

REVIEWER NOTES:

1. ATTEMPTS TO MINIMIZE PROJECT LIMITS HAVE BEEN MADE IN ORDER TO REDUCE IMPACTS TO EXISTING RESOURCES AND PROPERTY OWNERS.
2. THE BRIDGE WILL BE CLOSED DURING CONSTRUCTION AND TRAFFIC WILL BE MAINTAINED ON A ONE-WAY TEMPORARY BRIDGE UPSTREAM. TEMPORARY TRAFFIC SIGNALS WILL BE UTILIZED ON THE ONE-WAY TEMPORARY BRIDGE.
3. A TRAFFIC CONTROL PLAN HAS BEEN SHOWN IN THE PLANS FOR CONCEPTUAL PURPOSES ONLY. THE CONTRACTOR SHALL DEVELOP AND SUBMIT THEIR OWN TRAFFIC CONTROL PLAN FOR VTRANS APPROVAL.
4. FINAL HYDRAULICS HAS BEEN REQUESTED.
5. THIS PROJECT WILL UTILIZE THE VT DEC LOW RISK SITE HANDBOOK FOR EPSC. NO SITE-SPECIFIC EPSC PLAN IS INCLUDED. THE CONTRACTOR SHALL SUBMIT A SITE-SPECIFIC EPSC PLAT TO VTRANS UPON CONTRAT AWARD IN ACCORDANCE WITH THEIR MEANS AND METHODS.

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

TOWN OF STOWE

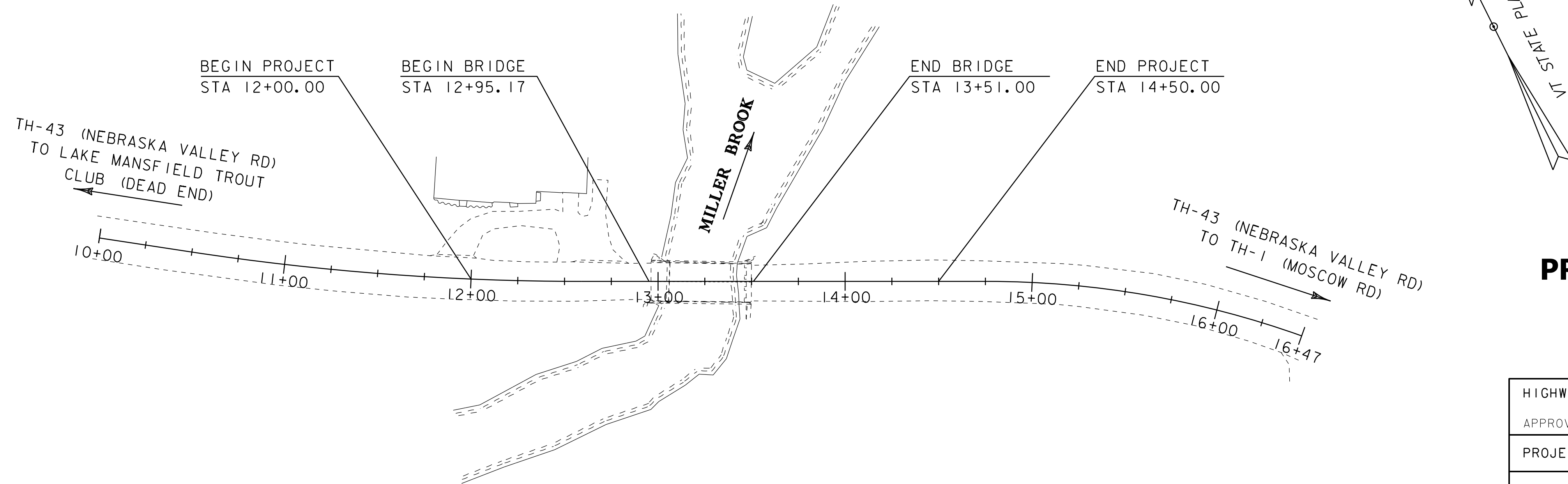
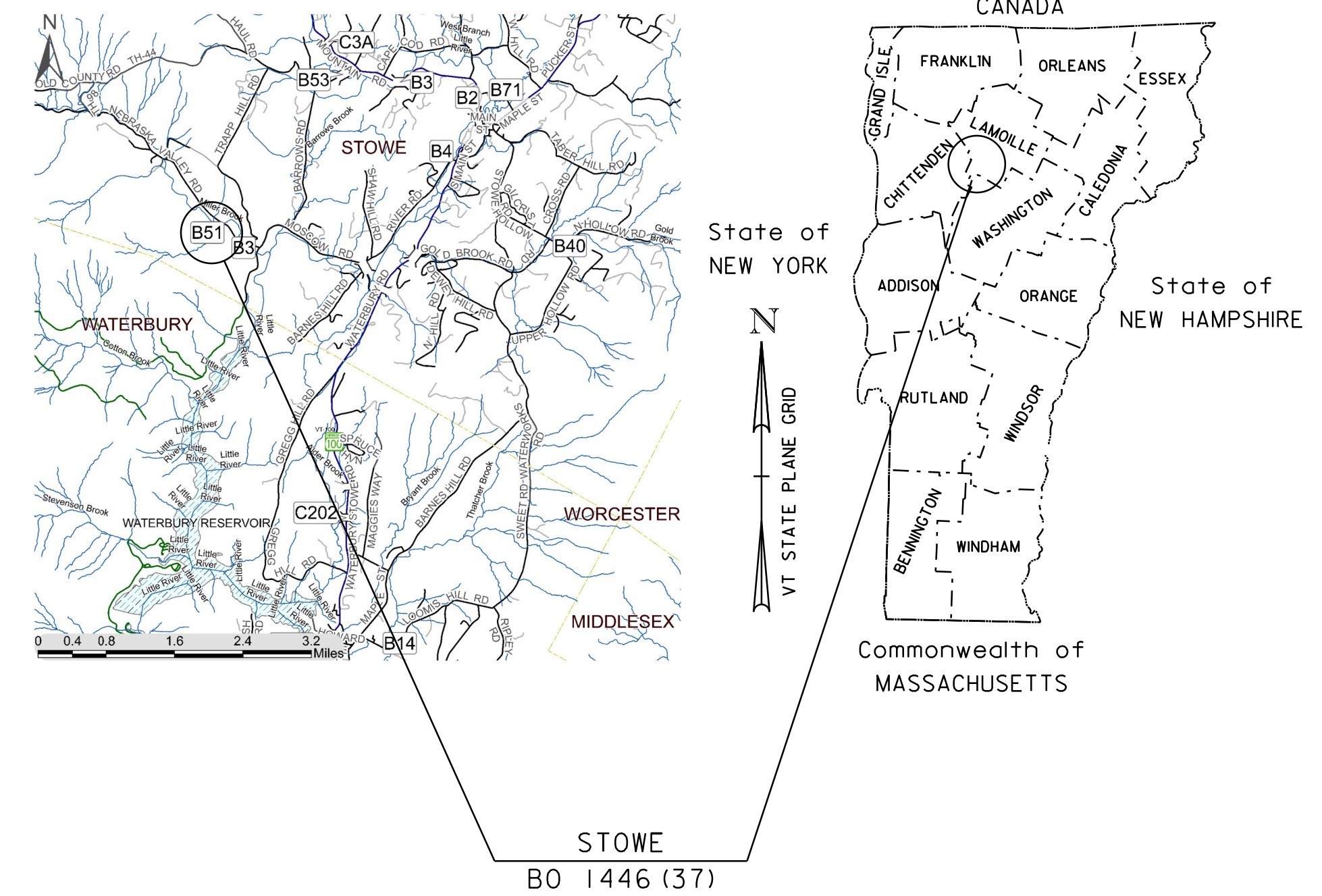
COUNTY OF LAMOILLE

ROUTE NO : TOWN HIGHWAY 43 (CLASS 3 TOWN HIGHWAY) BRIDGE NO : 5 I

PROJECT LOCATION : ON TH 43 (NEBRASKA VALLEY ROAD) APPROXIMATELY .5 MILES NORTHWEST FROM ITS INTERSECTION WITH TH 1 (MOSCOW ROAD) AND EXTENDING EASTERLY .047 MILES.

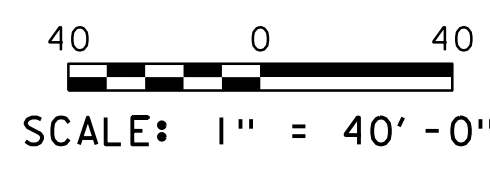
PROJECT DESCRIPTION : REPLACEMENT OF THE EXISTING BRIDGE ON ALIGNMENT INCLUDING APPROACH ROADWAY AND CHANNEL WORK RELATIVE TO PROJECT CONSTRUCTION.

LENGTH OF STRUCTURE : 55.83 FEET.
 LENGTH OF ROADWAY : 194.17 FEET.
 LENGTH OF PROJECT : 250.00 FEET.



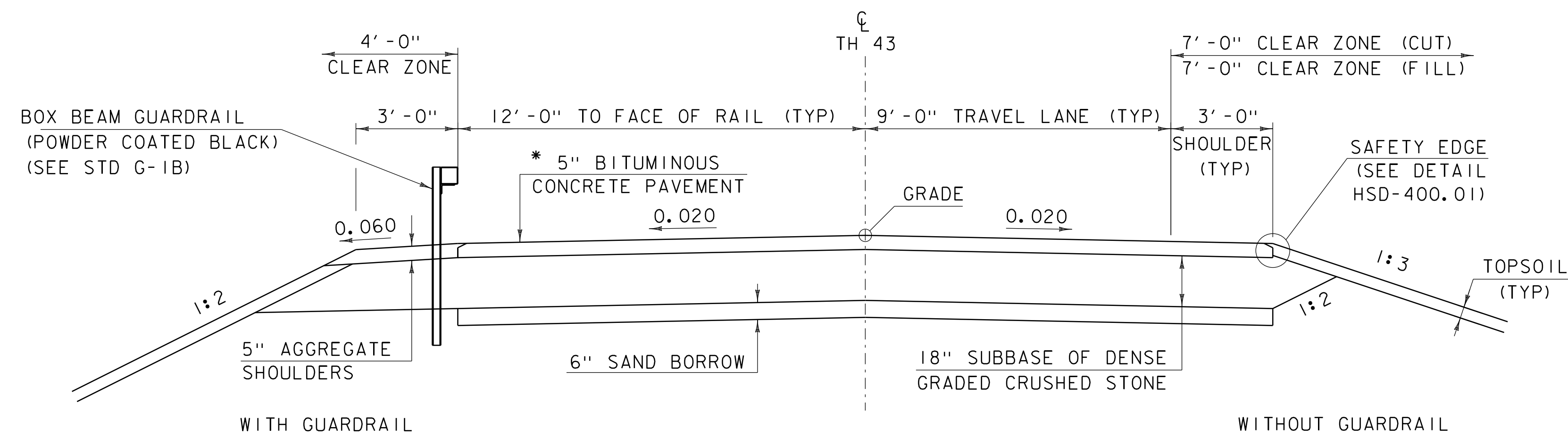
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 2	
SURVEYED BY :	R. GILMAN
SURVEYED DATE :	9/21/2009
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83 (96)



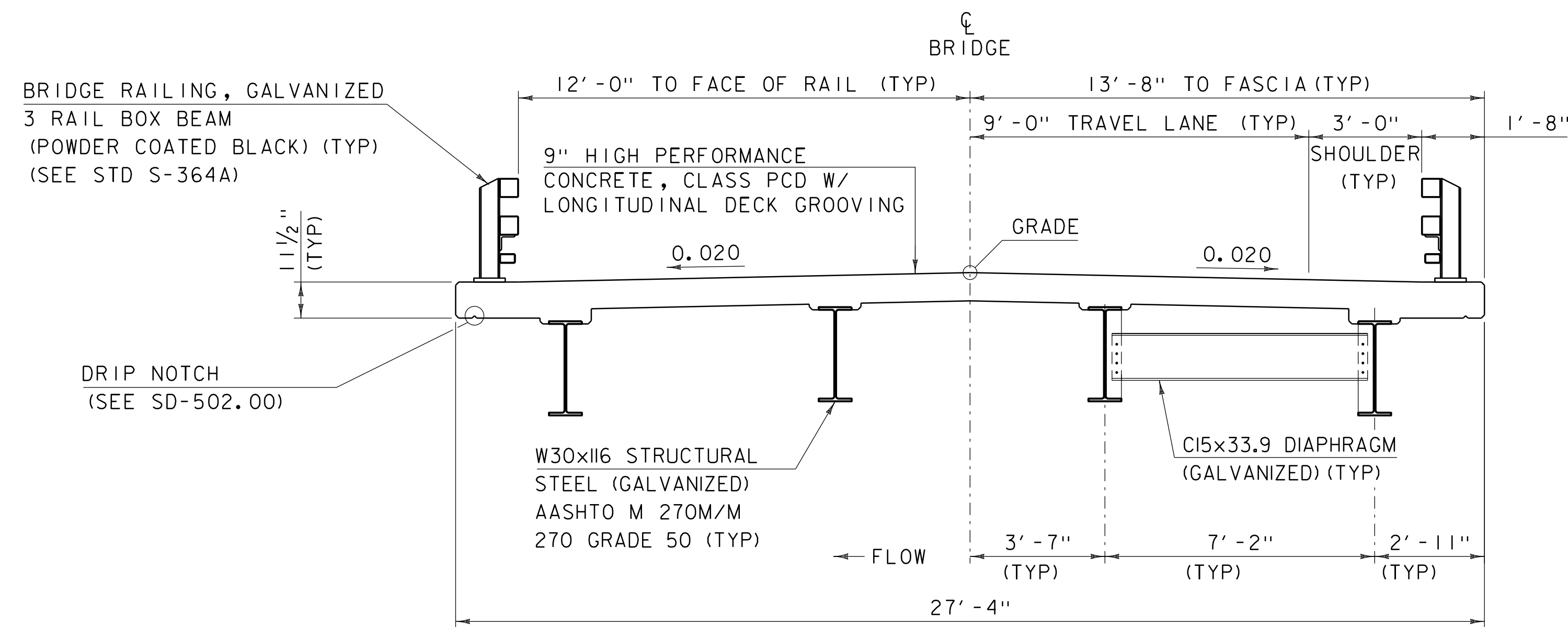
PRELIMINARY PLANS
25-MAR-2020

HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED _____ DATE _____
PROJECT MANAGER : CAROLYN COTA, P. E.
PROJECT NAME : STOWE
PROJECT NUMBER : BO 1446 (37)
SHEET 1 OF 26 SHEETS



* 1 1/2" BCP, TYPE IVS OVER
 1 1/2" BCP, TYPE IVS OVER
 2" TYPE IIIS

TH 43 ROADWAY TYPICAL SECTION
 SCALE 3/8" = 1'-0"



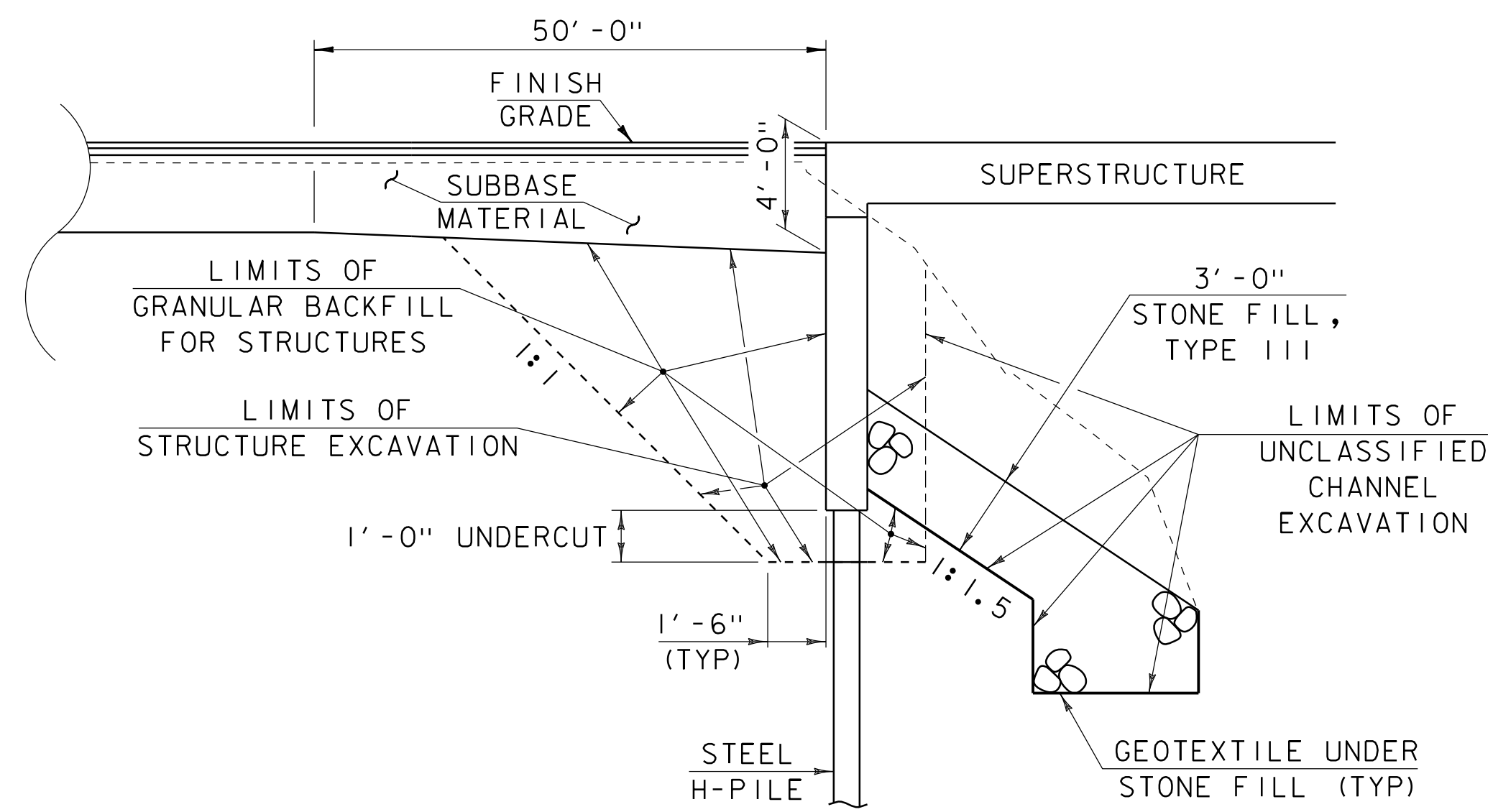
BRIDGE TYPICAL SECTION
 SCALE 3/8" = 1'-0"

MATERIAL TOLERANCES
 (IF USED ON PROJECT)

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

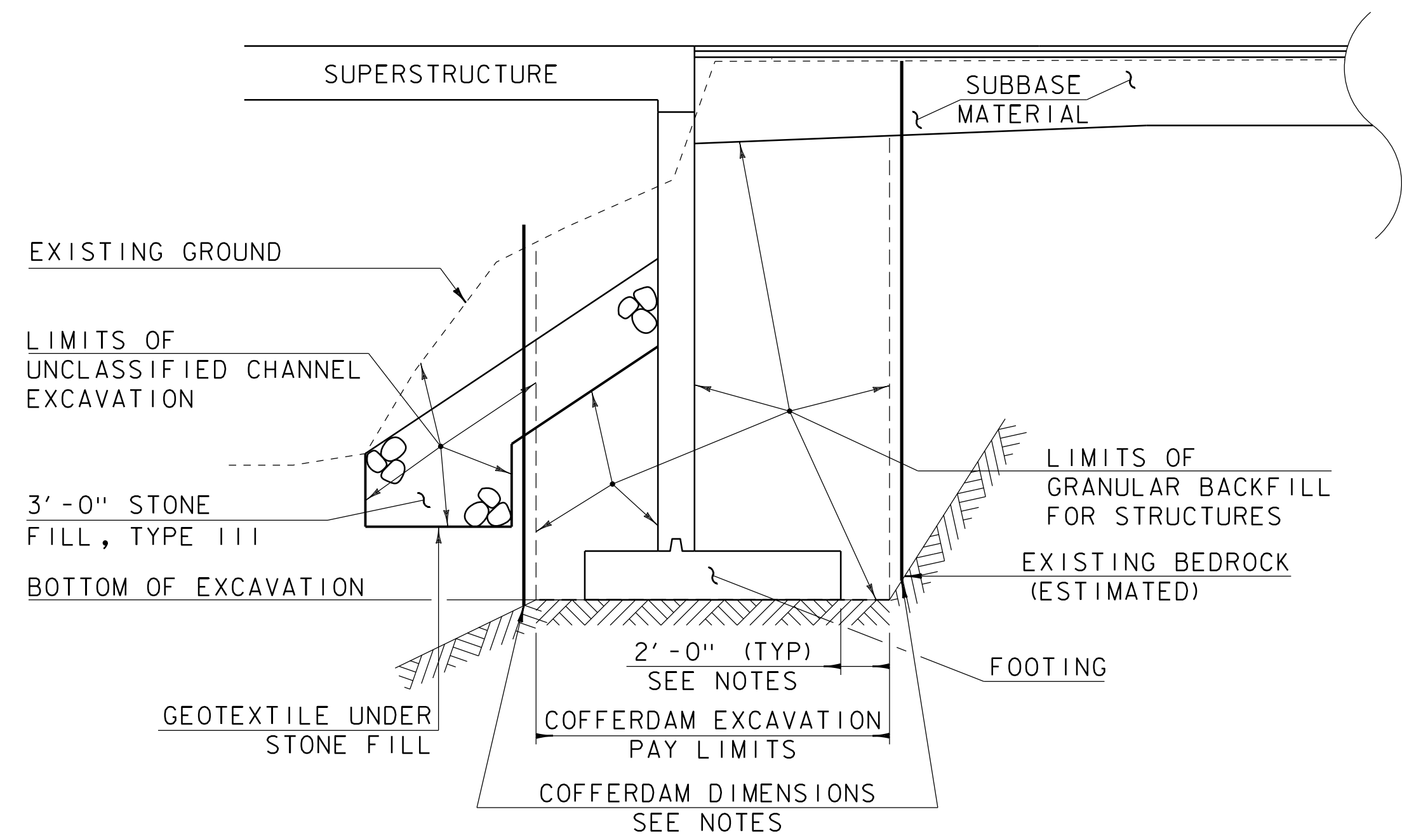
EMULSION SHALL BE APPLIED PER THE APPLICATION RATES IN TABLE 406.12A OF THE STANDARD SPECIFICATIONS.

PROJECT NAME:	STOWE
PROJECT NUMBER:	BO 1446 (37)
FILE NAME:	sl2j660+yp2.dgn
PROJECT LEADER:	C. COTA
DESIGNED BY:	C. BURRALL
TYPICAL SECTIONS I	
PLOT DATE:	25-MAR-2020
DRAWN BY:	M. LONGSTREET
CHECKED BY:	C. BURRALL
SHEET	3 OF 26



ABUTMENT #1 EARTHWORK TYPICAL SECTION

(NOT TO SCALE)

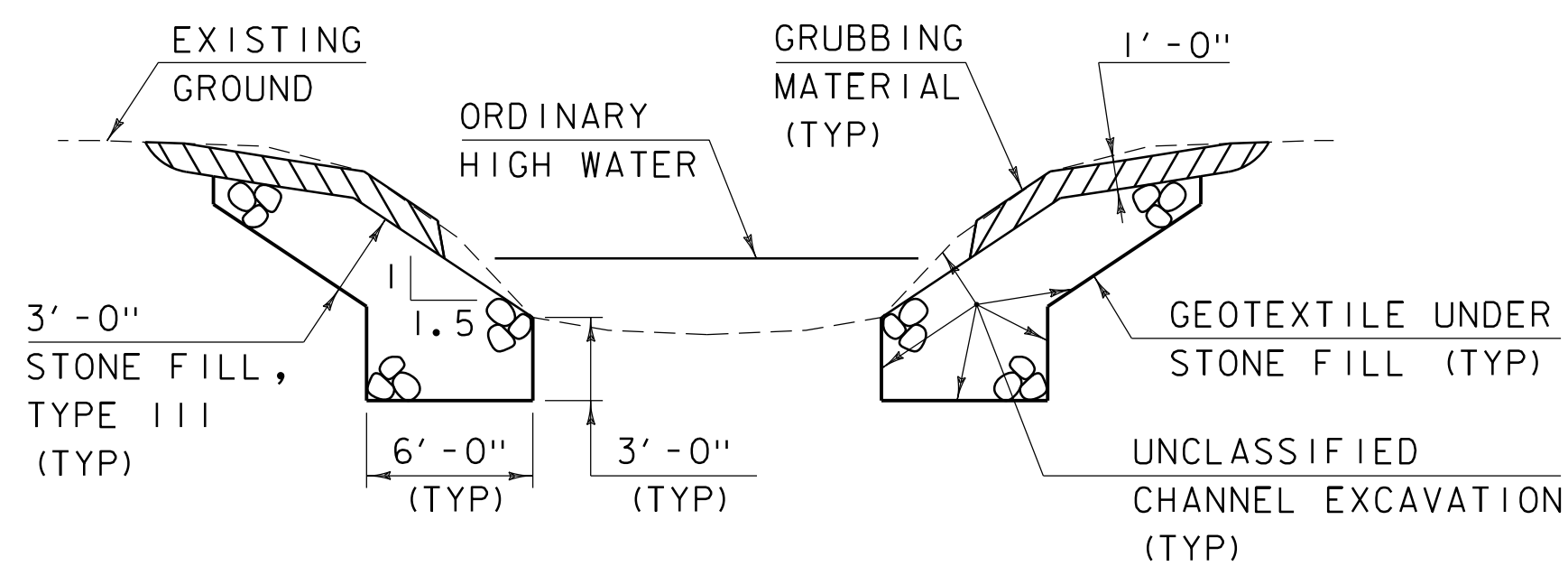


ABUTMENT #2 EARTHWORK TYPICAL SECTION

(NOT TO SCALE)

COFFERDAM NOTES:

1. COFFERDAM DIMENSIONS TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF EITHER "COFFERDAM EXCAVATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 2'-0" OUTSIDE THE PERIMETER OF THE FOOTING AND FROM BOTTOM OF EXCAVATION UP TO THE EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER.
3. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM PAY LIMITS, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION. NO MEASUREMENT AND PAYMENT WILL BE MADE FOR COFFERDAM EXCAVATION AND GRANULAR BACKFILL FOR STRUCTURES OUTSIDE THE PAY LIMITS DEFINED IN NOTE 2.



TYPICAL CHANNEL SECTION

(NOT TO SCALE)

1. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.
2. GRUBBING MATERIAL SHALL BE PLACED UNDERNEATH STRUCTURES WHERE THERE IS MORE THAN 6 FEET VERTICALLY FROM ORDINARY HIGH WATER (OHW) TO THE BOTTOM OF SUPERSTRUCTURE AND MORE THAN 6 FEET HORIZONTALLY FROM OHW LINE TO FRONT FACE OF ABUTMENT. THIS MATERIAL SHALL START JUST ABOVE THE OHW ELEVATION AND TERMINATE 3 FEET HORIZONTALLY FROM THE FRONT FACE OF THE ABUTMENT. THIS MATERIAL SHALL NOT BE PLACED IN AREAS THAT WILL SEE CONCENTRATED FLOWS RESULTING FROM SURFACE WATER RUNOFF. GRUBBING MATERIAL MAY BE OMITTED IF LESS THAN 3 FEET IN WIDTH BENEATH A STRUCTURE. SEE CHANNEL SECTIONS FOR ADDITIONAL DETAILING.
3. STONE FILL SHALL BE OMITTED IN AREAS WHERE EXPOSED BEDROCK IS ENCOUNTERED IN THE FINAL CONSTRUCTION CONDITION

PROJECT NAME: STOWE
PROJECT NUMBER: BO 1446(37)

FILE NAME: sl2j660typ.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: C. BURRALL
TYPICAL SECTION 2

PLOT DATE: 25-MAR-2020
DRAWN BY: C. BURRALL
CHECKED BY: M. LONGSTREET
SHEET 4 OF 26

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	PROJECT DEMARCATION FENCE
BF	BARRIER FENCE
XXXXXX	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	PROPERTY LINE (P/L)
SR	SLOPE RIGHTS
6f	6F PROPERTY BOUNDARY
4f	4F PROPERTY BOUNDARY
HAZ	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLGY**

**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 SYMBOLGY

**ENVIRONMENTAL RESOURCES**

—	WETLAND BOUNDARY
—	RIPARIAN BUFFER ZONE
—	WETLAND BUFFER ZONE
—	SOIL TYPE BOUNDARY
— T&E —	THREATENED & ENDANGERED SPECIES
— 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
Ⓜ	HISTORIC STRUCTURE

**CONVENTIONAL TOPOGRAPHIC SYMBOLGY**

**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

PROJECT NAME: STOWE  
PROJECT NUMBER: BO 1446(37)

FILE NAME: sl2j660frm.dgn PLOT DATE: 25-MAR-2020  
PROJECT LEADER: C. COTA DRAWN BY: C. BURRALL  
DESIGNED BY: C. BURRALL CHECKED BY: M. LONGSTREET  
CONVENTIONAL SYMBOLGY LEGEND SHEET 5 OF 26

NETWORK CONTROL

HVCTRL #1  
 STOWE AZ MK  
 NORTH = 706904.3965  
 EAST = 1585797.3958  
 ELEV. = 672.550

GENERAL LOCATION, STOWE, VT

TO REACH FROM THE INTERSECTION OF VT. ROUTES 100 AND 108 IN STOWE GO SOUTH ALONG ROUTE 100 FOR 2.2 MI (3.5 KM) TO THE MARK ON THE LEFT IN THE NORTH END OF A LEDGE CUT. THE MARK IS 7.7 M (25.3 FT) SOUTHEAST OF AND ABOUT 2 M (6.6 FT) HIGHER THAN THE CENTERLINE OF ROUTE 100, 27.9 M (91.5 FT) NORTHEAST OF POLE NO. 58, 0.5 M (1.6 FT) SOUTHEAST OF THE FACE OF THE LEDGE CUT, 1.7 M (5.6 FT) SOUTH OF THE NORTH END OF THE LEDGE, 2.1 M (6.9 FT) NORTHEAST OF A METAL WITNESS POST.

HVCTRL #2  
 STOWE RIVER  
 NORTH = 708261.7724  
 EAST = 1585037.8666  
 ELEV. = 692.866

GENERAL LOCATION, STOWE, VT

TO REACH FROM THE INTERSECTION OF VT ROUTE 100 AND VT ROUTE 108, GO SOUTH ALONG VT ROUTE 100 FOR 2.5 MI (4.0 KM) TO THE INTERSECTION OF MOSCOW ROAD RIGHT. TURN RIGHT AND GO NORTHWEST ALONG MOSCOW ROAD FOR 0.5 MI (0.8 KM) TO THE INTERSECTION OF RIVER ROAD RIGHT. TURN RIGHT AND GO NORTHEAST ALONG RIVER ROAD FOR 0.2 MI (0.3 KM) TO THE SITE OF THE MARK ON THE RIGHT IN A SMALL FIELD. IT IS ABOUT 0.05 MI (0.1 KM) WEST-SOUTHWEST OF A POWER SUB STATION.

THE MARK IS SET 12 CM (5 INCHES) BELOW GROUND SURFACE IN THE TOP OF A 30 CM (12 INCH) DIAMETER CONCRETE MONUMENT.

IT IS 6.1 M (20.0 FT) SOUTH-SOUTHEAST OF AND ABOUT 1.5 M (4.9 FT) LOWER THAN THE CENTERLINE OF RIVER ROAD, 20.6 M (67.6 FT) EAST-NORTHEAST OF POLE NO 151/315/43 (WITH METER BOX), 27.2 M (89.2 FT) WEST-SOUTHWEST OF POLE NO 42, 29.5 M (96.8 FT) EAST OF THE EAST-NORTHEAST END OF A WOOD RAIL FENCE AND 0.6 M (2.0 FT) NORTH-NORTHWEST OF A FIBERGLASS WITNESS POST.

