

REVIEWER NOTES:

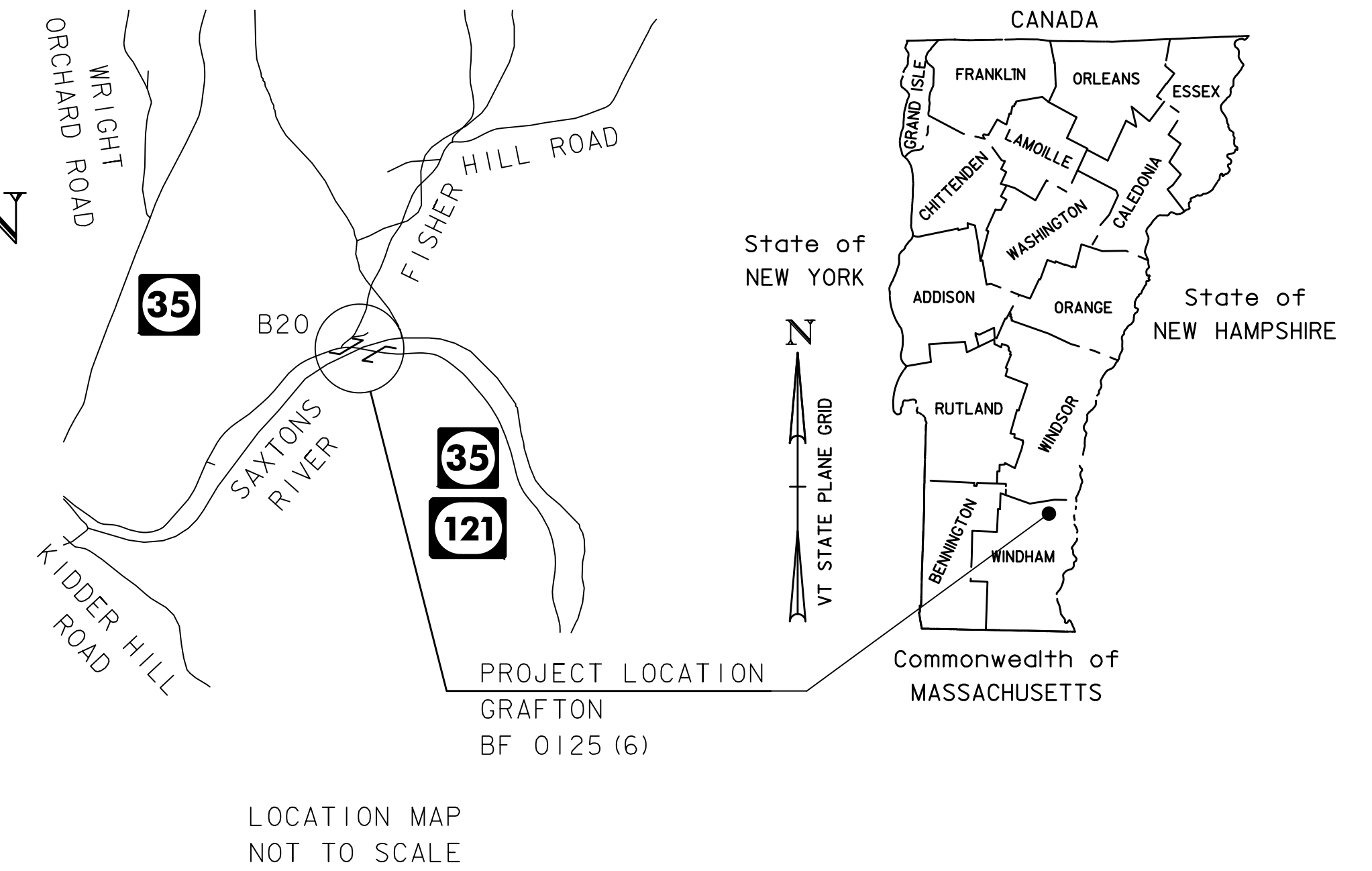
1. REPLACEMENT BRIDGE TO BE CONSTRUCTED IN ONE PHASE OFF-LINE TO THE NORTH OF THE EXISTING ROADWAY ALIGNMENT WHILE ONE -WAY ALTERNATING TRAFFIC IS MAINTAINED ON THE EXISTING ROADWAY ALIGNMENT AND SOUTHERN SECTION OF THE EXISTING BRIDGE.
2. DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 8th EDITION, 2017
3. DESIGN BRIDGE LIVE LOAD: HL-93.
4. SUPERSTRUCTURE: CONCRETE BRIDGE DECK SUPPORTED ON CURVED STEEL PLATE GIRDERS.
5. SUBSTRUCTURE: CONCRETE INTEGRAL ABUTMENTS AND SINGLE ROUND CONCRETE COLUMN SUPPORTING AN INTEGRAL CONCRETE PIER CAP.
6. FOUNDATIONS: ANTICIPATED DRIVEN H-PILES AT ABUTMENTS AND DRILLED SHAFT AT PIER.
7. OVERHEAD EXISTING UTILITIES IN THE NORTH SHOULDER OF THE EXISTING ROADWAY WILL BE PERMANENTLY RELOCATED AWAY FROM ACTIVE CONSTRUCTION AREAS PRIOR TO CONSTRUCTION OF THE REPLACEMENT BRIDGE AND REALIGNED ROADWAY.

# STATE OF VERMONT AGENCY OF TRANSPORTATION



## PROPOSED IMPROVEMENT BRIDGE PROJECT TOWN OF GRAFTON COUNTY OF WINDHAM

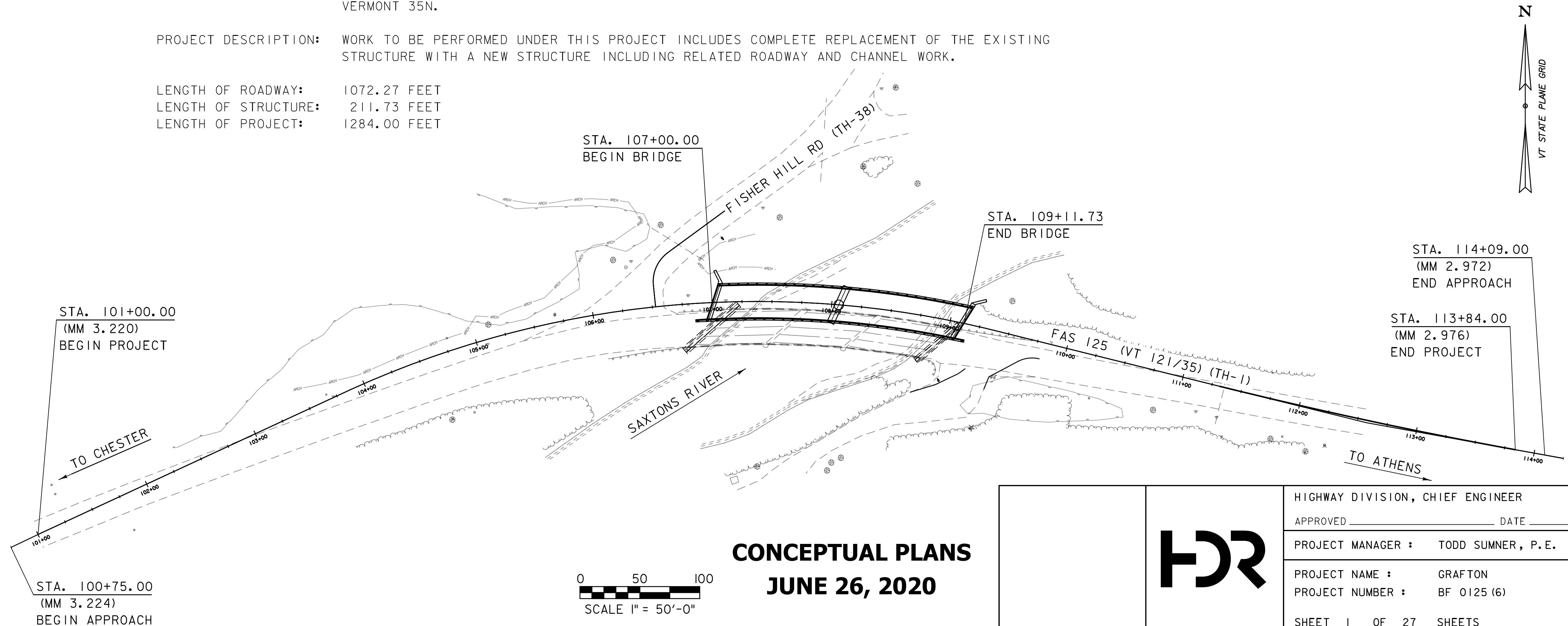
### FAS-0125 (VERMONT ROUTES 35 & 121, TH#1) (MAJOR COLLECTOR) BRIDGE NO. 20



**PROJECT LOCATION:** LOCATED IN THE TOWN OF GRAFTON, ON FAS-0125 (VERMONT 35 AND 121, TH#1), BEGINNING FROM A POINT APPROXIMATELY 1.00 MILE EAST OF THE INTERSECTION OF VERMONT 35N AND EXTENDING EASTERLY 1284 FT TO A POINT APPROXIMATELY 1.25 MILES EAST OF THE INTERSECTION OF VERMONT 35N.

**PROJECT DESCRIPTION:** WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COMPLETE REPLACEMENT OF THE EXISTING STRUCTURE WITH A NEW STRUCTURE INCLUDING RELATED ROADWAY AND CHANNEL WORK.

**LENGTH OF ROADWAY:** 1072.27 FEET  
**LENGTH OF STRUCTURE:** 211.73 FEET  
**LENGTH OF PROJECT:** 1284.00 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 APRIL 13, 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 2

SURVEYED BY : VTRANS  
 SURVEYED DATE : 12/20/2017

DATUM  
 VERTICAL NAVD 88  
 HORIZONTAL NAD 83 (2011)

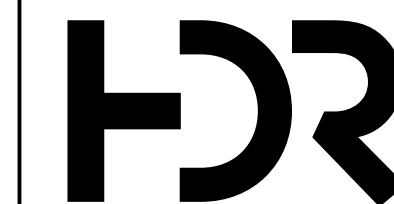
HIGHWAY DIVISION, CHIEF ENGINEER

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT MANAGER : TODD SUMNER, P. E.

PROJECT NAME : GRAFTON  
 PROJECT NUMBER : BF 0125 (6)

SHEET 1 OF 27 SHEETS



INDEX OF SHEETS

FINAL HYDRAULIC REPORT

PLAN SHEETS

STANDARDS LIST

- 1 TITLE SHEET
- 2 PRELIMINARY INFORMATION SHEET
- 3 CONVENTIONAL SYMBOLOLOGY LEGEND SHEET
- 4 - 5 TYPICAL SECTIONS 1-2
- 6 - 7 PHASING SECTIONS 1-2
- 8 - 10 LAYOUT SHEETS 1-3
- 11 - 13 PROFILE SHEETS 1-3
- 14 - 19 ROADWAY CROSS SECTIONS 1-5
- 20 - 24 CHANNEL CROSS SECTIONS 1-5
- 25 - 27 RESOURCE LAYOUT SHEETS 1-3

DETAIL SHEETS

--	--

**TRAFFIC MAINTENANCE NOTES**

1. MAINTAIN ONE-WAY TRAFFIC ON THE EXISTING STRUCTURE.
2. INSTALL AND MAINTAIN TRAFFIC SIGNALS.
3. SIDEWALKS ARE NOT NECESSARY

**DESIGN VALUES**

- |   |   |
|---|---|
| 1. DESIGN LIVE LOAD   | HL-93                                     |
| 2. FUTURE PAVEMENT  | $d_p$ : 0.0 INCH                          |
| 3. ABUTMENT BEARING TO BEARING LENGTH (TWO SPANS)<br>( 104.00 - 104.00 ) FT | $L$ : 208.00 FT                           |
| 4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)                  | $\Delta$ : ---                            |
| 5. PRESTRESSING STRAND  | $f_y$ : ---                               |
| 6. PRESTRESSED CONCRETE STRENGTH  | $f'_c$ : ---                              |
| 7. PRESTRESSED CONCRETE RELEASE STRENGTH                                    | $f'_{ci}$ : ---                           |
| 8. HIGH PERFORMANCE CONCRETE, CLASS PCD                                     | $f'_c$ : 4.0 KSI                          |
| 9. HIGH PERFORMANCE CONCRETE, CLASS PCS                                     | $f'_c$ : 3.5 KSI                          |
| 10. CONCRETE HIGH PERFORMANCE, CLASS PSS                                    | $f'_c$ : 4.0 KSI                          |
| 11. CONCRETE, CLASS C   | $f'_c$ : 3.0 KSI                          |
| 12. REINFORCING STEEL   | $f_y$ : 60 KSI                            |
| 13. STRUCTURAL STEEL AASHTO M270  | $f_y$ : 50 KSI                            |
| 14. NOMINAL BEARING RESISTANCE OF SOIL                                      | $q_n$ : ---                               |
| 15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)                   | $\phi$ : ---                              |
| 16. NOMINAL BEARING RESISTANCE OF ROCK                                      | $q_n$ : ---                               |
| 17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)                   | $\phi$ : ---                              |
| 18. PILE RESISTANCE FACTOR  | $\phi$ : ---                              |
| 19. LATERAL PILE DEFLECTION   | $\Delta$ : ---                            |
| 20. BASIC WIND SPEED  | $V_{3s}$ : ---                            |
| 21. MINIMUM GROUND SNOW LOAD  | $p_g$ : ---                               |
| 22. SEISMIC DATA  | $PGA$ : ---<br>$S_s$ : ---<br>$S_1$ : --- |
| 23.   | ---                                       |
| 24.   | ---                                       |
| 25.   | ---                                       |
| 26.   | ---                                       |

**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:							

**TRAFFIC DATA**

YEAR	ADT	DHV	% D	% T	ADTT
2021	830	120	59	9.3	70
2041	900	130	59	14	120

20 year ESAL for flexible pavement from 2021 to 2041 : 0  
 40 year ESAL for flexible pavement from 2021 to 2061 : 0  
 Design Speed : 40 mph

**AS BUILT "REBAR" DETAIL**

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

PROJECT NAME: **GRAFTON**

PROJECT NUMBER: **BF 0125(6)**

FILE NAME: z16j177pi.dgn	PLOT DATE: 3/25/2020
PROJECT LEADER: T. FRENCH	DRAWN BY: N. CARON
DESIGNED BY: N. CARON	CHECKED BY: S. BOYINGTON
<b>PRELIMINARY INFORMATION SHEET</b>	SHEET 2 OF 27

**GENERAL INFORMATION**

**SYMBOLGY LEGEND NOTE**

THE SYMBOLGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLGY. THE SYMBOLGY 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. SYMBOLGY 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 SYMBOLGY**

