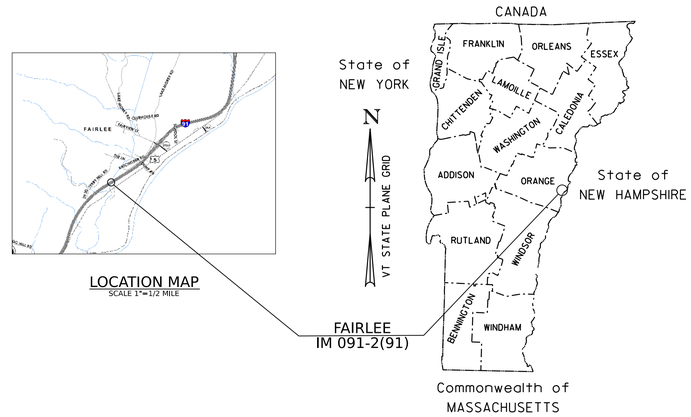
STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT

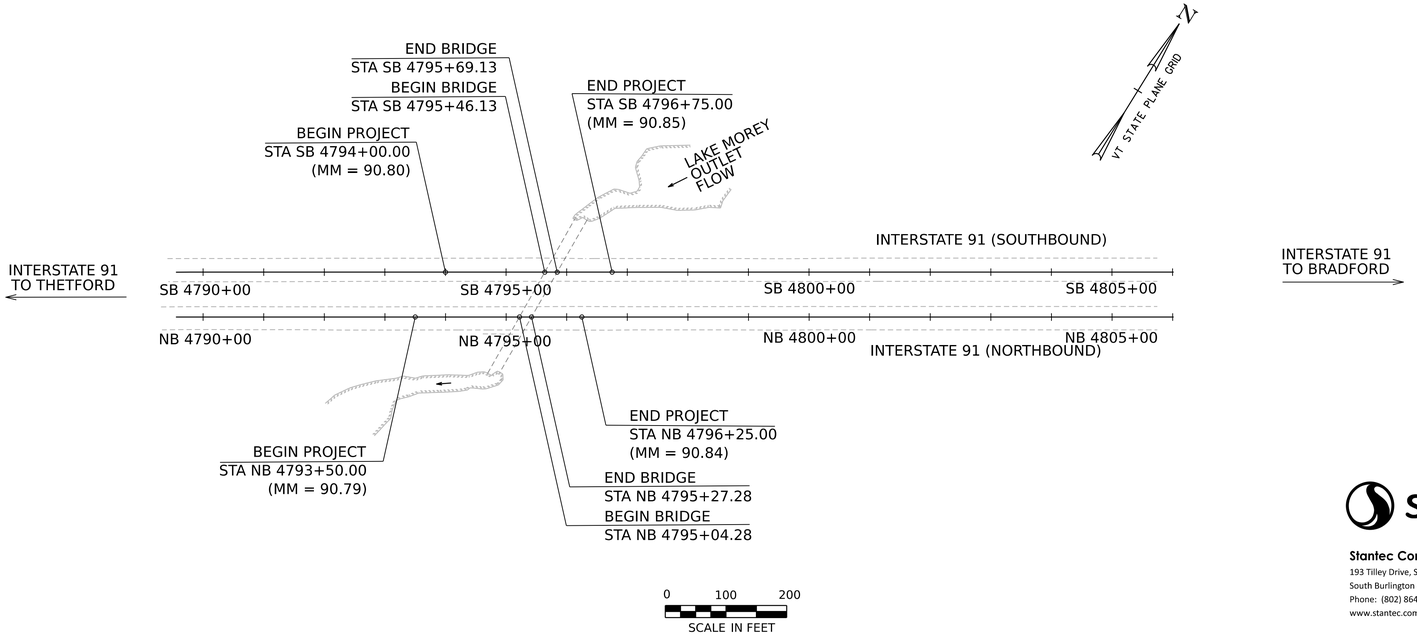
BRIDGE PROJECT

TOWN OF FAIRLEE
COUNTY OF ORANGE
ROUTE NO: I-91 BRIDGES 55-2 & 55-3
(I-91 PRINCIPLE ARTERIAL - INTERSTATE)

PROJECT LOCATION : BRIDGES 55-2 AND 55-3 ARE LOCATED APPROXIMATELY 0.6 MILES SOUTH OF EXIT 15 ALONG INTERSTATE 91 (I-91).

PROJECT DESCRIPTION : REPLACEMENT OF BRIDGES 55-2 AND 55-3 WITH A PRECAST CONCRETE STRUCTURE AND CONSTRUCTION OF TEMPORARY CROSSOVERS, ALONG WITH RELATED APPROACH ROADWAY AND CHANNEL WORK.

BRIDGE 55-2 SOUTHBOUND		BRIDGE 55-2 NORTHBOUND		TOTAL	
LENGTH OF STRUCTURE :	23 FEET	LENGTH OF STRUCTURE :	23 FEET	LENGTH OF STRUCTURE :	46 FEET
LENGTH OF ROADWAY :	252 FEET	LENGTH OF ROADWAY :	252 FEET	LENGTH OF ROADWAY :	504 FEET
LENGTH OF PROJECT :	275 FEET	LENGTH OF PROJECT :	275 FEET	LENGTH OF PROJECT :	550 FEET



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2024, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 27, 2023 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 1

SURVEYED BY : R. GILMAN
SURVEYED DATE : 06/13/2022

DATUM
VERTICAL NAVD88
HORIZONTAL NAD 83 (2011)

FINAL PLANS
8/5/2025

Stantec
Stantec Consulting Services Inc.
193 Tilley Drive, Suite 1
South Burlington VT U.S.A. 05403
Phone: (802) 864-0223
www.stantec.com

HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED _____ DATE _____

PROJECT MANAGER : ADAM GOUDREAU, P.E.

PROJECT NAME : FAIRLEE
PROJECT NUMBER : IM 091-2(91)

SHEET 1 OF 144 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (CULVERT)

Version
LRFD

PLAN SHEETS

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7	PROJECT NOTES SHEET
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11	TIE SHEET
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16	NB PROFILE SHEET
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DETAIL SHEETS

HSD 213.01	MILLED RUMBLE STRIPS (SHOULDER)	2/27/2017
HSD 400.01	SAFETY EDGE DETAILS	1/5/2018
HSD 621.07A	MIDWEST GUARDRAIL SYSTEM (MGS)	1/4/2021
HSD 621.07B	W-BEAM GUARDRAIL COMPONENTS	4/17/2019
HSD 621.07C	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR	4/17/2019
HSD 621.07D	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS	4/17/2019
HSD 621.07E	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS	4/17/2019
HSD 621.07F	MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION	1/4/2021

STANDARDS LIST

D-6	REINFORCED CONCRETE DROP INLET W/GRATE (DITCHES)	06-01-1994
D-8	REINFORCED CONCRETE DROP INLET WITH PRECAST COVER & GRATE	01-03-2000
D-11	STEEL OR IRON GRATES& COVERS (TYPE A)	06-01-1994
D-15	PRECAST REINF CONC. MH-GRATES, CAST IRON GRATE WITH FRAME, TYPE D & E	06-01-1994
E-2	SHRUB PLANTING	07-11-2017
E-10	ROLLED EROSION CONTROL PRODUCT, TYPE I	04-07-2020
E-11	CHECK DAM, TYPE I	04-07-2020
E-12	STABILIZED CONSTRUCTION ENTRANCE	04-07-2020
E-13	INLET PROTECTION DEVICE, TYPE I	04-07-2020
E-14	INLET PROTECTION DEVICE, TYPE III	04-07-2020
E-15	SILT FENCE	04-07-2020
E-130	TYPE "B" GUIDE SIGN, ATTACHMENT DETAILS	08-08-1995
E-161	W-SHAPED STEEL SIGN POST	08-18-1995
F-1	WOVEN WIRE FENCE DETAILS	06-01-1994
G-1	STEEL BEAM GUARDRAIL DETAILS (POST, DELINEATOR, TYPICALS)	03-10-2017
G-1D	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	03-10-2017
S-500	CONCRETE DETAILS AND NOTES	02-15-2023
S-501	CONCRETE DETAILS AND NOTES	02-15-2023
T-1	TRAFFIC CONTROL GENERAL NOTES	04-25-2016
T-11	CONSTRUCTION APPROACH SIGNING DIVIDED HIGHWAY ONE LANE CLOSED	08-06-2012
T-12	TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	08-06-2012
T-13	TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	08-06-2012
T-14	TRAFFIC CONTROL DIVIDED HIGHWAY ONE ROADWAY CLOSED	08-06-2012
T-15	TRAFFIC CONTROL DIVIDED HIGHWAY ONE ROADWAY CLOSED	08-06-2012
T-16	TRAFFIC CONTROL FOR U-TURN USE ON DIVIDED HIGHWAY	08-06-2012
T-22	TRAFFIC CONTROL FOR PAVEMENT MARKING ON DIVIDED HIGHWAY	08-06-2012
T-23	TRAFFIC CONTROL FOR PAVEMENT MARKING ON DIVIDED HIGHWAY	08-06-2012
T-28	CONSTRUCTION SIGN DETAILS	08-06-2012
T-29	CONSTRUCTION SIGN DETAILS	08-06-2012
T-30	CONSTRUCTION SIGN DETAILS	02-17-2022
T-31	CONSTRUCTION SIGN DETAILS	08-06-2012
T-35	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS	08-06-2012
T-36	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING	08-06-2012
T-40	DELINEATORS AND MILEPOSTS	01-02-2013
T-42	BRIDGE NUMBER PLAQUE	04-09-2014
T-43	FREEWAY - EXPRESSWAY DELINEATOR PLACEMENT	04-09-2014
T-45	SQUARE TUBE SIGN POST AND ANCHOR	01-02-2013
T-55	SIGN PLACEMENT EXPRESSWAY & FREEWAY	10-26-2015

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2025	5300	880	0	4.2	100
2045	5900	980	0	5.8	600

20 year ESAL for flexible pavement from 2025 to 2045 : 0

40 year ESAL for flexible pavement from 2025 to 2065 : 0

Design Speed : 70 mph

AS BUILT "REBAR" DETAIL

LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: 3/4/2024

DRAINAGE AREA : 8.4 square miles
CHARACTER OF TERRAIN : Mixed forested and open land with Lake Morey just upstream
STREAM CHARACTERISTICS : Meandering low gradient valley bottom stream
NATURE OF STREAMBED : Silt, sand and gravel

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

50% =	160 cfs	2% =	500 cfs
10% =	320 cfs	1% =	580 cfs
4% =	420 cfs	0.2% =	680 cfs

NATURAL STREAM VELOCITY : N/A
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? Yes - D/S
IF YES, DESCRIBE: Tailwater conditions due to the mild gradient and US5 Bridge 90: 7-ft by 7-ft RCB constriction.

WATERSHED STORAGE: 10.8% HEADWATERS:
UNIFORM:
IMMEDIATELY ABOVE SITE: Lake Morey

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: (2) 7-ft CGMPP
YEAR BUILT: 1971
CLEAR SPAN(NORMAL TO STREAM): 2 @ 7-ft diameter
VERTICAL CLEARANCE ABOVE STREAMBED: -
WATERWAY OF FULL OPENING: Total = 77 sqft
DISPOSITION OF STRUCTURE: Replacement
TYPE OF MATERIAL UNDER SUBSTRUCTURE: Unknown

WATER SURFACE ELEVATIONS AT:

50% AEP =	404.2 ft	VELOCITY =	3.5 fps
10% AEP =	406.9 ft	"	4.3 fps
4% AEP =	409.6 ft	"	5.5 fps
2% AEP =	411.9 ft	"	6.5 fps
1% AEP =	414.3 ft	"	7.6 fps

LONG TERM STREAMBED CHANGES: No

IS THE EXISTING BRIDGE ON THE VTRANS SCOUR CRITICAL LIST? N/A

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: > 1%AEP
RELIEF ELEVATION: 431 ft +/- on both NB and SB lanes
DISCHARGE OVER ROAD @ 1% AEP: None
BRIDGE LOW CHORD ELEVATION: N/A

UPSTREAM STRUCTURE

TOWN: Fairlee — DISTANCE: 1000 ft
HIGHWAY # : TH-14 — STRUCTURE #: Culv ID 3
CLEAR SPAN: 6-ft — CLEAR HEIGHT: 6-ft
YEAR BUILT: unknown — FULL WATERWAY: 28.3 sqft
STRUCTURE TYPE: 6-ft corrugated metal pipe

DOWNSTREAM STRUCTURE

TOWN: Fairlee — DISTANCE: 450 ft
HIGHWAY # : US5 — STRUCTURE #: Bridge 90
CLEAR SPAN: 7-ft — CLEAR HEIGHT: 7-ft
YEAR BUILT: 1939 — FULL WATERWAY: 49 sqft
STRUCTURE TYPE: Reinforced Concrete Box

ADDITIONAL INFORMATION

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY							
POSTING							
OPERATING							
COMMENTS:	TABLE TO BE COMPLETED BY CONTRACTOR'S DESIGNER						

CULVERT DESIGN CRITERIA

1. PROPOSED CULVERT IS A PRECAST CONCRETE STRUCTURE (18'-0" X 13'-0" X 292'-0" BOX).
2. CULVERT ENDS ARE NOT SKEWED.
3. CULVERT WILL BE SET AT A SLOPE OF 6.00 IN. ON 100 FT.
4. CULVERT WILL REQUIRE FISH PASSAGE ACCOMODATIONS
5. CULVERT CONSTRUCTION WILL REQUIRE STREAM DIVERSION

PROPOSED STRUCTURE

STRUCTURE TYPE: 18.0 ft x 13.0 ft - Reinforced Concrete Box

CLEAR SPAN(NORMAL TO STREAM): 18.0 ft
VERTICAL CLEARANCE ABOVE STREAMBED: 11 ft (13 ft height embedded 2 ft)
WATERWAY OF FULL OPENING: 135 sqft

WATER SURFACE ELEVATIONS AT:

50% AEP =	403.2 ft	VELOCITY=	2.2 fps
10% AEP =	405.6 ft	"	2.7 fps
4% AEP =	407.0 ft	"	3.1 fps
2% AEP =	408.5 ft	"	3.7 fps
1% AEP =	409.8 ft	"	4.3 fps

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: > 1%AEP
RELIEF ELEVATION: 431 ft +/- on both NB and SB lanes
DISCHARGE OVER ROAD @ 1% AEP: None

BRIDGE LOW CHORD ELEVATION: N/A
FREEBOARD: N/A

SCOUR: N/A the proposed is a reinforced concrete box culvert

REQUIRED CHANNEL PROTECTION: E-Stone Type II-streambed;Stone Fill Type II-banks

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: N/A
CLEAR SPAN (NORMAL TO STREAM): -
VERTICAL CLEARANCE ABOVE STREAMBED: -
WATERWAY AREA OF FULL OPENING: -

ADDITIONAL INFORMATION

Tailwater conditions for the existing and proposed structures are controlled by US5 Bridge 90.

CALCULATIONS BY: PJR
CHECKED BY: KRF

DESIGN VALUES

1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_p:	3.0 INCH
3. CULVERT OPENING	D:	18.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	---
5. PRESTRESSING STRAND	f_y:	---
6. PRESTRESSED CONCRETE STRENGTH	f'_c:	---
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	---
8. HIGH PERFORMANCE CONCRETE, CLASS PCD	f'_c:	---
9. HIGH PERFORMANCE CONCRETE, CLASS PCS	f'_c:	---
10. CONCRETE HIGH PERFORMANCE, CLASS SCC	f'_c:	---
11. CONCRETE, CLASS C	f'_c:	---
12. REINFORCING STEEL	f_y:	60 KSI
13. STRUCTURAL STEEL AASHTO M270	f_y:	---
14. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	---
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
16. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	---
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
18. PILE RESISTANCE FACTOR	ϕ:	---
19. LATERAL PILE DEFLECTION	Δ:	---
20. BASIC WIND SPEED	$V3s$:	---
21. MINIMUM GROUND SNOW LOAD	pg:	---
22. SEISMIC DATA — PGA: ---	Ss:	---
	$S1$:	---
23.		---
24.		---
25.		---
26.		---

Stantec

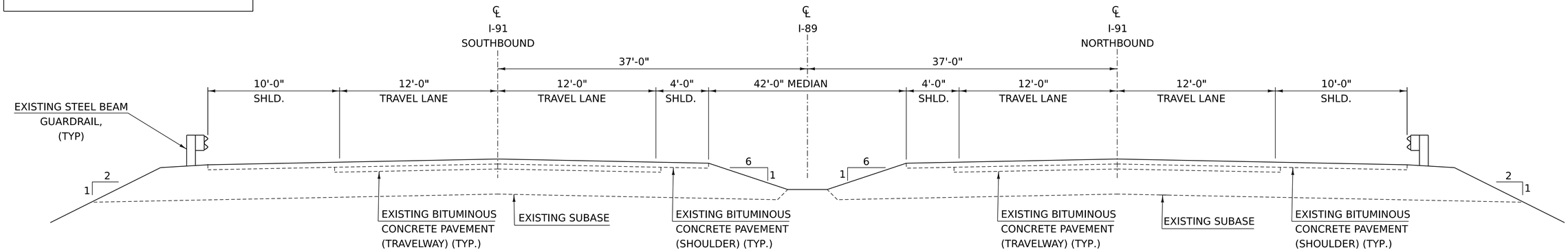
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024PI.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
PRELIMINARY INFORMATION SHEET

PLOT DATE: 8/5/2025
DRAWN BY: P. ARMATA
CHECKED BY: J. GRIGAS

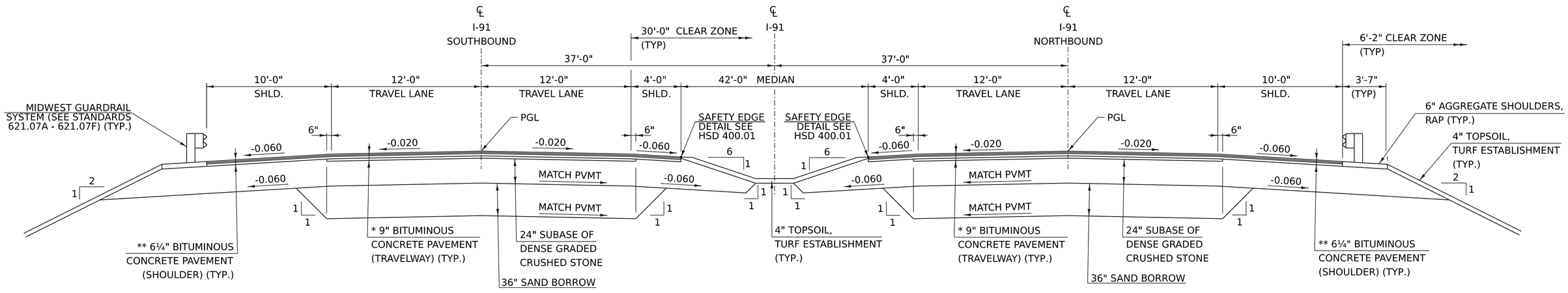
MATERIAL TOLERANCES
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- ¼"
SUBBASE	+/- 1"



EXISTING ROADWAY TYPICAL SECTION

NOT TO SCALE



PROPOSED ROADWAY TYPICAL SECTION

NOT TO SCALE

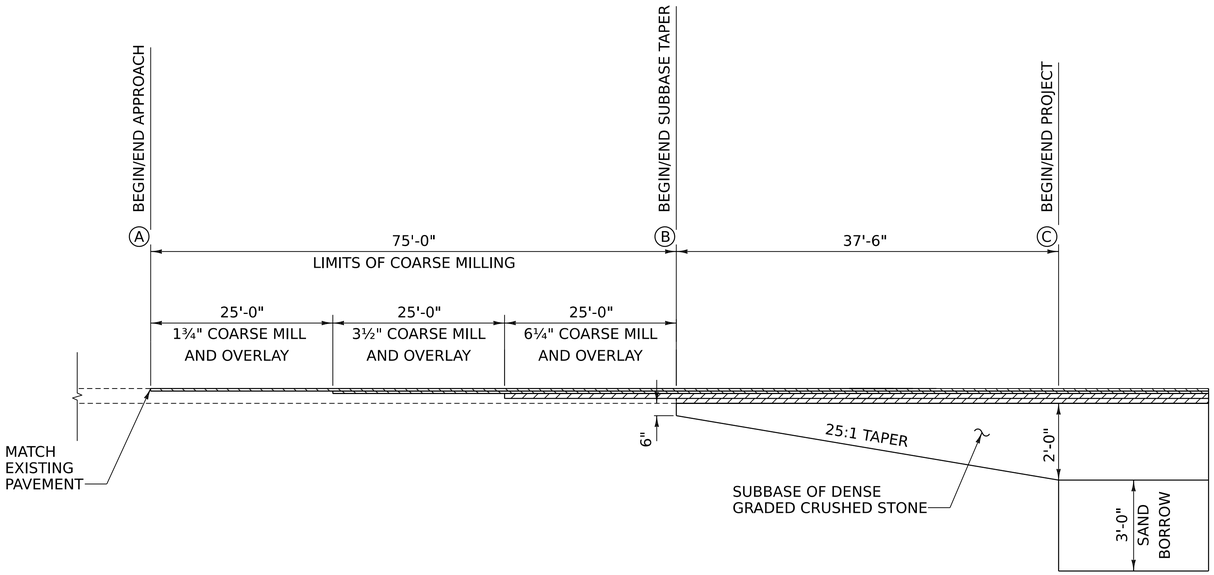
* TRAVELWAY PAVEMENT
1¾" TYPE IIIS OVER
1¾" TYPE IIIS OVER
2¾" TYPE IIS OVER
2¾" OF TYPE IIS

** SHOULDER PAVEMENT
1¾" TYPE IIIS OVER
1¾" TYPE IIIS OVER
2¾" TYPE IIS

NOTES:
1. RUMBLE STRIPS TO BE INSTALLED ON ALL SHOULDERS PER HIGHWAY SAFETY & DESIGN DETAIL HSD-213.01

Stantec

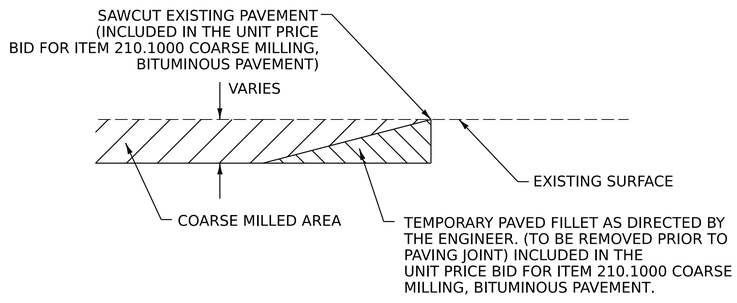
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024typ.dgn	PLOT DATE: 8/5/2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: P. ARMATA
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
TYPICAL SECTION SHEET 1	SHEET 3 OF 144



	A	B	C
NORTHBOUND			
SOUTH APPROACH	4792+37.50	4793+12.50	4793+50.00
NORTH APPROACH	4797+37.50	4796+62.50	4796+25.00
SOUTHBOUND			
SOUTH APPROACH	4792+87.50	4793+62.50	4794+00.00
NORTH APPROACH	4797+87.50	4797+12.50	4796+75.00

TYPICAL APPROACH SECTION

NOT TO SCALE



NOTE: THIS DETAIL SHALL BE USED AT THE LOCATIONS SHOWN ABOVE AS DIRECTED BY THE ENGINEER.

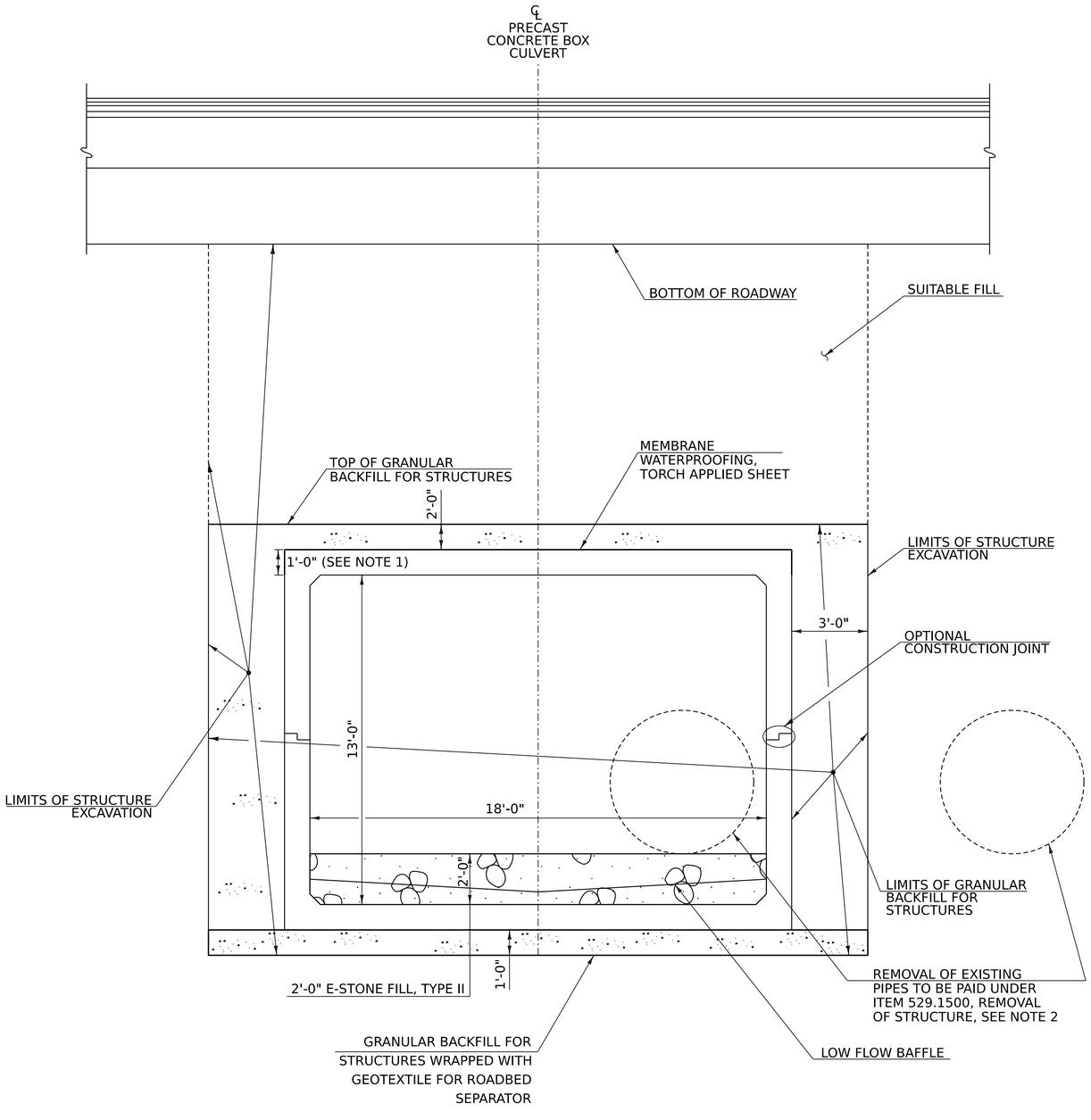
DETAIL AT VERTICAL COARSE MILLING JOINTS

NOT TO SCALE

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024typ.dgn	PLOT DATE:	8/5/2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P. ARMATA
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
TYPICAL SECTION SHEET 2		SHEET	4 OF 144

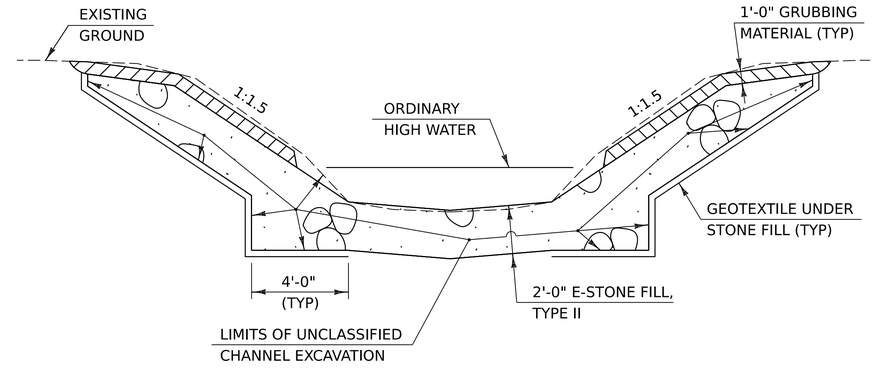


PRECAST CONCRETE BOX TYPICAL SECTION

SCALE ⅜" = 1'-0"

NOTES:

1. MEMBRANE WATERPROOFING, TORCH APPLIED SHEET SHALL BE APPLIED ACROSS THE TOP OF THE BOX AND 1'-0" ON EACH SIDE.
2. THE EXISTING PIPE OUTSIDE THE LIMITS OF STRUCTURE EXCAVATION MAY BE FILLED WITH CONTROLLED DENSITY FLOWABLE FILL INSTEAD OF REMOVAL. ALL COSTS WILL BE CONSIDERED INCIDENTAL TO ITEM 529.1500, REMOVAL OF STRUCTURE.



TYPICAL CHANNEL SECTION

(NOT TO SCALE)

1. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.
2. THE CONTRACTOR SHALL CREATE A LOW FLOW CHANNEL IN THE STREAM BED MATERIAL AS DIRECTED BY THE ENGINEER.

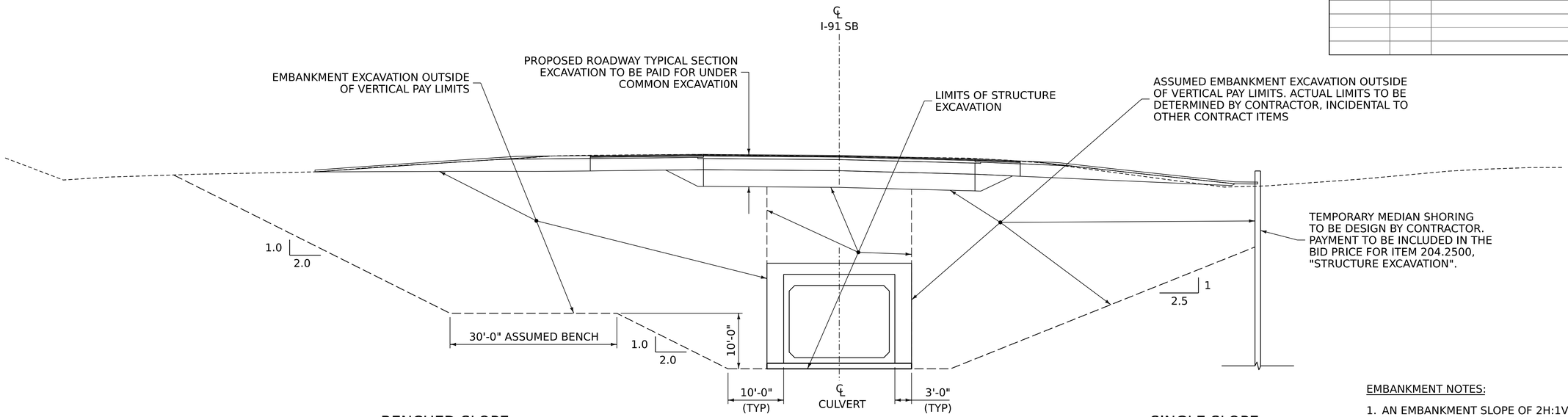
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024typ.dgn	PLOT DATE: 8/5/2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: P. ARMATA
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
TYPICAL SECTION SHEET 3	SHEET 5 OF 144

EARTHWORK SUMMARY

QUANTITIES	UNIT	ITEMS
		EXCAVATION
720	CY	UNCLASSIFIED CHANNEL EXCAVATION
7,800	CY	STRUCTURE EXCAVATION
5,500	CY	COMMON EXCAVATION
35,000	CY	EMBANKMENT EXCAVATION OUTSIDE OF VERTICAL PAY LIMITS*
49,020	CY	TOTAL ESTIMATED EXCAVATION
		EMBANKMENT FILL
35,000	CY	SUITABLE FILL OUTSIDE OF VERTICAL PAY LIMITS*
4,500	CY	SUITABLE FILL INSIDE OF VERTICAL PAY LIMITS
39,500	CY	TOTAL ESTIMATED FILL TO BE RE-USED
		WASTE MATERIAL
49,020	CY	TOTAL ESTIMATED EXCAVATION
39,500	CY	TOTAL ESTIMATED FILL TO BE RE-USED
9,520	CY	TOTAL ESTIMATED WASTE

*MATERIALS EXCAVATED AND PLACED OUTSIDE OF THE VERTICAL PAY LIMITS ARE BASED ON THEORETICAL 2H:1V ON BENCHED SLOPES AND 2.5H:1V ON STRAIGHT SLOPES. THE ACTUAL SLOPE LINES SHALL BE BASED ON THE CONTRACTORS MEANS AND METHODS AND QUANTITIES OUTSIDE OF THE VERTICAL PAY LIMITS WILL VARY ACCORDINGLY.



BENCHED SLOPE

SINGLE SLOPE

EMBANKMENT EXCAVATION TYPICAL

(FACING UPSTREAM AT STA 52+95.62)
NOT TO SCALE

EMBANKMENT NOTES:

1. AN EMBANKMENT SLOPE OF 2H:1V ON BENCHED SLOPES AND 2.5H:1V ON SINGLE SLOPES ARE THE MAXIMUM SLOPES TO OBTAIN A SLOPE STABILITY FACTOR OF SAFETY OF 1.2. SEE GEOTECHNICAL REPORT FOR FURTHER INFORMATION.
2. THE LIMITS OF SUITABLE EXCAVATED MATERIAL SHOWN ORIGINATES FROM EXCAVATED EXISTING EMBANKMENT SOIL THAT IS CONSIDERED ACCEPTABLE FOR RE-USE BY THE ENGINEER. TOPSOIL, VEGETATION, ORGANIC MATERIALS, AND OVERLY SATURATED MATERIALS SHALL BE SEGREGATED AND NOT RE-USED AS BACKFILL MATERIAL. EXCAVATED MATERIALS DEEMED ACCEPTABLE FOR REUSE SHALL BE STOCKPILED AND IMMEDIATELY COVERED TO PREVENT FLUCTUATIONS IN MOISTURE CONTENT.
3. COMPACTION OF SUITABILE FILL MATERIAL SHALL BE IN ACCORDANCE WITH SUBSECTION 203.11.
4. STOCKPILED MATERIAL SHALL NOT BE LOCATED CLOSER THAN 50' FROM THE EDGE OF THE EMBANKMENT SLOPES.

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024emb.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
EXCAVATION TYPICAL

PLOT DATE: 5-AUG-2025
DRAWN BY: J. GRIGAS
CHECKED BY: T. KNIGHT
SHEET 6 OF 144

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9" EDITION, DATED 2020 AND ITS LATEST REVISIONS.
2. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.
3. ALL WORK SHALL TAKE PLACE WITHIN THE STATE-HIGHWAY RIGHT-OF-WAY.
4. THE CONTRACTOR SHALL PROVIDE A SITE SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLAN IN ACCORDANCE WITH SECTION 653 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. THE CONTRACTOR SHALL REFER TO THE EPSC PLANS AND DETAILS AND THE LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR PRACTICES AND DETAILS. EPSC REQUIREMENTS SHALL BE GOVERNED BY SUBSECTION 105.23 OF THE 2024 STANDARD SPECIFICATIONS.
5. LIMITED SURVEY HAS BEEN AQUIRED FOR THIS PROJECT. LIDAR AND TOPOGRAPHIC IMAGERY WAS USED TO SUPPLEMENT THE SURVEY FOR THE DESIGN OF THE CROSSOVERS. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ANY CRITICAL EXISTING FEATURES AND NOTIFTY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

TRAFFIC CONTROL

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE PLAN SHALL CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. THE PLAN SHALL SPECIFY ALL CONSTRUCITON ACTIVITIES REQUIRING LANE OR SHOULDER CLOSURES, RELATE THOSE ACTIVITIES TO THE CONSTRUCTION SCHEDULE, AND SHOW APPROPRIATE TEMPORARY TRAFFIC CONTROL. ALL COSTS WILL BE INCLUDED IN ITEM 641.1100, "TRAFFIC CONTROL, ALL-INCLUSIVE".
2. A CROSSOVER PLAN FOR THE NORTHBOUND AND SOUTHBOUND INTERSTATE BARRELS HAS BEEN DESIGNED AND IS PROVIDED WITHIN THE CONTRACT DOCUMENTS TO BE USED AS PART OF THE CONTRACTOR'S TRAFFIC CONTROL PLAN. THE CONTRACTOR MAY MODIFY THIS PLAN TO FIT THEIR SPECIFIC OPERATION. ANY MODIFICATIONS TO THE CROSSOVER PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AND WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE 240.010004, "DIVIDED HIGHWAY CROSSOVER" ITEM.
3. THE CROSSOVERS SHALL BE REMOVED AND RESTORED TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF THE PROJECT.

EARTHWORKS

1. THE REMOVAL OF BRIDGES 55-2 AND 55-3 WILL BE PAID FOR WITH ITEM 529.1500, "REMOVAL OF STRUCTURE". THIS WORK SHALL INCLUDE THE REMOVAL OF THE ENTIRTY OF THE EXISTING CULVERTS, AND THEIR CUTOFF WALLS OUTSIDE OF THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION.
2. ALL WORK MUST BE DONE IN THE DRY AND ALL CULVERT SECTIONS AND BED MATERIAL SHALL BE COMPLETELY INSTALLED BEFORE THE STREAM IS ALLOWED TO FLOW THROUGH THEM. THE CONTRACTOR SHALL PREPARE AND SUBMIT A TEMPORARY STREAM DIVERSION PLAN TO CONVEY THE STREAM DURING CONSTRUCTION. THE PLAN SHALL DEPICT MEASURES PROPOSED TO PREVENT EROSION AND SEDIMENTIATION AND MAINTAIN STREAM WATER QUALITY. THE STREAM DIVERSION, INCLUDING ANY TEMPORARY PIPING OR DEWATERING, SHALL BE IN ACCORDANCE WITH ITEM 614.1000, "TEMPORARY RELOCATION OF STREAM."
3. PERMITS HAVE BEEN OBTAINED FOR THE CONCEPTUAL ACCESS ROADS AND STAGING AREAS AS PART OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND CONSTRUCTING THE TEMPORARY ACCESS ROADS AND AMENDING ANY PERMITS IF REQUIRED IN ACCORDANCE WITH ITEM 240.0100, "TEMPORARY ACCESS ROAD".
4. THE CULVERT, WINGWALLS, AND EMBANKMENT OUTSIDE OF THE LIMITS OF ITEM 204.3000, "GRANULAR BACKFILL FOR STRUCTURES", SHALL BE BACKFILLED WITH SUITABLE EXCAVATED MATERIAL CONFORMING TO SUBSECTIONS 703.02, "EARTH BORROW" OR 703.04, "GRANULAR BORROW". PLACEMENT OF THE SUITABLE EXCAVATED MATERIAL SHALL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 204.2500, "STRUCTURE EXCAVATION".

SUPPORT OF EXCAVATION

1. EXCAVATION OF EMBANKMENT MATERIAL WITHIN THE LIMITS SHOWN ON THE PLANS WILL BE PAID FOR AS ITEM 204.2500, "STRUCTURE EXCAVATION". EXCAVATED SLOPES, BENCHING AND TEMPORARY EARTH SUPPORT SYSTEMS ARE TO BE ENGINEERED BY THE CONTRACTOR AND TO BE INCLUDED IN THE BID PRICE FOR ITEM 204.2500, "STRUCTURE EXCAVATION". EXCAVATION BEYOND THE PAY LIMITS SHOWN WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 204.2500, "STRUCTURE EXCAVATION".
2. ANY EXCAVATION SUPPORT AND PROTECTION SYSTEM SHALL BE DESIGNED BY A PROFESSION ENGINEER LICENSED IN THE STATE OF VERMONT WITH EXPERIENCE IN THE DESIGN OF AT LEAST 3 SUCCESSFULLY COMPLETED PROJECTS OVER THE PAST 5 YEARS, WITH SYSTEMS OF SIMILAR DESIGN AND CAPACITY TO THOSE REQUIRED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS. THE DESIGN ENGINEER MAY BE EITHER AN EMPLOYEE OF THE CONTRACTOR OR A SEPARATE CONSULTANT DESIGN ENGINEER MEETING THE STATED EXPERIENCE REQUIREMENTS. CONTRACTOR SHALL IDENTIFY THE DESIGN CONSULTANT AND THE OWNER FOR EACH REFERENCED PROJECT FOR WHICH THIS TYPE OF WORK WAS PERFORMED. THE CONTRACTOR OR THEIR APPROVED SUBCONTRACTOR SHALL PROVIDE PROOF TO THE ENGINEER OF EACH PROJECT. SUCH EVIDENCE SHALL INCLUDE THE NAME AND LOCATION OF THE PROJECT, CLIENT NAME AND ADDRESS, AND THE NAME AND TELEPHONE NUMBER OF A REPRESENTATIVE OF THE CONSULTANT AND OWNER FOR WHOM THE WORK WAS PERFORMED AND WHO CAN ATTEST TO SUCCESSFUL COMPLETION OF THE WORK.
3. PLANS FOR THE SUPPORT OF EXCAVATION SHALL BE SUBMITTED FOR APPROVAL AT LEAST 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK AND MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER. THE FOLLOWING SHALL BE SUBMITTED FOR APPROVAL BY THE PROJECT MANAGER:
    a. SUPPORT OF EXCAVATION PLANS
        i. DETAILED DRAWINGS SHOWING THE LAYOUT, DIMENSIONS, AND MATERIALS OF THE SUPPORT OF EXCAVATION SYSTEM.
        ii. CROSS SECTIONS AND ELEVATIONS OF THE EXCAVATION, INCLUDING DEPTH, WIDTH, AND PROXIMITY TO ADJACENT STRUCTURES.
        iii. CONSTRUCTION SEQUENCING AND STEP-BY-STEP INSTALLATION PROCEDURES.
        iv. CONNECTION DETAILS, SUCH AS WELDS, BOLTS, AND SPLICING OF MATERIALS.
        v. ANCHORAGE DETAILS, INCLUDING TIEBACKS OR BRACING SYSTEMS.
        vi. CONSIDERATIONS FOR POTENTIAL OBSTRUCTIONS OR UTILITY CONFLICTS.
    b. ENGINEERING DESIGN CALCULATIONS
        i. STAMPED BY A LICENSED PROFESSIONAL ENGINEER.
        ii. LOAD CALCULATIONS FOR EARTH PRESSURE, WATER PRESSURE, SURCHARGE LOADS, AND CONSTRUCTION LOADS.
        iii. STABILITY ANALYSIS, INCLUDING FACTOR OF SAFETY AGAINST FAILURE.
        iv. STRUCTURAL ANALYSIS OF KEY ELEMENTS SUCH AS SHEET PILES, SOLDER PILES, AND BRACING MEMBERS.
        v. DEFLECTION AND SETTLEMENT ESTIMATES FOR THE SUPPORT OF EXCAVATION SYSTEM.
    c. MATERIAL SPECIFICATIONS AND CERTIFICATIONS
        i. CERTIFICATED OF COMPLIANCE FOR STEEL, CONCRETE, ANCHORS, AND OTHER KEY MATERIALS.
        ii. MANUFACTURER'S DATA SHEETS FOR PROPRIETARY SYSTEMS SUCH AS NAILS OR TIEBACKS.
        iii. QUALITY CONTROL TESTING PROCEDURES AND ACCEPTANCE CRITERIA.
    d. CONSTRUCTION SEQUENCE PLAN
        i. TIMELINE AND PHASING OF SUPPORT OF EXCAVATION INSTALLATION AND REMOVAL.
        ii. COORDINATION WITH OTHER PROJECT ACTIVITIES.
        iii. EMERGENCY PROCEDURES FOR UNEXPECTED GROUND CONDITIONS OR STRUCTURAL FAILURES.
        iv. DEFLECTION AND SETTLEMENT MONITORING PLAN
4. STEEL SHEET PILES AND SOLDIER PILES SHALL BE IN GOOD CONDITION, AS APPROVED BY THE ENGINEER. WELDED AND THREADED OR MECHANICAL SPLICING OF SHEET PILES, PROVIDED THAT THE DESIGN INCLUDES APPROPRIATE SECTION PROPERTIES REDUCTIONS AT SPLICE POINTS AS INDICATED.
5. WHERE TIEBACKS, ANCHORS, OR SOIL NAILS ARE REQUIRED FOR TEMPORARY SUPPORT OF EXCAVATION, ANY TENDONS OR STEEL REINFORCEMENT ELEMENTS EXTENDING UNDER THE ROADWAY MAY REMAIN IN PLACE UPON COMPLETION OF CONSTRUCTION AS REQUIRED BY THE ENGINEER.

PRECAST CONCRETE

1. THE LUMP SUM COST FOR ITEM 540.1000, "PRECAST CONCRETE STRUCTURE (18'-0"x13'-0"'x292'-0" PRECAST BOX CULVERT)" SHALL INCLUDE THE PRECAST CONCRETE BOX CULVERT, PRECAST HEADWALLS, BAFFLES, AND CUT OFF WALLS. THESE ELEMENTS ARE TO BE DESIGNED BY THE CONTRACTOR. THE CULVERT SHALL BE LOAD RATED IN ACCORDANCE WITH SECTION 540 OF THE STANDARD SPECIFICATIONS FO CONSTRUCTION.
2. PRECAST BOX CULVERT AND WINGWALL DESIGN PARAMETERS:

DESIGN LIVE LOAD:	AASHTO HL-93 Load
RETAINED SOIL PARAMETERS	
UNIT WEIGHT:	140 PCF
FRICTION ANGLE:	34 DEGREES
LATERAL EARTH PRESSURE COEFFICIENTS, K_0:	0.44
K_a:	0.36
BEARING RESISTANCE	
NOMINAL BEARING RESISTANCE, STRENGTH:	X.X KSF
BEARING RESISTANCE FACTOR, STRENGTH:	0.45
NOMINAL BEARING RESISTANCE, SERVICE:	X.X KSF
BEARING RESISTANCE FACTOR, SERVICE:	1.0

3. ALL CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.
4. REINFORCING STEEL IN THE PRECAST BOX CULVERT AND WINGWALLS SHALL MEET THE REQUIREMENTS OF SECTION 507, "REINFORCING STEEL, LEVEL III".
5. THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE 2", EXCEPT THE CLEAR COVER ON UNDERSIDE OF THE CULVERT ROOF MAY BE REDUCED TO 1½".
6. ALL BOX CULVERT JOINTS SHALL BE STRENGTHENED WITH PERMANENT CLOSURE HARDWARE. ALL HARDWARE COMPONENTS SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 506 OF THE STANDARD SPECIFICATIONS.
7. A BRIDGE PLAQUE FURNISHED BY THE AGENCY SHALL BE CAST INTO WINGWALL 1. SEE STD S-501 FOR FURTHER DETAILS.
8. AFTER THE PRECAST CONCRETE UNITS ARE IN THEIR FINAL LOCATIONS, ALL HOLES OR BLOCKOUTS USED FOR LIFTING THE PRECAST ELEMENTS SHALL HAVE A BONDING AGENT APPLIED TO THE CONCRETE SURFACE AND SHALL BE FILLED WITH A MORTAR, TYPE IV OR CONCRETE REPAIR MATERIAL, TYPE I AS APPROPRIATE. PAYMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 540.1000, "PRECAST CONCRETE STRUCTURE (18'-0"x13'-0"'x292'-0" PRECAST BOX CULVERT)"
9. ALL MORTAR AND GROUT SHALL BE WET CURED PER THE MANUFACTURER'S RECOMMENDATIONS.
10. BACKFILLING THE BOX CULVERT IS NOT ALLOWED UNTIL THE GROUT HAS REACHED ITS FINAL SET AS INDICATED BY THE MANUFACTURER'S PRODUCT DATA SHEET.
11. ITEM 514.1000, "WATER REPELLENT, SILANE" SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE INSIDE OF THE BOX.
12. A WATERPROOFING MEMBRANE SYSTEM, TYPE III SHALL BE APPLIED IN A 2'-0" WIDE STRIP AT ALL VERTICAL OR HORIZONTAL CONSTRUCTION JOINTS IN THE BOX CULVERT IN ACCORDANCE WITH SECTION 540 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.
13. ITEM 519.2000, "MEMBRANE WATERPROOFING, TORCH APPLIED SHEET" SHALL BE APPLIED ACROSS THE ENTIRETY OF THE ROOF AND 1'-0" DOWN THE SIDES OF THE BOX CULVERT FRAME.

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024gen notes.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
PROJECT NOTES SHEET

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES					TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
5500					5500		CY	COMMON EXCAVATION	203.1500				
			590		590		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.2700				
1750					1750		CY	SAND BORROW	203.3100				
			7700		7700		CY	STRUCTURE EXCAVATION	204.2500				
			1700		1700		CY	GRANULAR BACKFILL FOR STRUCTURES	204.3000				
1280					1280		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.1000				
2000					2000		LF	MILLED RUMBLE STRIPS, SHOULDER	213.2010				
1					1		LS	TEMPORARY ACCESS ROAD	240.0100				
1					1		LS	DIVIDED HIGHWAY CROSSOVER (NORTHBOUND CROSSOVER)	240.0100004				
1					1		LS	DIVIDED HIGHWAY CROSSOVER (SOUTHBOUND CROSSOVER)	240.0100004				
3150					3150		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.3500				
50					50		CY	AGGREGATE SURFACE COURSE	401.1000				
35					35		CWT	TACK COAT, EMULSIFIED ASPHALT	404.1100				
900					900		TON	BITUMINOUS CONCRETE PAVEMENT, TYPE IIS, QA TIER III	406.0230				
850					850		TON	BITUMINOUS CONCRETE PAVEMENT, TYPE IVS, QA TIER III	406.0430				
			610		610		SY	MEMBRANE WATERPROOFING, TORCH APPLIED SHEET	519.2000				
			1		1		EACH	REMOVAL OF STRUCTURE (2 X7FT DIA X 290FT LENGTH CMP)	529.1500				
			1		1		LS	PRECAST CONCRETE STRUCTURE (18FT X13FT X292FT PRECAST BOX CULVERT)	540.1000				
5					5		CY	FLOWABLE FILL	541.4500				
1					1		EACH	DECOMMISSION DROP INLET	604.6500				
			800		800		CY	E-STONE FILL, TYPE II	613.0602				
			1		1		EACH	TEMPORARY RELOCATION OF STREAM	614.1000				
780					780		LF	WOVEN WIRE FENCE WITH STEEL POSTS	620.2500				
12					12		EACH	STEEL BRACE FOR WOVEN WIRE FENCE	620.4000				
840					840		LF	REMOVAL OF EXISTING FENCE	620.5500				
600					600		LF	REMOVAL OF GUARDRAIL	621.0100				
50					50		LF	REMOVE AND RESET GUARDRAIL	621.0210				
675					675		LF	STEEL BEAM GUARDRAIL	621.1060				
2					2		EACH	ANCHOR FOR STEEL BEAM GUARDRAIL, MGS	621.1530				
800					800		HR	UNIFORMED TRAFFIC OFFICERS	630.1000				
				1	1		LS	FIELD OFFICE, ENGINEER'S	631.1000				
				1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.1700				
				1	1		LS	TESTING EQUIPMENT, GROUT	631.1900				
				3000	3000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.2600				
13					13		EACH	CPM SCHEDULE	633.1000				
1					1		LS	MOBILIZATION/DEMOBILIZATION	635.1100				
1					1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE (NORTHBOUND BARREL AND CROSSOVER)	641.1100				
1					1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE (SOUTHBOUND BARREL AND CROSSOVER)	641.1100				
4					4		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.1500				
4					4		EACH	PORTABLE ARROW BOARD	641.1600				

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QUANTITY SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. CILWIK
SHEET 8 OF 144

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES				TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
20400					20400		LF	6 INCH WHITE LINE, WATERBORNE PAINT	646.2141				
16200					16200		LF	6 INCH YELLOW LINE, WATERBORNE PAINT	646.2151				
			1760		1760		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.1100				
			550		550		SY	GEOTEXTILE UNDER STONE FILL	649.3100				
		43700			43700		SY	TURF ESTABLISHMENT, GENERAL SEED	651.1500				
	8758				8758		SY	TURF ESTABLISHMENT, SPECIALTY SEED	651.1600				
		700			700		CY	TOPSOIL	651.3500				
			400		400		SY	GRUBBING MATERIAL, 12 INCH	651.4012				
		1			1		LS	EPSC PLAN	653.0100				
		120			120		HR	MONITORING EPSC PLAN	653.0200				
		3000			3000		DL	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.0300				
		20			20		TON	HAY MULCH	653.1000				
	1				1		TON	STRAW MULCH	653.1200				
		16050			16050		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.2001				
		150			150		CY	CHECK DAM, TYPE I	653.2501				
		210			210		CY	STABILIZED CONSTRUCTION ENTRANCE	653.3500				
		22			22		EACH	INLET PROTECTION DEVICE, TYPE I	653.4001				
		1			1		EACH	INLET PROTECTION DEVICE, TYPE II	653.4002				
		40			40		CY	INLET PROTECTION DEVICE, TYPE III	653.4003				
		4			4		EACH	FILTER BAG	653.4500				
		1160			1160		LF	SILT FENCE, TYPE I	653.4701				
		1000			1000		LF	SILT FENCE, TYPE II	653.4702				
		700			700		LF	BARRIER FENCE	653.5000				
		1800			1800		LF	PROJECT DEMARCATION FENCE	653.5500				
		2600			2600		LF	EROSION LOG	653.6000				
	180				180		EACH	DECIDUOUS SHRUBS	656.3500				
	47				47		MGAL	LANDSCAPE WATERING	656.6500				
	31				31		CY	LANDSCAPE BACKFILL, TRUCK MEASUREMENT	656.8000				
8.84					8.84		SF	TRAFFIC SIGN, FLAT SHEET ALUMINUM	675.2000				
2					2		EACH	FOUNDATION FOR W-SHAPE STEEL POST, 24 INCH DIAMETER	675.4100				
6					6		EACH	SIGN REMOVAL, FLAT SHEET ALUMINUM	675.5000				
3					3		EACH	RESETTING SIGNS	675.6000				
6					6		EACH	DELINEATOR WITH STEEL POST	676.1000				
6					6		EACH	REMOVAL OF EXISTING DELINEATOR AND POST	676.1200				

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SHEET 9 OF 144

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY. THE SYMBOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

R.O.W. ABBREVIATIONS (CODES) & SYMBOLS

POINT	CODE	DESCRIPTION
	BF	BARRIER FENCE
	CH	CHANNEL EASEMENT
	CONST	CONSTRUCTION EASEMENT
	CUL	CULVERT EASEMENT
	D&C	DISCONNECT & CONNECT
	DIT	DITCH EASEMENT
	DR	DRAINAGE EASEMENT
	DRIVE	DRIVEWAY EASEMENT
	EC	EROSION CONTROL
	HWY	HIGHWAY EASEMENT
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	PDF	PROJECT DEMARCATION FENCE
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	R.T.& I.	RIGHT, TITLE, AND INTEREST
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⧈	BNDNS	BOUND TO BE SET
◎	IPNF	IRON PIN FOUND
●	IPNS	IRON PIN TO BE SET
⊠	CALC	EXISTING ROW POINT
○	PROW	PROPOSED ROW POINT
[LENGTH]		LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

POINT	CODE	DESCRIPTION
	APL	BOUND APPARENT LOCATION
	BM	BENCHMARK
	BND	BOUND
	CB	CATCH BASIN
	COMB	COMBINATION POLE
	DITHR	DROP INLET THROATED DNC
	EL	ELECTRIC POWER POLE
	FPOLE	FLAGPOLE
	GASFIL	GAS FILLER
	GP	GUIDE POST
	GSO	GAS SHUT OFF
	GUY	GUY POLE
	GUYW	GUY WIRE
	GV	GATE VALVE
	H	TREE HARDWOOD
	HCTRL	CONTROL HORIZONTAL
	HVCTRL	CONTROL HORIZ. & VERTICAL
	HYD	HYDRANT
	IP	IRON PIN
	IPIPE	IRON PIPE
	LI	LIGHT - STREET OR YARD
	MB	MAILBOX
	MH	MANHOLE (MH)
	MM	MILE MARKER
	PM	PARKING METER
	PMK	PROJECT MARKER
	POST	POST STONE/WOOD
	RRSIG	RAILROAD SIGNAL
	RRSL	RAILROAD SWITCH LEVER
	S	TREE SOFTWOOD
	SAT	SATELLITE DISH
	SHRUB	SHRUB
	SIGN	SIGN
	STUMP	STUMP
	TEL	TELEPHONE POLE
	TIE	TIE
	TSIGN	SIGN W/DOUBLE POST
	VCTRL	CONTROL VERTICAL
	WELL	WELL
	WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADIUS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE
CB	CHORD BEARING

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

- UGU — UTILITY (GENERIC-UNKNOWN)
- UT — TELEPHONE
- UE — ELECTRIC
- UC — CABLE (TV)
- UEC — ELECTRIC+CABLE
- UET — ELECTRIC+TELEPHONE
- UCT — CABLE+TELEPHONE
- UECT — ELECTRIC+CABLE+TELEPHONE
- G — GAS LINE
- W — WATER LINE
- S — SANITARY SEWER (SEPTIC)

ABOVE GROUND UTILITIES (AERIAL)

- AGU — UTILITY (GENERIC-UNKNOWN)
- T — TELEPHONE
- E — ELECTRIC
- C — CABLE (TV)
- EC — ELECTRIC+CABLE
- ET — ELECTRIC+TELEPHONE
- AER E&T — ELECTRIC+TELEPHONE
- CT — CABLE+TELEPHONE
- ECT — ELECTRIC+CABLE+TELEPHONE
- UTILITY POLE GUY WIRE

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

- CZ — CLEAR ZONE
- PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

- TOP OF CUT SLOPE
- TOE OF FILL SLOPE
- STONE FILL
- BOTTOM OF DITCH ℄
- CULVERT PROPOSED
- STRUCTURE SUBSURFACE
- PDF — PDF — PROJECT DEMARCATION FENCE
- BF — BF — BARRIER FENCE
- TREE PROTECTION ZONE (TPZ)
- STRIPING LINE REMOVAL
- SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

- TOWN LINE — TOWN BOUNDARY LINE
- COUNTY LINE — COUNTY BOUNDARY LINE
- STATE LINE — STATE BOUNDARY LINE
- PROPOSED STATE R.O.W. (LIMITED ACCESS)
- PROPOSED STATE R.O.W.
- STATE ROW (LIMITED ACCESS)
- STATE ROW
- TOWN ROW
- PERMANENT EASEMENT LINE (P)
- TEMPORARY EASEMENT LINE (T)
- SURVEY LINE
- P/L — PROPERTY LINE (P/L)
- SR SR SR — SLOPE RIGHTS
- 6f — 6f — 6F PROPERTY BOUNDARY
- 4f — 4f — 4F PROPERTY BOUNDARY
- HAZ — HAZ — HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

- FILTER CURTAIN
- SILT FENCE
- SILT FENCE WOVEN WIRE
- CHECK DAM
- DISTURBED AREAS REQUIRING RE-VEGETATION
- EROSION MATTING

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

ENVIRONMENTAL RESOURCES

- WETLAND BOUNDARY
- RIPARIAN BUFFER ZONE
- WETLAND BUFFER ZONE
- SOIL TYPE BOUNDARY
- T&E — THREATENED & ENDANGERED SPECIES
- HAZ — HAZ — HAZARDOUS WASTE AREA
- AG — AGRICULTURAL LAND
- HABITAT — FISH & WILDLIFE HABITAT
- FLOOD PLAIN — FLOOD PLAIN
- OHW — ORDINARY HIGH WATER (OHW)
- STORM WATER
- USDA FOREST SERVICE LANDS
- WILDLIFE HABITAT SUIT/CONN

ARCHEOLOGICAL & HISTORIC

- ARCH — ARCHEOLOGICAL BOUNDARY
- HISTORIC DIST — HISTORIC DISTRICT BOUNDARY
- HISTORIC — HISTORIC AREA
- (H) HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

- ROAD EDGE PAVEMENT
- ROAD EDGE GRAVEL
- DRIVEWAY EDGE
- DITCH
- FOUNDATION
- FENCE (EXISTING)
- FENCE WOOD POST
- FENCE STEEL POST
- GARDEN
- ROAD GUARDRAIL
- RAILROAD TRACKS
- CULVERT (EXISTING)
- STONE WALL
- WALL
- WOOD LINE
- BRUSH LINE
- HEDGE
- BODY OF WATER EDGE
- LEDGE EXPOSED

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024symb.dgn	PLOT DATE: 8/5/2025
PROJECT LEADER: VTrans	DRAWN BY: VTrans
DESIGNED BY: VTrans	CHECKED BY: VTrans
CONVENTIONAL SYMBOLOGY LEGEND SHEET	SHEET 10 OF 144

GPS CONTROL POINTS

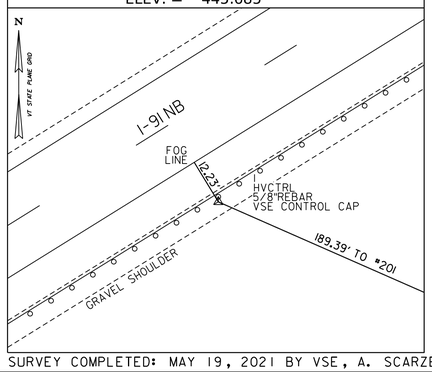
BRADFORD CORS ARP

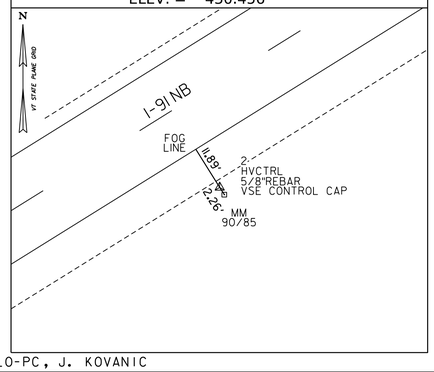
PID DJ8957
N = 549808.851
E = 1741884.597
ELLIP HEIGHT = 414.756

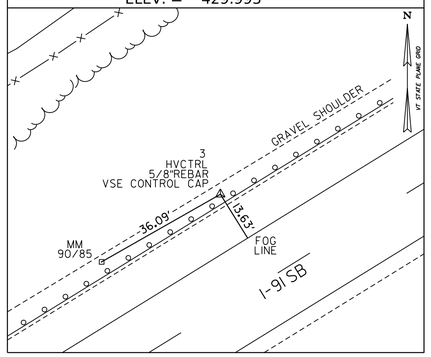
STATION IS A GPS CONTINOUSLY OPERATING REFERENCE STATION. STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA. THE ANTENNA IS MOUNTED ON THE ROOF OF OXBOW HIGH SCHOOL IN BRADFORD, VERMONT. THE ANTENNA IS ATTACHED TO THE TWO STORY CONCRETE/BRICK BUILDING WITH A 6 FT CONCRETE FOUNDATION BUILT IN 1972. THE MAST IS A 1.75 INCH DIA GALV PIPE THAT IS 108 INCHES LONG. THE MAST IS ATTACHED TO A STEEL MOUNTING FRAME WITH THREE ATTACHMENTS CONSISTING OF 3/8 INCH SS THROUGH BOLTS. THE MOUNTING FRAME IS ATTACHED TO THE BUILDING USING 8 ATTACHMENT POINTS. THE TOP 4 ARE 1/2 INCH SS BOLTS SECURED TO THE BRICK OR CONC WITH LEAD ANCHORS. THE BOTTOM 4 ATTACHMENTS ARE TROUGH BOLTED AND CONSIST OF 1/2 INCH SS THREADED ROD AND NUTS.