HVCTRL #17/90  
 NEBRASKA  
 NORTH = 709893.2357  
 EAST = 1575984.0593  
 ELEV. = 648.683

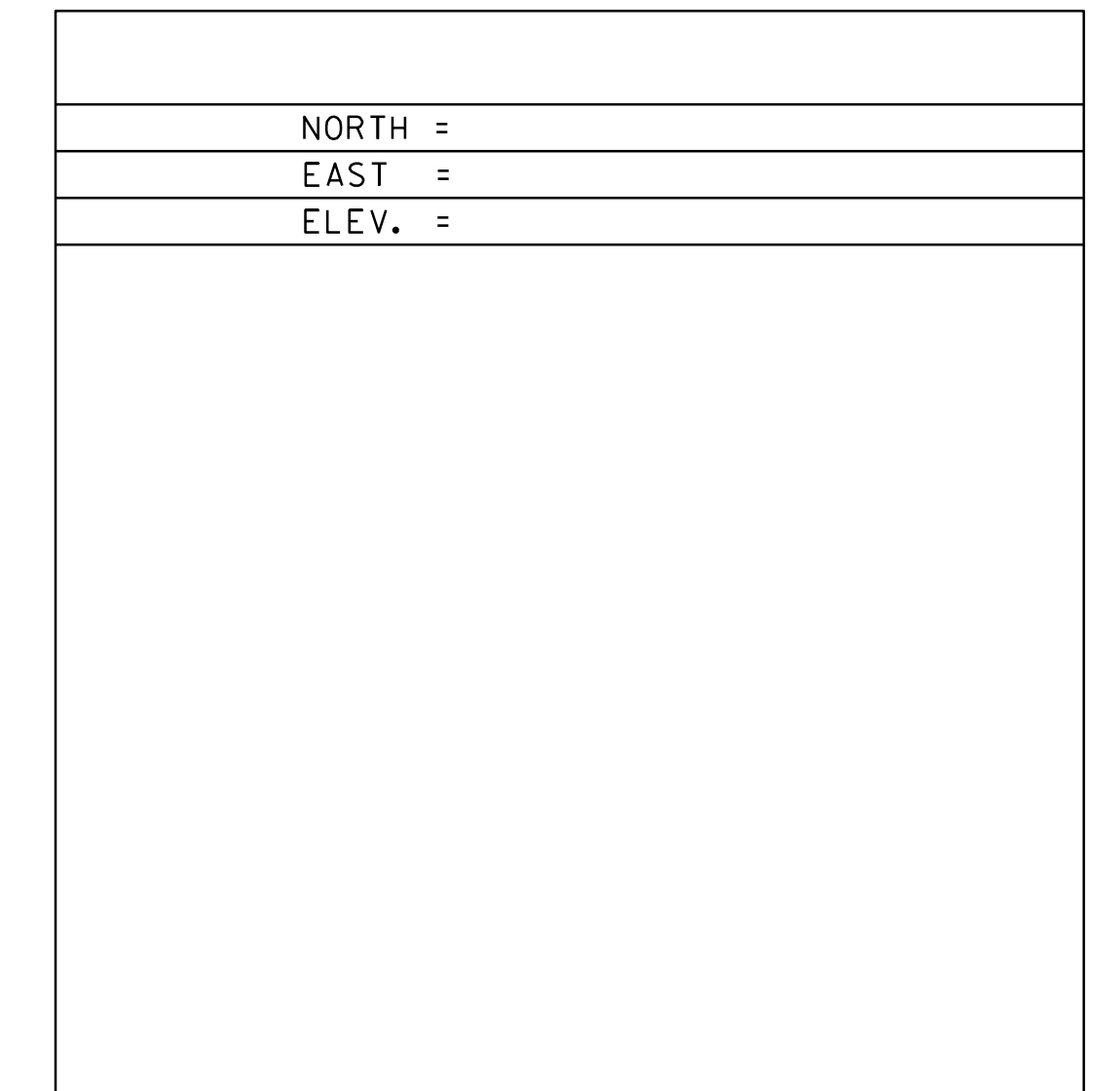
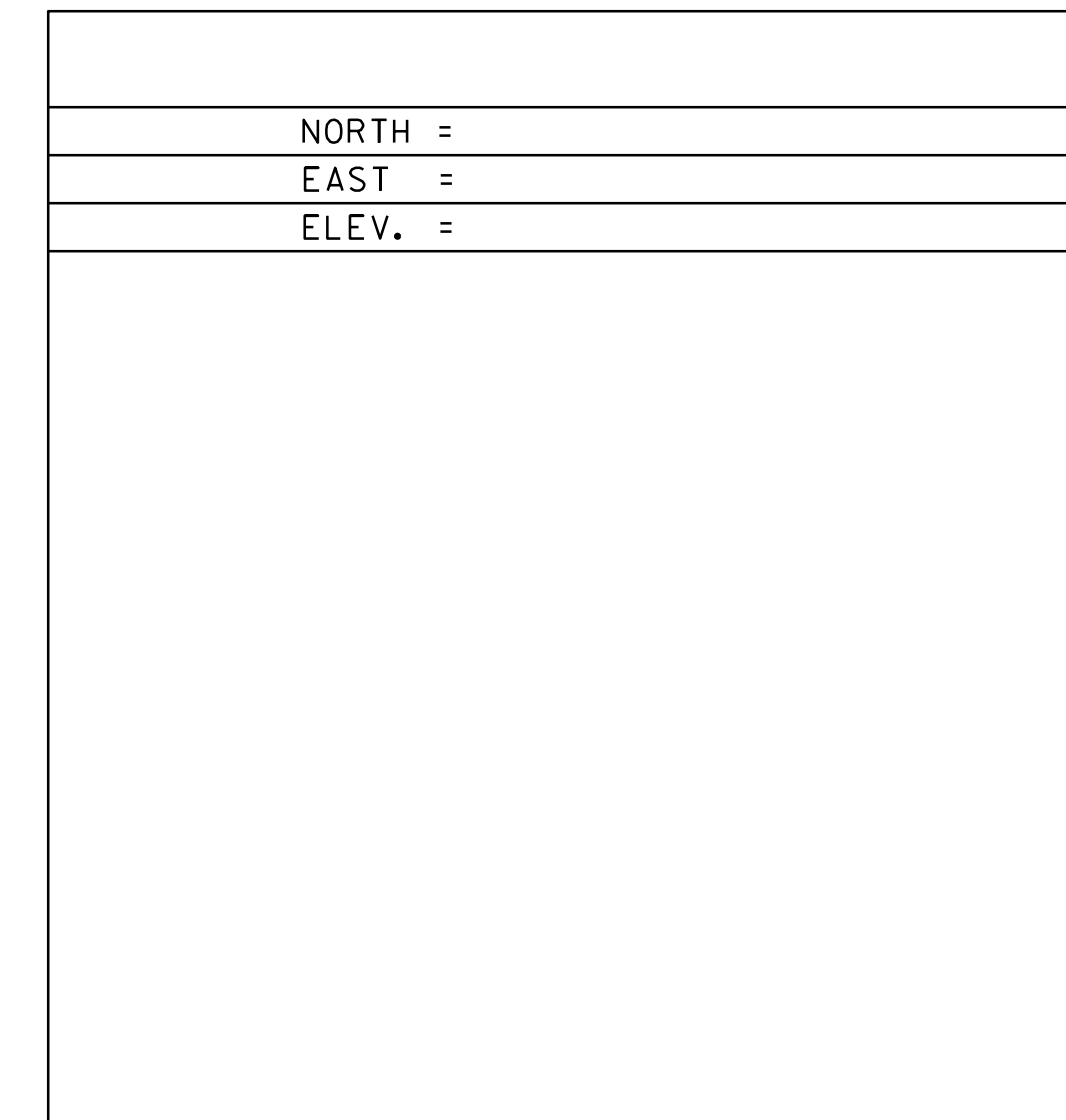
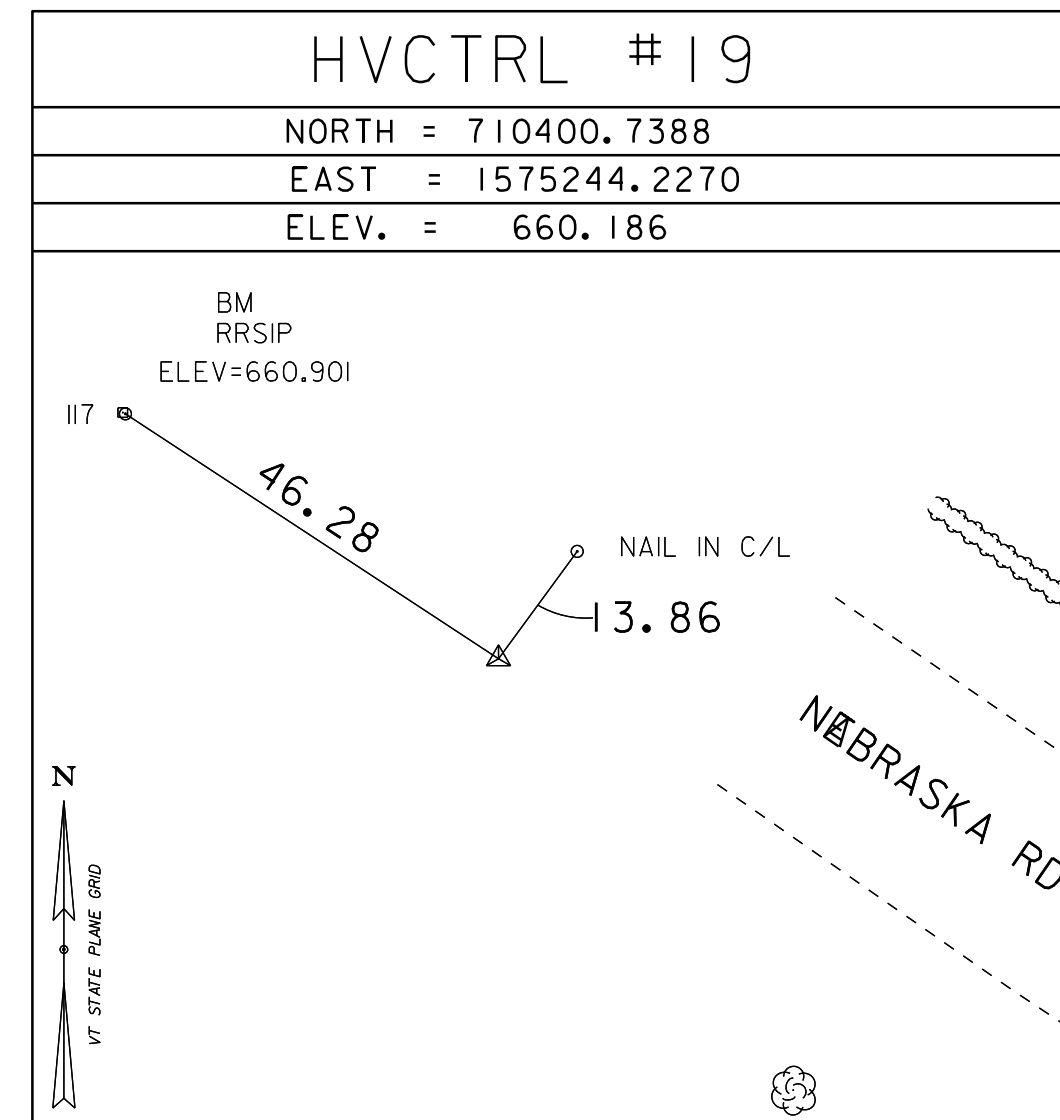
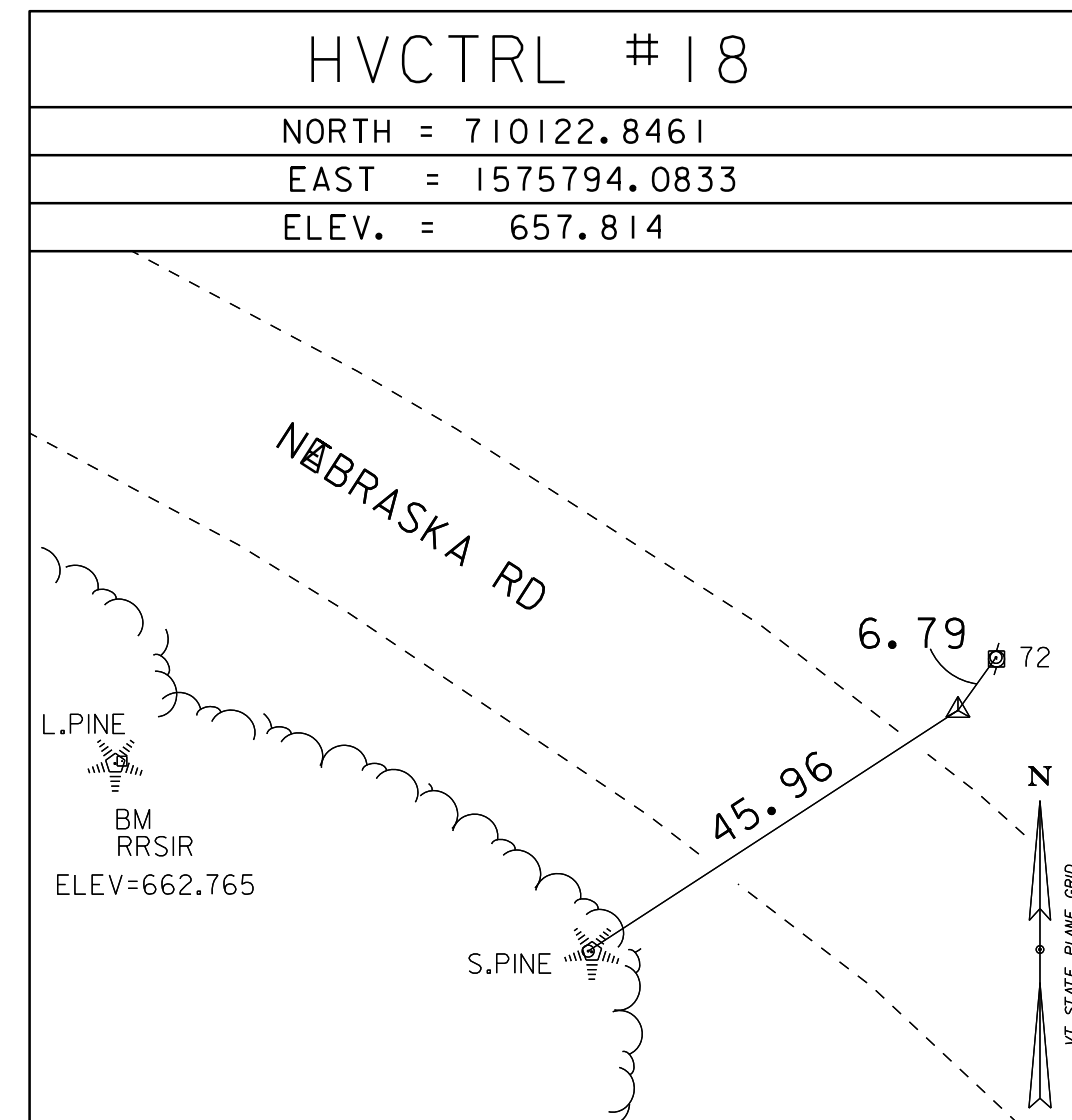
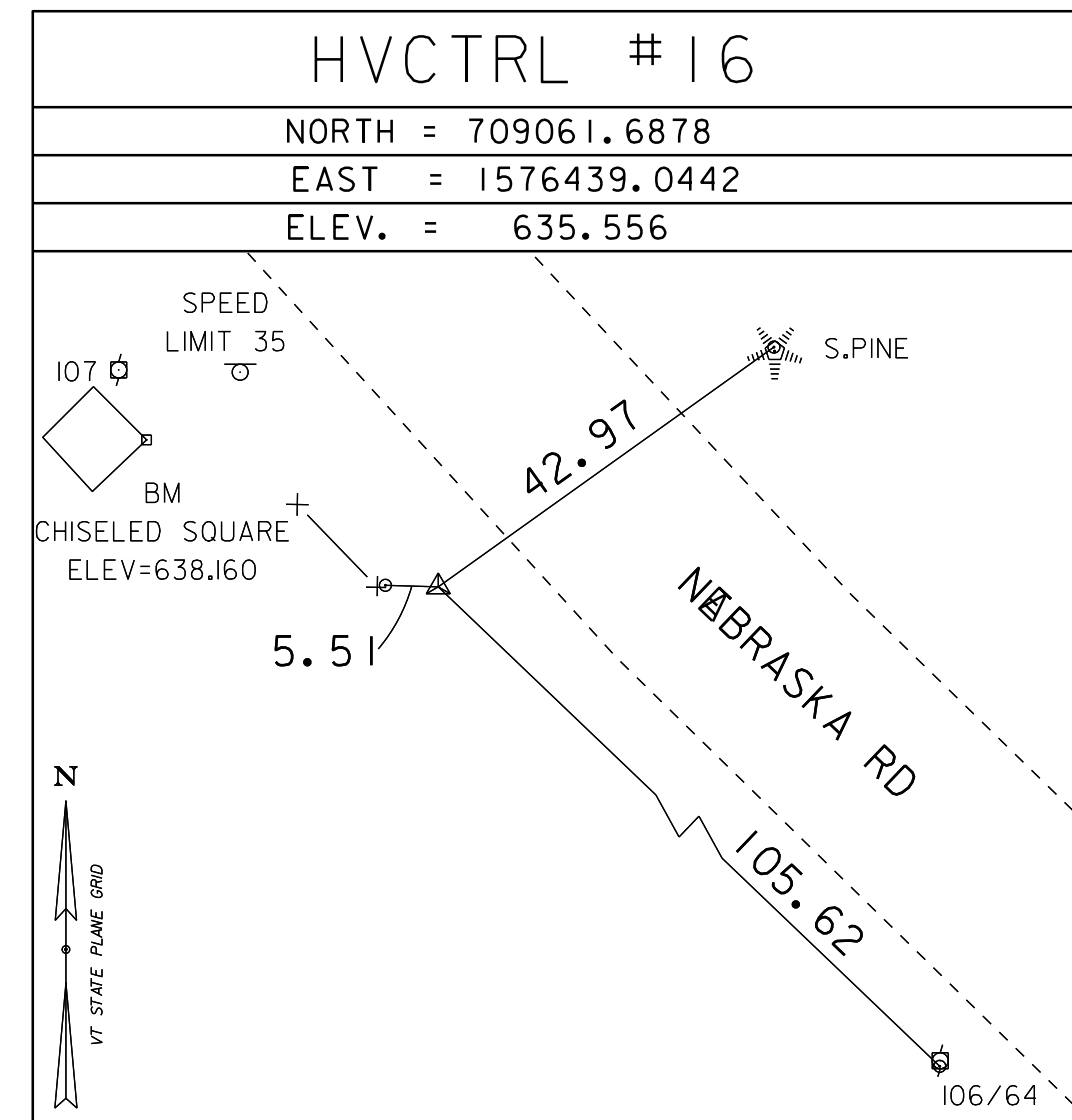
GENERAL LOCATION, STOWE, VT

TO REACH FROM THE INTERSECTION OF VT ROUTE 100 AND VT ROUTE 108 IN STOWE VILLAGE, GO SOUTH ALONG VT ROUTE 100 FOR 2.5 MI (4.0 KM) TO THE INTERSECTION OF MOSCOW ROAD RIGHT. TURN RIGHT AND GO NORTHWEST ALONG MOSCOW ROAD FOR 1.5 M (4.9 FT) TO THE INTERSECTION OF BARROWS ROAD RIGHT. CONTINUE NORTHWEST ALONG MOSCOW ROAD FOR 0.6 M (2.0 FT) TO THE INTERSECTION OF COTTON BROOK ROAD LEFT AND NEBRASKA VALLEY ROAD RIGHT. TURN RIGHT AND GO WEST ALONG NEBRASKA VALLEY ROAD FOR 0.5 M (1.6 FT) TO THE SITE OF THE MARK ON THE RIGHT SET IN THE WEST EDGE OF A FIELD.

THE MARK IS SET 10 CM (4 INCHES) BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT.

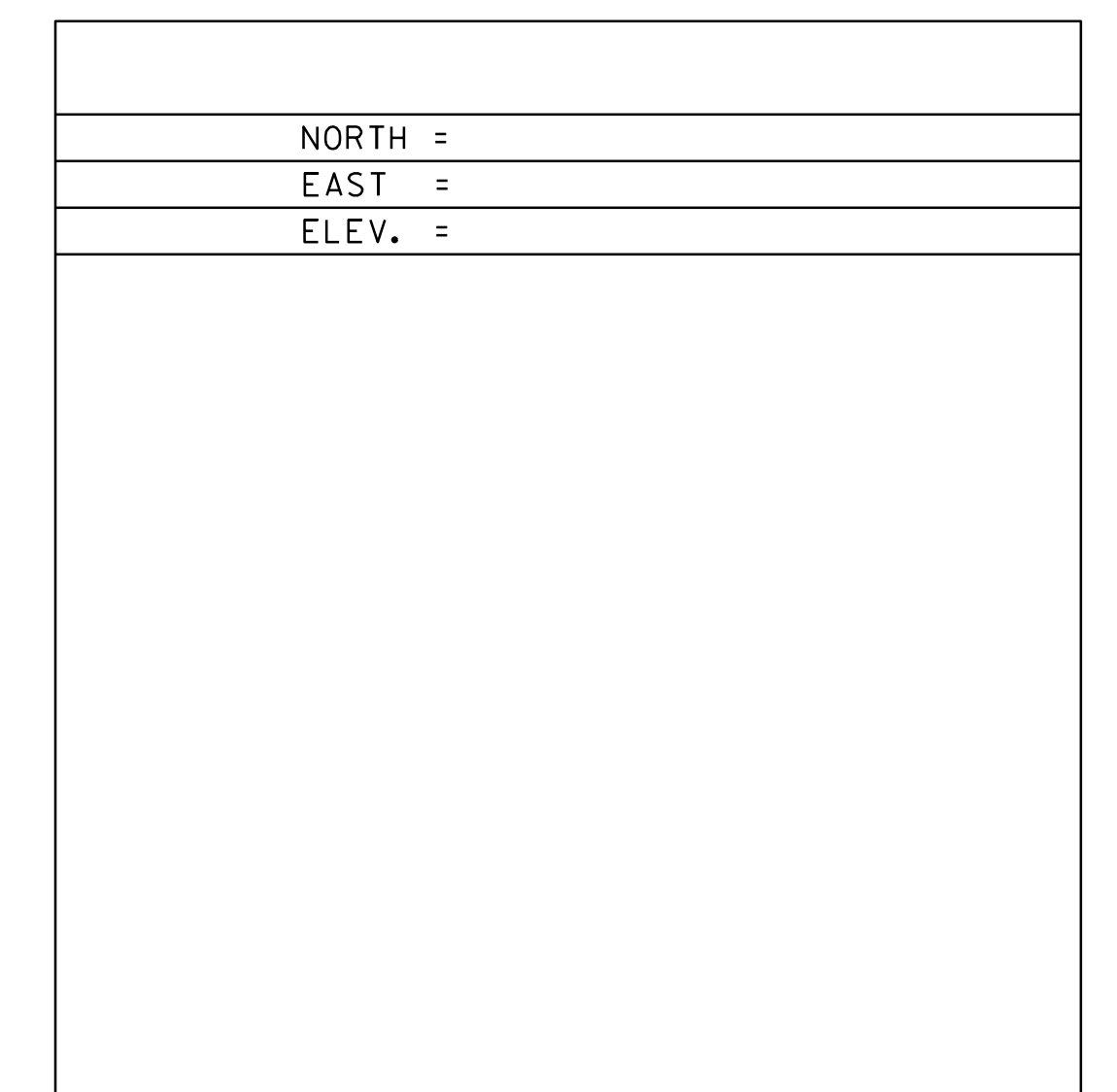
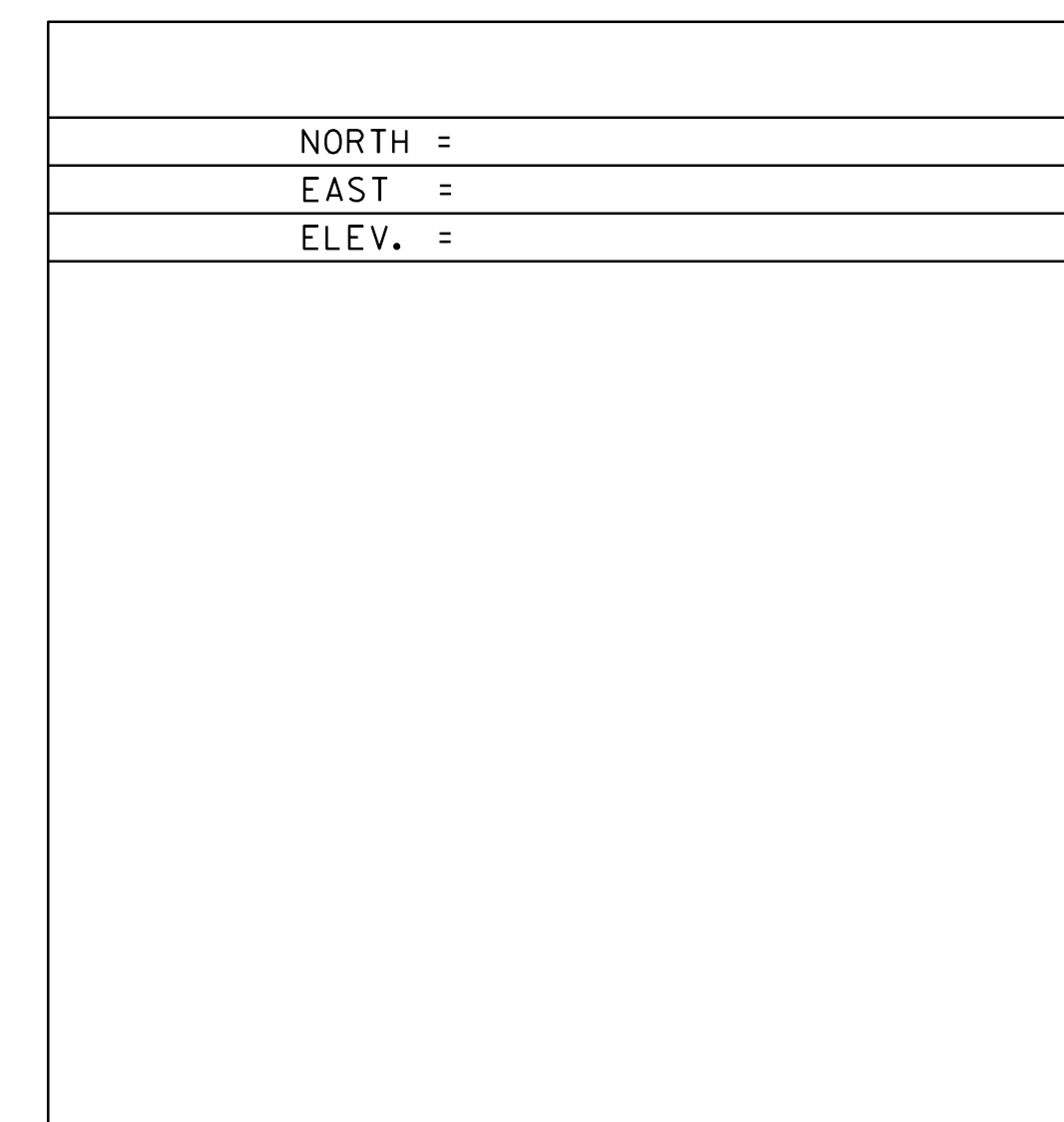
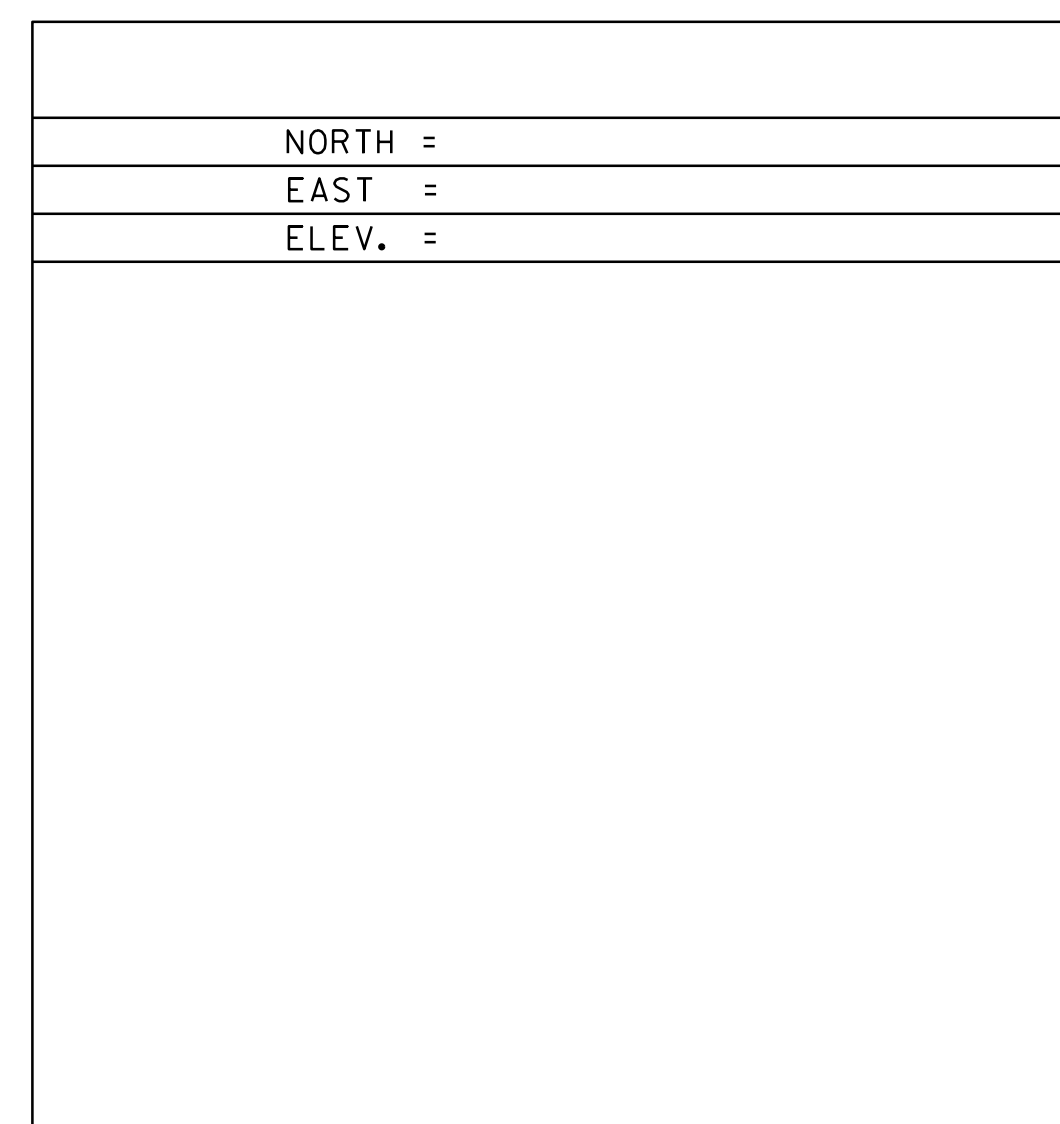
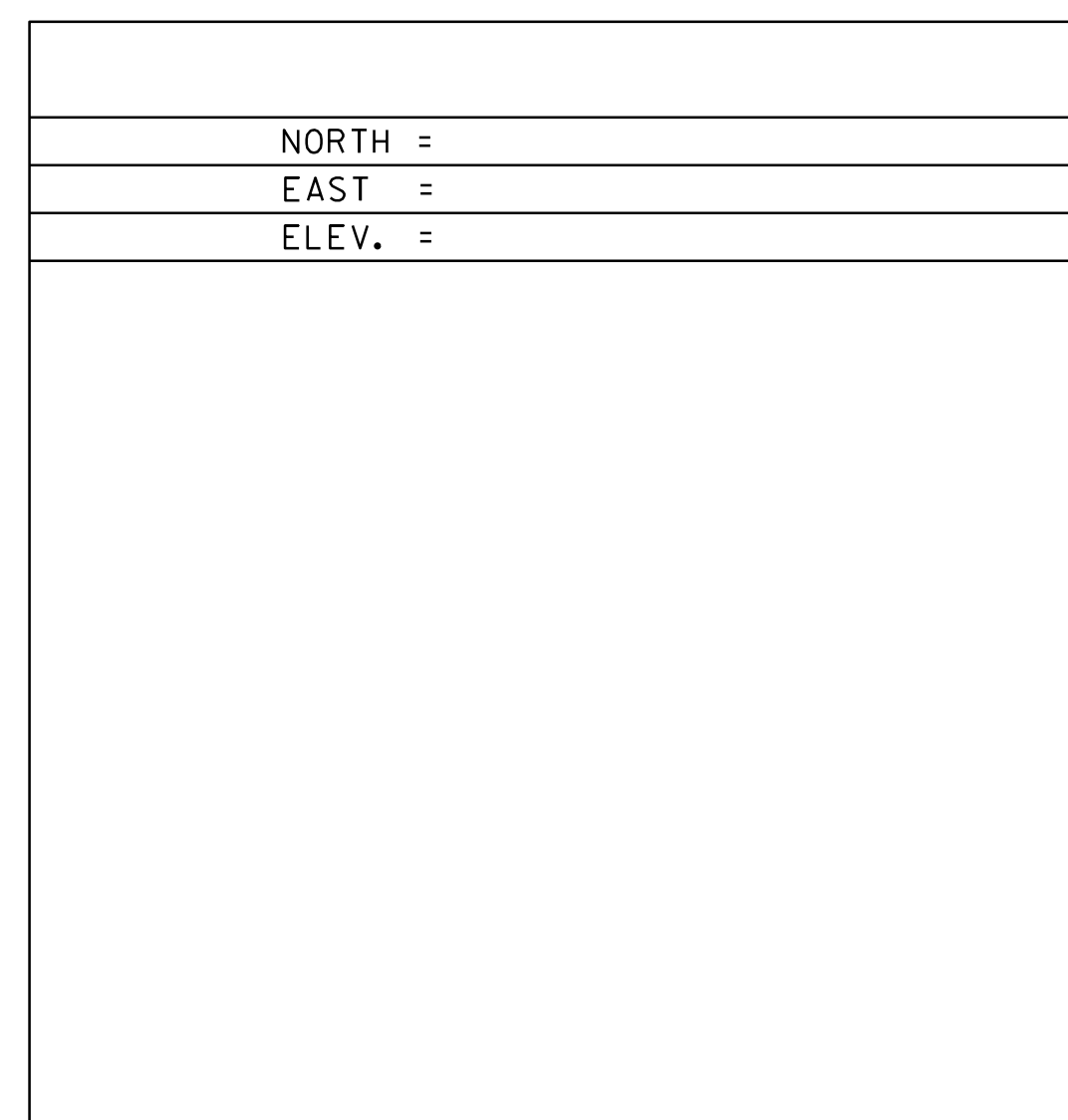
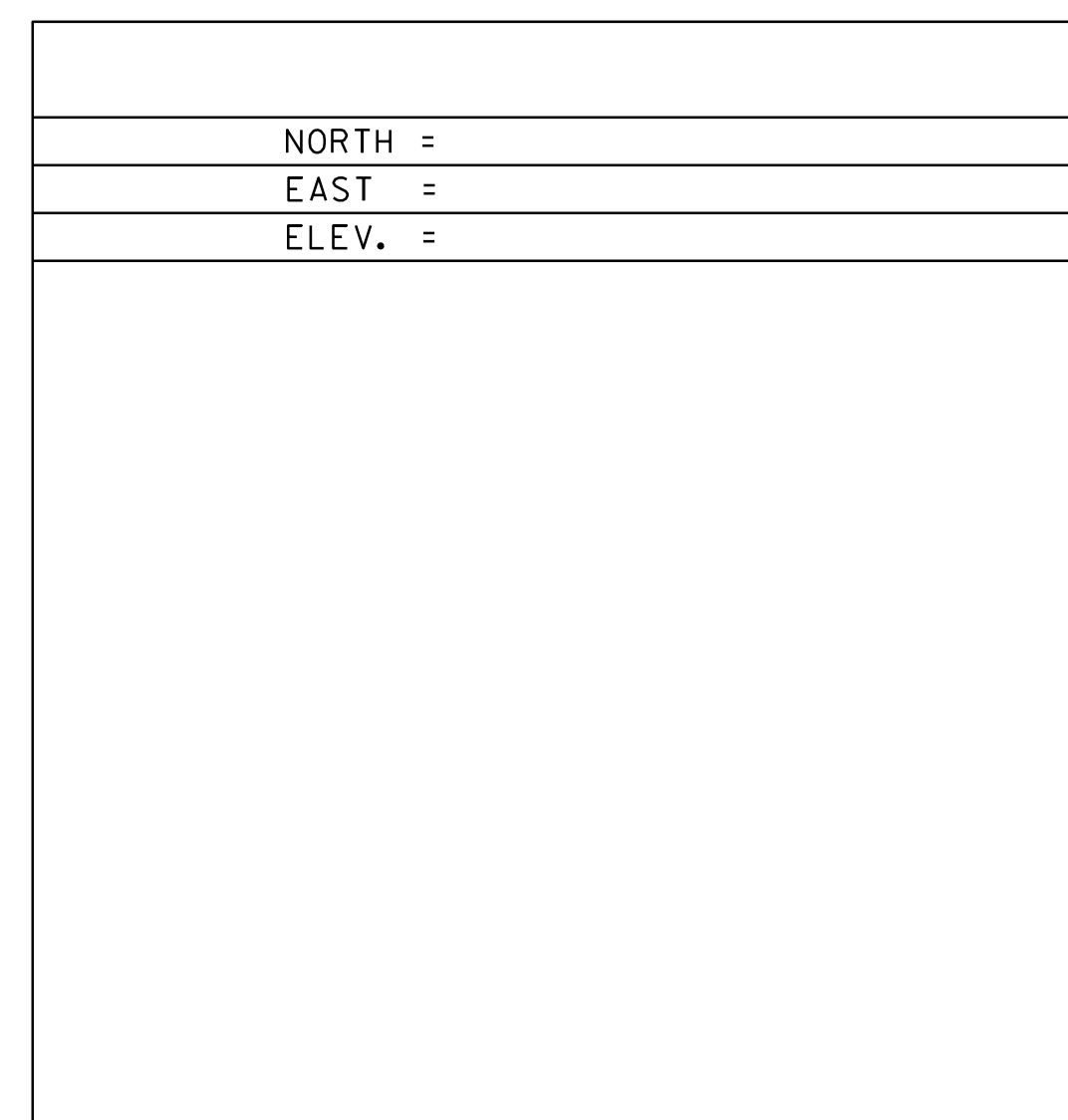
IT IS 6.6 M (21.7 FT) EAST OF AND ABOUT 0.1 M (0.3 FT) LOWER THAN THE CENTERLINE OF NEBRASKA VALLEY ROAD, 29.8 M (97.8 FT) NORTH-NORTHEAST OF AND ACROSS THE ROAD FROM POLE NO 14/70, 37.6 M (123.4 FT) SOUTHEAST OF AND ACROSS THE ROAD FROM POLE NO 71 WITH TRANSFORMER AND METER AND 0.25 M (0.8 FT) WEST OF A FIBERGLASS WITNESS POST.

