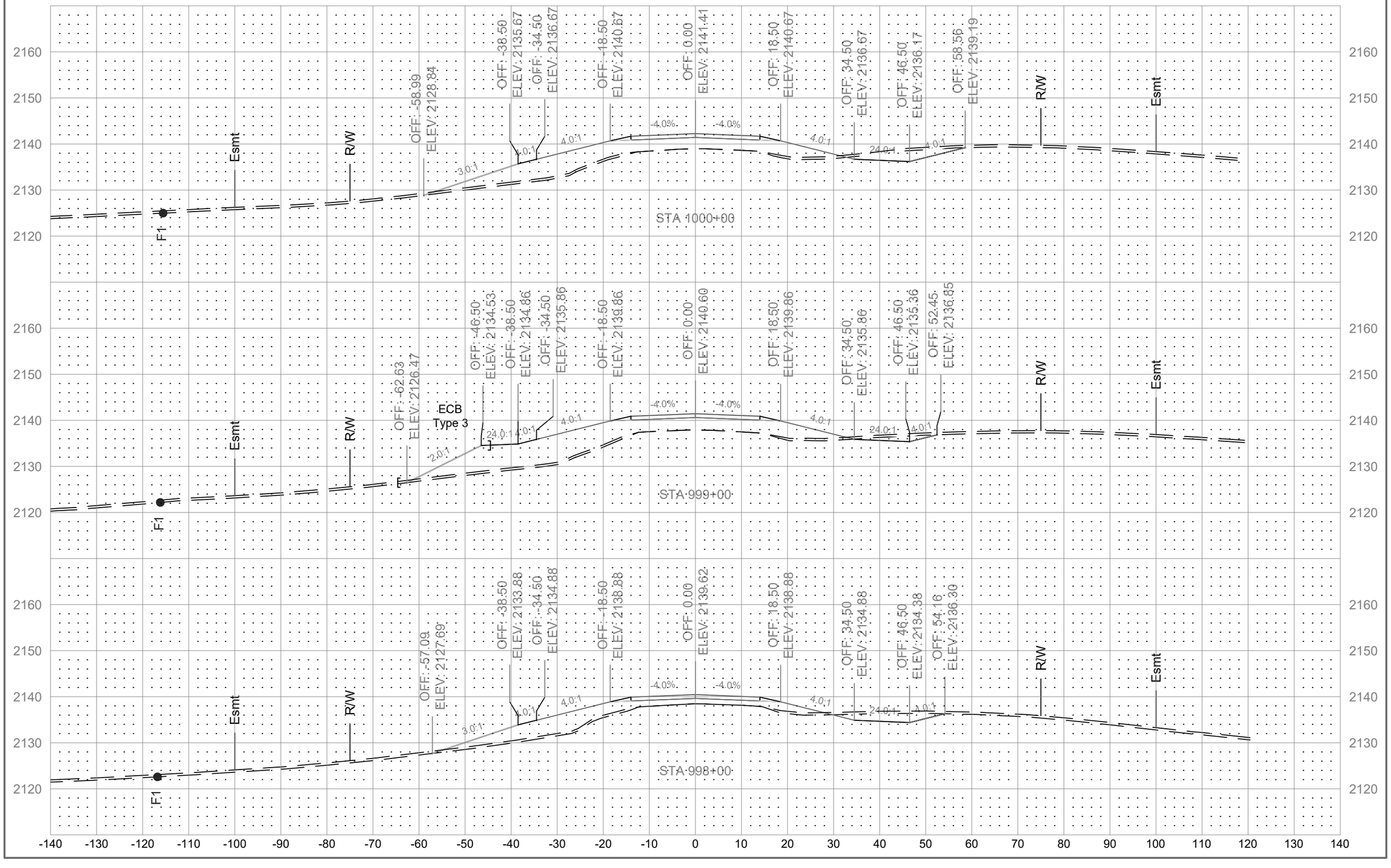
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	82



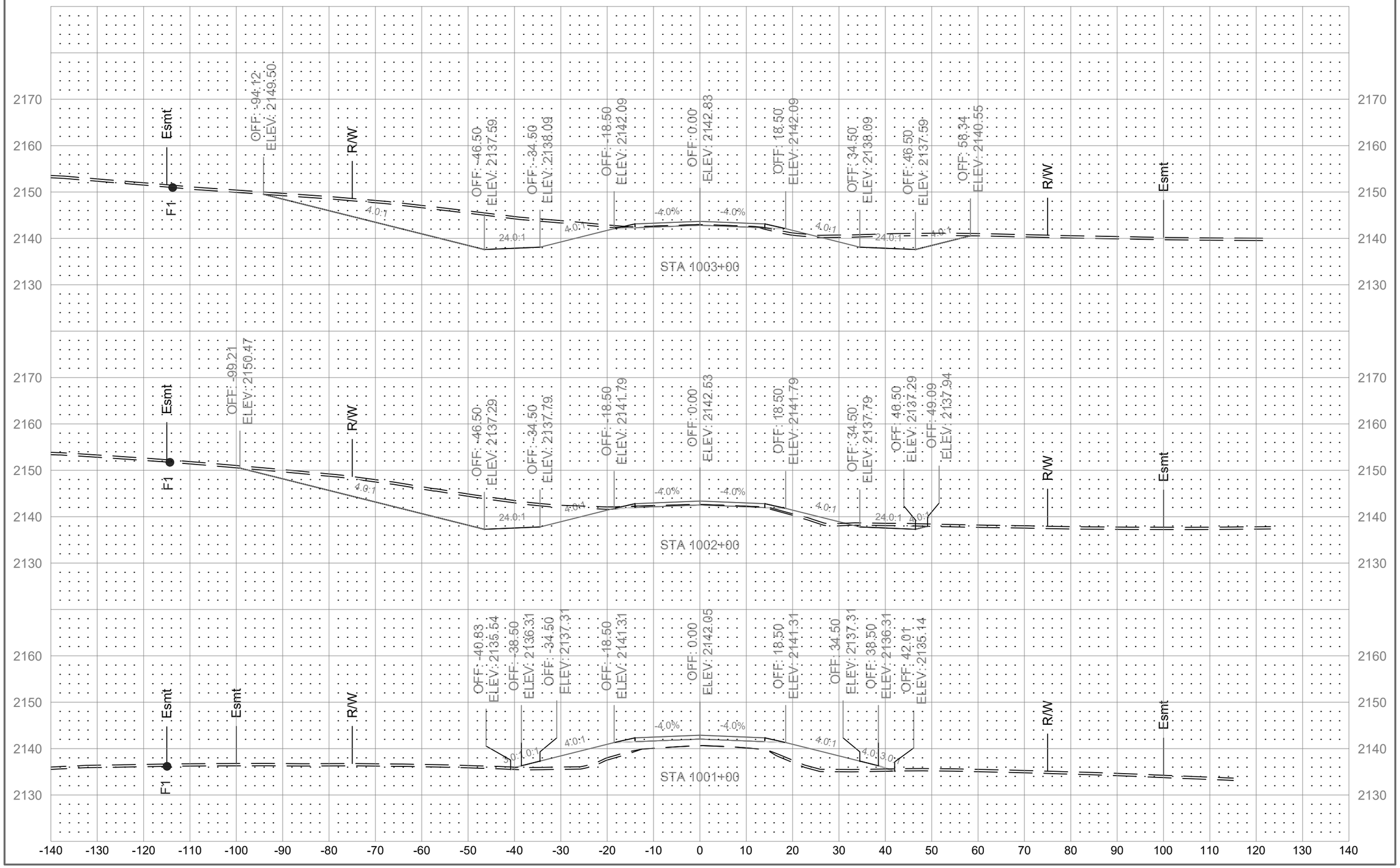
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	83



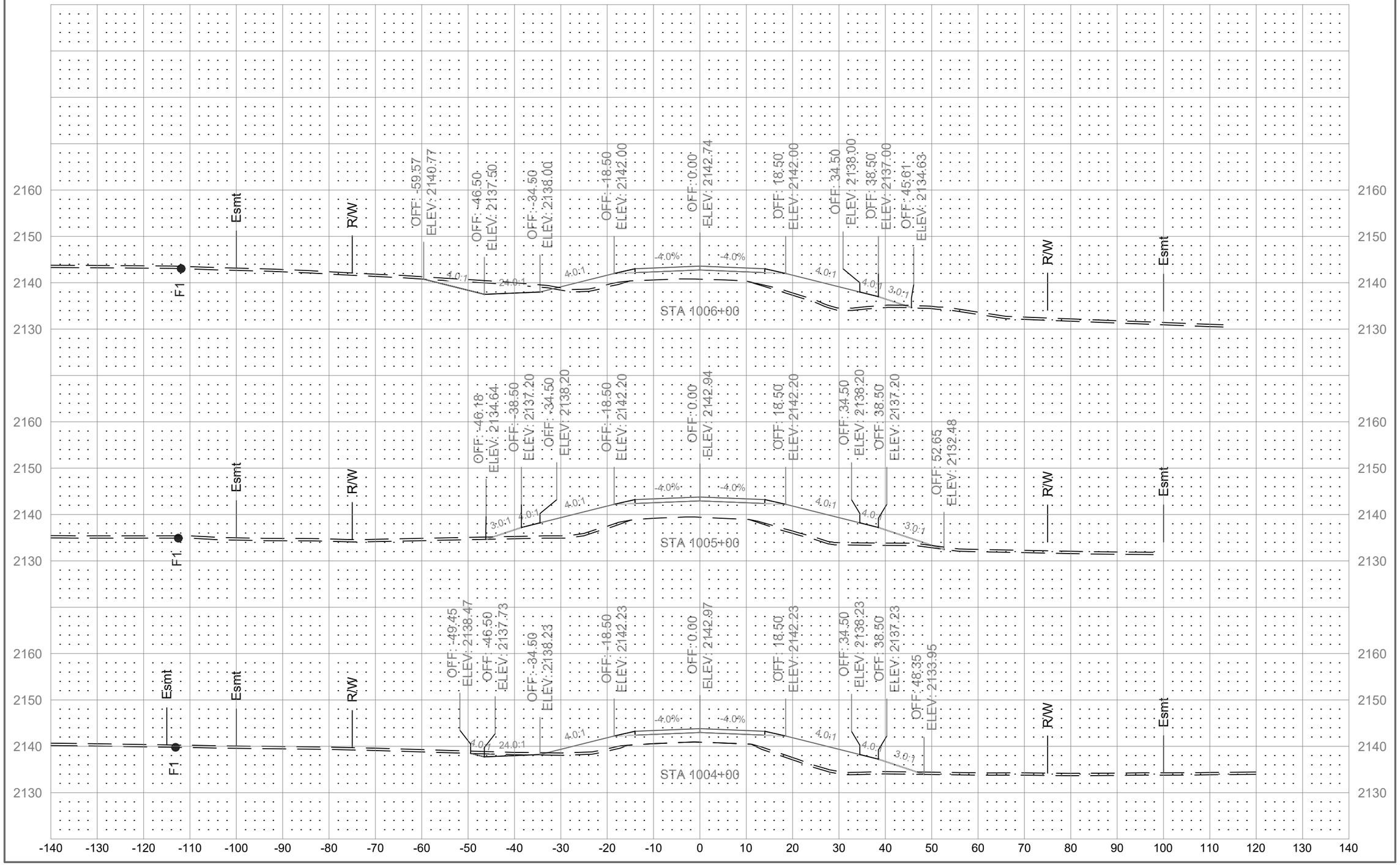
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	84



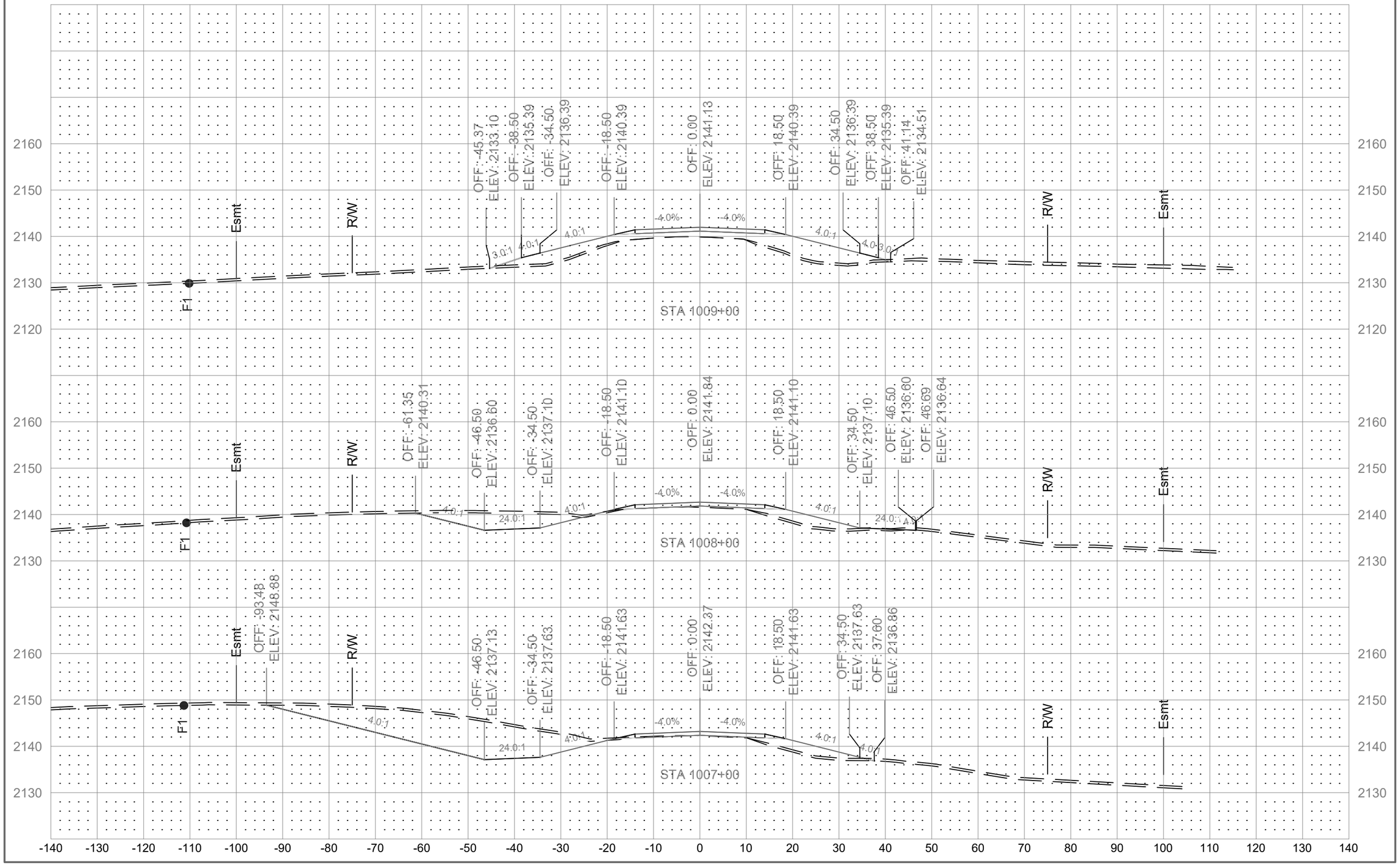
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	85



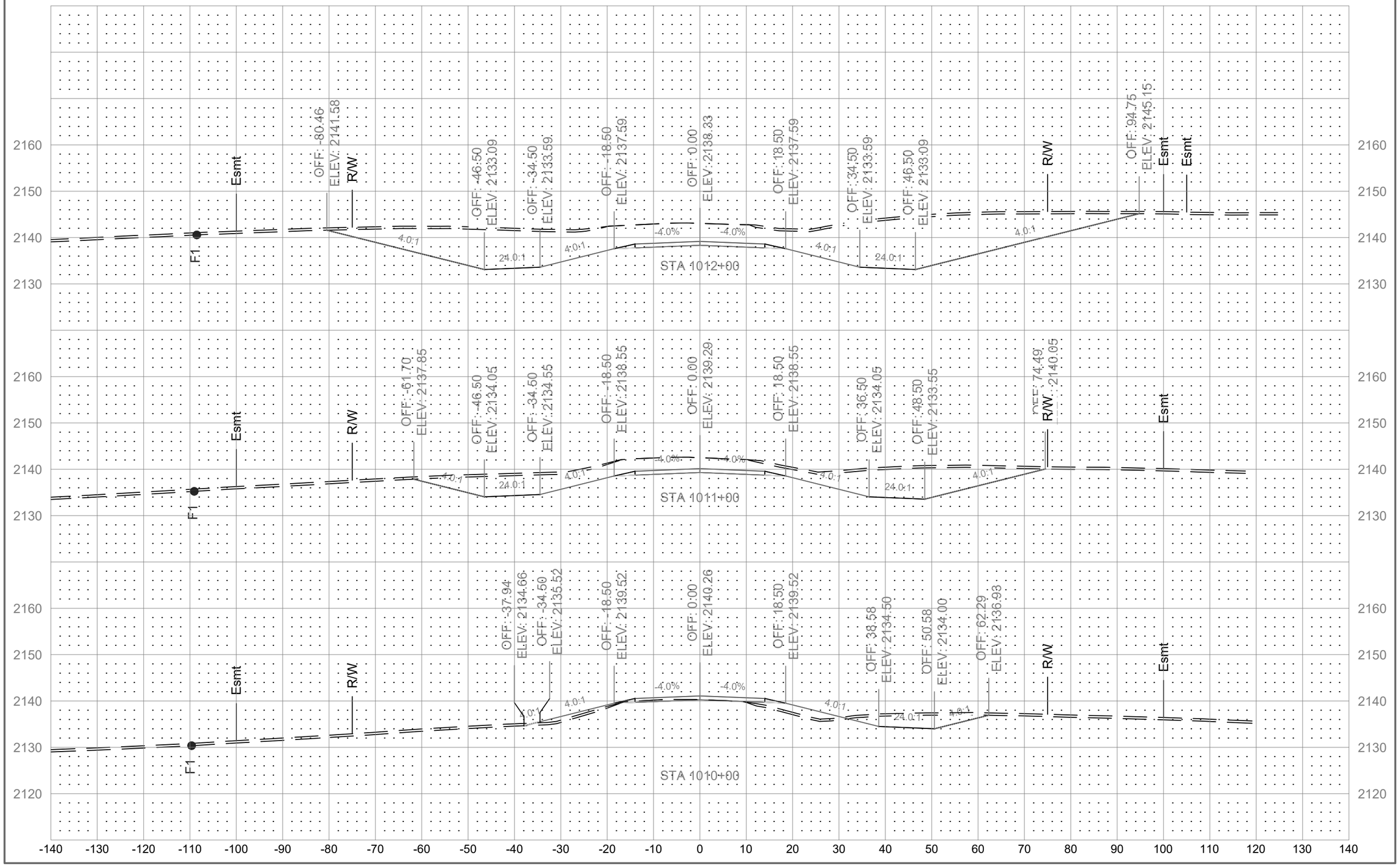
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	86



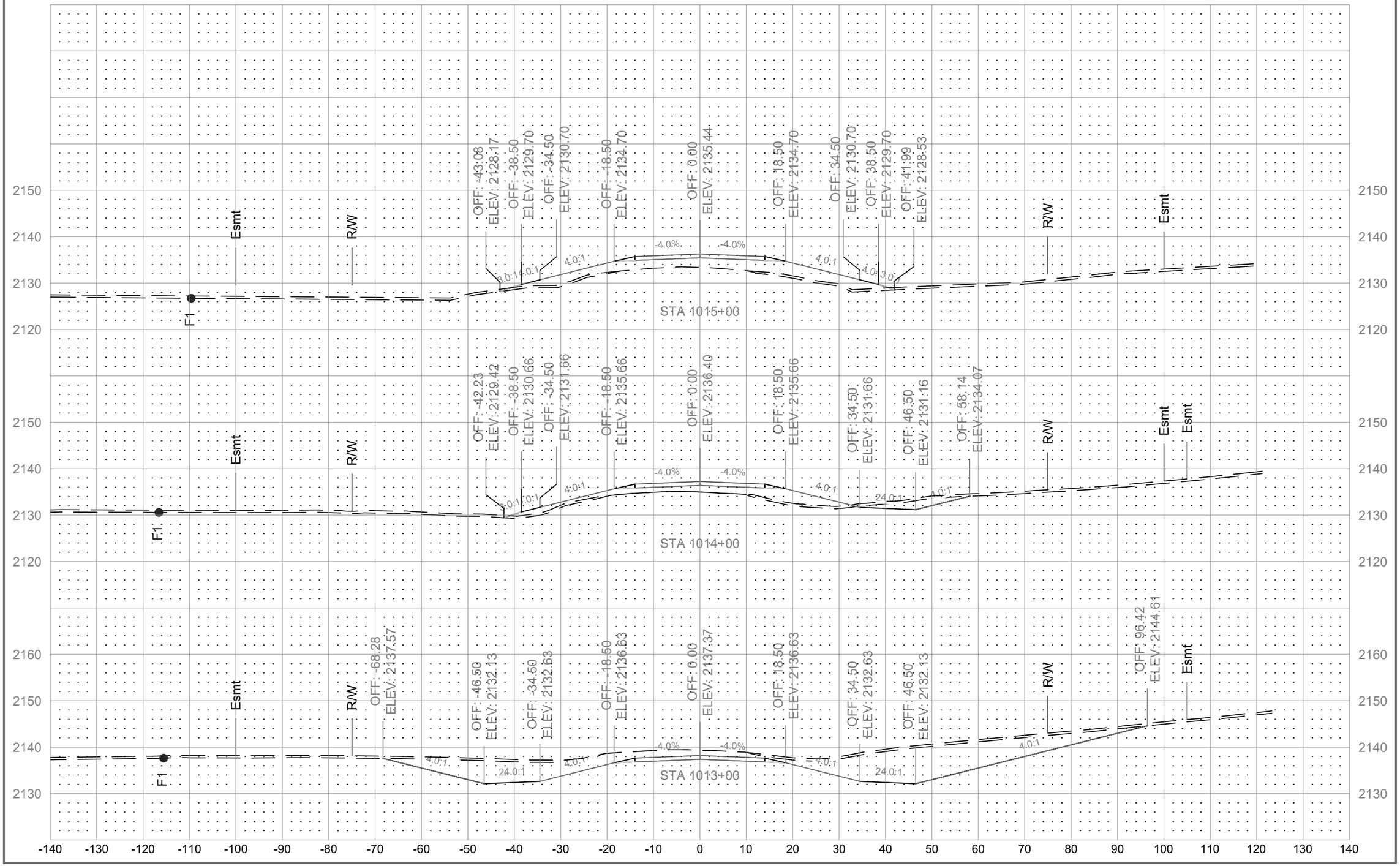
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	87



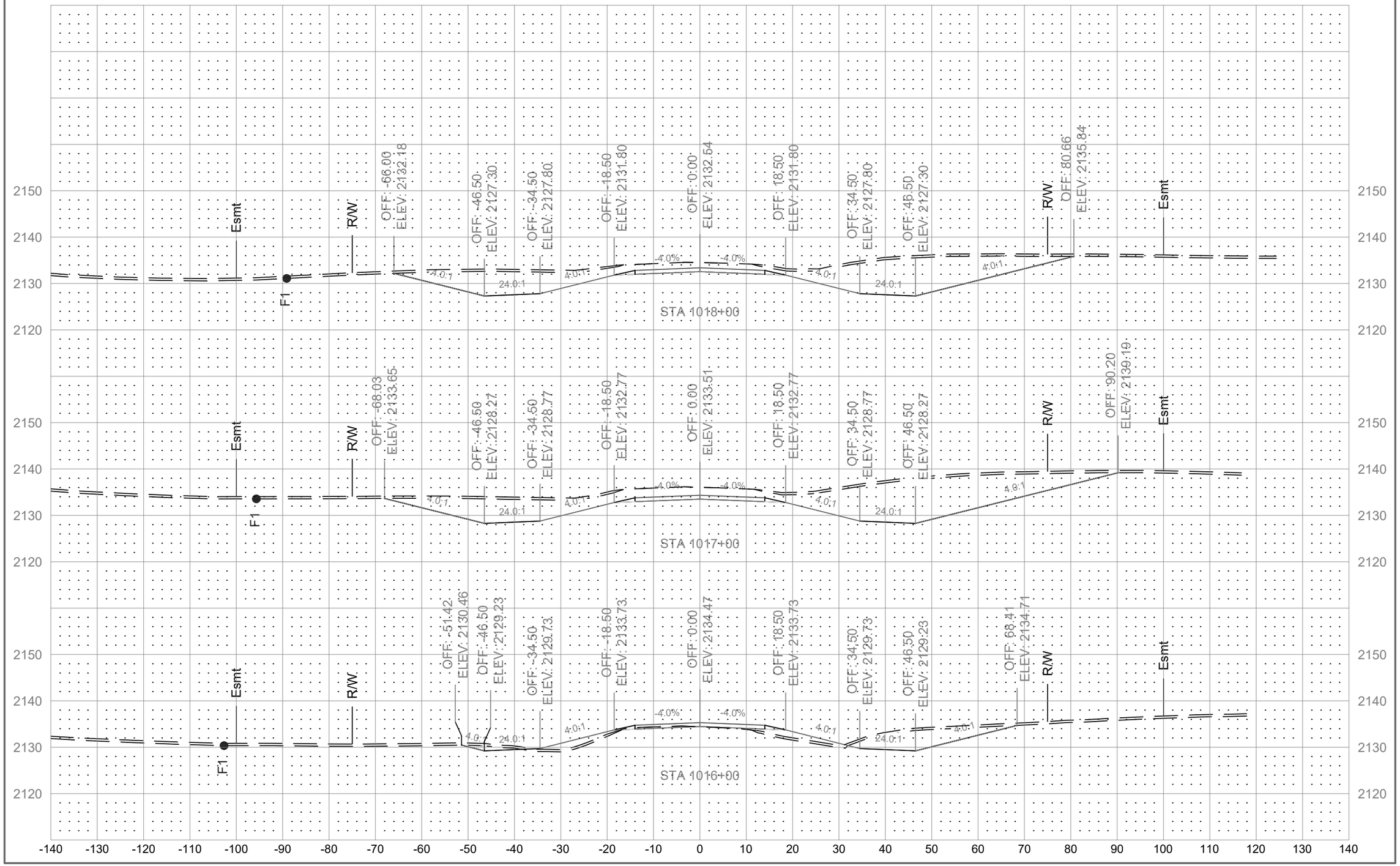
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	88



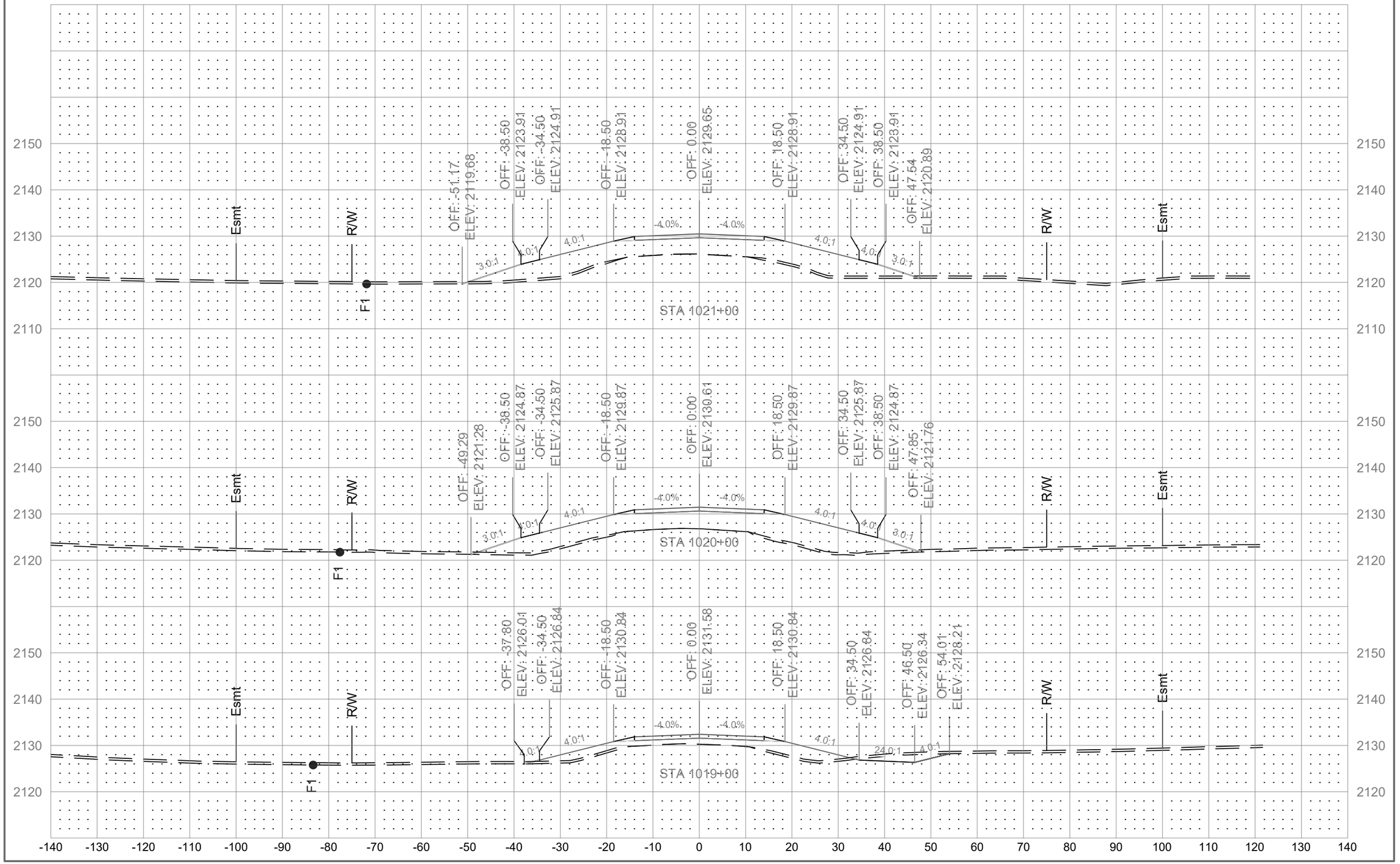
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	89



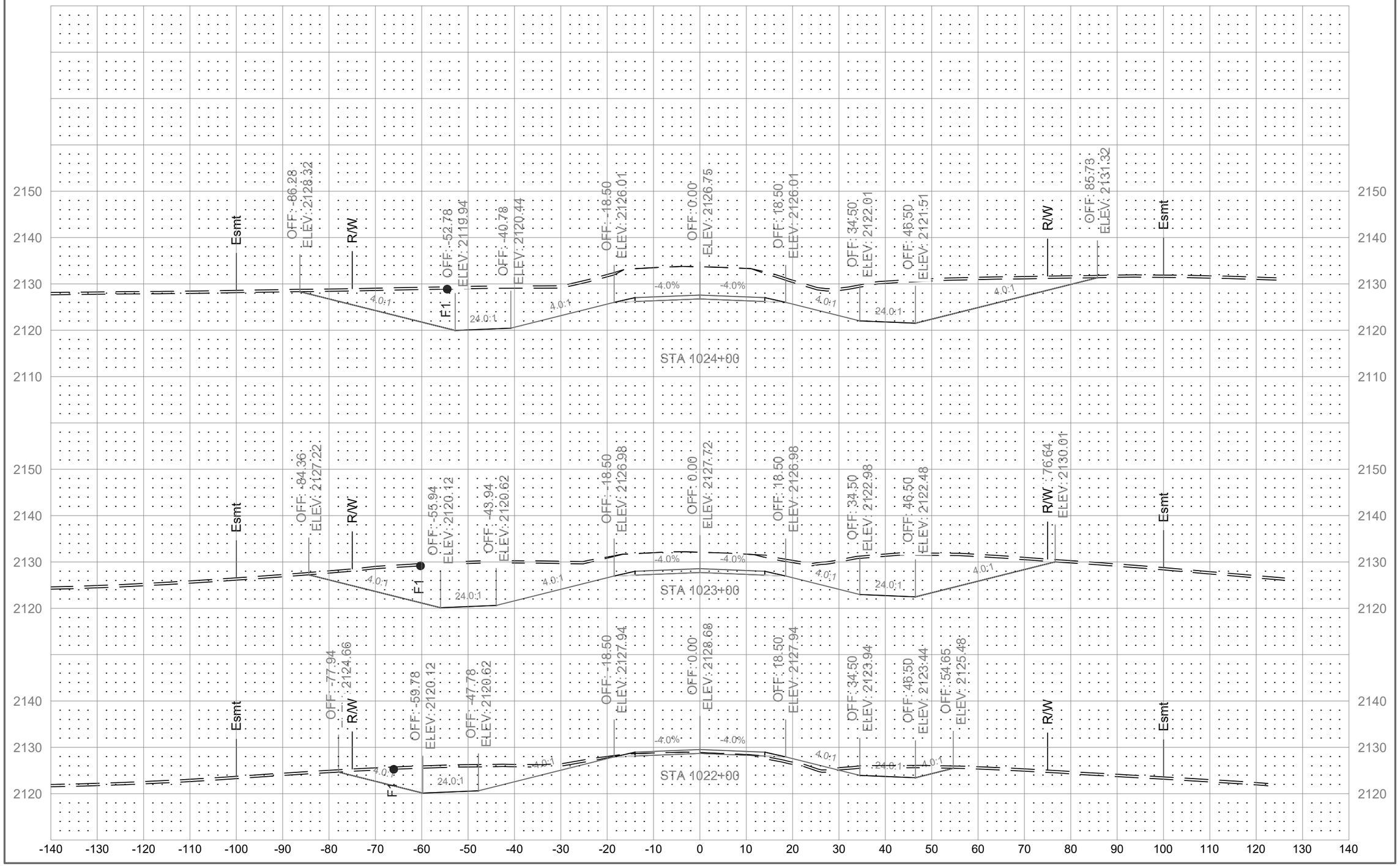
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	90



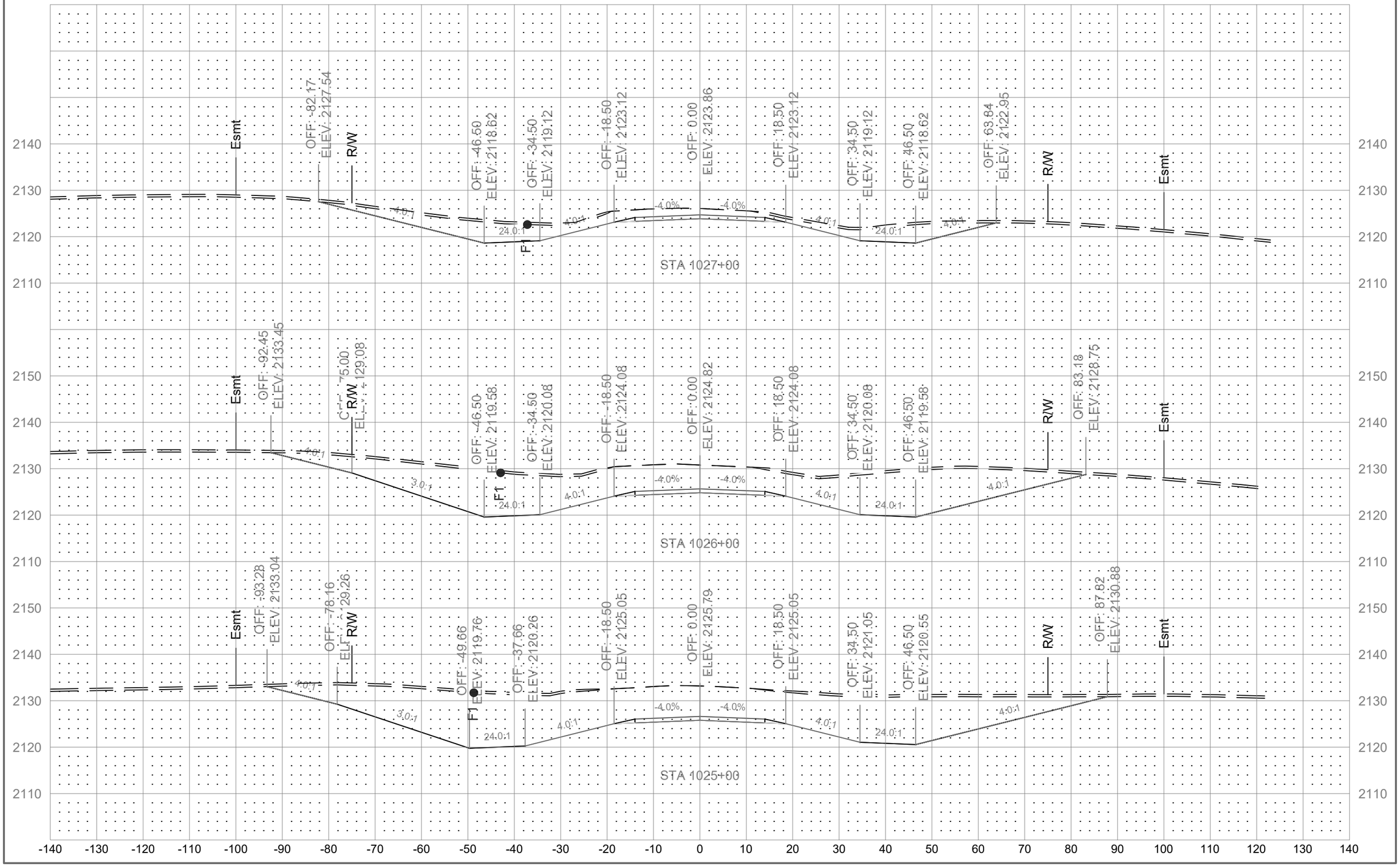
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	91



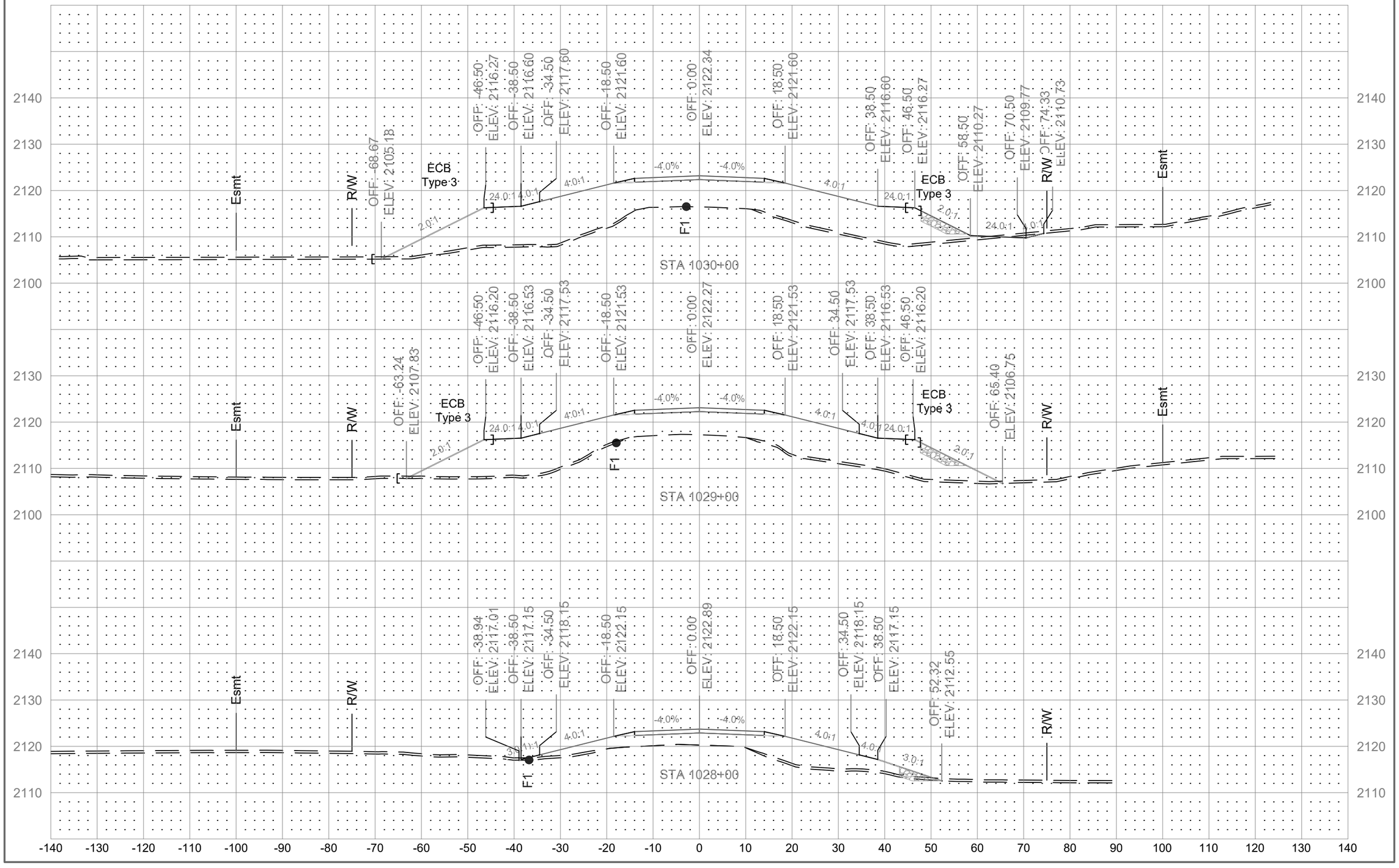
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	92



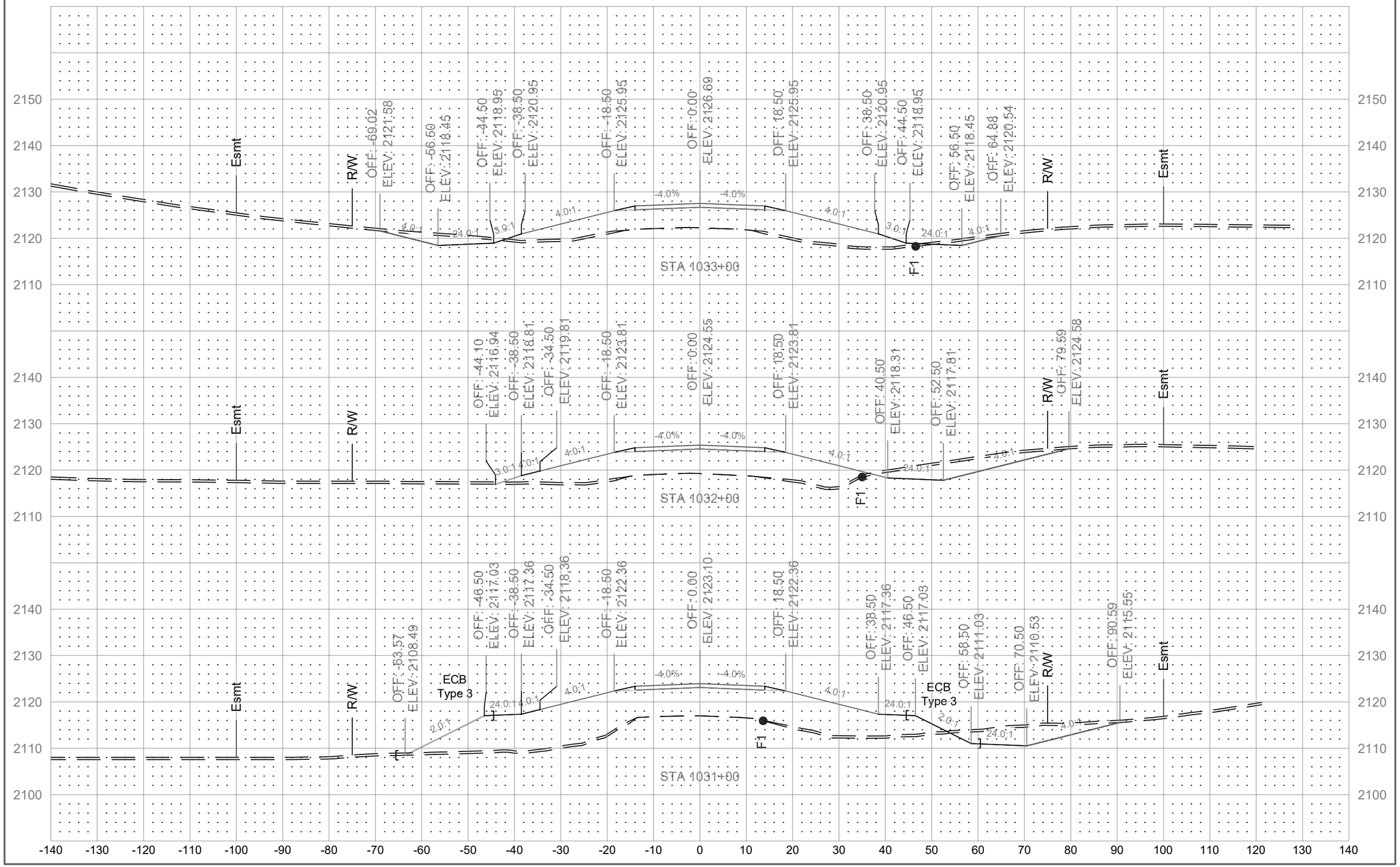
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	93



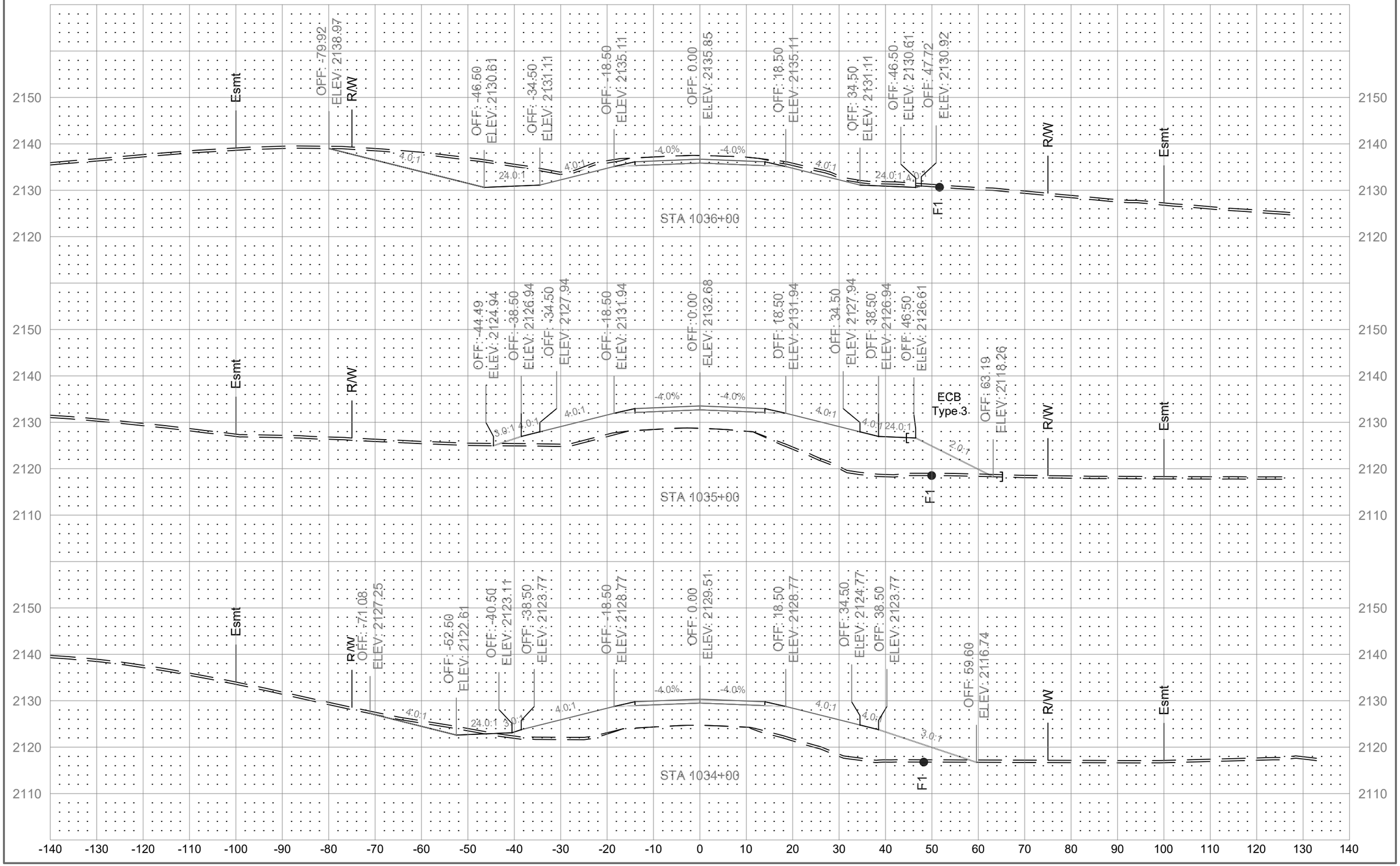
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	94



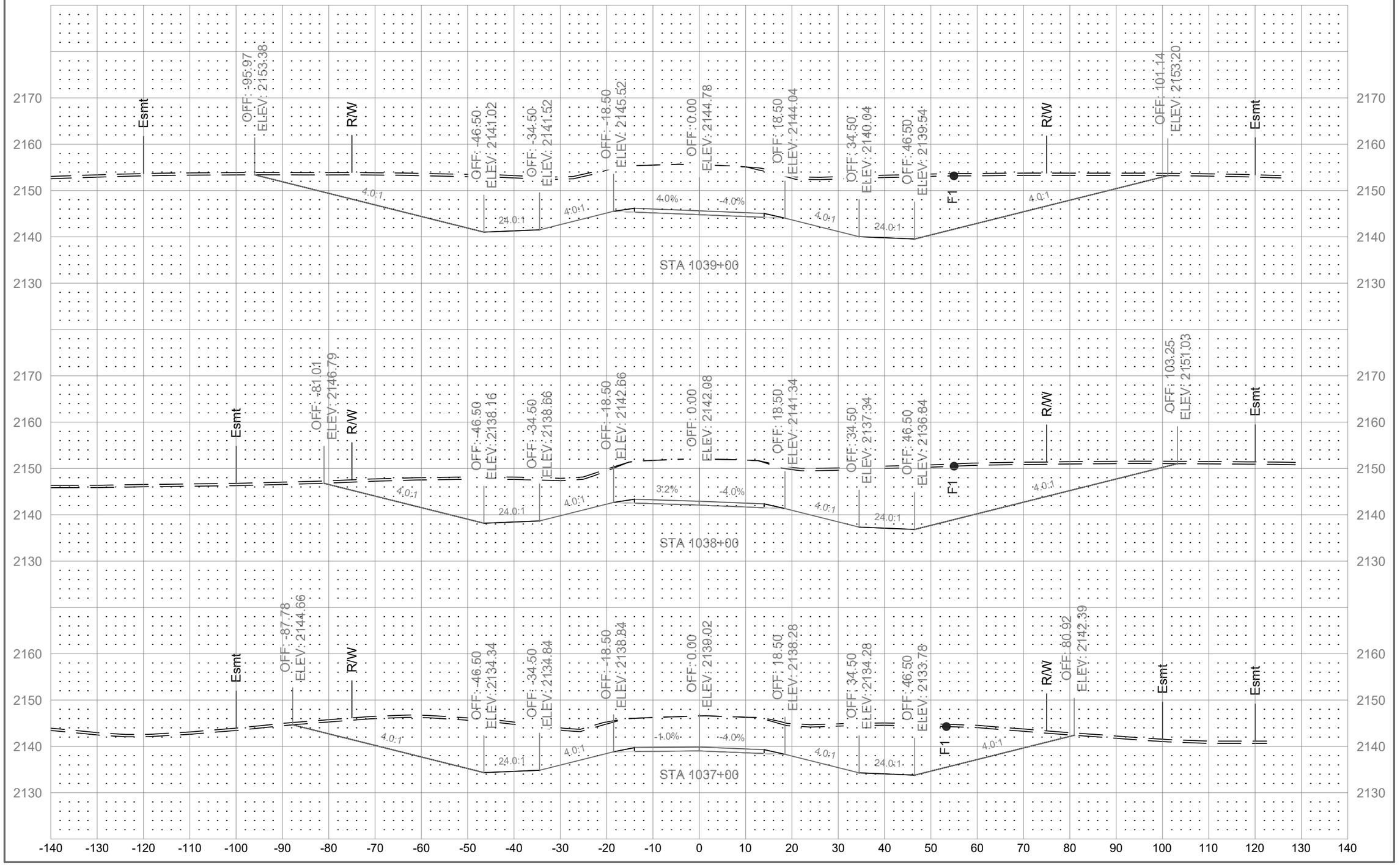
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	95



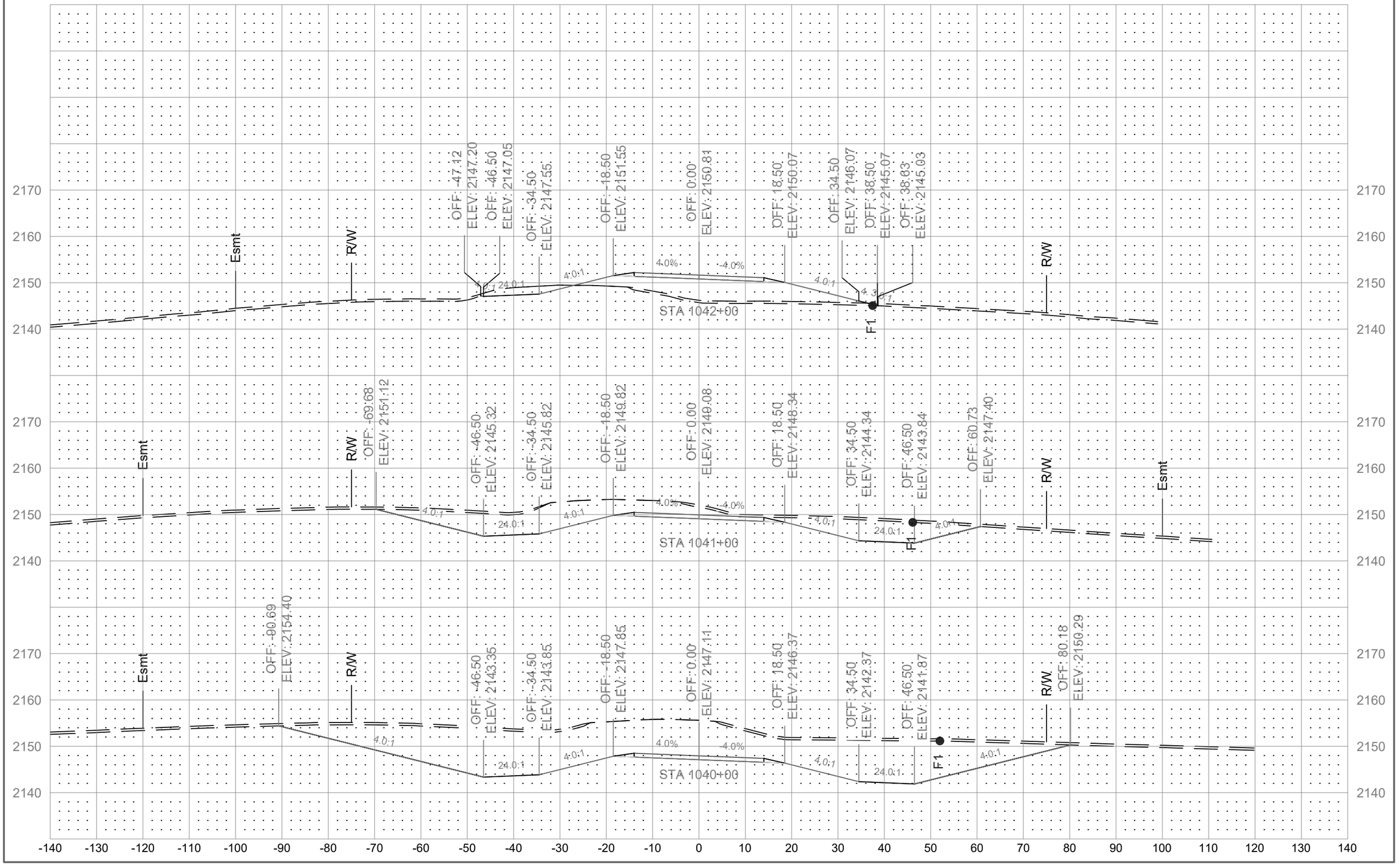
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	96



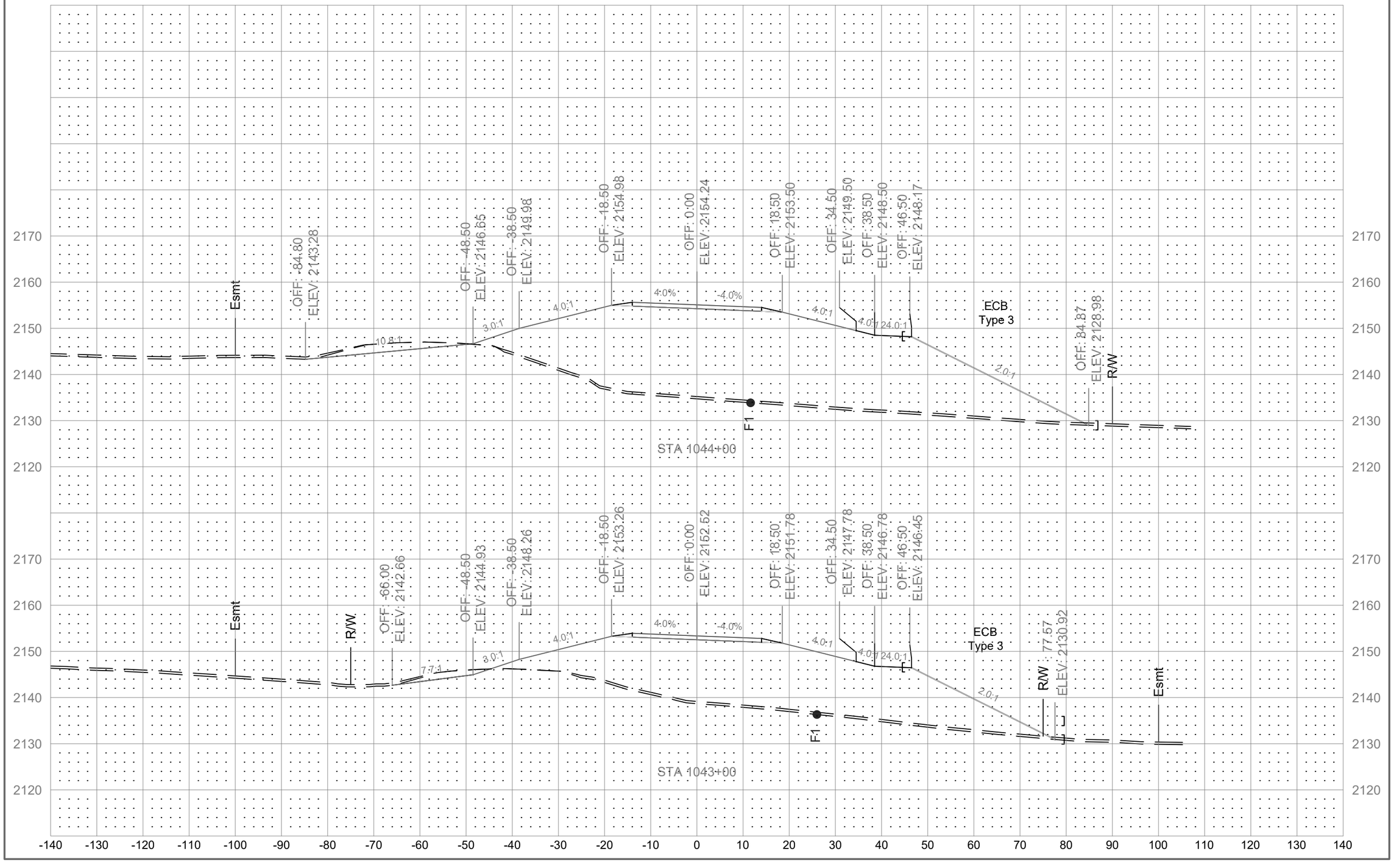
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	97