**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 SYMBOLGY**

**PROJECT DESIGN & LAYOUT SYMBOLGY**

— — — 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
XXXXXXXXXXXXXXXXXXXX	TREE PROTECTION ZONE (TPZ)
//// //// //// ////	STRIPING LINE REMOVAL
~~~~~	SHEET PILES

**CONVENTIONAL BOUNDARY SYMBOLGY**

**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
P — — — — — P	PROPERTY LINE (P/L)
L — — — — — L	PROPERTY LINE (P/L)
▲ — SR — ○ — SR — ▲ — SR — ○ — SR —	SLOPE RIGHTS
6f — — — — — 6f	6F PROPERTY BOUNDARY
4f — — — — — 4f	4F PROPERTY BOUNDARY
HAZ — — — — — HAZ	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLGY**

**EPSC MEASURES**

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

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLGY

**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 SYMBOLGY**

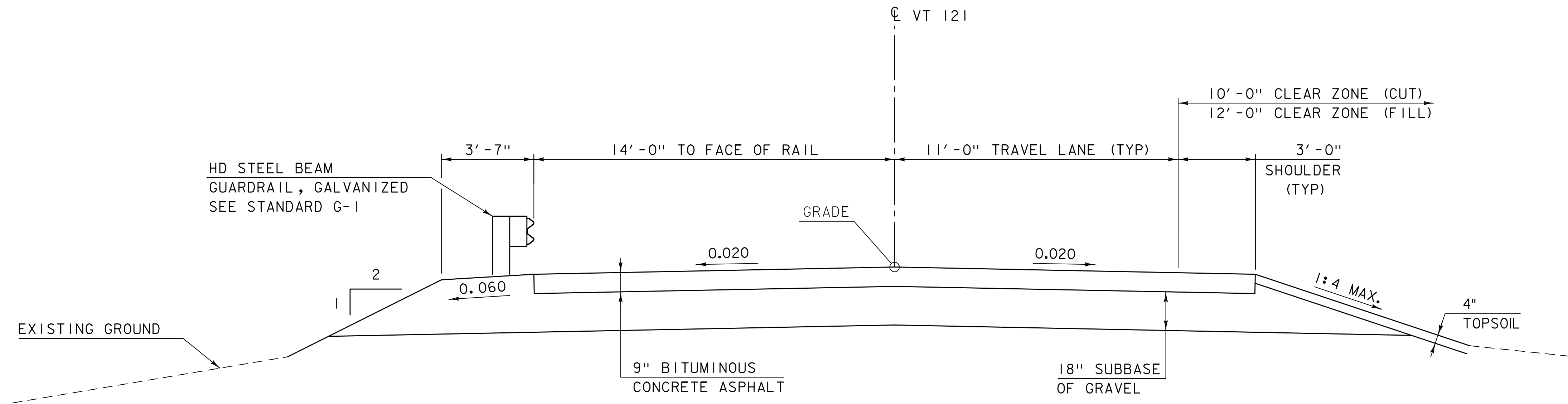
**EXISTING FEATURES**

—————	ROAD EDGE PAVEMENT
—————	ROAD EDGE GRAVEL
—————	DRIVEWAY EDGE
—————	DITCH
—————	FOUNDATION
— X — X — X — X —	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

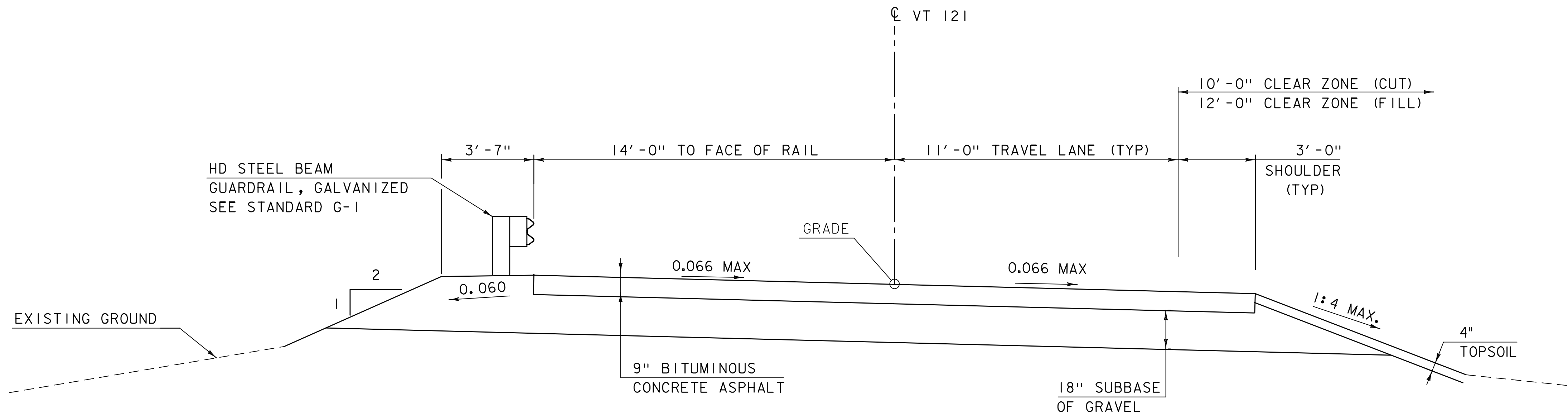
PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

FILE NAME: I6J177/z16J177xschl.dgn PLOT DATE: 6/26/2020  
PROJECT LEADER: T. FRENCH DRAWN BY: N. CARON  
DESIGNED BY: VTRANS CHECKED BY: S. BOYINGTON  
CONVENTIONAL SYMBOLGY - LEGEND SHEET 3 OF 27





ROUTE 121 NORMAL CROWN TYPICAL SECTION  
SCALE  $\frac{3}{8}$ " = 1'-0"

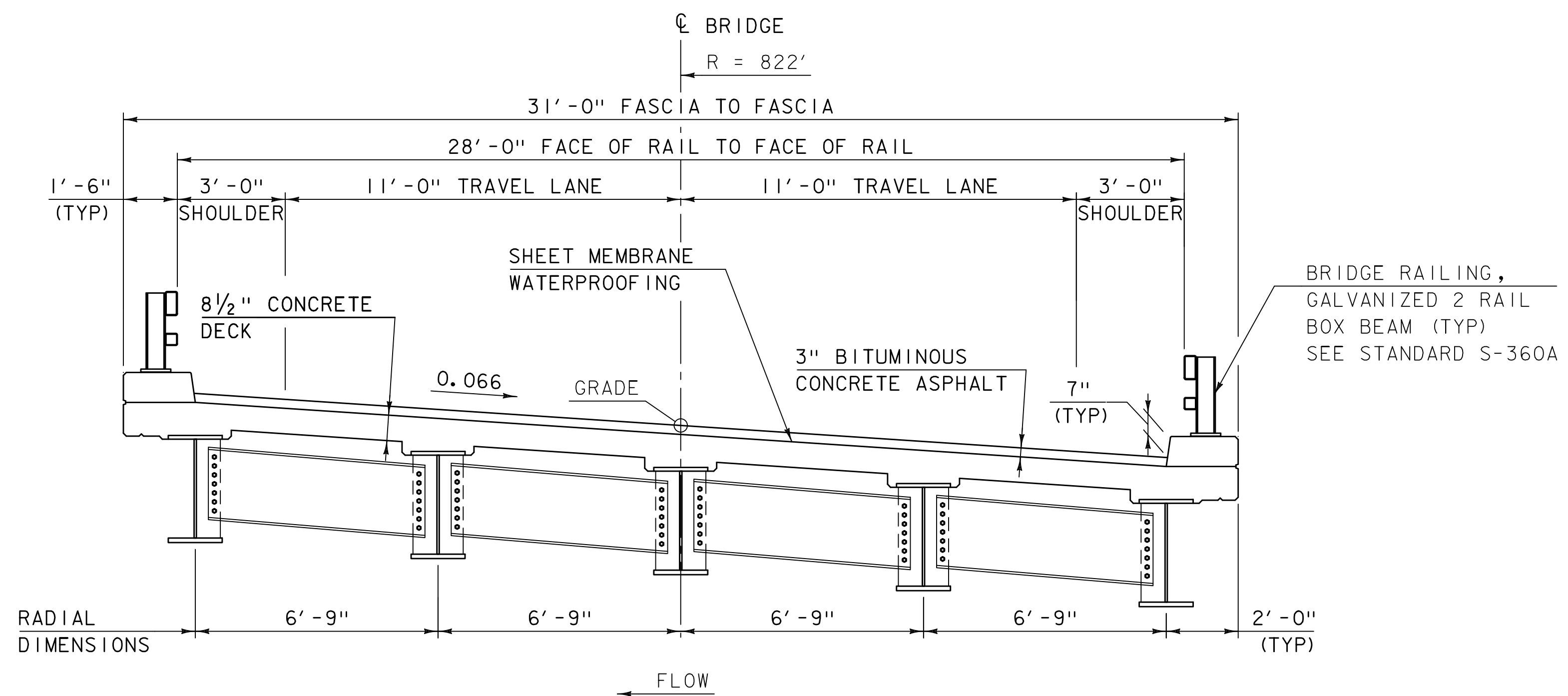


ROUTE 121 SUPERELEVATED TYPICAL SECTION  
SCALE  $\frac{3}{8}$ " = 1'-0"

**MATERIAL TOLERANCES**  
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	
SAND BORROW	+/- 1"

PROJECT NAME:	GRAFTON
PROJECT NUMBER:	BF 0125(6)
FILE NAME:	I6J177/z16J177typ.dgn
PROJECT LEADER:	T. FRENCH
DESIGNED BY:	K. HOWE
TYPICAL SECTIONS SHEET	1 OF 2
PLOT DATE:	6/26/2020
DRAWN BY:	K. HOWE
CHECKED BY:	R. LAROCHELLE
SHEET	4 OF 27



**TYPICAL BRIDGE SECTION**

SCALE 3/8" = 1'-0"

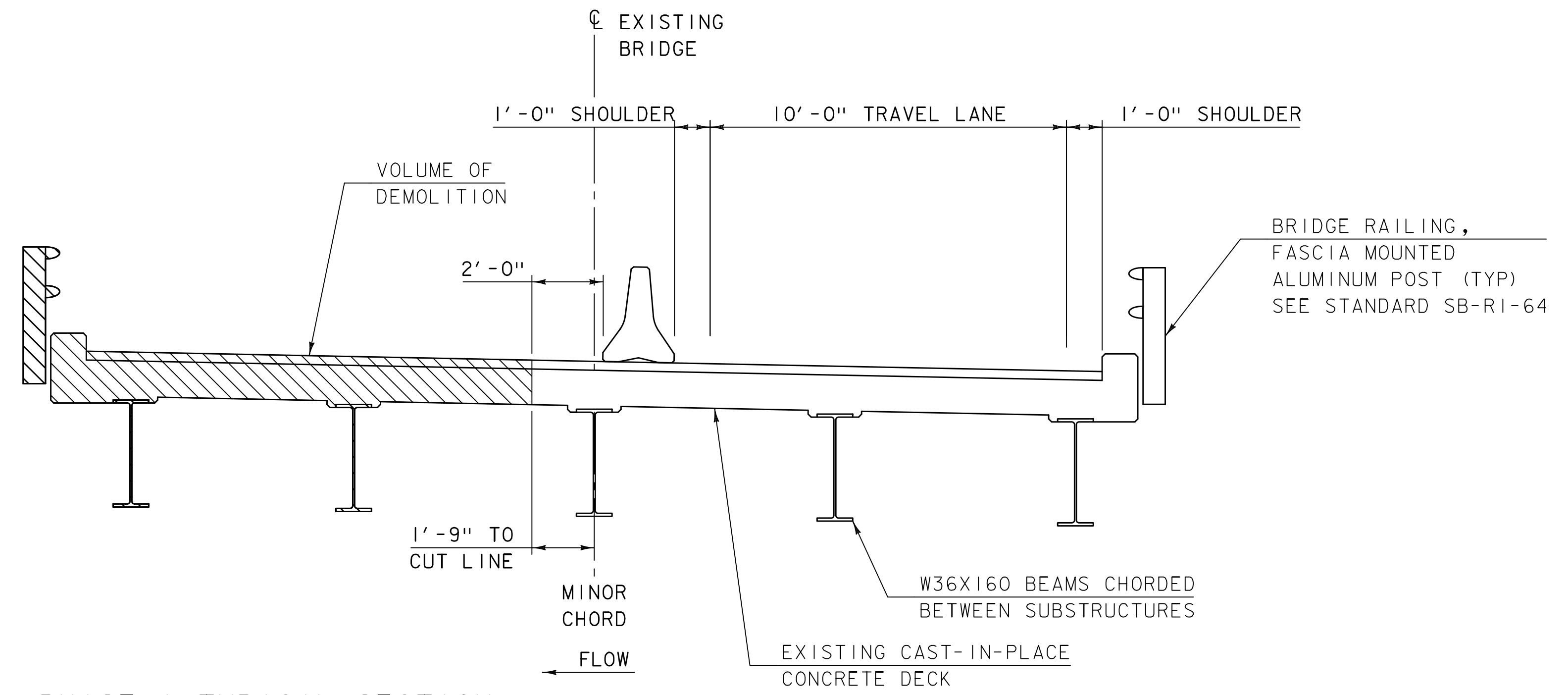
**MATERIAL TOLERANCES**  
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	
	+/- 1"
SAND BORROW	
	+/- 1"



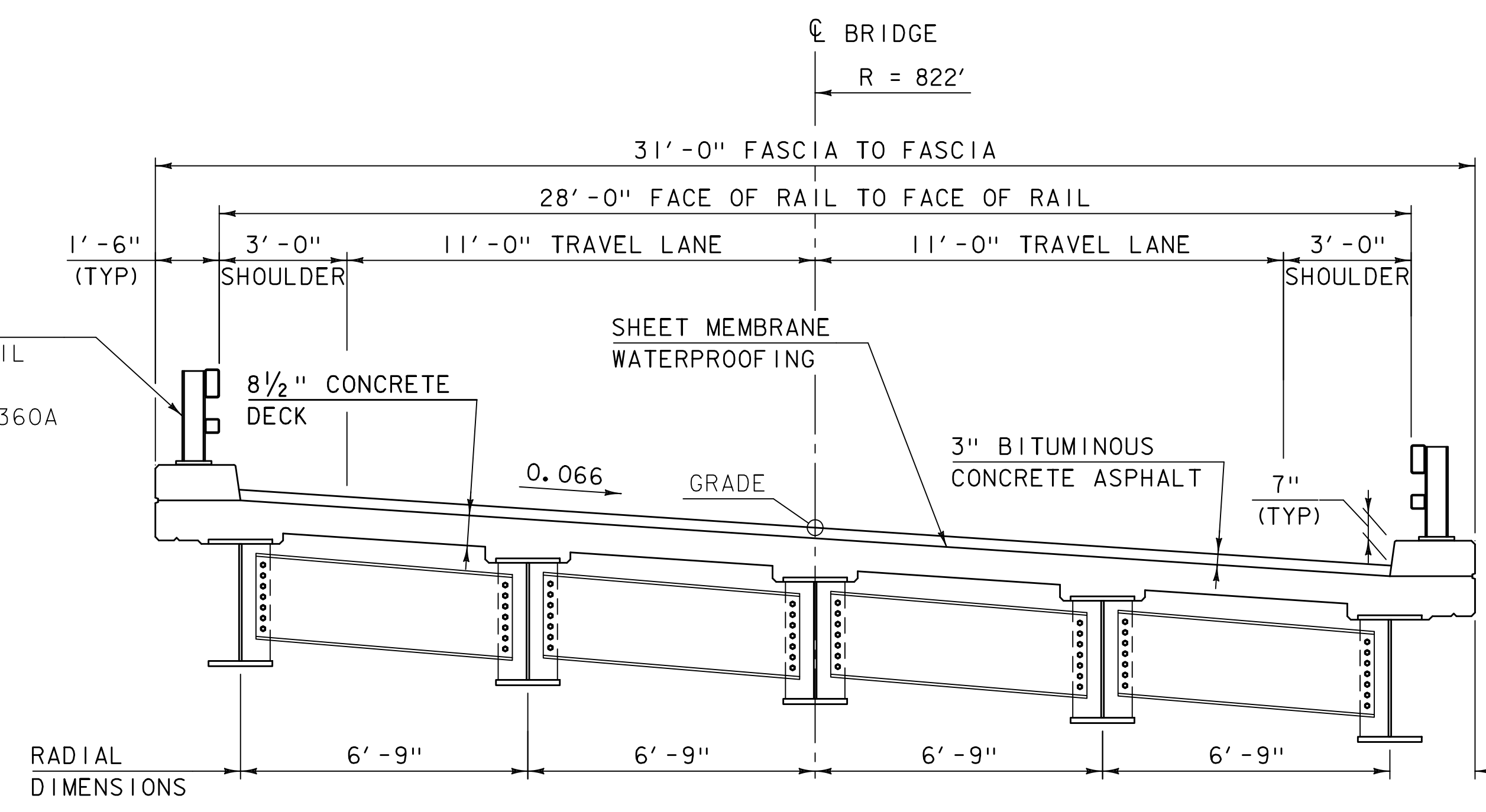
PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