LOCAL CONTROL



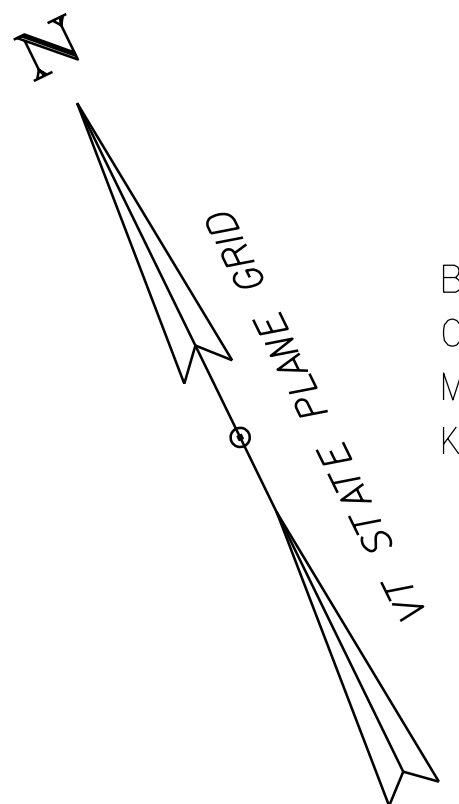
* MAIN TRAVERSE COMPLETED ON 2/15/2017 BY C. CYR P.C. ...T. CATTANEO & K. KELLEY

ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD83 (2011)
ADJUSTMENT	COMPASS

PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660tie.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: C. CYR
DESIGNED BY: C. BURRALL	CHECKED BY: G. HITCHCOCK
TIE SHEET	SHEET 6 OF 26



BOOTHBAY SILT LOAM  
0%-3% SLOPES  
MODERATELY ERODIBLE  
K= 0.24

PODUNK FINE SANDY LOAM  
0%-3% SLOPES  
MODERATELY ERODIBLE  
K= 0.24

**STEIR, PAT**

ONDAWA FINE SANDY LOAM  
0%-3% SLOPES  
MODERATELY ERODIBLE  
K= 0.24

**STEIR, PAT**

**CHMURA, ANDREW**

**ROBERTS, PETER A. & ELLEN C.  
LIVING TRUST**

CROGHAN LOAMY  
FINE SAND  
2%-8% SLOPES  
MODERATELY ERODIBLE  
K= 0.17

EXISTING R.O.W.

EXISTING R.O.W.

TH-43  
(NEBRASKA VALLEY ROAD)  
DEAD END

TH-43  
(NEBRASKA VALLEY ROAD,  
TO TH-1 (MOSCOW ROAD))

EXISTING R.O.W.

EXISTING R.O.W.

**STEIR, PAT**

**STATE OF VERMONT  
DEPT. OF FOREST PARK  
AND RECREATION**

**BOYER, MARK**

MILLER BROOK  
FLOW

**STATE OF VERMONT  
DEPT. OF FOREST PARK  
AND RECREATION**

BENCHMARK  
RAILROAD SPIKE  
IN ROOT  
ELEV. = 662.77

SALMON VERY FINE SANDY LOAM  
8%-15% SLOPES  
HIGHLY ERODIBLE  
K= 0.49

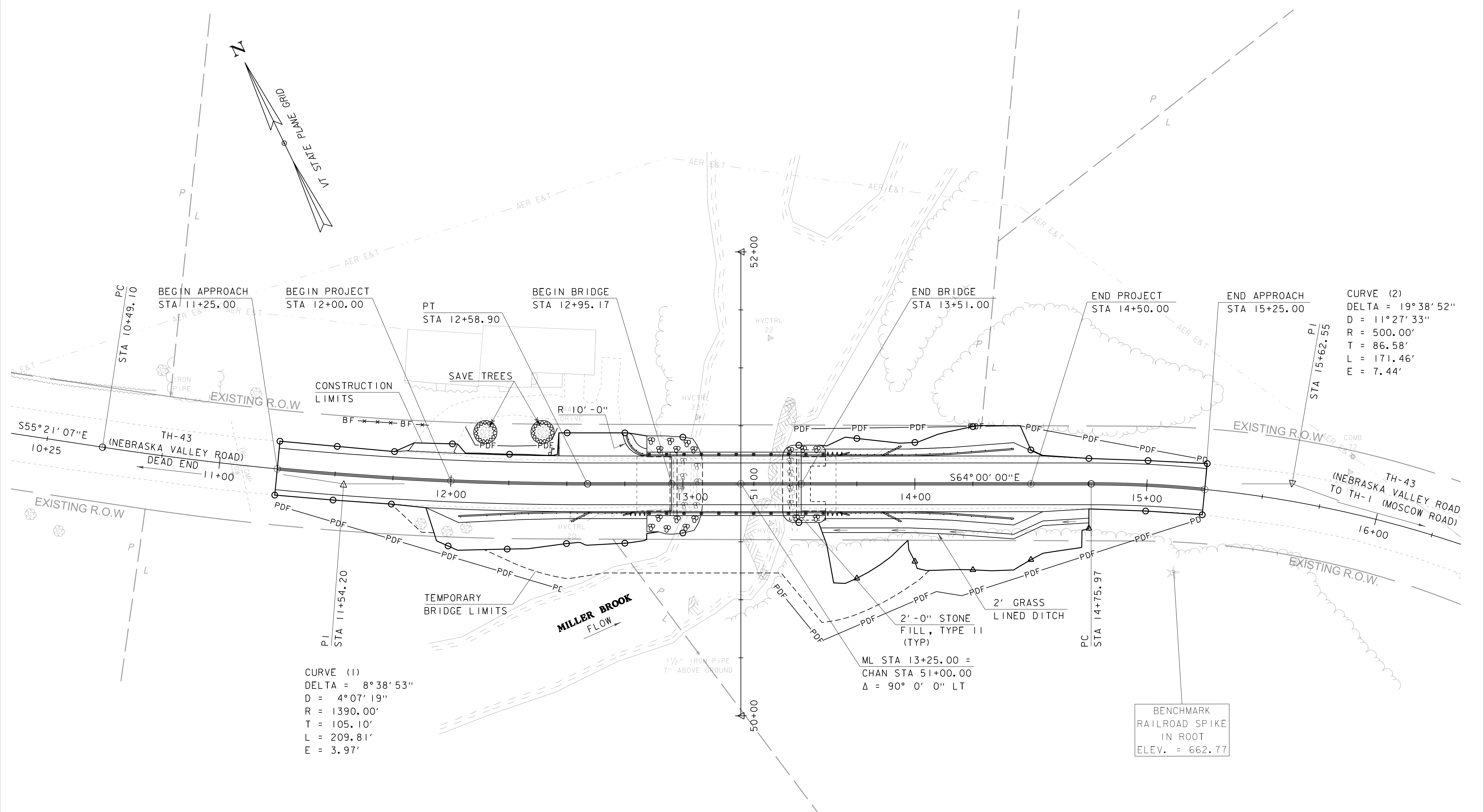
SALMON VERY FINE SANDY LOAM  
25%-50% SLOPES  
HIGHLY ERODIBLE  
K= 0.49

BERKSHIRE FINE  
SANDY LOAM  
15%-25% SLOPES  
MODERATELY ERODIBLE  
K= 0.24

EXISTING BRIDGE INFORMATION  
BUILT 1948  
54' SINGLE SPAN ROLLED BEAM  
CONCRETE CAST-IN-PLACE DECK

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

PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660erobdr.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
EXISTING SITE CONDITIONS	SHEET 7 OF 26



CURVE (2)  
 DELTA = 19° 38' 52"  
 D = 11° 27' 33"  
 R = 500.00'  
 T = 86.58'  
 L = 171.46'  
 E = 7.44'

CURVE (1)  
 DELTA = 8° 38' 53"  
 D = 4° 07' 19"  
 R = 1390.00'  
 T = 105.10'  
 L = 209.81'  
 E = 3.97'

BENCHMARK  
 RAILROAD SPIKE  
 IN ROOT  
 ELEV. = 662.77

**BRIDGE RAILING, GALVANIZED 3 RAIL  
 BOX BEAM (POWDER COATED BLACK)**

STA 12+83.50 RT - STA 13+62.50 RT  
 STA 12+85.50 LT - STA 13+62.50 LT

**BOX BEAM GUARDRAIL (POWDER COATED BLACK)**

STA 12+03.93 RT - STA 12+51.56 RT  
 STA 12+75.56 LT - STA 12+85.50 LT  
 STA 13+94.50 LT - STA 14+42.58 LT  
 STA 13+94.50 RT - STA 14+42.58 RT

**GUARDRAIL APPROACH SECTION, GALV 3  
 RAIL BOX BEAM (POWDER COATED BLACK)**

STA 12+51.56 RT - STA 12+83.50 RT  
 STA 13+62.50 LT - STA 13+94.50 LT  
 STA 13+62.50 RT - STA 13+94.50 RT

**CONSTRUCT GRAVEL APRON**

STA 11+77.86 LT - STA 12+01.55 LT  
 STA 12+46.46 LT - STA 12+84.26 LT

**REMOVAL AND DISPOSAL OF GUARDRAIL**

STA 12+58.59 RT - STA 12+96.11 RT  
 STA 12+84.47 LT - STA 12+97.02 LT  
 STA 13+49.22 LT - STA 13+87.71 LT  
 STA 13+49.23 RT - STA 13+63.04 RT

**REMOVE & RESET MAILBOX, SINGLE SUPPORT**

STA 12+42.56 LT

**4 INCH YELLOW LINE**

STA 11+25.00 CL - STA 15+25.00 CL (DOUBLE)

**DELINEATOR WITH STEEL POST**

STA 12+58.50 RT (BLUE)  
 STA 12+85.50 LT (GREEN)  
 STA 13+87.50 LT (BLUE)  
 STA 13+87.50 RT (GREEN)

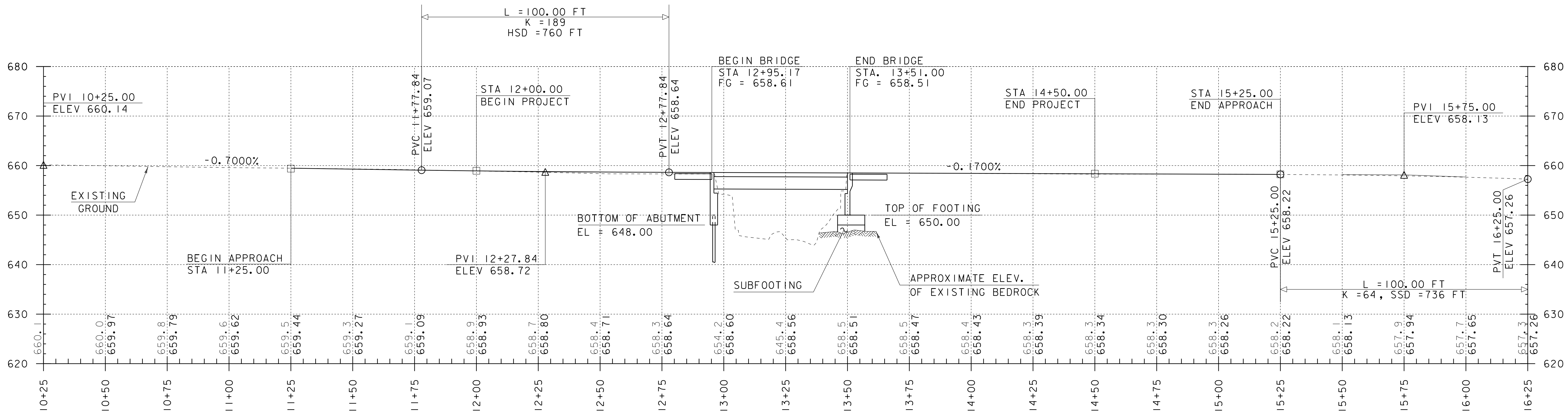
SCALE 1" = 20' - 0"  
 20 0 20

PROJECT NAME: STOWE  
 PROJECT NUMBER: BO 1446(37)

FILE NAME: sl2j660bdr.dgn  
 PROJECT LEADER: C. COTA  
 DESIGNED BY: C. BURRALL  
 LAYOUT

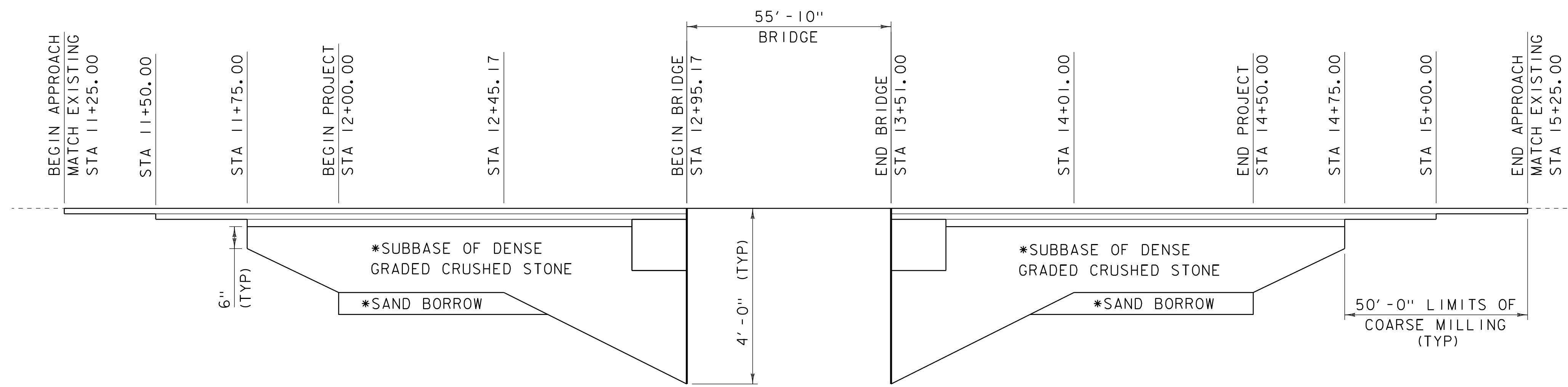
PLOT DATE: 25-MAR-2020  
 DRAWN BY: M. LONGSTREET  
 CHECKED BY: C. BURRALL  
 SHEET 8 OF 26





### TH 43 PROFILE

HORIZONTAL SCALE: 1" = 20'-0"  
 VERTICAL SCALE: 1" = 10'-0"



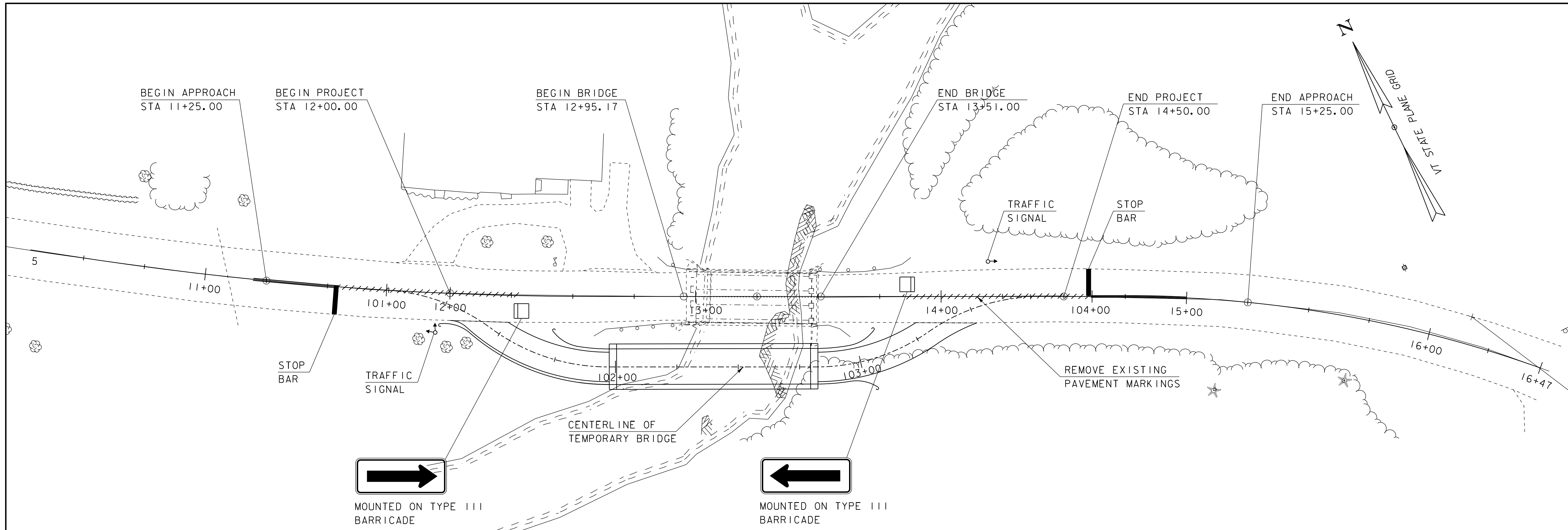
### TH 43 MATERIAL TRANSITION DETAIL

HORIZONTAL SCALE: 1" = 20'-0"  
 NO VERTICAL SCALE

*SEE TH 43 ROADWAY TYPICAL SECTION FOR PAVEMENT AND SUBBASE MATERIAL DESIGN INFORMATION.

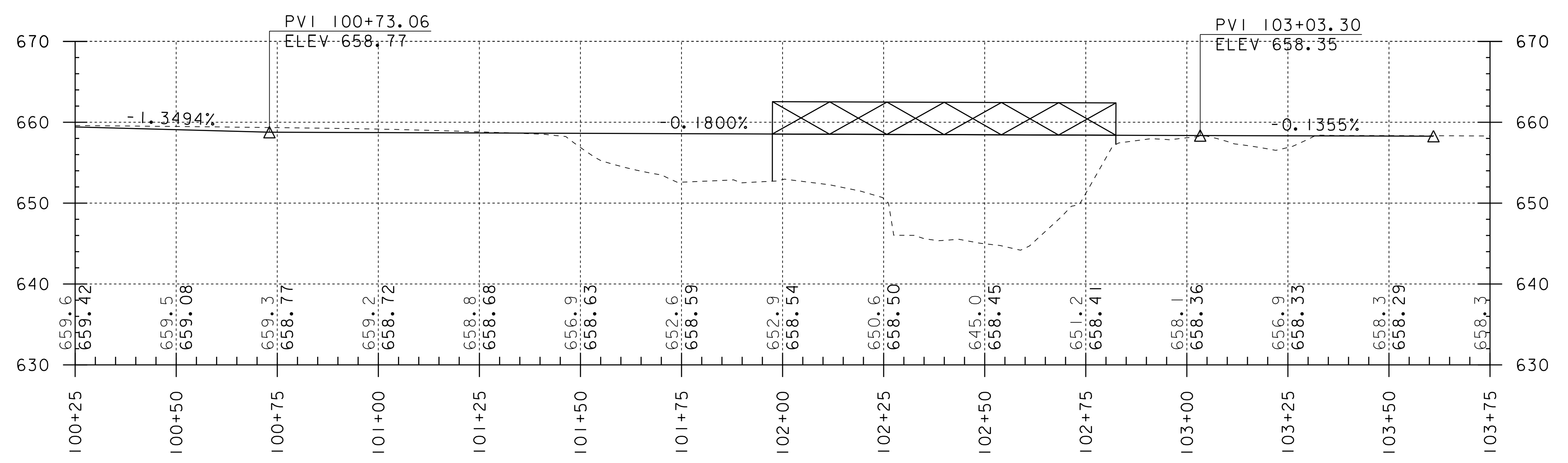
NOTE:  
 GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG  $\epsilon$   
 GRADES SHOWN TO THE NEAREST HUNDRETH ARE FINISH GRADE ALONG  $\epsilon$

PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660pro.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
TH 43 PROFILE & MATERIAL TRANSITION	SHEET 9 OF 26



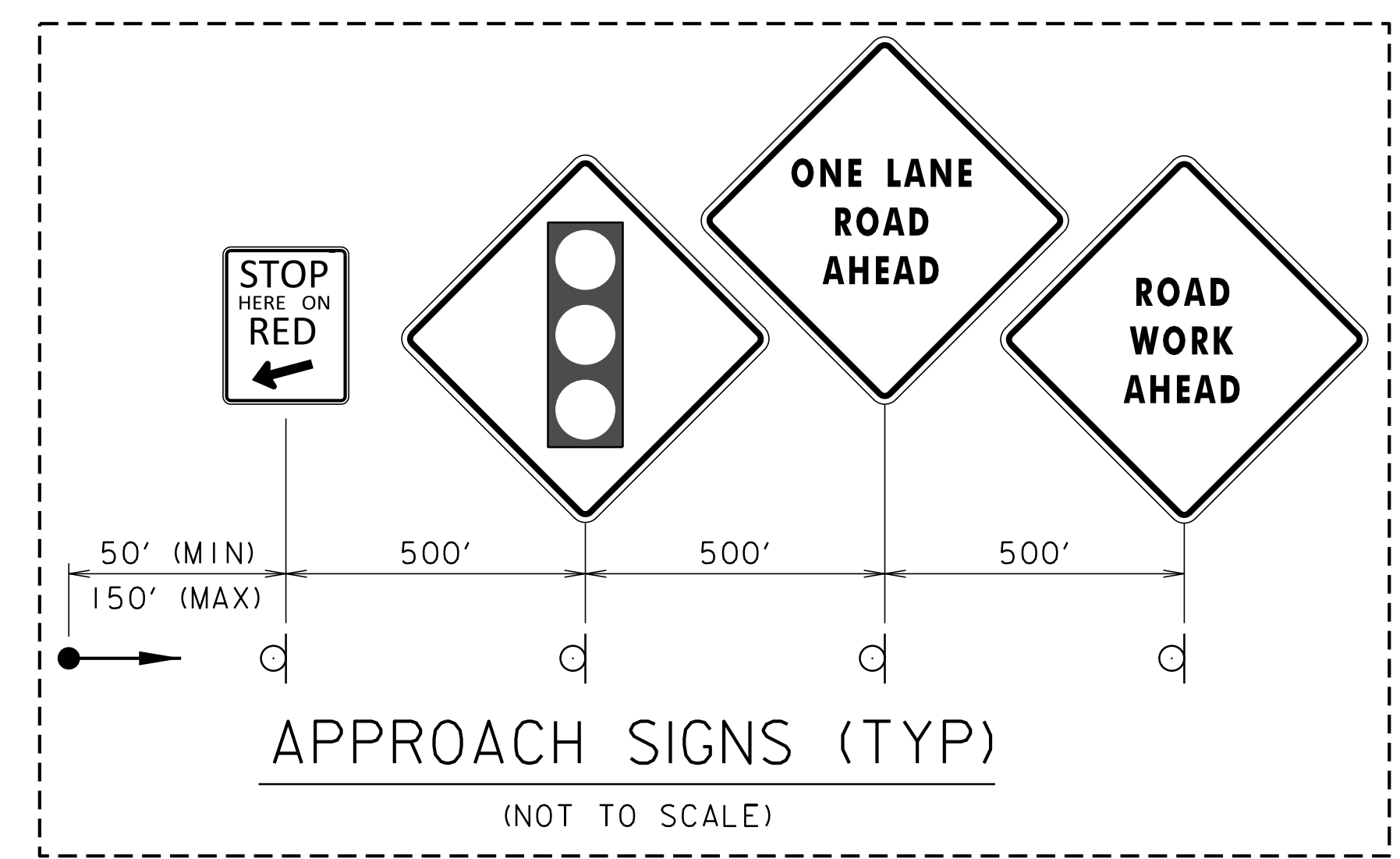
**TEMPORARY BRIDGE PLAN**

SCALE: 1" = 20'-0"



**TEMPORARY BRIDGE PROFILE**

HORIZONTAL SCALE: 1" = 20'-0"  
 VERTICAL SCALE: 1" = 10'-0"



PROJECT NAME: STOWE	PLOT DATE: 27-MAR-2020
PROJECT NUMBER: BO 1446(37)	DRAWN BY: M. LONGSTREET
FILE NAME: sl2j660temp.dgn	CHECKED BY: C. BURRALL
DESIGNED BY: M. LONGSTREET	SHEET 10 OF 26
TEMPORARY BRIDGE PLAN & PROFILE	

**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**

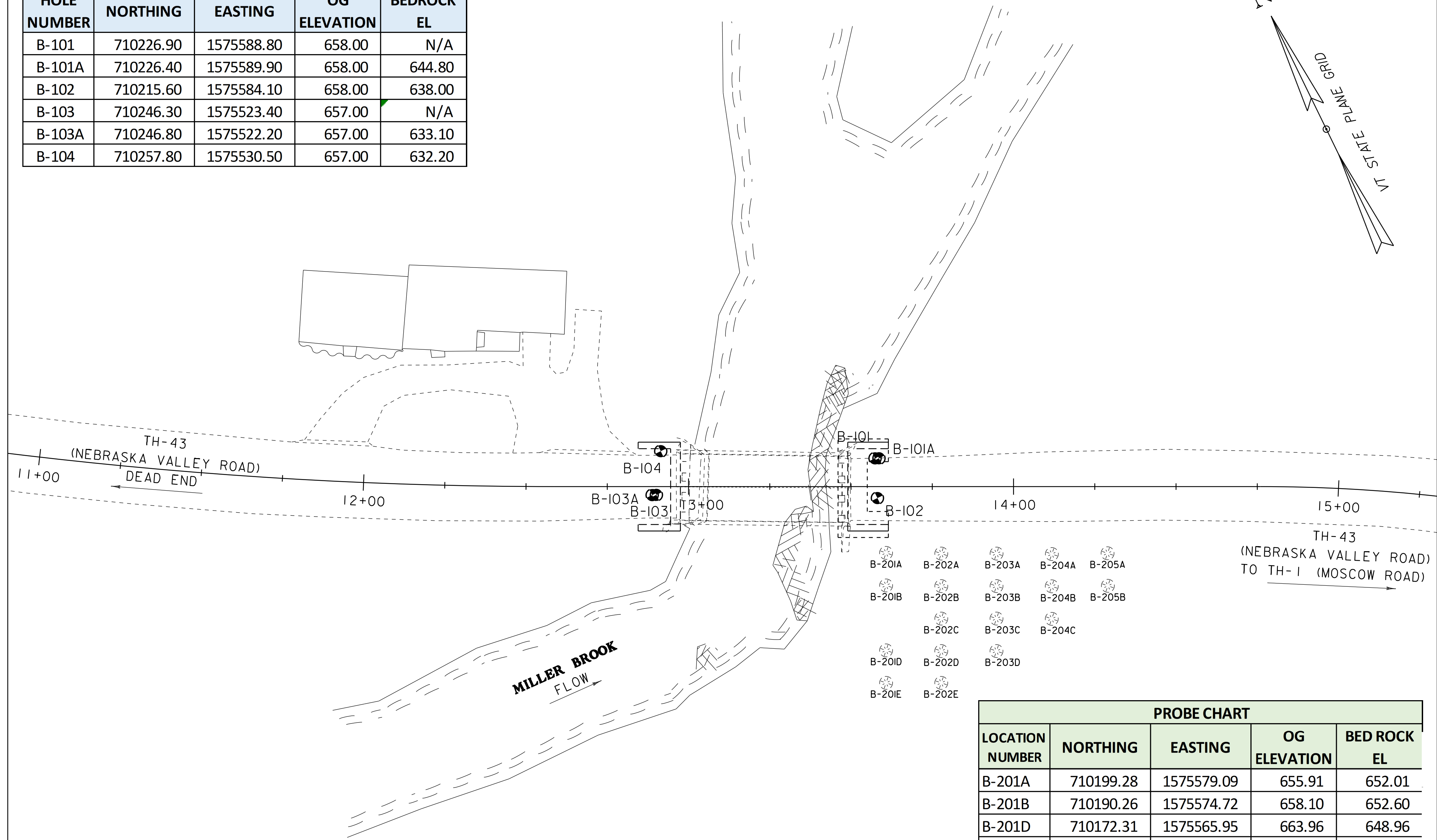
- ▼ Water Elevation
- ⊕ Standard Penetration Boring
- ⊗ Auger Boring
- ⊙ Rod Sounding
- S Sample
- N Standard Penetration Test
- Blow Count Per Foot For:
- 2" O.D. Sampler
- 1 3/8" I.D. Sampler
- Hammer Weight Of 140 Lbs.
- Hammer Fall Of 30"
- VS Field Vane Shear Test
- US Undisturbed Soil Sample
- B Blast
- DC Diamond Core
- MD Mud Drill
- WA Wash Ahead
- HSA Hollow Stem Auger
- AX Core Size 1 1/8"
- BX Core Size 1 3/8"
- NX Core Size 2 1/8"
- 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
- 1/2 Rec. Percent Recovery
- ROD 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
gr-y	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

**BORING CHART**

HOLE NUMBER	NORTHING	EASTING	OG ELEVATION	BEDROCK EL
B-101	710226.90	1575588.80	658.00	N/A
B-101A	710226.40	1575589.90	658.00	644.80
B-102	710215.60	1575584.10	658.00	638.00
B-103	710246.30	1575523.40	657.00	N/A
B-103A	710246.80	1575522.20	657.00	633.10
B-104	710257.80	1575530.50	657.00	632.20



**PROBE CHART**

LOCATION NUMBER	NORTHING	EASTING	OG ELEVATION	BED ROCK EL
B-201A	710199.28	1575579.09	655.91	652.01
B-201B	710190.26	1575574.72	658.10	652.60
B-201D	710172.31	1575565.95	663.96	648.96
B-201E	710163.32	1575561.57	666.60	650.50
B-202A	710191.64	1575594.28	656.70	651.10
B-202B	710182.63	1575589.89	661.77	653.27
B-202C	710173.65	1575585.51	665.25	656.35
B-202D	710164.68	1575581.12	665.80	652.20
B-202E	710155.88	1575576.83	666.08	651.78
B-203A	710184.17	1575609.56	657.18	649.28
B-203B	710175.18	1575605.17	663.91	651.71
B-203C	710166.21	1575600.78	665.05	654.55
B-203D	710157.23	1575596.39	665.20	656.50
B-204A	710176.59	1575624.78	658.79	648.89
B-204B	710167.68	1575620.41	664.39	649.79
B-204C	710158.69	1575616.02	664.51	652.91
B-205A	710169.29	1575640.30	659.18	653.98
B-205B	710160.25	1575636.00	664.09	656.49

**GENERAL NOTES**

- The subsurface explorations shown herein were made between 12/03/2014 and 02/11/2015 by the Agency.
- 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 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.
- 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.
- 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.
- 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.
- Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

**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 > 0.075" (#10 sieve).
- SAND** - Particles of rock < 0.075" (#10 sieve) and > 0.0025" (#200 sieve).
- SILT** - Soil < 0.0025" (#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.

PROJECT NAME: STOWE  
 PROJECT NUMBER: BO 1446 (37)  
 FILE NAME: sl2j660bor.dgn  
 PROJECT LEADER: C. COTA  
 DESIGNED BY: C. BURRALL  
 BORING INFORMATION SHEET  
 PLOT DATE: 25-MAR-2020  
 DRAWN BY: C. BURRALL  
 CHECKED BY: M. LONGSTREET  
 SHEET II OF 26

Boring Crew: Brochu, Gonyaw, Emerson, Judkins  
 Date Started: 8/27/18 Date Finished: 8/27/18  
 VTSPG NAD83: N 710226.90 ft E 1575588.80 ft  
 Station: 13+60 Offset: 12 LT  
 Ground Elevation: 658.0 ft

Casing Sampler  
 Type: WASH BORE SS  
 I.D.: 4 in 1.5 in  
 Hammer Wt: 140 lb. 140 lb.  
 Hammer Fall: 30 in. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 45C SKID CE = 1.42

Groundwater Observations  
 Date Depth (ft) Notes  
 Not recorded.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.75		Asphalt, 0.0 ft - 0.75 ft					
0.75 - 2.5		Field Class., SiSaGr, brn, Moist, Rec. = 0.9 ft	5-13- >50 (>63)				
2.5 - 3.5		Hole stopped @ 3.5 ft					
3.5 - 5.0		Remarks: Refusal in concrete encountered 3.5 ft bgs. Offset hole to B-101A.					

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.

ABUTMENT 2  
 TOP OF FOOTING EL. 650.00

BORING LOG: STOWE, BO 1446(37), SPJ VERMONT, AOT, GBT 12/18/18

Boring Crew: Brochu, Judkins, Gonyaw  
 Date Started: 8/27/18 Date Finished: 8/27/18  
 VTSPG NAD83: N 710226.40 ft E 1575589.90 ft  
 Station: 13+61 Offset: 12 LT  
 Ground Elevation: 658.0 ft

Casing Sampler  
 Type: WASH BORE SS  
 I.D.: 4 in 1.5 in  
 Hammer Wt: 140 lb. 140 lb.  
 Hammer Fall: 30 in. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 45C SKID CE = 1.42

Groundwater Observations  
 Date Depth (ft) Notes  
 08/27/18 4.0 WT During drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
0.0 - 0.6		Asphalt, 0.0 ft - 0.6 ft					
0.6 - 2.5		Field Class., GrSa, brn, Moist, Rec. = 0.6 ft	8-4-5-17 (9)				
2.5 - 5.0		Rec. = 0.0 ft, 5.0 ft - 7.0 ft	3-3-3-3 (6)				
5.0 - 10.0		Field Class., SiSa with broken rock, gray-brn, Moist, Rec. = 0.7 ft	1-2- >100 (>100)				
10.0 - 12.5		Rollerbit 2 ft to confirm bedrock, 11.3 ft - 13.2 ft					
12.5 - 13.2		Hole stopped @ 13.2 ft					

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.

ABUTMENT 2  
 TOP OF FOOTING EL. 650.00

BORING LOG: STOWE, BO 1446(37), SPJ VERMONT, AOT, GBT 12/18/18

Boring Crew: Gonyaw, Judkins, Brochu  
 Date Started: 8/29/18 Date Finished: 8/30/18  
 VTSPG NAD83: N 710215.60 ft E 1575584.10 ft  
 Station: 13+60 Offset: 2 RT  
 Ground Elevation: 658.0 ft

Casing Sampler  
 Type: WASH BORE SS  
 I.D.: 4 in 1.5 in  
 Hammer Wt: 140 lb. 140 lb.  
 Hammer Fall: 30 in. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 45C SKID CE = 1.42

Groundwater Observations  
 Date Depth (ft) Notes  
 08/30/18 3.5 WT During drilling.