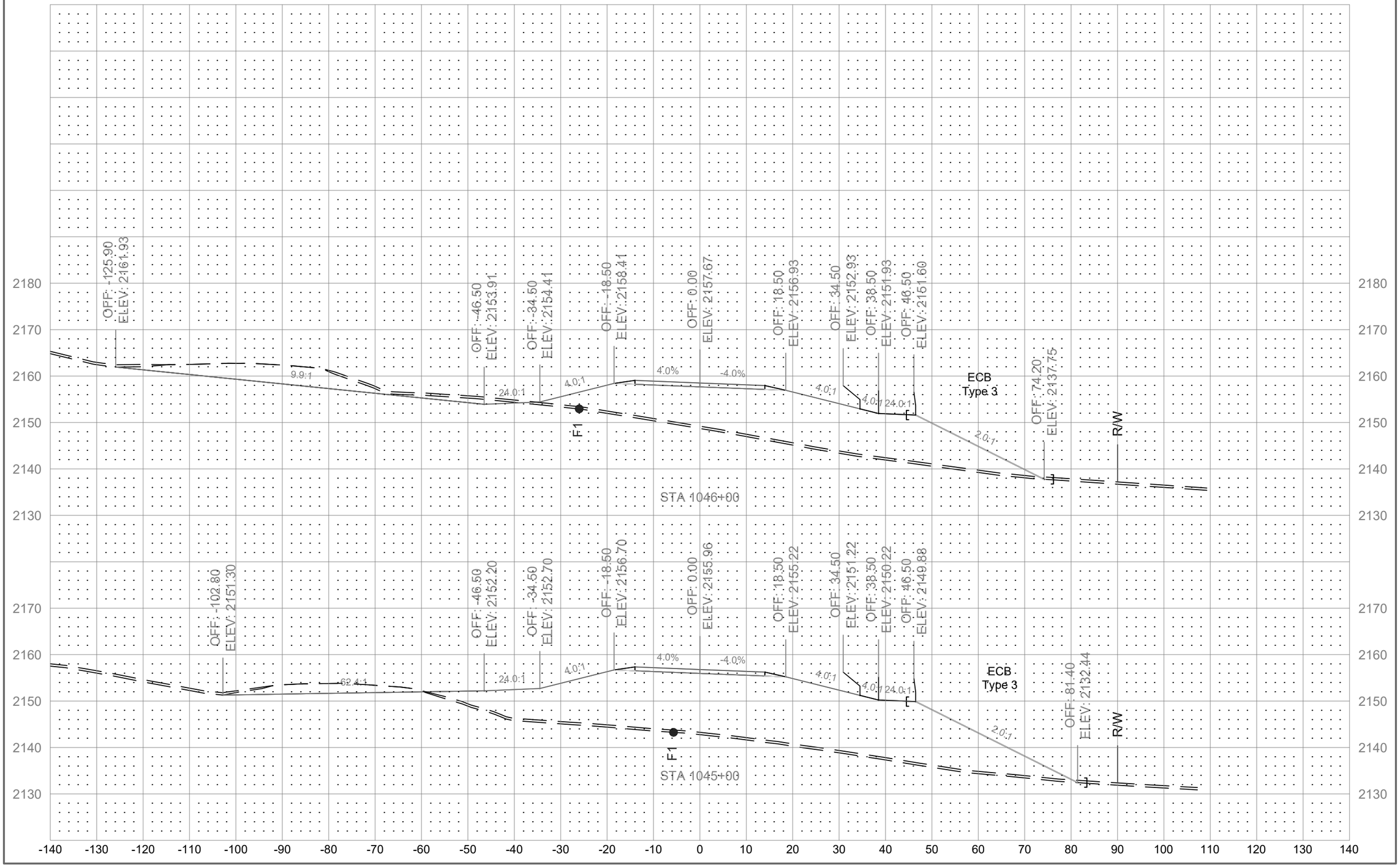
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	98



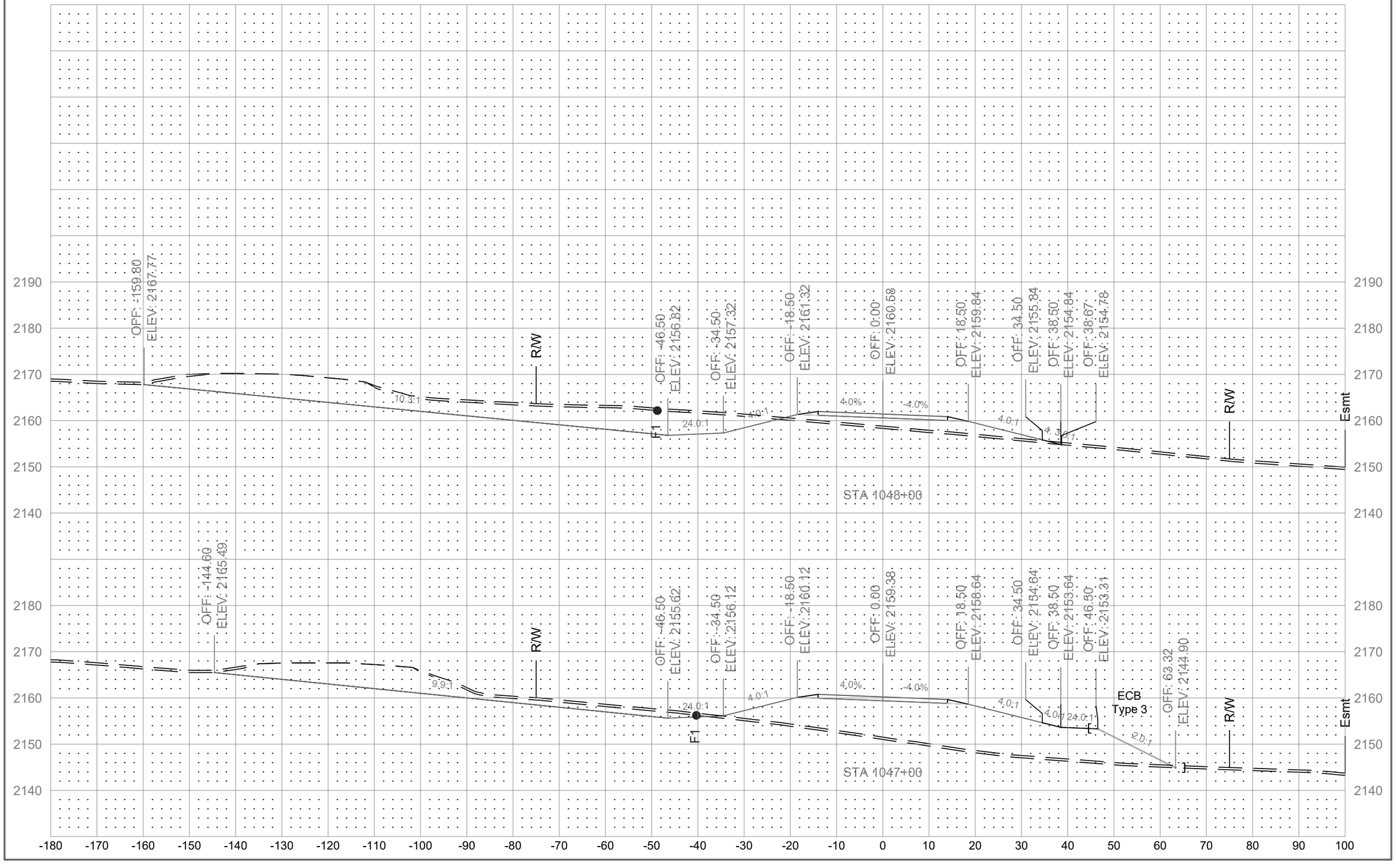
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	99



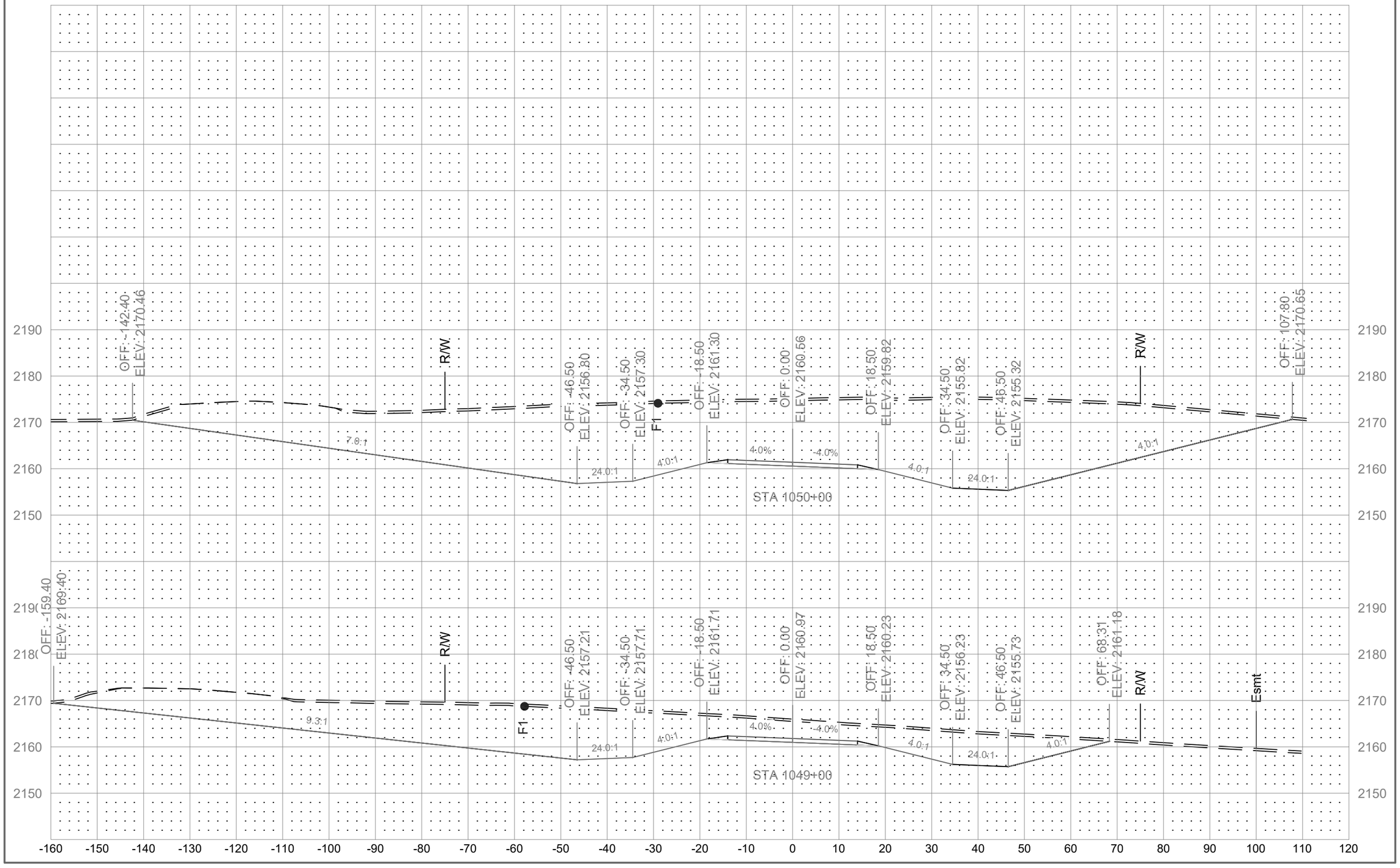
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	100



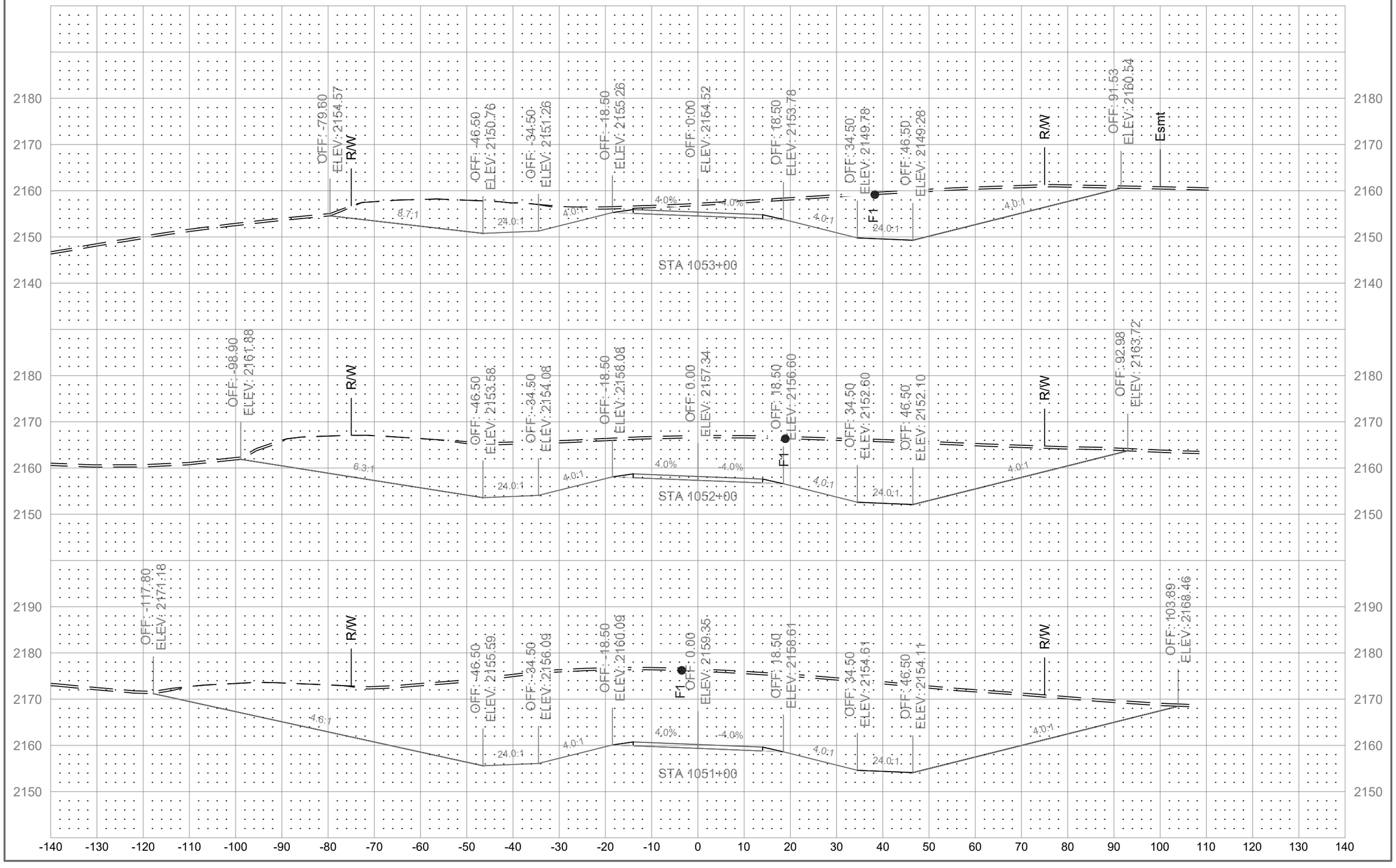
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	101



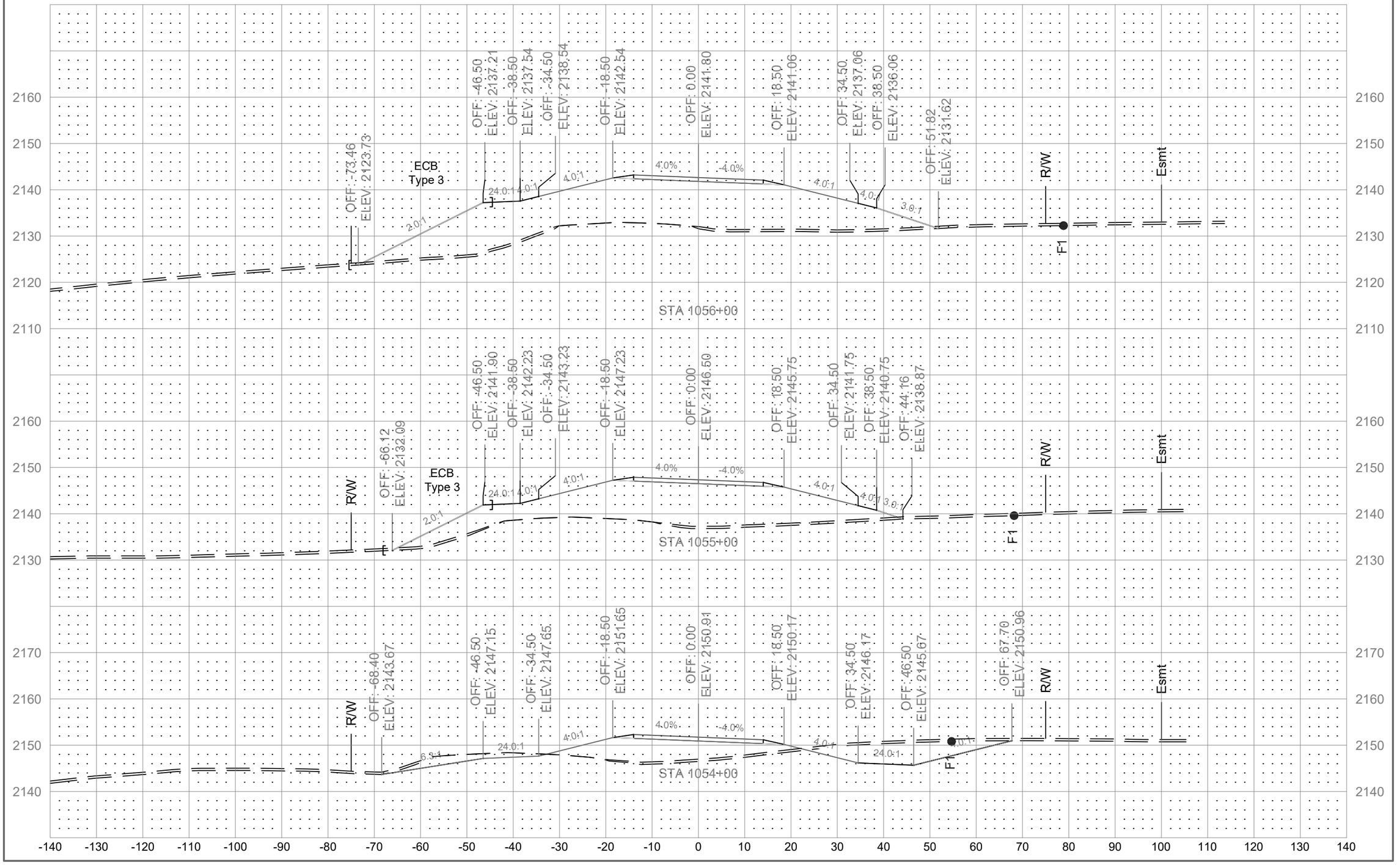
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	102



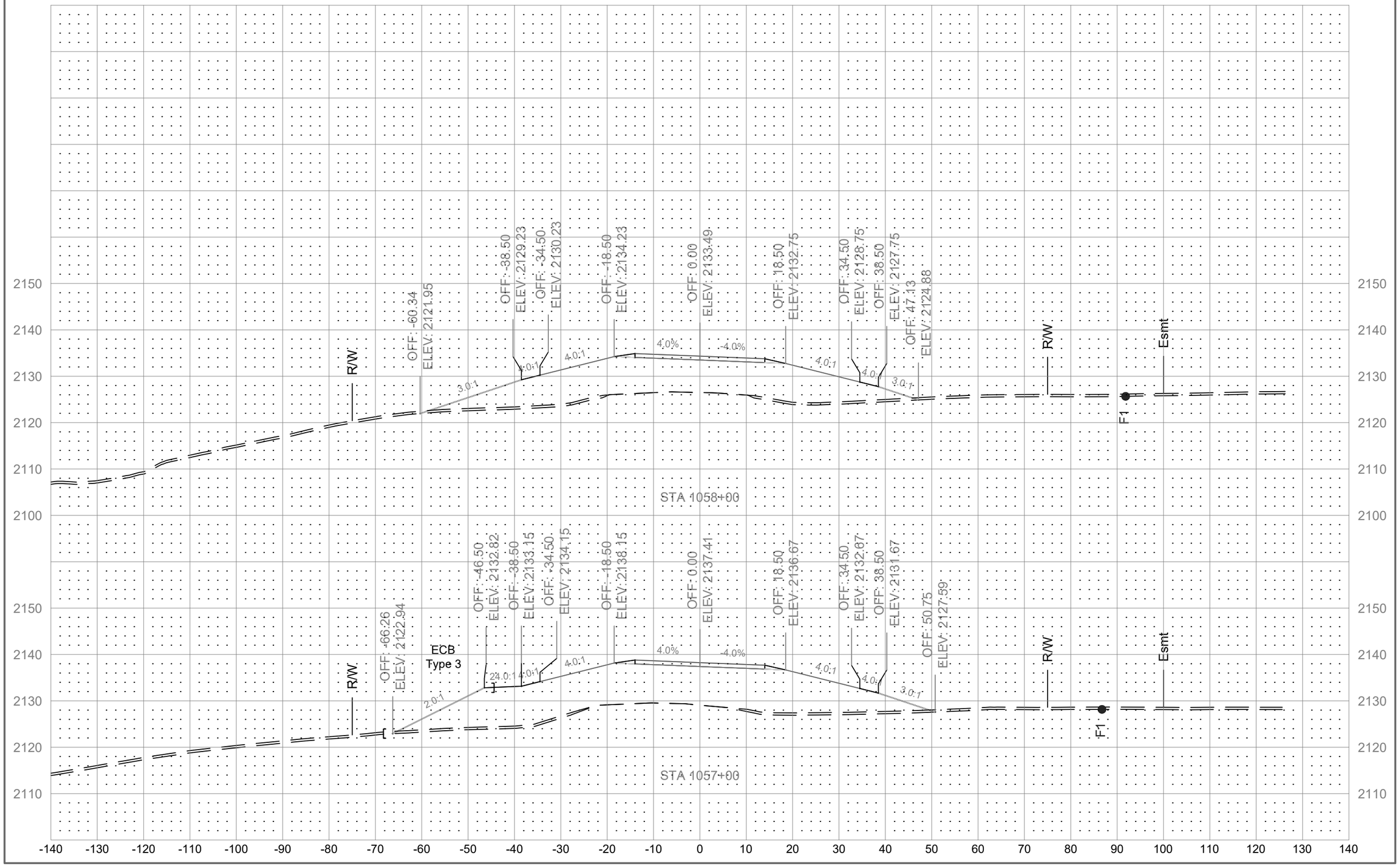
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	103



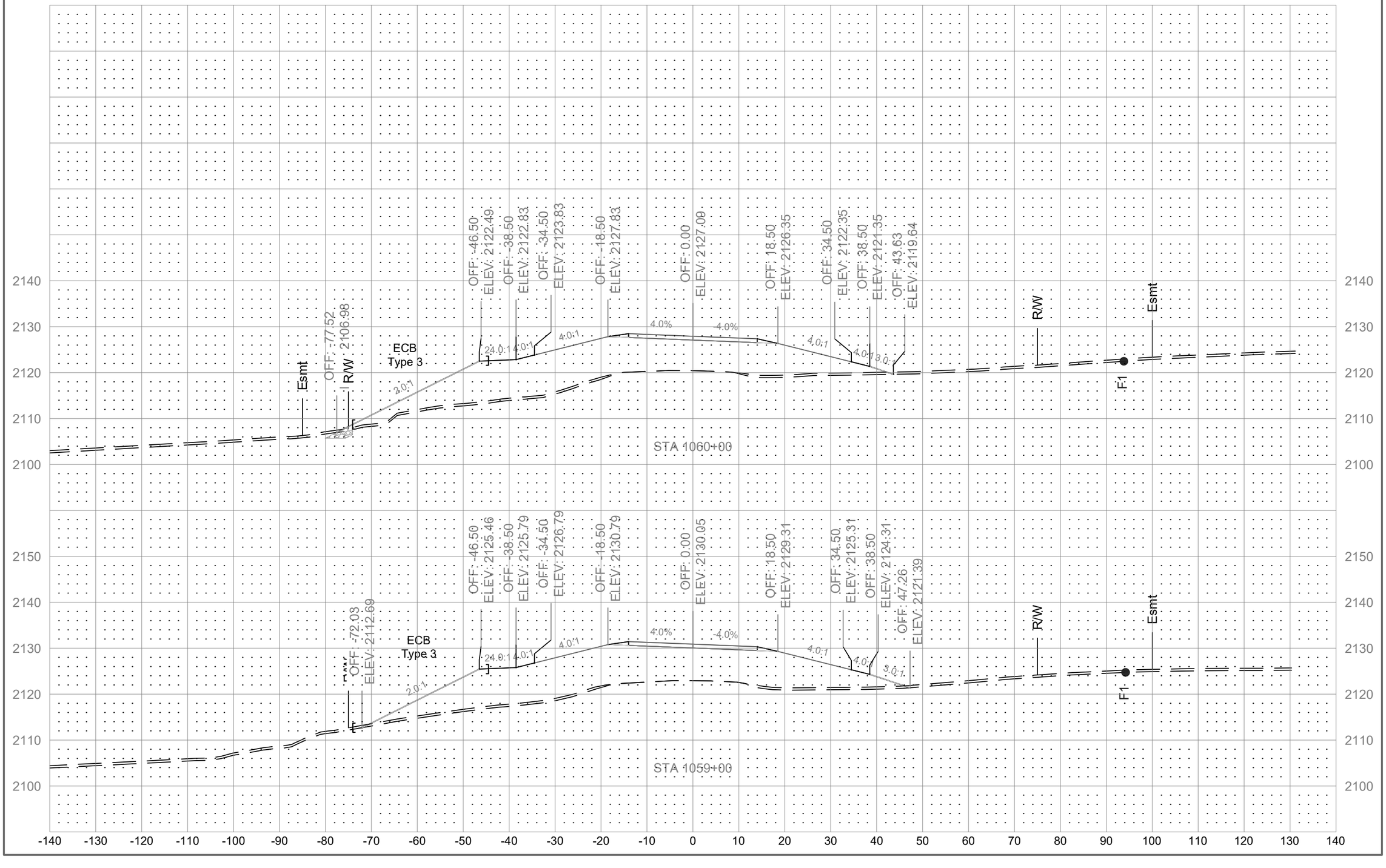
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	104



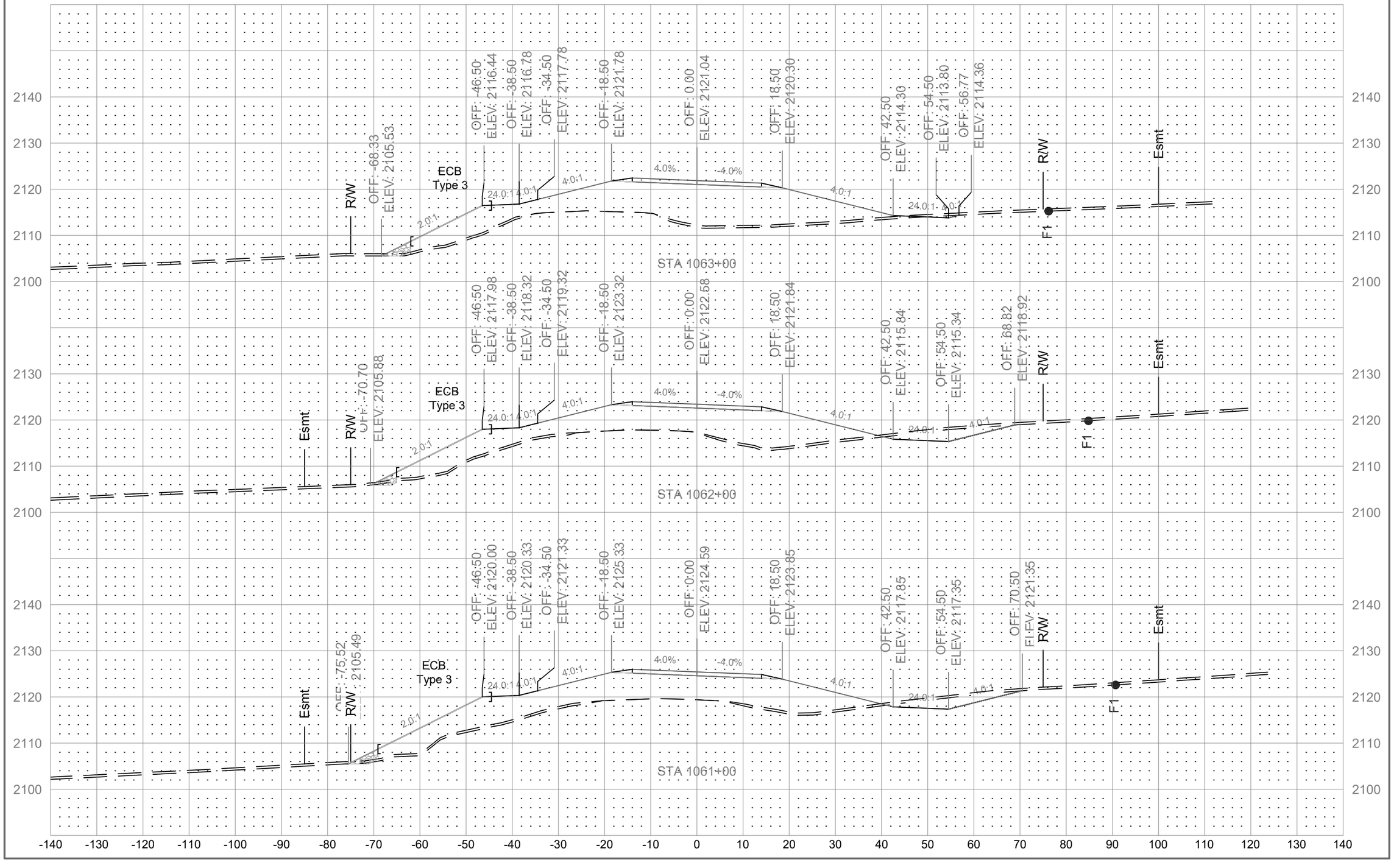
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	105



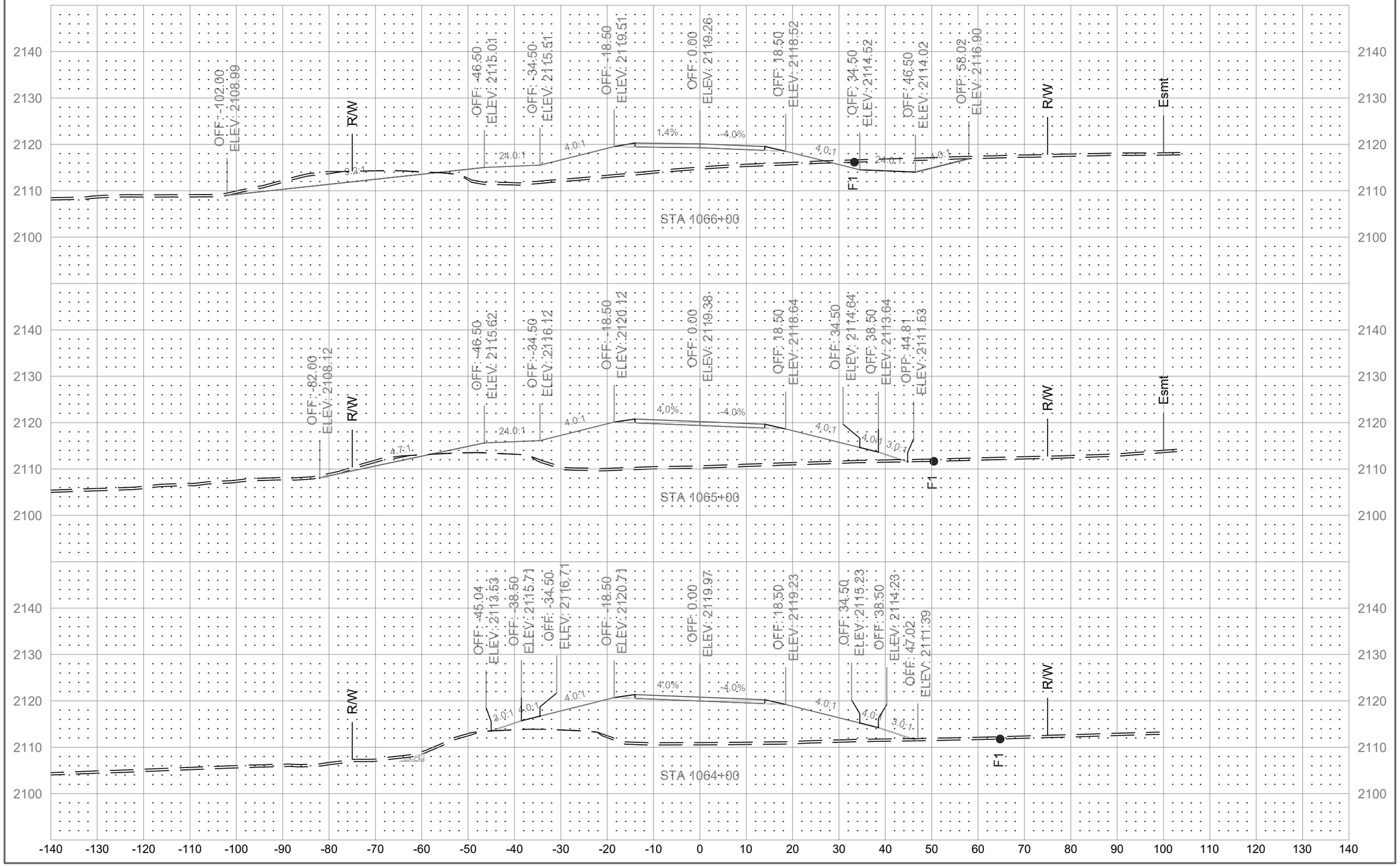
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	106



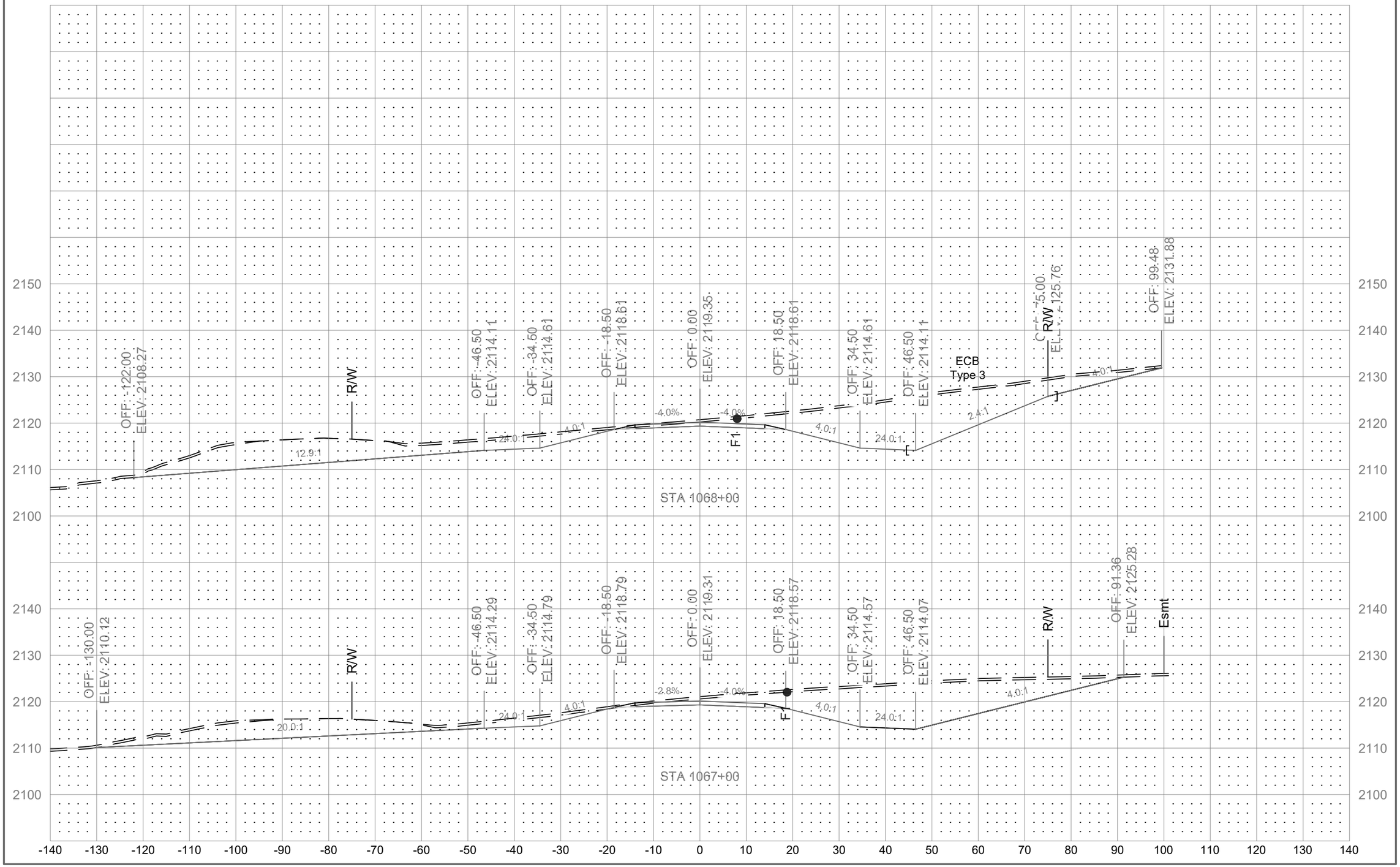
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	107



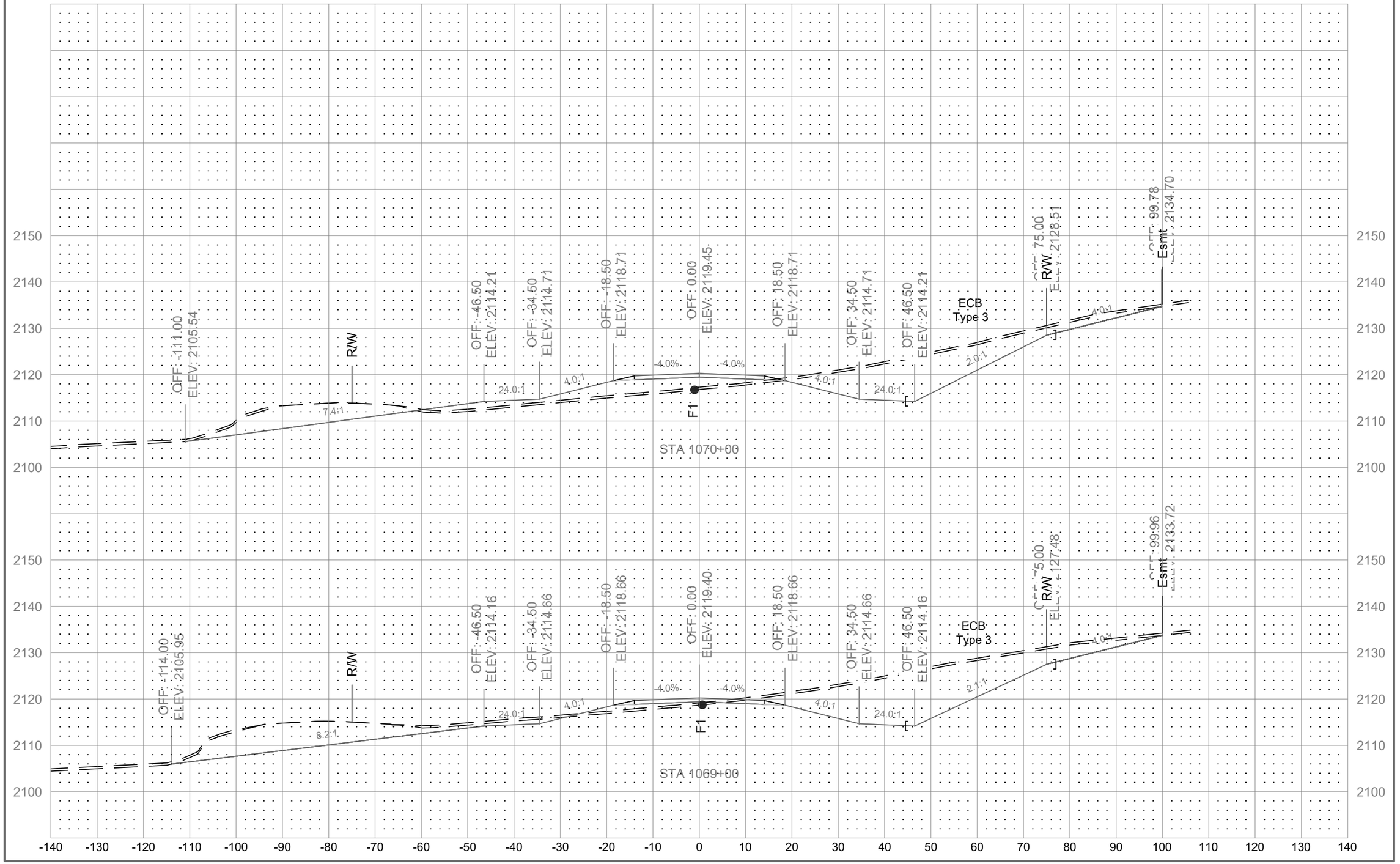
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	108



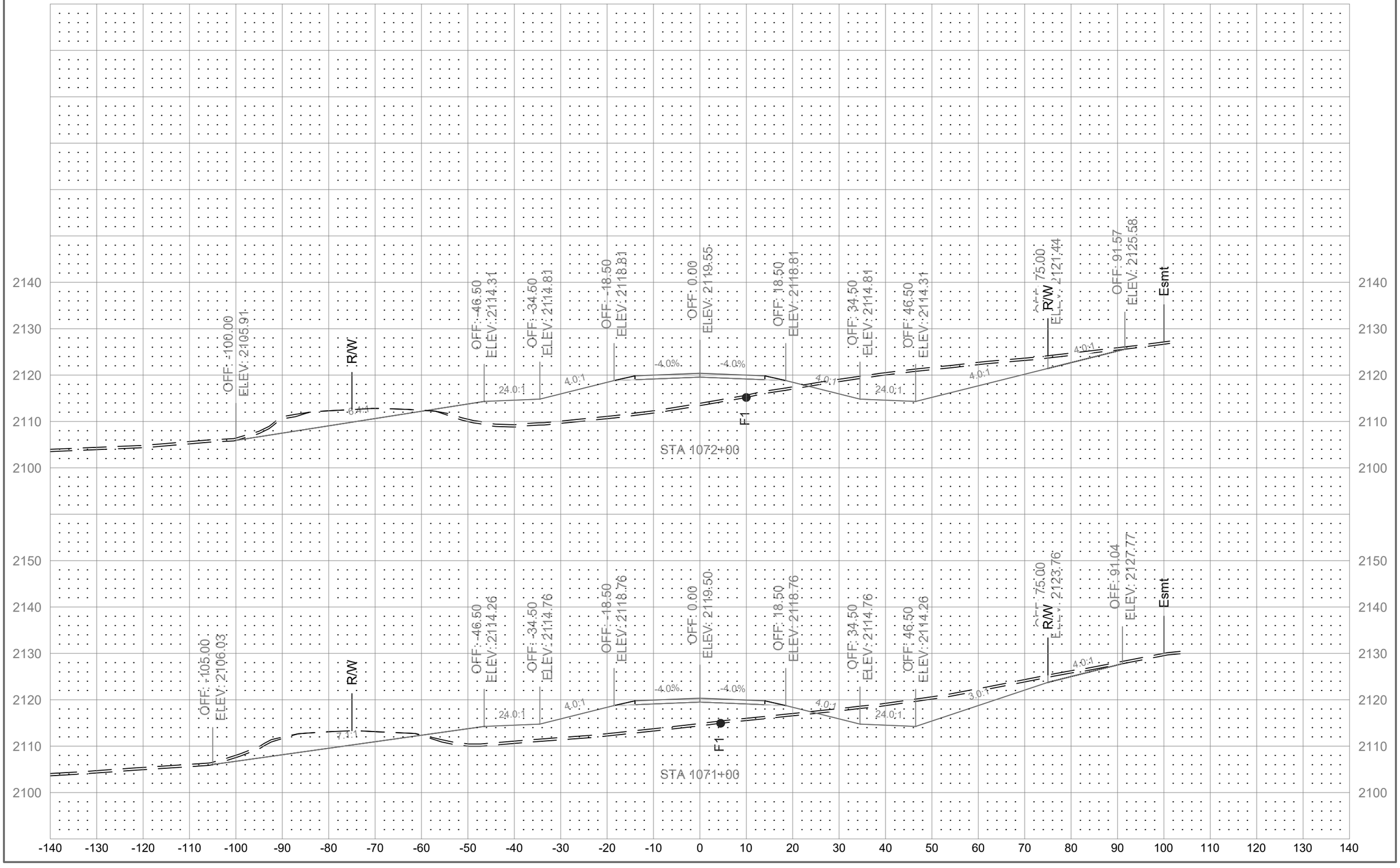
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	109



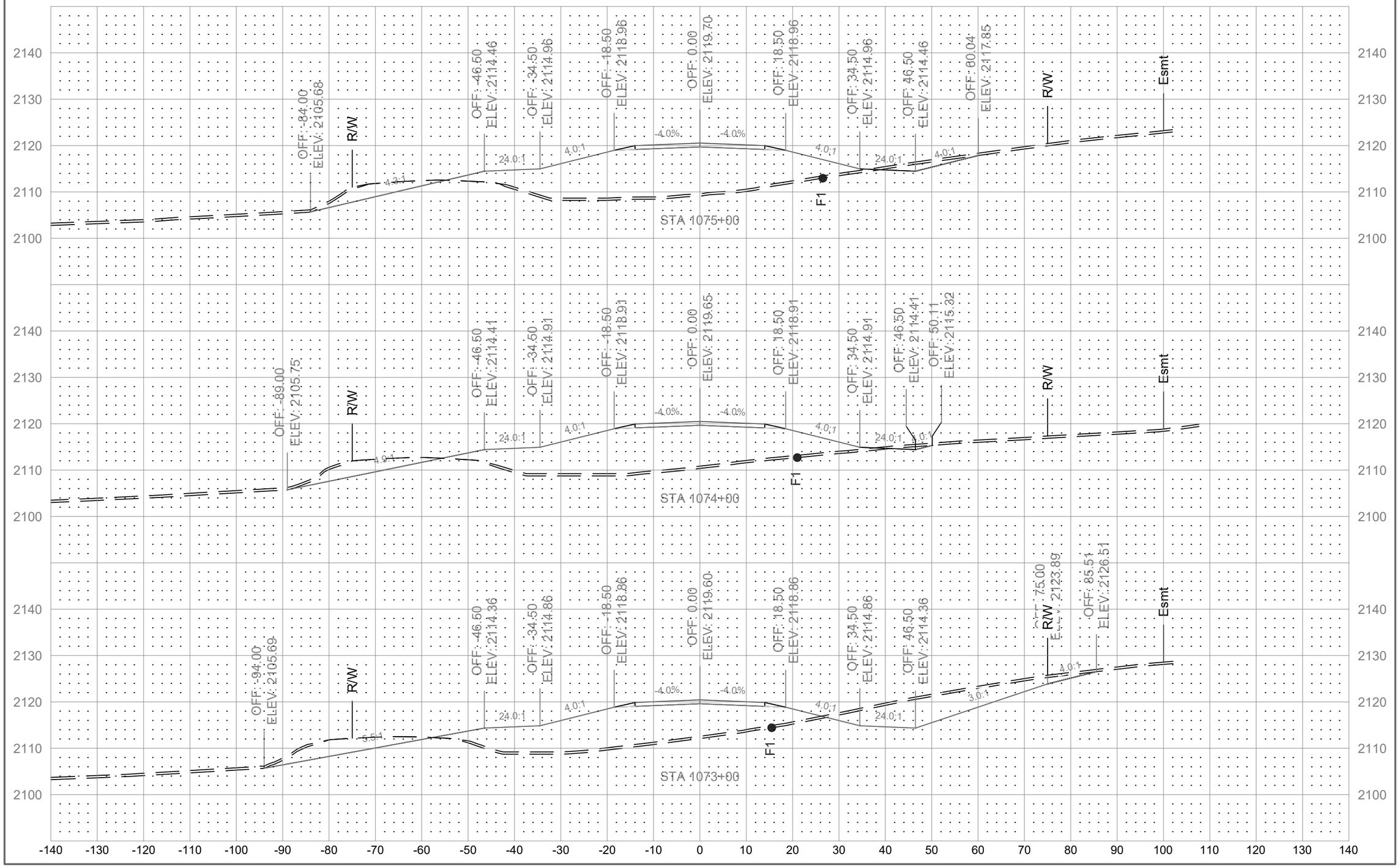
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	110



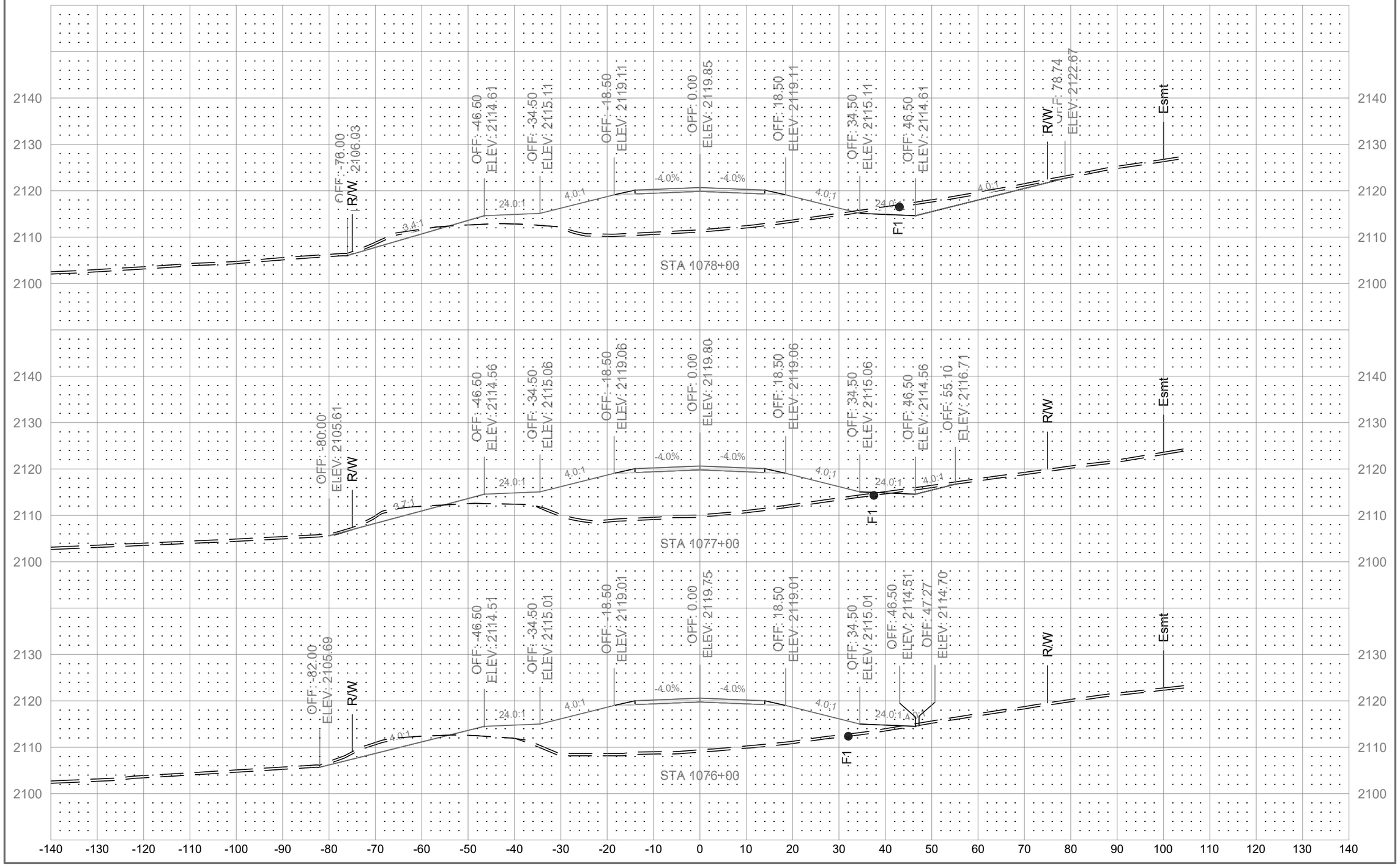
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	111



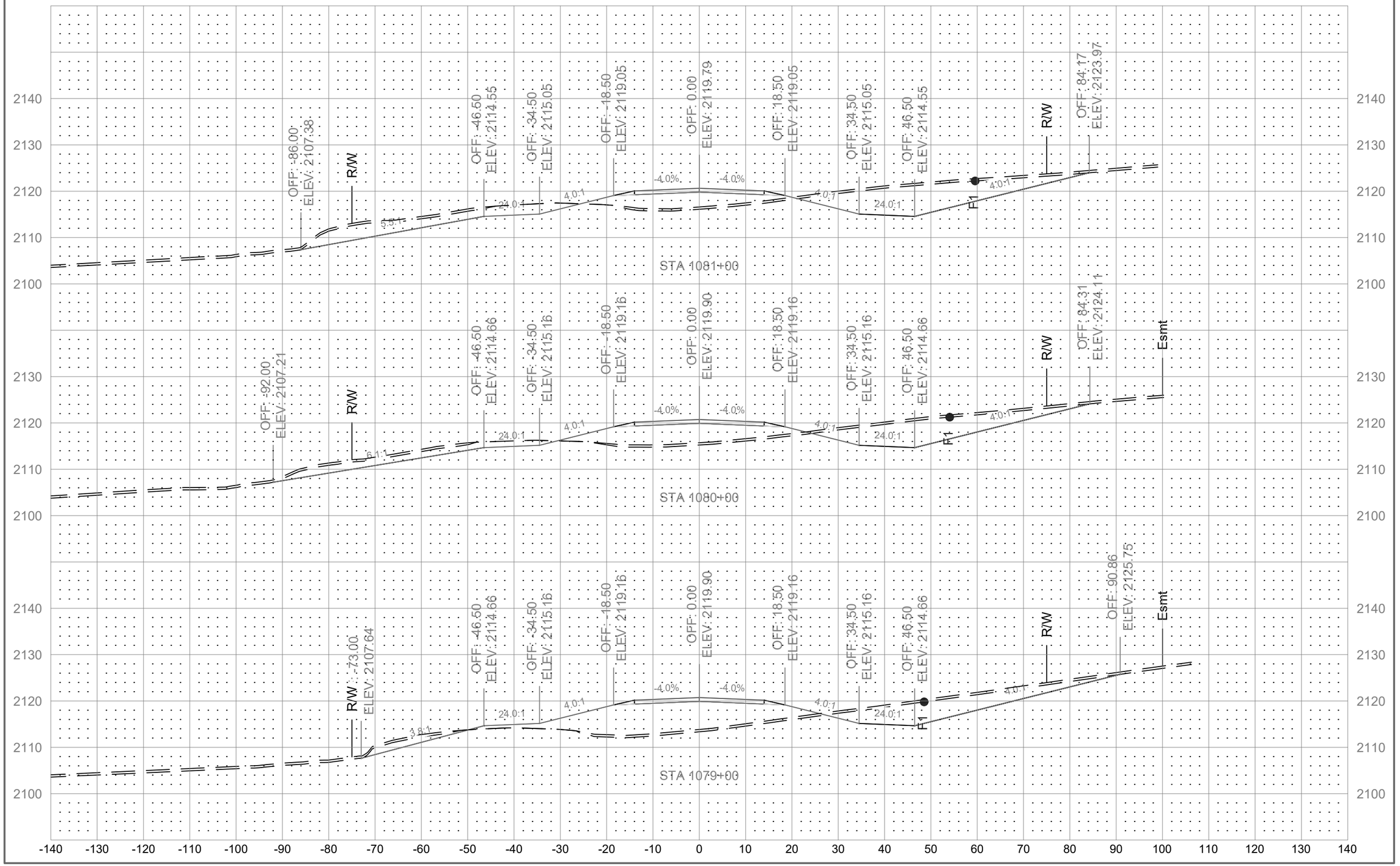
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	112



