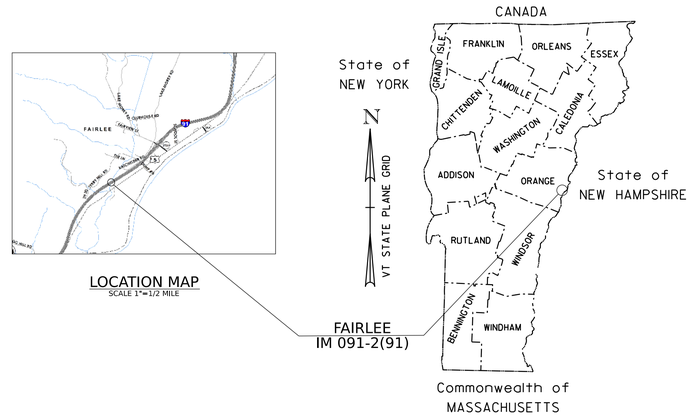
REVIEWER NOTES:

1. CONSTRUCTION WILL TAKE PLACE OVER TWO CONSTRUCTION SEASONS.
2. TRAFFIC WILL BE MAINTAINED ON CROSSOVERS.
3. ALL WORK TAKES PLACE WITHIN THE EXISTING HIGHWAY RIGHT-OF-WAY.
4. NO UTILITIES ARE IMPACTED BY THIS PROJECT.
5. PROJECT IS EXPECTED TO EXCEED 1 ACRE OF EARTH DISTURBANCE.
6. ANY STRUCTURAL ELEMENTS SHOWN IN THE PLANS ARE CONCEPTUAL AND THE FINAL DESIGN WILL BE BY THE FABRICATOR.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF FAIRLEE

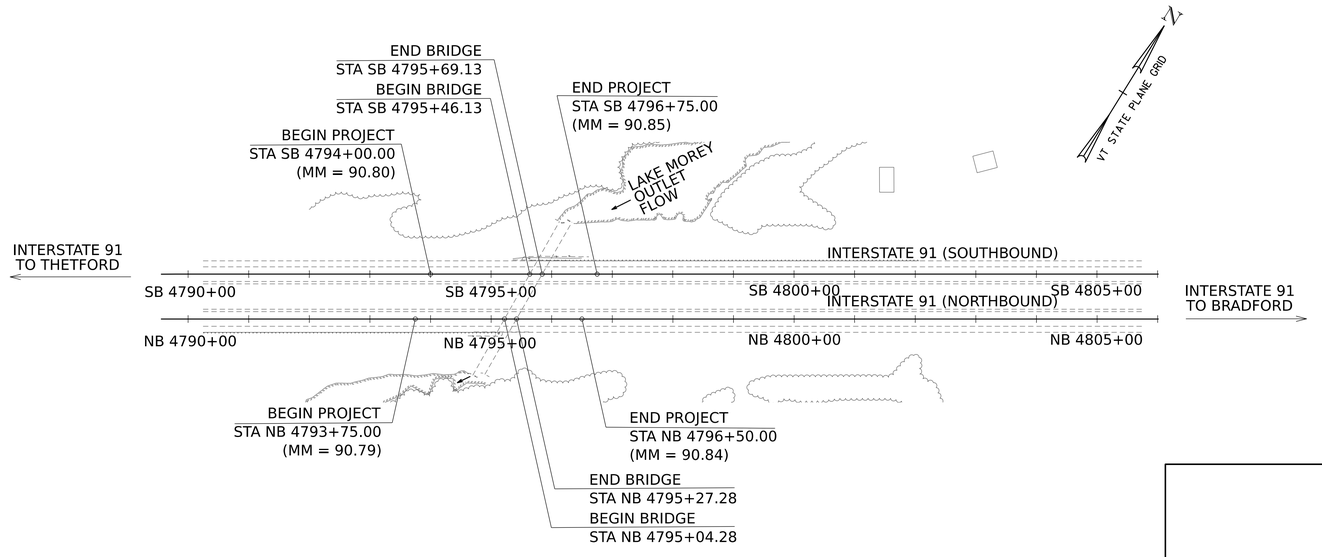
COUNTY OF ORANGE

ROUTE NO : INTERSTATE I-91; PRINCIPAL ARTERIAL - NHS — BRIDGE NO'S : 55-2 AND 55-3

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		BRIDGE 55-3		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 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRI L 1 3, 2018 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)

CONCEPTUAL
7/7/2023

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

APPROVED _____ DATE _____

PROJECT MANAGER : ADAM GOUDREAU, P.E.

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

SHEET 1 OF 37 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (CULVERT)

Version
LRFD

PLAN SHEETS

1	TITLE SHEET
2	PRELIMINARY INFORMATION SHEET
3 - 5	TYPICAL SECTION SHEETS 1-3
6	CONVENTIONAL SYMBOLOGY LEGEND SHEET
7 - 14	LAYOUT PLAN SHEETS 1-3
15 - 17	PROFILE SHEETS 1-3
18 - 20	NB CROSS SECTION SHEETS 1-3
21 - 23	SB CROSS SECTION SHEETS 1-3
24 - 29	CULVERT CROSS SECTION SHEETS 1-6
30 - 37	EXISTING CONDITIONS SHEETS 1-3

DETAIL SHEETS

STANDARDS LIST

FINAL HYDRAULIC REPORT

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 9'-6" X 252'-0" BOX).
2. CULVERT ENDS ARE NOT SKEWED.
3. CULVERT WILL BE SET AT A SLOPE OF 0.54 IN. ON 10 FT.
4. CULVERT WILL REQUIRE FISH PASSAGE ACCOMODATIONS
5. CULVERT CONSTRUCTION WILL REQUIRE A TEMPORARY PIPE

DESIGN VALUES

1.	DESIGN LIVE LOAD		HL-93
2.	FUTURE PAVEMENT	d_P:	3.0 INCH INCR
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 (WEATHERING)	f_y:	50 KSI
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	V_{3s}:	---
21.	MINIMUM GROUND SNOW LOAD	p_g:	---
22.	SEISMIC DATA	PGA: --- S_s:	---
		S_1:	---
23.			
24.			---
25.			---
26.			---

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:

Stantec

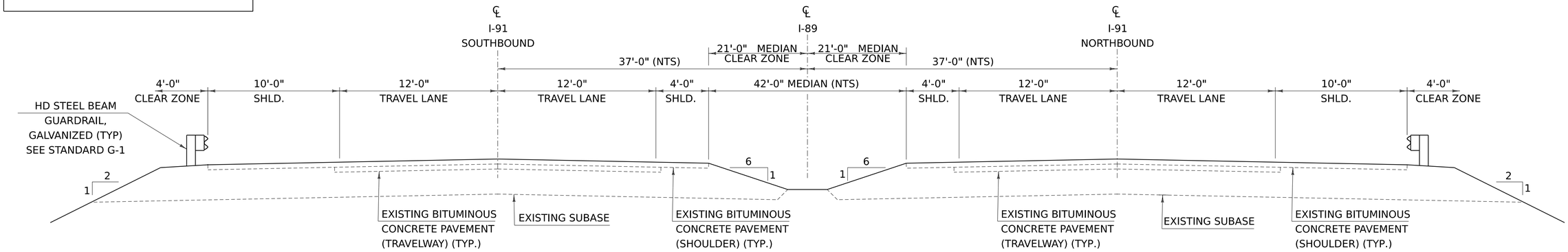
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

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

PLOT DATE: 7/7/2023
DRAWN BY: P. ARMATA
CHECKED BY: J. GRIGAS
SHEET 2 OF 37

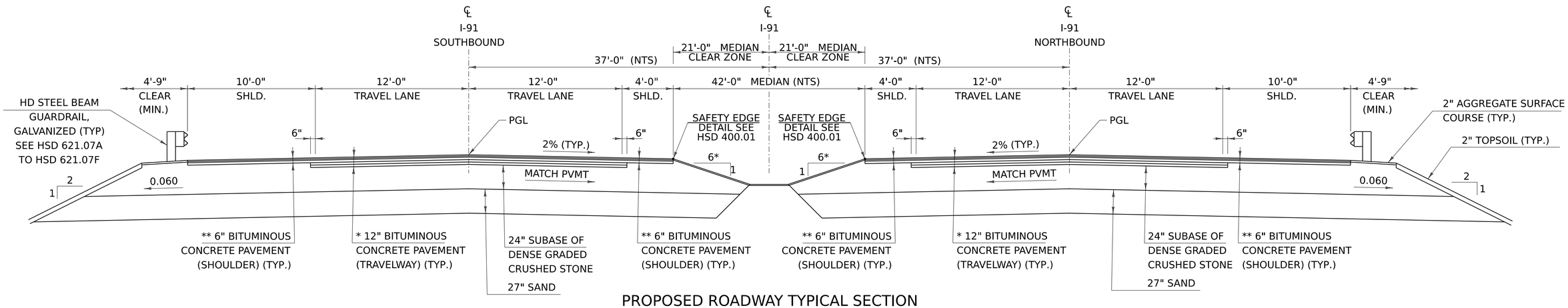
MATERIAL TOLERANCES
(IF USED ON PROJECT)

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



EXISTING ROADWAY TYPICAL SECTION

NOT TO SCALE (NTS)



PROPOSED ROADWAY TYPICAL SECTION

NOT TO SCALE (NTS)

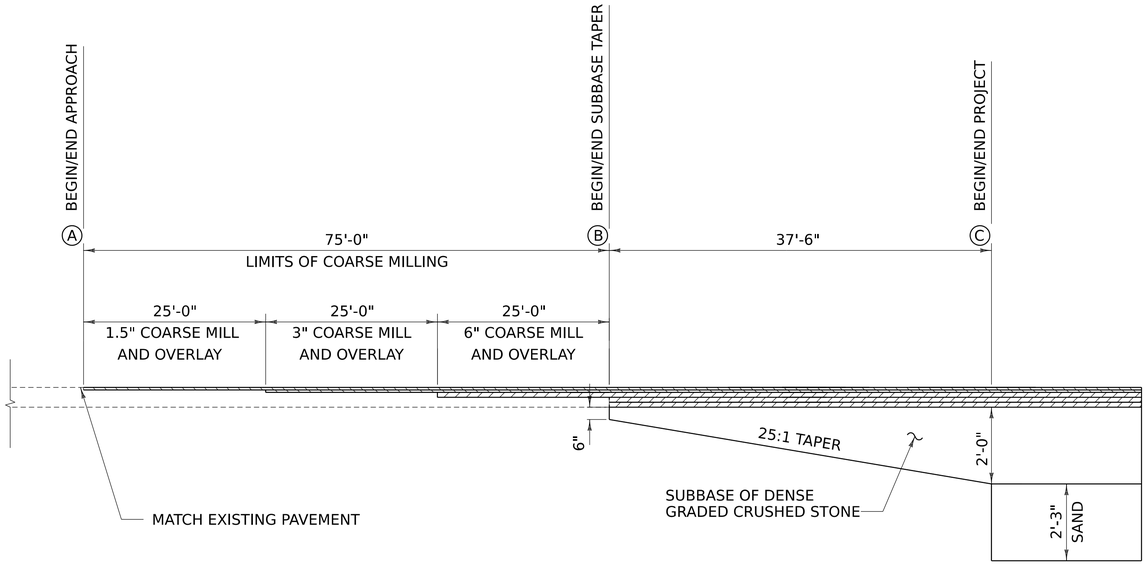
* TRAVELWAY PAVEMENT
1½" TYPE IVS OVER
1½" TYPE IVS OVER
3" TYPE IIS OVER
3" OF TYPE IIS OVER
3" OF TYPE IIS

** SHOULDER PAVEMENT
1½" LIFT OF TYPE IVS OVER
1½" LIFT OF TYPE IVS OVER
3" LIFT OF TYPE IIS

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

Stantec

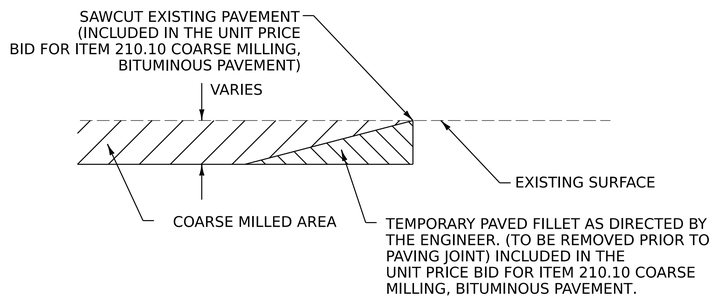
PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024typ.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P. ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
TYPICAL SECTION SHEET 1		SHEET	3 OF 37



	A	B	C
NORTHBOUND			
SOUTH APPROACH	4792+62.50	4793+37.50	4793+75.00
NORTH APPROACH	4797+62.50	4796+87.50	4796+50.00
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.

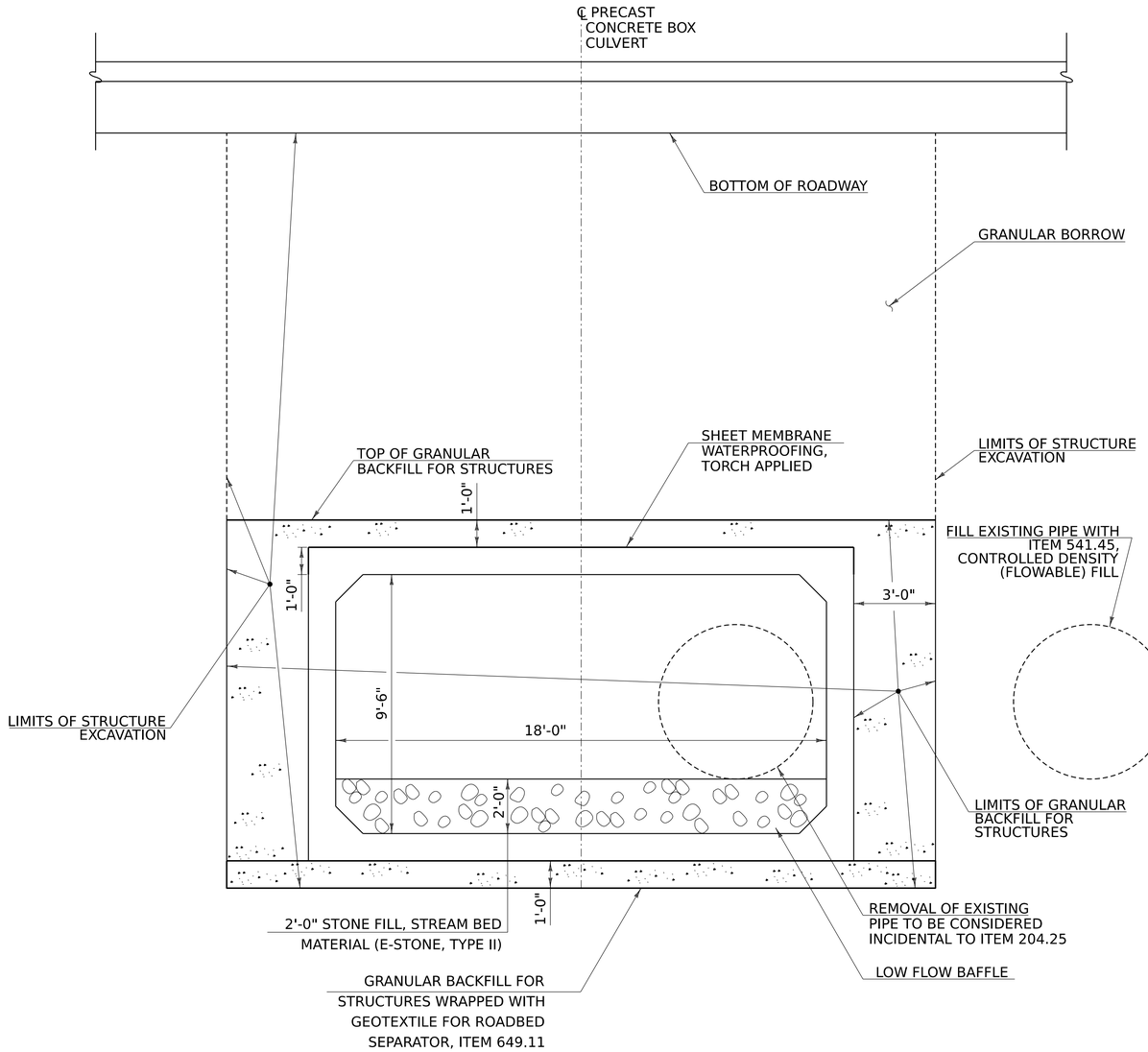
DETAIL AT VERTICAL COARSE MILLING JOINTS

NOT TO SCALE

Stantec

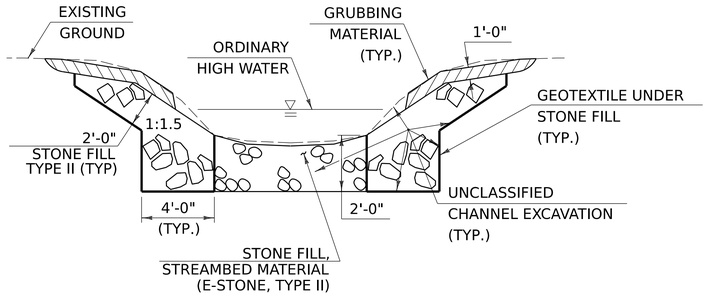
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024typ.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P. ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
TYPICAL SECTION SHEET 2		SHEET 4	OF 37



PRECAST CONCRETE BOX TYPICAL SECTION

SCALE ⅜" = 1'-0"



CHANNEL TYPICAL SECTION

NOT TO SCALE

NOTE:

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, CREATE THE LOW FLOW CHANNEL AT THE INLET, OUTLET, AND INSIDE THE CULVERT

Stantec

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

FILE NAME:	z21a024typ.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P. ARMATA
DESIGNED BY:	J. GRIGAS	CHECKED BY:	J. GRIGAS
TYPICAL SECTION SHEET 3		SHEET	5 OF 37

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

- UTILITY (GENERIC-UNKNOWN)
- TELEPHONE
- ELECTRIC
- CABLE (TV)
- ELECTRIC+CABLE
- ELECTRIC+TELEPHONE
- CABLE+TELEPHONE
- ELECTRIC+CABLE+TELEPHONE
- GAS LINE
- WATER LINE
- SANITARY SEWER (SEPTIC)

ABOVE GROUND UTILITIES (AERIAL)

- UTILITY (GENERIC-UNKNOWN)
- TELEPHONE
- ELECTRIC
- CABLE (TV)
- ELECTRIC+CABLE
- ELECTRIC+TELEPHONE
- ELECTRIC+TELEPHONE
- CABLE+TELEPHONE
- 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
- PROJECT DEMARCATION FENCE
- BARRIER FENCE
- TREE PROTECTION ZONE (TPZ)
- STRIPING LINE REMOVAL
- SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

- TOWN BOUNDARY LINE
- COUNTY BOUNDARY 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
- PROPERTY LINE (P/L)
- SLOPE RIGHTS
- 6F PROPERTY BOUNDARY
- 4F PROPERTY BOUNDARY
- 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
- 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: 7/7/2023
PROJECT LEADER: VTrans	DRAWN BY: VTrans
DESIGNED BY: VTrans	CHECKED BY: VTrans
CONVENTIONAL SYMBOLOGY LEGEND SHEET	SHEET 6 OF 37

N

VT STATE PLANE GRID

CURVE (x)
DELTA = 42°18'15"
D = 01°05'29"
R = 5250.00'
T = 2031.29'
L = 3876.31'
E = 379.26'

CONCEPTUAL PROJECT LIMITS

SB 4770+00

SB 4771+00

SB 4772+00

SB 4773+00

SB 4774+00

SB 4775+00

PROPOSED CROSSOVER E.O.P.