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	Core Rec. (ft)	Drill Rate (min/ft)
0.0 - 0.8		Asphalt, 0.0 ft - 0.8 ft							
0.8 - 2.5		Field Class., SaGr w/ broken rock fragments, brn, Moist, Rec. = 1.4 ft	11-11- 40->50 (51)						
2.5 - 5.0		Field Class., SiGrSa, brn, Moist, Rec. = 1.1 ft	5-3-3-4 (6)						
5.0 - 10.0		Field Note: Refusal, Rec. = 0.0 ft 10.01 ft - 15.0 ft, Gray and white, Sulfidic and carbonaceous biotite-muscovite-plagioclase-quartz SCHIST, rust staining along open foliation and joint planes. Moderately hard, Slightly weathered, Fair rock, NX, RMR=46	>50 (>100)					R-1 (30)	92 (57)
10.0 - 15.0		15.0 ft - 20.0 ft, Gray and white, Sulfidic and carbonaceous biotite-muscovite-plagioclase-quartz SCHIST, foliation planes and joints are tight and unweathered. Moderately hard, Unweathered, Good rock, NX, RMR=66						R-2 (30-40)	98 (98)
15.0 - 20.0		Hole stopped @ 20.0 ft							

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.

ABUTMENT 2  
 TOP OF FOOTING EL. 650.00

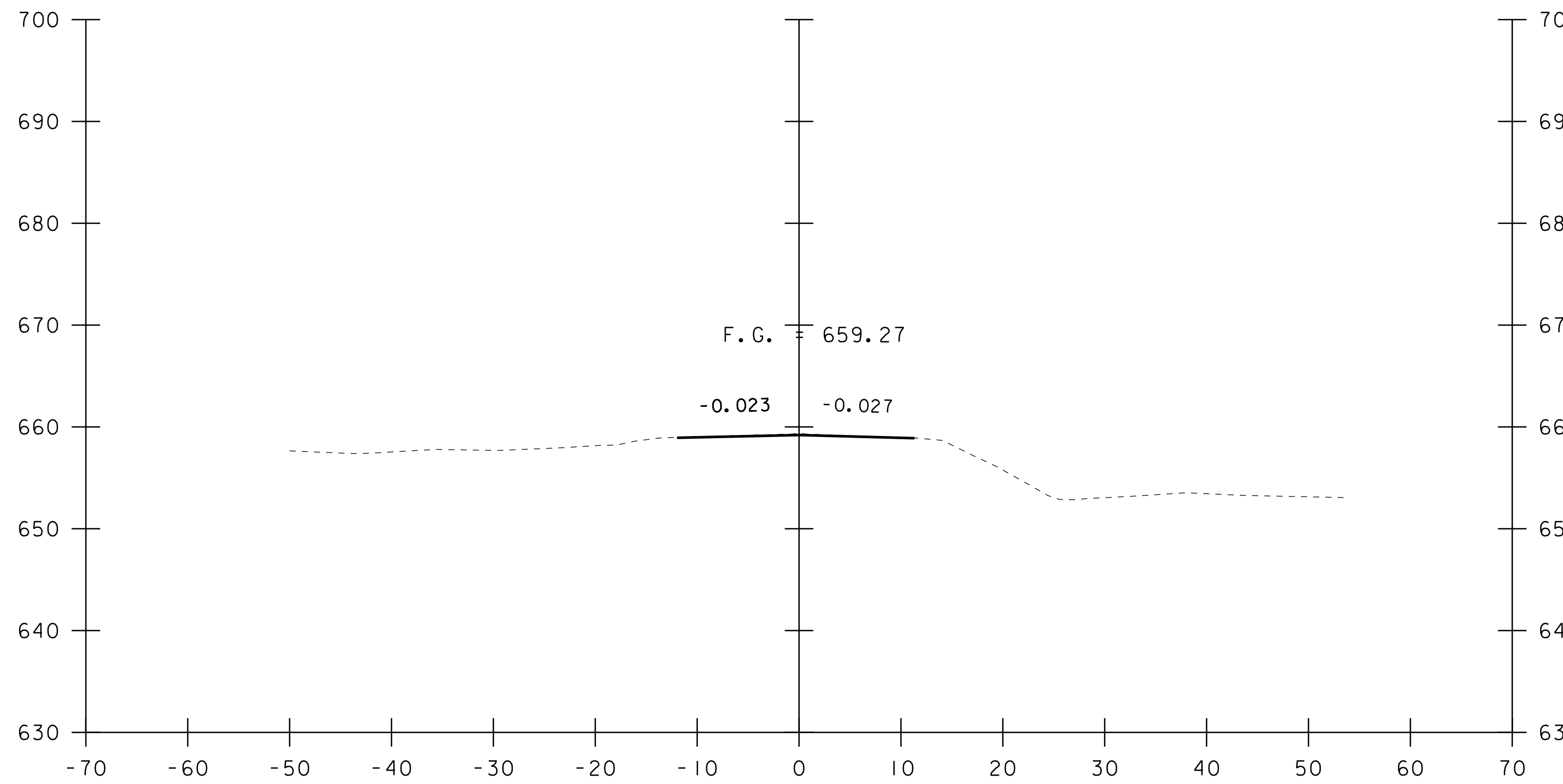
BORING LOG: STOWE, BO 1446(37), SPJ VERMONT, AOT, GBT 12/18/18

PROJECT NAME: STOWE  
 PROJECT NUMBER: BO 1446(37)

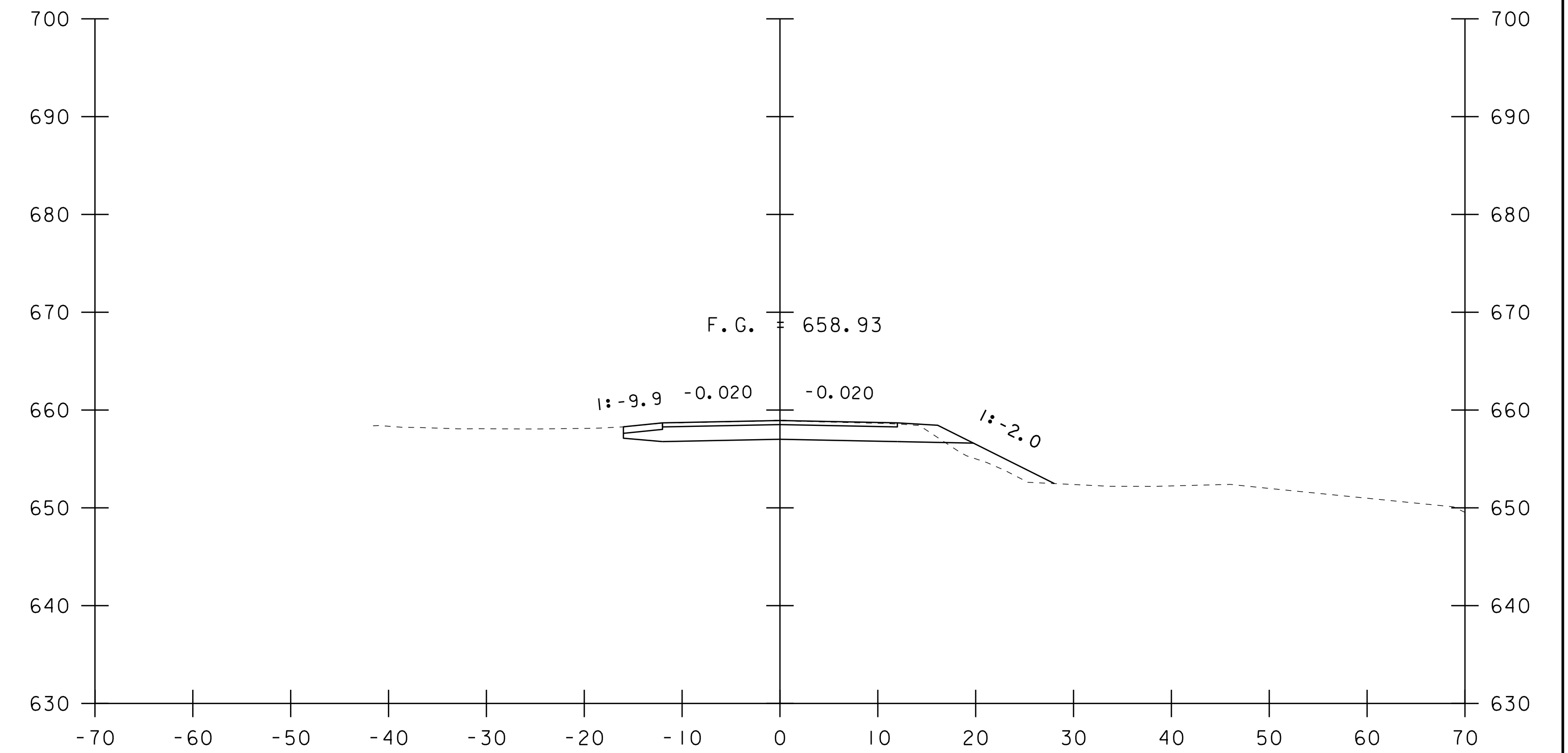
FILE NAME: sl2j660bor.dgn  
 PROJECT LEADER: C. COTA  
 DESIGNED BY: C. BURRALL  
 BORING LOGS 1

PLOT DATE: 25-MAR-2020  
 DRAWN BY: M. LONGSTREET  
 CHECKED BY: C. BURRALL  
 SHEET 12 OF 26



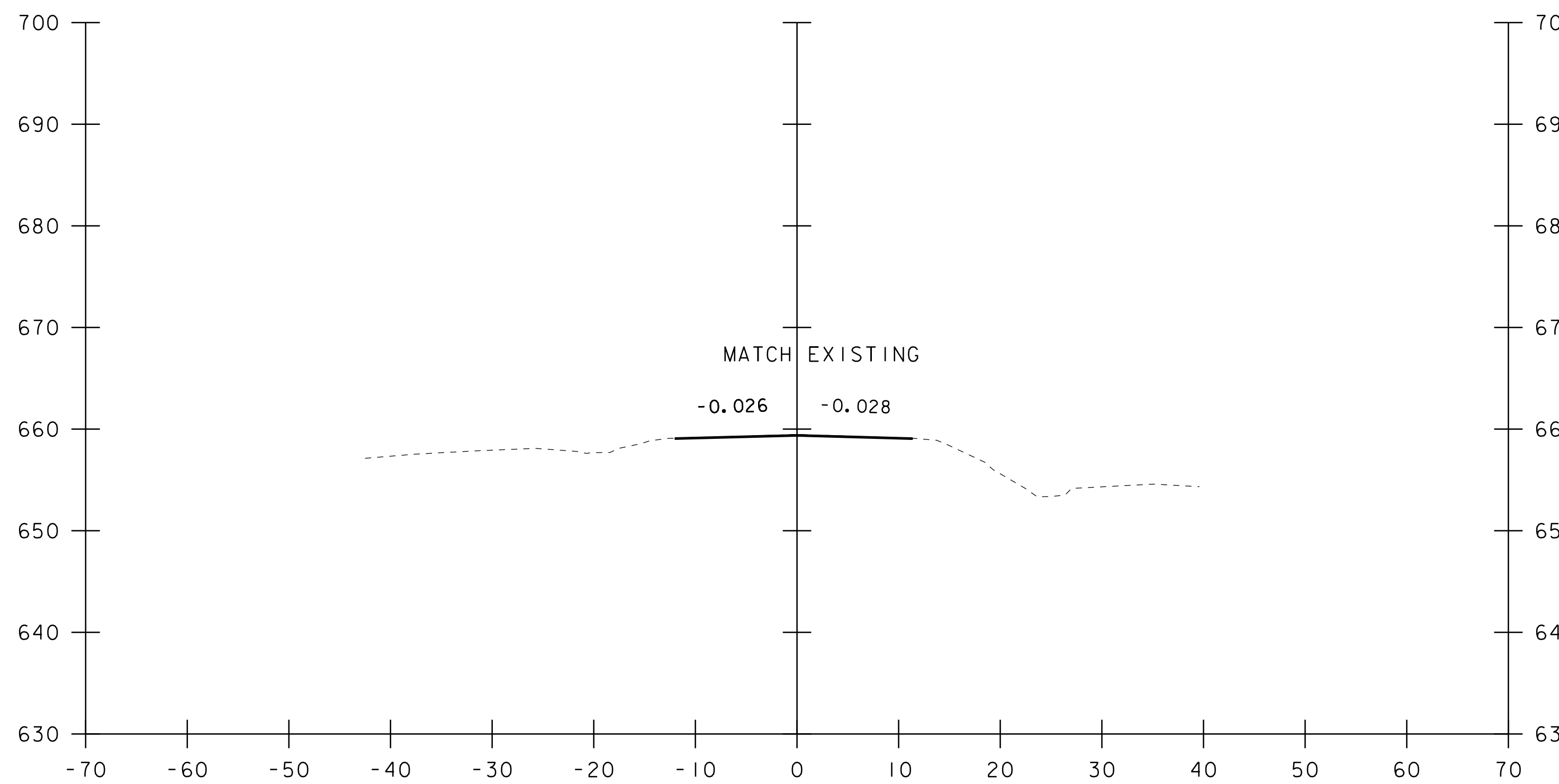


11+50



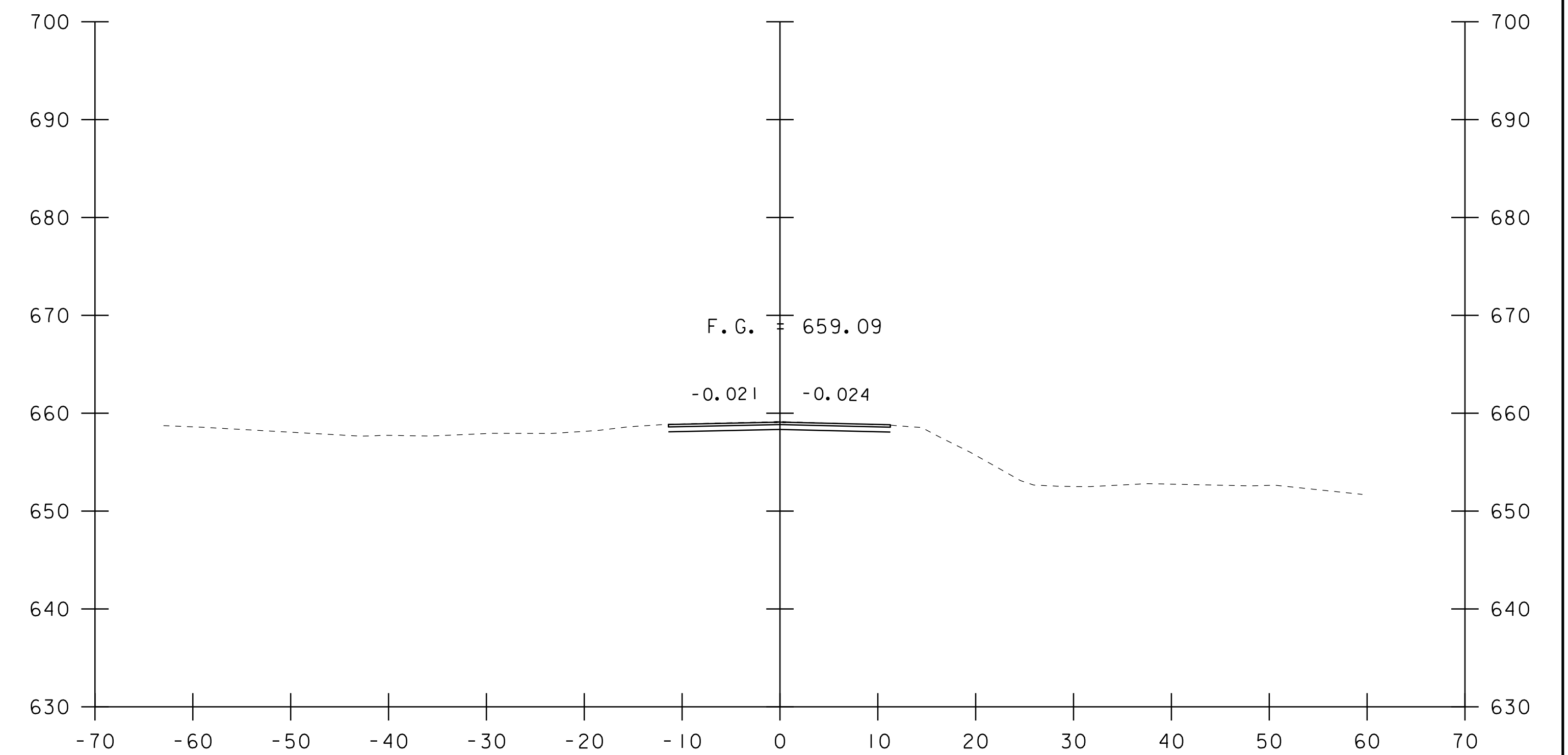
12+00

STA 12+00.00  
BEGIN PROJECT



11+25

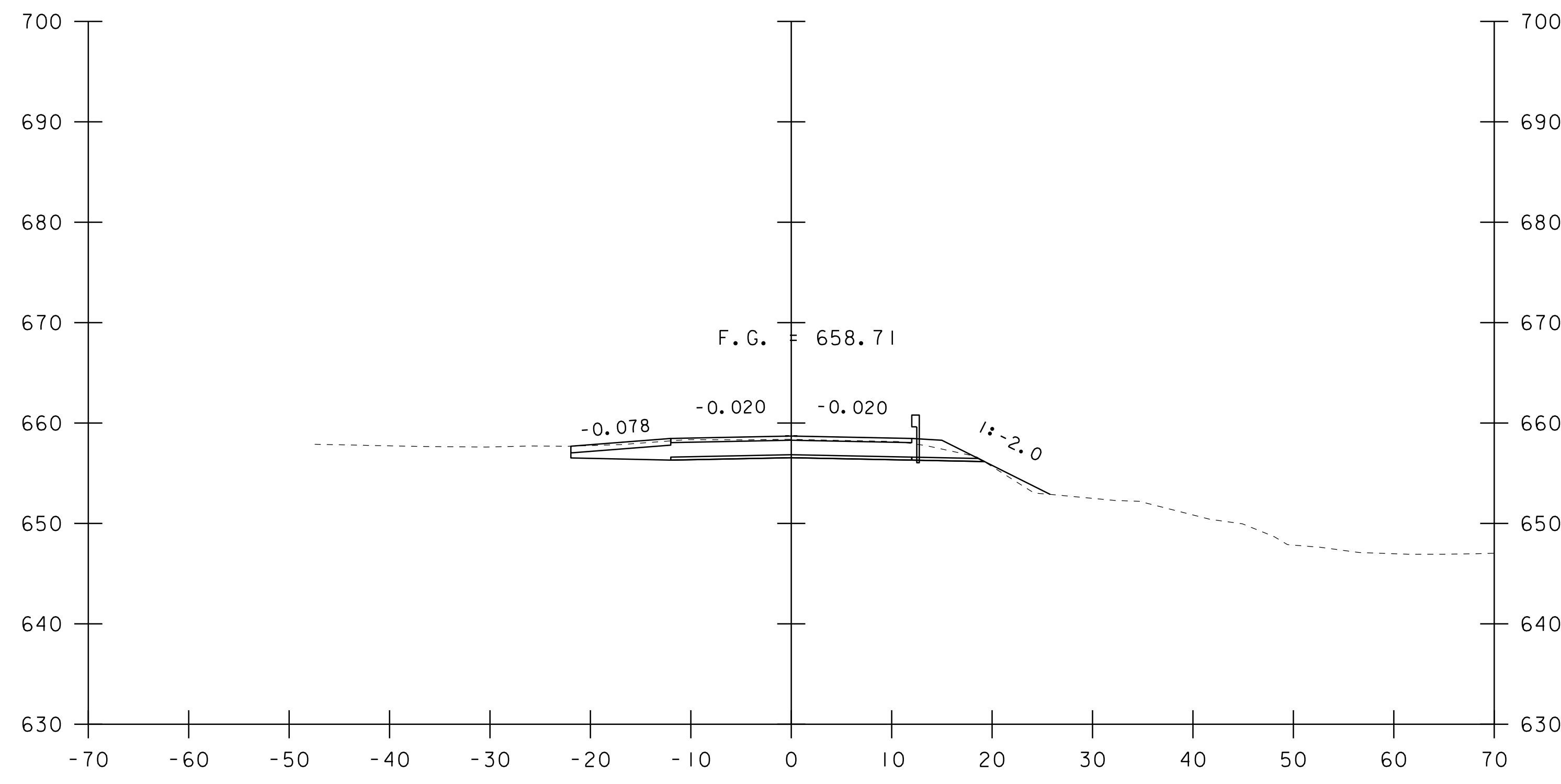
STA 11+25.00  
BEGIN APPROACH  
MATCH EXISTING



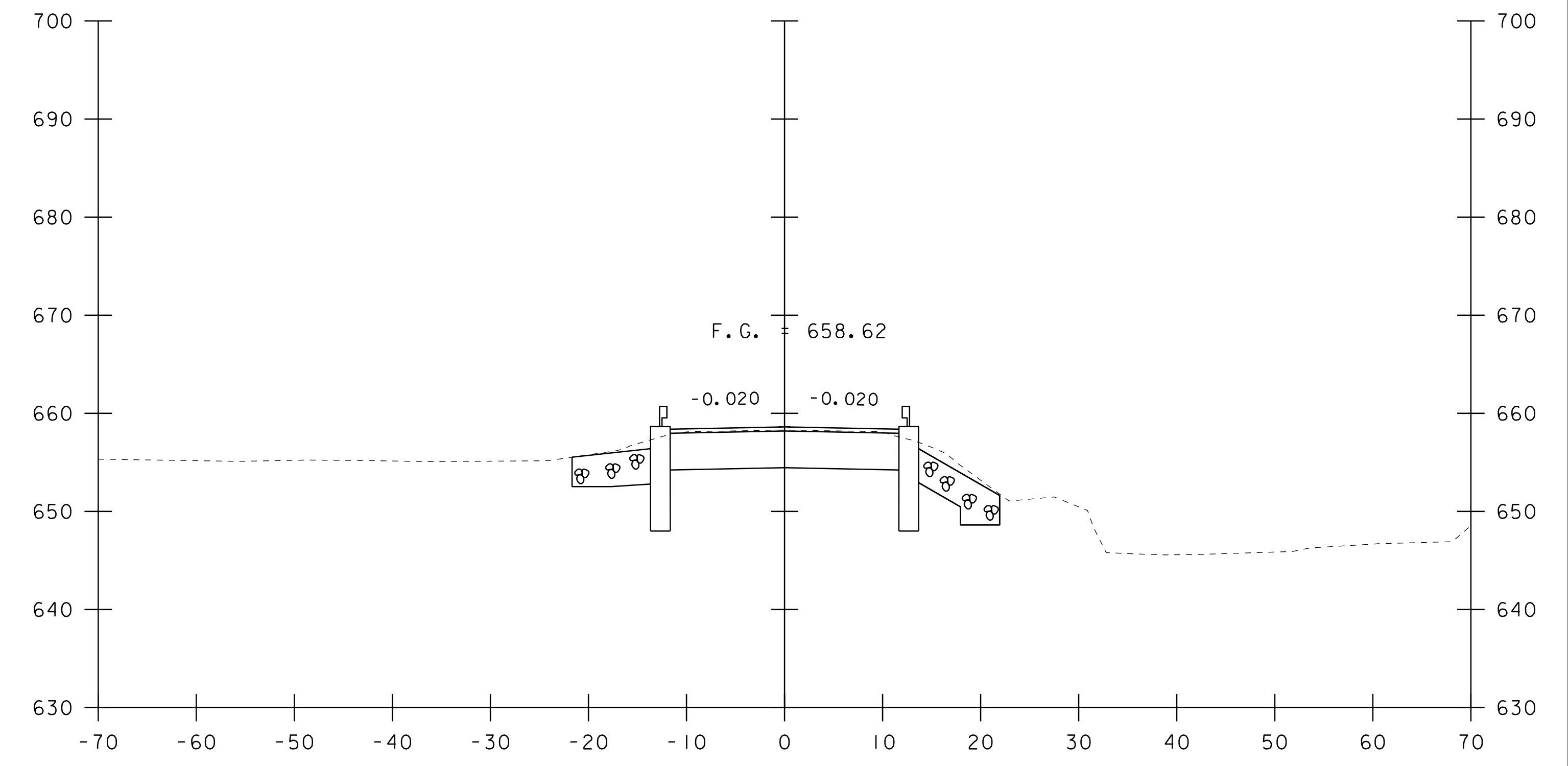
11+75

STA. 11+25 TO STA. 12+00

PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660xs.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
TH 43 CROSS SECTIONS 1	SHEET 14 OF 26