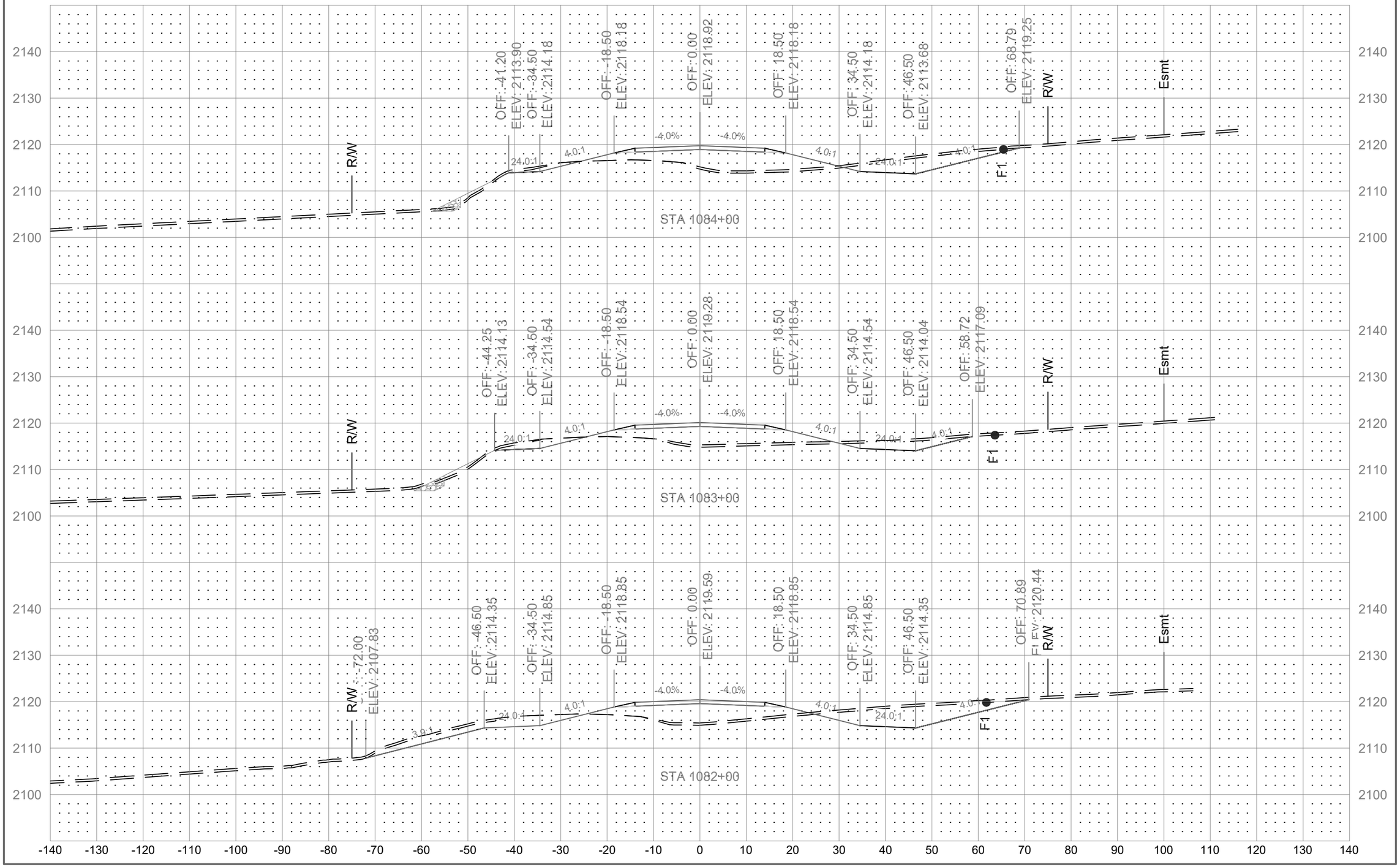
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	113



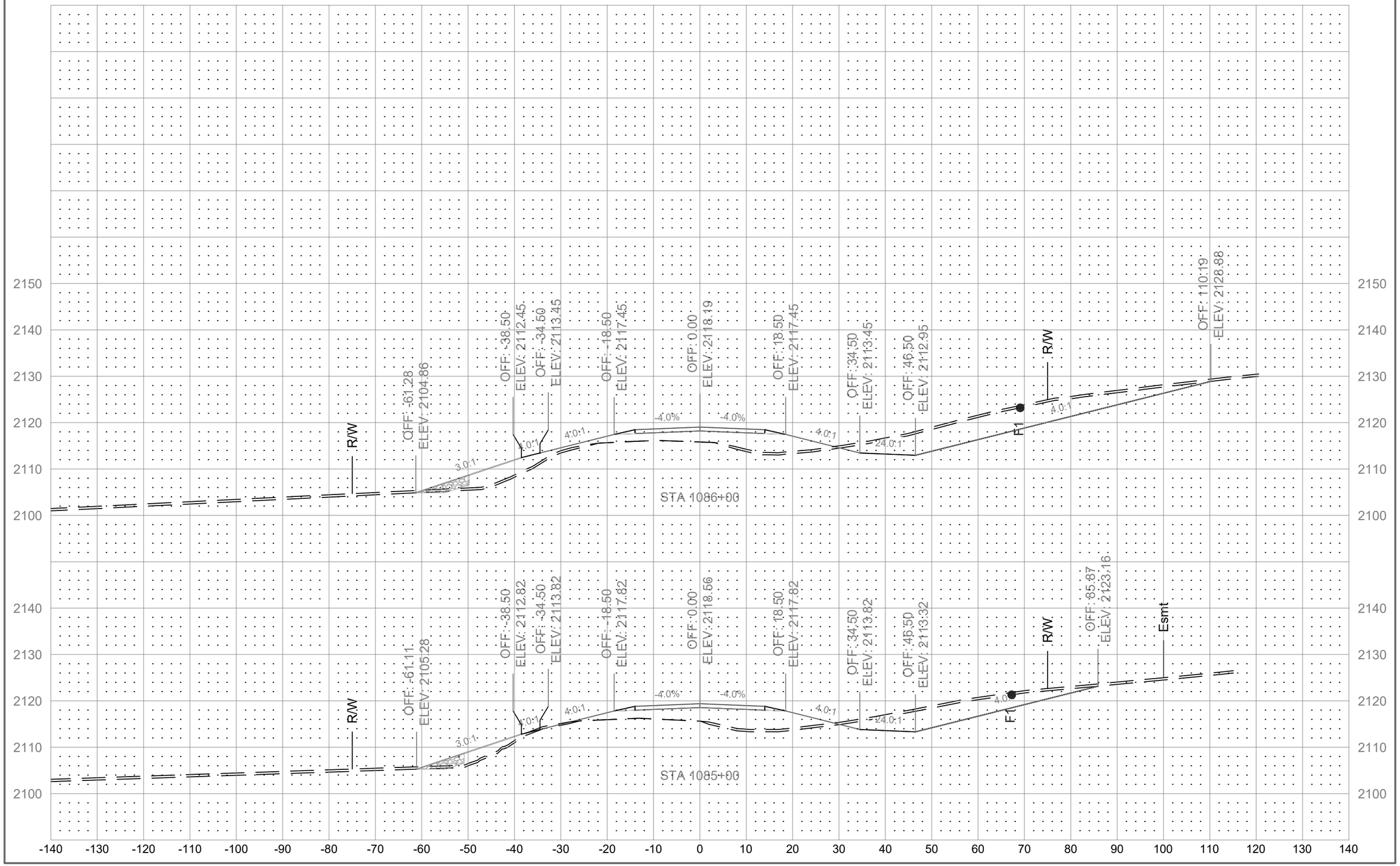
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	114



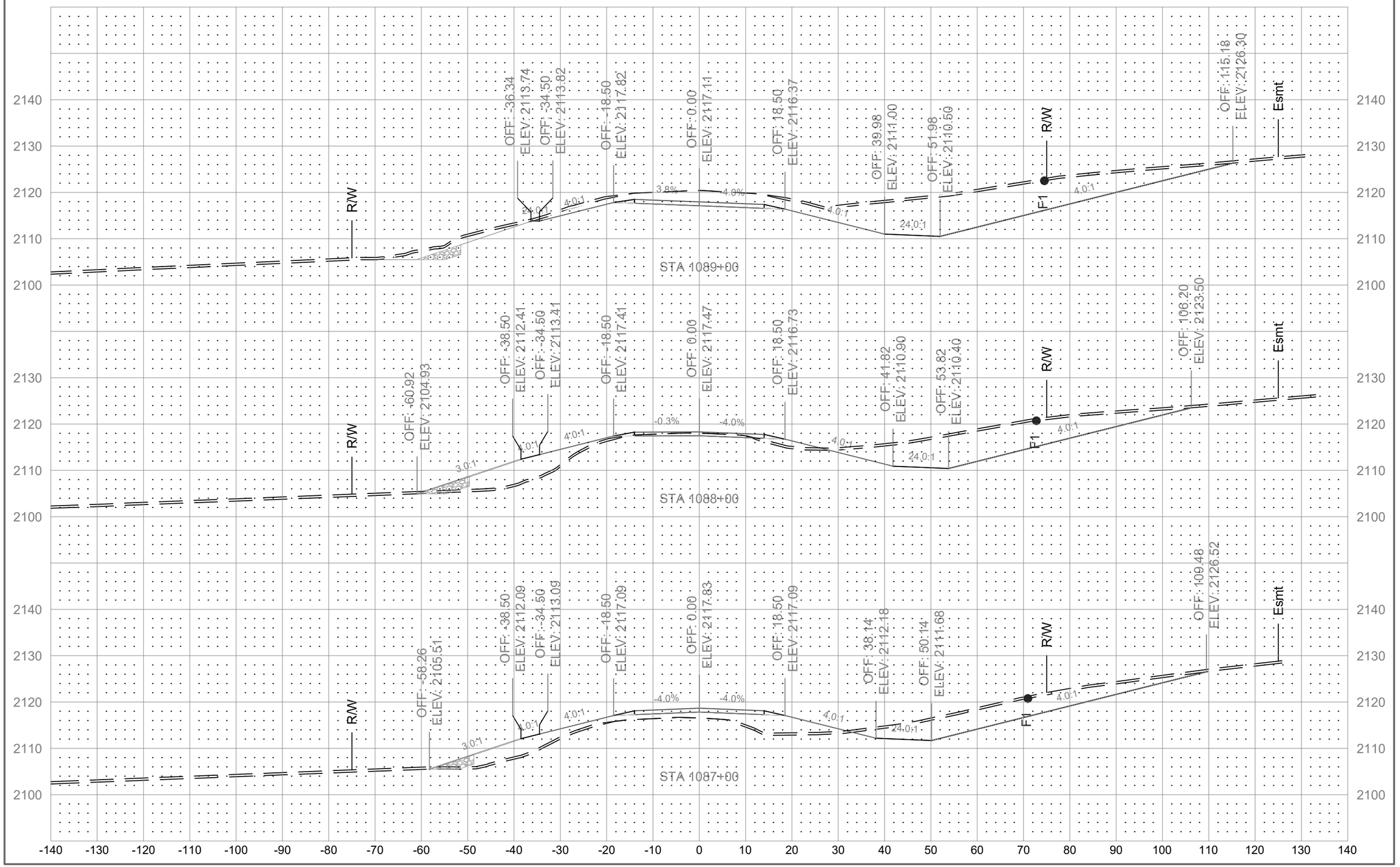
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	115



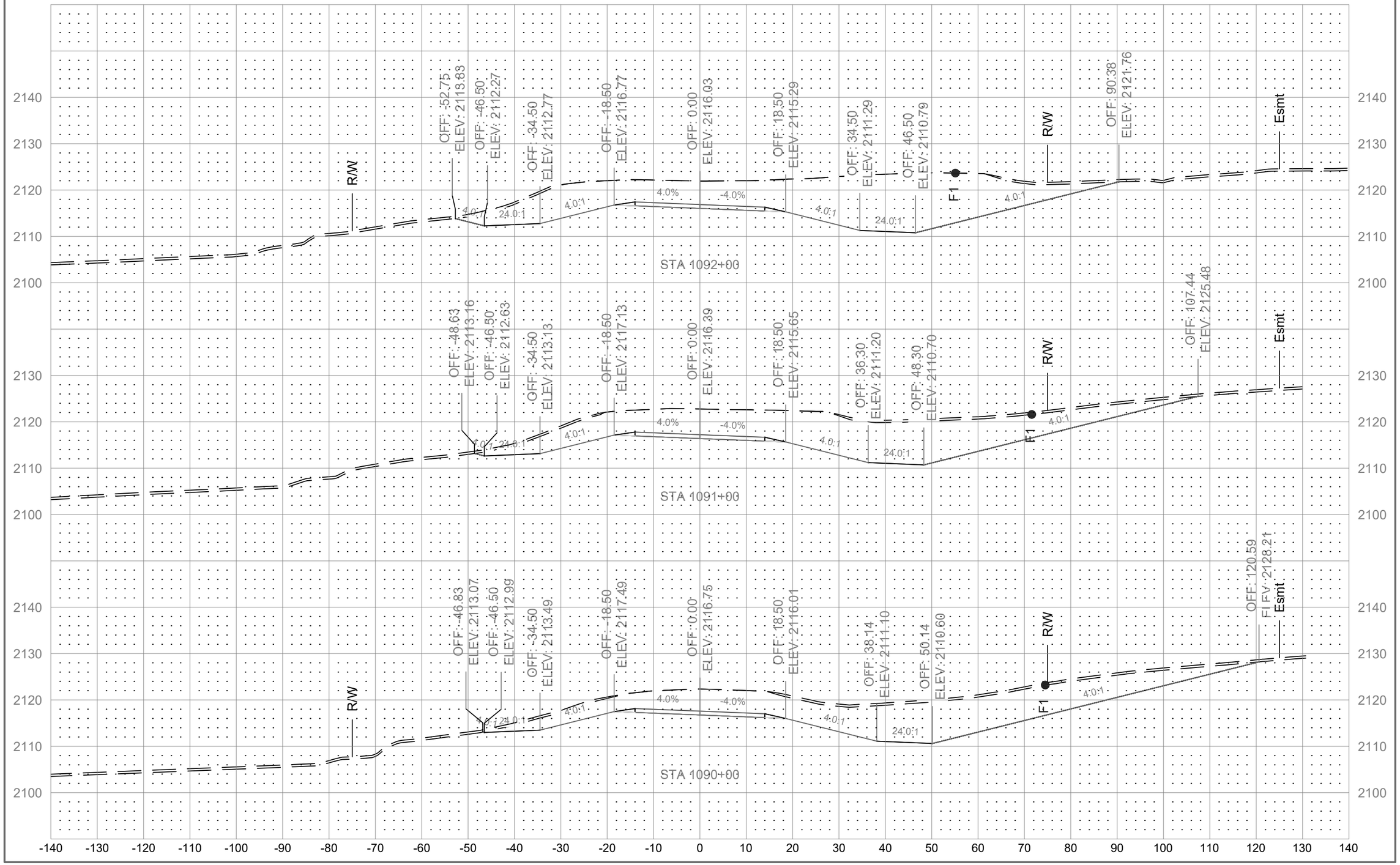
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	116



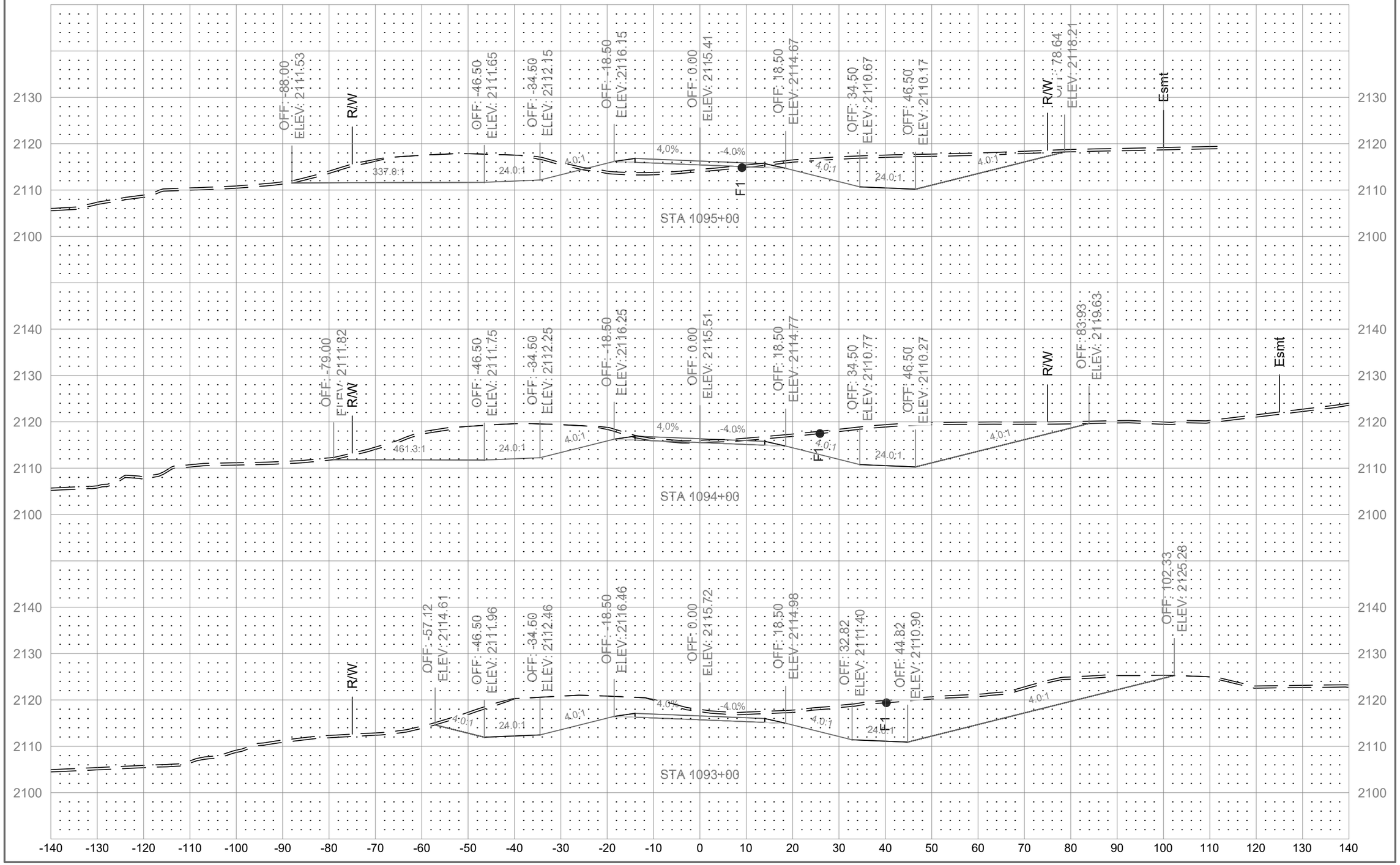
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	117



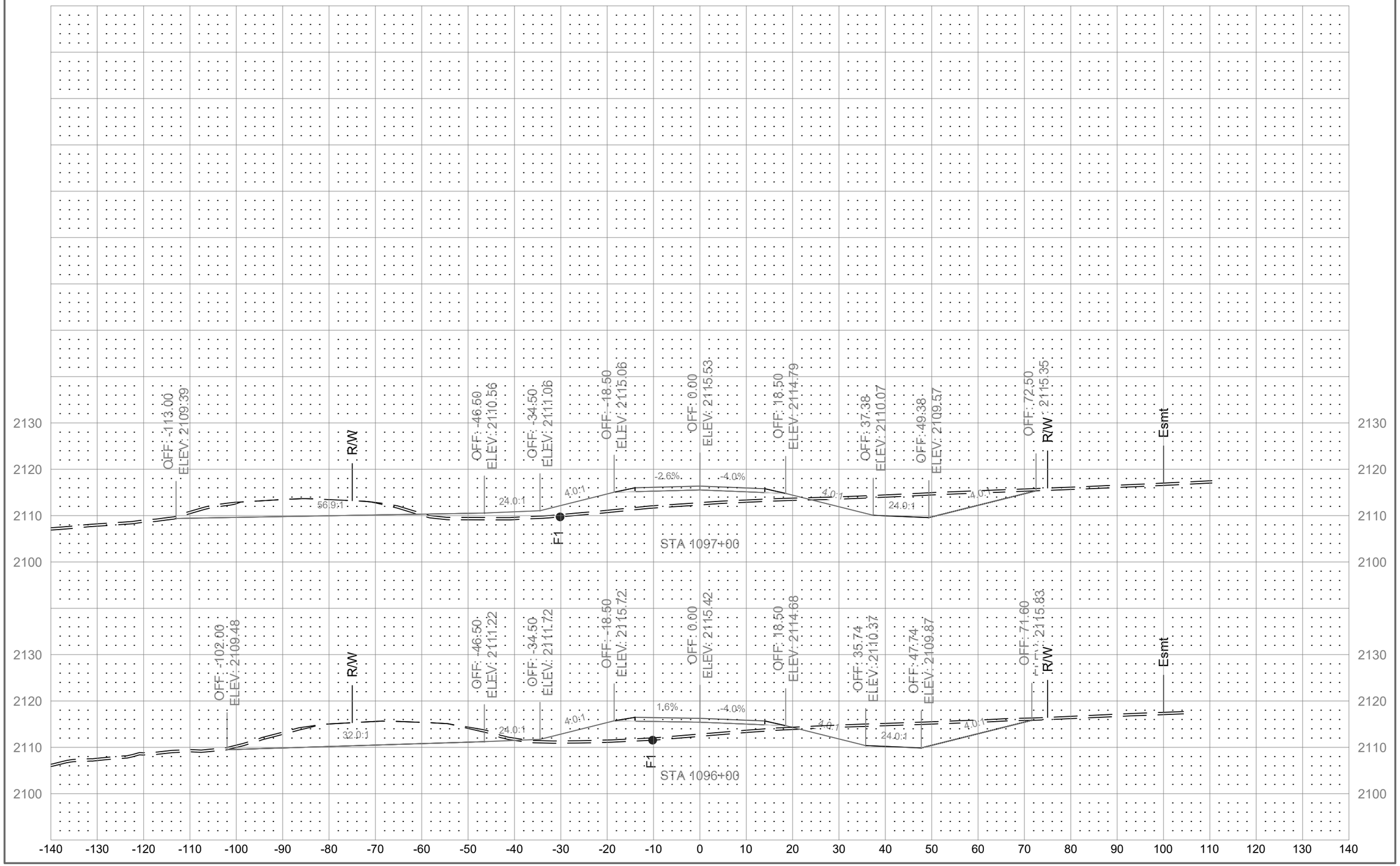
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	118



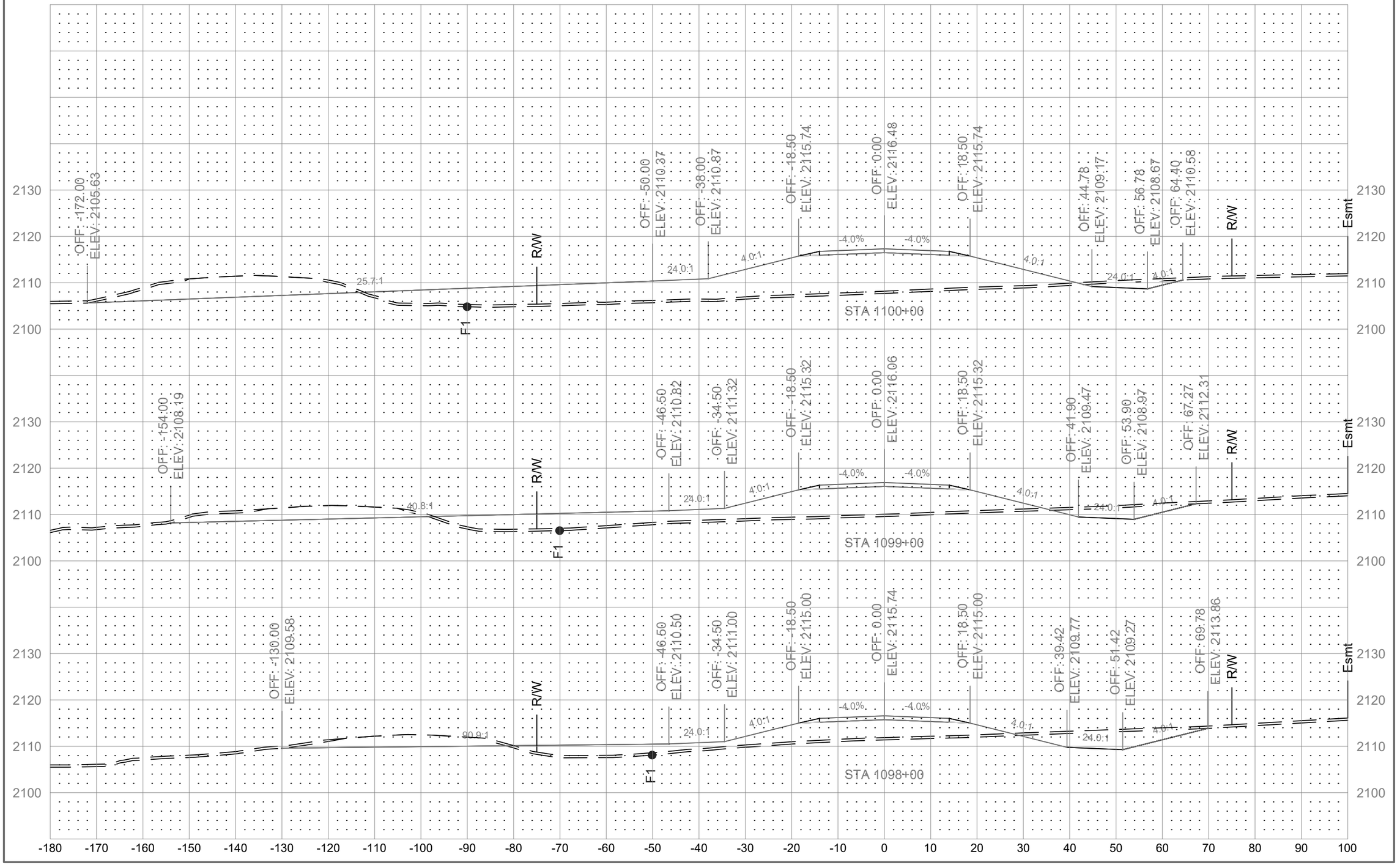
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	119



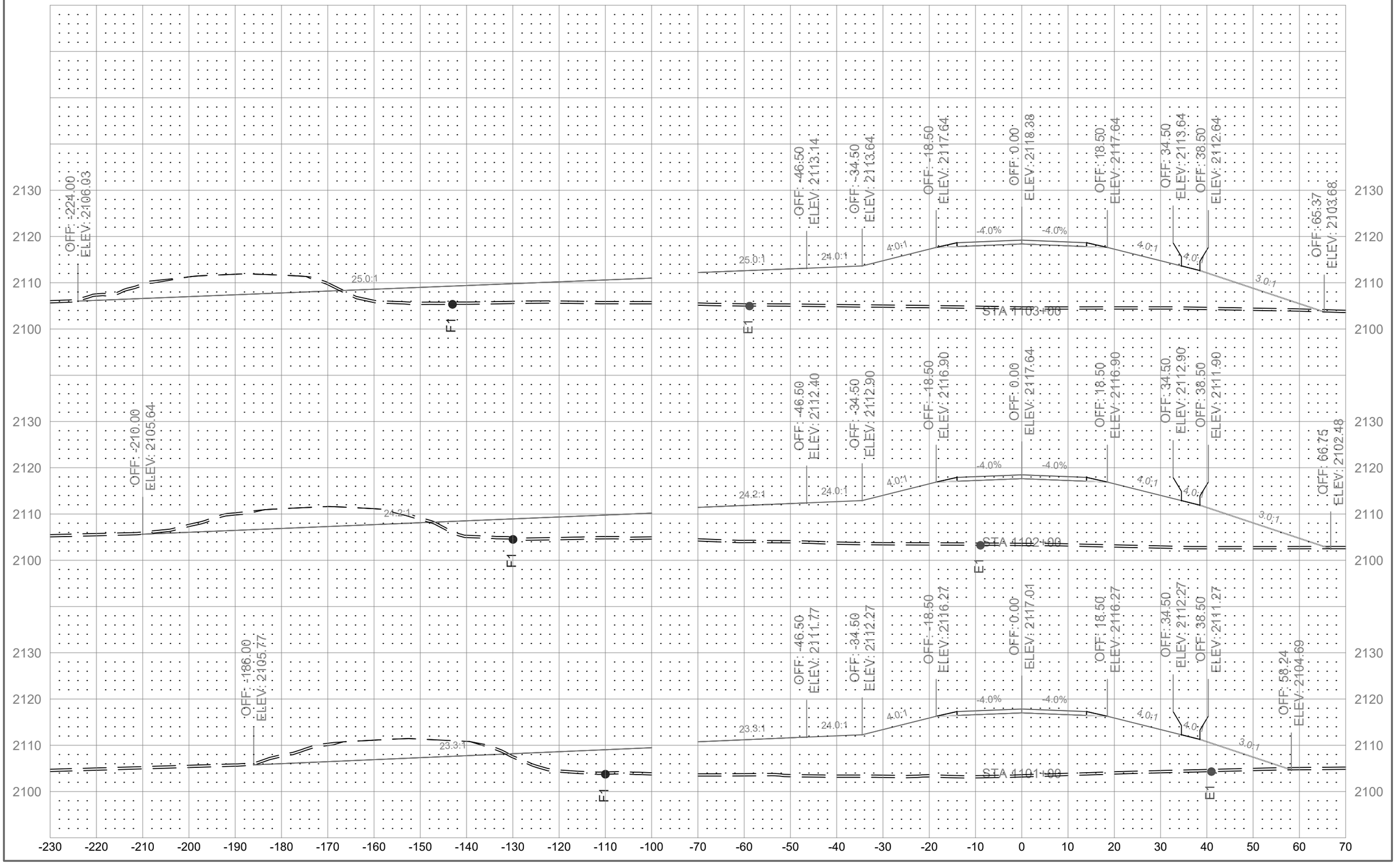
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	120



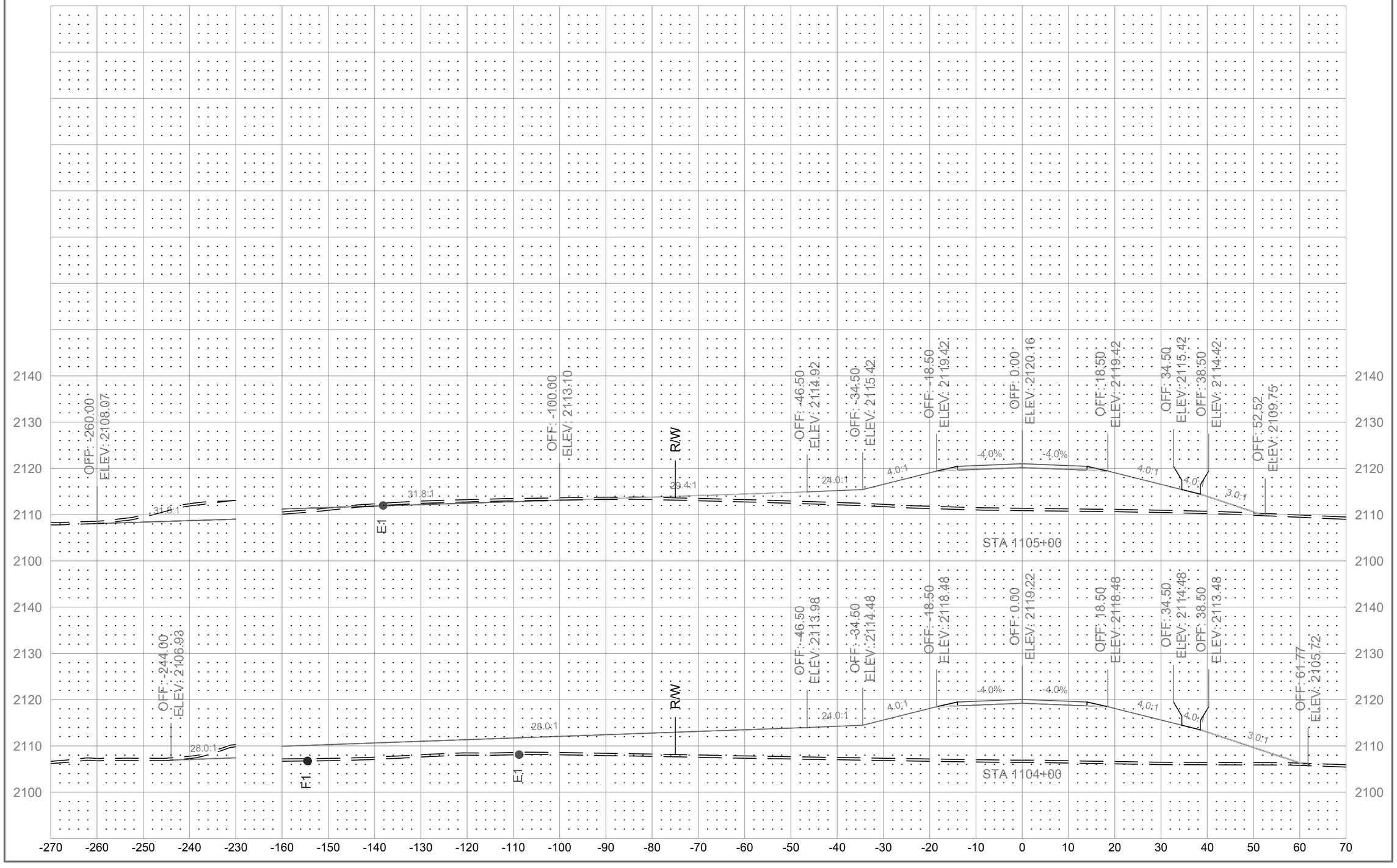
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	121



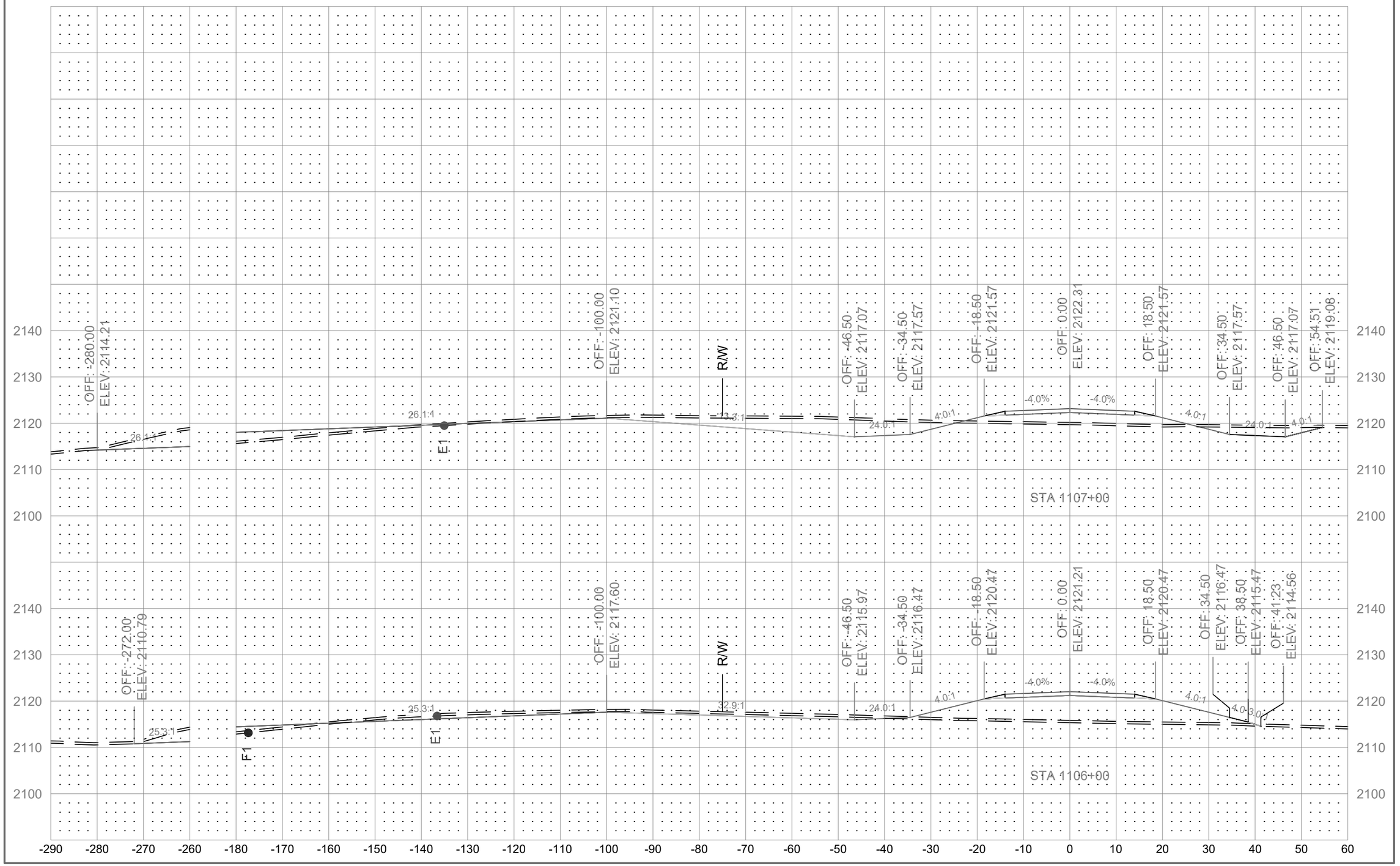
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	122



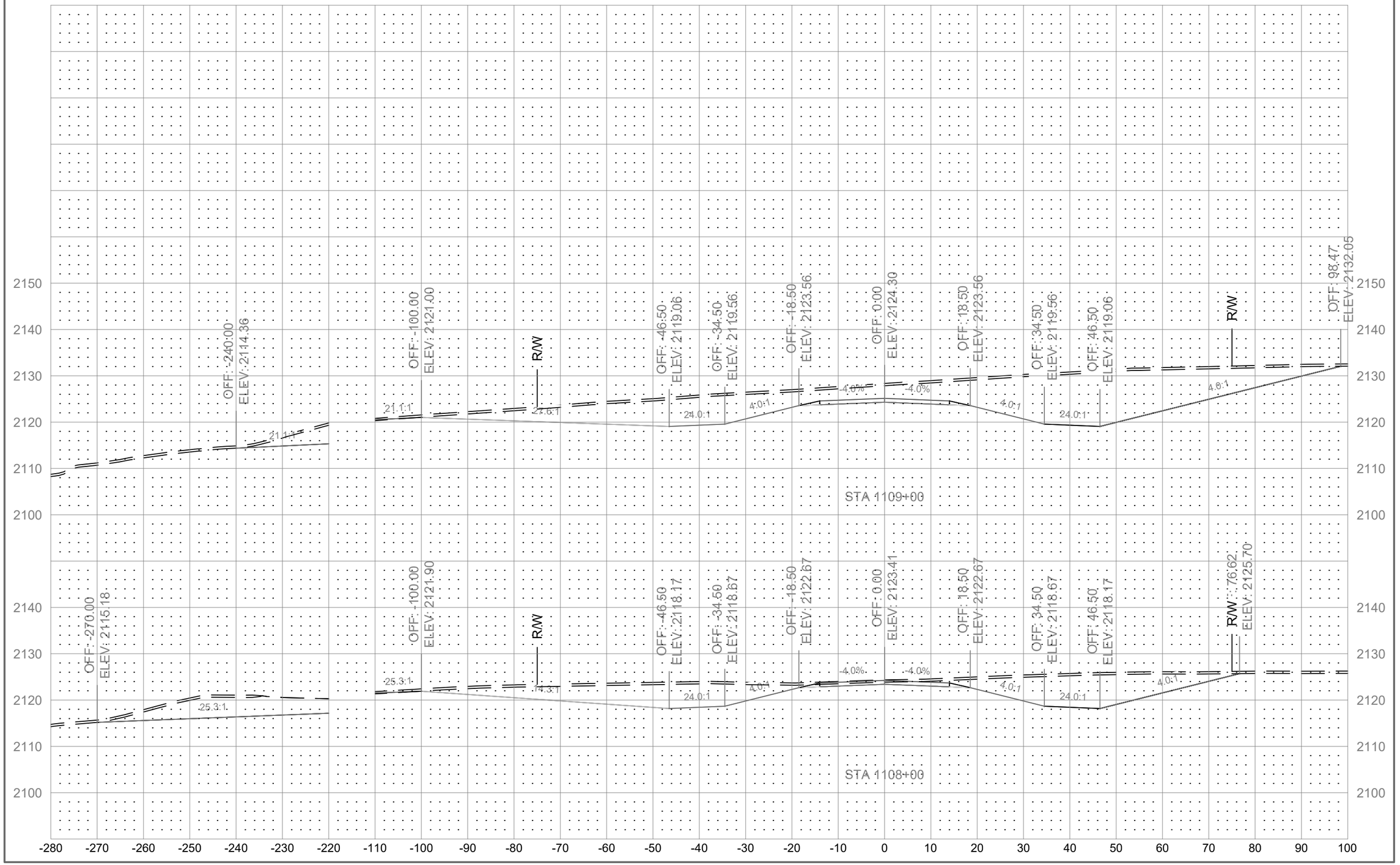
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	123



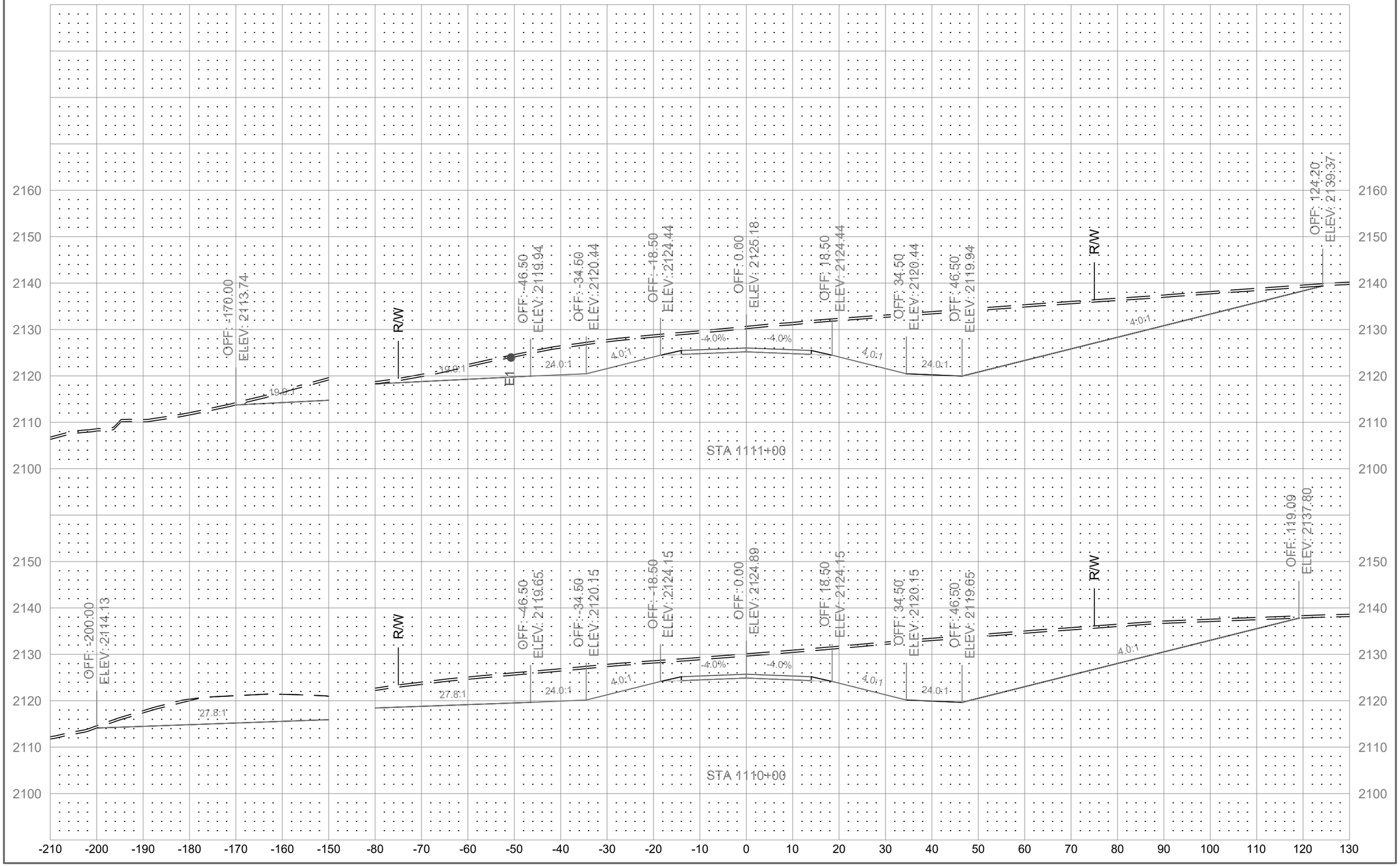
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	124



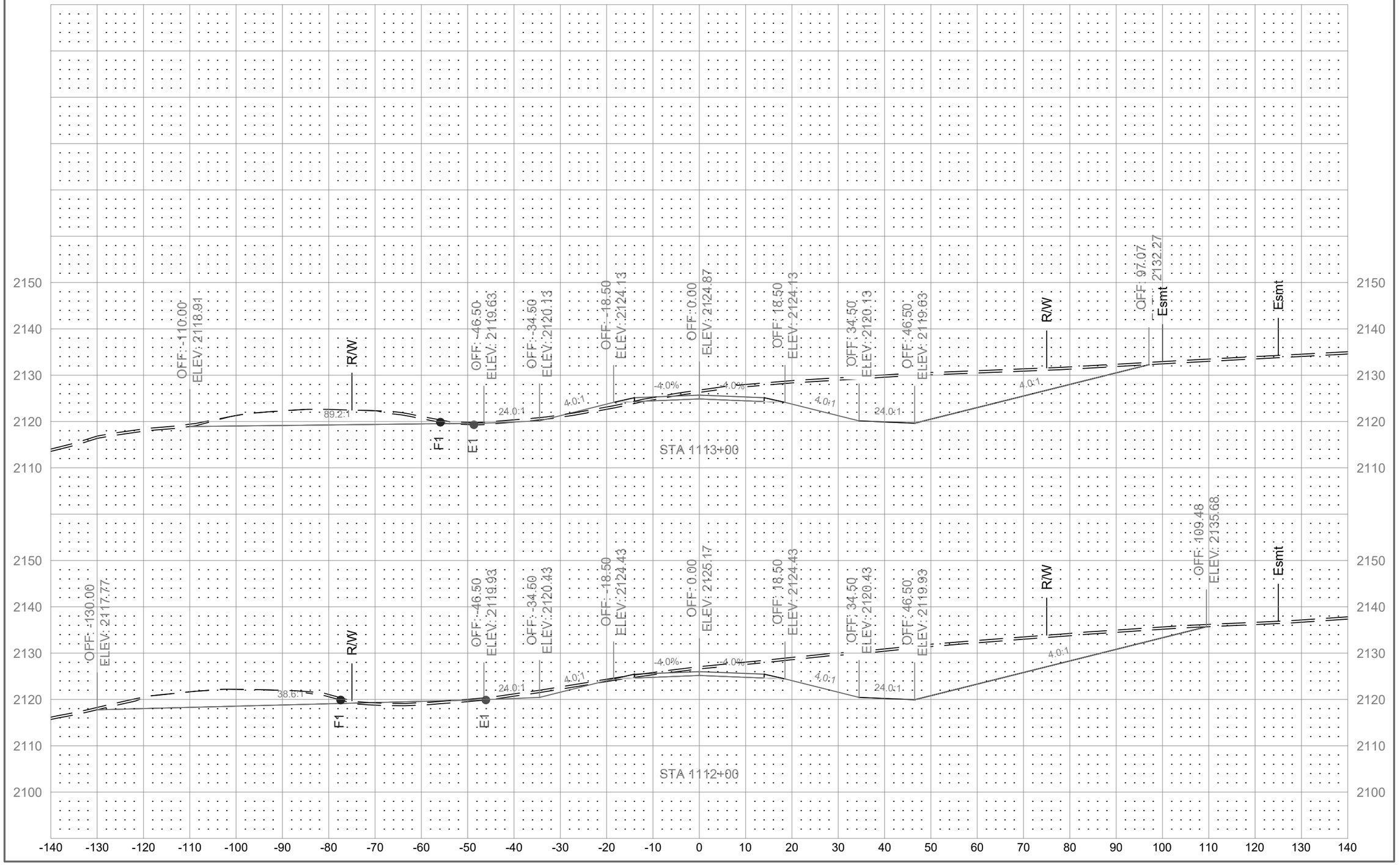
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	125



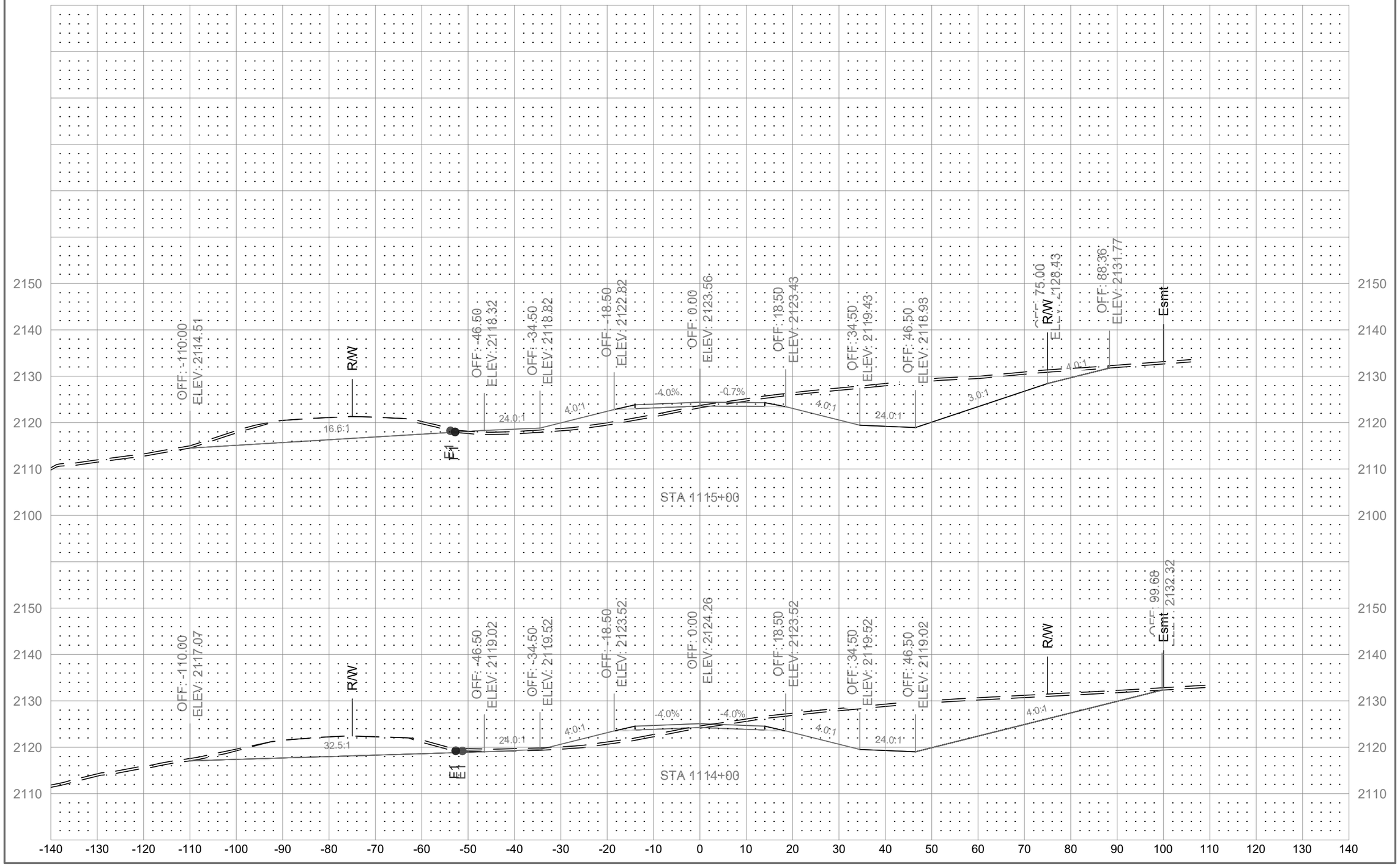
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	126



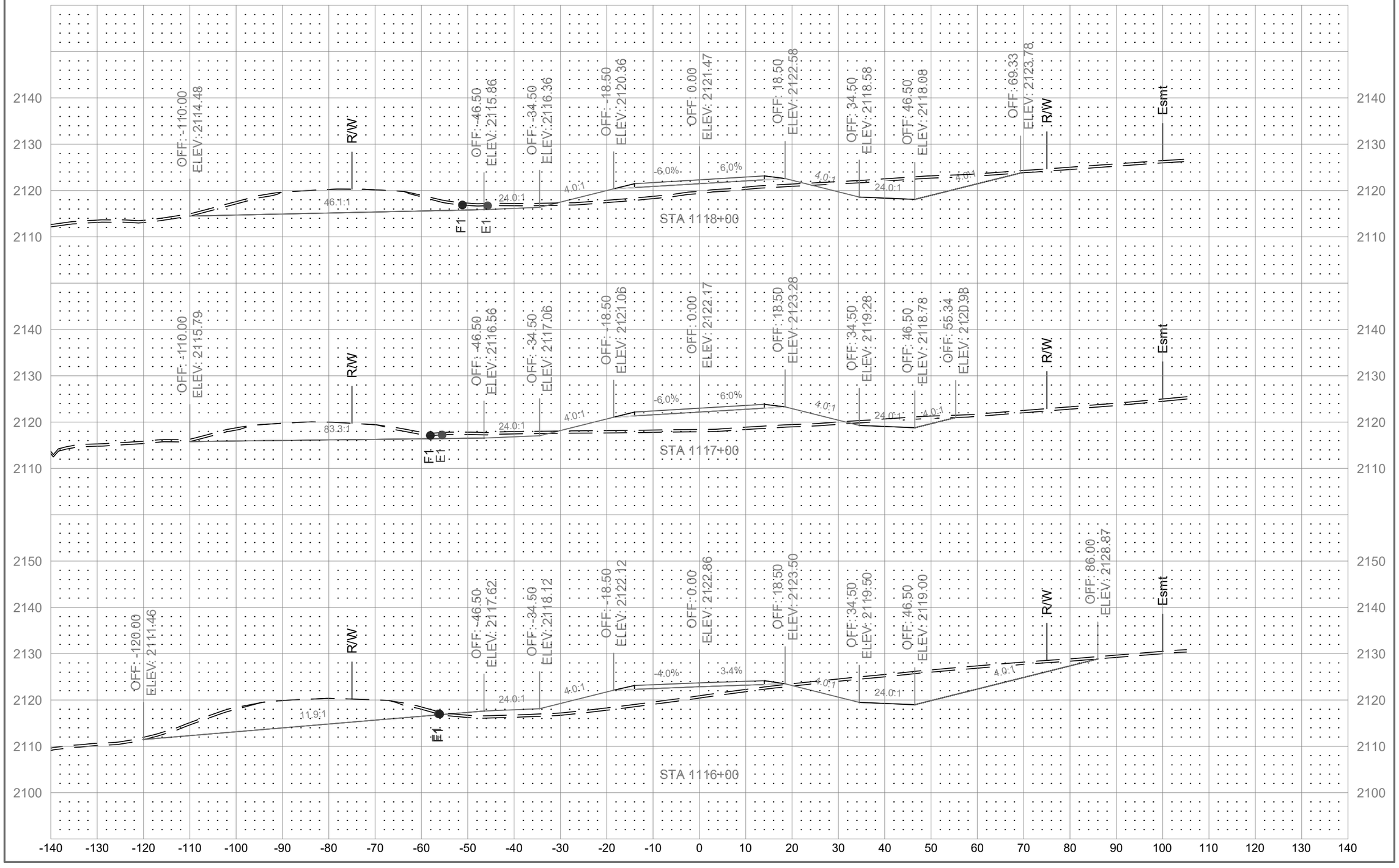
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	127



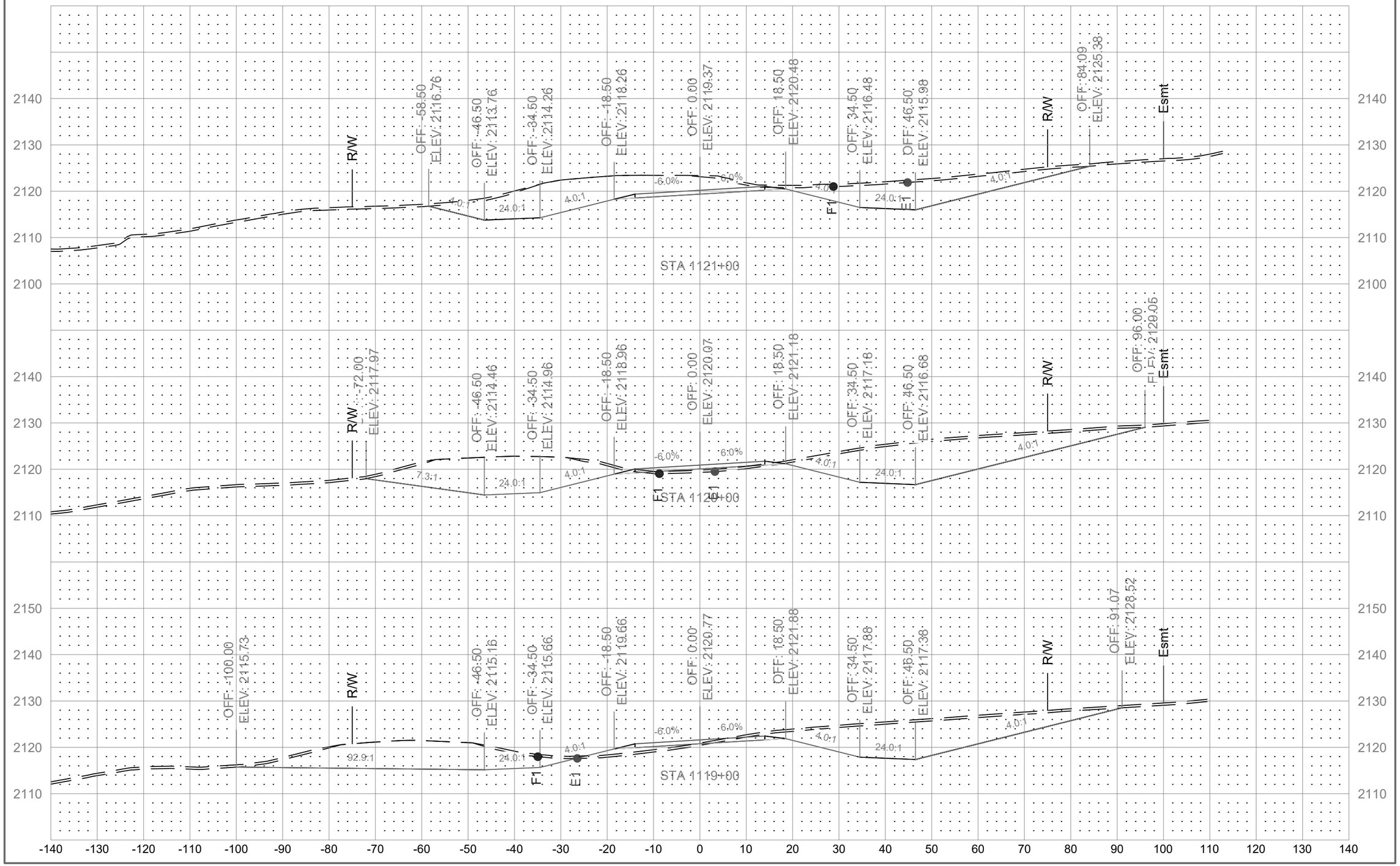
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	128



