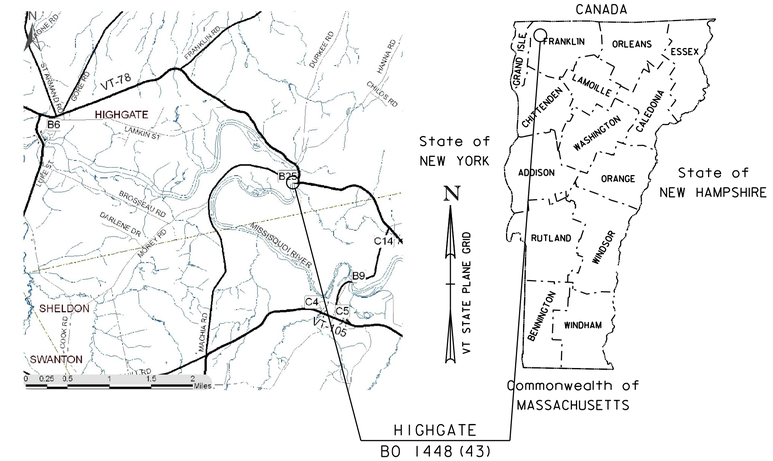
REVIEWER NOTES

1. THE TOWN WILL BE RESPONSIBLE FOR SELECTING, SIGNING, AND MAINTAINING ANY DETOUR ROUTES USED DURING CONSTRUCTION.
2. UTILITIES WILL BE RELOCATED PRIOR TO THE START OF CONSTRUCTION.
3. ADDITIONAL TEMPORARY AND PERMANENT ROW WILL BE NEEDED FOR THIS PROJECT.
4. IT IS ANTICIPATED THAT A CAUSEWAY WILL NEED TO BE CONSTRUCTED IN THE RIVER STARTING AT THE SOUTHWEST CORNER OF THE BRIDGE AND EXTENDING SLIGHTLY EAST OF THE EXISTING PIER.
5. A SIMPLIFIED PAVEMENT DESIGN HAS BEEN DONE FOR THIS PROJECT.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

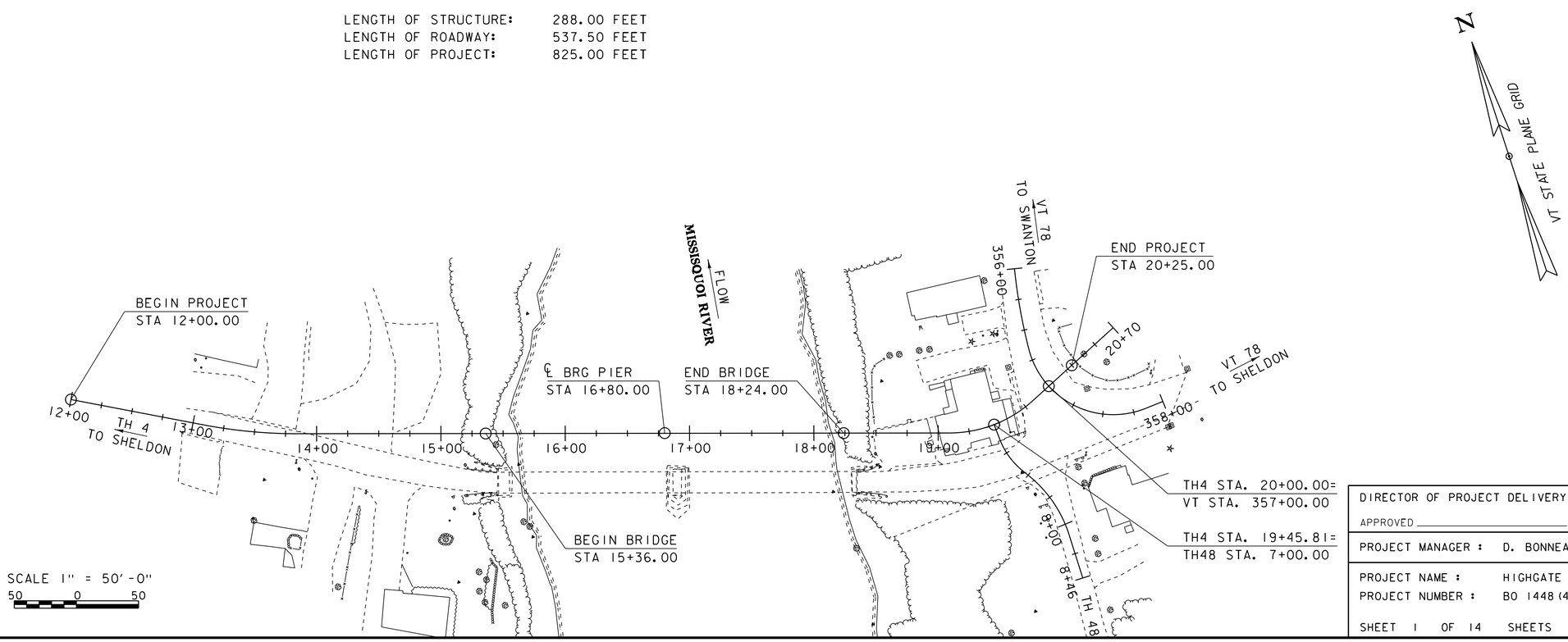
VILLAGE OF HIGHGATE
COUNTY OF FRANKLIN

ROUTE NO : TOWN HIGHWAY 4. CLASS 2 LOCAL TOWN ROAD BRIDGE NO : 25

PROJECT LOCATION: 200 FEET WEST OF THE INTERSECTION OF TH 4 (MACHIA ROAD) AND VT ROUTE 78

PROJECT DESCRIPTION: REMOVAL OF EXISTING STRUCTURE AND REPLACEMENT WITH A NEW STRUCTURE. INCLUDING APPROACH WORK ON TOWN HIGHWAY 4

LENGTH OF STRUCTURE: 288.00 FEET
LENGTH OF ROADWAY: 537.50 FEET
LENGTH OF PROJECT: 825.00 FEET



SCALE 1" = 50'-0"
50 0 50

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

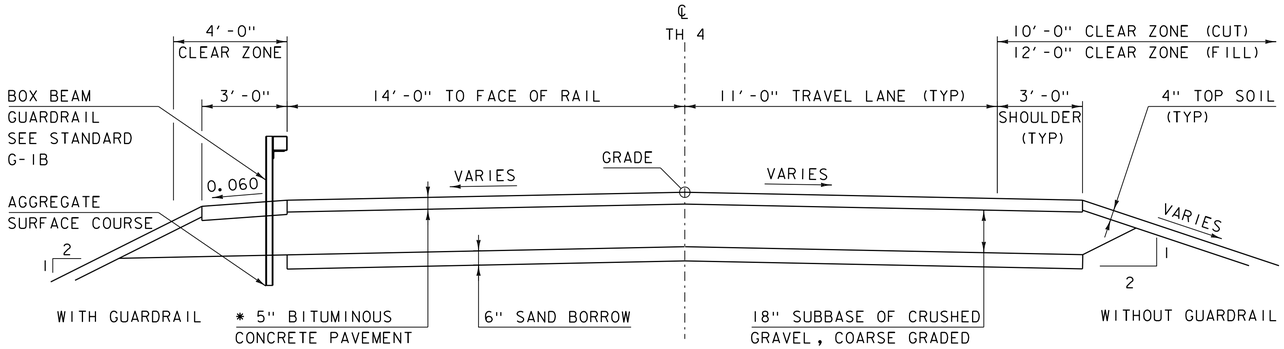
QUALITY ASSURANCE PROGRAM : LEVEL 2	
SURVEYED BY :	L. ORVIS
SURVEYED DATE :	05/29/2013
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83 (2007)

DIRECTOR OF PROJECT DELIVERY
APPROVED _____ DATE _____

PROJECT MANAGER : D. BONNEAU P.E.

PROJECT NAME : HIGHGATE
PROJECT NUMBER : BO 1448 (43)

SHEET 1 OF 14 SHEETS



* 1½" TYPE IVS OVER
1½" TYPE IVS OVER
2" TYPE IIIS

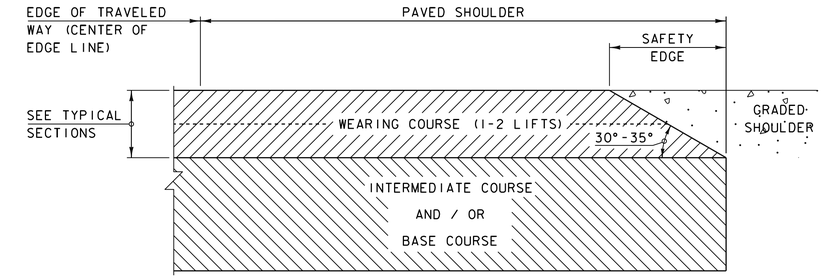
PROPOSED TH 4 TYPICAL SECTION

SCALE ⅜" = 1'-0"

MATERIAL TOLERANCES

(IF USED ON PROJECT)

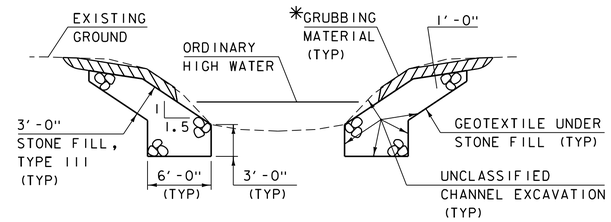
SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- ¼"
- AGGREGATE SURFACE COURSE	+/- ½"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"



SAFETY EDGE DETAIL

NOT TO SCALE

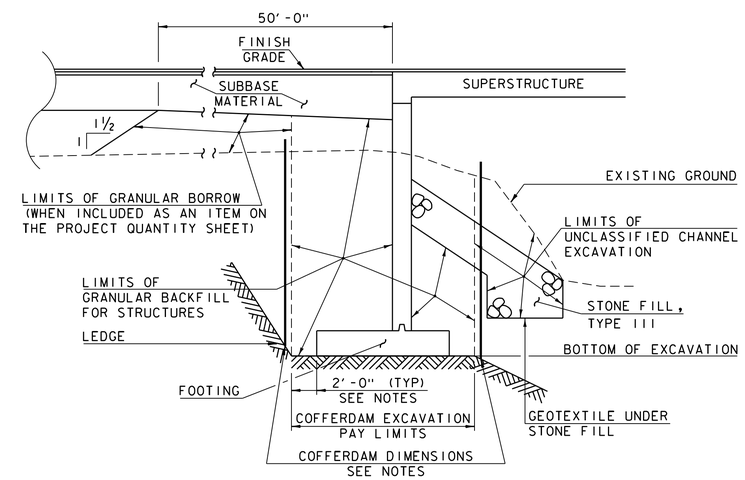
1. LEVELING COURSE MAY INCLUDE THE "SAFETY EDGE" AT THE CONTRACTOR'S CHOICE.
2. THE EDGE OF PAVEMENT SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE 30 TO 35 DEGREE ANGLE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE PAVED SHOULDER EXTENDS FROM THE EDGE OF TRAVELED WAY TO THE EDGE OF THE WEARING COURSE, INCLUDING THE "SAFETY EDGE".

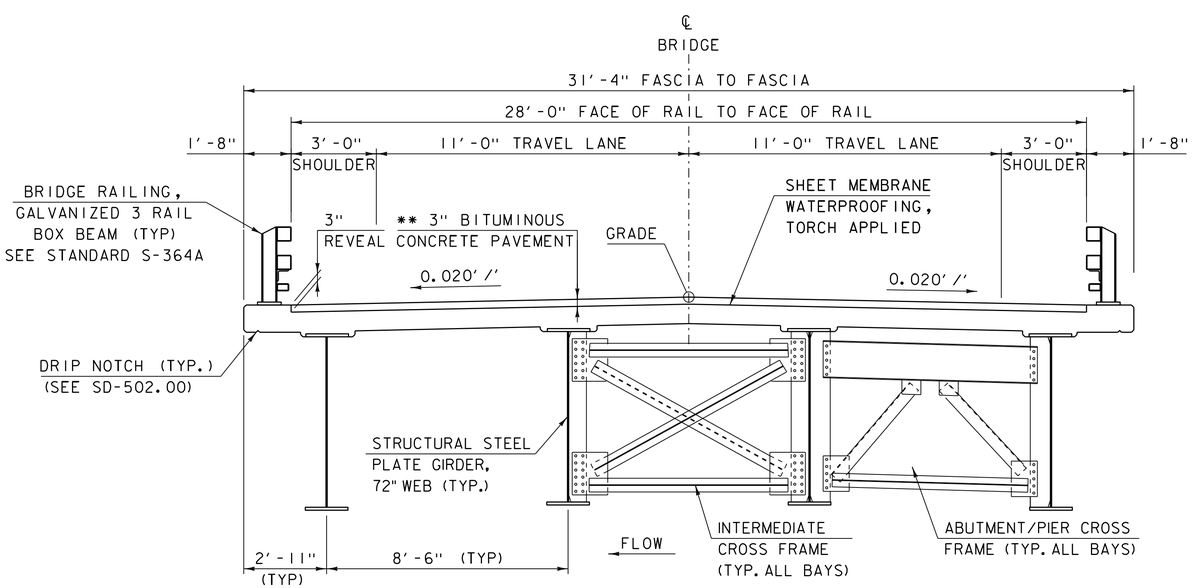


TYPICAL CHANNEL SECTION

(NOT TO SCALE)

*WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.