MATCHLINE STA. 4775+50

PROPOSED CROSSOVER E.O.P.

NB 4775+00

NB 4774+00

NB 4773+00

NB 4772+00

NB 4771+00

NB 4770+00

MATCHLINE STA. 4775+50

CURVE (x)
DELTA = 42°18'14"
D = 01°06'28"
R = 5172.00'
T = 2001.10'
L = 3818.71'
E = 373.63'

CONCEPTUAL PROJECT LIMITS

TO THETFORD

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_gen.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
LAYOUT PLAN SHEET 1	SHEET 7 OF 37

N

VT STATE PLANE GRID

CONCEPTUAL PROJECT LIMITS

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

PROPOSED CROSSOVER E.O.P.

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

CONCEPTUAL PROJECT LIMITS

0 20 40

SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_gen.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
LAYOUT PLAN SHEET 2		SHEET 8	OF 37

N

VT STATE PLANE GRID

CONCEPTUAL PROJECT LIMITS

INTERSTATE 91 (SOUTHBOUND)

SB 4782+00

SB 4783+00

SB 4784+00

SB 4785+00

SB 4786+00

SB 47

MATCHLINE STA. 4781+00

MATCHLINE STA. 4787+00

TO THETFORD

PROPOSED CROSSOVER E.O.P.

INTERSTATE 91 (NORTHBOUND)

NB 4782+00

NB 4783+00

NB 4784+00

NB 4785+00

NB 4786+00

NB 47

MATCHLINE STA. 4781+00

MATCHLINE STA. 4787+00

CONCEPTUAL PROJECT LIMITS

0 20 40

SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_gen.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
LAYOUT PLAN SHEET 3	SHEET 9 OF 37

N

APPROX. EXISTING R.O.W.

VT STATE PLANE GRID

CONCEPTUAL PROJECT LIMITS

BEGIN APPROACH
SB 4792+87.50

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4787+00

87+00

SB 4788+00

SB 4789+00

SB 4790+00

SB 4791+00

SB 4792+00

SB 47

MATCHLINE STA. 4793+00

PROPOSED CROSSOVER E.O.P.

PT 4789+79.30

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4787+00

87+00

NB 4788+00

NB 4789+00

NB 4790+00

NB 4791+00

NB 4792+00

NB 47

PT 4789+59.54

HVCTRL

PT 4789+79.00

BEGIN APPROACH
NB 4792+62.50

CONCEPTUAL PROJECT LIMITS

24"CMP

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	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
LAYOUT PLAN SHEET 4		SHEET 10 OF 37	

APPROX. EXISTING R.O.W.

CONCEPTUAL PROJECT LIMITS

POT 53+98.69

POE 54+72

N36°23'12"E

LAKE MOREY OUTLET FLOW

WOODS

54+00

END BRIDGE
SB 4795+69.13

BEGIN PROJECT
SB 4794+00.00

BEGIN BRIDGE
SB 4795+46.13

END PROJECT
SB 4796+75.00

END APPROACH
SB 4797+87.50

INTERSTATE 91 (SOUTHBOUND)

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

MATCHLINE STA. 4793+00

MATCHLINE STA. 4799+00

NB 4795+15.78
CHAN 52+11.01
Δ= 60°34'00" LT

SB 4795+57.78
CHAN 52+95.98
Δ= 60°34'00" LT

N02°15'55"W

53+00

BEGIN PROJECT
NB 4793+75.00

BEGIN BRIDGE
NB 4795+04.28

INTERSTATE 91 (NORTHBOUND)

93+00 | NB 4794+00 | NB 4795+00 | NB 4796+00 | NB 4797+00 | NB 4798+00 | NB 47

52+00

END BRIDGE
NB 4795+27.28

END PROJECT
NB 4796+50.00

END APPROACH
NB 4797+62.50

POB 50+00.00

POT 50+90.36

N54°21'16"E

51+00

50+00

WOODS

CONCEPTUAL PROJECT LIMITS

APPROX. EXISTING R.O.W.

VT STATE PLANE GRID

N

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_gen.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
LAYOUT PLAN SHEET 5	SHEET 11 OF 37

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

WOODS

CONCEPTUAL PROJECT LIMITS

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

N58°09'10.88"E

DI

DI

PROPOSED CROSSOVER E.O.P.

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

CONCEPTUAL PROJECT LIMITS

WOODS

APPROX. EXISTING R.O.W.

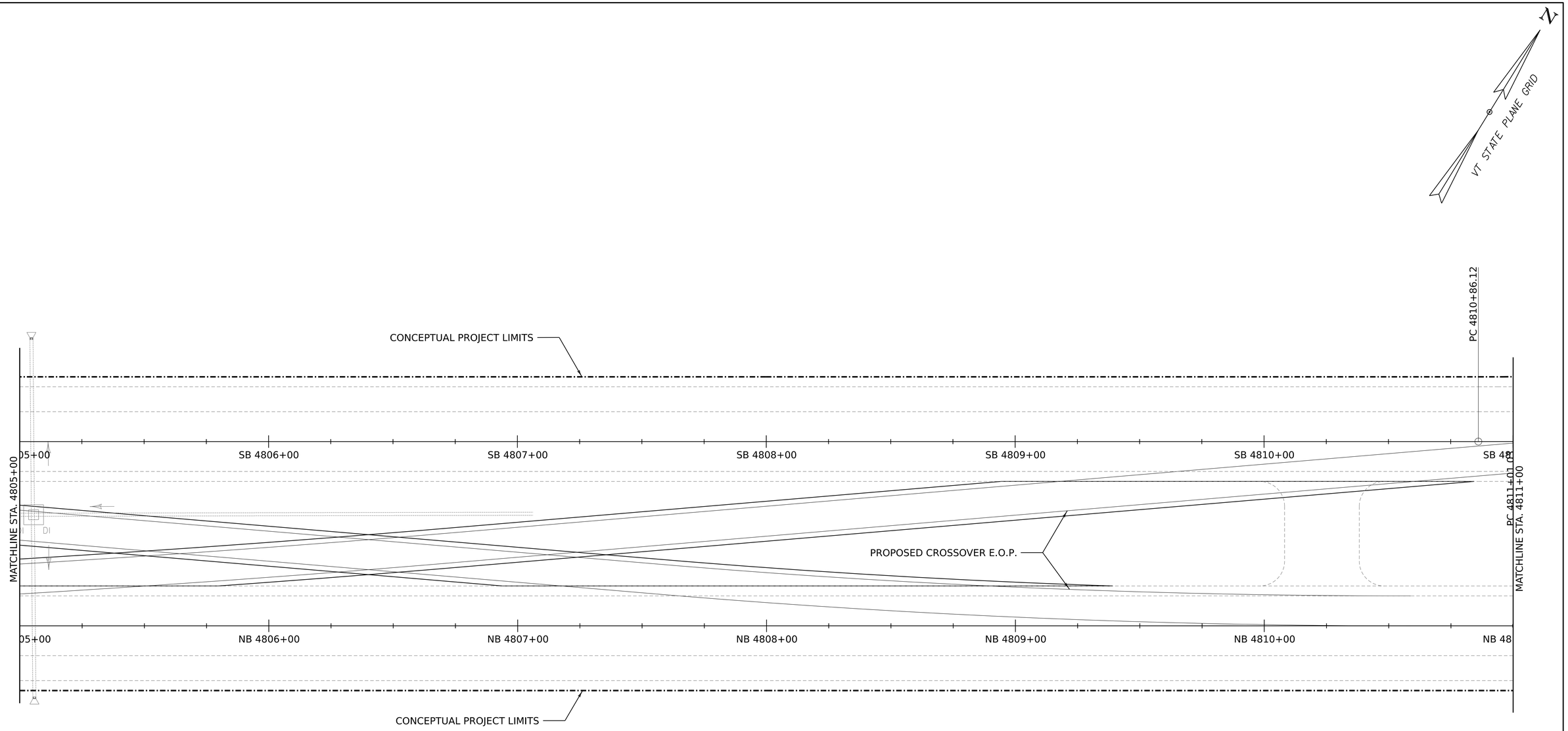
0 20 40

SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_gen.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
LAYOUT PLAN SHEET 6		SHEET 12 OF 37	

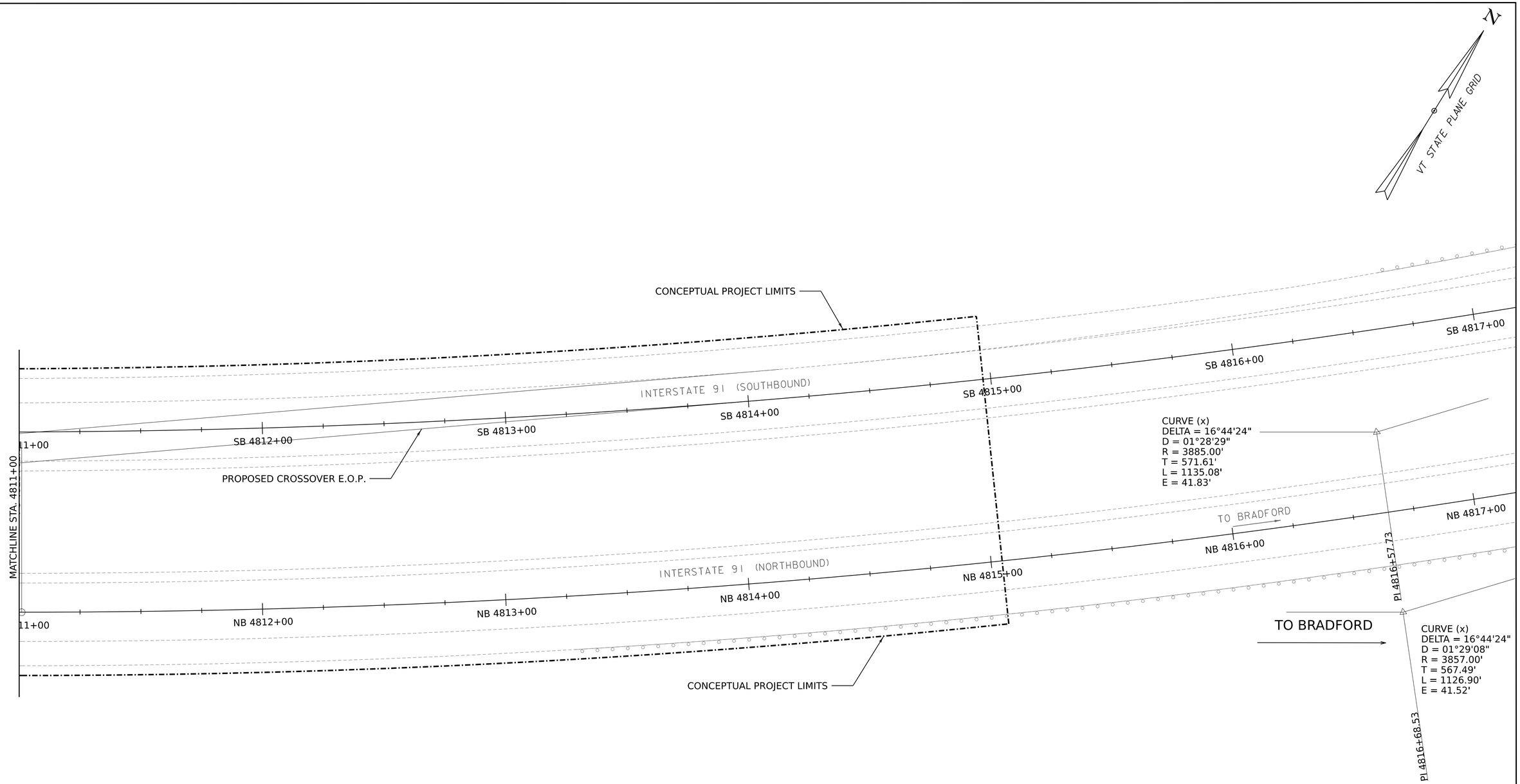


0 20 40
SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_gen.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
LAYOUT PLAN SHEET 7		SHEET 13 OF 37	

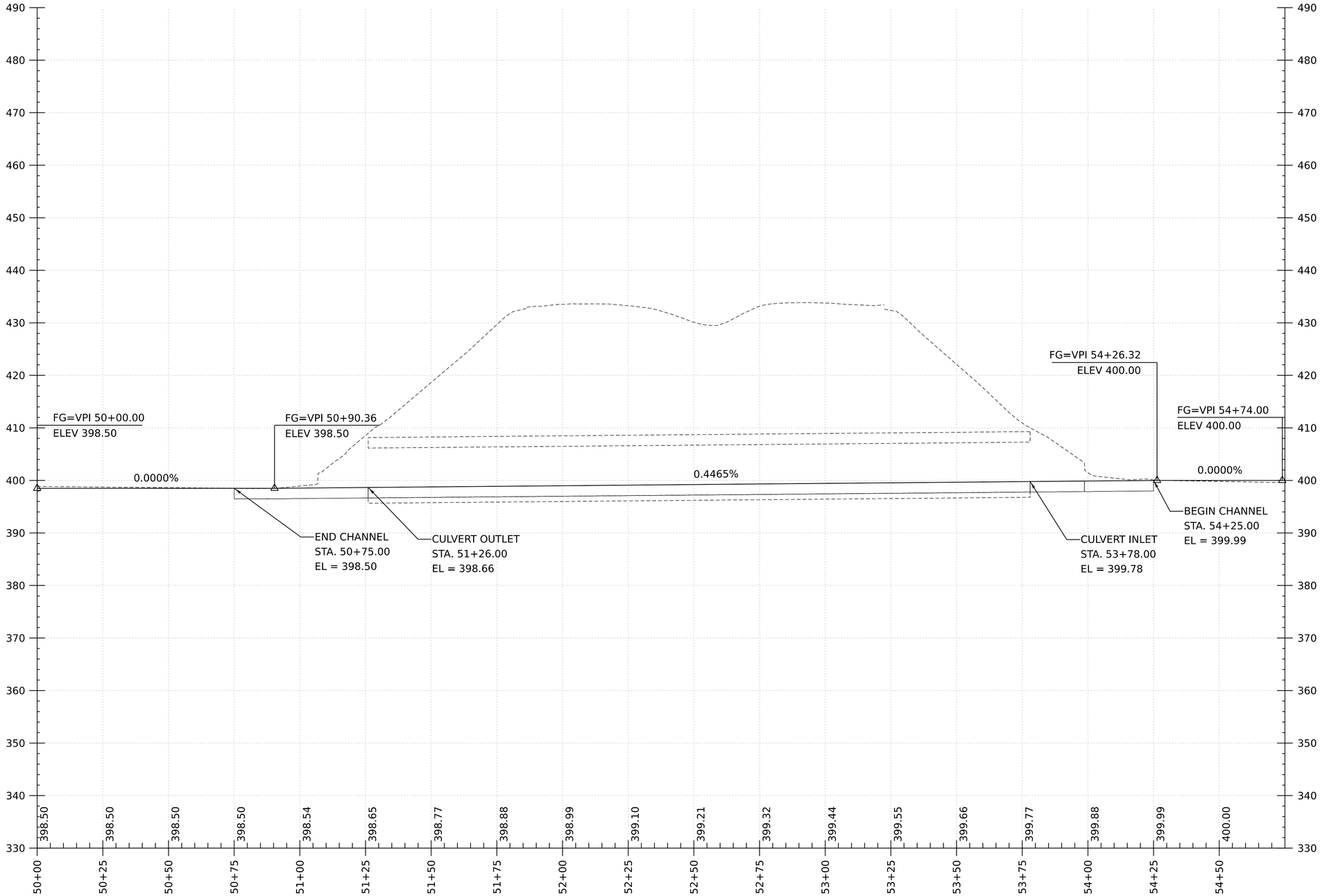


0 20 40
SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_gen.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
LAYOUT PLAN SHEET 8		SHEET 14 OF 37	