FILE NAME: I6J177/z16J177typ.dgn	PLOT DATE: 6/26/2020
PROJECT LEADER: T. FRENCH	DRAWN BY: N. CARON
DESIGNED BY: N. CARON	CHECKED BY: S. BOYINGTON
TYPICAL SECTIONS SHEET 2 OF 2	SHEET 5 OF 27



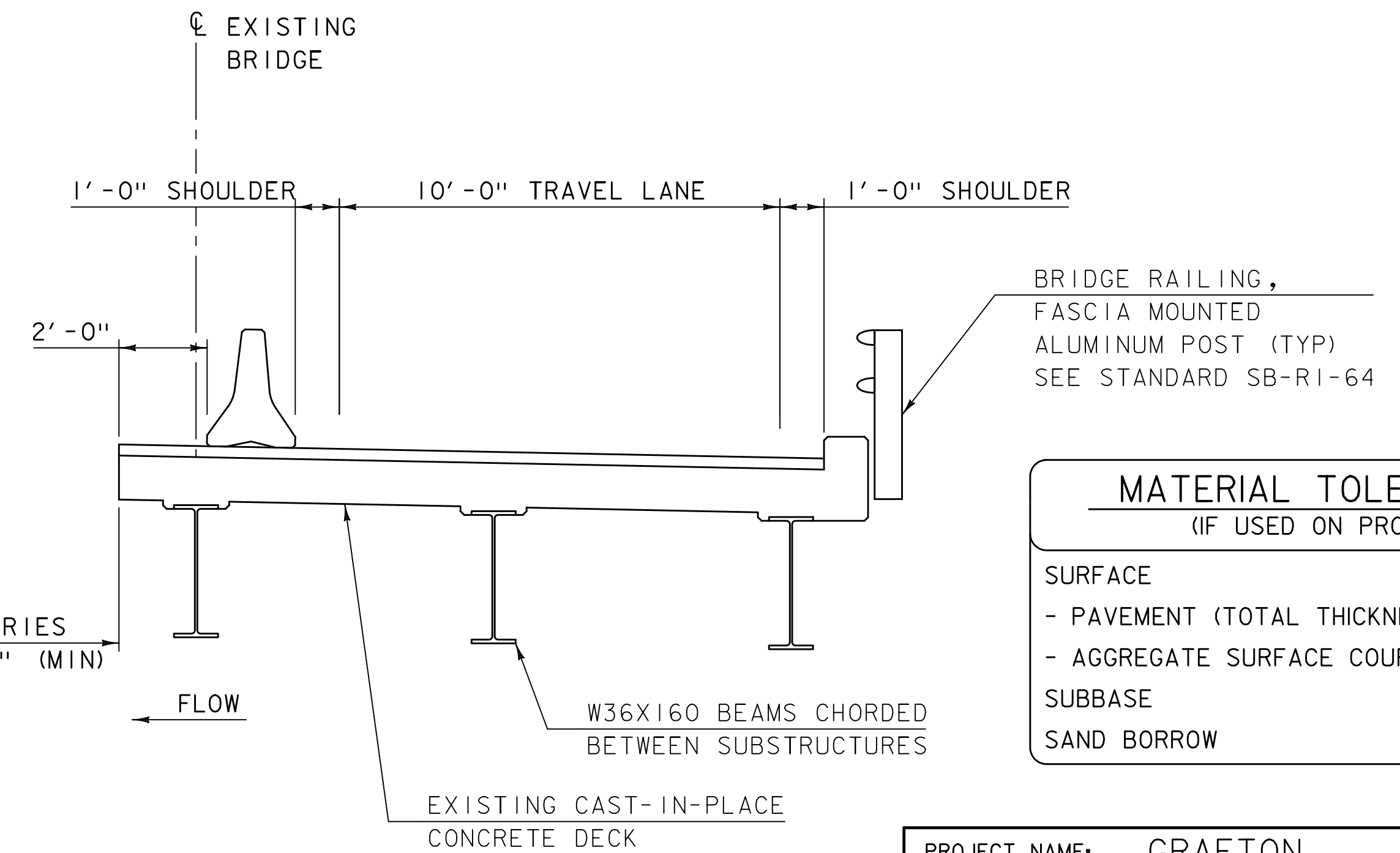
**PHASE 1 TYPICAL SECTION**

SCALE  $\frac{3}{8}$ " = 1'-0"  
ALL DIMENSIONS RADIAL UNLESS OTHERWISE NOTED

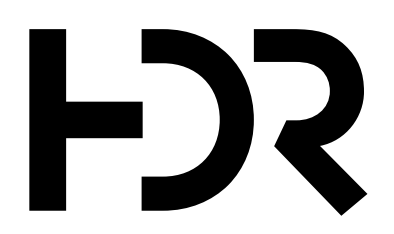


**PHASE 2 TYPICAL SECTION**

SCALE  $\frac{3}{8}$ " = 1'-0"  
ALL DIMENSIONS RADIAL UNLESS OTHERWISE NOTED

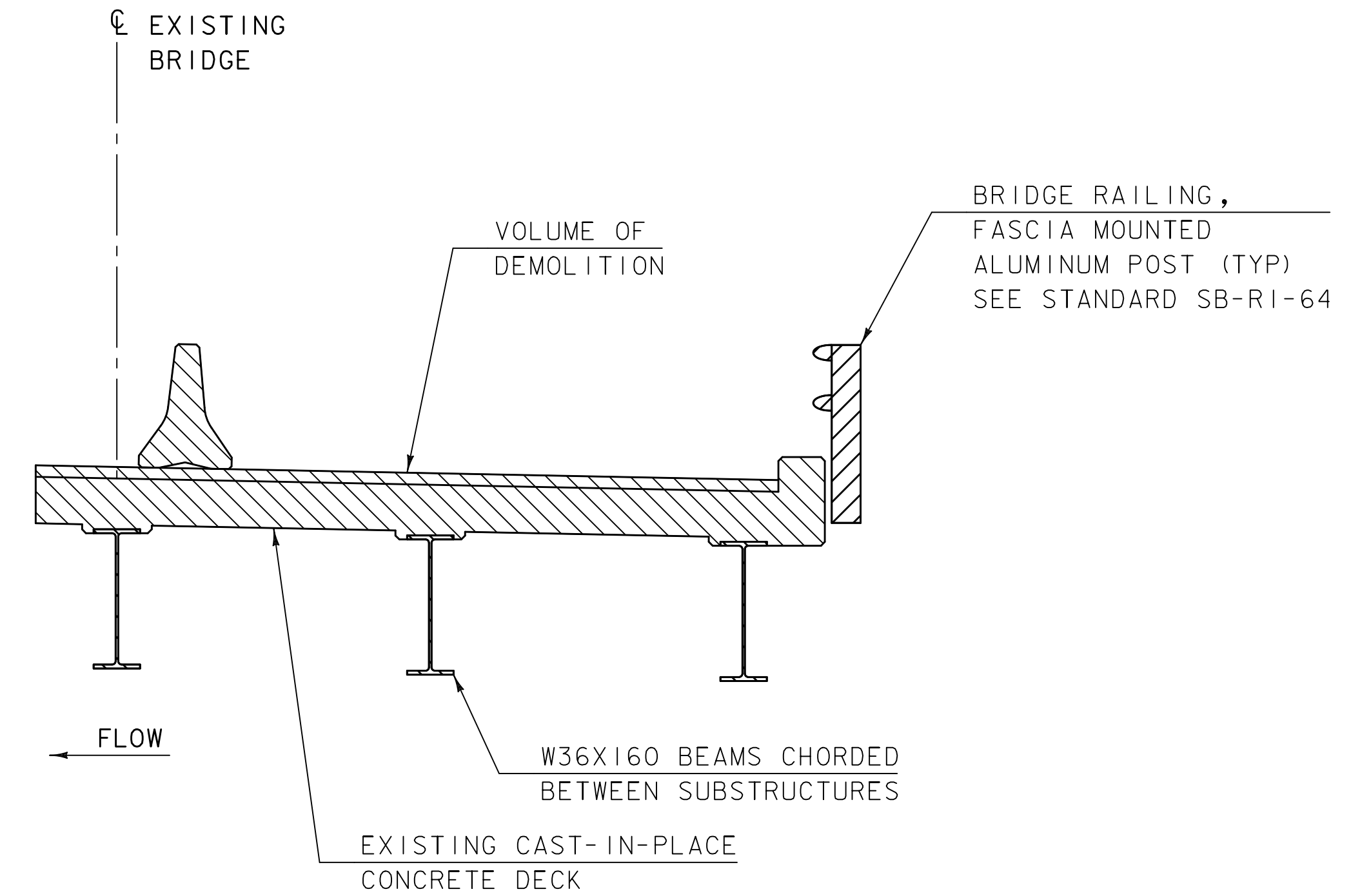
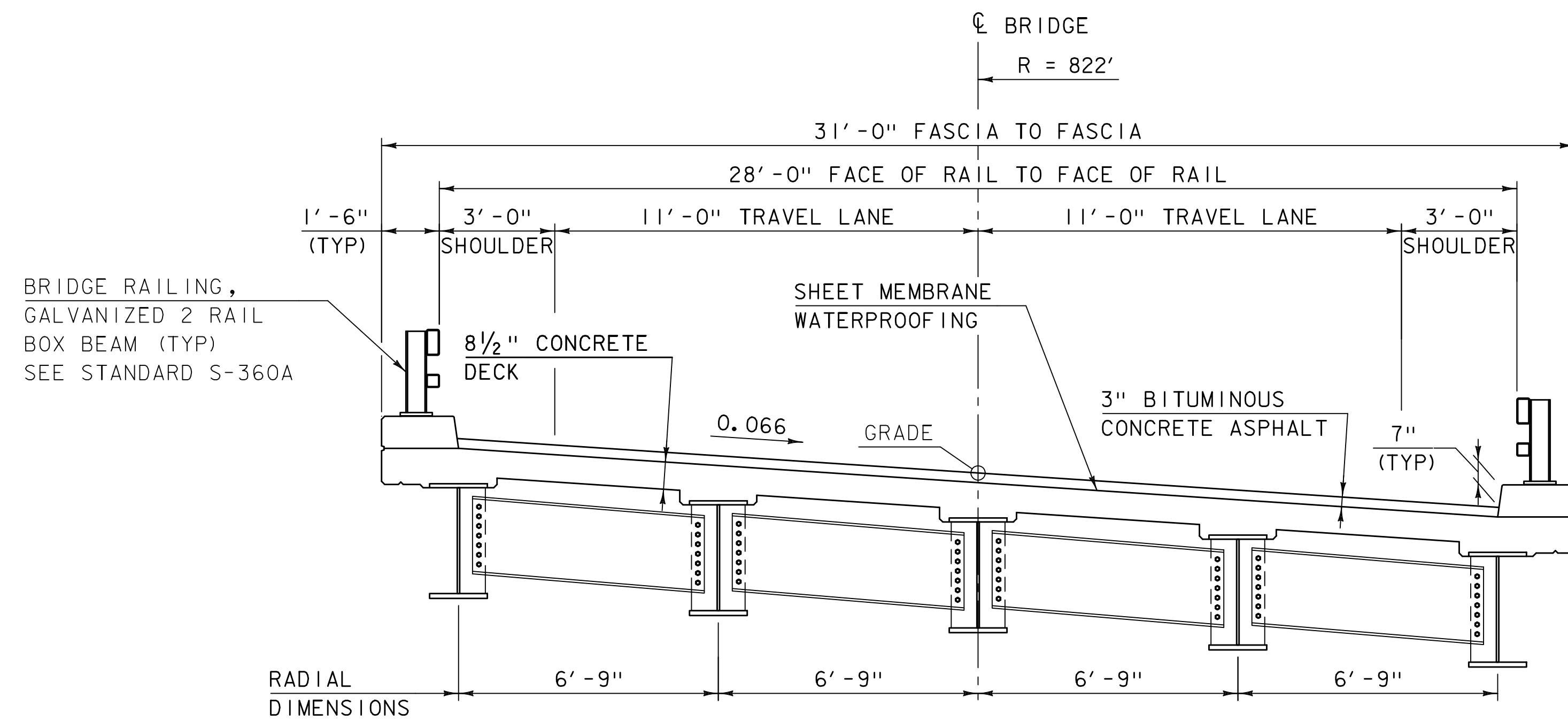


MATERIAL TOLERANCES (IF USED ON PROJECT)	
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	
SAND BORROW	+/- 1"



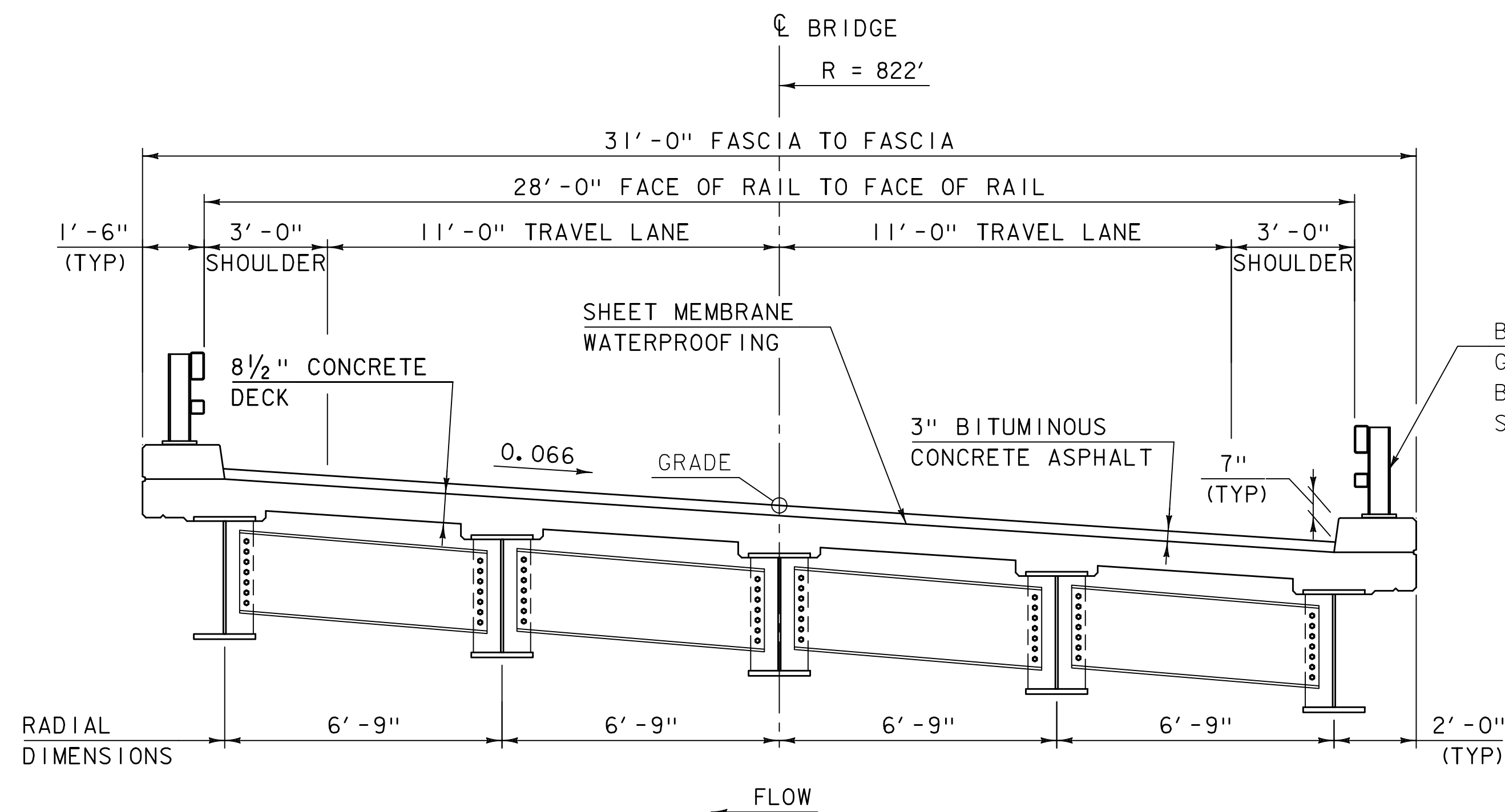
PROJECT NAME: GRAFTON  
 PROJECT NUMBER: BF 0125(6)  
 FILE NAME: I6J177/z16J177traffic.dgn  
 PROJECT LEADER: T. FRENCH  
 DESIGNED BY: N. CARON  
 PHASING TYPICAL SECTIONS (1 OF 2)

PLOT DATE: 6/26/2020  
 DRAWN BY: N. CARON  
 CHECKED BY: S. BOYINGTON  
 SHEET 6 OF 27



**PHASE 3 TYPICAL SECTION**

SCALE  $\frac{3}{8}$ " = 1'-0"  
ALL DIMENSIONS RADIAL UNLESS OTHERWISE NOTED



**PHASE 4 TYPICAL SECTION**

SCALE  $\frac{3}{8}$ " = 1'-0"

**MATERIAL TOLERANCES**  
(IF USED ON PROJECT)

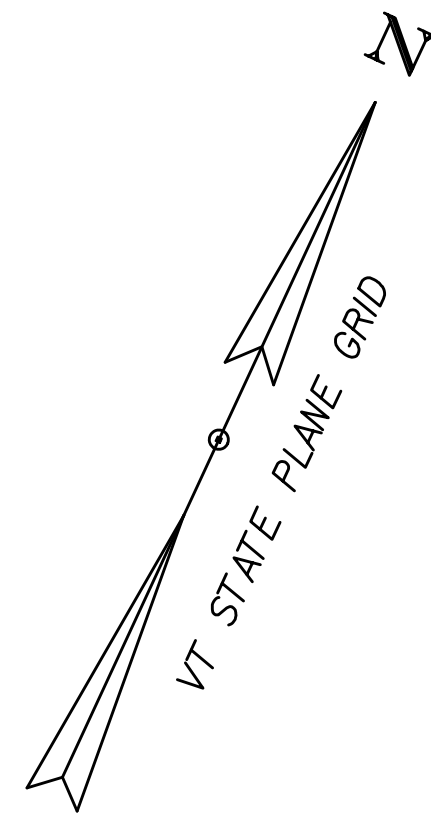
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

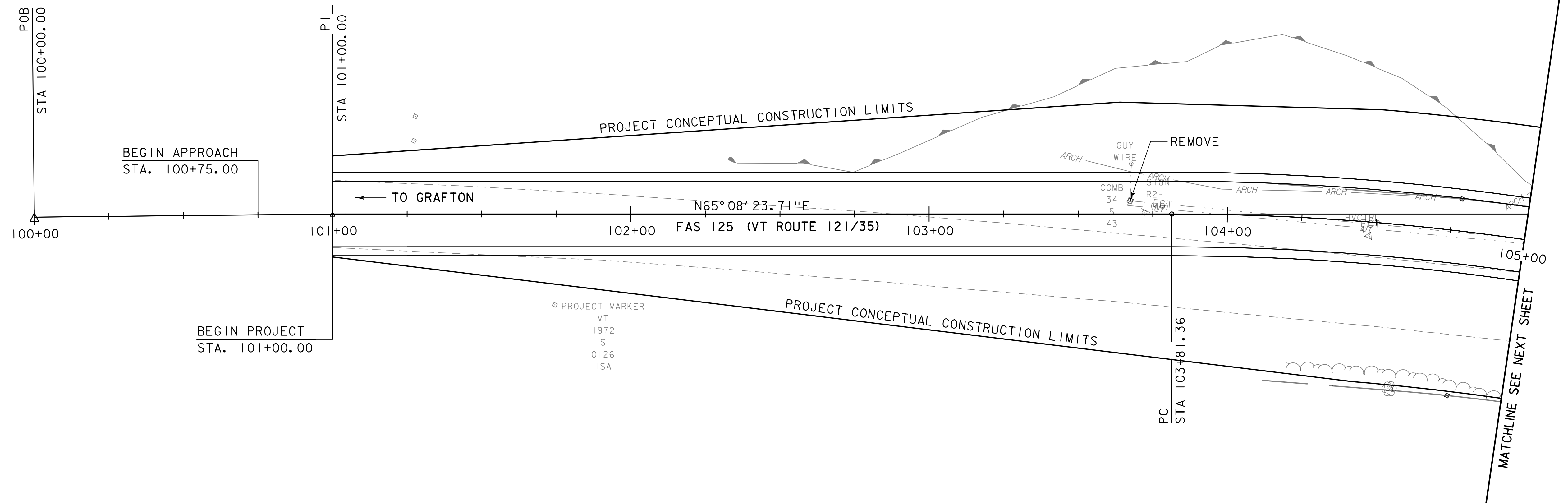
FILE NAME: I6J177/z16J177traffic.dgn  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: N. CARON  
PHASING TYPICAL SECTIONS (2 OF 2)

PLOT DATE: 6/26/2020  
DRAWN BY: N. CARON  
CHECKED BY: S. BOYINGTON  
SHEET 7 OF 27





FAS 125 (VT 121/35)  
 CURVE (1)  
 DELTA = 38° 46' 53"  
 D = 6° 58' 13"  
 R = 822.00'  
 T = 289.32'  
 L = 556.38'  
 E = 49.43'



BEGIN APPROACH  
 STA. 100+75.00

BEGIN PROJECT  
 STA. 101+00.00

PROJECT MARKER  
 VT  
 1972  
 S  
 0126  
 ISA

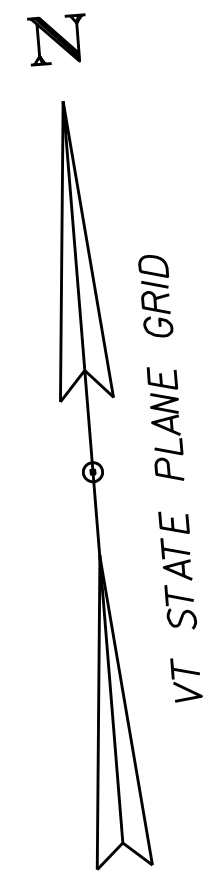
ROADWAY LAYOUT

SCALE 1" = 20'-0"  
 20 0 20

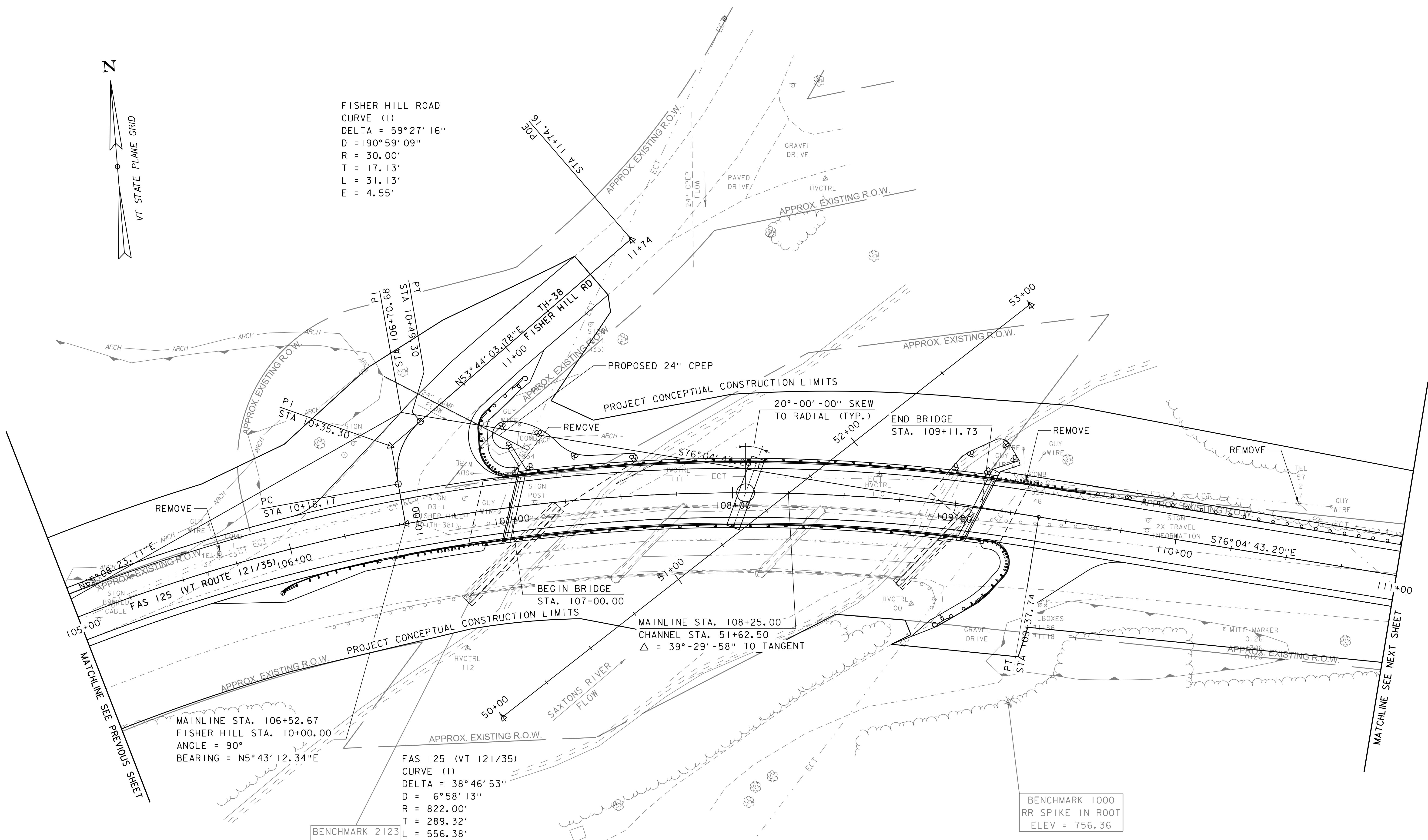


PROJECT NAME: GRAFTON	PLOT DATE: 6/26/2020
PROJECT NUMBER: BF 0125(6)	DRAWN BY: K. HOWE
FILE NAME: I6J177/z16J177border.dgn	CHECKED BY: R. LAROCHELLE
PROJECT LEADER: T. FRENCH	SHEET 8 OF 27
DESIGNED BY: K. HOWE	
LAYOUT SHEET 1 OF 3	





FISHER HILL ROAD  