PROPOSED BRIDGE TYPICAL SECTION

SCALE ⅜" = 1'-0"

** 1½" TYPE IVS OVER
1½" TYPE IVS

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.

COFFERDAM AND EARTHWORK SECTION

(NOT TO SCALE)

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378typ.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: C.W. CARLSON	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
TYPICAL SECTIONS	SHEET 2 OF 14

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

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

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

POINT	CODE	DESCRIPTION
	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
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⊡	BNDNS	BOUND TO BE SET
●	IPNS	IRON PIN SET
◎	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 VALUE
	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 RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

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

ABOVE GROUND UTILITIES (AERIAL)

	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+TELEP.
	UTILITY POLE GUY WIRE

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

CZ	CLEAR ZONE
	PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

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

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

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

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

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

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

ENVIRONMENTAL RESOURCES

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

ARCHEOLOGICAL & HISTORIC

ARCH	ARCHEOLOGICAL BOUNDARY
HISTORIC DIST	HISTORIC DISTRICT BOUNDARY
HISTORIC	HISTORIC AREA
H	HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

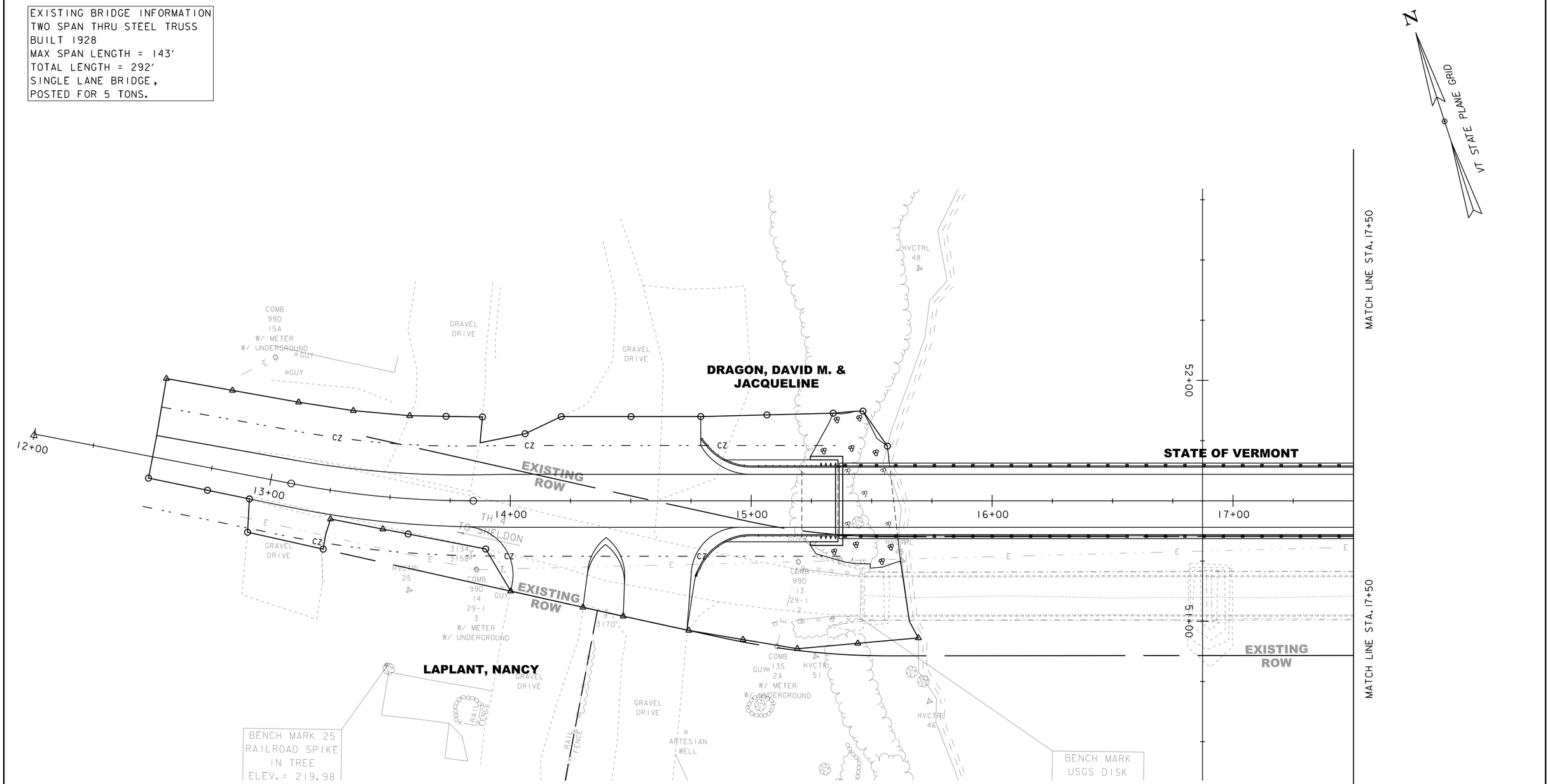
	ROAD EDGE PAVEMENT
	ROAD EDGE GRAVEL
	DRIVEWAY EDGE
	DITCH
	FOUNDATION
	FENCE (EXISTING)
	FENCE WOOD POST
	FENCE STEEL POST
	GARDEN
	ROAD GUARDRAIL
	RAILROAD TRACKS
	CULVERT (EXISTING)
	STONE WALL
	WALL
	WOOD LINE
	BRUSH LINE
	HEDGE
	BODY OF WATER EDGE
	LEDGE EXPOSED

PROJECT NAME: HIGHGATE
PROJECT NUMBER: BO 1448 (43)

FILE NAME: s98j378forms.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
SYMBOLOGY LEGEND

PLOT DATE: 07-JAN-2016
DRAWN BY: C. MOONEY
CHECKED BY: D. PETERSON
SHEET 3 OF 14

EXISTING BRIDGE INFORMATION
TWO SPAN THRU STEEL TRUSS
BUILT 1928
MAX SPAN LENGTH = 143'
TOTAL LENGTH = 292'
SINGLE LANE BRIDGE,
POSTED FOR 5 TONS.



PAVED DRIVEWAY APRON
(BITUMINOUS CONCRETE PAVEMENT)
12+92 RT - 13+25 RT
14+00 RT - 14+40 RT
15+50 RT - 14+75 RT

GRAVEL DRIVEWAY
12+50.00 LT - 14+25.00 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
15+20 RT - 15+45 RT
15+20 RT - 15+45 RT

BOX BEAM END SECTION, TYPE I
14+75 LT
14+75 RT

BOX BEAM GUARDRAIL
14+75 LT - 15+05 LT
14+75 RT - 15+05 RT

GUARDRAIL APPROACH SECTION,
GALVANIZED 3 RAIL BOX BEAM
15+05 LT - 15+37 LT
15+05 RT - 15+37 RT

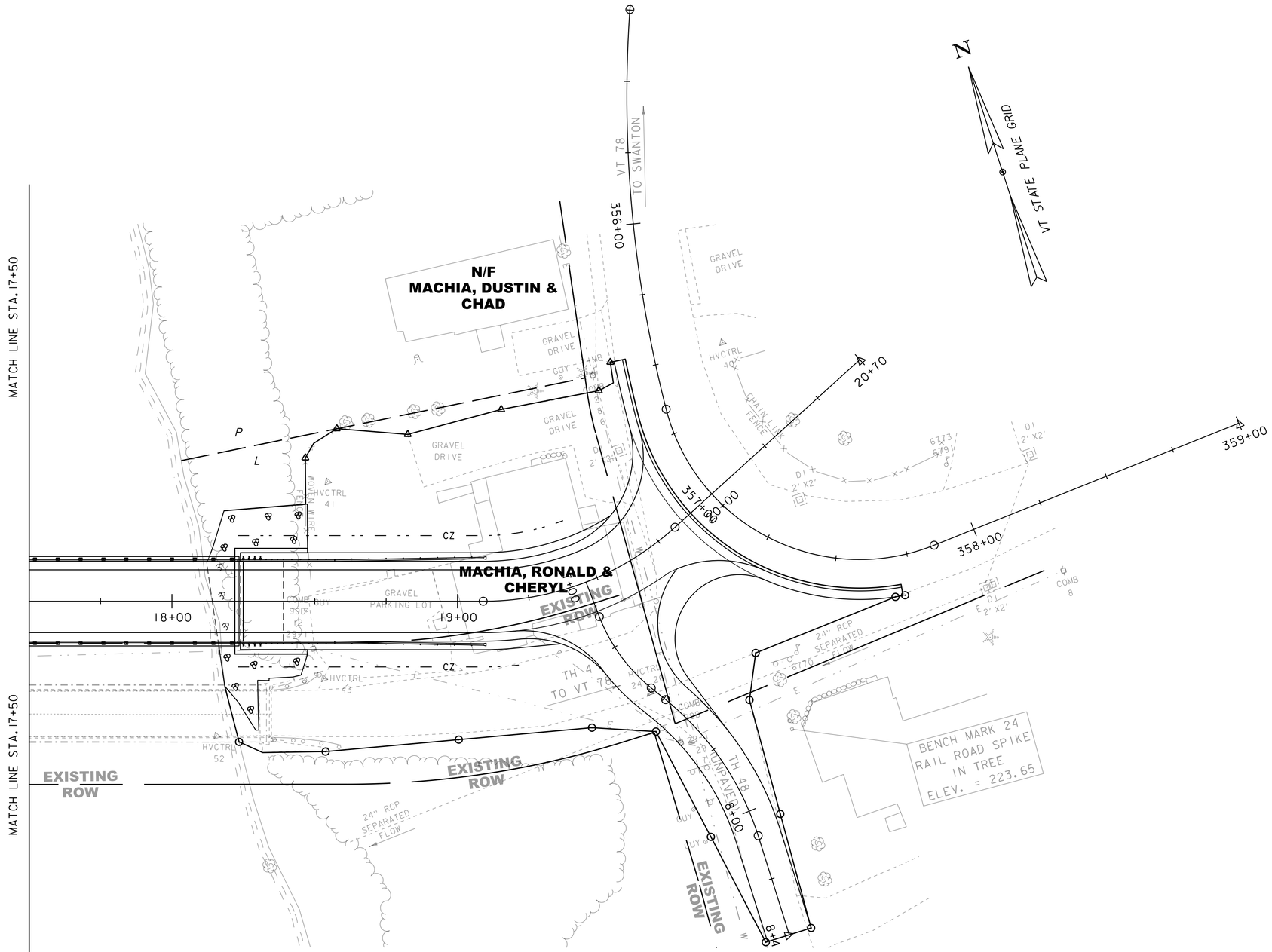
BRIDGE RAILING,
GALVANIZED 3 RAIL BOX BEAM
15+37 LT -17+50 LT
15+37 RT -17+50 RT

REMOVING SIGNS
15+10 RT
15+20 RT
15+35 RT

REMOVE & RESET MAILBOX
13+83 RT (2)
14+40 RT

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

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378bdr.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
LAYOUT SHEET 1	SHEET 4 OF 14