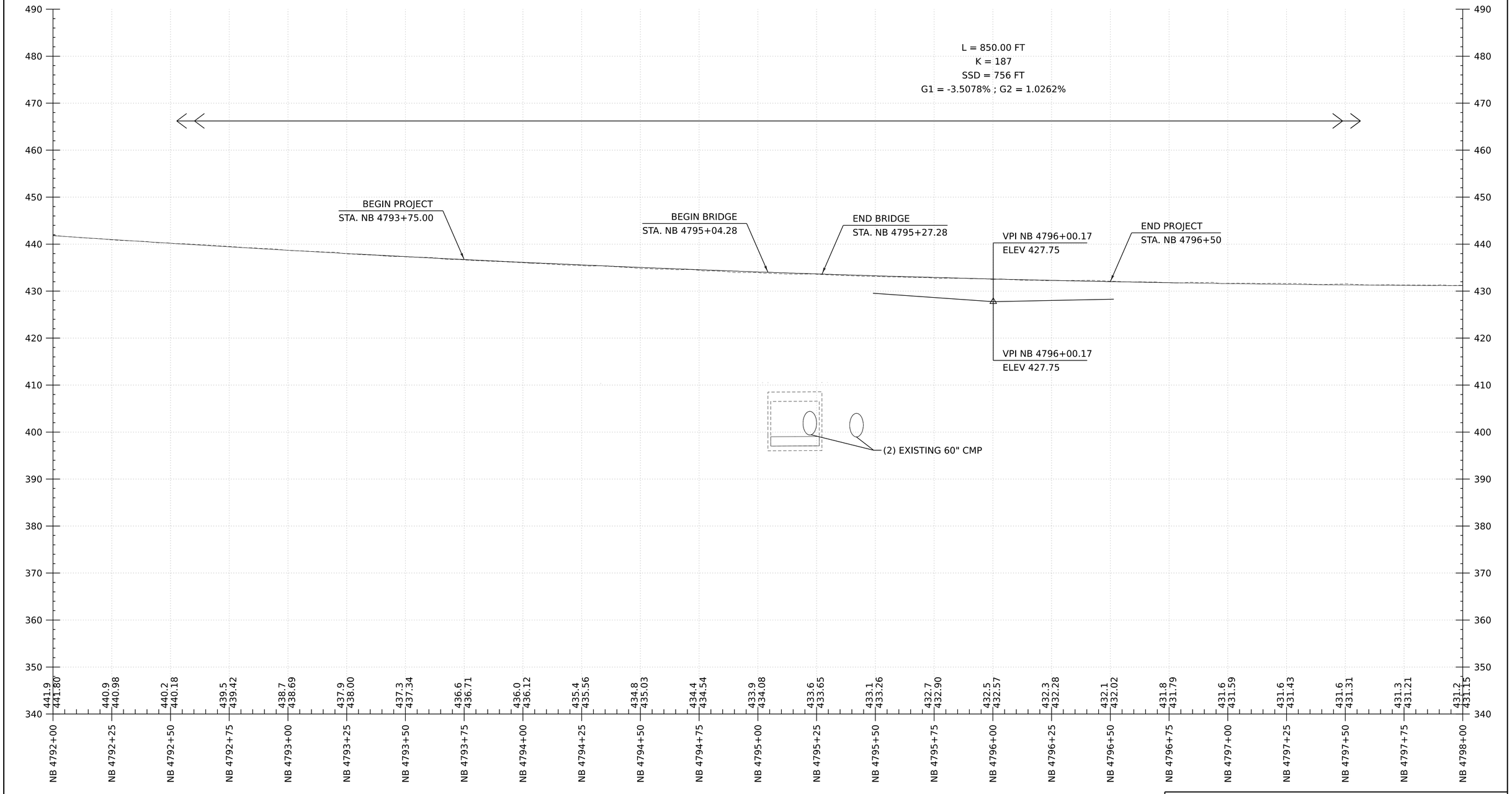


PROPOSED CULVERT PROFILE

SCALE:1"=20' H
1:2 V

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_alg_culv.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
CULVERT PROFILE SHEET 3	SHEET 15 OF 37

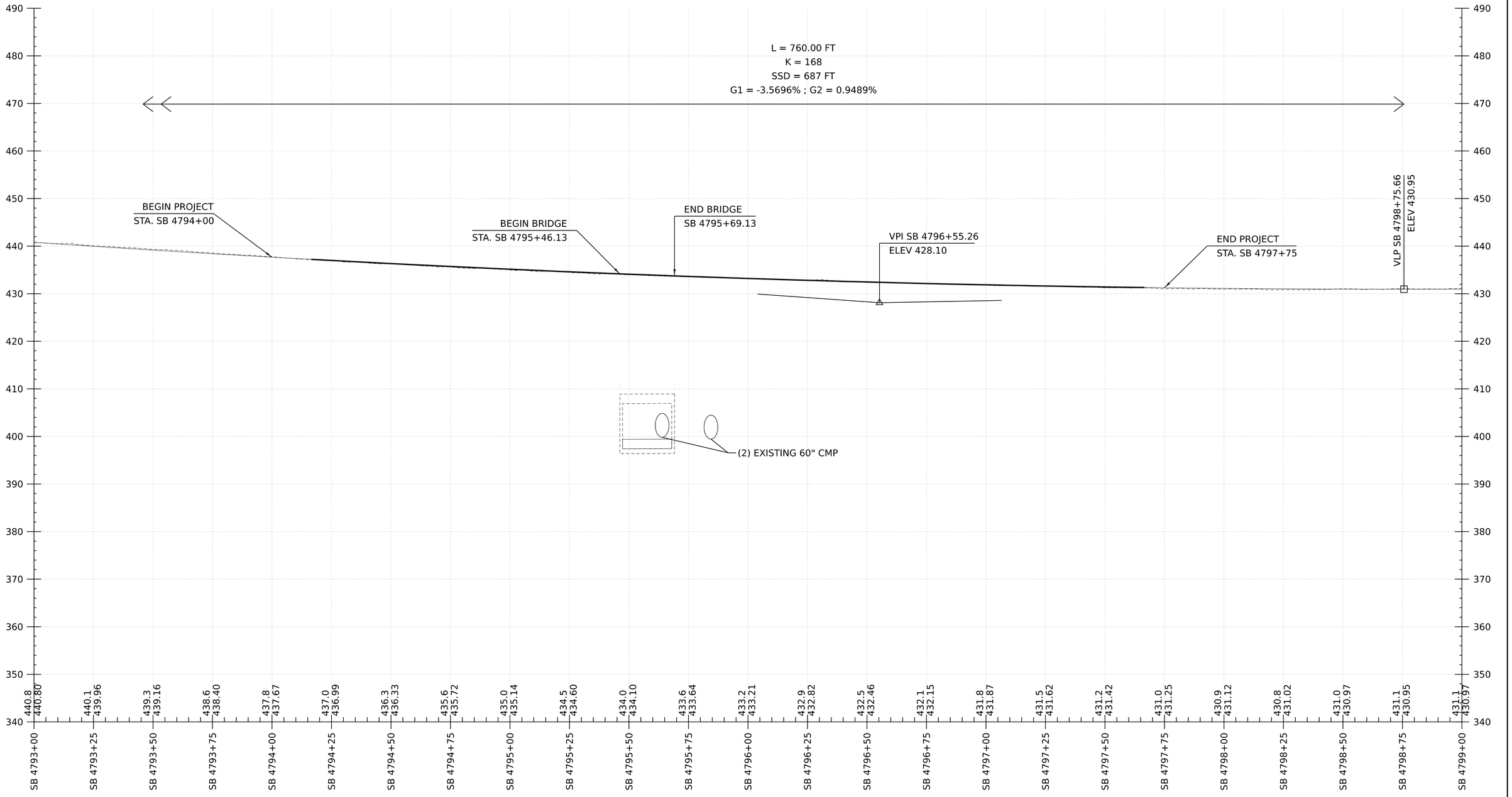


I-91 NORTHBOUND PROPOSED PROFILE

SCALE:1"=20' H
1:2 V

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_alg_I91_NB.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
NB PROFILE SHEET 1	SHEET 16 OF 37

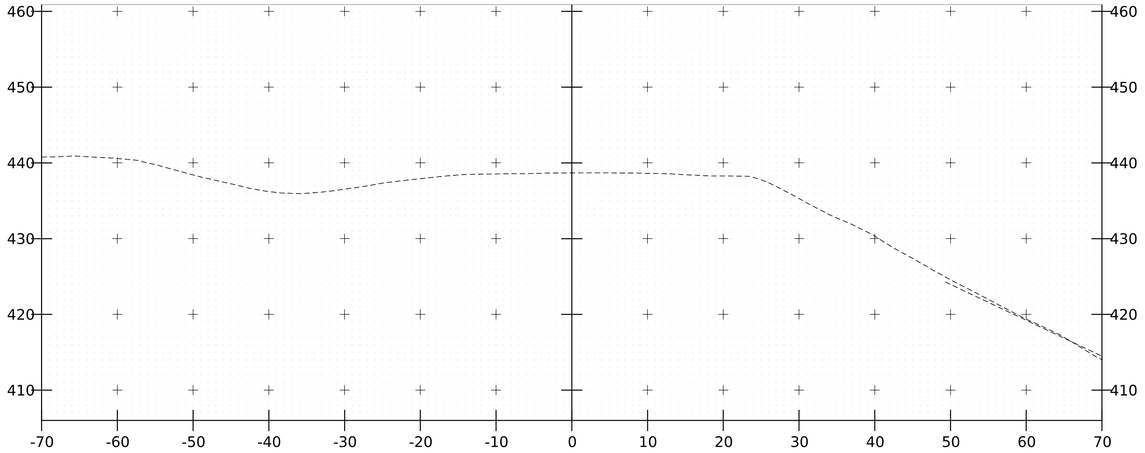


I-91 SOUTHBOUND PROPOSED PROFILE

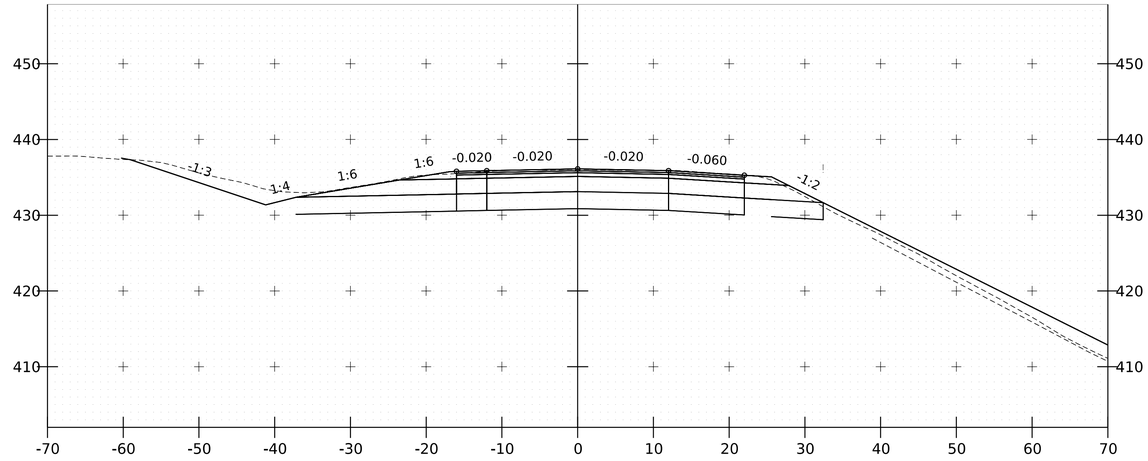
SCALE:1"=20' H
1:2 V

Stantec

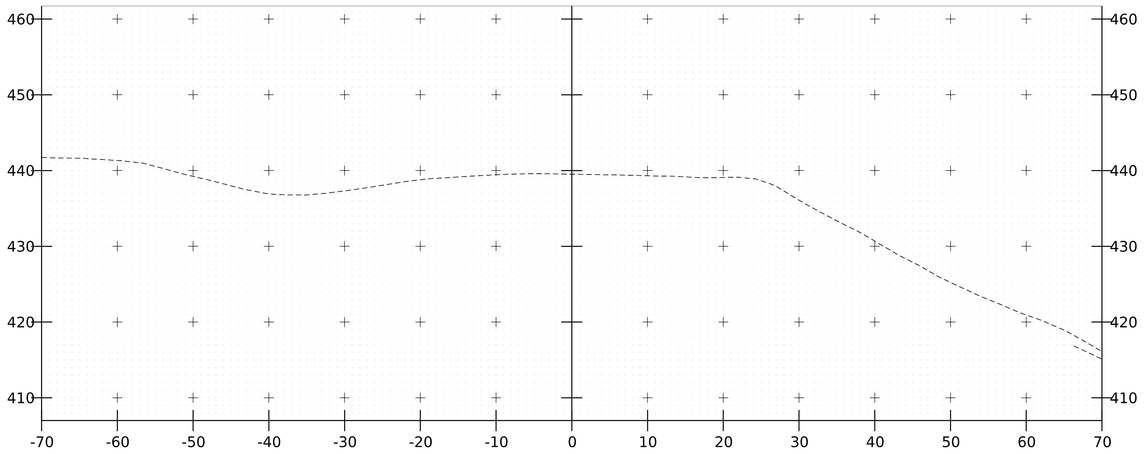
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_alg_I91_SB.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
SB PROFILE SHEET 2	SHEET 17 OF 37



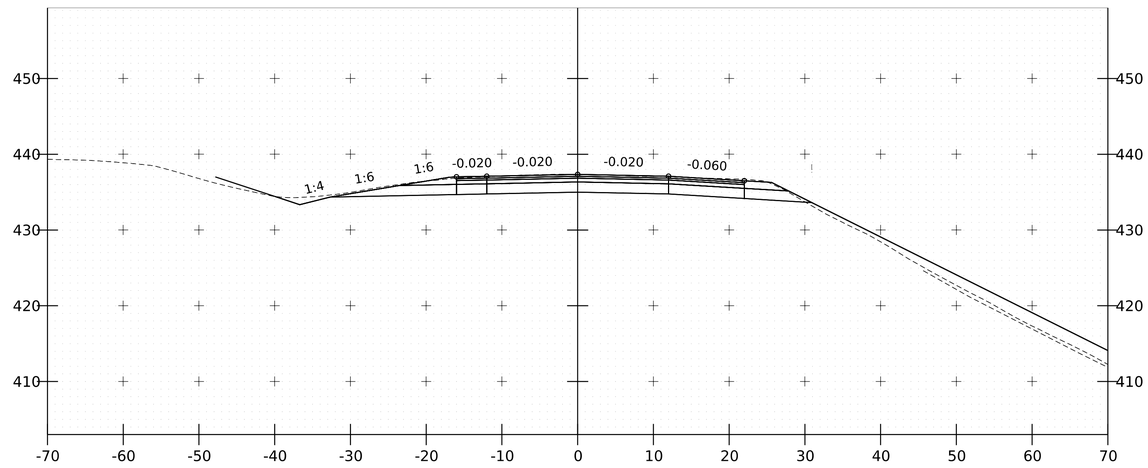
NB 4793+00.00



NB 4794+00.00



NB 4792+74.94

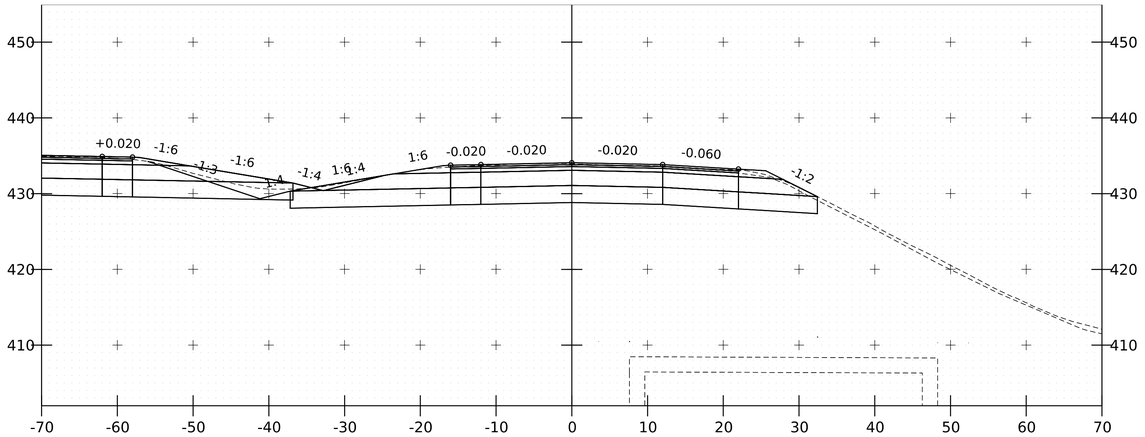


NB 4793+50.00

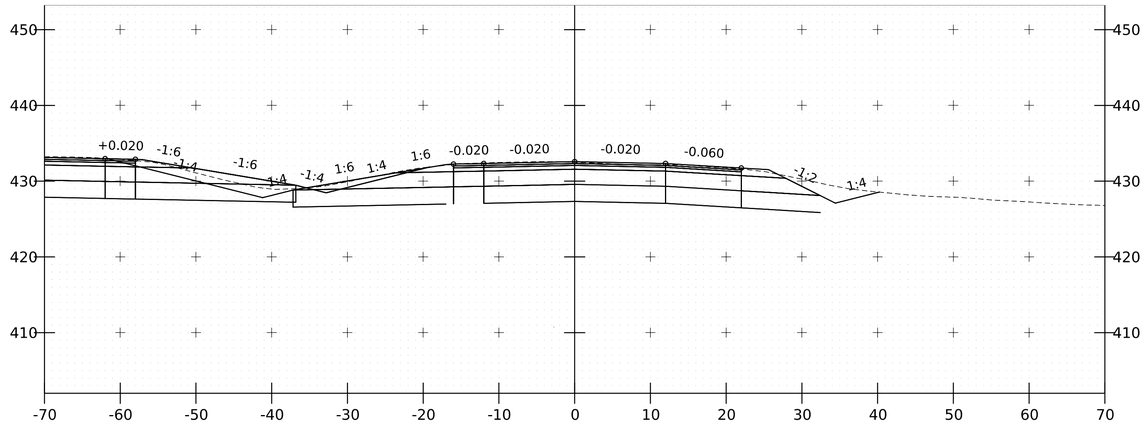
Stantec

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

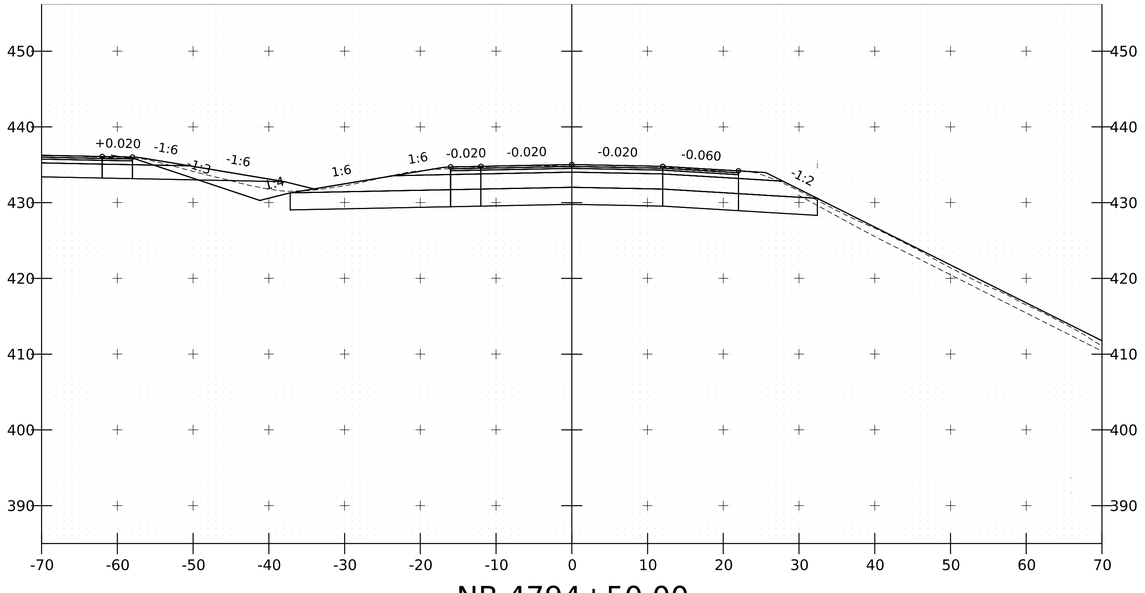
FILE NAME:	z21a024xs_NB.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
I91 NB XS SHEET 1		SHEET 18 OF 37	