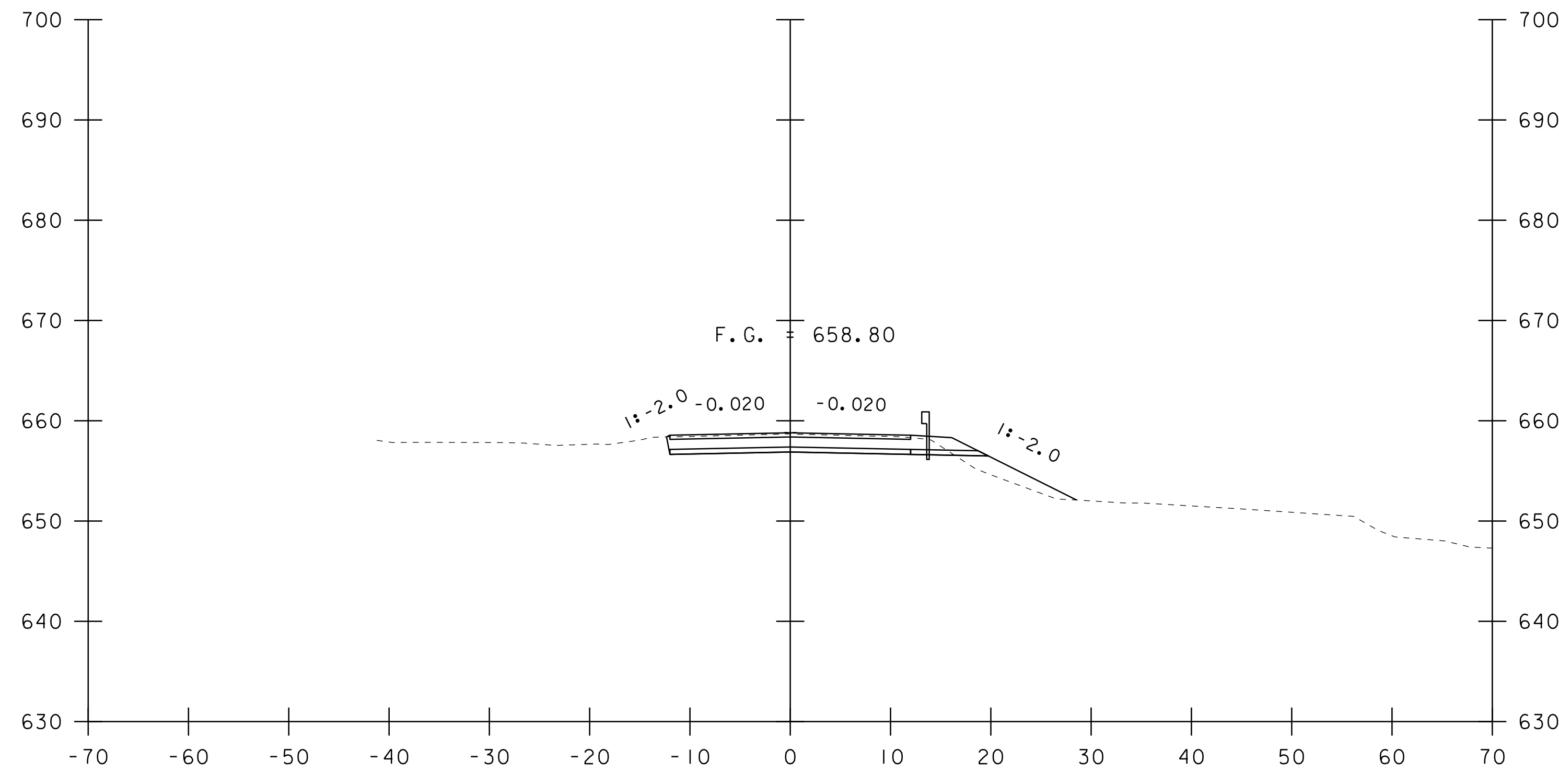


12+50

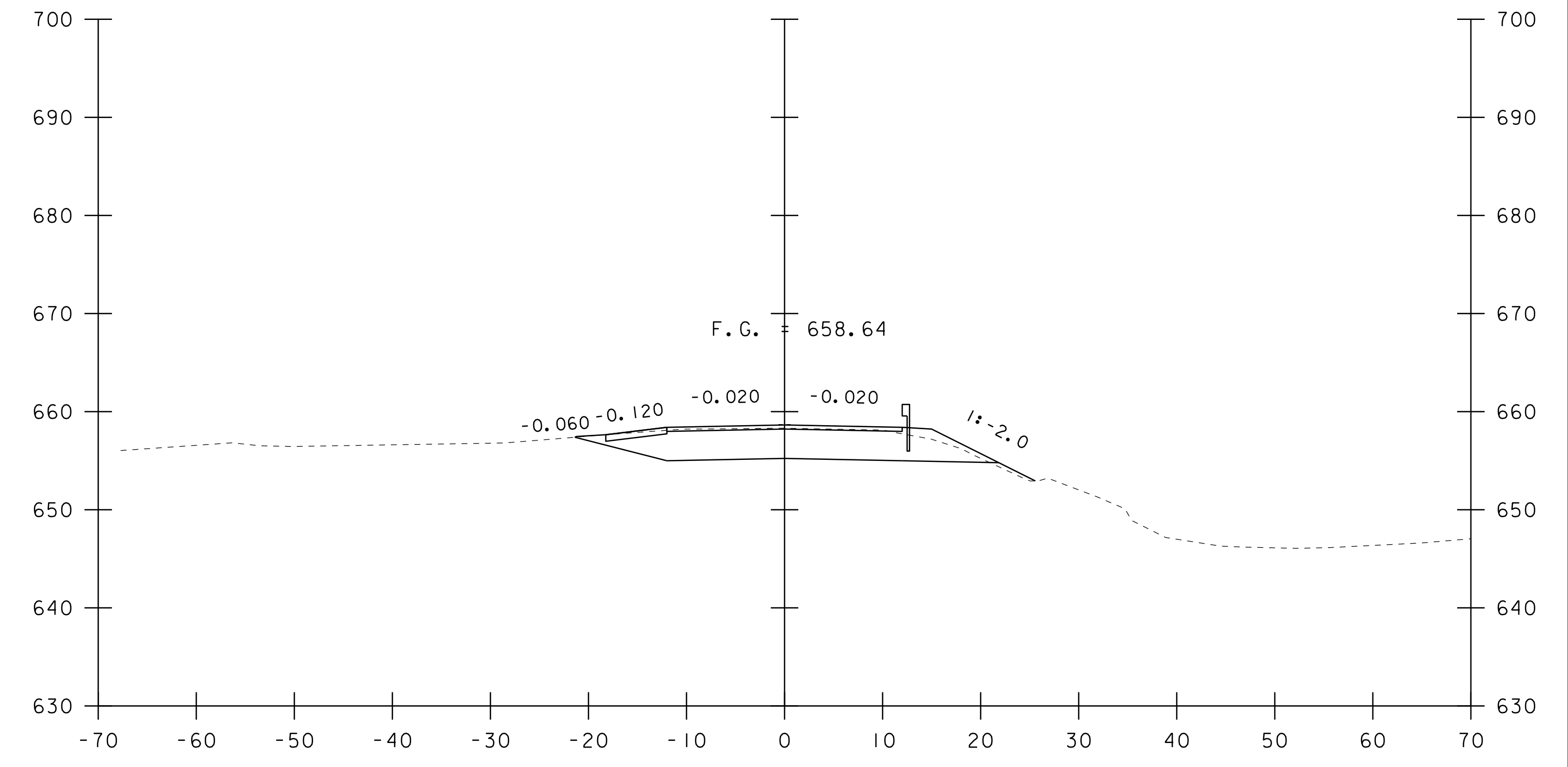


12+90

STA 12+95.17  
BEGIN BRIDGE



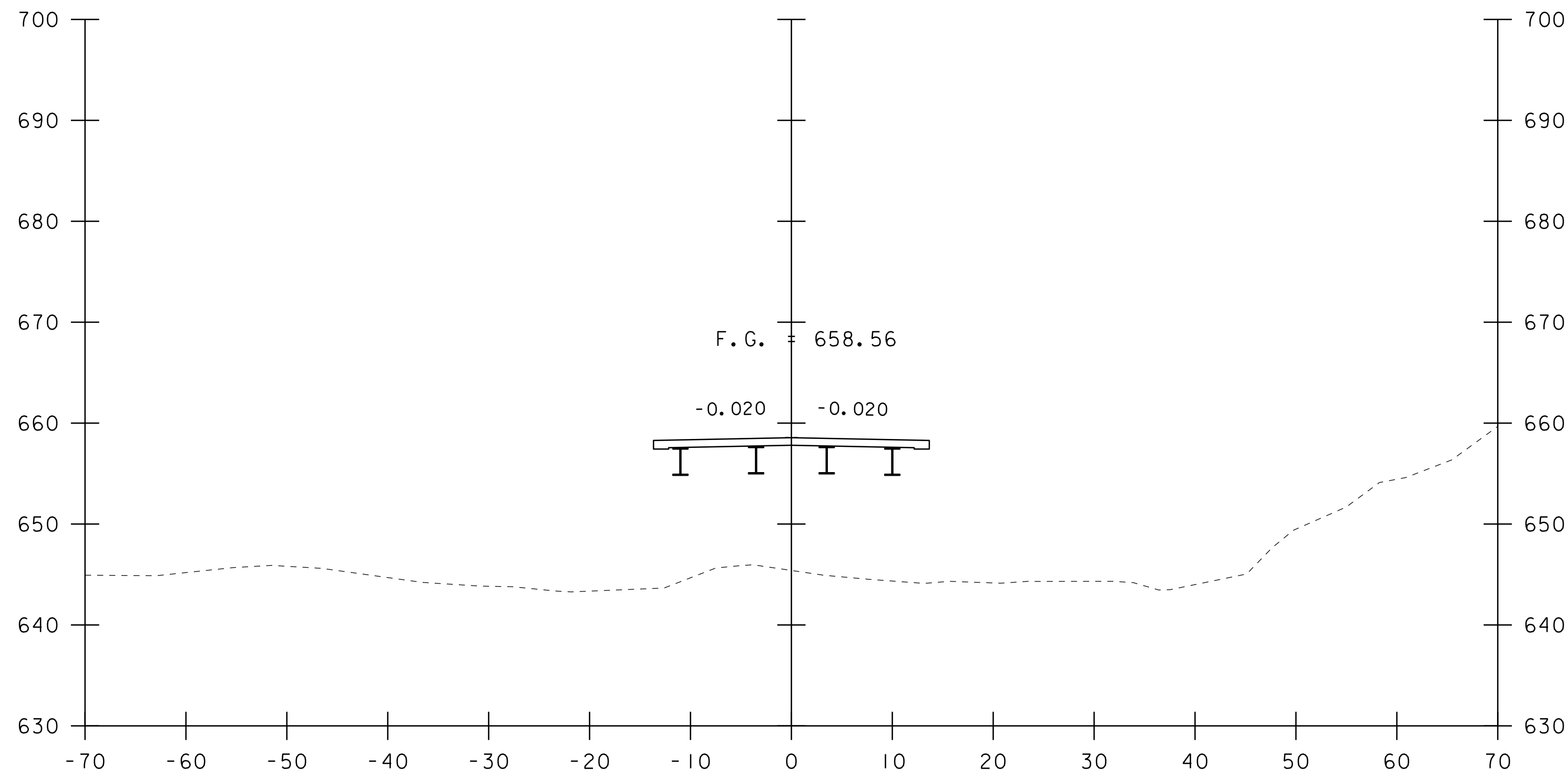
12+25



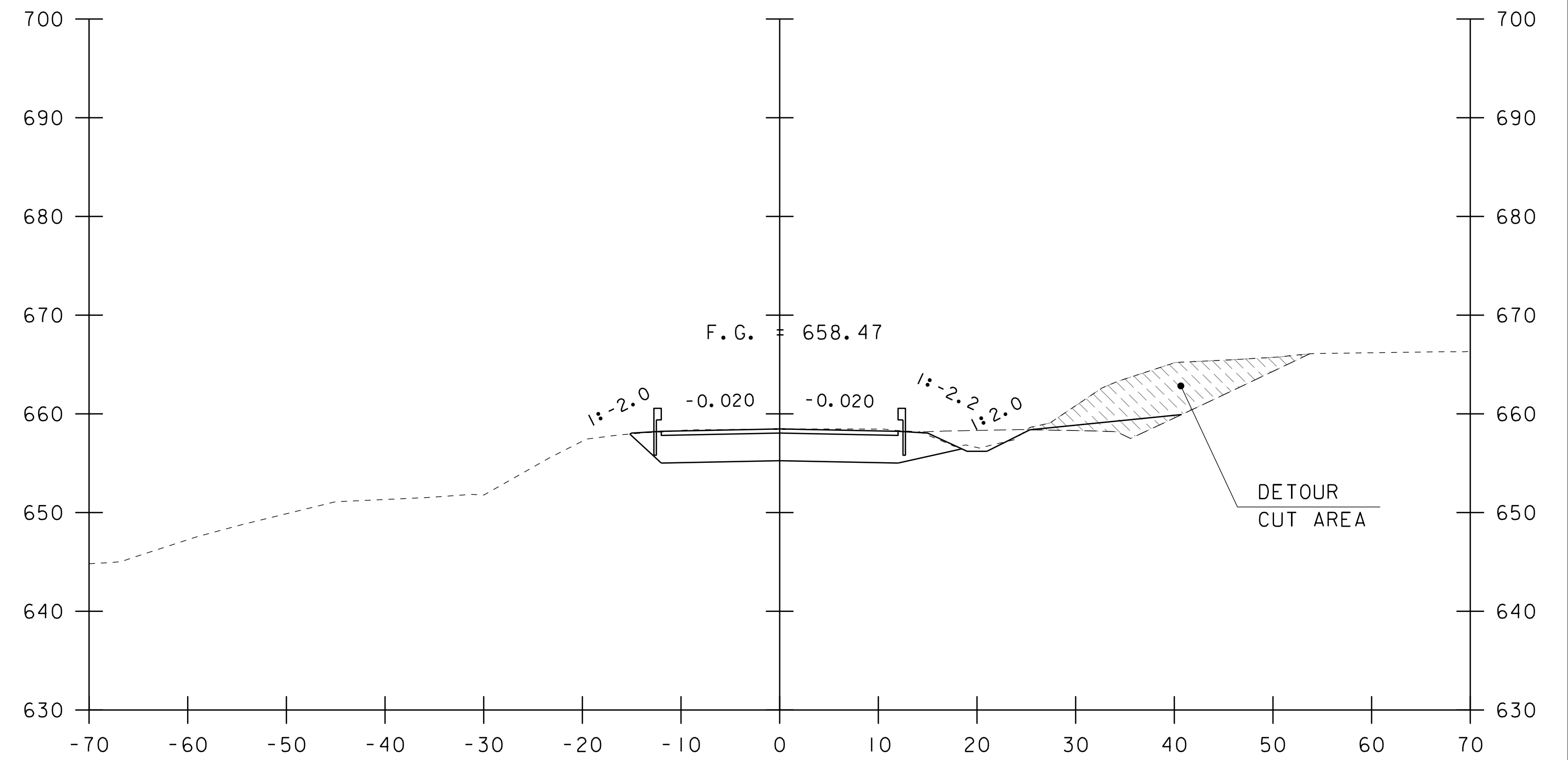
12+75

STA. 12+25 TO STA. 12+90

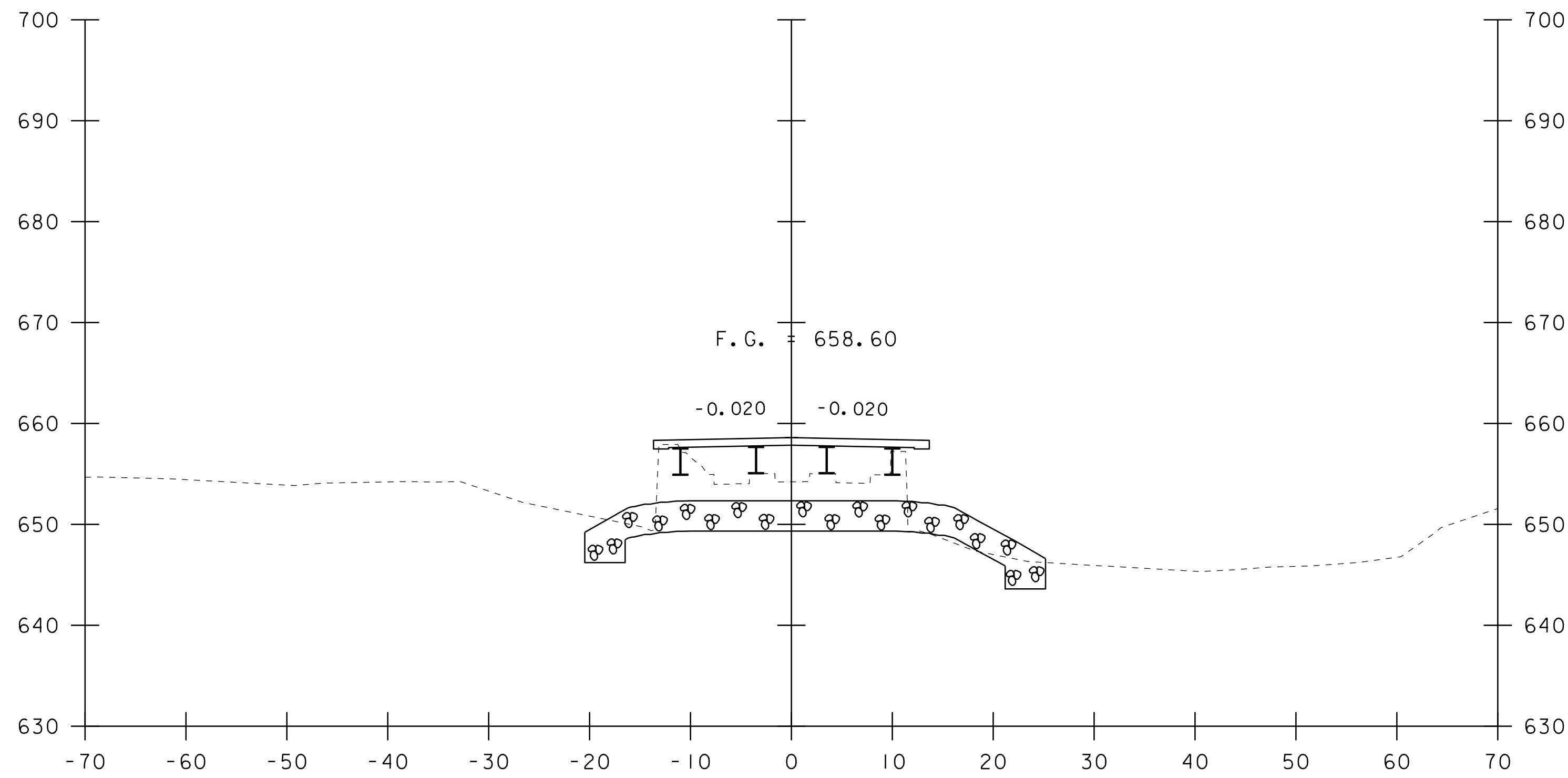
PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660xs.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
TH 43 CROSS SECTIONS 2	SHEET 15 OF 26



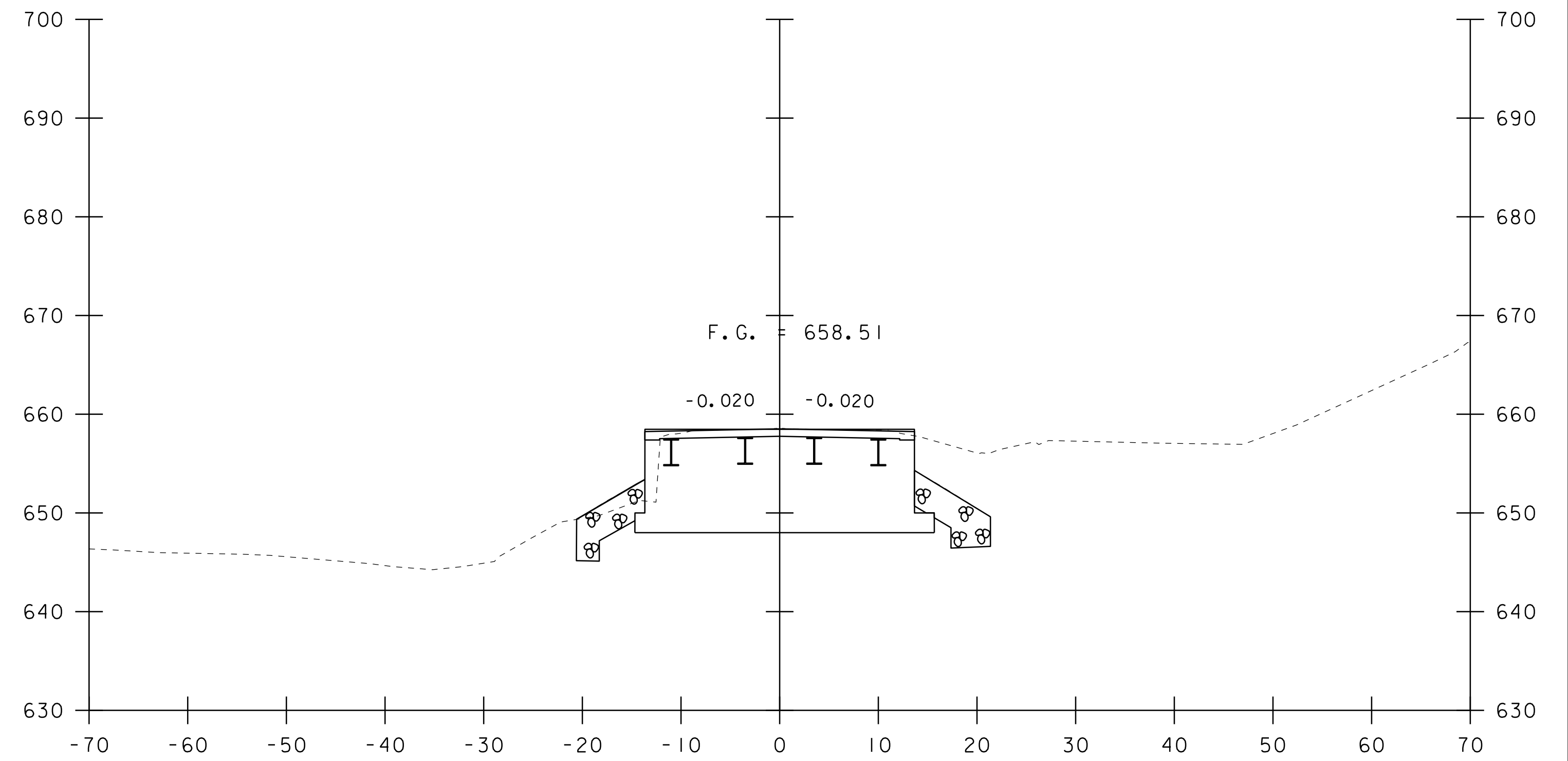
13+25



13+75



13+00



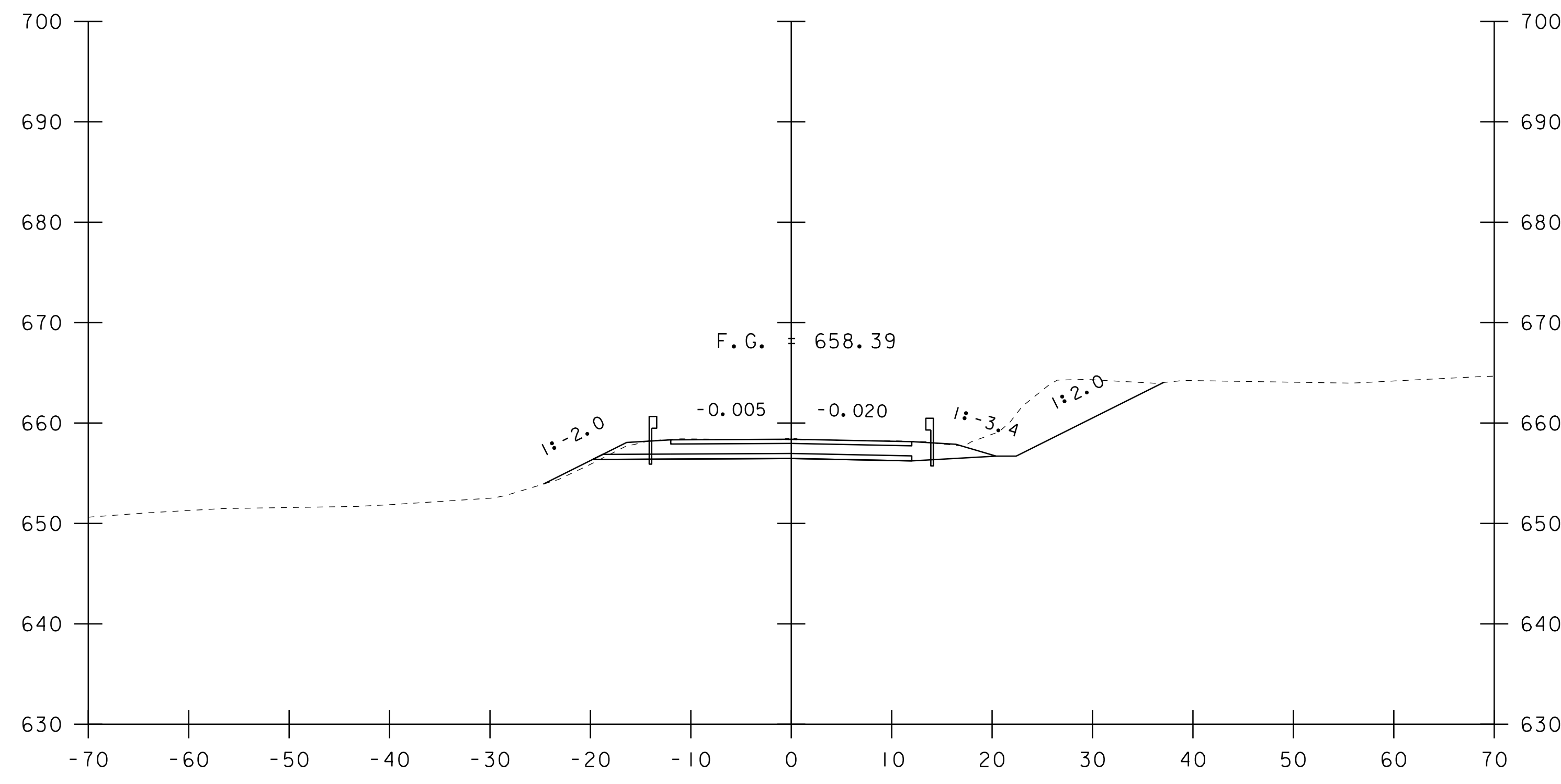
13+50

STA 13+51.00  
END BRIDGE

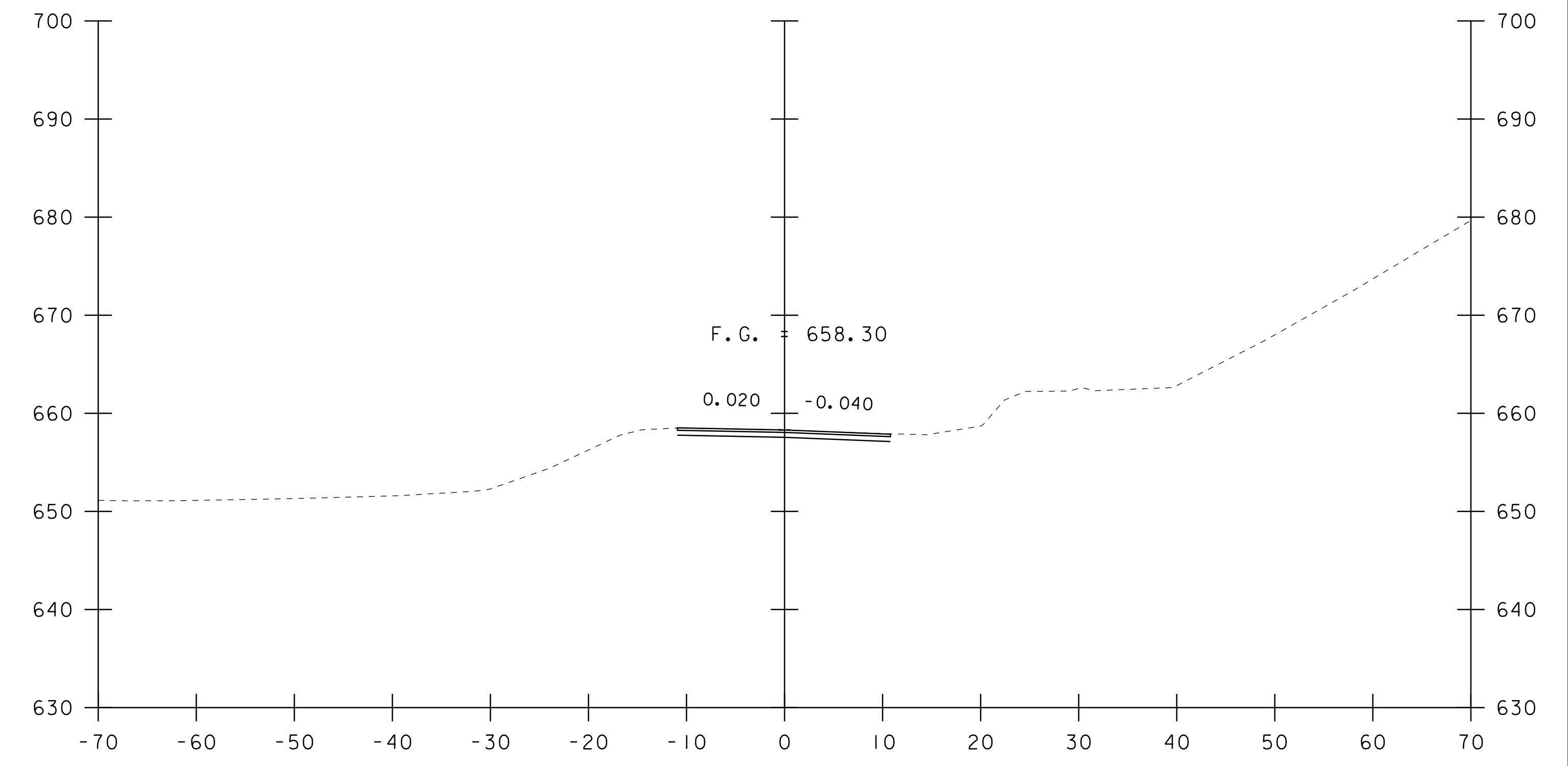
STA. 13+00 TO STA. 13+75

PROJECT NAME: STOWE	PLOT DATE: 25-MAR-2020
PROJECT NUMBER: BO 1446(37)	DRAWN BY: M. LONGSTREET
FILE NAME: sl2j660xs.dgn	DESIGNED BY: C. BURRALL
PROJECT LEADER: C. COTA	CHECKED BY: C. BURRALL
TH 43 CROSS SECTIONS 3	SHEET 16 OF 26

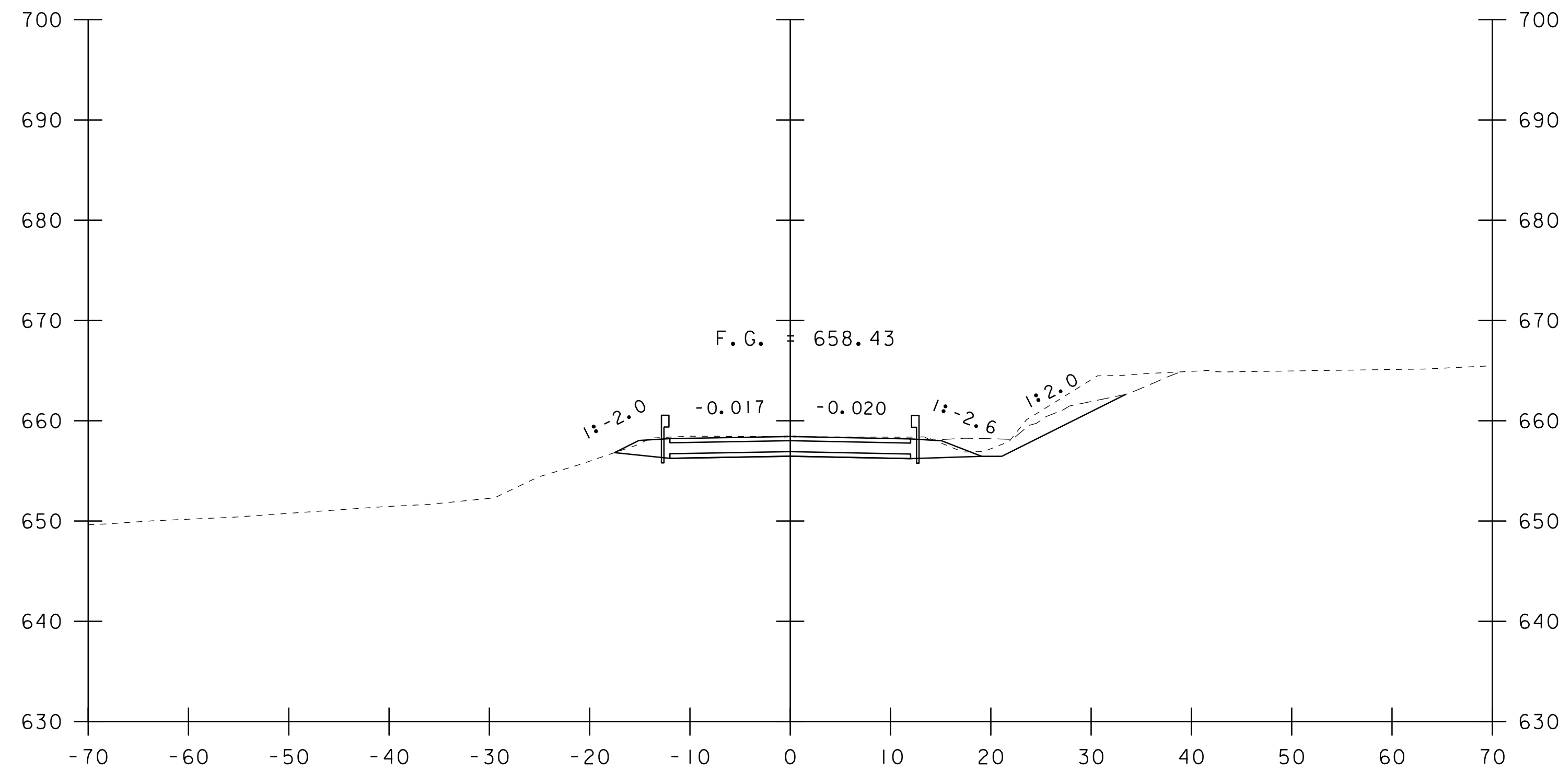




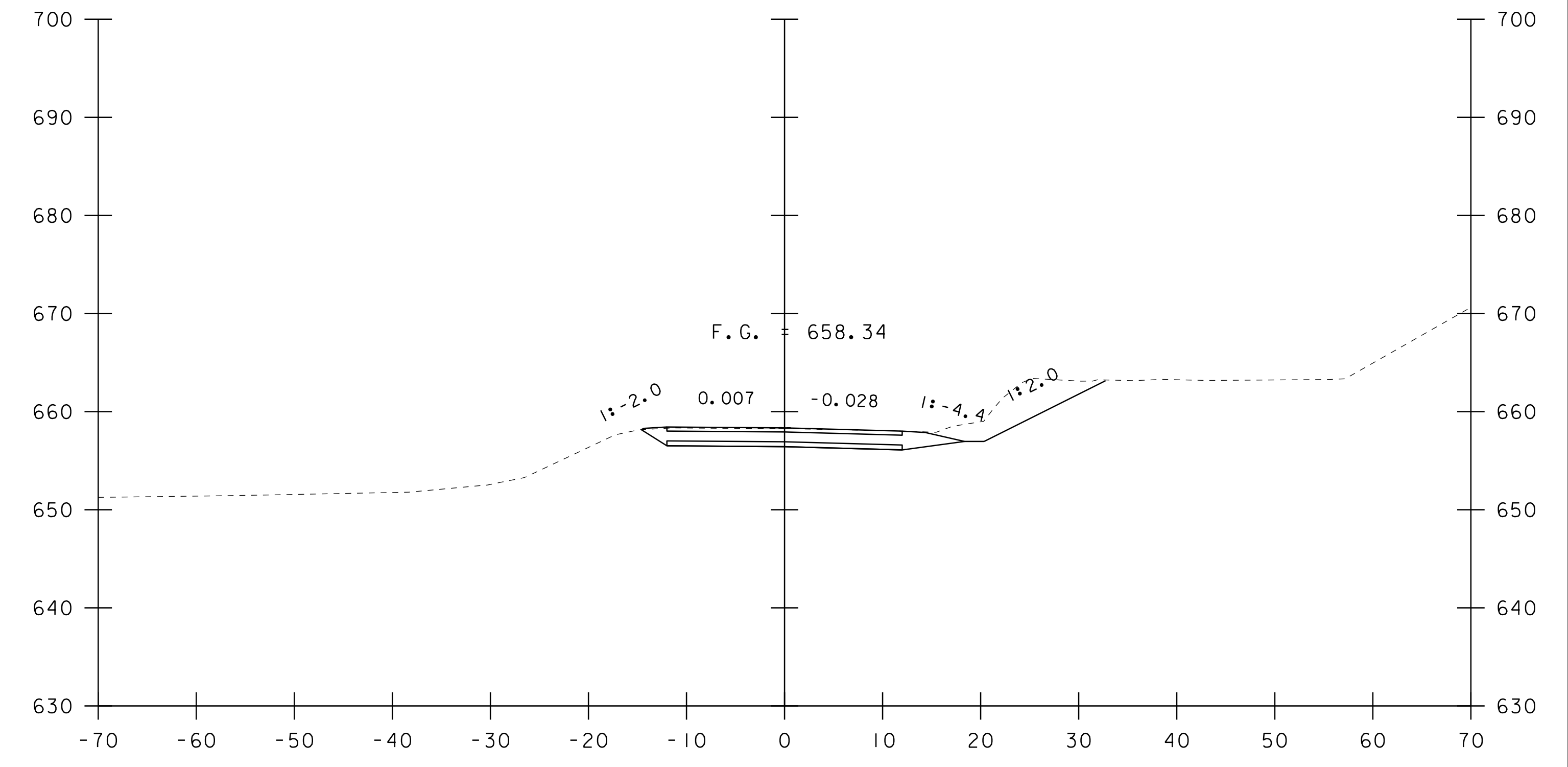
14+25



14+75



14+00

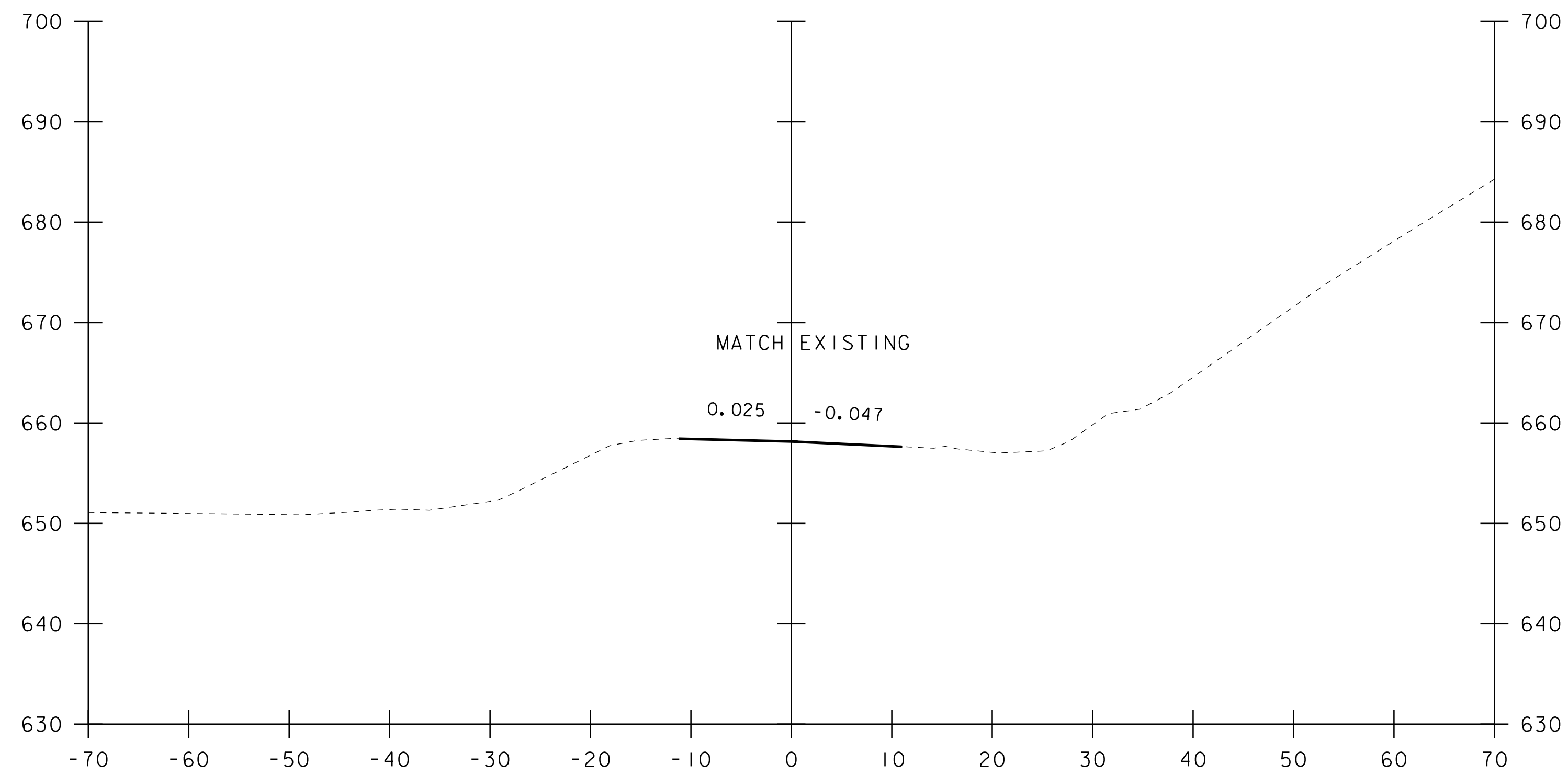


14+50

STA 14+50.00  
END PROJECT

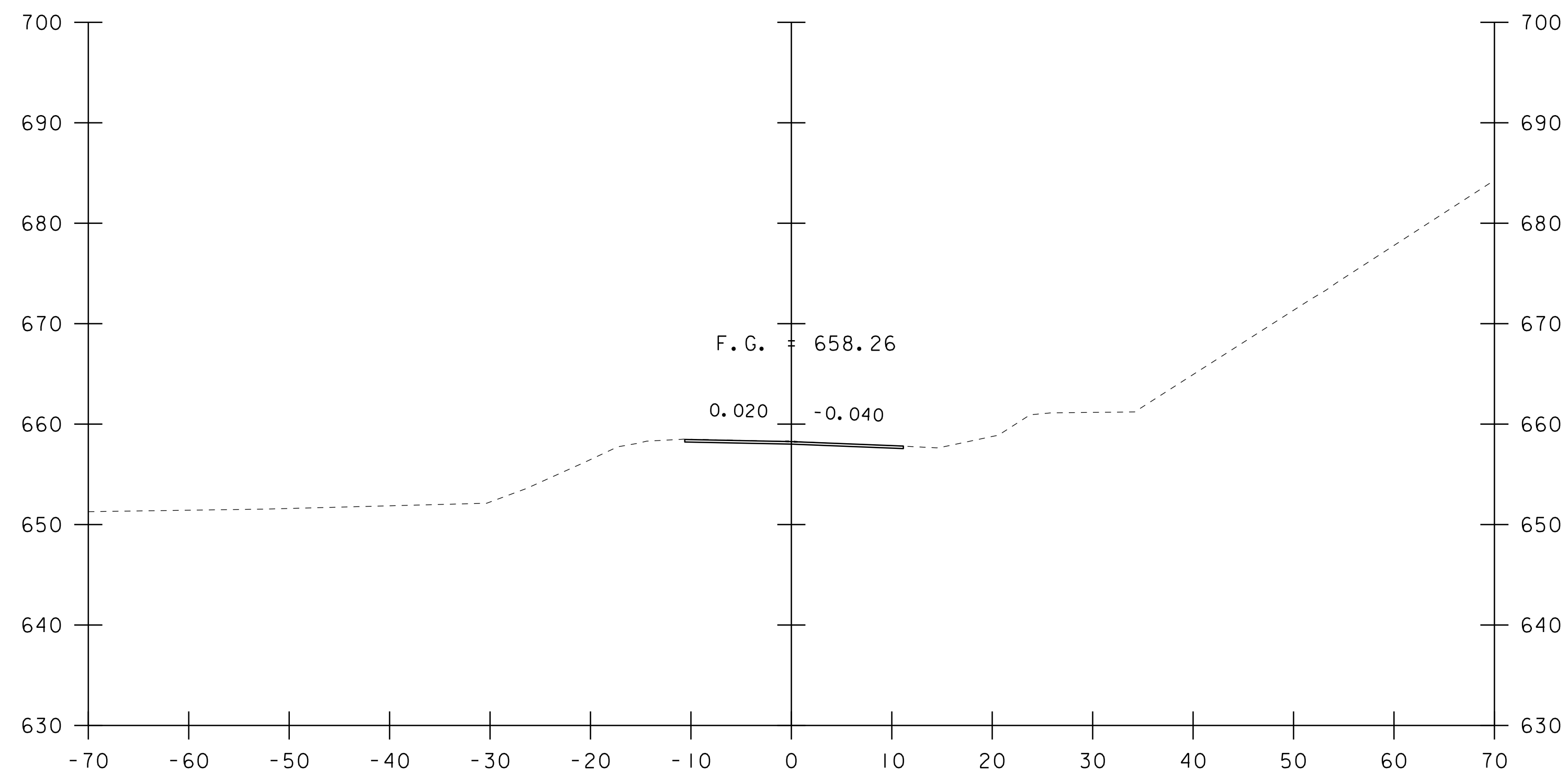
STA. 14+00 TO STA. 14+75

PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660xs.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
TH 43 CROSS SECTIONS 4	SHEET 17 OF 26