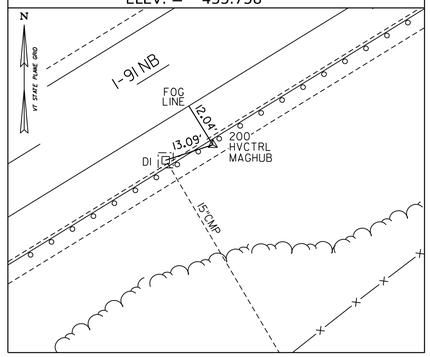
TRAVERSE TIES

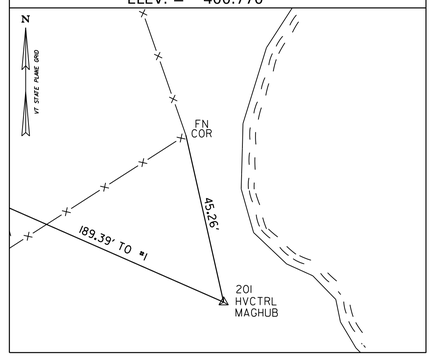
HVCTRL #1	HVCTRL #2	HVCTRL #3	HVCTRL #200	HVCTRL #201
NORTH = 509670.405	NORTH = 509998.337	NORTH = 510121.394	NORTH = 509828.374	NORTH = 509594.214
EAST = 1728836.080	EAST = 1729365.920	EAST = 1729331.160	EAST = 1729091.854	EAST = 1729009.470
ELEV. = 445.685	ELEV. = 430.456	ELEV. = 429.993	ELEV. = 435.758	ELEV. = 400.770







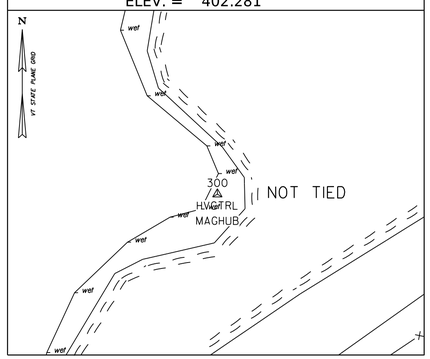


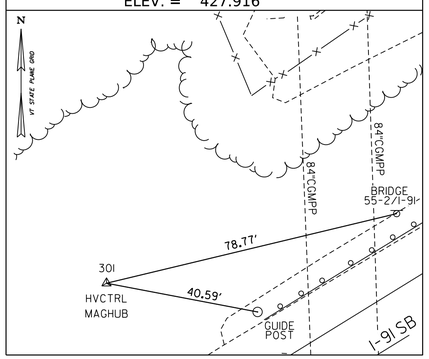


SURVEY COMPLETED: MAY 19, 2021 BY VSE, A. SCARZELLO-PC, J. KOVANIC

TRAVERSE TIES

HVCTRL #300	HVCTRL #301			
NORTH = 510213.552	NORTH = 510045.432	NORTH =	NORTH =	NORTH =
EAST = 1729261.193	EAST = 1729154.757	EAST =	EAST =	EAST =
ELEV. = 402.281	ELEV. = 427.916	ELEV. =	ELEV. =	ELEV. =





DATUM

VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT LSQ

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024ti.dgn
PROJECT LEADER:
DESIGNED BY:
TIE SHEET

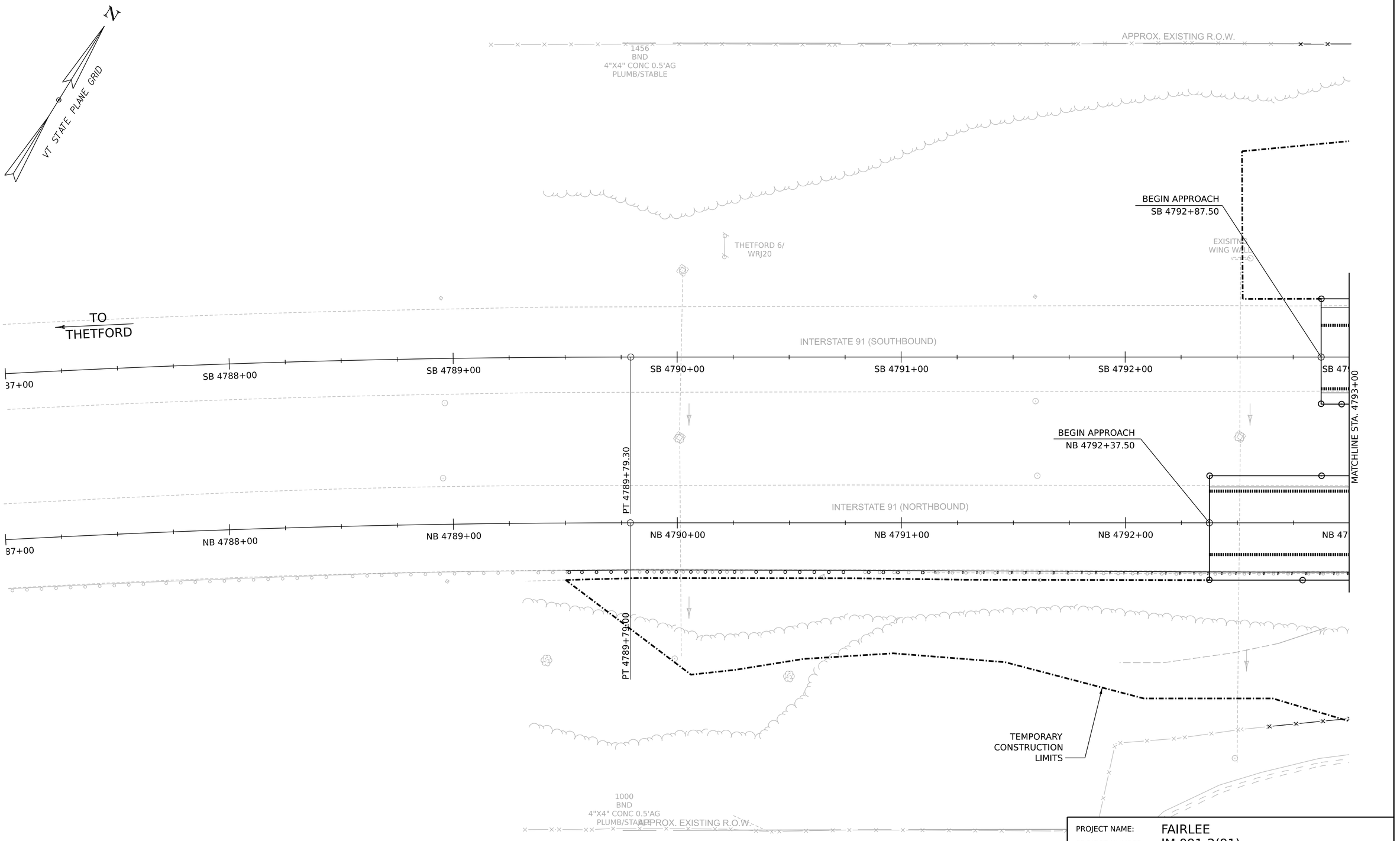
PLOT DATE: 5-AUG-2025
DRAWN BY: M. BACKMAN
CHECKED BY: A. McQUEENEY
SHEET 11 OF 144

MILLED RUMBLE STRIPS, SHOULDER
STA. NB 4792+37.5 TO NB 4793+00.0, LT & RT
STA. SB 4792+87.5 TO SB 4793+00.0, LT & RT

REMOVAL OF EXISTING FENCE
STA. NB 4792+62.5 TO NB 4793+00.0, RT
STA. SB 4792+77.0 TO SB 4793+00.0, LT

WOVEN WIRE FENCE WITH STEEL POSTS
STA. NB 4792+62.5 TO NB 4793+00.0, RT
STA. SB 4792+77.0 TO SB 4793+00.0, LT

STEEL BRACE FOR WOVEN WIRE FENCE
STA. NB 4792+62.5, RT
STA. SB 4792+77.0, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_gen.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
LAYOUT PLAN SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 12 OF 144

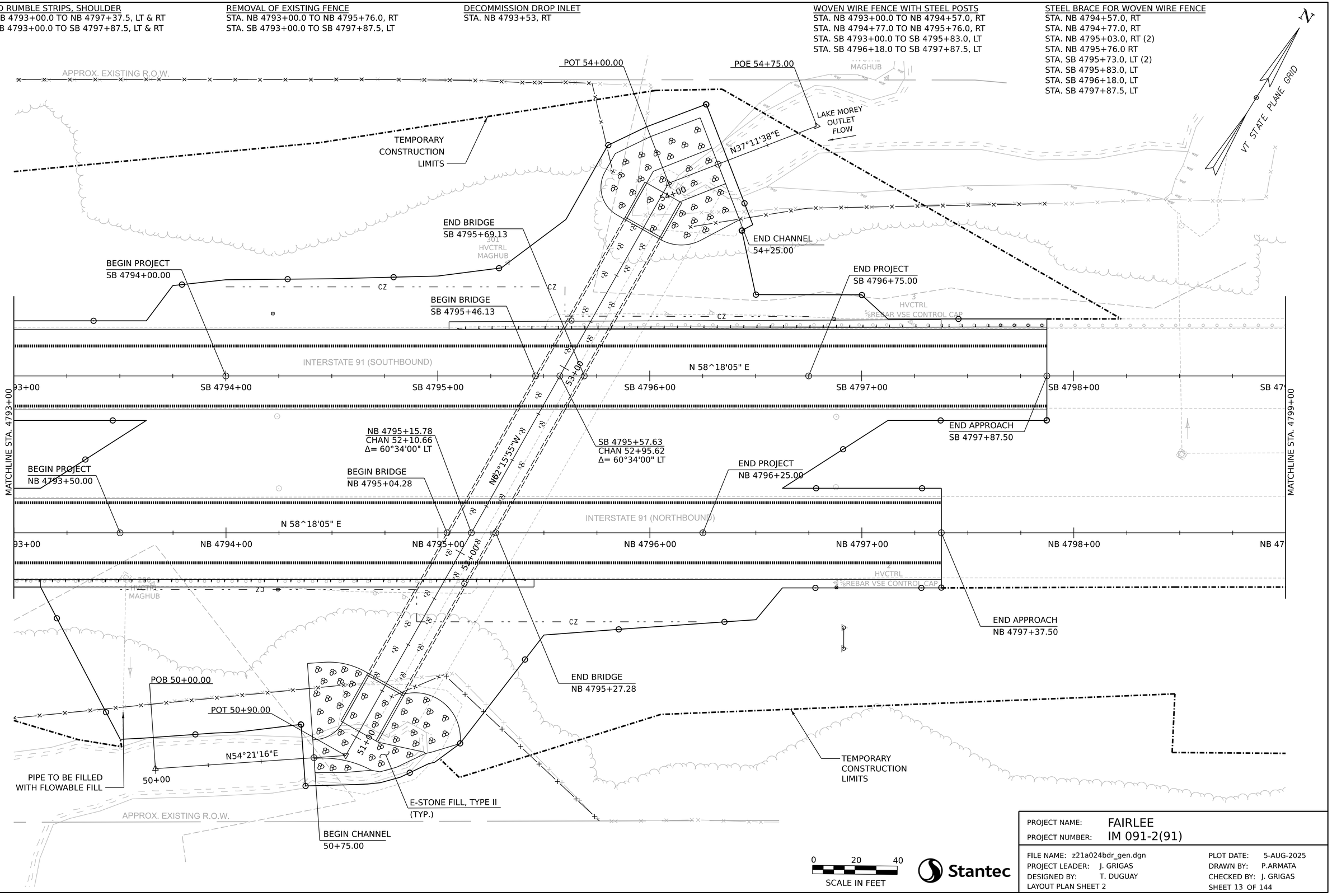
MILLED RUMBLE STRIPS, SHOULDER
STA. NB 4793+00.0 TO NB 4797+37.5, LT & RT
STA. SB 4793+00.0 TO SB 4797+87.5, LT & RT

REMOVAL OF EXISTING FENCE
STA. NB 4793+00.0 TO NB 4795+76.0, RT
STA. SB 4793+00.0 TO SB 4797+87.5, LT

DECOMMISSION DROP INLET
STA. NB 4793+53, RT

WOVEN WIRE FENCE WITH STEEL POSTS
STA. NB 4793+00.0 TO NB 4794+57.0, RT
STA. NB 4794+77.0 TO NB 4795+76.0, RT
STA. SB 4793+00.0 TO SB 4795+83.0, LT
STA. SB 4796+18.0 TO SB 4797+87.5, LT

STEEL BRACE FOR WOVEN WIRE FENCE
STA. NB 4794+57.0, RT
STA. NB 4794+77.0, RT
STA. NB 4795+03.0, RT (2)
STA. NB 4795+76.0 RT
STA. SB 4795+73.0, LT (2)
STA. SB 4795+83.0, LT
STA. SB 4796+18.0, LT
STA. SB 4797+87.5, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_gen.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
LAYOUT PLAN SHEET 2

PLOT DATE: 5-AUG-2025
DRAWN BY: P.ARMATA
CHECKED BY: J. GRIGAS
SHEET 13 OF 144

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

SL 65 / MIN 40

MOTORCYCLES
USE CAUTION
GROOVED
SHOULDER

91.00

N58°18'05"E

INTERSTATE 91 (SOUTHBOUND)

99+00 | SB 4800+00 | SB 4801+00 | SB 4802+00 | SB 4803+00 | SB 4804+00 | SB 48

MATCHLINE STA. 4799+00

MATCHLINE STA. 4805+00

N58°18'05"E

INTERSTATE 91 (NORTHBOUND)

99+00 | NB 4800+00 | NB 4801+00 | NB 4802+00 | NB 4803+00 | NB 4804+00 | NB 48

91.00

TEMPORARY
CONSTRUCTION
LIMITS

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_gen.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
LAYOUT PLAN SHEET 3

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 14 OF 144

N

VT STATE PLANE GRID

PC 4810+86.12

INTERSTATE 91 (SOUTHBOUND)

05+00 | SB 4806+00 | SB 4807+00 | SB 4808+00 | SB 4809+00 | SB 4810+00 | SB 4811+00

PC 4811+01.00

MATCHLINE STA. 4805+00

PAVED
U-TURN

INTERSTATE 91 (NORTHBOUND)

05+00 | NB 4806+00 | NB 4807+00 | NB 4808+00 | NB 4809+00 | NB 4810+00 | NB 4811+00

TO
BRADFORD

GAS, LODGING, FOOD
NEXT RIGHT

TEMPORARY
CONSTRUCTION
LIMITS

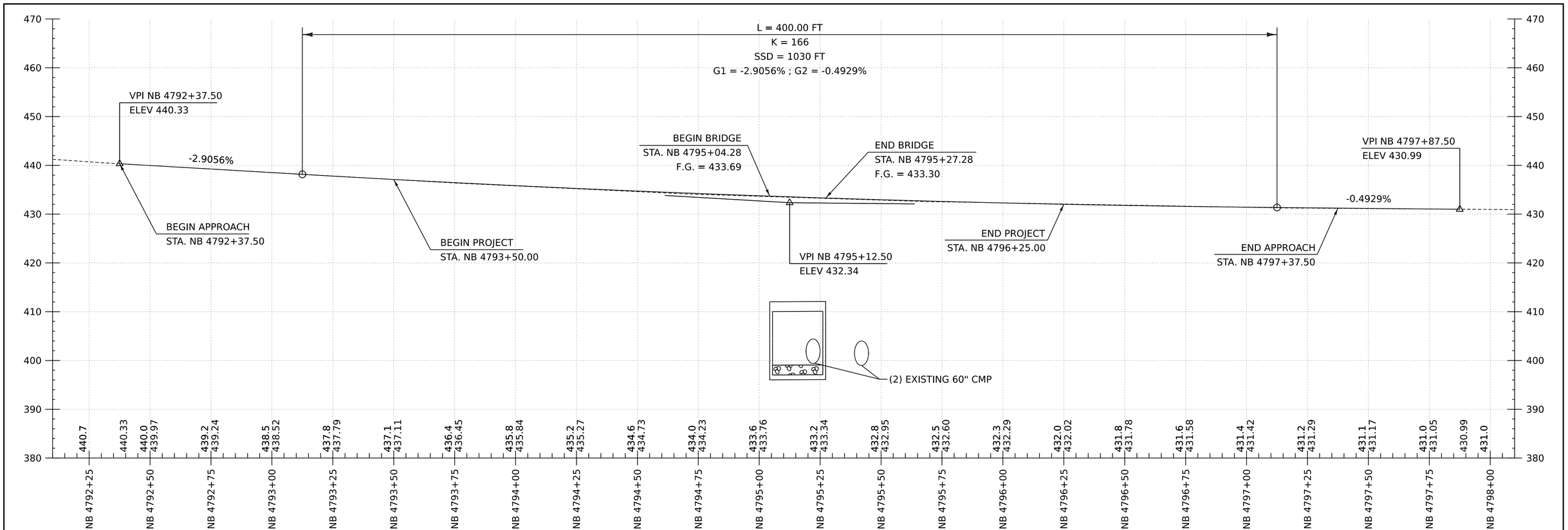
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_gen.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
LAYOUT PLAN SHEET 4

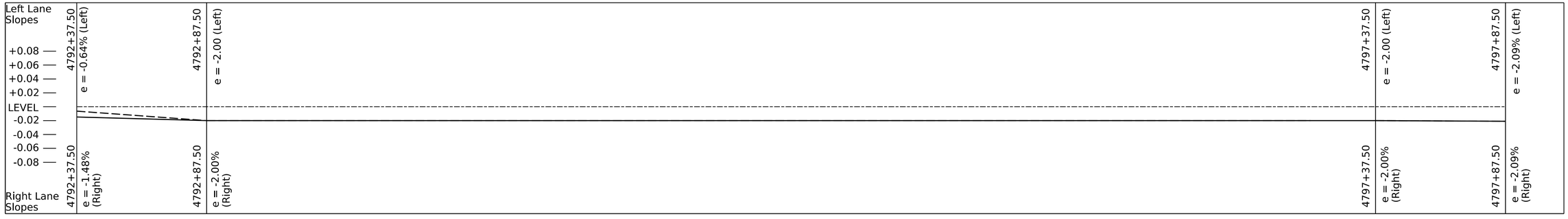
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS



I-91 NORTHBOUND PROPOSED PROFILE

SCALE:1"=20' H
1"=10' V

BANKING DIAGRAM

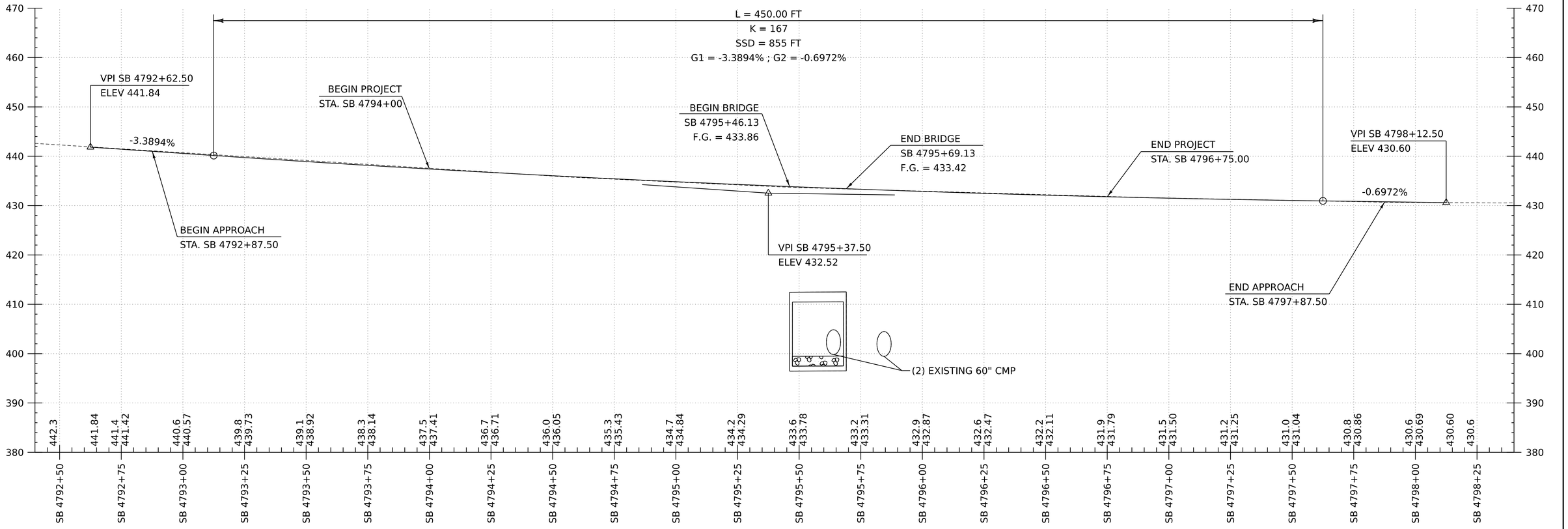


I-91 NORTHBOUND PROPOSED BANKING DIAGRAM

SCALE:1"=20' H

Stantec

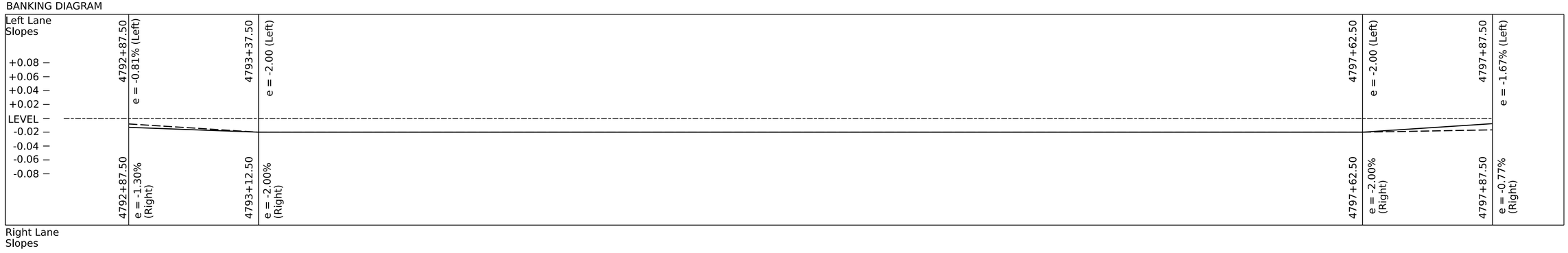
PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_pro_I91_NB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	T. DUGUAY
DESIGNED BY:	T. DUGUAY	CHECKED BY:	I. MAYNARD
NB PROFILE SHEET		SHEET	16 OF 144



I-91 SOUTHBOUND PROPOSED PROFILE

SCALE:1"=20' H
1"=10' V

BANKING DIAGRAM

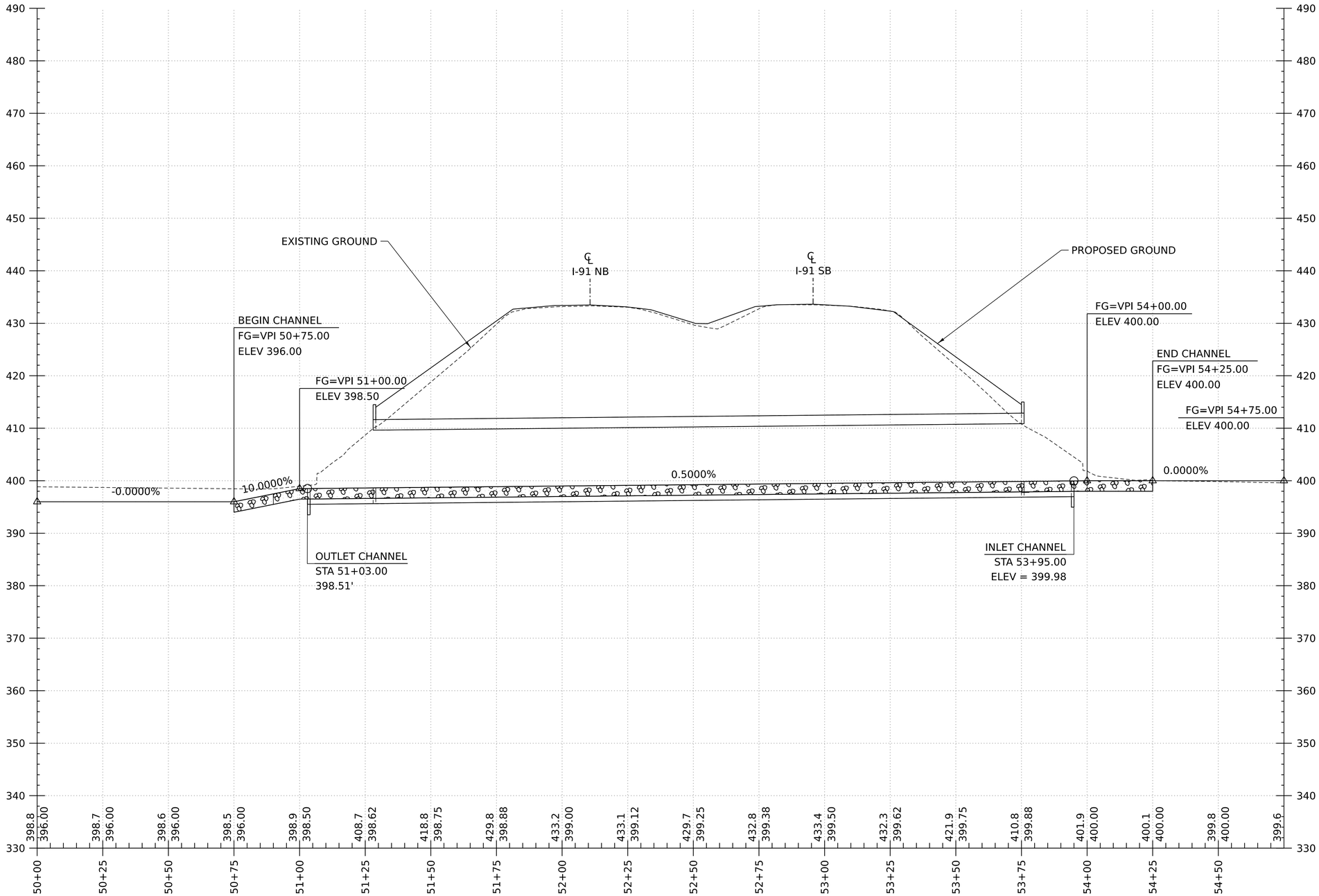


I-91 SOUTHBOUND PROPOSED BANKING DIAGRAM

SCALE:1"=20' H

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_pro_I91_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
SB PROFILE SHEET	SHEET 17 OF 144



NOTES:

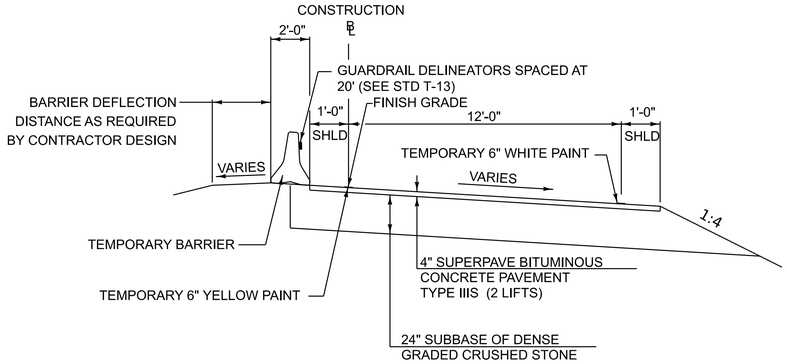
1. THE GRADES SHOWN TO THE TENTH ARE THE EXISTING GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.
2. THE GRADES SHOWN THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.
3. THE PROPOSED CHANNEL AT STA 50+75.00 SHALL BE CUT TO BE 2'-6" LOWER THAN THE EXISTING CHANNEL. THIS AREA WILL BE FILLED THROUGH NATURAL SEDIMENTATION.
4. BAFFLES NOT SHOWN FOR CLARITY.

PROPOSED CULVERT PROFILE

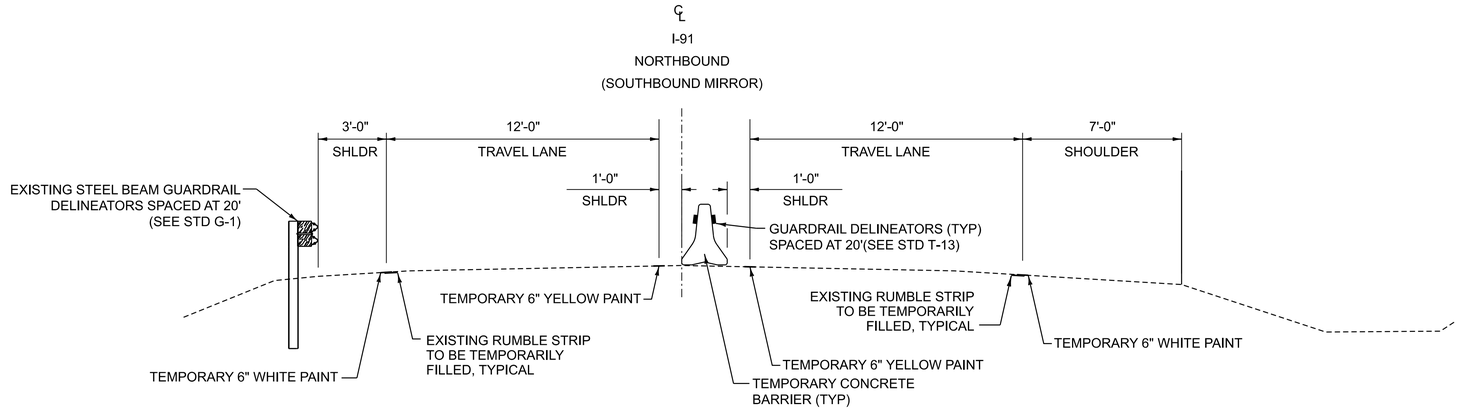
SCALE:1"=20' H
1"=10' V

Stantec

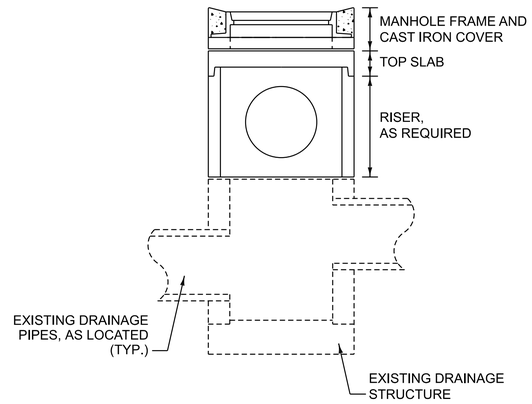
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_alg_culv.dgn	PLOT DATE: 8/5/2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
CULVERT PROFILE SHEET	SHEET 18 OF 144



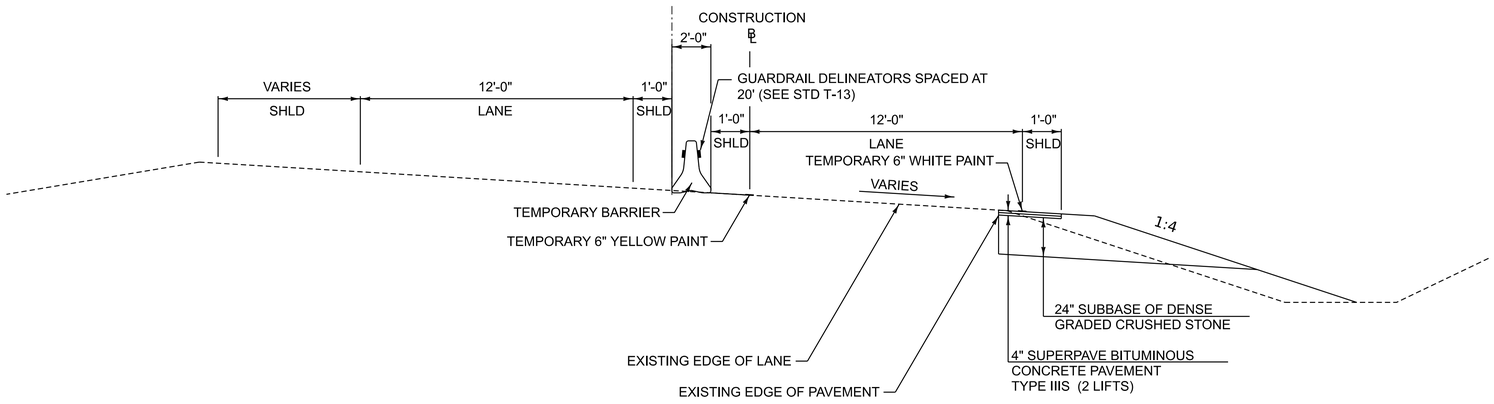
MEDIAN CROSSOVER TYPICAL



COHABITATED TYPICAL



NEW TEMPORARY DRAINAGE MANHOLE
NOT TO SCALE



WIDENING TYPICAL

TEMPORARY CROSSOVER TYPICAL SECTIONS
NOT TO SCALE

1. REFLECTORS SHALL BE YELLOW FOR THE LEFT SIDE OF TRAFFIC AND WHITE FOR THE RIGHT SIDE OF TRAFFIC, FOR THE CROSSOVER. REFLECTORS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENTATIONS AT LOCATIONS IN ACCORDANCE WITH VTRANS STANDARD T-13.

GENERAL TRAFFIC CONTROL NOTES:

1. THE EXISTING SPEED LIMIT ON I-91 IS 65 MPH. THE SPEED LIMIT WILL BE REDUCED TO 55 MPH DURING CROSSOVER UTILIZATION. ANY EXISTING SPEED LIMIT SIGNS WITHIN THE SPEED REDUCTION AREA SHALL BE COMPLETELY COVERED. SIGN COVERING SHALL NOT DAMAGE THE RETRO-REFLECTIVITY OF THE SIGN FACE. THE SIGN COVER SHALL BE A MATERIAL THAT WILL NOT DETERIORATE FOR THE DURATION THAT THE SIGN IS COVERED. ALL OTHER EXISTING SIGNS IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL CONDITIONS SHALL BE REMOVED OR COMPLETELY COVERED. A RESUMED SPEED LIMIT SHALL BE POSTED AT THE END OF THE WORK ZONE.

TEMPORARY DRAINAGE NOTES:

1. REFER TO VTRANS STANDARDS D-6, D-8, D-11 AND D-15 FOR ADDITIONAL DETAILS.
2. ALL DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.
3. ALL WORK ASSOCIATED WITH THE CONTROL OF DRAINAGE DURING CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL INCLUSIVE. THIS INCLUDES, BUT MAY NOT BE LIMITED TO ANY FIELD ENGINEERING AND ADJUSTING AS EXISTING CONDITIONS, OR CONSTRUCTION OPERATIONS MANDATE, PROPOSED DRAINAGE STRUCTURE, RISER(S), SLAB(S), FRAME(S), CAST IRON COVER(S), DRAINAGE PIPE(S), END SECTION(S), AND ANY REESTABLISHMENT OF EXISTING CONDITIONS AFTER THE TEMPORARY DRAINAGE IS NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.
4. AT THE TIME THE ENGINEER DETERMINES THE TEMPORARY DRAINAGE IS NO LONGER REQUIRED, THE CONTRACTOR SHALL REMOVE ALL NEW PIPES, RISERS, FRAMES, COVERS, ETC, AND REHABILITATE THE EXISTING DRAINAGE STRUCTURE. REHABILITATION OF THE EXISTING DRAINAGE STRUCTURE WILL BE CONSIDERED INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.
5. CONTRACTOR SHALL FIELD VERIFY ALL DRAINAGE STRUCTURE LOCATIONS AND ELEVATIONS PRIOR TO ORDERING AND PRECASTING ANY NEW DRAINAGE APPURTENANCES.
6. ALL JOINTS SHALL BE WATERTIGHT.
7. FITTING FRAME TO FINAL GRADE ADJUSTMENTS (12" MAXIMUM) MAY BE COMPLETED WITH GRADE RINGS OR BUILDING BRICK.
8. NO EXISTING DRAINAGE PIPES SHALL BE AFFECTED BY THE CONSTRUCTION OF ANY RISER. SHOULD THE EXISTING STRUCTURE BE AFFECTED AT THE FAULT OF THE CONTRACTOR, THE REPAIR THE STRUCTURE, AS REQUIRED, AT NO ADDITIONAL COST TO THE PROJECT.

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024typ.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: G. BURGMEIER
DESIGNED BY: G. BURGMEIER	CHECKED BY: I. MAYNARD
TRAFFIC CONTROL NOTES AND TYPICALS	SHEET 19 OF 144

Stantec

LEGEND

- PLASTIC DRUM
- DIRECTION OF TRAFFIC
- TRAFFIC DELINEATOR (YELLOW)
- TRAFFIC DELINEATOR (WHITE)
- PORTABLE ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- TYPE III BARRACADE WITH ROAD CLOSED SIGN
- TYPE III BARRACADE
- TEMPORARY TRAFFIC BARRIER
- REMOVAL OR MASKING OF EXISTING PAVEMENT MARKINGS
- ENERGY ABSORBTION ATTENUATOR

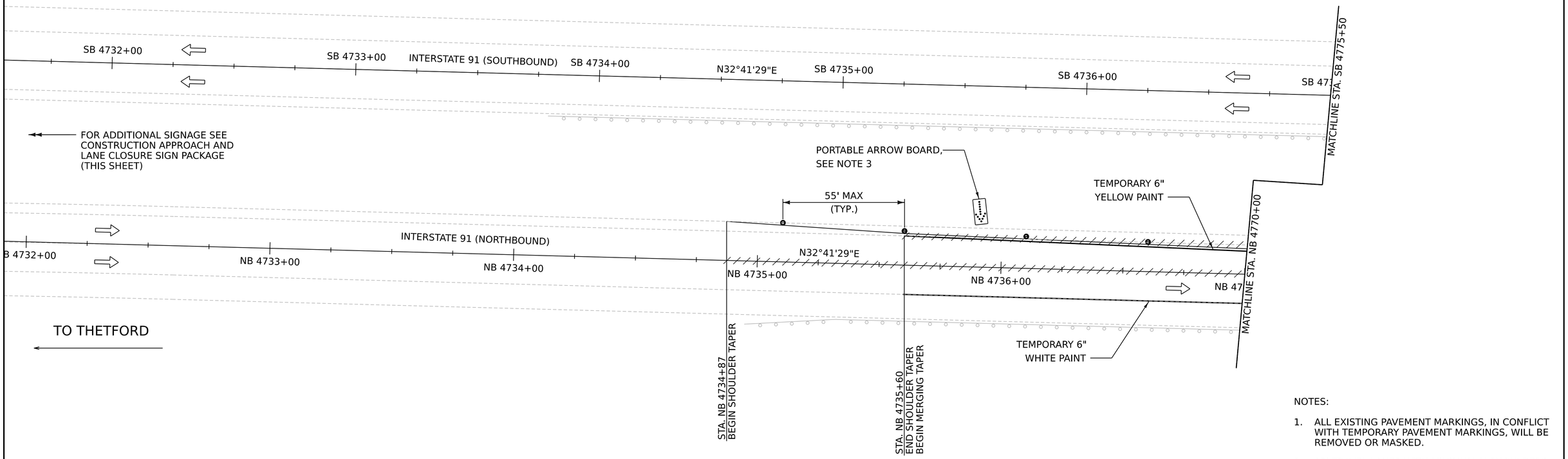
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4735+60 TO STA. NB 4737+00, LT

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4735+60 TO STA. NB 4737+00, RT

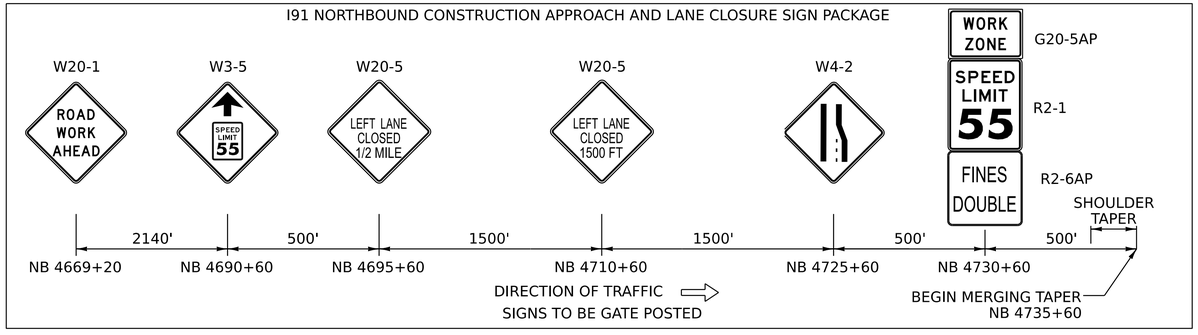
PAVEMENT MARKING MASK
STA. NB 4734+87 TO STA. NB 4737+00, DASHED CL
STA. NB 4735+60 TO STA. NB 4737+00, SOLID LT

N

VT STATE PLANE GRID



I91 NORTHBOUND CONSTRUCTION APPROACH AND LANE CLOSURE SIGN PACKAGE



NOTES:

1. ALL EXISTING PAVEMENT MARKINGS, IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS, WILL BE REMOVED OR MASKED.
2. 12' TRAVEL LANES WITH MINIMUM 1' SHOULDERS.
3. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
4. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

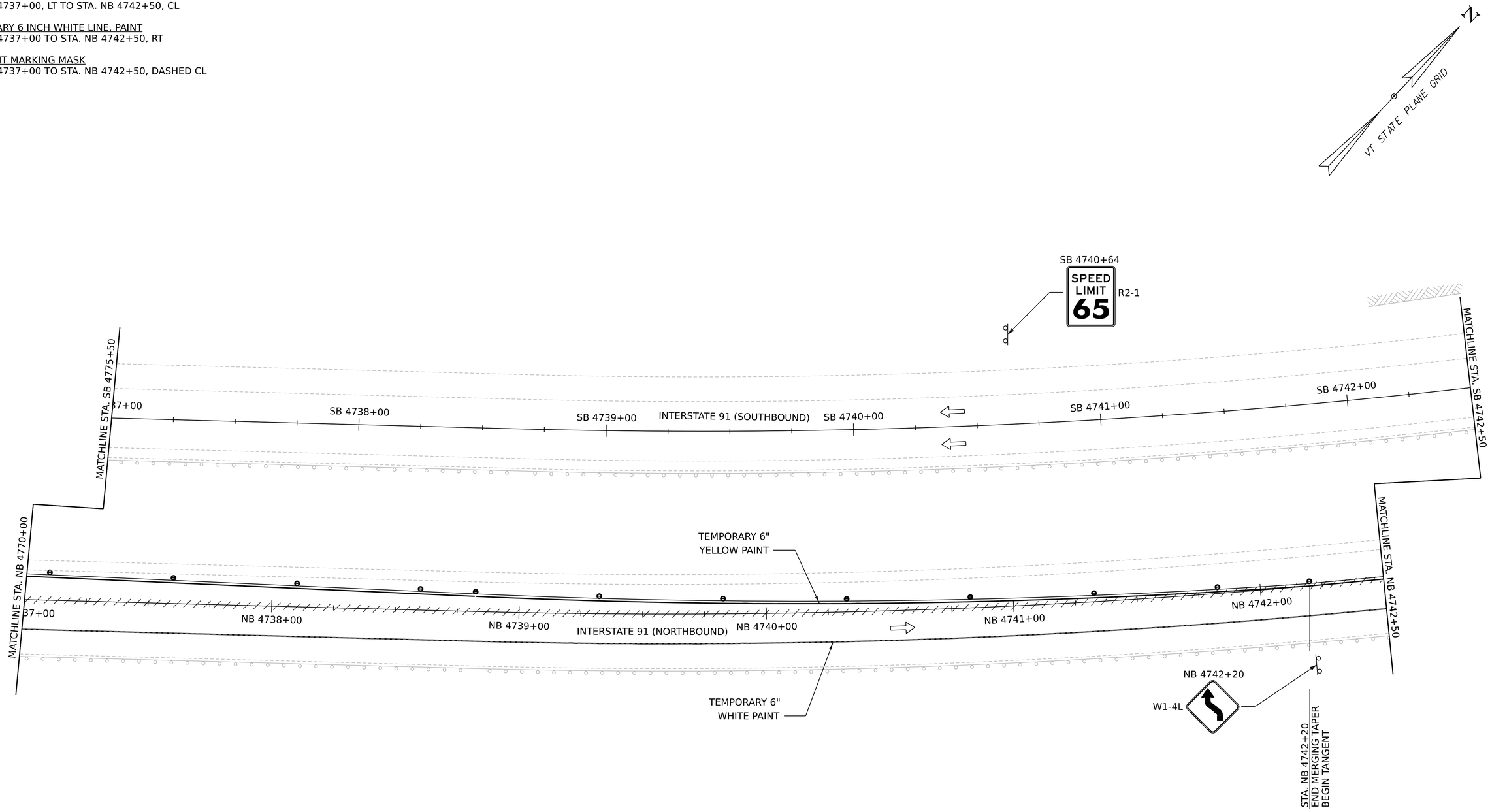
FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T.DUGUAY
CROSSOVER NB PLAN SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 20 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4737+00, LT TO STA. NB 4742+50, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4737+00 TO STA. NB 4742+50, RT

PAVEMENT MARKING MASK
STA. NB 4737+00 TO STA. NB 4742+50, DASHED CL



0 20 40
SCALE IN FEET

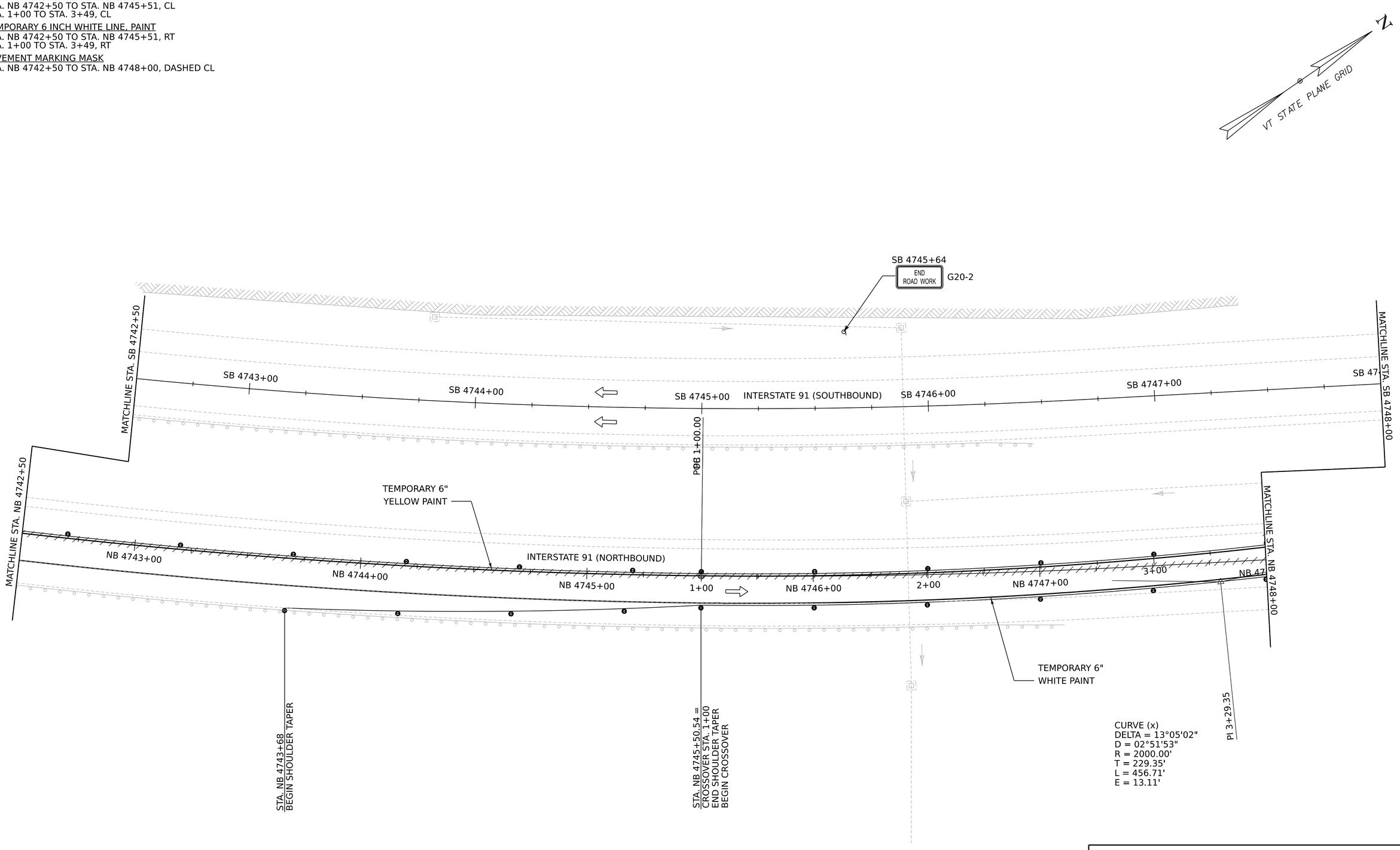
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 2	SHEET 21 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4742+50 TO STA. NB 4745+51, CL
STA. 1+00 TO STA. 3+49, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4742+50 TO STA. NB 4745+51, RT
STA. 1+00 TO STA. 3+49, RT

PAVEMENT MARKING MASK
STA. NB 4742+50 TO STA. NB 4748+00, DASHED CL



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER NB PLAN SHEET 3

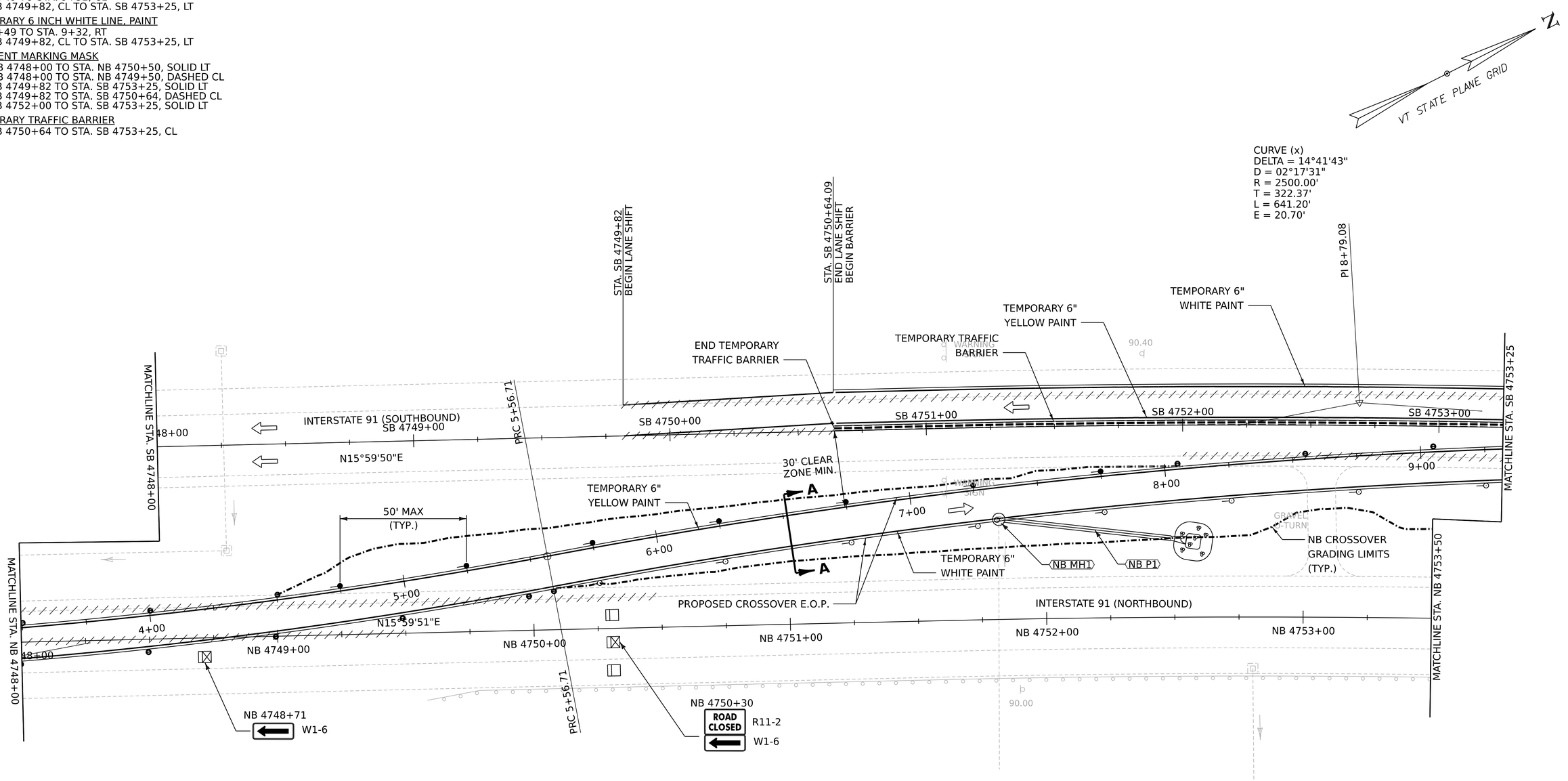
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 22 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 3+49 TO STA. 9+32, CL
STA. SB 4749+82, CL TO STA. SB 4753+25, LT

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 3+49 TO STA. 9+32, RT
STA. SB 4749+82, CL TO STA. SB 4753+25, LT

PAVEMENT MARKING MASK
STA. NB 4748+00 TO STA. NB 4750+50, SOLID LT
STA. NB 4748+00 TO STA. NB 4749+50, DASHED CL
STA. SB 4749+82 TO STA. SB 4753+25, SOLID LT
STA. SB 4749+82 TO STA. SB 4750+64, DASHED CL
STA. SB 4752+00 TO STA. SB 4753+25, SOLID LT

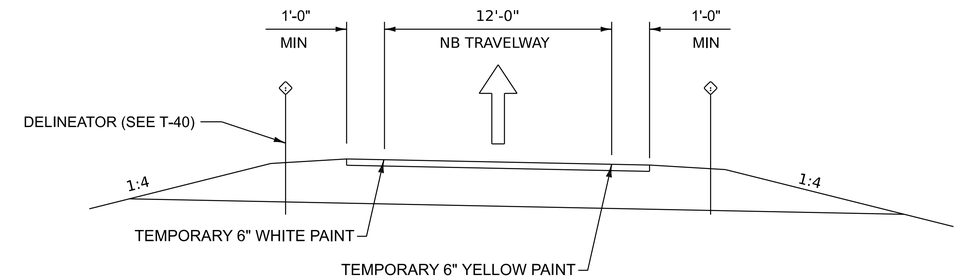
TEMPORARY TRAFFIC BARRIER
STA. SB 4750+64 TO STA. SB 4753+25, CL



PROPOSED DRAINAGE

NB MH1 STA. NB 4751+28, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE RISER WITH CAST IRON COVER (PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE)
RIM = 485.15 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 481.00 ±

NB P1 STA. NB 4751+28, LT TO STA. NB 4752+49, LT
INSTALL 18" x 68' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 482.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I



NB CROSSOVER SECTION A-A
NOT TO SCALE

EXISTING INTERSTATE U-TURN NOTE:
1. UPON COMPLETION OF CONSTRUCTION AND REMOVAL OF THE INTERSTATE CROSSOVERS, THE CONTRACTOR SHALL REESTABLISH THE EXISTING INTERSTATE U-TURN. THE U-TURN SHALL CONSIST OF 6" OF BITUMINOUS CONCRETE PAVEMENT, TYPE IIIS, QA TIER III, PLACED IN (2) LIFTS, ON 24" OF SUBBASE OF DENSE GRADED CRUSHED STONE. WORK TO REESTABLISH THE EXISTING U-TURN WILL BE PAID AS ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER NB PLAN SHEET 4

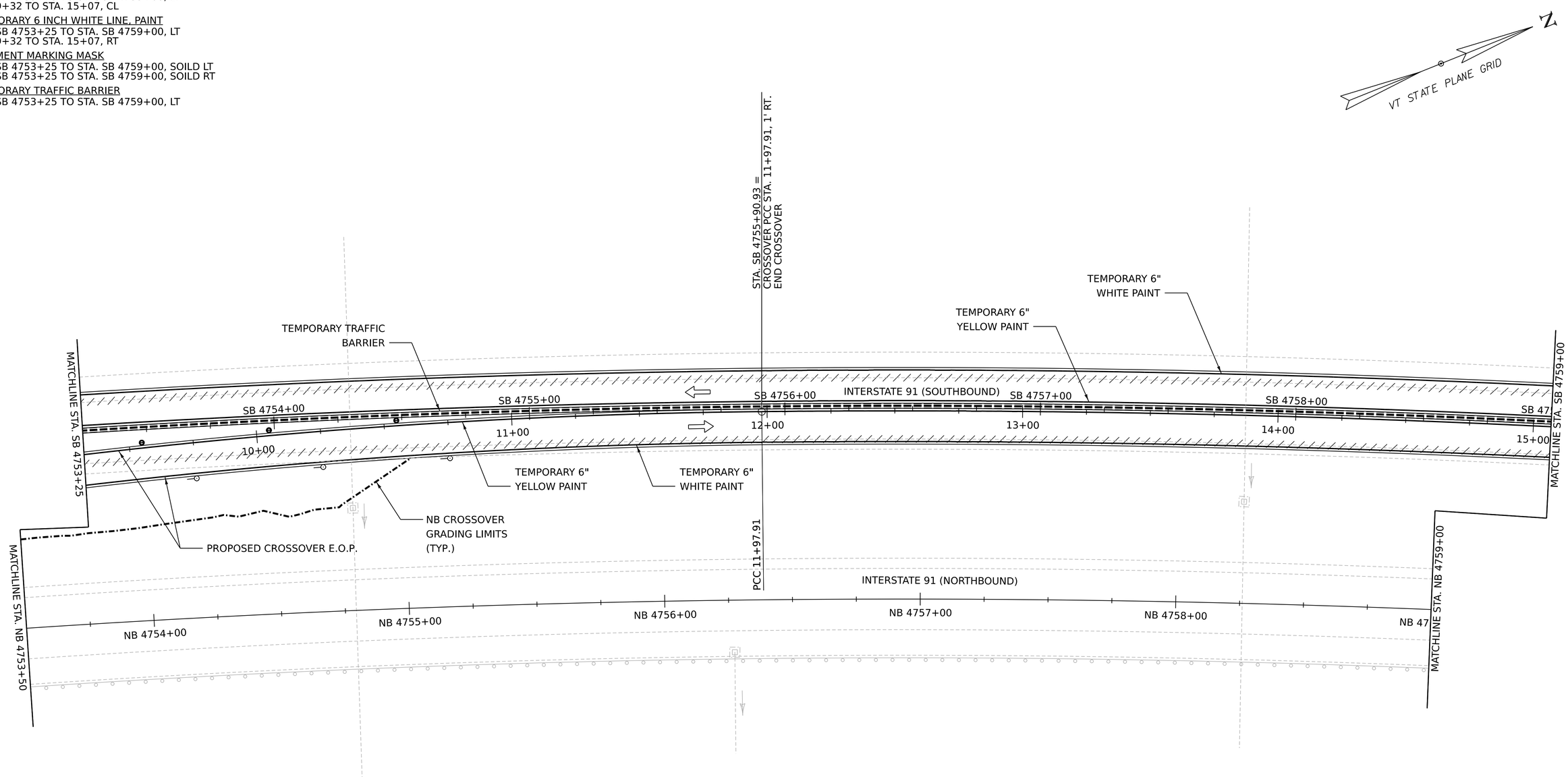
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4753+25 TO STA. SB 4759+00, LT
STA. 9+32 TO STA. 15+07, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4753+25 TO STA. SB 4759+00, LT
STA. 9+32 TO STA. 15+07, RT

PAVEMENT MARKING MASK
STA. SB 4753+25 TO STA. SB 4759+00, SOILD LT
STA. SB 4753+25 TO STA. SB 4759+00, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4753+25 TO STA. SB 4759+00, LT



0 20 40
SCALE IN FEET

Stantec

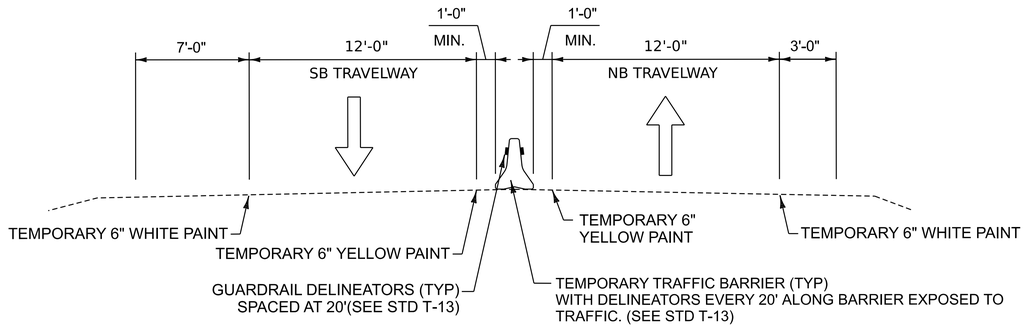
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 5	SHEET 24 OF 144

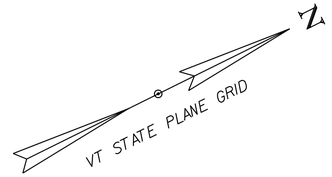
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4759+00 TO STA. SB 4764+50, LT
STA. 15+07 TO STA. 20+57, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4759+00 TO STA. SB 4764+50, LT
STA. 15+07 TO STA. 20+57, RT

PAVEMENT MARKING MASK
STA. SB 4759+00 TO STA. SB 4764+50, SOILD LT
STA. SB 4759+00 TO STA. SB 4764+50, SOILD RT

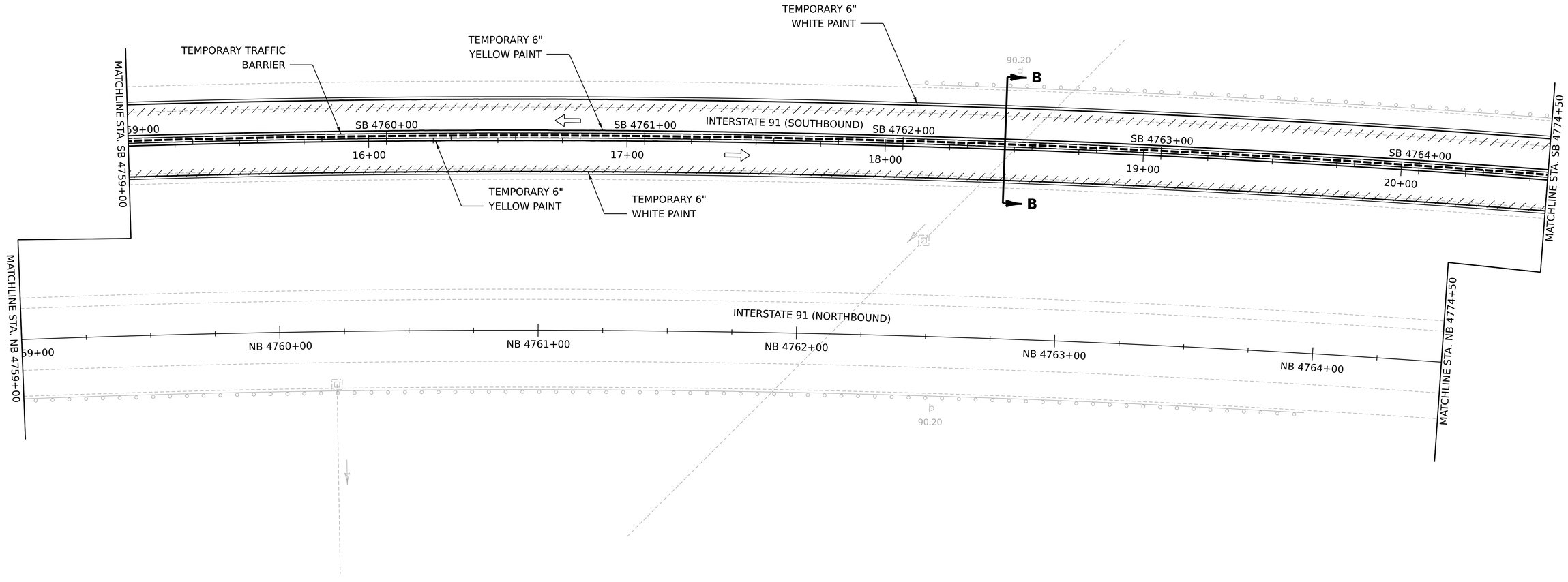
TEMPORARY TRAFFIC BARRIER
STA. SB 4759+00 TO STA. SB 4764+50, LT





NB CROSSOVER SECTION B-B

NOT TO SCALE



0 20 40
SCALE IN FEET

Stantec

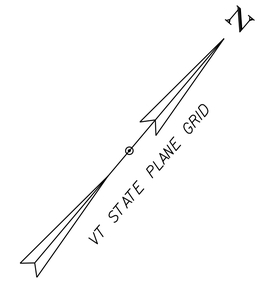
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 6	SHEET 25 OF 144

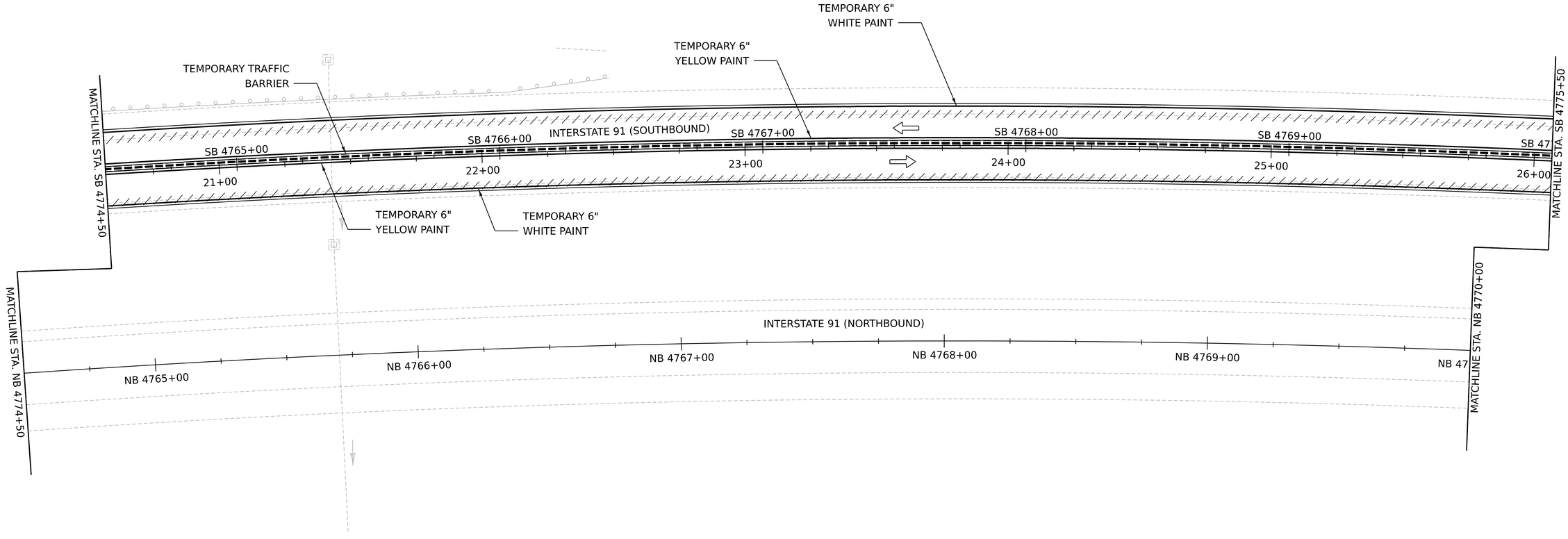
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4764+50 TO STA. SB 4770+00, LT
STA. 20+57 TO STA. 26+07, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4764+50 TO STA. SB 4770+00, LT
STA. 20+57 TO STA. 26+07, RT

PAVEMENT MARKING MASK
STA. SB 4764+50 TO STA. SB 4770+00, SOILD LT
STA. SB 4764+50 TO STA. SB 4770+00, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4764+50 TO STA. SB 4770+00, LT





0 20 40
SCALE IN FEET

Stantec

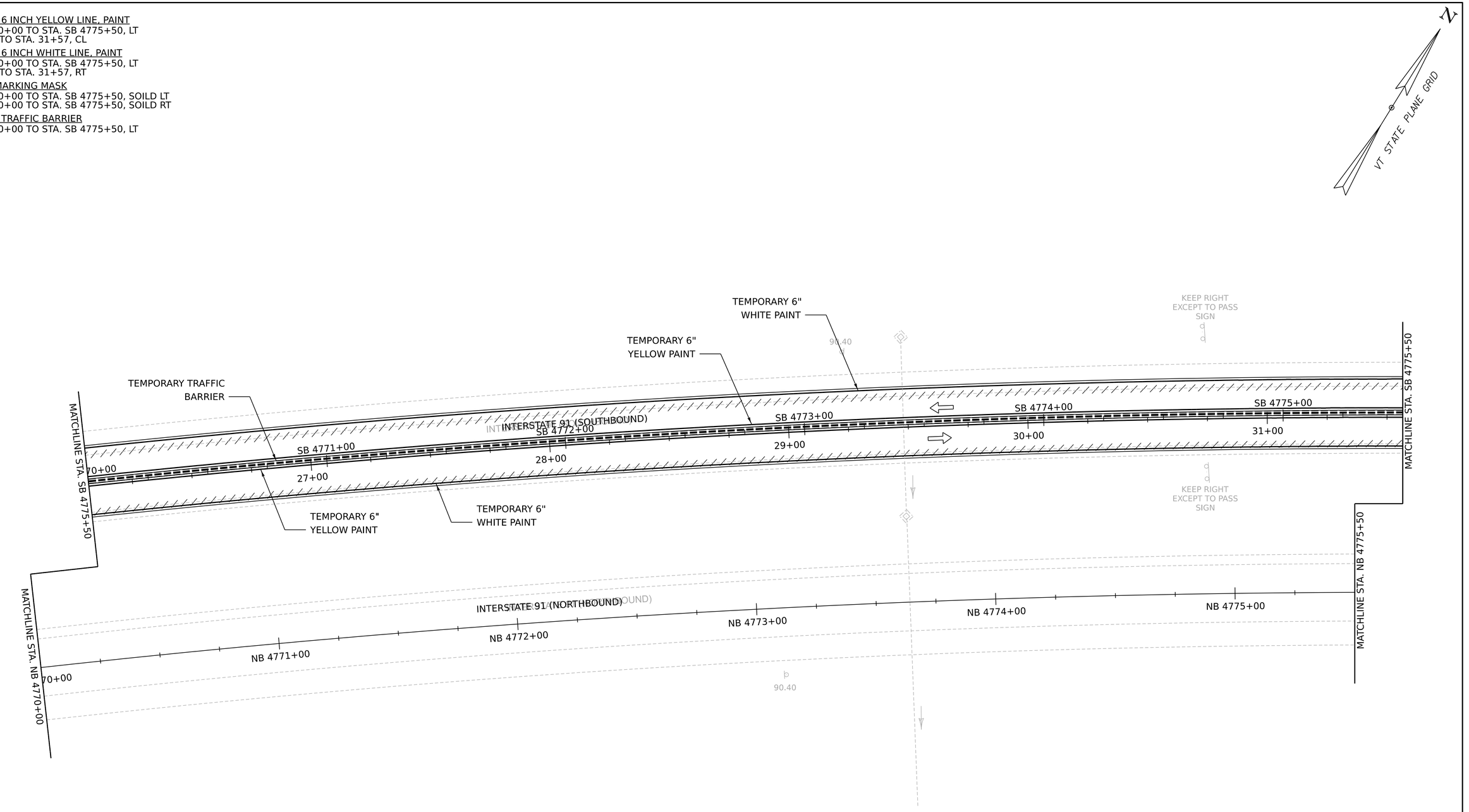
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 7	SHEET 26 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4770+00 TO STA. SB 4775+50, LT
STA. 26+07 TO STA. 31+57, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4770+00 TO STA. SB 4775+50, LT
STA. 26+07 TO STA. 31+57, RT

PAVEMENT MARKING MASK
STA. SB 4770+00 TO STA. SB 4775+50, SOILD LT
STA. SB 4770+00 TO STA. SB 4775+50, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4770+00 TO STA. SB 4775+50, LT



0 20 40
SCALE IN FEET

Stantec

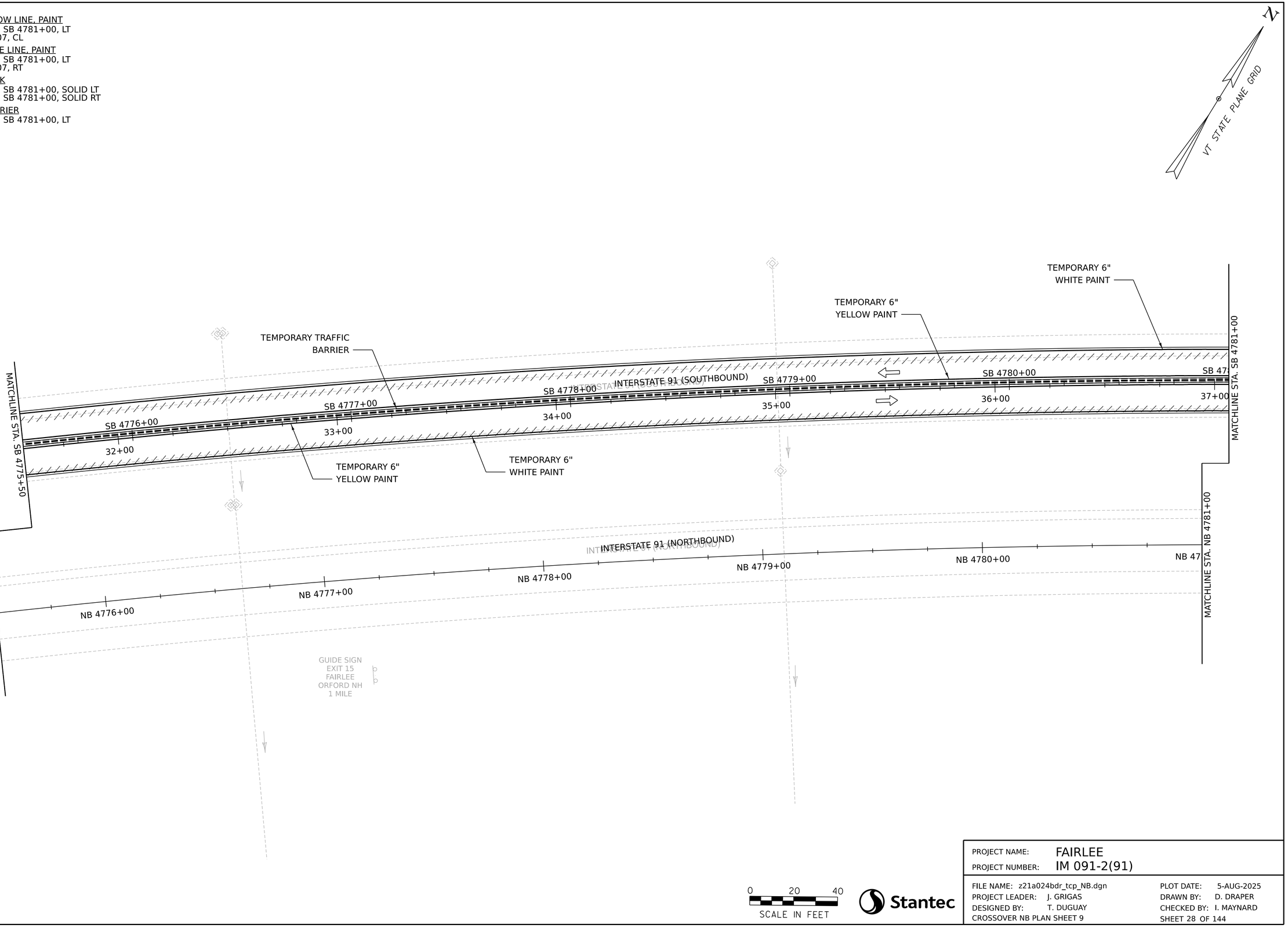
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
CROSSOVER NB PLAN SHEET 8	SHEET 27 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4775+50 TO STA. SB 4781+00, LT
STA. 31+57 TO STA. 37+07, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4775+50 TO STA. SB 4781+00, LT
STA. 31+57 TO STA. 37+07, RT

PAVEMENT MARKING MASK
STA. SB 4775+50 TO STA. SB 4781+00, SOLID LT
STA. SB 4775+50 TO STA. SB 4781+00, SOLID RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4775+50 TO STA. SB 4781+00, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

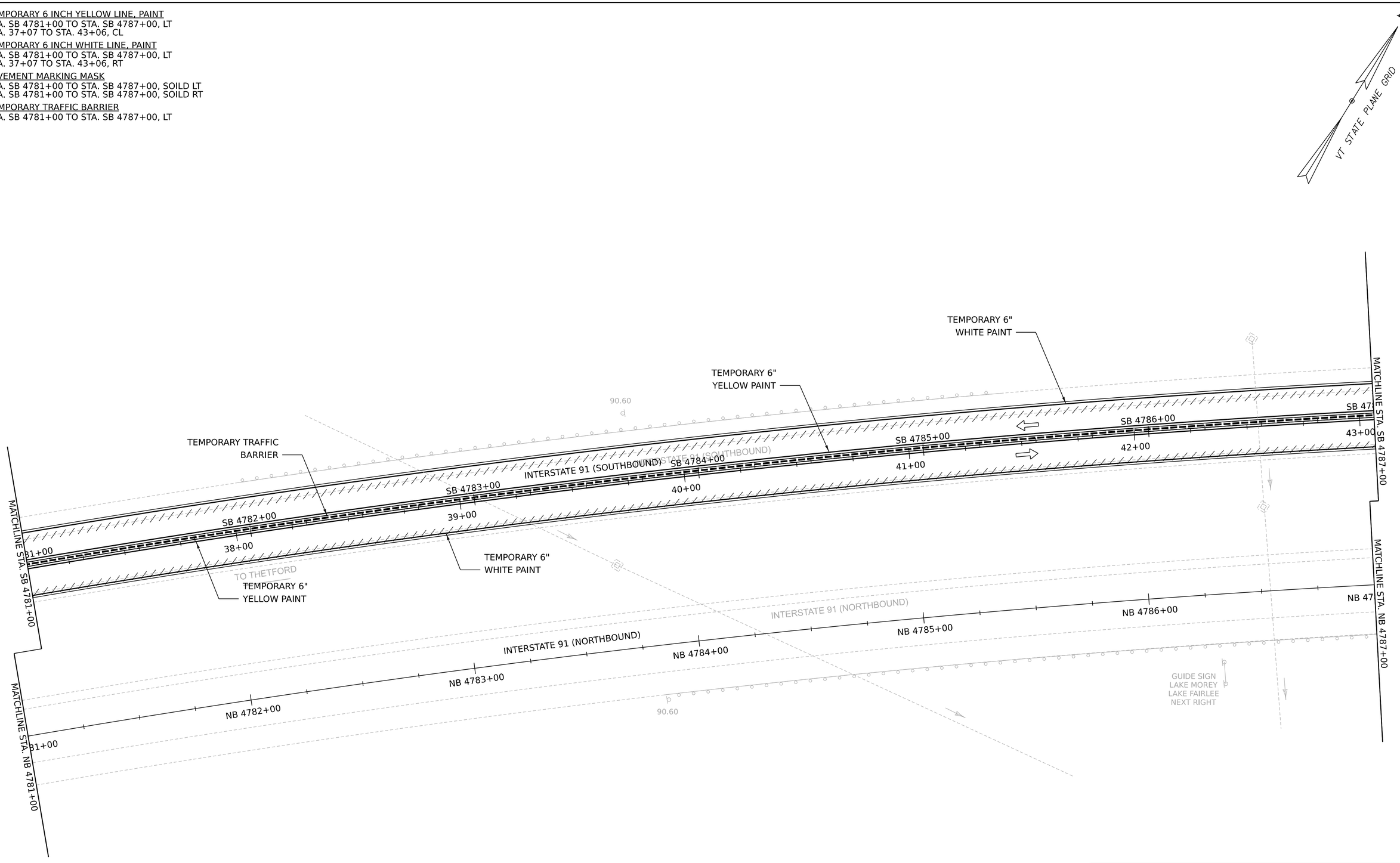
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	I. MAYNARD
CROSSOVER NB PLAN SHEET 9		SHEET 28 OF 144	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4781+00 TO STA. SB 4787+00, LT
STA. 37+07 TO STA. 43+06, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4781+00 TO STA. SB 4787+00, LT
STA. 37+07 TO STA. 43+06, RT

PAVEMENT MARKING MASK
STA. SB 4781+00 TO STA. SB 4787+00, SOILD LT
STA. SB 4781+00 TO STA. SB 4787+00, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4781+00 TO STA. SB 4787+00, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER NB PLAN SHEET 10