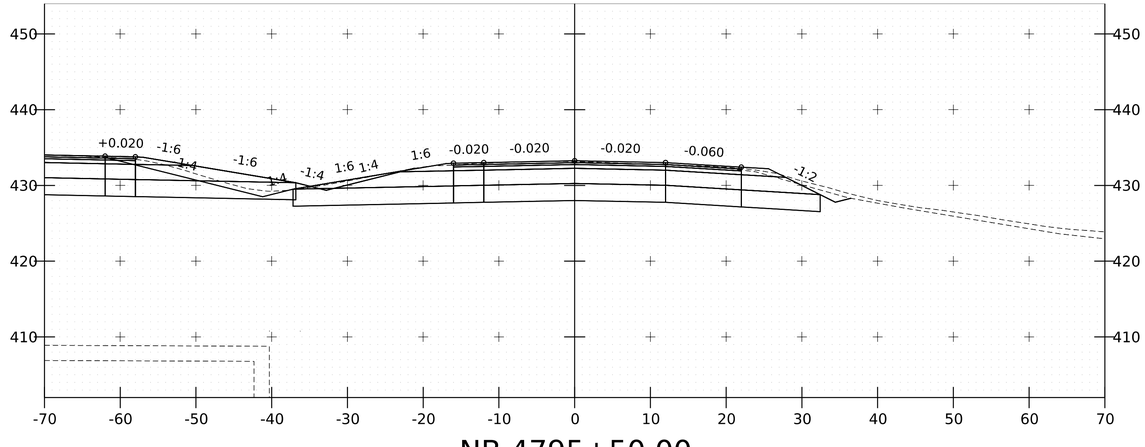
NB 4795+00.00



NB 4796+00.00



NB 4794+50.00



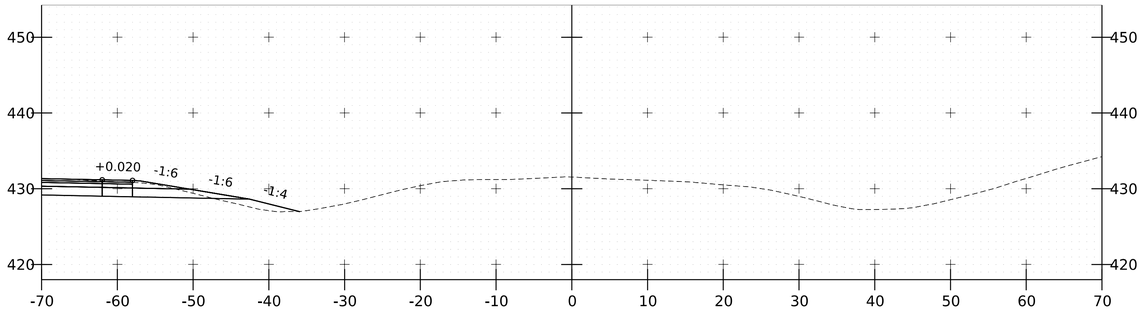
NB 4795+50.00

Stantec

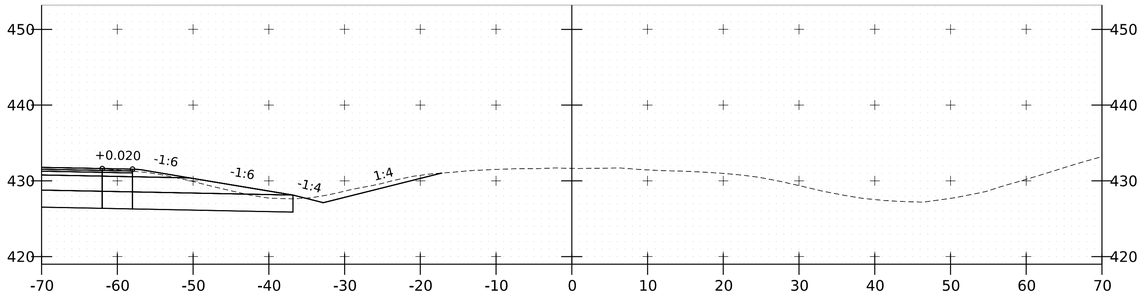
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024xs_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: K. RICHARDSON
I91 NB XS SHEET 2

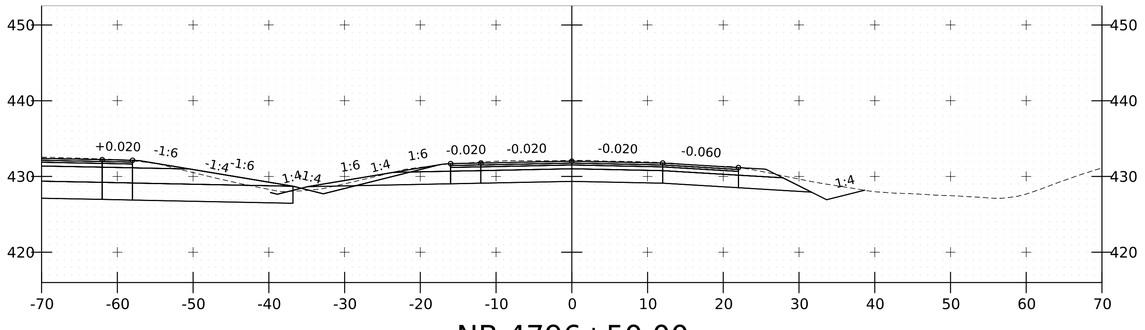
PLOT DATE: 7/7/2023
DRAWN BY: P.ARMATA
CHECKED BY: J. GRIGAS
SHEET 19 OF 37



NB 4797+50.00



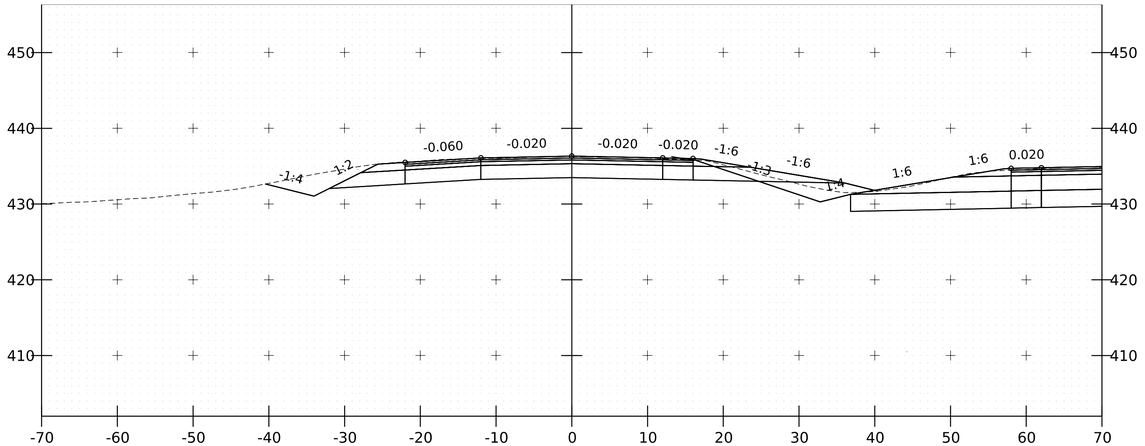
NB 4797+00.00



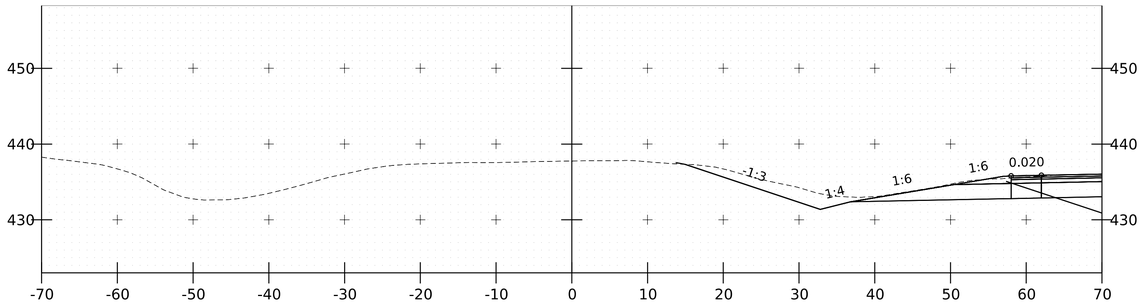
NB 4796+50.00

Stantec

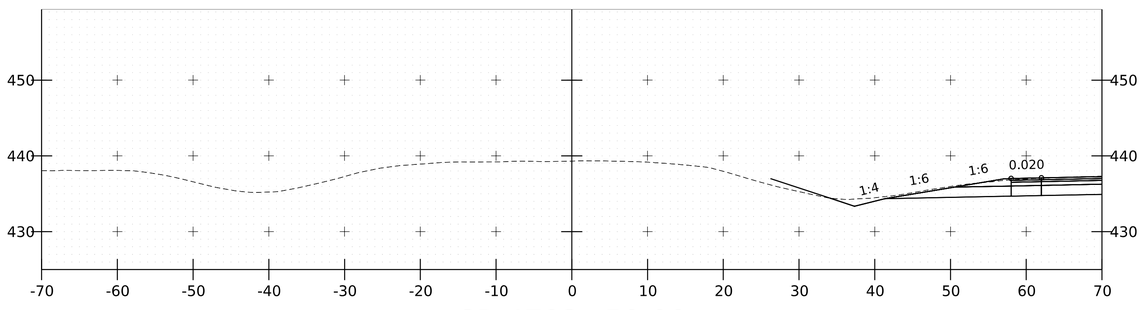
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_NB.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
I91 NB XS SHEET 3	SHEET 20 OF 37



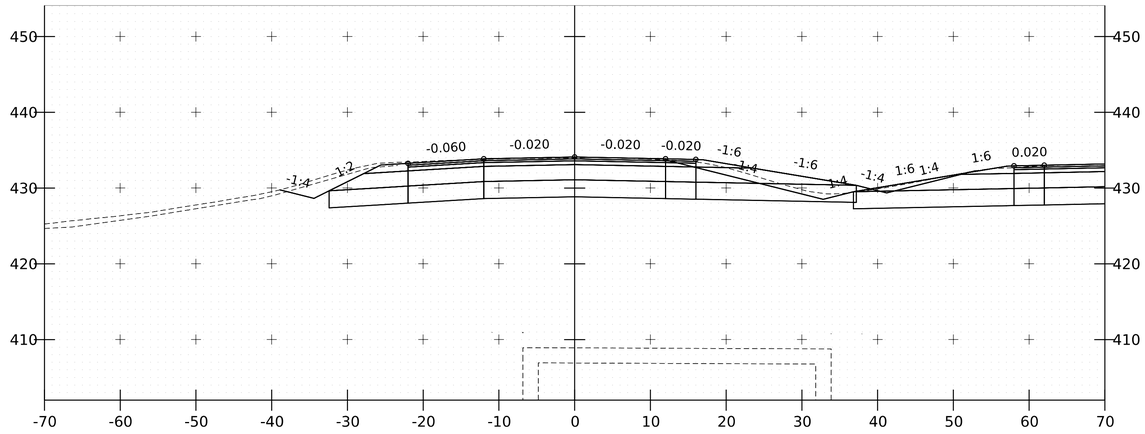
SB 4794+50.00



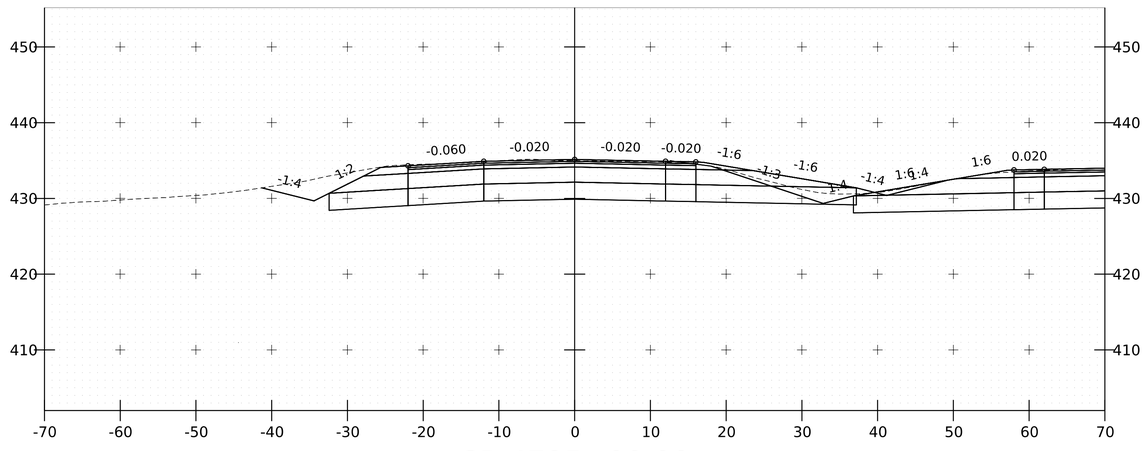
SB 4794+00.00



SB 4793+50.00



SB 4795+50.00

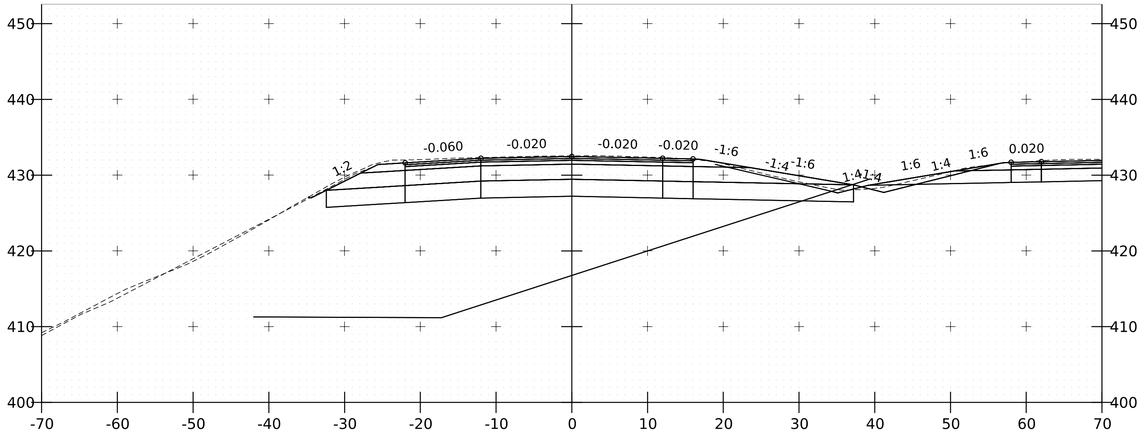


SB 4795+00.00

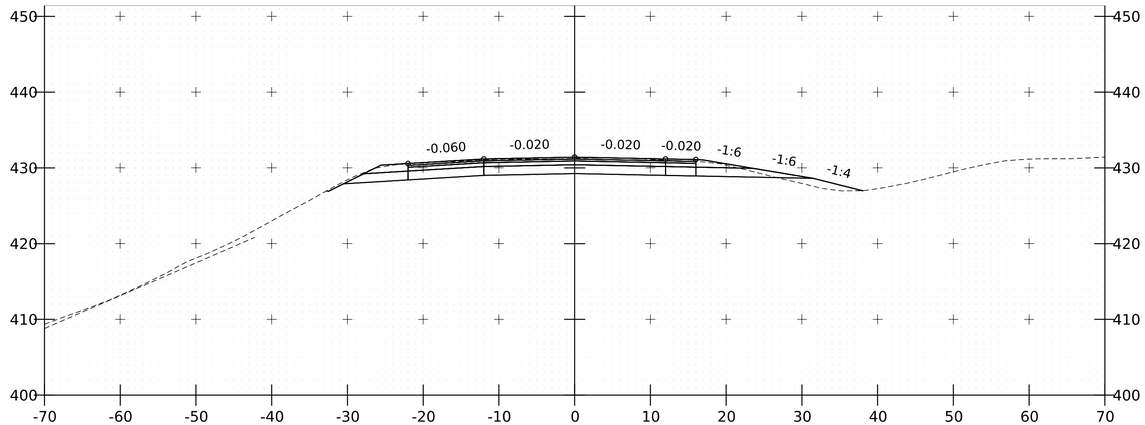
Stantec

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

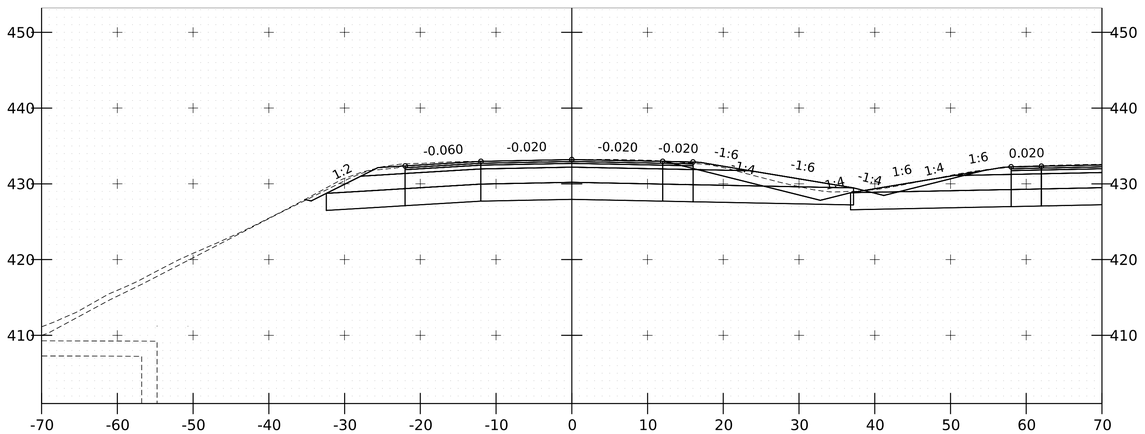
FILE NAME:	z21a024xs_SB.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
I91 SB XS SHEET 1		SHEET 21 OF 37	