 CURVE (1)  
 DELTA = 59°27'16"  
 D = 190°59'09"  
 R = 30.00'  
 T = 17.13'  
 L = 31.13'  
 E = 4.55'



MAINLINE STA. 106+52.67  
 FISHER HILL STA. 10+00.00  
 ANGLE = 90°  
 BEARING = N5°43'12.34"E

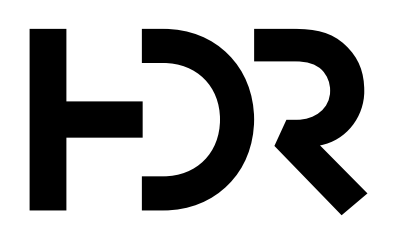
FAS 125 (VT 121/35)  
 CURVE (1)  
 DELTA = 38°46'53"  
 D = 6°58'13"  
 R = 822.00'  
 T = 289.32'  
 L = 556.38'  
 E = 49.43'

BENCHMARK 2123  
 STATE OF VT  
 SURVEY MARK  
 ELEV = 758.38

**ROADWAY LAYOUT**

SCALE 1" = 20'-0"  
 20 0 20

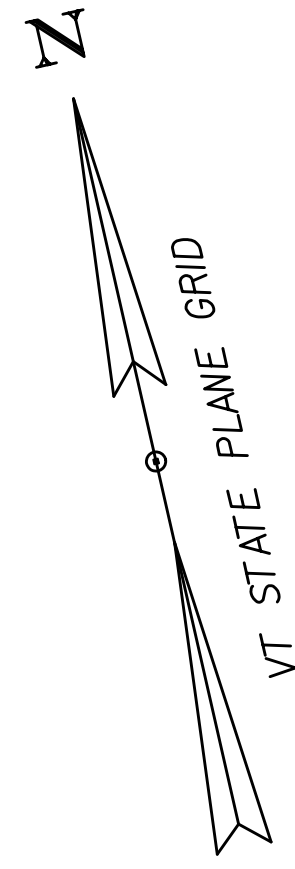
EXISTING BRIDGE INFORMATION  
 3 SPAN ROLLED BEAM  
 BUILT 1937, REBUILT 1972  
 62' MAX SPAN, 191' LENGTH  
 PREFORMED FABRIC MEMBRANE



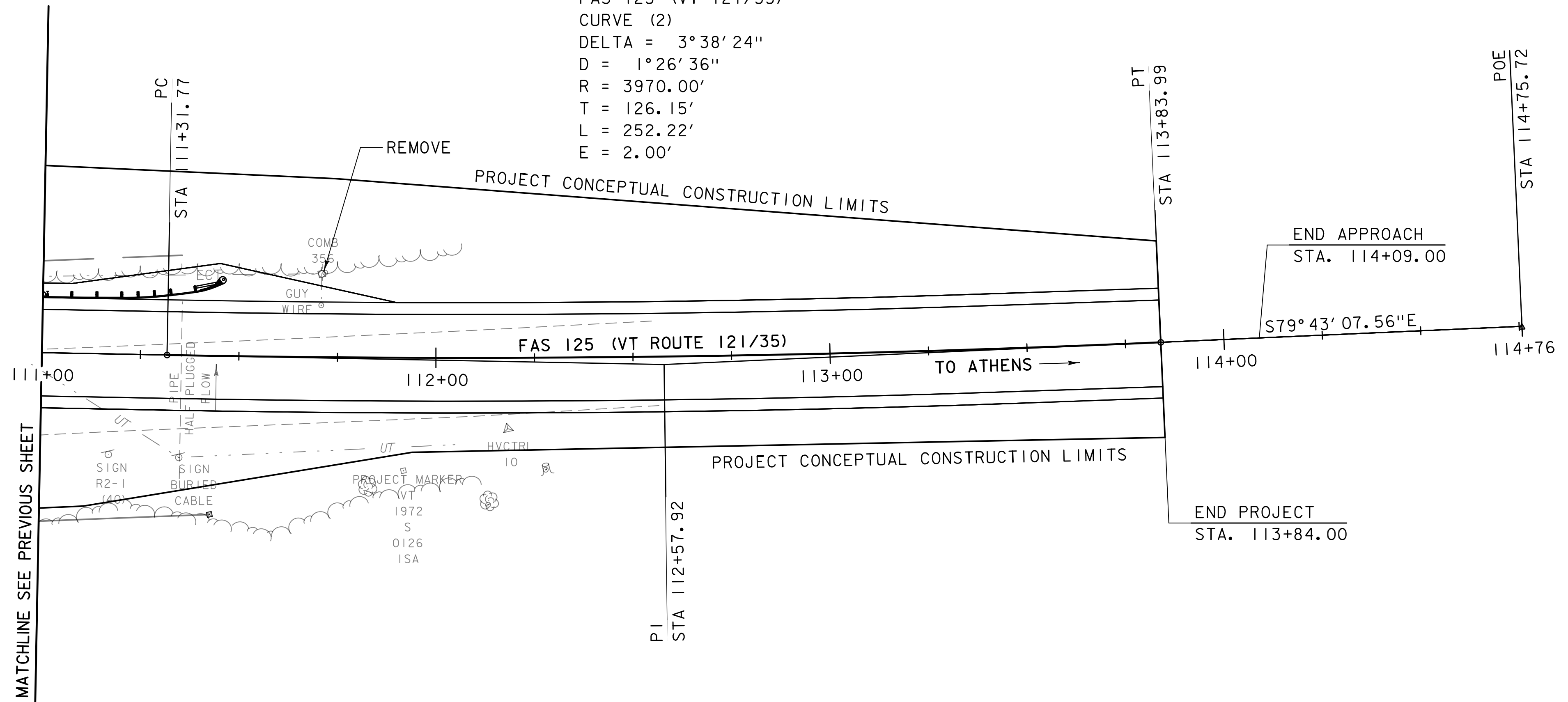
PROJECT NAME: GRAFTON  
 PROJECT NUMBER: BF 0125(6)

FILE NAME: I6J177/z16J177bor der.dgn  
 PROJECT LEADER: T. FRENCH  
 DESIGNED BY: K. HOWE  
 LAYOUT SHEET 2 OF 3

PLOT DATE: 6/26/2020  
 DRAWN BY: K. HOWE  
 CHECKED BY: R. LAROCHELLE  
 SHEET 9 OF 27

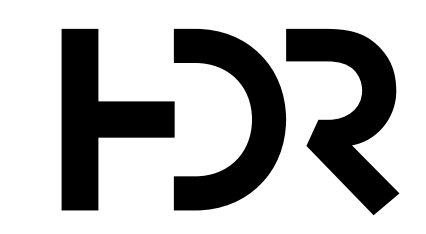


FAS 125 (VT 121/35)  
 CURVE (2)  
 DELTA = 3° 38' 24"  
 D = 1° 26' 36"  
 R = 3970.00'  
 T = 126.15'  
 L = 252.22'  
 E = 2.00'

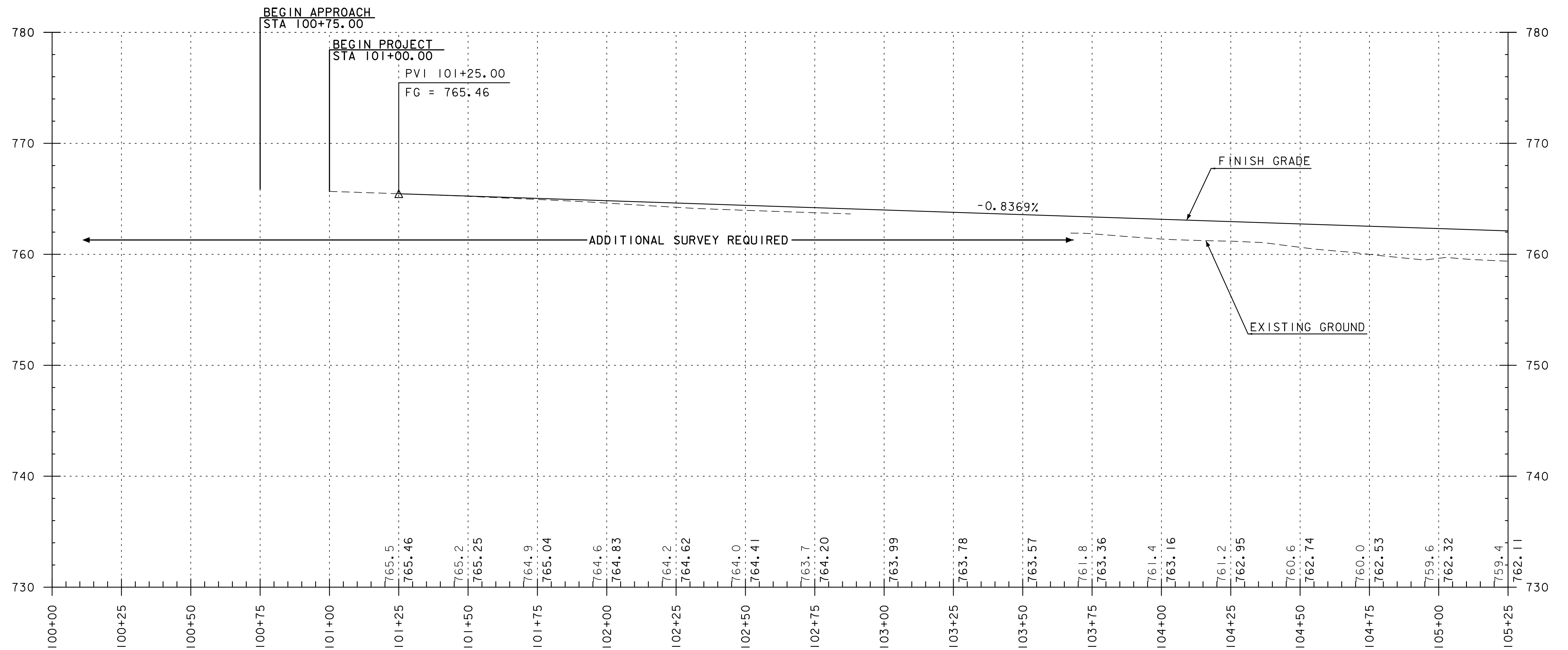


ROADWAY LAYOUT

SCALE 1" = 20'-0"  
 20 0 20



PROJECT NAME: GRAFTON	PLOT DATE: 6/26/2020
PROJECT NUMBER: BF 0125(6)	DRAWN BY: K. HOWE
FILE NAME: I6J177/z16J177border.dgn	CHECKED BY: R. LAROCHELLE
PROJECT LEADER: T. FRENCH	SHEET 10 OF 27
DESIGNED BY: K. HOWE	
LAYOUT SHEET 3 OF 3	

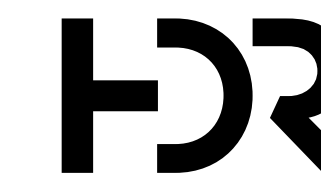


**ROUTE 121 PROFILE**

HOR. SCALE 1" = 20'-0"  
VERT. SCALE 1" = 5'-0"



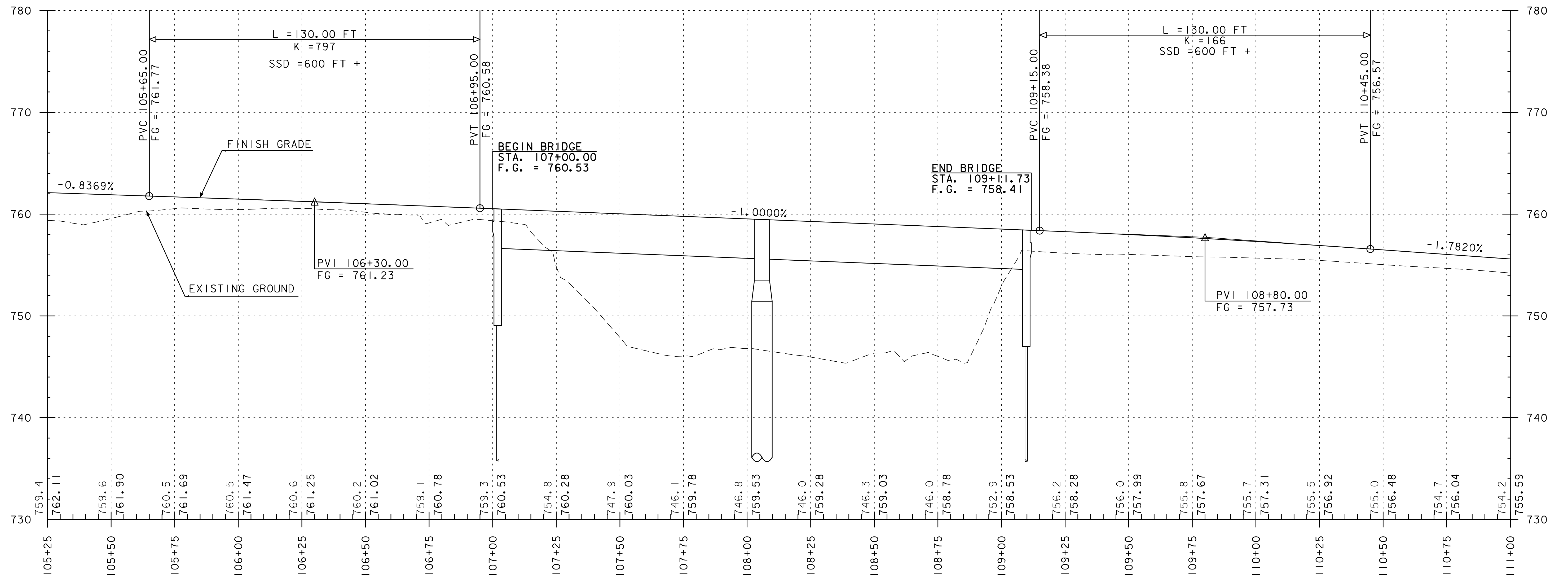
LINE	SURFACE	OFFSET
----	x16j177og	0.00
	Scaled 4.0000	Times Ver.
	Scaled 1.0000	Times Hor.



PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

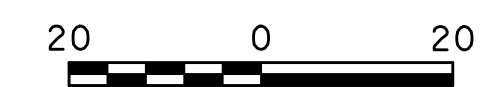
FILE NAME: z16j177BDRpro  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: K. HOWE  
PROFILE SHEET 1 OF 3

PLOT DATE: 6/26/2020  
DRAWN BY: K. HOWE  
CHECKED BY: R. LAROCHELLE  
SHEET II OF 27



**ROUTE 121 PROFILE**

HOR. SCALE 1" = 20'-0"  
 VERT. SCALE 1" = 5'-0"



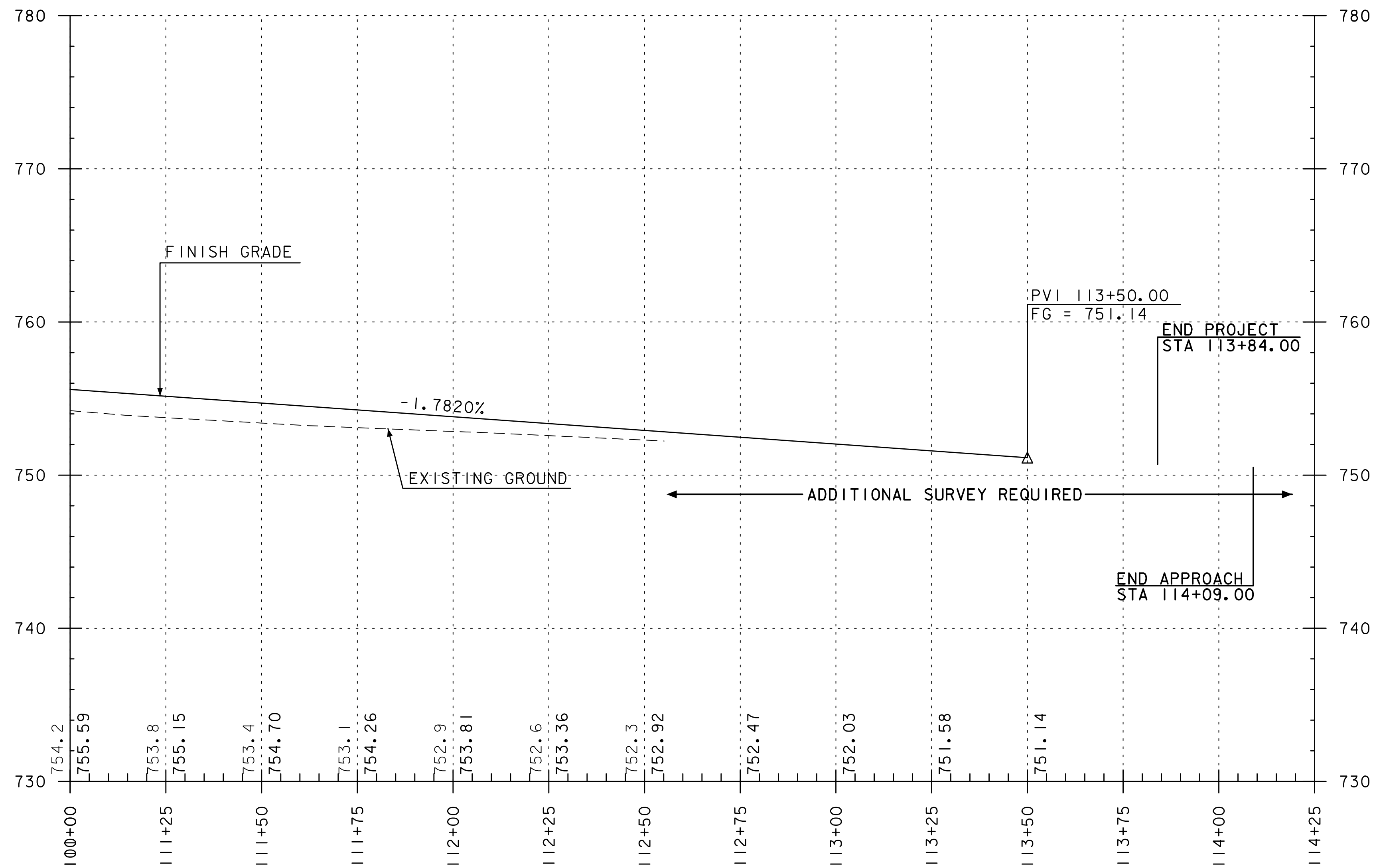
LINE	SURFACE	OFFSET
-----	x16j177og	0.00
Scaled	4.0000	Times Ver.
