

REVIEWER'S NOTES:

1. SPECIAL SPECIFICATIONS HAVE BEEN DEVELOPED FOR THE BRIDGE EXPANSION JOINT, STRIP SEAL, FRP SCUPPERS, AND WATER MAIN ON BRIDGE. THESE ITEMS ARE REPRESENTED IN THE ESTIMATE BY SS-PLACEHOLDER-LF, SS-PLACEHOLDER-EA, AND SS-PLACEHOLDER-LS, RESPECTIVELY.
2. THE WATER LINE PLANS WILL BE FURTHER VETTED BY THE TOWN OF READSBORO IN CONJUNCTION WITH THIS REVIEW. WE WILL ALSO BE MEETING WITH THE TOWN TO DETERMINE IF THEY WOULD LIKE US TO KEEP THE FENCE ALONG THE RIGHT SIDE OF VT ROUTE 100 PRIOR TO ABUTMENT NO. 1 OR IF IT CAN BE REMOVED. THE FENCE IS NOT REQUIRED PER CODE BUT WAS REQUIRED BY CODE IN THE PREVIOUS PROJECT DUE TO THE RETAINING WALL ON THE RIGHT SIDE OF VT ROUTE 100. BECAUSE THE FENCE WAS THERE BEFORE, WE WANT THE TOWN'S CONCURRENCE TO REMOVE IT FROM THIS PROJECT.
3. WHILE THE TEMPORARY BRIDGE ALIGNMENT IS NOT SHOWN, IT WILL BE LOCATED DOWNSTREAM OF THE EXISTING BRIDGE. THE CONTRACTOR WILL DETERMINE ITS FINAL LOCATION BASED ON THE GUIDANCE PROVIDED ON THE PI SHEET AND THE TEMPORARY CONSTRUCTION LIMITS ON THE LAYOUT SHEET. IT IS ANTICIPATED THAT A CRANE WILL BE PLACED BETWEEN THE TEMPORARY BRIDGE AND THE EXISTING BRIDGE TO ASSIST WITH THE ERECTION OF THE TEMPORARY BRIDGE, REMOVAL OF THE EXISTING BRIDGE, ERECTION OF THE PERMANENT BRIDGE, AND REMOVAL OF THE TEMPORARY BRIDGE.
4. ADDITIONAL CRANES WILL NEED TO BE LOCATED AT THE ENDS OF THE TEMPORARY, EXISTING, AND PERMANENT BRIDGES TO ASSIST WITH THE ERECTION AND REMOVAL OF THE TEMPORARY AND EXISTING BRIDGE, AND THE CONSTRUCTION OF THE PERMANENT BRIDGE.

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

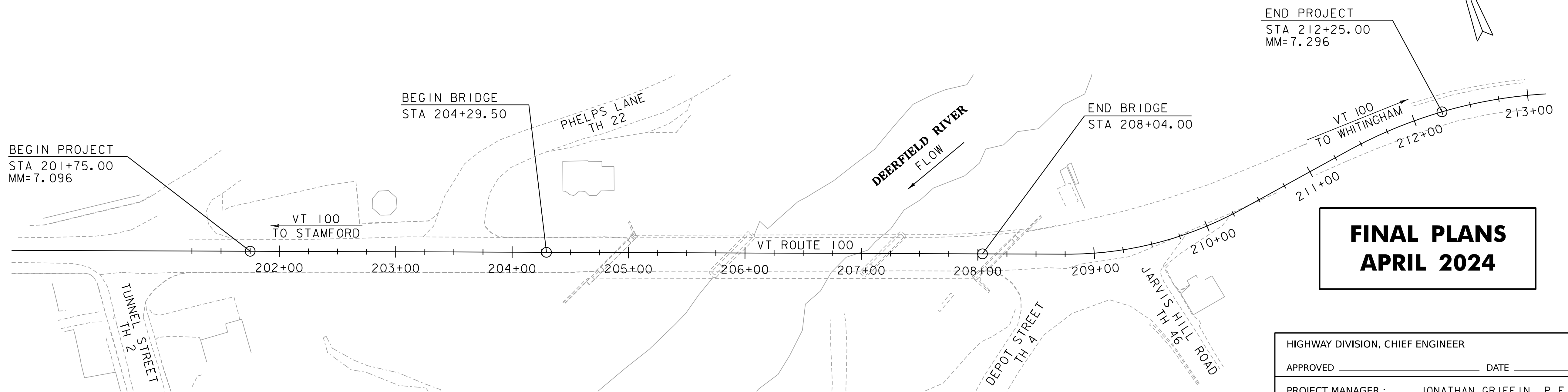
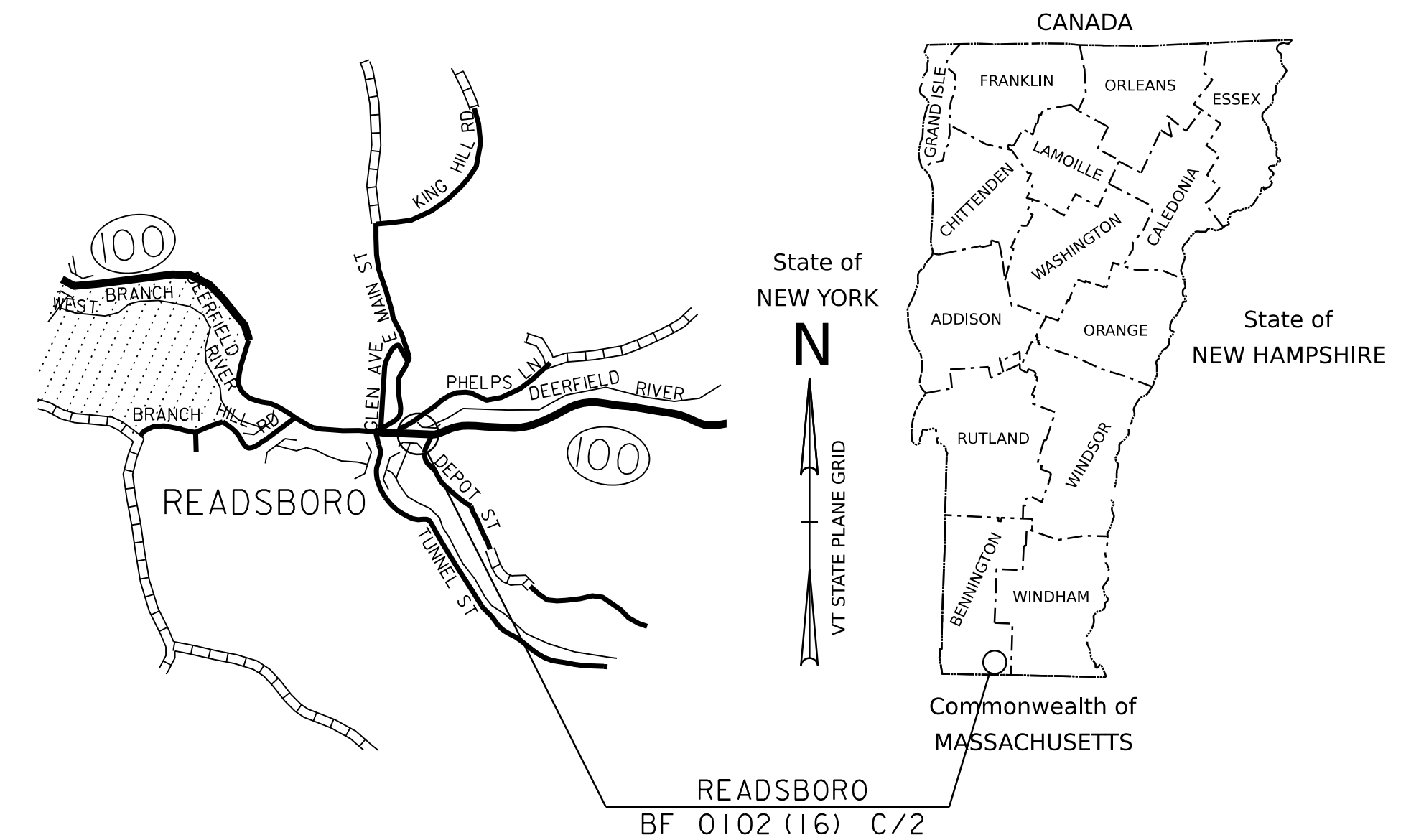
TOWN OF READSBORO
COUNTY OF BENNINGTON

ROUTE NO: VT ROUTE 100, MAJOR RURAL COLLECTOR BRIDGE NO : 25

PROJECT LOCATION: LOCATED IN THE COUNTY OF BENNINGTON, IN THE TOWN OF READSBORO, ON VT ROUTE 100; BRIDGE 25 OVER THE DEERFIELD RIVER; APPROXIMATELY 5.0 MILES SOUTH OF THE INTERSECTION OF VT ROUTE 100 AND VT ROUTE 8 IN READSBORO.

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES THE REMOVAL AND REPLACEMENT OF BRIDGE 25 ON THE EXISTING ALIGNMENT, WITH ASSOCIATED ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE: 374.50 FEET
LENGTH OF ROADWAY: 675.50 FEET
LENGTH OF PROJECT: 1050.00 FEET



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

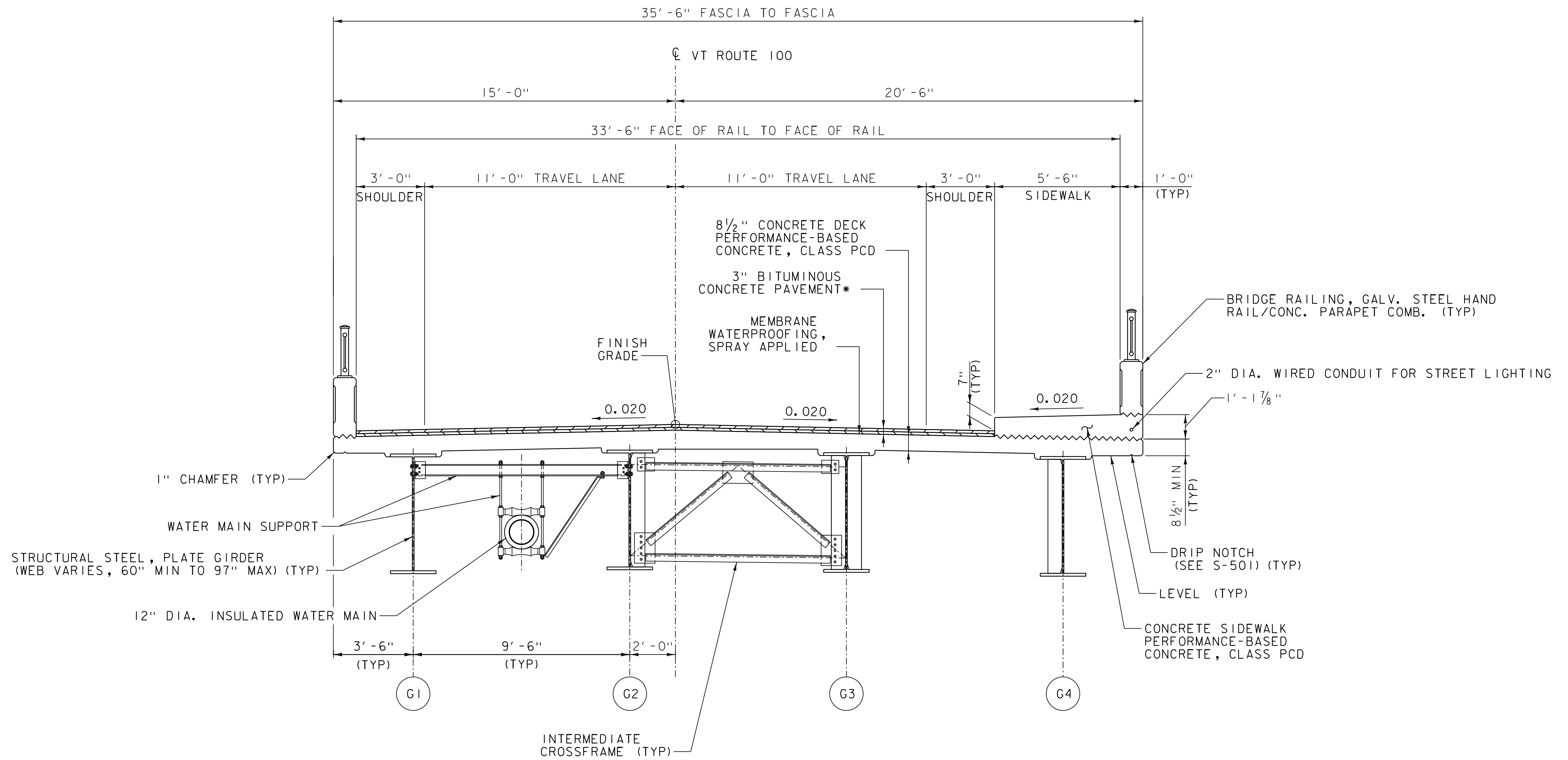
QUALITY ASSURANCE PROGRAM : LEVEL 1	
SURVEYED BY :	R. GILMAN
SURVEYED DATE :	03/22/2013
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83 (196)

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

**FINAL PLANS
APRIL 2024**

HIGHWAY DIVISION, CHIEF ENGINEER	
APPROVED _____	DATE _____
PROJECT MANAGER :	JONATHAN GRIFFIN, P. E.
PROJECT NAME :	READSBORO
PROJECT NUMBER :	BF 0102 (16) C/2
SHEET 1 OF 220 SHEETS	





BRIDGE TYPICAL SECTION

SCALE 3/8" = 1'-0"

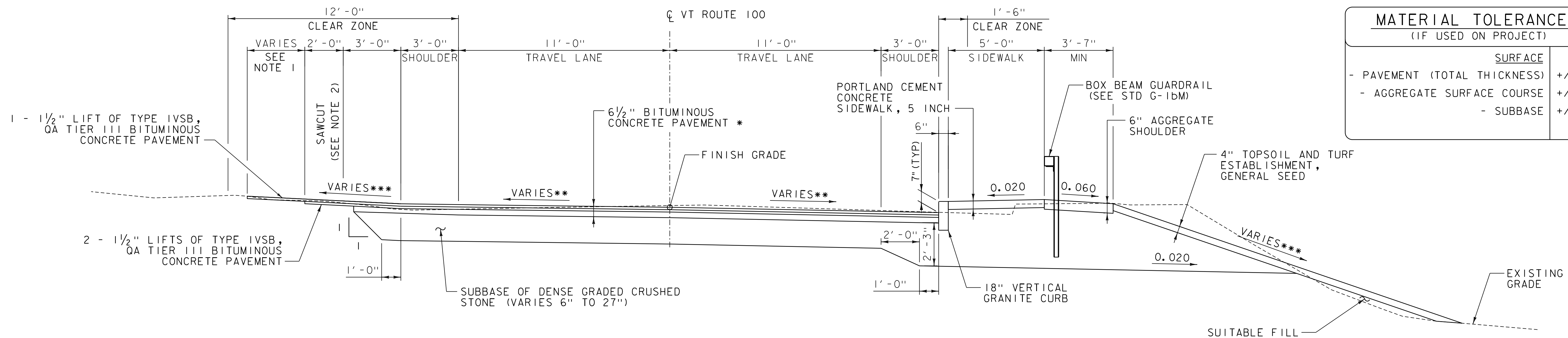
* - (2) - 1/2" LIFTS OF TYPE IVSB, QA TIER III

NOTE:

1. GIRDER WEB AND FLANGE DIMENSIONS VARY (SEE GIRDER ELEVATION SHEET).
2. MEMBRANE WATERPROOFING, SPRAY APPLIED SHALL BE APPLIED 2'-0" ONTO APPROACH SLAB FROM BEGIN/END BRIDGE.



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068typ.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 3 OF 220
DESIGNED BY: I.R. KAPLAN	
TYPICAL BRIDGE SECTION	



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

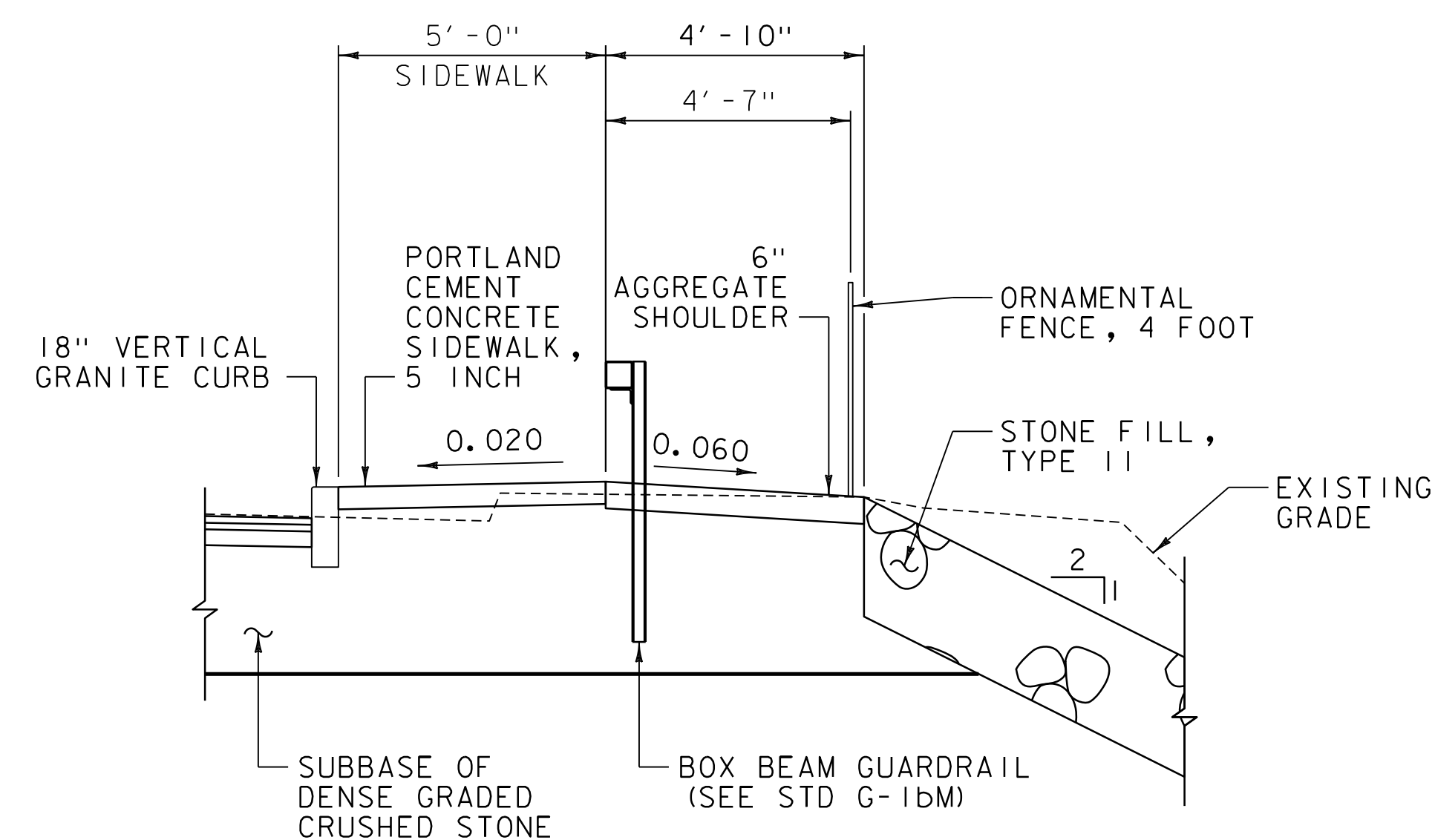
VT ROUTE 100 TYPICAL SECTION (EAST MAIN ST. AND PARKING AREA)

SCALE 3/8" = 1'-0"

STA. 201+25 - 202+70

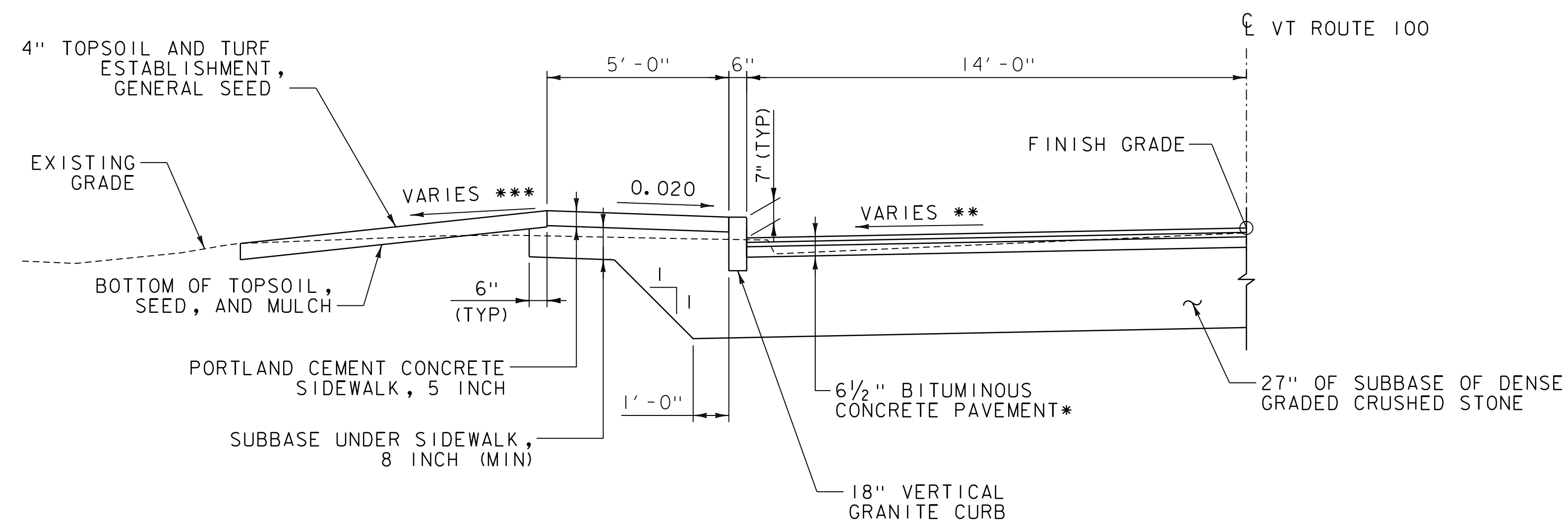
NOTES:

- SEE LAYOUT AND CROSS SECTIONS FOR LIMITS OF COARSE-MILLING AND PAVEMENT IN THE EAST MAIN STREET INTERSECTION AND PARKING AREA.



ORNAMENTAL FENCE DETAIL

SCALE 3/8" = 1'-0"



TYPICAL SIDEWALK DETAIL, LEFT

SCALE 3/8" = 1'-0"

BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LIFE ESAL (DESIGN LANE)	491,920
DESIGN NUMBER OF GYRATIONS	65
PERFORMANCE GRADED ASPHALT BINDER	58E-28

* (2) - 1 1/2" LIFTS OF TYPE IVSB, QA TIER III OVER
(1) - 3 1/2" LIFT OF TYPE IIS, QA TIER III

** SEE BANKING DIAGRAM FOR CROSS SLOPES ON VT 100

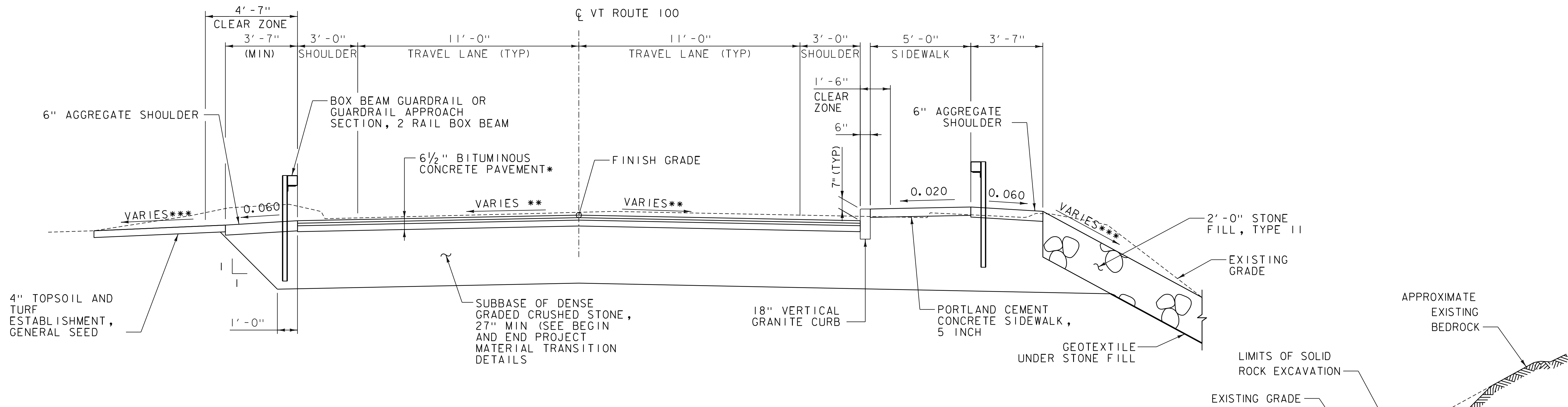
*** SEE CROSS SECTIONS FOR SIDE SLOPES



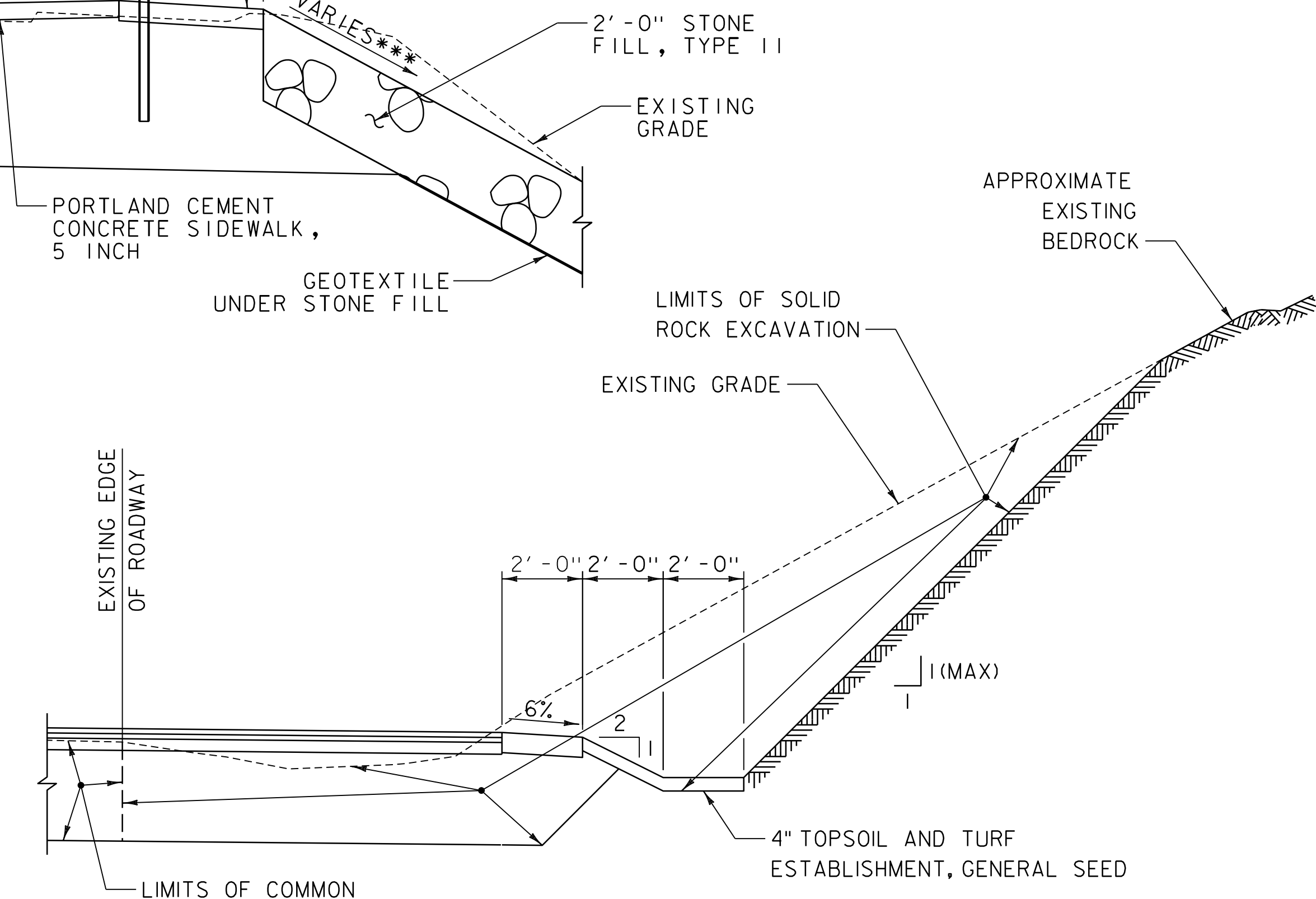
PROJECT NAME: READSBORO
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: M.F. NEMETH
TYPICAL ROADWAY SECTIONS (1 OF 5)

PLOT DATE: 12-APR-2024
DRAWN BY: M.F. NEMETH
CHECKED BY: N.A. TRUSLOW
SHEET 4 OF 220

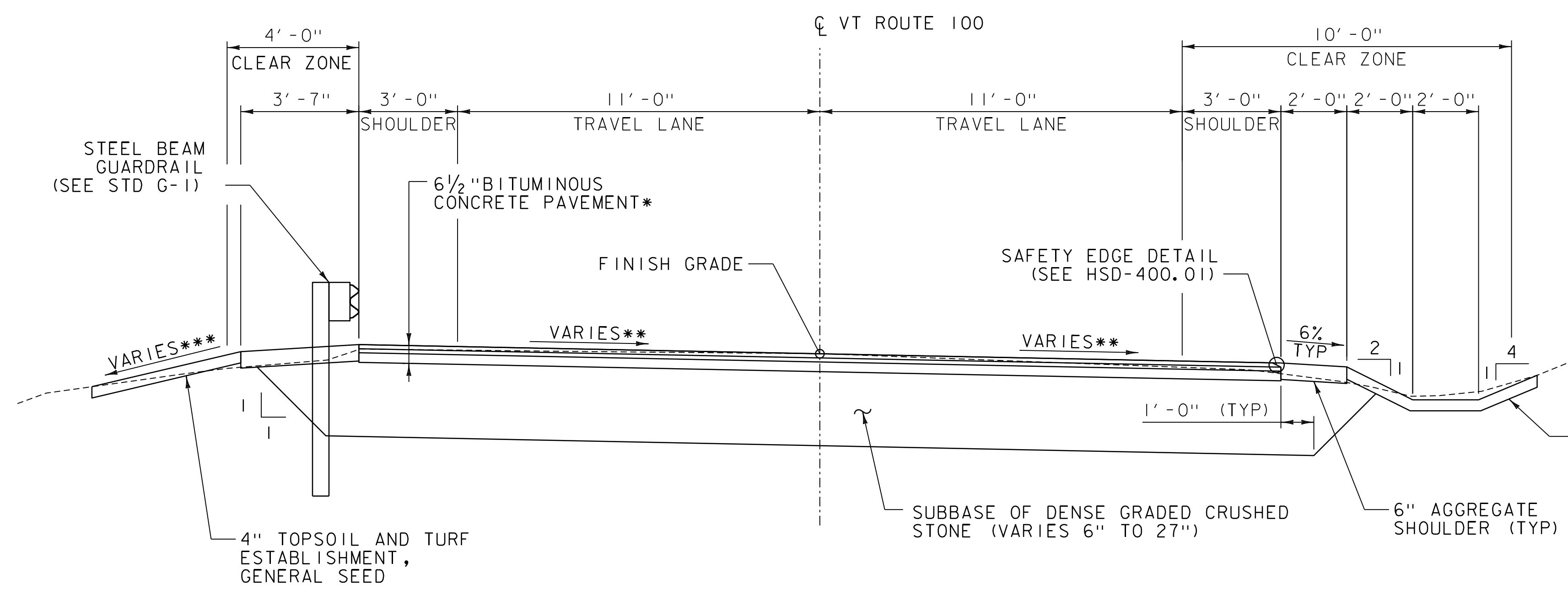


VT ROUTE 100 TYPICAL SECTION WITH GUARDRAIL LT & RT
SCALE 3/8" = 1'-0"



BEDROCK EXCAVATION FOR DITCH
SCALE 3/8" = 1'-0"
STA. 210+00 - 212+75

NOTE: DURING CLEARING, THE CONTRACTOR SHALL REMOVE TREES WITHIN THE PDF FENCE OR APPROXIMATE EXISTING R.O.W. THAT WOULD OTHERWISE FALL DUE TO THE SLOPE EXCAVATION FROM STA 211+00 - 212+75, RT.

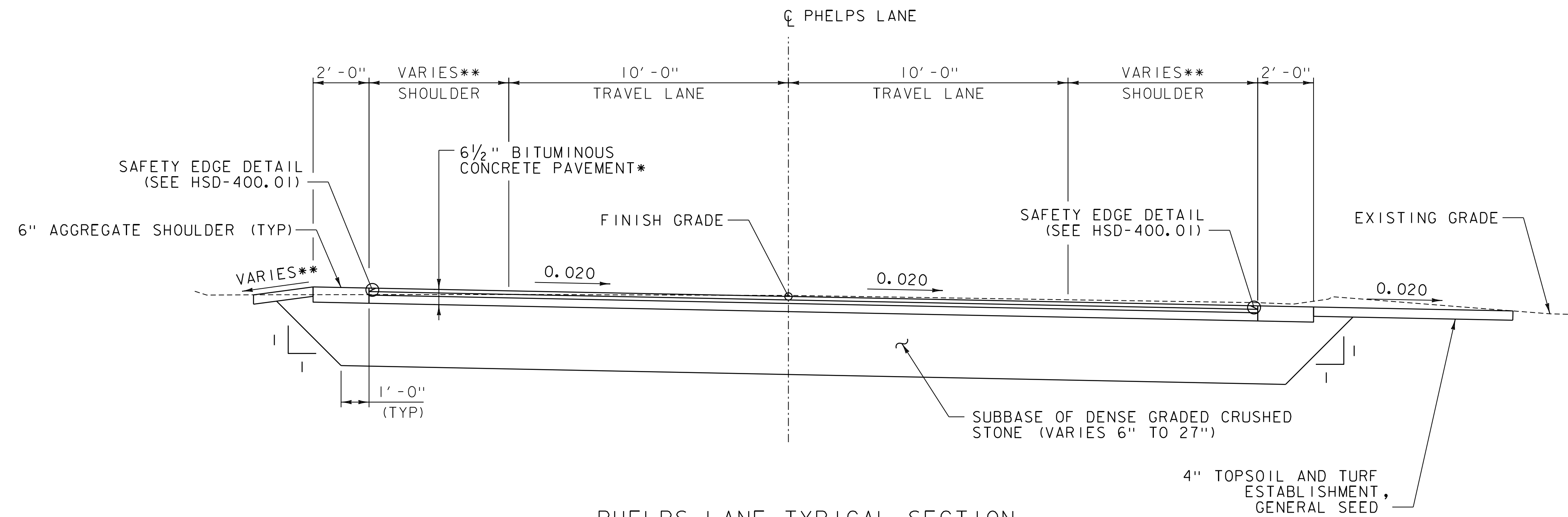


VT ROUTE 100 TYPICAL SECTION WITH W-BEAM AND DITCH RIGHT
SCALE 3/8" = 1'-0"
STA. 210+80 - STA. 212+75

- * (2) - 1 1/2" LIFTS OF TYPE IVSB, QA TIER III OVER
- (1) - 3 1/2" LIFT OF TYPE IIS, QA TIER III
- ** SEE BANKING DIAGRAM FOR CROSS SLOPES ON VT 100
- *** SEE CROSS SECTIONS FOR SIDE SLOPES

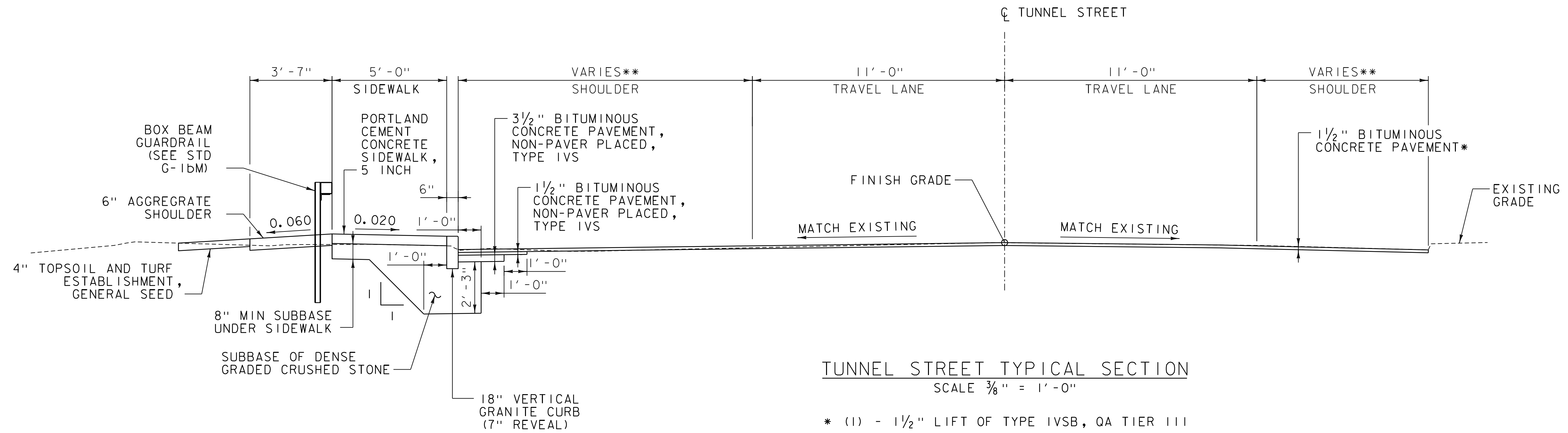


PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	N.A. TRUSLOW
FILE NAME:	z13c068typ.dgn	DESIGNED BY:	N.A. TRUSLOW
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.E. BURBANK
TYPICAL ROADWAY SECTIONS (2 OF 5)		SHEET 5 OF 220	



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

- * (2) - 1 1/2" LIFTS OF TYPE IVSB, QA TIER III OVER
- (1) - 3 1/2" LIFT OF TYPE IIS, QA TIER III
- ** SEE CROSS SECTIONS



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

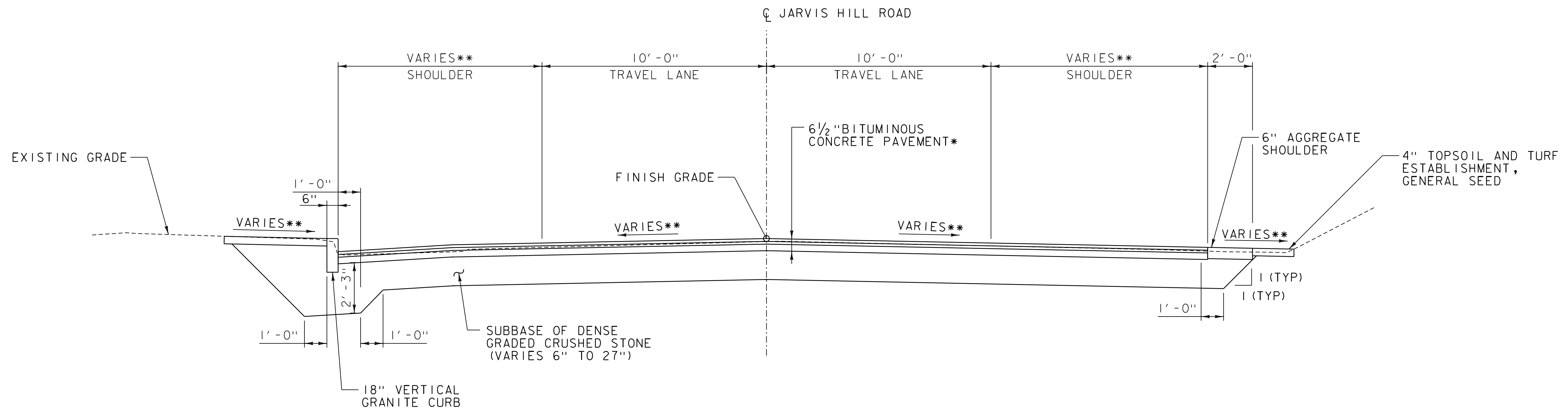
- * (1) - 1 1/2" LIFT OF TYPE IVSB, QA TIER III
- ** SEE CROSS SECTIONS

PROJECT NAME: READSBORO
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: N.A. TRUSLOW
TYPICAL ROADWAY SECTIONS (3 OF 5)

PLOT DATE: 12-APR-2024
DRAWN BY: N.A. TRUSLOW
CHECKED BY: S.E. BURBANK
SHEET 6 OF 220

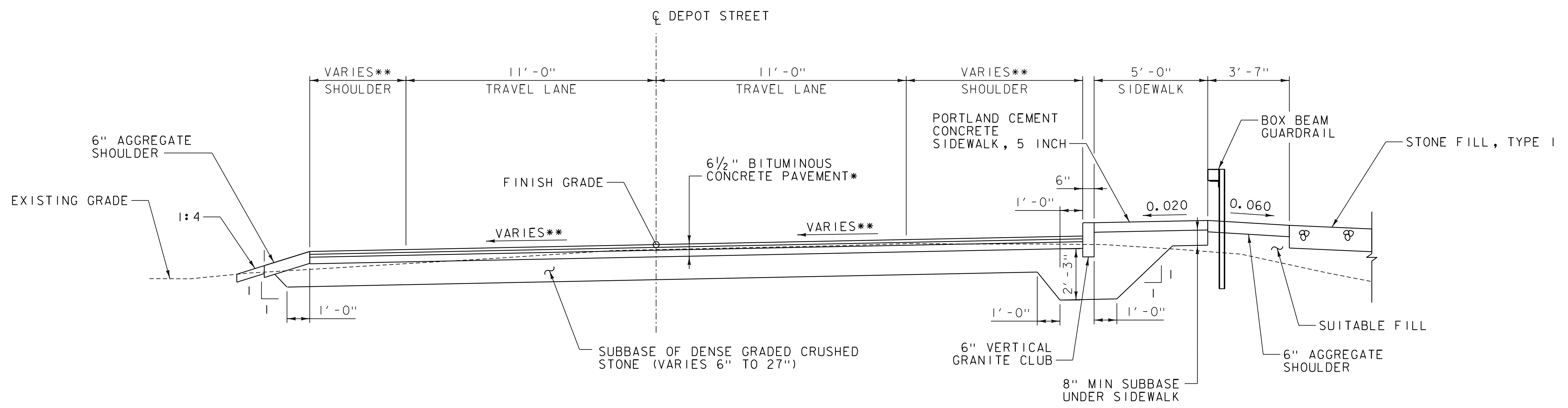




JARVIS HILL ROAD TYPICAL SECTION

SCALE 3/8" = 1' - 0"

- * (2) - 1 1/2" LIFTS OF TYPE IVSB, QA TIER III OVER
- (1) - 3 1/2" LIFT OF TYPE IIS, QA TIER III
- ** SEE CROSS SECTIONS



DEPOT STREET TYPICAL SECTION

SCALE 3/8" = 1' - 0"

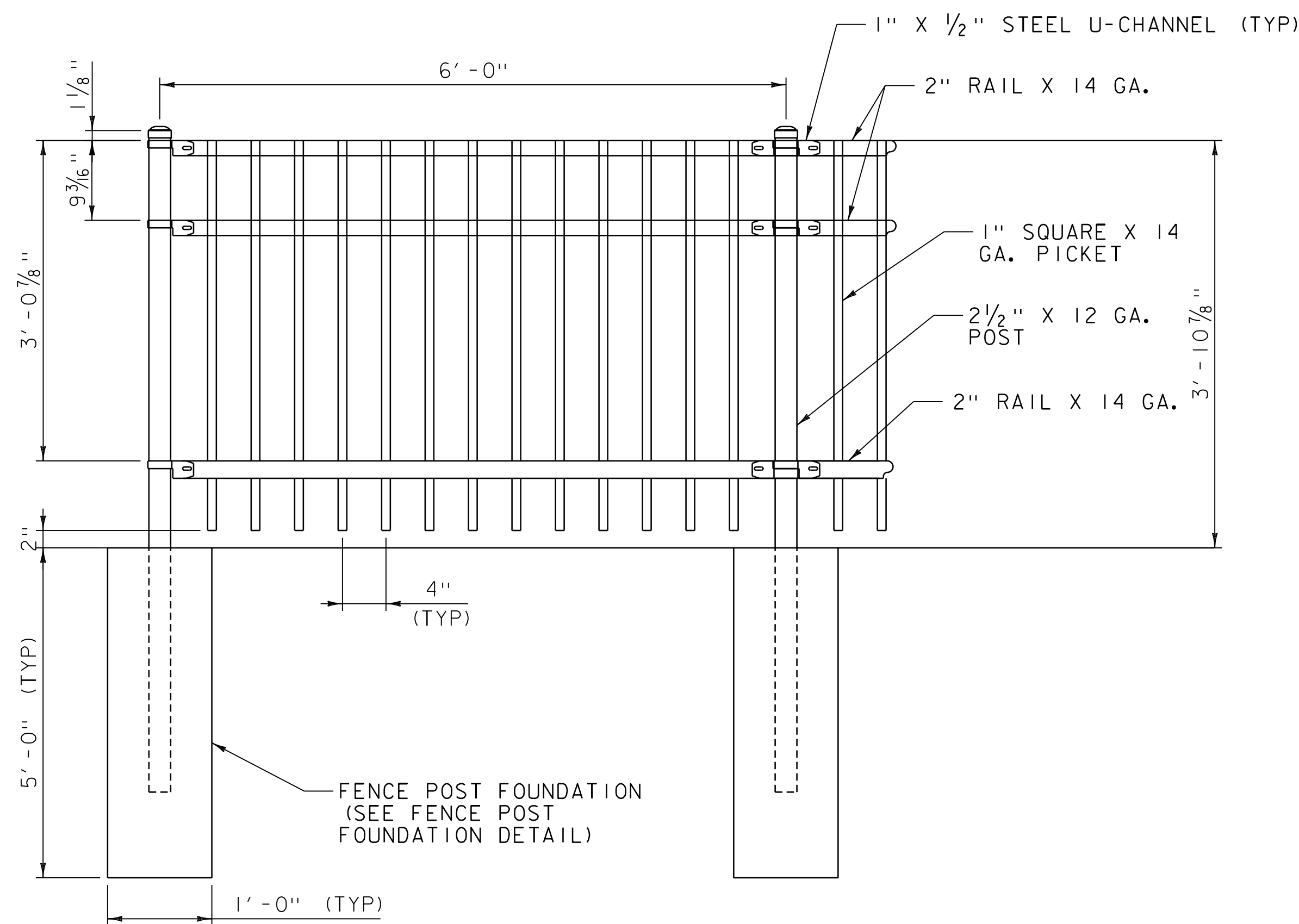
- * (2) - 1 1/2" LIFTS OF TYPE IVSB, QA TIER III OVER
- (1) - 3 1/2" LIFT OF TYPE IIS, QA TIER III
- ** SEE CROSS SECTIONS

PROJECT NAME: READSBORO
PROJECT NUMBER: BF 0102(16) C/2

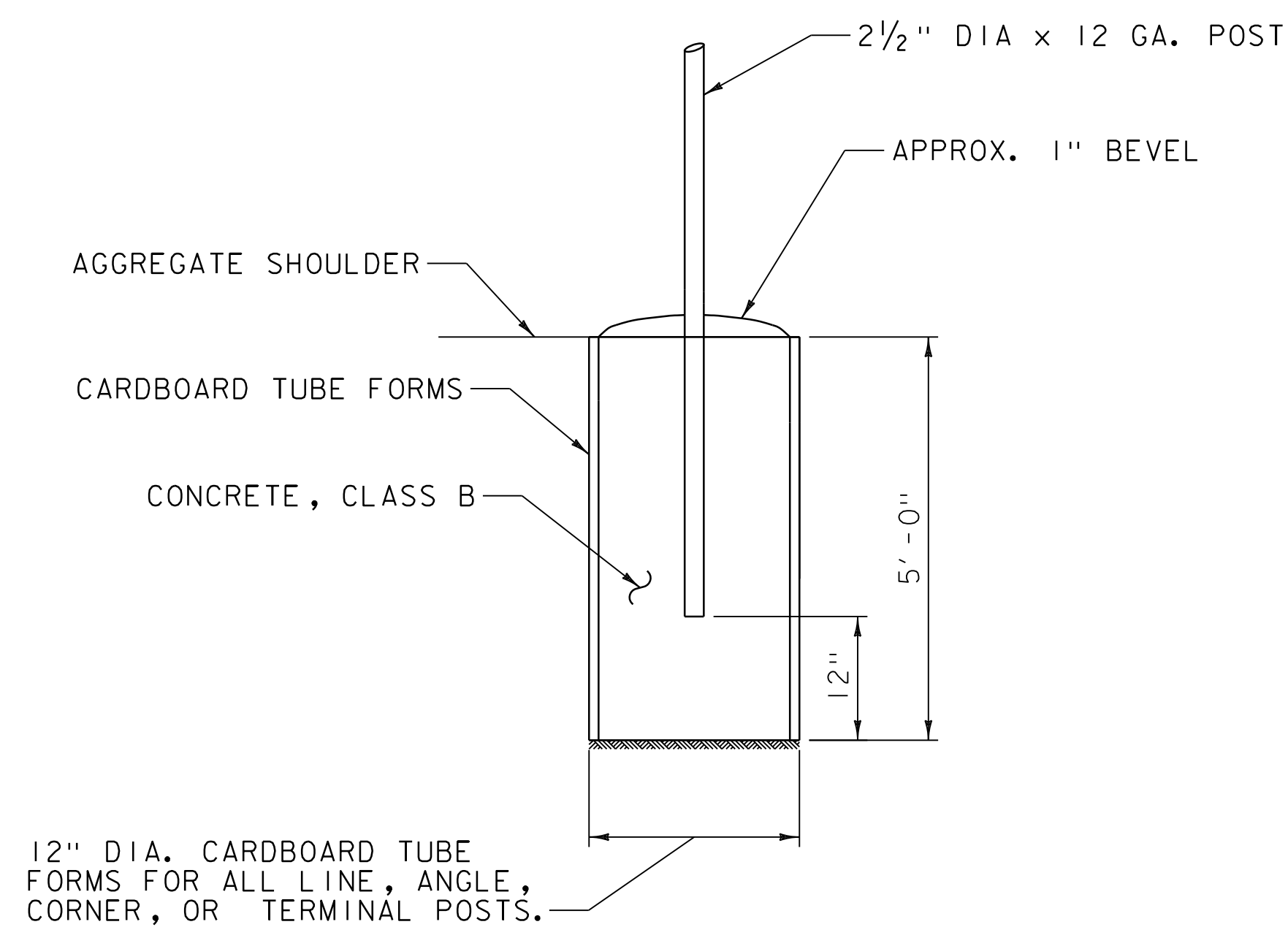
FILE NAME: z13c068typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: N.A. TRUSLOW
TYPICAL ROADWAY SECTIONS (4 OF 5)

PLOT DATE: 12-APR-2024
DRAWN BY: N.A. TRUSLOW
CHECKED BY: S.E. BURBANK
SHEET 7 OF 220



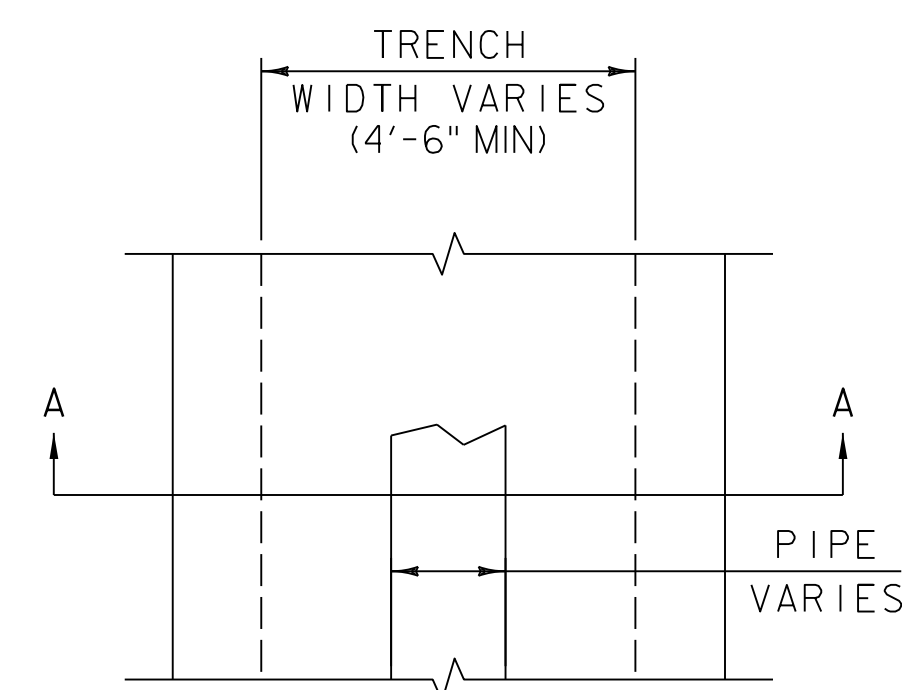


SQUARE STEEL FENCE PANEL DETAIL
NOT TO SCALE



FENCE POST DETAIL
NOT TO SCALE

NOTE:
CARDBOARD TUBE FORM AND CONCRETE, CLASS B
WILL BE INCIDENTAL TO ITEM XXX.XXXX

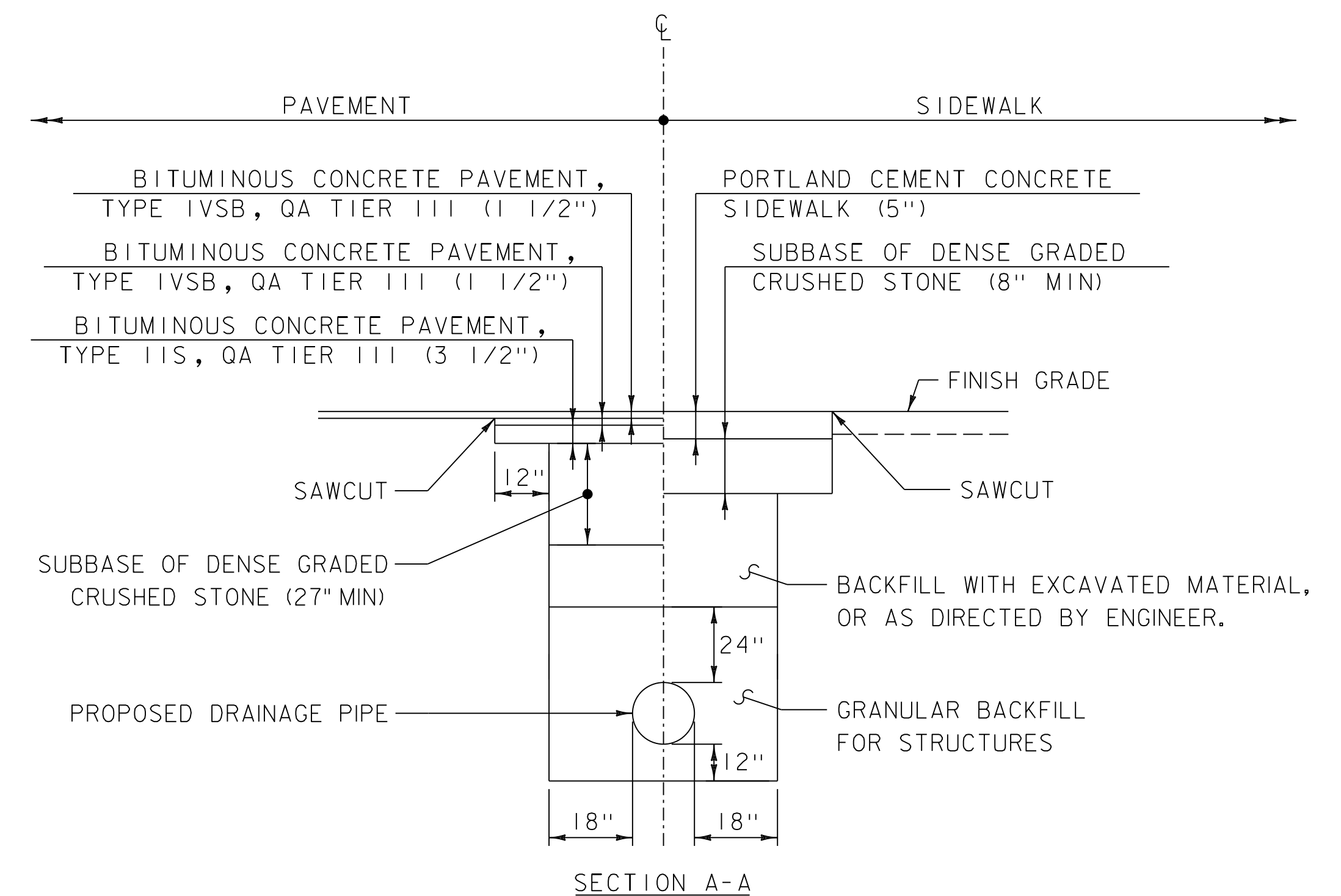


PLAN

TRENCH EXCAVATION NOTES

1. BASE COURSES WILL BE PLACED IN TWO LIFTS BENEATH THE PROPOSED LEVELING SURFACE.
2. EXCAVATING EXISTING BITUMINOUS PAVEMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 204.2000, "TRENCH EXCAVATION OF EARTH".

DRAINAGE UTILITY TRENCH
NOT TO SCALE



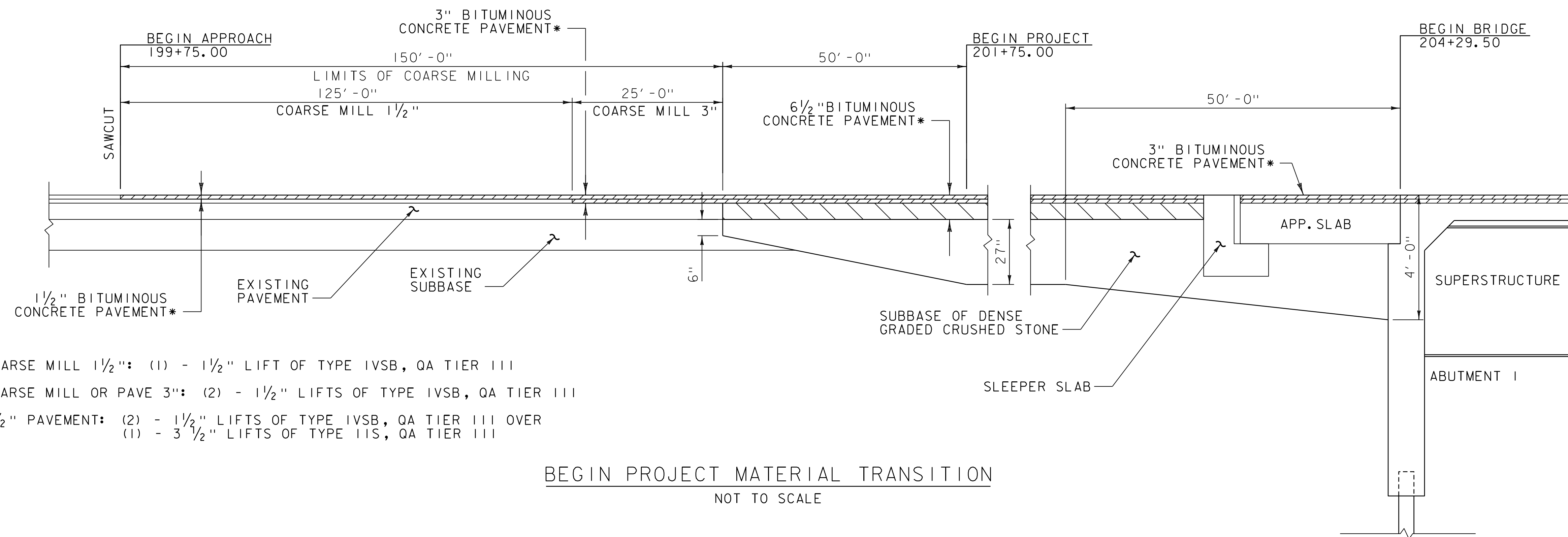
SECTION A-A



PROJECT NAME: READSBORO
PROJECT NUMBER: BF 0102(16) C/2

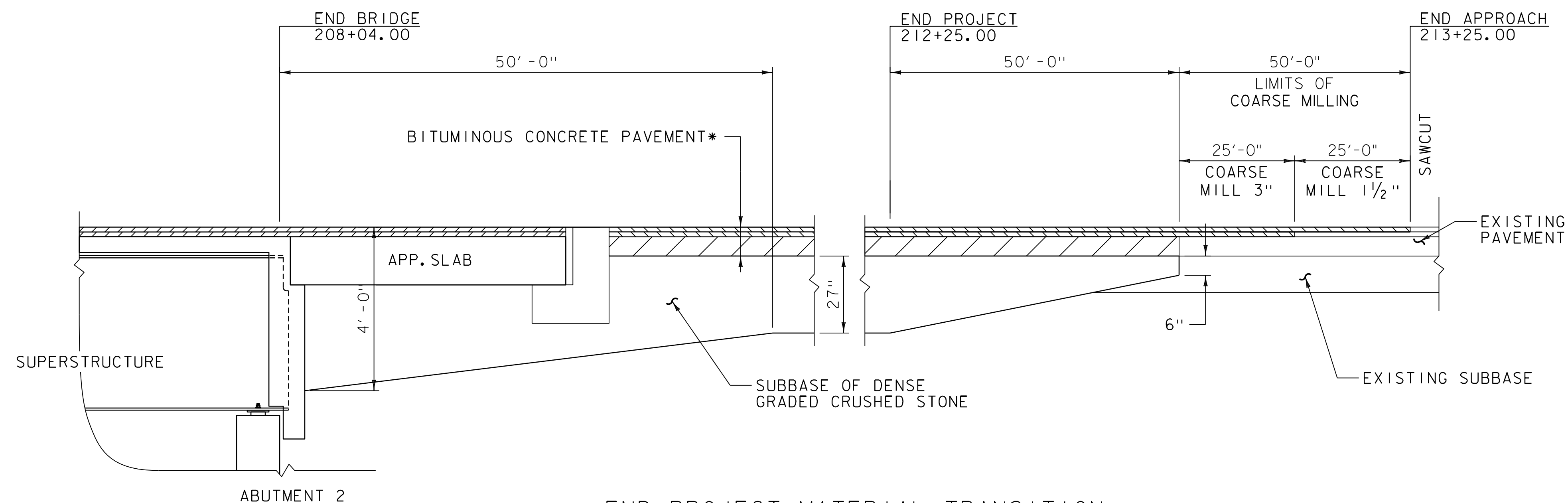
FILE NAME: z13c068typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: N.A. TRUSLOW
TYPICAL ROADWAY SECTIONS (5 OF 5)

PLOT DATE: 12-APR-2024
DRAWN BY: N.A. TRUSLOW
CHECKED BY: S.E. BURBANK
SHEET 8 OF 220



- * COARSE MILL 1 1/2": (1) - 1 1/2" LIFT OF TYPE IVSB, QA TIER III
- COARSE MILL OR PAVE 3": (2) - 1 1/2" LIFTS OF TYPE IVSB, QA TIER III
- 6 1/2" PAVEMENT: (2) - 1 1/2" LIFTS OF TYPE IVSB, QA TIER III OVER
- (1) - 3 1/2" LIFTS OF TYPE IIS, QA TIER III

BEGIN PROJECT MATERIAL TRANSITION
NOT TO SCALE



END PROJECT MATERIAL TRANSITION
NOT TO SCALE

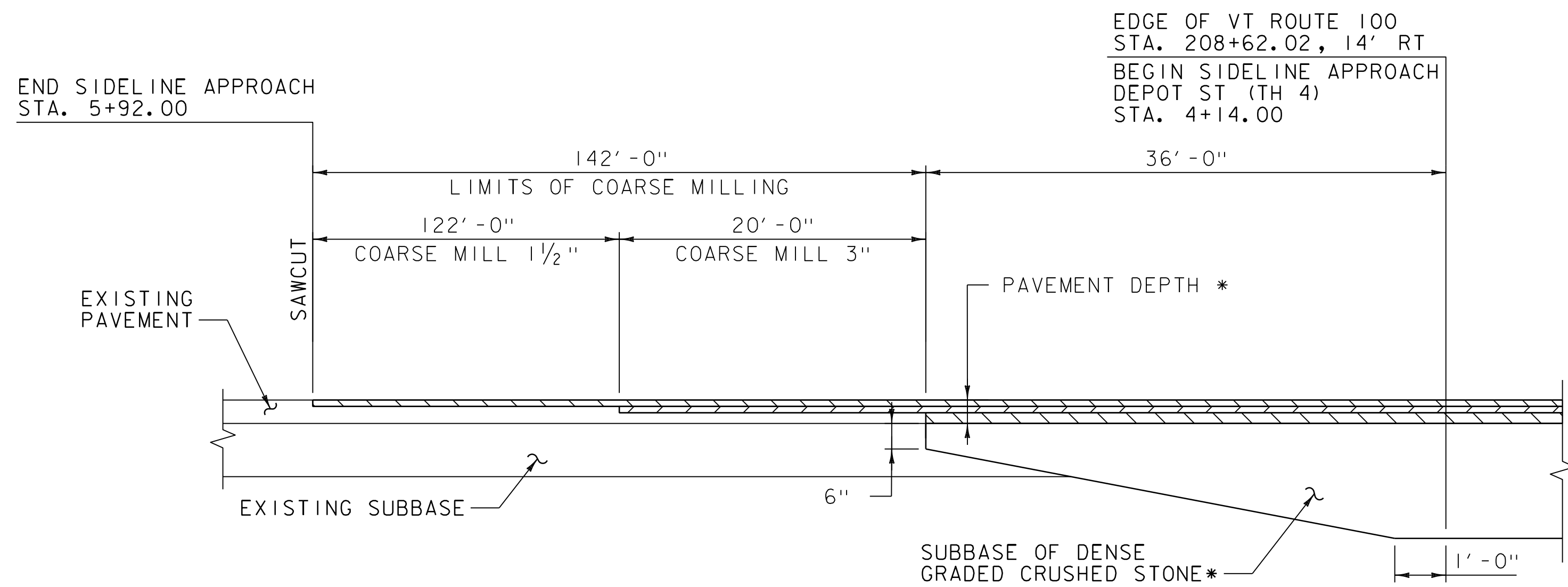
SHEET NOTES:

1. SEE TYPICAL ROADWAY SECTIONS FOR INFORMATION NOT SHOWN.

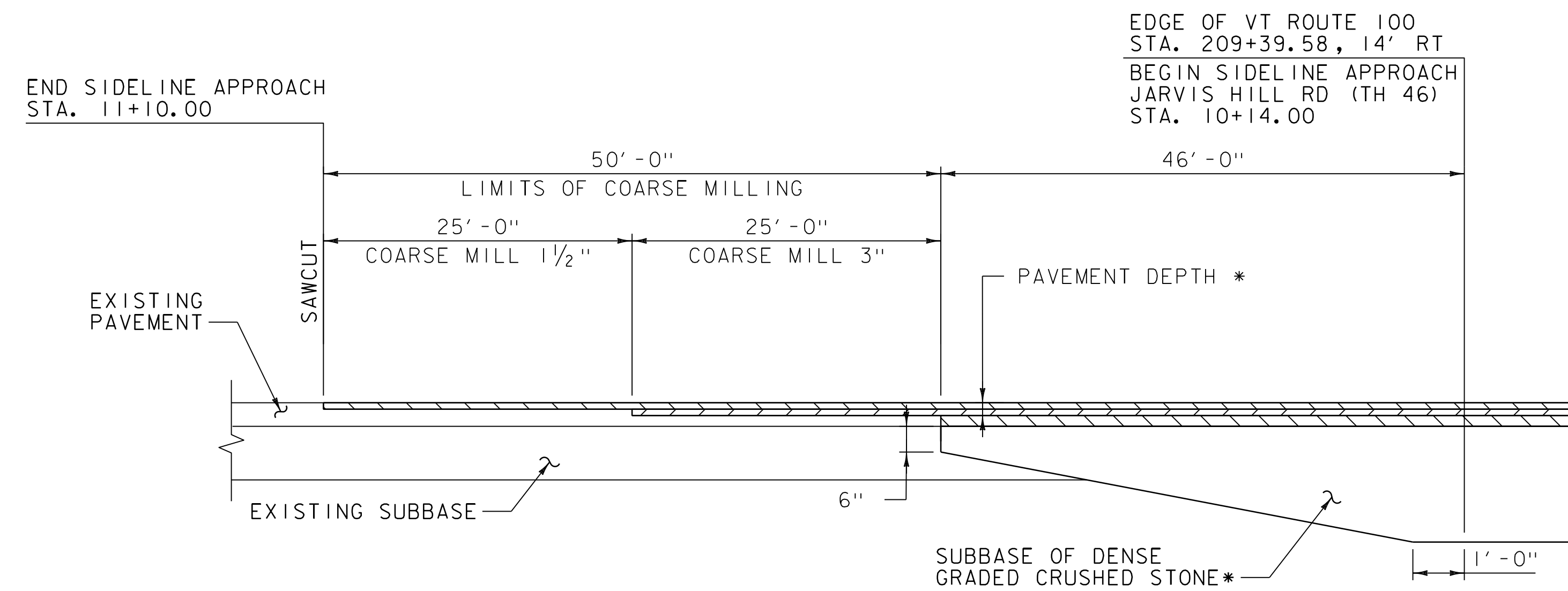


PROJECT NAME: READSBORO
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068typ.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: M.F. NEMETH
DESIGNED BY: D.M. PECK	CHECKED BY: N.A. TRUSLOW
MATERIAL TRANSITION SHEET (1 OF 2)	SHEET 9 OF 220

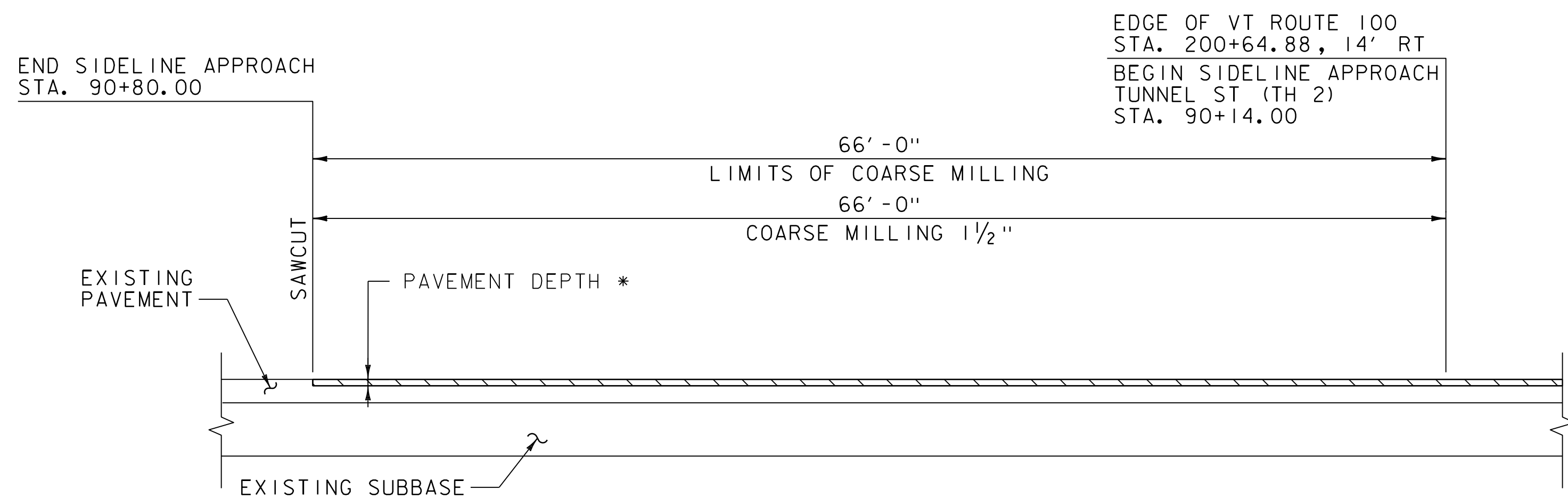


DEPOT ST (TH 4) APPROACH SECTION
NOT TO SCALE

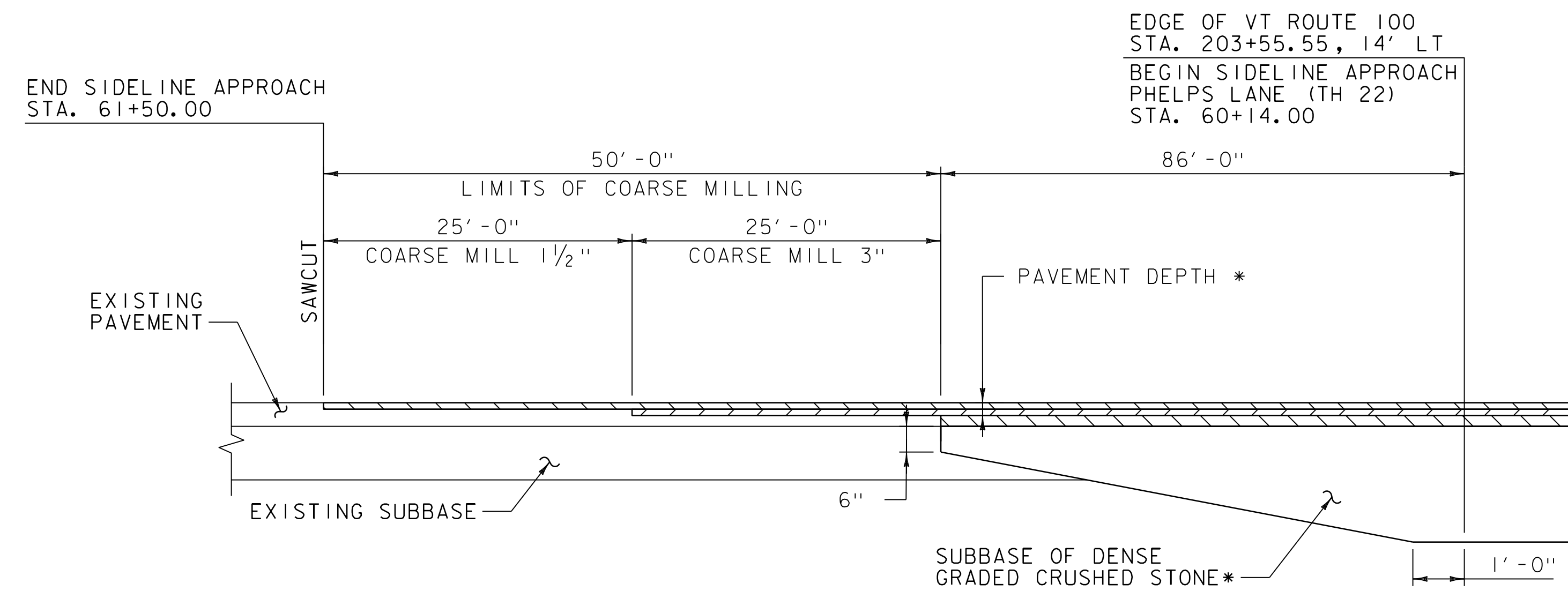


JARVIS HILL RD (TH 46) APPROACH SECTION
NOT TO SCALE

* SEE TYPICAL ROADWAY SECTIONS FOR PAVEMENT AND SUBBASE MATERIAL DESIGN



TUNNEL ST (TH 2) APPROACH SECTION
NOT TO SCALE



PHELPS LANE (TH 22) APPROACH SECTION
NOT TO SCALE

* SEE TYPICAL ROADWAY SECTIONS FOR PAVEMENT AND SUBBASE MATERIAL DESIGN

PROJECT NAME: READSBORO
PROJECT NUMBER: BF 0102(16) C/2

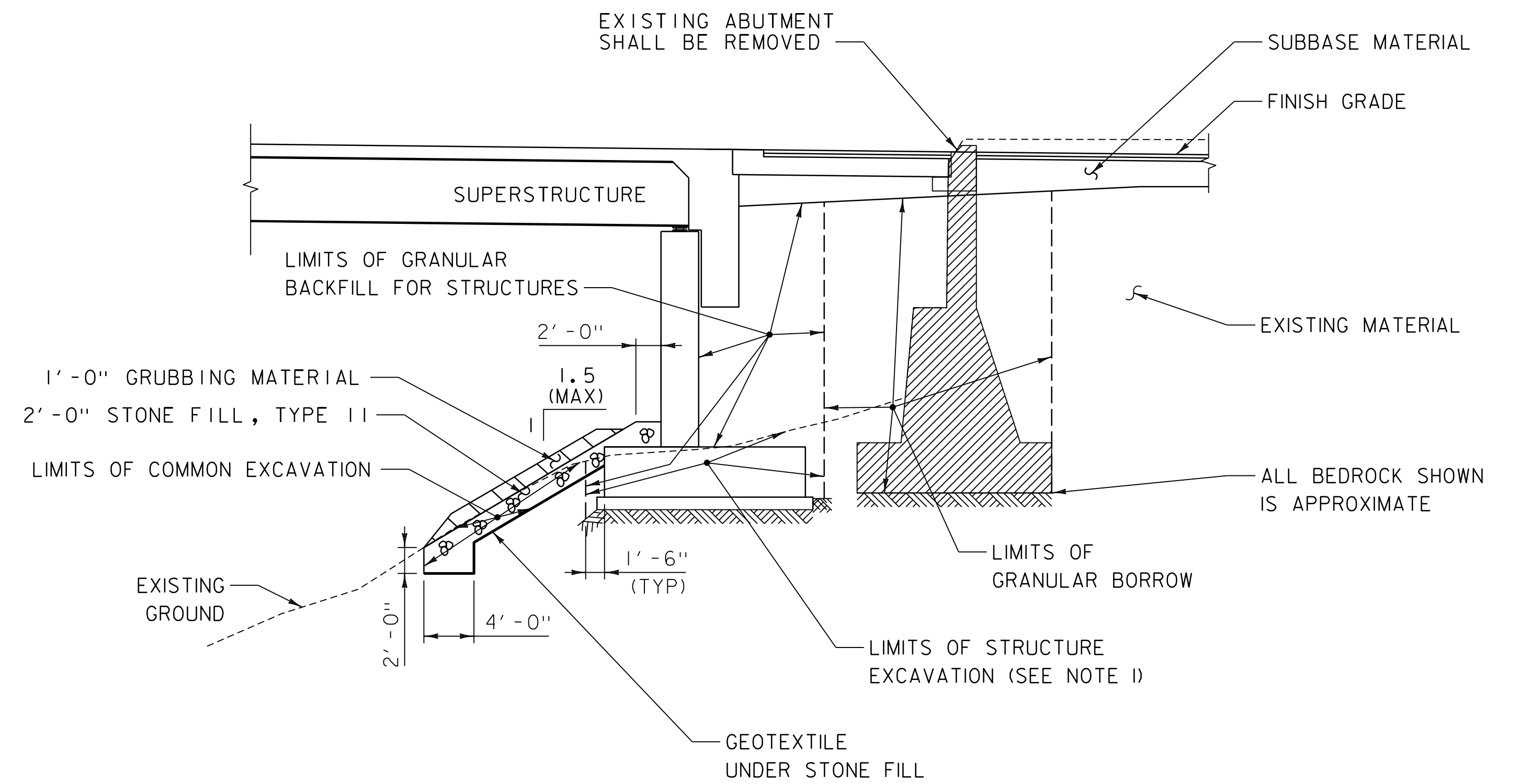
FILE NAME: z13c068typ.dgn
PROJECT LEADER: S.E. BURBANK
DESIGNED BY: J.D. KEENER
MATERIAL TRANSITION SHEET (2 OF 2)

PLOT DATE: 12-APR-2024
DRAWN BY: M.F. NEMETH
CHECKED BY: N.A. TRUSLOW
SHEET 10 OF 220

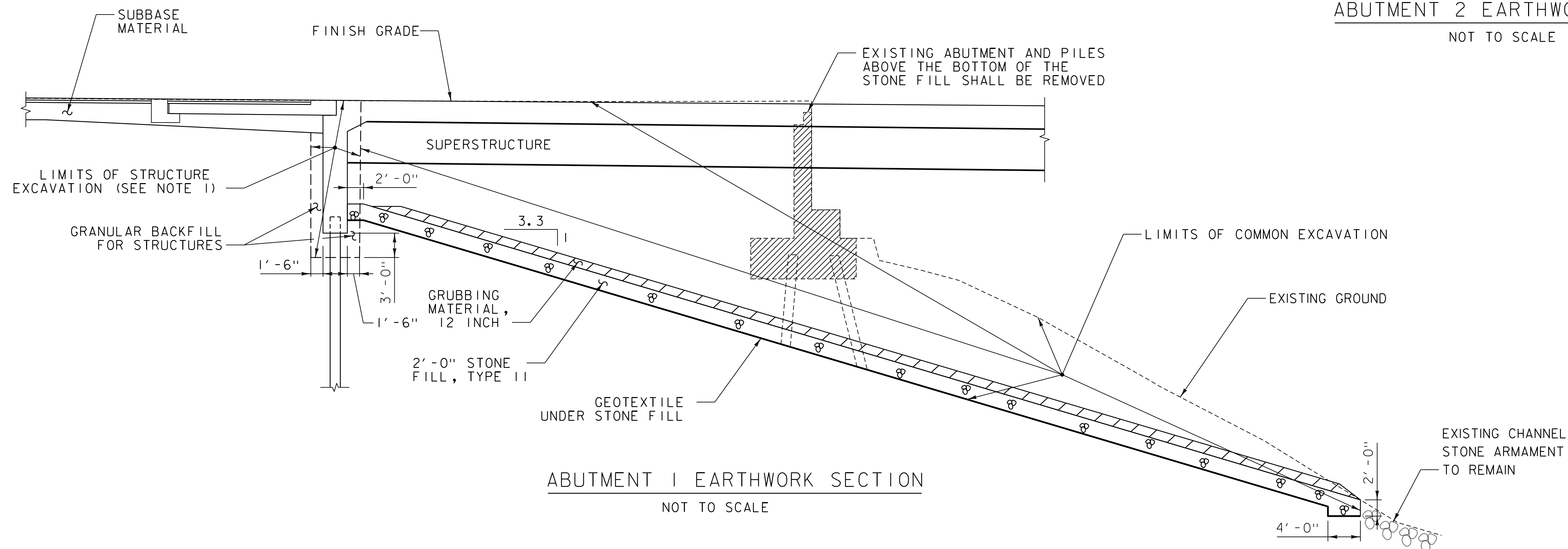


NOTES:

1. ACTUAL STRUCTURE EXCAVATION LIMITS SHALL BE DETERMINED BY THE CONTRACTOR. HOWEVER, ONLY THE EXCAVATION BETWEEN THE LIMITS SHOWN FOR STRUCTURE EXCAVATION WILL BE PAID FOR UNDER ITEM 204.2500, "STRUCTURE EXCAVATION". EXCAVATION OUTSIDE OF THESE LIMITS OR OUTSIDE THE UNCLASSIFIED CHANNEL EXCAVATION LIMITS WILL BE AT THE EXPENSE OF THE CONTRACTOR.
2. IF BEDROCK IS ENCOUNTERED WITHIN THE LIMITS OF GRANULAR BORROW SHOWN IN THE ABUTMENT 2 EARTHWORK SECTION, THE CONTRACTOR SHALL NOT REMOVE THE BEDROCK AND WILL PLACE THE GRANULAR BORROW UP TO THE VERTICAL FACE OF THE BEDROCK OR AS DIRECTED BY THE ENGINEER.
3. PRIOR TO PLACING THE GRANULAR BORROW AGAINST THE BEDROCK, THE BEDROCK SHOULD BE CLEANED OF LOOSE ROCK, ORGANIC MATERIALS, SOIL, AND DUST.
4. GRUBBING MATERIAL SHALL NOT BE PLACED ON STONE FILL WITHIN 3' OF THE FACE OF THE ABUTMENT UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.
5. EXCAVATION FOR REMOVAL OF EXISTING ABUTMENTS SHALL BE INCIDENTAL TO ITEM 529.1500, "REMOVAL OF STRUCTURE".
6. REFER TO PROJECT NOTES FOR ABUTMENT NO. 2 FOOTING ON BEDROCK NOTES.



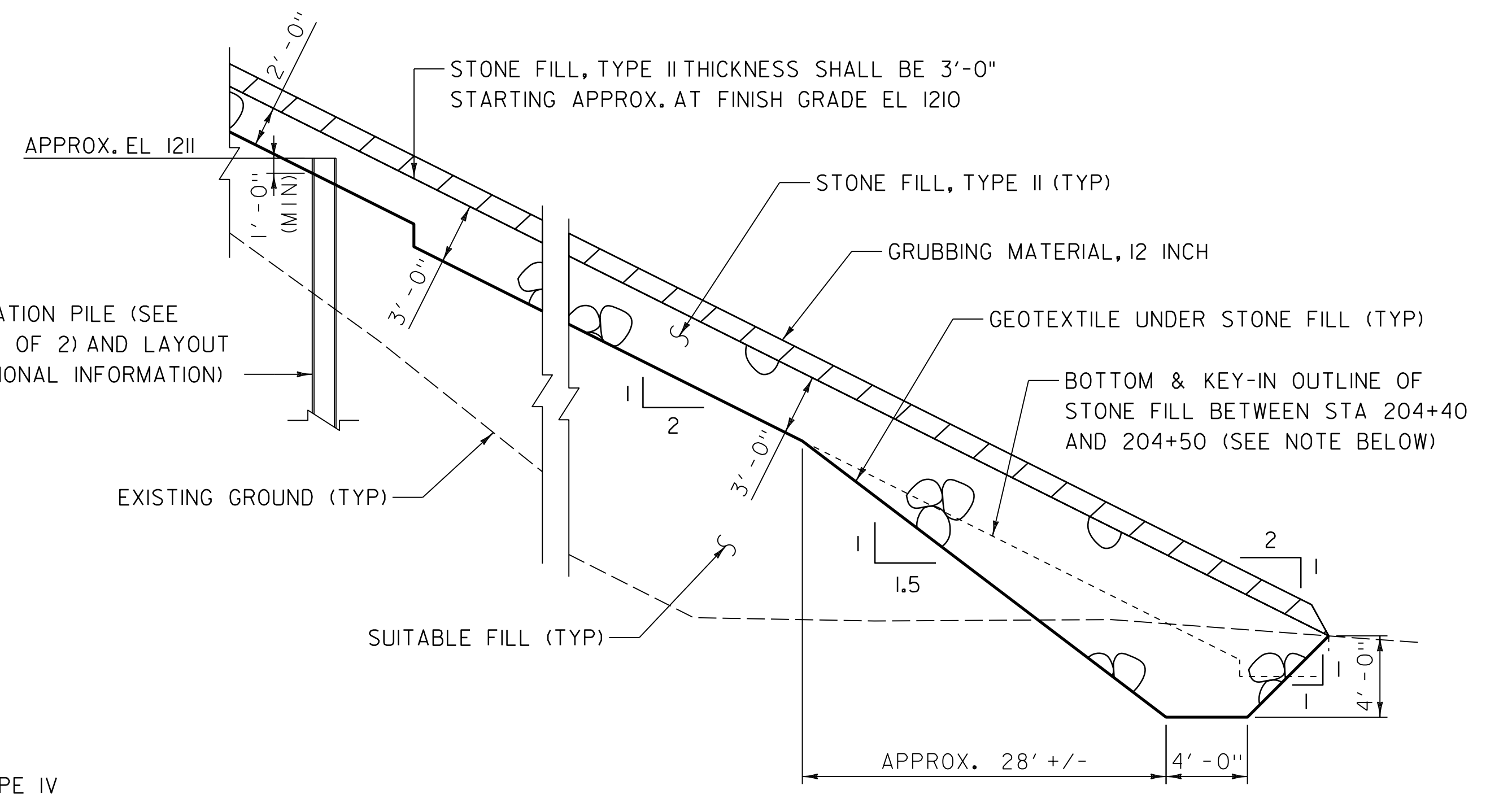
ABUTMENT 2 EARTHWORK SECTION
NOT TO SCALE



ABUTMENT 1 EARTHWORK SECTION
NOT TO SCALE

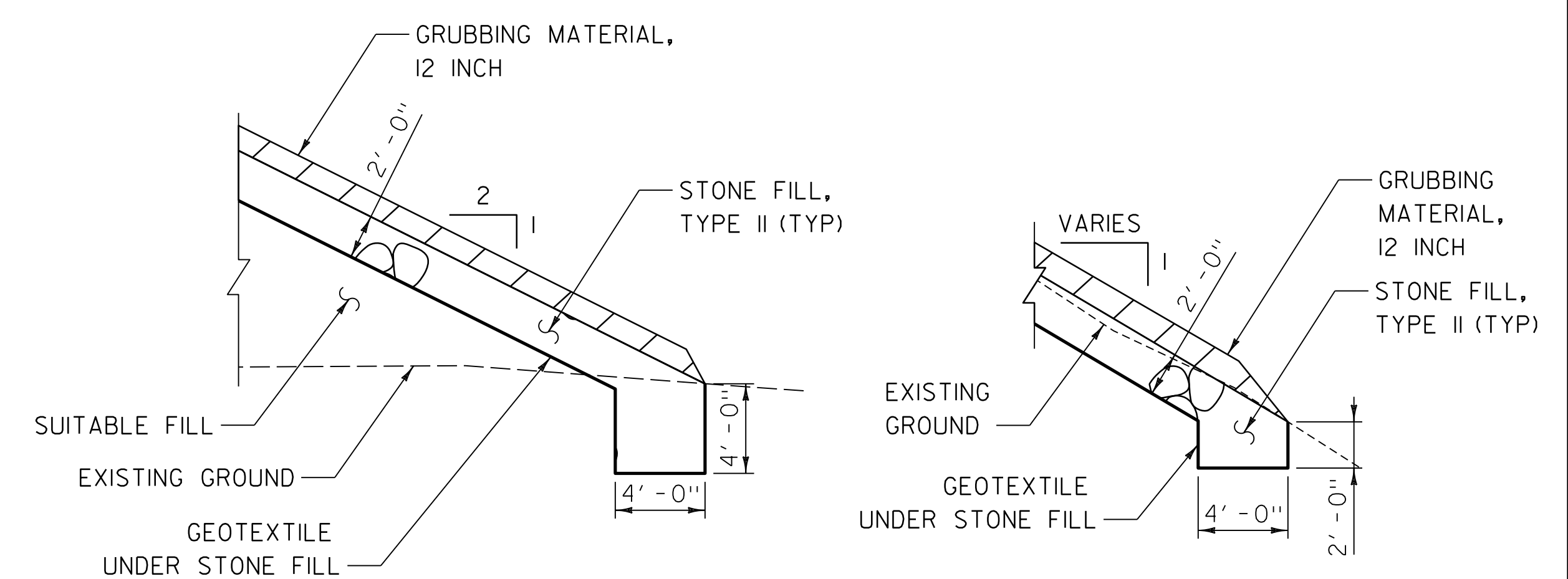
PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	M.F. NEMETH
FILE NAME:	z13c068typ.dgn	DESIGNED BY:	M.F. NEMETH
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	N.A. TRUSLOW
TYPICAL EARTH WORK SECTIONS (1 OF 2)		SHEET 11 OF 220	





STA 203+80 - 204+50, RT

KEY-IN SHOWN IN THIS DETAIL WILL BE INSTALLED FROM STA 203+80 - 204+40, FROM STA 204+40 - 204+50, THE STONE FILL, TYPE II SHALL REMAIN 3'-0" THICK AND HAVE A 2'-0" DEEP BY 4'-0" WIDE KEY-IN AS SHOWN BELOW FOR "ALL OTHER LOCATIONS".



STA 203+00 - 203+80, RT

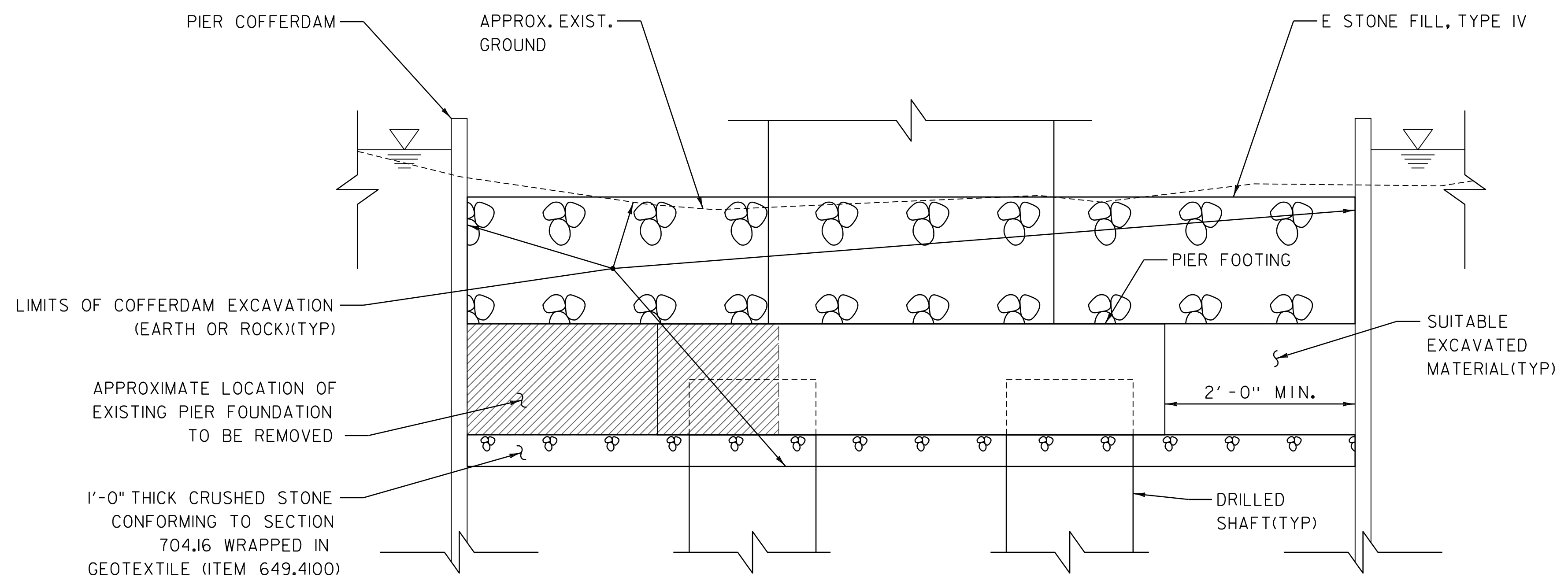
ALL OTHER LOCATIONS

STONE FILL EARTHWORK SECTIONS AND KEY-IN DETAILS

NOT TO SCALE

SEE THE EARTHWORK NOTES ON PROJECT NOTES SHEET (1 OF 2) FOR THE BENCHING REQUIREMENTS OF THE EXISTING SIDE SLOPES.

HPI4X102 SLOPE STABILIZATION PILE (SEE PROJECT NOTES SHEET (1 OF 2) AND LAYOUT SHEET 1 OF 3 FOR ADDITIONAL INFORMATION)



PIER EARTHWORK SECTION

NOT TO SCALE

COFFERDAM NOTES:

1. COFFERDAM DIMENSIONS TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF EITHER "COFFERDAM EXCAVATION, EARTH" OR "COFFERDAM EXCAVATION, ROCK" SHALL BE 2'-0" OUTSIDE THE PERIMETER OF THE PROPOSED FOOTING FROM BOTTOM OF EXCAVATION UP TO THE EXISTING GROUND.
3. CRUSHED STONE AND THE GEOTEXTILE IT IS WRAPPED IN WILL BE PAID FOR UNDER ITEM 204.3000, "GRANULAR BACKFILL FOR STRUCTURES".



PROJECT NAME:	READSBORO	FILE NAME:	z13c068typ.dgn	PLOT DATE:	14-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	M.F. NEMETH
		DESIGNED BY:	M.F. NEMETH	CHECKED BY:	N.A. TRUSLOW
		TYPICAL EARTH WORK SECTIONS (2 OF 2)		SHEET	12 OF 220

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 —	WATERLINE
— 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
XXXXXXXXXXXXXXXXXXXXXXXXXXXX	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 —	SLOPE RIGHTS
6f — 6f —	6F PROPERTY BOUNDARY
4f — 4f —	4F PROPERTY BOUNDARY
HAZ — HAZ —	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLGY**

**EPSC MEASURES**

ONNOONNOONNO	IM-WATER SEDIMENT ISOLATION MEASURES
— — — — —	SILT FENCE, TYPE I
— — — — —	SILT FENCE, TYPE II
— — — — —	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: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068legend.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: VTRANS  
DESIGNED BY: VTRANS CHECKED BY: VTRANS  
CONVENTIONAL SYMBOLGY LEGEND SHEET SHEET 13 OF 220





## PROJECT NOTES

### GENERAL

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2024, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.
- THE BRIDGE IS DESIGNED FOR HL-93 LIVE LOAD.
- THE EXISTING STRUCTURAL STEEL ON THIS PROJECT IS PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD OR OTHER HEAVY METALS. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.
- THE REMOVAL OF THE EXISTING BRIDGE WILL BE PAID FOR UNDER ITEM 529.1500 "REMOVAL OF STRUCTURE. THIS WORK WILL INCLUDE THE COMPLETE REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE SUPERSTRUCTURE, INCLUDING ALL BRIDGE RAILINGS, BEARINGS, AND ANCHOR BOLTS. REMOVAL AND DISPOSAL OF THE EXISTING BRIDGE SUBSTRUCTURES, INCLUDING THEIR FOOTINGS. THE EXISTING ABUTMENT FOOTINGS SHALL BE REMOVED IN THEIR ENTIRETY. THE EXISTING PIER FOOTINGS SHALL BE REMOVED TO 2'-0" BELOW FINISHED GRADE OR IN THEIR ENTIRETY WHERE THE EXISTING PIER FOOTING INTERFERES WITH THE PROPOSED PIER FOOTING. THE EXISTING WATER MAIN ON THE BRIDGE SHALL BE REMOVED AND SALVAGED PER THE NOTICE TO BIDDERS.
- THE EXISTING NORTH ABUTMENT PILES SHALL REMAIN IN PLACE, EXCEPT THEY SHALL BE CUT OFF 2'-0" BELOW FINISH GRADE. ALL COSTS ASSOCIATED WITH CUTTING AND REMOVING EXISTING PILES WILL BE INCIDENTAL TO ITEM 529.1500, "REMOVAL OF STRUCTURE.
- THERE ARE TWO EXISTING PLAQUES AT EACH END OF THE BRIDGE ON THE SIDEWALK SIDE OF THE BRIDGE ATTACHED TO THE BRIDGE RAILING. THESE PLAQUES SHALL BE SALVAGED BY THE CONTRACTOR AND PROVIDED TO THE TOWN AT THE START OF CONSTRUCTION. THE PLAQUES WILL BE RETURNED TO THE CONTRACTOR PRIOR TO THE INSTALLATION OF THE PROPOSED BRIDGE RAIL ON THE SIDEWALK SIDE OF THE BRIDGE. THE PLAQUES SHALL BE LOCATED AT THE ENDS OF THE BRIDGE RAIL WITH THE FINAL LOCATION TO BE DETERMINED BY THE TOWN. ALL COSTS ASSOCIATED WITH REMOVING THE PLAQUES, INCLUDING REMOVING AND PROVIDING THEM TO THE TOWN, ADDING APPROPRIATE HARDWARE TO ALLOW THEM TO BE CAST INTO THE BRIDGE RAIL, COORDINATING WITH THE ENGINEER AND THE TOWN, AND CASTING THE PLAQUES INTO THE BRIDGE RAIL WILL BE INCIDENTAL TO ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB."
- IN ORDER TO PREVENT DAMAGE TO THE RESIDENCES LOCATED AT THE INTERSECTION OF VT ROUTE 100 AND TUNNEL STREET (17 TUNNEL STREET) AND VT ROUTE 100 AND EAST MAIN STREET (65 EAST MAIN STREET) ITEM 250.0100, "CONSTRUCTION VIBRATION AND CRACK MONITORING" HAS BEEN INCLUDED IN THIS CONTRACT.
- THE DRY LAID STONE WALL THAT IS SUPPORTING THE RESIDENCE AT 65 EAST MAIN STREET AND IS VISIBLE FROM THE PARKING AREA AND THE GAZEBO SHALL BE CONSIDERED TO BE A FEATURE OF THAT RESIDENCE AND SHALL HAVE ITS OWN PRE-CONSTRUCTION SURVEY, CONSTRUCTION VIBRATION MONITORING PLAN, VIBRATION MONITORING INSTRUMENTS, AND IF REQUIRED CRACK GAUGES INSTALLED ON THE STONE WALL TO PREVENT DAMAGE TO THE WALL DURING CONSTRUCTION. ALL COSTS WILL BE INCLUDED IN ITEM 250.0100, "CONSTRUCTION VIBRATION AND CRACK MONITORING".

### TRAFFIC CONTROL

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE-SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN TO THE PROJECT MANAGER FOR ALL STAGES OF CONSTRUCTION FOR APPROVAL. ALL COSTS WILL BE INCLUDED IN ITEM 641.1100, "TRAFFIC CONTROL, ALL-INCLUSIVE".
- ALL ITEMS REQUIRED TO IMPLEMENT THE CONTRACTOR'S TRAFFIC CONTROL PLAN THAT ARE NOT INCLUDED IN THE CONTRACT, WILL NOT BE PAID FOR DIRECTLY BUT WILL BE INCIDENTAL TO ITEM 641.1100, "TRAFFIC CONTROL, ALL-INCLUSIVE".
- DURING CONSTRUCTION, TRAFFIC SHALL BE MAINTAINED ON A TWO-WAY TEMPORARY BRIDGE DOWNSTREAM OF THE NEW STRUCTURE. THE TEMPORARY BRIDGE AND ITS ROADWAY DETOUR SHALL BE 28'-0" RAIL TO RAIL, PAVED, AND HAVE A 5'-0" WIDE TEMPORARY SIDEWALK. REFER TO THE PRELIMINARY INFORMATION SHEET FOR ADDITIONAL TEMPORARY BRIDGE REQUIREMENTS. CONSTRUCTION OF THE TEMPORARY BRIDGE, APPROACH, AND SIDEWALK SHALL BE PAID FOR UNDER ITEM 528.1100, "TWO LANE TEMPORARY BRIDGE".

- A TEMPORARY WATER MAIN SHALL BE INSTALLED ON THE TEMPORARY BRIDGE. ALL COSTS ASSOCIATED WITH THE INSTALLATION OF THE TEMPORARY WATER MAIN INCLUDING THE TAPPING SLEEVE AND VALVE ASSEMBLIES AND THE REMOVAL OF THE TEMPORARY WATER MAIN AND CLOSURE OF THE VALVE ASSEMBLIES AFTER ITS REMOVAL WILL BE INCIDENTAL TO ITEM 528.1100, "TWO LANE TEMPORARY BRIDGE".
- PHELPS LANE'S INTERSECTION WITH VT ROUTE 100 SHALL BE MODIFIED TO ALLOW FOR WB-62 VEHICLE TURNING MOVEMENTS FROM THE TEMPORARY BRIDGE APPROACH ONTO PHELPS LANE AND VICE VERSA IN BOTH THE EASTBOUND AND WESTBOUND DIRECTION. ANY TEMPORARY MODIFICATIONS TO PHELPS LANE SHALL NOT EXTEND BEYOND PHELPS LANE STATION 61+50.00 AND THE EDGE OF THE MODIFIED PHELPS LANE SHALL NOT BE CLOSER THAN 20 FEET TO THE EDGE OF THE GAZEBO. THE GAZEBO AND THE EXISTING TREES ADJACENT TO THE GAZEBO SHALL NOT BE IMPACTED BY THE MODIFICATIONS TO PHELPS LANE. ALL COSTS TO MODIFY PHELPS LANE TO ALLOW WB-62 VEHICLES MANUEVER THE INTERSECTION FROM THE DETOUR WILL BE INCLUDED IN THE PAYMENT OF ITEM 528.1100, "TWO LANE TEMPORARY BRIDGE". CONSTRUCTION DRAWINGS FOR THE MODIFICATION OF PHELPS LANE AND VT ROUTE 100 SHALL BE SUBMITTED IN ACCORDANCE WITH SUBSECTION 528.03.
- FULL ACCESS TO PHELPS LANE, JARVIS HILL ROAD, AND DEPOT STREET SHALL BE MAINTAINED AT ALL TIMES. EXCEPT FOR SHORT DURATIONS FOR UNLOADING THE STEEL GIRDERS. SEE NOTICE TO BIDDERS FOR ADDITIONAL INFORMATION.

### PEDESTRIAN TEMPORARY TRAFFIC CONTROL

- PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR SHORT DURATIONS FOR UNLOADING THE STEEL GIRDERS. SEE NOTICE TO BIDDERS FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION.
- PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES, COMMERCIAL PROPERTIES AND TRANSIT STOPS. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.
- IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 5 FEET. THE SURFACE OF THE TPAR SHALL BE FIRM, STABLE AND SLIP-RESISTANT AND CONTINUOUS WITH A MINIMUM 80 INCHES OVERHEAD CLEARANCE FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.
- WHEN TEMPORARY CROSSWALKS ARE UTILIZED FOR THE TPAR, TEMPORARY DETECTABLE WARNINGS SHALL BE PLACED AT EACH END OF THE TEMPORARY CROSSWALKS. THE TEMPORARY CROSSWALK SHALL BE DELINEATED WITH TEMPORARY PAVEMENT MARKINGS OR TAPE. THE MARKINGS SHALL BE PARALLEL 12-INCH-WIDE WHITE LINES PLACE 7 FEET ON CENTER APART. IT SHOULD BE NOTED THAT CURB PARKING SHALL BE PROHIBITED FOR AT LEAST 20 FEET IN ADVANCE OF MIDBLOCK CROSSWALKS. TEMPORARY CROSSWALK SIGNS SHALL BE PROVIDED FOR THE CROSSWALK.
- IF THERE IS WORK OCCURRING OVER AN OPEN SIDEWALK, PROTECTIVE OVERHEAD COVERING MUST BE PROVIDED AS NECESSARY TO ENSURE PROTECTION FROM FALLING OBJECTS AND DRIPPING FROM OVERHEAD STRUCTURES. COVERED WALKWAYS SHOULD BE STURDILY CONSTRUCTED AND ADEQUATELY LIGHTED FOR NIGHTTIME USE.
- INDIVIDUAL CHANNELIZING DEVICES, TAPE, OR ROPE USED TO CONNECT INDIVIDUAL DEVICES AND OTHER DISCONTINUOUS BARRIERS AND DEVICES, PAVEMENT MARKINGS ARE NOT DETECTABLE BY PERSONS WITH VISUAL DISABILITIES. THESE MEASURES DO NOT PROVIDE ACCEPTABLE PATH GUIDANCE ON TEMPORARY OR REALIGNED SIDEWALKS OR OTHER PEDESTRIAN FACILITIES. PEDESTRIAN CHANNELIZING DEVICES SHALL INCLUDE A CONTINUOUSLY DETECTABLE BOTTOM AND TOP EDGE THROUGHOUT THE LENGTH OF THE FACILITY SUCH THAT IT CAN BE FOLLOWED BY PEDESTRIANS USING LONG CANES FOR GUIDANCE.
- CHANNELIZING DEVICES ON BOTH SIDES OF THE TPAR SHALL INCLUDE A CONTINUOUS SOLID TOP AND BOTTOM RAILS. THE TOP EDGE OF THE TOP RAIL SHALL BE BETWEEN 32 INCHES AND 38 INCHES ABOVE THE GROUND LEVEL. THE BOTTOM RAIL SHALL BE AT LEAST 6 INCHES WIDE, WITH THE BOTTOM EDGE OF THE BOTTOM RAIL SURFACE NO HIGHER THAN 2 INCHES ABOVE THE GROUND.
- IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROP-OFFS, THEN CRASHWORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.
- THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.
- PROVISION OF THE TPAR AND ALL ITS ELEMENTS, INCLUDING BUT NOT LIMITED TO SIGNS, CHANNELIZING DEVICES, BARRICADES, TEMPORARY CURB RAMPS, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES WILL BE PAID FOR UNDER ITEM 641.1200, "MAINTENANCE OF PEDESTRIAN TRAFFIC".

### EARTHWORK

- STONE FILL SHALL BE PLACED IN FRONT OF THE ABUTMENTS AS SHOWN ON THE PLANS BEFORE THE NEW GIRDERS ARE SET.
- THE SIDE SLOPES FROM STA 202+25 TO 204+40, RT SHALL BE BENCHED IN ACCORDANCE WITH THE METHOD FOR CONSTRUCTING AN EMBANKMENT ON EARTH SLOPE AS SHOWN IN STD B-5. ALL IN-SITU MATERIAL SHALL BE BENCHED, INCLUDING EXISTING STONE FILL.

### BITUMINOUS CONCRETE PAVEMENT

- PAVEMENT CORES FOR ITEM 406.9200, "PAY ADJUSTMENT, BCP, MAT DENSITY (N.A.B.I.)" SHALL ONLY BE TAKEN FROM THE ROADWAY. THERE SHALL BE NO PAVEMENT CORES TAKEN FROM THE PAVEMENT OVER THE APPROACH SLABS OR BRIDGE DECK.

### H-PILES

- ABUTMENT NO. 1 PILES:
  - PILES SHALL BE HP14x102 (PLUMB).
  - THE PILES SHALL BE DRIVEN TO A NOMINAL PILE DRIVING RESISTANCE (RNDR) OF 429 KIPS AND A TIP ELEVATION OF 1170.0 OR DEEPER.
- SLOPE STABILIZATION PILES:
  - PILES SHALL BE HP14x102 (PLUMB).
  - THE PILES SHALL BE DRIVEN TO A PILE TIP ELEVATION OF AT LEAST FIVE FEET BELOW THE TOP OF THE GLACIAL TILL LAYER.
  - THE TOP OF THE PILES SHALL BE CUT OFF AT APPROXIMATELY ELEVATION 1211 AND EXTEND A MINIMUM OF ONE FOOT INTO THE STONE FILL, TYPE II.
- A MINIMUM OF TWO DYNAMIC TESTS AT ABUTMENT NO. 1 ARE REQUIRED DURING PILE INSTALLATION. PAYMENT WILL BE MADE UNDER ITEM 505.4500, "DYNAMIC PILE LOADING TEST". DYNAMIC PILE LOAD TESTING OF THE SLOPE STABILIZATION PILES IS NOT REQUIRED.
- FOR ESTIMATING PURPOSES, 50-FOOT PILE LENGTHS HAVE BEEN ASSUMED FOR THE ABUTMENT NO. 1 PILES, AND 55-FOOT PILE LENGTHS HAVE BEEN ASSUMED FOR THE SLOPE STABILITY PILES. THE ACTUAL IN PLACE LENGTHS MAY VARY AND SHALL BE BASED ON FIELD CONDITIONS AND AS DETERMINED BY THE ENGINEER.

### STRUCTURAL STEEL

- ALL STRUCTURAL STEEL WILL BE PAID FOR UNDER ITEM 506.5500, "STRUCTURAL STEEL, PLATE GIRDER (WEATHERING)" AND SHALL CONFORM TO AASHTO M 270 GRADE 50W UNLESS NOTED OTHERWISE.
- STRUCTURAL STEEL FOR THE WATER MAIN LATERAL RESTRAINT SHALL CONFORM TO AASHTO M270 GRADE 50 AND SHALL BE HOT DIPPED GALVANIZED. CONNECTION BOLTS TO THE UTILITY SUPPORT BEAM SHALL ALSO BE GALVANIZED. A CLASS B SLIP COEFFICIENT IS NOT REQUIRED. ALL COSTS WILL BE INCLUDED IN SPECIAL SPECIFICATION ITEM 629.XXXX, "WATER MAIN ON BRIDGE".
- ALL BOLTED CONNECTIONS SHALL BE MADE WITH 7/8", TYPE 3 BOLTS IN STANDARD 15/16" HOLES MEETING THE REQUIREMENTS OF SUBSECTION 714.05. UNLESS OTHERWISE NOTED.
- ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
- AFTER THE STRUCTURAL STEEL HAS BEEN SET ON THE BEARINGS, WITH ALL MEMBERS INSTALLED AND BOLT TENSIONING COMPLETE, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF EACH GIRDER UNDER THE DIRECTION OF THE ENGINEER. THESE ELEVATIONS SHALL BE USED IN DETERMINING THE FINAL GRADE.
- BEARING STIFFENERS AND GIRDER ENDS SHALL BE PLUMB UNDER FULL DEAD LOAD DEFLECTION.

### CONCRETE

- CONCRETE FOR THE RESPECTIVE STRUCTURAL ELEMENTS SHALL BE AS SPECIFIED IN THE TABLE ON THE NEXT SHEET.
- THE CONTRACTOR HAS THE OPTION TO USE PARTIAL DEPTH PRECAST CONCRETE DECK PANELS INSTEAD OF A FULL-DEPTH CONCRETE DECK SLAB. IF THE CONTRACTOR ELECTS TO USE PARTIAL DEPTH PRECAST CONCRETE DECK PANELS, THE DESIGN, DETAILING, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DETAILS PROVIDED.
- FLEMING BRACKETS OR SIMILAR FALSE WORK SHALL BE DESIGNED BY THE CONTRACTOR AND PLACED AT A MAXIMUM SPACING OF 4'-0". THE BRACKETS SHALL EXTEND AS NEAR AS POSSIBLE TO THE BOTTOM FLANGE, BUT IN NO CASE SHALL THE BRACKETS BEAR MORE THAN 1' ABOVE THE BOTTOM FLANGE.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS, STD. S-500, OR AS DIRECTED BY THE ENGINEER.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068pn.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: R.H. BARNES  
DESIGNED BY: R.H. BARNES CHECKED BY: S.M. HODGDON  
PROJECT NOTES (1 OF 2) SHEET 14 OF 220





44. ITEM 514.1000, "WATER REPELLENT, SILANE", SHALL BE TYPE II SILANE MEETING THE REQUIREMENTS OF SECTION 726.10 AND SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON THE BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE EXCEPT THE UNDERSIDE OF THE DECK BETWEEN DRIP NOTCHES.
45. SURFACES OF BRIDGE SEATS UNDER PERMANENT BEARING DEVICES SHALL BE LEVEL.
46. IN ACCORDANCE WITH SUBSECTION 506.22(a)(1) AND AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL TAKE MEASURES NECESSARY TO PROTECT ALL SUBSTRUCTURE CONCRETE FROM STAINING DUE TO OXIDE FORMATION ON THE STRUCTURAL STEEL PRIOR TO PLACEMENT OF THE DECK. THESE MEASURES WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS". ANY SUCH STAINING THAT OCCURS PRIOR TO DECK PLACEMENT SHALL BE REMOVED AT NO ADDITIONAL COST TO THE STATE.
47. ALL ANCHOR BOLTS AT THE PIER SHALL BE SET BY TEMPLATE BEFORE CONCRETE IS PLACED. NO DRILLING WILL BE ALLOWED. ALL COSTS ASSOCIATED WITH THIS WILL BE INCLUDED IN THE APPROPRIATE BEARING ITEM.

**REINFORCING STEEL**

48. REINFORCING STEEL FOR THE RESPECTIVE STRUCTURAL ELEMENTS SHALL BE AS SPECIFIED IN THE TABLE ON THIS SHEET.
49. REINFORCING BARS AND THEIR DESIGNATIONS SHALL BE AS FOLLOWS:
- A. BARS MARKED WITHOUT A SUFFIX SHALL BE ITEM 507.1100, "REINFORCING STEEL, LEVEL I".
  - B. BARS MARKED WITHOUT A SUFFIX AND WITH AN "E" IN THEIR PREFIX SHALL BE ITEM 507.1100, "REINFORCING STEEL, LEVEL I (EPOXY)".
  - C. BARS MARKED WITH A "2" IN THEIR SUFFIX SHALL BE ITEM 507.1200, "REINFORCING STEEL, LEVEL II".
50. MINIMUM CLEAR COVER SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
- | LOCATION                          | CLEAR COVER (INCHES) |
|-----------------------------------|----------------------|
| PIER AND ABUTMENT FOOTINGS        | 3.0                  |
| PIER COLUMN AND CAP               | 4.0                  |
| BACK FACES OF WALLS AGAINST EARTH | 2.0                  |
| TOP SURFACE OF DECK               | 2.5                  |
| BOTTOM SURFACE OF DECK            | 1.5                  |
| ELSEWHERE, UNLESS OTHERWISE NOTED | 3.0                  |
51. TEST BARS SHALL BE PROVIDED IN ACCORDANCE WITH THE "VERMONT AGENCY OF TRANSPORTATION MATERIAL SAMPLING MANUAL" AVAILABLE ON THE AGENCY WEBSITE. ALL COSTS ASSOCIATED WITH PROVIDING BARS FOR TESTING WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE 507 ITEM.

52. LAP LENGTHS PROVIDED ARE THE MINIMUM REQUIRED. EXCEPT WHERE NOTED AS CUT TO FIT, REINFORCING BAR LENGTHS ARE DETAILED FOR THE LAP TO VARY AT SLOPED AND STEPPED COMPONENTS.

**FOOTING ON BEDROCK**

53. ABUTMENT NO. 2, AND WINGWALL NOS. 3 AND 4 FOOTINGS AND SUB-FOOTINGS FOUNDED ON BEDROCK SHALL BE PLACED ON CLEAN COMPETENT BEDROCK. WHERE BEDROCK REMOVAL IS NEEDED FOR CONSTRUCTION, THE REMOVAL METHOD SHALL BE LIMITED TO MECHANICAL METHODS, AND BLASTING METHODS SHALL BE PROHIBITED. MECHANICAL METHODS MAY CONSIST OF PERFORATION DRILLING, LINE DRILLING, BROACHING, HYDRAULIC SPLITTING, RIPPING, USE OF HYDRAULIC HAMMERS/BREAKERS, OR OTHER MECHANICAL MEANS OF ROCK REMOVAL, AS APPROVED BY THE ENGINEER. THE BEDROCK SURFACE SHOULD BE FREE OF ALL LOOSE SOIL AND WEATHERED BEDROCK MATERIAL. CLEANING MAY BE PERFORMED WITH HIGH-PRESSURE AIR JETS, HIGH-PRESSURE WATER JETS, BROOMS, OR BY ANY OTHER METHOD ACCEPTABLE TO THE ENGINEER.
54. BEDROCK SLOPES THAT EXCEED 12H:IV (5°) SHOULD BE BENCHED TO CREATE LEVEL STEPS OR A COMPLETELY LEVEL SUBGRADE. THE BASE OF THE BENCH CUTS SHOULD HAVE A MINIMUM HORIZONTAL LENGTH OF 5 FEET INTO THE SLOPE. THE OVERALL SLOPE OF THE BENCHED SLOPE GEOMETRY SHOULD BE NO STEEPER THAN 35 DEGREES (FROM HORIZONTAL). THE FACE OF EACH BENCH AND SIDEWALL SHOULD BE EXCAVATED NO FLATTER THAN 1H TO 4V, AND THE CONTINUITY OF THE INTACT ROCK AT THE CORNERS AND VERTICAL FACES SHOULD BE MAINTAINED (I.E., NO OVERBREAK).
55. UPON COMPLETION OF THE EXCAVATION FOR SUBSTRUCTURES FOUNDED ON BEDROCK AND PRIOR TO PLACING FORMWORK, THE ENGINEER SHALL NOTIFY THE PROJECT MANAGER AND GEOTECHNICAL ENGINEERING MANAGER. THE AGENCY GEOLOGIST AND/OR GEOTECHNICAL ENGINEER WILL DETERMINE IF THE BEDROCK IS COMPETENT TO OBTAIN THE NOMINAL BEARING RESISTANCE AS SHOWN ON THE PLANS. FIVE (5) WORKING DAYS FROM NOTIFICATION SHALL BE ALLOWED TO MAKE THE INSPECTION AND THE DETERMINATION FOR THE COMPETENCY OF THE BEDROCK.
56. THE ROCK DOWEL LAYOUT SHOWN IN THE PLANS IS BASED ON AVAILABLE SUBSURFACE INFORMATION. THE AGENCY GEOLOGIST AND/OR GEOTECHNICAL ENGINEER WILL DETERMINE THE FINAL LAYOUT BASED ON FIELD CONDITIONS. THE FINAL ROCK DOWEL LAYOUT WILL BE MADE AS PART OF THE BEDROCK INSPECTION AND DETERMINATION OF BEDROCK COMPETENCY, WITHIN THE SAME FIVE (5) WORKING DAY PERIOD FROM NOTIFICATION.
57. ONCE THE ELEVATION OF COMPETENT BEDROCK HAS BEEN DETERMINED, THE CONTRACTOR SHALL PROVIDE A BEDROCK PROFILE TO THE PROJECT MANAGER TO DETERMINE WHETHER THE DESIGN BOTTOM OF FOOTING ELEVATION SHALL BE ADJUSTED. FOOTING ELEVATIONS SHALL NOT BE ADJUSTED WITHOUT APPROVAL OF THE PROJECT MANAGER. THREE (3) WORKING DAYS FROM RECEIPT OF THE BEDROCK PROFILE SHALL BE ALLOWED TO MAKE THIS DETERMINATION.

58. THE LIMITS OF SUBFOOTINGS SHALL BE 6" OUTSIDE THE HORIZONTAL LIMITS OF THE FOOTING AND A MINIMUM THICKNESS OF 1'-0". ANY CONCRETE REQUIRED FOR SUBFOOTINGS WILL BE PAID UNDER ITEM 541.2300, "CONCRETE, CLASS C". AN ESTIMATED QUANTITY OF ITEM 541.2300 HAS BEEN INCLUDED IN THE CONTRACT. THE TOP SURFACE OF THE SUBFOOTING SHALL BE INTENTIONALLY ROUGHENED TO A ¼ INCH AMPLITUDE.
59. ANY BEDROCK THAT NEEDS TO BE REMOVED WILL BE PAID FOR UNDER ITEM 204.2500, "STRUCTURE EXCAVATION". VERTICALLY MEASURED OVER-BREAKAGE BEYOND THE AVERAGE MAXIMUM ALLOWANCE SPECIFIED IN SUBSECTIONS 204.06(b)(1) WILL BE AT THE CONTRACTOR'S EXPENSE. ADDITIONAL CONCRETE REQUIRED TO FILL MAXIMUM ALLOWED OVER-BREAKAGE SPACE SPECIFIED IN SUBSECTION 204.06(b)(1) WILL BE PAID AT THE UNIT PRICE FOR ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS" OR ITEM 541.2300, "CONCRETE, CLASS C" AS APPROPRIATE. CONCRETE REQUIRED TO FILL ADDITIONAL OVER-BREAKAGE SPACE WILL BE AT THE CONTRACTOR'S EXPENSE.
60. SUBFOOTING FACES ON FRONT (TOE) SIDE OF SUBFOOTING SHALL BE REINFORCED WITH #5 REINFORCING STEEL BARS SPACED AT 12" EACH WAY, AS SHOWN IN THE PLANS. AN ESTIMATED QUANTITY HAS BEEN INCLUDED IN ITEM 507.1100, "REINFORCING STEEL, LEVEL I".
61. BEDROCK SURFACE SHOWN IN THE PLANS IS NOT REPRESENTATIVE OF ACTUAL CONDITIONS AND IS INTENDED AS AN EXAMPLE OF HOW THE FOUNDATIONS CAN BE CONSTRUCTED ON BEDROCK. THE CONTRACTOR WILL BE RESPONSIBLE FOR ESTABLISHING ACTUAL ELEVATIONS.

**FINAL PAY QUANTITY ITEMS**

62. THE FOLLOWING PAY ITEMS HAVE BEEN DESIGNATED AS FINAL PAY QUANTITY OR FPQ ITEMS:
- A. ITEM 501.3700, "PERFORMANCE-BASED CONCRETE, CLASS PCD"
  - B. ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS"
  - C. ITEM 506.5500, "STRUCTURAL STEEL, PLATE GIRDER (WEATHERING)"
  - D. ITEM 507.1100, "REINFORCING STEEL, LEVEL 1"
  - E. ITEM 507.1100, "REINFORCING STEEL, LEVEL I (EPOXY)"
  - F. ITEM 507.1200, "REINFORCING STEEL, LEVEL II"
  - G. ITEM 510.4000, "PRESTRESSED CONCRETE DECK PANELS (3 ½ IN.)"
  - H. ITEM 519.1000, "MEMBRANE WATERPROOFING, SPRAY APPLIED"
  - I. ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB."
  - J. ITEM SS012, "BRIDGE EXPANSION JOINT, STRIP SEAL"

CONCRETE		REINFORCING STEEL	
STRUCTURAL ELEMENT:	CONTRACT ITEM:	TO MEET THE REQUIREMENTS FOR:	PAYMENT TO BE INCLUDED IN:
- SUBFOOTING - ABUTMENT NO. 1 PILE PROTECTIVE ENCASEMENT	ITEM 541.2300, "CONCRETE, CLASS C".	REINFORCING STEEL, LEVEL I (UNCOATED) (FOR SUBFOOTING ONLY)	ITEM 507.1100, "REINFORCING STEEL, LEVEL I".
- DRILLED SHAFTS	ITEM 503.1000, "DRILLED SHAFT IN EARTH" OR ITEM 503.1500, "DRILLED SHAFT IN ROCK, AS APPROPRIATE.	REINFORCING STEEL, LEVEL I (UNCOATED)	ITEM 503.1000, "DRILLED SHAFT IN EARTH" OR ITEM 503.1500, "DRILLED SHAFT IN ROCK, AS APPROPRIATE.
- PIER FOOTING, COLUMN, AND CAP	ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS".	REINFORCING STEEL, LEVEL I (UNCOATED)	ITEM 507.1100, "REINFORCING STEEL, LEVEL I".
- ABUTMENT NO. 2 FOOTING - WINGWALL NOS. 3 AND 4 FOOTINGS - APPROACH SLABS - SLEEPER SLABS	ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS".	REINFORCING STEEL, LEVEL I (EPOXY)	ITEM 507.1100, "REINFORCING STEEL, LEVEL I (EPOXY)".
- ABUTMENT NO. 1 AND WINGWALL NOS. 1 AND 2 (BELOW THE HORIZONTAL CONSTRUCTION JOINT) - ABUTMENT NO. 2 STEM - WINGWALL NOS. 3 AND 4 STEMS	ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS".	REINFORCING STEEL, LEVEL II (HOT-DIPPED GALVANIZED)	ITEM 507.1200, "REINFORCING STEEL, LEVEL II".
- DECK, CURTAINWALL, AND SIDEWALK - ABUTMENT NO. 1 AND WINGWALL NOS. 1 AND 2 (ABOVE THE HORIZONTAL CONSTRUCTION JOINT)	ITEM 501.3700, "PERFORMANCE-BASED CONCRETE, CLASS PCD".	REINFORCING STEEL, LEVEL II (HOT-DIPPED GALVANIZED)	ITEM 507.1200, "REINFORCING STEEL, LEVEL II".
- BRIDGE RAIL	PERFORMANCE-BASED CONCRETE, CLASS PCD PAID UNDER ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB.".	REINFORCING STEEL, LEVEL II (HOT-DIPPED GALVANIZED)	ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB.".

PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(I6) C/2	DRAWN BY:	R.H. BARNES
FILE NAME:	z13c068pn.dgn	DESIGNED BY:	R.H. BARNES
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.M. HODGDON
PROJECT NOTES (2 OF 2)		SHEET	15 OF 220



# QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
				1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1081 - UTILITIES - BID ITEMS	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
				1							1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.1000				
				10885							10885		CY	COMMON EXCAVATION	203.1500		10885	CY	COMMON EXCAVATION (10885 * 1.0)
				250							250		CY	SOLID ROCK EXCAVATION	203.1600		113	CY	STRUCTURE EXCAVATION (375 * 0.3)
								590			590		CY	GRANULAR BORROW	203.3200		45	CY	COFFERDAM EXCAVATION (150 * 0.3)
				860							860		CY	TRENCH EXCAVATION OF EARTH	204.2000		11043	CY	SUBTOTAL
				10							10		CY	TRENCH EXCAVATION OF ROCK	204.2100		7	CY	ROUNDING
				1							1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.2200		11050	CY	TOTAL FILL AVAILABLE
								375			375		CY	STRUCTURE EXCAVATION	204.2500		3815	CY	FILL REQUIRED
								1030			1030		CY	GRANULAR BACKFILL FOR STRUCTURES	204.3000		325	CY	SOLID ROCK EXCAVATION (250 * 1.3)
								150			150		CY	COFFERDAM EXCAVATION, EARTH	208.3000		3490	CY	NET FILL REQUIRED
								70			70		CY	COFFERDAM EXCAVATION, ROCK	208.3500		4014	CY	FACTORED FILL REQUIRED (3490 * 1.15)
								1			1		LS	COFFERDAM	208.4000		6	CY	ROUNDING
				2410							2410		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.1000		4020	CY	TOTAL FACTORED FILL REQUIRED
								640			640		LF	ROCK SLOPE STABILIZATION DOWEL	221.1000		7030	CY	TOTAL WASTE
								2			2		EACH	ROCK SLOPE STABILIZATION DOWEL TESTING	221.1500				
								54000			54000		DL	DISPOSAL OF CONTAMINATED MATERIALS (N.A.B.I.)	230.0010				
								1			1		LS	PROJECT OPERATIONS PLAN	230.0030				
								1			1		LS	PROJECT OPERATIONS COMPLETION REPORT	230.0040				
								500			500		HR	ENVIRONMENTAL OVERSIGHT	230.0050				
								1			1		LS	CONSTRUCTION VIBRATION AND CRACK MONITORING	250.0100				
				3010							3010		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.3500				
				200							200		TON	AGGREGATE SHOULDERS, RAP	402.1300				
				50							50		CWT	TACK COAT, EMULSIFIED ASPHALT	404.1100				
				570							570		TON	BITUMINOUS CONCRETE PAVEMENT, TYPE IIS, QA TIER III	406.0230				
				930							930		TON	BITUMINOUS CONCRETE PAVEMENT, TYPE IVSB, QA TIER III	406.1430				
				35							35		SY	BITUMINOUS CONCRETE PAVEMENT, NON-PAVER PLACED, TYPE IVS	406.3400				
				10000							10000		DL	PAY ADJUSTMENT, BCP, MIXTURE PROPERTIES (N.A.B.I.)	406.9100				
				10000							10000		DL	PAY ADJUSTMENT, BCP, MAT DENSITY (N.A.B.I.)	406.9200				
								760			760		CY	PERFORMANCE-BASED CONCRETE, CLASS PCS (FPQ)	501.3800				
								110			110		LF	DRILLED SHAFT IN EARTH	503.1000				
								24			24		LF	DRILLED SHAFT IN ROCK	503.1500				
								20			20		LF	DRILLED SHAFT OBSTRUCTION DRILLING AND REMOVAL	503.2000				
								1			1		LS	MOBILIZATION OF DRILLED SHAFT EQUIPMENT	503.2500				
								1			1		LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.1000				
								690			690		LF	STEEL PILING, HP 14 x 102	505.1900				
								2			2		EACH	DYNAMIC PILE LOADING TEST	505.4500				
								818320			818320		LB	STRUCTURAL STEEL, PLATE GIRDER (WEATHERING)(FPQ)	506.5500				
								62000			62000		LB	REINFORCING STEEL, LEVEL I (FPQ)	507.1100				
								24340			24340		LB	REINFORCING STEEL, LEVEL I (EPOXY COATED)(FPQ)	507.1100				
								96			96		EACH	MECHANICAL BAR CONNECTOR	507.1900				

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068qs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
QUANTITY SHEET (1 OF 4)



PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 16 OF 220

# QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
				1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1081 - UTILITIES - BID ITEMS	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								1			1		LS	SHEAR CONNECTORS (5508 - 7/8 X 7)	508.1500				
								80			80		GAL	WATER REPELLENT, SILANE	514.1000				
								1200			1200		SY	MEMBRANE WATERPROOFING, SPRAY APPLIED (FPQ)	519.1000				
								60			60		LF	JOINT SEALER, HOT POURED	524.1100				
								781			781		LF	BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB. (FPQ)	525.5100				
								1			1		LS	TWO LANE TEMPORARY BRIDGE (10800 SF - EST)	528.1100				
								1			1		EACH	REMOVAL OF STRUCTURE (12900 SF - EST)	529.1500				
								8			8		EACH	BEARING DEVICE ASSEMBLY, HIGH LOAD MULTI-ROTATIONAL	531.1500				
								90			90		CY	CONCRETE, CLASS C	541.2300				
				420							420		LF	18 INCH CPEP(SL)	601.2615				
				140							140		LF	24 INCH CPEP(SL)	601.2620				
				3							3		EACH	18 INCH CPEPES	601.7015				
				1							1		EACH	24 INCH CPEPES	601.7020				
				3							3		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE (4 FOOT DIA)	604.2000				
				4							4		EACH	PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER (4 FOOT DIA)	604.2100				
				6							6		EACH	CHANGING ELEVATION OF DIS, CATCH BASINS, OR MANHOLES	604.4000				
				3							3		EACH	REHABILITATING DIS, CATCH BASINS, OR MANHOLES, CLASS I	604.4101				
				3							3		EACH	CAST IRON GRATE WITH FRAME, TYPE D	604.4504				
				510							510		MGAL	DUST CONTROL WITH WATER	609.1000				
								65			65		CY	E-STONE FILL, TYPE IV	613.0604				
								15			15		CY	STONE FILL, TYPE I	613.1001				
								2930			2930		CY	STONE FILL, TYPE II	613.1002				
				490							490		LF	VERTICAL GRANITE CURB	616.2100				
				250							250		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.1005				
				60							60		SF	DETECTABLE WARNING SURFACE	618.3000				
				5							5		EACH	YIELDING MARKER POSTS	619.1700				
				180							180		LF	SQUARE STEEL FENCE	620.8200				
				980							980		LF	REMOVAL OF GUARDRAIL	621.0100				
				182							182		LF	STEEL BEAM GUARDRAIL	621.1060				
				450							450		LF	BOX BEAM GUARDRAIL	621.2300				
				75							75		LF	STEEL BACKED TIMBER GUARDRAIL	621.2600				
				1							1		EACH	MTS, MGS, TANGENT, TL-3	621.3030				
				2							2		EACH	BOX BEAM GUARDRAIL END ASSEMBLY, TYPE IIA	621.6021				
				4							4		EACH	GUARDRAIL APPROACH SECTION, 2 RAIL BOX BEAM	621.8120				
							840				840		LF	WRED CONDUIT, 2 INCH	625.6002				
							1				1		EACH	POWER DROP STANCHION	625.7000				
							1				1		EACH	JUNCTION BOX	625.7010				
							25				25		LF	DUCTILE IRON WATER PIPE, CEMENT-LINED, ALL-INCLUSIVE, 12 IN.	629.1748				
							1				1		EACH	GATE VALVE WITH VALVE BOX, 12 INCH	629.2448				
							4				4		EACH	ADJUST ELEVATION OF VALVE BOX	629.2800				

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(I16) C/2



FILE NAME: z13c068qs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
QUANTITY SHEET (2 OF 4)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 17 OF 220



# QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
				1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1081 - UTILITIES - BID ITEMS	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1				1		EACH	RELOCATE HYDRANT	629.3600				
							1				1		EACH	REMOVE HYDRANT	629.3800				
							1				1		LS	TRANSFER TO NEW SYSTEM, WATER, ALL-INCLUSIVE	629.4300				
				600							600		HR	UNIFORMED TRAFFIC OFFICERS	630.1000				
				2900							2900		HR	FLAGGERS	630.1500				
									1		1		LS	FIELD OFFICE, ENGINEER'S	631.1000				
									1		1		LS	TESTING EQUIPMENT, CONCRETE	631.1600				
									1		1		LS	TESTING EQUIPMENT, BITUMINOUS	631.1700				
									9000		9000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.2600				
						40					40		EACH	CPM SCHEDULE	633.1000				
								1040			1040		HR	EMPLOYEE TRAINEESHIP	634.1000				
				1							1		LS	MOBILIZATION/DEMOBILIZATION	635.1100				
				1							1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE	641.1100				
				1							1		LS	MAINTENANCE OF PEDESTRIAN TRAFFIC	641.1200				
				2							2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.1500				
				2400							2400		LF	4 INCH WHITE LINE, WATERBORNE PAINT	646.2010				
				2380							2380		LF	4 INCH YELLOW LINE, WATERBORNE PAINT	646.2111				
				12							12		EACH	LETTER OR SYMBOL, WATERBORNE PAINT	646.3010				
				30							30		LF	CROSSWALK MARKING, WATERBORNE PAINT	646.3110				
				680							680		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.4040				
				890							890		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.4140				
				100							100		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.4840				
				16							16		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.4940				
								4460			4460		SY	GEOTEXTILE UNDER STONE FILL	649.3100				
				12450							12450		SY	TURF ESTABLISHMENT, GENERAL SEED	651.1500				
				1440							1440		CY	TOPSOIL	651.3500				
								2530			2530		SY	GRUBBING MATERIAL, 12 INCH	651.4012				
						1					1		LS	EPSC PLAN	653.0100				
						440					440		HR	MONITORING EPSC PLAN	653.0200				
						25000					25000		DL	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.0300				
						2					2		TON	HAY MULCH	653.1000				
						7690					7690		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.2001				
						40					40		CY	STABILIZED CONSTRUCTION ENTRANCE	653.3500				
						3					3		EACH	INLET PROTECTION DEVICE, TYPE I	653.4001				
						10					10		EACH	INLET PROTECTION DEVICE, TYPE II	653.4002				
						20					20		CY	INLET PROTECTION DEVICE, TYPE III	653.4003				
						20					20		EACH	FILTER BAG	653.4500				
						890					890		LF	SILT FENCE, TYPE I	653.4701				
						940					940		LF	SILT FENCE, TYPE II	653.4702				
						600					600		LF	BARRIER FENCE	653.5000				

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2



FILE NAME: z13c068qs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
QUANTITY SHEET (3 OF 4)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 18 OF 220

# QUANTITY SHEET 4

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
				1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1081 - UTILITIES - BID ITEMS	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1690					1690		LF	PROJECT DEMARCATION FENCE	653.5500				
						360					360		LF	EROSION LOG	653.6000				
					33						33		EACH	DECIDUOUS TREES, MEDIUM (ACER RUBRUM)(1-1 1/2 IN. CAL.)	656.3002				
					48						48		EACH	DECIDUOUS TREES, MEDIUM (AMELANCHIER X GRANDIFLORA)(4-5 FT HT./MULTI-STEM)	656.3002				
					62						62		EACH	DECIDUOUS SHRUBS (CORNUS RACEMOSA)(18-24 IN SPD.)	656.3500				
					92						92		EACH	DECIDUOUS SHRUBS (CORNUS STOLONIFERA )(12-18 IN. SPD.)	656.3500				
					67						67		EACH	DECIDUOUS SHRUBS (PHYSOCARPUS OPULIFOLIUS)(18-24 IN. SPD.)	656.3500				
					112						112		EACH	DECIDUOUS SHRUBS (SALIX DISCOLOR)(12-18 IN. SPD.)	656.3500				
				137.64							137.64		SF	TRAFFIC SIGN, FLAT SHEET ALUMINUM	675.2000				
				330							330		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.3410				
				37							37		EACH	SIGN REMOVAL, FLAT SHEET ALUMINUM	675.5000				
				2							2		EACH	RESETTING SIGNS	675.6000				
							6				6		EACH	STREET LIGHT ASSEMBLY	679.4600				
							1				1		EACH	STREET LIGHTING CONTROL DEVICE	679.5400				
								2			2		EACH	SS-PLACEHOLDER-EA (FRP SCUPPERS)	SS007				
								60			60		LF	SS-PLACEHOLDER-LF (BRIDGE EXPANSION JOINT, STRIP SEAL)(FPQ)	SS012				
							1				1		LS	SS-PLACEHOLDER-LS (WATERLINE ON BRIDGE)	SS013				
														BEGIN OPTION CAST-IN-PLACE DECK					
										560	560		CY	PERFORMANCE-BASED CONCRETE, CLASS PCD (FPQ)	501.3700				
										189650	189650		LB	REINFORCING STEEL, LEVEL II (FPQ)	507.1200				
														END OPTION CAST-IN-PLACE DECK					
														BEGIN OPTION PRECAST DECK PANELS					
										470	470		CY	PERFORMANCE-BASED CONCRETE, CLASS PCD (FPQ)	501.3700				
										157250	157250		LB	REINFORCING STEEL, LEVEL II (FPQ)	507.1200				
										8920	8920		SF	PRESTRESSED CONCRETE DECK PANELS (3 1/2 IN.)(FPQ)	510.4000				
										22	22		CY	CONCRETE, CLASS AA	541.2000				
														END OPTION PRECAST DECK PANELS					

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068qs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
QUANTITY SHEET (4 OF 4)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 19 OF 220





GPS CONTROL POINTS

# HVCTRL # 6

IRON REBAR SET

N = 99337.265  
E = 1520392.238  
ELEV. = 1238.600

NO DESCRIPTION AVAILABLE

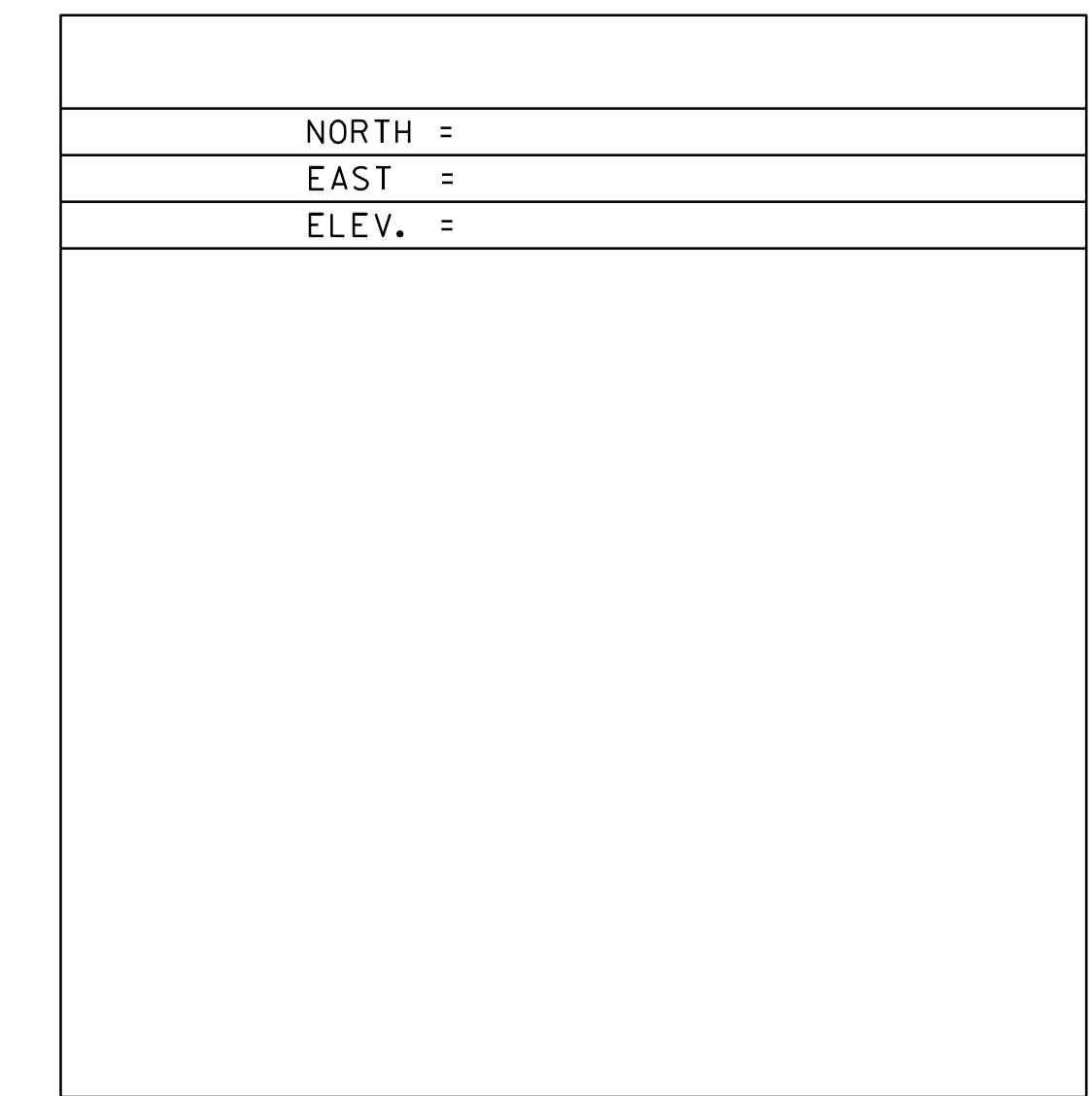
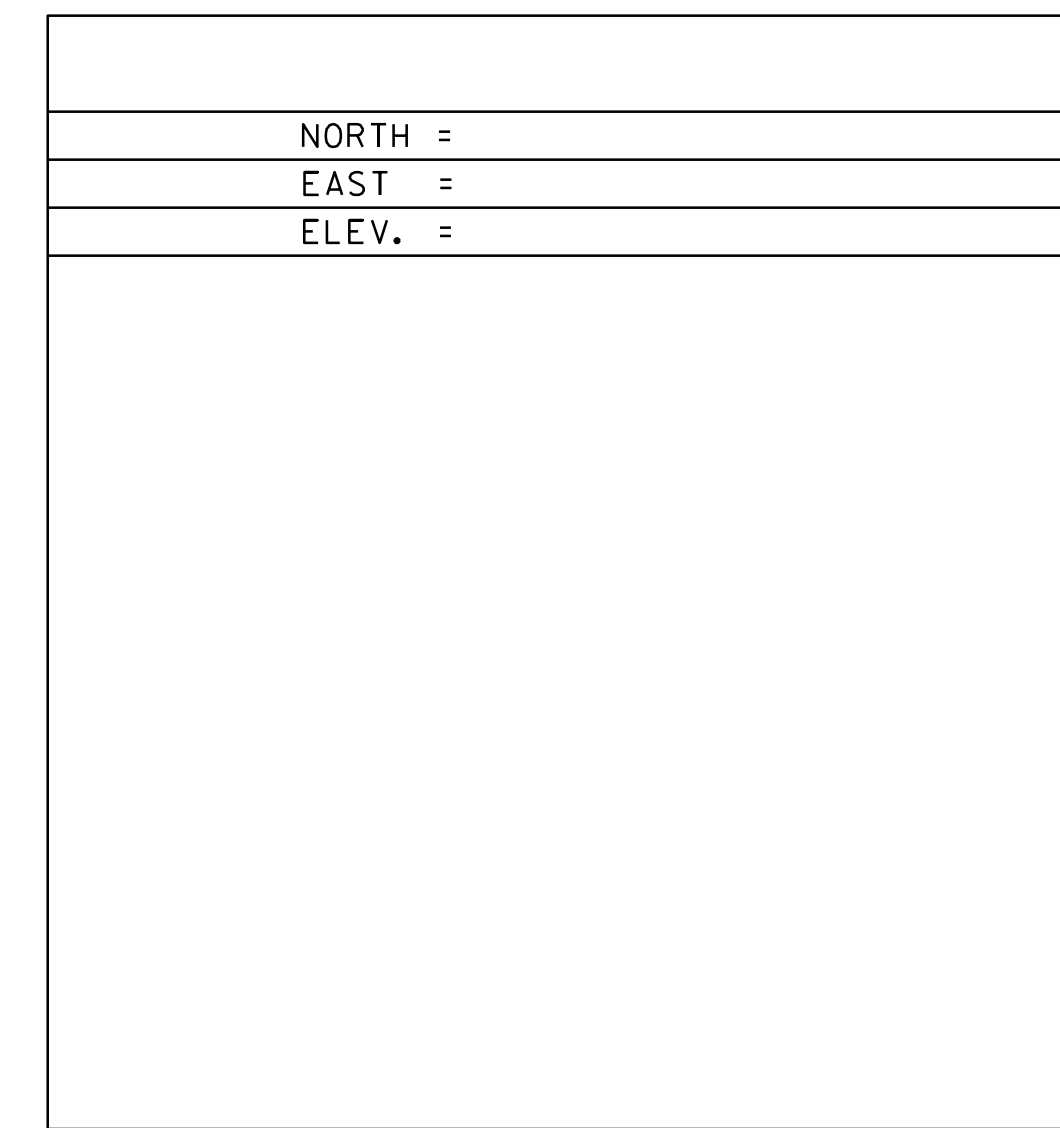
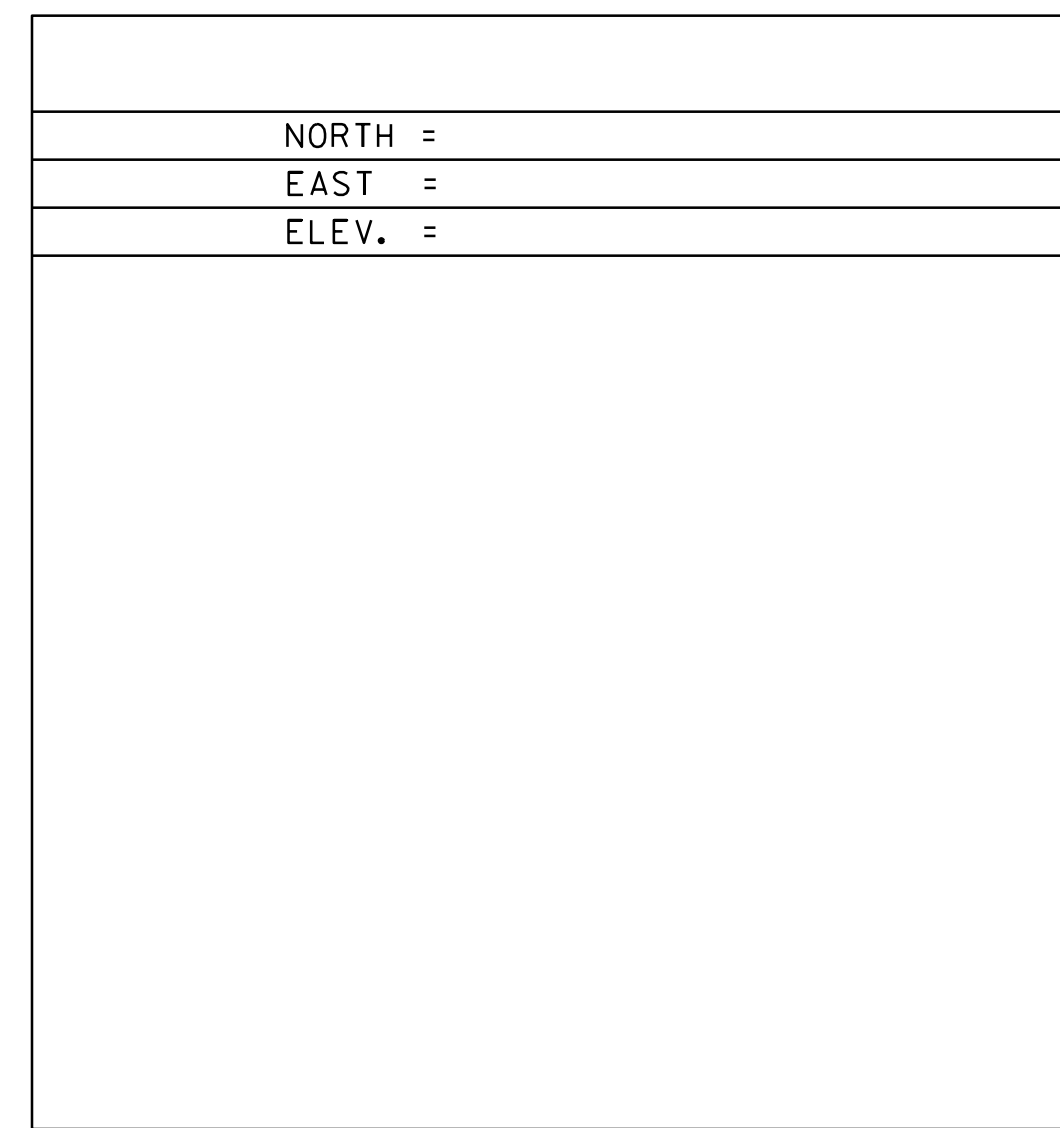
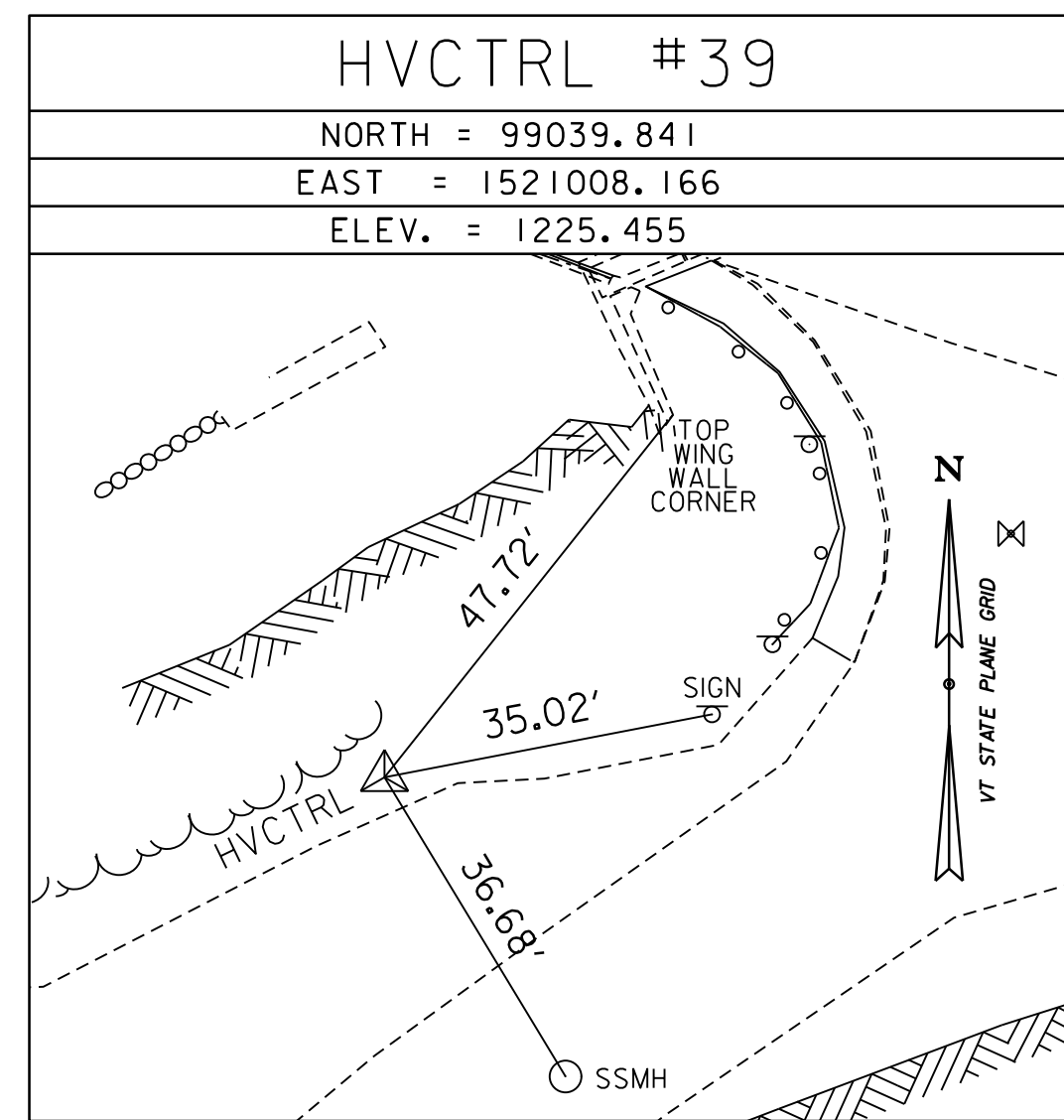
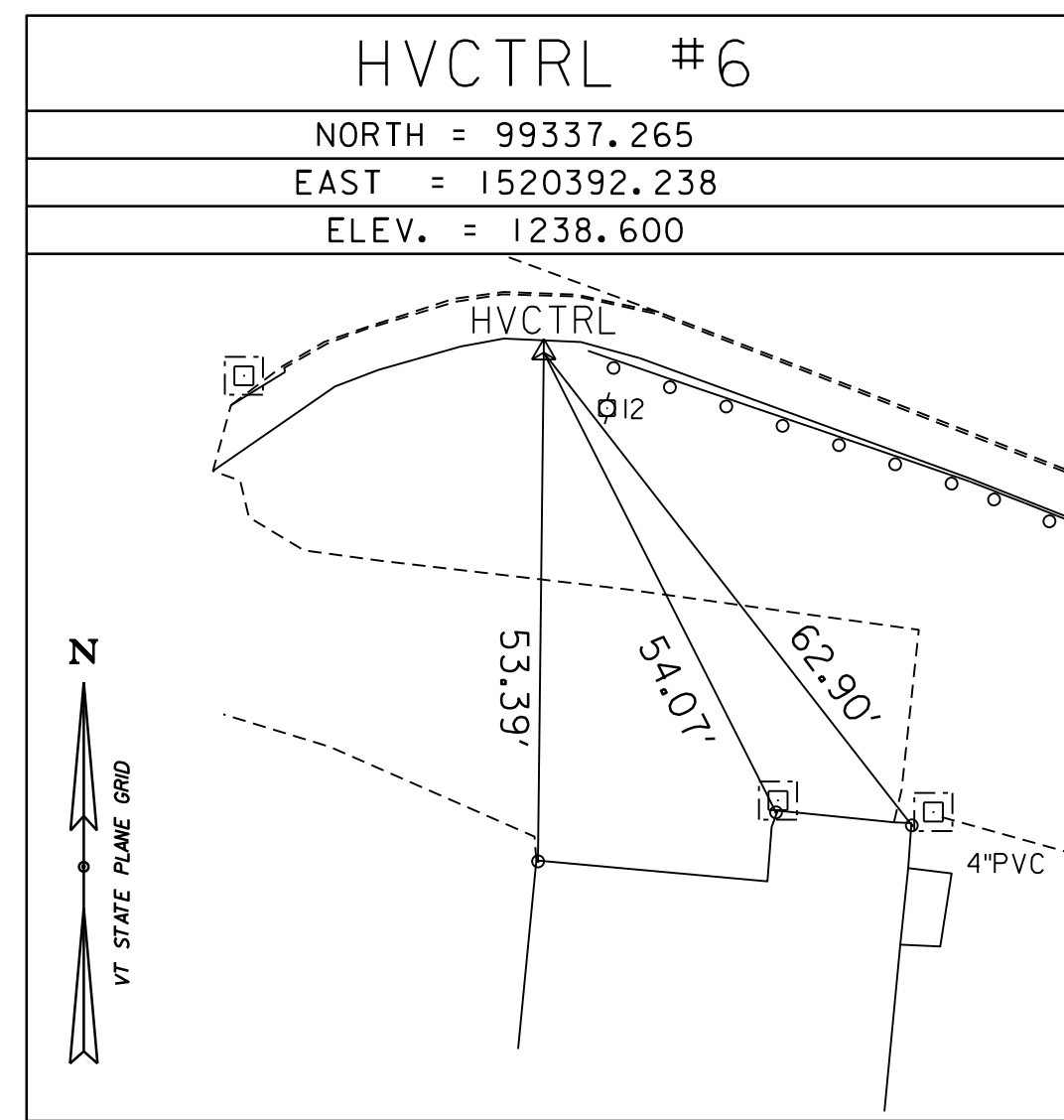
# HVCTRL # 7

IRON REBAR SET

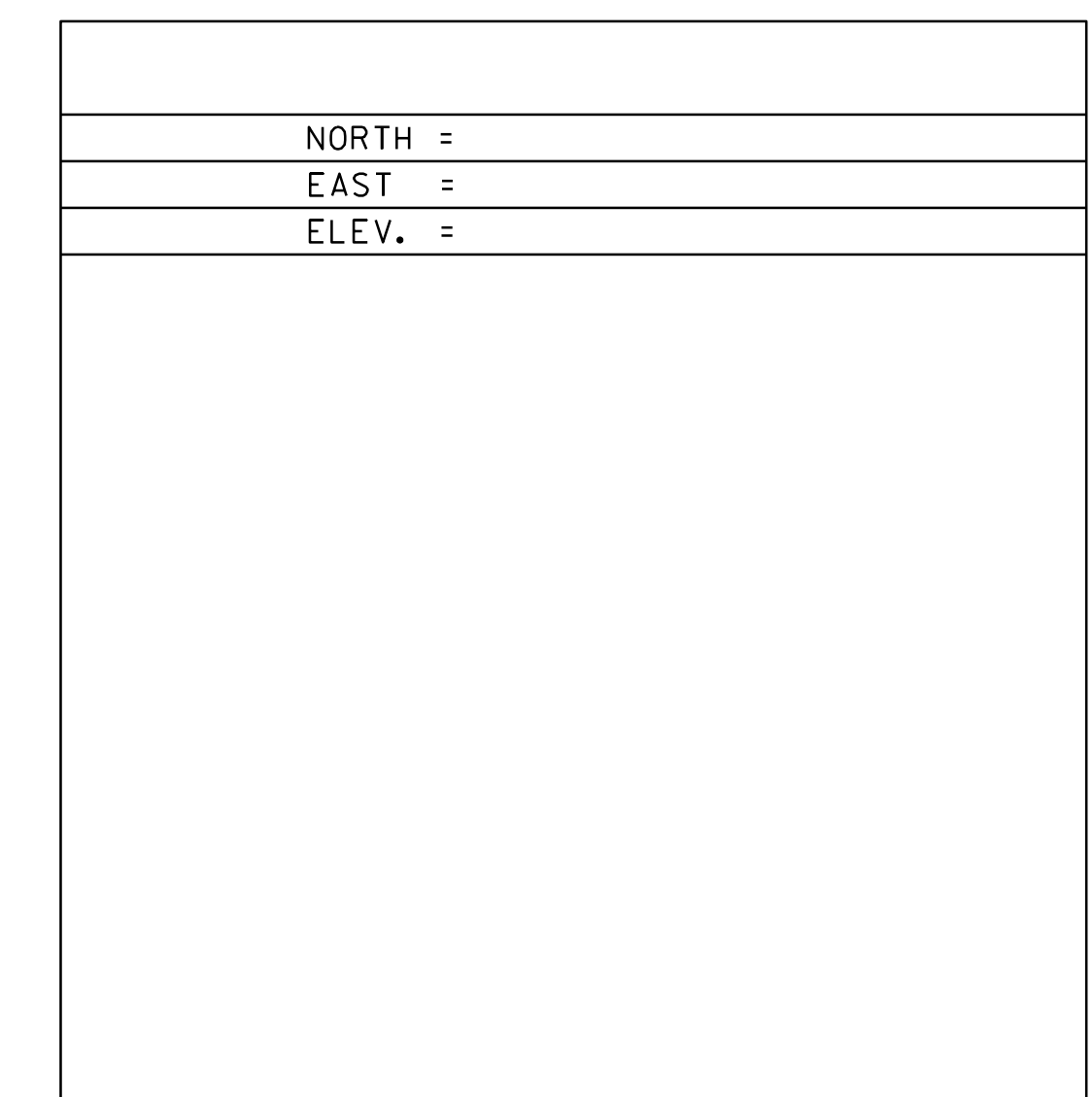
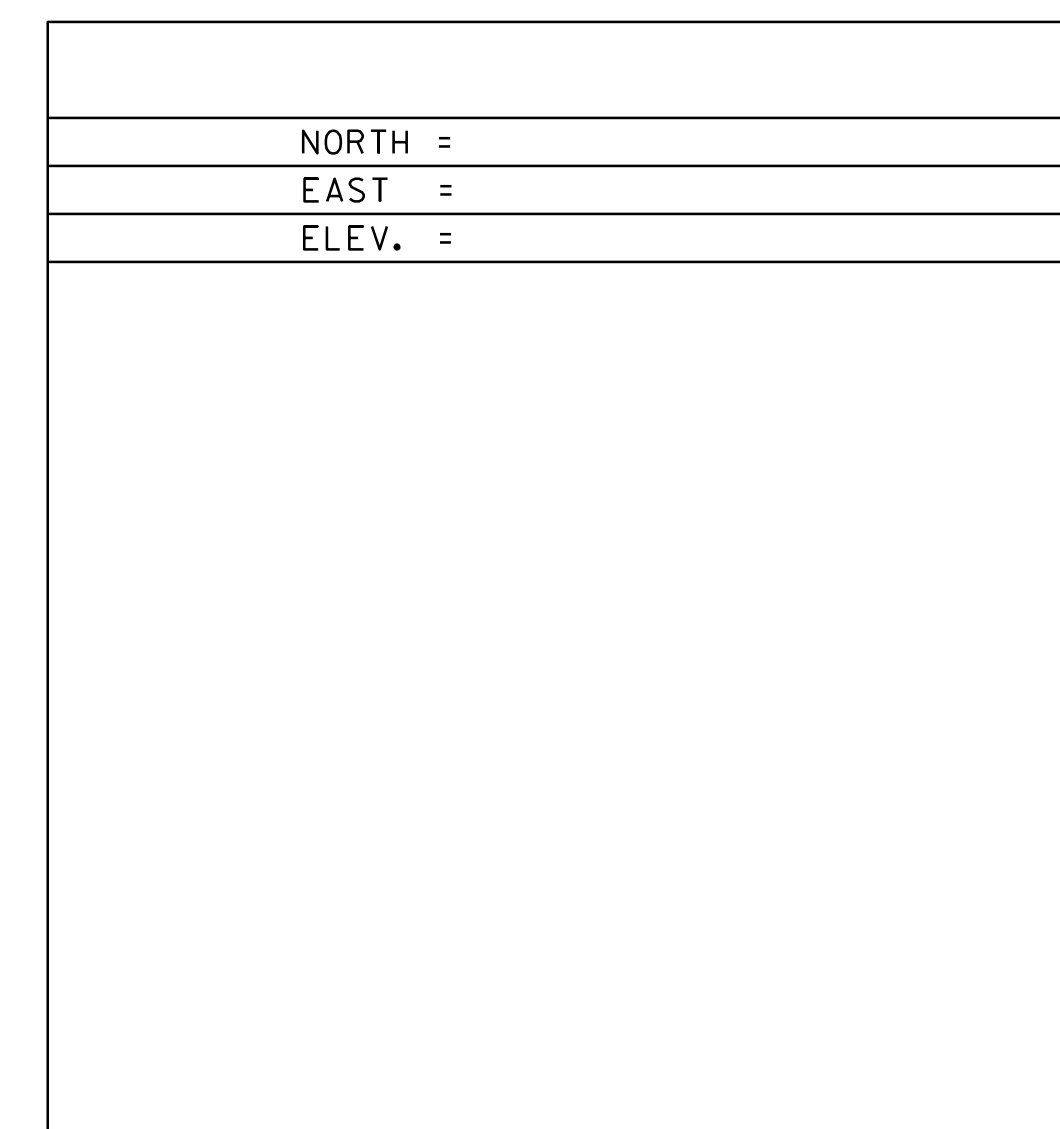
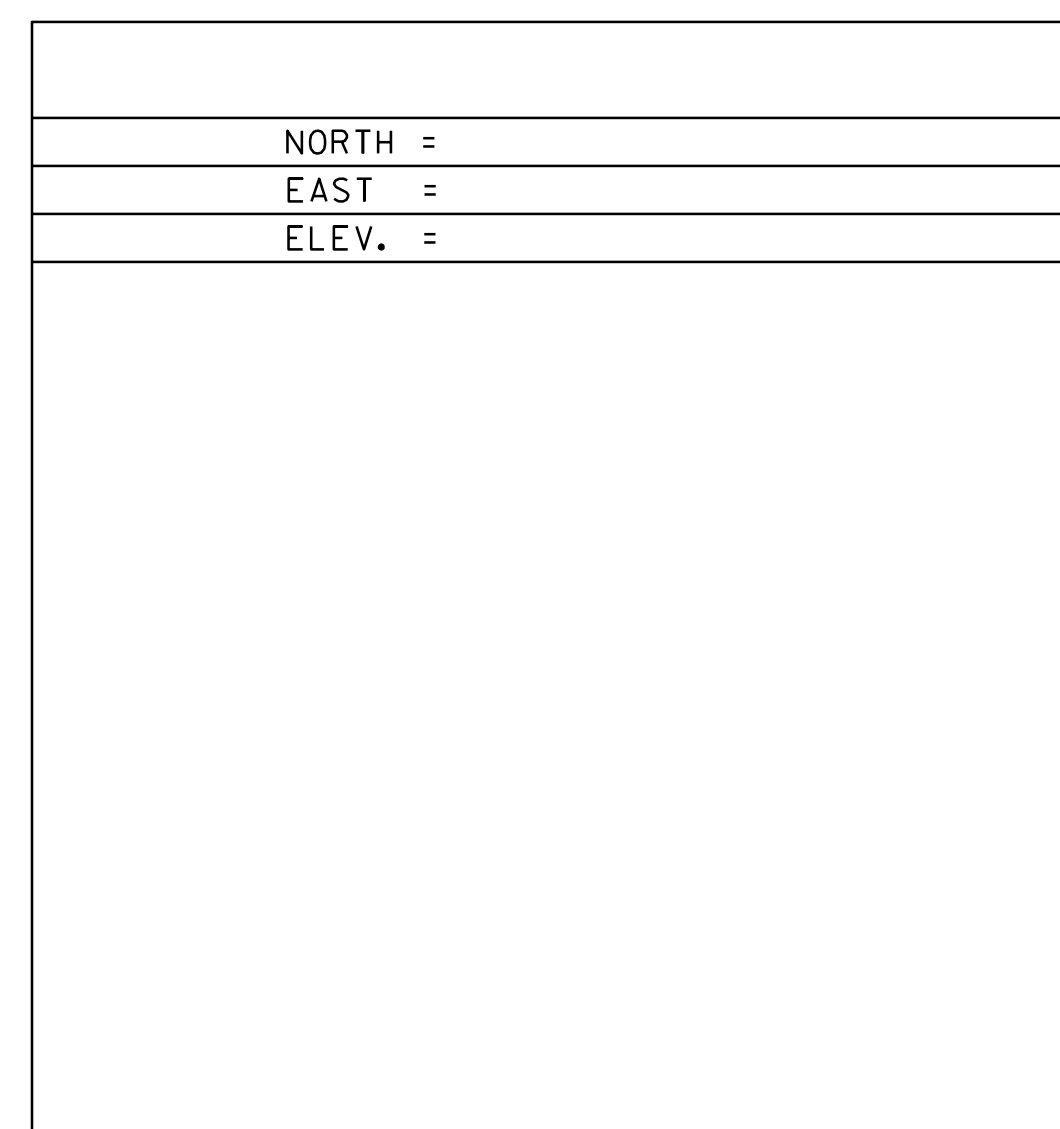
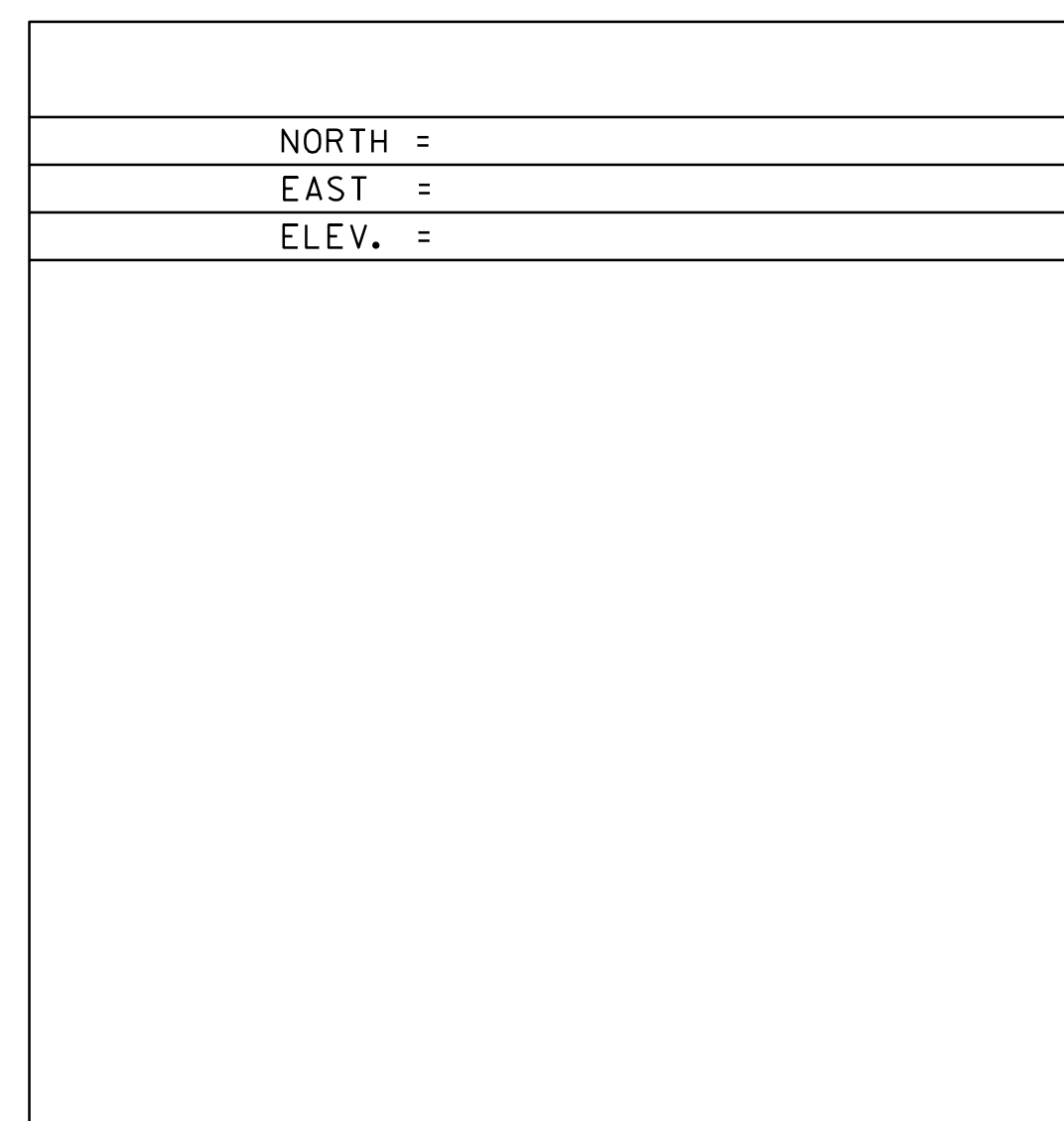
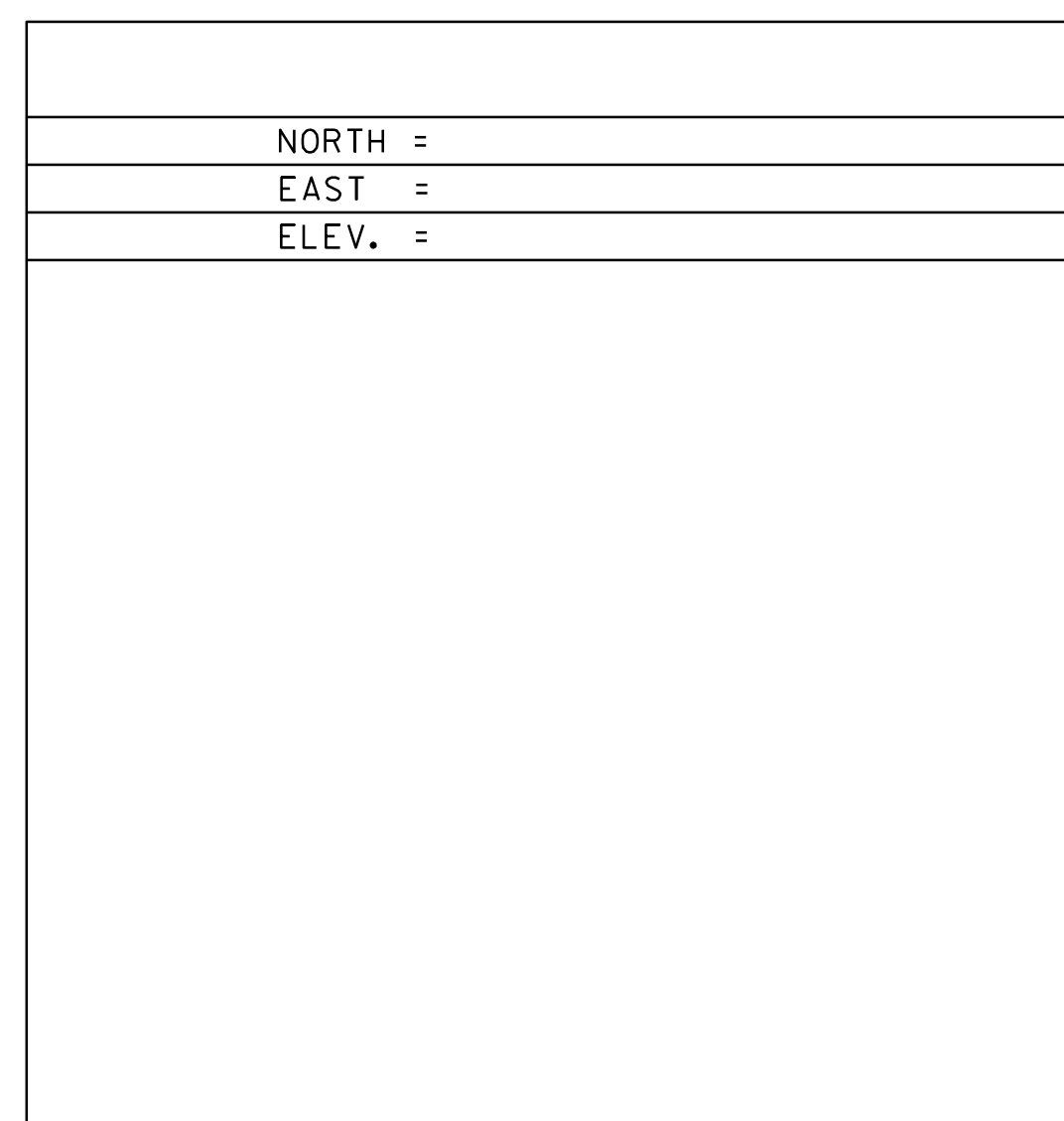
N = 99669.912  
E = 1519643.568  
ELEV. = 1257.180

NO DESCRIPTION AVAILABLE

TRAVERSE TIES



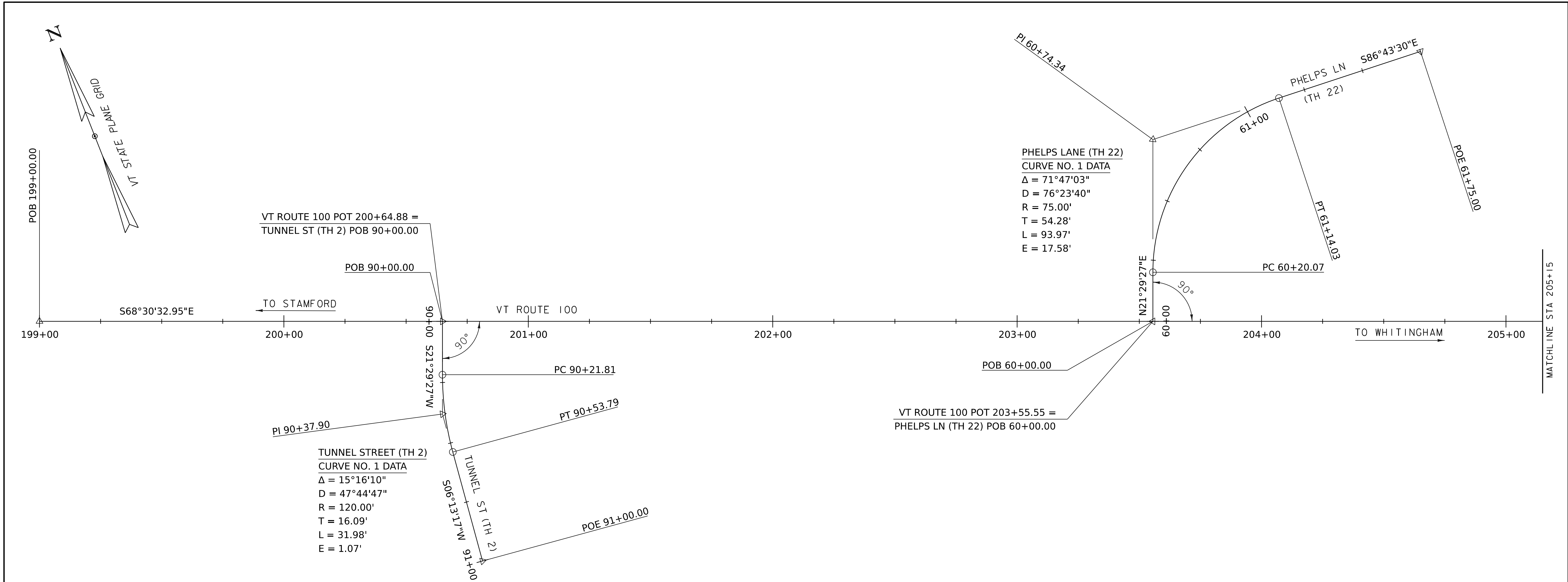
ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83(1992)
ADJUSTMENT	COMPASS

PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	VTRANS
FILE NAME:	z13c068tie.dgn	CHECKED BY:	VTRANS
PROJECT LEADER:	S.E. BURBANK	SHEET	20 OF 220
DESIGNED BY:	VTRANS		
TIE SHEET			





PHELPS LANE (TH 22)  
 CURVE NO. 1 DATA  
 $\Delta = 71^\circ 47' 03''$   
 $D = 76^\circ 23' 40''$   
 $R = 75.00'$   
 $T = 54.28'$   
 $L = 93.97'$   
 $E = 17.58'$

TUNNEL STREET (TH 2)  
 CURVE NO. 1 DATA  
 $\Delta = 15^\circ 16' 10''$   
 $D = 47^\circ 44' 47''$   
 $R = 120.00'$   
 $T = 16.09'$   
 $L = 31.98'$   
 $E = 1.07'$

VT ROUTE 100			
POINT	STATION	NORTHING	EASTING
POB	199+00.00	99440.41	1520203.01

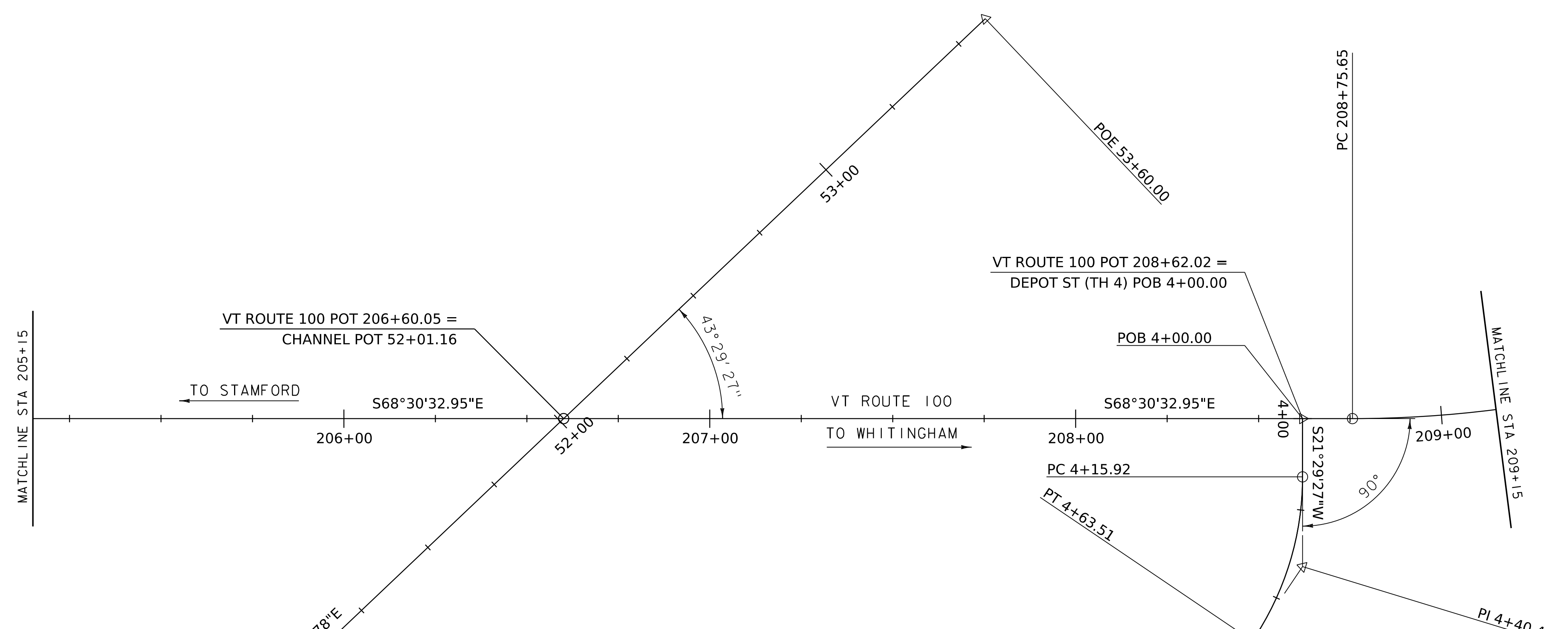
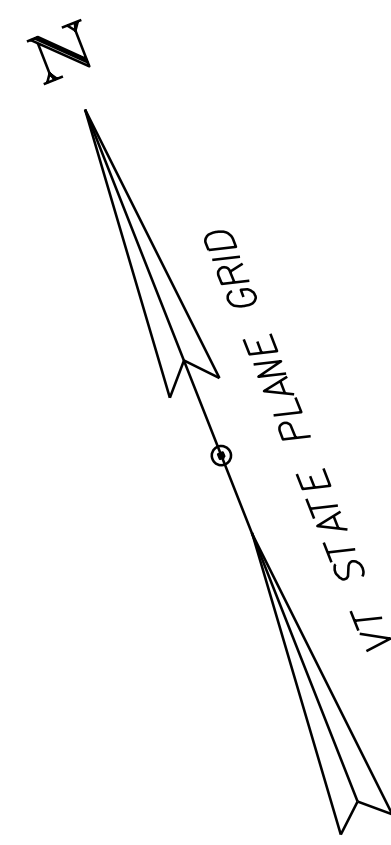
TUNNEL STREET (TH 2)			
POINT	STATION	NORTHING	EASTING
POB	90+00.00	99380.01	1520356.42
PC	90+21.81	99359.71	1520348.43
PI	90+37.90	99344.75	1520342.54
PT	90+53.79	99328.75	1520340.79
POE	91+00.00	99282.82	1520335.78

PHELPS LANE (TH 22)			
POINT	STATION	NORTHING	EASTING
POB	60+00.00	99273.52	1520626.89
PC	60+20.07	99292.19	1520634.24
PI	60+74.34	99342.69	1520654.12
PT	61+14.03	99339.59	1520708.31
POE	61+75.00	99336.10	1520769.18

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



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068bdr_all.dgn	CHECKED BY:	T.D. BURT
PROJECT LEADER:	S.E. BURBANK	ALIGNMENT LAYOUT SHEET (1 OF 3)	SHEET 21 OF 220
DESIGNED BY:	N.A. TRUSLOW		

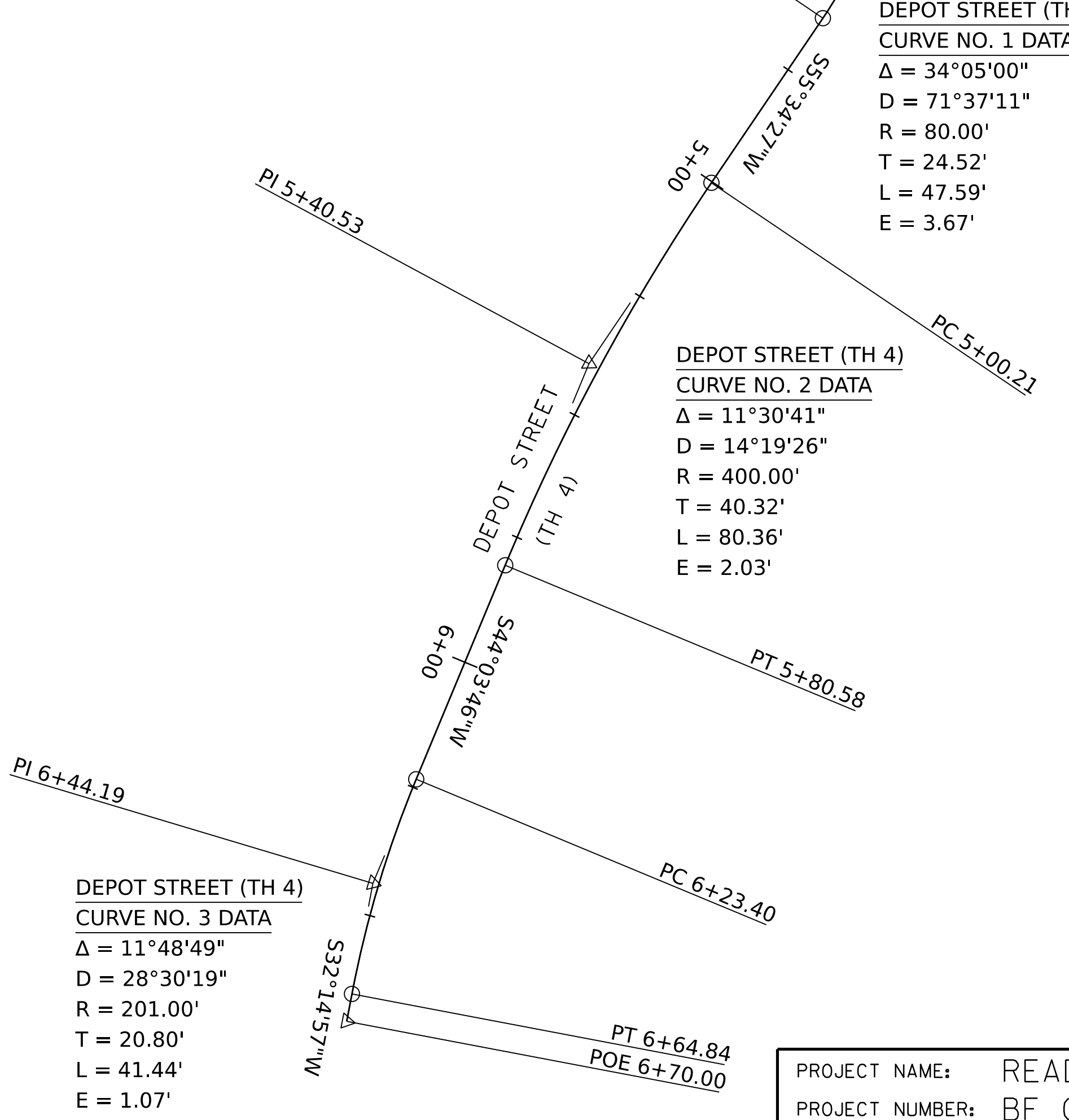


DEERFIELD RIVER  
FLOW

VT ROUTE 100			
POINT	STATION	NORTHING	EASTING
PC	208+75.64	99082.98	1521110.83

CHANNEL			
POINT	STATION	NORTHING	EASTING
POB	48+50.00	99030.41	1520584.63
POE	53+60.00	99221.46	1521057.49

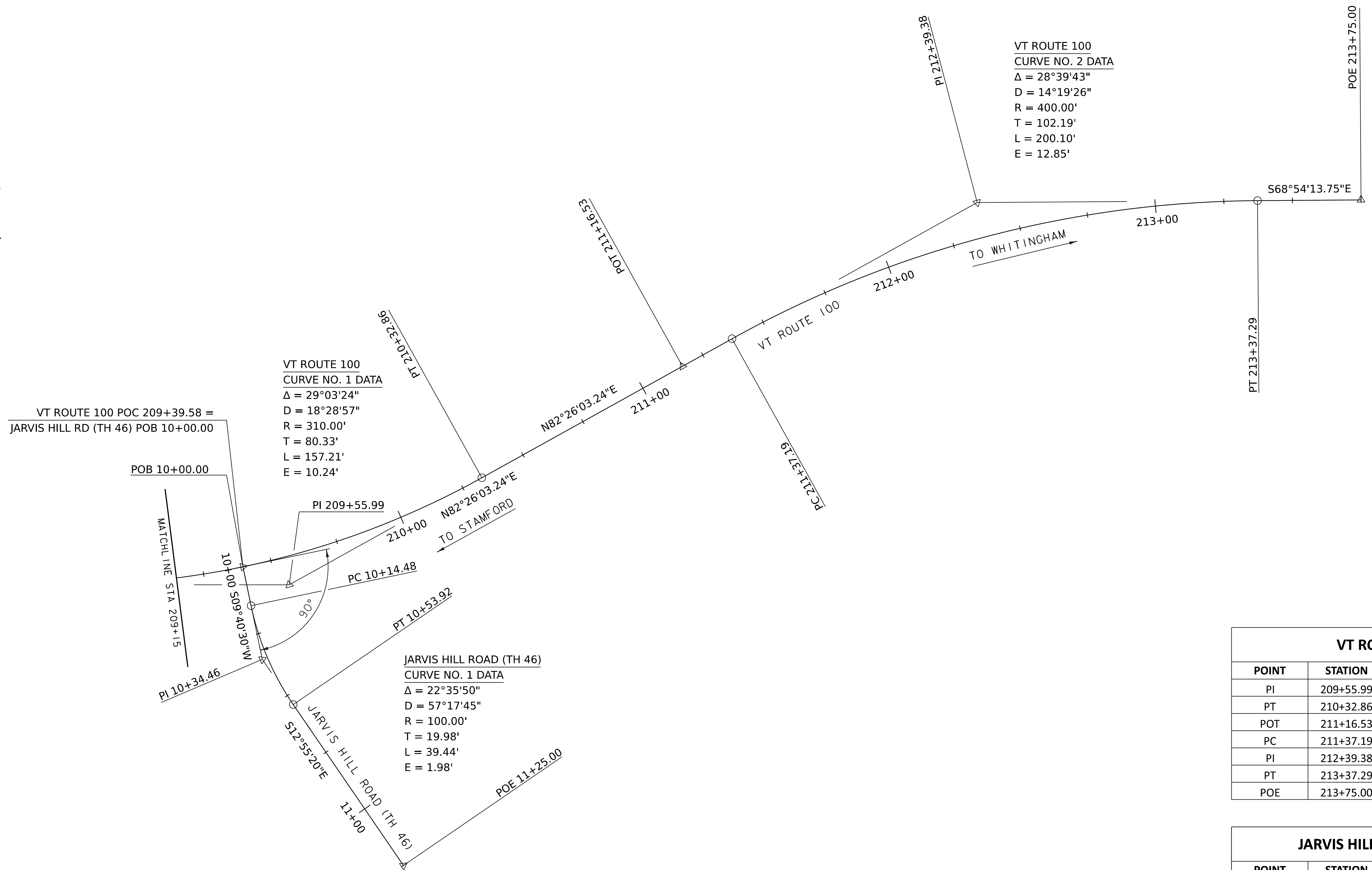
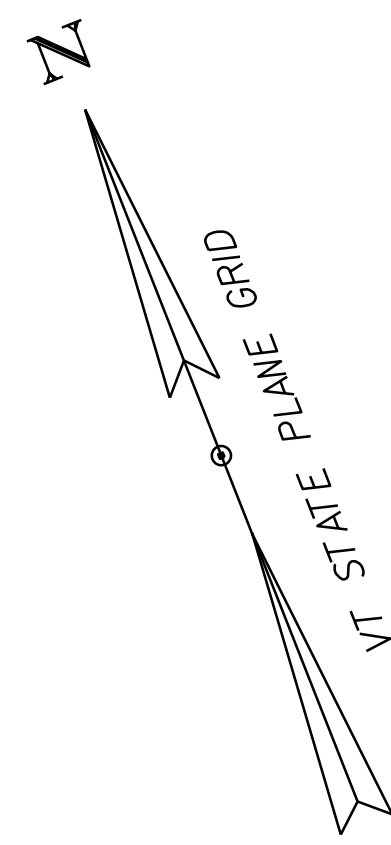
DEPOT STREET (TH 4)			
POINT	STATION	NORTHING	EASTING
POB	4+00.00	99087.97	1521098.14
PC	4+15.92	99073.15	1521092.31
PI	4+40.44	99050.34	1521083.38
PT	4+63.51	99036.47	1521063.10
PC	5+00.21	99015.72	1521032.83
PI	5+40.53	98992.93	1520999.57
PT	5+80.58	98963.96	1520971.53
PC	6+23.40	98933.19	1520941.75
PI	6+44.19	98918.25	1520927.29
PT	6+64.84	98900.66	1520916.19
POE	6+70.00	98896.28	1520913.44



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



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068bdr_all.dgn	DESIGNED BY:	N.A. TRUSLOW
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	T.D. BURT
ALIGNMENT LAYOUT SHEET (2 OF 3)		SHEET	22 OF 220

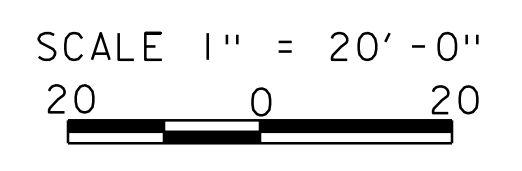


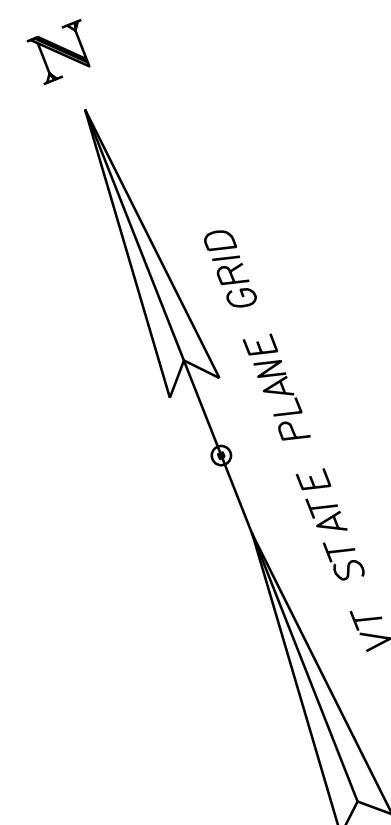
VT ROUTE 100			
POINT	STATION	NORTHING	EASTING
PI	209+55.99	99053.54	1521185.58
PT	210+32.86	99064.12	1521265.21
POT	211+16.53	99075.14	1521348.15
PC	211+37.19	99077.86	1521368.63
PI	212+39.38	99091.31	1521469.93
PT	213+37.29	99054.53	1521565.27
POE	213+75.00	99040.96	1521600.45

JARVIS HILL ROAD (TH 46)			
POINT	STATION	NORTHING	EASTING
POB	10+00.00	99065.83	1521172.30
PC	10+14.48	99051.56	1521169.87
PI	10+34.46	99031.86	1521166.51
PT	10+53.92	99012.39	1521170.98
POE	11+25.00	98943.11	1521186.87

PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2  
 FILE NAME: z13c068bdr_all.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: N.A. TRUSLOW  
 ALIGNMENT LAYOUT SHEET (3 OF 3)

PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: T.D. BURT  
 SHEET 23 OF 220





**STATION AND OFFSET LEGEND**  
 DISTANCE FROM PREVIOUS 100TH STATION → +66.49  
 OFFSET LT OR RT FROM STATION → 20.64'

**LEGEND**  
 [Hatched Box] = BUILDING  
 [Hatched Box] = PREVIOUSLY DEMOLISHED

ALL STATIONS AND OFFSETS ARE FROM THE VT ROUTE 100 ALIGNMENT

**PAVEMENT TRANSITION**  
 STA 199+75 - 200+00, LT (MATCH EXISTING)  
 STA 200+00, 21.86' LT  
 STA 200+50, 21.50' LT  
 STA 201+00, 21.34' LT  
 STA 201+41, 21.14' LT  
 STA 201+50, 14' LT  
 STA 199+75 - 200+33, RT (MATCH EXISTING)  
 STA 200+85.24, 43.66' RT  
 STA 201+36.42, 14' RT

BEGIN APPROACH  
 STA 199+75.00

TO STAMFORD

APPROX. EXISTING R.O.W.  
 BEGIN SIDELINE APPROACH  
 STA 90+14.00  
 END SIDELINE APPROACH  
 STA 90+80.00

**STONE FILL, TYPE II**  
 STA 203+00 - 205+25, RT  
 STA 204+14 - 205+25, LT

**VERTICAL GRANITE CURB**  
 STA 200+85 - 204+07, RT  
 STA 202+70 - 203+37, LT

**PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH**  
 STA 200+92 - 204+07, RT  
 STA 202+70 - 203+30, LT

**TYPE I SIDEWALK RAMP (STD C-3A)**  
 STA 202+70 - 202+83, LT  
 STA 203+13 - 203+30, LT

**TYPE 6 SIDEWALK RAMP (STD C-3B)**  
 STA 200+92 - 201+10, RT  
 STA 203+14 - 203+32, RT

**DETECTABLE WARNING SURFACE**  
 STA 201+00, RT  
 STA 202+76, LT  
 STA 203+22, LT  
 STA 203+23, RT

**REMOVAL OF GUARDRAIL**  
 STA 201+18 - 204+65, RT  
 STA 203+32 - 203+52, LT  
 STA 204+28 - 205+02, LT

**BOX BEAM GUARDRAIL**  
 STA 200+91 - 203+80, RT  
 STA 203+81 - 203+78, LT

**BOX BEAM GUARDRAIL END ASSEMBLY, TYPE IIA**  
 STA 203+78 - 203+90, LT

**STEEL BACKED TIMBER GUARDRAIL**  
 STA 203+26 - 203+51, LT

**GUARDRAIL APPROACH SECTION, 2 RAIL BOX BEAM**  
 STA 203+80 - 204+14, RT  
 STA 203+81 - 204+14, LT

**BRIDGE RAILING, GALV. STEEL HAND RAIL/ CONC. PARAPET COMB.**  
 204+14 - 205+25, RT  
 204+14 - 205+25, LT

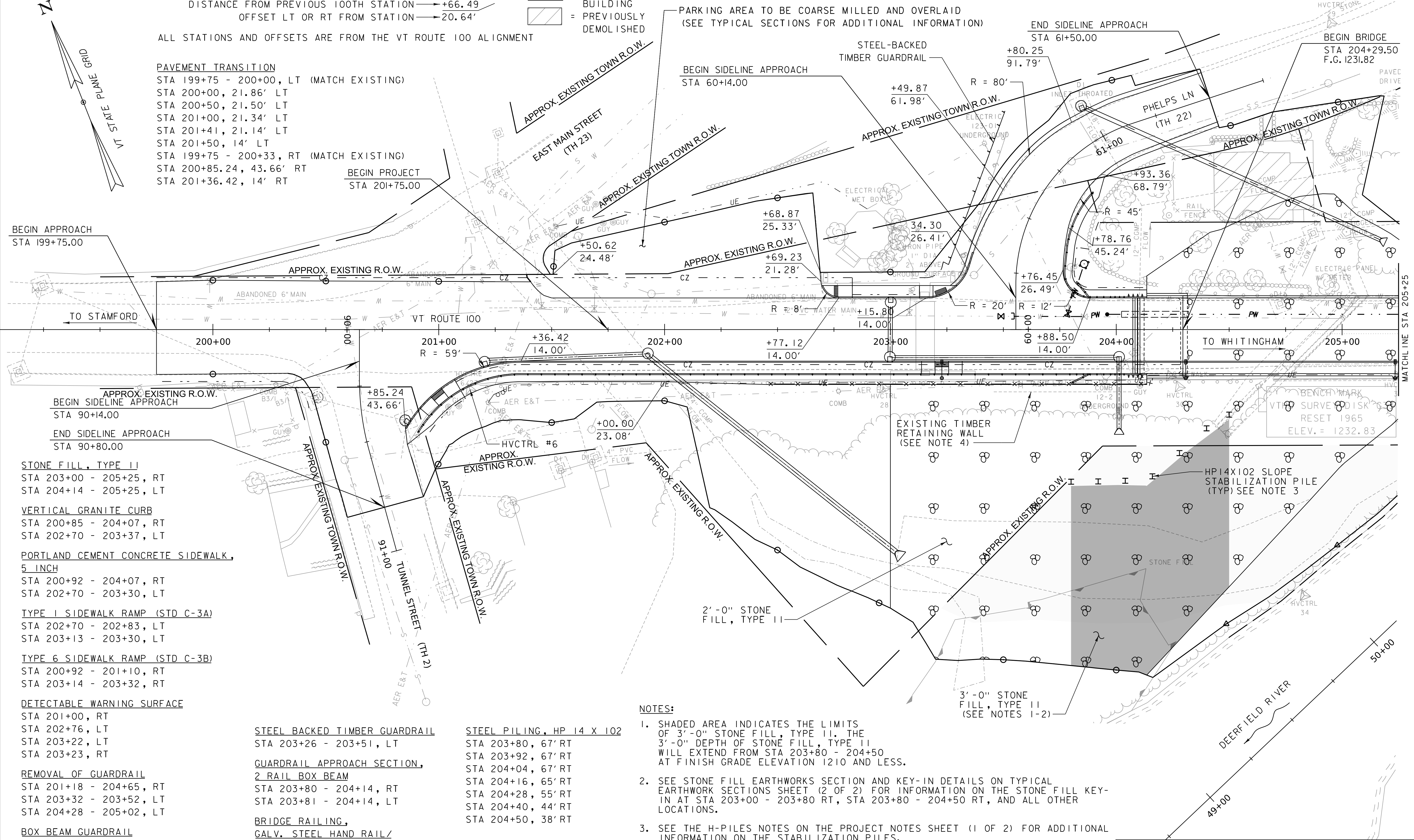
**SQUARE STEEL FENCE**  
 STA 202+46 - 204+14, RT

**STEEL PILING, HP 14 X 102**  
 STA 203+80, 67' RT  
 STA 203+92, 67' RT  
 STA 204+04, 67' RT  
 STA 204+16, 65' RT  
 STA 204+28, 55' RT  
 STA 204+40, 44' RT  
 STA 204+50, 38' RT

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

**NOTES:**

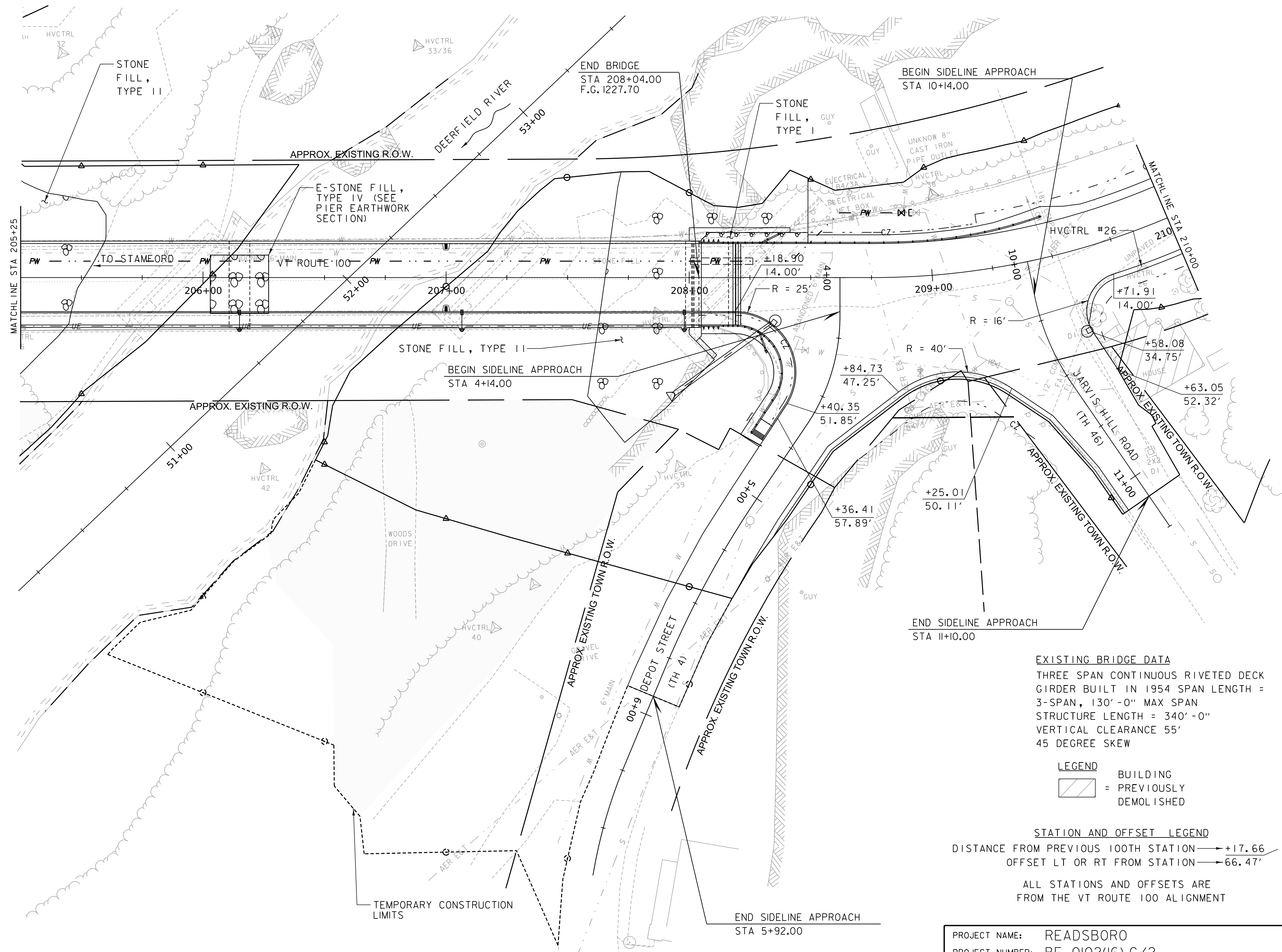
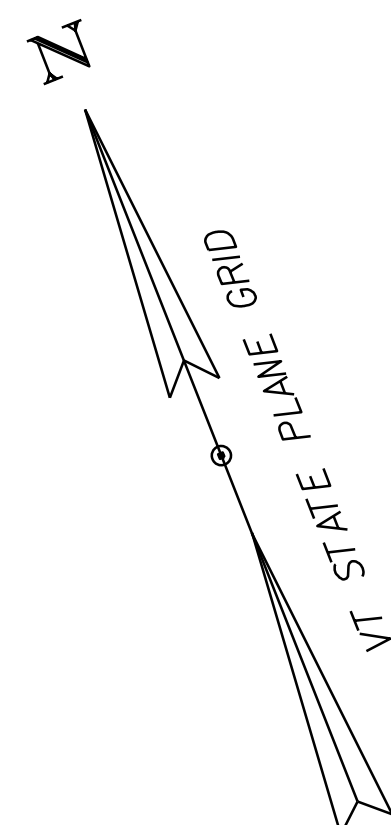
1. SHADED AREA INDICATES THE LIMITS OF 3'-0" STONE FILL, TYPE II. THE 3'-0" DEPTH OF STONE FILL, TYPE II WILL EXTEND FROM STA 203+80 - 204+50 AT FINISH GRADE ELEVATION 1210 AND LESS.
2. SEE STONE FILL EARTHWORKS SECTION AND KEY-IN DETAILS ON TYPICAL EARTHWORK SECTIONS SHEET (2 OF 2) FOR INFORMATION ON THE STONE FILL KEY-IN AT STA 203+00 - 203+80 RT, STA 203+80 - 204+50 RT, AND ALL OTHER LOCATIONS.
3. SEE THE H-PILES NOTES ON THE PROJECT NOTES SHEET (1 OF 2) FOR ADDITIONAL INFORMATION ON THE STABILIZATION PILES.
4. THE REMOVAL AND DISPOSAL OF THE EXISTING TIMBER CRIBBING RETAINING WALL WILL BE REMOVED AND DISPOSED OF. THIS WORK SHALL BE INCIDENTAL TO ITEM 203.1500, "COMMON EXCAVATION".