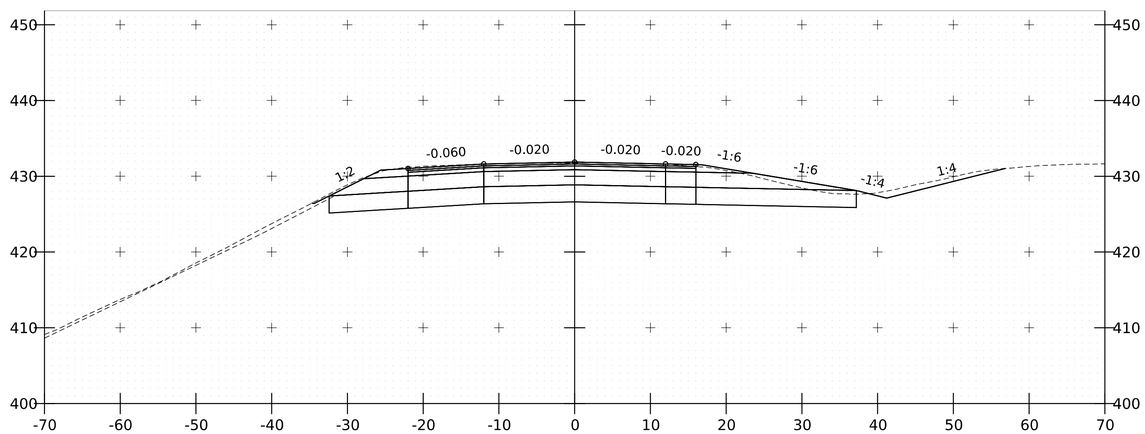
SB 4796+50.00



SB 4797+50.00



SB 4796+00.00

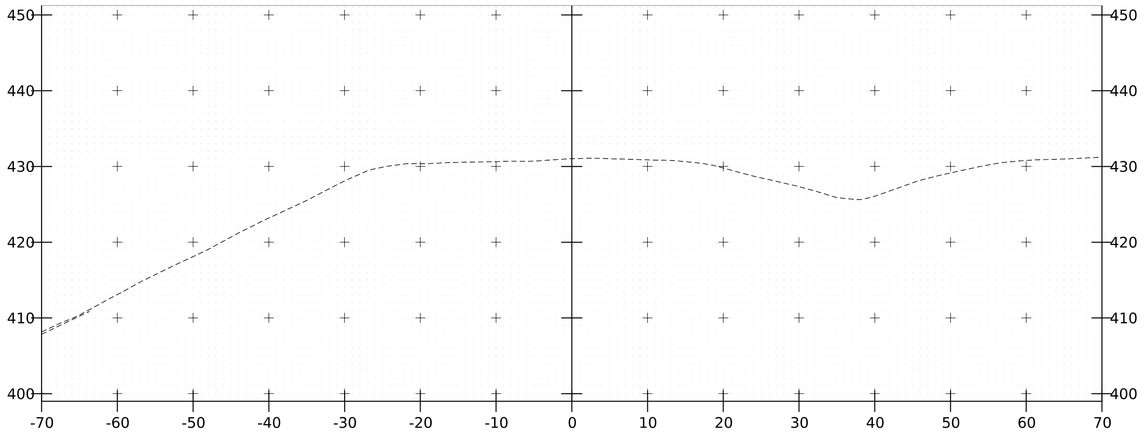


SB 4797+00.00

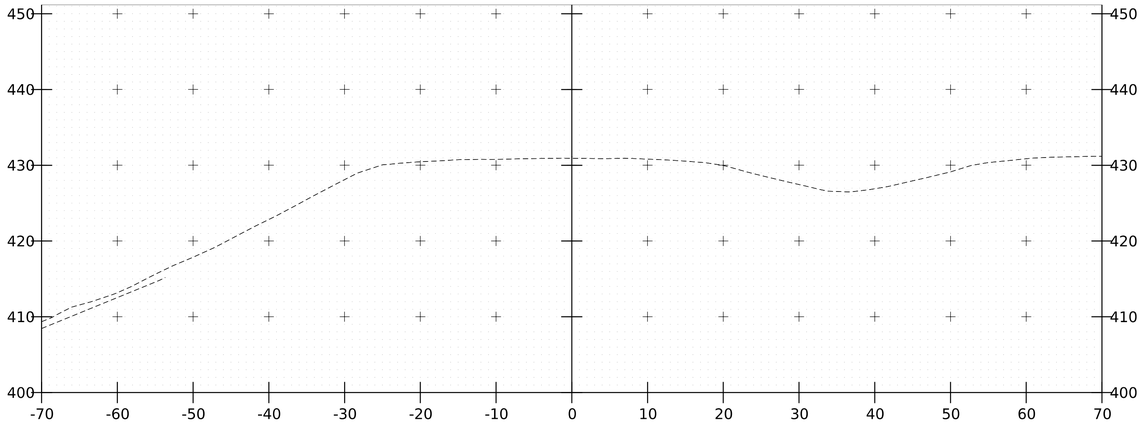
Stantec

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

FILE NAME:	z21a024xs_SB.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
I91 SB XS SHEET 2		SHEET 22 OF 37	



SB 4798+50.00

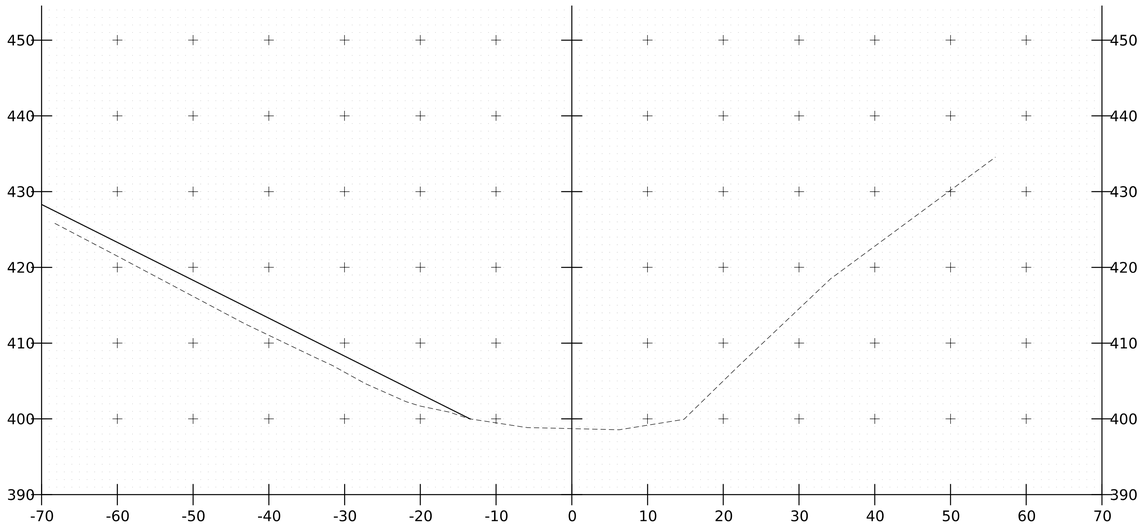


SB 4798+00.00

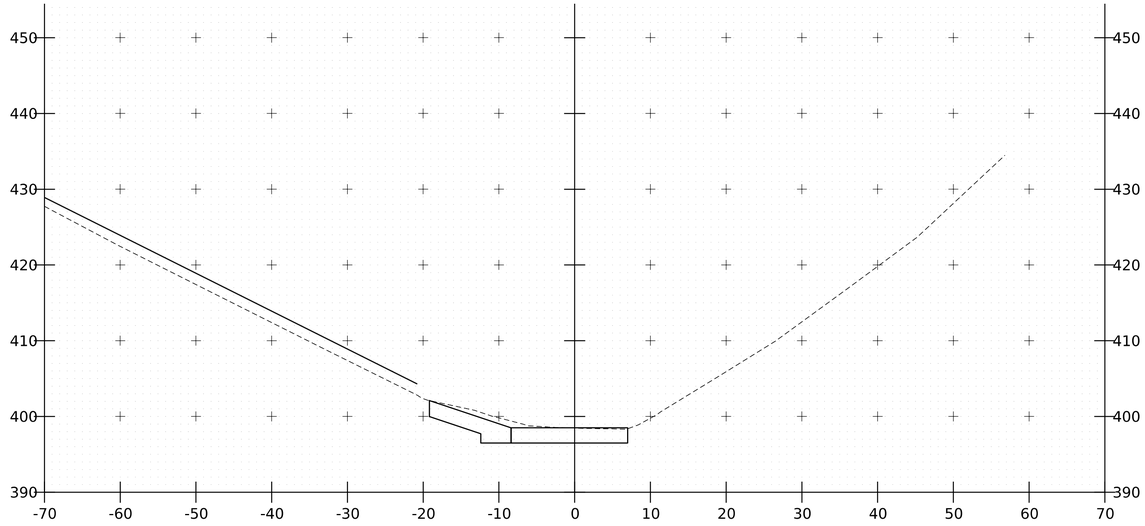
Stantec

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

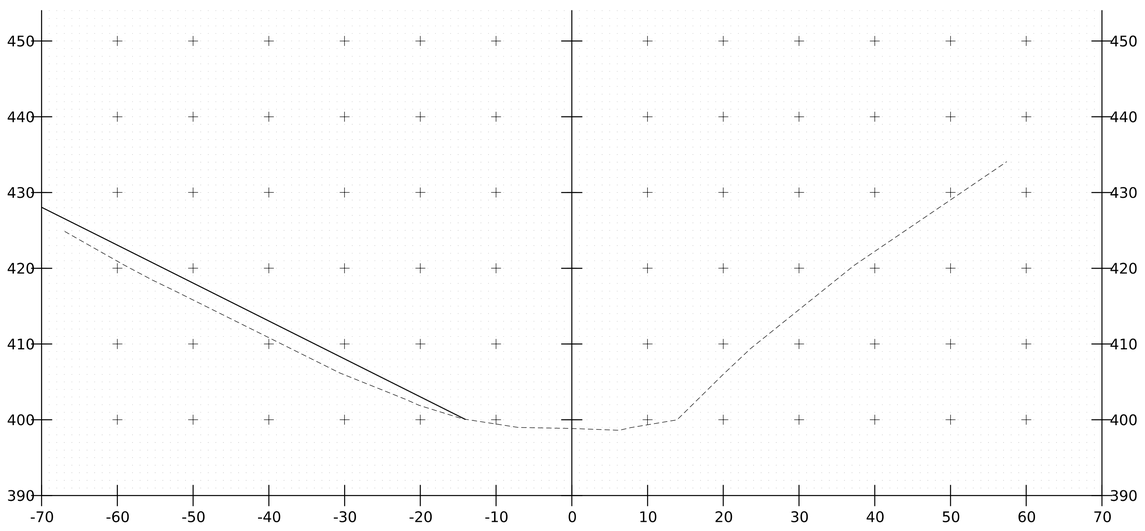
FILE NAME: z21a024xs_SB.dgn		PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
I91 SB XS SHEET 3		SHEET 23 OF 37	



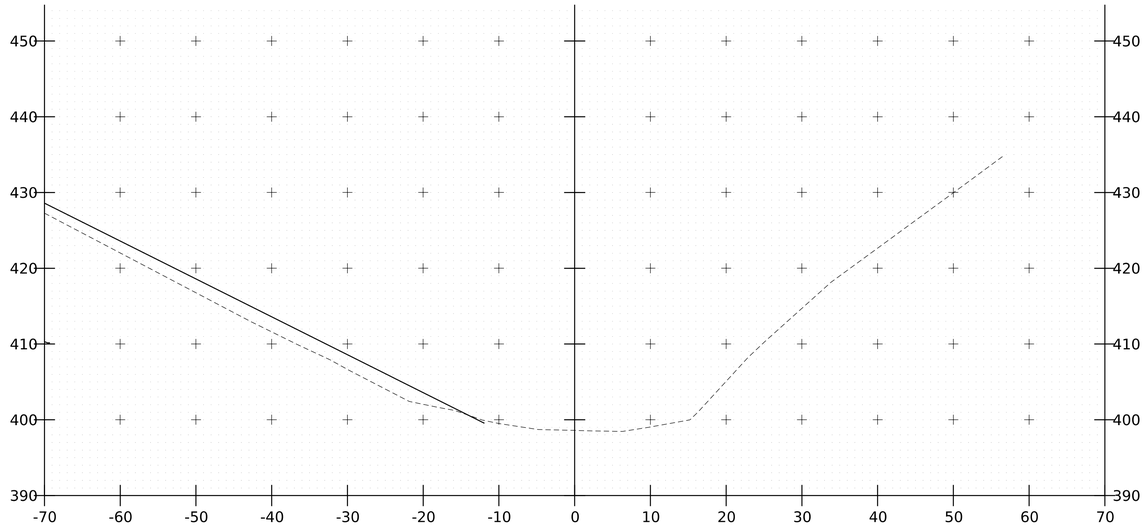
50+25.00



50+75.00



50+00.00

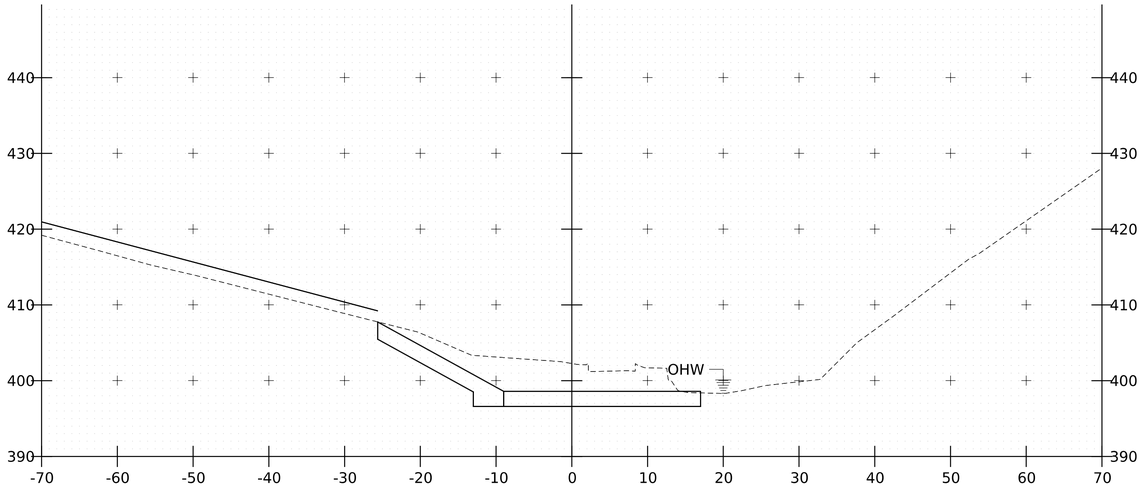


50+50.00

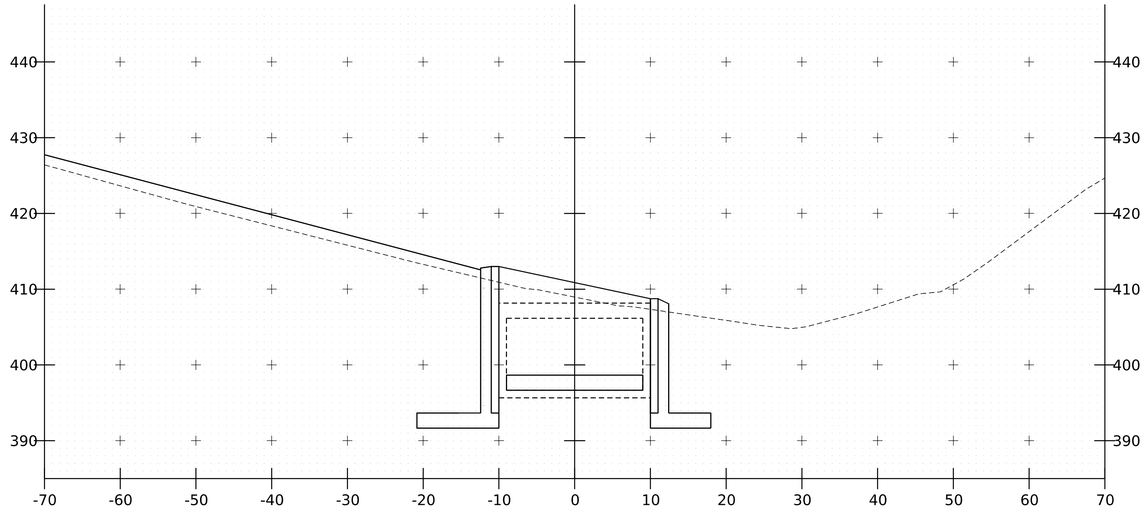
Stantec

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

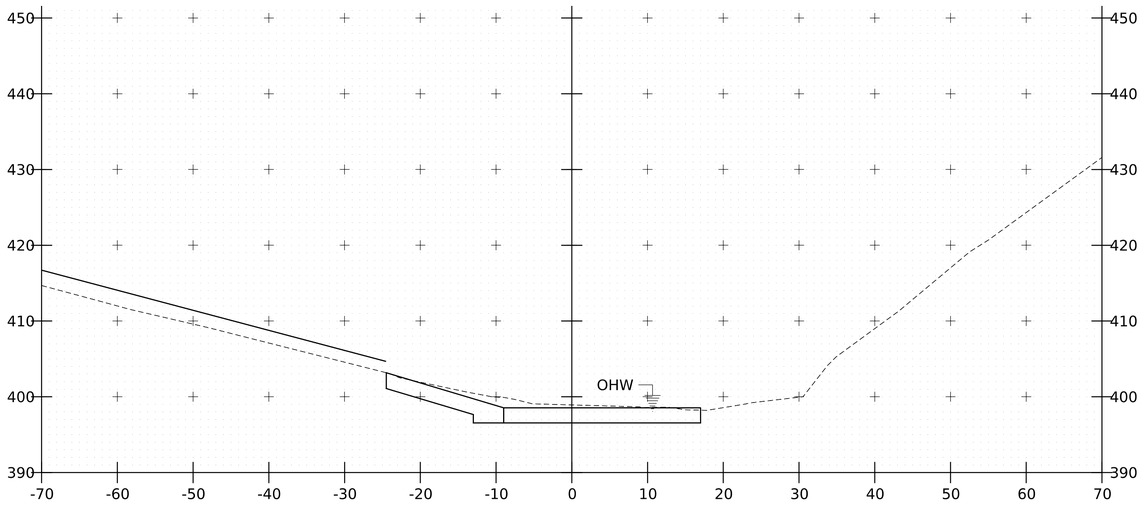
FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
CHANNEL XS SHEET 1		SHEET 24 OF 37	