Scaled	1.0000	Times Hor.



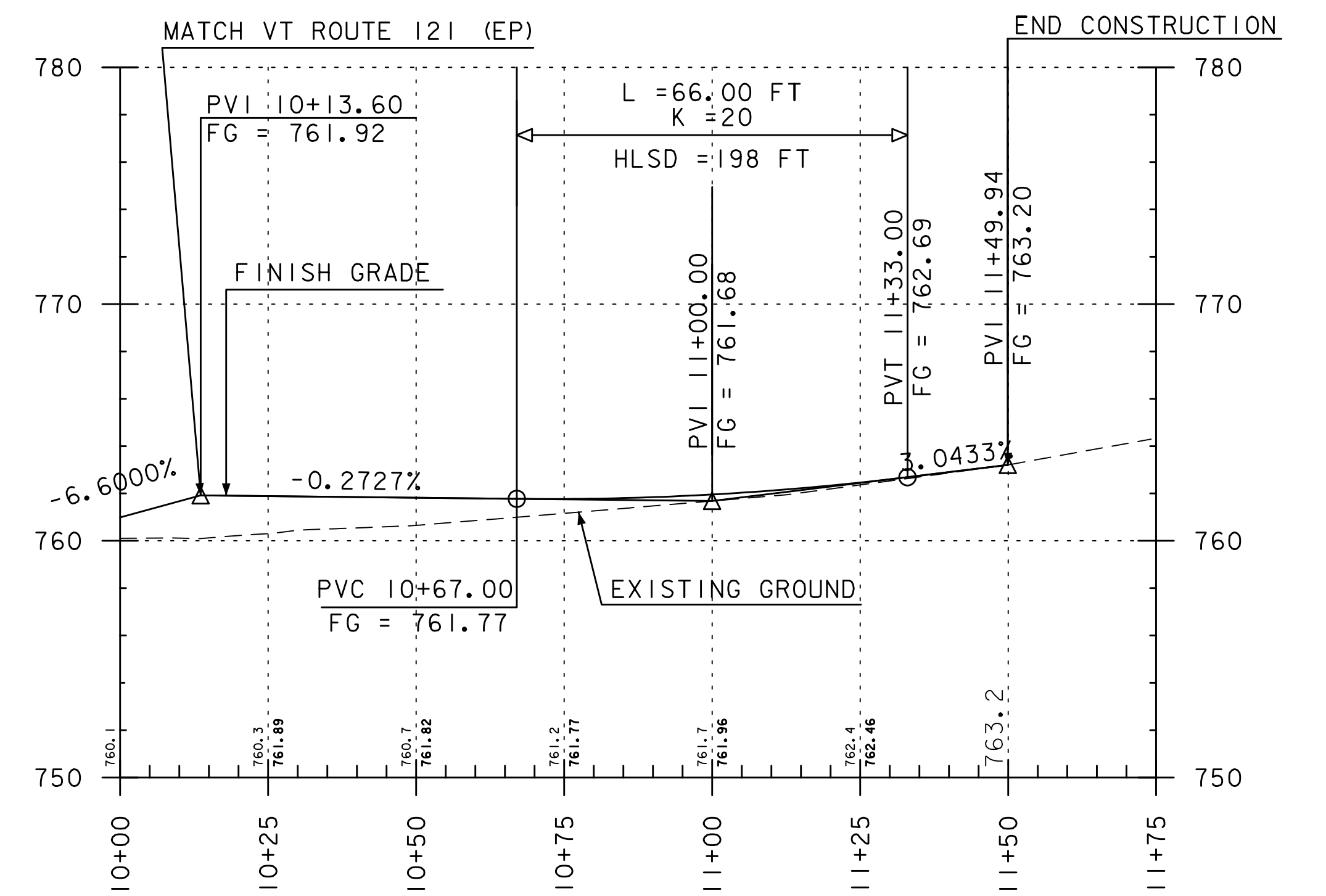
PROJECT NAME: GRAFTON  
 PROJECT NUMBER: BF 0125(6)

FILE NAME: z16j177BDRpro  
 PROJECT LEADER: T. FRENCH  
 DESIGNED BY: K. HOWE  
 PROFILE SHEET 2 OF 3

PLOT DATE: 6/26/2020  
 DRAWN BY: K. HOWE  
 CHECKED BY: R. LAROCHELLE  
 SHEET 12 OF 27



**ROUTE 121 PROFILE**



**FISHER HILL ROAD PROFILE**

HOR. SCALE 1" = 20'-0"  
 VERT. SCALE 1" = 5'-0"



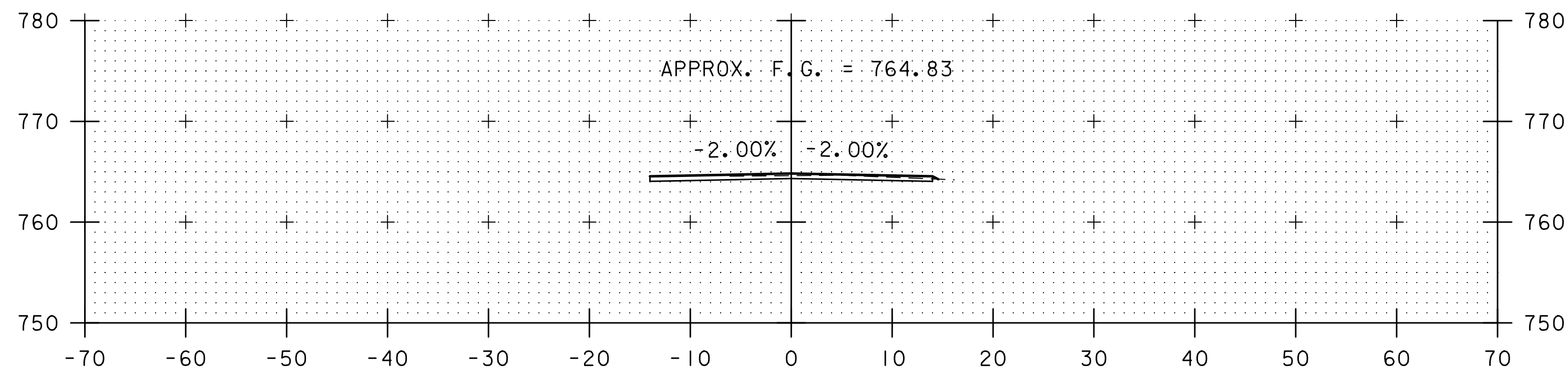
LINE	SURFACE	OFFSET
-----	x16j177og	0.00
Scaled	4.0000	Times Ver.
Scaled	1.0000	Times Hor.



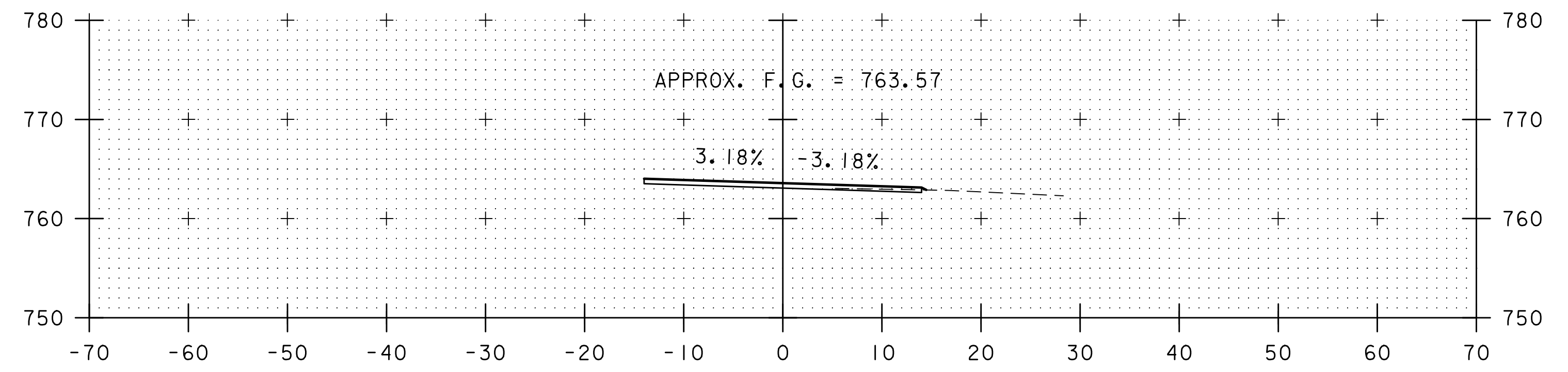
PROJECT NAME: GRAFTON  
 PROJECT NUMBER: BF 0125(6)

FILE NAME: z16j177BDRpro  
 PROJECT LEADER: T. FRENCH  
 DESIGNED BY: K. HOWE  
 PROFILE SHEET 3 OF 3

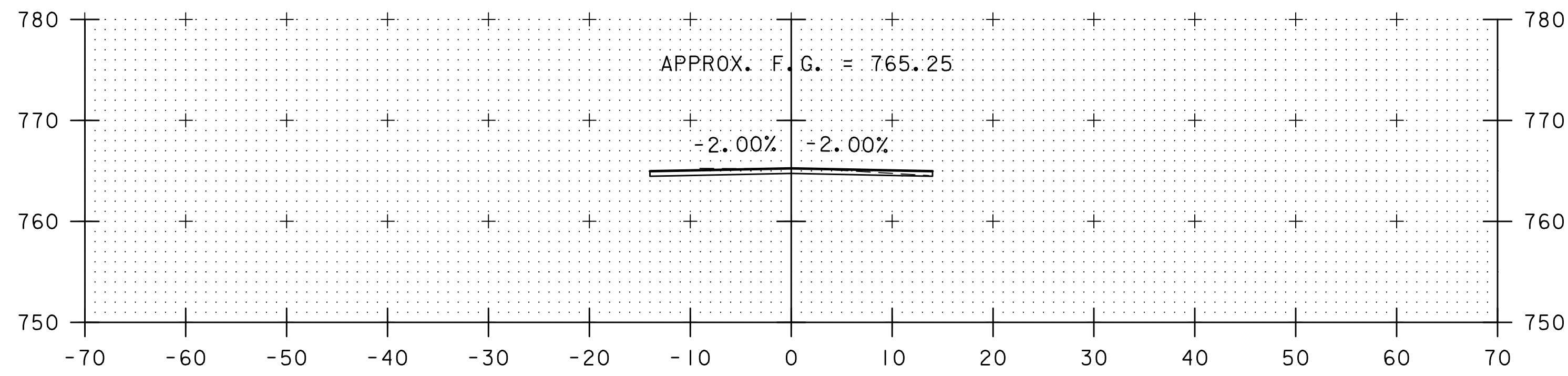
PLOT DATE: 6/26/2020  
 DRAWN BY: K. HOWE  
 CHECKED BY: R. LAROCHELLE  
 SHEET 13 OF 27



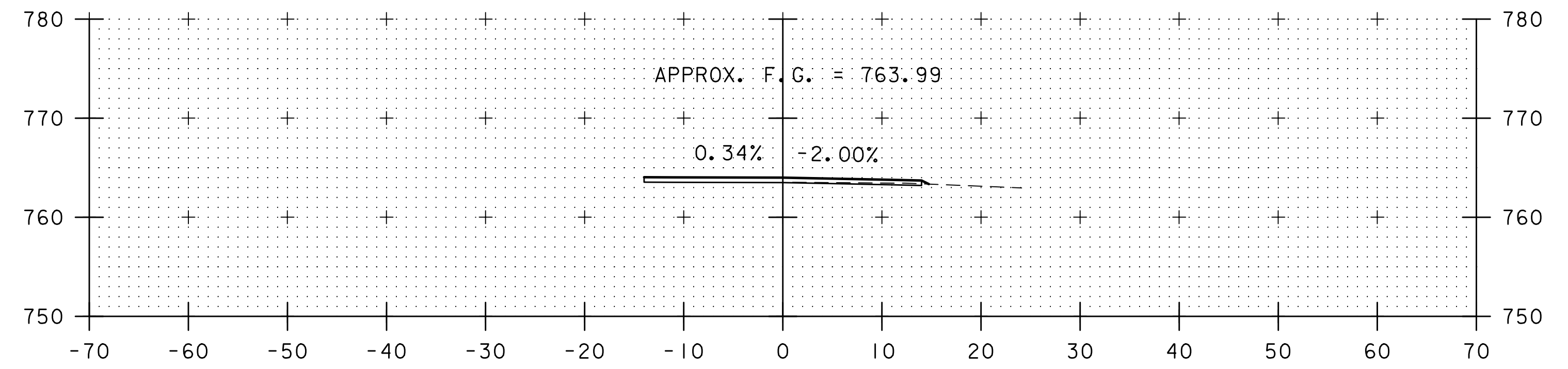
102+00



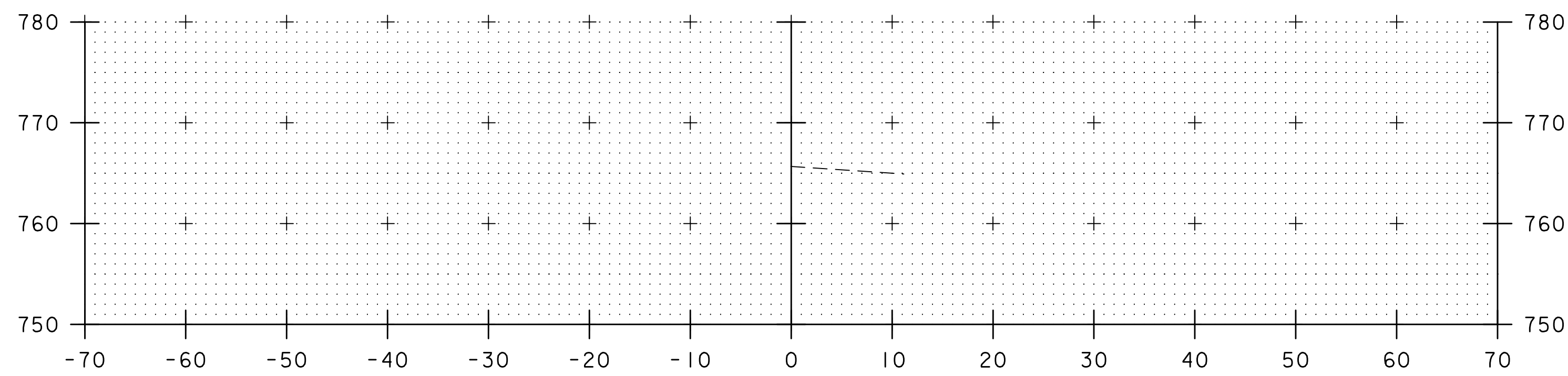
103+50



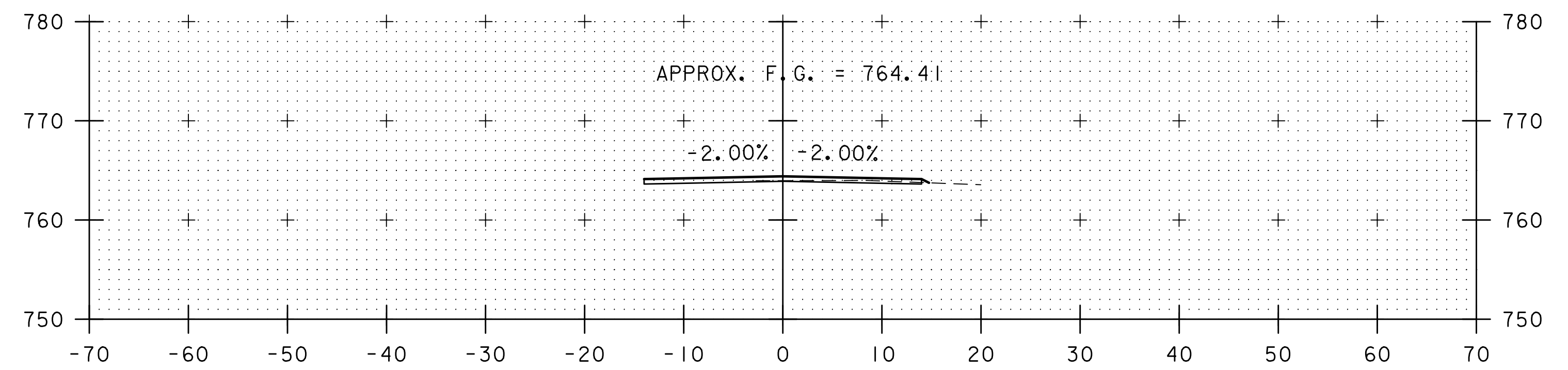
101+50



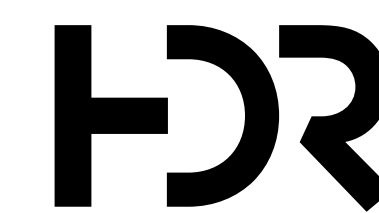
103+00



101+00



102+50

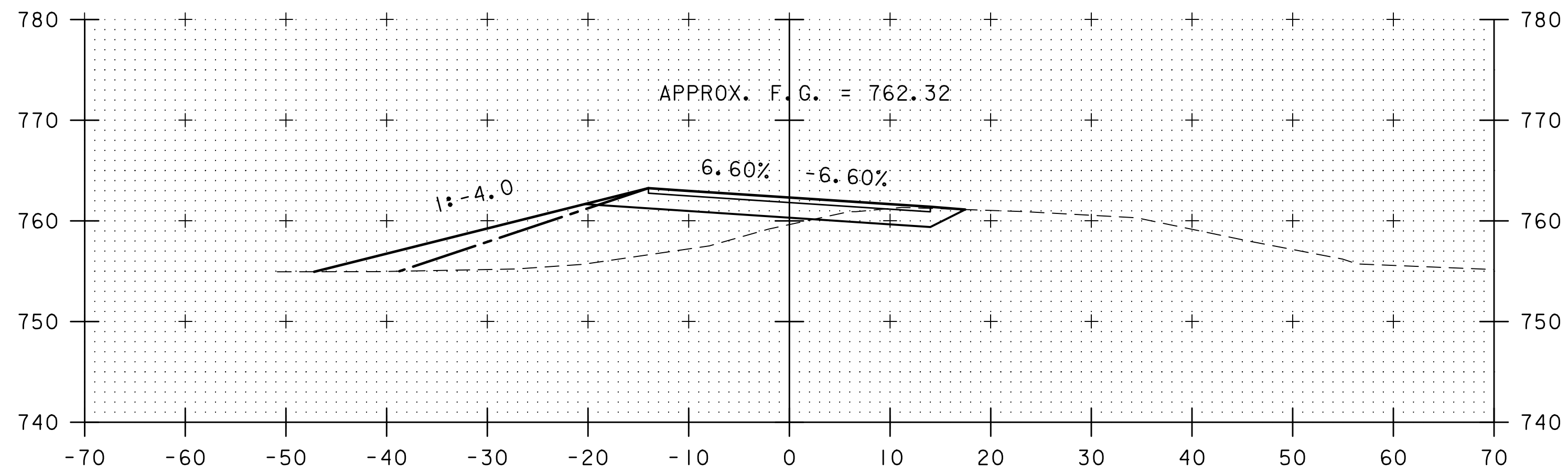


STA. 101+00 TO STA. 103+50

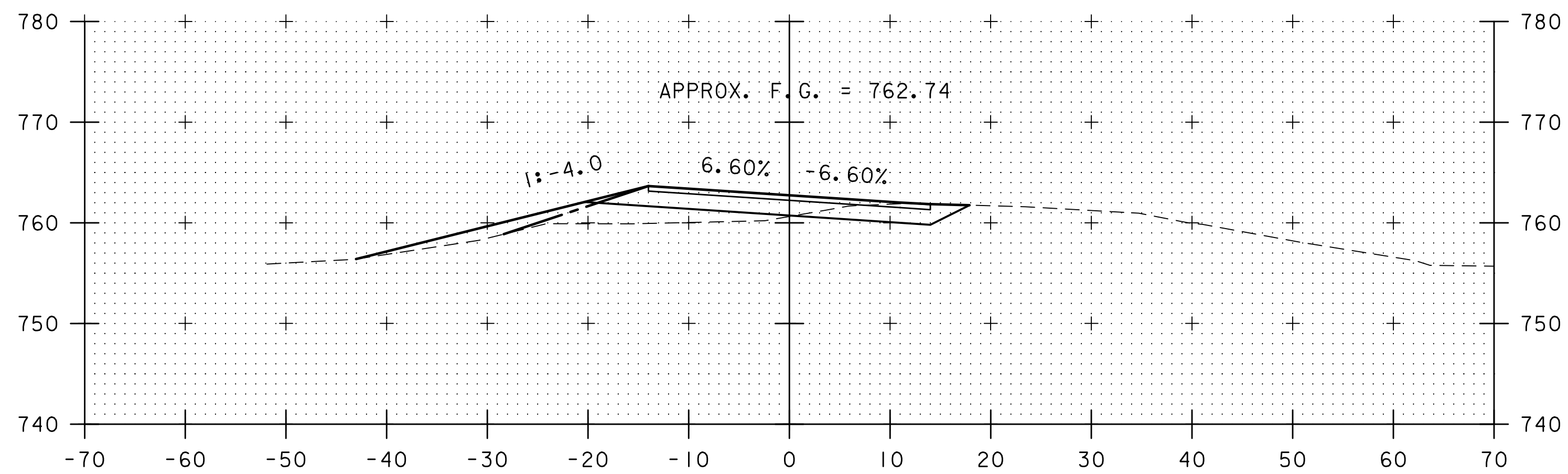
PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

FILE NAME:  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: K. HOWE  
VT ROUTE 121/35 CROSS SECTIONS

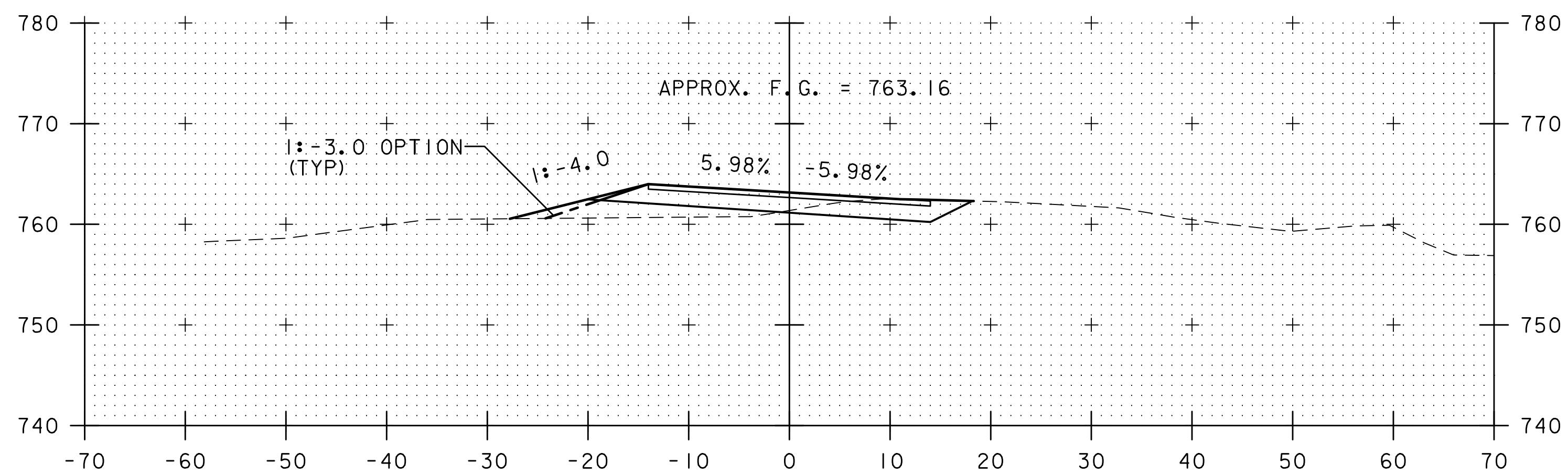
PLOT DATE: 6/26/2020  
DRAWN BY: K. HOWE  
CHECKED BY: R. LAROCHELLE  
SHEET 14 OF 27



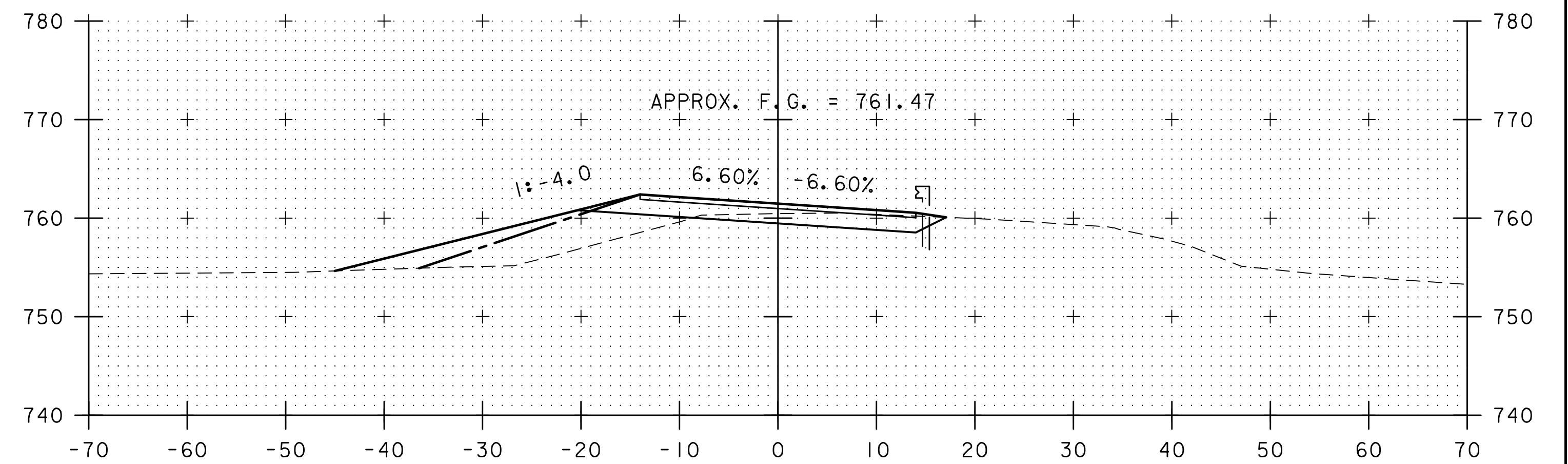
105+00



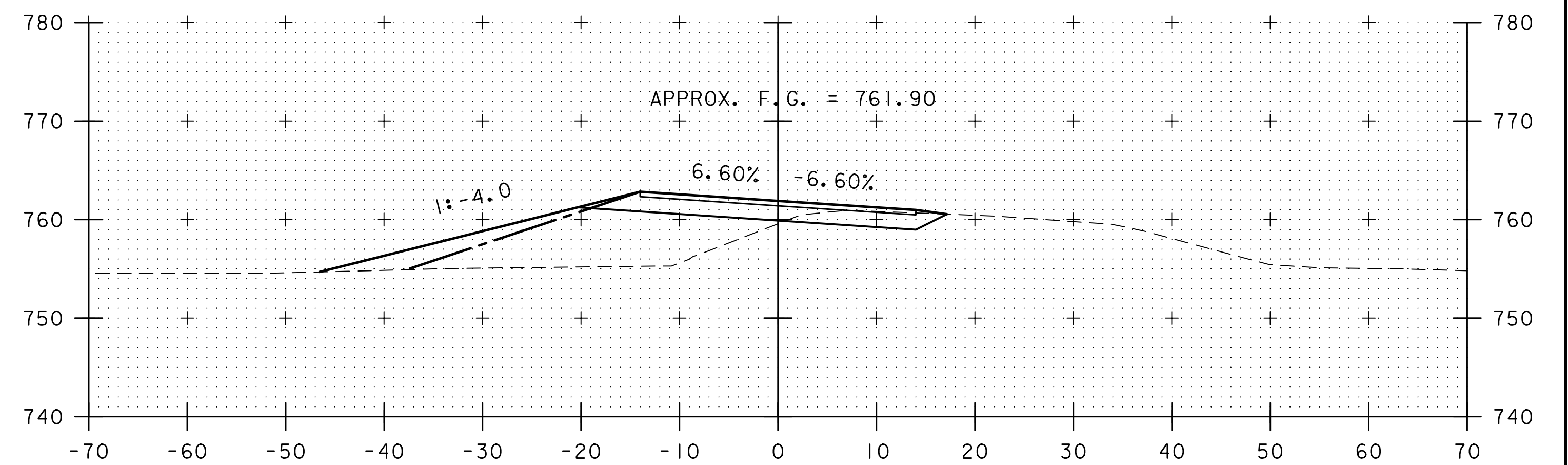
104+50



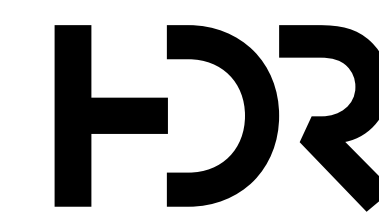
104+00



106+00



105+50

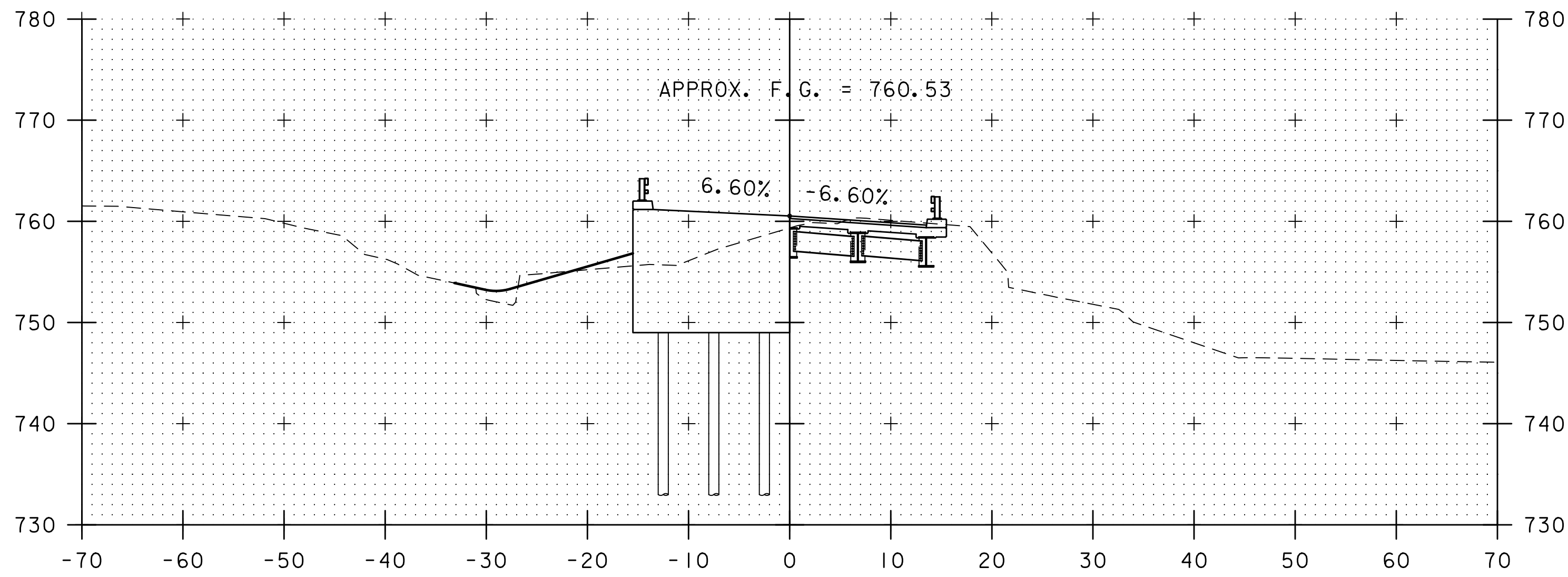


STA. 104+00 TO STA. 106+00

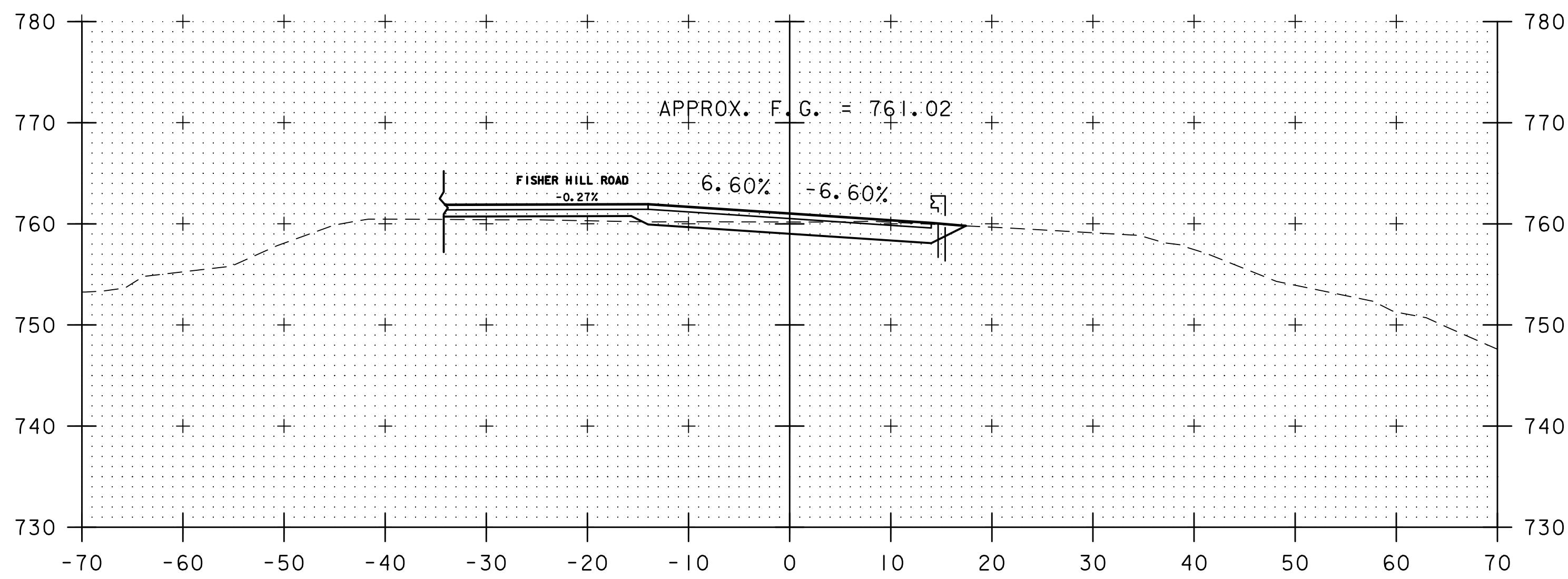
PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

FILE NAME:  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: K. HOWE  
VT ROUTE 121/35 CROSS SECTIONS

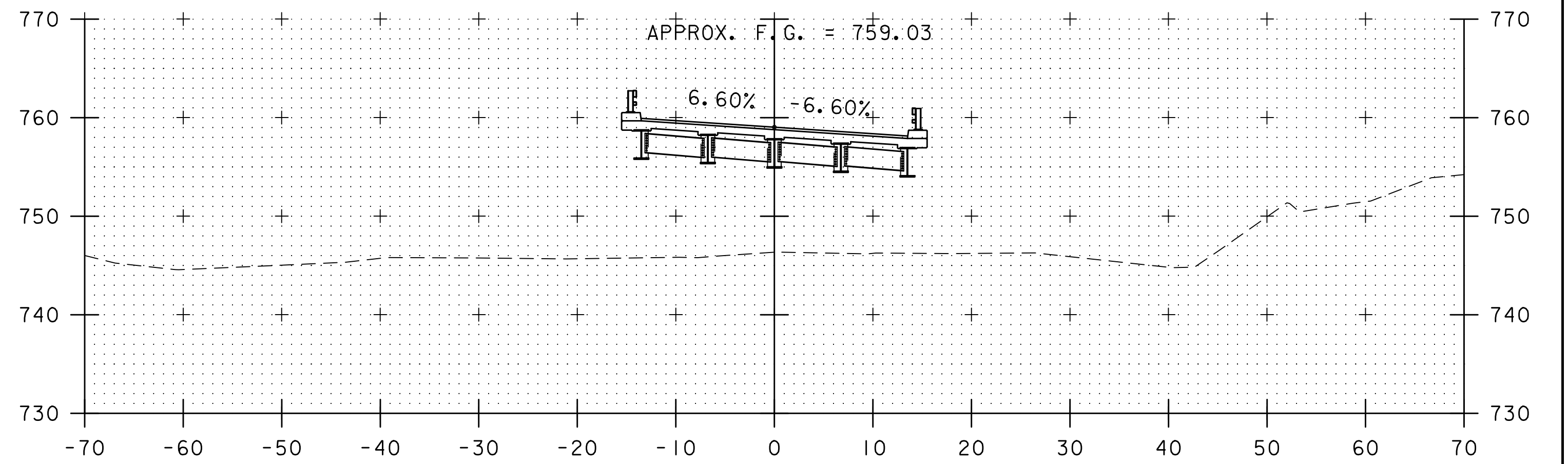
PLOT DATE: 6/26/2020  
DRAWN BY: K. HOWE  
CHECKED BY: R. LAROCHELLE  
SHEET 15 OF 27



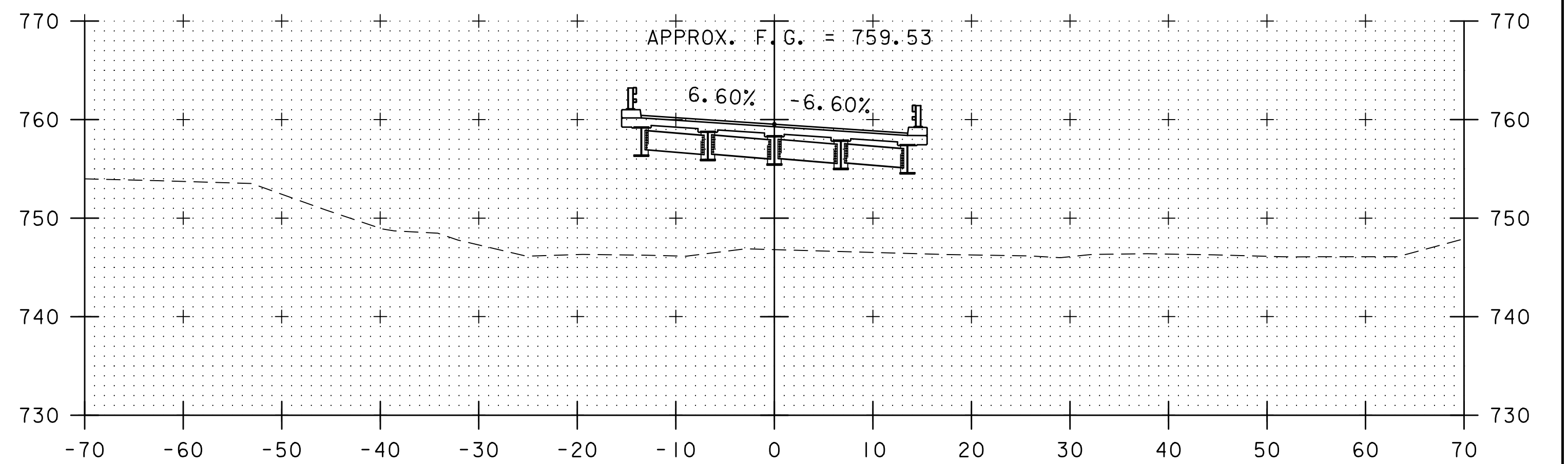
107+00



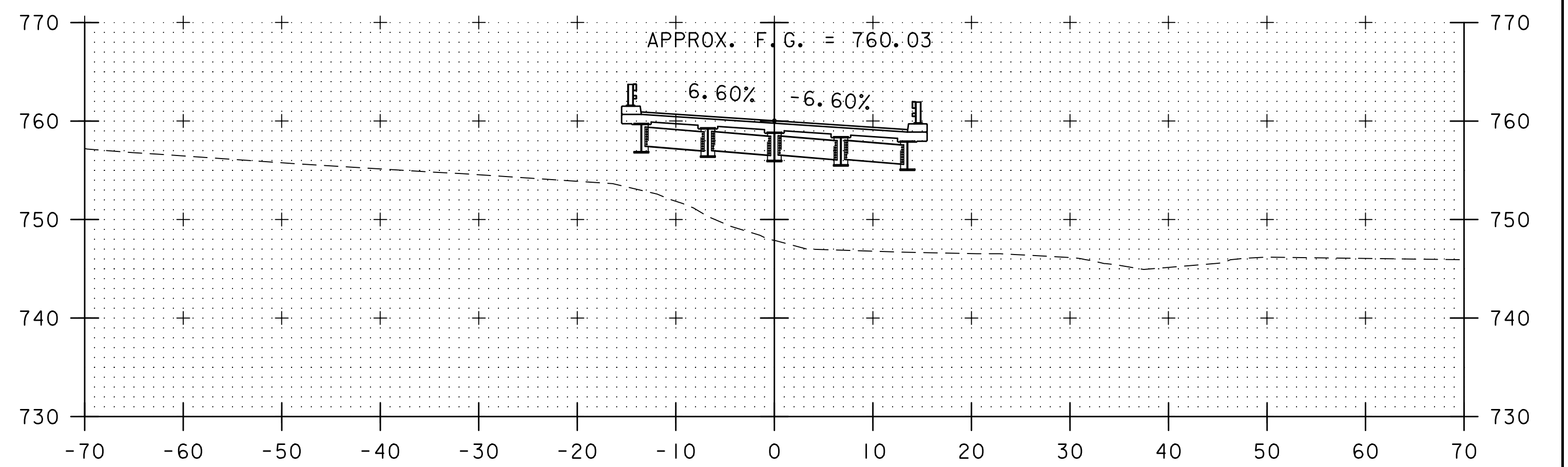
106+50



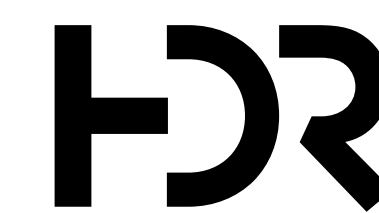