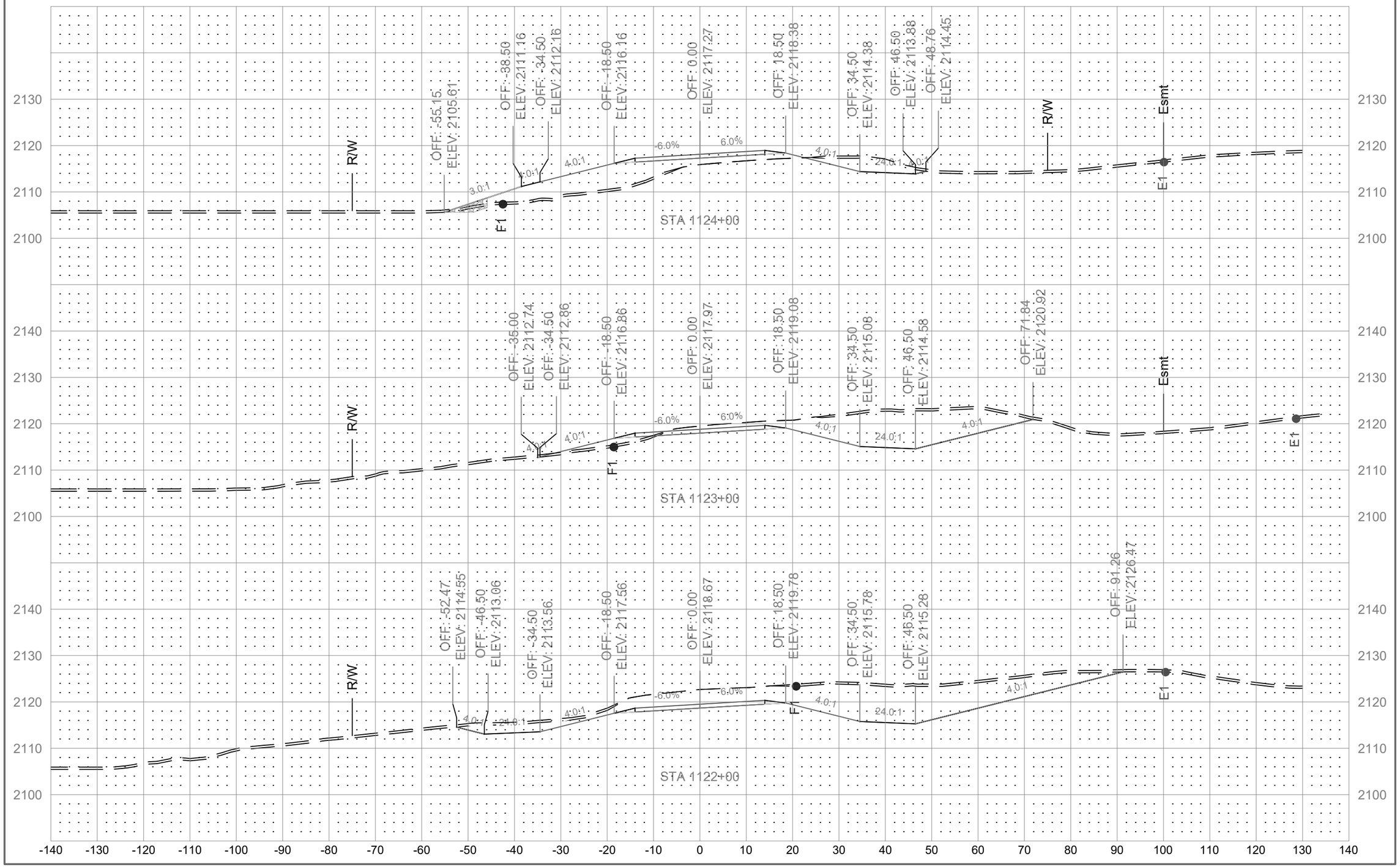
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	129



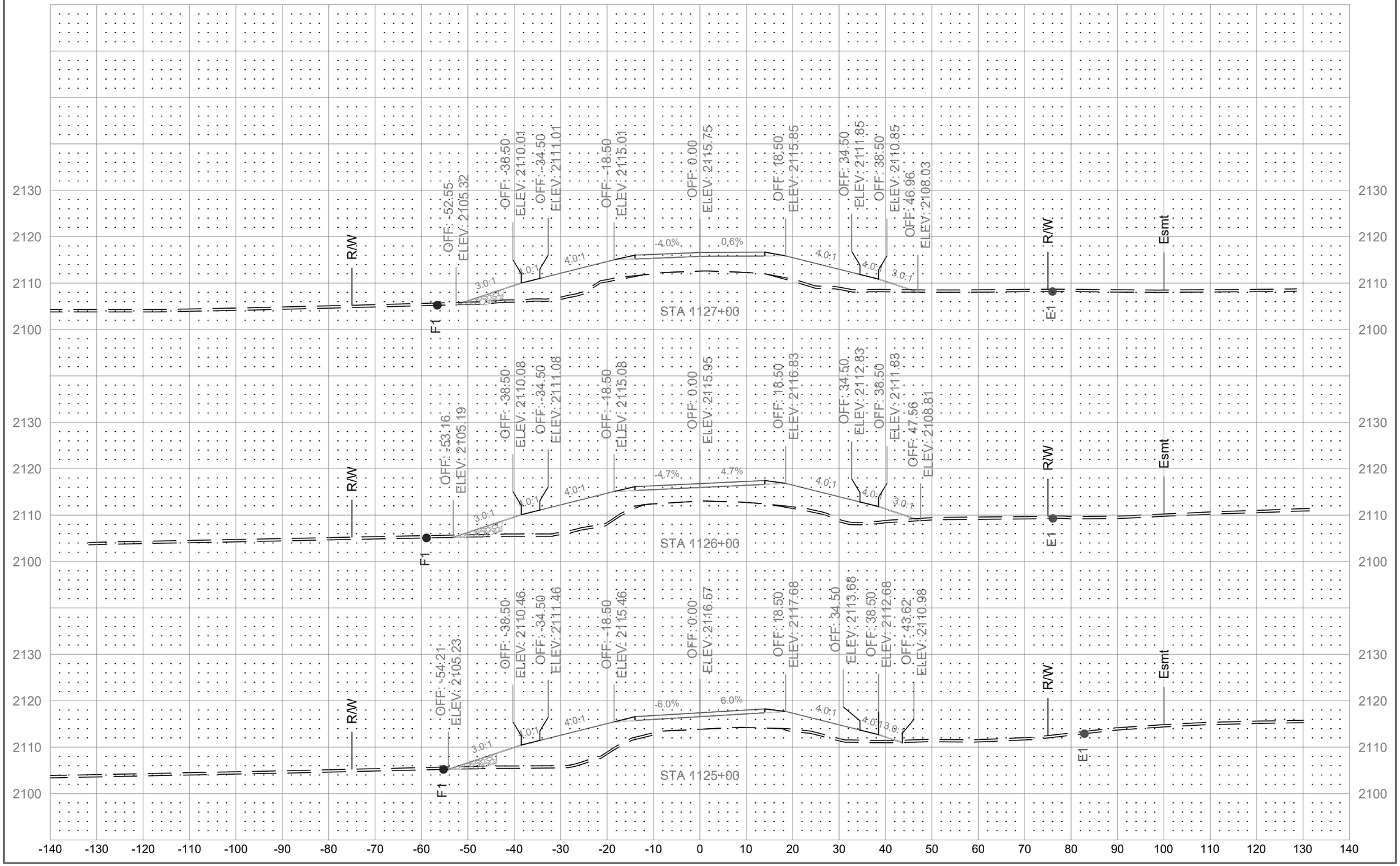
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	130



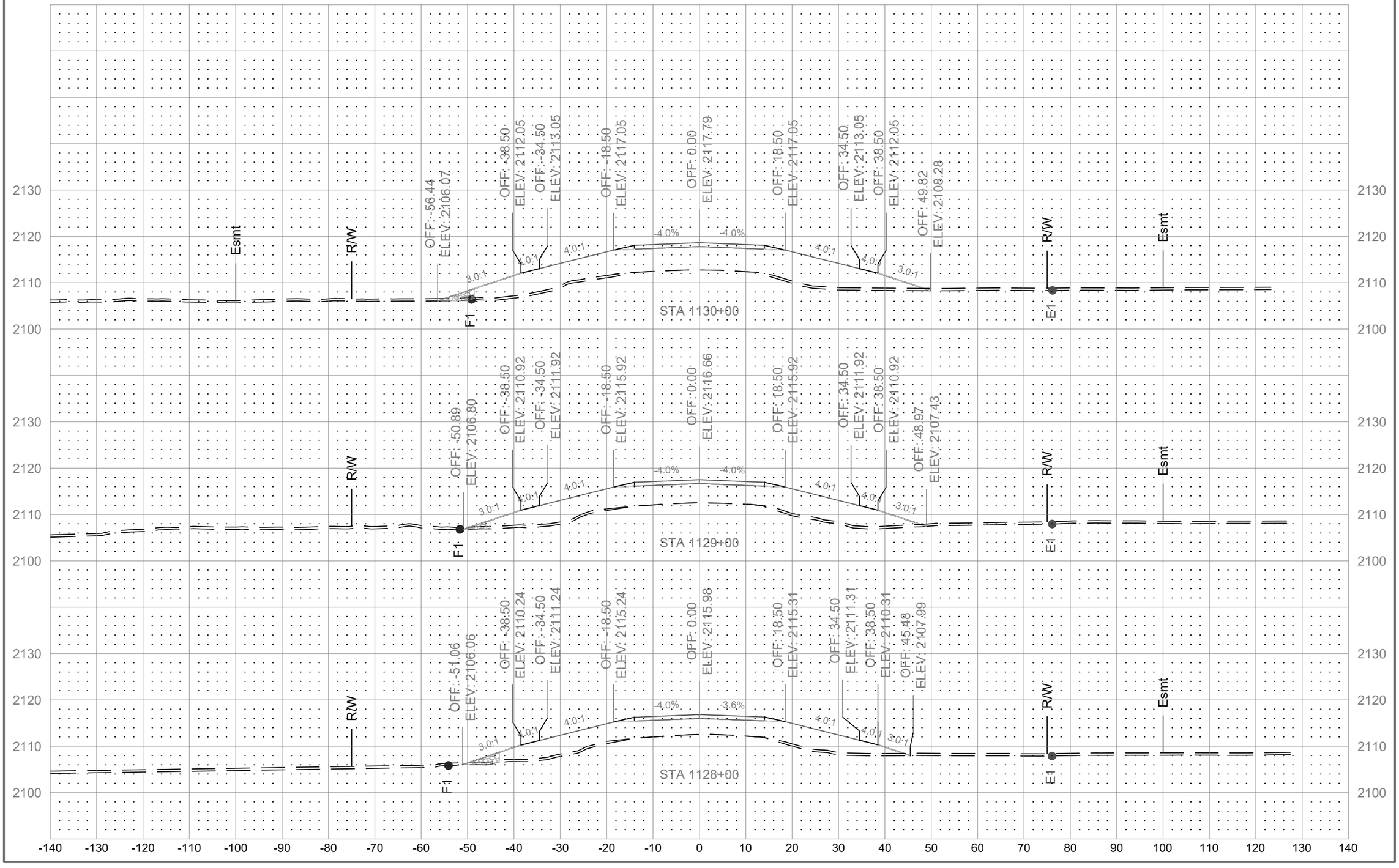
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	131



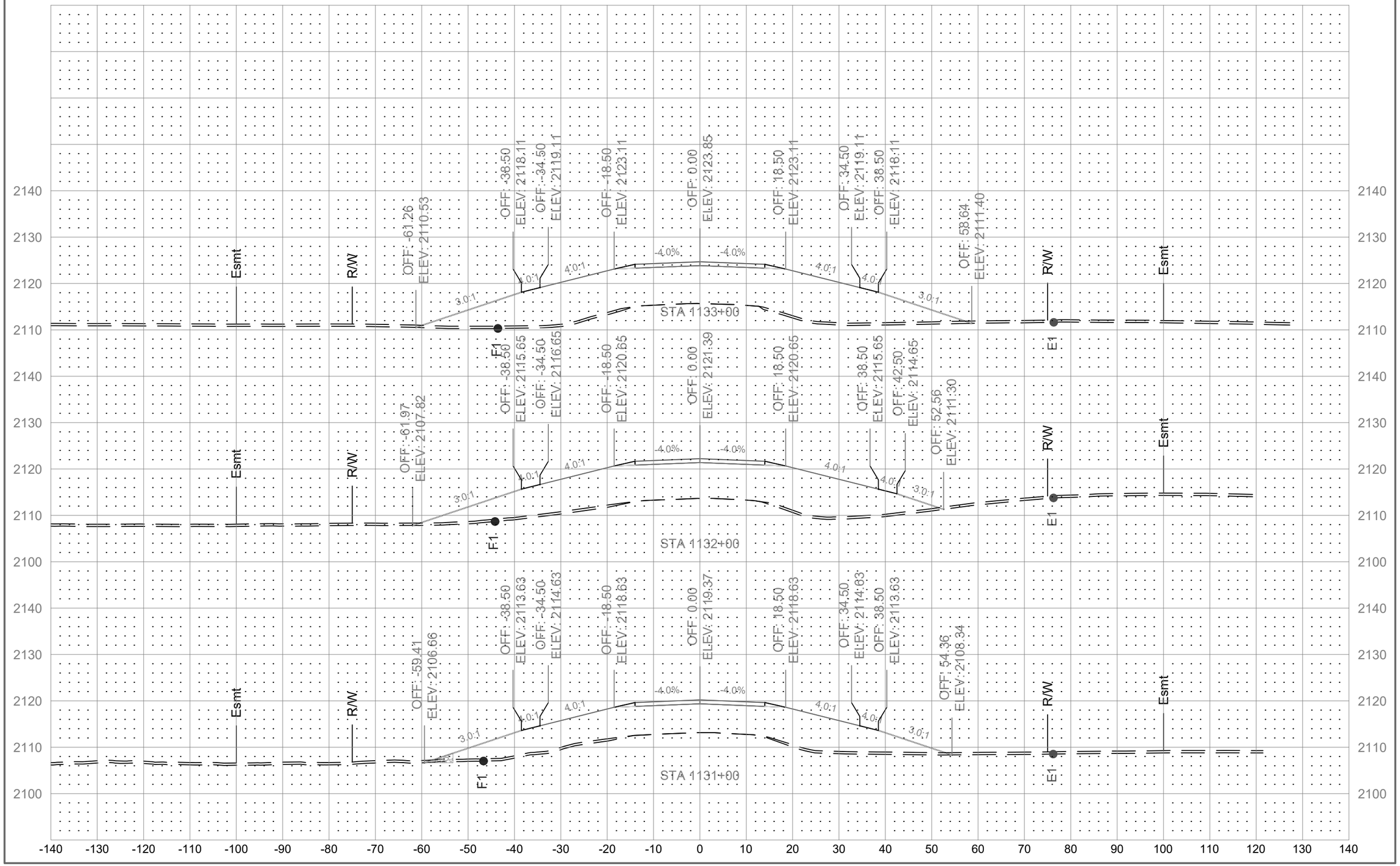
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	132



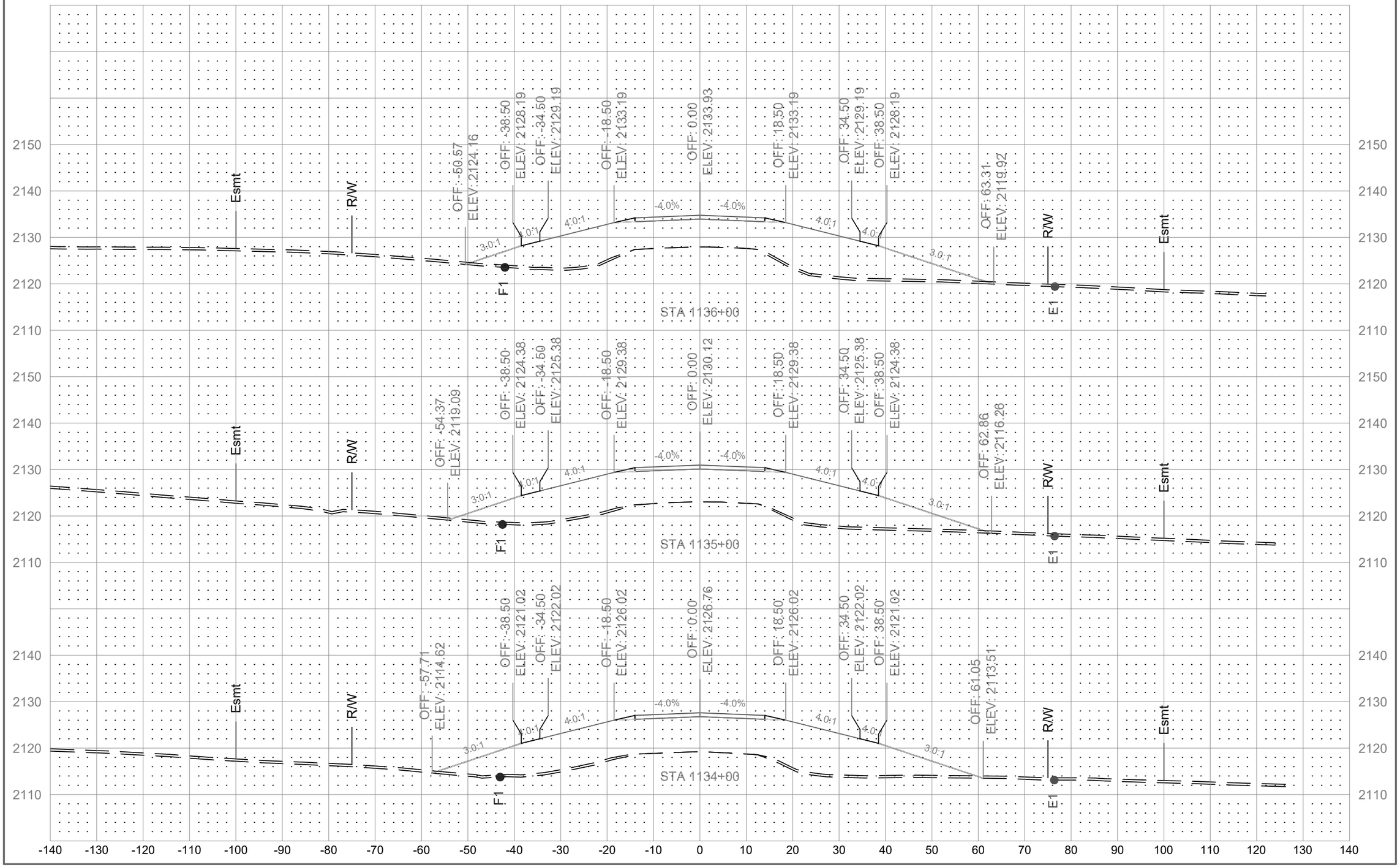
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	133



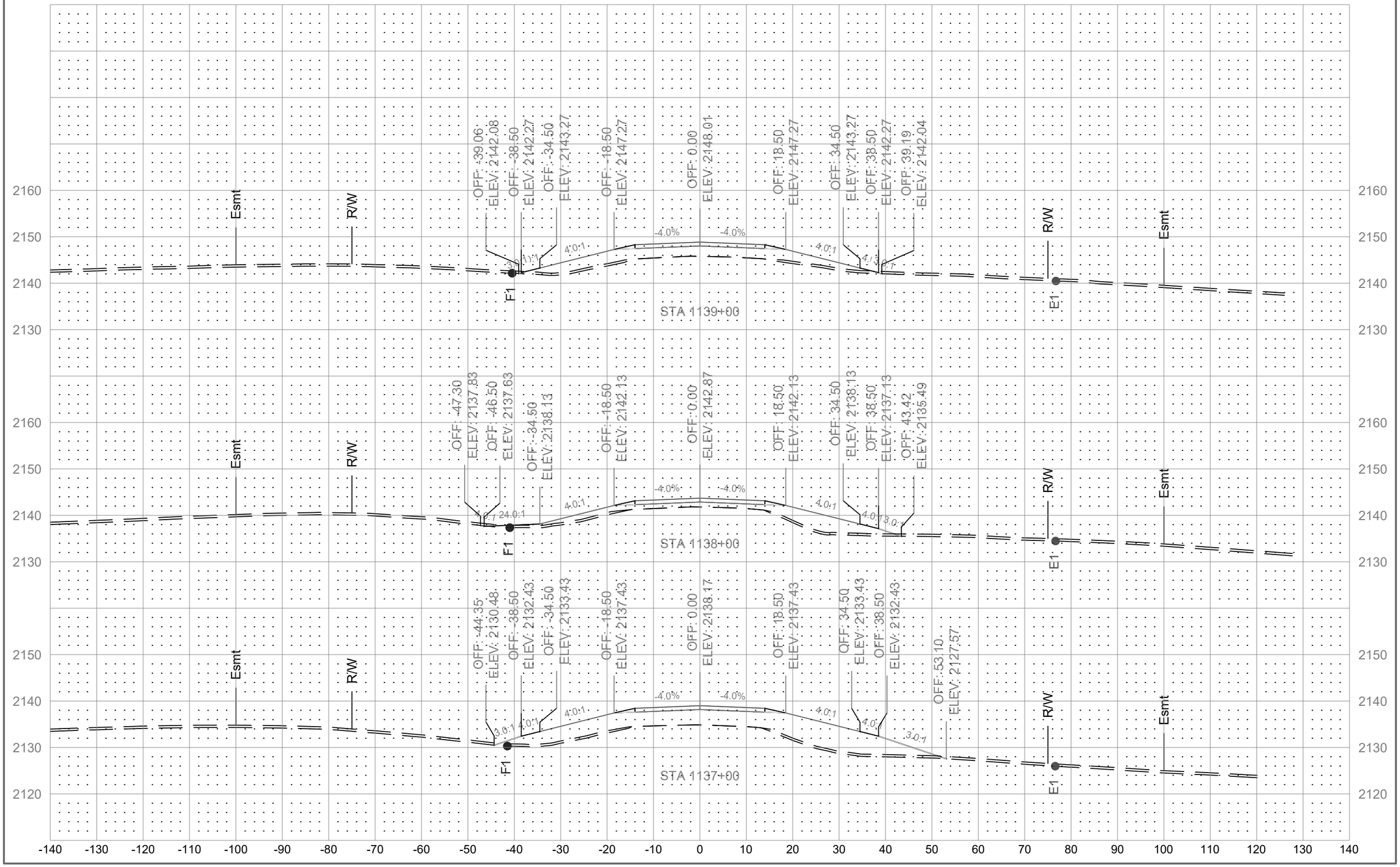
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	134



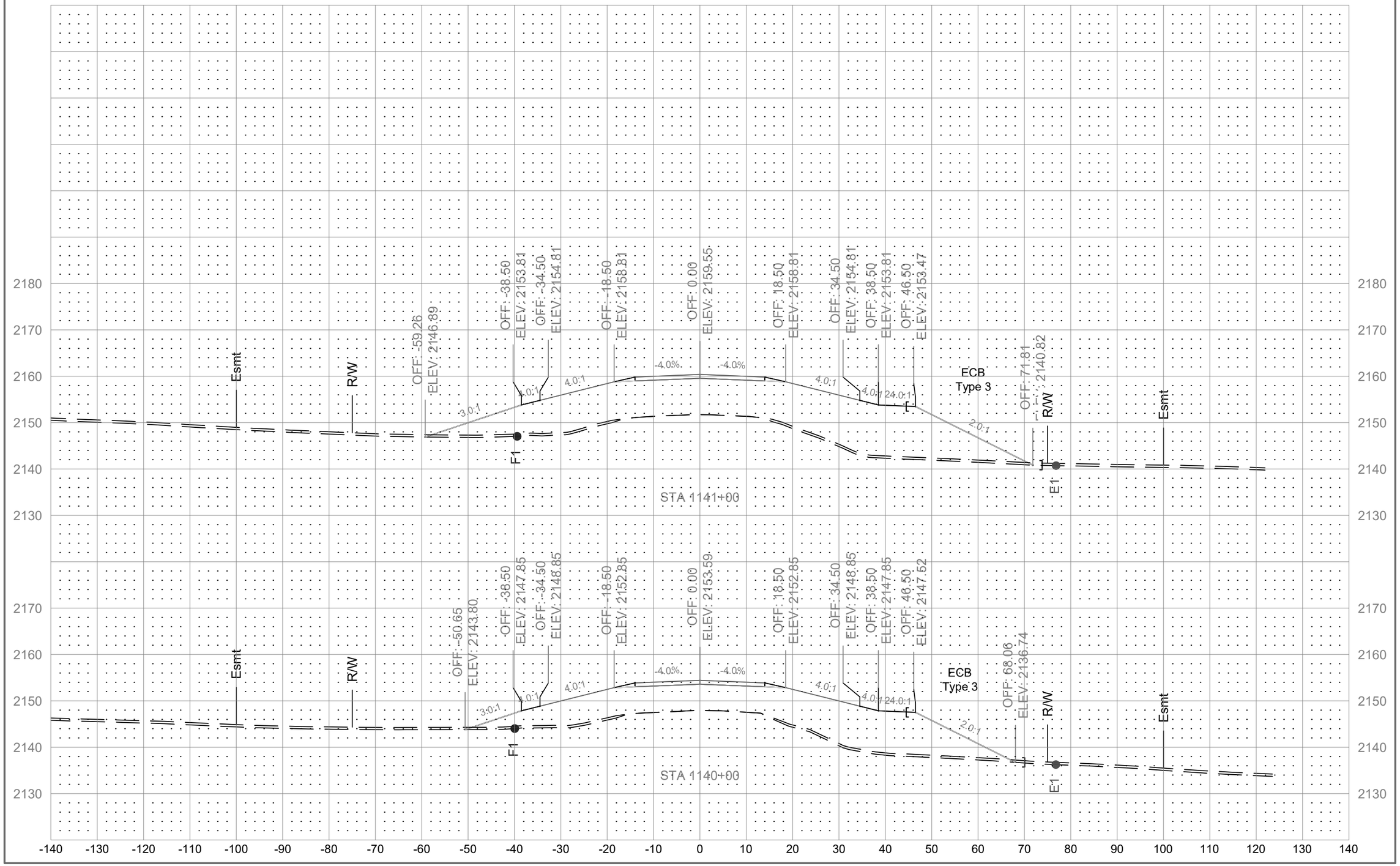
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	135



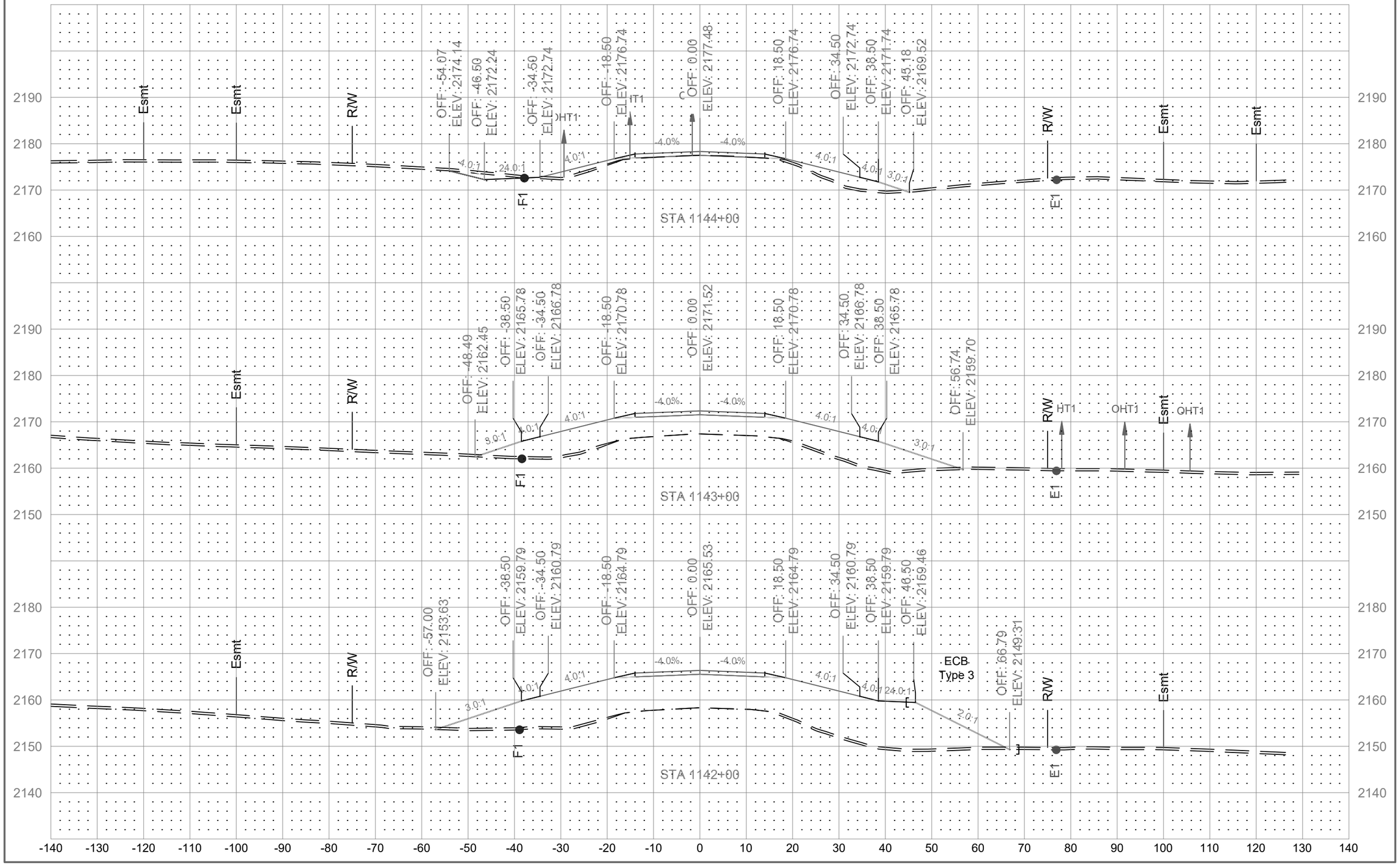
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	136



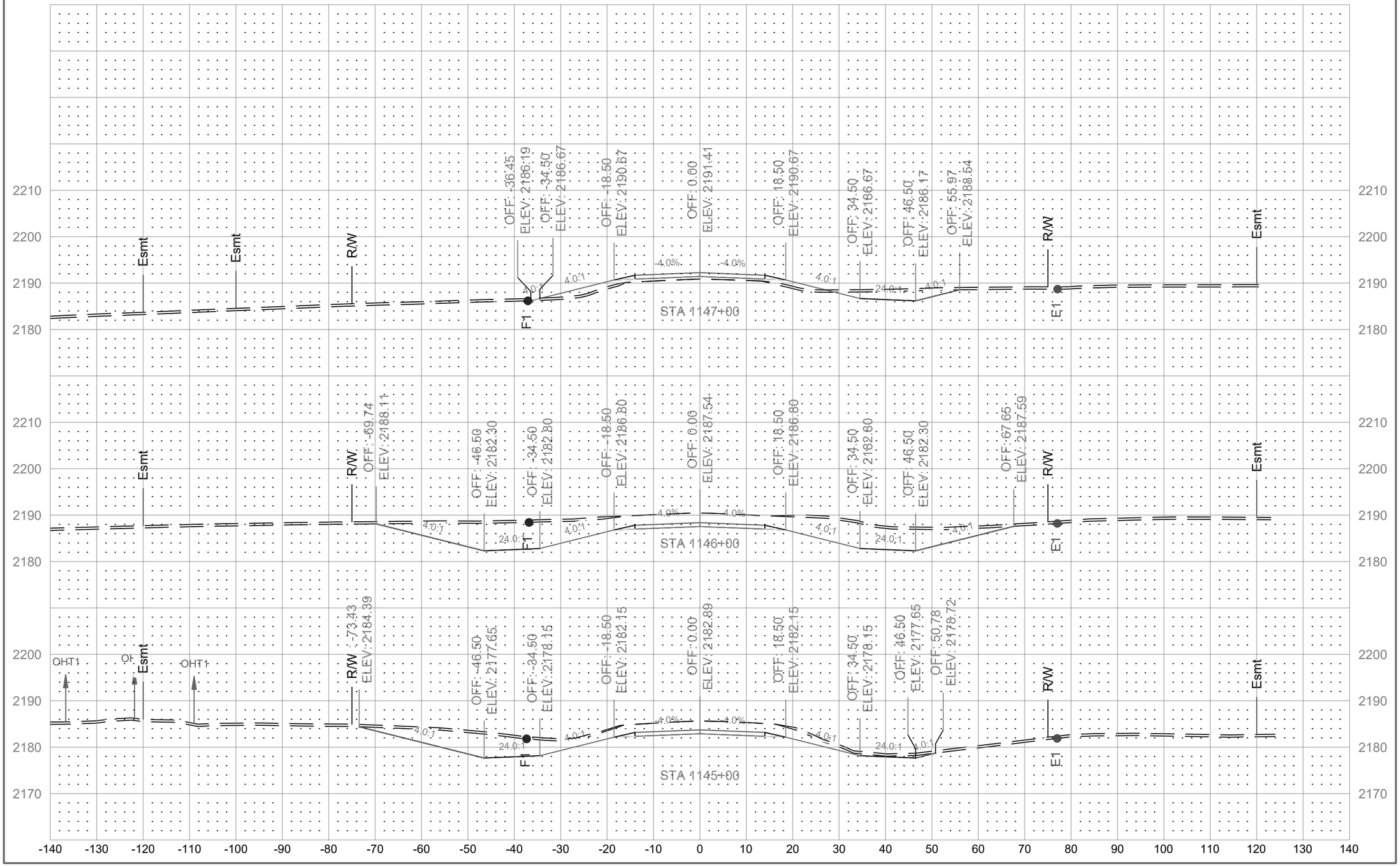
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	137



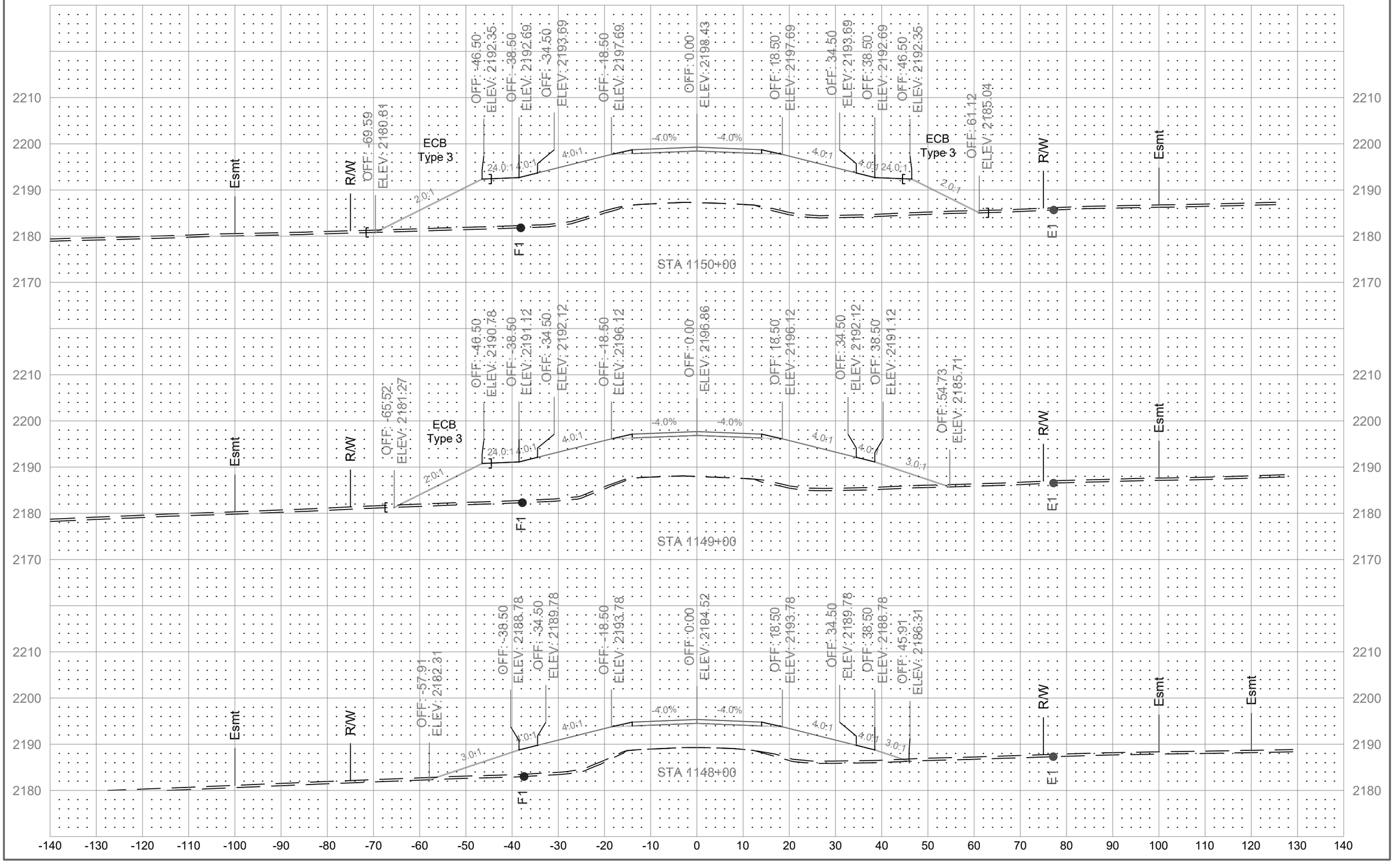
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	138



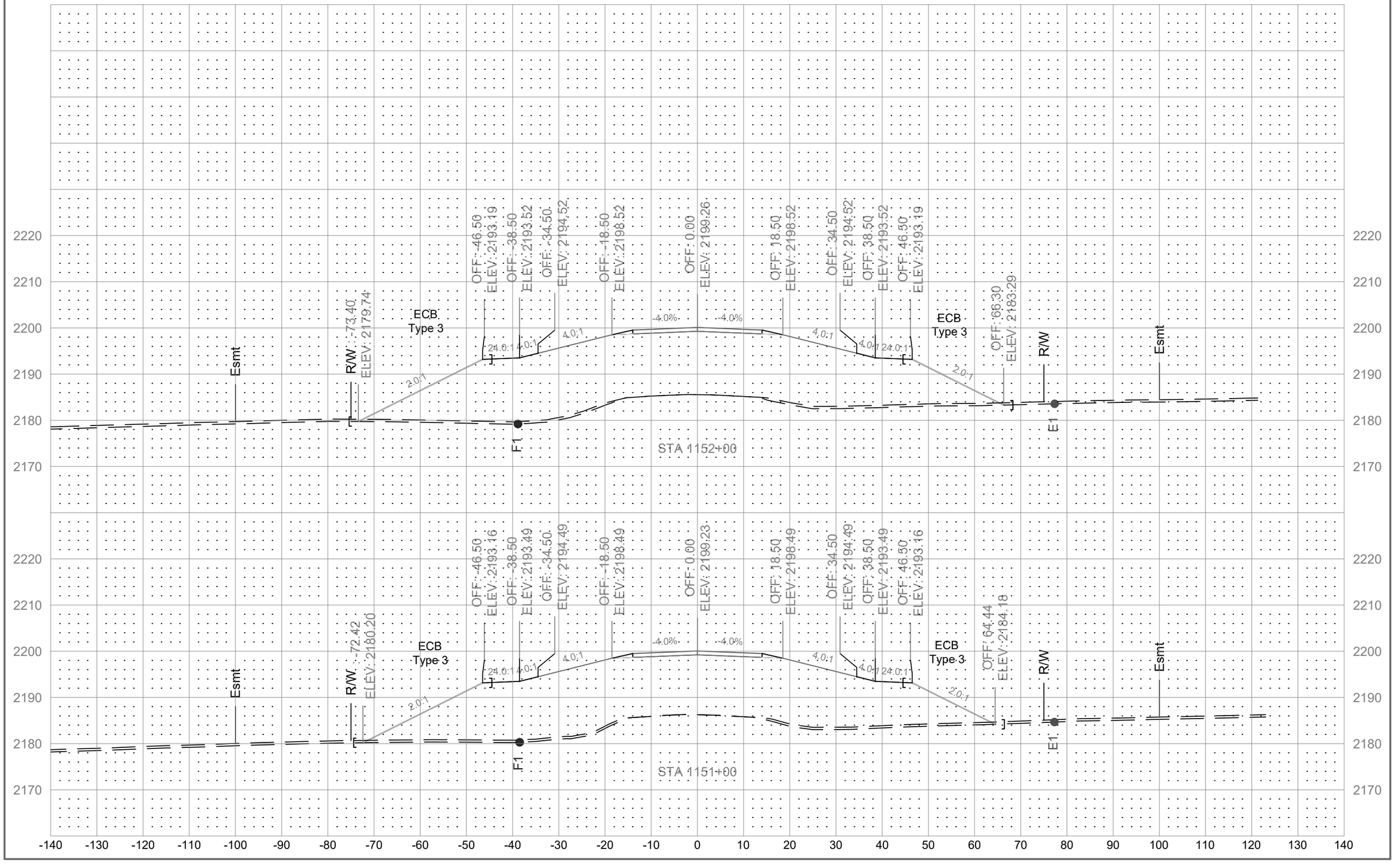
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	139



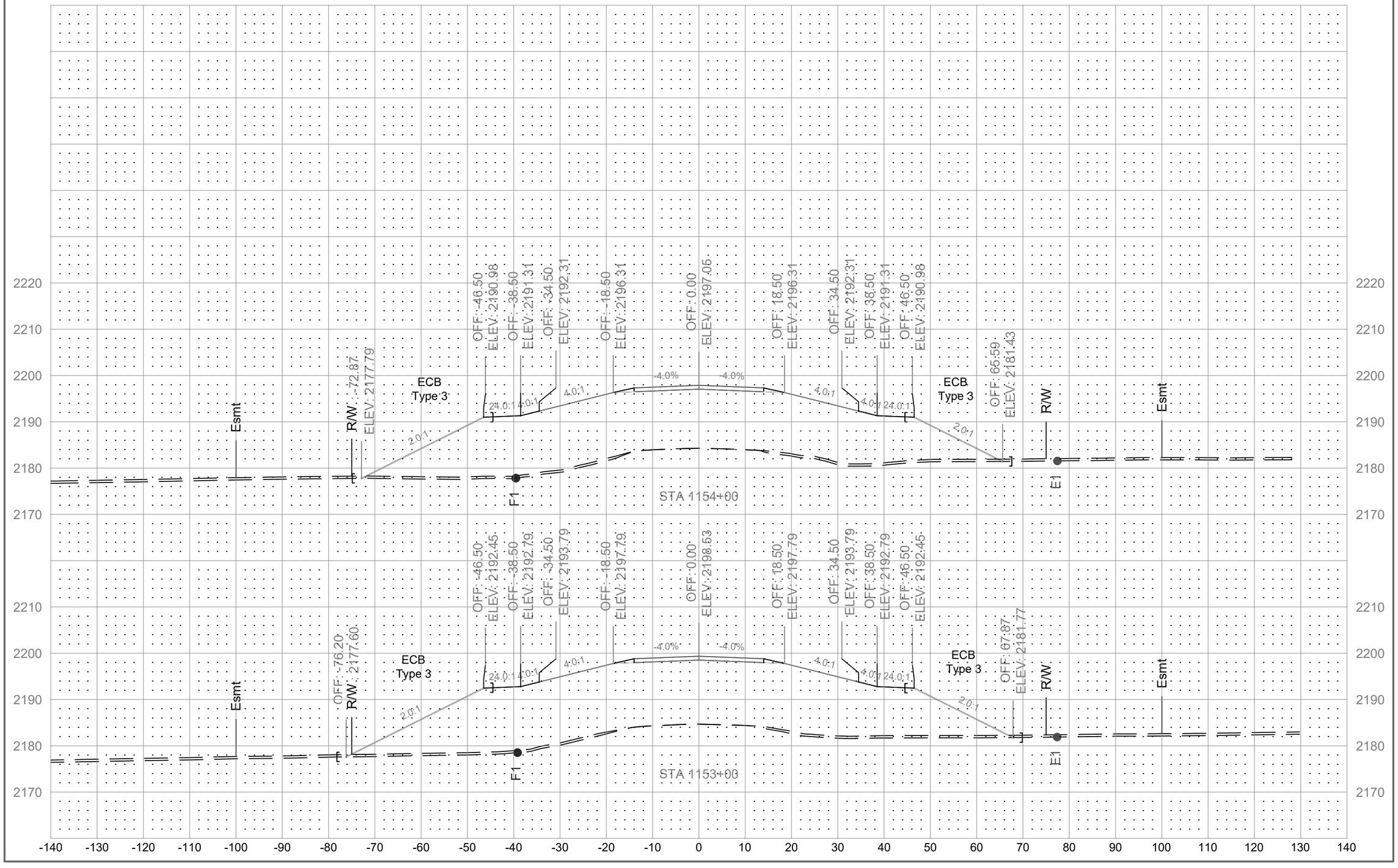
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	140



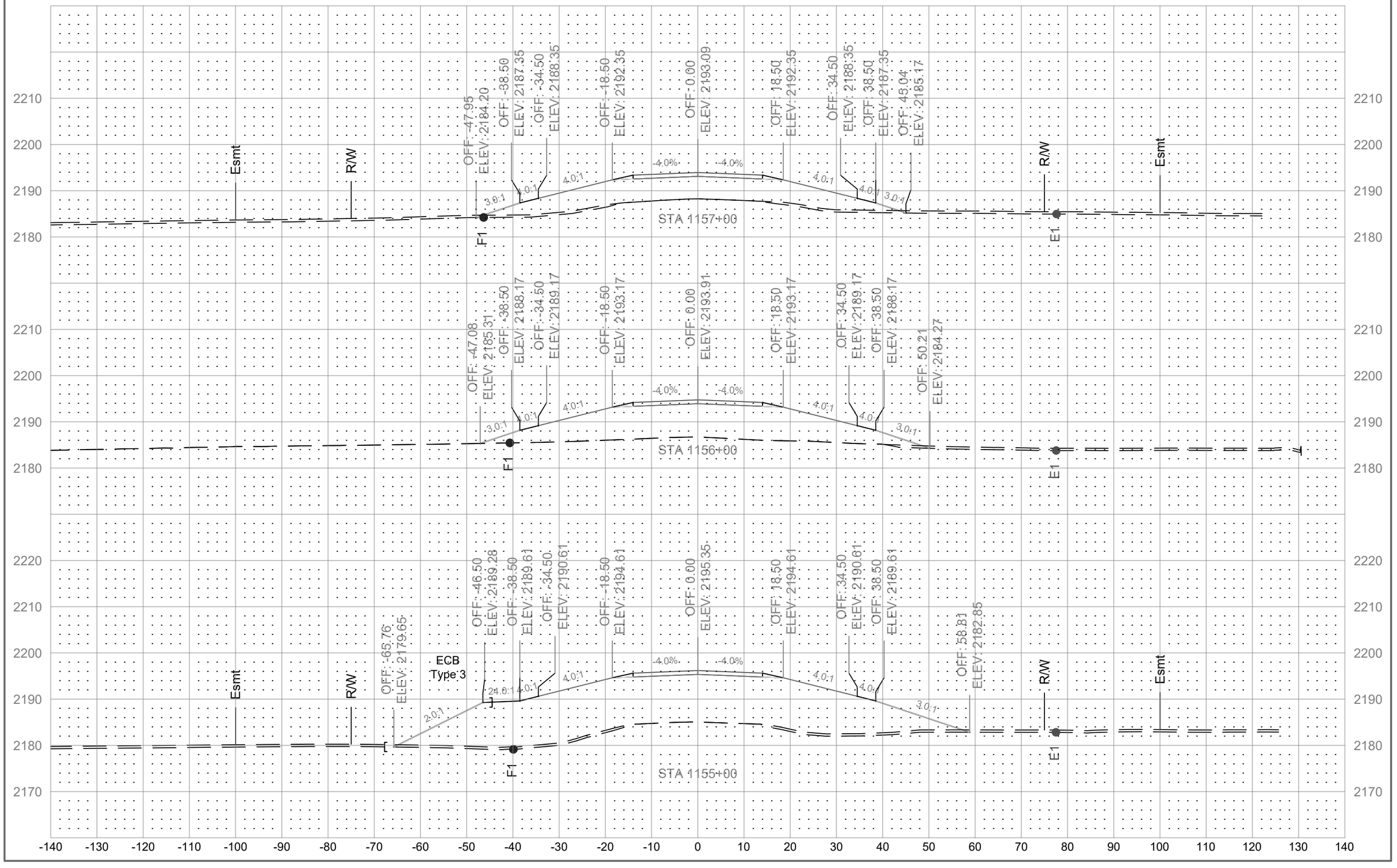
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	141



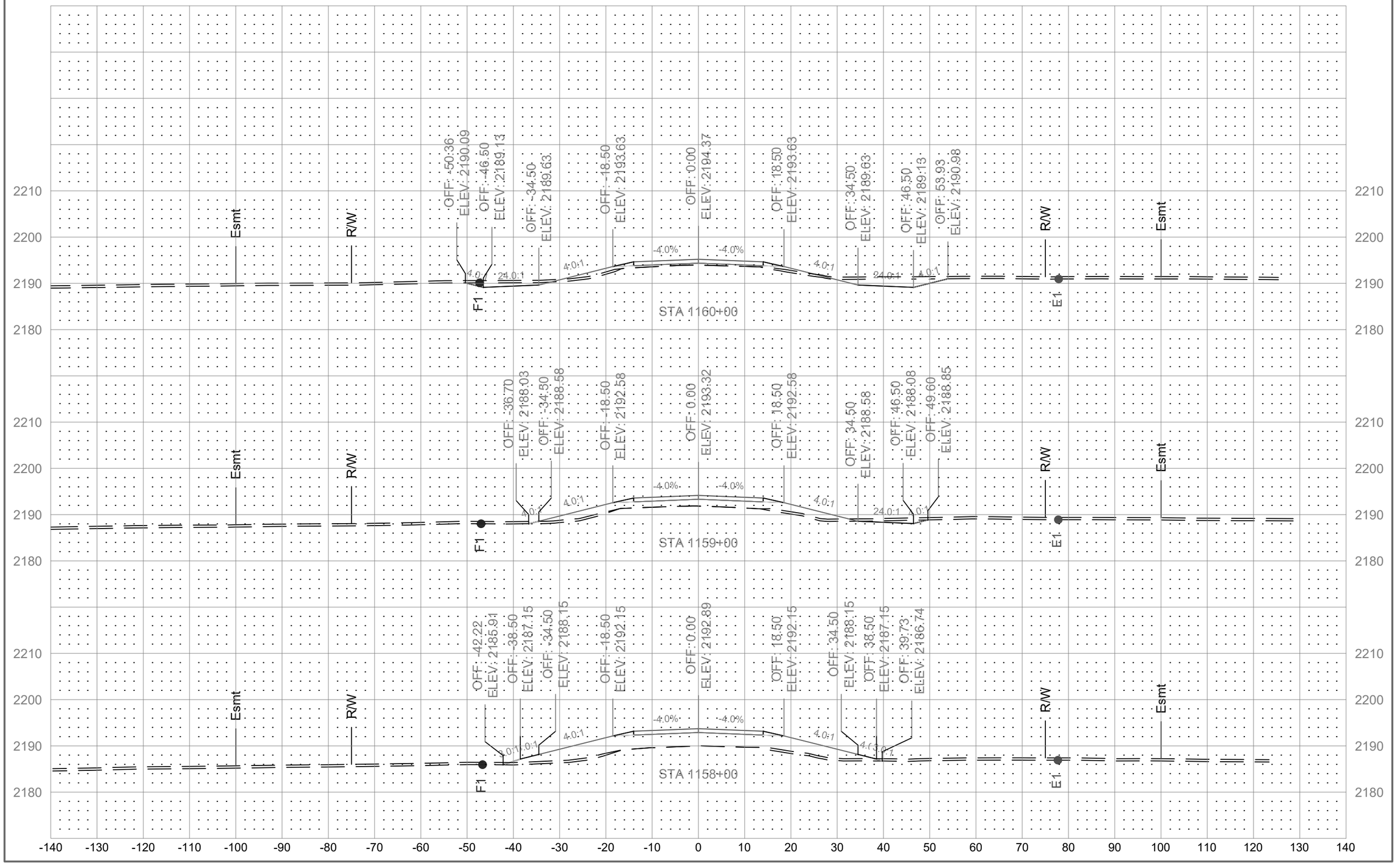
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	142



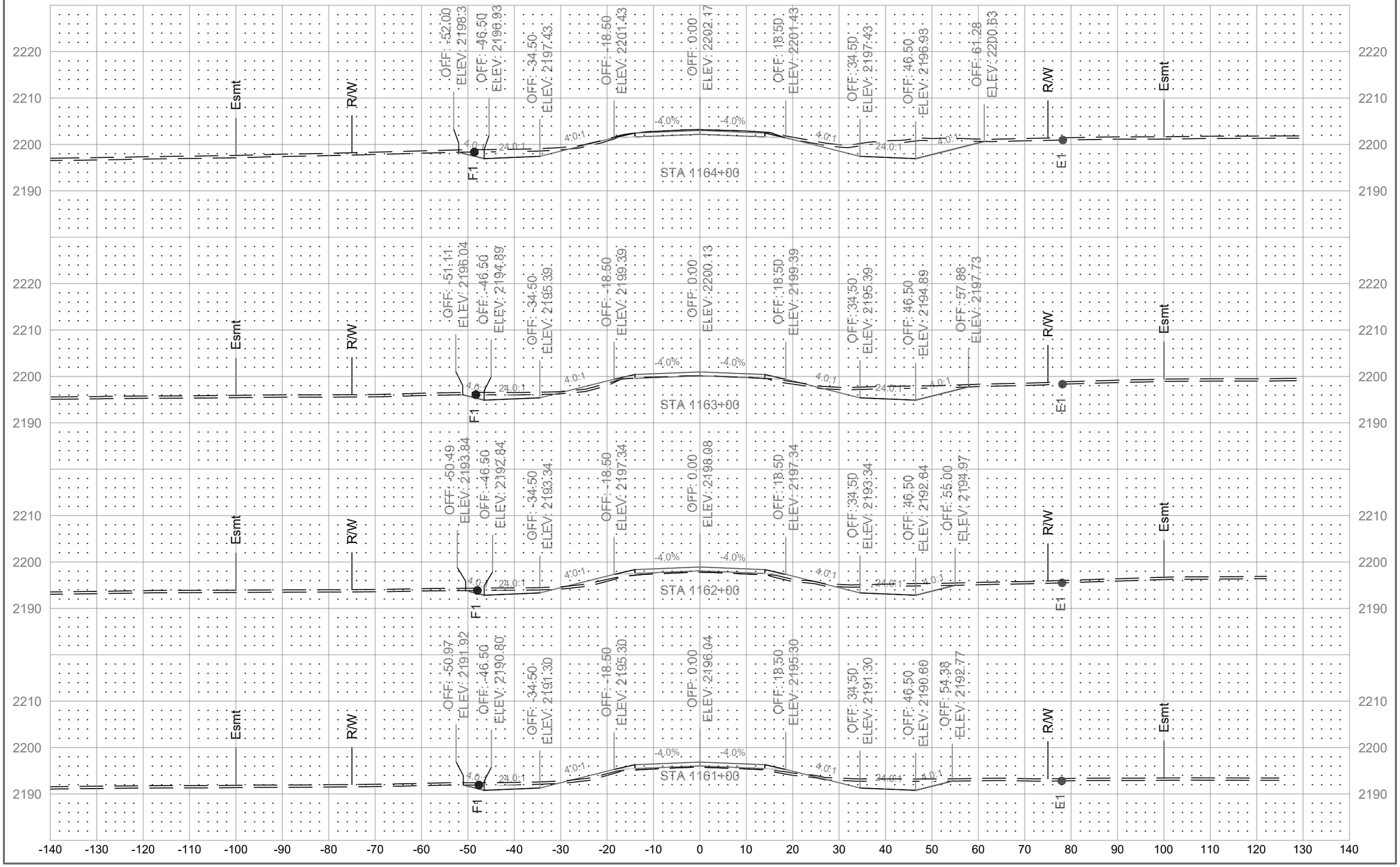
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	143