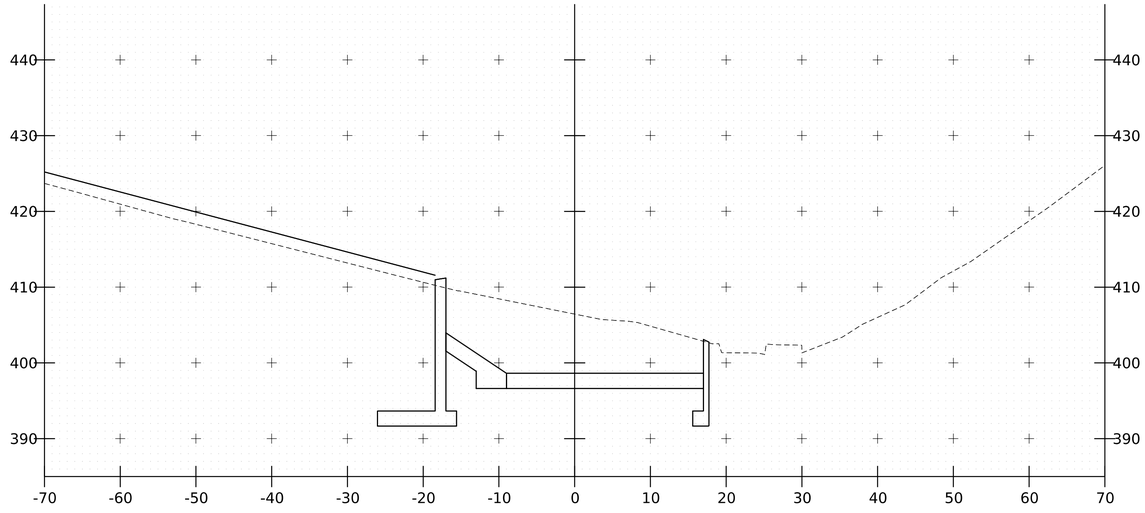
51+10.00



51+26.00



51+00.00



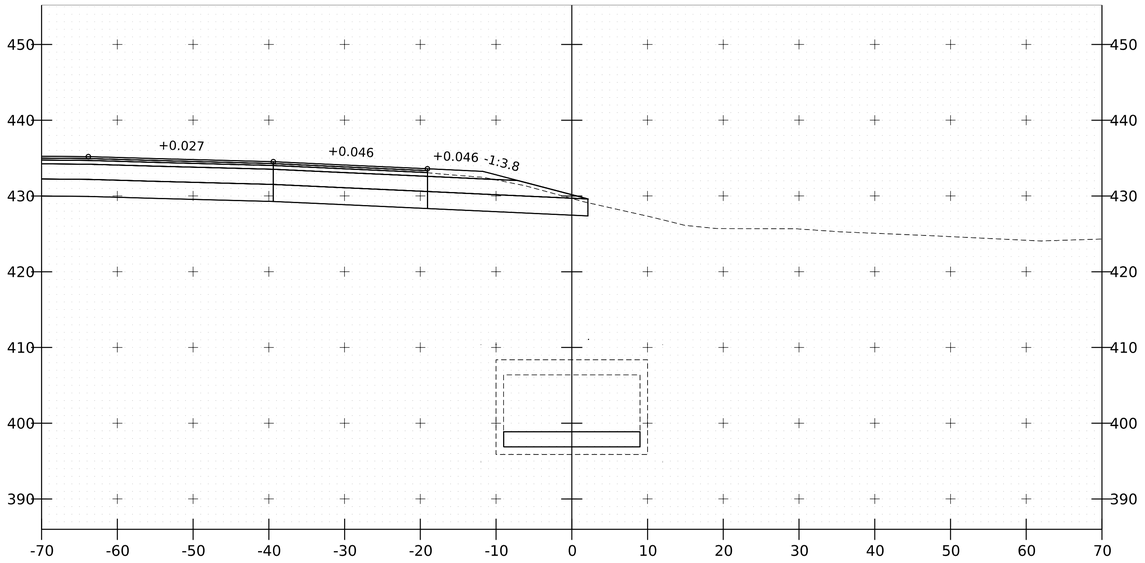
51+20.00

Stantec

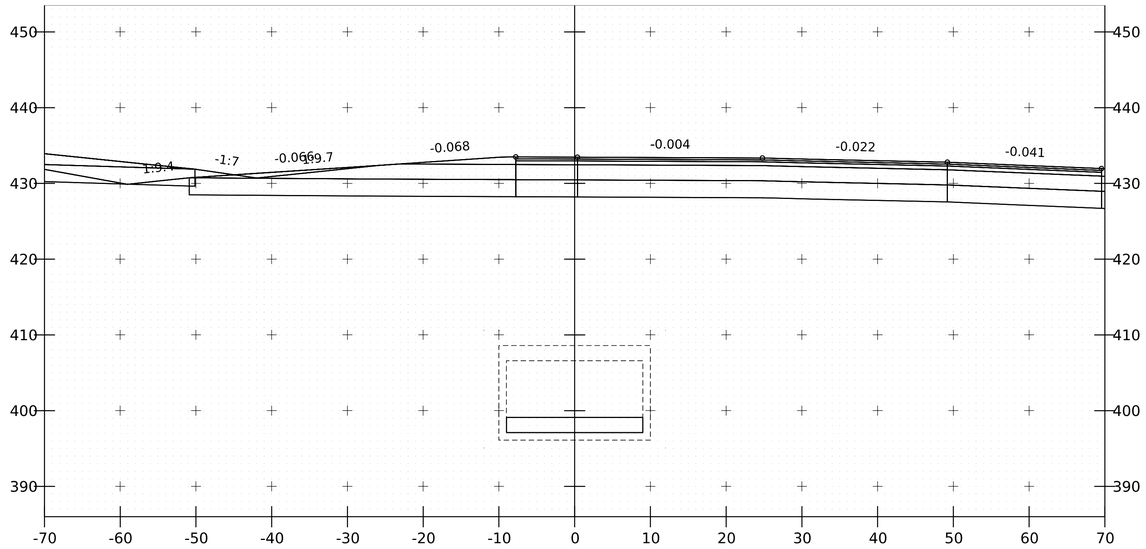
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: 21a024_xs_Channel.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: K. RICHARDSON
CHANNEL XS SHEET 2

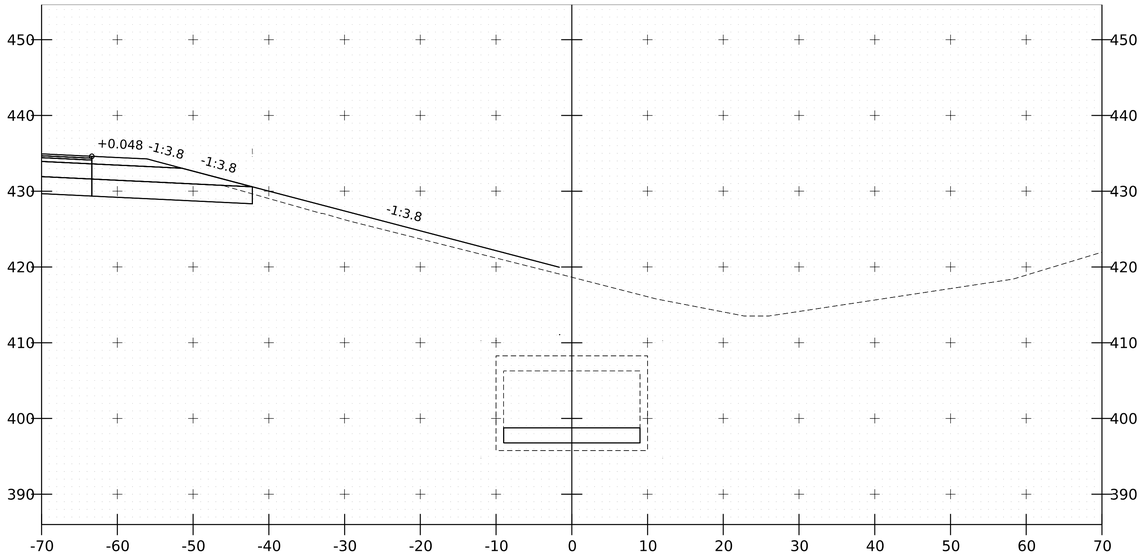
PLOT DATE: 7/7/2023
DRAWN BY: P.ARMATA
CHECKED BY: J. GRIGAS
SHEET 25 OF 37



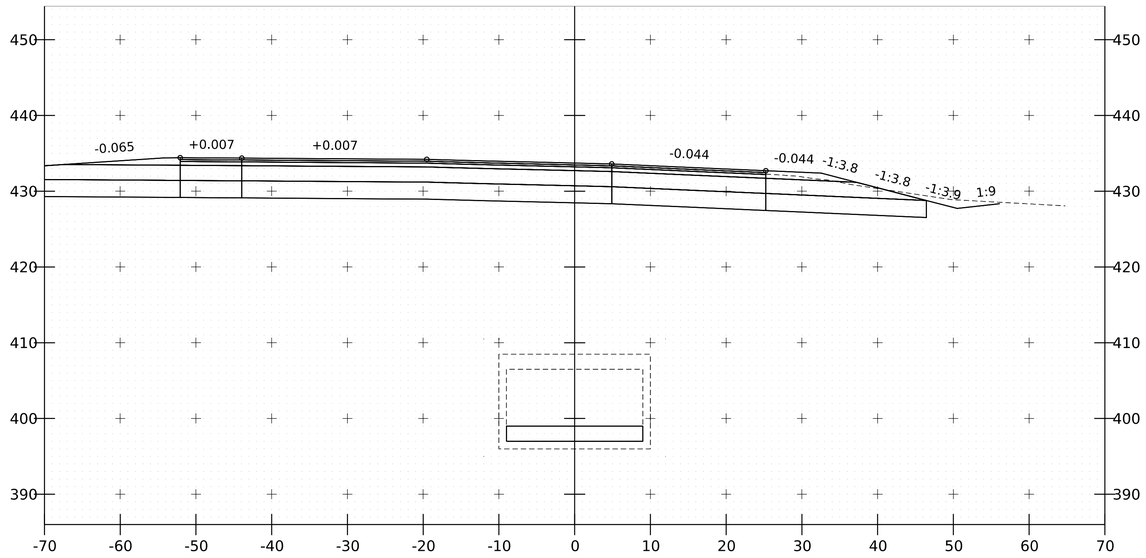
51+75.00



52+25.00



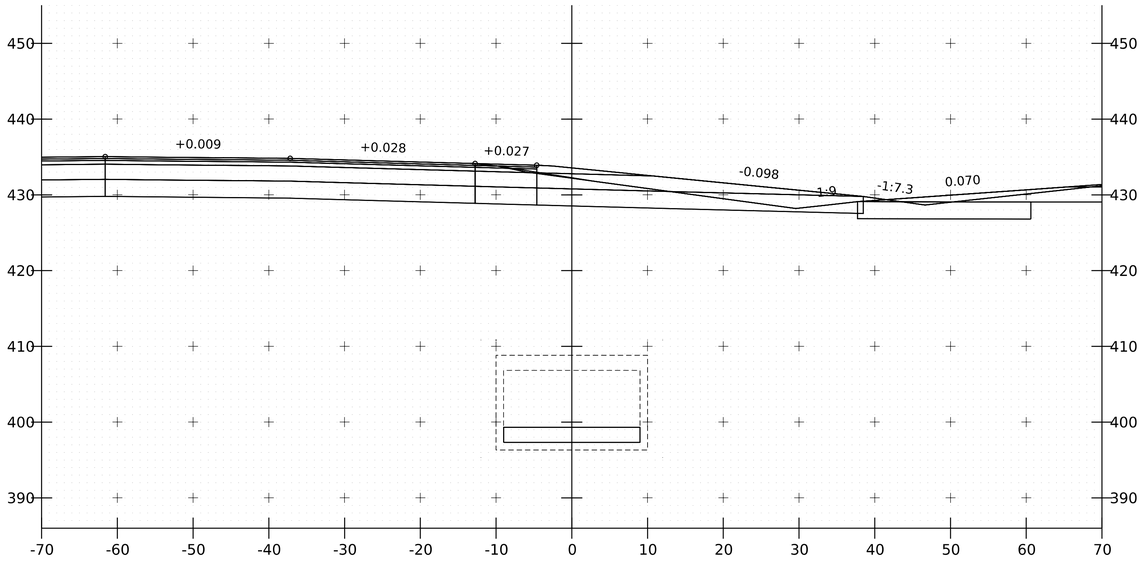
51+50.00



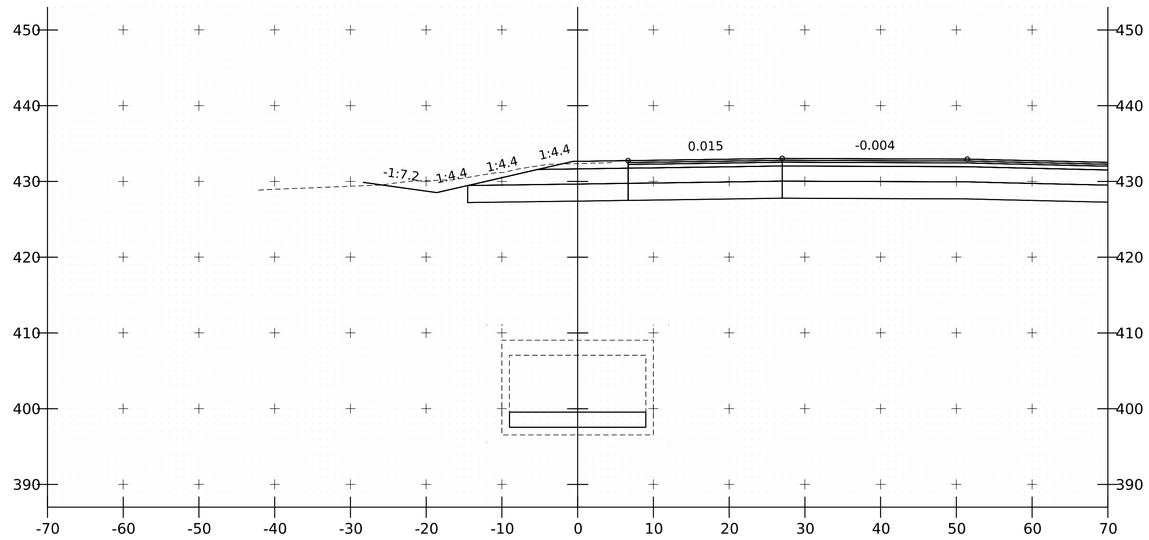
52+00.00

Stantec

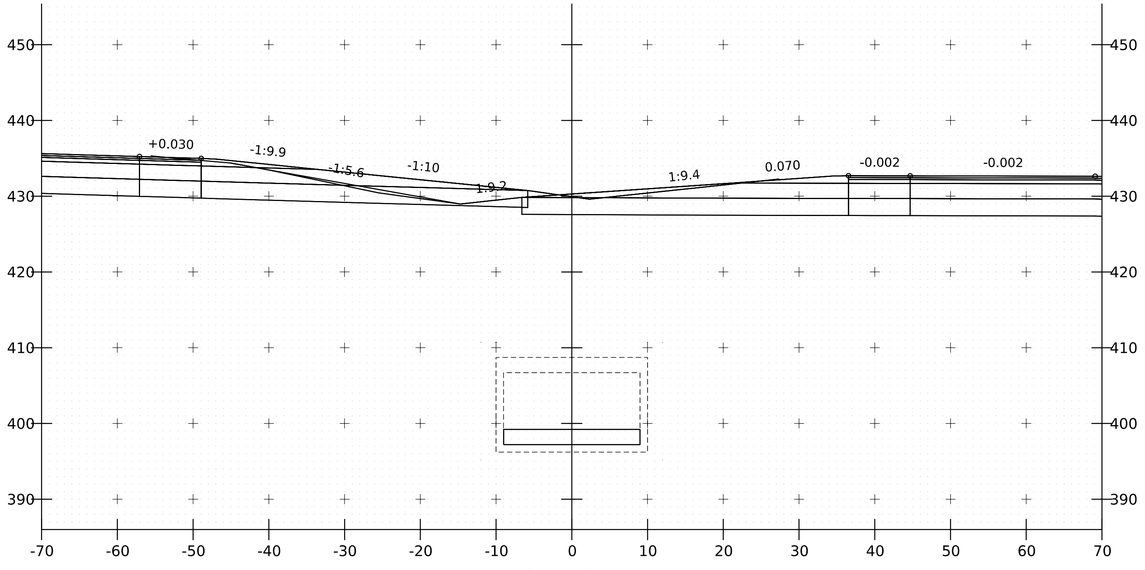
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: 21a024_xs_Channel.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
CHANNEL XS SHEET 3	SHEET 26 OF 37