PROJECT NAME:	READSBORO	FILE NAME:	z13c068bdr_nul.dgn	PLOT DATE:	14-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	N.A. TRUSLOW
		DESIGNED BY:	N.A. TRUSLOW	CHECKED BY:	S.E. BURBANK
		LAYOUT SHEET (1 OF 3)		SHEET	24 OF 220







- STONE FILL, TYPE I  
STA 208+04 - 208+49, LT
- STONE FILL, TYPE II  
STA 205+25 - 205+64, LT  
STA 205+25 - 205+51, RT  
STA 207+58 - 208+09, RT  
STA 207+65 - 208+49, LT
- VERTICAL GRANITE CURB  
STA 208+21 - 208+30, RT
- PORTLAND CEMENT CONCRETE  
SIDEWALK, 5 INCH  
STA 208+21 - 208+30, RT
- TYPE I SIDEWALK RAMP (STD C-3A)  
STA 208+32 - 208+40, RT
- DETECTABLE WARNING SURFACE  
STA 208+34, RT
- REMOVAL OF GUARDRAIL  
STA 208+03 - 208+29, RT  
STA 208+45 - 210+00, LT
- BOX BEAM GUARDRAIL  
STA 208+35 - 208+25, RT  
STA 208+38 - 209+21, LT
- GUARDRAIL APPROACH SECTION,  
2 RAIL BOX BEAM  
STA 208+04 - 208+38, LT  
STA 208+04 - 208+35, RT
- BRIDGE RAILING,  
GALV. STEEL HAND RAIL/  
CONC. PARAPET COMB.  
205+25 - 208+04, LT & RT
- BOX BEAM GUARDRAIL END ASSEMBLY,  
TYPE IIA  
209+21 - 209+50, LT

EXISTING BRIDGE DATA  
THREE SPAN CONTINUOUS RIVETED DECK GIRDER BUILT IN 1954 SPAN LENGTH = 3-SPAN, 130'-0" MAX SPAN STRUCTURE LENGTH = 340'-0" VERTICAL CLEARANCE 55' 45 DEGREE SKEW

LEGEND

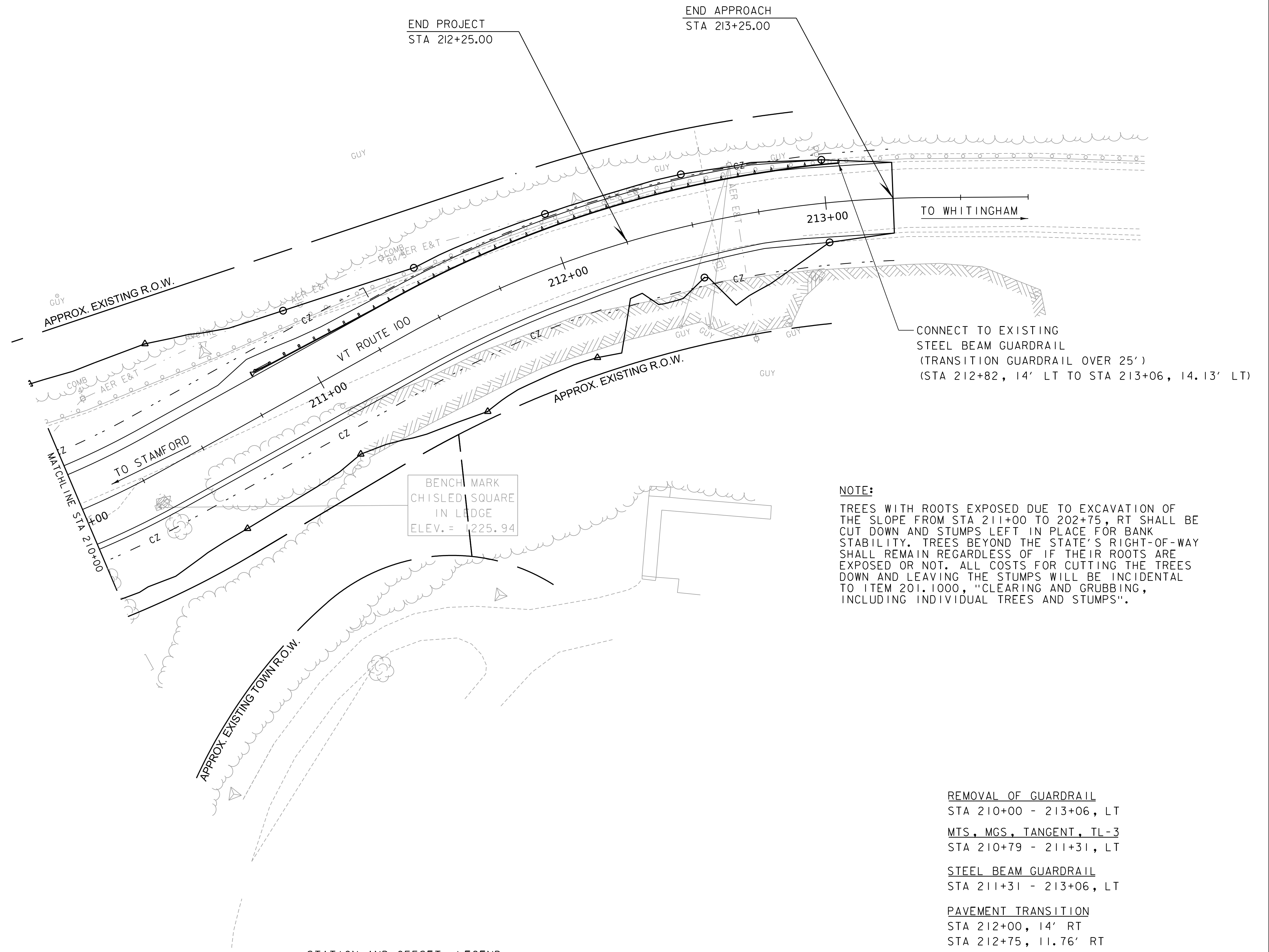
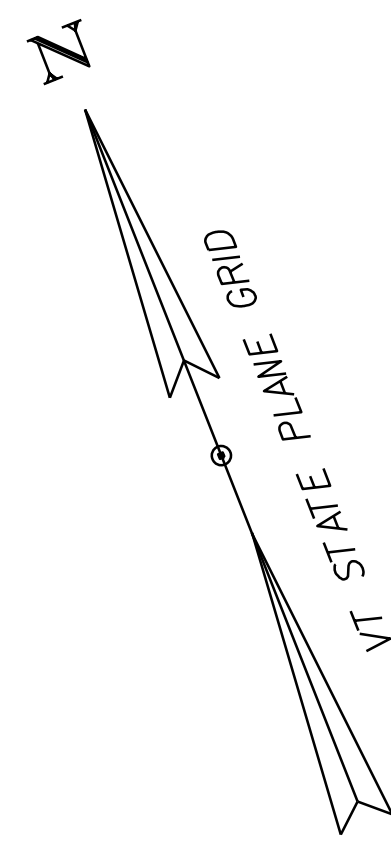
STATION AND OFFSET LEGEND  
 DISTANCE FROM PREVIOUS 100TH STATION → +17.66  
 OFFSET LT OR RT FROM STATION → 66.47'

ALL STATIONS AND OFFSETS ARE FROM THE VT ROUTE 100 ALIGNMENT

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



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	N.A. TRUSLOW
FILE NAME:	z13c068bdr_nul.dgn	DESIGNED BY:	N.A. TRUSLOW
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.E. BURBANK
LAYOUT SHEET (2 OF 3)		SHEET	25 OF 220

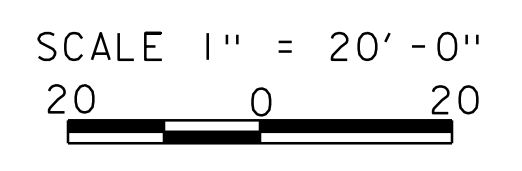


**NOTE:**  
 TREES WITH ROOTS EXPOSED DUE TO EXCAVATION OF THE SLOPE FROM STA 211+00 TO 202+75, RT SHALL BE CUT DOWN AND STUMPS LEFT IN PLACE FOR BANK STABILITY. TREES BEYOND THE STATE'S RIGHT-OF-WAY SHALL REMAIN REGARDLESS OF IF THEIR ROOTS ARE EXPOSED OR NOT. ALL COSTS FOR CUTTING THE TREES DOWN AND LEAVING THE STUMPS WILL BE INCIDENTAL TO ITEM 201.1000, "CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS".

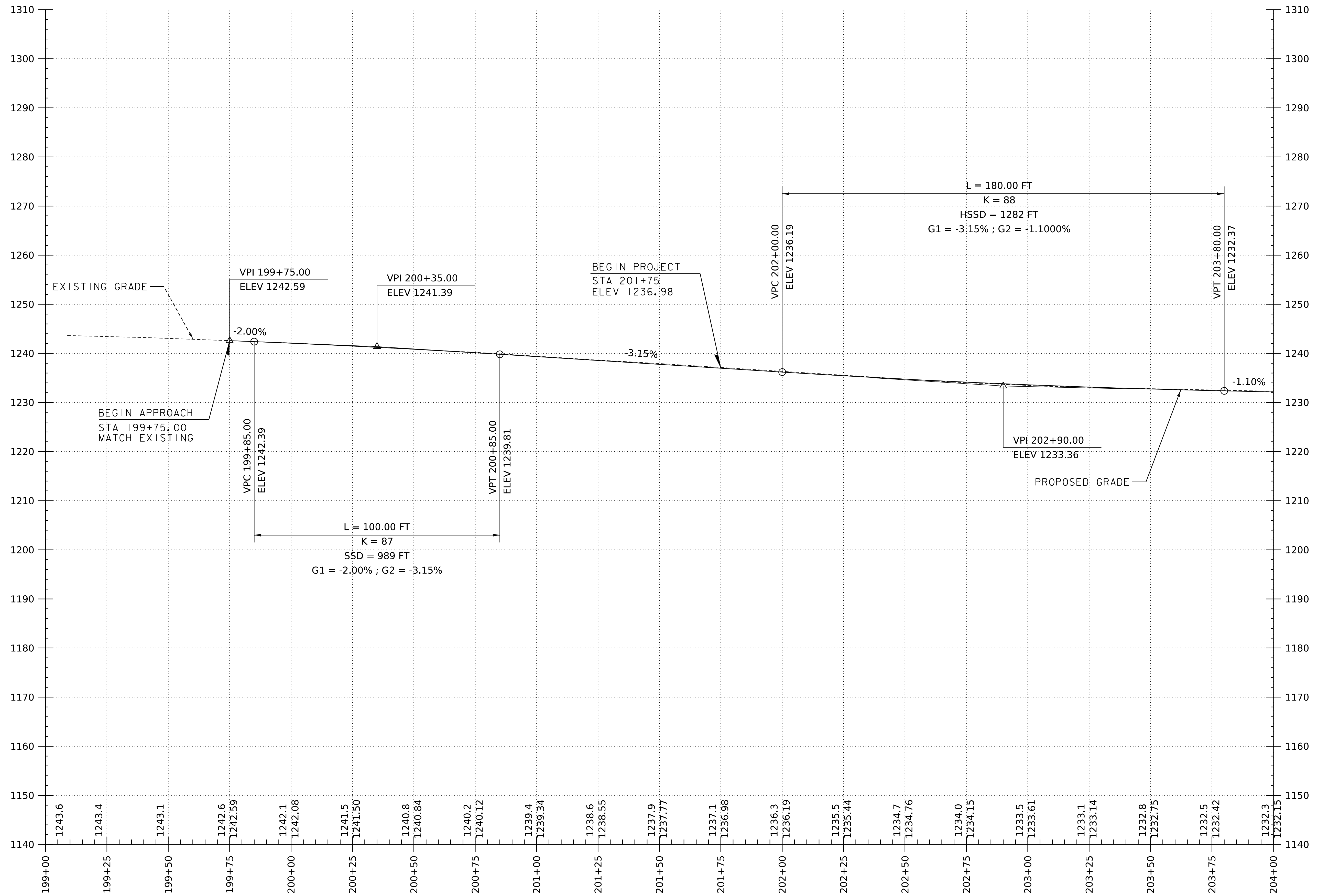
- REMOVAL OF GUARDRAIL  
 STA 210+00 - 213+06, LT
- MTS, MGS, TANGENT, TL-3  
 STA 210+79 - 211+31, LT
- STEEL BEAM GUARDRAIL  
 STA 211+31 - 213+06, LT
- PAVEMENT TRANSITION  
 STA 212+00, 14' RT  
 STA 212+75, 11.76' RT  
 STA 212+75 - 213+25, RT (MATCH EXISTING)  
 STA 212+75, 14' LT  
 STA 212+75 - 213+75, LT (MATCH EXISTING)

**STATION AND OFFSET LEGEND**  
 DISTANCE FROM PREVIOUS 100TH STATION → +38.33  
 OFFSET LT OR RT FROM STATION → 72.58'

ALL STATIONS AND OFFSETS ARE FROM THE VT ROUTE 100 ALIGNMENT



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068bdr_nul.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
LAYOUT SHEET (3 OF 3)	SHEET 26 OF 220



THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

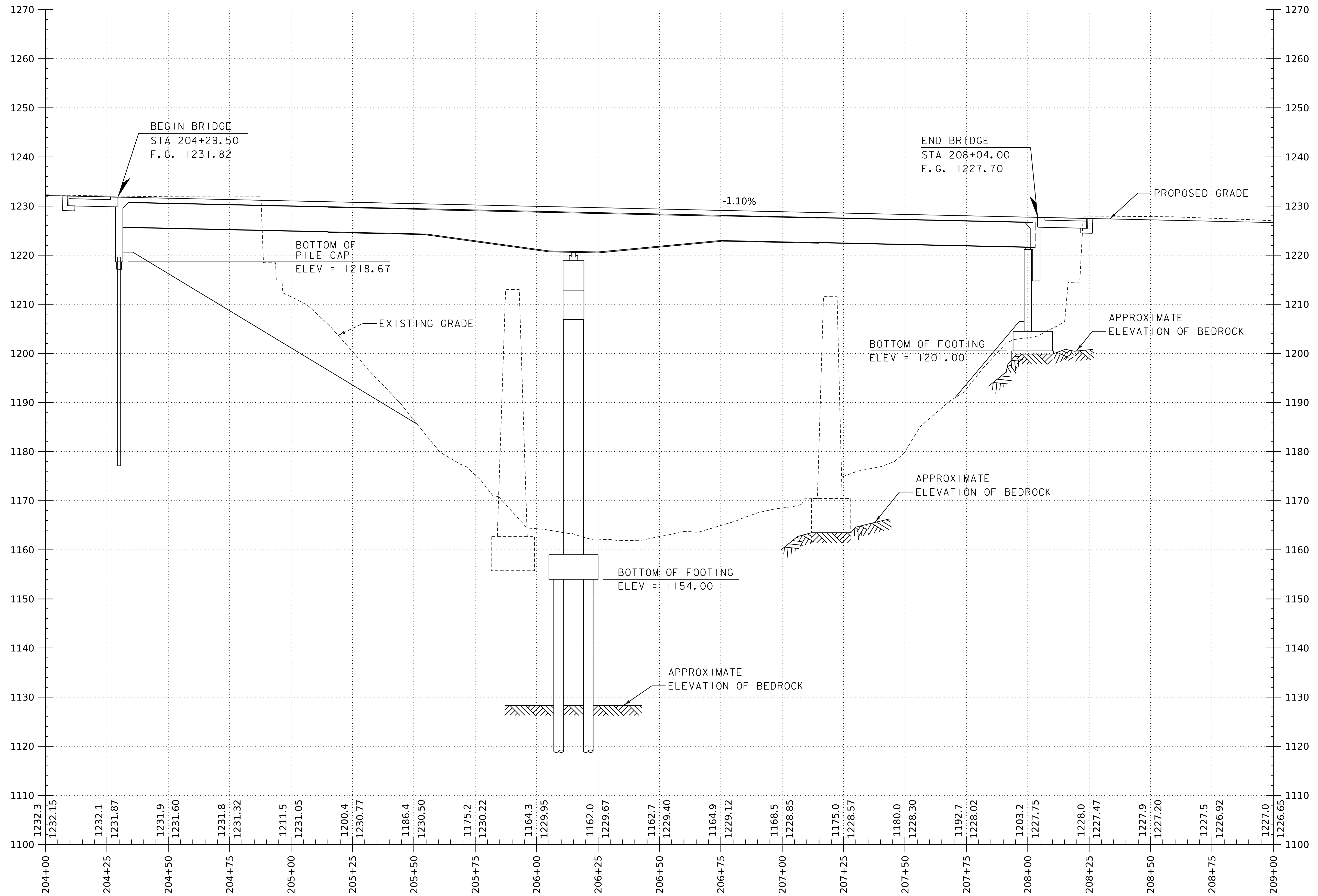
THE GRADES SHOWN TO THE NEAREST HUNDRETH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

VT 100 PROFILE

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



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(I6) C/2	DRAWN BY:	M.F. NEMETH
FILE NAME:	z13c068pro.vt100.dgn	CHECKED BY:	N.A. TRUSALOW
PROJECT LEADER:	S.E. BURBANK	SHEET	27 OF 220
DESIGNED BY:	M.F. NEMETH		
VT 100 PROFILE SHEET (1 OF 3)			



THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDRETH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

VT 100 PROFILE

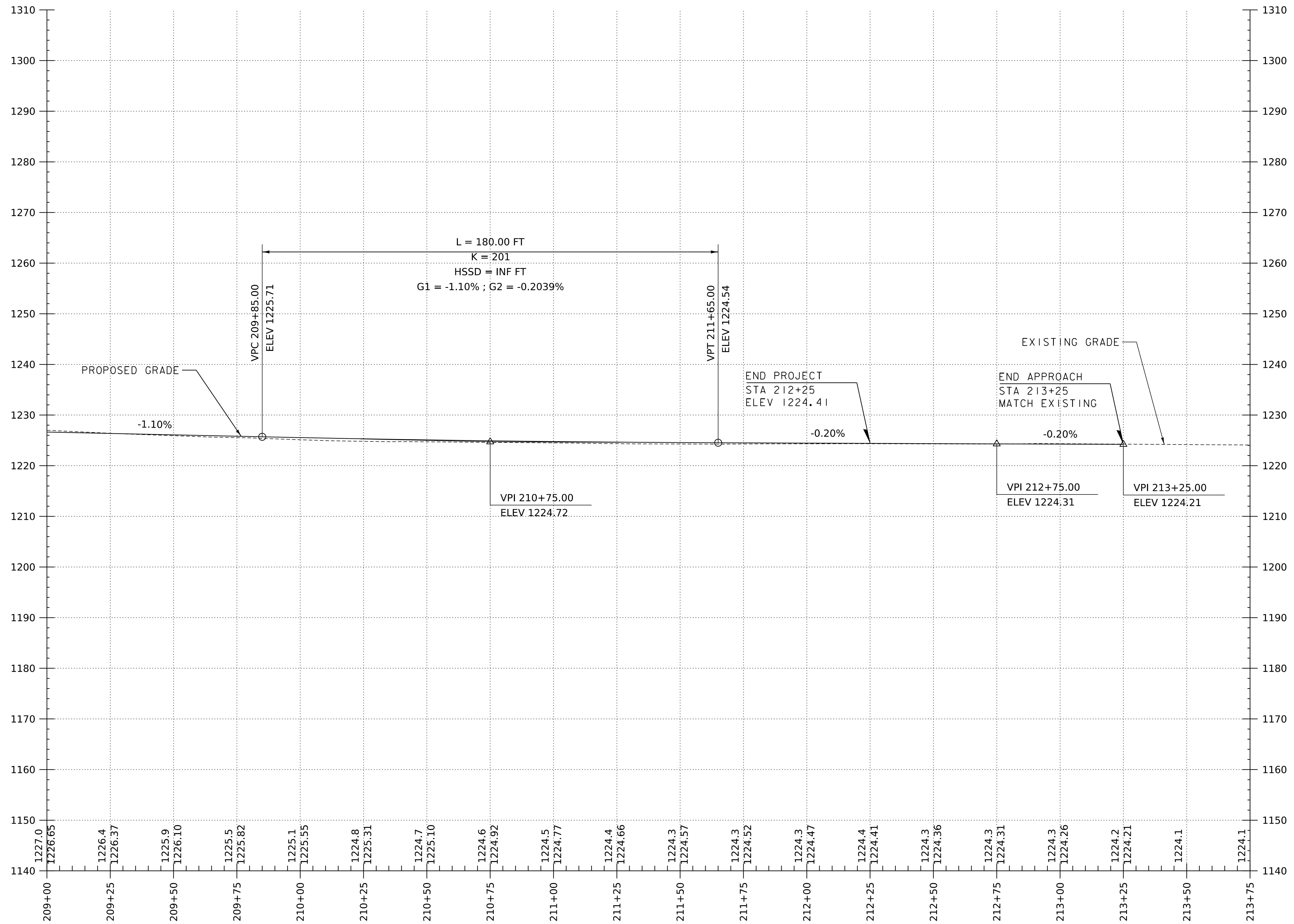
SCALE: HORIZONTAL 1" = 20' - 0"

VERTICAL 1" = 10' - 0"

(EXISTING SUPERSTRUCTURE NOT SHOWN)



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(I6) C/2	DRAWN BY:	M.F. NEMETH
FILE NAME:	z13c068pro_vt100.dgn	CHECKED BY:	N.A. TRUSALOW
PROJECT LEADER:	S.E. BURBANK	SHEET	28 OF 220
DESIGNED BY:	M.F. NEMETH		
VT 100 PROFILE SHEET (2 OF 3)			



THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDRETH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

VT 100 PROFILE

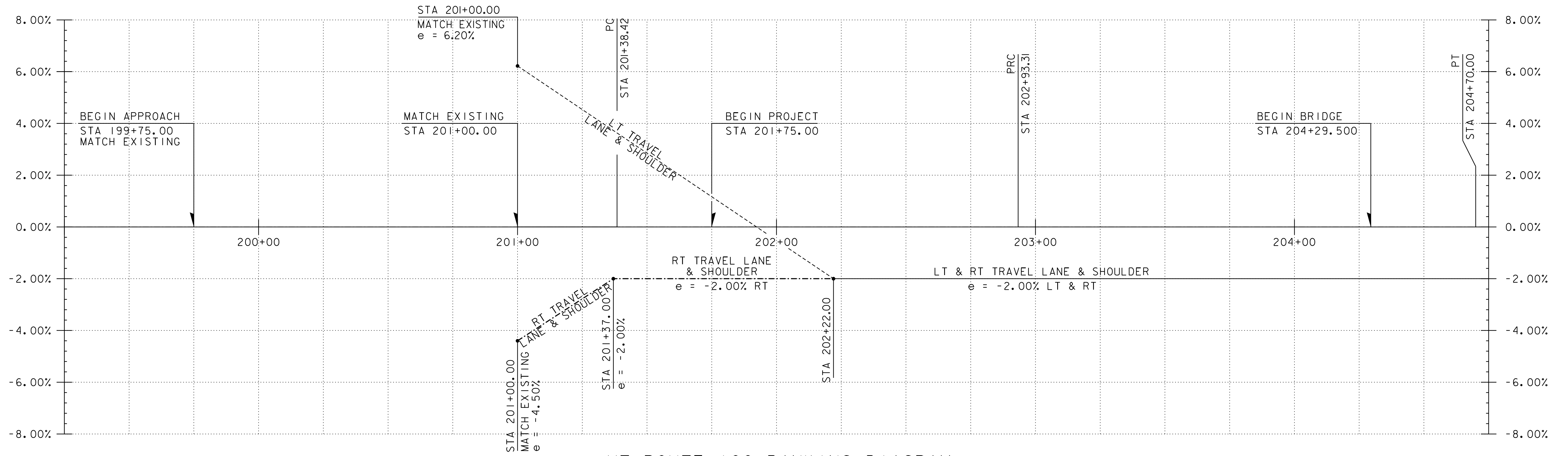
SCALE: HORIZONTAL 1" = 20' - 0"  
 VERTICAL 1" = 10' - 0"



PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(I6) C/2

FILE NAME: z13c068pro.vt100.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: M.F. NEMETH  
 VT 100 PROFILE SHEET (3 OF 3)

PLOT DATE: 12-APR-2024  
 DRAWN BY: M.F. NEMETH  
 CHECKED BY: N.A. TRUSALOW  
 SHEET 29 OF 220



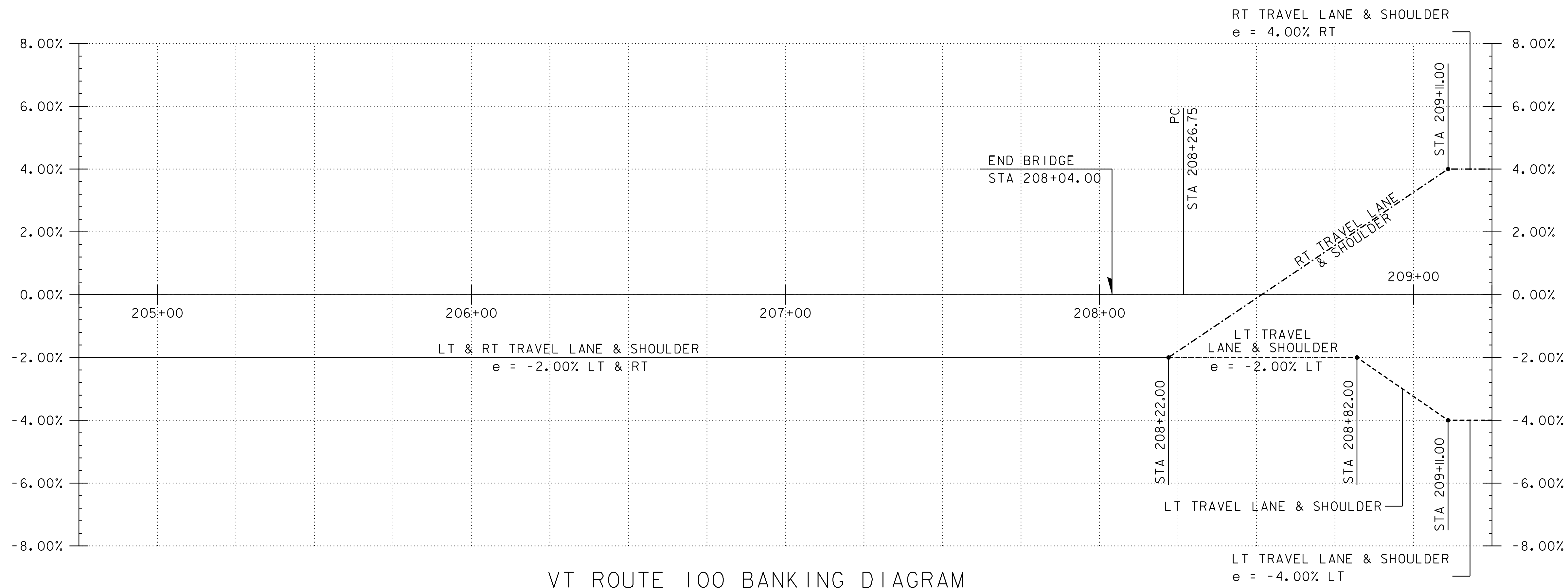
VT ROUTE 100 BANKING DIAGRAM

SCALE 1" = 20' HORIZONTAL  
 1" = 0.020 FT/FT VERTICAL



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068pro_vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 30 OF 220
DESIGNED BY: D.M. PECK	
VT 100 BANKING SHEET (1 OF 3)	



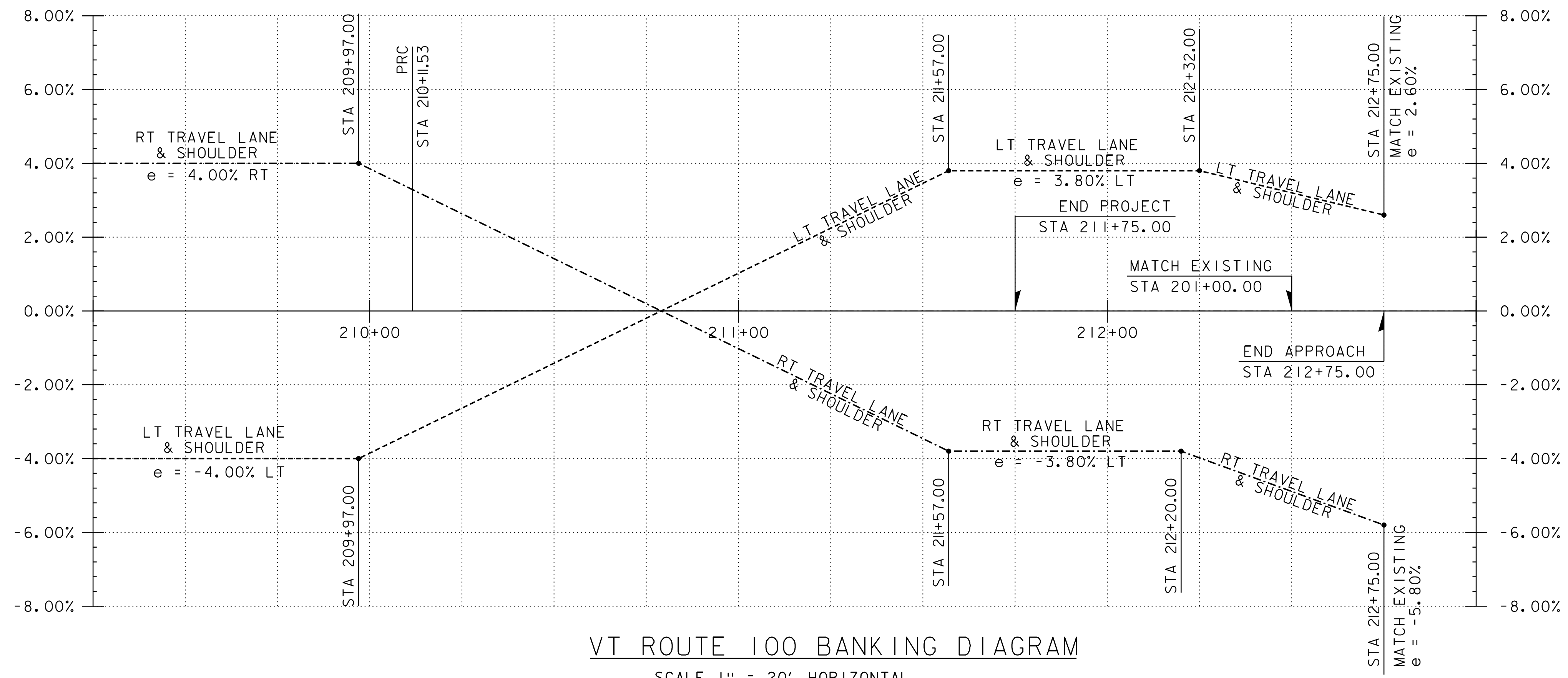


VT ROUTE 100 BANKING DIAGRAM

SCALE 1" = 20' HORIZONTAL  
1" = 0.020 FT/FT VERTICAL



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068pro_vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 31 OF 220
DESIGNED BY: D.M. PECK	
VT 100 BANKING SHEET (2 OF 3)	

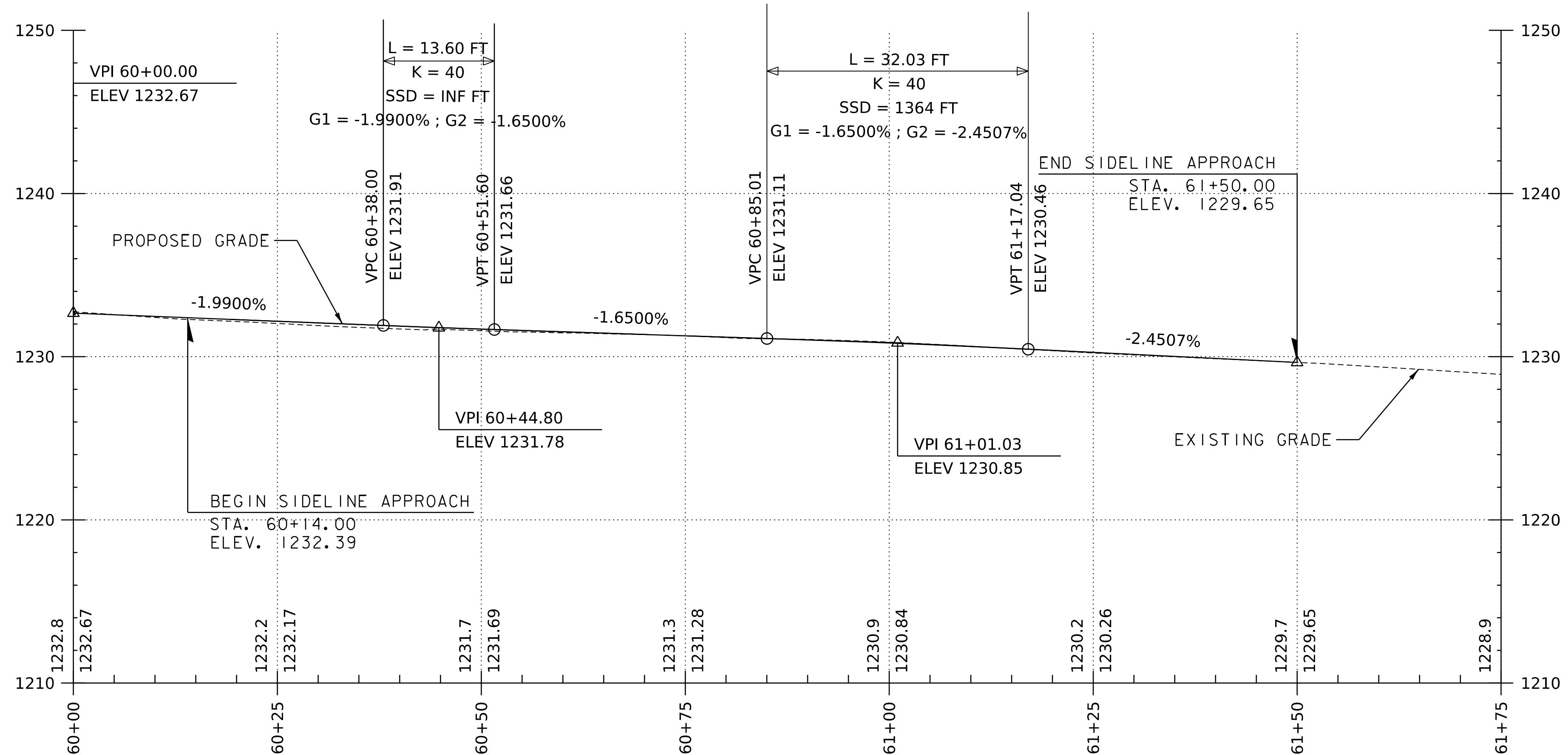


VT ROUTE 100 BANKING DIAGRAM

SCALE 1" = 20' HORIZONTAL  
1" = 0.020 FT/FT VERTICAL



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068pro.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 32 OF 220
DESIGNED BY: D.M. PECK	
VT 100 BANKING SHEET (3 OF 3)	

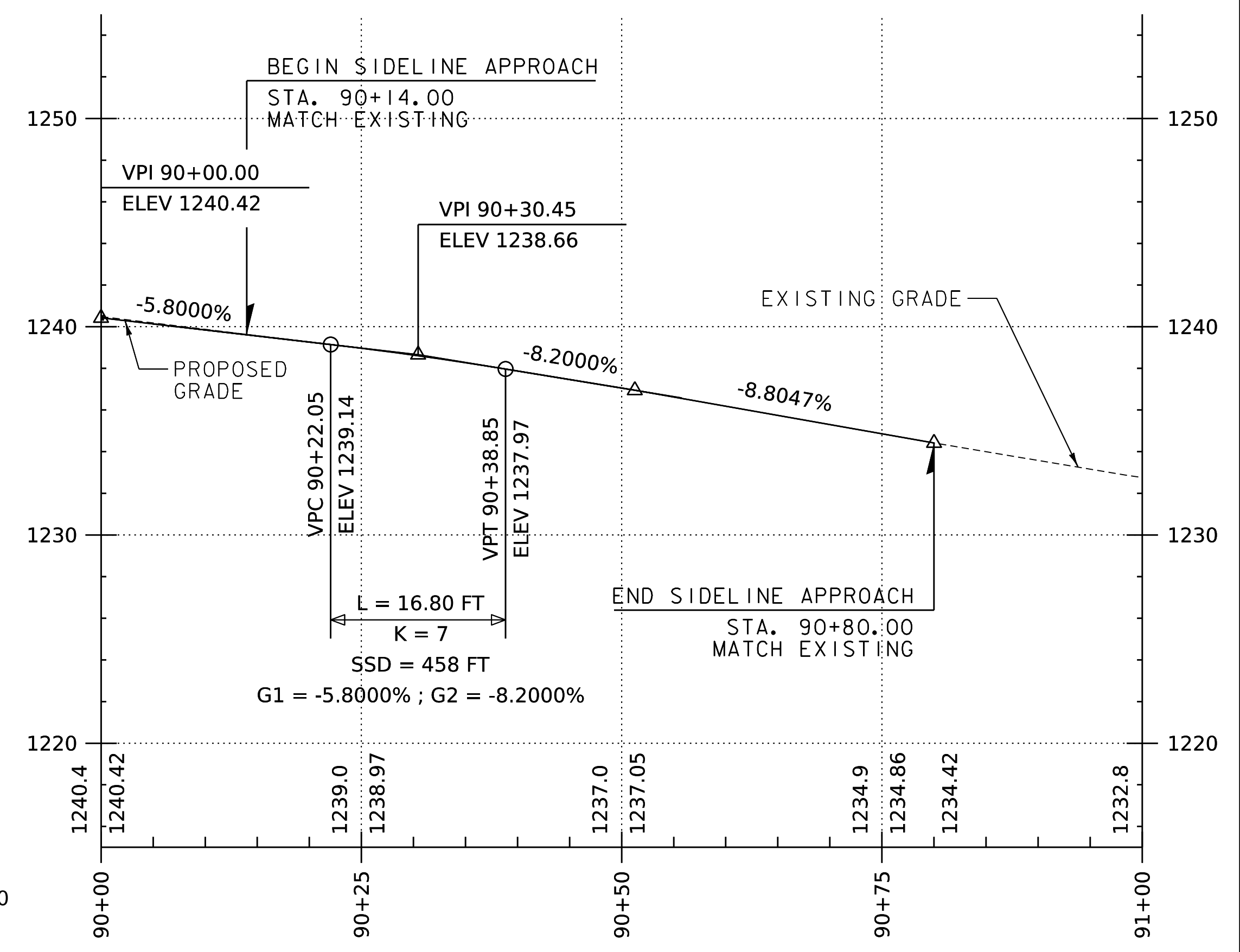


PHELPS LANE (TH 22) PROFILE

SCALE: HORIZONTAL 1" = 40' - 0"  
VERTICAL 1" = 20' - 0"

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

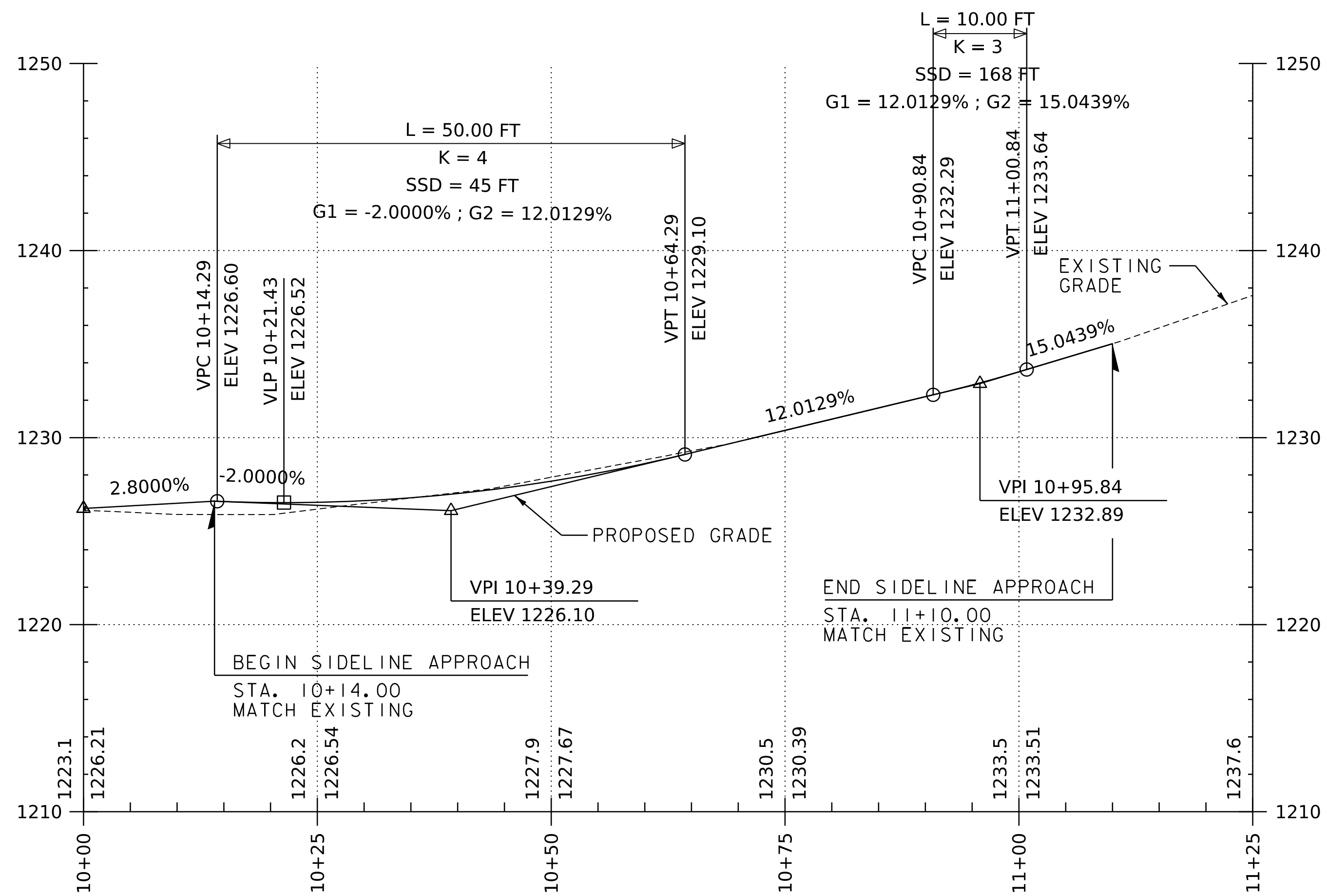
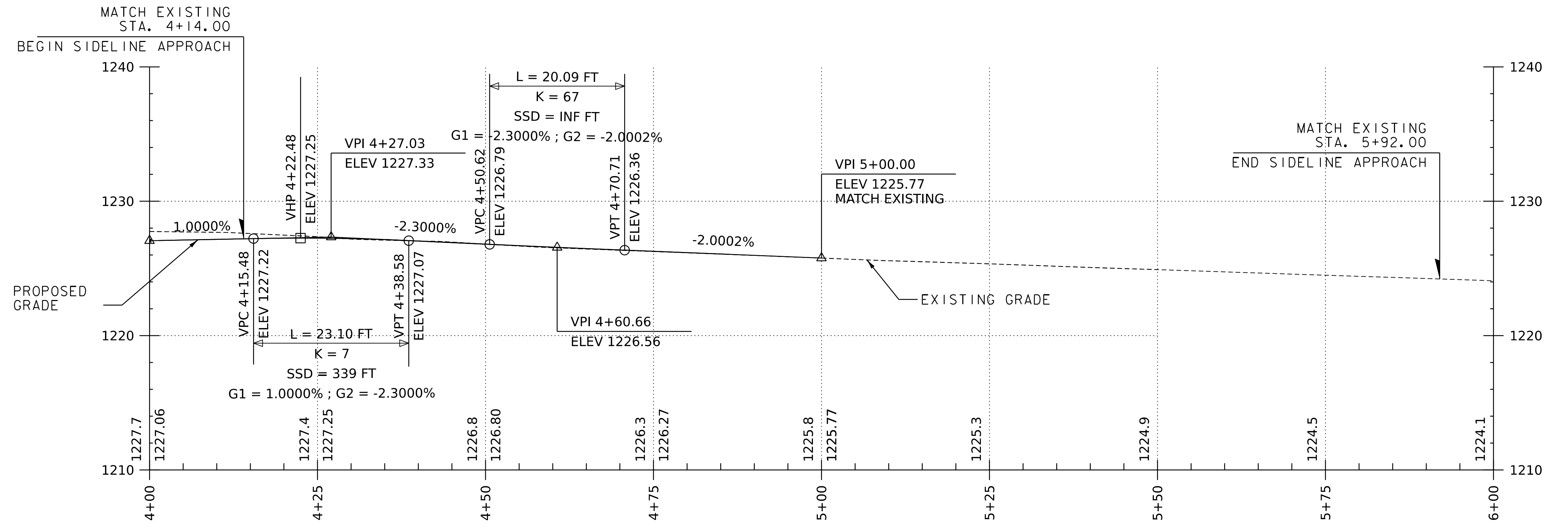


TUNNEL ST (TH 2) PROFILE

SCALE: HORIZONTAL 1" = 40' - 0"  
VERTICAL 1" = 20' - 0"

PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068pro.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 33 OF 220
DESIGNED BY: M.F. NEMETH	
SIDE ROADS PROFILE SHEET (1 OF 2)	





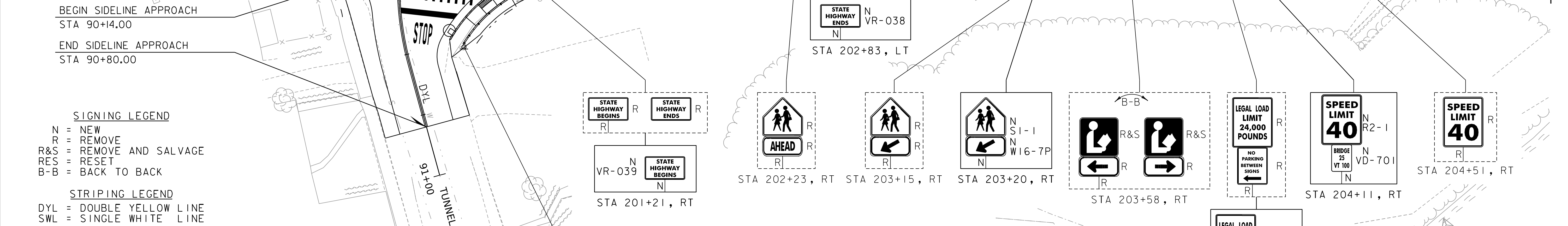
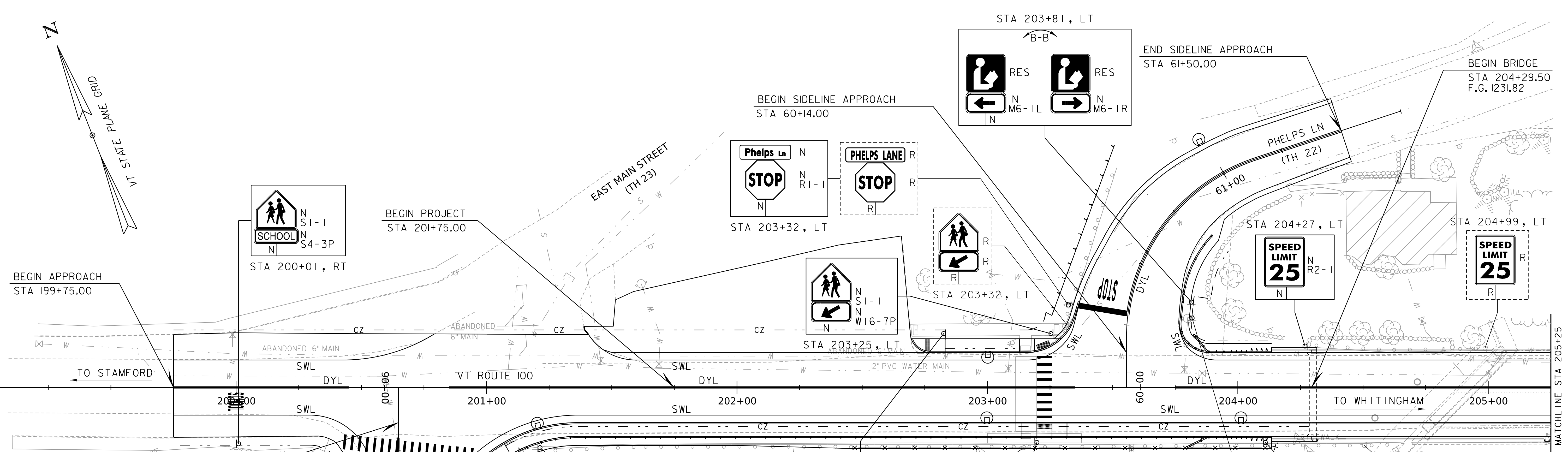
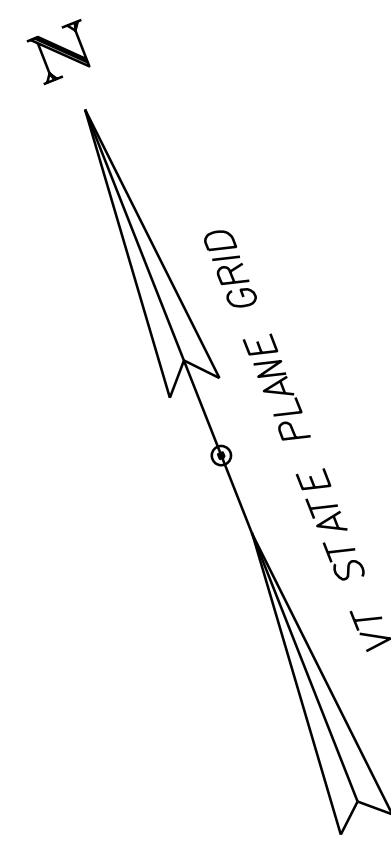
THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

**JARVIS HILL RD PROFILE**  
 SCALE: HORIZONTAL 1" = 40'-0"  
 VERTICAL 1" = 20'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068pro.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 34 OF 220
DESIGNED BY: M.F. NEMETH	
SIDE ROADS PROFILE SHEET (2 OF 2)	



**SIGNING LEGEND**  
 N = NEW  
 R = REMOVE  
 R&S = REMOVE AND SALVAGE  
 RES = RESET  
 B-B = BACK TO BACK

**STRIPING LEGEND**  
 DYL = DOUBLE YELLOW LINE  
 SWL = SINGLE WHITE LINE

**SIGN REMOVAL, FLAT SHEET ALUMINUM**

- STA 200+91, RT (3)
- STA 201+21, RT (2)
- STA 202+75, RT (2)
- STA 203+15, RT (2)
- STA 203+32, LT (4)
- STA 203+58, RT (4)
- STA 203+82, LT (2)
- STA 204+51, RT (1)
- STA 204+99, LT (1)

**TRAFFIC SIGN, FLAT SHEET ALUMINUM**

- STA 200+01, RT (2)
- STA 200+91, RT (4)
- STA 201+21, RT (1)
- STA 202+83, LT (1)
- STA 203+20, RT (2)
- STA 203+25, LT (2)
- STA 203+32, LT (2)
- STA 203+81, LT (4)
- STA 203+82, LT (1)
- STA 204+11, RT (2)
- STA 204+27, LT (1)

**RESETTING SIGNS**

- STA 203+81, LT (2)

**4 INCH YELLOW LINE**

- STA 199+75 - 200+45, LT & RT
- STA 200+85 - 203+35, LT & RT
- STA 203+75 - 205+25, LT & RT

**4 INCH WHITE LINE**

- STA 199+75 - 200+79, LT
- STA 199+75 - 200+30, RT
- STA 201+36 - 205+25, RT
- STA 201+41 - 203+16, LT
- STA 203+91 - 205+25, LT

**CROSSWALK MARKING**

- STA 200+37 - 200+99, RT
- STA 203+23, RT-LT

**LETTER OR SYMBOL**

- STA 200+00, RT ("SCHOOL")

**DURABLE 4 INCH YELLOW LINE**

- STA 90+20 - 90+80, LT & RT
- STA 60+29 - 61+50, LT & RT

**DURABLE 4 INCH WHITE LINE**

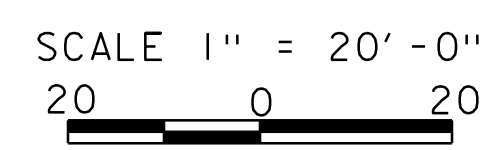
- STA 90+11 - 90+80, LT
- STA 90+11 - 90+80, RT
- STA 60+11 - 60+32, LT
- STA 60+11 - 60+30, RT

**DURABLE 24 INCH STOP BAR**

- STA 90+32, LT
- STA 60+30, LT

**DURABLE LETTER OR SYMBOL**

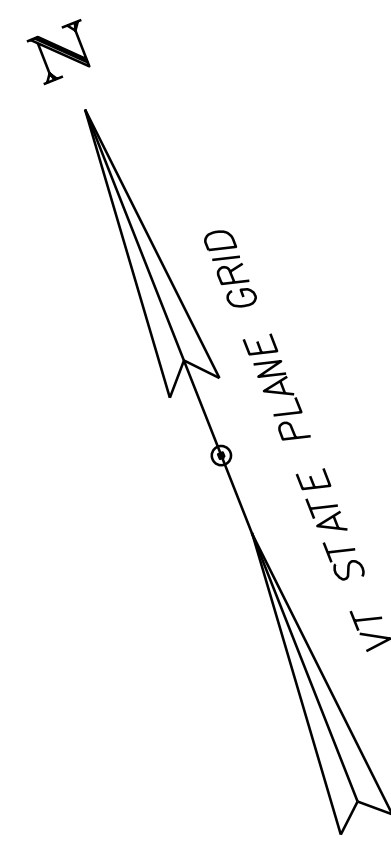
- STA 90+43, LT ("STOP")
- STA 60+37, LT ("STOP")



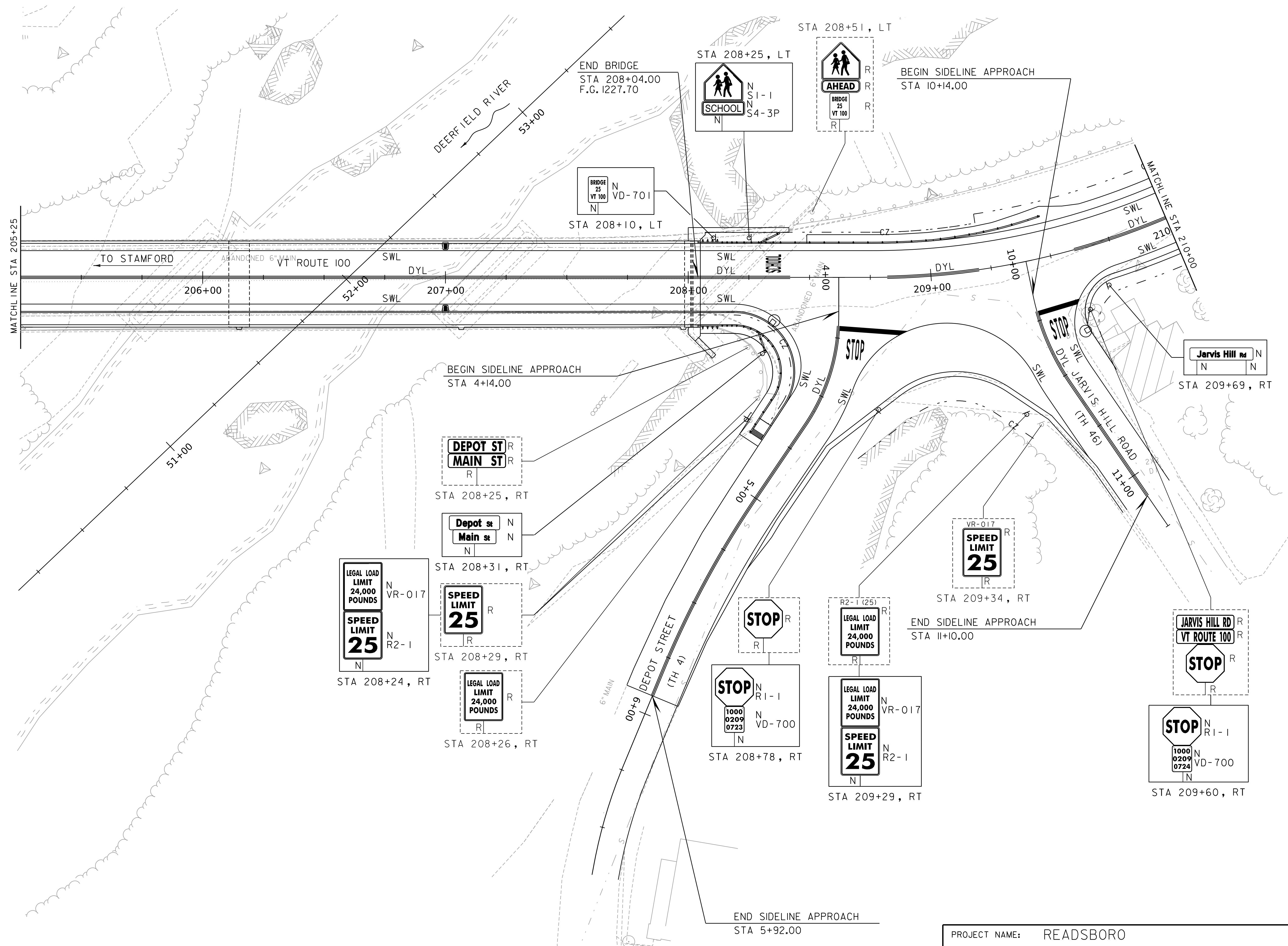
PROJECT NAME:	READSBORO	FILE NAME:	z13c068+sl.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	N.A. TRUSLOW
		DESIGNED BY:	N.A. TRUSLOW	CHECKED BY:	S.E. BURBANK
		TRAFFIC SIGNS & LINE STRIPING (1 OF 3)		SHEET	35 OF 220







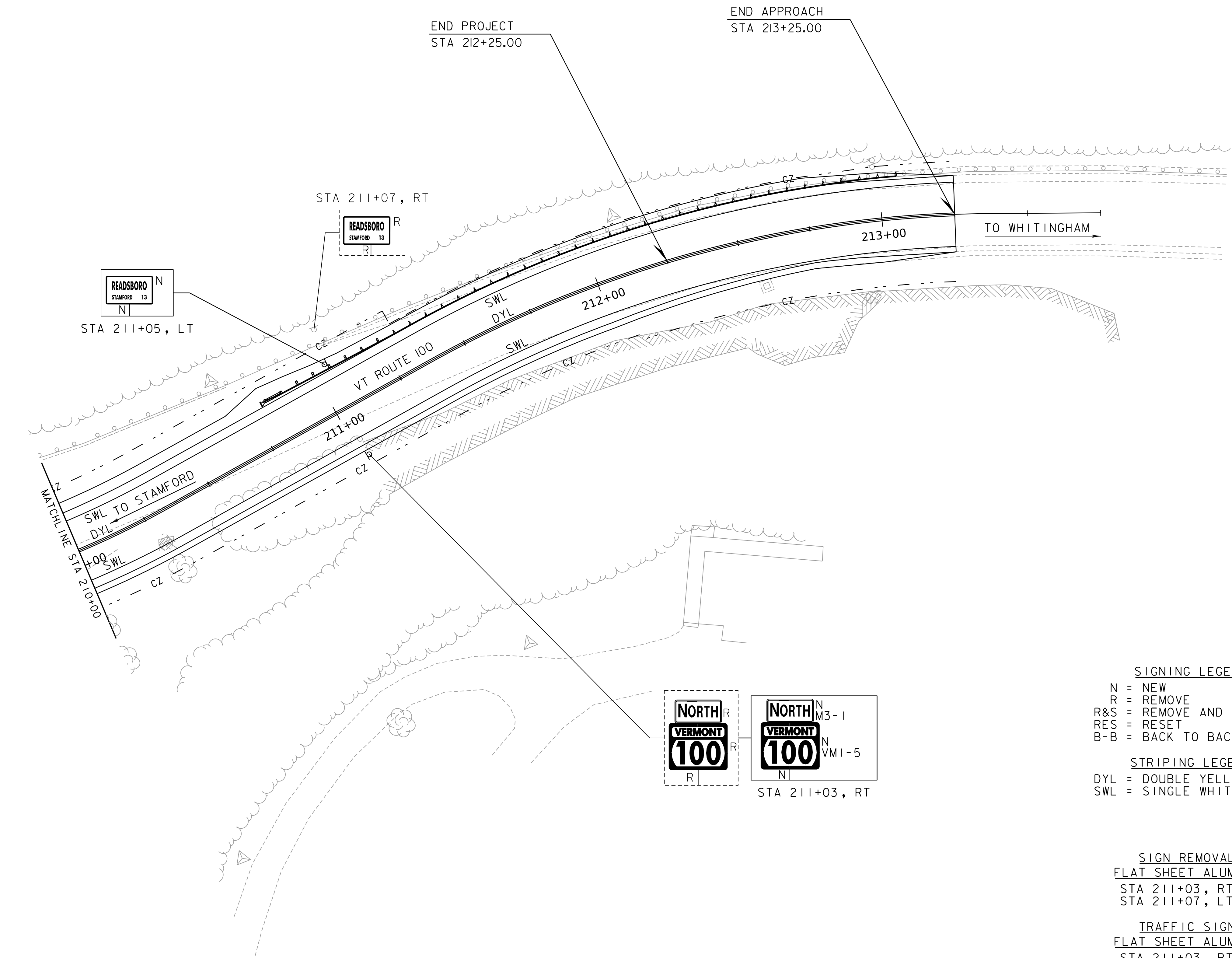
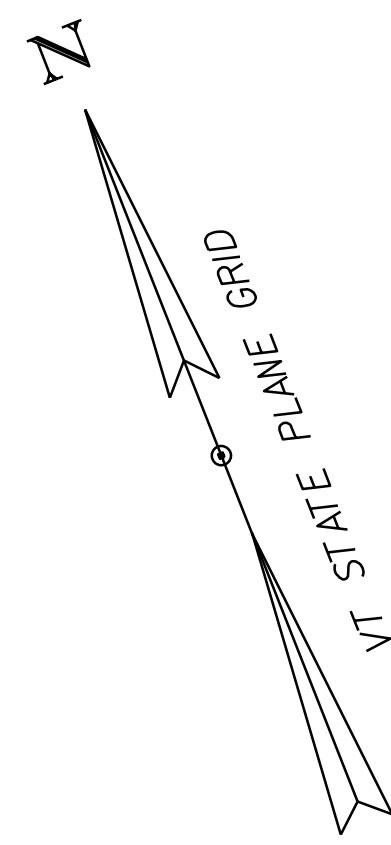
- SIGNING LEGEND**  
 N = NEW  
 R = REMOVE  
 R&S = REMOVE AND SALVAGE  
 RES = RESET  
 B-B = BACK TO BACK
- STRIPING LEGEND**  
 DYL = DOUBLE YELLOW LINE  
 SWL = SINGLE WHITE LINE
- SIGN REMOVAL, FLAT SHEET ALUMINUM**  
 STA 208+25, RT (2)  
 STA 208+26, RT (1)  
 STA 208+29, RT (1)  
 STA 208+51, LT (3)  
 STA 208+78, RT (1)  
 STA 209+29, RT (1)  
 STA 209+34, RT (1)  
 STA 209+60, RT (3)
- TRAFFIC SIGN, FLAT SHEET ALUMINUM**  
 STA 208+10, LT (1)  
 STA 208+24, RT (2)  
 STA 208+25, LT (2)  
 STA 208+31, RT (2)  
 STA 208+78, RT (2)  
 STA 209+29, RT (2)  
 STA 209+60, RT (2)  
 STA 209+69, RT (1)
- 4 INCH YELLOW LINE**  
 STA 205+25 - 208+42, LT & RT  
 STA 208+82 - 209+20, LT & RT  
 STA 209+60 - 210+00, LT & RT
- 4 WHITE LINE**  
 STA 205+25 - 210+00, LT  
 STA 205+25 - 208+19, RT  
 STA 209+75 - 210+00, RT
- LETTER OR SYMBOL**  
 STA 208+35, LT ("SCHOOL")
- DURABLE 4 INCH YELLOW LINE**  
 STA 4+20 - 5+92, LT & RT  
 STA 10+21 - 11+10, LT & RT
- DURABLE 4 INCH WHITE LINE**  
 STA 4+11 - 4+60, RT  
 STA 4+18 - 5+92, LT  
 STA 10+09 - 11+10, LT  
 STA 10+17 - 10+83, RT
- DURABLE 24 INCH STOP BAR**  
 STA 4+21, LT  
 STA 10+22, LT
- DURABLE LETTER OR SYMBOL**  
 STA 4+29, LT ("STOP")  
 STA 10+31, LT ("STOP")



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



PROJECT NAME:	READSBORO	FILE NAME:	z13c068+sl.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	N.A. TRUSLOW
		DESIGNED BY:	N.A. TRUSLOW	CHECKED BY:	S.E. BURBANK
		TRAFFIC SIGNS & LINE STRIPING (2 OF 3)		SHEET	36 OF 220



- SIGNING LEGEND**
- N = NEW
  - R = REMOVE
  - R&S = REMOVE AND SALVAGE
  - RES = RESET
  - B-B = BACK TO BACK

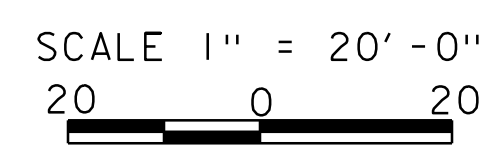
- STRIPING LEGEND**
- DYL = DOUBLE YELLOW LINE
  - SWL = SINGLE WHITE LINE

- SIGN REMOVAL,  
FLAT SHEET ALUMINUM**
- STA 211+03, RT (2)
  - STA 211+07, LT (1)

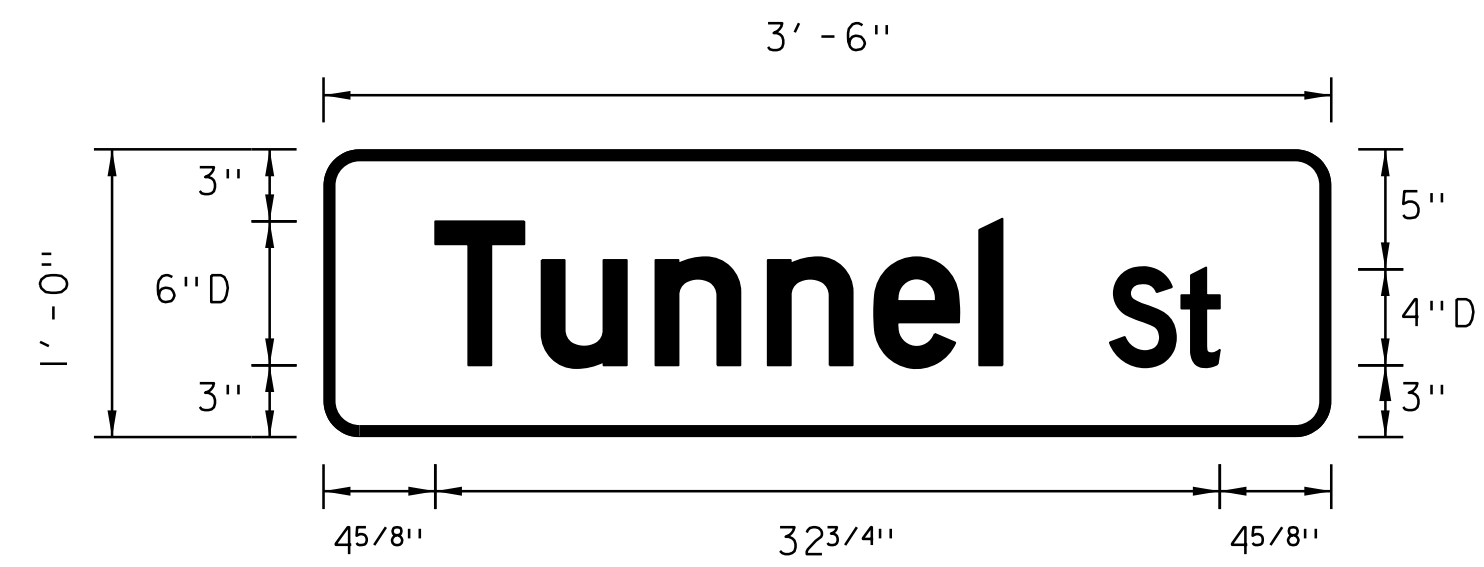
- TRAFFIC SIGN,  
FLAT SHEET ALUMINUM**
- STA 211+03, RT (2)
  - STA 211+05, LT (1)

- 4 INCH YELLOW LINE**
- STA 210+00 - 213+25, LT & RT

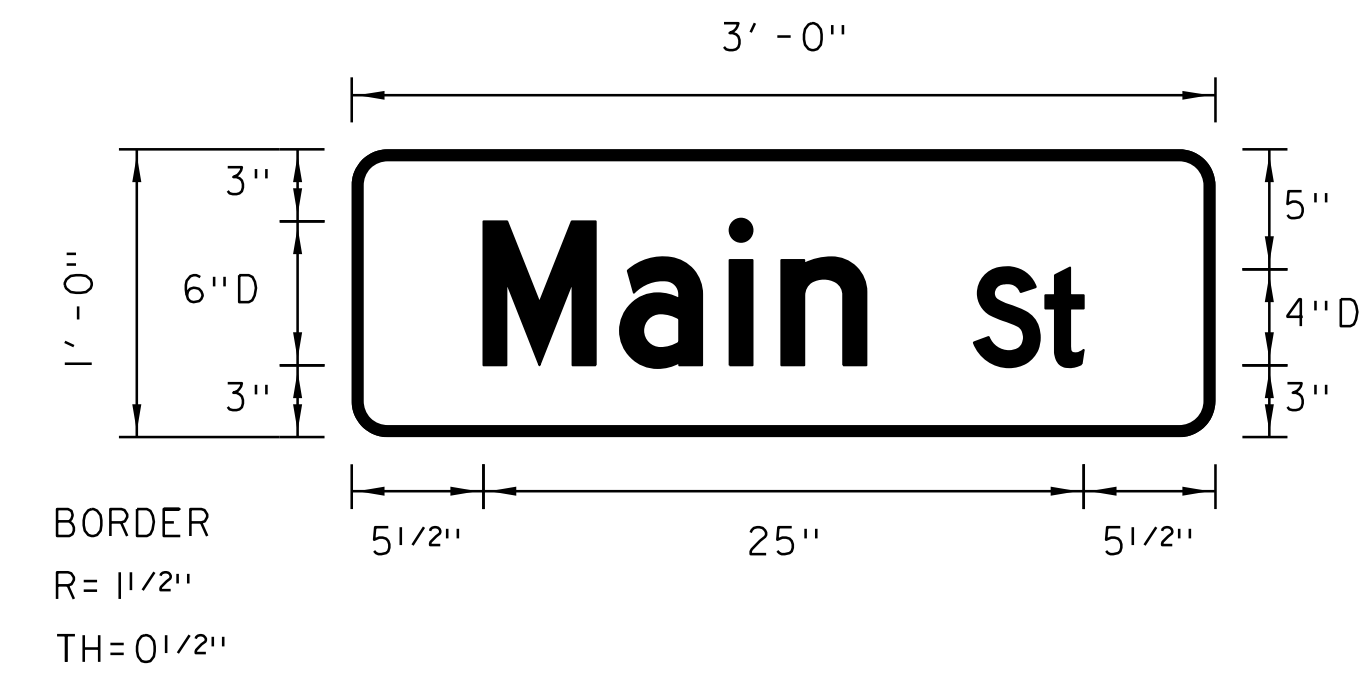
- 4 INCH WHITE LINE**
- STA 210+00 - 213+25, LT
  - STA 210+00 - 213+25, RT



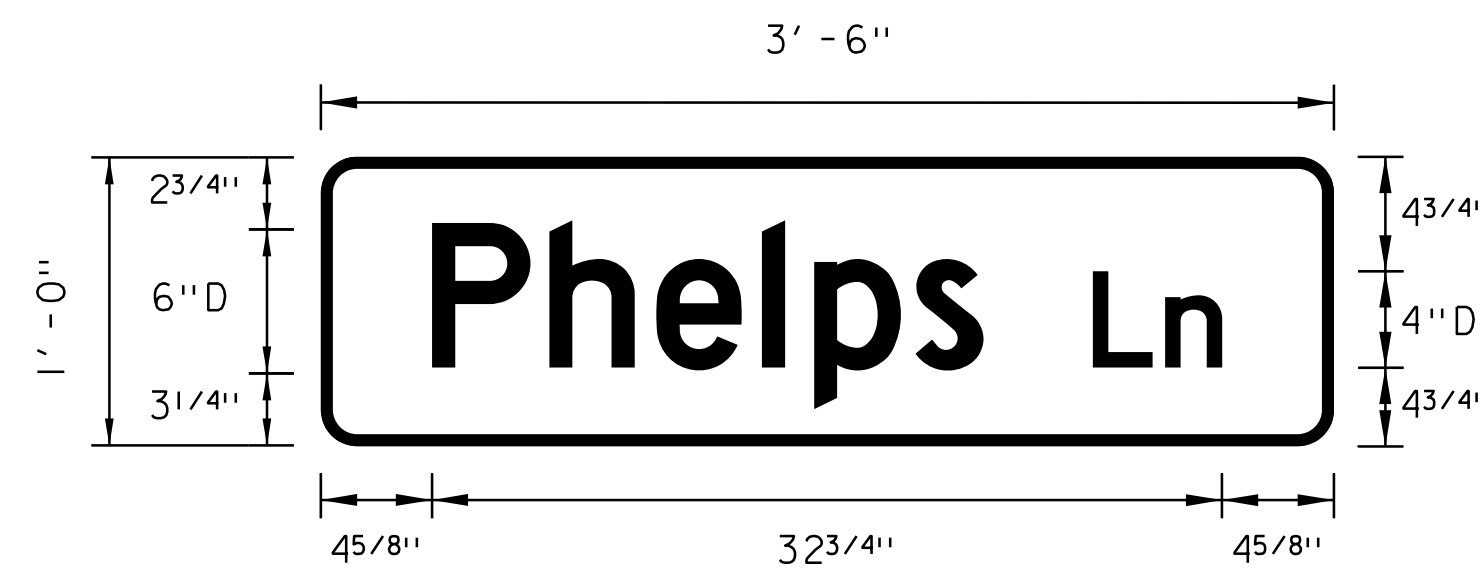
PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068+sl.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
TRAFFIC SIGNS & LINE STRIPING (3 OF 3)	SHEET 37 OF 220



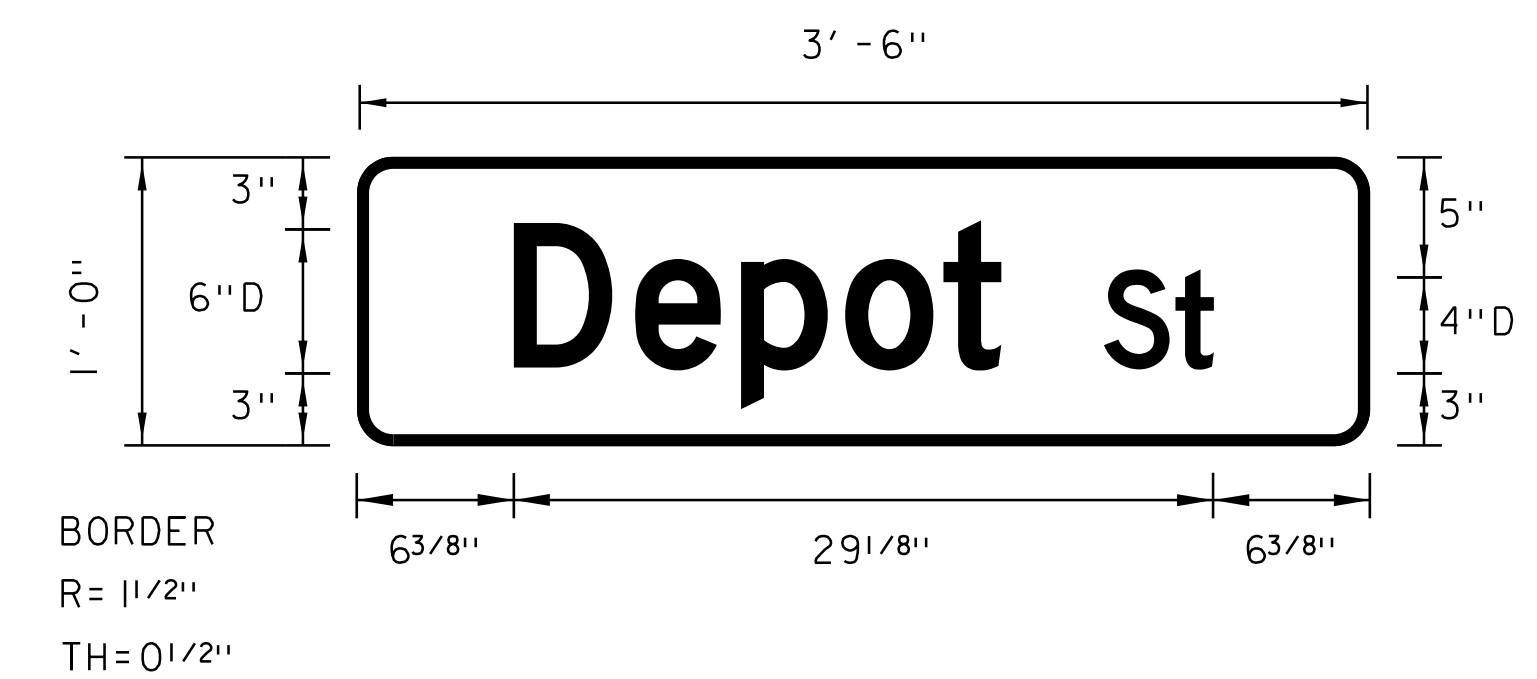
STA 200+91, RT



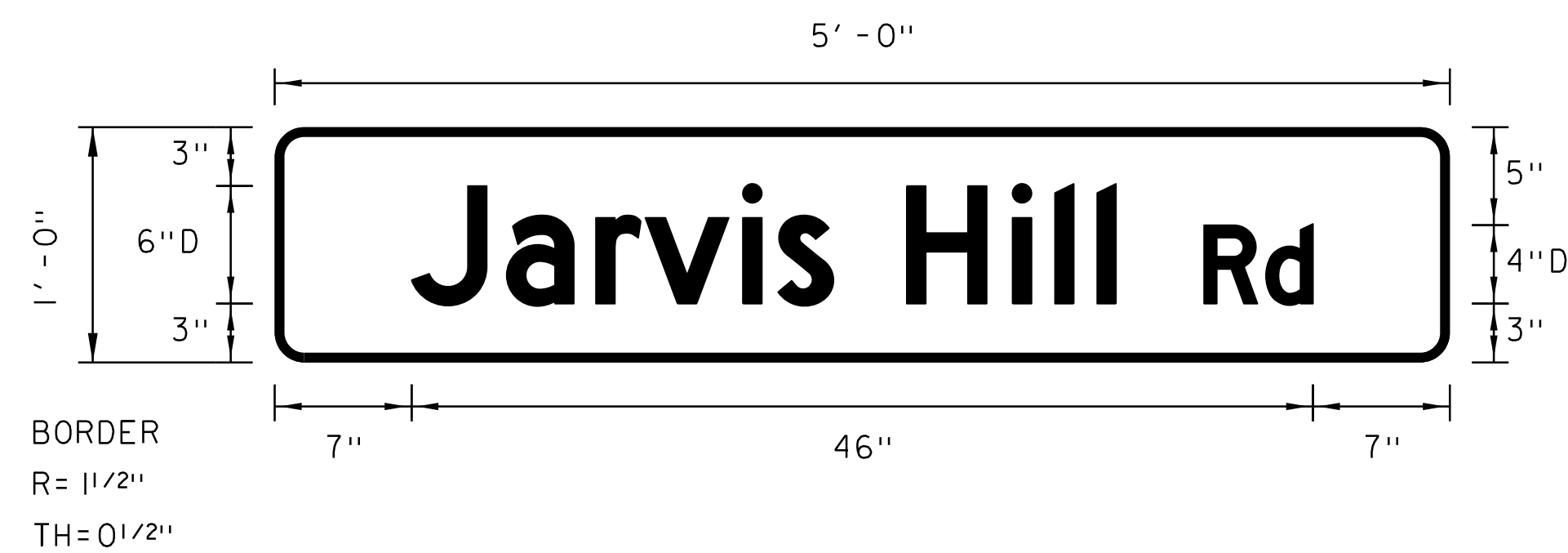
STA 200+91, RT  
STA 208+19, RT



203+32, LT



STA 208+31, RT



STA 209+69, RT

NOTE:  
ALL STREET NAME SIGNS SHALL BE DOUBLE SIDED.  
SIGNS SHALL BE 0.080" THICK FLAT SHEET ALUMINUM IN ACCORDANCE WITH SUBSECTION 750.03



PROJECT NAME: READSBORO	FILE NAME: z13c068tss.dgn	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	PROJECT LEADER: S.E. BURBANK	DRAWN BY: W.A. FRETWELL
	DESIGNED BY: W.A. FRETWELL	CHECKED BY: N.A. TRUSLOW
	TRAFFIC SIGN DETAILS	SHEET 38 OF 220

# TRAFFIC SIGN SUMMARY SHEET 1

MILE MARKER, DIRECTION	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST NO. OF POSTS	NEW SIGN POSTS														REMARKS	SIGN DETAIL						
		EA.	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS		FLANGED CHANNEL			SQUARE STEEL (in)			TUBULAR ALUMINUM DIA (in)			TUBULAR STEEL DIA (in)				W-SHAPE STEEL				S I G N F R A M E	SHSM	SIGN DETAILS SHEET NUMBER	STD. SHEET NUMBER	
										1.12	2.0	3.0	1.75	2.0	2.5	3.0	4.0	4.0	4.0	3.0	3.5	4.0	5.0		FTG. SIZE						WEIGHT
VT ROUTE 100 200+01 , RT		1	30	30	6.25				1				X	X													S1-1. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.				
		1	24	8	1.33																					S4-3P. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.					
200+91 , RT	<b>Tunnel st</b>	1	42	12	3.50				1				X	X												D3-1. SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERING AND BORDER.					
	<b>Main st</b>	1	36	12	3.00																					D3-1. SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERING AND BORDER.					
		1	30	30	6.25																					R1-1					
		1	6	10	0.42																					VD-700			T-44		
201+21 , RT		1	24	18	3.00				1				X	X												VR-039			T-71		
202+83 , LT		1	24	18	3.00				1				X	X												VR-038			T-71		
203+20 , RT		1	30	30	6.25				1				X	X												S1-1. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.					
		1	24	12	2.00																					W16-7PL. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.					
203+25 , LT		1	30	30	6.25				1				X	X												S1-1. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.					
		1	24	12	2.00																					W16-7PL. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.					
203+32 , LT	<b>Phelps Ln</b>	1	42	12	3.50				1				X	X												D3-1. SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERING AND BORDER.					
		1	30	30	6.25																					R1-1					
203+81 , LT			24	24					1				X	X												I-8 RESET FROM STA. 203+58, RT					
		1	21	15	2.19																					M6-1L LEGEND AND BORDER SHALL BE WHITE. BACKGROUND SHALL BE BLUE.					
		1	21	15	2.19																					M6-1R LEGEND AND BORDER SHALL BE WHITE. BACKGROUND SHALL BE BLUE.					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE".		SUBTOTALS SHEET 1		SF 57.38	SF	EA. 2	SF	FT	FT 120.0	EA.	LB	EA.	LB	EA.	EA.	LB	PROJECT NAME: READSBORO PROJECT NUMBER: BF 0102(16) C/2 FILE NAME: z13c068tss.dgn PROJECT LEADER: S.E. BURBANK DESIGNED BY: W.A. FRETWELL TRAFFIC SIGN SUMMARY (1 OF 3)		PLOT DATE: 12-APR-2024 DRAWN BY: W.A. FRETWELL CHECKED BY: N.A. TRUSLOW SHEET 39 OF 220	
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# TRAFFIC SIGN SUMMARY SHEET 2

MILE MARKER, DIRECTION	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST	NO. OF POSTS	NEW SIGN POSTS															REMARKS	SIGN DETAIL				
		EA.	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS			FLANGED CHANNEL			SQUARE STEEL (in)			TUBULAR ALUMINUM DIA (in)			TUBULAR STEEL DIA (in)				W-SHAPE STEEL				SHSM	SIGN DETAILS SHEET NUMBER	STD. SHEET NUMBER	
											lb/ft	2.0	3.0	1.75	2.0	2.5	3.0	4.0	4.0Mod	3.0	3.5	4.0	5.0	FTG. SIZE	WEIGHT		POST SIZE				
																															1.12
203+82 , LT		1	24	30	5.00					1						X	X									VR-017		T-70			
204+11 , RT		1	24	30	5.00					1						X	X									R2-1					
		1	6	10	0.42																					VD-701		T-42			
204+27 , LT		1	24	30	5.00					1						X	X									R2-1					
208+10 , LT		1	6	10	0.42					1						X	X									VD-701		T-42			
208+24 , RT		1	24	30	5.00					1						X	X									VR-017		T-70			
		1	24	30	5.00																					R2-1					
208+25 , LT		1	30	30	6.25					1						X	X									S1-1. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.					
		1	24	8	1.33																					S4-3P. LEGEND AND BORDER SHALL BE BLACK. BACKGROUND SHALL BE FLUORESCENT YELLOW-GREEN.					
208+31 , RT		1	42	12	3.50					1						X	X									D3-1. SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERING AND BORDER.					
		1	36	12	3.00																					D3-1. SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERING AND BORDER.					
208+78 , RT		1	30	30	6.25					1						X	X									R1-1					
		1	6	10	0.42																					VD-700		T-44			
209+29 , RT		1	24	30	5.00					1						X	X									VR-017		T-70			
		1	24	30	5.00																					R2-1					
209+60 , RT		1	30	30	6.25					1						X	X									R1-1					
		1	6	10	0.42																					VD-700		T-44			

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE".

<b>SUBTOTALS SHEET 2</b>	SF	SF	EA.	SF		FT	FT	FT	EA.	LB	LB	LB	EA.	LB	EA.	EA.	LB
	63.26							150.0									



PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2  
 FILE NAME: z13c068tss.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: W.A. FRETWELL  
 TRAFFIC SIGN SUMMARY (2 OF 3)

PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: N.A. TRUSLOW  
 SHEET 40 OF 220

# TRAFFIC SIGN SUMMARY SHEET 3

MILE MARKER, DIRECTION	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST	NO. OF POSTS	NEW SIGN POSTS																					REMARKS	SIGN DETAIL		
		EA.	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS			FLANGED CHANNEL			SQUARF STFFI (in)			ANCHOR	SLEEVE	TUBULAR ALUMINUM DIA (in)			TUBULAR STFFI DIA (in)				W-SHAPE STEEL				FR AME	SHSM		SIGN DETAILS SHEET NUMBER	STD. SHEET NUMBER	
											1.12	2.0	3.0	1.75	2.0	2.5			3.0	4.0	4.0Mod	3.0	3.5	4.0	5.0	FTG. SIZE	24"	30"	WEIGHT						POST SIZE
209+69 , RT	Jarvis Hill Rd	1	60	12	5.00					2					X		X											D3-1. SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERING AND BORDER							
211+03 , RT	NORTH	1	24	12	2.00					1					X		X											M3-1 SIGN SHALL HAVE GREEN LETTERING AND SHIELD WITH WHITE BACKGROUND							
	VERMONT 100	1	24	24	4.00																							VM1-5 SIGN SHALL HAVE GREEN LETTERING AND SHIELD WITH WHITE BACKGROUND			E-136B				
211+05 , LT	READSBORO STAMFORD 13	1	36	24	6.00					1					X		X											VD-018A LEGEND AND BORDER SHALL BE WHITE. BACKGROUND SHALL BE GREEN.			T-95				
	SUBTOTALS SHEET 1				57.38																														
	SUBTOTALS SHEET 2				63.26																														
	SUBTOTALS SHEET 3				17.00																														

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE".	PROJECT TOTALS				SF	SF	EA.	SF		EA.			EA.																					
					137.64			2																										
											FT	60.0				EA.	LB	EA.	LB	EA.	EA.	LB												
											FT	330.0				EA.	LB	EA.	LB	EA.	EA.	LB												

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2  
FILE NAME: z13c068tss.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
TRAFFIC SIGN SUMMARY (3 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 41 OF 220





DRAINAGE STRUCTURES OR PIPES NOT LABELED SHALL BE RETAINED.  
ALL PROPOSED STRUCTURES WILL HAVE A 2' MINIMUM SUMP DEPTH.

**DRAINAGE NOTES**

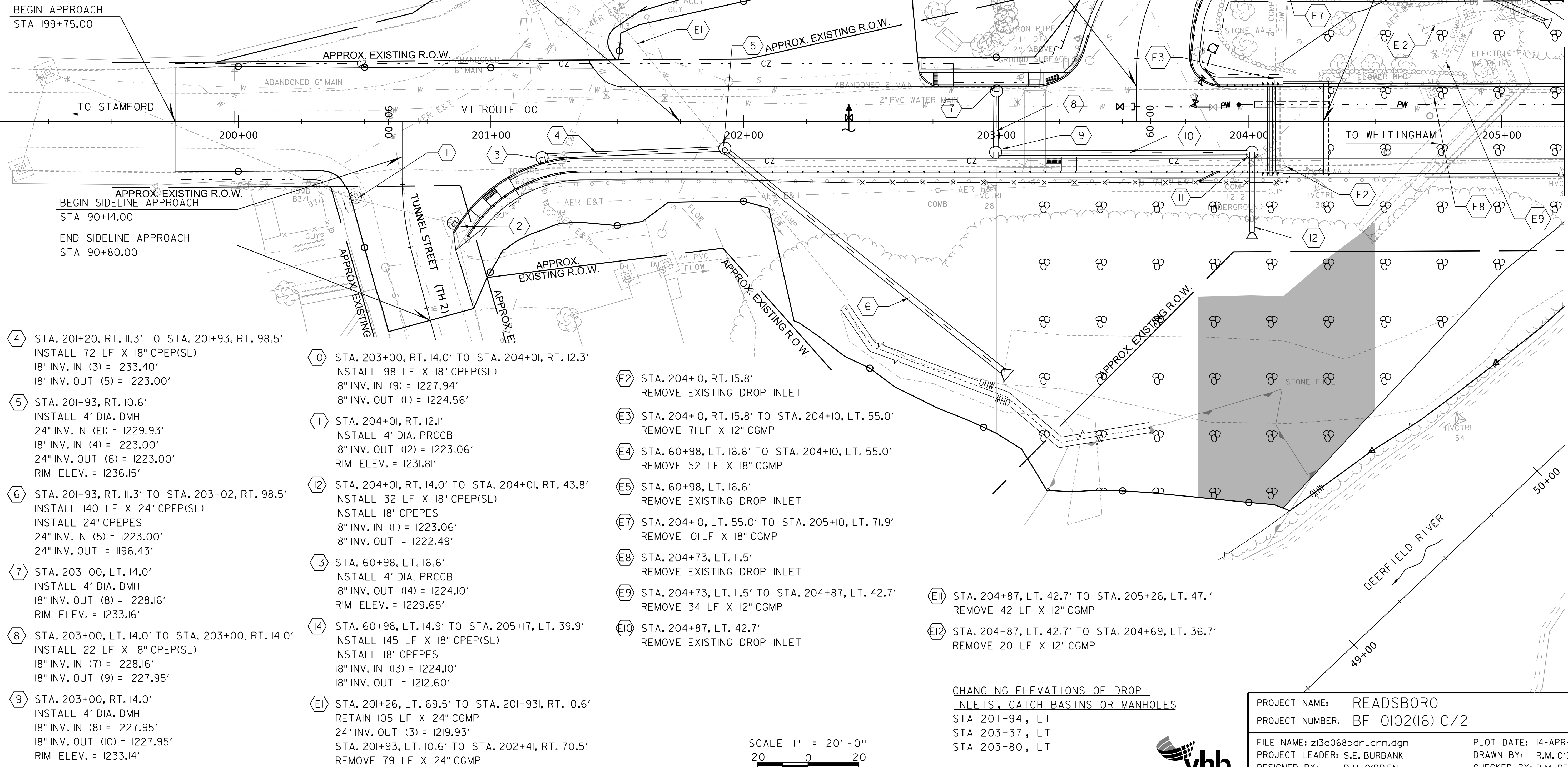
- ① STA. 90+29, RT. 20.6'  
REHAB. DIS, CATCH BASINS, OR MANHOLES, CLASS I  
NEW CAST IRON GRATE WITH FRAME, TYPE D  
RIM ELEV. = 1237.40'
- ② STA. 90+45, LT. 19.9'  
REHAB. DIS, CATCH BASINS, OR MANHOLES, CLASS I  
NEW CAST IRON GRATE WITH FRAME, TYPE D  
RIM ELEV. = 1237.41
- ③ STA. 201+20, RT. 14.8'  
INSTALL 4' DIA. DMH  
18" INV. OUT (4) = 1231.88'  
RIM ELEV. = 1237.95'

BEGIN APPROACH  
STA 199+75.00

BEGIN SIDELINE APPROACH  
STA 60+14.00

END SIDELINE APPROACH  
STA 61+50.00

BEGIN BRIDGE  
STA 204+29.50  
F.G. 1231.82



- ④ STA. 201+20, RT. 11.3' TO STA. 201+93, RT. 98.5'  
INSTALL 72 LF X 18" CPEP(SL)  
18" INV. IN (3) = 1233.40'  
18" INV. OUT (5) = 1223.00'
- ⑤ STA. 201+93, RT. 10.6'  
INSTALL 4' DIA. DMH  
24" INV. IN (E1) = 1229.93'  
18" INV. IN (4) = 1223.00'  
24" INV. OUT (6) = 1223.00'  
RIM ELEV. = 1236.15'
- ⑥ STA. 201+93, RT. 11.3' TO STA. 203+02, RT. 98.5'  
INSTALL 140 LF X 24" CPEP(SL)  
INSTALL 24" CPEPES  
24" INV. IN (5) = 1223.00'  
24" INV. OUT = 1196.43'
- ⑦ STA. 203+00, LT. 14.0'  
INSTALL 4' DIA. DMH  
18" INV. OUT (8) = 1228.16'  
RIM ELEV. = 1233.16'
- ⑧ STA. 203+00, LT. 14.0' TO STA. 203+00, RT. 14.0'  
INSTALL 22 LF X 18" CPEP(SL)  
18" INV. IN (7) = 1228.16'  
18" INV. OUT (9) = 1227.95'
- ⑨ STA. 203+00, RT. 14.0'  
INSTALL 4' DIA. DMH  
18" INV. IN (8) = 1227.95'  
18" INV. OUT (10) = 1227.95'  
RIM ELEV. = 1233.14'

- ⑩ STA. 203+00, RT. 14.0' TO STA. 204+01, RT. 12.3'  
INSTALL 98 LF X 18" CPEP(SL)  
18" INV. IN (9) = 1227.94'  
18" INV. OUT (11) = 1224.56'
- ⑪ STA. 204+01, RT. 12.1'  
INSTALL 4' DIA. PRCCB  
18" INV. OUT (12) = 1223.06'  
RIM ELEV. = 1231.81'
- ⑫ STA. 204+01, RT. 14.0' TO STA. 204+01, RT. 43.8'  
INSTALL 32 LF X 18" CPEP(SL)  
INSTALL 18" CPEPES  
18" INV. IN (11) = 1223.06'  
18" INV. OUT = 1222.49'
- ⑬ STA. 60+98, LT. 16.6'  
INSTALL 4' DIA. PRCCB  
18" INV. OUT (14) = 1224.10'  
RIM ELEV. = 1229.65'
- ⑭ STA. 60+98, LT. 14.9' TO STA. 205+17, LT. 39.9'  
INSTALL 145 LF X 18" CPEP(SL)  
INSTALL 18" CPEPES  
18" INV. IN (13) = 1224.10'  
18" INV. OUT = 1212.60'
- (E) STA. 201+26, LT. 69.5' TO STA. 201+93, RT. 10.6'  
RETAIN 105 LF X 24" CGMP  
24" INV. OUT (3) = 1219.93'  
STA. 201+93, LT. 10.6' TO STA. 202+41, RT. 70.5'  
REMOVE 79 LF X 24" CGMP

- (E2) STA. 204+10, RT. 15.8'  
REMOVE EXISTING DROP INLET
- (E3) STA. 204+10, RT. 15.8' TO STA. 204+10, LT. 55.0'  
REMOVE 71 LF X 12" CGMP
- (E4) STA. 60+98, LT. 16.6' TO STA. 204+10, LT. 55.0'  
REMOVE 52 LF X 18" CGMP
- (E5) STA. 60+98, LT. 16.6'  
REMOVE EXISTING DROP INLET
- (E7) STA. 204+10, LT. 55.0' TO STA. 205+10, LT. 71.9'  
REMOVE 101 LF X 18" CGMP
- (E8) STA. 204+73, LT. 11.5'  
REMOVE EXISTING DROP INLET
- (E9) STA. 204+73, LT. 11.5' TO STA. 204+87, LT. 42.7'  
REMOVE 34 LF X 12" CGMP
- (E10) STA. 204+87, LT. 42.7'  
REMOVE EXISTING DROP INLET
- (E11) STA. 204+87, LT. 42.7' TO STA. 205+26, LT. 47.1'  
REMOVE 42 LF X 12" CGMP
- (E12) STA. 204+87, LT. 42.7' TO STA. 204+69, LT. 36.7'  
REMOVE 20 LF X 12" CGMP

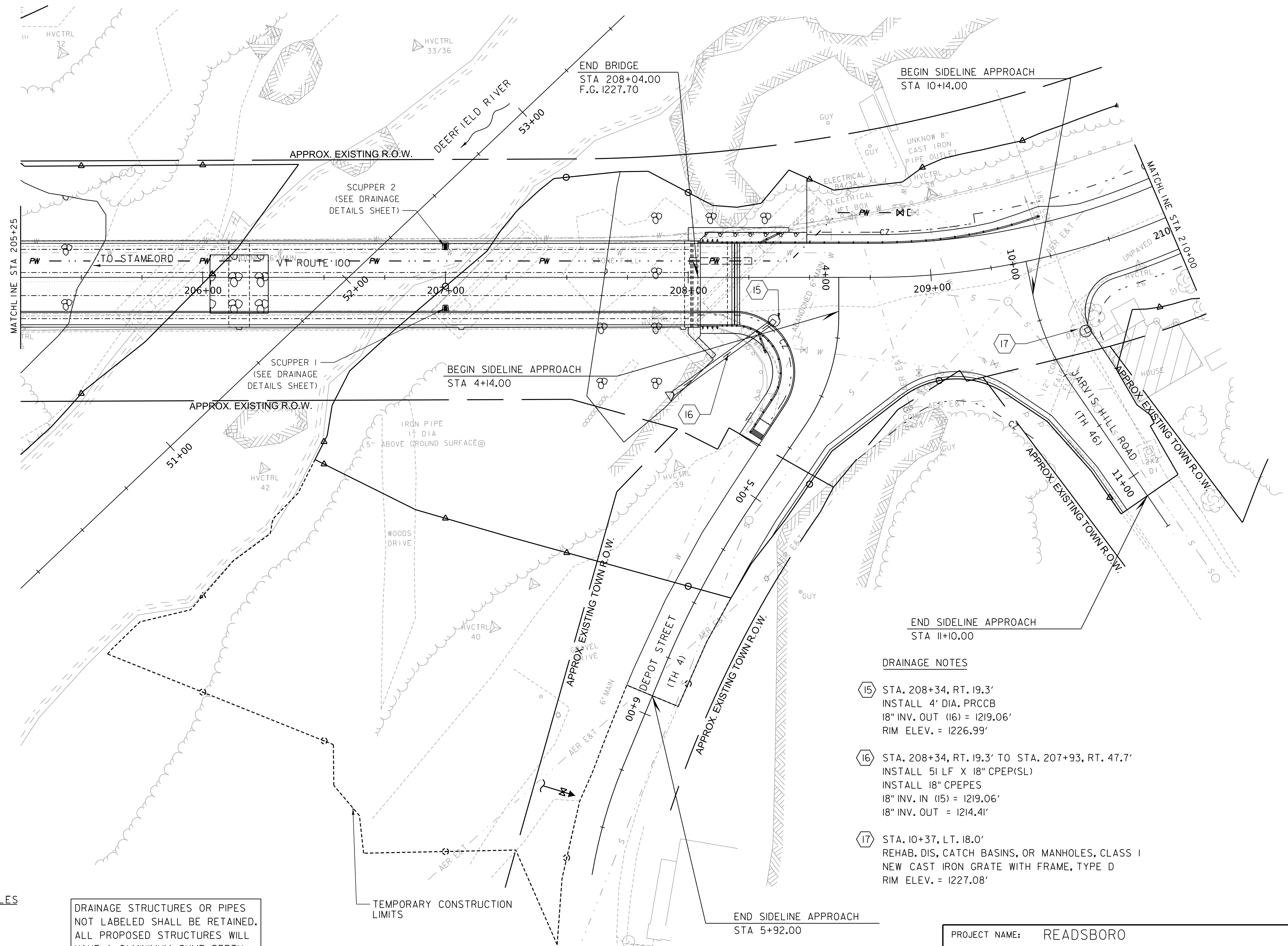
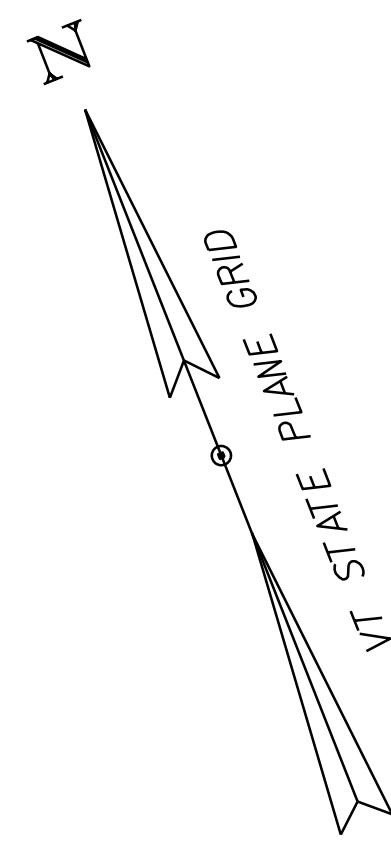
CHANGING ELEVATIONS OF DROP  
INLETS, CATCH BASINS OR MANHOLES  
STA 201+94, LT  
STA 203+37, LT  
STA 203+80, LT

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



PROJECT NAME:	READSBORO	FILE NAME:	z13c068bdr_drn.dgn	PLOT DATE:	14-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	R.M. O'BRIEN
		DESIGNED BY:	R.M. O'BRIEN	CHECKED BY:	D.M. PECK
		DRAINAGE LAYOUT SHEET (1 OF 3)		SHEET	43 OF 220

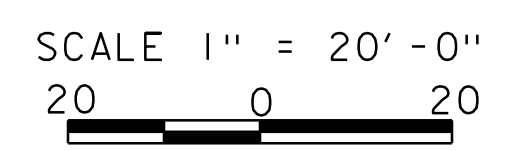




CHANGING ELEVATIONS OF DROP  
 INLETS, CATCH BASINS OR MANHOLES  
 STA 208+25, RT  
 STA 208+99, RT  
 STA 209+29, RT  
 STA 209+53, RT

DRAINAGE STRUCTURES OR PIPES  
 NOT LABELED SHALL BE RETAINED.  
 ALL PROPOSED STRUCTURES WILL  
 HAVE A 2' MINIMUM SUMP DEPTH.

TEMPORARY CONSTRUCTION  
 LIMITS

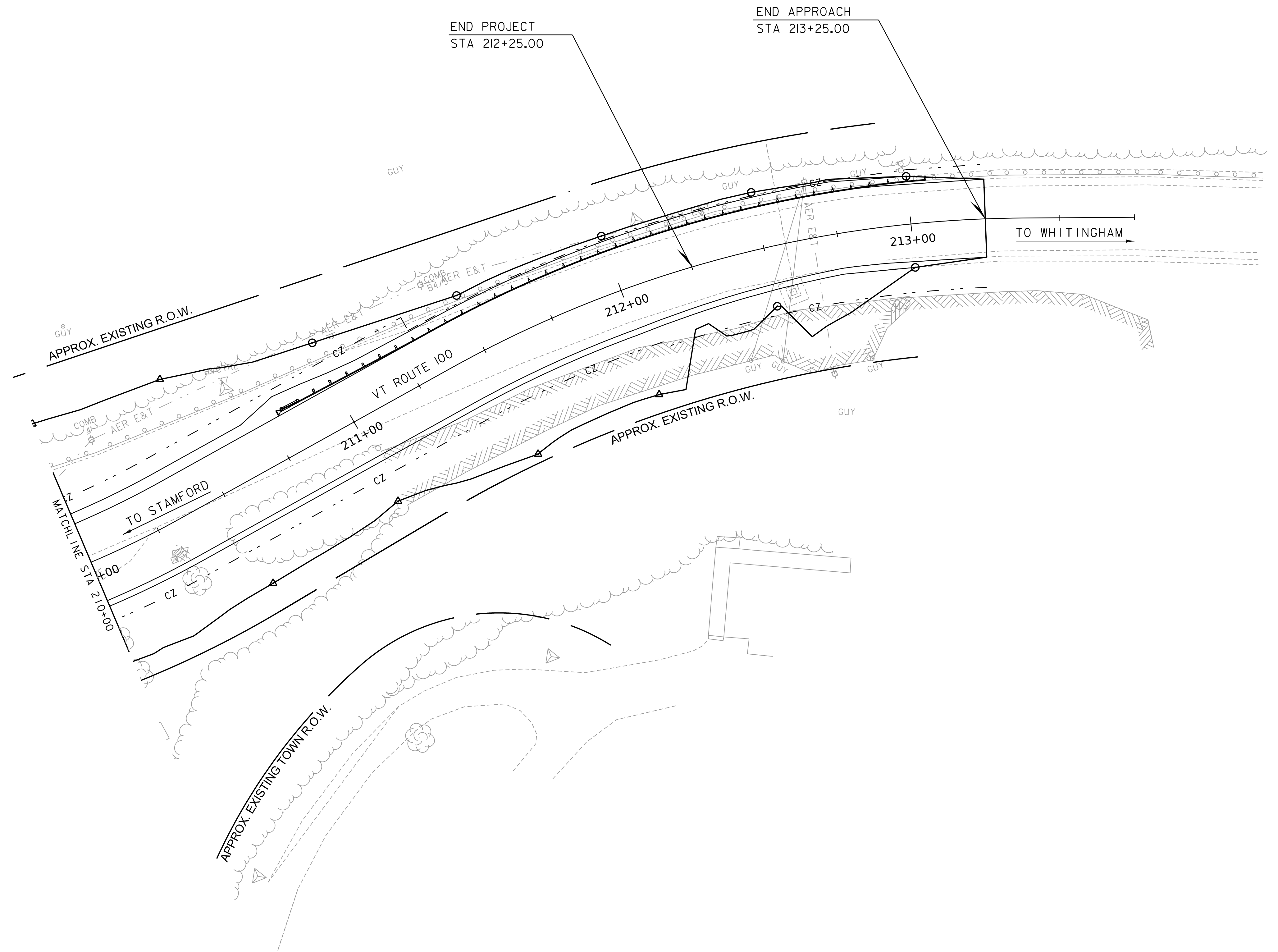
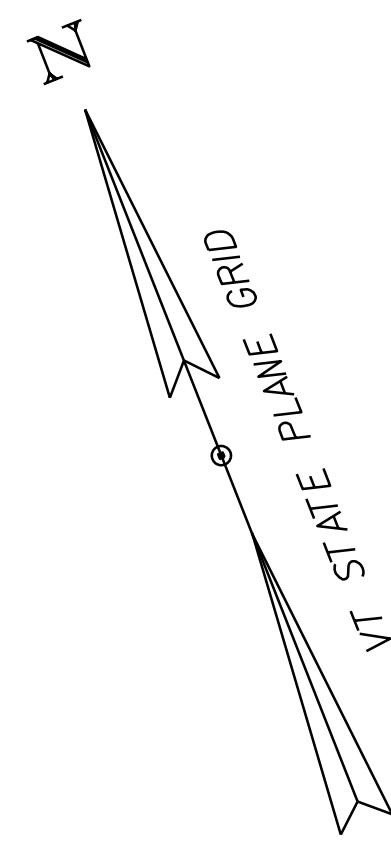


- DRAINAGE NOTES**
- (15) STA. 208+34, RT. 19.3'  
 INSTALL 4' DIA. PRCCB  
 18" INV. OUT (16) = 1219.06'  
 RIM ELEV. = 1226.99'
  - (16) STA. 208+34, RT. 19.3' TO STA. 207+93, RT. 47.7'  
 INSTALL 51 LF X 18" CPEP(SL)  
 INSTALL 18" CPEPES  
 18" INV. IN (15) = 1219.06'  
 18" INV. OUT = 1214.41'
  - (17) STA. 10+37, LT. 18.0'  
 REHAB. DIS, CATCH BASINS, OR MANHOLES, CLASS I  
 NEW CAST IRON GRATE WITH FRAME, TYPE D  
 RIM ELEV. = 1227.08'

PROJECT NAME:	READSBORO	FILE NAME:	z13c068bdr_drn.dgn	PLOT DATE:	14-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	R.M. O'BRIEN
		DESIGNED BY:	R.M. O'BRIEN	CHECKED BY:	D.M. PECK
		DRAINAGE LAYOUT SHEET (2 OF 3)		SHEET	44 OF 220







END PROJECT  
STA 212+25.00

END APPROACH  
STA 213+25.00

APPROX. EXISTING R.O.W.

VT ROUTE 100

APPROX. EXISTING R.O.W.

TO STAMFORD

TO WHITINGHAM

MATCHLINE STA 210+00

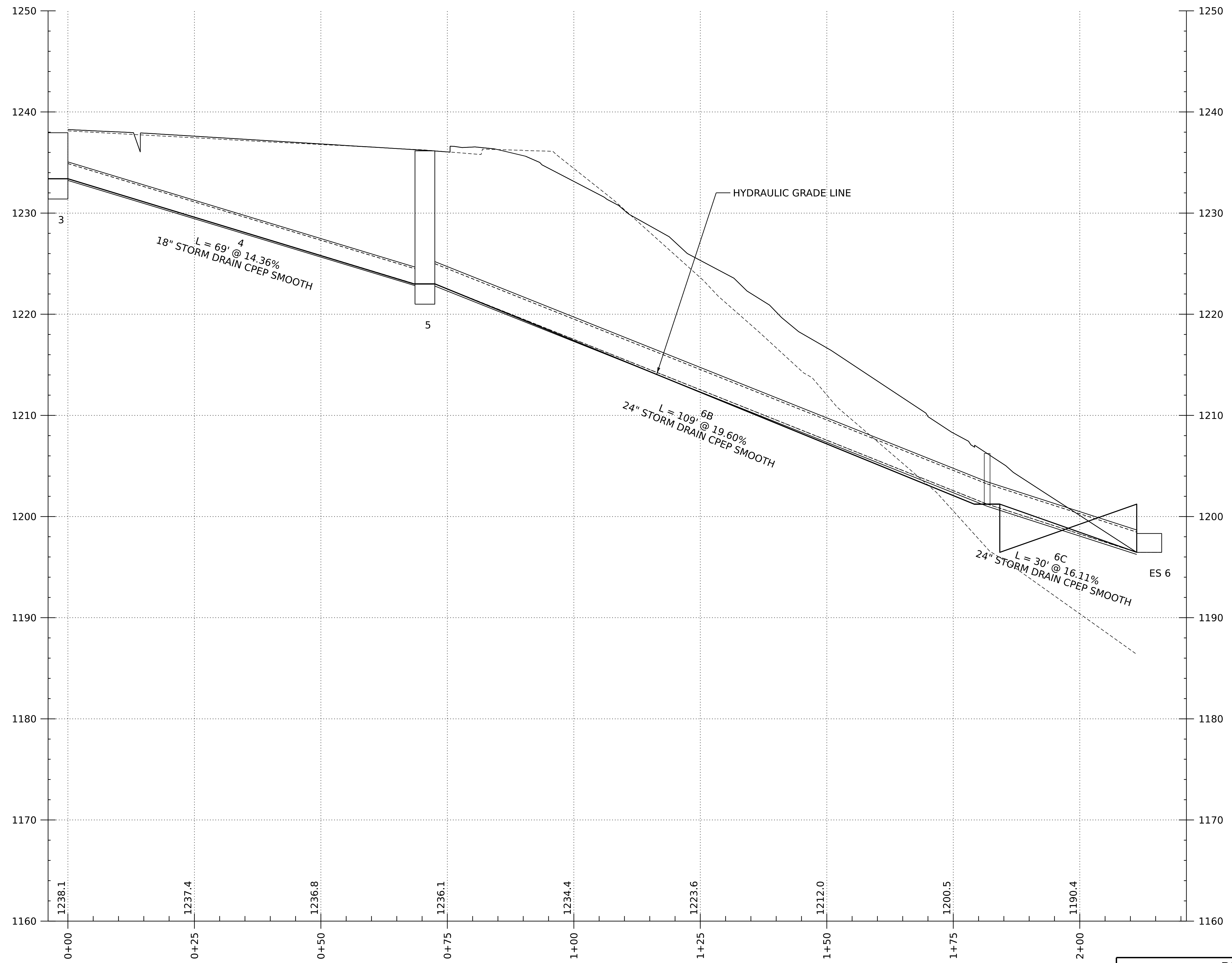
APPROX. EXISTING TOWN R.O.W.

DRAINAGE STRUCTURES OR PIPES  
NOT LABELED SHALL BE RETAINED.  
ALL PROPOSED STRUCTURES WILL  
HAVE A 2' MINIMUM SUMP DEPTH.

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



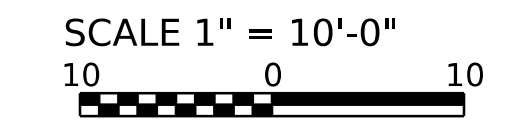
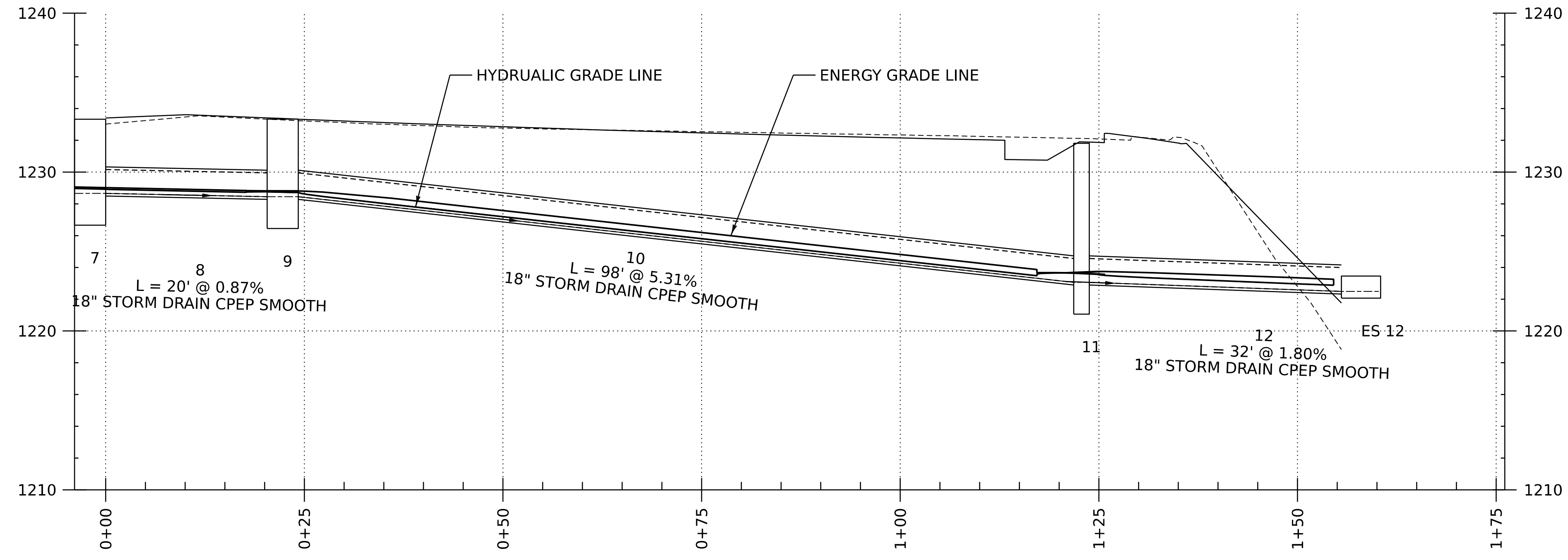
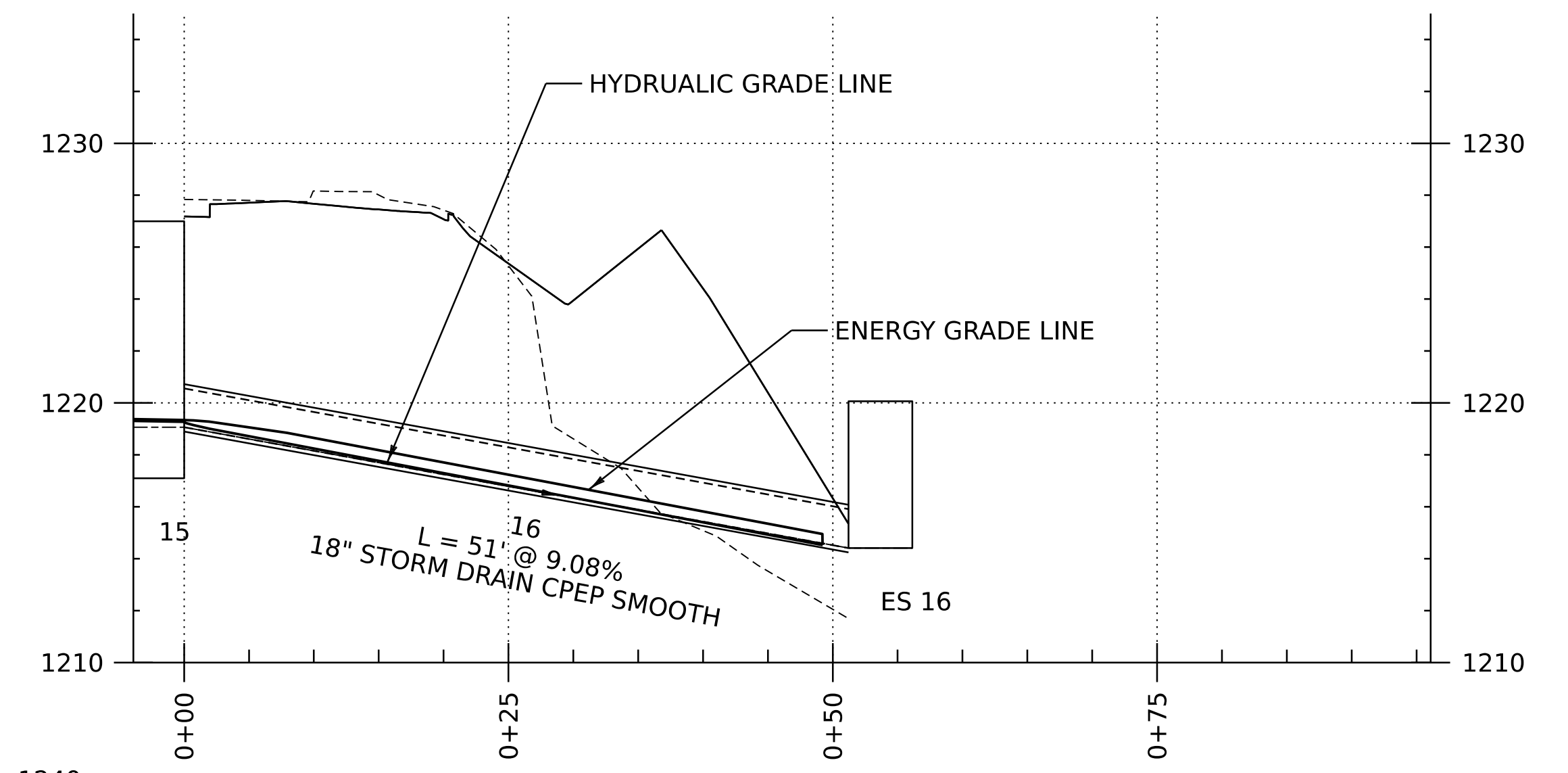
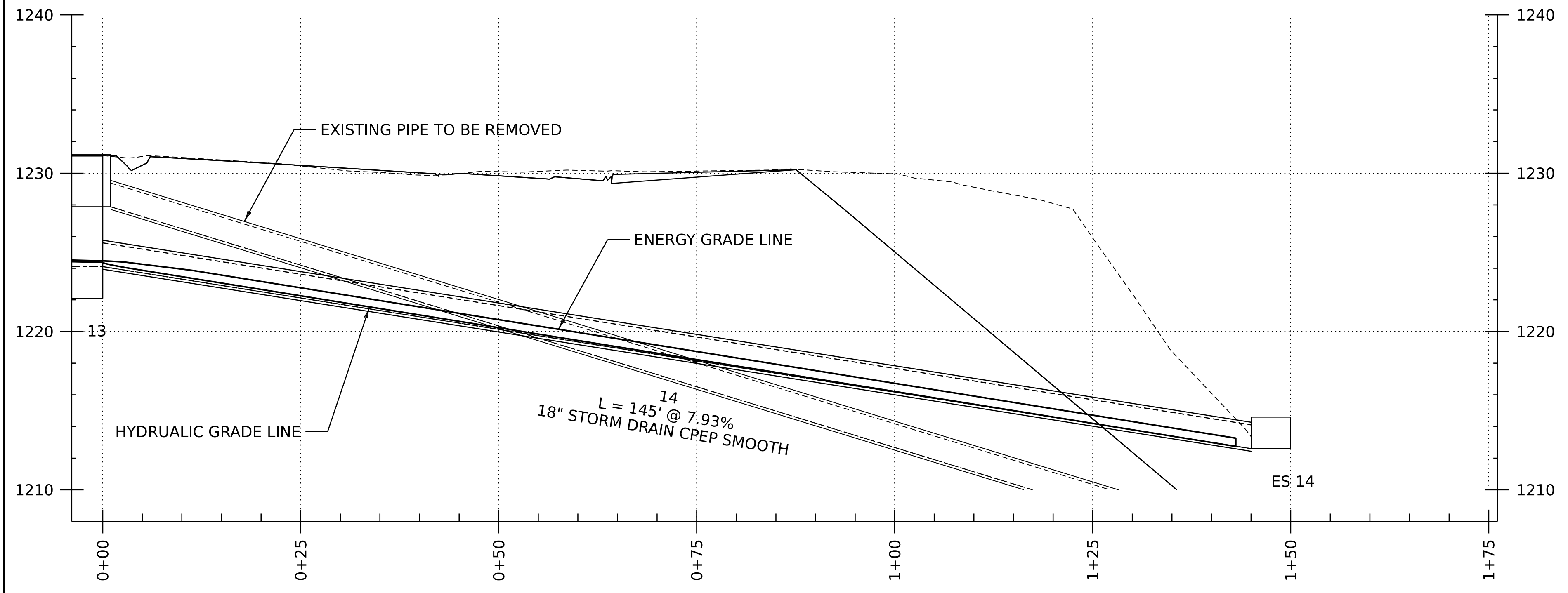
PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: R.M. O'BRIEN
FILE NAME: z13c068bdr_drn.dgn	CHECKED BY: D.M. PECK
PROJECT LEADER: S.E. BURBANK	SHEET 45 OF 220
DESIGNED BY: R.M. O'BRIEN	
DRAINAGE LAYOUT SHEET (3 OF 3)	



SCALE 1" = 10'-0"

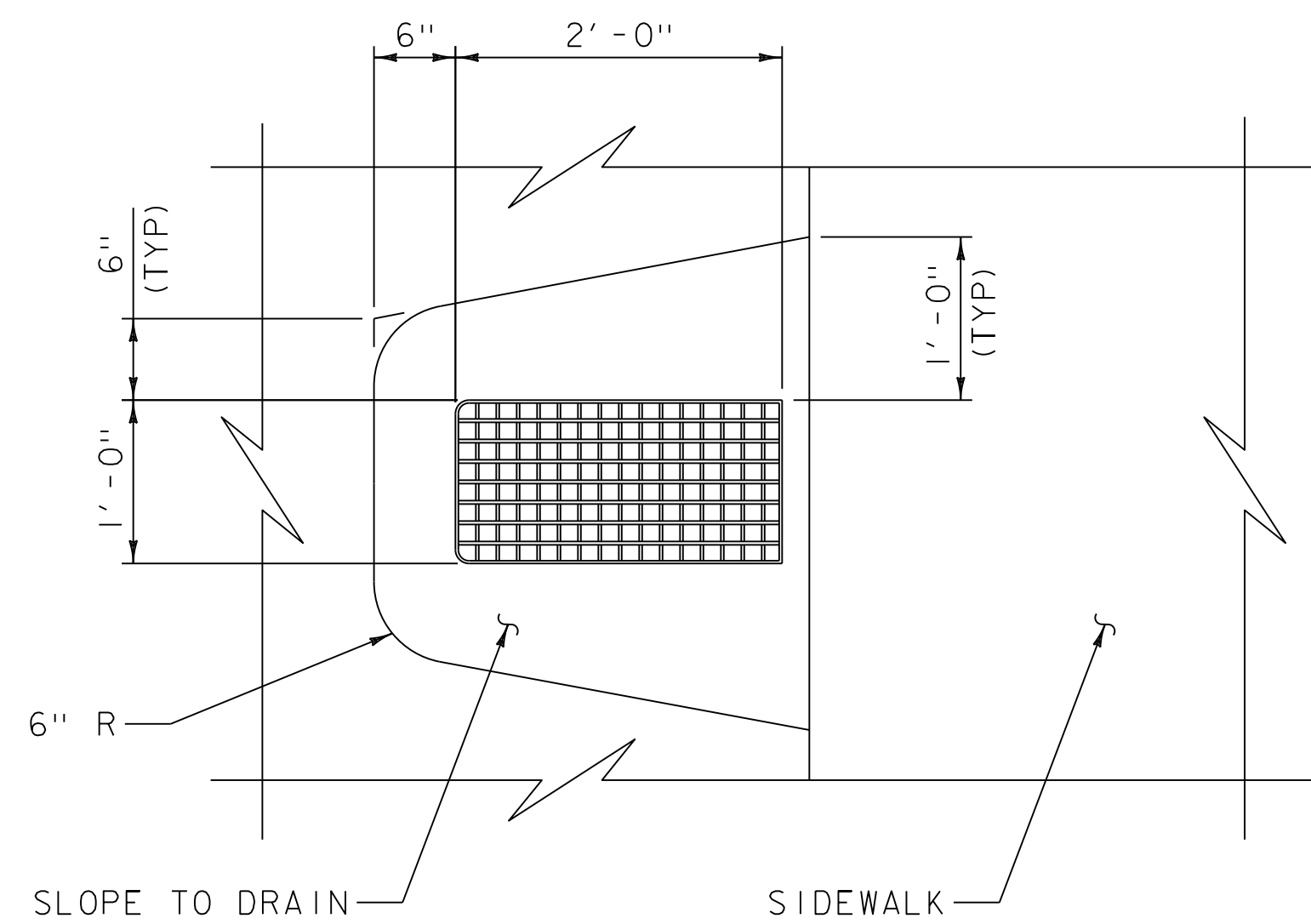


PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068pro_drn.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.M. O'BRIEN
DESIGNED BY: R.M. O'BRIEN	CHECKED BY: D.M. PECK
DRAINAGE PROFILE SHEET (1 OF 2)	SHEET 46 OF 220



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068pro_drn.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: R.M. O'BRIEN
DESIGNED BY: R.M. O'BRIEN	CHECKED BY: D.M. PECK
DRAINAGE PROFILE SHEET (2 OF 2)	SHEET 47 OF 220

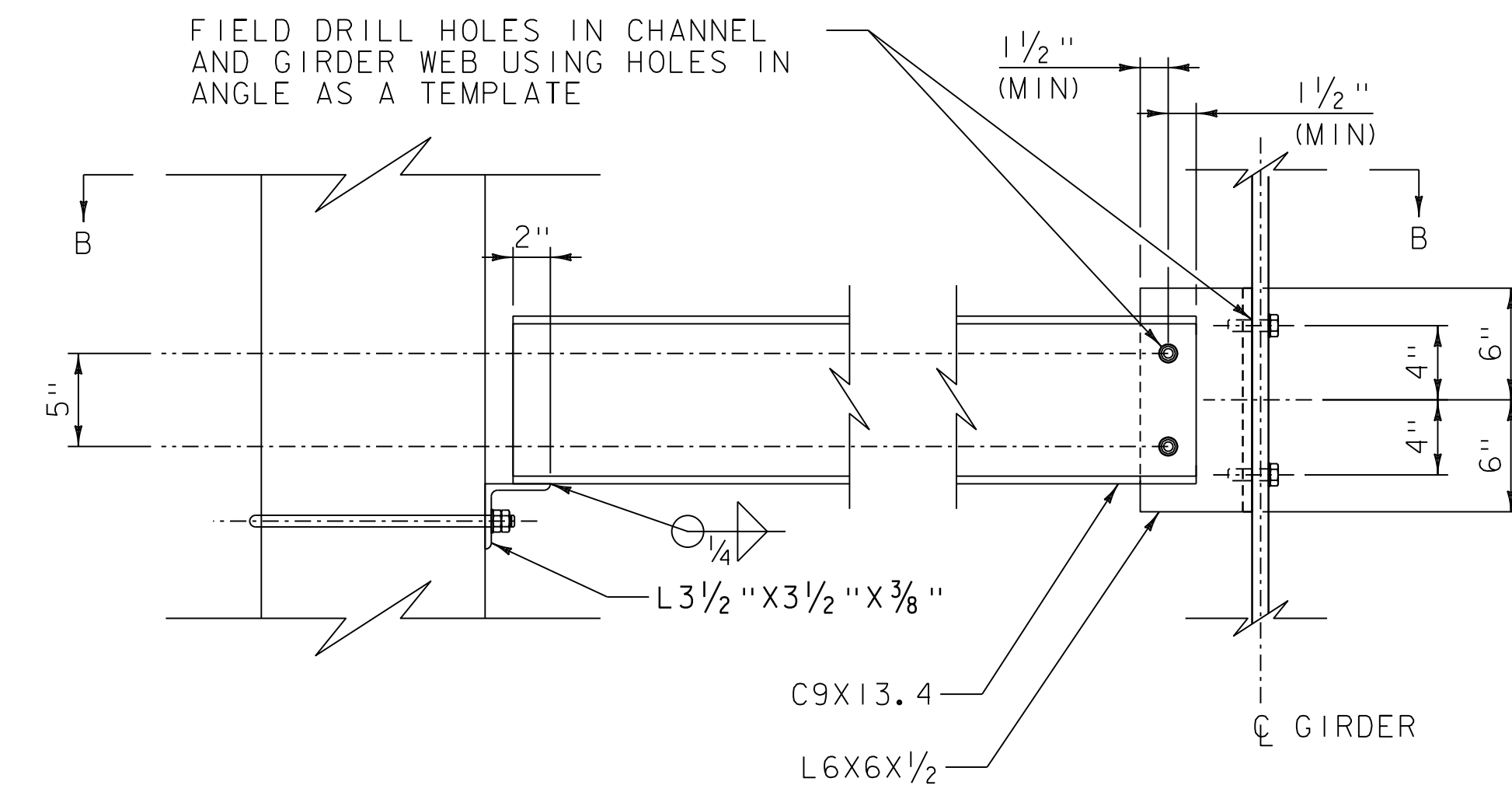




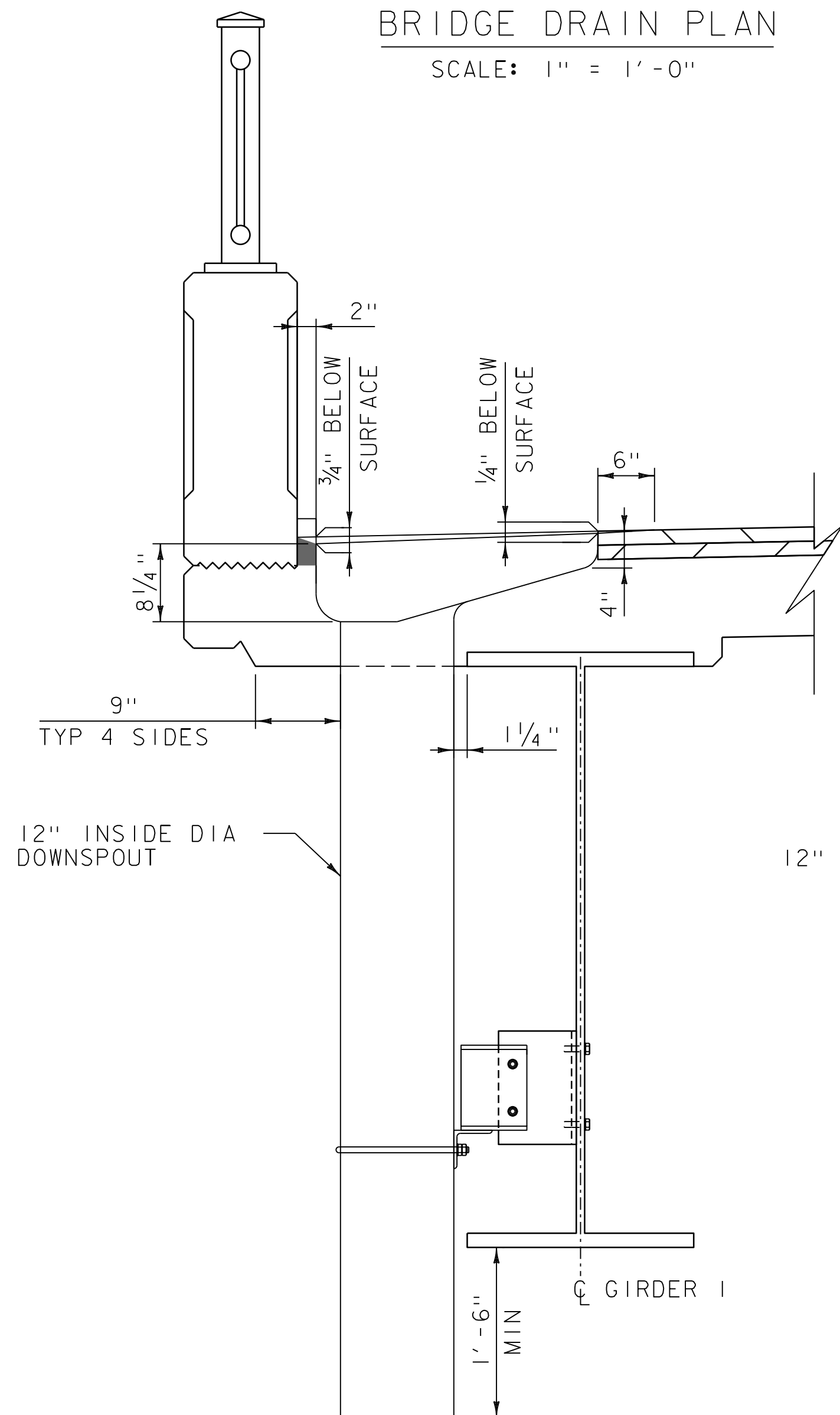
BRIDGE DRAIN PLAN  
SCALE: 1" = 1'-0"

BRIDGE DRAIN NOTES:

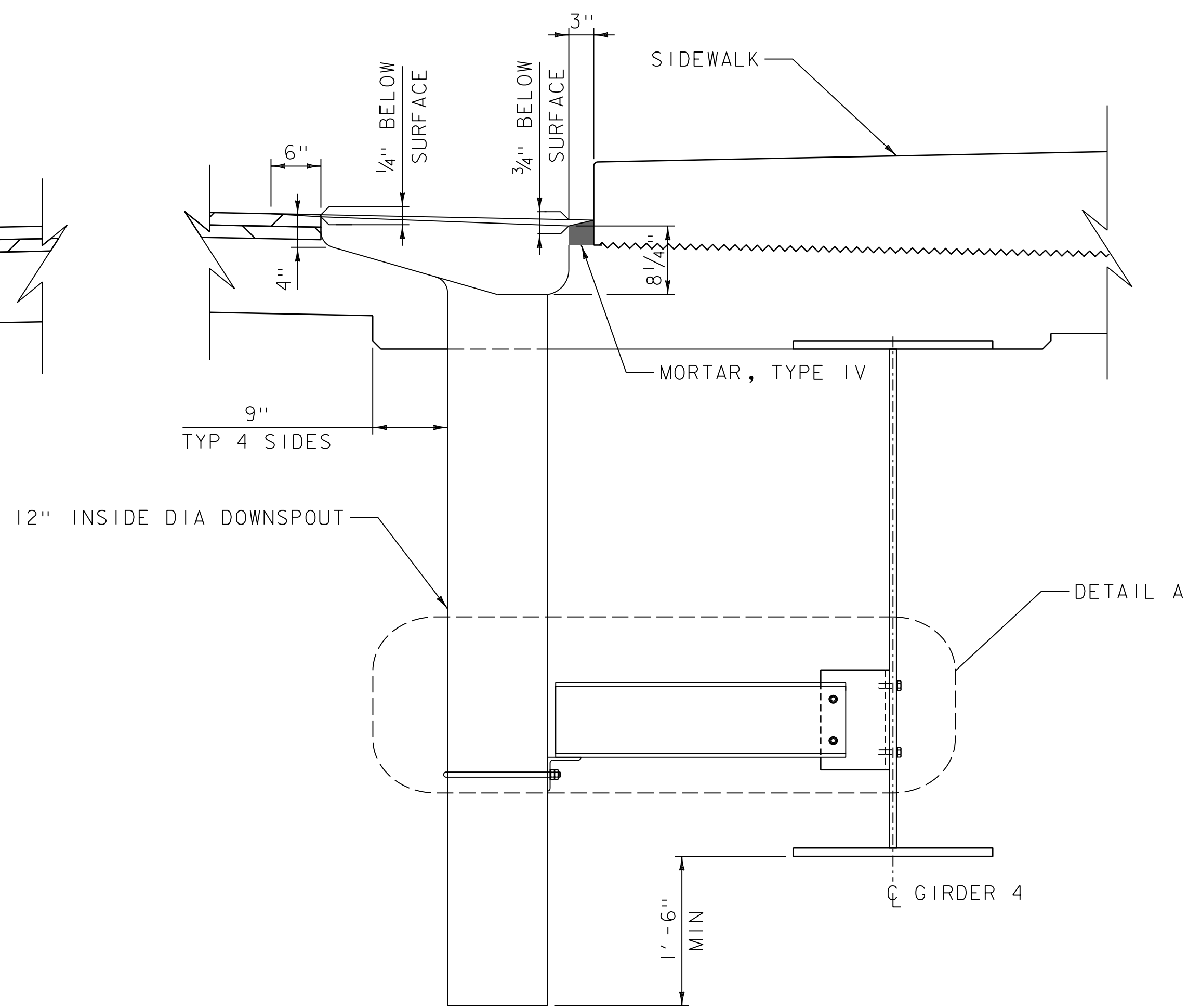
1. SHEAR CONNECTORS WELDED TO THE TOP FLANGE OF GIRDER G1 MAY REQUIRE ADJUSTMENT TO CLEAR THE BRIDGE DRAINS; SHEAR CONNECTORS SHALL NOT BE CUT TO ACCOMMODATE CLEARANCE. NO EXTRA PAYMENT WILL BE MADE FOR NEEDED ADJUSTMENT TO THE SHEAR CONNECTORS.
2. EXCEPT AS NOTED, THE DRAIN SUPPORT ASSEMBLY AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 506.22.
3. THE FIELD DRILLED HOLES IN THE C9X13.4 SHALL BE COATED WITH A ZINC RICH COATING SYSTEM IN ACCORDANCE WITH SUBSECTION 726.06.
4. ALL BOLTS AND U-BOLTS SHALL BE TYPE 1. NUTS AND WASHERS SHALL BE TREATED IN THE SAME MANNER AS THEIR ASSOCIATED BOLT OR U-BOLT.
5. ALL COSTS ASSOCIATED WITH THE FIBER REINFORCED POLYMER (FRP) SCUPPER INCLUDING MORTAR TYPE IV AND ALL CONNECTION HARDWARE (U-BOLTS, BOLTS, NUTS, WASHERS, CHANNEL ANGLES, WELDS, ETC.) WILL BE PAID FOR UNDER SPECIAL SPECIFICATION 604.XXXX.



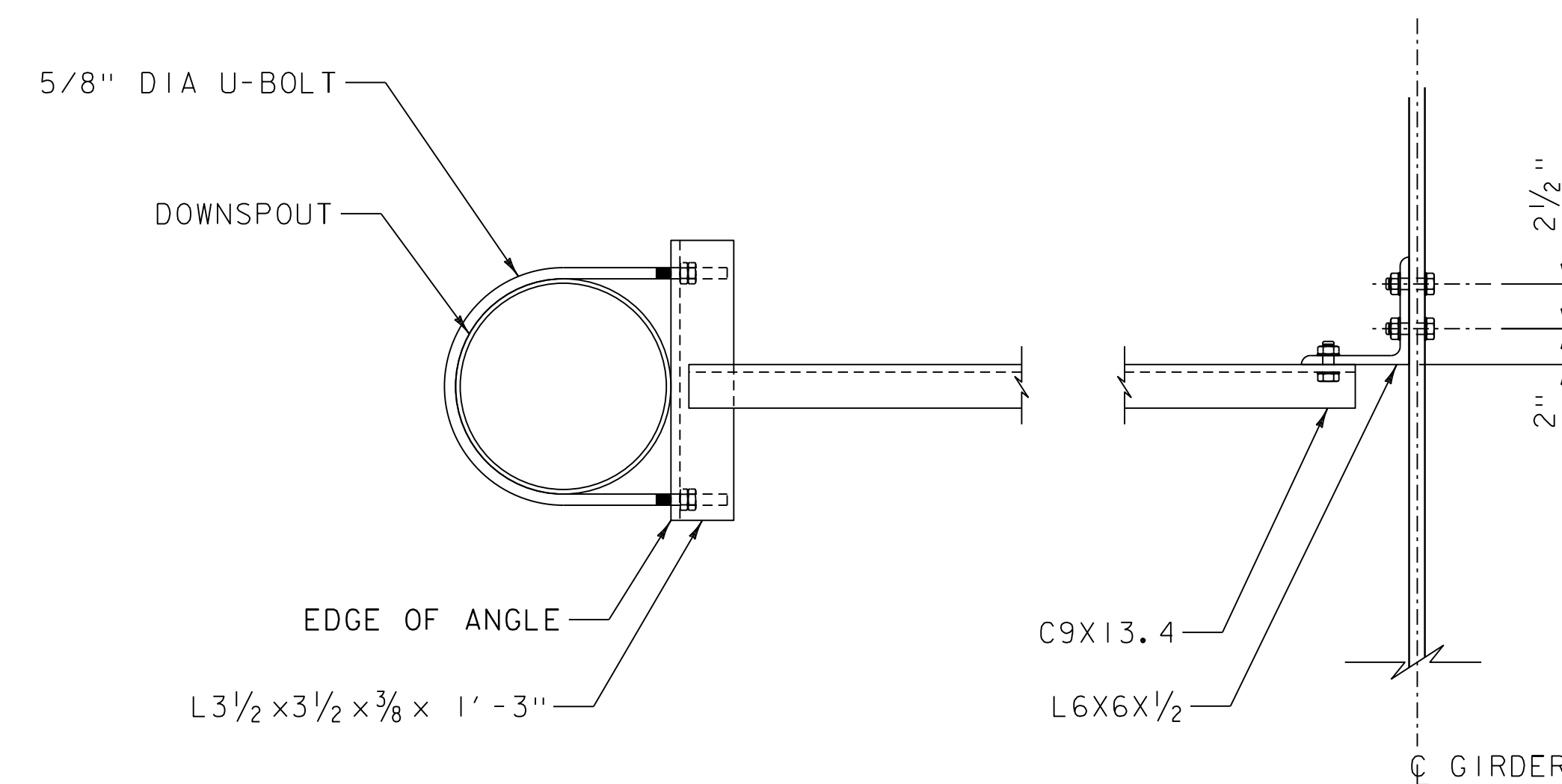
DETAIL A  
SCALE: 1 1/2" = 1'-0"



BRIDGE DRAIN ELEVATION BRIDGE RAIL SIDE  
SCALE: 1" = 1'-0"



BRIDGE DRAIN ELEVATION SIDEWALK SIDE  
SCALE: 1" = 1'-0"



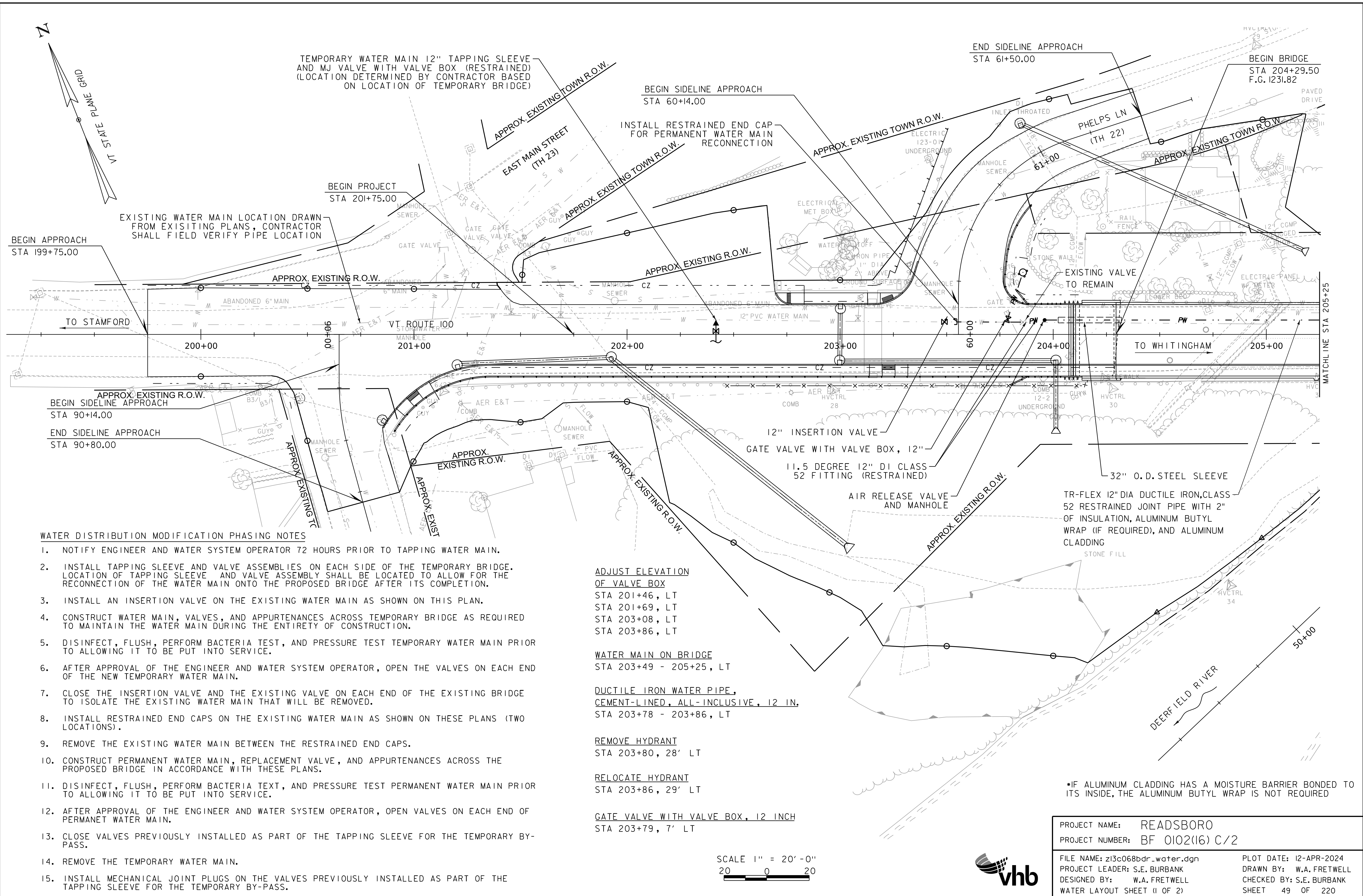
SECTION B-B  
SCALE: 1 1/2" = 1'-0"

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068drainage.dtl.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: M.F. NEMETH  
DRAINAGE DETAILS

PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: J.D. KEENER  
SHEET 48 OF 220





TEMPORARY WATER MAIN 12" TAPPING SLEEVE AND MJ VALVE WITH VALVE BOX (RESTRAINED) (LOCATION DETERMINED BY CONTRACTOR BASED ON LOCATION OF TEMPORARY BRIDGE)

BEGIN SIDELINE APPROACH  
STA 60+14.00

END SIDELINE APPROACH  
STA 61+50.00

BEGIN BRIDGE  
STA 204+29.50  
F.G. 1231.82

BEGIN PROJECT  
STA 201+75.00

BEGIN APPROACH  
STA 199+75.00

EXISTING WATER MAIN LOCATION DRAWN FROM EXISTING PLANS, CONTRACTOR SHALL FIELD VERIFY PIPE LOCATION

INSTALL RESTRAINED END CAP FOR PERMANENT WATER MAIN RECONNECTION

EXISTING VALVE TO REMAIN

**WATER DISTRIBUTION MODIFICATION PHASING NOTES**

1. NOTIFY ENGINEER AND WATER SYSTEM OPERATOR 72 HOURS PRIOR TO TAPPING WATER MAIN.
2. INSTALL TAPPING SLEEVE AND VALVE ASSEMBLIES ON EACH SIDE OF THE TEMPORARY BRIDGE. LOCATION OF TAPPING SLEEVE AND VALVE ASSEMBLY SHALL BE LOCATED TO ALLOW FOR THE RECONNECTION OF THE WATER MAIN ONTO THE PROPOSED BRIDGE AFTER ITS COMPLETION.
3. INSTALL AN INSERTION VALVE ON THE EXISTING WATER MAIN AS SHOWN ON THIS PLAN.
4. CONSTRUCT WATER MAIN, VALVES, AND APPURTENANCES ACROSS TEMPORARY BRIDGE AS REQUIRED TO MAINTAIN THE WATER MAIN DURING THE ENTIRETY OF CONSTRUCTION.
5. DISINFECT, FLUSH, PERFORM BACTERIA TEST, AND PRESSURE TEST TEMPORARY WATER MAIN PRIOR TO ALLOWING IT TO BE PUT INTO SERVICE.
6. AFTER APPROVAL OF THE ENGINEER AND WATER SYSTEM OPERATOR, OPEN THE VALVES ON EACH END OF THE NEW TEMPORARY WATER MAIN.
7. CLOSE THE INSERTION VALVE AND THE EXISTING VALVE ON EACH END OF THE EXISTING BRIDGE TO ISOLATE THE EXISTING WATER MAIN THAT WILL BE REMOVED.
8. INSTALL RESTRAINED END CAPS ON THE EXISTING WATER MAIN AS SHOWN ON THESE PLANS (TWO LOCATIONS).
9. REMOVE THE EXISTING WATER MAIN BETWEEN THE RESTRAINED END CAPS.
10. CONSTRUCT PERMANENT WATER MAIN, REPLACEMENT VALVE, AND APPURTENANCES ACROSS THE PROPOSED BRIDGE IN ACCORDANCE WITH THESE PLANS.
11. DISINFECT, FLUSH, PERFORM BACTERIA TEST, AND PRESSURE TEST PERMANENT WATER MAIN PRIOR TO ALLOWING IT TO BE PUT INTO SERVICE.
12. AFTER APPROVAL OF THE ENGINEER AND WATER SYSTEM OPERATOR, OPEN VALVES ON EACH END OF PERMANET WATER MAIN.
13. CLOSE VALVES PREVIOUSLY INSTALLED AS PART OF THE TAPPING SLEEVE FOR THE TEMPORARY BY-PASS.
14. REMOVE THE TEMPORARY WATER MAIN.
15. INSTALL MECHANICAL JOINT PLUGS ON THE VALVES PREVIOUSLY INSTALLED AS PART OF THE TAPPING SLEEVE FOR THE TEMPORARY BY-PASS.

**ADJUST ELEVATION OF VALVE BOX**

- STA 201+46, LT
- STA 201+69, LT
- STA 203+08, LT
- STA 203+86, LT

**WATER MAIN ON BRIDGE**

STA 203+49 - 205+25, LT

**DUCTILE IRON WATER PIPE, CEMENT-LINED, ALL-INCLUSIVE, 12 IN.**

STA 203+78 - 203+86, LT

**REMOVE HYDRANT**

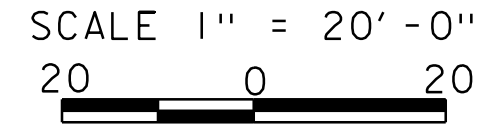
STA 203+80, 28' LT

**RELOCATE HYDRANT**

STA 203+86, 29' LT

**GATE VALVE WITH VALVE BOX, 12 INCH**

STA 203+79, 7' LT

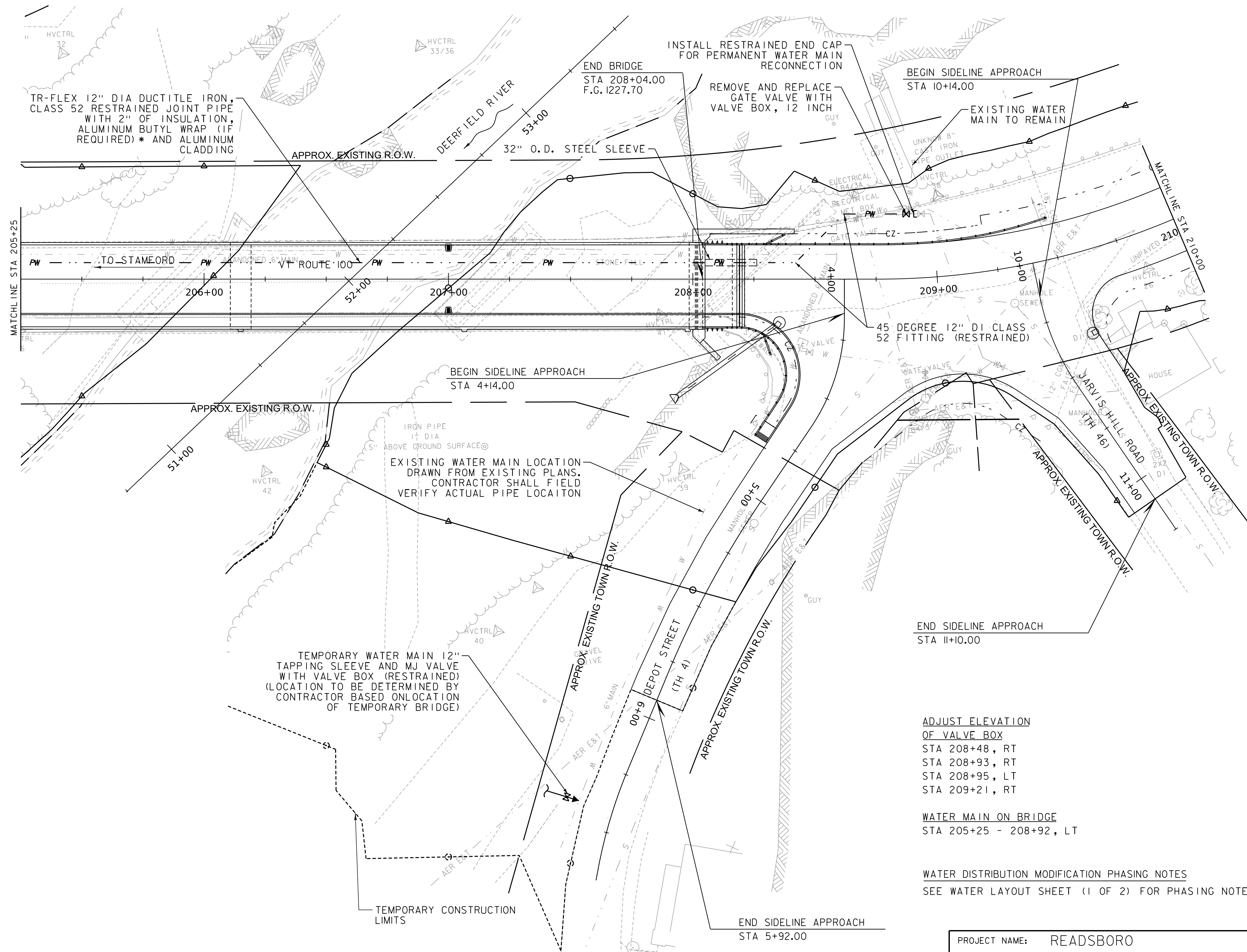
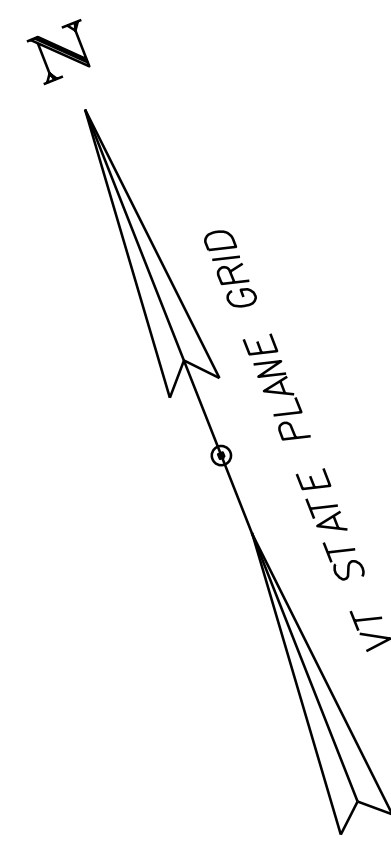


*IF ALUMINUM CLADDING HAS A MOISTURE BARRIER BONDED TO ITS INSIDE, THE ALUMINUM BUTYL WRAP IS NOT REQUIRED

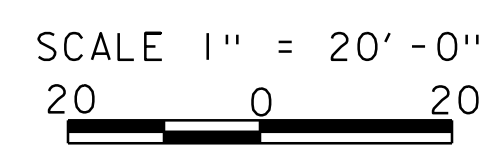
PROJECT NAME:	READSBORO	FILE NAME:	z13c068bdr_water.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	W.A. FRETWELL	CHECKED BY:	S.E. BURBANK
		WATER LAYOUT SHEET (1 OF 2)		SHEET	49 OF 220



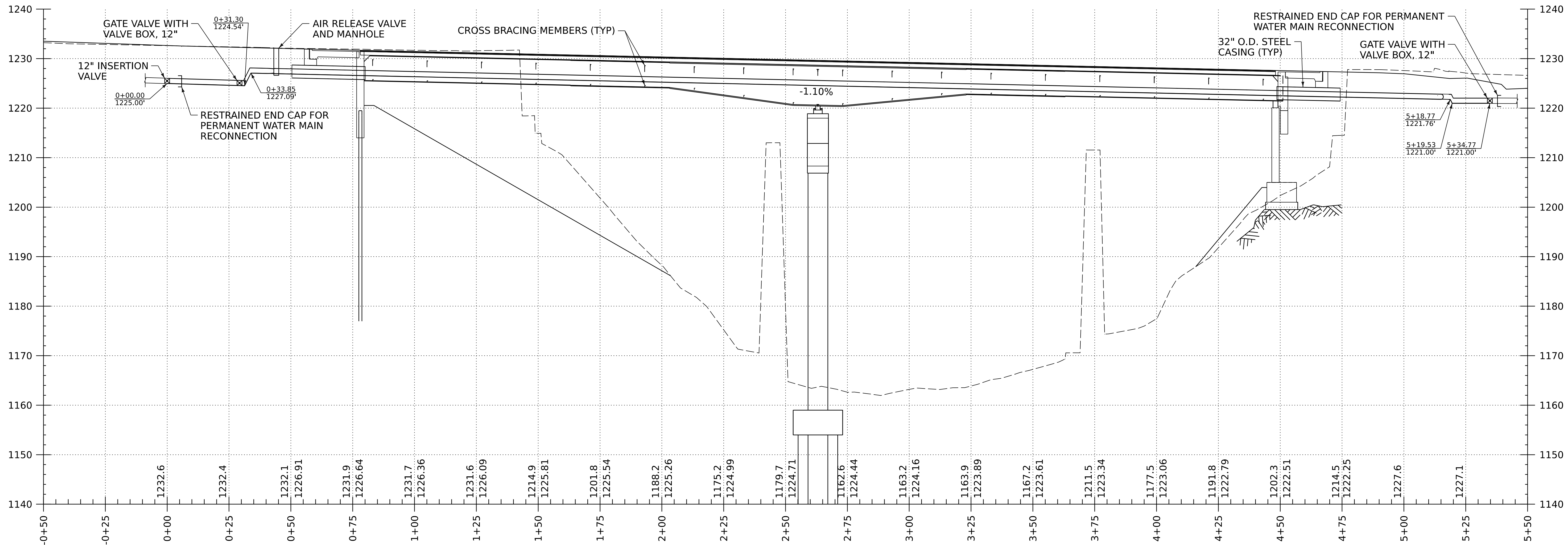




*IF ALUMINUM CLADDING HAS A MOISTURE BARRIER BONDED TO ITS INSIDE, THE ALUMINUM BUTYL WRAP IS NOT REQUIRED



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068bdr_water.dgn	DESIGNED BY:	W.A. FRETWELL
PROJECT LEADER:	S.E. BURBANK	WATER LAYOUT SHEET (2 OF 2)	CHECKED BY: S.E. BURBANK
			SHEET 50 OF 220



**WATER MAIN PROFILE**

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

PROPOSED WATERLINE SUPPORTS NOT SHOWN FOR CLARITY. SEE WATERLINE DETAIL SHEETS AND FRAMING PLAN FOR MORE INFORMATION.

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.  
 THE GRADES SHOWN TO THE NEAREST HUNDRETH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

PROJECT NAME:	READSBORO	FILE NAME:	z13c068pro_waterline.dgn	PLOT DATE:	4/12/2024
PROJECT NUMBER:	BF 0102(I6) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	N.A. TRUSLOW
		DESIGNED BY:	N.A. TRUSLOW	CHECKED BY:	S.E. BURBANK
		WATERLINE PROFILE SHEET		SHEET	51 OF 220



ROLLER SUPPORT, TYP OF 2 PIER HANGER, COPPER B-LINE 3114 OR APPROVED EQUAL, SECURE WITH HEX NUTS AS PER MANUFACTURER'S RECOMMENDATION (MINIMUM OF 4 PER TOP ROLLER AND 6 PER BOTTOM ROLLER)

REFER TO CROSS FRAME DETAIL SHEETS FOR CONNECTION TO STEEL GIRDERS

7/8" GALVANIZED STEEL THREADED ROD, APPROXIMATELY 7'-10" LONG, ACTUAL LENGTH TO BE FIELD VERIFIED

LATERAL RESTRAINT (GALV) (SEE CROSS FRAME DETAILS FOR ADDITIONAL INFORMATION)

TR-FLEX 12" DIA DUCTILE IRON, CLASS 52 RESTRAINED JOINT PIPE

ALUMINUM BUTYL MASTIC JACKET WITH ALUMINUM CLADDING OVER THE ENTIRETY OF THE JACKET

GALVANIZED STEEL WEAR PROTECTION SHIELD (BOTTOM THIRD OF PIPE)

2" THICK POLYISOCYANURATE INSULATION

**PIPE SUPPORT DETAIL - SECTION VIEW**

NOT TO SCALE

**NOTES:**

1. NUTS AND SCREWS SHALL BE ZINC PLATED STEEL.
2. ALL PIPE SUPPORT PARTS WITH PART NUMBERS LISTED SHALL BE AS MANUFACTURED BY COPPER B-LINE OR APPROVED EQUAL.
3. PIPE SUPPORTS SHALL BE INSTALLED EVERY 9'-9" +/-, SEE FRAMING PLAN AND GIRDER ELEVATION SHEETS FOR SPACING.

CENTER A FULL LENGTH/STICK OF SEWER PIPE WHERE WATER MAIN CROSSING OCCURS

WATER MAIN OR SERVICE

SEWER MAIN OR LATERAL

WATER MAIN OR SERVICE

18" (MIN)

WHERE SEWER CROSSES OVER WATER, PLACE THE CENTER OF BOTH PIPES AT CROSSING PIPE AND ENCASE THE TWO SEWER PIPE JOINTS NEAREST THE CROSSING IN CONCRETE OR THE SEWER PIPE SHALL BE WATER PRESSURE PIPE MATERIAL, OR EQUAL AND SHALL BE PRESSURE TESTED TO ENSURE WATER TIGHTNESS

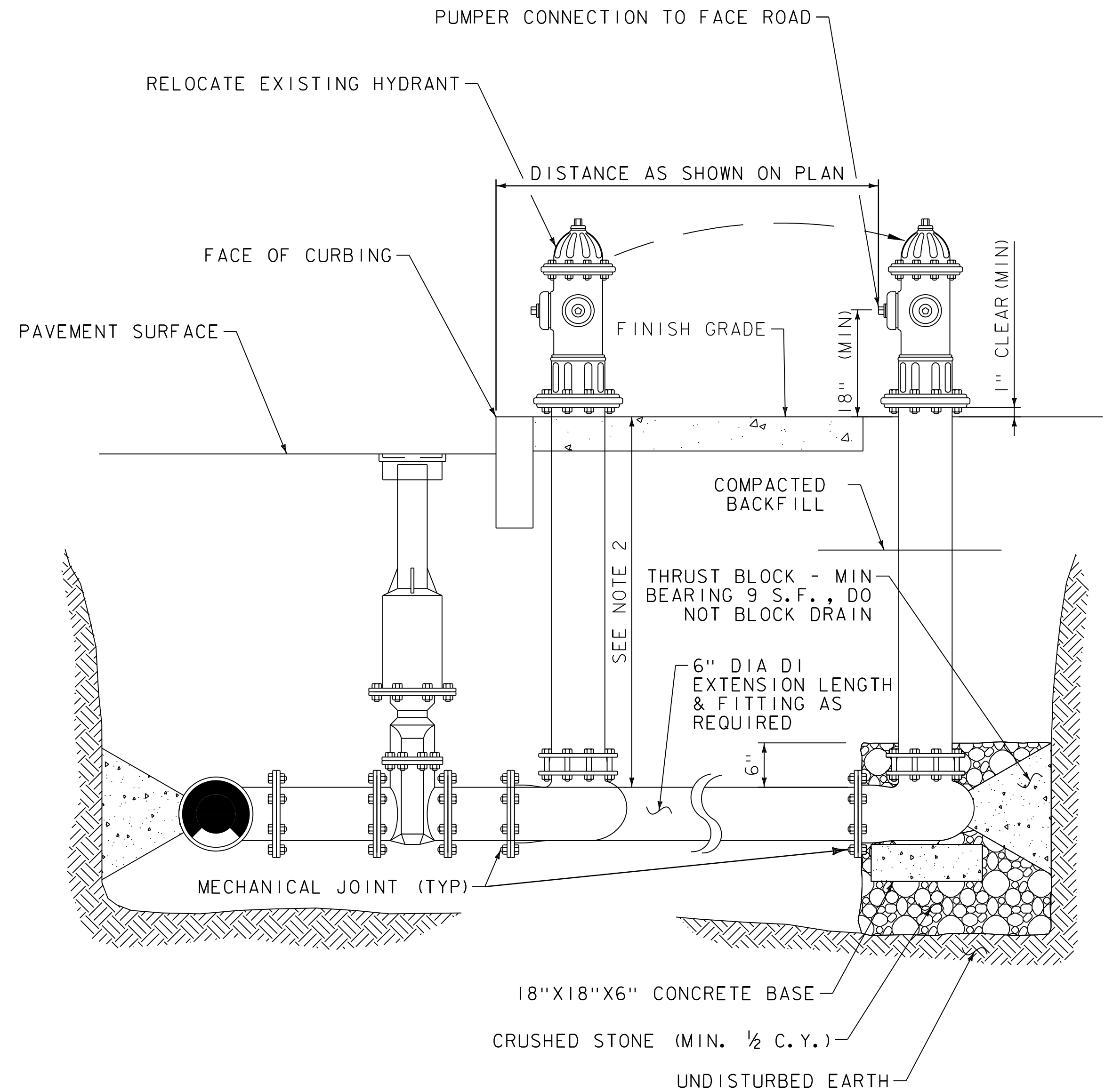
WATER MAIN OR SERVICE

10'-0" (MIN.)

**WATER & SANITARY UTILITY CROSSINGS**

NOT TO SCALE

**PARALLEL INSTALLATION**



**HYDRANT RELOCATION DETAIL**

NOT TO SCALE

**NOTES:**

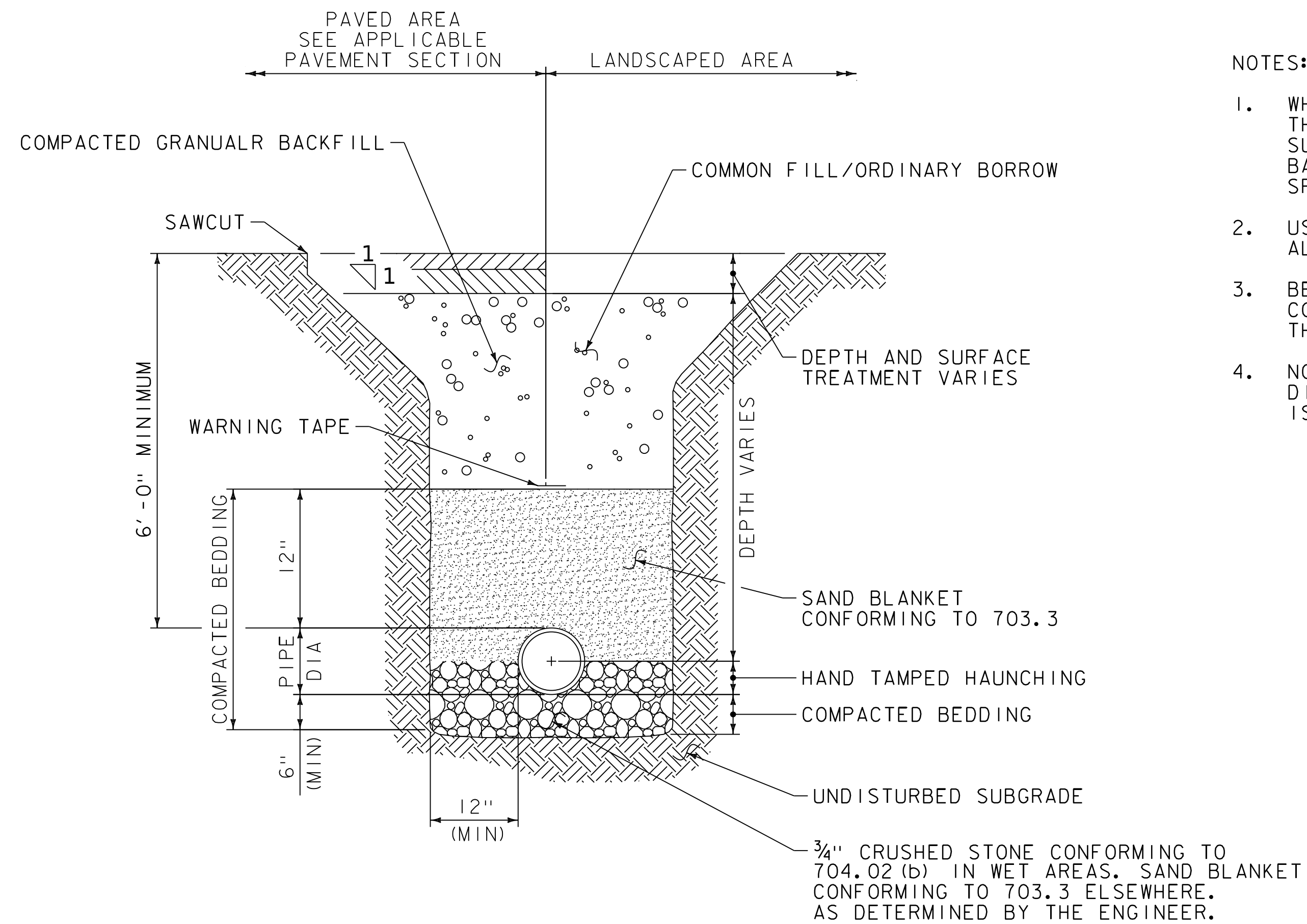
1. CONCRETE THRUST BLOCKS TO BE USED ONLY WHERE THEY CAN BEAR ON UNDISTURBED EARTH. USE CLAMPS AND TIE RODS OR OTHER ACCEPTABLE METHOD OF JOINT RESTRAINT WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
2. DIMENSIONS SHALL MEET MUNICIPAL REQUIREMENTS.
3. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK PASSAGE WIDTH OF 2 FEET AT HYDRANT.
4. A 36-INCH CLEAR SPACE SHALL BE MAINTAINED AROUND THE CIRCUMFERENCE OF THE HYDRANT UNLESS OTHERWISE APPROVED BY AUTHORITY HAVING JURISDICTION.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

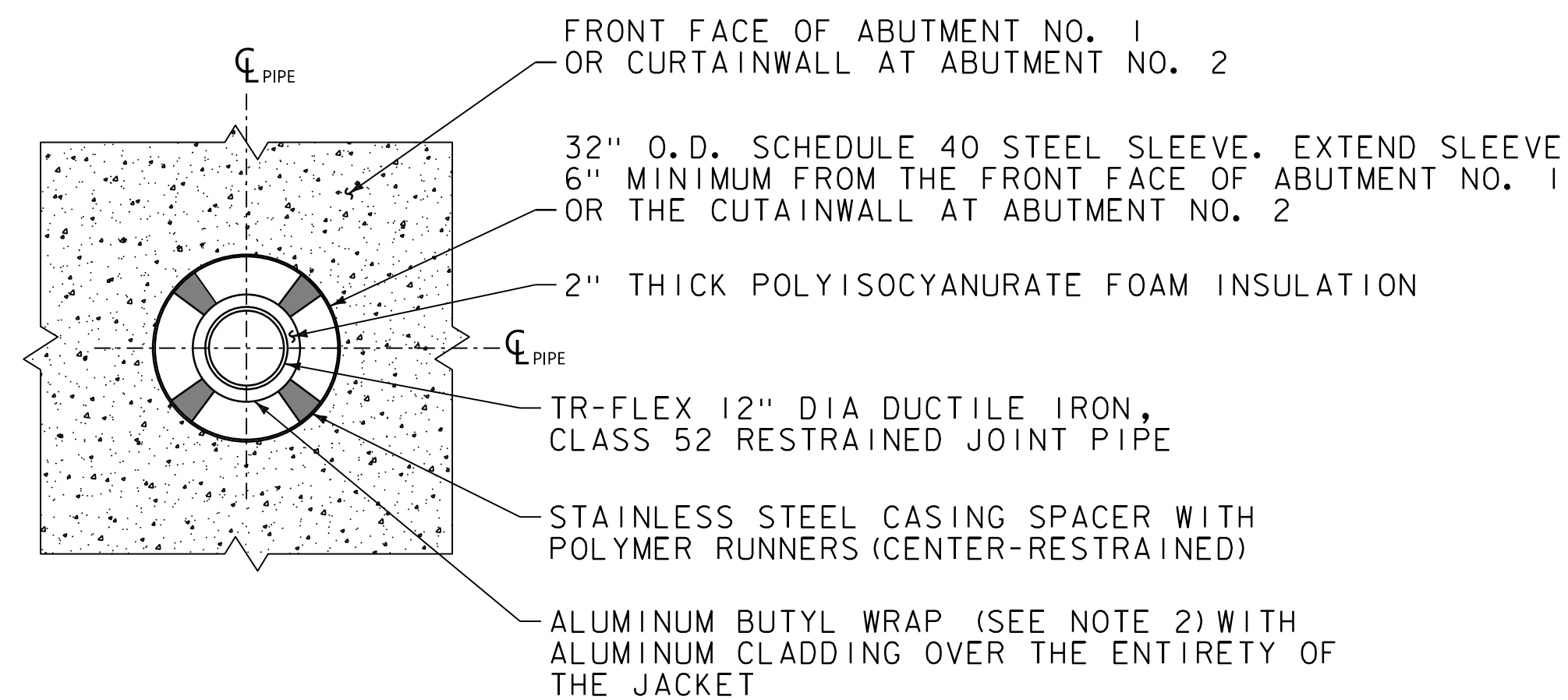
FILE NAME: z13c068details_water.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. MANN  
WATER DETAIL SHEET (1 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. MANN  
CHECKED BY: S.E. BURBANK  
SHEET 52 OF 220





**WATER MAIN TRENCH DETAIL**  
NOT TO SCALE



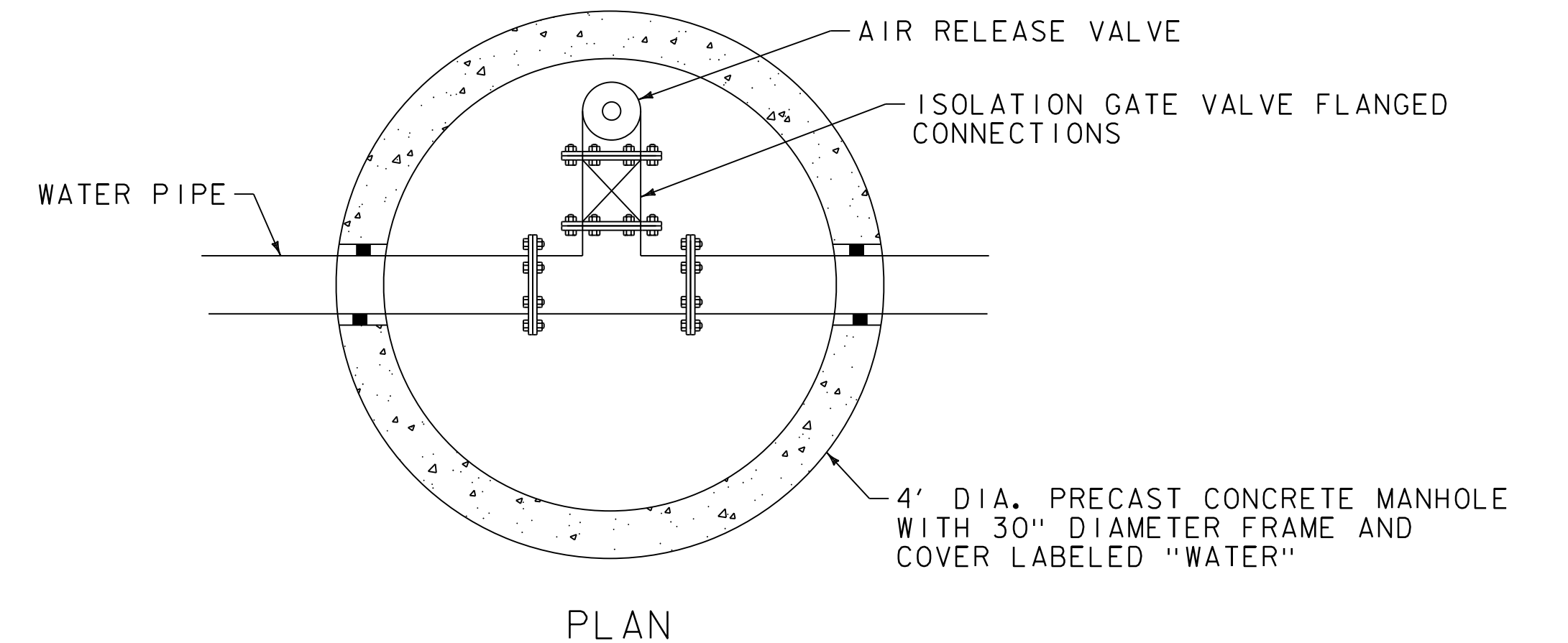
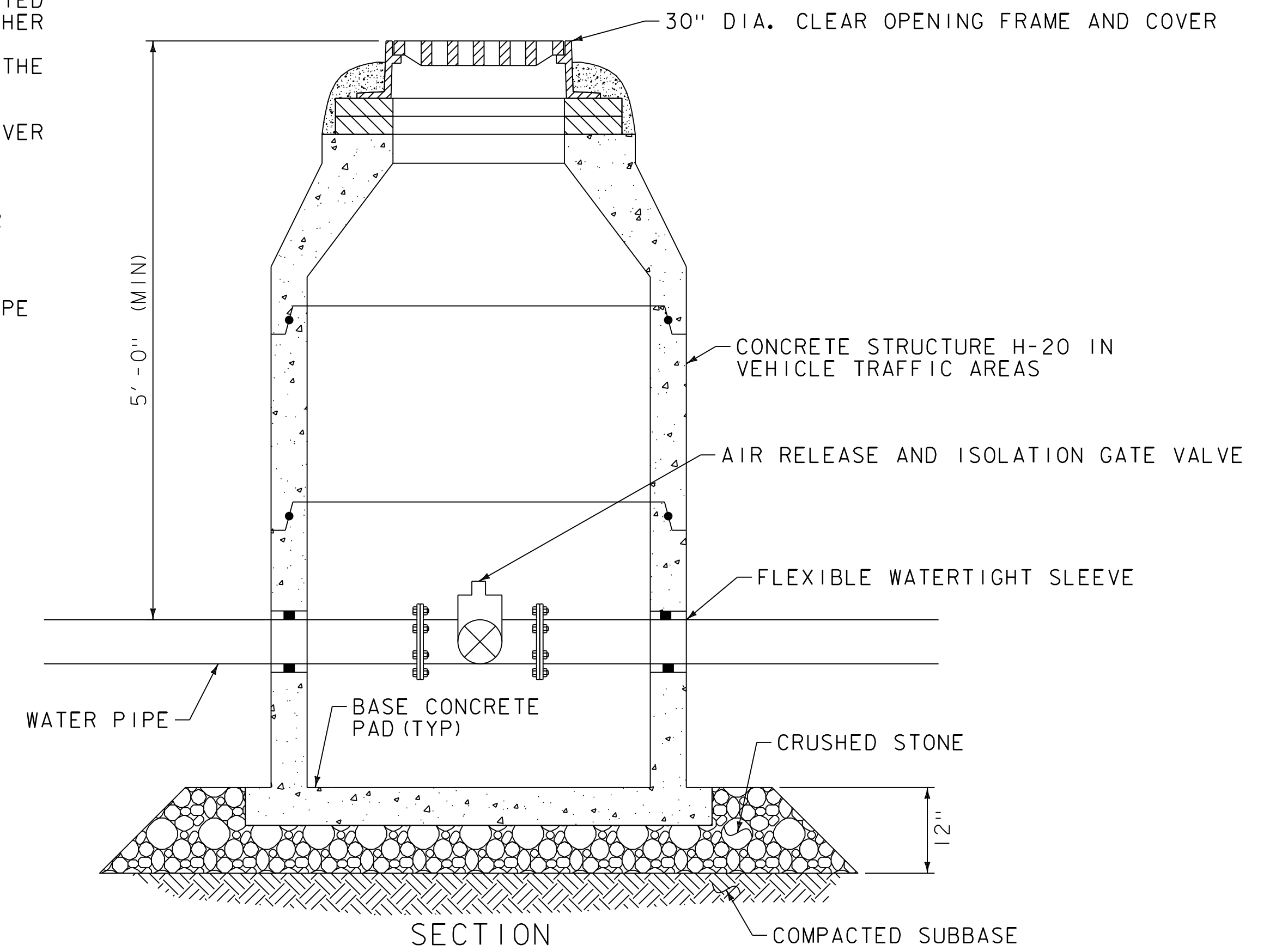
**CONCRETE BRIDGE ABUTMENT PENETRATION DETAIL**  
NOT TO SCALE

**NOTES:**

1. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND CONSTRUCTION.
2. IF THE ALUMINUM CLADDING HAS A MOISTURE BARRIER BONDED TO ITS INSIDE, THE ALUMINUM BUTYL WRAP IS NOT REQUIRED.

**NOTES:**

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.
3. BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS, AND UNIFORM SUPPORT FOR THE FULL LENGTH OF THE PIPE.
4. NO MECHANICAL TAMPERS SHALL BE USED DIRECTLY OVER THE PIPE TO ENSURE PIPE IS NOT DAMAGED.



**AIR RELEASE MANHOLE DETAIL**  
NOT TO SCALE

**NOTES:**

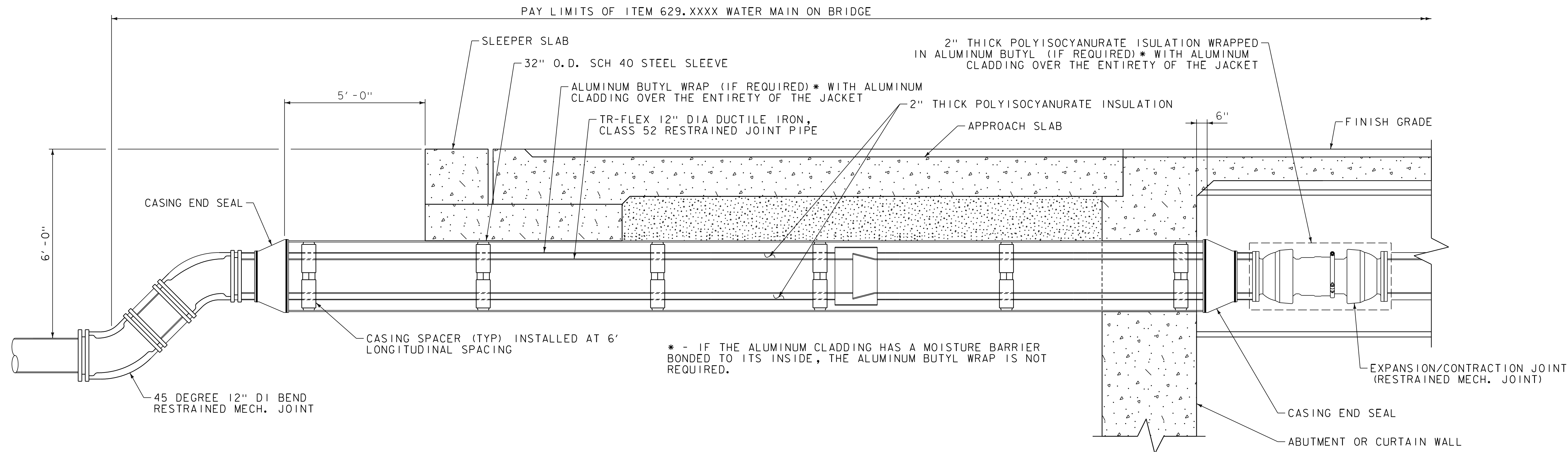
1. AIR RELEASE VALVE SIZE TO BE AS NOTED ON SITE PLAN.
2. ON 24 INCH OR LARGER WATER PIPES, THE AIR RELEASE MANHOLE STRUCTURE MAY BE OFFSET FROM THE MAIN PIPE.



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068details_water.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. MANN  
WATER DETAIL SHEET (2 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. MANN  
CHECKED BY: S.E. BURBANK  
SHEET 53 OF 220



WATER MAIN THROUGH ABUTMENT

NOT TO SCALE

NOTE: THE SLEEPER SLAB CONCRETE SHALL BE PLACED OVER THE 32" O.D. STEEL SLEEVES FOR THE WATER MAIN. SEE APPROACH SLAB DETAILS SHEET (2 OF 2) FOR MORE INFORMATION.

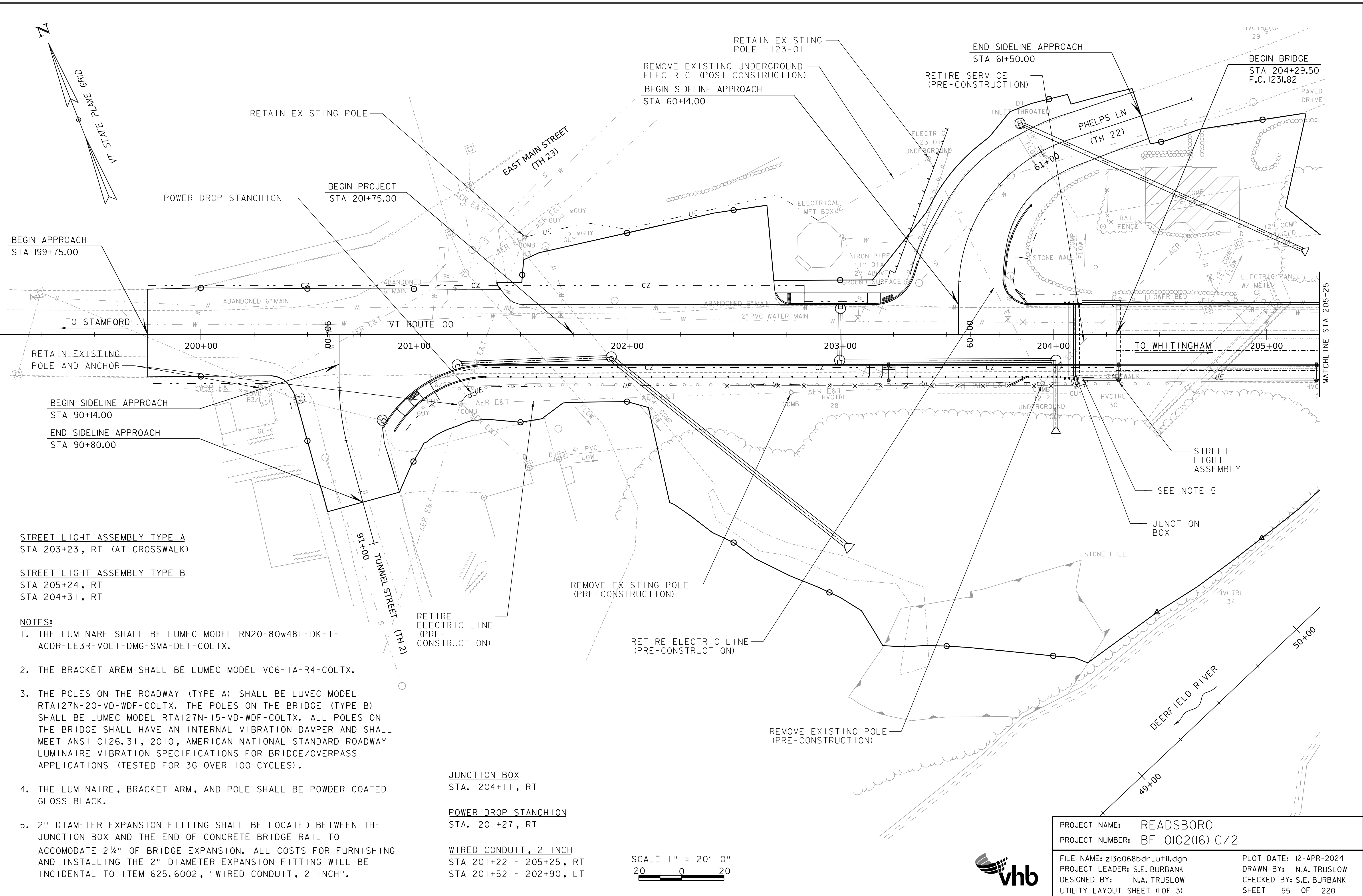
PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068details_water.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: N.A. MANN  
 WATER DETAIL SHEET (3 OF 3)

PLOT DATE: 12-APR-2024  
 DRAWN BY: N.A. MANN  
 CHECKED BY: S.E. BURBANK  
 SHEET 54 OF 220







BEGIN APPROACH  
STA 199+75.00

TO STAMFORD

BEGIN SIDELINE APPROACH  
STA 90+14.00  
END SIDELINE APPROACH  
STA 90+80.00

STREET LIGHT ASSEMBLY TYPE A  
STA 203+23, RT (AT CROSSWALK)

STREET LIGHT ASSEMBLY TYPE B  
STA 205+24, RT  
STA 204+31, RT

- NOTES:**
1. THE LUMINAIRE SHALL BE LUMEC MODEL RN20-80w48LEDK-T-ACDR-LE3R-VOLT-DMG-SMA-DE1-COLTX.
  2. THE BRACKET ARM SHALL BE LUMEC MODEL VC6-1A-R4-COLTX.
  3. THE POLES ON THE ROADWAY (TYPE A) SHALL BE LUMEC MODEL RTA127N-20-VD-WDF-COLTX. THE POLES ON THE BRIDGE (TYPE B) SHALL BE LUMEC MODEL RTA127N-15-VD-WDF-COLTX. ALL POLES ON THE BRIDGE SHALL HAVE AN INTERNAL VIBRATION DAMPER AND SHALL MEET ANSI C126.31, 2010, AMERICAN NATIONAL STANDARD ROADWAY LUMINAIRE VIBRATION SPECIFICATIONS FOR BRIDGE/OVERPASS APPLICATIONS (TESTED FOR 3G OVER 100 CYCLES).
  4. THE LUMINAIRE, BRACKET ARM, AND POLE SHALL BE POWDER COATED GLOSS BLACK.
  5. 2" DIAMETER EXPANSION FITTING SHALL BE LOCATED BETWEEN THE JUNCTION BOX AND THE END OF CONCRETE BRIDGE RAIL TO ACCOMMODATE 2 1/4" OF BRIDGE EXPANSION. ALL COSTS FOR FURNISHING AND INSTALLING THE 2" DIAMETER EXPANSION FITTING WILL BE INCIDENTAL TO ITEM 625.6002, "WIRED CONDUIT, 2 INCH".

**JUNCTION BOX**  
STA. 204+11, RT

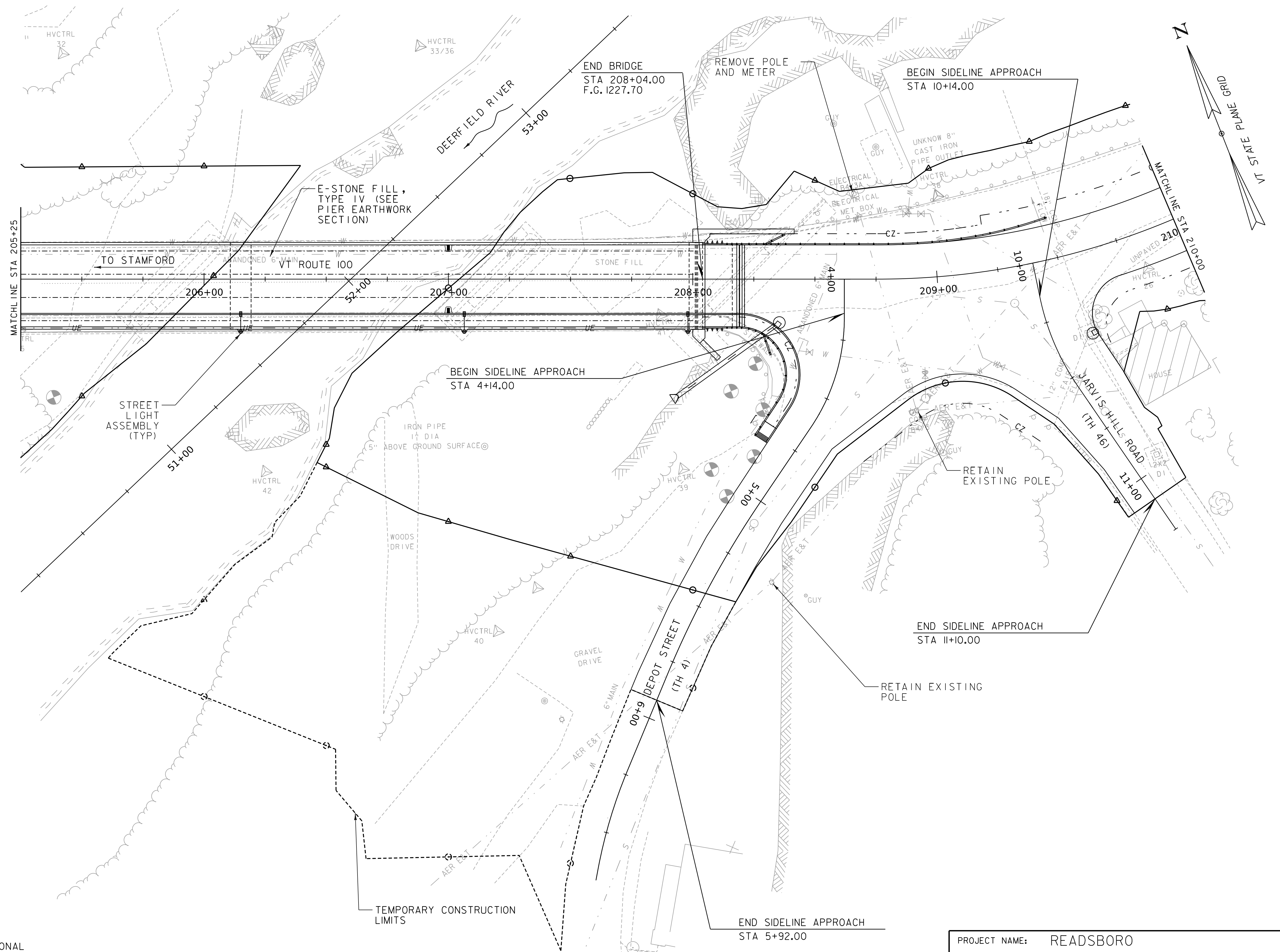
**POWER DROP STANCHION**  
STA. 201+27, RT

**WIRED CONDUIT, 2 INCH**  
STA 201+22 - 205+25, RT  
STA 201+52 - 202+90, LT

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



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068bdr_util.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
UTILITY LAYOUT SHEET (1 OF 3)	SHEET 55 OF 220



WIRED CONDUIT, 2 INCH  
 STA 205+25 - 207+98, RT

STREET LIGHT ASSEMBLY TYPE B  
 STA 206+15, RT  
 STA 207+07, RT  
 STA 207+98, RT

NOTE:  
 SEE PREVIOUS SHEET FOR ADDITIONAL  
 INFORMATION ON STREET LIGHT ASSEMBLIES.