GUARDRAIL APPROACH SECTION,
GALVANIZED 3 RAIL BOX BEAM
18+23 LT - 18+57 LT
18+23 RT - 18+57 RT

BOX BEAM GUARDRAIL
18+57 LT - 18+96 LT
18+57 RT - 18+96 RT

BOX BEAM, MTS
18+96 LT - 19+10 LT
18+96 RT - 19+10 RT

BRIDGE RAILING,
GALVANIZED 3 RAIL BOX BEAM
15+37 LT -17+50 LT
15+37 RT -17+50 RT

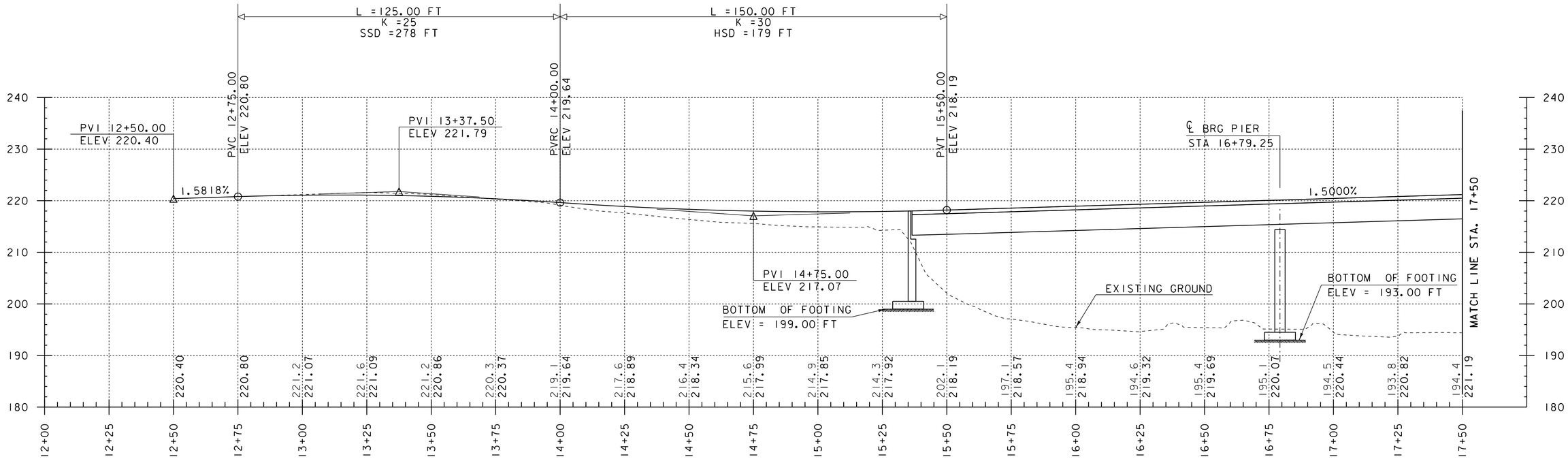
REMOVING SIGNS
18+46 RT
18+51 RT
19+55 RT (4)
19+80 RT

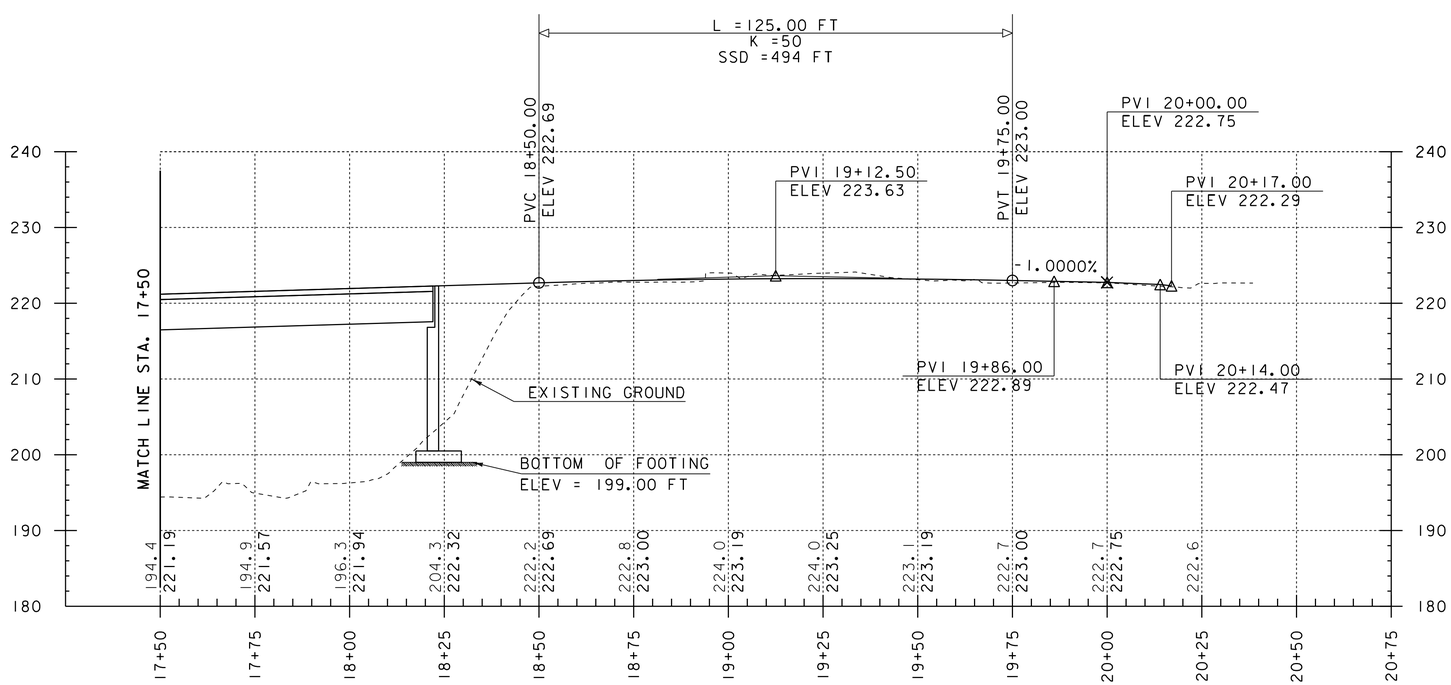
REMOVE & RESET MAILBOX
19+80 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
18+34 RT - 18+60 RT
18+34 RT - 18+60 RT

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

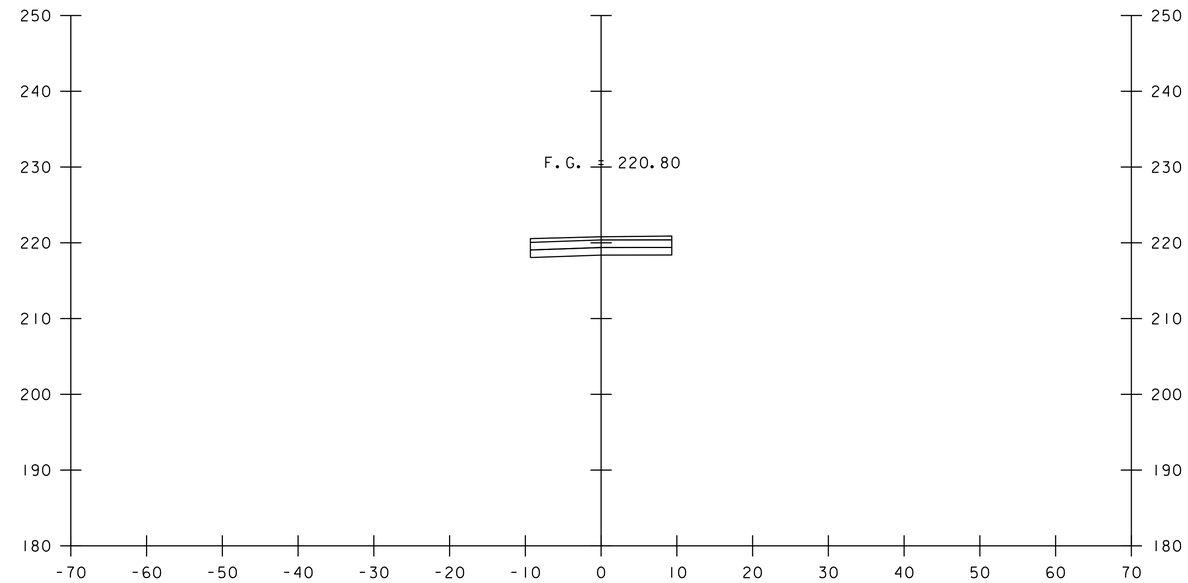
PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378bdr.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
LAYOUT SHEET 2	SHEET 5 OF 14



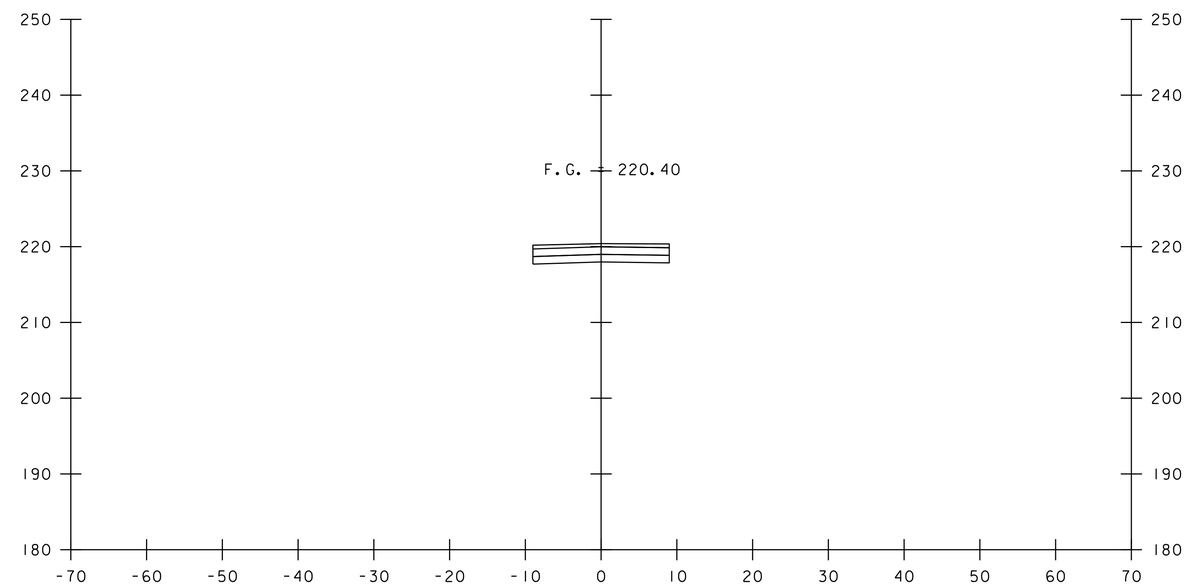


SCALE 1" = 20'-0"
20 0 20

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378bdr.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
UTILITY LAYOUT	SHEET 6 OF 14