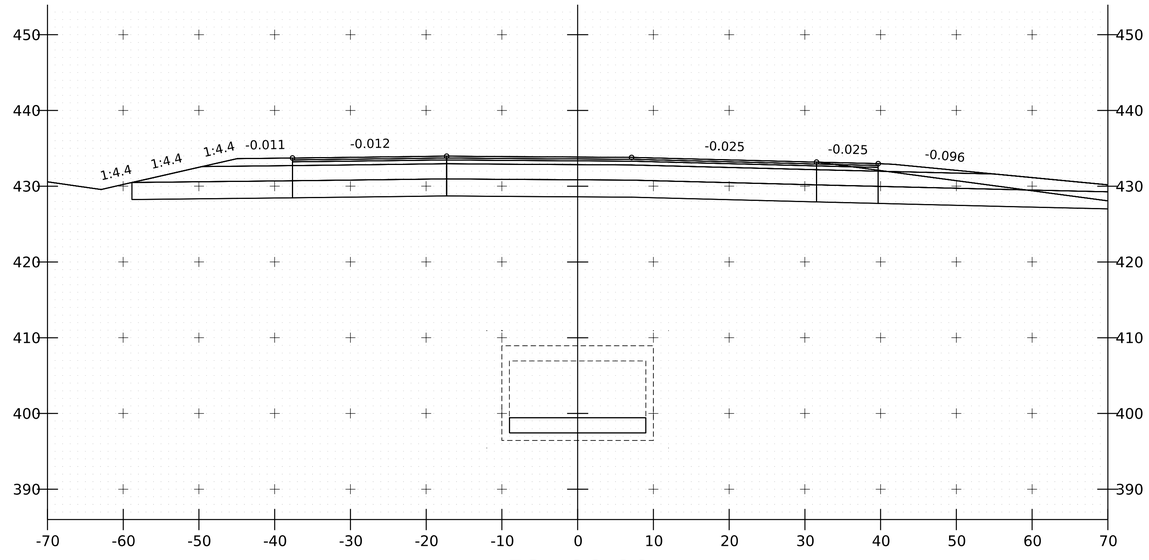
52+75.00



53+25.00



52+50.00



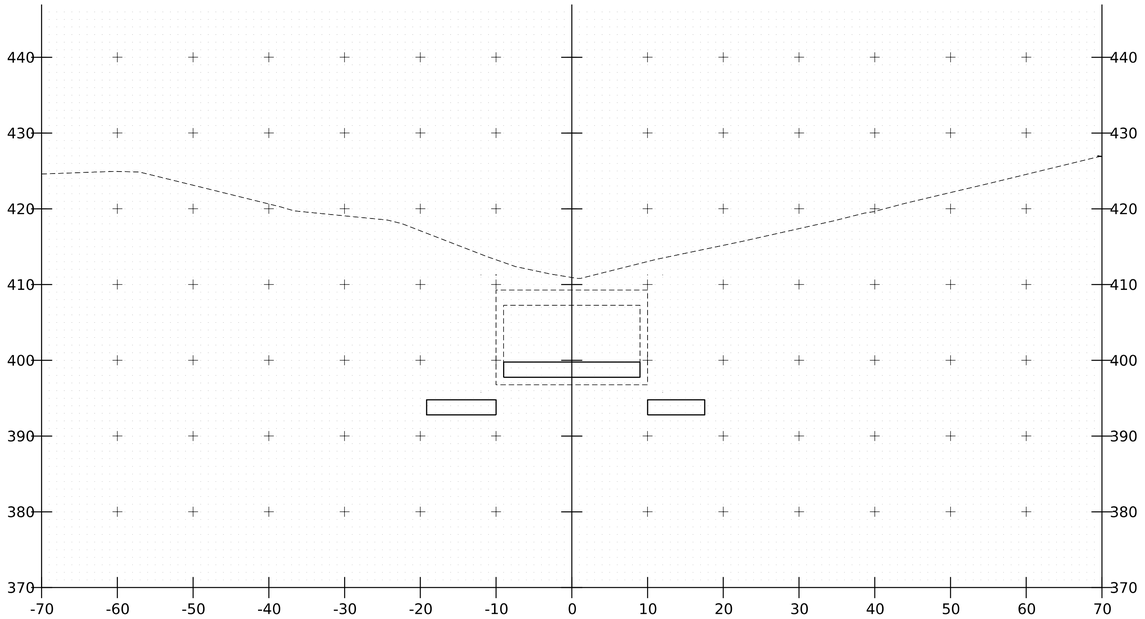
53+00.00

Stantec

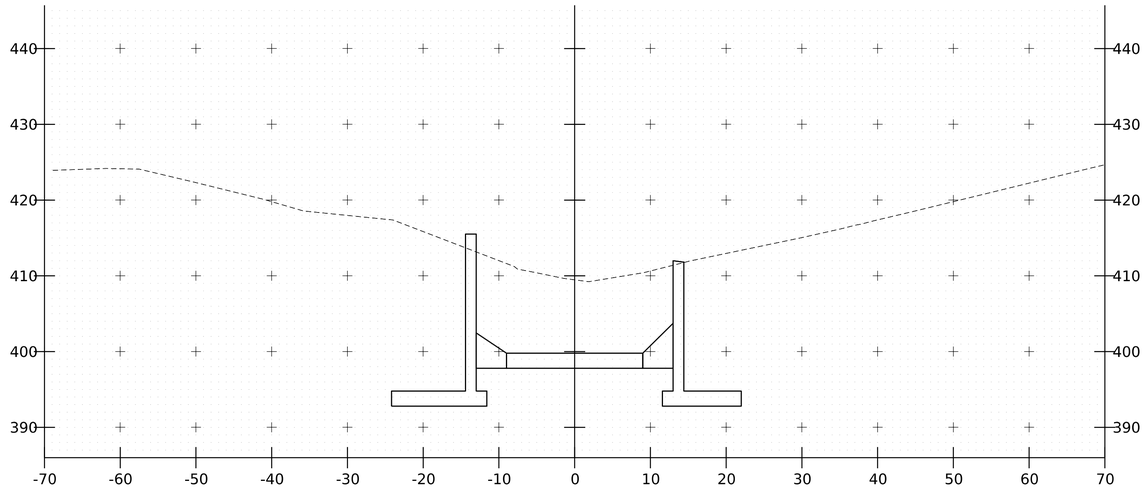
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: 21a024_xs_Channel.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: K. RICHARDSON
CHANNEL XS SHEET 4

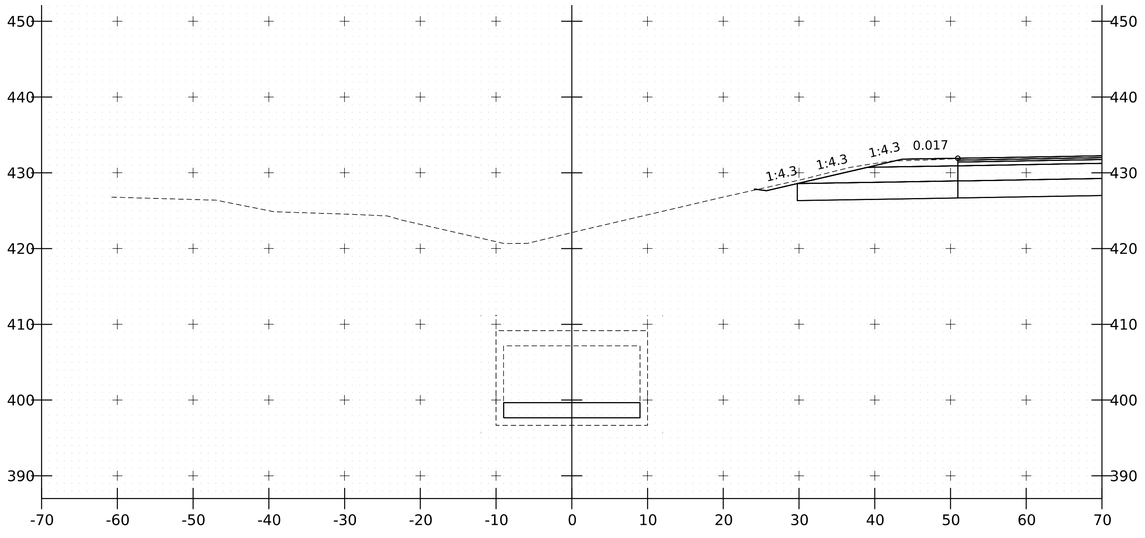
PLOT DATE: 7/7/2023
DRAWN BY: P.ARMATA
CHECKED BY: J. GRIGAS
SHEET 27 OF 37



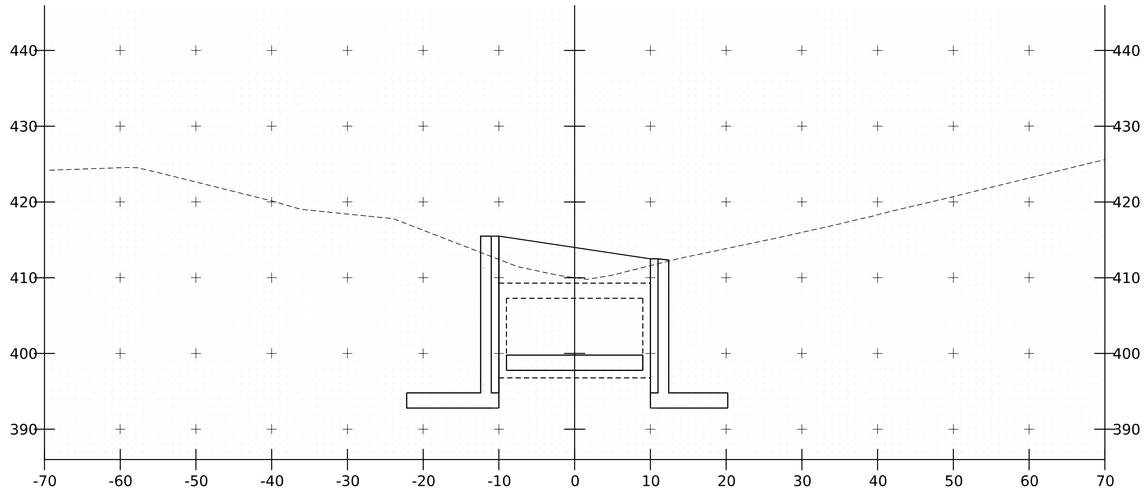
53+75.00



53+80.00



53+50.00

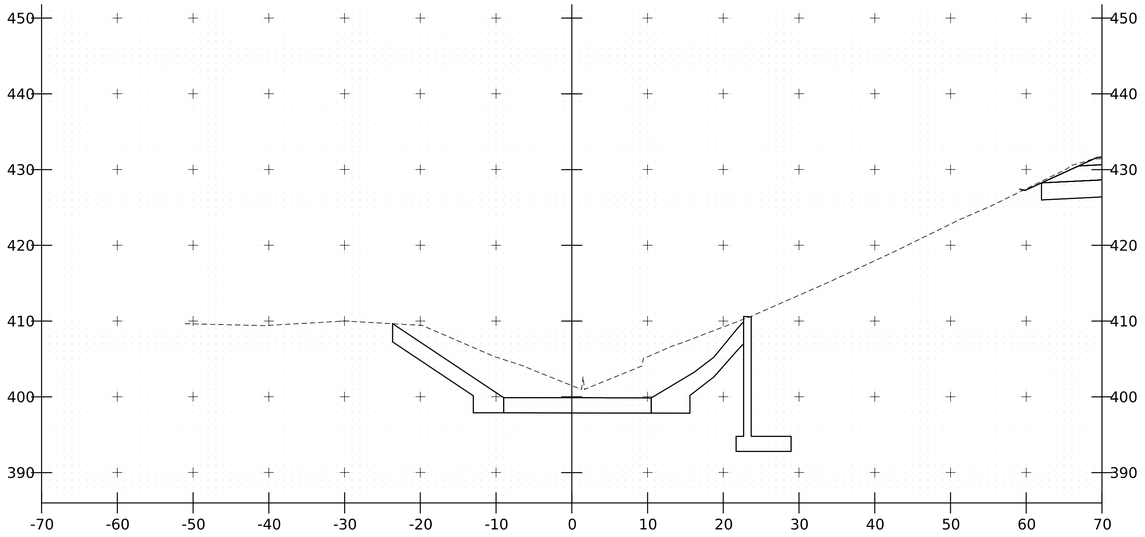


53+78.00

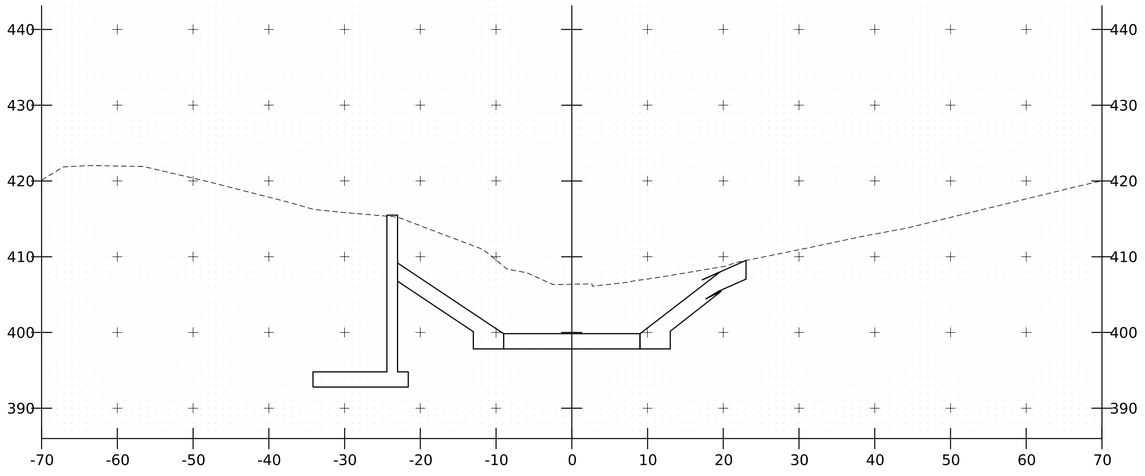
Stantec

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

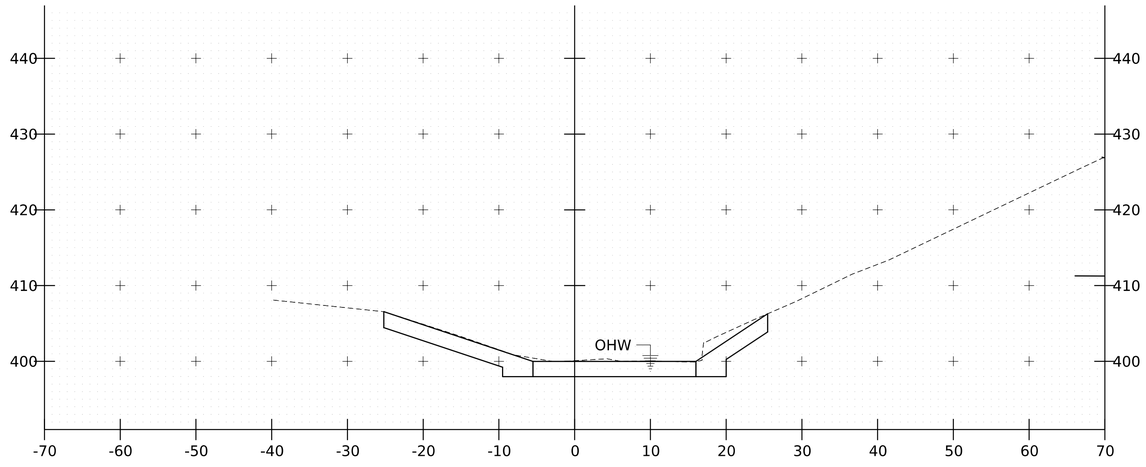
FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
CHANNEL XS SHEET 5		SHEET 28 OF 37	



54+00.00



53+90.00



54+25.00

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

Stantec

FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
CHANNEL XS SHEET 6		SHEET 29 OF 37	

N

VT STATE PLANE GRID

CURVE (x)
DELTA = 42°18'15"
D = 01°05'29"
R = 5250.00'
T = 2031.29'
L = 3876.31'
E = 379.26'

SB 4770+00
SB 4771+00
SB 4772+00
SB 4773+00
SB 4774+00
SB 4775+00

MATCHLINE STA. 4775+50

MATCHLINE STA. 4775+50

NB 4770+00
NB 4771+00
NB 4772+00
NB 4773+00
NB 4774+00
NB 4775+00

CURVE (x)
DELTA = 42°18'14"
D = 01°06'28"
R = 5172.00'
T = 2001.10'
L = 3818.71'
E = 373.63'

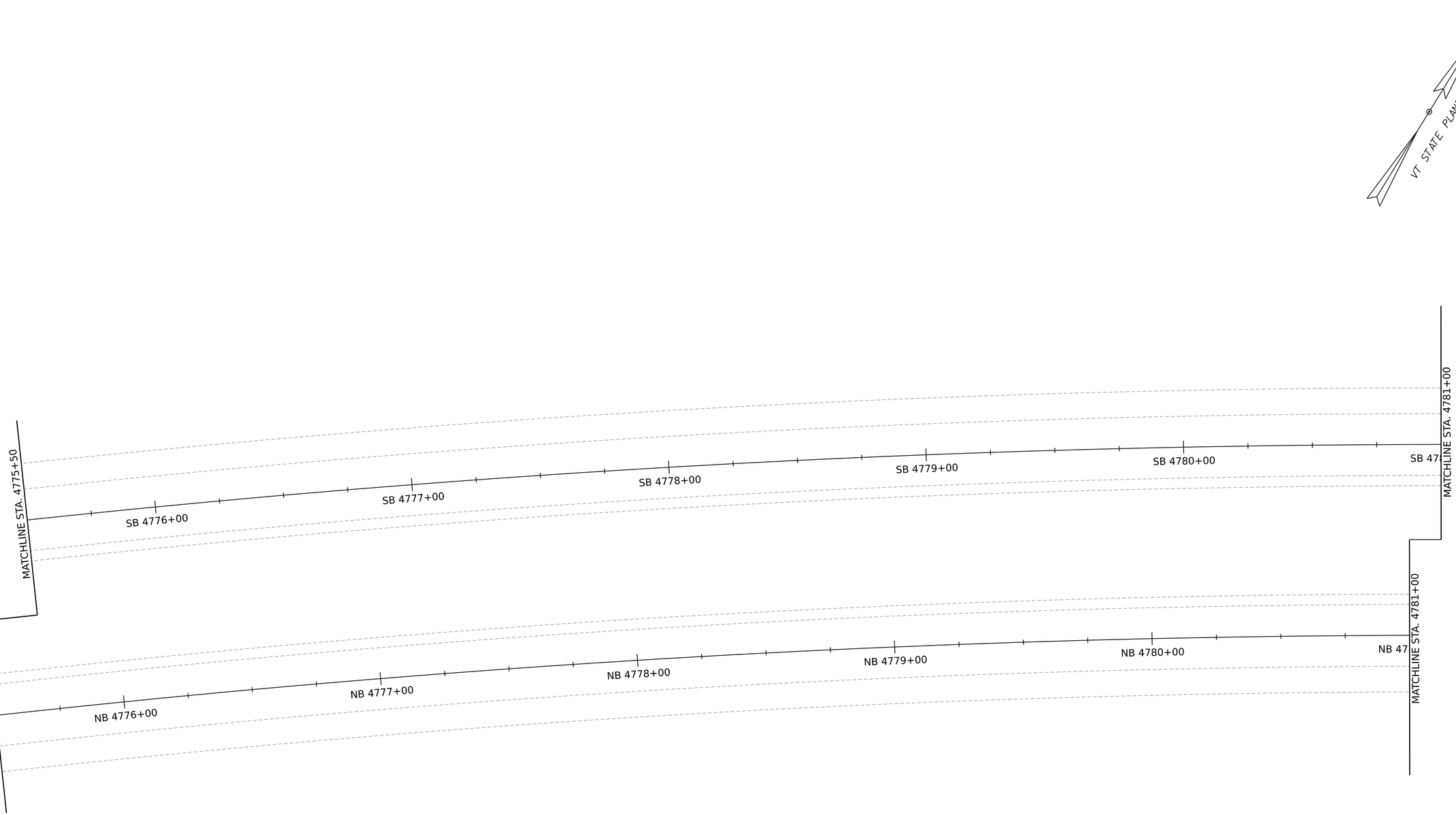
TO THETFORD

0 20 40
SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_exist.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
EXISTING CONDITIONS PLAN SHEET 1		SHEET 30 OF 37	



0 20 40
SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_exist.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
EXISTING CONDITIONS PLAN SHEET 2		SHEET 31 OF 37	

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

MATCHLINE STA. 4781+00

MATCHLINE STA. 4787+00

TO THETFORD

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

0 20 40

SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_exist.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
EXISTING CONDITIONS PLAN SHEET 3		SHEET 32 OF 37	

1456
BND
4"X4"CONC. 0.5'AC PLUMB/STABLE

APPROX. EXISTING R.O.W.