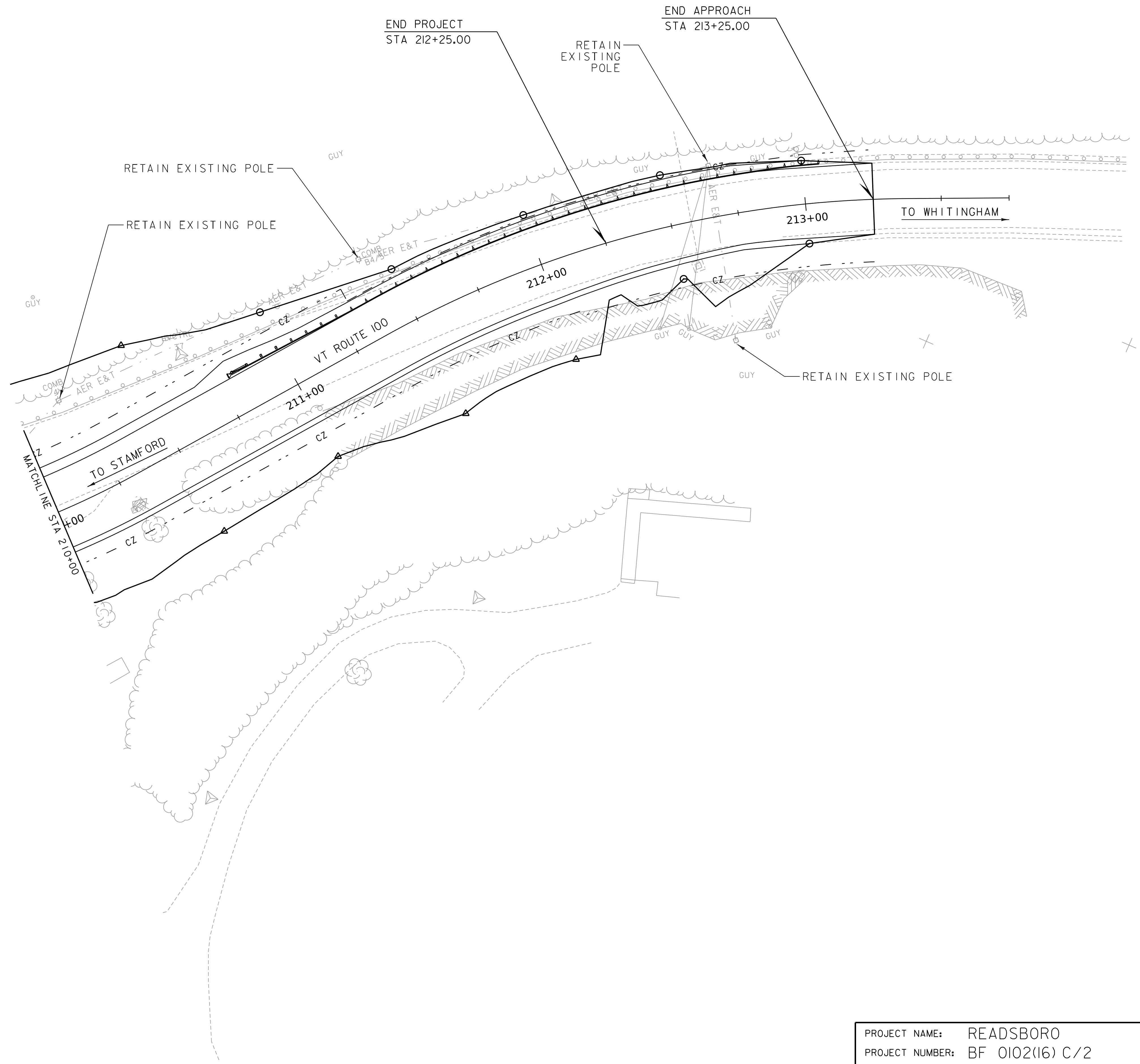
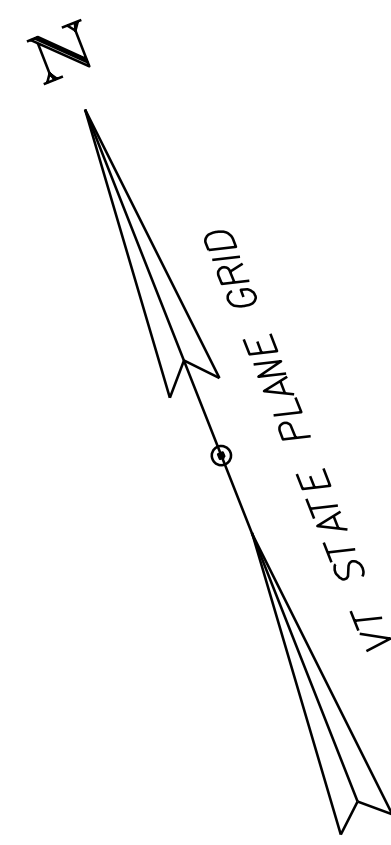
SCALE 1" = 20'-0"  
 20 0 20



PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068bdr_util.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: N.A. TRUSLOW  
 UTILITY LAYOUT SHEET (2 OF 3)

PLOT DATE: 12-APR-2024  
 DRAWN BY: N.A. TRUSLOW  
 CHECKED BY: S.E. BURBANK  
 SHEET 56 OF 220



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



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068bdr_util.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
UTILITY LAYOUT SHEET (3 OF 3)	SHEET 57 OF 220



**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.O.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**

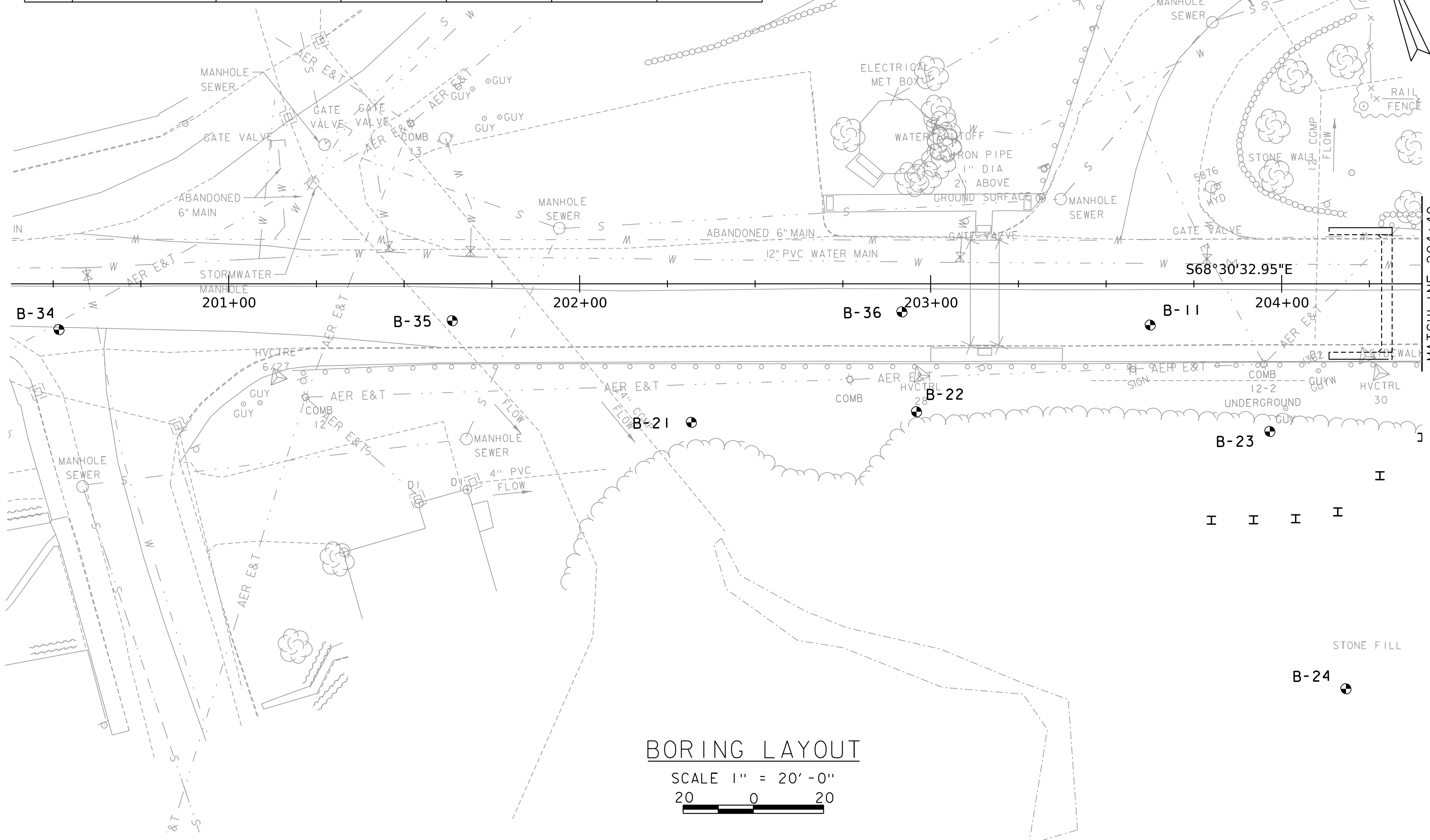
- ▼ Water Elevation
- ⊕ Standard Penetration Boring
- ⊙ Auger Boring
- ⊙ Rod Sounding
- ⊙ Sample
- S Standard Penetration Test
- N Blow Count Per Foot For: 2" O.D. Sampler
- 1 3/8" I.D. Sampler
- Hammer Weight Of 140 Lbs.
- Hammer Fall Of 30"
- VS Field Vane Shear Test
- US Undisturbed Soil Sample
- 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	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

**BORING CHART OF VT100**

HOLE NO.	BASELINE STATION	OFFSET	NORTHING	EASTING	GROUND ELV	DEPTH TLOB
B-11	203+62.55	11.77 RT	99260.00	1520629.09	1232.3	1138.3
B-21	202+31.83	39.49 RT	99282.10	1520497.30	1235.5	N/A
B-22	202+95.99	36.47 RT	99261.40	1520558.10	1226.0	N/A
B-23	203+96.64	42.09 RT	99219.30	1520649.70	1216.0	N/A
B-24	204+18.32	115.45 RT	99143.10	1520643.00	1169.8	N/A
B-34	200+51.66	13.06 RT	99372.69	1520339.33	1240.0	N/A
B-35	201+63.70	10.51 RT	99334.02	1520444.52	1237.1	N/A
B-36	202+91.82	8.02 LT	99289.41	1520564.64	1233.6	N/A



**BORING LAYOUT**

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

**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 > 0.0029" (#200 sieve).
- SLT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
- CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.
- VARVED - Alternate layers of silt and clay.
- HARDPAN - Extremely dense soil, cemented layer, not softened when wet.
- MUCK - Soft organic soil (containing > 10% organic material).
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- 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.

**GENERAL NOTES**

- The subsurface explorations by VTrans and their consultants shown herein were made between December 16, 2015 and December 21, 2022 for 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.
- Northring and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.
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**NOTE:**

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PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068bor.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
BORING INFORMATION SHEET (1 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: D.E. MORRISSETTE  
CHECKED BY: N.A. TRUSLOW  
SHEET 58 OF 220



**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.O.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
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1000-2000	Stiff
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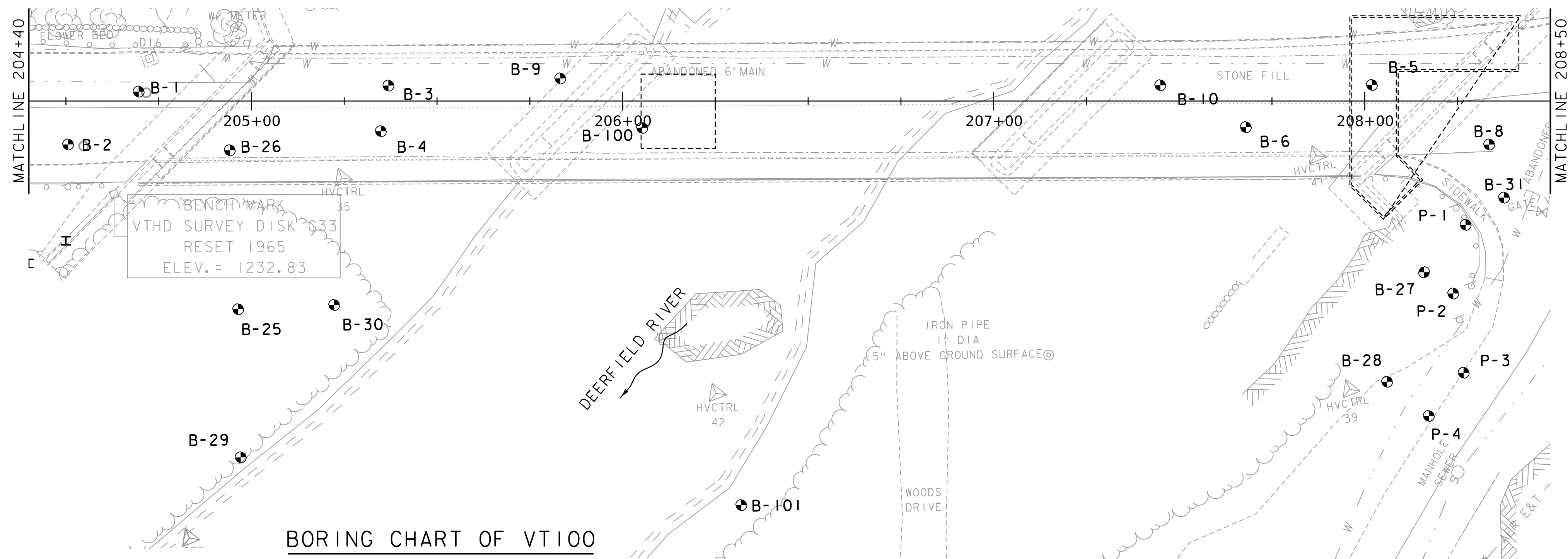
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25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

**COMMONLY USED SYMBOLS**

- ▼ Water Elevation
- ⊕ Standard Penetration Boring
- ⊕ Auger Boring
- ⊕ Rod Sounding
- ⊕ Sample
- N Standard Penetration Test
- Blow Count Per Foot For:
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  - 1 3/8" I.D. Sampler
  - Hammer Weight Of 140 Lbs.
  - Hammer Fall Of 30"
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- 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
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		



**BORING CHART OF VT100**

HOLE NO.	BASELINE STATION	OFFSET	NORTHING	EASTING	GROUND ELV	DEPTH TLOB
B-1	204+69.61	2.56 LT	99234.11	1520733.95	1232.3	N/A
B-2	204+50.60	11.69 RT	99227.82	1520711.04	1232.3	N/A
B-3	205+36.91	4.17 LT	99210.96	1520797.16	1195.2	N/A
B-4	205+34.87	8.12 RT	99200.27	1520790.76	1190.3	1094.3
B-5	208+01.92	4.34 LT	99114.03	1521043.81	1206.7	1202.7
B-6	207+67.95	7.04 RT	99115.88	1521008.03	1189.1	1179.1
B-8	208+33.53	11.71 RT	99087.51	1521067.34	1228.3	1217.8
B-9	205+83.21	6.11 LT	99195.80	1520840.96	1172.0	1110.0
B-10	207+44.89	4.27 LT	99134.85	1520990.72	1179.9	1172.9
B-25	204+96.42	56.11 RT	99169.70	1520737.40	1192.5	1063.5
B-26	204+94.16	13.26 RT	99210.40	1520751.00	1208.4	1079.8
B-27	208+15.98	46.14 RT	99061.90	1521038.40	1224.8	1218.5
B-28	208+06.00	75.65 RT	99038.10	1521018.30	1226.5	1219.4
B-29	204+97.09	96.04 RT	99132.30	1520723.40	1170.2	N/A
B-30	205+22.29	54.95 RT	99161.30	1520761.90	1175.0	1074.8
B-31	208+37.52	26.03 RT	99072.72	1521065.81	1227.6	N/A
B-100	206+05.28	7.23 RT	99175.30	1520856.60	1163.0	1127.5
B-101	206+31.99	108.92 RT	99070.90	1520844.20	1172.0	1143.5
B-102	207+00.74	175.99 RT	98983.30	1520883.60	1223.0	1193.0
B-103	207+66.17	149.48 RT	98984.00	1520954.20	1224.0	1218.8
P-1	208+27.17	33.35 RT	99069.70	1521053.50	1227.5	1218.3
P-2	208+23.82	51.87 RT	99053.70	1521043.60	1226.4	1219.2
P-3	208+26.64	73.22 RT	99032.80	1521038.40	1226.7	1223.0
P-4	208+17.26	84.87 RT	99025.40	1521025.40	1226.5	1220.0

**BORING LAYOUT**

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

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PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068bor.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: D.E. MORRISSETTE  
DESIGNED BY: W.A. FRETWELL CHECKED BY: N.A. TRUSLOW  
BORING INFORMATION SHEET (2 OF 3) SHEET 59 OF 220





**SOIL CLASSIFICATION**

**AASHTO**

A1	Gravel and Sand
A3	Fine Sand
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R.O.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**

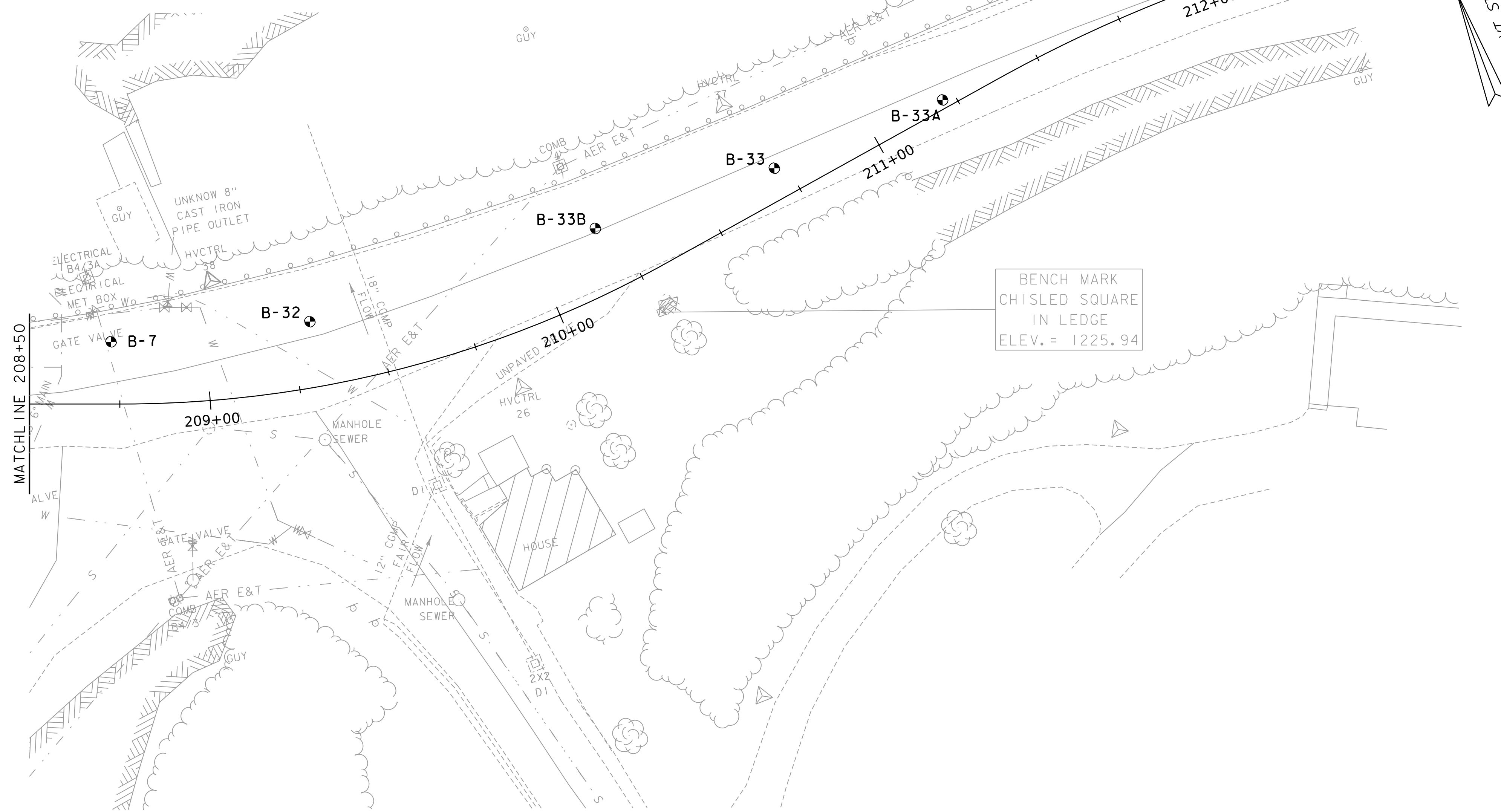
- ▼ Water Elevation
- ⊕ Standard Penetration Boring
- ⊗ Auger Boring
- ⊙ Rod Sounding
- S Sample
- N Standard Penetration Test
- VS Field Vane Shear Test
- US Undisturbed Soil Sample
- B Blast
- DC Diamond Core
- MD Mud Drill
- WA Wash Ahead
- HSA Hollow Stem Auger
- AX Core Size 1 1/8"
- BX Core Size 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
- %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
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

**BORING CHART OF VT100***

HOLE NO.	BASELINE STATION	OFFSET	NORTHING	EASTING	GROUND ELV	DEPTH TLOB
B-7	208+72.57	17.21 LT	99100.12	1521114.26	1228.3	1218.6
B-32	209+31.05	18.13 LT	99085.17	1521167.44	1226.4	N/A
B-33	210+71.58	8.43 LT	99077.58	1521302.48	1224.8	N/A
B-33A	211+21.43	2.35 LT	99078.11	1521352.69	1224.4	N/A
B-33B	210+19.48	17.65 LT	99080.23	1521250.34	1225.3	N/A



**BORING LAYOUT**

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

**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 > 0.0029" (#200 sieve).
- SLT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
- CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.
- VARVED - Alternate layers of silt and clay.
- HARDPAN - Extremely dense soil, cemented layer, not softened when wet.
- MUCK - Soft organic soil (containing > 10% organic material).
- MOISTURE CONTENT - Weight of water divided by dry weight of soil.
- FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
- STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.
- DIP - Inclination of bed with a horizontal plane.

**GENERAL NOTES**

- The subsurface explorations by VTrans and their consultants shown herein were made between December 16, 2015 and December 21, 2022 for 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.
- Additional subsurface investigation has been conducted; however, boring information is not yet available and not included herein.

**NOTE:**

- THE BORING HAS BEEN LOCATED (SHOWN) BASED ON THE NORTHINGS AND EASTINGS IN THE BORING LOGS. THE BASELINE STATION AND OFFSET SHOWN IN THE CHART IS BASED ON THE CURRENT AND FINAL HORIZONTAL ALIGNMENT AND MAY NOT MATCH THE STATION AND OFFSET SHOWN IN THE BORING LOG.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068bor.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
BORING INFORMATION SHEET (3 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: D.E. MORRISSETTE  
CHECKED BY: N.A. TRUSLOW  
SHEET 60 OF 220



VT Trans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-1			
		Readsboro BF 0102(16) C/2		Page No.: 1 of 2		Pin No.: 13C068			
				Checked By: ASP					
Boring Crew: Drilex Env./Chris, MG		Casing		Sampler		Groundwater Observations			
Date Started: 2/02/16 Date Finished: 2/04/16		Type: WB		SS		Date			
VTSPG NAD83: N 99234.11 ft E 1520733.95 ft		I.D.: 6" 5"		2 in		Depth (ft)			
Station: 204+90.94 Offset: 42.64 LT		Hammer Wt: 140 lb.		140 lb.		Notes			
Ground Elevation: 1232.3 ft		Hammer Fall: 30 in.		30 in.		02/04/16 20.0 Mud used for drilling			
		Hammer/Rod Type: Auto				03/04/16 40.5 Well measurement			
		Rig: CME-75 Truck		CE = 1.23		03/16/16 40.2 Well measurement			
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)		Well Diagram	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		5-inches of bituminous concrete							
		14.5-inches of concrete (approach slab)							
		A-1-b, GrSa, brown, Rec. = 1.17 ft, (FILL)			12-28-19-24 (47)	7.5	34.5	46.1	19.4
		Advance 6-inch casing and roller bit to 5 feet							
		A-1-a, SaGr, brown, Rec. = 0.42 ft, (FILL)			14-10-8-12 (18)	10.6	56.3	32.9	10.8
		Advance 6-inch casing to 10 feet, roller bit to 10.5 feet. roller bit resistance from 10 to 10.5 feet							
		A-1-b, SaGr, brown, Rec. = 0.58 ft, (FILL)			17-17-16-16 (33)	9.4	47.6	39.7	12.7
		Remove 6-inch casing. Advance 5-inch casing and roller bit to 15 feet							
		Occasional boulders or cobbles from 10 to 15 feet							
		SPT taken from 15 to 17 feet, Rec. = 0.0 ft			8-6-6-4 (12)				
		Advance 5-inch casing to 18 feet using 300lb hammer							
		A-1-b, SaGr, brown, Rec. = 0.33 ft, (FILL)			7-7-6-14 (13)	10.9	44.3	36.5	19.2
		Casing refusal at 24.5 feet. Roller bit from 24.5 to 25 feet.							
		Advance casing and roller bit to 28 feet							
		A-1-b, SiSaGr, brown, Rec. = 0.42 ft, (FILL)			14-12-14-22 (26)	10.1	40.2	36.7	23.1
		Advance casing and roller bit to 38 feet							
		A-1-a, SaGr, brown, Rec. = 0.33 ft, (FILL)			21-13-23-15 (36)	9.0	70.7	20.1	9.2
		Advance casing and roller bit to 48 feet							
		A-1-b, SiGrSa, brown, (FILL)							
		A-2-4, GrSiSa, gray, Rec. = 0.75 ft, trace organics (ALLUVIUM)			18-8-6-4 (6)	16.0	39.3	39.8	20.9
		Advance casing and roller bit to 53 feet				18.5	24.1	46.6	29.3
		A-4, GrSiSa, gray, Rec. = 0.42 ft, (ALLUVIUM)			5-5-5-5 (10)	15.7	23.1	38.9	38.0
		Advance casing and roller bit to 58 feet							

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Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
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3. Water level readings have been made at times and under conditions stated.  
4. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.  
5. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.



VT Trans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-1			
		Readsboro BF 0102(16) C/2		Page No.: 2 of 2		Pin No.: 13C068			
				Checked By: ASP					
Boring Crew: Drilex Env./Chris, MG		Casing		Sampler		Groundwater Observations			
Date Started: 2/02/16 Date Finished: 2/04/16		Type: WB		SS		Date			
VTSPG NAD83: N 99234.11 ft E 1520733.95 ft		I.D.: 6" 5"		2 in		Depth (ft)			
Station: 204+90.94 Offset: 42.64 LT		Hammer Wt: 140 lb.		140 lb.		Notes			
Ground Elevation: 1232.3 ft		Hammer Fall: 30 in.		30 in.		02/04/16 20.0 Mud used for drilling			
		Hammer/Rod Type: Auto				03/04/16 40.5 Well measurement			
		Rig: CME-75 Truck		CE = 1.23		03/16/16 40.2 Well measurement			
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)		Well Diagram	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SiSaGr, gray, Rec. = 0.67 ft, (TILL)			5-11-22-20 (33)	11.2	36.7	33.3	29.9
		Advance casing to 66 feet.							
		Difficulty driving casing from 65 to 66 feet, open hole past 66 feet							
		Possible boulders/cobbles from 65 to 68 feet.							
		A-1-b, SiSaGr, gray, Rec. = 0.83 ft, (TILL)			98-66-92-55 (158)	8.4	45.2	31.4	23.4
		Advance open hole to 78 feet.							
		Frequent cobbles/boulders from 68 to 78 feet.							
		A-4, SaSi, gray, Rec. = 1.33 ft, (TILL)			22-49-65-127 (114)	12.1	17.4	38.7	43.9
		Roller bit resistance from 85 to 86.2 feet.							
		A-4, SaSi, gray, (TILL)			23-44-46-80/2 (90)	12.3	17.4	37.7	44.9
		Spoon bouncing at 89.7 feet.							
		Hole stopped @ 90.0 ft							

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4. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.  
5. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068borlogs.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: W.A. FRETWELL  
DESIGNED BY: R.H. BARNES CHECKED BY: N.A. TRUSLOW  
BORING LOGS SHEET (1 OF 28) SHEET 61 OF 220



Boring Crew: Drilex Env./Chris, MG  
 Date Started: 1/11/16 Date Finished: 1/14/16  
 VTSPG NAD83: N 99227.82 ft E 1520711.04 ft  
 Station: 204+52.28 Offset: 14.17 LT  
 Ground Elevation: 1232.3 ft

Type: WB SS  
 I.D.: 2 in  
 Hammer Wt: 140 lb. 140 lb.  
 Hammer Fall: 30 in. 30 in.  
 Hammer/Rod Type: Auto  
 Rig: CME-75 Truck CE = 1.23

Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Well Diagram	Groundwater Observations					
				Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
		12-inches of bituminous concrete							
	x x x	A-1-b, SaGr, brown, Rec. = 0.83 ft, (FILL)		7-11-12-14 (23)	5.1	42.9	40.5	16.7	
	x x x	A-2-4, SiGrSa, brown, Rec. = 0.92 ft, (FILL)		10-6-7-5 (13)	7.2	29.1	42.5	28.4	
	x x x	Rec. = 0.0 ft, 5.0 ft - 7.0 ft, (FILL)		6-3-3-6 (6)	6.1	39.6	39.8	20.6	
	x x x	A-1-b, SiGrSa, brown, Rec. = 0.58 ft, (FILL)		8-13-9-8 (22)	6.4	36.1	44.7	19.1	
	x x x	4-1/4 -inch hollow stem auger to 9 feet		4-4-4-4 (8)	4.9	34.6	53.2	12.2	
	x x x	A-1-b, GrSa, brown, Rec. = 0.58 ft, (FILL)		3-5-10-9 (15)	10.4	39.7	45.9	14.4	
	x x x	A-1-b, GrSa, brown, Rec. = 0.58 ft, (FILL)		11-10-8-27 (18)	8.5	48.0	40.4	11.5	
	x x x	A-1-b, SaGr, brown, Rec. = 0.75 ft, (FILL)		13-12-16-30 (28)	12.8	34.5	39.0	26.5	
	x x x	A-2-4, SiGrSa, brown, Rec. = 0.33 ft, (FILL)		15-9-6-11 (15)	10.2	33.0	41.0	25.9	
	x x x	A-2-4, SiGrSa, brown, Rec. = 0.75 ft, (FILL)		21-17-14-23 (31)	11.6	32.0	44.2	23.8	
	x x x	A-1-a, SaGr, brown, Rec. = 0.3 ft, (FILL)		13-15-16-15 (31)	8.9	64.1	26.3	9.7	
	x x x	A-1-b, GrSa, brown, Rec. = 0.5 ft, (FILL)		14-20-23-11 (43)	17.0	33.0	49.4	17.6	
		Advance casing to 30 feet		13-14-16-25 (30)	13.5	32.3	41.1	26.6	
	x x x	A-2-4, SiGrSa, gray, Rec. = 0.17 ft, (FILL)		8-4-8-30 (12)					
		Roller bit ahead of casing to 35 feet, losing water		14-10-7-7 (17)	14.1	47.0	35.7	17.3	
	x x x	A-1-b, SaGr, gray, Rec. = 0.42 ft, (FILL)							
	x x x	A-2-4, SiGrSa, gray, Rec. = 0.25 ft, (FILL)		7-10-14-17 (24)	17.7	26.5	47.2	26.3	
		Advance casing to 40 feet, roller bit to 45 feet							
	x x x	A-2-4, SiGrSa, gray, Rec. = 0.67 ft, (FILL)		6-6-5-7 (11)	16.9	33.2	40.9	25.9	
		Losing water from 45 to 47 feet							
		Advance casing to 50 feet							
	x x x	Rec. = 0.0 ft, 50.0 ft - 52.0 ft, (FILL)		29-13-9-12 (22)					
		Advance casing and roller bit to 55 feet							
		A-2-4, SiGrSa, gray, Rec. = 0.67 ft, (ALLUVIUM)		5-8-6-18 (14)	11.0	34.4	34.5	31.2	

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 3. Water level readings have been made at times and under conditions stated.  
 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

**Terracon**

BOTTOM OF PILE CAP  
EL=1218.67

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Boring Crew: Drilex Env./Chris, MG  
 Date Started: 1/11/16 Date Finished: 1/14/16  
 VTSPG NAD83: N 99227.82 ft E 1520711.04 ft  
 Station: 204+52.28 Offset: 14.17 LT  
 Ground Elevation: 1232.3 ft

Type: WB SS  
 I.D.: 2 in  
 Hammer Wt: 140 lb. 140 lb.  
 Hammer Fall: 30 in. 30 in.  
 Hammer/Rod Type: Auto  
 Rig: CME-75 Truck CE = 1.23

Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Well Diagram	Groundwater Observations				
				Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Advance casing and roller bit to 60 feet						
60		A-2-4, SiGrSa, gray, Rec. = 0.58 ft, (TILL)		12-21-25-25 (46)	11.8	30.5	39.6	29.8
		Casing at 60 feet, roller bit to 65 feet						
		A-2-4, SiGrSa, gray, Rec. = 0.92 ft, (TILL)		14-26-28-37 (54)	10.1	34.3	33.7	32.1
		Advance casing to 65 feet, roller bit to 70 feet. Roller bit resistance from 68 to 69 feet						
70		A-4, GrSiSa, gray, Rec. = 0.25 ft, (TILL)		18-36-35-44 (71)	11.0	22.7	39.4	37.8
		Losing water, advance casing to 70 feet, open hole past 70 feet						
		A-2-4, GrSiSa, gray, Rec. = 0.75 ft, (TILL)		24-34-34-50/0" (68)	9.3	30.3	35.2	34.5
		Roller bit resistance from 76.5 to 77.5 feet						
80		A-4, SaSi, gray, Rec. = 1.0 ft, (TILL)		19-22-24-40 (46)	11.6	17.0	38.3	44.7
		A-4, GrSaSi, gray, Rec. = 1.08 ft, (TILL)		31-45-40-41 (85)	10.8	31.2	31.8	37.0
90		A-4, SaSi, gray, Rec. = 1.0 ft, (TILL)		19-26-44-47 (70)	11.9	18.3	36.8	45.0
		Roller bit resistance from 90 to 95 feet						
		A-4, GrSaSi, gray, Rec. = 0.92 ft, (TILL)		22-35-32-39 (67)	10.5	23.6	35.4	41.0
		Roller bit resistance from 97.5 to 98 feet						
100		A-4, GrSaSi, gray, Rec. = 0.5 ft, (TILL)		15-29-44-58 (73)	10.0	31.0	32.6	36.4
		Roller bit resistance from 103 to 104 feet						
		A-4, GrSiSa, gray, Rec. = 0.42 ft, (TILL)		19-57-60/3" (117+)	11.1	24.1	40.2	35.7
		Roller bit to 109 feet						
110		Hole collapsed overnight to 80 feet, terminate boring Hole stopped @ 109.0 ft						

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 3. Water level readings have been made at times and under conditions stated.  
 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.

**Terracon**

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VT Trans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-3	
		Readsboro BF 0102(16) C/2		Page No.: 1 of 2		Pin No.: 13C068	
		Checked By: ASP		Boring Crew: Drilex Env./Chris, MG		Type: Casing WB, Sampler SS	
Date Started: 1/26/16		Date Finished: 2/02/16		I.D.: 6" 5", 4", 3" 2 in		Groundwater Observations	
VTSPG NAD83: N 99210.96 ft E 1520797.16 ft		Hammer Wt: 140 lb. 140 lb.		Date: 02/02/16		Notes: Not encountered	
Station: 205+40.91		Offset: 31.53 LT		Hammer Fall: 30 in. 30 in.			
Ground Elevation: 1195.2 ft		Hammer/Rod Type: Auto		Rig: CME-75 Truck		CE = 1.23	
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		10.5-inches of PCC bridge deck. 37 feet from bridge deck to ground surface	10-4-4-4	3.3	40.0	42.5	17.5
		A-1-b, GrSa, brown, Rec. = 0.67 ft, (FILL)	(8)				
		A-2-4, SiGrSa, brown, Rec. = 0.25 ft, (FILL)	7-3-3-6	6.0	25.7	50.8	23.5
		Advance 6-inch casing to 6.5 feet, roller bit through rock fill from 6.5 to 7.5 feet	(6)				
10		Advance casing and roller bit through rock fill to 10 feet					
		Advance roller bit through rock fill to 12 feet.					
20		Telescope 5-inch casing and advance to 14 feet, roller bit through rock fill from 14 to 14.5 feet					
		Roller bit to 17 feet.					
		Advance 5-inch casing to 19 feet, roller bit through rock fill to 22 feet. Advance 5-inch casing to 20 feet, then telescope 4-inch casing to 22 feet					
		Losing water throughout rock fill					
		A-2-4, SiGrSa, brown, Rec. = 0.83 ft, (FILL)	38-27-29-18	7.0	32.7	46.4	20.9
		Advance 4-inch casing to refusal at 27 feet, roller bit to 29.5 feet	(56)				
		Losing water from 27 to 29.5 feet.					
30		Core at 29.5 to 31 feet through rock fill					
		Core dropped through fill voids					
		SPT taken 31 to 33 feet, Rec. = 0.0 ft					
		A-4, GrSaSi, gray, Rec. = 0.83 ft, (TILL)	8-8-8-26	12.1	30.6	32.6	36.8
		Telescope 3-inch casing to refusal at 34 feet	(16)				
		Roller bit resistance from 34 to 38 feet	18-35-38-30				
40		A-4, GrSaSi, gray, Rec. = 1.33 ft, (TILL)	(73)				
		Roller bit resistance from 34 to 38 feet					
		Casing remains at 34 feet, roller bit to 43 feet	21-32-28-37	12.3	23.3	37.3	39.5
		Roller bit resistance from 40 to 40.5 feet and 42 to 42.5 feet	(60)				
		A-2-4, SiSaGr, gray, Rec. = 0.83 ft, (TILL)	30-48-56-39	10.9	37.0	31.6	31.4
		Advance casing to 46 feet.	(104)				
50		Open hole below 46 feet.					
		A-4, SaSi, gray, Rec. = 1.17 ft, (TILL)	40-30-34-35	13.0	11.7	42.1	46.1
		Roller bit resistance from 65 to 66 feet and from 67 to 67.5 feet	(64)				
		Casing advanced to 48 feet, open hole past 48 feet					

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3. Water level readings have been made at times and under conditions stated.  
4. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.  
5. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.



VT Trans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-3	
		Readsboro BF 0102(16) C/2		Page No.: 2 of 2		Pin No.: 13C068	
		Checked By: ASP		Boring Crew: Drilex Env./Chris, MG		Type: Casing WB, Sampler SS	
Date Started: 1/26/16		Date Finished: 2/02/16		I.D.: 6" 5", 4", 3" 2 in		Groundwater Observations	
VTSPG NAD83: N 99210.96 ft E 1520797.16 ft		Hammer Wt: 140 lb. 140 lb.		Date: 02/02/16		Notes: Not encountered	
Station: 205+40.91		Offset: 31.53 LT		Hammer Fall: 30 in. 30 in.			
Ground Elevation: 1195.2 ft		Hammer/Rod Type: Auto		Rig: CME-75 Truck		CE = 1.23	
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
60		A-4, SaSi, gray, Rec. = 1.0 ft, (TILL)	27-32-39-49	14.3	12.0	37.4	50.6
			(71)				
		A-4, GrSaSi, gray, Rec. = 1.25 ft, (TILL)	34-31-63-44	11.4	27.2	33.8	39.0
			(94)				
70		A-4, SaSi, gray, Rec. = 1.25 ft, (TILL)	30-39-40-67	12.9	16.9	37.2	45.9
			(79)				
		Roller bit resistance at 72.5 feet					
		A-4, GrSaSi, gray, Rec. = 1.25 ft, (TILL)	20-42-47-67	11.1	24.8	39.2	36.0
			(89)				
80		A-4, SaSi, gray, Rec. = 1.5 ft, (TILL)		14.2	11.7	33.7	54.6
		SPT driven through disturbed fill deposit, so blow counts unreliable and not recorded.					
		Losing water at 83 feet.					
		Advance casing to refusal at 66 feet.					
		Casing broke, boring terminated at 83.2 feet					
		Hole stopped @ 83.2 ft					
90							
100							
110							

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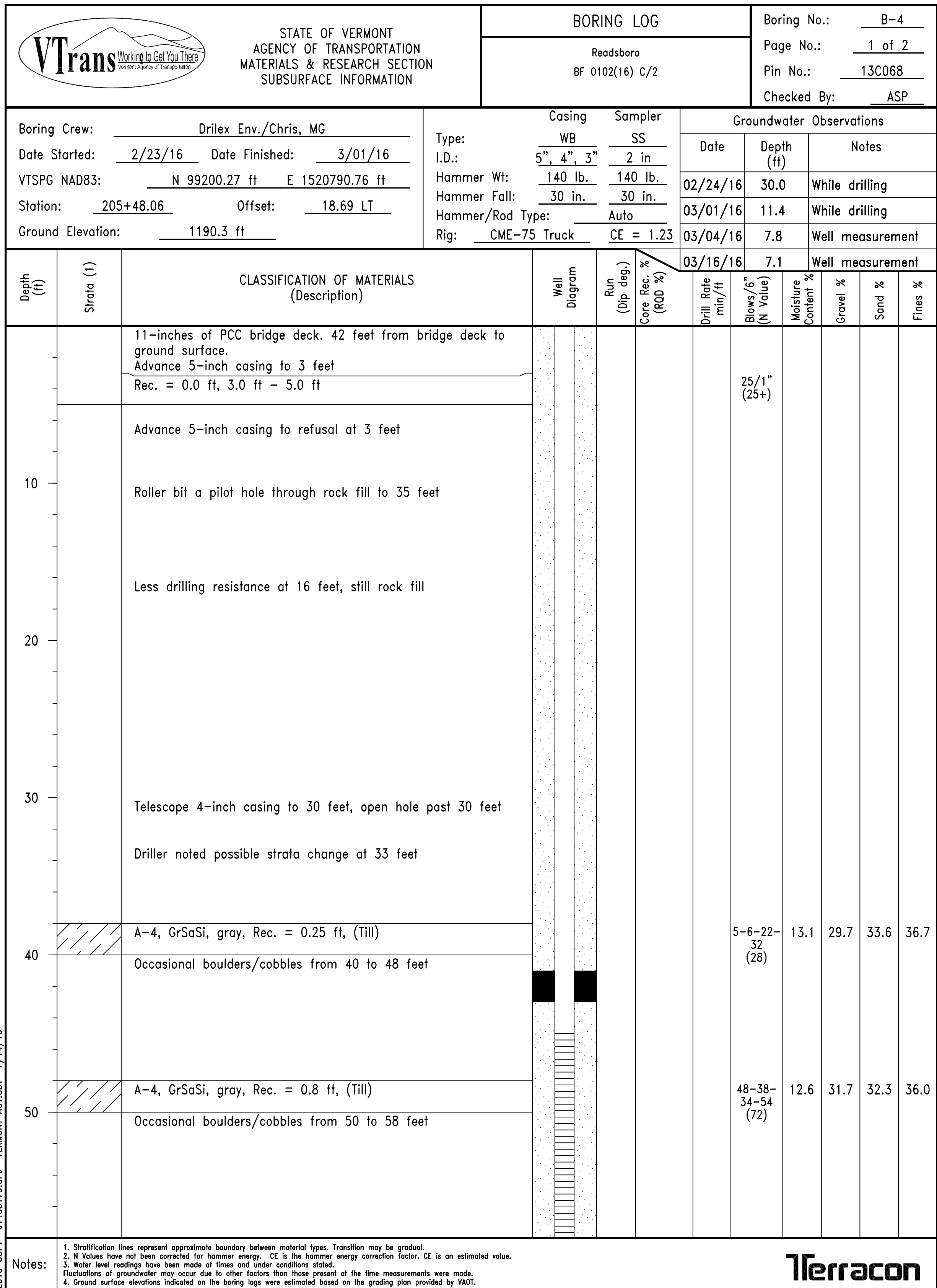
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor. CE is an estimated value.  
3. Water level readings have been made at times and under conditions stated.  
4. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.  
5. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.



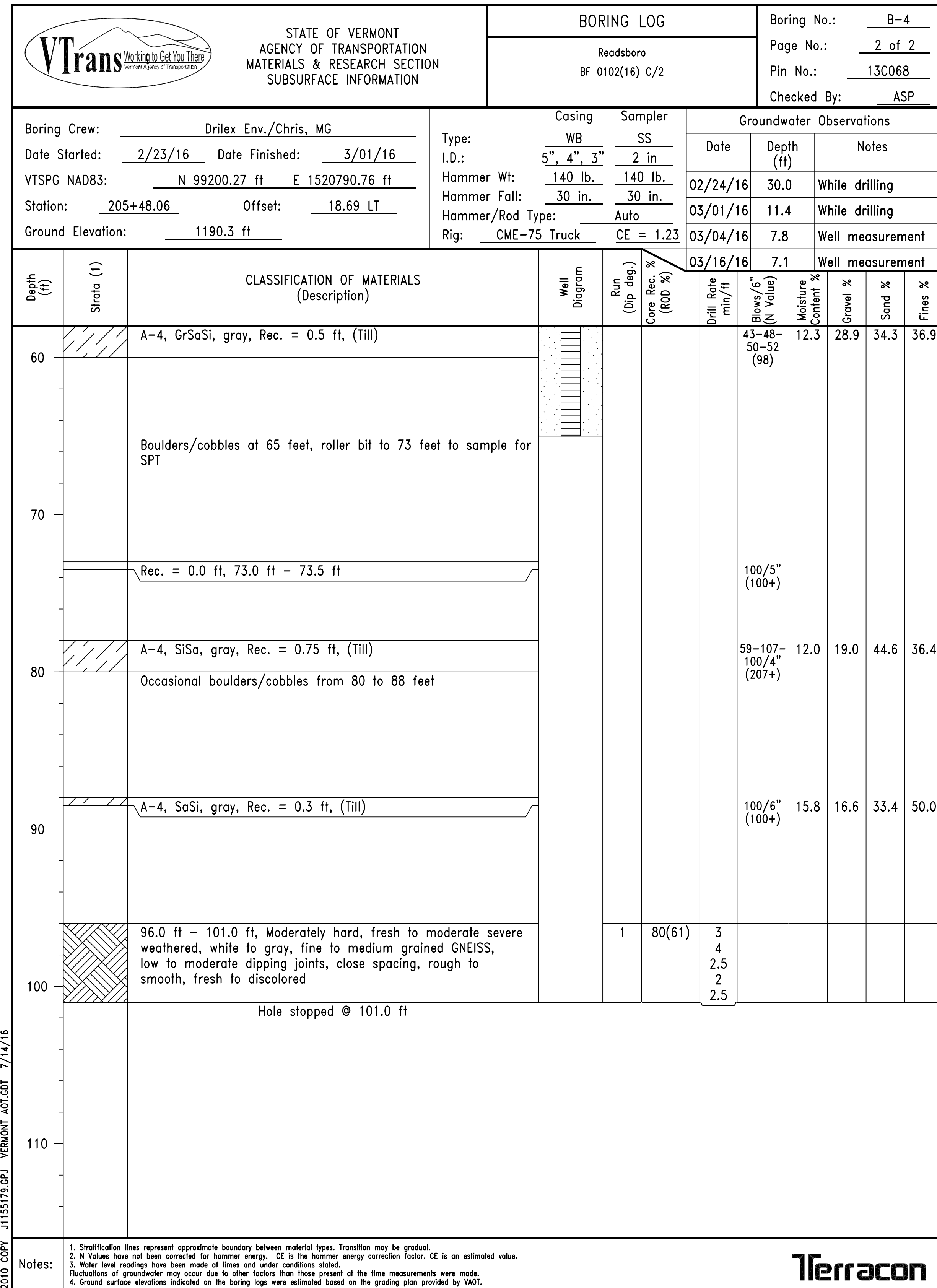
PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068borlogs.dgn	CHECKED BY:	N.A. TRUSLOW
PROJECT LEADER:	S.E. BURBANK	SHEET	63 OF 220
DESIGNED BY:	R.H. BARNES		
BORING LOGS SHEET (3 OF 28)			







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PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068borlogs.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: W.A. FRETWELL
DESIGNED BY: R.H. BARNES	CHECKED BY: N.A. TRUSLOW
BORING LOGS SHEET (4 OF 28)	SHEET 64 OF 220





TOP OF FOOTING ABUTMENT NO. 2  
EL = 1205.00

STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-5						
		Readsboro BF 0102(16) C/2		Page No.: 1 of 1						
				Pin No.: 13C068						
				Checked By: ASP						
Boring Crew: Drilex Env./Chris, MG			Casing: WB	Sampler: SS	Groundwater Observations					
Date Started: 1/19/16 Date Finished: 1/21/16			I.D.: 4" 3"	2 in	Date: 01/20/16					
VTSPG NAD83: N 99114.03 ft E 1521043.81 ft			Hammer Wt: 140 lb.	140 lb.	Notes: Not encountered					
Station: 208+05.65 Offset: 33.79 LT			Hammer Fall: 30 in.	30 in.						
Ground Elevation: 1206.7 ft			Hammer/Rod Type: Auto							
			Rig: CME-75 Truck	CE = 1.23						
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		12-inches of PCC bridge deck								
	x x x	1.0 ft - 4.0 ft								
	x x x	25 feet from bridge deck to ground surface								
		Roller bit through rock fill to 4 feet, resistance at 4 feet								
		Advance 4-inch casing to 4 feet, core at 4 feet	1	83(68)	1.75					
		4.0 ft - 9.0 ft, Moderately hard, very slight to slight weathering, white to gray, fine to medium grained GNEISS, low to moderate dipping joints along foliation bands, close to wide spacing, smooth, discolored joints, tight to slightly open			2					
		9.0 ft - 13.0 ft, Similar	2	100(100)	2.3					
					3.75					
		13.0 ft - 14.0 ft, Similar	3	100(100)	1.7					
					1.7					
					1.75					
					2.25					
		Hole stopped @ 14.0 ft								
10										
20										
30										
40										
50										
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. CE is an estimated value. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made. 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.							

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STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-6						
		Readsboro BF 0102(16) C/2		Page No.: 1 of 1						
				Pin No.: 13C068						
				Checked By: ASP						
Boring Crew: Terracon/Peter M., AS			Casing: WB	Sampler: SS	Groundwater Observations					
Date Started: 3/01/16 Date Finished: 3/01/16			I.D.: 2 in	2 in	Date: 03/01/16					
VTSPG NAD83: N 99115.88 ft E 1521008.03 ft			Hammer Wt: 140 lb.	140 lb.	Notes: Not encountered					
Station: 207+71.86 Offset: 19.58 LT			Hammer Fall: 30 in.	30 in.						
Ground Elevation: 1189.1 ft			Hammer/Rod Type: Auto							
			Rig: CME-850 Track	CE = 1.43						
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
	x x x	Roller bit through rock and concrete fill from 0 - 3 feet								
	x x x	A-1-a, Gr, brown, Rec. = 0.25 ft, (Fill)								
	x x x					3-3-8-10 (11)	6.0	79.5	15.4	5.1
	x x x	A-1-b, GrSa, brown, Rec. = 0.17 ft, (Fill)				50/2" (50+)	21.6	40.9	47.5	11.5
		Roller bit resistance from 8.1 to 10 feet, core at 10 feet								
		10.0 ft - 15.0 ft, Moderately hard, slightly weathered gray and white, GNEISS, moderately close spacing, laminated bedding, clay in joints	1	90(84)	4					
		12-14 feet, moderate angle dip			4					
		15.0 ft - 20.0 ft, Similar to above, moderate to severe weathering in joint at 17 feet, slightly brown joint at 17 feet	2	91(84)	4					
					4					
					4					
					4					
					4					
					4					
					4					
10										
20										
30										
40										
50										
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. CE is an estimated value. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made. 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.							

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**NOTE:**  
 BOTTOM OF FOOTING OF ABUTMENT 2  
 TO BE STEPPED TO MATCH EXISTING  
 TOP OF LEDGE ELEVATIONS.



PROJECT NAME: READSBORO		PLOT DATE: 12-APR-2024	
PROJECT NUMBER: BF 0102(16) C/2		DRAWN BY: W.A. FRETWELL	
FILE NAME: z13c068borlogs.dgn	DESIGNED BY: R.H. BARNES	CHECKED BY: N.A. TRUSLOW	SHEET 65 OF 220
BORING LOGS SHEET (5 OF 28)			

VTTrans Working to Get You There STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-7						
		Readsboro BF 0102(16) C/2		Page No.: 1 of 1						
				Pin No.: 13C068						
				Checked By: ASP						
Boring Crew: Drilex Env./Chris, MG		Casing	Sampler	Groundwater Observations						
Date Started: 1/15/16 Date Finished: 1/15/16		Type: WB	SS	Date	Depth (ft)	Notes				
VTSPG NAD83: N 99100.12 ft E 1521114.26 ft		Hammer Wt: 140 lb.	140 lb.	01/15/16		Not encountered				
Station: 208+84.88 Offset: 37.04 LT		Hammer Fall: 30 in.	30 in.							
Ground Elevation: 1228.3 ft		Hammer/Rod Type: Auto								
		Rig: CME-75 Truck	CE = 1.23							
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
	x x x	6-inches of bituminous concrete				52-19-12-19 (31)	6.7	32.7	53.2	14.1
	x x x	GrSa, brown, Rec. = 1.25 ft, 0.5 ft - 2.5 ft, (Fill)								
		Advance 4-1/4-inch hollow stem augers								
	x x x	GrSa, brown to dark brown, Rec. = 0.75 ft, 5.0 ft - 7.0 ft, (Fill)				6-6-10-5 (16)	6.6	41.3	45.9	12.7
	x x x	Auger resistance at 7 feet, refusal at 8.5 feet								
		Rec. = 0.0 ft, 8.5 ft - 8.6 ft				50/1 (50+)				
10		Advance 3-inch casing, roller bit to 9.7 feet, core at 9.7 feet	1	88(83)	1.5					
		9.7 ft - 12.7 ft, Moderately hard, very slight weathering, white to gray, fine to medium grained GNEISS, low to moderate dipping joints along foliation bands, close to moderately close spacing, smooth, discolored joints, tight to slightly open. Note: Metamorphized quartz bands	2	86(66)	2					
		12.7 ft - 15.7 ft, Similar	2		2					
		15.7 ft - 19.7 ft, Similar	3	83(83)	2					
					2.5					
					2.5					
					3.25					
20		Hole stopped @ 19.7 ft								
30										
40										
50										
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. CE is an estimated value. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made. 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.								

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**Terracon**

VTTrans Working to Get You There STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-8						
		Readsboro BF 0102(16) C/2		Page No.: 1 of 1						
				Pin No.: 13C068						
				Checked By: ASP						
Boring Crew: Drilex Env./Chris, MG		Casing	Sampler	Groundwater Observations						
Date Started: 1/14/16 Date Finished: 1/14/16		Type: WB	SS	Date	Depth (ft)	Notes				
VTSPG NAD83: N 99087.51 ft E 1521067.34 ft		Hammer Wt: 140 lb.	140 lb.	01/14/16		Not encountered				
Station: 208+39.06 Offset: 13.99 LT		Hammer Fall: 30 in.	30 in.							
Ground Elevation: 1228.3 ft		Hammer/Rod Type: Auto								
		Rig: CME-75 Truck	CE = 1.23							
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
	x x x	8-inches of bituminous asphalt								
	x x x	A-1-b, GrSa, brown, Rec. = 0.92 ft, (Fill)				32-27-22-11 (49)	3.4	38.0	45.8	16.2
		Advance 4-1/4-inch hollow stem augers								
	x x x	A-1-b, SaGr, brown, Rec. = 0.75 ft, (Fill)				9-14-8-5 (22)	4.0	44.4	42.2	13.4
	x x x	Auger refusal at 10 feet								
		Rec. = 0.0 ft, 10.0 ft - 10.1 ft	1	85(70)	1.5	50/1" (50+)				
10		Advance 3-inch casing, roller bit to 10.5 feet, core at 10.5 feet			2.3					
		10.5 ft - 15.5 ft, Moderately hard, very slight weathering, white to gray, fine to medium grained GNEISS, low to moderate dipping joints along foliation bands, close to moderately close spacing, smooth, discolored joints, tight to slightly open. Note: Metamorphized quartz bands	2	83(83)	2					
					2					
					2.2					
					2					
					2.25					
					2					
20		Hole stopped @ 20.5 ft								
30										
40										
50										
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. CE is an estimated value. 3. Water level readings have been made at times and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made. 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.								

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**Terracon**

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068borlogs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: R.H. BARNES  
BORING LOGS SHEET (6 OF 28)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 66 OF 220



VT Trans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-9					
				Readsboro BF 0102(16) C/2		Page No.: 1 of 2					
						Pin No.: 13C068					
						Checked By: ASP					
Boring Crew: Drilex Env./Terracon, MG		Casing: WB		Sampler: SS		Groundwater Observations					
Date Started: 2/22/16 Date Finished: 3/16/16		I.D.: 6" 4"		2 in		Date: 03/15/16					
VTSPG NAD83: N 99195.80 ft E 1520840.96 ft		Hammer Wt: 140 lb.		140 lb.		Depth (ft): 5.0					
Station: 205+73.91 Offset: 38.48 LT		Hammer Fall: 30 in.		30 in.		Notes: While drilling					
Ground Elevation: 1172.0 ft		Hammer/Rod Type: Auto									
		Rig: CME-850 Track		CE = 1.43							
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)		Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate (minutes/ft)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		11-inches of PCC bridge deck 59 feet from bridge deck to ground surface					13-8-11-12 (19)	31.5	4.7	58.1	37.2
		SiSa, brown, Rec. = 0.67 ft, 2.0 ft - 4.0 ft, Fill									
		Advance hole with Symmetrix casing advancement system Cuttings change from dry to wet at 5 feet									
10		Cuttings change from fill to alluvium at 15 feet									
20		Cuttings change from wet to dry between 20 and 25 feet									
30		A-4, SaSi, gray, Till						11.6	10.6	42.7	46.7
		A-4, SaSi, gray, Rec. = 0.8 ft, Till					22-50/3" (50+)	13.7	8.4	41.5	50.1
40		Advance Symmetrix to 40 feet A-4, SiSa, gray, Rec. = 0.25 ft, Till					50-53-50/5" (103+)	27.4	0.4	50.9	48.7
		Switch to 4-inch roller bit and advance open hole past 40 feet									
50		A-4, SiSa, gray, Rec. = 1.2 ft, Till					45-45-50/2" (95+)	15.8	5.1	51.0	43.9
		Roller bit resistance at 55 feet									
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. CE is an estimated value. 3. Water level readings have been made at times and under conditions stated. 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.											

VT Trans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-9					
				Readsboro BF 0102(16) C/2		Page No.: 2 of 2					
						Pin No.: 13C068					
						Checked By: ASP					
Boring Crew: Drilex Env./Terracon, MG		Casing: WB		Sampler: SS		Groundwater Observations					
Date Started: 2/22/16 Date Finished: 3/16/16		I.D.: 6" 4"		2 in		Date: 03/15/16					
VTSPG NAD83: N 99195.80 ft E 1520840.96 ft		Hammer Wt: 140 lb.		140 lb.		Depth (ft): 5.0					
Station: 205+73.91 Offset: 38.48 LT		Hammer Fall: 30 in.		30 in.		Notes: While drilling					
Ground Elevation: 1172.0 ft		Hammer/Rod Type: Auto									
		Rig: CME-850 Track		CE = 1.43							
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)		Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate (minutes/ft)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
60		Roller bit resistance from 59 to 60 feet, spoon refusal at 60 feet, roller bit to 62 feet and advance 3-inch casing to core No recovery, Rec. = 0.0 ft									
		62.0 ft - 67.0 ft, Moderately hard, slight discoloring, grey, fine-grained GNEISS, moderately dipping, joints along foliation, close to moderately close, rough to smooth joints, slightly to moderately open. Note: 2" quartz vein at 66 feet		1	100(75)	2.3					
		67.0 ft - 72.0 ft, Similar Note: 1 foot quartz vein at 67 feet		2	100(91)	2.5					
		72.0 ft - 77.0 ft, Similar, moderately close Note: Occasional quartz intrusions		3	100(98)	2					
		77.0 ft - 82.0 ft, Similar, wide spacing Note: Occasional quartz intrusions, 2" quartz vein at 81 feet		4	100(100)	2					
		82.0 ft - 87.0 ft, Similar, close to moderately close spacing Note: Occasional quartz intrusions		5	100(100)	2					
		87.0 ft - 92.0 ft, Similar, wide spacing Note: Occasional quartz intrusions		6	100(100)	2					
		Hole stopped @ 92.0 ft									
100											
110											
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. CE is an estimated value. 3. Water level readings have been made at times and under conditions stated. 4. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.											

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PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068borlogs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: R.H. BARNES  
BORING LOGS SHEET (7 OF 28)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 67 OF 220



VT Trans Working to Get You There Vermont Agency of Transportation		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-10				
				Readsboro BF 0102(16) C/2		Page No.: 1 of 1				
						Pin No.: 13C068				
						Checked By: ASP				
Boring Crew: Drilex Env./Chris, MG		Type: Casing WB, Sampler SS		Groundwater Observations						
Date Started: 1/28/16 Date Finished: 1/28/16		I.D.: 6", 5", 3"		Date	Depth (ft)	Notes				
VTSPG NAD83: N 99134.85 ft E 1520990.72 ft		Hammer Wt: 140 lb. 140 lb.		01/21/16		Not encountered				
Station: 207+48.71 Offset: 31.11 LT		Hammer Fall: 30 in. 30 in.								
Ground Elevation: 1179.9 ft		Hammer/Rod Type: Auto								
		Rig: CME-75 Truck CE = 1.23								
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate (min/ft)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
	x x x	12-inches of PCC bridge deck. 53 feet from bridge deck to ground surface., Rec. = 0.5 ft A-3, Sa, brown, (Fill/ recent alluvium) Advance 6-inch casing Telescope 5-inch casing Note: Wood cuttings in wash cuttings Roller bit resistance at 5 feet, refusal at 7 feet, core at 7 feet				4-9-7-14 (16)	11.3	3.4	87.2	9.4
10		7.0 ft - 10.0 ft, Moderately hard, fresh to slightly weathered white to gray, fine to medium grained GNEISS, low to high angle joints along foliation bands, very close to close spacing, rough to smooth, fresh to discolored	1	86(41)	3.25					
		10.0 ft - 15.0 ft, Similar, moderately close to wide spacing, 1-inch quartz band at 14.5 feet	2	100(100)	2.25					
		15.0 ft - 20.0 ft, Similar, wide spacing	3	100(100)	2.5					
20		20.0 ft - 25.0 ft, Similar, close to moderately close spacing, 2-inch quartz band at 20 feet, 4-inch quartz band at 22 feet	4	100(100)	2.25					
		25.0 ft - 30.0 ft, Similar, moderately close to wide spacing	5	100(100)	2.5					
30		30.0 ft - 32.2 ft, Similar, moderately close to wide spacing	6	100(100)	2.5					
		32.2 ft - 36.0 ft, Similar, wide spacing	7	93(93)	2.8					
		36.0 ft - 41.0 ft, Similar	8	85(85)	2.5					
40		41.0 ft - 46.0 ft, Similar	9	100(100)	3.25					
		46.0 ft - 51.0 ft, Similar	10	100(100)	2.8					
		Hole stopped @ 51.0 ft			2.5					
					3					
					3.25					
					4.25					

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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. CE is an estimated value.  
3. Water level readings have been made at times and under conditions stated.  
4. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.  
5. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.



VT Trans Working to Get You There Vermont Agency of Transportation		STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH SECTION SUBSURFACE INFORMATION		BORING LOG		Boring No.: B-11				
				Readsboro BF 0102(16) C/2		Page No.: 1 of 2				
						Pin No.: 13C068				
						Checked By: ASP				
Boring Crew: Drilex Env./Chris, MG		Type: Casing WB, Sampler SS		Groundwater Observations						
Date Started: 3/01/16 Date Finished: 3/04/16		I.D.: 5" 2 in		Date	Depth (ft)	Notes				
VTSPG NAD83: N 99260.00 ft E 1520629.09 ft		Hammer Wt: 140 lb. 140 lb.		03/04/16	52.5	While drilling				
Station: 203+62.95 Offset: 7.01 LT		Hammer Fall: 30 in. 30 in.								
Ground Elevation: 1232.3 ft		Hammer/Rod Type: Auto								
		Rig: CME-75 Truck CE = 1.23								
Depth (ft)	Strata (')	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (ROD %)	Drill Rate (min/ft)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
	x x x	0.3 feet of bituminous concrete								
	x x x	A-1-b, SaGr, brown, Rec. = 1.08 ft, (Fill)								
10		Boulder at 6.5 feet								
	x x x	A-2-4, GrSiSa, brown, Rec. = 0.83 ft, (Fill)								
	x x x	Advance 5-inch casing to 15 feet, open hole past 15 feet Occasional cobbles 10 to 20 feet								
20		A-4, GrSiSa, brown, Rec. = 0.5 ft, (Fill)								
	x x x	Roller bit through rock fill at 25 feet								
30		A-2-4, GrSiSa, brown, Rec. = 0.67 ft, (Fill)								
	x x x									
40		A-1-a (visual desc.), SaGr, brown to gray, Rec. = 0.17 ft, (Fill)								
	x x x	Occasional cobbles 40 to 50 feet								
50		No recovery, Rec. = 0.0 ft								
	x x x	A-4, GrSiSa, gray, Rec. = 0.17 ft, (Till) Trace wood cuttings from 55 to 60 feet 5-inch roller bit resistance from 55.7 to 57 feet								

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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. CE is an estimated value.  
3. Water level readings have been made at times and under conditions stated.  
4. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.  
5. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068borlogs.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: W.A. FRETWELL  
DESIGNED BY: R.H. BARNES CHECKED BY: N.A. TRUSLOW  
BORING LOGS SHEET (8 OF 28) SHEET 68 OF 220



Boring Crew: Drilex Env./Chris, MG  
 Date Started: 3/01/16 Date Finished: 3/04/16  
 VTSPG NAD83: N 99260.00 ft E 1520629.09 ft  
 Station: 203+62.95 Offset: 7.01 LT  
 Ground Elevation: 1232.3 ft

Casing: WB I.D.: 5" Sampler: SS  
 Hammer Wt: 140 lb. Hammer Fall: 30 in.  
 Hammer/Rod Type: Auto  
 Rig: CME-75 Truck CE = 1.23

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Groundwater Observations								
			Date	Depth (ft)	Notes	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	
60		Switch to 4-inch roller bit to advance through resistance Roller bit resistance from 62 to 62.5 feet and 65 feet									
70		A-4, GrSaSi, gray, Rec. = 1.0 ft, (Till) Occasional boulders and cobbles from 66 to 75 feet	03/04/16	52.5	While drilling	22-26-42-47 (68)	11.5	23.4	36.3	40.3	
80		A-2-4, SaSiGr, gray, Rec. = 0.92 ft, (Till) Roller bit resistance at 80 feet				26-34-41-42 (75)	12.6	34.1	32.3	33.7	
90		A-4, GrSiSa, gray, Rec. = 1.33 ft, (Till) Roller bit resistance at 93 feet 94.0 ft - 99.5 ft, Cored through cobbles/boulders, assumed till				34-52-42-78 (94)	11.9	21.9	41.1	37.0	
100		99.5 ft - 105.5 ft, Cored through cobbles/boulders, assumed till									
110		105.5 ft - 114.0 ft, Returned on 3/16/15 with CME-850 track rig Offset 5 feet and advance hole to 97 feet, no samples Core from 97 to 114 feet through boulders/cobbles in assumed till									
Hole stopped @ 114.0 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. CE is an estimated value.  
 3. Water level readings have been made at times and under conditions stated.  
 4. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.  
 5. Ground surface elevations indicated on the boring logs were estimated based on the grading plan provided by VAOT.



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Boring Crew: Emerson, Olden, Garrow  
 Date Started: 12/04/17 Date Finished: 12/12/17  
 VTSPG NAD83: N 99282.10 ft E 1520497.30 ft  
 Station: 202+35.7 Offset: 33.30  
 Ground Elevation: 1235.5 ft

Casing: WB 4 in  
 Sampler: SS 1.5 in  
 Type: _____  
 I.D.: _____  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
12/12/17	14.4	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-2-4, SiSa, brn, Moist, Rec. = 1.7 ft	1-1-1-1 (2)	17.4	19.8	49.0	31.2
		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft, Field Note: NXDC, cleaned out casing 3.4-4.0 feet.	2-4-2-2 (6)	16.2	19.2	51.8	29.0
		A-2-4, GrSiSa, brn, Moist, Rec. = 0.8 ft	3-1-2-2 (3)	18.0	21.4	47.2	31.4
10		A-4, GrSi, brn, Moist, Rec. = 1.0 ft, Field Note: NXDC, cleaned out casing 7.4-8.0 feet.	3-2-2-8 (4)	15.1	22.3	14.0	63.7
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample.	11-6-8-4 (14)	11.2	41.4	35.0	23.6
15		A-1-b, SaGr, brn, Moist, Rec. = 0.2 ft, Lab Note: Broken and weathered rock was within sample. Field Note: NXDC, cleaned out casing 10.8-12.0 feet.	R@2.5" (R)	9.3	45.4	38.5	16.1
		A-1-b, SiGrSa, brn, Moist, Rec. = 1.1 ft, Field Note: NXDC, cleaned out casing 13.3-14.0 feet.	3-3-6-6 (9)	13.5	37.9	40.2	21.9
20		A-2-4, GrSiSa, brn-blk, Moist, Rec. = 0.9 ft, Lab Note: Sticks, twigs, and plant material was within sample.	3-1-2-18 (3)	45.8	28.1	43.0	28.9
		Field Note: NXDC, Cleaned out casing, Cobbles					
		A-4, Si, brn, Moist, Rec. = 0.6 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 19.2-20.0 feet	19-17-10-14 (27)	12.1	17.5	18.9	63.6
25		A-2-4, GrSiSa, brn, Moist, Rec. = 0.9 ft, Field Note: NXDC, cleaned out casing 21.3-22.0 feet.	19-15-17-17 (32)	11.9	29.8	35.4	34.8
		A-2-4, GrSiSa, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, cleaned out casing 23.2-24.0 feet.	9-16-19-29 (35)	11.0	29.3	35.9	34.8
		A-2-4, SiSaGr, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, cleaned out casing 29.1-30.0 feet.	27-24-24-21 (48)	9.4	38.9	31.5	29.6
30		A-4, GrSaSi, gry, Moist, Rec. = 1.5 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, cleaned out casing 34.0-35.0 feet.	13-16-18-26 (34)	17.7	23.2	36.7	40.1
		Field Note: No Recovery, Field Note: NXDC, cleaned out casing 38.5-40.0 feet.	R@6" (R)				
40		A-4, SaSi, gry, Moist, Rec. = 1.5 ft	12-25-35-35 (60)	12.4	17.0	36.1	46.9

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
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 3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Emerson, Olden, Garrow  
 Date Started: 12/04/17 Date Finished: 12/12/17  
 VTSPG NAD83: N 99282.10 ft E 1520497.30 ft  
 Station: 202+35.7 Offset: 33.30  
 Ground Elevation: 1235.5 ft

Casing: WB 4 in  
 Sampler: SS 1.5 in  
 Type: _____  
 I.D.: _____  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
12/12/17	14.4	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
45		Field Note: No Recovery, rock stuck in end of sampler	R@6" (R)				
50		A-4, SiSa, brn-gry, Moist, Rec. = 1.3 ft, Field Note: NXDC, cleaned out casing 54.0-55.0 feet.	20-23-25-30 (48)	14.7	12.5	46.3	41.2
55		A-4, GrSiSa, brn, Moist, Rec. = 1.0 ft, Field Note: NXDC, cleaned out casing 58.5-60.0 feet.	33-25-R@3.5" (R)	14.9	21.7	42.5	35.8
60		A-2-4, GrSiSa, brn, Moist, Rec. = 0.4 ft, Field Note: NXDC, cleaned out casing 64.1-65.0 feet.	R@5" (R)	13.1	29.3	39.6	31.1
65		A-4, SaSi, brn, Moist, Rec. = 0.7 ft, Field Note: NXDC, cleaned out casing 69.2-70.0 feet.	10-R@5" (R)	15.7	16.8	27.5	55.7
70		A-1-b, SiSaGr, brn, Moist, Rec. = 0.2 ft, Lab Note: Broken and weathered rock was within sample.	R@2.5" (R)	9.3	41.6	34.7	23.7
75		A-1-b, SaGr, brn, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample.	R@5" (R)	11.9	42.1	38.1	19.8
80		A-2-4, GrSiSa, brn, Moist, Rec. = 0.8 ft Hole stopped @ 80.8 ft	30-R@3.5" (R)	16.1	26.5	46.9	26.6
85		Remarks: Hole collapsed at 53.0 feet.					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18



Boring Crew: Gonyaw, Garrow, Emerson  
 Date Started: 12/15/17 Date Finished: 12/19/17  
 VTSPG NAD83: N 99261.40 ft E 1520558.10 ft  
 Station: 203+00.4 Offset: 21.00  
 Ground Elevation: 1226.0 ft

Casing I.D.: 4 in Sampler I.D.: 1.5 in  
 Type: WB SS  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
12/19/17	24.4	W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5	x x x	Field Note: Estimated thickness of pad is 10.0 feet., Field Note: NXDC, Cleaned out casing, 8.5-10.0 feet.					
10	x x x	Field Note: No Recovery, rock stuck in end of sampler, brn, Moist, Field Note: NXDC, Cleaned out casing, 14.3-15.0 feet.	7-6-5-4 (11)				
15	o o o	A-2-4, GrSiSa, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 16.1-17.0 feet.	9-5-5-5 (10)	16.6	23.8	44.7	31.5
	o o o	A-2-4, SiGrSa, brn, Moist, Rec. = 0.5 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 18.0-19.0 feet.	7-R@5" (R)	14.3	31.4	43.0	25.6
20	o o o	A-1-b, SiSaGr, brn, Moist, Rec. = 1.8 ft	8-8-6-6 (14)	13.7	38.8	36.4	24.8
	o o o	A-2-4, SiGrSa, brn, Moist, Rec. = 1.0 ft	4-7-7-8 (14)	16.2	28.9	42.5	28.6
25	o o o	A-1-a, SaGr, brn, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample.	13-28-13-16 (41)	8.7	60.5	25.8	13.7
	o o o	A-1-a, Gr, brn, Moist, Rec. = 0.3 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 26.5-27.0 feet.	16-18-12-7 (30)	5.1	80.8	13.0	6.2
	o o o	A-2-4, GrSiSa, brn, Moist, Rec. = 1.1 ft, Lab Note: Broken rock was within sample.	6-4-5-10 (9)	16.2	29.9	39.6	30.5
30	o o o	A-2-4, SiGrSa, brn, Moist, Rec. = 1.1 ft, Field Note: NXDC, Cleaned out casing, 30.0-31.0 feet.	5-4-6-6 (10)	12.9	31.5	45.3	23.2
	o o o	A-2-4, GrSiSa, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 32.5-33.0 feet.	10-15-14-11 (29)	17.6	25.3	46.6	28.1
	o o o	A-1-b, SiGrSa, gry, Moist, Rec. = 0.8 ft	7-5-4-2 (9)	15.6	34.2	44.8	21.0
35	x x x	Field Note: No Recovery, Field Note: NXDC, Cleaned out casing, 38.5-40.0 feet.	7-3-3-5 (6)				
40	o o o	A-4, GrSaSi, brn, Moist, Rec. = 0.8 ft	7-6-4-3 (10)	14.7	20.7	39.4	39.9

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Gonyaw, Garrow, Emerson  
 Date Started: 12/15/17 Date Finished: 12/19/17  
 VTSPG NAD83: N 99261.40 ft E 1520558.10 ft  
 Station: 203+00.4 Offset: 21.00  
 Ground Elevation: 1226.0 ft

Casing I.D.: 4 in Sampler I.D.: 1.5 in  
 Type: WB SS  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
12/19/17	24.4	W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
45	x x x	Field Note: No Recovery, Field Note: NXDC, Cleaned out casing, 49.0-50.0 feet.	16-20-36-25 (56)				
50	o o o	A-2-4, SiGrSa, gry, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 54.0-55.0 feet.	49-24-R@5" (R)	11.2	32.7	35.4	31.9
55	o o o	A-4, SiSa, gry, Moist, Rec. = 1.8 ft, Field Note: NXDC, Cleaned out casing, 59.0-60.0 feet.	13-13-14-18 (27)	12.7	18.4	42.6	39.0
60	o o o	A-4, SiSa, gry, Moist, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing, 64.1-65.0 feet.	25-R@1" (R)	12.5	13.3	49.9	36.8
65	o o o	A-4, SaSi, gry, Moist, Rec. = 1.2 ft, Field Note: NXDC, Cleaned out casing, 68.6-70.0 feet.	16-22-R@3.5" (R)	12.5	18.3	40.2	41.5
70	o o o	A-2-4, SiGrSa, gry, Moist, Rec. = 1.0 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 73.4-75.0 feet.	18-37-R@5" (R)	9.5	34.0	36.5	29.5
75	o o o	A-2-4, GrSiSa, gry, Moist, Rec. = 1.0 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing, 78.5-80.0 feet.	44-47-R@2.5" (R)	10.9	27.6	40.4	32.0
80	x x x	Field Note: No Recovery Hole stopped @ 80.3 ft	R@3.5" (R)				
85		Remarks: Hole collapsed at 13.7 feet.					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2  
 FILE NAME: z13c068borlogs.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: R.H. BARNES  
 BORING LOGS SHEET (II OF 28)

PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: N.A. TRUSLOW  
 SHEET 71 OF 220





Boring Crew: Gonyaw, Judkins, Nieto  
 Date Started: 12/20/17 Date Finished: 12/22/17  
 VTSPG NAD83: N 99219.30 ft E 1520649.70 ft  
 Station: 203+99.1 Offset: 15.20  
 Ground Elevation: 1216.0 ft

Casing I.D.: 4 in Sampler SS  
 Type: WB  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations		
Date	Depth (ft)	Notes
12/20/17	22.4	W.T. After Drilling
12/21/17	28.2	W.T. After Drilling
12/22/17	47.1	W.T. Before Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5	X X X	Field Note: Estimated thickness of pad is 7.0 feet., Field Note: NXDC, Cleaned out casing 9.0-10.0 feet.					
10	X X X	Field Note: No Recovery, Appears to be Sand, Field Note: NXDC, Cleaned out casing 13.9-15.0 feet.	3-3-3-2 (6)				
15	X X X	A-1-b, SiGrSa, Lt/brn, Moist, Rec. = 0.4 ft, Field Note: NXDC, Cleaned out casing 19.0-20.0 feet.	4-3-5-7 (8)	11.9	33.5	43.4	23.1
20	X X X	A-2-4, GrSa, Lt/brn, Moist, Rec. = 0.2 ft, Field Note: NXDC, Cleaned out casing 21.3-22.0 feet.	4-5-3-3 (8)	16.8	29.4	50.8	19.8
25	X X X	Field Note: No Recovery, Appears to be Sand, Field Note: NXDC, Cleaned out casing 23.6-24.0 feet.	4-4-3-4 (7)				
25	X X X	A-2-4, GrSiSa, Lt/brn-brn, Moist, Rec. = 1.0 ft, Field Note: NXDC, Cleaned out casing 25.4-26.0 feet.	4-5-4-3 (9)	17.4	21.1	45.4	33.5
30	X X X	A-1-b, SiSaGr, Lt/brn-gry, Moist, Rec. = 1.1 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 27.4-28.0 feet.	5-5-30-10 (35)	13.5	45.4	31.1	23.5
30	X X X	A-2-4, SiSa, Lt/brn-Dk/gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 23.1-30.0 feet.	5-8-11-8 (19)	15.1	19.2	46.4	34.4
30	X X X	A-2-4, SiGrSa, Lt/brn, Moist, Rec. = 1.1 ft, Field Note: NXDC, Cleaned out casing 31.6-32.0 feet.	10-9-8-7 (17)	13.8	29.8	41.2	29.0
35	X X X	A-2-4, GrSiSa, Lt/brn, Moist, Rec. = 0.5 ft, Field Note: NXDC, Cleaned out casing 33.3-34.0 feet.	3-5-5-4 (10)	15.3	23.8	44.3	31.9
35	X X X	A-2-4, SiGrSa, Lt/brn, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 39.1-40.0 feet.	4-4-8-13 (12)	13.5	31.3	43.0	25.7
40	X X X	A-1-b, SiSaGr, Lt/brn, Moist, Rec. = 1.0 ft, Field Note: NXDC, Cleaned out casing 44.0-45.0 feet.	4-4-5-11 (9)	11.9	39.8	38.9	21.3

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Gonyaw, Judkins, Nieto  
 Date Started: 12/20/17 Date Finished: 12/22/17  
 VTSPG NAD83: N 99219.30 ft E 1520649.70 ft  
 Station: 203+99.1 Offset: 15.20  
 Ground Elevation: 1216.0 ft

Casing I.D.: 4 in Sampler SS  
 Type: WB  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations		
Date	Depth (ft)	Notes
12/20/17	22.4	W.T. After Drilling
12/21/17	28.2	W.T. After Drilling
12/22/17	47.1	W.T. Before Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
45	X X X	Field Note: No Recovery, Appears to be Sand, Field Note: NXDC, Cleaned out casing 48.8-50.0 feet.	9-8-3-2 (11)				
50	X X X	A-1-b, SiGrSa, brn-Lt/gry, Moist, Rec. = 1.1 ft, Lab Note: Wood and wood fibers were within sample. Field Note: NXDC, Cleaned out casing 53.2-55.0 feet.	14-7-5-5 (12)	30.4	31.9	43.8	24.3
55	X X X	A-2-4, GrSa, Lt/gry, Moist, Rec. = 1.1 ft, Lab Note: Wood fibers were within sampe. Field Note: NXDC, Cleaned out casing 58.4-60.0 feet.	15-9-16-24 (25)	18.9	21.3	63.7	15.0
60	X X X	Field Note: No Recovery, Appears to be Sand and Broken Rock, Field Note: NXDC, Cleaned out casing 64.6-65.0 feet.	12-8-8-8 (16)				
65	X X X	A-4, SaSi, gry, Moist, Rec. = 1.2 ft, Field Note: NXDC, Cleaned out casing 69.0-70.0 feet.	18-32-42-R@2.5" (74)	12.4	18.9	40.0	41.1
70	X X X	A-4, GrSaSi, gry, Moist, Rec. = 1.5 ft	14-20-55-28 (75)	12.4	20.7	38.1	41.2
75	X X X	A-4, GrSaSi, gry, Moist	20-22-R@6" (R)	10.2	28.0	34.7	37.3
80	X X X	A-2-4, SiSaGr, gry, Moist, Rec. = 0.7 ft Hole stopped @ 80.8 ft	42-R@3.5" (R)	9.7	37.6	33.3	29.1
85		Remarks: Hole collapsed at 7.1 feet.					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18



Boring Crew: Gonyaw, Judkins, Emerson  
 Date Started: 1/19/18 Date Finished: 1/23/18  
 VTSPG NAD83: N 99143.10 ft E 1520643.00 ft  
 Station: 204+23.5 Offset: 87.10  
 Ground Elevation: 1169.8 ft

Casing: WB 4 in 1.5 in  
 Sampler: SS 1.5 in  
 Type: _____  
 I.D.: _____  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

**Groundwater Observations**  
 Date Depth Notes  
 01/22/18 5.3 W.T. before drilling  
 01/23/18 0.0 W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SiSa, blk, Moist, Rec. = 0.9 ft, Lab Note: Broken rock and plant material was within sample.	2-2-4-5 (6)	22.9	17.2	60.3	22.5
		A-1-a, SaGr, blk, Moist, Rec. = 0.7 ft, Lab Note: Broken rock and pieces of wood were within sample. Field Note: NXDC, Cleaned out casing 2.5-4.0 feet.	10-44-17-23 (61)	9.0	60.7	28.7	10.6
		A-1-a, SaGr, brn, Moist, Rec. = 0.3 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 5.2-6.0 feet.	11-11-11-7 (22)	8.5	70.8	22.5	6.7
5		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing 7.0-8.0 feet.	3-4-9-4 (13)				
		A-1-a, Gr, brn, Moist, Rec. = 0.1 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 9.0-10.0 feet.	3-4-5-6 (9)	3.7	84.3	12.6	3.1
10		A-4, GrSaSi, brn, Moist, Rec. = 0.8 ft	10-10-6-5 (16)	12.4	25.3	35.0	39.7
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 13.3-14.0 feet.	2-8-10-7 (18)	11.3	43.7	31.0	25.3
		A-2-4, SiGrSa, brn, Moist, Rec. = 0.5 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 15.6-16.0 feet.	6-4-6-8 (10)	12.1	35.3	35.4	29.3
15		A-4, SaSi, brn, Moist, Rec. = 1.2 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 17.4-18.0 feet.	6-20-11-11 (31)	12.3	18.6	40.6	40.8
		A-4, SaSi, brn, Moist, Rec. = 1.5 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 19.0-20.0 feet.	11-12-14-16 (26)	12.8	14.3	41.5	44.2
20		A-4, SaSi, brn, Moist, Rec. = 1.5 ft, Field Note: NXDC, Cleaned out casing 24.2-25.0 feet.	18-18-18-20 (36)	11.8	19.6	38.7	41.7
25		A-4, GrSaSi, brn, Moist, Rec. = 1.5 ft, Field Note: NXDC, Cleaned out casing 29.2-30.0 feet.	13-15-20-20 (35)	11.3	22.7	38.1	39.2
30		A-4, GrSaSi, brn, Moist, Rec. = 1.5 ft, Field Note: NXDC, Cleaned out casing 34.1-35.0 feet.	14-21-23-32 (44)	11.4	22.0	37.1	40.9

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Gonyaw, Judkins, Emerson  
 Date Started: 1/19/18 Date Finished: 1/23/18  
 VTSPG NAD83: N 99143.10 ft E 1520643.00 ft  
 Station: 204+23.5 Offset: 87.10  
 Ground Elevation: 1169.8 ft

Casing: WB 4 in 1.5 in  
 Sampler: SS 1.5 in  
 Type: _____  
 I.D.: _____  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

**Groundwater Observations**  
 Date Depth Notes  
 01/22/18 5.3 W.T. before drilling  
 01/23/18 0.0 W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-4, SaSi, gry-brn, Moist, Rec. = 1.7 ft, Field Note: NXDC, Cleaned out casing 34.5-40 feet.	13-16-18-18 (34)	13.4	12.2	39.6	48.2
40		A-2-4, GrSiSa, gry-brn, Moist, Rec. = 0.5 ft, Field Note: NXDC, Cleaned out casing 43.8-45.0 feet.	25-R@1" (R)	9.9	31.3	36.1	32.6
45		A-4, GrSaSi, gry-brn, Moist, Rec. = 1.1 ft, Field Note: NXDC, Cleaned out casing 48.4-50.0 feet.	12-30-31-20 (61)	11.1	25.1	37.1	37.8
50		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing 53.1-55.0 feet.	41-47-R@1" (R)				
55		A-1-b, SiSaGr, gry, Moist, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing 58.8-60.0 feet.	18-46-R@1" (R)	8.3	50.6	28.7	20.7
60		A-4, SiSa, gry-brn, Moist, Rec. = 1.3 ft	29-18-18-30 (36)	14.8	10.7	47.8	41.5
65		Hole stopped @ 62.0 ft  Remarks: Hole collapsed at 5.6 feet.  1.25 feet of sand flowed up casing with artesian conditions at 62.0 feet.					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18





Boring Crew: Nieto, Garrow, Olden  
 Date Started: 1/08/18 Date Finished: 2/01/18  
 VTSPG NAD83: N 99169.70 ft E 1520737.40 ft  
 Station: 204+97.4 Offset: 28.40  
 Ground Elevation: 1192.5 ft

Casing: WB 4 in 1.5 in  
 Sampler: SS 1.5 in  
 Type: _____  
 I.D.: _____  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_e = 1.41

**Groundwater Observations**  
 Date Depth (ft) Notes  
 01/30/18 -4.0 W.T. before drilling  
 01/31/18 -10.0 W.T. during drilling  
 02/01/18 -4.0 W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-1-b, SiGrSa, brn, Moist, Rec. = 0.9 ft				2-7-8-7 (15)	9.5	37.1	41.7	21.2
		A-1-b, SaGr, brn, Moist, Rec. = 0.4 ft, Field Note: NXDC, Cleaned out casing 2.0-4.0 feet.				R@5" (R)	8.2	46.0	36.0	18.0
5		Field Note: No Recovery				4-8- R@3.5" (R)				
		A-1-a, Gr, gry, Moist, Rec. = 0.2 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 6.2-8.0 feet, Boulder				R@2.5" (R)	5.4	81.3	14.1	4.6
10		A-1-b, SaGr, gry, Moist, Rec. = 0.3 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 9.6-10.0 feet, Cobbles.				28-8-1-23 (9)	12.8	57.0	25.9	17.1
		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing 11.6-12.0 feet, Cobbles.				2-10-15-17 (25)				
		A-1-a, SaGr, brn, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 13.1-14.0 feet, Cobbles.				15-21-16- R@1" (37)	7.8	56.2	30.8	13.0
15		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing 14.2-16.0 feet, Cobbles.				R@0" (R)				
		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing 17.2-18.0 feet, Cobbles.				1-3-2-2 (5)				
20		A-1-b, SaGr, brn, Moist, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing 19.2-20.0 feet.				8-9-8- R@2.5" (17)	11.3	56.0	27.4	16.6
		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing 22.7-25.0 feet, Cobbles.				R@0" (R)				
25		A-1-b, GrSa, blk, Moist, Rec. = 1.3 ft, Field Note: NXDC, Cleaned out casing 28.5-30.0 feet, Cobbles.				5-5-8-16 (13)	17.2	38.4	51.6	10.0
30		A-4, GrSaSi, gry, Moist, Rec. = 1.5 ft, Field Note: NXDC, Cleaned out casing 33.8-35.0 feet, Cobbles.				19-20-22-22 (42)	10.7	23.0	36.6	40.4
35		A-4, SaSi, gry, Moist, Rec. = 1.4 ft				23-22-34- R@3.5" (R)	12.0	17.7	40.1	42.2
40		A-4, GrSaSi, gry, Moist, Rec. = 1.4 ft, Field Note: NXDC, Cleaned out casing 44.1-45.0 feet, Cobbles.				8-22-22-22 (44)	10.6	26.1	36.6	37.3
45		A-4, SaSi, gry, Moist, Rec. = 1.6 ft, Field Note: NXDC, Cleaned out casing 48.9-50.0 feet.				15-20-26-26 (46)	12.1	16.5	38.8	44.7

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_e 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.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Nieto, Garrow, Olden  
 Date Started: 1/08/18 Date Finished: 2/01/18  
 VTSPG NAD83: N 99169.70 ft E 1520737.40 ft  
 Station: 204+97.4 Offset: 28.40  
 Ground Elevation: 1192.5 ft

Casing: WB 4 in 1.5 in  
 Sampler: SS 1.5 in  
 Type: _____  
 I.D.: _____  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_e = 1.41

**Groundwater Observations**  
 Date Depth (ft) Notes  
 01/30/18 -4.0 W.T. before drilling  
 01/31/18 -10.0 W.T. during drilling  
 02/01/18 -4.0 W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-4, SaSi, gry, Moist, Rec. = 1.7 ft, Field Note: NXDC, Cleaned out casing 53.8-55.0 feet.				24-19-20-25 (39)	12.6	17.5	38.1	44.4
55		A-2-4, Sa, brn, Moist, Rec. = 0.4 ft, Field Note: NXDC, Cleaned out casing 58.5-60.0 feet.				30-40- R@3.5" (R)	24.8	11.9	71.2	16.9
60		Field Note: No Recovery				37- R@3.5" (R)				
65		A-4, GrSiSa, gry, Moist, Rec. = 0.9 ft, Field Note: NXDC, Cleaned out casing 69.0-70.0 feet.				35-49- R@2.5" (R)	11.4	20.9	42.4	36.7
70		A-2-4, GrSiSa, gry, Moist, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing 74.0-75.0 feet.				22- R@3.5" (R)	9.9	30.7	36.3	33.0
75		A-2-4, GrSaSi, gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 79.1-80.0 feet.				24-33- R@5" (R)	10.7	30.9	34.1	35.0
80		A-4, SiSa, brn, Moist, Rec. = 2.0 ft, Field Note: NXDC, Cleaned out casing 88.4-90.0 feet.				2-4-7-30 (11)	18.1	4.7	51.5	43.8
85										
90		A-2-4, Sa, brn, Moist, Rec. = 2.0 ft, Field Note: NXDC, Cleaned out casing 91.5-100 feet, sand.				3-22-33-24 (55)	19.9	17.2	62.8	20.0
95										

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_e 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.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18





Boring Crew: Nieto, Garrow, Olden  
 Date Started: 1/08/18 Date Finished: 2/01/18  
 VTSPG NAD83: N 99169.70 ft E 1520737.40 ft  
 Station: 204+97.4 Offset: 28.40  
 Ground Elevation: 1192.5 ft

Casing: WB I.D.: 4 in Sampler: SS  
 Type: Hammer Wt: N.A. 140 lb. Hammer Fall: N.A. 30 in. Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

**Groundwater Observations**  
 Date Depth (ft) Notes  
 01/30/18 -4.0 W.T. before drilling  
 01/31/18 -10.0 W.T. during drilling  
 02/01/18 -4.0 W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note: No Recovery				WR-WR-WH-7 (0)				
105		Field Note: Advanced casing through flowing sand, No sampling 102.0-129.0 feet.								
110										
115										
120										
125										
130		129.0 ft - 134.0 ft, Gray, Muscovite-biotite-amphibole-plagioclase-quartz GNEISS, with rare sulfides. Tan/brown staining along joints. Hard, Very slightly weathered, Fair rock, NX, RMR=57	1 (30-40)	94 (74)	3					
135		134.0 ft - 139.0 ft, Gray, Muscovite-biotite-amphibole-plagioclase-quartz GNEISS, with a quartz healed fracture/fault that extends from 135.5-136.5 feet. Healed fracture dips steeply through core (80 degrees) and cuts through foliation. Tan staining along joints. Hard, Slightly weathered, Fair rock, NX, RMR=51	2 (30-40)	88 (75)	3					
140		Hole stopped @ 139.0 ft								
145		Remarks: Hole collapsed at 20.7 feet. 1. Artesian conditions and flowing sand encountered from 82-110 feet. 2. Negative water table measurement refers to measurement above ground level and artesian condition observed.								

Notes:  
 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Emerson, Garrow, Olden  
 Date Started: 2/05/18 Date Finished: 2/16/18  
 VTSPG NAD83: N 99210.40 ft E 1520751.00 ft  
 Station: 204+96.1 Offset: -14.40  
 Ground Elevation: 1208.4 ft

Casing: WB I.D.: 4 in Sampler: SS  
 Type: Hammer Wt: N.A. 140 lb. Hammer Fall: N.A. 30 in. Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

**Groundwater Observations**  
 Date Depth (ft) Notes  
 02/15/18 25.7 W.T. before drilling  
 02/16/18 37.7 W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Field Note: Cobbles								
		A-4, SiSa, brn, Moist, Rec. = 1.4 ft				3-4-4-2 (8)	11.6	16.6	47.7	35.7
		A-4, SiSa, brn, Moist, Rec. = 0.4 ft				2-4-6-6 (10)	13.4	13.5	50.6	35.9
		A-2-4, GrSiSa, brn, Moist, Rec. = 1.3 ft, Field Note: NXDC, Cleaned out casing 7.0-8.0 feet.				4-4-4-4 (8)	8.5	27.7	41.4	30.9
10		A-2-4, GrSiSa, brn, Moist, Rec. = 0.7 ft				2-3-3-3 (6)	16.3	22.7	45.3	32.0
		A-2-4, SiGrSa, brn, Moist, Rec. = 1.3 ft				2-3-3-8 (6)	11.6	33.6	42.9	23.5
		A-1-b, SaGr, brn, Moist, Rec. = 0.5 ft				5-10-18-16 (28)	10.0	53.6	32.2	14.2
		Field Note: No Recovery				18-13-14-14 (27)	15.2	21.5	45.5	33.0
		A-2-4, GrSiSa, brn, Moist, Rec. = 1.2 ft				14-11-11-11 (22)	14.5	31.9	37.3	30.8
20		A-2-4, SiGrSa, brn, Moist, Rec. = 0.9 ft, Field Note: NXDC, Cleaned out casing 19.1-20.0 feet.				14-11-17-17 (28)	12.5	47.5	34.7	17.8
		A-1-b, SaGr, brn, Moist, Rec. = 1.0 ft				R@2.5" (28)				
						10-16-12-13 (28)				
		A-1-b, SiGrSa, brn, Moist, Rec. = 0.8 ft				10-13-8-8 (21)	12.8	36.9	41.2	21.9
30										
		A-1-b, SaGr, brn, Moist, Rec. = 0.7 ft				20-13-13-9 (26)	13.5	44.4	36.9	18.7
40		Field Note: No Recovery, Field Note: BXDC, Cleaned out casing 43.5-45.0 feet.				7-7-9-4 (16)				
		A-3, Sa, brn, Moist, Rec. = 0.4 ft				18-10-8-7 (18)	28.3	7.2	87.2	5.6
50		A-2-4, GrSiSa, brn, Moist, Rec. = 1.2 ft				23-24-25-30 (49)	11.7	26.6	39.6	33.8

Notes:  
 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2  
 FILE NAME: z13c068borlogs.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: R.H. BARNES  
 BORING LOGS SHEET (15 OF 28)

PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: N.A. TRUSLOW  
 SHEET 75 OF 220



VTTrans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: <b>B-26</b>					
		Readsboro BF 0102(16) VT-100 BR# 25		Page No.: 2 of 3		Pin No.: 13c068					
		Checked By: SPM		Casing		Sampler					
Boring Crew: Emerson, Garrow, Olden		Type: WB		SS		Groundwater Observations					
Date Started: 2/05/18 Date Finished: 2/16/18		I.D.: 4 in		1.5 in		Date					
VTSPG NAD83: N 99210.40 ft E 1520751.00 ft		Hammer Wt: N.A.		140 lb.		Depth (ft)					
Station: 204+96.1 Offset: -14.40		Hammer Fall: N.A.		30 in.		Notes					
Ground Elevation: 1208.4 ft		Hammer/Rod Type: Auto/AWJ		Rig: CME 55 TRACK C _E = 1.41		02/15/18 25.7 W.T. before drilling					
						02/16/18 37.7 W.T. before drilling					
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
60		Field Note: No Recovery, Appears to be broken rock					20-R (R)				
		Field Note: Boulder 65.1-69.6 feet.									
70		A-4, SaSi, gry, Moist, Rec. = 1.0 ft, Field Note: BXDC, Cleaned out casing 79.0-80.0 feet.					23-28-R@5" (R)	11.6	17.5	39.4	43.1
80		A-4, SaSi, gry, Moist, Rec. = 0.7 ft					22-49-R@2.5" (R)	13.2	15.2	40.6	44.2
		A-3, Sa, gry, Moist, Rec. = 0.5 ft, Field Note: BXDC, Cleaned out casing 89.3-90.0 feet.						27.0	0.8	92.8	6.4
90		A-4, SaSi, gry, Moist, Rec. = 1.2 ft, Field Note: BXDC, Cleaned out casing 97.3-100.0 feet.					13-26-49-R@1" (75)	11.7	16.2	40.8	43.0
100		A-2-4, SiGrSa, gry, Moist, Rec. = 0.9 ft					39-40-R@3.5" (R)	13.2	32.8	35.3	31.9

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. N Values have not been corrected for hammer energy. C_E 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.

VTTrans Working to Get You There		STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: <b>B-26</b>					
		Readsboro BF 0102(16) VT-100 BR# 25		Page No.: 3 of 3		Pin No.: 13c068					
		Checked By: SPM		Casing		Sampler					
Boring Crew: Emerson, Garrow, Olden		Type: WB		SS		Groundwater Observations					
Date Started: 2/05/18 Date Finished: 2/16/18		I.D.: 4 in		1.5 in		Date					
VTSPG NAD83: N 99210.40 ft E 1520751.00 ft		Hammer Wt: N.A.		140 lb.		Depth (ft)					
Station: 204+96.1 Offset: -14.40		Hammer Fall: N.A.		30 in.		Notes					
Ground Elevation: 1208.4 ft		Hammer/Rod Type: Auto/AWJ		Rig: CME 55 TRACK C _E = 1.41		02/15/18 25.7 W.T. before drilling					
						02/16/18 37.7 W.T. before drilling					
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)		Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SiSa, gry, Moist, Rec. = 1.7 ft, Field Note: BXDC, Cleaned out casing 119.2-120.0 feet.					5-7-41-R@2.5" (48)	24.4		68.2	31.8
120		Field Note: No Recovery, Rec. = 5.0 ft					26-39-R@3.5" (R)				
130		128.6 ft - 133.6 ft, Gray, Muscovite-biotite-amphibole-plagioclase-quartz GNEISS, with faint rust and brown staining along joints. Hard, Very slightly weathered, Fair rock, BX, RMR=42 (Low RQD likely due to mechanical breakage)		1 (20)	56 (0)	3					
		133.6 ft - 138.6 ft, Gray, Muscovite-biotite-amphibole-plagioclase-quartz GNEISS, with foliation planes that are highly deformed compared to previous run. Faint rust and brown staining along joints. Hard, Very slightly weathered, Fair rock, BX, RMR=57		2 (20-70)	34 (68)	1					
		138.6 ft - 143.6 ft, Gray, Muscovite-biotite-amphibole-plagioclase-quartz GNEISS, with faint rust and brown staining along joints. Hard, Very slightly weathered, Fair rock, BX, RMR=42 (Low RQD likely due to mechanical breakage)		3 (20-70)	100 (0)	4					
		Hole stopped @ 143.6 ft									
		Remarks: Hole collapsed at 39.0 feet.									
		1. Bridge deck was 0.87 feet thick.									
		2. Ground surface was 24.3 feet below surface of bridge deck.									

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. N Values have not been corrected for hammer energy. C_E 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.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2



FILE NAME: z13c068borlogs.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: W.A. FRETWELL  
DESIGNED BY: R.H. BARNES CHECKED BY: N.A. TRUSLOW  
BORING LOGS SHEET (16 OF 28) SHEET 76 OF 220

Boring Crew: Judkins, Emerson  
 Date Started: 8/11/17 Date Finished: 8/11/17  
 VTSPG NAD83: N 99061.90 ft E 1521038.40 ft  
 Station: 208+17.2 Offset: 25.20  
 Ground Elevation: 1224.8 ft

Casing: WB  
 Sampler: SS  
 I.D.: 4 in 1.5 in  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
08/11/17	7.9	W.T. after drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.5		A-1-b, GrSa, brn, Moist, Rec. = 1.0 ft, Lab Note: Plant roots were within sample.				1-1-6-5 (7)	9.6	39.9	42.3	17.8
2.5		A-1-b, GrSa, blk, Moist, Rec. = 1.0 ft				13-11-12-21 (23)	7.7	41.3	41.9	16.8
5.0		A-1-b, SaGr, brn, Moist, Rec. = 1.1 ft, Lab Note: Broken rock was within sample.				15-25-27-22 (52)	8.9	41.4	39.5	19.1
6.3		Field Note: No Recovery				R@3.5"				
6.3		6.3 ft - 11.3 ft, Gray, To white biotite-muscovite-quartz GNEISS, with rare garnet. Moderate rust and brown discoloration on slightly open joints. Hard, Very slightly weathered, Good rock, NX, RMR=61	1 (50)	76 (89)	3					
7.5					4					
7.5					4					
10.0					3					
10.0					3					
12.5		11.3 ft - 16.3 ft, Gray, To white biotite-muscovite-quartz GNEISS, with faint orange staining on slightly open joints. Hard, Very slightly weathered, Fair rock, NX, RMR=56	2 (40-50)	100 (84)	4					
12.5					3					
12.5					4					
15.0					3					
15.0					3					
16.3		Hole stopped @ 16.3 ft								
17.5		Remarks: Hole collapsed at 6.0 feet.								

Notes:  
 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Judkins, Emerson  
 Date Started: 8/10/17 Date Finished: 8/10/17  
 VTSPG NAD83: N 99038.10 ft E 1521018.30 ft  
 Station: 208+6.6 Offset: 54.50  
 Ground Elevation: 1226.5 ft

Casing: WB  
 Sampler: SS  
 I.D.: 4 in 1.5 in  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK C_E = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
08/10/17	3.9	W.T. during drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft* (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.5		A-1-b, GrSa, brn, Moist, Rec. = 0.3 ft				4-5-4-4 (9)	5.6	29.6	51.4	19.0
2.5		A-1-b, GrSa, brn, Moist, Rec. = 1.0 ft, Lab Note: Broken rock and pieces of decomposing wood were within sample				4-6-6-6 (12)	4.6	34.7	62.0	3.3
5.0		A-1-b, GrSa, brn, Moist, Rec. = 1.3 ft, Lab Note: Broken and weathered rock was within sample.				6-8-11-23 (19)	12.7	38.8	43.9	17.3
5.0		A-1-a, SaGr, brn, Moist, Rec. = 0.2 ft				R@2.5" (R)	9.2	63.8	27.7	8.5
7.5		7.1 ft - 12.1 ft, Gray, To white biotite-muscovite-quartz GNEISS, with minor rust and brown discoloration along slightly open joints. Hard, Unweathered, Fair rock, NX, RMR=57	1 (45-50)	90 (72)	3					
7.5					3					
7.5					3					
10.0					3					
10.0					4					
12.5		12.1 ft - 17.1 ft, Gray, To white biotite-muscovite-quartz GNEISS, with faint rust and staining along slightly open joints. Hard, Unweathered, Fair rock, NX, RMR=54	2 (50)	94 (72)	4					
12.5					4					
12.5					4					
15.0					4					
15.0					4					
17.5		Hole stopped @ 17.1 ft								
17.5		Remarks: Hole collapsed at 5.7 feet.								

Notes:  
 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18





Boring Crew: Gonyaw, Judkins, Emerson  
 Date Started: 1/23/18 Date Finished: 1/24/18  
 VTSPG NAD83: N 99132.30 ft E 1520723.40 ft  
 Station: 204+97.2 Offset: 68.40  
 Ground Elevation: 1170.2 ft

Casing: WB Sampler: SS  
 I.D.: 4 in 1.5 in  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK  $C_e = 1.41$

**Groundwater Observations**  
 Date: 01/24/18 Depth (ft): 8.2 Notes: W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		A-2-4, SiGrSa, brn, Moist, Rec. = 0.3 ft Field Note: NXDC, Cleaned out casing, Cobbles	12-R@5" (R)	13.1	36.0	37.8	26.2
5		A-1-b, SaGr, brn, Moist, Lab Note: A small amount of plant material was within sample.	15-18-7-6 (25)	11.5	56.7	27.9	15.4
		A-1-a, SaGr, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, cleaned out casing 6.7-8.0 feet.	13-13-14-11 (27)	8.8	60.8	28.1	11.1
10		A-1-a, SaGr, brn, Moist, Rec. = 0.8 ft	5-7-14-17 (21)	11.2	61.3	28.4	10.3
		A-1-a, SaGr, gry, Moist, Rec. = 0.5 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, cleaned out casing 10.9-12.0 feet.	42-48-R@3.5" (R)	11.2	57.0	31.3	11.7
		A-1-b, SaGr, gry, Moist, Rec. = 0.7 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, cleaned out casing 12.5-14.0 feet.	10-38-46-R@1" (84)	14.2	51.3	32.9	15.8
15		A-1-b, SaGr, gry, Moist, Rec. = 0.9 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, cleaned out casing 14.5-16.0 feet.	41-R@5" (R)	12.5	46.3	35.0	18.7
		A-1-b, SaGr, gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing, 17.1-18.0 feet.	45-21-R@2.5" (R)	11.5	43.9	43.0	13.1
20		A-4, GrSaSi, gry, Moist, Rec. = 1.4 ft, Field Note: NXDC, Cleaned out casing, 19.3-20.0 feet.	13-24-29-R@2.5" (53)	11.2	26.3	35.1	38.6
		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing, 24.0-25.0 feet.	R@0" (R)				
25		A-4, GrSiSa, gry, Moist, Rec. = 0.4 ft, Field Note: NXDC, Cleaned out casing, 27.9-30.0 feet.	R@5" (R)	13.8	26.0	37.9	36.1

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy.  $C_e$  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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Gonyaw, Judkins, Emerson  
 Date Started: 1/23/18 Date Finished: 1/24/18  
 VTSPG NAD83: N 99132.30 ft E 1520723.40 ft  
 Station: 204+97.2 Offset: 68.40  
 Ground Elevation: 1170.2 ft

Casing: WB Sampler: SS  
 I.D.: 4 in 1.5 in  
 Hammer Wt: N.A. 140 lb.  
 Hammer Fall: N.A. 30 in.  
 Hammer/Rod Type: Auto/AWJ  
 Rig: CME 55 TRACK  $C_e = 1.41$

**Groundwater Observations**  
 Date: 01/24/18 Depth (ft): 8.2 Notes: W.T. before drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
30		A-4, SaSi, gry, Moist, Rec. = 1.5 ft, Field Note: NXDC, Cleaned out casing, 34.1-35.0 feet.	26-29-27-R@2.5" (R)	12.3	15.0	42.0	43.0
35		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing, 39.2-40.0 feet.	41-46-R@1" (R)				
40		A-1-b, SiSaGr, gry, Moist, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing, 43.6-45.0 feet.	R@5" (R)	8.2	56.5	22.9	20.6
45		A-2-4, SaSiGr, gry, Moist, Rec. = 0.5 ft, Field Note: NXDC, Cleaned out casing, 49.3-50.0 feet.	30-40-R@5" (R)	8.4	46.0	26.9	27.1
50		Field Note: No Recovery	45-R@5" (R)				
Hole stopped @ 50.9 ft							
Remarks: Hole collapsed at 8.7 feet.							

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy.  $C_e$  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.

BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18





Boring Crew: Nieto, Garrow, Olden  
Date Started: 1/09/18 Date Finished: 1/18/18  
VTSPG NAD83: N 99161.30 ft E 1520761.90 ft  
Station: 205+23.3 Offset: 27.90  
Ground Elevation: 1175.0 ft

Casing: WB 4 in 1.5 in  
Sampler: SS 1.5 in  
Type: _____  
I.D.: _____  
Hammer Wt: N.A. 140 lb.  
Hammer Fall: N.A. 30 in.  
Hammer/Rod Type: Auto/AWJ  
Rig: CME 55 TRACK C_e = 1.41

Groundwater Observations

Date	Depth (ft)	Notes
01/11/18	10.1	W.T. Before Drilling
01/12/18	0.0	W.T. Before Drilling
01/16/18	-1.5	W.T. Before Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		A-1-b, SaGr, brn, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample. Field Note: Appears to be cobbles, NXDC, Cleaned out casing 3.0-4.0 feet.				4-7-12-12 (19)	5.8	49.3	35.8	14.9
		A-1-b, SiSaGr, brn, Moist, Rec. = 0.7 ft				4-3-19-11 (22)	13.4	40.1	37.8	22.1
		A-1-a, SaGr, brn, Moist, Rec. = 0.2 ft, Field Note: Rock stuck in end of sampler.				6-4-5-3 (9)	12.4	52.2	38.1	9.7
10		A-1-b, SaGr, brn, Moist, Rec. = 0.7 ft, Lab Note: Broken rock and pieces of wood were within sample. Field Note: NXDC, Cleaned out casing 9.0-10.0 feet. Field Note: No Recovery, Rock stuck in end of sampler, NXDC, Cleaned out casing 10.7-12.0 feet Field Note: No Recovery, NXDC, Cleaned out casing 12.0-14.0 feet.				6-14-8-23 (22) R@2.5" (R)	14.4	45.3	43.3	11.4
15		A-1-b, SaGr, gry-brn, Moist, Rec. = 0.4 ft, Lab Note: Broken rock was within sample. Field Note: No Recovery, Rock stuck in end of sampler, NXDC, Cleaned out casing 15.6-18.0 feet.				24-R@1" (R)	12.6	41.0	39.1	19.9
20		Field Note: No Recovery, Field Note: NXDC, Cleaned out casing 19.0-20.0 feet. A-1-b, SaGr, gry, Moist, Rec. = 0.3 ft				R@5" (R)				
25		A-4, SiSa, gry, Moist, Rec. = 0.4 ft, Field Note: NXDC, Cleaned out casing 27.9-30.0 feet.				38-R@2.5" (R)	7.3	51.4	31.6	17.0
30		A-4, Si, gry, Moist, Rec. = 1.6 ft				34-R@2.5" (R)	10.8	17.5	42.6	39.9
35		A-4, GrSaSi, gry, Moist, Rec. = 1.5 ft, Field Note: NXDC, Cleaned out casing 39.3-40.0 feet.				19-19-34-26 (53)	11.9	16.6	16.3	67.1
40		A-4, GrSaSi, gry, Moist, Rec. = 1.0 ft, Field Note: NXDC, Cleaned out casing 43.4-45.0 feet.				15-23-26-22 (49)	12.1	21.0	35.5	43.5
						31-31-R@5" (R)	11.2	27.9	34.7	37.4

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
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3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

Boring Crew: Nieto, Garrow, Olden  
Date Started: 1/09/18 Date Finished: 1/18/18  
VTSPG NAD83: N 99161.30 ft E 1520761.90 ft  
Station: 205+23.3 Offset: 27.90  
Ground Elevation: 1175.0 ft

Casing: WB 4 in 1.5 in  
Sampler: SS 1.5 in  
Type: _____  
I.D.: _____  
Hammer Wt: N.A. 140 lb.  
Hammer Fall: N.A. 30 in.  
Hammer/Rod Type: Auto/AWJ  
Rig: CME 55 TRACK C_e = 1.41

Groundwater Observations


Date	Depth (ft)	Notes
01/11/18	10.1	W.T. Before Drilling
01/12/18	0.0	W.T. Before Drilling
01/16/18	-1.5	W.T. Before Drilling

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
45		A-4, GrSaSi, gry, Moist, Rec. = 1.1 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 48.5-50.0 feet.				14-32-32-R@1" (R)	11.5	21.8	37.4	40.8
50		A-1-b, SaGr, gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 53.7-55.0 feet.				49-R@5" (R)	21.8	50.2	30.5	19.3
55		A-2-4, SiSaGr, gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 57.6-60.0 feet.				49-R@5" (R)	9.2	37.0	34.0	29.0
60		A-2-4, GrSiSa, gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 63.8-65.0 feet.				30-R@3.5" (R)	7.4	25.2	40.8	34.0
65		A-4, GrSaSi, gry, Moist, Rec. = 0.8 ft, Lab Note: Broken rock was within sample. Field Note: NXDC, Cleaned out casing 69.4-70.0 feet.				39-31-R@3.5" (R)	12.2	22.8	35.9	41.3
70		A-2-4, SiSa, gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 74.1-75.0 feet.				31-R@3.5" (R)	11.0	19.0	50.6	30.4
75		A-2-4, SiGrSa, gry, Moist, Rec. = 0.8 ft, Field Note: NXDC, Cleaned out casing 79.4-80.0 feet.				40-R@3.5" (R)	9.4	29.8	41.7	28.5
80		A-2-4, SiSa, brn, Moist, Rec. = 1.4 ft				7-14-23-42 (37)	21.8	15.8	59.8	24.4
		Field Note: Boulder, NXDC, Cleaned out casing 67.0-85.0 feet. Flowing sand/Artesian Conditions.								

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. N Values have not been corrected for hammer energy. C_e 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.

BORING LOG 2 READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18



 STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		<b>BORING LOG</b>		Boring No.: <b>B-30</b>						
		<b>Readsboro</b> <b>BF 0102(16)</b> <b>VT-100 BR# 25</b>		Page No.: 3 of 3						
Boring Crew: Nieto, Garrow, Olden Date Started: 1/09/18 Date Finished: 1/18/18 VTSPG NAD83: N 99161.30 ft E 1520761.90 ft Station: 205+23.3 Offset: 27.90 Ground Elevation: 1175.0 ft		Casing: WB I.D.: 4 in Sampler: SS I.D.: 1.5 in Hammer Wt: N.A. 140 lb. Hammer Fall: N.A. 30 in. Hammer/Rod Type: Auto/AWJ Rig: CME 55 TRACK $C_e = 1.41$		Groundwater Observations Date: 01/11/18 Depth (ft): 10.1 Notes: W.T. Before Drilling Date: 01/12/18 Depth (ft): 0.0 Notes: W.T. Before Drilling Date: 01/16/18 Depth (ft): -1.5 Notes: W.T. Before Drilling						
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/ft (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
90		A-4, Si, brn-gry, Moist, Rec. = 0.9 ft, Field Note: NXDC, Cleaned out casing 93.0-100.0 feet.				5-14-18-35 (32)	26.2	15.0	16.2	68.8
95										
100		Field Note: No Recovery 100.2 ft - 105.2 ft, Gray, Muscovite-biotite-amphibole-plagioclase-quartz GNEISS, with faint rust and brown staining along joints. Hard, Very slightly weathered, Good rock, NX, RMR=61	1 (30-40)	100 (82)	4	R _k Top of Bedrock @ 100.2 ft				
105		105.2 ft - 110.2 ft, Gray, Muscovite-biotite-amphibole-plagioclase-quartz GNEISS, with tan/brown staining along joints. Hard, Very slightly weathered, Good rock, NX, RMR=69	2 (40)	100 (92)	3					
110		Hole stopped @ 110.2 ft								
115		Remarks: Hole Collapsed at 11.5 feet.  1. Added bentonite to drilling operation at 40.0 feet. 2. Removed casing to change bit at 45.0 feet. Advanced casing to 50.0 feet. 3. Encountered flowing sand and artesian conditions at 82.0 feet. 4. Water table measurement on 1/16/2018 was 1.5 feet above ground level.								
120										
125										
130										
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. N Values have not been corrected for hammer energy. $C_e$ 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.										

BORING LOG 2, READSBORO BF0102(16).GPJ, VERMONT AOT, GDT, 3/9/18



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: W.A. FRETWELL
FILE NAME: z13c068borlogs.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 80 OF 220
DESIGNED BY: R.H. BARNES	
BORING LOGS SHEET (20 OF 28)	



**VERMONT AGENCY OF TRANSPORTATION  
CONSTRUCTION & MATERIALS BUREAU  
GEOTECHNICAL ENGINEERING SECTION  
DRILLING NOTES**

PROJECT NAME: READSBORO PROJECT NUMBER: BF 0102(16) SITE:  DATE: 9/5/2017  
BORING CREW: MAZZEI, OLDEN, JUDKINS, GONYAW, EMERSON TESTED BY: J. Daigneault REVIEWED BY: S. Madden

BORING No.	DATE DRILLED	STATION	OFFSET (FT)	DEPTH (FT)	SAMPLE TYPE	FIELD DESCRIPTION	LABORATORY RESULTS								
						SOIL TYPE, COLOR, MOISTURE	% MOISTURE	AASHTO CLASS.	SOIL DES.	% GRAVEL	% SAND	% FINES	LIQUID LIMIT	PLASTIC LIMIT	
B-31	8/17/17	208+38.9	5.77 RT	0.0'-0.63'	Core	Asphalt									
				0.63'-5.0'	SSA	Si Sa Gr      brn      m	4.4	A-1-b	Gr Sa	39.8	40.5	19.7			
B-32	8/17/17	209+40.2	23.54 LT	0.0'-0.52'	Core	Asphalt									
				0.52'-5.0'	SSA	Si Sa Gr      brn      m	6.5	A-1-b	Si Gr Sa	36.7	42.7	20.6			
B-33	8/17/17	210+76.7	1.04 RT	0.0'-0.83'	Core	Asphalt									
				0.83'-3.5'	SSA	Si Sa Gr      brn      m	4.5	A-2-4	Si Gr Sa	28.9	45.0	26.1			
B-33A	8/17/17	211+27.0	4.45 RT	0.0'-0.50'	SSA	No refusal									
						No sample taken									
						50.0' north of B-33									

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068borlogs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: R.H. BARNES  
BORING LOGS SHEET (21 OF 28)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 81 OF 220







Boring Crew: Eric Baron (S.W. Cole), Andrew Martin (WSP)  
Date Started: 12/14/22 Date Finished: 12/20/22  
VTSPG NAD83: N 99175.30 ft E 1520856.60 ft  
Station: 206+05.00 Offset: 7.2 RT  
Ground Elevation: 1163 (River Bottom El.)

Casing: WB  
Sampler: SS, NX  
Type: I.D.: 5 in 1.5 in  
Hammer Wt: 300 lb. 140 lb.  
Hammer Fall: 30 in. 30 in.  
Hammer/Rod Type: Auto/NWJ  
Rig: Diedrich D50 C_E = 1.47

Groundwater Observations  
Date: 12/15/22 Depth (ft): -0.6 Notes: Above river bottom

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.0 - 4.0	A-1-b	GM, Brown, wet, medium dense, sandy GRAVEL, some silt, poorly-graded, Rec. = 0.6 ft, [Alluvium]				7-11-13-11 (24)				
6.7 - 8.0		5-inch diameter steel casing would not advance beyond 6.7 feet bgs (a total of 73.7 feet of 5-inch casing used from bridge deck to 6.7 feet)								
8.0 - 8.9	A-1-a	GW, Gray, wet, dense, GRAVEL, some fine to coarse sand, trace silt, well-graded, Rec. = 2.0 ft, [Alluvium]				18-20-27-24 (47)	9.2	59.0	35.7	5.3
8.9 - 10.0	A-4	ML, Gray, wet, hard, SILT, some gravel, some fine to coarse sand, non-plastic, [Glacial Till]								
10.0 - 11.0		Cobbles encountered.								
12.0 - 14.0	A-4	ML, Gray, wet, very dense, SILT, some gravel, trace fine sand, non-plastic, Rec. = 1.6 ft, [Glacial Till]				20-20-50-70 (70)				
17.0 - 19.0	A-4	ML, Gray, wet, very dense, SILT, some gravel, trace fine sand, non-plastic, Rec. = 0.2 ft, [Glacial Till]				29-35-36-38 (71)				
22.0 - 24.0	A-4	SM, Gray, wet, very dense, sandy SILT, little gravel, Rec. = 1.5 ft, [Glacial Till]				38-38-56-54 (94)	10.6	20.0	39.0	41.0
27.0 - 29.0	A-4	ML, Gray, wet, very dense, SILT, some gravel, little fine to coarse sand, non-plastic, Rec. = 1.4 ft, [Glacial Till]				14-22-39-34 (61)				

Notes:  
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. N Values have not been corrected for hammer energy. C_E 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.

BOTTOM OF PIER FOOTING  
EL = 1154.00

2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23

Boring Crew: Eric Baron (S.W. Cole), Andrew Martin (WSP)  
Date Started: 12/14/22 Date Finished: 12/20/22  
VTSPG NAD83: N 99175.30 ft E 1520856.60 ft  
Station: 206+05.00 Offset: 7.2 RT  
Ground Elevation: 1163 (River Bottom El.)

Casing: WB  
Sampler: SS, NX  
Type: I.D.: 5 in 1.5 in  
Hammer Wt: 300 lb. 140 lb.  
Hammer Fall: 30 in. 30 in.  
Hammer/Rod Type: Auto/NWJ  
Rig: Diedrich D50 C_E = 1.47

Groundwater Observations  
Date: 12/15/22 Depth (ft): -0.6 Notes: Above river bottom

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
32.0 - 34.0	A-4	ML, Gray, wet, very dense, SILT, some fine to coarse sand, trace gravel, non-plastic, Rec. = 1.6 ft, [Glacial Till]				57-37-39-46 (76)	13.8	4.0	33.0	63.0
35.5 - 36.0		Roller bit used from 35.5 to 36 ft bgs, 4-inch diameter steel casing installed to 36 ft bgs.								
36.0 - 41.0		Gray, medium-grained, fresh, (W1) very strong (R5), GNEISS; with discontinuities, horizontal, moderately close, open. Gray silt infilling throughout. Average 0.5 fractures per foot. Quartz vein observed between from 37.2 ft to 37.4 bgs. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-1	80 (78)	1					
41.0 - 45.6		Gray, medium-grained, fresh, (W1) strong (R4), GNEISS; with discontinuities, horizontal to high angle, very close to moderately close, open. Gray silt infilling throughout. Average 1.3 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-2	91 (50)	3					
45.6 - 50.6		Gray, medium-grained, fresh, (W1) strong (R4), GNEISS; with discontinuities, low angle to high angle, close to moderately close, open. Brown silt and fine sand infilling throughout. Average 1.2 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-3	100 (74)	2					
50.6 - 55.6		Gray, medium-grained, fresh, (W1) strong (R4), GNEISS; with discontinuities, low angle to moderately dipping, close to moderately close, open. Brown silt and fine sand infilling throughout. Average 1.2 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-4	100 (90)	2					
55.6 - 60.6		Gray, medium-grained, fresh, (W1) very strong (R5), GNEISS; with discontinuities, horizontal to high angle, close to wide, tight to open. Average 0.6 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-5	100 (88)	2					
60.6 - 65.6		Gray, medium-grained, fresh, (W1) very strong (R5), GNEISS; with discontinuities, low angle to moderately dipping, very close to moderately close, open. Average 0.6 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-6	100 (78)	2					

Notes:  
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
2. N Values have not been corrected for hammer energy. C_E 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.

ESTIMATED BOTTOM OF DRILLED SHAFT  
EL = 1121.50

2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068borlogs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: R.H. BARNES  
BORING LOGS SHEET (23 OF 28)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 83 OF 220



Boring Crew: Eric Baron (S.W. Cole), Andrew Martin (WSP) Date Started: 12/14/22 Date Finished: 12/20/22 VTSPG NAD83: N 99175.30 ft E 1520856.60 ft Station: 206+05.00 Offset: 7.2 RT Ground Elevation: 1163 (River Bottom El.)	Casing: WB Sampler: SS, NX I.D.: 5 in 1.5 in Hammer Wt: 300 lb. 140 lb. Hammer Fall: 30 in. 30 in. Hammer/Rod Type: Auto/NWJ Rig: Diedrich D50 C _E = 1.47	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Groundwater Observations</th> </tr> <tr> <th>Date</th> <th>Depth (ft)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>12/15/22</td> <td>-0.6</td> <td>Above river bottom</td> </tr> </tbody> </table>	Groundwater Observations			Date	Depth (ft)	Notes	12/15/22	-0.6	Above river bottom
Groundwater Observations											
Date	Depth (ft)	Notes									
12/15/22	-0.6	Above river bottom									

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
65		65.6 ft - 70.6 ft, Gray, medium-grained, fresh, (W1) very strong (R5), GNEISS; with discontinuities, low angle, moderately close, open. Average 0.2 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-7	100 (96)	2					
70		Hole stopped @ 70.6 ft								
75		Remarks: - Boring elevation references river bed surface, approximately 67 feet below bridge deck. - SWColEx utilized a 6-inch diameter core bit to core through the bridge deck. Bridge deck was approximately 1 foot thick of reinforced concrete. - Approximately sixty-seven (67) feet of 5-inch diameter steel casing was used to reach the river bottom from the bridge deck. The 5-inch casing was advanced approximately two (2) feet into the river bottom prior to starting the boring. - The 5-inch casing was crimped at approximately 6.7 feet bgs while advancing the casing through a boulder. SWColEx utilized 3-inch diameter steel casing beyond the 6.7 feet to advance the boring to the final depth. - Bedrock was encountered at 35.5 feet bgs, first bedrock core was started at 36 feet bgs. - Boring terminated at 70.6 feet bgs. - Borehole was backfilled with bentonite chips within the bedrock core section from 36-70.6 feet bgs and sand from 36 feet bgs to the river bottom.								
80										
85										
90										
95										

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23

Boring Crew: Eric Baron (S.W. Cole), Andrew Martin (WSP) Date Started: 12/13/22 Date Finished: 12/13/22 VTSPG NAD83: N 99070.90 ft E 1520844.20 ft Station: 206+32.00 Offset: 108.9 RT Ground Elevation: 1172.0 ft	Casing: WB Sampler: SS, NX I.D.: 4 in 1.5 in Hammer Wt: 300 lb. 140 lb. Hammer Fall: 30 in. 30 in. Hammer/Rod Type: Auto/NWJ Rig: Diedrich D50 C _E = 1.47	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Groundwater Observations</th> </tr> <tr> <th>Date</th> <th>Depth (ft)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>12/13/22</td> <td>4.6</td> <td>Cas. 28.5 ft-bgs</td> </tr> </tbody> </table>	Groundwater Observations			Date	Depth (ft)	Notes	12/13/22	4.6	Cas. 28.5 ft-bgs
Groundwater Observations											
Date	Depth (ft)	Notes									
12/13/22	4.6	Cas. 28.5 ft-bgs									

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		0.0 ft - 2.0 ft, A-1-b, SP, Brown, moist, very loose, fine to coarse SAND, trace silt, poorly-graded, Rec. = 1.3 ft, [Alluvium]								
5		4.0 ft - 6.0 ft, A-1-b, SM, Gray-brown, wet, dense, fine to coarse SAND, some gravel, some silt, poorly-graded, Rec. = 0.6 ft, [Alluvium] (Split spoon was bent upon retrieval) 4.5 ft - 7.0 ft, Driller noted that a boulder was encountered from 4.5-7ft bgs in the 4-inch diameter steel casing.								
		7.0 ft - 8.0 ft, Wood encountered, wood chips noted in drill water.								
10		8.0 ft - 10.0 ft, Driller noted that a boulder was encountered from 8-10ft bgs in the 4-inch diameter steel casing.								
		10.0 ft - 12.0 ft, A-1-b, GP-GM, Gray-brown, wet, dense, GRAVEL, some fine to coarse sand, little silt, poorly-graded, Rec. = 1.2 ft, [Alluvium]					10.9	54.0	32.0	14.0
15		15.0 ft - 17.0 ft, A-4, ML, Gray, wet, dense, gravelly SILT, little fine to medium sand, non-plastic, Rec. = 0.5 ft, [Glacial Till]								
20		20.0 ft - 22.0 ft, A-4, ML, Gray, wet, dense, gravelly SILT, little fine to coarse sand, non-plastic, Rec. = 0.7 ft, [Glacial Till]								
25		25.0 ft - 27.0 ft, A-1-b, GP-GM, Gray, wet, very dense, GRAVEL, little fine to coarse sand, little silt, poorly-graded, Rec. = 0.6 ft, [Glacial Till]					7.3	65.0	19.0	16.0
30		28.5 ft - 31.0 ft								
		31.0 ft - 36.0 ft, Gray, medium-grained, fresh, (W1) medium strong	C-1	100	3					

Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual.  
 2. N Values have not been corrected for hammer energy. C_E 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.

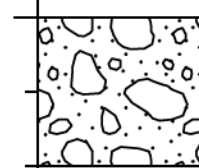
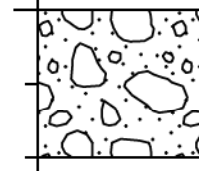
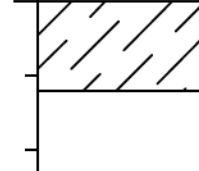
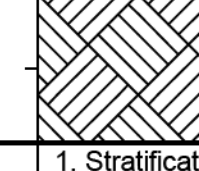
2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23





STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: <b>B-101</b>					
		Readsboro Bridge (25) BF 0102(16) Bridge 25 Route 100 Readsboro		Page No.: 2 of 2					
				Pin No.: 13c068					
				Checked By: MA					
Boring Crew: Eric Baron (S.W. Cole), Andrew Martin (WSP)		Casing	Sampler	Groundwater Observations					
Date Started: 12/13/22 Date Finished: 12/13/22		Type: WB	SS, NX	Date	Depth				
VTSPG NAD83: N 99070.90 ft E 1520844.20 ft		I.D.: 4 in	1.5 in	12/13/22	4.6				
Station: 206+32.00 Offset: 108.9 RT		Hammer Wt: 300 lb.	140 lb.		Cas. 28.5 ft-bgs				
Ground Elevation: 1172.0 ft		Hammer Fall: 30 in.	30 in.						
		Hammer/Rod Type: Auto/NWJ							
		Rig: Diedrich D50	C _e = 1.47						
Depth (ft)	Strata (1)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate (minutes/ft)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
35	(R3), GNEISS; with discontinuities, low angle to moderately dipping, very close to closely spaced, open. Gray silt infilling present in fracture surfaces from 33 to 36 ft bgs. Average 2 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]		(66)	2					
	Hole stopped @ 36.0 ft			2					
				2					
				3					
40	Remarks: - Bedrock was encountered at 28.5 feet bgs, 4-inch steel casing was advanced to 31 feet bgs. - Bedrock core was started at 31 feet bgs. - Boring terminated at 36 feet bgs. - Borehole was backfilled with bentonite chips within the bedrock core section from 28.5-36 feet bgs and drill cuttings from 28.5 feet bgs to the ground surface.								
45									
50									
55									
60									
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. N Values have not been corrected for hammer energy. C _e 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.									

2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: <b>B-102</b>					
		Readsboro Bridge (25) BF 0102(16) Bridge 25 Route 100 Readsboro		Page No.: 1 of 2					
				Pin No.: 13c068					
				Checked By: MA					
Boring Crew: Will Williams (S.W. Cole), Flynt Tuller (WSP)		Casing	Sampler	Groundwater Observations					
Date Started: 12/21/22 Date Finished: 12/21/22		Type: WB	SS, NX	Date	Depth				
VTSPG NAD83: N 98983.30 ft E 1520883.60 ft		I.D.: 4 in	1.5 in	12/21/22	10.9				
Station: 207+01.00 Offset: 175.9 RT		Hammer Wt: 300 lb.	140 lb.		Cas. 30 ft-bgs				
Ground Elevation: 1223.0 ft		Hammer Fall: 30 in.	30 in.						
		Hammer/Rod Type: Auto/NWJ							
		Rig: Diedrich D50	C _e = 1.47						
Depth (ft)	Strata (1)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate (minutes/ft)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
	x x x x x x x x x								
	0.0 ft - 2.0 ft, A-1-b, SM, Brown, moist, loose, sandy GRAVEL, some silt, trace wood fragments, poorly-graded, Rec. = 0.4 ft, [Fill]				7-5-9 (10)				
5	x x x x x x x x x x x x x x x								
	5.0 ft - 7.0 ft, NO RECOVERY, Rec. = 0.0 ft				4-3-2-1 (5)				
	7.0 ft - 9.0 ft, A-4, ML, Brown, wet, very loose, SILT, some gravel, little fine sand, non-plastic, Rec. = 0.7 ft, [Fill]				2-1-2-3 (3)				
10	x x x x x x x x x								
	10.0 ft - 12.0 ft, A-1-a, GW, Brown, wet, very dense, GRAVEL, little fine to coarse sand, trace silt, well-graded, Rec. = 1.4 ft, [Fill]				19-37-52-33 (89)	11.8	85.0	12.5	2.5
15									
	15.0 ft - 17.0 ft, A-4, GM, Brown, wet, loose, silty GRAVEL, some fine to coarse sand, poorly-graded, Rec. = 0.6 ft, [Gravel]				10-4-5-4 (9)				
20									
	20.0 ft - 22.0 ft, A-1-b, GP-GM, Orange-brown, wet, medium dense, GRAVEL, some fine to coarse sand, little silt, poorly-graded, Rec. = 0.8 ft, [Gravel]				20-6-10-13 (16)	15.3	59.0	24.0	17.0
25									
	25.0 ft - 26.2 ft, A-4, SM, Gray, wet, very dense, silty fine to coarse SAND, little gravel, poorly-graded, Rec. = 0.9 ft, [Glacial Till]				53-40-50/2"	15.1	11.0	48.0	41.0
30									
	30.0 ft - 32.6 ft, Gray, medium-grained, fresh, (W1) strong (R4), GNEISS; with discontinuities, horizontal to low angle, very close to close, open. Average 2.3 fractures per foot. [STRATTON MOUNTAIN	C-1	88 (71)	3					
	Top of Bedrock @ 30.0 ft			4					
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. N Values have not been corrected for hammer energy. C _e 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.									

2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2



FILE NAME: z13c068borlogs.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: R.H. BARNES  
BORING LOGS SHEET (25 OF 28)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 85 OF 220

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: <b>B-102</b>						
		Readsboro Bridge (25) BF 0102(16) Bridge 25 Route 100 Readsboro		Page No.: 2 of 2						
				Pin No.: 13c068						
				Checked By: MA						
Boring Crew: Will Williams (S.W. Cole), Flynt Tuller (WSP)		Casing	Sampler	Groundwater Observations						
Date Started: 12/21/22 Date Finished: 12/21/22		Type: WB	SS, NX	Date	Depth					
VTSPG NAD83: N 98983.30 ft E 1520883.60 ft		I.D.: 4 in	1.5 in	12/21/22	10.9					
Station: 207+01.00 Offset: 175.9 RT		Hammer Wt: 300 lb.	140 lb.		Cas. 30 ft-bgs					
Ground Elevation: 1223.0 ft		Hammer Fall: 30 in.	30 in.							
		Hammer/Rod Type: Auto/NWJ								
		Rig: Diedrich D50	C _E = 1.47							
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
35		INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]			3					
		32.6 ft - 34.0 ft, Gray, medium-grained, fresh, (W1) strong (R4), GNEISS; with discontinuities, low angle, close, open. Average 1.4 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-2	93 (86)	4					
35		34.0 ft - 35.5 ft, Gray, medium-grained, fresh, (W1) strong (R4), GNEISS; with discontinuities, low angle, moderately close, open. Average 0.66 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-3	100 (100)	4					
		34.0 ft - 35.5 ft, Gray, medium-grained, fresh, (W1) strong (R4), GNEISS; with discontinuities, low angle, moderately close, open. Average 0.66 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]			1					
Remarks: Hole stopped @ 35.5 ft - Bedrock was encountered at 29.6 feet bgs, 4-inch steel casing was advanced to 30 feet bgs. - Bedrock core was started at 30 feet bgs. - Boring terminated at 35.5 feet bgs. - Borehole was backfilled with bentonite chips within the bedrock core section from 29-35.5 feet bgs and sand from 29 feet bgs to the ground surface.										
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. N Values have not been corrected for hammer energy. C _E 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.										

2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		BORING LOG		Boring No.: <b>B-103</b>						
		Readsboro Bridge (25) BF 0102(16) Bridge 25 Route 100 Readsboro		Page No.: 1 of 1						
				Pin No.: 13c068						
				Checked By: MA						
Boring Crew: Eric Baron (S.W. Cole), Andrew Martin (WSP)		Casing	Sampler	Groundwater Observations						
Date Started: 12/14/22 Date Finished: 12/14/22		Type: WB	SS, NX	Date	Depth					
VTSPG NAD83: N 98984.00 ft E 1520954.20 ft		I.D.: 4 in	1.5 in	12/14/22	5.0					
Station: 207+66.00 Offset: 149.5 RT		Hammer Wt: 300 lb.	140 lb.							
Ground Elevation: 1224.0 ft		Hammer Fall: 30 in.	30 in.							
		Hammer/Rod Type: Auto/NWJ								
		Rig: Diedrich D50	C _E = 1.47							
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Run (Dip deg.)	Core Rec. % (RQD %)	Drill Rate minutes/ft	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
5		0.0 ft - 2.0 ft, A-2-4, SM, Brown, moist, dense, fine to medium SAND, some silt, trace gravel, poorly-graded, Rec. = 1.5 ft, [Fill]				56-23-14-10 (37)				
		5.0 ft - 5.16 ft, A-4, SP-SM, Gray, moist, very dense, fine to coarse SAND, little silt, poorly-graded, Rec. = 0.16 ft, [Fill]								
		5.5 ft - 10.5 ft, Gray, medium-grained, fresh to slightly weathered, (W1) strong (R4), GNEISS; with discontinuities, horizontal to high angle, very close to closely spaced, open. Brown fine sand and silt infilling present throughout. Average 3.0 fractures per foot. [STRATTON MOUNTAIN INTRUSIVE SUITE, BIOTITE-GRANITIC GNEISS MEMBER]	C-1 (60-90)	96 (50)	1					
Remarks: Hole stopped @ 10.5 ft - Bedrock was encountered at 5.2 feet bgs, 4-inch steel casing was advanced to 5.5 feet bgs. - Bedrock core was started at 5.5 feet bgs. - Boring terminated at 10.5 feet bgs. - Borehole was backfilled with bentonite chips within the bedrock core section from 5.2-10.5 feet bgs and drill cuttings from 5.2 feet bgs to the ground surface.										
Notes: 1. Stratification lines represent approximate boundary between material types. Transition may be gradual. 2. N Values have not been corrected for hammer energy. C _E 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.										

2010 COPY VTRANS READSBORO BRIDGE BF 0102(16) (1) (1) GPJ VERMONT AOT.GDT 3/6/23

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2



FILE NAME: z13c068borlogs.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: W.A. FRETWELL  
DESIGNED BY: R.H. BARNES CHECKED BY: N.A. TRUSLOW  
BORING LOGS SHEET (26 OF 28) SHEET 86 OF 220



STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		<b>BORING LOG</b>		Boring No.: <u>P-1</u>						
		<b>Readsboro</b> <b>BF 0102(16)</b> <b>VT-100 BR# 25</b>		Page No.: <u>1 of 1</u>						
				Pin No.: <u>13c068</u>						
				Checked By: <u>SPM</u>						
Boring Crew: <u>Gonyaw, Garrow, Olden</u> Date Started: <u>8/14/17</u> Date Finished: <u>8/14/17</u> VTSPG NAD83: <u>N 99069.70 ft E 1521053.50 ft</u> Station: <u>208+28.6</u> Offset: <u>12.60</u> Ground Elevation: <u>1227.5 ft</u>		Casing <u>WB</u> Sampler <u>SS</u> I.D.: <u>4 in</u> <u>1.5 in</u> Hammer Wt: <u>N.A.</u> <u>140 lb.</u> Hammer Fall: <u>N.A.</u> <u>30 in.</u> Hammer/Rod Type: <u>Auto/AWJ</u> Rig: <u>CME 55 TRACK</u> $C_e = 1.41$	Groundwater Observations <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Depth (ft)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>08/14/17</td> <td>6.9</td> <td>W.T. during drilling</td> </tr> </tbody> </table>		Date	Depth (ft)	Notes	08/14/17	6.9	W.T. during drilling
Date	Depth (ft)	Notes								
08/14/17	6.9	W.T. during drilling								
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %			
2.5		Field Note:, Appears to be Gr Sa								
5.0		Field Note:, Appears to be cobbles								
7.5		Field Note:, Appears to be Gr Sa								
10.0		Field Note:, Appears to be bedrock, confirmed with NXDC								
Hole stopped @ 11.2 ft										
12.5		Remarks: Hole collapsed at 6.9 feet.								
15.0										
Notes: <ol style="list-style-type: none"> <li>Stratification lines represent approximate boundary between material types. Transition may be gradual.</li> <li>N Values have not been corrected for hammer energy. $C_e$ is the hammer energy correction factor.</li> <li>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.</li> </ol>										

BORING LOG 2, READSBORO BF0102(16).GPJ, VERMONT AOT.GDT, 3/9/18

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		<b>BORING LOG</b>		Boring No.: <u>P-2</u>						
		<b>Readsboro</b> <b>BF 0102(16)</b> <b>VT-100 BR# 25</b>		Page No.: <u>1 of 1</u>						
				Pin No.: <u>13c068</u>						
				Checked By: <u>SPM</u>						
Boring Crew: <u>Gonyaw, Garrow, Olden</u> Date Started: <u>8/14/17</u> Date Finished: <u>8/14/17</u> VTSPG NAD83: <u>N 99053.70 ft E 1521043.60 ft</u> Station: <u>208+24.8</u> Offset: <u>31.13</u> Ground Elevation: <u>1226.4 ft</u>		Casing <u>WB</u> Sampler <u>SS</u> I.D.: <u>4 in</u> <u>1.5 in</u> Hammer Wt: <u>N.A.</u> <u>140 lb.</u> Hammer Fall: <u>N.A.</u> <u>30 in.</u> Hammer/Rod Type: <u>Auto/AWJ</u> Rig: <u>CME 55 TRACK</u> $C_e = 1.41$	Groundwater Observations <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Date</th> <th>Depth (ft)</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>08/14/17</td> <td></td> <td>No W.T. observed</td> </tr> </tbody> </table>		Date	Depth (ft)	Notes	08/14/17		No W.T. observed
Date	Depth (ft)	Notes								
08/14/17		No W.T. observed								
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %			
2.5		Field Note:, Appears to be Gr Sa								
5.0		Field Note:, Appears to be cobbles								
7.5		Field Note:, Appears to be Gr Sa								
10.0		Field Note:, Appears to be bedrock, confirmed with NXDC								
Hole stopped @ 9.2 ft										
12.5		Remarks: Hole collapsed at 5.5 feet.  1. Moved hole due to underground utilities.								
15.0										
Notes: <ol style="list-style-type: none"> <li>Stratification lines represent approximate boundary between material types. Transition may be gradual.</li> <li>N Values have not been corrected for hammer energy. $C_e$ is the hammer energy correction factor.</li> <li>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.</li> </ol>										

BORING LOG 2, READSBORO BF0102(16).GPJ, VERMONT AOT.GDT, 3/9/18


 PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068borlogs.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: W.A. FRETWELL
DESIGNED BY: R.H. BARNES	CHECKED BY: N.A. TRUSLOW
BORING LOGS SHEET (27 OF 28)	SHEET 87 OF 220

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		<b>BORING LOG</b>		Boring No.: <b>P-3</b>					
		<b>Readsboro</b> <b>BF 0102(16)</b> <b>VT-100 BR# 25</b>		Page No.: 1 of 1					
Boring Crew: Gonyaw, Garrow, Olden		Casing	Sampler	Pin No.: 13c068					
Date Started: 8/14/17 Date Finished: 8/14/17		Type: WB SS	Groundwater Observations						
VTSPG NAD83: N 99032.80 ft E 1521038.40 ft		I.D.: 4 in 1.5 in	Date	Depth (ft)					
Station: 208+27.2 Offset: 52.50		Hammer Wt: N.A. 140 lb.	08/14/17	1.2					
Ground Elevation: 1226.7 ft		Hammer Fall: N.A. 30 in.	Notes						
		Hammer/Rod Type: Auto/AWJ	W.T. during drilling						
		Rig: CME 55 TRACK C _E = 1.41							
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)			Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.5		Asphalt Pavement, 0.0 ft - 0.2 ft							
		Field Note: Appears to be Sa Gr							
5.0		Field Note: Appears to be bedrock, confirmed with NXDC							
		Hole stopped @ 5.7 ft							
		Remarks: Hole collapsed at 1.2 feet.							
		1. Moved hole due to underground utilities.							
Notes: <ol style="list-style-type: none"> <li>Stratification lines represent approximate boundary between material types. Transition may be gradual.</li> <li>N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.</li> <li>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.</li> </ol>									

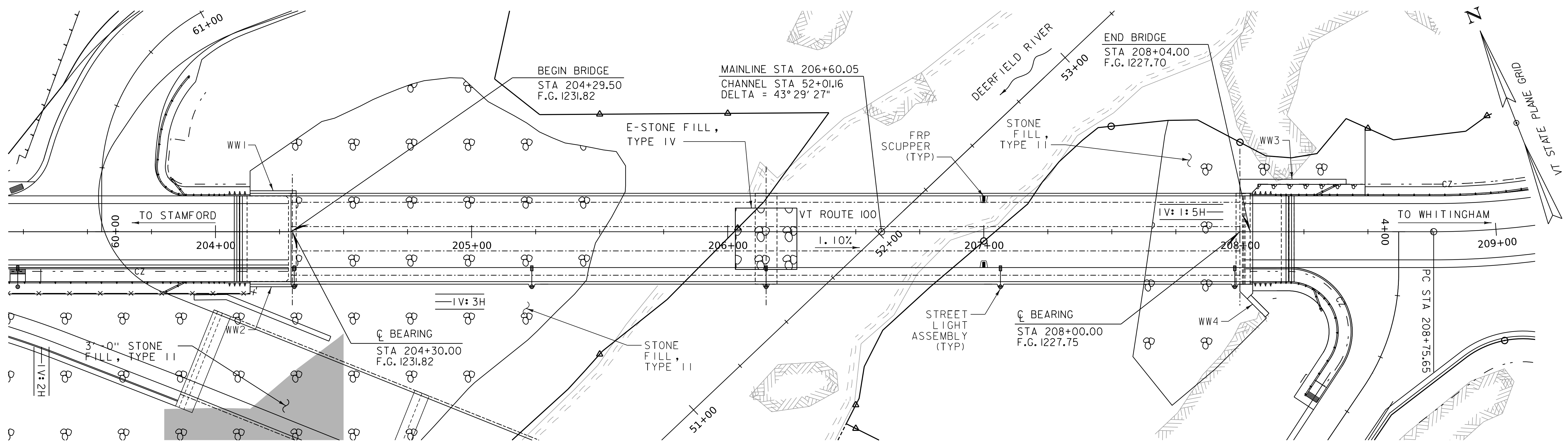
BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18

STATE OF VERMONT AGENCY OF TRANSPORTATION CONSTRUCTION AND MATERIALS BUREAU CENTRAL LABORATORY		<b>BORING LOG</b>		Boring No.: <b>P-4</b>					
		<b>Readsboro</b> <b>BF 0102(16)</b> <b>VT-100 BR# 25</b>		Page No.: 1 of 1					
Boring Crew: Gonyaw, Garrow, Olden		Casing	Sampler	Pin No.: 13c068					
Date Started: 8/15/17 Date Finished: 8/15/17		Type: WB SS	Groundwater Observations						
VTSPG NAD83: N 99025.40 ft E 1521025.40 ft		I.D.: 4 in 1.5 in	Date	Depth (ft)					
Station: 208+17.6 Offset: 64.00		Hammer Wt: N.A. 140 lb.	08/15/17	0.5					
Ground Elevation: 1226.5 ft		Hammer Fall: N.A. 30 in.	Notes						
		Hammer/Rod Type: Auto/AWJ	W.T. after drilling						
		Rig: CME 55 TRACK C _E = 1.41							
Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)			Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
2.5		Field Note: Appears to be Gr Sa							
		Field Note: Appears to be cobbles							
5.0		Field Note: Appears to be Sa Gr							
7.5		Field Note: Appears to be bedrock, confirmed with NXDC							
		Hole stopped @ 8.5 ft							
		Remarks: Hole collapsed at 1.9 feet.							
		1. Moved hole due to underground utilities.							
Notes: <ol style="list-style-type: none"> <li>Stratification lines represent approximate boundary between material types. Transition may be gradual.</li> <li>N Values have not been corrected for hammer energy. C_E is the hammer energy correction factor.</li> <li>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.</li> </ol>									

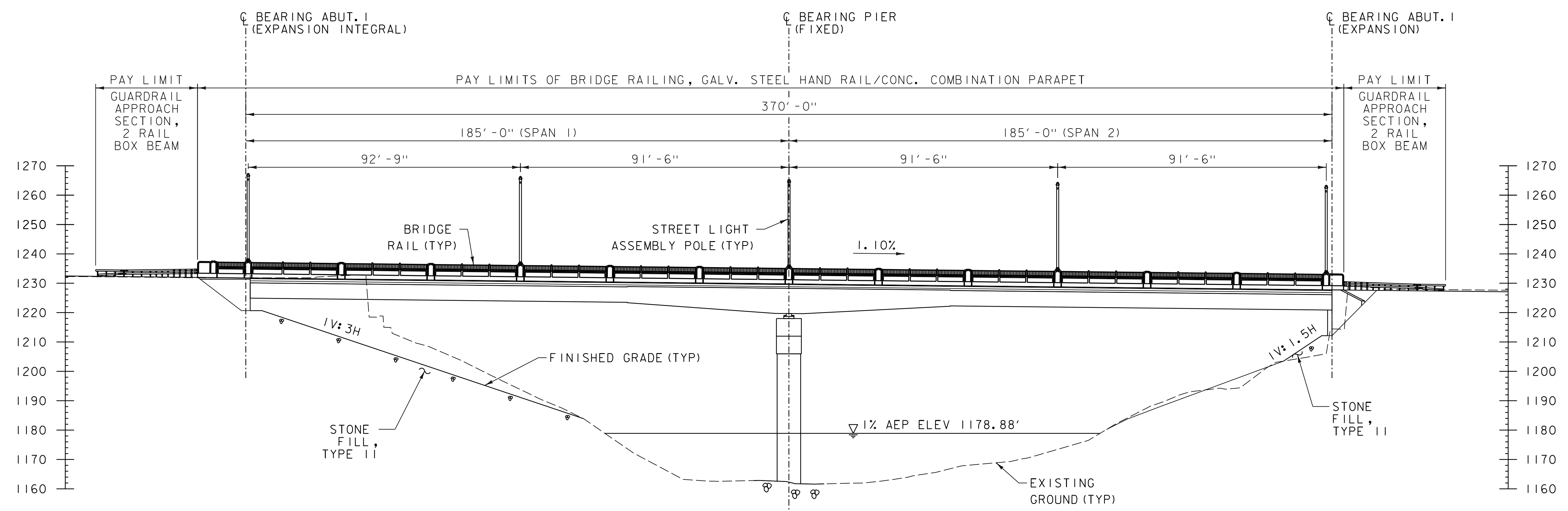
BORING LOG 2, READSBORO BF0102(16).GPJ VERMONT AOT.GDT 3/9/18



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: W.A. FRETWELL
FILE NAME: z13c068borlogs.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 88 OF 220
DESIGNED BY: R.H. BARNES	
BORING LOGS SHEET (28 OF 28)	



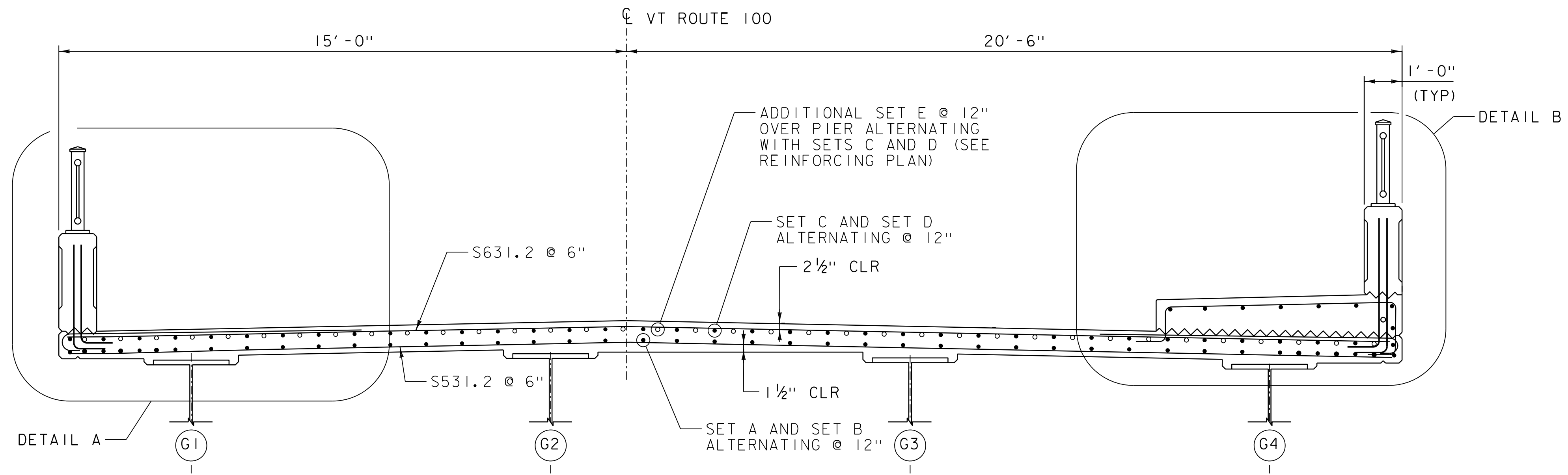
PLAN  
 0 20 40  
 SCALE IN FEET



ELEVATION  
 0 20 40  
 SCALE IN FEET



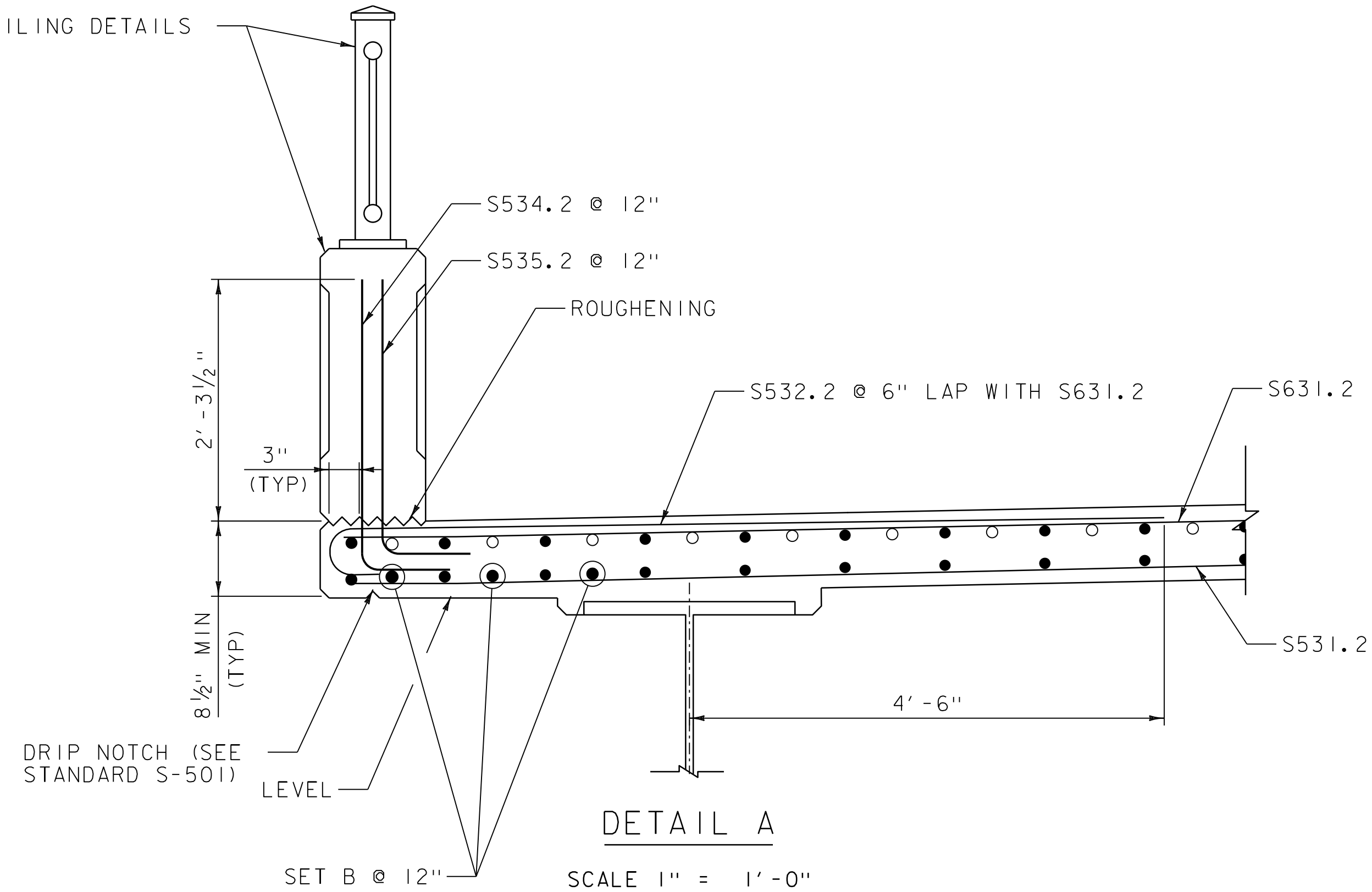
PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	N.A. TRUSLOW
FILE NAME:	z13c068pe.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	SHEET	89 OF 220
DESIGNED BY:	N.A. TRUSLOW	PLAN AND ELEVATION	



TYPICAL DECK SECTION

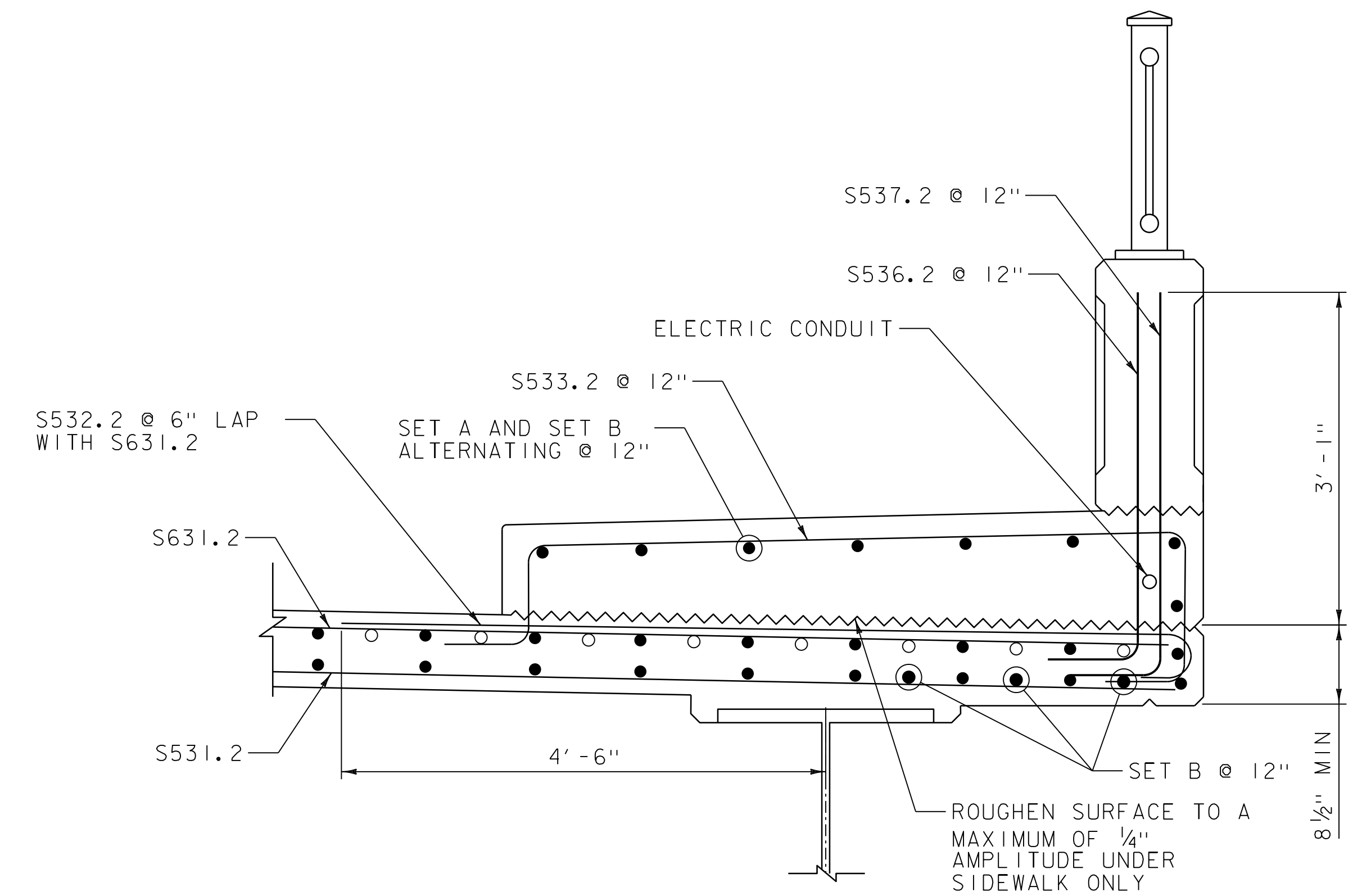
SCALE 1/2" = 1'-0"

SEE RAILING DETAILS (TYP)



DETAIL A

SCALE 1" = 1'-0"



DETAIL B

SCALE 1" = 1'-0"

NOTES:

1. 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
2. 2'-7" MIN BAR LAP FOR #5 BARS AND 3'-1" MIN BAR LAP FOR #6 BARS UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068supl.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: S.M. HODGDON  
DECK REINFORCING SECTIONS

PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: T.A. TURCOTTE  
SHEET 90 OF 220



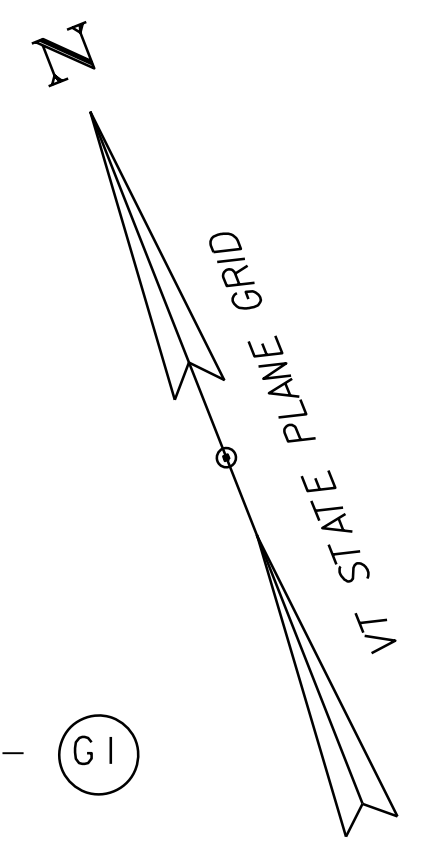
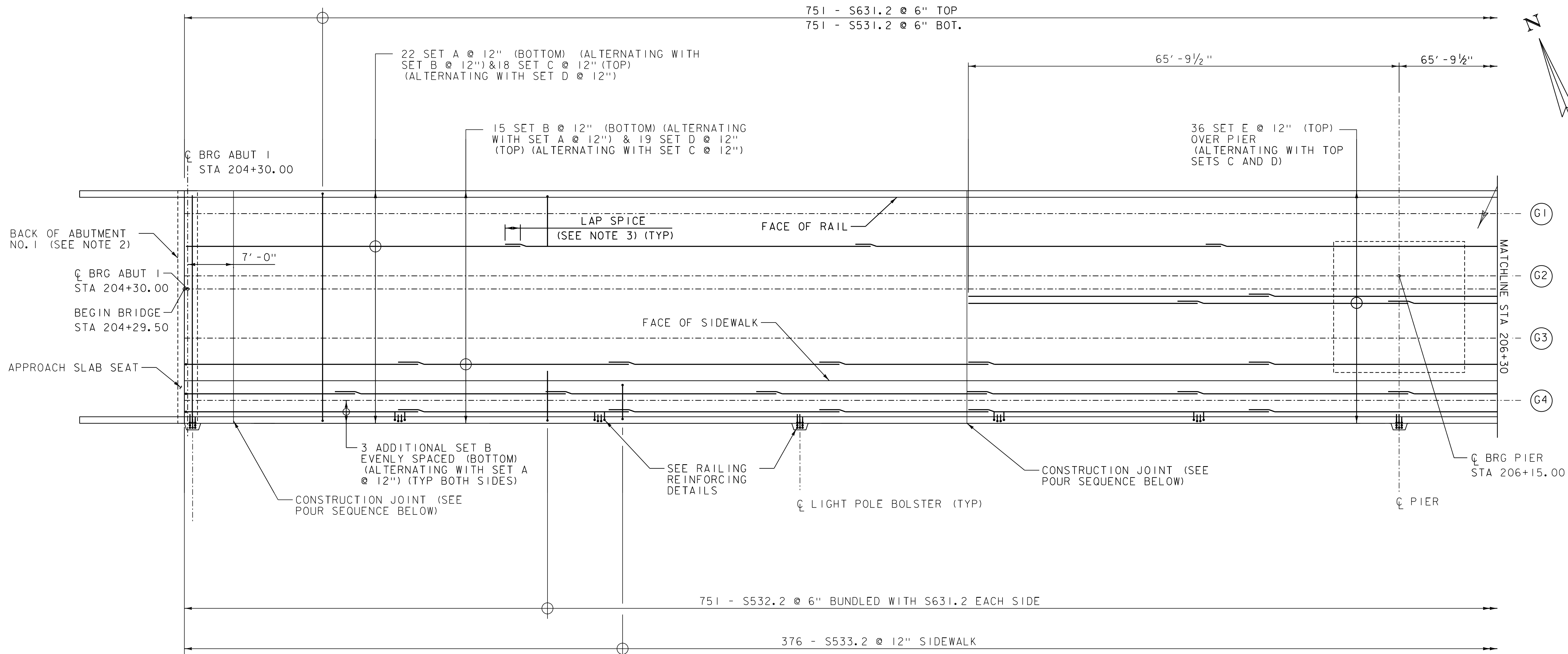


751 - S631.2 @ 6" TOP  
751 - S531.2 @ 6" BOT.

22 SET A @ 12" (BOTTOM) (ALTERNATING WITH SET B @ 12") & 18 SET C @ 12" (TOP) (ALTERNATING WITH SET D @ 12")

15 SET B @ 12" (BOTTOM) (ALTERNATING WITH SET A @ 12") & 19 SET D @ 12" (TOP) (ALTERNATING WITH SET C @ 12")

36 SET E @ 12" (TOP) OVER PIER (ALTERNATING WITH TOP SETS C AND D)



BACK OF ABUTMENT NO. 1 (SEE NOTE 2)  
CL BRG ABUT I STA 204+30.00  
BEGIN BRIDGE STA 204+29.50  
APPROACH SLAB SEAT

G1  
G2  
G3  
G4  
MATCHLINE STA 206+30

3 ADDITIONAL SET B EVENLY SPACED (BOTTOM) (ALTERNATING WITH SET A @ 12") (TYP BOTH SIDES)

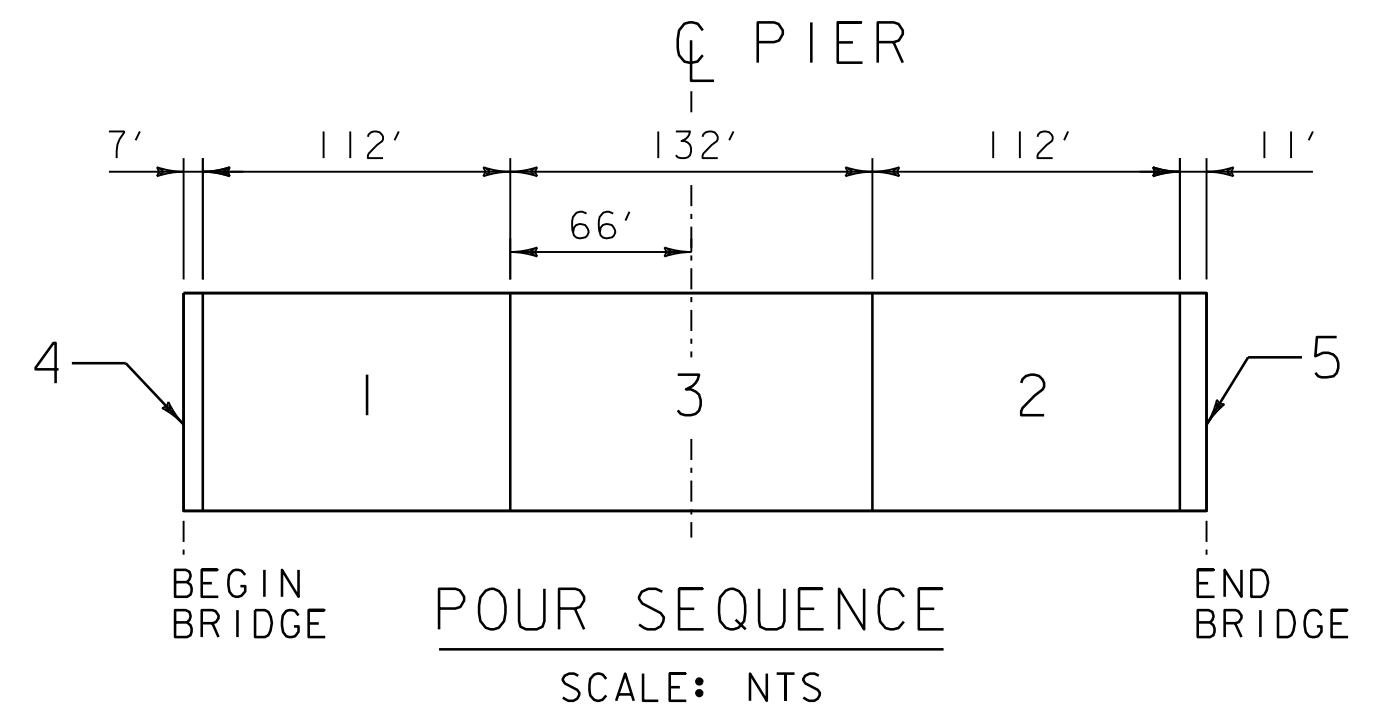
SEE RAILING REINFORCING DETAILS

CONSTRUCTION JOINT (SEE POUR SEQUENCE BELOW)

CL BRG PIER STA 206+15.00  
CL PIER

751 - S532.2 @ 6" BUNDLED WITH S631.2 EACH SIDE

376 - S533.2 @ 12" SIDEWALK



**DECK REINFORCING PLAN**

SCALE: 1/8" = 1'-0"

- SET A: (1) S502.2, (10) S501.2, (1) S504.2
- SET B: (3) S501.2, (1) S502.2, (3) S503.2, (1) S502.2, (2) S501.2, (1) S505.2
- SET C: (1) S602.2, (10) S601.2, (1) S604.2
- SET D: (3) S601.2, (1) S602.2, (4) S601.2, (1) S602.2, (2) S601.2, (1) S605.2
- SET E: (3) S603.2

**NOTES:**

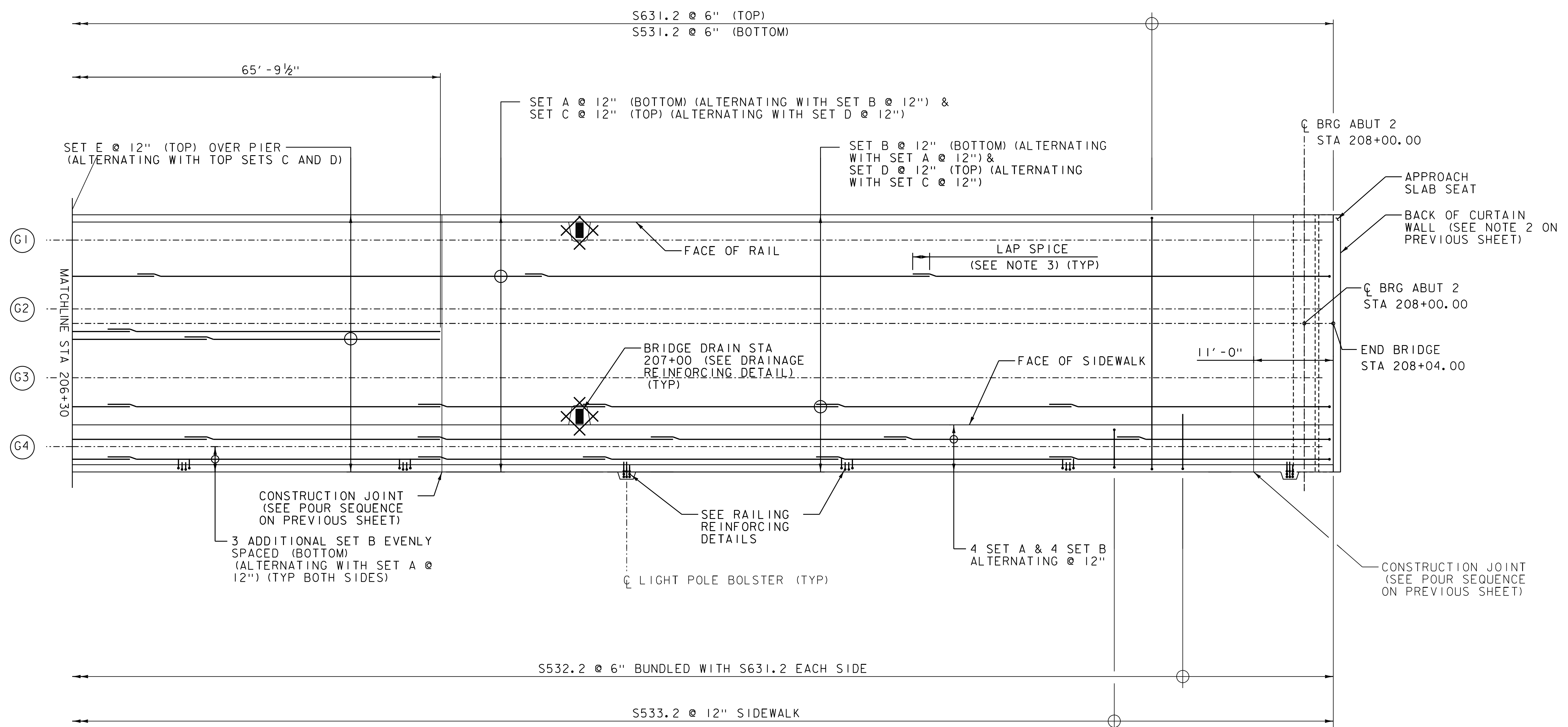
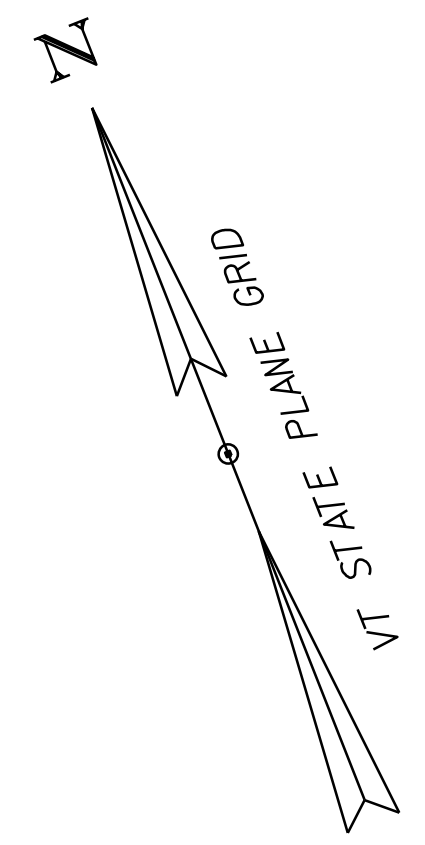
1. SEE BRIDGE RAIL DETAIL SHEETS FOR CONCRETE AND REINFORCING STEEL LAYOUT OF CONCRETE PILASTERS, PARAPETS AND BOLSTERS.
2. SEE ABUTMENT NO 1 REINFORCING SHEET AND CURTAIN WALL DETAILS SHEET FOR ADDITIONAL DECK END REINFORCING.
3. UNLESS NOTED OTHERWISE, LAP SPLICES FOR #5 BARS SHALL BE MINIMUM 2'-7", AND LAP SPLICES FOR #6 BARS SHALL BE MINIMUM 3'-1". STAGGER LONGITUDINAL BAR LAPS BETWEEN ADJACENT BAR RUNS IN EACH MAT OF REINFORCING STEEL, AND BETWEEN TOP AND BOTTOM MATS.

**POUR SEQUENCE NOTES:**

1. CONSTRUCTION JOINTS SHALL BE FORMED IN ACCORDANCE WITH THE TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINTS SHOWN ON STD DETAIL S-500.
2. ALL INDIVIDUAL DECK POURS SHALL START FROM THE LOW END (RELATIVE TO GRADE).
3. THERE SHALL BE A MINIMUM 96 HOUR DELAY BETWEEN ADJACENT POURS AND POURS 1 AND 2.
4. POURS 3 AND 4 MAY OCCUR WITHIN THE SAME DAY
5. ANY POURING SEQUENCE OTHER THAN INDICATED SHALL BE SUBMITTED, IN WRITING, TO THE ENGINEER FOR APPROVAL.

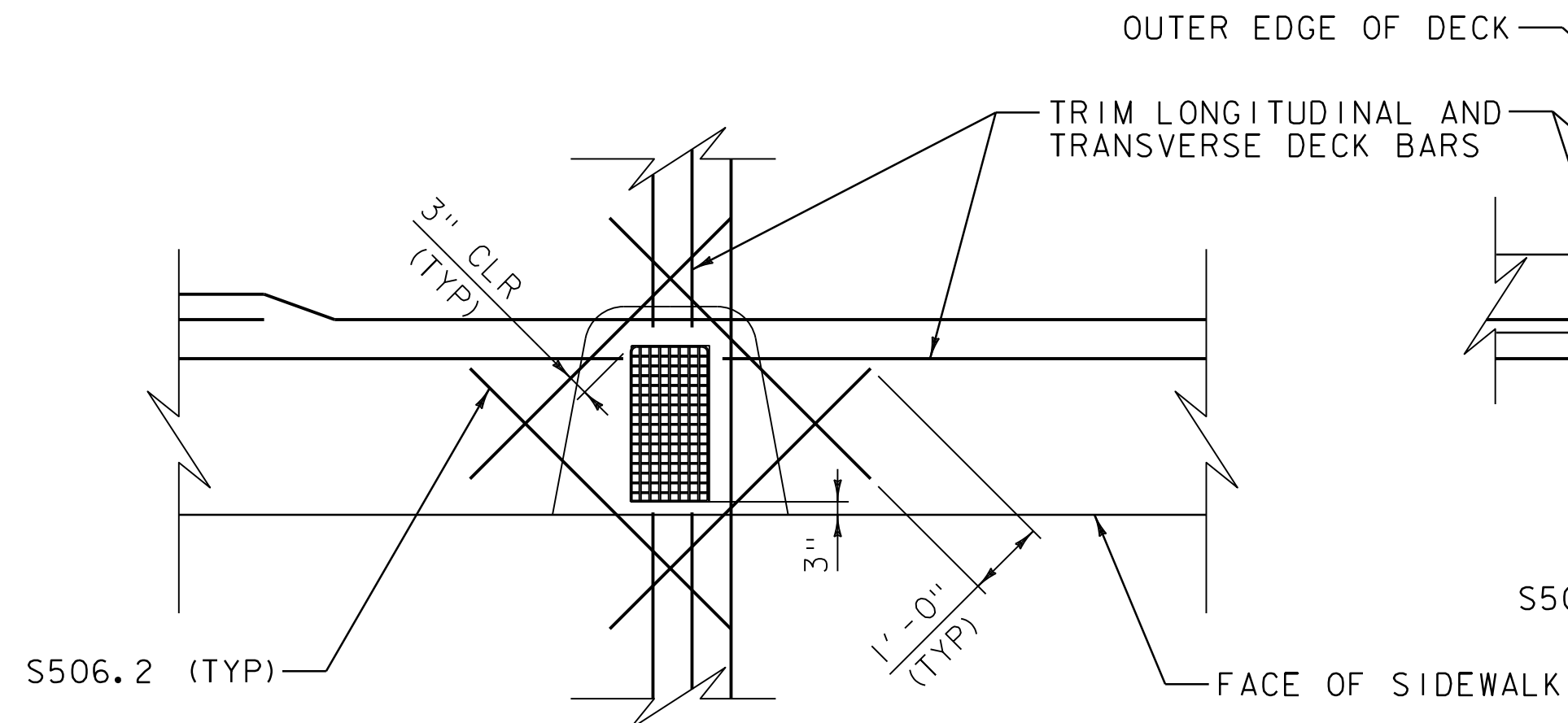


PROJECT NAME:	READSBORO	FILE NAME:	z13c068supl.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	M.F. NEMETH
		DESIGNED BY:	S.M. HODGDON	CHECKED BY:	T.A. TURCOTTE
		DECK REINFORCING PLAN (1 OF 2)			SHEET 91 OF 220



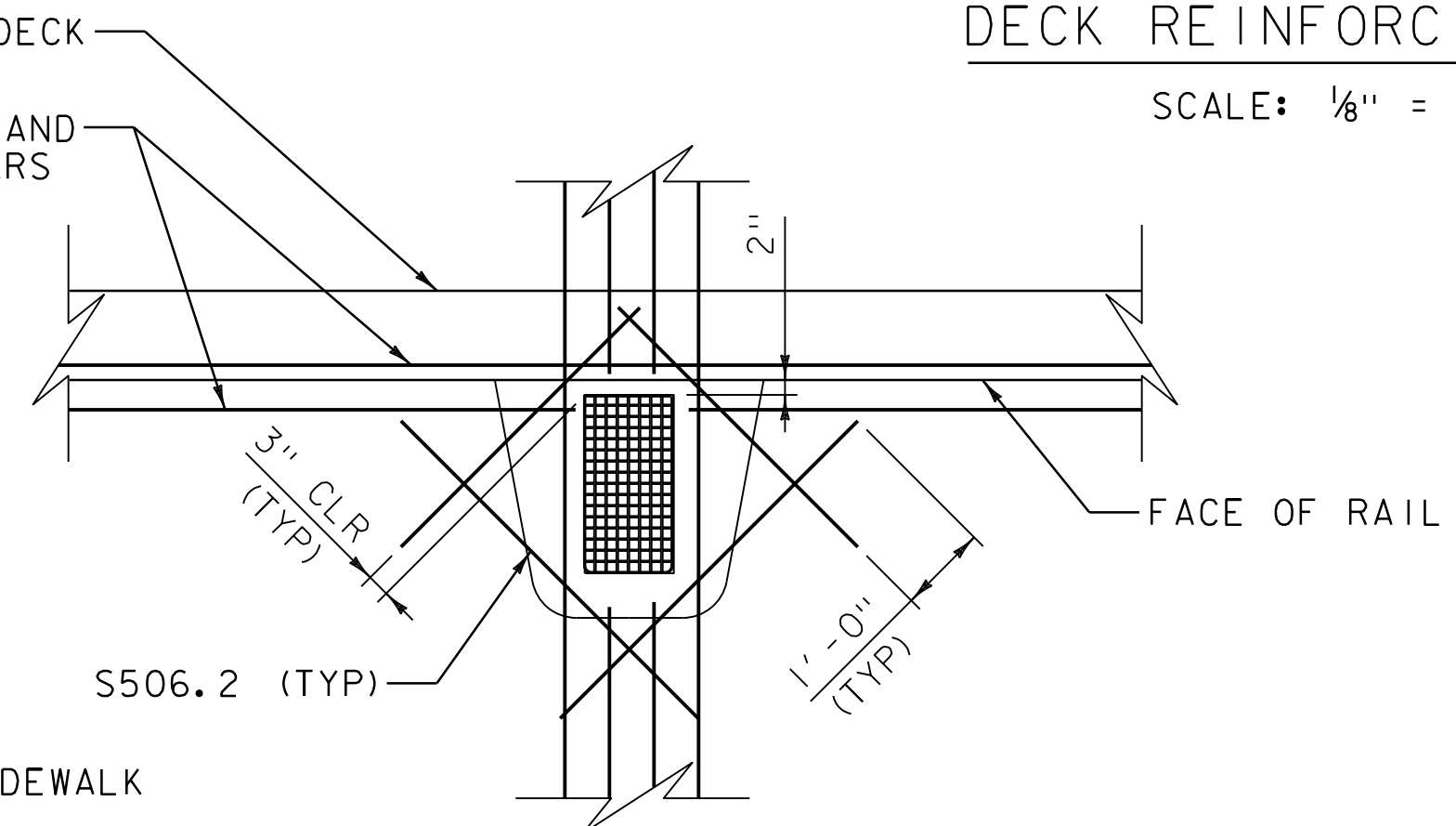
**DECK REINFORCING PLAN**

SCALE: 1/8" = 1' - 0"



**DRAINAGE REINFORCING DETAIL SIDEWALK SIDE**

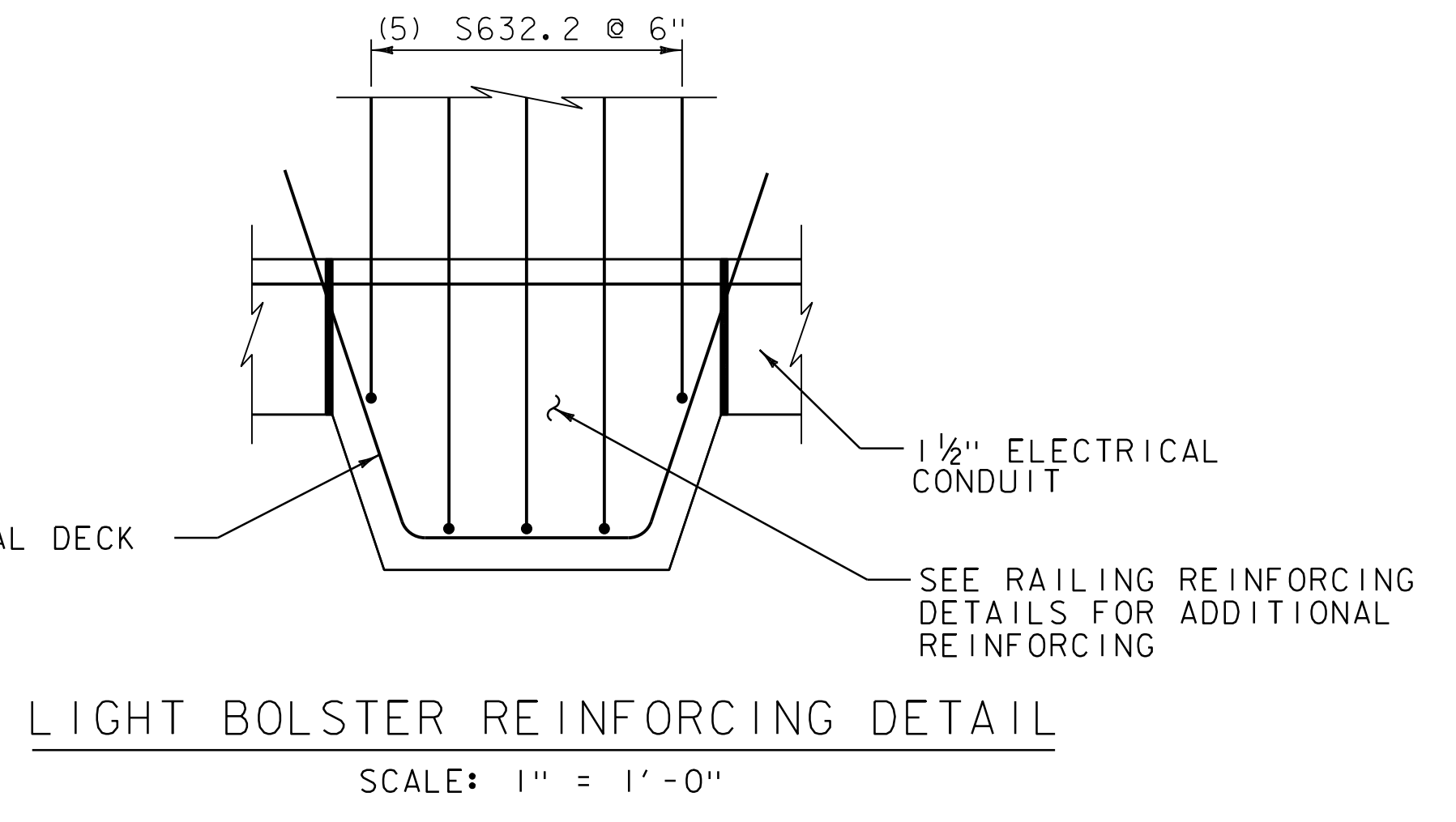
SCALE: 1/2" = 1' - 0"



**DRAINAGE REINFORCING DETAIL BRIDGE RAIL SIDE**

SCALE: 1/2" = 1' - 0"

NOTE:  
NOT ALL TRANSVERSE AND LONGITUDINAL BARS SHOWN FOR CLARITY

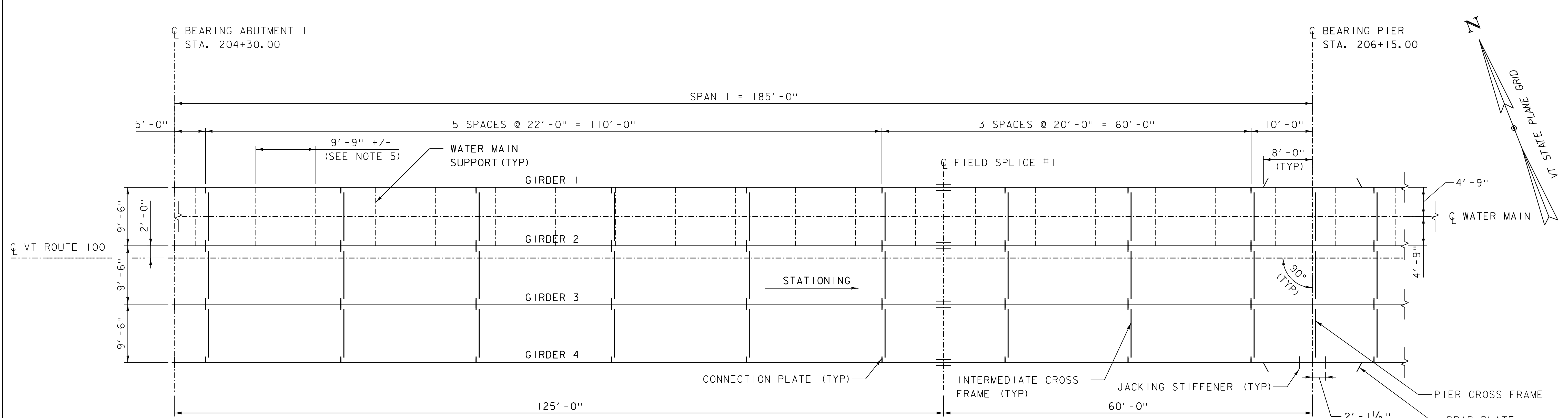


**LIGHT BOLSTER REINFORCING DETAIL**

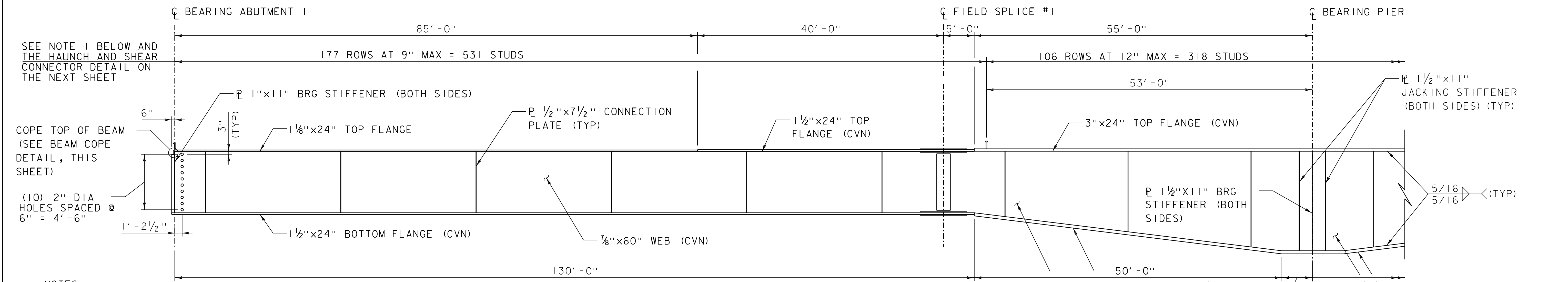
SCALE: 1" = 1' - 0"



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	M.F. NEMETH
FILE NAME:	z13c068supl.dgn	DESIGNED BY:	S.M. HODGDON
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	T.A. TURCOTTE
DECK REINFORCING PLAN (2 OF 2)			SHEET 92 OF 220

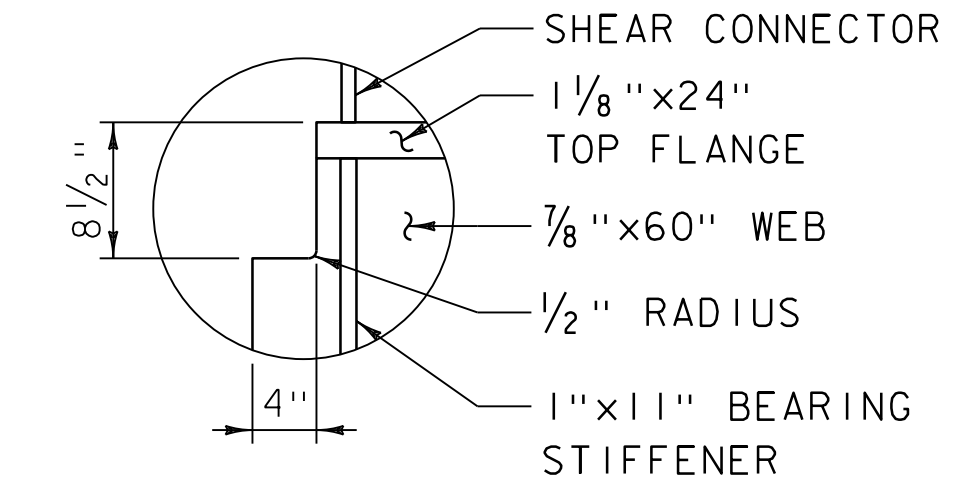


**FRAMING PLAN**  
SCALE 1/8" = 1'-0"



**TYPICAL GIRDER ELEVATION**  
HORIZONTAL SCALE: 1/8" = 1'-0"  
VERTICAL SCALE: 1/4" = 1'-0"  
(1377 STUDS PER GIRDER)

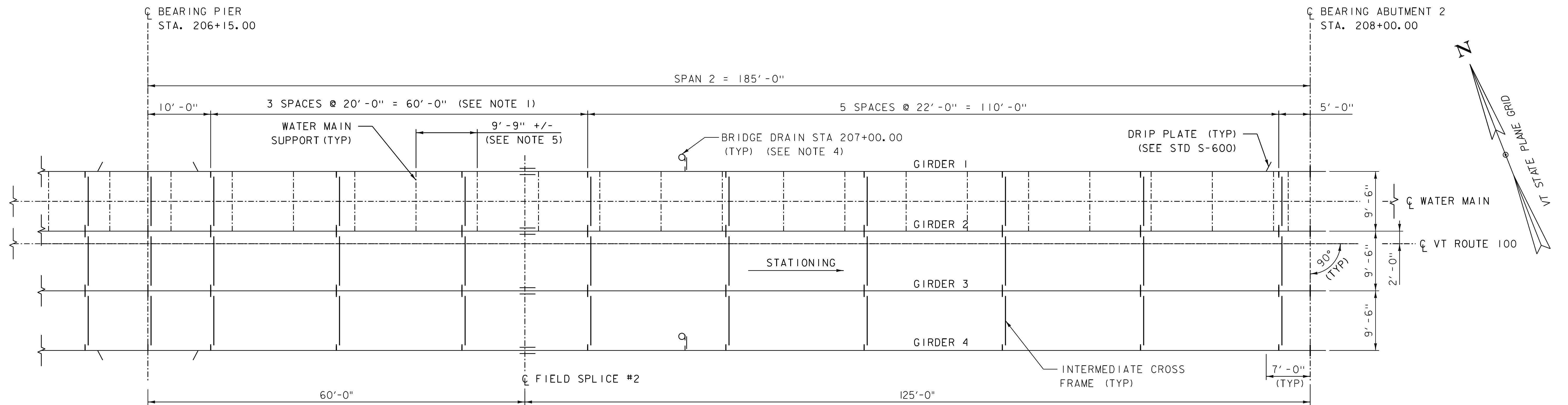
- NOTES:**
1. SHEAR STUDS SHALL PROJECT A MINIMUM OF 2" INTO THE DECK AND BE A MINIMUM OF 2-1/2" FROM THE TOP OF DECK. STUDS SHALL NOT BE WELDED TO FIELD SPLICE PLATES. WHERE CONFLICT WITH FIELD SPLICE PLATE EXISTS, STUDS SHALL BE RELOCATED TO NOT BE ON OR WITHIN 3" FROM SPLICE PLATE, SPACED MIN OF 5 1/4" O.C. ADJACENT TO SPLICE PLATE.
  2. BUTT WELDS AT FLANGE SPLICES SHALL BE COMPLETE JOINT PENETRATION WELDS AND SHALL BE GROUND SMOOTH AND FLUSH IN LONGITUDINAL DIRECTION OF GIRDER.
  3. ONLY THOSE MEMBERS OR PLATES IDENTIFIED WITH THE NOTATION "CVN" MUST MEET THE CHARPY V-NOTCH REQUIREMENTS FOR MAIN MEMBERS. SEE SUBSECTION 714.01.
  4. SEE DRAINAGE DETAIL SHEETS FOR DETAILS ON THE SCUPPER SUPPORTS. SEE NEXT PAGE FOR LOCATION OF SCUPPERS.
  5. CONTRACTOR SHALL FIELD VERIFY WATER MAIN SUPPORT LOCATIONS. WATER MAIN SHALL BE SUPPORTED IMMEDIATELY BEHIND THE BELL AND AT MIDSPAN BETWEEN BELLS. MINIMUM CLEARANCE FROM CROSS FRAME TO WATER MAIN SUPPORT SHALL BE 1'-6".



**BEAM COPE DETAIL**  
SCALE 1" = 1'-0"

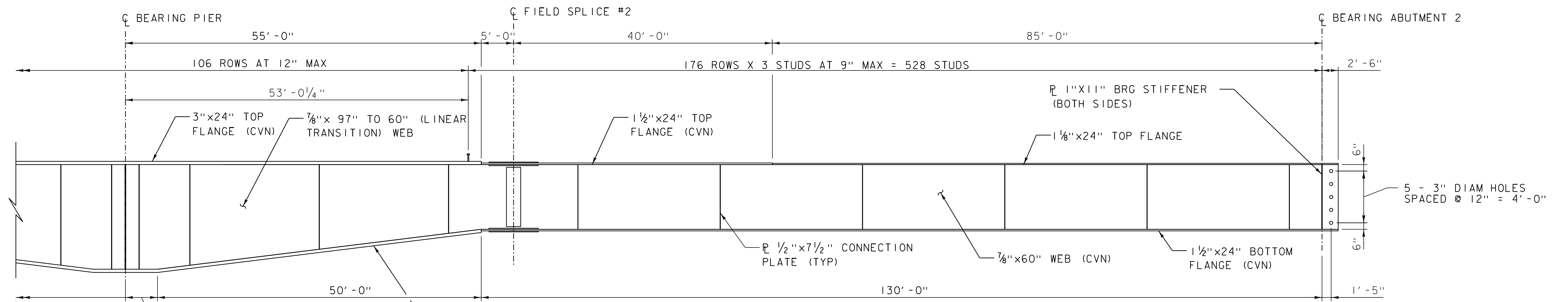


PROJECT NAME:	READSBORO	FILE NAME:	z13c068framing.dgn	PLOT DATE:	14-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	M.F. NEMETH
		DESIGNED BY:	I.R. KAPLAN	CHECKED BY:	S.M. HODGDON
		FRAMING PLAN & GIRDER ELEVATION (10F 2)		SHEET	93 OF 220



**FRAMING PLAN**

SCALE 1/8" = 1'-0"



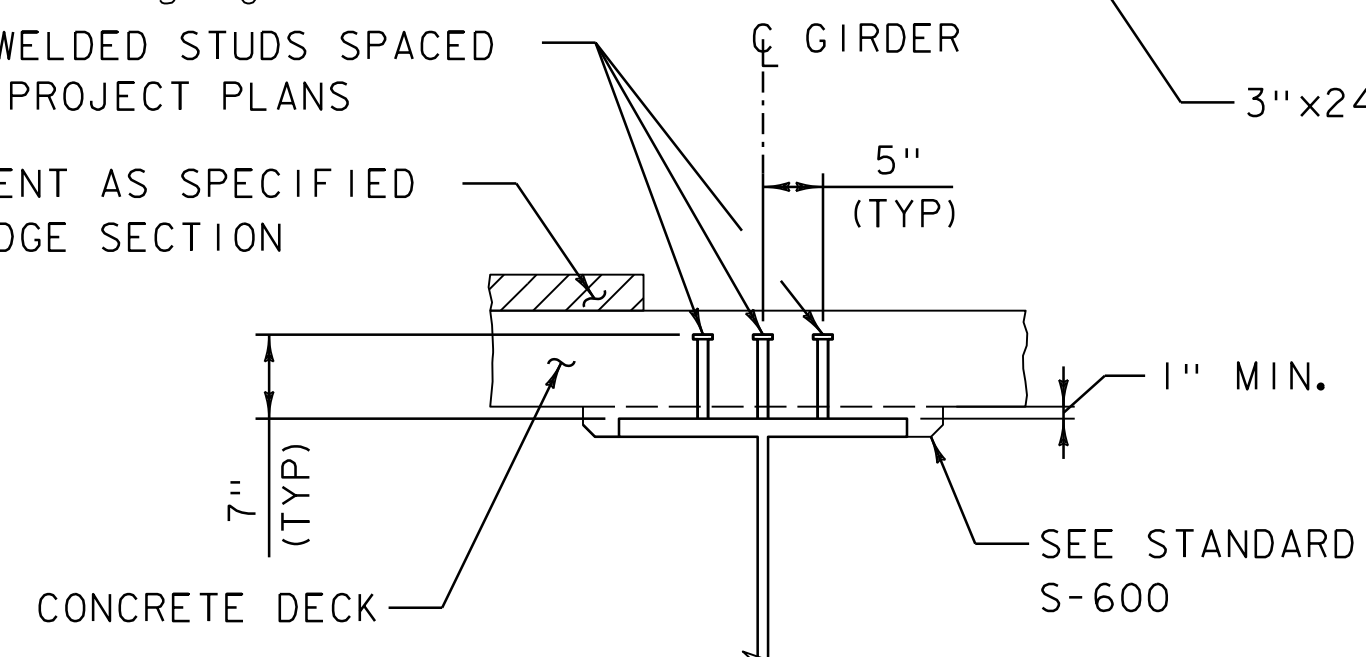
**TYPICAL GIRDER ELEVATION**

HORIZONTAL SCALE: 1/8" = 1'-0"

VERTICAL SCALE: 1/4" = 1'-0"

(3) ROWS OF 7/8" WELDED STUDS SPACED AS SHOWN ON THE PROJECT PLANS

SURFACE TREATMENT AS SPECIFIED ON TYPICAL BRIDGE SECTION



**HAUNCH AND SHEAR CONNECTOR DETAIL**

NOT TO SCALE

NOTE: SEE PREVIOUS SHEET FOR NOTES.