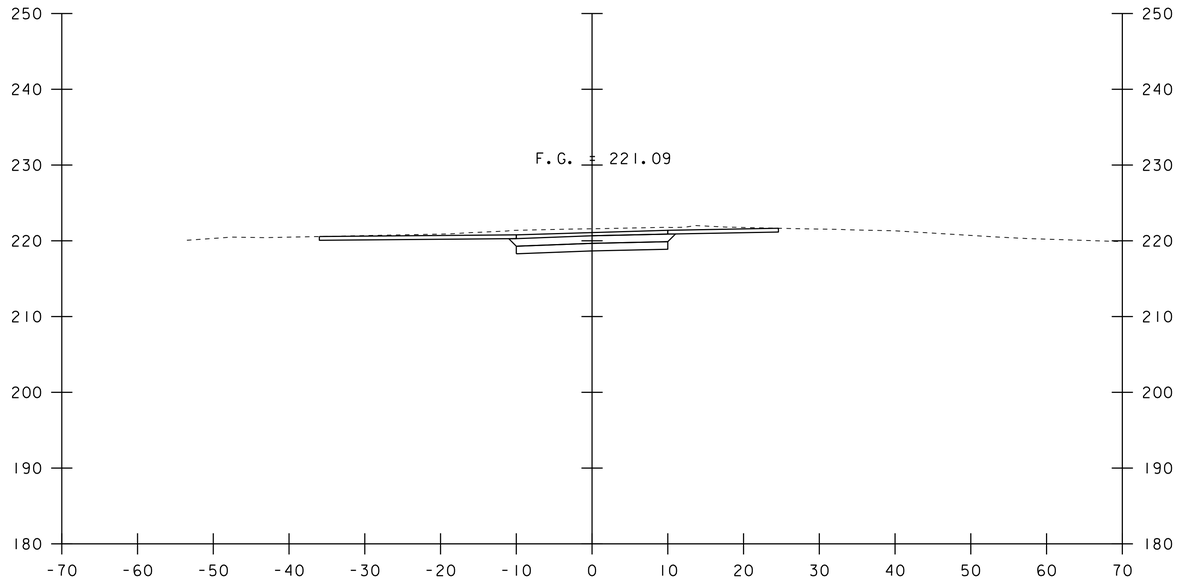
12+75



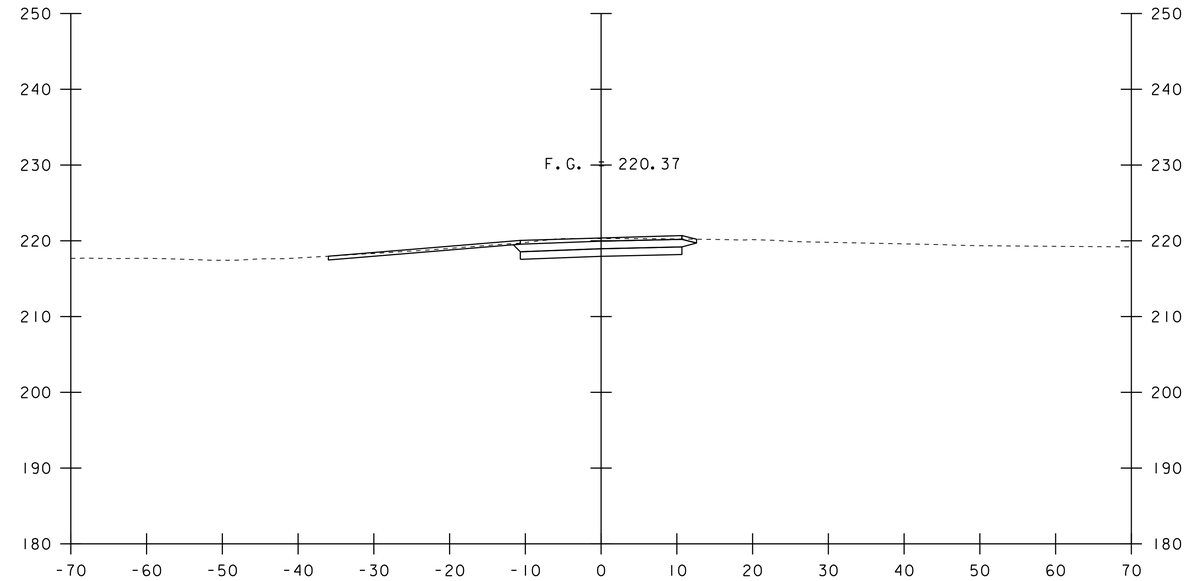
12+50

STA. 12+00 TO STA. 12+75

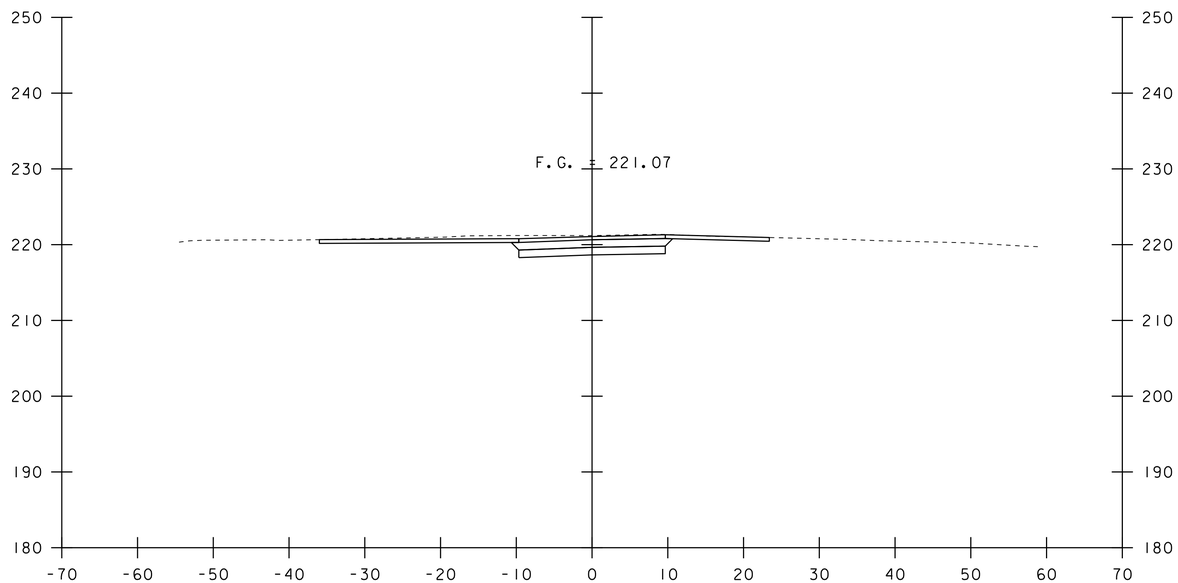
PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 1	SHEET 7 OF 14



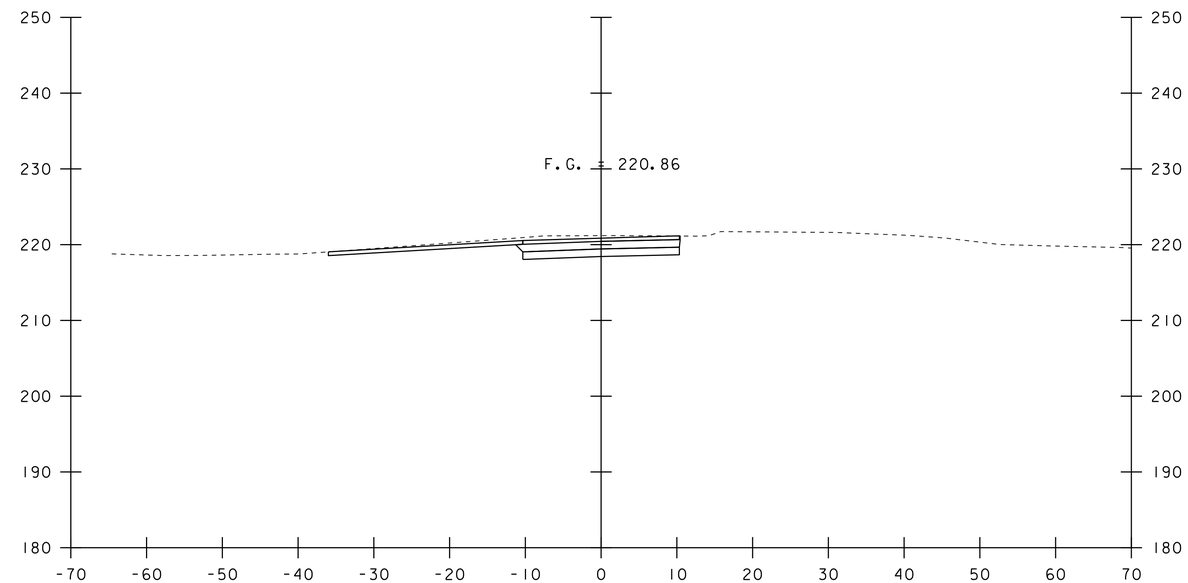
13+25



13+75



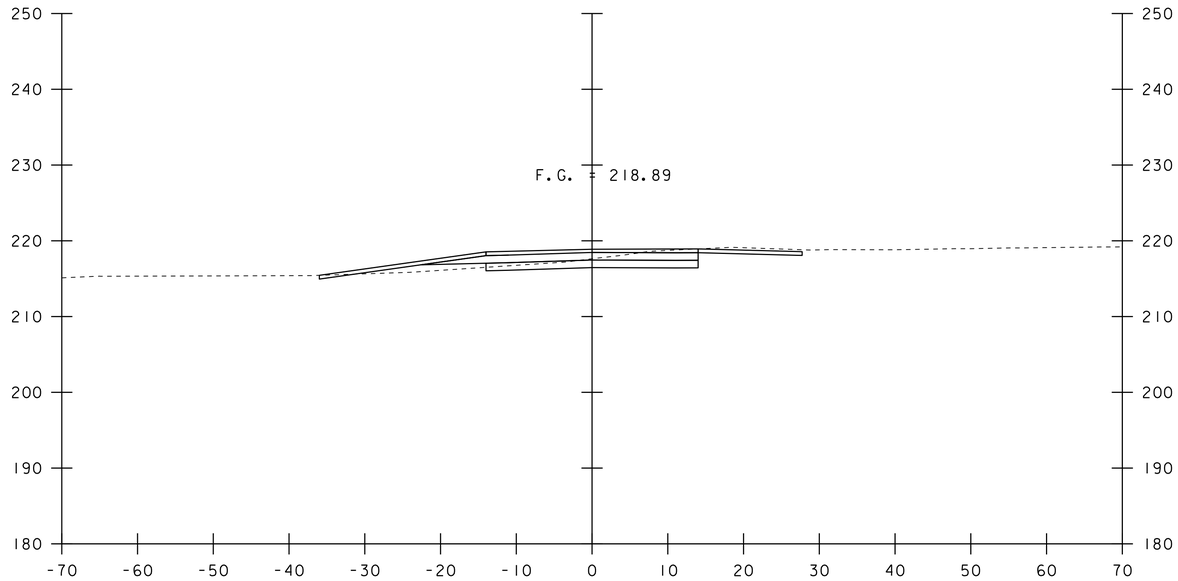
13+00



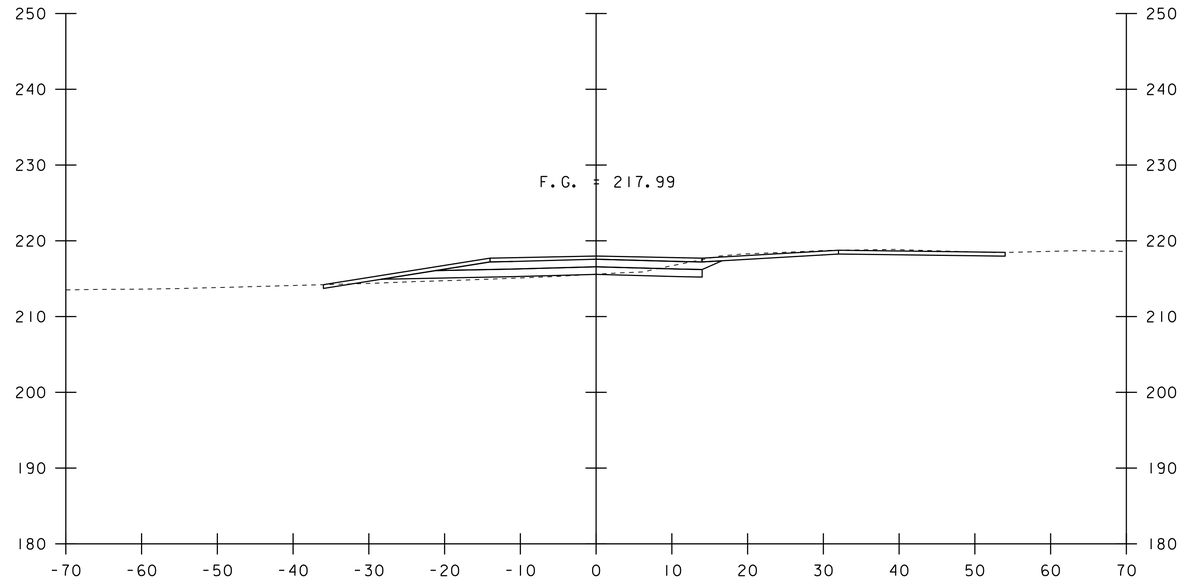
13+50

STA. 13+00 TO STA. 13+75

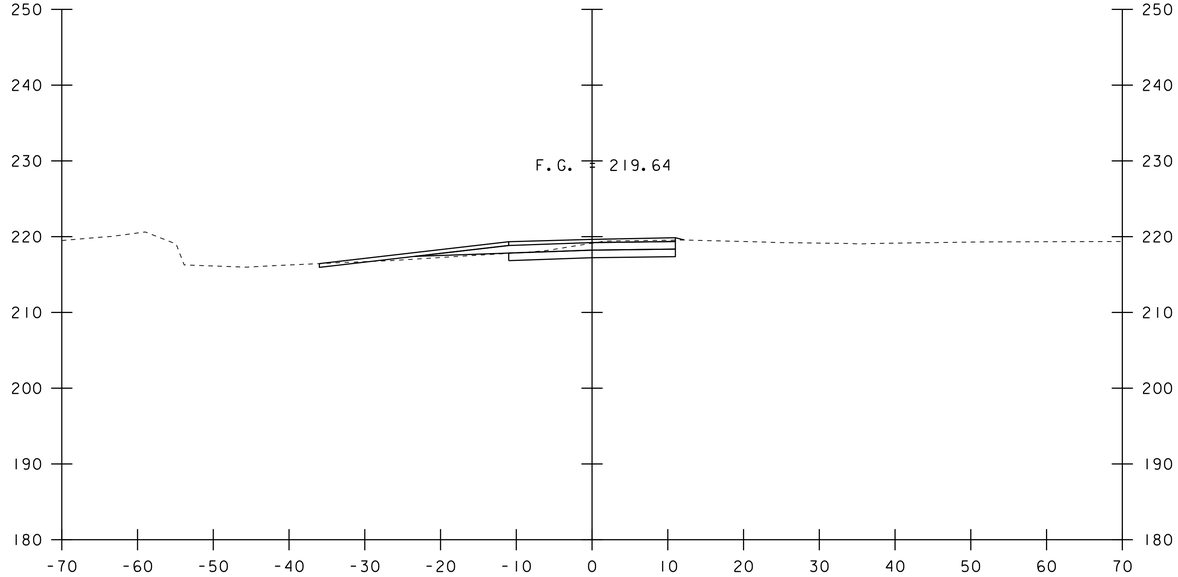
PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 2	SHEET 8 OF 14