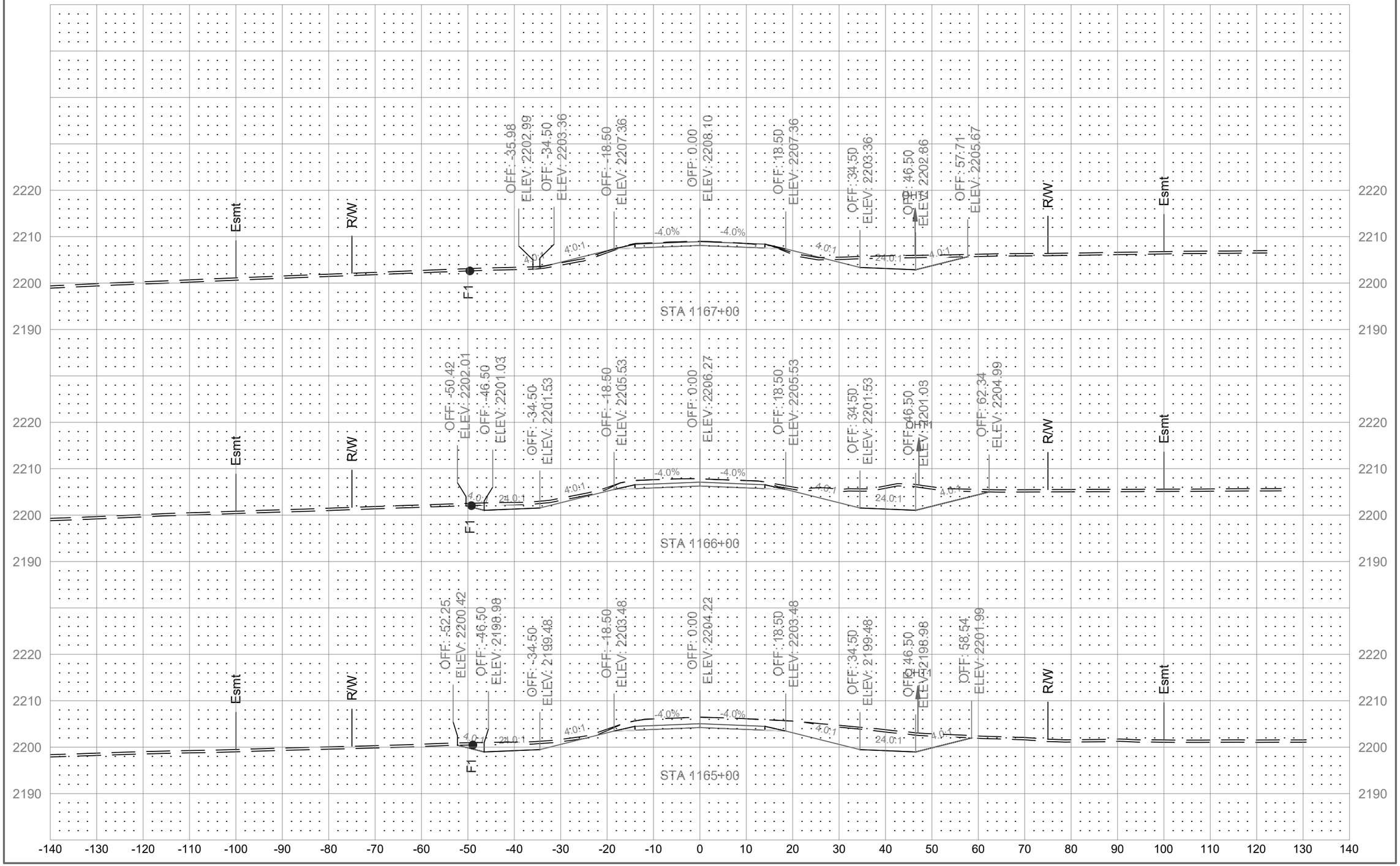
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	144



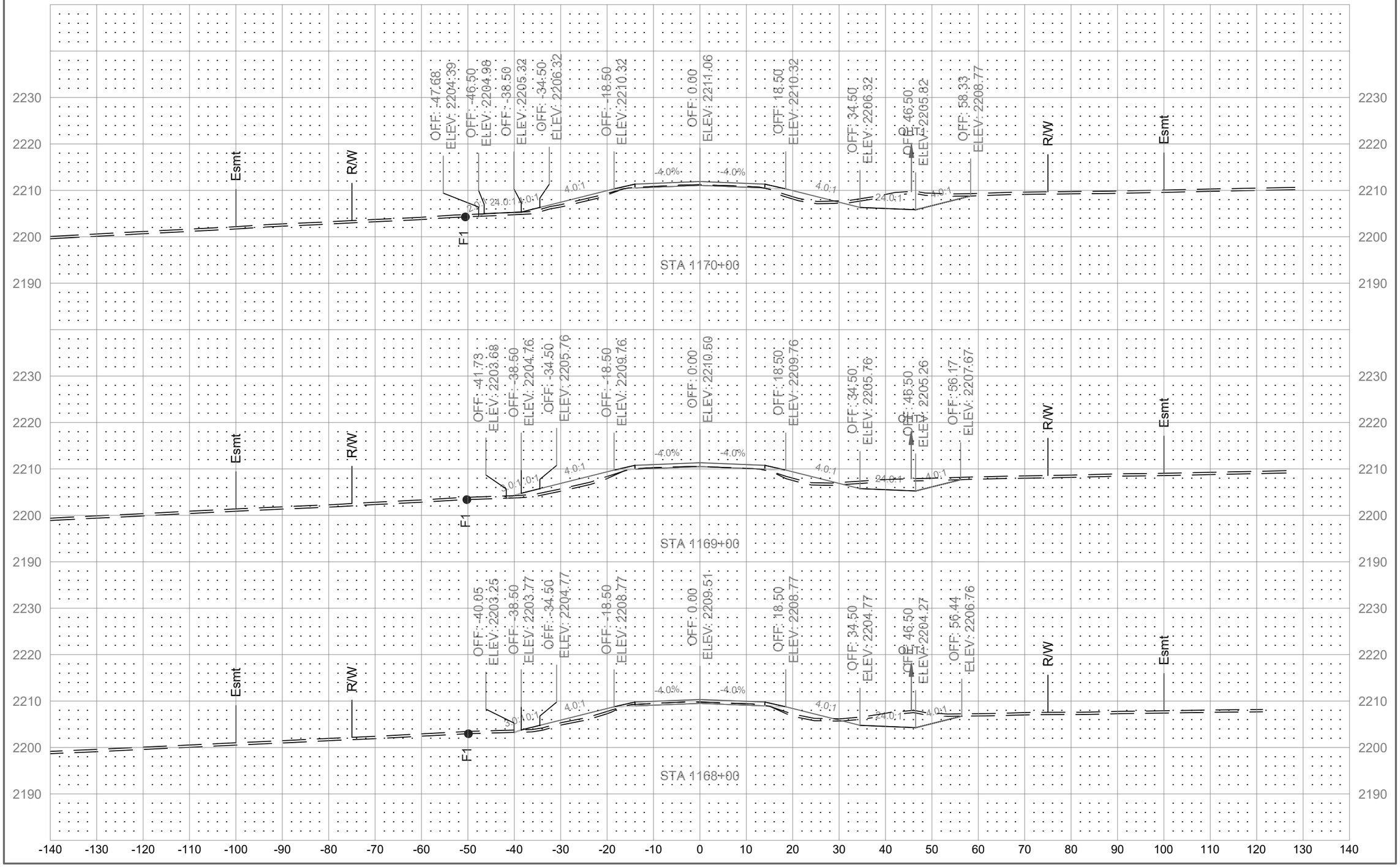
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	145



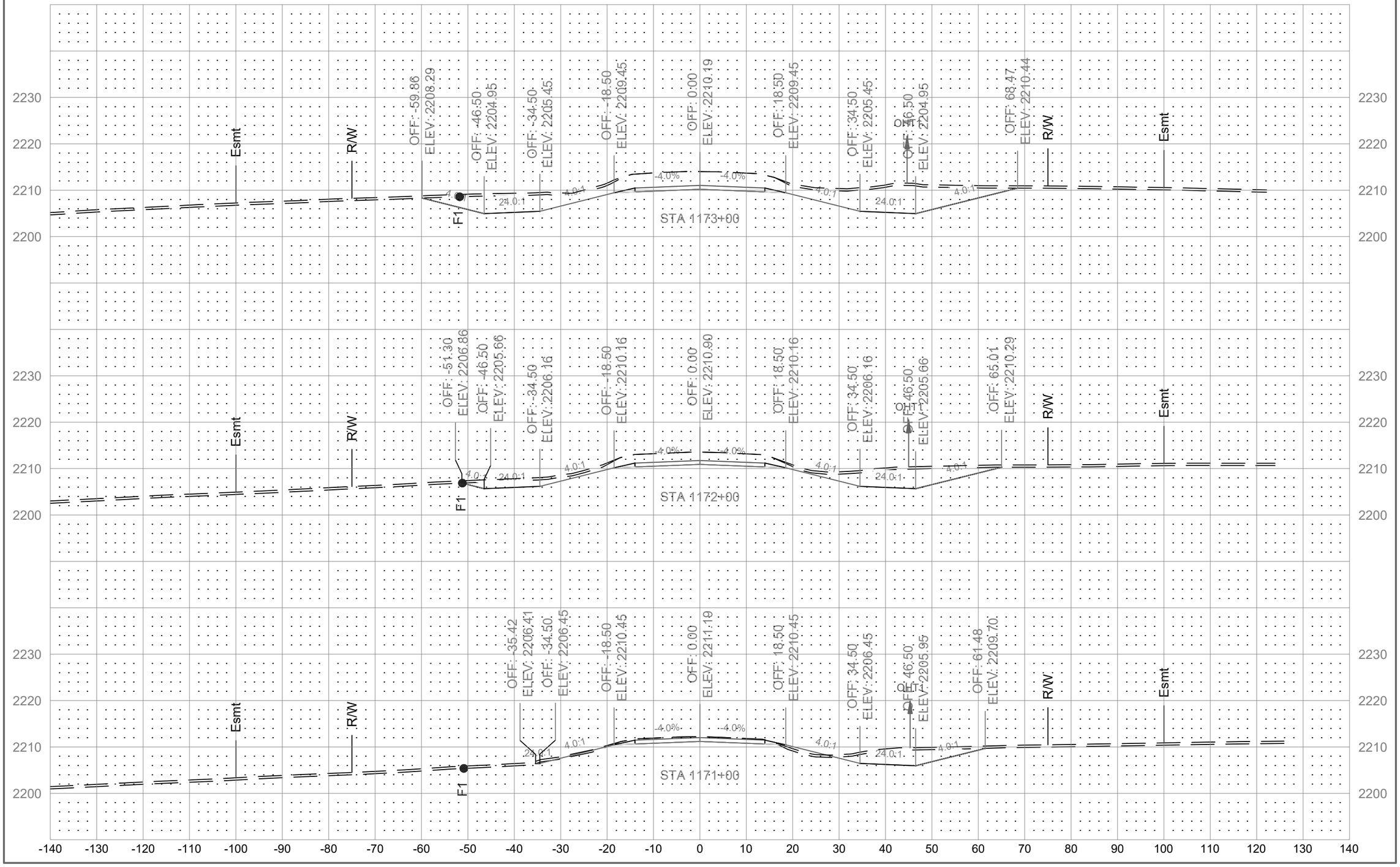
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	146



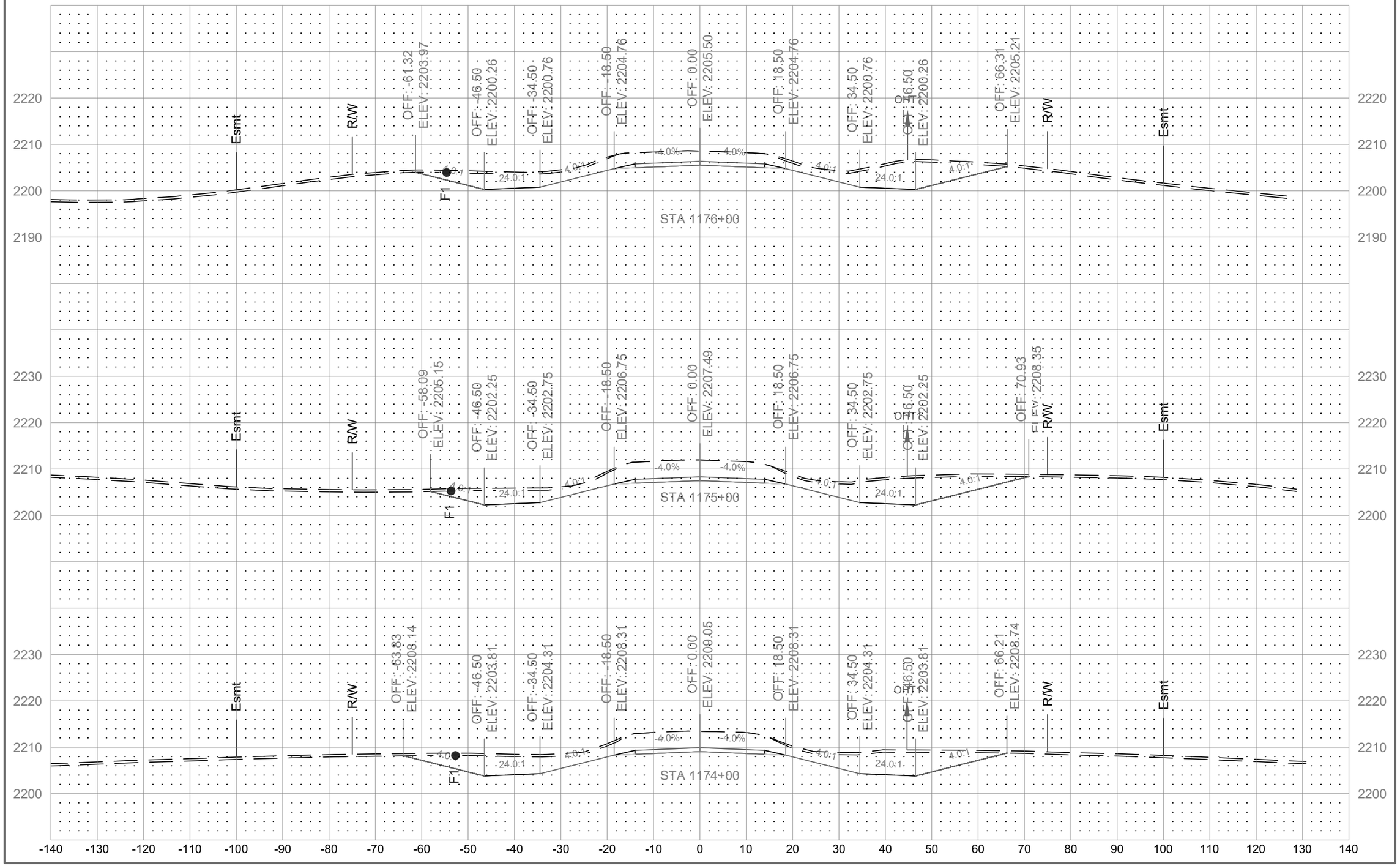
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	147



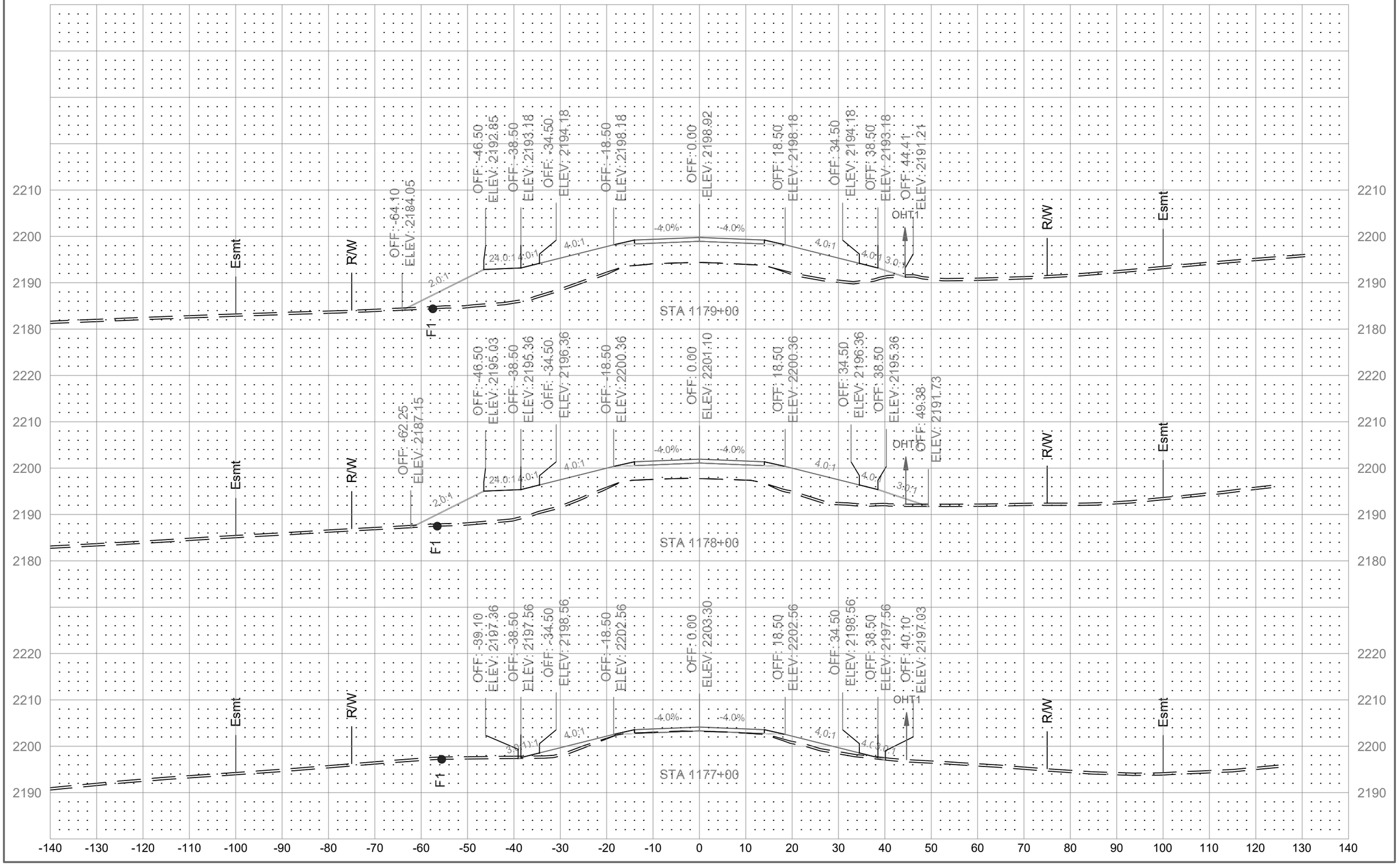
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	148



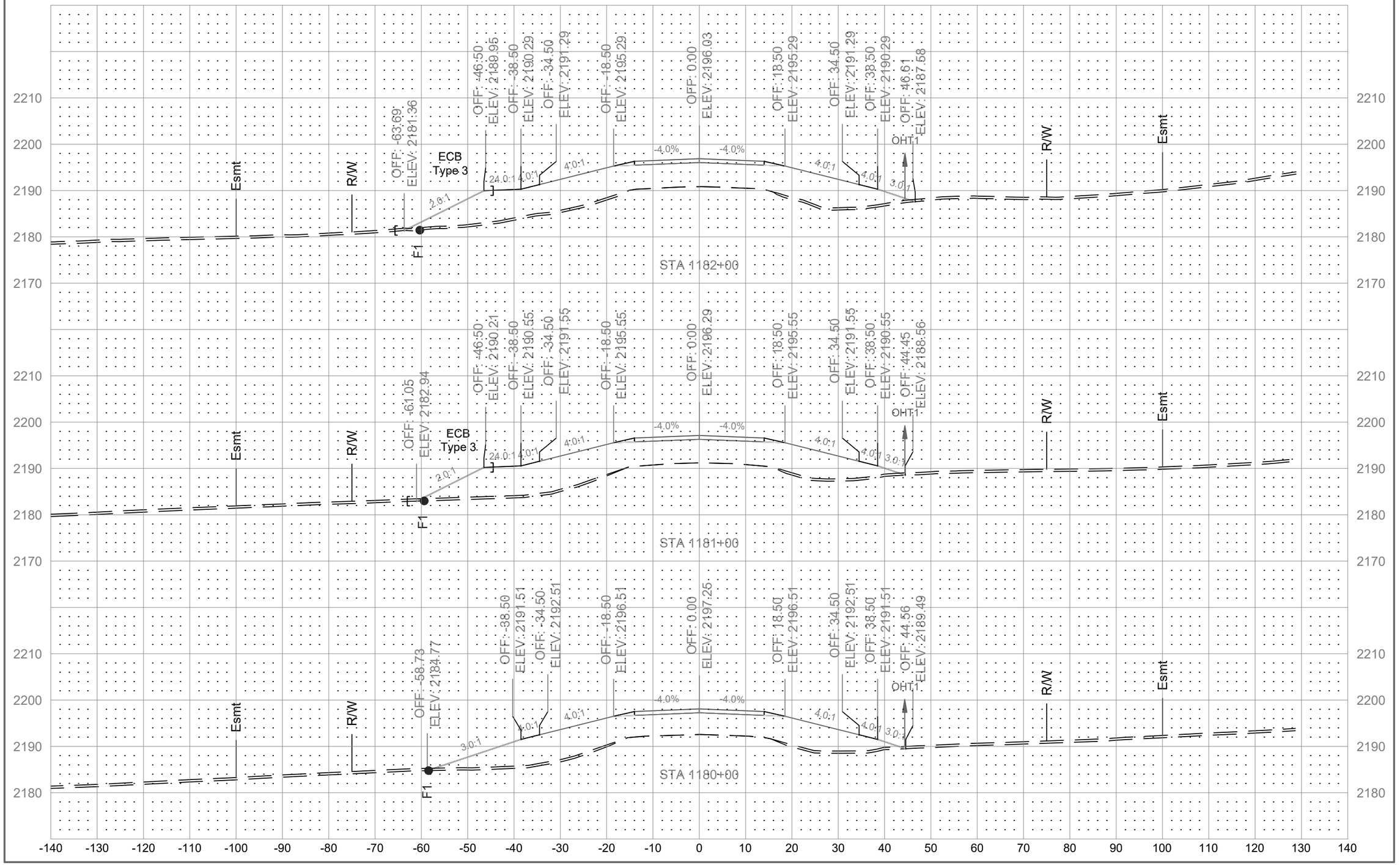
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	149



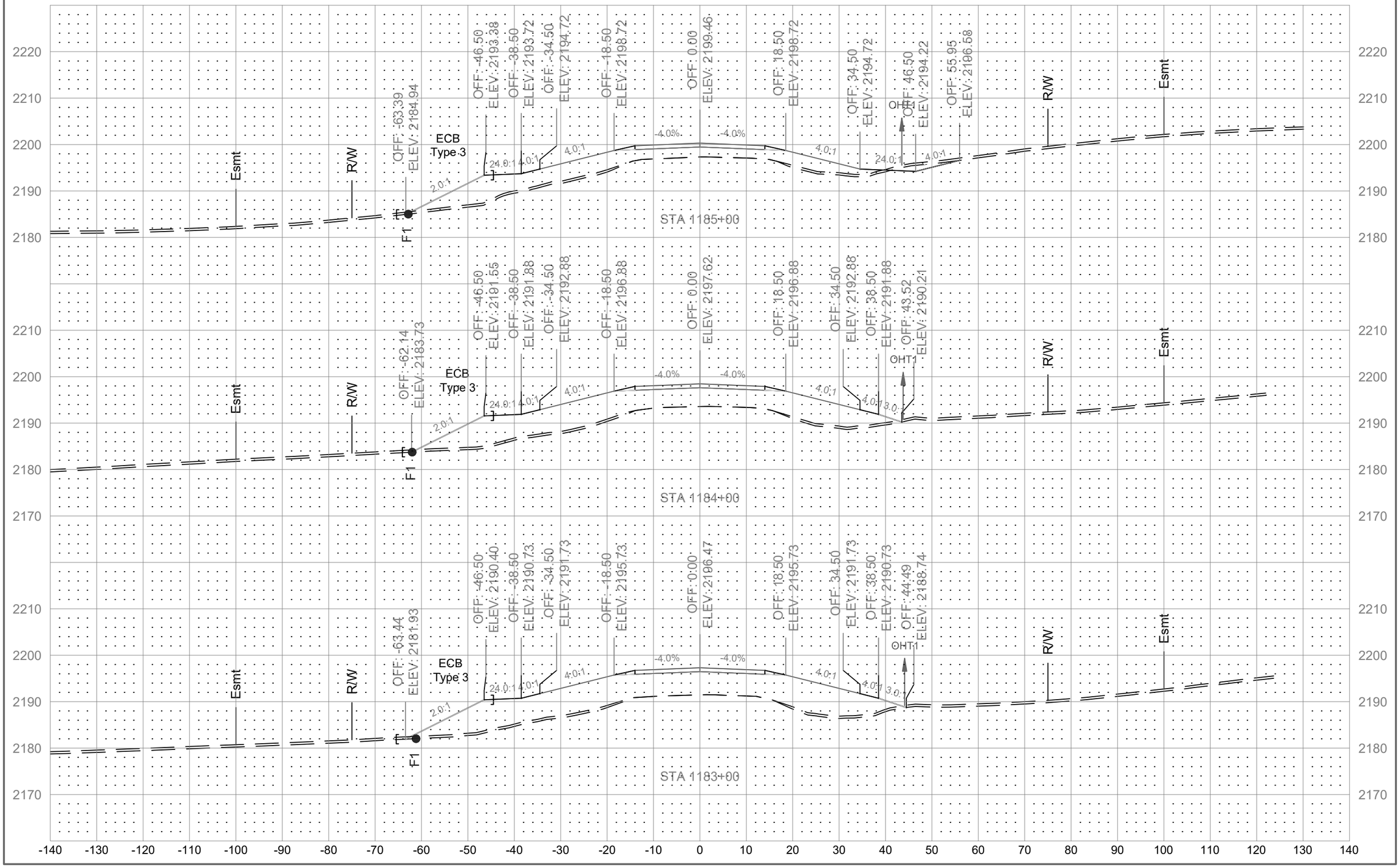
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	150



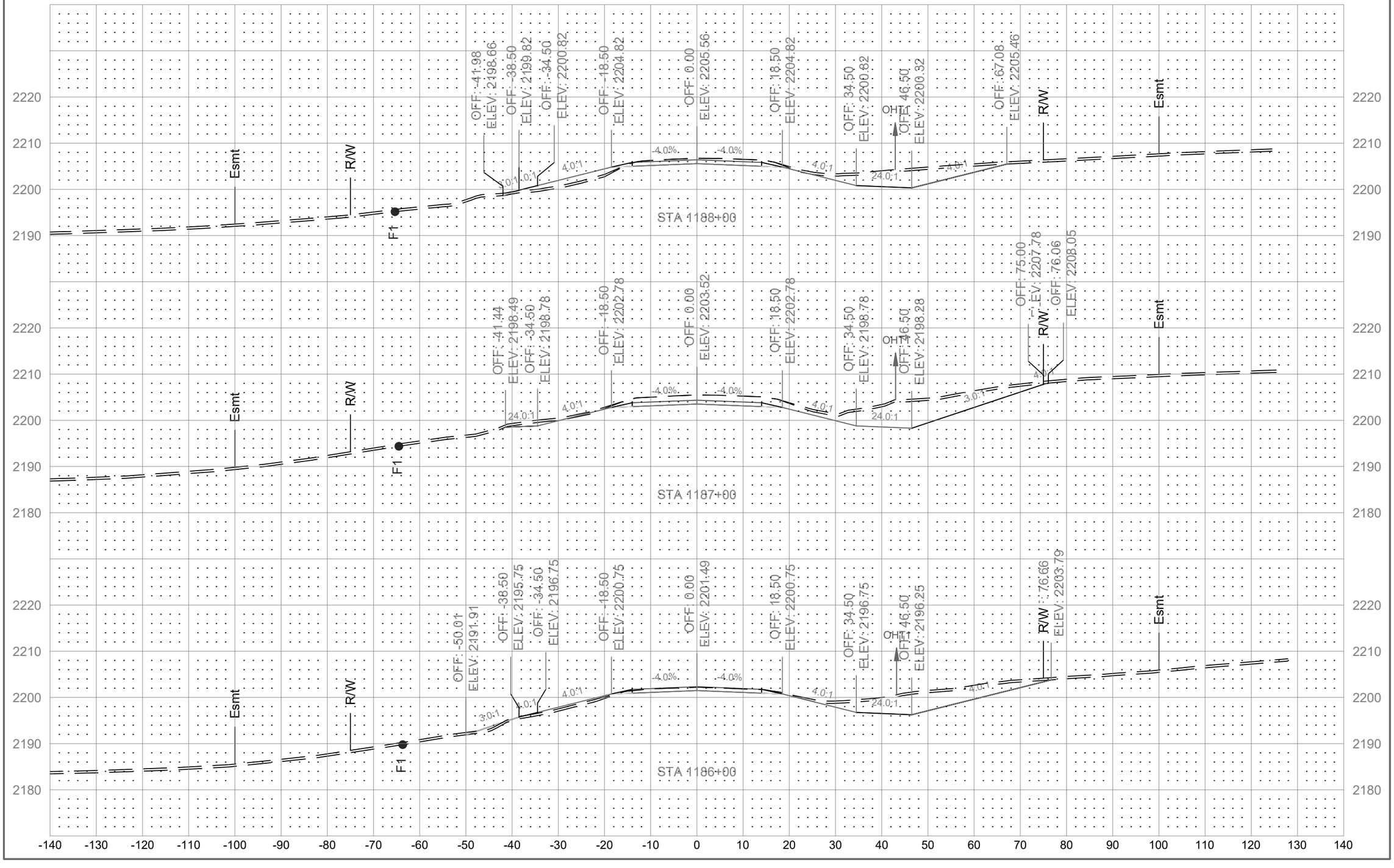
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	151



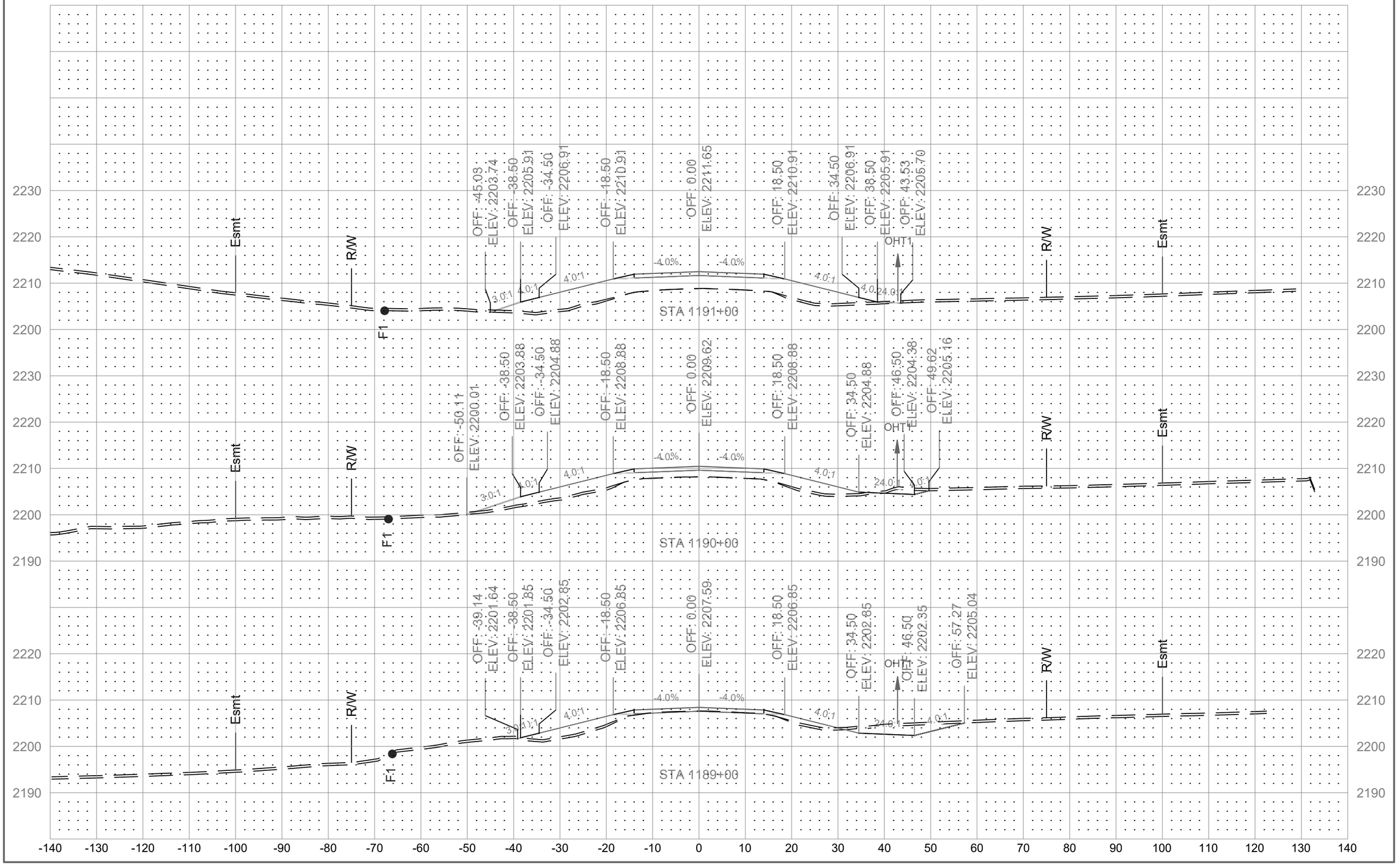
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	152



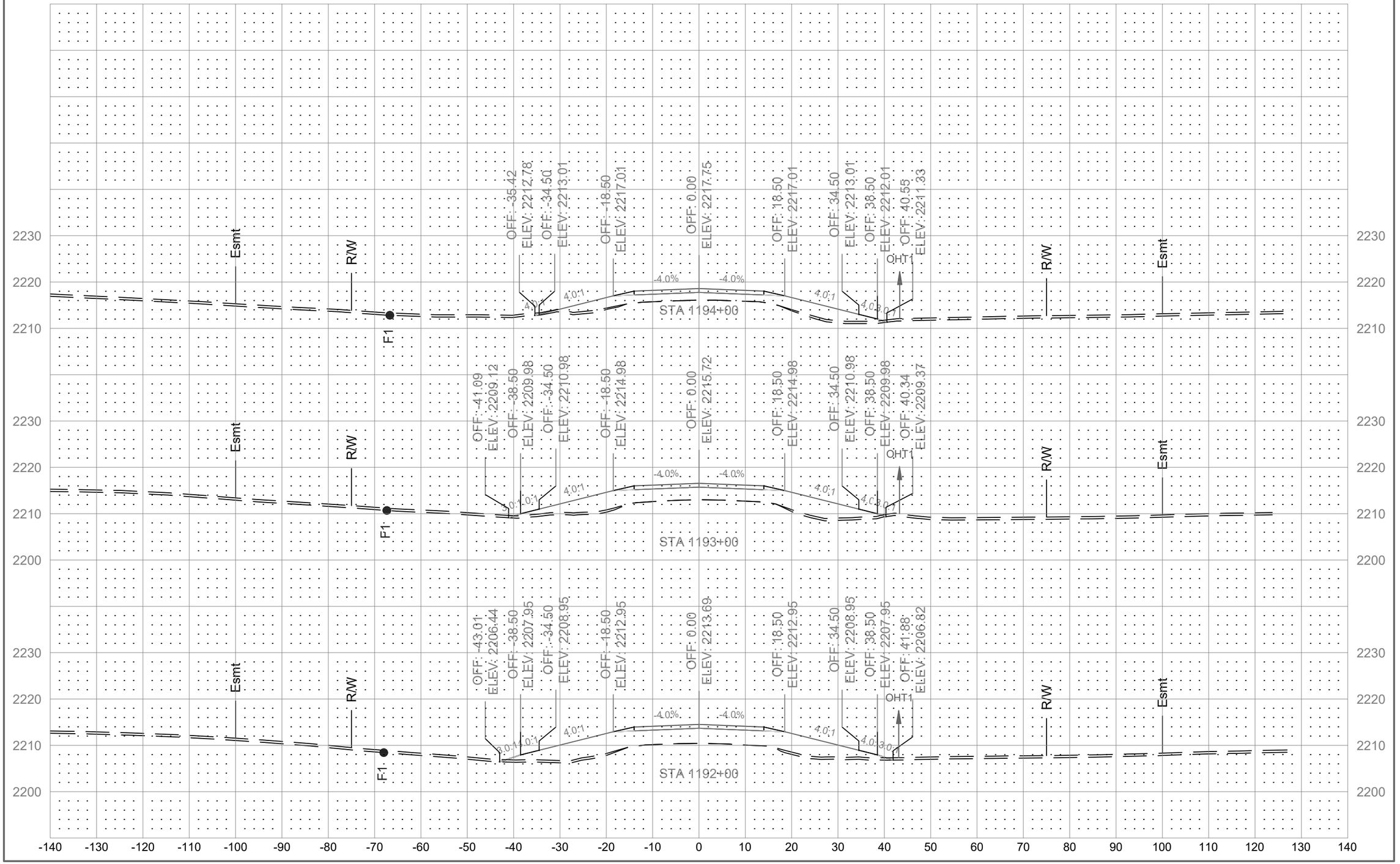
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	153



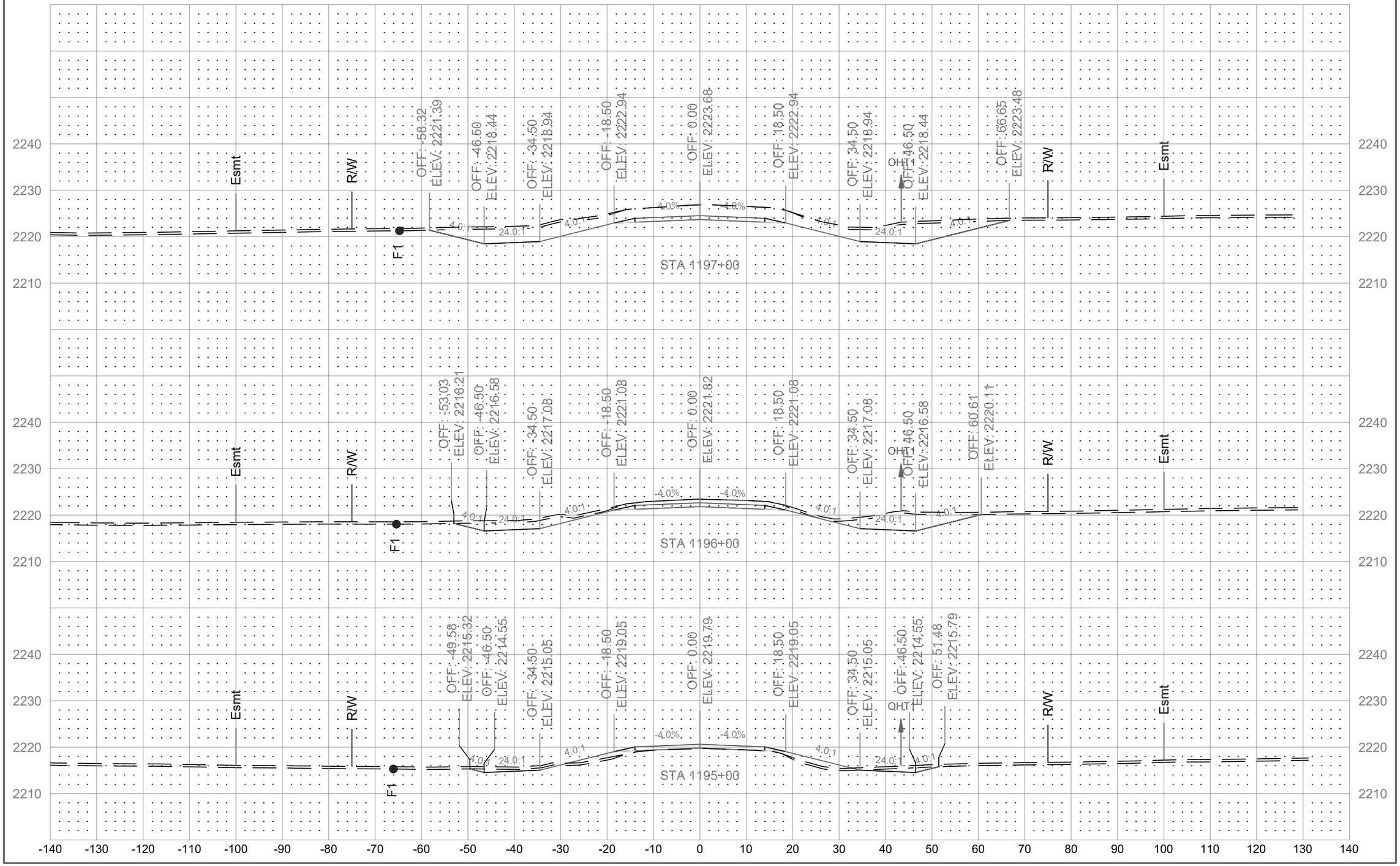
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	154



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	155

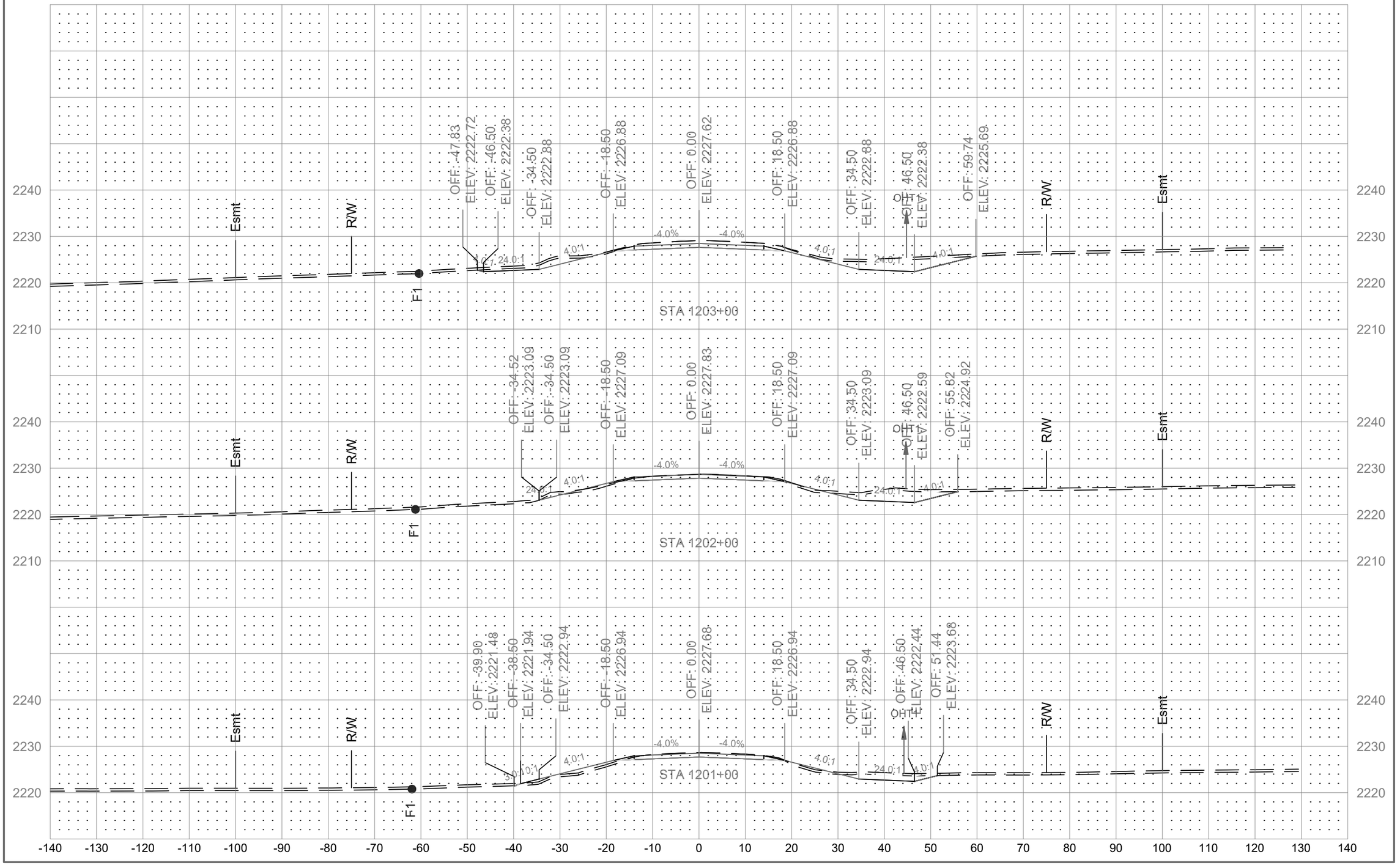


	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	156

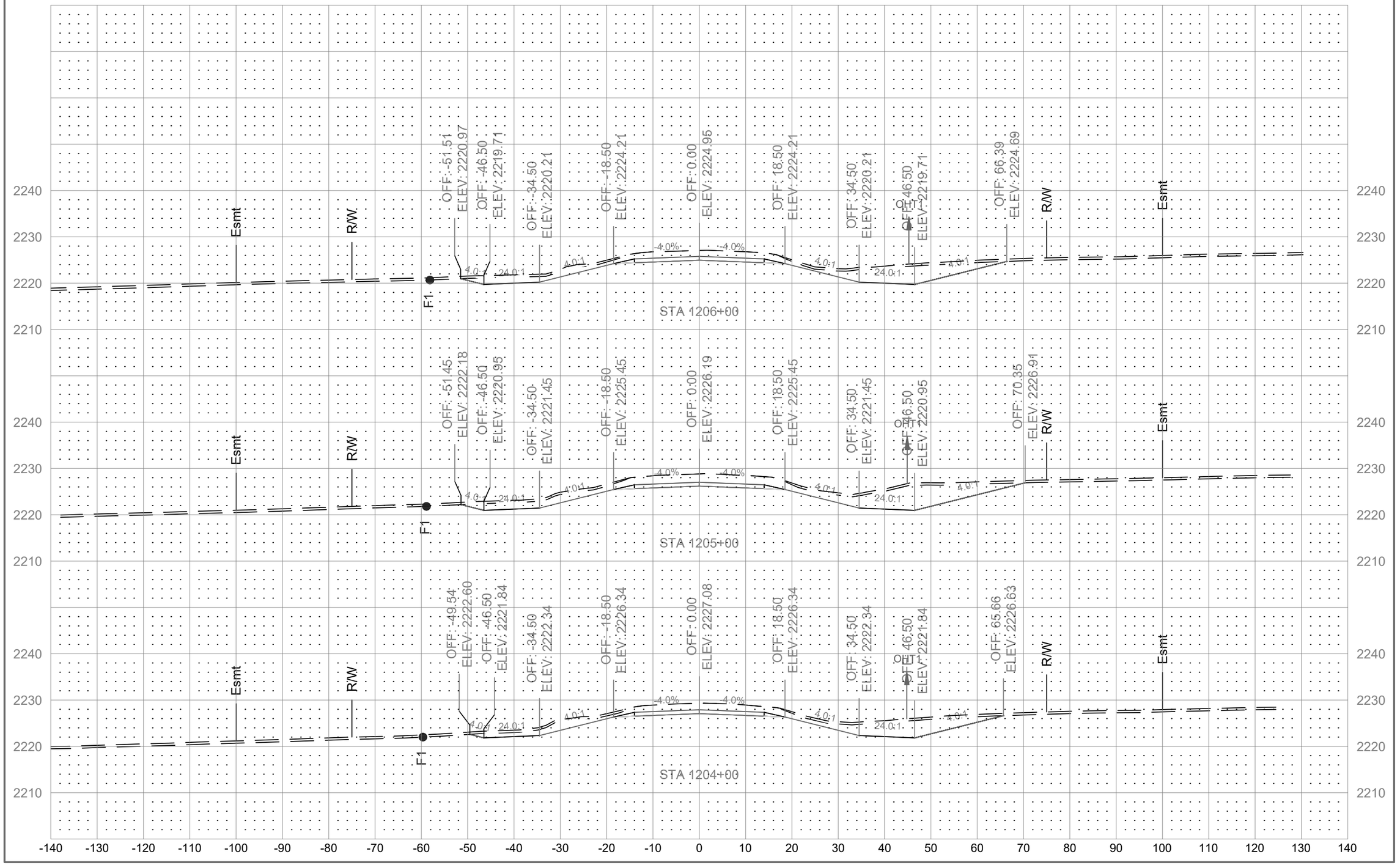


	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	157

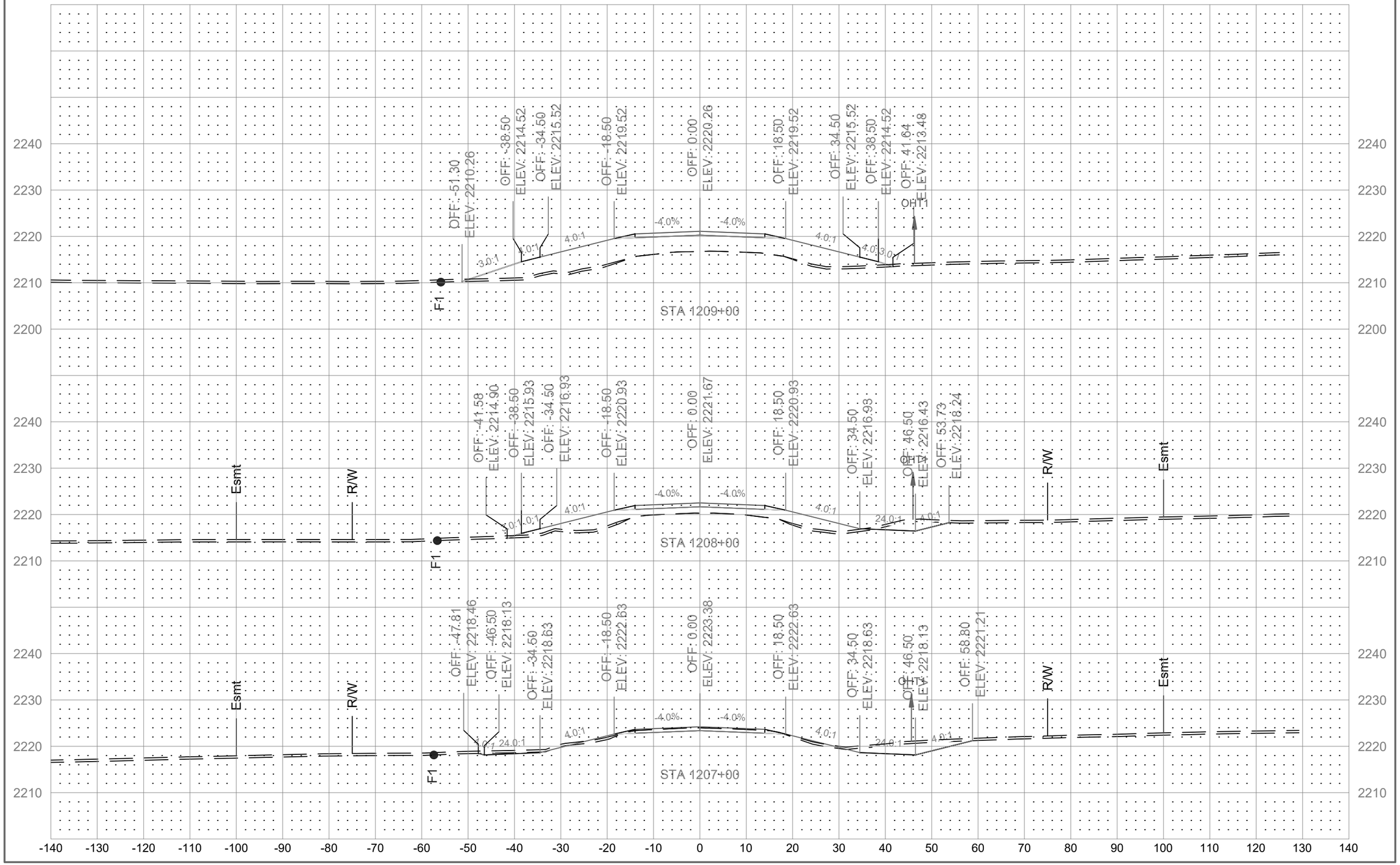
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	158



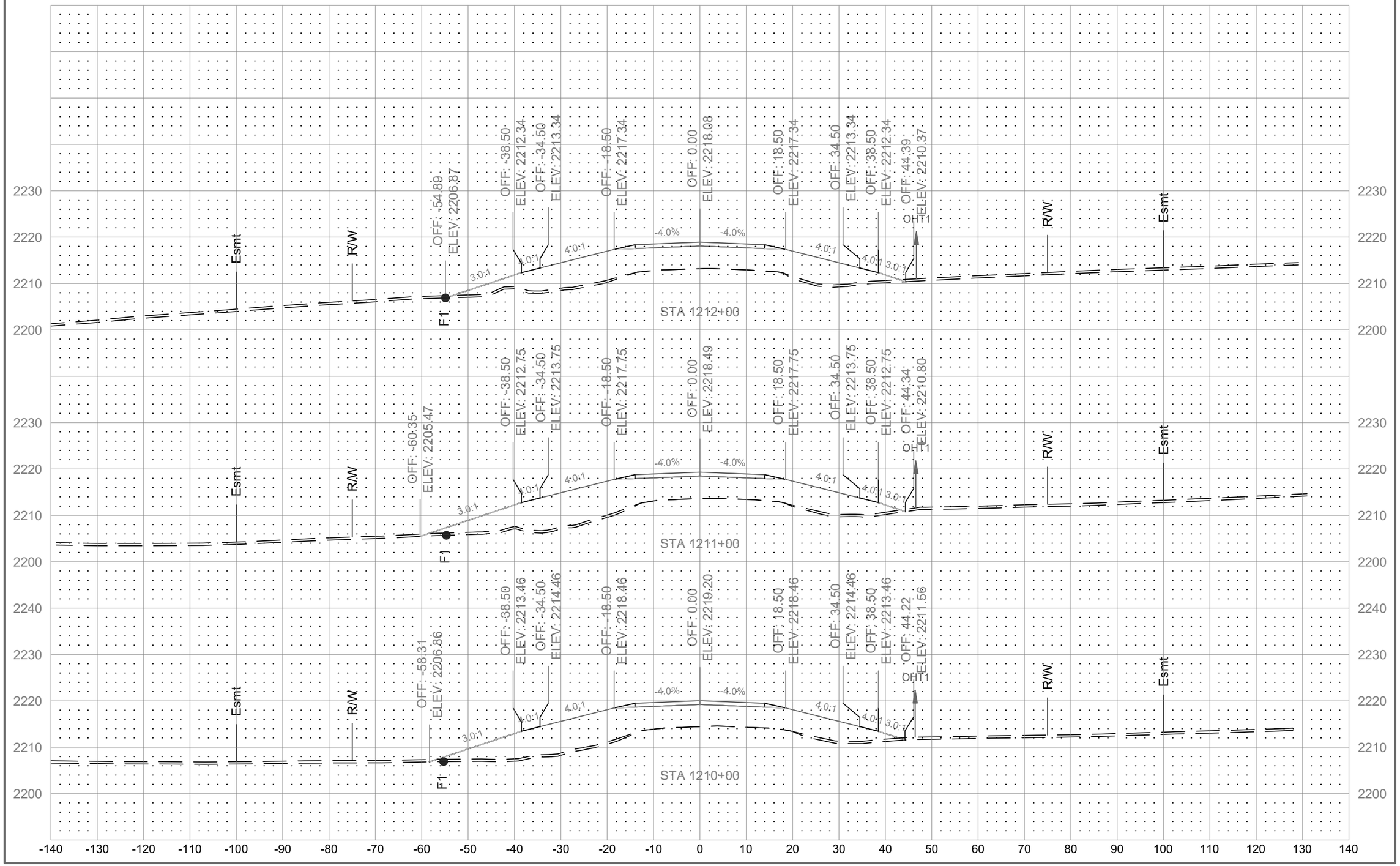
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	159



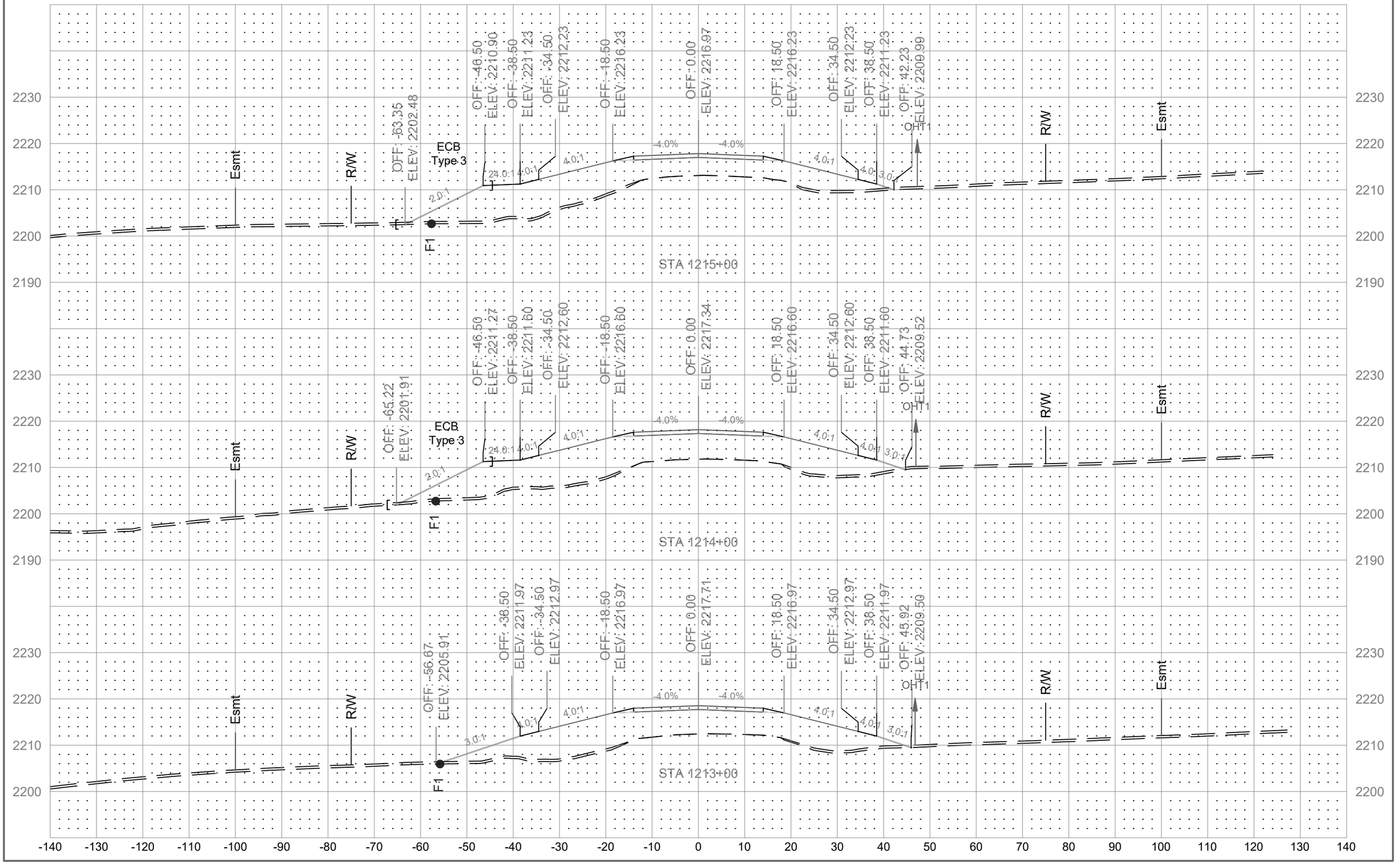
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	160