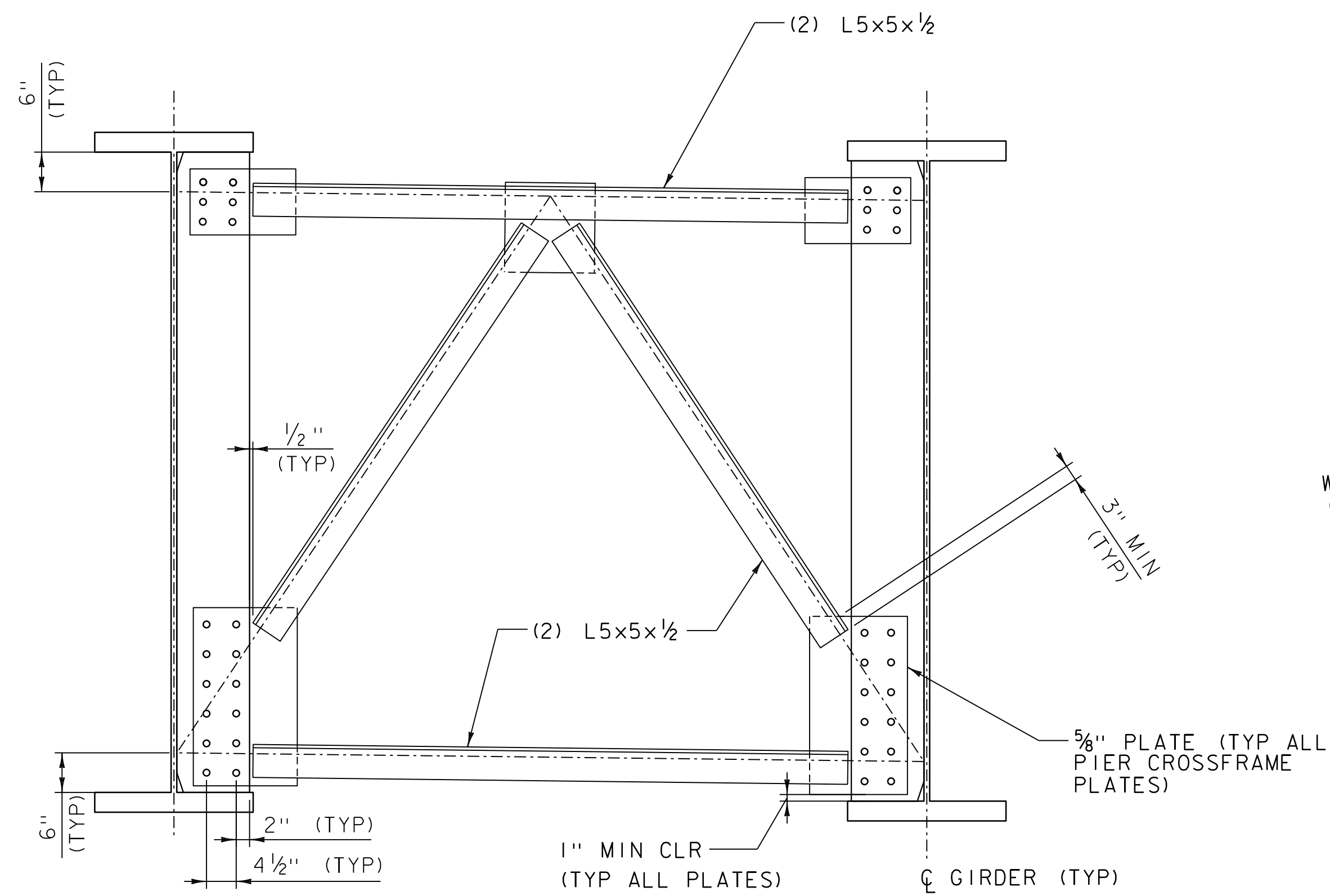
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068framing.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: I.R. KAPLAN  
FRAMING PLAN & GIRDER ELEVATION (2 OF 2) SHEET 94 OF 220

PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: S.M. HODGDON

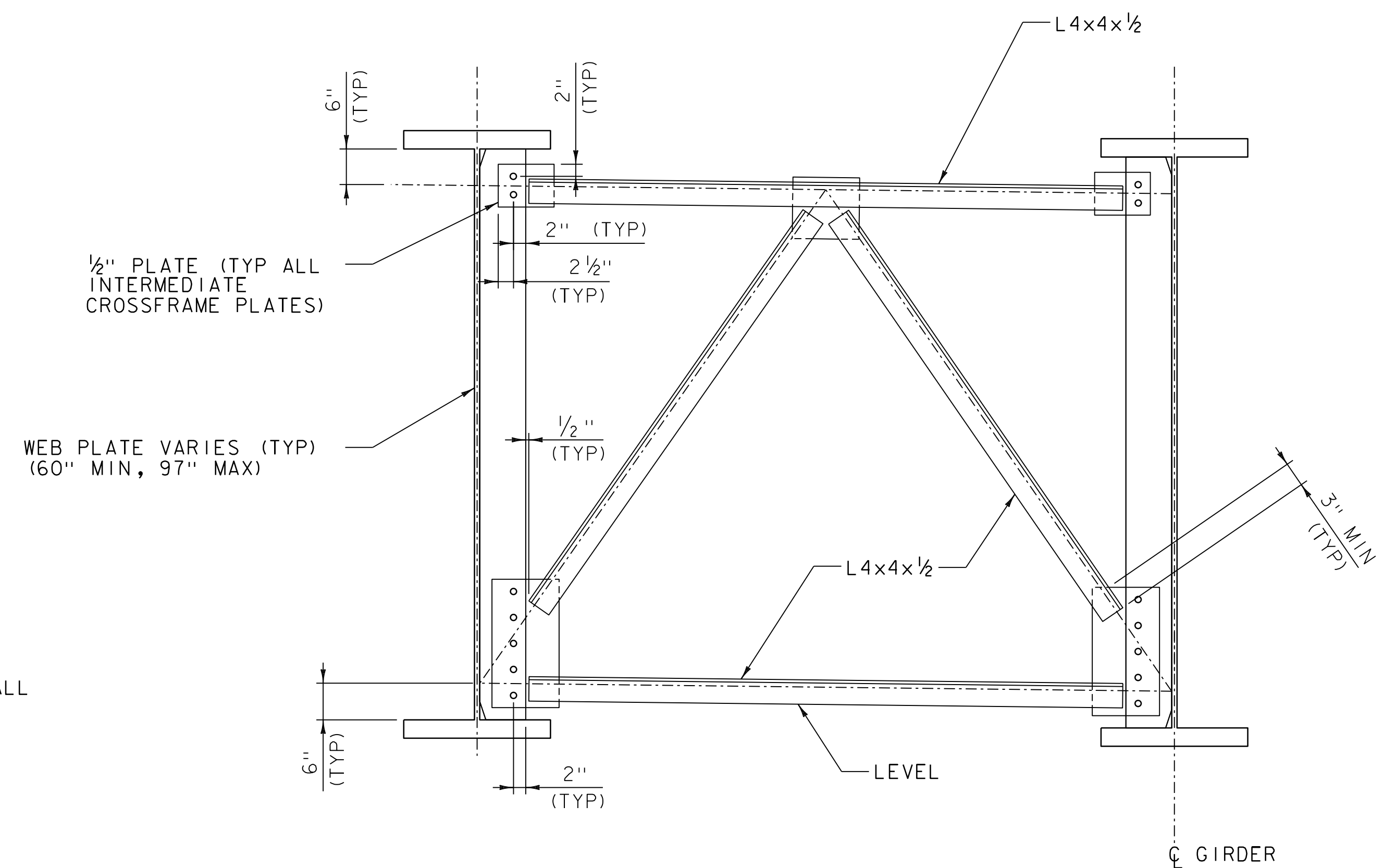






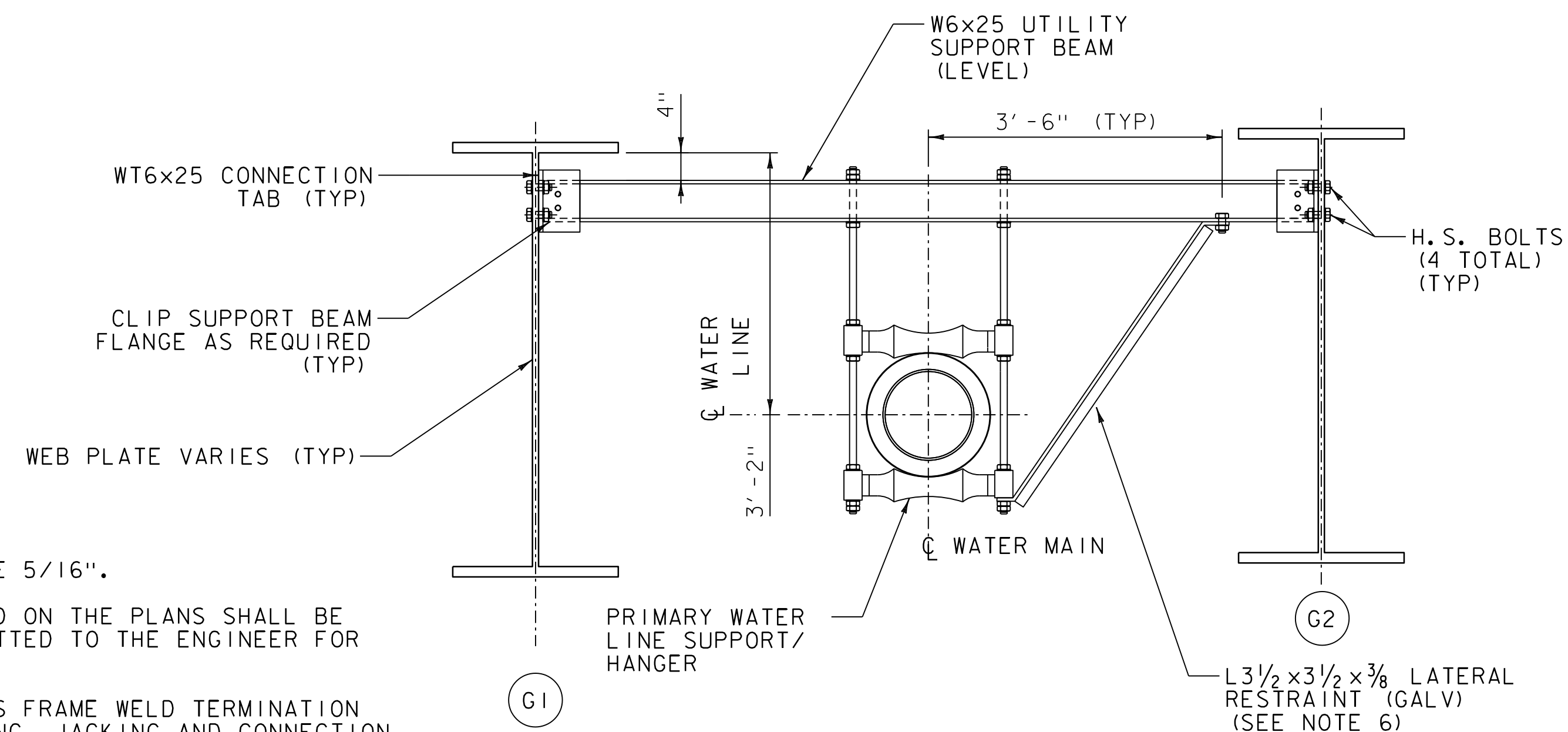
TYPICAL PIER CROSS FRAME

SCALE = 3/4" = 1' - 0"



TYPICAL INTERMEDIATE CROSS FRAME

SCALE = 3/4" = 1' - 0"



TYPICAL WATER MAIN SUPPORT

SCALE = 3/4" = 1' - 0"

**CROSS FRAME AND UTILITY FRAME NOTES:**

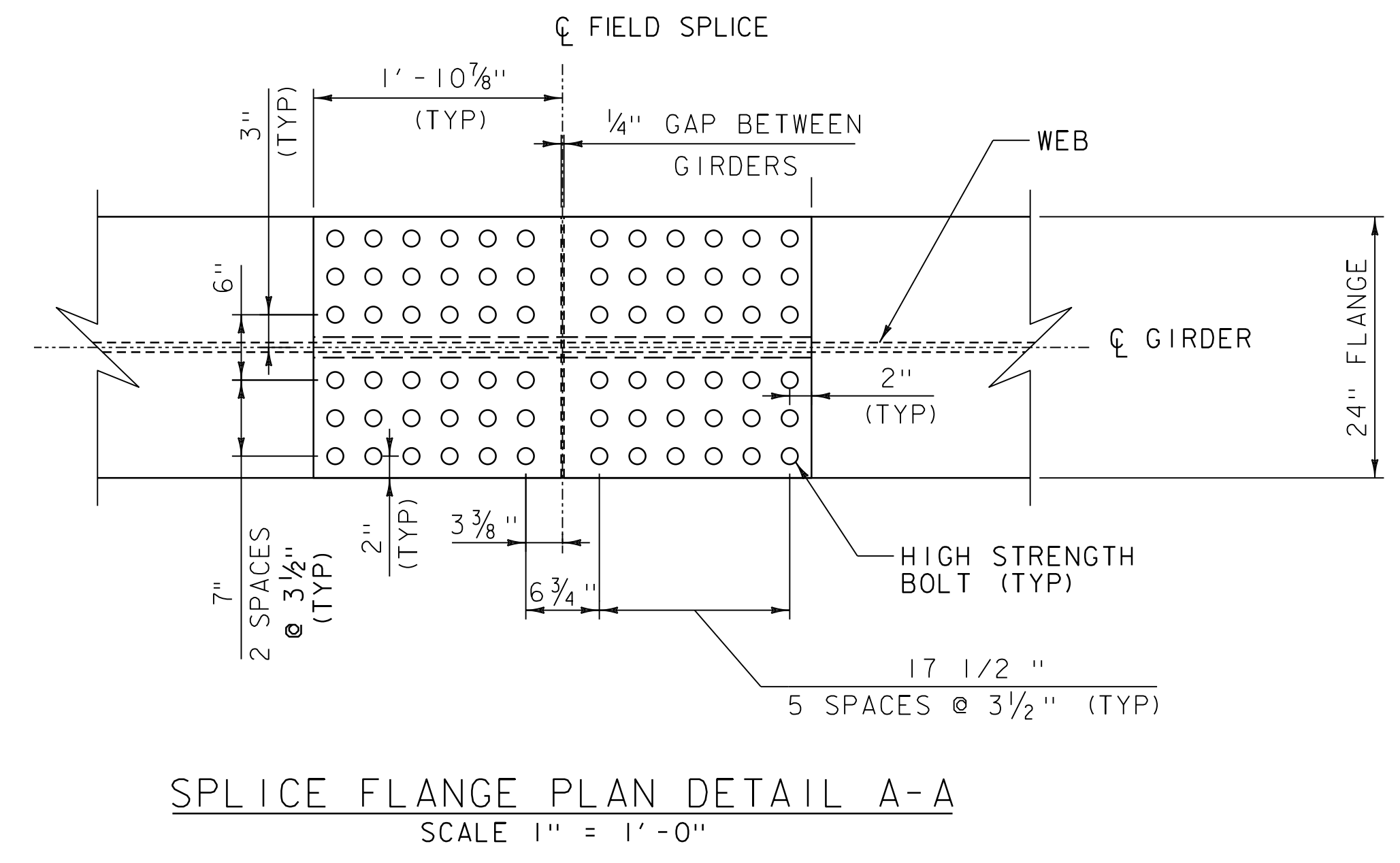
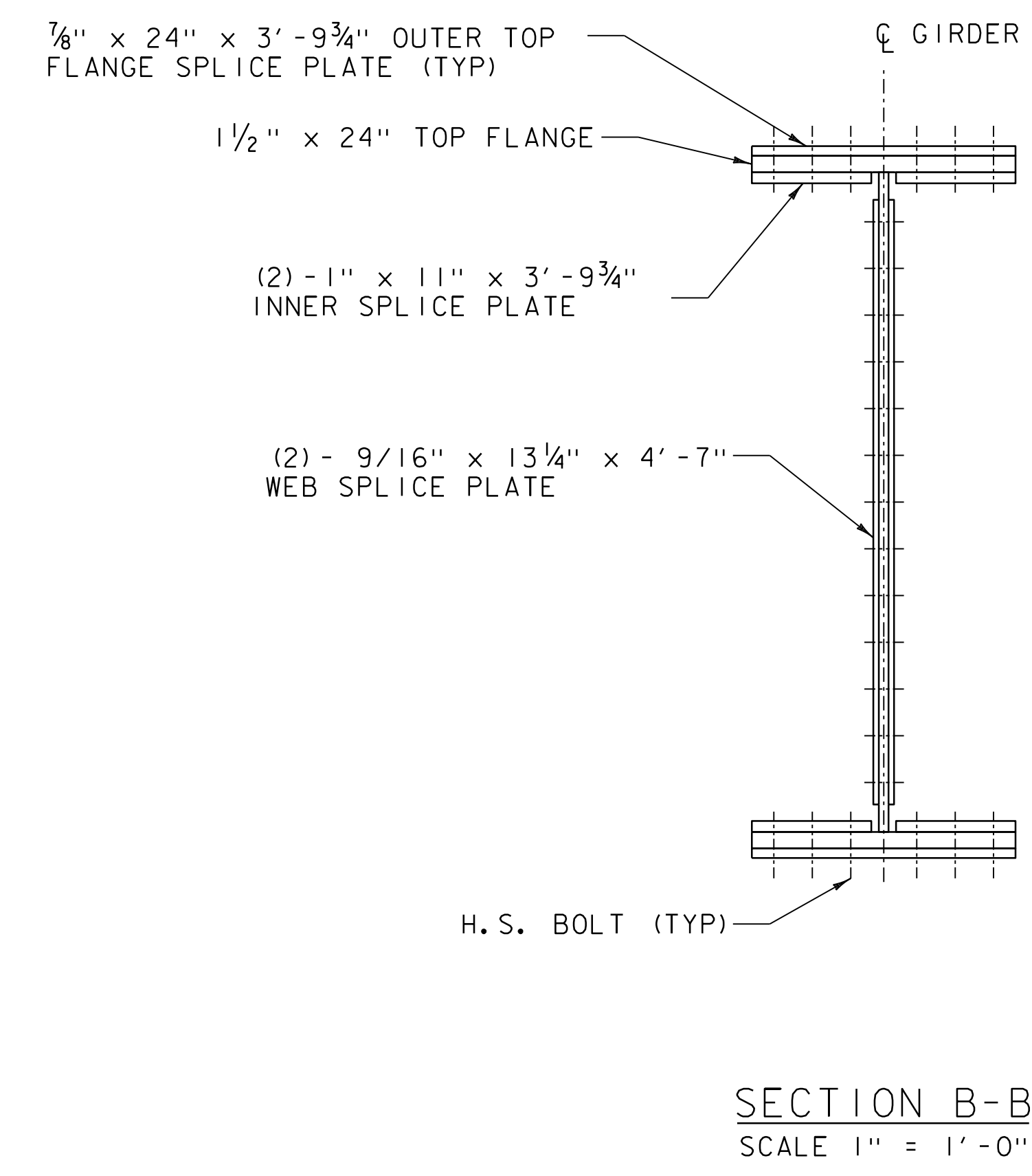
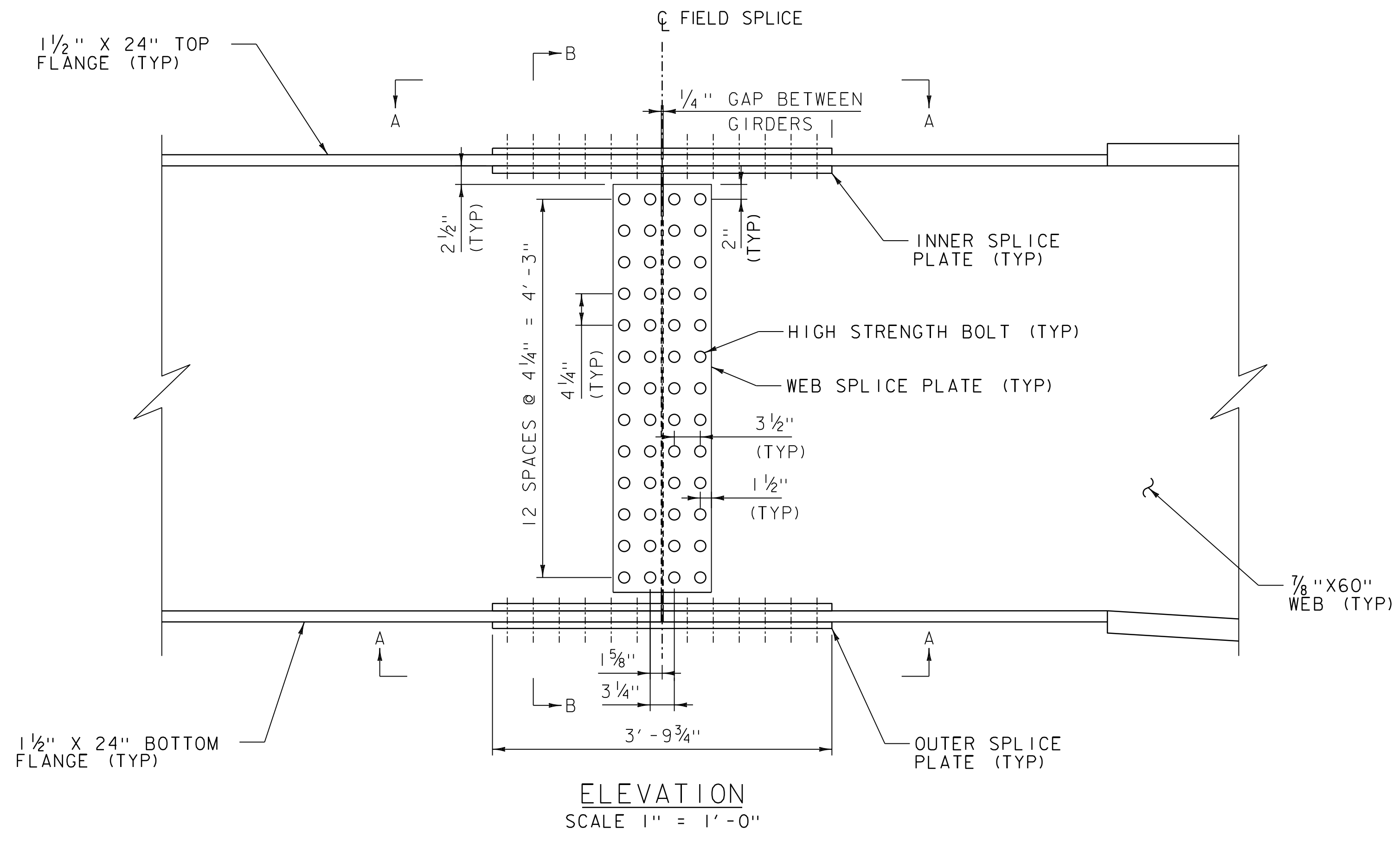
1. ALL CROSS FRAME FILLET WELDS SHALL BE 5/16".
2. ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL.
3. SEE STD S-600 AND STD S-601 FOR CROSS FRAME WELD TERMINATION AND BACK WELD DETAILS, AND FOR BEARING, JACKING AND CONNECTION PLATE COPE AND WELD DETAILS/REQUIREMENTS.
4. REFER TO FRAMING PLAN FOR CROSS FRAME LOCATIONS.
5. ALL EDGES OF ANGLES IN CONTACT WITH CONNECTION PLATES SHALL BE WELDED EXCEPT NEAR EDGES OF CONNECTION PLATES AS DETAILED IN STANDARD S601.
6. LATERAL RESTRAINT (GALV) SHALL BE INSTALLED ON THE PRIMARY WATER MAIN SUPPORT/HANGER THAT IS IMMEDIATELY ADJACENT TO THE BELL OF THE WATER MAIN PIPE. ALL COSTS ASSOCIATED WITH THE INSTALLATION OF THE LATERAL RESTRAINT (GALV) WILL BE INCLUDED IN ITEM 629.000, "WATER MAIN ON BRIDGE".

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068sup2.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: B.G. POMEROY  
CROSS FRAME DETAILS

PLOT DATE: 14-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: I.R. KAPLAN  
SHEET 95 OF 220



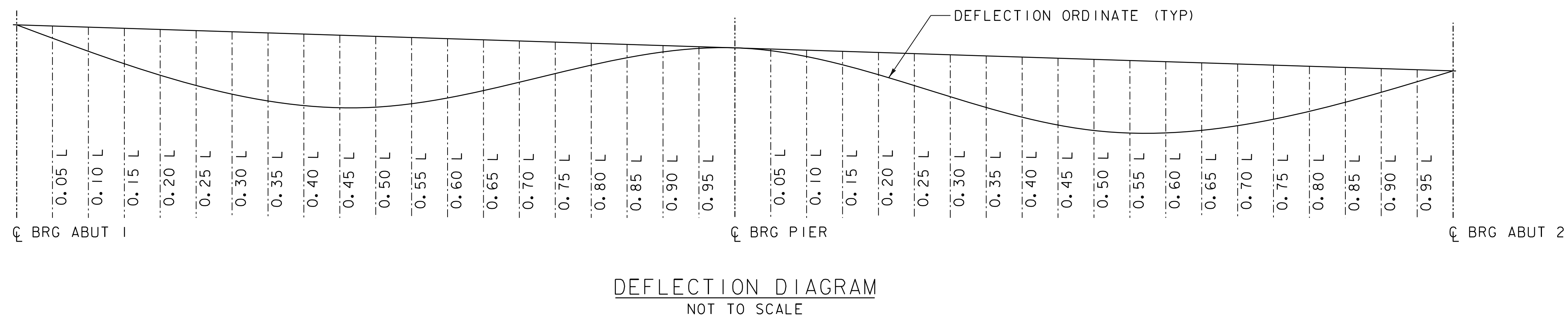
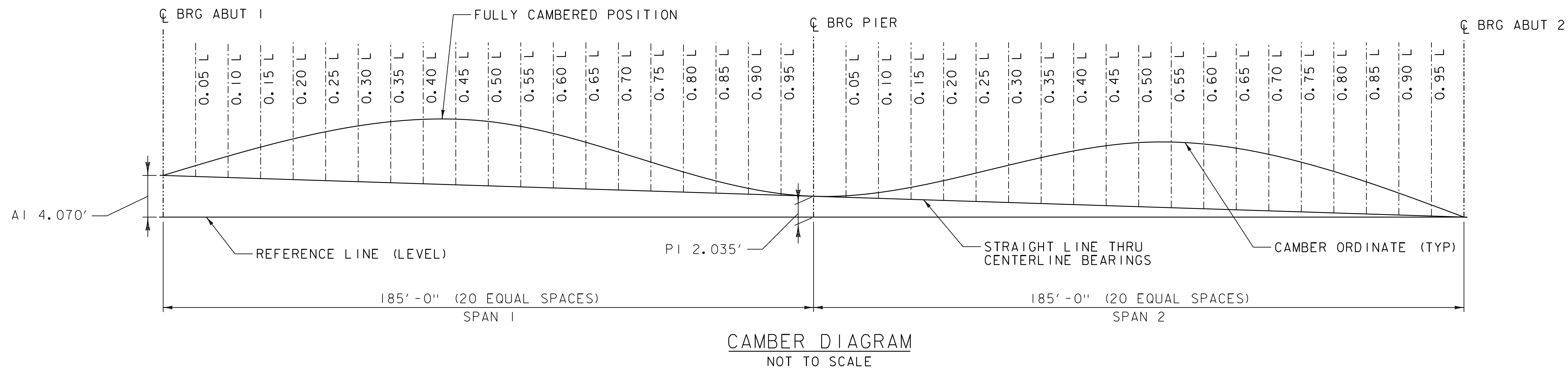


**NOTE:**

- ALL BOLTED FIELD SPLICE PLATES SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH SUBSECTION 714.01



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068sup2.dgn	CHECKED BY: S.M. HODGDON
PROJECT LEADER: S.E. BURBANK	SHEET 96 OF 220
DESIGNED BY: I.R. KAPLAN	
SPLICE DETAILS	



SPAN 1 - CAMBER TABLE @ 1/20 POINTS (INCHES)																						
G1-G4	LOAD TYPE	Abut. 1	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	Pier
	STEEL DEFLECTION	0.00	0.29	0.57	0.82	1.03	1.19	1.30	1.35	1.35	1.30	1.20	1.07	0.92	0.75	0.58	0.43	0.29	0.18	0.09	0.03	0.00
	PRECAST DECK PANEL DEFLECTION	0.00	0.26	0.50	0.72	0.90	1.04	1.13	1.17	1.17	1.11	1.02	0.90	0.76	0.61	0.47	0.34	0.23	0.14	0.07	0.02	0.00
	CAST-IN-PLACE SLAB DEFLECTION	0.00	0.48	0.94	1.34	1.68	1.94	2.10	2.18	2.17	2.07	1.90	1.67	1.41	1.14	0.88	0.64	0.43	0.26	0.12	0.04	0.00
	SUPERIMPOSED DL DEFLECTION	0.00	0.28	0.54	0.78	0.98	1.14	1.25	1.31	1.32	1.28	1.20	1.08	0.93	0.77	0.60	0.44	0.30	0.18	0.09	0.03	0.00
	<b>TOTAL DEFLECTION</b>	0.00	1.31	2.55	3.66	4.59	5.31	5.78	6.02	6.00	5.76	5.32	4.72	4.02	3.27	2.53	1.85	1.26	0.75	0.37	0.11	0.00
	RESIDUAL CAMBER	0.00	0.35	0.68	0.98	1.23	1.42	1.55	1.62	1.62	1.56	1.44	1.28	1.09	0.89	0.69	0.51	0.35	0.21	0.10	0.03	0.00
<b>TOTAL CAMBER</b>	0.00	1.67	3.24	4.64	5.82	6.73	7.34	7.63	7.62	7.32	6.76	6.01	5.12	4.16	3.22	2.37	1.60	0.96	0.47	0.15	0.00	
SPAN 2 - CAMBER TABLE @ 1/20 POINTS (INCHES)																						
G1-G4	LOAD TYPE	Pier	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	Abut. 2
	STEEL DEFLECTION	0.00	0.03	0.09	0.18	0.29	0.43	0.58	0.75	0.92	1.07	1.20	1.30	1.35	1.35	1.30	1.19	1.03	0.82	0.57	0.29	0.00
	PRECAST DECK PANEL DEFLECTION	0.00	0.02	0.07	0.14	0.23	0.34	0.47	0.61	0.76	0.90	1.02	1.11	1.17	1.17	1.13	1.04	0.90	0.72	0.50	0.26	0.00
	CAST-IN-PLACE SLAB DEFLECTION	0.00	0.04	0.12	0.26	0.43	0.64	0.88	1.14	1.41	1.67	1.90	2.07	2.17	2.18	2.10	1.94	1.68	1.34	0.94	0.48	0.00
	SUPERIMPOSED DL DEFLECTION	0.00	0.03	0.09	0.18	0.30	0.44	0.60	0.77	0.93	1.08	1.20	1.28	1.32	1.31	1.25	1.14	0.98	0.78	0.54	0.28	0.00
	<b>TOTAL DEFLECTION</b>	0.00	0.11	0.37	0.75	1.26	1.85	2.53	3.27	4.02	4.72	5.32	5.76	6.00	6.02	5.78	5.31	4.59	3.66	2.55	1.31	0.00
	RESIDUAL CAMBER	0.00	0.03	0.10	0.21	0.35	0.51	0.69	0.89	1.09	1.28	1.44	1.56	1.62	1.62	1.55	1.42	1.23	0.98	0.68	0.35	0.00
<b>TOTAL CAMBER</b>	0.00	0.15	0.47	0.96	1.60	2.37	3.22	4.16	5.12	6.01	6.76	7.32	7.62	7.63	7.34	6.73	5.82	4.64	3.24	1.67	0.00	

**NOTE:**

- TOTAL SLAB DEFLECTION EQUALS PRECAST DECK PANEL DEFLECTION PLUS CAST-IN-PLACE SLAB DEFLECTION. PRECAST DECK PANEL DEFLECTION ACCOUNTS FOR APPROXIMATELY 35% OF TOTAL SLAB DEFLECTION.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068sup2.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: I.R. KAPLAN  
CAMBER DETAILS

PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: S.M. HODGDON  
SHEET 97 OF 220



BEARING DESIGN TABLE													
LOCATION	BEARING FIXITY	GIRDER NO.	VERTICAL LOADS (SERVICE)			HORIZONTAL LOADS (EXTREME EVENT)		SERVICE MOVEMENT *					BEARING HEIGHT "H" (IN)
			DEAD (K)	LIVE + IMPACT (K)	TOTAL VERTICAL (K)	LONGITUDINAL (K)	TRANSVERSE (K)	DEAD LOAD ROTATION (RAD)	CONSTRUCTION TOLERANCE (RAD)	LIVE LOAD ROTATION (RAD)	TOTAL THERMAL MOVEMENT (IN)	END ROTATION MOVEMENT (IN)	
PIER	FIXED	GIRDER 1	635	274	909	230	115	0.000	0.005	0.004	0	0	11.39
		GIRDER 2	634	285	919	230	115	0.000	0.005	0.003	0	0	11.39
		GIRDER 3	634	285	919	230	115	0.000	0.005	0.003	0	0	11.39
		GIRDER 4	635	274	909	230	115	0.000	0.005	0.004	0	0	11.39
ABUTMENT 2	EXPANSION	GIRDER 1	141	123	264	0	58	0.012	0.005	0.006	2.16	1.00	10.64
		GIRDER 2	140	127	267	0	58	0.012	0.005	0.005	2.16	1.00	10.64
		GIRDER 3	140	127	267	0	58	0.012	0.005	0.005	2.16	1.00	10.64
		GIRDER 4	141	123	264	0	58	0.012	0.005	0.006	2.16	1.00	10.64

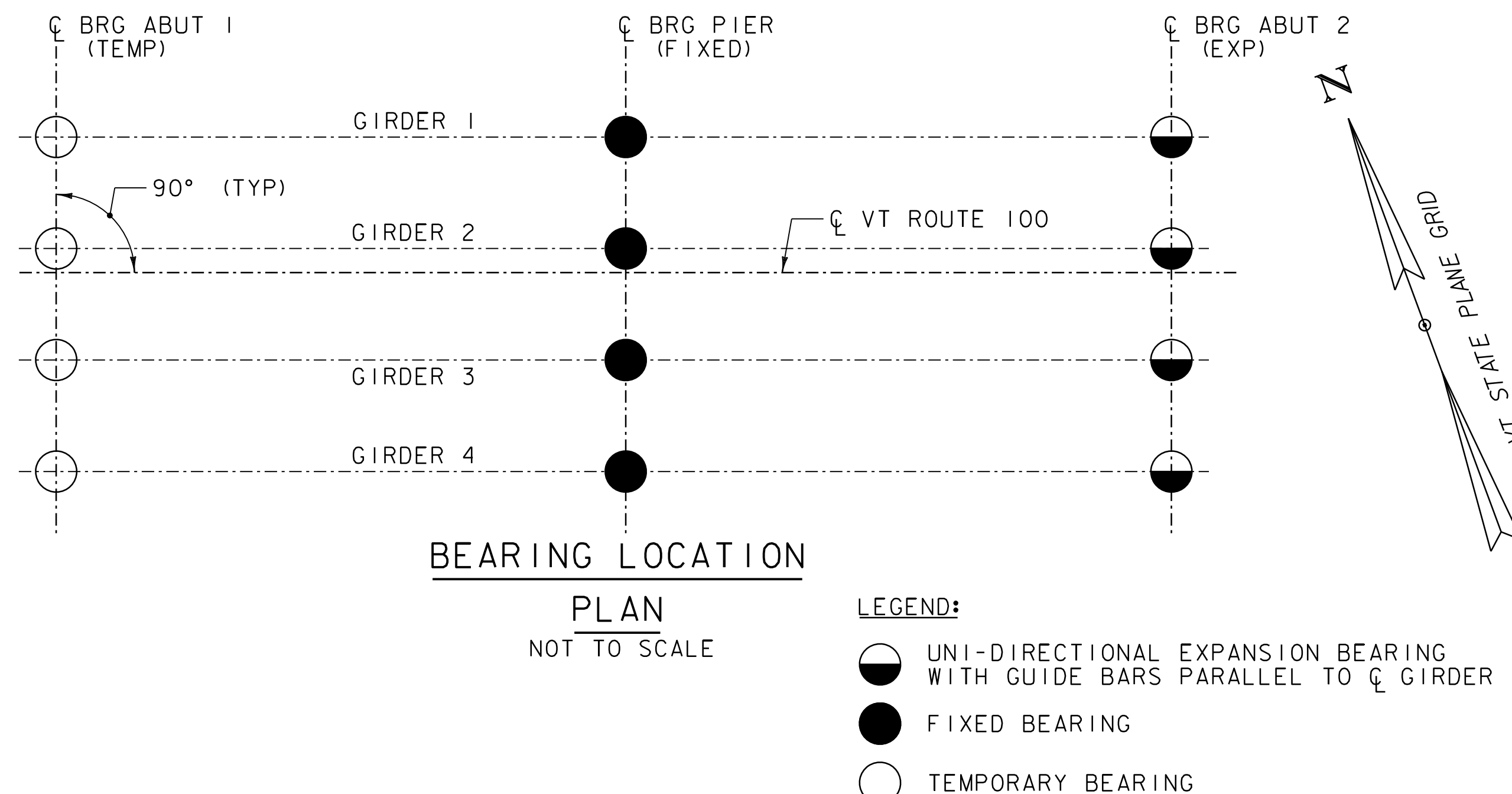
* SERVICE LOADS AND MOVEMENTS SHOWN ARE MAXIMUM.

**BEARING DESIGN TABLE NOTES:**

- DEAD LOAD ROTATION IS THE ANTICIPATED GIRDER END ROTATION DUE TO ALL SUPERSTRUCTURE DEAD LOADS, SEE NOTE 11 FOR BEARING DESIGN REQUIREMENTS.
- TOTAL THERMAL MOVEMENT IS CALCULATED USING FULL 150°F (-30°F THROUGH 120°F) THERMAL RANGE. THE 1.2 LOAD FACTOR REQUIRED BY AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS HAS NOT BEEN APPLIED.
- END ROTATION MOVEMENT IS THE ANTICIPATED LONGITUDINAL TRANSLATION OF THE GIRDER'S BOTTOM FLANGE CAUSED BY THE GIRDER END ROTATING. THE MOVEMENT VALUES SHOWN REPRESENT TOTAL DEAD LOAD ROTATION, AND MOVEMENT IS FROM CENTERLINE OF BEARINGS TOWARDS THE BACKWALL.

**DISC BEARING NOTES:**

- FIXED AND GUIDED HIGH-LOAD MULTI-ROTATIONAL DISC BEARINGS SHALL BE PAID FOR UNDER ITEM 531.1500 "BEARING DEVICE ASSEMBLY, HIGH LOAD MULTI-ROTATIONAL".  
EXCEPT FOR ANCHOR BOLTS AND MASONRY PLATE, THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL BEARING DEVICE ASSEMBLY COMPONENTS INCLUDING THE BEVELED SOLE PLATES AND CONNECTION TO THE MASONRY PLATE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9TH EDITION, 2020. THE BEARING DEVICES SHALL BE CAPABLE OF TRANSMITTING THE LOADS AND MOVEMENTS SHOWN ON THESE PLANS.
- BEVELED SOLE PLATES SHALL BE DESIGNED TO PROVIDE A LEVEL BEARING SURFACE AFTER ALL DEAD LOADS HAVE BEEN APPLIED. BEVELED SOLE PLATE LENGTH AND THICKNESSES USED BY THE DESIGNER FOR GEOMETRIC LAYOUT HAVE BEEN PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING NO GEOMETRIC CONFLICTS EXIST IF THE BEVELED SOLE PLATE DIMENSIONS PROVIDED ARE CHANGED.
- ALL STEEL PLATES SHALL CONFORM TO AASHTO M270 GRADE 50 AND SHALL BE GALVANIZED PER SUBSECTION 727.06 OR METALIZED PER SUBSECTION 726.07. ALL COSTS FOR COATING BEARINGS SHALL BE INCIDENTAL TO ITEM 531.1500.
- THE STAINLESS STEEL PLATES SHALL BE TYPE 304 ASTM A240, AND SURFACES IN CONTACT WITH THE PTFE SHALL HAVE A #8 MIRROR FINISH.
- RECESS AND BOND THE PTFE TO THE TOP AND SIDES OF THE UPPER BEARING PLATE WITH AN APPROVED ADHESIVE. THE SURFACE PREPARATION OF THE PTFE AND MATING STEEL SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS.
- THE SLIDING BEARING FRICTION COEFFICIENT SHALL NOT EXCEED 6%. ALL COMPONENTS OF THE BEARING SYSTEM WHICH ARE LIABLE TO COME INTO CONTACT DURING TRANSLATION SHALL HAVE A PTFE/STAINLESS STEEL SLIDING INTERFACE.
- THE DIMENSION "H" IN THE BEARING TABLE REPRESENTS THE TOTAL HEIGHT OF THE BEARING DEVICE AT THE CENTERLINE OF BEARING, INCLUDING BEVELED SOLE AND MASONRY PLATES USED BY THE DESIGNER IN ESTABLISHING THE BRIDGE SEAT ELEVATIONS. THE CONTRACTOR SHALL RECOMPUTE ALL BRIDGE SEAT ELEVATIONS TO ACCURATELY REFLECT THE ACTUAL HEIGHT OF THE BEARING DEVICES SUPPLIED.
- BEARINGS SHALL BE ALIGNED NORMAL TO THE CENTERLINE OF GIRDER.
- ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATIONS ON THE BRIDGE, AND A DIRECTION ARROW THAT POINTS UPSTATION. ALL MARKS SHALL BE PERMANENT AND SHALL BE VISIBLE AFTER THE BEARING IS INSTALLED.
- BEARINGS SHALL BE DESIGNED TO ACCOMMODATE THE DEAD LOAD ROTATION PLUS CONSTRUCTION TOLERANCE AT GIRDER ERECTION. BEVELED SOLE PLATES ARE USED TO ACCOMMODATE THE GRADE AND PROVIDE FULL CONTACT WITH THE BEARING SURFACE AFTER ALL DEAD LOADS HAVE BEEN APPLIED. THEREFORE, IN THE FINAL CONDITION, THE BEARINGS SHALL BE DESIGNED TO ACCOMMODATE CONSTRUCTION TOLERANCE PLUS LIVE LOAD ROTATION. SEE BEARING DESIGN TABLE FOR DESIGN VALUES.
- ANCHOR BOLTS SHALL BE SWEDGED ASTM F-1554 GRADE 105 AND SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH SUBSECTION 714.08. ANCHOR BOLTS SHALL HAVE A MINIMUM OF 6 INCHES OF THREAD. THREADS SHALL BE BURRED ABOVE THE NUT TO PREVENT NUT REMOVAL. NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 726.06 AND CONFORM TO SUBSECTION 714.08.
- ALL ANCHOR BOLTS SHALL BE SET BY TEMPLATE BEFORE THE CONCRETE IS PLACED.



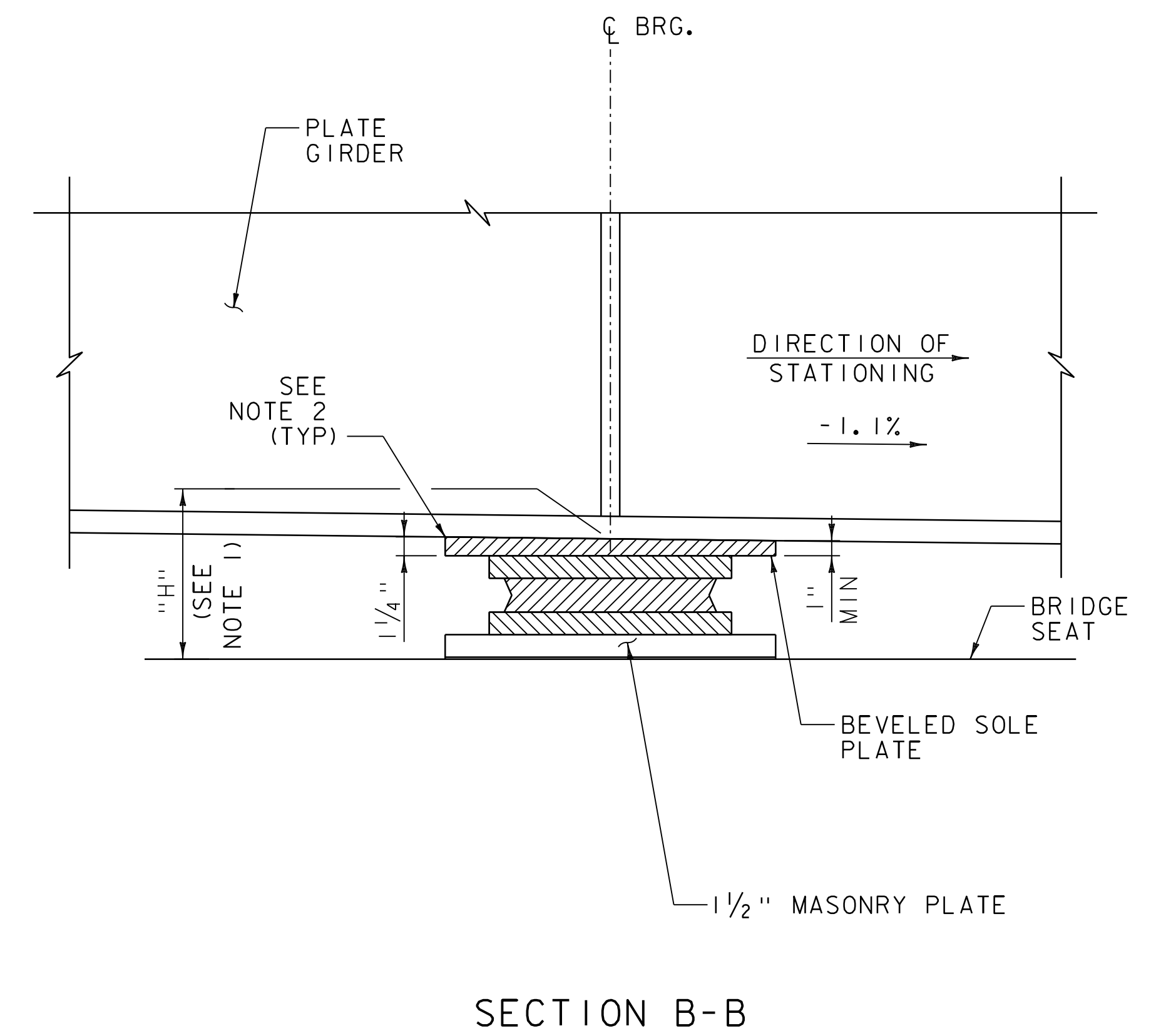
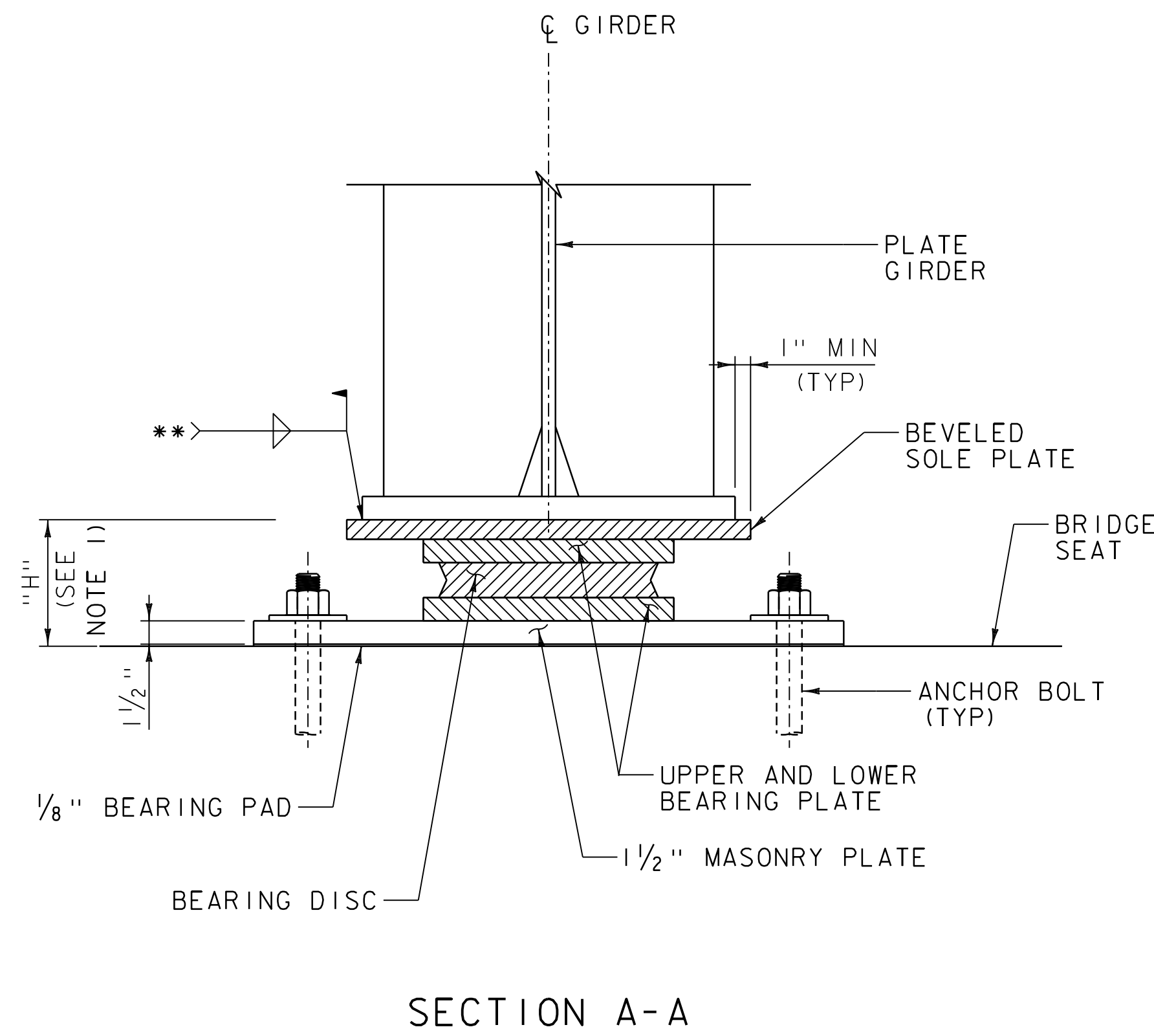
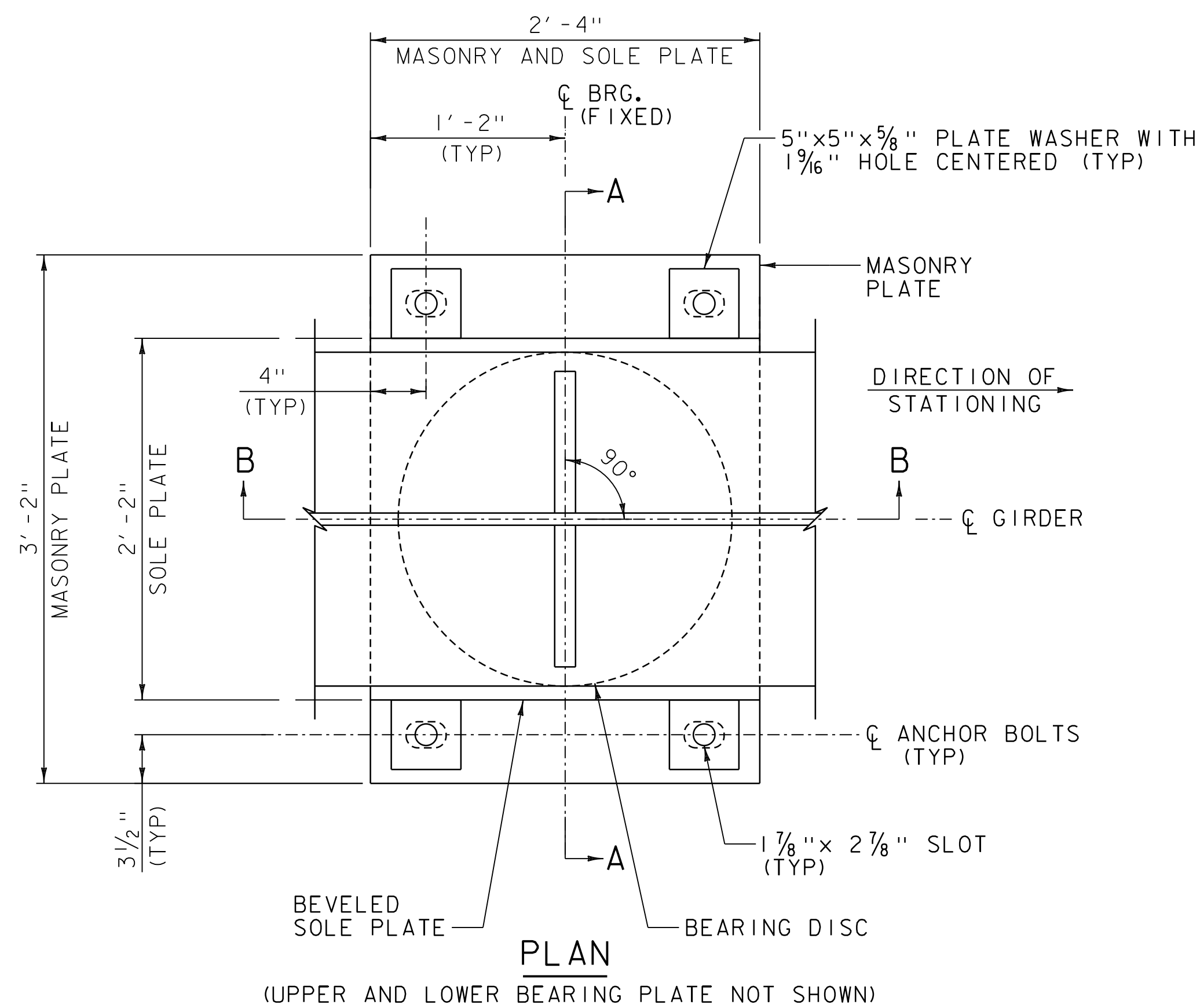
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068brg.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: Y. PENG  
BEARING DETAILS (1 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: R.H. BARNES  
SHEET 98 OF 220







**FIXED BEARING**

**PIER**

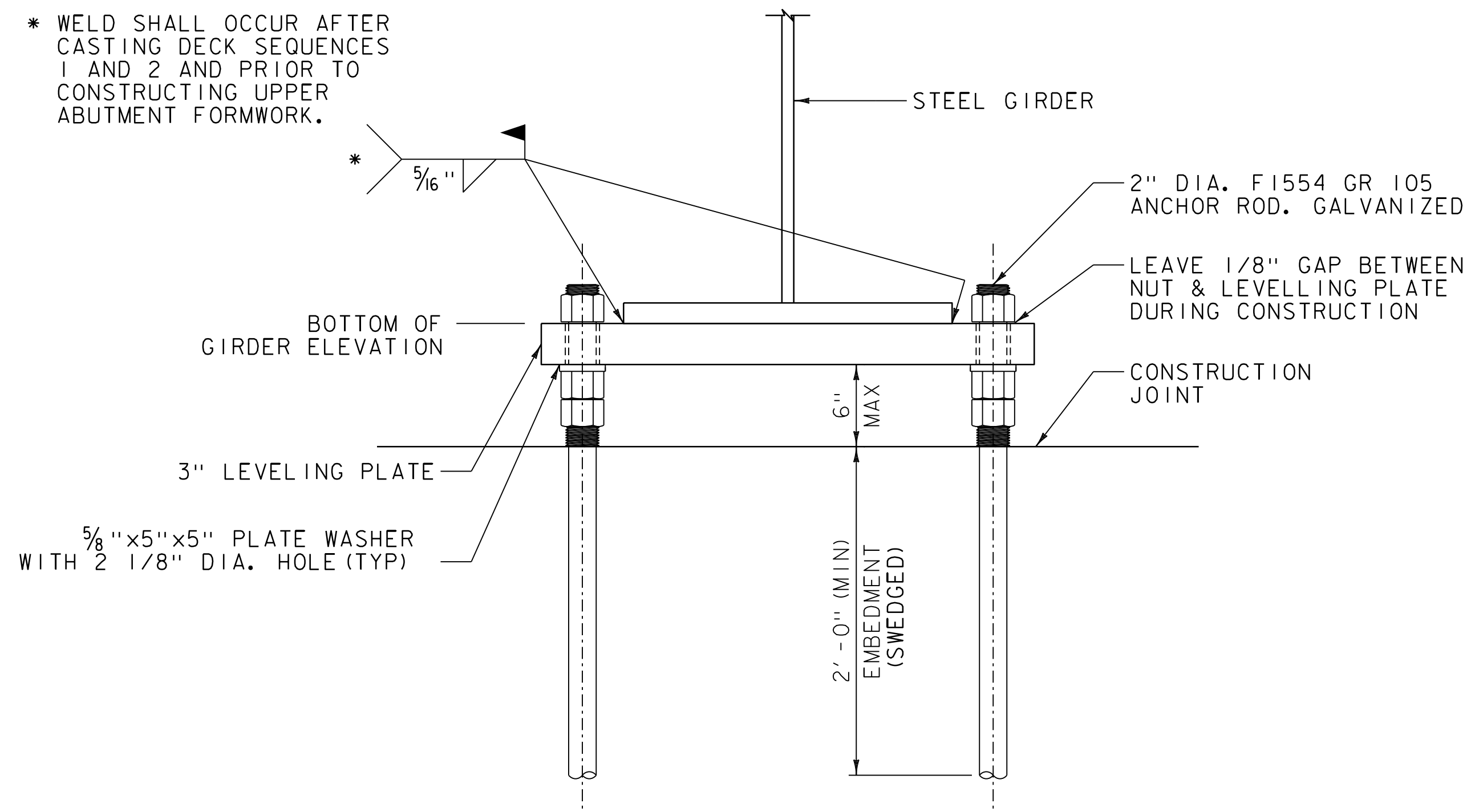
SCALE: 1/2" = 1'-0"

**TEMPORARY BEARING  
ABUTMENT NO. 1**  
SCALE: 1/2" = 1'-0"

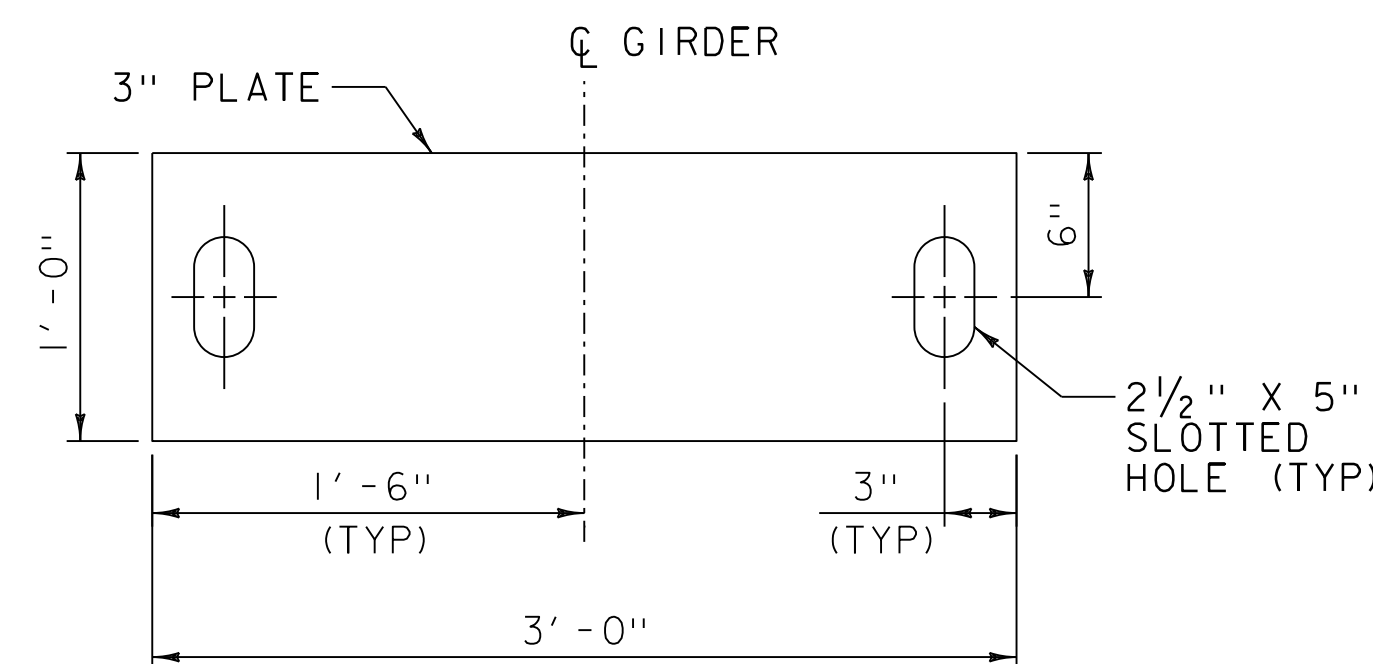
**NOTES:**

- PRIOR TO SETTING GIRDERS, THE CONTRACTOR SHALL VERIFY:
  - ANCHOR BOLTS ARE PLUMB
  - ANCHOR BOLTS ARE GROUTED PROPERLY
  - LEVELING PLATE ELEVATIONS ARE CORRECT
- PRIOR TO SETTING GIRDERS, CONTRACTOR WILL GREASE THE TOP SURFACE OF THE LEVELING PLATES. GREASING LEVELING PLATES WILL BE INCIDENTAL TO ITEM 506.5500, "STRUCTURAL STEEL, PLATE GIRDER (WEATHERING)".
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TRANSVERSE RESTRAINT OF THE GIRDERS UNTIL THE WELD BETWEEN THE BOTTOM FLANGE AND THE LEVELING PLATE IS COMPLETED.
- AFTER GIRDERS HAVE BEEN PLACED, THE CONTRACTOR WILL VERIFY PLUMBNESS OF ANCHOR BOLTS AND WIPE EXCESS GREASE FROM THE LEVELING PLATES.
- LEVELING PLATES SHALL BE UNCOATED GR. 50 STEEL. PAYMENT FOR LEVELING PLATE AND BEARING ASSEMBLY IS INCLUDED IN THE COST FOR ITEM 506.5500 "STRUCTURAL STEEL, PLATE GIRDER (WEATHERING)".

* WELD SHALL OCCUR AFTER CASTING DECK SEQUENCES 1 AND 2 AND PRIOR TO CONSTRUCTING UPPER ABUTMENT FORMWORK.



**TEMPORARY BEARING ASSEMBLY ELEVATION**



DEPICTS COMPONENTS WHICH ARE SHOWN FOR REPRESENTATION PURPOSES ONLY. THE ACTUAL BEARING CONFIGURATION AND PLATE SIZES, ETC. WILL BE DETERMINED BY THE BEARING MANUFACTURER, CONFORMING TO THE BEARING REQUIREMENTS PRESENTED IN THESE PLANS AND SPECIFICATIONS.

** MANUFACTURER SHALL SIZE THE WELD PER DISC BEARING NOTES ON BEARING DETAILS (1 OF 3). MINIMUM SIZE OF WELD SHALL BE 5/16"

**NOTES:**

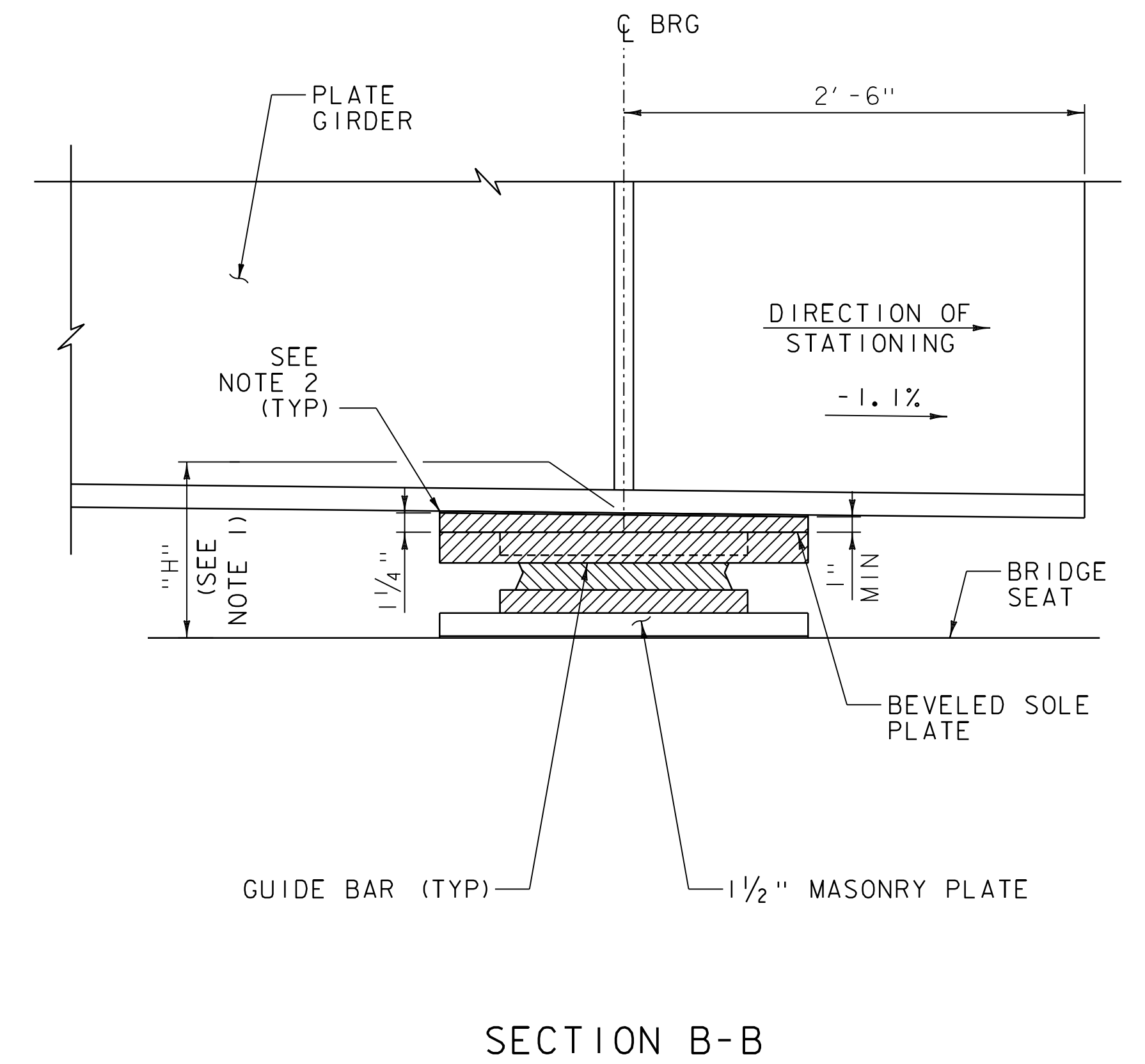
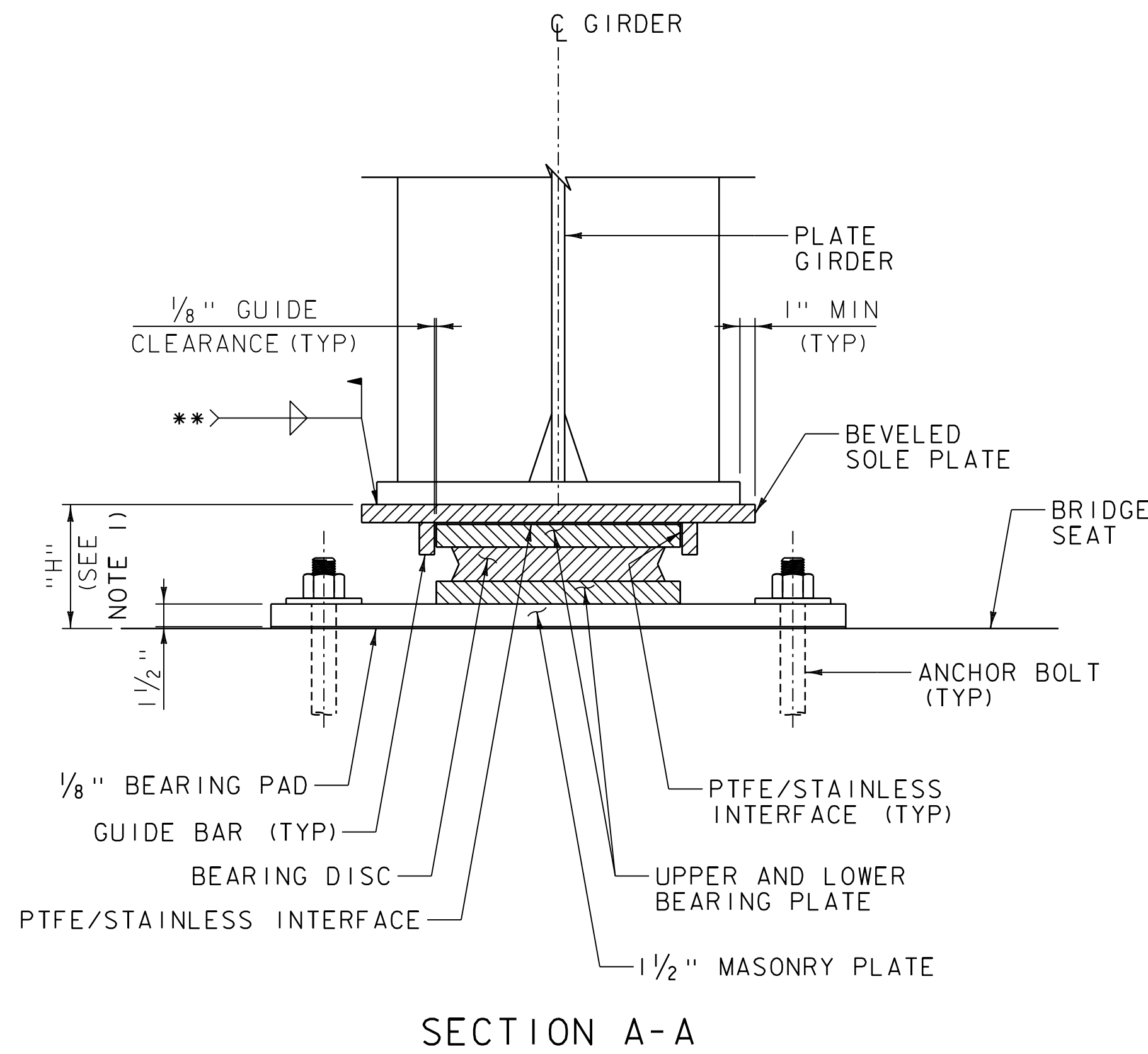
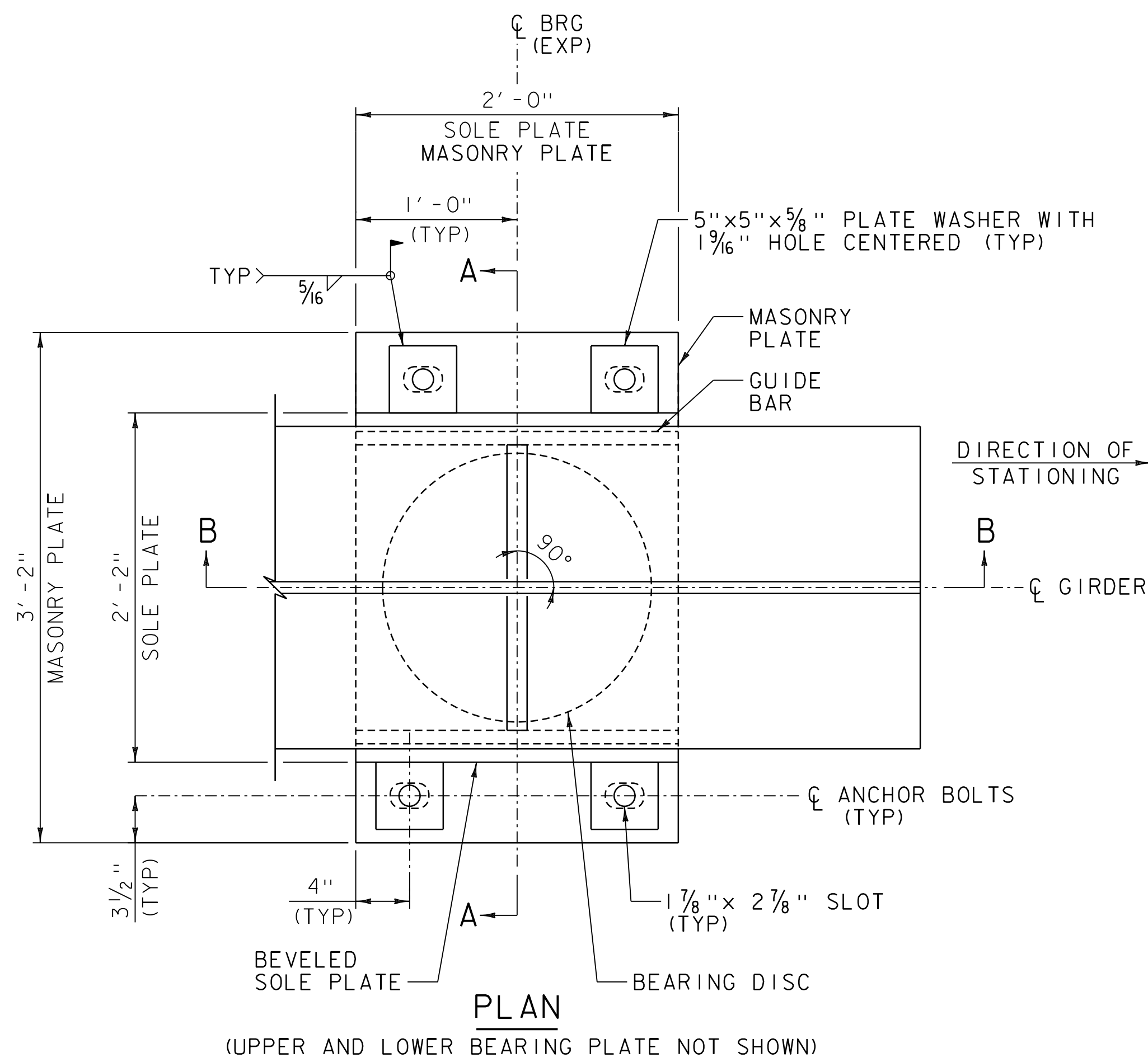
- SEE BEARING DESIGN TABLE ON BEARING DETAILS (1 OF 3) FOR DIMENSION "H", BEARING LOCATIONS, AND BEARING NOTES.
- APPLY APPROVED SEALANT/CAULKING ALONG THE SOLE PLATE/UNDERSIDE OF FLANGE EDGE TO THE FILLET WELD TERMINATION. ALL COSTS SHALL BE INCIDENTAL TO ITEM 531.1500.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068brg.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: Y. PENG  
BEARING DETAILS (2 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: R.H. BARNES  
SHEET 99 OF 220

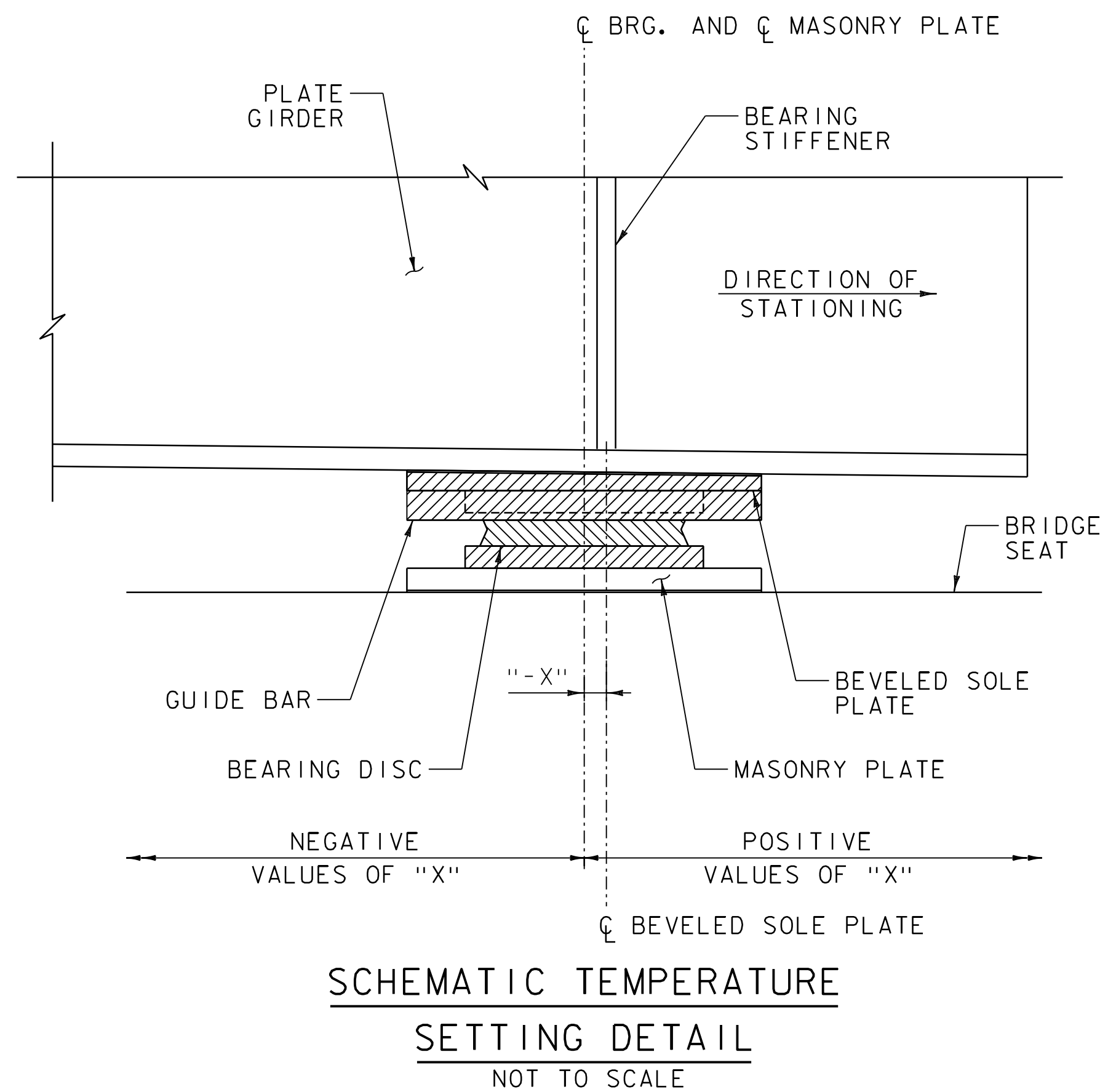




**LONGITUDINALLY GUIDED EXPANSION BEARING**

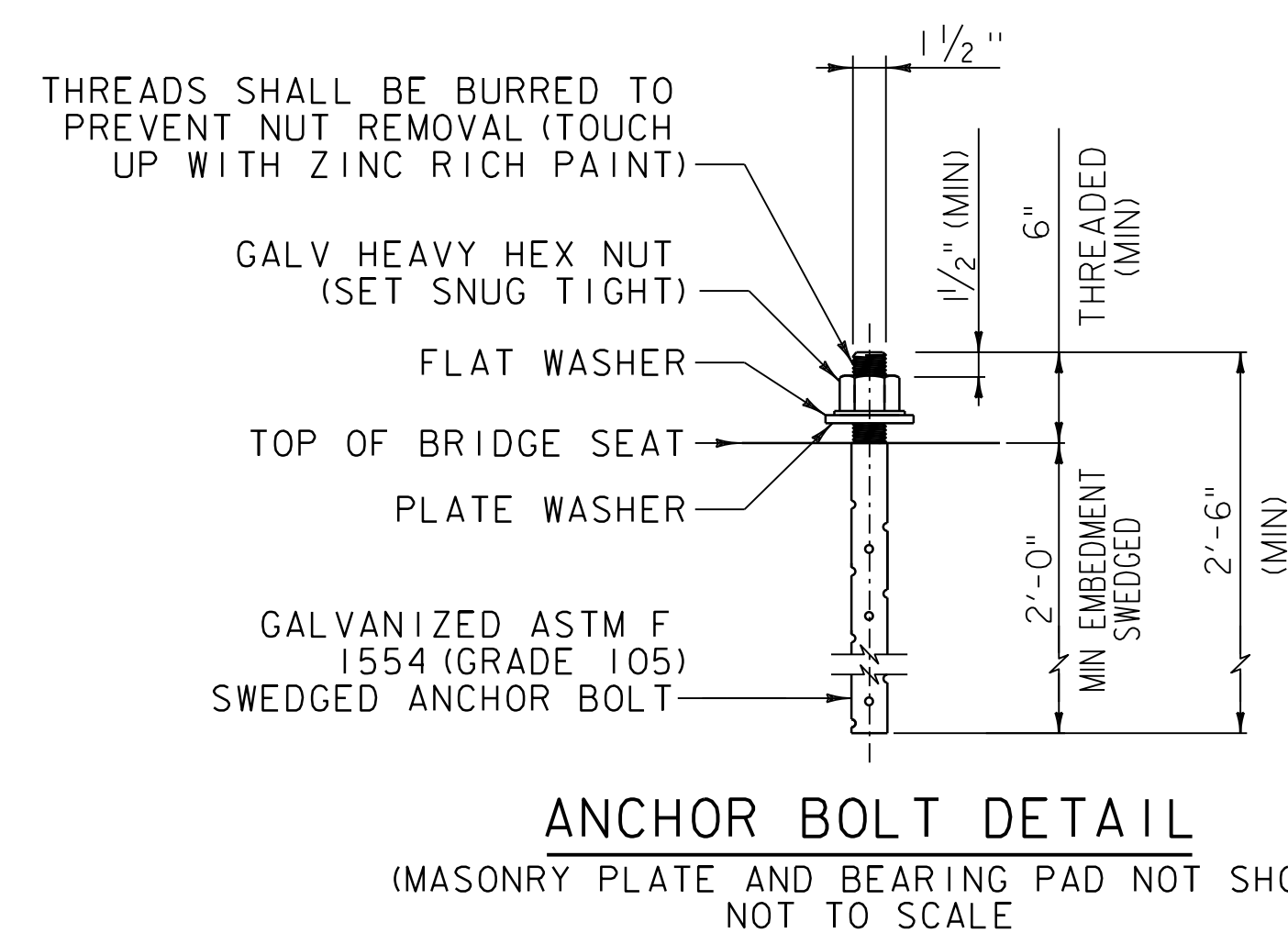
**ABUTMENT NO. 2**

SCALE: 1 1/2" = 1'-0"



TEMPERATURE SETTING TABLE ("X")	
TEMP (°F)	ABUTMENT NO. 2
0	-10/16"
15	-7/16"
30	-3/16"
45	0"
60	3/16"
75	7/16"
90	10/16"

**NOTE:**  
 1. LONGITUDINAL MOVEMENT DUE TO GIRDER END ROTATION HAS NOT BEEN ACCOUNTED FOR IN THE TEMPERATURE SETTING TABLE. THE CONTRACTOR SHALL ACCOUNT FOR THIS MOVEMENT BASED ON THEIR METHOD OF CONSTRUCTION TO ENSURE "X" IS 0" AT 45°F UPON COMPLETION OF CONSTRUCTION. SEE BEARING DESIGN TABLE ON BEARING DETAILS (1 OF 3) FOR MOVEMENTS.



DEPICTS COMPONENTS WHICH ARE SHOWN FOR REPRESENTATION PURPOSES ONLY. THE ACTUAL BEARING CONFIGURATION AND PLATE SIZES, ETC. WILL BE DETERMINED BY THE BEARING MANUFACTURER, CONFORMING TO THE BEARING REQUIREMENTS PRESENTED IN THESE PLANS AND SPECIFICATIONS.

** MANUFACTURER SHALL SIZE THE WELD PER DISC BEARING NOTES ON BEARING DETAILS (1 OF 3). MINIMUM SIZE OF WELD SHALL BE 5/16"

**NOTES:**

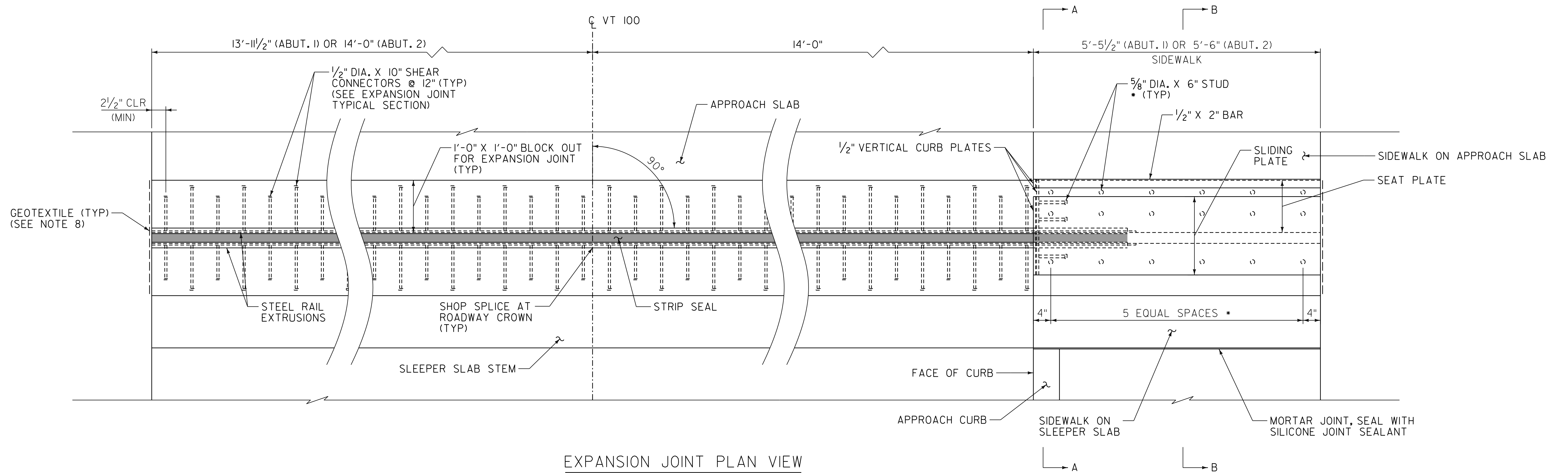
- SEE BEARING DESIGN TABLE ON BEARING DETAILS (1 OF 3) FOR DIMENSION "H", BEARING LOCATIONS, AND BEARING NOTES.
- APPLY APPROVED SEALANT/CAULKING ALONG THE SOLE PLATE/UNDERSIDE OF FLANGE EDGE TO THE FILLET WELD TERMINATION. ALL COSTS SHALL BE INCIDENTAL TO ITEM 531.1500.

PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068brg.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: Y. PENG  
 BEARING DETAILS (3 OF 3)

PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: R.H. BARNES  
 SHEET 100 OF 220





EXPANSION JOINT PLAN VIEW

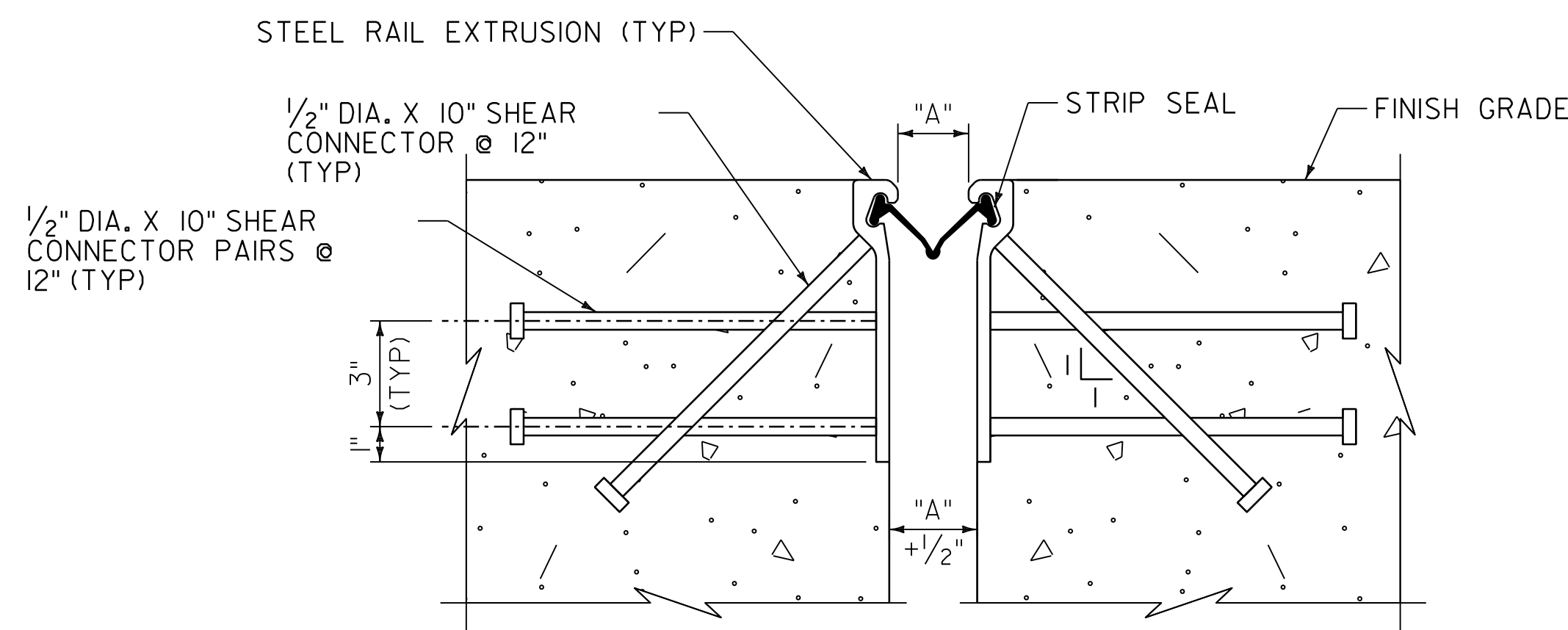
SCALE 1" = 1'-0"

NOTE: BEGIN BRIDGE JOINT SHOWN, END BRIDGE JOINT SIMILAR.

* - STAGGER STUDS AS NECESSARY TO AVOID CONFLICTS. PROVIDE 2 1/2" MINIMUM CLEAR COVER.

EXPANSION JOINT NOTES:

1. THE STRIP SEAL JOINT SHOWN IS REPRESENTATIVE OF THE TYPE OF EXPANSION JOINT ACCEPTABLE FOR USE. THE EXACT JOINT CONFIGURATION WILL DEPEND UPON THE MANUFACTURER'S DETAILS, SHOP DRAWINGS OF THE STRIP SEAL EXPANSION JOINT SYSTEM INCLUDING SIDEWALK PLATING, PLACEMENT DETAILS, AND SHIPPING DEVICES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. ALL COSTS FOR THE COMPLETED JOINT IN PLACE SHALL BE PAID FOR UNDER ITEM 516.XXXX, "BRIDGE EXPANSION JOINT, STRIP SEAL".
2. AT ROADWAY CROWN AND CURB, SHOP WELD SPLICE STEEL EXTRUSIONS. USE 1/8" PARTIAL JOINT PENETRATION GROOVE WELDS BOTH SIDES. GRIND ALL WELDS SMOOTH.
3. THE EXPANSION JOINT HAS BEEN DESIGNED FOR A TOTAL FACTORED MOVEMENT OF 2.16 INCHES.
4. THE JOINT OPENING SHALL BE ADJUSTED FOR THE TEMPERATURE OF THE STEEL GIRDERS IN THE FIELD AT THE TIME OF CONSTRUCTION IN ACCORDANCE WITH THE JOINT OPENING TABLE ON THIS SHEET.
5. THE EXPANSION DEVICE SHALL BE FABRICATED TO BE INSTALLED NORMAL TO GRADE.
6. THE APPROACH SLAB AND SLEEPER SLAB CONCRETE SHALL BE IN PLACE BEFORE THE EXPANSION DEVICE IS FIXED IN POSITION. NO ALLOWANCE FOR MOVEMENT DUE TO DEAD LOAD DEFLECTION IS NECESSARY.
7. THE CONCRETE IN THE BLOCK OUT MAY BE PLACED WITH THE SIDEWALK CONCRETE. AN APPROVED EPOXY BONDING AGENT SHALL BE APPLIED TO ALL VERTICAL SURFACES OF THE BLOCK OUT BEFORE MAKING THE FINAL CONCRETE PLACEMENT.
8. GEOTEXTILE SHALL BE INSTALLED ON BOTH ENDS OF THE JOINT OPENING AS SHOWN TO PREVENT MATERIAL INFILLING. GEOTEXTILE SHALL EXTEND AT LEAST TO THE ENDS OF THE 1'-0" BLOCK OUT MATERIAL ON EITHER SIDE OF THE EXPANSION JOINT; VERTICALLY, THE GEOTEXTILE SHALL EXTEND TO THE TOP OF THE FINISH GRADE AND TO AT LEAST 6" BELOW THE BOTTOM OF THE THICKENED APPROACH SLAB. GEOTEXTILE SHALL MEET THE REQUIREMENTS OF SUBSECTION 720.02 AND SHALL BE CONSIDERED INCIDENTAL TO ITEM 516.XXXX, "BRIDGE EXPANSION JOINT, STRIP SEAL".



EXPANSION JOINT TYPICAL SECTION

SCALE 3" = 1'-0"

NOTE: ALTERNATE HORIZONTAL SHEAR CONNECTOR PAIRS WITH ANGLED SHEAR CONNECTORS @ 6" SPACING.

JOINT OPENING TABLE

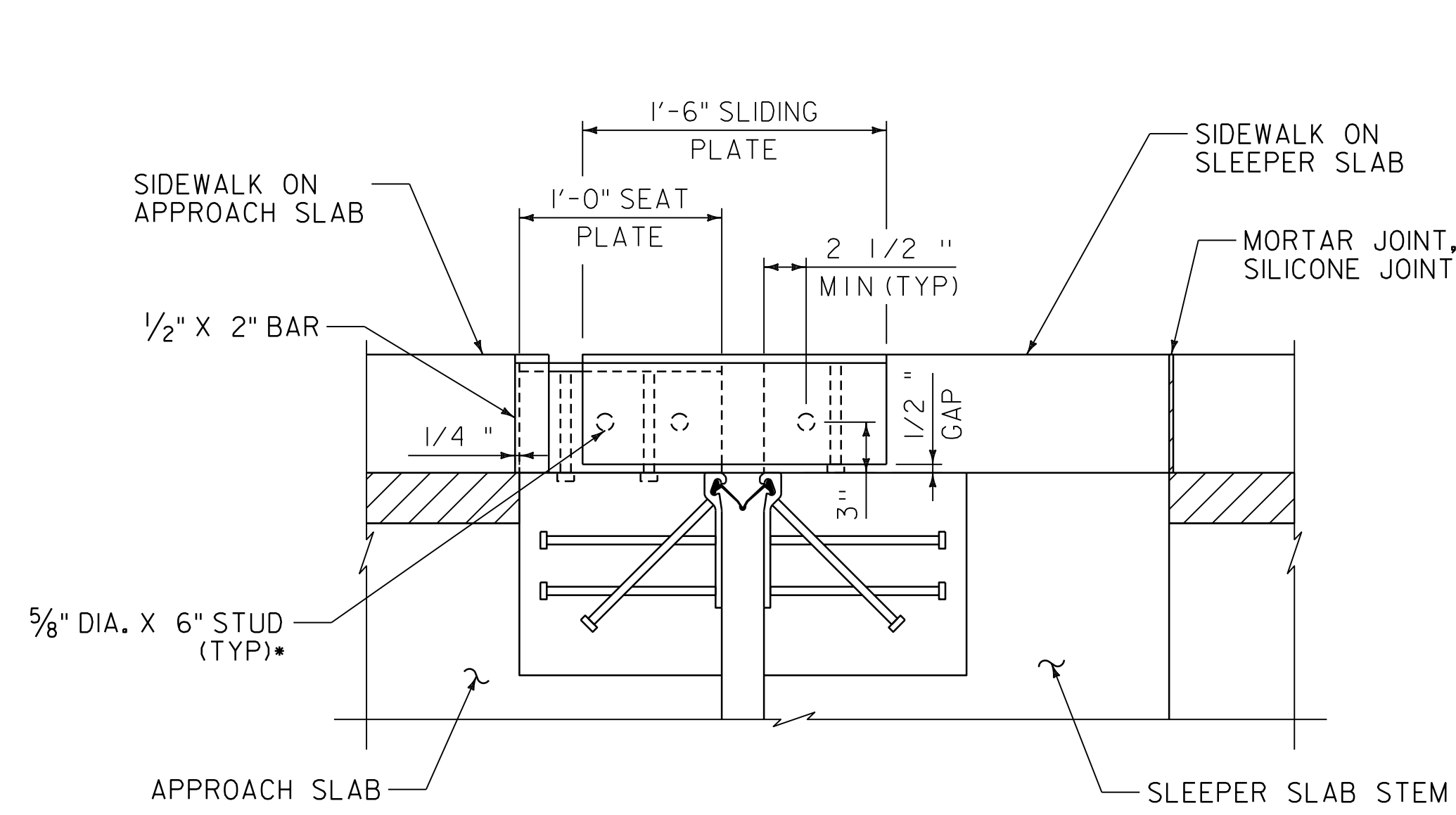
TEMP. (°F)	DIM "A"
30	2 3/8"
45	2 1/4"
60	2"
75	1 3/4"
90	1 5/8"

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068joint.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
EXPANSION JOINT DETAILS (1 OF 2)

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.M. HODGDON  
SHEET 101 OF 220

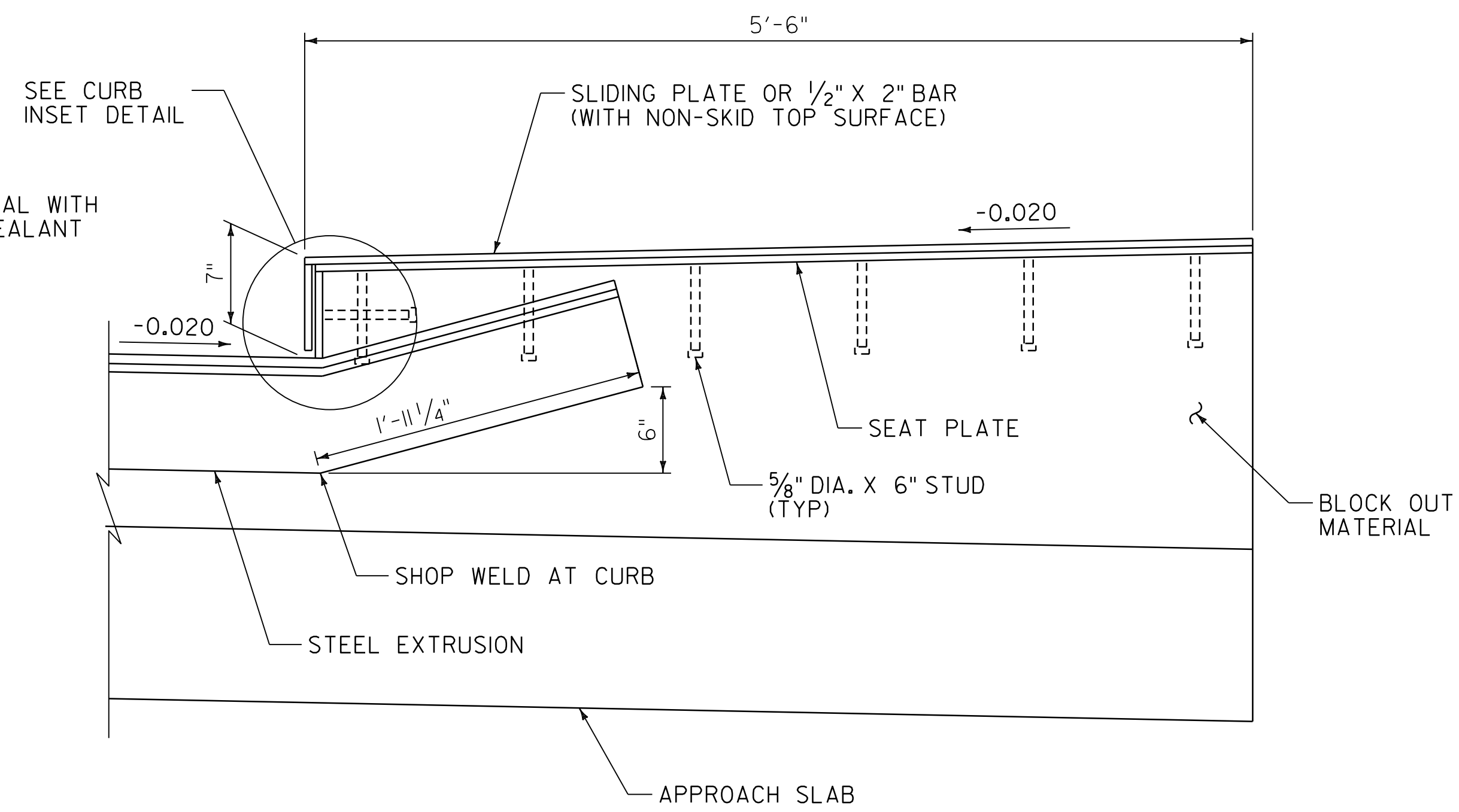




SIDEWALK EXPANSION DAM ELEVATION

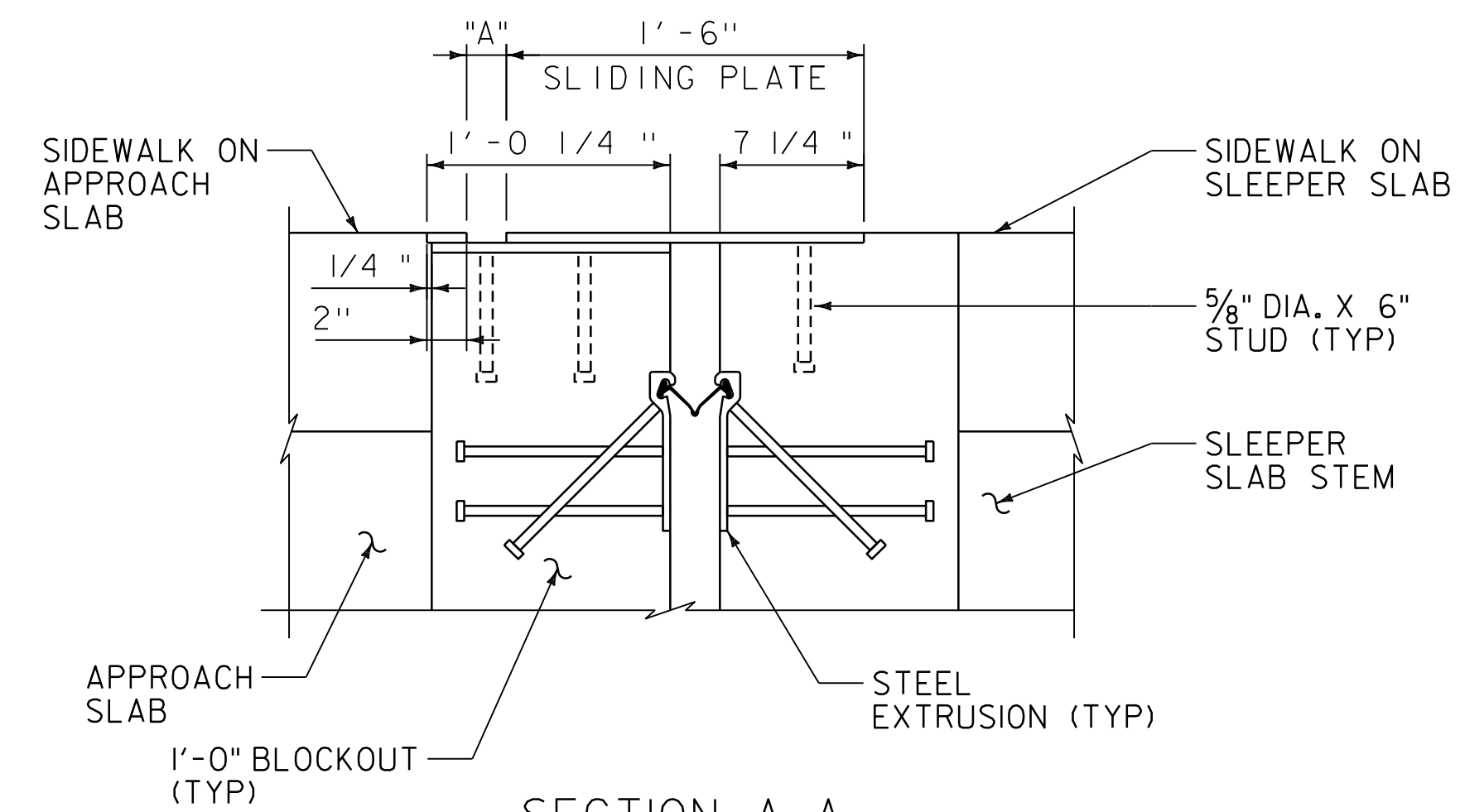
SCALE 1/2" = 1'-0"

* - STUDS SHALL BE SPACED TO MAINTAIN MIN. 2 1/2" CLEAR AND EDGE DISTANCE AND TO AVOID CONFLICT WITH VERTICAL STUDS ASSOCIATED WITH THE SLIDING AND SEAT PLATES.



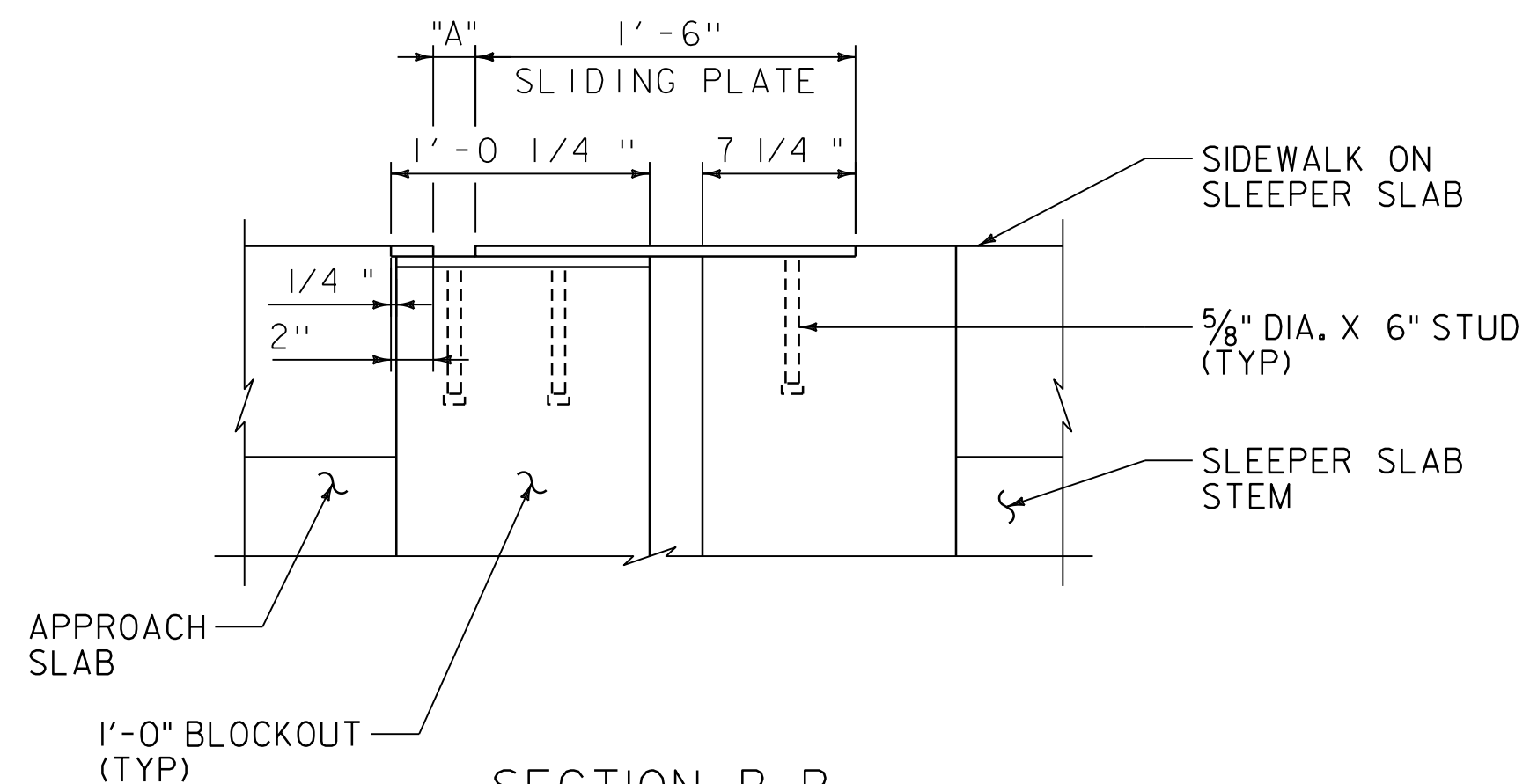
SIDEWALK EXPANSION DAM SECTION

SCALE 1/2" = 1'-0"



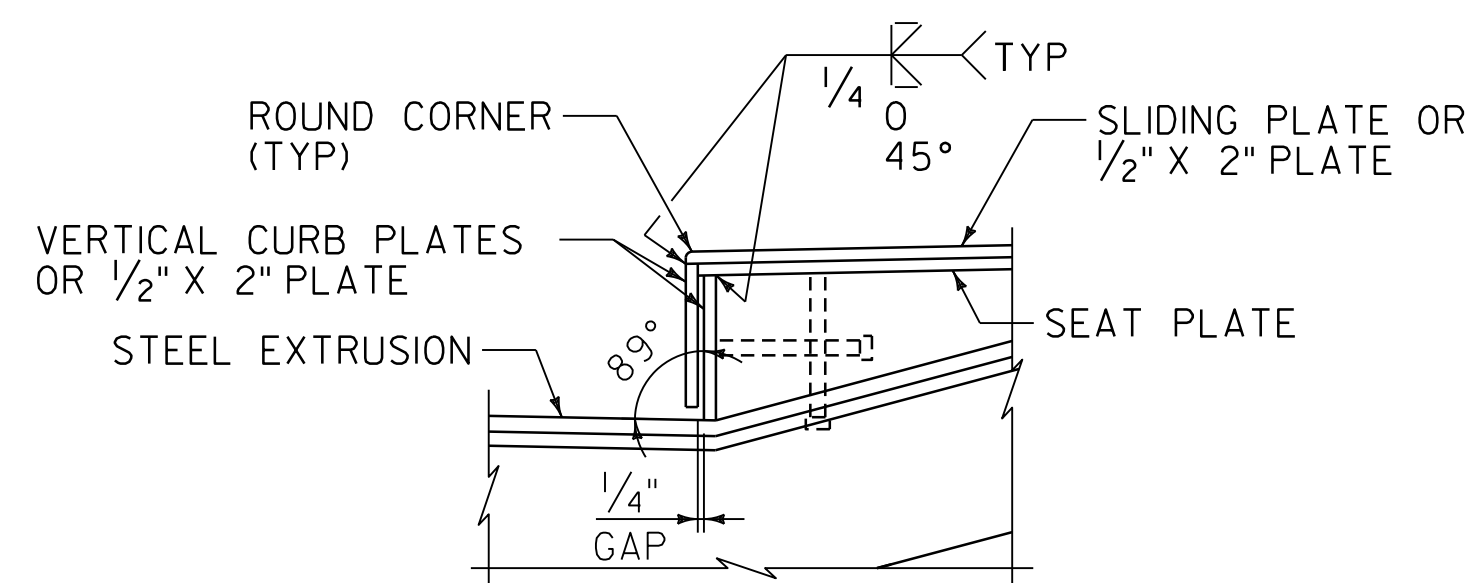
SECTION A-A

SCALE 1/2" = 1'-0"



SECTION B-B

SCALE 1/2" = 1'-0"



CURB INSET DETAIL

N.T.S.

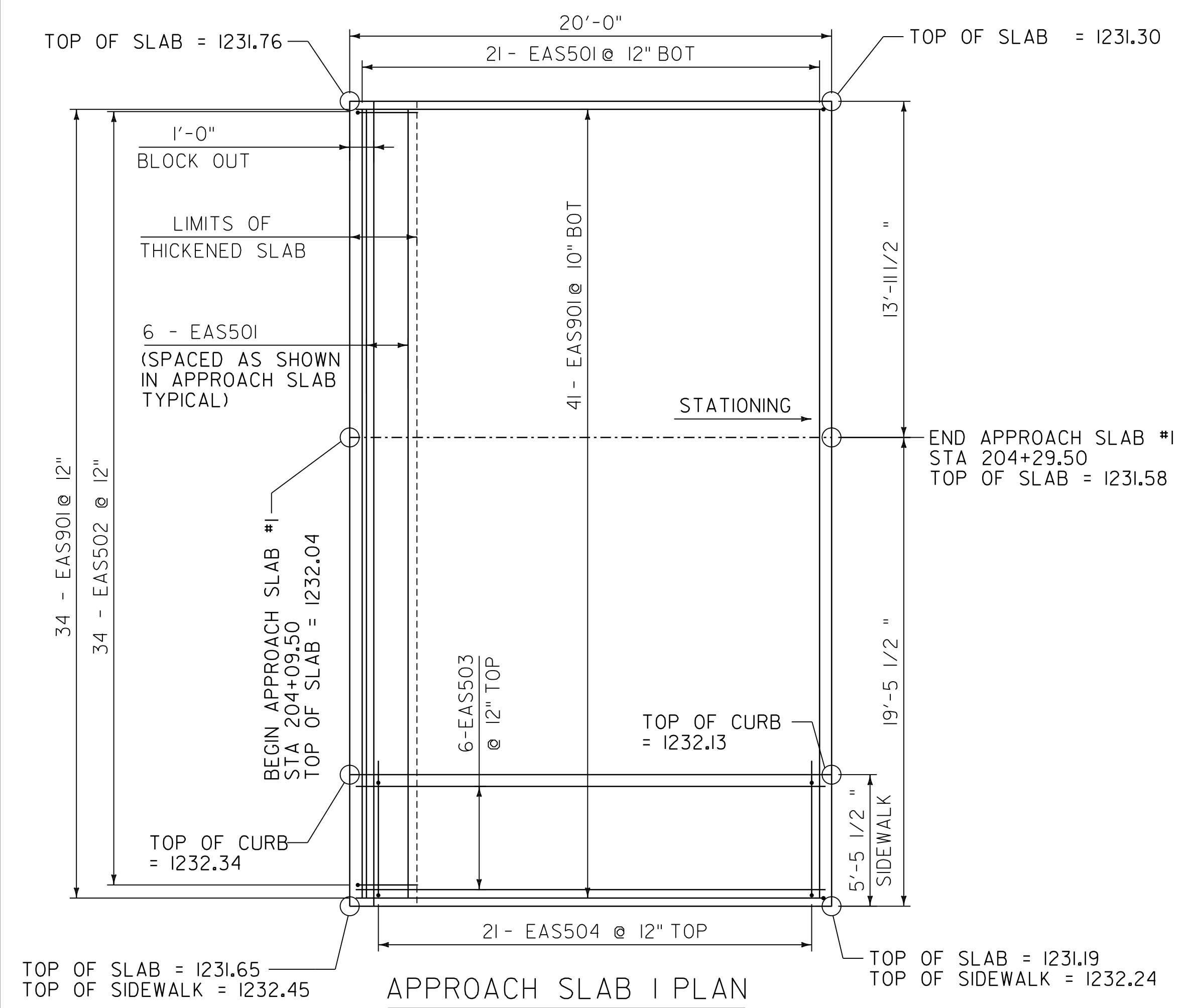
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068joint.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
EXPANSION JOINT DETAILS (2 OF 2)

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.M. HOGDON  
SHEET 102 OF 220

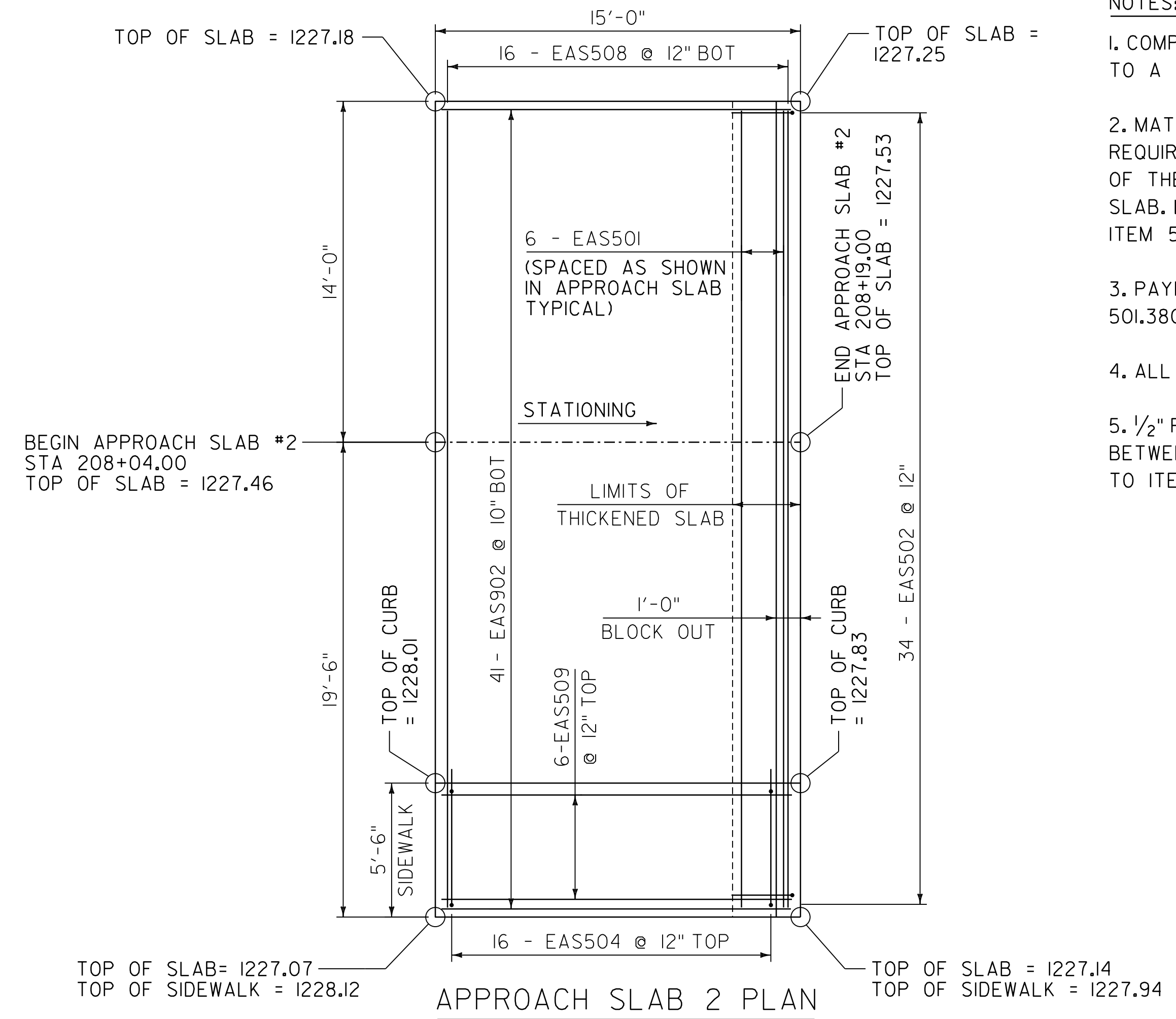






APPROACH SLAB 1 PLAN

SCALE 1/4" = 1'-0"

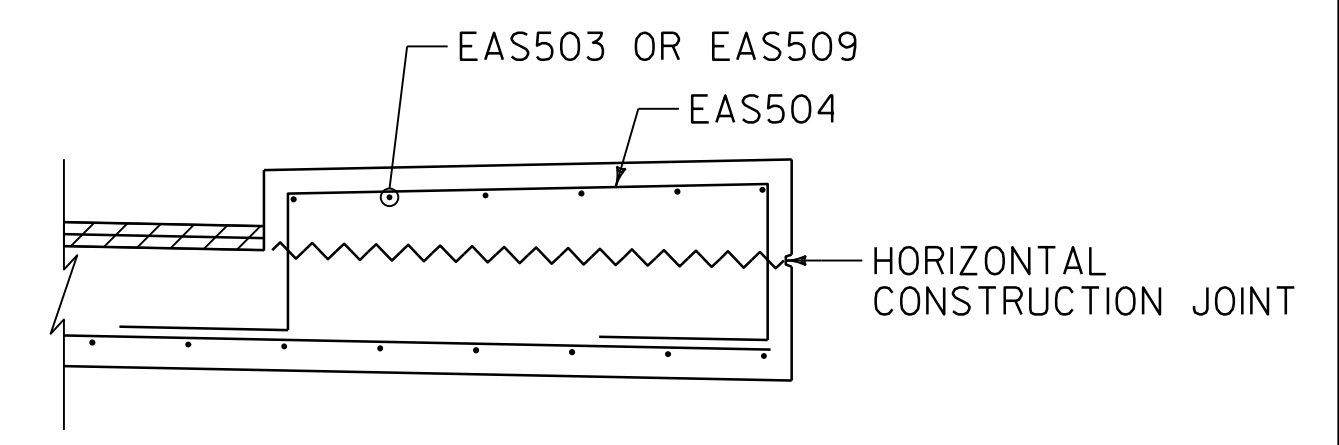


APPROACH SLAB 2 PLAN

SCALE 1/4" = 1'-0"

NOTES:

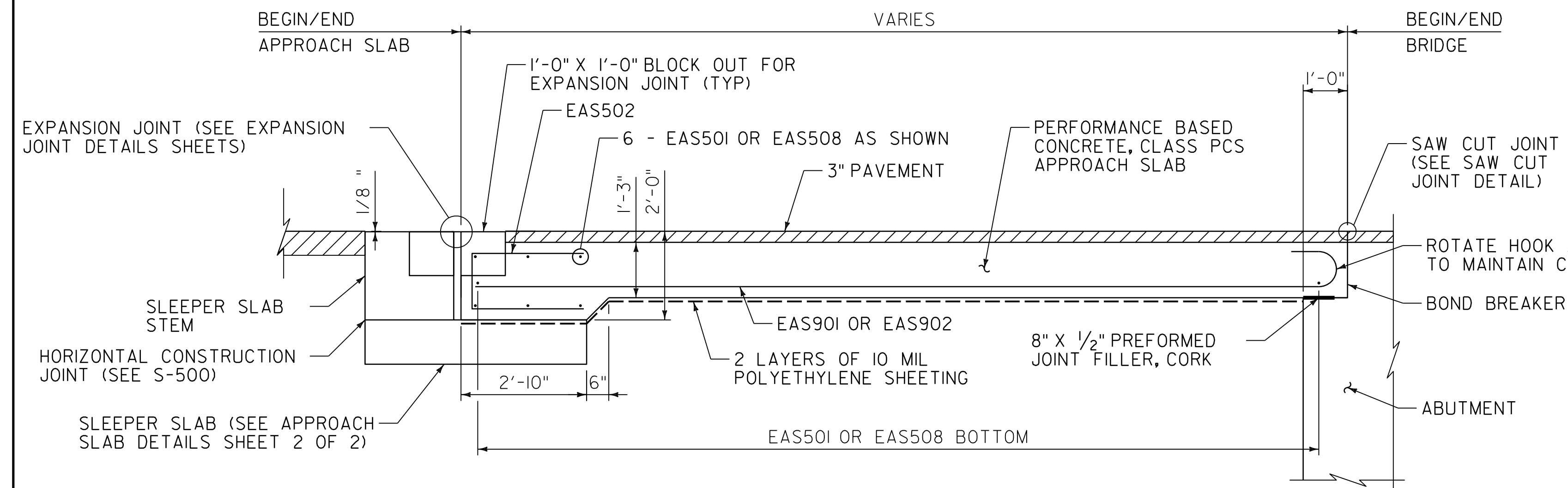
1. COMPACT THE SUBBASE IN THE AREA UNDER THE APPROACH SLAB TO A SMOOTH SURFACE.
2. MATERIAL FOR POLYETHYLENE SHEETING SHALL MEET THE REQUIREMENTS OF SUBSECTION 725.01(c). PLACE THE SHEETING ON TOP OF THE FINISHED SUBBASE FOR THE FULL LENGTH OF THE APPROACH SLAB. LAP SHEETING AT LEAST 24 INCHES. PAYMENT INCIDENTAL TO ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS".
3. PAYMENT FOR BOND BREAKER SHALL BE INCIDENTAL TO ITEM 501.3800, "PERFORMANCE CONCRETE, CLASS PCS".
4. ALL STATIONS AND DIMENSIONS ARE GIVEN AT 60°F.
5. 1/2" PREFORMED JOINT FILLER, CORK AND ELASTOMERIC SEALANT BETWEEN APPROACH SLAB 1 AND WINGWALLS 1&2 WILL BE INCIDENTAL TO ITEM 501.3800, "HIGH-PERFORMANCE CONCRETE, CLASS PCS".



SIDEWALK ON APPROACH SLAB

SCALE 1/2" = 1'-0"

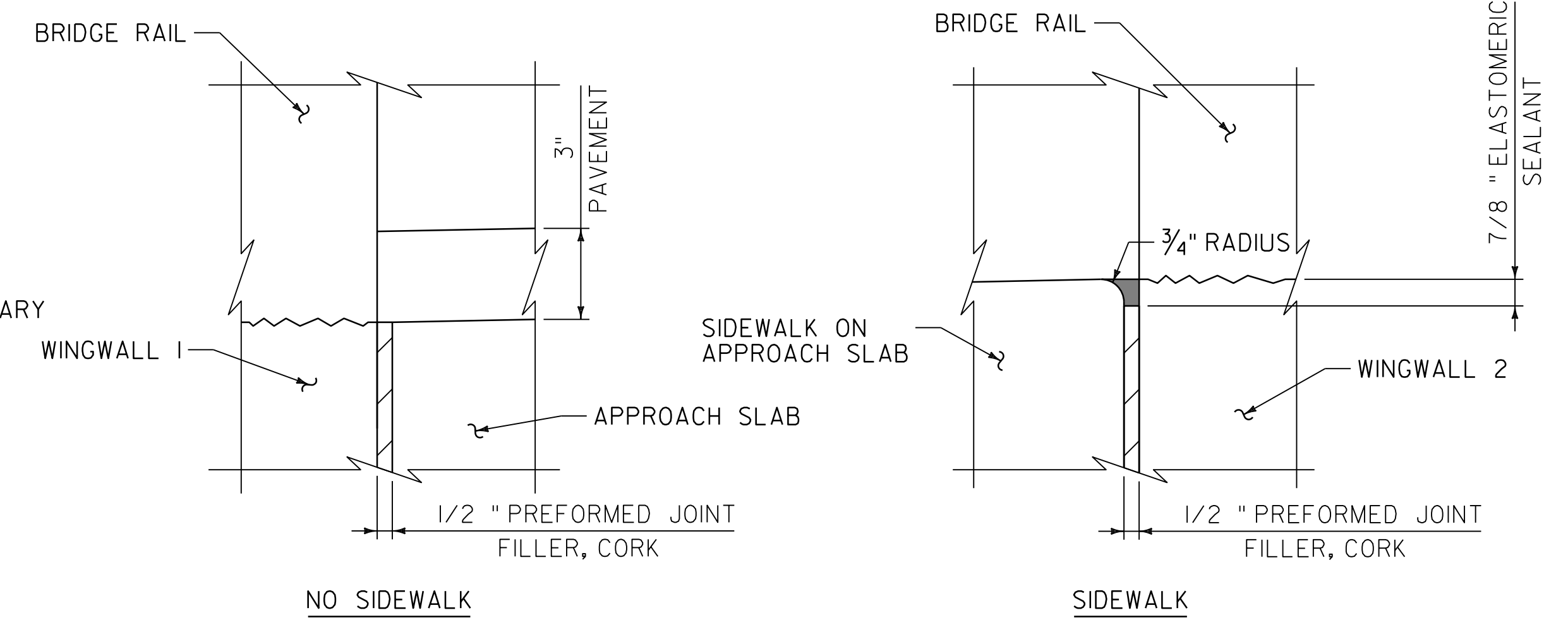
NOTE: SIDEWALK ON SLEEPER SLAB IS SIMILAR, THOUGH OMITTS THE LONGITUDINAL TOP BARS.



APPROACH SLAB TYPICAL

SCALE 1/2" = 1'-0"

NOTE: DETAIL SHOWN FOR BEGIN BRIDGE APPROACH SLAB. END BRIDGE APPROACH SLAB IS SIMILAR.



APPROACH SLAB & WINGWALL INTERFACE DETAIL

N.T.S.

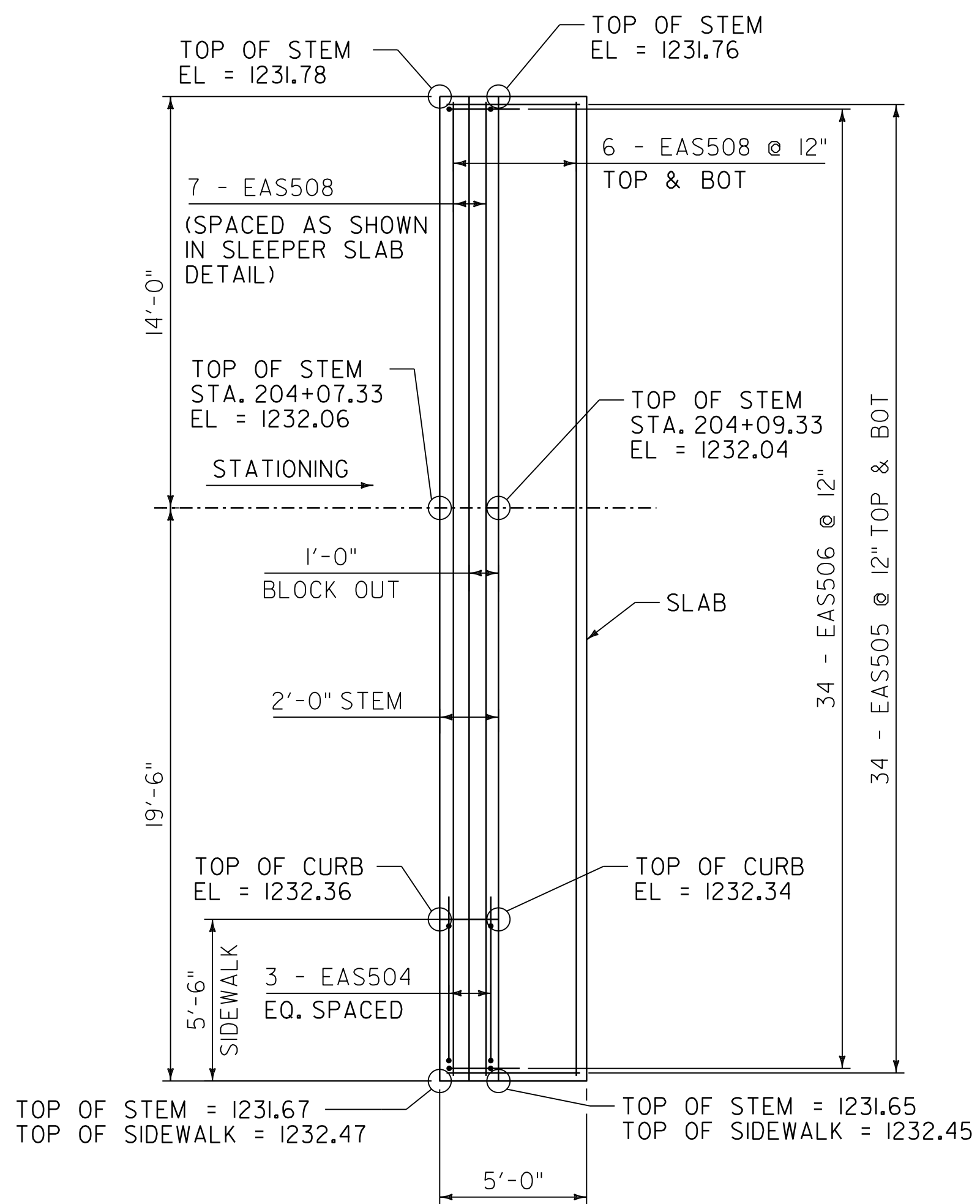
NOTE: APPLIES TO APPROACH SLAB 1 ONLY. SEE CURTAIN WALL PLAN & SECTION FOR APPROACH SLAB 2 INTERFACE.

LEGEND:

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- BOT = BOTTOM
- ▲ = CUT TO FIT IN FIELD
- 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

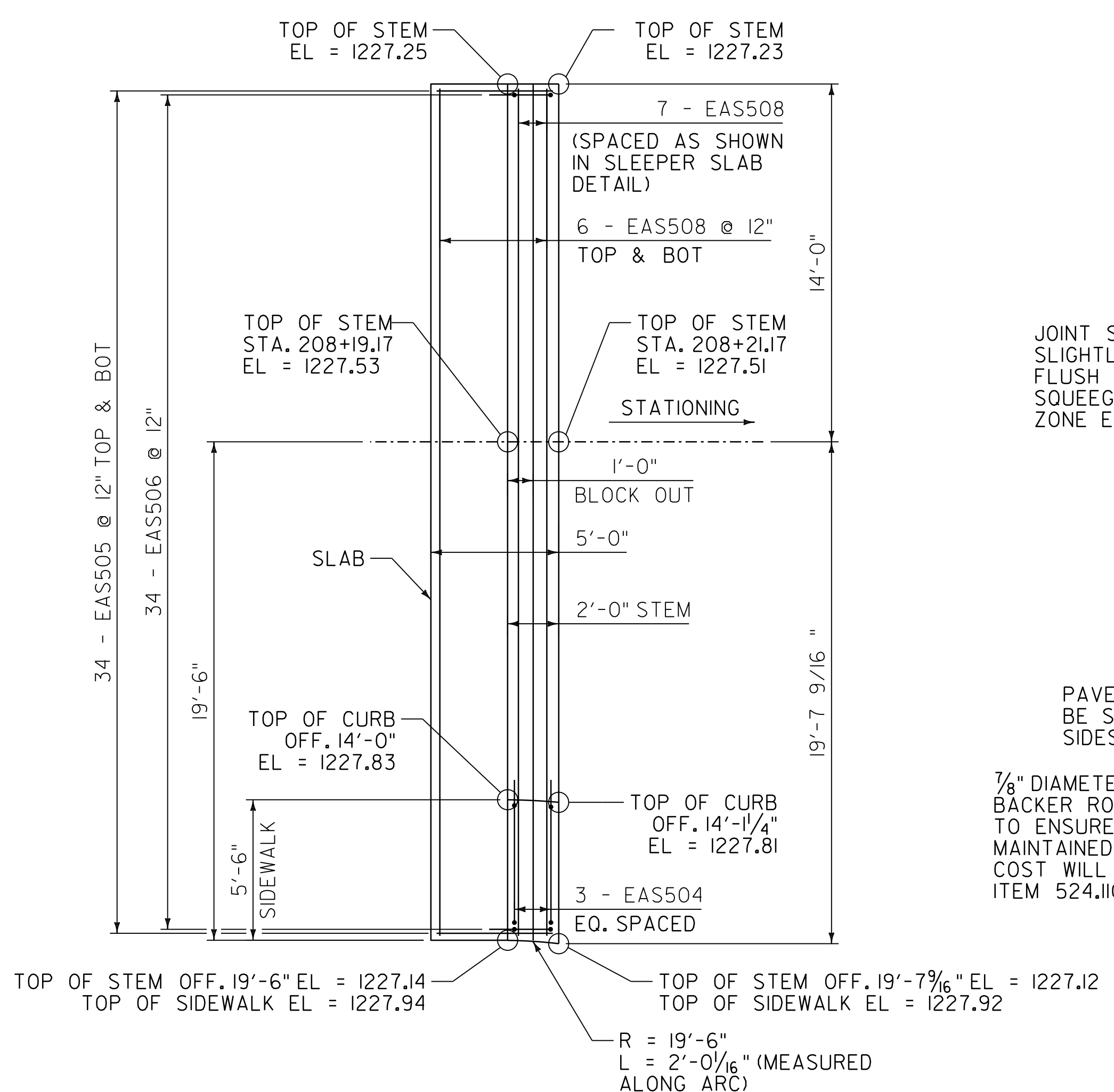


PROJECT NAME:	READSBORO
PROJECT NUMBER:	BF 0102(16) C/2
FILE NAME:	z13c068slab.dgn
PROJECT LEADER:	S.E. BURBANK
DESIGNED BY:	N.A. TRUSLOW
APPROACH SLAB DETAILS (1 OF 2)	
PLOT DATE:	15-APR-2024
DRAWN BY:	N.A. TRUSLOW
CHECKED BY:	T.A. TURCOTTE
SHEET	103 OF 220



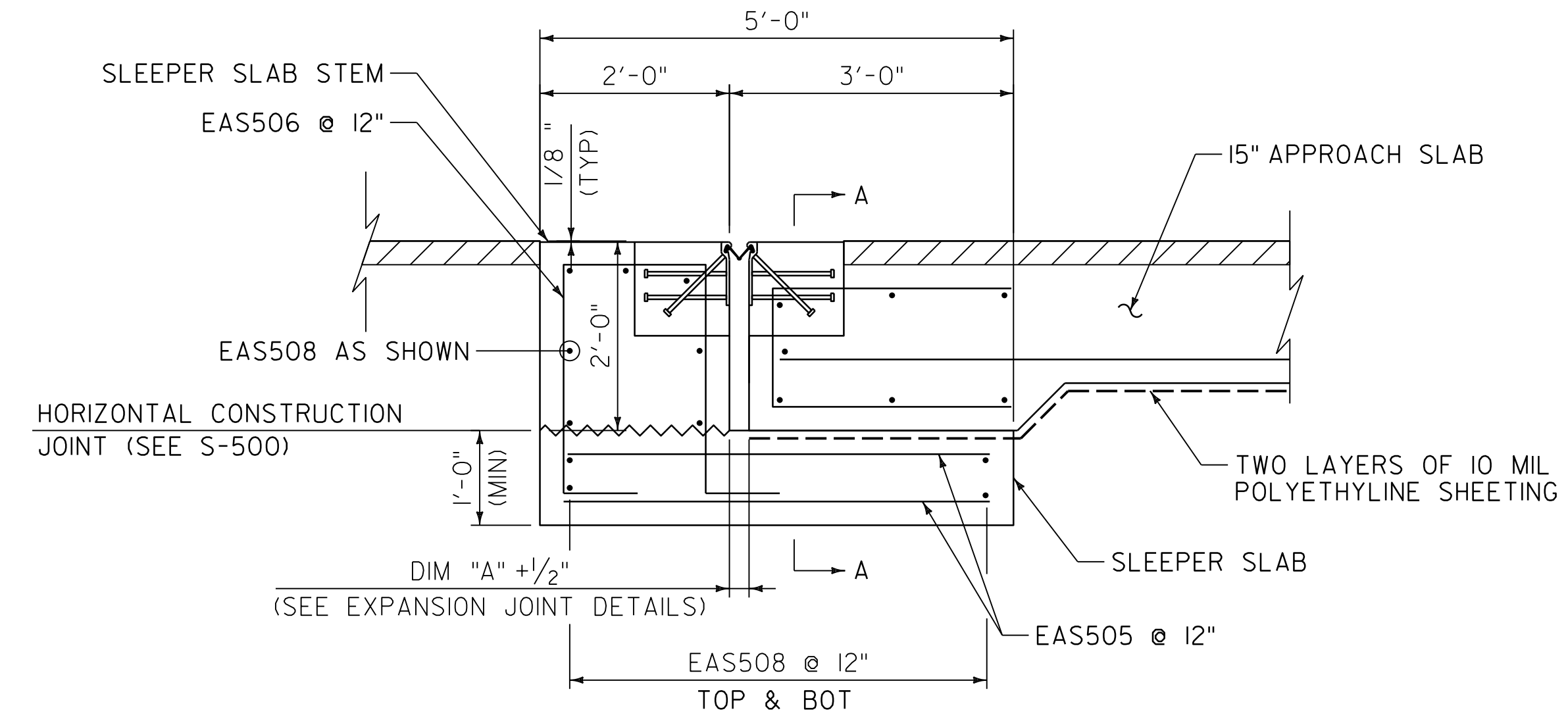
SLEEPER SLAB 1 PLAN

SCALE 1/4" = 1'-0"



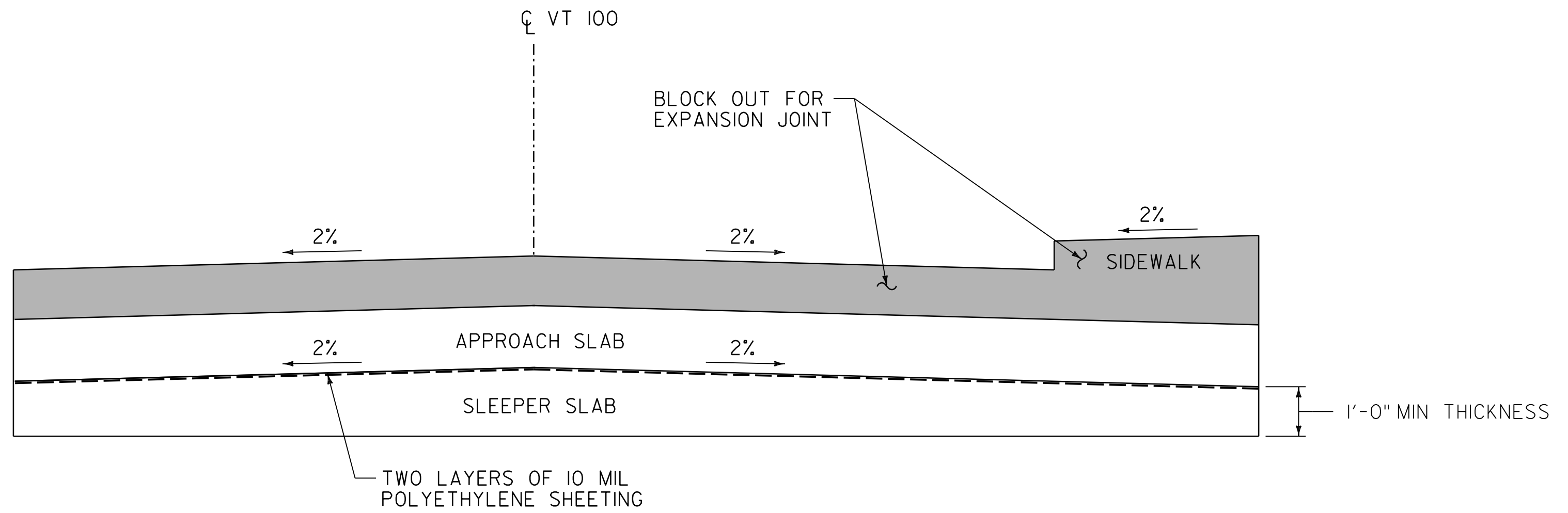
SLEEPER SLAB 2 PLAN

SCALE 1/4" = 1'-0"



SLEEPER SLAB DETAIL

SCALE 3/4" = 1'-0"

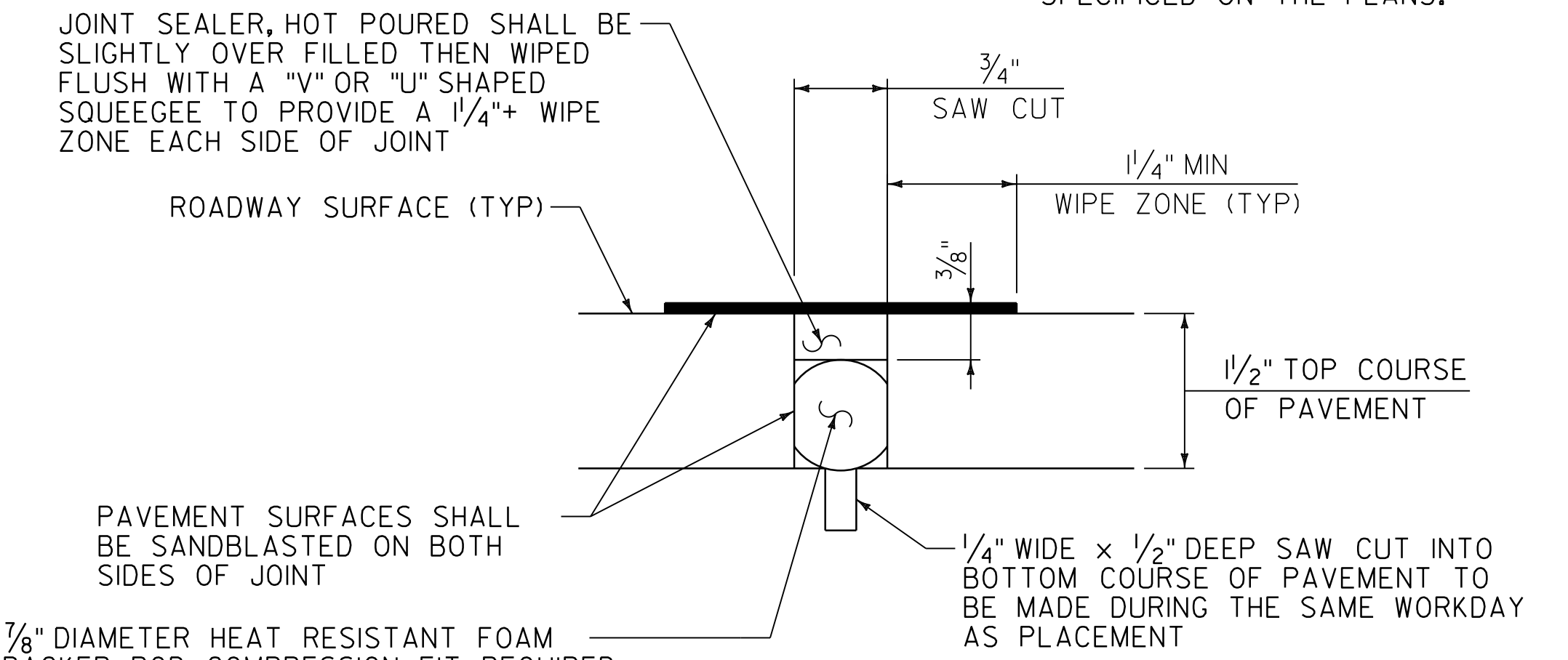


SECTION A-A

N.T.S.

LEGEND:

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- BOT = BOTTOM
- ▲ = CUT TO FIT IN FIELD
- 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



SAW CUT JOINT DETAIL

NOT TO SCALE

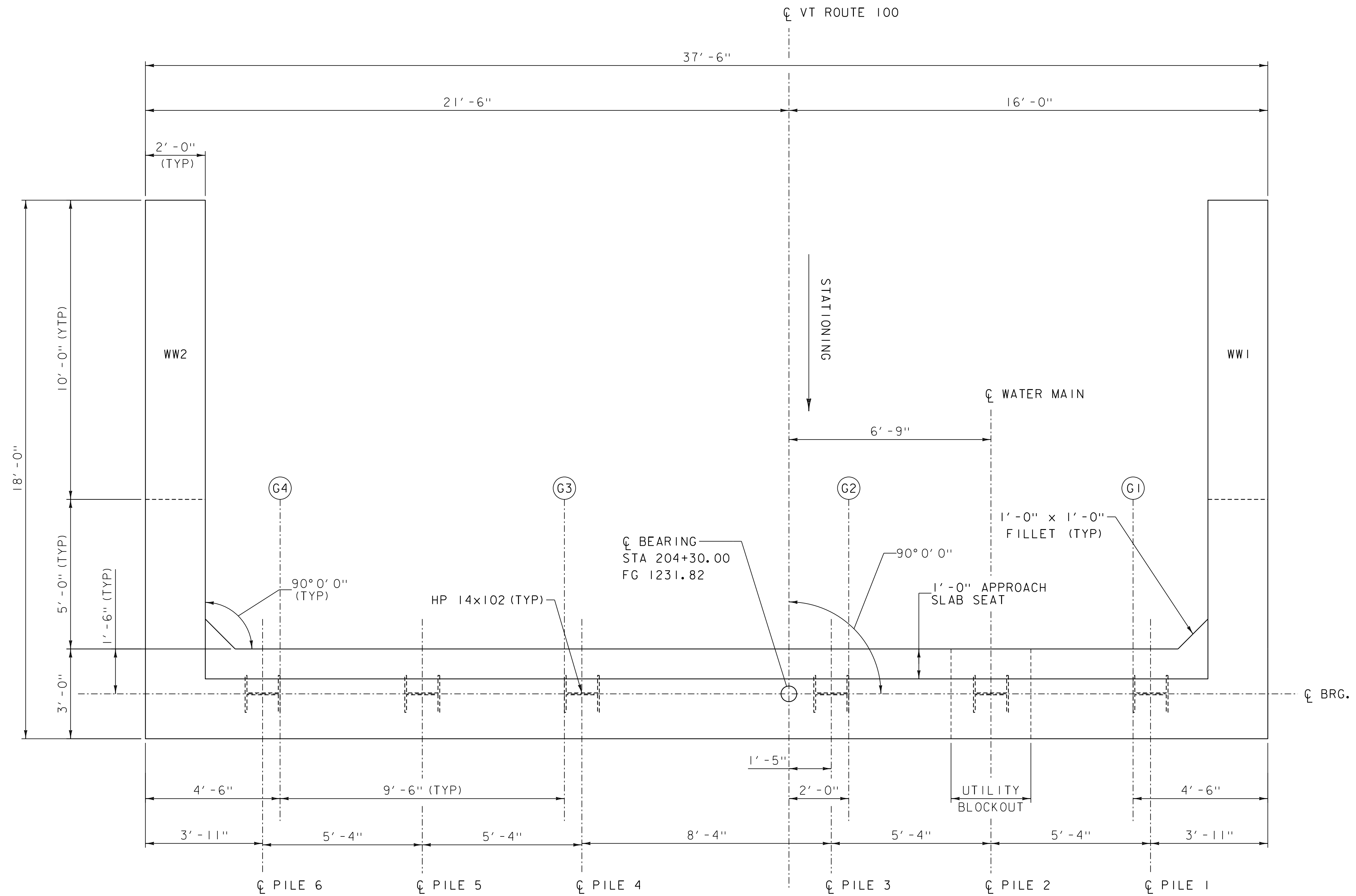
1. JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF THE CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.
2. REFER TO APPROACH SLAB DETAILS FOR THE LOCATIONS OF SAW CUT PAVEMENT JOINTS (JOINT SEALER, HOT POURED).

NOTES:

1. BEGIN BRIDGE SLEEPER SLAB SHOWN. END BRIDGE SLEEPER SLAB IS MIRRORED.
2. THE SLEEPER SLAB CONCRETE SHALL BE PLACED OVER THE 32" O.D. STEEL SLEEVES FOR THE WATER MAIN. REINFORCING SHALL BE REDUCED AS REQUIRED. SEE WATER DETAIL SHEET (3 OF 3) FOR MORE INFORMATION.



PROJECT NAME:	READSBORO
PROJECT NUMBER:	BF 0102(16) C/2
FILE NAME:	z13c068slab.dgn
PROJECT LEADER:	S.E. BURBANK
DESIGNED BY:	N.A. TRUSLOW
APPROACH SLAB DETAILS (2 OF 2)	
PLOT DATE:	12-APR-2024
DRAWN BY:	N.A. TRUSLOW
CHECKED BY:	T.A. TURCOTTE
SHEET	104 OF 220



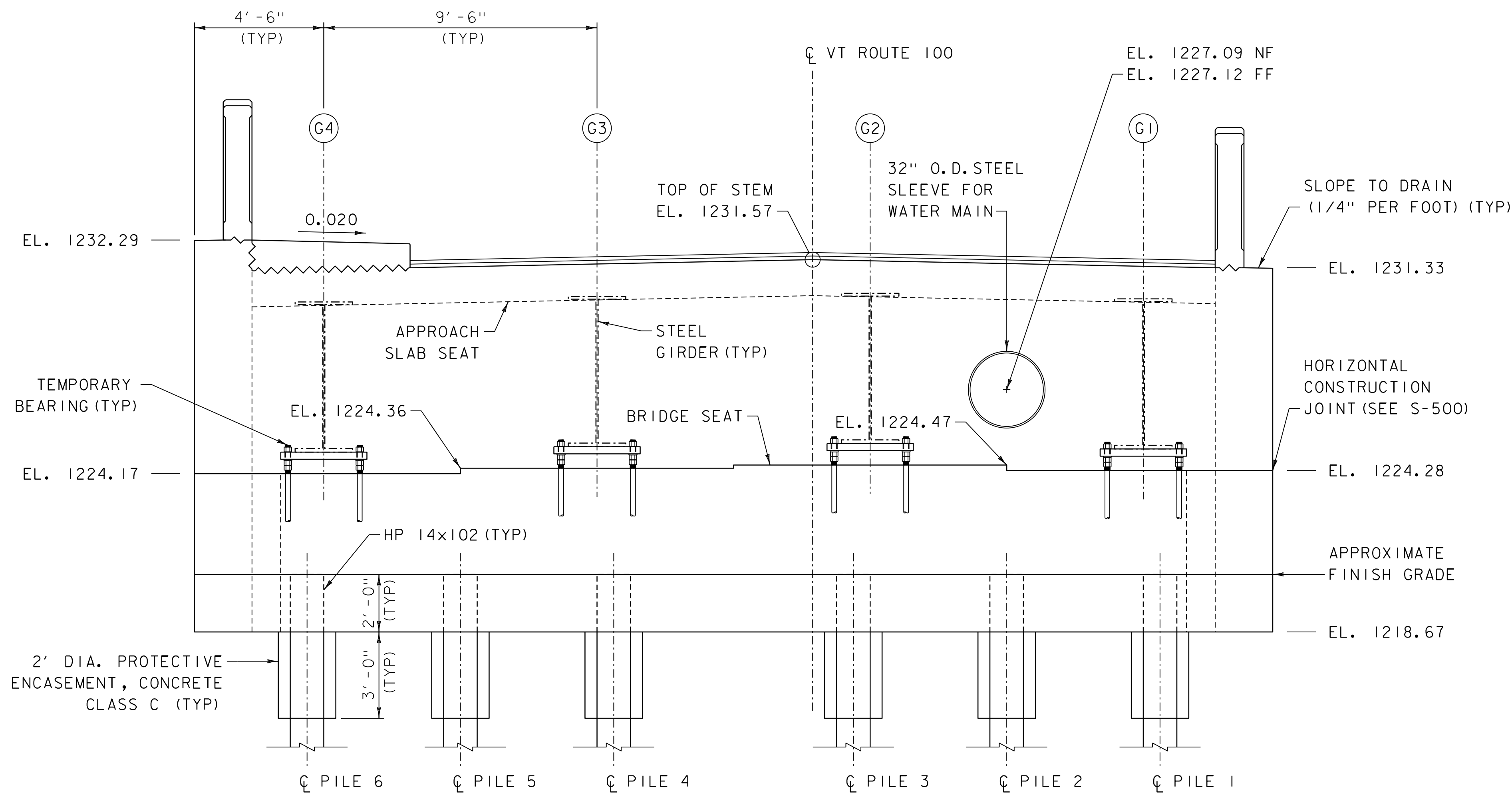
ABUTMENT NO 1 PLAN  
 SCALE 1/2" = 1'-0"

PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068abu1.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: J.D. KEENER  
 ABUTMENT NO 1 PLAN

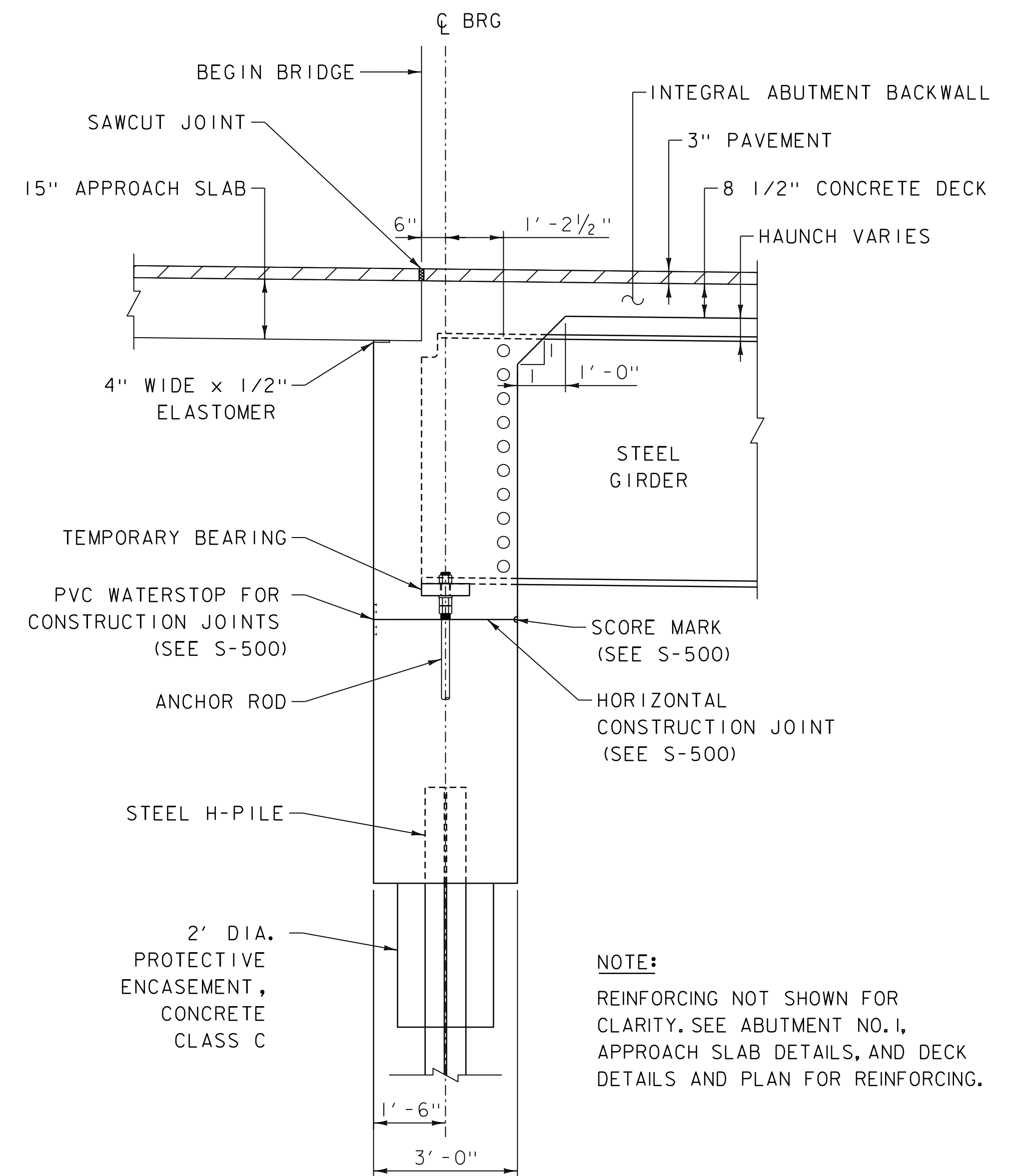
PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: J.D. KEENER  
 SHEET 105 OF 220





ABUTMENT NO 1 ELEVATION

SCALE  $\frac{3}{8}$ " = 1'-0"  
 NOTE: ELEVATIONS GIVEN AT FACE OF BACKWALL.



ABUTMENT NO 1 TYP SECTION

SCALE  $\frac{1}{2}$ " = 1'-0"

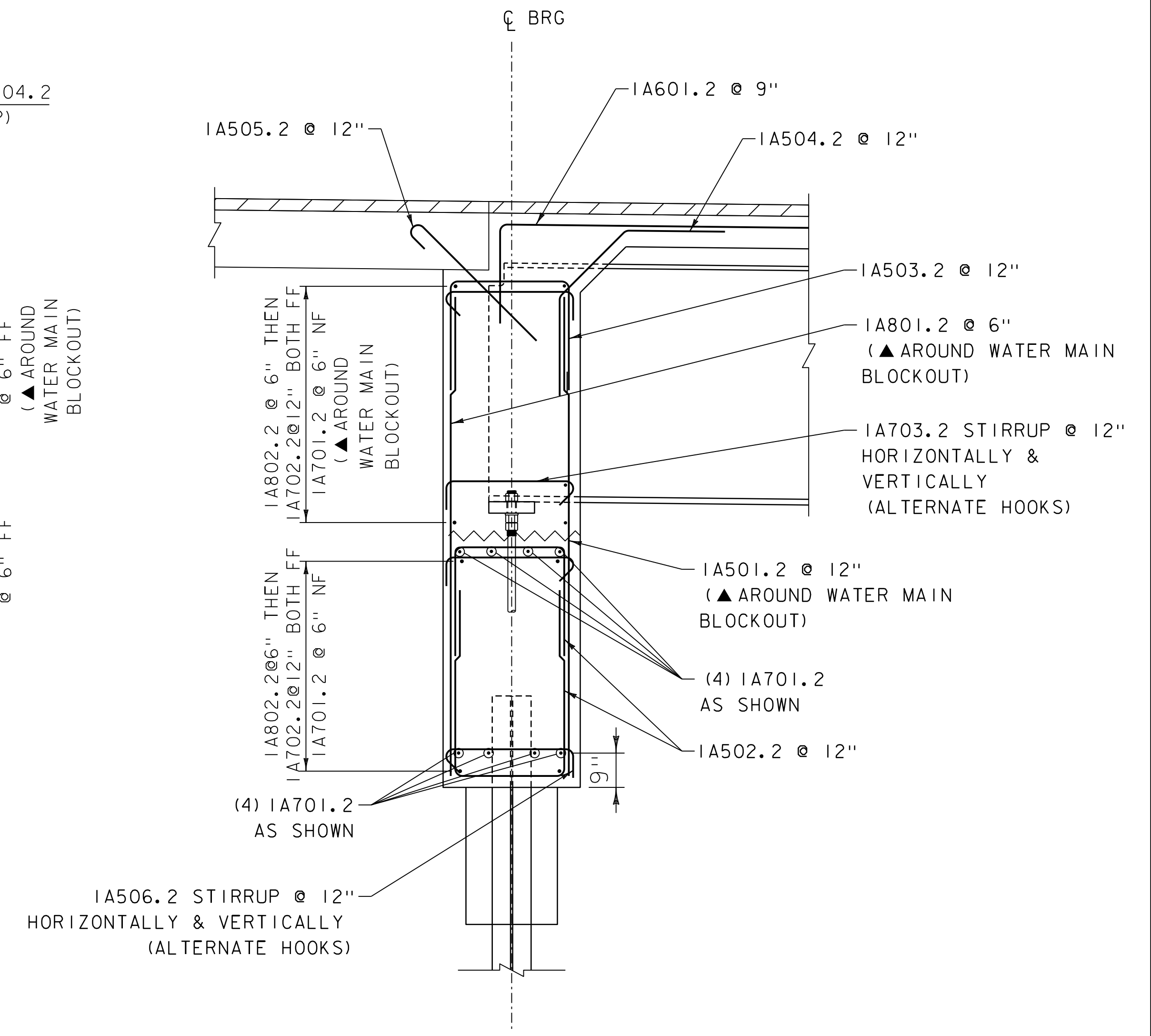
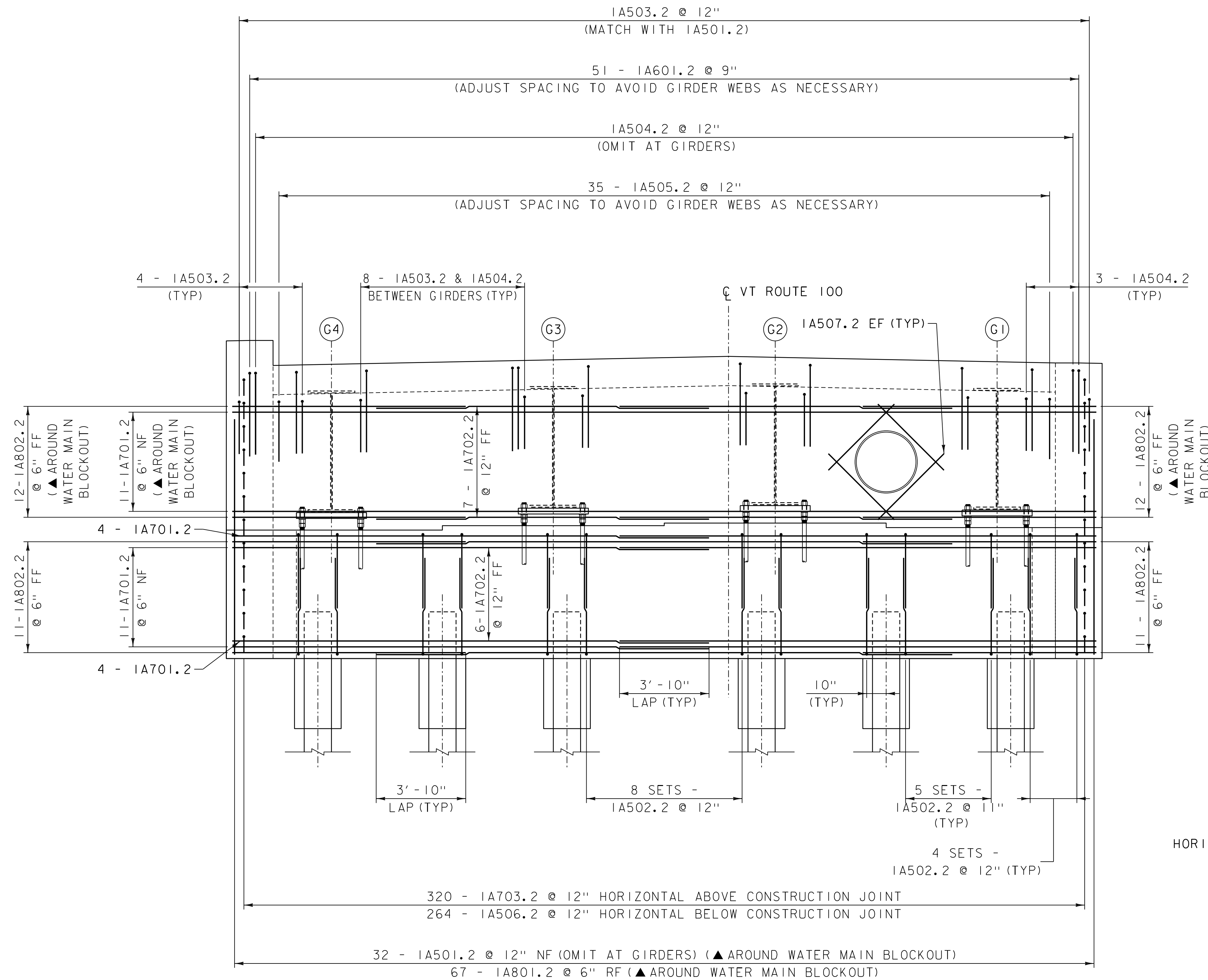
PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068abut1.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: J.D. KEENER  
 ABUTMENT NO 1 ELEVATION & SECTION

PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: J.D. KEENER  
 SHEET 106 OF 220







ABUTMENT NO 1 TYP REINFORCING SECTION  
SCALE 1/2" = 1'-0"

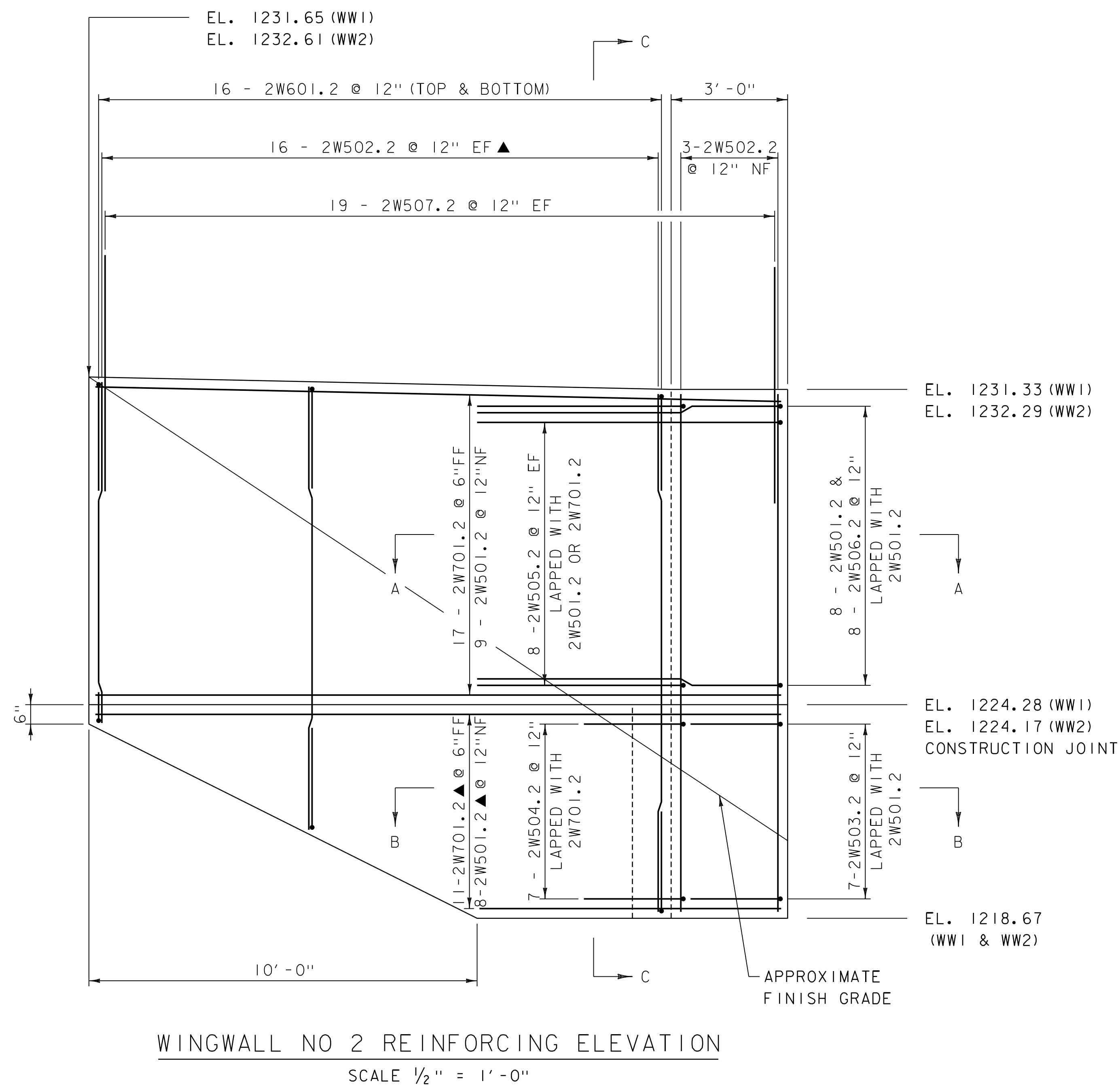
**NOTE:**  
 NF = NEAR FACE  
 FF = FAR FACE  
 EF = EACH FACE  
 ▲ = CUT TO FIT IN FIELD  
 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

ABUTMENT NO 1 REINFORCING ELEVATION

SCALE 3/8" = 1'-0"  
 NOTE: WINGWALL AND DECK REINFORCING NOT SHOWN FOR CLARITY.

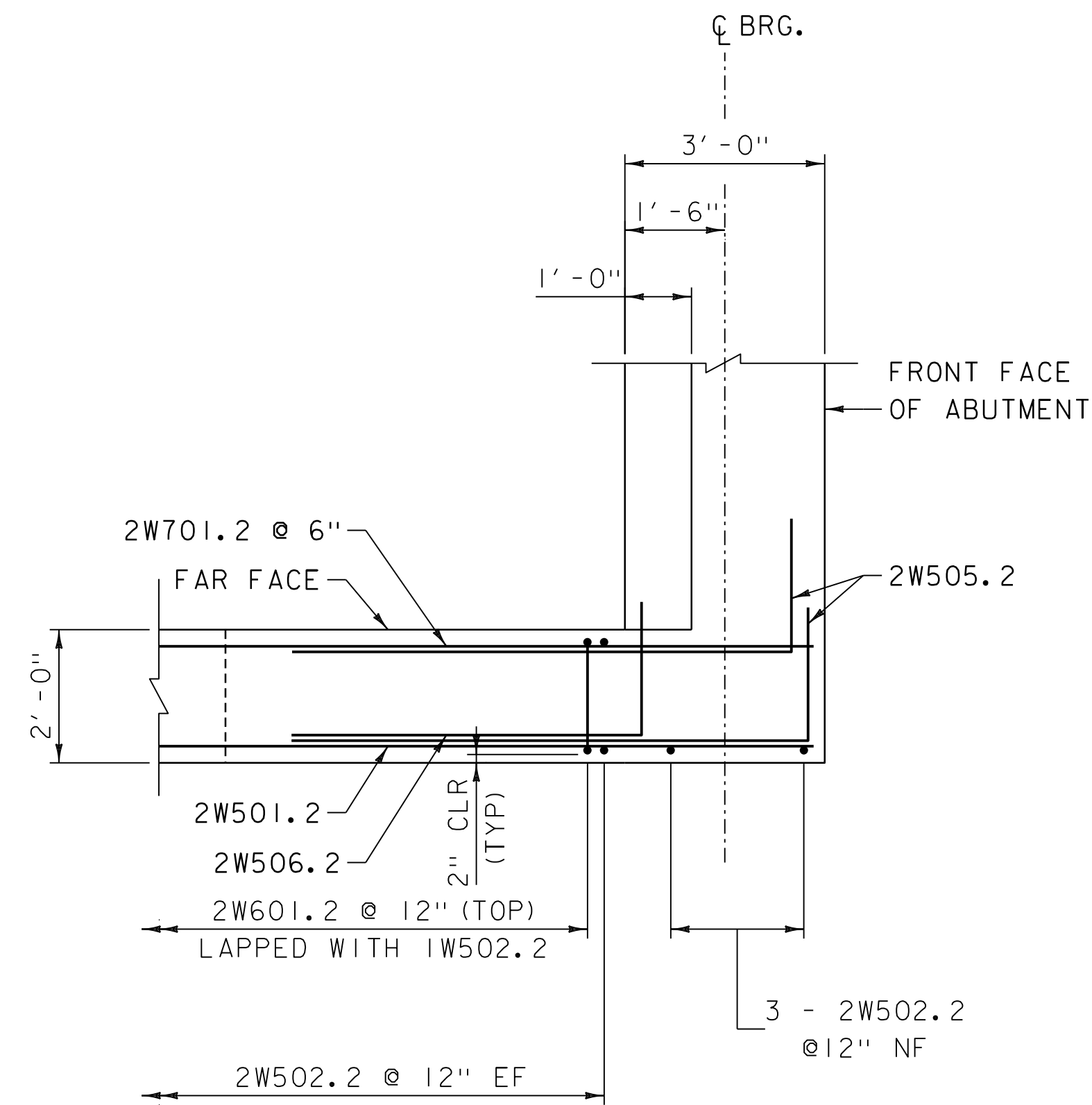


PROJECT NAME:	READSBORO	FILE NAME:	z13c068abut1.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	J.D. KEENER	CHECKED BY:	J.D. KEENER
		ABUTMENT NO 1 REINFORCING DETAILS		SHEET	107 OF 220

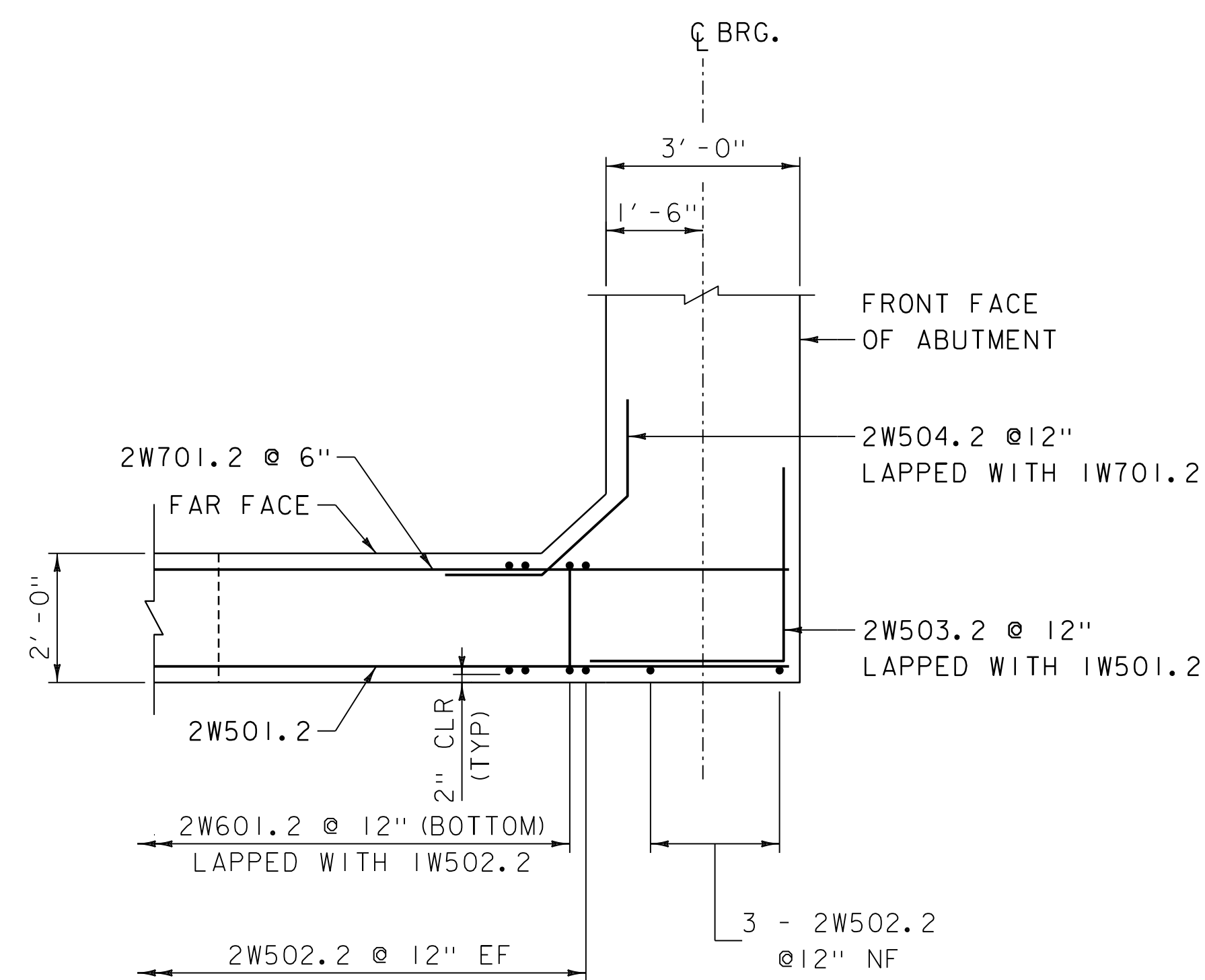


**WINGWALL NO 2 REINFORCING ELEVATION**  
SCALE 1/2" = 1'-0"

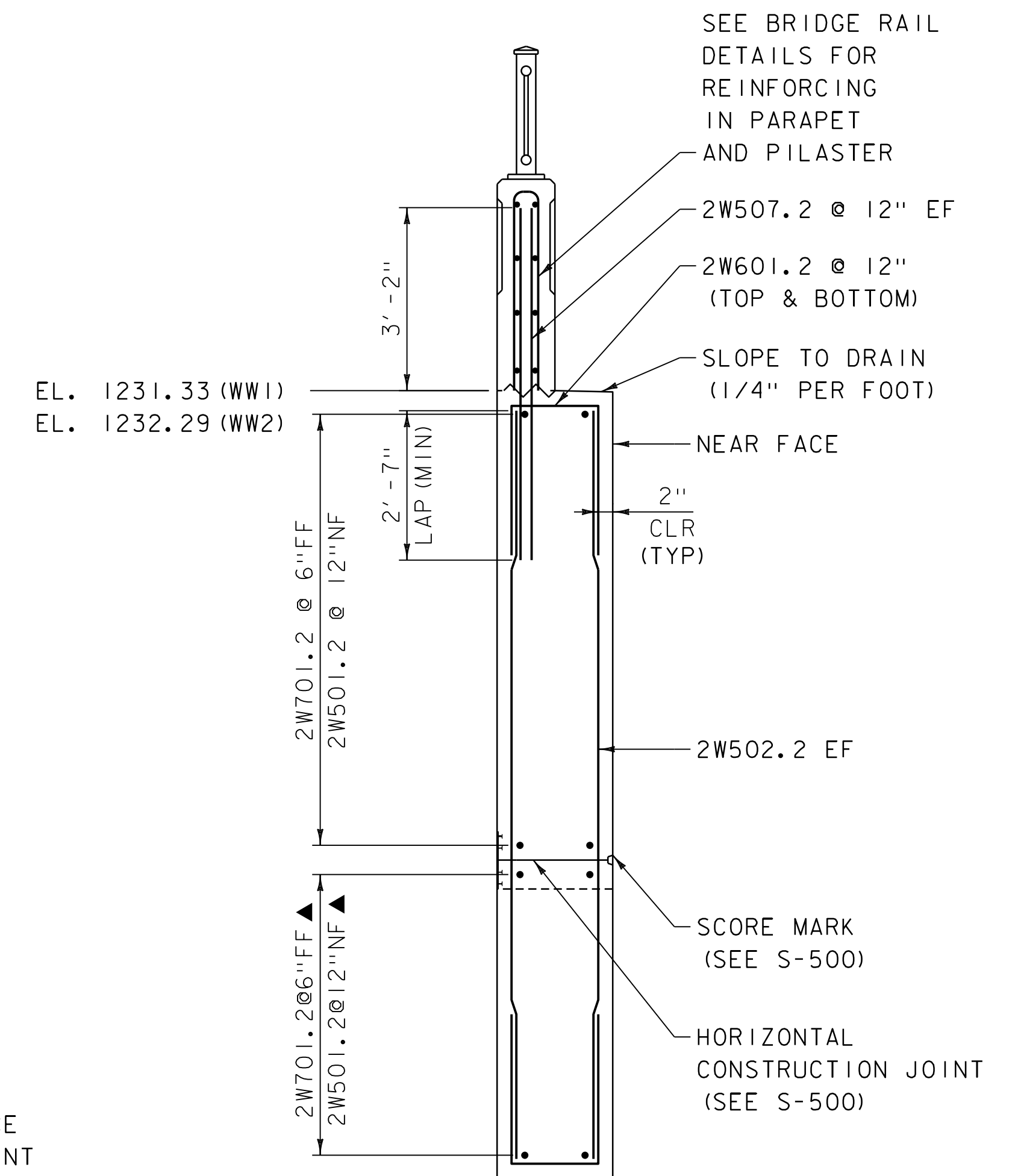
**NOTE:**  
 NF = NEAR FACE  
 FF = FAR FACE  
 EF = EACH FACE  
 ▲ = CUT TO FIT IN FIELD  
 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.



**WINGWALL NO 2 REINFORCING SECTION A-A**  
(ABOVE BRIDGE SEAT)  
SCALE 1/2" = 1'-0"



**WINGWALL NO 2 REINFORCING SECTION B-B**  
(BELOW BRIDGE SEAT)  
SCALE 1/2" = 1'-0"

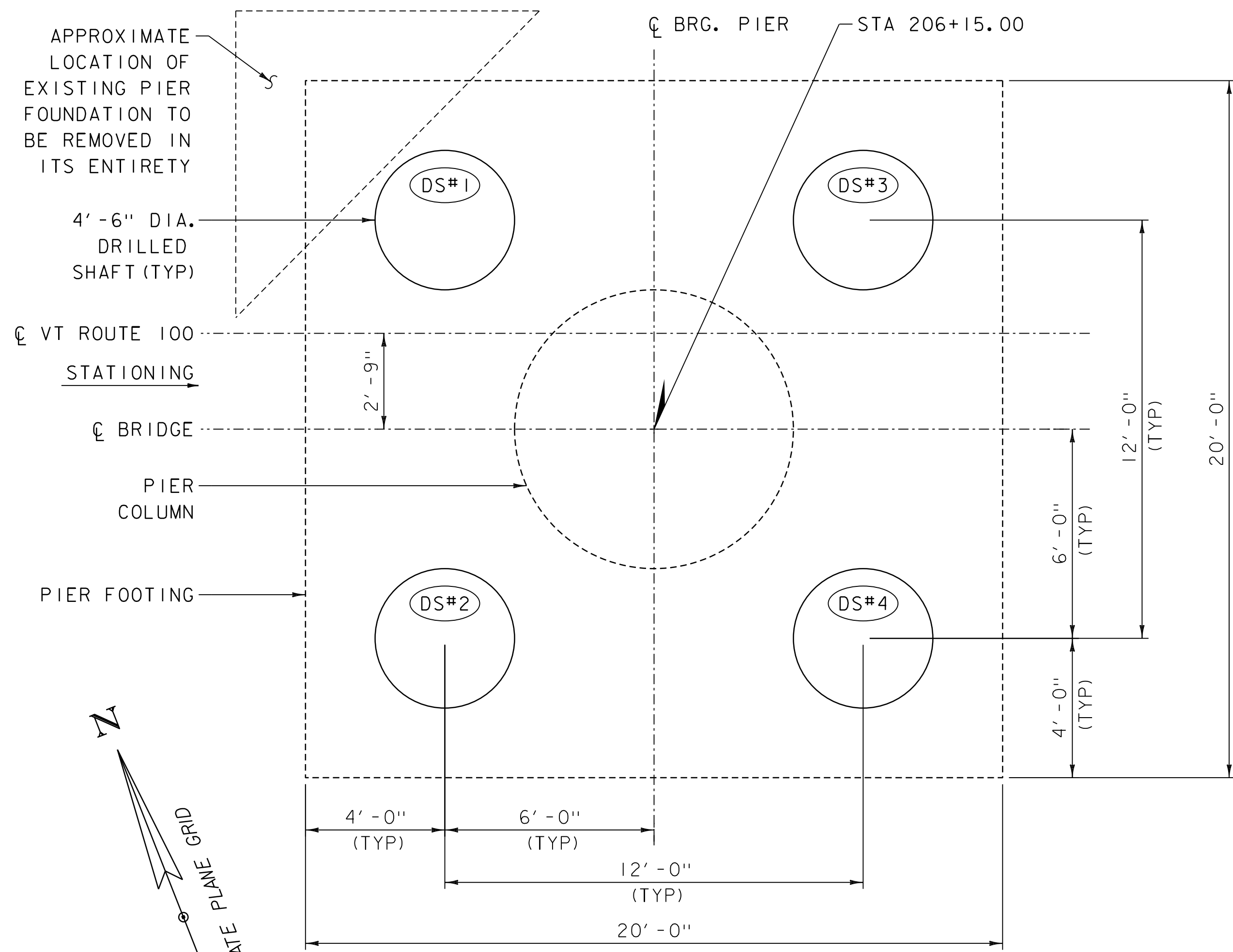


**WINGWALL NO 2 REINFORCING SECTION C-C**  
SCALE 1/2" = 1'-0"

**NOTE:**  
 WW2 SHOWN, WW1 SIMILAR.  
 ABUTMENT REINFORCING NOT SHOWN FOR CLARITY.

PROJECT NAME:	READSBORO	FILE NAME:	z13c068abut1.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	J.D. KEENER	CHECKED BY:	J.D. KEENER
		WINGWALL NO 1 & 2 REINFORCING DETAILS		SHEET	108 OF 220





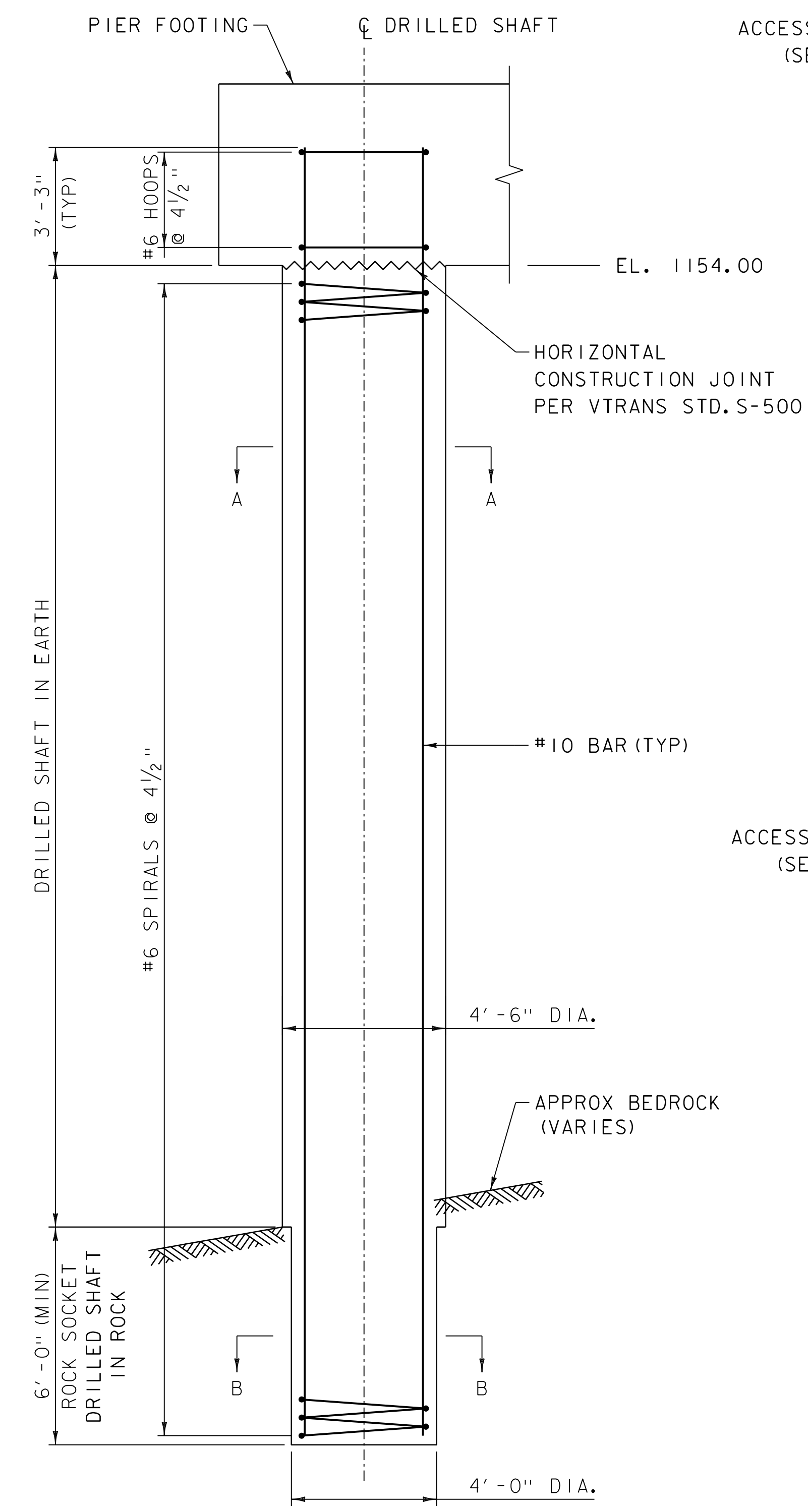
**DRILLED SHAFT PLAN**  
SCALE 3/8" = 1'-0"

**DRILLED SHAFT CENTER COORDINATES**

DRILLED SHAFT NO.	NORTHING	EASTING
DS#1	99183.6884	1520863.9039
DS#2	99172.5227	1520859.5077
DS#3	99179.2922	1520875.0696
DS#4	99168.1264	1520870.6734

**DRILLED SHAFT NOTES:**

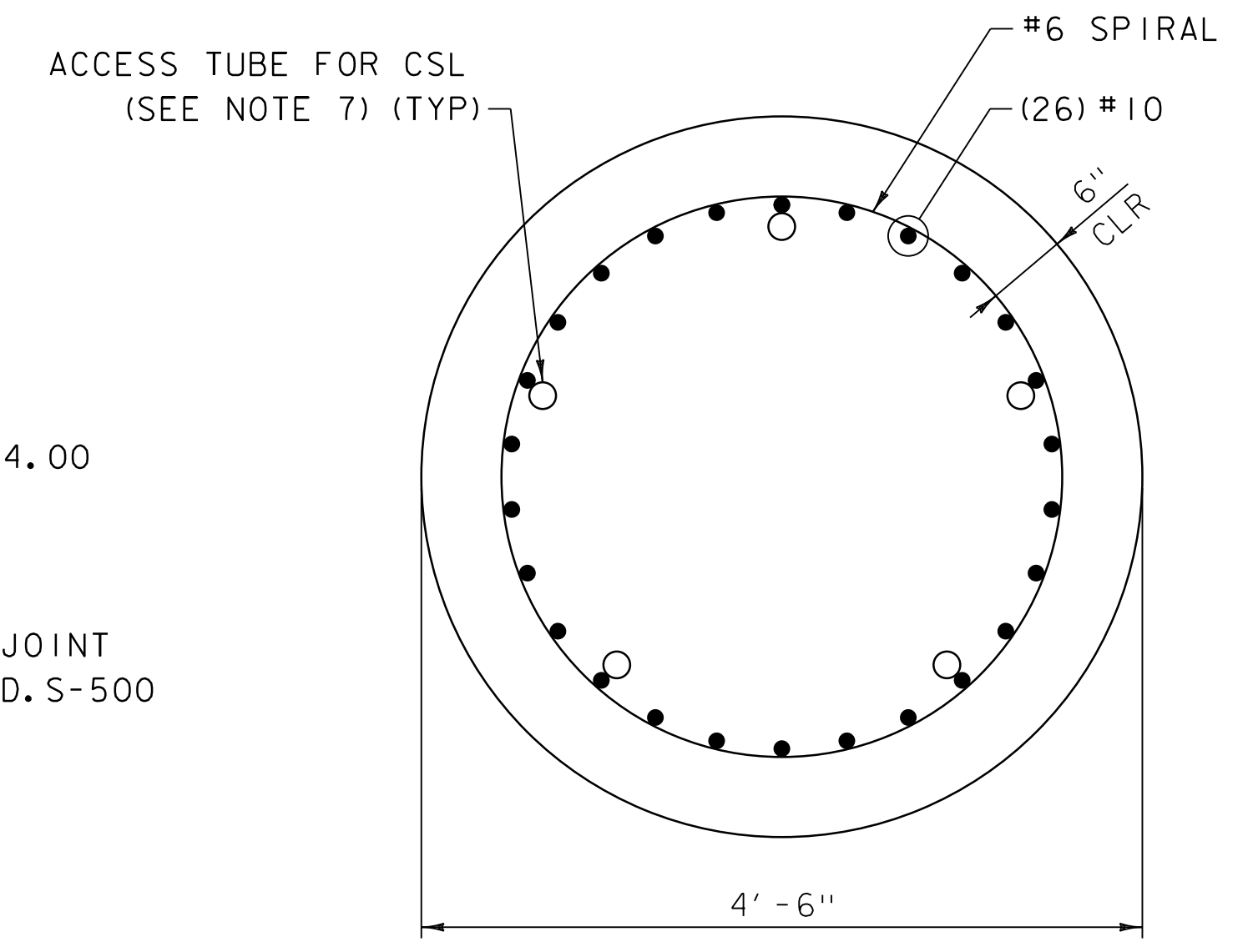
1. THE CONTRACTOR SHALL ADHERE TO THE REQUIREMENTS OF SUBSECTION 503.07 (i) (2) DURING DRILLED SHAFT CONSTRUCTION.
2. THE TOP OF ROCK ELEVATION SHOWN ON THE BORING LOGS IS APPROXIMATE AND BASED ON THE BORING AT THE PIER LOCATION. THE CONTRACTOR IS ADVISED THAT THE ROCK ELEVATION AT EACH DRILLED SHAFT MAY VARY FROM THE ELEVATION SHOWN AND THE CONTRACTOR IS RESPONSIBLE FOR FABRICATING THE REINFORCING AND CONSTRUCTING THE DRILLED SHAFT TO THE LENGTH REQUIRED.
3. DRILLED SHAFTS WILL BE PAID FOR UNDER ITEM 503.1000, "DRILLED SHAFT IN EARTH" AND ITEM 503.1500, "DRILLED SHAFT IN ROCK". MOBILIZATION, REMOBILIZATION (IF NECESSARY), AND DEMOBILIZATION OF THE DRILLED SHAFT EQUIPMENT FROM THE PROJECT WILL BE PAID FOR UNDER 503.2500, "MOBILIZATION OF DRILLED SHAFT EQUIPMENT".
4. LONGITUDINAL REINFORCING FOR THE DRILLED SHAFTS SHALL BE DETAILED AS FULL LENGTH.
5. SPLICES FOR SPIRAL REINFORCING SHALL BE 3'-0" MIN. , WITH MECHANICAL CONNECTORS, OR WELDED SPLICES.
6. ANCHORAGE OF SPIRAL REINFORCING SHALL BE PROVIDED BY 1.5 EXTRA TURNS AT EACH END OF THE SPIRAL.
7. THE ROCK SOCKET SHALL BE DRILLED A MINIMUM OF 6'-0" INTO BEDROCK AS MEASURED FROM THE LOW SIDE OF SLOPING BEDROCK.
8. SEE SECTION 503 OF THE SPECIFICATIONS FOR INTEGRITY TESTING REQUIREMENTS. TIP THERMAL WIRE NOT SHOWN.
9. PIER FOOTING AND COLUMN REINFORCING NOT SHOWN.



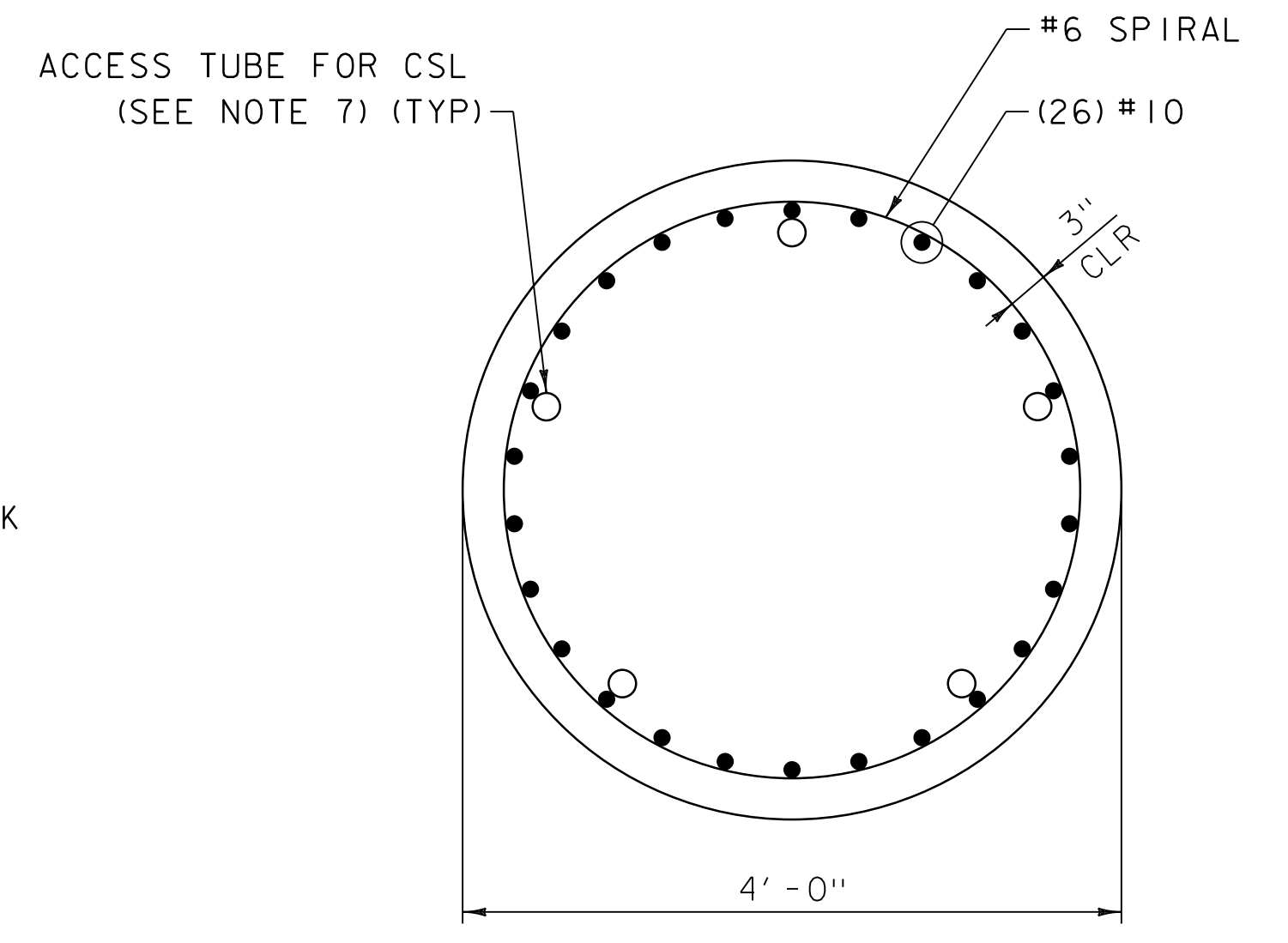
**DRILLED SHAFT REINFORCING ELEVATION**  
SCALE 3/8" = 1'-0"  
(PIER FOOTING AND COLUMN REINFORCING NOT SHOWN)

**NOTE:**

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- ▲ = CUT TO FIT IN FIELD
- 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.



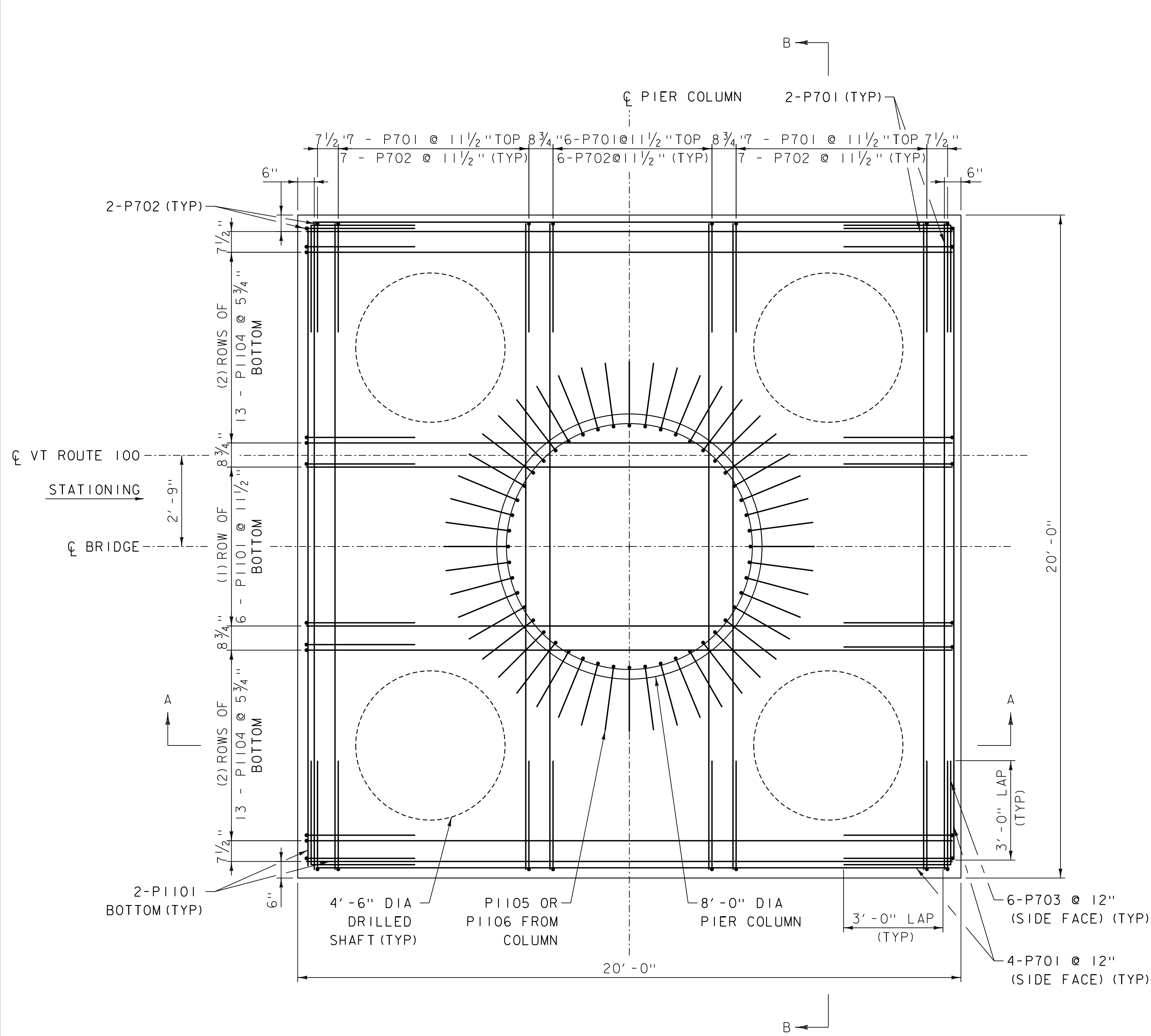
**DRILLED SHAFT REINFORCING SECTION A-A**  
SCALE 1" = 1'-0"



**DRILLED SHAFT REINFORCING SECTION B-B**  
SCALE 1" = 1'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: W.A. FRETWELL
FILE NAME: z13c068pier.dgn	CHECKED BY: R.H. BARNES
PROJECT LEADER: S.E. BURBANK	SHEET 109 OF 220
DESIGNED BY: R.H. BARNES	
DRILLED SHAFT DETAILS	



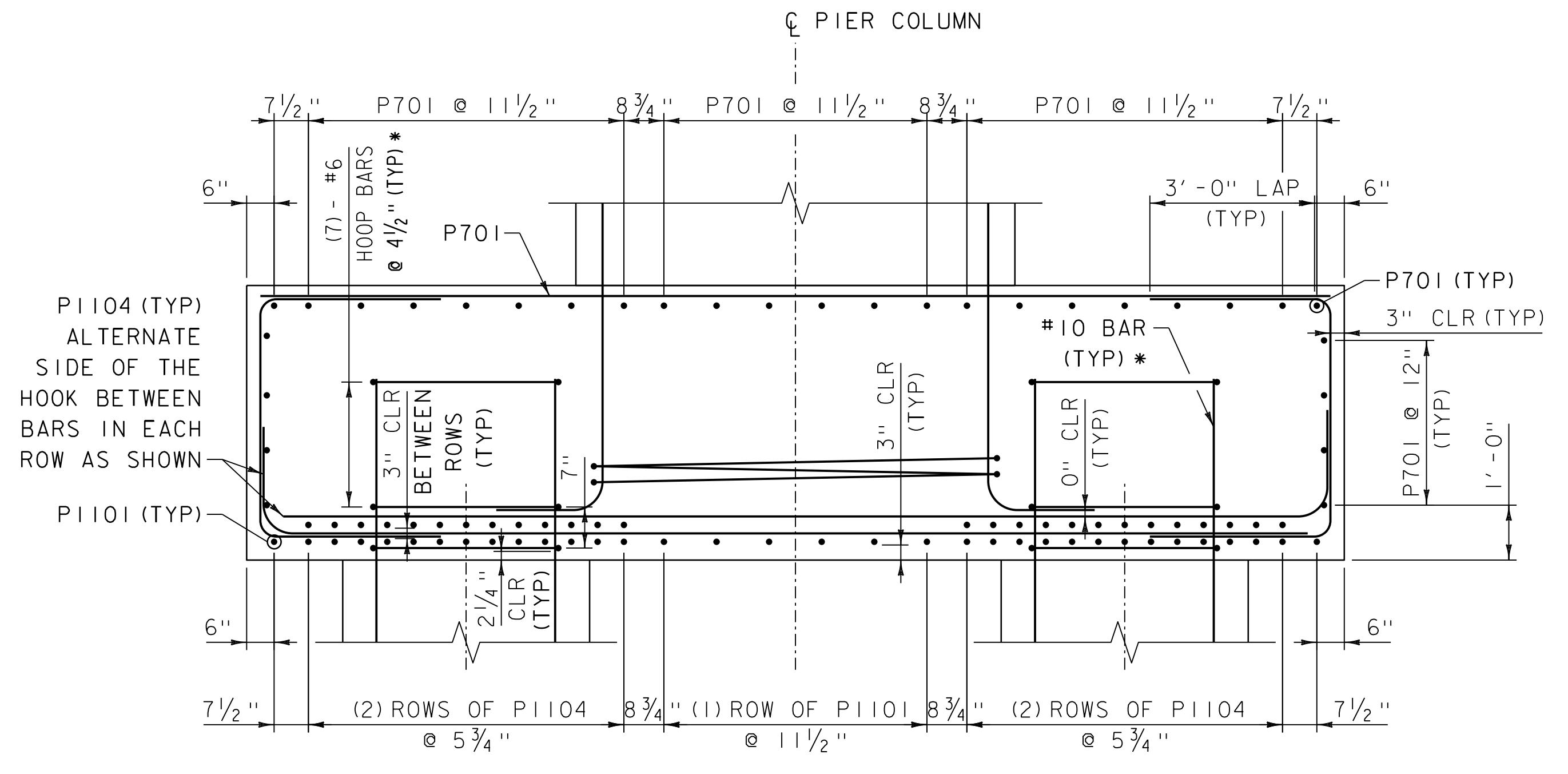
PIER FOOTING REINFORCING PLAN  
SCALE 1/2" = 1'-0"

**NOTES:**

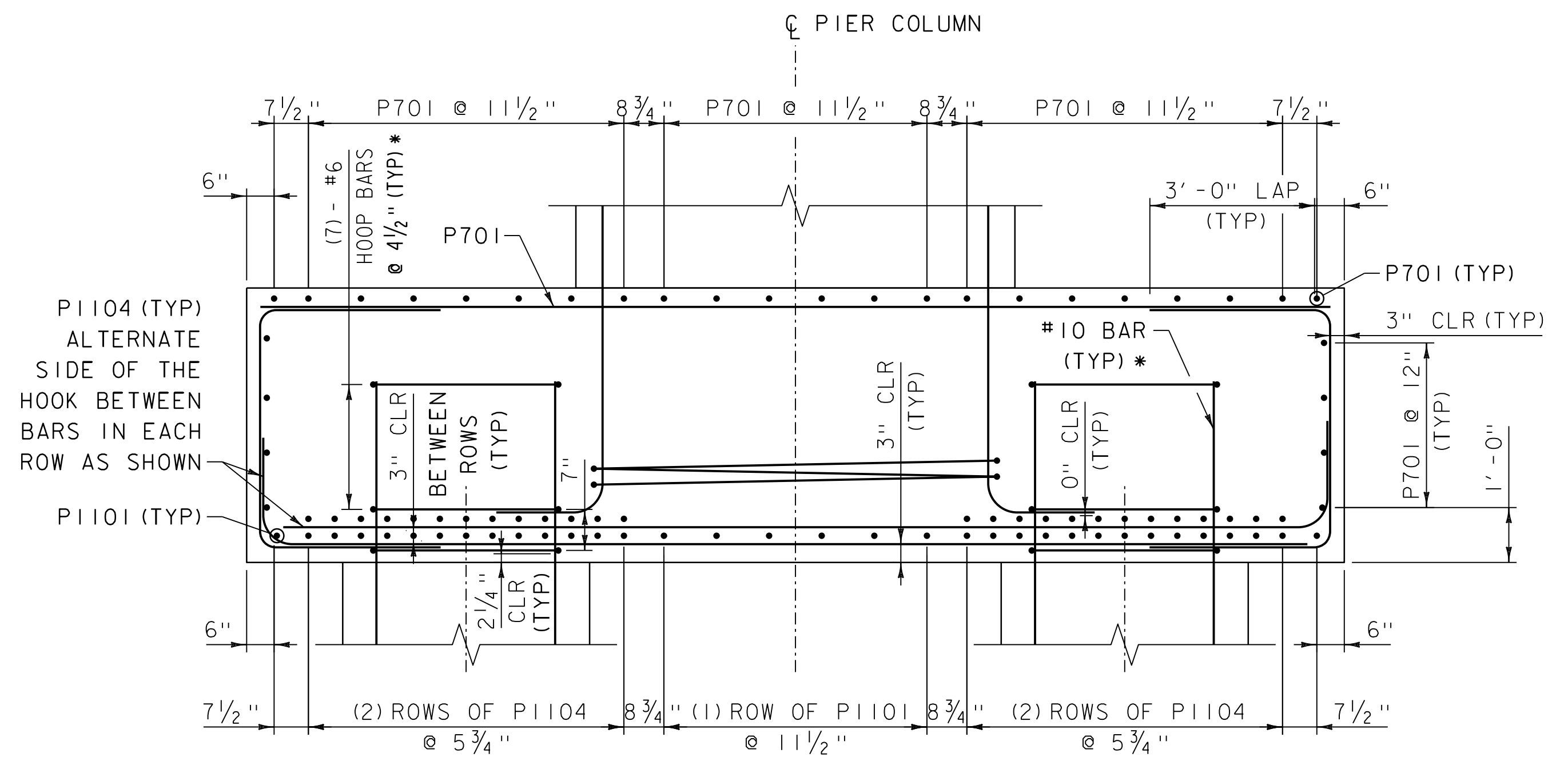
- PIER FOOTING REINFORCING IS LABELED IN ONE DIRECTION. REINFORCING IN PERPENDICULAR DIRECTION IS IDENTICAL.
- DRILLED SHAFT REINFORCING NOT SHOWN IN PLAN.
- HORIZONTAL FOOTING REINFORCING MAY BE ADJUSTED LATERALLY AS NECESSARY TO CLEAR DRILLED SHAFT AND PIER COLUMN VERTICAL REINFORCING WHILE MAINTAINING A MIN. OF 3" CLR. BETWEEN PARALLEL BARS.