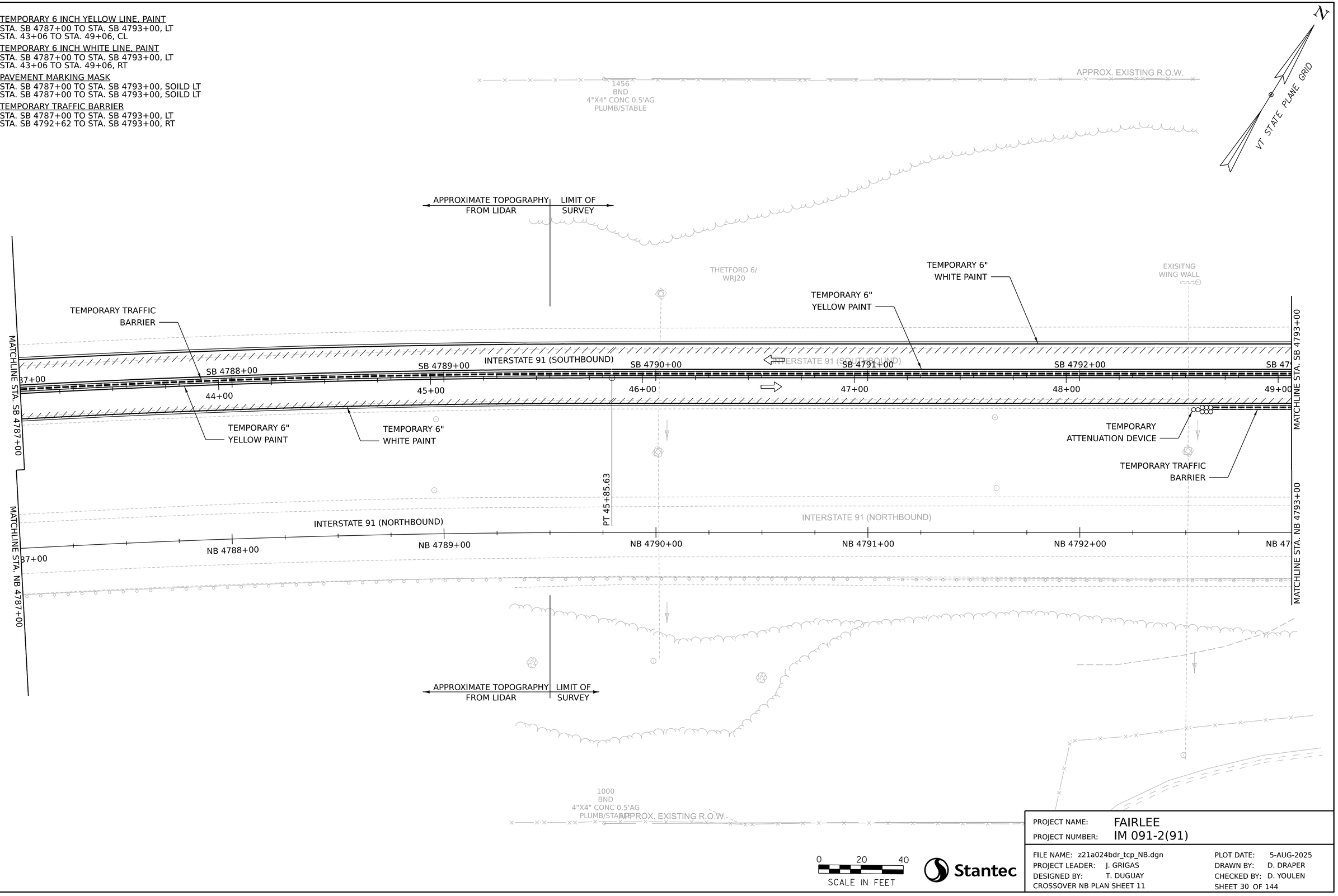
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 29 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4787+00 TO STA. SB 4793+00, LT
STA. 43+06 TO STA. 49+06, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4787+00 TO STA. SB 4793+00, LT
STA. 43+06 TO STA. 49+06, RT

PAVEMENT MARKING MASK
STA. SB 4787+00 TO STA. SB 4793+00, SOILD LT
STA. SB 4787+00 TO STA. SB 4793+00, SOILD LT

TEMPORARY TRAFFIC BARRIER
STA. SB 4787+00 TO STA. SB 4793+00, LT
STA. SB 4792+62 TO STA. SB 4793+00, RT



Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

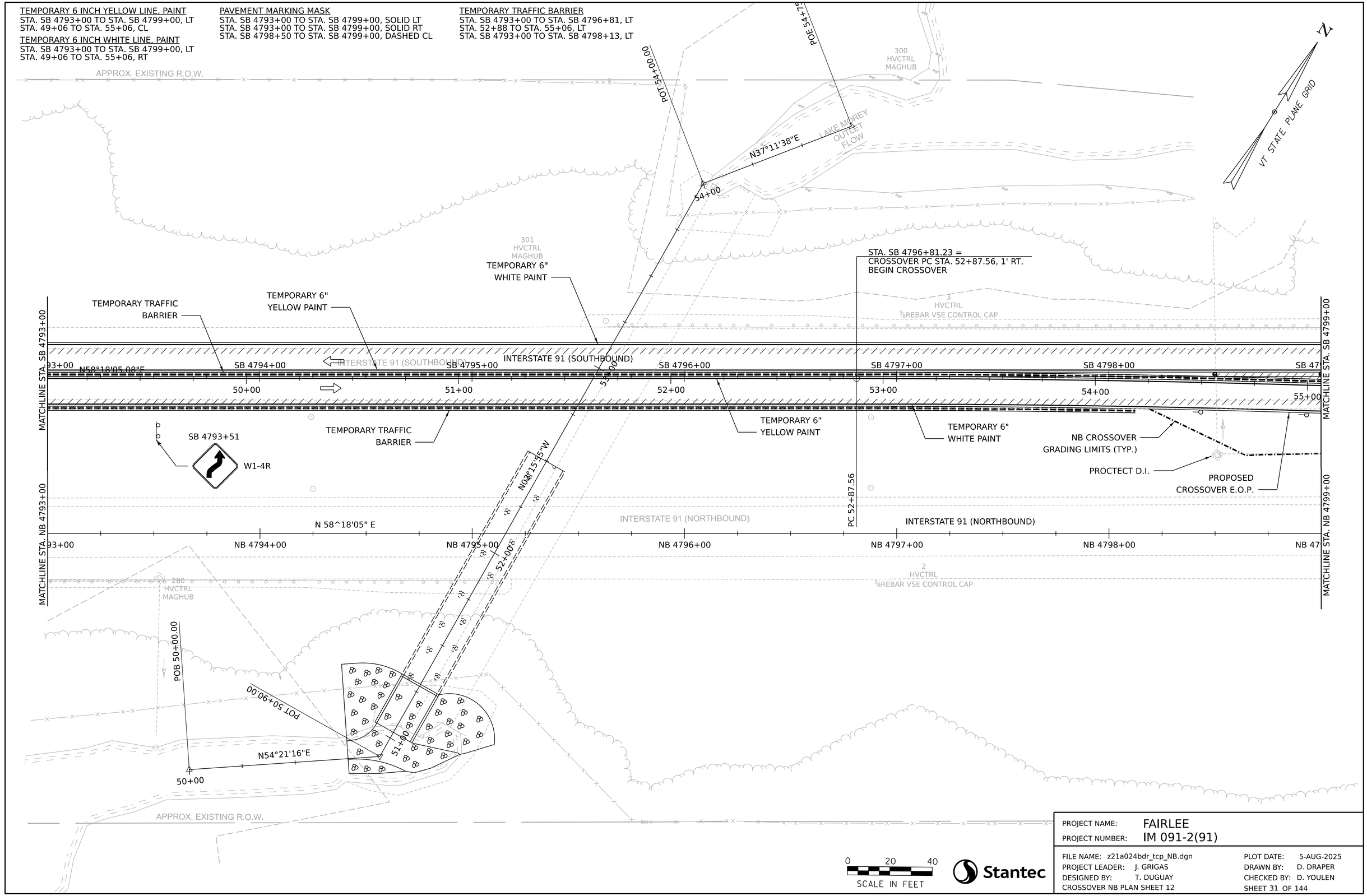
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 11		SHEET 30 OF 144	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4793+00 TO STA. SB 4799+00, LT
STA. 49+06 TO STA. 55+06, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4793+00 TO STA. SB 4799+00, LT
STA. 49+06 TO STA. 55+06, RT

PAVEMENT MARKING MASK
STA. SB 4793+00 TO STA. SB 4799+00, SOLID LT
STA. SB 4793+00 TO STA. SB 4799+00, SOLID RT
STA. SB 4798+50 TO STA. SB 4799+00, DASHED CL

TEMPORARY TRAFFIC BARRIER
STA. SB 4793+00 TO STA. SB 4796+81, LT
STA. 52+88 TO STA. 55+06, LT
STA. SB 4793+00 TO STA. SB 4798+13, LT



0 20 40
SCALE IN FEET

Stantec

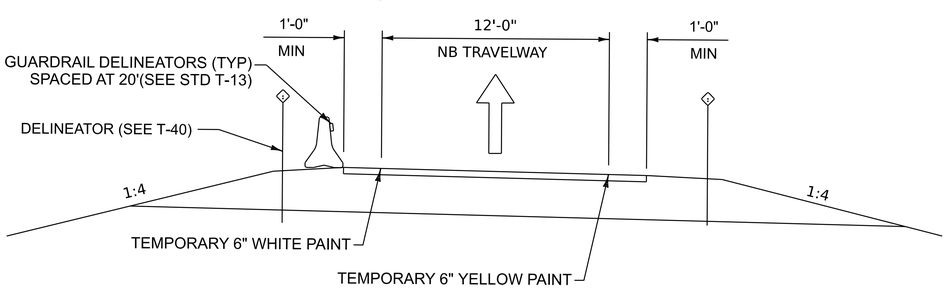
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 12	SHEET 31 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4799+00 TO STA. SB 4805+00, LT
STA. 55+06 TO STA. 61+08, CL

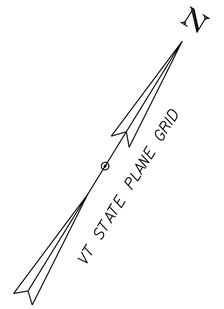
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4799+00 TO STA. SB 4805+00, LT
STA. 55+06 TO STA. 61+08, RT

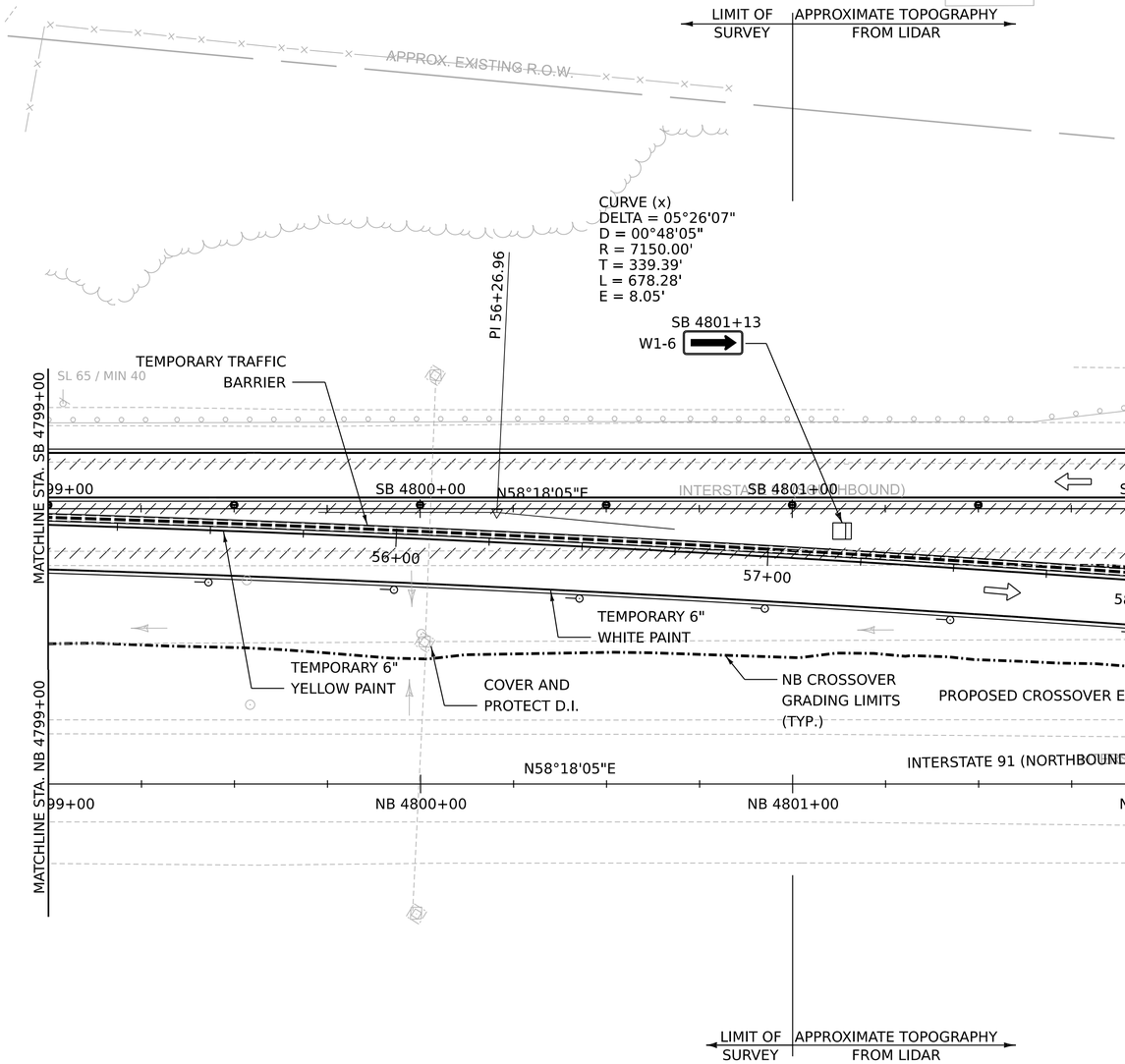
PAVEMENT MARKING MASK
STA. SB 4799+00 TO STA. SB 4805+00, SOLID LT
STA. SB 4799+00 TO STA. SB 4802+00, SOLID RT
STA. SB 4799+00 TO STA. SB 4805+00, DASHED CL
STA. NB 4804+75 TO STA. NB 4805+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. 55+06 TO STA. 59+32, LT



NB CROSSOVER SECTION C-C
NOT TO SCALE





PROPOSED DRAINAGE

NB MH2
STA. 4802+53, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE WITH CAST IRON COVER (PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIV
RIM = 433.25 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 429.00 ±

NB P2
STA. 4802+53, LT TO STA. 4804+33, LT
INSTALL 18" x 181' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 432.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I

0 20 40
SCALE IN FEET

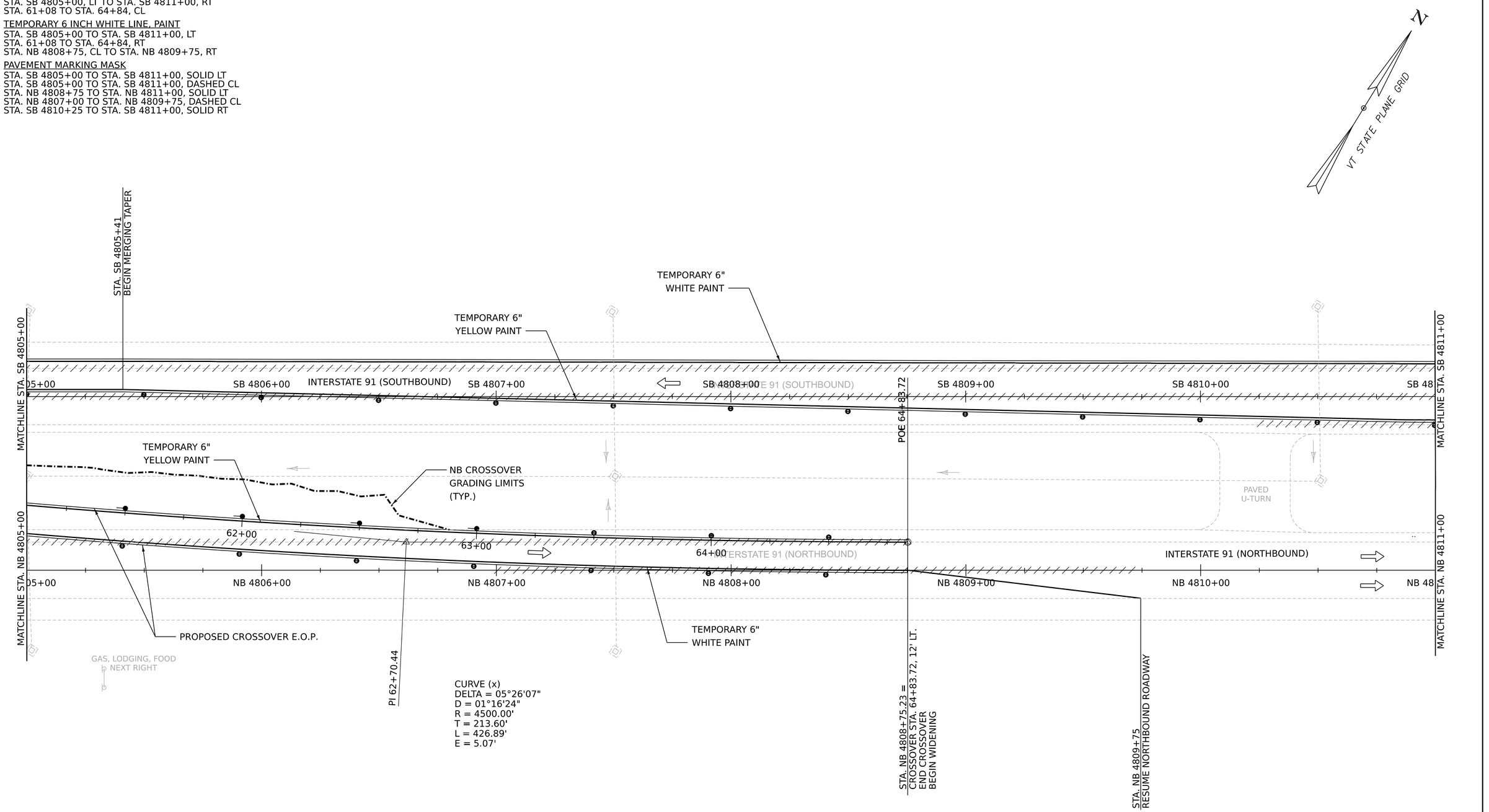
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 13	SHEET 32 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4805+00, LT TO STA. SB 4811+00, RT
STA. 61+08 TO STA. 64+84, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4805+00 TO STA. SB 4811+00, LT
STA. 61+08 TO STA. 64+84, RT
STA. NB 4808+75, CL TO STA. NB 4809+75, RT

PAVEMENT MARKING MASK
STA. SB 4805+00 TO STA. SB 4811+00, SOLID LT
STA. SB 4805+00 TO STA. SB 4811+00, DASHED CL
STA. NB 4808+75 TO STA. NB 4811+00, SOLID LT
STA. NB 4807+00 TO STA. NB 4809+75, DASHED CL
STA. SB 4810+25 TO STA. SB 4811+00, SOLID RT



0 20 40
SCALE IN FEET

Stantec

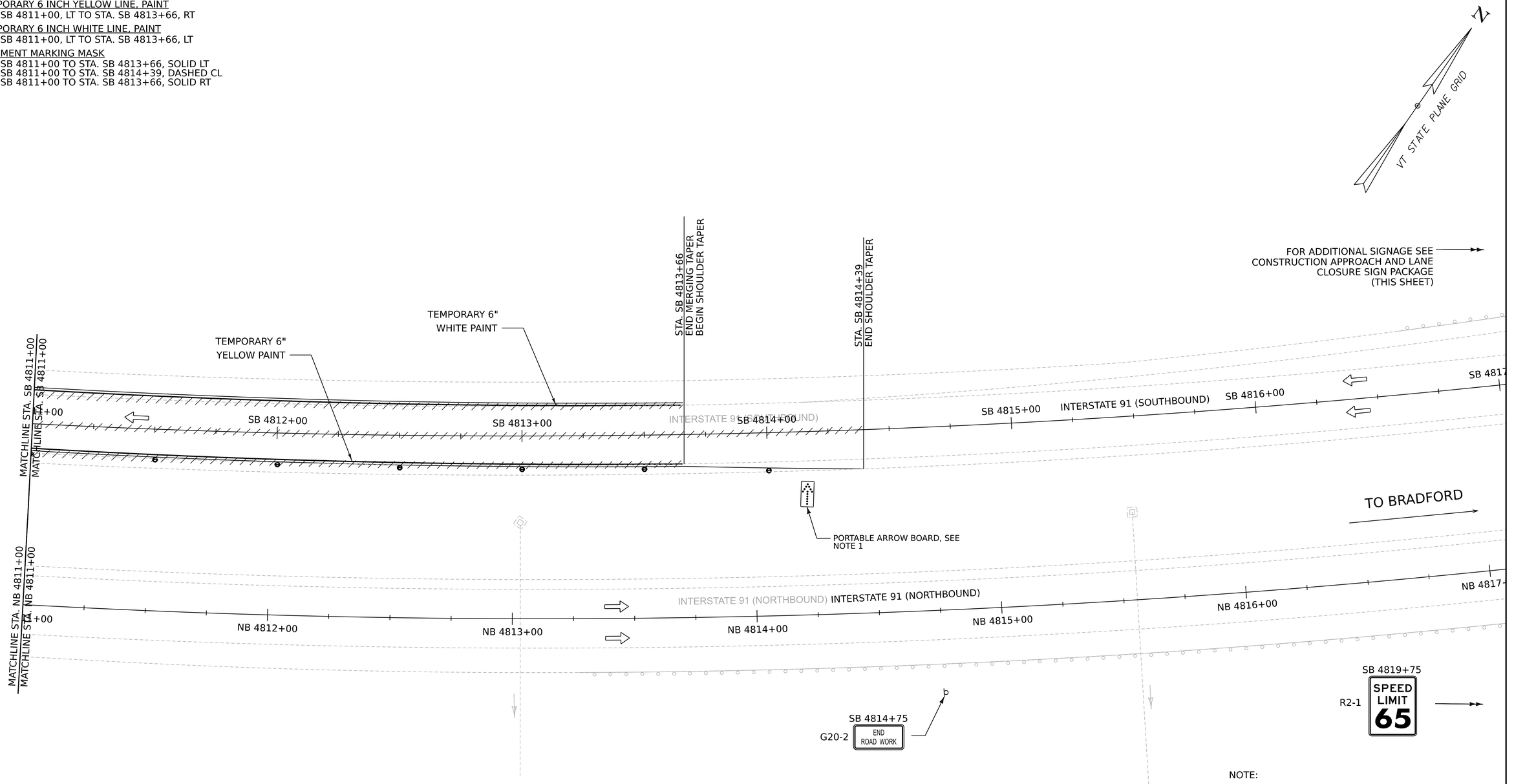
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

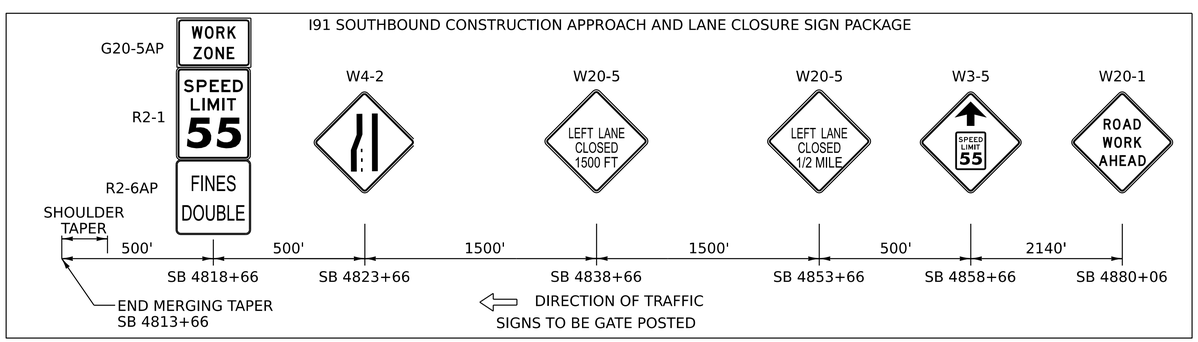
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 14		SHEET 33 OF 144	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4811+00, LT TO STA. SB 4813+66, RT

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4811+00, LT TO STA. SB 4813+66, LT

PAVEMENT MARKING MASK
STA. SB 4811+00 TO STA. SB 4813+66, SOLID LT
STA. SB 4811+00 TO STA. SB 4814+39, DASHED CL
STA. SB 4811+00 TO STA. SB 4813+66, SOLID RT





NOTE:

1. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
2. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.

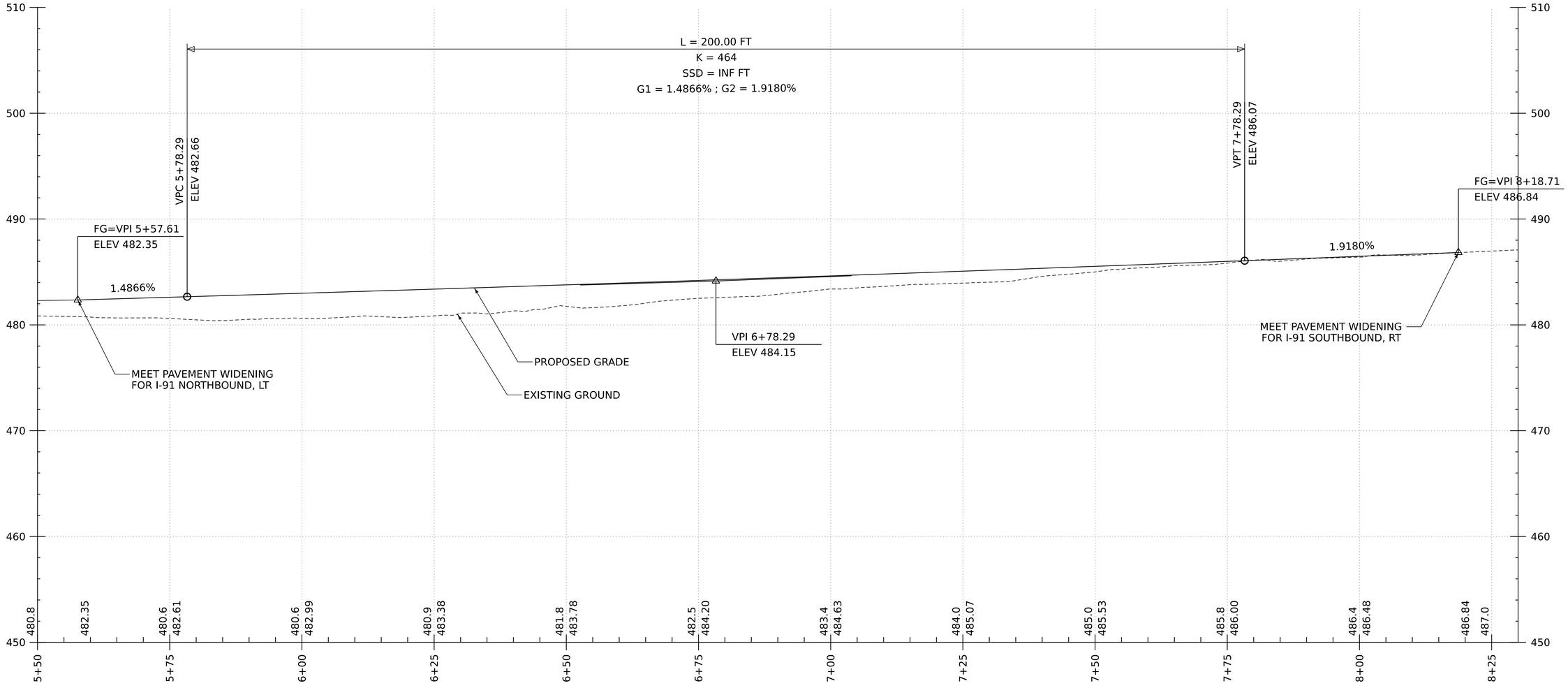
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER NB PLAN SHEET 15

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 34 OF 144

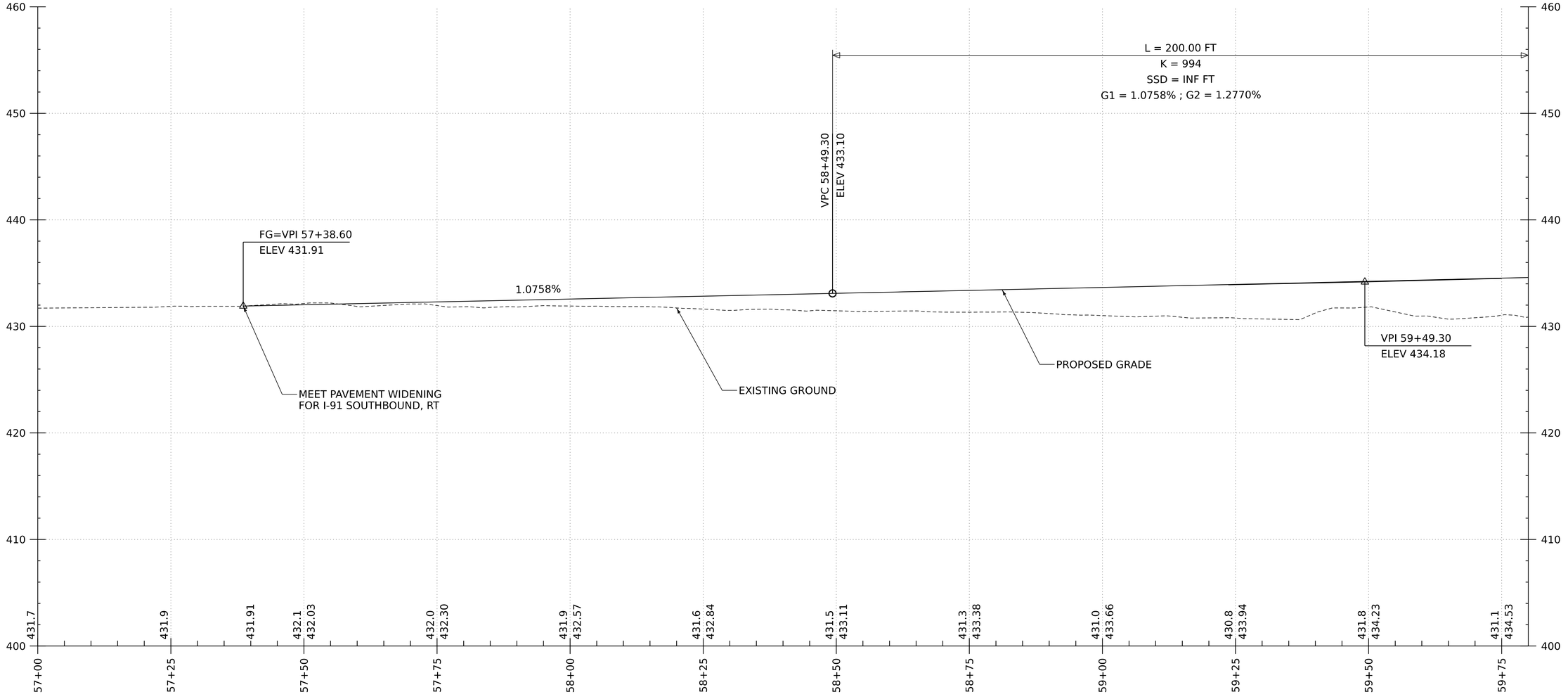


I-91 NORTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_NB_crossover_SouthPlots.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER PROFILE SHEET 1		SHEET	35 OF 144



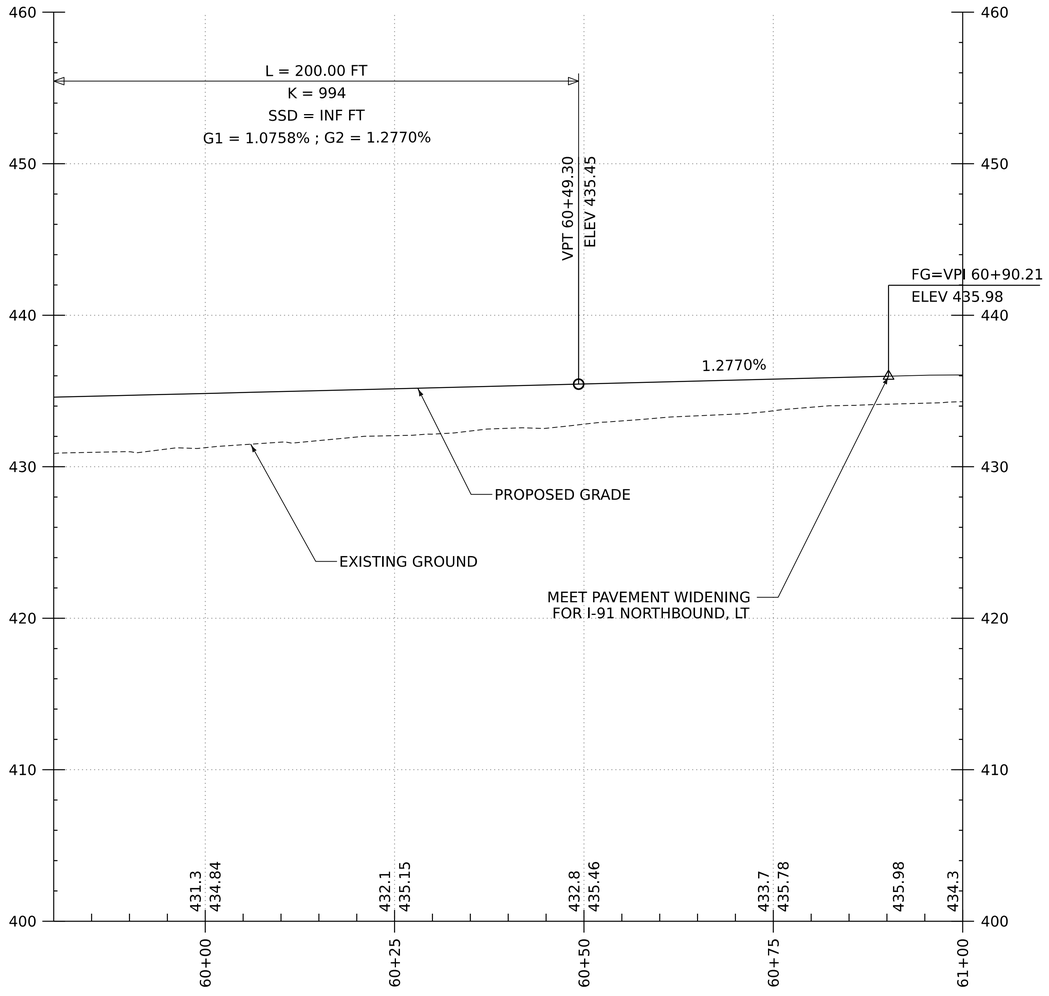
I-91 NORTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:

1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_NB_crossover_NorthPoint.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER PROFILE SHEET 2		SHEET 36 OF 144	

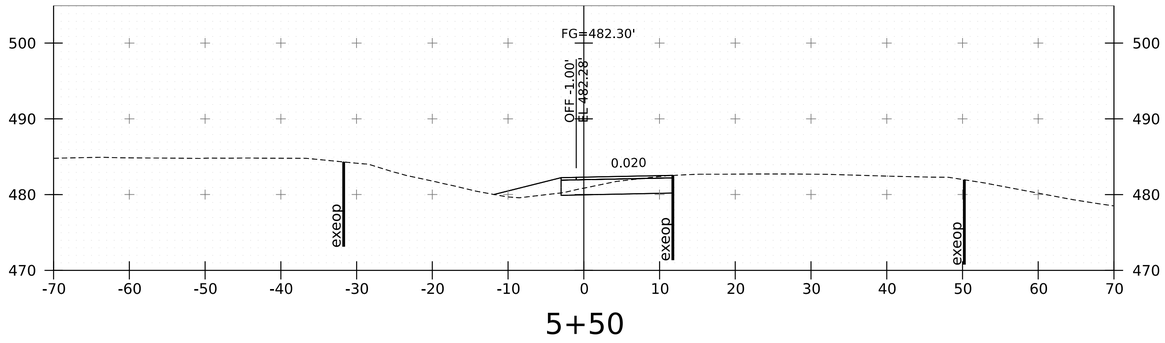


I-91 NORTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_NB_crossover_NorthPave.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER PROFILE SHEET 3		SHEET 37 OF 144	



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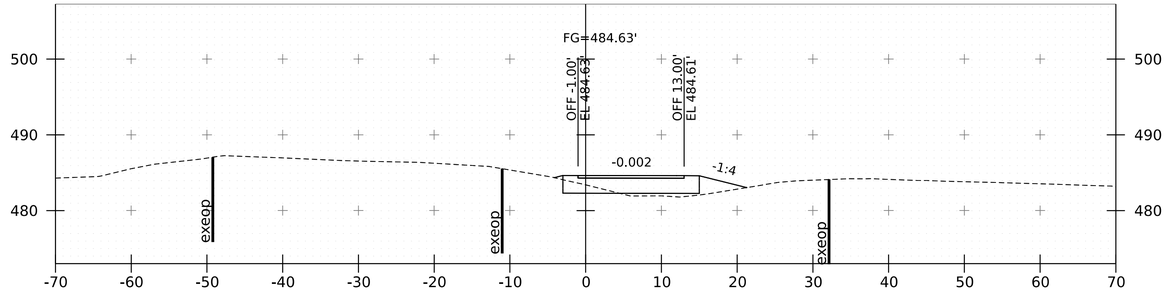

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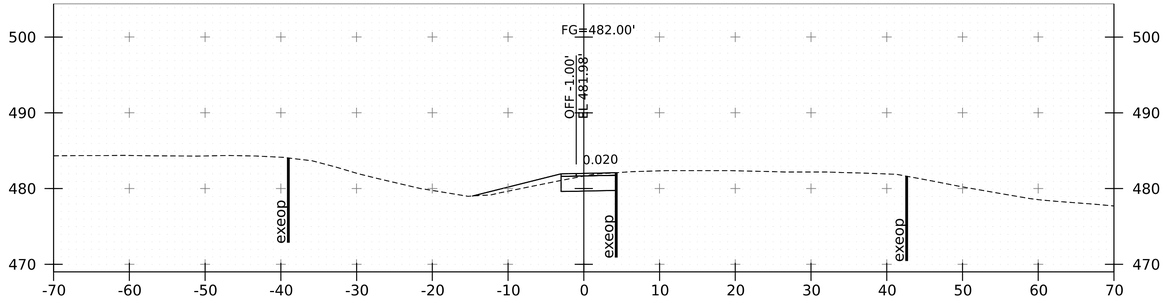

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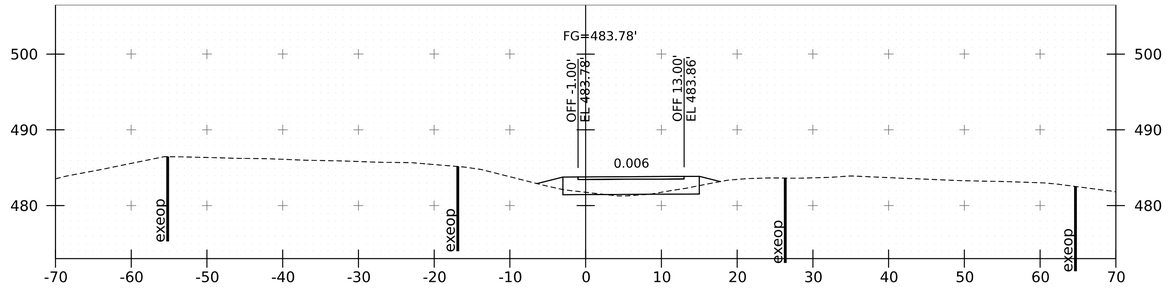

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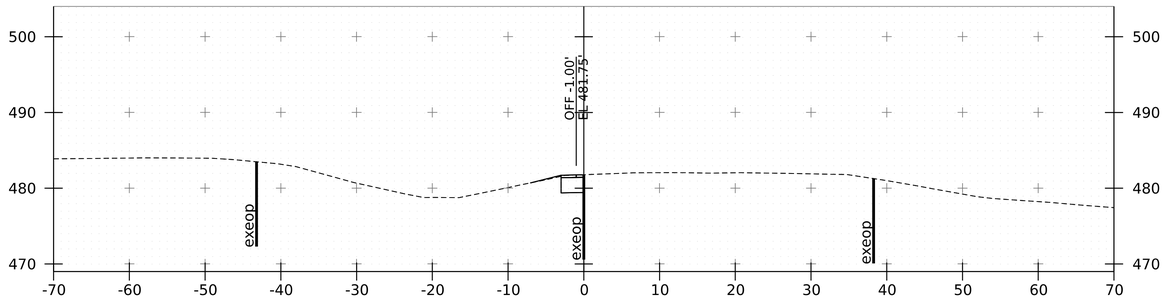

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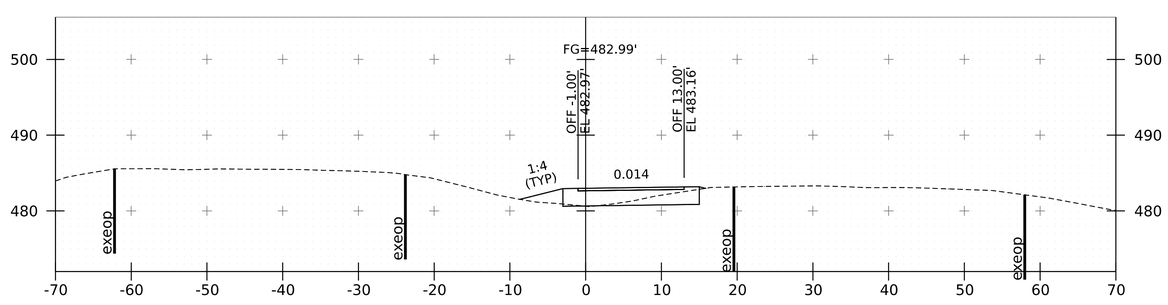
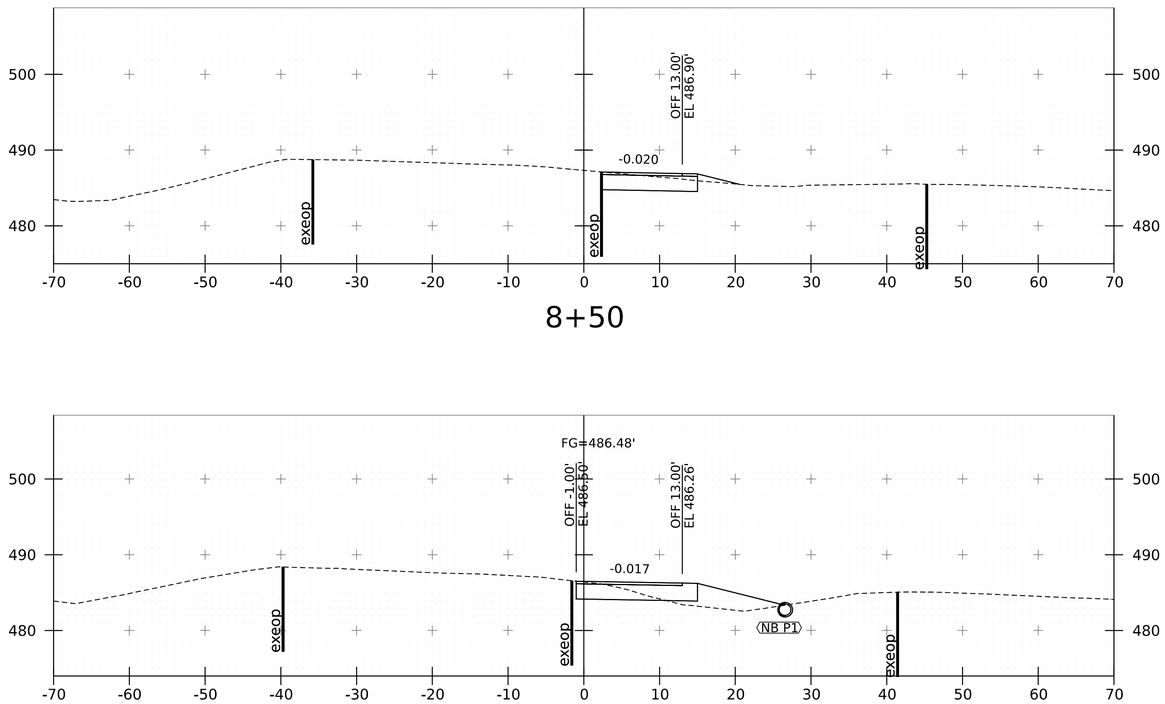


6+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_NB_crossover_South.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 NB CROSSOVER XS SHEET 1	SHEET 38 OF 144

Stantec



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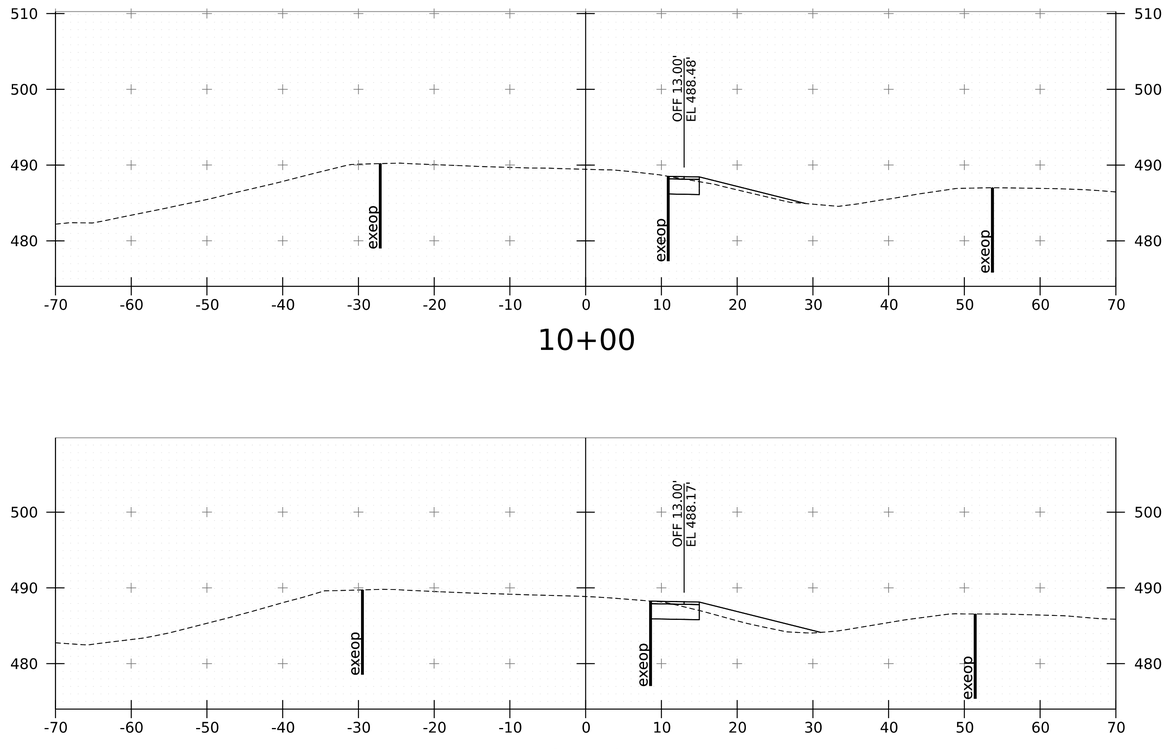
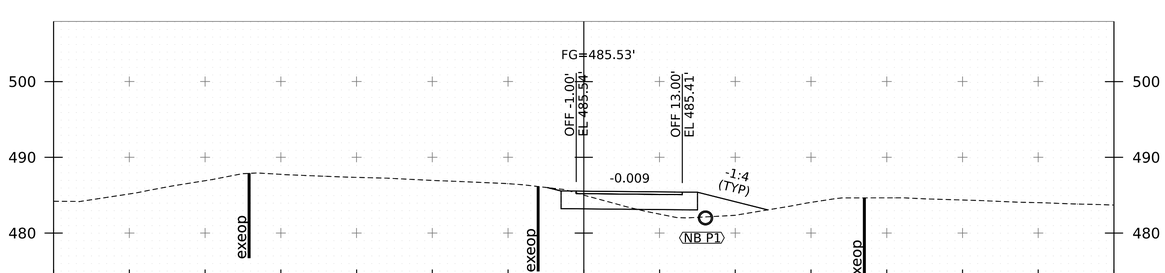


10+00

8+00

9+50



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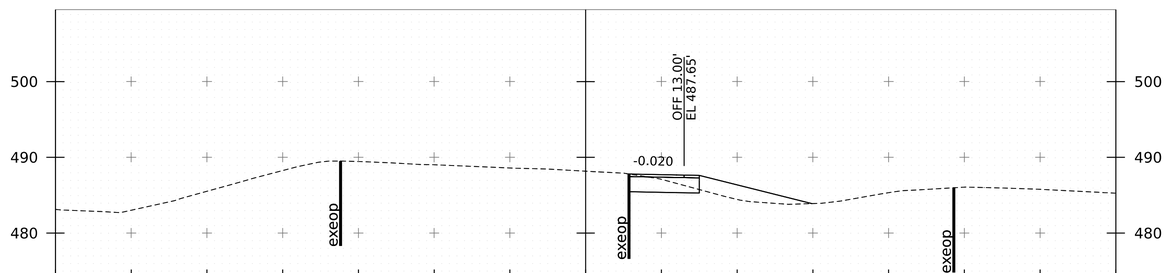
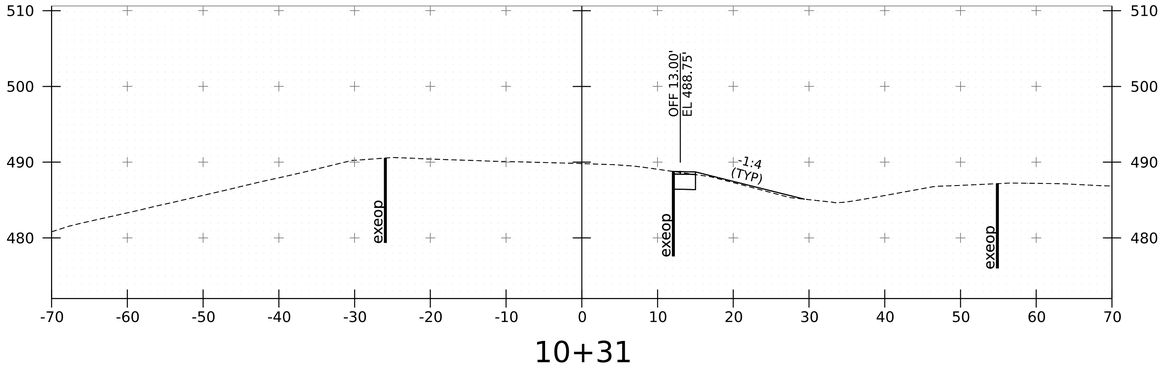


9+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_NB_crossover_South.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 NB CROSSOVER XS SHEET 2	SHEET 39 OF 144

Stantec



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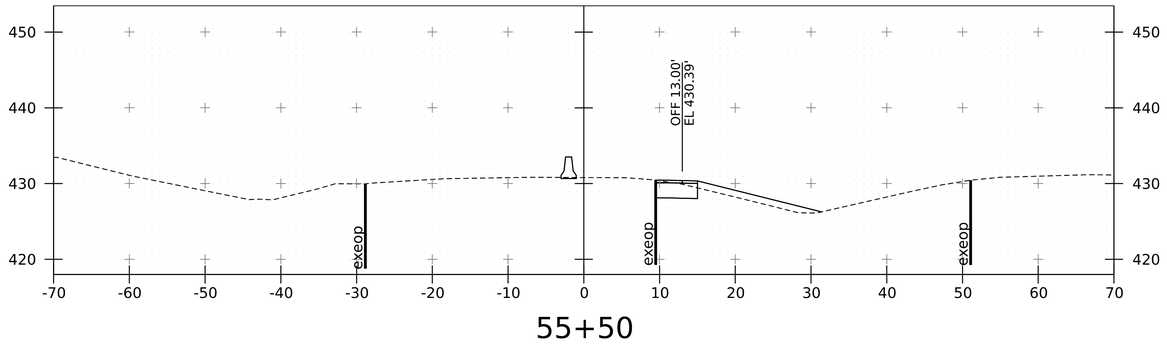
Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_xs_I91_NB_crossover_South.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER XS SHEET 3		SHEET	40 OF 144



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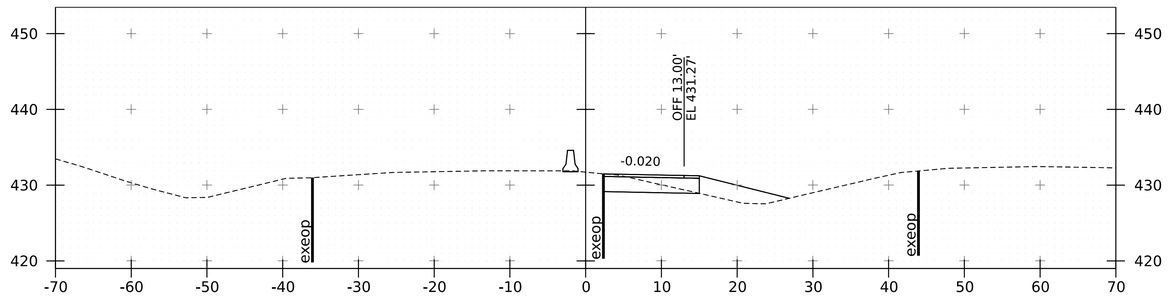

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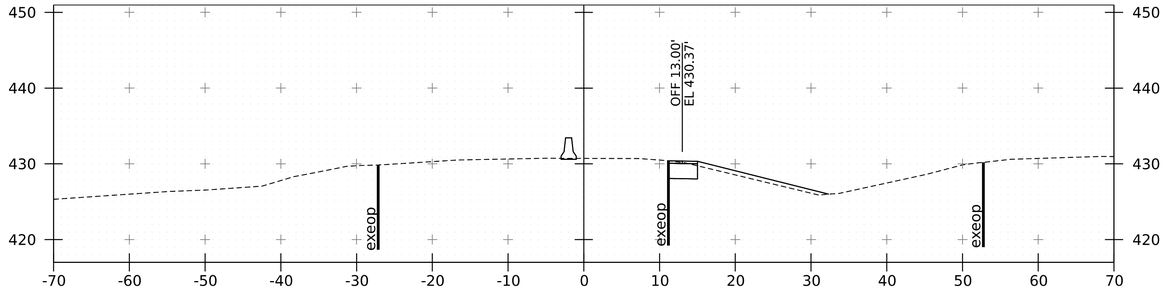

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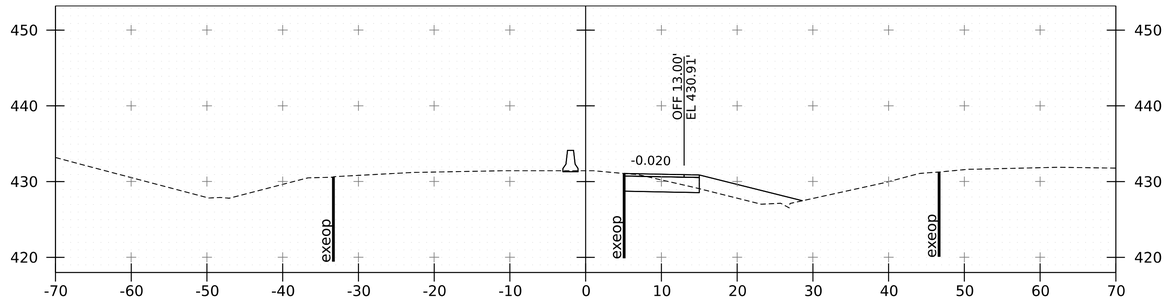

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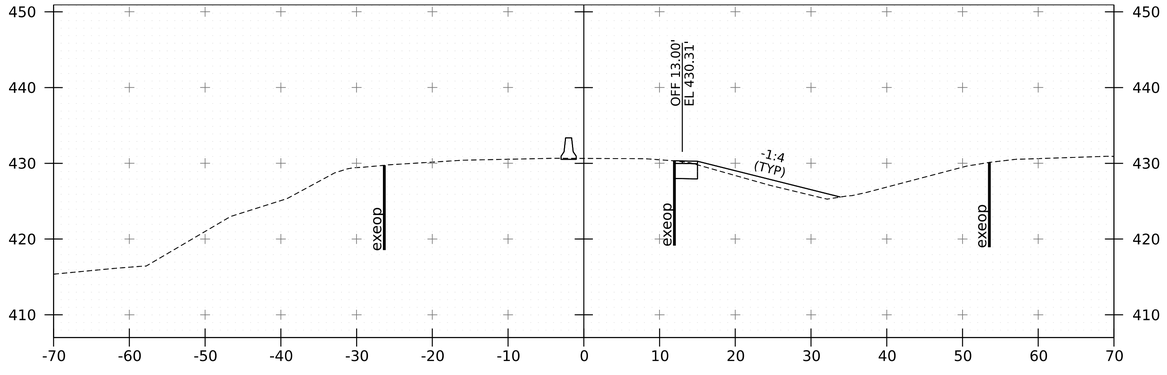

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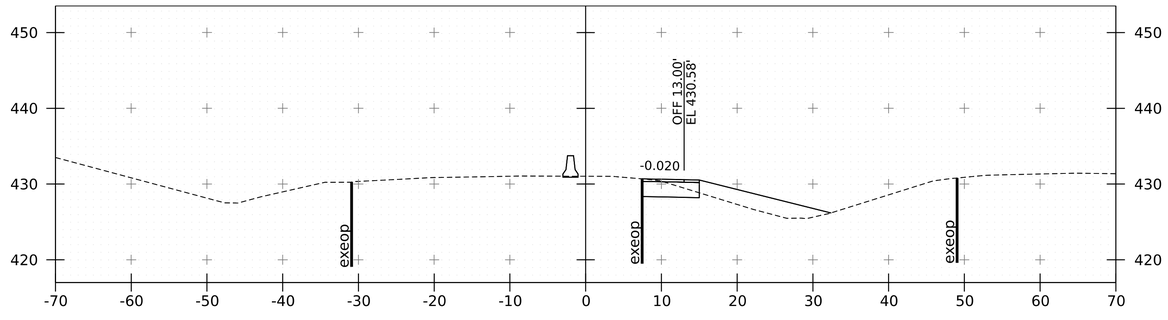
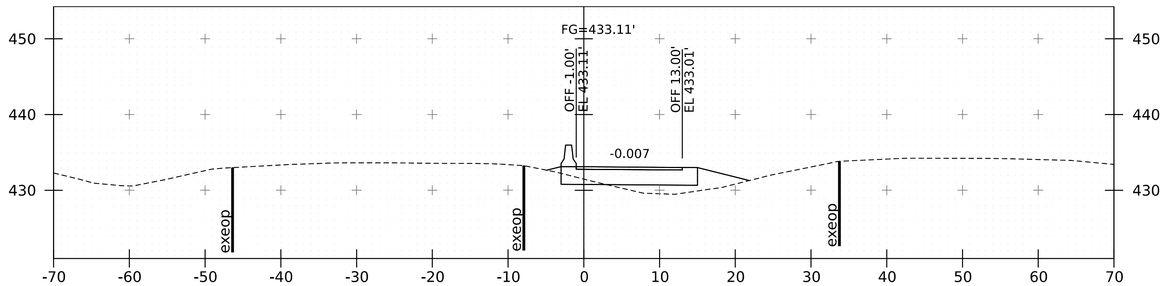


56+00

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_NB_crossover_North.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 NB CROSSOVER XS SHEET 4	SHEET 41 OF 144



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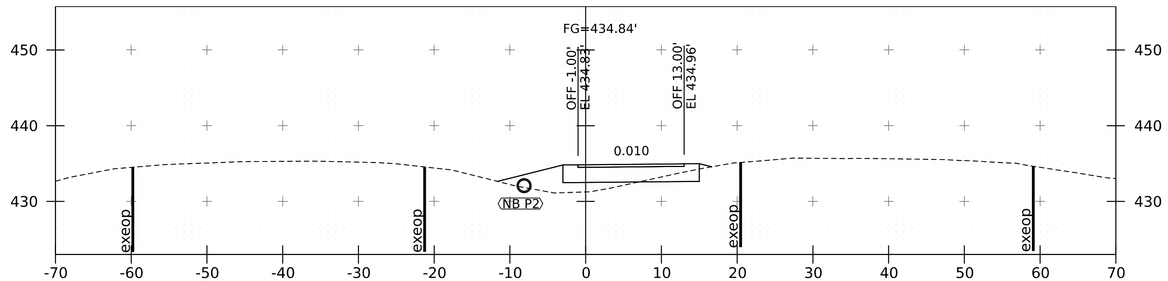

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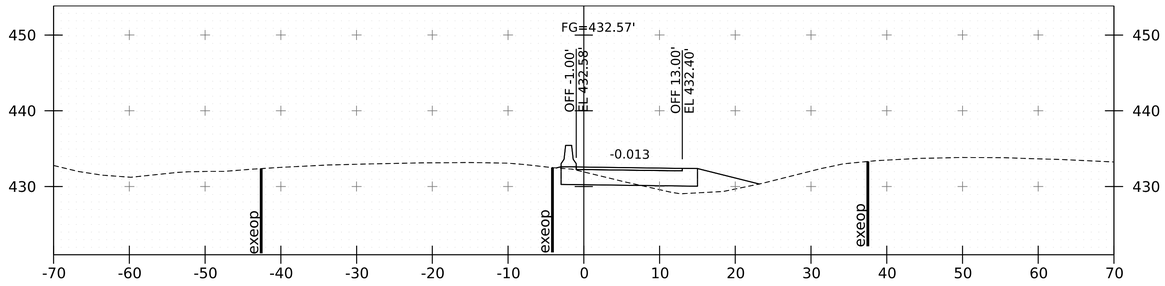

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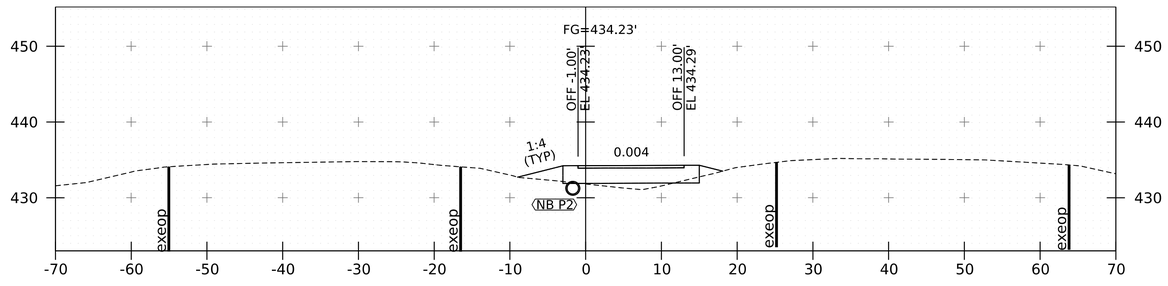

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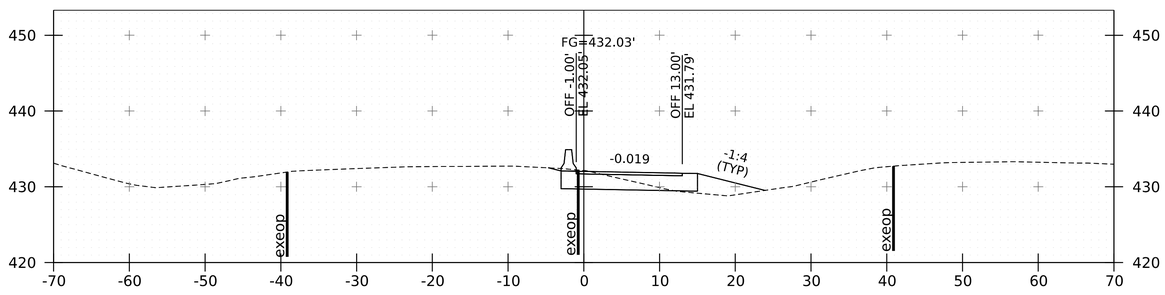

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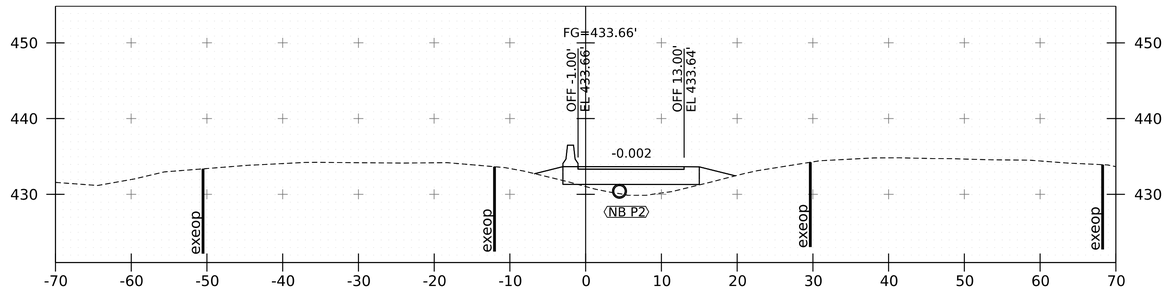
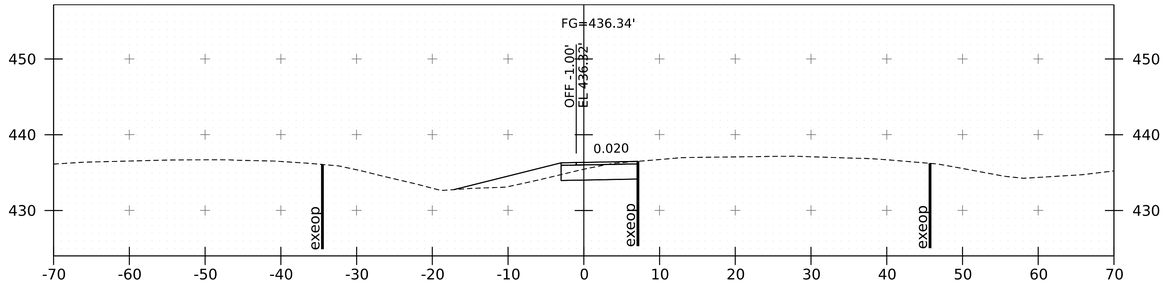


59+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_NB_crossover_North.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER XS SHEET 5		SHEET	42 OF 144

Stantec



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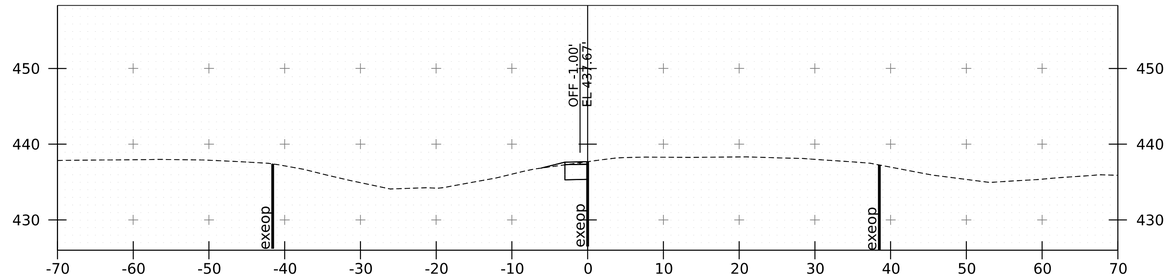

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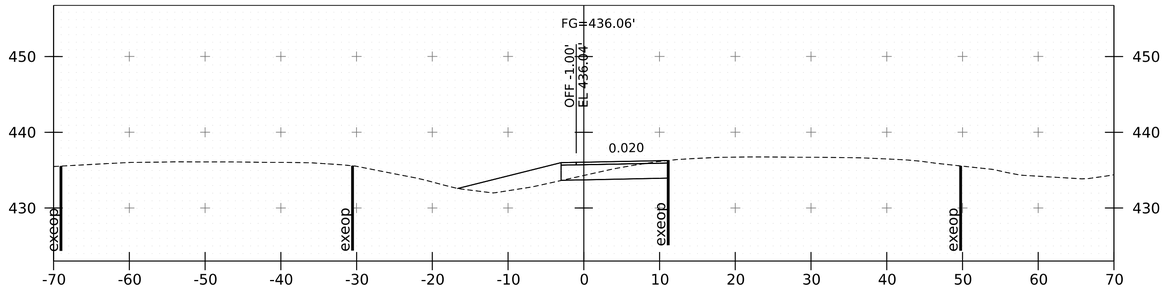

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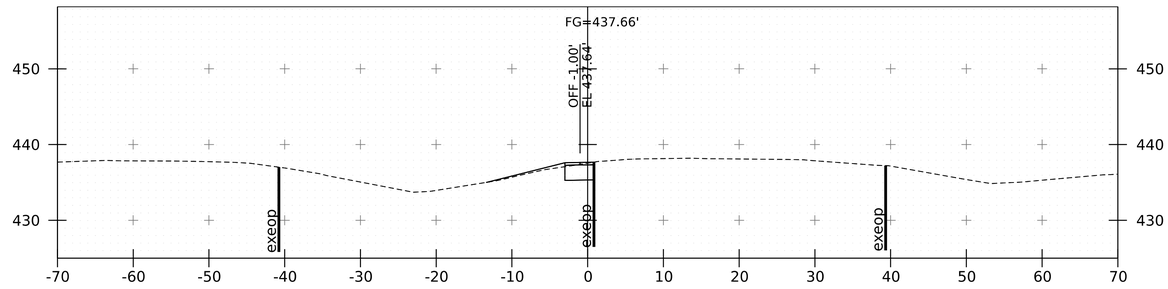

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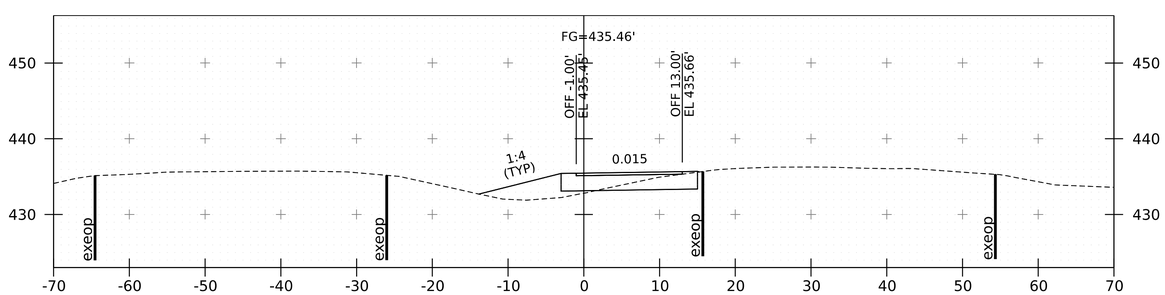

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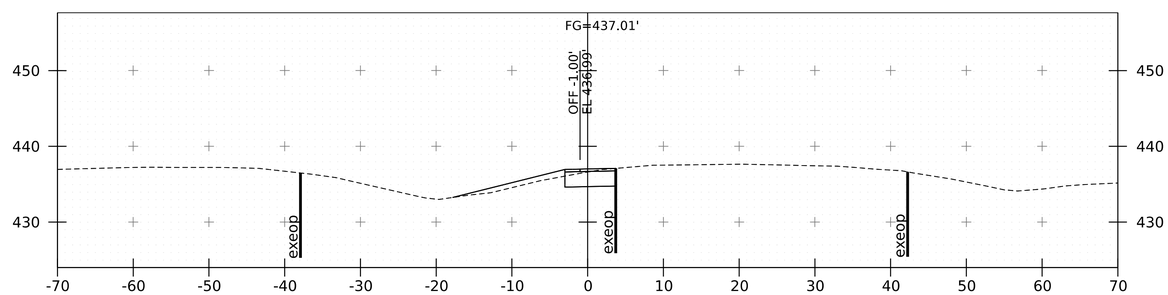


62+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_NB_crossover_North.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER XS SHEET 6		SHEET	43 OF 144

Stantec

LEGEND

- PLASTIC DRUM
- DIRECTION OF TRAFFIC
- TRAFFIC DELINEATOR (YELLOW)
- TRAFFIC DELINEATOR (WHITE)
- PORTABLE ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- TYPE III BARRACADE WITH ROAD CLOSED SIGN
- TYPE III BARRACADE
- TEMPORARY TRAFFIC BARRIER
- REMOVAL OR MASKING OF EXISTING PAVEMENT MARKINGS
- ENERGY ABSORBTION ATTENUATOR

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4738+79 TO STA. NB 4742+50, LT

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4738+79 TO STA. NB 4742+50, RT

PAVEMENT MARKING MASK
STA. NB 4738+05 TO STA. NB 4742+50, DASHED CL
STA. NB 4738+79 TO STA. NB 4742+50, SOLID RT

VT STATE PLANE GRID

FOR ADDITIONAL SIGNAGE SEE CONSTRUCTION APPROACH AND LANE CLOSURE SIGN PACKAGE (THIS SHEET)

SB 4735+22
SPEED LIMIT 65 — R2-1

SB 4740+22
END ROAD WORK — G20-2

SB 4737+00 | SB 4738+00 | SB 4739+00 | SB 4740+00 | SB 4741+00 | SB 4742+00

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. SB 4742+50

PORTABLE ARROW BOARD, SEE NOTE 3

55' MAX (TYP.)