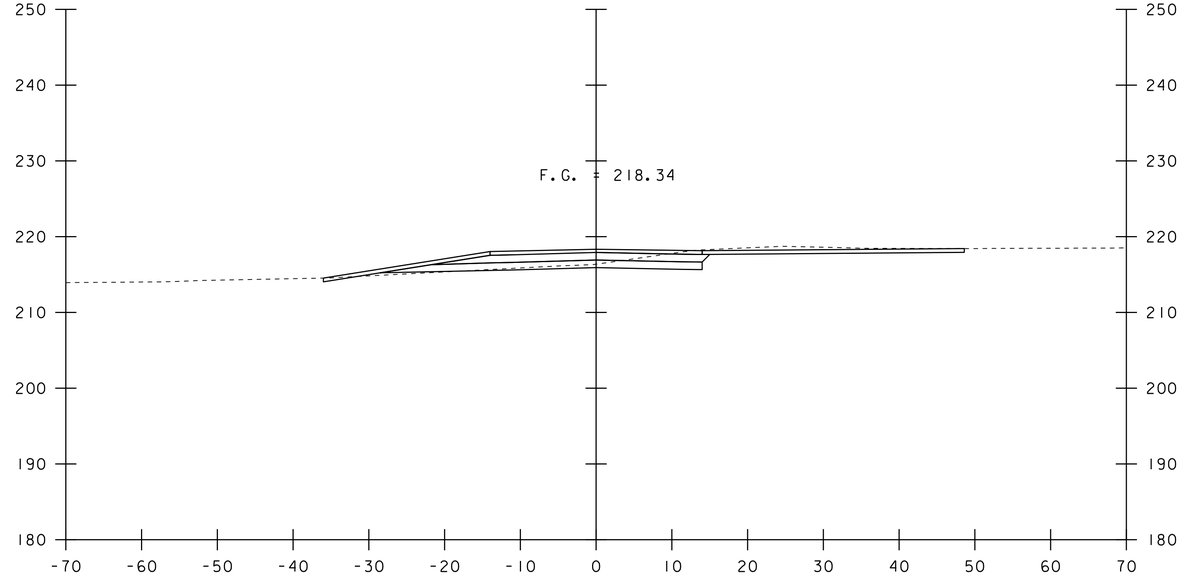
14+25



14+75



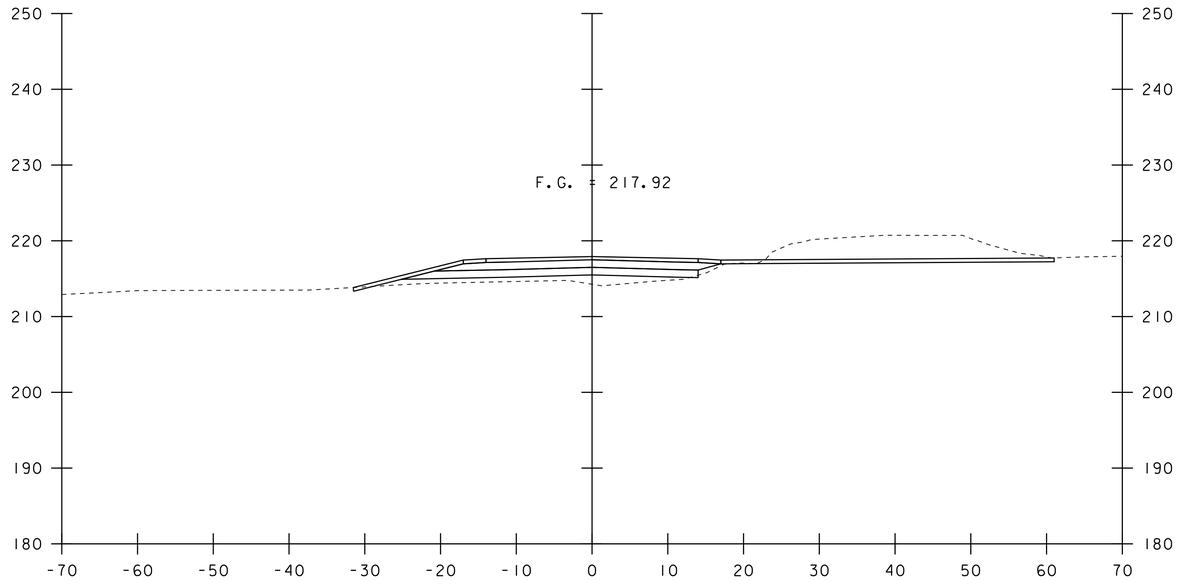
14+00



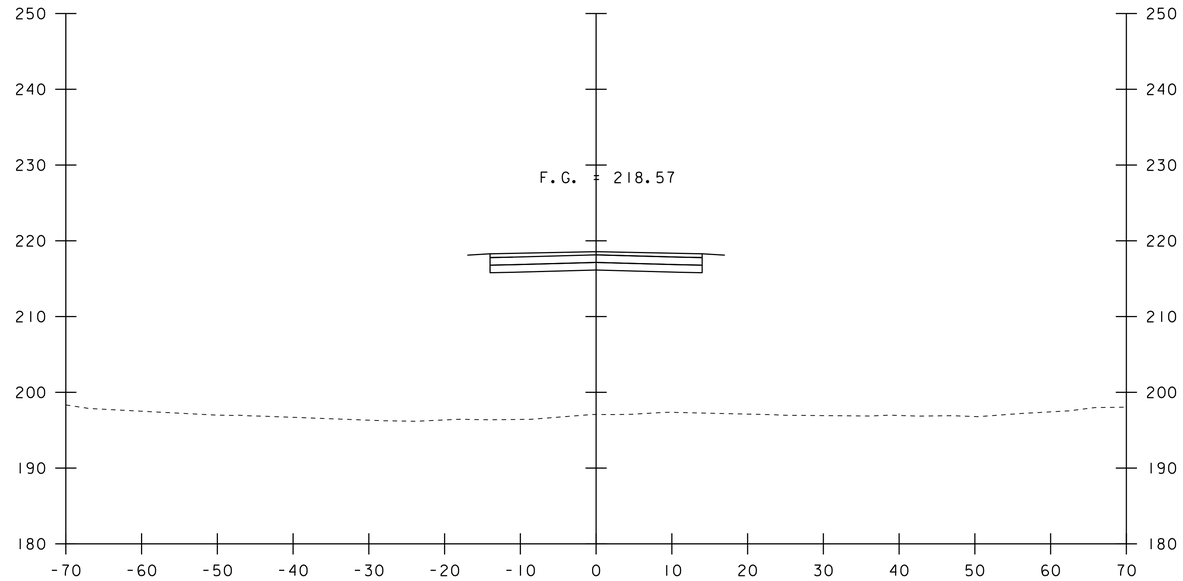
14+50

STA. 14+00 TO STA. 14+75

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 3	SHEET 9 OF 14



15+25



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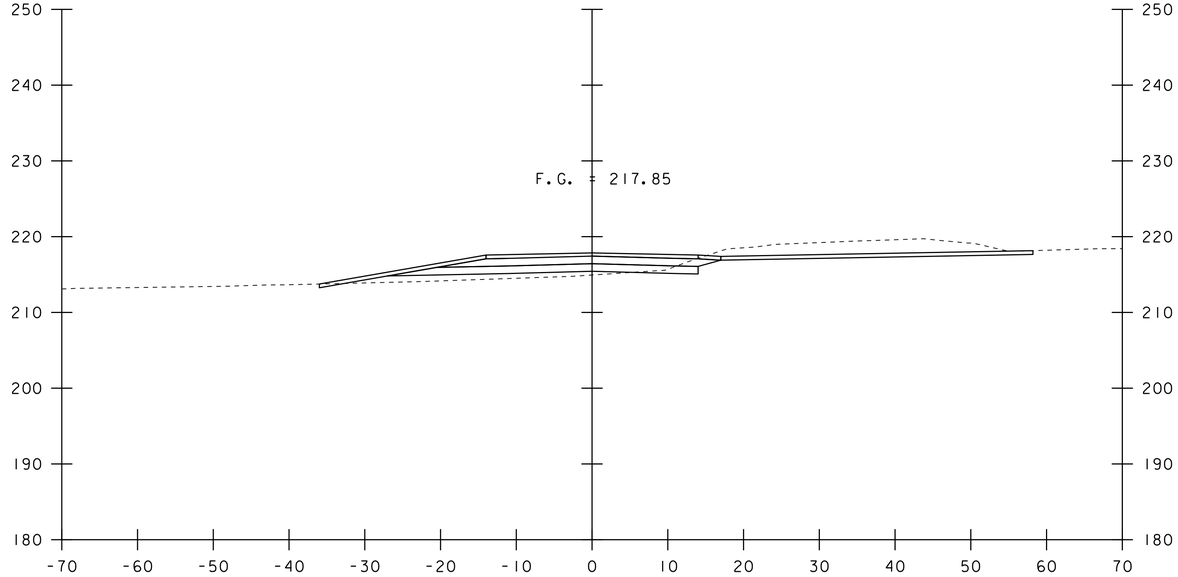