**NOTE:**

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- ▲ = CUT TO FIT IN FIELD
- 4" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.



* - HOOP BARS AND #10 BARS ARE INCIDENTAL TO THE APPROPRIATE DRILLED SHAFT ITEM.  
PIER FOOTING REINFORCING SECTION A-A  
SCALE 1/2" = 1'-0"

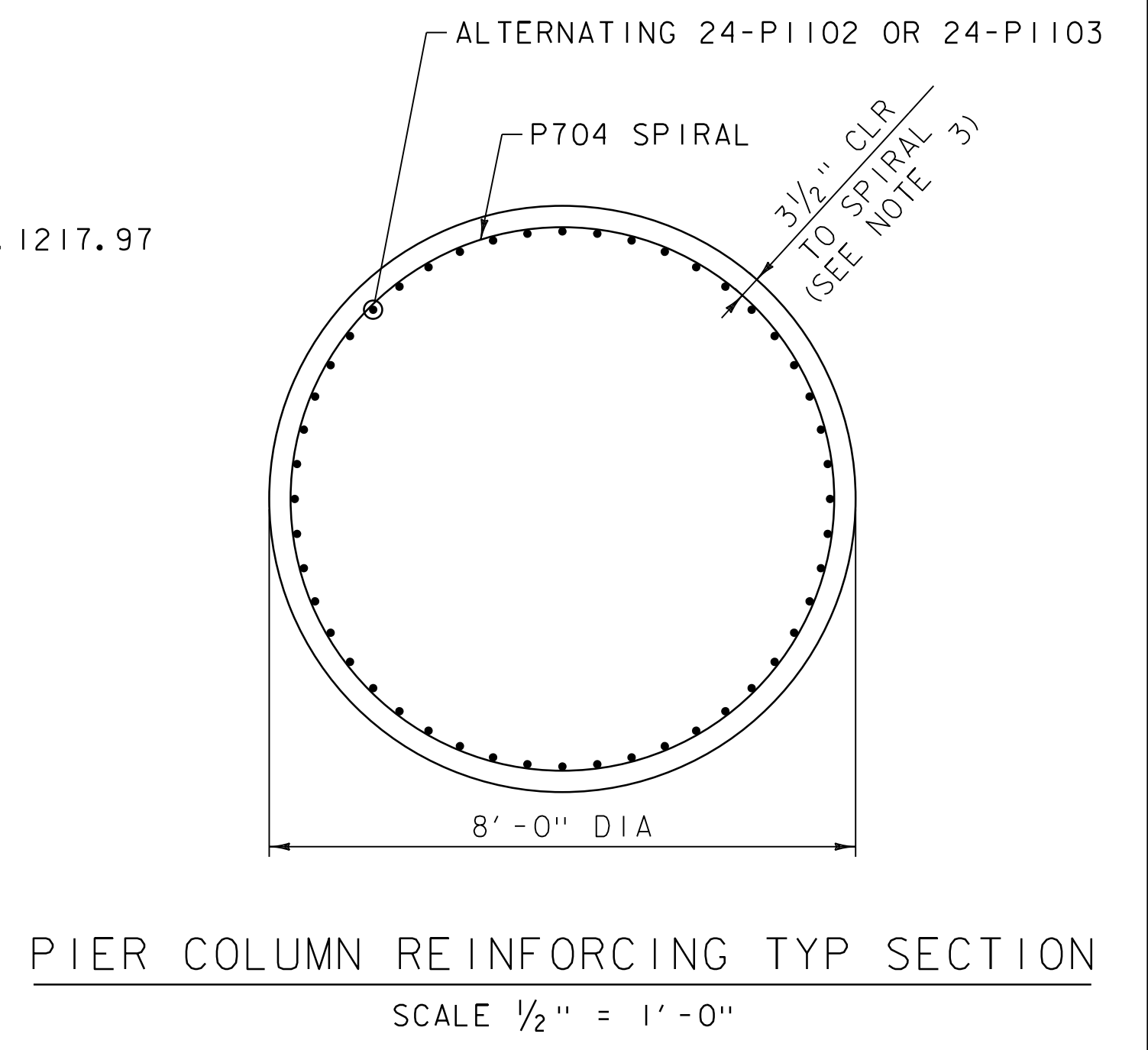
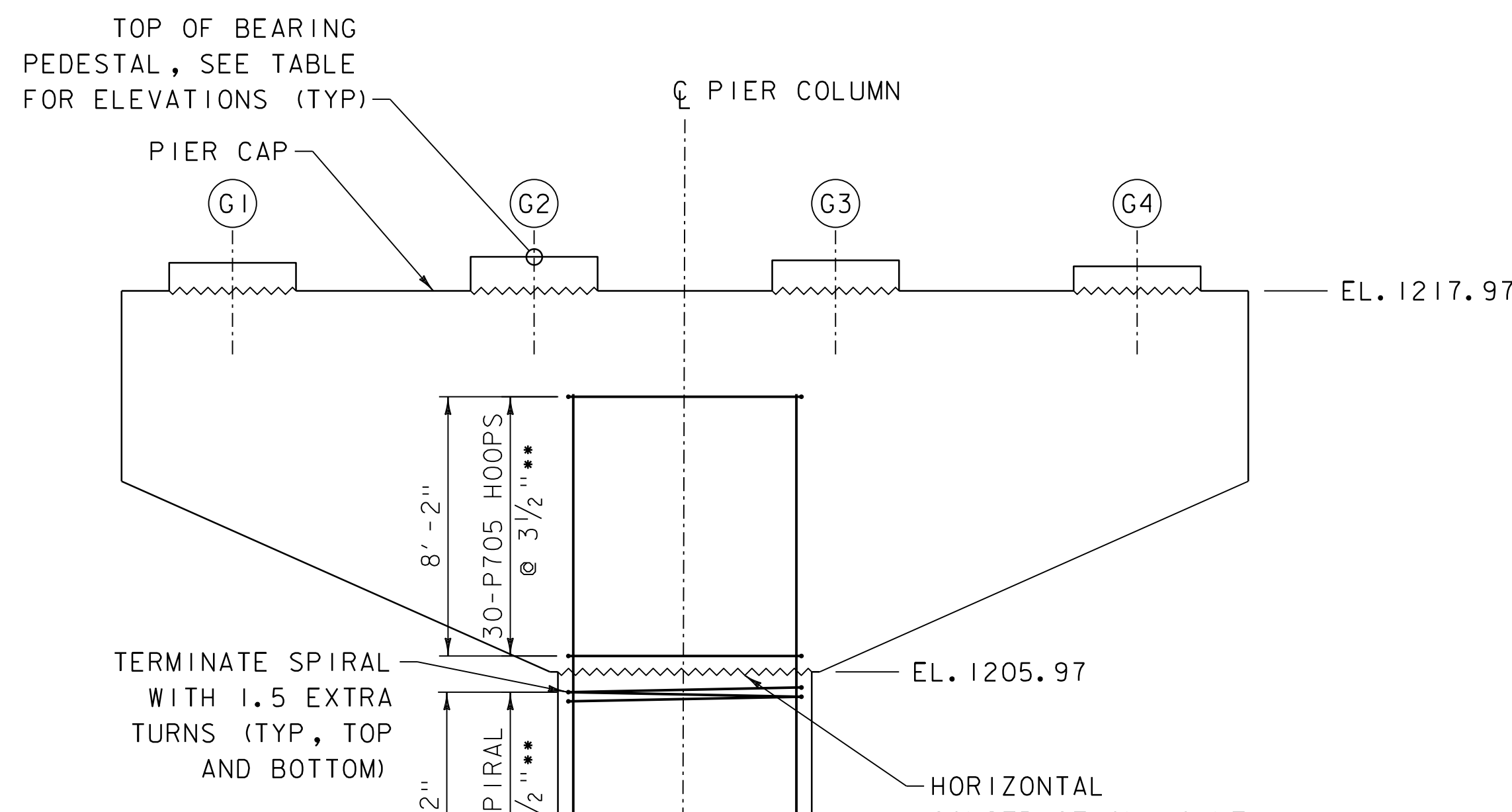
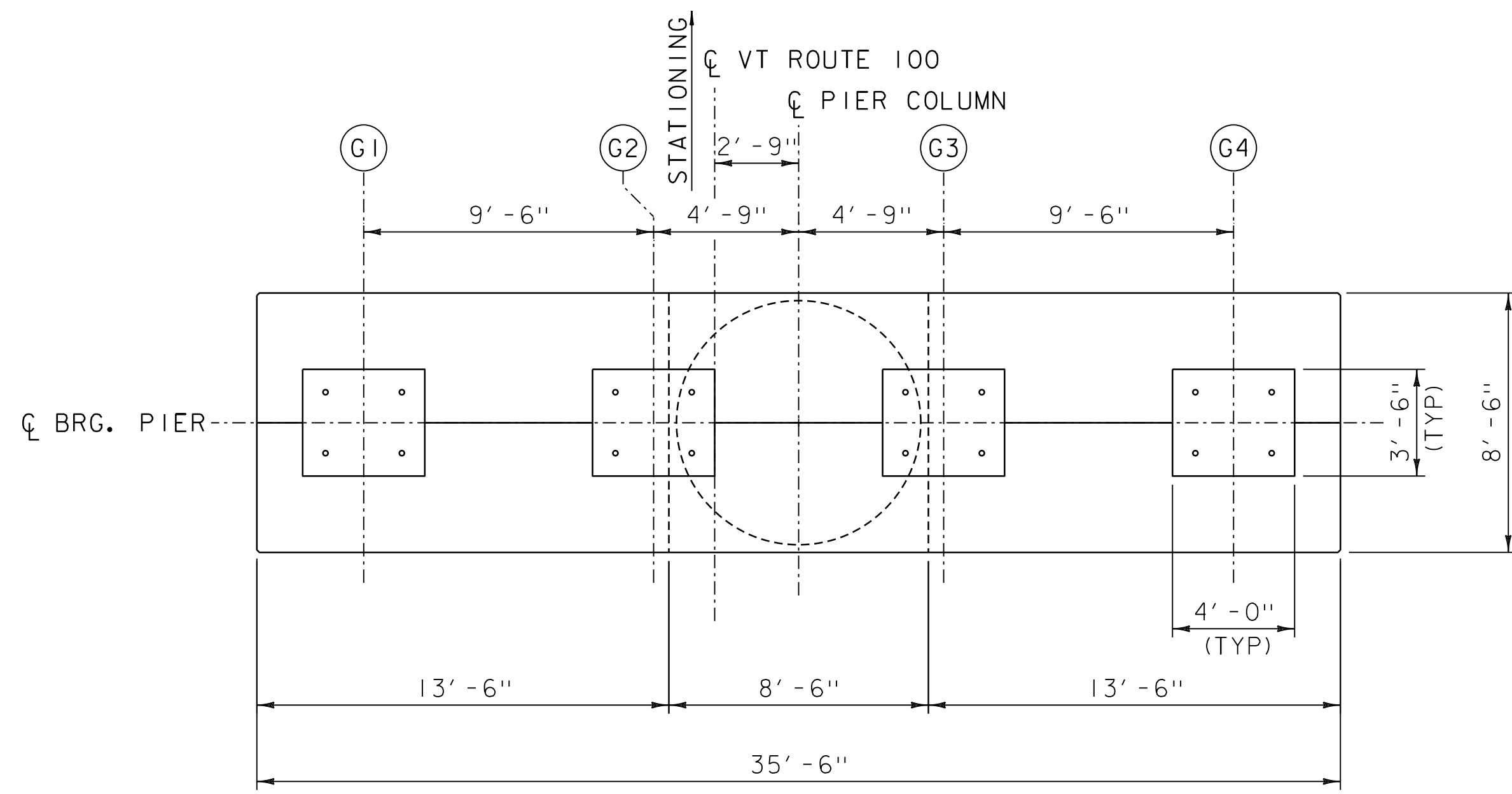


* - HOOP BARS AND #10 BARS ARE INCIDENTAL TO THE APPROPRIATE DRILLED SHAFT ITEM.  
PIER FOOTING REINFORCING SECTION B-B  
SCALE 1/2" = 1'-0"



PROJECT NAME:	READSBORO	FILE NAME:	z13c068pier.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	R.H. BARNES	CHECKED BY:	R.H. BARNES
		PIER FOOTING REINFORCING DETAILS		SHEET	110 OF 220



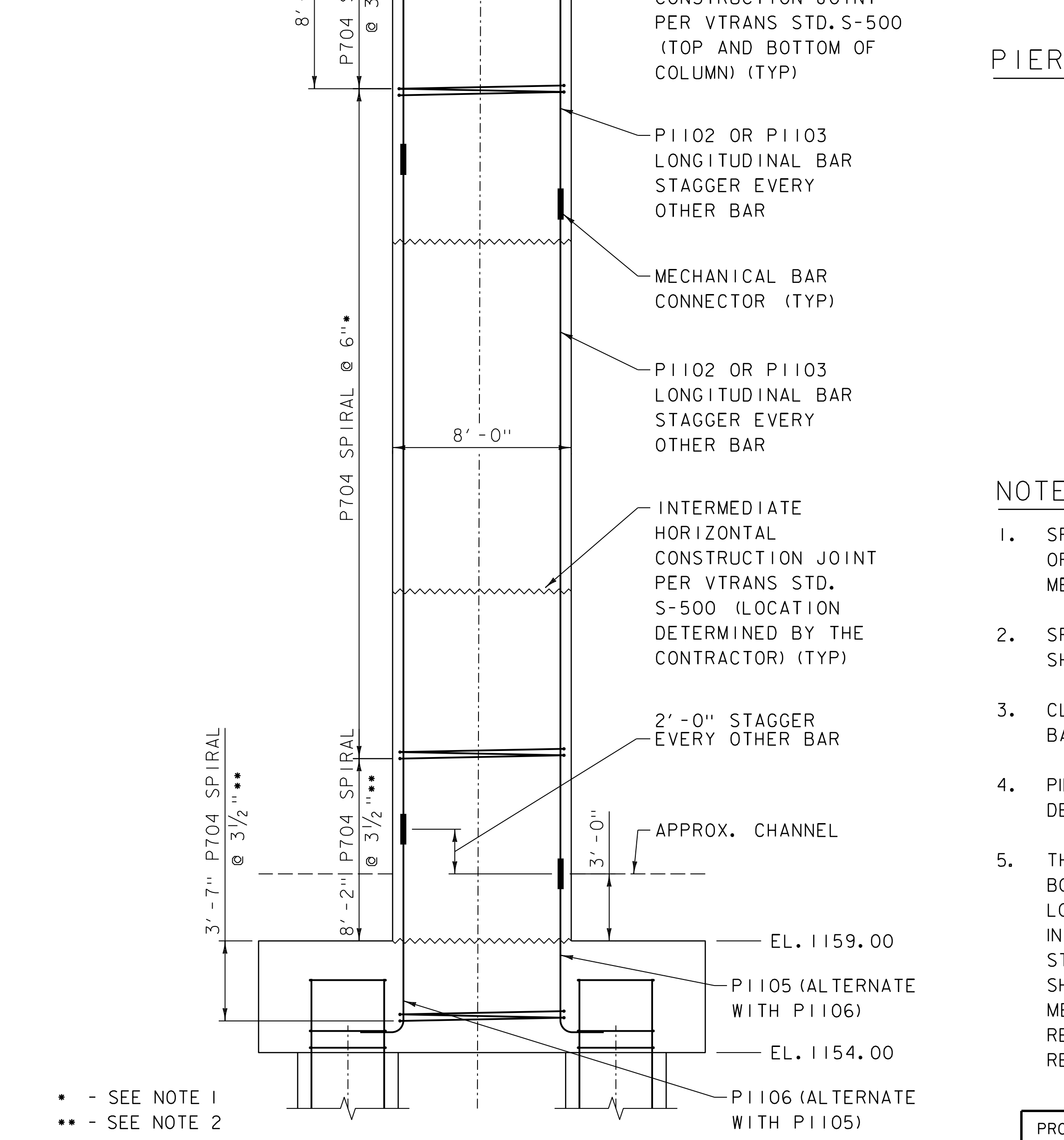
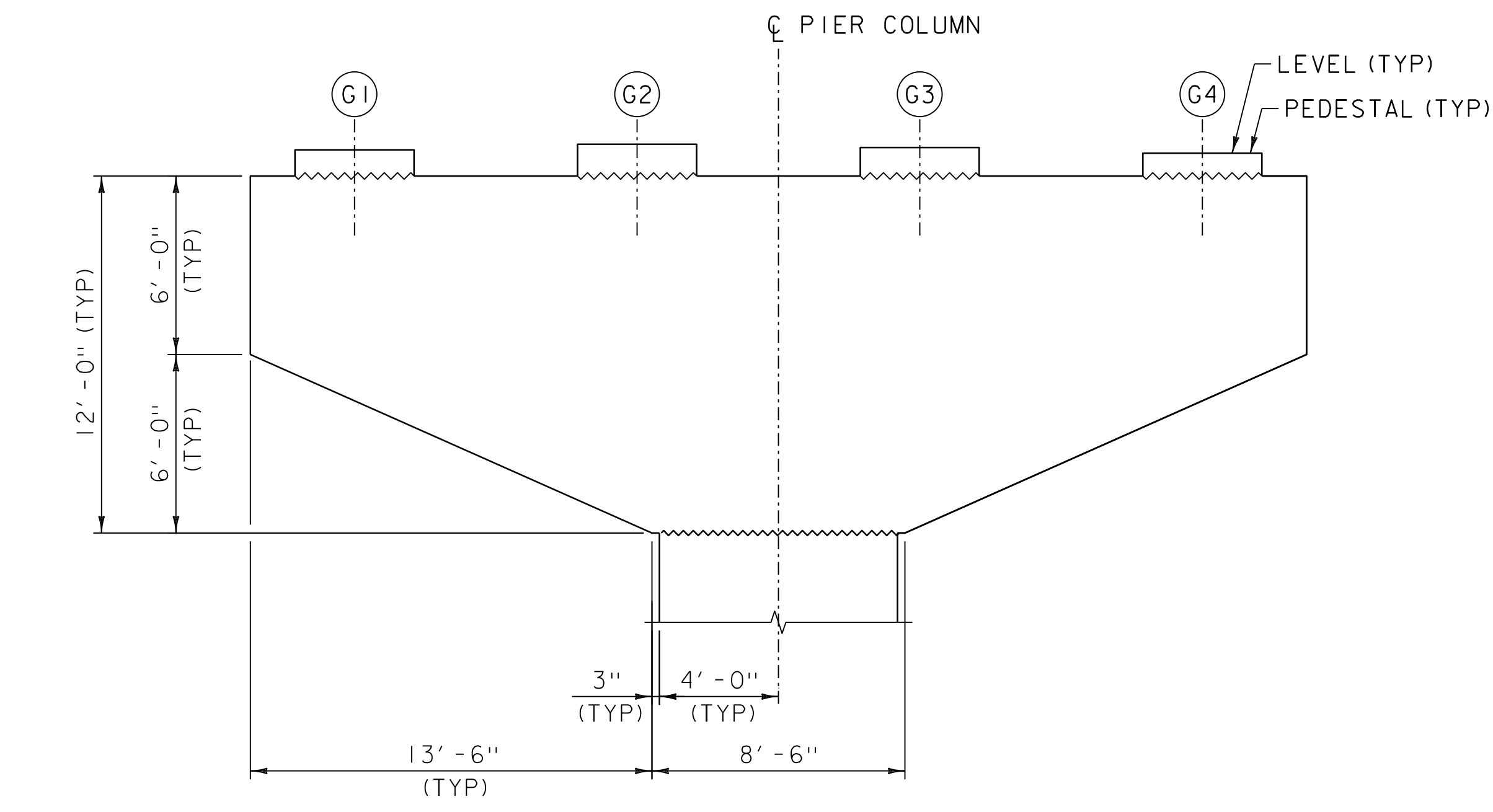


TOP OF BEARING PEDESTAL ELEVATIONS

GIRDER NO.	ELEVATION
G1	1218.83
G2	1219.02
G3	1218.91
G4	1218.72

NOTES:

1. SPIRAL REINFORCING SHALL BE LAPPED 3'-6" MIN., OR CONNECTED USING FULL WELDED SPLICES OR FULL MECHANICAL SPIRALS CONNECTORS.
2. SPLICES OF SPIRAL REINFORCING IN END REGIONS SHALL BE MADE BY FULL WELDED SPLICES.
3. CLEAR COVER IS MIN. TO SPIRALS AT MECHANICAL BAR CONNECTORS IN LONGITUDINAL REINFORCING.
4. PIER CAP REINFORCING NOT SHOWN IN PIER ELEVATION DETAIL, SEE PIER CAP DETAILS FOR PIER CAP REINFORCING.
5. THE CONTRACTOR HAS THE OPTION TO RELOCATE THE BOTTOM MECHANICAL BAR CONNECTORS FOR THE LONGITUDINAL COLUMN BARS ABOVE THE LOWEST INTERMEDIATE HORIZONTAL CONSTRUCTION JOINT (THE STAGGER BETWEEN ADJACENT MECHANICAL BAR CONNECTORS SHALL BE MAINTAINED). IF THE CONTRACTOR RELOCATES THE MECHANICAL BAR CONNECTORS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE BAR LENGTHS IN THE REINFORCING STEEL SCHEDULE SHALL ACCORDINGLY.

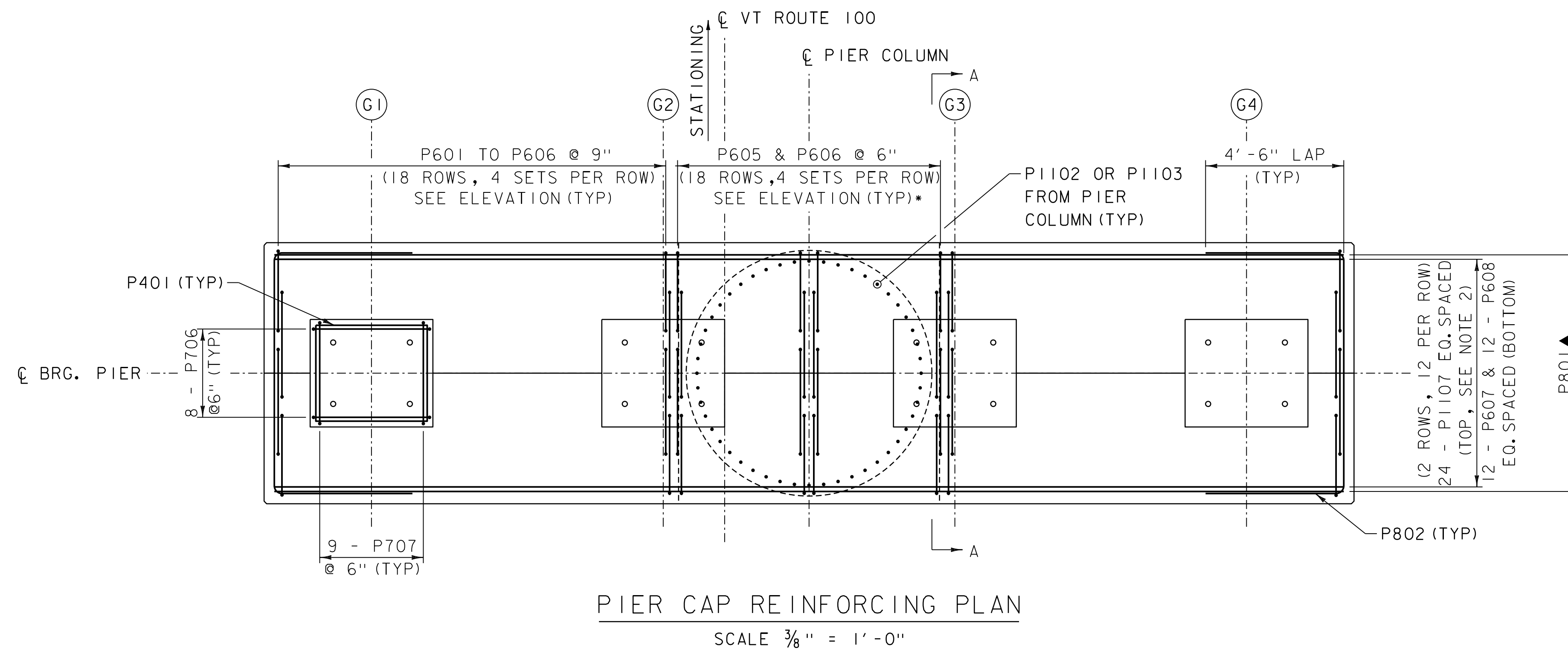


NOTE:  
 NF = NEAR FACE  
 FF = FAR FACE  
 EF = EACH FACE  
 ▲ = CUT TO FIT IN FIELD  
 4" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

* - SEE NOTE 1  
 ** - SEE NOTE 2



PROJECT NAME:	READSBORO	FILE NAME:	z13c068pier.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	R.H. BARNES	CHECKED BY:	R.H. BARNES
		PIER & PIER CAP DETAILS		SHEET	III OF 220



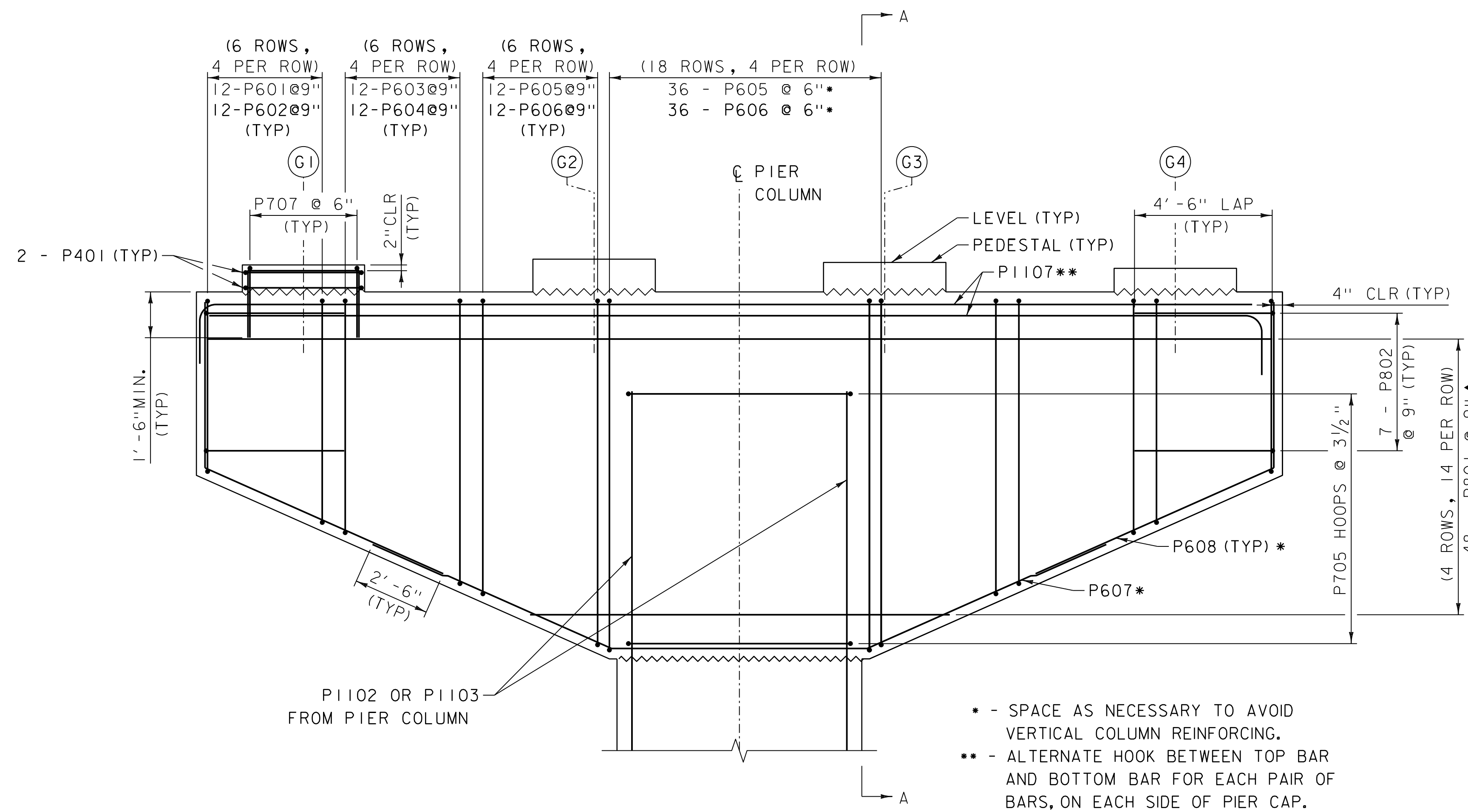
PIER CAP REINFORCING PLAN  
SCALE 3/8" = 1'-0"

**NOTE:**

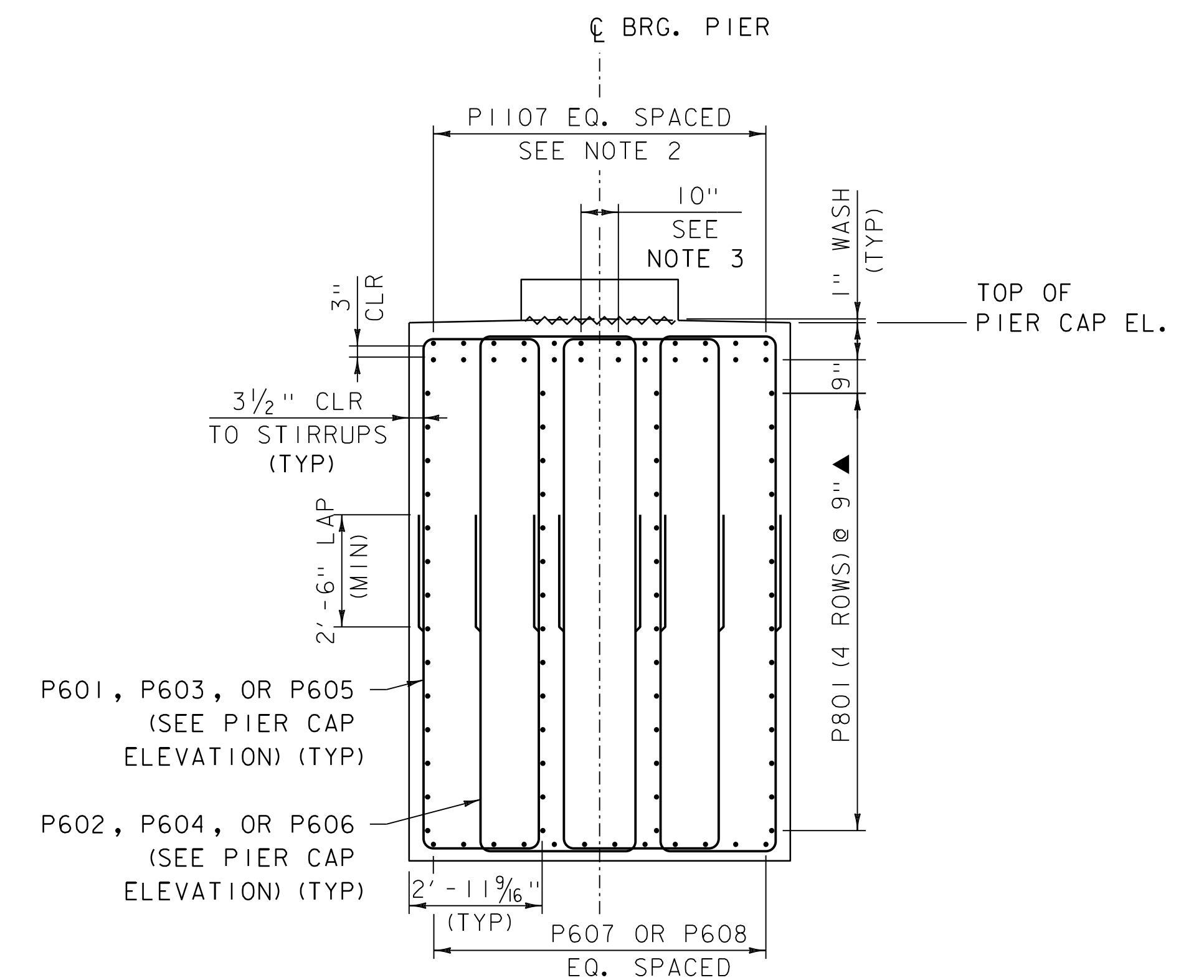
- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- ▲ = CUT TO FIT IN FIELD
- 4" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

**NOTES:**

1. SEE PROJECT NOTES REGARDING ANCHOR BOLT INSTALLATION AT THE PIER.
2. ADJUST REINFORCING LATERALLY AS NECESSARY TO CLEAR ANCHOR BOLTS WHILE MAINTAINING 3" MIN. CLR. BETWEEN PARALLEL BARS.
3. ADJUST REINFORCING AT CENTER TO PROVIDE CLEARANCE FOR CONCRETE PLACEMENT.



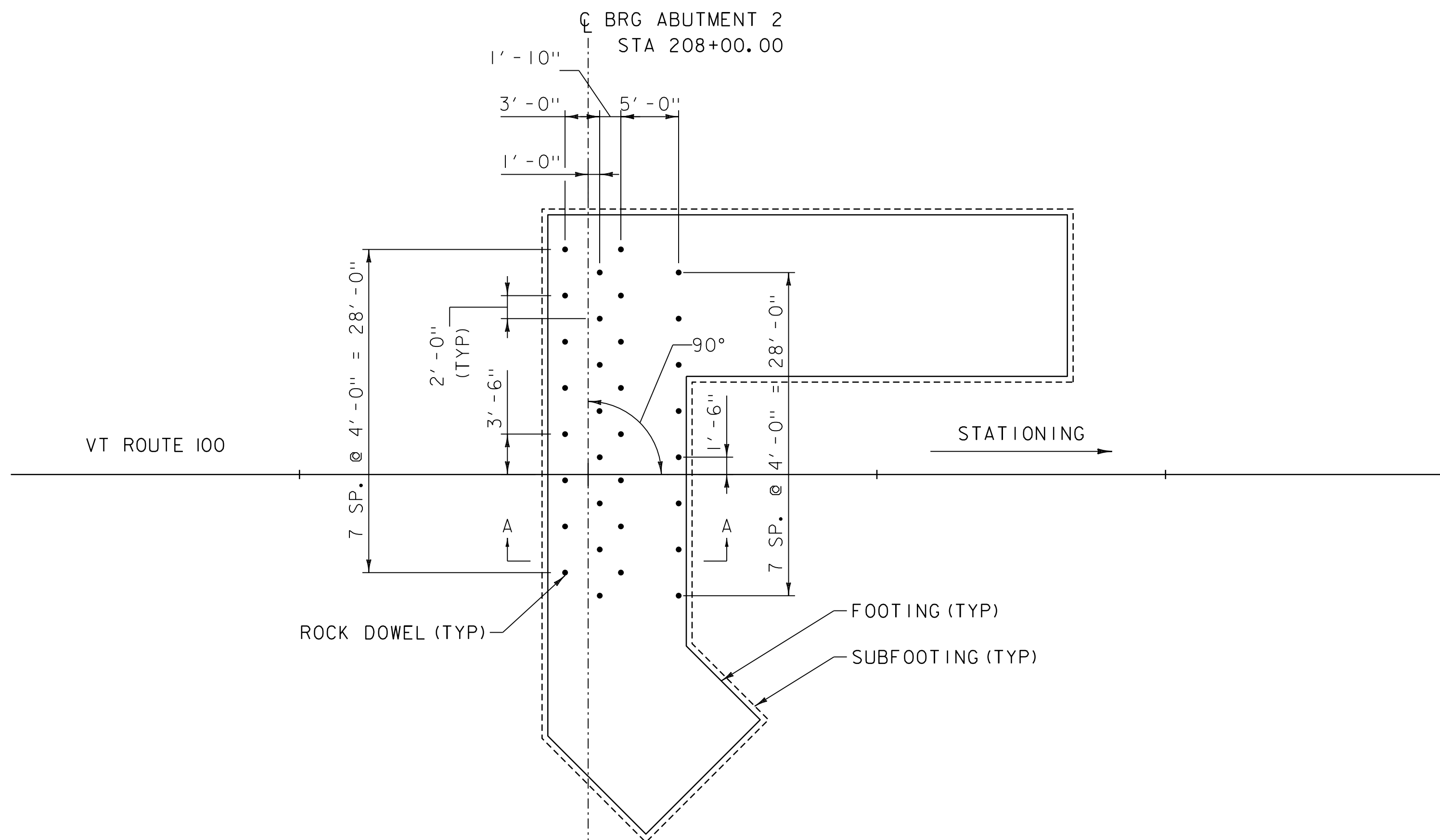
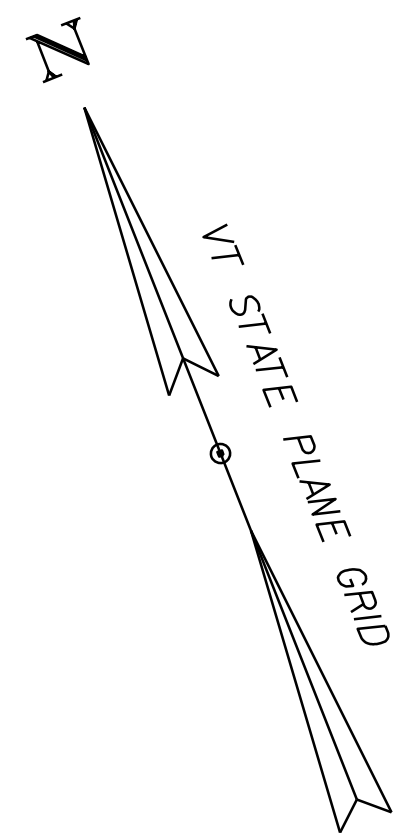
PIER CAP REINFORCING ELEVATION  
SCALE 3/8" = 1'-0"



PIER CAP REINFORCING SECTION A-A  
SCALE 3/8" = 1'-0"

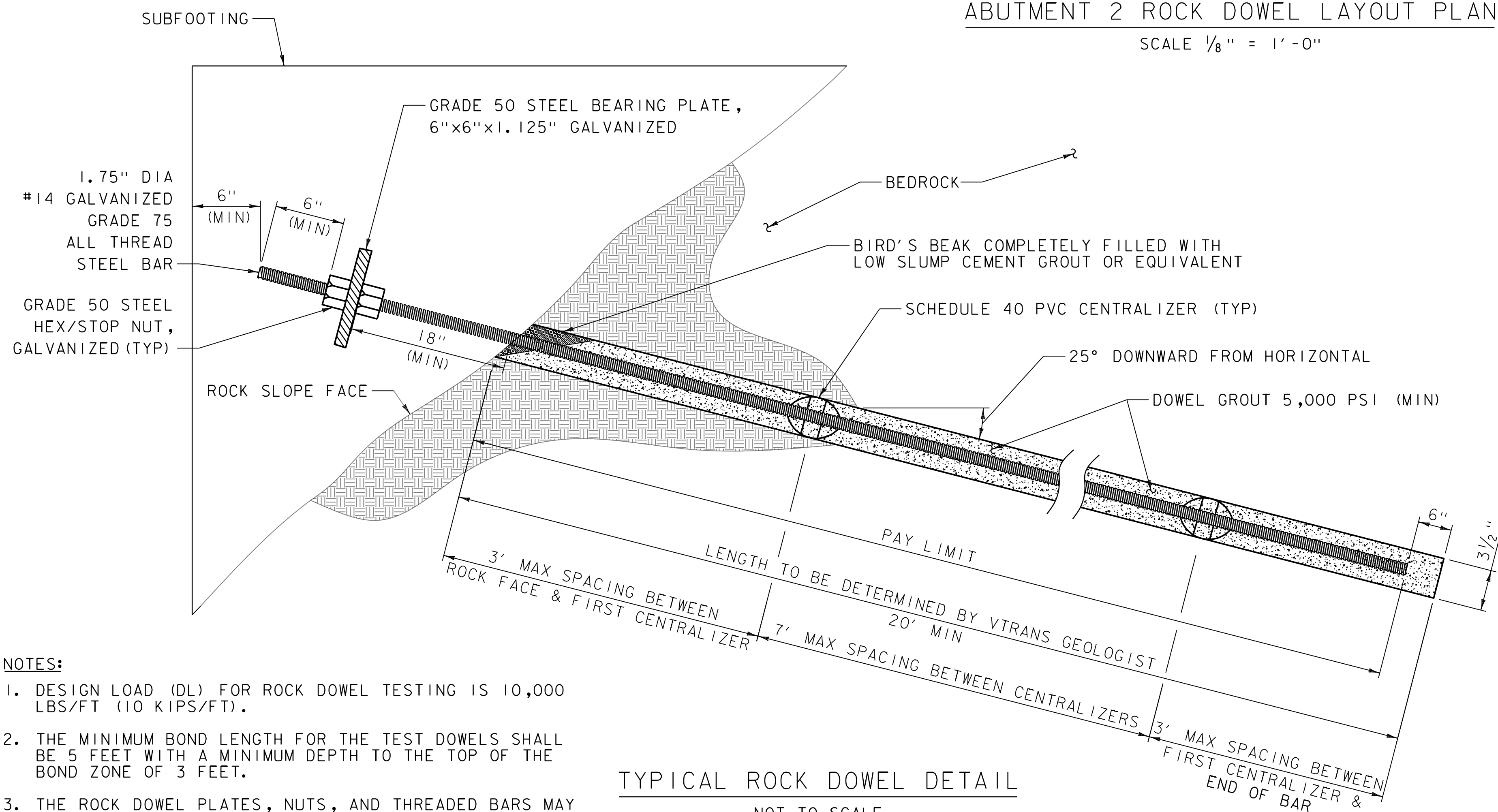
PROJECT NAME:	READSBORO	FILE NAME:	z13c068pier.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	R.H. BARNES	CHECKED BY:	R.H. BARNES
		PIER CAP REINFORCING DETAILS		SHEET	112 OF 220





ABUTMENT 2 ROCK DOWEL LAYOUT PLAN

SCALE 1/8" = 1'-0"

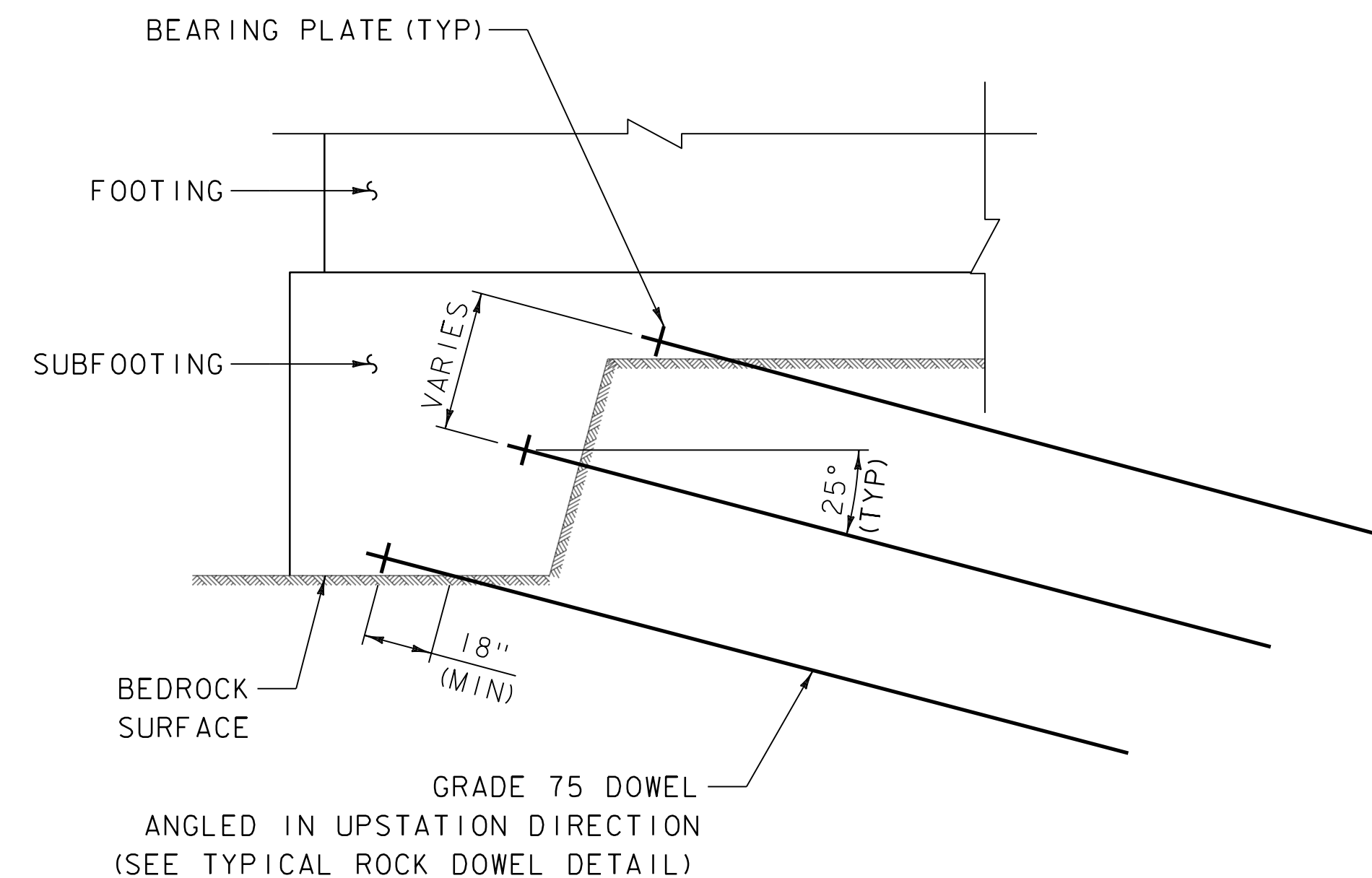


TYPICAL ROCK DOWEL DETAIL

NOT TO SCALE

NOTES:

- DESIGN LOAD (DL) FOR ROCK DOWEL TESTING IS 10,000 LBS/FT (10 KIPS/FT).
- THE MINIMUM BOND LENGTH FOR THE TEST DOWELS SHALL BE 5 FEET WITH A MINIMUM DEPTH TO THE TOP OF THE BOND ZONE OF 3 FEET.
- THE ROCK DOWEL PLATES, NUTS, AND THREADED BARS MAY EXTEND INTO THE ABUTMENT/WINGWALL FOOTING DEPENDING ON THE DEPTH OF SUBFOOTING AT THAT LOCATION.



SECTION A-A

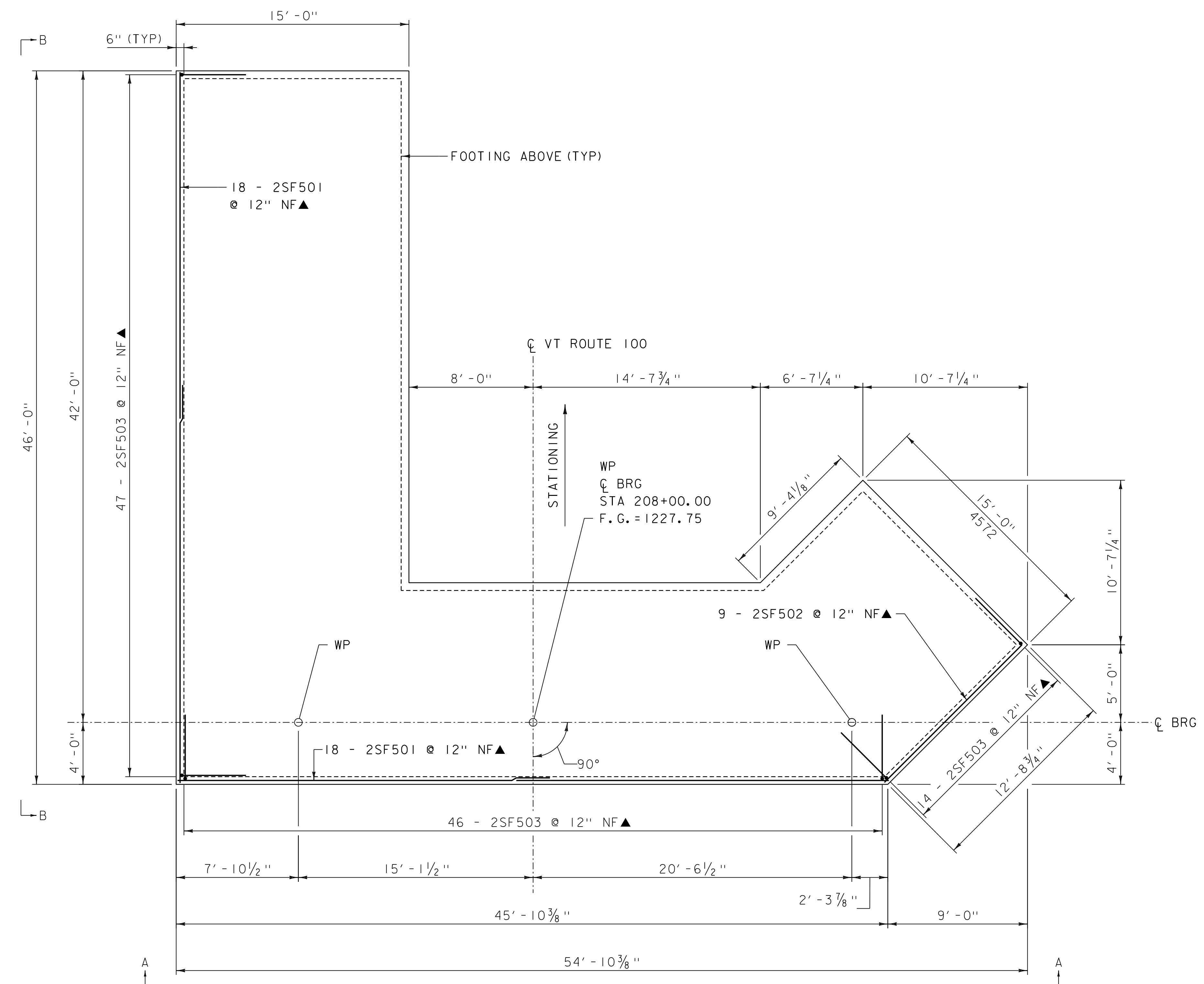
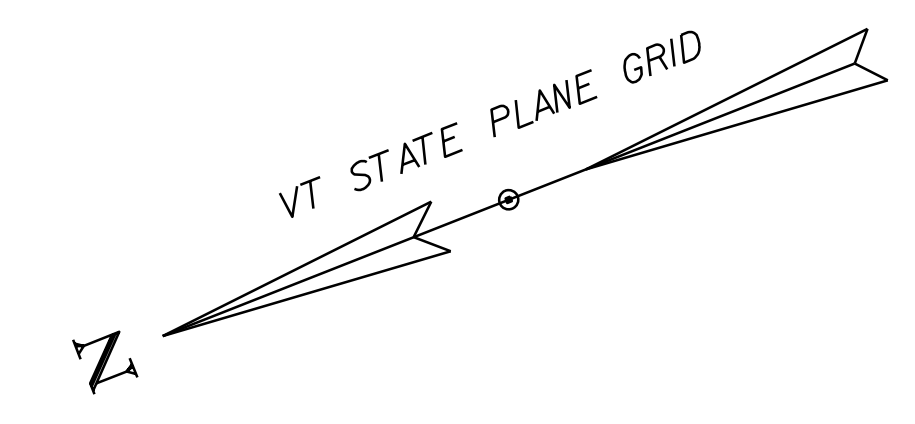
NOT TO SCALE

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068abut2.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: WSP  
ROCK DOWEL PLANS & SECTIONS

PLOT DATE: 12-APR-2024  
DRAWN BY: WSP  
CHECKED BY: WSP  
SHEET 113 OF 220





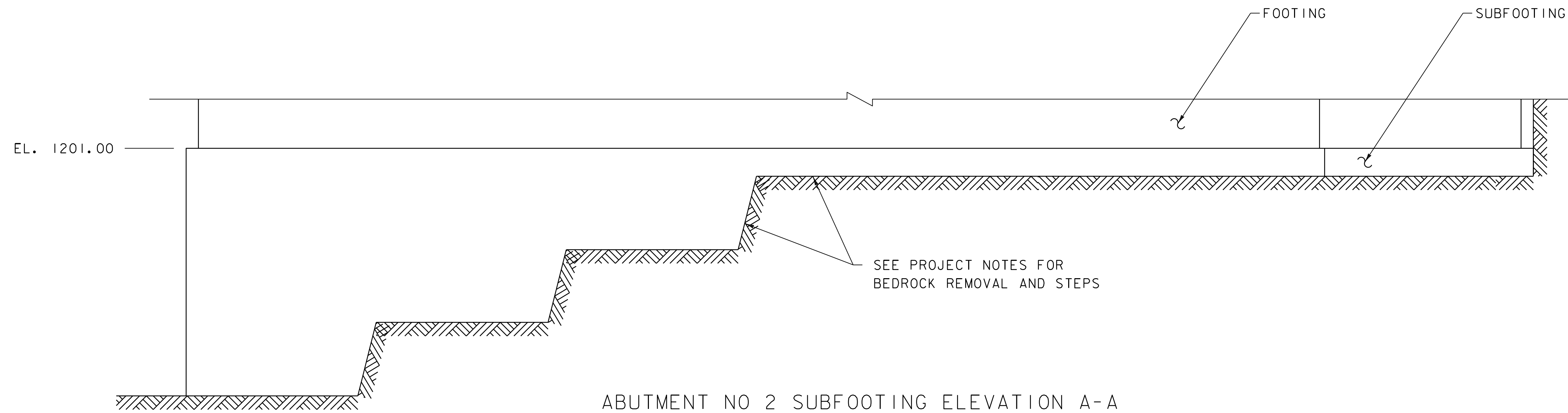
**NOTE:**  
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 ▲ = CUT TO FIT IN FIELD  
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 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

**ABUTMENT NO 2 SUBFOOTING PLAN**  
 SCALE 1/4" = 1'-0"



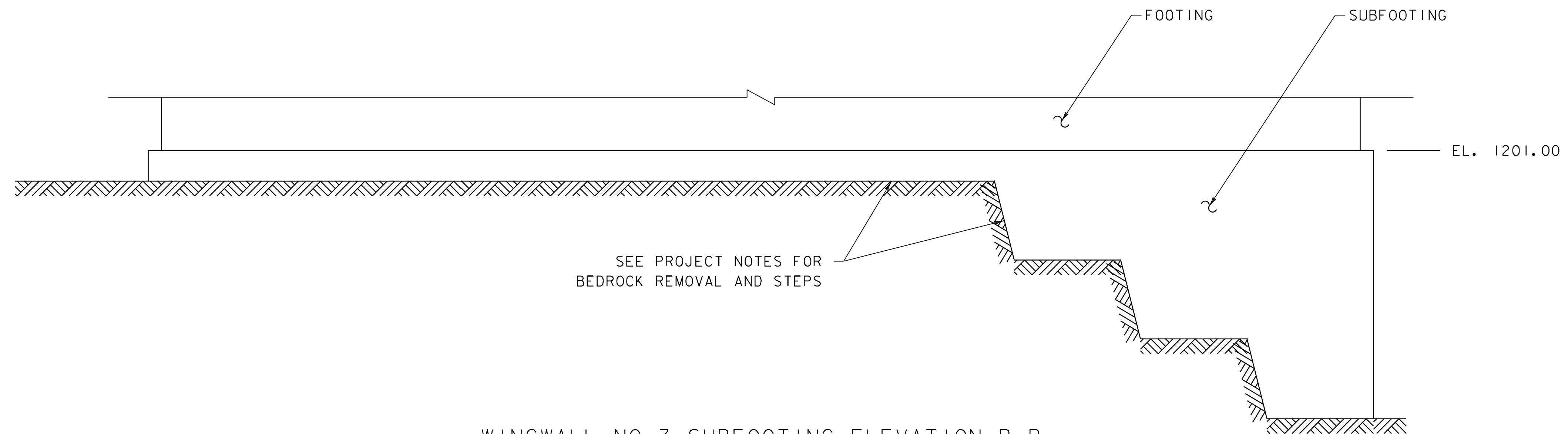
PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068abut2.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: W.A. FRETWELL
DESIGNED BY: Y. PENG	CHECKED BY: S.M. HODGDON
ABUTMENT NO 2 SUBFOOTING PLAN	SHEET 114 OF 220





ABUTMENT NO 2 SUBFOOTING ELEVATION A-A

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



WINGWALL NO 3 SUBFOOTING ELEVATION B-B

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

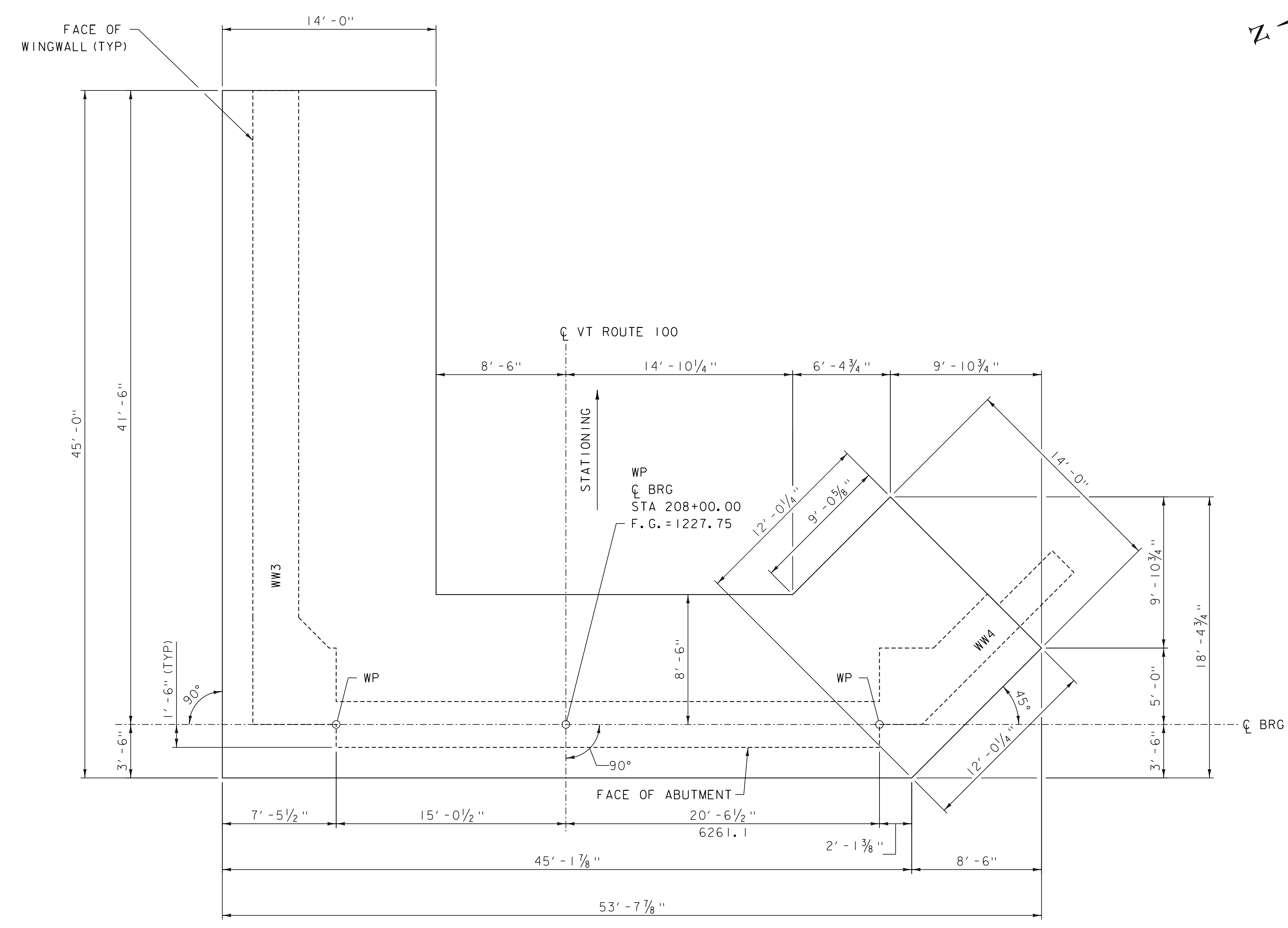
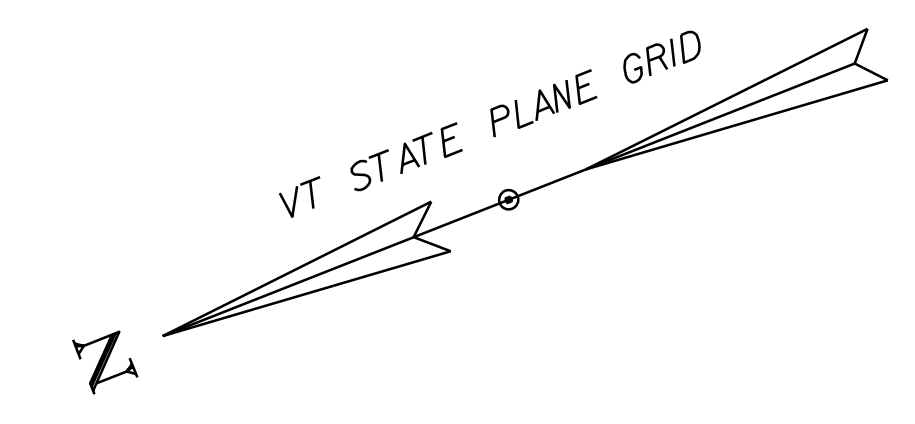
**NOTE:**

BEDROCK LOCATIONS SHOWN ARE APPROXIMATE AND FOR CONVEYANCE OF THE DESIGN INTENT ONLY. THE CONTRACTOR SHALL VERIFY BEDROCK LOCATIONS AND ELEVATIONS.

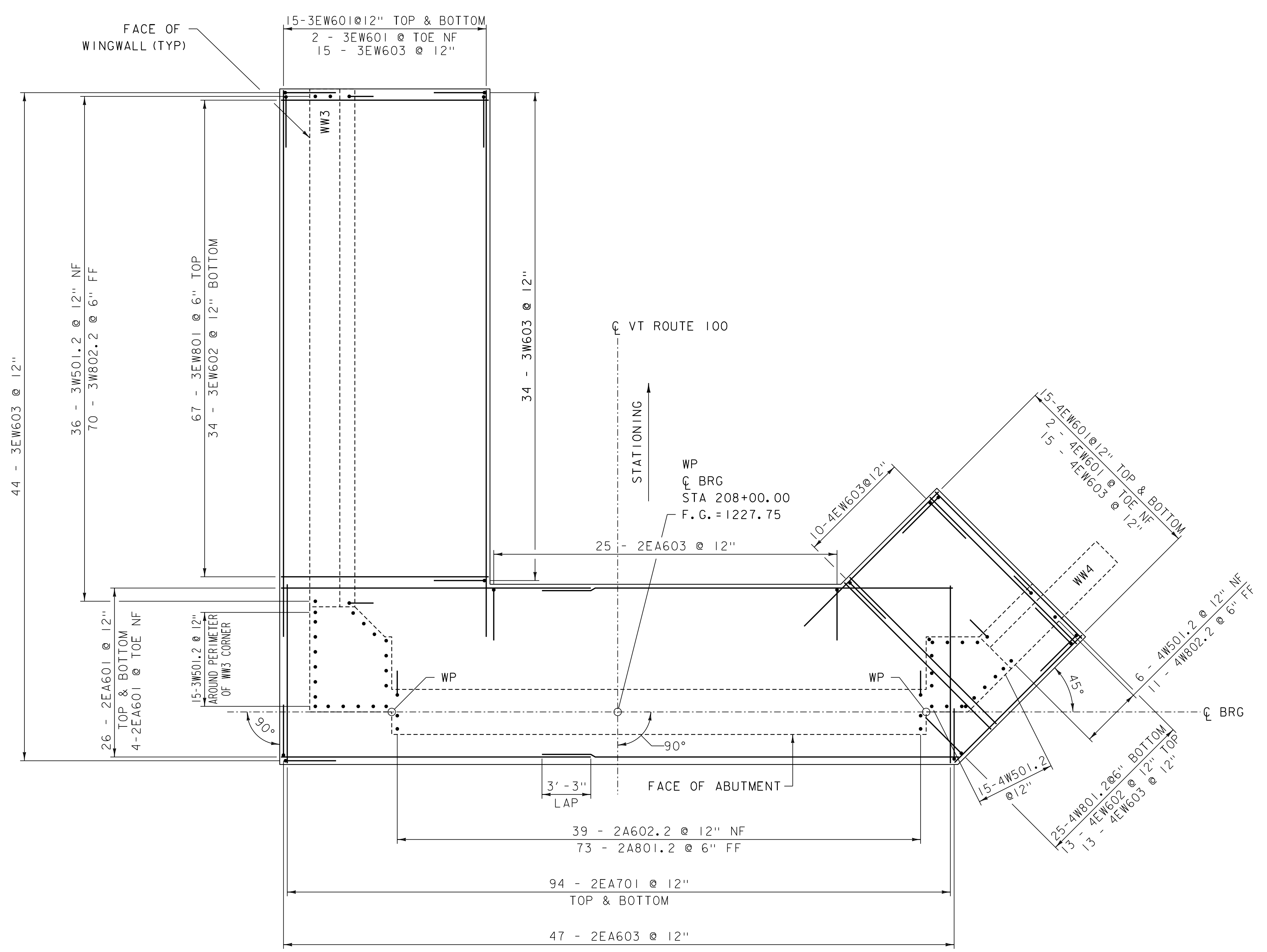
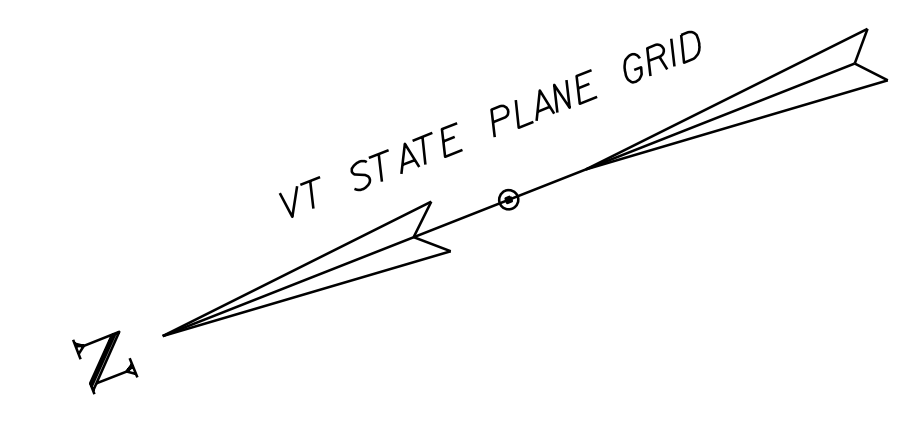


PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068abut2.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: W.A. FRETWELL
DESIGNED BY: Y. PENG	CHECKED BY: S.M. HODGDON
ABUTMENT NO 2 SUBFOOTING DETAILS	SHEET 115 OF 220



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068abut2.dgn	DESIGNED BY:	Y. PENG
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.M. HODGDON
ABUTMENT NO 2 FOOTING PLAN		SHEET	116 OF 220

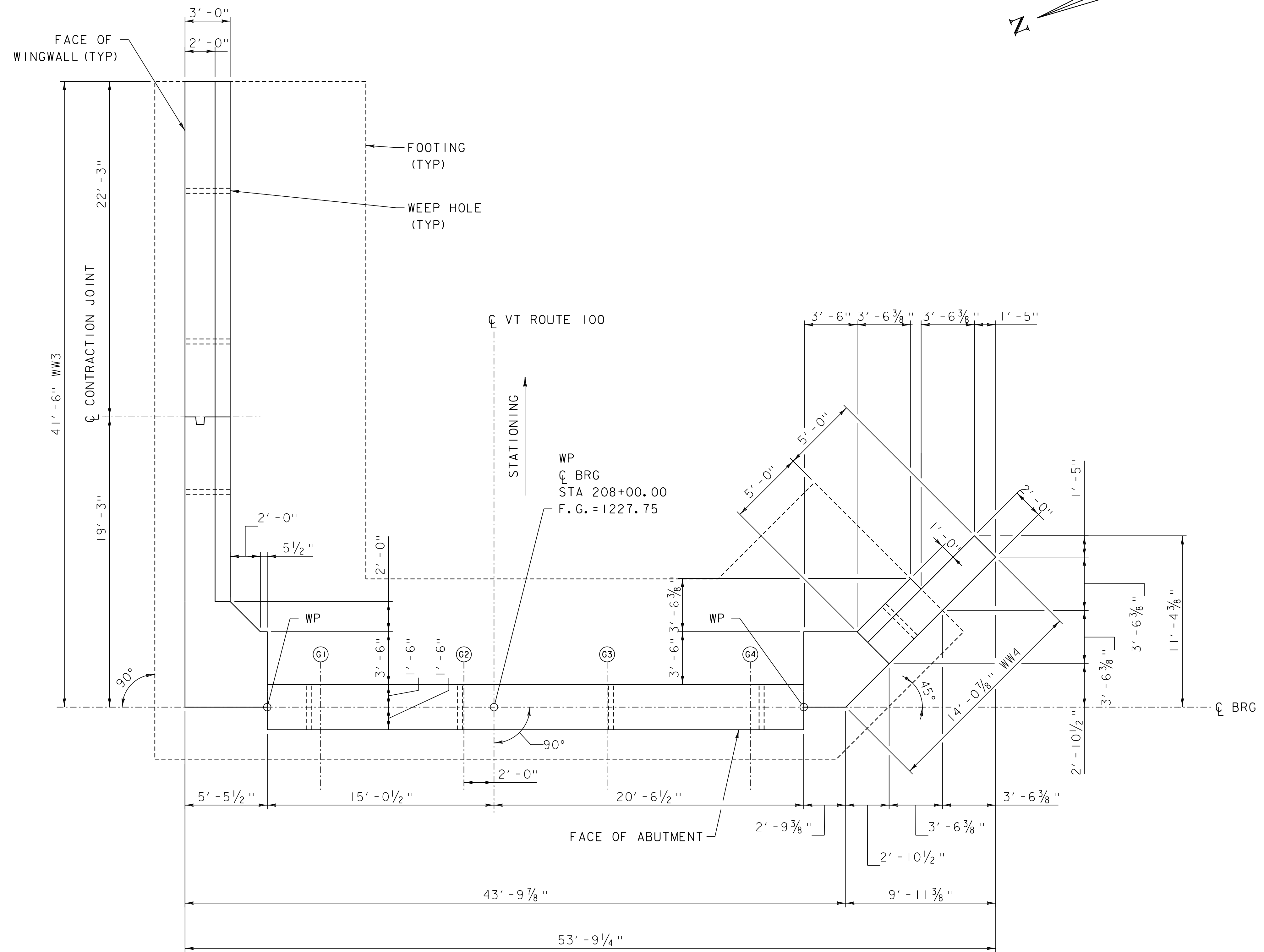
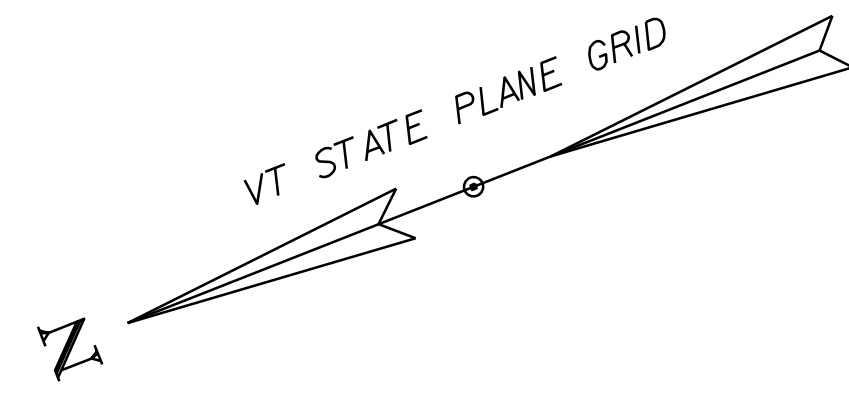


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 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

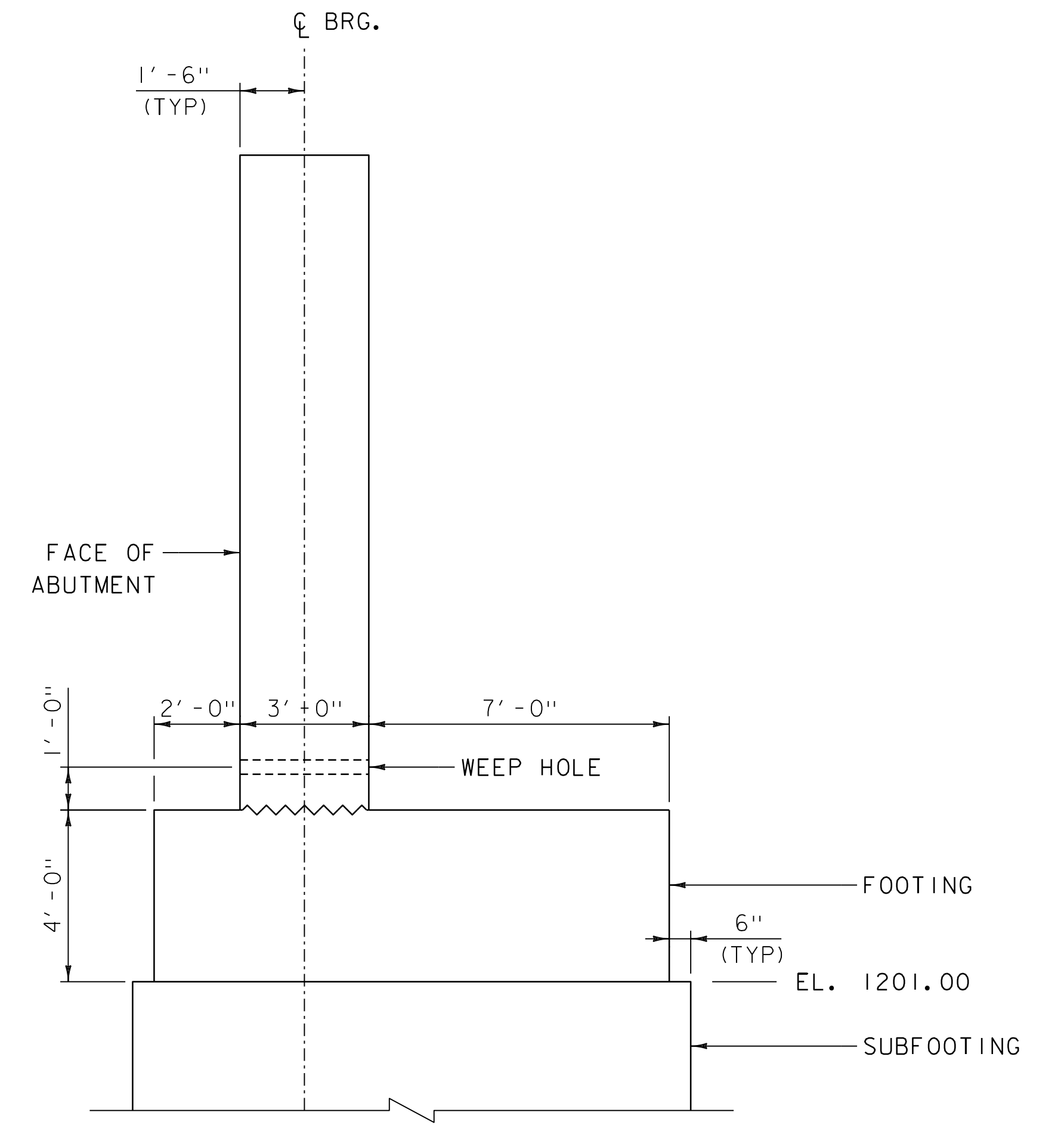
ABUTMENT NO 2 FOOTING REINFORCING PLAN  
 SCALE 1/4" = 1'-0"

PROJECT NAME:	READSBORO	FILE NAME:	z13c068abut2.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	Y. PENG	CHECKED BY:	S.M. HODGDON
				ABUTMENT NO 2 FOOTING REINFORCING PLAN SHEET	117 OF 220





ABUTMENT NO 2 PLAN  
SCALE 1/4" = 1'-0"



ABUTMENT NO 2 TYPICAL SECTION  
SCALE 3/8" = 1'-0"

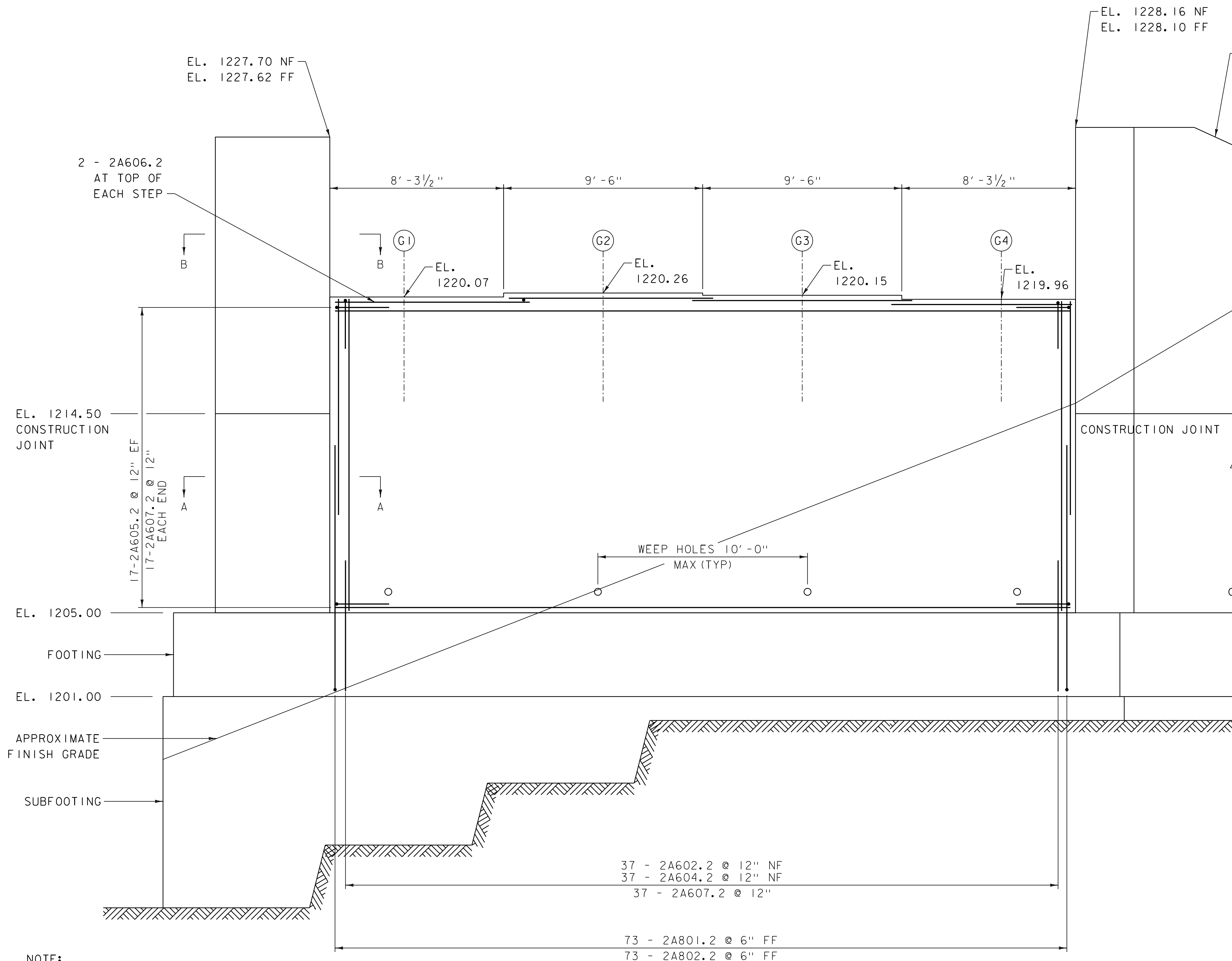


PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

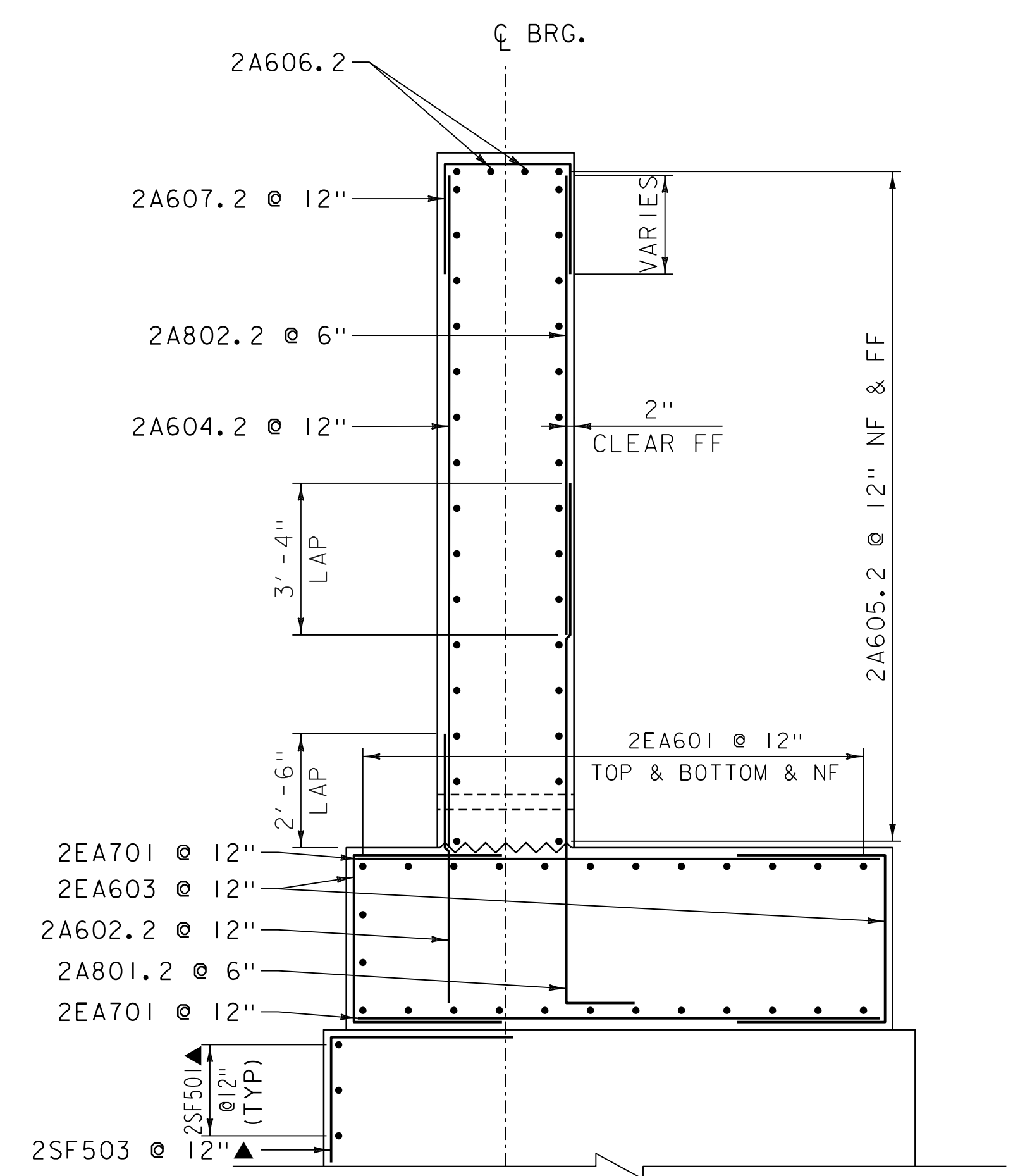
FILE NAME: z13c068abut2.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: Y. PENG  
ABUTMENT NO 2 PLAN & TYPICAL SECTION

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: S.M. HODGDON  
SHEET 118 OF 220





SEE WINGWALL SHEET FOR DETAILS



ABUTMENT NO 2  
REINFORCING TYPICAL SECTION  
SCALE 3/8" = 1'-0"

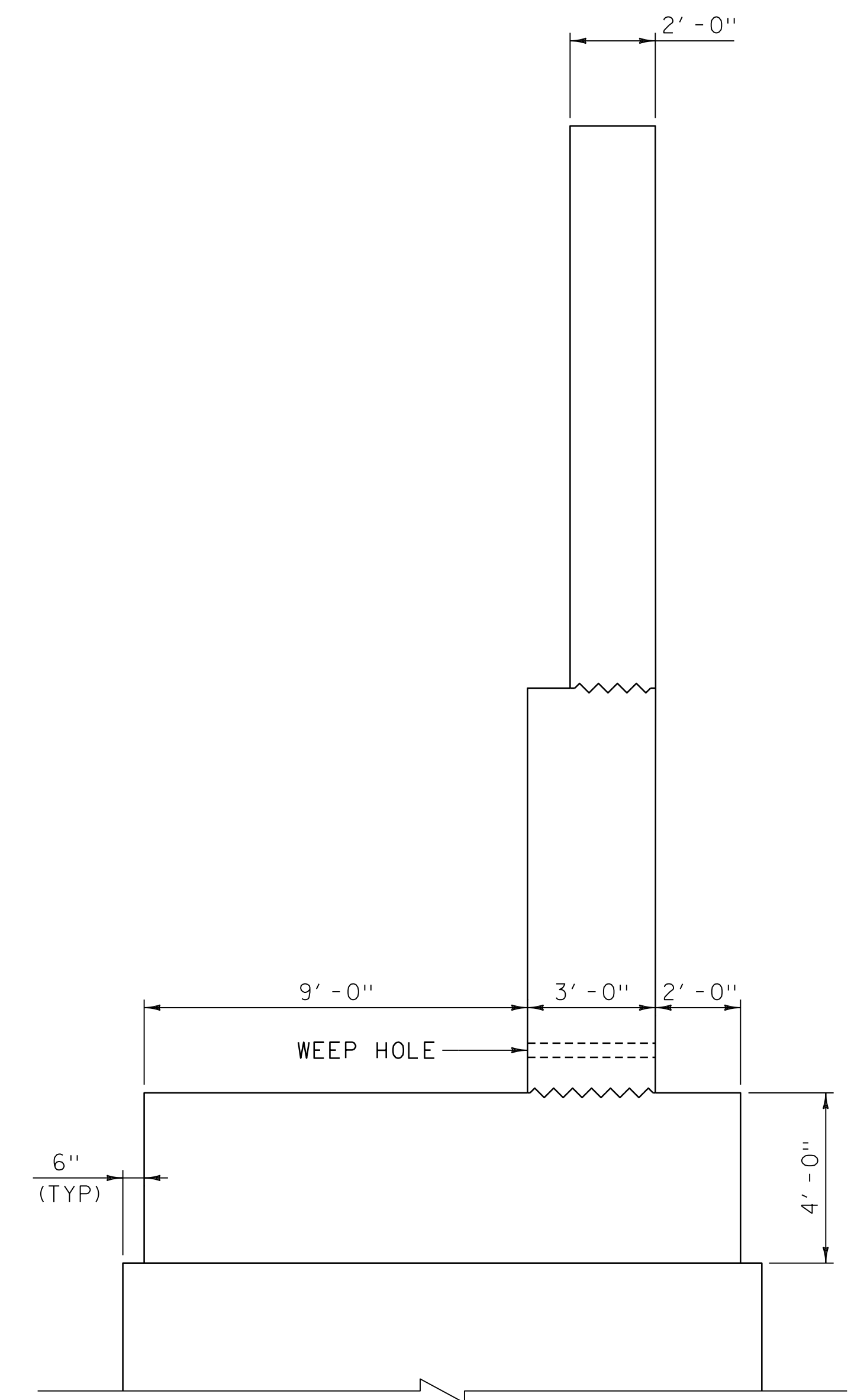
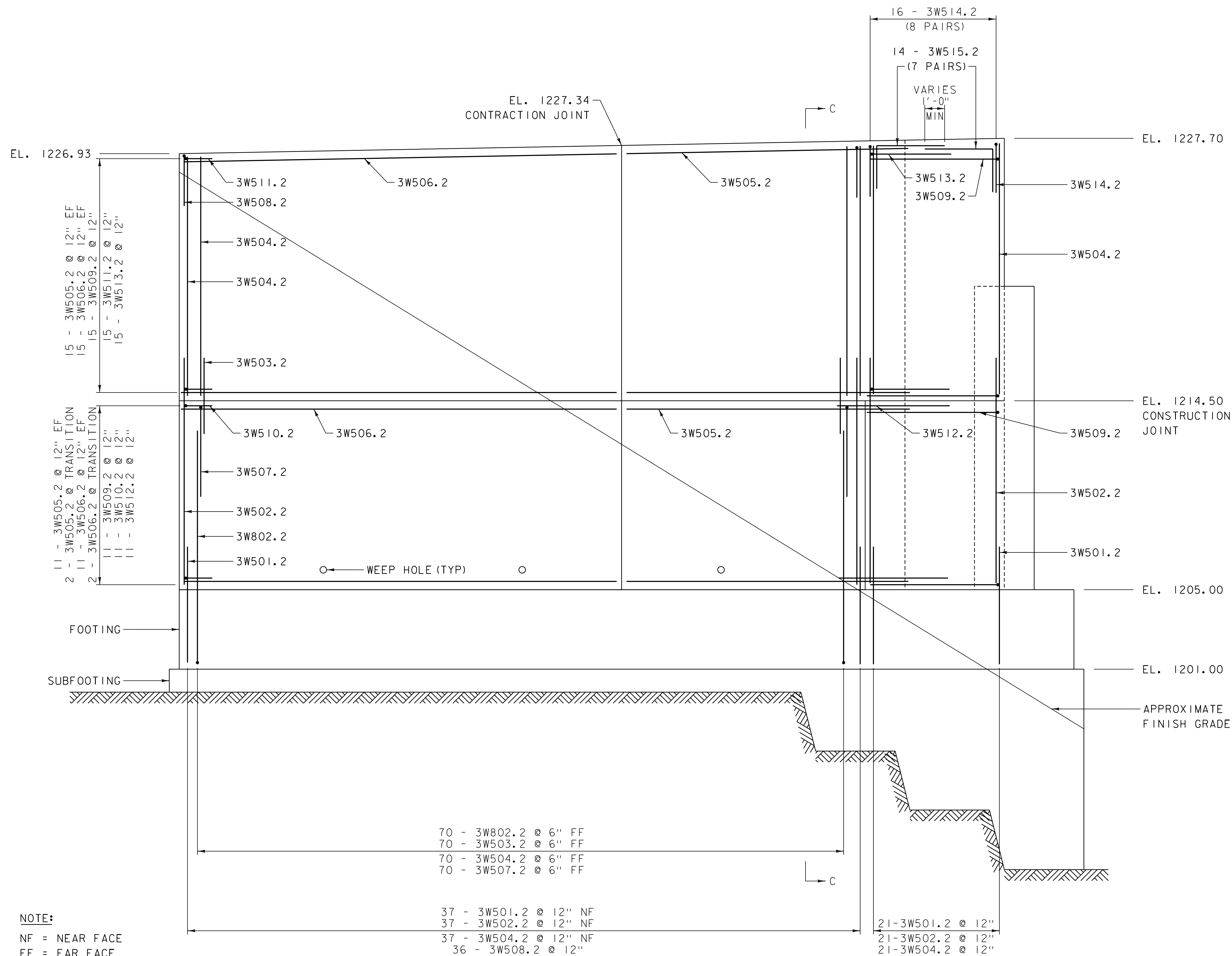
**NOTE:**  
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EF = EACH FACE  
▲ = CUT TO FIT IN FIELD  
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

ABUTMENT NO 2 REINFORCING ELEVATION  
SCALE 3/8" = 1'-0"  
(FAR FACE CORNER AND EDGE LINES NOT SHOWN FOR CLARITY)

**NOTE:**  
BEDROCK LOCATIONS SHOWN ARE APPROXIMATE AND FOR CONVEYANCE OF THE DESIGN INTENT ONLY. THE CONTRACTOR SHALL VERIFY BEDROCK LOCATIONS AND ELEVATIONS.

PROJECT NAME:	READSBORO	FILE NAME:	z13c068abut2.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	Y. PENG	CHECKED BY:	S.M. HODGDON
		ABUTMENT NO 2 REINFORCING DETAILS		SHEET	119 OF 220





WINGWALL NO 3 TYPICAL SECTION  
SCALE 3/8" = 1'-0"

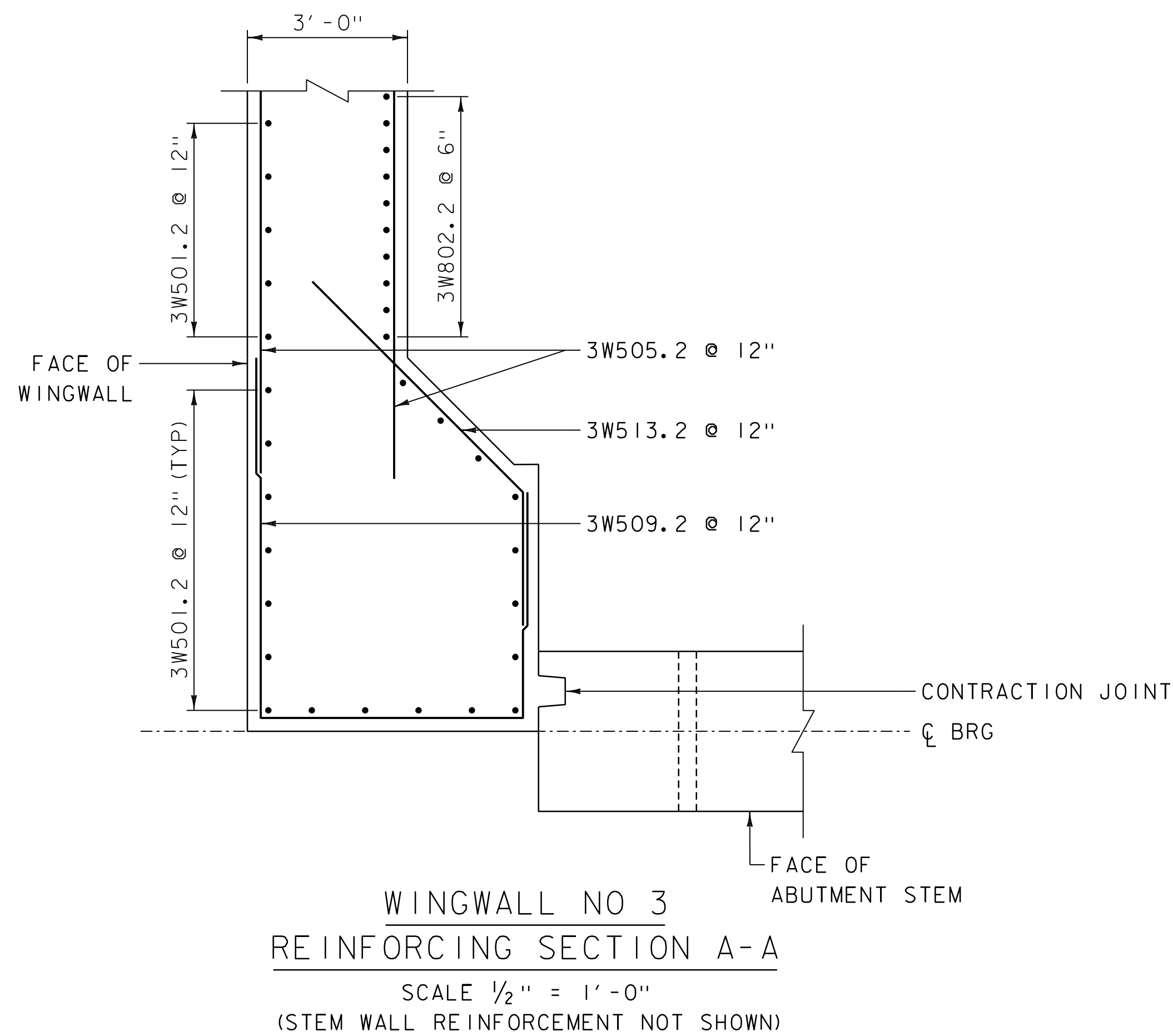
**NOTE:**  
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 FF = FAR FACE  
 EF = EACH FACE  
 ▲ = CUT TO FIT IN FIELD  
 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

WINGWALL NO 3 REINFORCING ELEVATION  
 SCALE 3/8" = 1'-0"

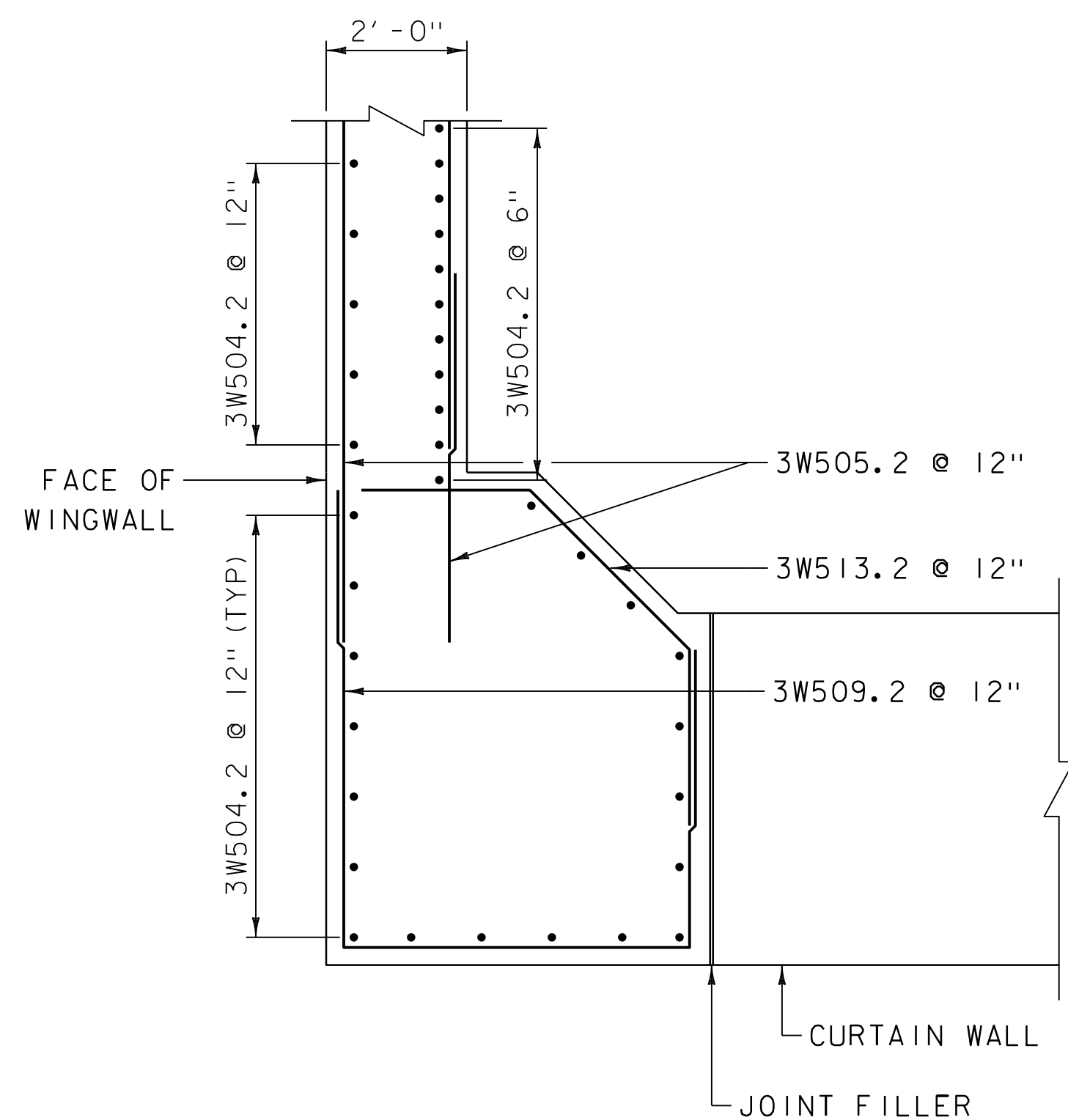
**NOTE:**  
 BEDROCK LOCATIONS SHOWN ARE APPROXIMATE AND FOR CONVEYANCE OF THE DESIGN INTENT ONLY. THE CONTRACTOR SHALL VERIFY BEDROCK LOCATIONS AND ELEVATIONS.

PROJECT NAME:	READSBORO	FILE NAME:	z13c068obut2.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	Y. PENG	CHECKED BY:	S.M. HODGDON
				WINGWALL NO 3 ELEVATION & TYP SECTION	SHEET 120 OF 220



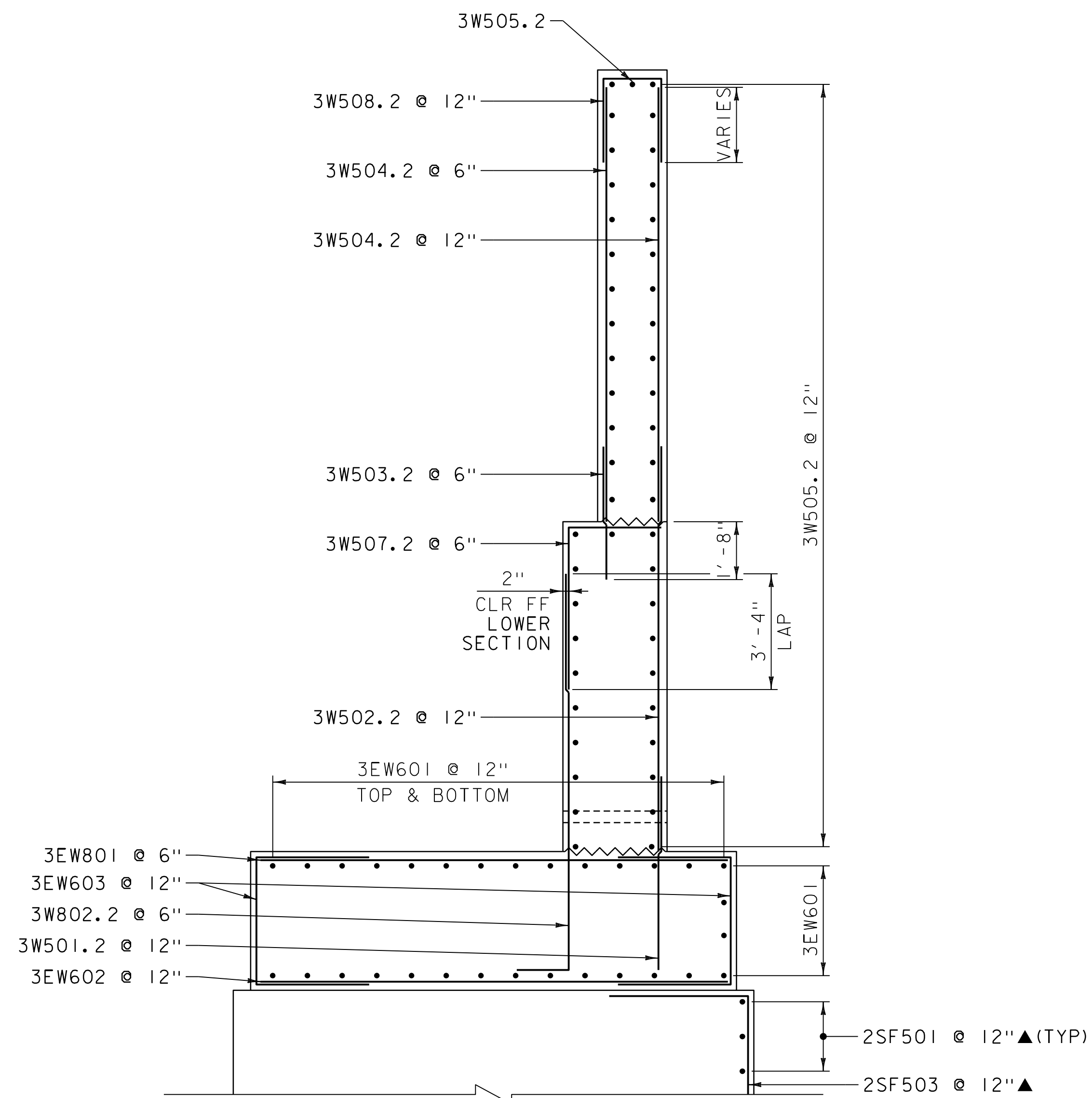


WINGWALL NO 3  
REINFORCING SECTION A-A  
SCALE 1/2" = 1'-0"  
(STEM WALL REINFORCEMENT NOT SHOWN)



WINGWALL NO 3  
REINFORCING SECTION B-B  
SCALE 1/2" = 1'-0"  
(CURTAIN WALL REINFORCEMENT NOT SHOWN)

**NOTE:**  
 NF = NEAR FACE  
 FF = FAR FACE  
 EF = EACH FACE  
 ▲ = CUT TO FIT IN FIELD  
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 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.



WINGWALL NO 3 REINFORCING SECTION C-C  
SCALE 3/8" = 1'-0"  
(SUBFOOTING REINFORCING NOT SHOWN)

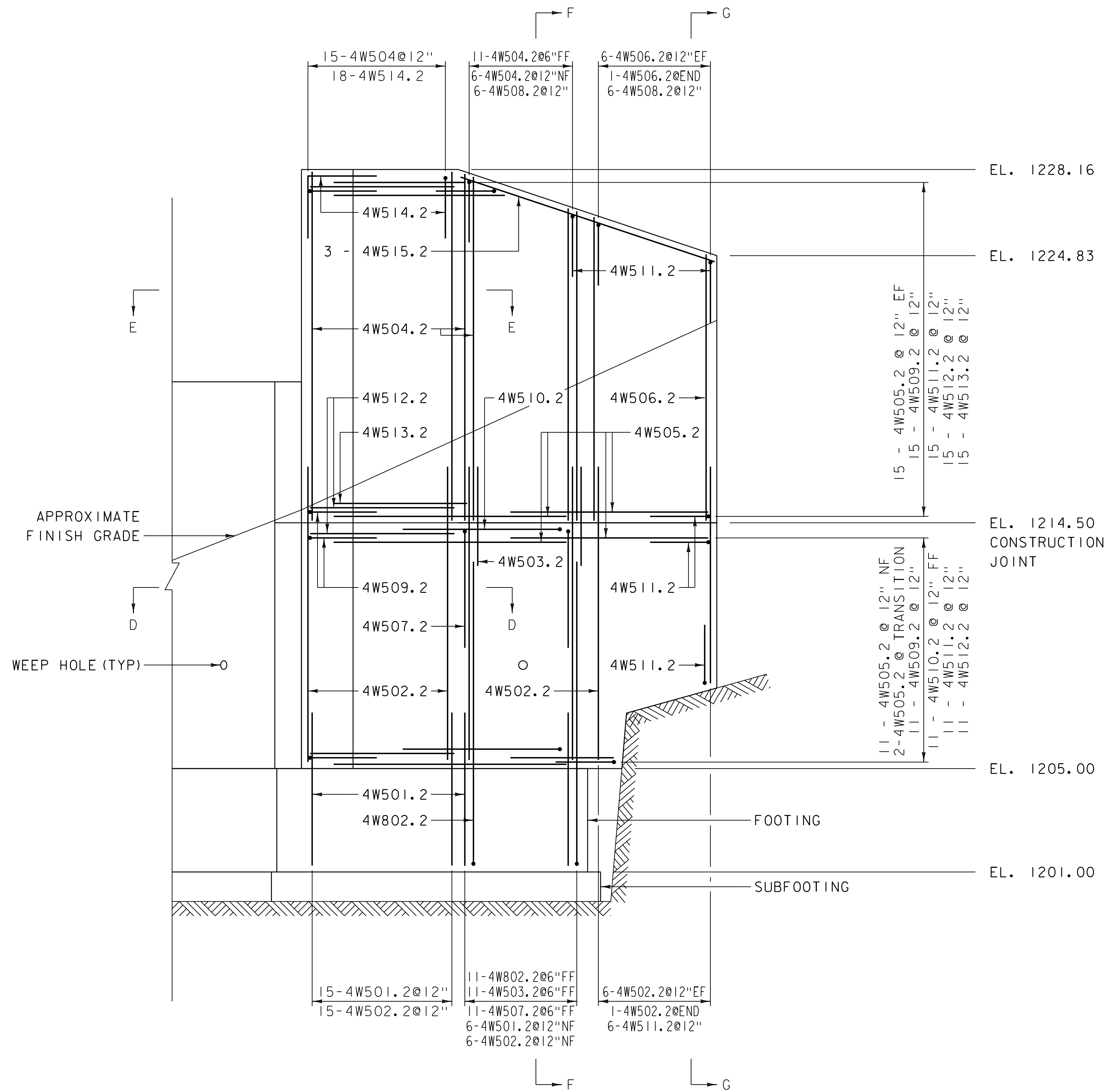
**NOTE:**  
 BEDROCK LOCATIONS SHOWN ARE APPROXIMATE AND FOR CONVEYANCE OF THE DESIGN INTENT ONLY. THE CONTRACTOR SHALL VERIFY BEDROCK LOCATIONS AND ELEVATIONS.

PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068abut2.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: Y. PENG  
 WINGWALL NO 3 REINFORCING DETAILS

PLOT DATE: 12-APR-2024  
 DRAWN BY: W.A. FRETWELL  
 CHECKED BY: S.M. HODGDON  
 SHEET 121 OF 220



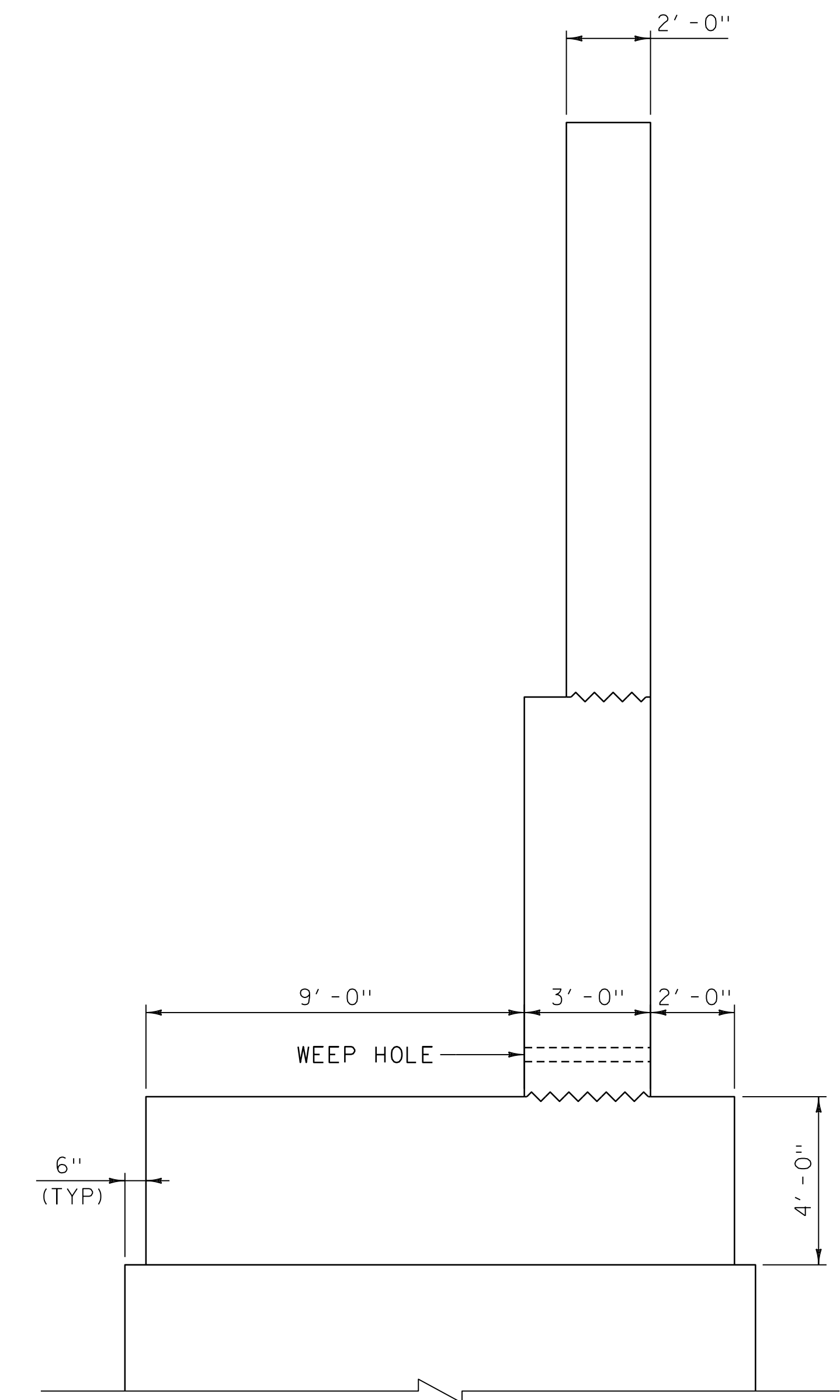


WINGWALL NO 4 REINFORCING ELEVATION

SCALE  $\frac{3}{8}$ " = 1'-0"  
 (FAR FACE CORNER AND EDGE LINES  
 NOT SHOWN FOR CLARITY)

**NOTE:**  
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 FF = FAR FACE  
 EF = EACH FACE  
 ▲ = CUT TO FIT IN FIELD  
 3" CLEAR, UNLESS OTHERWISE  
 SPECIFIED ON THE PLANS.  
 2'-2" BAR LAP UNLESS OTHERWISE  
 SPECIFIED IN THE PLANS.

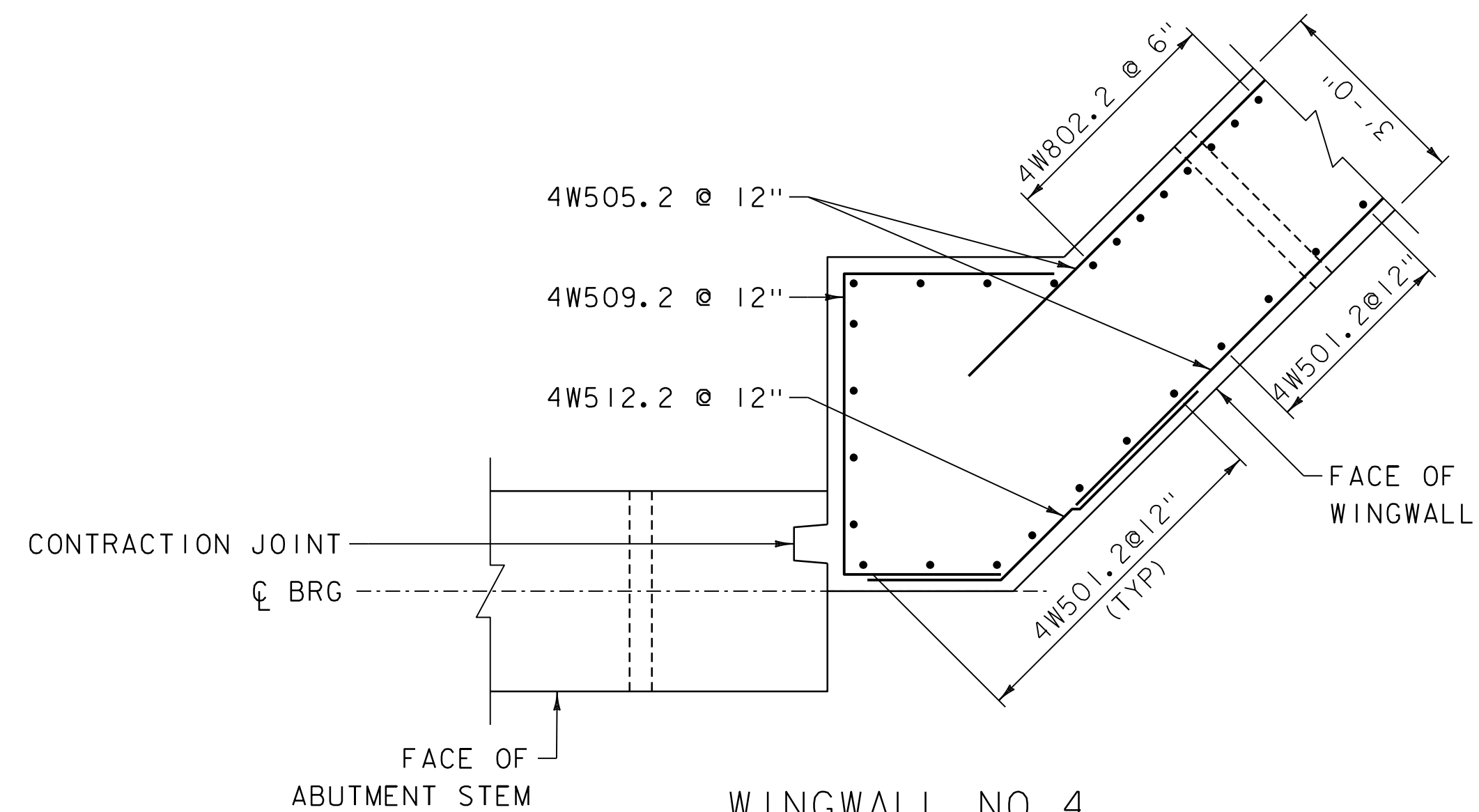
**NOTE:**  
 BEDROCK LOCATIONS SHOWN ARE APPROXIMATE AND FOR  
 CONVEYANCE OF THE DESIGN INTENT ONLY. THE  
 CONTRACTOR SHALL VERIFY BEDROCK LOCATIONS AND  
 ELEVATIONS.



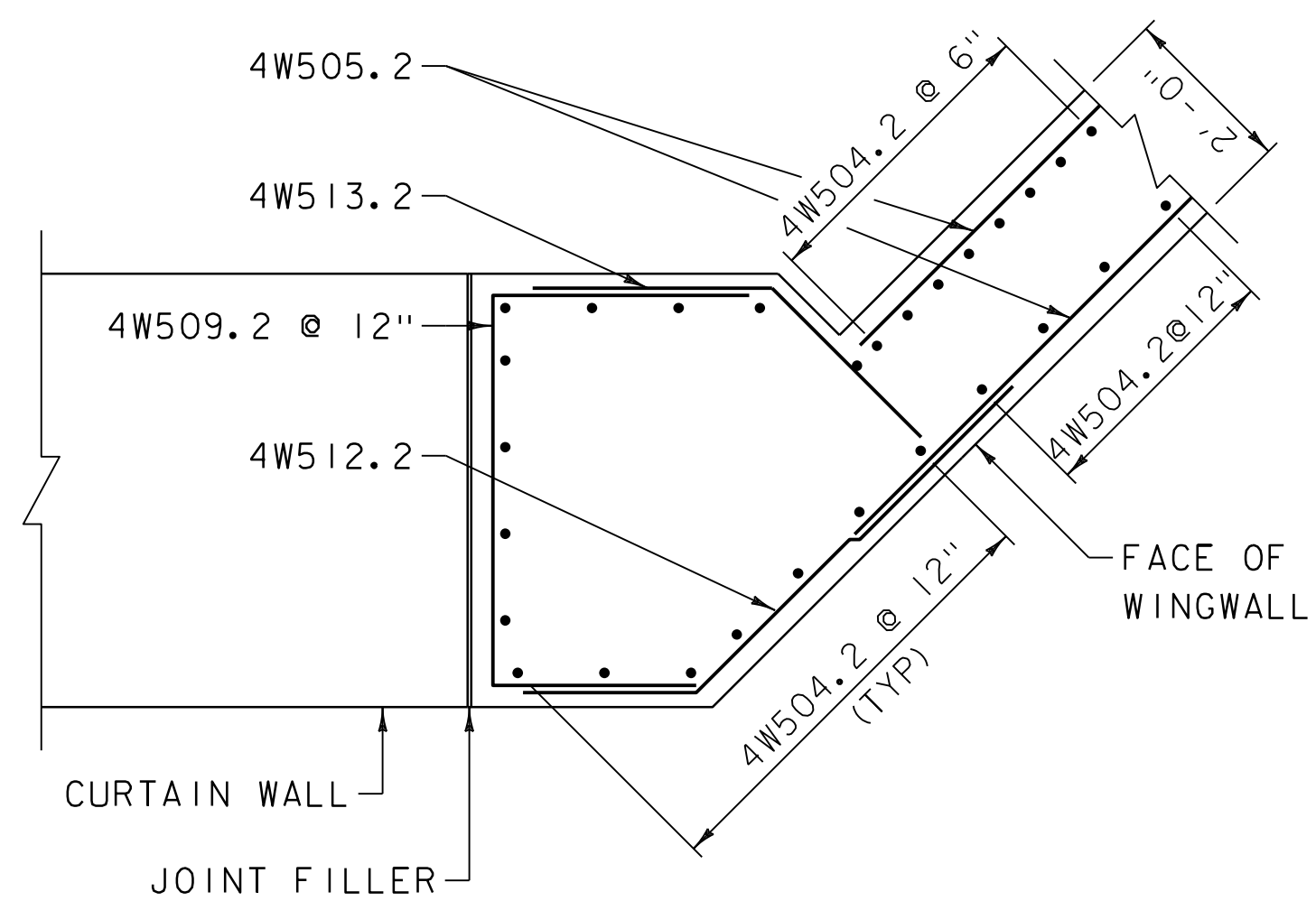
WINGWALL NO 4 TYPICAL SECTION  
 SCALE  $\frac{3}{8}$ " = 1'-0"



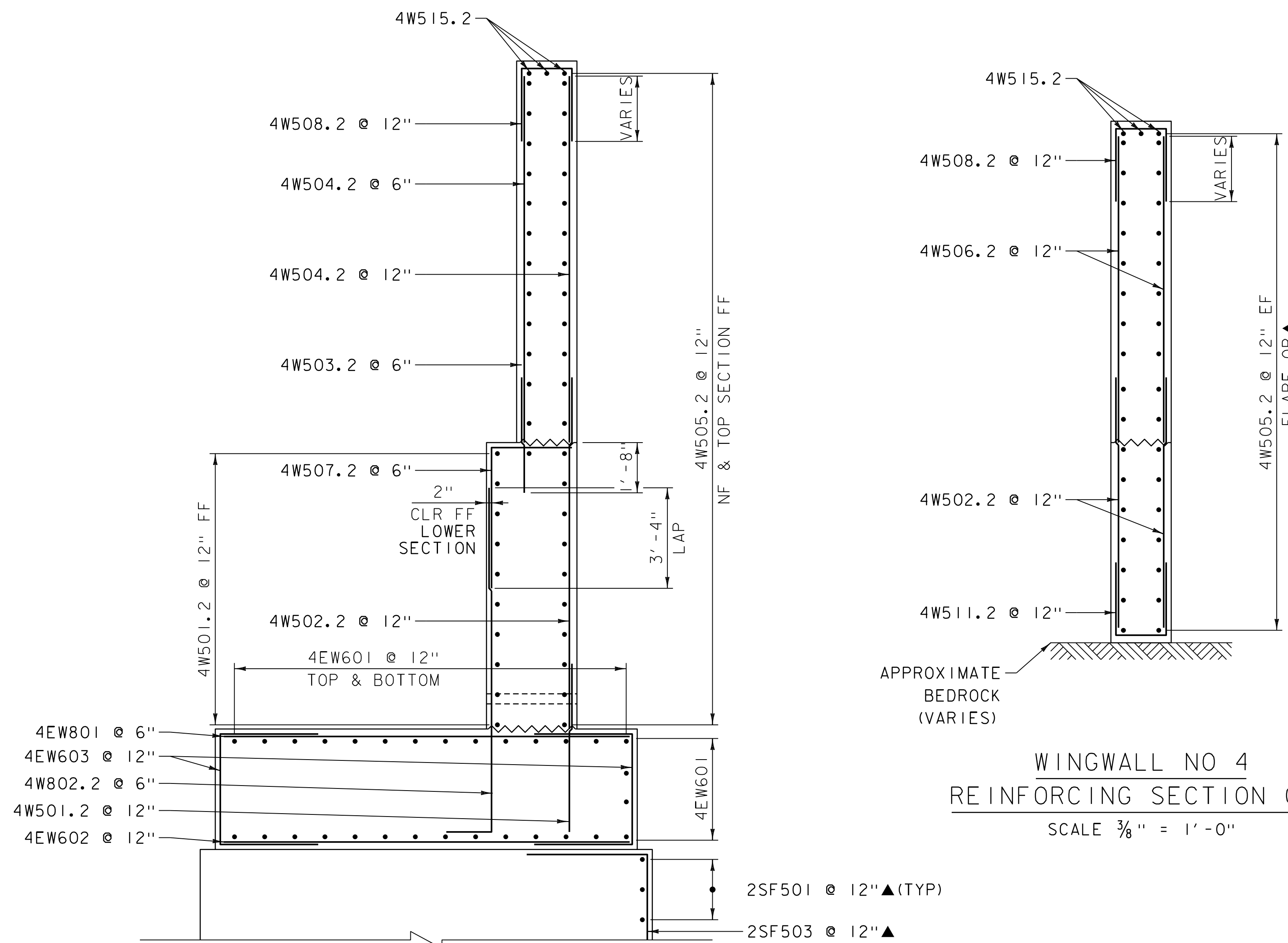
PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: W.A. FRETWELL
FILE NAME: z13c068abut2.dgn	CHECKED BY: S.M. HODGDON
PROJECT LEADER: S.E. BURBANK	SHEET 122 OF 220
DESIGNED BY: Y. PENG	
WINGWALL NO 4 ELEVATION & TYP SECTION	



WINGWALL NO 4  
REINFORCING SECTION D-D  
SCALE 1/2" = 1'-0"  
(STEM WALL REINFORCMENT NOT SHOWN)



WINGWALL NO 4  
REINFORCING SECTION E-E  
SCALE 1/2" = 1'-0"  
(CURTAIN WALL REINFORCMENT NOT SHOWN)



WINGWALL NO 4 REINFORCING SECTION F-F  
SCALE 3/8" = 1'-0"  
(SUBFOOTING REINFORCING NOT SHOWN)

WINGWALL NO 4  
REINFORCING SECTION G-G  
SCALE 3/8" = 1'-0"

**NOTE:**

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- 2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

**NOTE:**

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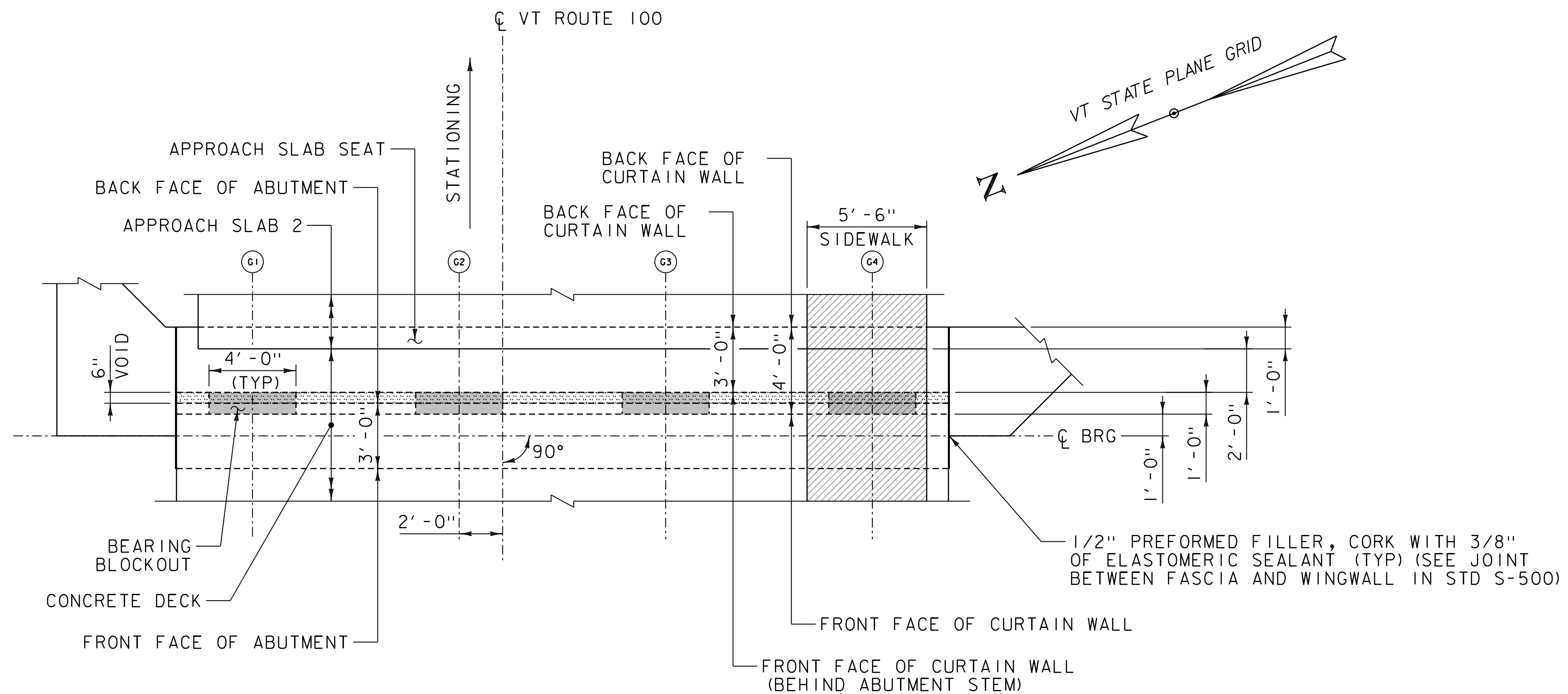
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068abut2.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: Y. PENG  
WINGWALL NO 4 REINFORCING DETAILS

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: S.M. HODGDON  
SHEET 123 OF 220

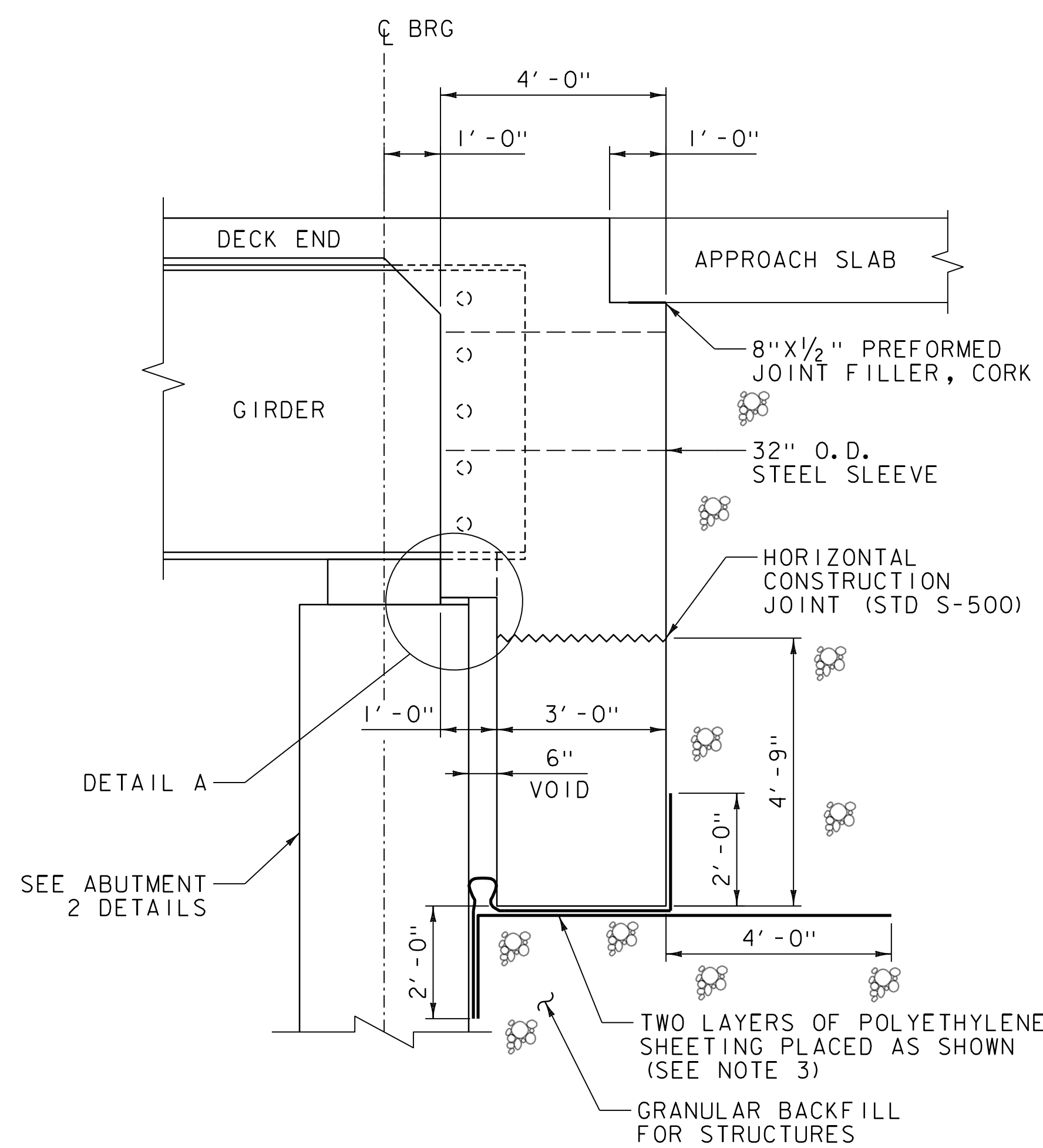






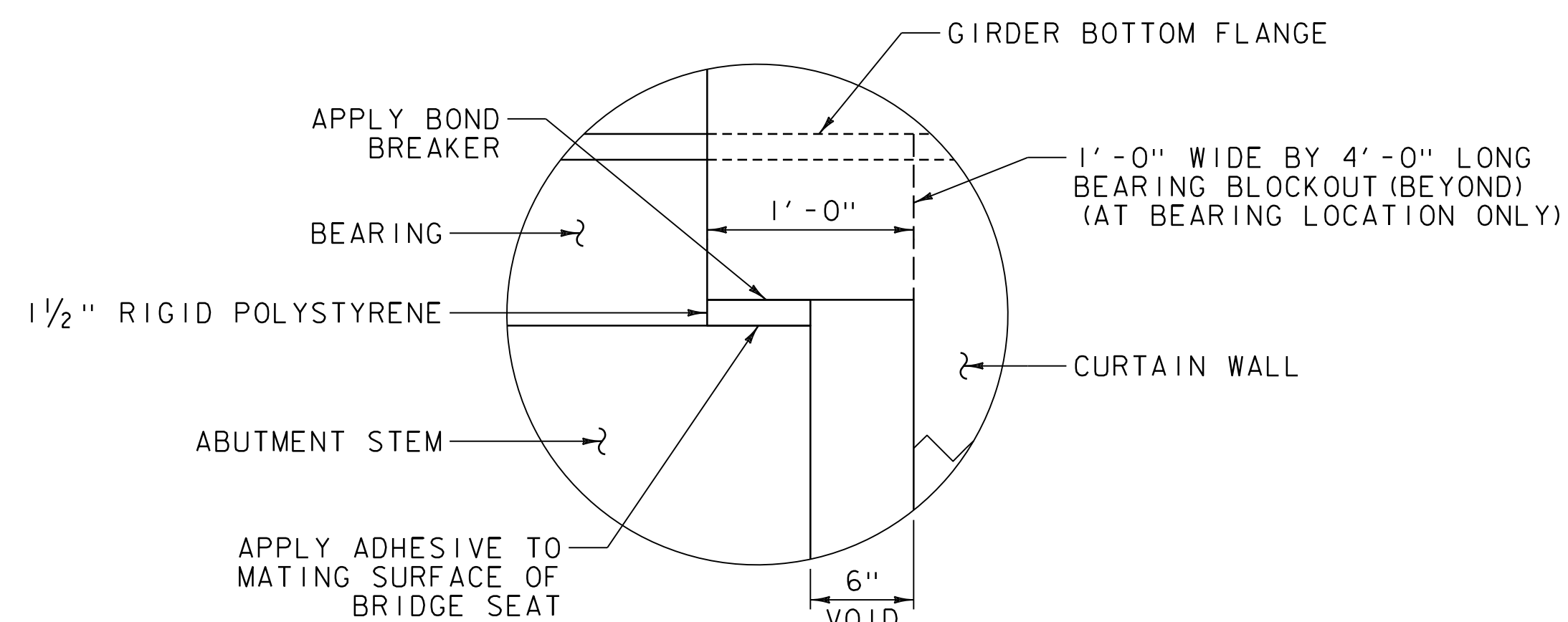
**CURTAIN WALL PLAN**

SCALE 1/4" = 1'-0"



**CURTAIN WALL TYP SECTION**

SCALE 1/2" = 1'-0"



**DETAIL A**

SCALE 1 1/2" = 1'-0"

**NOTES:**

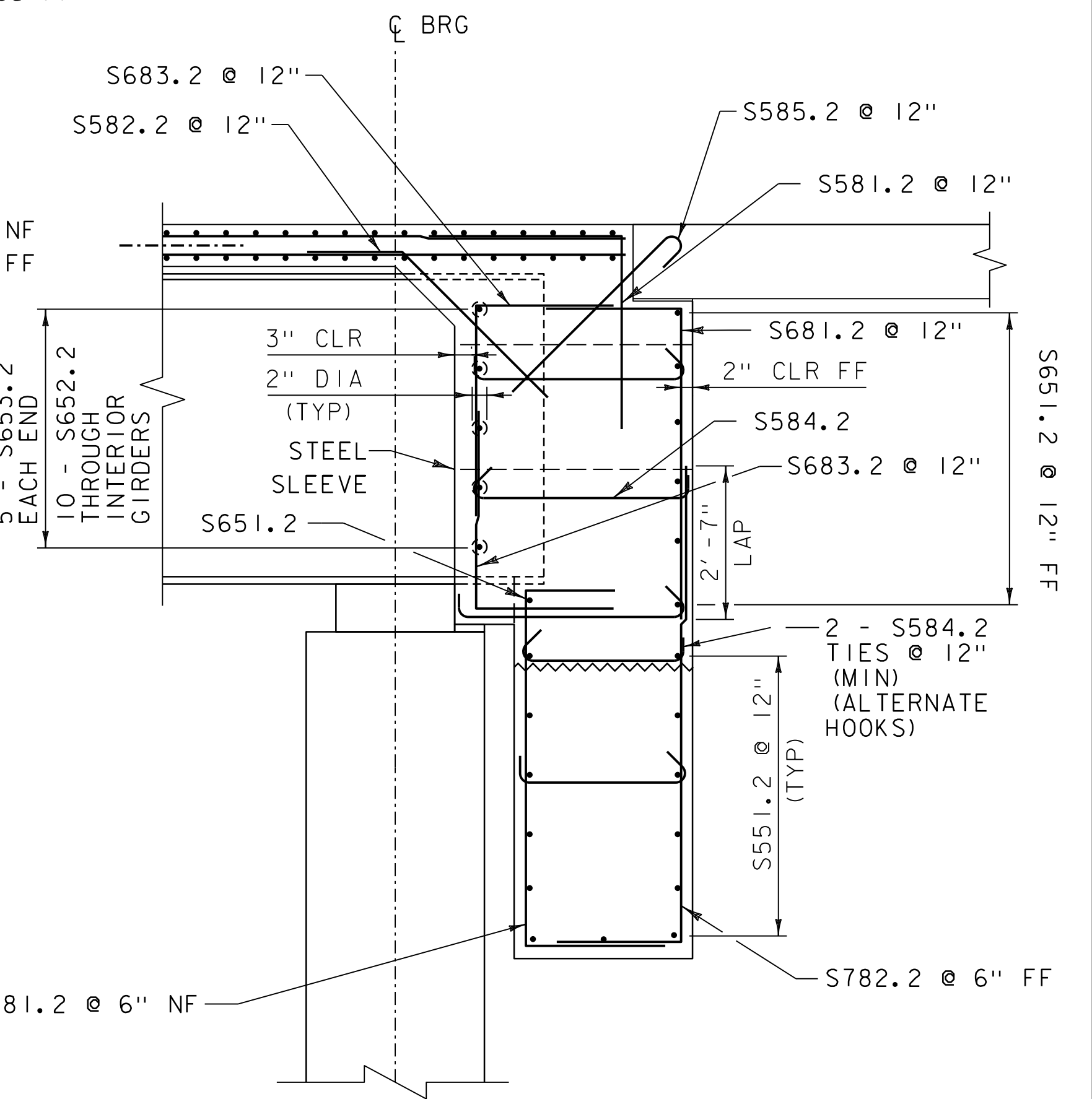
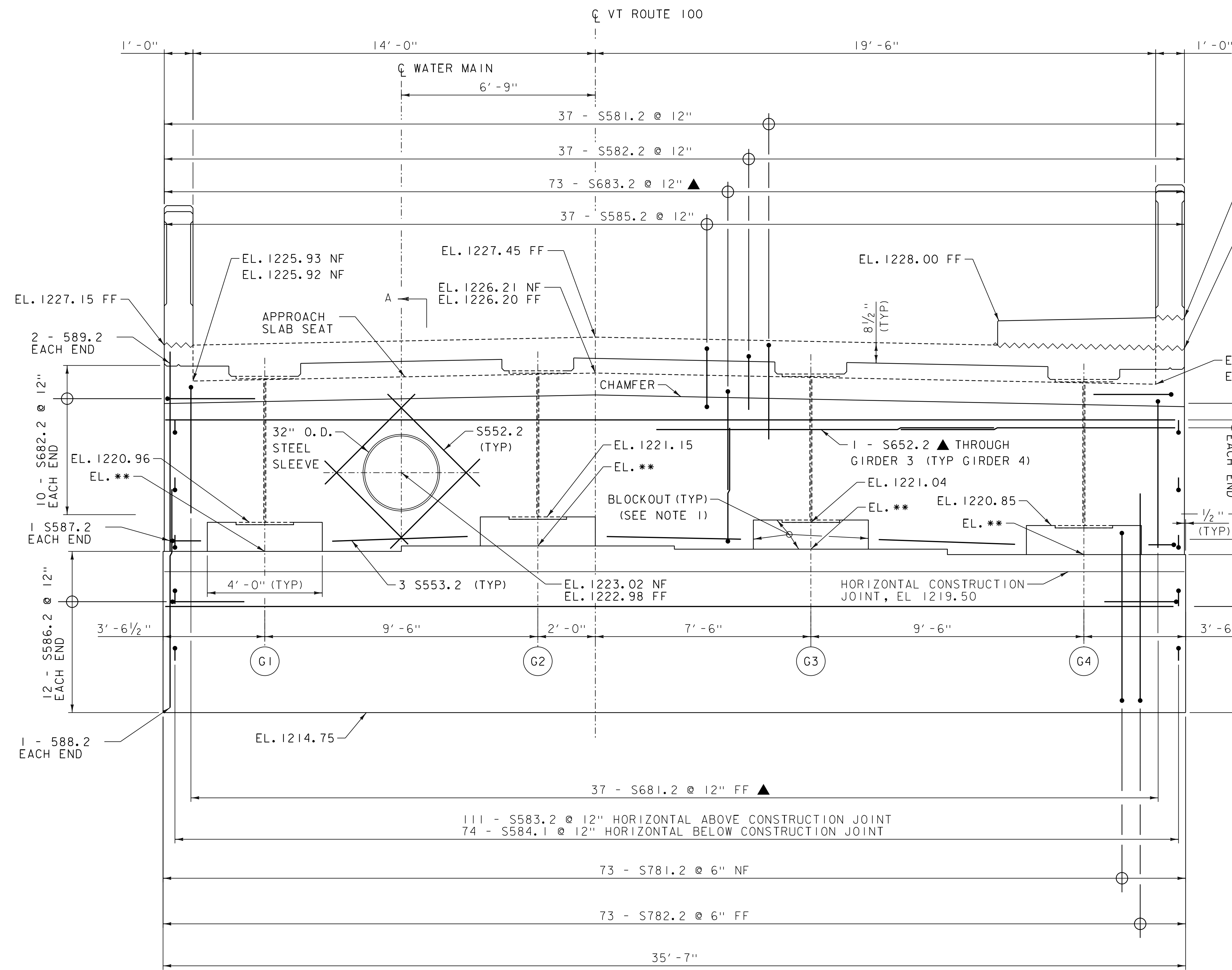
1. POLYETHYLENE SHEETING, 1 1/2" RIGID POLYSTYRENE, BOND BREAKER, AND ADHESIVE SHALL BE CONSIDERED INCIDENTAL TO ITEM 501.3700, "PERFORMANCE-BASED CONCRETE, CLASS PCD".
2. POLYETHYLENE SHEETING SHALL MEET THE REQUIREMENTS OF SUBSECTION 725.01 (C).
3. THE CONTRACTOR SHALL PLACE THE TOP LAYER OF POLYURETHANE SHEETING SUCH THAT THERE IS AT LEAST 4" OF SLACK IN THE SHEETING FOLD BETWEEN THE ABUTMENT STEM AND CURTAIN WALL.

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068supl.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: Y. PENG  
CURTAIN WALL PLAN & SECTION

PLOT DATE: 4/15/2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.M. HODGDON  
SHEET 124 OF 220





REINFORCING SECTION A-A  
SCALE 1/2" = 1'-0"

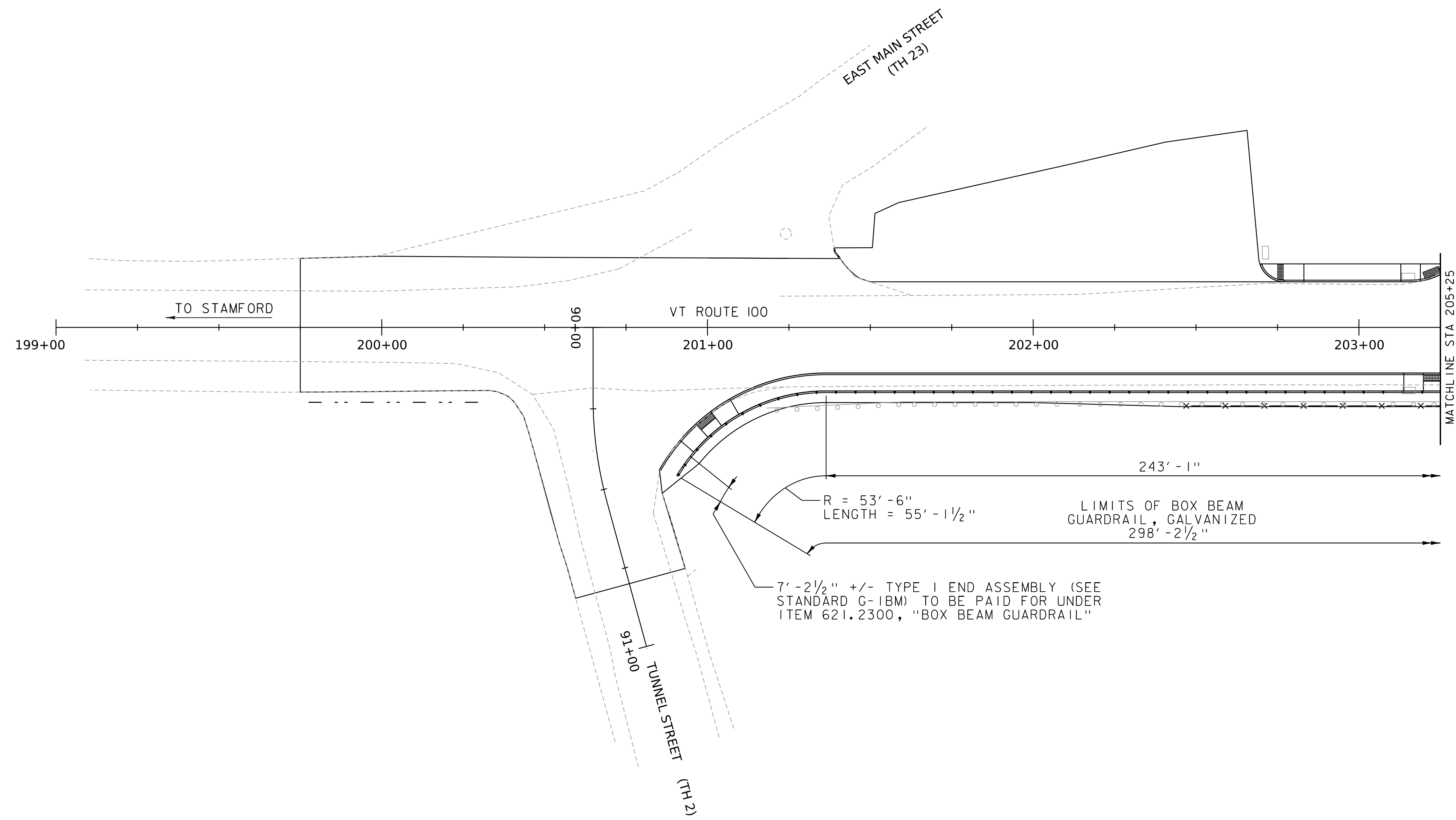
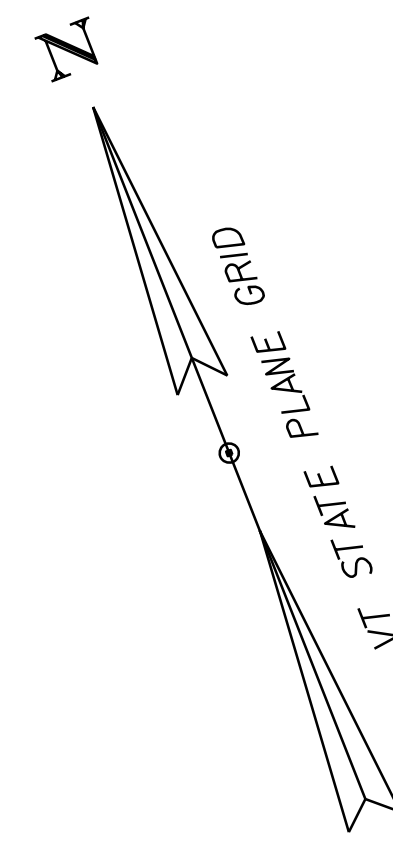
- NOTES:
1. PROVIDE BLOCKOUTS IN THE CURTAIN WALL AT BEARING LOCATION. BLOCKOUTS SHALL BE 1'-0" WIDE BY 4'-0" LONG. 4'-0" DIMENSION SHALL BE CENTERED ON THE BEARING. HEIGHT OF BLOCKOUTS SHALL DEPEND ON FINAL BEARING CONFIGURATION, THE TOP OF BLOCKOUT SHALL BE AT THE TOP OF THE BOTTOM FLANGE.
  2. SEE ABUTMENT NO. 2 REINFORCING AND ELEVATION SHEET AND BEARING DETAILS SHEET FOR SEAT ELEVATIONS AND ANY REQUIRED ADJUSTMENTS FOR ACTUAL BEARING HEIGHTS.

NOTE:  
NF = NEAR FACE  
FF = FAR FACE  
EF = EACH FACE  
▲ = CUT TO FIT IN FIELD  
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED IN THE PLANS.

ABUTMENT NO 2 CURTAIN WALL  
REINFORCING ELEVATION  
(DECK, SIDEWALK, AND RAILING REINFORCEMENT NOT SHOWN FOR CLARITY)  
SCALE 1/2" = 1'-0"  
** SEE NOTE 2



PROJECT NAME:	READSBORO	FILE NAME:	z13c068supl.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	M.F. NEMETH
		DESIGNED BY:	Y. PENG	CHECKED BY:	S.M. HODGDON
		CURTAIN WALL REINFORCING DETAILS		SHEET	125 OF 220

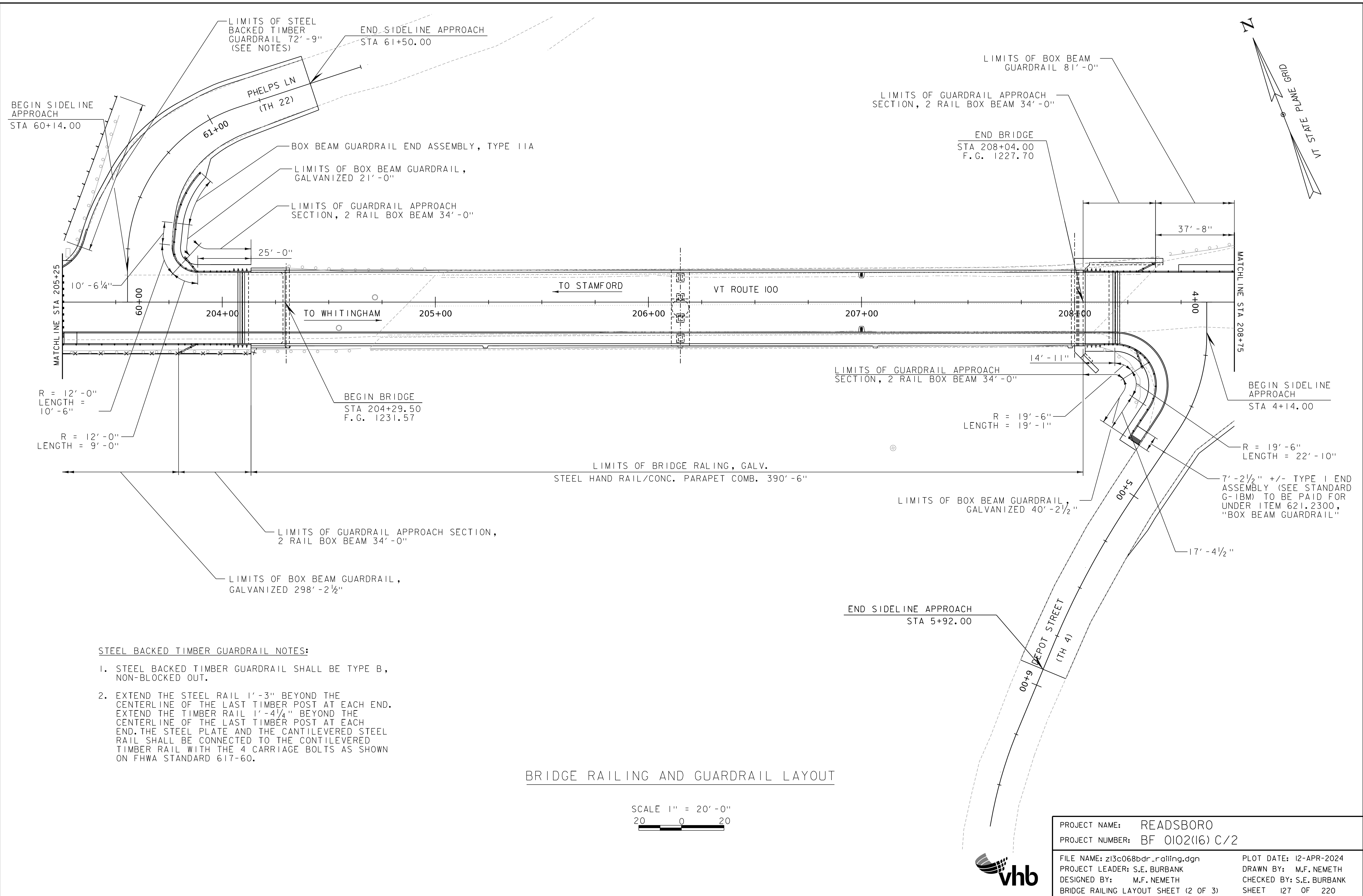


BRIDGE RAILING AND GUARDRAIL LAYOUT

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



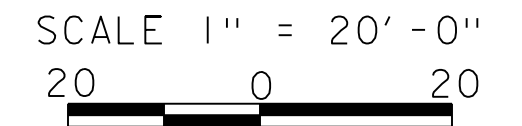
PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068bdr_railing.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	SHEET 126 OF 220
DESIGNED BY: M.F. NEMETH	
BRIDGE RAILING LAYOUT SHEET (1 OF 3)	



**STEEL BACKED TIMBER GUARDRAIL NOTES:**

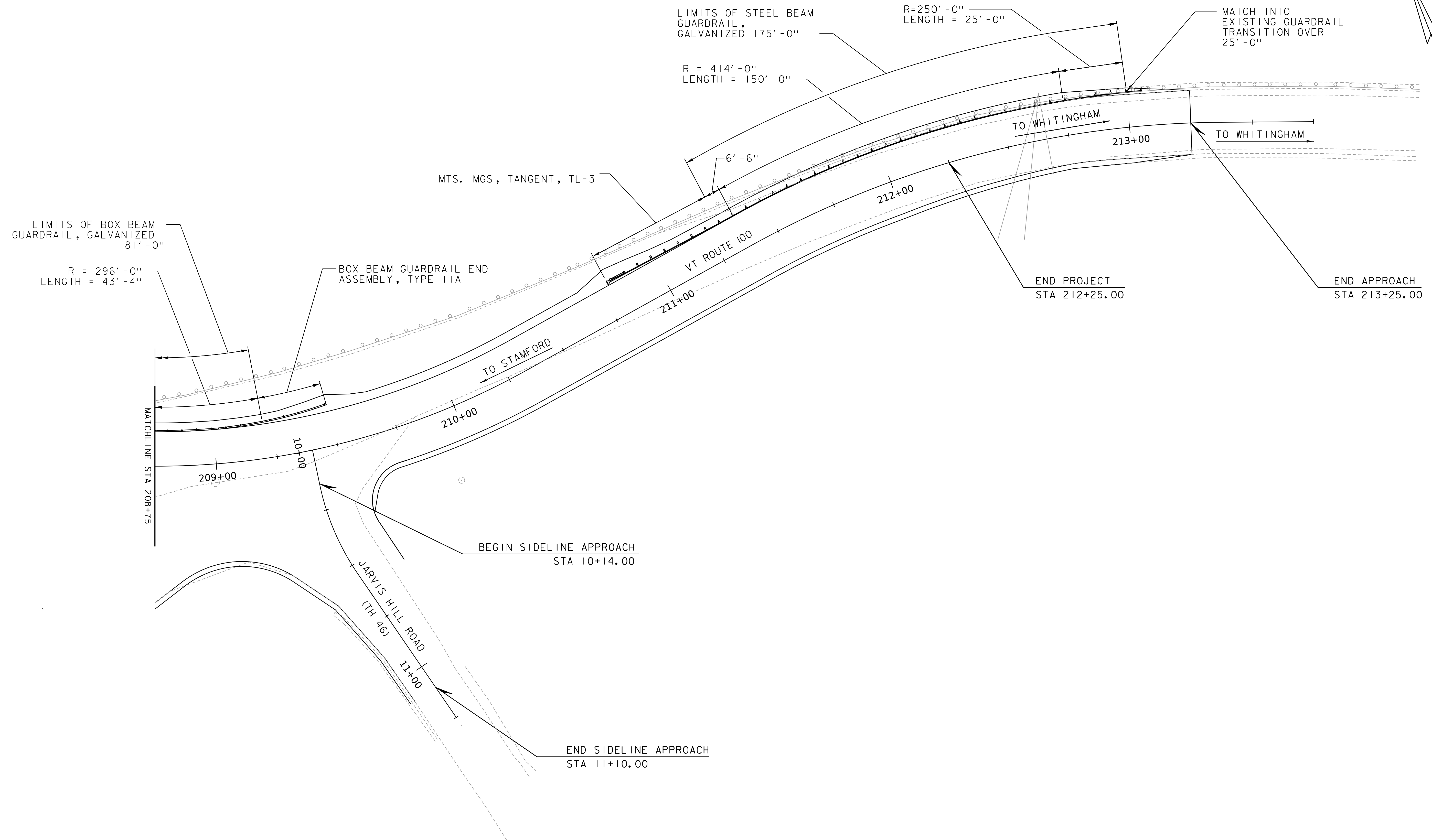
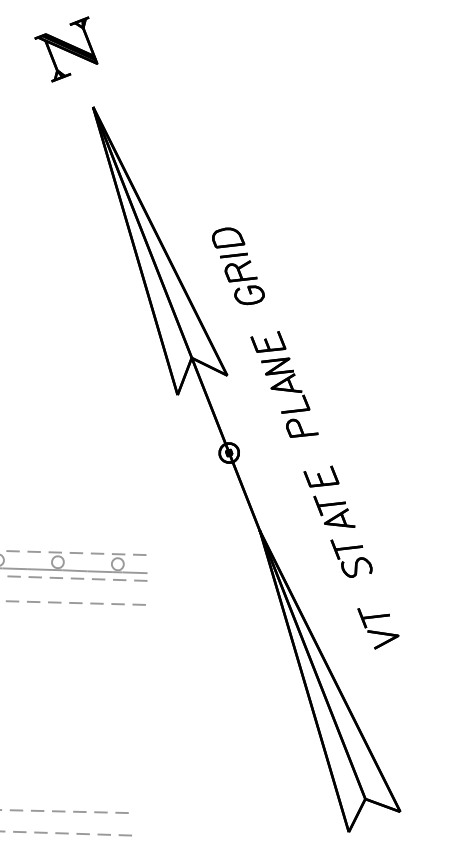
1. STEEL BACKED TIMBER GUARDRAIL SHALL BE TYPE B, NON-BLOCKED OUT.
2. EXTEND THE STEEL RAIL 1'-3" BEYOND THE CENTERLINE OF THE LAST TIMBER POST AT EACH END. EXTEND THE TIMBER RAIL 1'-4 1/4" BEYOND THE CENTERLINE OF THE LAST TIMBER POST AT EACH END. THE STEEL PLATE AND THE CANTILEVERED STEEL RAIL SHALL BE CONNECTED TO THE CANTILEVERED TIMBER RAIL WITH THE 4 CARRIAGE BOLTS AS SHOWN ON FHWA STANDARD 617-60.

**BRIDGE RAILING AND GUARDRAIL LAYOUT**



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068bdr_railing.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: M.F. NEMETH
DESIGNED BY: M.F. NEMETH	CHECKED BY: S.E. BURBANK
BRIDGE RAILING LAYOUT SHEET (2 OF 3)	SHEET 127 OF 220





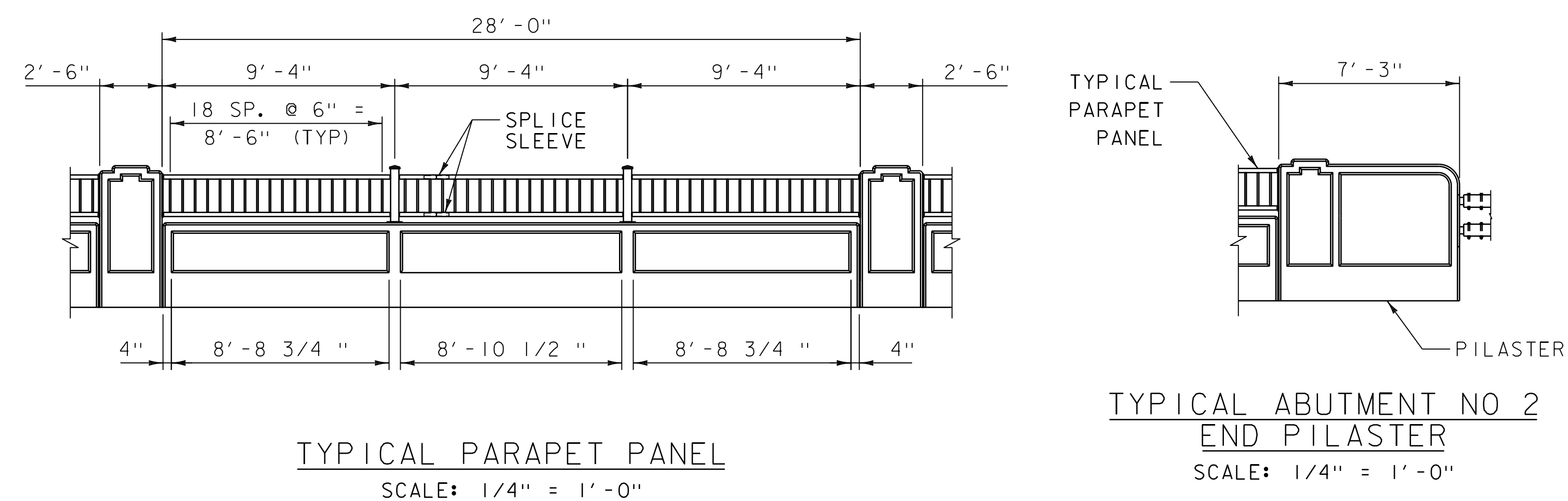
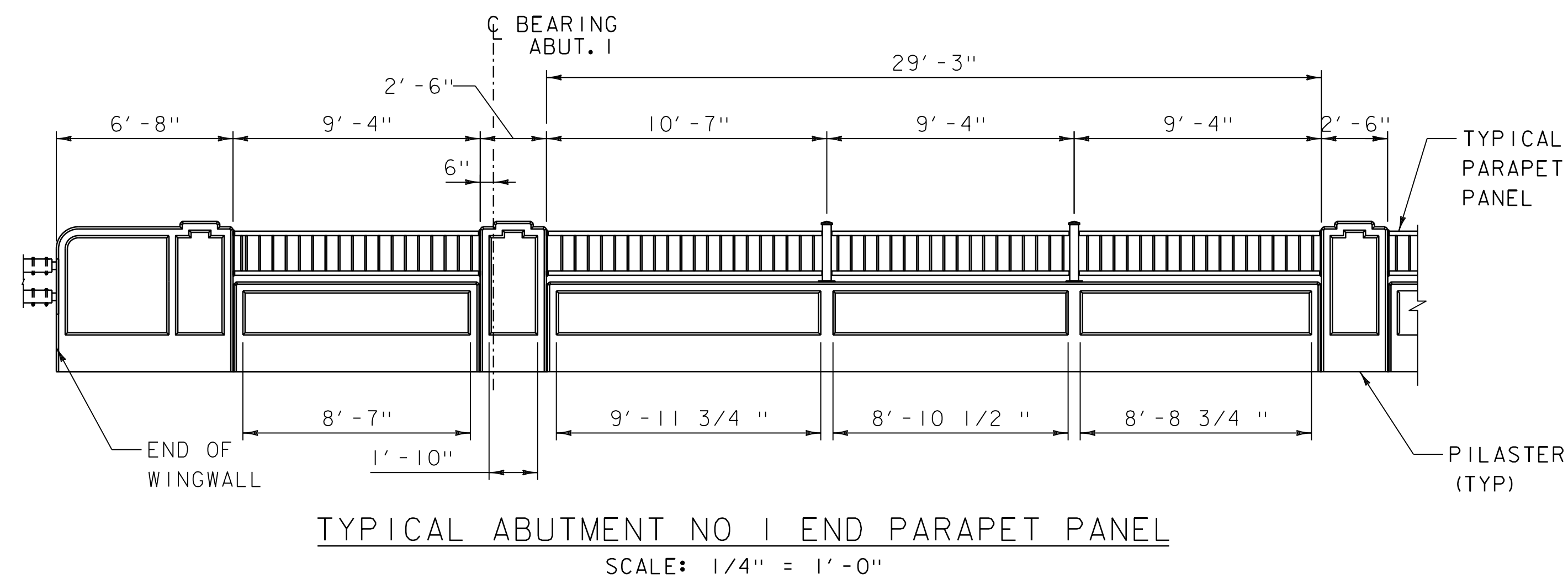
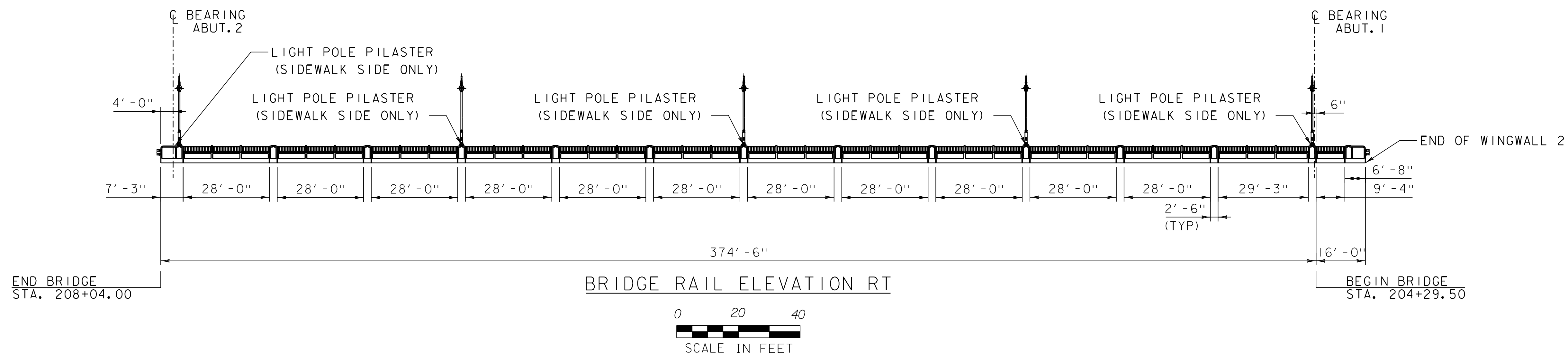
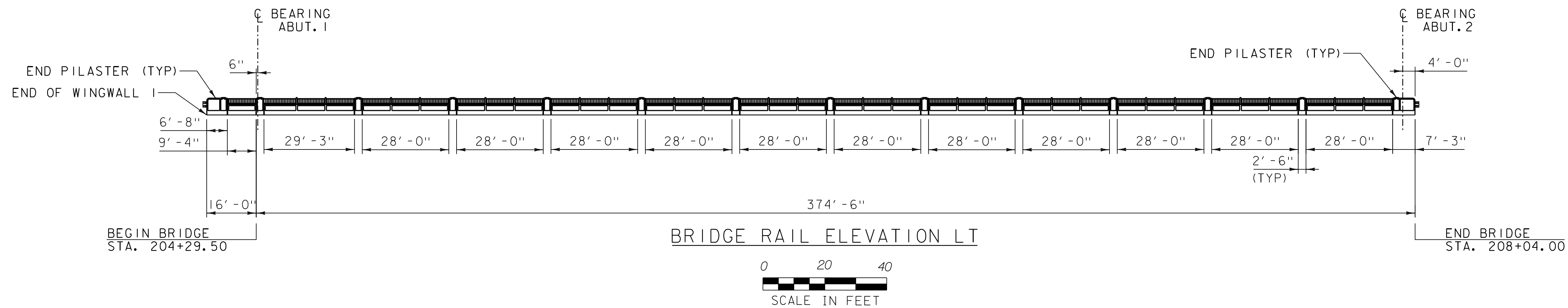
BRIDGE RAILING AND GUARDRAIL LAYOUT

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



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068bdr_railing.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: M.F. NEMETH
DESIGNED BY: M.F. NEMETH	CHECKED BY: S.E. BURBANK
BRIDGE RAILING LAYOUT SHEET (3 OF 3)	SHEET 128 OF 220



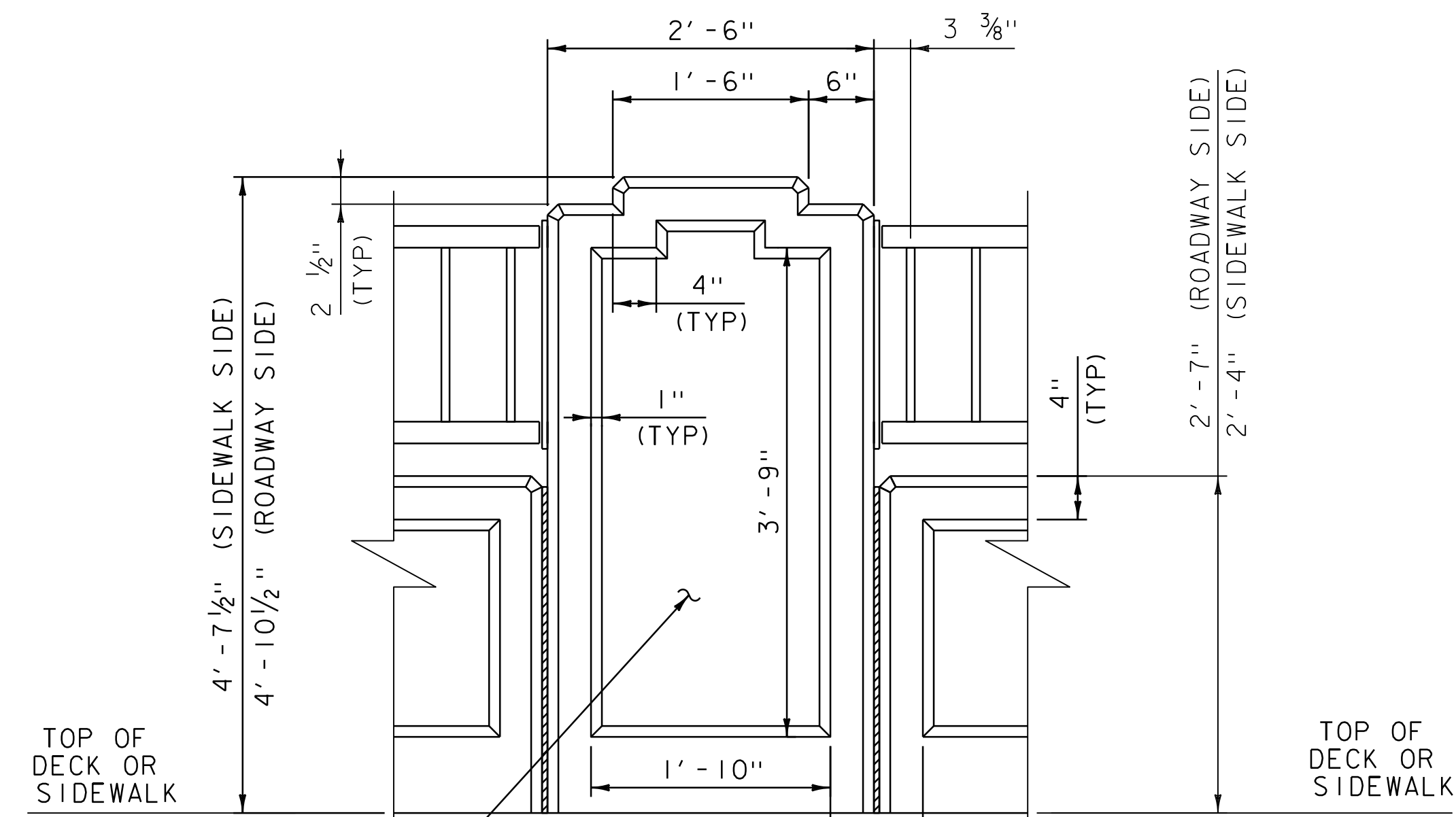


PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068ra1ldet.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: S.E. BURBANK  
 BRIDGE RAIL DETAILS (1 OF 5)

PLOT DATE: 14-APR-2024  
 DRAWN BY: M.F. NEMETH  
 CHECKED BY: N.A. TRUSLOW  
 SHEET 129 OF 220

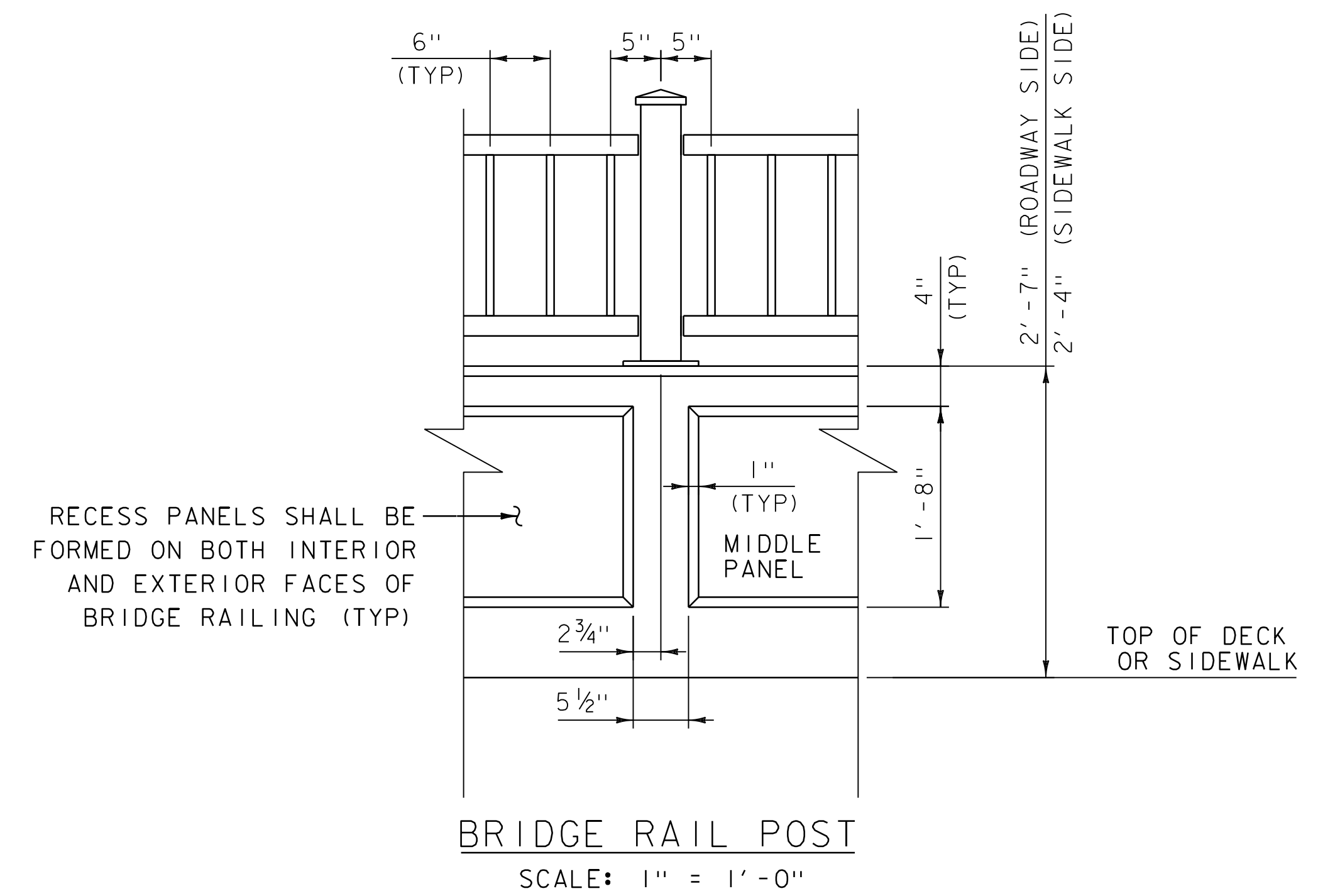




RECESS PANELS SHALL BE FORMED ON BOTH INTERIOR AND EXTERIOR FACES OF BRIDGE RAILING (TYP)

1/2" PREFORMED CORK JOINT FILLER AND POLYURETHANE SEALANT (TYP BOTH SIDES AND TOP) **

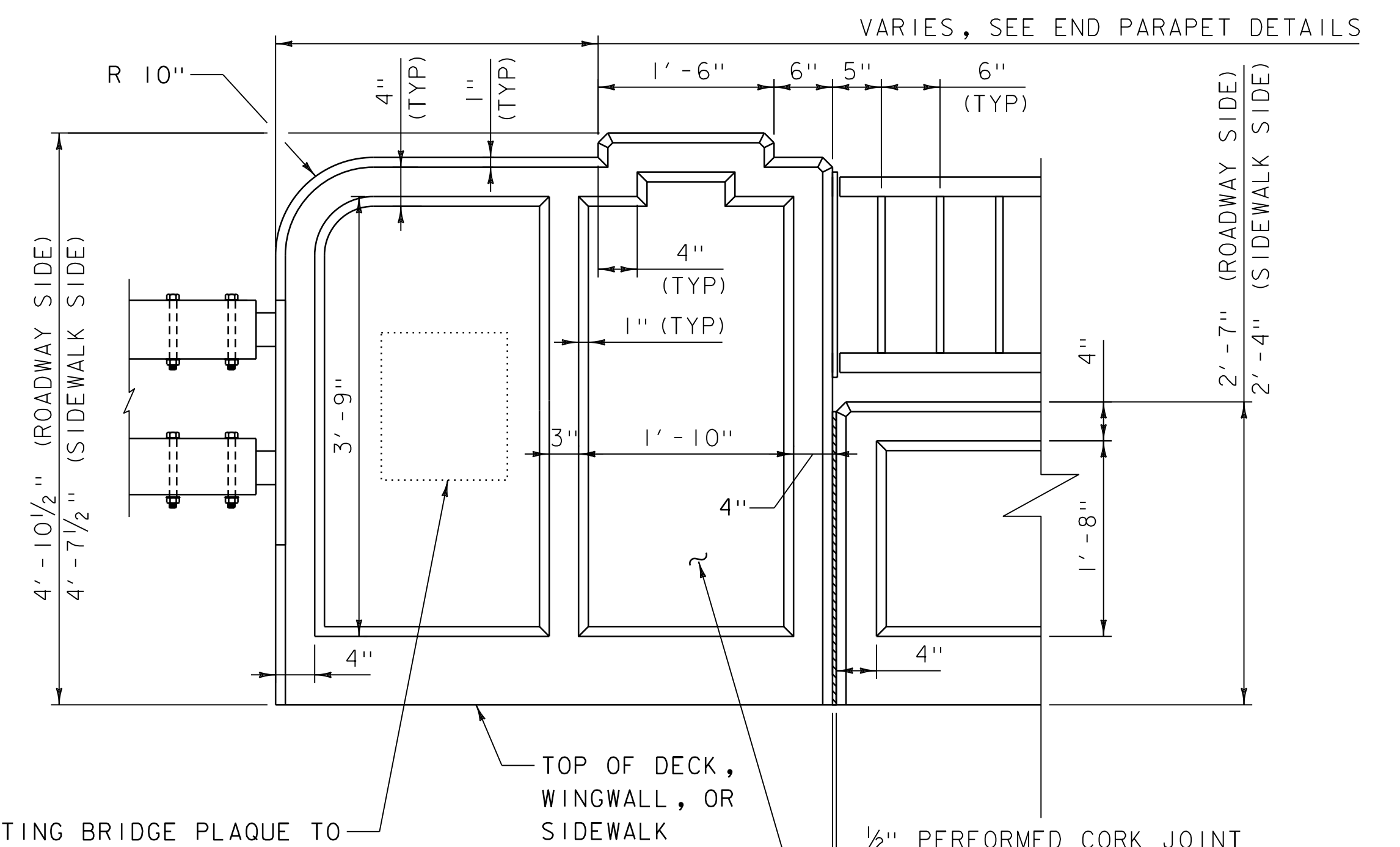
INTERMEDIATE PILASTER  
SCALE: 1" = 1'-0"



BRIDGE RAIL POST  
SCALE: 1" = 1'-0"

BRIDGE RAIL NOTES:

1. VIEWS SHOWN ARE INTERIOR ELEVATION ON THE SIDEWALK SIDE.
2. ALL DIMENSIONS TO FACE OF CONCRETE UNLESS OTHERWISE NOTED.
3. RAIL POSTS SHALL BE SET TO NORMAL GRADE
4. PAYMENT WILL BE MADE UNDER PAY ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB".
5. CONCRETE SHALL CONFORM TO SPECIAL PROVISION (PERFORMANCE-BASED CONCRETE, CLASS PCD). PAYMENT WILL BE MADE UNDER PAY ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB".
6. ALL REINFORCING STEEL, INCLUDING STARTER BARS SHALL CONFORM TO SECTION 507 FOR LEVEL II HOT DIPPED GALVANIZED REINFORCEMENT. PAYMENT WILL BE INCIDENTAL TO PAY ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB".
7. METAL HAND RAILING, INCLUDING STEEL PIPES, PLATES AND HARDWARE, WILL BE INCIDENTAL TO ITEM 525.5100, "BRIDGE RAILING, GALV. STEEL HAND RAIL/CONC. PARAPET COMB".
8. ALL METAL RAILING COMPONENTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE PLANS AND SECTION 525.
9. ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SUBSECTION 726.06.
10. ALL EXPOSED PARTS SHALL BE POWDER COATED BLACK (FEDERAL COLOR CHIP #27038) AFTER GALVANIZING.
11. RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.



EXISTING BRIDGE PLAQUE TO BE RELOCATED AS DIRECTED BY THE TOWN OF READSBORO. SEE GENERAL NOTES ON PROJECT NOTES SHEET FOR ADDITIONAL INFORMATION.

END PILASTER  
SCALE: 1" = 1'-0"

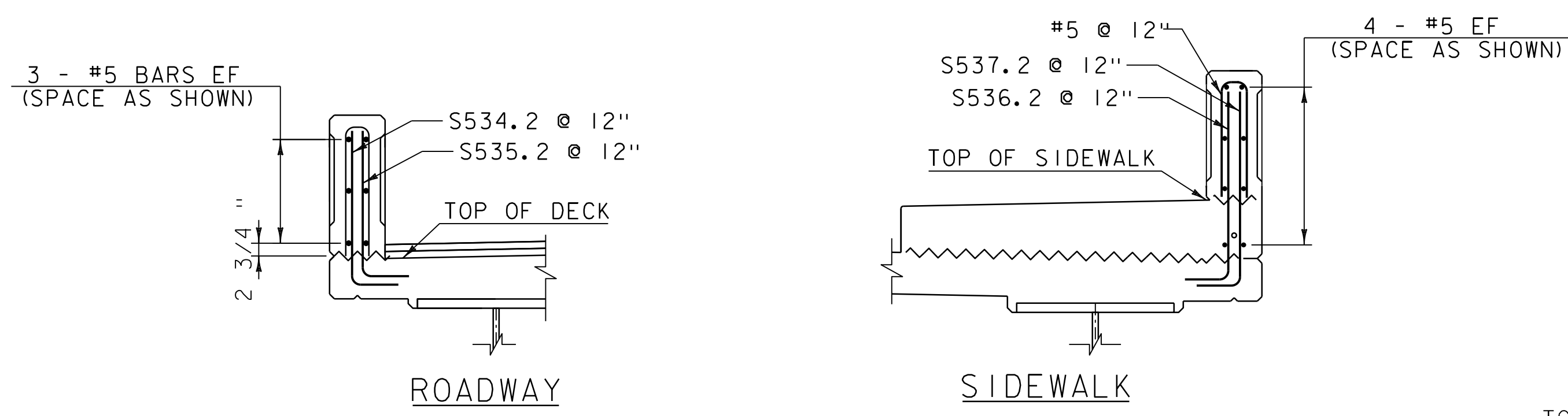
* - SEE RAIL JOINT SECTION AND JOINT DETAIL ON BRIDGE RAIL DETAILS (3 OF 5).

PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068r_alldet.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: S.E. BURBANK  
BRIDGE RAIL DETAILS (2 OF 5)

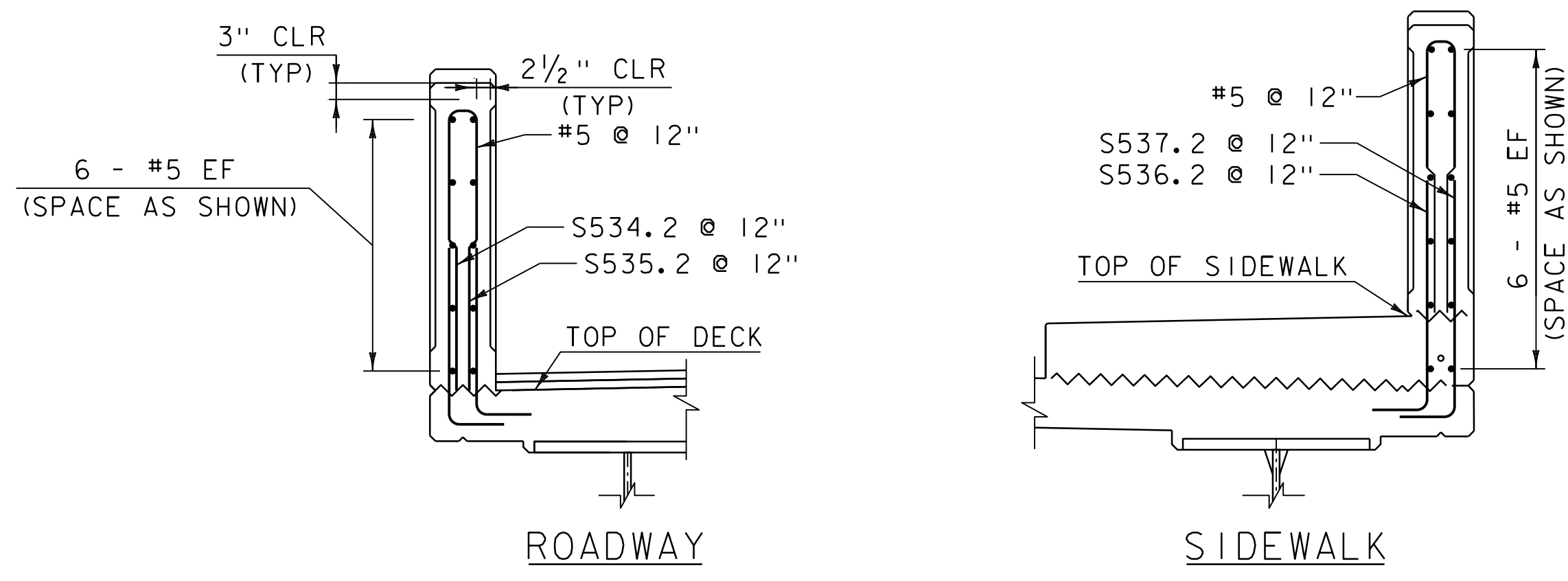
PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: N.A. TRUSLOW  
SHEET 130 OF 220





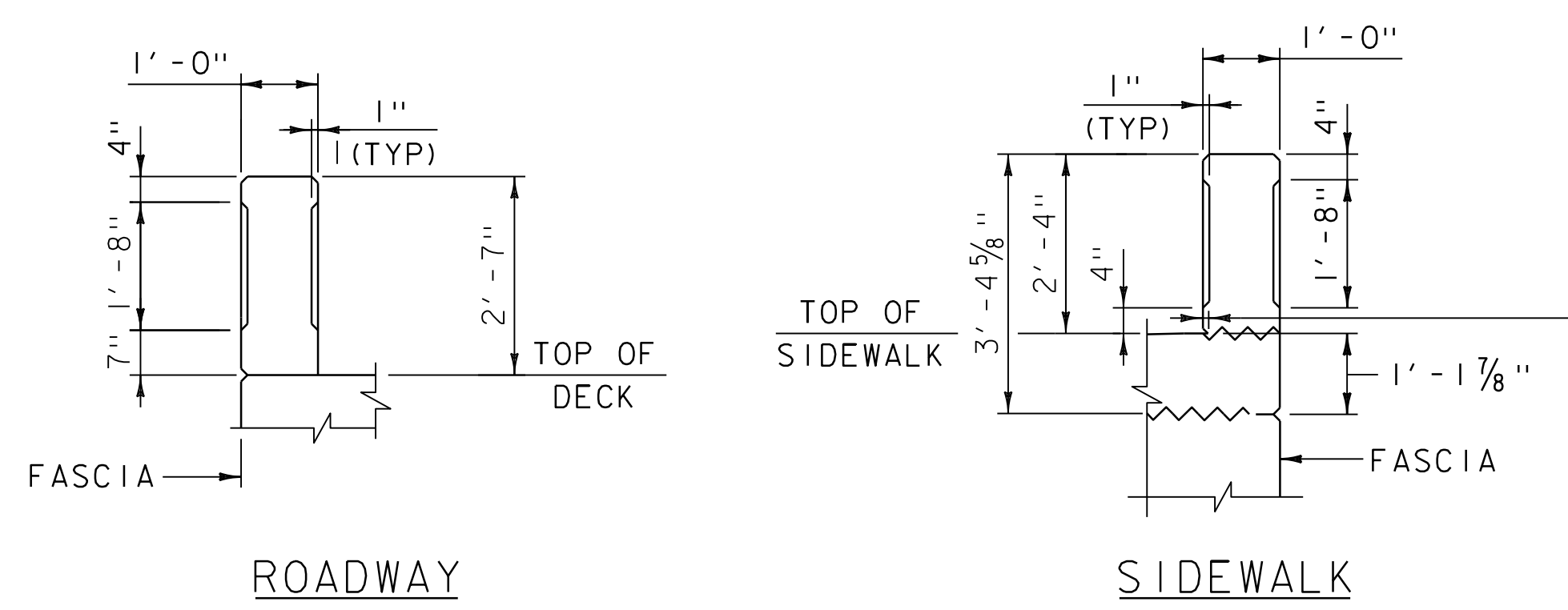
**TYPICAL CONCRETE PARAPET SECTIONS**

SCALE: 1/2" = 1'-0"  
NOTE: STEEL RAIL NOT SHOWN FOR CLARITY



**TYPICAL INTERMEDIATE PILASTER SECTIONS**

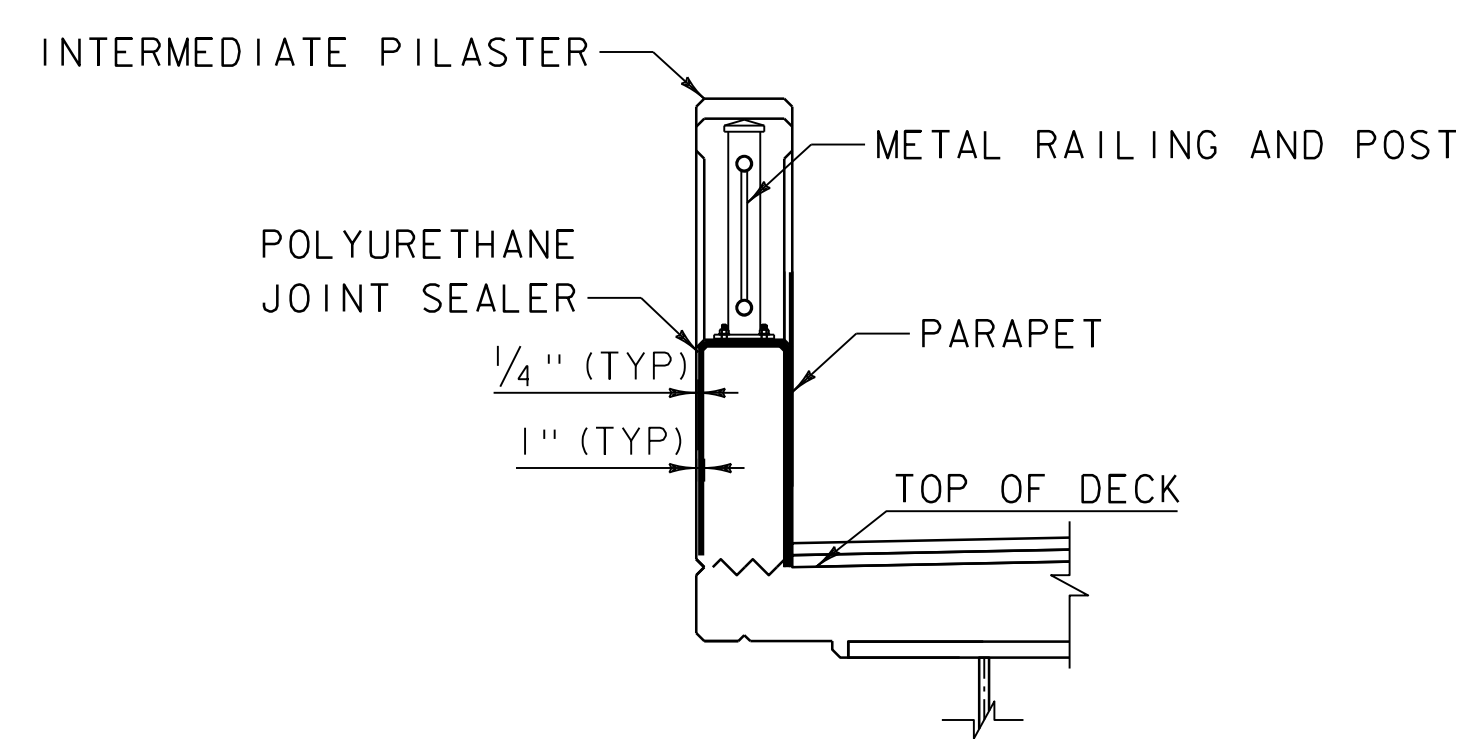
SCALE: 1/2" = 1'-0"  
(END PILASTERS ARE SIMILAR)



**CONCRETE INSERT DETAILS**

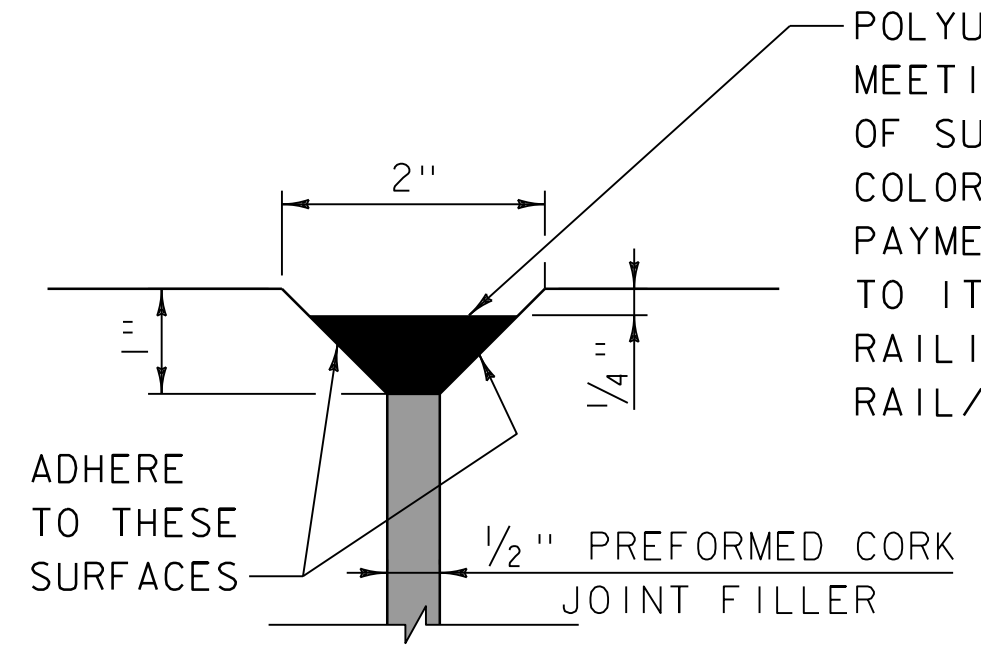
SCALE: 1/2" = 1'-0"

RECESS SIDEWALK INTO FACE OF BARRIER BY 3/4".  
SEE DECK DETAILS (1 OF 3) SHEET FOR ADDITIONAL DETAILS AND REQUIREMENTS



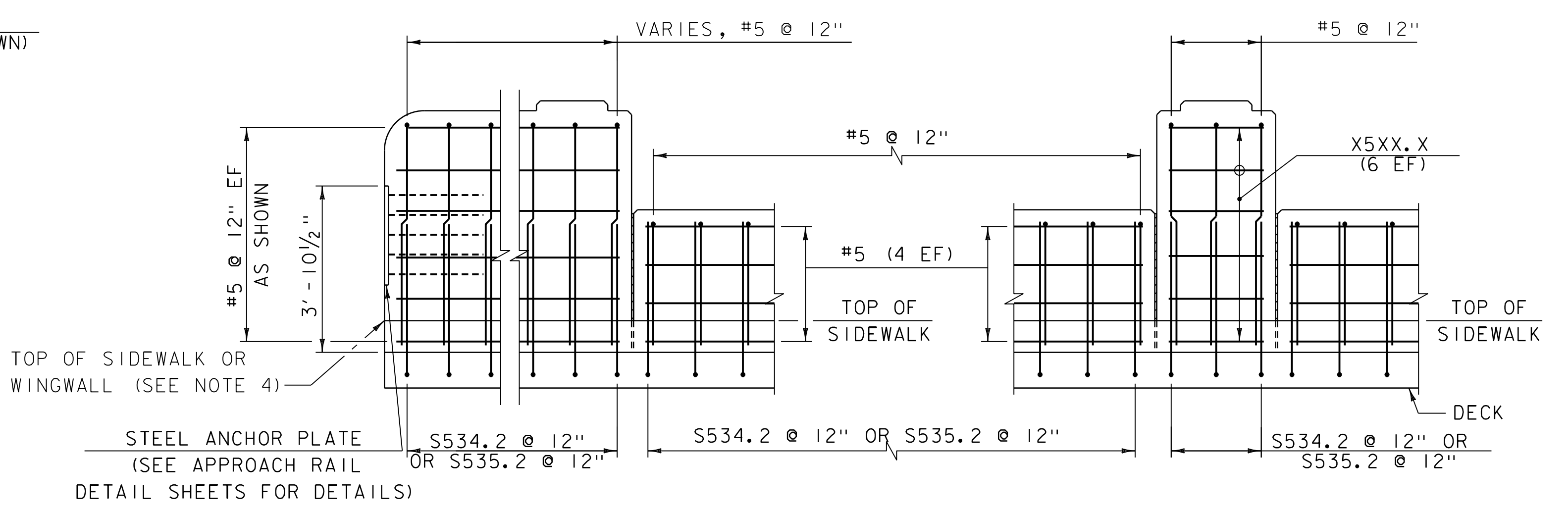
**BRIDGE RAIL JOINT SECTION**

SCALE: 1/2" = 1'-0"



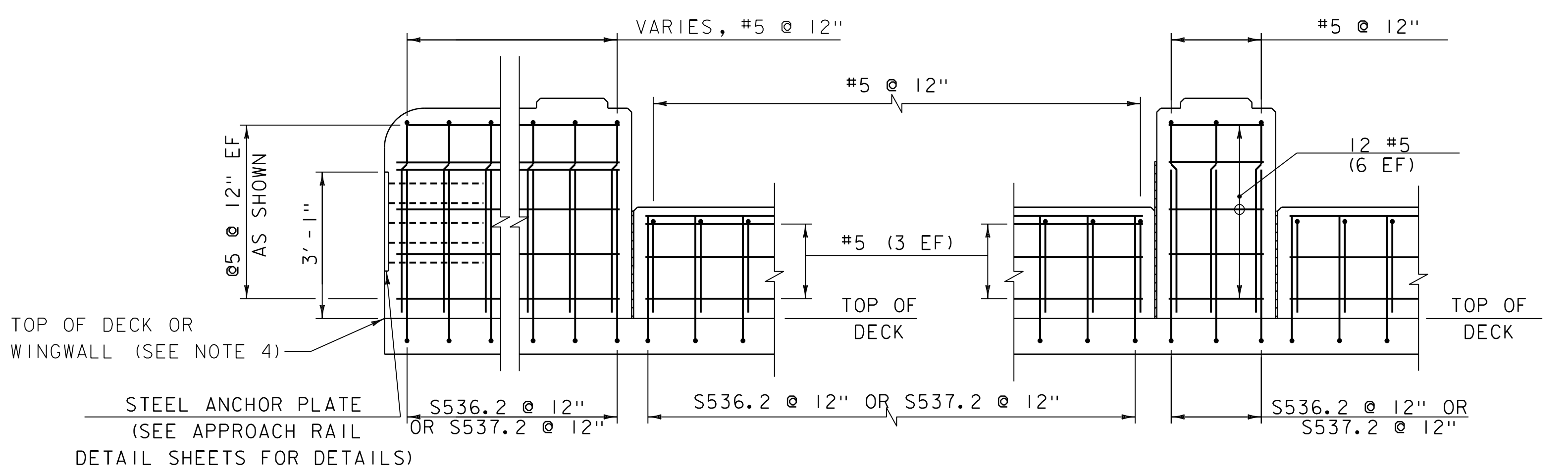
**JOINT DETAIL**

NOT TO SCALE



**TYPICAL REINFORCING WITH SIDEWALK**

SCALE: 1/2" = 1'-0"



**TYPICAL REINFORCING WITHOUT SIDEWALK**

SCALE: 1/2" = 1'-0"

**NOTES:**

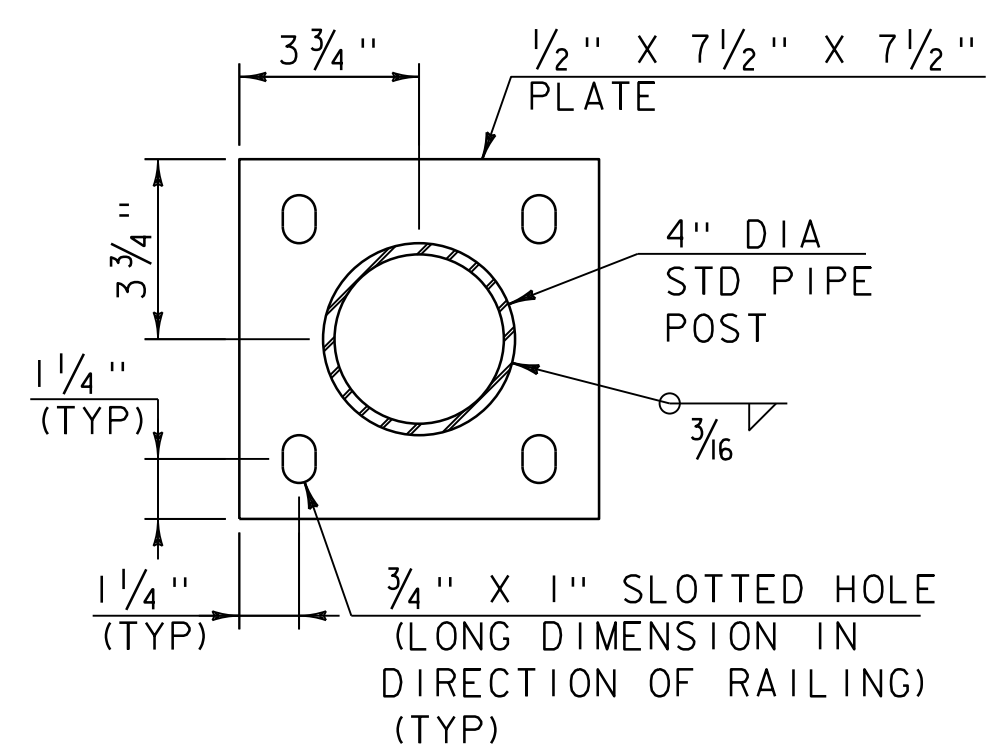
1. QUANTITIES OF REINFORCING STEEL BARS SHOWN ARE PER ELEMENT.
2. REINFORCING BARS DENOTED AS S534.2, S535.2, S536.2, AND S537.2 ARE CAST INTO THE CONCRETE DECK AND HAVE BEEN INCLUDED WITH THE CONCRETE DECK REINFORCING STEEL.
3. ALL REINFORCING STEEL SHALL BE LEVEL II HOT DIPPED GALVANIZED.
4. FOR BRIDGE RAILING OVER WINGWALLS, SEE WINGWALL DETAILS FOR BARS 1W507.2 AND 2W507.2 EMBEDDED IN WINGWALLS 1 AND 2.