108+50



108+00



107+50



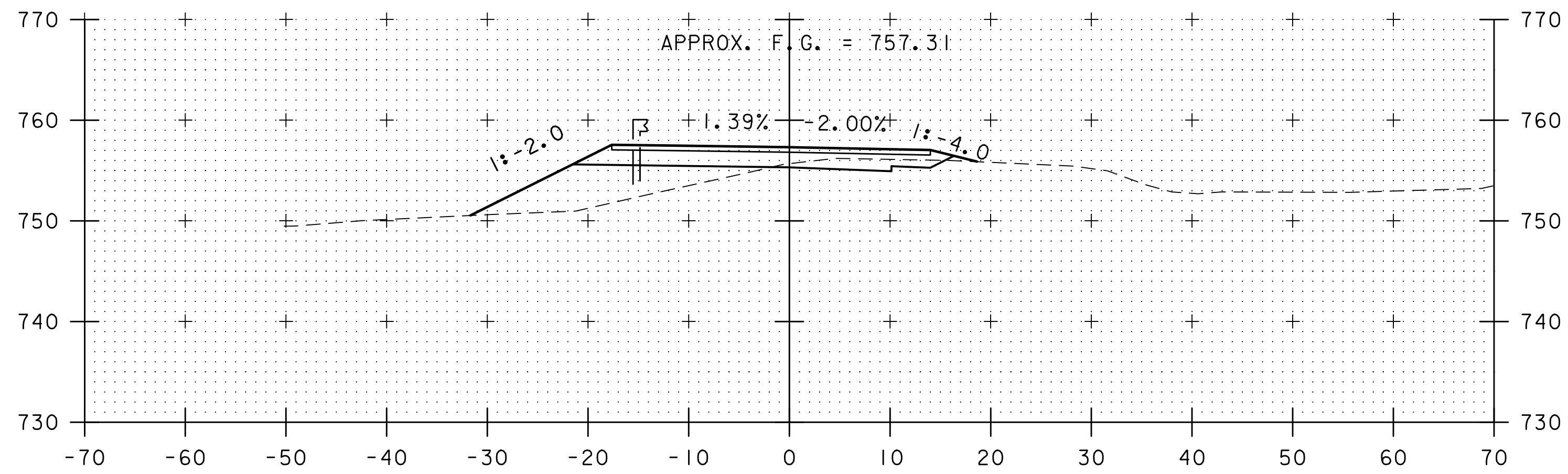
STA. 106+50 TO STA. 108+50

PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

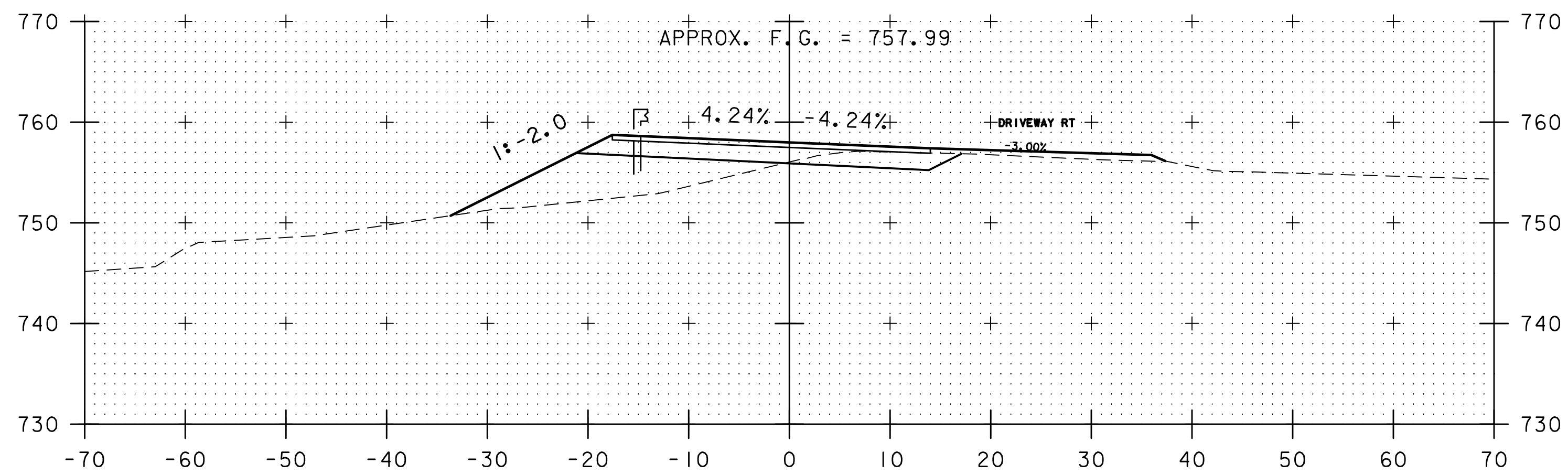
FILE NAME:  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: K. HOWE  
VT ROUTE 121/35 CROSS SECTIONS

PLOT DATE: 6/26/2020  
DRAWN BY: K. HOWE  
CHECKED BY: R. LAROCHELLE  
SHEET 16 OF 27

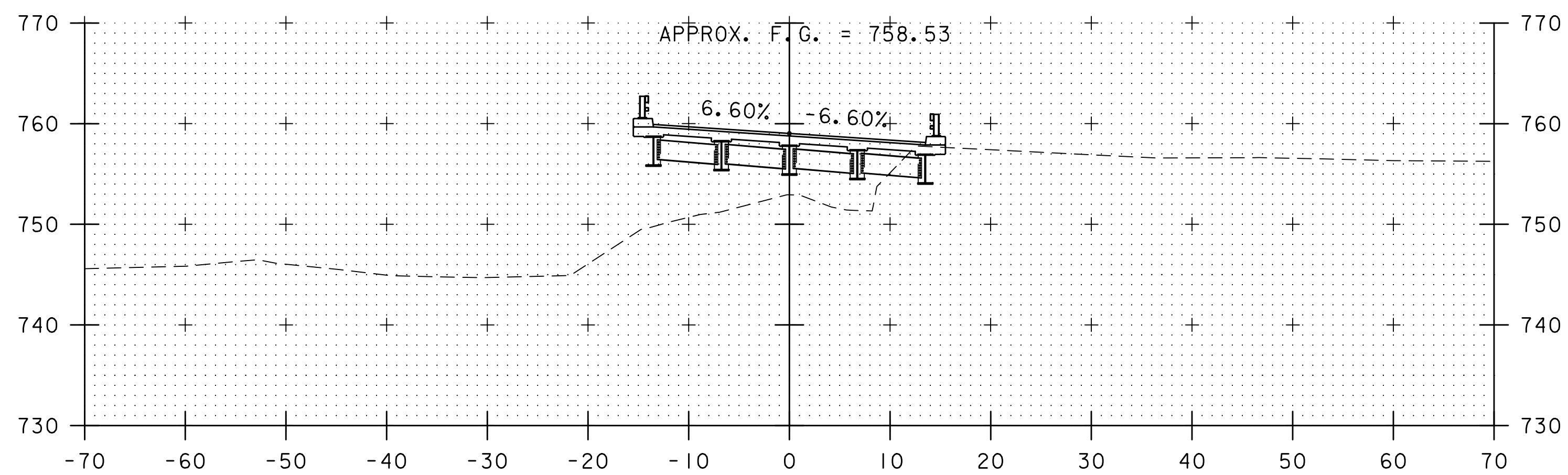




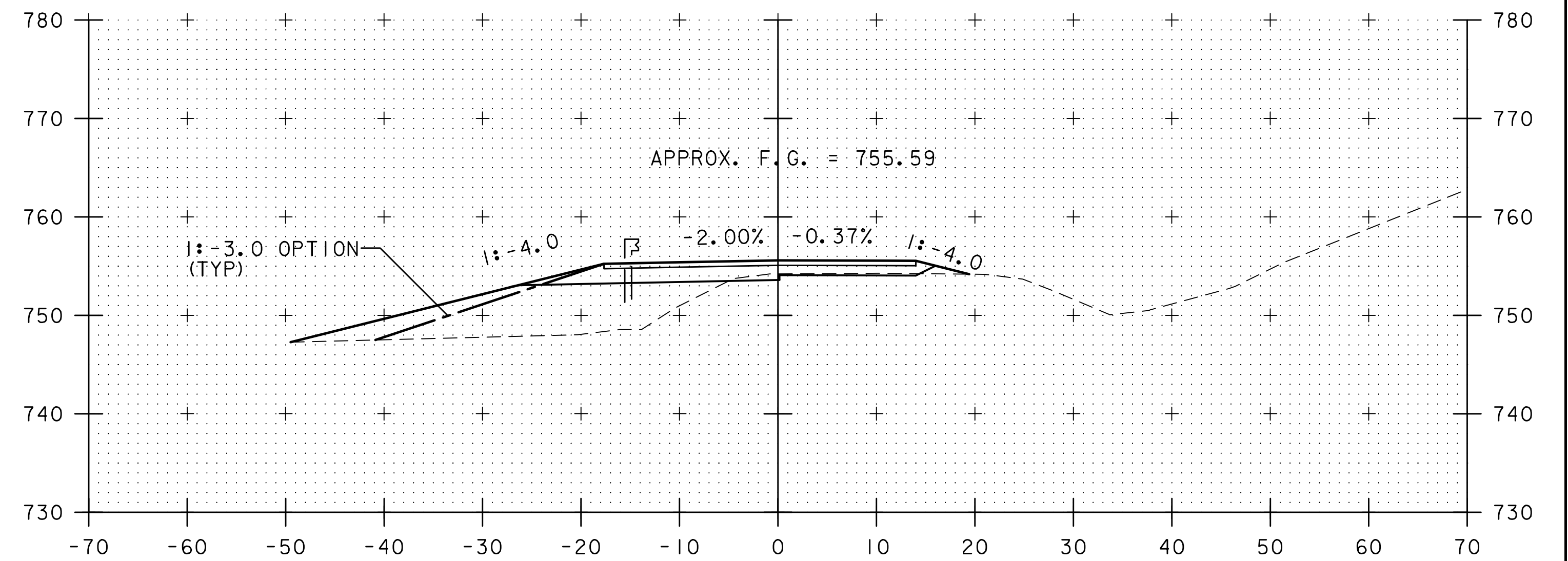
110+00



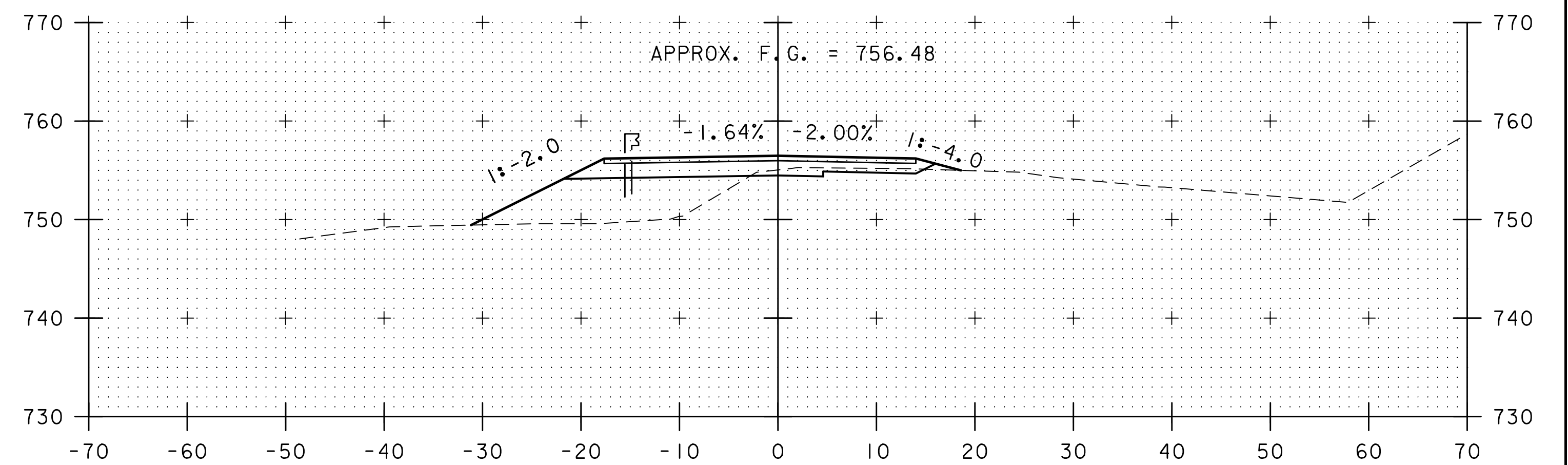
109+50



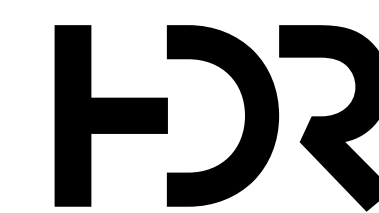
109+00



111+00



110+50

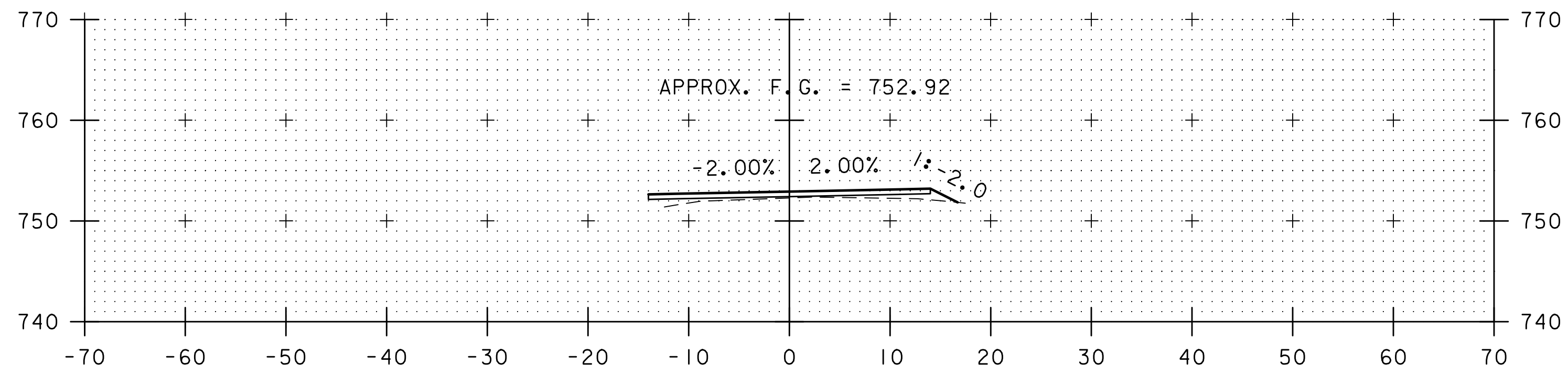


STA. 109+00 TO STA. 111+00

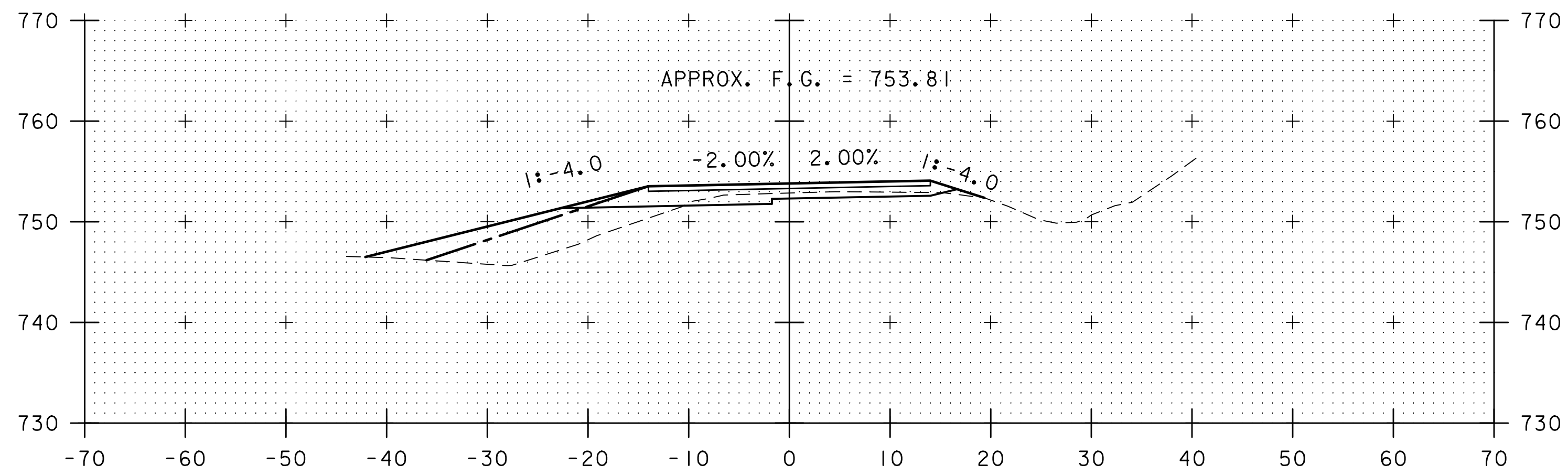
PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

FILE NAME:  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: K. HOWE  
VT ROUTE 121/35 CROSS SECTIONS

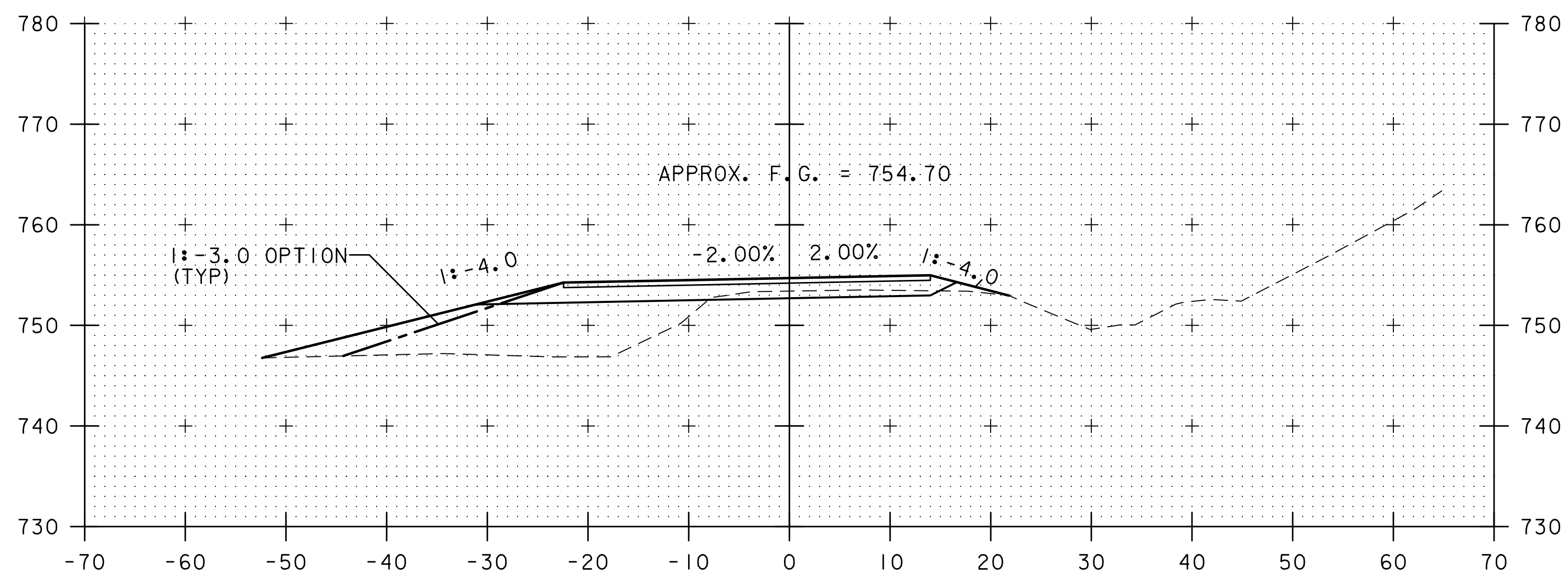
PLOT DATE: 6/26/2020  
DRAWN BY: K. HOWE  
CHECKED BY: R. LAROCHELLE  
SHEET 17 OF 27



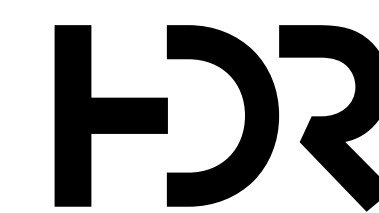
112+50



112+00

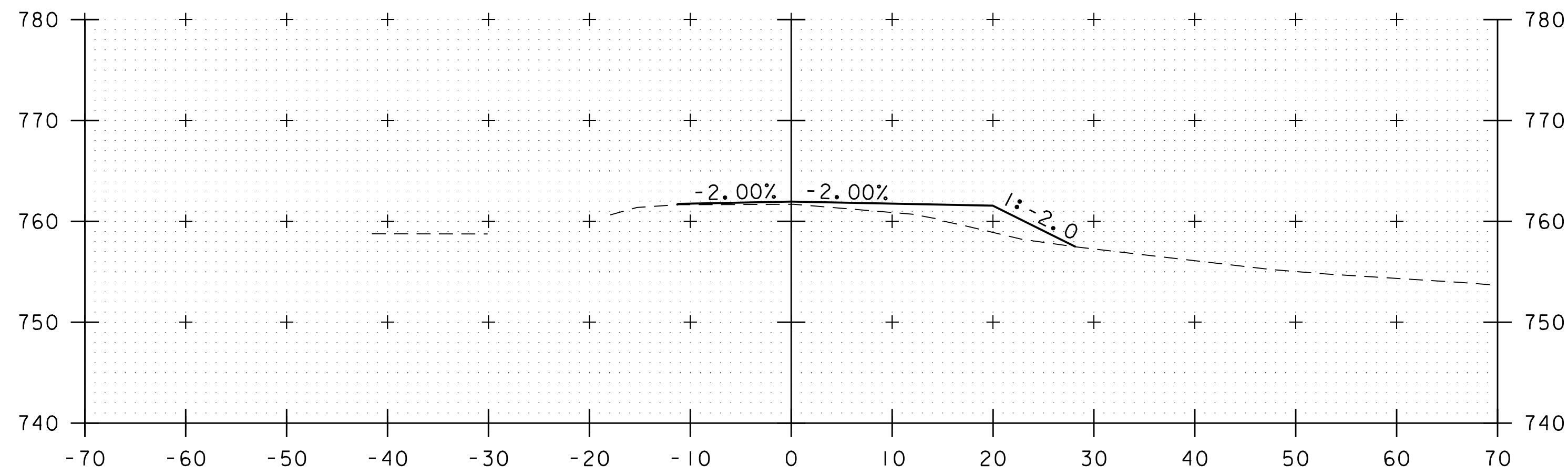


111+50

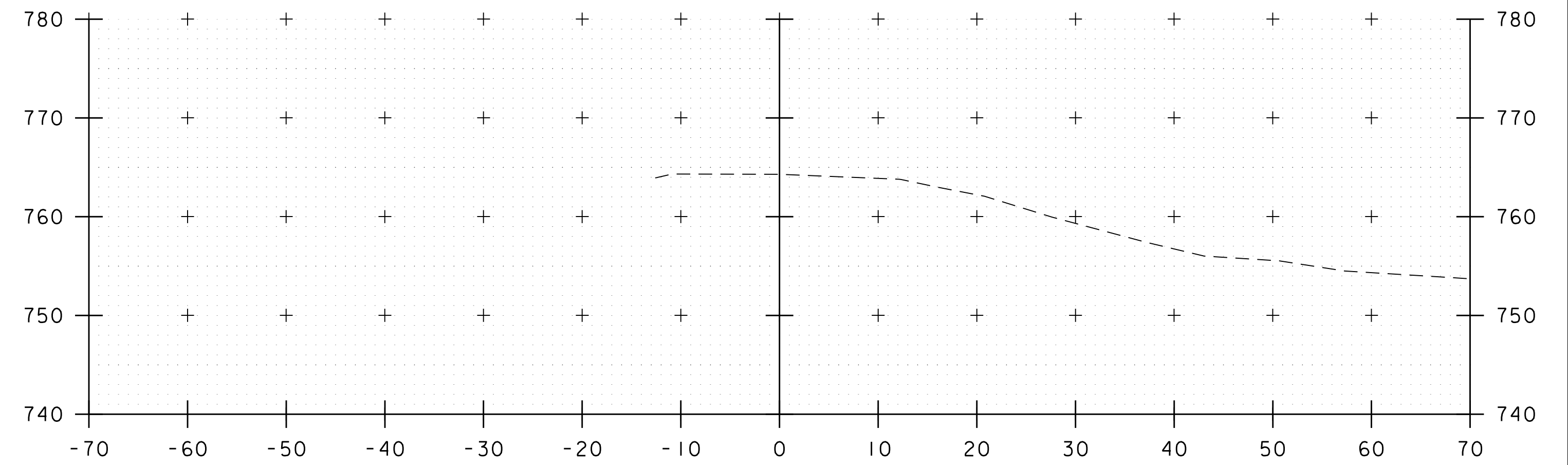


STA. 111+50 TO STA. 112+50

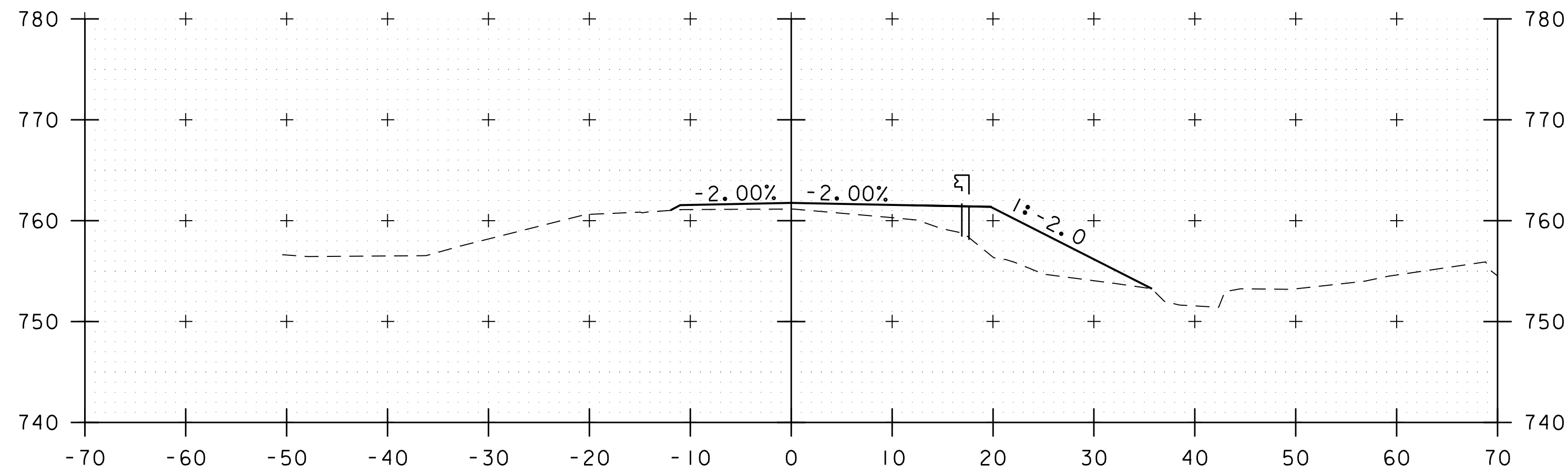
PROJECT NAME: GRAFTON	
PROJECT NUMBER: BF 0125(6)	
FILE NAME:	PLOT DATE: 6/26/2020
PROJECT LEADER: T. FRENCH	DRAWN BY: K. HOWE
DESIGNED BY: K. HOWE	CHECKED BY: R. LAROCHELLE
VT ROUTE 121/35 CROSS SECTIONS	SHEET 18 OF 27



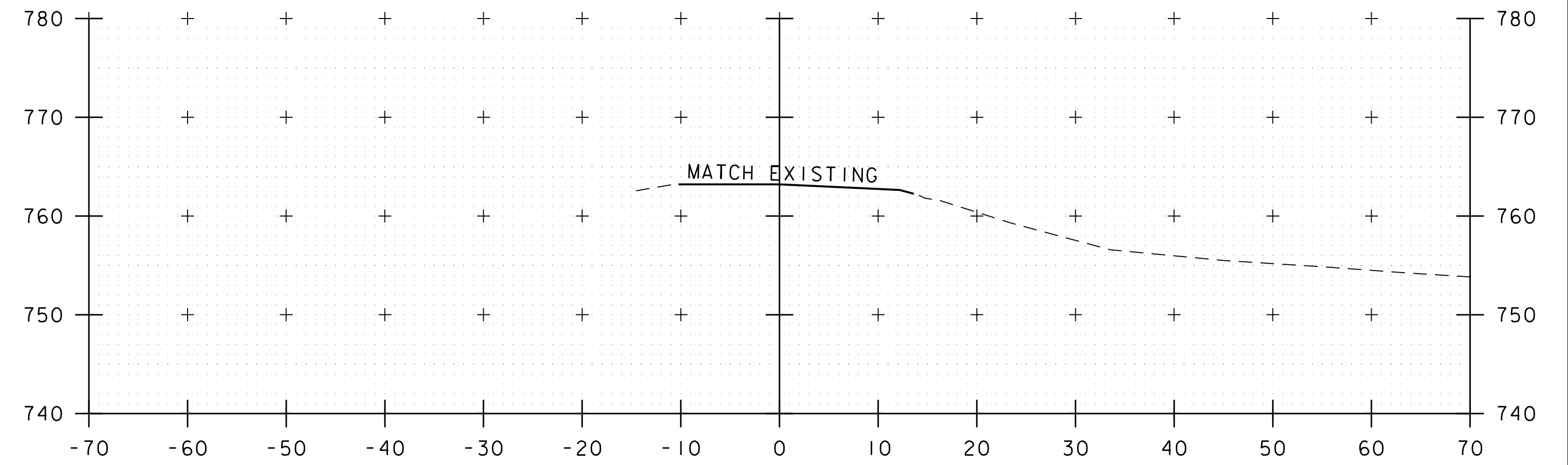
11+00



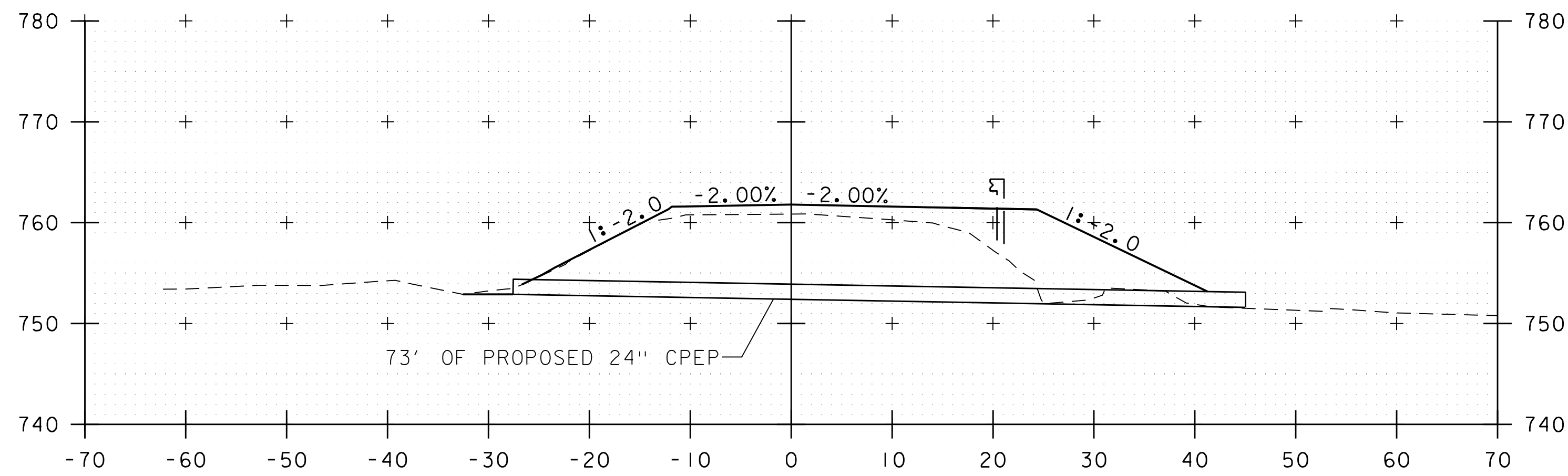
11+74



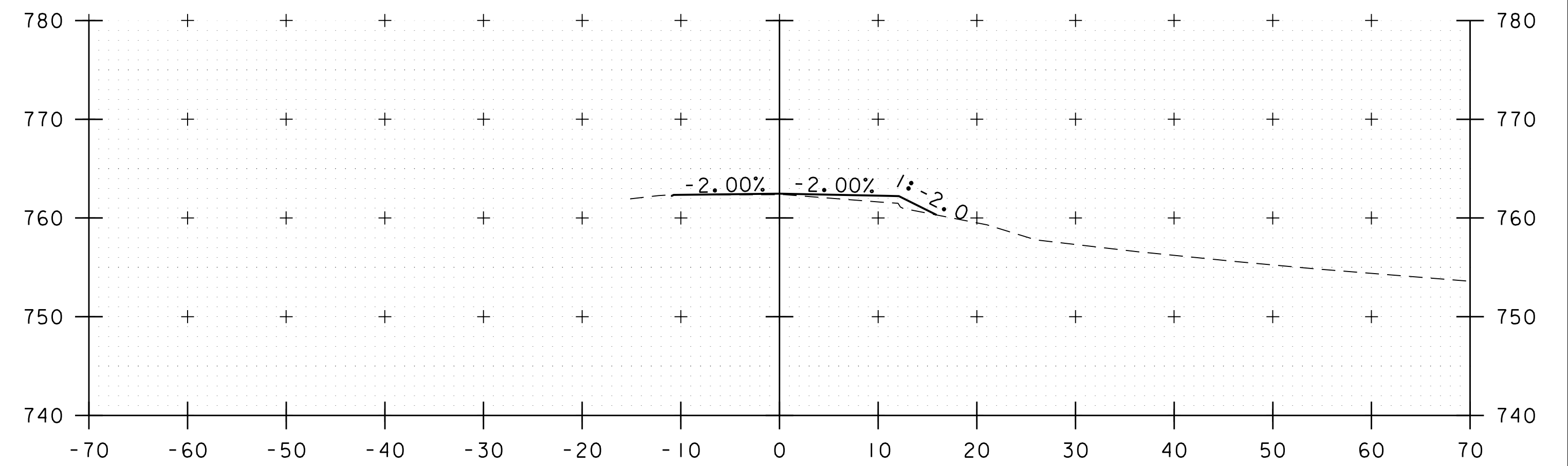
10+75



11+50



10+60



11+25

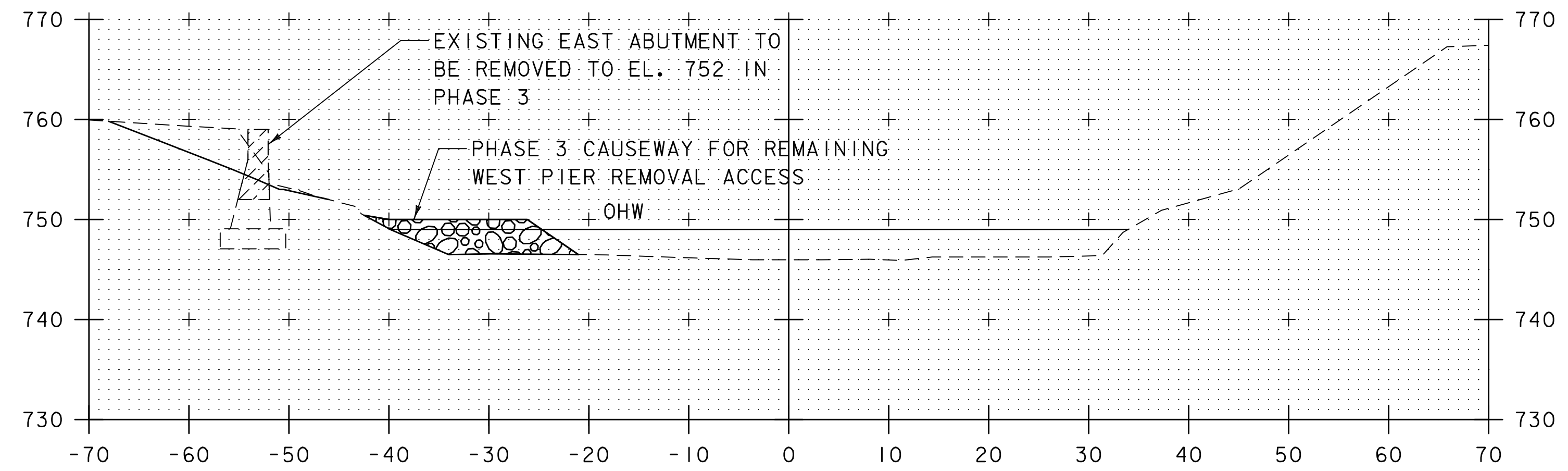


STA. 10+60 TO STA. 11+74

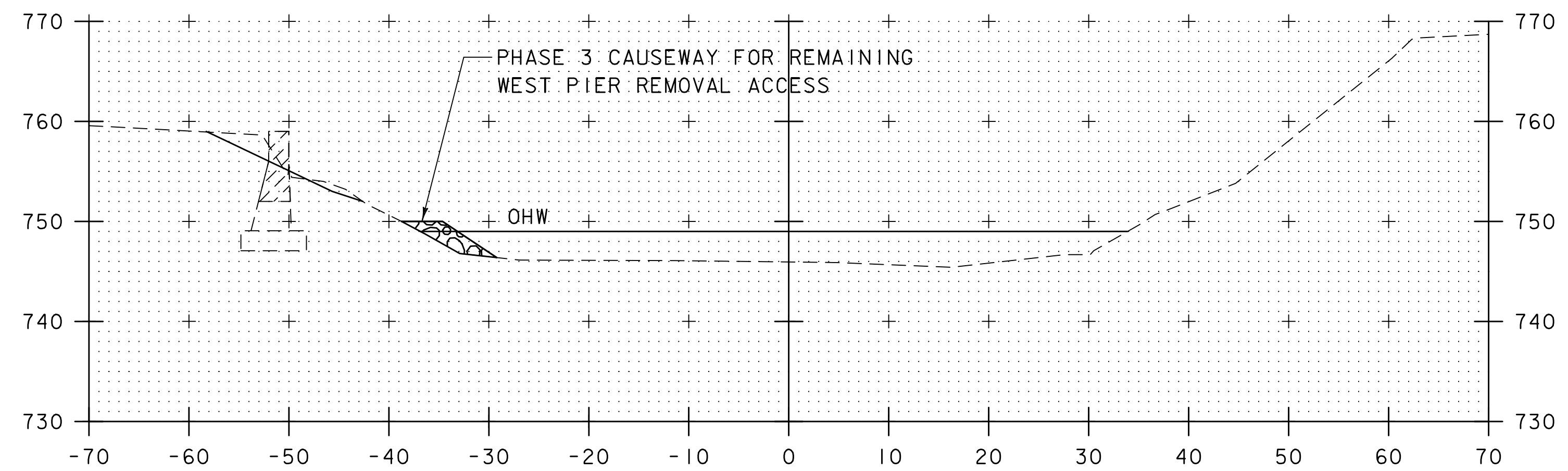
PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)

FILE NAME:  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: K. HOWE  
FISHER HILL CROSS SECTIONS

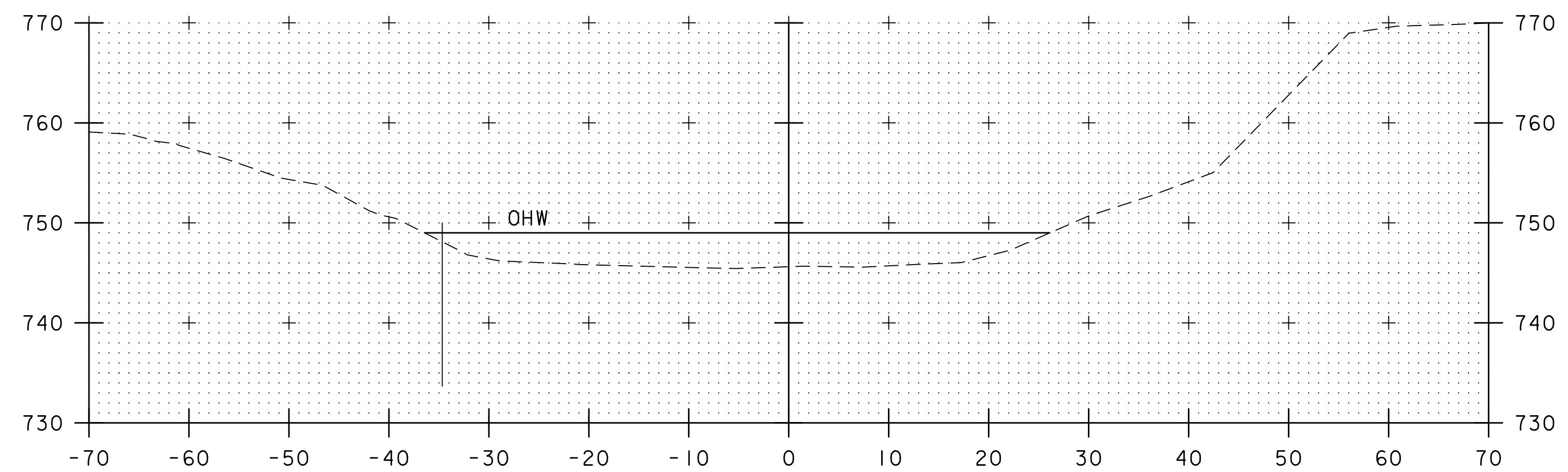
PLOT DATE: 6/26/2020  
DRAWN BY: K. HOWE  
CHECKED BY: R. LAROCHELLE  
SHEET 19 OF 27



50+40



50+25



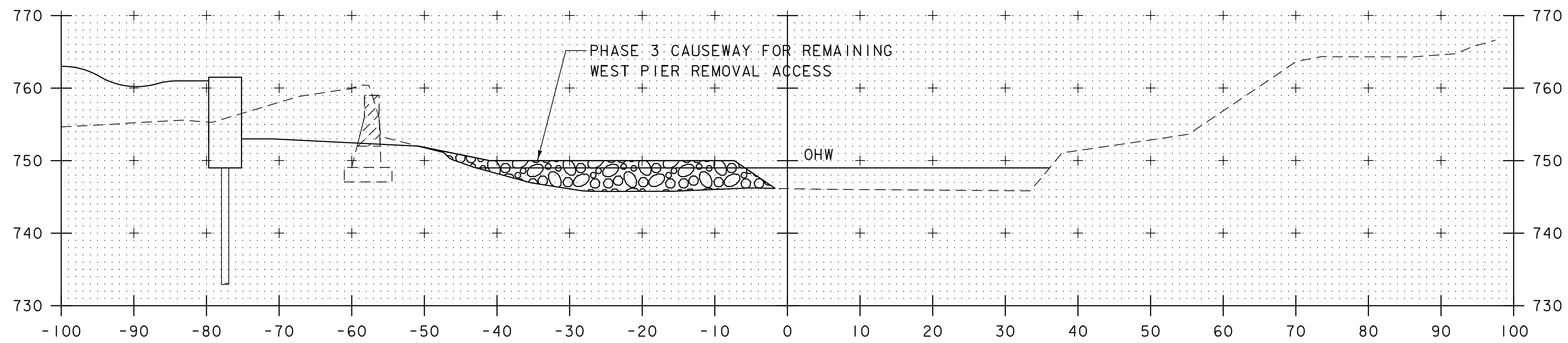
50+00

STA. 50+00 TO STA. 50+40

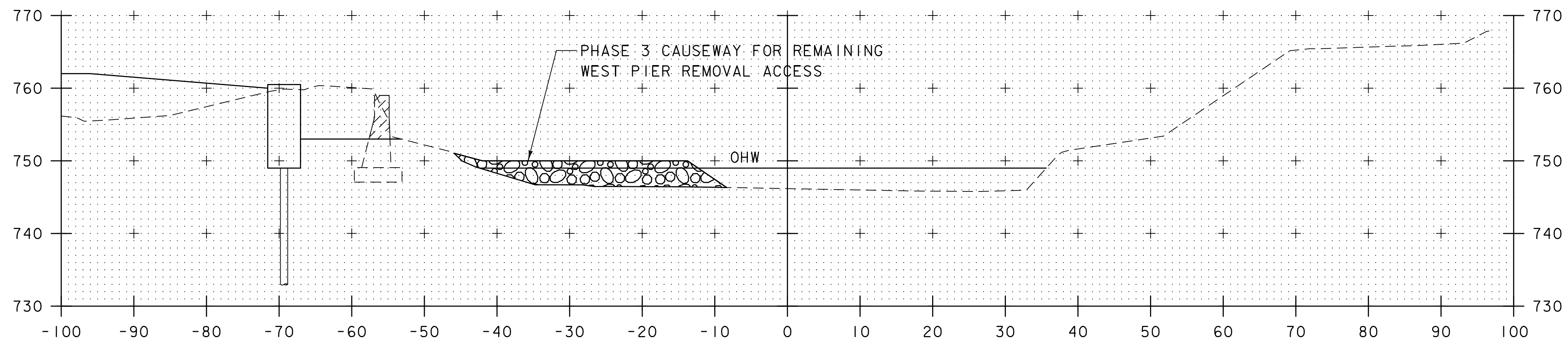
SCALE 1" = 10' - 0"