15+25

STA 15+25.00  
END APPROACH  
MATCH EXISTING



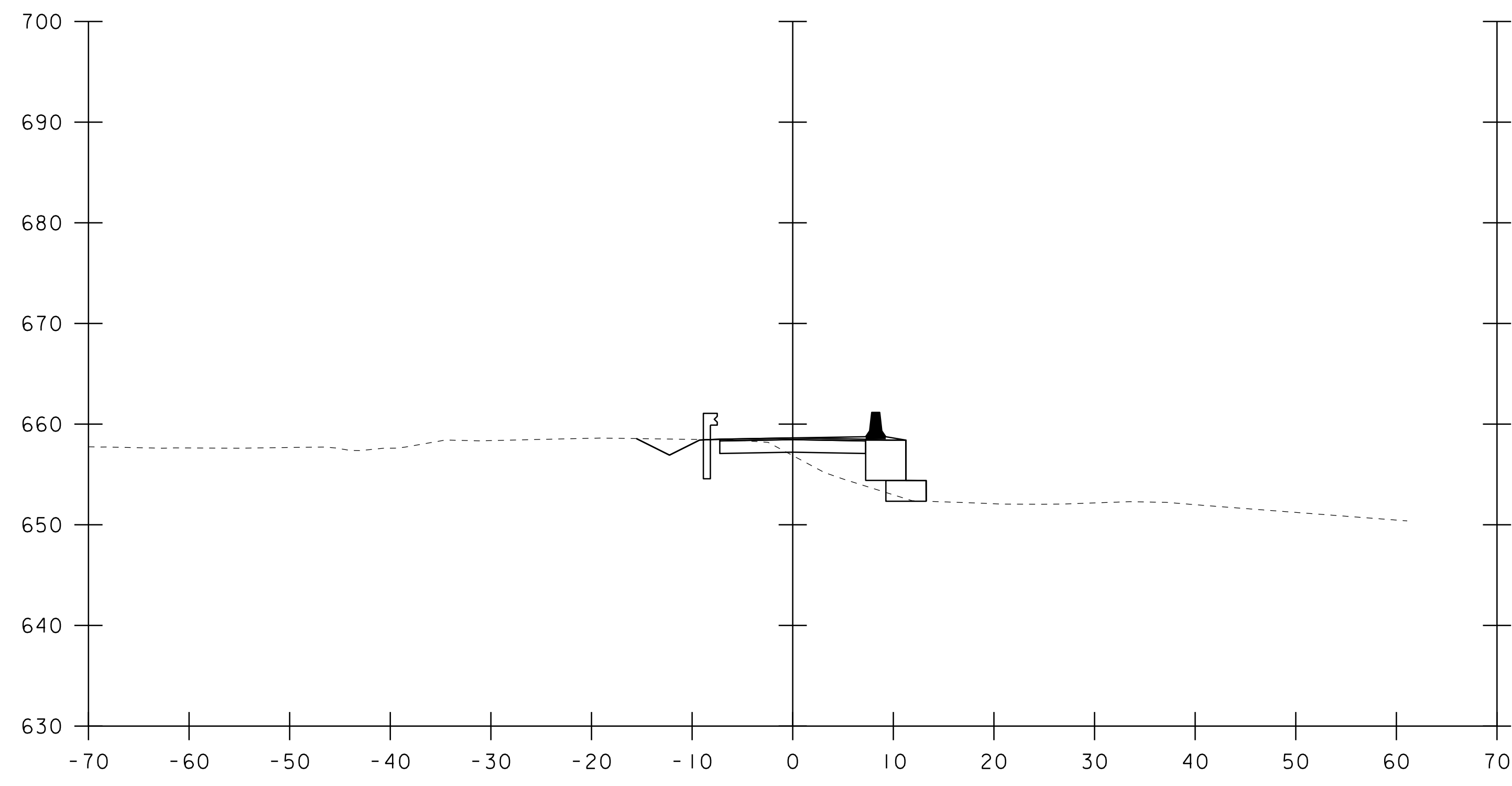
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STA. 15+00 TO STA. 15+25

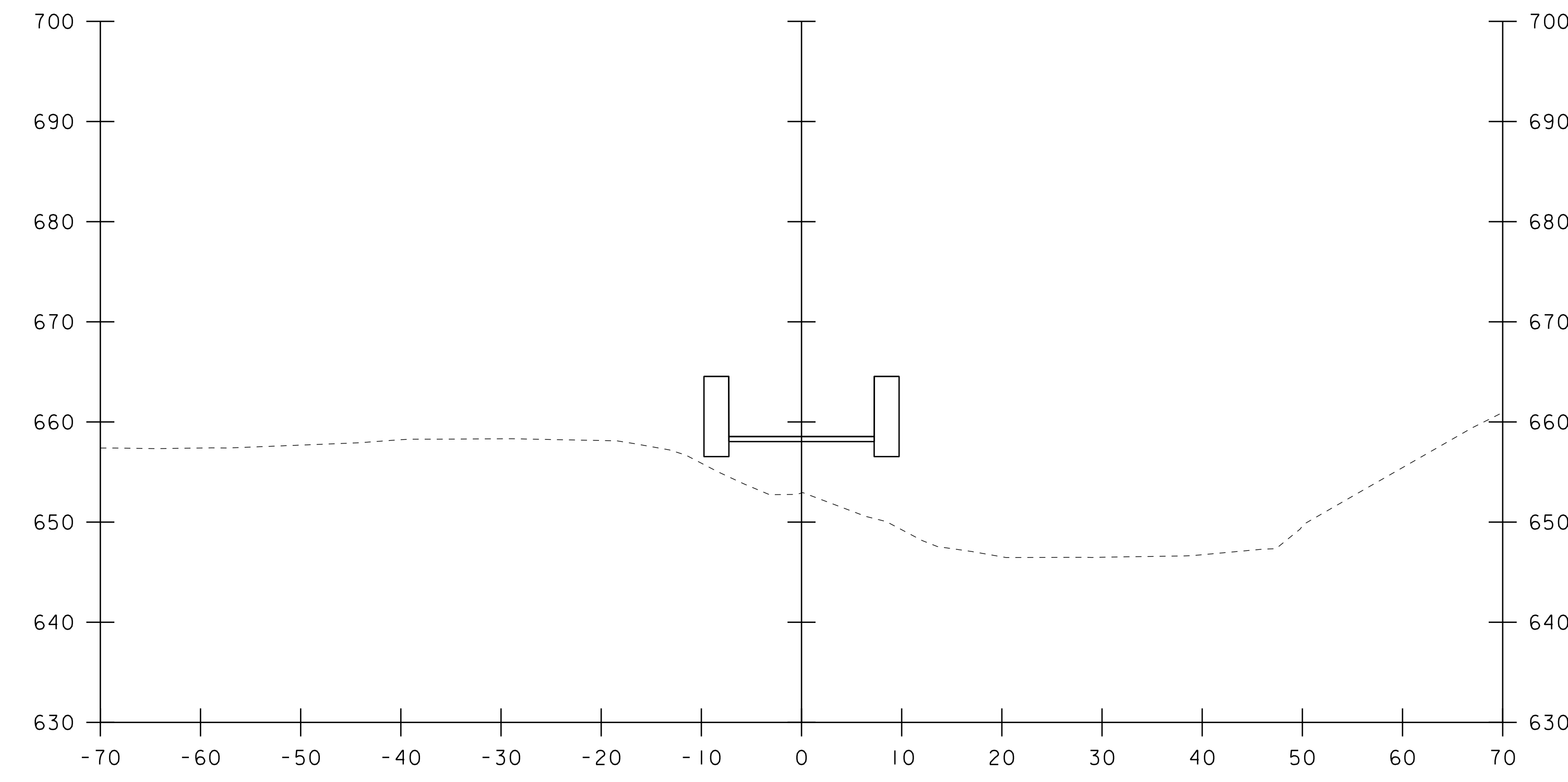
PROJECT NAME: STOWE  
PROJECT NUMBER: BO 1446(37)

FILE NAME: sl2j660xs.dgn  
PROJECT LEADER: C. COTA  
DESIGNED BY: C. BURRALL  
TH 43 CROSS SECTIONS 5

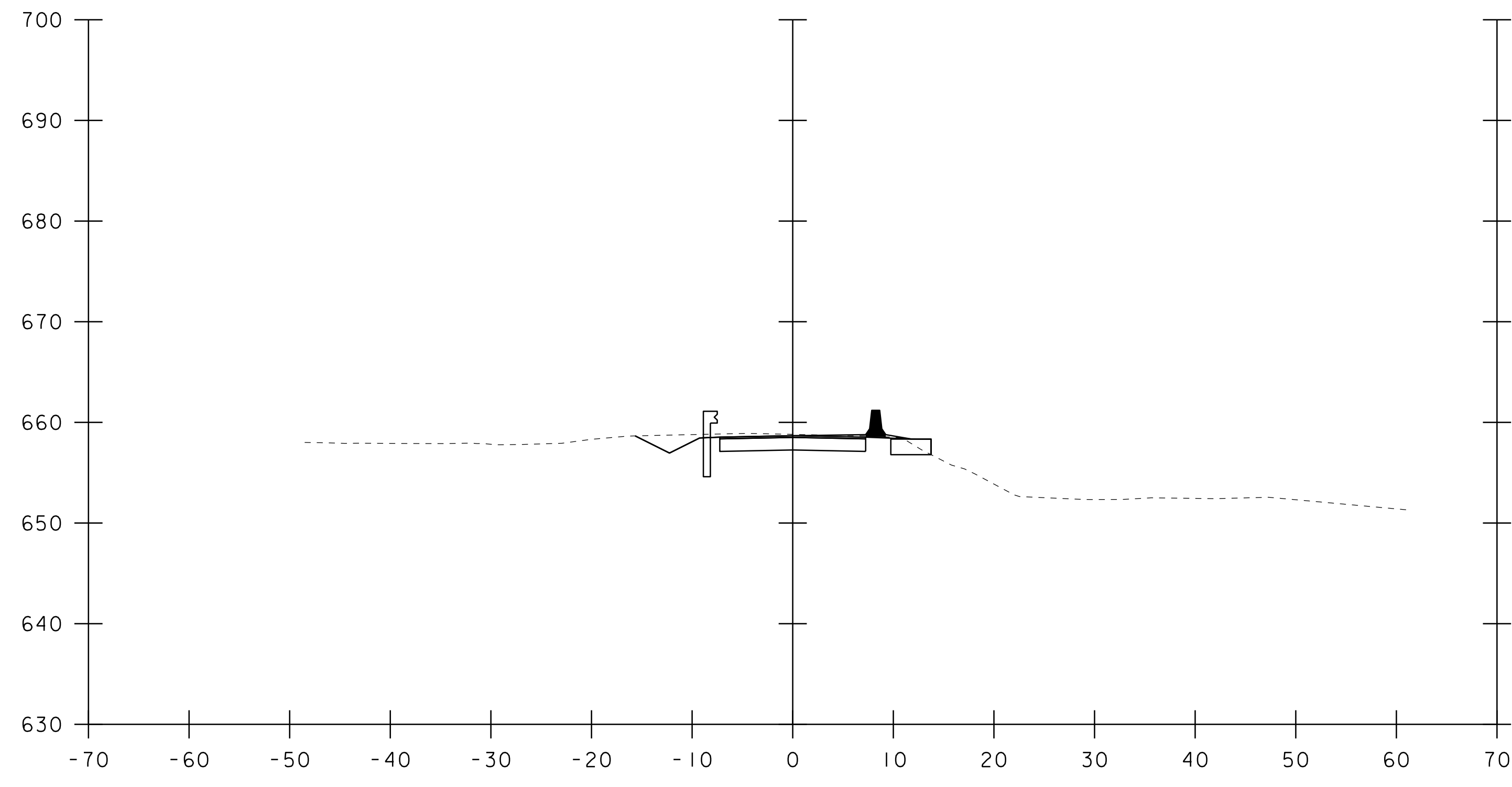
PLOT DATE: 25-MAR-2020  
DRAWN BY: M. LONGSTREET  
CHECKED BY: C. BURRALL  
SHEET 18 OF 26



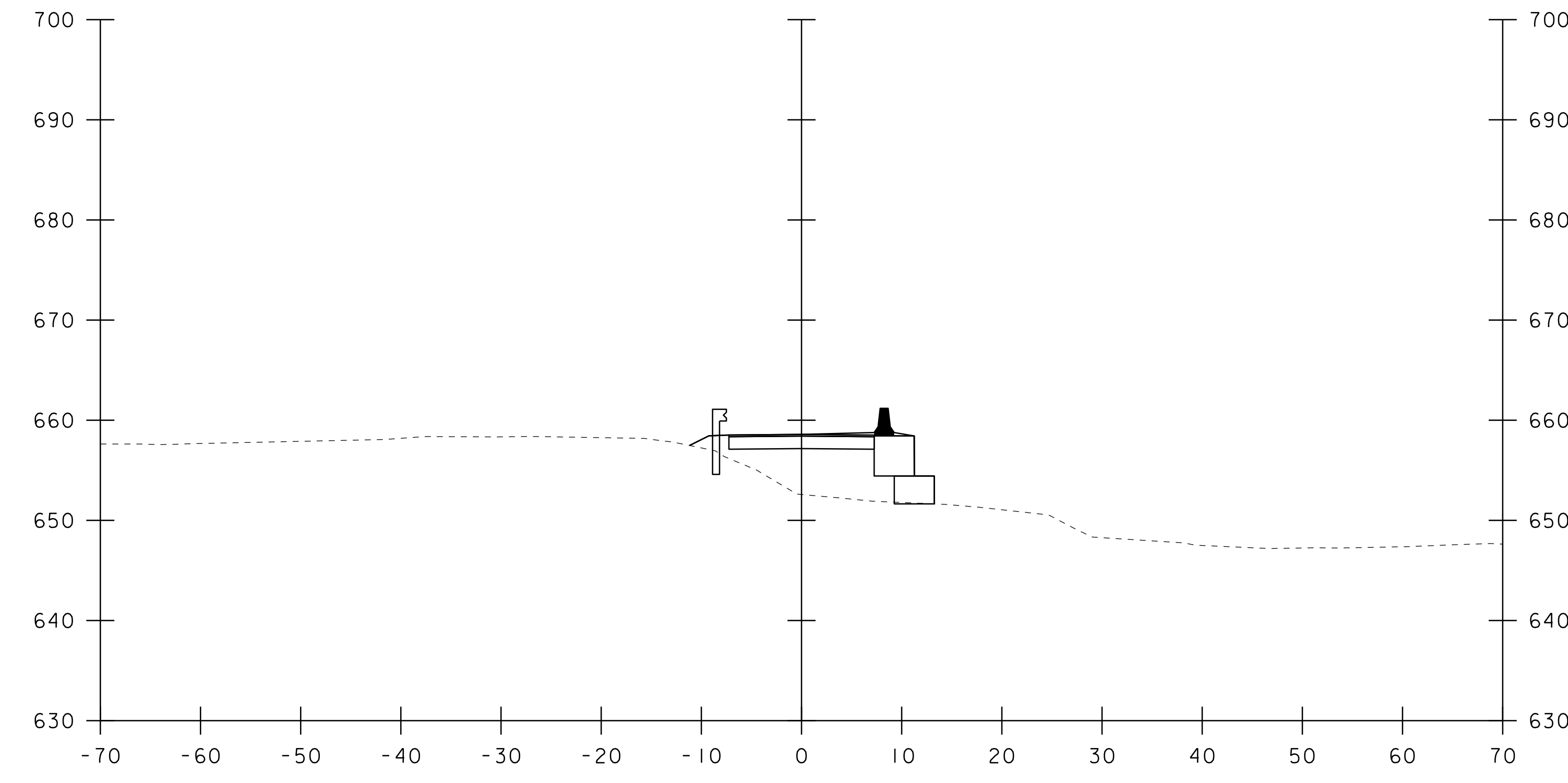
101+50



102+00



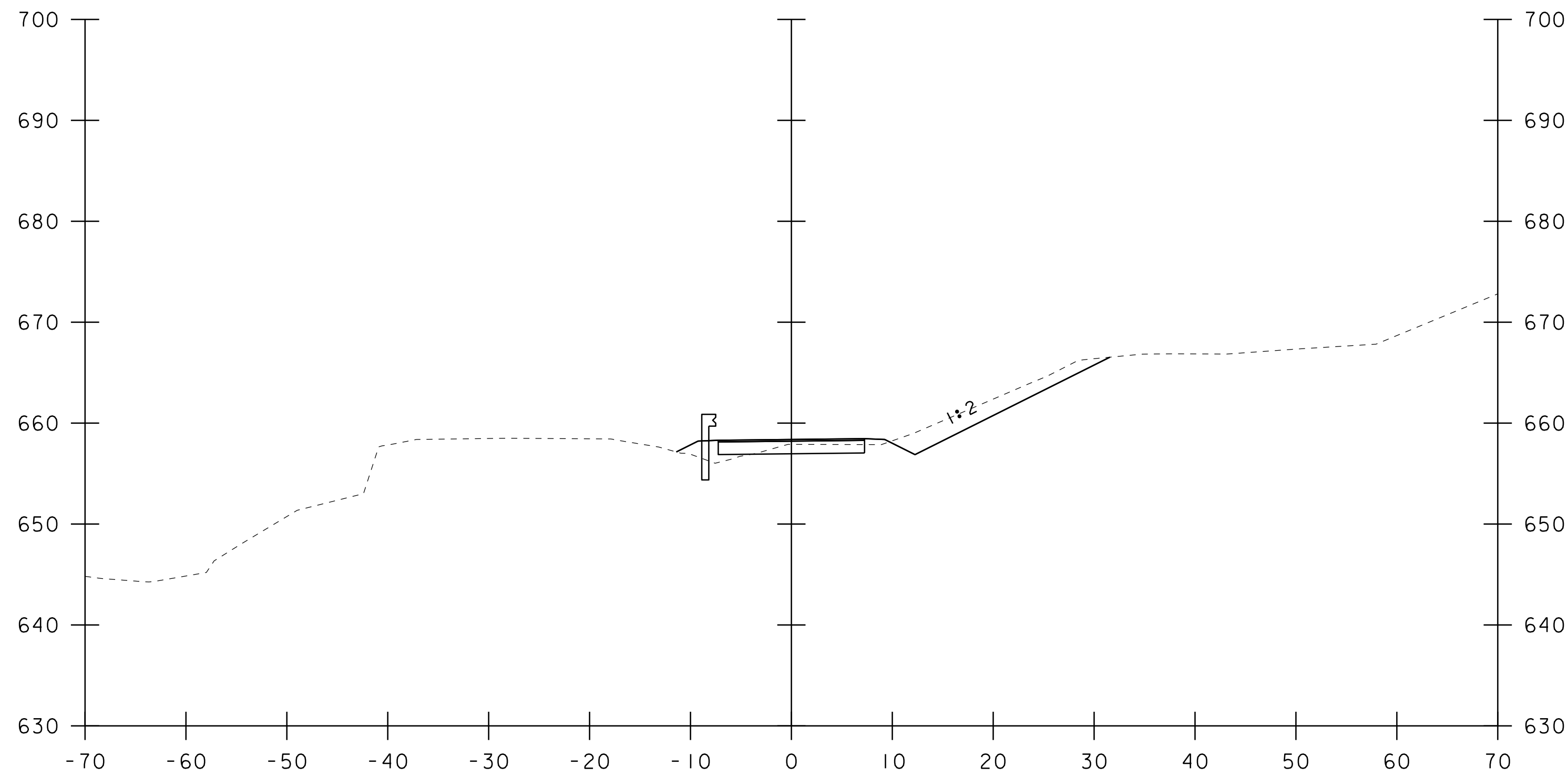
101+25



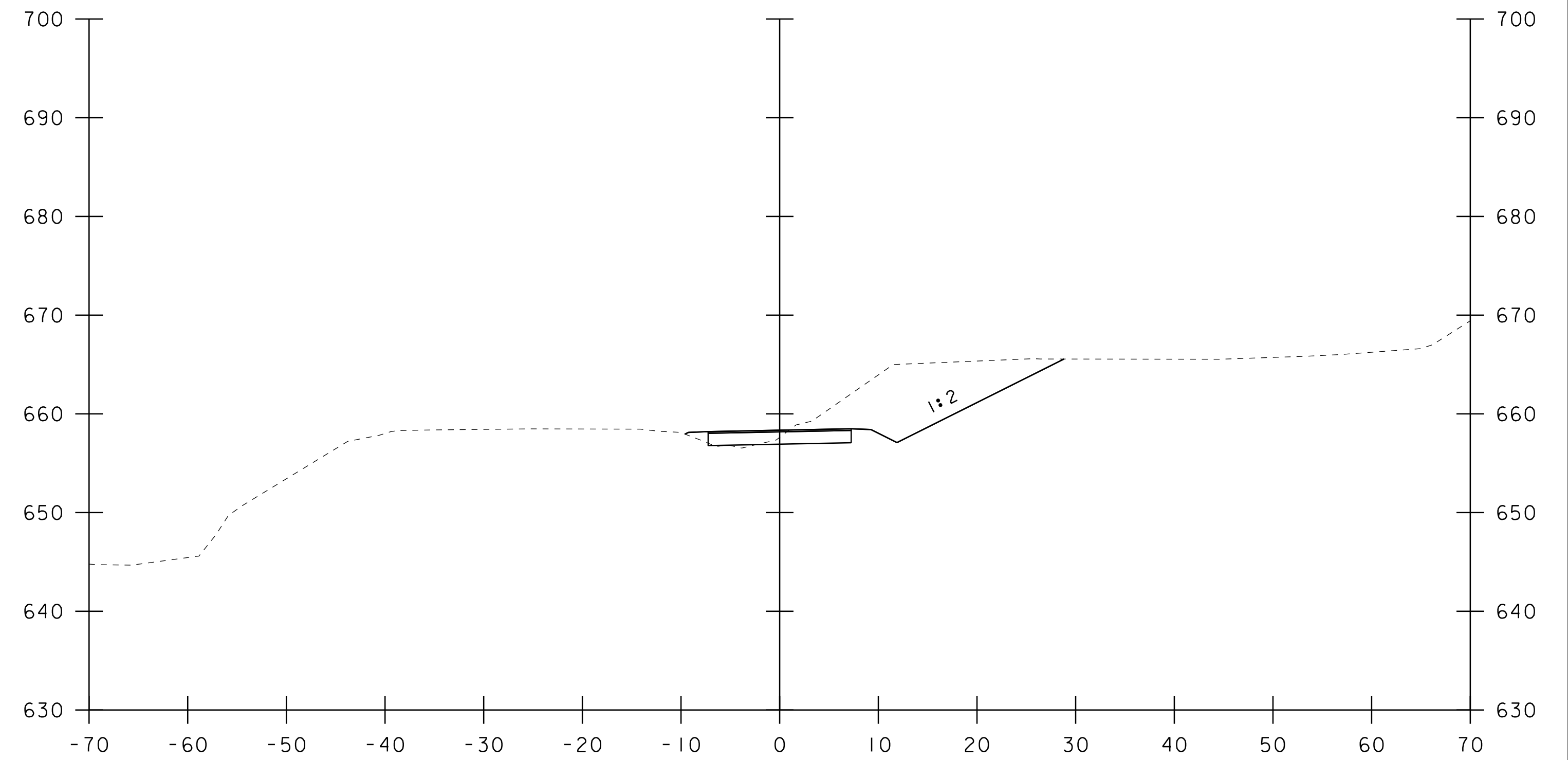
101+75

STA. 101+25 TO STA. 102+00

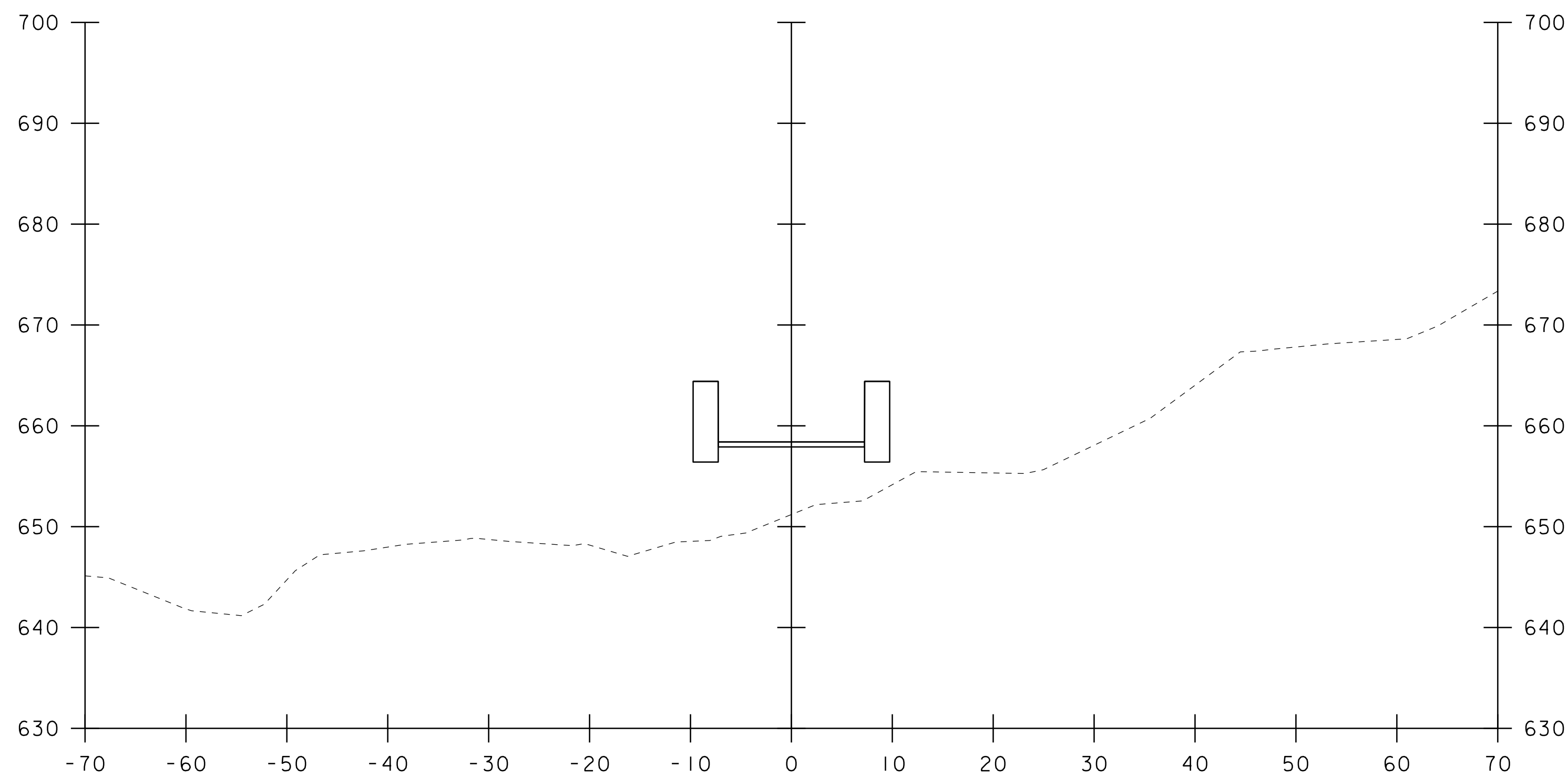
PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660temp.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: M. LONGSTREET	CHECKED BY: C. BURRALL
TEMPORARY BRIDGE CROSS SECTIONS I	SHEET 19 OF 26



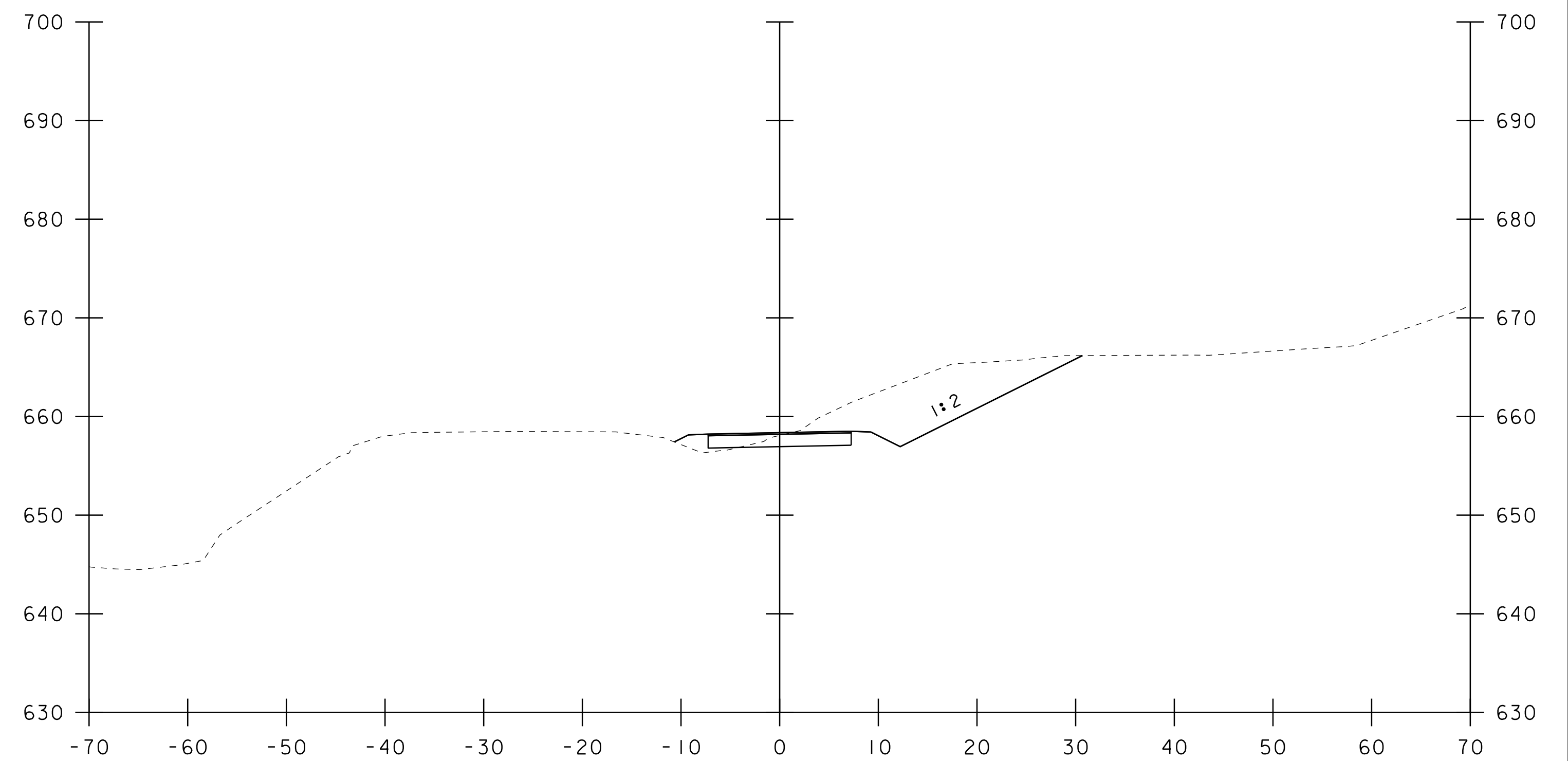
102+90



103+10



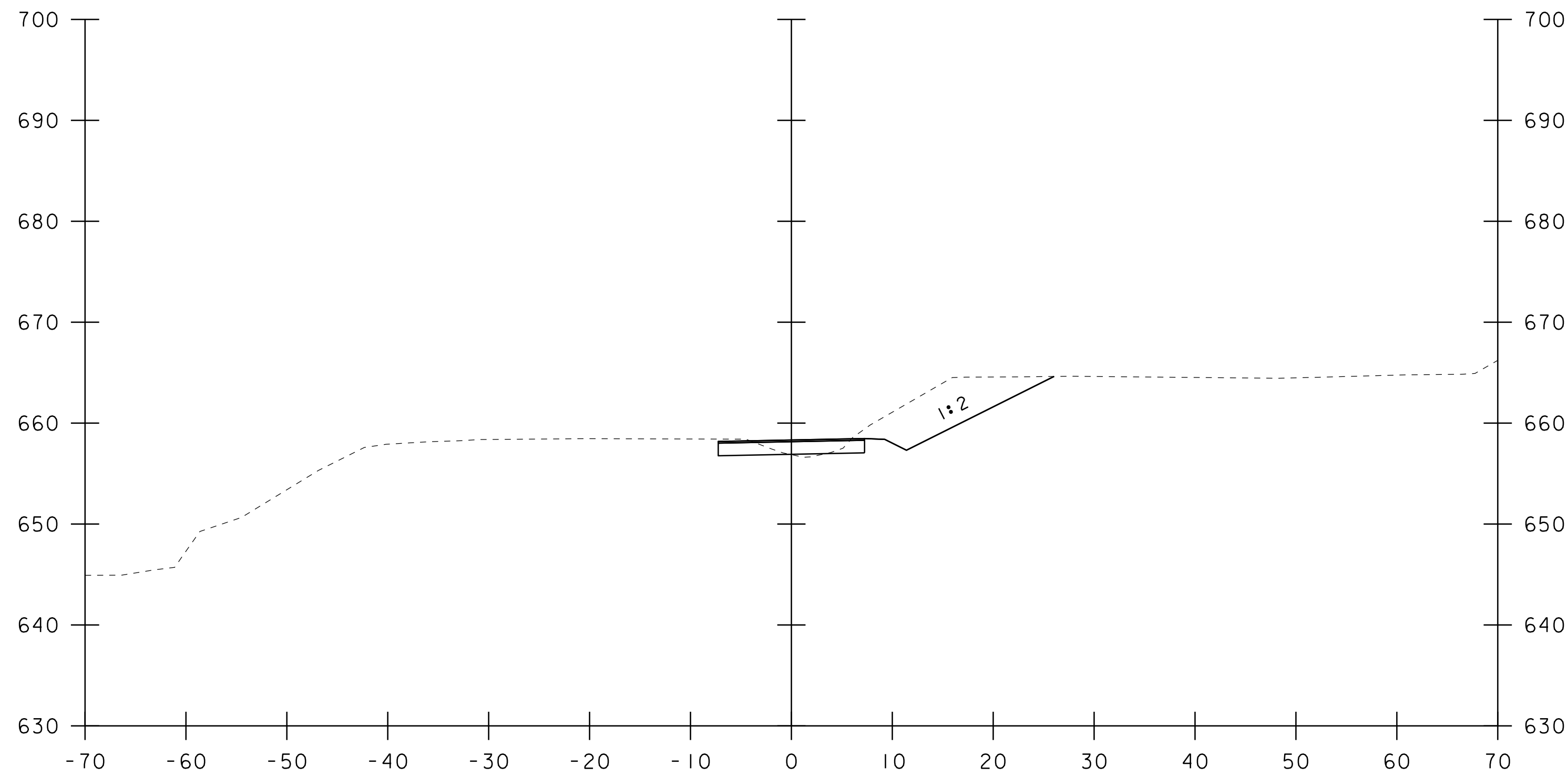
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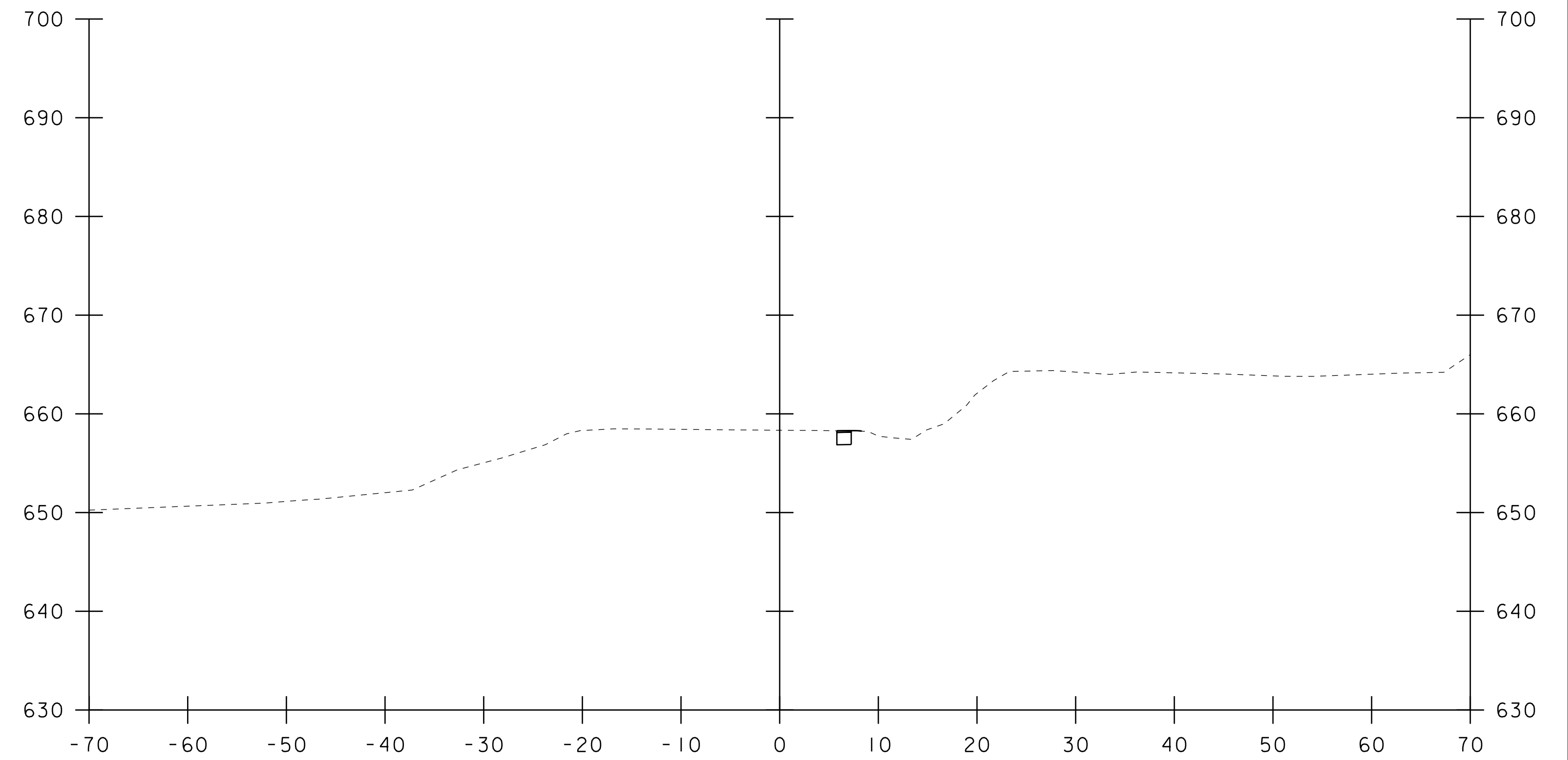
103+00