**NOTE:**

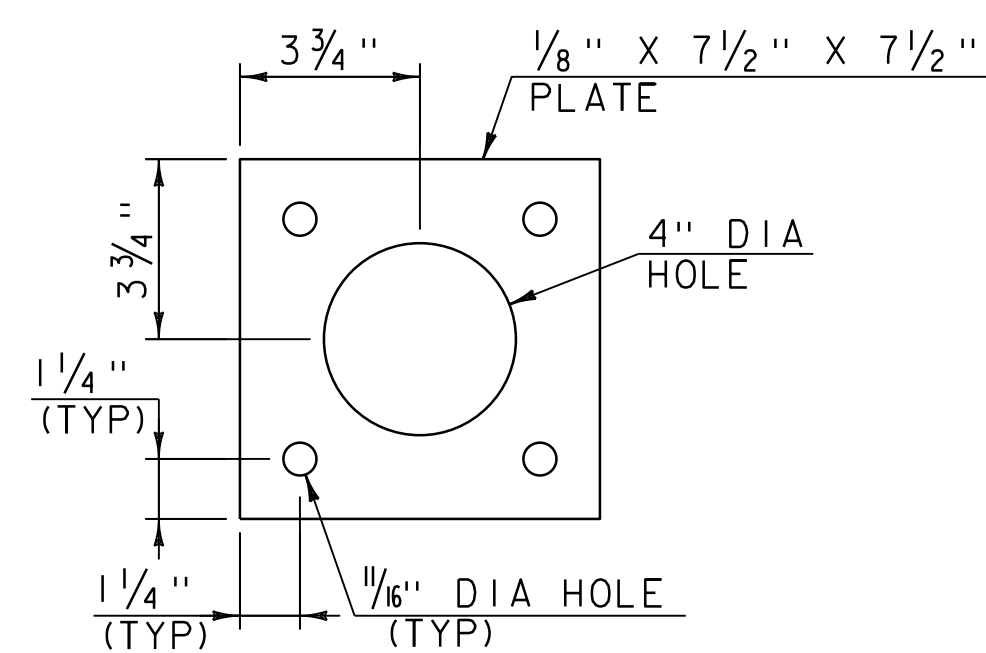
- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- .3 = LEVEL 3 REINFORCING STEEL
- ▲ = CUT TO FIT IN FIELD
- 3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 2'-0" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.



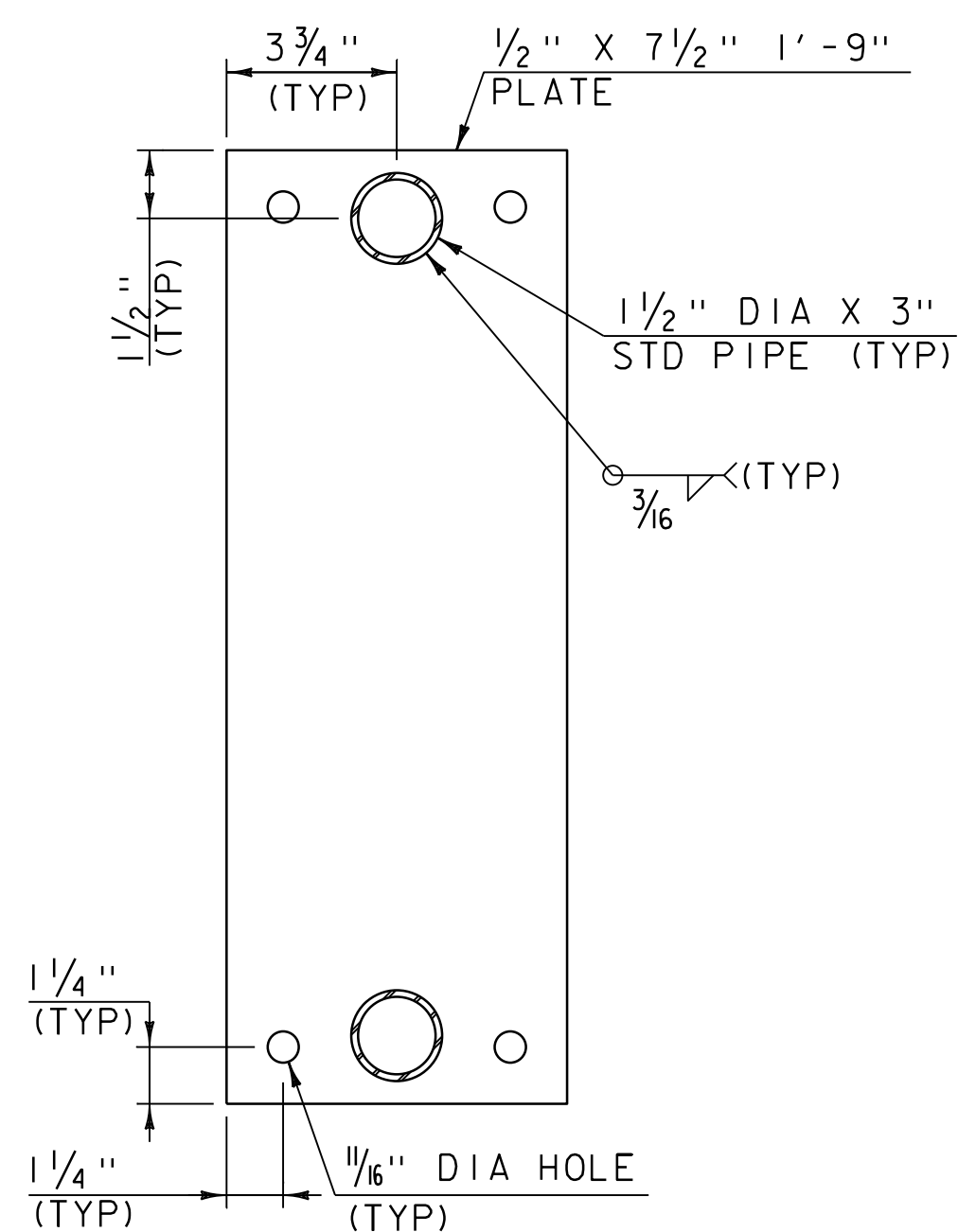
PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	M.F. NEMETH
FILE NAME:	z13c068ralldet.dgn	DESIGNED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	N.A. TRUSLOW
BRIDGE RAIL DETAILS (3 OF 5)		SHEET	131 OF 220



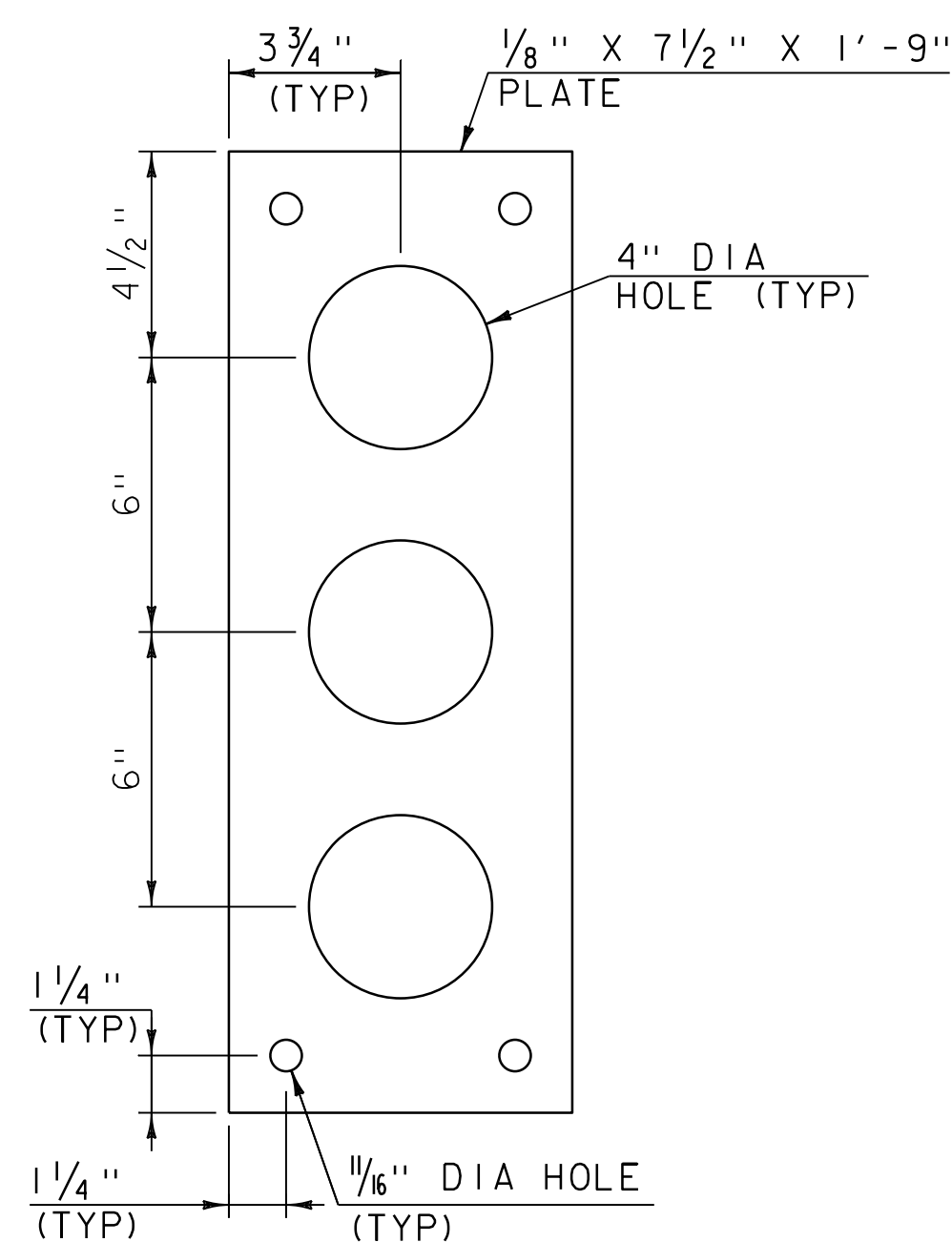
**POST BASE PLATE**  
SCALE: 3" = 1'-0"



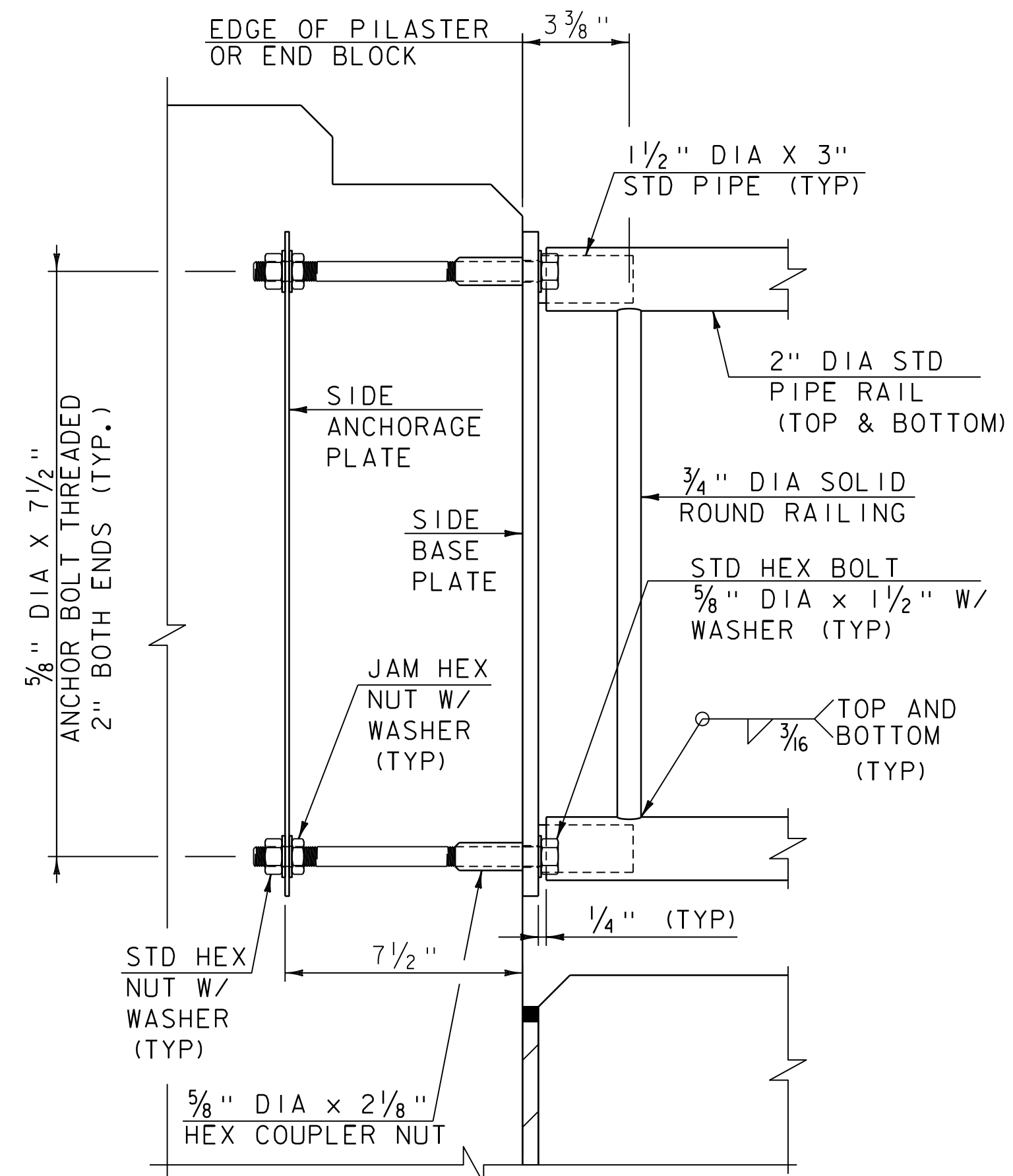
**POST ANCHORAGE PLATE**  
SCALE: 3" = 1'-0"



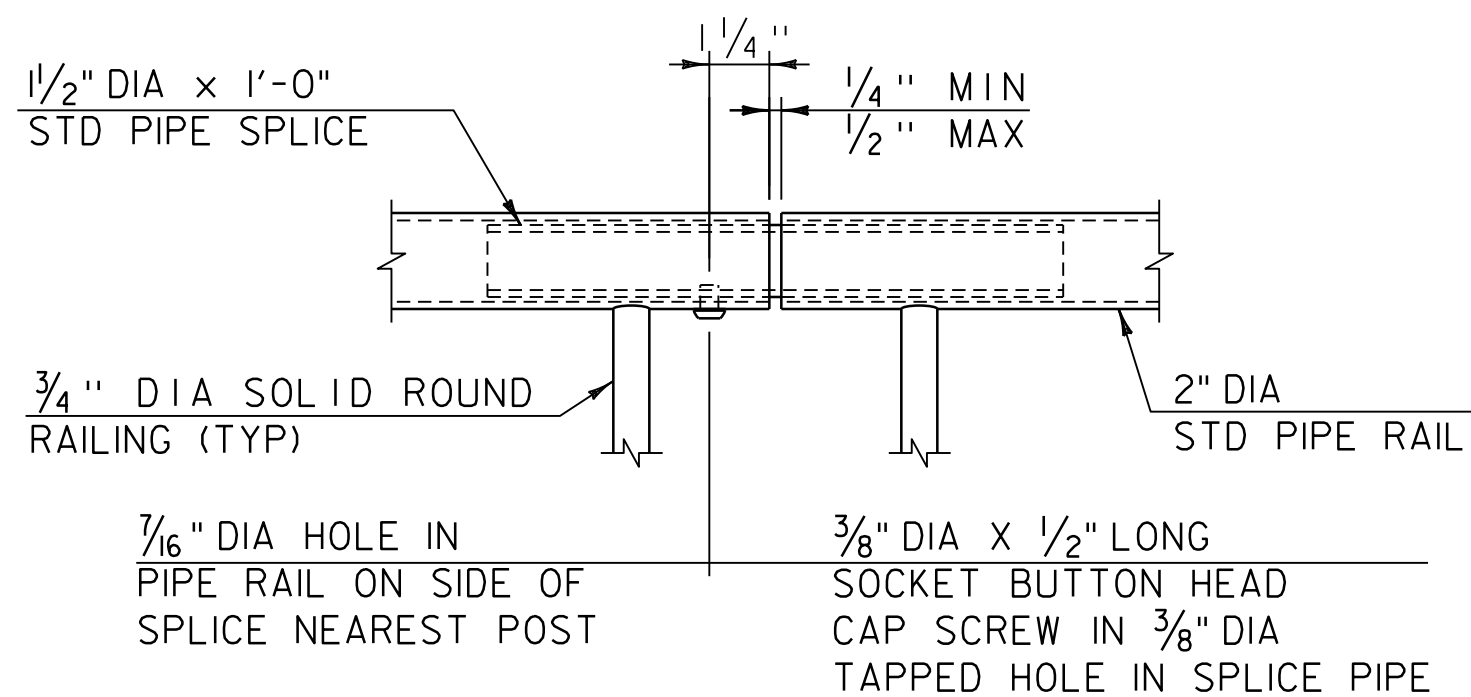
**SIDE BASE PLATE**  
SCALE: 3" = 1'-0"



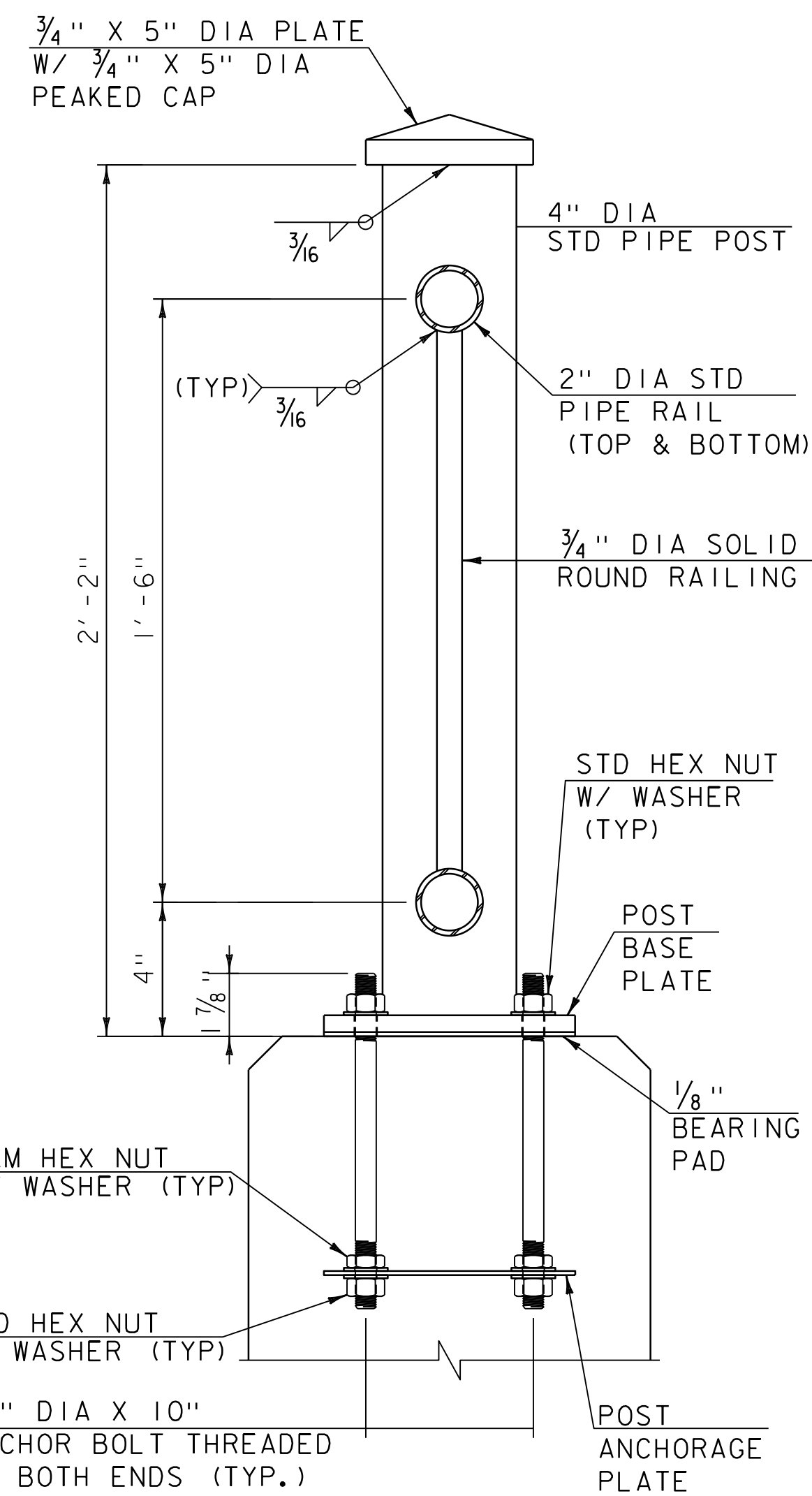
**SIDE ANCHORAGE PLATE**  
SCALE: 3" = 1'-0"



**SIDE PLATE CONNECTION DETAIL**  
SCALE: 3" = 1'-0"



**RAIL SPLICE DETAIL**  
SCALE: 3" = 1'-0"



**METAL RAILING DETAIL**  
SCALE: 3" = 1'-0"

**NOTE:**

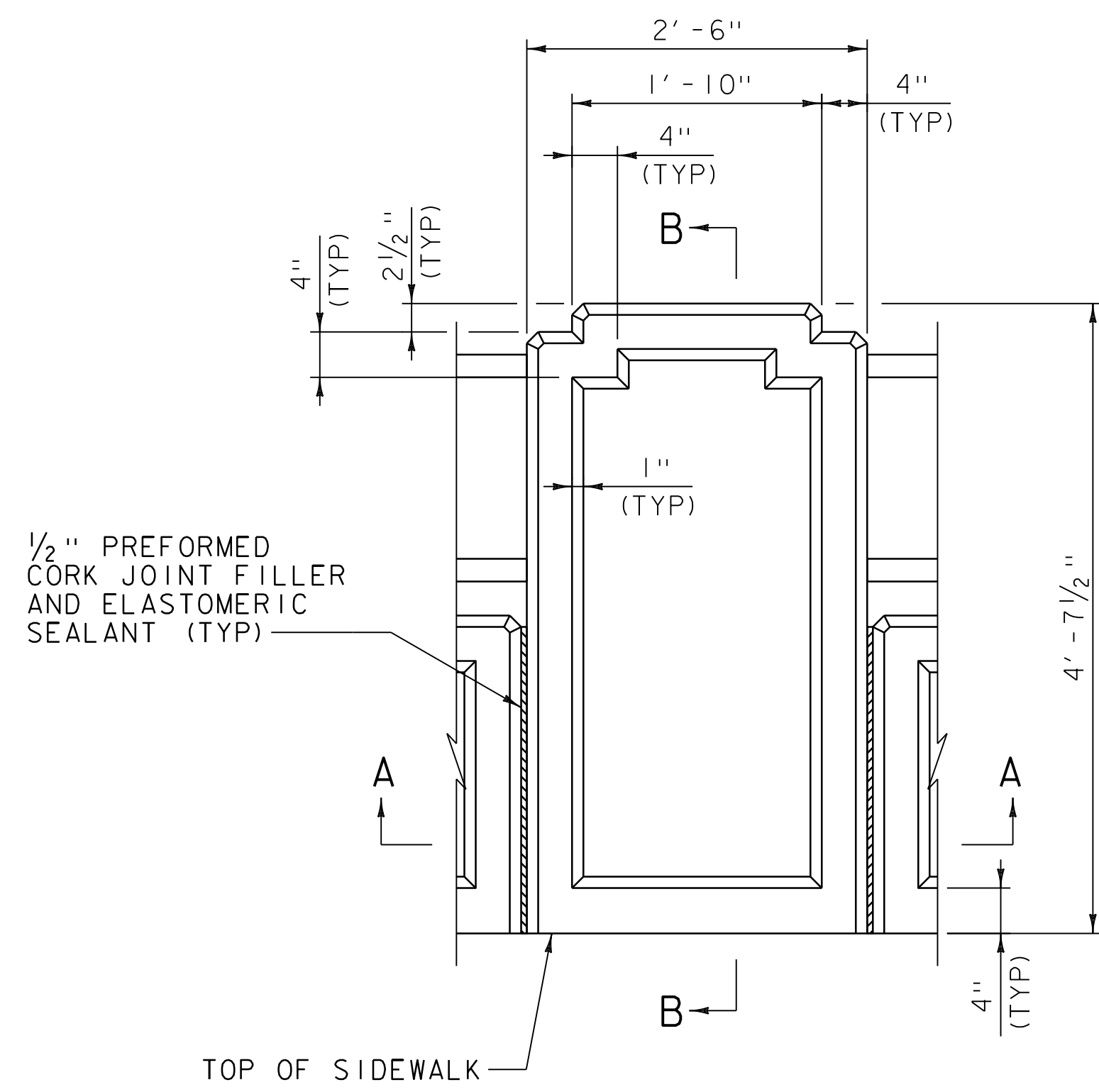
1. ALL STD (STANDARD) PIPE SHOWN IN THE RAILING DETAILS SHALL BE SCHEDULE 40 PIPE UNLESS NOTED OTHERWISE.
2. ALL STEEL RAILING COMPONENTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SUBSECTION 726.06.



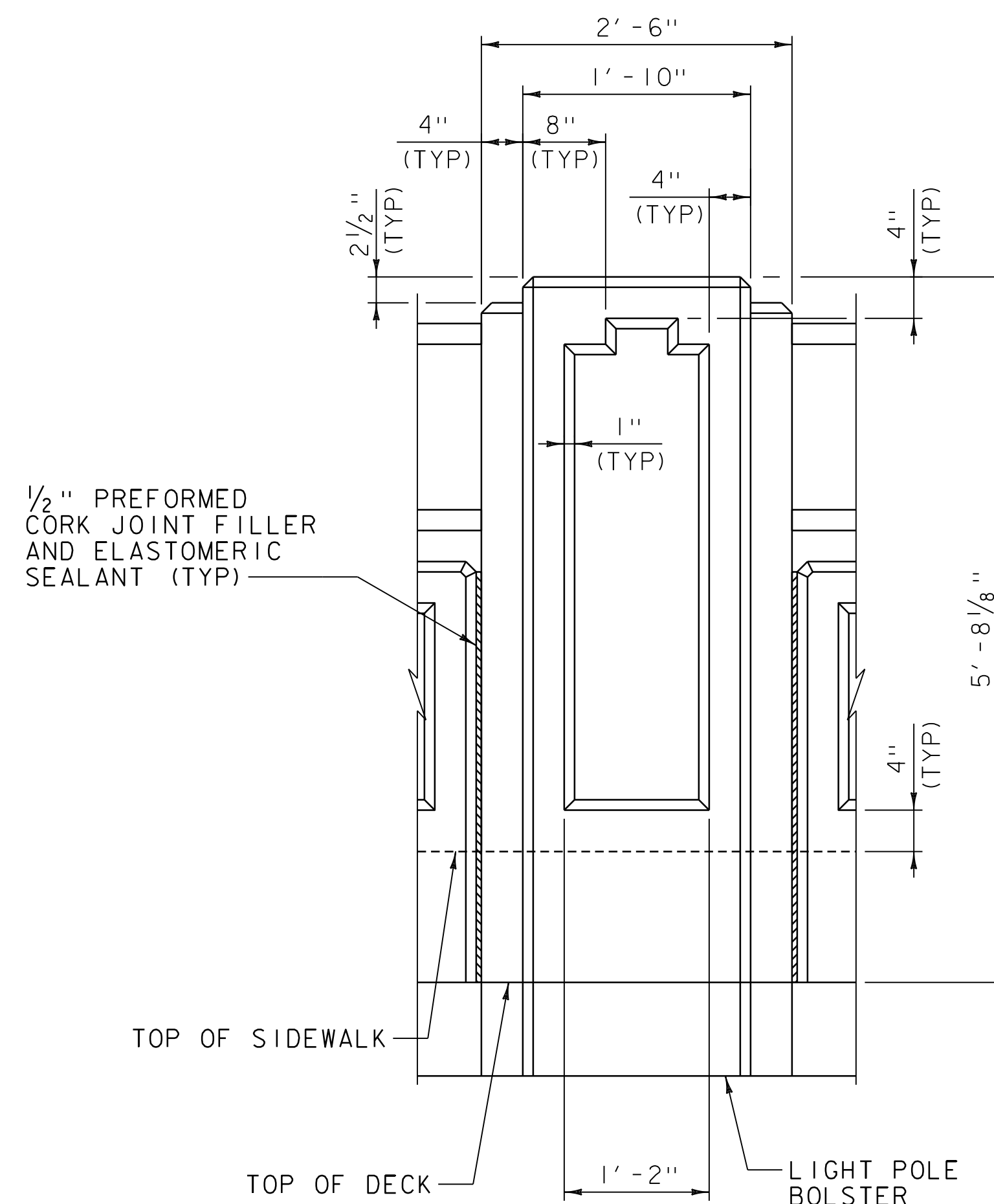
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068r-aldet.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: S.E. BURBANK  
BRIDGE RAIL DETAILS (4 OF 5)

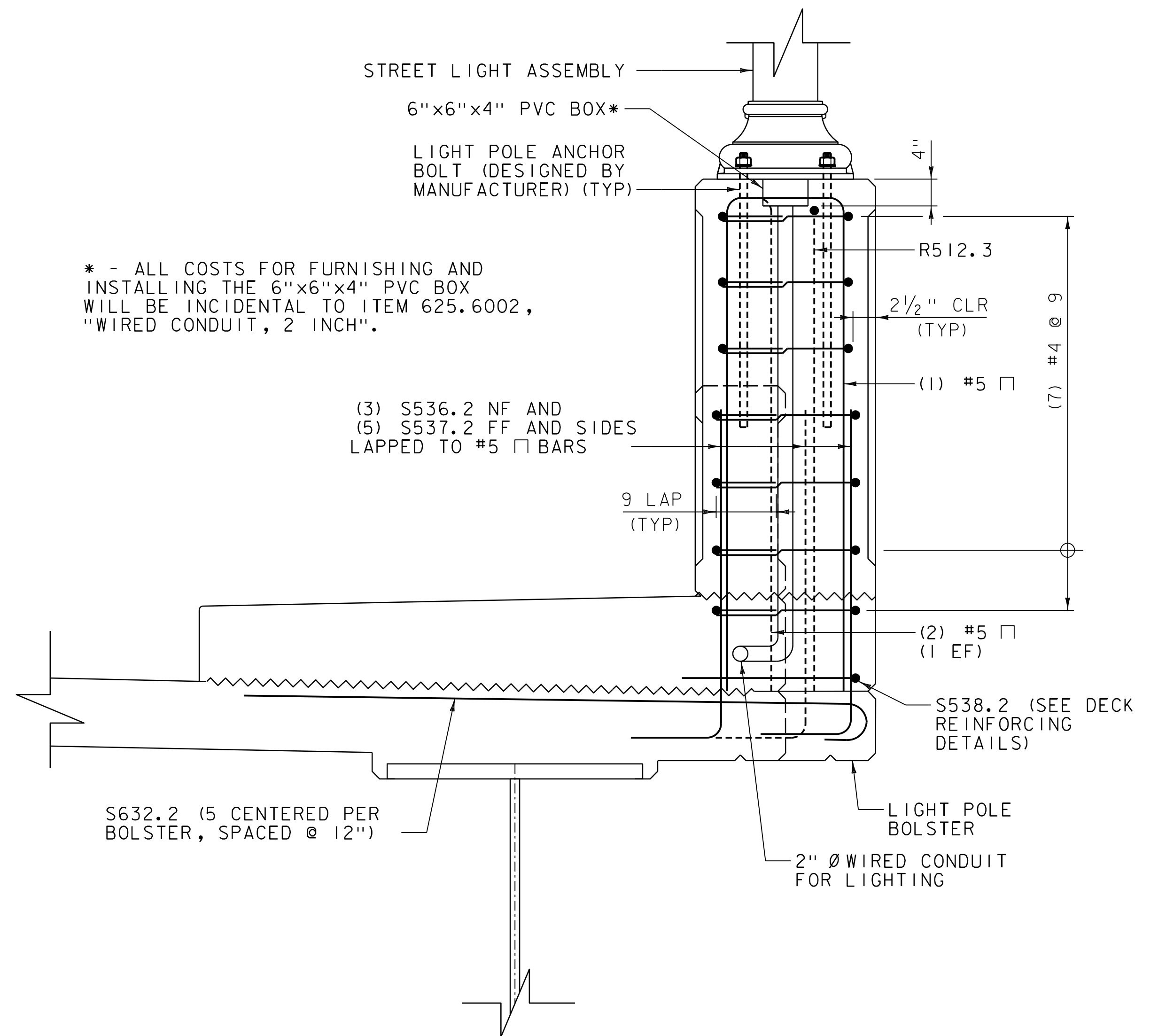
PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: N.A. TRUSLOW  
SHEET 132 OF 220



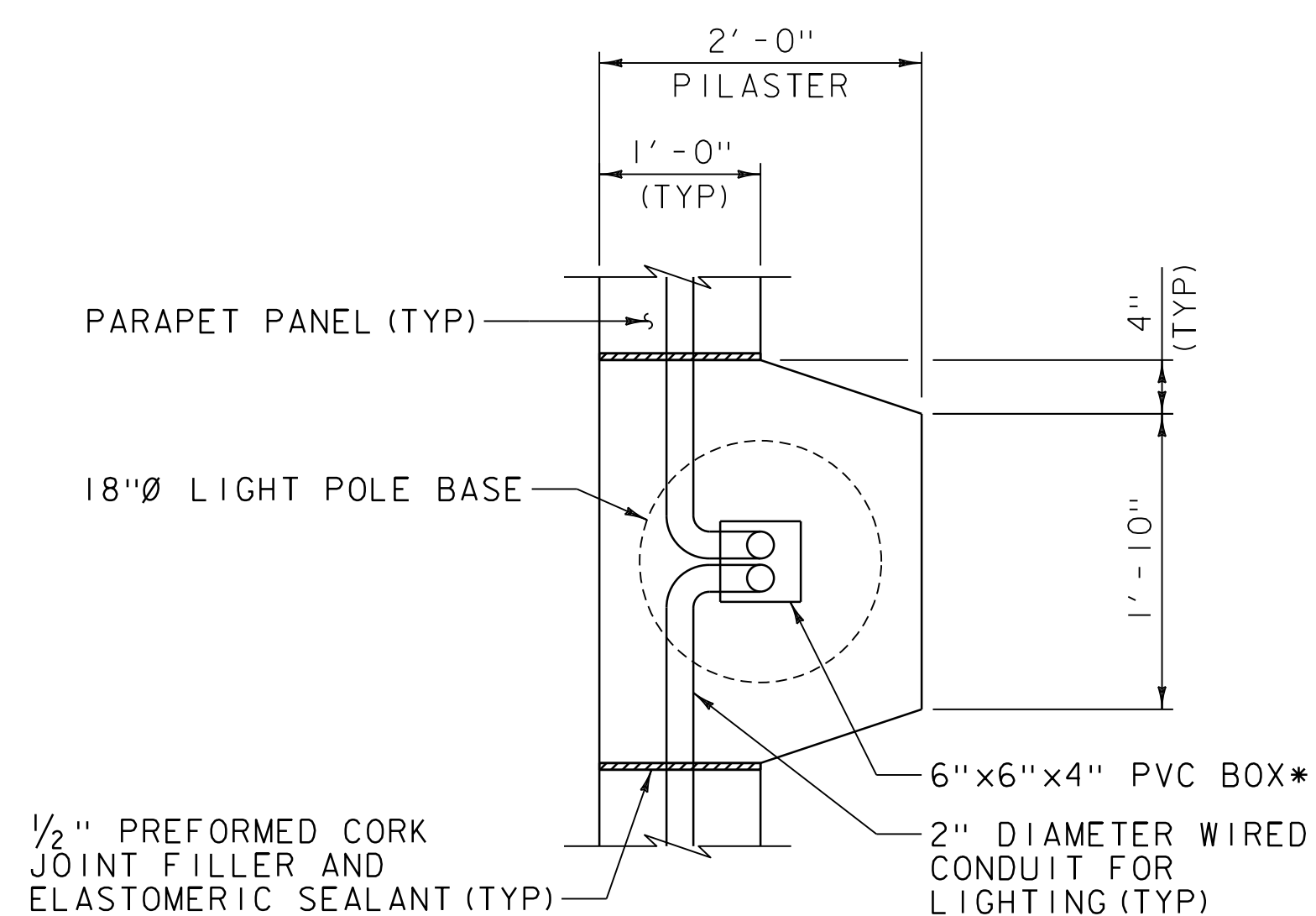
**LIGHT POLE PILASTER -  
INTERIOR ELEVATION**  
SCALE: 1" = 1'-0"



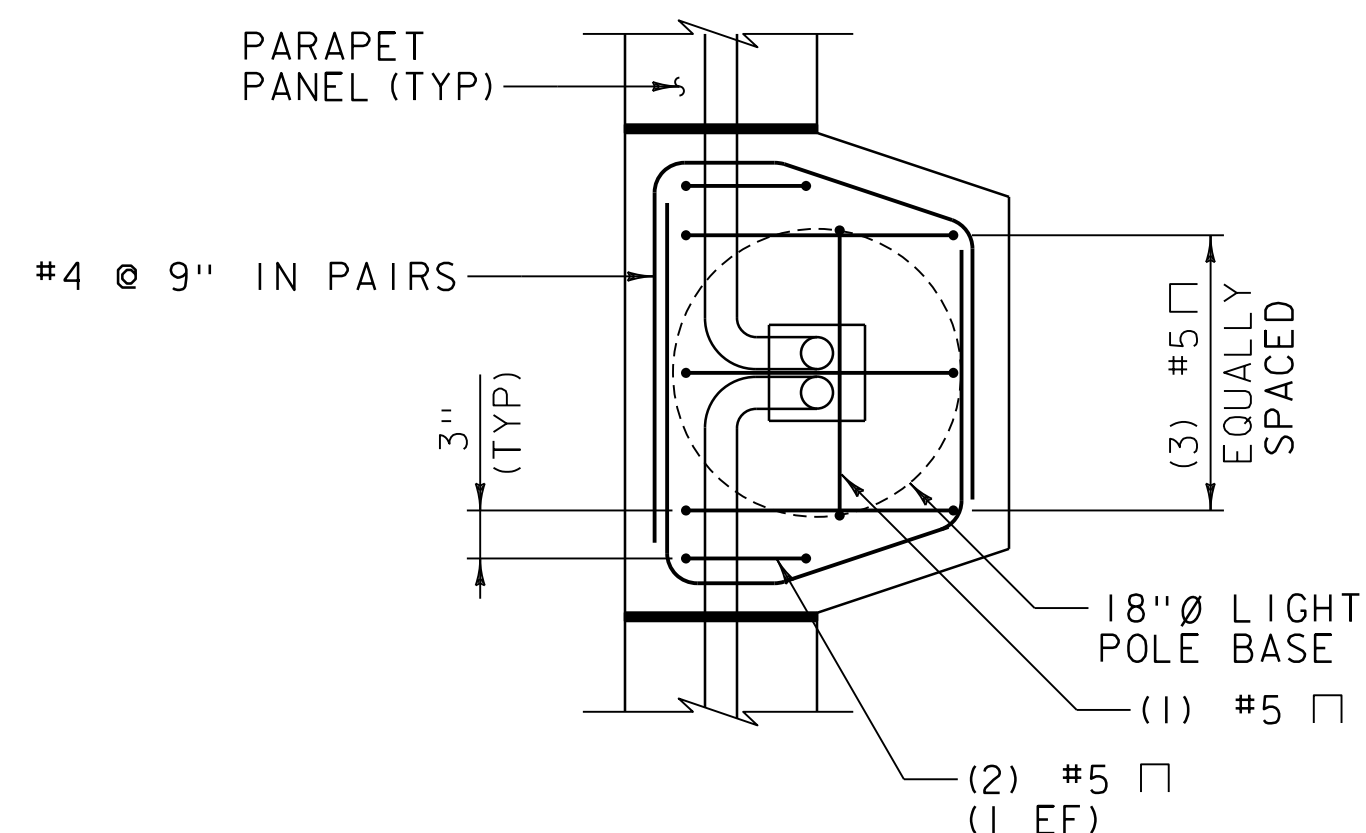
**LIGHT POLE PILASTER -  
EXTERIOR ELEVATION**  
SCALE: 1" = 1'-0"



**SECTION B-B**  
(RAIL, SIDEWALK AND SLAB REINFORCING NOT SHOWN FOR CLARITY)  
SCALE: 1" = 1'-0"



**SECTION A-A**  
SCALE: 1" = 1'-0"



**SECTION A-A**  
SCALE: 1" = 1'-0"

* - ALL COSTS FOR FURNISHING AND INSTALLING THE 6" x 6" x 4" PVC BOX WILL BE INCIDENTAL TO ITEM 625.6002, "WIRED CONDUIT, 2 INCH".

**NOTE:**  
NF = NEAR FACE  
FF = FAR FACE  
EF = EACH FACE  
▲ = CUT TO FIT IN FIELD  
3" CLEAR, UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
2'-2" BAR LAP UNLESS OTHERWISE SPECIFIED ON THE PLANS.

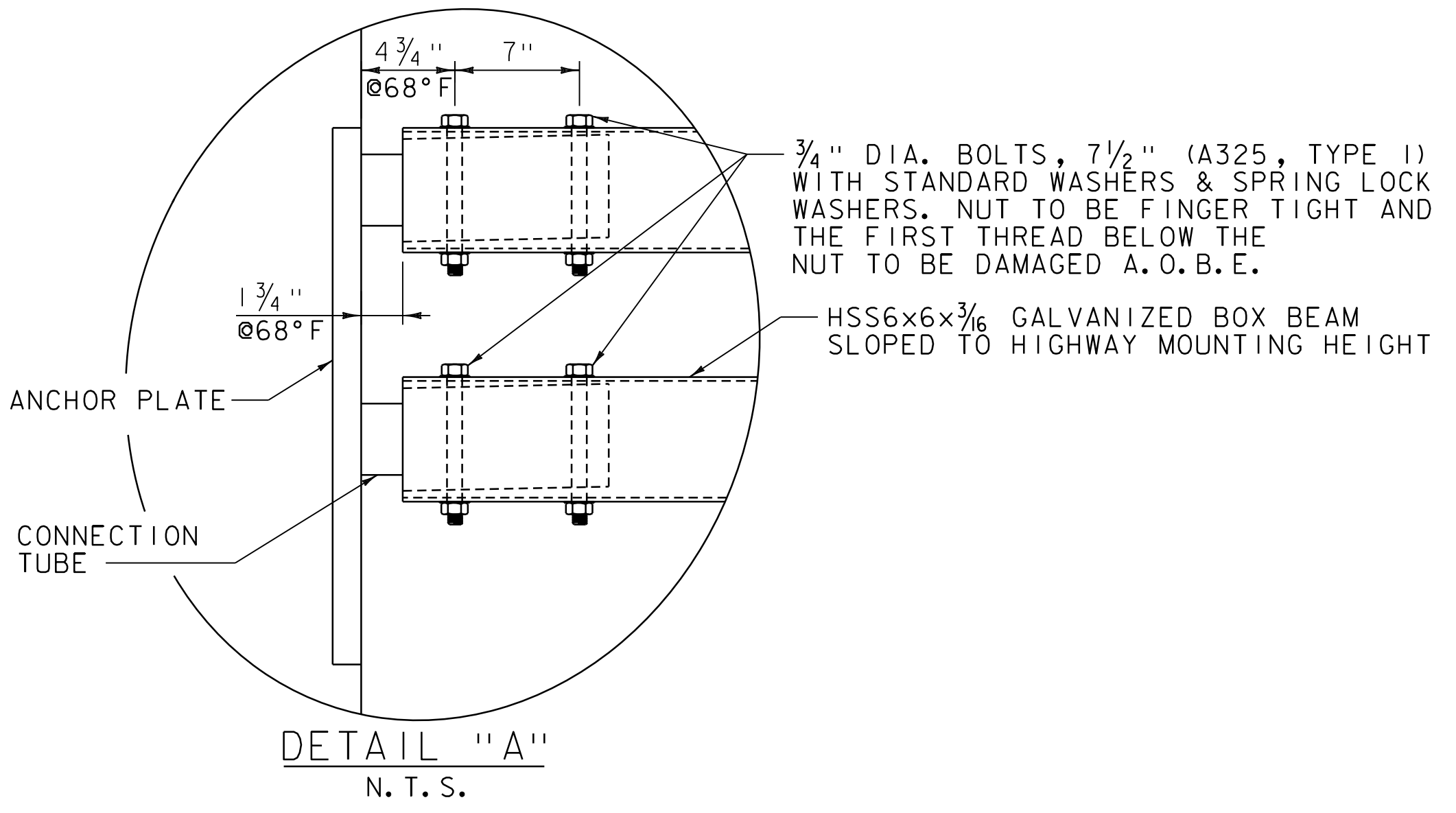
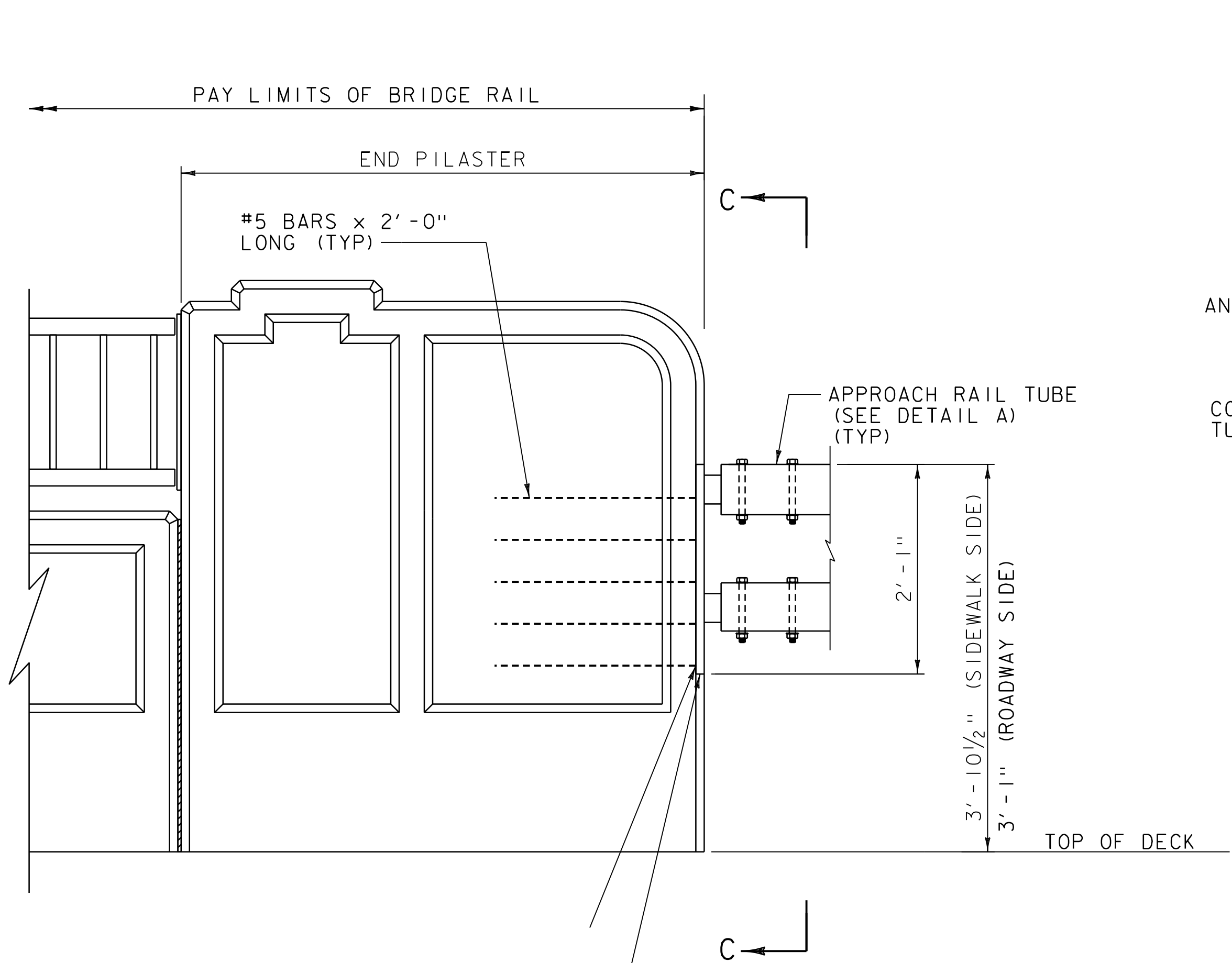
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068r-aldet.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: R.H. BARNES  
BRIDGE RAIL DETAILS (5 OF 5)

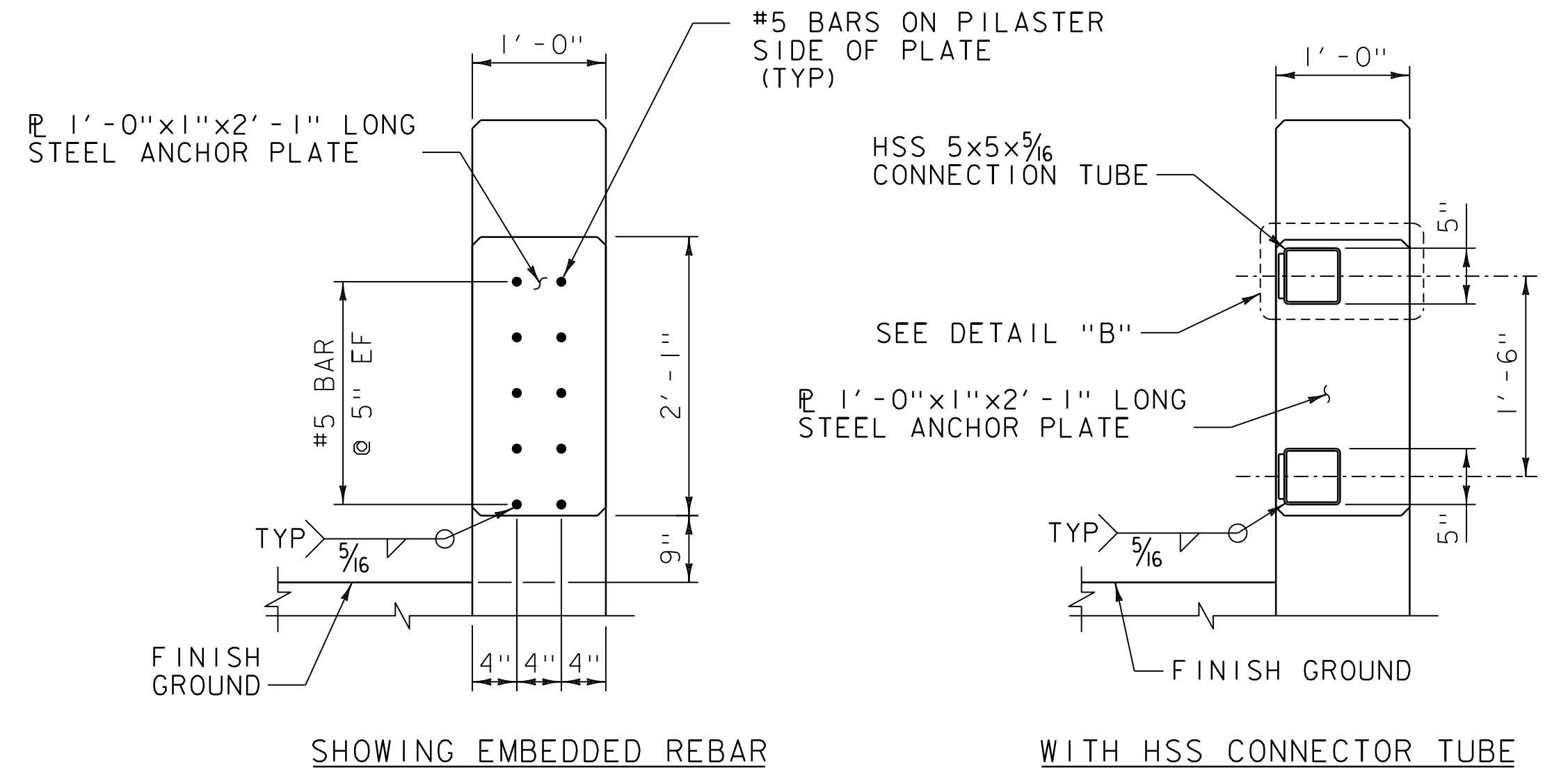
PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: N.A. TRUSLOW  
SHEET 133 OF 220



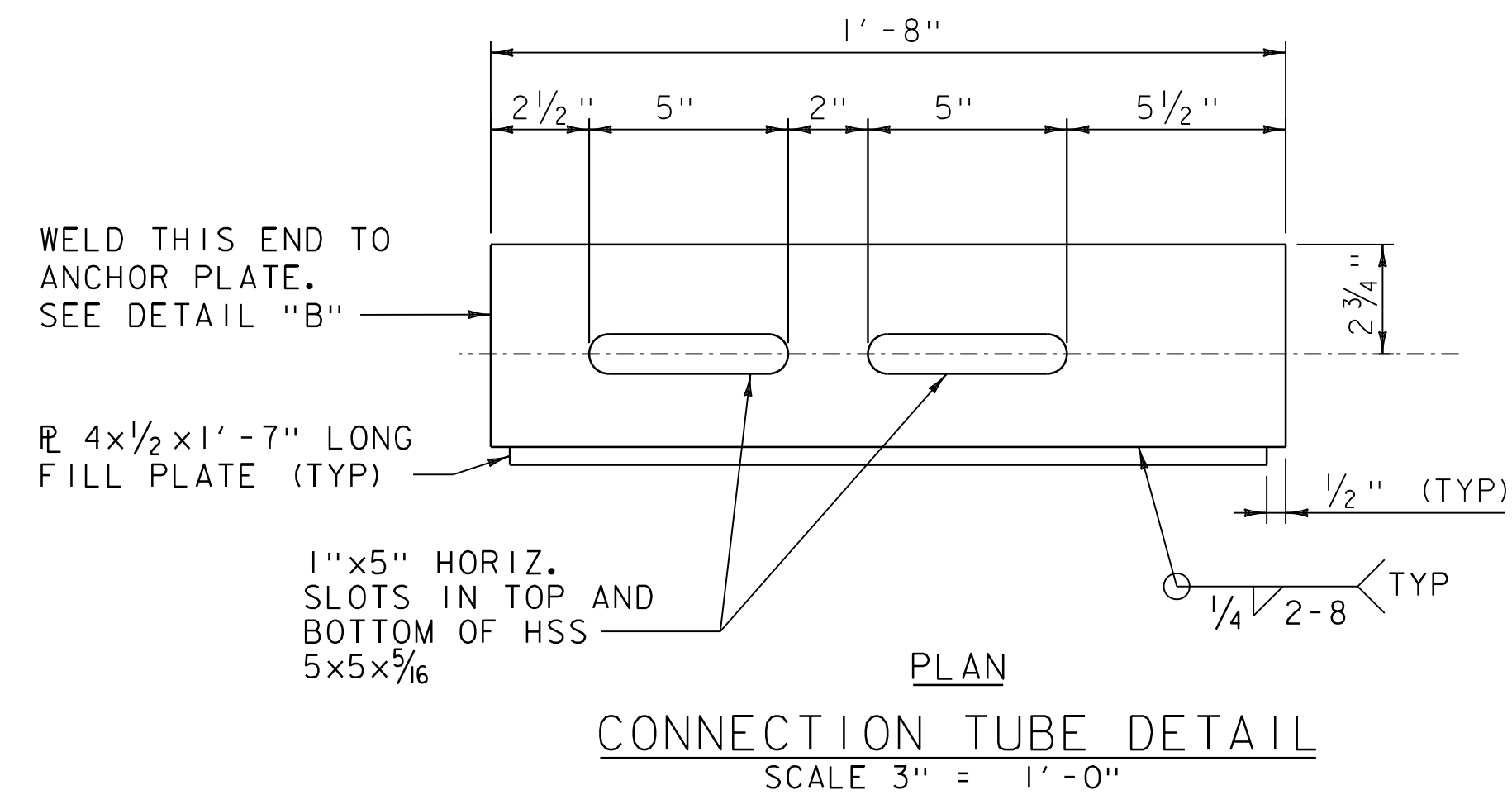
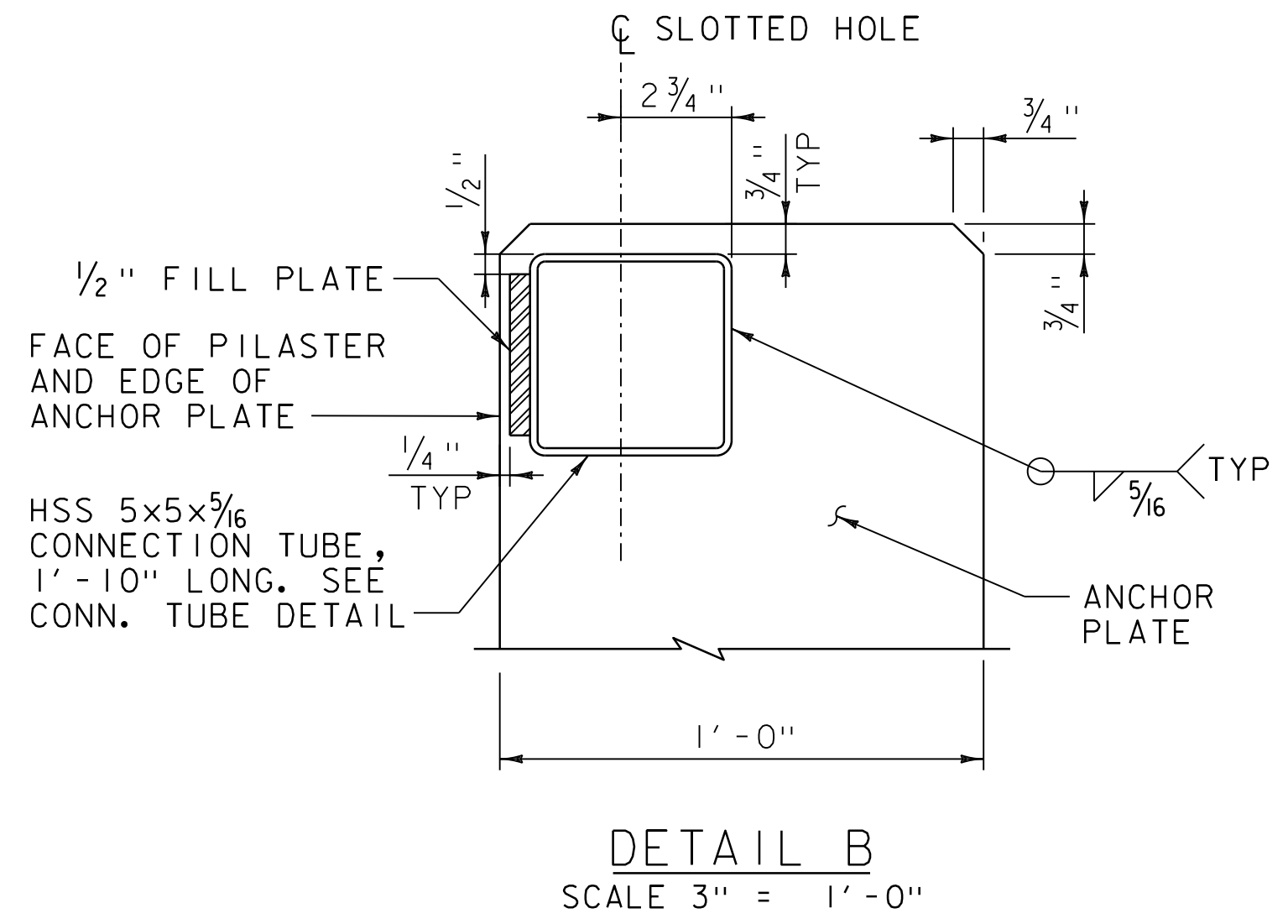




APPROACH RAIL CONNECTION DETAIL  
(SIDEWALK SIDE SHOWN)  
SCALE 1" = 1'-0"



VIEW C-C

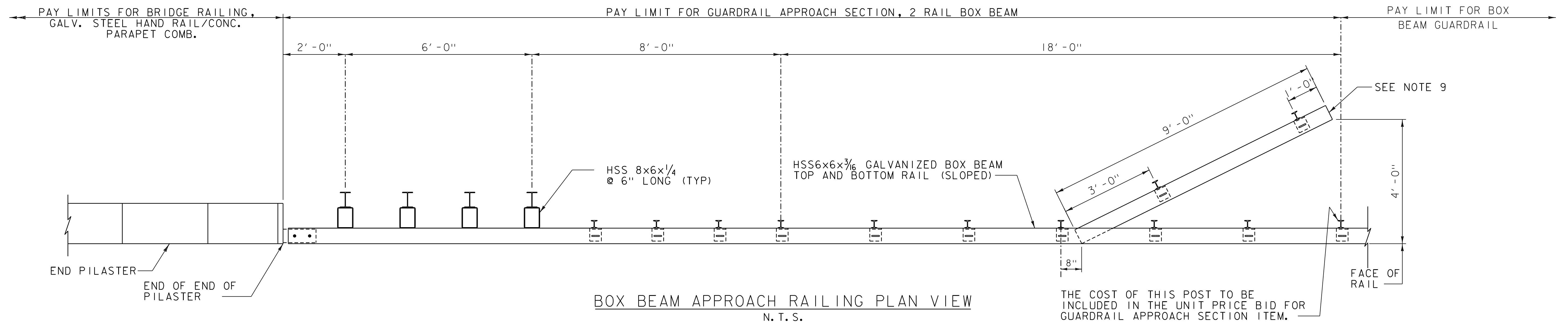


NOTES:

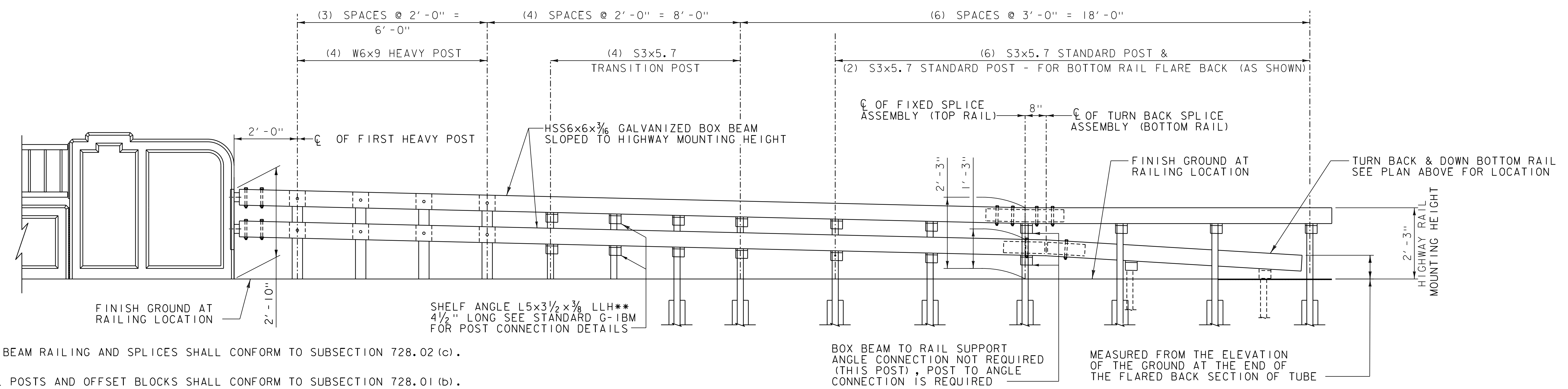
1. AFTER FABRICATION, STEEL ANCHOR PLATE ASSEMBLY INCLUDING REINFORCING STEEL AND CONNECTION TUBE SHALL BE HOT DIP GALVANIZED PER SUBSECTION 726.06.
2. REINFORCING SHALL BE LEVEL II HOT-DIPPED GALVANIZED AND CONFORM TO SUBSECTION 713.01 (g).
3. STEEL PLATES FOR ANCHOR PLATE AND FILL PLATES SHALL CONFORM TO SUBSECTION 714.03.
4. CONNECTION TUBE SHALL MEET THE REQUIREMENTS OF SUBSECTION 728.02 (c).
5. AFTER FABRICATION, SLOTS SHALL BE SMOOTH AND FREE OF ANY BURRS THAT MAY LIMIT FREE EXPANSION/CONTRACTION OF THE APPROACH RAILING JOINT.
6. EF = EACH FACE.



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: K.D. WENTWORTH
FILE NAME: z13c068r-aldet.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 134 OF 220
DESIGNED BY: S.E. BURBANK	APPROACH RAIL DETAILS (1 OF 2)



BOX BEAM APPROACH RAILING PLAN VIEW  
N. T. S.



BOX BEAM APPROACH RAILING ELEVATION  
(SIDEWALK SIDE SHOWN)  
N. T. S.

- NOTES:**
1. ALL BOX BEAM RAILING AND SPLICES SHALL CONFORM TO SUBSECTION 728.02 (c).
  2. ALL RAIL POSTS AND OFFSET BLOCKS SHALL CONFORM TO SUBSECTION 728.01 (b).
  3. UNLESS OTHERWISE NOTED, ALL HARDWARE SHALL CONFORM TO SUBSECTION 728.03 (b).
  4. SEE STANDARD DRAWING S-364C FOR FIXED SPLICE DETAILS.
  5. SEE STANDARD DRAWING S-364D FOR HEAVY POST, TRANSITION POST AND TURN BACK SPLICE DETAILS.
  6. SEE STANDARD DRAWING G-1BM FOR STANDARD POST, BOX BEAM RAILING AND BOX BEAM RAILING TERMINATION DETAILS.
  7. RAILS ARE SHOWN STRAIGHT FOR CLARITY.
  8. SEE APPROACH RAIL DETAILS (1 OF 2) SHEET FOR ANCHOR PLATE AND CONNECTION DETAILS.

**LONG LEG HORIZONTAL

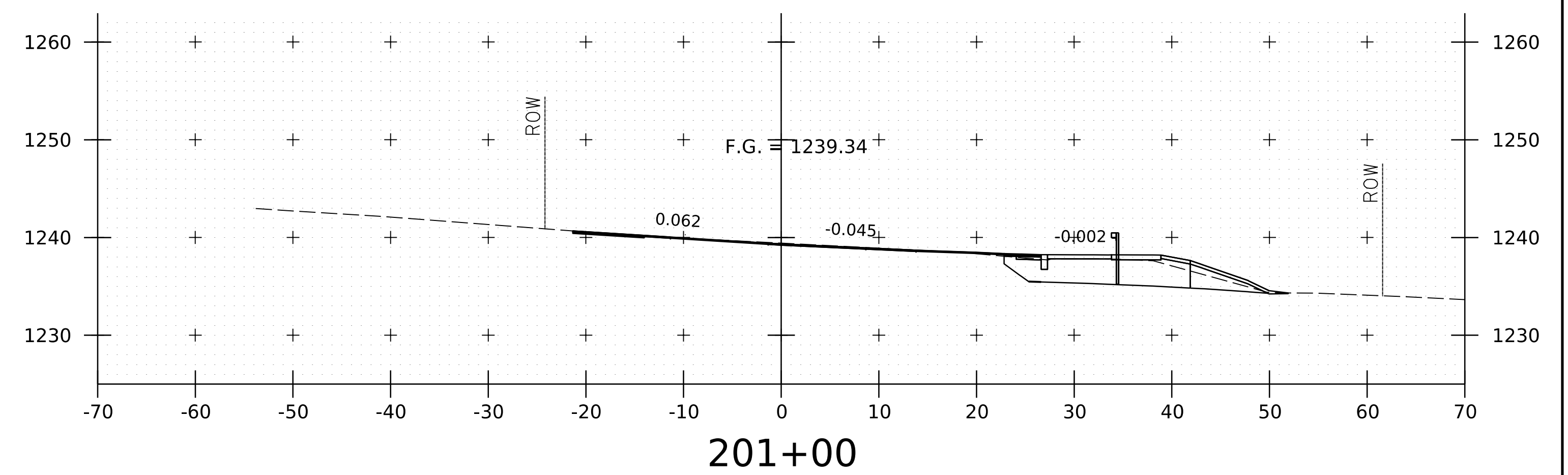
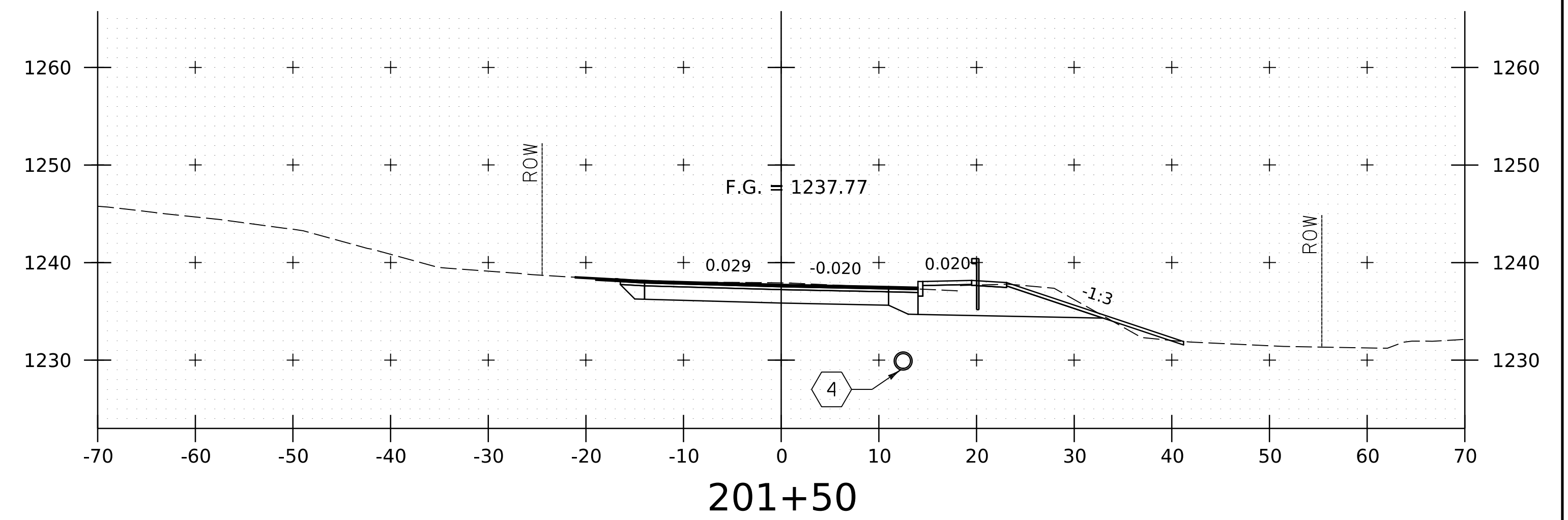
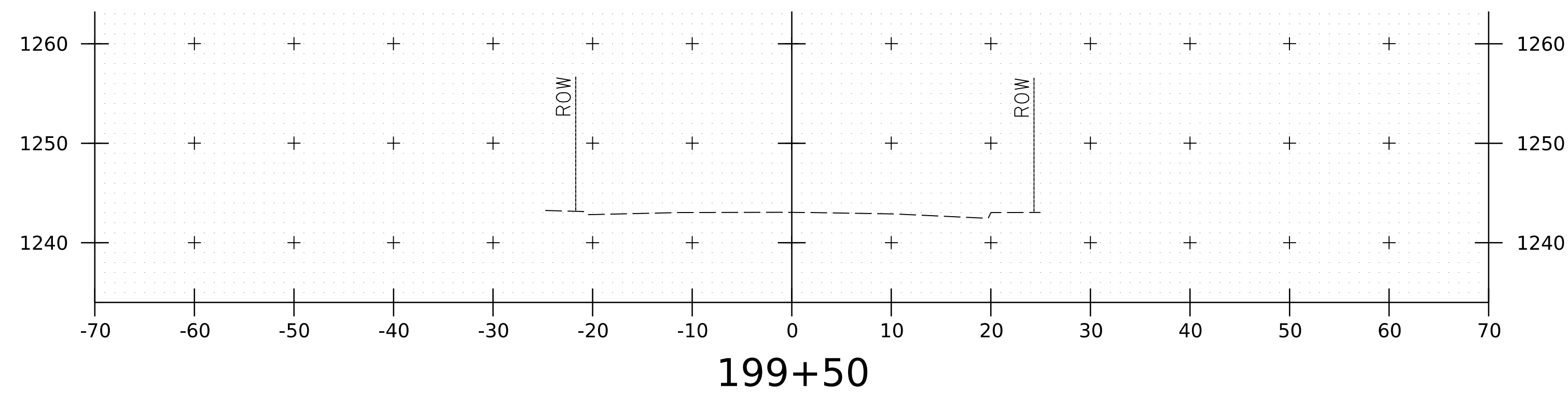
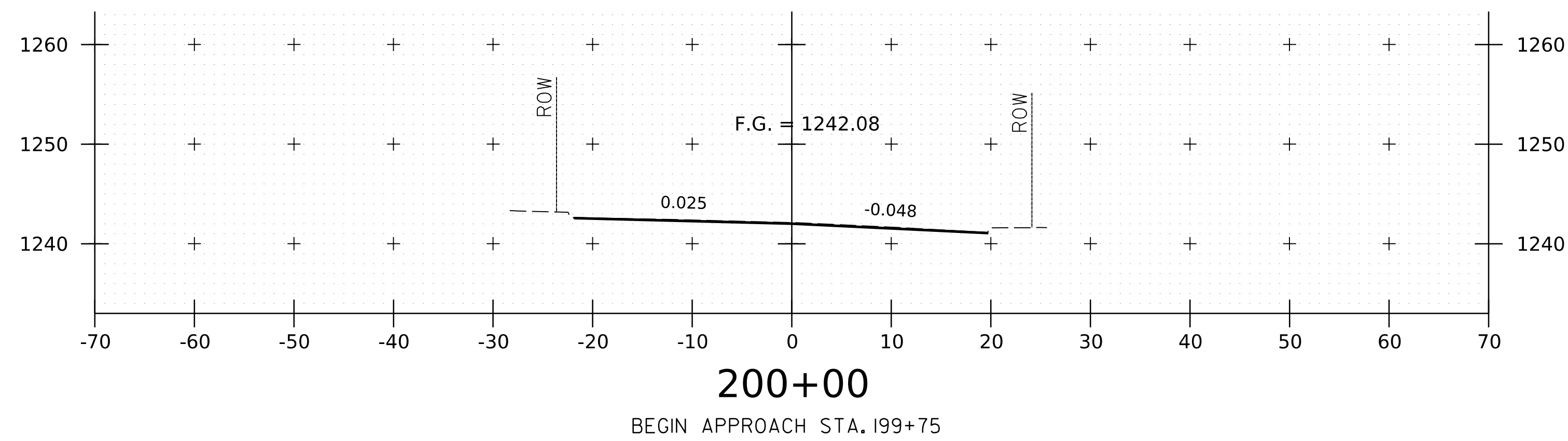
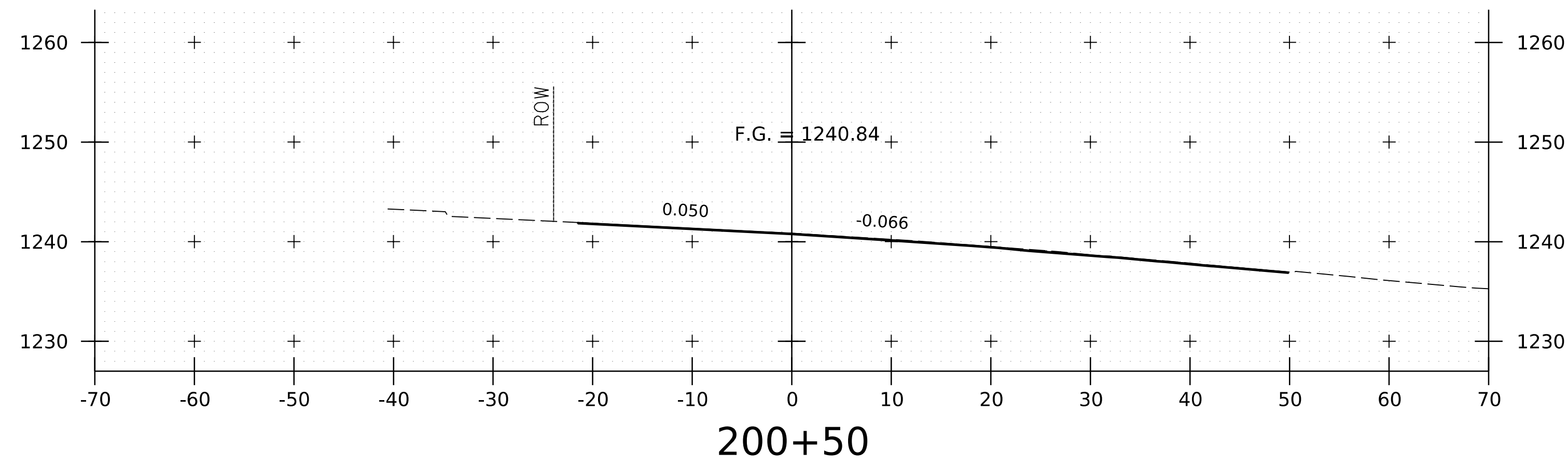


PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	K.D. WENTWORTH
FILE NAME:	z13c068raildet.dgn	CHECKED BY:	N.A. TRUSLOW
PROJECT LEADER:	S.E. BURBANK	SHEET	135 OF 220
DESIGNED BY:	S.E. BURBANK		
APPROACH RAIL DETAILS (2 OF 2)			









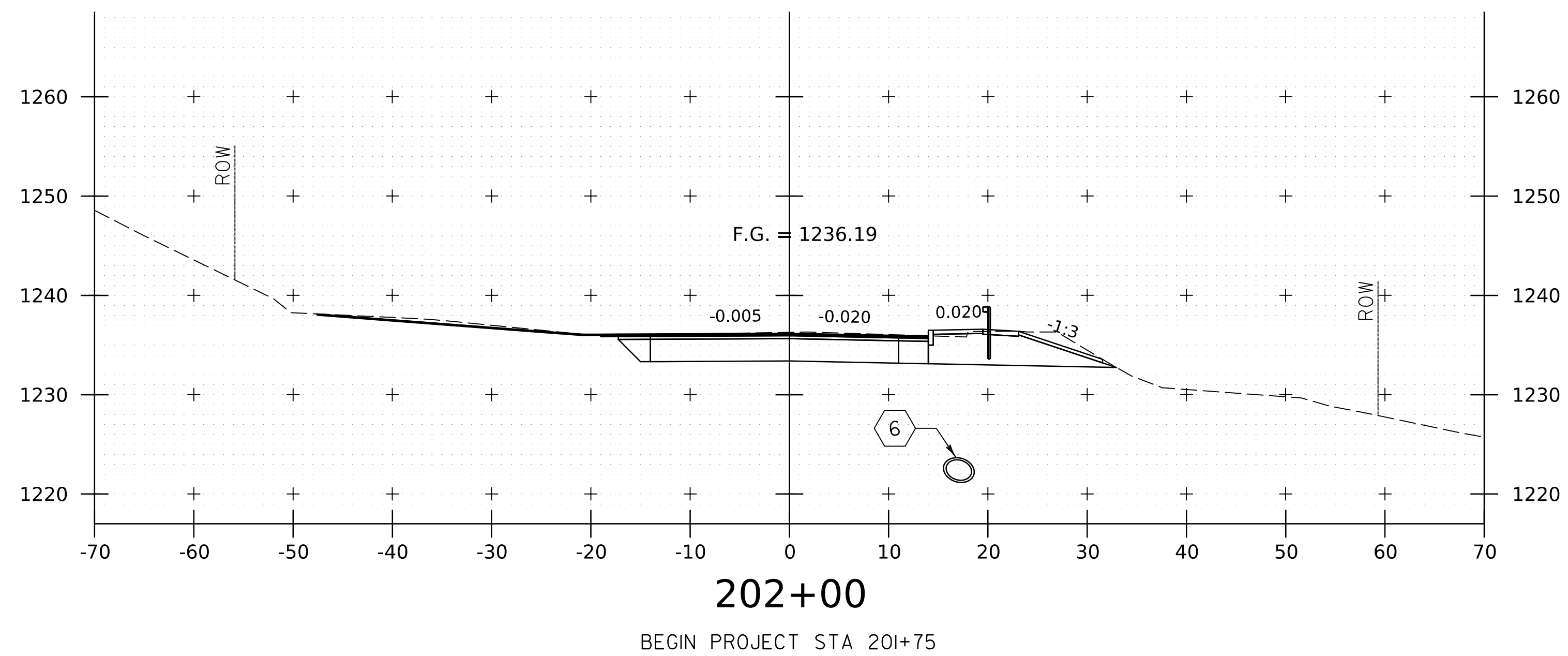
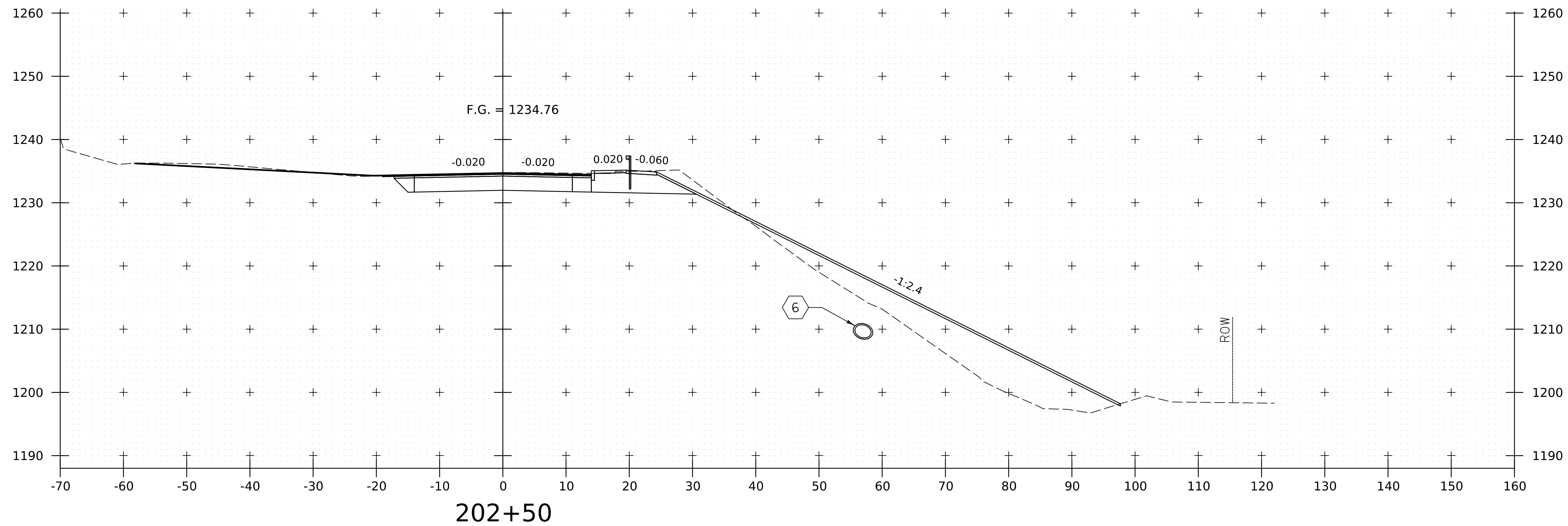
VT 100 CROSS SECTIONS

STA. 199+50 - 201+50  
SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 138 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (1 OF 15)	



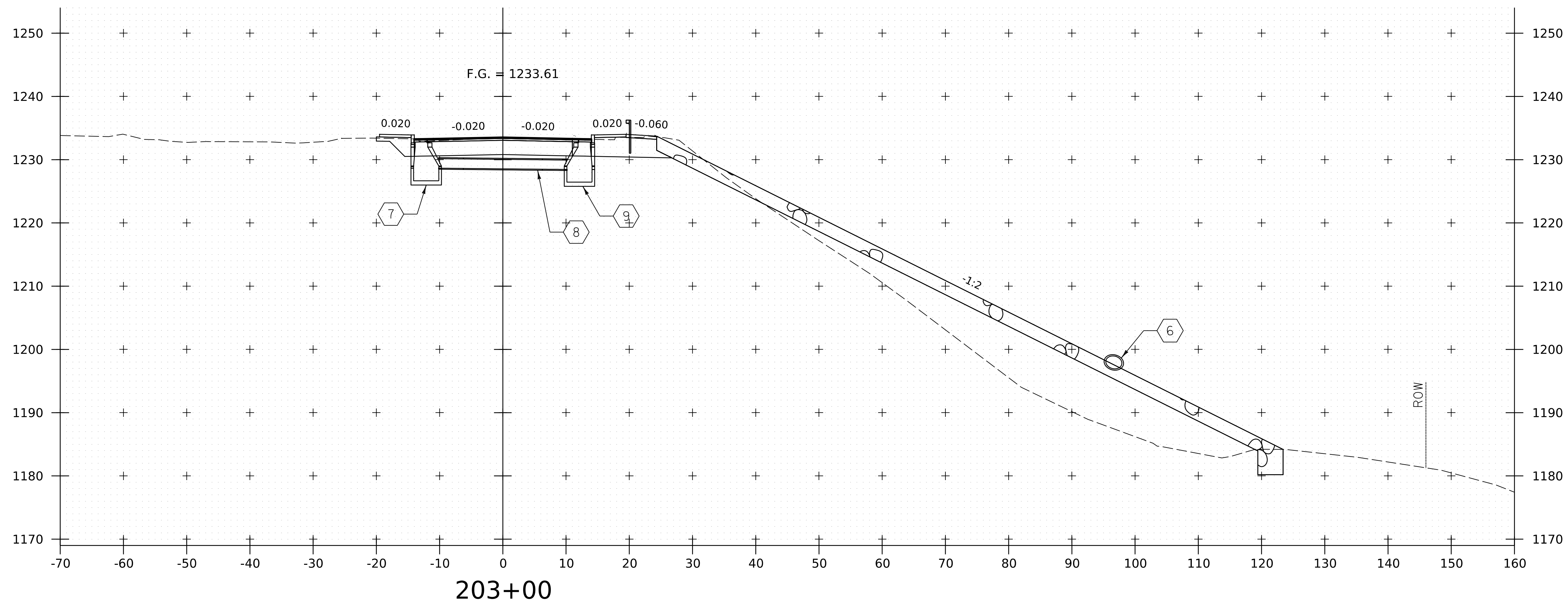


202+00  
BEGIN PROJECT STA 201+75

VT 100 CROSS SECTIONS  
STA. 202+00 - 202+50  
SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 139 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (2 OF 15)	

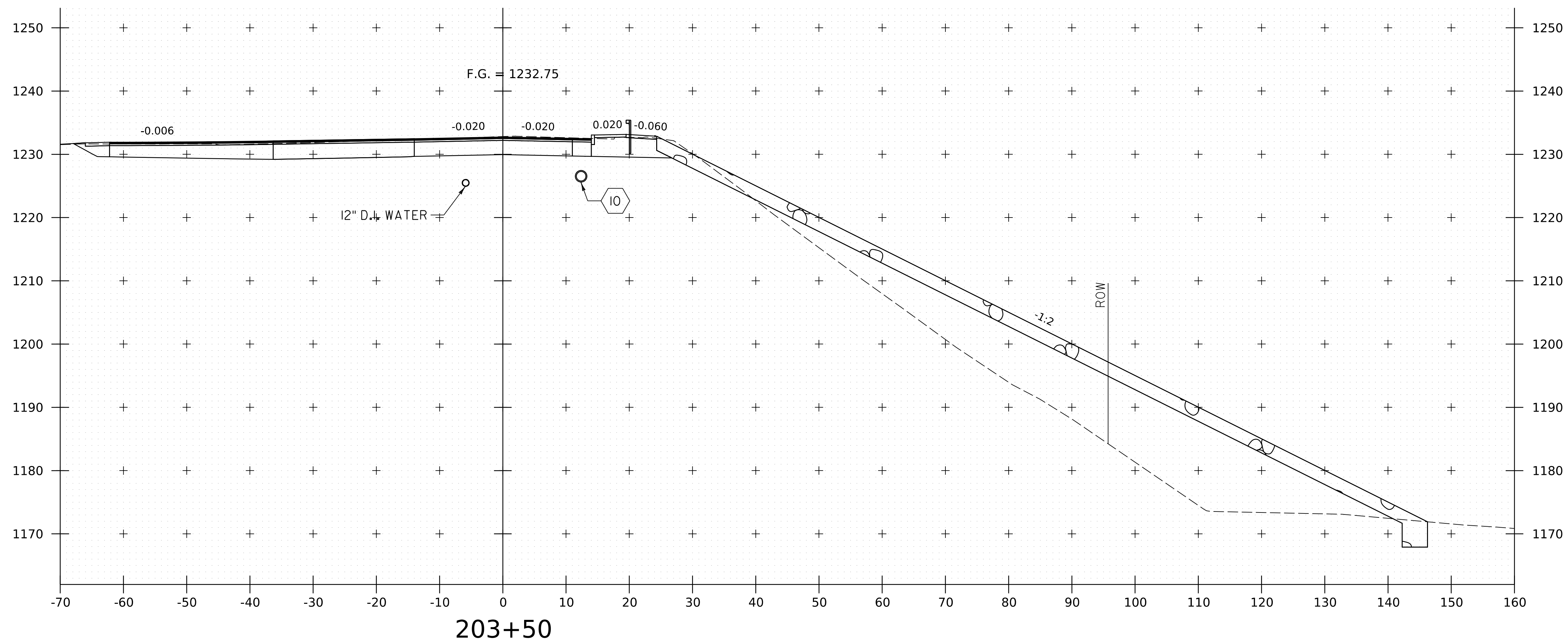


VT 100 CROSS SECTIONS

STA. 203+00  
 SCALE 1" = 10' -0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 140 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (3 OF 15)	

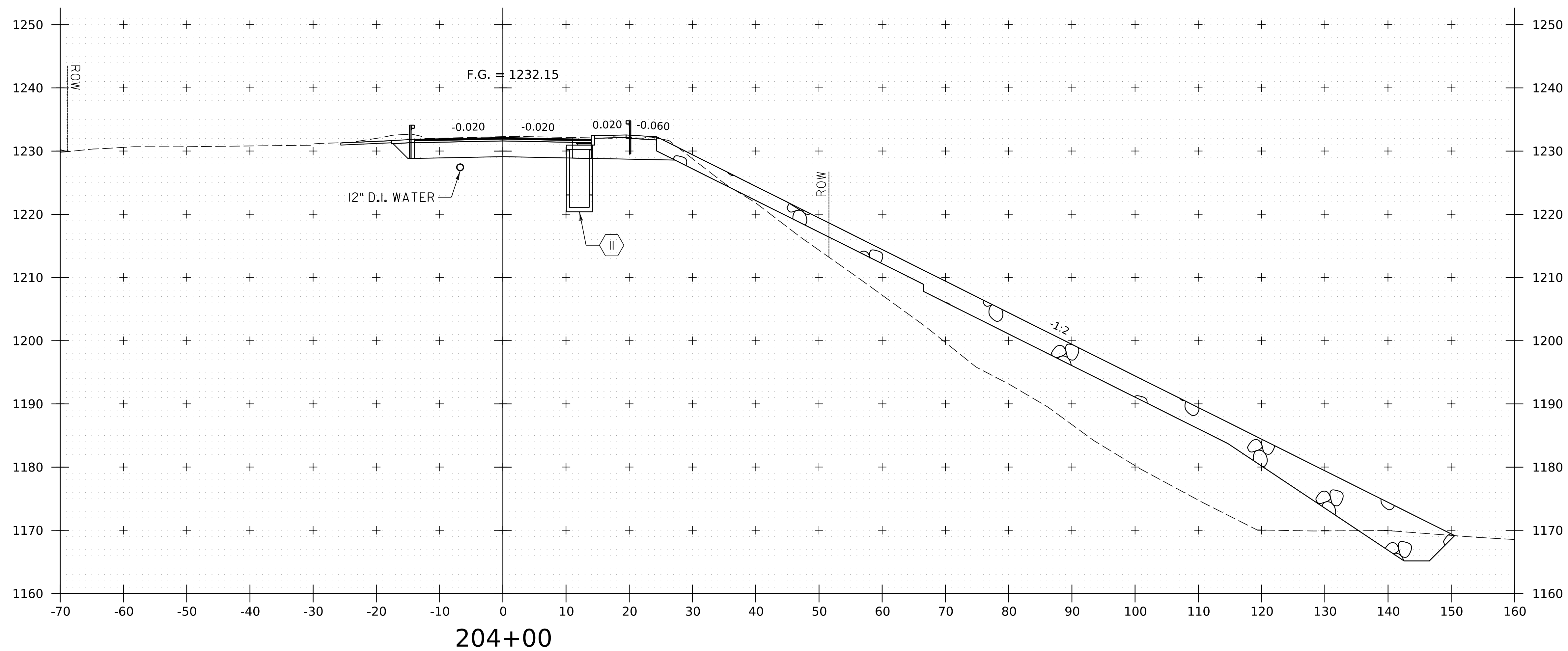


VT 100 CROSS SECTIONS

STA. 203+50  
SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 141 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (4 OF 15)	

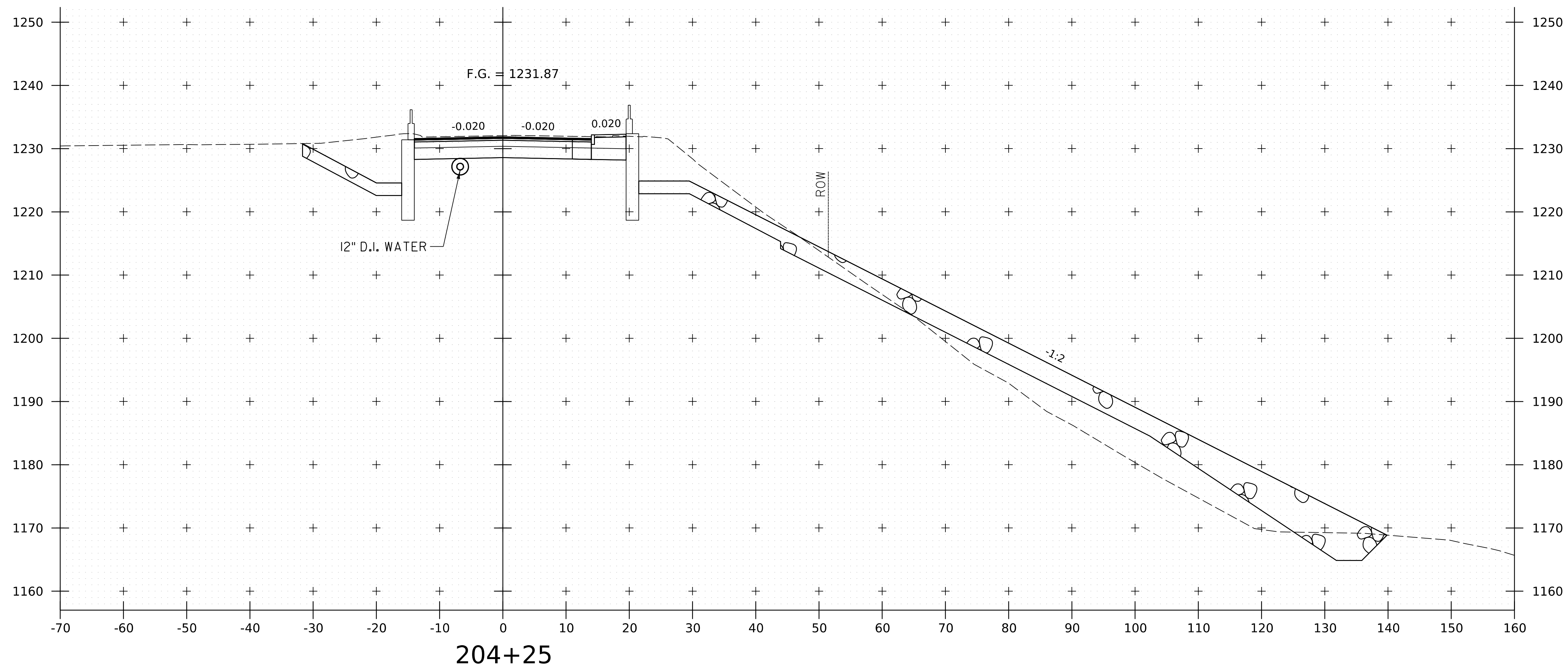


VT 100 CROSS SECTIONS

STA. 204+00  
 SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 142 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (5 OF 15)	



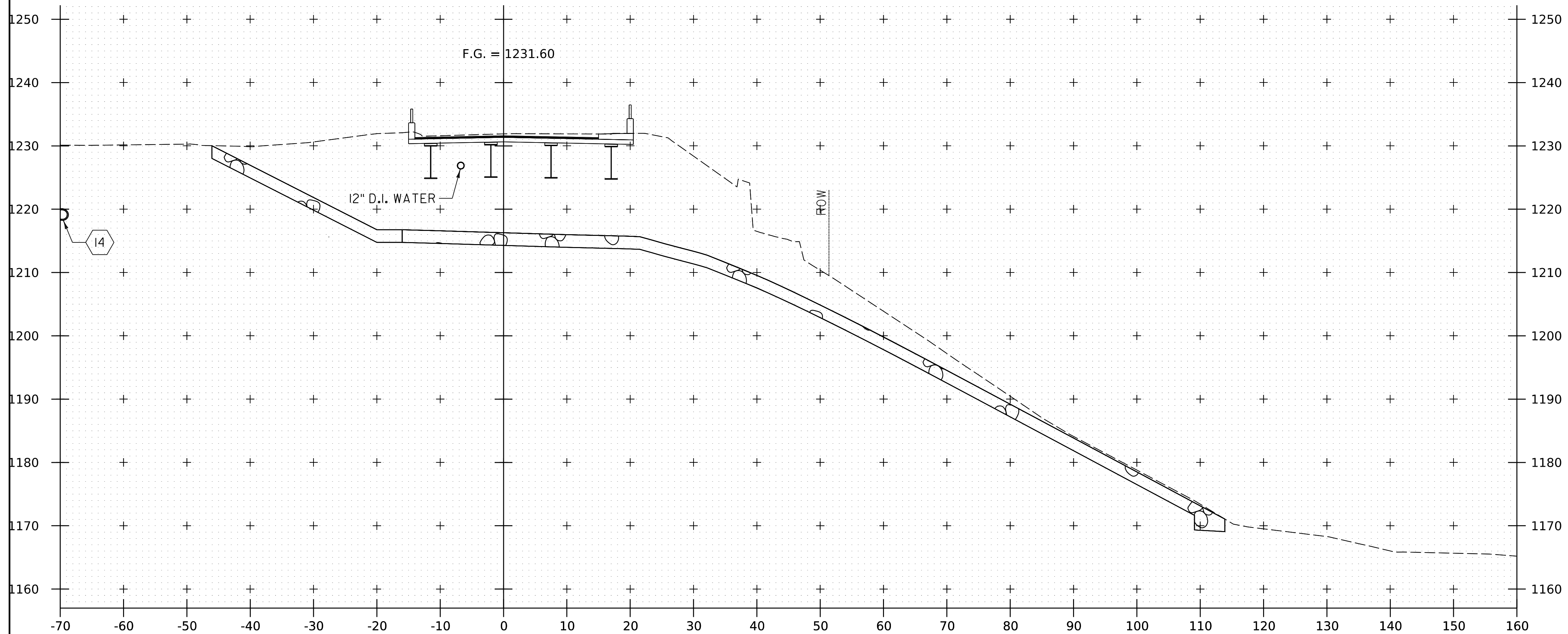
VT 100 CROSS SECTIONS

STA. 204+25  
SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 143 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (6 OF 15)	





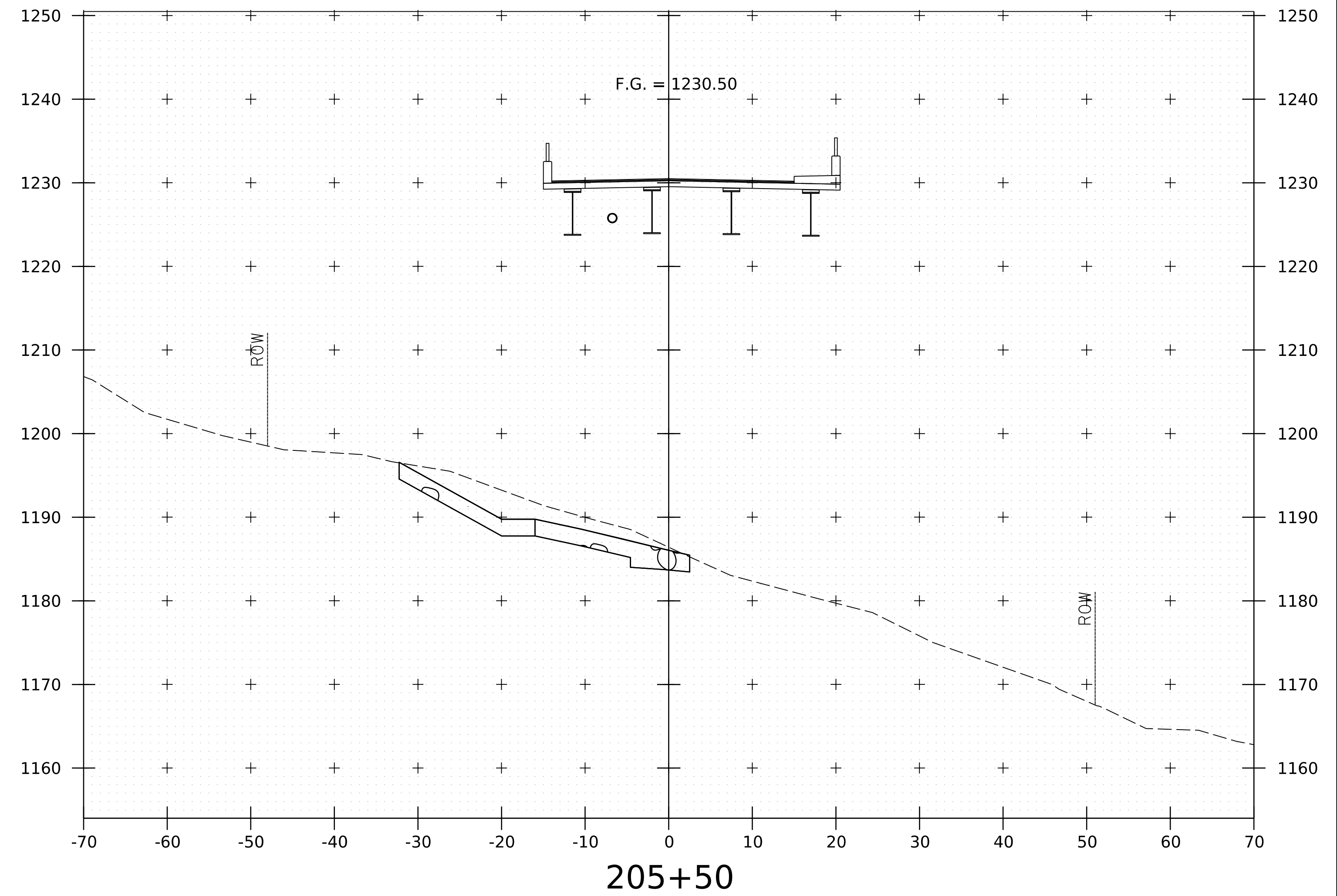
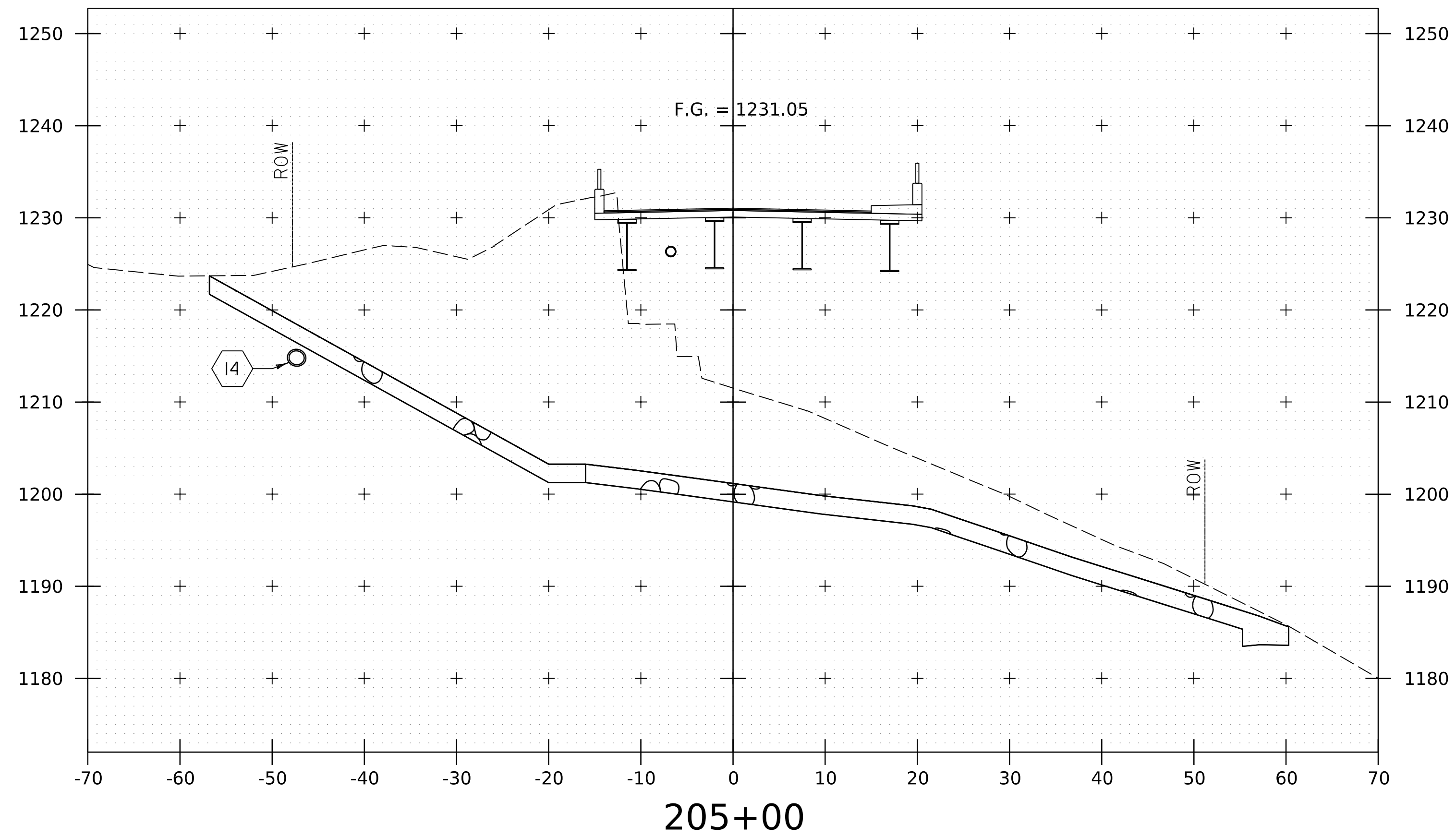
204+50  
 BEGIN BRIDGE STA. 204+29.50

PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs.vt100.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: N.A. TRUSLOW  
 VT 100 CROSS SECTIONS (7 OF 15)

PLOT DATE: 4/12/2024  
 DRAWN BY: M.F. NEMETH  
 CHECKED BY: N.A. TRUSLOW  
 SHEET 144 OF 220



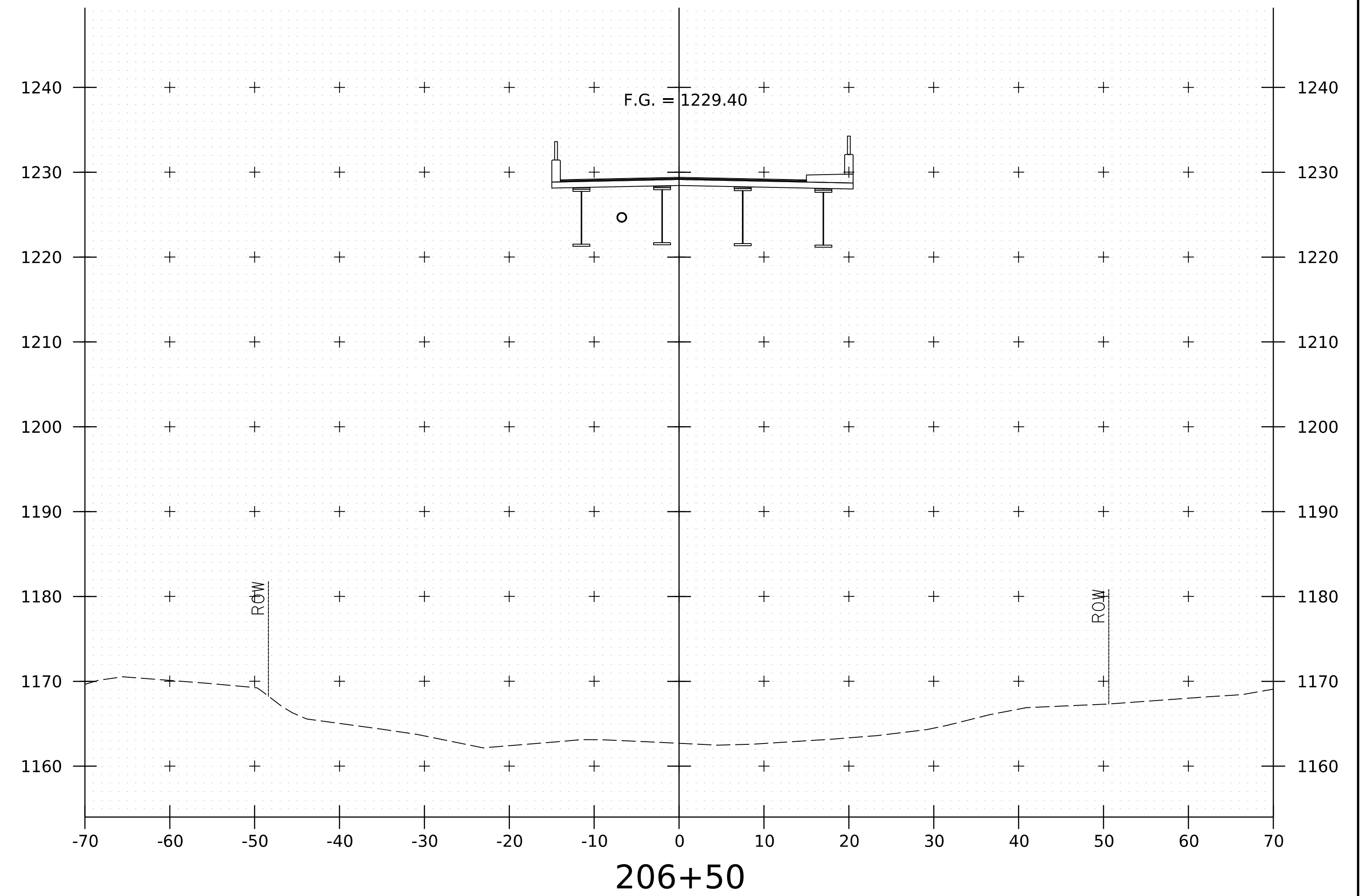
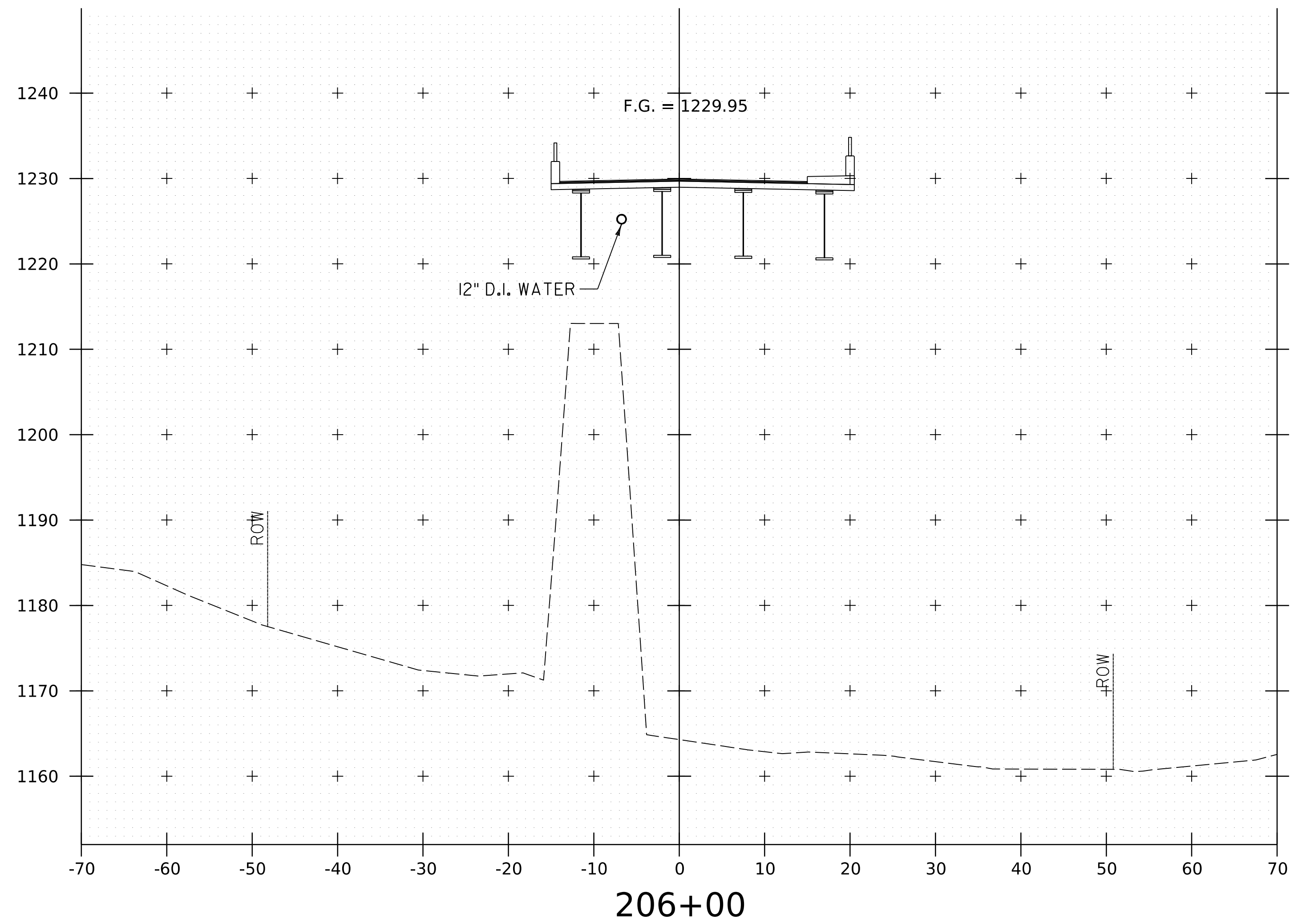


VT 100 CROSS SECTIONS

STA. 204+50 - 205+50  
SCALE 1" = 10' - 0"



PROJECT NAME:	READSBORO	PLOT DATE:	4/12/2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	M.F. NEMETH
FILE NAME:	z13c068xs.vt100.dgn	DESIGNED BY:	N.A. TRUSLOW
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	N.A. TRUSLOW
VT 100 CROSS SECTIONS (8 OF 15)		SHEET	145 OF 220

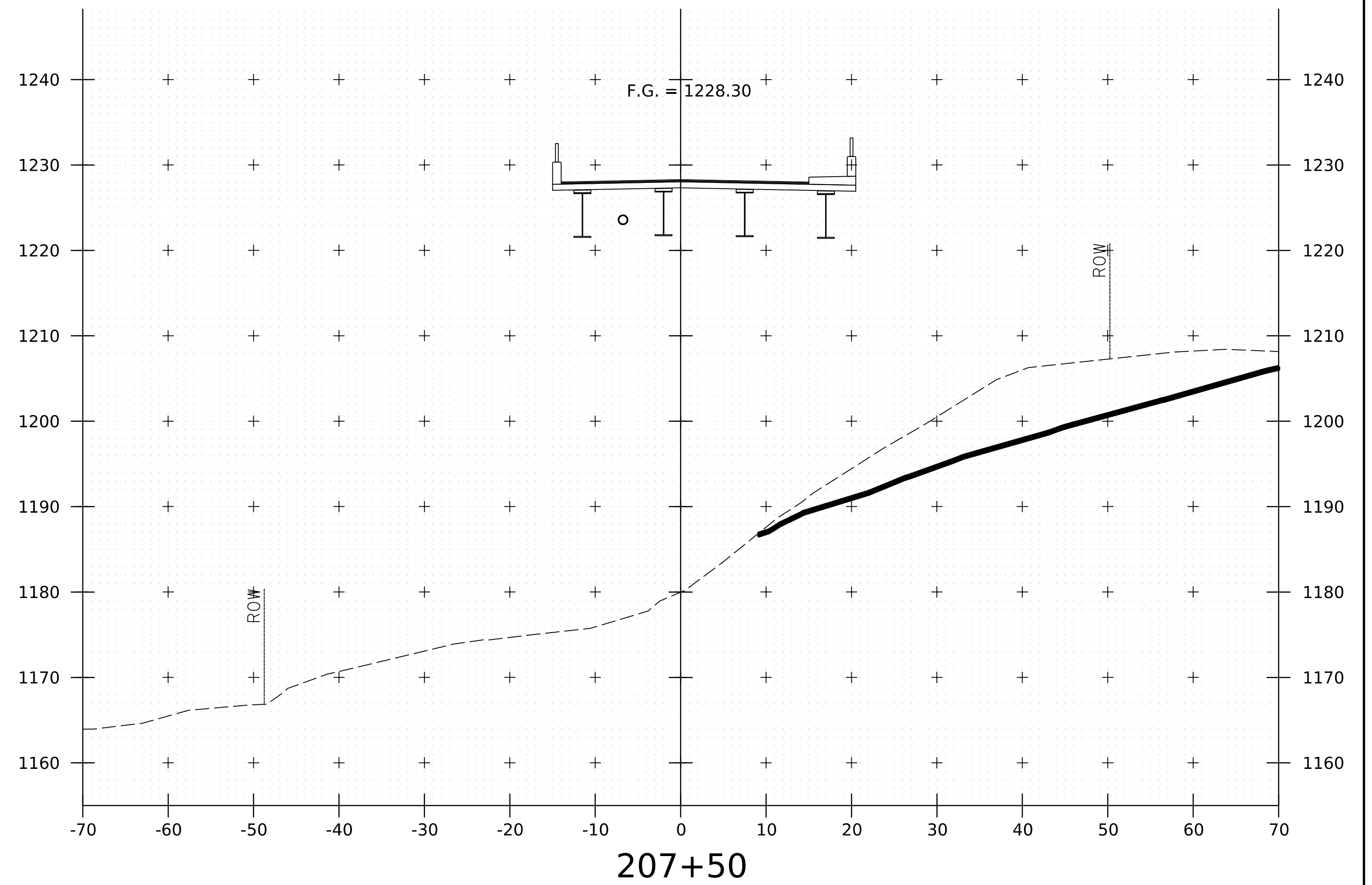
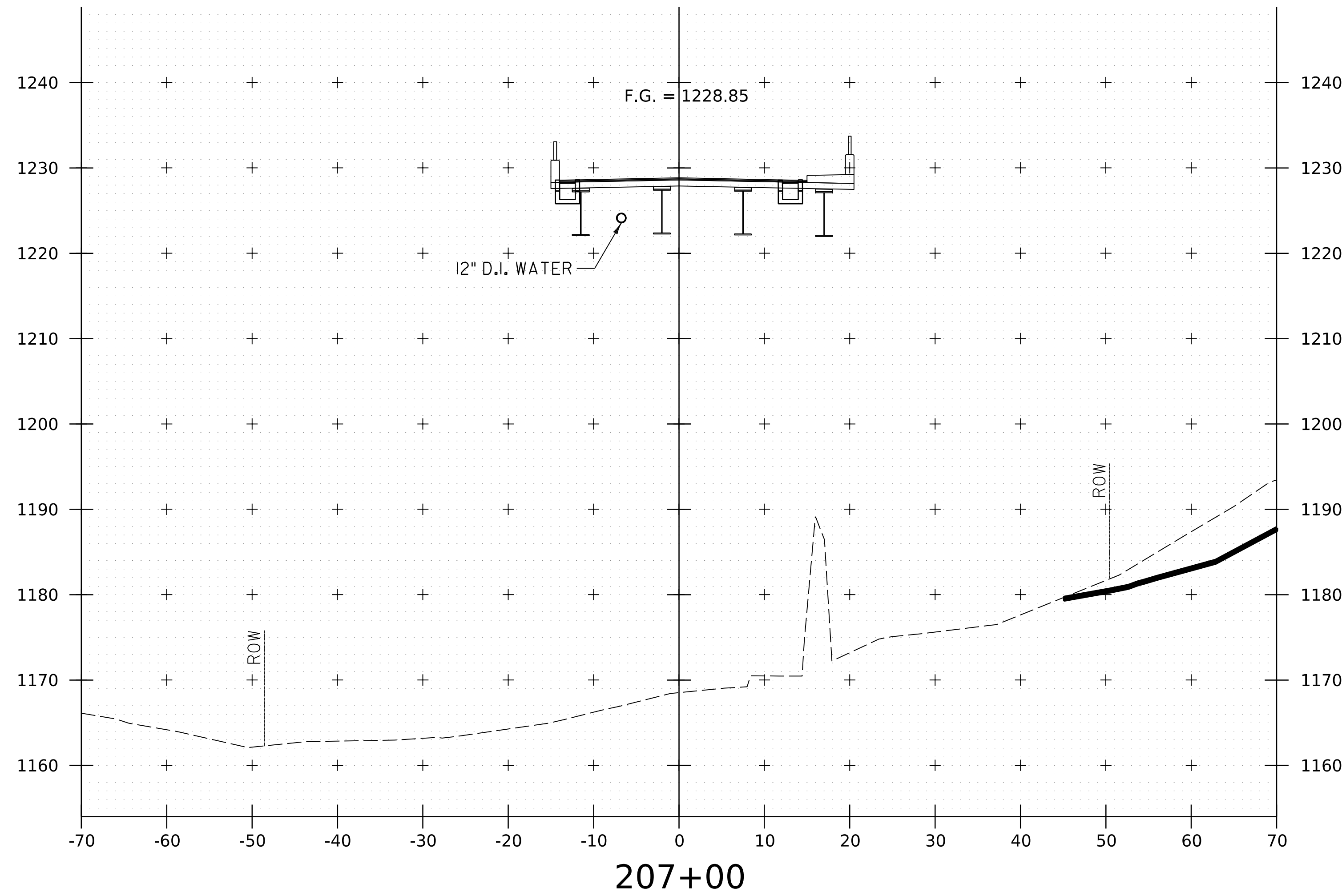


VT 100 CROSS SECTIONS

STA. 206+00 - 206+50  
SCALE 1" = 10' - 0"



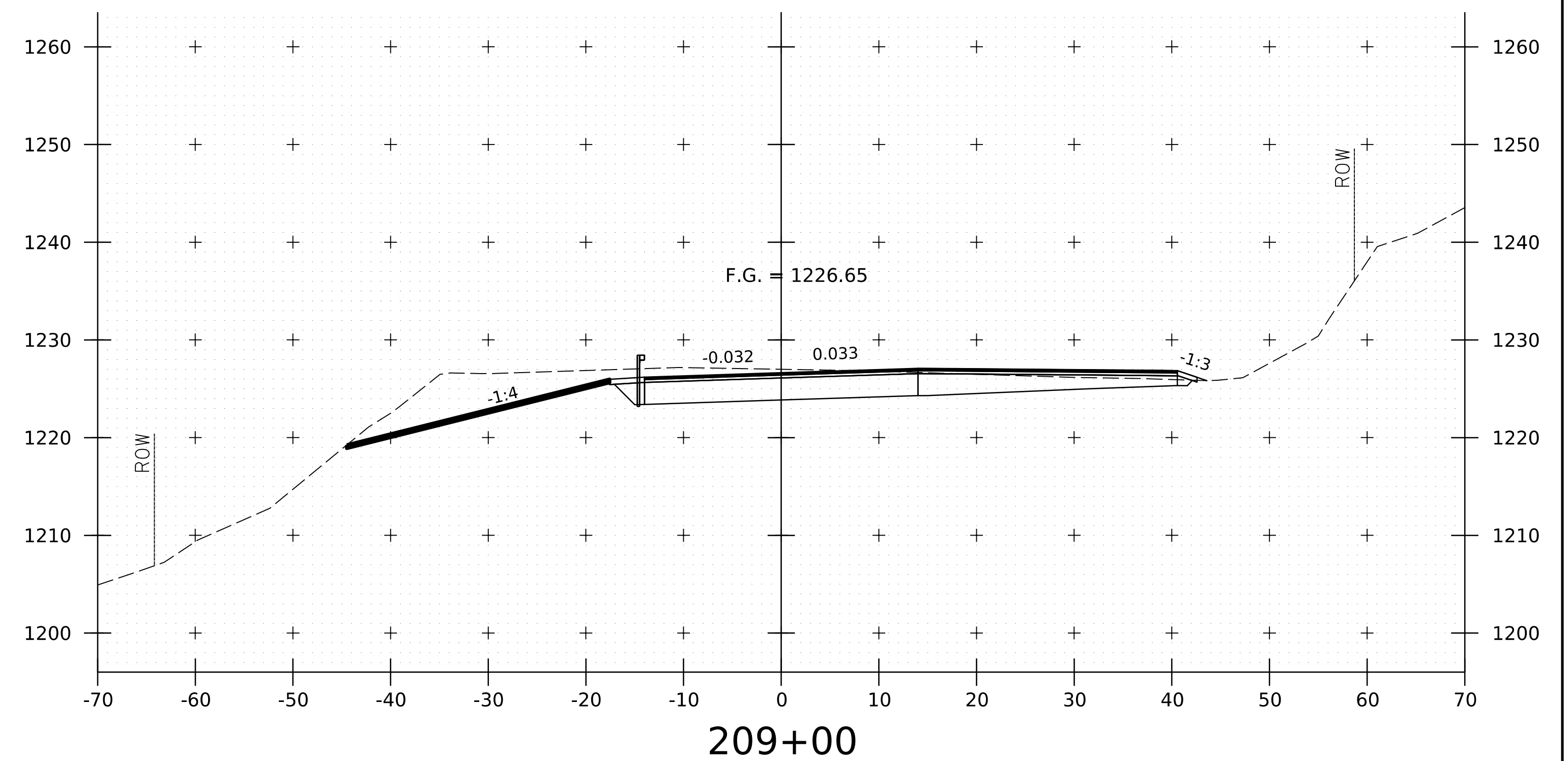
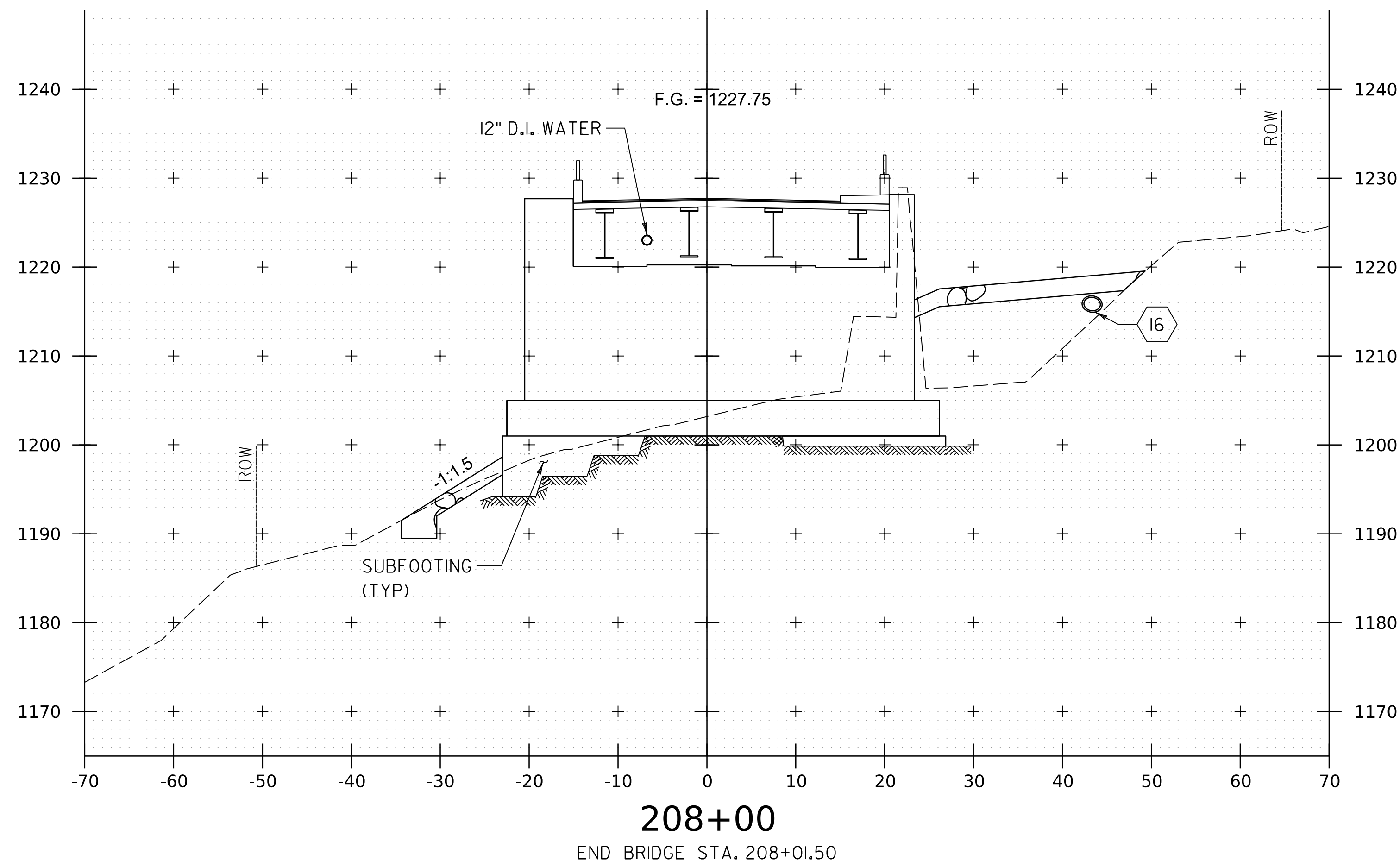
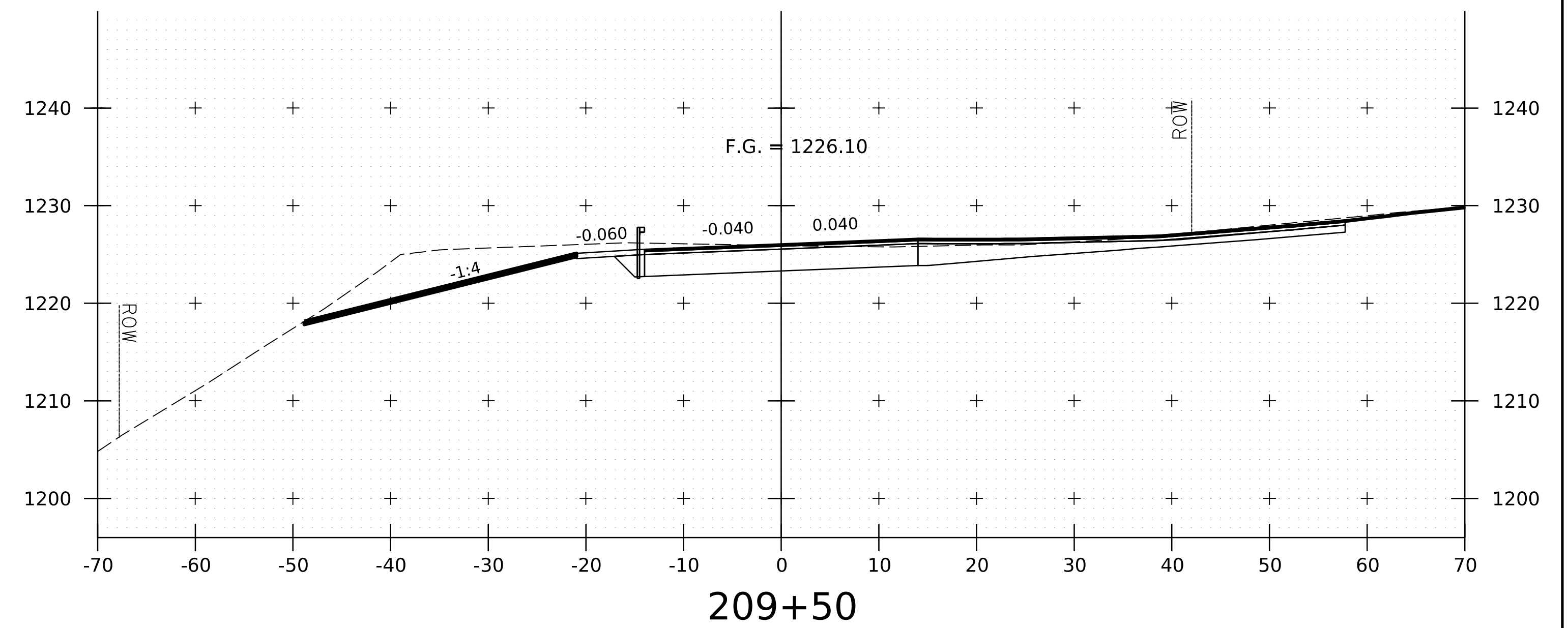
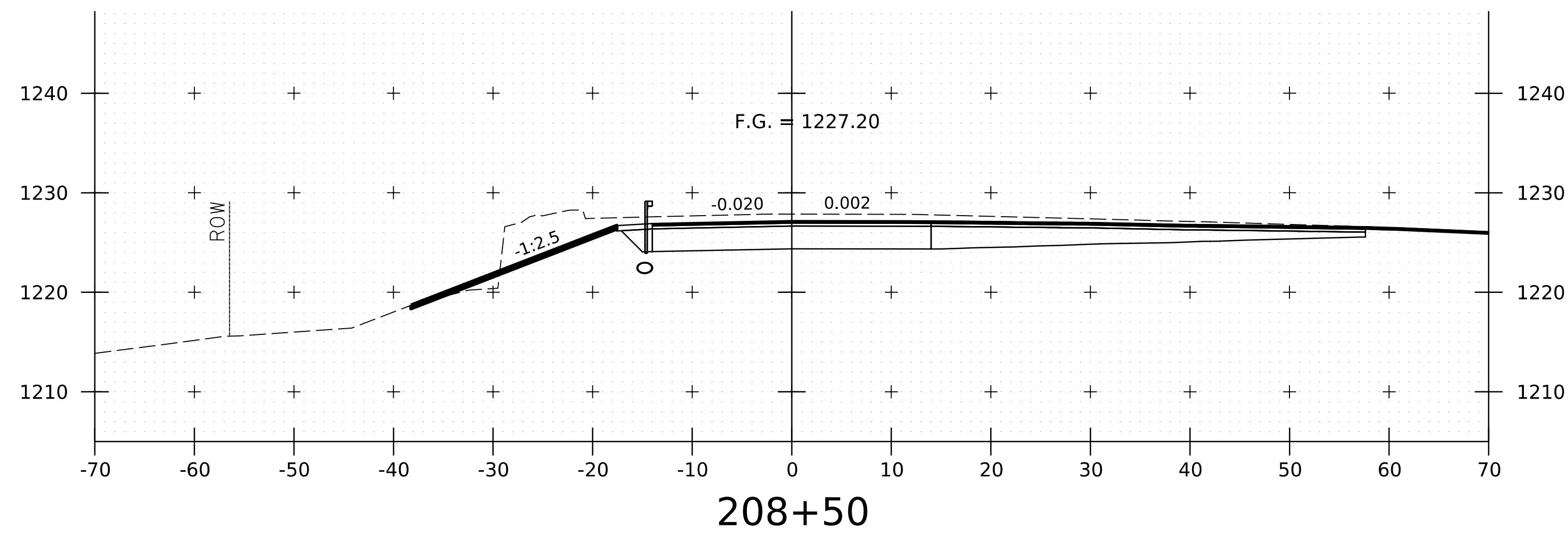
PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 146 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (9 OF 15)	



VT 100 CROSS SECTIONS  
 STA. 207+00 - 207+50  
 SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs.vt100.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: M.F. NEMETH
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: N.A. TRUSLOW
VT 100 CROSS SECTIONS (10 OF 15)	SHEET 147 OF 220



VT 100 CROSS SECTIONS

STA. 208+00 - 209+50  
SCALE 1" = 10' - 0"

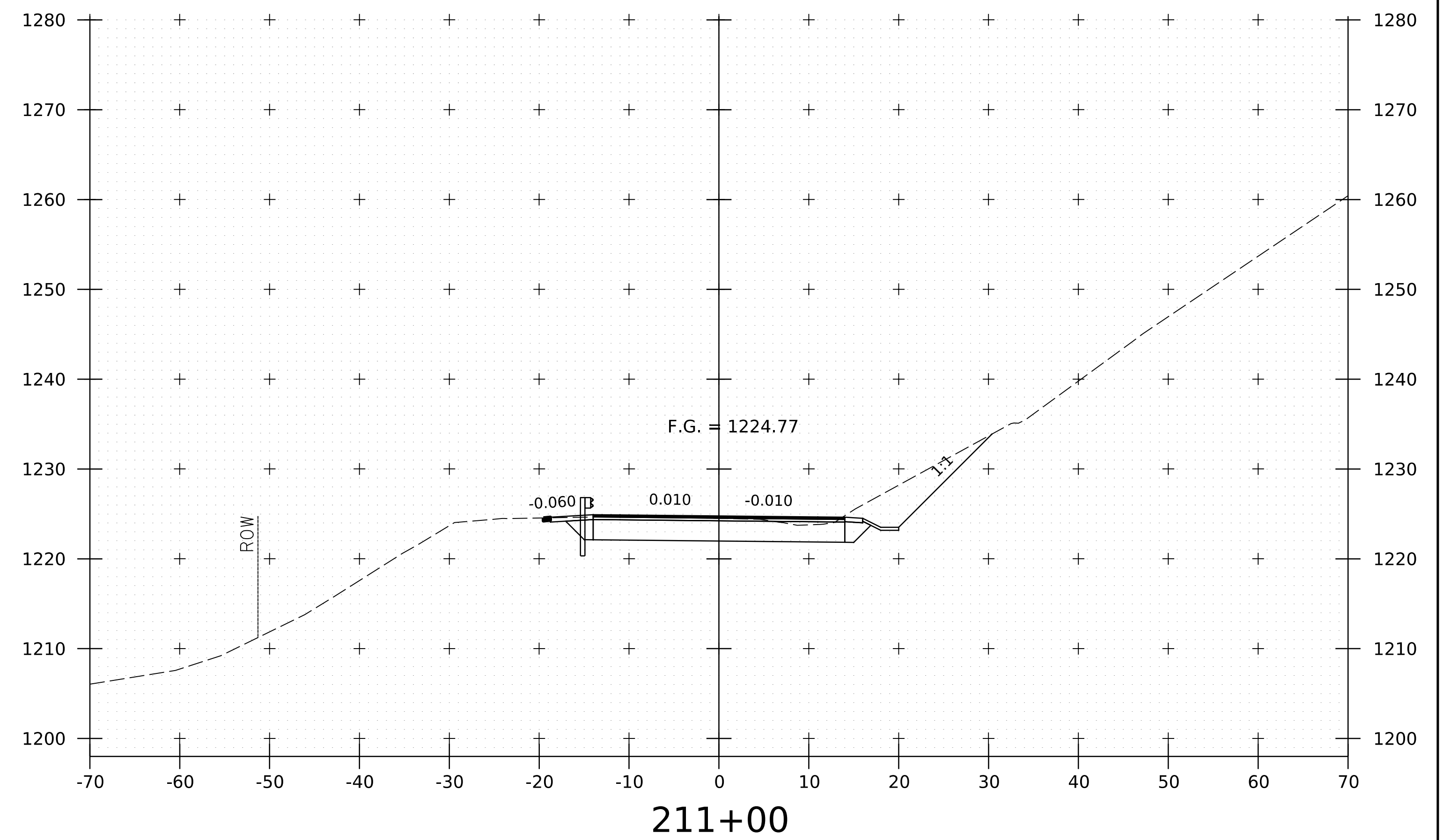
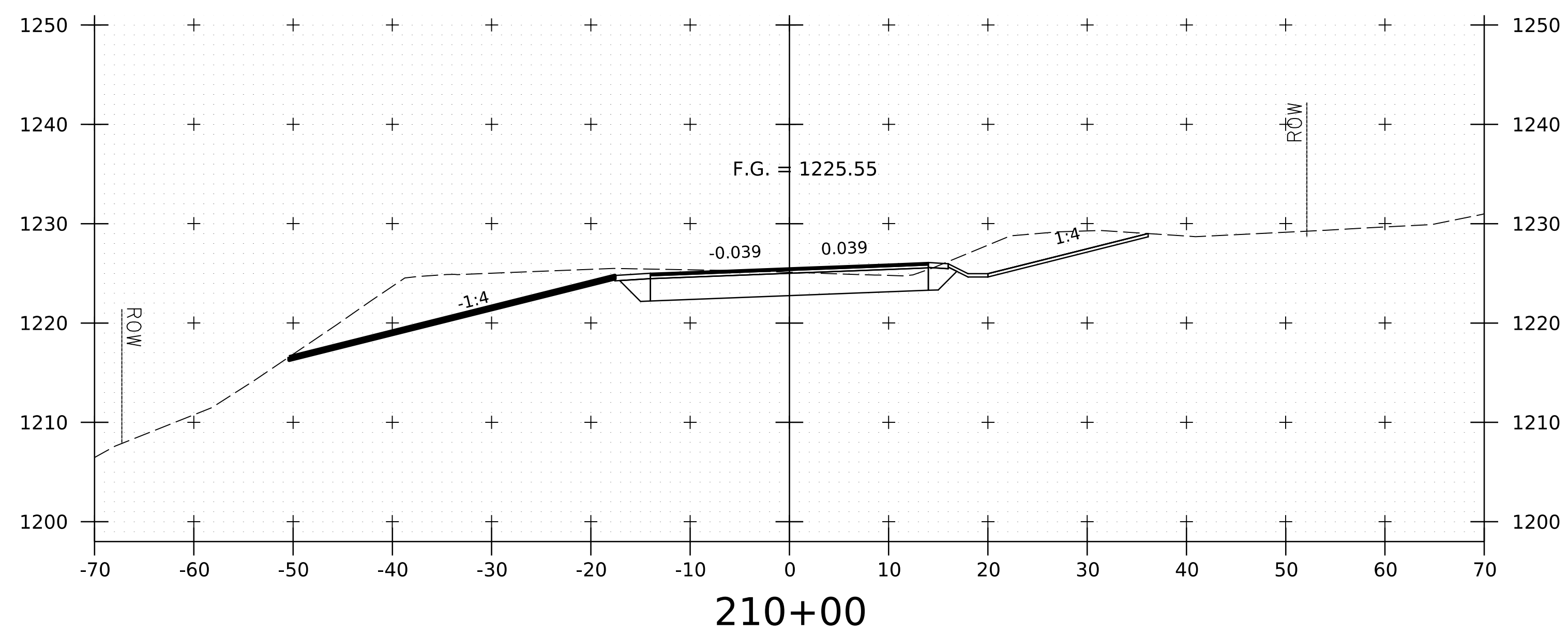
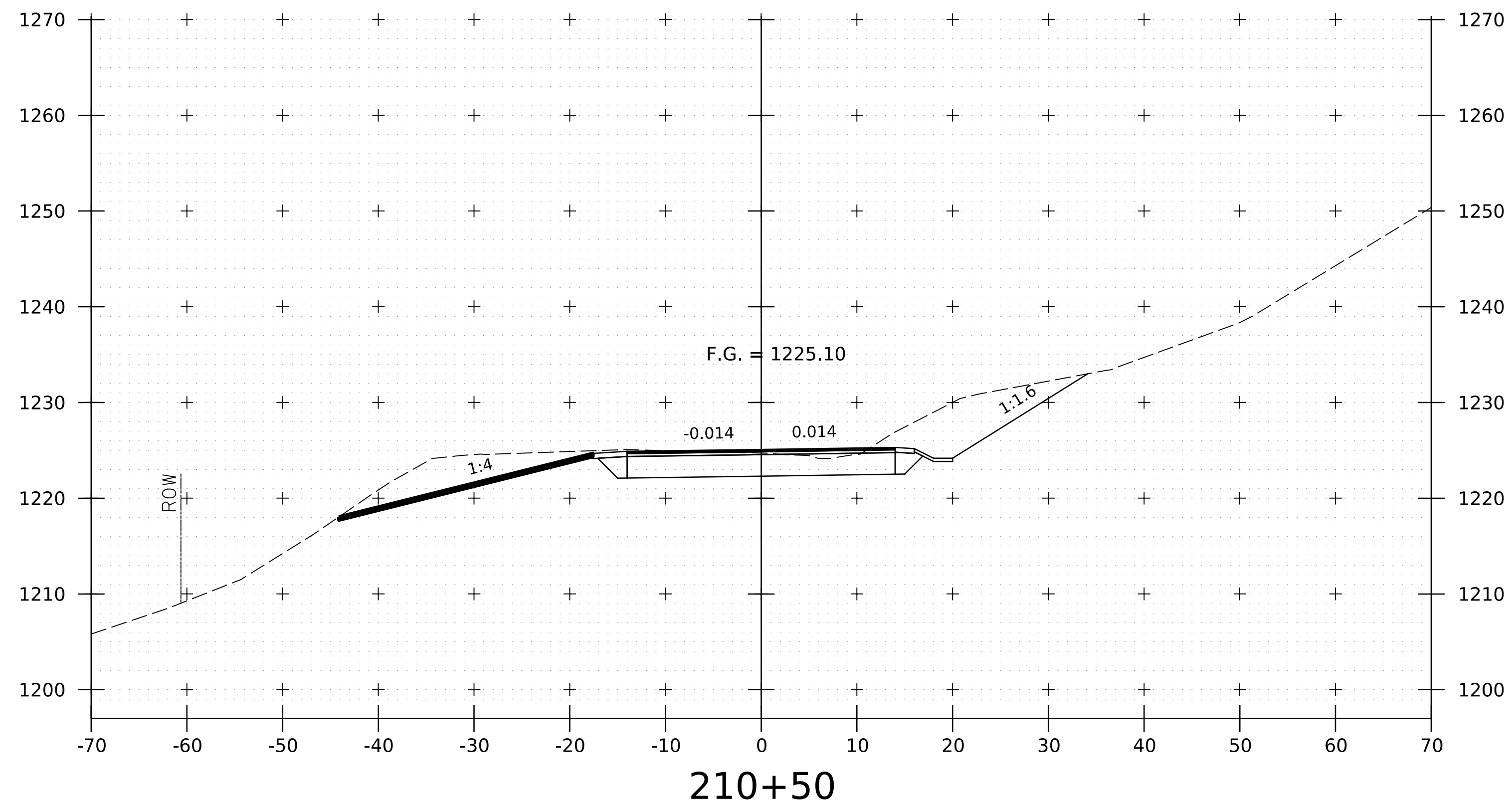


PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs.vt100.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
VT 100 CROSS SECTIONS (II OF 15)

PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: N.A. TRUSLOW  
SHEET 148 OF 220



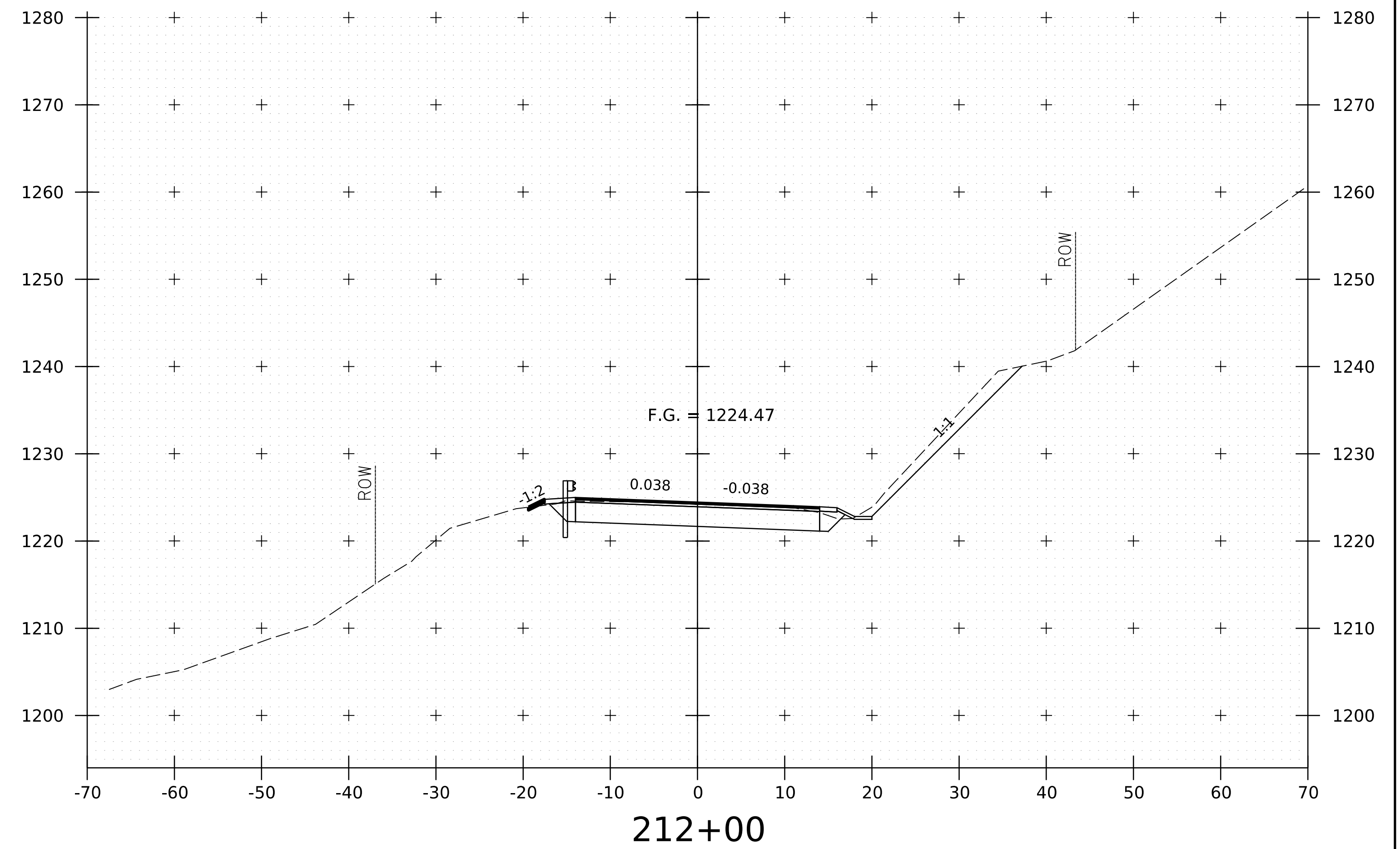
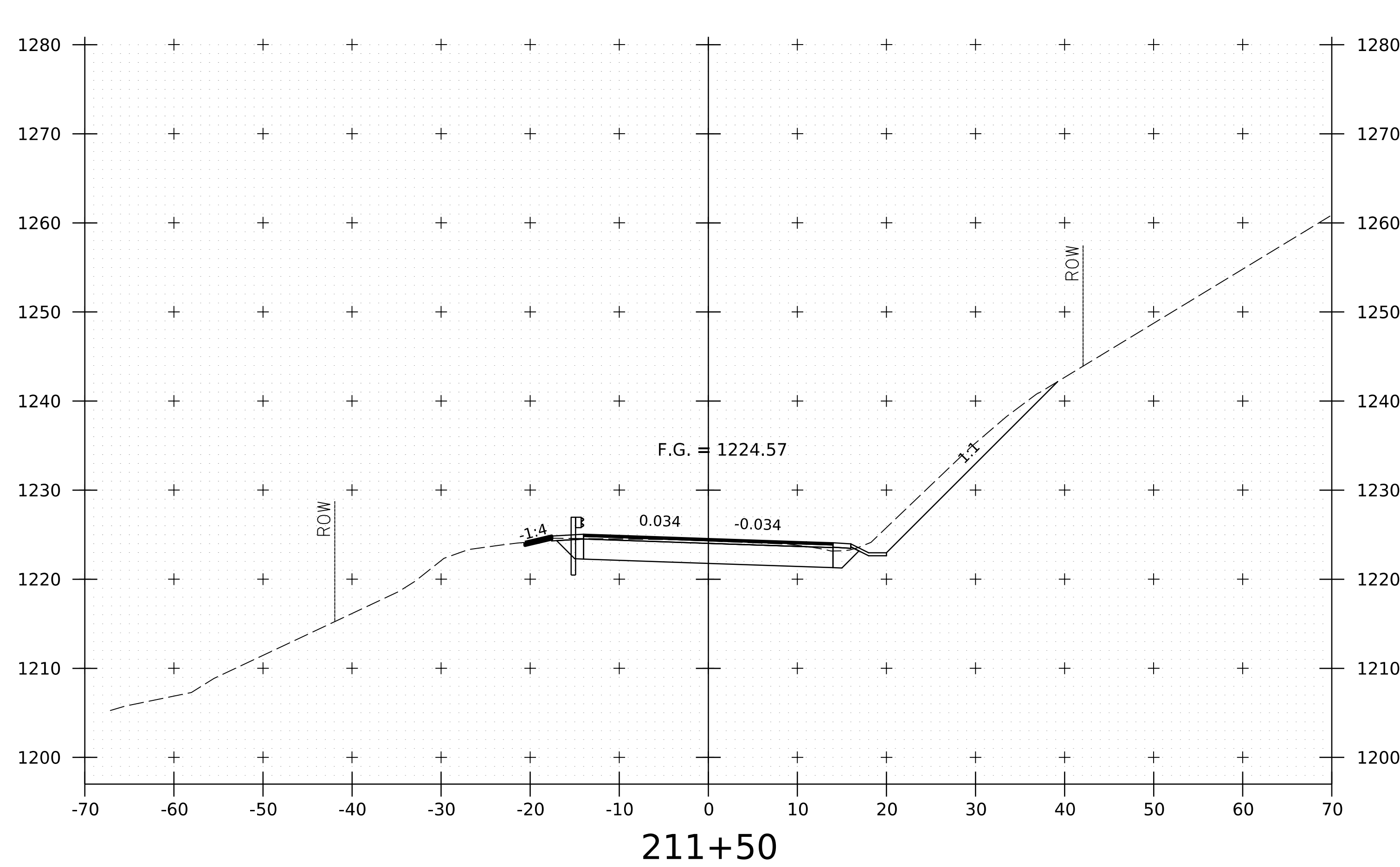


VT 100 CROSS SECTIONS

STA. 210+00 - 211+00  
SCALE 1" = 10' - 0"



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	M.F. NEMETH
FILE NAME:	z13c068xs.vt100.dgn	DESIGNED BY:	N.A. TRUSLOW
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	N.A. TRUSLOW
VT 100 CROSS SECTIONS (12 OF 15)		SHEET	149 OF 220



VT 100 CROSS SECTIONS

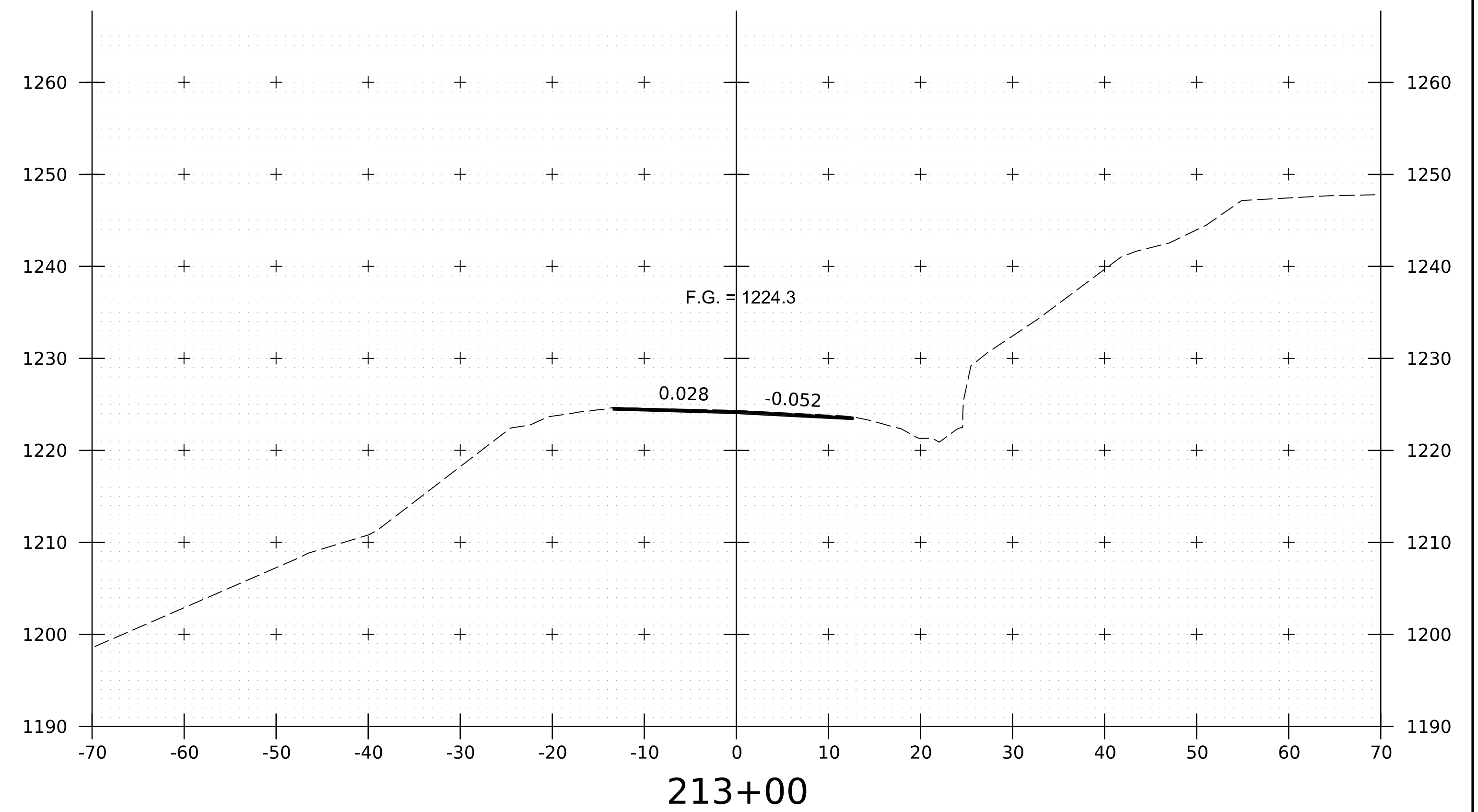
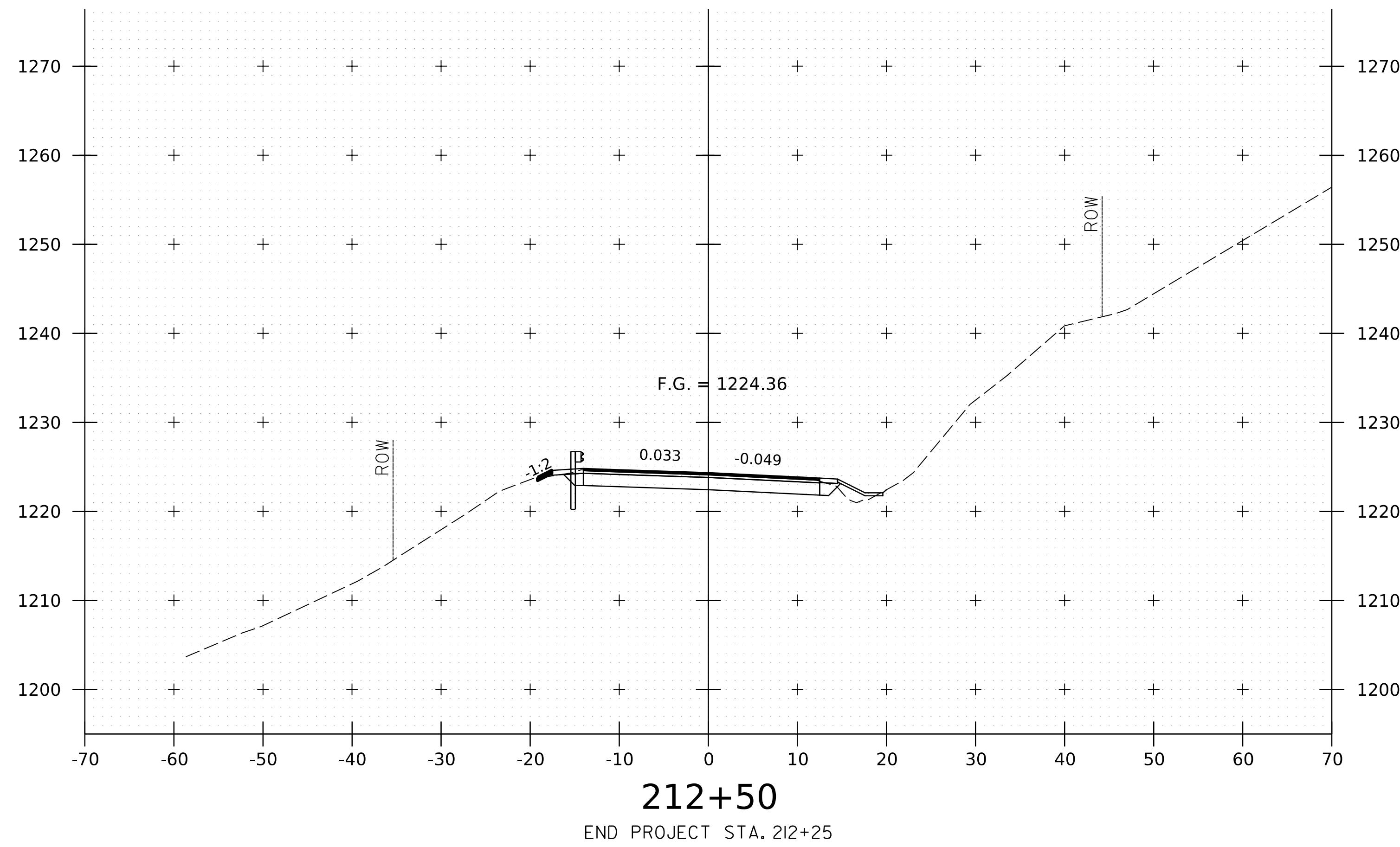
STA. 211+50 - 212+00  
SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs.vt100.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
VT 100 CROSS SECTIONS (13 OF 15)

PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: N.A. TRUSLOW  
SHEET 150 OF 220



VT 100 CROSS SECTIONS

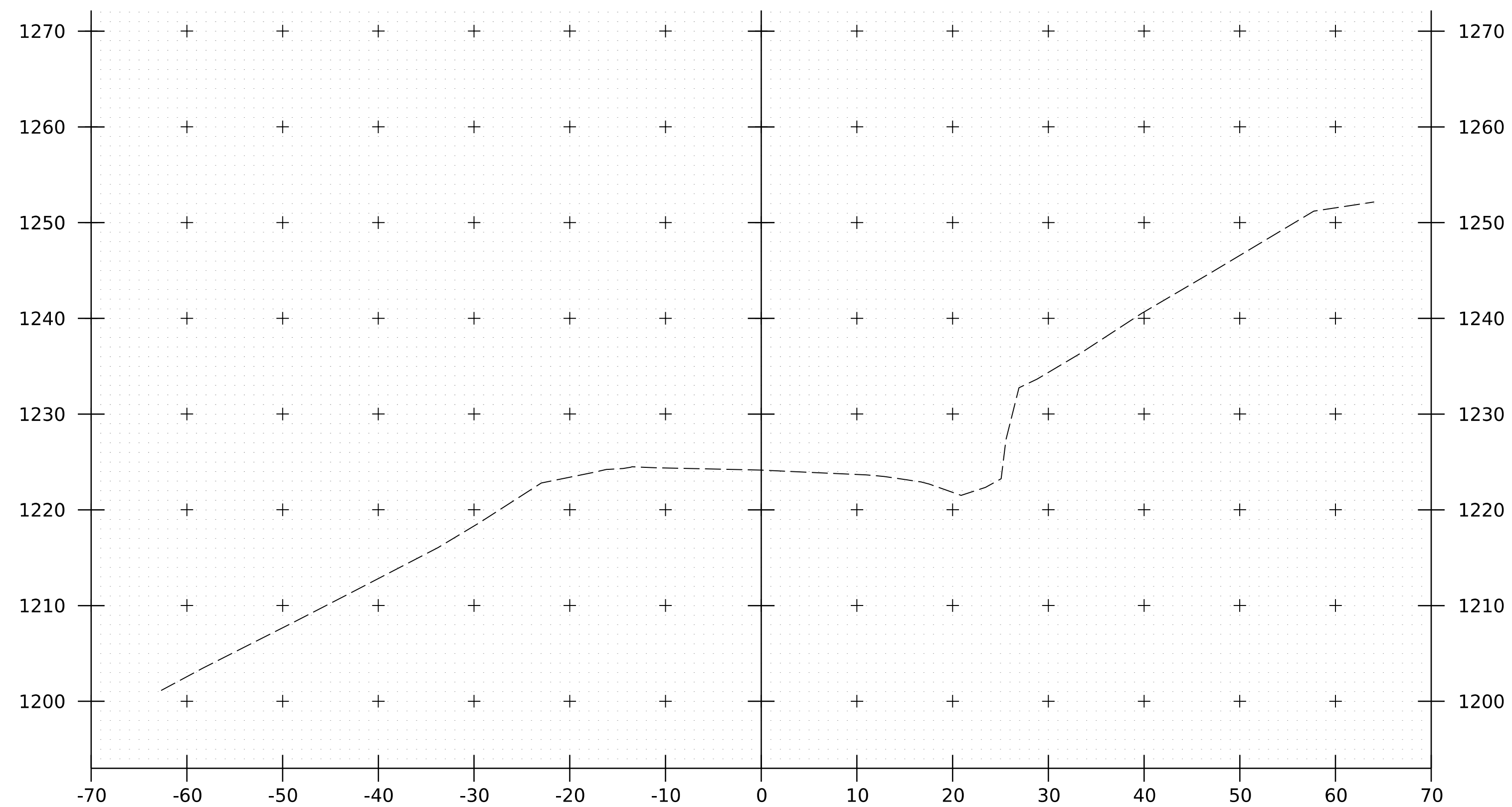
STA. 212+50 - 213+00  
SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO C/2  
PROJECT NUMBER: BF 0102(16)

FILE NAME: z13c068xs.vt100.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
VT 100 CROSS SECTIONS (14 OF 15)

PLOT DATE: 12-APR-2024  
DRAWN BY: M.F. NEMETH  
CHECKED BY: N.A. TRUSLOW  
SHEET 151 OF 220

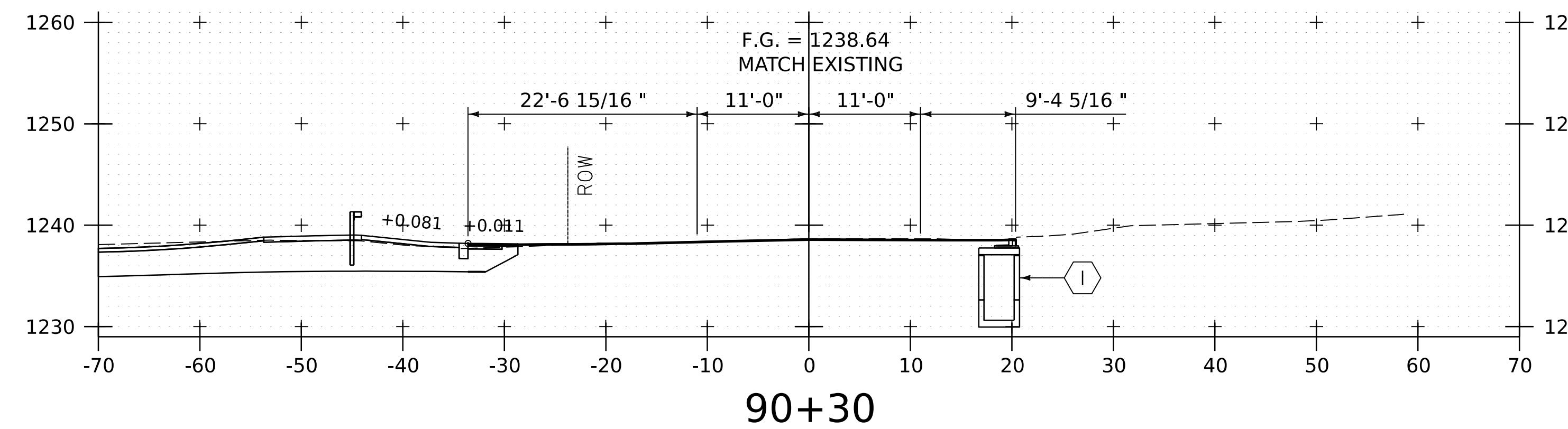
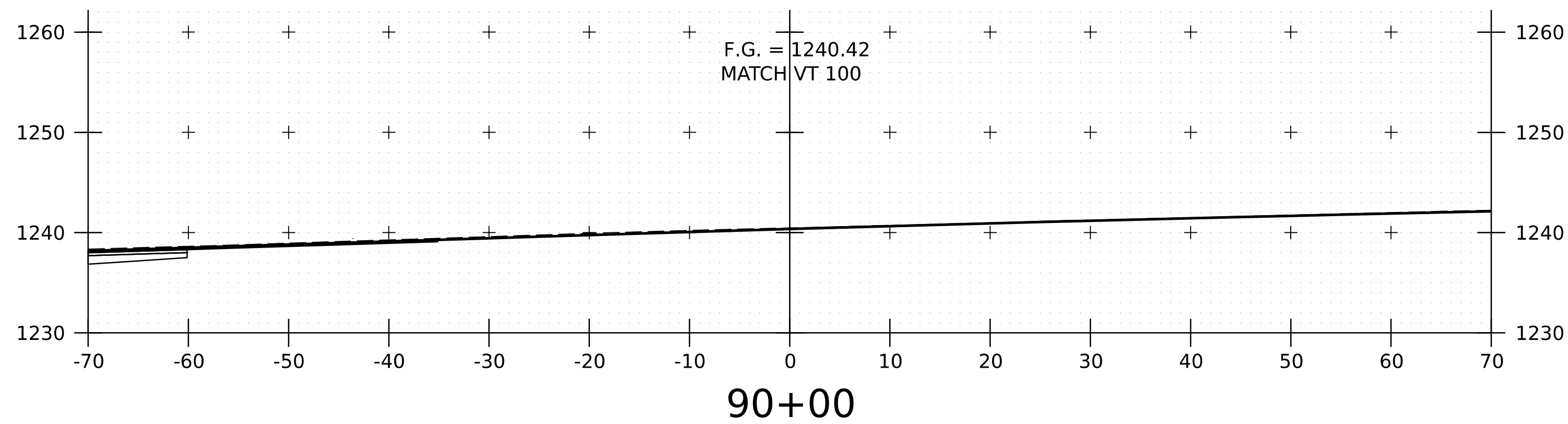
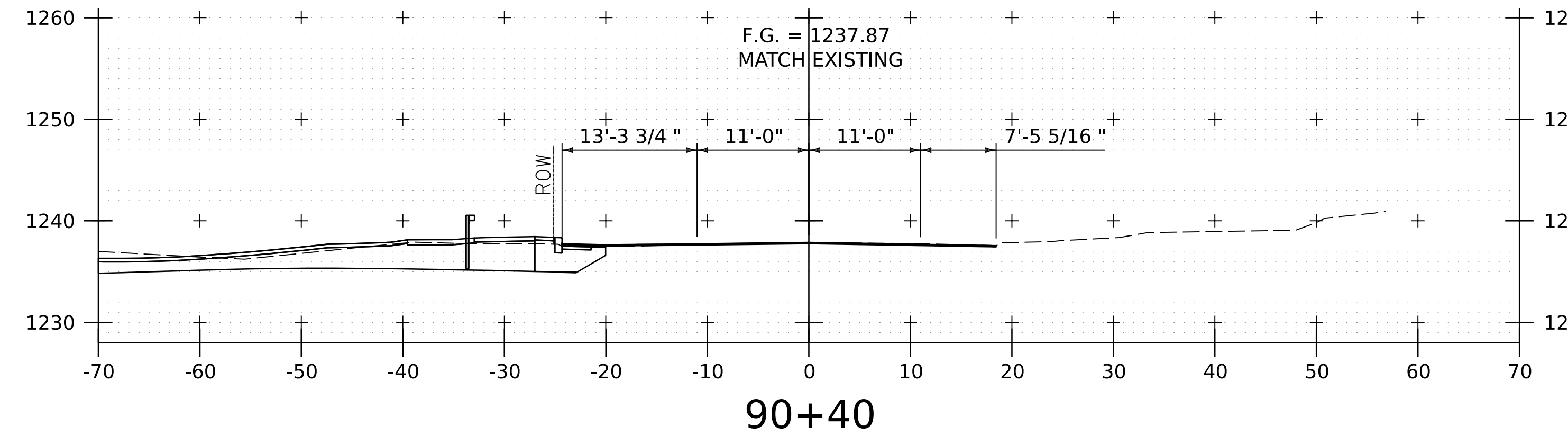
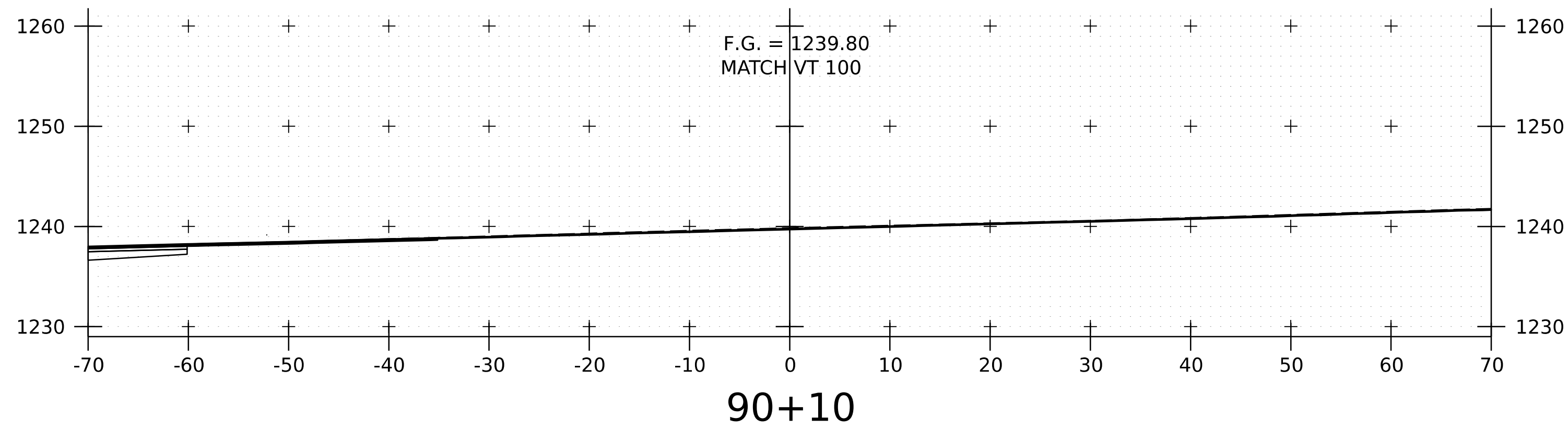
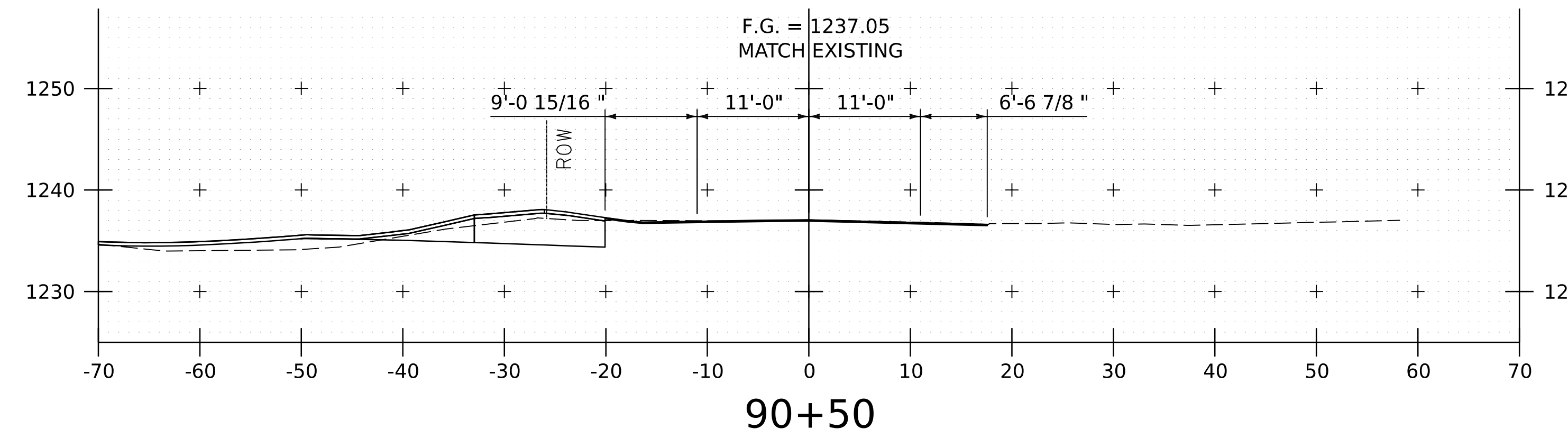
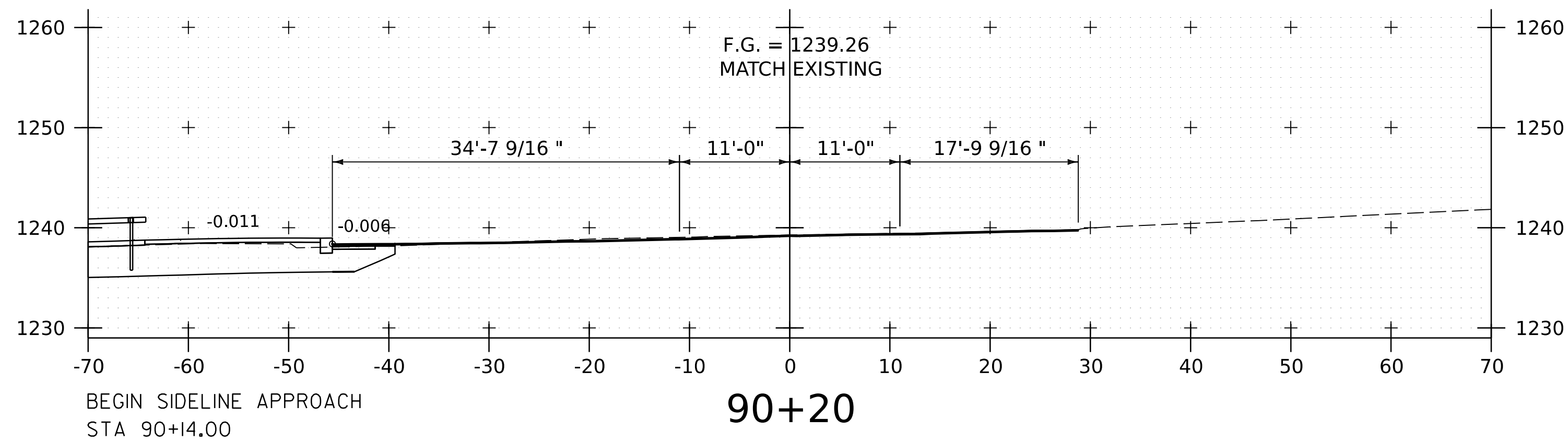


213+50  
 END APPROACH STA. 213+25

VT 100 CROSS SECTIONS  
 STA. 213+50  
 SCALE 1" = 10' - 0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: M.F. NEMETH
FILE NAME: z13c068xs.vt100.dgn	CHECKED BY: N.A. TRUSLOW
PROJECT LEADER: S.E. BURBANK	SHEET 152 OF 220
DESIGNED BY: N.A. TRUSLOW	
VT 100 CROSS SECTIONS (15 OF 15)	



TUNNEL STREET (TH 2) CROSS SECTIONS

STA. 90+00 - 90+50  
SCALE 1" = 10'-0"



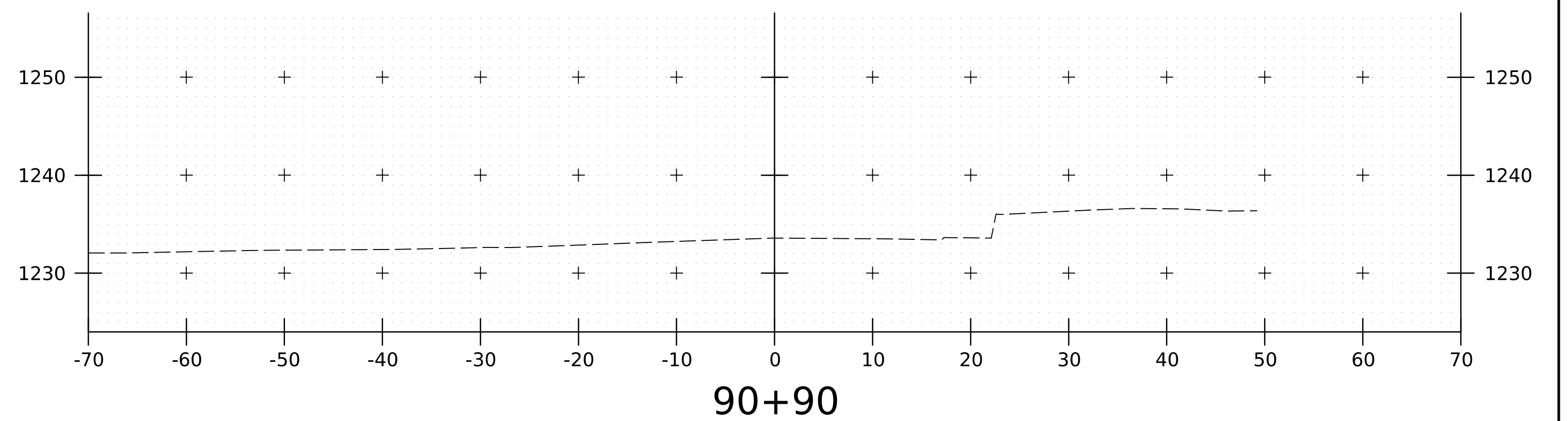
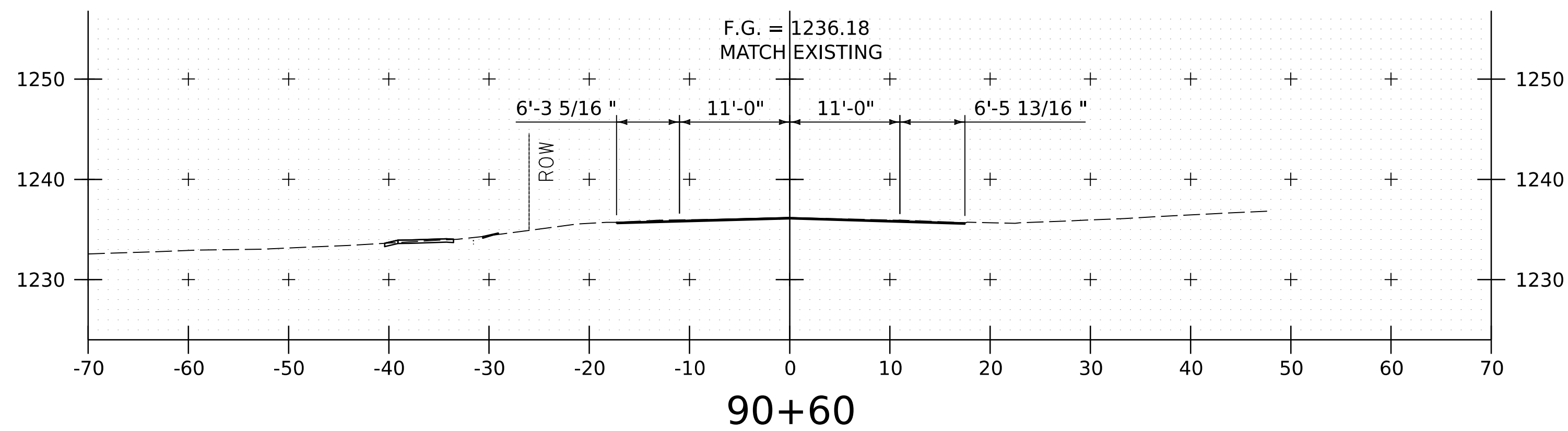
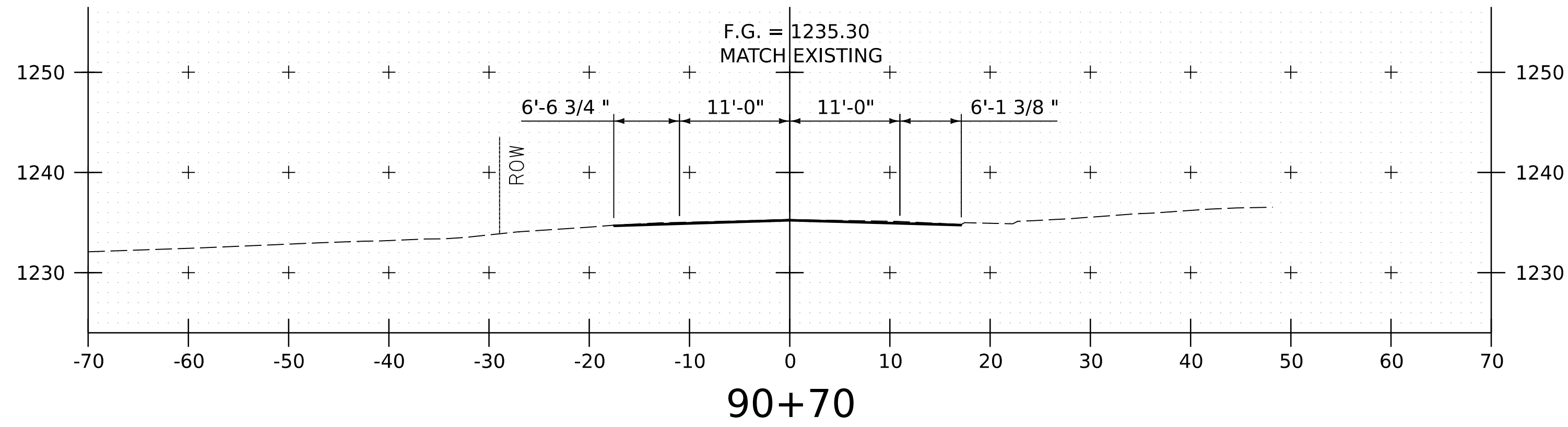
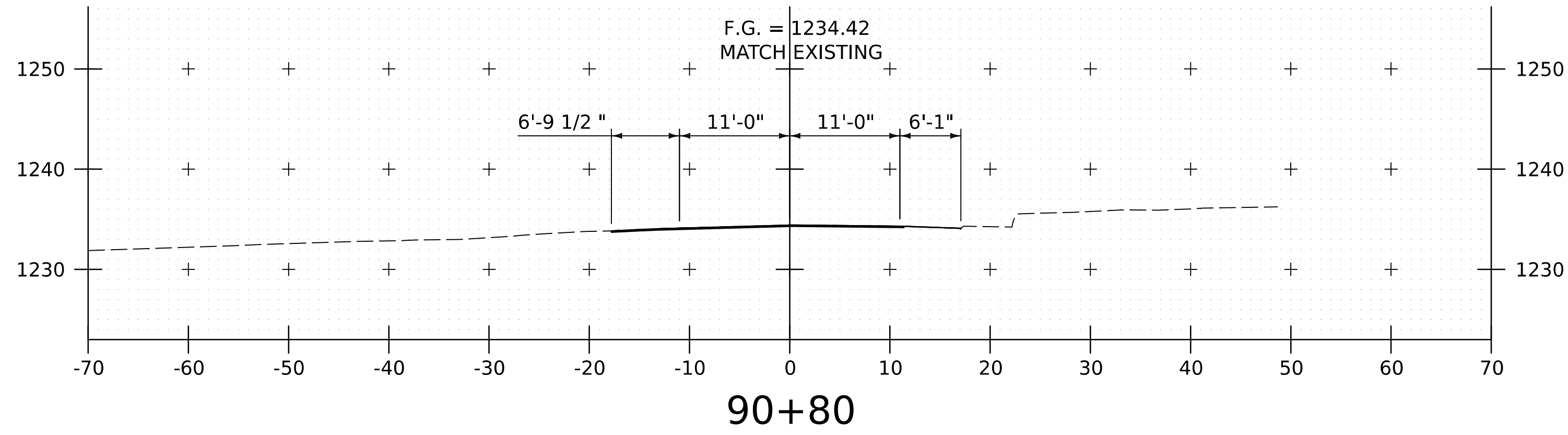
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs.th2.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: D.M. PECK  
TUNNEL ST CROSS SECTIONS SHEET (1 OF 2) SHEET 153 OF 220

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: S.E. BURBANK



END SIDELINE APPROACH  
STA 90+80.00



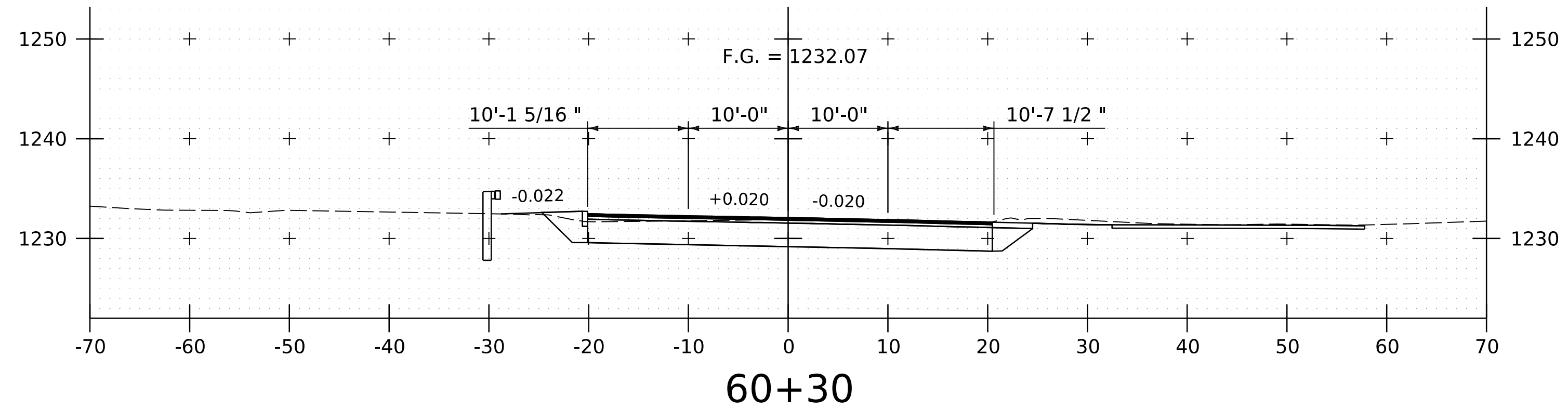
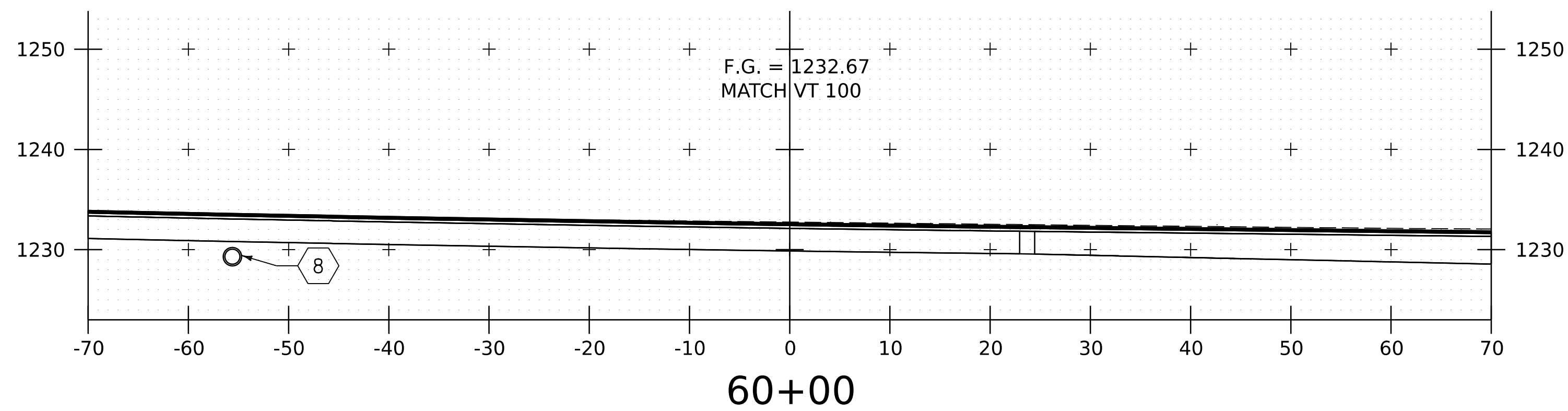
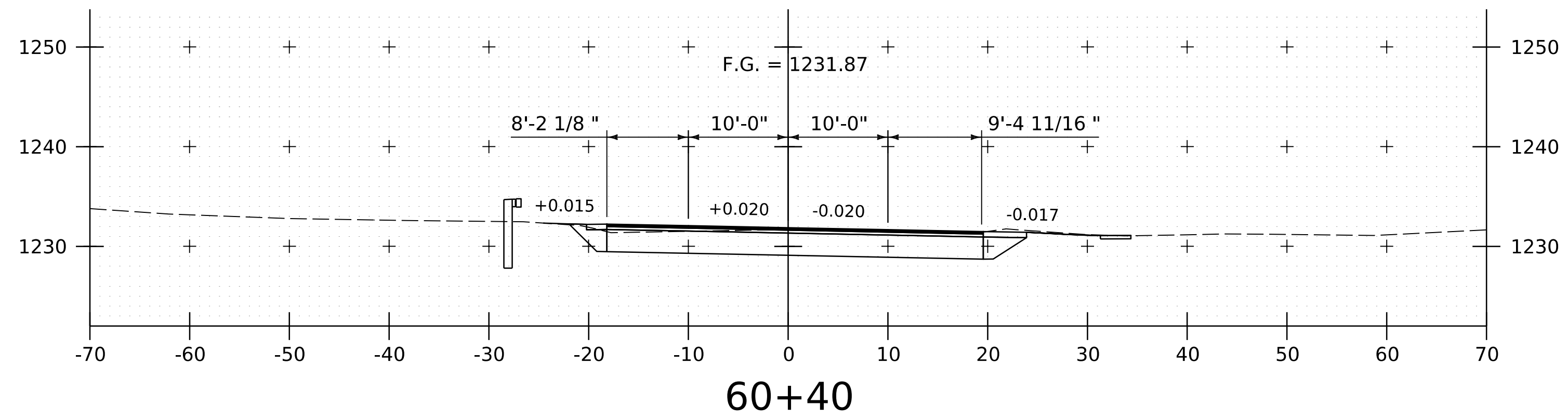
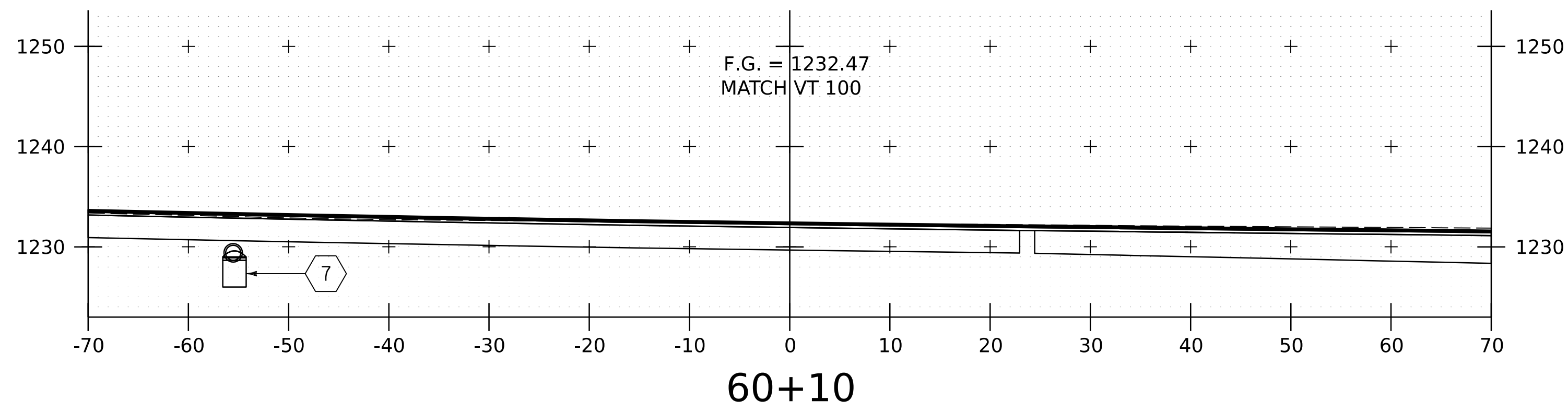
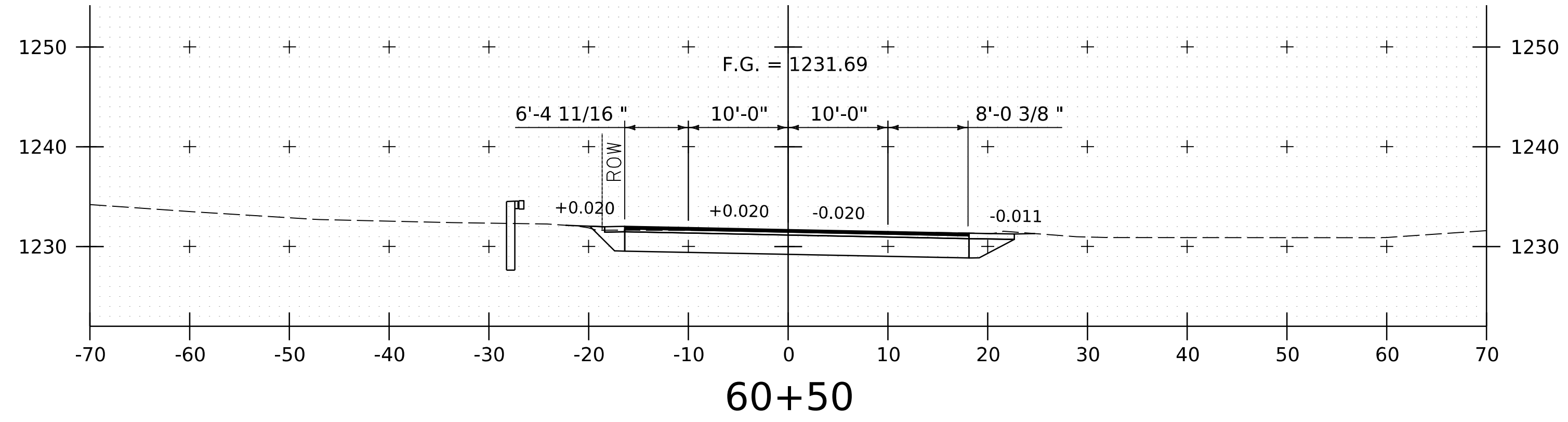
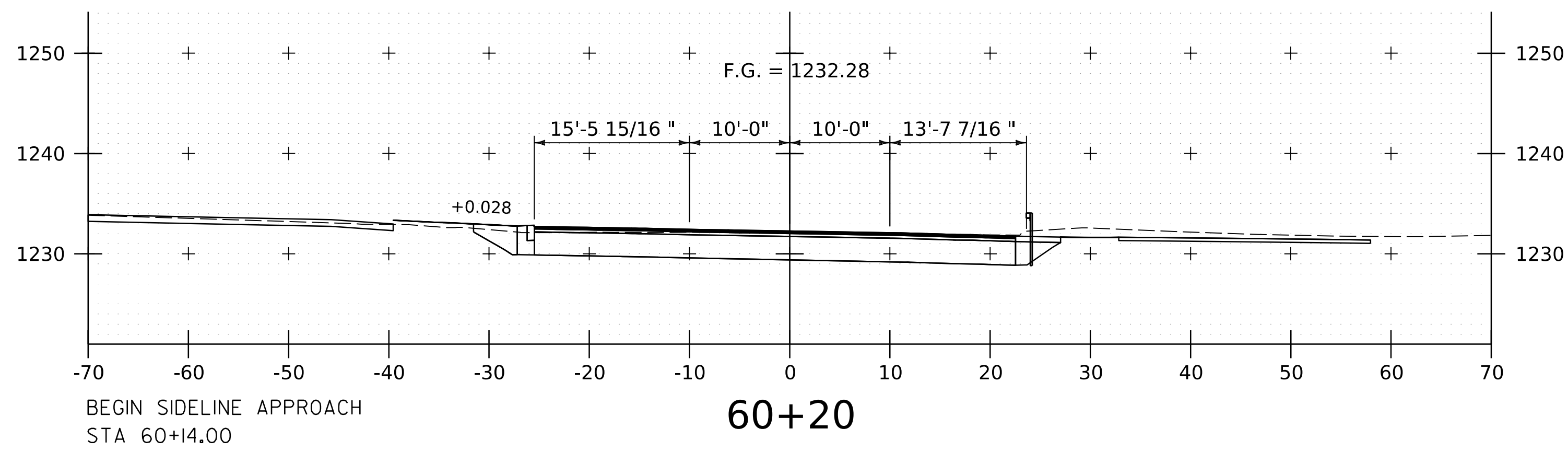
TUNNEL STREET (TH 2) CROSS SECTIONS

STA. 90+60 - 90+90  
SCALE 1" = 10'-0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs.th2.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: W.A. FRETWELL  
DESIGNED BY: D.M. PECK CHECKED BY: S.E. BURBANK  
TUNNEL ST CROSS SECTIONS SHEET (2 OF 2) SHEET 154 OF 220