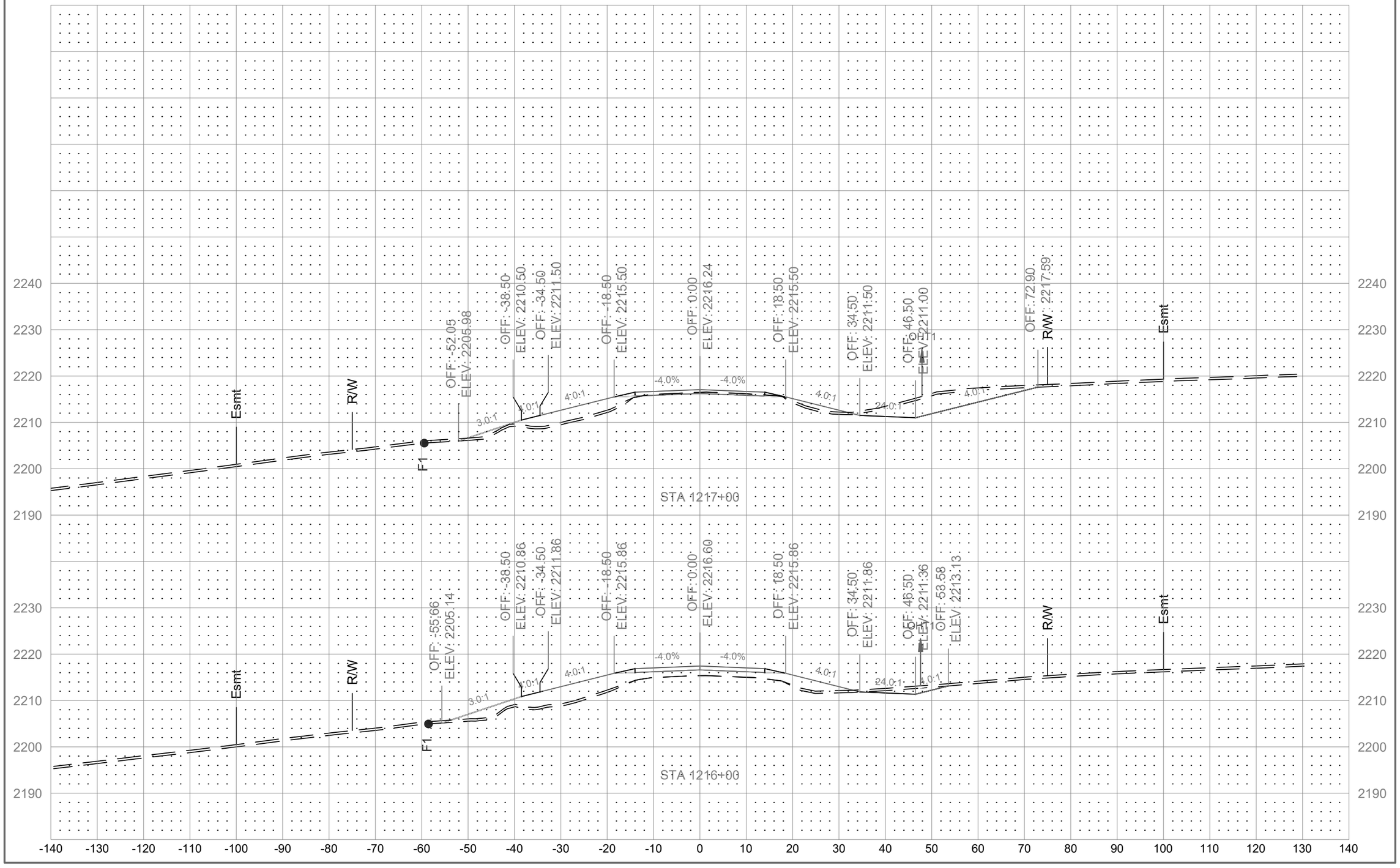
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	161



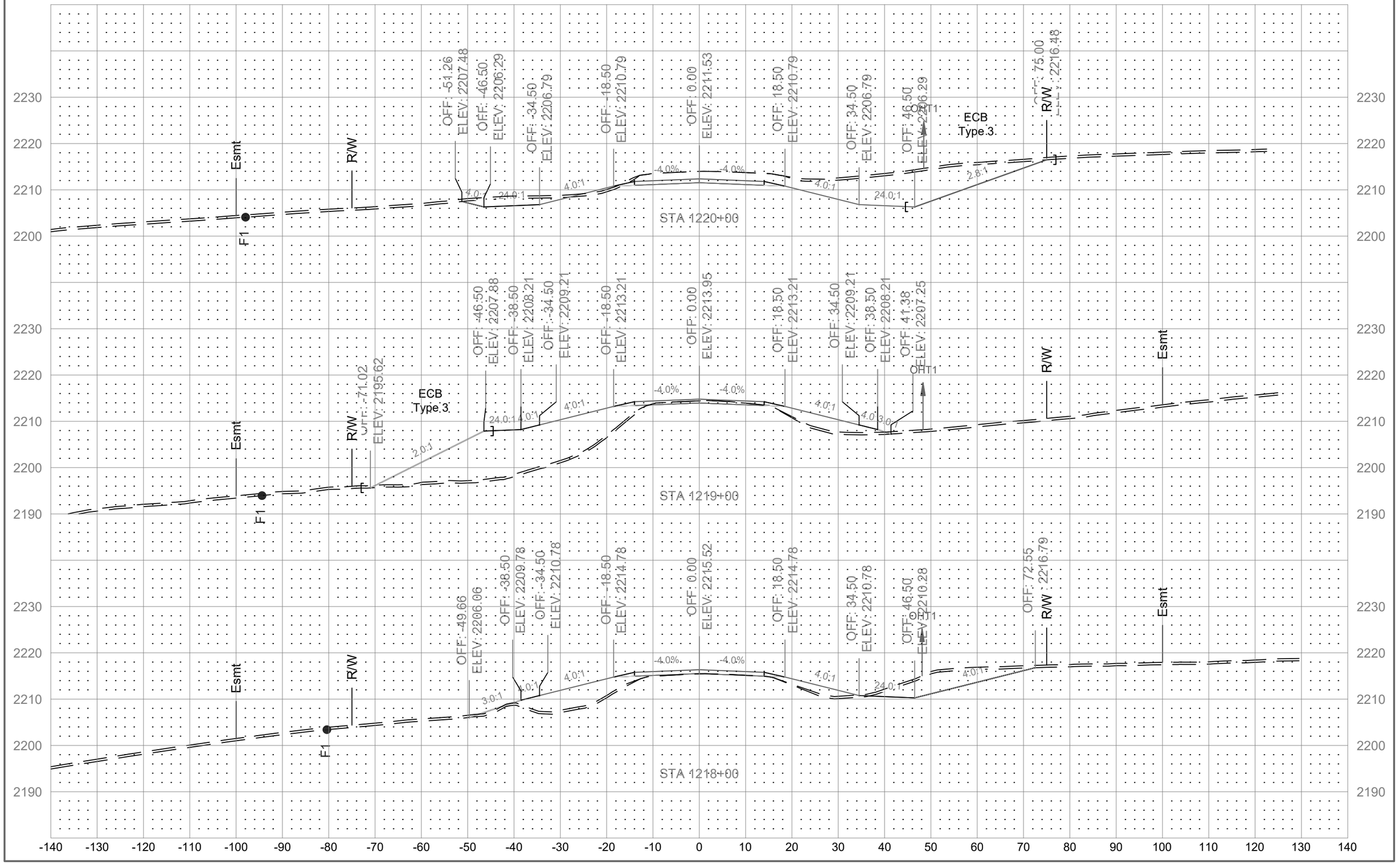
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	162



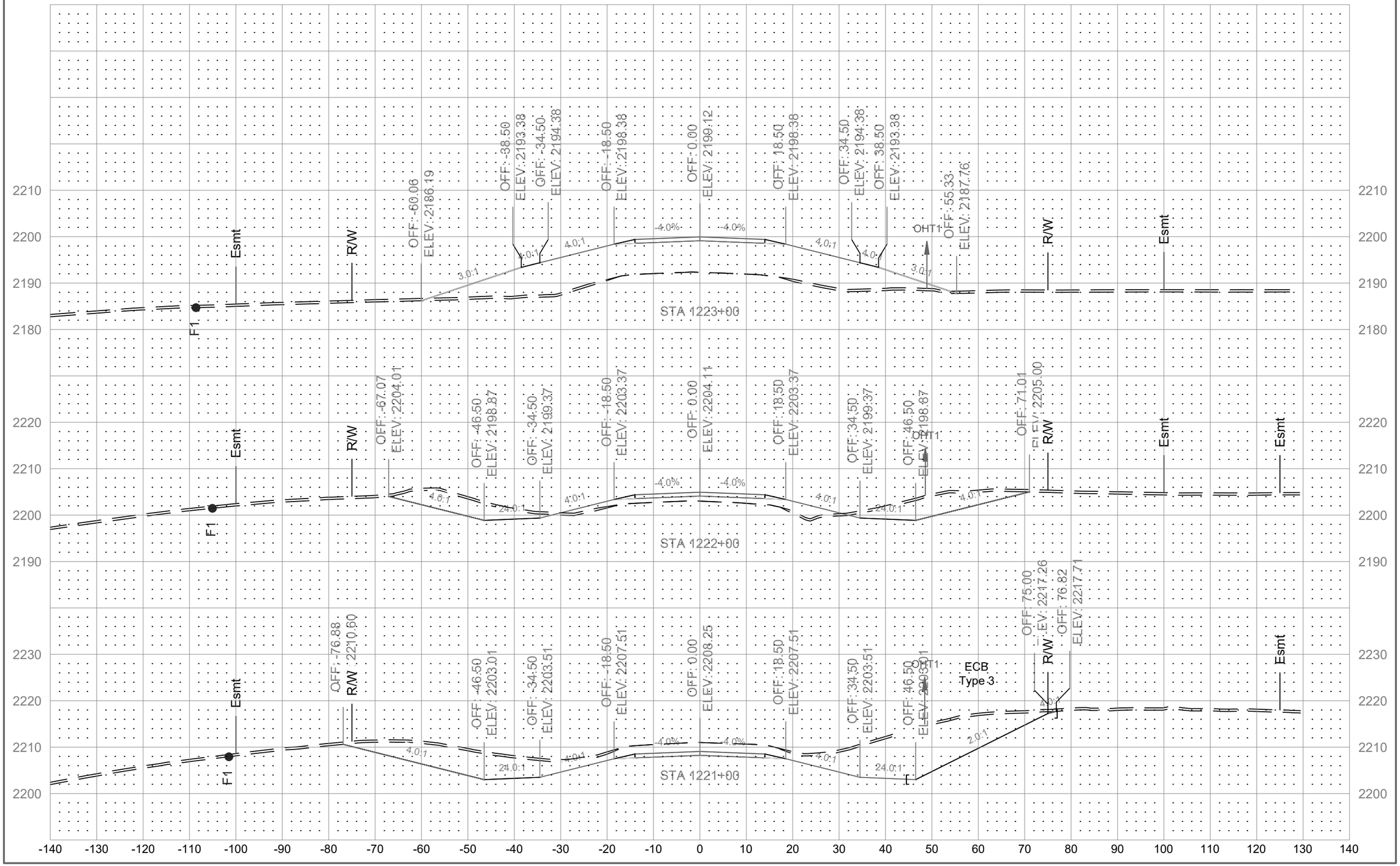
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	163



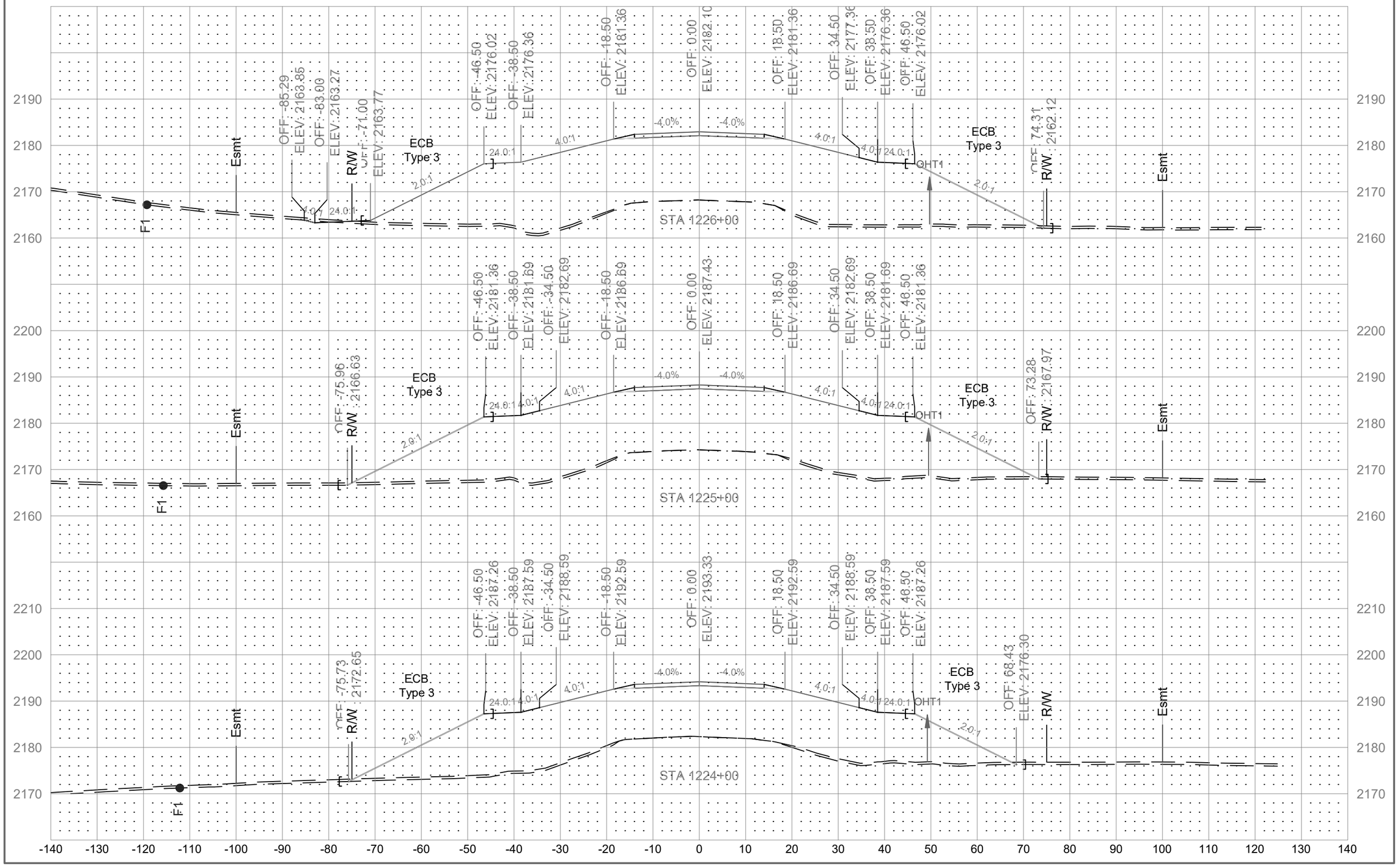
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	164



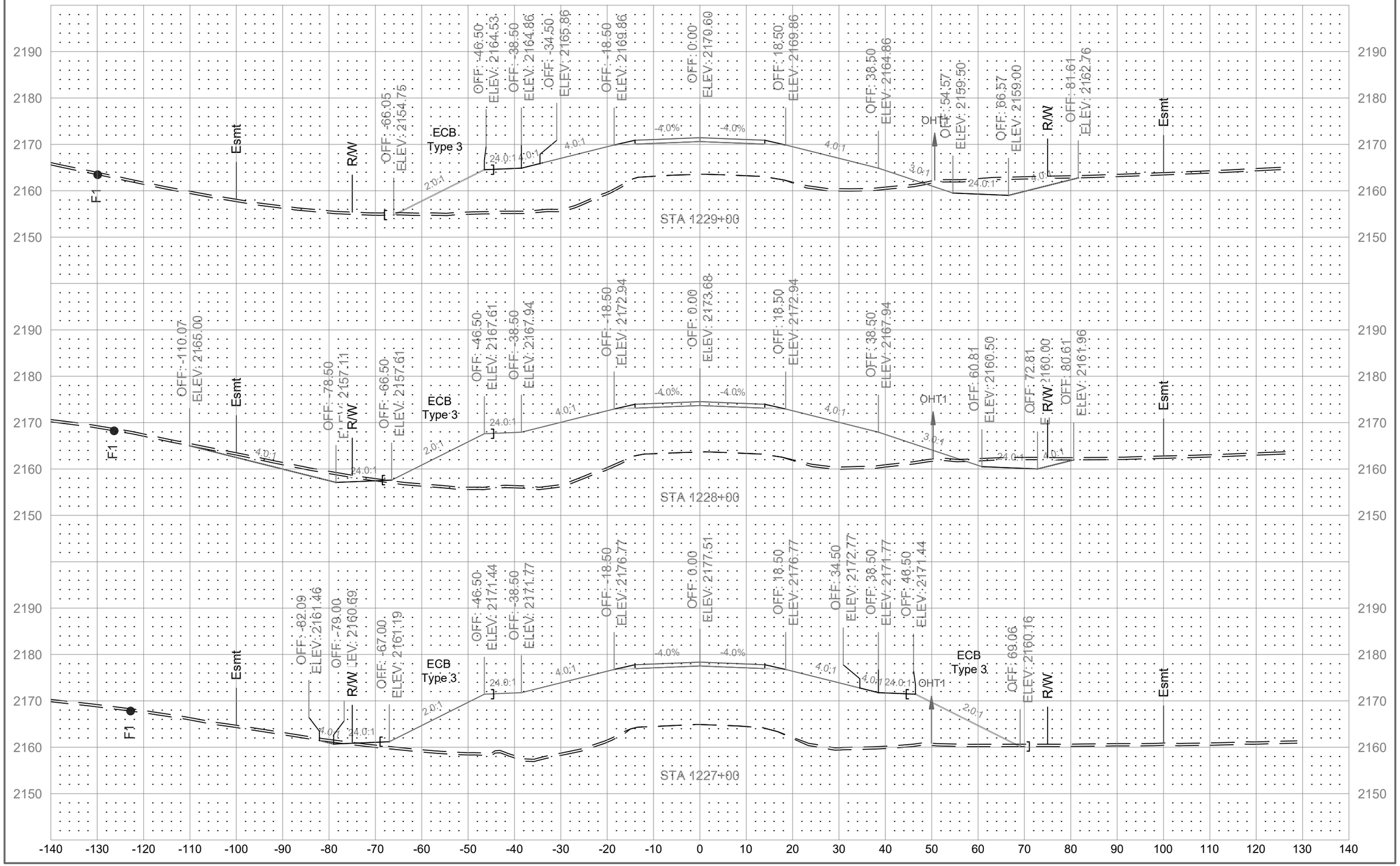
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	165



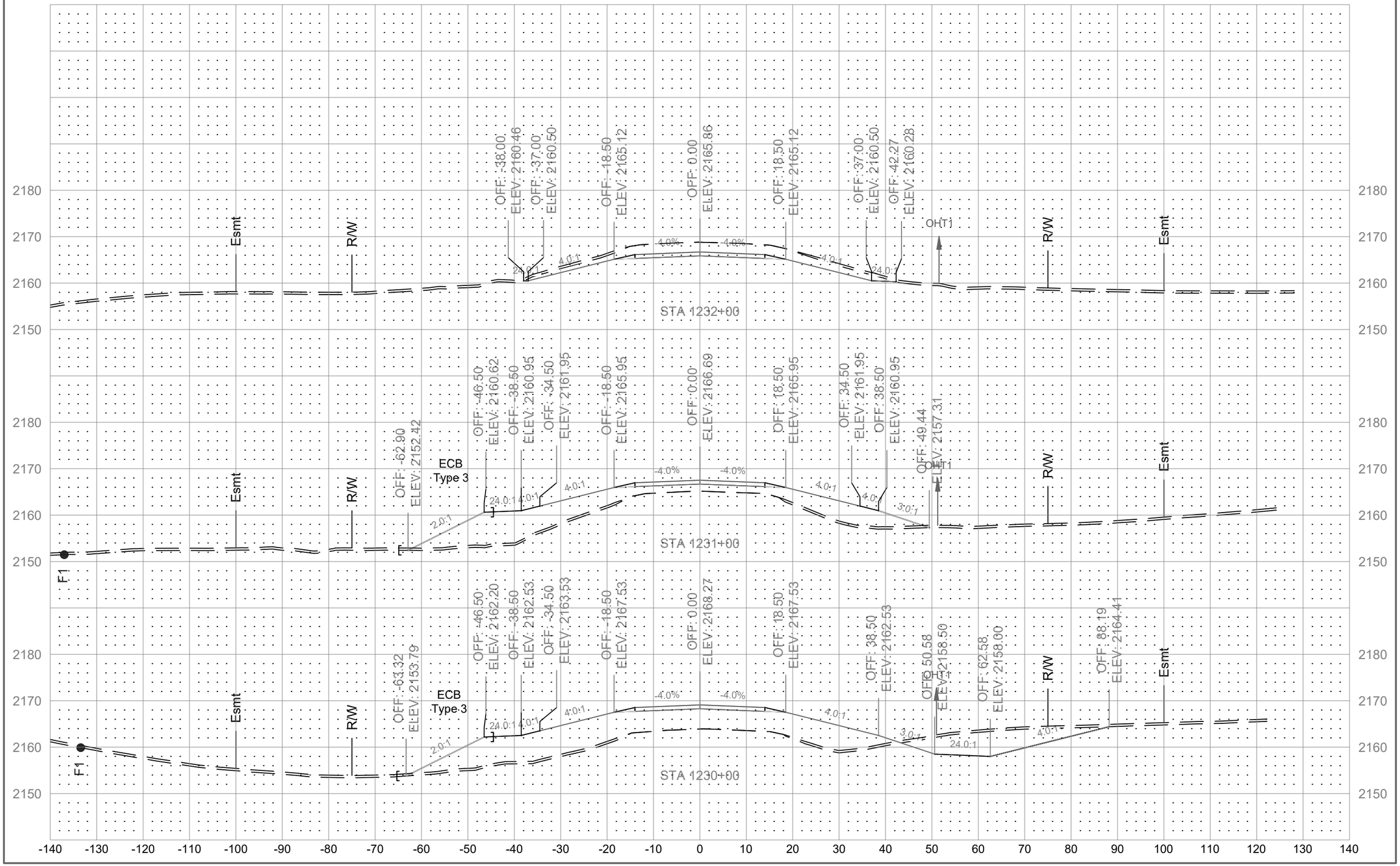
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	166



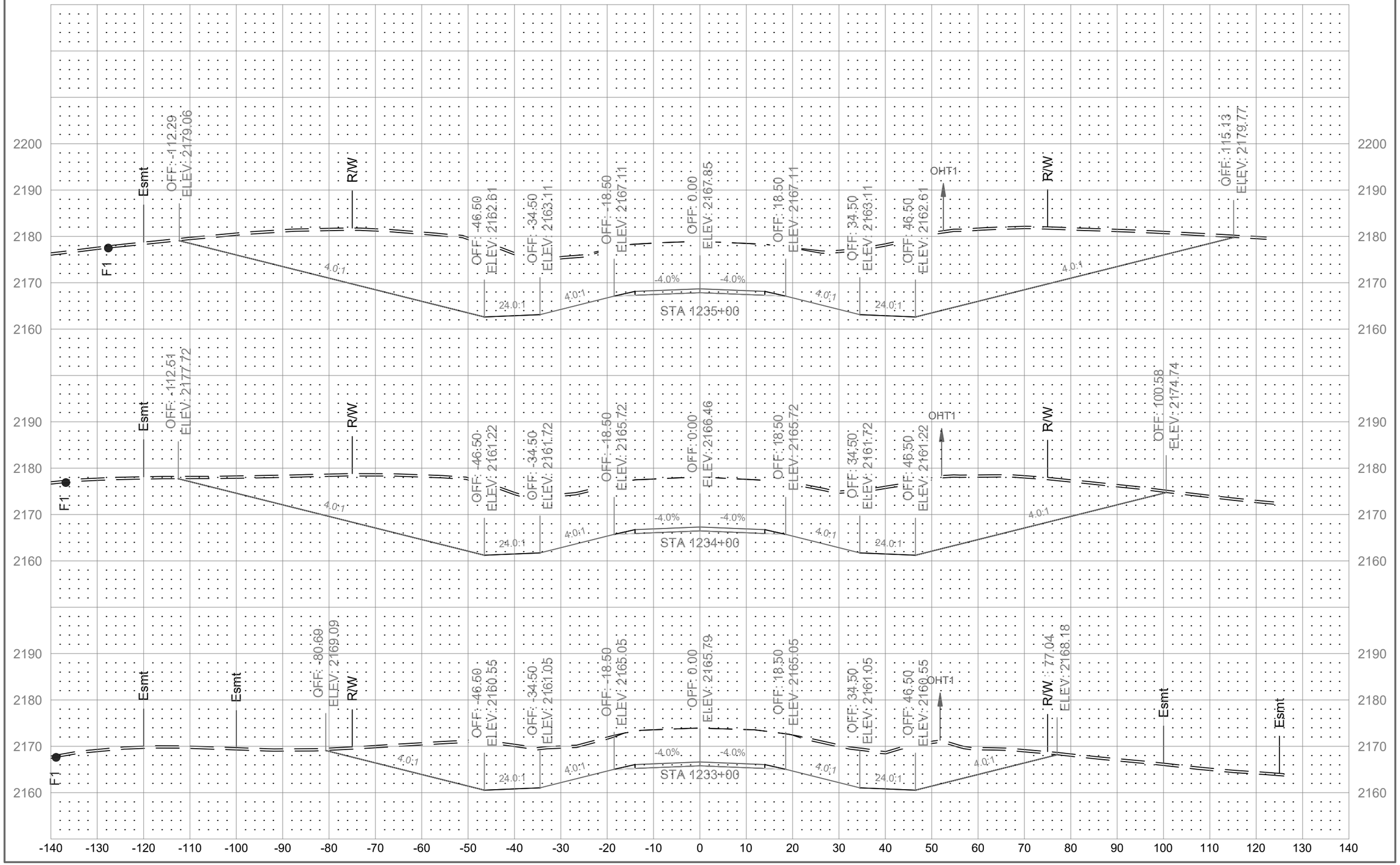
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	167



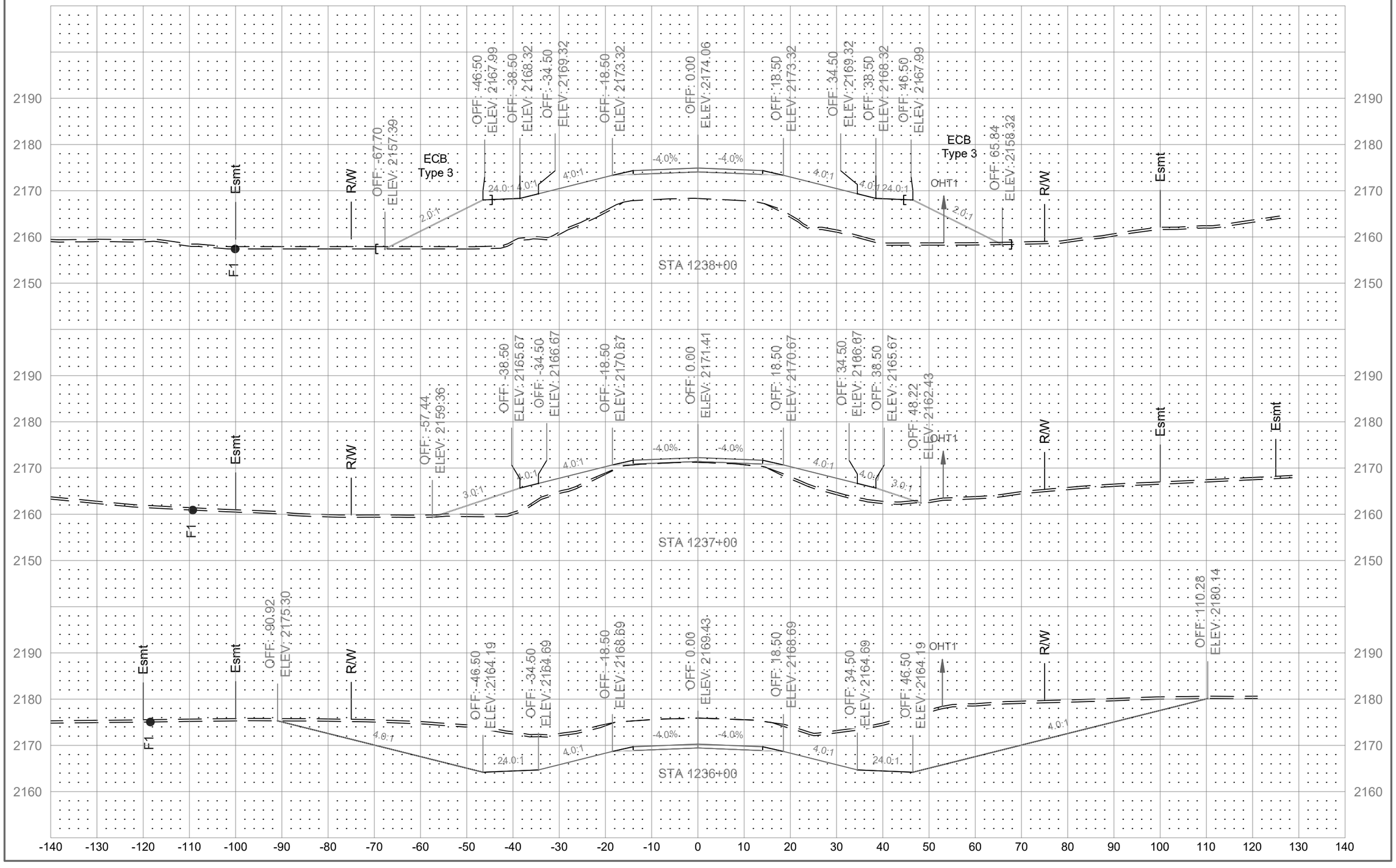
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	168



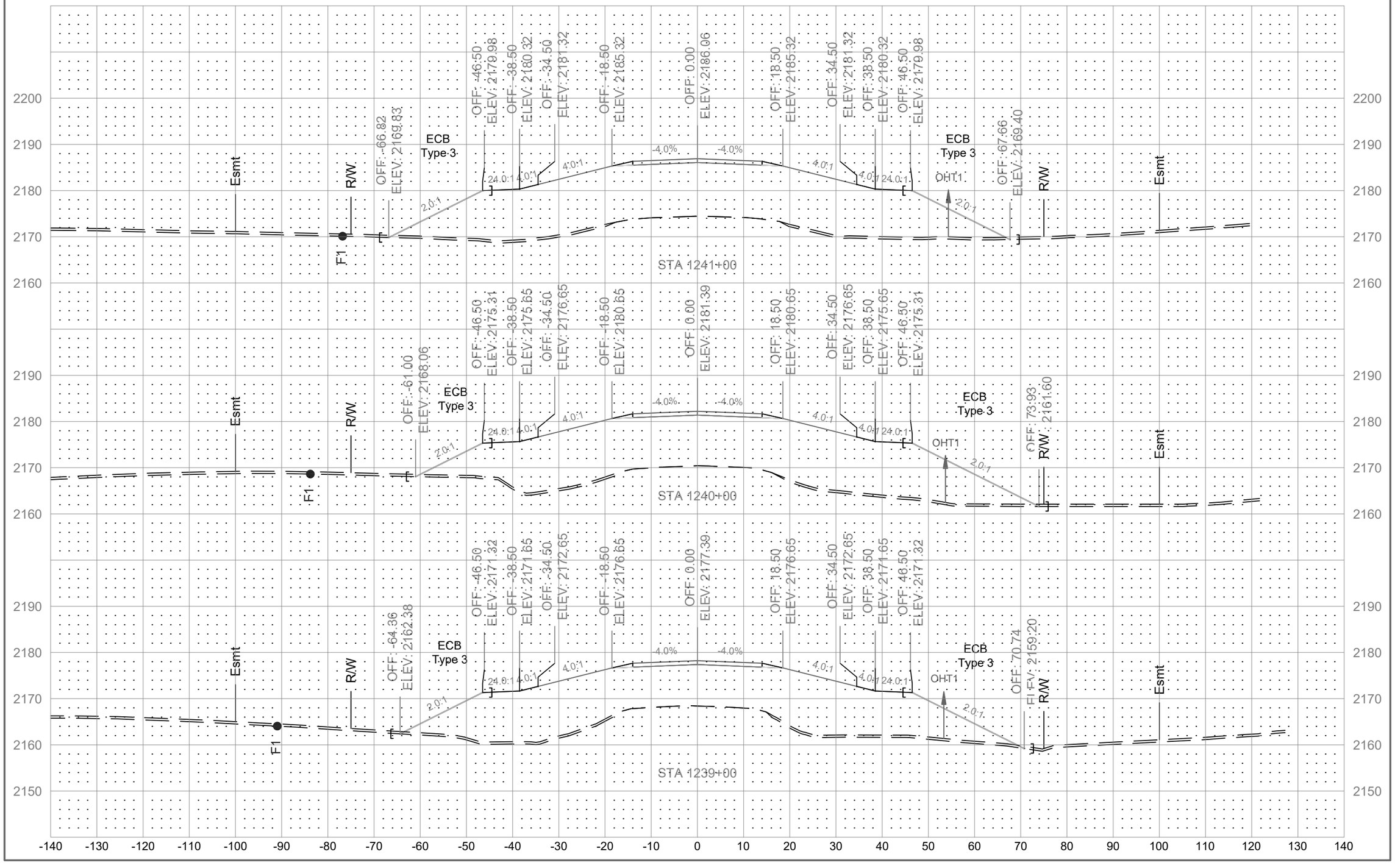
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	169



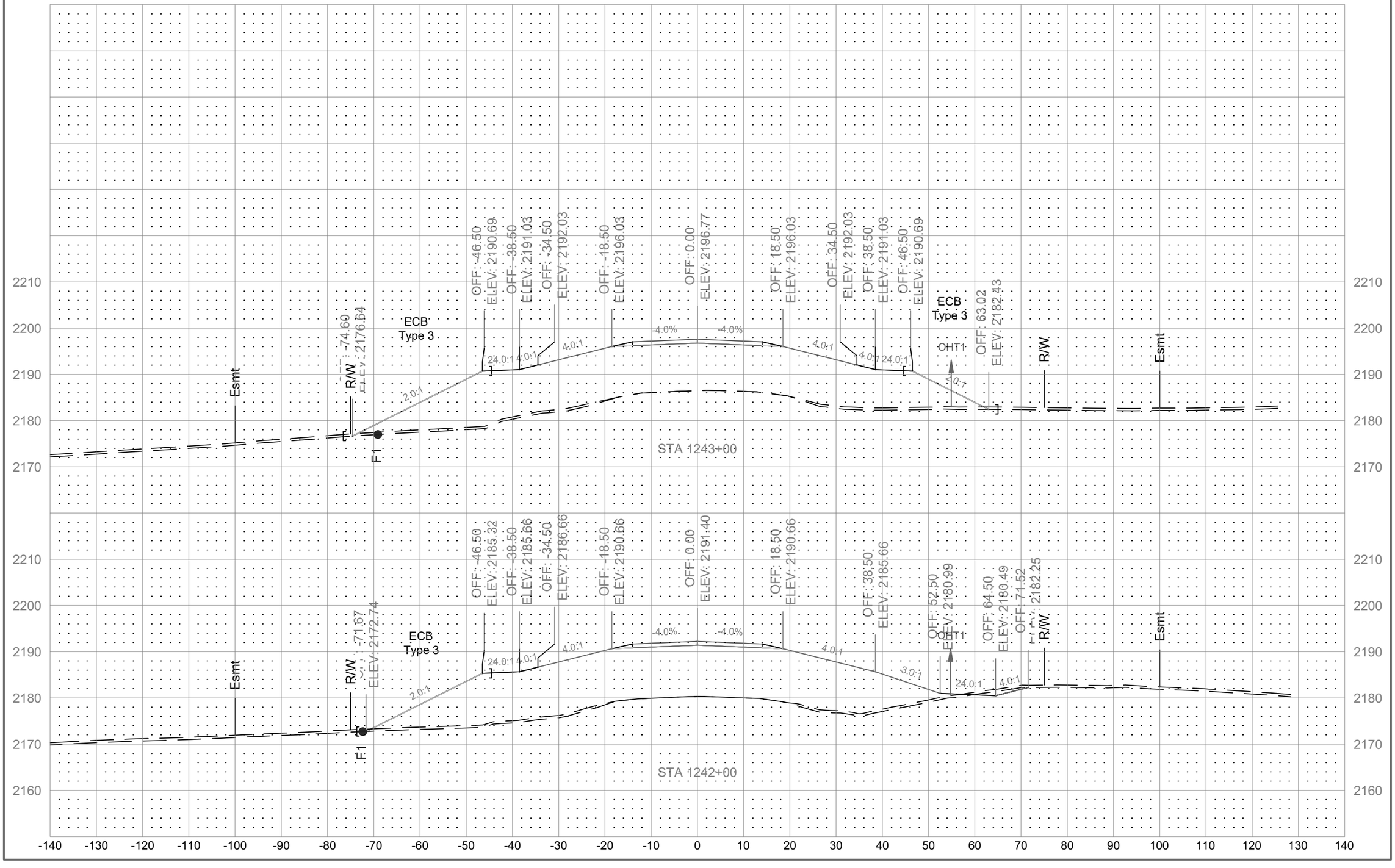
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	170



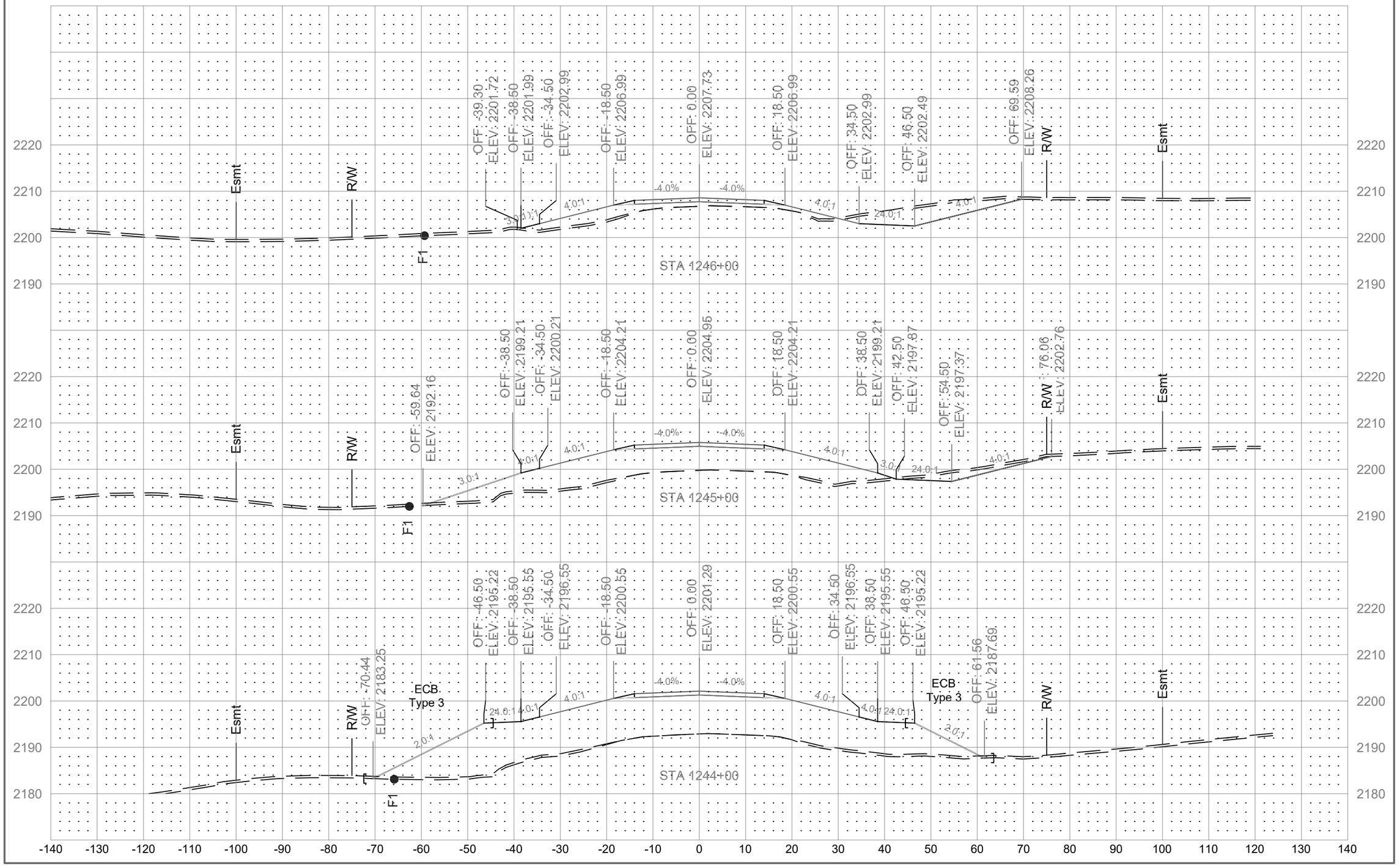
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	171



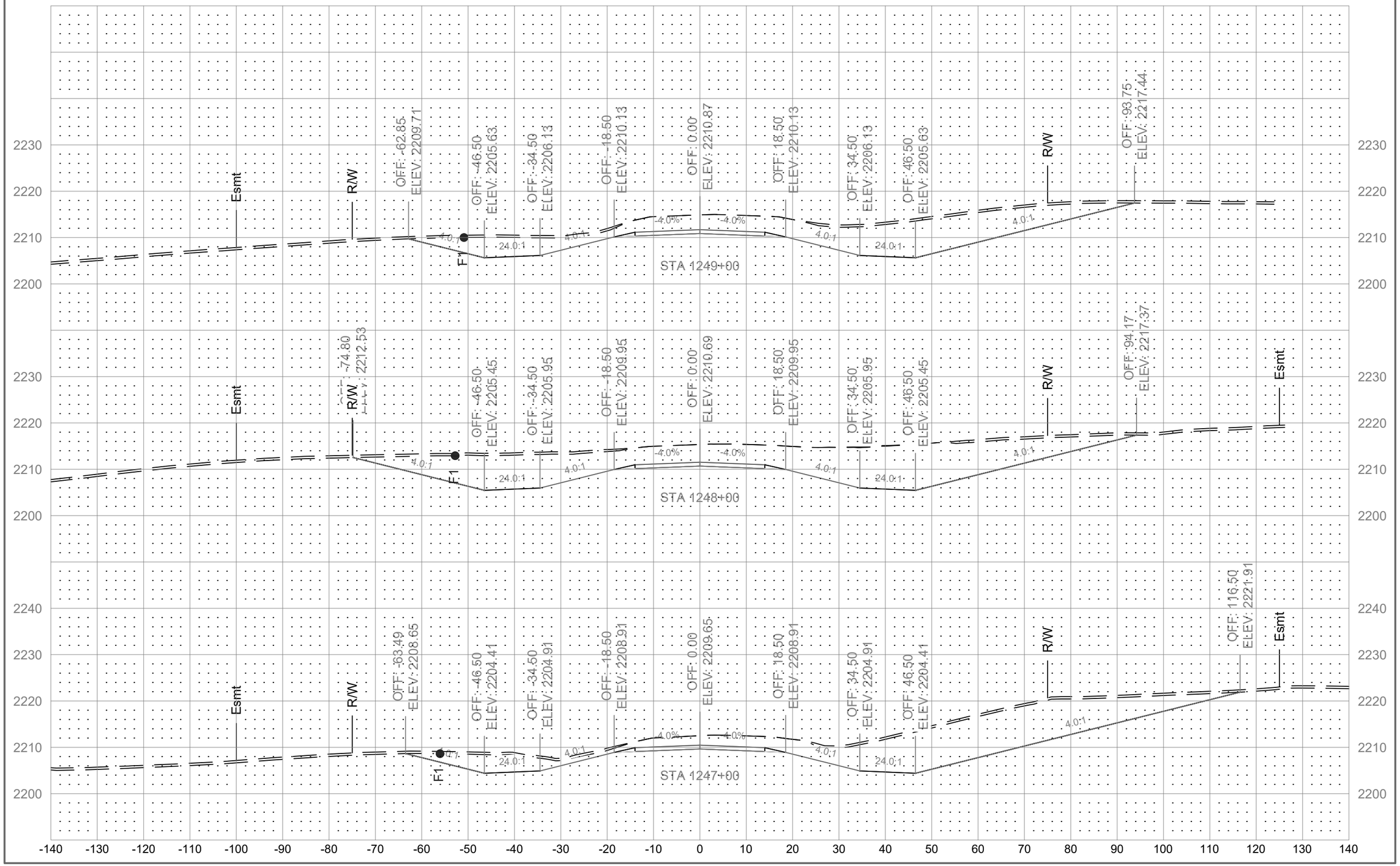
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	172



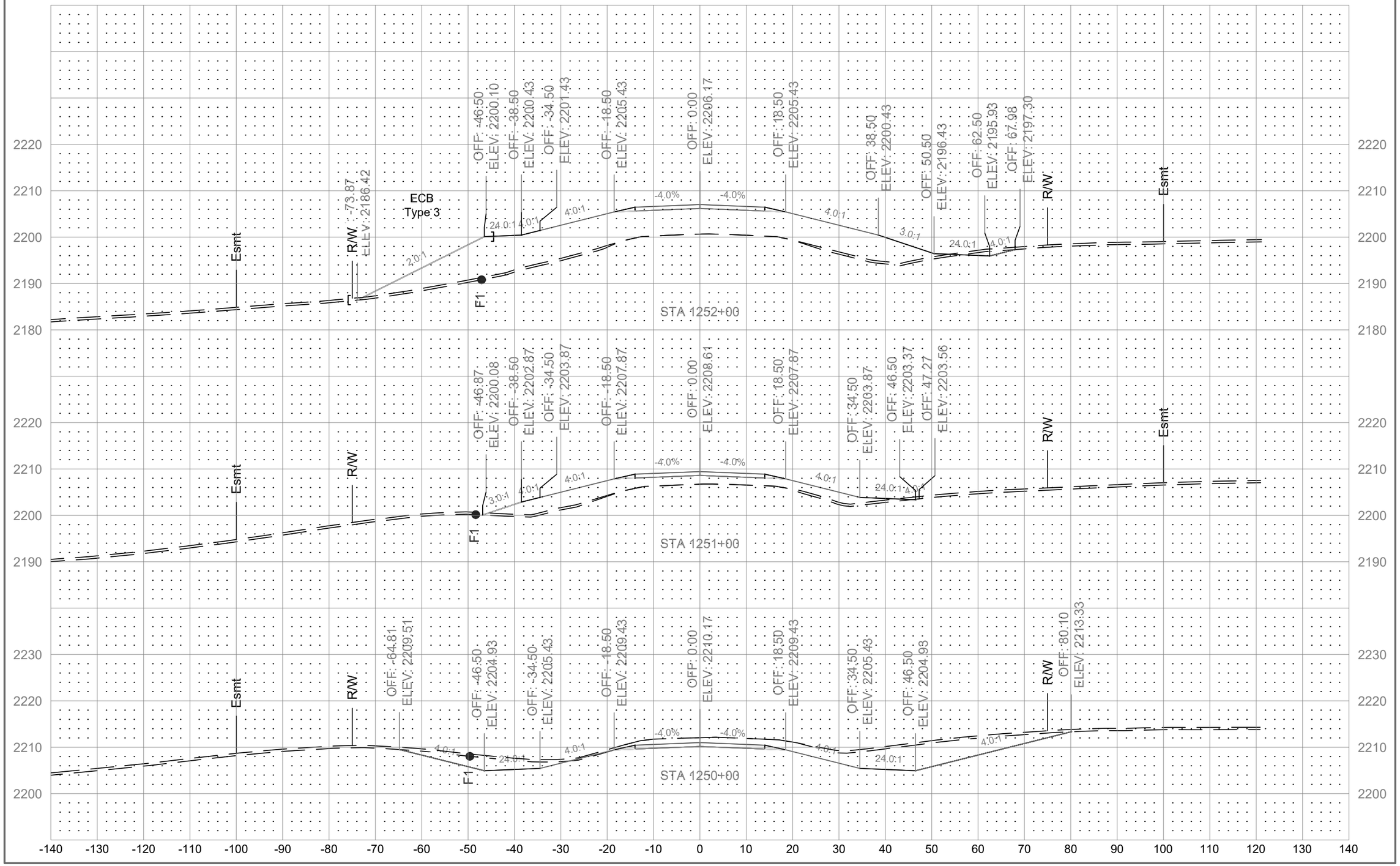
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	173



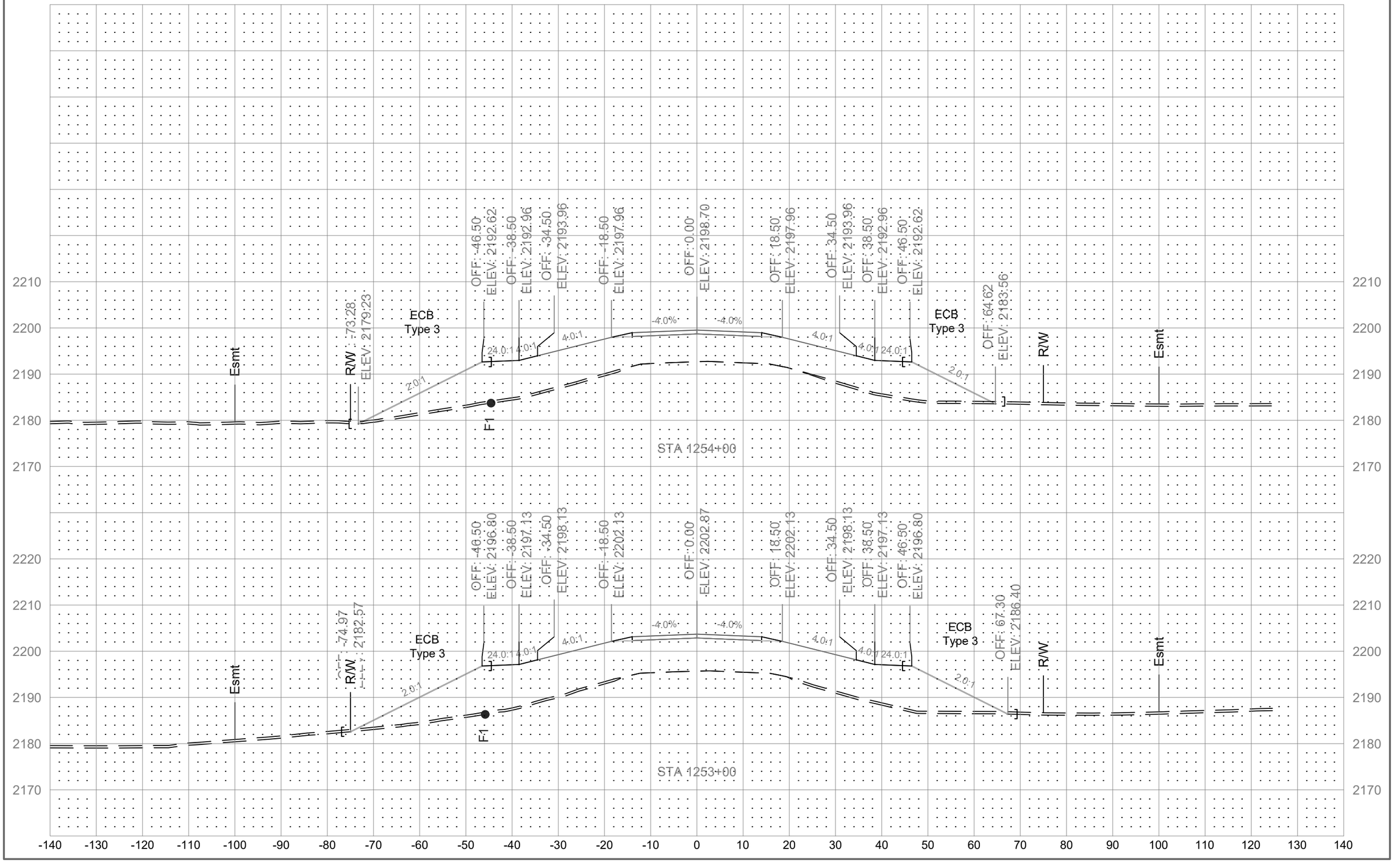
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	174



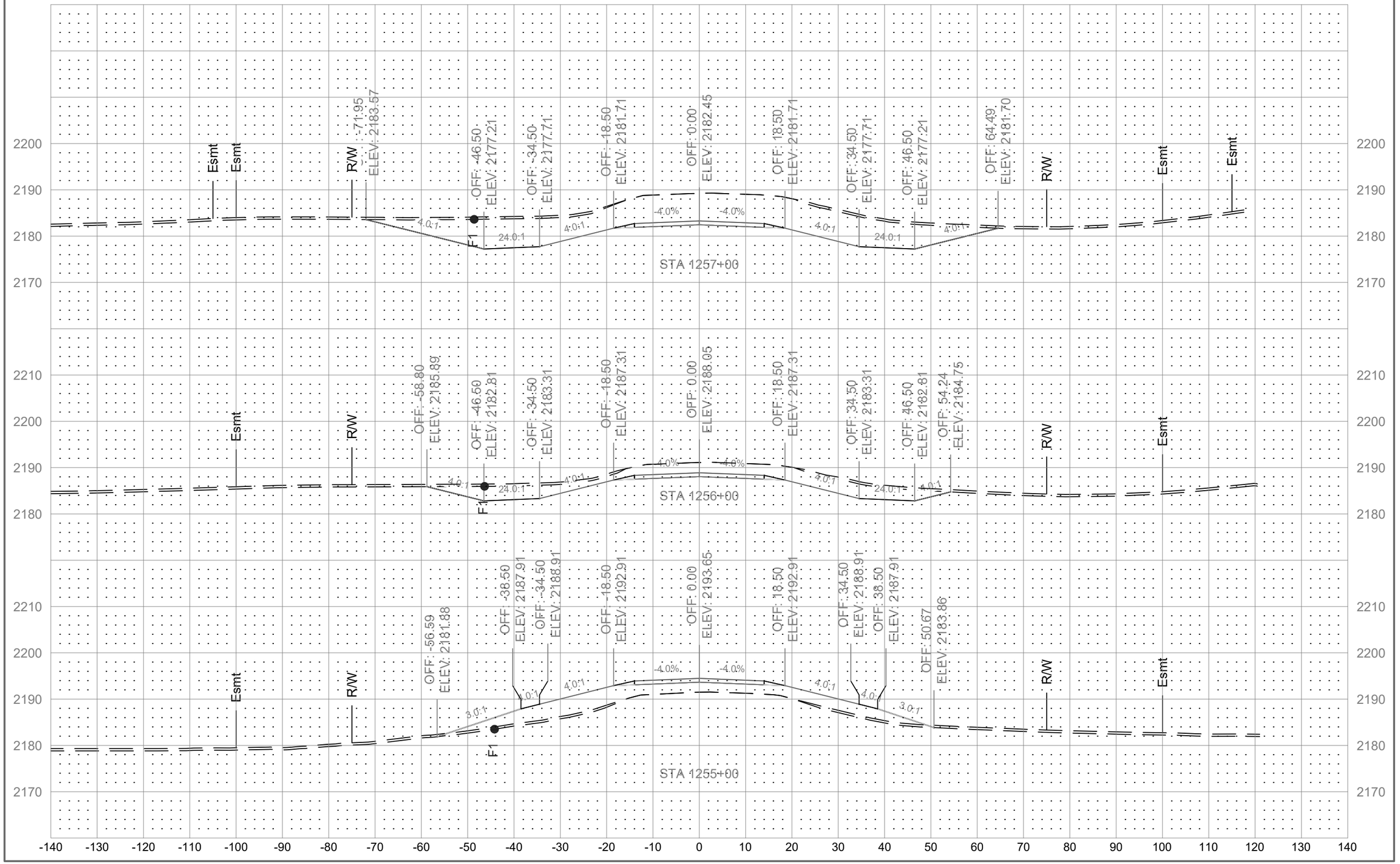
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	175



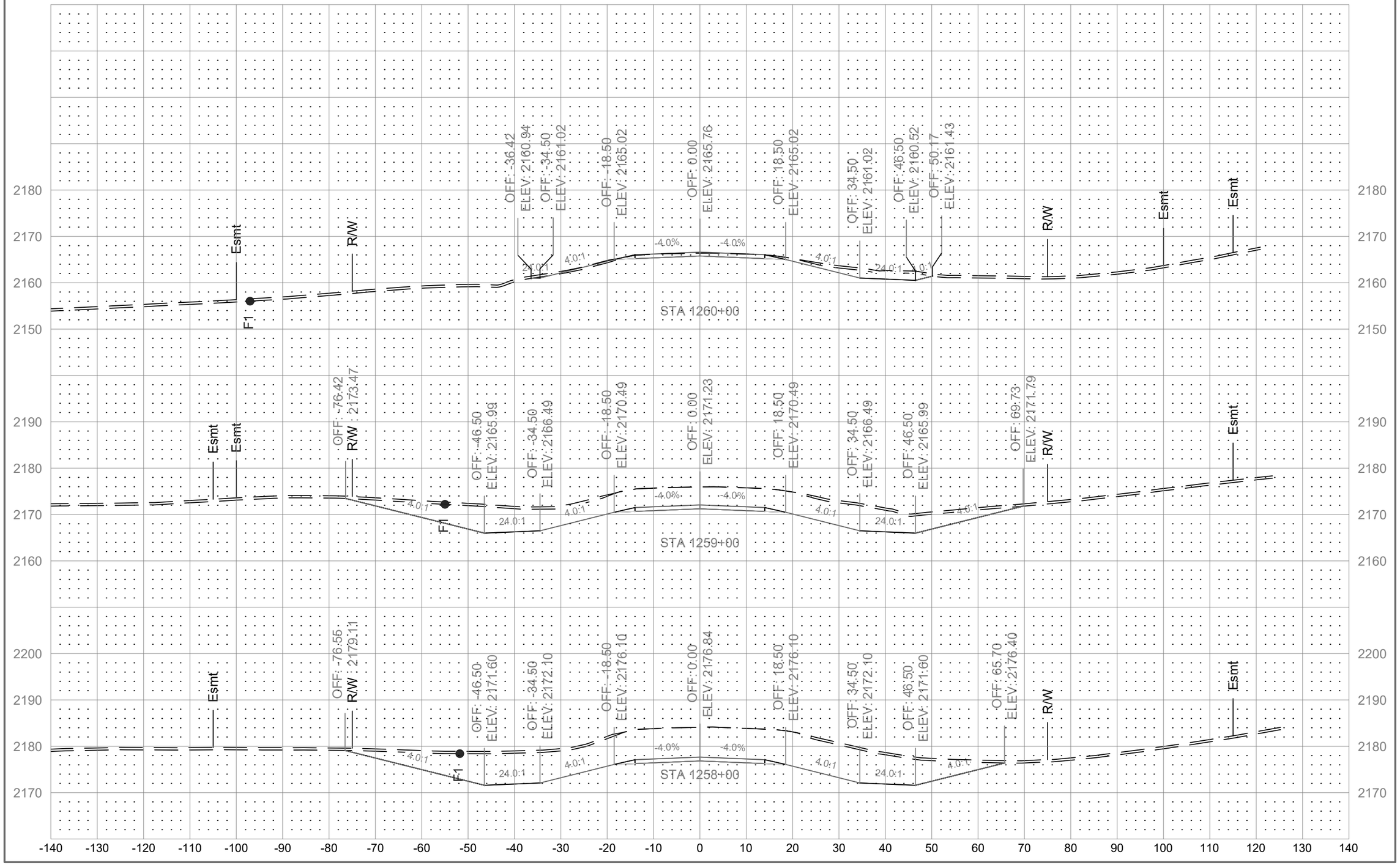
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	176