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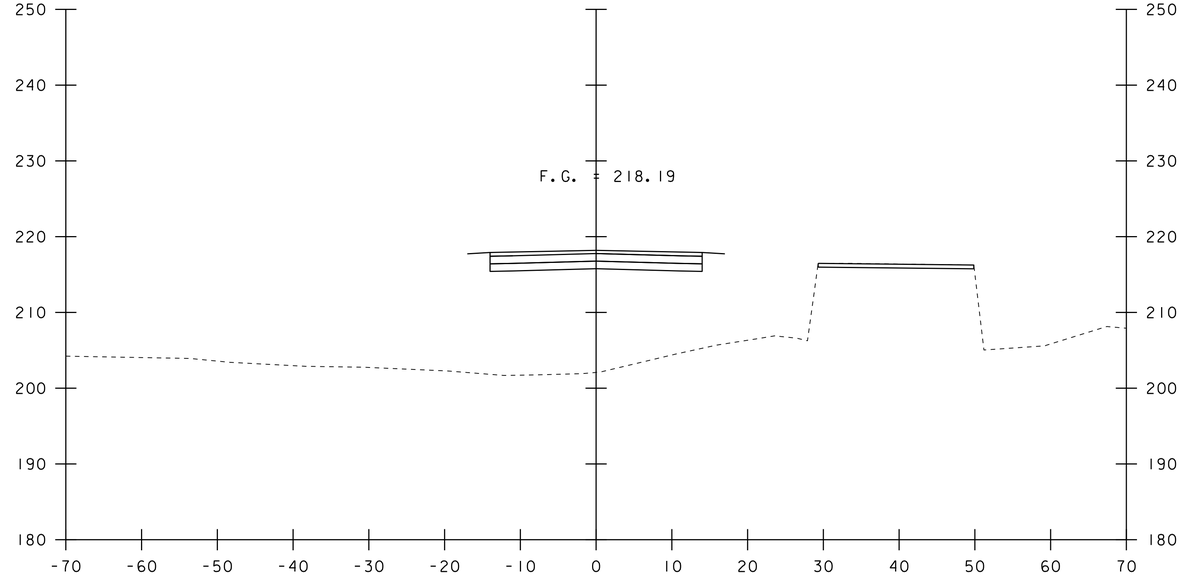
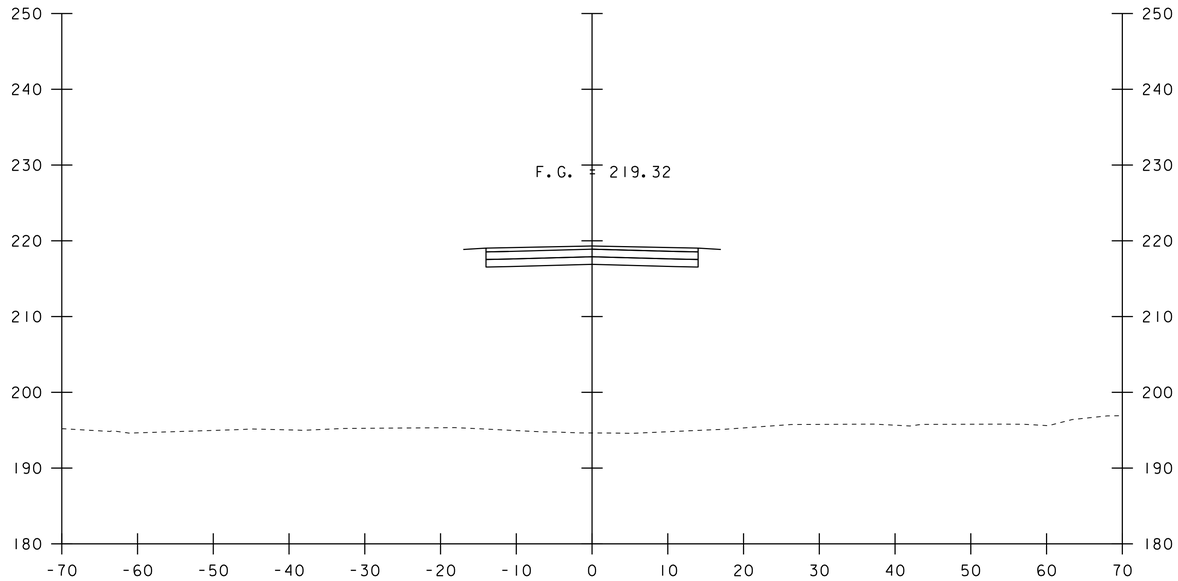


15+50

STA. 15+00 TO STA. 15+75

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 4	SHEET 10 OF 14



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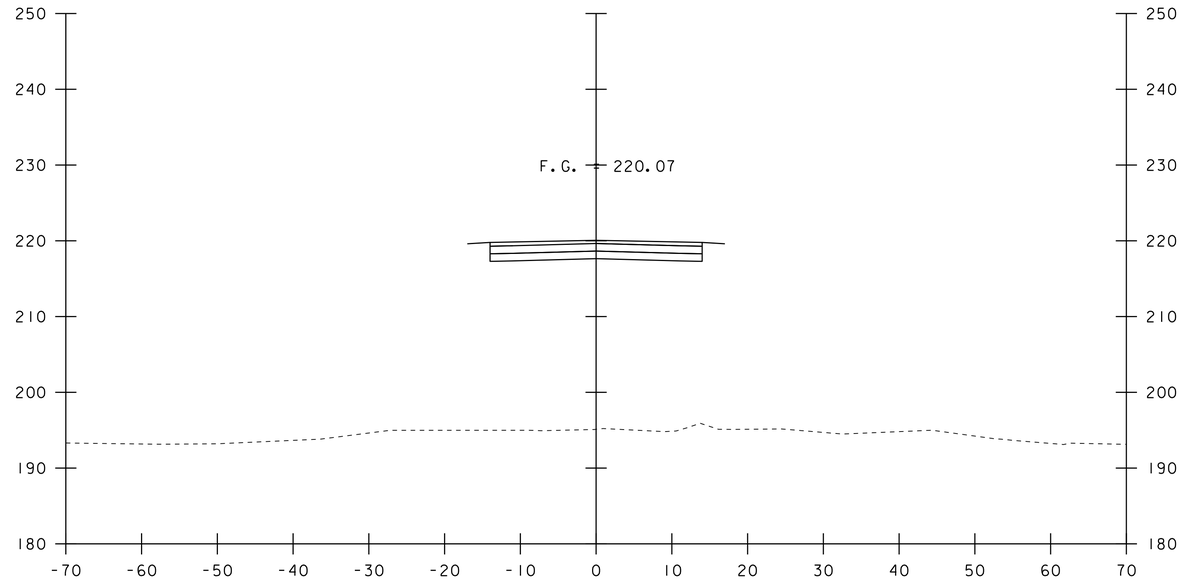

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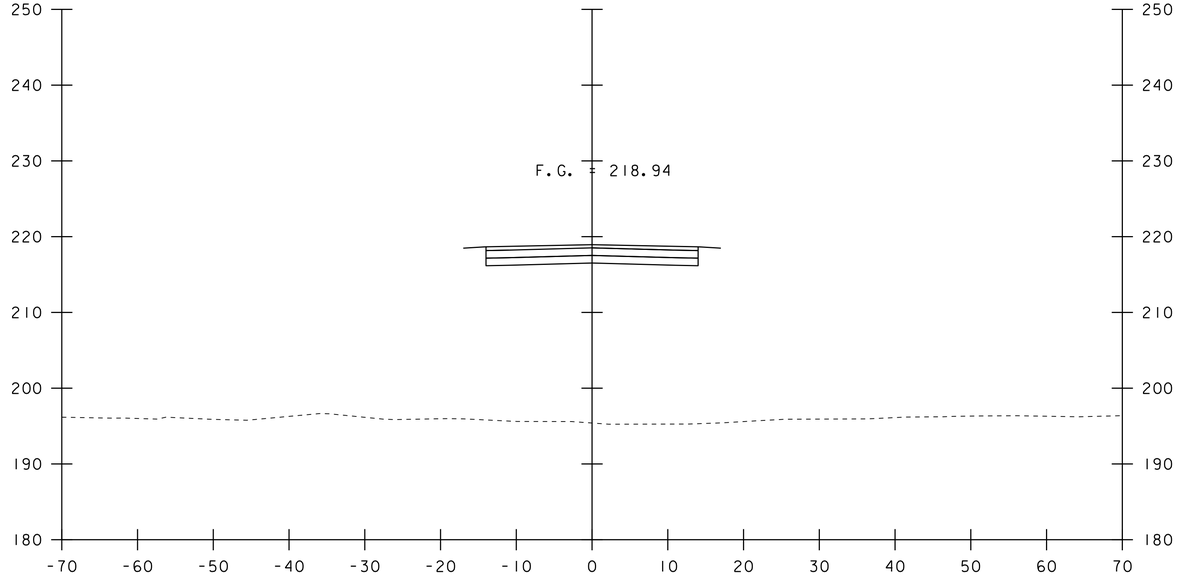

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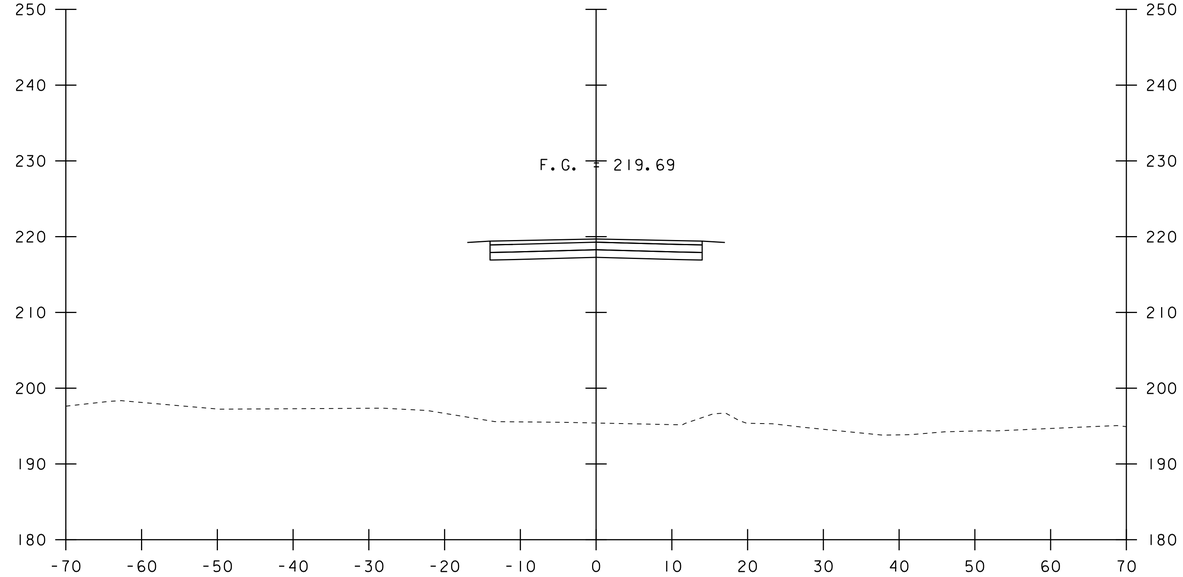

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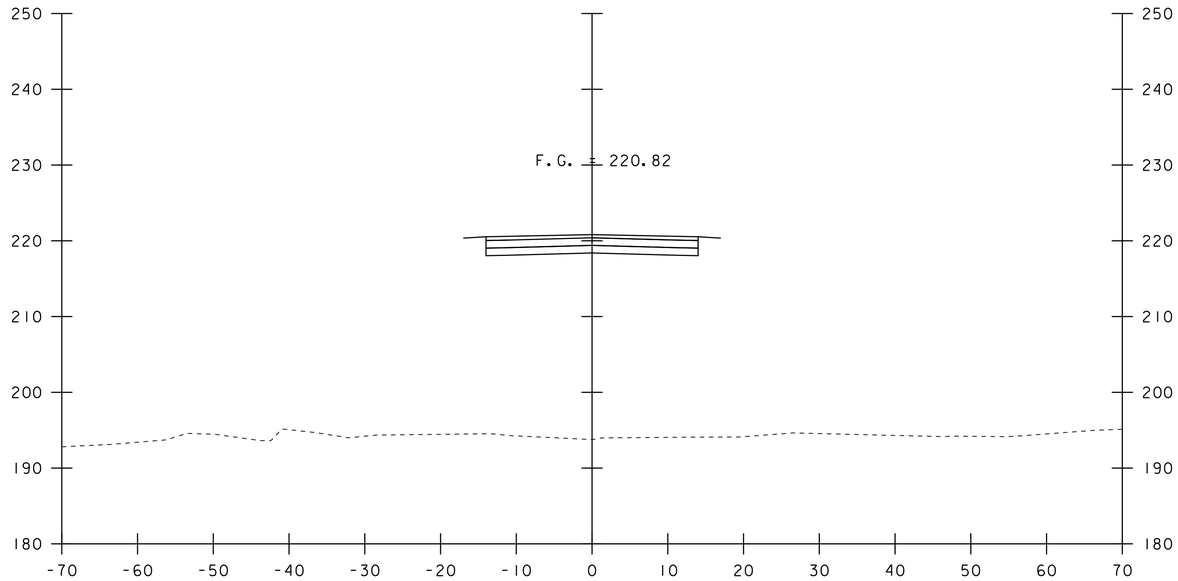
STA. 16+00 TO STA. 16+75