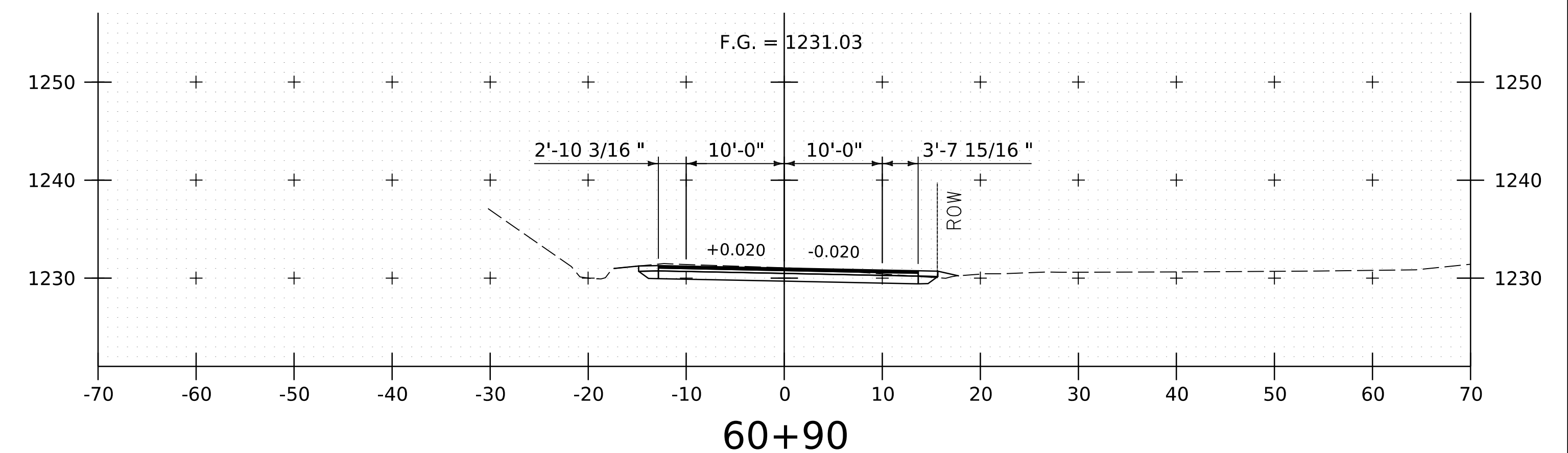
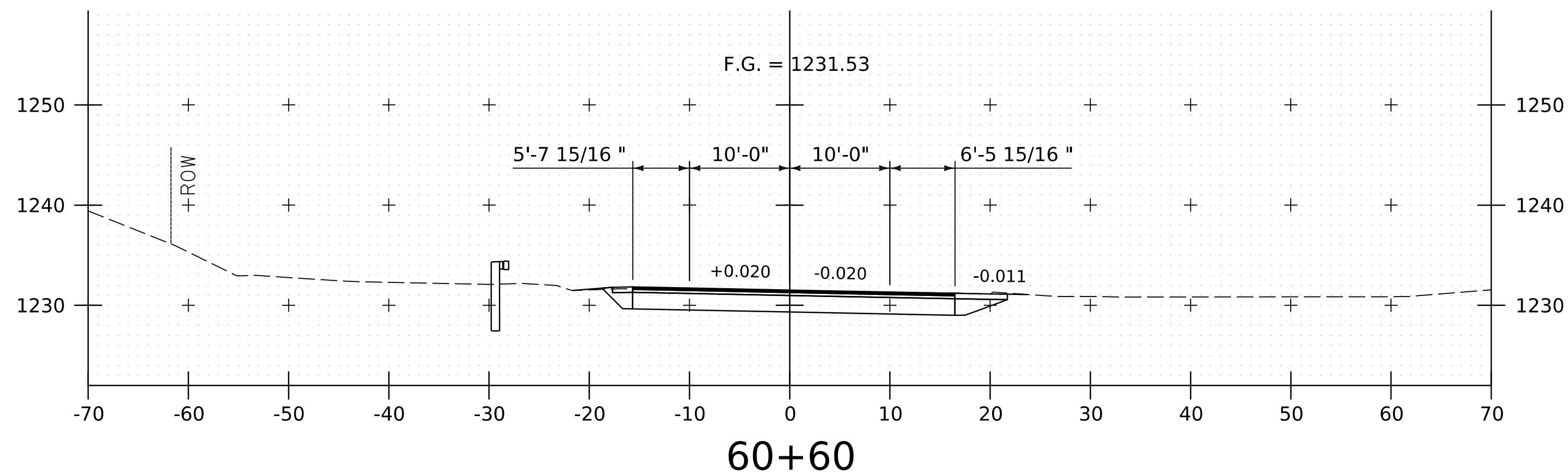
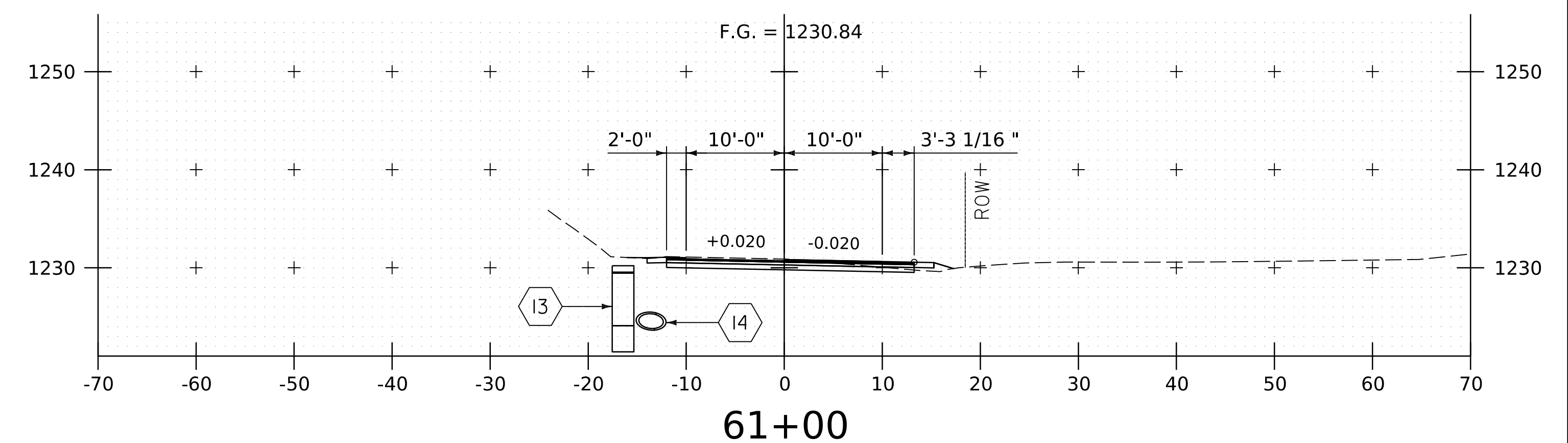
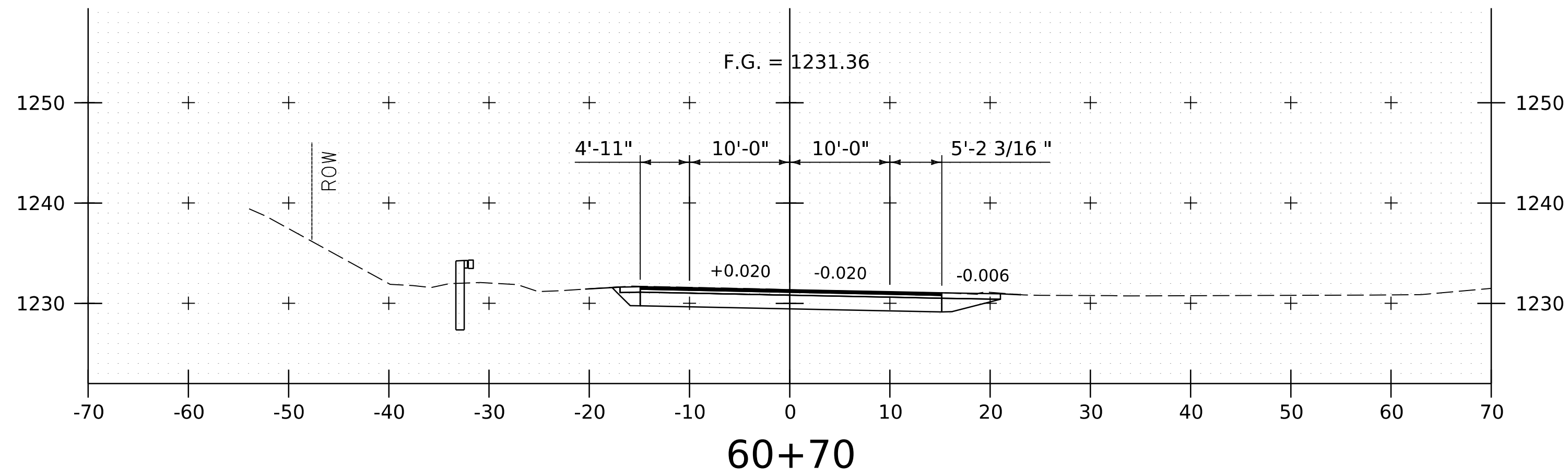
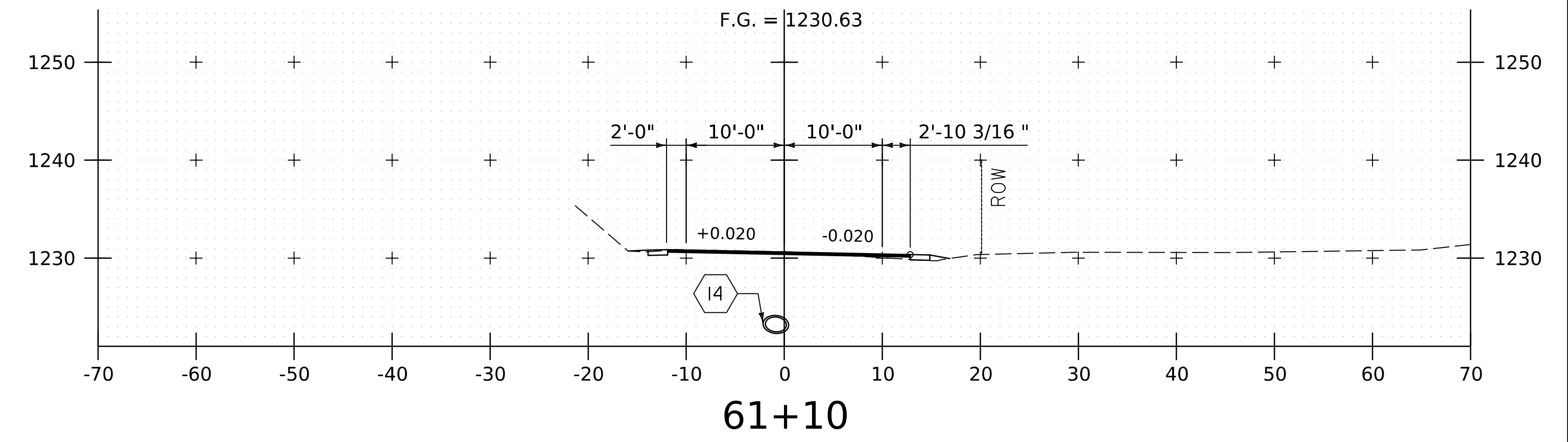
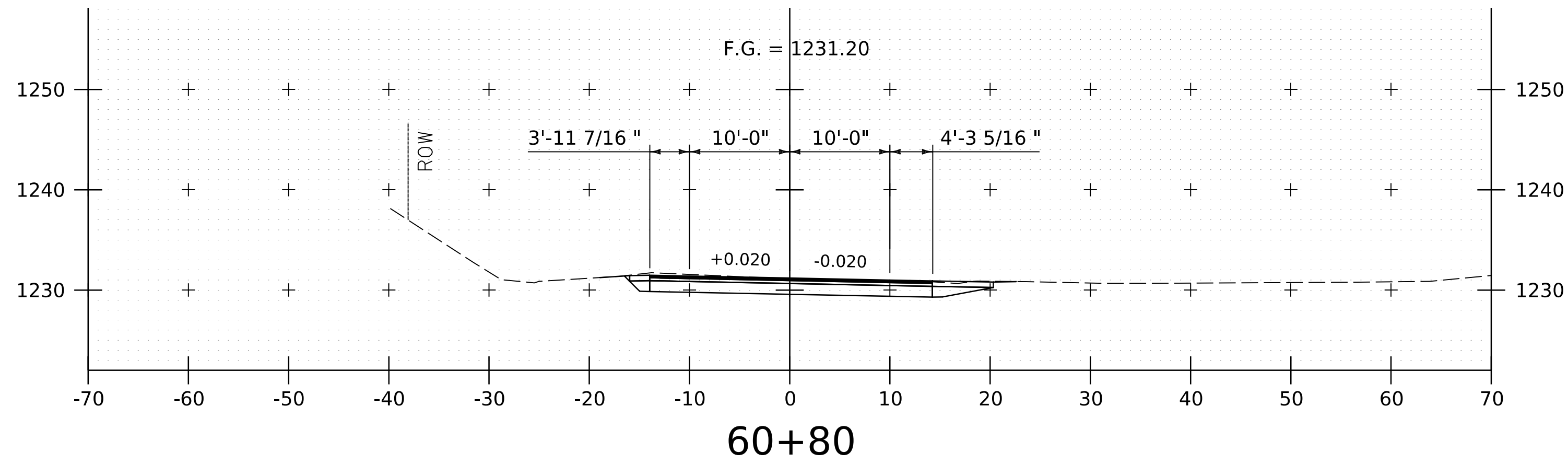


PHELPS LANE (TH 22) CROSS SECTIONS

STA. 60+00 - 60+50  
SCALE 1" = 10'-0"



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068xs.th22.dgn	DESIGNED BY:	D.M. PECK
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.E. BURBANK
PHELPS LN CROSS SECTIONS SHEET (1 OF 3) SHEET		155 OF 220	

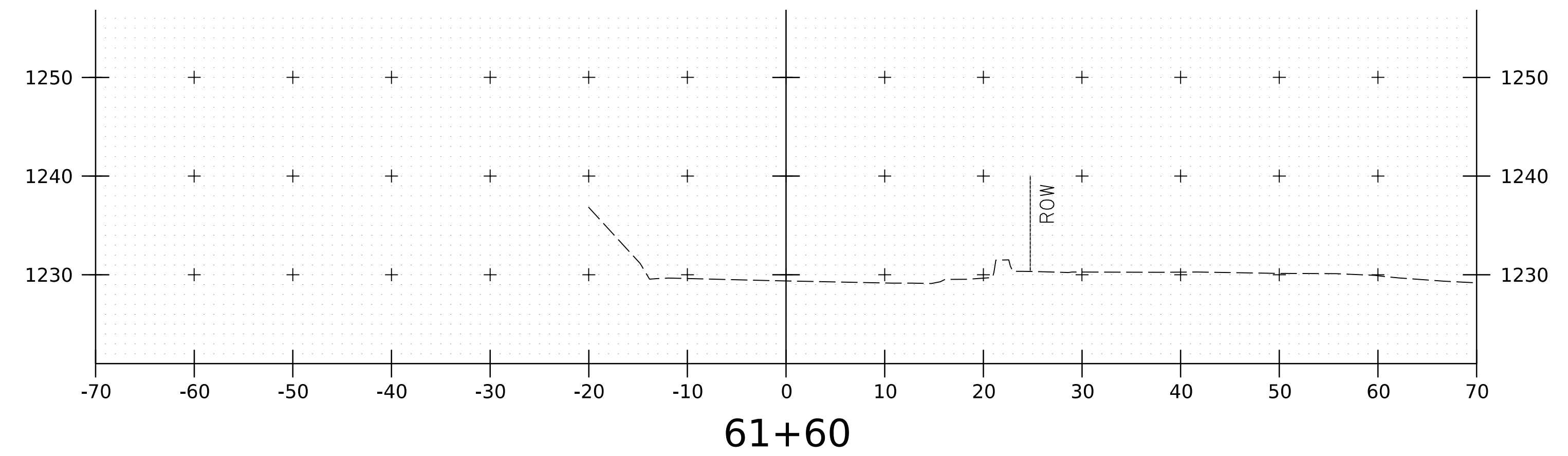
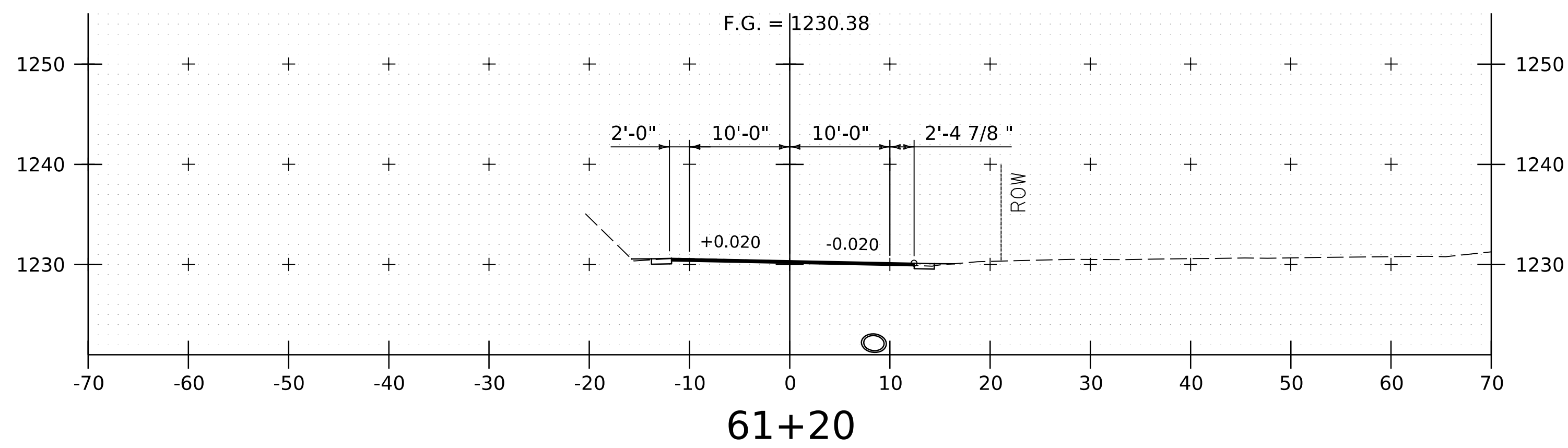
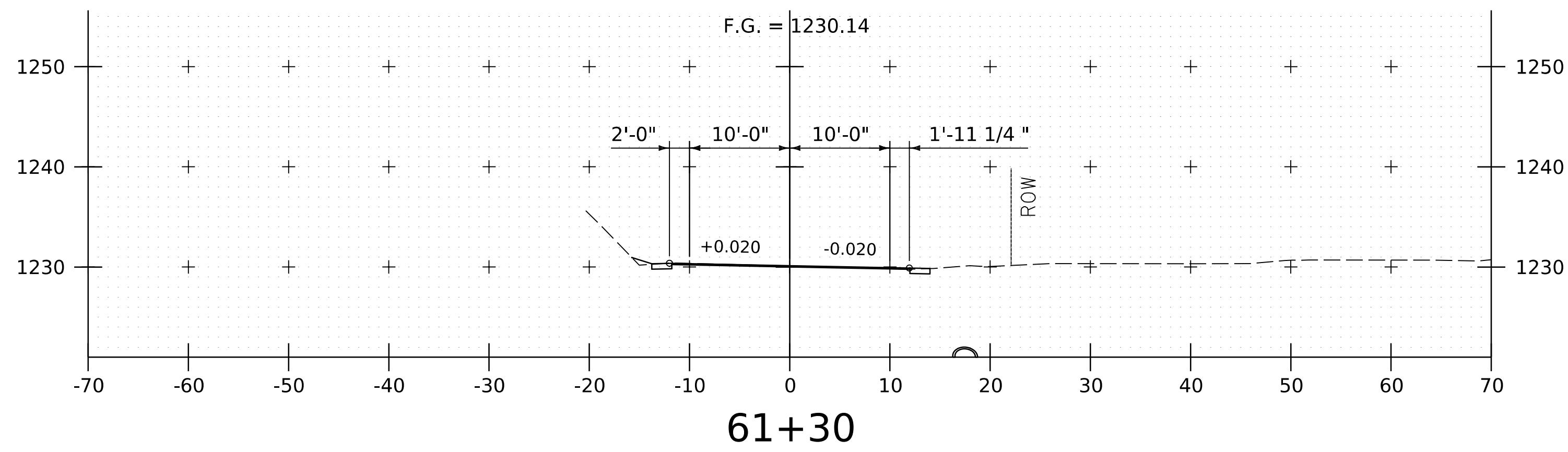
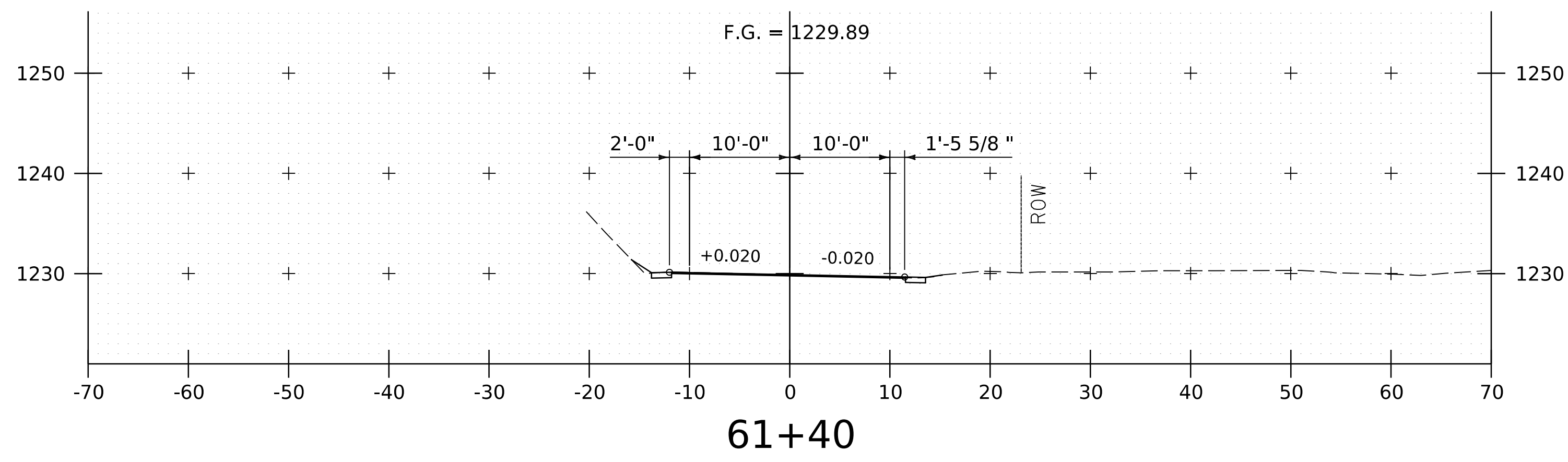


PHELPS LANE (TH 22) CROSS SECTIONS

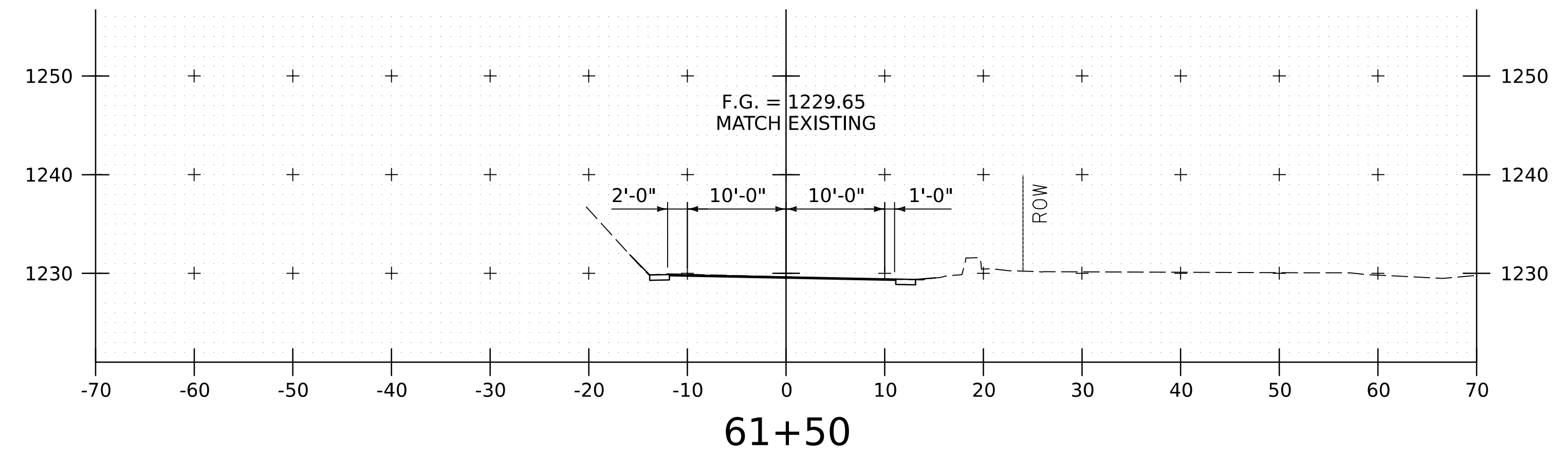
STA. 60+60 - 61+10  
SCALE 1" = 10'-0"



PROJECT NAME:	READSBORO
PROJECT NUMBER:	BF 0102(I6) C/2
FILE NAME:	z13c068xs_th22.dgn
PROJECT LEADER:	S.E. BURBANK
DESIGNED BY:	D.M. PECK
PHELPS LN CROSS SECTIONS SHEET (2 OF 3) SHEET	156 OF 220
PLOT DATE:	12-APR-2024
DRAWN BY:	W.A. FRETWELL
CHECKED BY:	S.E. BURBANK



END SIDELINE APPROACH  
STA 61+50.00



PHELPS LANE (TH 22) CROSS SECTIONS

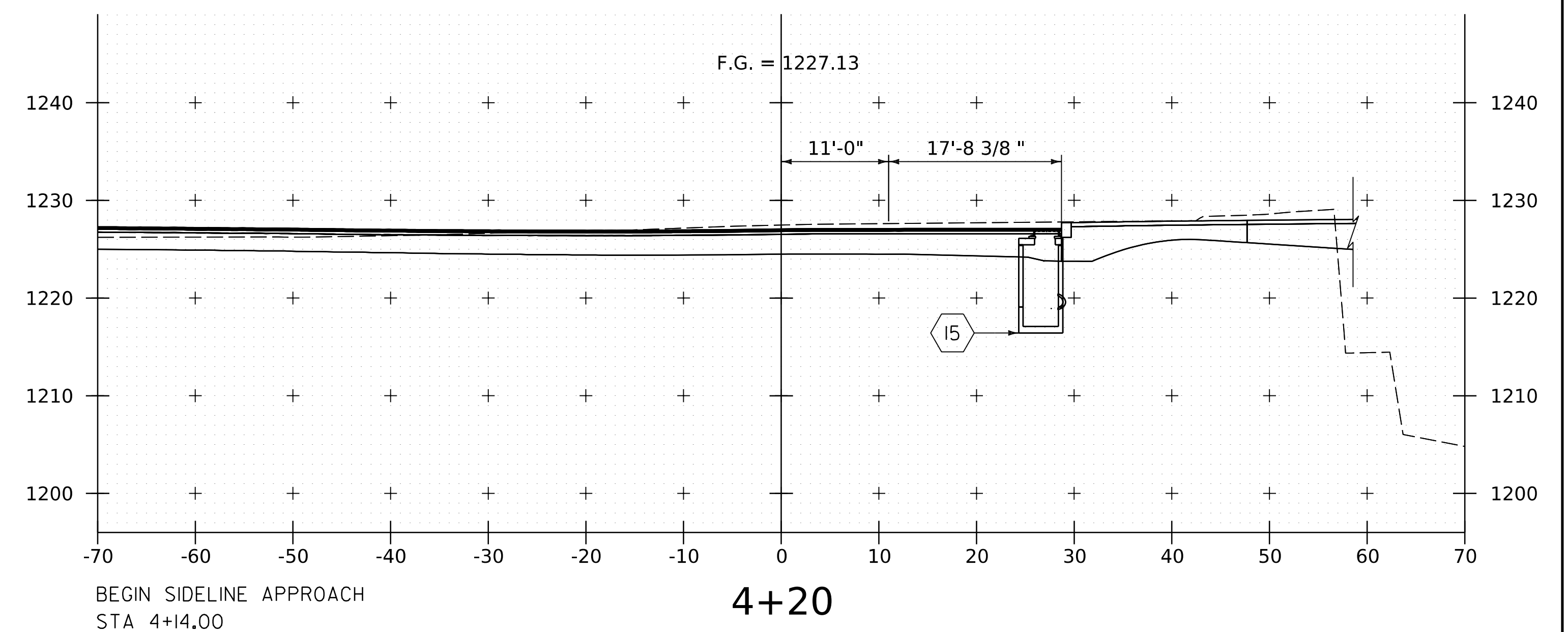
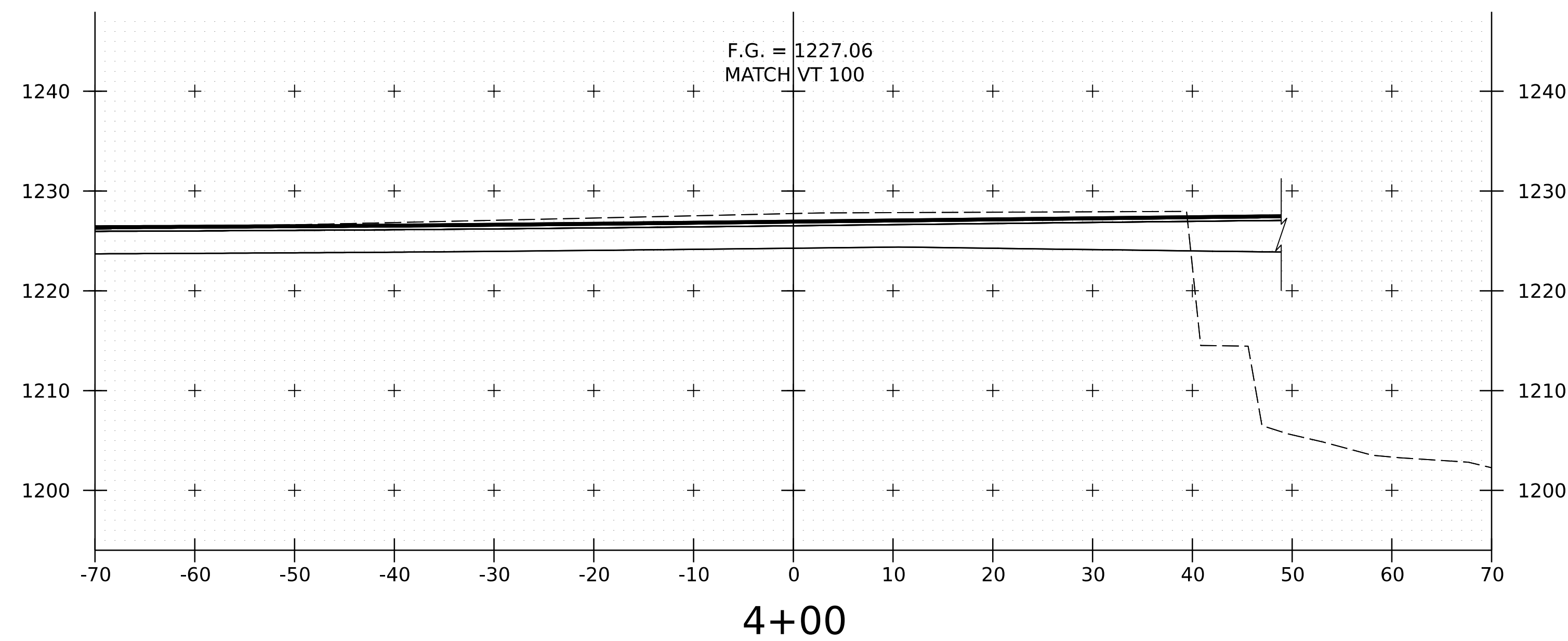
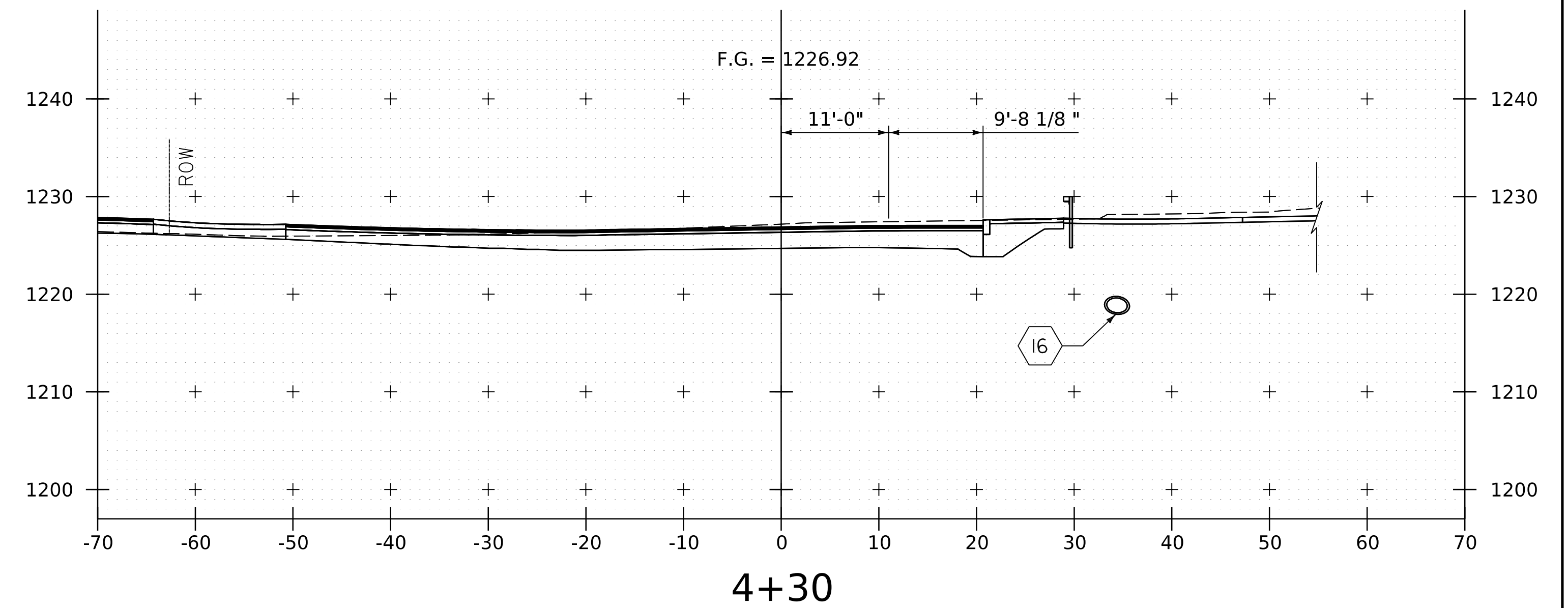
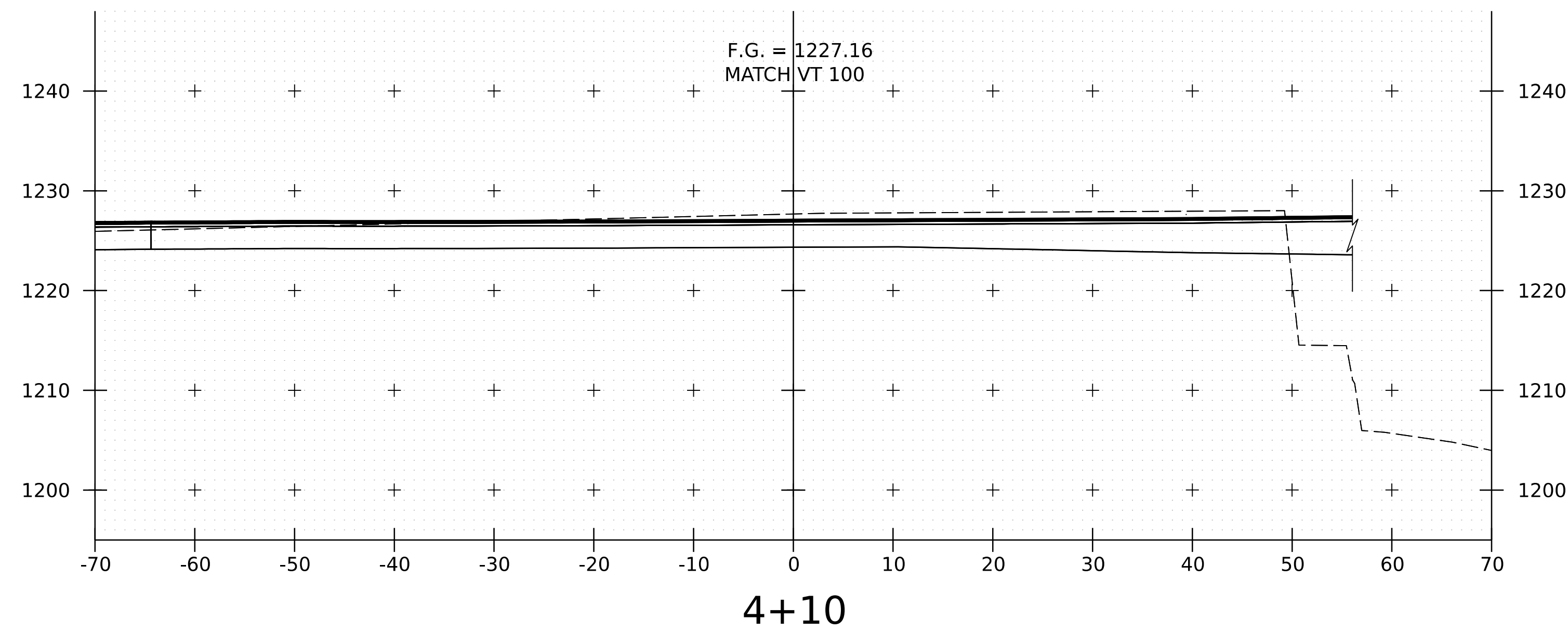
STA. 61+20 - 61+60  
SCALE 1" = 10'-0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs_th22.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: D.M. PECK  
PHELPS LN CROSS SECTIONS SHEET (3 OF 3) SHEET 157 OF 220

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: S.E. BURBANK



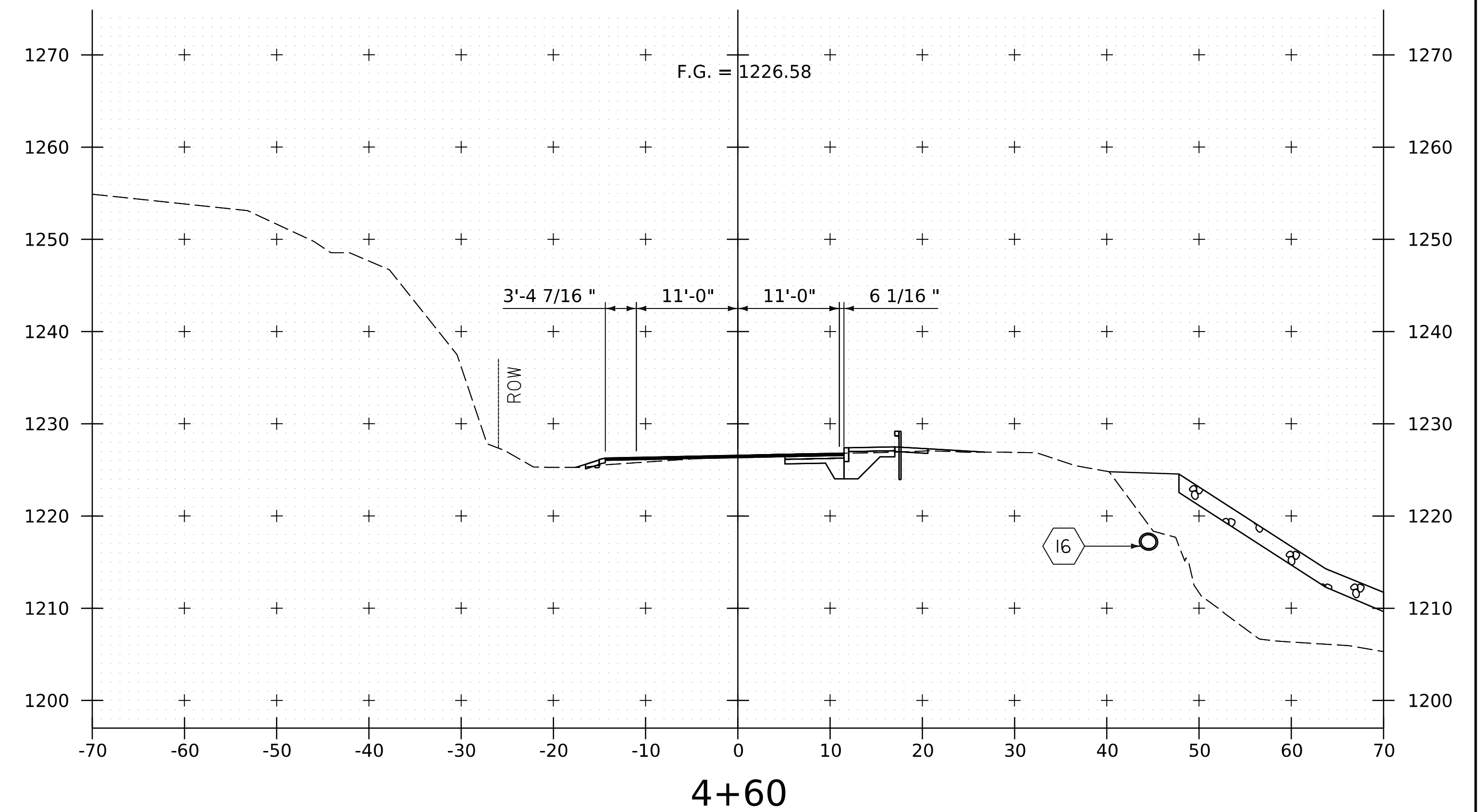
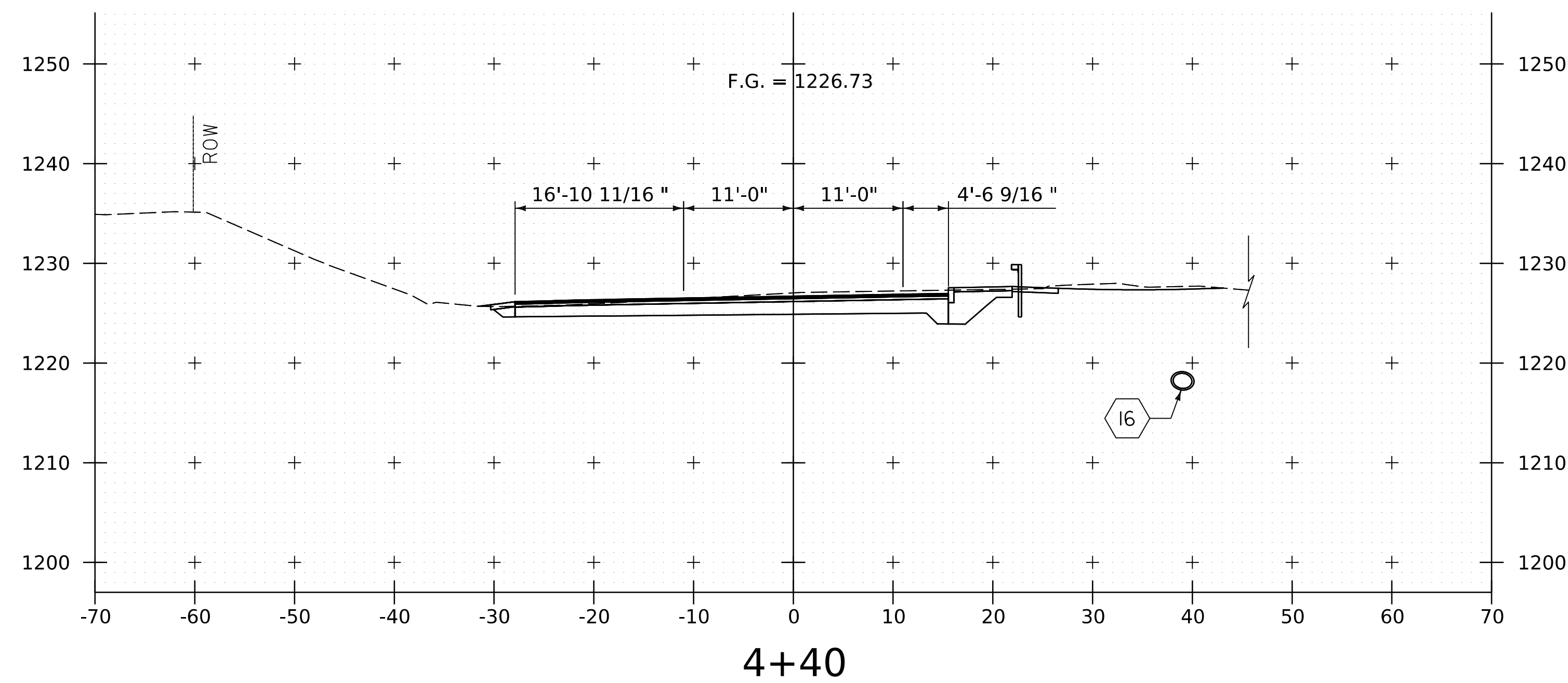
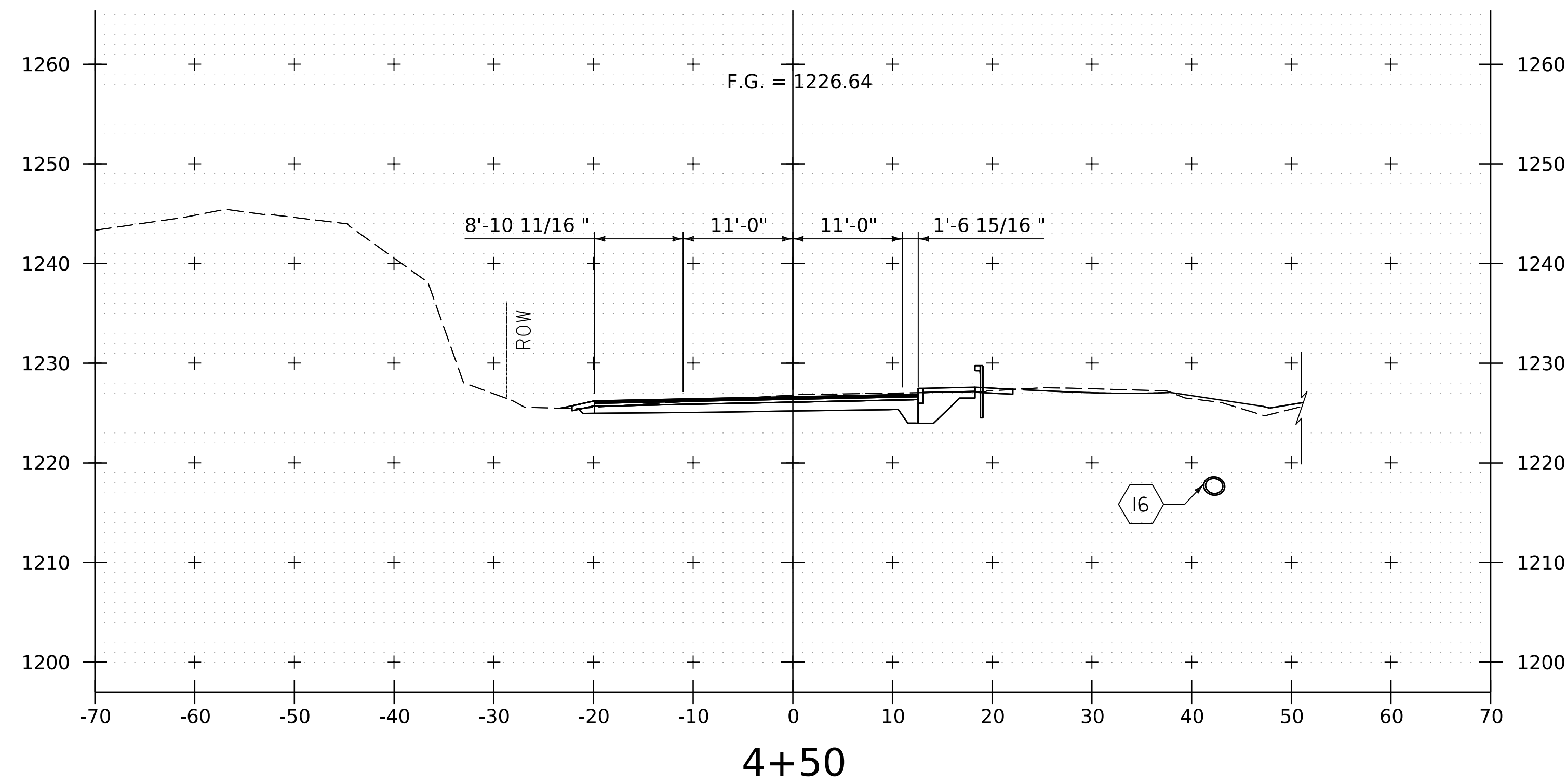
DEPOT STREET (TH 4) CROSS SECTIONS

STA. 4+00 - 4+30  
SCALE 1" = 10'-0"



PROJECT NAME:	READSBORO	FILE NAME:	z13c068xs.th4.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	W.A. FRETWELL
		DESIGNED BY:	D.M. PECK	CHECKED BY:	S.E. BURBANK
		DEPOT ST CROSS SECTIONS SHEET (1 OF 6)		SHEET	158 OF 220



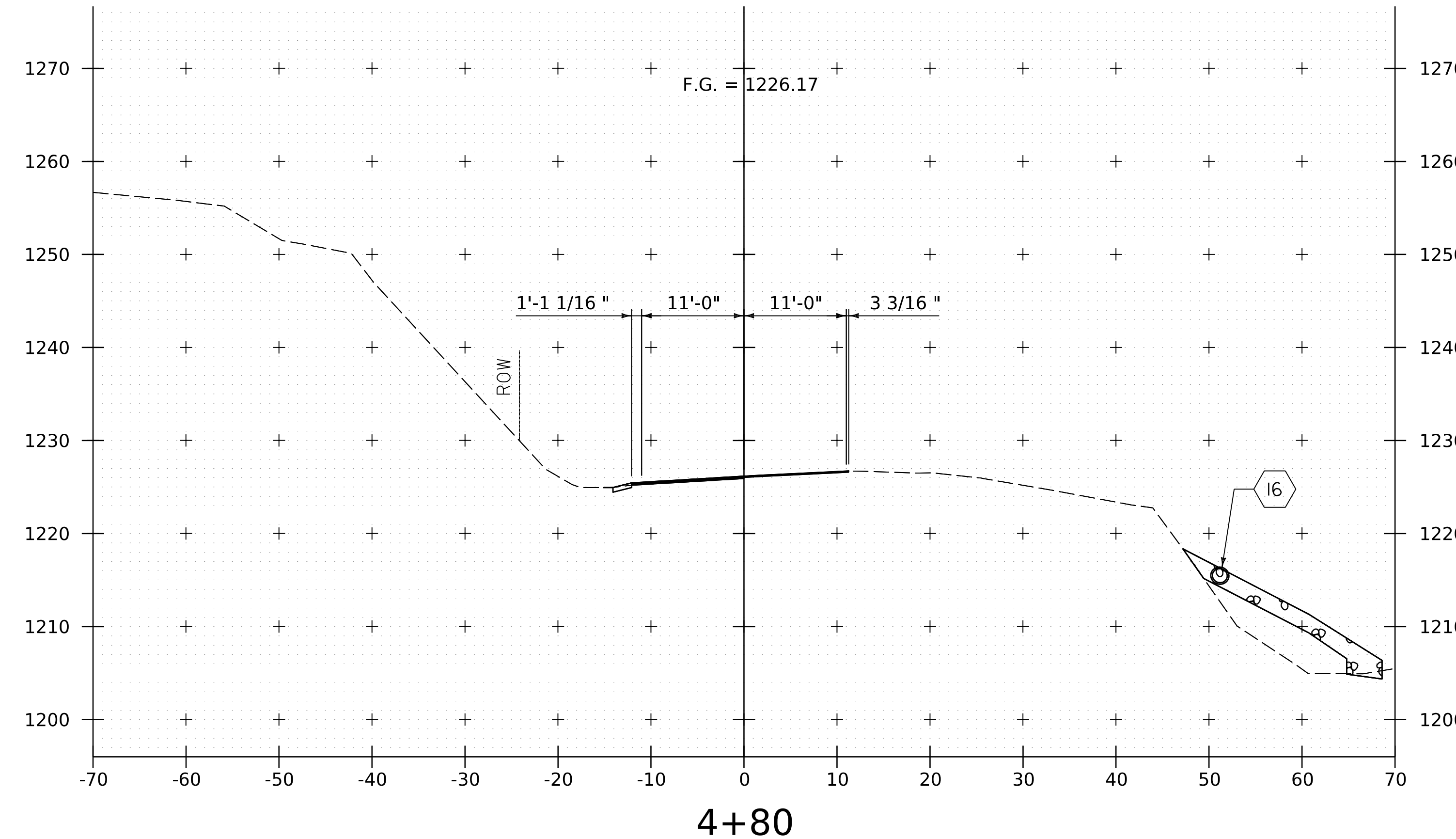
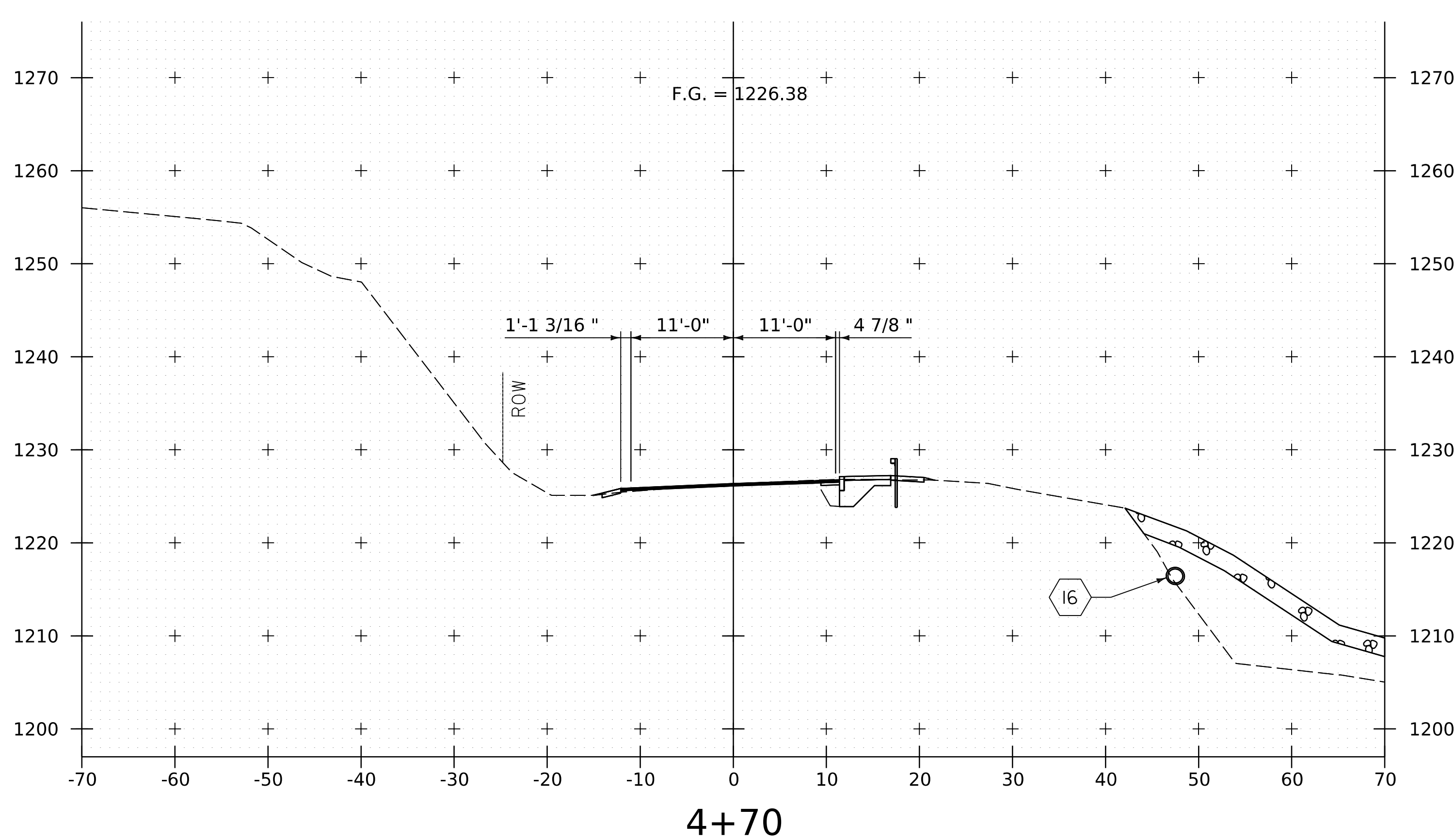


DEPOT STREET (TH 4) CROSS SECTIONS

STA. 4+40 - 4+60  
SCALE 1" = 10'-0"



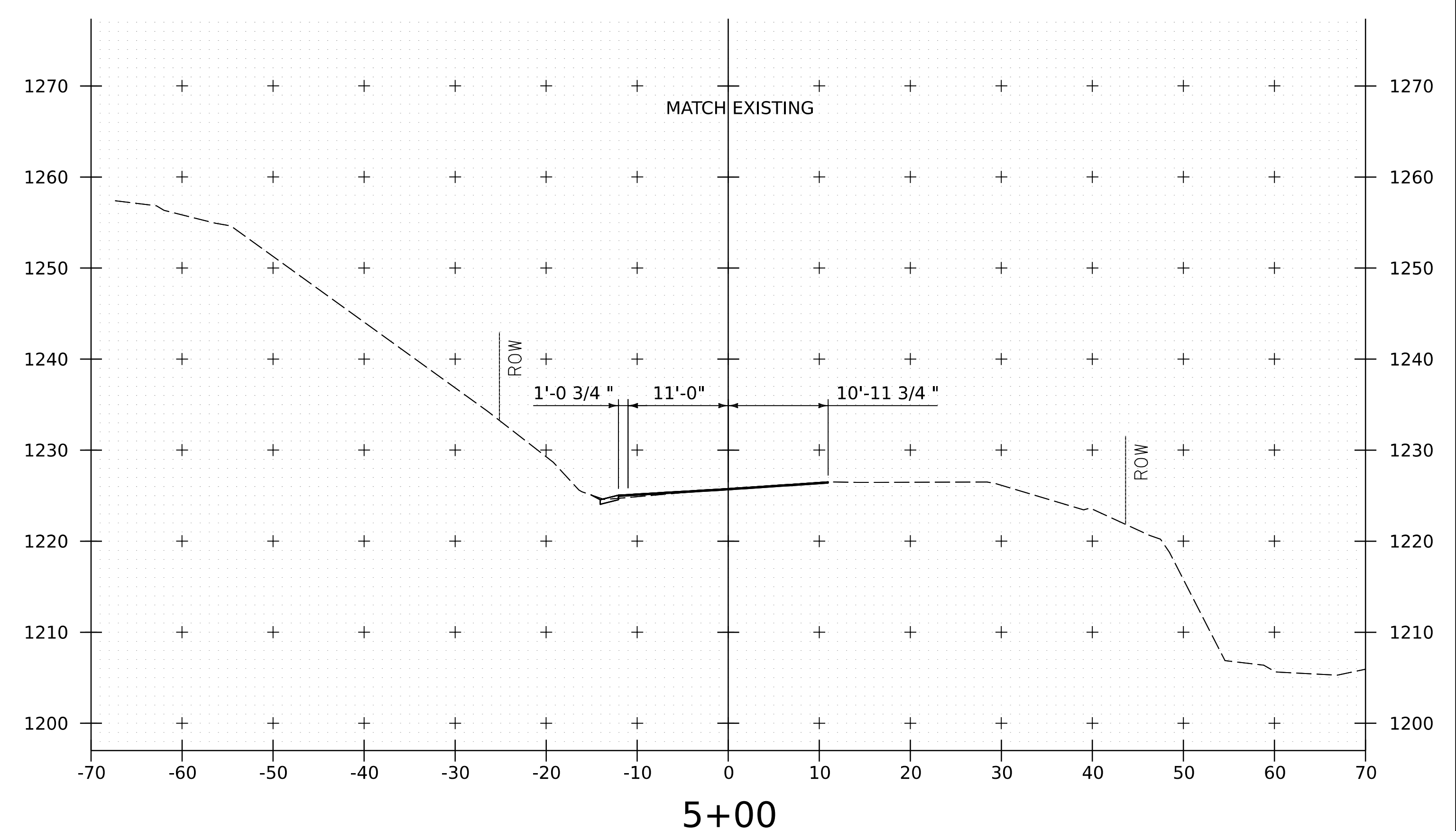
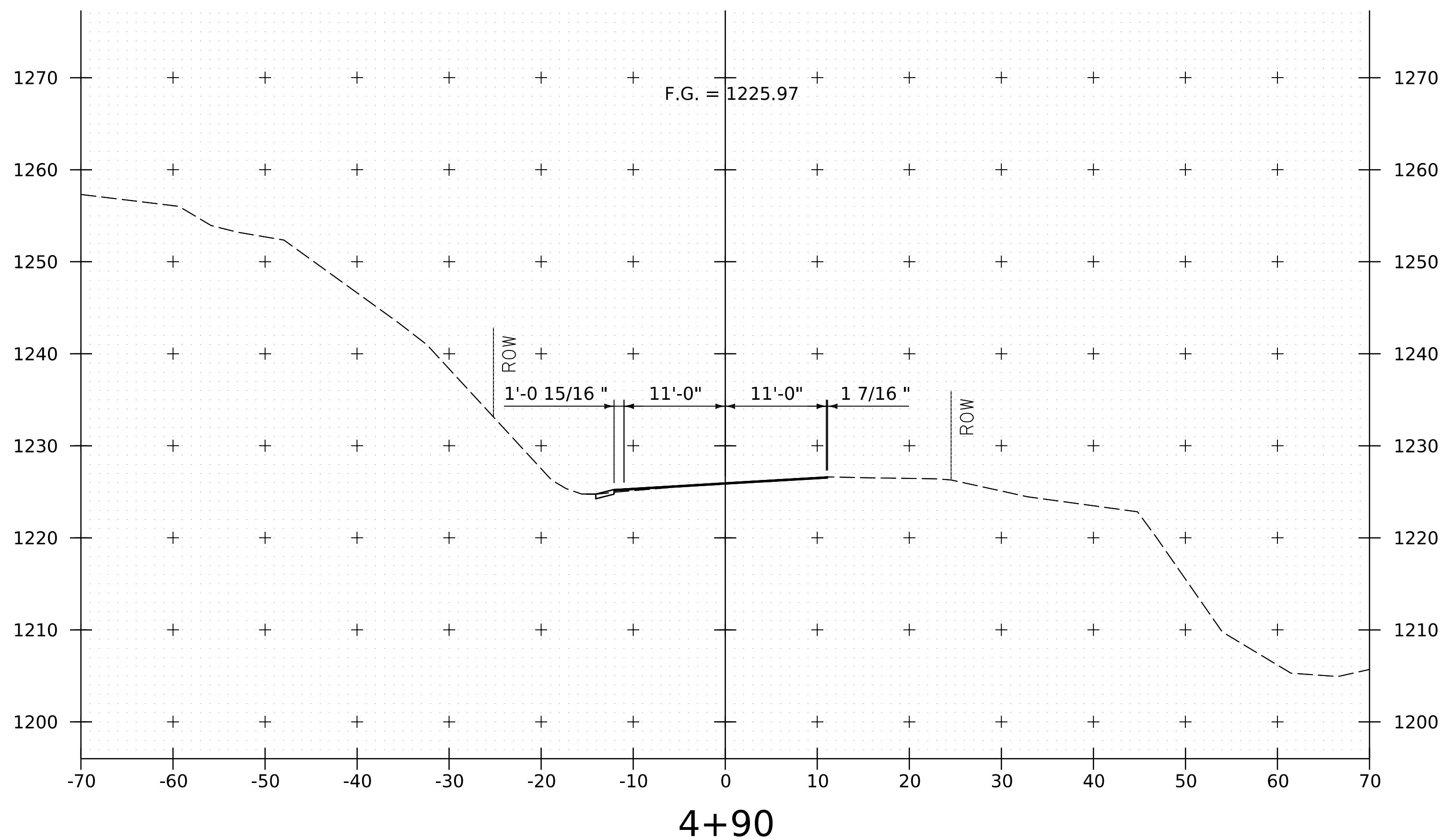
PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs.th4.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: W.A. FRETWELL
DESIGNED BY: D.M. PECK	CHECKED BY: S.E. BURBANK
DEPOT ST CROSS SECTIONS SHEET (2 OF 6) SHEET 159 OF 220	



DEPOT STREET (TH 4) CROSS SECTIONS  
 STA. 4+70 - 4+80  
 SCALE 1" = 10'-0"



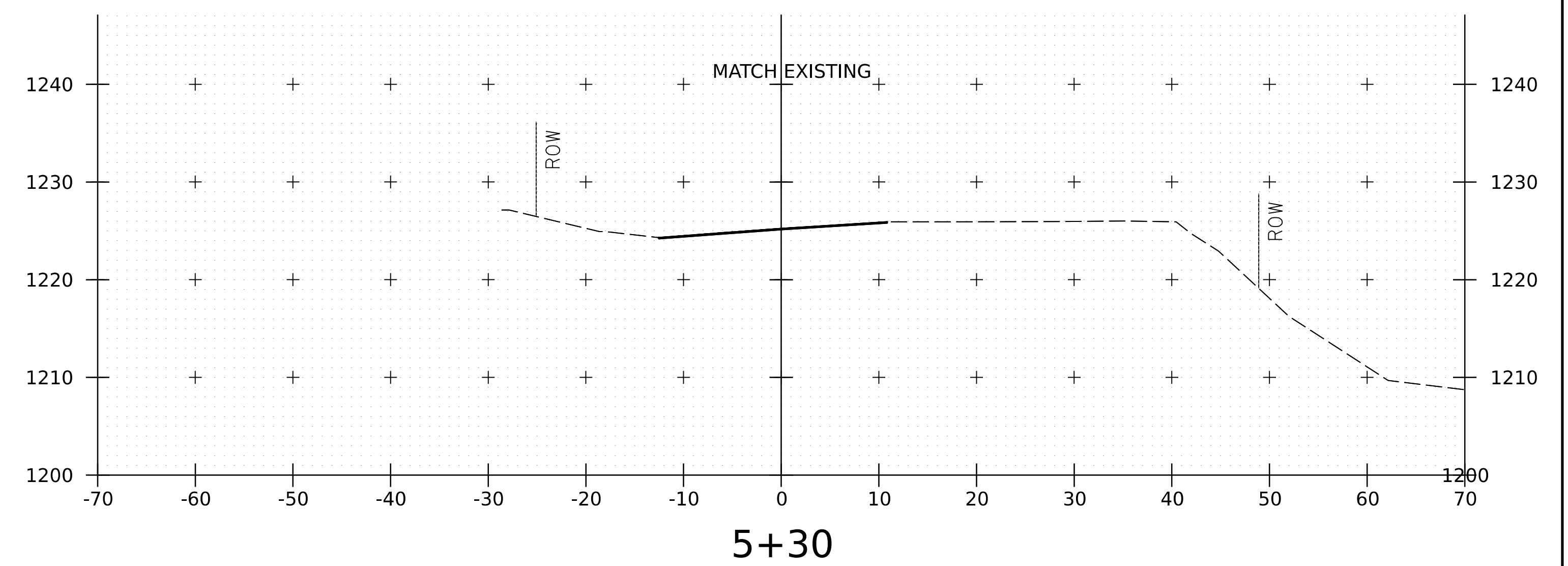
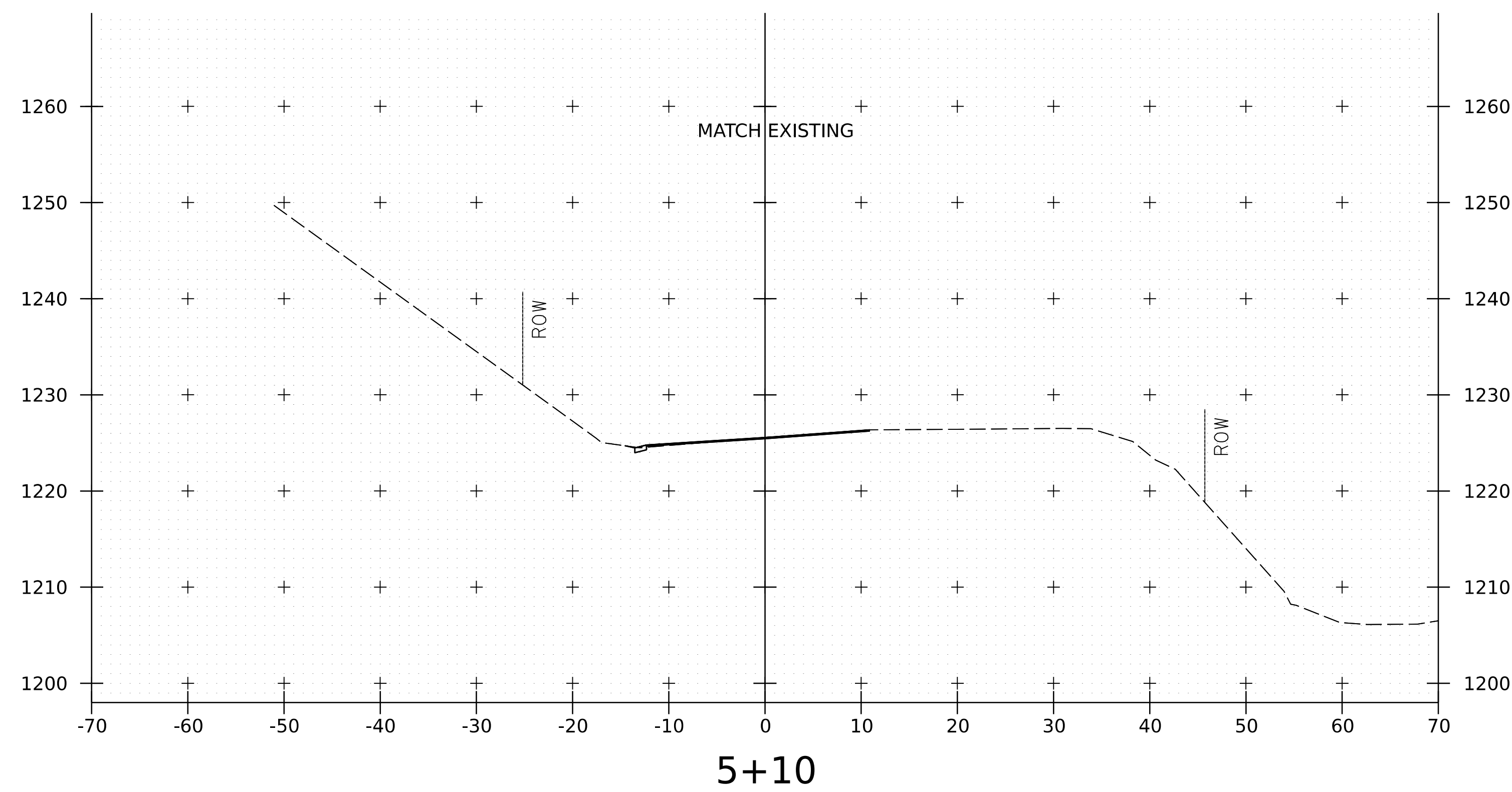
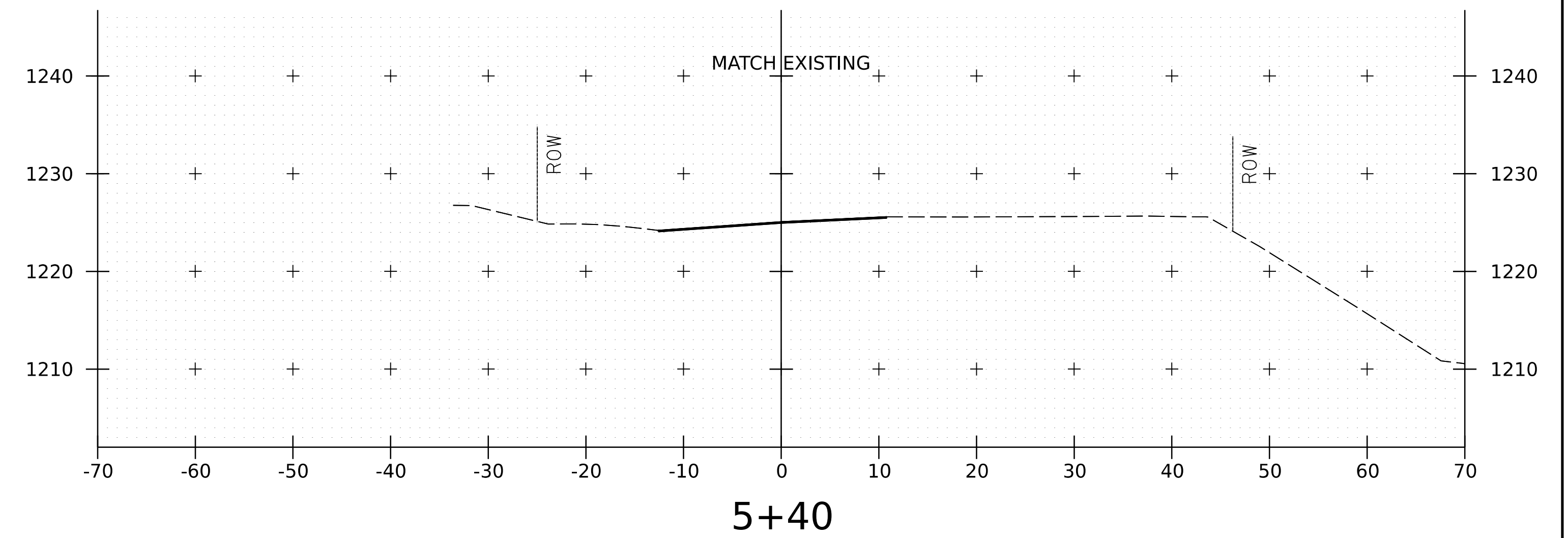
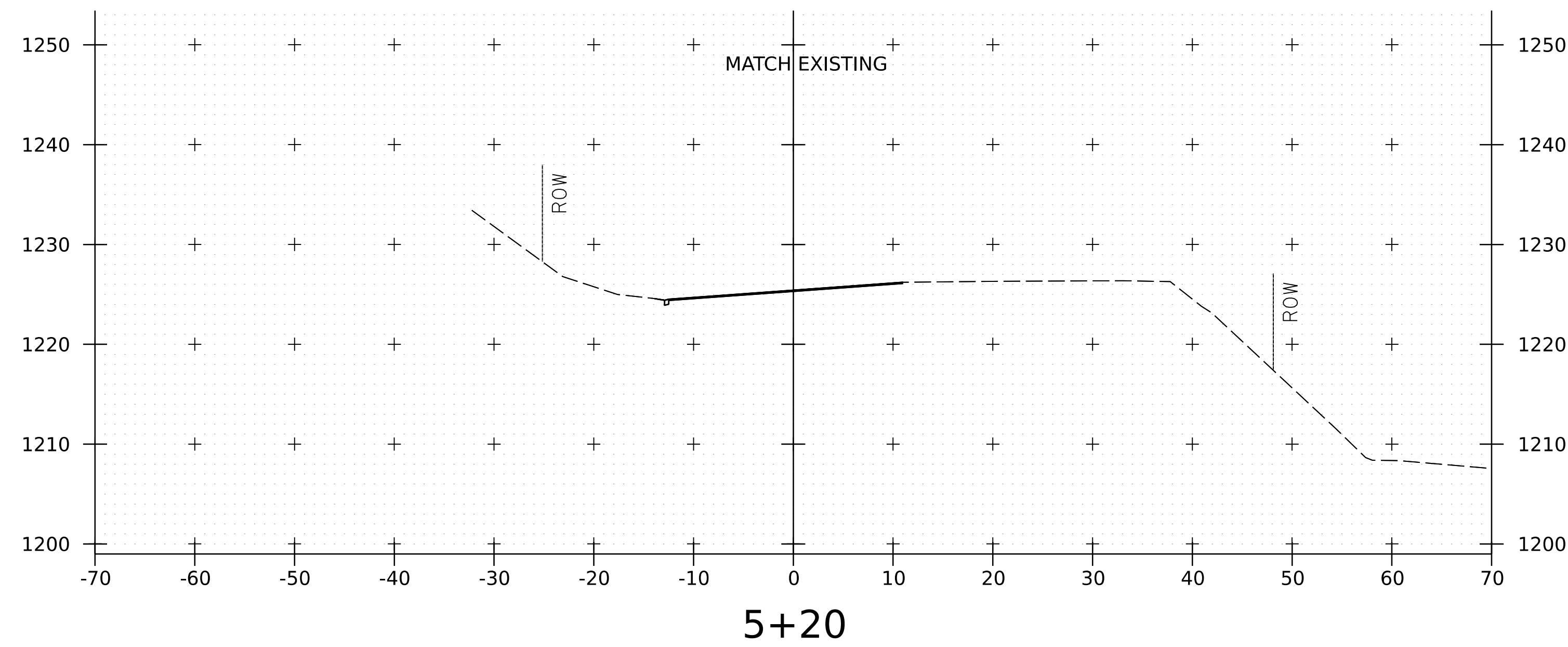
PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs.th4.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: W.A. FRETWELL
DESIGNED BY: D.M. PECK	CHECKED BY: S.E. BURBANK
DEPOT ST CROSS SECTIONS SHEET (3 OF 6) SHEET 160 OF 220	



DEPOT STREET (TH 4) CROSS SECTIONS  
 STA. 4+90 - 5+00  
 SCALE 1" = 10'-0"



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068xs.th4.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK		
DESIGNED BY:	D.M. PECK		
DEPOT ST CROSS SECTIONS SHEET (4 OF 6)		SHEET 161 OF 220	



DEPOT STREET (TH 4) CROSS SECTIONS

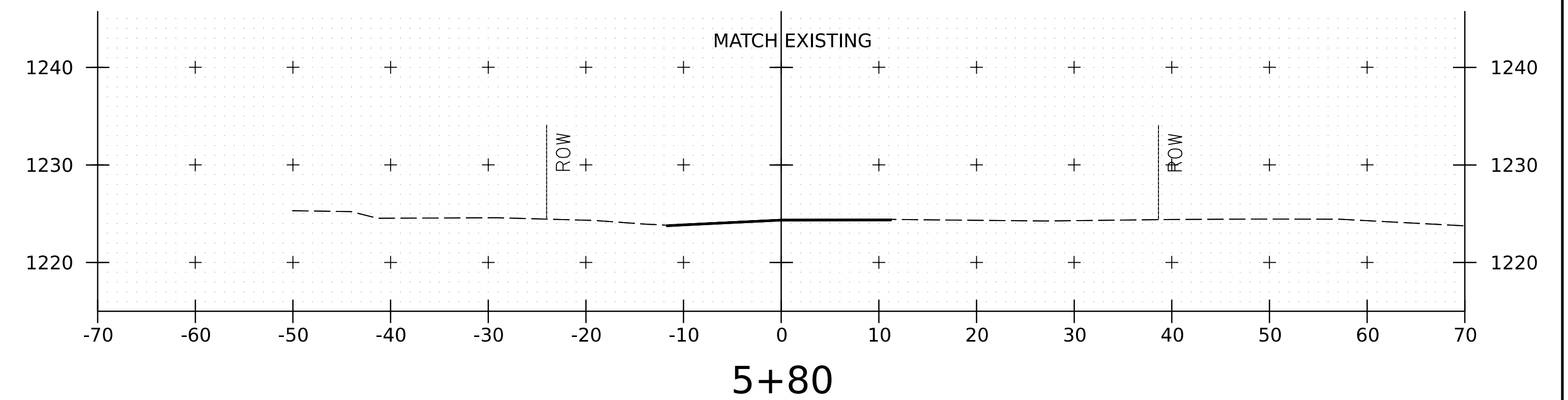
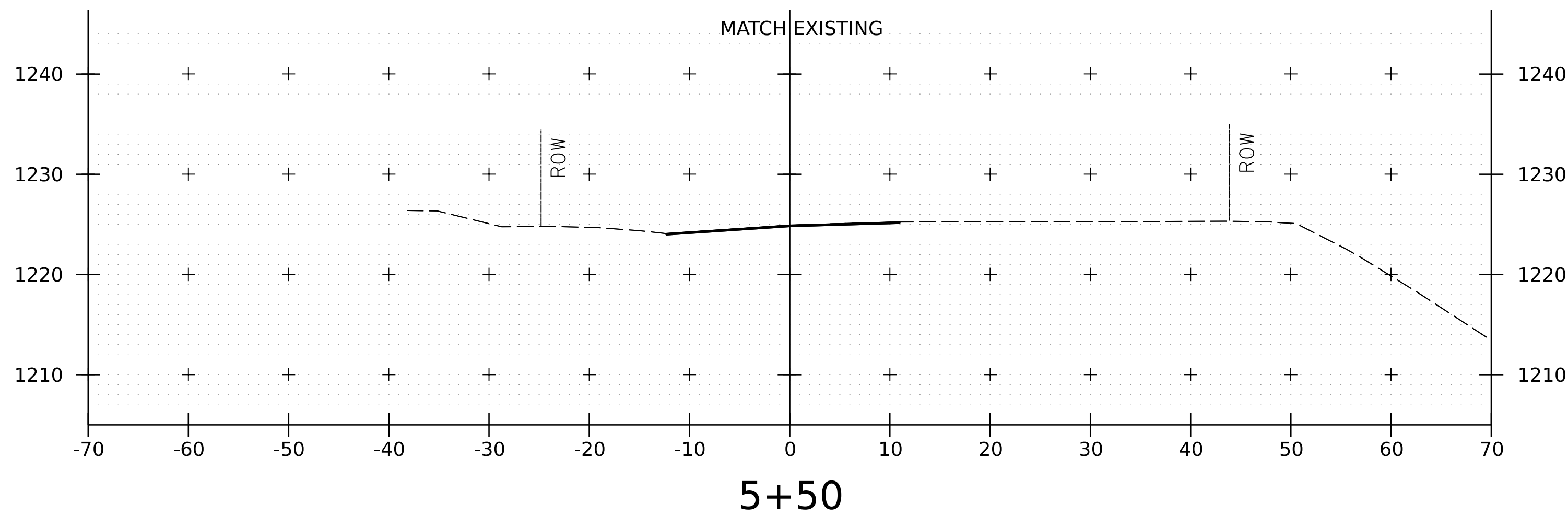
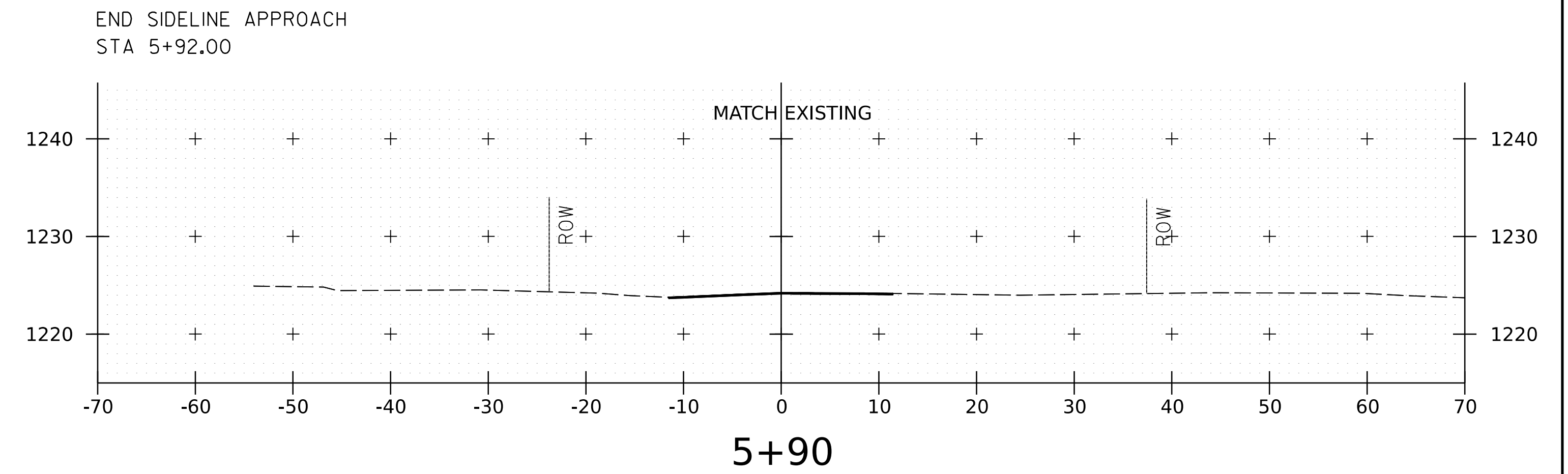
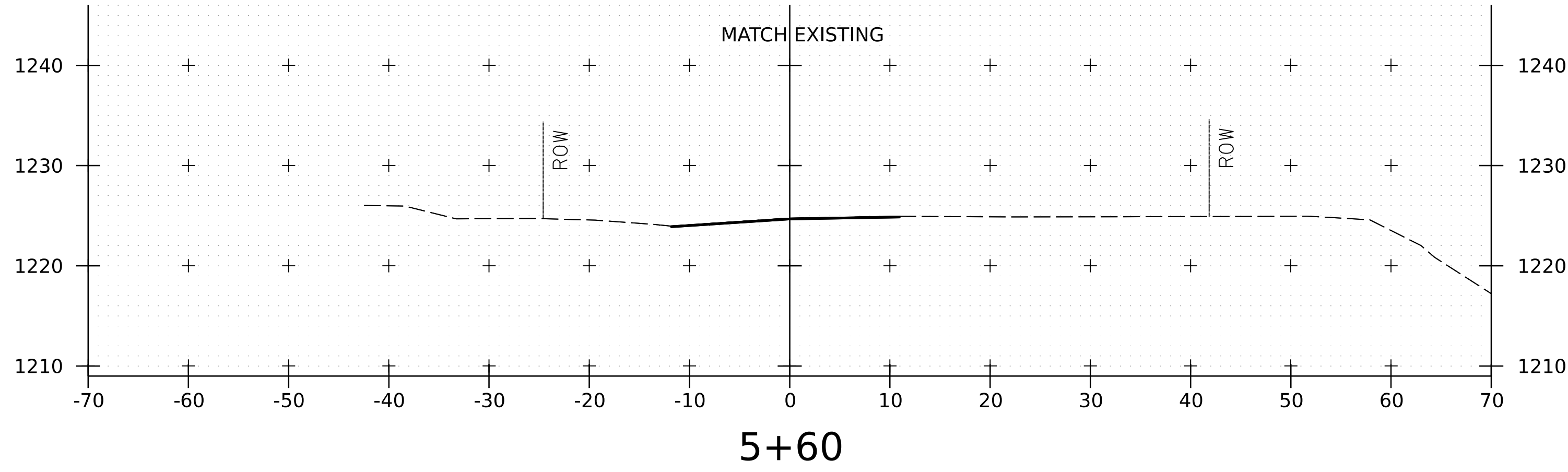
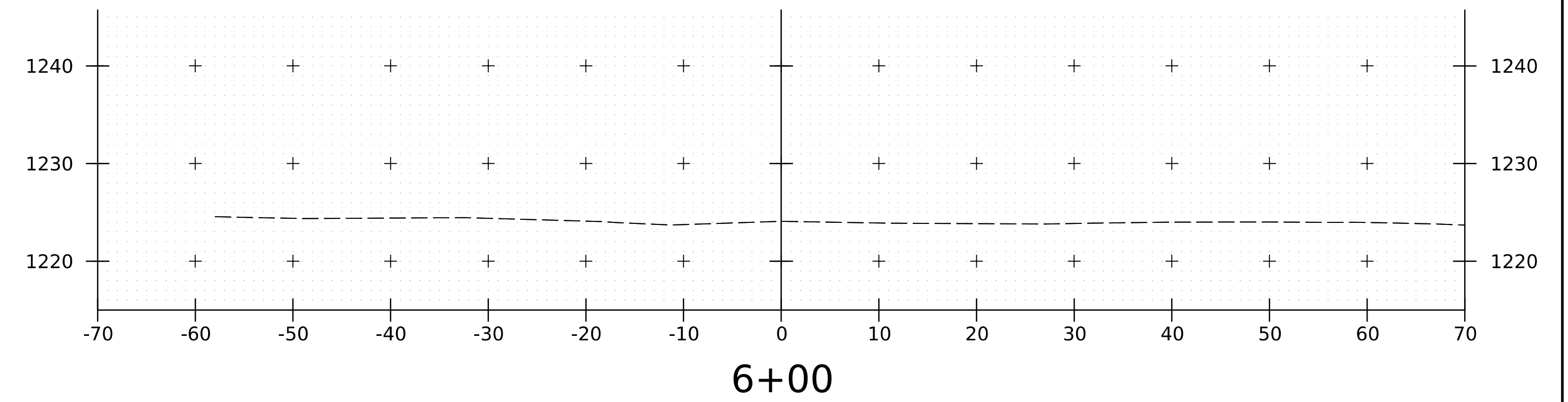
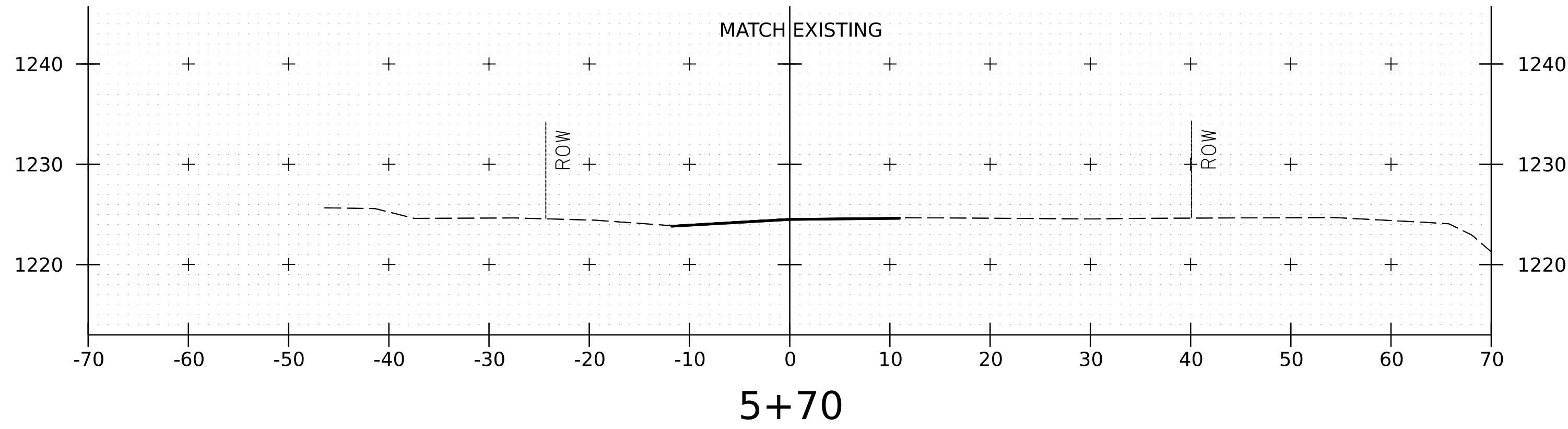
STA. 5+10 - 5+40  
SCALE 1" = 10'-0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs.th4.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: D.M. PECK  
DEPOT ST CROSS SECTIONS SHEET (5 OF 6) SHEET 162 OF 220

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: S.E. BURBANK



DEPOT STREET (TH 4) CROSS SECTIONS

STA. 5+50 - 6+00  
SCALE 1" = 10'-0"

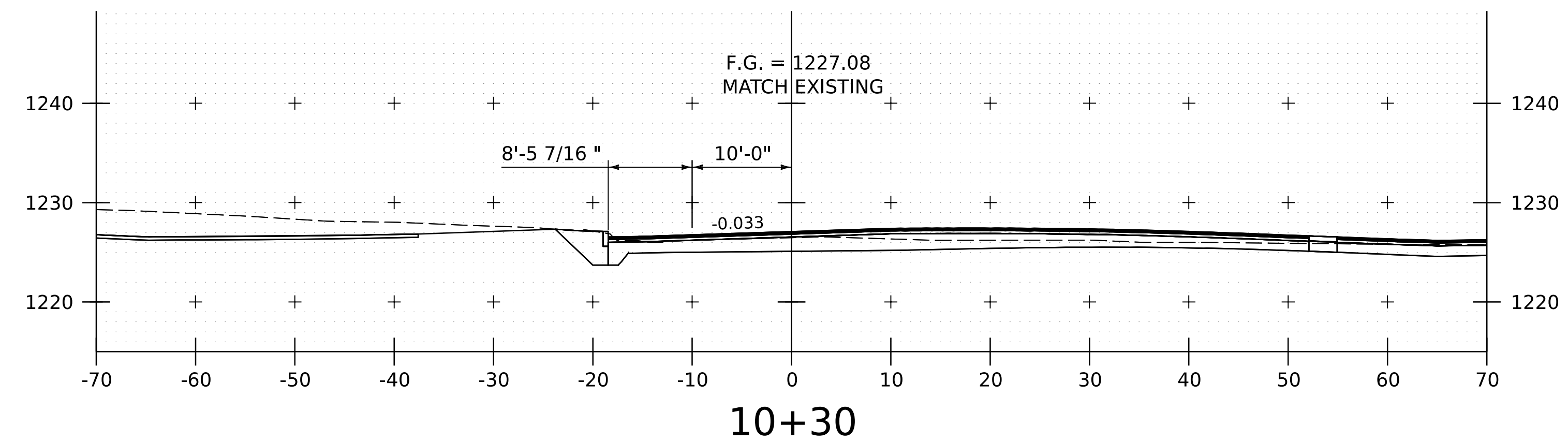
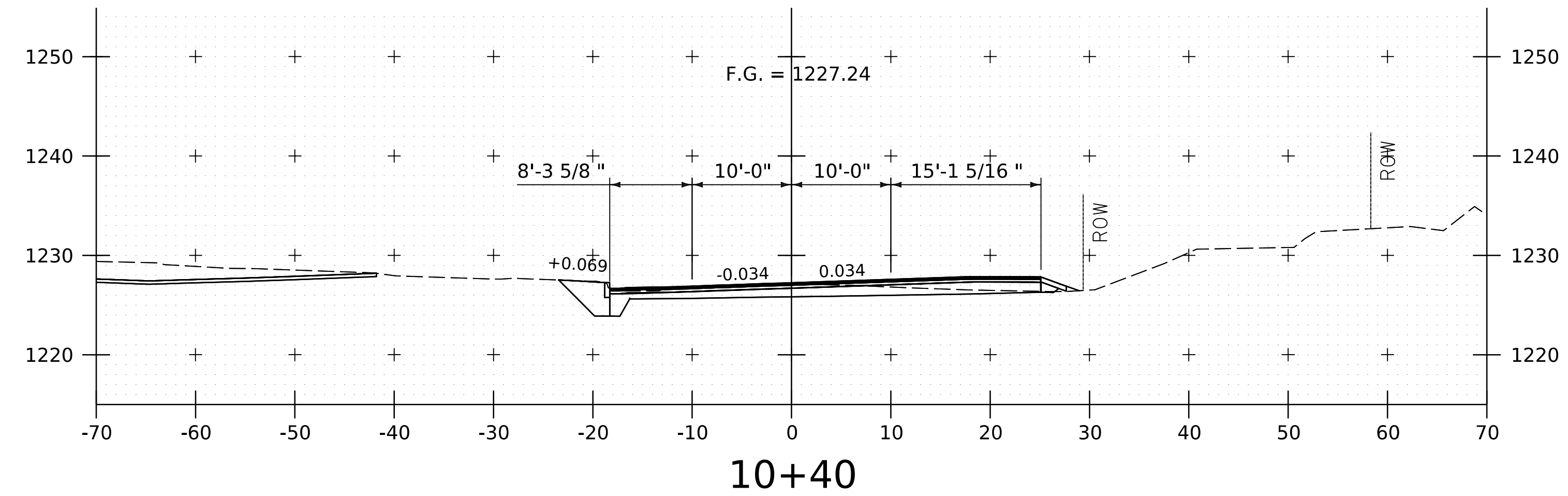
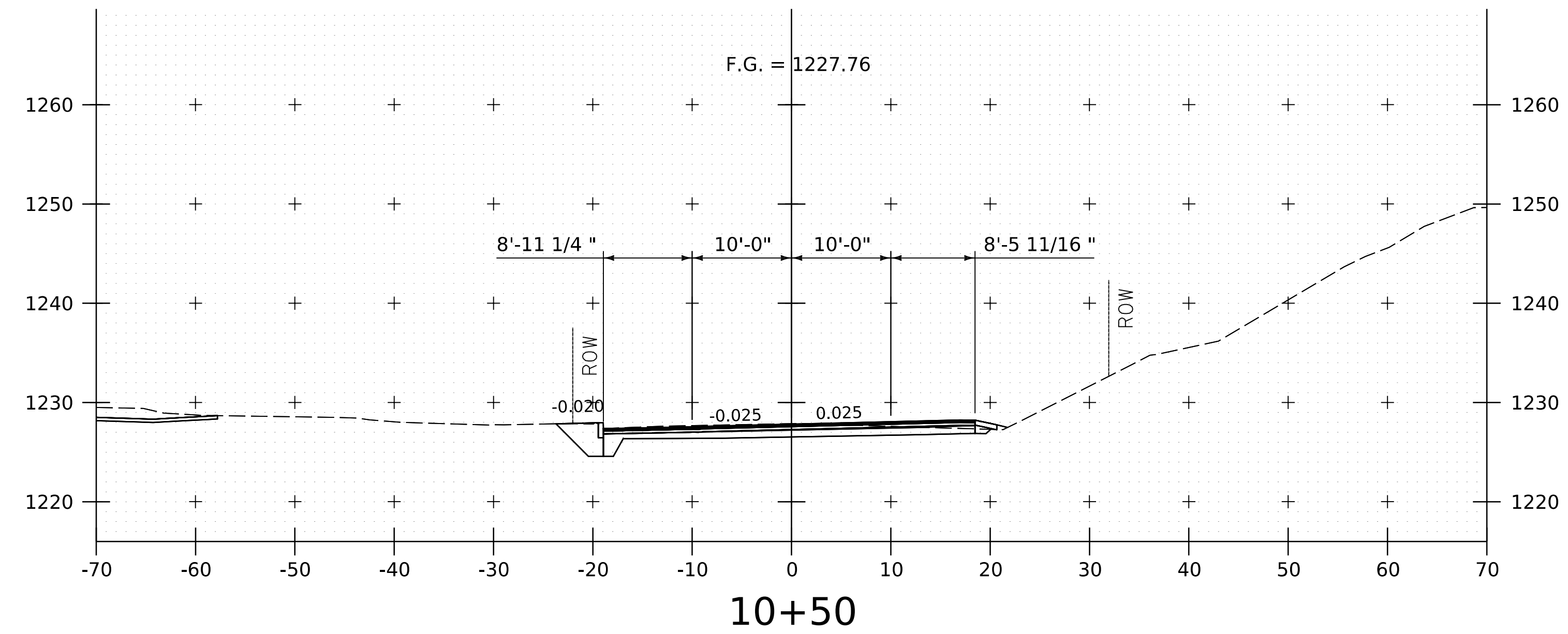
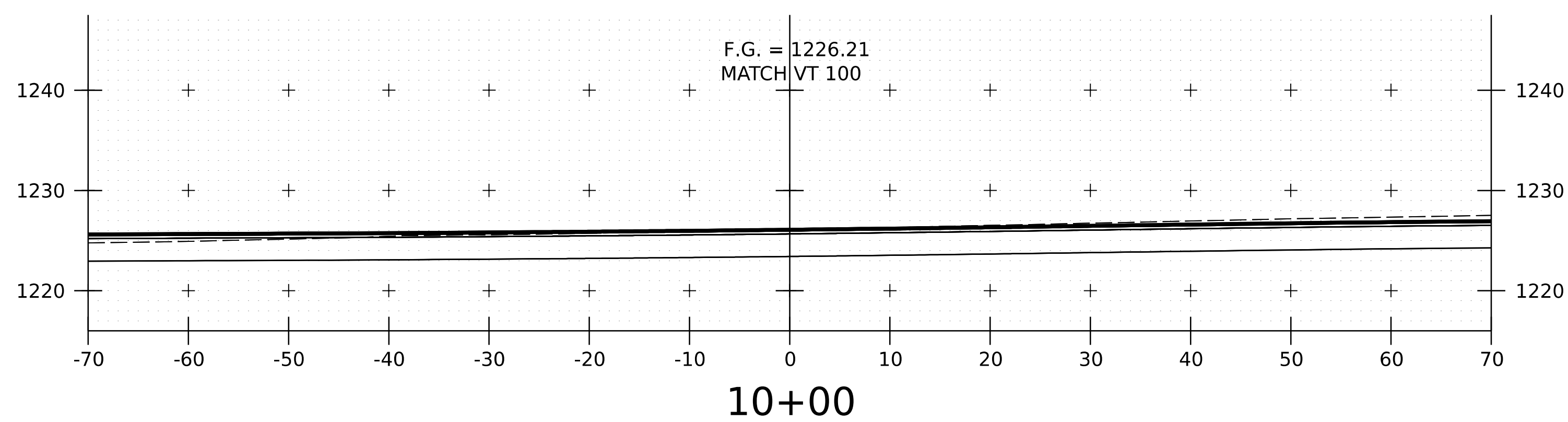
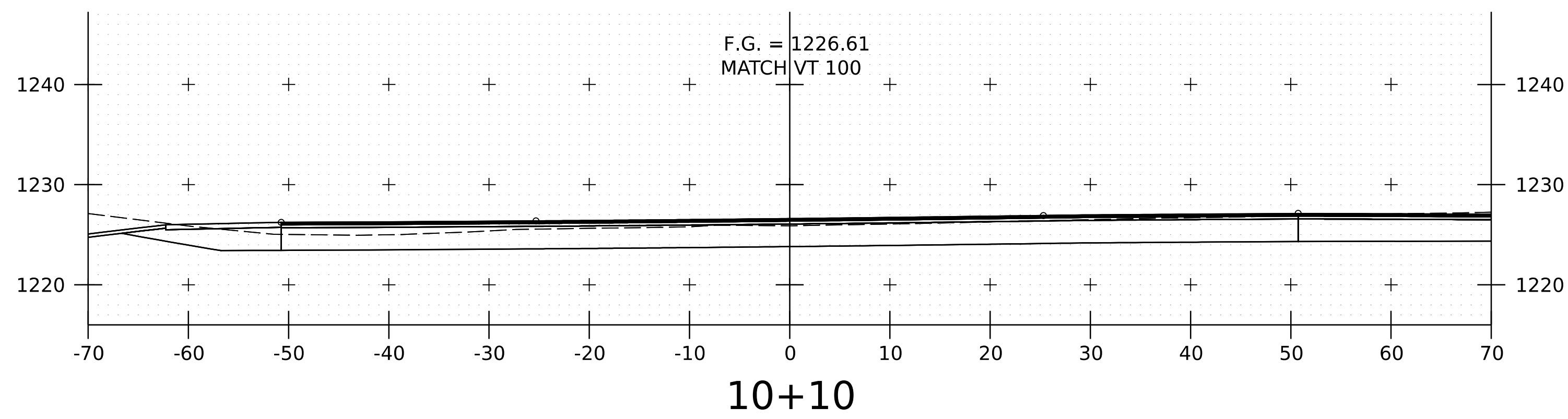
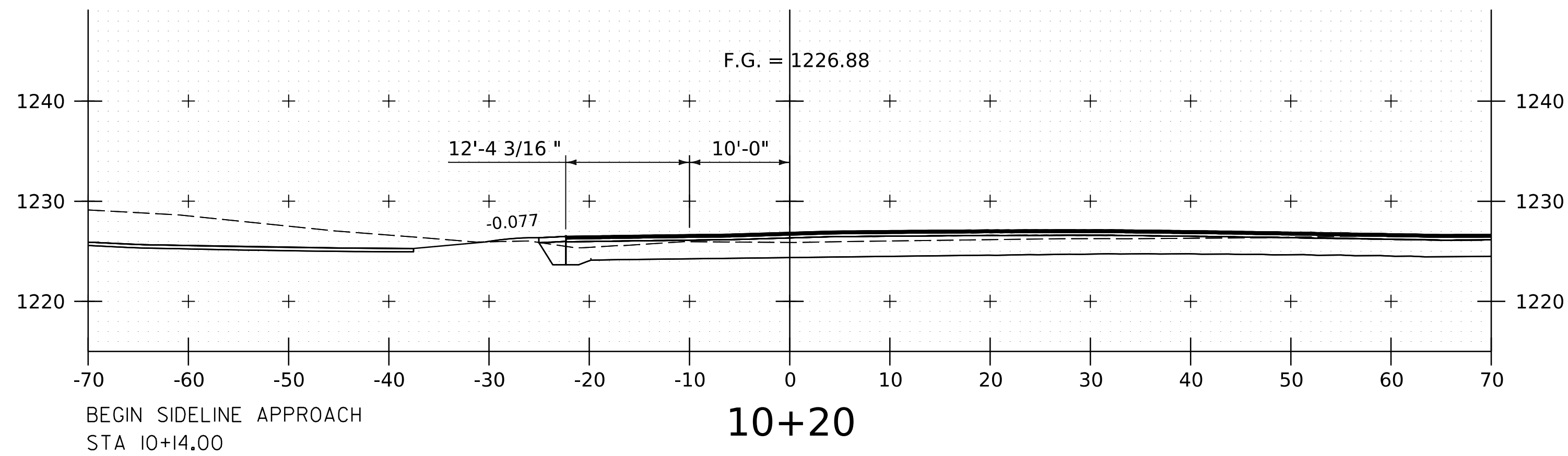


PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs.th4.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: D.M. PECK  
DEPOT ST CROSS SECTIONS SHEET (6 OF 6) SHEET 163 OF 220

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: S.E. BURBANK



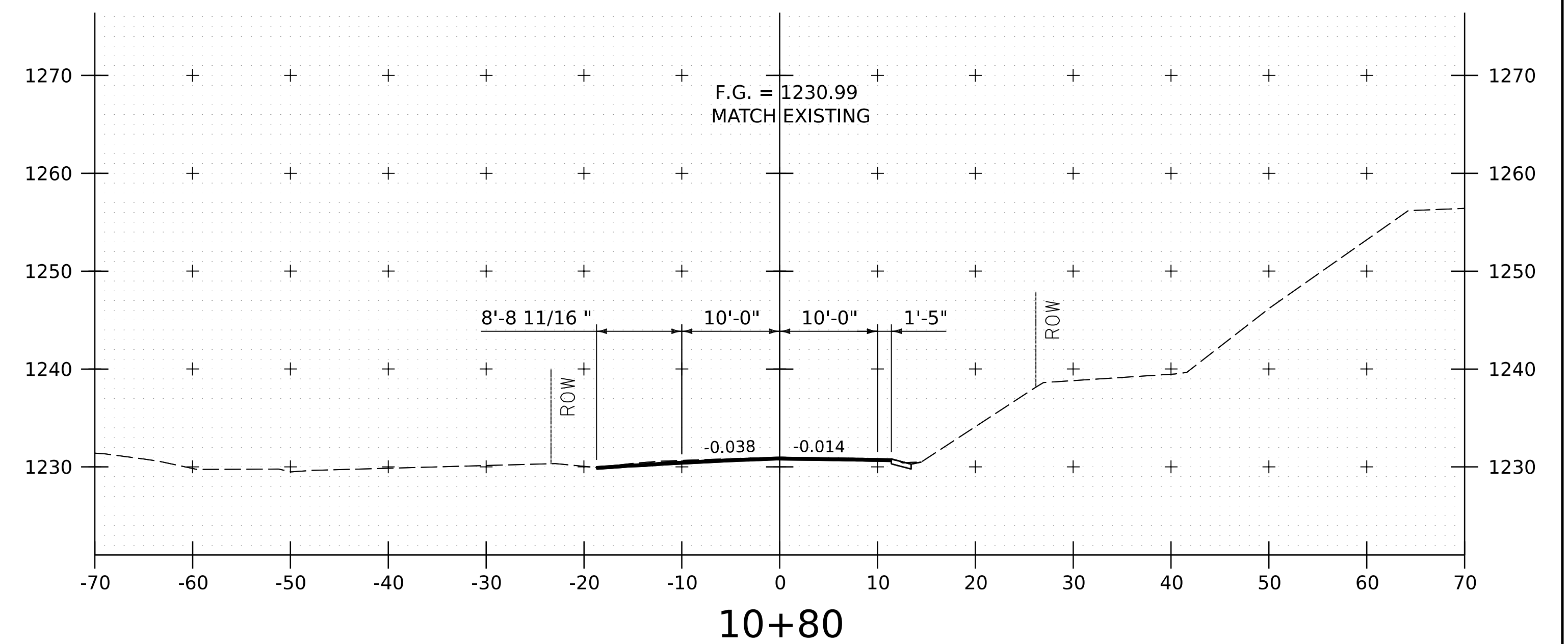
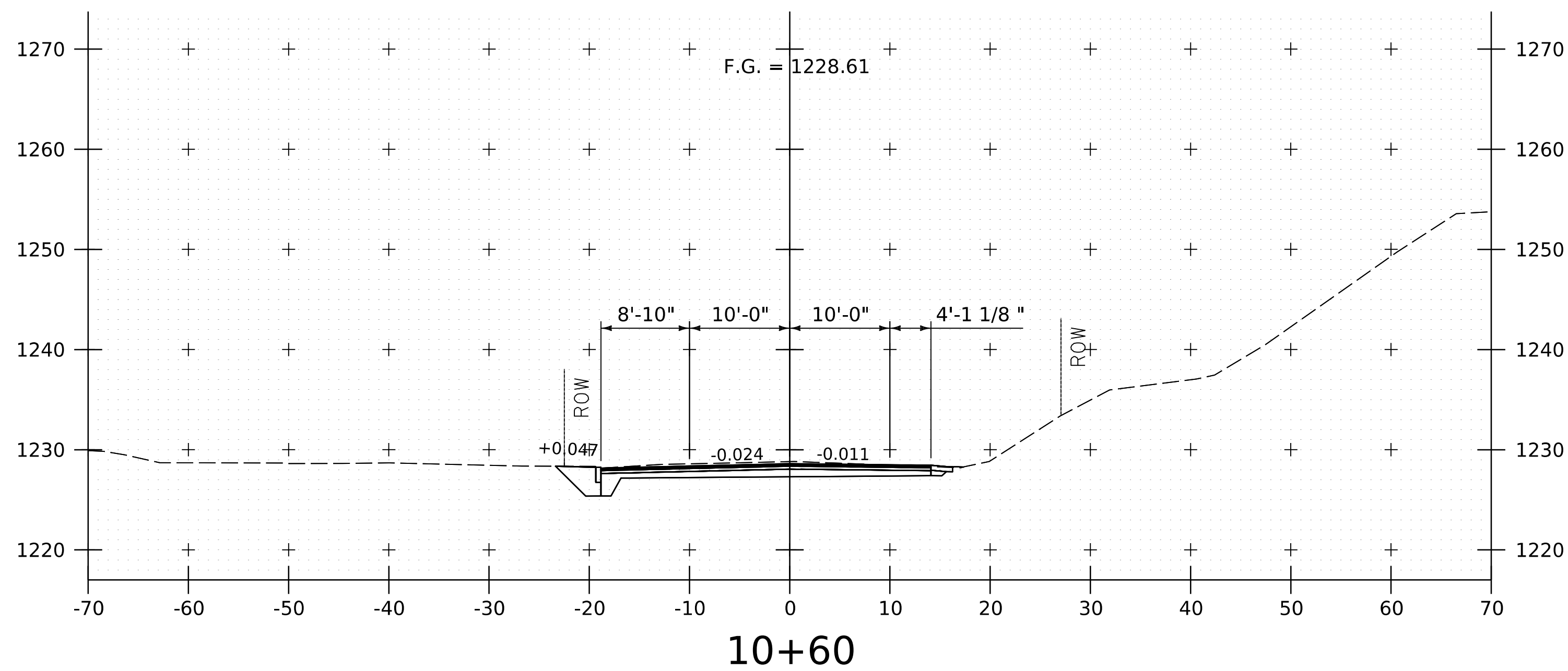
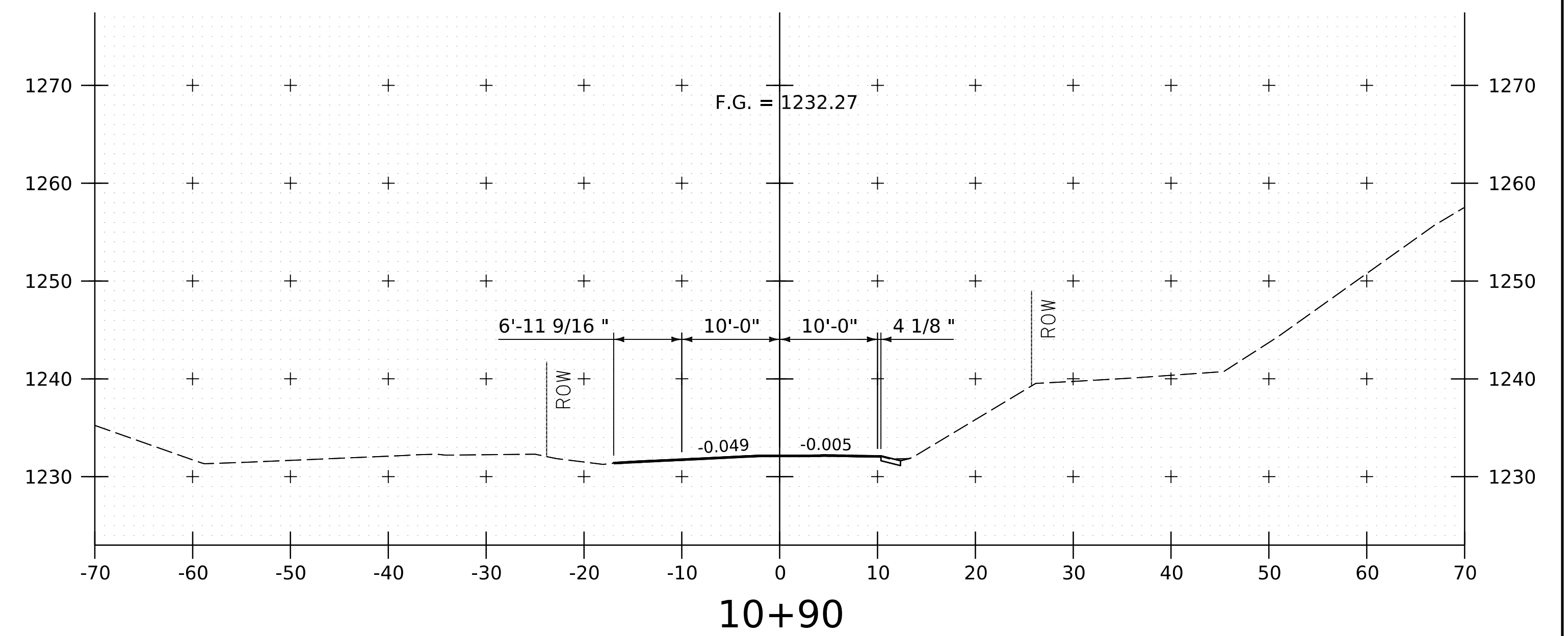
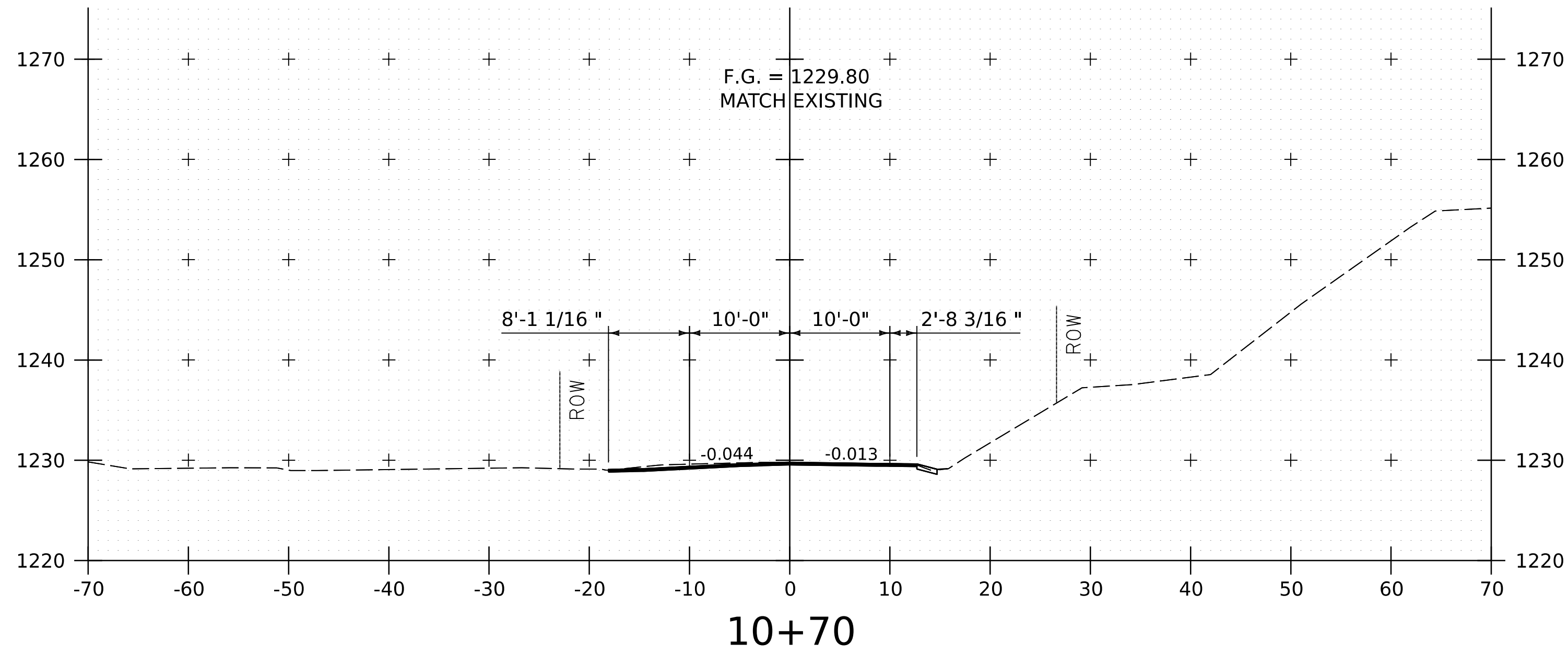


JARVIS HILL ROAD (TH 46) CROSS SECTIONS

STA. 10+00 - 10+50  
SCALE 1" = 10'-0"



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068xs.th46.dgn	DESIGNED BY:	D.M. PECK
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.E. BURBANK
JARVIS HILL CROSS SECTIONS SHEET (1 OF 3) SHEET		164 OF 220	



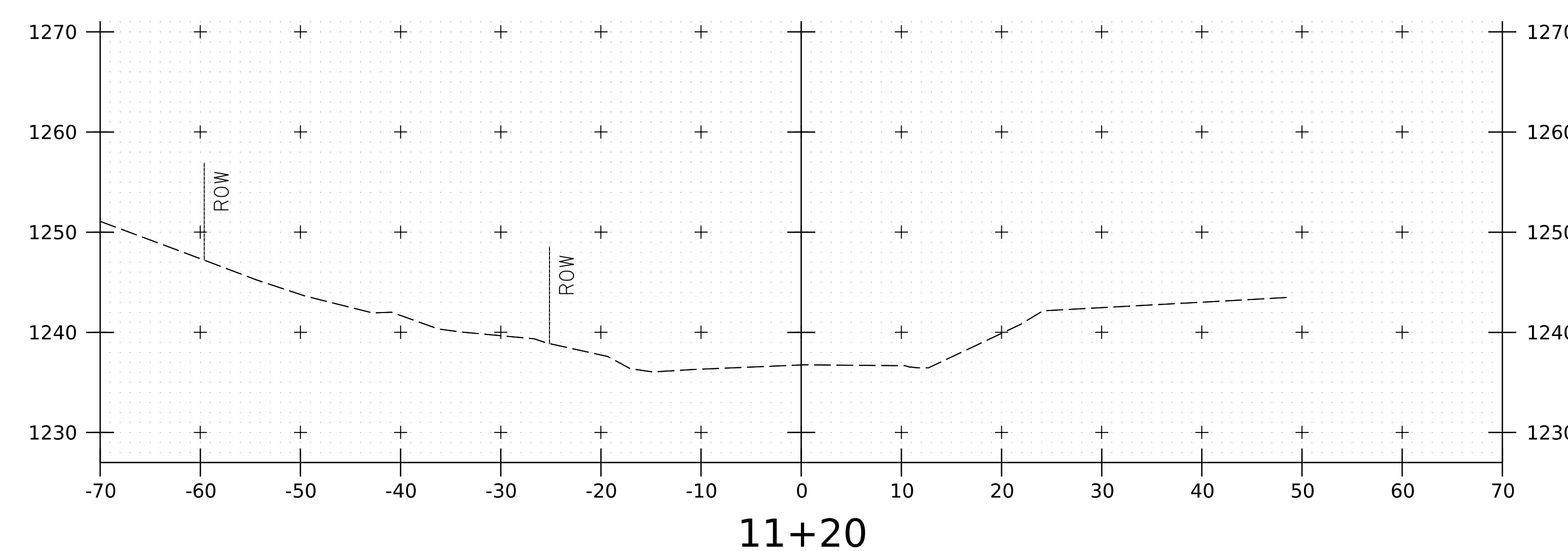
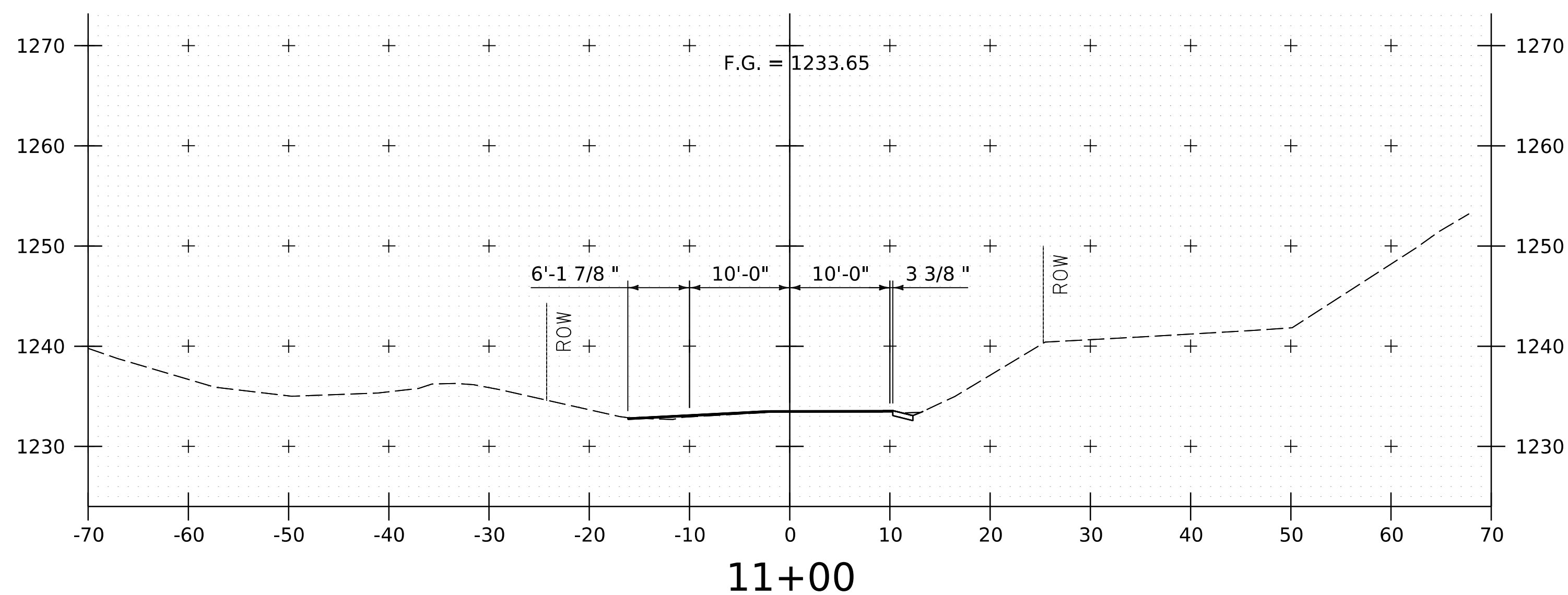
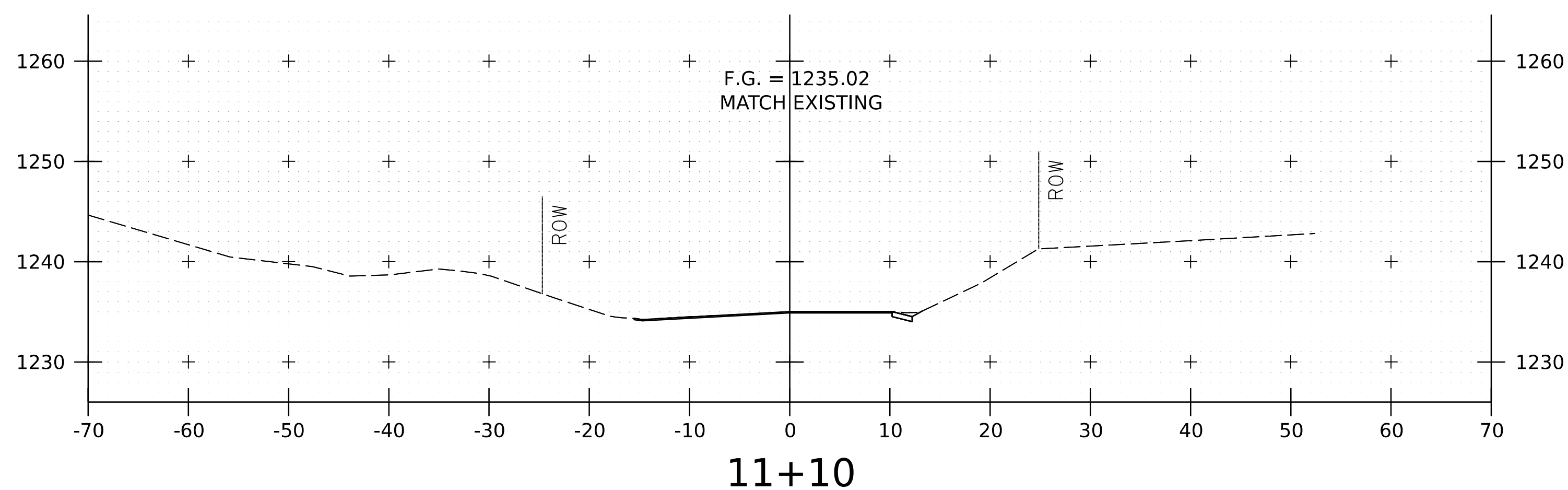
JARVIS HILL ROAD (TH 46) CROSS SECTIONS

STA. 10+60 - 10+90  
SCALE 1" = 10'-0"



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068xs.th46.dgn	DESIGNED BY:	D.M. PECK
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.E. BURBANK
JARVIS HILL CROSS SECTIONS SHEET (2 OF 3) SHEET		165 OF 220	

END SIDELINE APPROACH  
STA 11+10.00

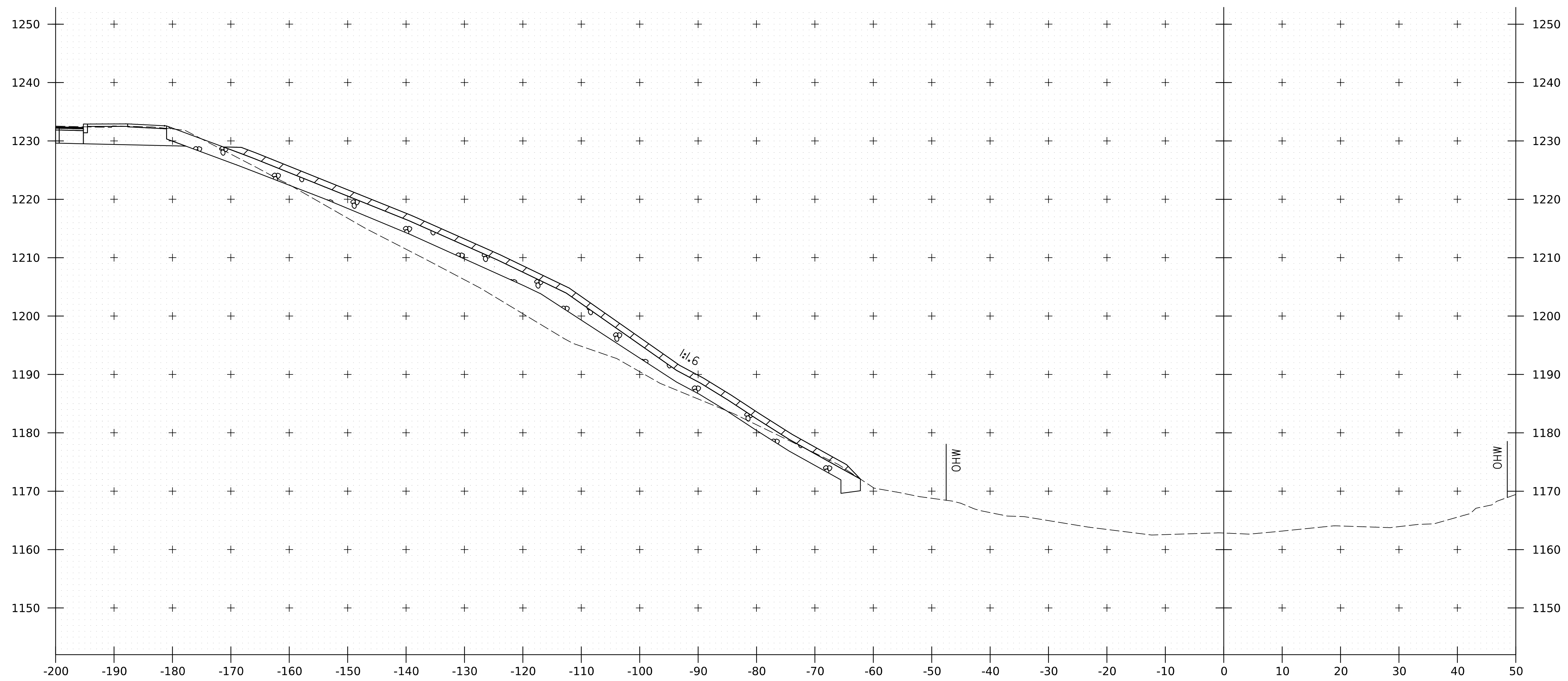


JARVIS HILL ROAD (TH 46) CROSS SECTIONS

STA. 11+00 - 11+20  
SCALE 1" = 10'-0"



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	W.A. FRETWELL
FILE NAME:	z13c068xs.th46.dgn	DESIGNED BY:	D.M. PECK
PROJECT LEADER:	S.E. BURBANK	CHECKED BY:	S.E. BURBANK
JARVIS HILL CROSS SECTIONS SHEET (3 OF 3) SHEET		166 OF 220	



49+75

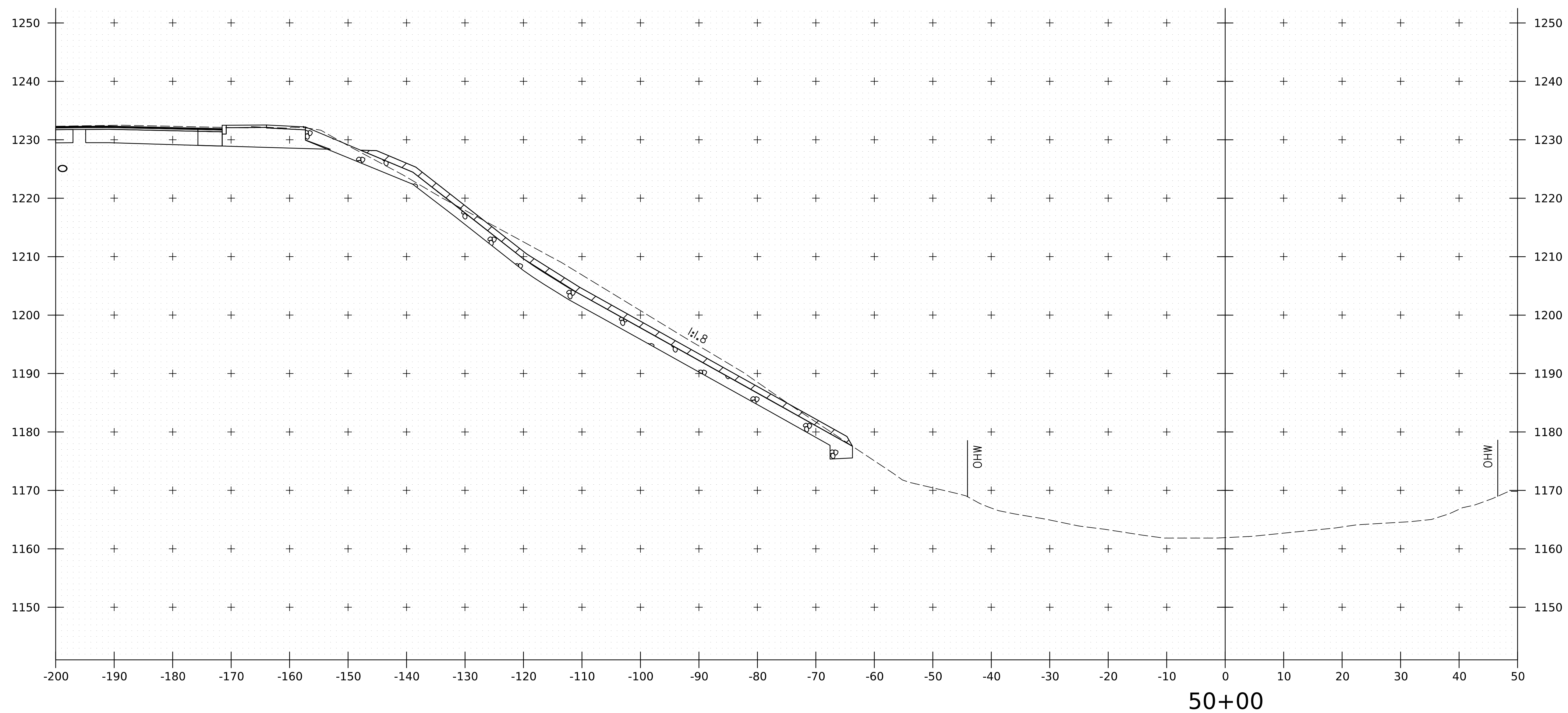
BEGIN STONE FILL, TYPE III, GEOTEXTILE FOR  
STONE FILL, AND GRUBBING MATERIAL, 12 INCH  
STA 48+54, LT

CHANNEL CROSS SECTION

STA 49+75  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (1 OF 37)	SHEET 167 OF 220



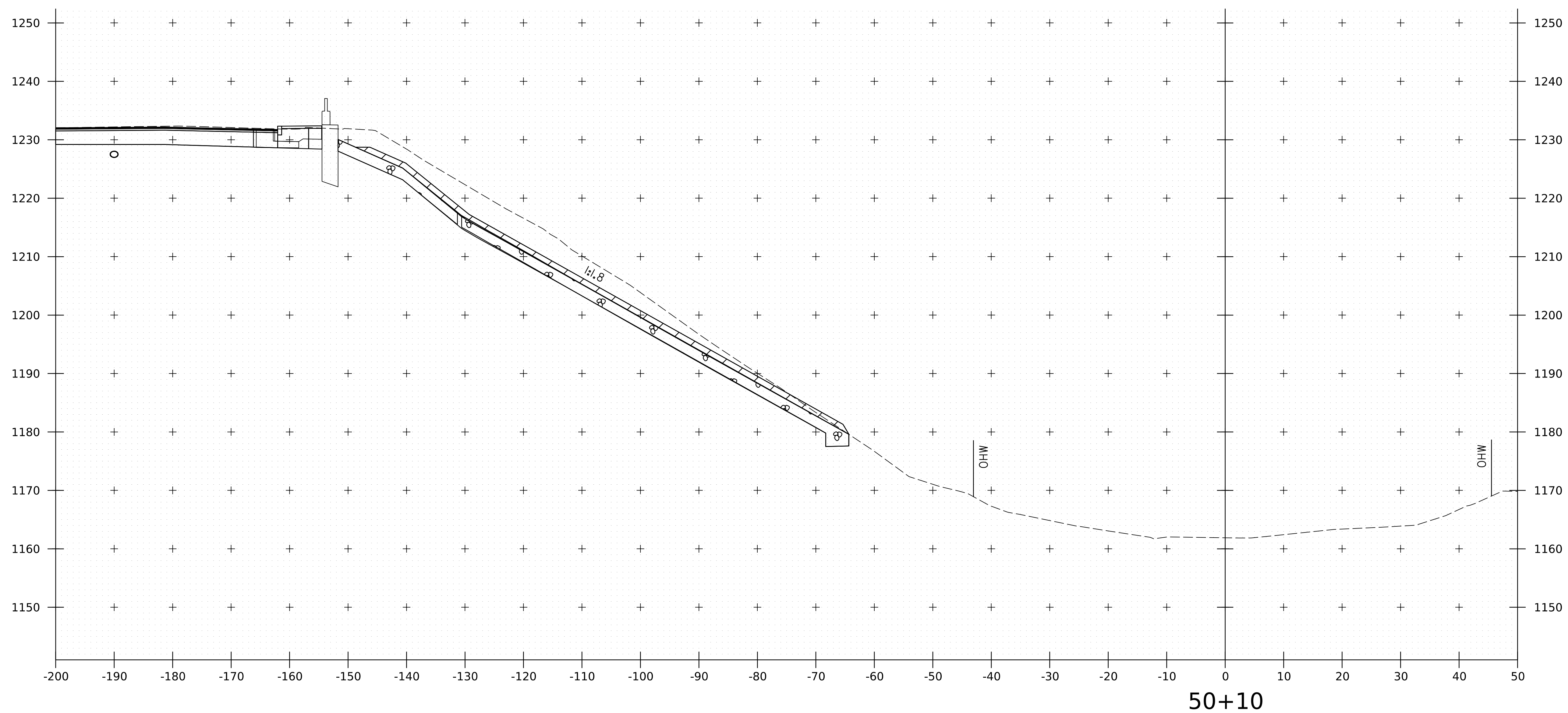
CHANNEL CROSS SECTION

STA 50+00  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (2 OF 37)	SHEET 168 OF 220





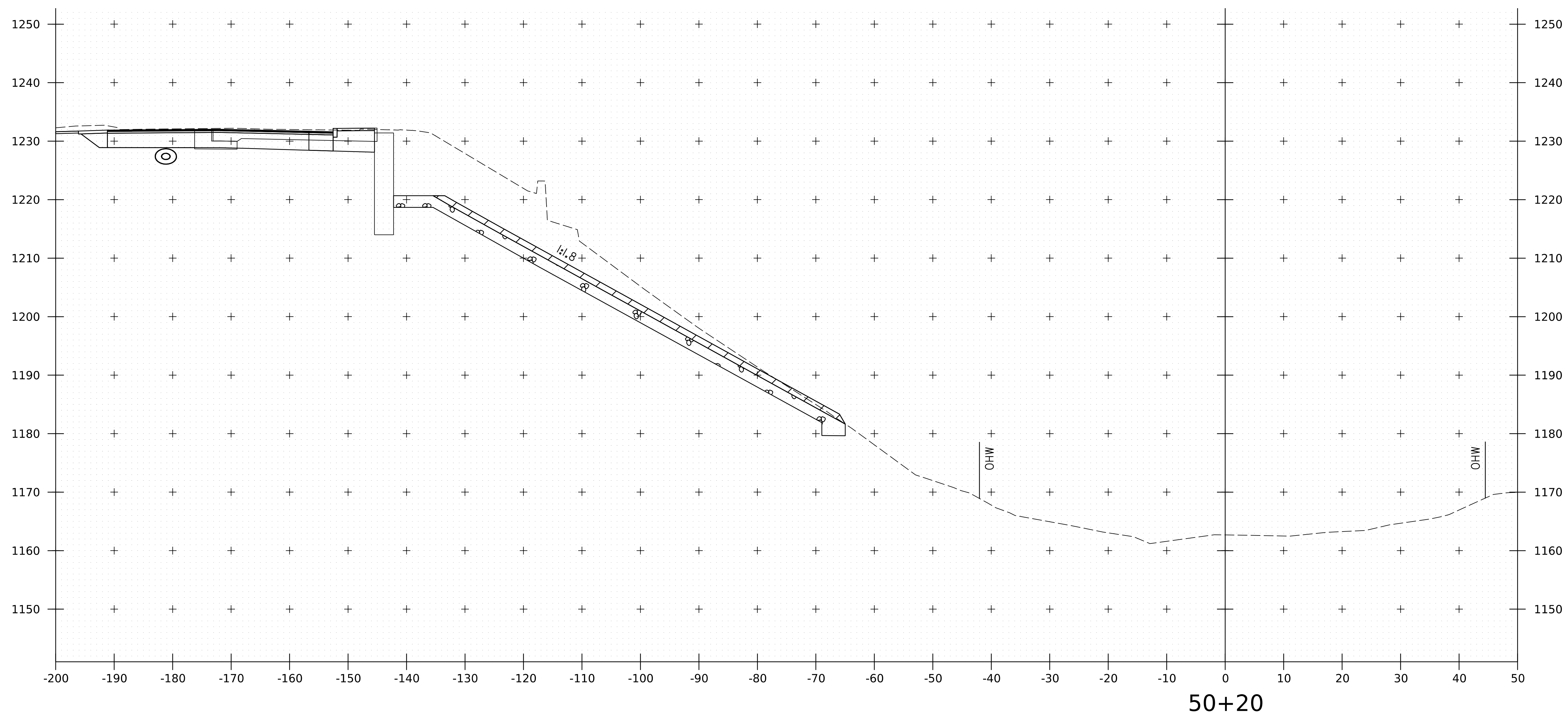
CHANNEL CROSS SECTION

STA 50+10  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (3 OF 37)	SHEET 169 OF 220

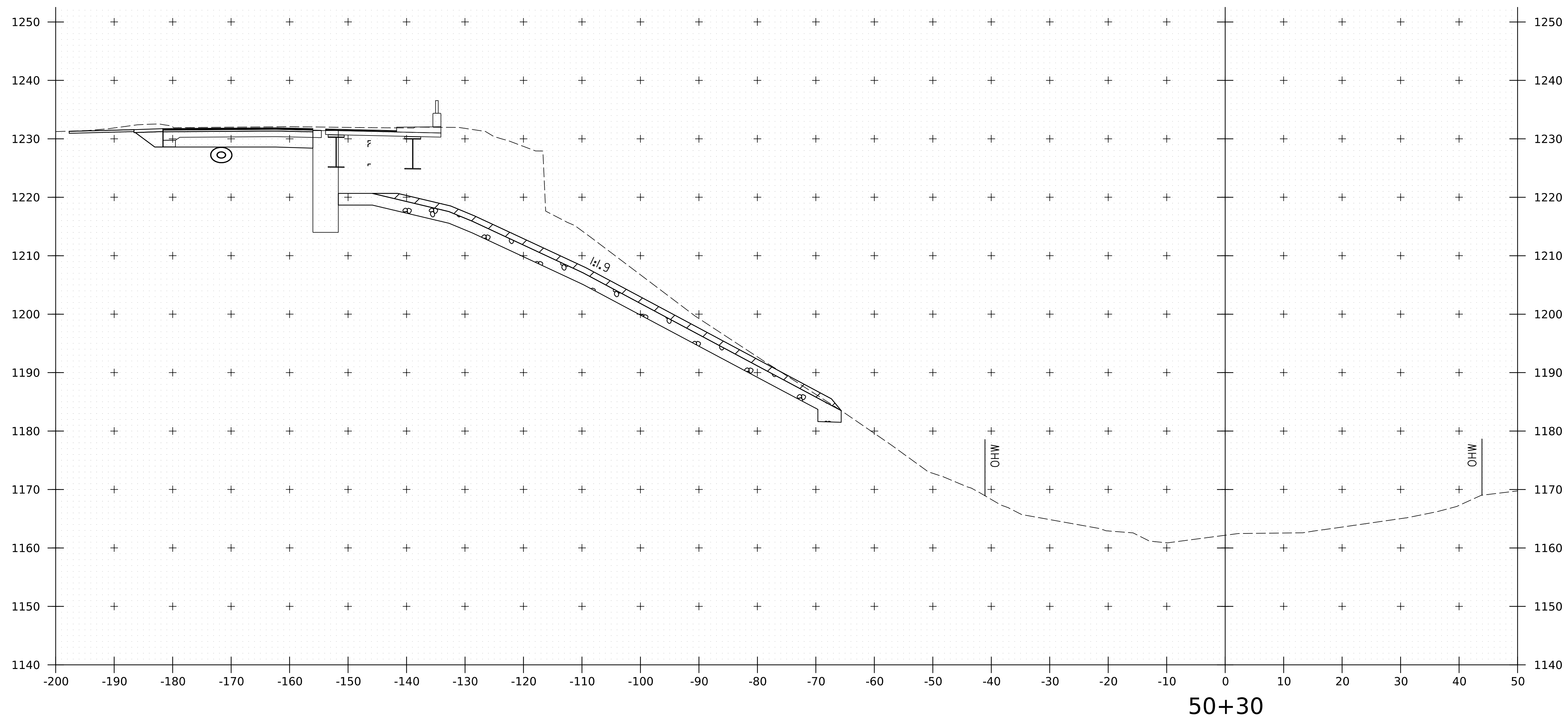


CHANNEL CROSS SECTION

STA 50+20  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (4 OF 37)	SHEET 170 OF 220

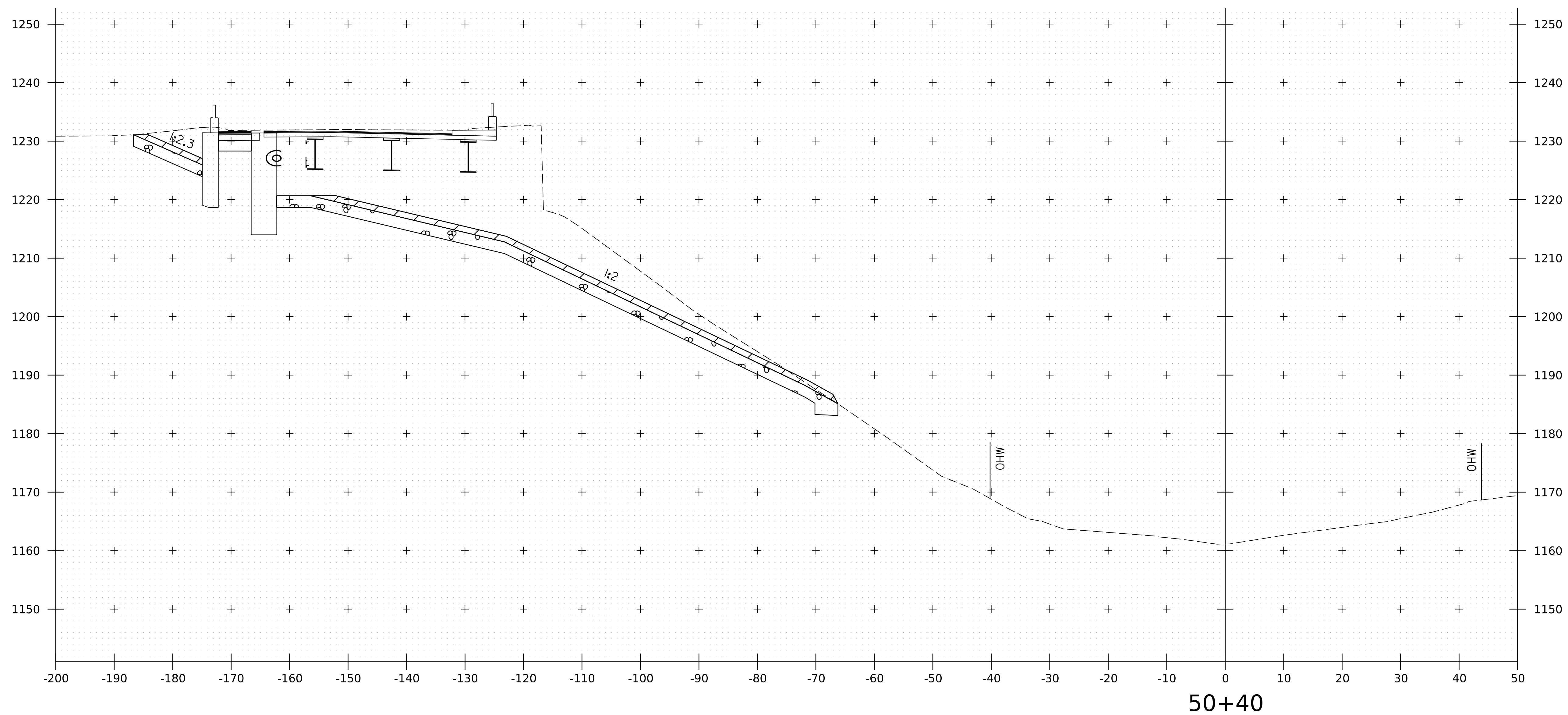


CHANNEL CROSS SECTION

STA 50+30  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (5 OF 37)	SHEET 171 OF 220

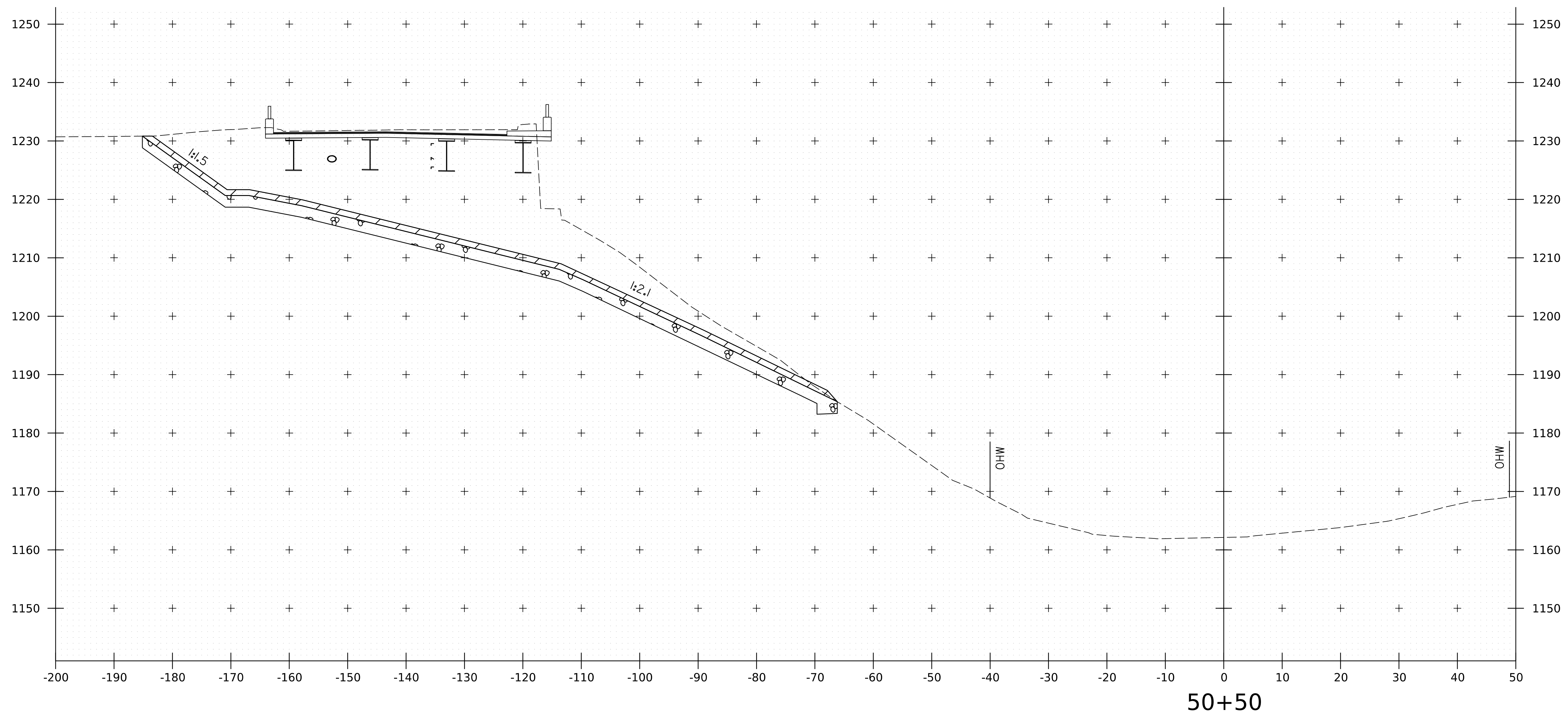


CHANNEL CROSS SECTION

STA 50+40  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (6 OF 37)	SHEET 172 OF 220



CHANNEL CROSS SECTION

STA 50+50  
SCALE 1"=10'-0"

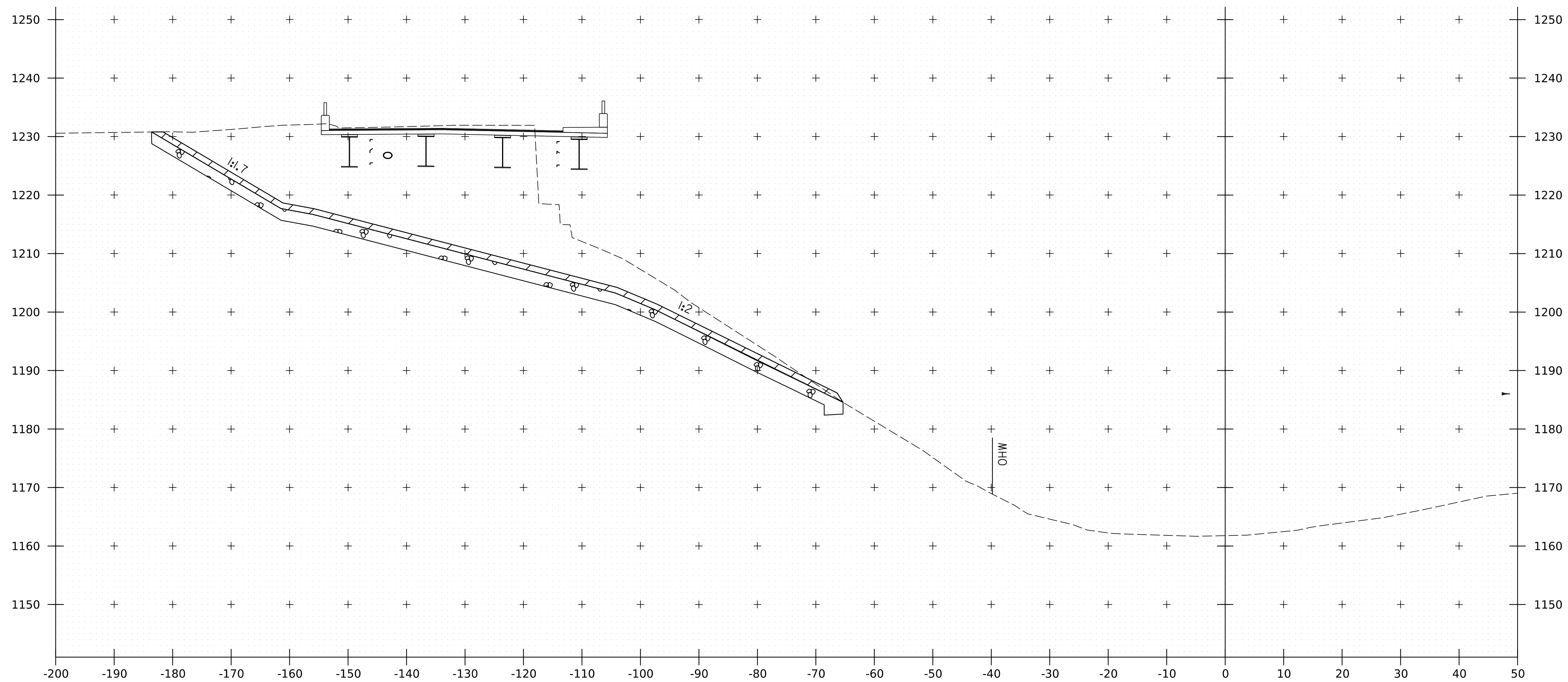


PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs_channel.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
CHANNEL CROSS SECTIONS SHEET (7 OF 37)

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.E. BURBANK  
SHEET 173 OF 220





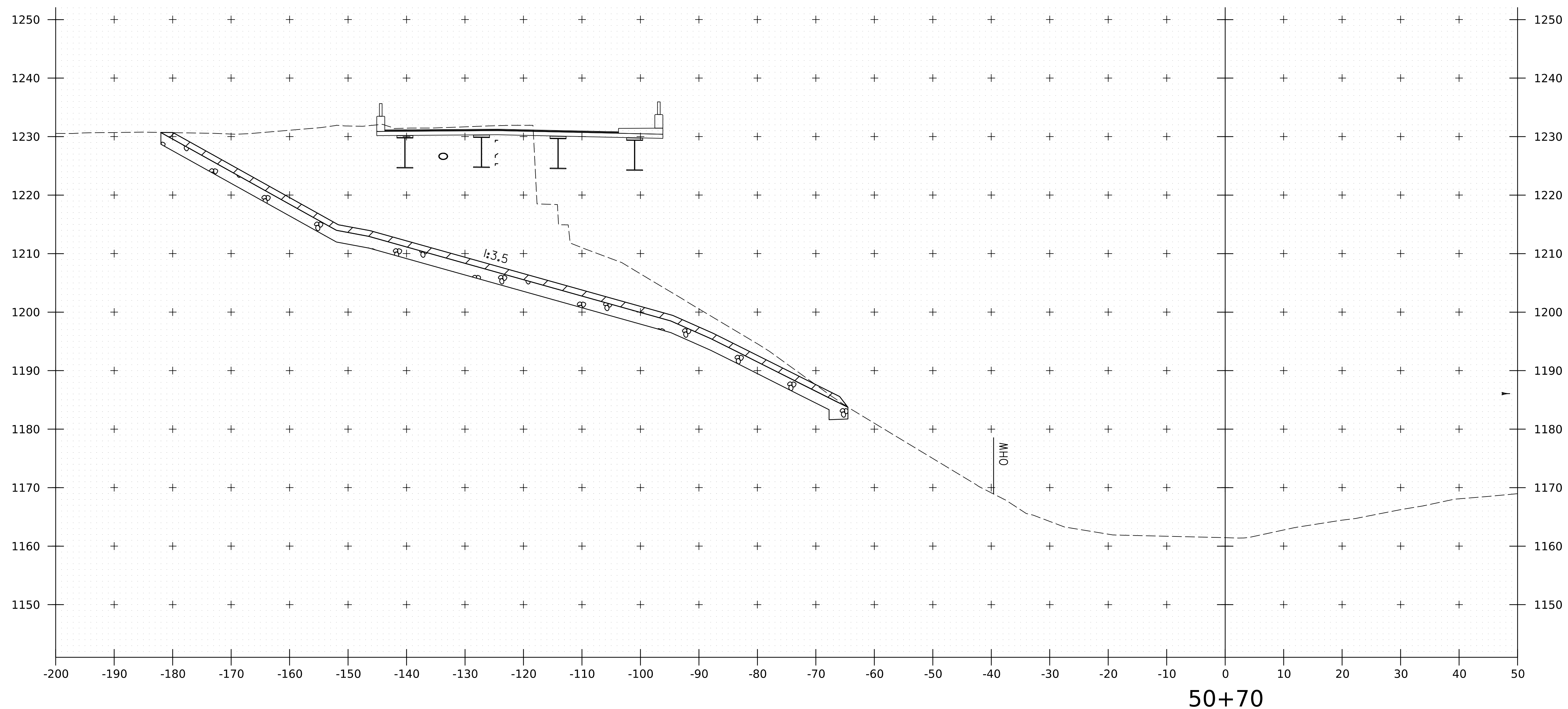
50+60

CHANNEL CROSS SECTION

STA 50+60  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (8 OF 37) SHEET 174 OF 220

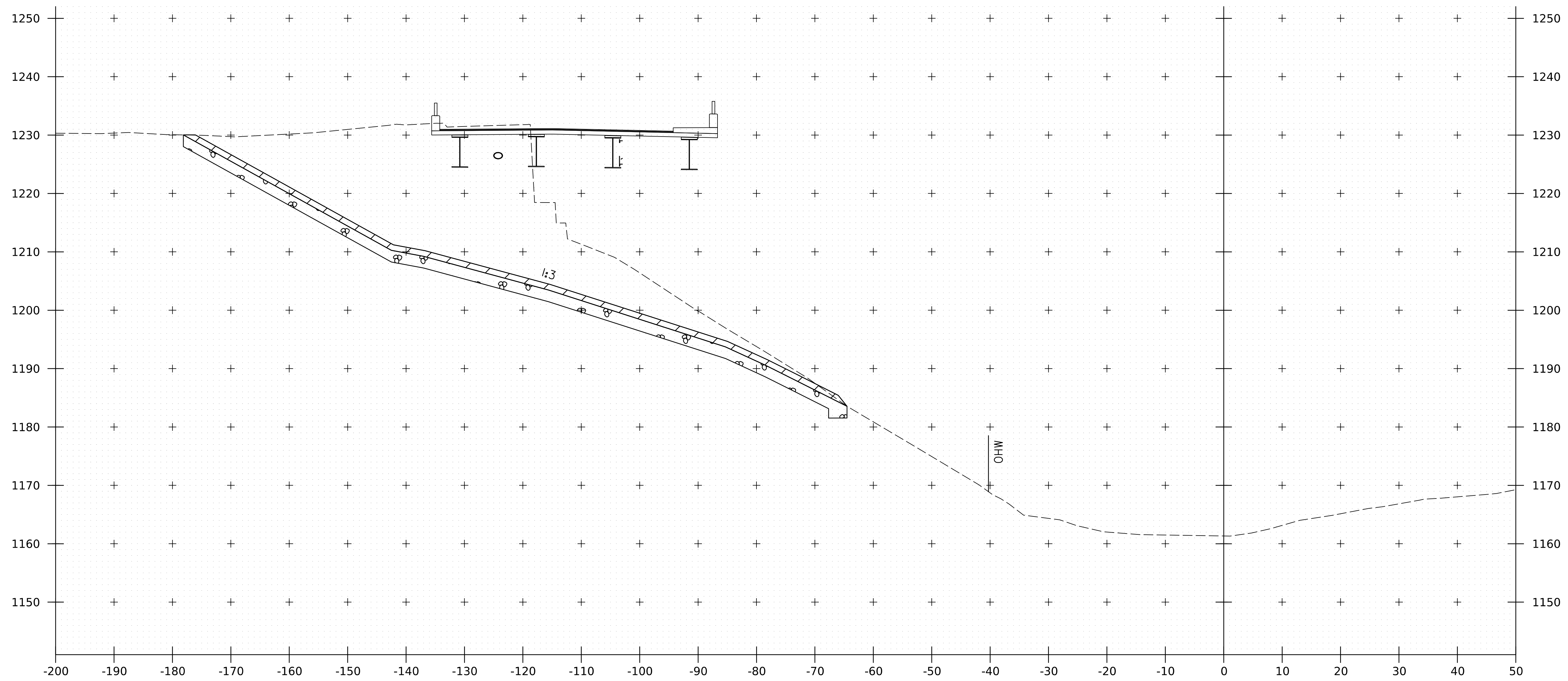


CHANNEL CROSS SECTION

STA 50+70  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	SHEET 175 OF 220
DESIGNED BY: N.A. TRUSLOW	CHANNEL CROSS SECTIONS SHEET (9 OF 37)



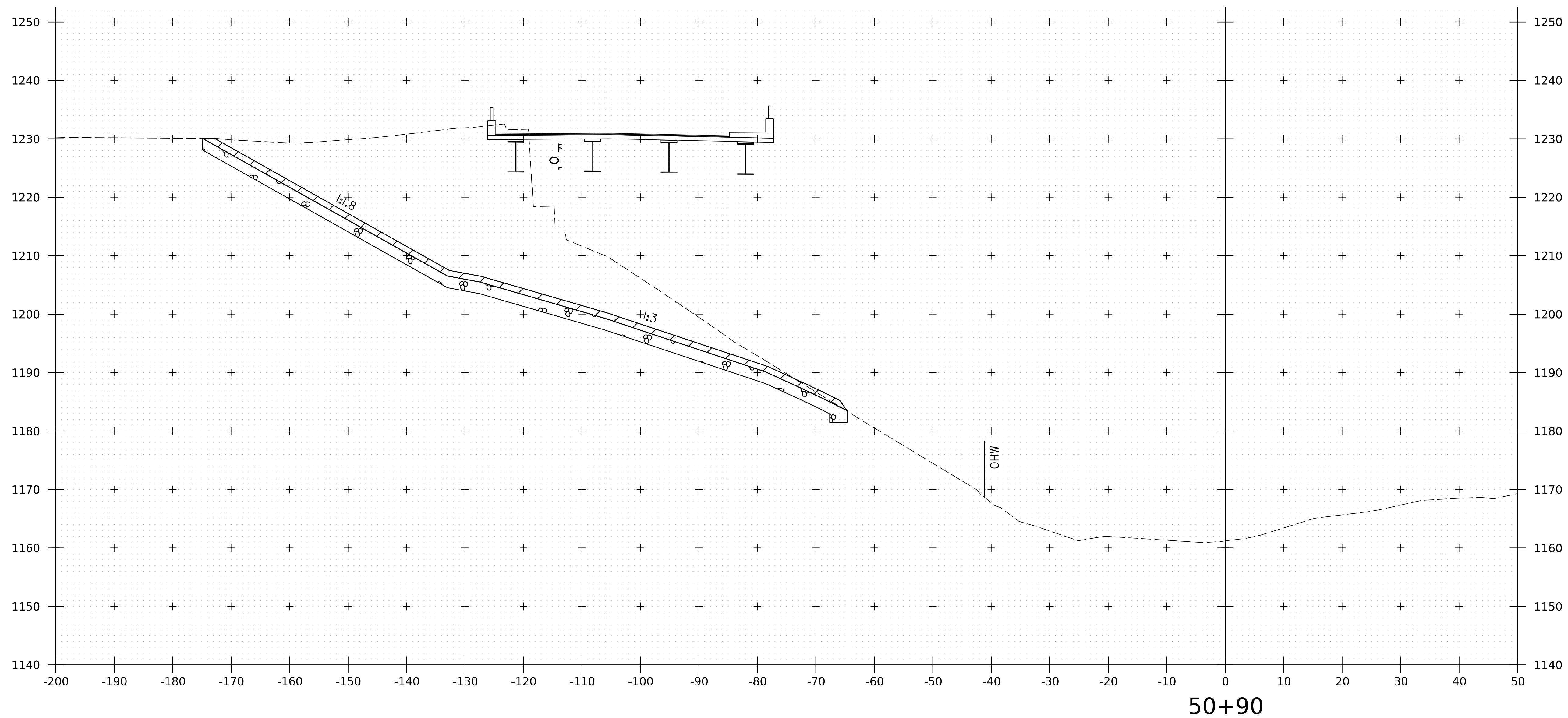
50+80

CHANNEL CROSS SECTION

STA 50+80  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (10 OF 37) SHEET 176 OF 220	

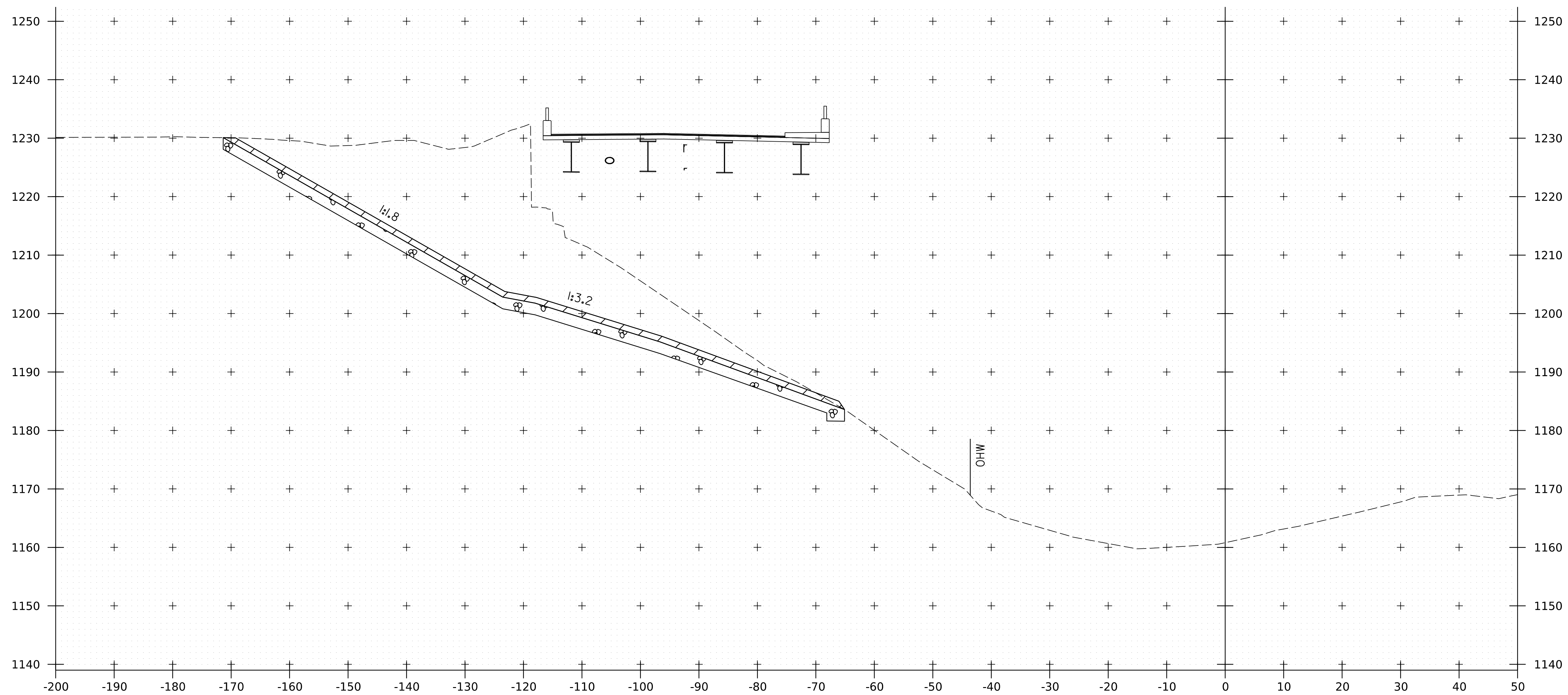


CHANNEL CROSS SECTION

STA 50+90  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (II OF 37) SHEET 177 OF 220



51+00

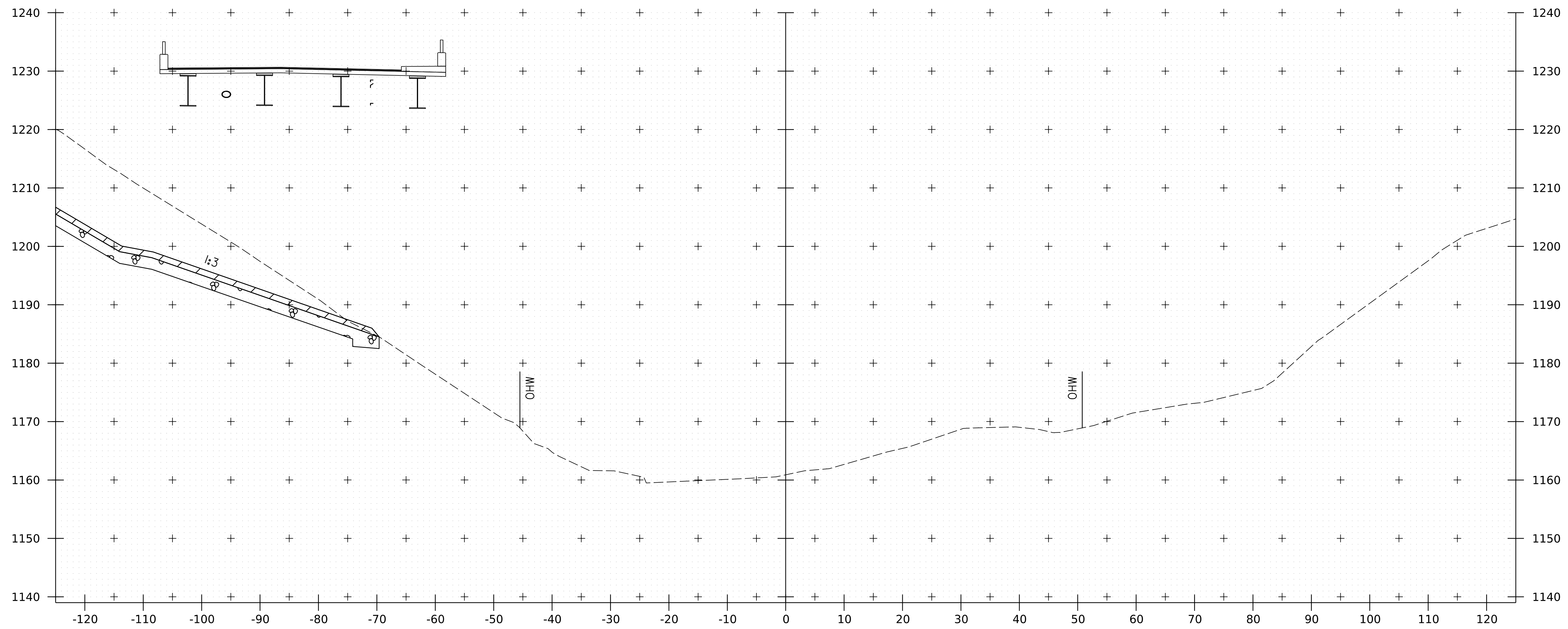
CHANNEL CROSS SECTION

STA 51+00  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (12 OF 37)	SHEET 178 OF 220





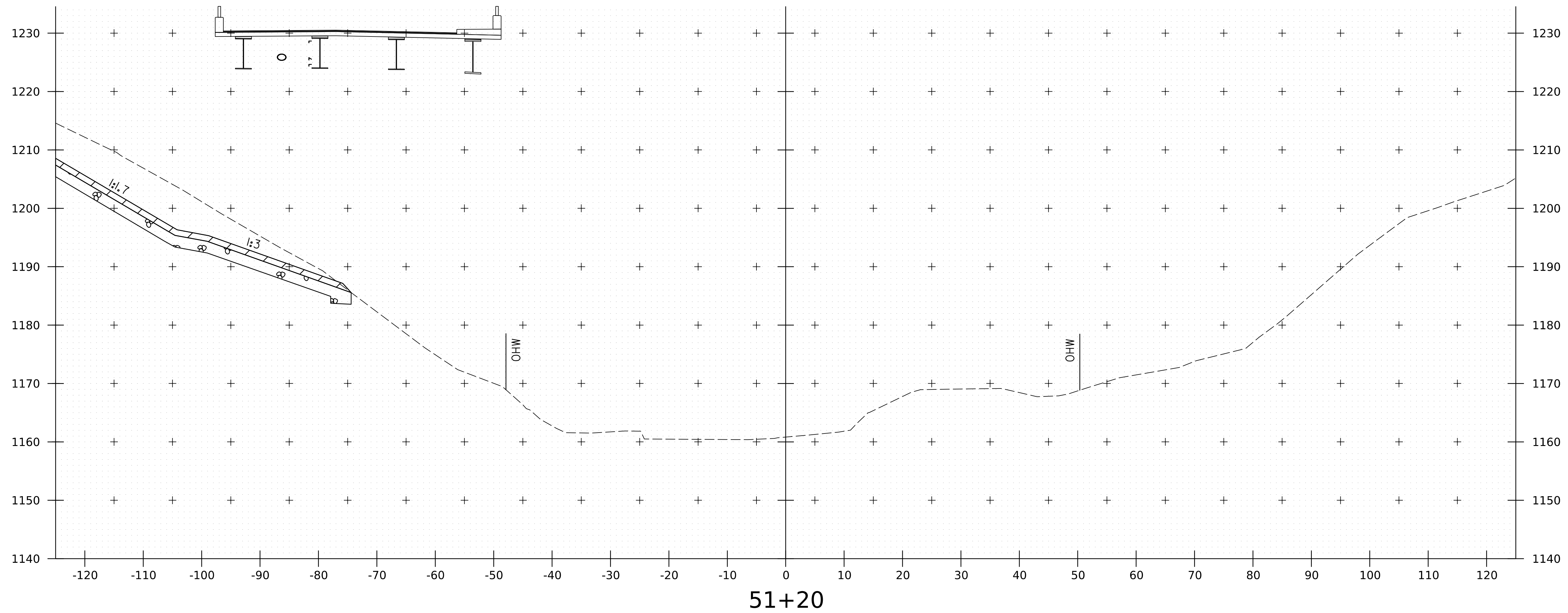
51+10

CHANNEL CROSS SECTION

STA 51+10  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (13 OF 37)	SHEET 179 OF 220

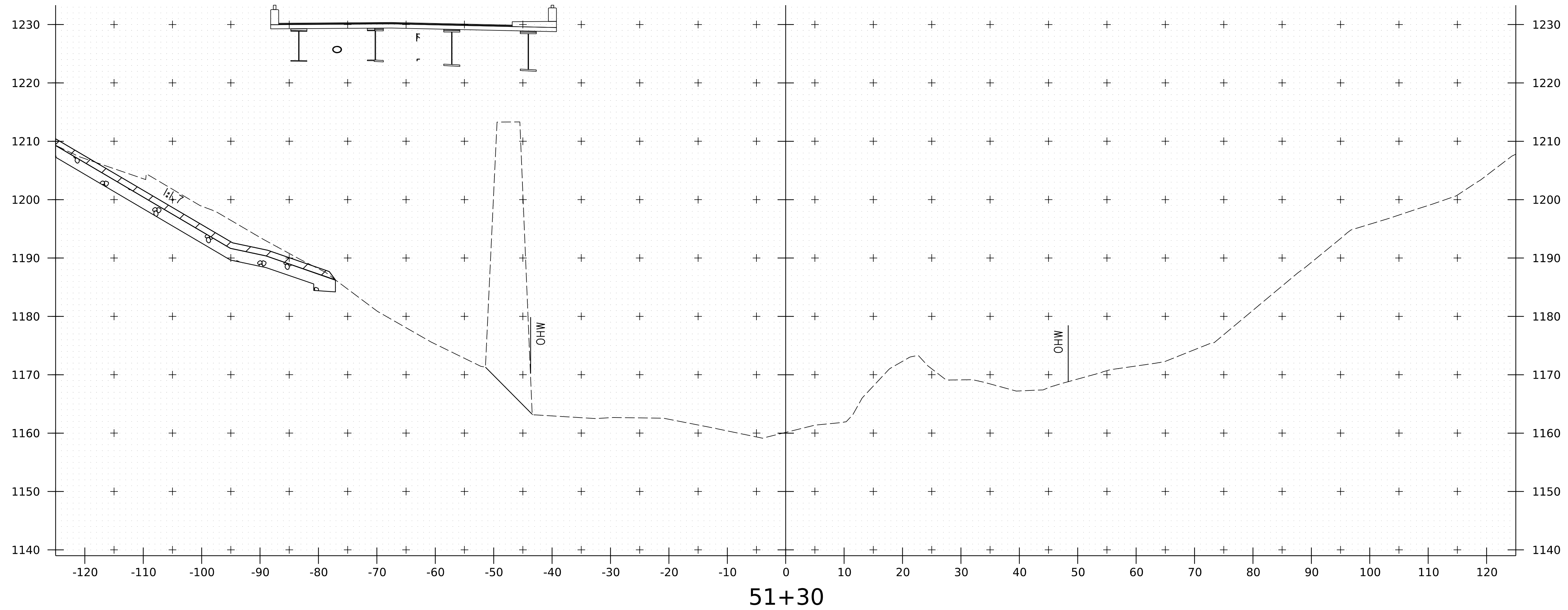


CHANNEL CROSS SECTION

STA 51+20  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (14 OF 37)	SHEET 180 OF 220

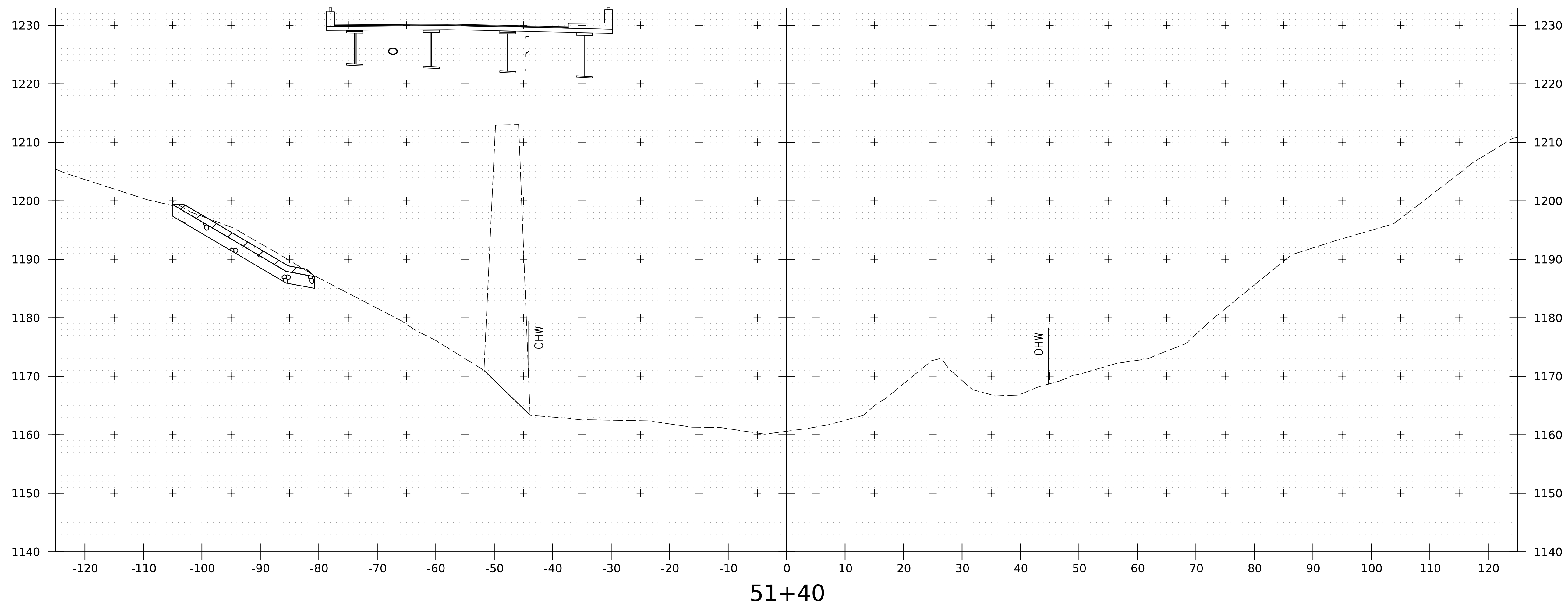


CHANNEL CROSS SECTION

STA 51+30  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (15 OF 37)	SHEET 181 OF 220

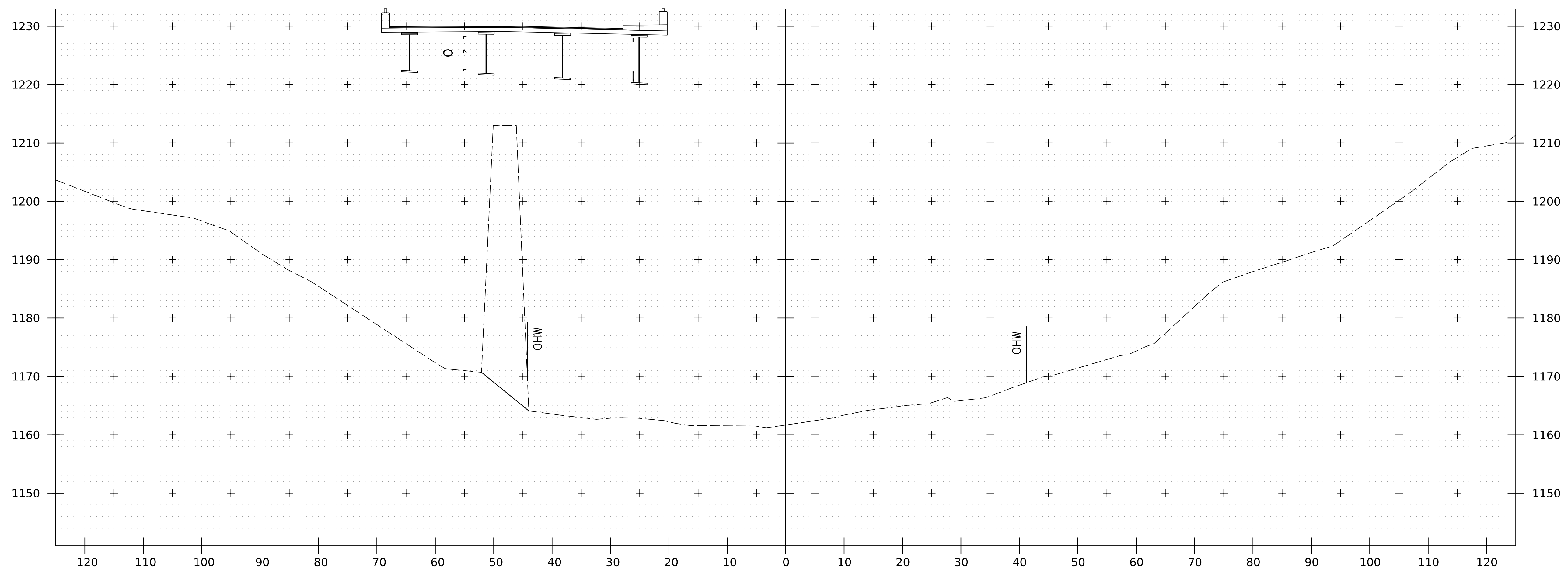


CHANNEL CROSS SECTION

STA 51+40  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (16 OF 37)	SHEET 182 OF 220



END STONE FILL, TYPE III, GEOTEXTILE FOR  
 STONE FILL, AND GRUBBING MATERIAL, 12 INCH  
 STA 51+48, LT

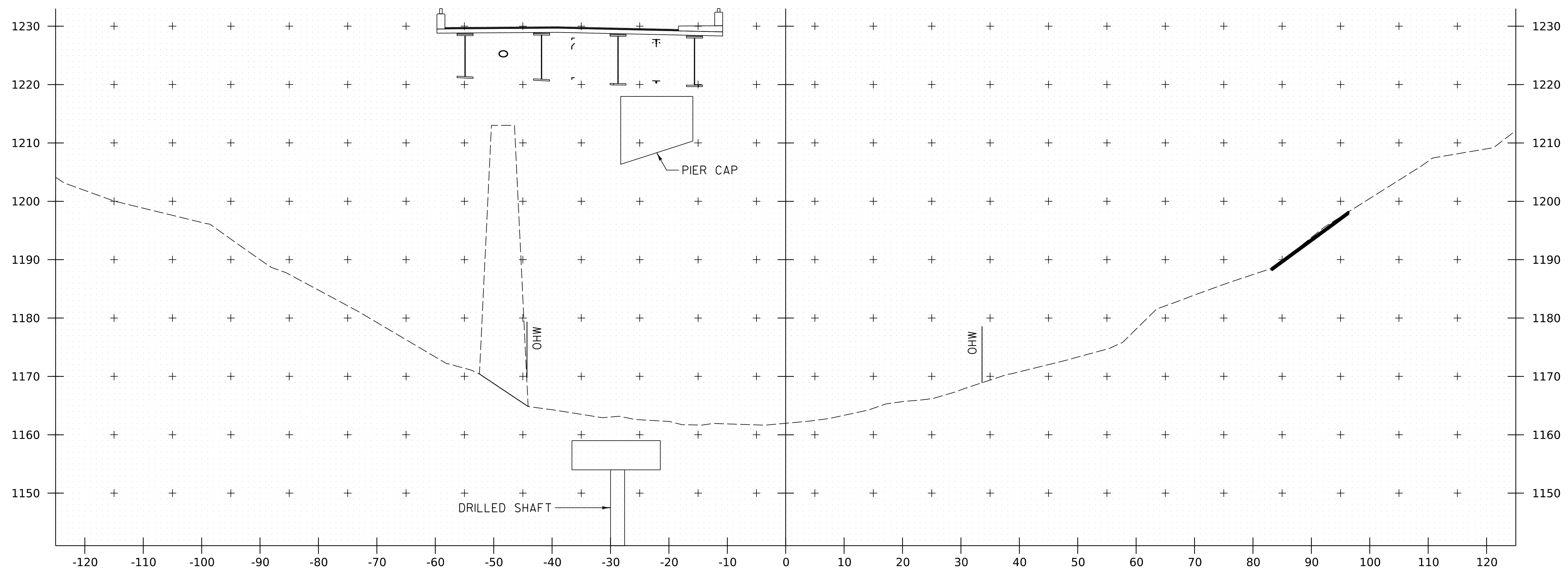
51+50

CHANNEL CROSS SECTION

STA 51+50  
 SCALE 1"=10'-0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (17 OF 37)	SHEET 183 OF 220



51+60

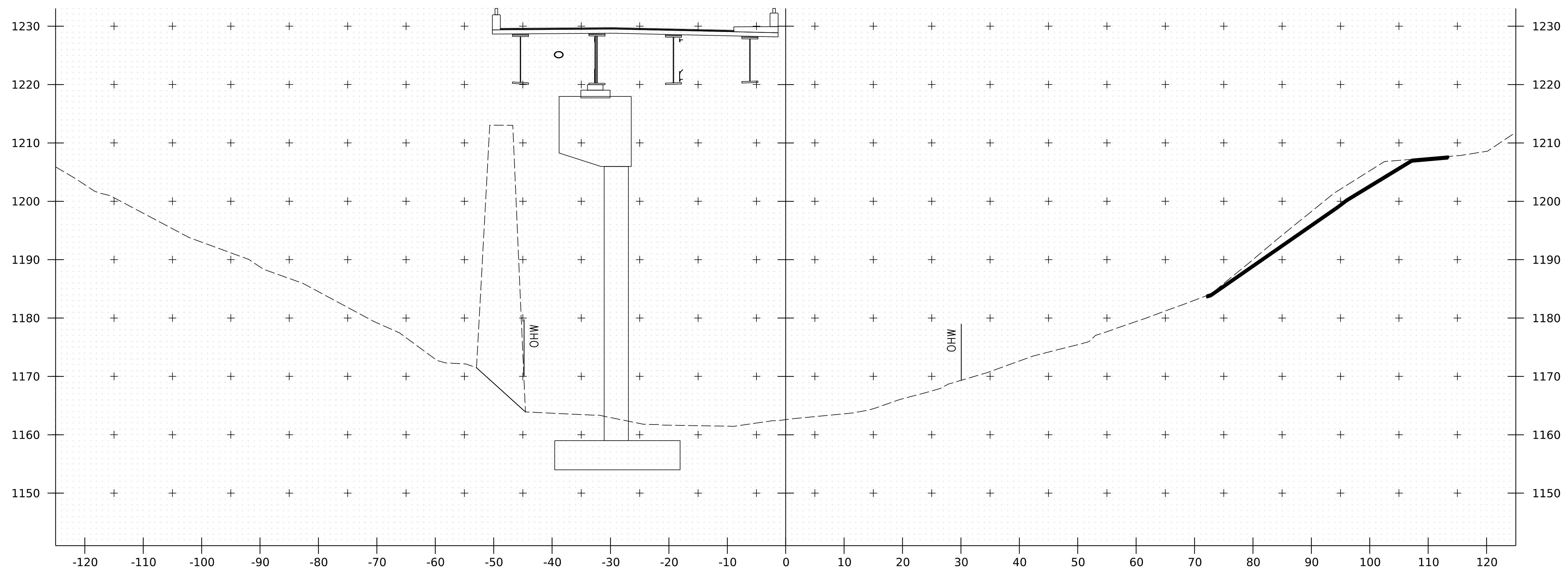
CHANNEL CROSS SECTION

STA 51+60  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (18 OF 37)	SHEET 184 OF 220





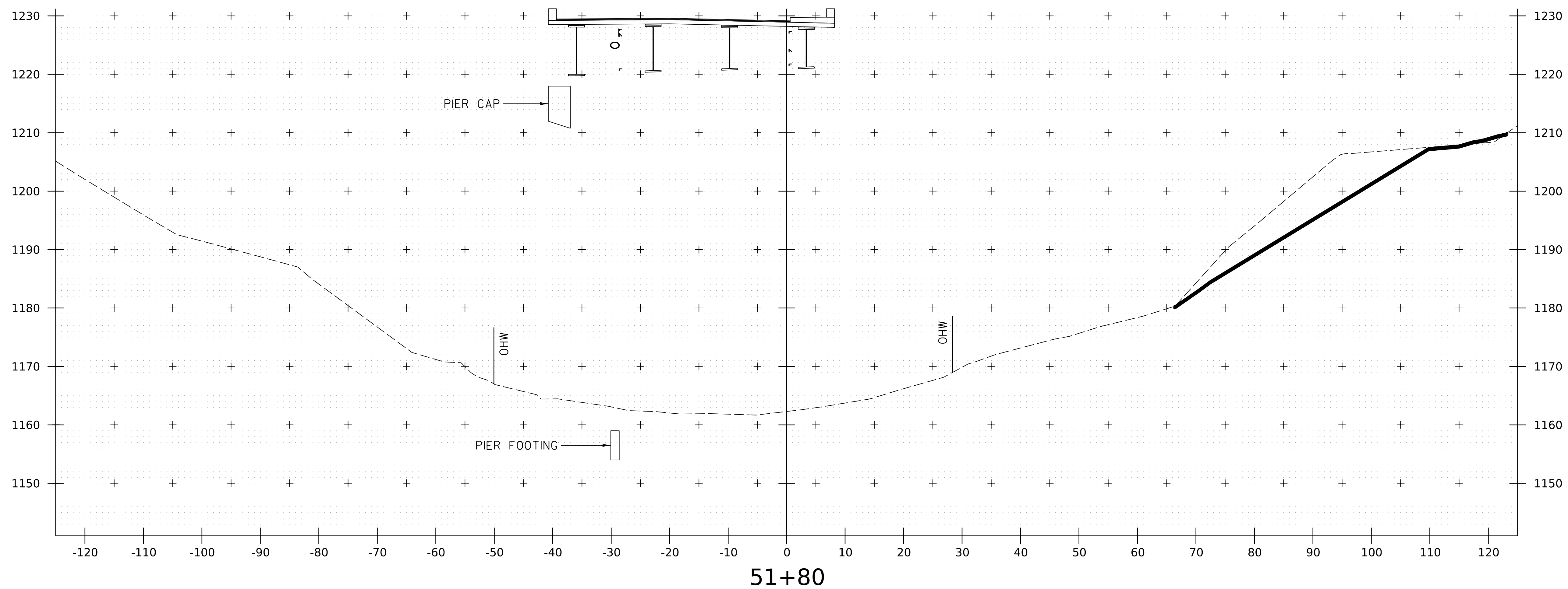
51+70

CHANNEL CROSS SECTION

STA 51+70  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	DESIGNED BY: N.A. TRUSLOW
CHANNEL CROSS SECTIONS SHEET (19 OF 37)	SHEET 185 OF 220

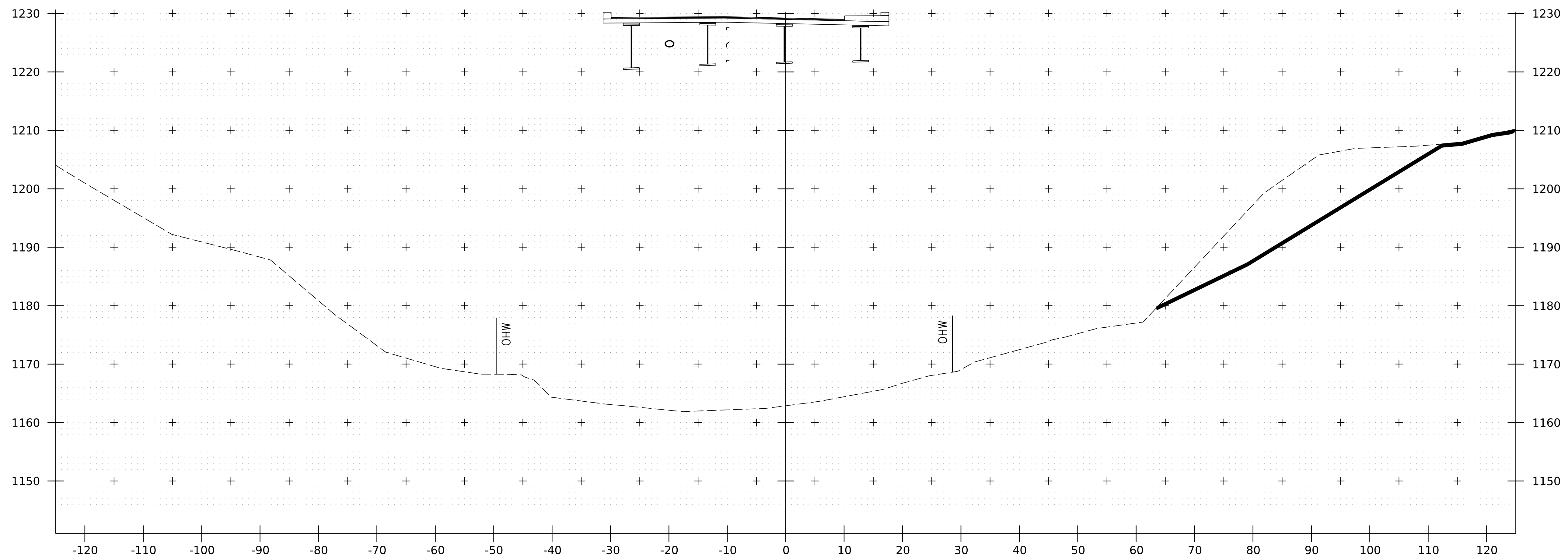


CHANNEL CROSS SECTION

STA 51+80  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	DESIGNED BY: N.A. TRUSLOW
CHANNEL CROSS SECTIONS SHEET (20 OF 37) SHEET 186 OF 220	



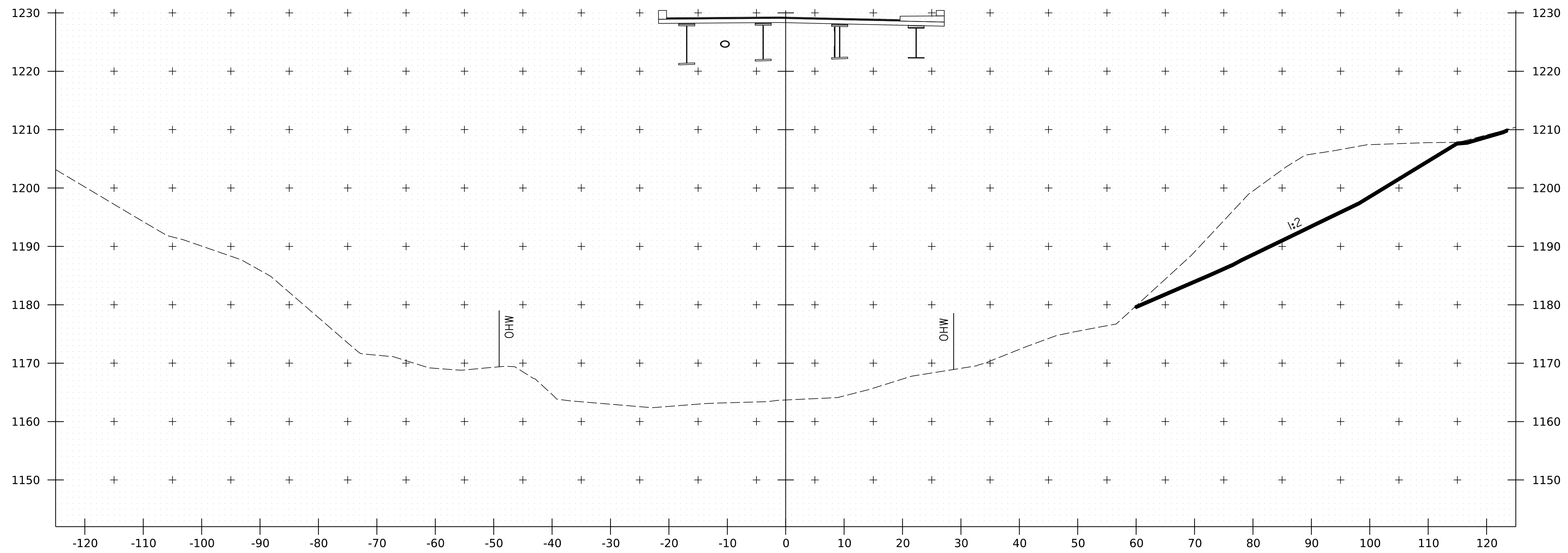
51+90

CHANNEL CROSS SECTION

STA 51+90  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (21 OF 37) SHEET 187 OF 220
DESIGNED BY: N.A. TRUSLOW	



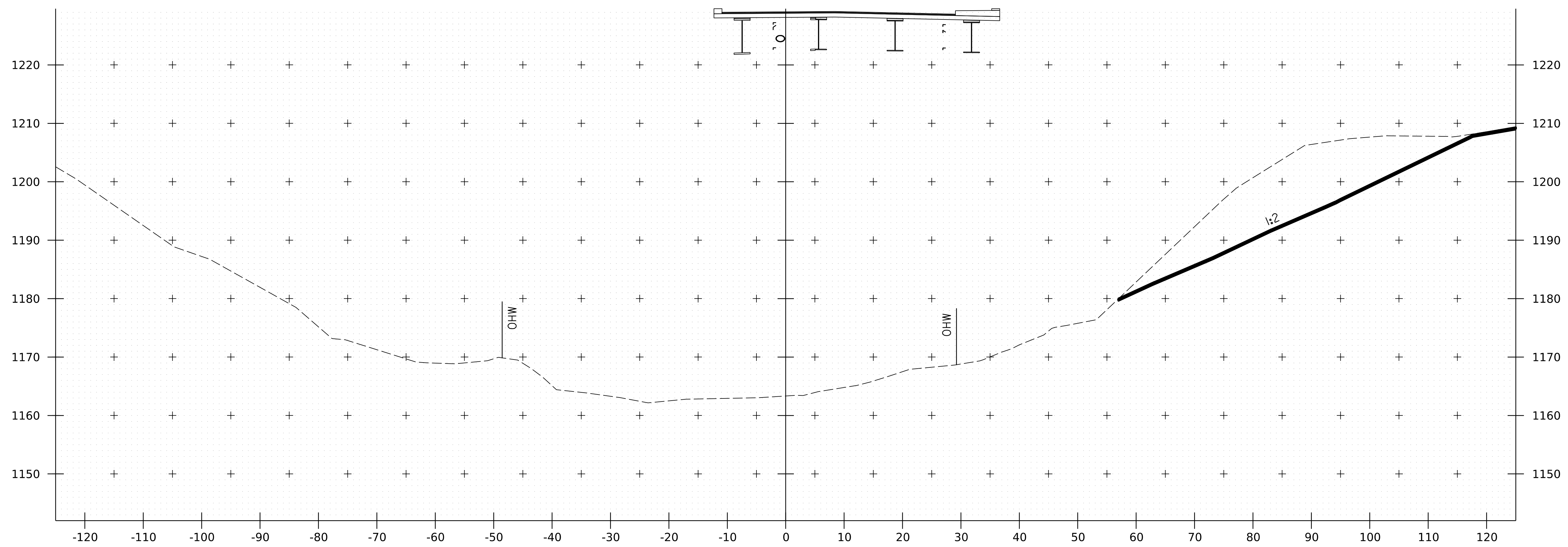
52+00

CHANNEL CROSS SECTION

STA 52+00  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (22 OF 37) SHEET 188 OF 220
DESIGNED BY: N.A. TRUSLOW	



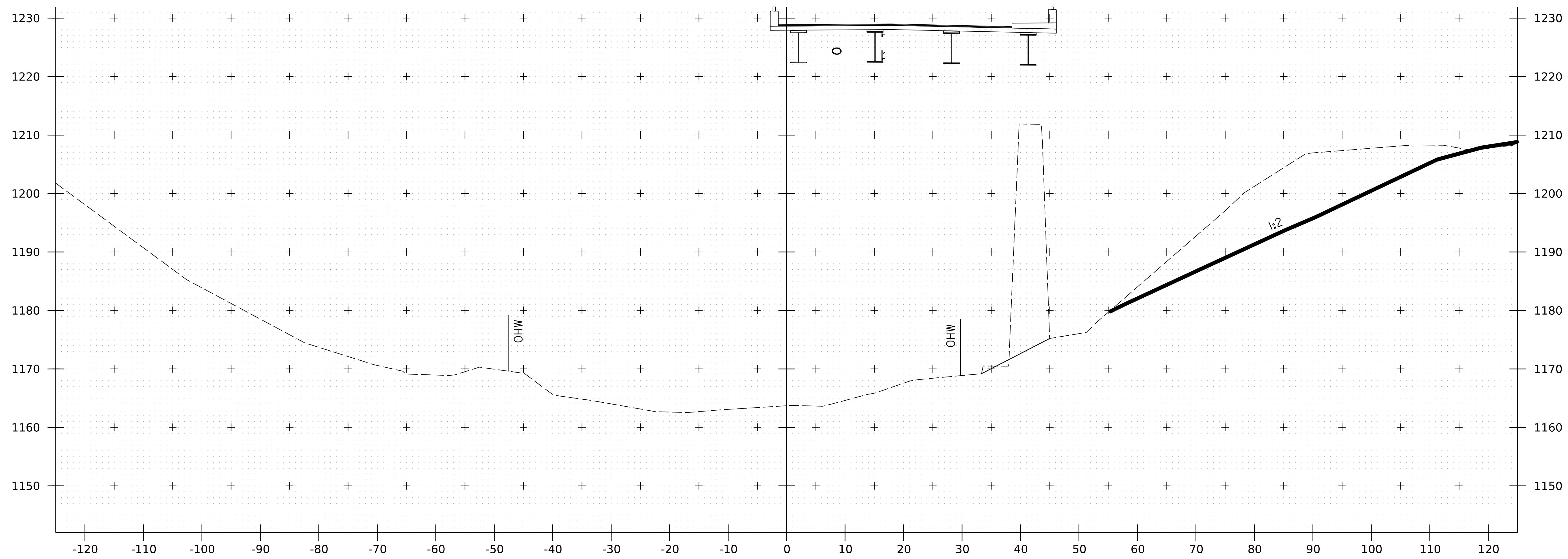
52+10

CHANNEL CROSS SECTION

STA 52+10  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (23 OF 37) SHEET 189 OF 220	



52+20

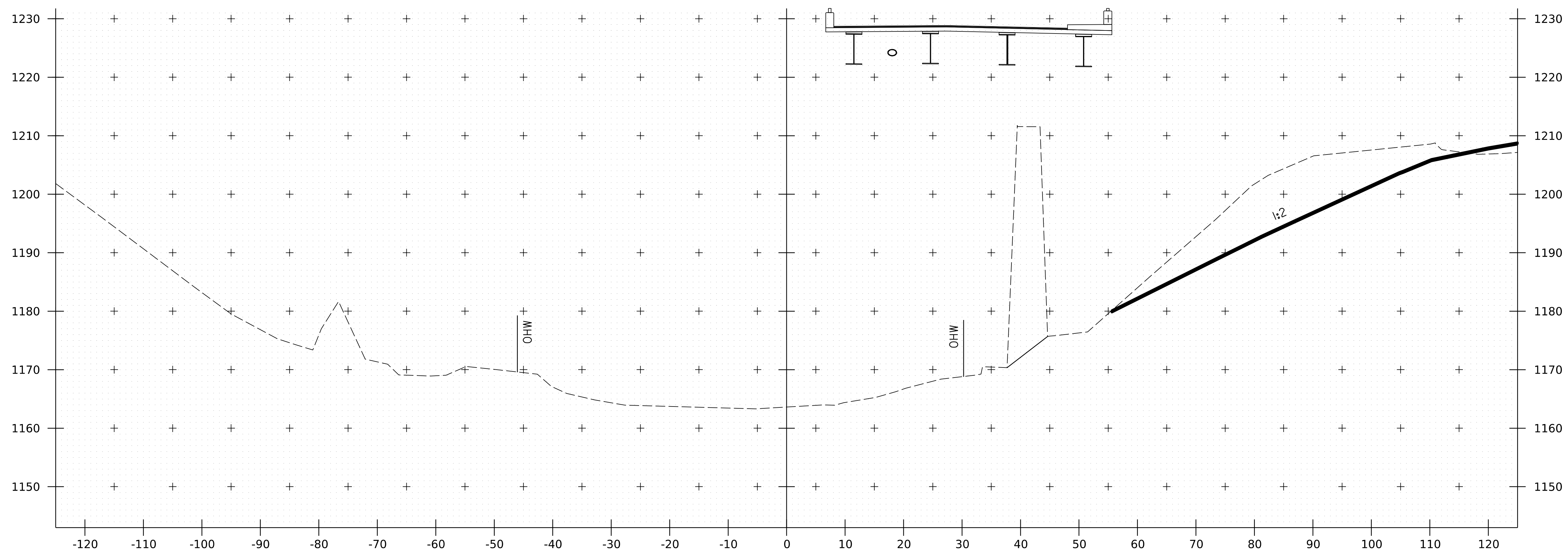
CHANNEL CROSS SECTION

STA 52+20  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (24 OF 37) SHEET 190 OF 220