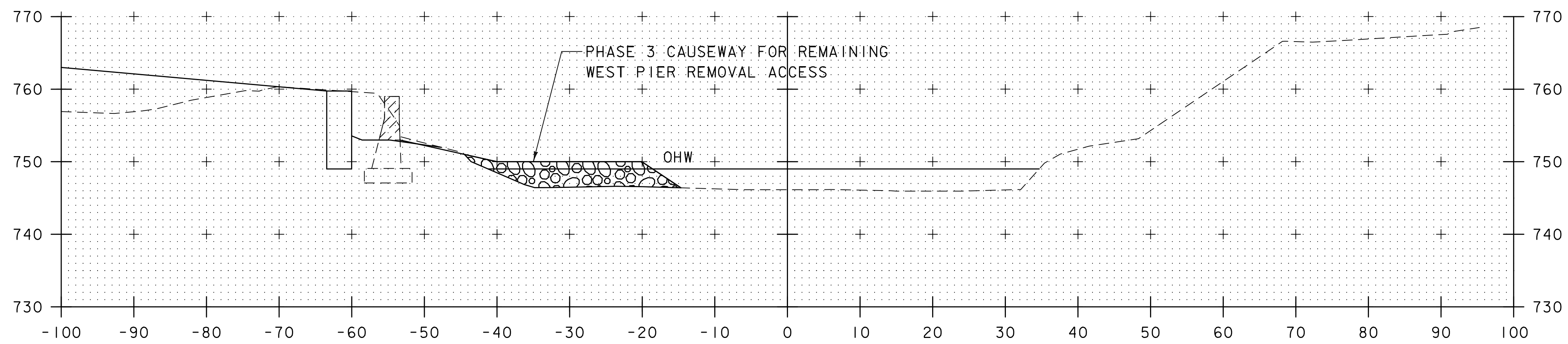
PROJECT NAME: GRAFTON	PLOT DATE: 6/26/2020
PROJECT NUMBER: BF 0125(6)	DRAWN BY: N. CARON
FILE NAME: I6J177/z16J177xschl.dgn	CHECKED BY: S. BOYINGTON
PROJECT LEADER: T. FRENCH	SHEET 20 OF 27
DESIGNED BY: N. CARON	
CHANNEL CROSS SECTIONS (1 OF 5)	



50+70



50+60



50+50

STA. 50+50 TO STA. 50+70

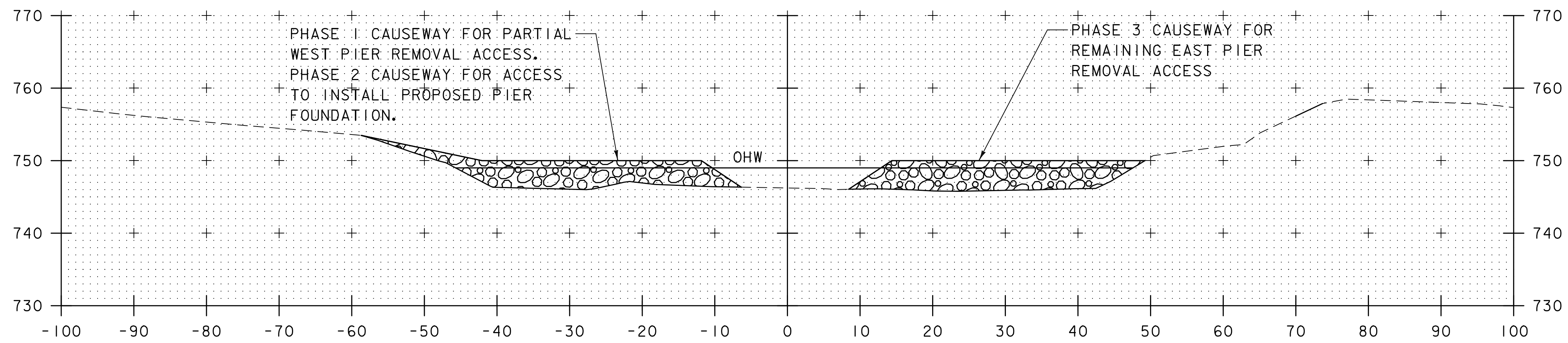
SCALE 1" = 10'-0"



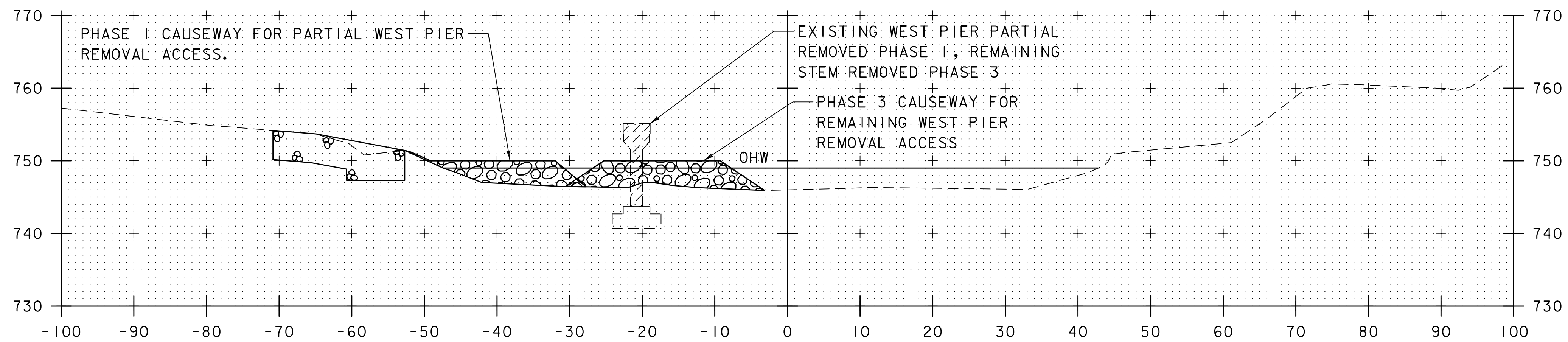
PROJECT NAME: GRAFTON  
 PROJECT NUMBER: BF 0125(6)

FILE NAME: I6J177/z16J177xschl.dgn  
 PROJECT LEADER: T. FRENCH  
 DESIGNED BY: N. CARON  
 CHANNEL CROSS SECTIONS (2 OF 5)

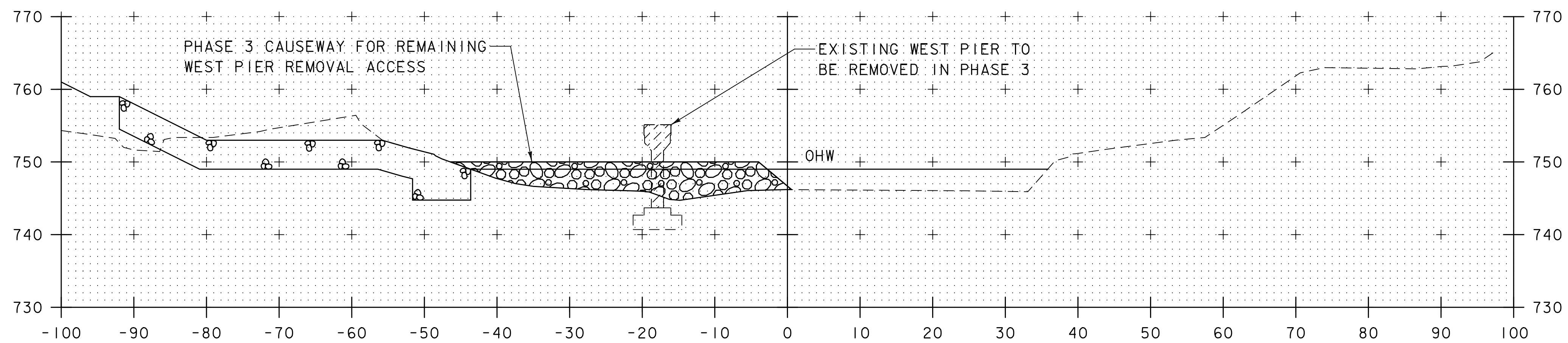
PLOT DATE: 6/26/2020  
 DRAWN BY: N. CARON  
 CHECKED BY: S. BOYINGTON  
 SHEET 21 OF 27



51+25



51+00



50+80

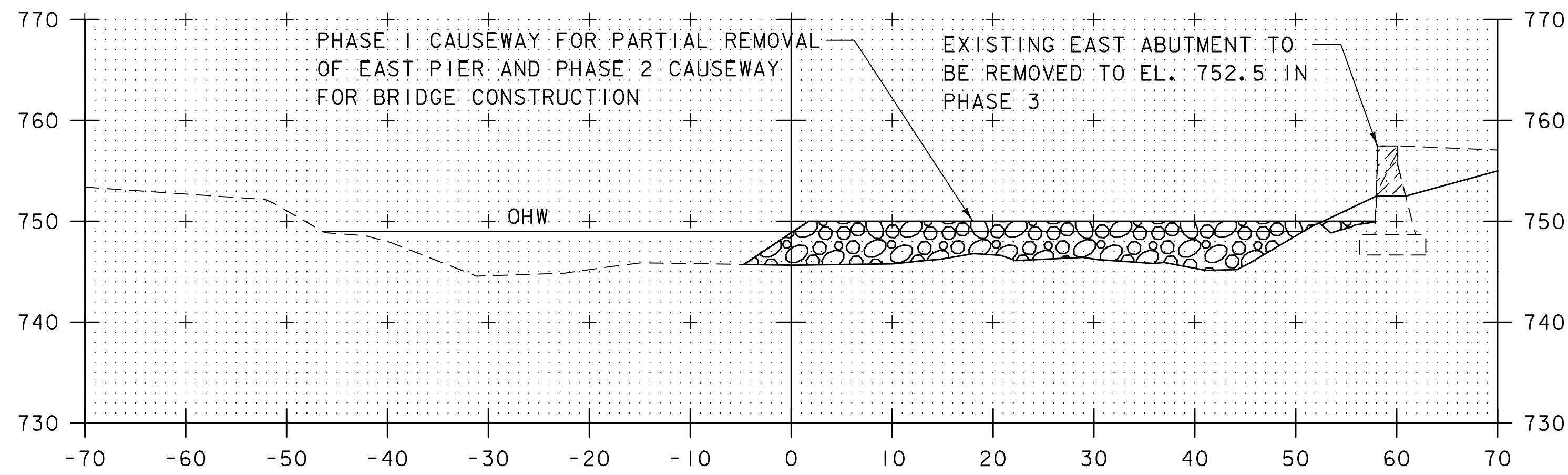
STA. 50+80 TO STA. 51+25

SCALE 1" = 10'-0"  
10 0 10

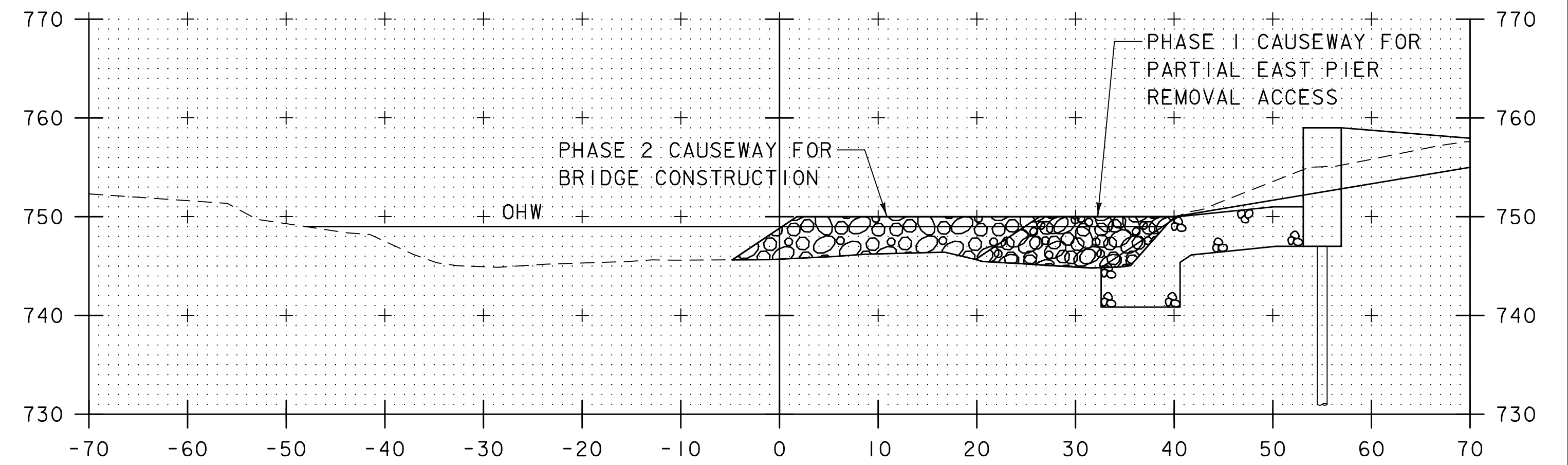


PROJECT NAME: GRAFTON  
PROJECT NUMBER: BF 0125(6)  
FILE NAME: I6J177/z16J177xschl.dgn  
PROJECT LEADER: T. FRENCH  
DESIGNED BY: N. CARON  
CHANNEL CROSS SECTIONS (3 OF 5)

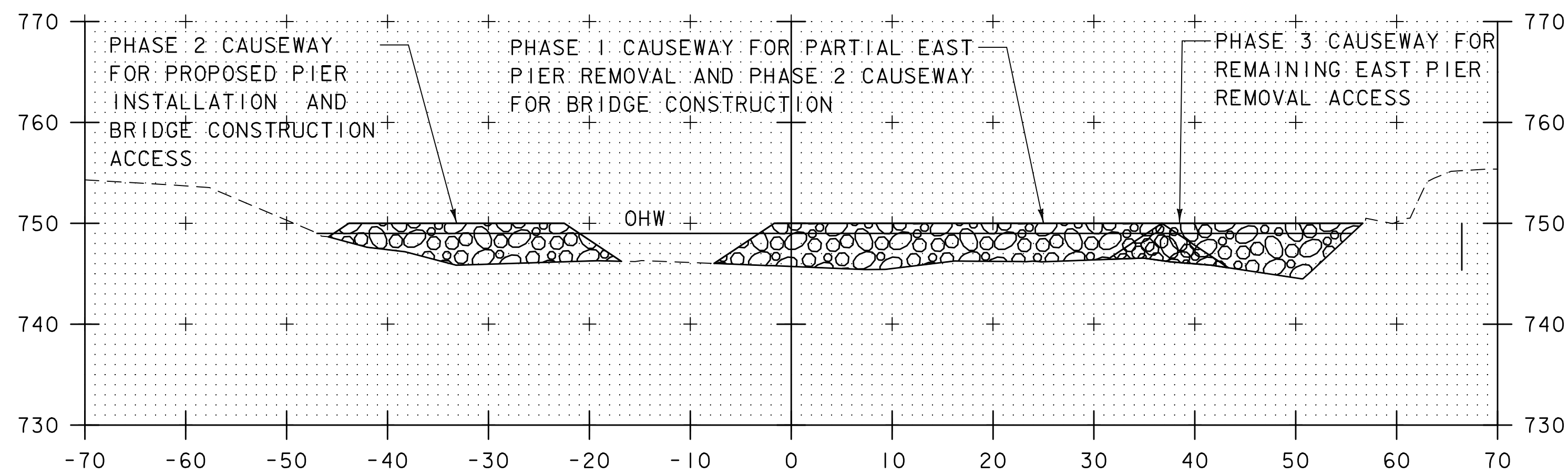
PLOT DATE: 6/26/2020  
DRAWN BY: N. CARON  
CHECKED BY: S. BOYINGTON  
SHEET 22 OF 27



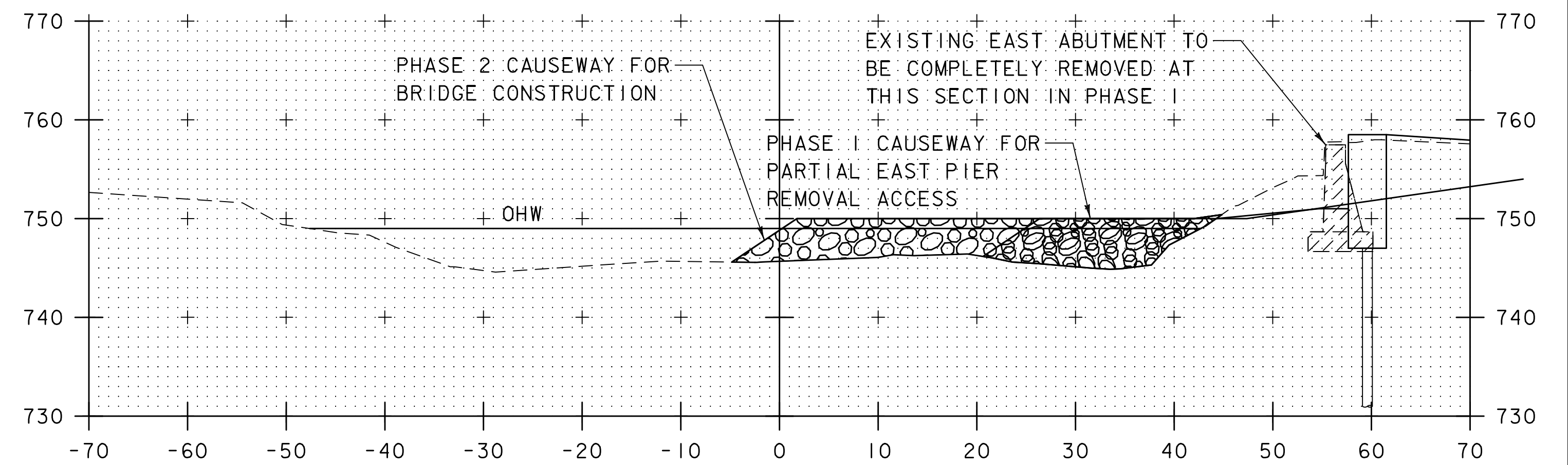
52+00



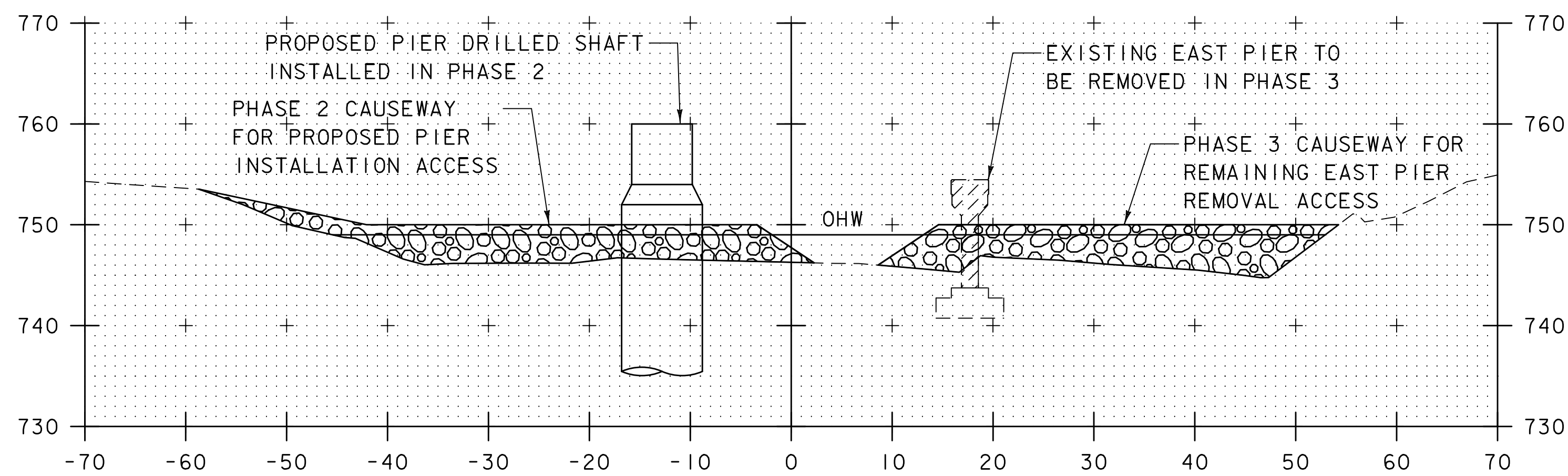
52+30



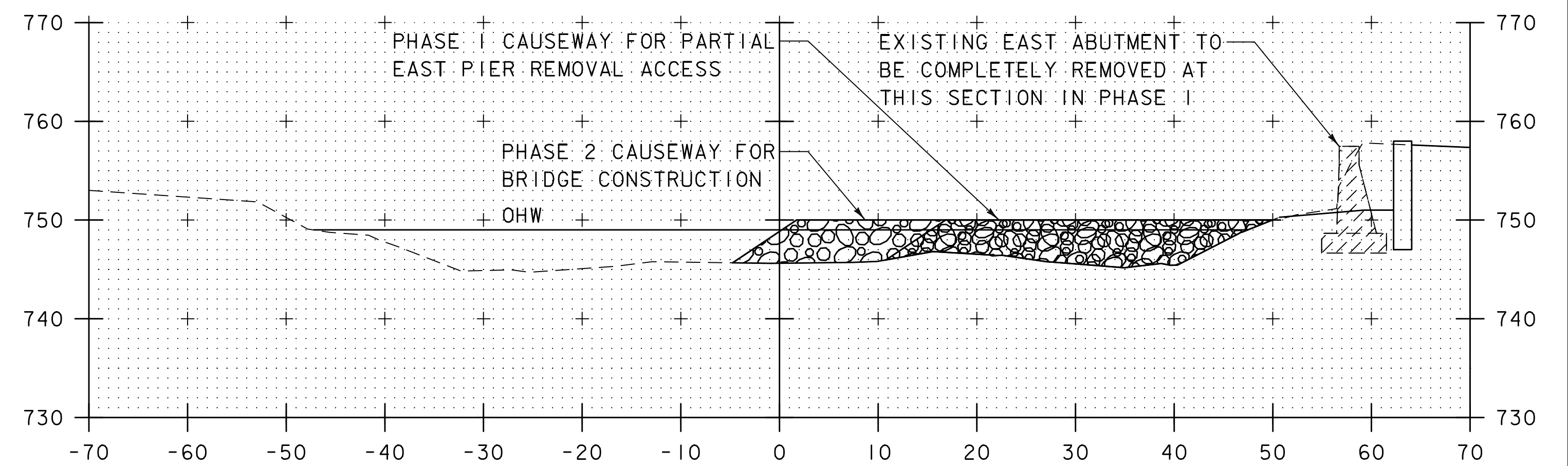
51+75



52+20



51+50



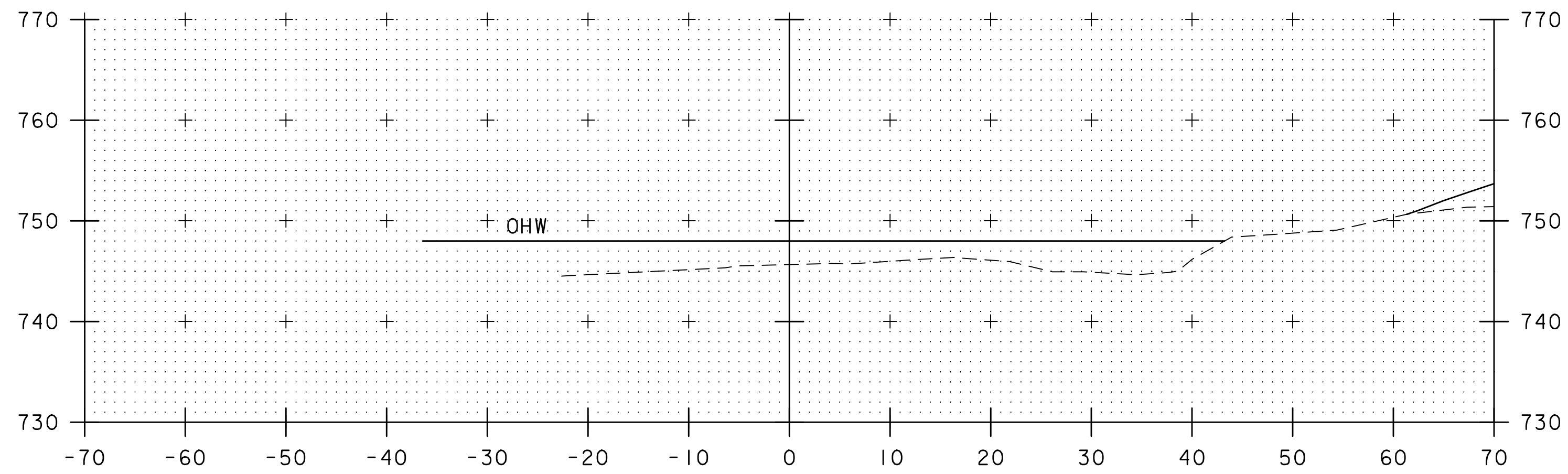
52+10

STA. 51+50 TO STA. 52+30

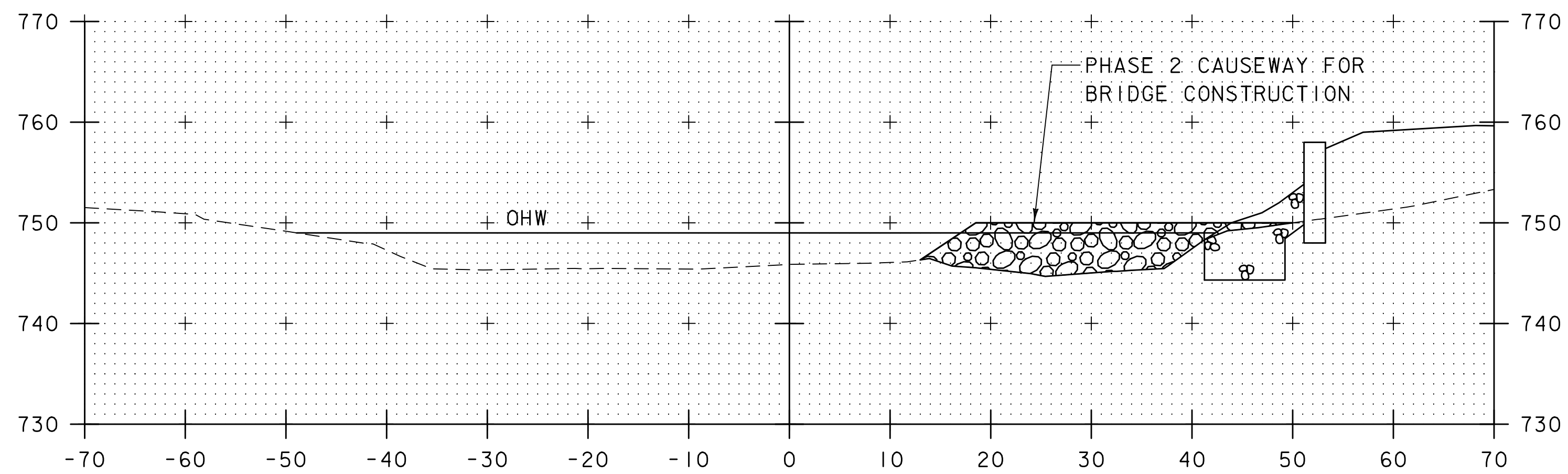
SCALE 1" = 10' - 0"



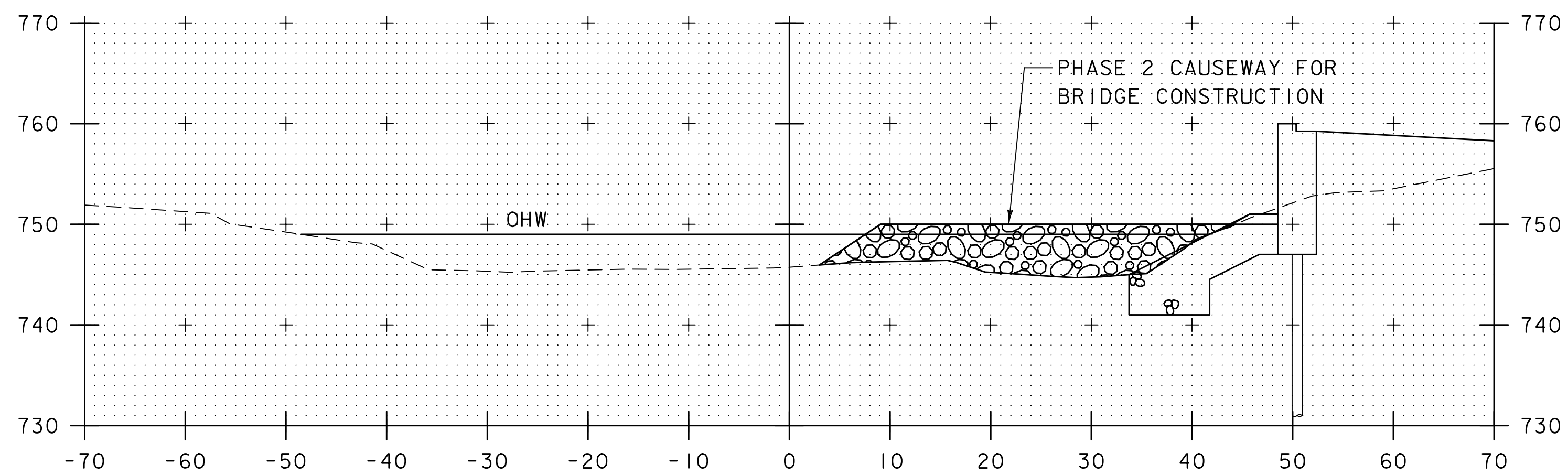
PROJECT NAME:	GRAFTON	PLOT DATE:	6/26/2020
PROJECT NUMBER:	BF 0125(6)	DRAWN BY:	N. CARON
FILE NAME:	I6J177/z16J177xschl.dgn	CHECKED BY:	S. BOYINGTON
PROJECT LEADER:	T. FRENCH	SHEET	23 OF 27
DESIGNED BY:	N. CARON		
CHANNEL CROSS SECTIONS (4 OF 5)			



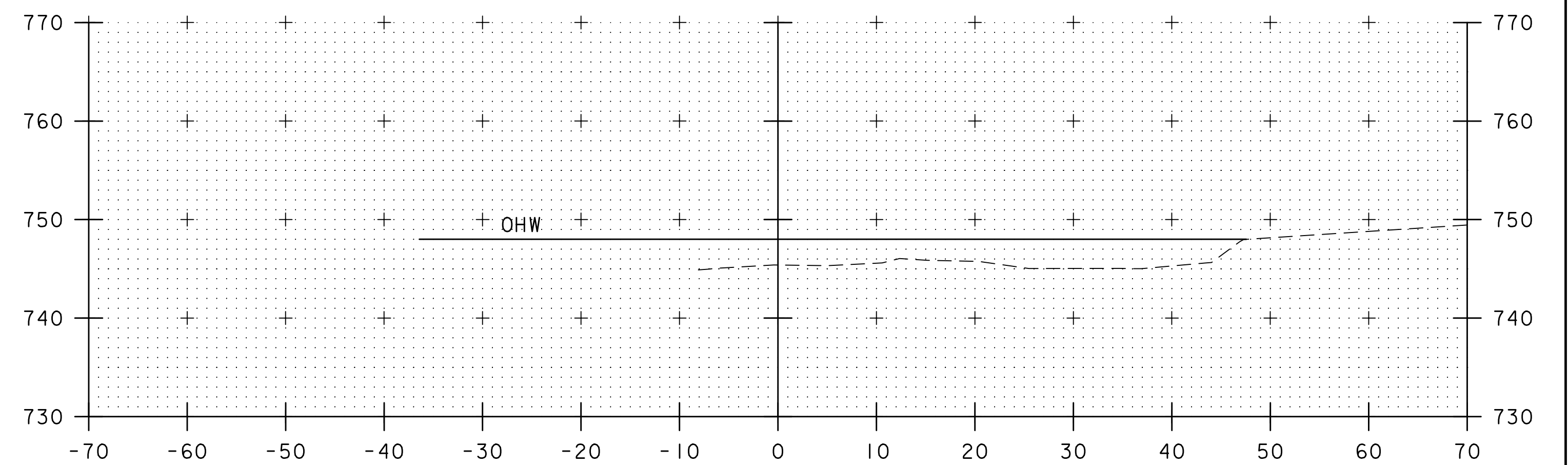
52+75



52+50



52+40



53+00

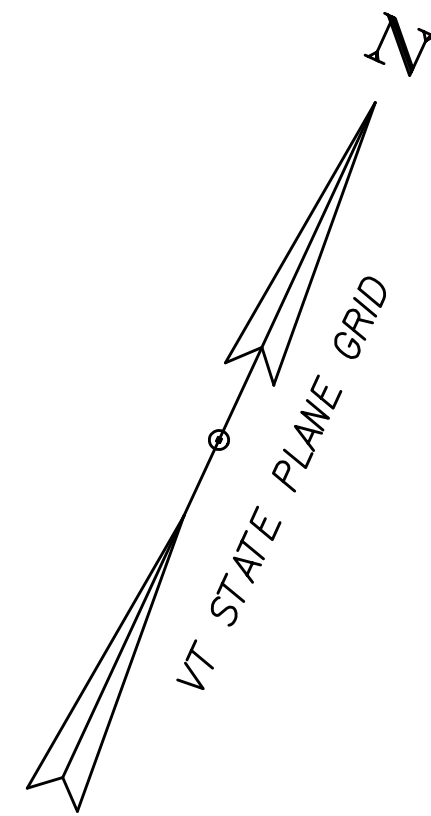
STA. 52+40 TO STA. 53+00

SCALE 1" = 10' - 0"

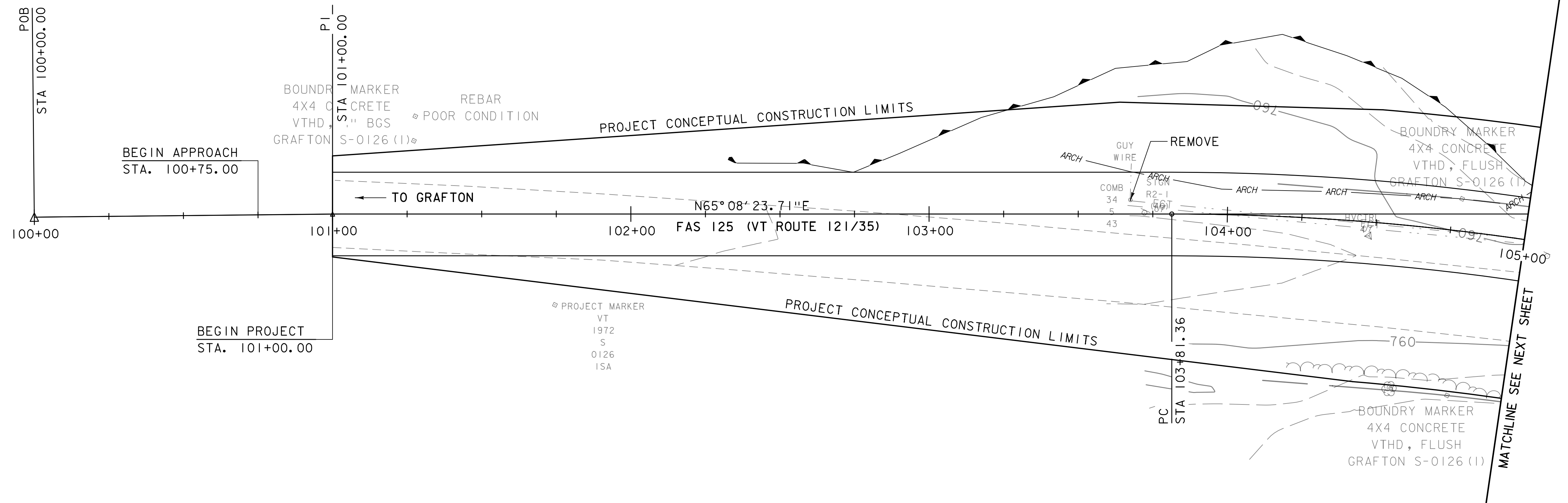


PROJECT NAME:	GRAFTON	PLOT DATE:	6/26/2020
PROJECT NUMBER:	BF 0125(6)	DRAWN BY:	N. CARON
FILE NAME:	I6J177/z16J177xschl.dgn	CHECKED BY:	S. BOYINGTON
PROJECT LEADER:	T. FRENCH	CHANNEL CROSS SECTIONS (5 OF 5)	SHEET 24 OF 27