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 5	SHEET 11 OF 14



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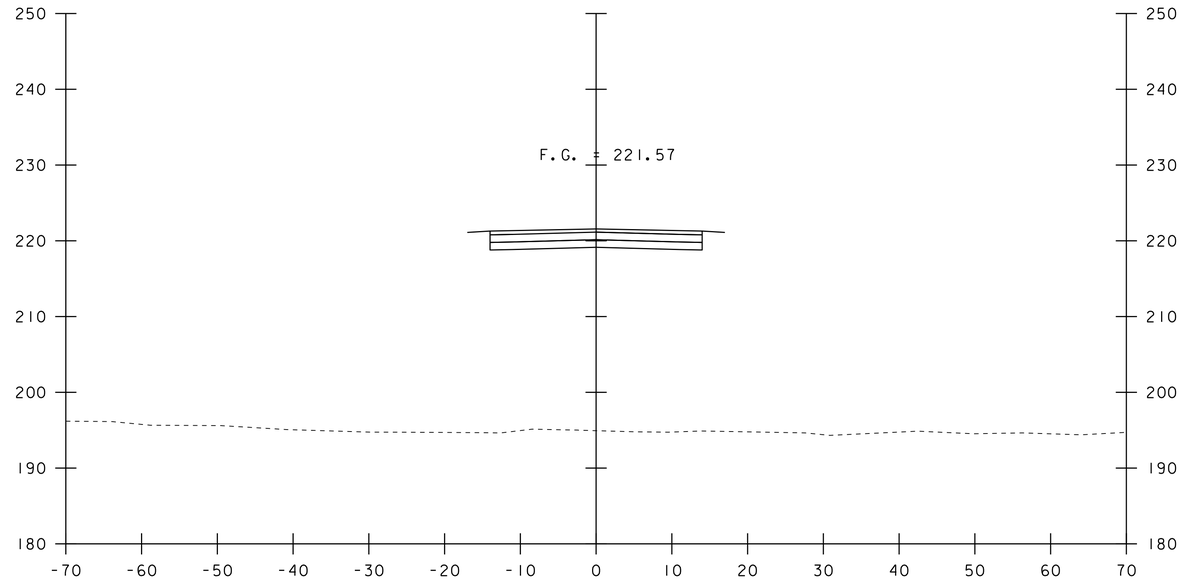

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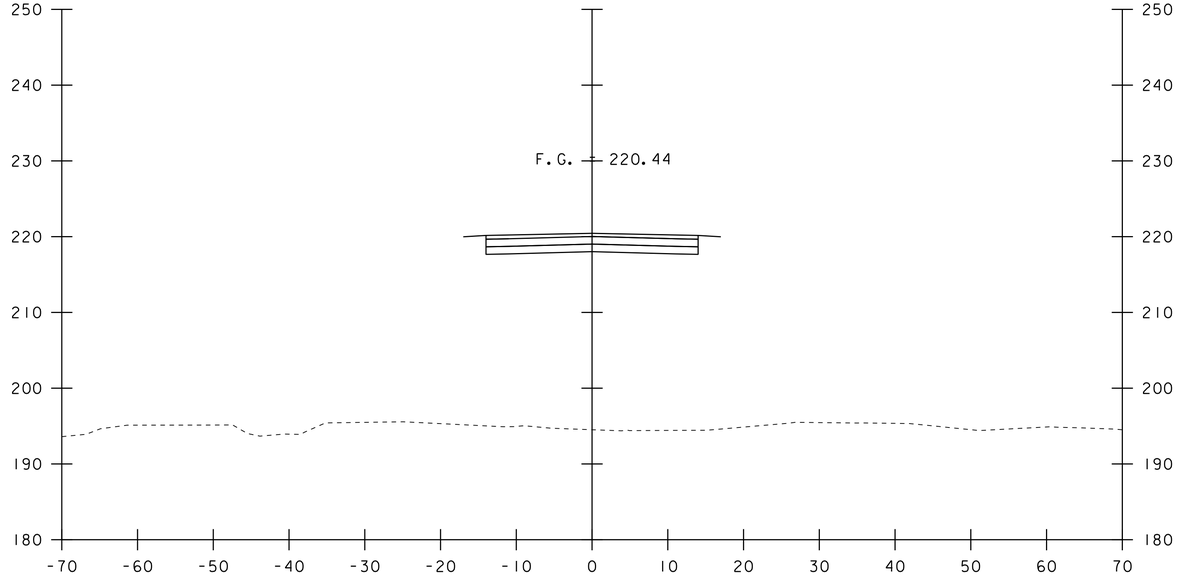

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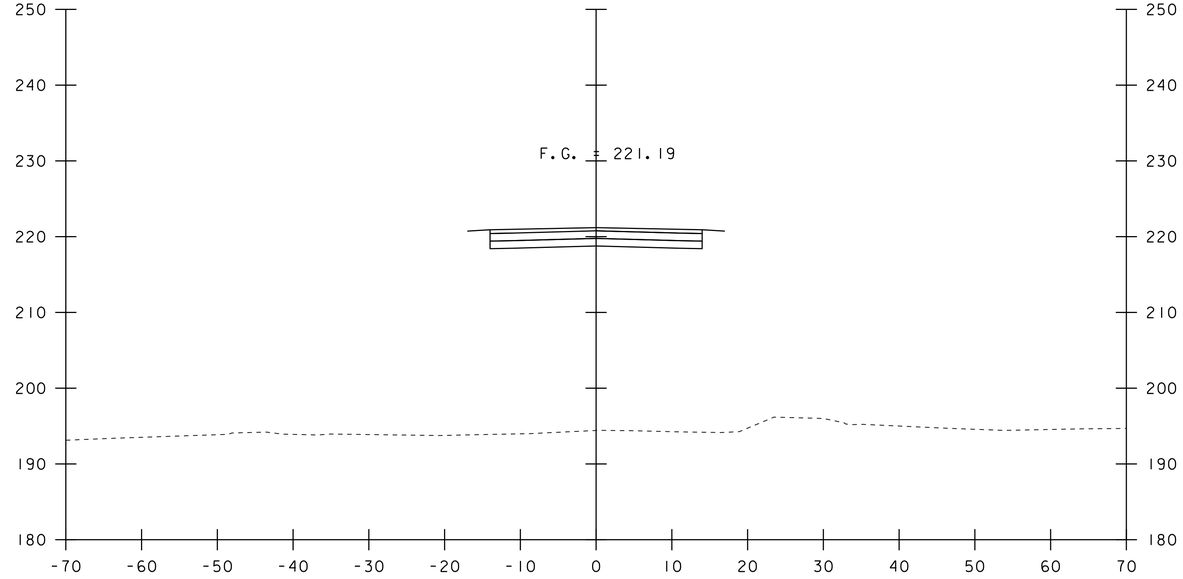
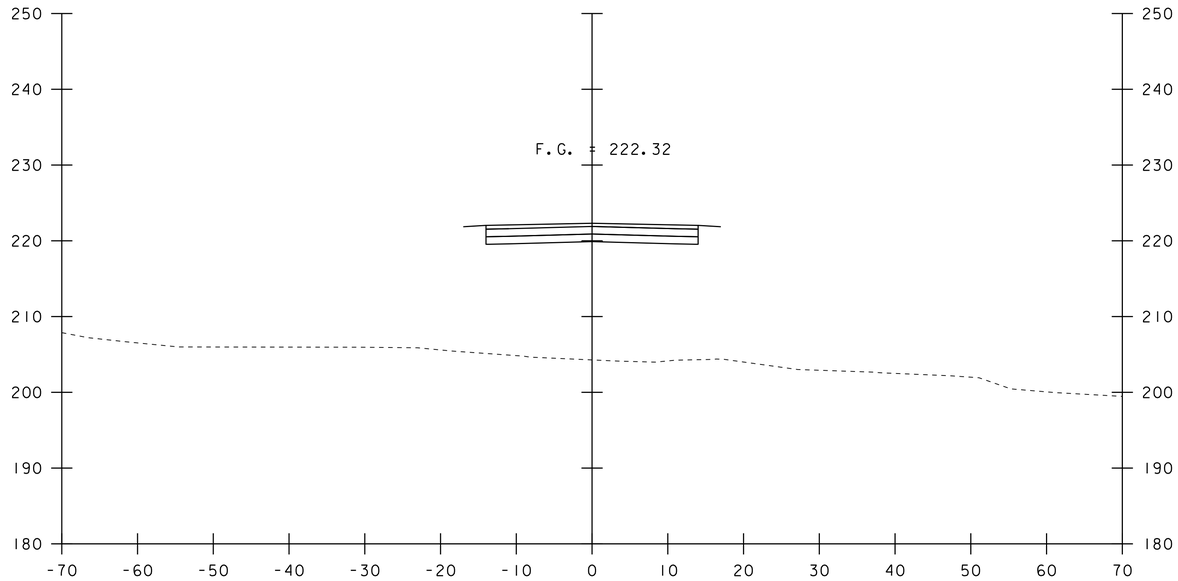


17+50

STA. 17+00 TO STA. 17+75

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 6	SHEET 12 OF 14



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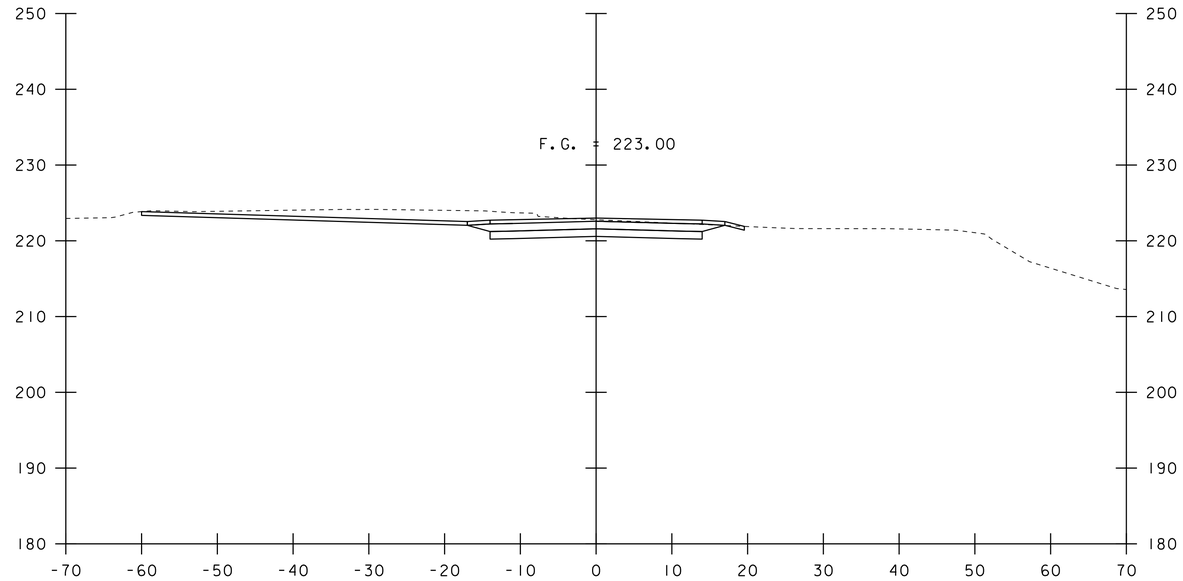

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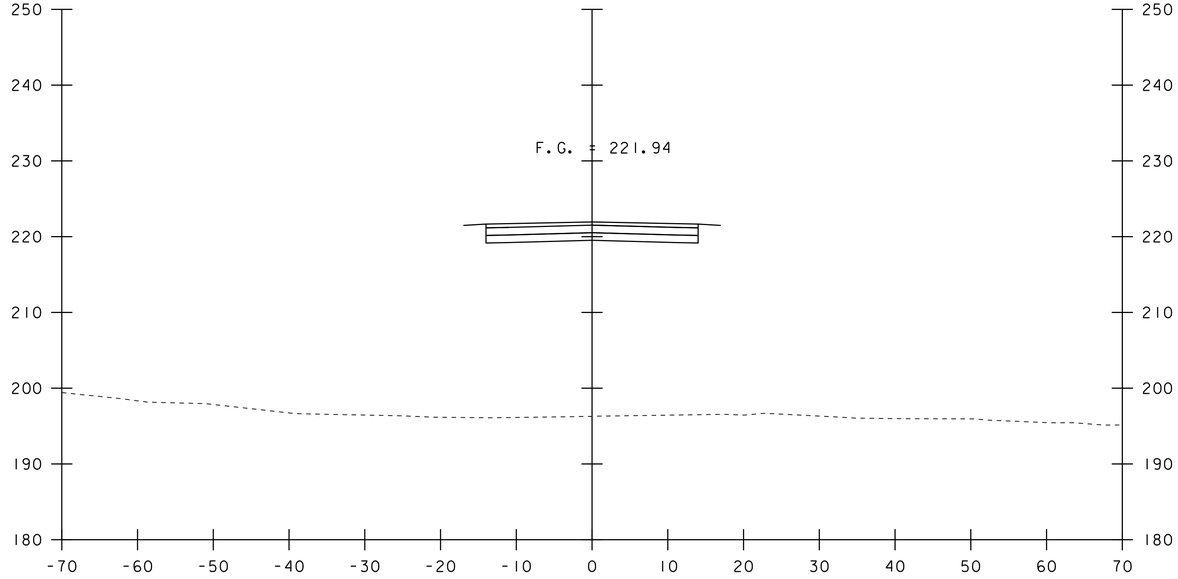