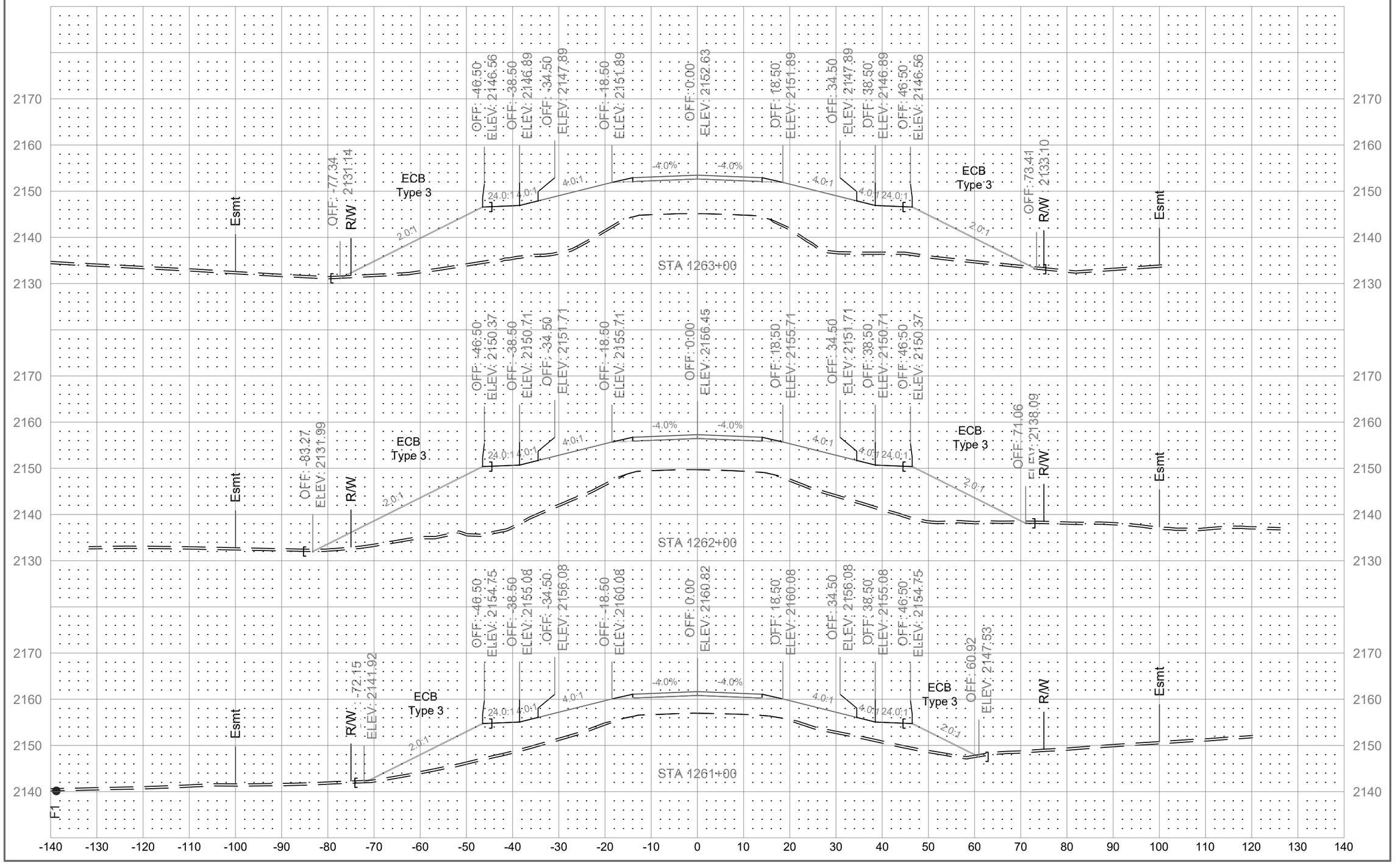
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	177



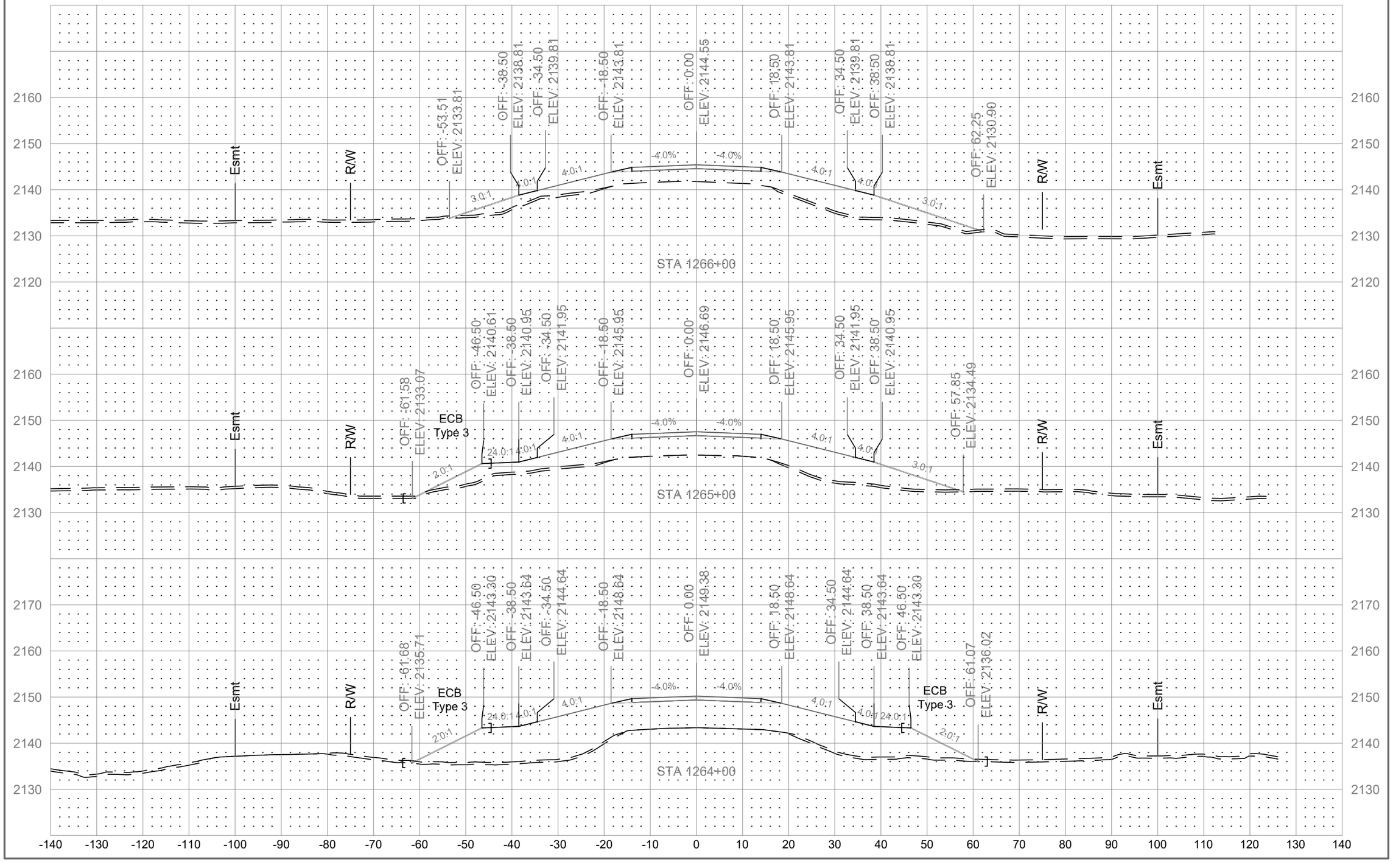
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	178



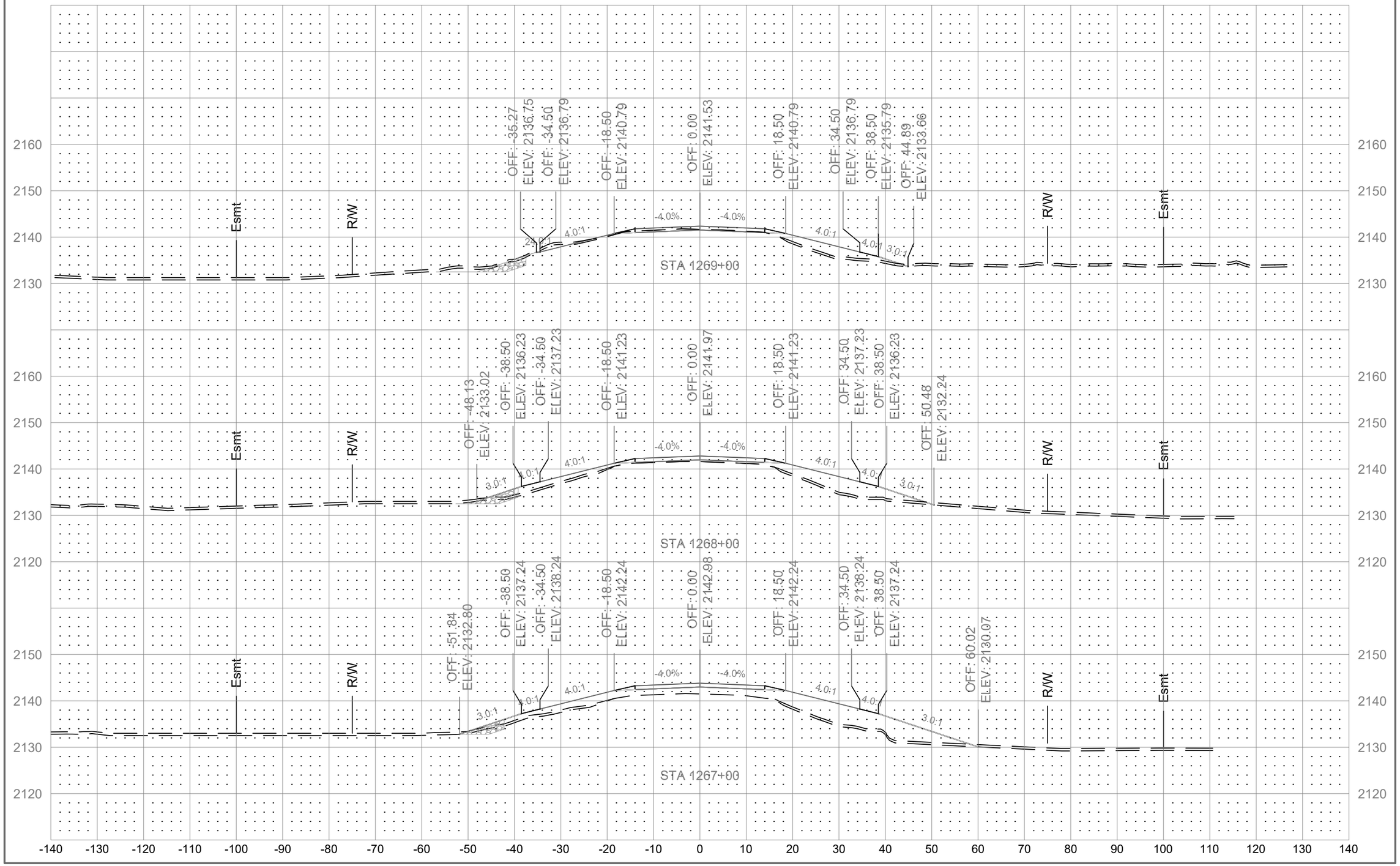
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	179



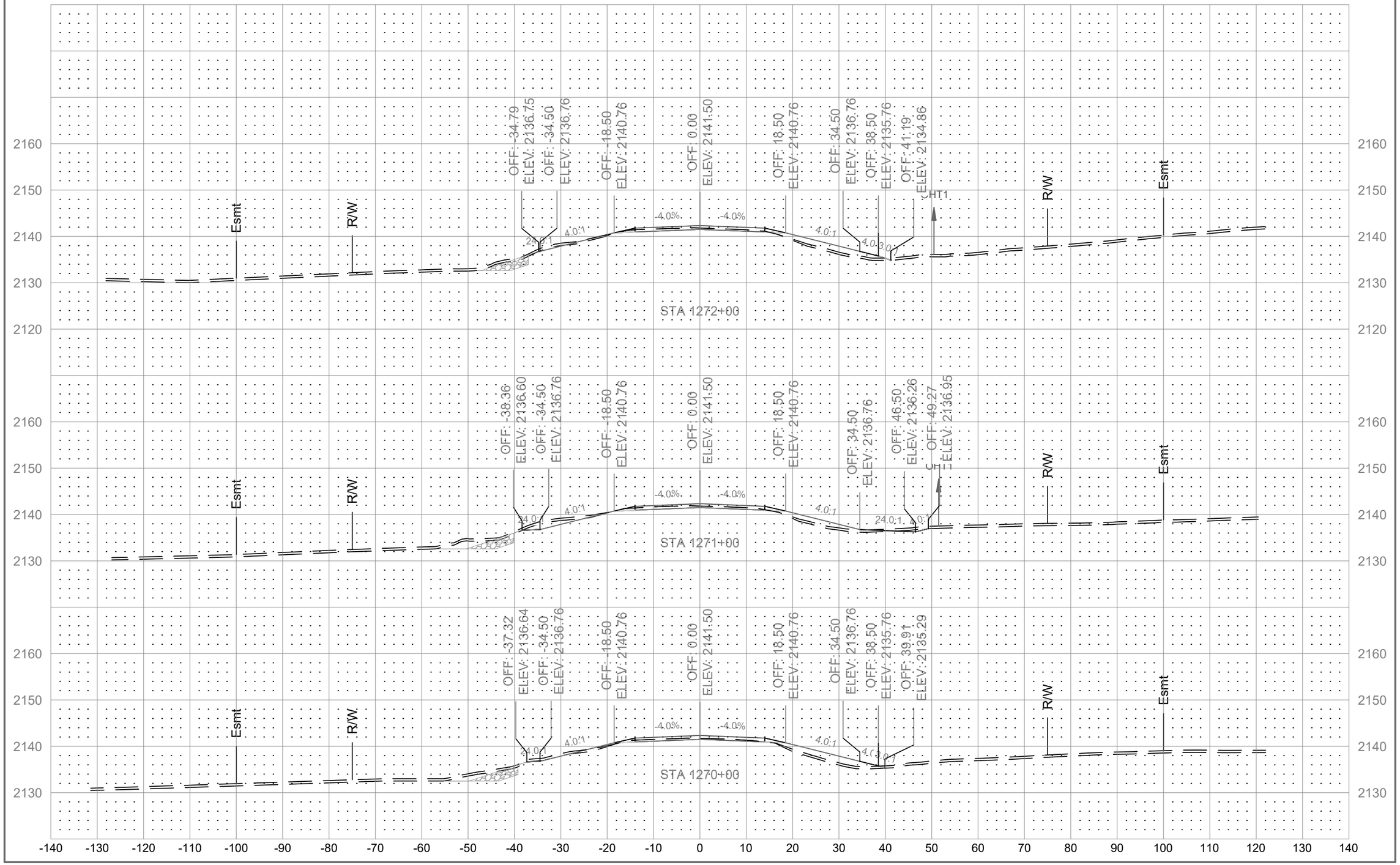
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	180



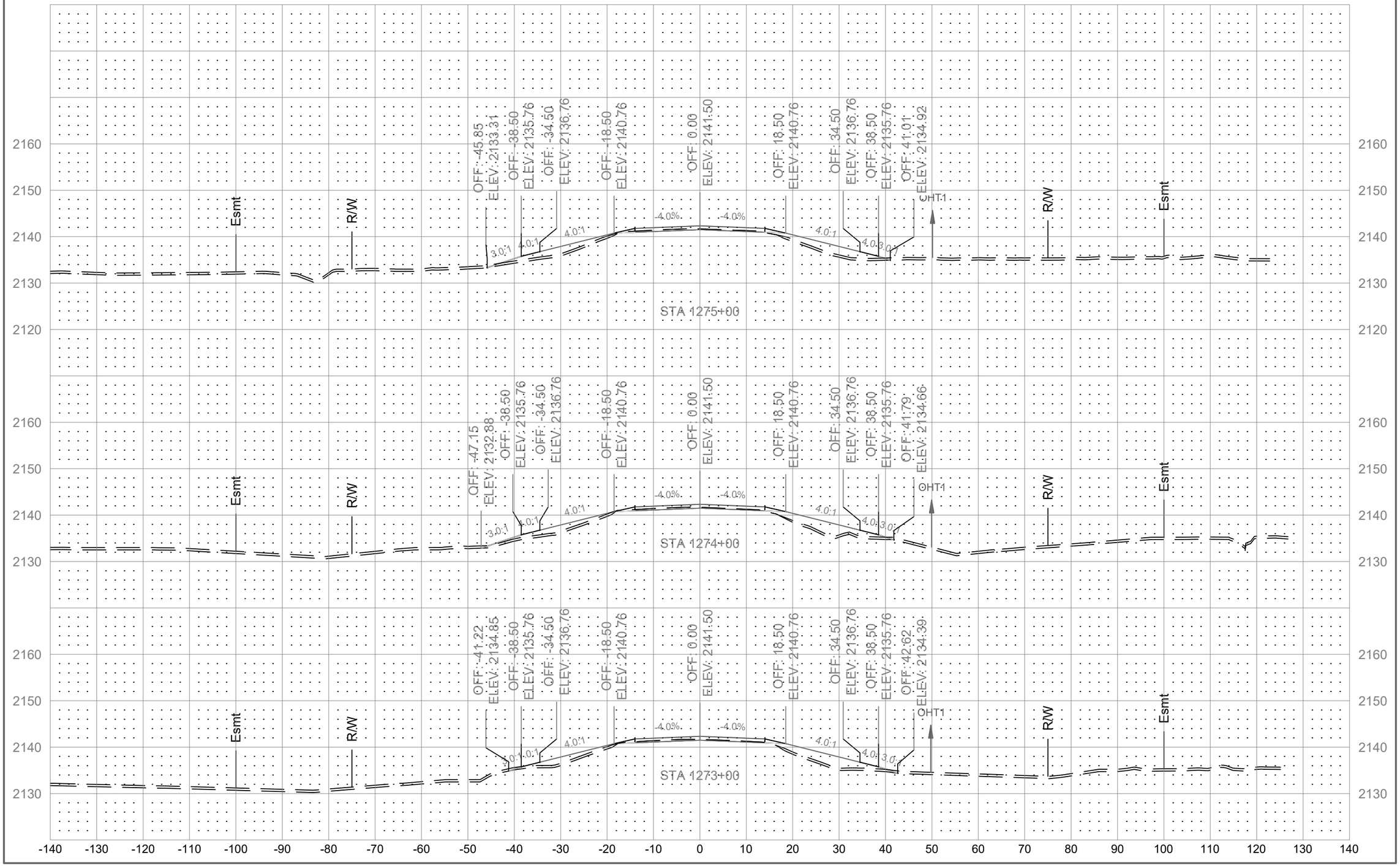
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	181



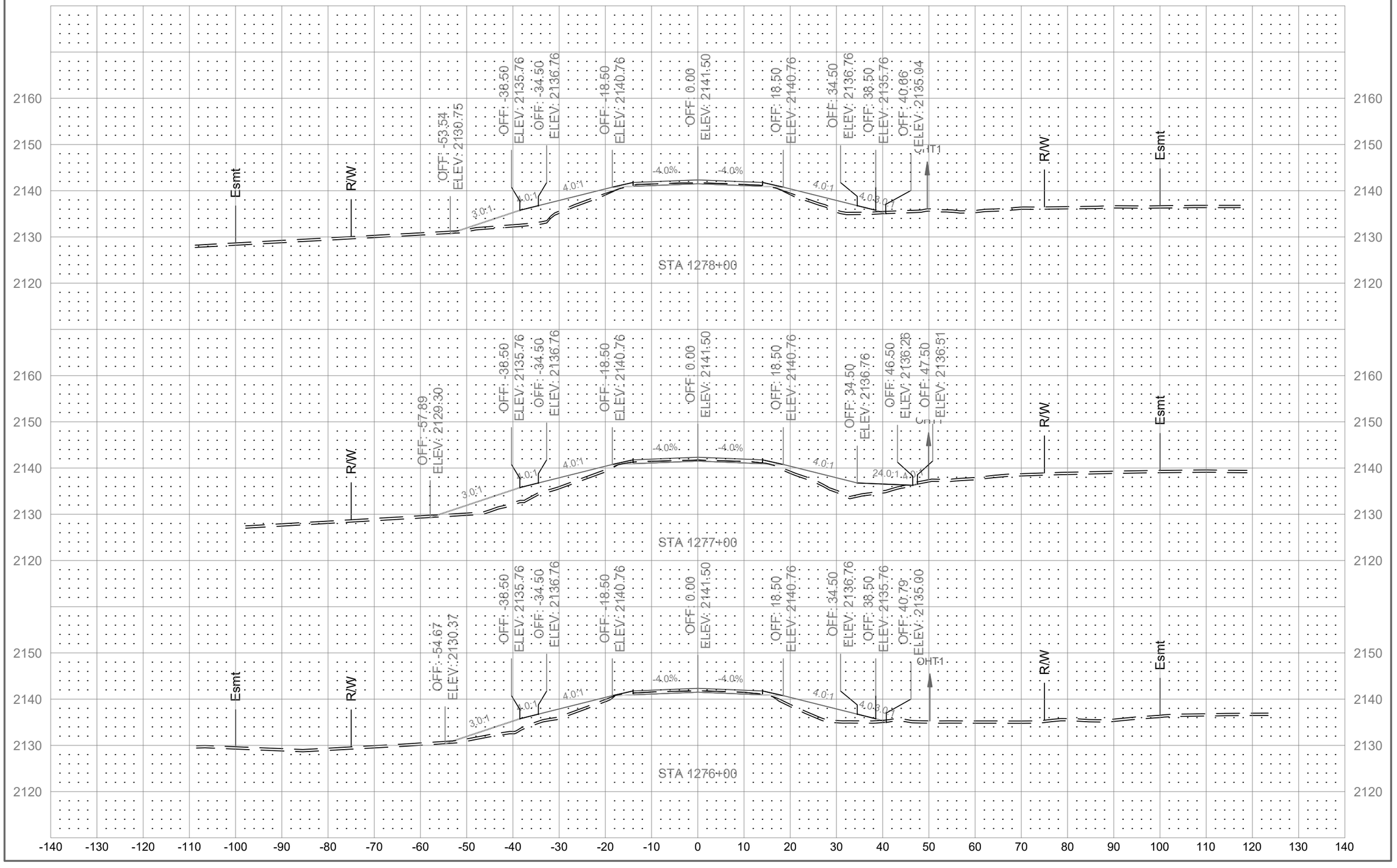
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	182



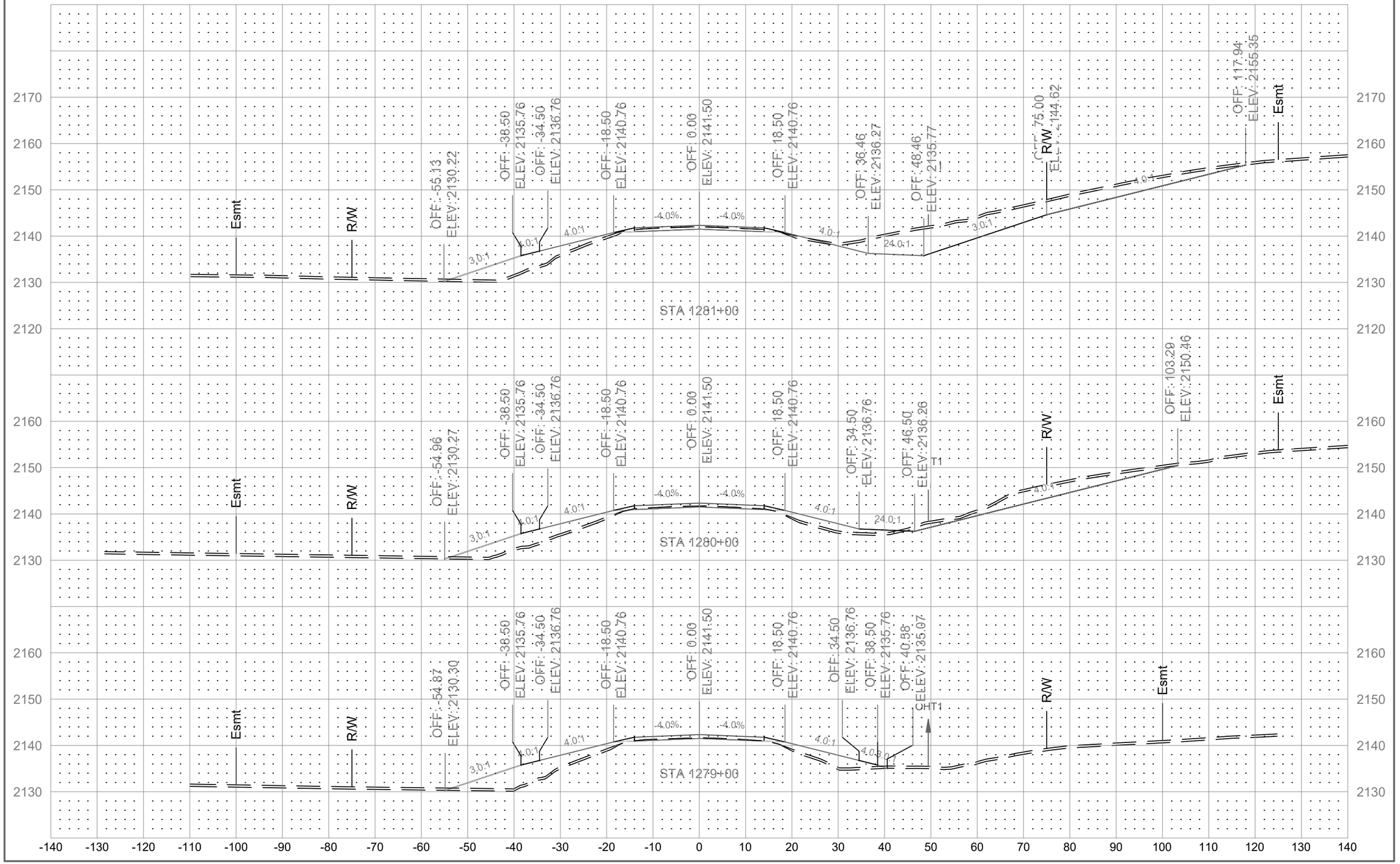
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	183



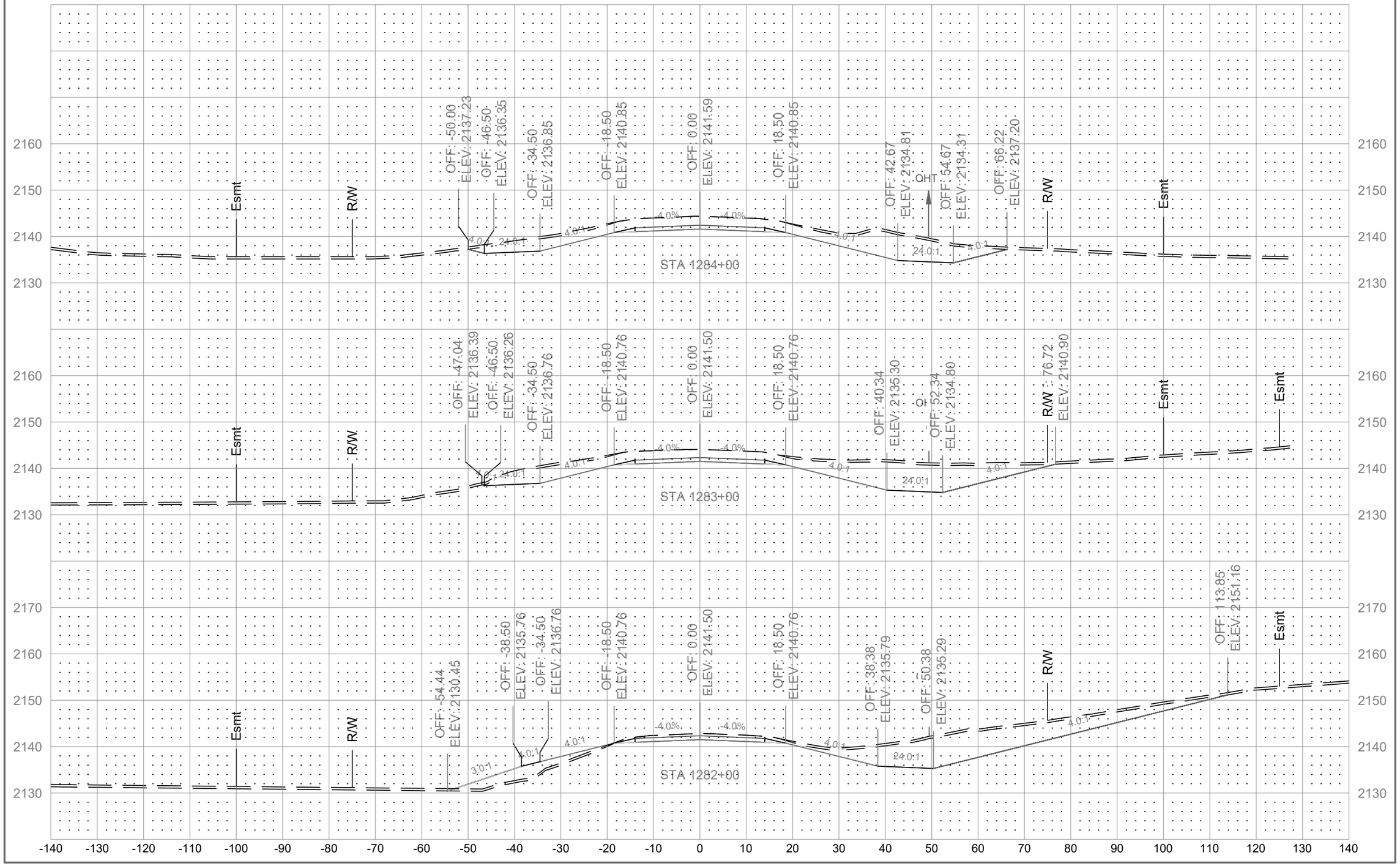
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	184



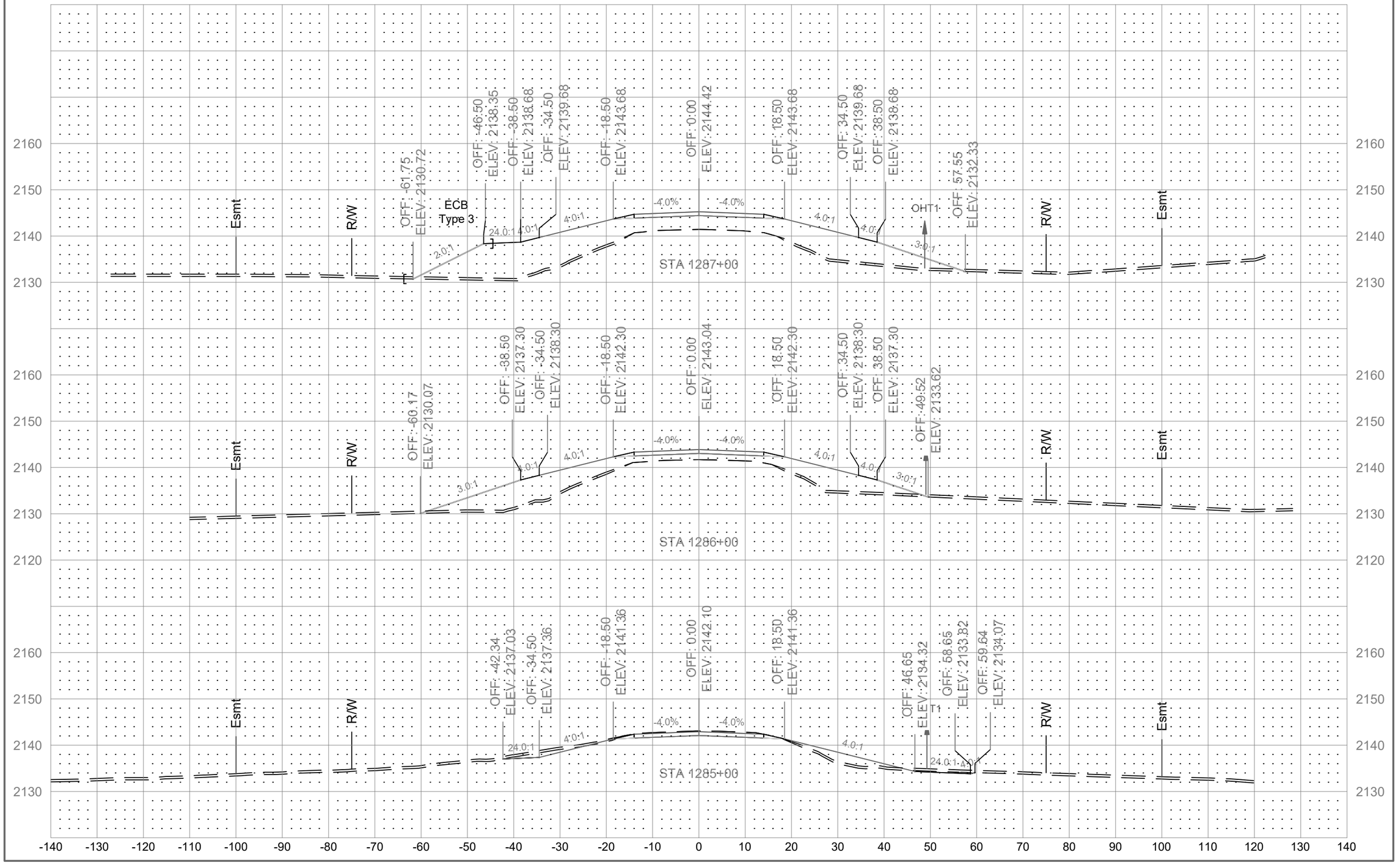
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	185



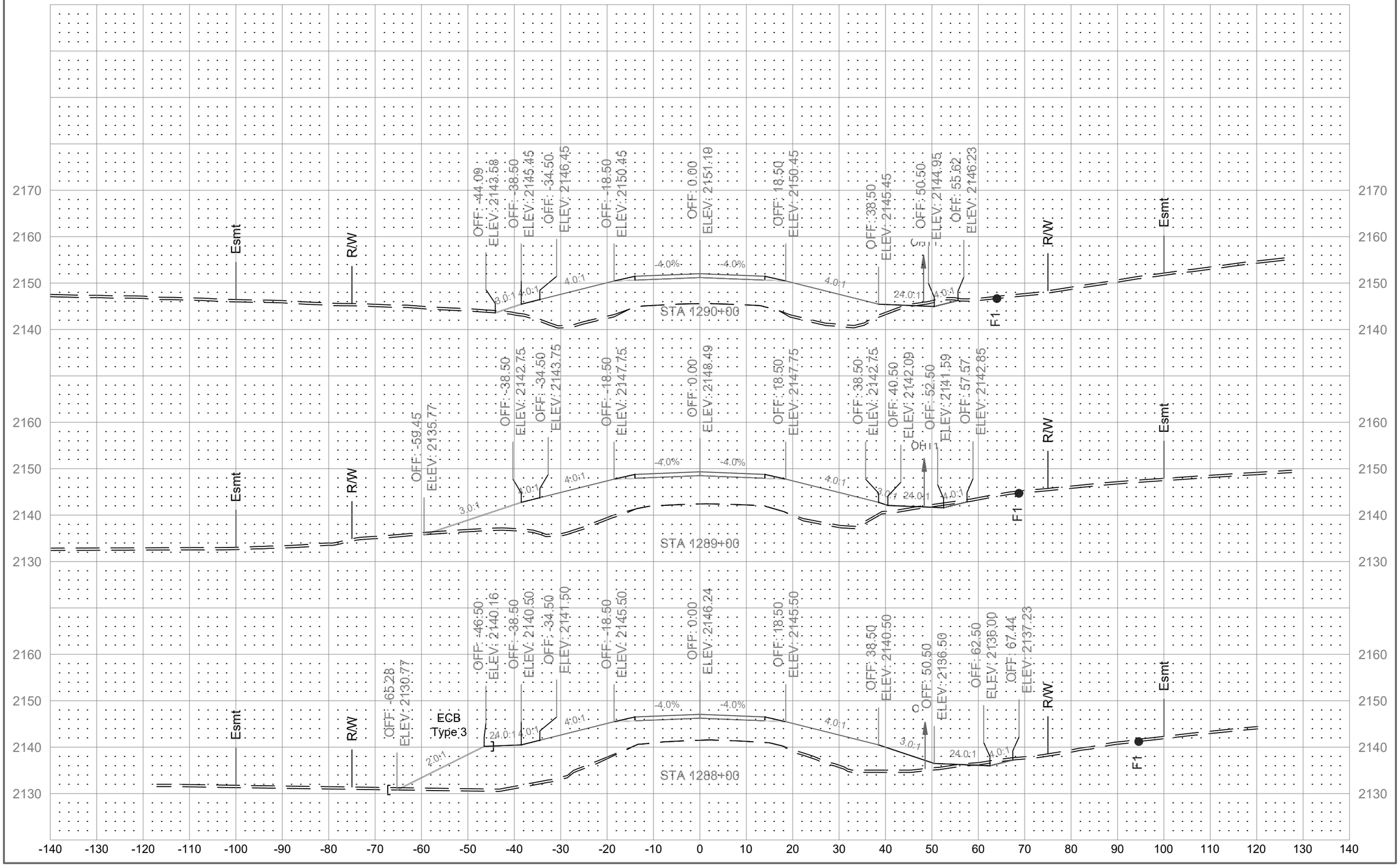
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	186



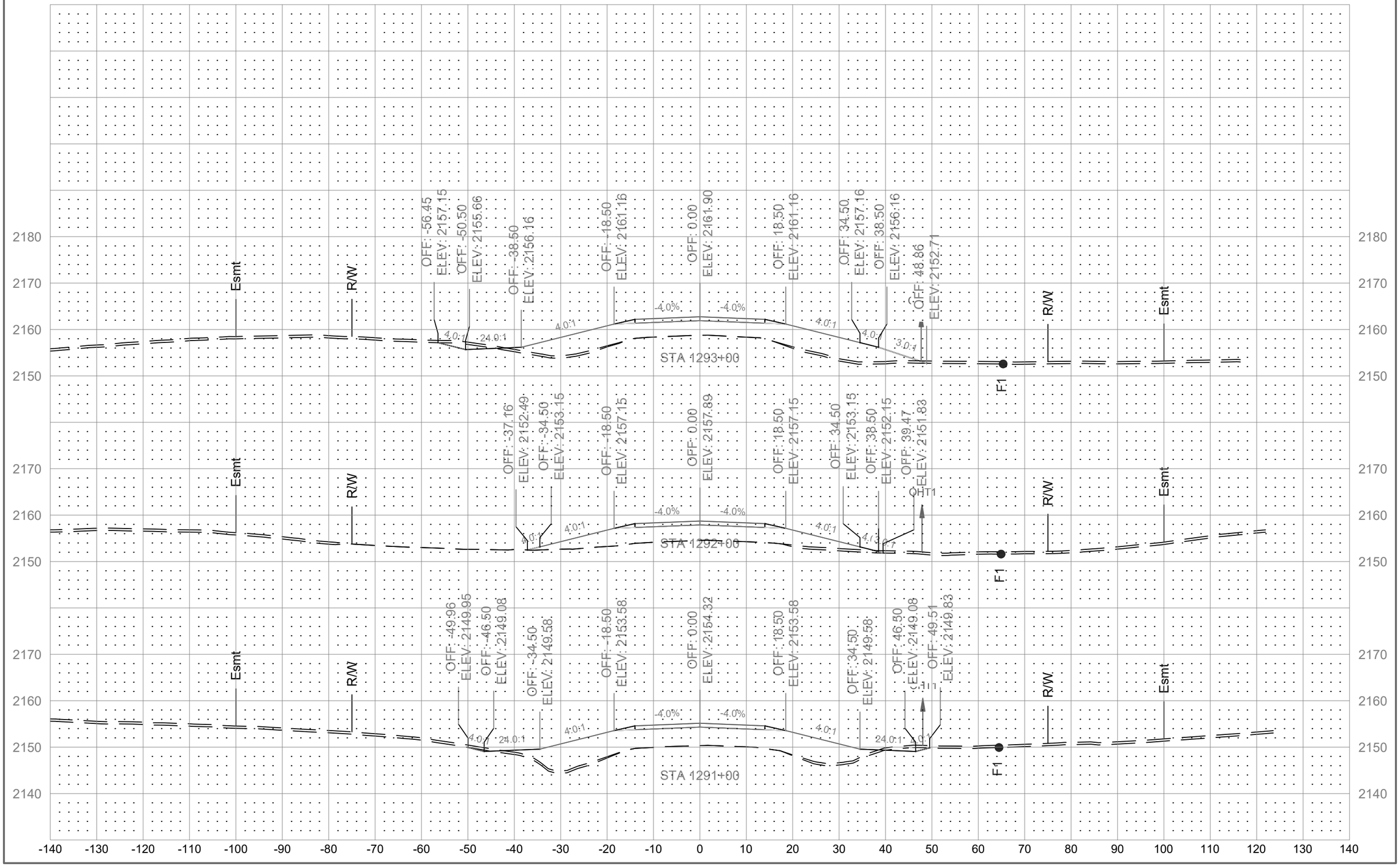
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	187



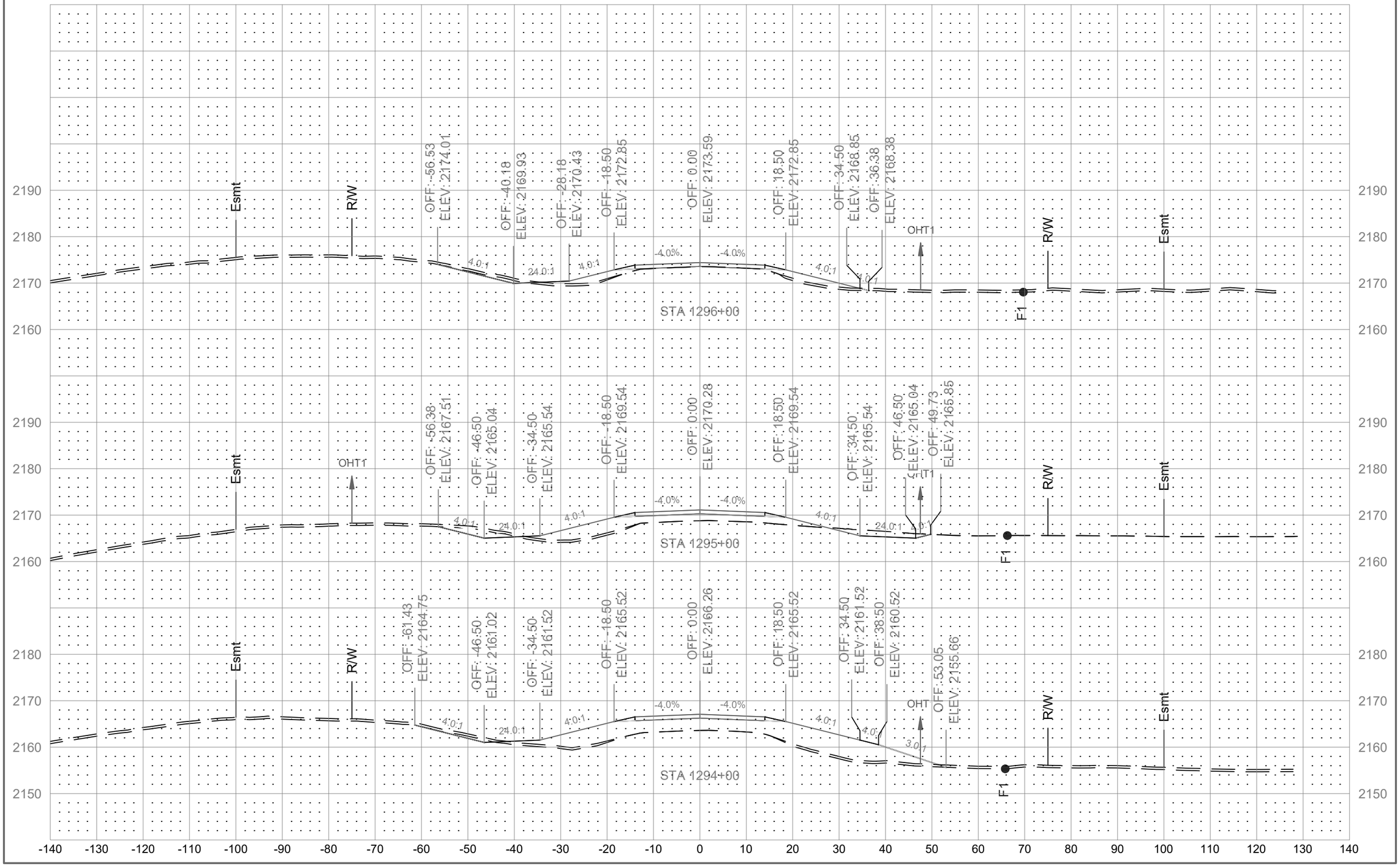
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	188



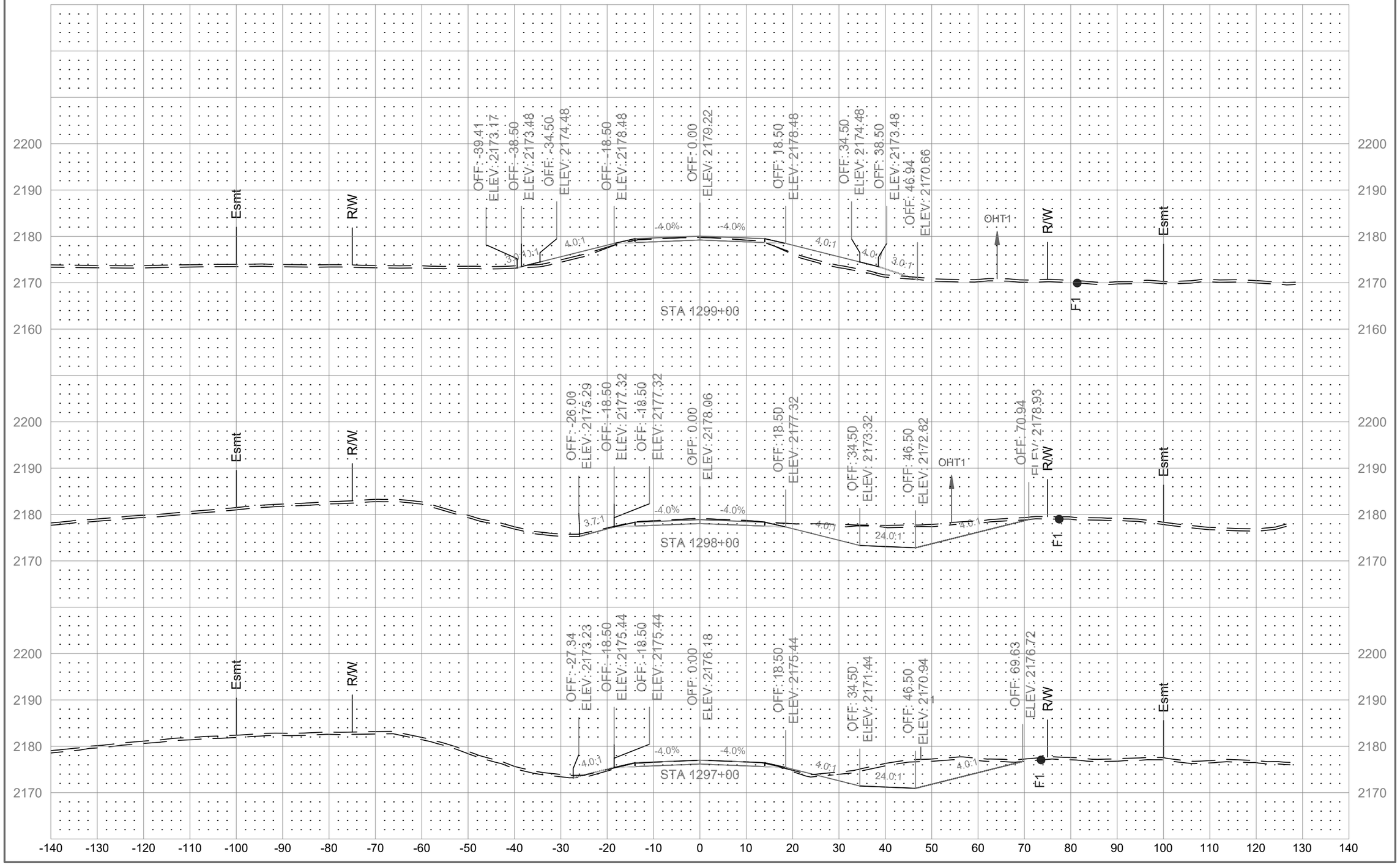
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	189



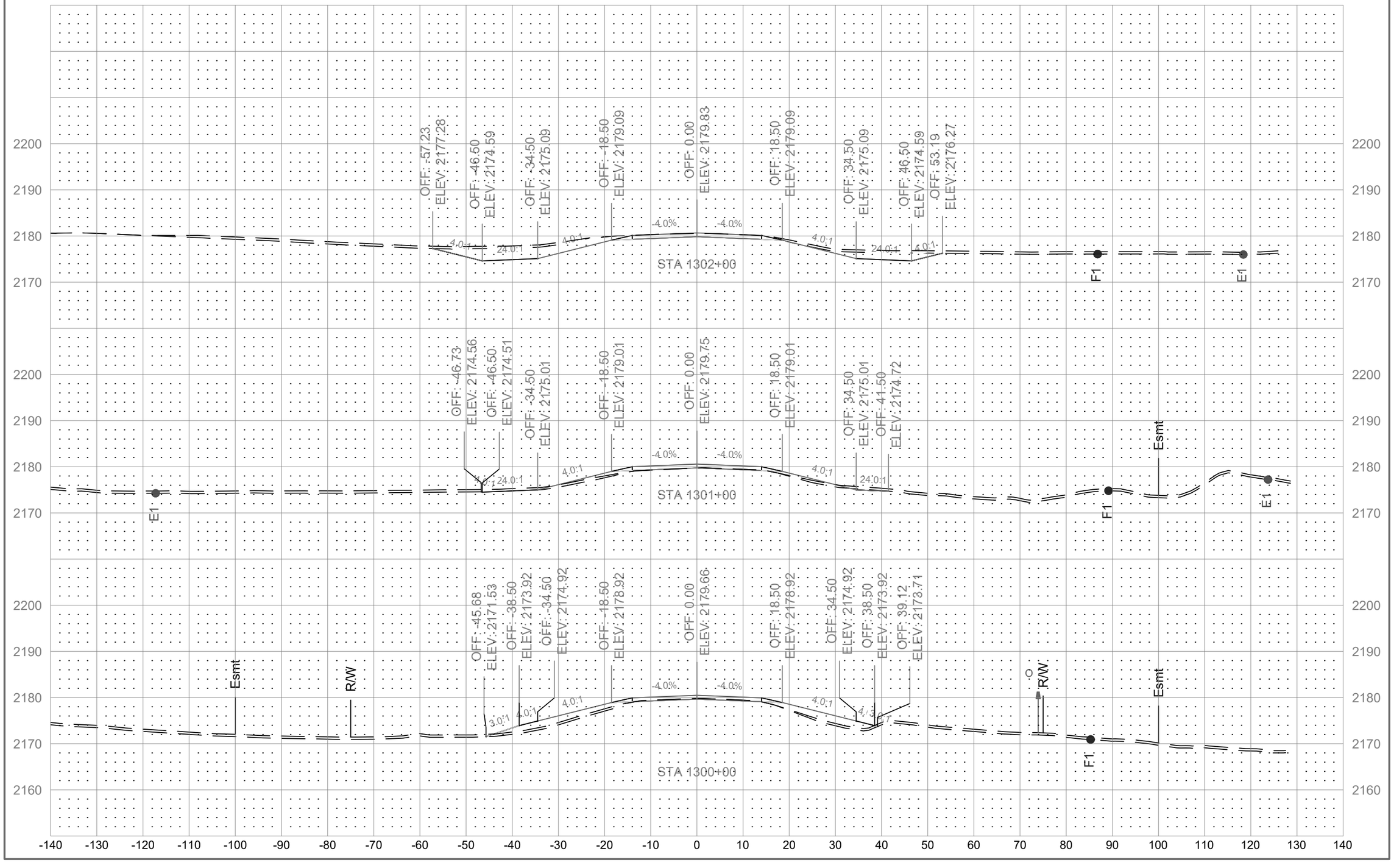
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	190



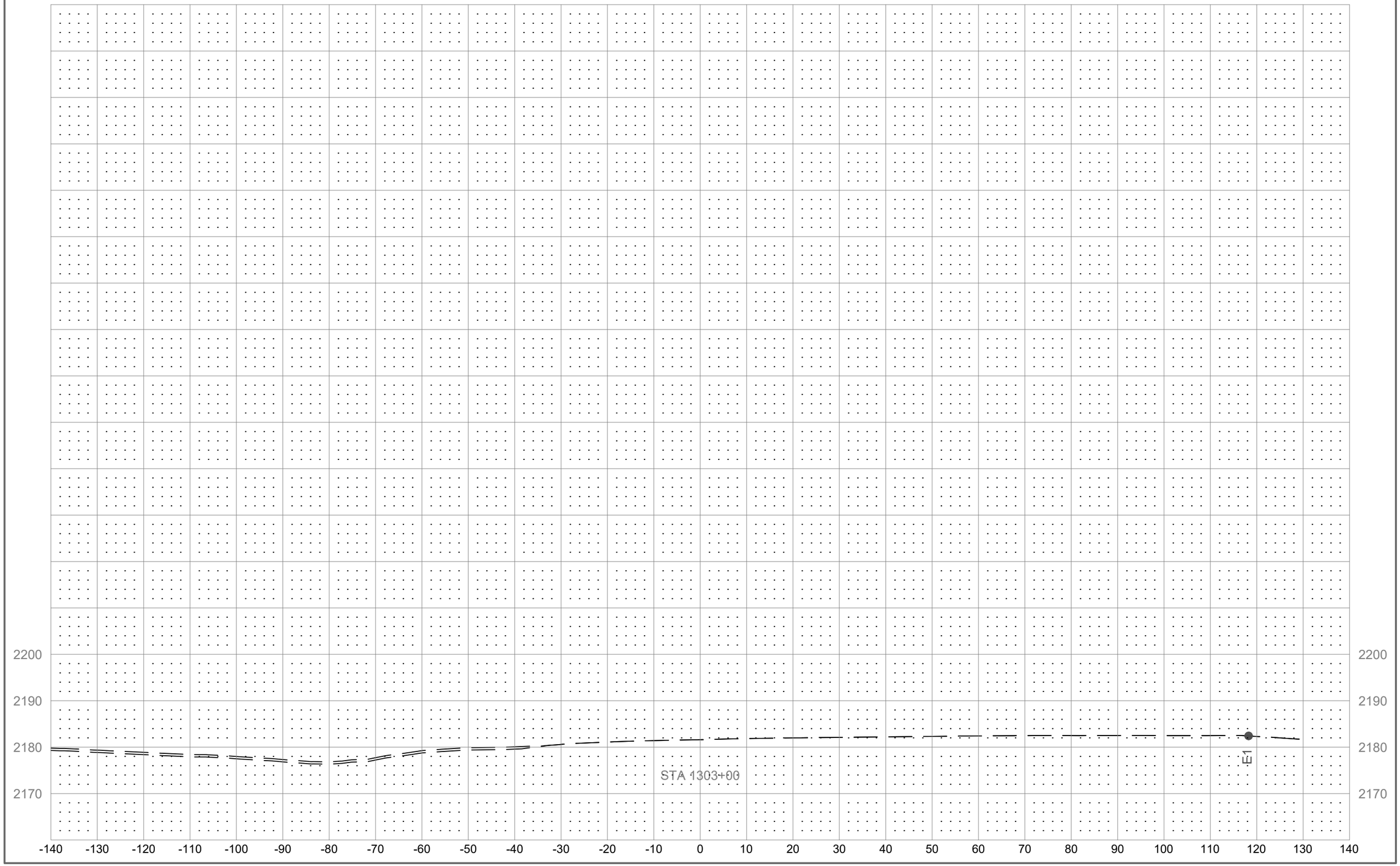
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	191