STA. 102+75 TO STA. 103+10

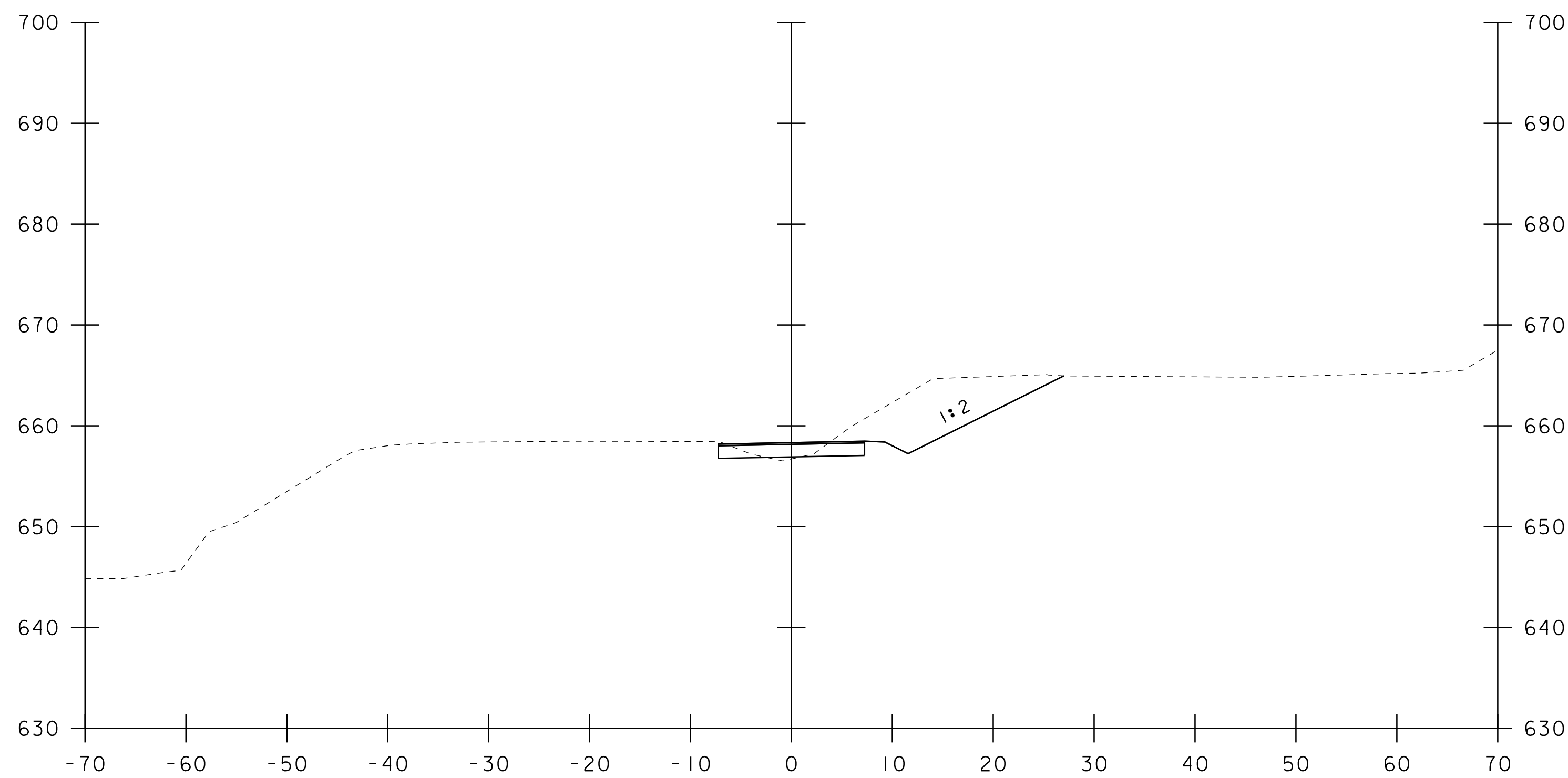
PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660temp.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: M. LONGSTREET	CHECKED BY: C. BURRALL
TEMPORARY BRIDGE CROSS SECTIONS 2	SHEET 20 OF 26



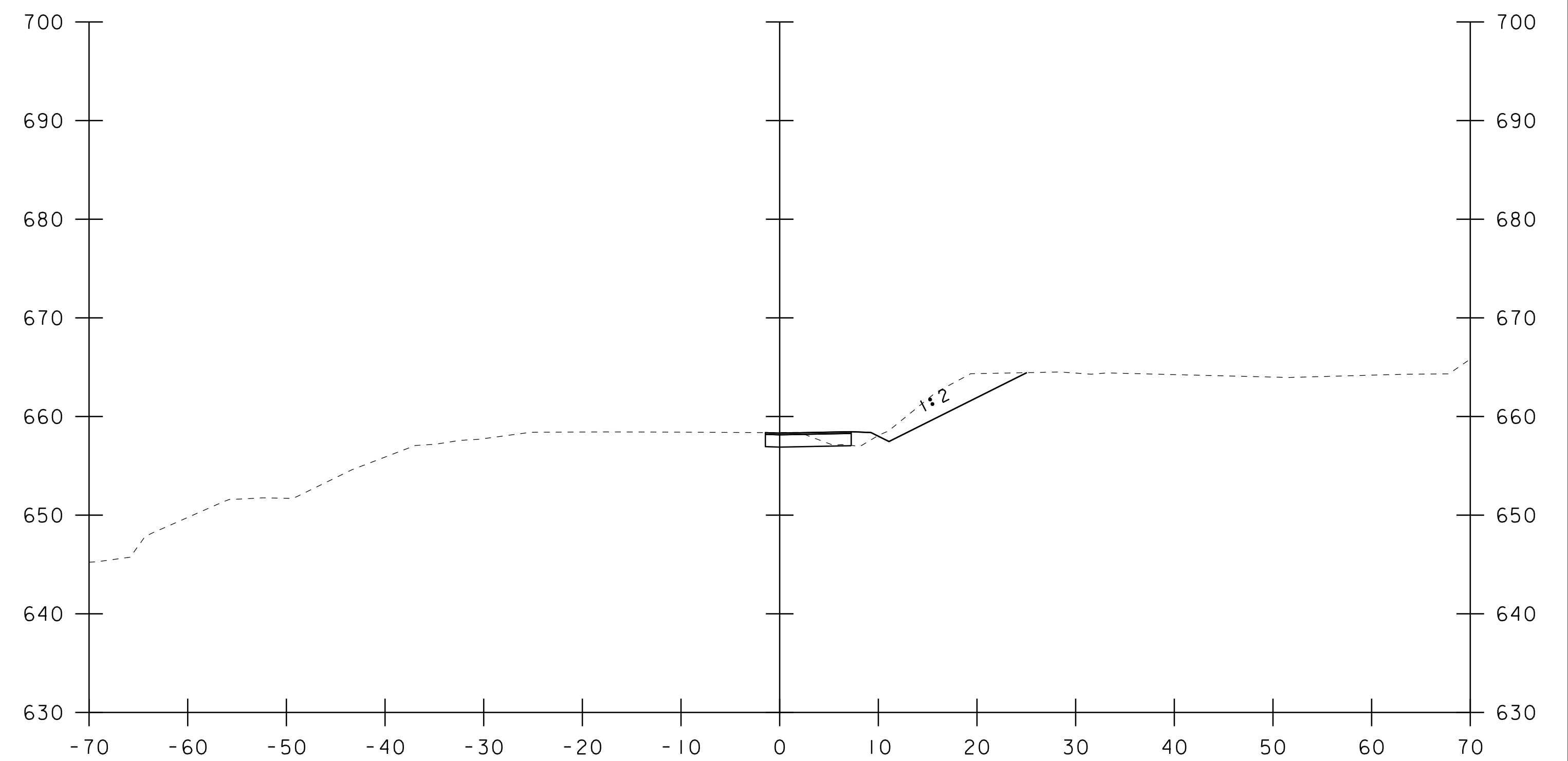
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103+50



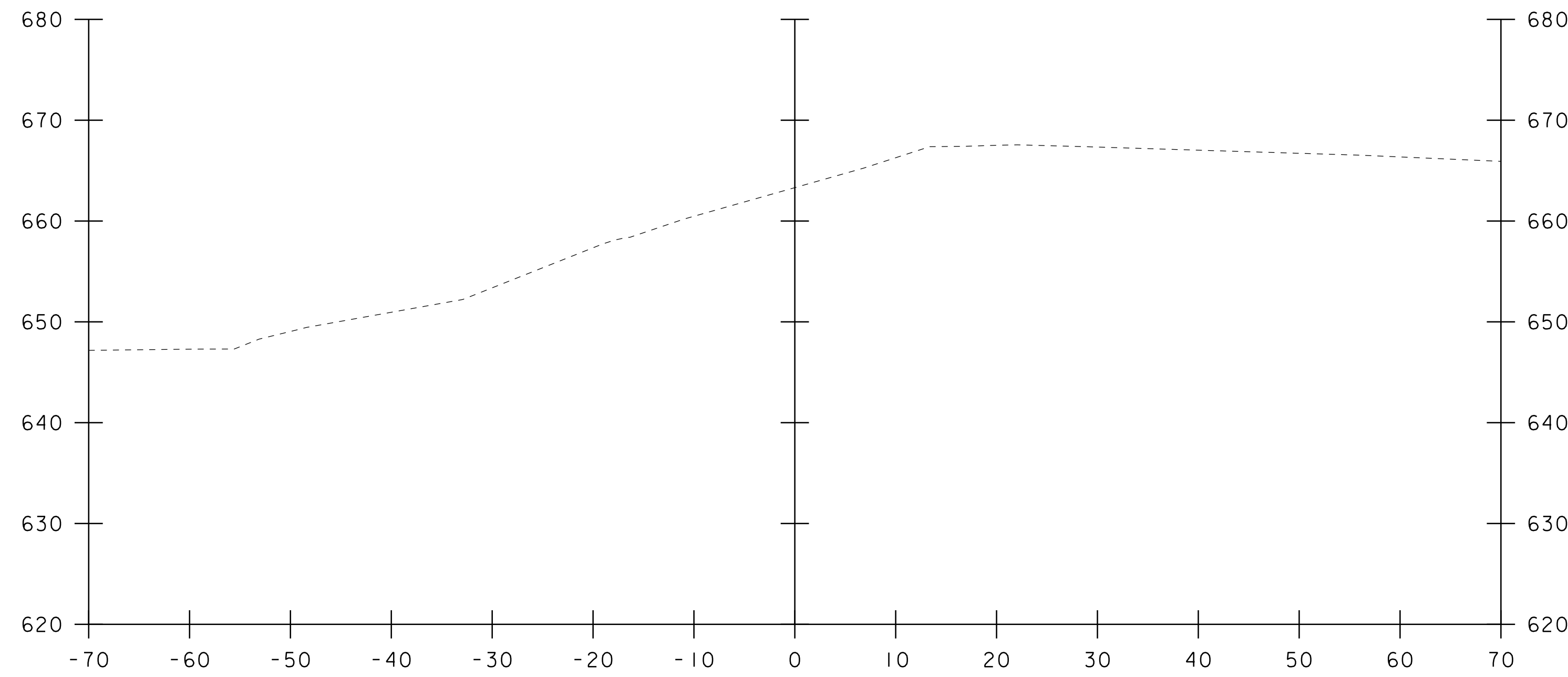
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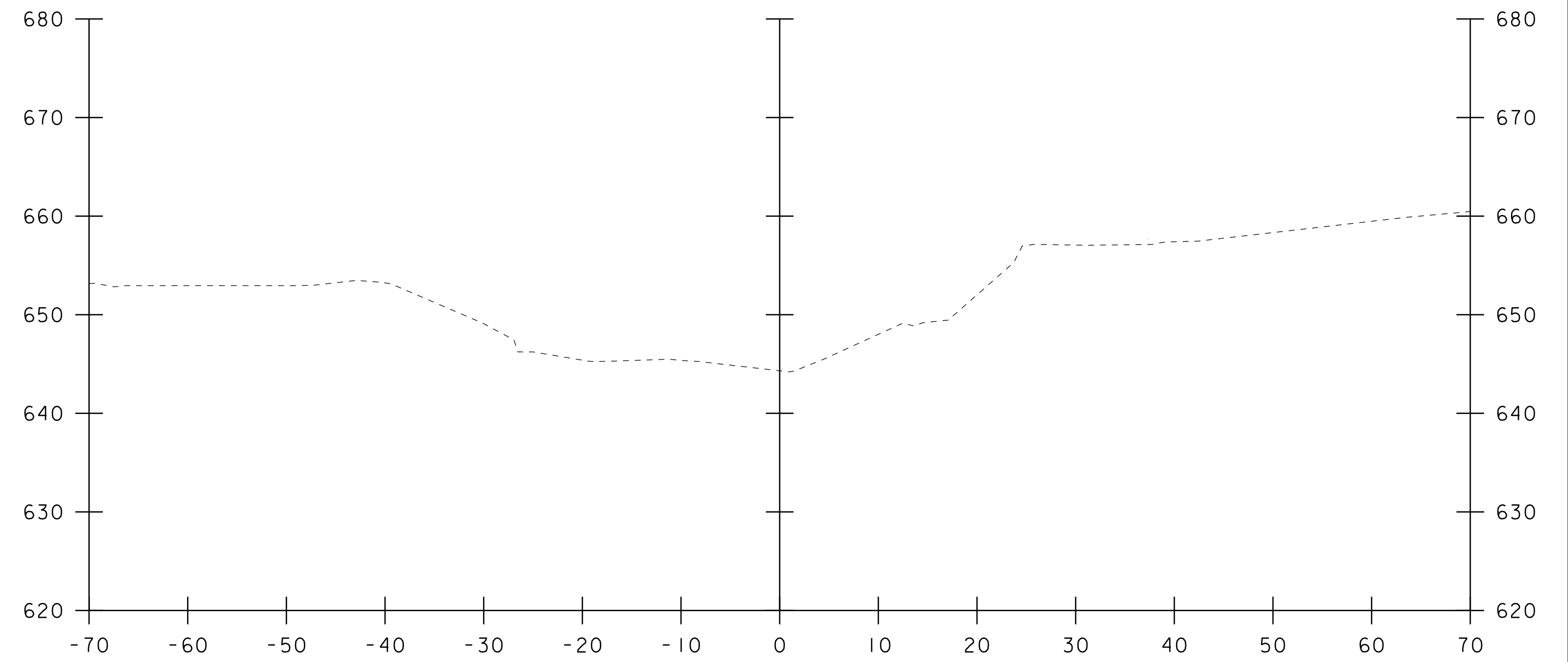
103+35

STA. 103+20 TO STA. 103+50

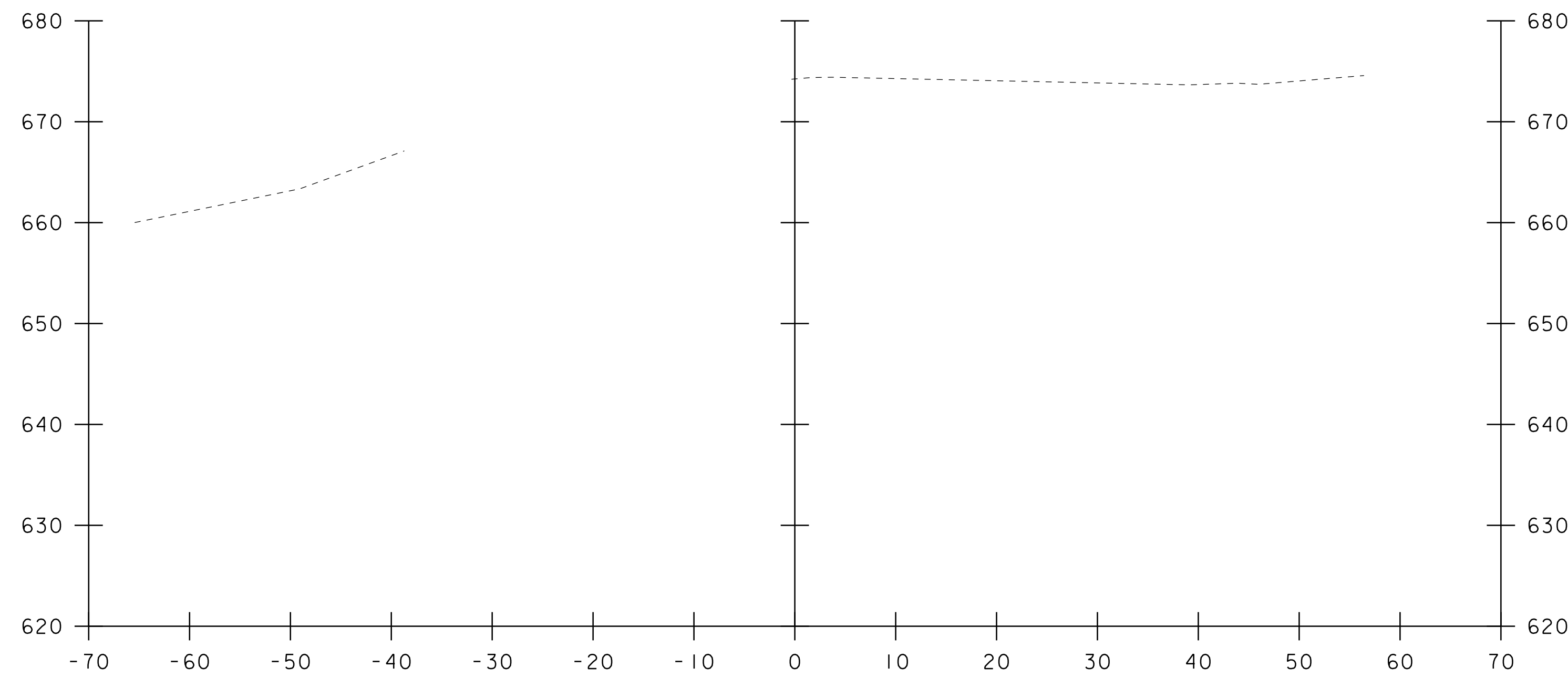
PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660temp.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: M. LONGSTREET	CHECKED BY: C. BURRALL
TEMPORARY BRIDGE CROSS SECTIONS 3	SHEET 21 OF 26



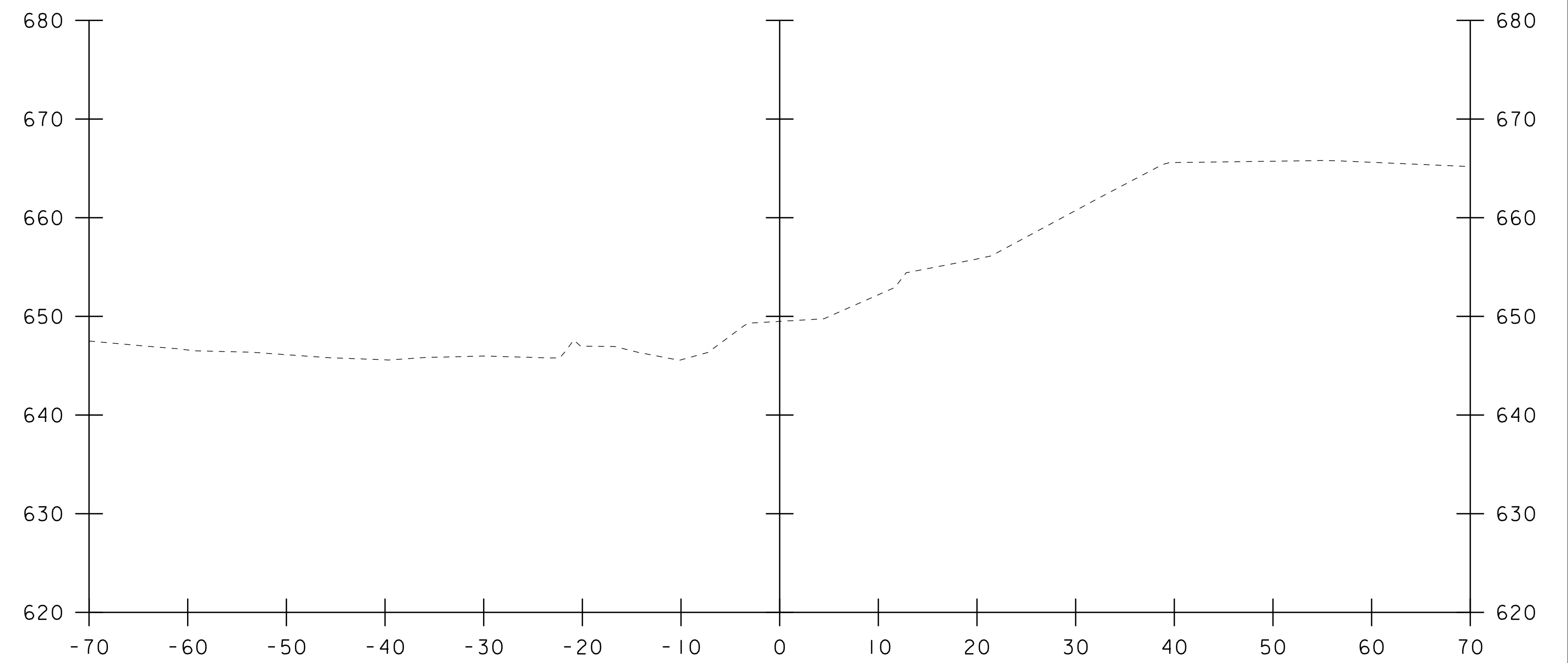
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50+75



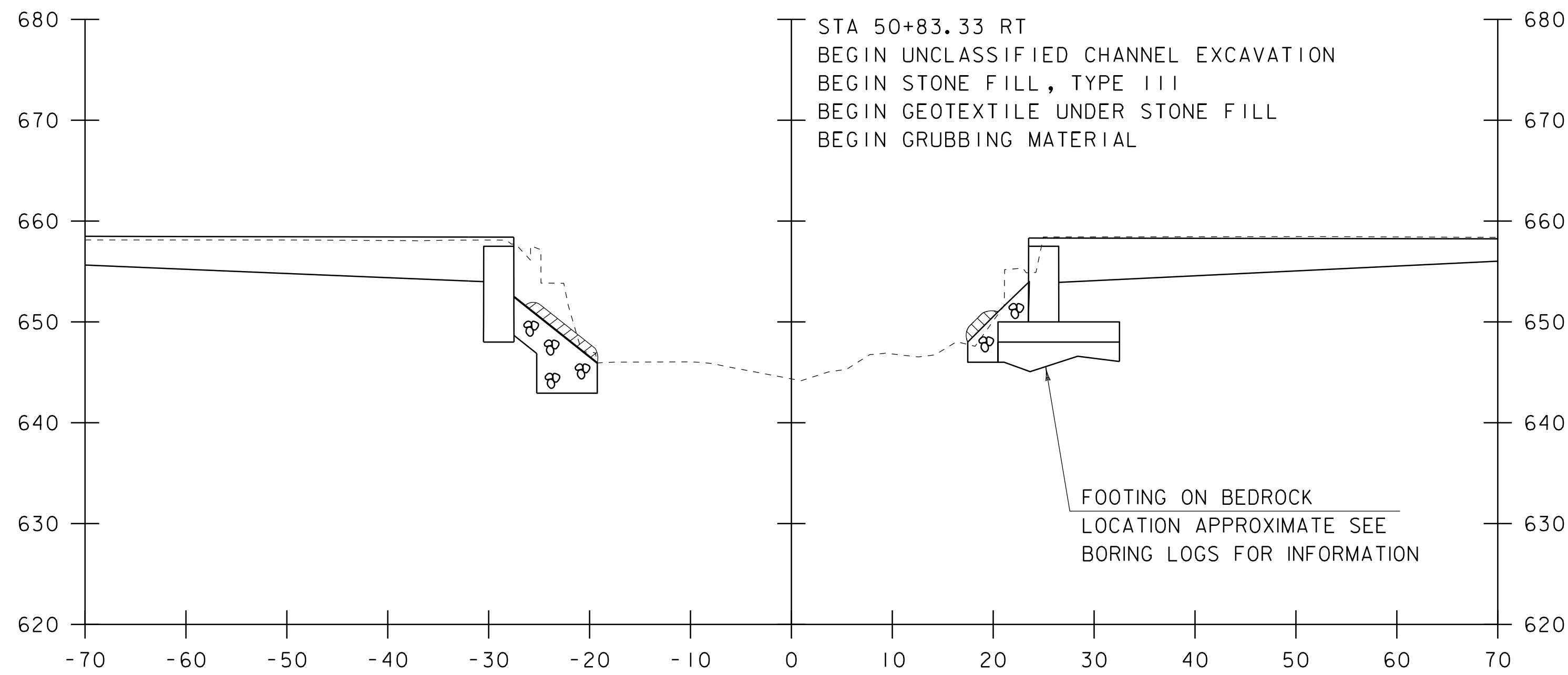
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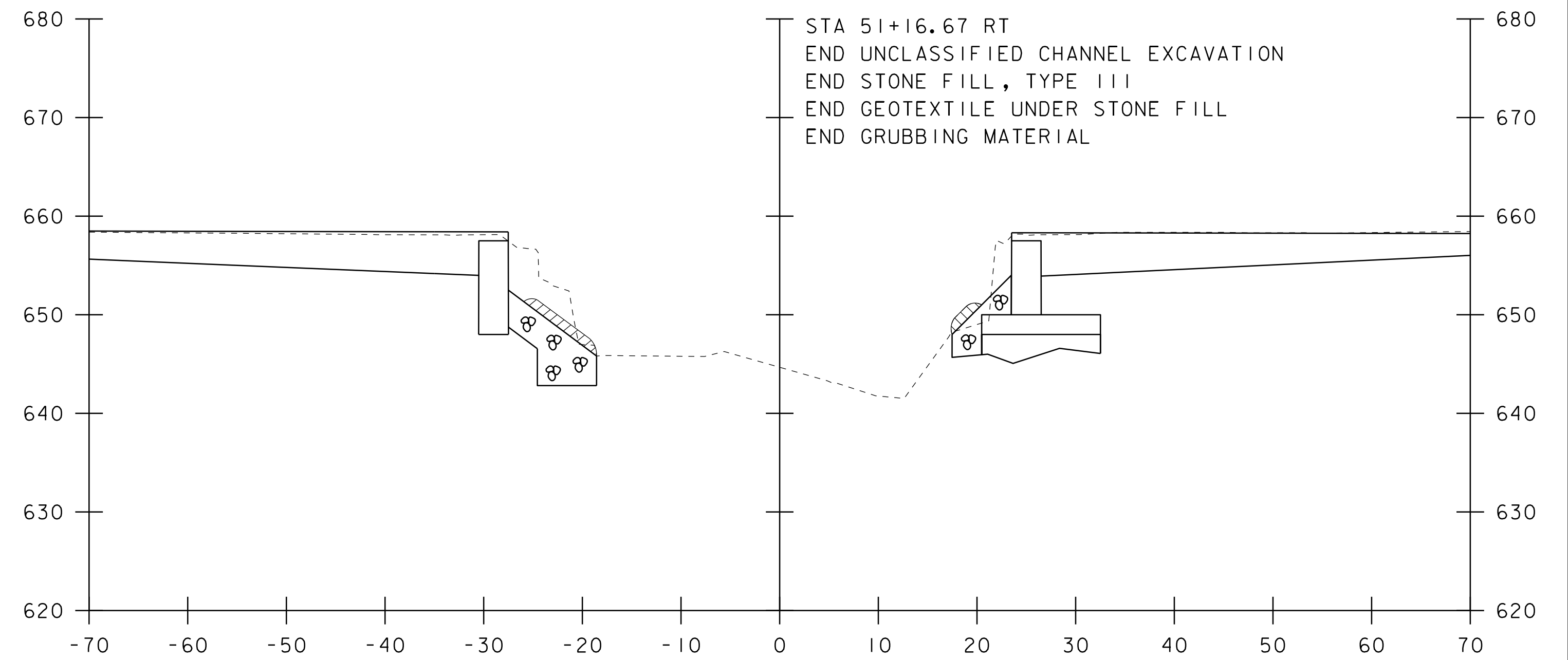
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STA. 50+00 TO STA. 50+75

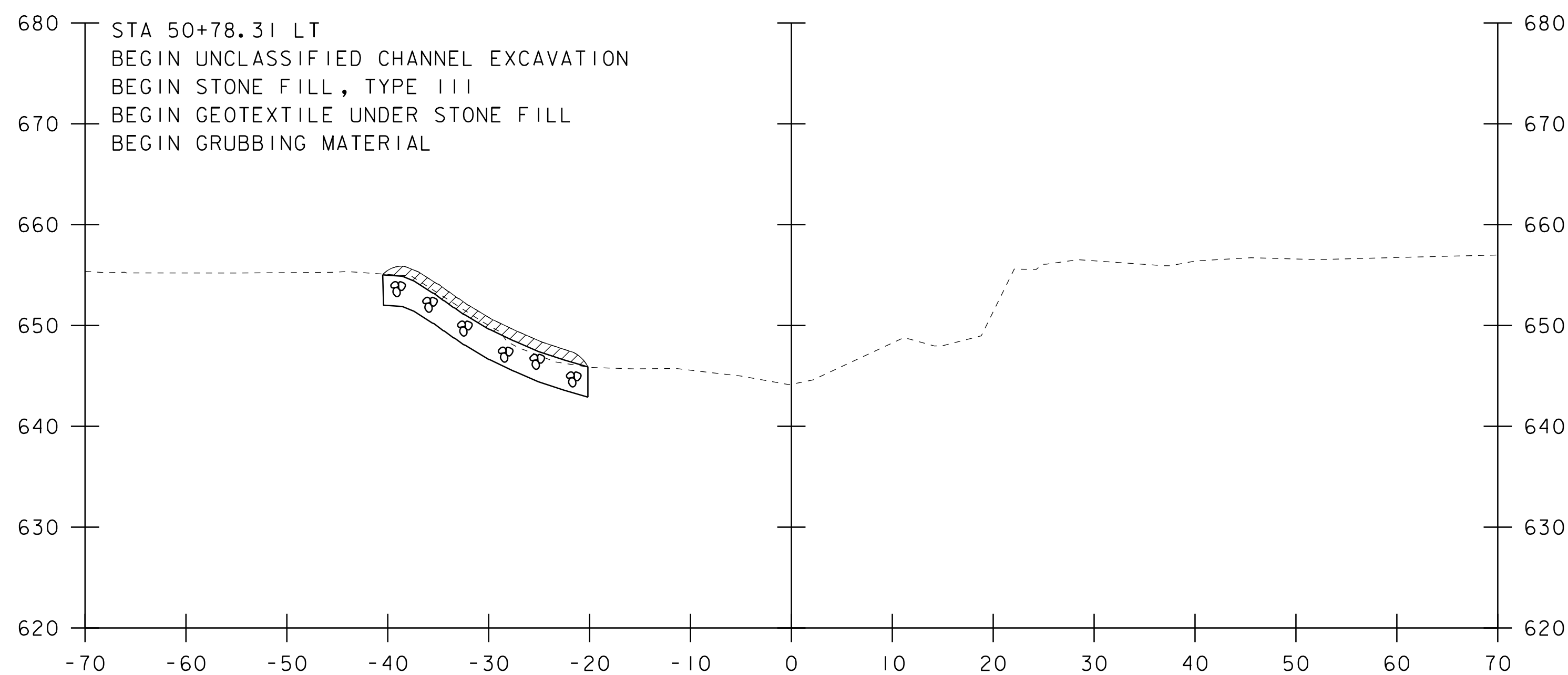
PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660xs.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
CHANNEL CROSS SECTIONS 1	SHEET 22 OF 26