TEMPORARY 6" YELLOW PAINT

NB 4737+00 | NB 4738+00 | NB 4739+00 | NB 4740+00 | NB 4741+00 | NB 4742+00

INTERSTATE 91 (NORTHBOUND)

TO THETFORD

STA. NB 4738+05 BEGIN SHOULDER TAPER

STA. NB 4738+79 END SHOULDER TAPER BEGIN MERGING TAPER

TEMPORARY 6" WHITE PAINT

MATCHLINE STA. NB 4742+50

I91 NORTHBOUND CONSTRUCTION APPROACH AND LANE CLOSURE SIGN PACKAGE

W20-1	W3-5	W20-5	W20-5	W4-2		
ROAD WORK AHEAD	SPEED LIMIT 55	LEFT LANE CLOSED 1/2 MILE	LEFT LANE CLOSED 1500 FT		WORK ZONE	G20-5AP
					SPEED LIMIT 55	R2-1
					FINES DOUBLE	R2-6AP

2140' | 500' | 1500' | 1500' | 500' | 500' | SHOULDER TAPER

NB 4672+39 | NB 4693+79 | NB 4698+79 | NB 4713+79 | NB 4728+79 | NB 4733+79

DIRECTION OF TRAFFIC
SIGNS TO BE GATE POSTED

BEGIN MERGING TAPER NB 4738+79

NOTES:

1. ALL EXISTING PAVEMENT MARKINGS, IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS, WILL BE REMOVED OR MASKED.
2. 12' TRAVEL LANES WITH MINIMUM 1' SHOULDERS.
3. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
4. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

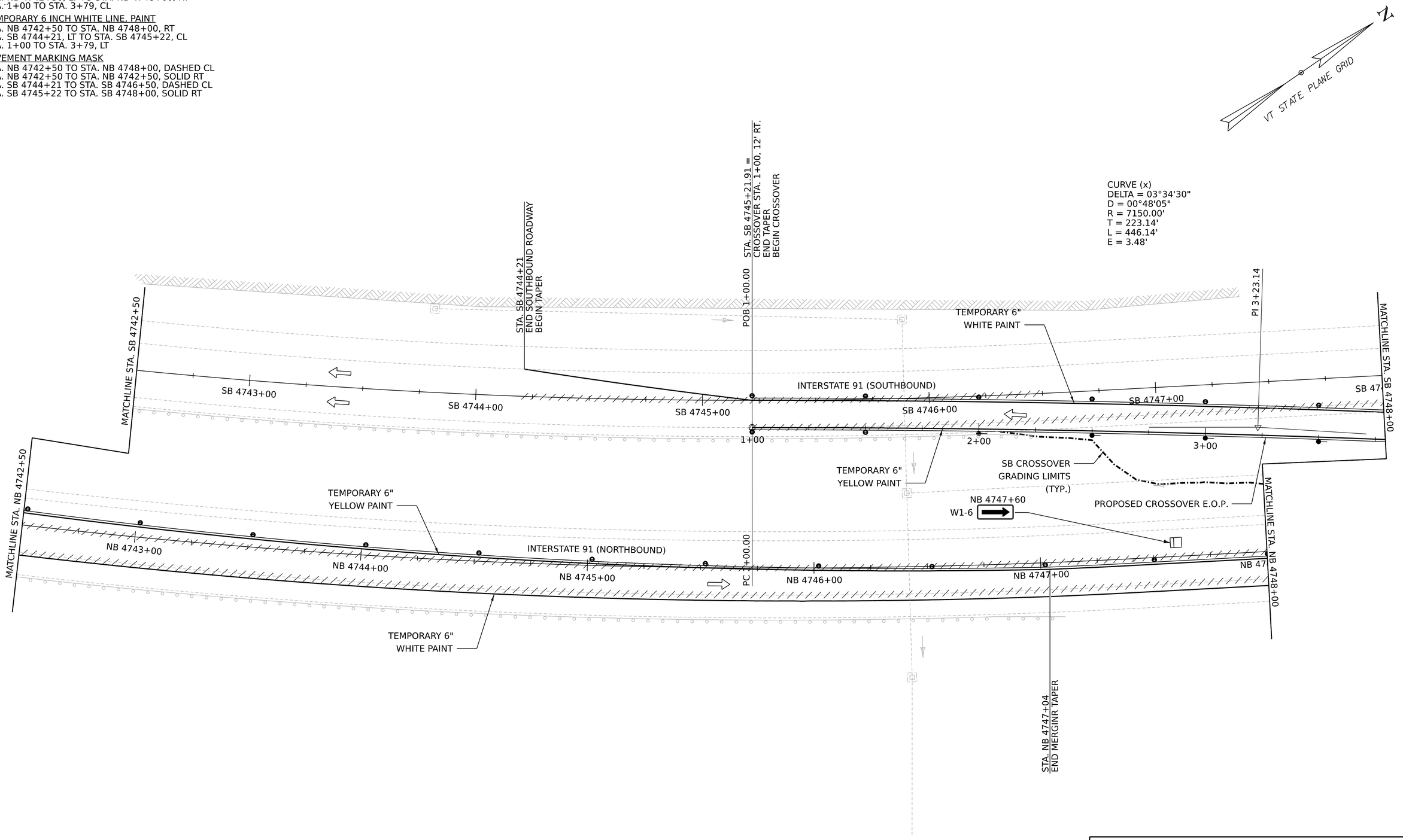
FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 44 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4742+50, LT TO STA. NB 4748+00, RT
STA. 1+00 TO STA. 3+79, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4742+50 TO STA. NB 4748+00, RT
STA. SB 4744+21, LT TO STA. SB 4745+22, CL
STA. 1+00 TO STA. 3+79, LT

PAVEMENT MARKING MASK
STA. NB 4742+50 TO STA. NB 4748+00, DASHED CL
STA. NB 4742+50 TO STA. NB 4742+50, SOLID RT
STA. SB 4744+21 TO STA. SB 4746+50, DASHED CL
STA. SB 4745+22 TO STA. SB 4748+00, SOLID RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 2

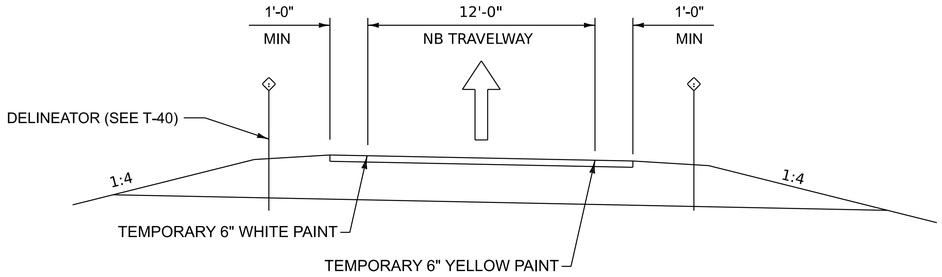
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 45 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4748+00 TO STA. NB 4753+50, RT
STA. 3+79 TO STA. 8+77, CL

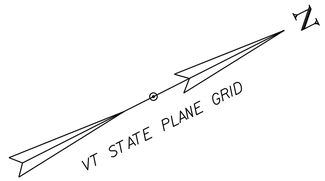
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4748+00 TO STA. NB 4753+50, RT
STA. 3+79 TO STA. 8+77, LT

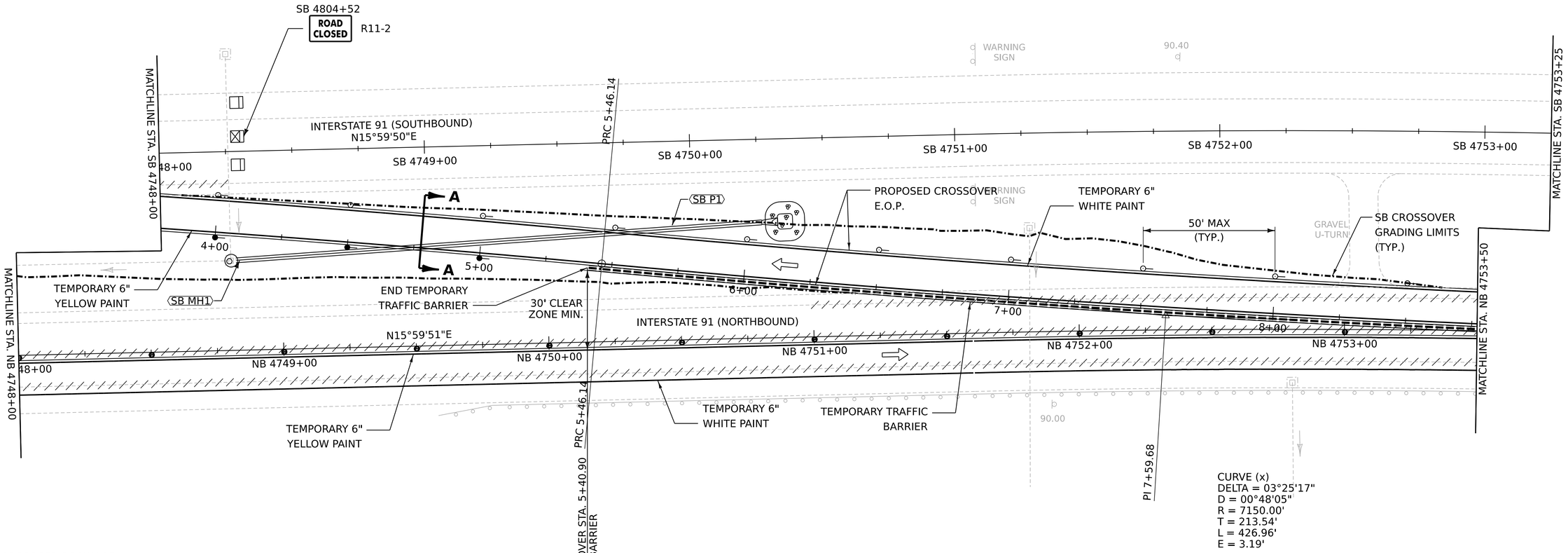
PAVEMENT MARKING MASK
STA. NB 4748+00 TO STA. NB 4753+50, DASHED CL
STA. NB 4748+00 TO STA. NB 4753+50, SOLID RT
STA. SB 4748+00 TO STA. SB 4748+25, SOLID RT
STA. NB 4751+00 TO STA. NB 4753+50, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. 5+41 TO STA. 8+77, RT



SB CROSSOVER SECTION A-A
NOT TO SCALE





PROPOSED DRAINAGE

SB MH1 STA. NB 4748+85, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE WITH CAST IRON COVER (PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE)
RIM = 481.50 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 478.00 ±

SB P1 STA. NB 4748+85, LT TO STA. NB 4750+814, LT
INSTALL 18" x 196' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 480.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I

EXISTING INTERSTATE U-TURN NOTE:
1. UPON COMPLETION OF CONSTRUCTION AND REMOVAL OF THE INTERSTATE CROSSOVERS, THE CONTRACTOR SHALL REESTABLISH THE EXISTING INTERSTATE U-TURN. THE U-TURN SHALL CONSIST OF 6" OF BITUMINOUS CONCRETE PAVEMENT, TYPE IIIS, QA TIER III, PLACED IN (2) LIFTS, ON 24" OF SUBBASE OF DENSE GRADED CRUSHED STONE. WORK TO REESTABLISH THE EXISTING U-TURN WILL BE PAID AS ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

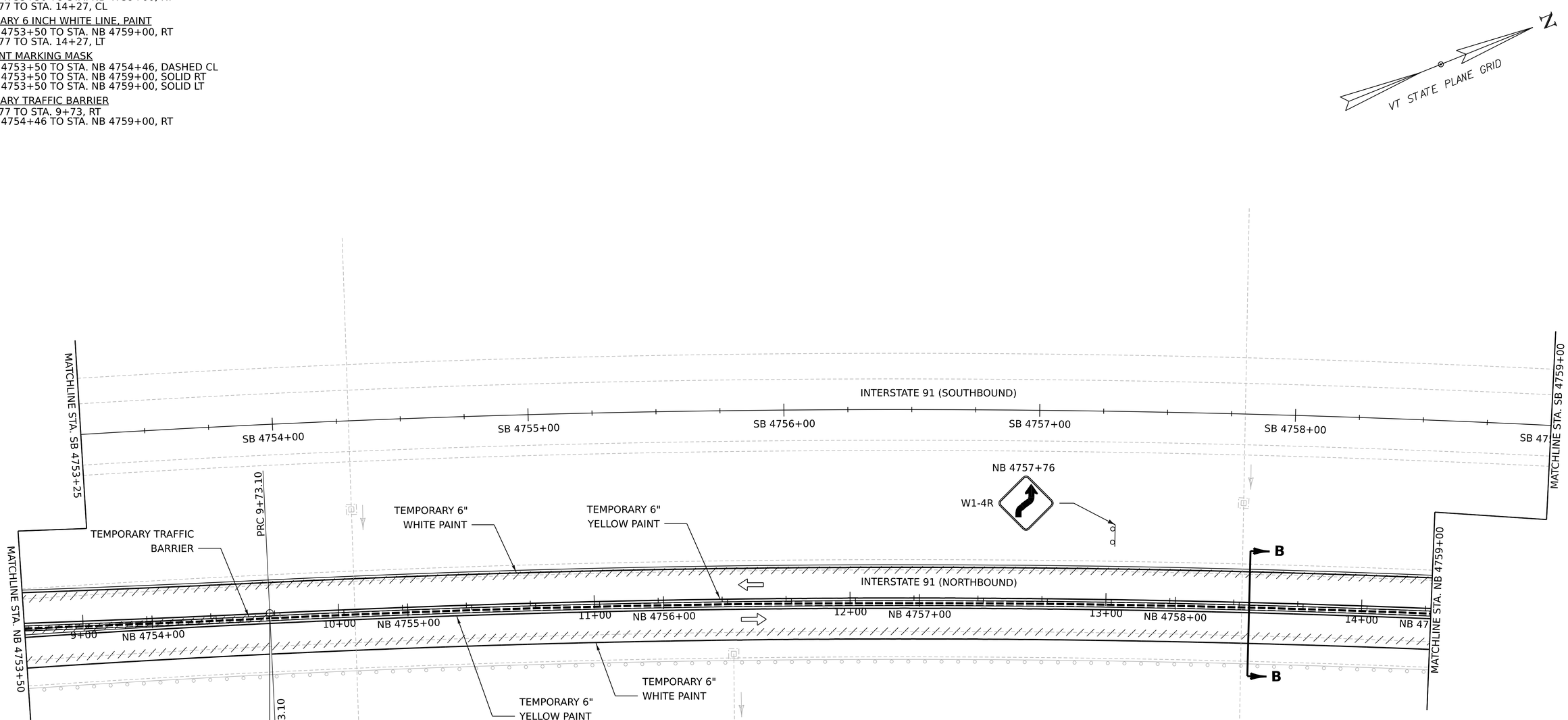
FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 3
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN

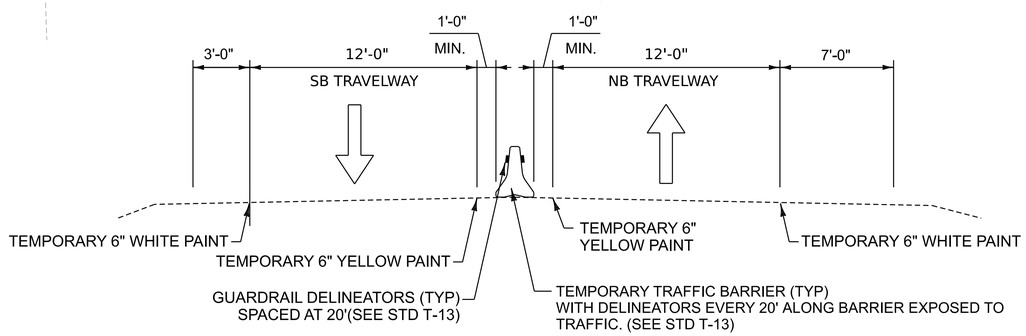
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4753+50 TO STA. NB 4759+00, RT
STA. 8+77 TO STA. 14+27, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4753+50 TO STA. NB 4759+00, RT
STA. 8+77 TO STA. 14+27, LT

PAVEMENT MARKING MASK
STA. NB 4753+50 TO STA. NB 4754+46, DASHED CL
STA. NB 4753+50 TO STA. NB 4759+00, SOLID RT
STA. NB 4753+50 TO STA. NB 4759+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. 8+77 TO STA. 9+73, RT
STA. NB 4754+46 TO STA. NB 4759+00, RT





SB CROSSOVER SECTION B-B
NOT TO SCALE

0 20 40
SCALE IN FEET

Stantec

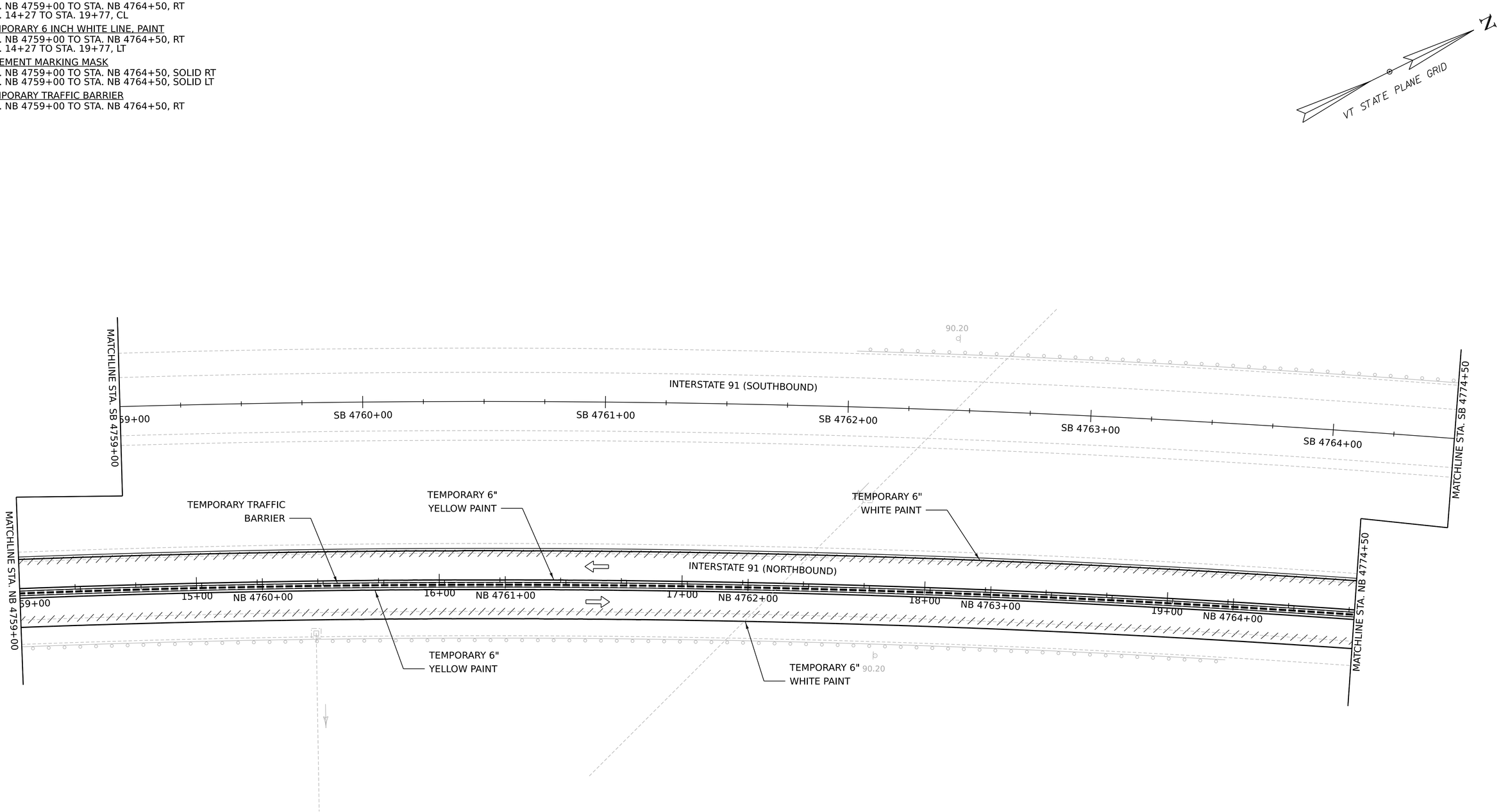
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME:	z21a024bdr_tcp_SB.dgn
PROJECT LEADER:	J. GRIGAS
DESIGNED BY:	T. DUGUAY
CROSSOVER SB PLAN SHEET 4	
PLOT DATE:	5-AUG-2025
DRAWN BY:	D. DRAPER
CHECKED BY:	D. YOULEN
SHEET 47 OF 144	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4759+00 TO STA. NB 4764+50, RT
STA. 14+27 TO STA. 19+77, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4759+00 TO STA. NB 4764+50, RT
STA. 14+27 TO STA. 19+77, LT

PAVEMENT MARKING MASK
STA. NB 4759+00 TO STA. NB 4764+50, SOLID RT
STA. NB 4759+00 TO STA. NB 4764+50, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4759+00 TO STA. NB 4764+50, RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 5	SHEET 48 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4764+50 TO STA. NB 4770+00, RT
STA. 19+77 TO STA. 25+27, CL

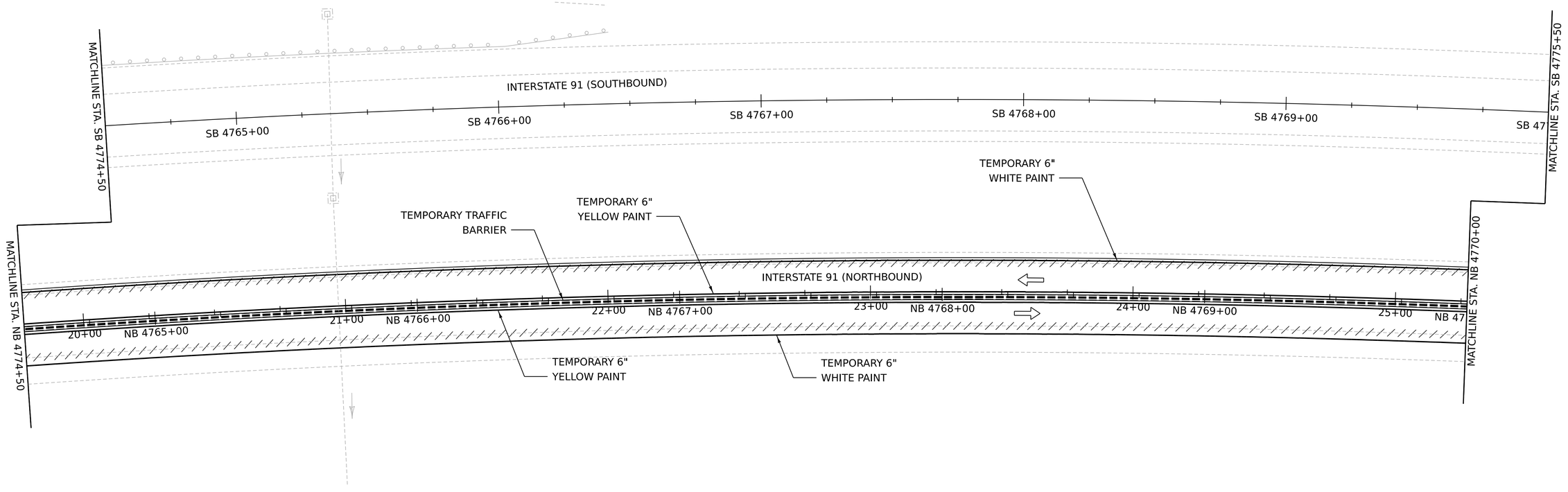
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4764+50 TO STA. NB 4770+00, RT
STA. 19+77 TO STA. 25+27, LT

PAVEMENT MARKING MASK
STA. NB 4764+50 TO STA. NB 4770+00, SOLID RT
STA. NB 4764+50 TO STA. NB 4770+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4764+50 TO STA. NB 4770+00, RT

N

VT STATE PLANE GRID



0 20 40
SCALE IN FEET

Stantec

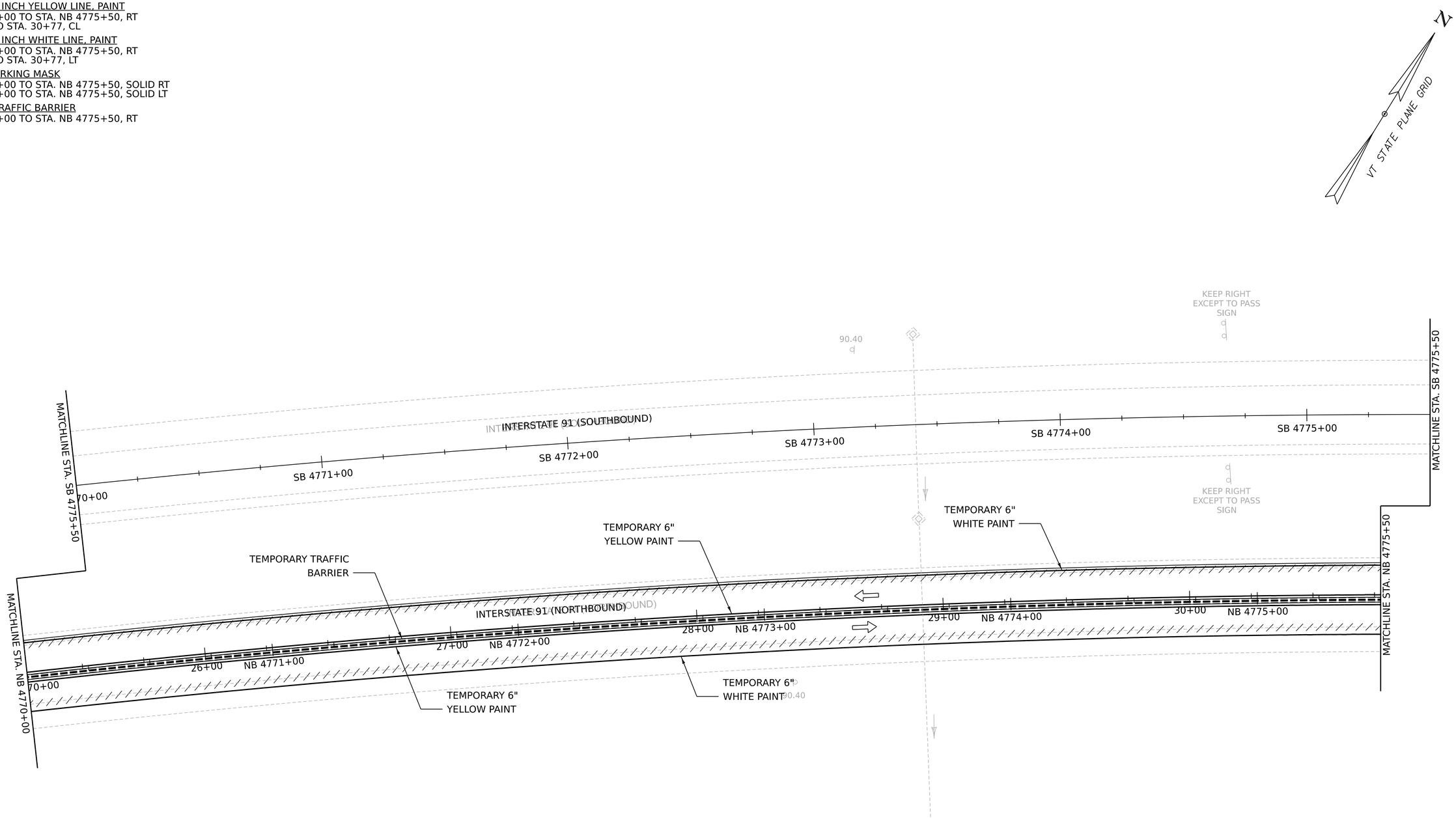
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 6	SHEET 49 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4770+00 TO STA. NB 4775+50, RT
STA. 25+27 TO STA. 30+77, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4770+00 TO STA. NB 4775+50, RT
STA. 25+27 TO STA. 30+77, LT

PAVEMENT MARKING MASK
STA. NB 4770+00 TO STA. NB 4775+50, SOLID RT
STA. NB 4770+00 TO STA. NB 4775+50, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4770+00 TO STA. NB 4775+50, RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 7

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: I. MAYNARD
SHEET 50 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4775+50 TO STA. NB 4781+00, RT
STA. 30+77 TO STA. 36+28, CL

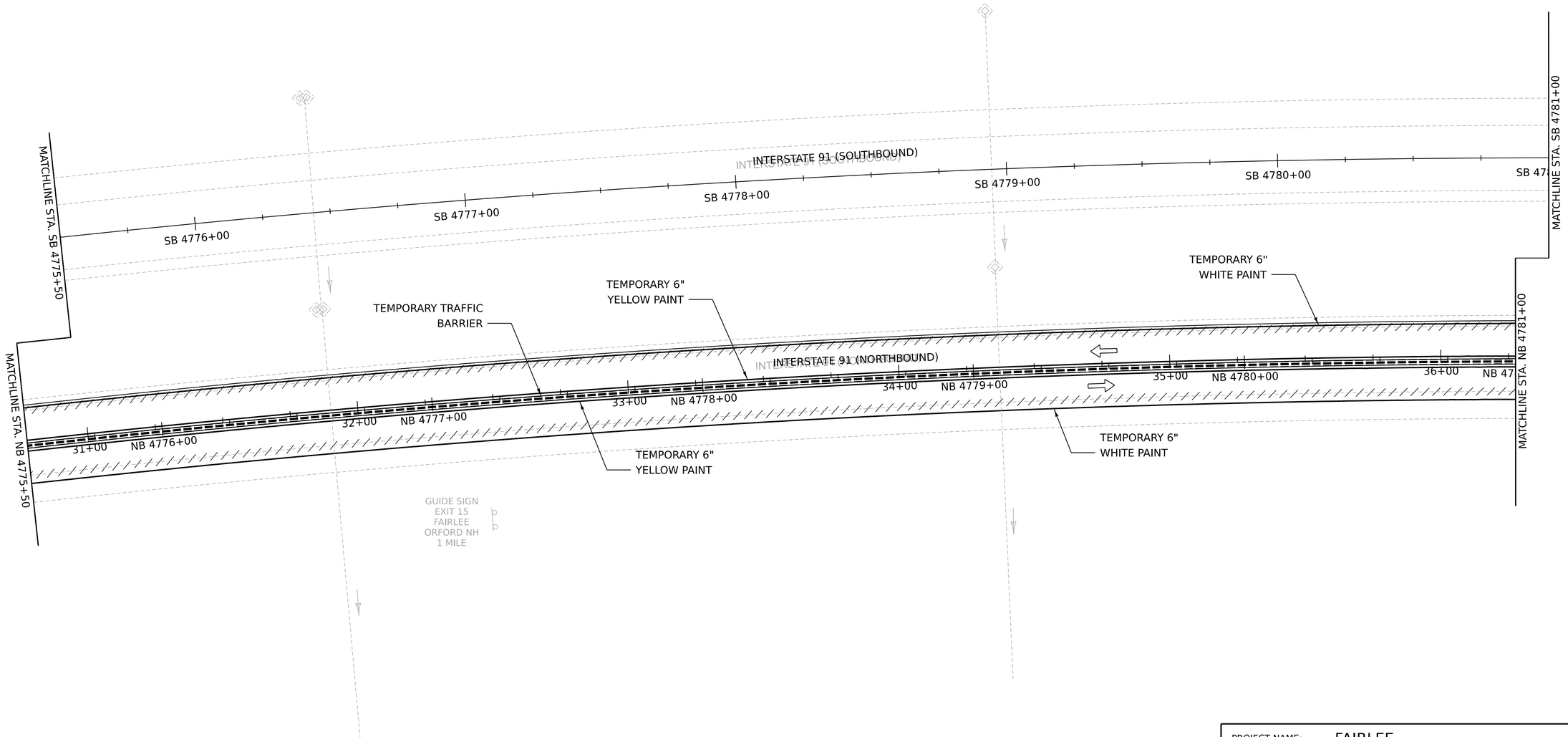
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4775+50 TO STA. NB 4781+00, RT
STA. 30+77 TO STA. 36+28, LT

PAVEMENT MARKING MASK
STA. NB 4775+50 TO STA. NB 4781+00, SOLID RT
STA. NB 4775+50 TO STA. NB 4781+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4775+50 TO STA. NB 4781+00, RT

N

VT STATE PLANE GRID



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 8

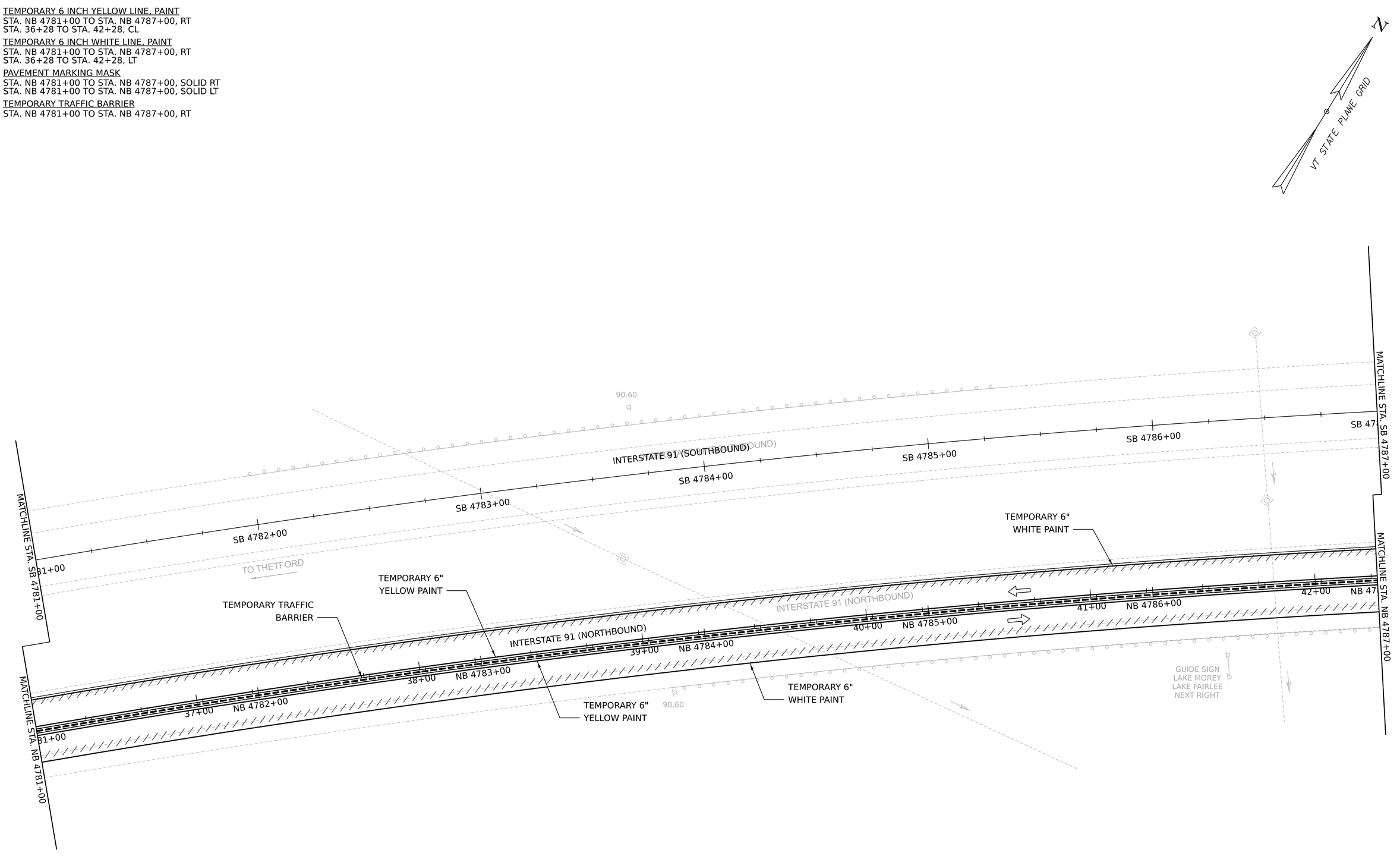
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: I. MAYNARD

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4781+00 TO STA. NB 4787+00, RT
STA. 36+28 TO STA. 42+28, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4781+00 TO STA. NB 4787+00, RT
STA. 36+28 TO STA. 42+28, LT

PAVEMENT MARKING MASK
STA. NB 4781+00 TO STA. NB 4787+00, SOLID RT
STA. NB 4781+00 TO STA. NB 4787+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4781+00 TO STA. NB 4787+00, RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 9	SHEET 52 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4787+00 TO STA. NB 4793+00, RT
STA. 42+28 TO STA. 48+28, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4787+00 TO STA. NB 4793+00, RT
STA. 42+28 TO STA. 48+28, LT

PAVEMENT MARKING MASK
STA. NB 4787+00 TO STA. NB 4793+00, SOLID RT
STA. NB 4787+00 TO STA. NB 4793+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4787+00 TO STA. NB 4793+00, RT
STA. NB 4792+37 TO STA. NB 4793+00, LT

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

THETFORD 6/
WRJ20

EXISITNG
WING WALL

MATCHLINE STA. SB 4787+00

MATCHLINE STA. SB 4793+00

INTERSTATE 91 (SOUTHBOUND)

INTERSTATE 91 (SOUTHBOUND)

SB 4787+00

SB 4788+00

SB 4789+00

SB 4790+00

SB 4791+00

SB 4792+00

SB 47

TEMPORARY TRAFFIC BARRIER

TEMPORARY 6" YELLOW PAINT

TEMPORARY 6" WHITE PAINT

TEMPORARY 6" WHITE PAINT

TEMPORARY TRAFFIC BARRIER

INTERSTATE 91 (NORTHBOUND)

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. NB 4787+00

MATCHLINE STA. NB 4793+00

37+00

43+00

NB 4788+00

44+00

NB 4789+00

45+00

NB 4790+00

46+00

NB 4791+00

47+00

NB 4792+00

48+00

NB 47

TEMPORARY 6" YELLOW PAINT

TEMPORARY 6" WHITE PAINT

PT 45+06.74

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

1000
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER SB PLAN SHEET 10		SHEET 53 OF 144	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4793+00 TO STA. NB 4799+00, RT
STA. 48+28 TO STA. 54+28, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4793+00 TO STA. NB 4799+00, RT
STA. 48+28 TO STA. 54+28, LT

PAVEMENT MARKING MASK
STA. NB 4793+00 TO STA. NB 4799+00, SOLID RT
STA. NB 4793+00 TO STA. NB 4799+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4793+00 TO STA. NB 4799+00, RT
STA. NB 4793+00 TO STA. NB 4797+88, LT

APPROX. EXISTING R.O.W.

POT 54+00.00

POE 54+47.51

300
HVCTRL
MAGHUB

N37°11'38"E

LAKE MOREY
OUTLET
FLOW

54+00

N

VT STATE PLANE GRID

301
HVCTRL
MAGHUB

3
HVCTRL
⅝REBAR VSE CONTROL CAP

INTERSTATE 91 (SOUTHBOUND)

N 58^18'05" E

MATCHLINE STA. SB 4793+00

93+00 SB 4794+00 SB 4795+00 SB 4796+00 SB 4797+00 SB 4798+00 SB 47

MATCHLINE STA. SB 4799+00

53+00

N02°15'55"W

TEMPORARY 6"
WHITE PAINT

TEMPORARY 6"
YELLOW PAINT

TEMPORARY TRAFFIC
BARRIER

PC 51+98.88

SB CROSSOVER
GRADING LIMITS (TYP.)

TEMPORARY
ATTENUATION DEVICE

PROPOSED CROSSOVER E.O.P.

N58°18'05.08"E

N 58^18'05" E

INTERSTATE 91 (NORTHBOUND)

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. NB 4793+00

93+00 49+00 NB 4794+00 50+00 NB 4795+00 51+00 NB 4796+00 52+00 NB 4797+00 53+00 NB 4798+00 54+00 NB 47

MATCHLINE STA. NB 4799+00

52+00

280
HVCTRL
MAGHUB

2
HVCTRL
⅝REBAR VSE CONTROL CAP

TEMPORARY 6"
WHITE PAINT

TEMPORARY 6"
YELLOW PAINT

POB 50+00.00

POT 50+90.00

N54°21'16"E

51+00

50+00

STA. NB 4796+71.93 =
CROSSOVER PC STA. 51+98.88, 1' LT.
BEGIN CROSSOVER

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

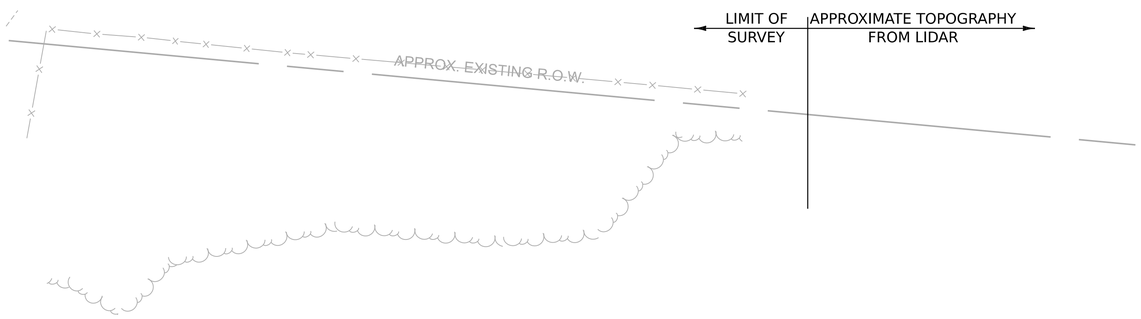
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 11	SHEET 54 OF 144

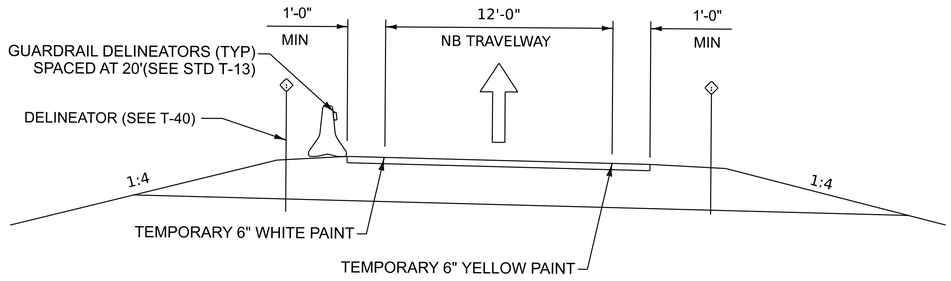
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4799+00 TO STA. NB 4805+00, RT
STA. 54+28 TO STA. 60+29, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4799+00 TO STA. NB 4805+00, RT
STA. 54+28 TO STA. 60+29, LT

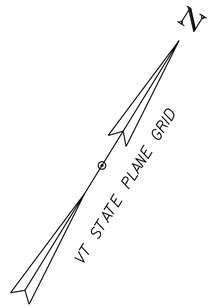
PAVEMENT MARKING MASK
STA. NB 4799+00 TO STA. NB 4801+50, SOLID LT
STA. NB 4799+00 TO STA. NB 4803+99, SOLID RT
STA. NB 4803+16 TO STA. NB 4803+99, DASHED CL
STA. SB 4804+75 TO STA. SB 4805+00, SOLID RT

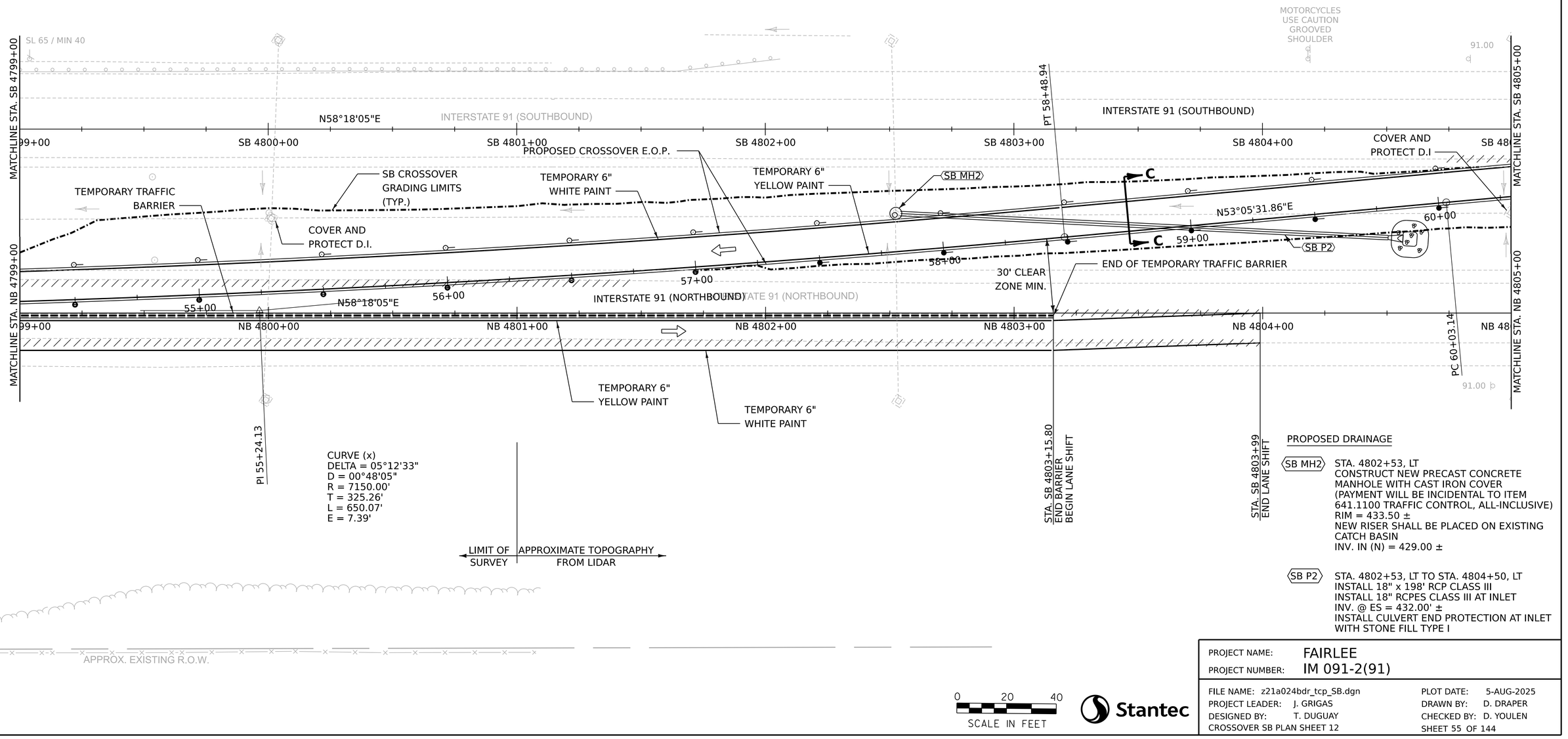
TEMPORARY TRAFFIC BARRIER
STA. NB 4799+00 TO STA. NB 4803+16, RT





SB CROSSOVER SECTION C-C
NOT TO SCALE





PROPOSED DRAINAGE

SB MH2 — STA. 4802+53, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE WITH CAST IRON COVER (PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE)
RIM = 433.50 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 429.00 ±

SB P2 — STA. 4802+53, LT TO STA. 4804+50, LT
INSTALL 18" x 198' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 432.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

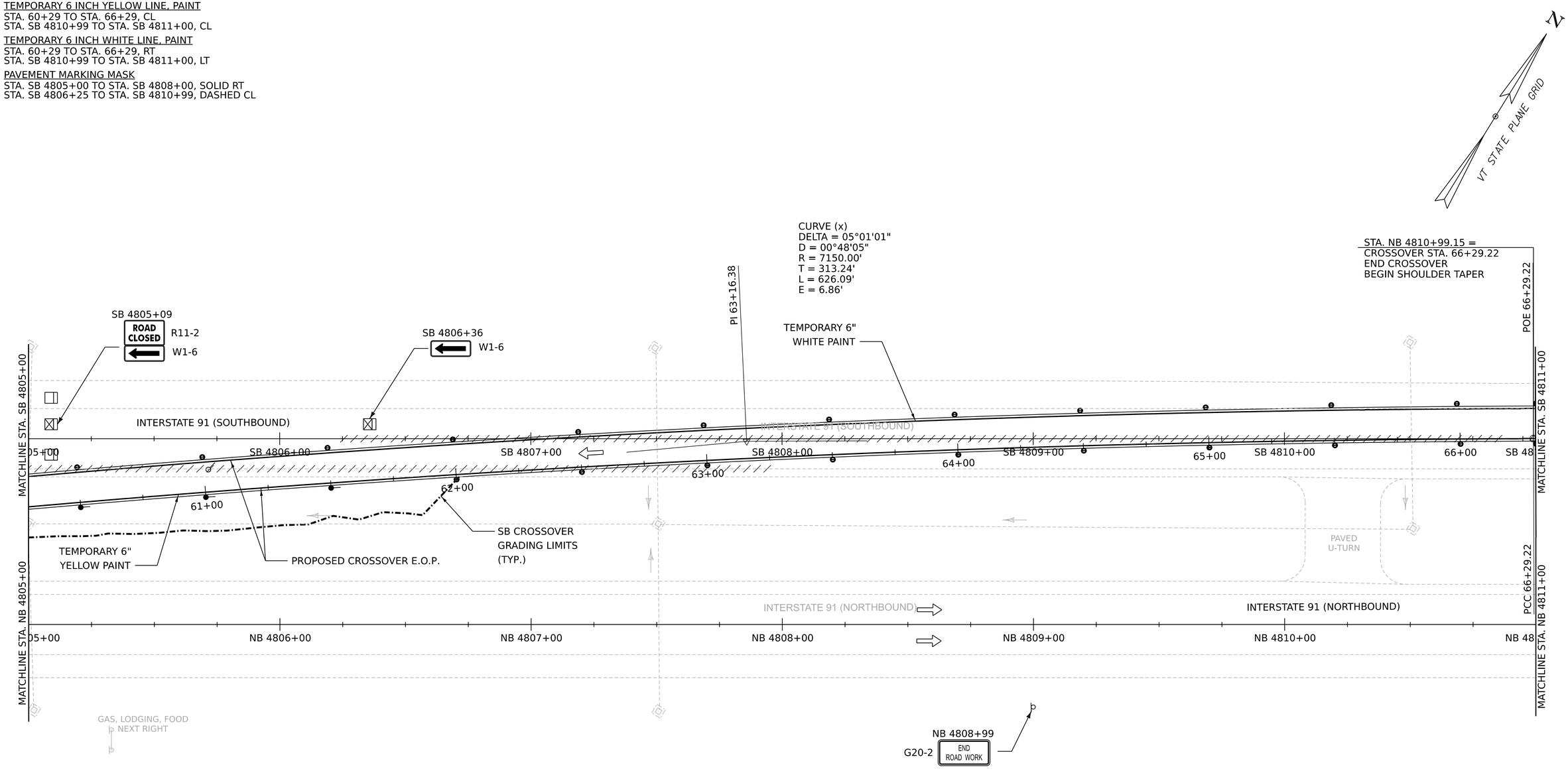
FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 12

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 55 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 60+29 TO STA. 66+29, CL
STA. SB 4810+99 TO STA. SB 4811+00, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 60+29 TO STA. 66+29, RT
STA. SB 4810+99 TO STA. SB 4811+00, LT

PAVEMENT MARKING MASK
STA. SB 4805+00 TO STA. SB 4808+00, SOLID RT
STA. SB 4806+25 TO STA. SB 4810+99, DASHED CL



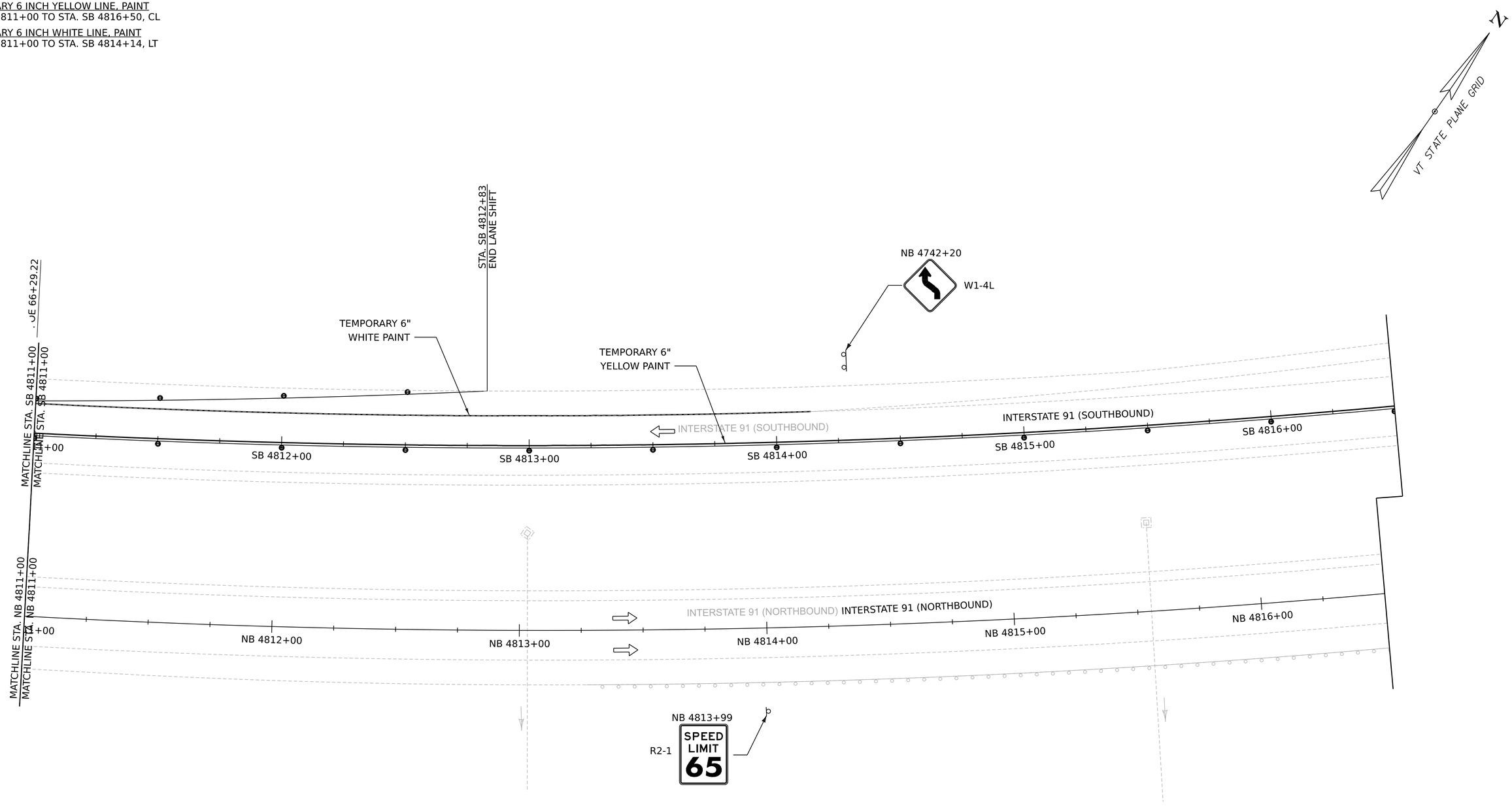
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 13	SHEET 56 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4811+00 TO STA. SB 4816+50, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4811+00 TO STA. SB 4814+14, LT

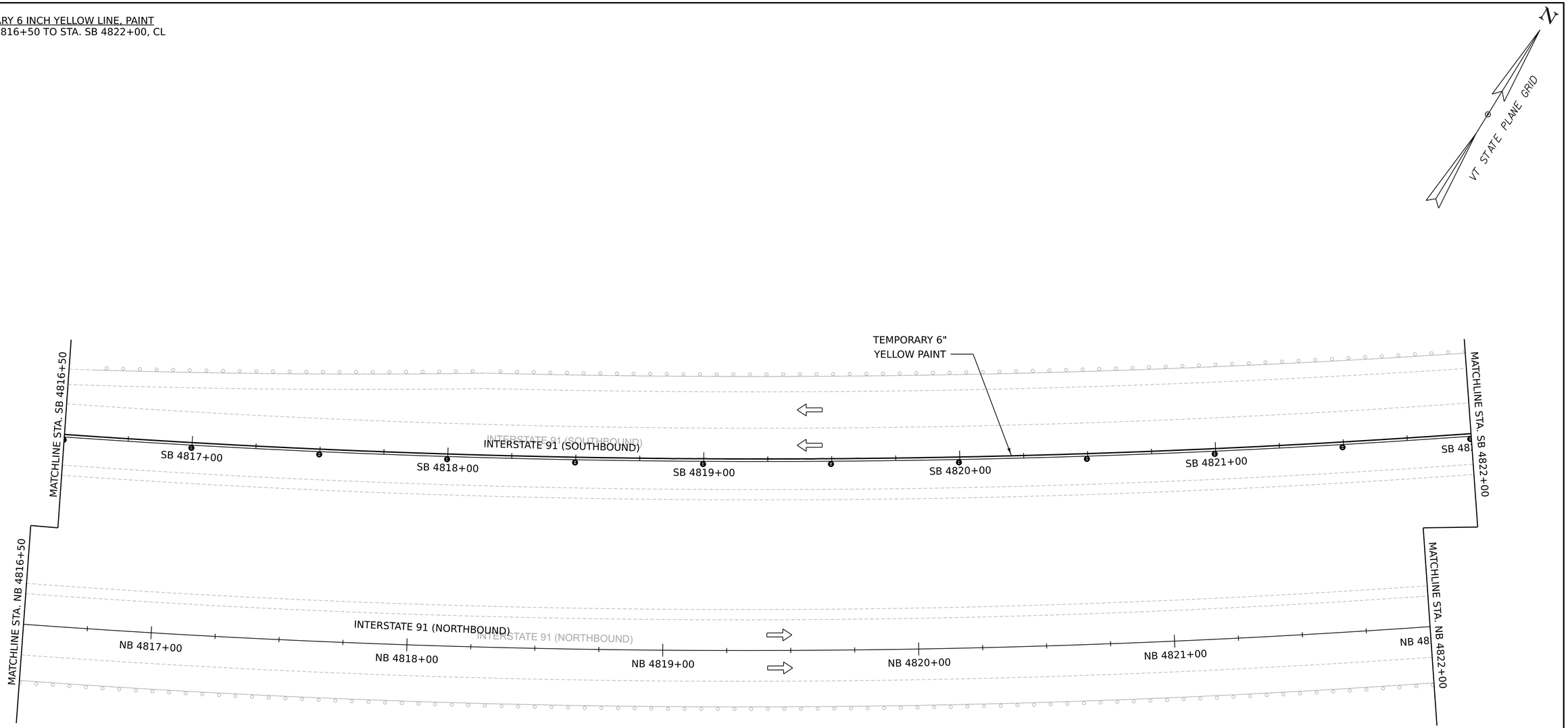


0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 14	SHEET 57 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4816+50 TO STA. SB 4822+00, CL



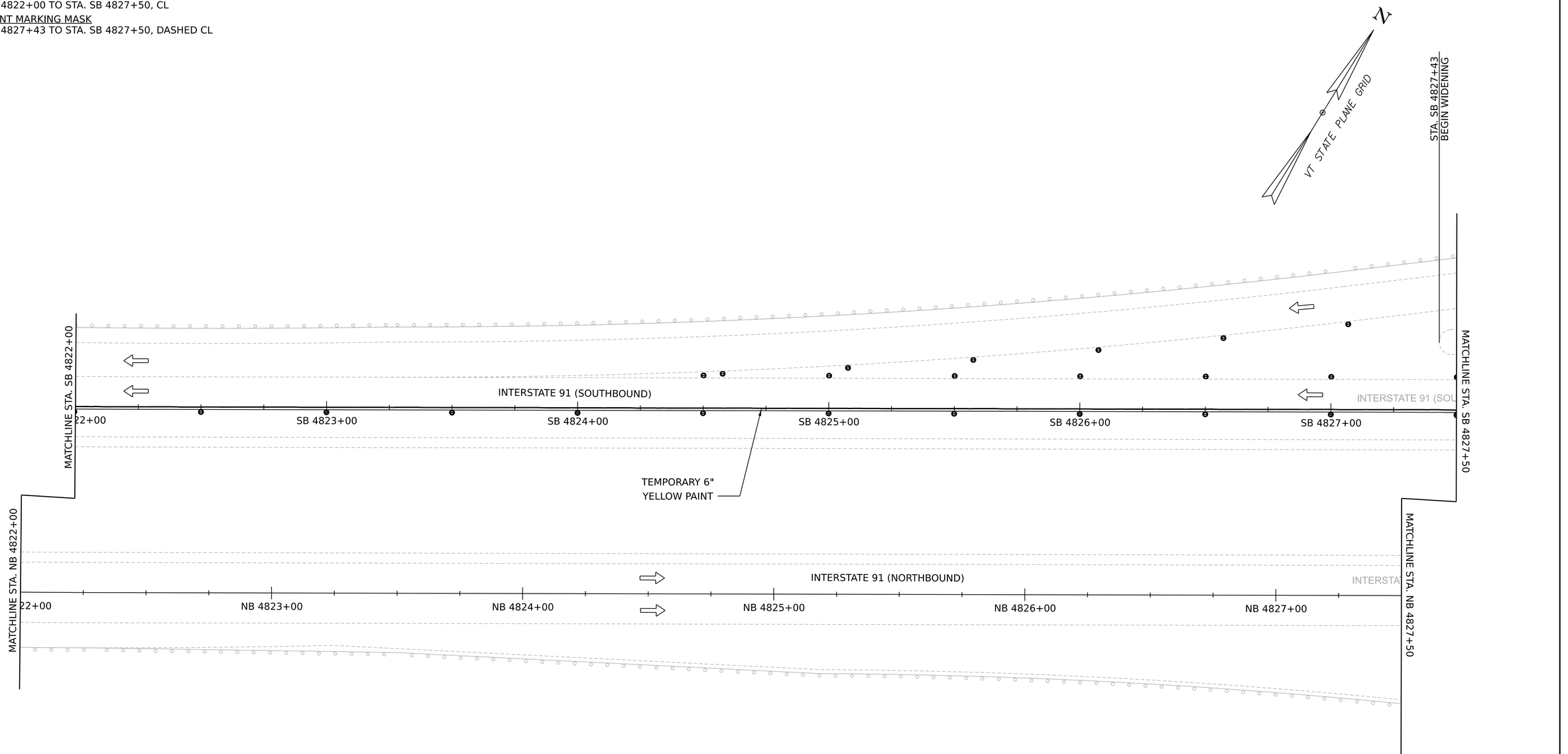
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER SB PLAN SHEET 15		SHEET 58 OF 144	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4822+00 TO STA. SB 4827+50, CL
PAVEMENT MARKING MASK
STA. SB 4827+43 TO STA. SB 4827+50, DASHED CL

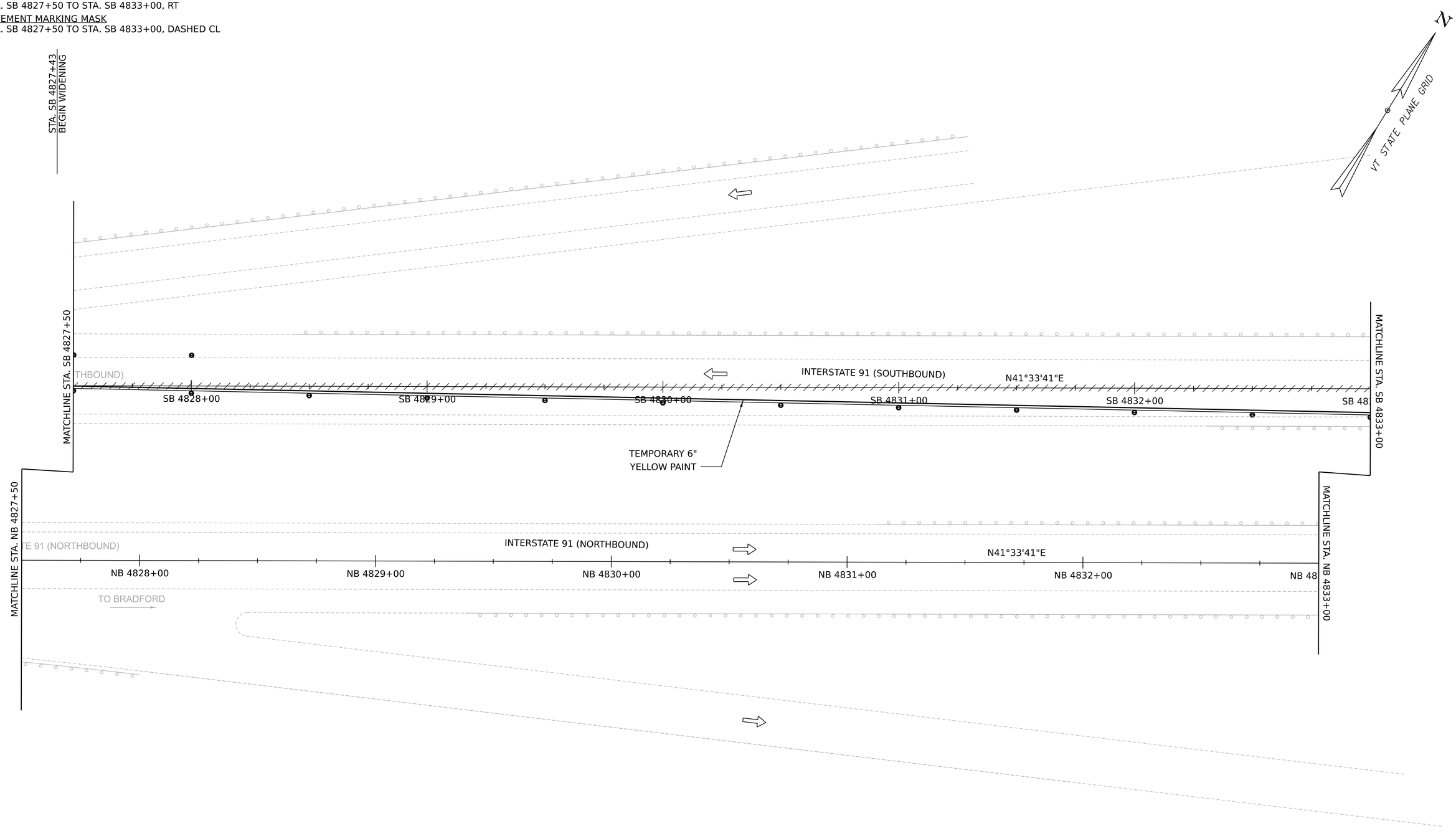


0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 16	SHEET 59 OF 144

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4827+50 TO STA. SB 4833+00, RT
PAVEMENT MARKING MASK
STA. SB 4827+50 TO STA. SB 4833+00, DASHED CL



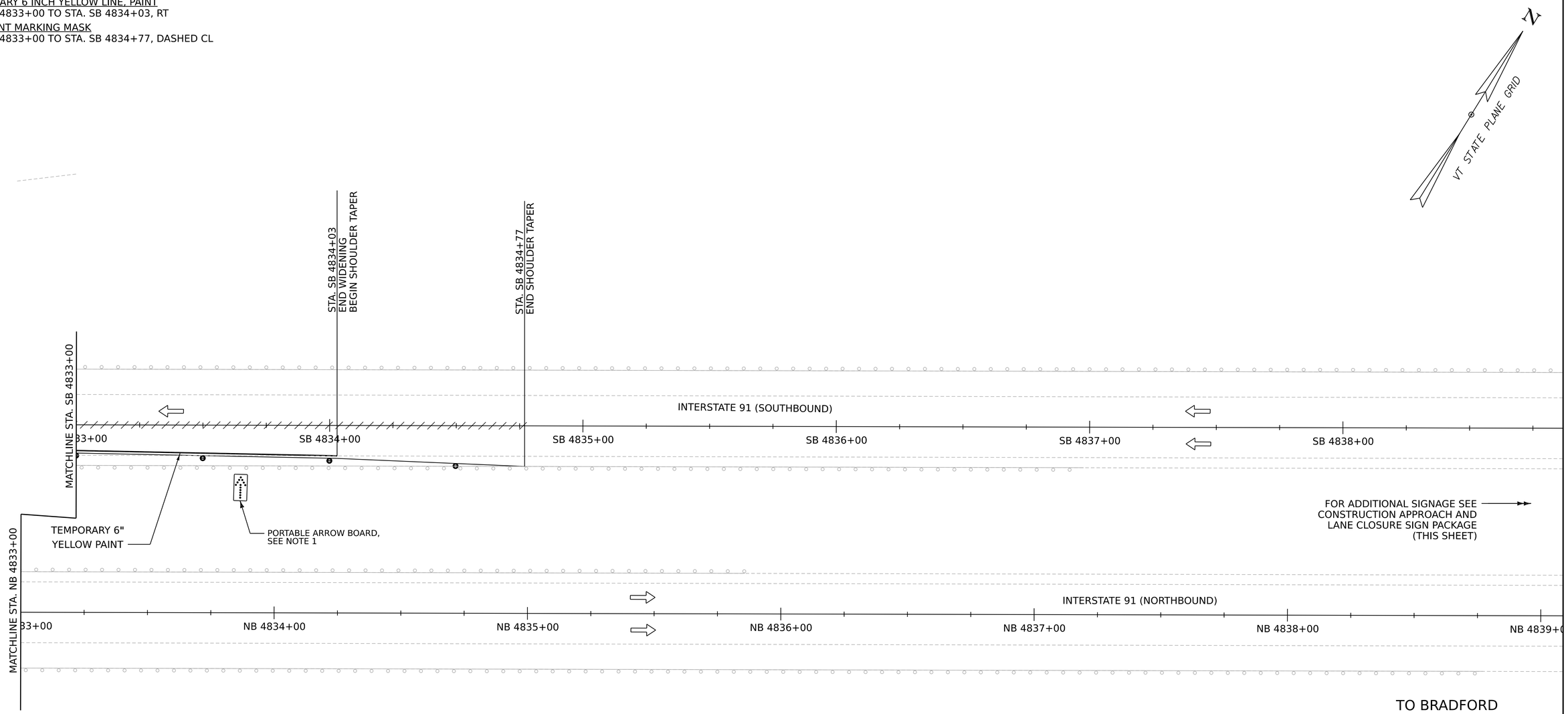
0 20 40
SCALE IN FEET

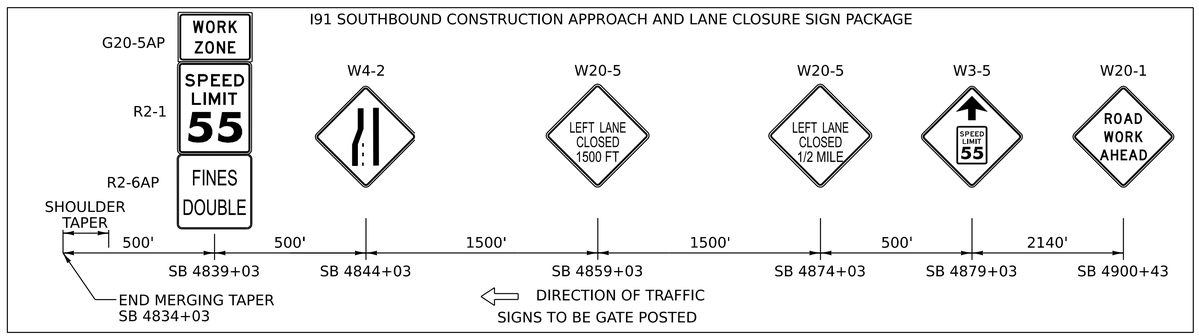
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER SB PLAN SHEET 17		SHEET 60 OF 144	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4833+00 TO STA. SB 4834+03, RT
PAVEMENT MARKING MASK
STA. SB 4833+00 TO STA. SB 4834+77, DASHED CL





NOTE:

1. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
2. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.