N

VT STATE PLANE GRID

MATCHLINE STA. 4787+00

INTERSTATE 91 (SOUTHBOUND)

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

MATCHLINE STA. 4787+00

INTERSTATE 91 (NORTHBOUND)

NB 4787+00
NB 4788+00
NB 4789+00
NB 4790+00
NB 4791+00
NB 4792+00
NB 47

5/8"REBAR VSE CONTROL CAP

PT 4789+79.00

HABITAT

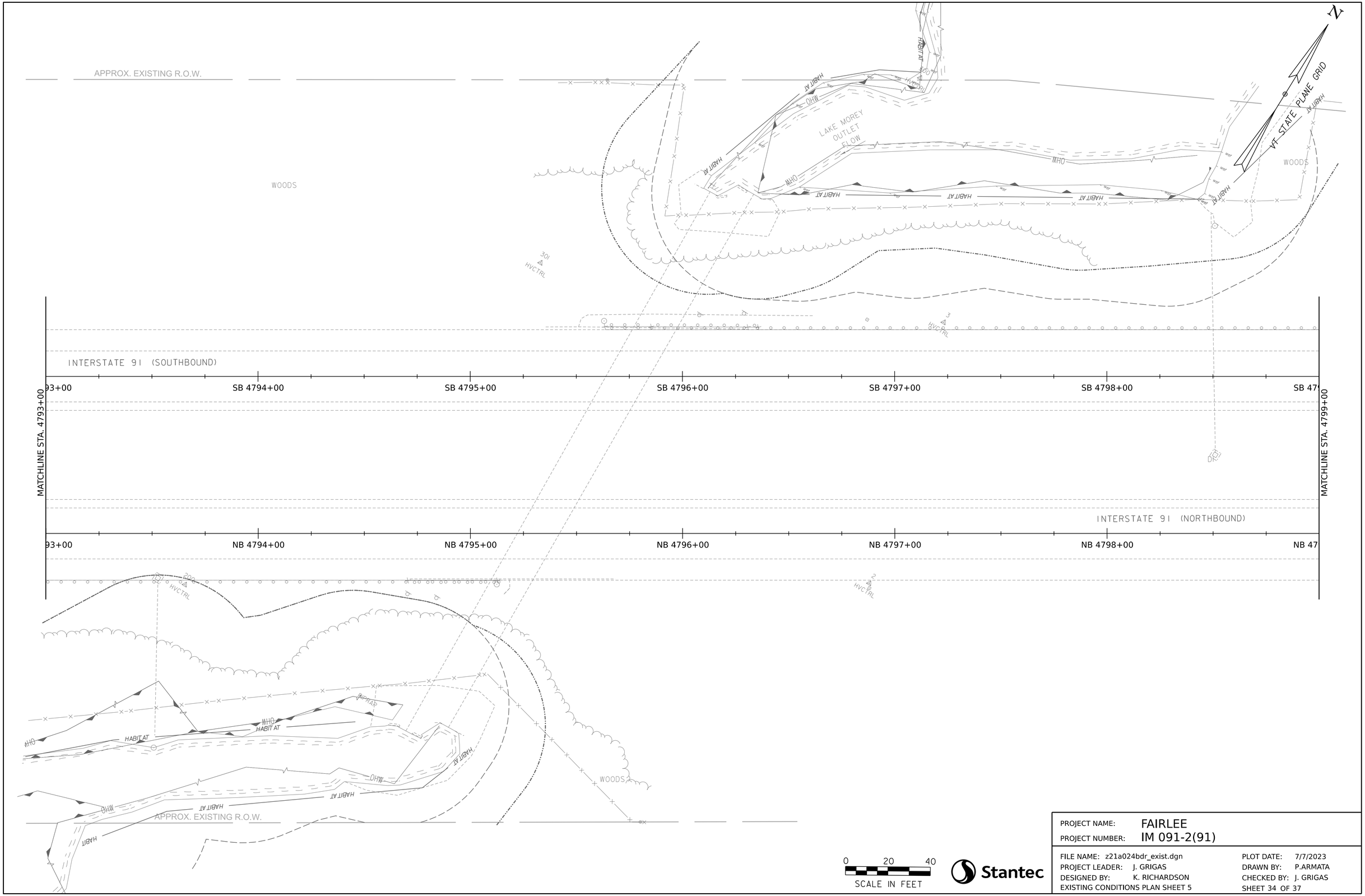
1000
BND
4"X4"CONC. 0.5'AC PLUMB/STABLE

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

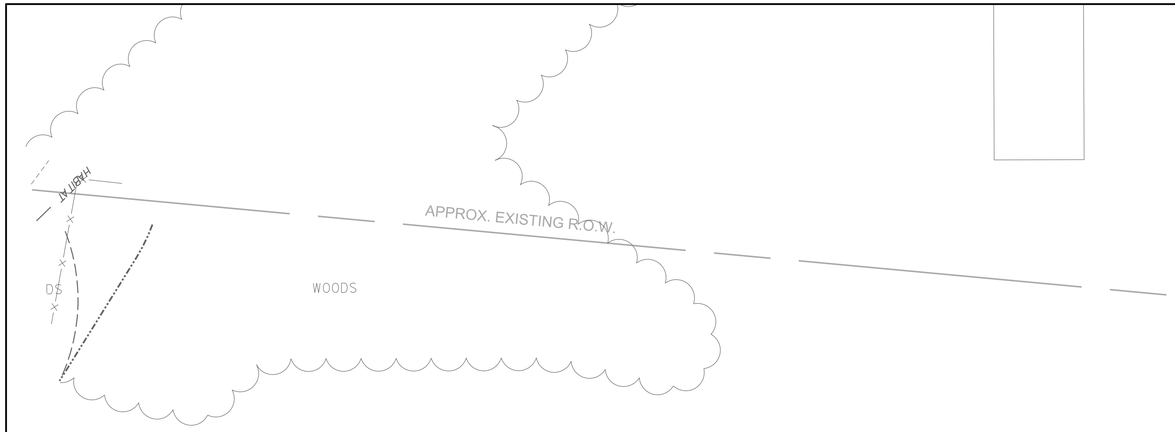
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_exist.dgn	PLOT DATE: 7/7/2023
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: J. GRIGAS
EXISTING CONDITIONS PLAN SHEET 4	SHEET 33 OF 37

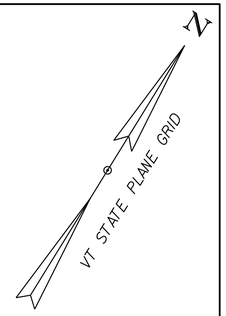


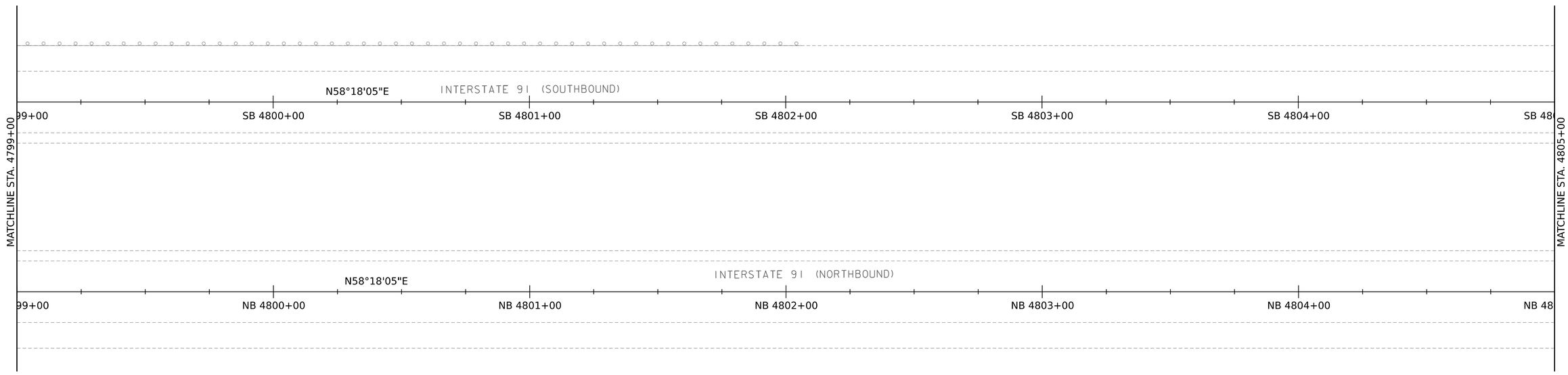
Stantec

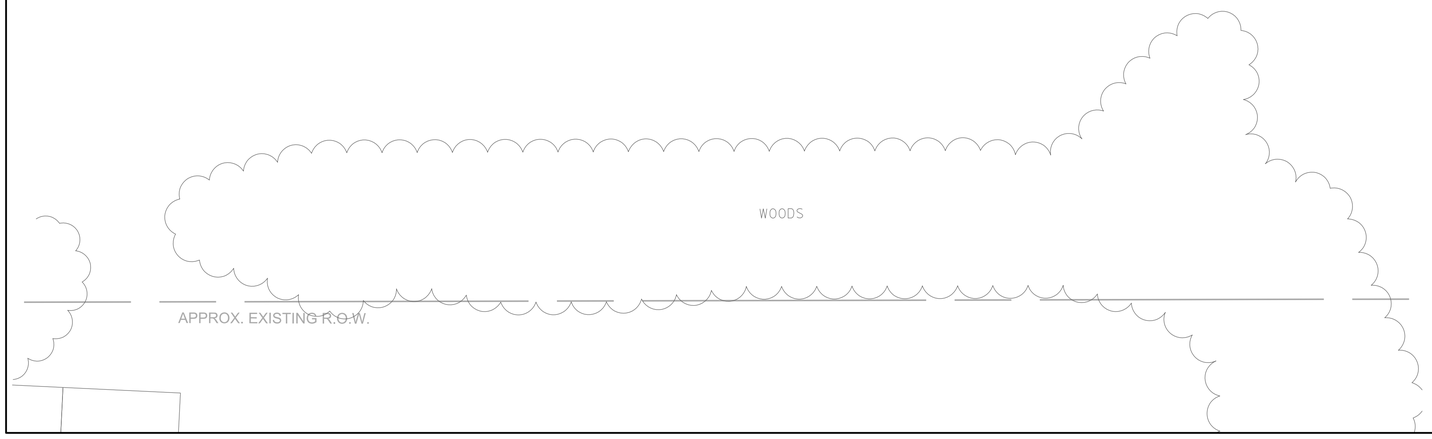
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_exist.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
EXISTING CONDITIONS PLAN SHEET 5		SHEET 34 OF 37	







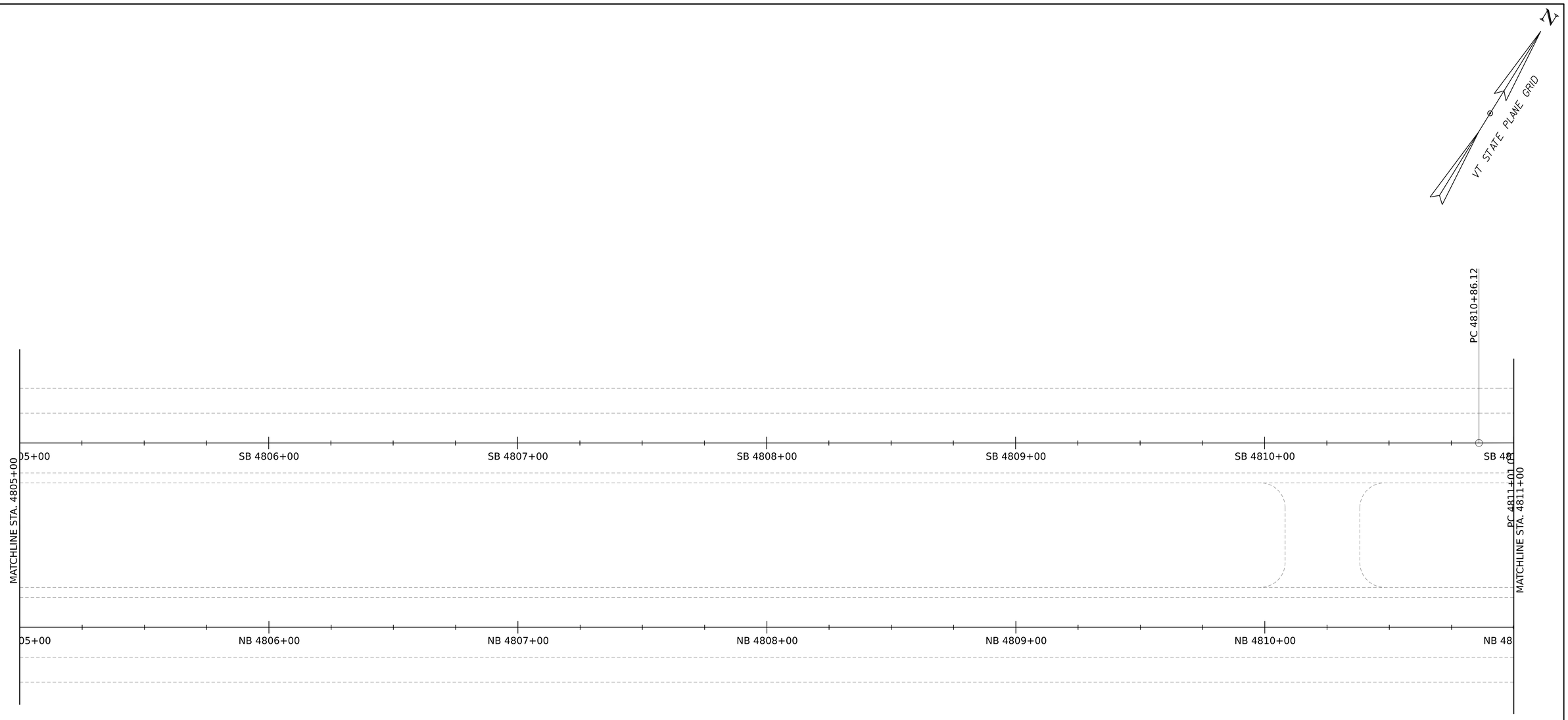


0 20 40
SCALE IN FEET

Stantec

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

FILE NAME:	z21a024bdr_exist.dgn	PLOT DATE:	7/7/2023
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P.ARMATA
DESIGNED BY:	K. RICHARDSON	CHECKED BY:	J. GRIGAS
EXISTING CONDITIONS PLAN SHEET 6		SHEET 35 OF 37	



0 20 40
SCALE IN FEET

Stantec

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

FILE NAME: z21a024bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: K. RICHARDSON
EXISTING CONDITIONS PLAN SHEET 7

PLOT DATE: 7/7/2023
DRAWN BY: P.ARMATA
CHECKED BY: J. GRIGAS
SHEET 36 OF 37

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

SB 4811+00

SB 4812+00

SB 4813+00

SB 4814+00

SB 4815+00

SB 4816+00

SB 4817+00

MATCHLINE STA. 4811+00

CURVE (x)
DELTA = 16°44'24"
D = 01°28'29"
R = 3885.00'
T = 571.61'
L = 1135.08'
E = 41.83'

TO BRADFORD

INTERSTATE 91 (NORTHBOUND)

NB 4811+00

NB 4812+00

NB 4813+00

NB 4814+00

NB 4815+00

NB 4816+00

NB 4817+00

TO BRADFORD

PI 4816+57.73

CURVE (x)
DELTA = 16°44'24"
D = 01°29'08"
R = 3857.00'
T = 567.49'
L = 1126.90'
E = 41.52'

PI 4816+68.53

0 20 40
SCALE IN FEET

Stantec

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

FILE NAME: z21a024bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: K. RICHARDSON
EXISTING CONDITIONS PLAN SHEET 8

PLOT DATE: 7/7/2023
DRAWN BY: P.ARMATA
CHECKED BY: J. GRIGAS
SHEET 37 OF 37