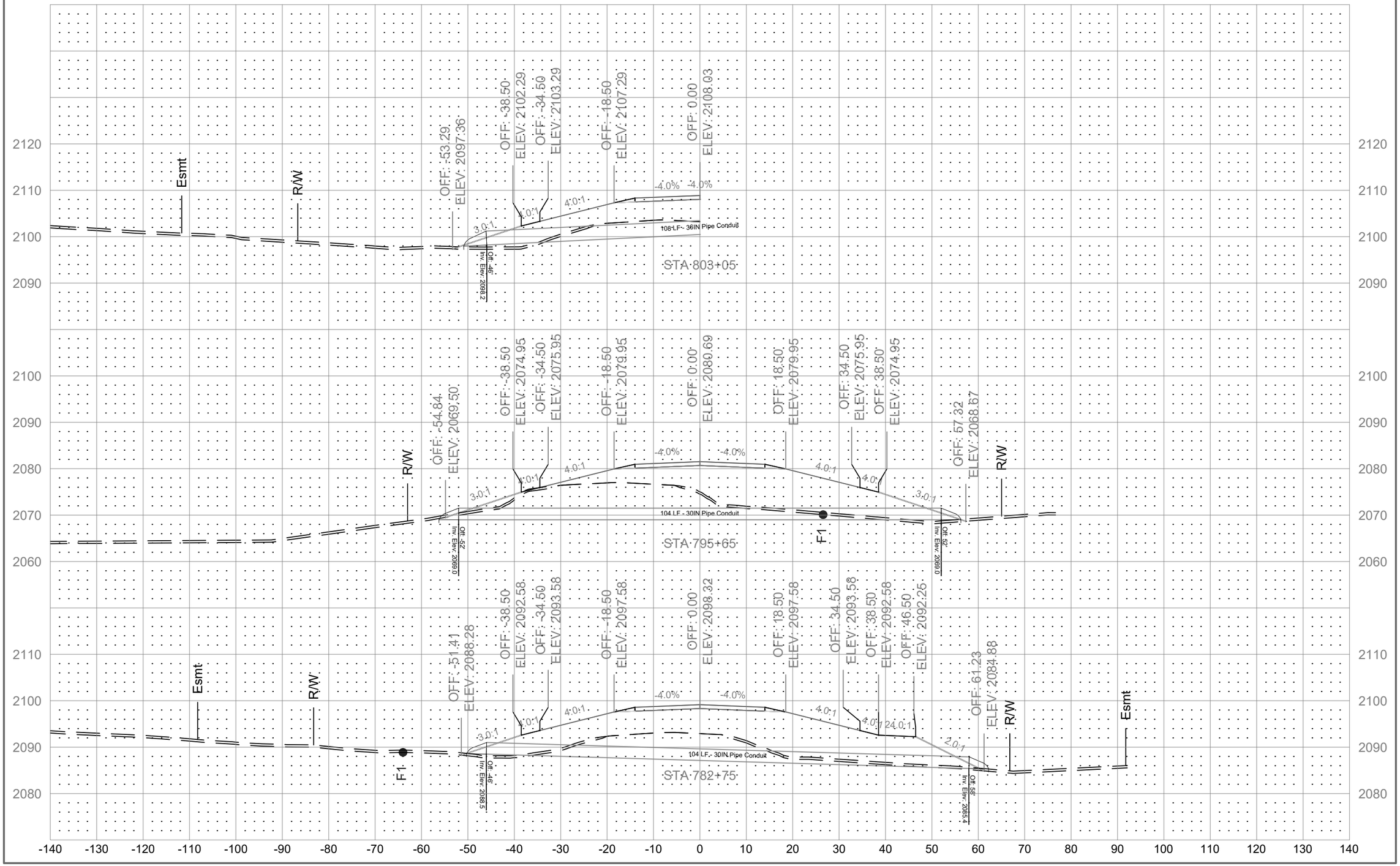
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	192



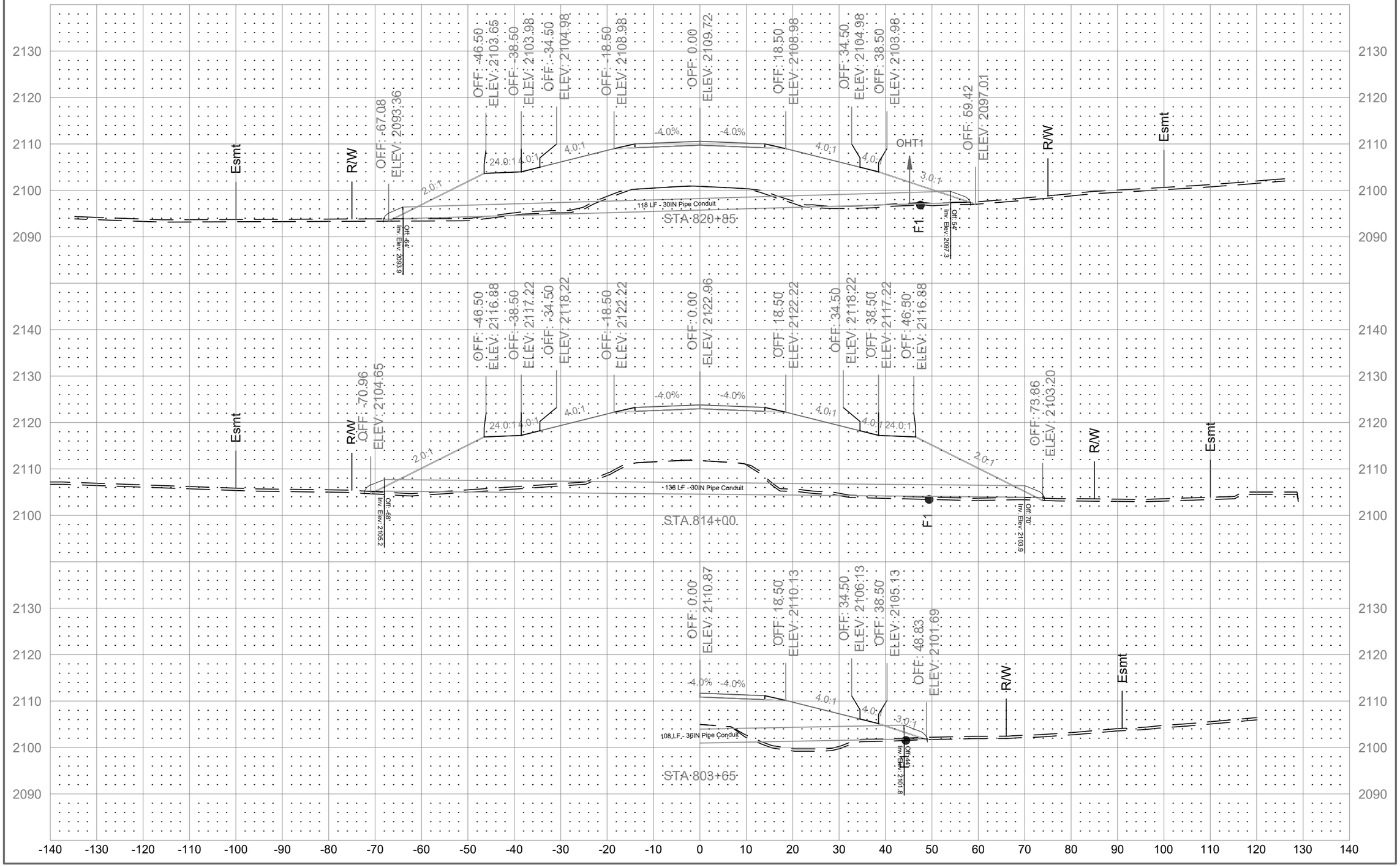
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	193



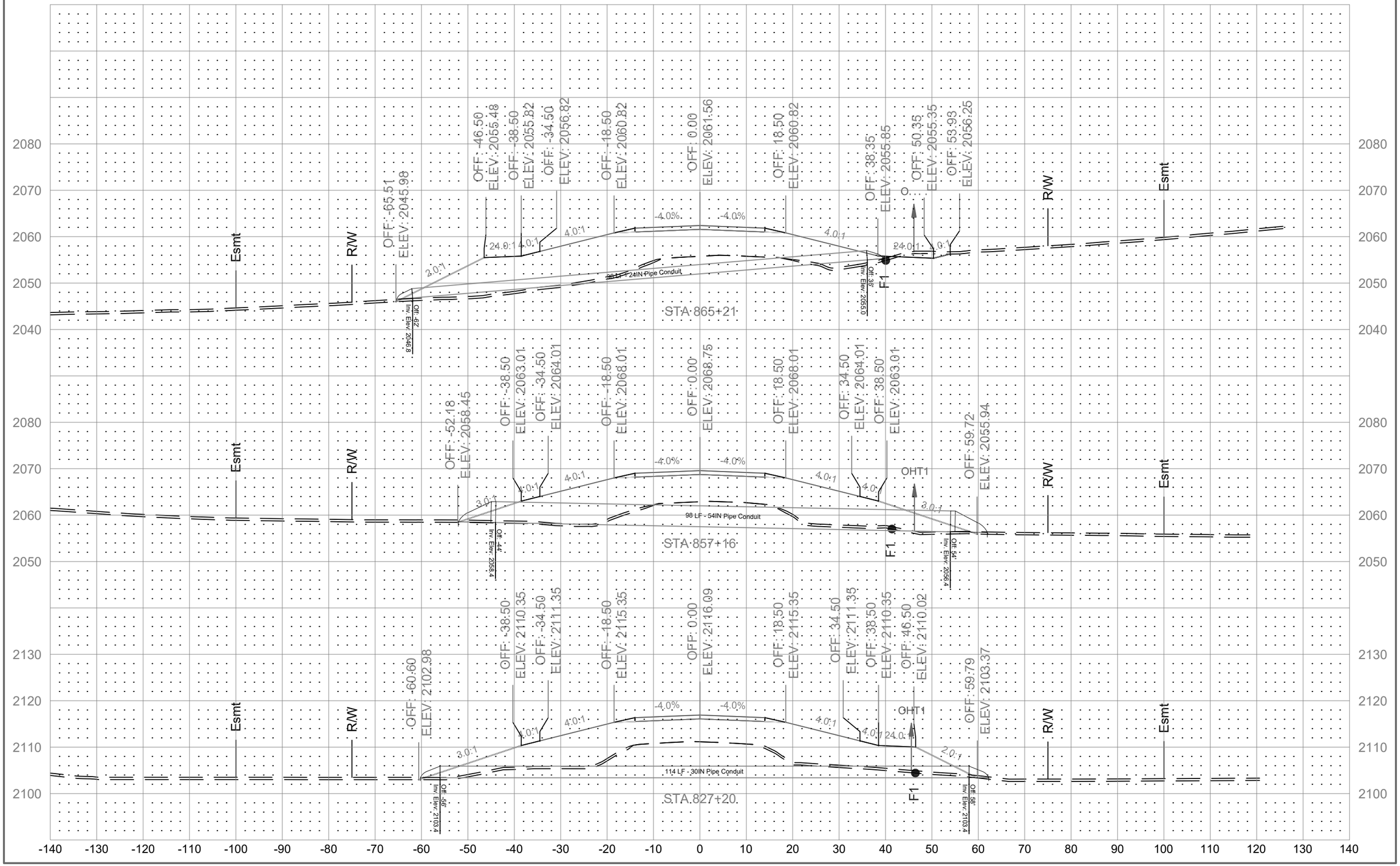
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	194



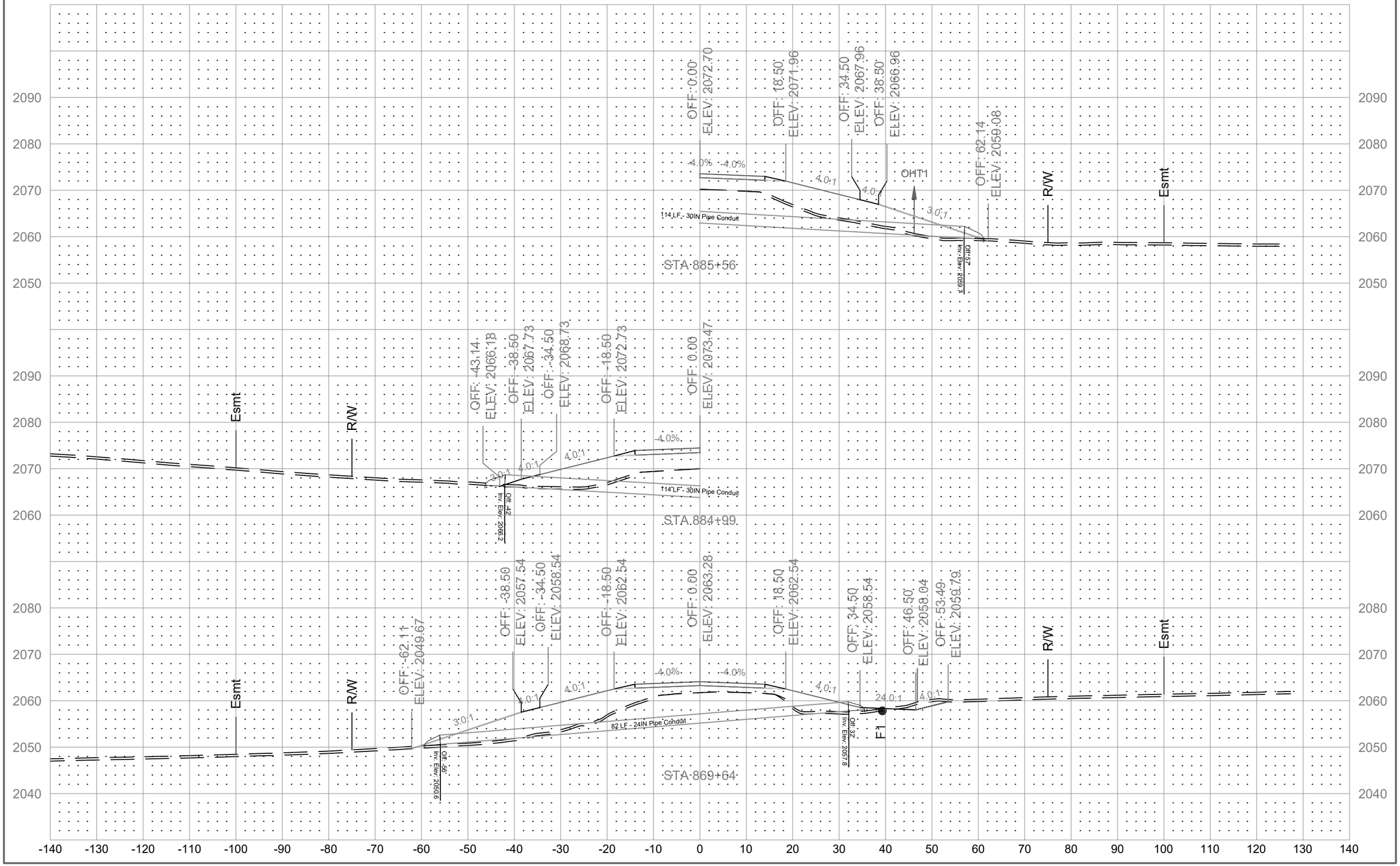
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	195



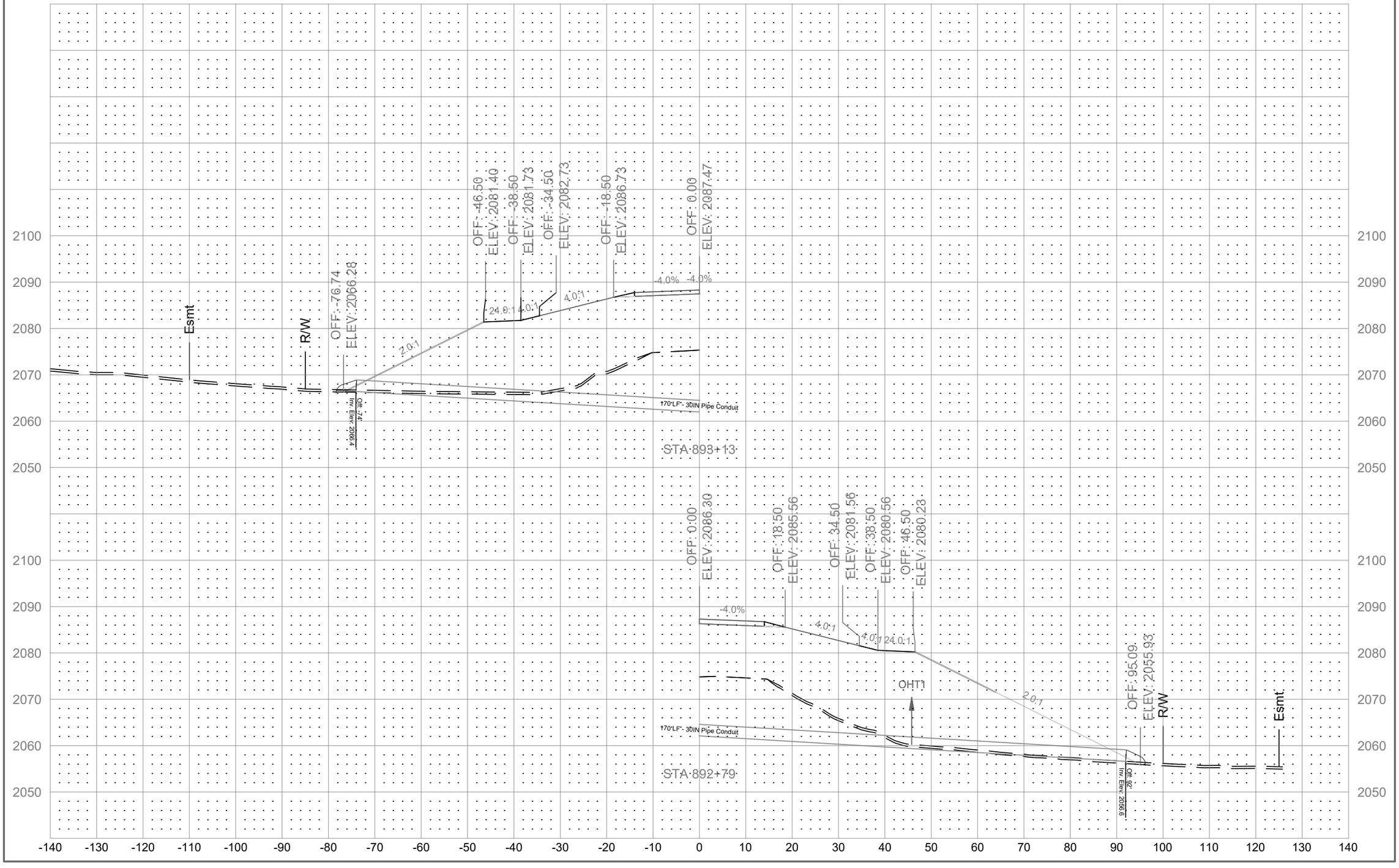
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	196



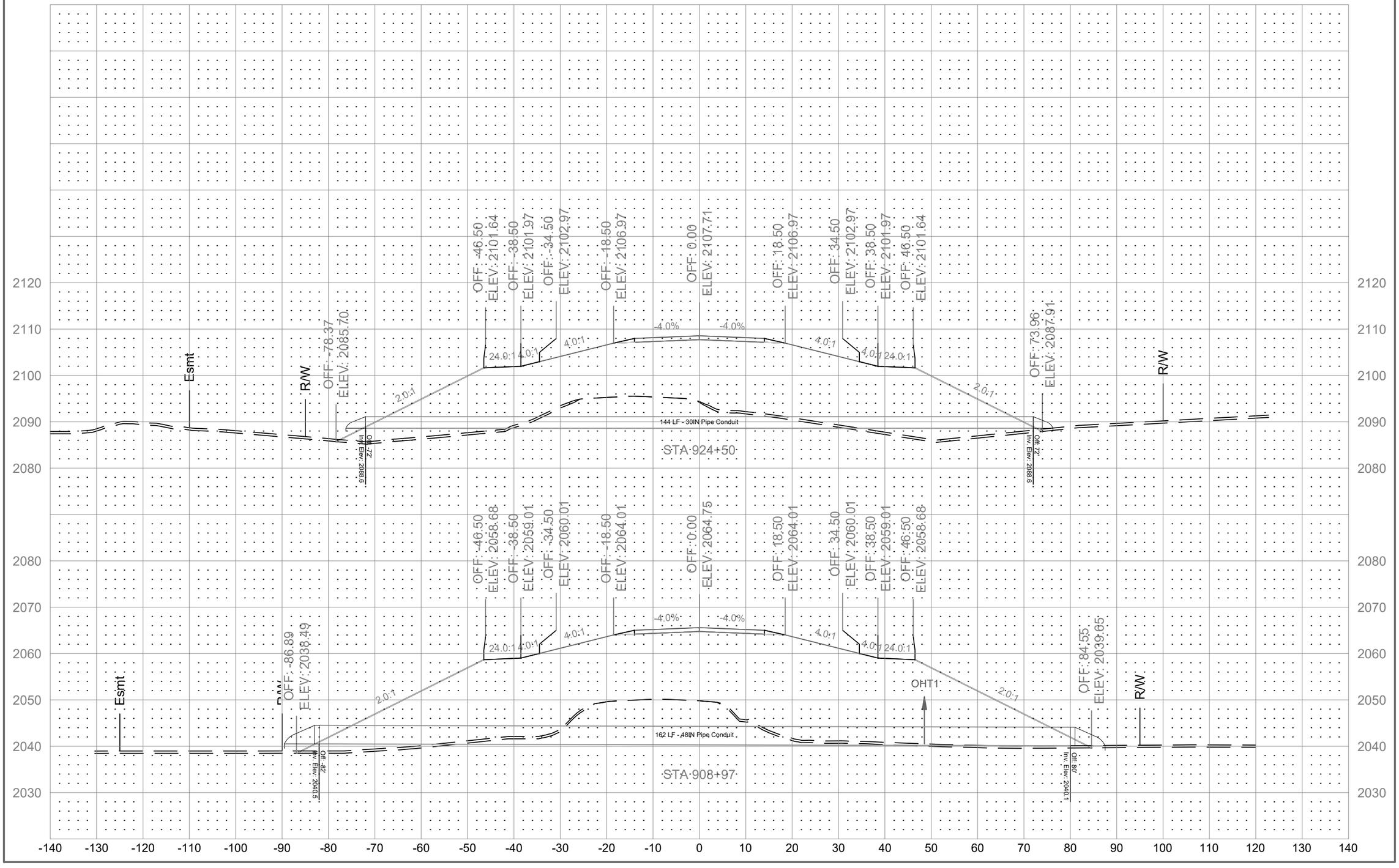
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	197



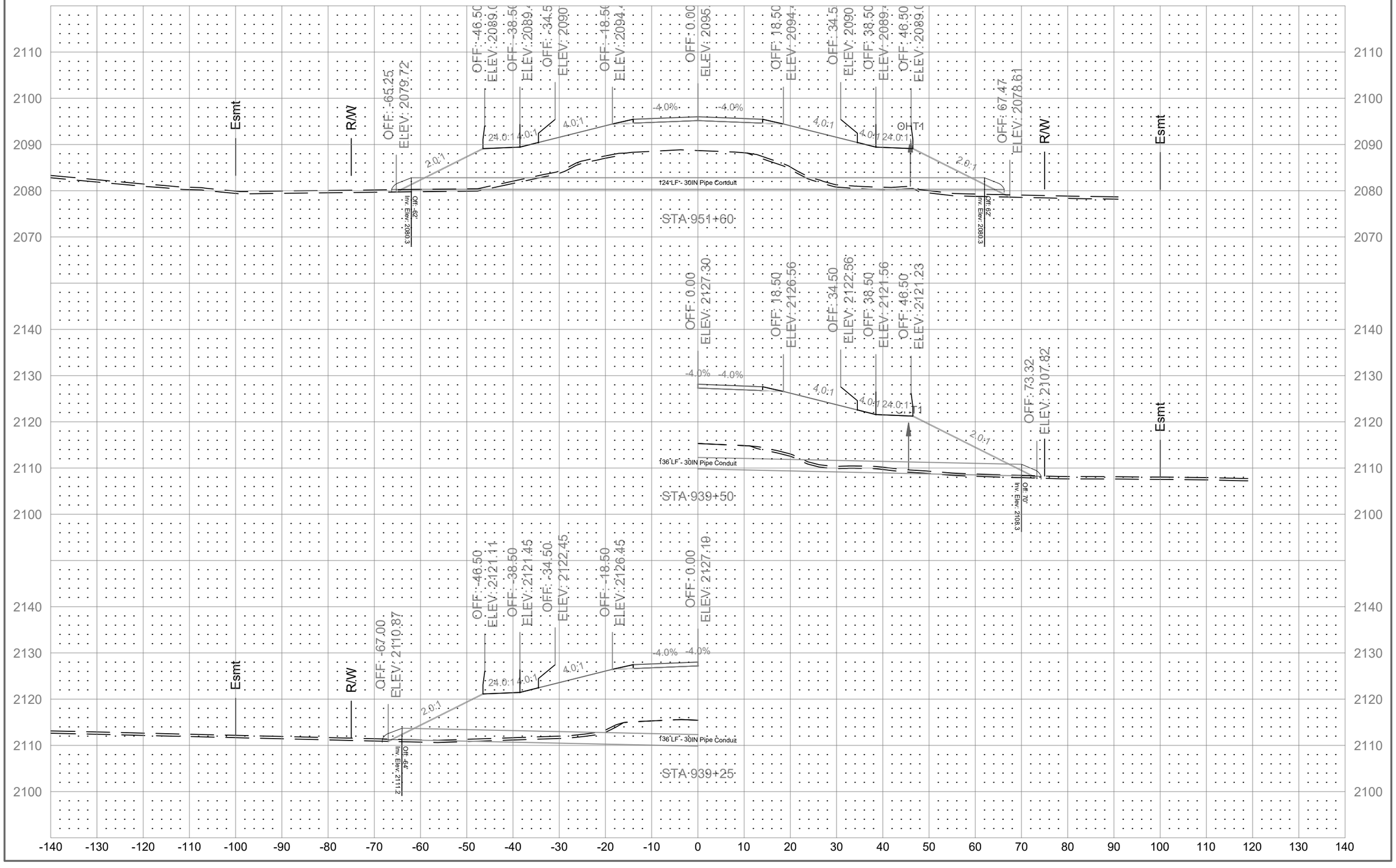
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	198



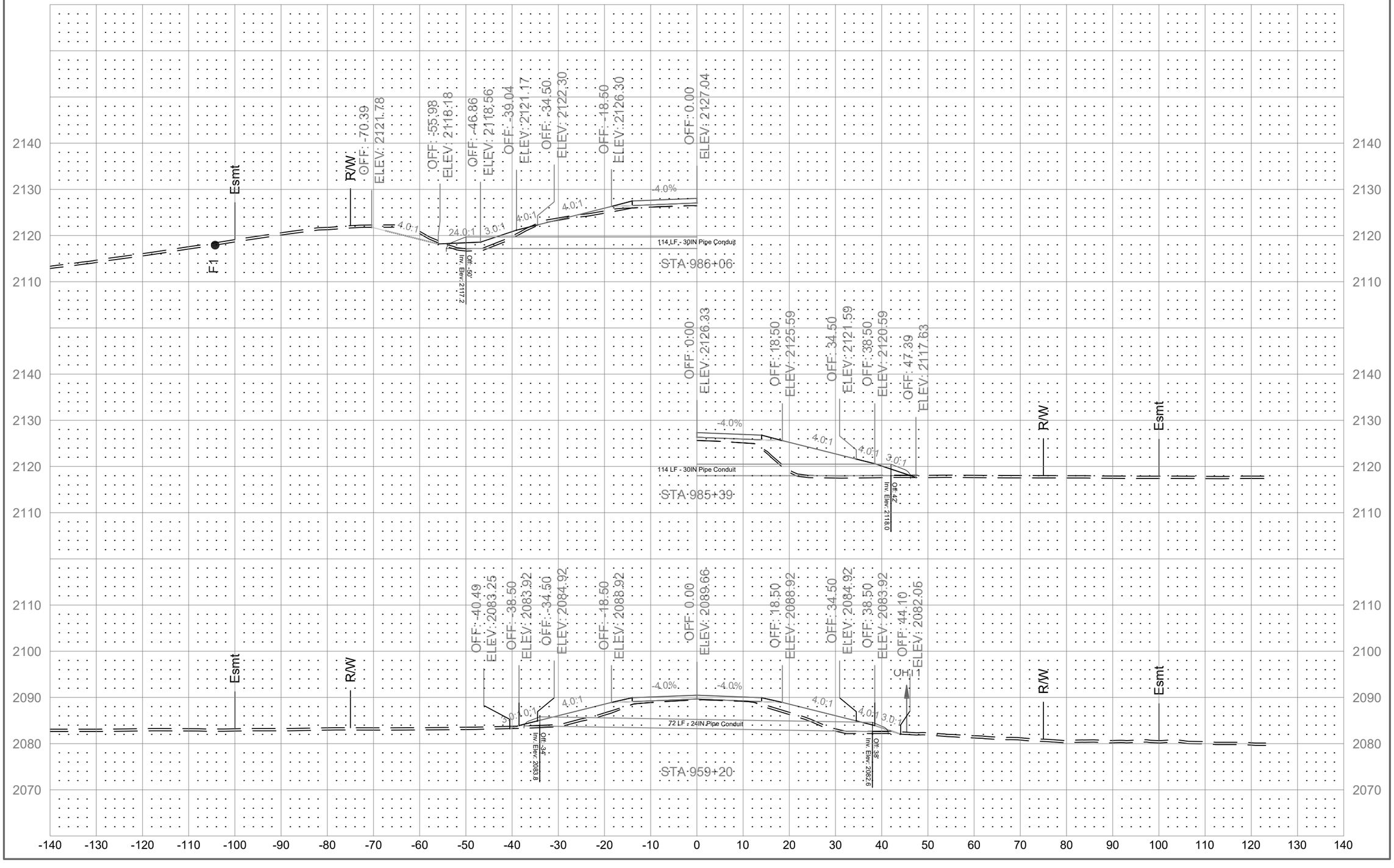
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	199



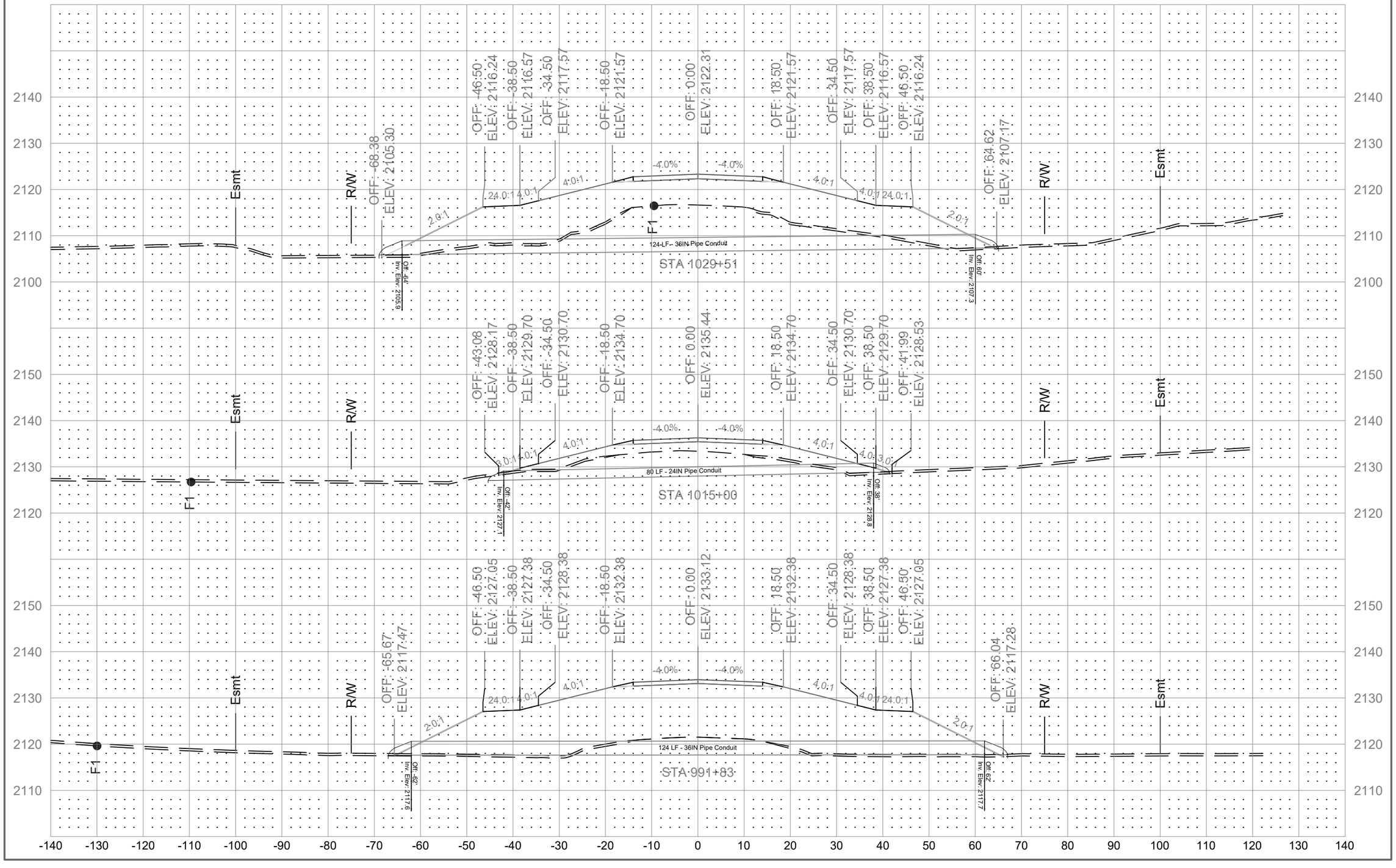
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	200



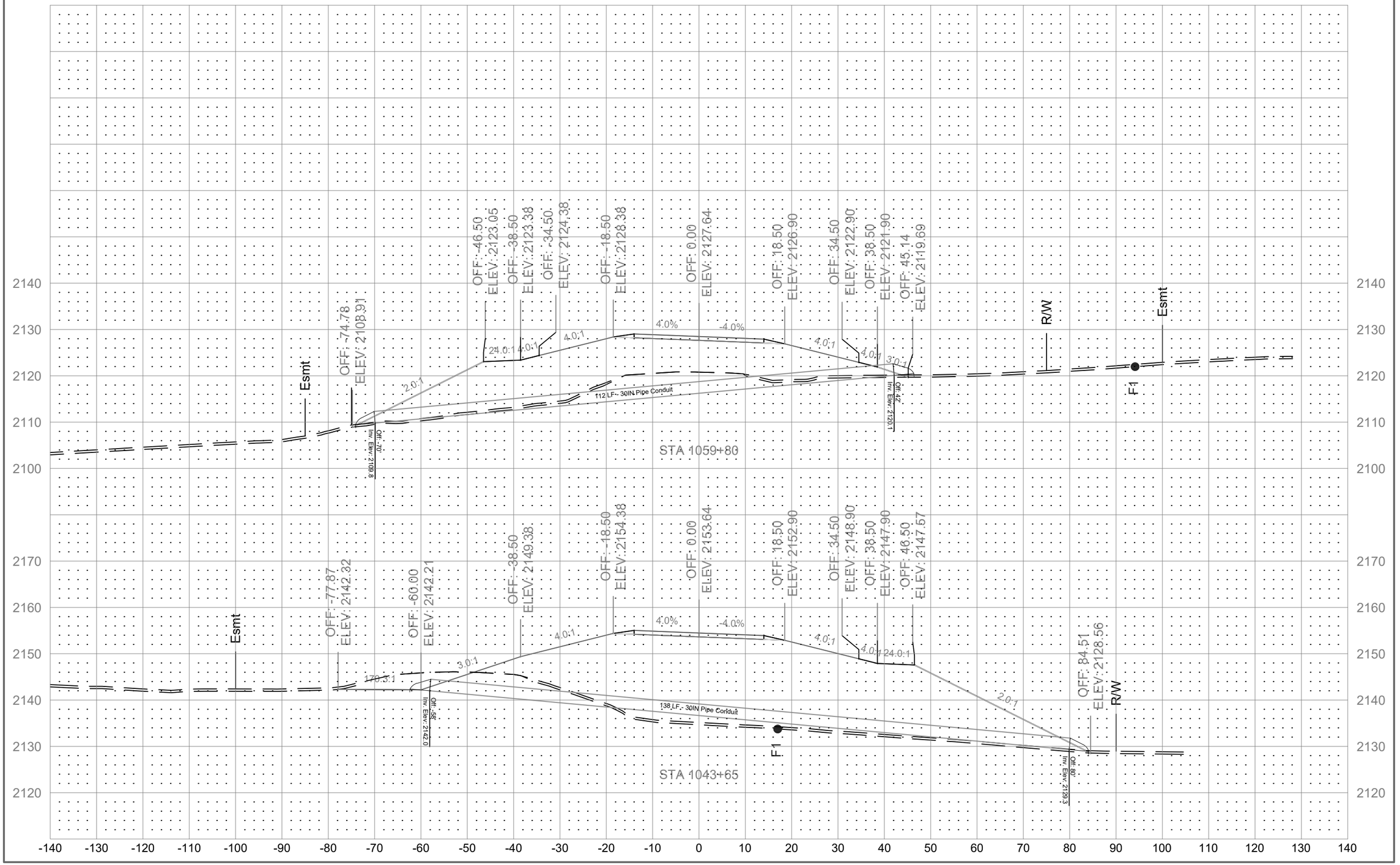
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	201



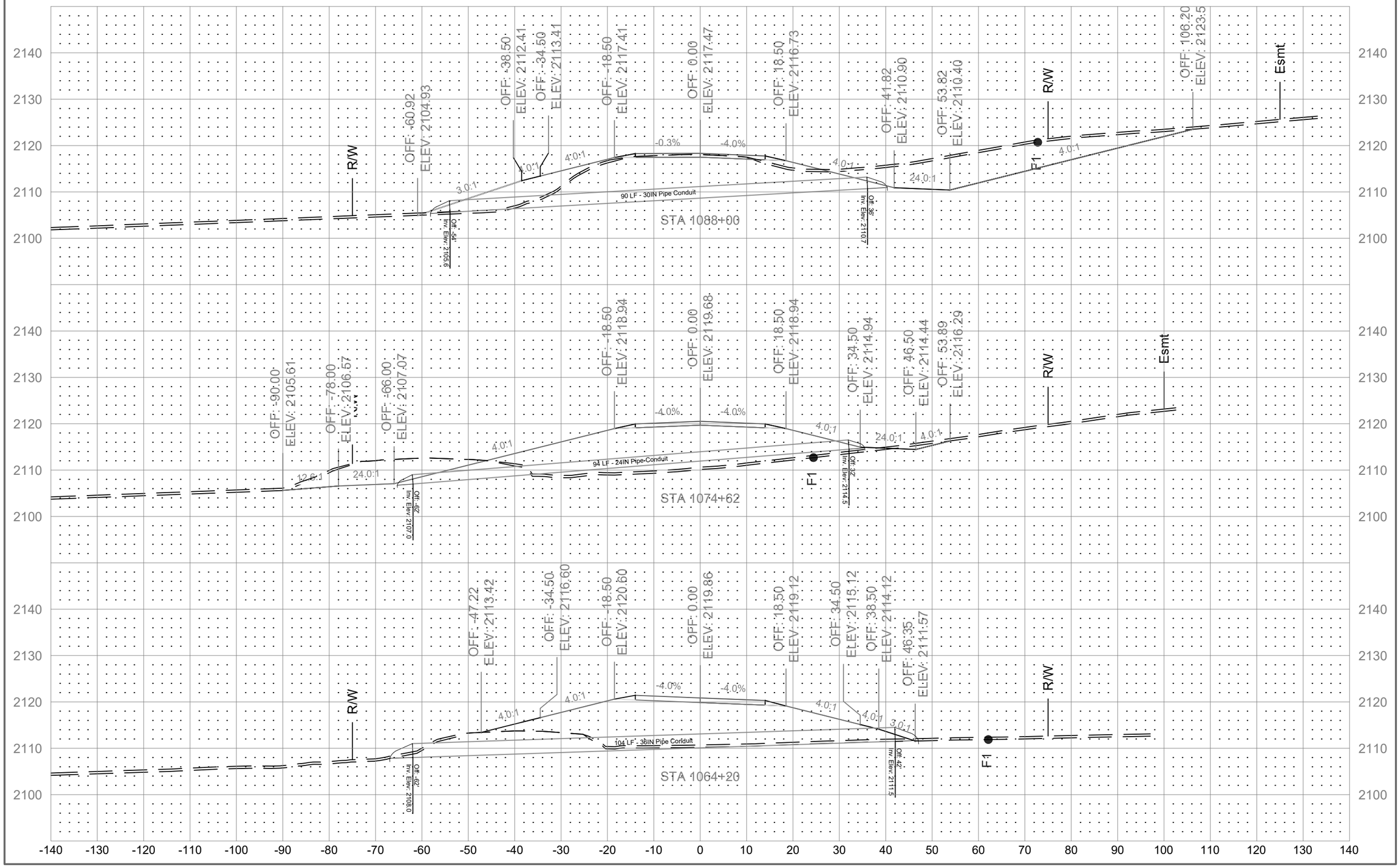
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	202



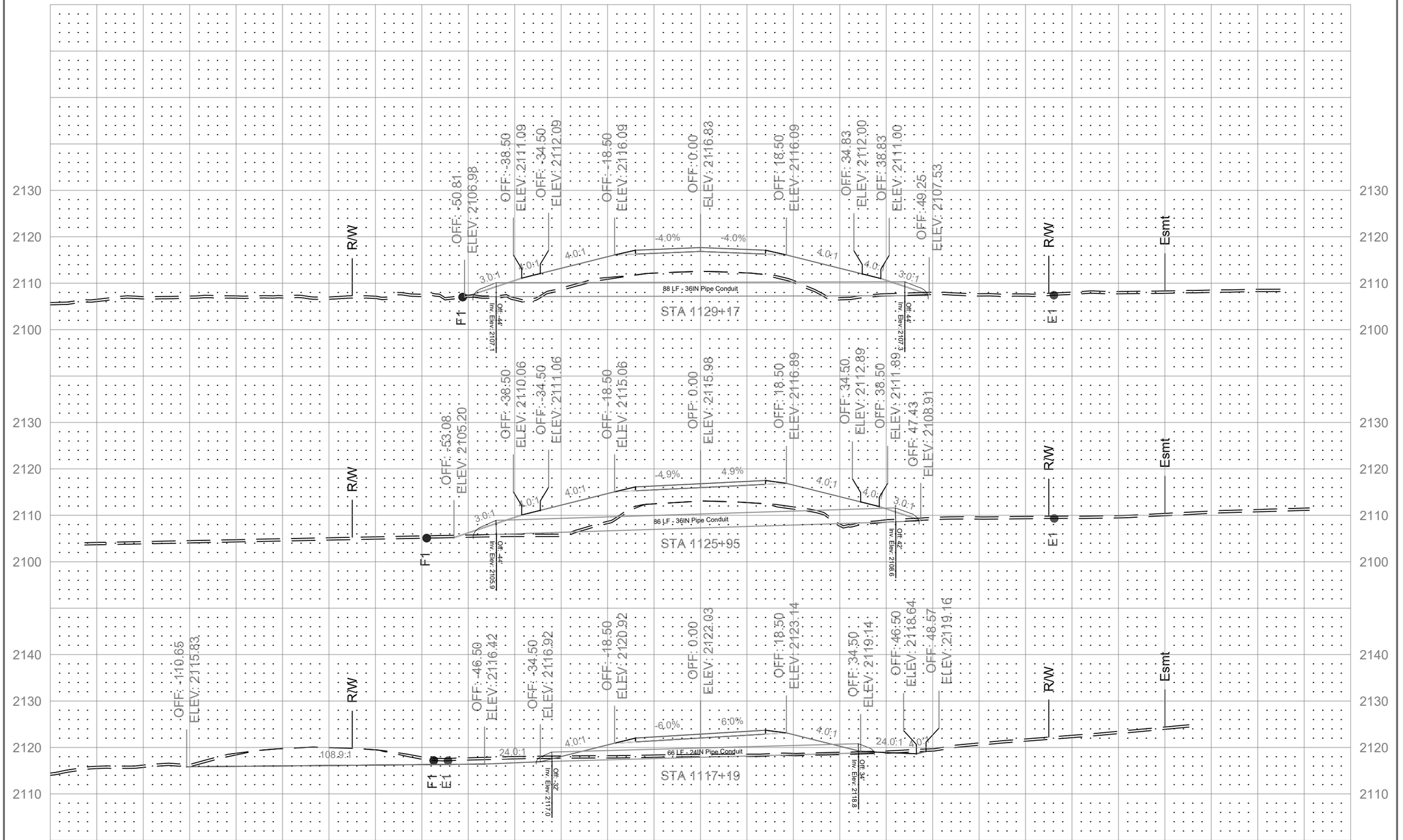
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	203



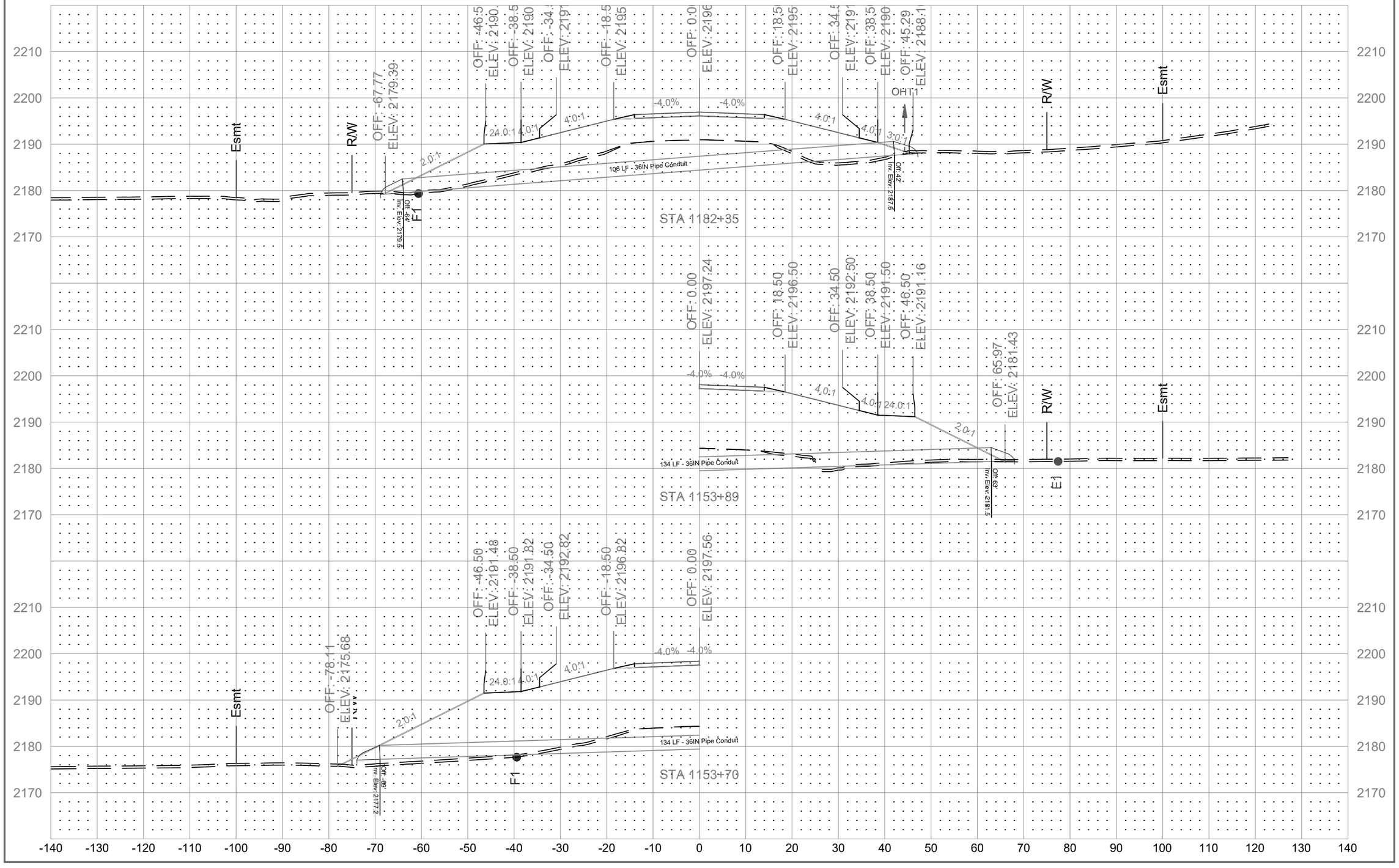
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	204



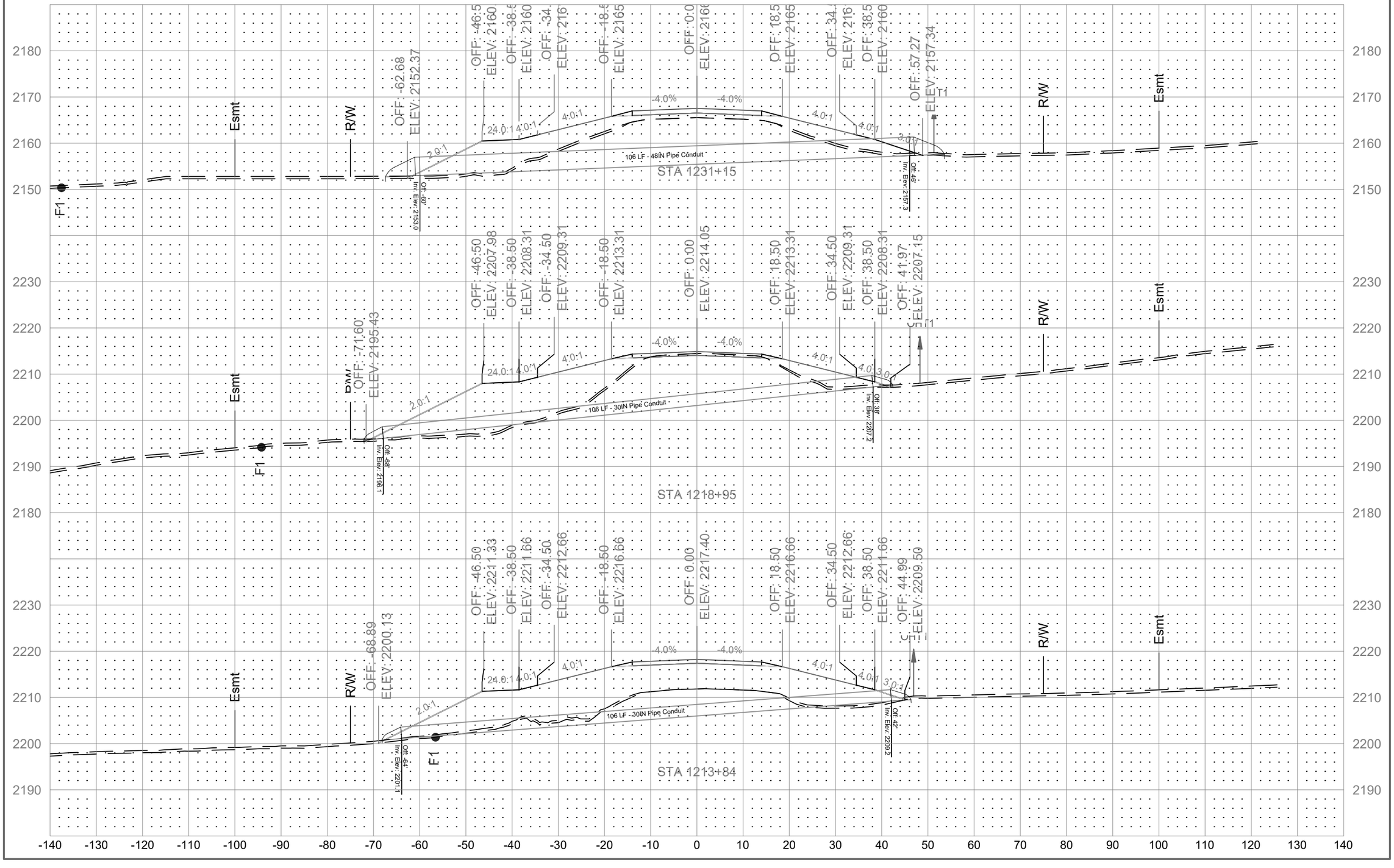
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	205



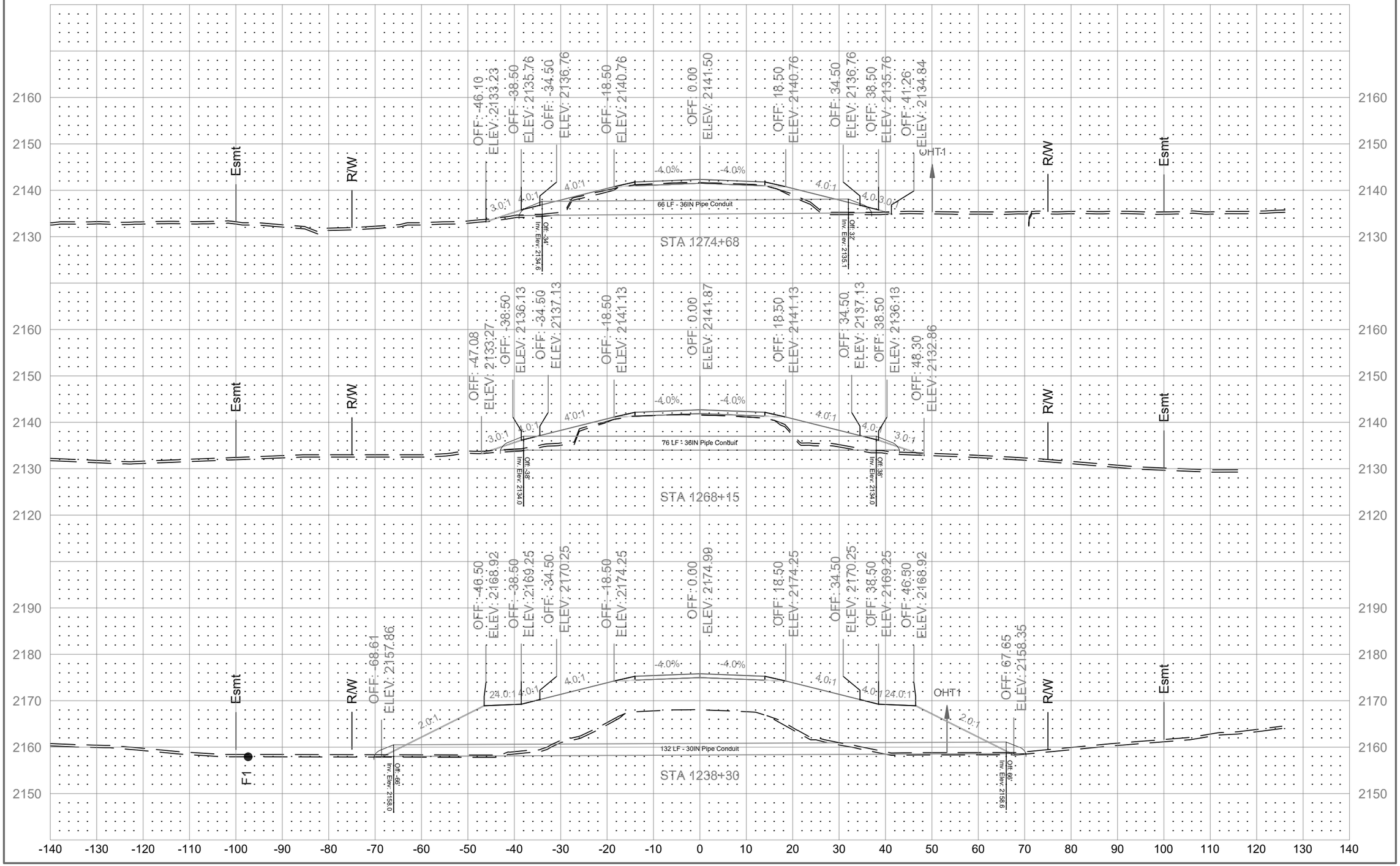
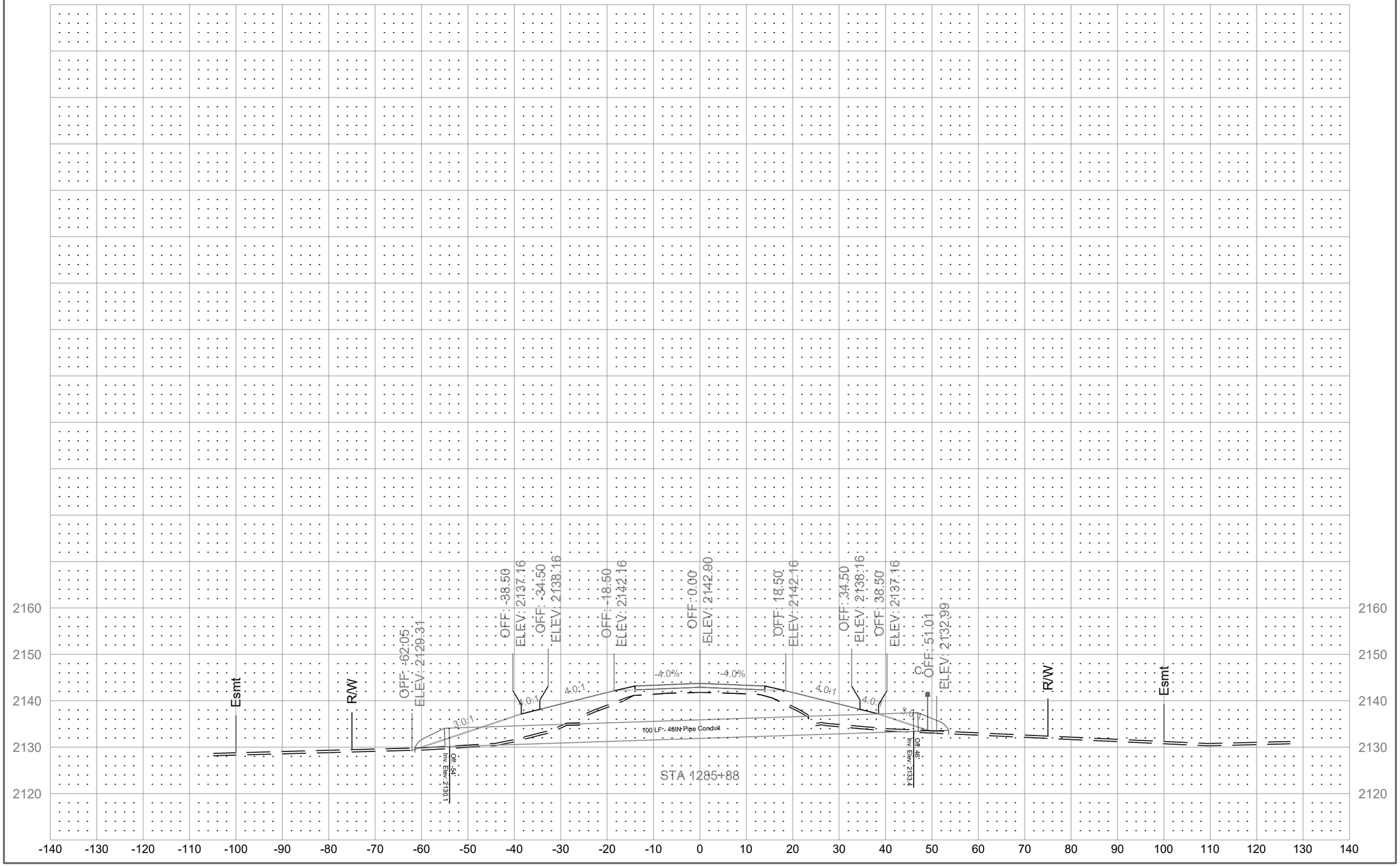
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	206



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	207



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	208



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	01(62)23	200	209