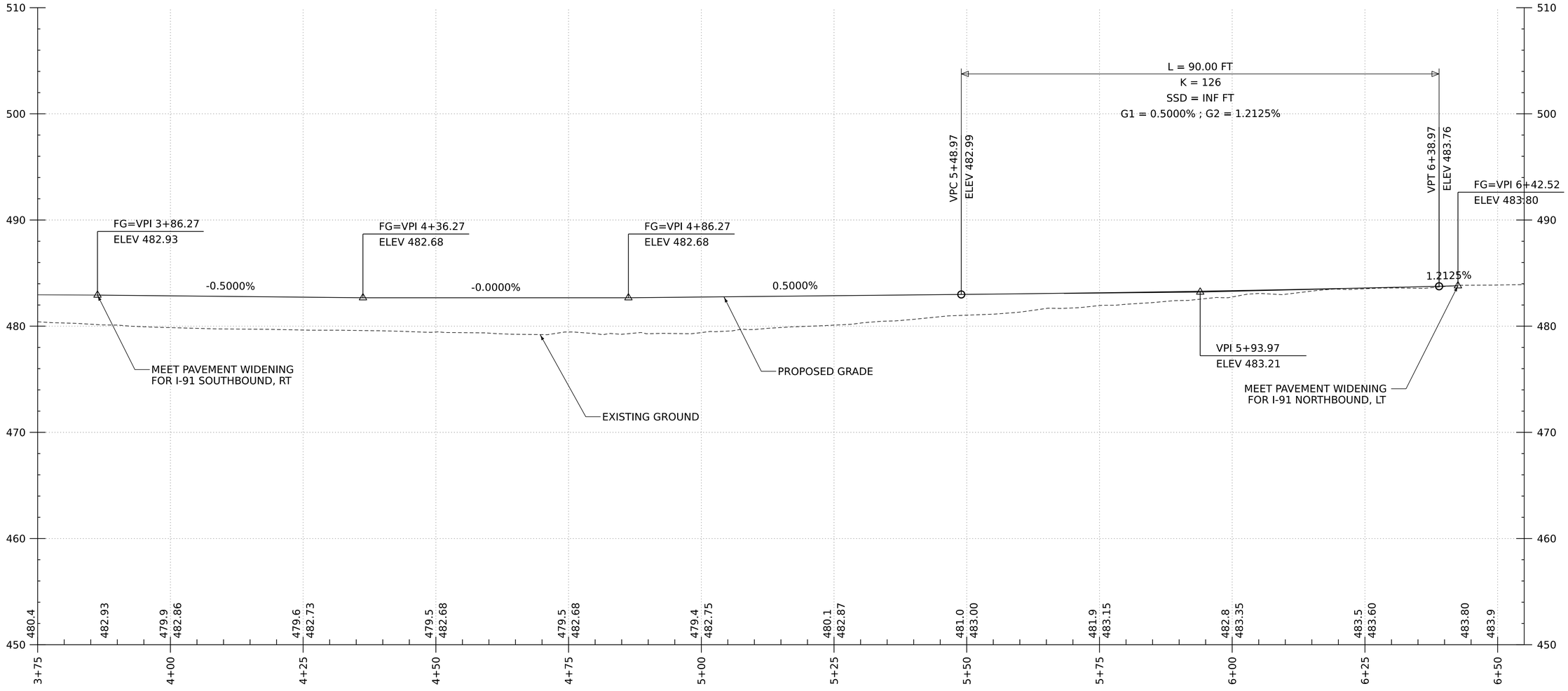
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 18

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 61 OF 144

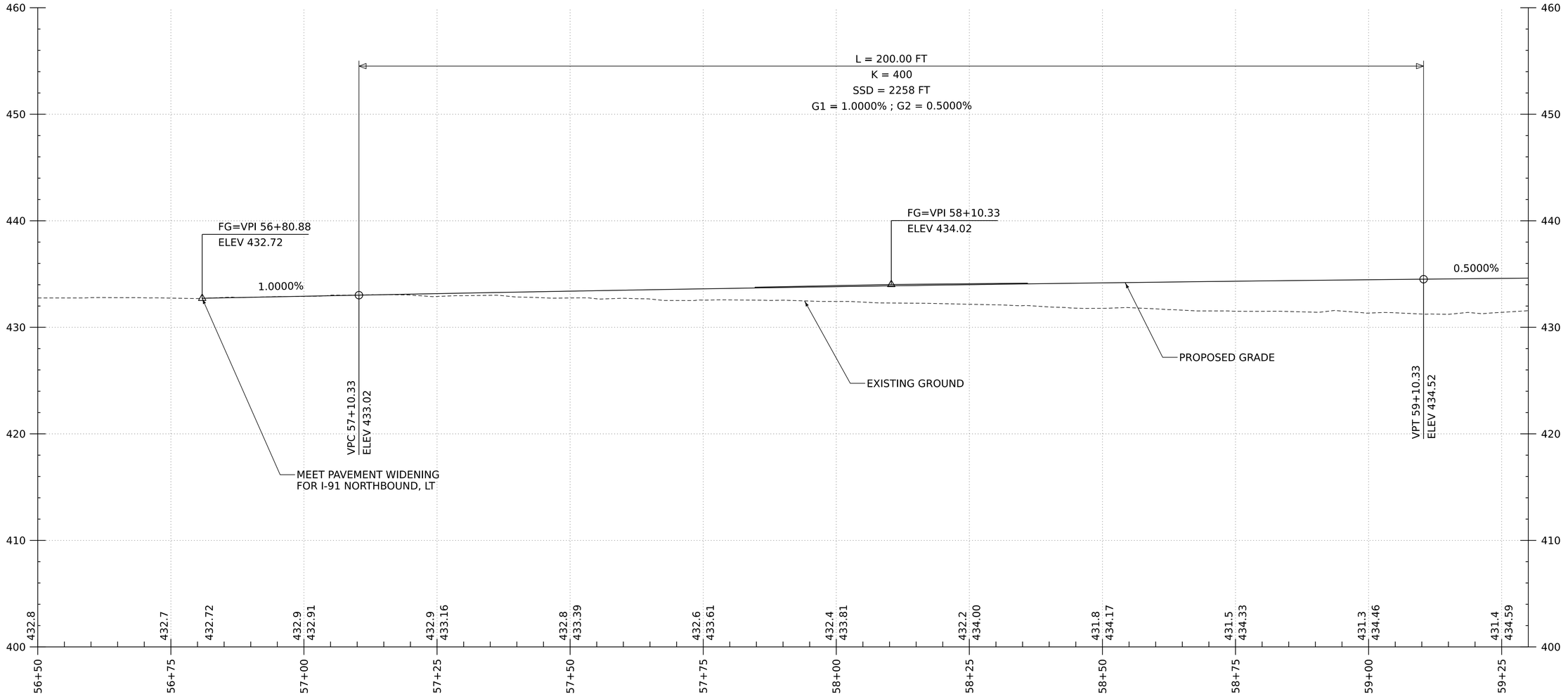


I-91 SOUTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_SB_crossover_SouthProfile.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER PROFILE SHEET 1		SHEET 62 OF 144	

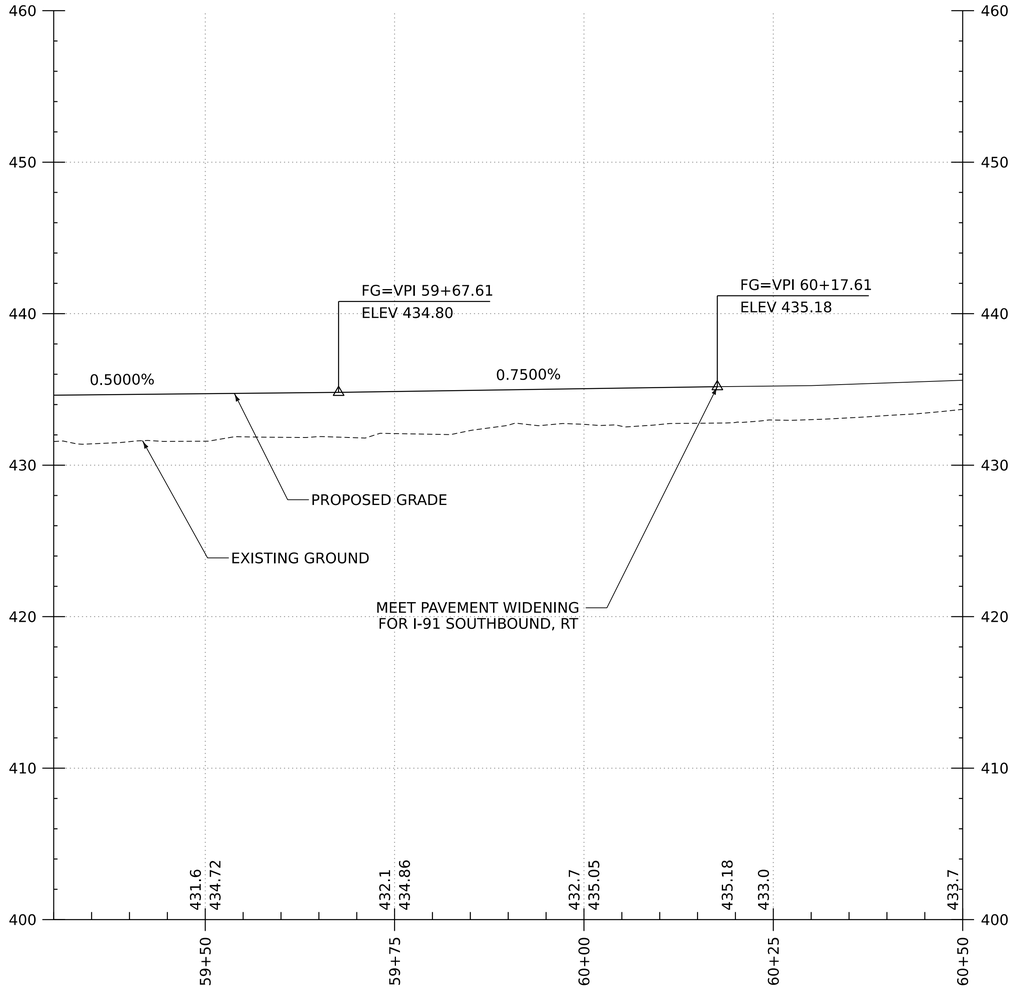


I-91 SOUTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_SB_crossover_NorthPrint.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER PROFILE SHEET 2		SHEET	63 OF 144

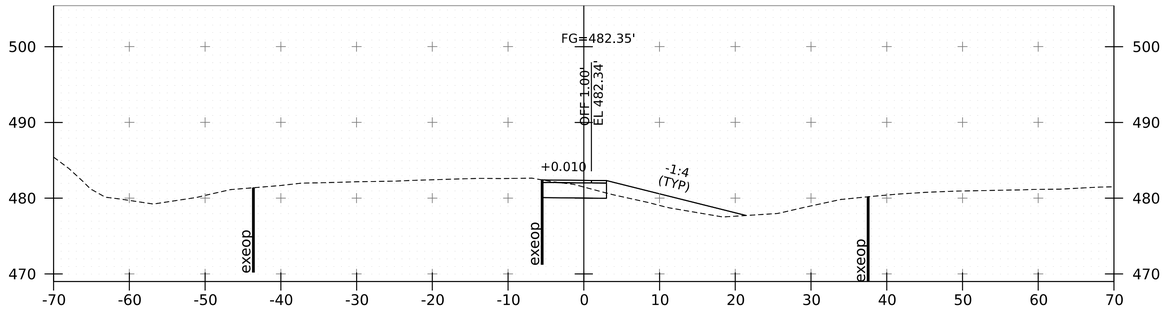


I-91 SOUTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_SB_crossover_NorthPrint.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER PROFILE SHEET 3		SHEET 64 OF 144	



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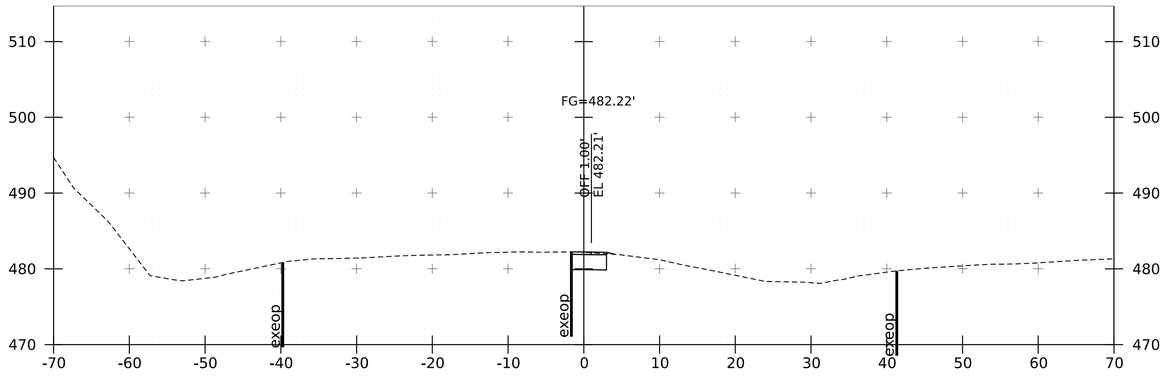

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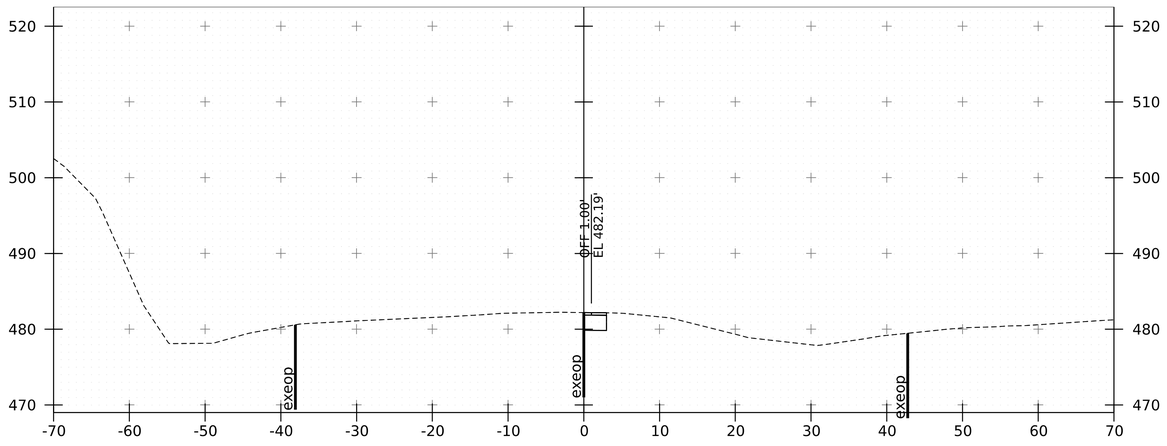
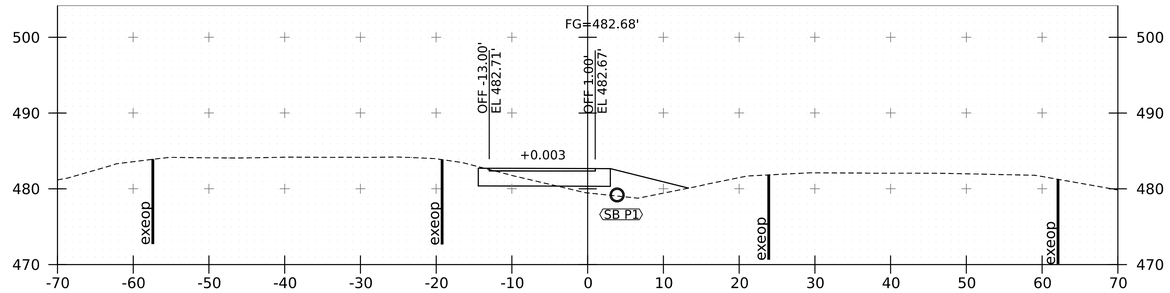
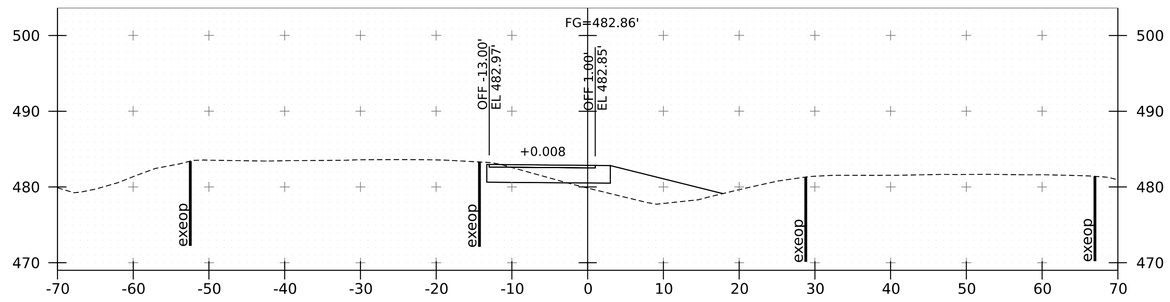


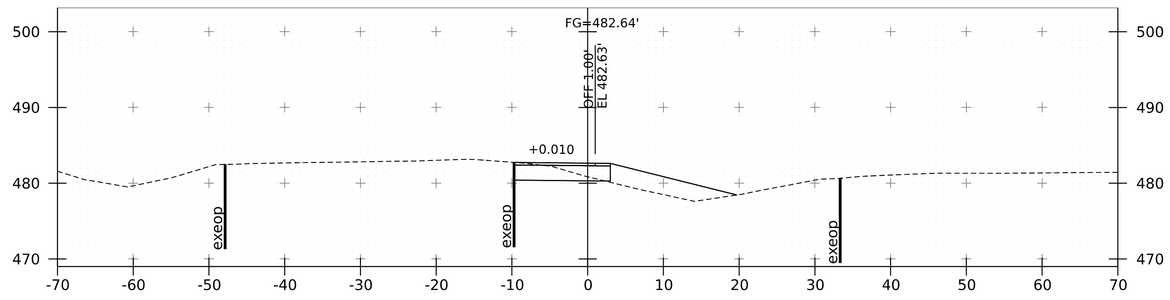
2+26



4+50



4+00

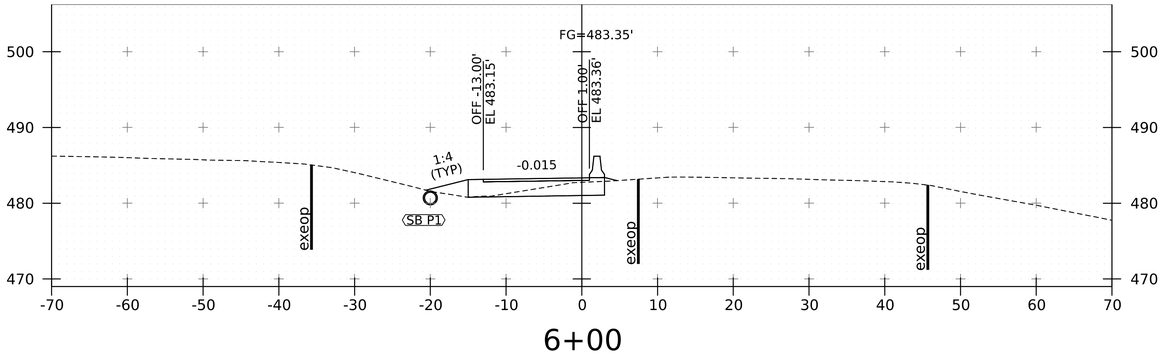


3+50

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_SB_crossover_South.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER XS SHEET 1		SHEET	65 OF 144

Stantec



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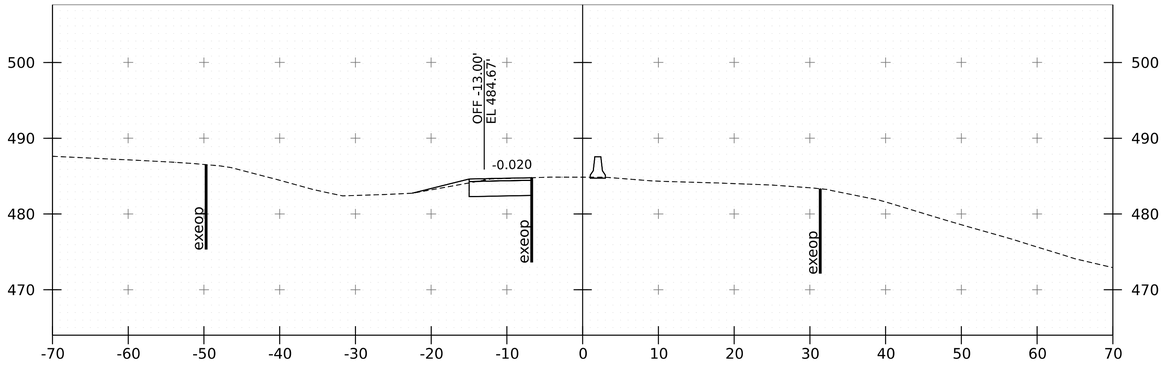

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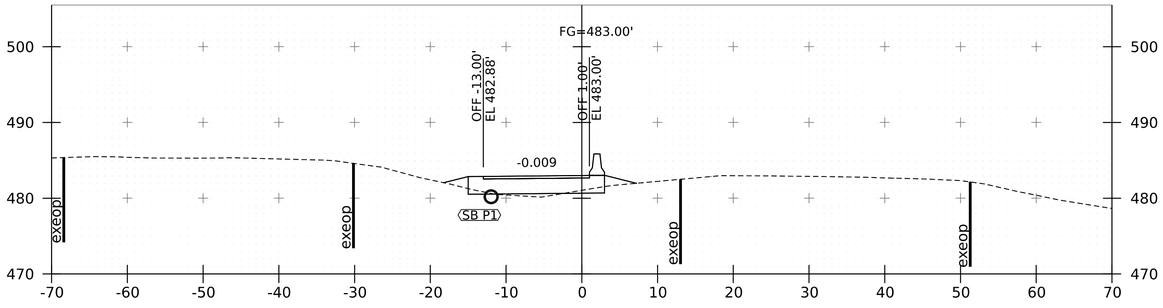
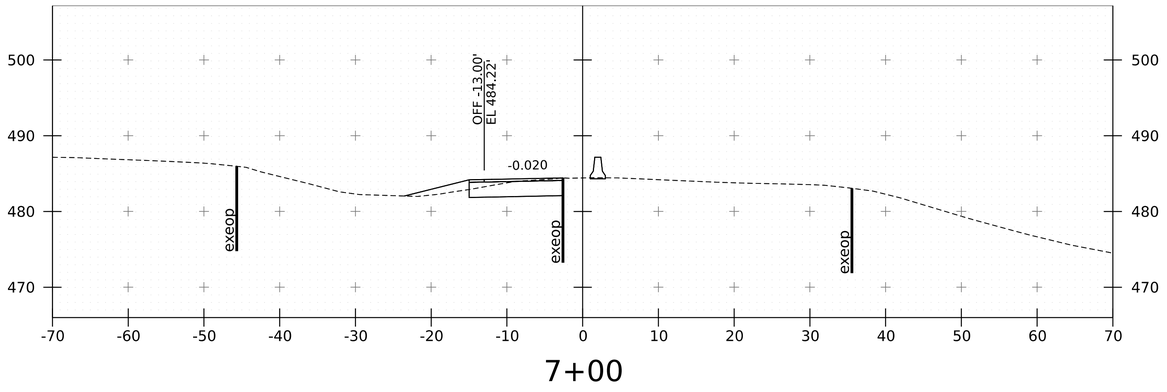
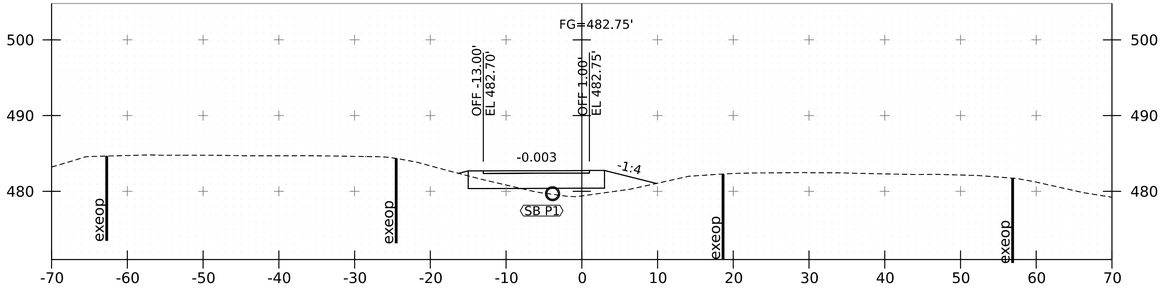


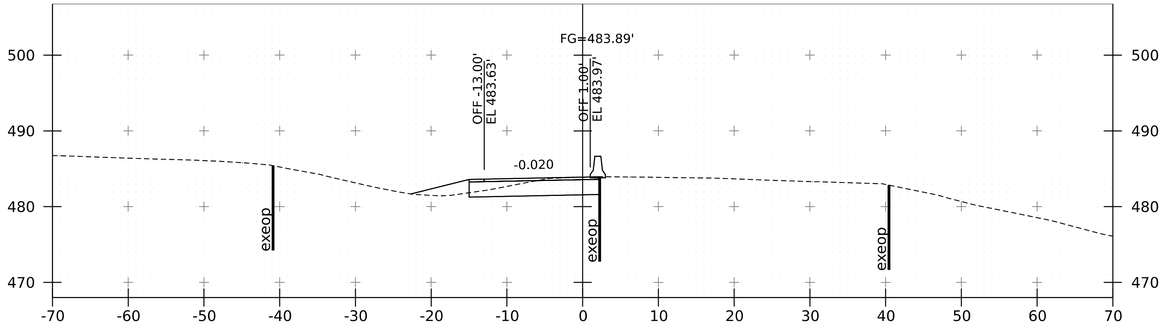
5+50



7+00



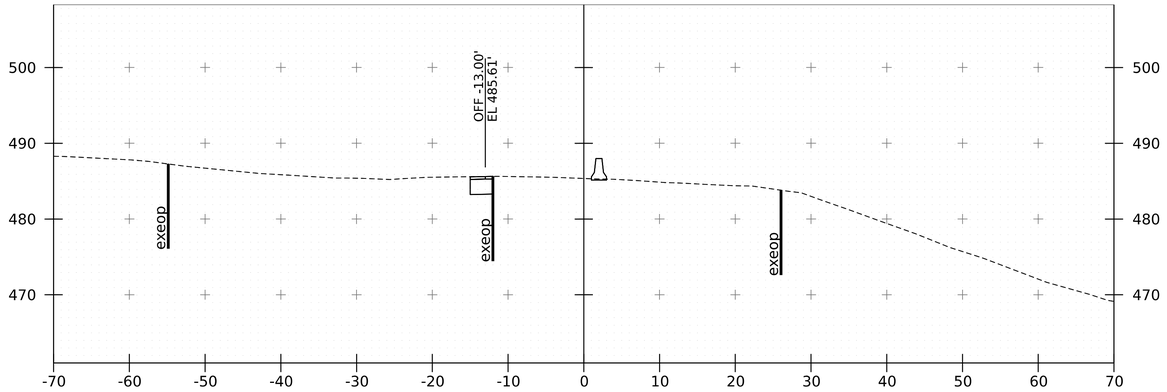
5+00



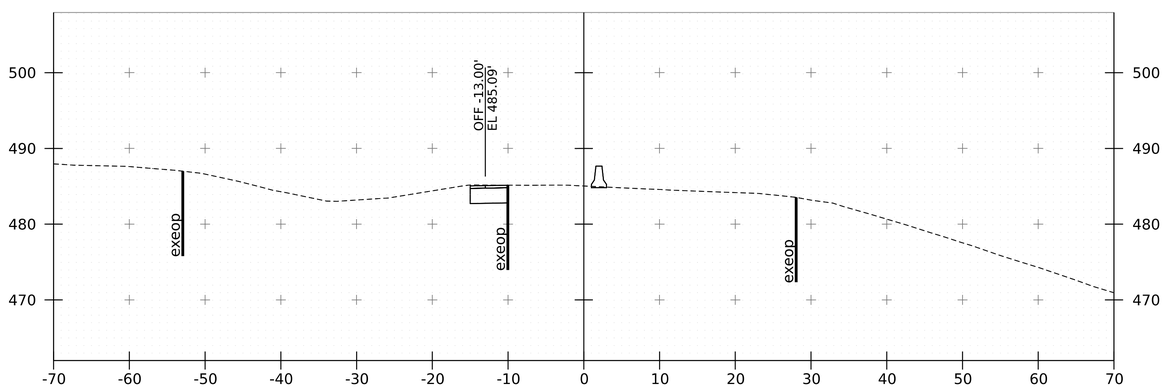
6+50

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_SB_crossover_South.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 SB CROSSOVER XS SHEET 2	SHEET 66 OF 144

Stantec



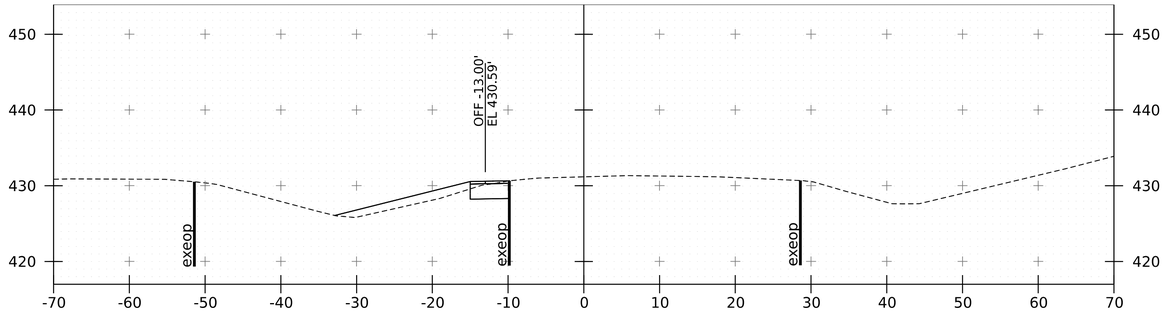
8+39



8+00

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_SB_crossover_South.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 SB CROSSOVER XS SHEET 3	SHEET 67 OF 144



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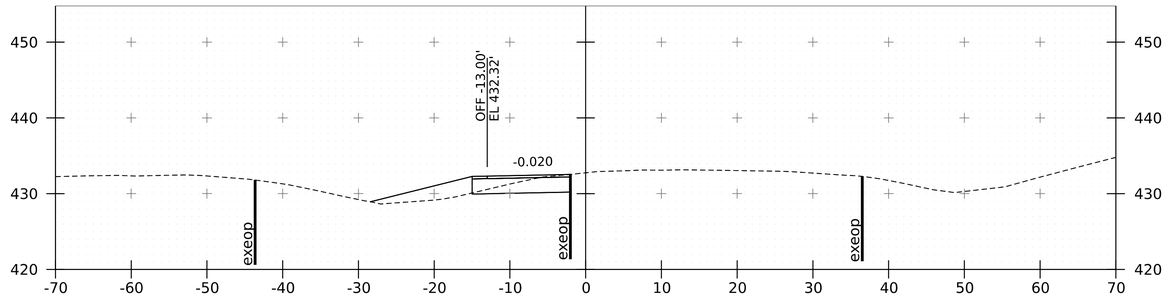

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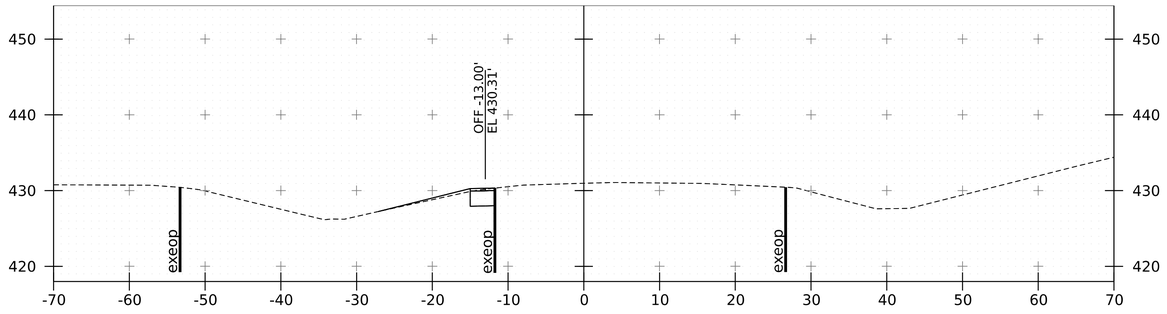

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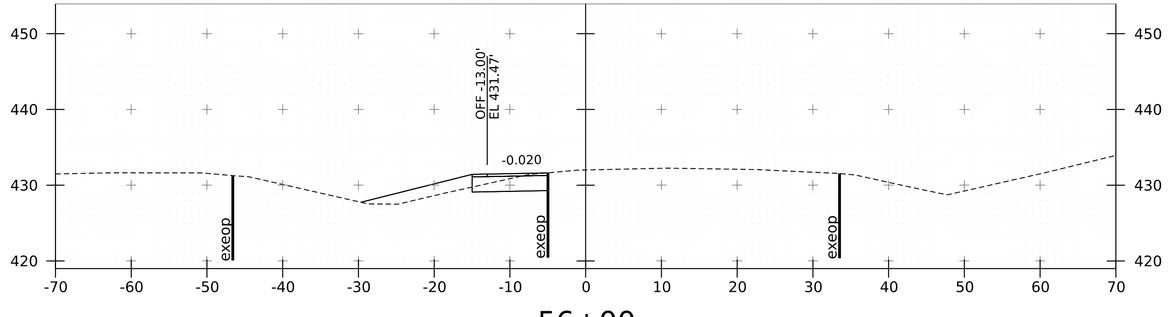

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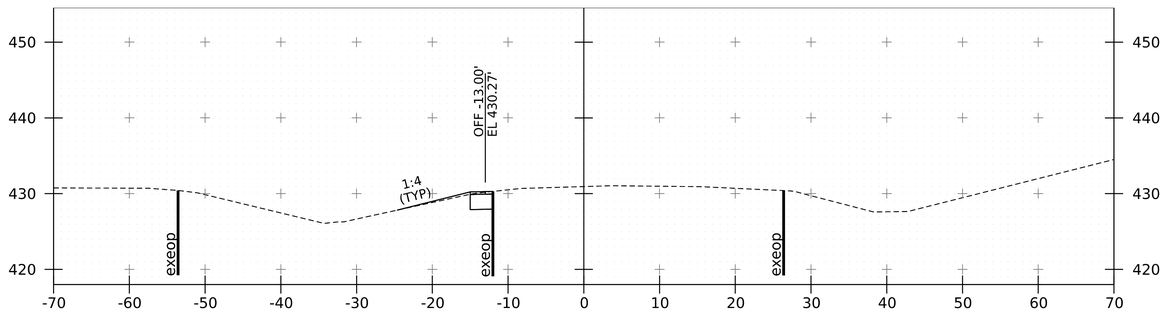

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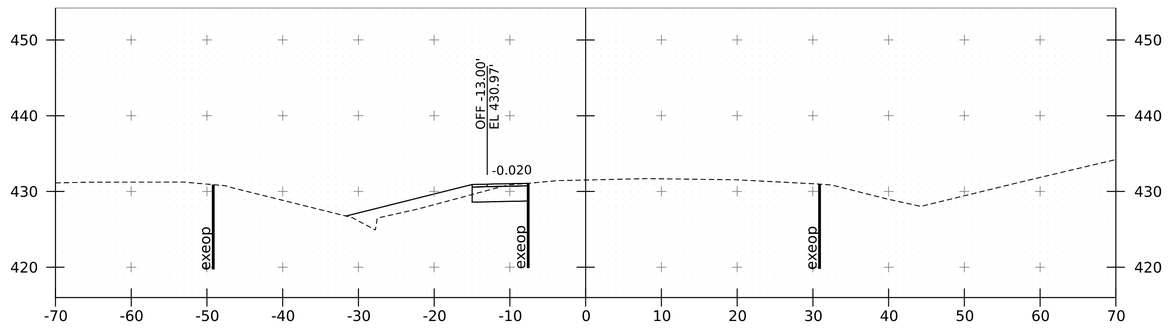
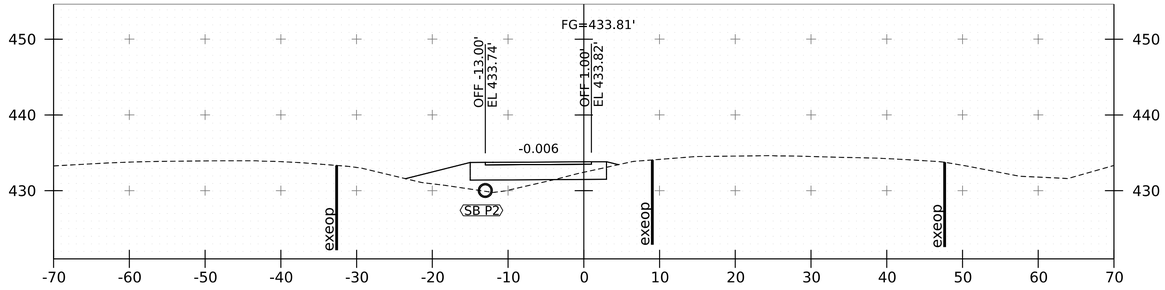


55+50

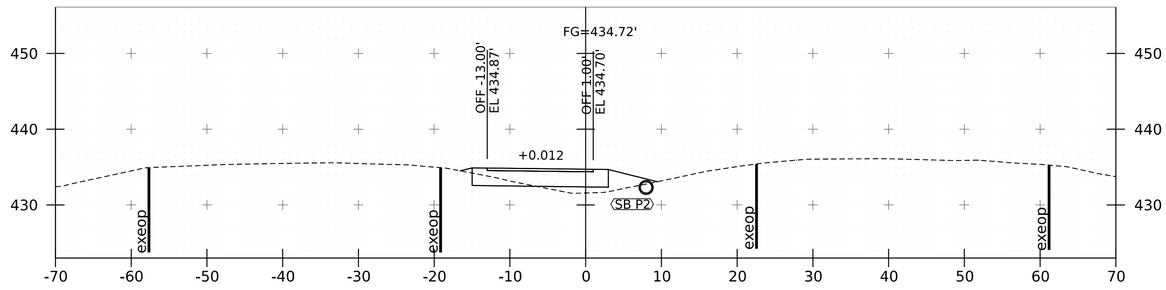
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_SB_crossover_North.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER XS SHEET 4		SHEET	68 OF 144

Stantec



58+00



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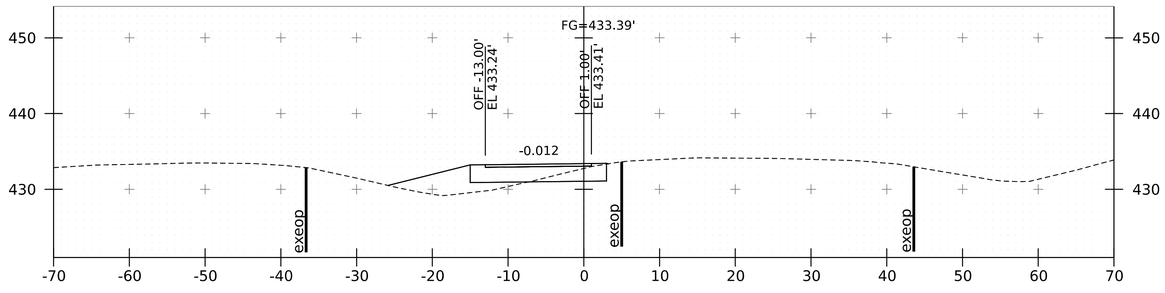

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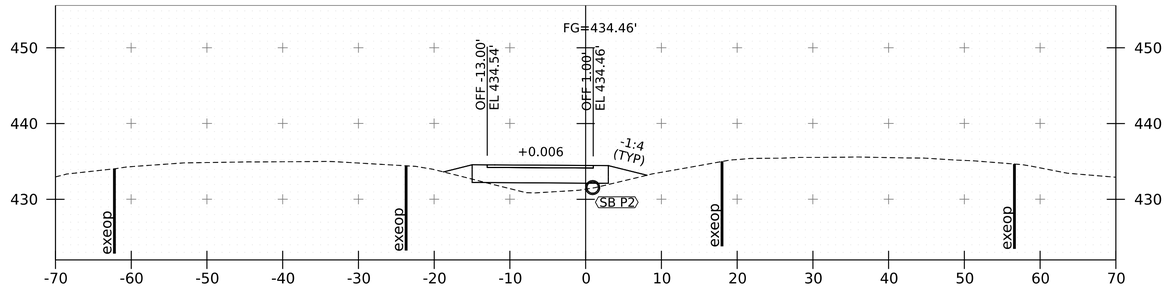

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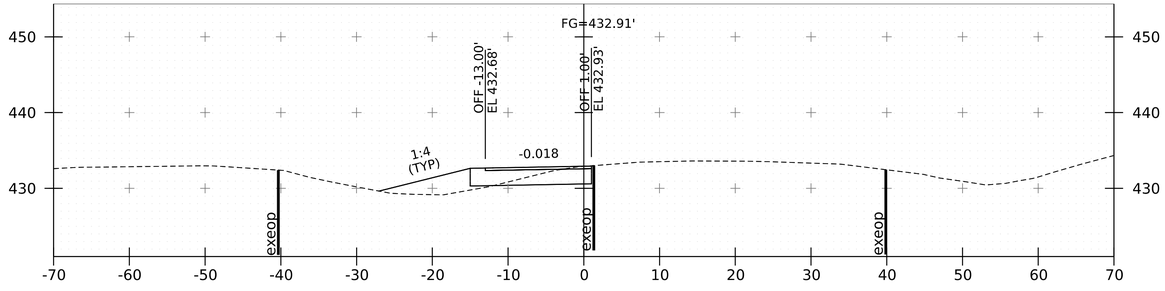

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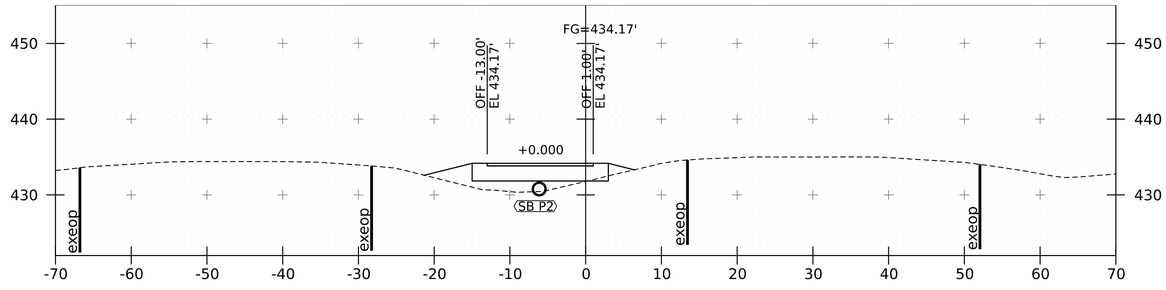
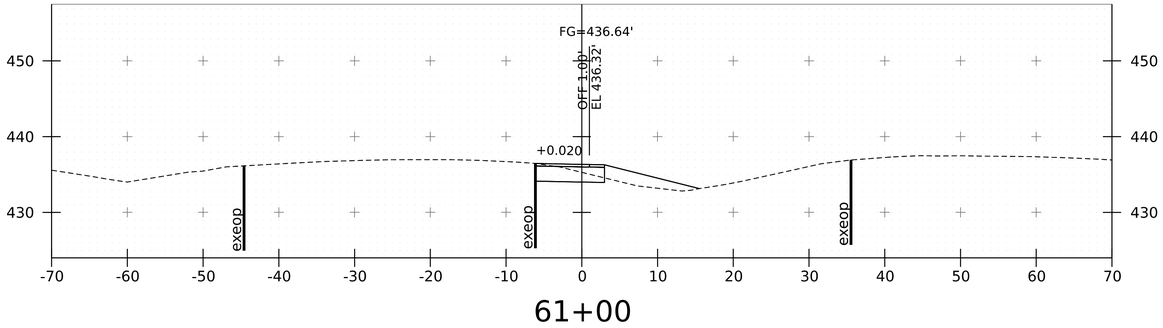


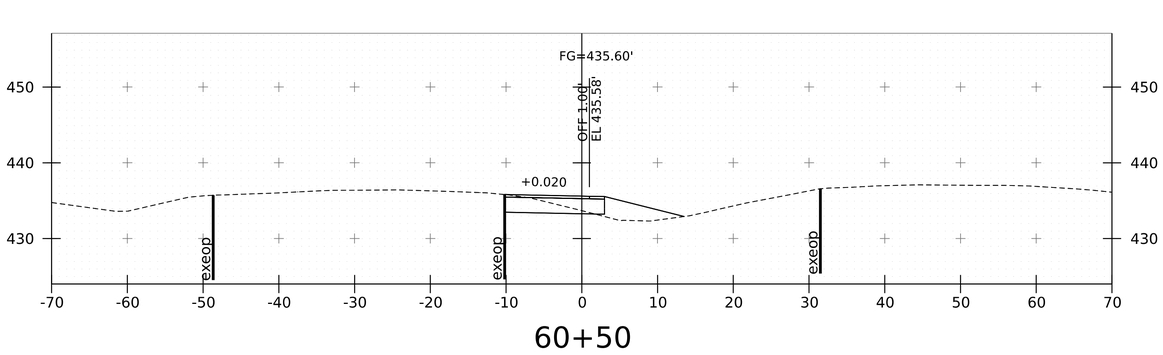
58+50

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_SB_crossover_North.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 SB CROSSOVER XS SHEET 5	SHEET 69 OF 144



61+00



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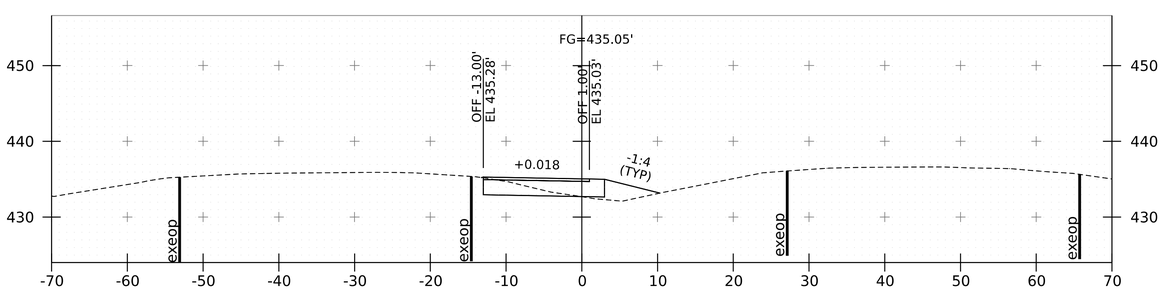

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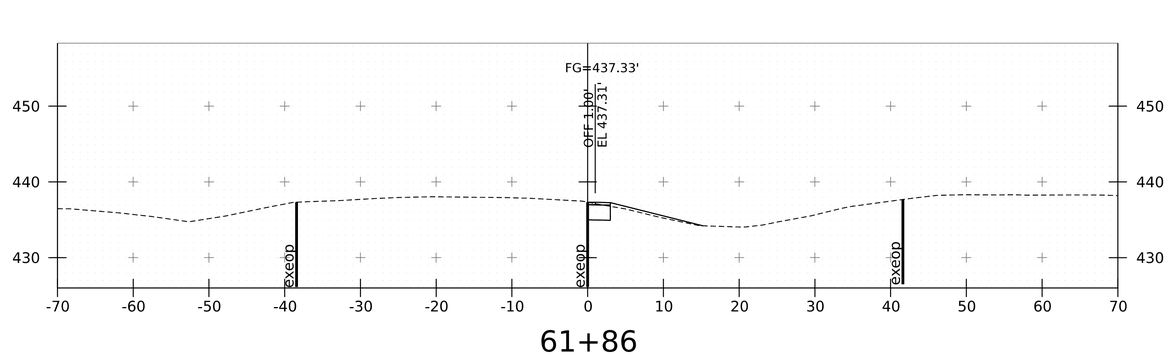

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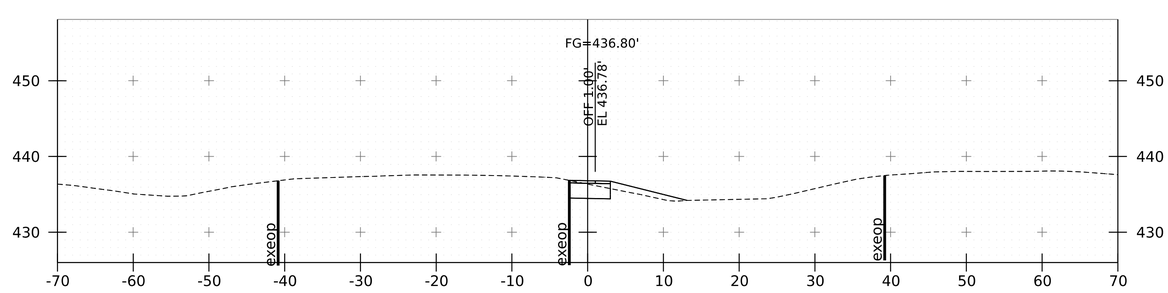


61+50

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_SB_crossover_North.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 SB CROSSOVER XS SHEET 6	SHEET 70 OF 144

Stantec

6 INCH WHITE LINE, WATERBORNE PAINT
STA. NB 4792+37.50 TO NB 4797+37.50, SOLID RT
STA. NB 4792+37.50 TO NB 4797+37.50, DASHED CL
STA. SB 4792+87.50 TO SB 4797+87.50, SOLID LT
STA. SB 4792+87.50 TO SB 4797+87.50, DASHED CL

6 INCH YELLOW LINE, WATERBORNE PAINT
STA. NB 4792+37.50 TO NB 4797+37.50, SOLID LT
STA. SB 4792+87.50 TO SB 4797+87.50, SOLID RT

TRAFFIC SIGN, FLAT SHEET ALUMINUM
STA. SB 4794+22, LT (D10-2a)
STA. NB 4794+25, RT (D10-2a)
STA. NB 4794+84, RT (VD-701)
STA. SB 4795+89, LT (VD-701)

FOUNDATION FOR W-SHAPE STEEL POST, 24 INCH DIAMETER
STA. NB 4796+91, RT (2)

SIGN REMOVAL, FLAT SHEET ALUMINUM
STA. SB 4794+22, LT (D10-2a)
STA. NB 4794+25, RT (D10-2a)
STA. NB 4794+70, RT (VD-701)
STA. NB 4794+84, RT (VD-701)
STA. SB 4796+08, LT (VD-701)
STA. SB 4796+29, LT (VD-701)

RESETTING SIGNS
STA. NB 4796+91, RT (3)

SETTING SALVAGED POSTS
STA. NB 4796+91, RT

DELINEATOR WITH STEEL POST
STA. SB 4794+24, RT (TYPE I YELLOW)
STA. NB 4794+25, LT (TYPE I YELLOW)
STA. NB 4796+87, LT (TYPE I YELLOW)
STA. SB 4796+87, LT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)
STA. SB 4796+88, RT (TYPE I YELLOW)
STA. NB 4796+88, RT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)

REMOVAL OF EXISTING DELINEATOR AND POST
STA. SB 4794+24, RT (TYPE I YELLOW)
STA. NB 4794+25, LT (TYPE I YELLOW)
STA. NB 4796+87, LT (TYPE I YELLOW)
STA. SB 4796+87, LT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)
STA. SB 4796+88, RT (TYPE I YELLOW)
STA. NB 4796+88, RT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)

N
VT STATE PLANE GRID

APPROX. EXISTING R.O.W.
EXISTING WING WALL
BEGIN CHANNEL 54+25.00
LAKE MOREY OUTLET FLOW
STA. SB 4795+89, LT
STA. SB 4796+08, LT
STA. SB 4796+29, LT
STA. SB 4794+22, LT
STA. SB 4796+87, LT
54+00
BEGIN PROJECT SB 4794+00.00
BEGIN APPROACH SB 4792+87.50
END BRIDGE SB 4795+69.13
BEGIN BRIDGE SB 4795+46.13
END PROJECT SB 4796+75.00
TO THETFORD
INTERSTATE 91 (SOUTHBOUND)
SB 4793+00
SB 4794+00
SB 4795+00
SB 4796+00
SB 4797+00
SB 4798+00
53+00
END APPROACH SB 4797+87.50
BEGIN PROJECT NB 4793+50.00
BEGIN APPROACH NB 4792+37.50
NB 4795+15.78
CHAN 52+10.66
Δ= 60°34'00" LT
BEGIN BRIDGE NB 4795+04.28
SB 4795+57.63
CHAN 52+95.62
Δ= 60°34'00" LT
END PROJECT NB 4796+25.00
END APPROACH NB 4797+37.50
TO BRADFORD
INTERSTATE 91 (NORTHBOUND)
NB 4793+00
NB 4794+00
NB 4795+00
NB 4796+00
NB 4797+00
NB 4798+00
52+00
STA. NB 4794+25, RT
STA. NB 4794+70, RT
STA. NB 4794+84, RT
STA. NB 4796+91, RT
STA. NB 4796+88, RT
END BRIDGE NB 4795+27.28
51+00
50+00
E-STONE FILL, TYPE II (TYP.)
APPROX. EXISTING R.O.W.
END CHANNEL 50+75.00

SIGN LEGEND
N = NEW
R = REMOVE
R&RES = REMOVE & RESETTING
RES = RESETTING SIGN
RET = RETAIN
B-B = BACK TO BACK

NOTE:
1. ADJUST NEW CENTERLINE AND EDGE LINES TO MATCH EXISTING LINES AT BEGIN/END APPROACH

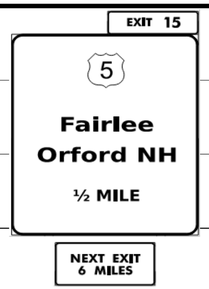
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_signs_markings.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: D. DRAPER
SIGNS & PAVEMENT MARKINGS SHEET

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: T. DUGUAY
SHEET 71 OF 144

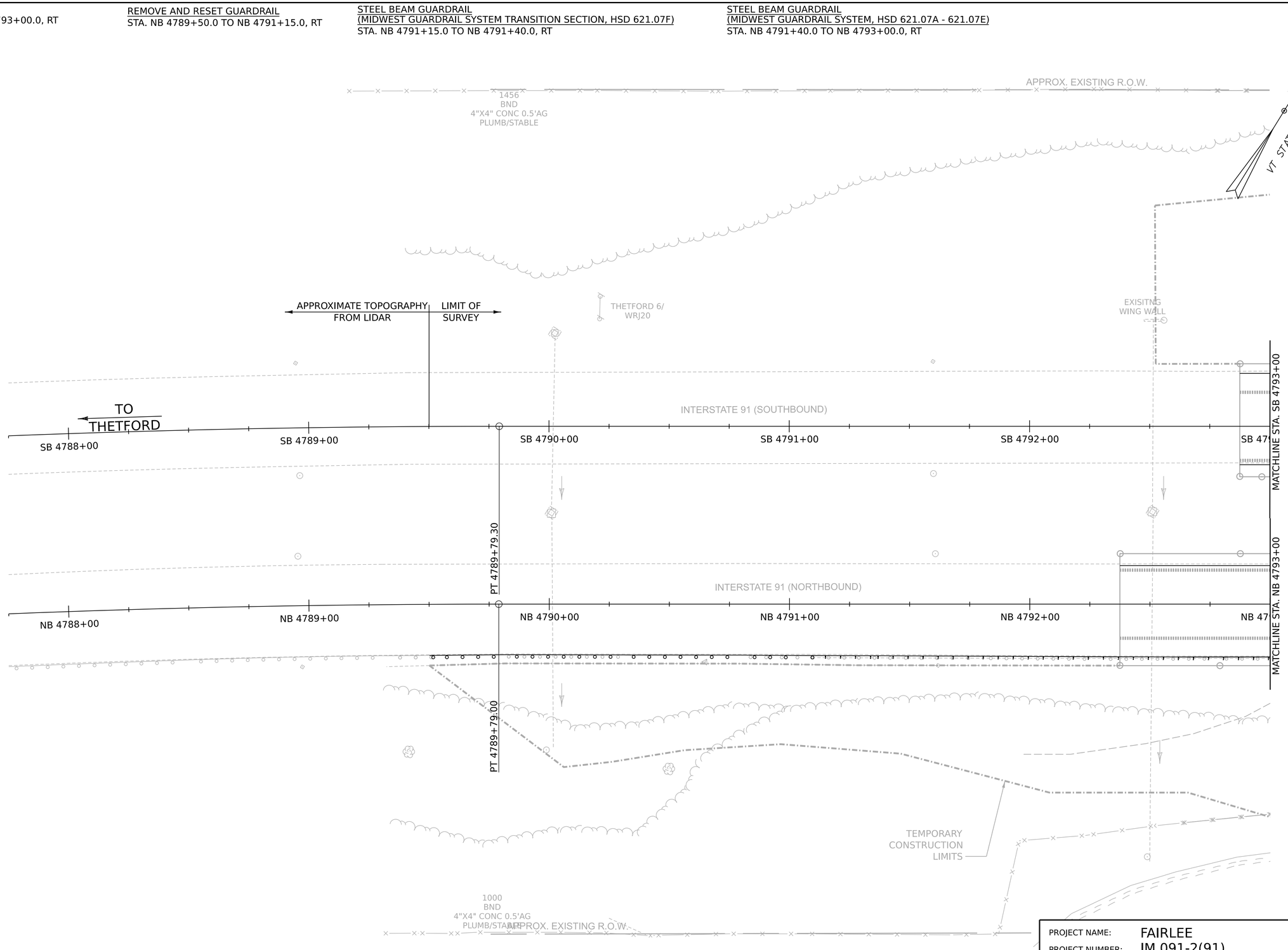
ROUTE	STATION	POSITION	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS		EXISTING SIGNS				EXIST POST		NUMBER OF NEW POSTS	SQUARE STEEL (IN)			TUBULAR STEEL Ø (IN)				SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION		
								FLAT SHEET ALUM.	EXTRUDED ALUM.	RETAIN	RESETTING FROM	RESETTING TO	SIGN REMOVAL	RETAIN	SALVAGE		1.75 (LB / FT) 1.88	2.00 (LB / FT) 2.42	2.50 (LB / FT) 3.35	FOUNDATION	3.00 (LB / FT) 7.60	3.50 (LB / FT) 9.00	4.00 (LB / FT) 10.80	5.00 (LB / FT) 14.60			SHSM	PROJECT SHEET #	STANDARD SHEET #
I-91							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																		"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
FAIRLEE																												
SB	4794+22, LT		D10-2a	12	48	WHT GRN		4.00								1		X									X		
NB	4794+25, RT		D10-2a	12	48	WHT GRN		4.00								1		X									X		
NB	4794+84, RT		VD-701	6	10			0.42								1	X											T-42
SB	4795+89, LT		VD-701	6	10			0.42								1	X											T-42
NB	4796+91, RT										1	1			2					2					MOUNT SALVAGED SIGNS AND POSTS ON NEW FOUNDATIONS FOR W-SHAPE STEEL POST, 24 INCH DIAMETER			
											1	1																
											1	1																

REMOVAL OF GUARDRAIL
STA. NB 4791+15.0 TO NB 4793+00.0, RT

REMOVE AND RESET GUARDRAIL
STA. NB 4789+50.0 TO NB 4791+15.0, RT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION, HSD 621.07F)
STA. NB 4791+15.0 TO NB 4791+40.0, RT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM, HSD 621.07A - 621.07E)
STA. NB 4791+40.0 TO NB 4793+00.0, RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024bdr_guardrail.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
GUARDRAIL PLAN SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

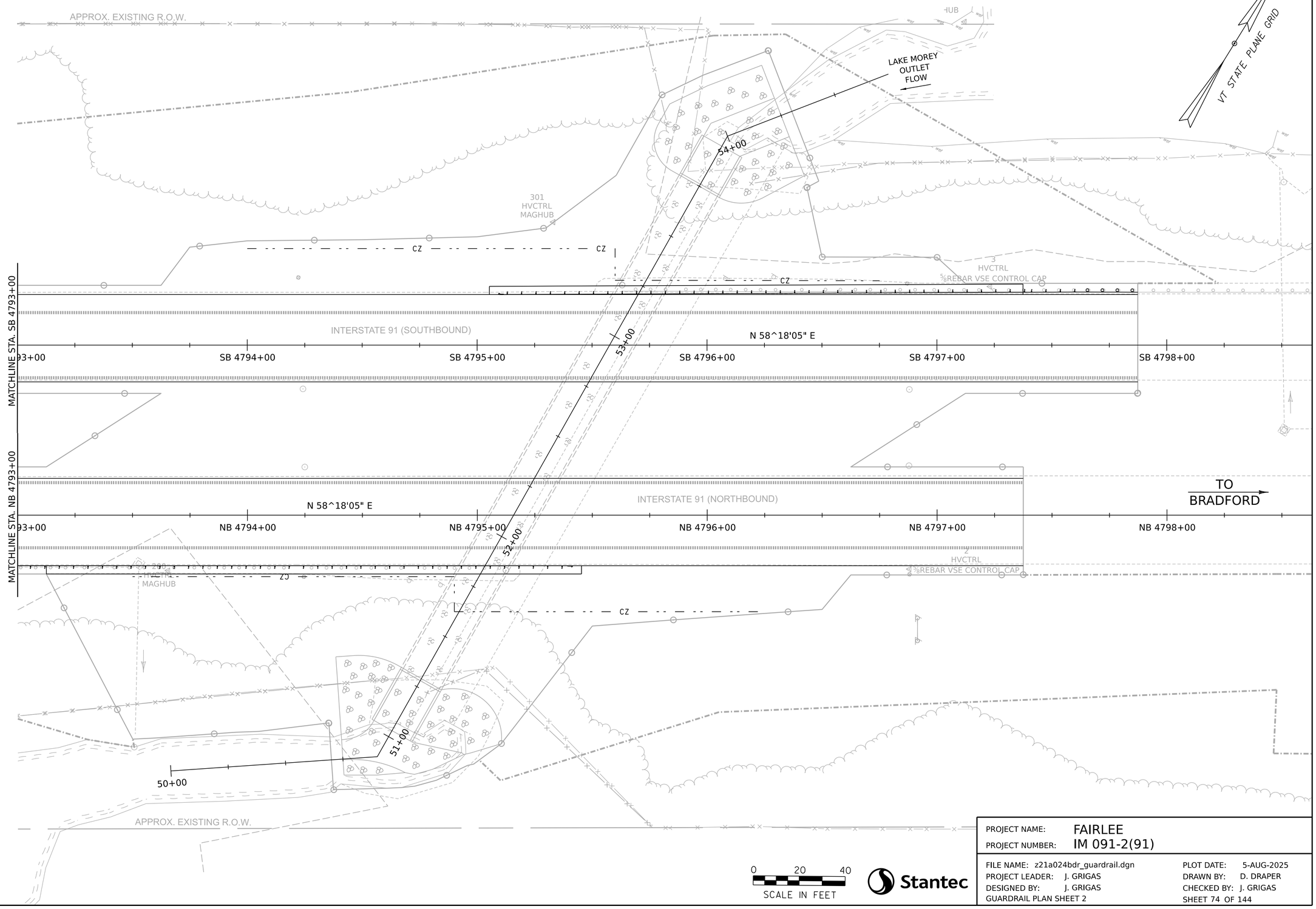
REMOVAL OF GUARDRAIL
STA. NB 4793+00.0 TO NB 4795+13.0, RT
STA. SB 4795+63.5 TO SB 4797+60.0, LT

REMOVE AND RESET GUARDRAIL
STA. SB 4797+60.0 TO SB 4797+85.0, LT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION, HSD 621.07F)
STA. SB 4797+35.0 TO SB 4797+60.0, LT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM, HSD 621.07A - 621.07E)
STA. NB 4793+00.0 TO NB 4795+40.0, RT
STA. SB 4795+10.0 TO SB 4797+35.0, LT

ANCHOR FOR STEEL BEAM GUARDRAIL, MGS
STA. NB 4795+40.0, RT
STA. SB 4795+10.0, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_guardrail.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
GUARDRAIL PLAN SHEET 2

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊕	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O. D. Sampler 1 ⅜" I. D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1 ⅛"
BX	Core Size 1 ⅝"
NX	Core Size 2 ⅛"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	Top of Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than

R Refusal (N 100) >

VTSPG NAD83 - See Note 7

COLOR

blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 12 inches.

COBBLE - Rock fragments with an average dimension between 3 and 12 inches.

GRAVEL - Rounded particles of rock < 3" and > 0.0787" (#10 sieve).

SAND - Particles of rock < 0.0787" (#10 sieve) and > 0.0029" (#200 sieve).

SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

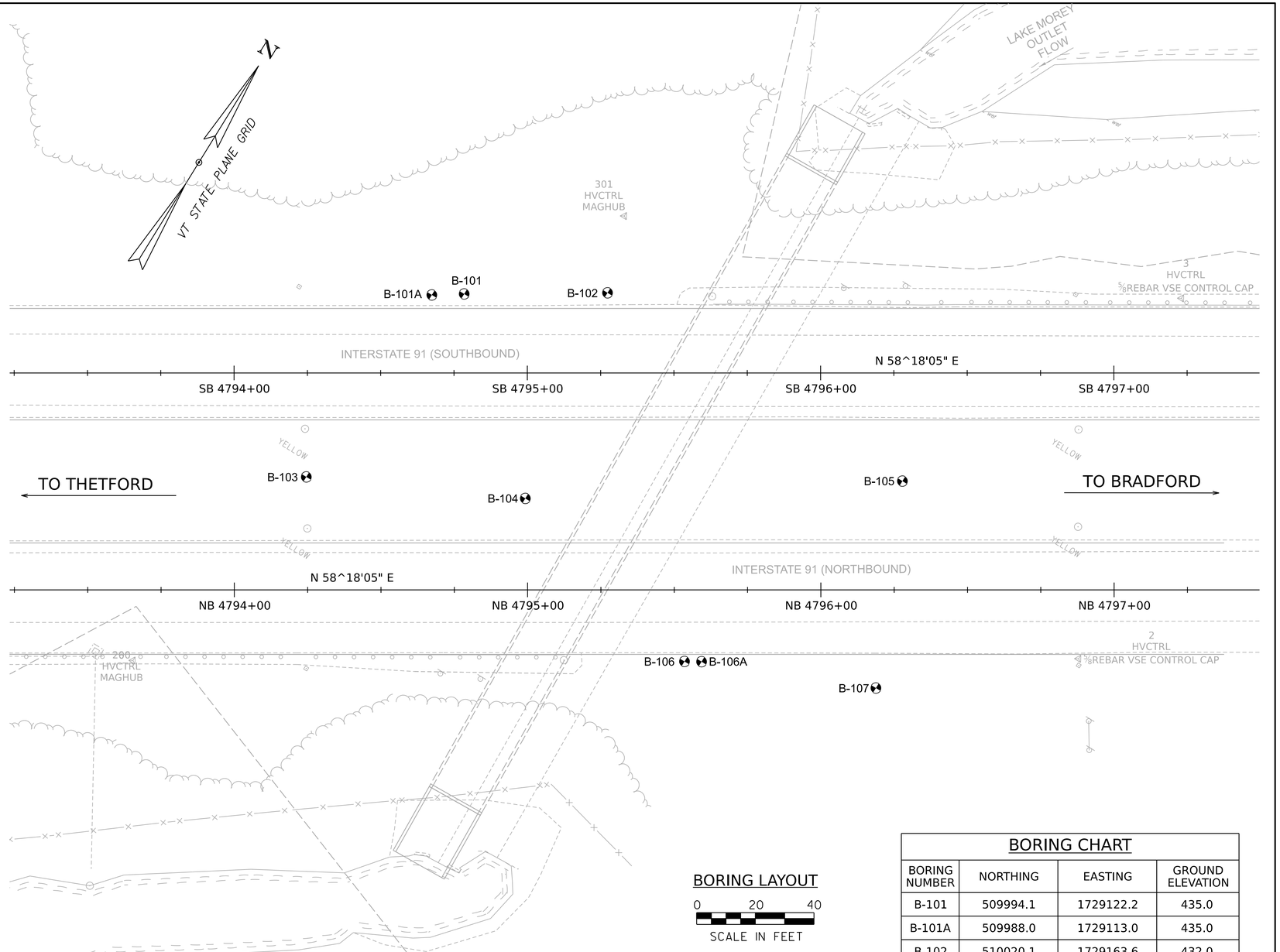
MUCK - Soft organic soil (containing > 10% organic material.

MOISTURE CONTENT - Weight of water divided by dry weight of soil.

FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP - Inclination of bed with a horizontal plane.



BORING LAYOUT

0 20 40

SCALE IN FEET

GENERAL NOTES

1. The subsurface explorations shown herein were made in March 2024 by New England Boring Contractors of Derry New Hampshire.
2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual
3. boring or sample locations.

   Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
4. Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.
5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.
7. Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

Stantec

BORING CHART

BORING NUMBER	NORTHING	EASTING	GROUND ELEVATION
B-101	509994.1	1729122.2	435.0
B-101A	509988.0	1729113.0	435.0
B-102	510020.1	1729163.6	432.0
B-103	509912.7	1729109.2	434.0
B-104	509945.7	1729176.6	433.0
B-105	510018.3	1729282.9	432.0
B-106	509926.9	1729252.0	431.0
B-106A	509929.9	1729257.0	430.0
B-107	509953.5	1729312.3	430.0

PROJECT NAME: FAIRLEE

PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LAYOUT SHEET

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 75 OF 144

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101
Page No.: 1 of 1
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Debojit Sarker
Date Started: 3/05/24 Date Finished: 3/05/24
VTSPG NAD83: N 509994.10 ft E 1729122.20 ft
Station: 4794+25 Offset: 27.0 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	TRUCK GT-8	CE = 1.45

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Class:, A-1-b; cmf SAND, little Silt, trace cmf Gravel, Dk/gry-blk, MTD, Rec. = 1.08 ft, Topsoil, roots, and grass present	2-3-4-5 (7)				
		Visual Class:, A-1-b; cmf (+) SAND, little mf Gravel, trace Silt, brn-gry, MTD, Rec. = 1.42 ft	6-7-13-14 (20)				
5		Visual Class:, A-2-4; cmf SAND, some Clayey Silt, trace cmf Gravel, gry, Moist, Rec. = 1.17 ft, Silt and Clay in spoon tip	13-21-19-13 (40)				
		Visual Class:, A-2-4; cmf SAND, some Silt, trace cmf Gravel, gry-brn, Moist, Rec. = 1.33 ft	13-26-29-27 (55)				
		Hole stopped @ 8.0 ft					
10		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.					
15							
20							
25							
30							

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101A
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/27/24 Date Finished: 3/28/24
VTSPG NAD83: N 509988.00 ft E 1729113.00 ft
Station: 4795+99 Offset: 26.6 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
03/28/24	12.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, grass/topsoil, brn, Dry, Rec. = 1.0 ft	3-5-7-9 (12)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, Shale Fill, brn, Dry, Rec. = 1.25 ft	2-12-19-22 (31)						
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn, Moist, Rec. = 1.17 ft	21-14-8-10 (22)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn, Moist, Rec. = 1.5 ft	21-30-28-25 (58)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, Lt/brn, Moist, Rec. = 1.25 ft, c Gravel/Boulder encountered from 8-9 ft	13-14-16-26 (30)						
10		Visual Class:, A-1-b; cmf SAND, little mf Gravel, layers of Shale Fill, Lt/brn, Moist, Rec. = 2.0 ft, Boulder encountered from 11.5-12 ft Slight rig chatter throughout, Shale cuttings	33-50-50-35 (100)						
15		Visual Class:, Top 1.5': A-1-b; cmf SAND, Bot 0.5': Shale Fill, brn, Moist, Rec. = 0.75 ft	6-6-5-11 (11)						
20		Visual Class:, Top 1.0': A-1-a; mf GRAVEL, Bot 1.0': A-1-b; mf SAND, Lt/brn-gry, Moist, Rec. = 0.92 ft	4-10-12-13 (22)						
25		Visual Class:, A-1-b; cmf SAND, some (+) mf Gravel and Shale Fill, gry-brn, Moist, Rec. = 0.92 ft	8-9-9-11 (18)						
30		Visual Class:, A-1-b; cmf SAND, brn, Moist, Rec. = 1.08 ft	2-2-4-10 (6)						

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101A
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/27/24 Date Finished: 3/28/24
VTSPG NAD83: N 509988.00 ft E 1729113.00 ft
Station: 4795+99 Offset: 26.6 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/28/24	12.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Classification:, *A-4; SILT, little mf SAND, brn, Moist, Rec. = 1.42 ft	5-6-7-8 (13)		1.0	15.0	84.0		
40		Classification:, *A-6; Silty CLAY, gry/grn, Moist, Rec. = 1.75 ft	5-7-7-7 (14)				92.4	24	4
45		Visual Class:, A-2-4; f SAND with bands of Clayey Silt, Lt/brn, Moist, Rec. = 1.17 ft	5-6-7-11 (13)						
50		Classification:, *A-4; SILT, gry, Moist, Rec. = 1.5 ft, pp: 0.25 tsf; tv: 1.0 tsf	4-7-7-9 (14)	31.8				NP	NP
55		Visual Class:, A-4; Clayey SILT, gry-brn, MTW, Rec. = 1.58 ft, pp: 1.25 tsf; tv: 2.0 tsf	4-4-5-6 (9)						
60		Visual Class:, A-2-4; mf SAND, little Clayey Silt, brn, MTW, Rec. = 1.67 ft, Silt ended 0.16 ft into spoon (60')	6-3-6-7 (9)						
65		Visual Class:, A-2-4; f SAND, some Silt, trace Clay, brn, MTW, Rec. = 1.58 ft	5-5-5-6 (10)						
		Hole stopped @ 67.0 ft							

Remarks:

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101A
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/27/24 Date Finished: 3/28/24
VTSPG NAD83: N 509988.00 ft E 1729113.00 ft
Station: 4795+99 Offset: 26.6 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/28/24	12.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.							
75									
80									
85									
90									
95									
100									

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 2

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-102
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/28/24 Date Finished: 4/01/24
VTSPG NAD83: N 510020.10 ft E 1729163.60 ft
Station: 4796+28 Offset: 27.3 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
04/01/24	26.0	Measured at 0815

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-b; cmf SAND, some mf Gravel and Shale, gry-brn, Dry, Rec. = 1.17 ft, Grass/topsoil the first 1.0'	9-7-7-7 (14)						
		Visual Class:, Top 0.88': A-1-b; cmf SAND, some (+) mf Gravel, Bot 0.12': Boulder encountered, brn, Dry, Rec. = 1.58 ft	9-20-23-30 (43)						
5		Visual Class:, A-1-b; cmf SAND, some (+) mf Gravel and broken up Shale, brn, MTD, Rec. = 1.17 ft	20-21-12-25 (33)						
		Visual Class:, A-1-b; cmf SAND, some (+) mf Gravel and broken up Shale, brn, Moist, Rec. = 1.33 ft	20-20-13-17 (33)						
		Visual Class:, A-1-a; mf Sand and Gravel w/ intermittent Shale/rock, gry-brn, Moist, Rec. = 1.33 ft, More Shale/rock present at the bottom of the sample	9-15-20-40 (35)						
10		Visual Class:, Same as above, gry-brn, Moist, Rec. = 1.67 ft, More Shale/rock present at the top of the sample Blows on casing were larger than 100/6"; Roller bit used for 0.5'	96-37-27-30 (64)						
15		Visual Class:, Top 1.0': A-1-b; mf SAND, Bot 1.0': A-1-a; mf Gravel and Shale, brn-gry, Moist, Rec. = 1.25 ft, Roller bit used from 19.5'-20.5'; Shale rock cuttings	20-27-32-24 (59)						
20		Visual Class:, A-1-b; mf SAND (compact), some mf Gravel and Shale, brn, Moist, Rec. = 1.25 ft	12-16-18-24 (34)						
25		Visual Class:, A-1-a; cmf Gravel and Shale, gry-blk, Moist, Rec. = 1.0 ft	13-18-23-20 (41)						
30		Visual Class:, A-1-a; cmf Gravel and Shale, some cmf Sand, gry-blk, Moist, Rec. = 1.17 ft	14-14-30-32 (44)						

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-102
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/28/24 Date Finished: 4/01/24
VTSPG NAD83: N 510020.10 ft E 1729163.60 ft
Station: 4796+28 Offset: 27.3 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
04/01/24	26.0	Measured at 0815

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-a; cmf Gravel and Shale, gry-blk, MTW, Rec. = 0.92 ft	11-14-15-11 (29)						
40		Visual Class:, Top 0.5': PEAT, Mid 1.0': A-1-b; cmf SAND, some mf Gravel, Bot 0.5': A-4; SILT, some (+) f Sand, gry-brn, MTW, Rec. = 1.67 ft	8-13-14-14 (27)						
45		Visual Class:, A-2-4; mf SAND, some Silt, brn, Moist, Rec. = 1.67 ft	6-8-7-9 (15)						
50		Classification:, *A-6; CLAY, gry, Moist, Rec. = 1.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	WOR-WOR-WOH-WOH (WOR/WOH)	31.5				35	18
55		Visual Class:, A-6; Silty CLAY, gry-brn, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.5 tsf Visual Class:, A-6; Silty CLAY, gry-brn, Moist, Shelby Tube Sample	WOR-WOR-WOR-WOH (WOR) P-U-S-H						
60		Classification:, *A-4; SILT, gry, Moist, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.0 tsf	3-2-4-4 (6)	37.4					
65		Visual Class:, A-6; CLAY and SILT, gry-brn, Wet, Rec. = 1.92 ft, pp: 0.15 tsf; tv: 0.5 tsf	3-3-2-3 (5)						

Notes:
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3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 3

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-102
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/28/24 Date Finished: 4/01/24
VTSPG NAD83: N 510020.10 ft E 1729163.60 ft
Station: 4796+28 Offset: 27.3 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
04/01/24	26.0	Measured at 0815

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Visual Class:, A-5; SILT and CLAY, gry-brn, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 0.5 tsf	3-2-3-3 (5)						
		Visual Class:, A-5; SILT and CLAY, gry-brn, Wet, Rec. = 2.0 ft	2-4-3-3 (7)						
80		Visual Class:, A-4; Clayey SILT, gry-brn, Wet, Rec. = 0.42 ft, Drill rig chatter at 84.5'	2-1-2-3 (3)						
85		Visual Class:, Top 1.0': A-1-a; mf GRAVEL, Bot: 1.0' Weathered Bedrock, gry-blk, MTW, Rec. = 1.25 ft	29-28-32-28 (60)						
90		Visual Class:, Weathered Bedrock, gry-blk, MTW, Rec. = 0.67 ft	16-24-16-25 (40)						
		Hole stopped @ 92.0 ft							
95		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.							
100									

Notes:
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3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-103
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/09/24 Date Finished: 4/10/24
VTSPG NAD83: N 509912.70 ft E 1729109.20 ft
Station: 4794+25 Offset: 38.5 LT
Ground Elevation: 434.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, grass/topsoil, brn-gry, Dry, Rec. = 1.25 ft	WOH-3-11-18 (14)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale Fill, brn-gry, Dry, Rec. = 1.67 ft	13-21-21-20 (42)						
		Visual Class:, A-1-b; c(-)mf SAND, some mf Gravel, layers of Shale Fill, brn-gry, Dry, Rec. = 1.0 ft	7-6-7-12 (13)						
10		Visual Class:, A-1-a; Shale/Phyllite FILL, some c(-)mf Sand, gry-blk, Dry, Rec. = 1.42 ft	20-28-35-36 (63)						
		Visual Class:, A-1-a; Shale FILL, some c(-)mf Sand, gry-blk, Moist, Rec. = 1.58 ft	25-47-36-31 (83)						
15		Visual Class:, A-1-b; mf SAND, some mf Gravel, layers of Shale Fill, gry-brn, Moist, Rec. = 1.42 ft	16-16-15-29 (31)						
20		Visual Class:, A-1-a; Shale FILL, little c(-)mf Sand, gry-blk, Moist, Rec. = 1.17 ft	25-11-17-12 (28)						
25		Visual Class:, A-1-a; Shale FILL and mf Gravel, little c(-)mf Sand, gry-blk, Moist, Rec. = 1.0 ft	19-30-30-26 (60)						
30		Visual Class:, A-1-a; Shale FILL and mf Gravel, gry-blk, Moist, Rec. = 1.17 ft, Void w/ water loss at 29.5'	11-21-26-18 (47)						
		Visual Class:, A-1-b; cmf SAND, little mf Gravel, brn, Moist, Rec. = 1.17 ft	17-15-11-11						

Notes:
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4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 4

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-103
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/09/24 Date Finished: 4/10/24
VTSPG NAD83: N 509912.70 ft E 1729109.20 ft
Station: 4794+25 Offset: 38.5 LT
Ground Elevation: 434.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
			(26)						
40		Visual Class:, A-2-4; mf SAND, some Silt, brn, MTW, Rec. = 1.67 ft	4-6-6-9 (12)						
45		Visual Class:, A-4; SILT, some Br mf Sand, gry-brn, MTW, Rec. = 1.67 ft	6-6-5-7 (11)						
50		Classification:, *A-6; CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.5 tsf	2-3-3-11 (6)	32.0			80.2	33	12
55		Visual Class:, A-1-a; mf GRAVEL, some Shale Fill, gry-brn, Moist, Rec. = 1.08 ft	8-8-9-8 (17)						
60		Classification:, *A-6; CLAY with Gravel, gry, Moist, Rec. = 1.0 ft, pp: 0.5 tsf; tv: 1.0 tsf	WOH-WOH-WOH-6 (WOH)	40.1				51	26
65		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.58 ft, pp: 1.0 tsf; tv: 1.5 tsf	5-6-6-7 (12)						
		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.33 ft	4-4-9-10 (13)						

Notes:
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4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-103
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/09/24 Date Finished: 4/10/24
VTSPG NAD83: N 509912.70 ft E 1729109.20 ft
Station: 4794+25 Offset: 38.5 LT
Ground Elevation: 434.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Classification:, *A-4; SILT, gry, Moist, Rec. = 1.58 ft	5-6-6-6 (12)	32.0					
80		Visual Class:, A-4; SILT, gry, Wet, Rec. = 0.92 ft	6-6-6-10 (12)						
		Hole stopped @ 81.0 ft							
85		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.							
90									
95									
100									

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 5

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 80 OF 144

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-104
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/11/24 Date Finished: 4/16/24
VTSPG NAD83: N 509945.70 ft E 1729176.60 ft
Station: 4794+99 Offset: 31.2 LT
Ground Elevation: 433.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/16/24	21.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, grass/topsoil, brn-gry, Dry, Rec. = 1.08 ft	3-4-7-8 (11)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 2.0 ft	15-14-20-24 (34)						
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 1.42 ft	20-23-23-23 (46)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 1.75 ft	11-19-37-55 (56)						
10		Visual Class:, A-1-b; mf SAND, some mf Gravel and Fill, brn-gry, MTD, Rec. = 1.33 ft, 0.5' Boulder caused split spoon refusal	52-65-100/4" (165)						
		Visual Class:, A-1-a; Gravel and Shale FILL, some mf Sand, gry-blk, MTD, Rec. = 1.08 ft	20-17-16-24 (33)						
15		Visual Class:, A-1-b; mf SAND, little mf Gravel and Shale Fill, brn-gry, MTD, Rec. = 1.25 ft	8-11-15-14 (26)						
20		Visual Class:, A-1-a; Gravel and Shale FILL, little mf Sand, gry-blk, Moist, Rec. = 1.33 ft, Moderate drill chatter at 23'	19-23-21-19 (44)						
25		Visual Class:, A-1-a; Gravel and Shale FILL, gry-blk, Moist, Rec. = 1.0 ft, Moderate drill chatter from 27'-28'	11-10-11-15 (21)						
30		Visual Class:, Top 1.0': A-1-a; mf Gravel and Shale FILL, Bot 1.0': Boulder, gry-blk, Moist, Rec. = 0.83 ft, Roller bit through boulder	23-100/6" (100)						
		Visual Class:, A-1-a; Gravel and Shale FILL, gry-blk, Moist, Rec. = 0.75 ft	16-12-10-9						

Notes:
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4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24
BORING LOG

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-104
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/11/24 Date Finished: 4/16/24
VTSPG NAD83: N 509945.70 ft E 1729176.60 ft
Station: 4794+99 Offset: 31.2 LT
Ground Elevation: 433.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/16/24	21.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
			(22)						
40		Visual Class:, Top 1.5': A-1-a; Gravel and Shale Fill, Bot 0.5': A-1-b; cmf SAND, some f Gravel, gry-blk, Moist, Rec. = 1.33 ft	16-15-14-14 (29)						
45		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.33 ft	5-3-5-4 (8)						
50		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.42 ft	5-5-7-8 (12)						
55		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 0.33 ft	2-2-2-1 (4)						
60		Classification:, *A-6; CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 1.5 tsf	WOR-WOH-WOH-3 (WOH)	34.5				39	16
65		Visual Class:, A-5; SILT and CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 1.5 tsf	WOR-WOH-WOH-3 (WOH)						
		Visual Class:, A-5; SILT and CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv:	WOR-WOR-4-8						

Notes:
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3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24
BORING LOG

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 6

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-104
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/11/24 Date Finished: 4/16/24
VTSPG NAD83: N 509945.70 ft E 1729176.60 ft
Station: 4794+99 Offset: 31.2 LT
Ground Elevation: 433.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/16/24	21.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		1.5 tsf	(4)						
75		Classification:, *A-4; SILT, gry, Moist, Rec. = 1.83 ft, pp: 0.5 tsf; tv: 1.5 tsf	WOH-WOH-4-3 (4)	34.9					
80		Visual Class:, A-4; Clayey SILT, gry, Wet, Rec. = 1.67 ft	WOH-4-4-8 (8)						
85		Visual Class:, A-4; SILT, gry, Wet, Rec. = 1.42 ft	2-5-6-8 (11)						
90		Visual Class:, A-4; SILT, gry, Wet, Rec. = 2.0 ft	2-4-5-8 (9)						
95		Visual Class:, A-4; SILT, some weathered Bedrock, gry, Wet, Rec. = 1.0 ft	6-13-20-32 (33)						
100		Hole stopped @ 96.0 ft							

Remarks:
1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-105
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brad Enos, Josef Bourgeois
Date Started: 4/16/24 Date Finished: 4/17/24
VTSPG NAD83: N 510018.30 ft E 1729282.90 ft
Station: 4796+28 Offset: 37.1 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/17/24	19.0	Measured at 0820

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Class:, A-1-b; cmf SAND, some topsoil/grass, brn, Dry, Rec. = 1.25 ft	WOH-1-4-7 (5)				
		Visual Class:, A-1-b; cmf SAND, some Shale Fill, brn, Dry, Rec. = 0.67 ft, Shale boulder caused split spoon refusal	75-100/4" (100)				
5		Visual Class:, A-1-a; Shale FILL, some cmf Sand, gry-blk, Moist, Rec. = 1.17 ft	11-7-6-11 (13)				
		Visual Class:, A-1-a; cmf SAND, some mf Gravel and Shale Fill, brn, Dry, Rec. = 1.5 ft	12-15-18-17 (33)				
10		Visual Class:, A-1-b; c(-)mf SAND, little mf Gravel, brn, Dry, Rec. = 1.25 ft	11-12-13-12 (25)				
		Visual Class:, A-1-b; mf SAND, some mf Gravel, brn, MTD, Rec. = 1.17 ft	9-17-18-22 (35)				
15		Visual Class:, A-1-b; mf SAND, little mf Gravel, brn, Moist, Rec. = 1.0 ft, One 1.5" rock at 14'	21-17-15-15 (32)				
20		Classification:, *A-4; SILT, gry/grn, Moist, Rec. = 1.42 ft	4-3-3-4 (6)				97.6
25		Visual Class:, A-4; SILT, gry/grn, Moist, Rec. = 1.75 ft, pp: 0.5 tsf; tv: 0.5 tsf	2-2-3-2 (5)				
30		Visual Class:, A-4; SILT, gry/grn, MTW, Rec. = 1.25 ft, pp: 1.25 tsf; tv: 1.0 tsf	4-5-7-8 (12)				
		Visual Class:, A-4; SILT, gry, MTW, Rec. = 1.58 ft, pp: 0.25 tsf; tv: 1.0 tsf	1-2-3-5 (5)				

Notes:
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4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 7

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-105
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brad Enos, Josef Bourgeois
Date Started: 4/16/24 Date Finished: 4/17/24
VTSPG NAD83: N 510018.30 ft E 1729282.90 ft
Station: 4796+28 Offset: 37.1 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/17/24	19.0	Measured at 0820

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
40		Visual Class:, A-4; SILT, some f Sand, gry, Wet, Rec. = 1.25 ft	6-7-7-9 (14)				
45		Visual Class:, A-4; SILT, little f Sand, gry, Wet, Rec. = 1.42 ft	3-5-5-6 (10)				
50		Visual Class:, A-4; SILT, gry, Wet, Rec. = 2.0 ft	1-3-3-3 (6)				
55		Visual Class:, A-4; SILT, some f Sand, gry, Wet, Rec. = 1.42 ft	4-6-7-10 (13)				
60		Visual Class:, A-4; Clayey SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.0 tsf	WOH-WOH-1-1 (2)				
65		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	WOR-WOR-WOH-2 (WOR/WOH)				
		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.5 tsf	WOR-WOH-				

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-105
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brad Enos, Josef Bourgeois
Date Started: 4/16/24 Date Finished: 4/17/24
VTSPG NAD83: N 510018.30 ft E 1729282.90 ft
Station: 4796+28 Offset: 37.1 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/17/24	19.0	Measured at 0820

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
			WOH-3 (WOH)				
75		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.5 tsf	WOR-WOR-WOH-WOH (WOR/WOH)				
80		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.75 tsf; tv: 2.5 tsf	WOH-WOH-WOH-WOH (WOH)				
85		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 1.83 ft, pp: 0.75 tsf; tv: 2.5 tsf	WOH-2-6-6 (8)				
90		Visual Class:, A-4; Clayey SILT, gry, Wet, Rec. = 1.5 ft, pp: 0.5 tsf; tv: 1.5 tsf	4-3-5-6 (8)				
95		Visual Class:, A-4; SILT, gry, Wet, Rec. = 1.17 ft	10-16-16-18 (32)				
		Hole stopped @ 96.0 ft					
100		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.					

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 8

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106
Page No.: 1 of 2
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Debojit Sarker
Date Started: 3/04/24 Date Finished: 3/04/24
VTSPG NAD83: N 509926.90 ft E 1729252.00 ft
Station: 4795+54 Offset: 24.4 RT
Ground Elevation: 431.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	TRUCK GT-8	CE = 1.45

Groundwater Observations

Date	Depth (ft)	Notes
03/04/24	31.65	Measured at 1440

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Class:, A-1-b; cmf SAND, some cmf Gravel, little Silt, trace organics, top soil, grass, roots, gry-Lt/brn-blk, Dry, Rec. = 1.33 ft	5-5-4-4 (9)				
		Visual Class:, A-1-b; cmf(+) SAND, some cmf Gravel, little Silt, brn-gry, Moist, Rec. = 1.42 ft	3-4-6-11 (10)				
5		Visual Class:, A-4; Clayey SILT, some cmf Gravel, little cmf Sand, brn-Dk/gry-blk, MTW, Rec. = 0.83 ft	8-9-9-5 (18)				
		Visual Class:, A-1-a; cmf Gravel and cmf Sand, trace Clayey Silt, Dk/gry-blk, MTW, Rec. = 1.5 ft	15-10-6-5 (16)				
		Visual Class:, No Recovery, Rec. = 0.0 ft	11-10-6-4 (16)				
10		Visual Class:, A-1-b; cmf(+) SAND, little Clayey Silt, trace mf Gravel, brn-Dk/gry, MTW, Rec. = 1.17 ft, 0.17' Clayey Silt pocket Roller bit through boulder at 13.5'	4-3-5-7 (8)				
15		Visual Class:, A-1-a; cmf Gravel and cmf Sand, trace (-) Clayey Silt, Dk/gry-brn, MTW, Rec. = 1.08 ft, Clayey Silt at tip of split spoon	23-17-11-7 (28)				
20		Visual Class:, Top 0.58': A-1-b; mf(+) SAND, trace Silt, Bot 0.58': A-1-b; cmf SAND, some cmf Gravel, trace Silt, blk-gry, Moist, Rec. = 1.17 ft	18-19-15-19 (34)				
25		Visual Class:, A-1-b; mf(+) SAND, little Silt, brn, Moist, Rec. = 1.17 ft	8-9-11-14 (20)				
30		Visual Class:, Top 0.17': A-1-a; cmf Sand and cmf Gravel, Mid 0.58': A-1-b; cmf(+) SAND, trace Silt, Bot 0.5': A-1-b; cmf SAND, some cmf Gravel, little Silt, Dk/gry-brn-blk, MTW, Rec. = 1.25 ft, Observed three layers in split spoon	21-20-20-20 (40)				
		Visual Class:, A-1-a; cmf Gravel, trace cmf Sand, some wood fragments, brn-Dk/gry,	6-5-3-5 (8)				

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106
Page No.: 2 of 2
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Debojit Sarker
Date Started: 3/04/24 Date Finished: 3/04/24
VTSPG NAD83: N 509926.90 ft E 1729252.00 ft
Station: 4795+54 Offset: 24.4 RT
Ground Elevation: 431.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	TRUCK GT-8	CE = 1.45

Groundwater Observations

Date	Depth (ft)	Notes
03/04/24	31.65	Measured at 1440

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		MTW, Rec. = 0.33 ft, Spoon tip filled with wood pieces					
40		Visual Class:, A-2-4; mf(+) SAND, some Silt, one piece of m Gravel, brn-gry, Moist, Rec. = 0.83 ft	23-10-8-8 (18)				
45		Visual Class:, A-4; Clayey SILT, some (+) f Sand, gry, Moist, Rec. = 1.67 ft	3-3-3-4 (6)				
		Hole stopped @ 46.0 ft					
50		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.					
55							
60							
65							

Notes:
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2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 9

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106A
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Chris Testa/Josef Bourgeois
Date Started: 3/12/24 Date Finished: 3/21/24
VTSPG NAD83: N 509929.90 ft E 1729257.00 ft
Station: 4795+59 Offset: 24.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/22/24	24.0	Measured at 0930
03/25/24	26.0	Meas. daily to 3/29
04/17/24	26.0	Well removed

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, SEE BORING B-106 for 0 - 40'							
5									
10									
15									
20									
25									
30									

Notes:
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3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106A
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Chris Testa/Josef Bourgeois
Date Started: 3/12/24 Date Finished: 3/21/24
VTSPG NAD83: N 509929.90 ft E 1729257.00 ft
Station: 4795+59 Offset: 24.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/22/24	24.0	Measured at 0930
03/25/24	26.0	Meas. daily to 3/29
04/17/24	26.0	Well removed

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
40		Visual Class:, A-2-4; mf(+) SAND, some Silt, gry-brn, Moist, Rec. = 1.0 ft	12-14-19-30 (33)						
45		Visual Class:, A-4; Clayey SILT, some f Sand, gry-brn, Moist, Rec. = 1.33 ft, pp: 0.5 tsf; tv: 1.0 tsf	5-5-7-11 (12)						
50		Visual Class:, A-4; Clayey SILT, gry-brn, Moist, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.0 tsf	WOH-4-8-6 (12)						
55		Visual Class:, A-5; SILT and CLAY, gry-brn, Moist, Rec. = 1.25 ft, pp: 0.25 tsf; tv: 1.0 tsf	4-6-6-10 (12)						
60		Classification:, *A-6; CLAY, gry, Moist, Rec. = 1.92 ft, pp: 0.25 tsf; tv: 1.0 tsf	1-1-2-3 (3)	34.3				38	18
		Visual Class:, A-5; CLAY and SILT, gry-brn, MTW, Shelby Tube Sample	P-U-S-H						
65		Visual Class:, A-6; Silty CLAY, some mf Gravel, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	1-1-6-5 (7)						

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 10

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106A
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Chris Testa/Josef Bourgeois
Date Started: 3/12/24 Date Finished: 3/21/24
VTSPG NAD83: N 509929.90 ft E 1729257.00 ft
Station: 4795+59 Offset: 24.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
03/22/24	24.0	Measured at 0930
03/25/24	26.0	Meas. daily to 3/29
04/17/24	26.0	Well removed

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Visual Class:, A-6; Silty CLAY, gry-brn, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	1-2-5-4 (7)						
		Visual Class:, A-6; CLAY, gry-brn, Wet, Rec. = 1.83 ft, pp: 0.25 tsf; tv: 2.0 tsf	3-7-4-5 (11)						
80		Visual Class:, A-6; CLAY, gry-brn, Wet, Rec. = 1.83 ft, pp: 0.25 tsf	4-4-6-7 (10)						
		Hole stopped @ 82.0 ft							
85		Remarks: 1. Installed temporary water well after completing hole. 2. When Fairlee boring work was completed, temporary well PVC and steel well cover were removed. 3. Boring backfilled with spoils and sand until reaching firm, non-yielding state.							
90									
95									
100									

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-107
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/22/24 Date Finished: 3/26/24
VTSPG NAD83: N 509953.50 ft E 1729312.30 ft
Station: 4796+19 Offset: 33.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 1.0 ft	2-4-9-10 (13)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Dry, Rec. = 1.25 ft	7-7-8-10 (15)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Moist, Rec. = 1.0 ft	8-10-8-7 (18)						
10		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Moist, Rec. = 1.0 ft	8-7-16-11 (23)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Moist, Rec. = 0.75 ft	6-5-5-5 (10)						
		Visual Class:, A-1-b; mf SAND, little mf Gravel, trace Silt, Lt/brn, Moist, Rec. = 1.25 ft, Roller bit through boulder at 14'	5-10-10-20 (20)						
15		Visual Class:, A-2-4; mf SAND, little Silt, Lt/brn, MTD, Rec. = 0.75 ft	9-8-7-7 (15)						
20		Visual Class:, A-4; Clayey SILT, some (+) f Sand, brn, Moist, Rec. = 1.17 ft	3-3-3-3 (6)						
25		Visual Class:, A-5; SILT and CLAY, some f Sand, brn, Moist, Rec. = 1.42 ft	2-3-3-3 (6)						
30		Classification:, *A-6; Silty CLAY, gry, Moist, Rec. = 1.5 ft	2-3-3-4 (6)	26.6				26	4
		Visual Class:, A-2-4; mf SAND, some Silt, brn-gry, Moist, Rec. = 1.25 ft	5-4-5-7 (9)						

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 11

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-107
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/22/24 Date Finished: 3/26/24
VTSPG NAD83: N 509953.50 ft E 1729312.30 ft
Station: 4796+19 Offset: 33.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
40		Visual Class:, A-4; Clayey SILT, some f Sand, gry-brn, MTW, Rec. = 1.42 ft	4-3-5-7 (8)						
45		Visual Class:, A-4; Clayey SILT, some (+) f Sand, gry-brn, MTW, Rec. = 1.5 ft	4-4-6-7 (10)						
50		Visual Class:, A-5; SILT and CLAY, little f Sand, gry-brn, MTW, Rec. = 2.0 ft	3-3-3-3 (6)						
55		Classification:, *A-2-4; Silty SAND, gry, MTW, Rec. = 1.25 ft	4-5-7-7 (12)				78.7		
60		Visual Class:, A-5; CLAY and SILT, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	2-1-1-1 (2)						
		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Shelby Tube Sample	P-U-S-H						
65		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	WOH-5-5-7 (10)						

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-107
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/22/24 Date Finished: 3/26/24
VTSPG NAD83: N 509953.50 ft E 1729312.30 ft
Station: 4796+19 Offset: 33.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	WOR-WOR-WOH-5 (WOR/WOH)						
		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	WOH-3-11-7 (14)						
80		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	4-4-5-7 (9)						
		Hole stopped @ 82.0 ft							
85									
90									
95									
100									

Remarks:
1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

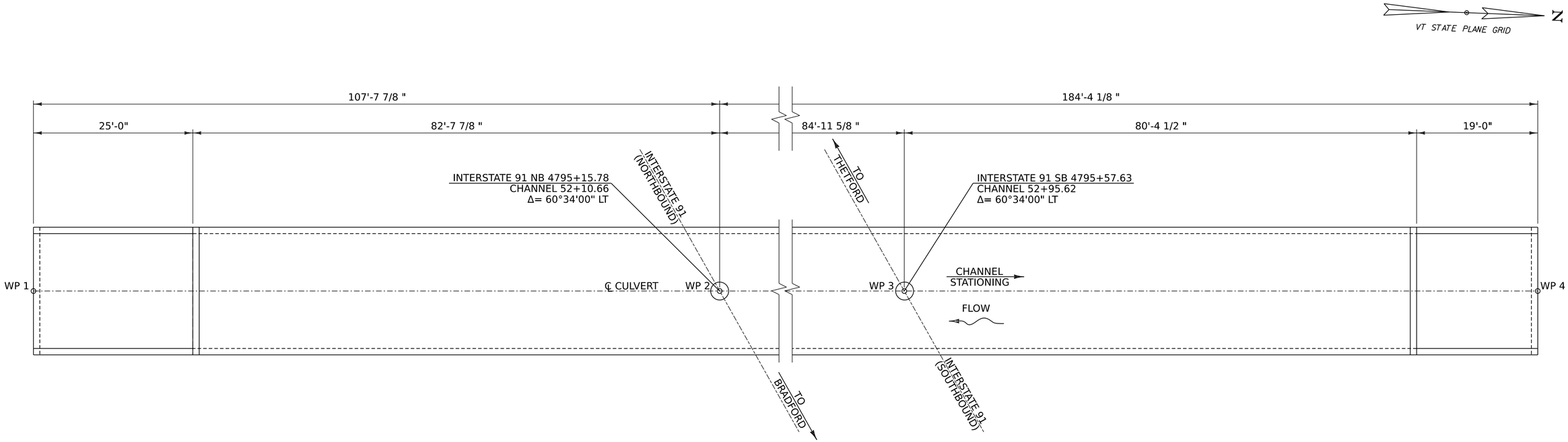
BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

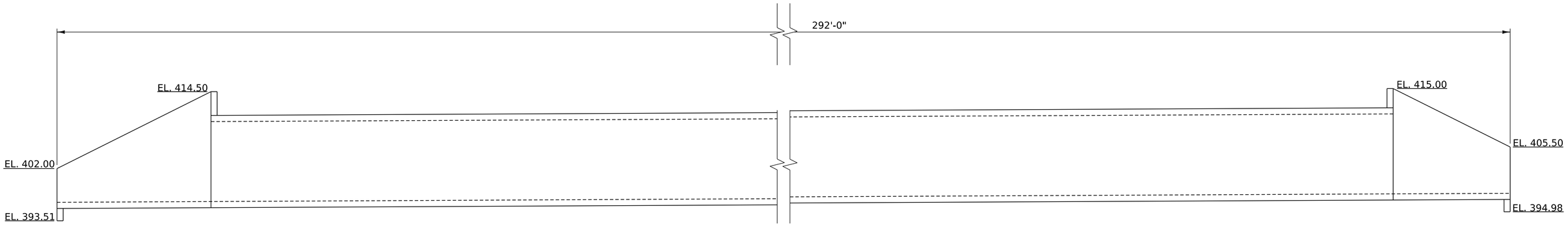
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 12

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS



BOX CULVERT PLAN
SCALE ⅛" = 1'-0"



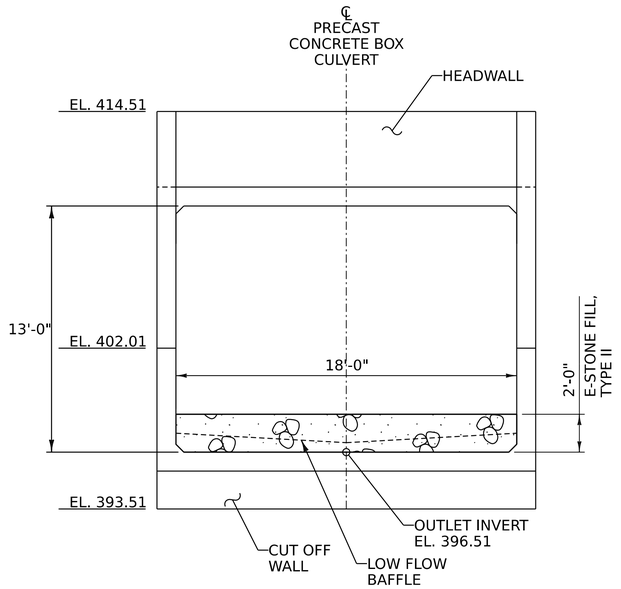
BOX CULVERT ELEVATION
SCALE ⅛" = 1'-0"

NOTES:

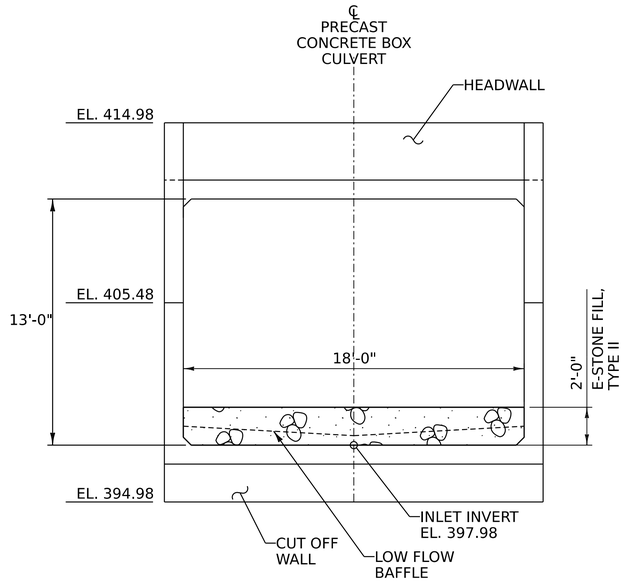
1. BAFFLES AND CONSTRUCTION JOINTS NOT SHOWN FOR CLARITY.
2. BOX CULVERT WALL THICKNESS SHOWN AS 1'-0". FINAL THICKNESS TO BE DETERMINED BY THE FABRICATOR.

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_box layout.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
BOX CULVERT PLAN AND ELEVATION	SHEET 88 OF 144



OUTLET ELEVATION
SCALE ¼" = 1'-0"



INLET ELEVATION
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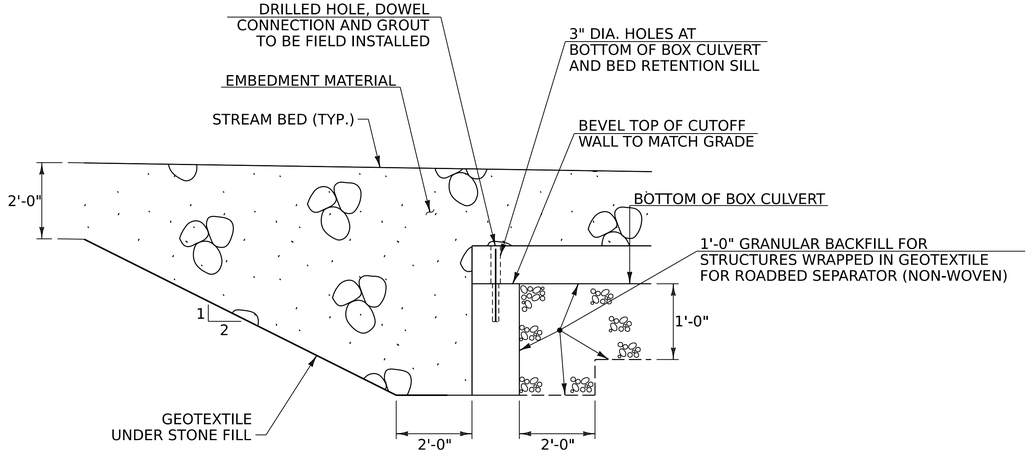
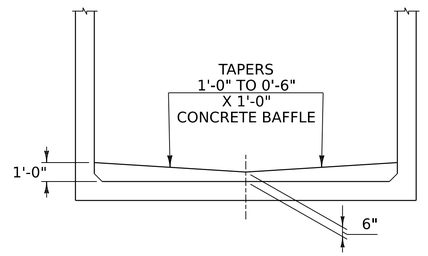
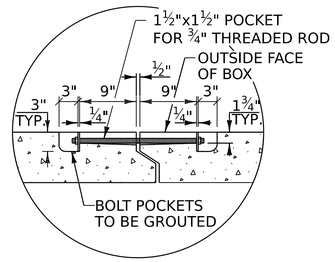


CUTOFF WALL DETAIL
NOT TO SCALE



LOW FLOW BAFFLE DETAIL
NOT TO SCALE

1. BAFFLES TO BE SPACED A MAXIMUM OF EVERY 8'-0" AT THE INLET AND OUTLET.
2. FABRICATOR TO DETAIL BAFFLE CONNECTION.

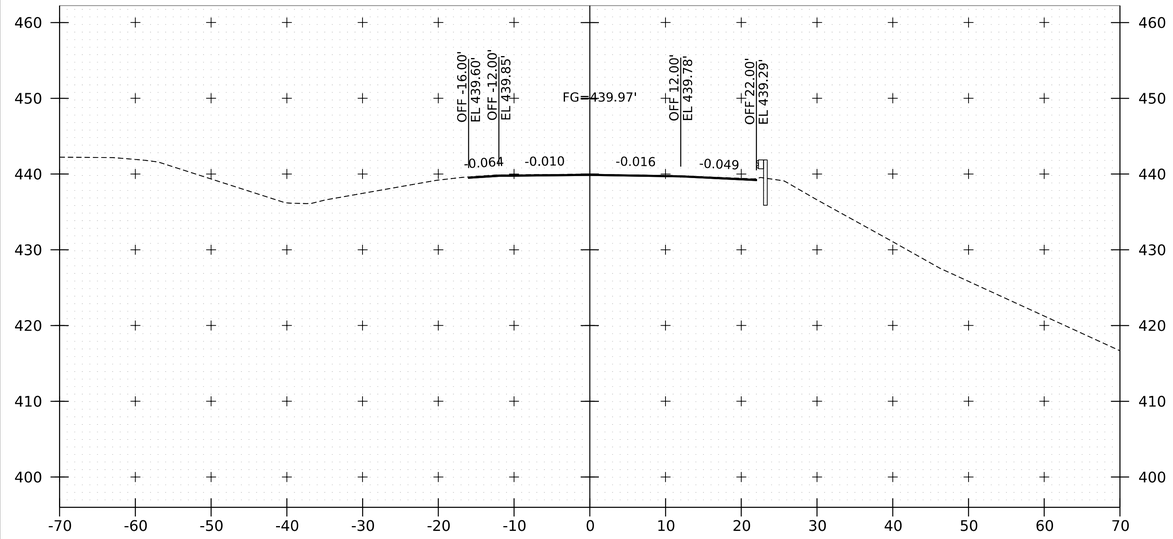


4 LOCATIONS PER JOINT
2 PER WALL, EXACT
LOCATION PER FABRICATOR

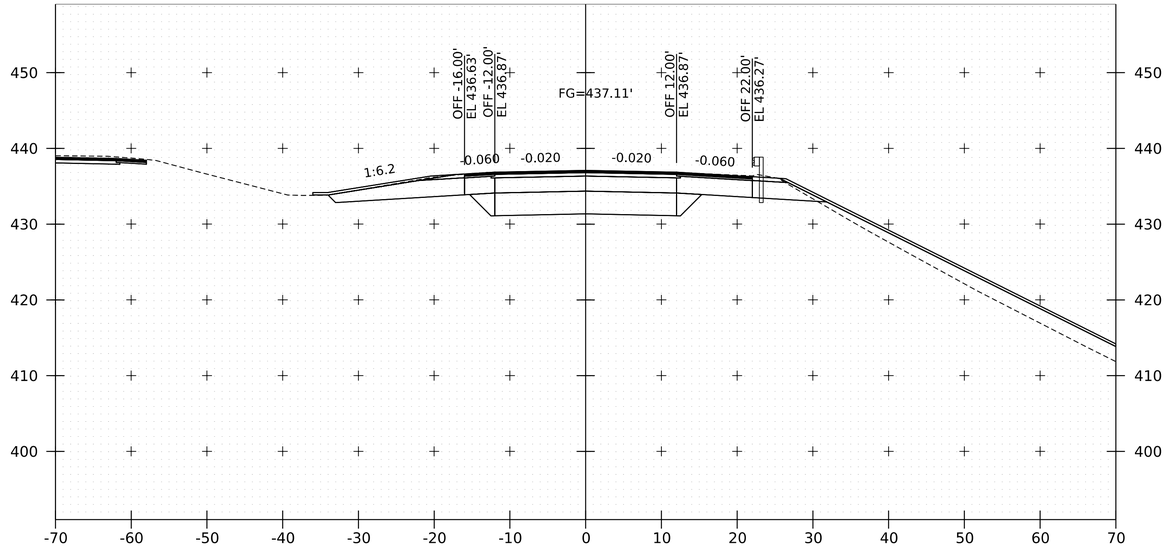
PERMANENT CLOSURE DETAIL
NOT TO SCALE

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_box culv det.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
BOX CULVERT DETAILS	SHEET 89 OF 144



NB 4792+50



NB 4793+50
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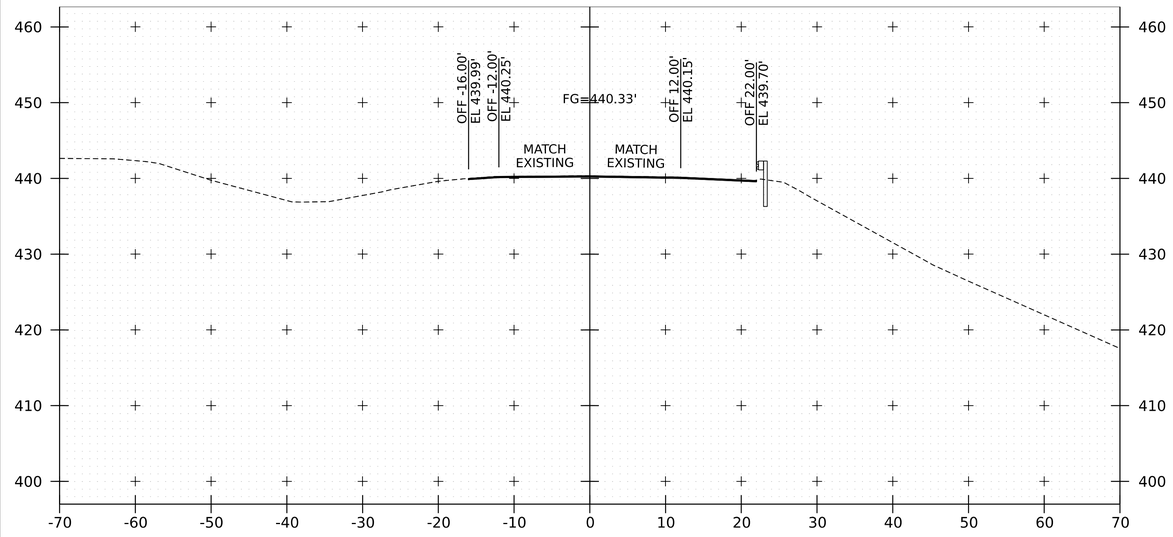
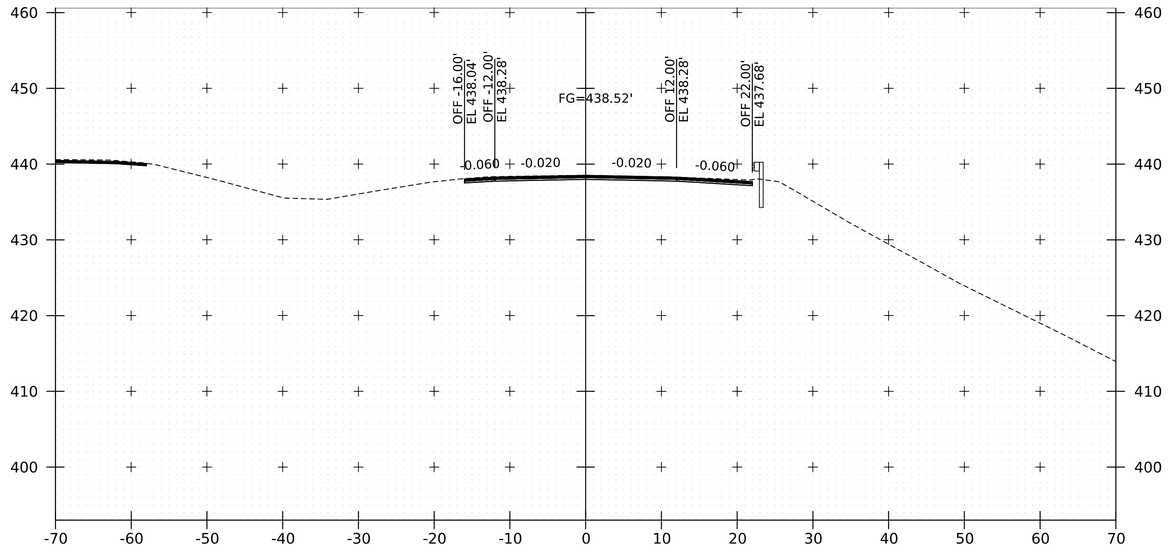


NB 4792+37.50
BEGIN APPROACH

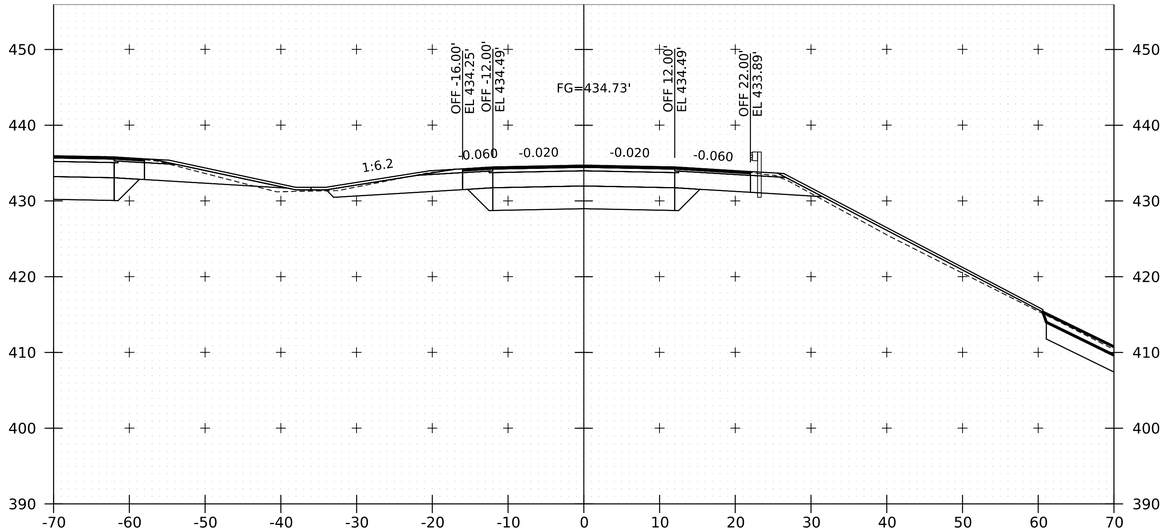


NB 4793+00

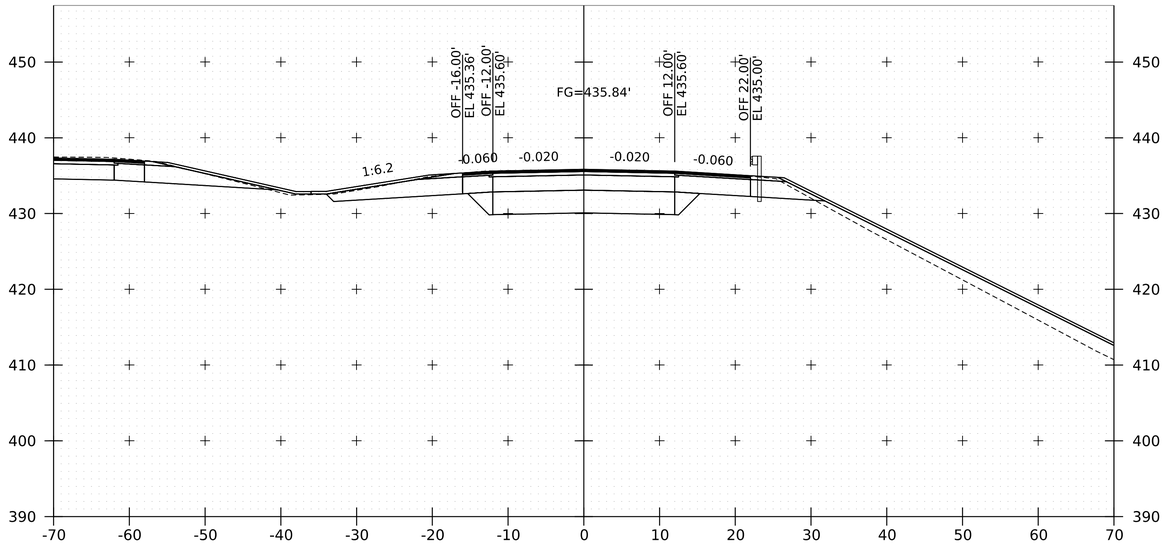
0 10 20
SCALE IN FEET

Stantec

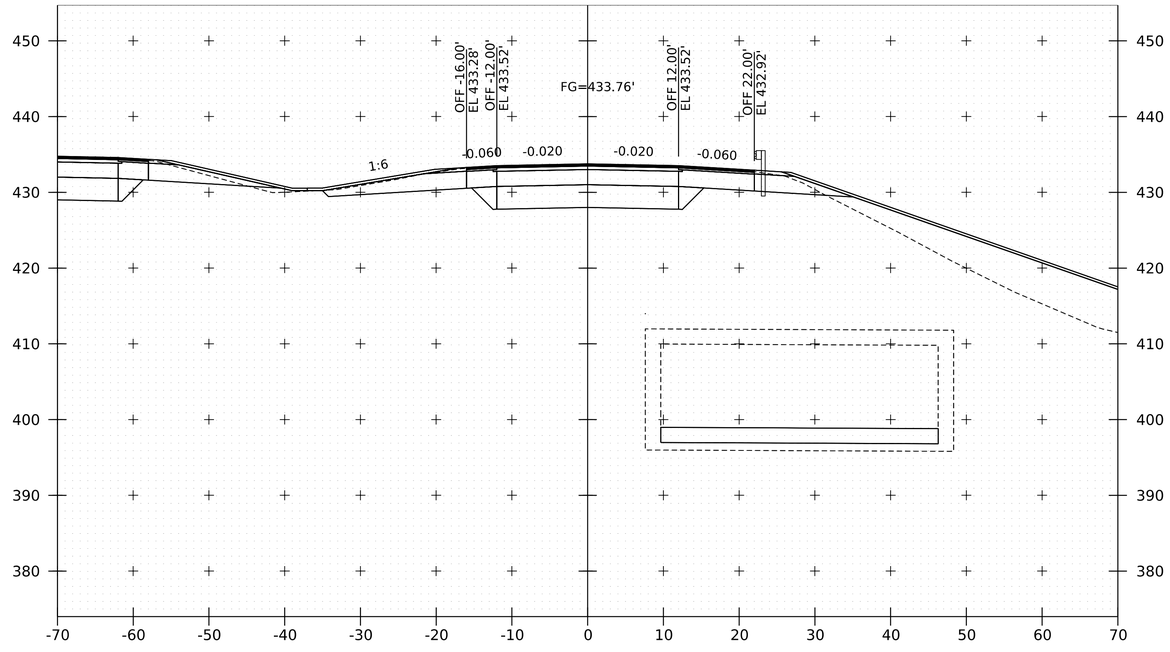
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 NB XS SHEET 1	SHEET 90 OF 144



NB 4794+50



NB 4794+00

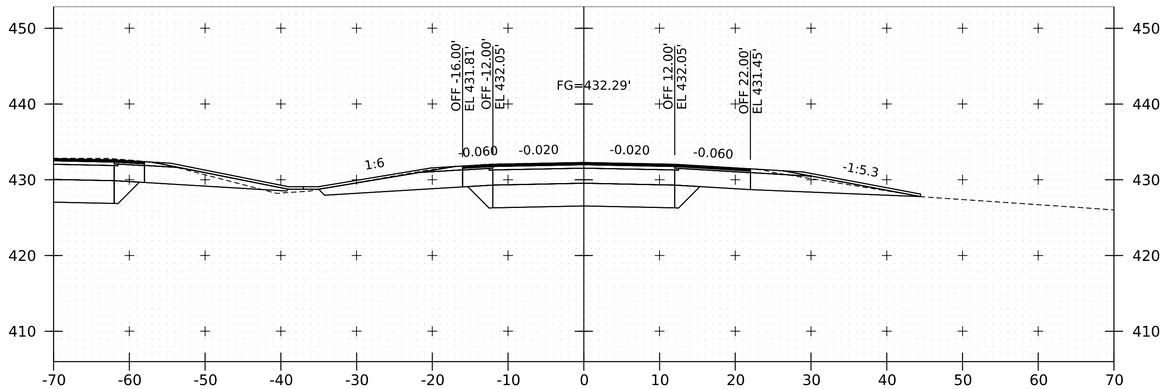


NB 4795+00

0 10 20
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_NB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 NB XS SHEET 2	SHEET 91 OF 144



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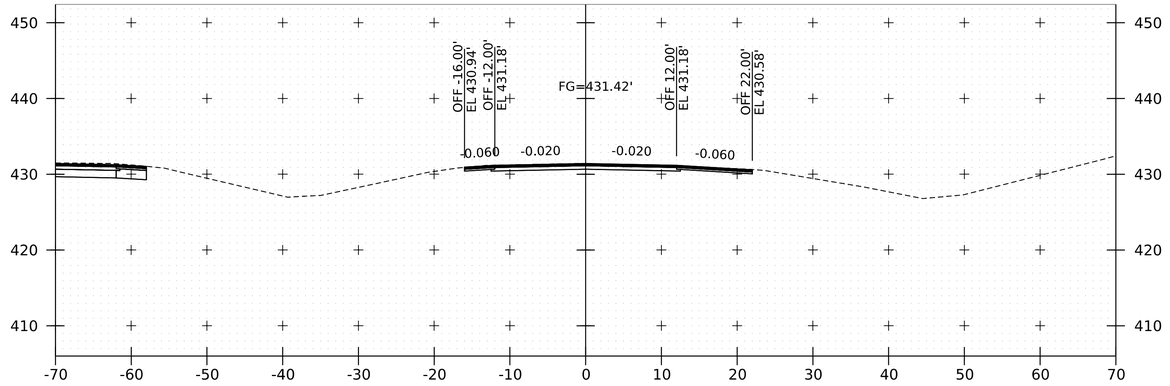

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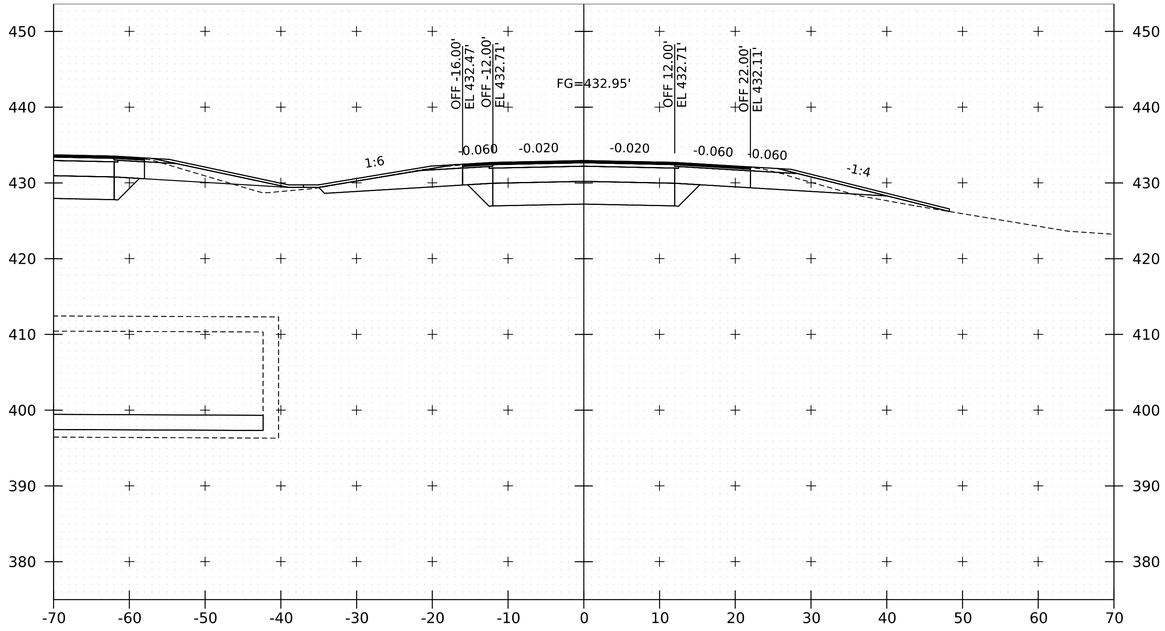
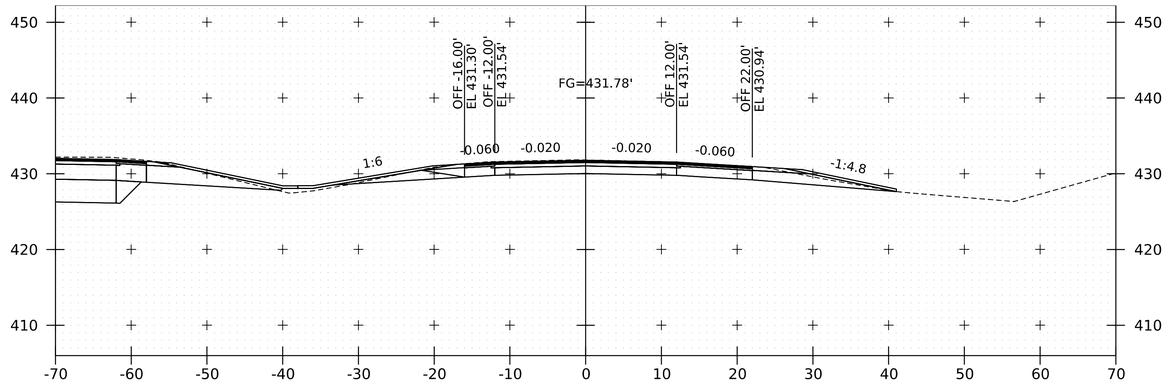


NB 4795+50



NB 4796+50

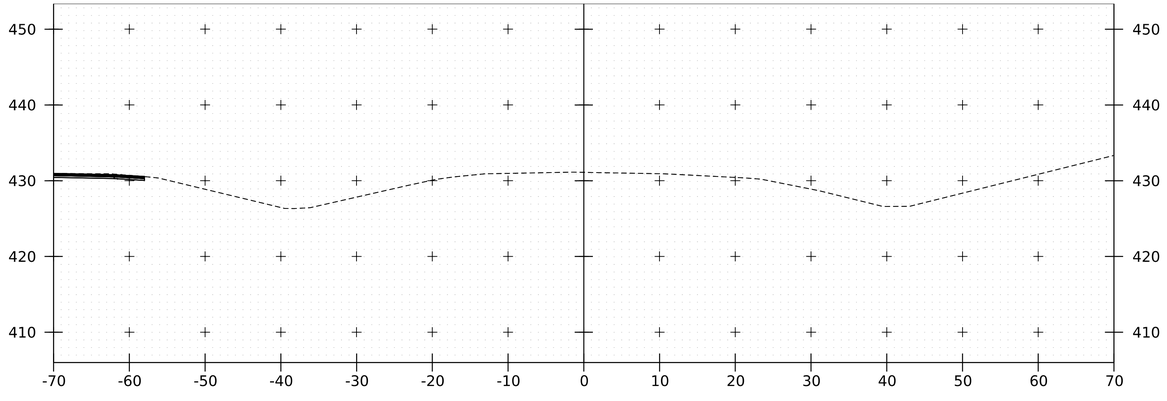
END PROJECT - NB 4796+25

0 10 20

SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME:	z21a024xs_NB.dgn
PROJECT LEADER:	J. GRIGAS
DESIGNED BY:	T. DUGUAY
I91 NB XS SHEET 3	
PLOT DATE:	5-AUG-2025
DRAWN BY:	T. DUGUAY
CHECKED BY:	I. MAYNARD
SHEET	92 OF 144



NB 4797+50

END APPROACH- NB 4797+37.5

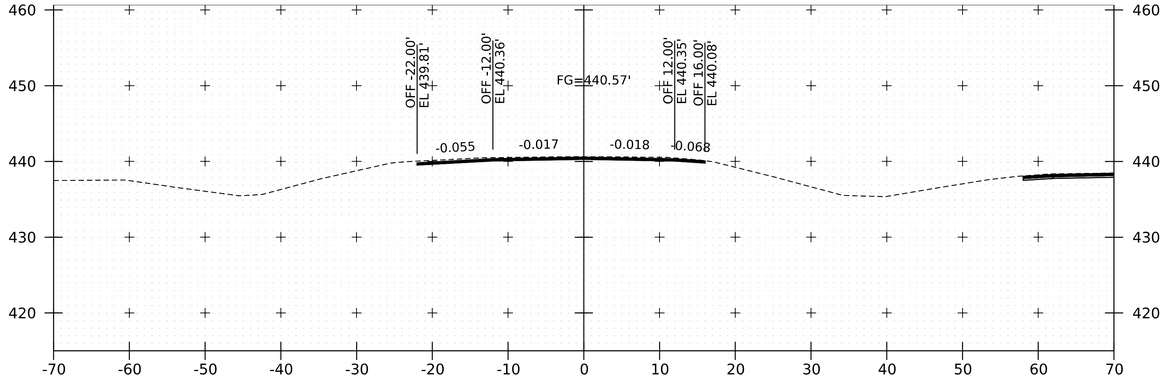
0 10 20

SCALE IN FEET

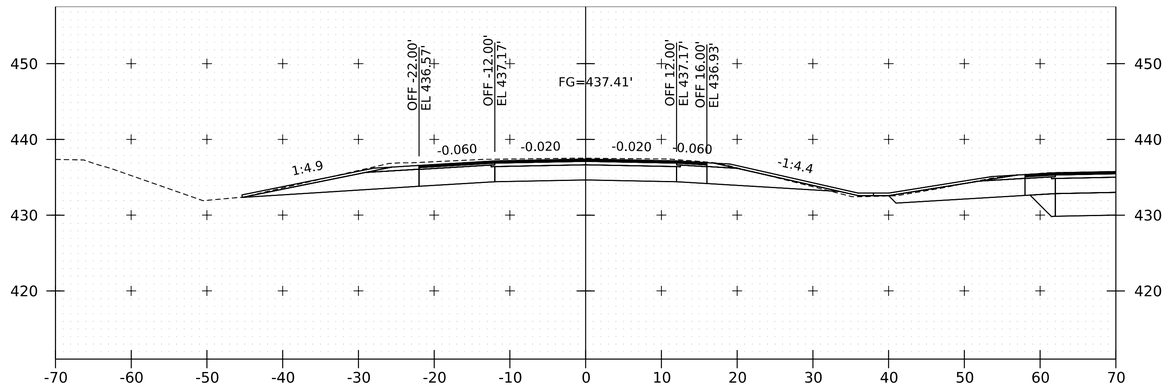
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024xs_NB.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	T. DUGUAY
DESIGNED BY:	T. DUGUAY	CHECKED BY:	I. MAYNARD
I91 NB XS SHEET 4		SHEET	93 OF 144



SB 4793+00



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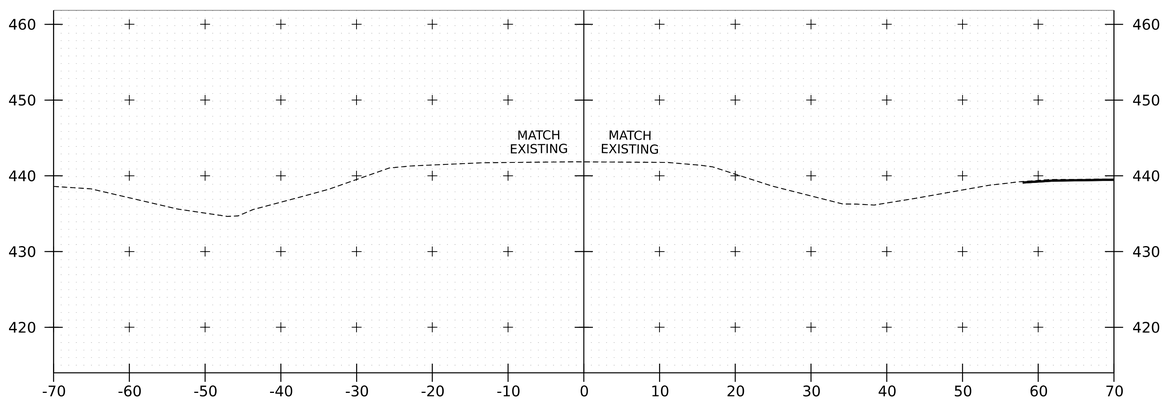

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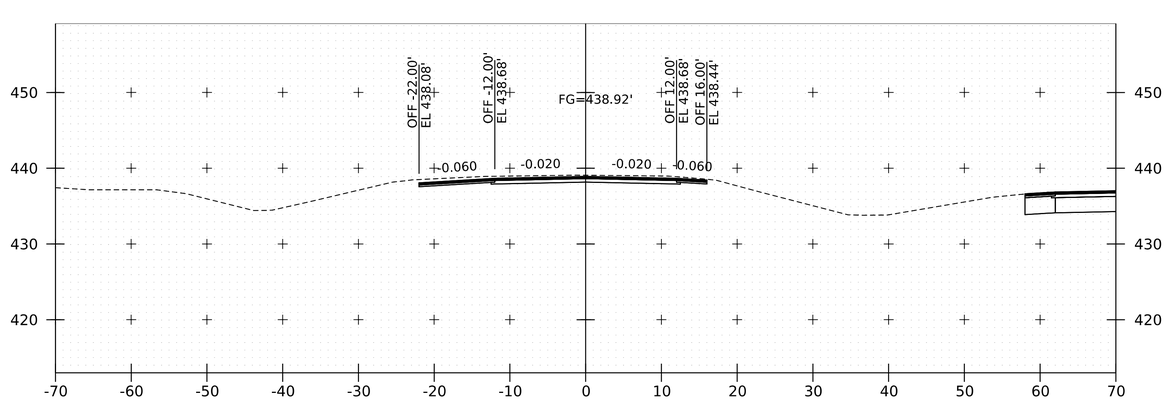
BEGIN APPROACH



SB 4793+50

0 10 20

SCALE IN FEET

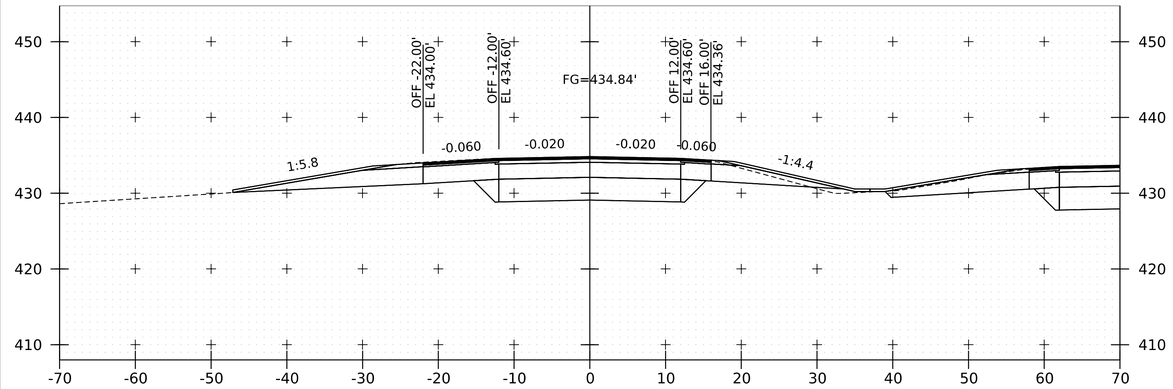
Stantec

PROJECT NAME: FAIRLEE

PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024xs_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
I91 SB XS SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: T. DUGUAY
CHECKED BY: I. MAYNARD
SHEET 94 OF 144



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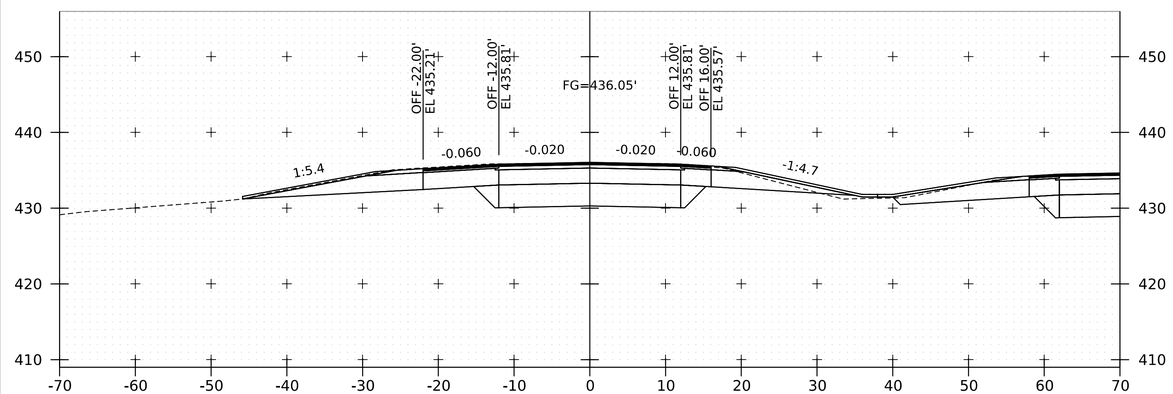

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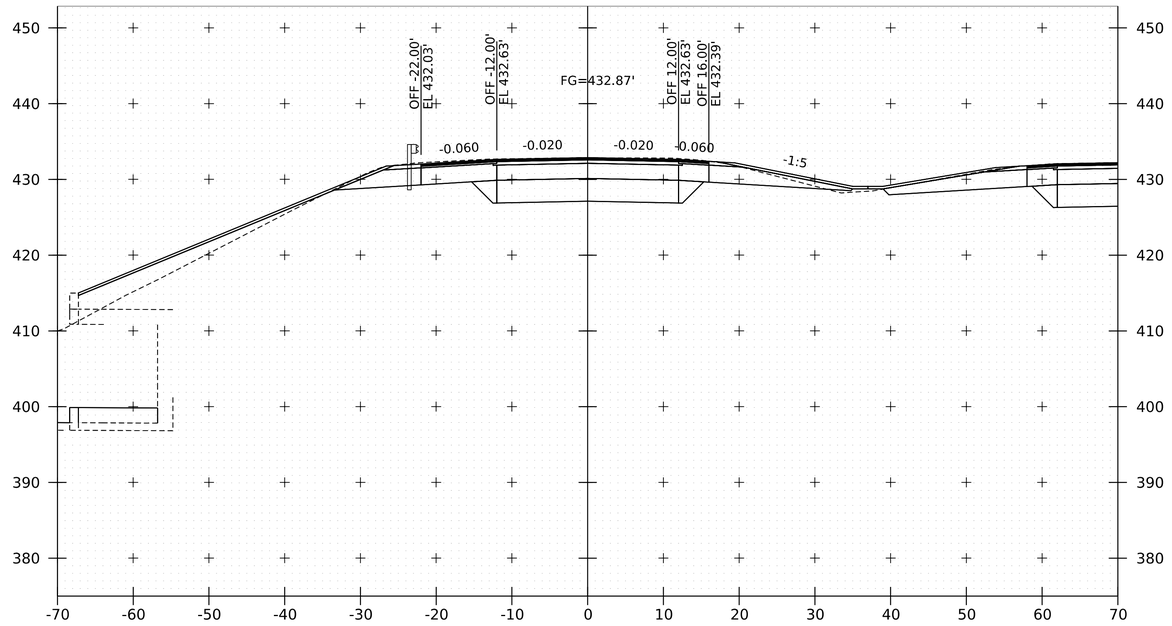

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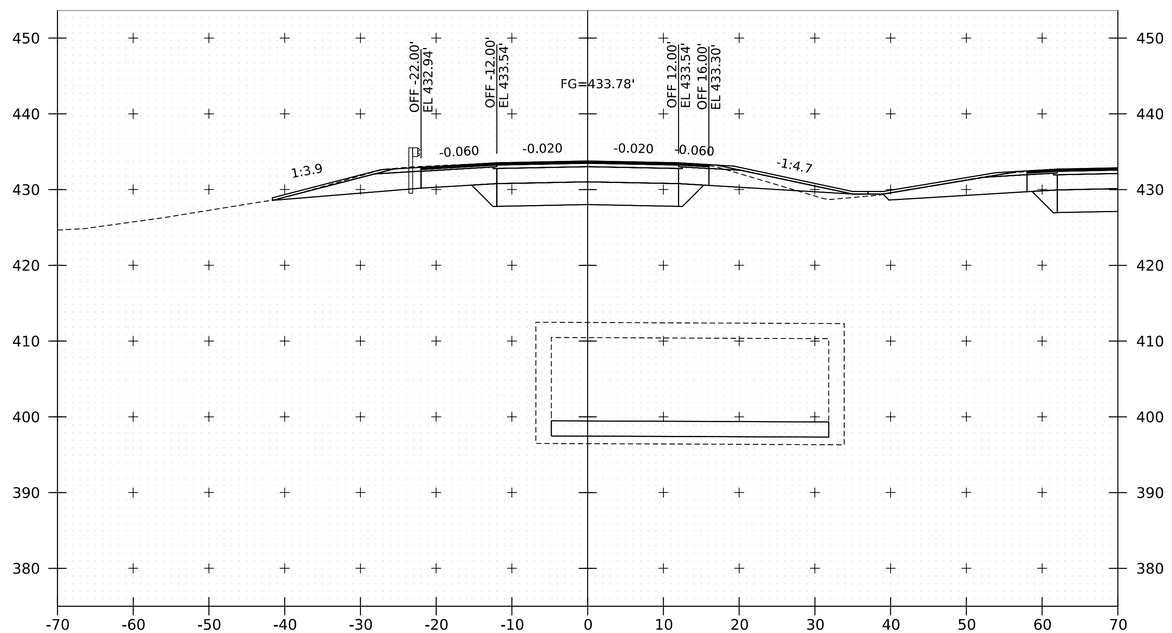