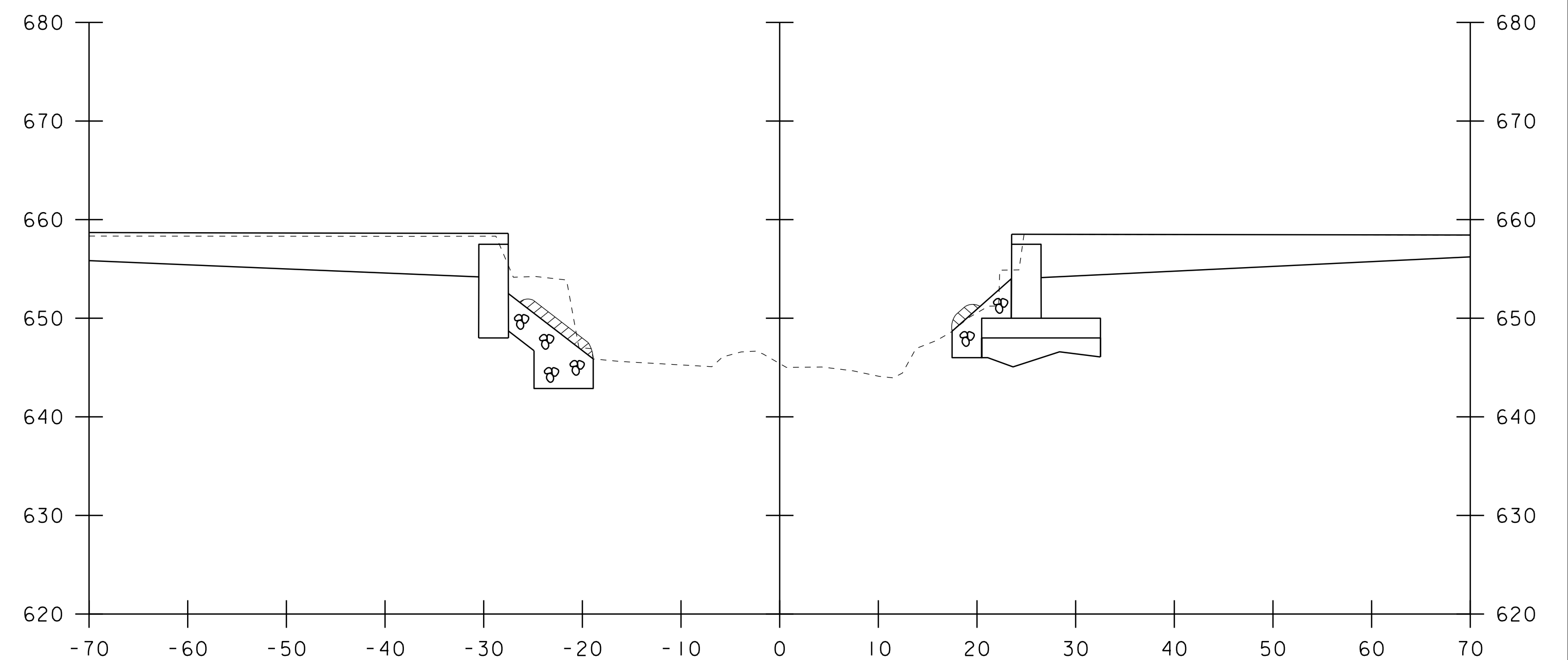
50+90



51+10



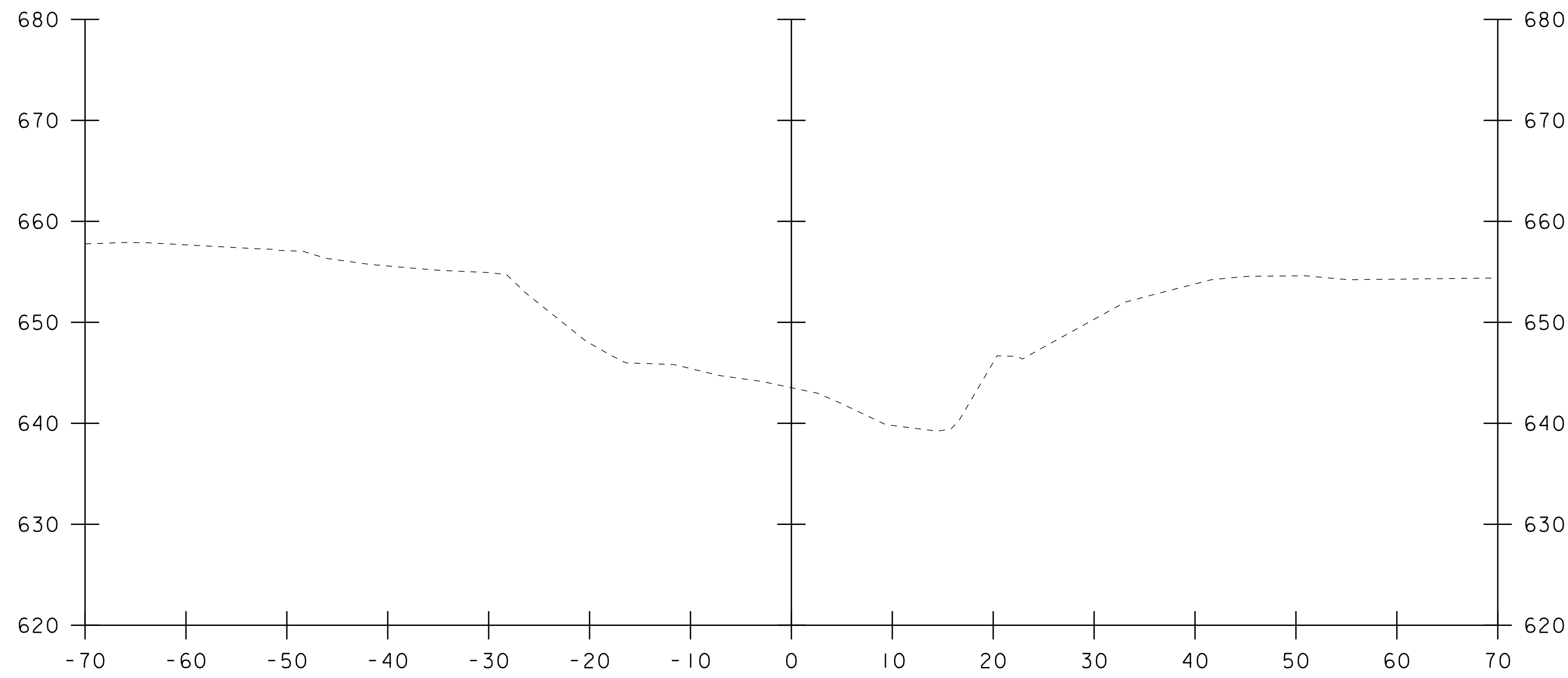
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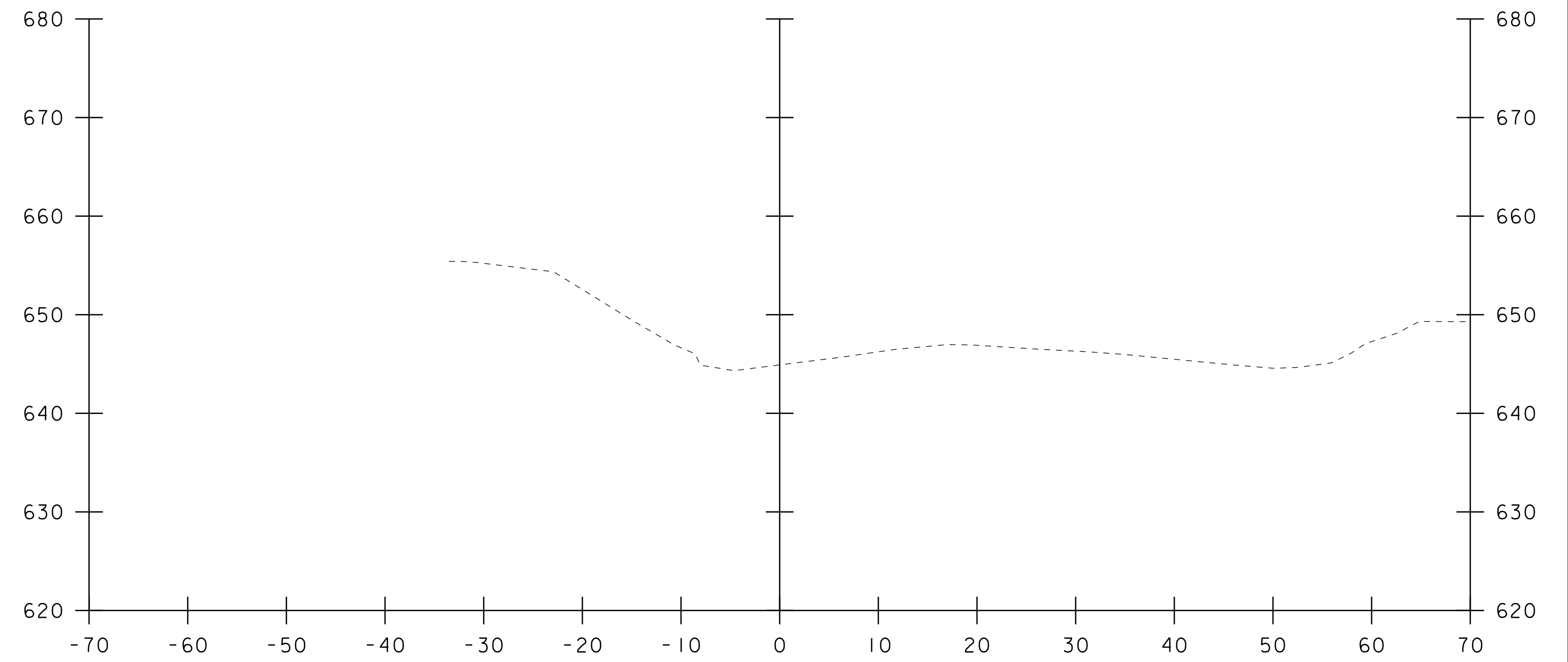
51+00

STA. 50+80 TO STA. 51+10

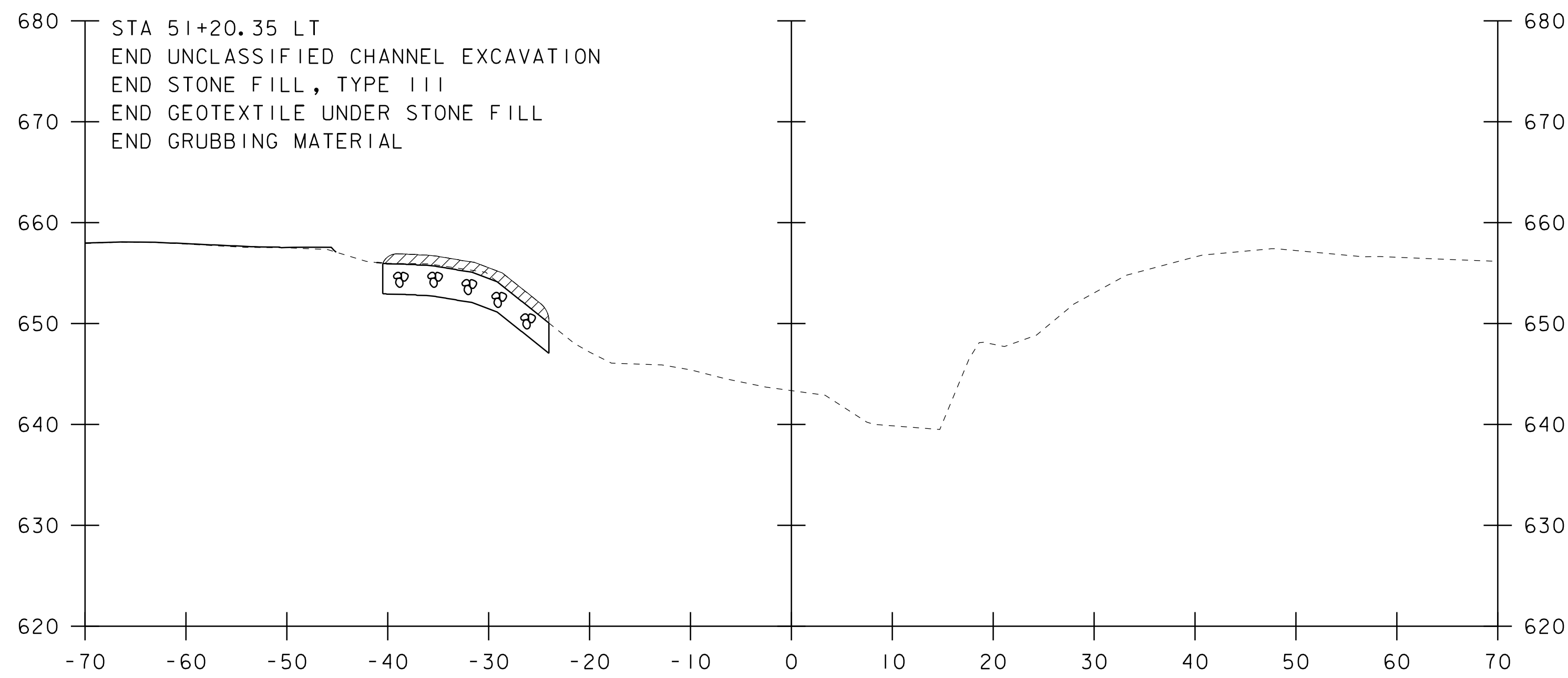
PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660xs.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
CHANNEL CROSS SECTIONS 2	SHEET 23 OF 26



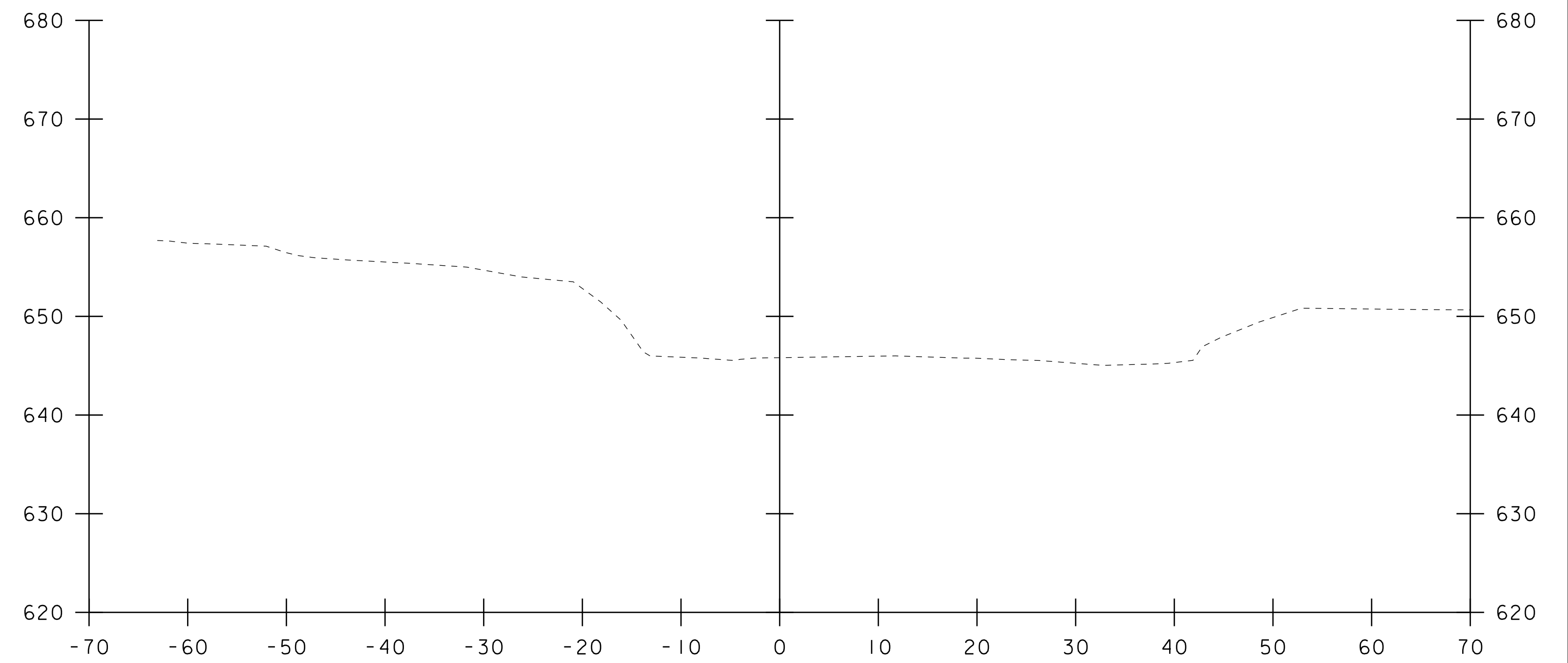
51+25



51+75



51+20

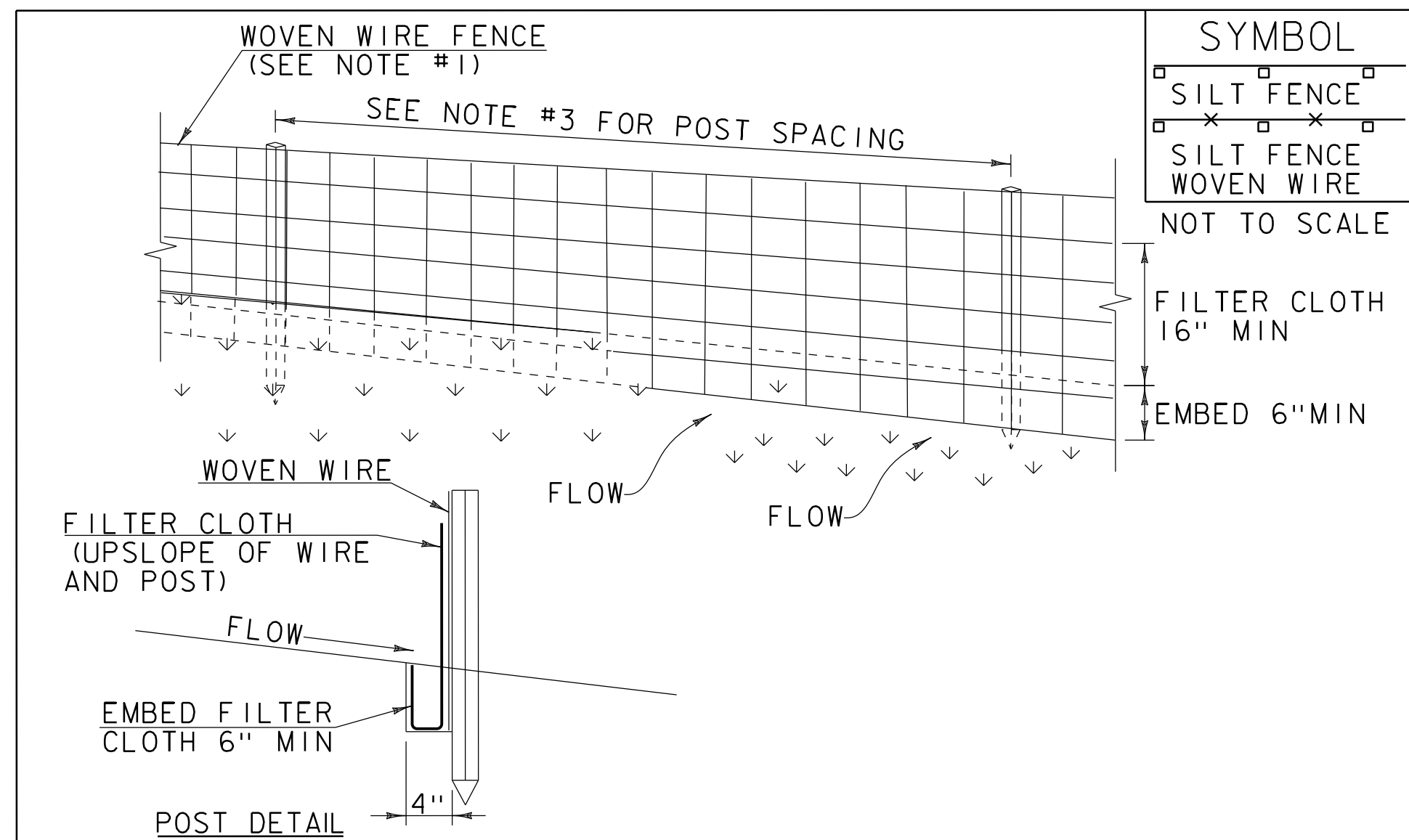


51+50

STA. 51+20 TO STA. 51+75

PROJECT NAME: STOWE	
PROJECT NUMBER: BO 1446(37)	
FILE NAME: sl2j660xs.dgn	PLOT DATE: 25-MAR-2020
PROJECT LEADER: C. COTA	DRAWN BY: M. LONGSTREET
DESIGNED BY: C. BURRALL	CHECKED BY: C. BURRALL
CHANNEL CROSS SECTIONS 3	SHEET 24 OF 26





**CONSTRUCTION SPECIFICATIONS**

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SILT FENCE**

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 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

VAOT LOW GROW/FINE FESCUE MIX						
WEIGHT	LBS/AC		NAME	LATIN NAME	GERM	PURITY
	BROADCAST	HYDROSEED				
38%	57	95	CREeping RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	43.5	72.5	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	22.5	37.5	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	22.5	37.5	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	4.5	7.5	INERTS			
100%	150	250				

VAOT RURAL AREA MIX						
WEIGHT	LBS/AC		NAME	LATIN NAME	GERM	PURITY
	BROADCAST	HYDROSEED				
37.5%	22.5	45	CREeping RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	22.5	45	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	3	6	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	9	18	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	60	120				

**GENERAL AMENDMENT GUIDANCE**

FERTILIZER	LIME	
10/20/10	AG LIME	PELLITIZED
500 LBS/AC	2 TONS/AC	1 TONS/AC

**CONSTRUCTION GUIDANCE**

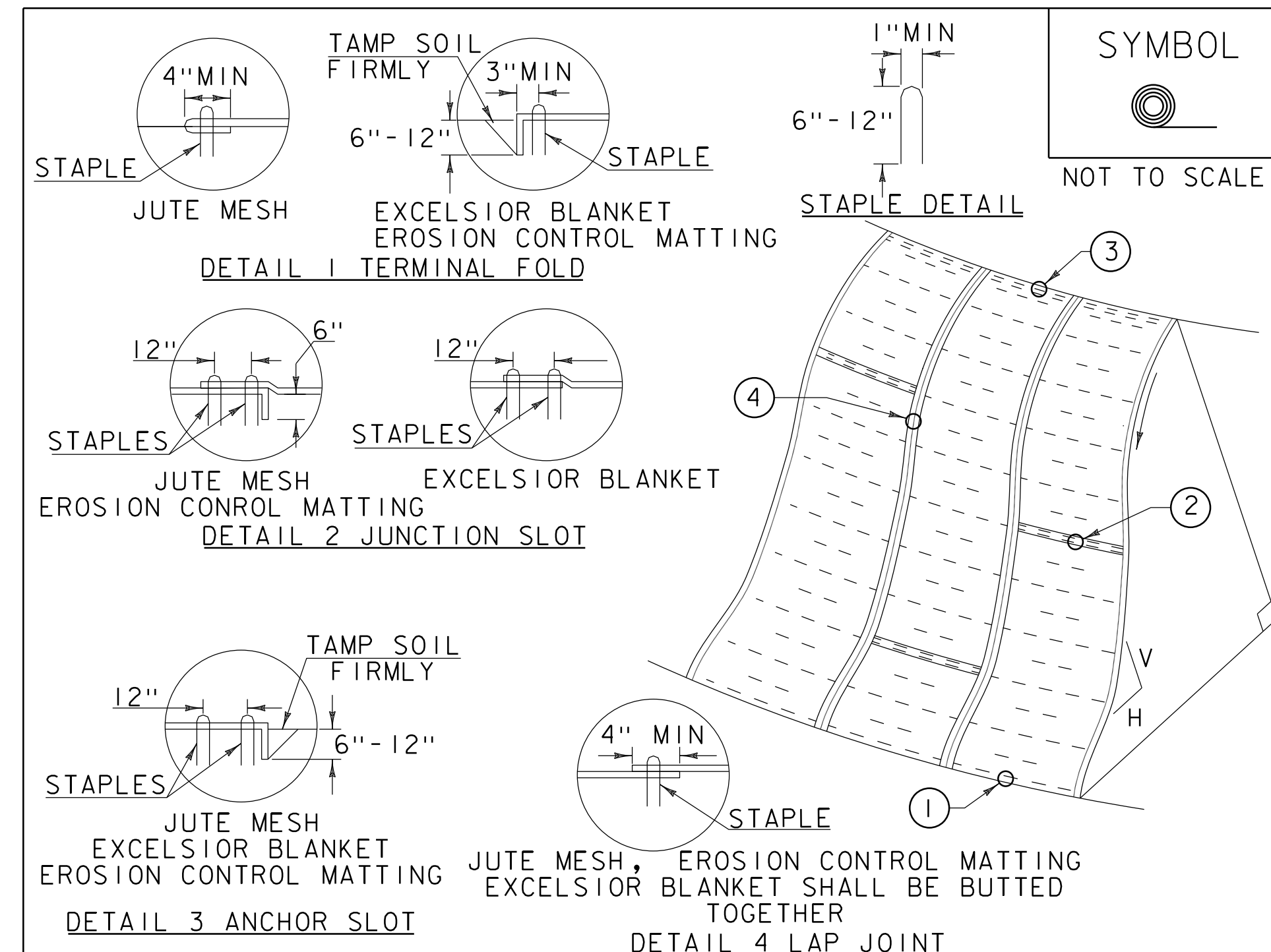
1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.
2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.
7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

**TURF ESTABLISHMENT**

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.15)

REVISIONS	
JANUARY 12, 2015	WHF



**CONSTRUCTION SPECIFICATIONS**

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE**

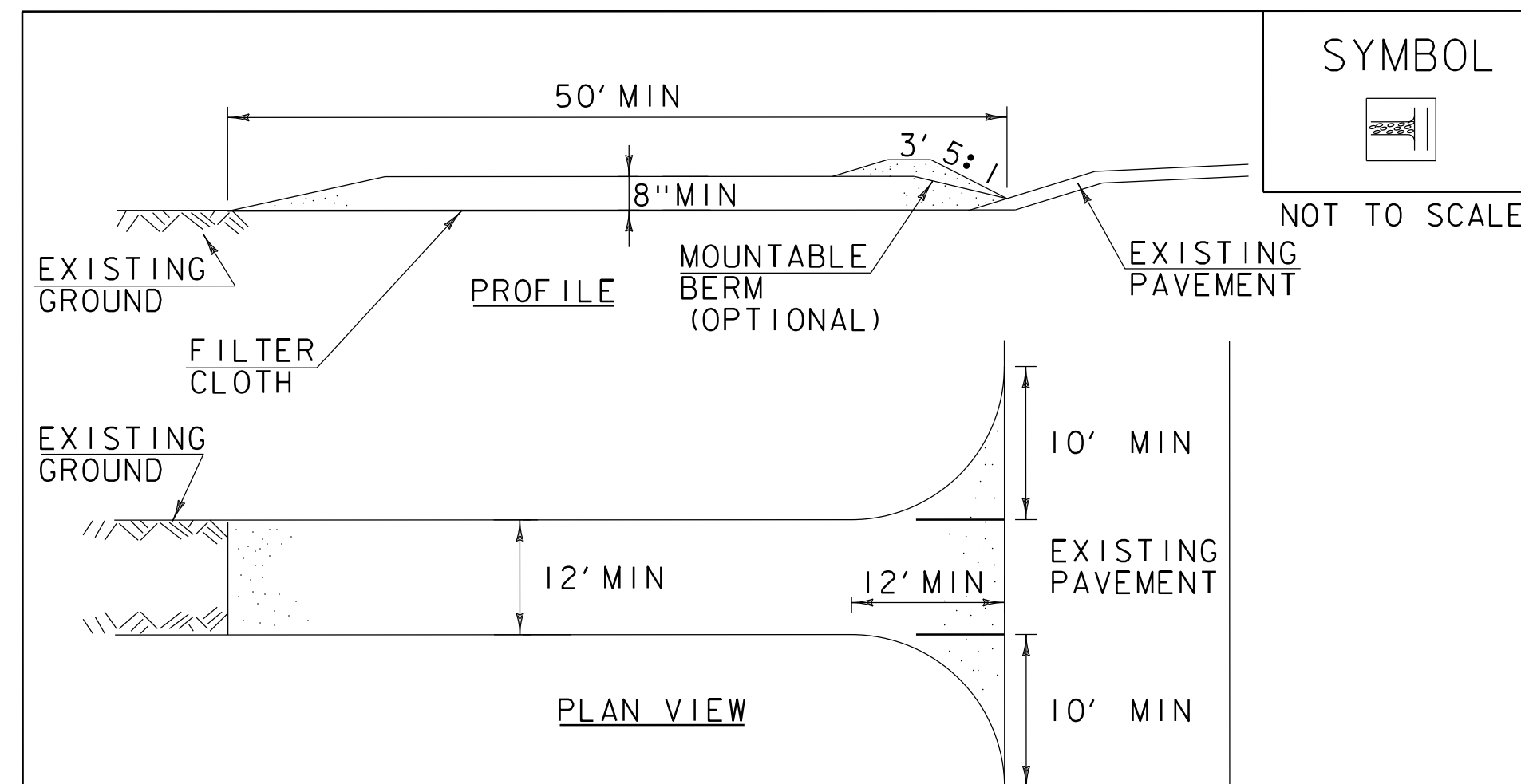
NOTES:  
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.  
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

PROJECT NAME: STOWE  
PROJECT NUMBER: BO 1446(37)

FILE NAME: sl2j660erodetails.dgn  
PROJECT LEADER: C. COTA  
DESIGNED BY: C. BURRALL  
EPSC DETAILS I

PLOT DATE: 25-MAR-2020  
DRAWN BY: C. BURRALL  
CHECKED BY: M. LONGSTREET  
SHEET 25 OF 26



**CONSTRUCTION SPECIFICATIONS**

1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
3. THICKNESS- NOT LESS THAN 8".
4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

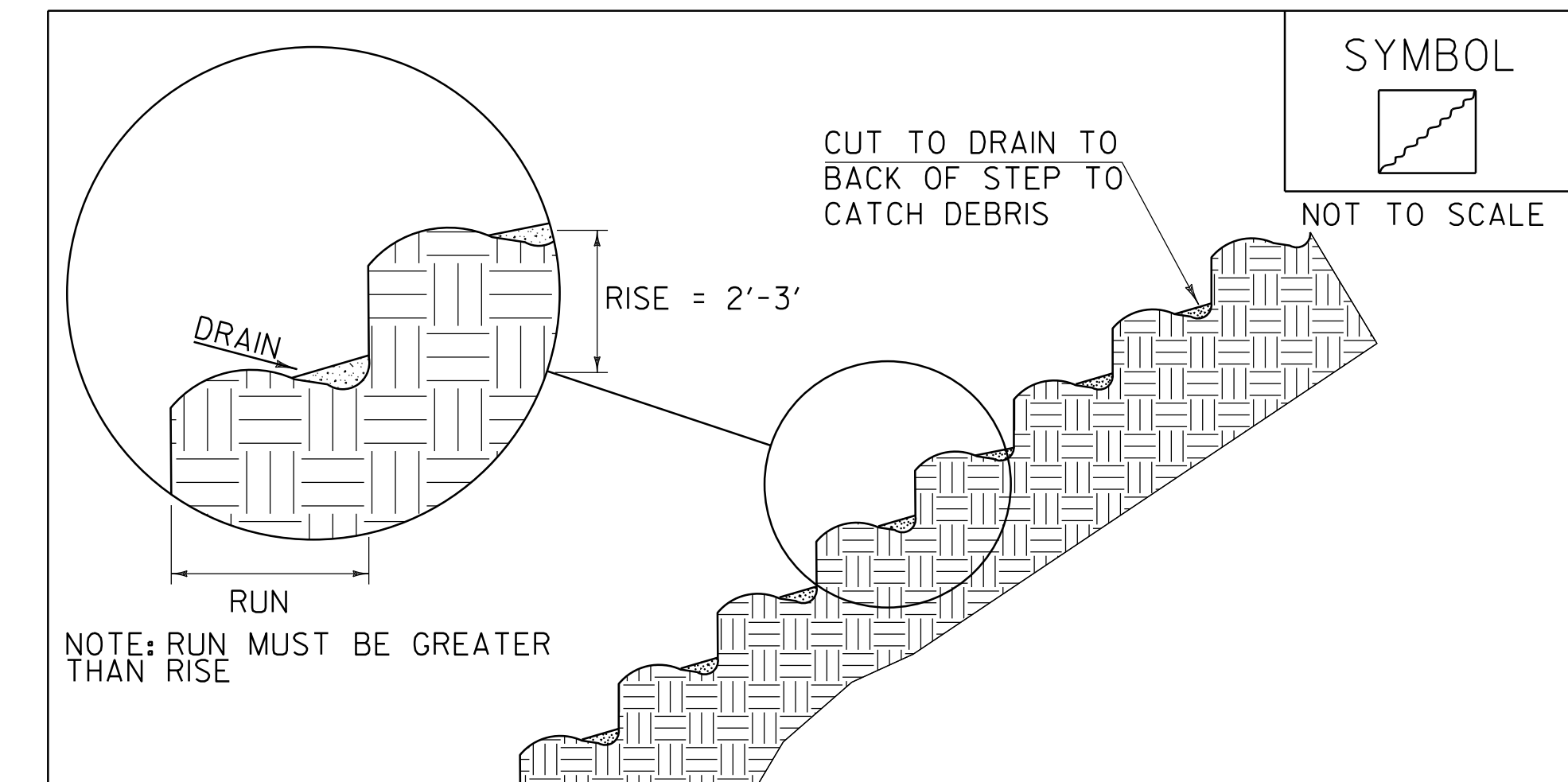
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**STABILIZED  
CONSTRUCTION  
ENTRANCE**

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 VEHICLE TRACKING PAD (PAY ITEM 653.35)  
OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF



**STAIR STEPPING CUT SLOPES**

- NOTE: GROOVE SLOPE BY CUTTING FURROWS ALONG THE CONTOUR. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND RETAIN LIME, FERTILIZER AND SEED.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SURFACE ROUGHENING**

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 CONSIDERED INCIDENTAL TO THE  
CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: STOWE	PLOT DATE: 25-MAR-2020
PROJECT NUMBER: BO 1446(37)	DRAWN BY: C. BURRALL
FILE NAME: sl2j660erodetails.dgn	CHECKED BY: M. LONGSTREET
PROJECT LEADER: C. COTA	SHEET 26 OF 26
DESIGNED BY: C. BURRALL	
EPSC DETAILS 2	