DESIGNED BY:	N. CARON		





FAS 125 (VT 121/35)  
 CURVE (1)  
 DELTA = 38° 46' 53"  
 D = 6° 58' 13"  
 R = 822.00'  
 T = 289.32'  
 L = 556.38'  
 E = 49.43'



BEGIN APPROACH  
 STA. 100+75.00

BEGIN PROJECT  
 STA. 101+00.00

← TO GRAFTON

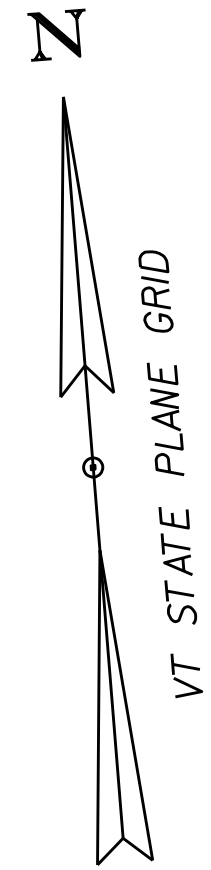
PROJECT MARKER  
 VT  
 1972  
 S  
 0126  
 ISA

RESOURCE LAYOUT

SCALE 1" = 20'-0"  
 20 0 20



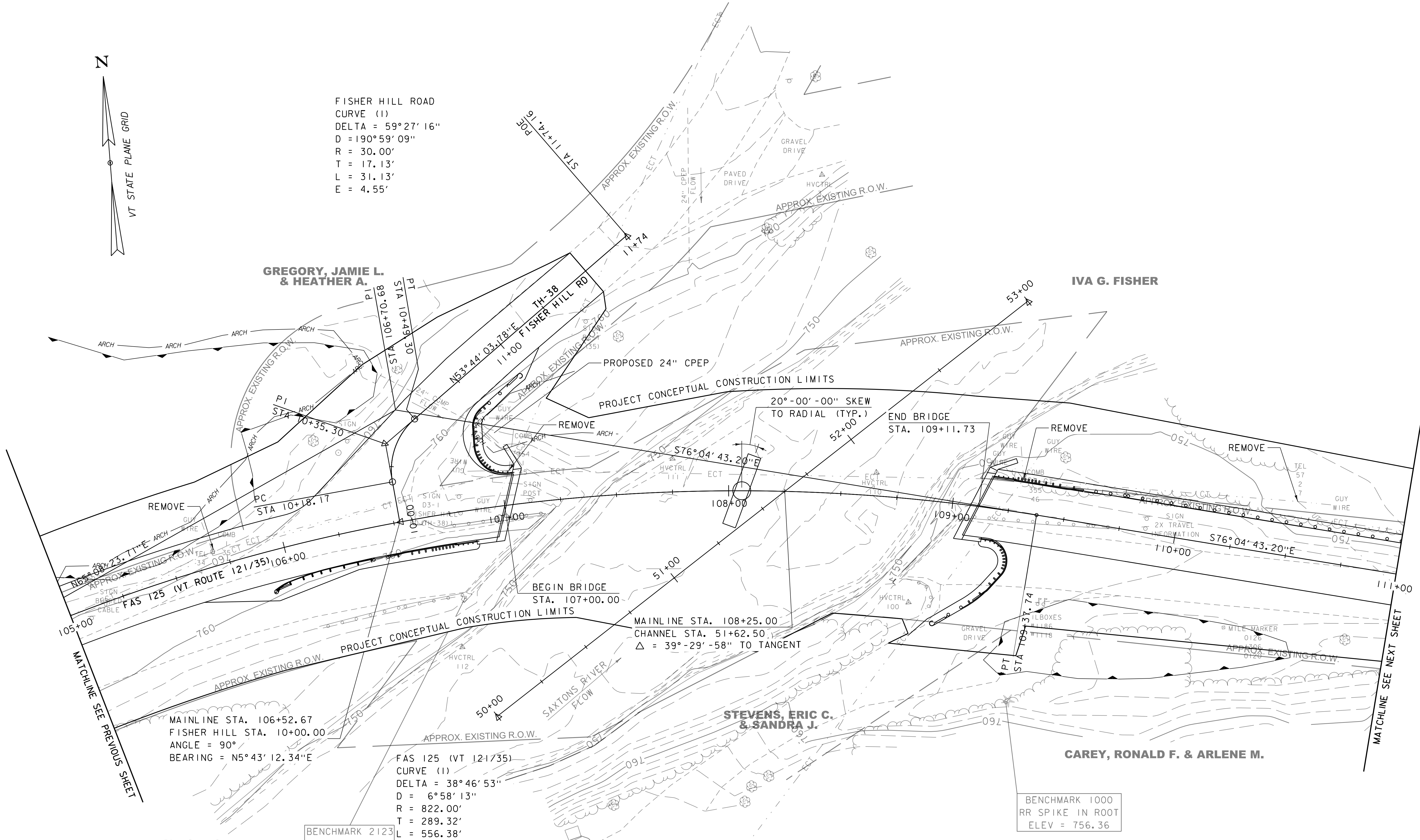
PROJECT NAME: GRAFTON	
PROJECT NUMBER: BF 0125(6)	
FILE NAME: I6J177/z16J177ero.dgn	PLOT DATE: 6/26/2020
PROJECT LEADER: T. FRENCH	DRAWN BY: N. CARON
DESIGNED BY: N. CARON	CHECKED BY: S. BOYNTON
RESOURCE LAYOUT SHEET 1 OF 3	SHEET 25 OF 27



FISHER HILL ROAD  
 CURVE (1)  
 DELTA = 59°27'16"  
 D = 190°59'09"  
 R = 30.00'  
 T = 17.13'  
 L = 31.13'  
 E = 4.55'

GREGORY, JAMIE L.  
 & HEATHER A.

IVA G. FISHER



MAINLINE STA. 106+52.67  
 FISHER HILL STA. 10+00.00  
 ANGLE = 90°  
 BEARING = N5°43'12.34"E

FAS 125 (VT 121/35)  
 CURVE (1)  
 DELTA = 38°46'53"  
 D = 6°58'13"  
 R = 822.00'  
 T = 289.32'  
 L = 556.38'  
 E = 49.43'

BENCHMARK 2123  
 STATE OF VT  
 SURVEY MARK  
 ELEV = 758.38

BENCHMARK 1000  
 RR SPIKE IN ROOT  
 ELEV = 756.36

IVA G. FISHER

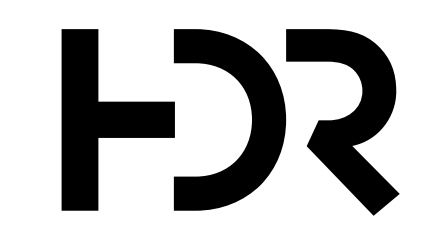
STEVENS, ERIC C.  
 & SANDRA J.

CAREY, RONALD F. & ARLENE M.

**RESOURCE LAYOUT**

SCALE 1" = 20' - 0"  
 20 0 20

EXISTING BRIDGE INFORMATION  
 3 SPAN ROLLED BEAM  
 BUILT 1937, REBUILT 1972  
 62' MAX SPAN, 191' LENGTH  
 PREFORMED FABRIC MEMBRANE



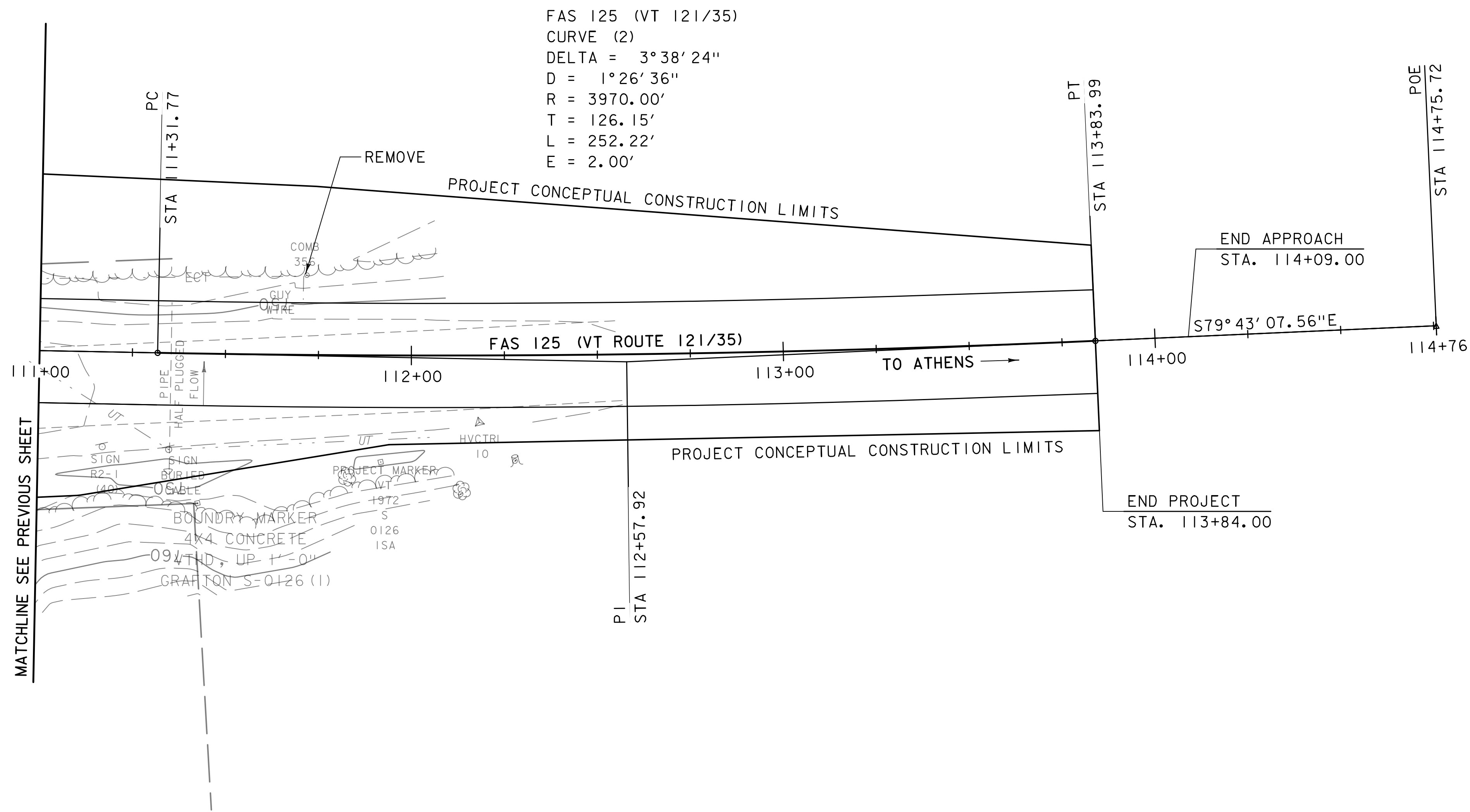
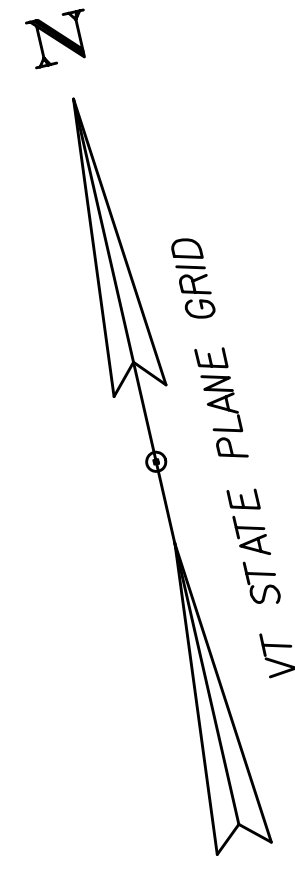
PROJECT NAME: GRAFTON  
 PROJECT NUMBER: BF 0125(6)

FILE NAME: I6J177/z16J177e.r.dgn  
 PROJECT LEADER: T. FRENCH  
 DESIGNED BY: N. CARON  
 RESOURCE LAYOUT SHEET 2 OF 3

PLOT DATE: 6/26/2020  
 DRAWN BY: N. CARON  
 CHECKED BY: S. BOYINGTON  
 SHEET 26 OF 27

MATCHLINE SEE PREVIOUS SHEET

MATCHLINE SEE NEXT SHEET



RESOURCE LAYOUT

SCALE 1" = 20'-0"  
 20 0 20



PROJECT NAME: GRAFTON	
PROJECT NUMBER: BF 0125(6)	
FILE NAME: I6J177/z16J177e.o.dgn	PLOT DATE: 6/26/2020
PROJECT LEADER: T. FRENCH	DRAWN BY: N. CARON
DESIGNED BY: N. CARON	CHECKED BY: S. BOYINGTON
RESOURCE LAYOUT SHEET 3 OF 3	SHEET 27 OF 27