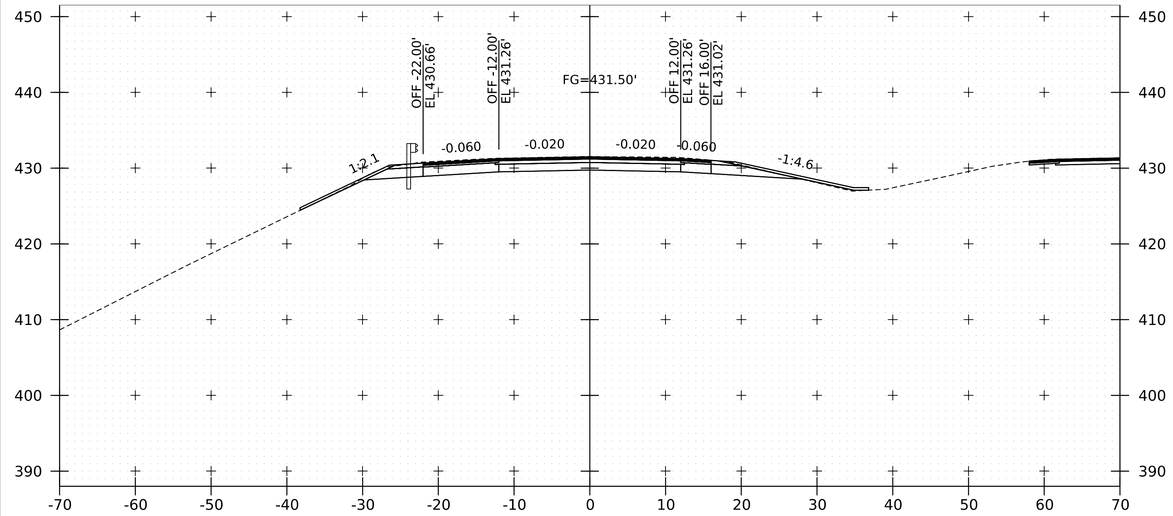
SB 4795+50

0 10 20

SCALE IN FEET

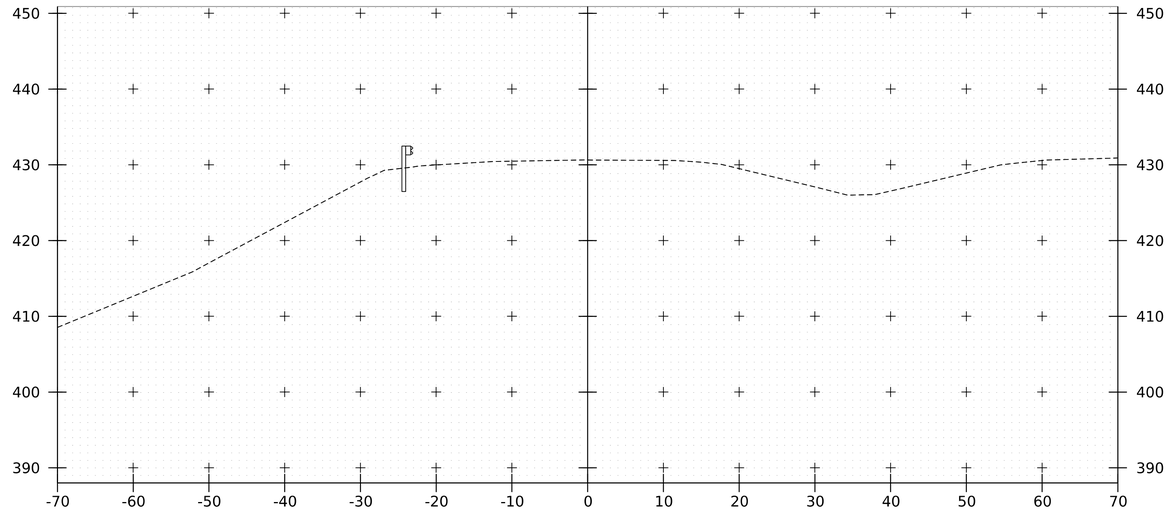
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 SB XS SHEET 2	SHEET 95 OF 144



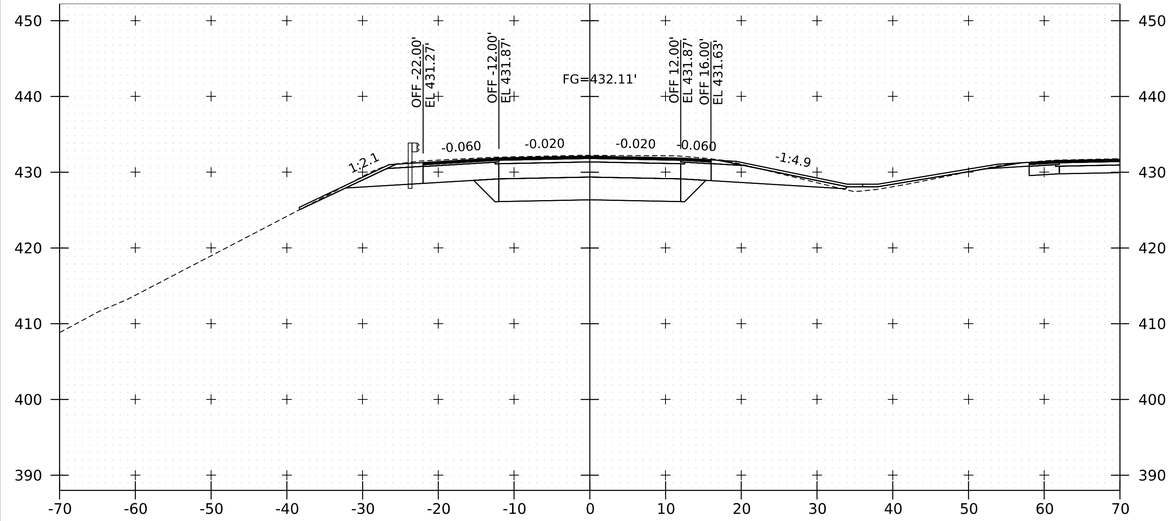
SB 4797+00

END PROJECT - SB 4796+75



SB 4798+00

END APPROACH - 4797+87.50



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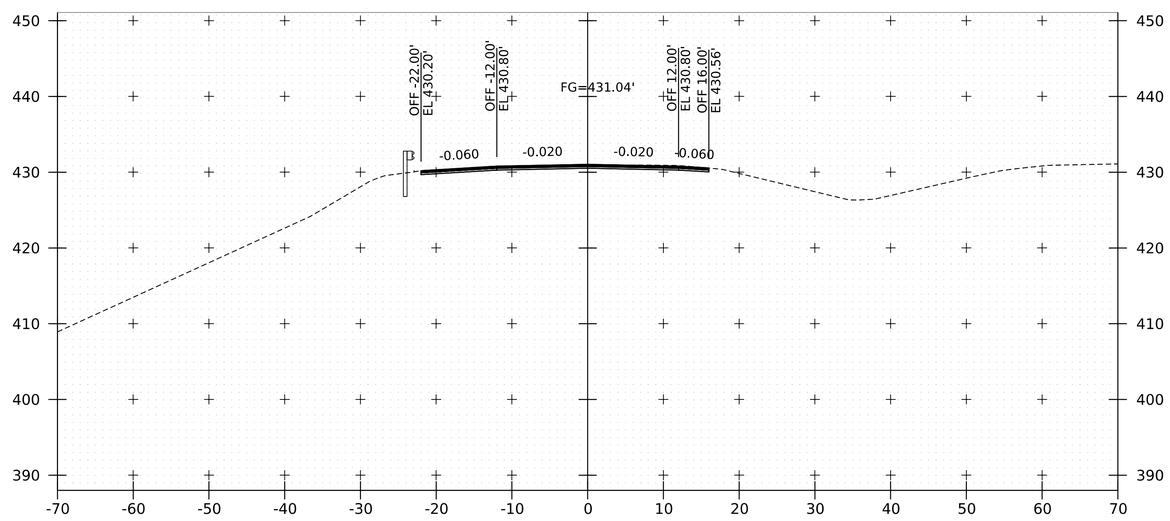

SB 4797+50

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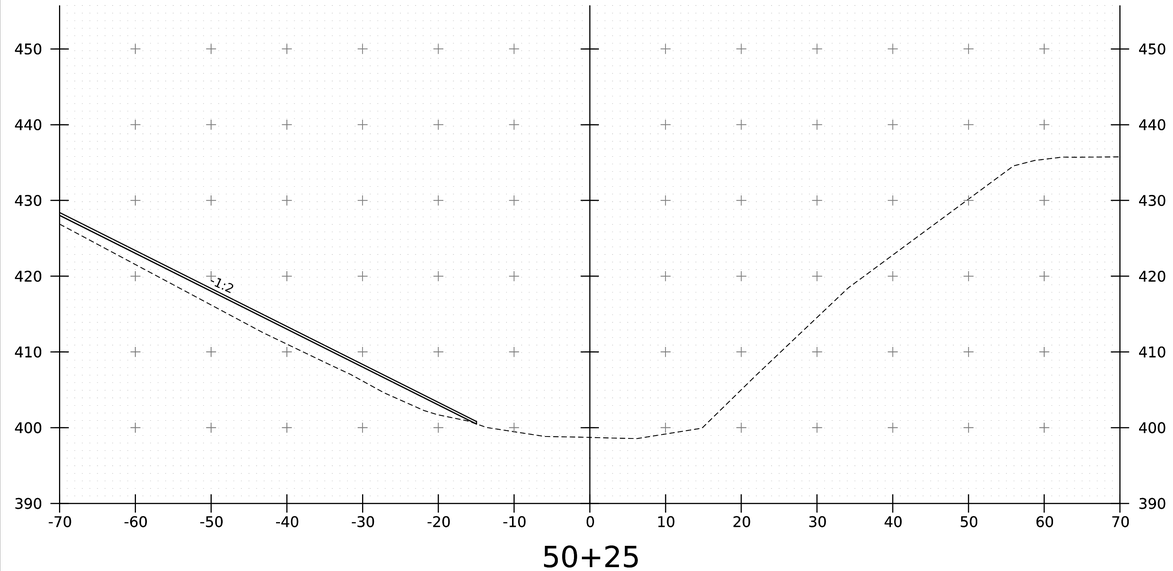
SCALE IN FEET

Stantec

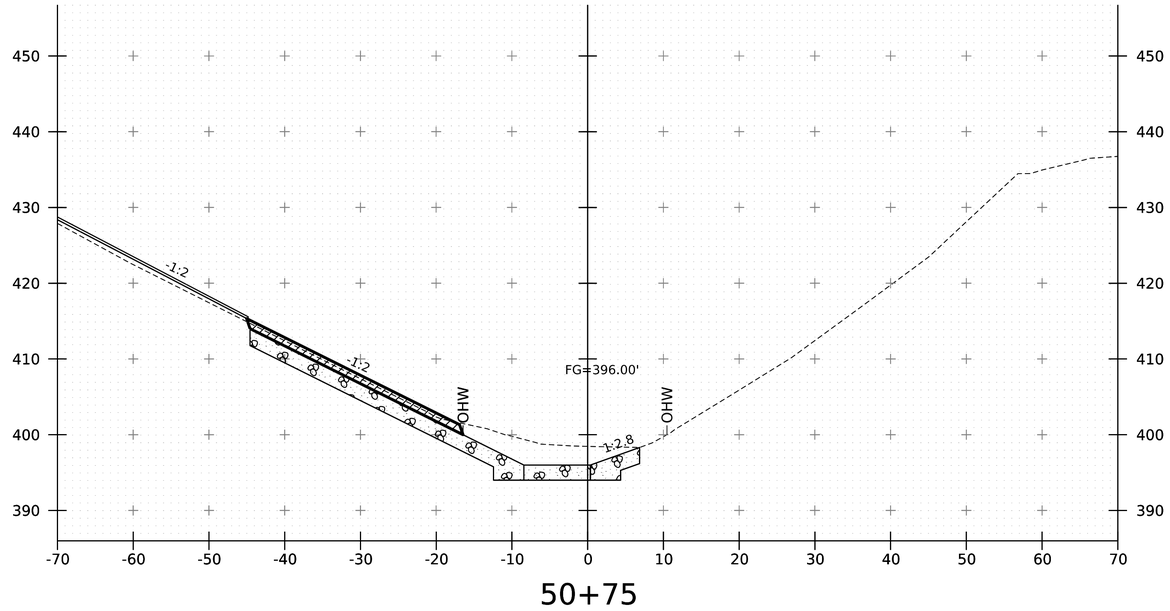
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_SB.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 SB XS SHEET 3	SHEET 96 OF 144



50+25

STA 50+75.00 LT
BEGIN
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E-STONE FILL, TYPE II
GRUBBING MATERIAL, 12 IN

STA 50+75.00 RT
BEGIN
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E-STONE FILL, TYPE II



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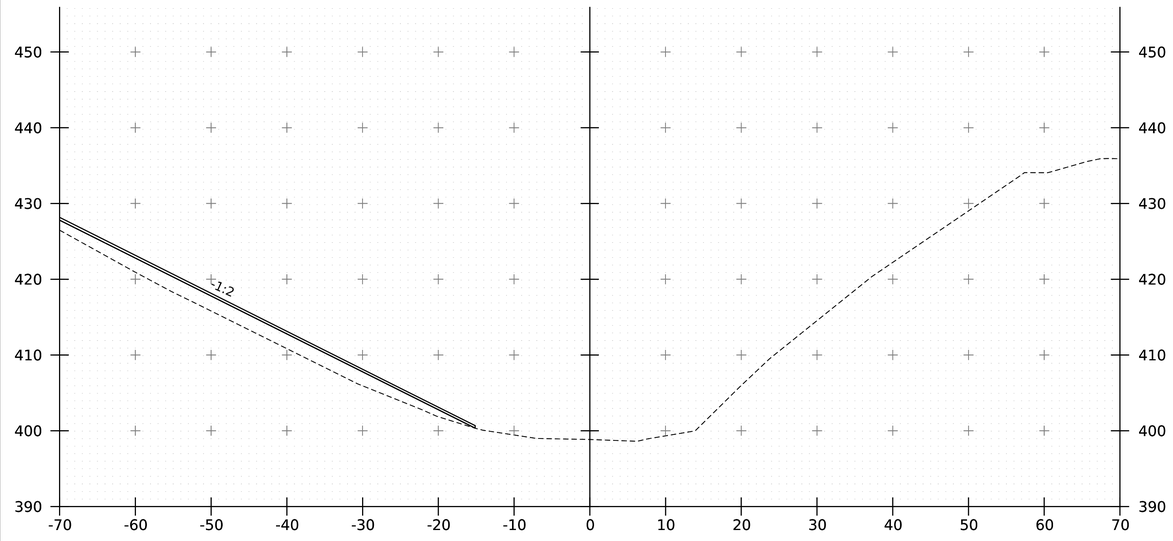

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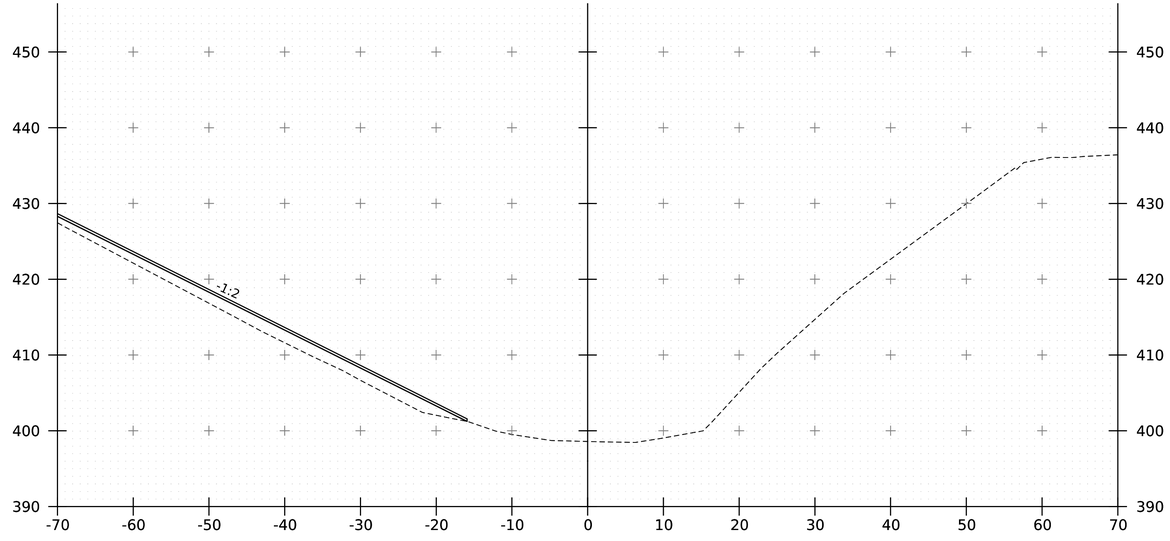

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Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: 21a024_xs_Channel.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: S. WINES
CHANNEL XS SHEET 1	SHEET 97 OF 144

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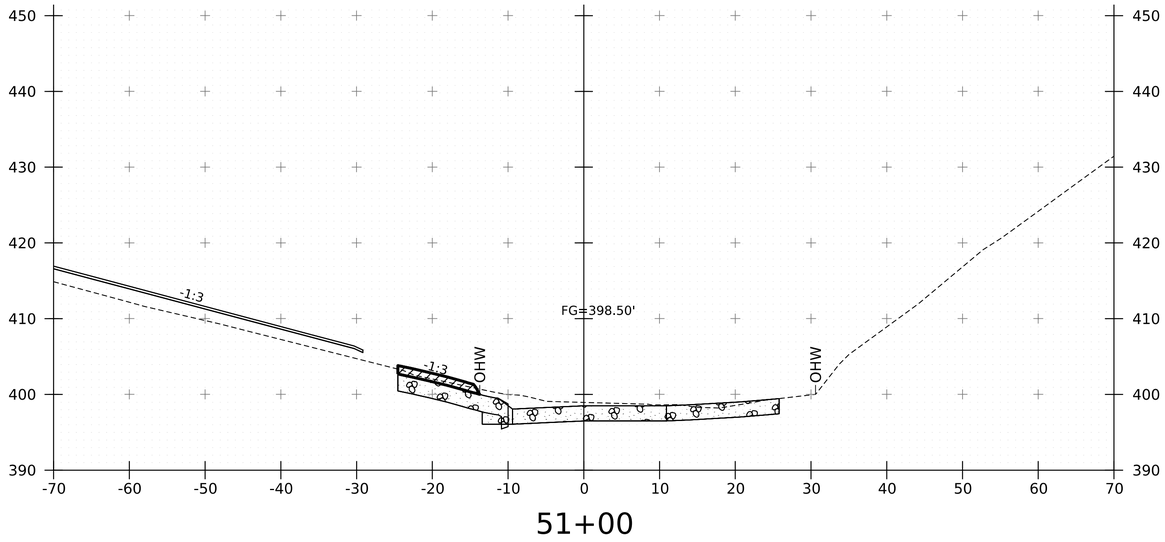
BEGIN
GEOTEXTILE UNDER STONE FILL
GRUBBING MATERIAL, 12 IN



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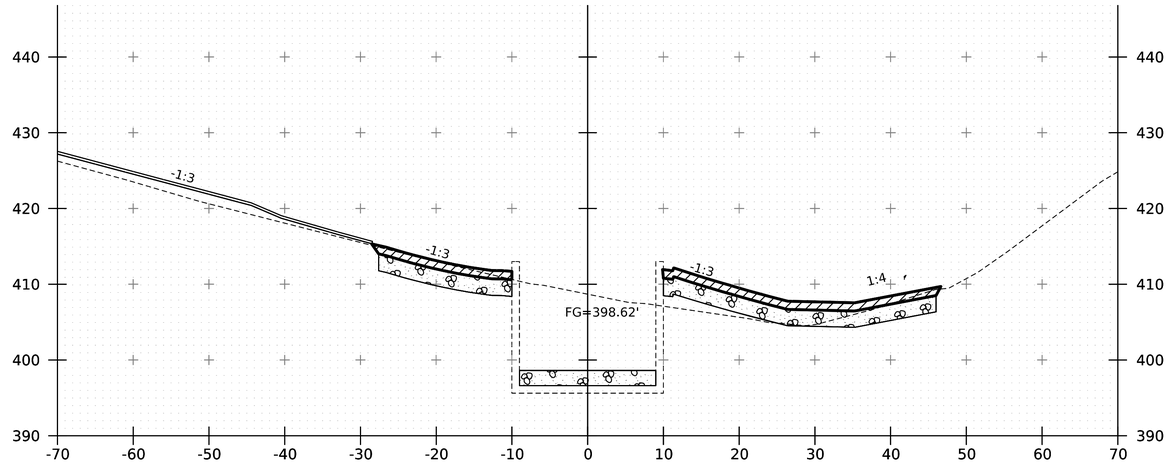

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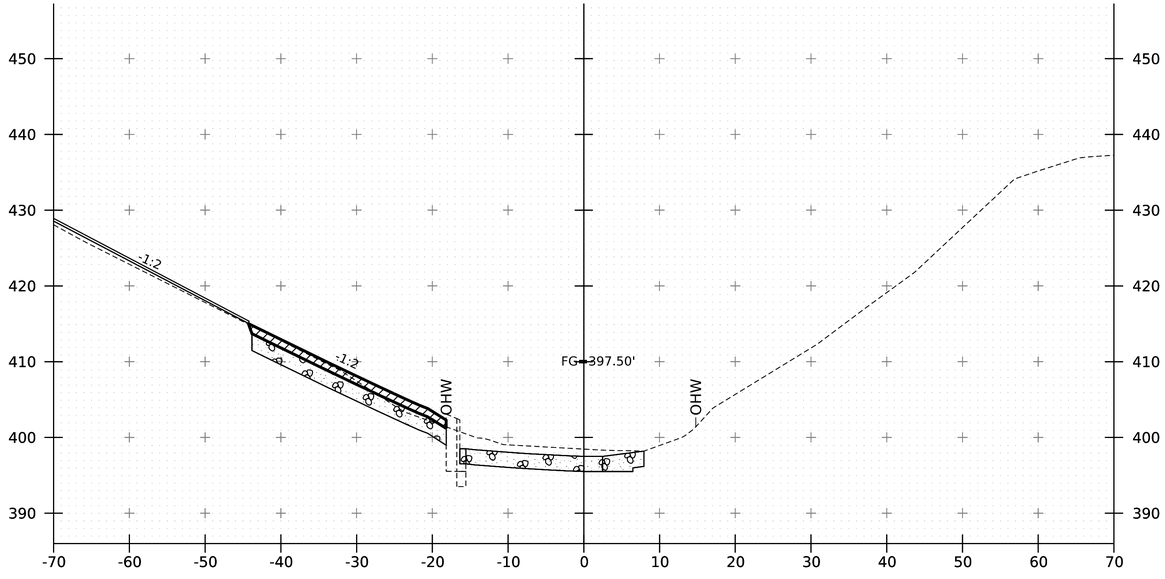

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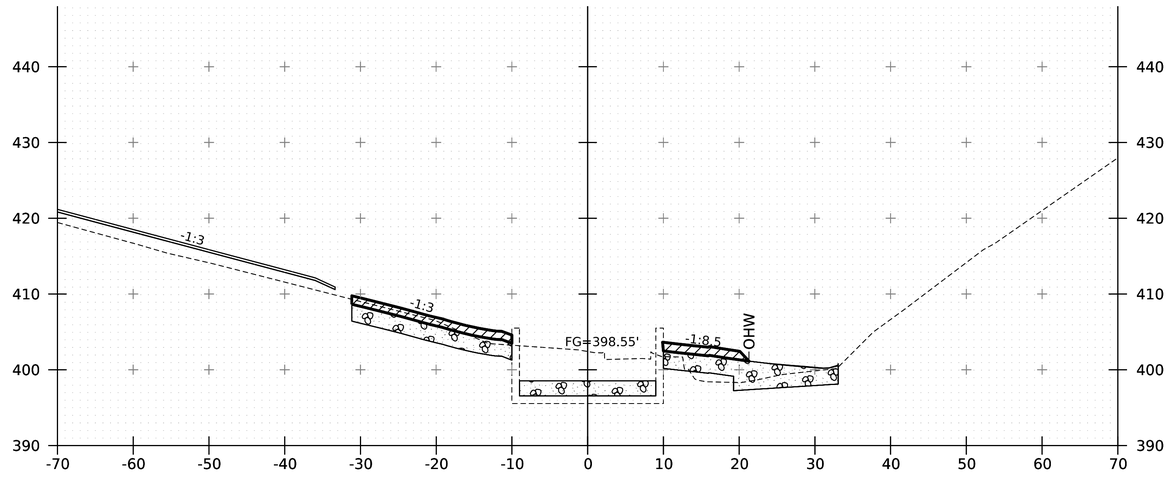

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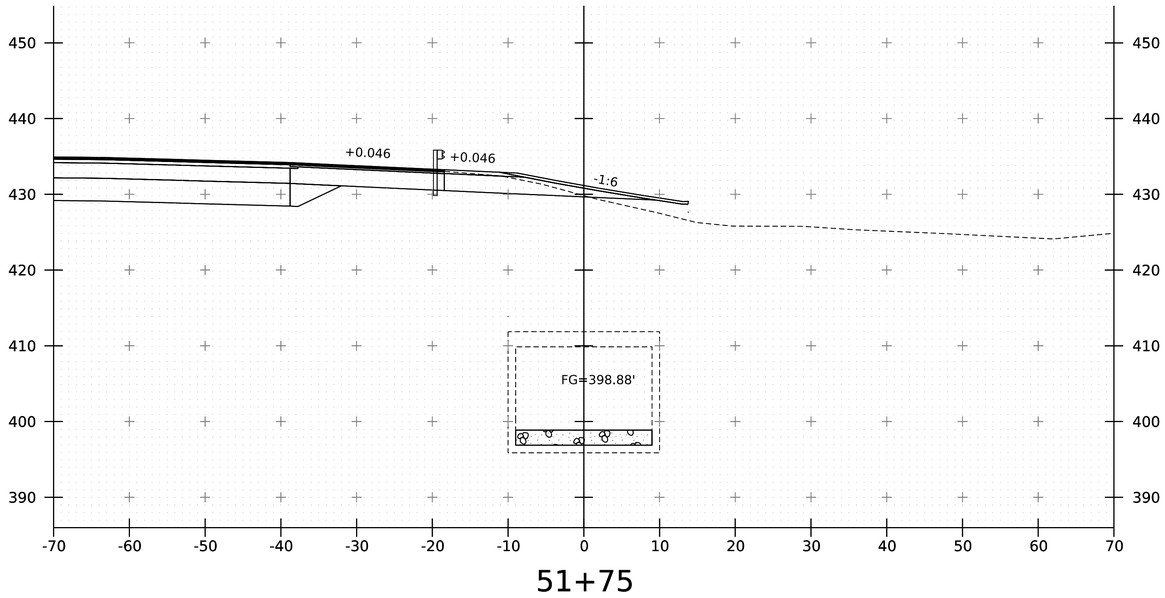
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: 21a024_xs_Channel.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: S. WINES
CHANNEL XS SHEET 2	SHEET 98 OF 144



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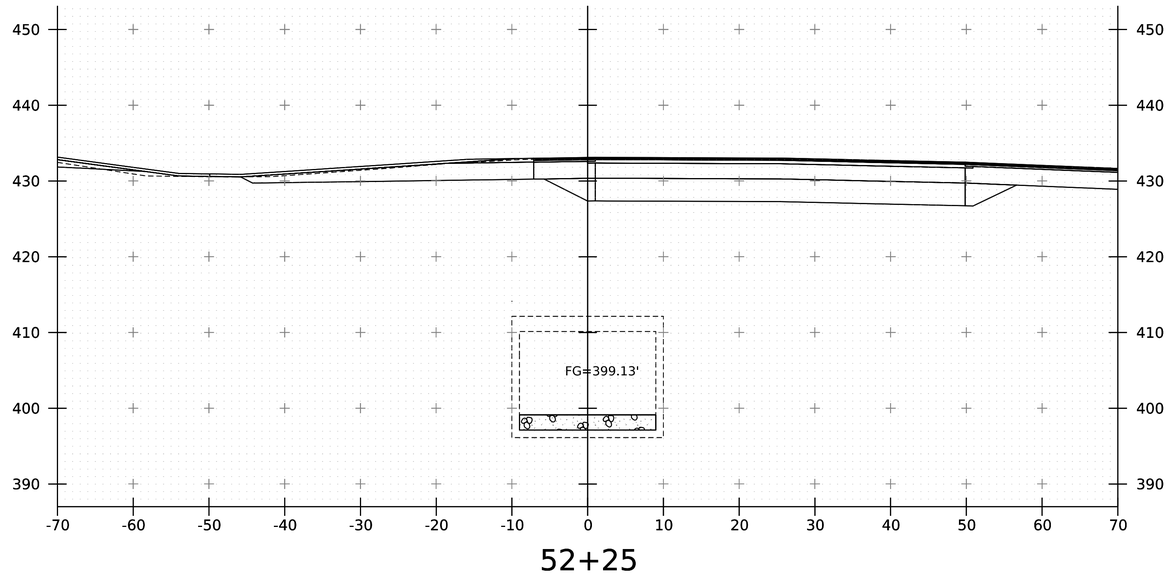

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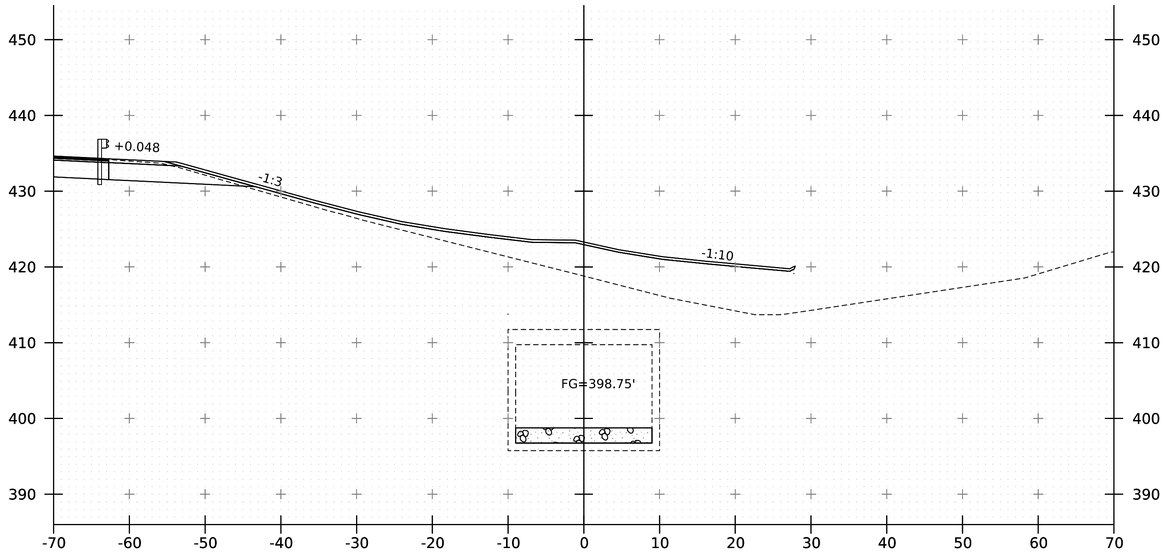

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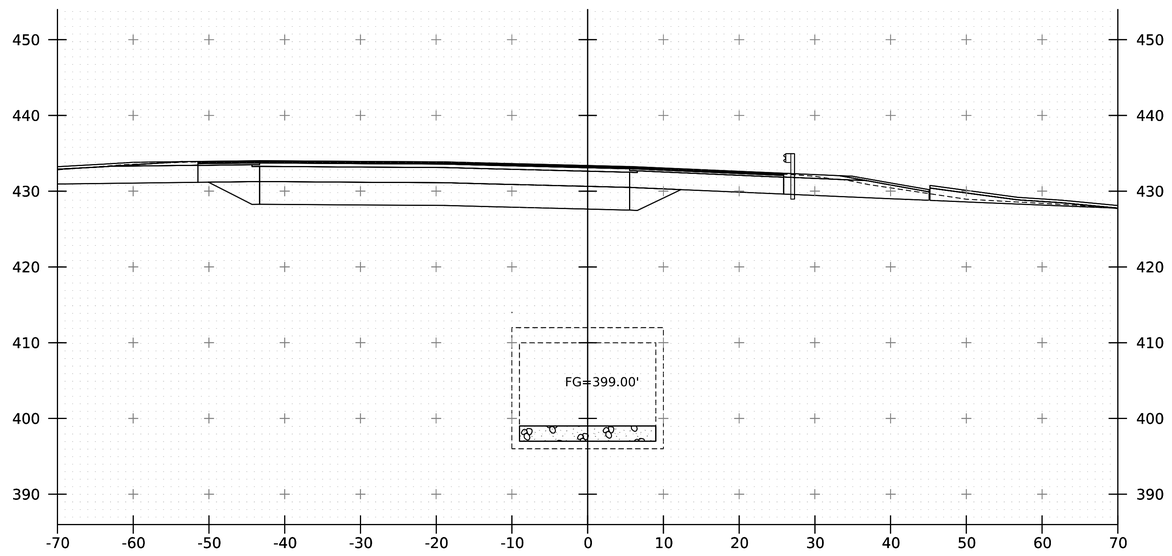

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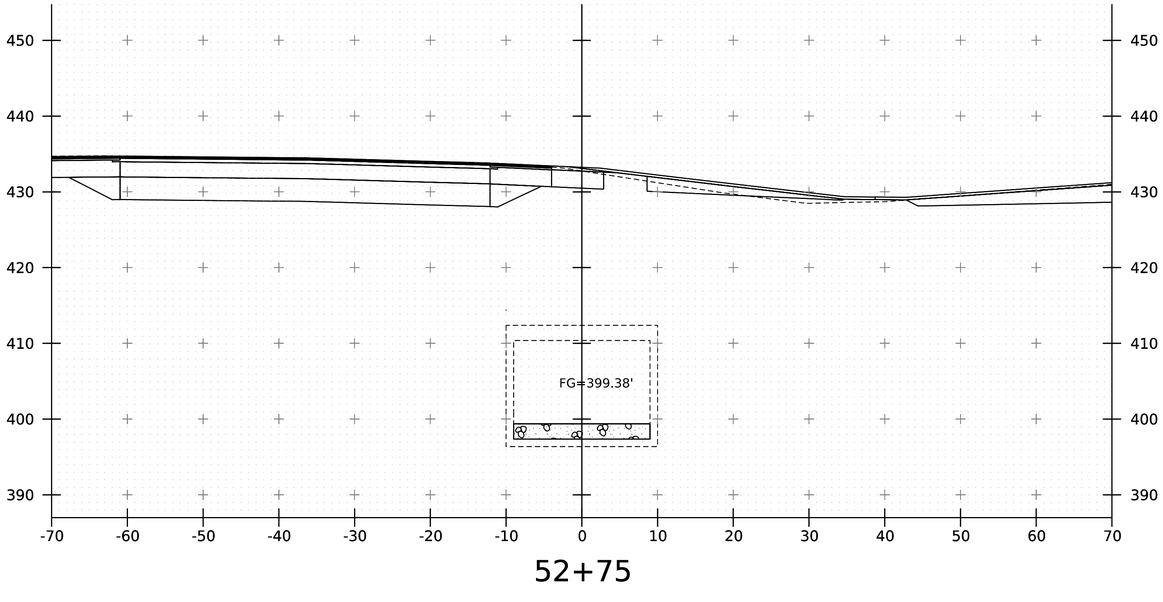
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	S. WINES
CHANNEL XS SHEET 3		SHEET	99 OF 144



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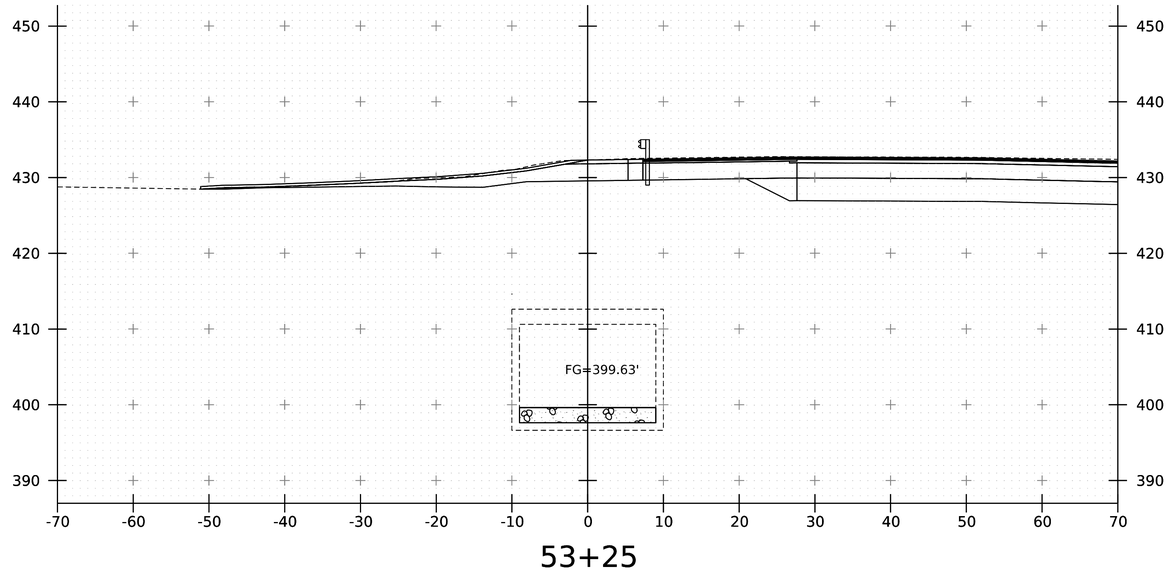

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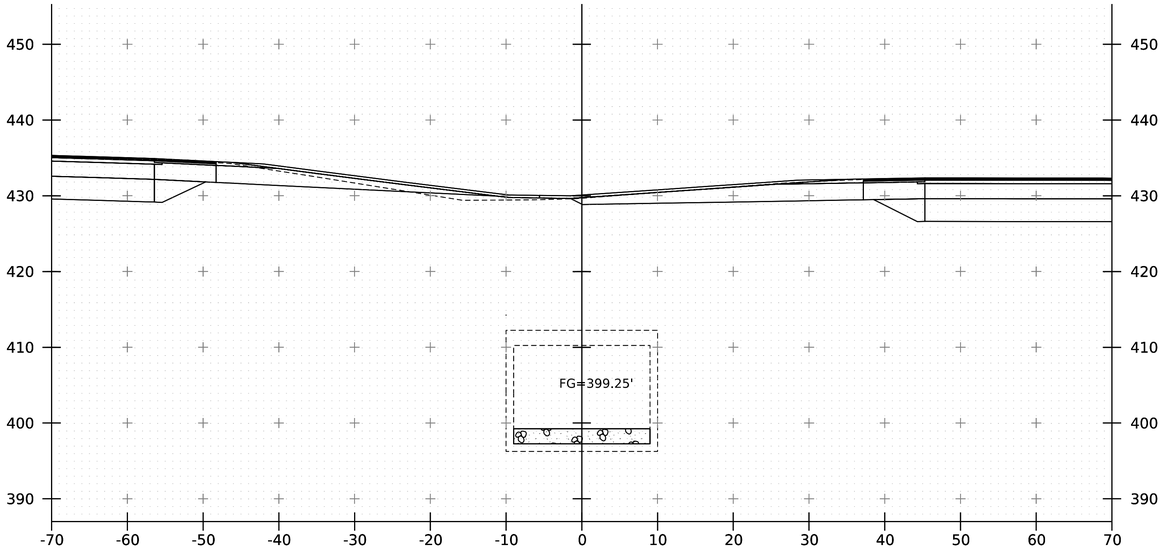

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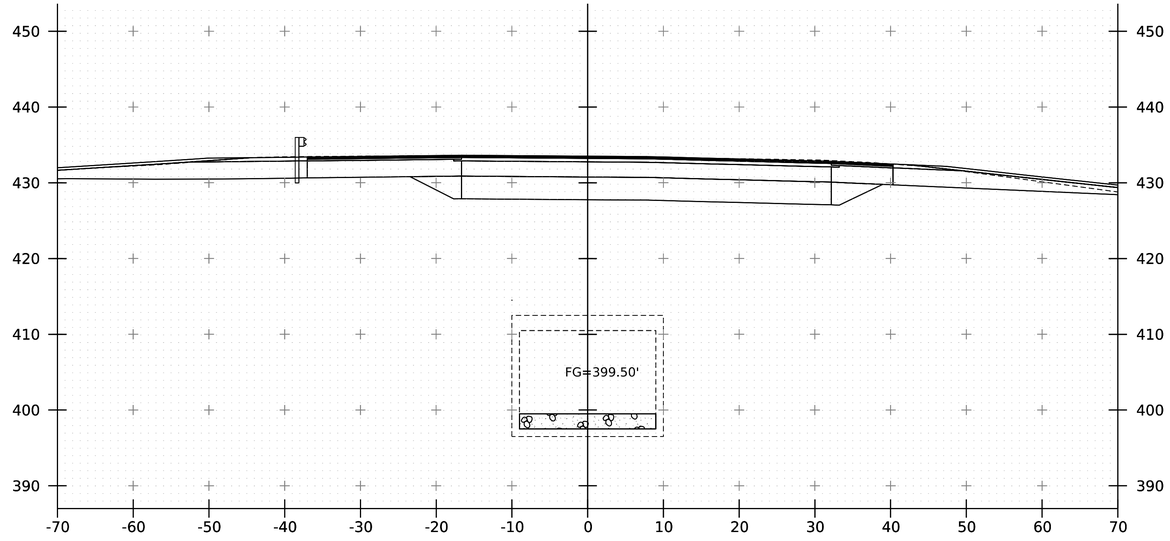

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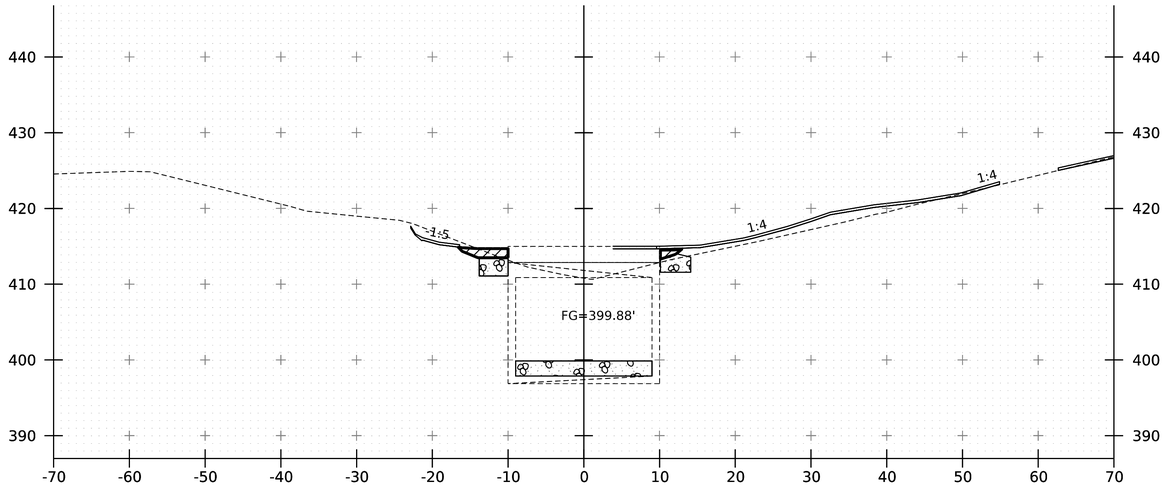
0 10 20
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	S. WINES
CHANNEL XS SHEET 4		SHEET	100 OF 144

STA 53+75.00 LT/RT
BEGIN
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E- STONE FILL, TYPE II
GRUBBING MATERIAL, 12 IN



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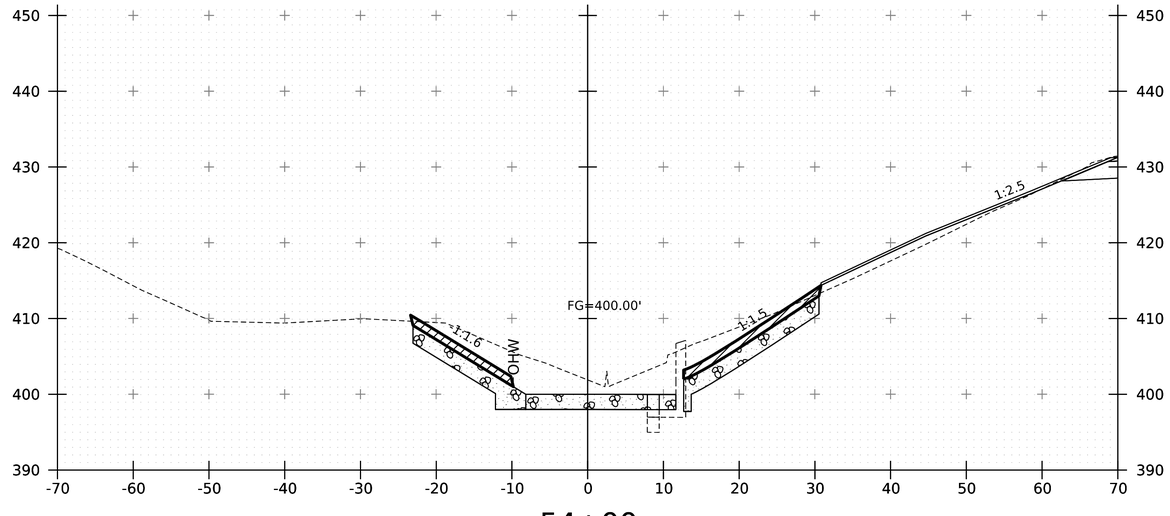

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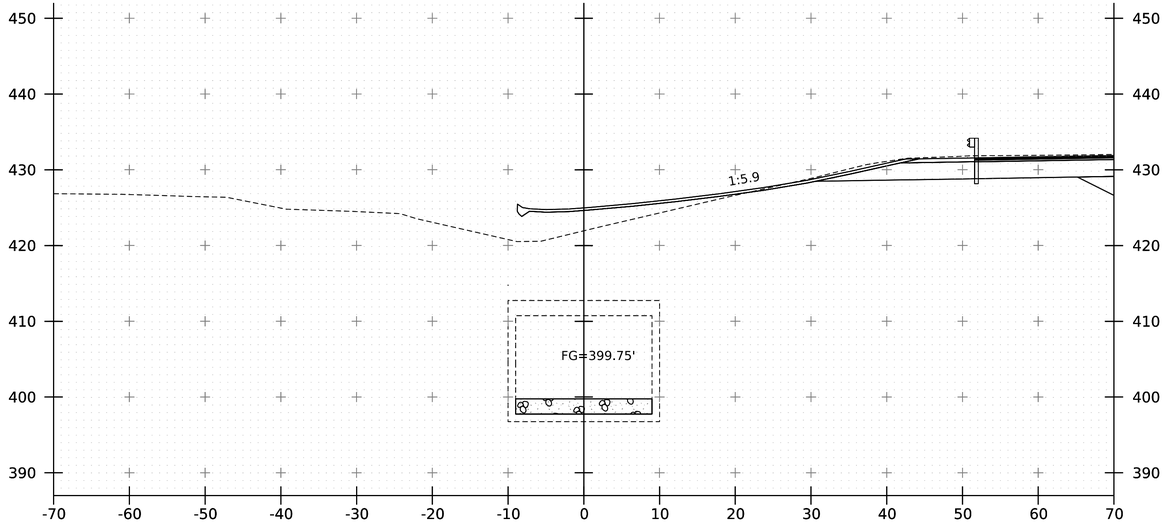

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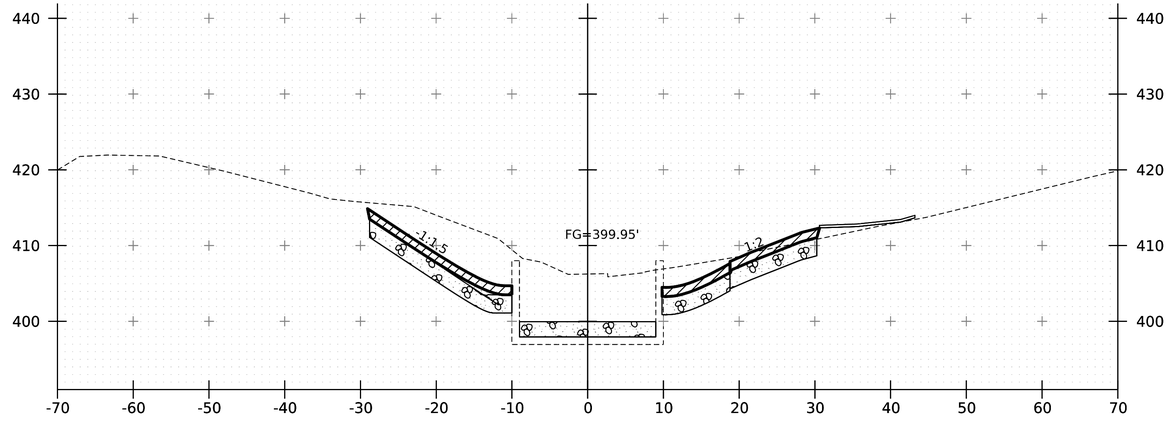

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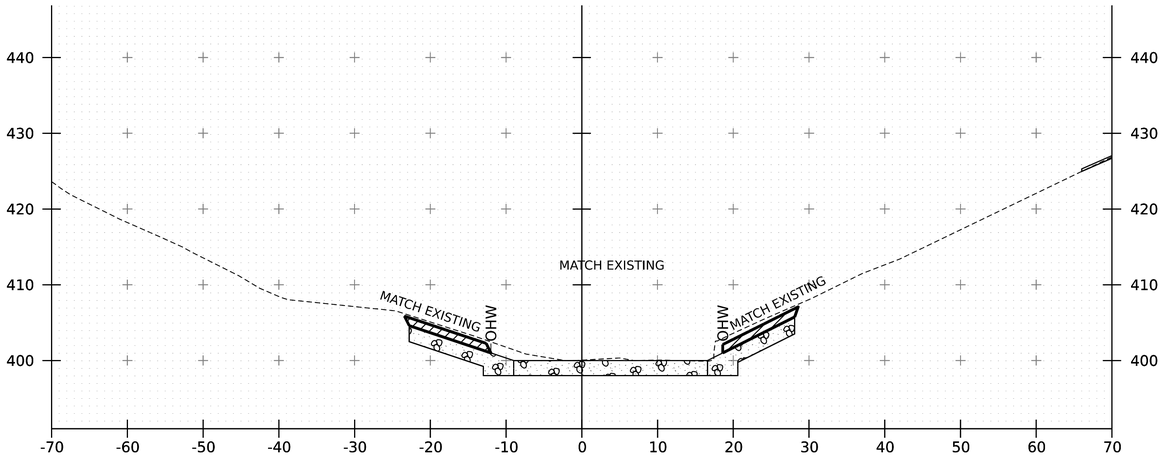
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	S. WINES
CHANNEL XS SHEET 5		SHEET	101 OF 144

STA 54+25.00 LT/RT
END
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E-STONE FILL, TYPE II
GRUBBING MATERIAL, 12 IN



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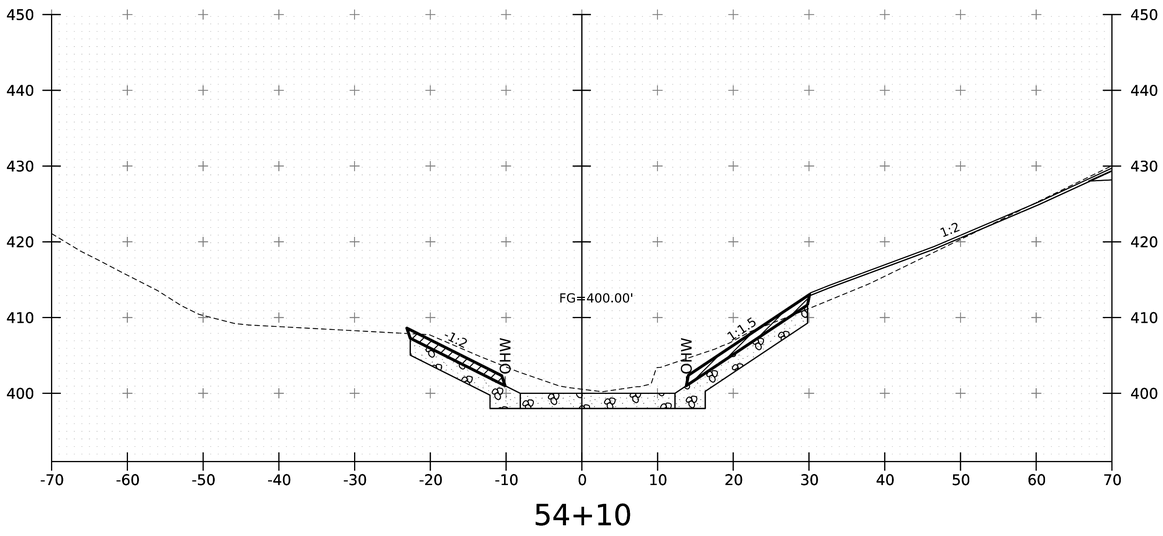

54+10

0 10 20
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
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PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: S. WINES
CHANNEL XS SHEET 6	SHEET 102 OF 144

EPSC PLAN NARRATIVE

1. PROJECT DESCRIPTION

THIS PROJECT INVOLVES REPLACEMENT OF BRIDGES 55-2 AND 55-3 WITH A PRECAST CONCRETE STRUCTURE AND CONSTRUCTION OF TEMPORARY CROSSOVERS, ALONG WITH RELATED APPROACH ROADWAY AND CHANNEL WORK.

IT IS ANTICIPATED THAT CONSTRUCTION WILL LAST 24 MONTHS.

2. AMOUNT OF DISTURBANCE AND RISK EVALUATION

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 9.94 ACRES.

THE MAXIMUM CONCURRENT EARTH DISTURBANCE USED TO SCORE THIS PROJECT IN THE APPENDIX A RISK ASSESSMENT IS 2.0 ACRES OR LESS.

THIS PROJECT REQUIRES COVERAGE UNDER GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES FOR MODERATE RISK PROJECTS.

ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

3. MAJOR COMPONENTS AND SEQUENCING

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXTENT OF DISTURBED SOILS LEFT OPEN TO EROSION AT ANY GIVEN TIME.

THE MAJOR COMPONENTS OF THE PROJECT AND A PROPOSED GENERAL SEQUENCE IS AS FOLLOWS:

PHASE 1 (0.87 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES
- INSTALL SEDIMENT CONTROL MEASURES
- CONSTRUCT EMBANKMENT FOR NORTHBOUND CROSSOVERS
- PAVE NORTHBOUND CROSSOVERS
- SWITCH NORTHBOUND TRAFFIC ONTO NORTHBOUND CROSSOVERS AND SOUTHBOUND ROADWAY

PHASE 2 (1.60 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- CONSTRUCT TEMPORARY STAGING AND ACCESS ROAD TO CULVERT OUTLET

PHASE 3 (1.38 - 2.0 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- EXCAVATE NORTHBOUND
- STOCKPILE AND STABILIZE EXCAVATED MATERIALS IN INTERSTATE MEDIAN SUCH THAT NO MORE THAN 2 ACRES OF EARTH IS DISTURBED AT A TIME
- INSTALL OUTLET PORTION OF THE NEW CULVERT
- BACKFILL TO ORIGINAL GRADES
- FINAL PAVING AND STABILIZATION OF NORTHBOUND

PHASE 4 (0.72 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- REMOVE NORTHBOUND CROSSOVERS
- REMOVE TEMPORARY STAGING AREA AND OUTLET ACCESS ROAD
- CONSTRUCT EMBANKMENT FOR SOUTHBOUND CROSSOVERS
- PAVE SOUTHBOUND CROSSOVERS
- SWITCH TRAFFIC ONTO SOUTHBOUND CROSSOVERS AND NORTHBOUND ROADWAY

PHASE 5 (1.56 - 2.0 ACRES)
- ESTABLISH PERMITER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- EXCAVATE SOUTHBOUND
- STOCKPILE AND STABILIZE EXCAVATED MATERIALS IN INTERSTATE MEDIAN SUCH THAT NO MORE THAN 2 ACRES OF EARTH IS DISTURBED AT A TIME
- INSTALL INLET PORTION OF THE NEW CULVERT
- BACKFILL TO ORIGINAL GRADES
- FINAL PAVING AND STABILIZATION OF SOUTHBOUND
- REMOVE SOUTHBOUND CROSSOVERS
- FINAL PERMANENT STABILIZATON MEASURES

4. SITE DESCRIPTION

4.1 VEGETATED BUFFERS

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS, OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE IMPLEMENTED WHEREVER POSSIBLE.

THIS PROJECT DOES NOT RELY ON VEGETATED BUFFERS AS A MITIGATING RISK FACTOR.

4.2 STREAM CROSSINGS

THIS PROJECT INCLUDES 1 STREAM CROSSING, AS DESCRIBED IN SECTION 5.1 BELOW. WORK WITHIN THE WATER IS BEING CONSULTED THROUGH THE VANR DEC RIVER MANAGEMENT PROGRAM AND AUTHORIZED THROUGH THE US ARMY CORPS OF ENGINEERS

4.3 WETLANDS

THE PROJECT INVOLVES 1,600 SF OF WETLAND AND 17,920 SF OF WETLAND BUFFER. THIS WORK WITHIN THESE AREAS IS BEING AUTHORIZED THROUGH THE VANR WETLANDS OFFICE AND/ OR THE US ARMY CORPS OF ENGINEERS.

4.4 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT AREA IS GENERALLY INTERSTATE HIGHWAY. NO EXITS, BUSINESSES, OR RESIDENCES ARE LOCATED WITHIN THE PROJECT AREA.

4.5 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF GRASSES, AND WOOODED AREAS. THE IMPACT TO VEGETATION WILL BE LIMITED TO WHAT IS DIRECTLY AFFECTED BY THE PROJECT. UPON COMPLETION, THE DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES AS DESCRIBED IN THE TURF ESTABLISHMENT DETAIL, UNLESS NOTED OTHERWISE.

4.6 SOILS

SOIL EROSION DATA FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE INDICATES THAT SOILS ON THE PROJECT SITE INCLUDE:

AGAWAM FINE SANDY LOAM, 3% TO 8% SLOPES, “K FACTOR” = 0.37
BELGRADE SILT LOAM, 0% TO 8% SLOPES, “K FACTOR” = 0.43
BELGRADE SILT LOAM, 8% TO 15% SLOPES, “K FACTOR” = 0.43
COLTRAIN VERY STONY FINE SANDY LOAM, 25% TO 50% SLOPES, “K FACTOR” = 0.24
COLTRAIN STONY FINE SANDY LOAM, 15% TO 25% SLOPES, “K FACTOR” = 0.24
RAYNHAM VARIANT SILT LOAM, 0% TO 3% SLOPES, “K FACTOR” = 0.37
TUNBRIDGE-WOODSTOCK COMPLEX, 25% TO 50% SLOPES, “K FACTOR” = 0.24
WALPOLE FINE SANDY LOAM, “K FACTOR” = 0.28
WINDSOR LOAMY SAND, 8% TO 25% SLOPES, “K FACTOR” = 0.15

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

IF POTENTIALLY CONTAMINATED SOILS HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA, THE CONTRACTOR SHALL REFER TO THE NOTICE TO BIDDERS AND/ OR SOIL MANAGEMENT PLAN FOR MEASURES RELATED TO THE HANDLING OF SUCH SOILS.

4.7 OTHER SENSITIVE RESOURCES

RARE, THREATENED AND ENDANGERED (RTE) SPECIES HAVE BEEN IDENTIFIED WITHIN A ONE-MILE RADIUS OF THE PROJECT AREA:

- NORTHERN LONG-EARED BAT
- WHORLED WATER-MILFOIL (MYRIOPHYLLUM VERTICILLATUM)
- RIVERINE CLUBTAIL (STYLURUS AMNICOLA)
- COBRA CLUBTAIL (GOMPHURUS VASTUS)
- RAPIDS CLUBTAIL (PHANOGOMPHUS QUADRICOLOR)

5. DRAINAGE

5.1 RECEIVING WATERS

THE LAKE MOREY OUTFLOW IS THE ONLY WATER SOURCE ON THE PROJECT SITE. RESIDENCES AND BUSINESSES WATER SUPPLIES ARE FROM MUNICIPAL WATER. THE OUTFLOW IS CLASSIFIED AS GRADUAL, SINUOUS, NARROW, WITH A CONFINED AND UNARMORED CHANNEL AT THE SITE. THE STREAM BED CONSISTS OF GRAVEL.

5.2 DISCHARGE POINTS

THERE ARE THREE DISCHARGE POINTS NEAR THE PROJECT AREA. THESE ARE OUTFALLS FROM INTERSTATE STORMWATER COLLECTION STRUCTURES. THE DISCHARGE POINTS WILL NOT BE IMPACTED BY CONSTRUCTION AND THE INLETS WILL BE COVERED WITH FILTER FIBER DURING CONSTRUCTION. DROP INLETS WITHIN THE SLOPE LIMITS OF THE CROSSOVERS WILL BE COVERED AND PROTECTED DURING CONSTRUCTION. TEMPORARY CULVERTS WILL BE INSTALLED TO CONVEY DRAINAGE WHILE THE CROSSOVERS ARE CONSTRUCTED. SEE VTRANS STANDARDS E-13 AND E-14.

5.3 CONVEYANCE/ FLOW PATH FROM PROJECT TO WATERS

THE MAJORITY OF THE PROJECT IS NOT CURBED AND RUNOFF DRAINS OVERLAND ACROSS ADJACENT VEGETATED SIDE SLOPES BEFORE REACHING THE RECEIVING WATER. THERE ARE ALSO NUMEROUS DROP INLETS ON SITE THAT COLLECT ROADWAY RUNOFF AND DRAIN TO STONE LINED OUTFALLS BEFORE FLOWING TO THE LAKE MOREY OUTFLOW.

6. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES

THE MEASURES INCLUDED IN THIS PLAN ARE PROVIDED AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. IT IS EXPECTED THAT THE CONTRACTORS MAY USE THIS PLAN, WITH ADJUSTMENTS AS NECESSARY, BASED ON THEIR SPECIFIC MEANS AND METHODS OF CONSTRUCTION.

APPLYING THESE MEASURES THROUGHOUT CONSTRUCTION IS CRITICAL TO THEIR SUCCESS IN MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. REFER TO THE DETAILS INCLUDED IN THESE PLANS AND THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION’S VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR SPECIFIC GUIDANCE.

6.1 IDENTIFY LIMITS OF DISTURBANCE

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES. BARRIER FENCE SHALL BE USED INSTEAD OF PROJECT DEMARCATION FENCE WITHIN 100 FEET OF A WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC).

6.2 LIMIT CONCURRENT DISTURBANCE

LIMITING THE AMOUNT OF SOIL EXPOSED AT ONE TIME REDUCES THE POTENTIAL EROSION ON SITE. CONCURRENT EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY DISTIRBING EARTH AS NECESSARY AND EMPLOYING STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE.

6.3 STABILIZE DISTURBED AREAS

6.3.1 ACCESS POINTS/ ENTRANCE/ EXITS

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTORS PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES ARE ANTICIPATED ON THIS PROJECT AND SHALL BE LOCATED AS SHOWN ON THIS EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES. SEE VTRANS STANDARD E-12.

6.3.2 TEMPORARY MEASURES FOR EXPOSED AREAS DURING CONSTRUCTION

ALL AREAS OF EARTH DISTURBANCE MUST HAVE STABILIZATION IN PLACE WITHIN 14 DAYS OF INITIAL DISTURBANCE AND DISTURBED AREAS MUST BE STABILIZED IN ADVANCE OF ANY RUNOFF PRODUCING EVENT.

SURFACE ROUGHENING OF EXPOSED SLOPES, SEEDING OF TEMPORARY SLOPES AND STOCKPILES, AND STANDARD MULCHING PRACTICES DESCRIBED IN SPECIFICATION SECTION 653.07 SHALL BE UTILIZED TO TEMPORARILY STABILIZE DISTURBED AREAS.

Stantec

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PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
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6.3.3 PERMANENT STABILIZATION AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

TURF ESTABLISHMENT MEASURES PER SECTION 651 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, ROLLED EROSION CONTROL PRODUCT, TYPE I SHALL BE USED INSTEAD OF MULCH. SEE VTRANS STANDARD E-10.

6.4 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT. RUNOFF FROM OUTSIDE OF THE PROJECT AREA IS NOT ANTICIPATED.

6.5 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED ON THE DOWNHILL SIDE OF CONSTRUCTION ACTIVITIES, PRIOR TO ANY UP-SLOPE WORK.

SILT FENCE WILL BE INSTALLED ALONG THE CONTOURS AND AS PROPOSED ON THE EPSC PLAN. SILT FENCE, TYPE II SHALL BE USED WITHIN 100 FEET UPSLOPE OF RECEIVING WATERS.

6.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

IT IS ANTICIPATED THAT TEMPORARY STONE CHECK DAMS WILL BE REQUIRED FOR THIS PROJECT. SEE VTRANS STANDARD E-11.

7. CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

PERMANENT STORMWATER TREATMENT DEVICES ARE NOT ANTICIPATED TO BE NEEDED AS DESIGNED.

8. DEWATERING

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS FROM THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS. DEWATERED STORMWATER OR GROUNDWATER MUST BE FILTERED AND ROUTED IN A MANNER THAT DOES NOT RESULT IN VISIBLY TURBID DISCHARGES TO WATERS.

THE FILTER BAG DETAIL AND PAY ITEM HAVE BEEN INCLUDED AS A POTENTIAL TREATMENT MEASURE FOR DEWATERING, HOWEVER THE SPECIFIC MEANS FOR TREATMENT OF DISCHARGE SHALL BE PROVIDED BY THE CONTRACTOR.

9. OFF-SITE AREAS

OFF-SITE WASTE AND BORROW AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE AREAS THAT ARE NEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 105.25 - 105.28.

ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE, BORROW, AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER 105.28 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

VEHICLE AND EQUIPMENT STORAGE AREAS OR AREAS ADJACENT TO CONSTRUCTION TRAILERS OR OTHER HIGH TRAFFIC AREAS SHALL BE COVERED WITH GEOTEXTILE FABRIC AND 12" OF GRAVEL. FOLLOWING COMPLETION OF CONSTRUCTION, ALL NON-NATIVE MATERIALS SHALL BE REMOVED FROM THE STAGING AREA. COMPACTED, RUTTED, OR OTHERWISE DISTURBED SOILS SHALL BE TILLED, RAKED, SEEDED, AND MULCHED.

ERODIBLE MATERIALS STOCKPILED WITHIN THE MATERIAL STORAGE AREAS SHALL BE ISOLATED WITH SILT FENCE OR OTHER ACCEPTABLE SEDIMENT BARRIER. SOIL STOCKPILED ON THE SITE SHALL BE SEEDED AND MULCHED.

10. WINTER CONSTRUCTION

IF CONSTRUCTION ACTIVITIES ARE TAKING PLACE BETWEEN OCTOBER 15 AND APRIL 15, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

- SNOW REMOVAL SHALL NOT IMPACT LOCAL OR STATE ROAD MAINTENANCE CREW'S WINTER OPERATIONS.
- THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE MAINTENANCE OPERATIONS PRIOR TO ANY ANTICIPATED WEATHER EVENT.
- ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
- LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- DEVELOPMENT OF A SNOW MANAGEMENT PLAN THAT INCLUDES:
  - ADEQUATE STORAGE AND CONTROL OF MELT-WATER
  - STORAGE OF CLEARED SNOW TO BE PLACED DOWN SLOPE OF DISTURBED AREAS AND OUT OF STORMWATER TREATMENT STRUCTURES
- AREAS OF DISTURBANCE WITHIN 100 FT OF A WATERBODY MUST HAVE REINFORCED (WOVEN WIRE) SILT FENCE INSTALLED ACROSS THE SLOPE, DOWNGRADIENT OF THE EARTH DISTURBANCE. ALTERNATIVELY, REGULAR, NON-WOVEN WIRE SILT FENCE MAY BE USED IF COMBINED WITH EROSION CONTROL BERM, EROSION LOG, OR STRAW WATTLE.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED PRIOR TO FROZEN GROUND.
- MULCH TO BE APPLIED AT A MINIMUM OF 2 INCHES DEPTH WITH 80-90% COVERAGE.
- AREAS OF DISTURBED SOILS MUST BE STABILIZED PRIOR TO ANY RUNOFF-PRODUCING EVENT, WITH THE FOLLOWING EXCEPTION:
  - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH NO OUTLET AND A DEPTH OF 2 FT OR GREATER (OPEN UTILITY TRENCHES), PROVIDED THAT ANY DEWATERING, IF NECESSARY, IS CONDUCTED AS REQUIRED.
- PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 1" THICKNESS.
- USE STONE TO STABILIZE AREAS WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED.

NO EARTH DISTURBANCE ACTIVITIES ARE ANTICIPATED TO OCCUR DURING THE WINTER CONSTRUCTION PERIOD.

11. INSPECTION AND MAINTENANCE

INSPECTION AND MONITORING OF THE PROJECT'S EPSC MEASURES SHALL BE CONDUCTED IN ACCORDANCE WITH STANDARD SPECIFICATION 653.04 MONITORING EROSION PREVENTION AND SEDIMENT CONTROL PLAN, ALONG WITH PERMIT SPECIFIC INSPECTION REQUIREMENTS.

CONTRACTORS SHALL PROVIDE A COPY OF THEIR INSPECTION FORM AS PART OF THEIR EPSC PLAN.

ALL EPSC MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

12. BORROW AND WASTE MATERIAL

BORROW AND WASTE MATERIALS TO BE PERMITTED UNDER A SEPARATE NOI.

ESTIMATED BORROW
- 1,700 CY OF SAND BORROW
- 1,600 CY OF GRANULAR BACKFILL FOR STRUCTURES
- 2,850 CY OF SUBBASE OF DENSE GRADED CRUSHED STONE
- 50 CY OF AGGREGATE SHOULDERS
- 800 CY OF E-STONE FILL, TYPE II
- 1,000 CY OF TOPSOIL
- 115 CY OF GRUBBING MATERIAL

ESTIMATED WASTE
- 48,890 CY OF EXCAVATION
- 39,600 CY TO BE RE-USED ON SITE
- 9,290 CY OF WASTE MATERIAL

WASTE MATERIALS ARE ANTICIPATED TO BE SILTY CLAY SOILS MEETING AASHTO CLASSIFICATIONS A-4, A-5, A-6, A-7.

13. ADDITIONAL NOTES

1. POLLUTION CONTROL SHALL BE IN ACCORDANCE WITH SUBSECTION 105.24 OF THE STANDARD SPECIFICATION 653.04.
2. SEEDING SHALL BE COMPLETED AFTER APRIL 15 AND BEFORE SEPTEMBER 15, UNLESS NOTED OTHERWISE.
3. ALL TEMPORARY EPSC PRACTICES SHALL BE REMOVED WITHIN 30 DAYS OF ACHIEVING FINAL STABILITATION.
4. A NOTICE OF TERMINATION SHALL BE SUBMITTED ONCE FINAL STABILIZATION IS MET.

Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_frm.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	J. GRIGAS
EPSC- NARRATIVE SHEET 2		SHEET	104 OF 144

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK VERY ROCKY FINE SANDY LOAM
8%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

VT STATE PLANE GRID

TO THETFORD

PT 4746+66.48

SB 4742+00
SB 4743+00
SB 4744+00
SB 4745+00
SB 4746+00
SB 4747+00
SB 4748+00

MATCHLINE STA. 4748+00

PT 4747+41.75

NB 4743+00
NB 4744+00
NB 4745+00
NB 4746+00
NB 4747+00
NB 4748+00

PI 4742+68.71

CURVE (x)
DELTA = 16°41'38"
D = 02°05'01"
R = 2750.00'
T = 403.48'
L = 801.25'
E = 29.44'

PI 4743+15.05

CURVE (x)
DELTA = 16°41'38"
D = 01°56'32"
R = 2950.00'
T = 432.83'
L = 859.52'
E = 31.58'

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 105OF 144

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

N

VT STATE PLANE GRID

MATCHLINE STA. 4748+00

N15°59'50"E

SB 4748+00

SB 4749+00

SB 4750+00

SB 4751+00

SB 4752+00

SB 4753+00

MATCHLINE STA. 4753+25

WARNING SIGN

WARNING SIGN

90.40

GRAVEL U-TURN

PC 4751+02.99

MATCHLINE STA. 4748+00

N15°59'51"E

NB 4748+00

NB 4749+00

NB 4750+00

NB 4751+00

NB 4752+00

NB 4753+00

MATCHLINE STA. 4753+50

PC 4751+60.29

90.00

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

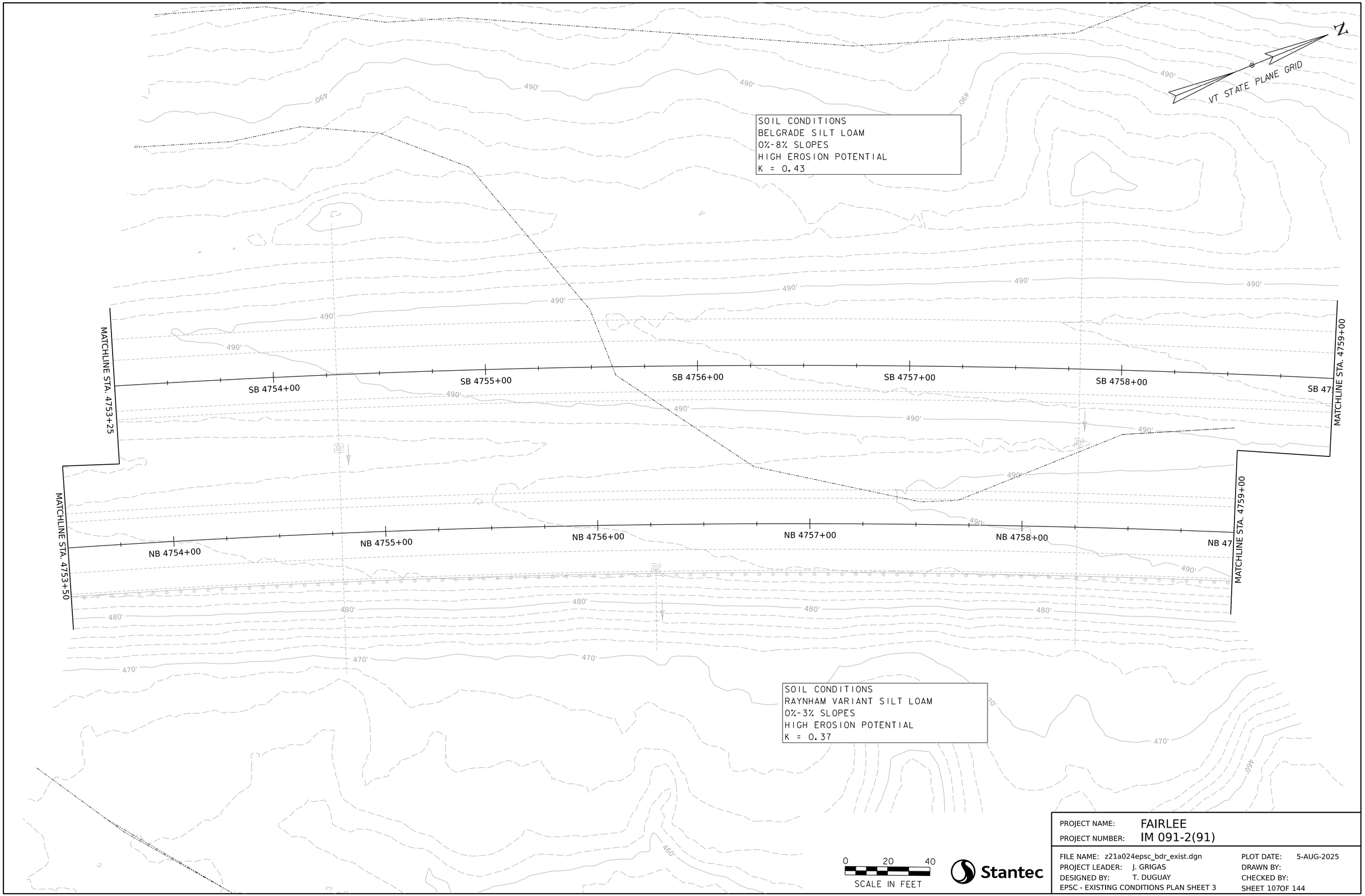
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 2

PLOT DATE: 5-AUG-2025
DRAWN BY:
CHECKED BY:
SHEET 106OF 144



Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_exist.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY:
DESIGNED BY: T. DUGUAY	CHECKED BY:
EPSC - EXISTING CONDITIONS PLAN SHEET 3	SHEET 107OF 144

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

MATCHLINE STA. 4759+00

59+00 SB 4760+00 SB 4761+00 SB 4762+00 SB 4763+00 SB 4764+00

MATCHLINE STA. 4764+50

MATCHLINE STA. 4759+00

59+00 NB 4760+00 NB 4761+00 NB 4762+00 NB 4763+00 NB 4764+00

MATCHLINE STA. 4764+50

SOIL CONDITIONS
RAYNHAM VARIANT SILT LOAM
0%-3% SLOPES
HIGH EROSION POTENTIAL
K = 0.37

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 4

PLOT DATE: 5-AUG-2025
DRAWN BY:
CHECKED BY:
SHEET 108OF 144

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

VT STATE PLANE GRID

MATCHLINE STA. 4764+50

SB 4765+00 SB 4766+00 SB 4767+00 SB 4768+00 SB 4769+00 SB 47

MATCHLINE STA. 4770+00

NB 4765+00 NB 4766+00 NB 4767+00 NB 4768+00 NB 4769+00 NB 47

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 5

PLOT DATE: 5-AUG-2025
DRAWN BY:
CHECKED BY:

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK COMPLEX
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

SB 4770+00

SB 4771+00

SB 4772+00

SB 4773+00

SB 4774+00

SB 4775+00

MATCHLINE STA. 4770+00

MATCHLINE STA. 4775+50

INTERSTATE 91 (NORTHBOUND)

NB 4770+00

NB 4771+00

NB 4772+00

NB 4773+00

NB 4774+00

NB 4775+00

MATCHLINE STA. 4770+00

MATCHLINE STA. 4775+50

KEEP RIGHT EXCEPT TO PASS SIGN

KEEP RIGHT EXCEPT TO PASS SIGN

90.40

90.40

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_exist.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - EXISTING CONDITIONS PLAN SHEET 6	SHEET 110OF 144

N

VT STATE PLANE GRID

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4775+50

SB 4776+00

SB 4777+00

SB 4778+00

SB 4779+00

SB 4780+00

SB 47

MATCHLINE STA. 4781+00

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4775+50

NB 4776+00

NB 4777+00

NB 4778+00

NB 4779+00

NB 4780+00

NB 47

MATCHLINE STA. 4781+00

GUIDE SIGN
EXIT 15
FAIRLEE
ORFORD NH
1 MILE

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 7

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 111OF 144

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

SB 4781+00
SB 4782+00
SB 4783+00
SB 4784+00
SB 4785+00
SB 4786+00
SB 4787+00

INTERSTATE 91 (NORTHBOUND)

NB 4781+00
NB 4782+00
NB 4783+00
NB 4784+00
NB 4785+00
NB 4786+00
NB 4787+00

MATCHLINE STA. 4781+00
MATCHLINE STA. 4787+00

TO THETFORD

GUIDE SIGN
LAKE MOREY
LAKE FAIRLEE
NEXT RIGHT

90.60

SCALE IN FEET
0 20 40

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 8

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 112OF 144

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK COMPLEX
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG.
PLUMB/STABLE

N

VT STATE PLANE GRID

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

THETFORD 6/
WRJ20

EXISITNG
WING WALL

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4787+00

SB 4787+00

SB 4788+00

SB 4789+00

SB 4790+00

SB 4791+00

SB 4792+00

SB 47

MATCHLINE STA. 4793+00

PT 4789+79.30

INTERSTATE 91 (NORTHBOUND)

NB 4787+00

NB 4788+00

NB 4789+00

NB 4790+00

NB 4791+00

NB 4792+00

NB 47

PT 4789+79.00

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

1000
BND
4"X4" CONC 0.5'AG.
PLUMB/STABLE

APPROX. EXISTING R.O.W.

SOIL CONDITIONS
WALPOLE FINE SANDY LOAM

MODERATE EROSION POTENTIAL
K = 0.28

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 9

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 113OF 144

SOIL CONDITIONS
WINDSOR LOAMY SAND
8%-25% SLOPES
LOW EROSION POTENTIAL
K = 0.15

APPROX. EXISTING R.O.W.

300
HVCTRL
MAGHUB

LAKE MOREY
OUTLET
FLOW

VT STATE PLANE GRID

301
HVCTRL
MAGHUB

3
HVCTRL
⅝REBAR VSE CONTROL CAP

INTERSTATE 91 (SOUTHBOUND)

N 58^18'05" E

SB 4793+00 | SB 4794+00 | SB 4795+00 | SB 4796+00 | SB 4797+00 | SB 4798+00 | SB 4799+00

MATCHLINE STA. 4793+00

MATCHLINE STA. 4799+00

SOIL CONDITIONS
WALPOLE FINE SANDY LOAM

MODERATE EROSION POTENTIAL
K = 0.28

INTERSTATE 91 (NORTHBOUND)

N 58^18'05" E

NB 4793+00 | NB 4794+00 | NB 4795+00 | NB 4796+00 | NB 4797+00 | NB 4798+00 | NB 47

2
HVCTRL
⅝REBAR VSE CONTROL CAP

200
HVCTRL
MAGHUB

APPROX. EXISTING R.O.W.

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 10

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 114OF 144

SOIL CONDITIONS
WALPOLE FINE SANDY LOAM

MODERATE EROSION POTENTIAL
K = 0.28

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

LIMIT OF SURVEY

APPROXIMATE TOPOGRAPHY FROM LIDAR

MOTORCYCLES USE CAUTION GROOVED SHOULDER

SL 65 / MIN 40

91.00

N58°18'05"E

INTERSTATE 91 (SOUTHBOUND)

99+00 | SB 4800+00 | SB 4801+00 | SB 4802+00 | SB 4803+00 | SB 4804+00 | SB 48

MATCHLINE STA. 4799+00

MATCHLINE STA. 4805+00

430'

N58°18'05"E

INTERSTATE 91 (NORTHBOUND)

99+00 | NB 4800+00 | NB 4801+00 | NB 4802+00 | NB 4803+00 | NB 4804+00 | NB 48

91.00 b

LIMIT OF SURVEY

APPROXIMATE TOPOGRAPHY FROM LIDAR

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_exist.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - EXISTING CONDITIONS PLAN SHEET 11	SHEET 115OF 144

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

05+00 | SB 4806+00 | SB 4807+00 | SB 4808+00 | SB 4809+00 | SB 4810+00

MATCHLINE STA. 4805+00

440'

PAVED
U-TURN

INTERSTATE 91 (NORTHBOUND)

05+00 | NB 4806+00 | NB 4807+00 | NB 4808+00 | NB 4809+00 | NB 4810+00

TO BRADFORD

GAS, LODGING, FOOD
NEXT RIGHT

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 12

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 116OF 144

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK VERY ROCKY FINE SANDY LOAM
8%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

VT STATE PLANE GRID

TO THETFORD

SB 4742+00
SB 4743+00
SB 4744+00
SB 4745+00
SB 4746+00
SB 4747+00
SB 47

MATCHLINE STA. 4748+00

PDF

PDF

MATCHLINE STA. 4748+00

NB 4743+00
NB 4744+00
NB 4745+00
NB 4746+00
NB 4747+00
NB 47

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 117OF 144

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK VERY ROCKY FINE SANDY LOAM
8%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

N

VT STATE PLANE GRID

MATCHLINE STA. 4748+00

N15°59'50"E

SB 4748+00

SB 4749+00

SB 4750+00

SB 4751+00

SB 4752+00

SB 4753+00

MATCHLINE STA. 4753+25

WARNING SIGN

90.40

GRAVEL U-TURN

PC 4751+02.99

MATCHLINE STA. 4748+00

N15°59'51"E

NB 4748+00

NB 4749+00

NB 4750+00

NB 4751+00

NB 4752+00

NB 4753+00

MATCHLINE STA. 4753+50

90.00

PC 4751+60.29

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 2

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 118OF 144

N

VT STATE PLANE GRID

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

MATCHLINE STA. 4753+25

SB 4754+00

SB 4755+00

SB 4756+00

SB 4757+00

SB 4758+00

SB 475

MATCHLINE STA. 4759+00

MATCHLINE STA. 4753+50

NB 4754+00

NB 4755+00

NB 4756+00

NB 4757+00

NB 4758+00

NB 47

MATCHLINE STA. 4759+00

PROPOSED TEMPORARY SOIL STOCKPILE LOCATION

SOIL CONDITIONS
RAYNHAM VARIANT SILT LOAM
0%-3% SLOPES
HIGH EROSION POTENTIAL
K = 0.37

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 3

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 119OF 144

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

PROPOSED TEMPORARY SOIL STOCKPILE LOCATION

90.20

MATCHLINE STA. 4759+00

SB 4760+00

SB 4761+00

SB 4762+00

SB 4763+00

SB 4764+00

MATCHLINE STA. 4764+50

MATCHLINE STA. 4759+00

NB 4760+00

NB 4761+00

NB 4762+00

NB 4763+00

NB 4764+00

MATCHLINE STA. 4764+50

90.20

SOIL CONDITIONS
RAYNHAM VARIANT SILT LOAM
0%-3% SLOPES
HIGH EROSION POTENTIAL
K = 0.37

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 4

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 120OF 144

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

PROPOSED TEMPORARY SOIL STOCKPILE LOCATION

N

VT STATE PLANE GRID

MATCHLINE STA. 4764+50

SB 4765+00

SB 4766+00

SB 4767+00

SB 4768+00

SB 4769+00

SB 47

MATCHLINE STA. 4770+00

MATCHLINE STA. 4764+50

NB 4765+00

NB 4766+00

NB 4767+00

NB 4768+00

NB 4769+00

NB 47

MATCHLINE STA. 4770+00

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 5

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 121OF 144

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK COMPLEX
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

N

VT STATE PLANE GRID

90.40

INTERSTATE 91 (SOUTHBOUND)

SB 4770+00

SB 4771+00

SB 4772+00

SB 4773+00

SB 4774+00

SB 4775+00

MATCHLINE STA. 4770+00

MATCHLINE STA. 4775+50

KEEP RIGHT
EXCEPT TO PASS
SIGN

INTERSTATE 91 (NORTHBOUND)

NB 4770+00

NB 4771+00

NB 4772+00

NB 4773+00

NB 4774+00

NB 4775+00

MATCHLINE STA. 4770+00

MATCHLINE STA. 4775+50

90.40

PROPOSED TEMPORARY SOIL STOCKPILE LOCATION

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 6

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 122OF 144

N

VT STATE PLANE GRID

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

PROPOSED TEMPORARY SOIL STOCKPILE LOCATION

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4775+50

SB 4776+00

SB 4777+00

SB 4778+00

SB 4779+00

SB 4780+00

SB 47

MATCHLINE STA. 4781+00

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4775+50

NB 4776+00

NB 4777+00

NB 4778+00

NB 4779+00

NB 4780+00

NB 47

MATCHLINE STA. 4781+00

GUIDE SIGN
EXIT 15
FAIRLEE
ORFORD NH
1 MILE

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 7

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 123OF 144

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

PROPOSED TEMPORARY SOIL STOCKPILE LOCATION

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

INTERSTATE 91 (NORTHBOUND)

TO: HIETFORD

GUIDE SIGN
LAKE MOREY
LAKE FAIRLEE
NEXT RIGHT

90.60

90.60

SB 4781+00

SB 4782+00

SB 4783+00

SB 4784+00

SB 4785+00

SB 4786+00

SB 4787+00

NB 4781+00

NB 4782+00

NB 4783+00

NB 4784+00

NB 4785+00

NB 4786+00

NB 4787+00

MATCHLINE STA. 4781+00

MATCHLINE STA. 4787+00

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_const.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - CONSTRUCTION PLAN SHEET 8	SHEET 124OF 144

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

PROPOSED TEMPORARY SOIL STOCKPILE LOCATION

THETFORD 6/
WRJ20

EXISITING
WING WALL

PROTECT AND COVER
DROP INLET

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4787+00

SB 4787+00
SB 4788+00
SB 4789+00
SB 4790+00
SB 4791+00
SB 4792+00
SB 47

PT 4789+79.30

MATCHLINE STA. 4793+00

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4787+00

NB 4787+00
NB 4788+00
NB 4789+00
NB 4790+00
NB 4791+00
NB 4792+00
NB 47

PT 4789+79.00

PDF
BF
IMPD
HABITAT

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

1000
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_const.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - CONSTRUCTION PLAN SHEET 9	SHEET 125OF 144

APPROX. EXISTING R.O.W.

CONCEPTUAL ACCESS ROAD AND STAGING AREA

CONCEPTUAL TEMPORARY SUPPORT OF EXCAVATION TO BE DESIGNED BY CONTRACTOR

300 HVCTRL MAGHUB

301 HVCTRL MAGHUB

3 HVCTRL ⅝REBAR VSE CONTROL CAP

2 HVCTRL ⅝REBAR VSE CONTROL CAP

LAKE MOREY OUTLET FLOW

N37°11'38"E

54+00

53+00

52+00

51+00

50+00

N54°21'16"E

N 58^18'05" E

INTERSTATE 91 (SOUTHBOUND)

INTERSTATE 91 (NORTHBOUND)

SB 4794+00 SB 4795+00 SB 4796+00 SB 4797+00 SB 4798+00

NB 4794+00 NB 4795+00 NB 4796+00 NB 4797+00 NB 4798+00

MATCHLINE STA. 4793+00

MATCHLINE STA. 4799+00

VT STATE PLANE GRID

N

0 20 40

SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_const.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - CONSTRUCTION PLAN SHEET 10	SHEET 126OF 144

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

SL 65 / MIN 40

MOTORCYCLES
USE CAUTION
GROOVED
SHOULDER

91.00

PROTECT AND
COVER DROP INLET

PROTECT AND
COVER DROP INLET

N58°18'05"E

INTERSTATE 91 (SOUTHBOUND)

99+00 | SB 4800+00 | SB 4801+00 | SB 4802+00 | SB 4803+00 | SB 4804+00 | SB 48

MATCHLINE STA. 4799+00

MATCHLINE STA. 4805+00

N58°18'05"E

INTERSTATE 91 (NORTHBOUND)

99+00 | NB 4800+00 | NB 4801+00 | NB 4802+00 | NB 4803+00 | NB 4804+00 | NB 48

91.00

TEMPORARY
CONSTRUCTION
LIMITS

PDF

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_const.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - CONSTRUCTION PLAN SHEET 11	SHEET 127OF 144

N

VT STATE PLANE GRID

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

PC 4810+86.12

INTERSTATE 91 (SOUTHBOUND)

05+00 | SB 4806+00 | SB 4807+00 | SB 4808+00 | SB 4809+00 | SB 4810+00 | SB 4811+00

MATCHLINE STA. 4805+00

PDF

PAVED
U-TURN

PC 4811+01.00

INTERSTATE 91 (NORTHBOUND)

05+00 | NB 4806+00 | NB 4807+00 | NB 4808+00 | NB 4809+00 | NB 4810+00 | NB 4811+00

TO BRADFORD

GAS, LODGING, FOOD
NEXT RIGHT

PDF

TEMPORARY
CONSTRUCTION
LIMITS

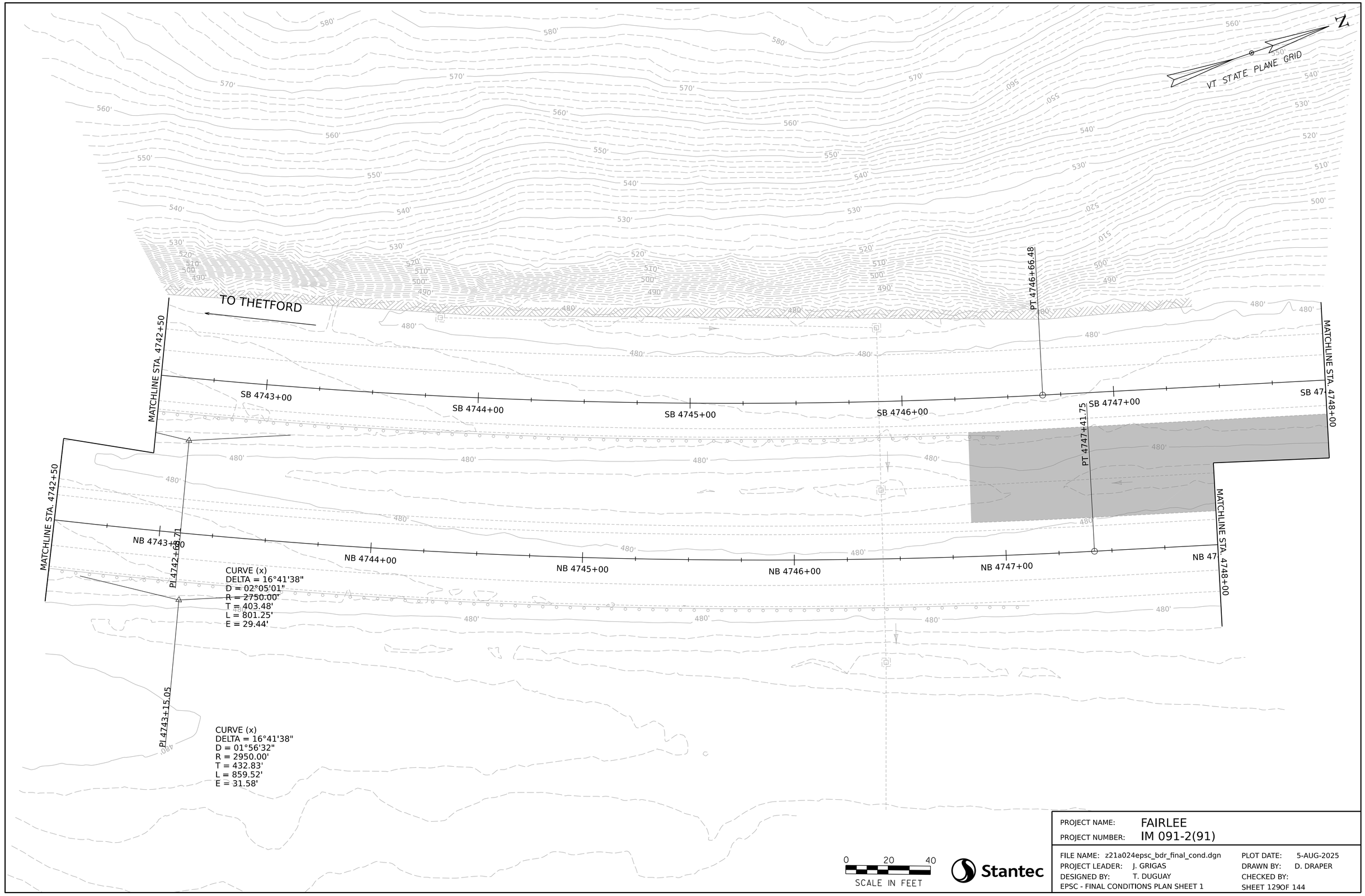
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

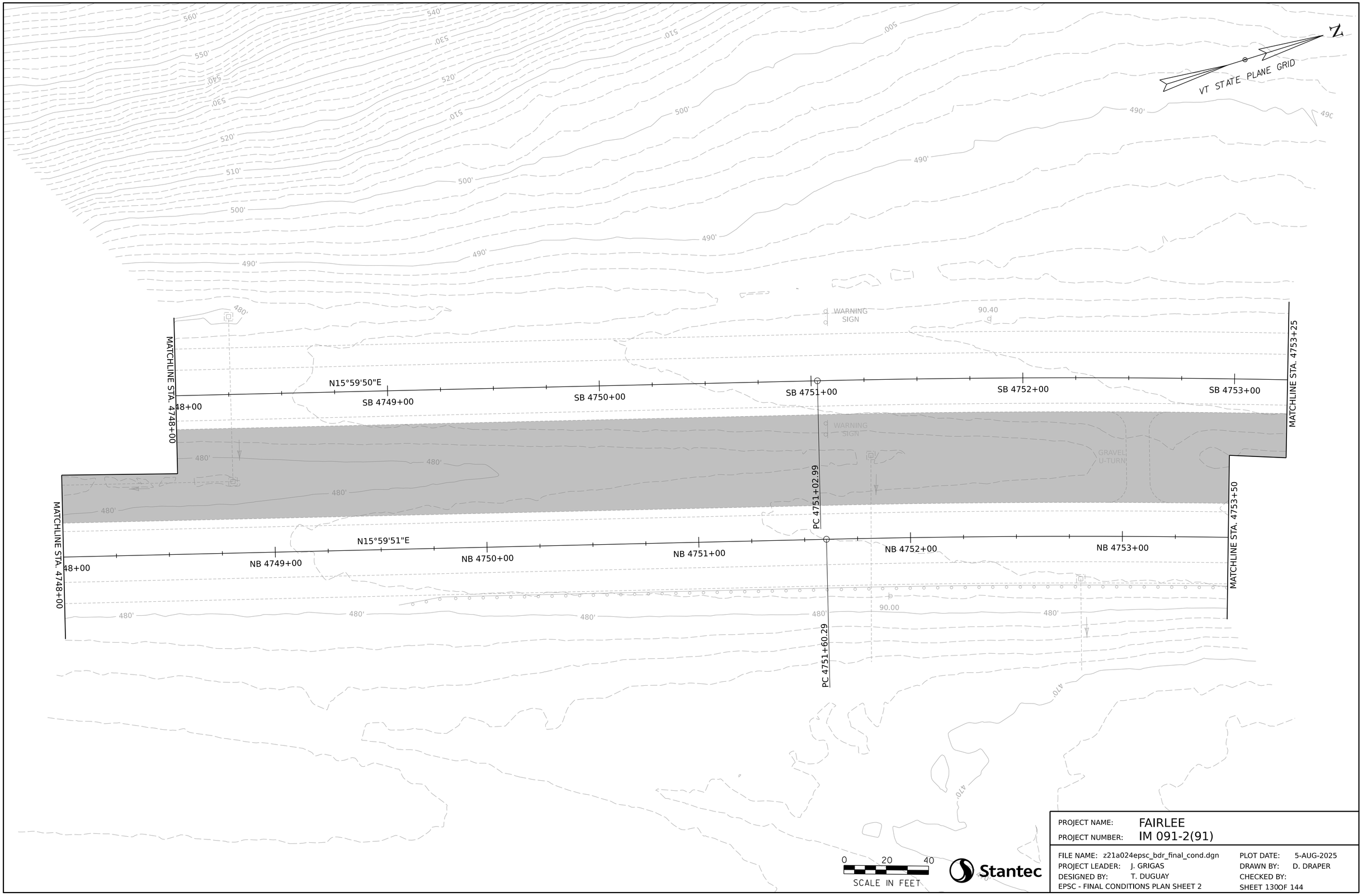
FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 12

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 128OF 144

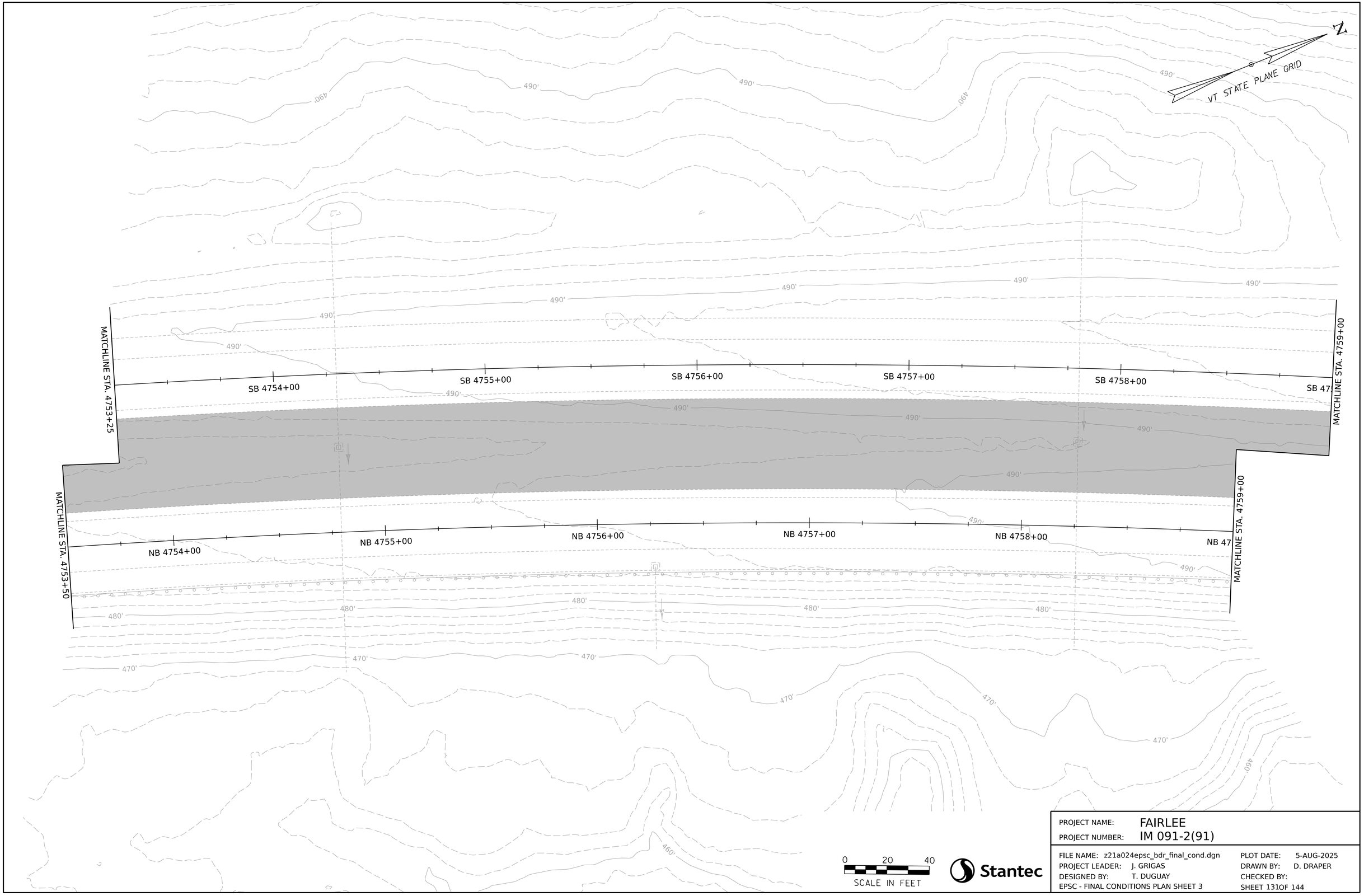


Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY:
EPSC - FINAL CONDITIONS PLAN SHEET 1	SHEET 129OF 144



PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY:
EPSC - FINAL CONDITIONS PLAN SHEET 2	SHEET 130OF 144



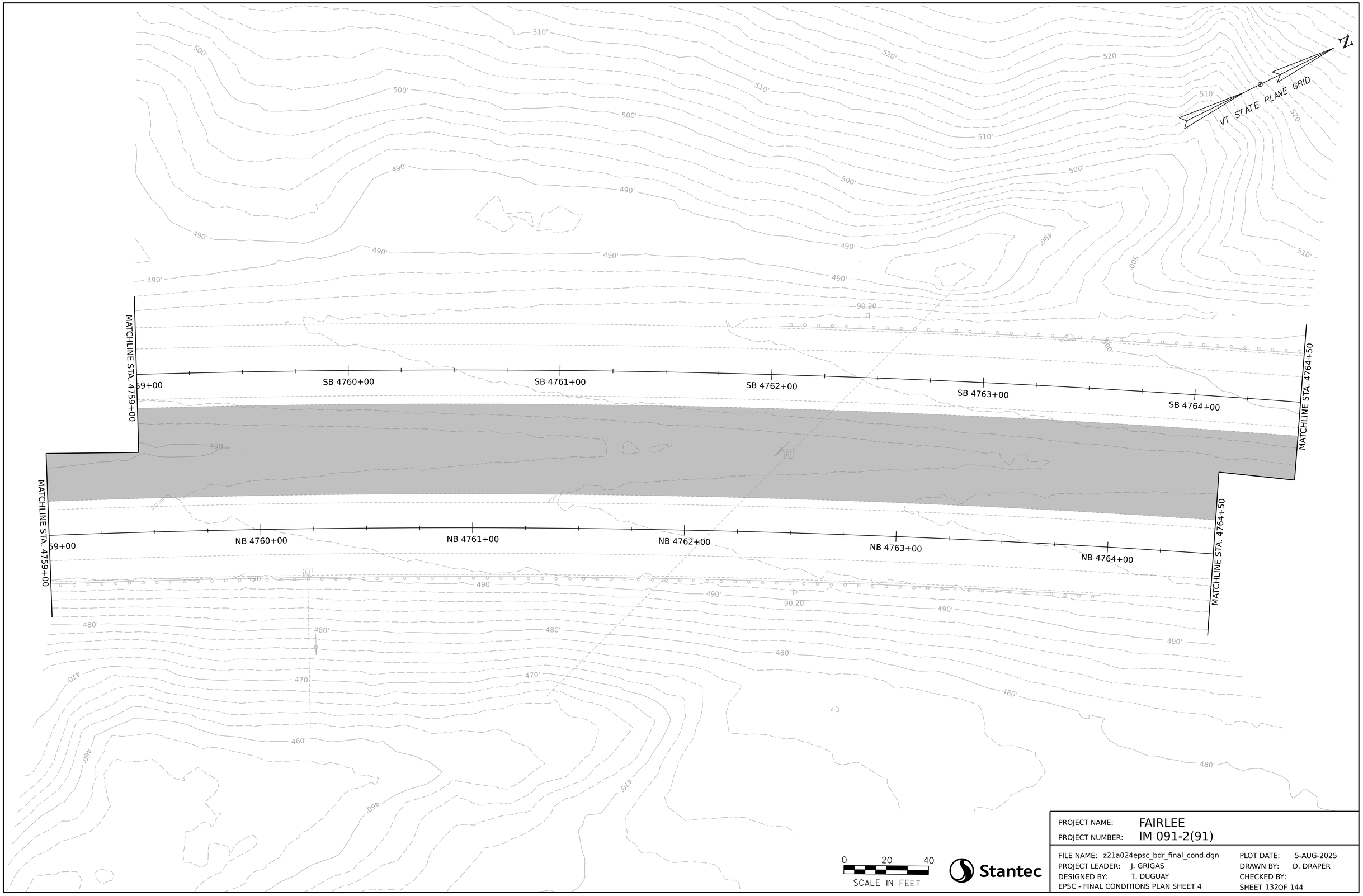
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_final_cond.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - FINAL CONDITIONS PLAN SHEET 3

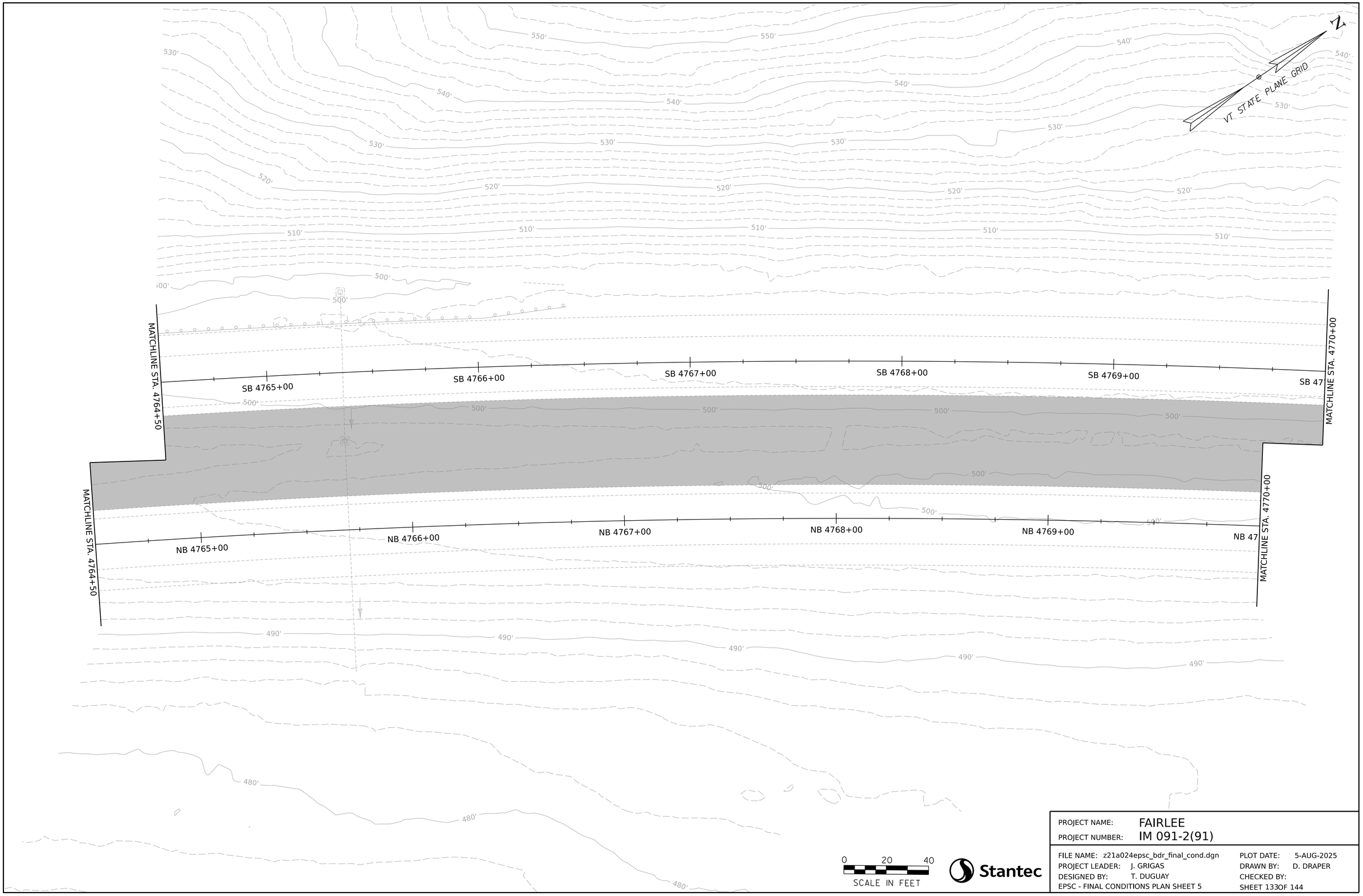
PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 131OF 144



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY:
EPSC - FINAL CONDITIONS PLAN SHEET 4	SHEET 132OF 144



Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	
EPSC - FINAL CONDITIONS PLAN SHEET 5		SHEET 133OF 144	

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4770+00

SB 4770+00

SB 4771+00

SB 4772+00

SB 4773+00

SB 4774+00

SB 4775+00

MATCHLINE STA. 4775+50

KEEP RIGHT EXCEPT TO PASS SIGN

90.40

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4770+00

NB 4770+00

NB 4771+00

NB 4772+00

NB 4773+00

NB 4774+00

NB 4775+00

MATCHLINE STA. 4775+50

KEEP RIGHT EXCEPT TO PASS SIGN

90.40

0 20 40

SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME:	z21a024epsc_bdr_final_cond.dgn
PROJECT LEADER:	J. GRIGAS
DESIGNED BY:	T. DUGUAY
EPSC - FINAL CONDITIONS PLAN SHEET 6	
PLOT DATE:	5-AUG-2025
DRAWN BY:	D. DRAPER
CHECKED BY:	J. GRIGAS
SHEET 134OF 144	

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

SB 4776+00 | SB 4777+00 | SB 4778+00 | SB 4779+00 | SB 4780+00 | SB 47

MATCHLINE STA. 4775+50

MATCHLINE STA. 4781+00

INTERSTATE 91 (NORTHBOUND)

NB 4776+00 | NB 4777+00 | NB 4778+00 | NB 4779+00 | NB 4780+00 | NB 47

MATCHLINE STA. 4775+50

MATCHLINE STA. 4781+00

GUIDE SIGN
EXIT 15
FAIRLEE
ORFORD NH
1 MILE

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024epsc_bdr_final_cond.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - FINAL CONDITIONS PLAN SHEET 7

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 135OF 144

N

VT STATE PLANE GRID

MATCHLINE STA. 4781+00

MATCHLINE STA. 4787+00

INTERSTATE 91 (SOUTHBOUND)

SB 4781+00
SB 4782+00
SB 4783+00
SB 4784+00
SB 4785+00
SB 4786+00
SB 47

INTERSTATE 91 (NORTHBOUND)

NB 4781+00
NB 4782+00
NB 4783+00
NB 4784+00
NB 4785+00
NB 4786+00
NB 47

TO: PHETFORD

90.60

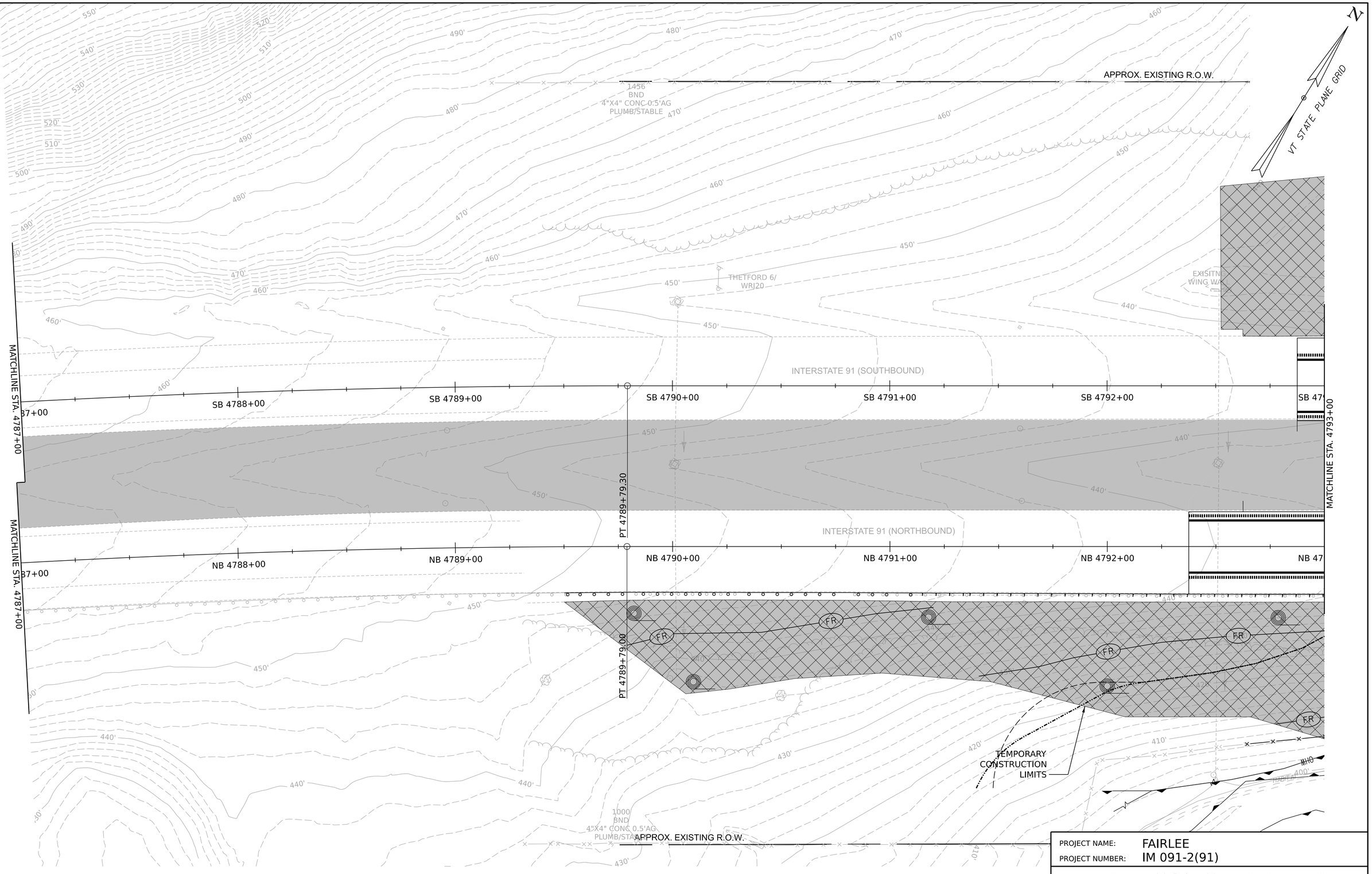
GUIDE SIGN
LAKE MOREY
LAKE FAIRLEE
NEXT RIGHT

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 8		SHEET 136	OF 144

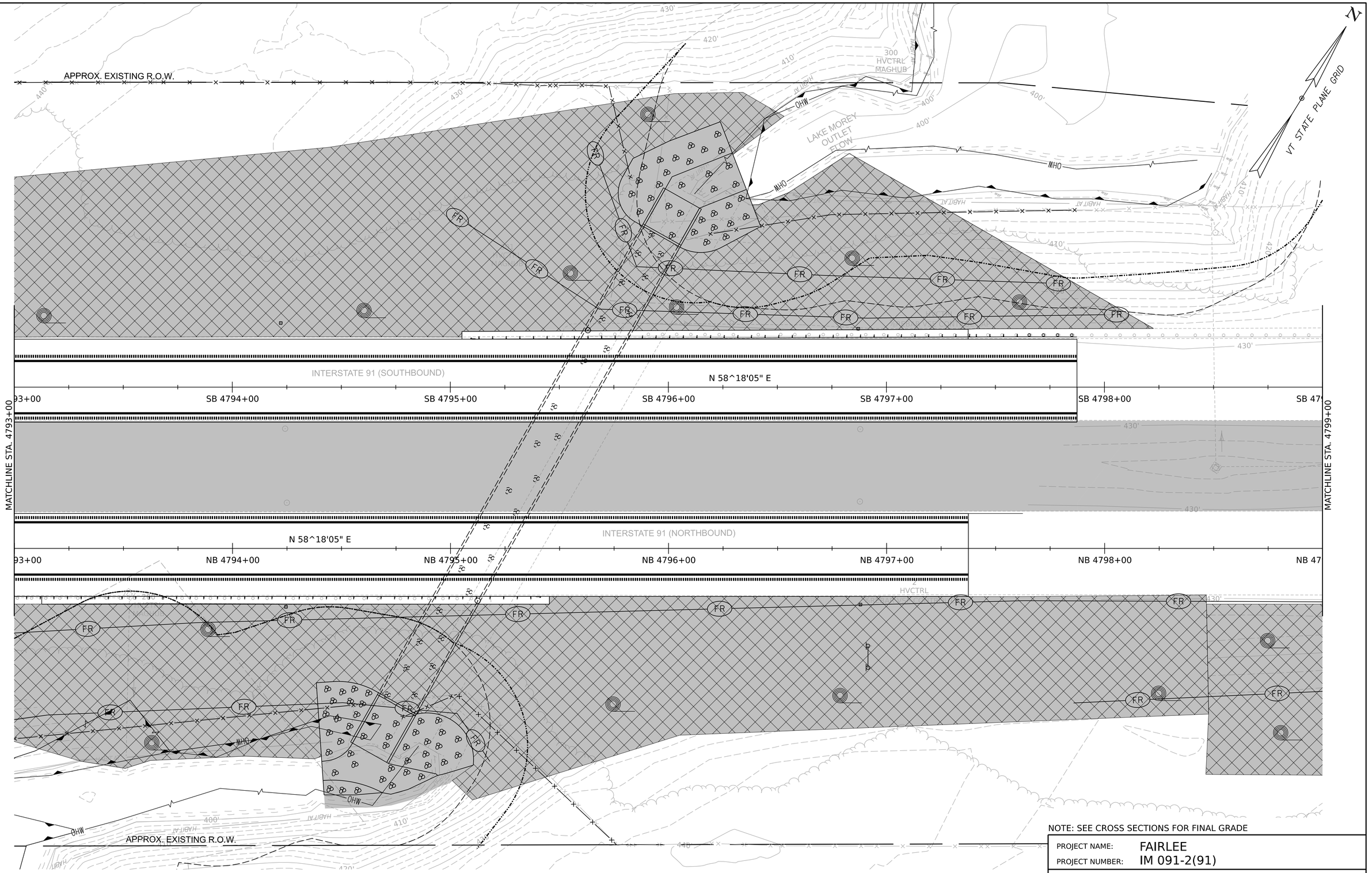


0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 9		SHEET 137OF 144	

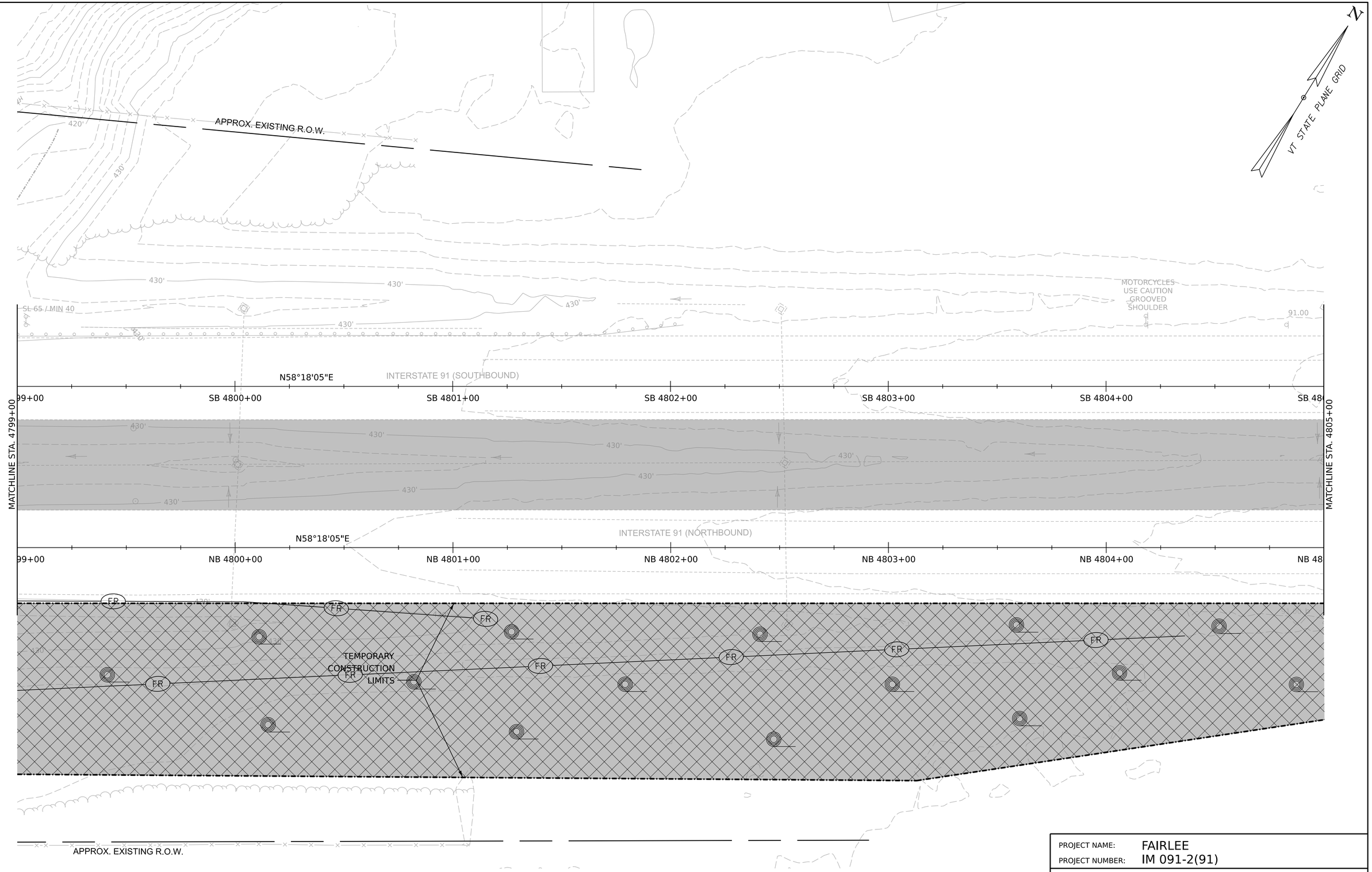


Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024epsc_bdr_final_cond.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - FINAL CONDITIONS PLAN SHEET 10

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 138OF 144



Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 11	SHEET 139OF 144

N

VT STATE PLANE GRID

PC 4810+86.12

PC 4811+01.00

INTERSTATE 91 (SOUTHBOUND)

05+00 | SB 4806+00 | SB 4807+00 | SB 4808+00 | SB 4809+00 | SB 4810+00 | SB 4811+00

MATCHLINE STA. 4805+00

440'

PAVED
U-TURN

INTERSTATE 91 (NORTHBOUND)

05+00 | NB 4806+00 | NB 4807+00 | NB 4808+00 | NB 4809+00 | NB 4810+00 | NB 4811+00

TO BRADFORD

TEMPORARY
CONSTRUCTION
LIMITS

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	5-AUG-2025
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
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EPSC - FINAL CONDITIONS PLAN SHEET 12		SHEET 140OF 144	

VAOT POLLINATOR COMPACT

% OF MIX	LATIN NAME	COMMON NAME	CULTIVAR/ECOTYPE
17.5	TRIFOLIUM REPENS	WHITE CLOVER	PINNACLE or LADINO
17.5	TRIFOLIUM REPENS	WHITE CLOVER	DUTCH
17.5	TRIFOLIUM HYBRIDUM	ALSIKE CLOVER	
23.7	FESTUCA OVINA VAR. DURIUSCULA	HARD FESCUE	GLADIATOR
23.8	FESTUCA OVINA	SHEEP FESCUE	ANY
100%			

SEED RATE: 24 LBS/ACRE PURE LIVE SEED (PLS)
30 LBS/ACRE OF NURSE CROP
54 LBS/ACRE OF BULKING AGENT

*PREFERRED SEEDING PERIOD FOR POLLINATOR SEED MIX IS BEFORE MAY 1 (AFTER SNOWMELT) AND AFTER SEPTEMBER 15 (BEFORE SNOWPACK). IF SEEDING OCCURS DURING THE PREFERRED PERIOD, SEEDING RATE SHALL BE REDUCED BY 30%. NO ADJUSTMENT IS REQUIRED FOR NURSE CROPS OR BULKING AGENTS).

DESIGN GUIDANCE

1. THIS SEED MIX SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING MOWING ONCE EVERY 3 YEARS OR LESS.
2. USE SEED MIX FOR AREAS THAT REQUIRE LOW COVER (LESS THAN 2' TALL) OR AS INDICATED IN THE PLANS.

CONSTRUCTION GUIDANCE

1. SEE VAOT POLLINATOR SEED CONSTRUCTION GUIDANCE DETAIL FOR MORE GUIDNACE ON INSTALLATION AND BULKING AGENT.

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1600 TURF ESTABLISHMENT, SPECIALTY SEED)

REVISIONS		
JUNE 21, 2023	BKD	

VAOT POLLINATOR DRY

% OF MIX	LATIN NAME	COMMON NAME	CULTIVAR/ ECOTYPE
6	AGROSTIS PERENNANS	AUTUMN BENTGRASS,	APB (NY)
25.2	ANDROPOGON GERARDII	BIG BLUESTEM	APB (NY)
0.5	ASCLEPIAS SYRIACA	COMMON MILKWEED	ANY
0.8	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	PA
25	ELYMUS VIRGINICUS	VIRGINIA WILDRYE	MADISON OR PA
0.6	MONARDA FISTULOSA	WILD BERGAMOT	FIG (PA)
20	PANICUM CLANDESTINUM	DEERTONGUE	TIOGA
1.5	RUDBECKIA HIRTA	BLACK EYED SUSAN	ANY
20	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	ANY
0.2	SOLIDAGO JUNCEA	EARLY GOLDENROD	PA
0.2	SOLIDAGO RUGOSA	WRINKLE LEAF GOLDENROD	PA
100%			

SEED RATE: 60 LBS/ACRE PURE LIVE SEED (PLS)
30 LBS/ACRE OF NURSE CROP
30 LBS/ACRE OF BULKING AGENT

*PREFERRED SEEDING PERIOD FOR POLLINATOR SEED MIX IS BEFORE MAY 1 (AFTER SNOWMELT) AND AFTER SEPTEMBER 15 (BEFORE SNOWPACK). IF SEEDING OCCURS DURING THE PREFERRED PERIOD, SEEDING RATE SHALL BE REDUCED BY 30%. NO ADJUSTMENT IS REQUIRED FOR NURSE CROPS OR BULKING AGENTS).

DESIGN GUIDANCE

1. THIS SEED MIX SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING MOWING ONCE EVERY 3 YEARS OR LESS.
2. USE SEED MIX FOR AREAS THAT ARE SLOPED OR FLAT, WITH NORMAL TO DRY CONDITIONS, OR AS INDICATED IN THE PLANS.

CONSTRUCTION GUIDANCE

1. SEE VAOT POLLINATOR SEED CONSTRUCTION GUIDANCE DETAIL FOR MORE INFORMATION ON INSTALLATION AND BULKING AGENT.

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1600 TURF ESTABLISHMENT, SPECIALTY SEED)

REVISIONS		
JUNE 21, 2023	BKD	

VAOT POLLINATOR WET

% OF MIX	LATIN NAME	COMMON NAME	CULTIVAR/ ECOTYPE
2	AGROSTIS PERENNANS	AUTUMN BENTGRASS	APB (NY)
2	ASCLEPIAS INCARNATA	SWAMP MILKWEED	PA
0.6	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	PA
0.2	ASTER PUNICEUS	PURPLE STEMMED ASTER	PA
0.2	ASTER UMBELLATUS	WHITE FLAT-TOPPED ASTER	PA
1	BIDENS CERNUA	NODDING BUR MARIGOLD	PA
30	CAREX VULPINOIDEA	FOX SEDGE	PA
0.3	CHELONE GLABRA	TURTLEHEAD	PA
20	ELYMUS VIRGINICUS	VIRGINIA WILDRYE	MADISON OR PA
1	EUPATORIUM PERFOLIATUM	BONESET	PA
3.9	JUNCUS EFFUSUS	SOFT RUSH	PA
3.8	JUNCUS TENUIS	PATH RUSH	PA
30	PANICUM CLANDESTINUM	DEERTONGUE	TIOGA
4	VERBENA HASTATA	BLUE VERVAIN	PA
1	ZIZIA AUREA	GOLDEN ALEXANDERS	PA
100%			

SEED RATE: 15 LBS/ACRE PURE LIVE SEED (PLS)
30 LBS/ACRE OF NURSE CROP.
60 LBS/ACRE OF BULKING AGENT

*PREFERRED SEEDING PERIOD FOR POLLINATOR SEED MIX IS BEFORE MAY 1 (AFTER SNOWMELT) AND AFTER SEPTEMBER 15 (BEFORE SNOWPACK). IF SEEDING OCCURS DURING THE PREFERRED PERIOD, SEEDING RATE SHALL BE REDUCED BY 30%. NO ADJUSTMENT IS REQUIRED FOR NURSE CROPS OR BULKING AGENTS).

DESIGN GUIDANCE

1. THIS SEED MIX SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING MOWING ONCE EVERY 3 YEARS OR LESS.
2. USE SEED MIX FOR AREAS THAT EXPERIENCE OCCASIONAL INNUNDATION OF WATER (EX. DETENTION BASINS OR SWALES), OR AS INDICATED IN THE PLANS.

CONSTRUCTION GUIDANCE

1. SEE VAOT POLLINATOR SEED CONSTRUCTION GUIDANCE DETAIL FOR MORE INFORMATION ON INSTALLATION AND BULKING AGENT.

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1600 TURF ESTABLISHMENT, SPECIALTY SEED)

REVISIONS		
JUNE 21, 2023	BKD	

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_detail.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
EPSC - DETAIL SHEET 1

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 141 OF 144

VAOT POLLINATOR SEED CONSTRUCTION GUIDANCE

1. PREPARE SOIL FOR POLLINATOR SEED MIX APPLICATION SITES IN ACCORDANCE WITH VTRANS SUBSECTION 651.04 & 651.05 FOR TURF ESTABLISHMENT.
2. APPLY SOIL AMENDMENTS PER SOIL TEST RESULTS.
3. MIX POLLINATOR SEED, NURSE CROP SEEDS, AND BULKING AGENT PRIOR TO APPLICATION. ENSURE THAT THE MATERIALS ARE EVENLY DISTRIBUTED THROUGHOUT THE MIX.
   - A. NURSE CROP: USE GRAIN OATS (AVENA SATIVA) AS A NURSE CROP IF PLANTING BETWEEN JANUARY 1 AND JULY 31 OR USE WINTER RYE (SECALE CEREALE) IF PLANTING BETWEEN AUGUST 1 AND DECEMBER 31.
   - B. BULKING AGENT: ADD AN INERT CARRIER AND BULKING AGENT SUCH AS GRANULAR SODIUM BENTONITE CLAY, NON-CLUMPING & NON-SCENTED KITTY LITTER, OR APPROVED EQUIVALENT TO ALLOW FOR EVEN SEED DISTRIBUTION AND AS A VISUAL AID OF COVERAGE DURING THE SEED INSTALLATION. BULKING AGENTS SHALL BE MIXED WITH THE SEED MIX AND NURSE CROP AT THE RATES SPECIFIED ON THE POLLINATOR SEED MIX DETAILS. PAYMENT FOR BULKING AGENT AND NURSE CROP SHALL BE INCIDENTAL TO THE CORRESPONDING SEED PAY ITEMS.
4. APPLY POLLINATOR SEED MIXES, NURSE CROP SEEDS, AND BULKING AGENT CONCURRENTLY IN ACCORDANCE WITH THE RATES SHOWN ON THE POLLINATOR SEED MIX TABLES. DO NOT EXCEED THE RECOMMENDED NURSE CROP SEEDING RATES TO AVOID SMOTHERING THE POLLINATOR SEED MIX AND PREVENTING GERMINATION.
5. SPREAD SEED BY HAND OR USE BROADCAST SEEDING EQUIPMENT WITH AN INTERNAL AGITATOR AND AN ADJUSTABLE FLOW GATE TO CREATE A SLOW, STEADY SEED FLOW, ALLOWING FOR EVEN DISTRIBUTION OF THE SMALLER SEEDS.
6. USE A LANDSCAPE-TYPE ROLLER, CULTIPACKER, OR LEAF RAKE TO LIGHTLY PRESS SEED INTO SOIL BED AFTER BROADCAST SPREADING. THIS PROMOTES ADEQUATE SEED TO SOIL CONTACT. DO NOT TILL OR COVER SEED WITH SOIL.
7. MULCH WITH A LIGHT COVER OF WEED-FREE OAT STRAW AT A RATE OF 3,000 LB./ACRE.
8. IF HYDROSEEDING, A TWO-STEP PROCESS SHALL BE USED. FIRST PASS: APPLY SEED WITH 1/3 THE NORMAL RATE OF HYDRAULIC MULCH. SECOND PASS: APPLY REMAINDER OF HYDRAULIC MULCH. RATE OF HYDROSEED SHALL BE PER MANUFACTURERS RECOMMENDATIONS. NO BULKING AGENT SHALL BE USED.

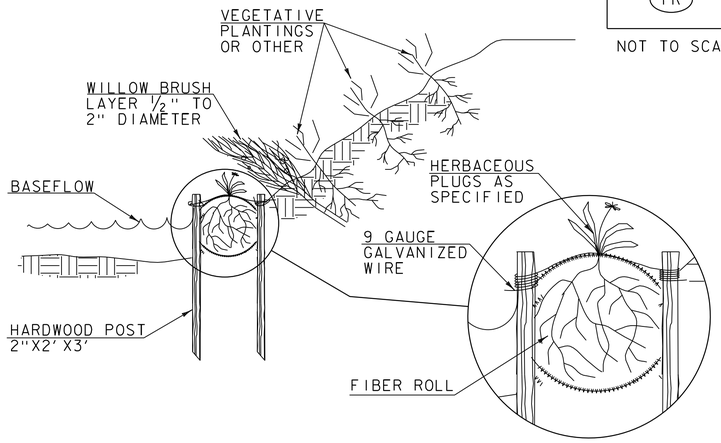
TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1600 TURF ESTABLISHMENT, SPECIALTY SEED)

REVISIONS	
JUNE 21, 2023	BKD

SYMBOL: FR

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. EXCAVATE A SHALLOW TRENCH SLIGHTLY BELOW BASEFLOW OR A 4" TRENCH ON SLOPE CONTOURS
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2"X2" POSTS PLACED ON BOTH SIDES FO THE ROLL AND SPACED LATERALLY ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IF NECESSARY.
3. NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH 9 GAUGE GALVANIZED WIRE OR 1/8" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANT WITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FIBER ROLL (EROSION LOG)

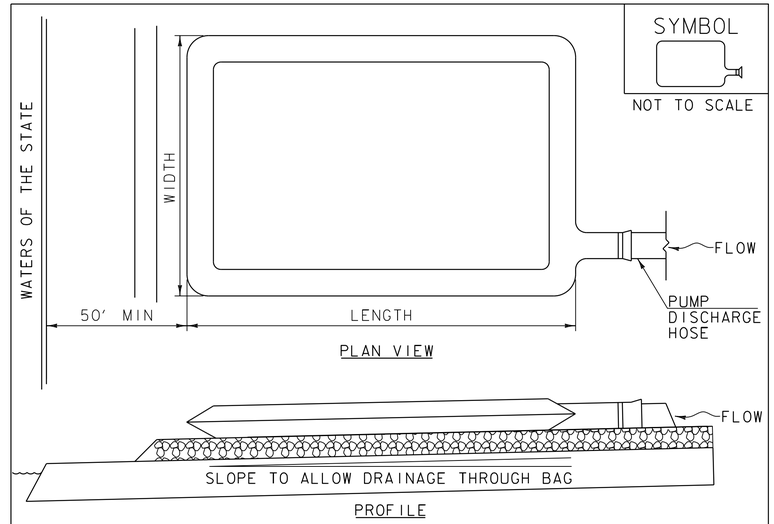
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR EROSION LOG (PAY ITEM 653.60)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 13, 2009	WHF

SYMBOL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS.
2. FILTER BAGS SHALL BE INSTALLED ON A VEGETATED SLOPE GRADED TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.
3. FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.
4. FILTER BAGS SHALL BE LOCATED A MINIMUM OF 50' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.
6. A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.
7. FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.

FILTER BAG

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR FILTER BAG (PAY ITEM 653.45) AND AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_detail.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
EPSC - DETAIL SHEET 2

PLOT DATE: 5-AUG-2025
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 142 OF 144

LEGEND:

VAOT POLLINATOR DRY

SHRUBS W/ WET AREA SEED

(46) SHRUBS. SPECIES MIXED EVENLY, SEE PLANT LAYOUT DETAIL.

(40) SHRUBS. SPECIES MIXED EVENLY, SEE PLANT LAYOUT DETAIL.

TEMPORARY CONSTRUCTION LIMITS

LAKE MOREY OUTLET FLOW

N57°11'38"E

54+00

53+00

51+00

50+00

N02°15'55"W

N54°21'16"E

N 58^18'05" E

TO THETFORD

TO BRADFORD

INTERSTATE 91 (SOUTHBOUND)

INTERSTATE 91 (NORTHBOUND)

SB 4793+00 SB 4794+00 SB 4795+00 SB 4796+00 SB 4797+00 SB 4798+00

NB 4793+00 NB 4794+00 NB 4795+00 NB 4796+00 NB 4797+00 NB 4798+00

EXISITNG WING WALL

301 HVCTRL MAGHUB

HVCTRL 3 REBAR VSE CONTROL CAP

CZ

HABIT AT

PIPE TO BE FILLED WITH FLOWABLE FILL

(50) SHRUBS. SPECIES MIXED EVENLY, SEE PLANT LAYOUT DETAIL.

(44) SHRUBS. SPECIES MIXED EVENLY, SEE PLANT LAYOUT DETAIL.

APPROX. EXISTING R.O.W.

VT STATE PLANE GRID

N

0 20 40

SCALE IN FEET

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: w21a024bdr_lds.dgn	PLOT DATE: 5-AUG-2025
PROJECT LEADER: J. GRIGAS	DRAWN BY: B. DONAHUE
DESIGNED BY: B. DONAHUE	CHECKED BY: VTRANS
LANDSCAPE PLAN	SHEET 143OF 144

NOTES:

1. SEEDED AREAS SHALL BE PROTECTED IN ACCORDANCE WITH SPECIFICATION SUBSECTION 651.07 PROTECTION. WHERE WETLANDS OR WETLAND BUFFERS ARE PRESENT, STRAW MULCH SHALL BE USE INSTEAD OF HAY MULCH.

2. IF AREAS WITHIN PDF OR BARRIER FENCE ARE NOT DISTURBED, THEY SHOULD REMAIN VEGETATED, AND ADDITIONAL REVEGETATION IS NOT REQUIRED.

3. PROVIDING SUFFICIENT MOISTURE IS CRITICAL DURING THE ENTIRE PLANT ESTABLISHMENT PERIOD. WATERING TO BE PAID FOR UNDER 656.6500 LANDSCAPE WATERING.

4. THE VTRANS LANDSCAPE ARCHITECT AND LANDSCAPE INSPECTOR WILL CONFIRM PLANT LOCATIONS BASED ON THE PREPARED SITE, PRIOR TO INSTALLATION.

5. FOR WETLAND AREAS RECEIVING WET AREA SEED, NO TOPSOIL OR GRUBBINGS SHALL BE ADDED. SCARIFY SOIL SURFACE TO LOOSEN SOIL FOR BETTER SEED-SOIL CONTACT. FOR TREES AND SHRUBS IN WETLAND AREAS, LANDSCAPE BACKFILL SHALL BE USED PER VTRANS STANDARD E-1 TREE PLANTING AND E-2 SHRUB PLANTING.

6. IN AREAS RECEIVING PLANTINGS ON STONE FILL, GRUBBING LAYER SHALL NOT DISAPPEAR INTO GAPS. TOP LAYER OF STONE FILL MAY BE BROKEN DOWN INTO SMALLER PIECES TO PREVENT SOIL LOSS AS DIRECTED BY THE RESIDENT ENGINEER.

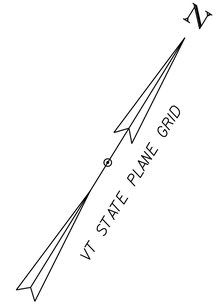
WET AREA SEED (WETLAND)

WET AREA SEED (WETLAND) TO BE PAID FOR UNDER 651.1600 SPECIALTY SEED. APPLICATION RATES VARY BY SEED MIX. WET AREA SEED TO BE ONE OF THE FOLLOWING, OR APPROVED EQUAL:

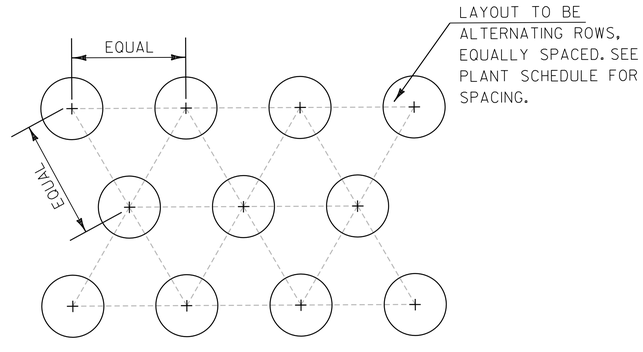
- VERMONT WET MEADOW & DETENTION BASIN MIX
  SUPPLIER: VERMONT WETLAND PLANT SUPPLY. APPLICATION RATE: 35 LBS/ACRE.

- NEW ENGLAND WET MIX (WETLAND SEED MIX)
  SUPPLIER: NEW ENGLAND WETLAND PLANTS, INC. APPLICATION RATE: 18 LBS/ACRE.

- PA NEW ENGLAND PROVINCE FACW MIX
  SUPPLIER: ERNST CONSERVATION SEEDS, INC. APPLICATION RATE: 20 LBS/ACRE WITH A COVER CROP (GRAIN RYE (1 SEP TO 30 APR; 30 LBS/ACRE). JAPANESE MILLET OR BARNYARD GRASS (1 MAY TO 31 AUG; 10 LBS/ACRE)).



KEY	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONTAINER	SPACING (ON CENTER)
SHRUBS - DECIDUOUS						
CS	30	*Cornus sericea*	Red twig dogwood	2 GAL	CONT.	6' O.C.
CA	30	*Cornus amomum*	Silky dogwood	2 GAL	CONT.	6' O.C.
RT	30	*Rhus typhina*	Staghorn sumac	2 GAL	CONT.	6' O.C.
SD	30	*Salix discolor*	Common pussy willow	2 GAL	CONT.	6' O.C.
SS	30	*Salix sericea*	Silky willow	2 GAL	CONT.	6' O.C.
ST	30	*Spiraea tomentosa*	Steeplebush	2 GAL	CONT.	6' O.C.



PLANT LAYOUT DETAIL

0 20 40
SCALE IN FEET

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: w21a024bdr_lds.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: B. DONAHUE
LANDSCAPE NOTES

PLOT DATE: 5-AUG-2025
DRAWN BY: B. DONAHUE
CHECKED BY: VTRANS
SHEET 144OF 144