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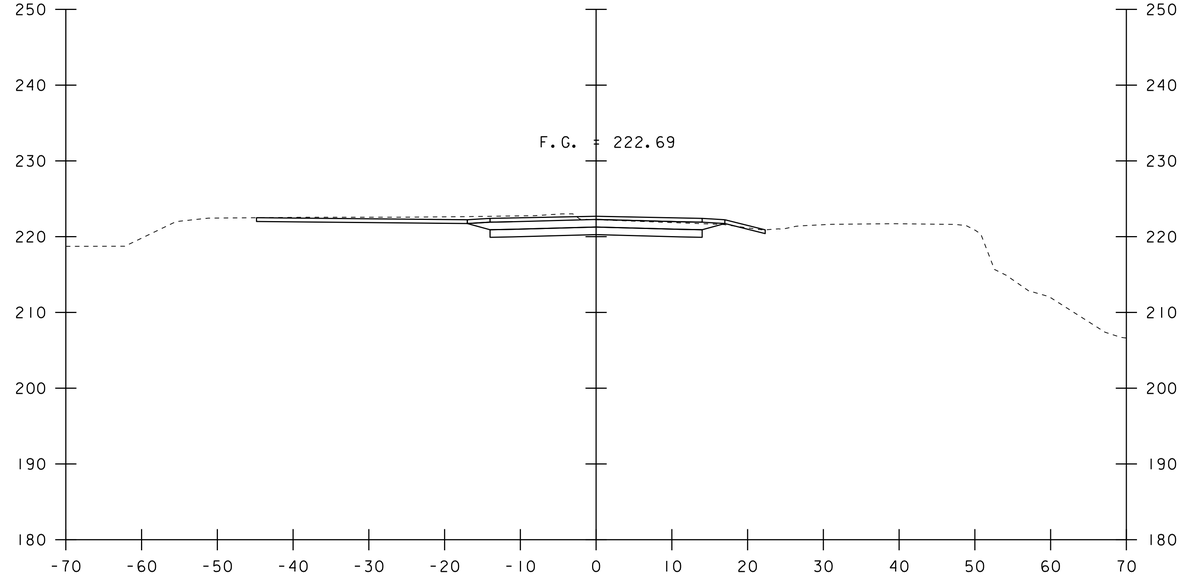
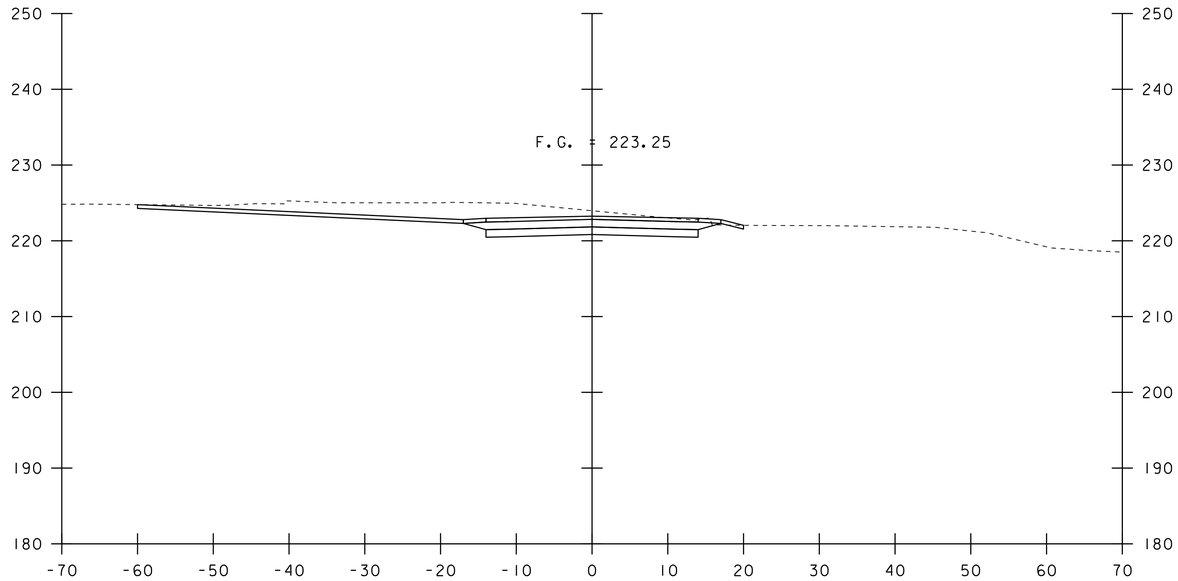


18+50

STA. 18+00 TO STA. 18+75

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 7	SHEET 13 OF 14



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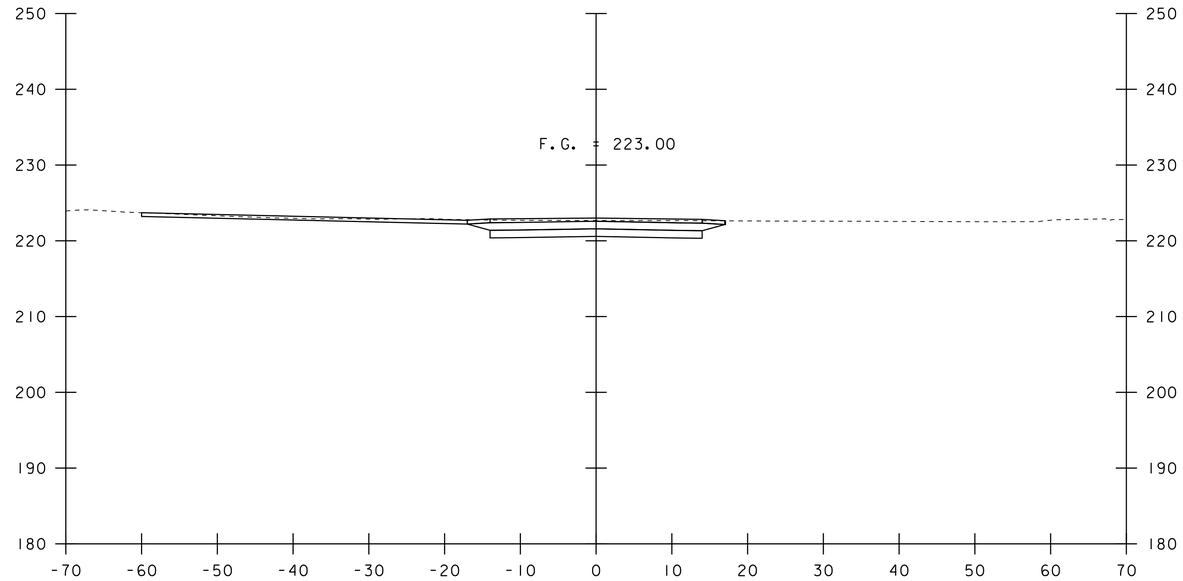

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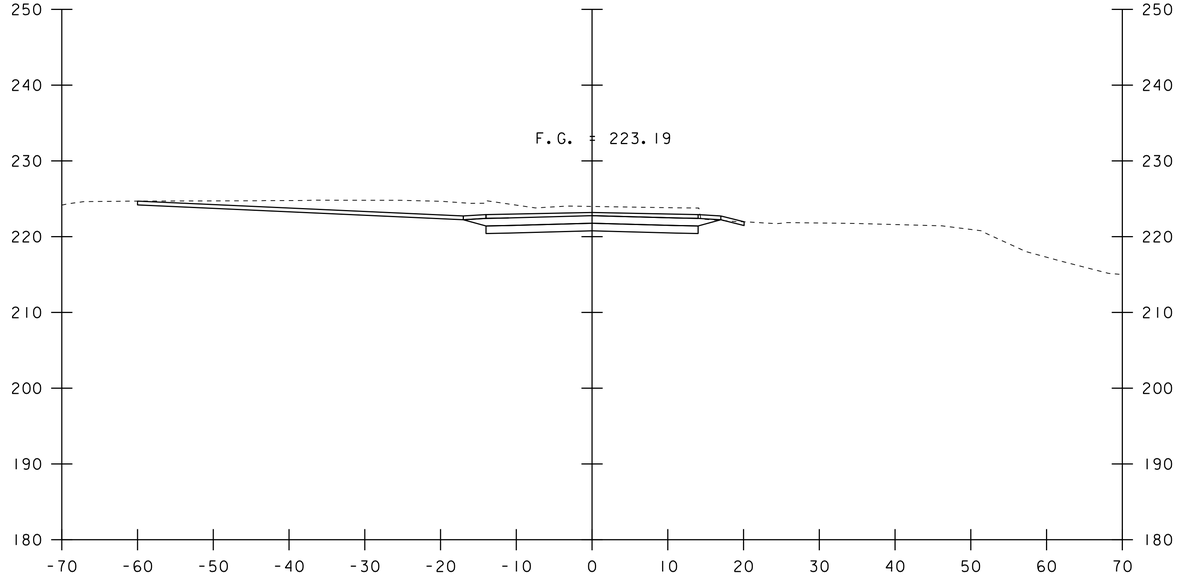

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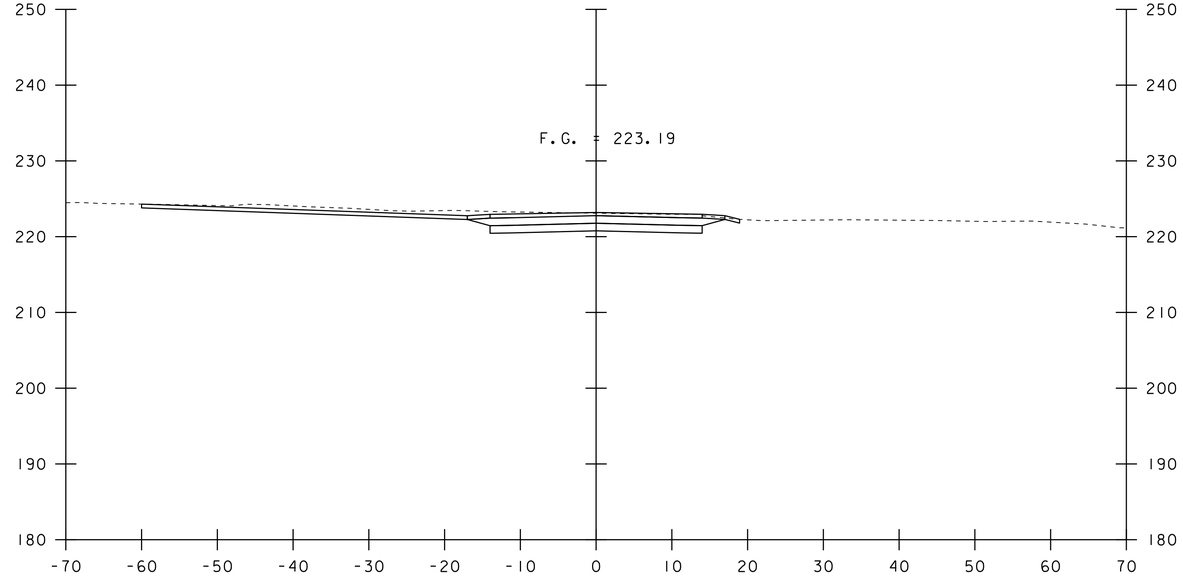

19+50

STA. 19+00 TO STA. 19+75

PROJECT NAME: HIGHGATE	
PROJECT NUMBER: BO 1448 (43)	
FILE NAME: s98j378xs_StrAlign.dgn	PLOT DATE: 07-JAN-2016
PROJECT LEADER: D. BONNEAU	DRAWN BY: C. MOONEY
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
MAINLINE CROSS SECTION SHEET 8	SHEET 14 OF 14