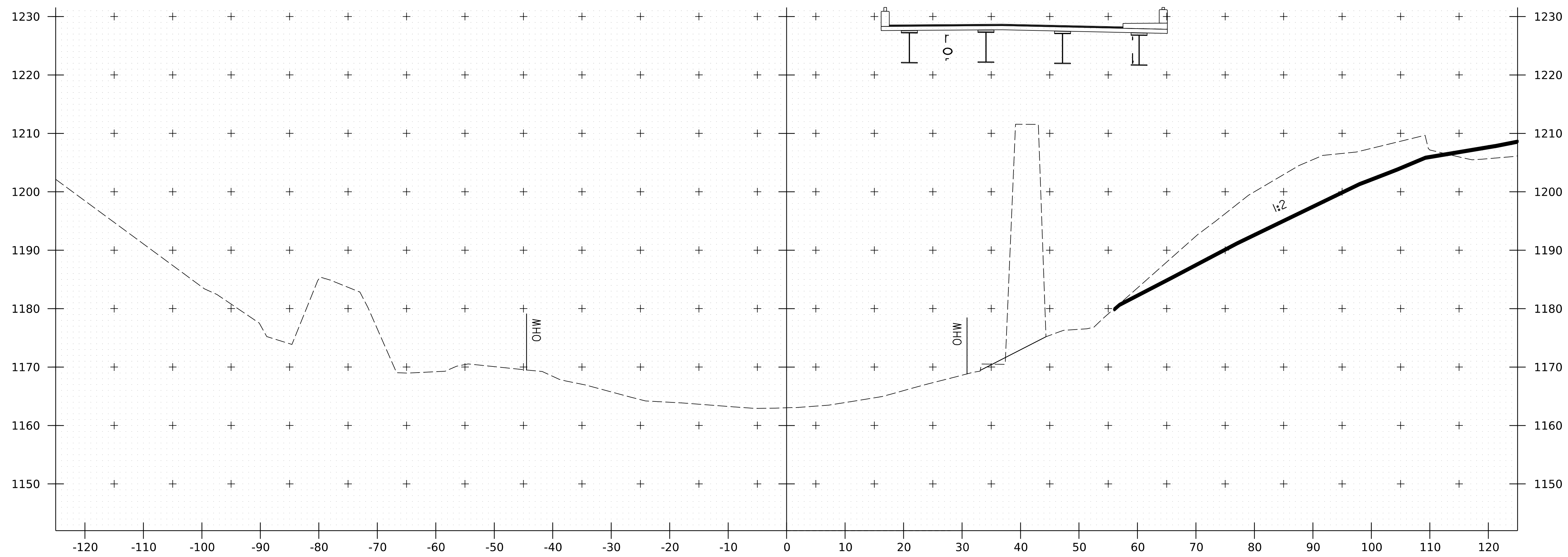
52+30

CHANNEL CROSS SECTION

STA 49+75  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	
PROJECT NUMBER: BF 0102(16) C/2	
FILE NAME: z13c068xs_channel.dgn	PLOT DATE: 12-APR-2024
PROJECT LEADER: S.E. BURBANK	DRAWN BY: N.A. TRUSLOW
DESIGNED BY: N.A. TRUSLOW	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTIONS SHEET (25 OF 37) SHEET 191 OF 220	



52+40

CHANNEL CROSS SECTION

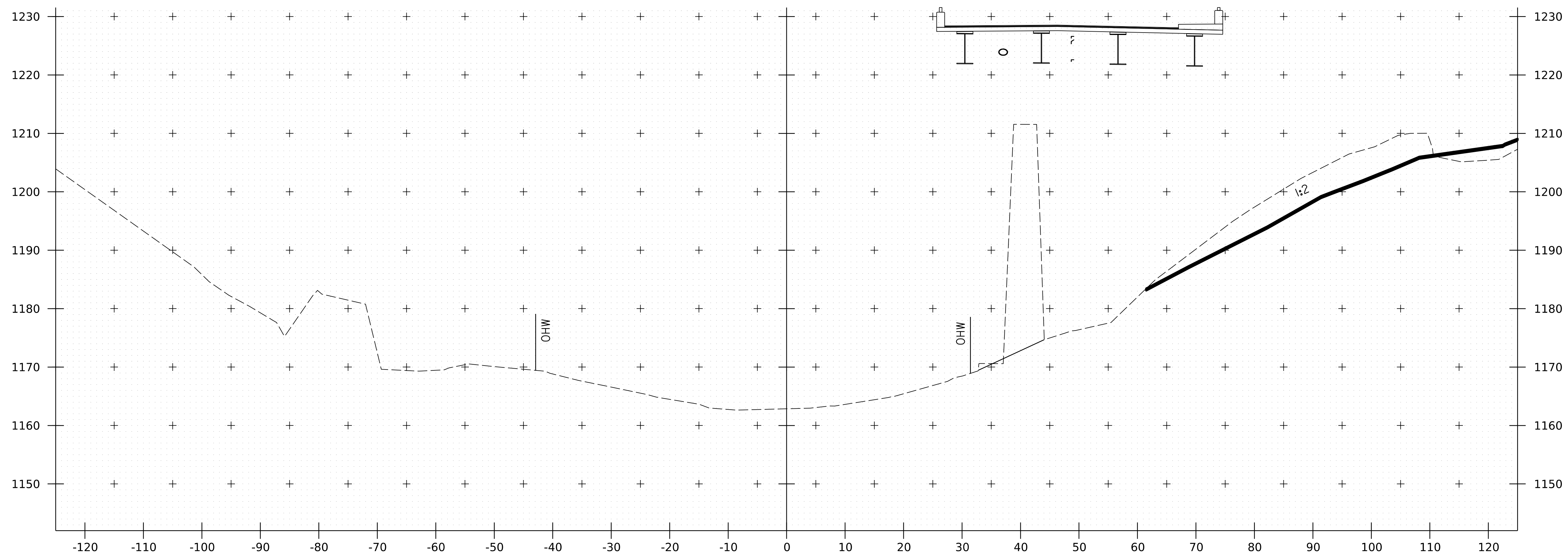
STA 52+40  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs_channel.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
CHANNEL CROSS SECTIONS SHEET (26 OF 37) SHEET 192 OF 220

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.E. BURBANK



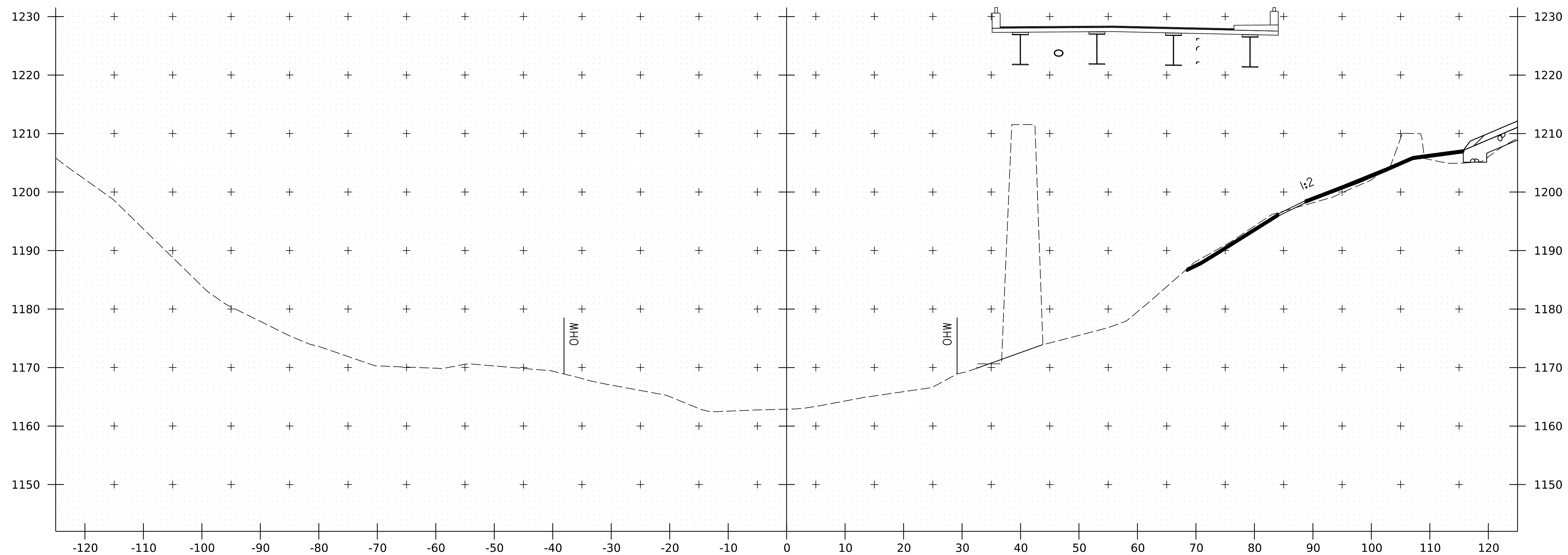
52+50

CHANNEL CROSS SECTION

STA 52+50  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (27 OF 37) SHEET 193 OF 220
DESIGNED BY: N.A. TRUSLOW	



52+60

BEGIN STONE FILL, TYPE III, GEOTEXTILE FOR  
STONE FILL, AND GRUBBING MATERIAL, 12 INCH  
STA 52+55, RT

CHANNEL CROSS SECTION

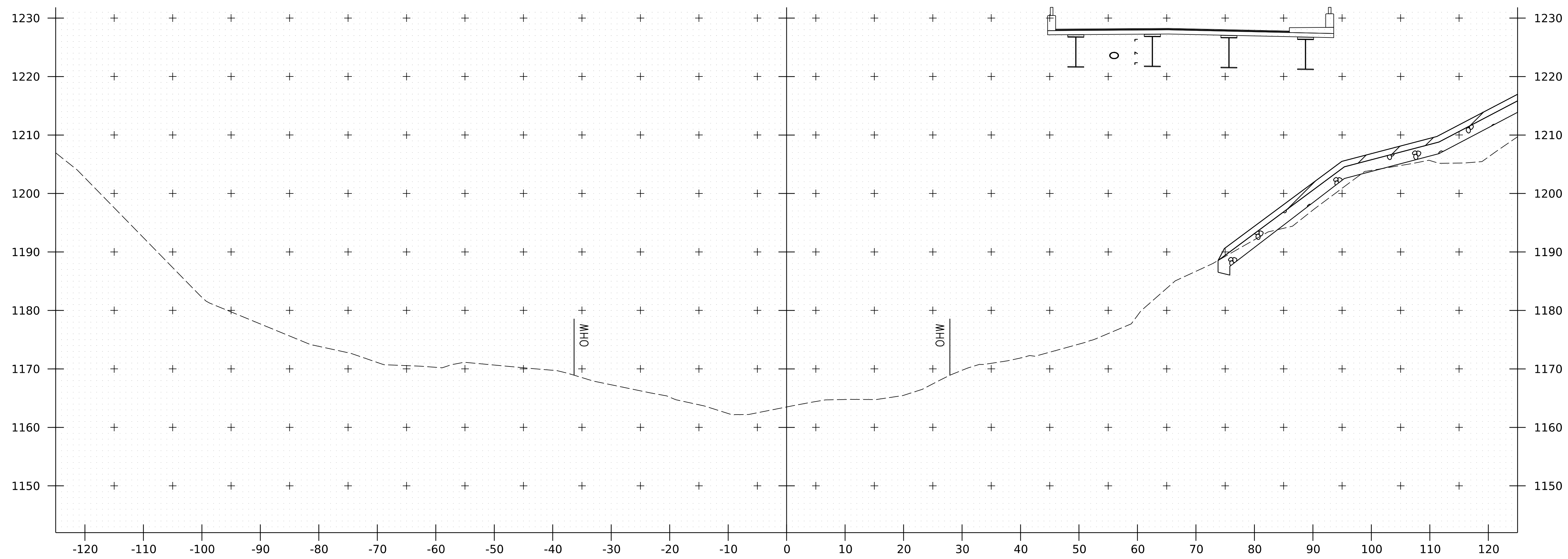
STA 52+60  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs_channel.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
CHANNEL CROSS SECTIONS SHEET (28 OF 37) SHEET 194 OF 220

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.E. BURBANK



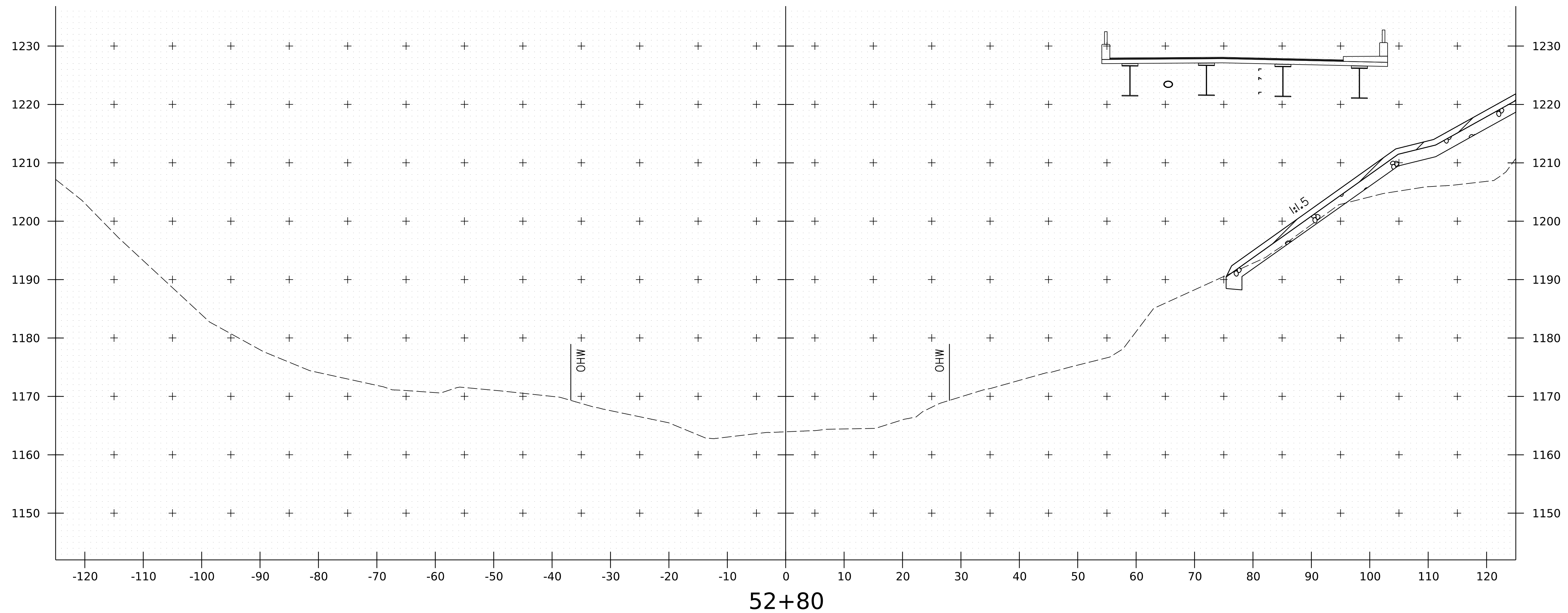
52+70

CHANNEL CROSS SECTION

STA 52+70  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	DESIGNED BY: N.A. TRUSLOW
CHANNEL CROSS SECTIONS SHEET (29 OF 37) SHEET	195 OF 220



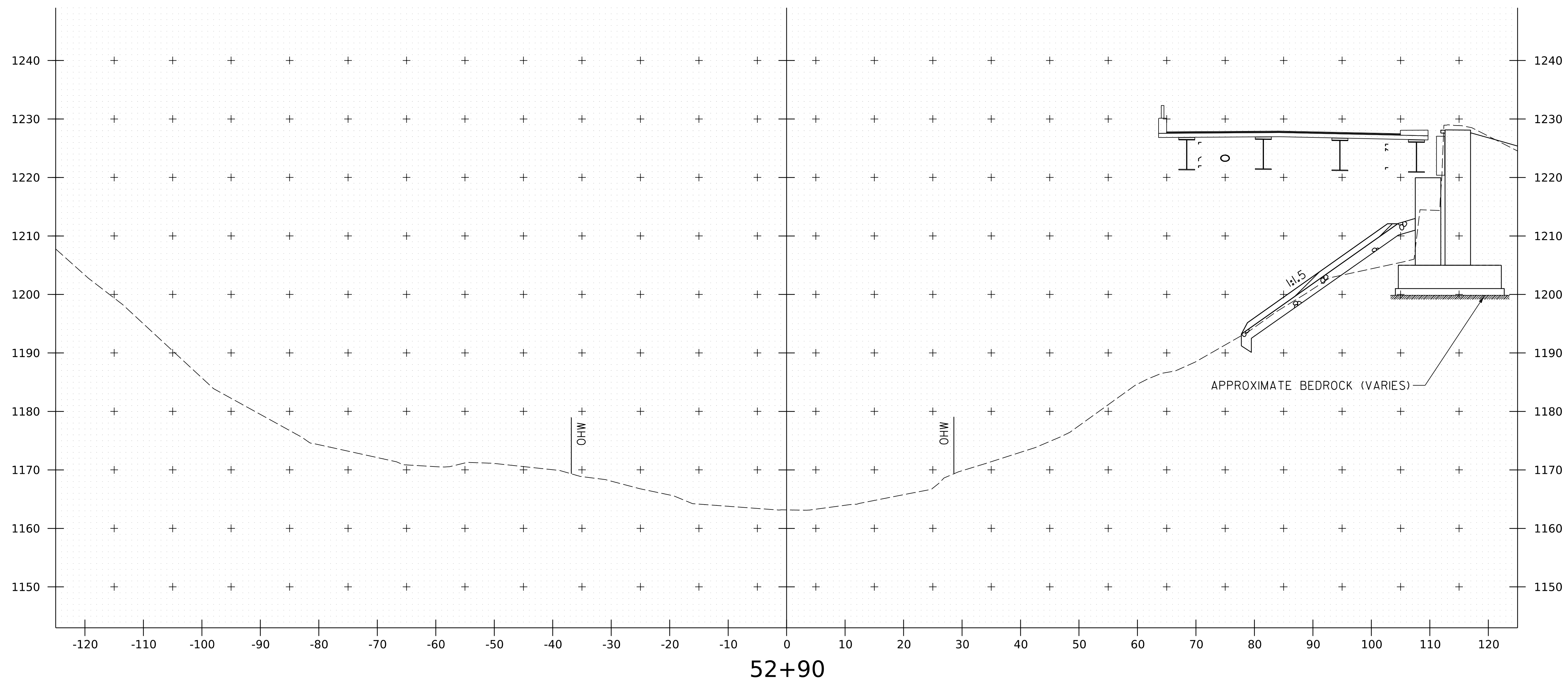
CHANNEL CROSS SECTION

STA 52+80  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (30 OF 37) SHEET 196 OF 220
DESIGNED BY: N.A. TRUSLOW	



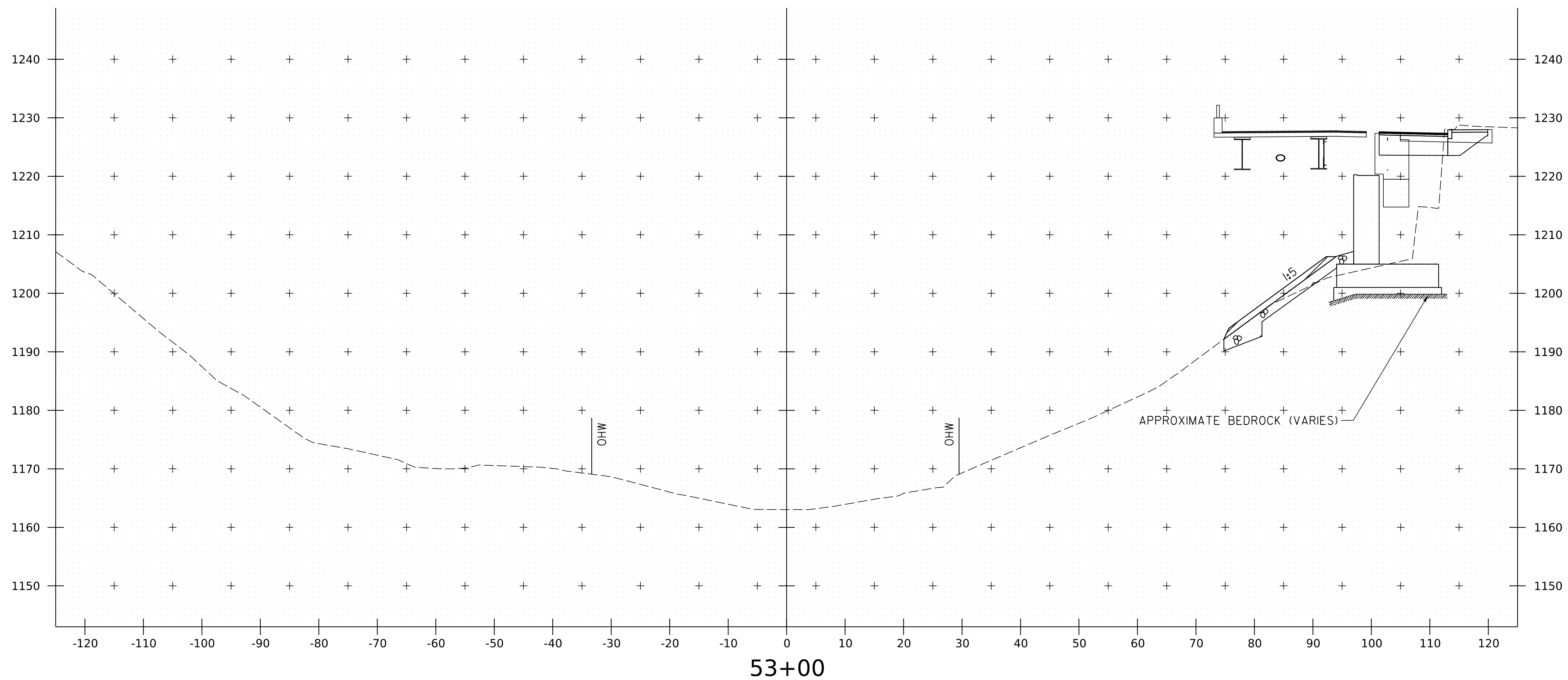


CHANNEL CROSS SECTION

STA 52+90  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (31 OF 37)	SHEET 197 OF 220

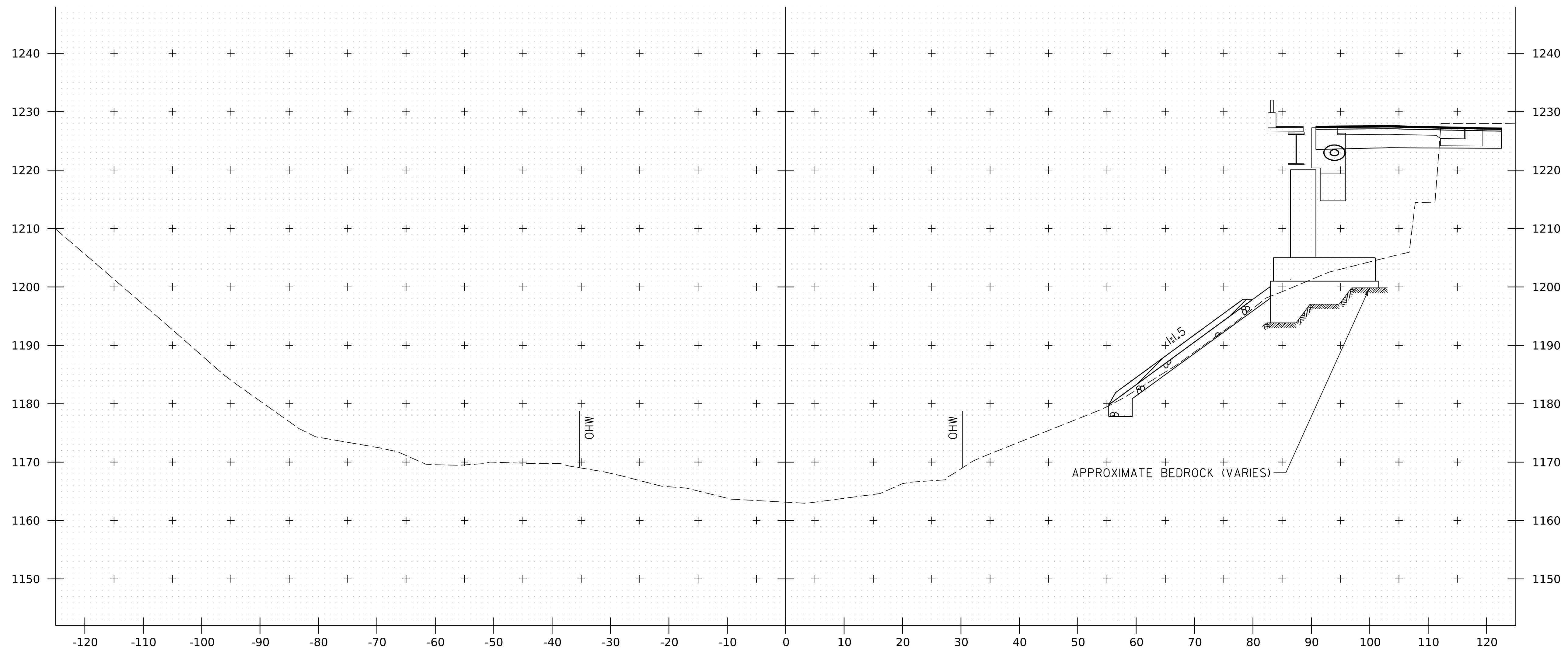


CHANNEL CROSS SECTION

STA 53+00  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (32 OF 37) SHEET 198 OF 220	



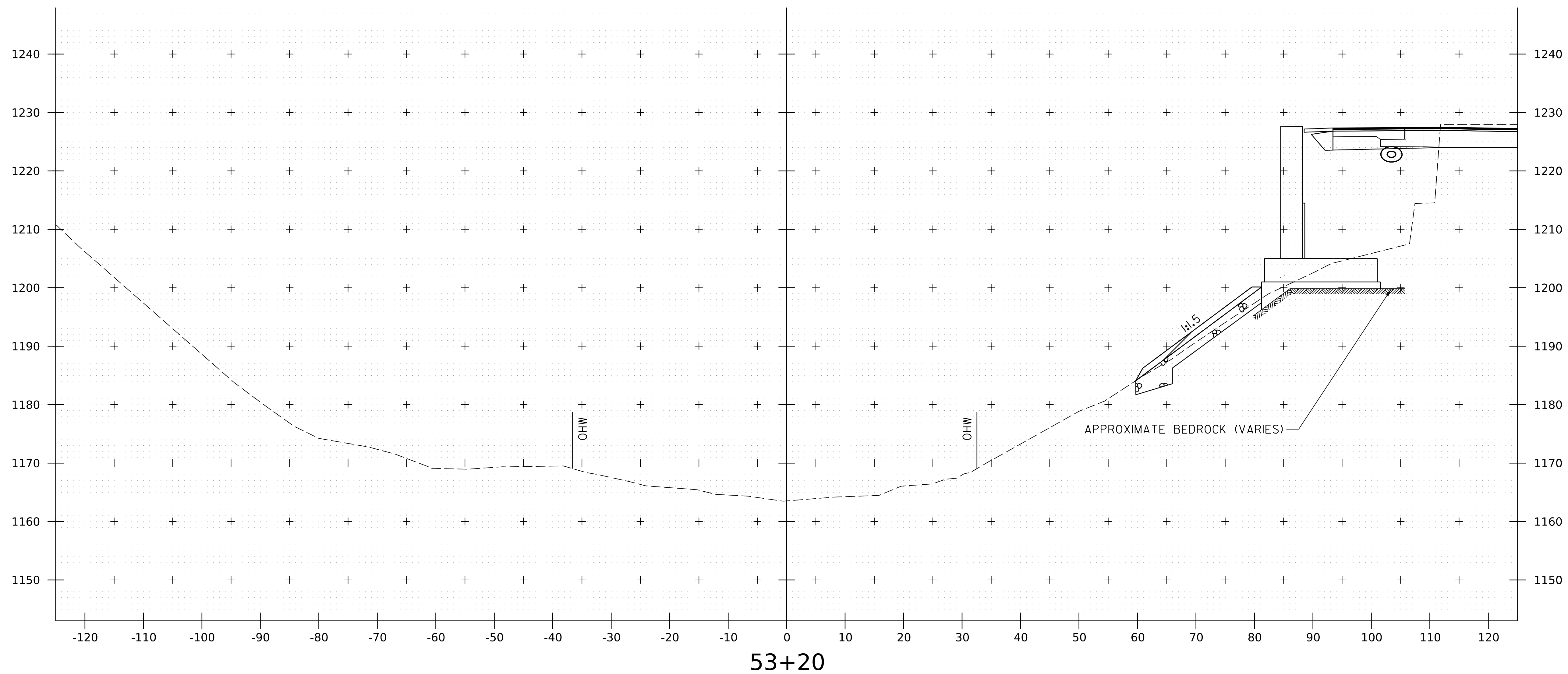
53+10

CHANNEL CROSS SECTION

STA 31+10  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	
DESIGNED BY: N.A. TRUSLOW	
CHANNEL CROSS SECTIONS SHEET (33 OF 37) SHEET 199 OF 220	

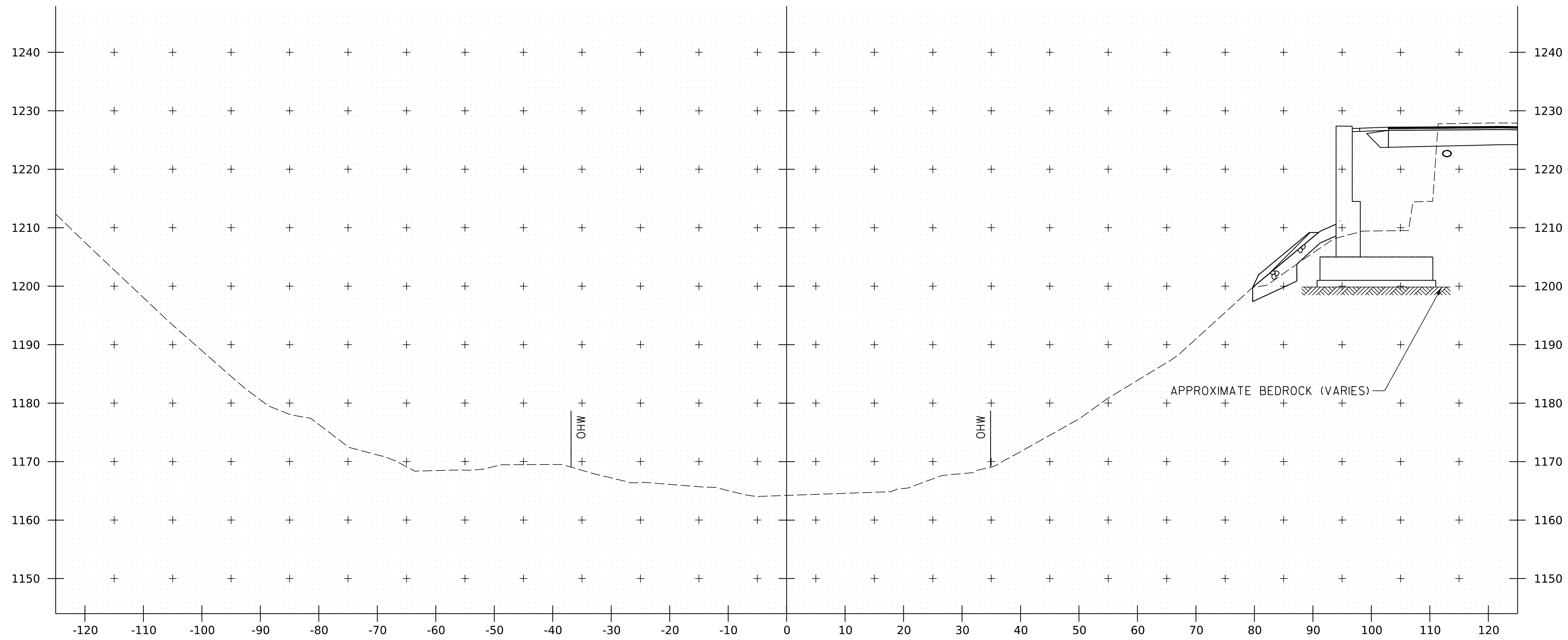


CHANNEL CROSS SECTION

STA 53+20  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (34 OF 37) SHEET 200 OF 220



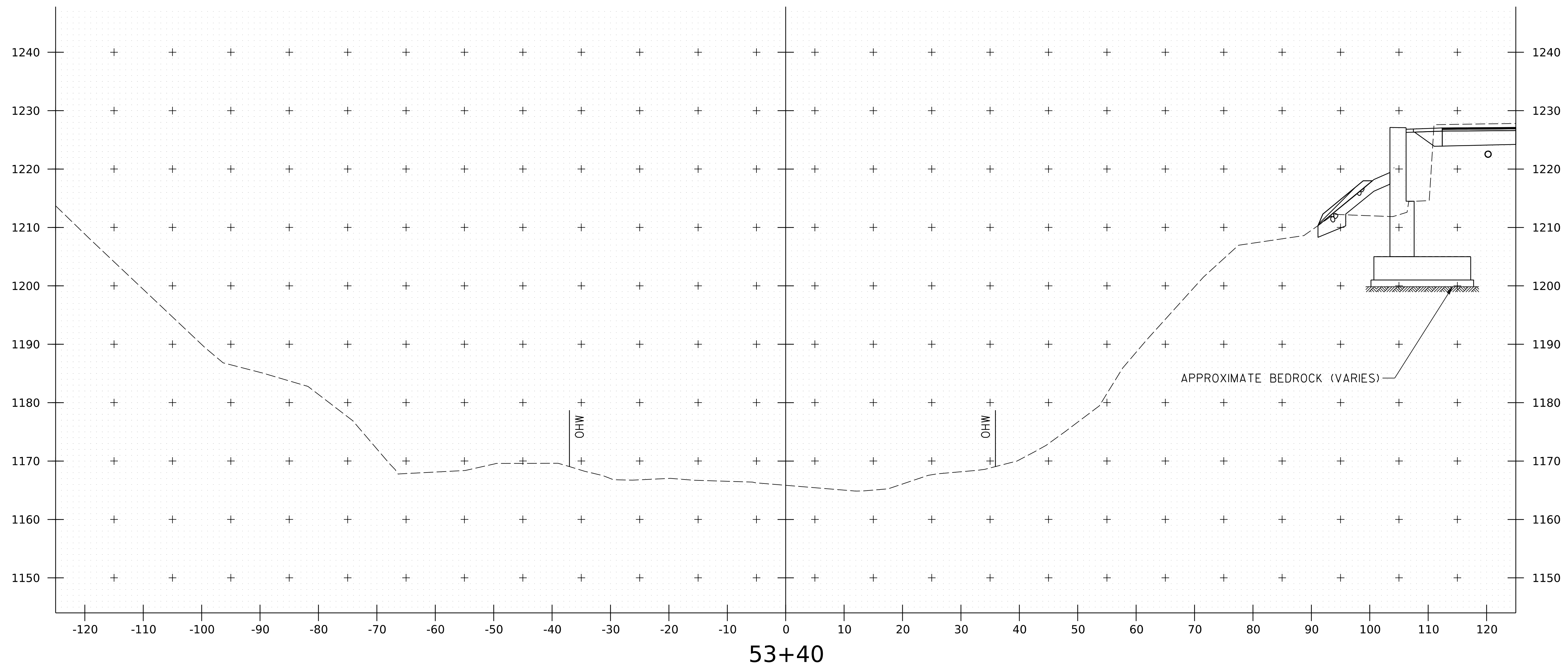
53+30

CHANNEL CROSS SECTION

STA 53+30  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068xs_channel.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	CHANNEL CROSS SECTIONS SHEET (35 OF 37) SHEET 201 OF 220
DESIGNED BY: N.A. TRUSLOW	

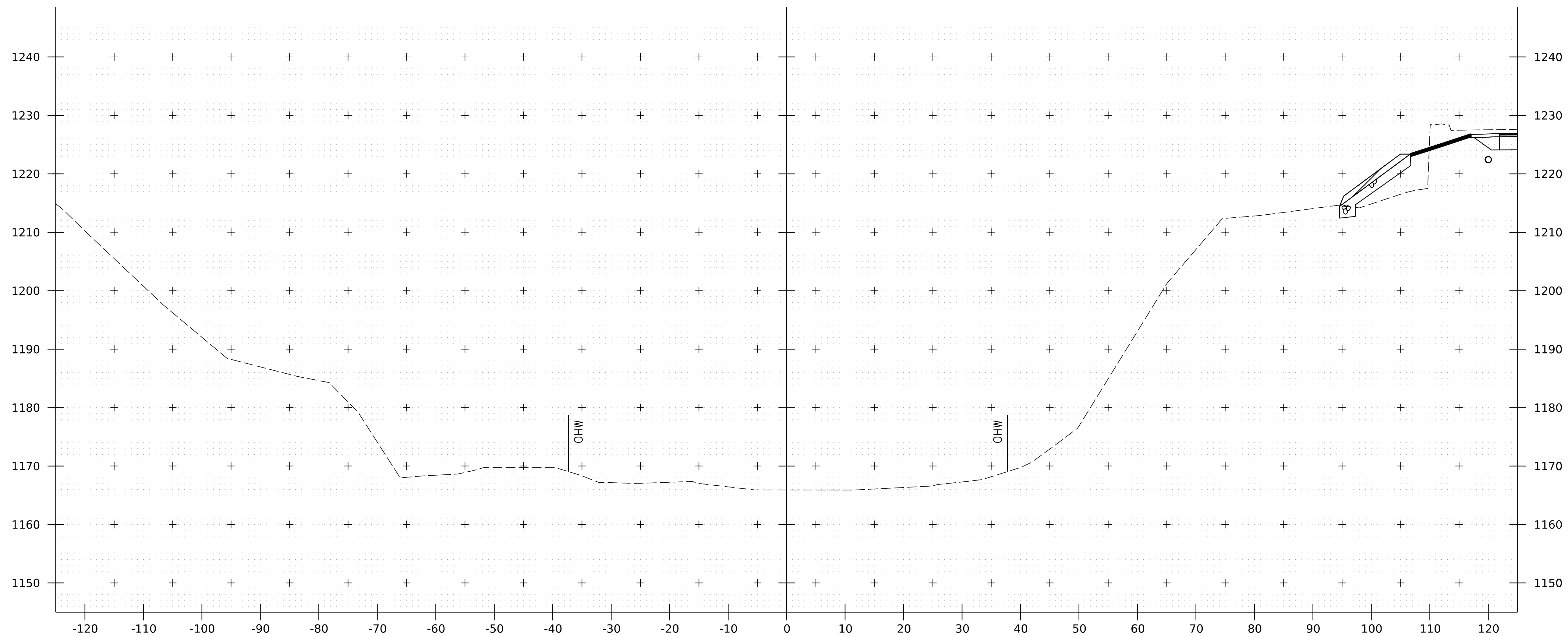


PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs_channel.dgn PLOT DATE: 12-APR-2024  
 PROJECT LEADER: S.E. BURBANK DRAWN BY: N.A. TRUSLOW  
 DESIGNED BY: N.A. TRUSLOW CHECKED BY: S.E. BURBANK  
 CHANNEL CROSS SECTIONS SHEET (36 OF 37) SHEET 202 OF 220







53+50

END STONE FILL, TYPE III, GEOTEXTILE FOR  
STONE FILL, AND GRUBBING MATERIAL, 12 INCH  
STA 53+60, RT

CHANNEL CROSS SECTION

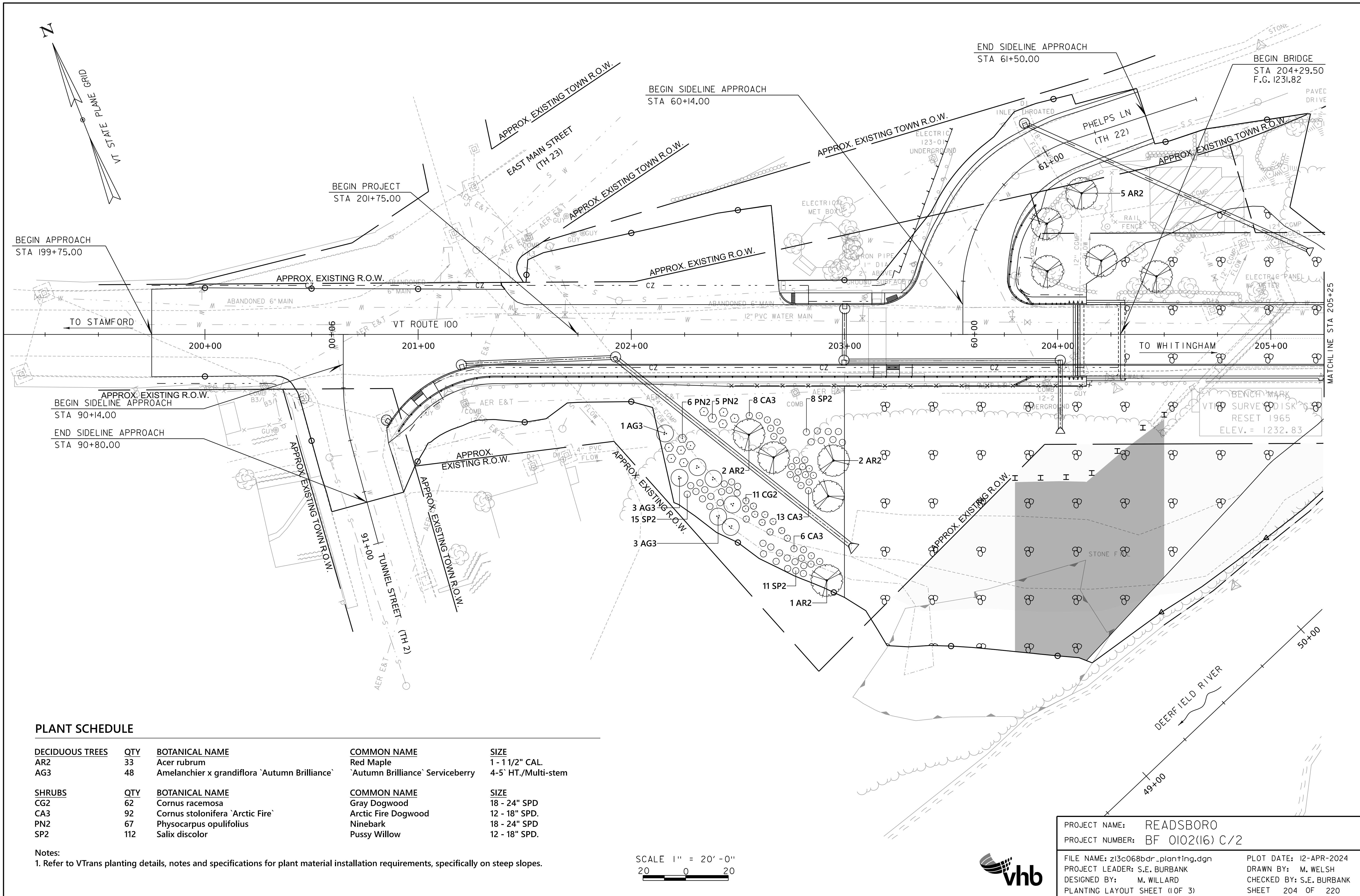
STA 49+75  
SCALE 1"=10'-0"



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068xs_channel.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
CHANNEL CROSS SECTIONS SHEET (37 OF 37) SHEET 203 OF 220

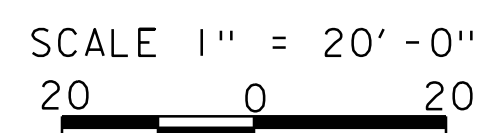
PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.E. BURBANK



**PLANT SCHEDULE**

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR2	33	Acer rubrum	Red Maple	1 - 1 1/2" CAL.
AG3	48	Amelanchier x grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	4-5' HT./Multi-stem
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CG2	62	Cornus racemosa	Gray Dogwood	18 - 24" SPD
CA3	92	Cornus stolonifera 'Arctic Fire'	Arctic Fire Dogwood	12 - 18" SPD.
PN2	67	Physocarpus opulifolius	Ninebark	18 - 24" SPD
SP2	112	Salix discolor	Pussy Willow	12 - 18" SPD.

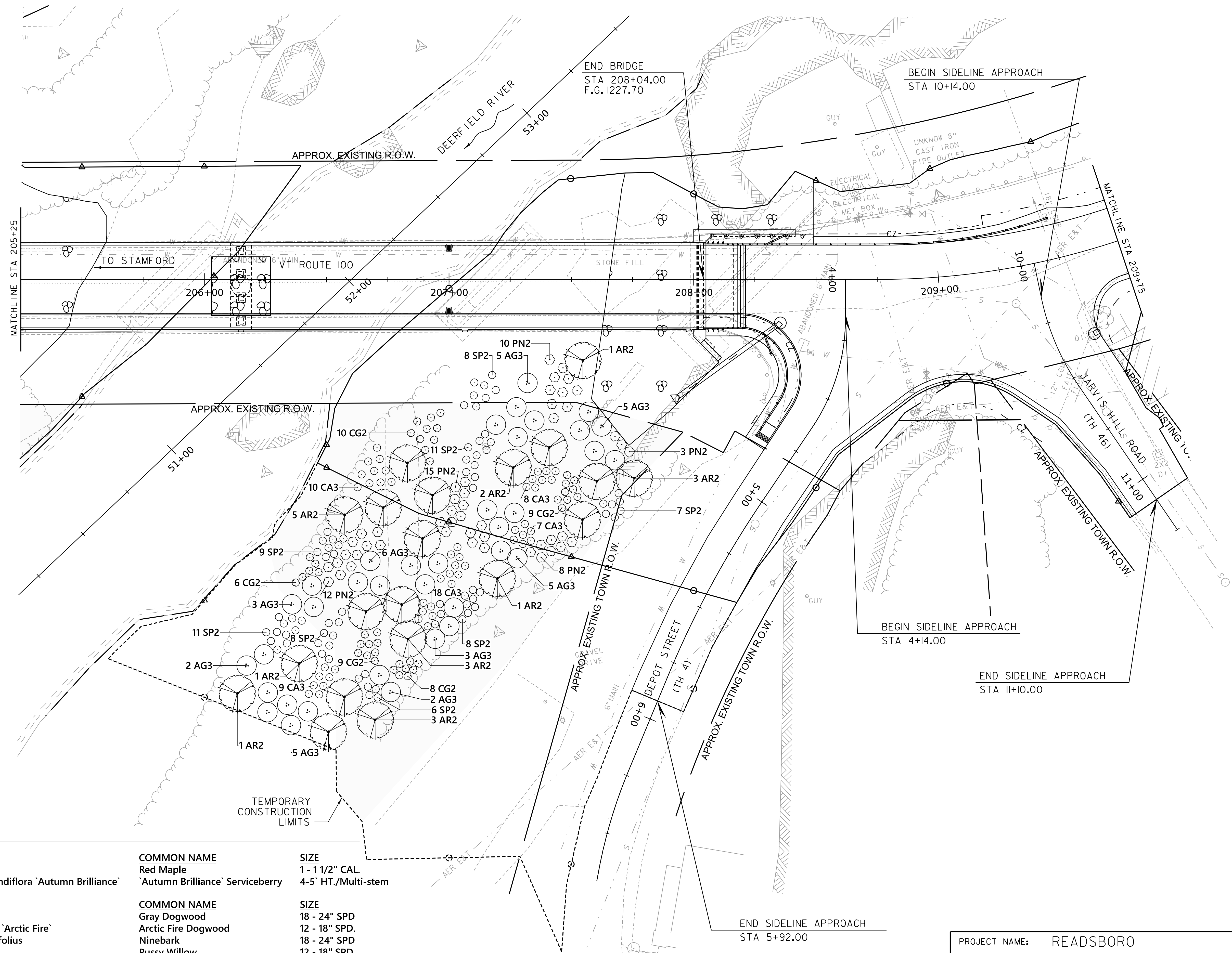
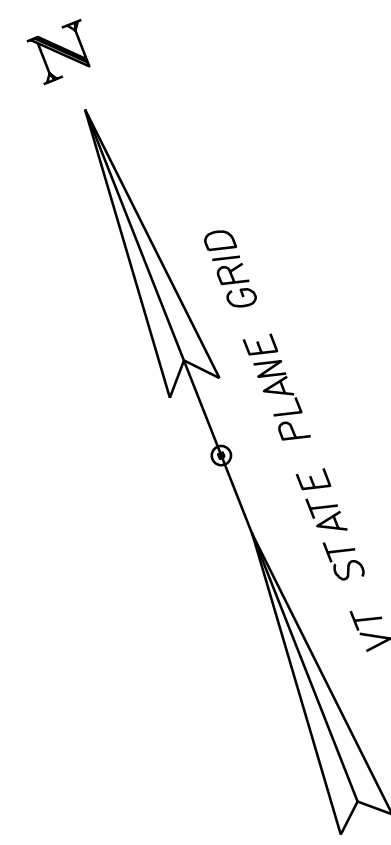
Notes:  
 1. Refer to VTrans planting details, notes and specifications for plant material installation requirements, specifically on steep slopes.



PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068bdr_planting.dgn  
 PROJECT LEADER: S.E. BURBANK  
 DESIGNED BY: M. WILLARD  
 PLANTING LAYOUT SHEET (1 OF 3)

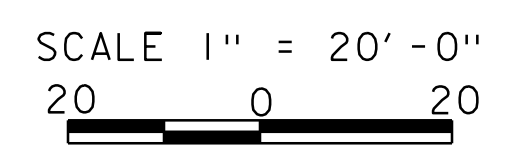
PLOT DATE: 12-APR-2024  
 DRAWN BY: M. WELSH  
 CHECKED BY: S.E. BURBANK  
 SHEET 204 OF 220



**PLANT SCHEDULE**

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR2	33	Acer rubrum	Red Maple	1 - 1 1/2" CAL.
AG3	48	Amelanchier x grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	4-5' HT./Multi-stem
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CG2	62	Cornus racemosa	Gray Dogwood	18 - 24" SPD
CA3	92	Cornus stolonifera 'Arctic Fire'	Arctic Fire Dogwood	12 - 18" SPD.
PN2	67	Physocarpus opulifolius	Ninebark	18 - 24" SPD
SP2	112	Salix discolor	Pussy Willow	12 - 18" SPD.

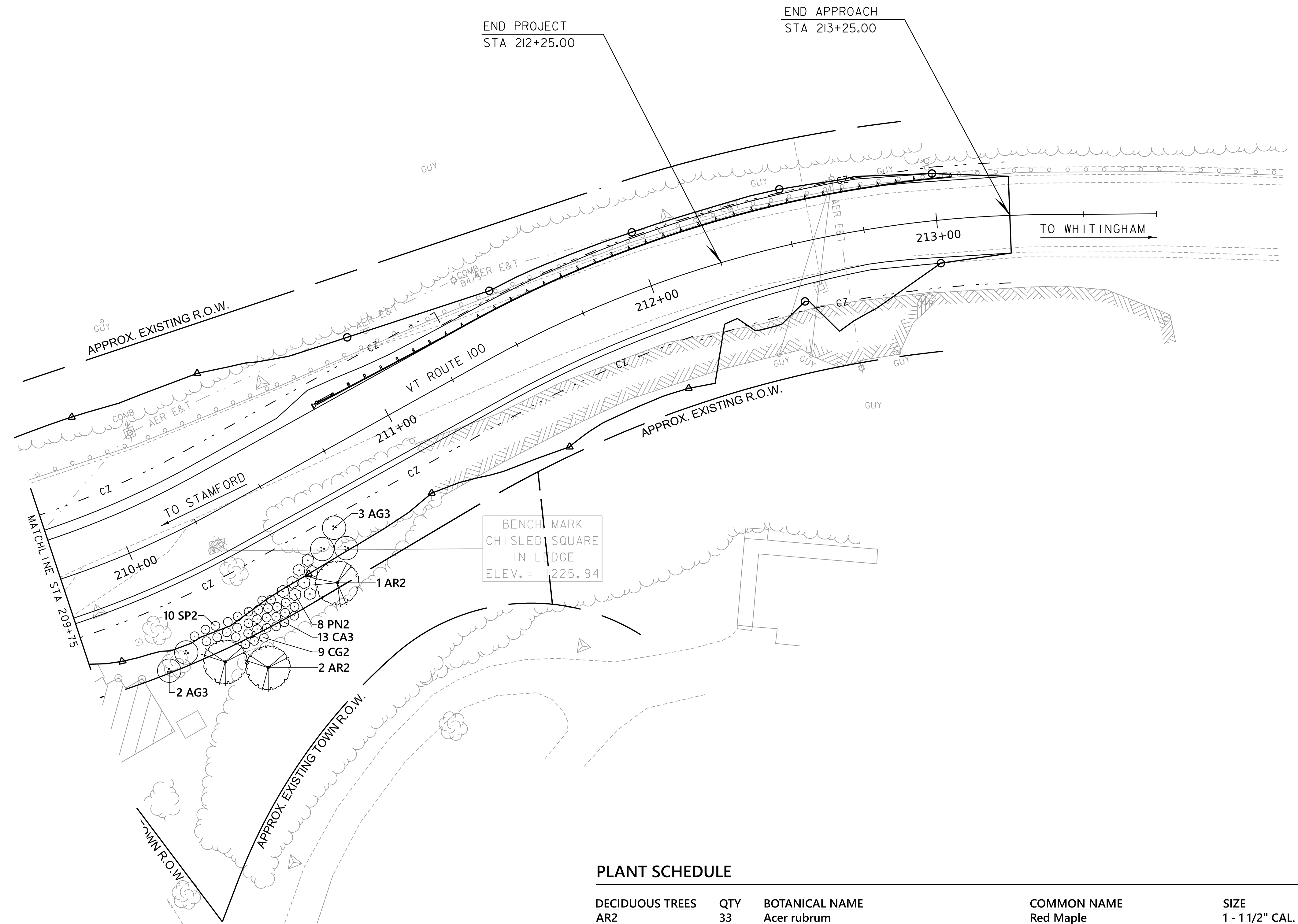
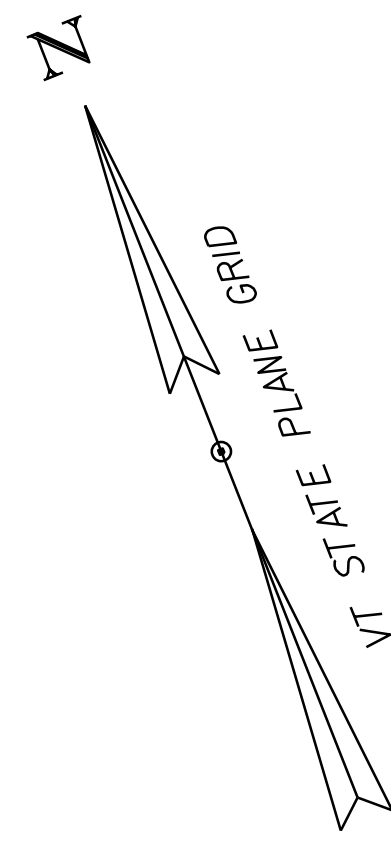
Notes:  
 1. Refer to VTrans planting details, notes and specifications for plant material installation requirements, specifically on steep slopes.



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	M. WELSH
FILE NAME:	z13c068bdr_planting.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	SHEET	205 OF 220
DESIGNED BY:	M. WILLARD		
PLANTING LAYOUT SHEET (2 OF 3)			



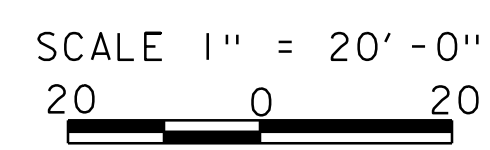




**PLANT SCHEDULE**

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
AR2	33	Acer rubrum	Red Maple	1 - 1 1/2" CAL.
AG3	48	Amelanchier x grandiflora 'Autumn Brilliance'	'Autumn Brilliance' Serviceberry	4-5' HT./Multi-stem
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
CG2	62	Cornus racemosa	Gray Dogwood	18 - 24" SPD
CA3	92	Cornus stolonifera 'Arctic Fire'	Arctic Fire Dogwood	12 - 18" SPD.
PN2	67	Physocarpus opulifolius	Ninebark	18 - 24" SPD
SP2	112	Salix discolor	Pussy Willow	12 - 18" SPD.

Notes:  
 1. Refer to VTrans planting details, notes and specifications for plant material installation requirements, specifically on steep slopes.



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	M. WELSH
FILE NAME:	z13c068bdr_planting.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	PLANTING LAYOUT SHEET (3 OF 3)	SHEET 206 OF 220

# EPSC PLAN NARRATIVE

## 1. PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REMOVAL OF BRIDGE NO. 25 IN ITS ENTIRETY. BRIDGE 25 WILL BE REPLACED WITH A 370 FOOT TWO SPAN STEEL BRIDGE OVER THE DEERFIELD RIVER, ON THE EXISTING ALIGNMENT. BRIDGE 25 IS LOCATED IN THE TOWN OF READSBORO, ON VT ROUTE 100, APPROXIMATELY 5 MILES NORTH OF THE INTERSECTION OF VT ROUTE 100 AND VT ROUTE 8 IN READSBORO.

IT IS ANTICIPATED THAT CONSTRUCTION WILL LAST TWO YEARS.

## 2. AMOUNT OF DISTURBANCE & RISK EVALUATION

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 3.68 ACRES.

THE MAXIMUM CONCURRENT EARTH DISTURBANCE USED TO SCORE THIS PROJECT IN APPENDIX A RISK ASSESSMENT IS 2 ACRES.

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

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

## 3. MAJOR COMPONENTS & SEQUENCING

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

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

CONSTRUCTION OF THE PROJECT WILL BE BROKEN INTO FOUR MAIN PHASES THAT CONSIST OF BUILDING THE TEMPORARY BRIDGE OFF ALIGNMENT, DEMOLISHING THE EXISTING BRIDGE, BUILDING THE NEW BRIDGE AND ROADWAY APPROACHES ON THE EXISTING ALIGNMENT, AND REMOVING THE TEMPORARY BRIDGE AND THEN FINAL SITE GRADING AND CLEANUP TASKS.

### PHASE 1

- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES
- INSTALL SEDIMENT CONTROL MEASURES
- CLEARING
- CONSTRUCT TEMPORARY ACCESS ROAD(S) AND/OR CRANE PAD(S)
- INSTALL SUPPORT OF EXCAVATION
- CONSTRUCT TEMPORARY ABUTMENTS, PIERS, BRIDGE, AND THE TEMPORARY BRIDGE APPROACHES
- PAVE TEMPORARY APPROACHES AND SWITCH TRAFFIC TO TEMPORARY BRIDGE

### PHASE 2

- ADJUST PERIMETER CONTROLS AND PROJECT DEMARCATION, AS NECESSARY
- INSTALL OR ADJUST SEDIMENT CONTROL MEASURES
- REMOVE EXISTING BRIDGE SUPERSTRUCTURE, PIERS, AND ABUTMENTS

### PHASE 3A & 3B

- ADJUST PERIMETER CONTROLS AND PROJECT DEMARCATION, AS NECESSARY
- INSTALL OR ADJUST SEDIMENT CONTROL MEASURES
- CONSTRUCT BRIDGE ABUTMENTS, WINGWALLS AND PIER
- BACKFILL ABUTMENTS AND WINGWALLS TO BEAM SEAT ELEVATION AND SHAPE AND STABILIZE FINAL SIDE SLOPES
- CONCURRENTLY INSTALL TEMPORARY AND PERMANENT STABILIZATION AND EPSC MEASURES AS WORK PROGRESSES SO THAT THE TEMPORARY AND PERMANENT SIDE SLOPES ARE STABILIZED PRIOR TO ALLOWING RUNOFF TO DISCHARGE TO THEM
- ERECT STEEL GIRDERS AND POUR CONCRETE DECK
- INSTALL NEW DRAINAGE STRUCTURES AND CONTINUE TO BACKFILL TO SUBGRADE
- PLACE ROADWAY SUBBASE
- PAVE ROADWAY BASE
- SWITCH TRAFFIC TO NEW ROADWAY AND THE BARE DECK BRIDGE

### PHASE 4

- ADJUST PERIMETER CONTROLS AND PROJECT DEMARCATION, AS NECESSARY
- INSTALL OR ADJUST SEDIMENT CONTROL MEASURES
- REMOVE THE TEMPORARY PIERS, ABUTMENTS, BRIDGE, APPROACHES, AND SUPPORT OF EXCAVATION
- SHAPE REMAINING FINAL SLOPES AND COMPLETE THE REMOVAL AND REPLACEMENT OF SUBBASE
- INSTALL PERMANENT STABILIZATION MEASURES TO THE SIDE SLOPES
- PAVE REMAINING BASE, INTERMEDIATE, AND WEARING COURSE OF PAVEMENT

SEE THE PHASING AREA SHEET FOR FURTHER DETAILS SHOWING PHASING AREAS.

## 4. SITE DESCRIPTION

### 4.1 VEGETATED BUFFERS

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

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

### 4.2 STREAM CROSSINGS

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

### 4.3 WETLANDS

THE PROJECT INVOLVES 3,265 SF OF WETLAND AND 7,060 SF OF WETLAND BUFFER. THIS WORK WITHIN THESE AREAS IS BEING AUTHORIZED THROUGH THE VANR WETLANDS OFFICE AND/OR THE US ARMY CORPS OF ENGINEERS.

### 4.4 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT AREA IS GENERALLY FAIRLY LEVEL ON THE NORTHWEST AND SOUTHEAST SIDES OF THE BRIDGE WITH STEEP, FORESTED SLOPES EXTENDING DOWN FROM THE SMALL LEVEL AREAS. THE SAME STEEP FORESTED SLOPES EXTEND DOWN FROM VT ROUTE 100 ON THE SOUTHWEST AND NORTHEAST SIDES OF THE BRIDGE TO CREATE A RAVINE WITH LARGE BOULDERS AND THE DEERFIELD RIVER AT THE BOTTOM OF THE RAVINE. VT ROUTE 100 PASSES THROUGH A RURAL VILLAGE SETTING ON THE WEST SIDE OF THE EXISTING BRIDGE WITH LOCAL ROADS INTERSECTING WITH VT ROUTE 100 WITHIN THE PROJECT AREA. AFTER CROSSING THE BRIDGE, VT ROUTE 100 BECOMES MORE RURAL WITH STEEP FORESTED SLOPES EXTENDING TO THE DEERFIELD RIVER ON ITS NORTH SIDE AND EXTENDING UPWARD ON THE SOUTH SIDE. TWO LOCAL ROADS NEARLY CONVERGE TOGETHER AND INTERSECT VT ROUTE 100 IMMEDIATELY AFTER THE BRIDGE.

### 4.5 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF MOWED LAWNS AND DENSELY WOODED AREAS WITH A FEW UNDERLYING SHRUBS. JAPANESE KNOT WEED IS LOCATED ON THE TOP OF THE NORTHWEST BANK AND EXTENDS DOWN THE STEEP SLOPE. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS DIRECTLY AFFECTED BY THE PROJECT. UPON COMPLETION, THE DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES AS DESCRIBED IN THE TURF ESTABLISHMENT DETAIL, UNLESS OTHERWISE NOTED IN THE PLANTING PLAN.

### 4.6 SOILS

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

- BERKSHIRE FINE SANDY LOAM, VERY STONY, 25% TO 50% SLOPES, "K FACTOR" = 0.24
- COLTON GRAVELLY LOAMY SAND, EXTREMELY STONY, 3% TO 8% SLOPES, "K FACTOR" = 0.17
- TURNBRIDGE-BERKSHIRE COMPLEX ROCKY, 25% TO 50% SLOPES, "K FACTOR" = 0.24/0.24
- TURNBRIDGE-LYMAN COMPLEX, VERY ROCKY, 15% TO 25% SLOPES, "K FACTOR" = 0.24/0.28

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:

0.0-0.23 = LOW EROSION POTENTIAL  
0.24-0.36 = MODERATE EROSION POTENTIAL  
0.37 AND HIGHER = HIGH EROSION POTENTIAL

### 4.7 OTHER SENSITIVE RESOURCES

THE ARCHEOLOGICALLY SENSITIVE AREA LOCATED IN THE NORTHEAST QUADRANT OF THE PROJECT AND SHOWN ON THESE PLANS SHALL BE PROTECTED WITH ORANGE BARRIER FENCE. THE EXISTING BRIDGE IS WITHIN A HISTORIC DISTRICT. IMPACTS TO THE HISTORIC RESOURCE WILL BE MITIGATED BY IMPLEMENTING DECORATIVE BRIDGE RAILING SIMILAR TO THE ORIGINAL BRIDGE RAILING, AS WELL AS PRESERVING THE EXISTING BRIDGE PLAQUES AND INSTALLING THEM ONTO THE NEW BRIDGE. THERE IS A THREATENED AND ENDANGERED SPECIES AREA ON THE EASTERN SIDE OF DEPOT STREET THAT IS ADJACENT TO THE PROJECT AREA.

## 5. DRAINAGE

### 5.1 RECEIVING WATERS

THE DEERFIELD RIVER IS THE ONLY WATER SOURCE ON THE PROJECT SITE. RESIDENCES AND BUSINESSES WATER SUPPLIES ARE FROM MUNICIPAL WATER. THE RIVER IS CLASSIFIED AS SINUOUS AND ALLUVIAL. THE STREAM BED CONSISTS OF GRAVEL, COBBLES, AND BOULDERS. THE TRIBUTARY AREA AT THE BRIDGE CROSSING IS 191 MILES².

## 5.2 DISCHARGE POINTS

THERE ARE SIX DISCHARGE POINTS FROM UNDERGROUND STORMWATER DRAINAGE:

- TWO FROM EAST MAIN STREET THAT ARE OUTSIDE OF THE PROJECT LIMITS, BUT DISCHARGE ON THE SOUTHERN SIDE SLOPES OF VT ROUTE 100 IN THE PROJECT AREA.
- TWO FROM VT ROUTE 100 THAT ARE WITHIN THE PROJECT LIMITS AND DISCHARGE FROM THE BRIDGE'S NORTHWEST SIDE SLOPES IN THE PROJECT AREA.
- ONE FROM JARVIS HILL ROAD, THAT IS WITHIN THE PROJECT AREA, BUT DISCHARGES OUTSIDE OF THE PROJECT AREA.
- ONE FROM THE SOUTH SIDE OF VT ROUTE 100 NEAR THE END OF THE PROJECT'S APPROACH THAT DISCHARGES OUTSIDE OF THE PROJECT AREA.

## 5.3 CONVEYANCE/FLOW PATH FROM PROJECT TO WATERS

THE PROJECT HAS BEEN DIVIDED INTO FIVE DRAINAGE AREAS:

- DRAINAGE AREA 1 WEST OF THE BRIDGE  
LOCATED WEST OF THE DEERFIELD RIVER. RUNOFF WILL FLOW INTO AN EXISTING DRAINAGE STRUCTURE ON TUNNEL STREET, WHICH DISCHARGES OUTSIDE OF THE PROJECT AREA, OR FLOWS DOWN TUNNEL STREET AND DISCHARGES OUTSIDE OF THE PROJECT AREA.
- DRAINAGE AREA 2 WEST OF THE BRIDGE  
LOCATED WEST OF THE DEERFIELD RIVER. RUNOFF WILL FLOW FROM WEST TO EAST AND INTO THE DRAINAGE STRUCTURES LOCATED BEFORE THE SLEEPER SLAB AND DISCHARGE OVER STONE FILL, TYPE II AND THEN INTO THE DEERFIELD RIVER WITHIN THE PROJECT AREA.
- DRAINAGE AREA 3 WEST OF THE BRIDGE  
LOCATED IMMEDIATELY WEST OF THE DEERFIELD RIVER. RUNOFF WILL FLOW FROM WEST TO EAST AND INTO THE DEERFIELD RIVER OVER STONE FILL, TYPE II OR VEGETATED SLOPES.
- DRAINAGE AREA 4 APPROACH SLAB NO. 1 AND BRIDGE  
LOCATED AT THE BEGINNING OF APPROACH SLAB NO. 1 AND WEST OF THE BRIDGE SCUPPERS. RUNOFF WILL FLOW FROM WEST TO EAST ALONG THE SIDEWALK AND BRIDGE CURBS INTO THE SCUPPERS AND DISCHARGE INTO THE DEERFIELD RIVER.
- DRAINAGE AREA 5 EAST OF THE BRIDGE SCUPPERS  
LOCATED IMMEDIATELY EAST OF THE BRIDGE SCUPPERS AND EXTENDING TO JARVIS HILL ROAD. RUNOFF WILL FLOW FROM WEST TO EAST INTO DRAINAGE STRUCTURES AT THE END OF THE SLEEPER SLAB AND DISCHARGE OVER STONE FILL, TYPE II AND VEGETATED SLOPES AND THEN INTO THE DEERFIELD RIVER WITHIN THE PROJECT AREA. RUNOFF WILL ALSO FLOW FROM SOUTH TO NORTH AND INTO DRAINAGE STRUCTURES ON JARVIS HILL ROAD OR FROM VT ROUTE 100 WITHIN THE PROJECT AREA AND DISCHARGE INTO THE DEERFIELD RIVER OUTSIDE OF THE PROJECT AREA.
- DRAINAGE AREA 6 EAST OF THE BRIDGE  
LOCATED EAST AND SOUTH OF THE DEERFIELD RIVER. RUNOFF WILL FLOW WEST TO EAST IN A GRASS OR BEDROCK DRAINAGE DITCH IN THE PROJECT AREA INTO A DRAINAGE STRUCTURE WITHIN THE PROJECT AREA AND DISCHARGE ONTO A VEGETATED SLOPE OUTSIDE OF THE PROJECT AREA AND EVENTUALLY INTO THE DEERFIELD RIVER.

SEE THE DRAINAGE AREA SHEET FOR FURTHER DETAILS SHOWING DRAINAGE AREAS.

## 6. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES

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

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

### 6.1 IDENTIFY LIMITS OF DISTURBANCE

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

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

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PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068epsc_narrative.dgn PLOT DATE: 12-APR-2024  
PROJECT LEADER: S.E. BURBANK DRAWN BY: W.A. FRETWELL  
DESIGNED BY: W.A. FRETWELL CHECKED BY: N.A. TRUSLOW  
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## 6.2 LIMIT CONCURRENT DISTURBANCE

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

## 6.3 STABILIZE DISTURBED AREAS

### 6.3.1 ACCESS POINTS/ENTRANCE/EXITS

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

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

### 6.3.2 TEMPORARY MEASURES FOR EXPOSED AREAS DURING CONSTRUCTION

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

- SURFACE ROUGHENING OF EXPOSED SLOPES, SEEDING OF TEMPORARY SLOPES AND STOCKPILES, AND STANDARD MULCHING PRACTICES DESCRIBED IN SPECIFICATION 653.07 SHALL BE UTILIZED TO TEMPORARILY STABILIZE DISTURBED AREAS.
- DISTURBED AREAS AND SOIL STOCKPILES THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS SHALL BE TEMPORARILY STABILIZED WITH SEED AND MULCH/RECP WITHIN 48 HOURS.

### 6.3.3 PERMANENT STABILIZATION AT FINAL GRADE

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

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, ROLLED EROSION CONTROL PRODUCT, TYPE I SHALL BE USED INSTEAD OF MULCH.

- IN AREAS WHERE VEGETATIVE COVER WILL PROVIDE PERMANENT STABILIZATION, SEEDING TO BE COMPLETED BETWEEN APRIL 15 AND SEPTEMBER 15.
- STEEP SLOPES ALONG THE PROPOSED BRIDGE ABUTMENT EMBANKMENTS WILL BE STABILIZED WITH TYPE II STONE.

## 6.4 DIVERT UPLAND RUNOFF

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

THE NORTHWEST AND SOUTHEAST SIDES OF THE PROJECT AREA ARE RELATIVELY FLAT; HOWEVER, DUE TO THE HILLY NATURE OF THE SURROUNDING TERRAIN, THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM A FEW NEARBY SLOPES. RUNOFF FROM THESE SLOPES MAY NEED TO BE DIVERTED AWAY FROM THE PROJECT AREA.

## 6.5 INSTALL SEDIMENT BARRIERS

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

SILT FENCE WILL BE INSTALLED ALONG THE CONTOURS AND AS PROPOSED ON THE EPSC PLAN. WOVEN WIRE REINFORCED SILT FENCE OR FIBER ROLLS SHALL BE USED, AS SHOWN ON THE PLANS, INSTEAD OF SILT FENCE WITHIN 100 FEET UPSLOPE OF RECEIVING WATERS.

## 6.6 SLOW DOWN CHANNELIZED RUNOFF

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

INLET PROTECTION DEVICES AND STONE FILL, TYPE II WILL BE INSTALLED AS SHOWN ON THE PLANS.

## 7. CONSTRUCT PERMANENT CONTROLS

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

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

## 8. DEWATERING

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

DEWATERING OF SURFACE WATER WITHIN THE COFFERDAMS IS ANTICIPATED FOR THE CONSTRUCTION OF THE NEW PIER AND THE TEMPORARY PIERS. THE FILTER BAG DETAIL AND PAY ITEM HAVE BEEN INCLUDED AS A POTENTIAL TREATMENT MEASURE FOR THIS PURPOSE, HOWEVER THE SPECIFIC MEANS FOR TREATMENT OF DISCHARGE SHALL BE PROVIDED BY THE CONTRACTOR. ALL COSTS FOR TREATMENT OF DISCHARGE SHALL BE PAID FOR UNDER CONTRACT ITEM 653.45.

## 9. OFF-SITE AREAS

OFF-SITE WASTE AND BORROW AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE AREAS THAT ARE NEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 105.25 - 105.28. ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE, BORROW, AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

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

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

## 10. WINTER CONSTRUCTION

CONSTRUCTION ACTIVITIES MAY CONTINUE INTO THE WINTER CONSTRUCTION SEASON, DEPENDING ON ACTUAL FIELD AND WEATHER CONDITIONS. IF ACTIVITIES ARE ON-GOING BETWEEN OCTOBER 15 AND APRIL 15, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

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

## 11. INSPECTION & MAINTENANCE

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

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

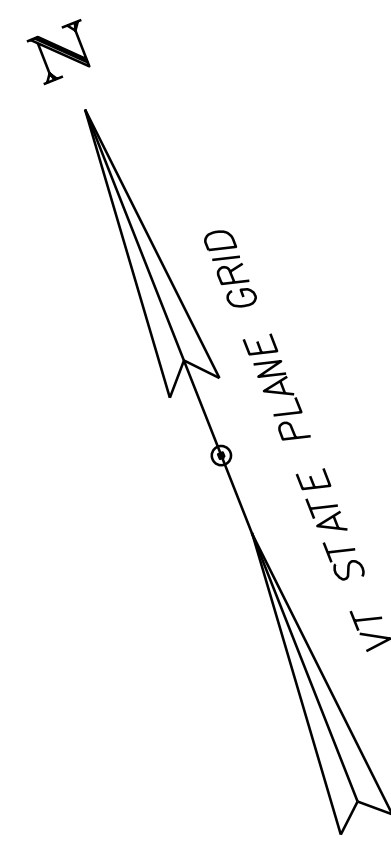
ALL EPSC MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.



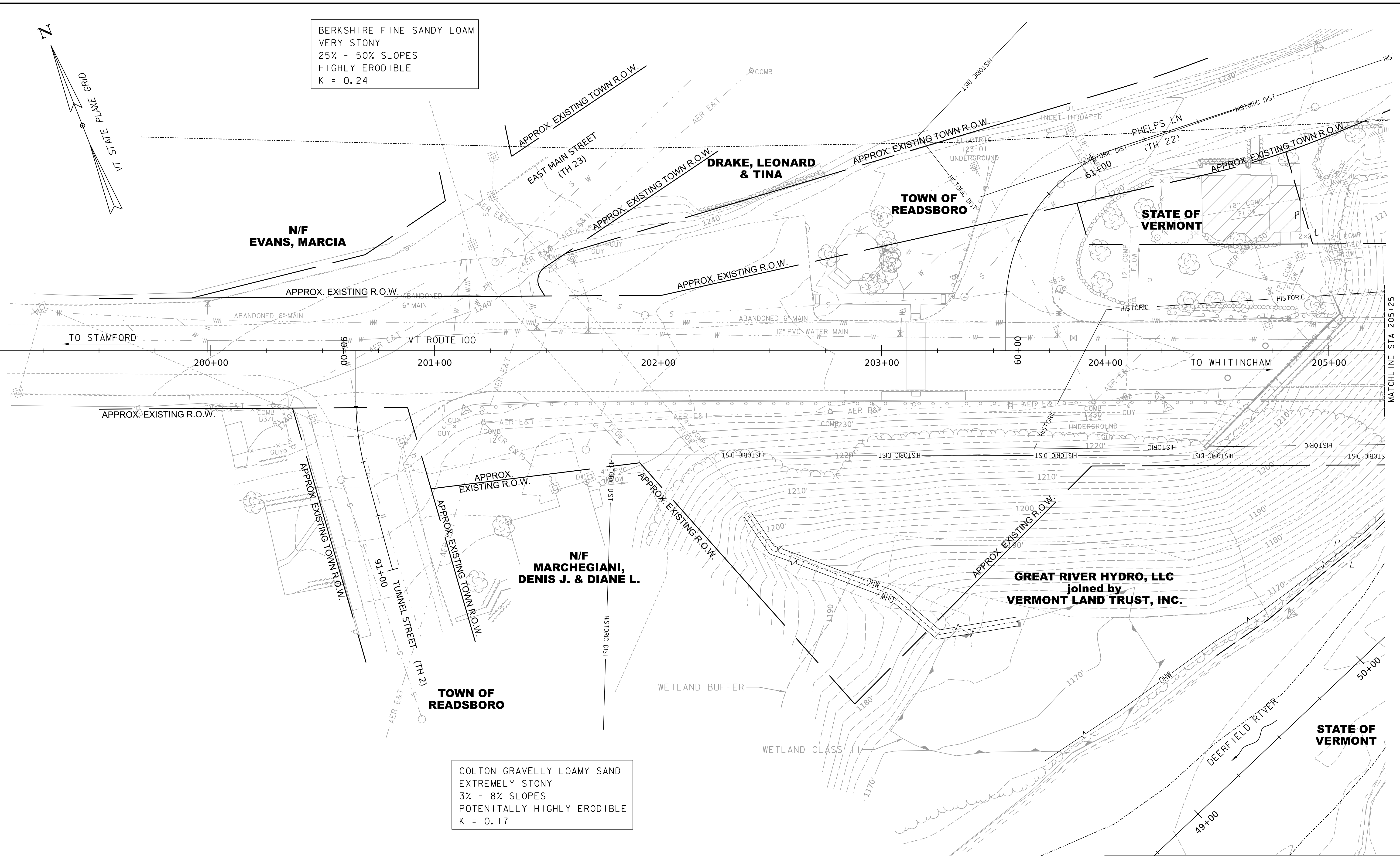
PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

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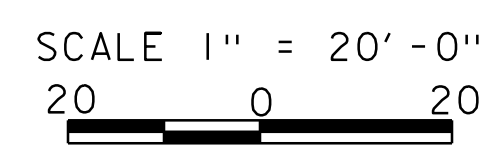


BERKSHIRE FINE SANDY LOAM  
 VERY STONY  
 25% - 50% SLOPES  
 HIGHLY ERODIBLE  
 K = 0.24



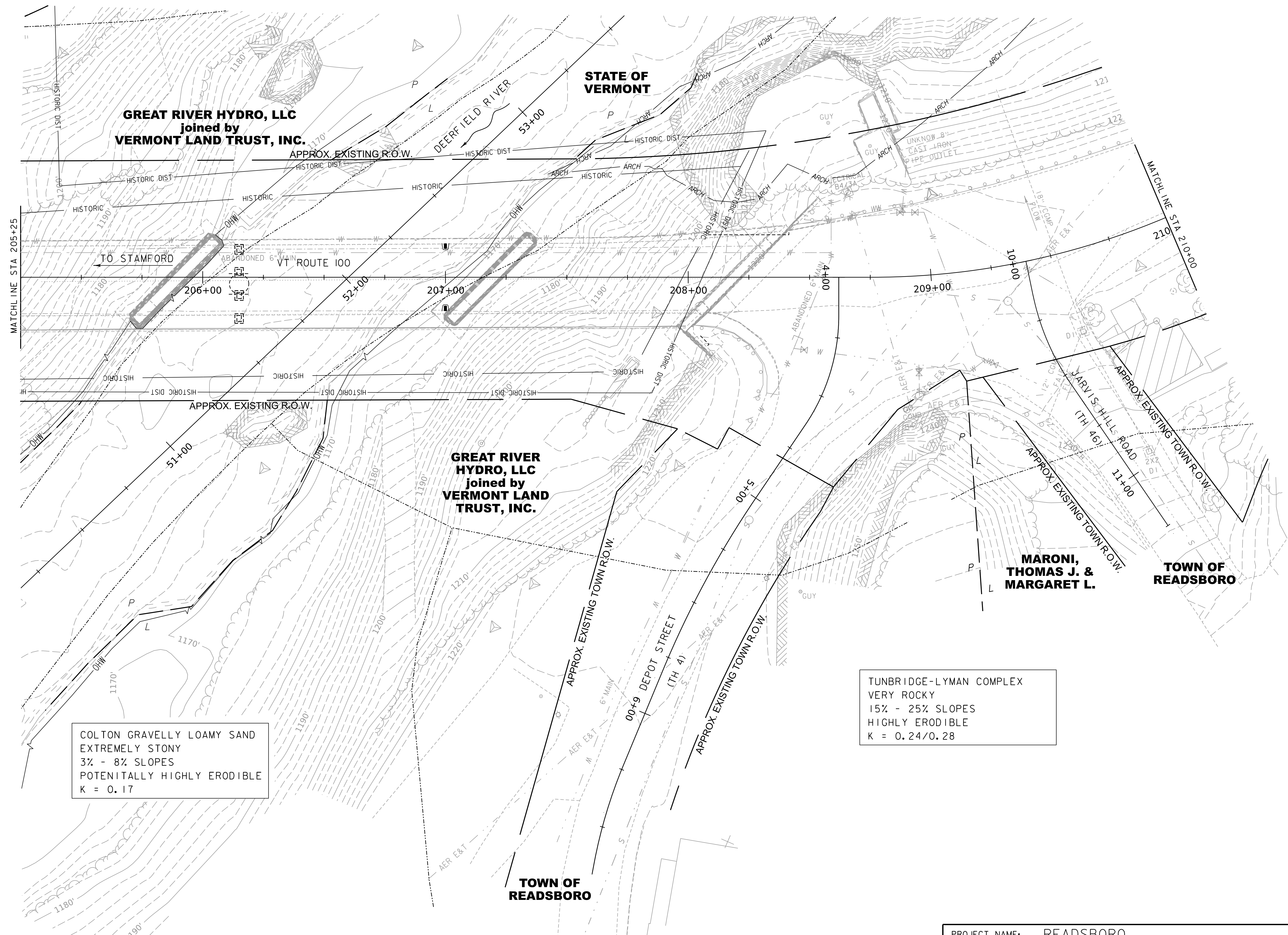
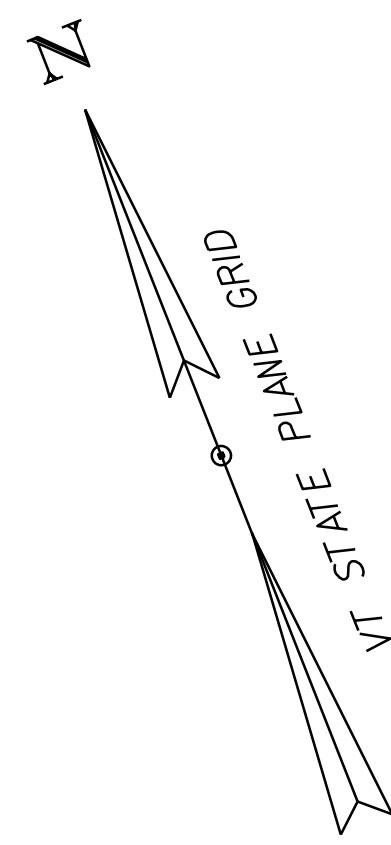
COLTON GRAVELLY LOAMY SAND  
 EXTREMELY STONY  
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 POTENTIALLY HIGHLY ERODIBLE  
 K = 0.17

NOTE: REFER TO CONVENTIONAL  
 SYMBOLY LEGEND SHEET FOR  
 DETAILS.



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	N.A. TRUSLOW
FILE NAME:	z13c068bdr_ero.ex.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	SHEET	209 OF 220
DESIGNED BY:	N.A. TRUSLOW		
EPSC EXISTING SITE PLAN (1 OF 3)			

MATCHLINE STA 205+25



**GREAT RIVER HYDRO, LLC  
joined by  
VERMONT LAND TRUST, INC.**

**GREAT RIVER  
HYDRO, LLC  
joined by  
VERMONT LAND  
TRUST, INC.**

**MARONI,  
THOMAS J. &  
MARGARET L.**

**TOWN OF  
READSBORO**

COLTON GRAVELLY LOAMY SAND  
EXTREMELY STONY  
3% - 8% SLOPES  
POTENTIALLY HIGHLY ERODIBLE  
K = 0.17

TUNBRIDGE-LYMAN COMPLEX  
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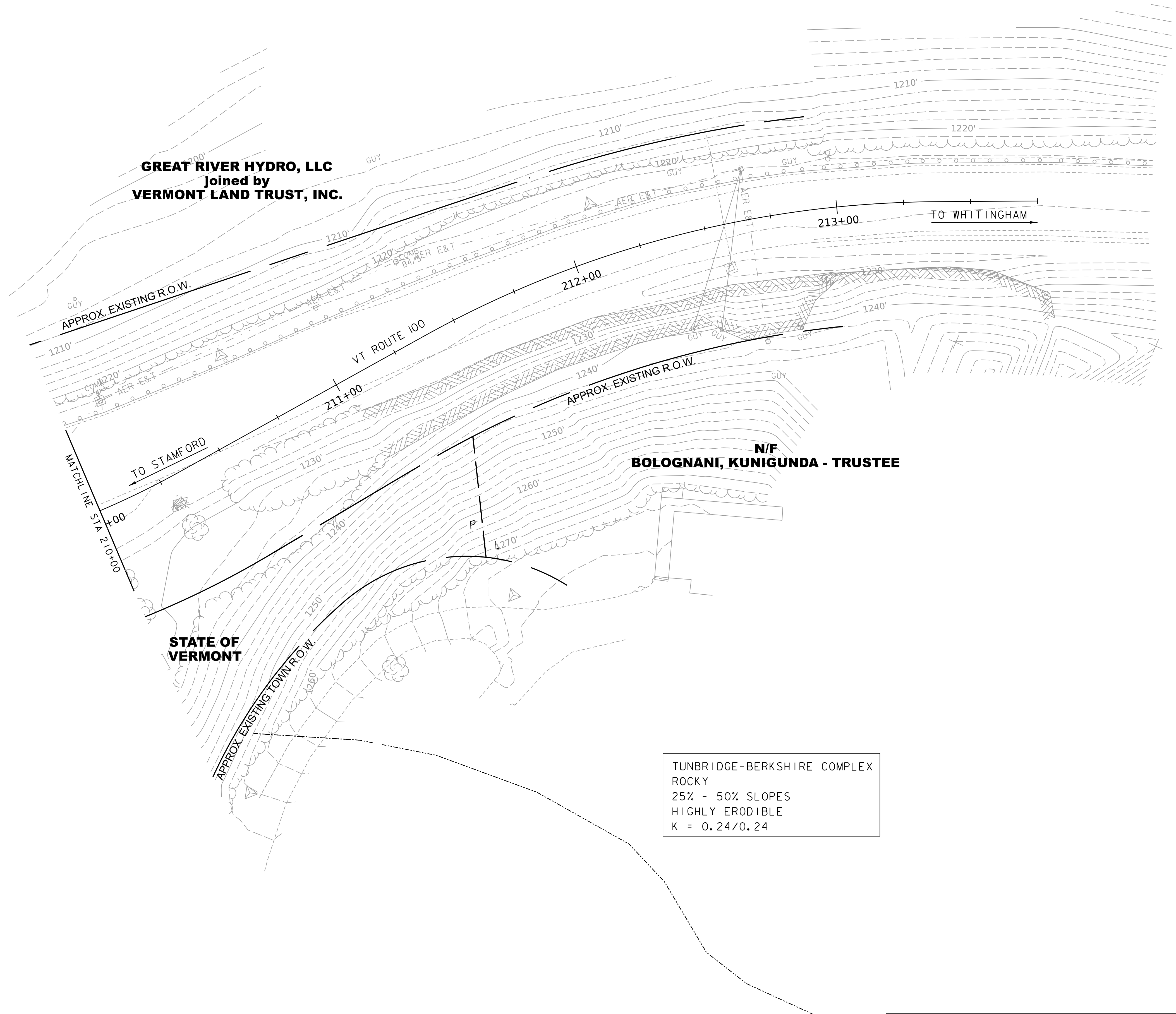
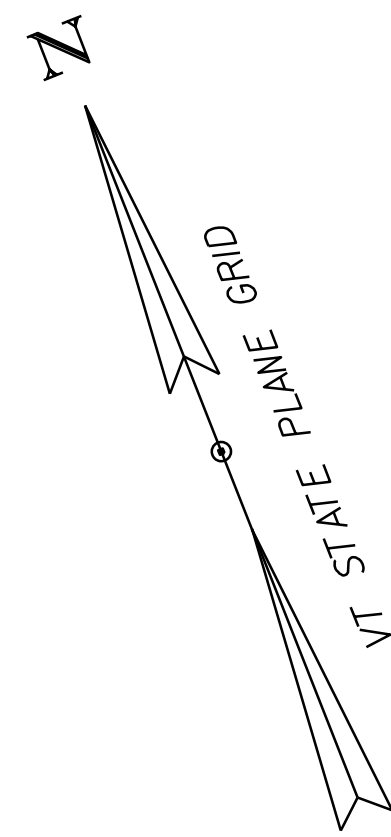
NOTE: REFER TO CONVENTIONAL  
SYMBOLY LEGEND SHEET FOR  
DETAILS.

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



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EPSC EXISTING SITE PLAN (2 OF 3)			





**GREAT RIVER HYDRO, LLC  
joined by  
VERMONT LAND TRUST, INC.**

**STATE OF  
VERMONT**

**N/F  
BOLOGNANI, KUNIGUNDA - TRUSTEE**

TUNBRIDGE-BERKSHIRE COMPLEX  
ROCKY  
25% - 50% SLOPES  
HIGHLY ERODIBLE  
K = 0.24/0.24

NOTE: REFER TO CONVENTIONAL  
SYMBOLGY LEGEND SHEET FOR  
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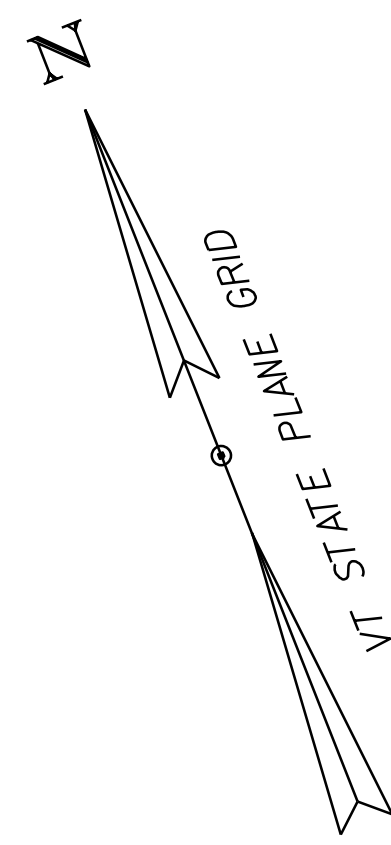
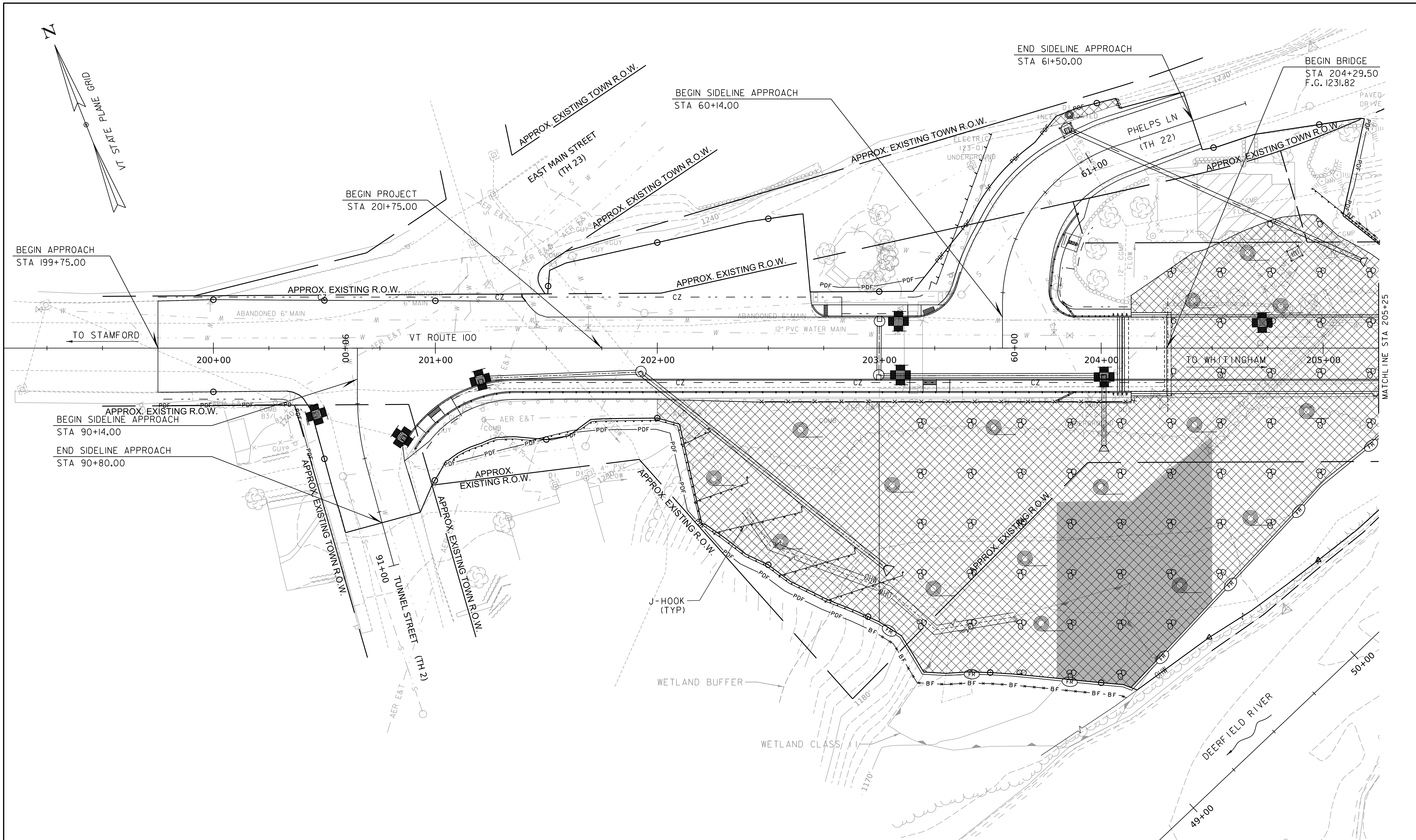
SCALE 1" = 20'-0"  
20 0 20



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068bdr_ero.ex.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: N.A. TRUSLOW  
EPSC EXISTING SITE PLAN (3 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: N.A. TRUSLOW  
CHECKED BY: S.E. BURBANK  
SHEET 211 OF 220



BEGIN APPROACH  
STA 199+75.00

BEGIN PROJECT  
STA 201+75.00

BEGIN SIDELINE APPROACH  
STA 60+14.00

END SIDELINE APPROACH  
STA 61+50.00

BEGIN BRIDGE  
STA 204+29.50  
F.G. 1231.82

APPROX. EXISTING R.O.W.  
BEGIN SIDELINE APPROACH  
STA 90+14.00  
END SIDELINE APPROACH  
STA 90+80.00

MATCH LINE STA 205+25

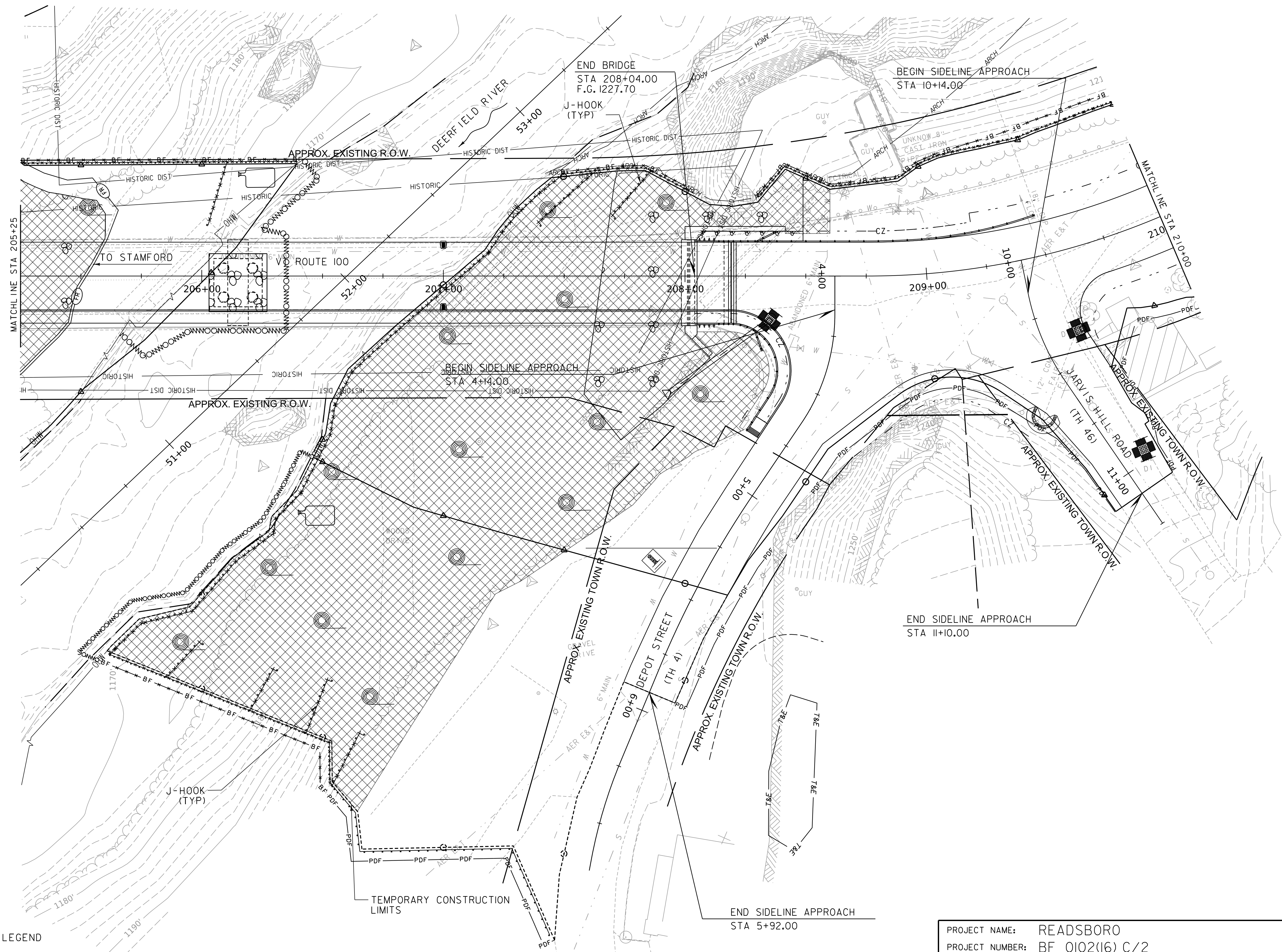
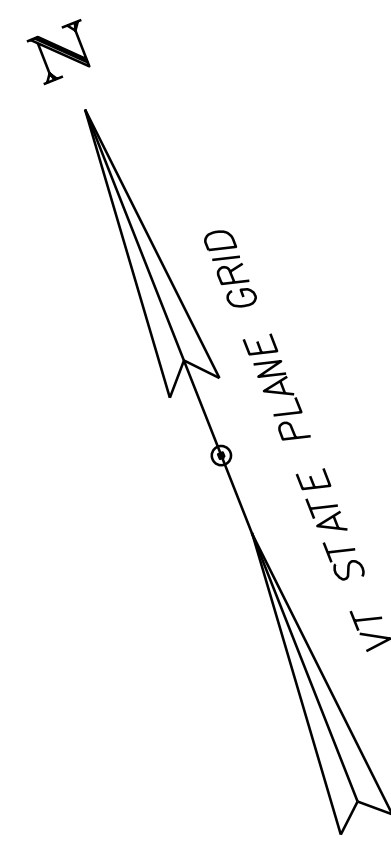
- NOTES:**
1. REFER TO CONVENTIONAL SYMBOLY LEGEND SHEET FOR DETAILS.
  2. SEE EPSC NARRATIVE FOR CONSTRUCTION SEQUENCING AND STABILIZATION MEASURES.

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



PROJECT NAME:	READSBORO	FILE NAME:	z13c068bdr_ero.const.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	N.A. TRUSLOW
		DESIGNED BY:	N.A. TRUSLOW	CHECKED BY:	S.E. BURBANK
		EPSC CONSTRUCTION SITE PLAN (1 OF 3)		SHEET	212 OF 220

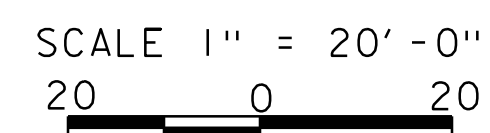




**NOTES:**

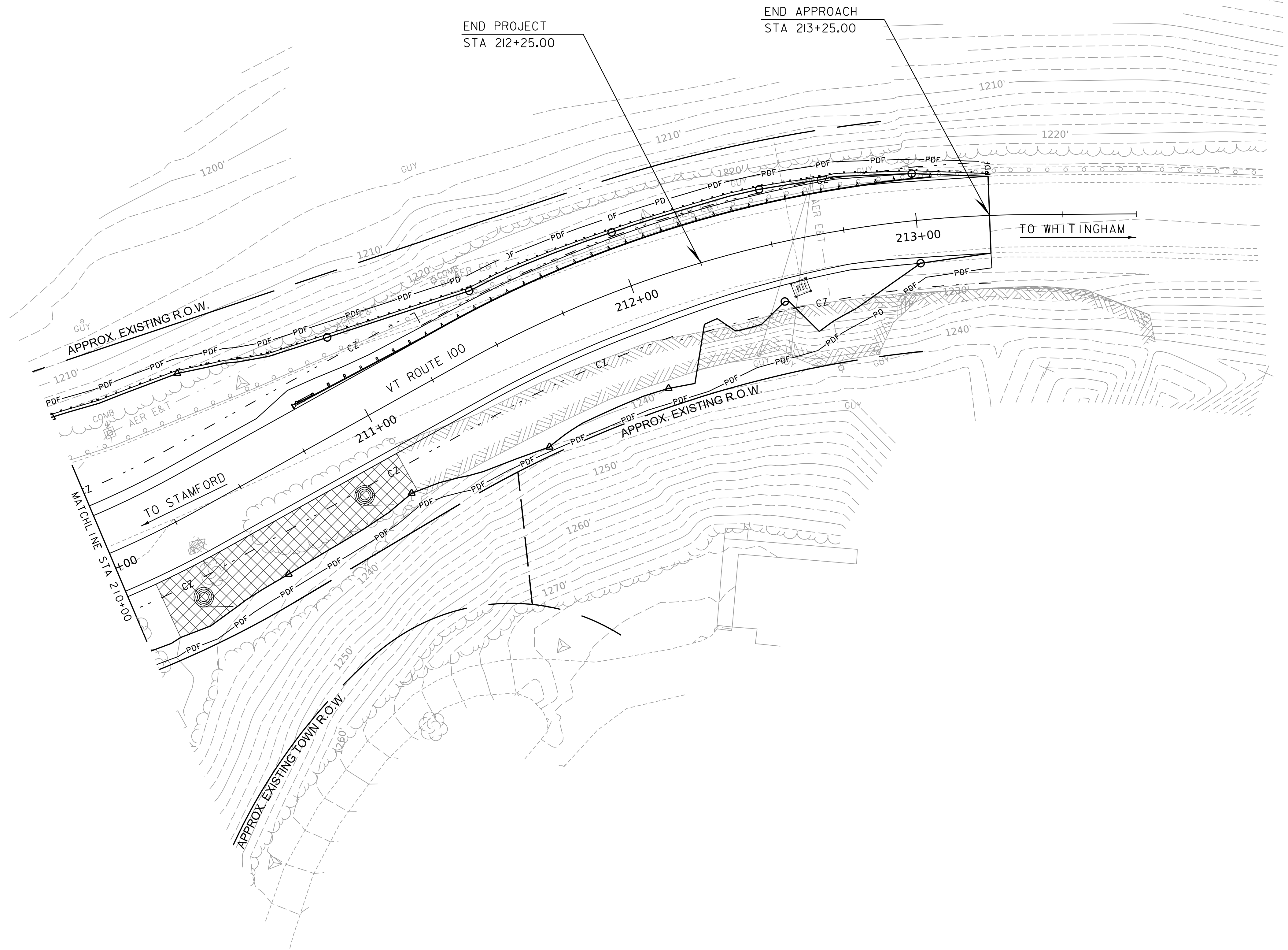
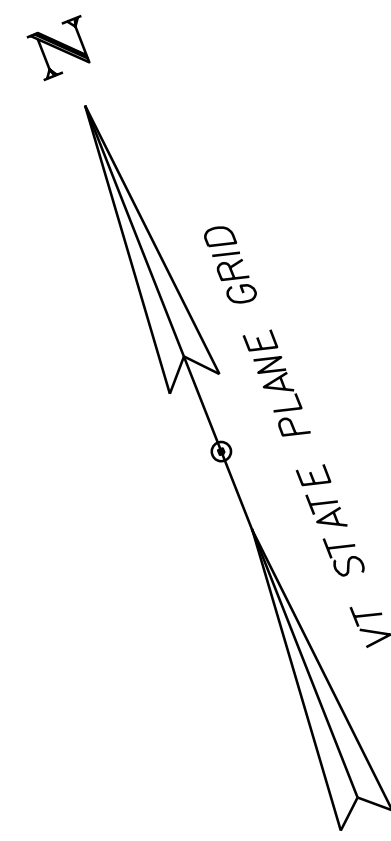
1. REFER TO CONVENTIONAL SYMBOLY LEGEND SHEET FOR DETAILS.

2. SEE EPSC NARRATIVE FOR CONSTRUCTION SEQUENCING AND STABILIZATION MEASURES.



PROJECT NAME: READSBORO  
 PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068bdr_ero.const.dgn PLOT DATE: 12-APR-2024  
 PROJECT LEADER: S.E. BURBANK DRAWN BY: N.A. TRUSLOW  
 DESIGNED BY: N.A. TRUSLOW CHECKED BY: S.E. BURBANK  
 EPSC CONSTRUCTION SITE PLAN (2 OF 3) SHEET 213 OF 220



**NOTES:**

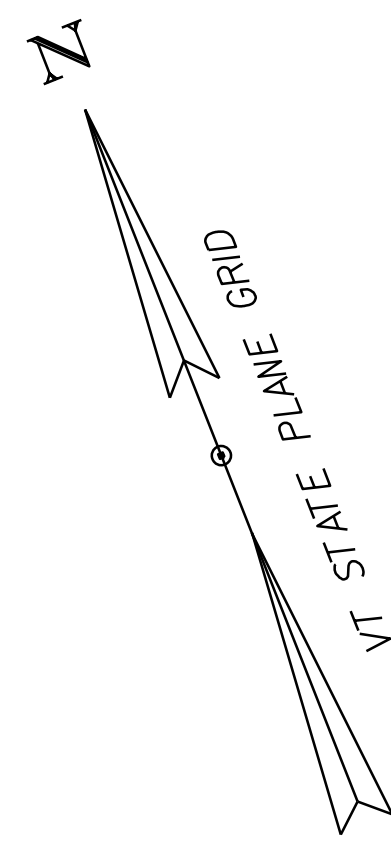
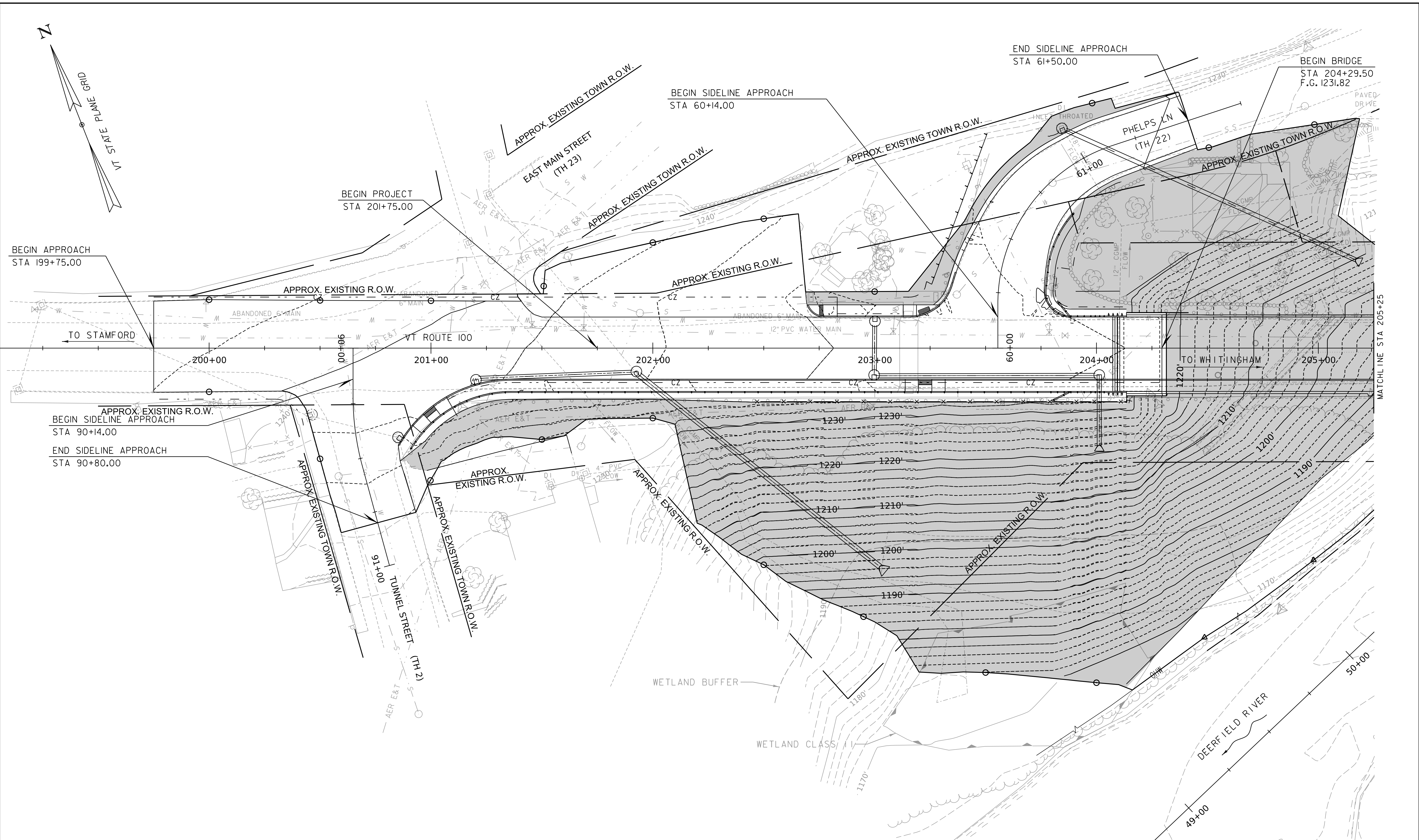
1. REFER TO CONVENTIONAL SYMBOLGY LEGEND SHEET FOR DETAILS.
2. SEE EPSC NARRATIVE FOR CONSTRUCTION SEQUENCING AND STABILIZATION MEASURES.

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



PROJECT NAME: READSBORO	PLOT DATE: 12-APR-2024
PROJECT NUMBER: BF 0102(16) C/2	DRAWN BY: N.A. TRUSLOW
FILE NAME: z13c068bdr_ero_const.dgn	CHECKED BY: S.E. BURBANK
PROJECT LEADER: S.E. BURBANK	SHEET 214 OF 220
DESIGNED BY: N.A. TRUSLOW	
EPSC CONSTRUCTION SITE PLAN (3 OF 3)	





BEGIN APPROACH  
STA 199+75.00

BEGIN PROJECT  
STA 201+75.00

BEGIN SIDELINE APPROACH  
STA 60+14.00

END SIDELINE APPROACH  
STA 61+50.00

BEGIN BRIDGE  
STA 204+29.50  
F.G. 1231.82

APPROX. EXISTING R.O.W.  
BEGIN SIDELINE APPROACH  
STA 90+14.00  
END SIDELINE APPROACH  
STA 90+80.00

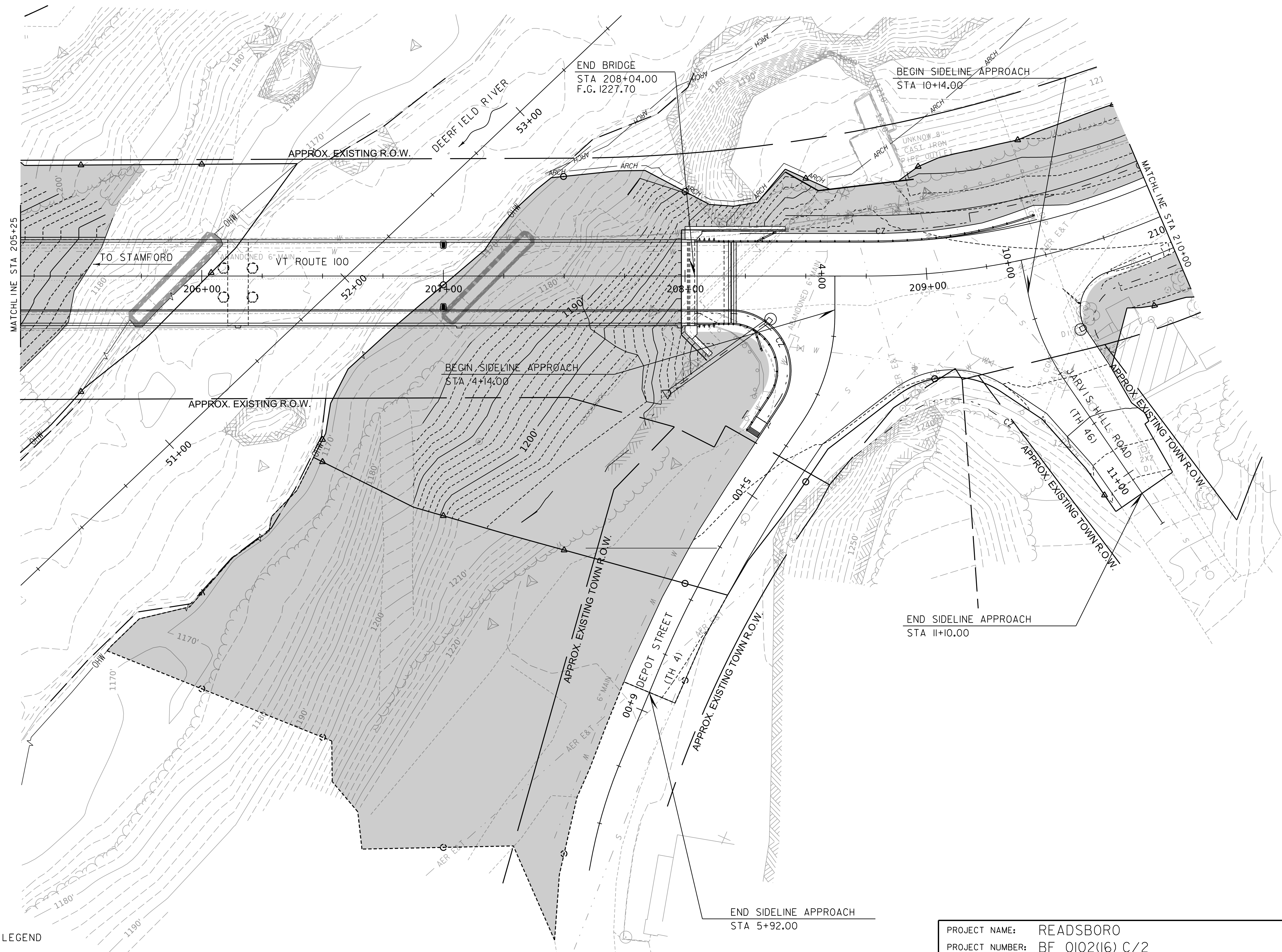
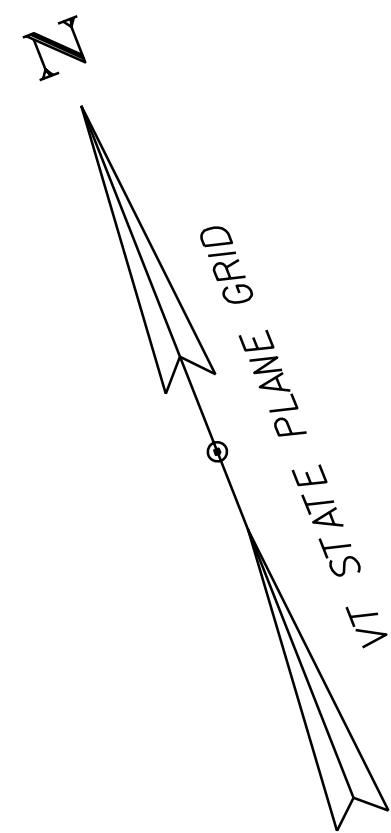
MATCH LINE STA 205+25

- NOTES:**
1. REFER TO CONVENTIONAL SYMBOLY LEGEND SHEET FOR DETAILS.
  2. SEE EPSC NARRATIVE FOR CONSTRUCTION SEQUENCING AND STABILIZATION MEASURES.

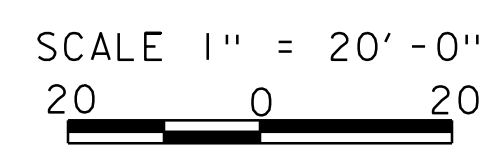
SCALE 1" = 20'-0"  
20 0 20



PROJECT NAME:	READSBORO	FILE NAME:	z13c068bdr_ero_final.dgn	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	PROJECT LEADER:	S.E. BURBANK	DRAWN BY:	N.A. TRUSLOW
		DESIGNED BY:	N.A. TRUSLOW	CHECKED BY:	S.E. BURBANK
		EPSC FINAL SITE PLAN (1 OF 3)		SHEET	215 OF 220

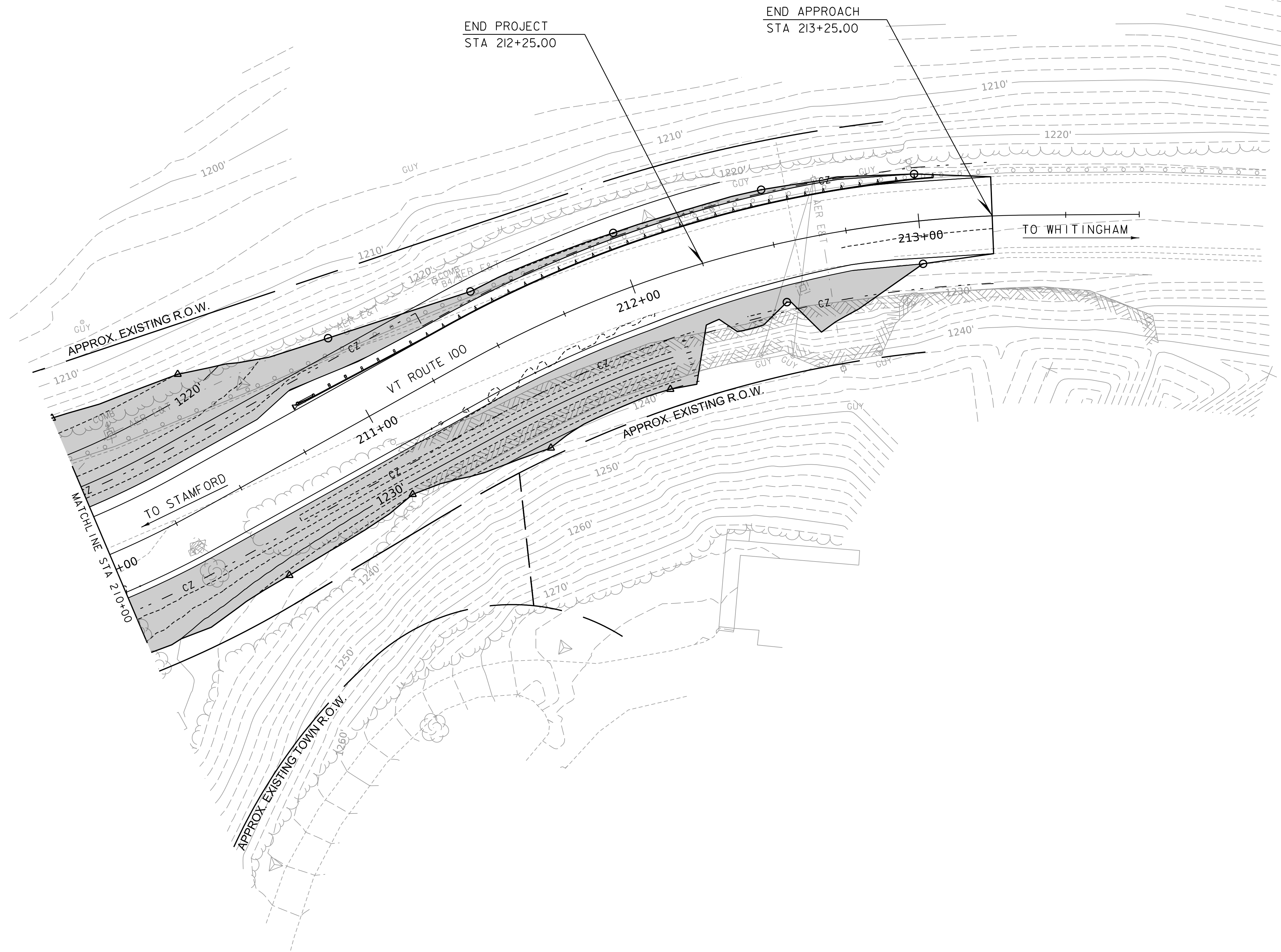
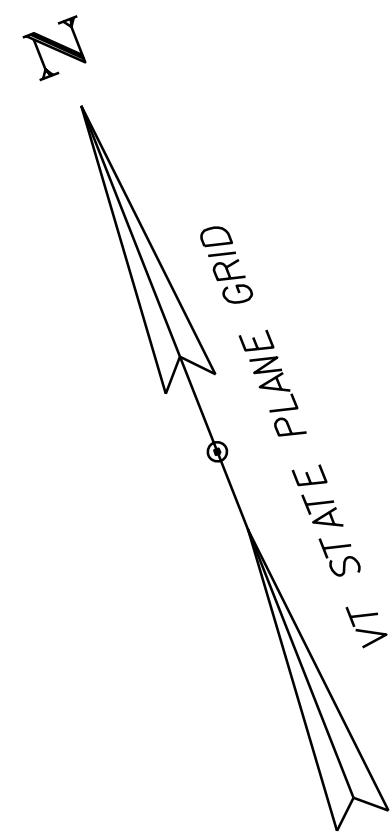


- NOTES:**
1. REFER TO CONVENTIONAL SYMBOLY LEGEND SHEET FOR DETAILS.
  2. SEE EPSC NARRATIVE FOR CONSTRUCTION SEQUENCING AND STABILIZATION MEASURES.



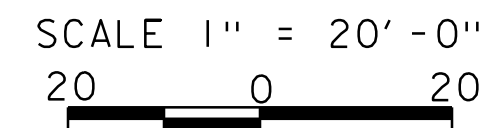
PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	N.A. TRUSLOW
FILE NAME:	z13c068bdr_ero_final.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	SHEET	216 OF 220
DESIGNED BY:	N.A. TRUSLOW		
EPSC FINAL SITE PLAN (2 OF 3)			





**NOTES:**

1. REFER TO CONVENTIONAL SYMBOLGY LEGEND SHEET FOR DETAILS.
2. SEE EPSC NARRATIVE FOR CONSTRUCTION SEQUENCING AND STABILIZATION MEASURES.



PROJECT NAME:	READSBORO	PLOT DATE:	12-APR-2024
PROJECT NUMBER:	BF 0102(16) C/2	DRAWN BY:	N.A. TRUSLOW
FILE NAME:	z13c068bdr_ero_final.dgn	CHECKED BY:	S.E. BURBANK
PROJECT LEADER:	S.E. BURBANK	SHEET	217 OF 220
DESIGNED BY:	N.A. TRUSLOW		
EPSC FINAL SITE PLAN (3 OF 3)			

VAOT NATURALIZED AREA TYPE I				
WEIGHT	NAME	LATIN NAME	GERM	PURITY
38%	CREeping RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	INERTS			
100%				

VAOT NATURALIZED AREA TYPE II				
WEIGHT	NAME	LATIN NAME	GERM	PURITY
37.5%	CREeping RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%				

SEED RATE: BROADCAST: 75 LBS/ACRE  
HYDROSEED: PER MANUFACTURER'S RECOMMENDATIONS

*APPLY AMENDMENTS PER SOIL TEST RESULTS*

FERTILIZER (755.06):  
IF NO SOIL TEST IS PERFORMED, A SLOW OR CONTROLLED RELEASE FERTILIZER SHALL BE APPLIED AT A RATIO OF 1:1:1 (N:P:K). NITROGEN AND PHOSPHORUS SHALL BE APPLIED AT NO MORE THAN 1 LB. PER 1,000 SQ. FT.

LIMESTONE (755.08 & 755.09):  
IF NO SOIL TEST IS PERFORMED, APPLY LIMESTONE PER MANUFACTURER'S RECOMMENDATIONS.

COMPOST (755.05):  
COMPOST MAY BE APPLIED PER SOIL TEST RESULTS.

**CONSTRUCTION GUIDANCE**

1. THESE SEED MIXES SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING LIMITED ANNUAL MOWING THROUGH THE GROWING SEASON.
2. USE SEED MIX AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON-WETLAND) AREAS DISTURBED BY THE CONTRACTOR. IF THE PLANS DO NOT SPECIFY A SEED TYPE, NATURALIZED AREA TYPE I OR TYPE II SHALL BE USED.
3. SEED MIXES SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. 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.
5. FERTILIZER SHOULD NOT BE APPLIED WITHIN 2 WEEKS OF APPLYING LIMESTONE.
6. FOR BEST ESTABLISHMENT, REAPPLY FERTILIZER 2-3 WEEKS AFTER GERMINATION.

**TURF ESTABLISHMENT**

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1500 TURF ESTABLISHMENT, GENERAL SEED)

REVISIONS	
JANUARY 12, 2015	WHF
JUNE 15, 2023	BKD

VAOT LAWN				
WEIGHT	NAME	LATIN NAME	GERM	PURITY
42.5%	CREeping RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
20.0%	PERENNIAL RYE GRASS	LOLIUM PERENNE	90%	95%
32.5%	KENTUCKY BLUE GRASS	POA PRATENSIS	85%	85%
5.0%	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%				

SEED RATE: BROADCAST: 75 LBS/ACRE  
HYDROSEED: PER MANUFACTURER'S RECOMMENDATIONS

*APPLY AMENDMENTS PER SOIL TEST RESULTS*

FERTILIZER (755.06):  
IF NO SOIL TEST IS PERFORMED, A SLOW OR CONTROLLED RELEASE FERTILIZER SHALL BE APPLIED AT A RATIO OF 1:1:1 (N:P:K). NITROGEN AND PHOSPHORUS SHALL BE APPLIED AT NO MORE THAN 1 LB. PER 1,000 SQ. FT.

LIMESTONE (755.08 & 755.09):  
IF NO SOIL TEST IS PERFORMED, APPLY LIMESTONE PER MANUFACTURER'S RECOMMENDATIONS.

COMPOST (755.05):  
COMPOST MAY BE APPLIED PER SOIL TEST RESULTS.

**CONSTRUCTION GUIDANCE**

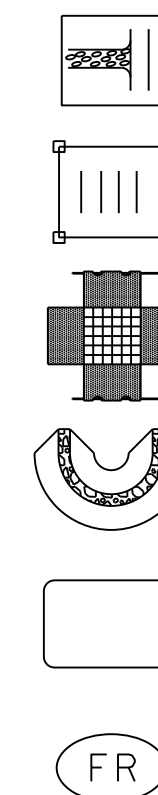
1. THIS SEED MIX SHALL BE USED IN AREAS THAT WILL BE MANAGED AS TRADITIONAL LAWNS, RECEIVING FREQUENT MOWING.
2. THIS SEED MIX SHALL NOT BE USED IN WETLANDS OR ANY WATERS OF THE STATE OF VERMONT.
3. USE SEED MIX ONLY AS INDICATED IN THE PLANS. IF THE PLANS DO NOT SPECIFY A SEED TYPE, NATURALIZED AREA TYPE I OR TYPE II SHALL BE USED.
4. SEED MIX SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
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. FERTILIZER SHOULD NOT BE APPLIED WITHIN 2 WEEKS OF APPLYING LIMESTONE.
7. FOR BEST ESTABLISHMENT, REAPPLY FERTILIZER 2-3 WEEKS AFTER GERMINATION.

**TURF ESTABLISHMENT**

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1500 TURF ESTABLISHMENT, GENERAL SEED)

REVISIONS	
JANUARY 12, 2015	WHF
JUNE 15, 2023	BKD

- STABILIZED CONSTRUCTION ENTRANCE  
653.3500
- INLET PROTECTION DEVICE, TYPE I  
653.4001
- INLET PROTECTION DEVICE, TYPE II  
653.4002
- INLET PROTECTION DEVICE, TYPE III  
653.4003
- FILTER BAG  
653.4500
- FIBER ROLL (EROSION LOG)  
653.6000



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

**STANDARD SYMBOLS**

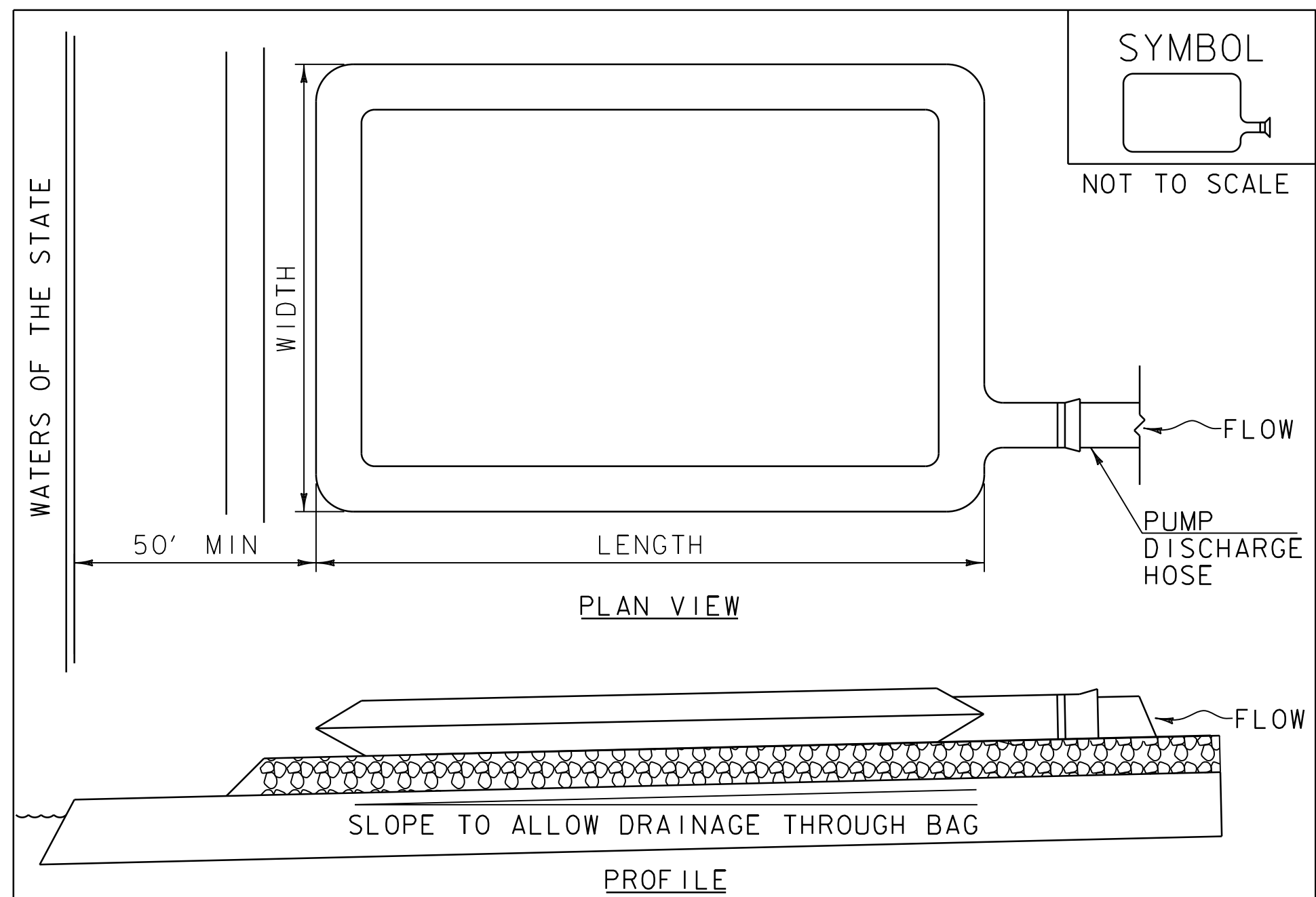
NOTE:  
FOR ADDITIONAL EROSION CONTROL DETAILS, SEE VAOT STANDARDS E-10, E-12, E-13, E-14, AND E-15.



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068details_ero.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
EPSC DETAIL SHEET (1 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 218 OF 220



**CONSTRUCTION SPECIFICATIONS**

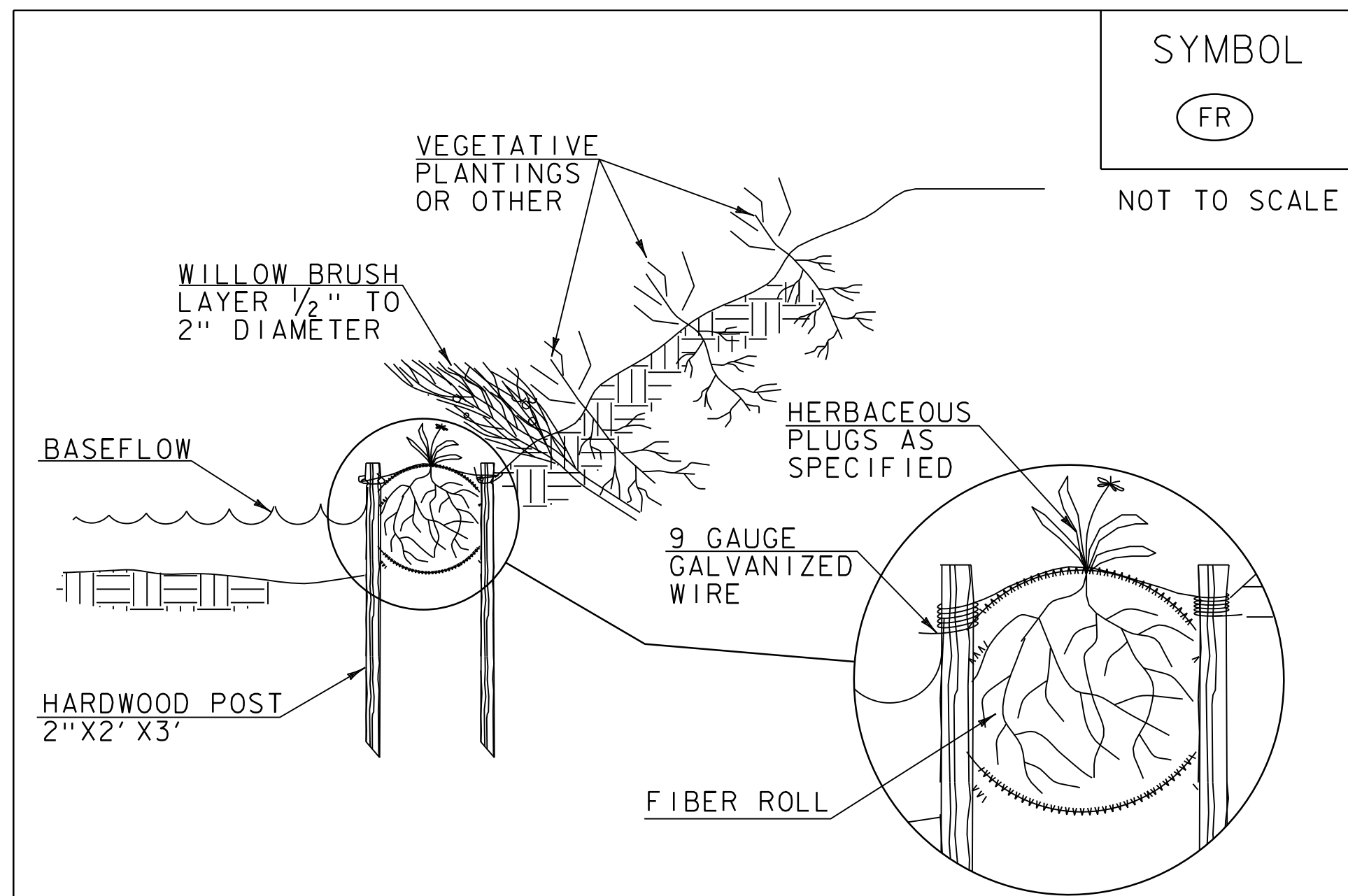
1. THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS.
2. FILTER BAGS SHALL BE INSTALLED ON A VEGETATED SLOPE GRADED TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.
3. FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.
4. FILTER BAGS SHALL BE LOCATED A MINIMUM OF 50' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.
6. A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.
7. FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.

FILTER BAG

NOTES:  
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR FILTER BAG (PAY ITEM 653.4500) AND AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF



**CONSTRUCTION SPECIFICATIONS**

1. EXCAVATE A SHALLOW TRENCH SLIGHTLY BELOW BASEFLOW OR A 4" TRENCH ON SLOPE CONTOURS
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2"X2" POSTS PLACED ON BOTH SIDES FOR THE ROLL AND SPACED LATERALLY ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IF NECESSARY.
3. NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH 9 GAUGE GALVANIZED WIRE OR 1/8" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANT WITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.

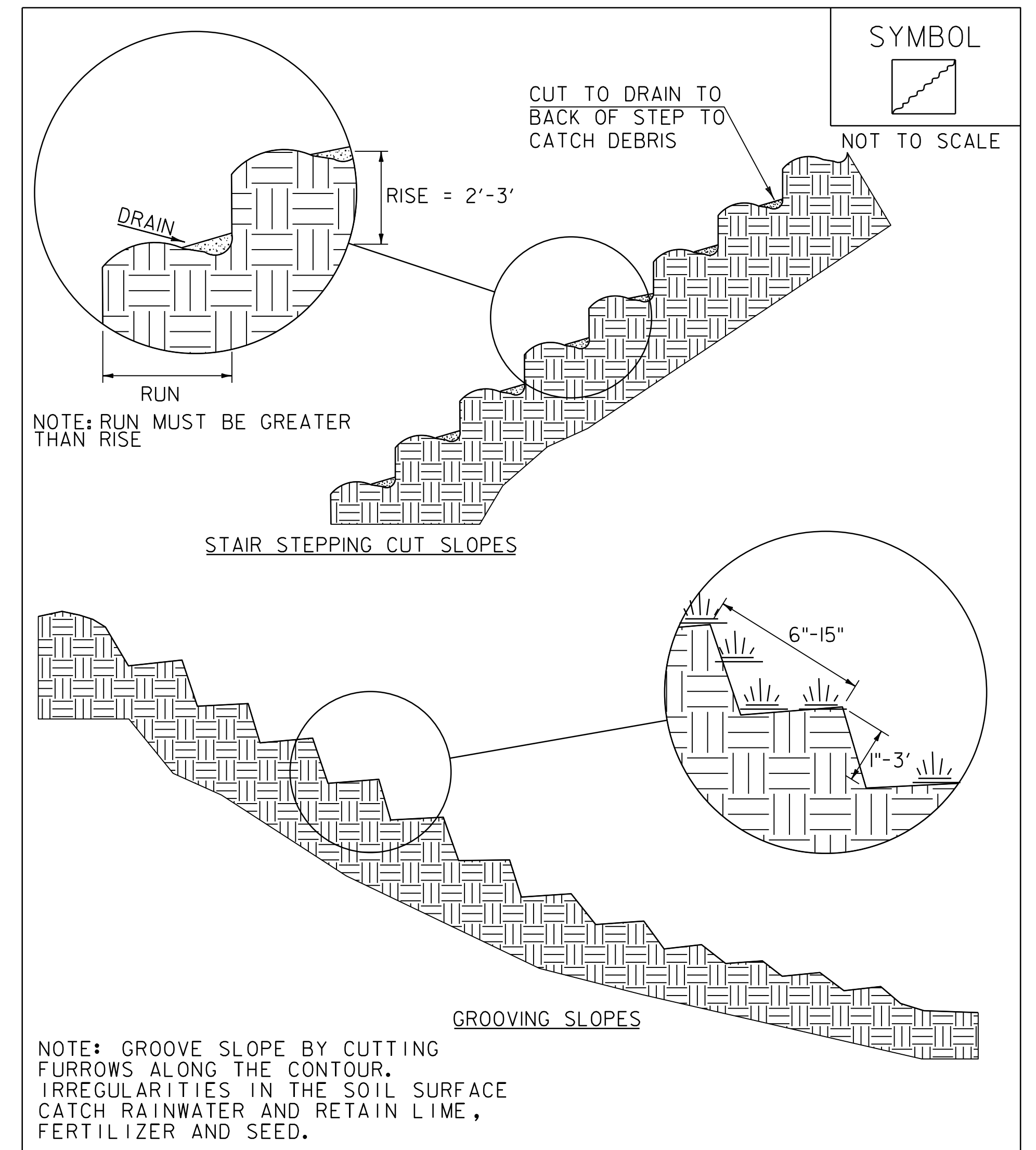
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

FIBER ROLL  
(EROSION LOG)

NOTES:  
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR EROSION LOG (PAY ITEM 653.6000)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 13, 2009	WHF



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

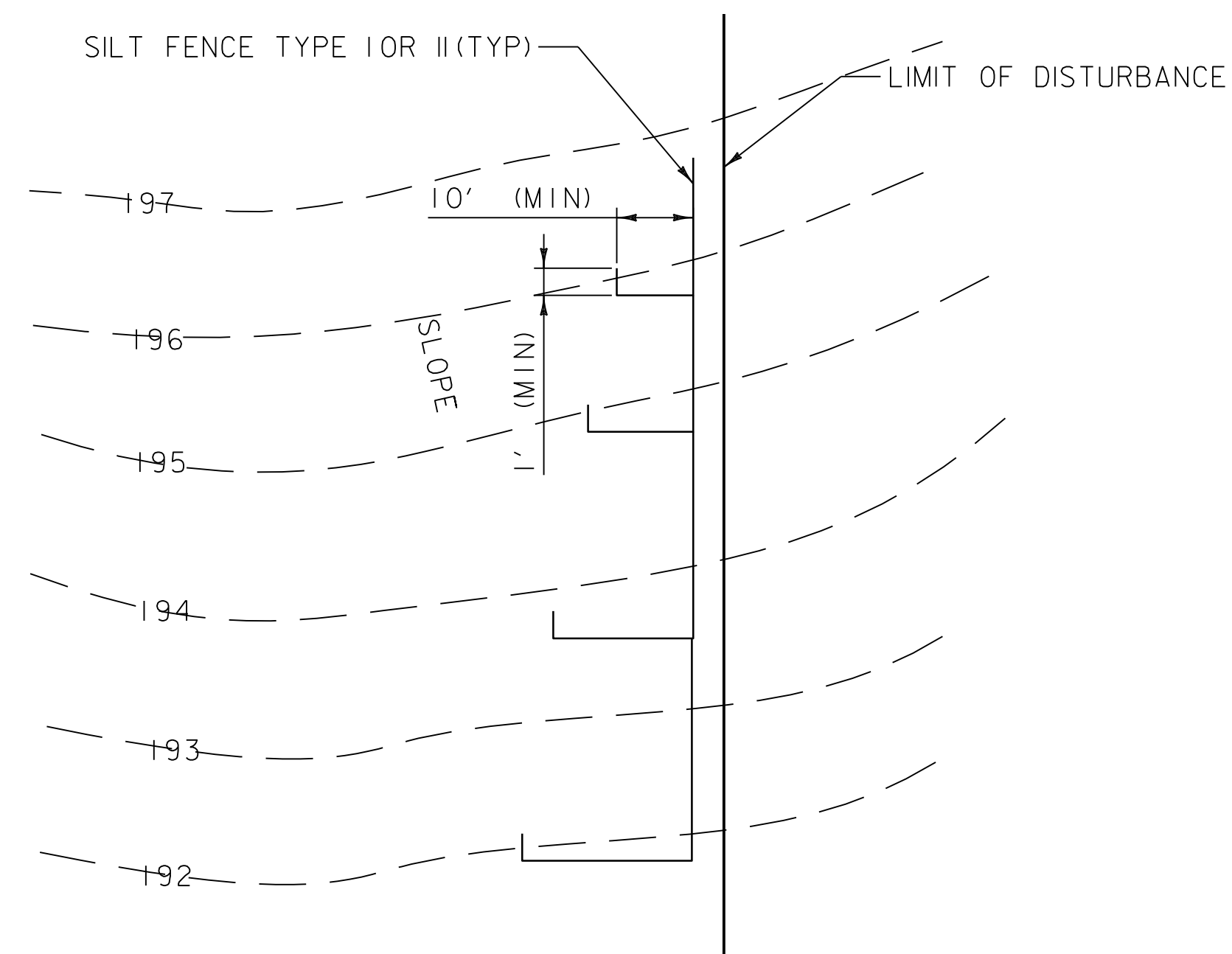
NOTE:  
FOR ADDITIONAL EROSION CONTROL DETAILS, SEE VAOT STANDARDS E-10, E-12, E-13, E-14, AND E-15.



PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068details_ero.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
EPSC DETAIL SHEET (2 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 219 OF 220



**NOTES**

1. SILT FENCE SHALL BE INSTALLED IN SHORTER RUNS WITH "J-HOOKS" TO AVOID CONCENTRATION OF FLOWS AT ONE LOCATION BY TRAPPING RUNOFF AT MULTIPLE POINTS ALONG A SLOPE.
2. MINIMUM WIDTH OF J-HOOK RECOMMENDED AT 10 FT WITH A DEPTH OF 10 FT. WHERE SPACE IS LIMITED (E.G., ALONG NARROW RIGHTS OF WAY), NARROWER HOOKS CAN BE USED WITH A HIGHER SPACING FREQUENCY.
3. START DOWN-GRADIENT SILT FENCE LINE AS CLOSE AS POSSIBLE TO UP-GRADIENT J-HOOK.

SOURCE: VHB

INSTALLATION OF J-HOOKS ON SLOPES

REVISIONS
AUGUST 6, 2016

NOTE:  
FOR ADDITIONAL EROSION CONTROL DETAILS, SEE  
VAOT STANDARDS E-10, E-12, E-13, E-14, AND E-15.

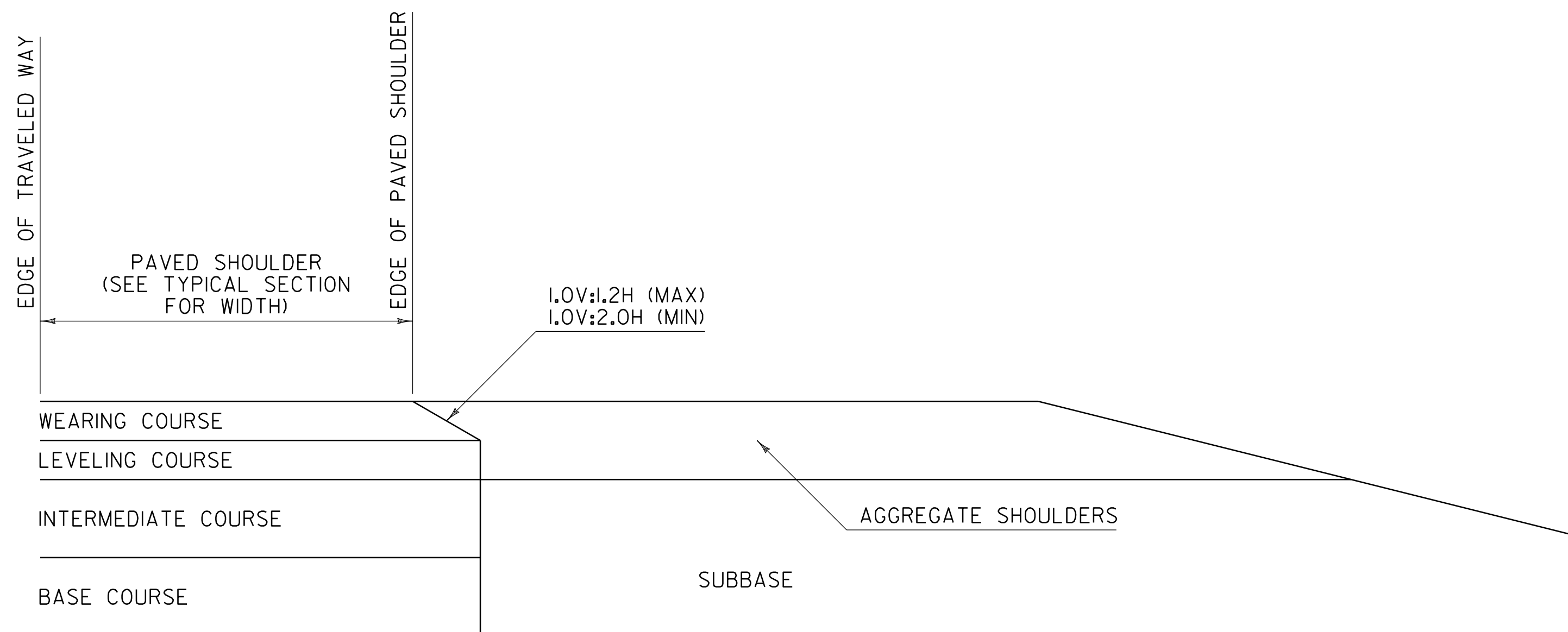


PROJECT NAME: READSBORO  
PROJECT NUMBER: BF 0102(16) C/2

FILE NAME: z13c068details_ero.dgn  
PROJECT LEADER: S.E. BURBANK  
DESIGNED BY: W.A. FRETWELL  
EPSC DETAIL SHEET (3 OF 3)

PLOT DATE: 12-APR-2024  
DRAWN BY: W.A. FRETWELL  
CHECKED BY: N.A. TRUSLOW  
SHEET 220 OF 220



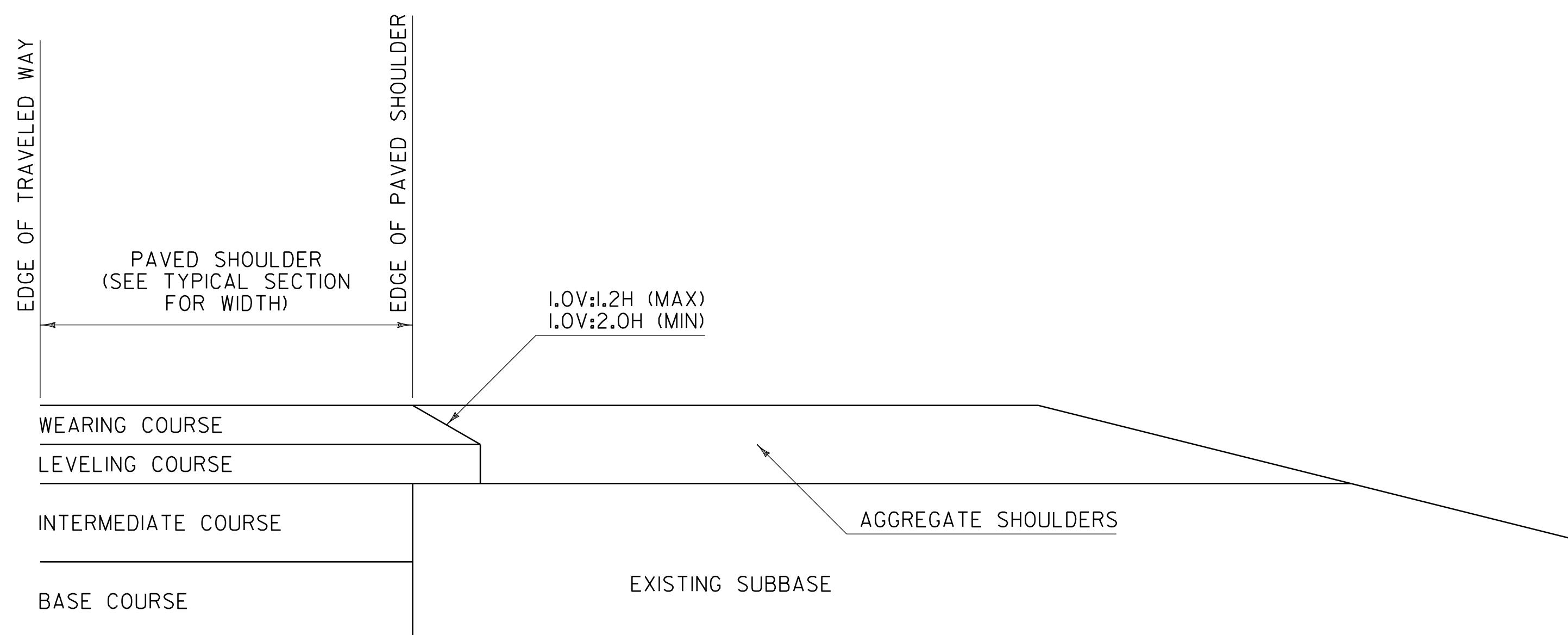


**SAFETY EDGE DETAIL  
FOR PAVING BELOW WEARING COURSE**

**NOTES:**

1. THIS DETAIL IS INTENDED FOR WHEN PAVING EXTENDS BELOW THE WEARING COURSE.
2. PRIOR TO PLACEMENT OF THE LEVELING AND/OR WEARING COURSE, THE SUBBASE LOCATED BENEATH THE AGGREGATE SHOULDERS SHALL BE PREPARED FLUSH WITH THE BOTTOM OF THE LEVELING COURSE.
3. BASE COURSE LIMITS MAY VARY, SEE TYPICAL SECTIONS FOR WIDTH.

SAFETY EDGE WIDTH BASED ON WEARING COURSE THICKNESS AND A 1V:1.6H SLOPE	
WEARING COURSE THICKNESS (INCHES)	NOMINAL SAFETY EDGE WIDTH (INCHES)
1.25	2.000
1.50	2.375
1.75	2.750
2.00	3.125
2.25	3.500
2.50	4.000



**SAFETY EDGE DETAIL  
FOR PAVING WEARING COURSE ONLY**

**NOTES:**

1. THIS DETAIL IS INTENDED FOR WHEN ONLY THE LEVELING AND/OR WEARING COURSE IS TO BE PLACED.
2. PAVEMENT COURSES MAY VARY, SEE TYPICAL SECTIONS FOR ACTUAL PAVEMENT COURSES REQUIRED.

**GENERAL NOTES:**

1. PLACEMENT OF THE WEARING COURSE SHALL INCLUDE THE SAFETY EDGE, UNLESS THE FOLLOWING APPLIES:
  - A. THE ADJACENT SLOPE IS STEEPER THAN THE SAFETY EDGE.
  - B. THE EDGE OF PAVEMENT BEING PLACED ABUTS BOUND MATERIAL.
  - C. VEHICLES ARE RESTRICTED FROM LEAVING THE PAVED SURFACE (EXAMPLE: GUARDRAIL).
2. THE SAFETY EDGE SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE SLOPE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE SAFETY EDGE SHALL NOT BE CONSIDERED PART OF THE PAVED SHOULDER.
4. THIS WORK SHALL BE INCIDENTAL TO THE RESPECTIVE BITUMINOUS CONCRETE PAVEMENT ITEM.

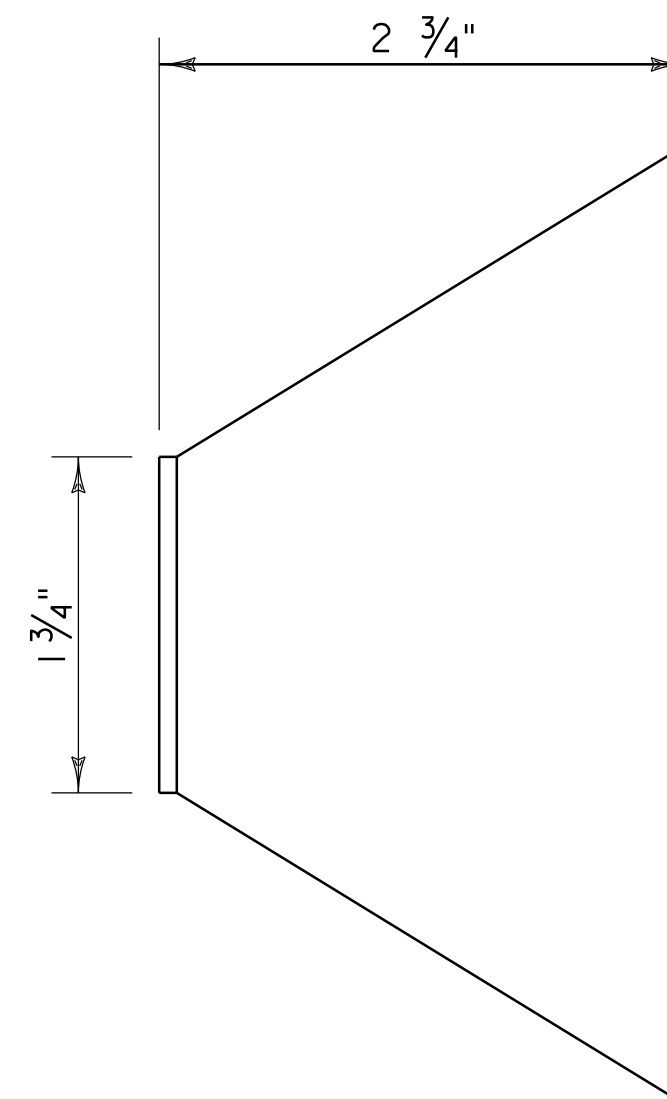
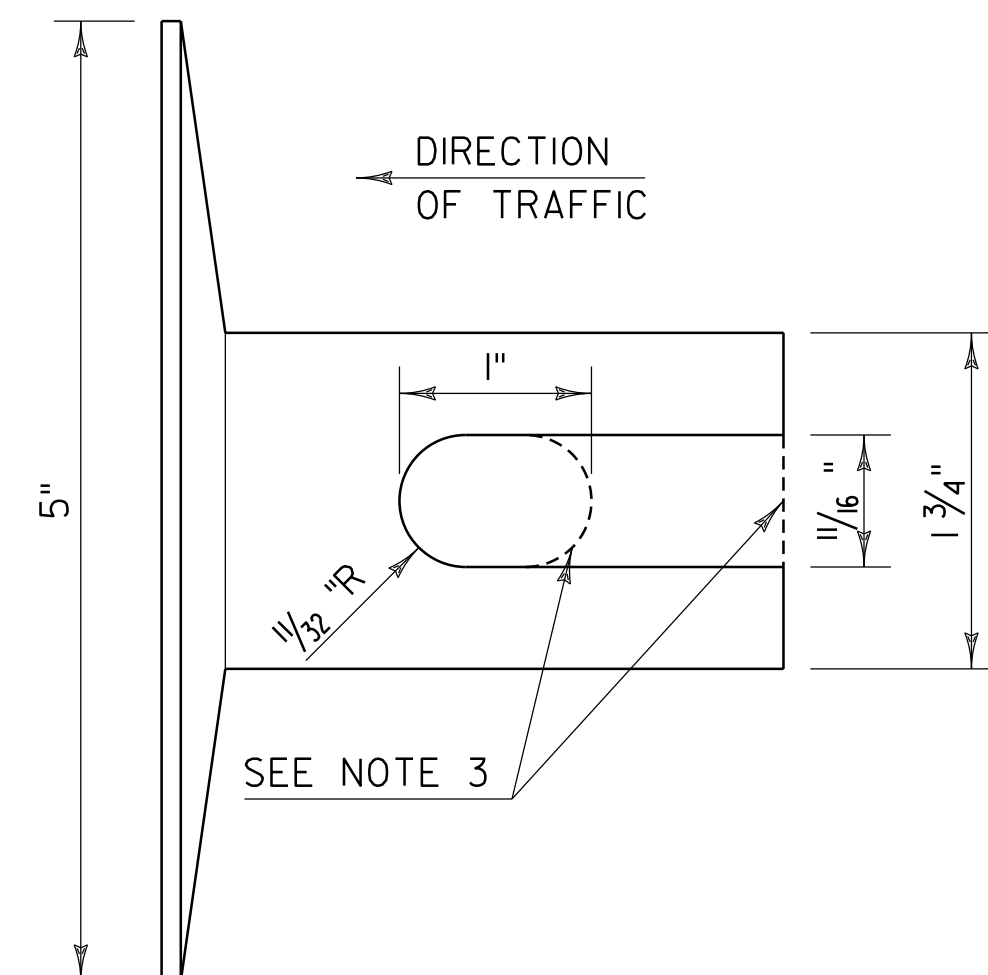
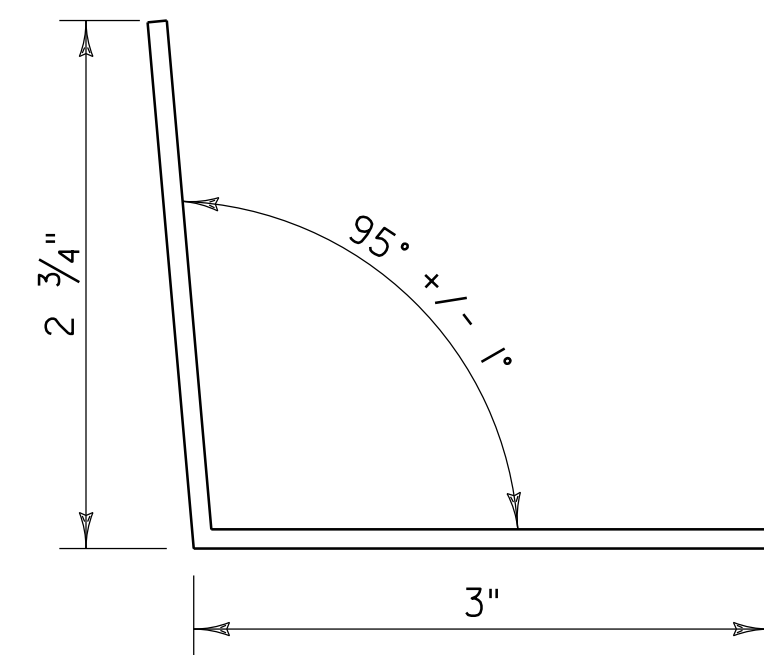
**SAFETY EDGE DETAILS**

REV.	DATE	DESCRIPTION
0	MAR. 29, 2016	ORIGINAL APPROVAL
1	JAN. 5, 2018	ANNOTATION CORRECTIONS
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		



HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-400.01

### GUARDRAIL DELINEATOR DETAIL



#### NOTES:

1. GUARDRAIL DELINEATOR BASE MATERIAL SHALL BE 0.10 INCH THICK ALUMINUM IN ACCORDANCE WITH SUBSECTION 728.04 DELINEATION DEVICES.
2. GUARDRAIL DELINEATORS SHALL HAVE WHITE RETROREFLECTIVE SHEETING, EQUAL TO OR EXCEEDING TYPE III IN ACCORDANCE WITH SUBSECTION 750.08(B)(3) ON THE RIGHT SIDE OF THE TRAVELED WAY AND YELLOW RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING TYPE VII IN ACCORDANCE WITH SUBSECTION 750.08(B)(7) ON THE LEFT SIDE OF THE TRAVELED WAY IN RESPECT TO APPROACHING TRAFFIC. ON ONE DIRECTIONAL ROADWAYS RETROREFLECTIVE SHEETING MAY BE OMITTED ON FACES WHERE THERE WILL BE NO APPROACHING TRAFFIC.
3. HOLE MAY BE USED IN PLACE OF SLOT.

REV.	DATE	DESCRIPTION
0	NOV. 3, 2015	ORIGINAL APPROVAL
1	FEB. 27, 2017	UPDATED NAME, MINOR CORRECTIONS AND ADDED GUARDRAIL DELINEATOR DETAIL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

### GUARDRAIL TERMINAL LABEL DETAIL



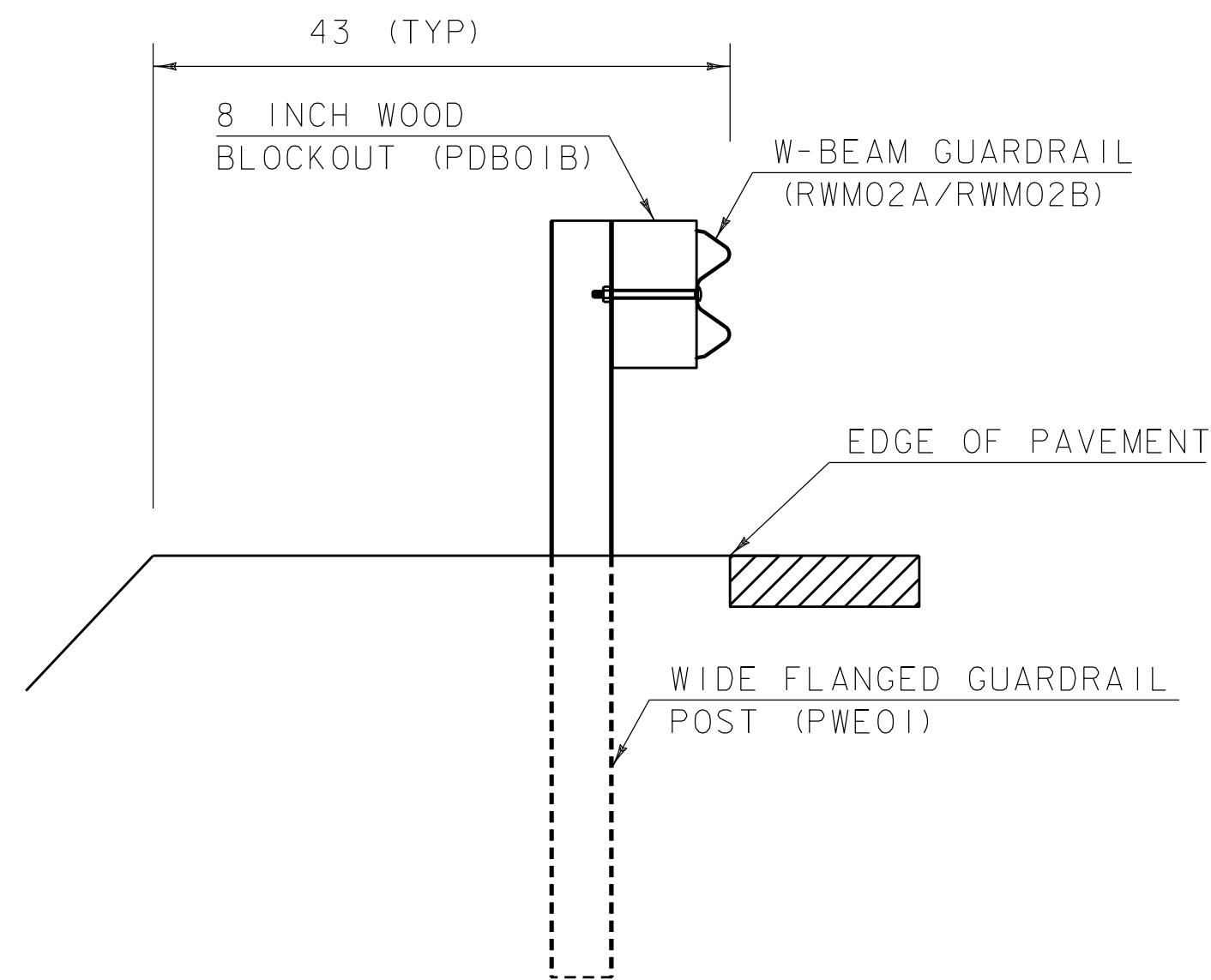
#### NOTES:

- I. LINE ONE SHALL INDICATE THE INSTALLATION YEAR (YYYY).
- II. LINE TWO SHALL INDICATE THE MODEL AS IDENTIFIED ON THE APPROVED PRODUCTS LIST. FOR GENERIC INSTALLATIONS THE STANDARD DRAWING DESIGNATION OR NAME AS IDENTIFIED IN THE FHWA ELIGIBILITY LETTER SHALL BE USED.
- III. LINE THREE SHALL INDICATE ADDITIONAL MODEL INFORMATION IF NECESSARY.
- IV. LINE FOUR SHALL INDICATE FLARED (FLRD) OR TANGENT (TANG).
5. LEGEND SHALL BE SIZE 3/4 INCH ARIEL FONT.
6. LEGEND SHALL BE BLACK ON A WHITE BACKGROUND, LEGEND AND BACKGROUND SHALL NOT BE REFLECTIVE.
7. SUITABLE MATERIAL SHALL BE USED SO AS TO NOT DETERIORATE DURING EXPOSURE TO WEATHER.
8. LABELS SHALL BE APPLIED IN SUCH A WAY THAT THEY REMAIN INTACT DURING THE LIFE OF THE TERMINAL.
9. FOR W-BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE TOP OF POST ONE FACING AWAY FROM TRAFFIC.
10. FOR BOX BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE BOX BEAM ADJACENT TO POST ONE FACING AWAY FROM TRAFFIC.
- II. PAYMENT SHALL BE INCIDENTAL TO OTHER TRAFFIC BARRIER ITEMS.

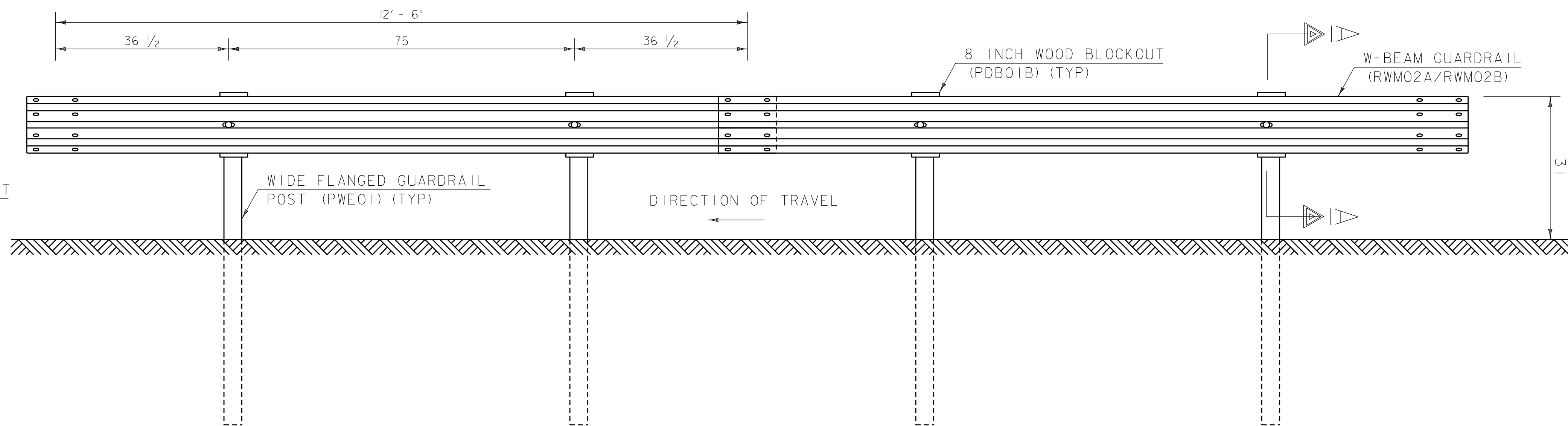
## MISCELLANEOUS GUARDRAIL DETAILS



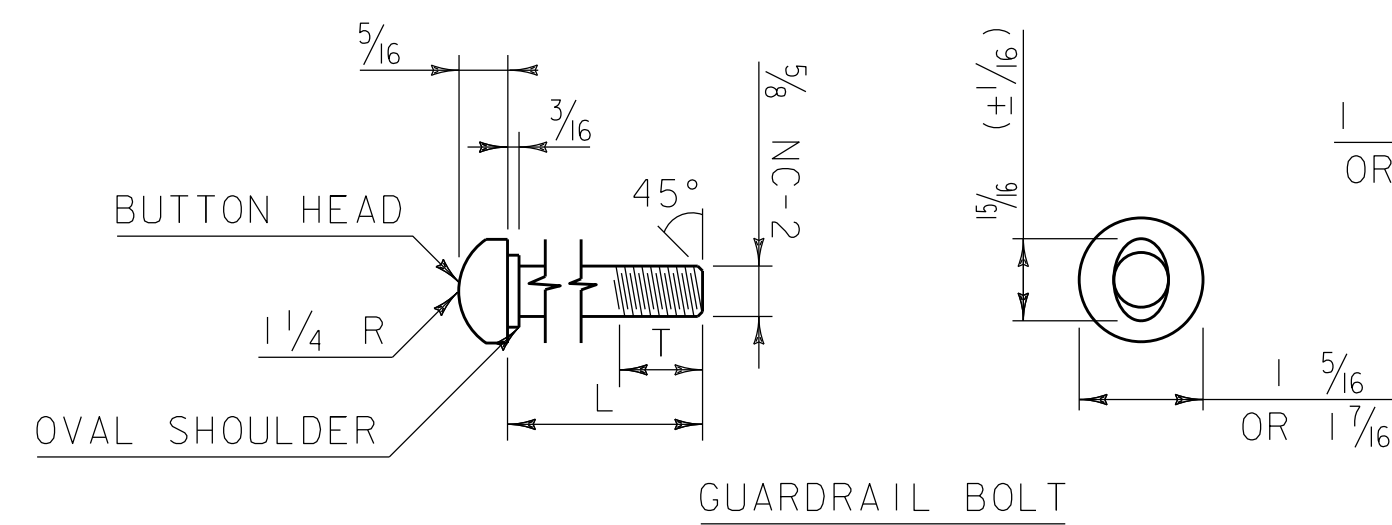
HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.06



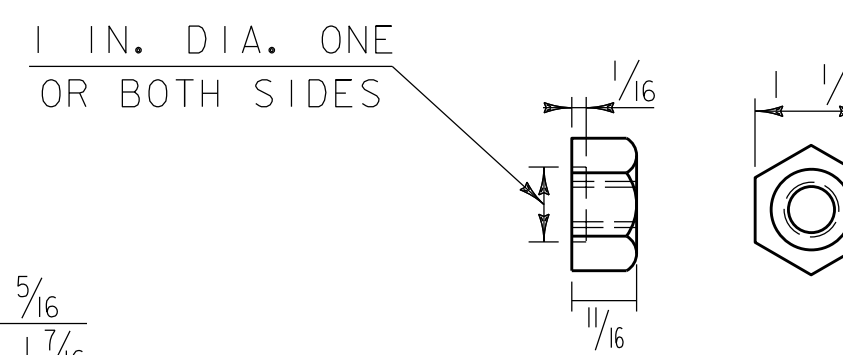
TYPICAL GUARDRAIL DETAIL  
SECTION A-A



GUARDRAIL ELEVATION

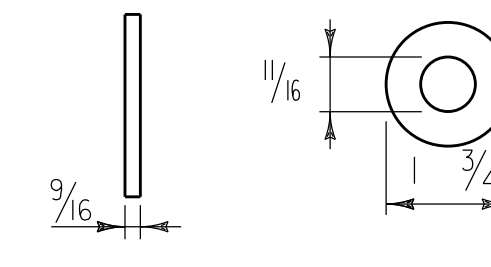


GUARDRAIL BOLT



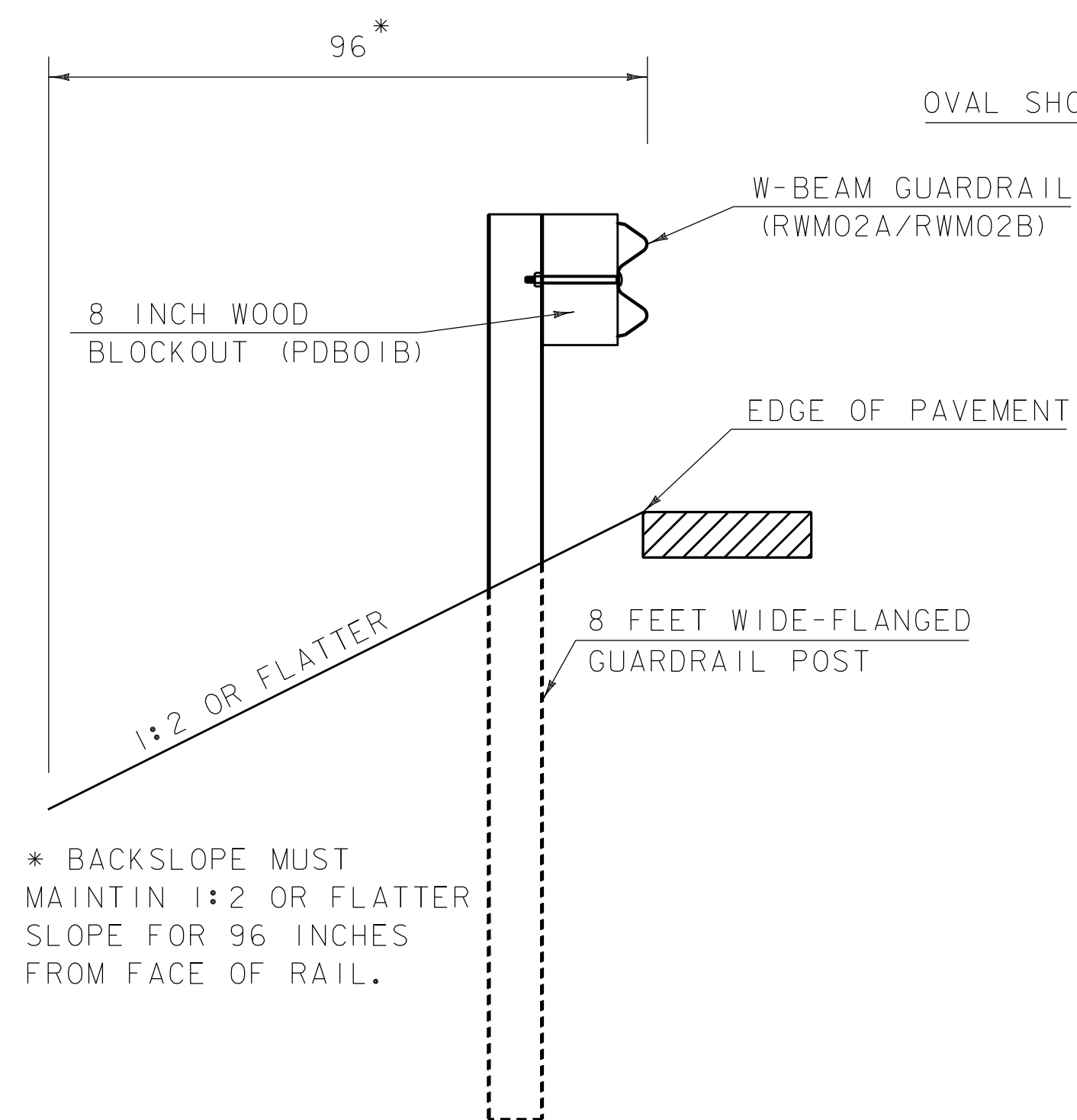
RECESSED NUT FOR GUARDRAIL BOLT

NOTE: WASHER IS USED UNDER RECESSED NUT WHERE GUARDRAIL BOLT IS USED WITH WOOD POSTS.

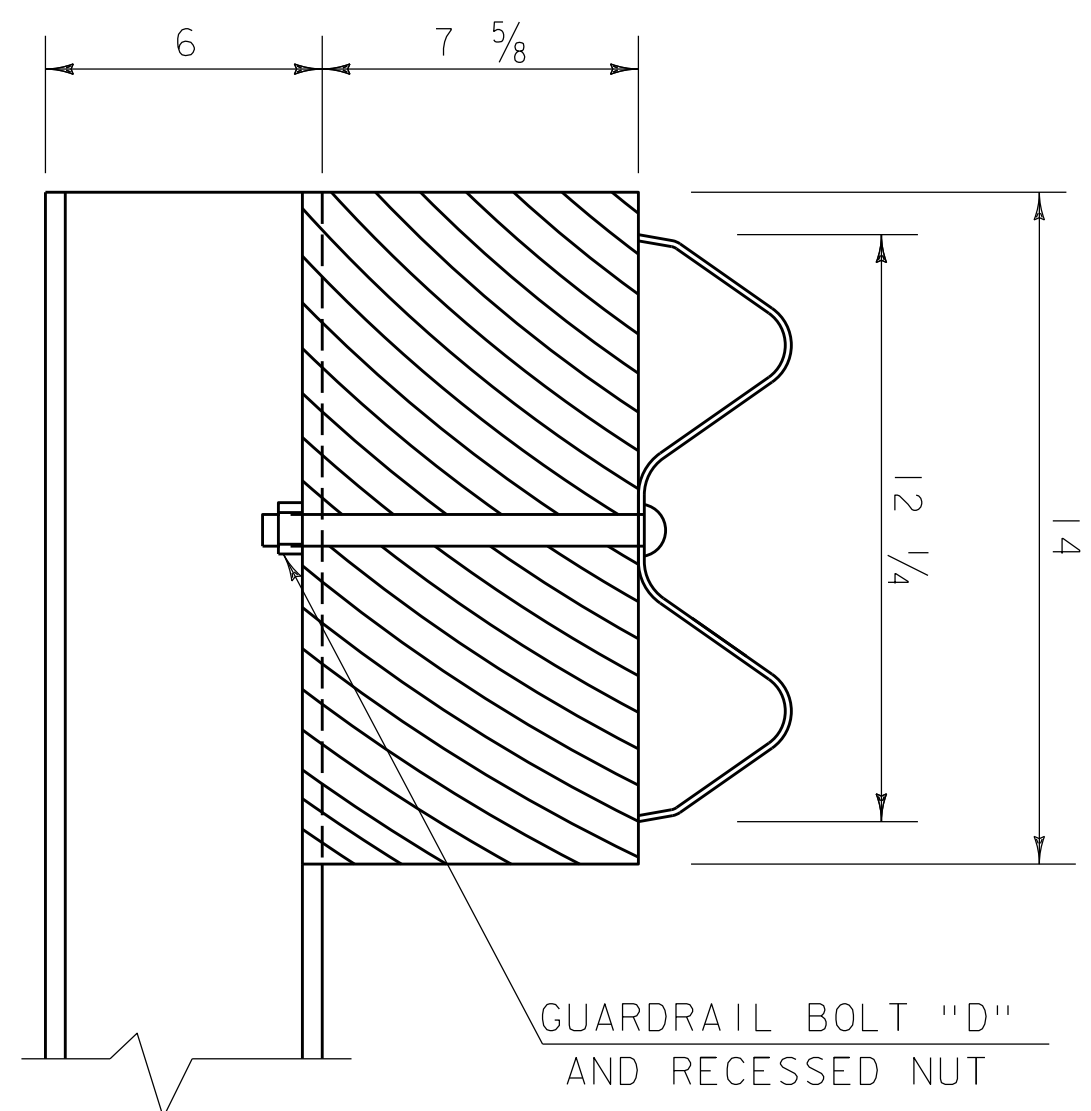


WASHER FOR 5/8" BOLTS  
ARTBA F-13-73

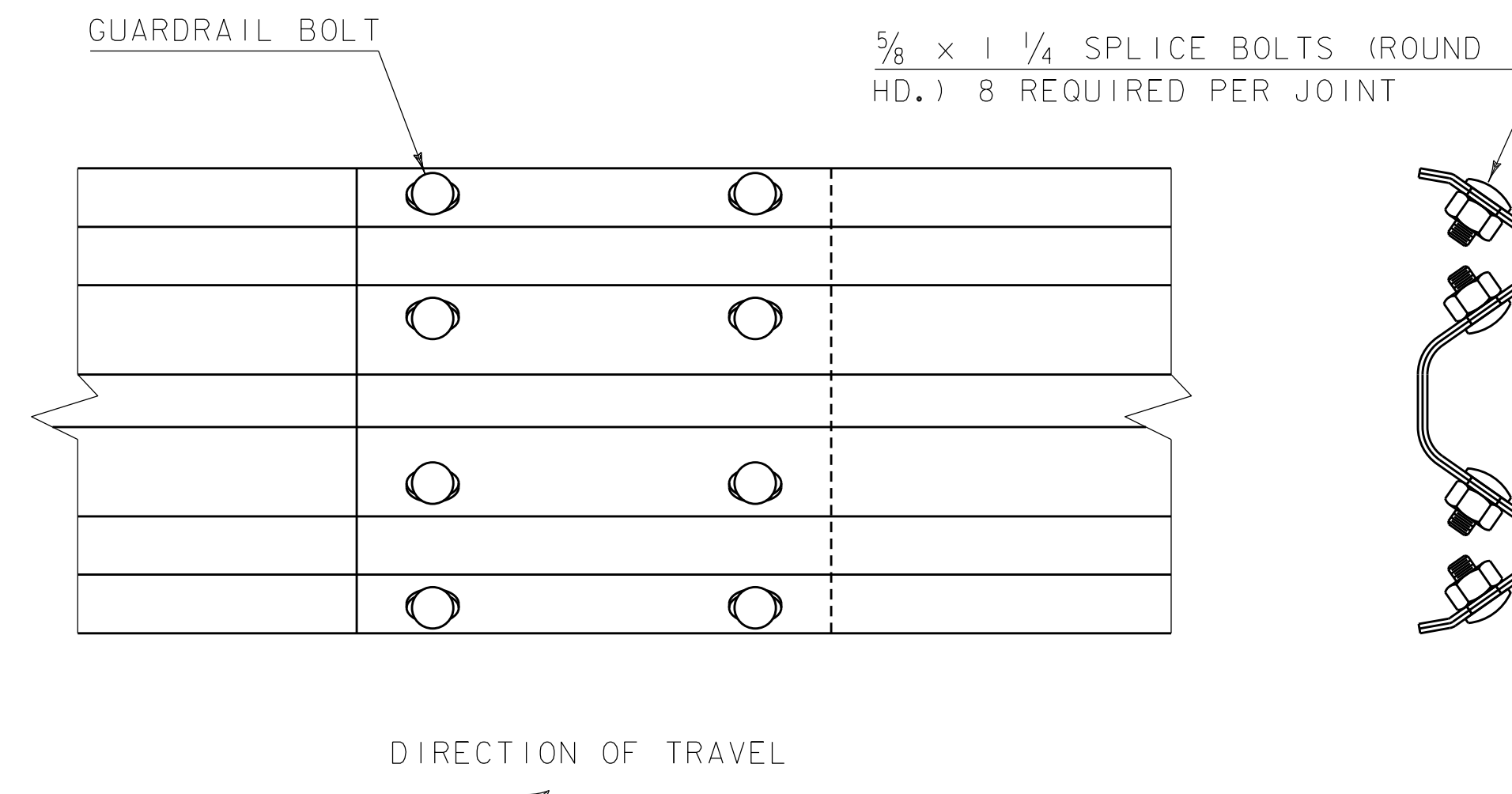
GUARDRAIL BOLTS				FASTENER USED IN	
BOLT DES.	ARTBA REF. NO.	L	T (MIN.)	STEEL POSTS	WOOD POSTS
"A"	F-3[1 1/4]-76	1 1/4"	1"	X	X
"C"	F-3[9 1/2]-76	9 1/2"	1 3/4"	X	
"D"	F-3[18]-76	18"	2 1/2"		X
"F"	F-3[25]-76	25"	2"		X



8 FEET POSTS GUARDRAIL DETAIL  
SECTION A-A



POST ATTACHMENT DETAIL



SPLICE DETAIL

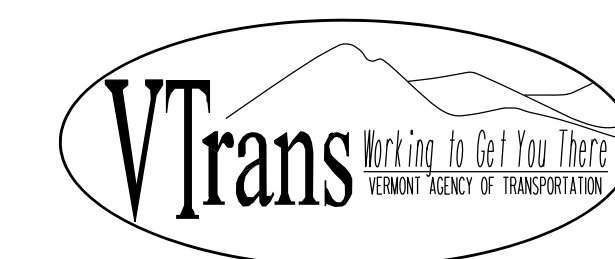
* BACKSLOPE MUST MAINTAIN 1:2 OR FLATTER SLOPE FOR 96 INCHES FROM FACE OF RAIL.

GENERAL NOTES

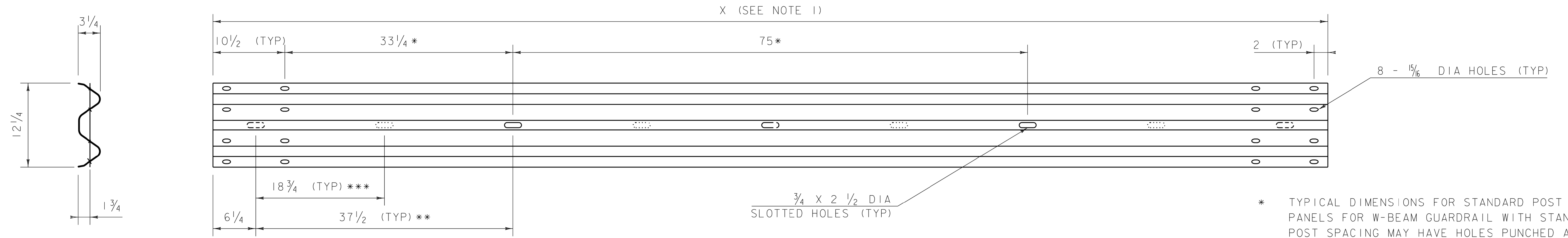
- DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
- MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
- WHEN W-BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED ON THE PLANS, WIDE FLANGED GUARDRAIL POST (PWE01) SHALL BE INCREASED FROM 72 INCHES TO 96 INCHES, SEE DETAIL HSD-621.07B.
- THE DYNAMIC DEFLECTION DISTANCE OF 57 INCHES FOR W BEAM GUARDRAIL SHALL BE MAINTAINED CLEAR OF OBSTACLES, TO BE MEASURED FROM THE BACK OF POST.
- FOR TEST LEVEL 3 APPLICATIONS, AS APPROVED IN THE FEDERAL HIGHWAY ADMINISTRATION'S ELIGIBILITY LETTER, HSST/B-240, DATED NOVEMBER 8, 2012.
- ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
I	JAN. 4, 2021	CORRECTED REFERENCE IN NOTE 3
OTHER DETAILS REQUIRED:		621.07B
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

MIDWEST GUARDRAIL SYSTEM (MGS)



HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.07A



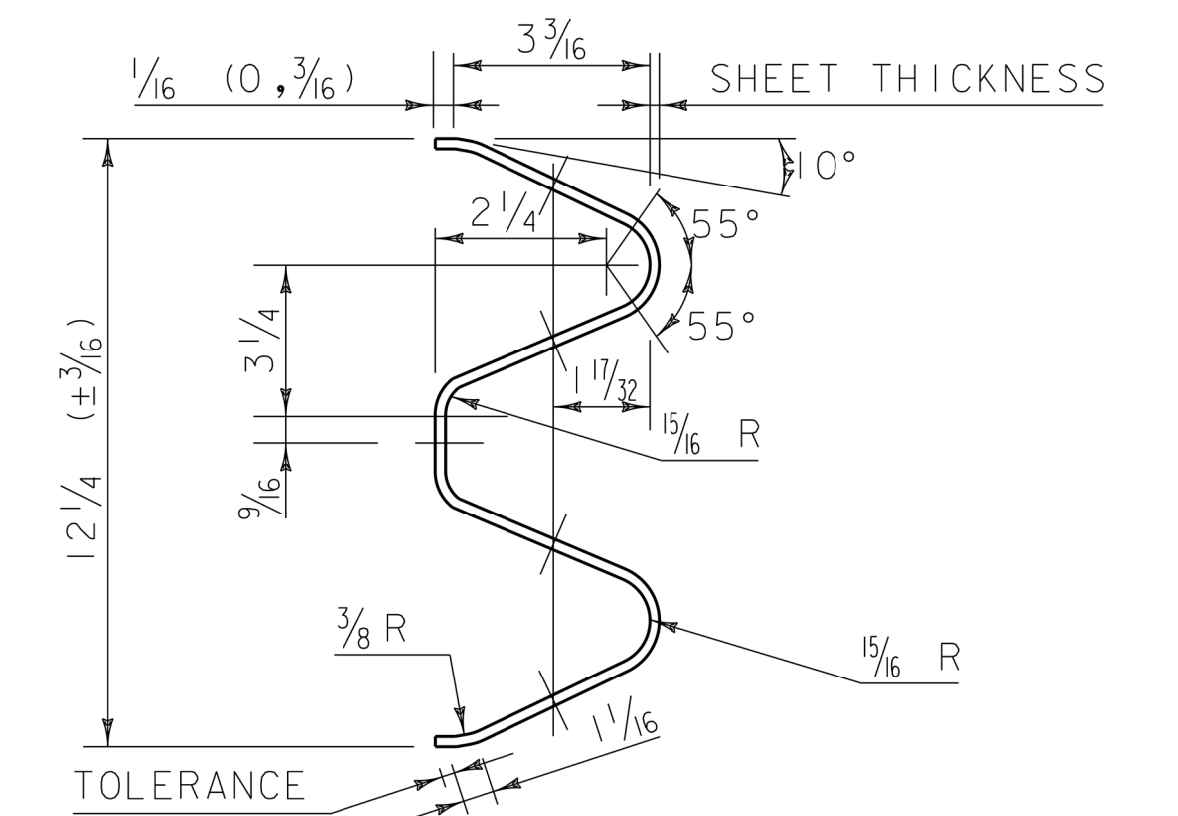
**W-BEAM GUARDRAIL**  
(RWM02A/ RWM02B)

- * TYPICAL DIMENSIONS FOR STANDARD POST SPACING. PANELS FOR W-BEAM GUARDRAIL WITH STANDARD POST SPACING MAY HAVE HOLES PUNCHED AT ONE-HALF POST SPACING FOR INVENTORY PURPOSES.
- ** TYPICAL DIMENSION FOR ONE-HALF POST SPACING.
- *** TYPICAL DIMENSION FOR ONE-QUARTER POST SPACING.

1. TANGENT W-BEAM RAIL LENGTHS SHALL BE 13'-6 1/2" OR 26'-1/2", UNLESS OTHERWISE SPECIFIED.
2. W-BEAM THICKNESS SHALL BE 1/8" FOR STANDARD W-BEAM GUARDRAIL (RWM02A) AND 3/64" FOR HEAVY DUTY GUARDRAIL (RWM02B).

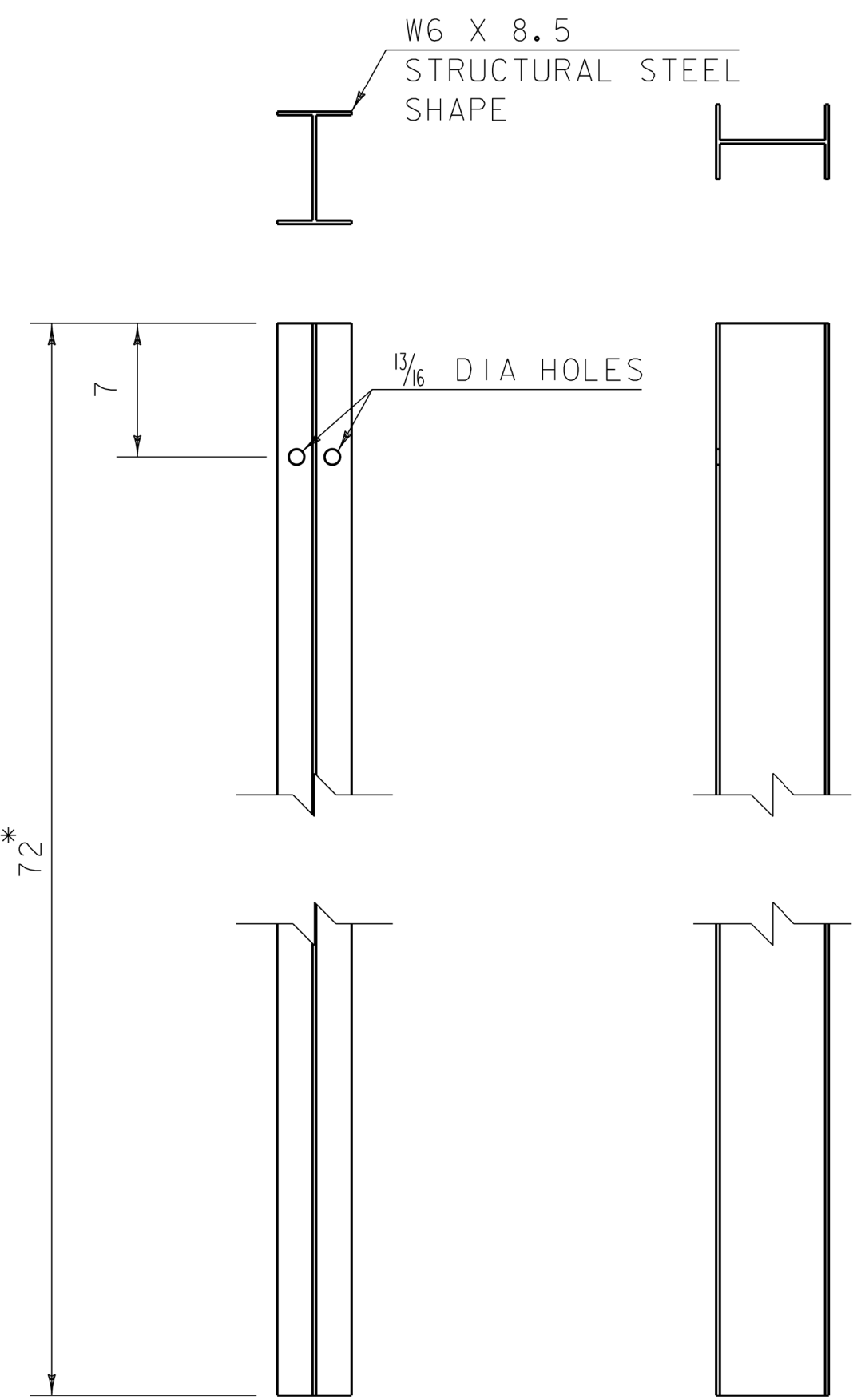
**NOTES:**

1. BLOCKS SHALL BE MADE OF TIMBER WITH A STRESS GRADE OF 1200 PSI OR MORE. TESTING SHALL BE IN ACCORDANCE WITH WEST COAST LUMBER INSPECTION BUREAU, SOUTHERN PINE INSPECTION BUREAU OR OTHER APPROPRIATE ASSOCIATION. TIMBER FOR BLOCKS SHALL BE ROUGH SAWN (UNPLANED) WITH DIMENSIONS INDICATED. THE SIZE TOLERANCE OF ROUGH SAWN BLOCKS IN THE DIRECTION OF THE BOLT HOLES SHALL BE NOT MORE THAN +/- 1/4".
2. SUPPLY WOOD BLOCKS PER AASHTO M 168.
3. TREAT WITH PRESERVATIVE PER AASHTO M 133.
4. BLOCKOUTS MAY ALSO BE MADE OF APPROVED ALTERNATIVE MATERIAL.

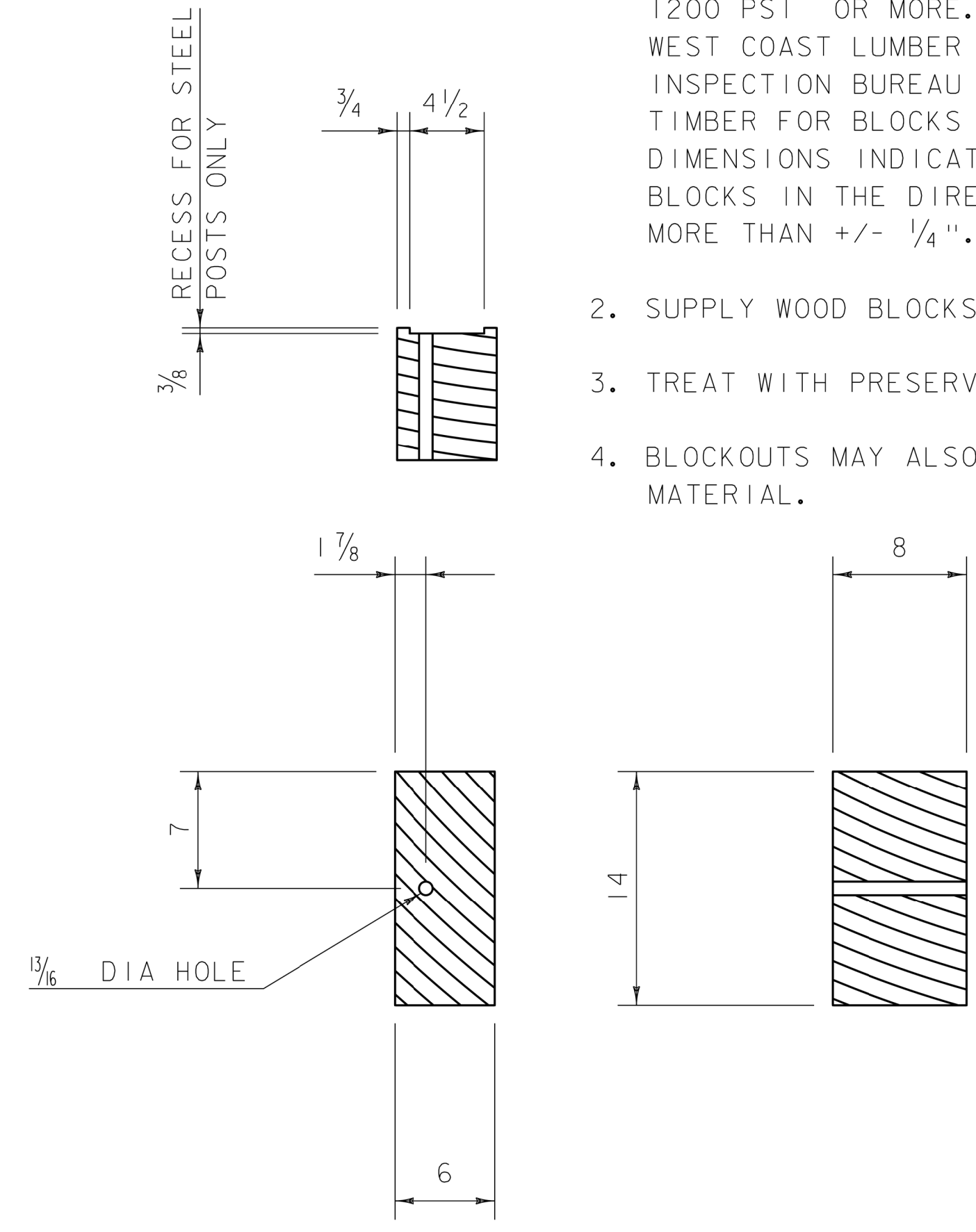


ARTBA RE-3 (2@6' - 3" = 12' - 6" CLASS A, TYPE 1) - 73

**TYPICAL GUARDRAIL SECTION**



**WIDE FLANGED GUARDRAIL POST**  
(PWE01)



**8 INCH WOOD BLOCKOUT**  
(PDB01B)

**GENERAL NOTES**

1. DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
2. MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
3. ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

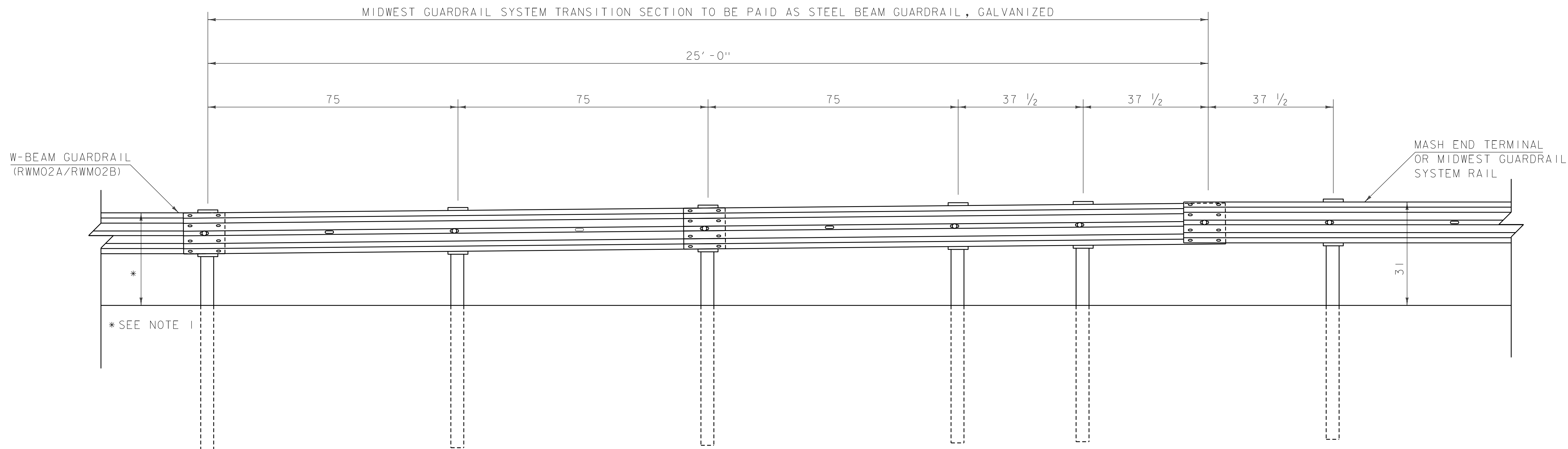
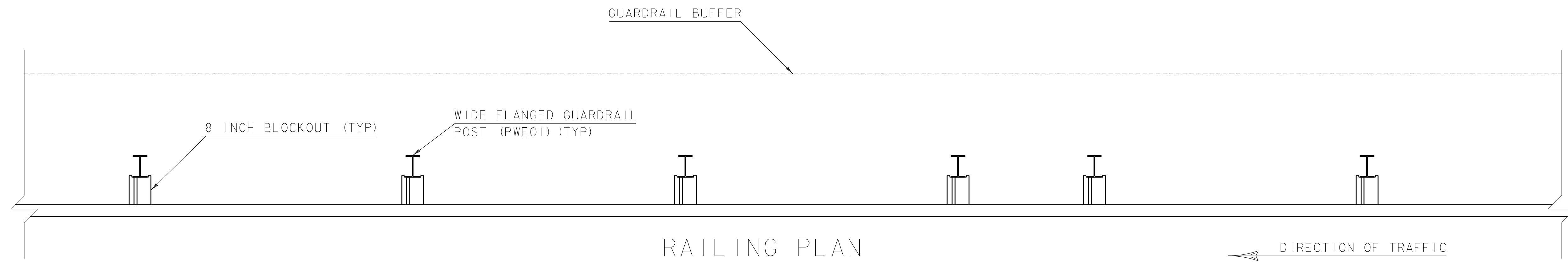
* POST LENGTH SHALL BE INCREASED TO 96 INCHES WHEN W BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
OTHER DETAILS REQUIRED: NONE		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

**W-BEAM GUARDRAIL COMPONENTS**



**HIGHWAY SAFETY**  
& DESIGN DETAIL  
**HSD - 621.07B**



RAILING ELEVATION

GENERAL NOTES

1. THE HEIGHT OF RAIL AT THE END OF THIS TRANSITION SHALL MATCH THE DESIGN FOR THE APPLICABLE GUARDRAIL SYSTEM.
2. TRANSITIONS FROM 31 INCH HIGH MIDWEST GUARDRAIL SYSTEM TO OTHER RAIL SYSTEMS SHALL BE ACCOMPLISHED WITH 2 STANDARD 12 1/2 FOOT SECTIONS OF W-BEAM RAIL.
3. POSTS, BLOCKOUTS AND SPLICES SHALL BE IN ACCORDANCE WITH DETAILS HSD-621.07A AND HSD-621.07B AND LOCATED AS SHOWN IN THE DETAILS ABOVE.
4. STANDARD 6 FOOT POSTS SHALL BE USED UNLESS OTHERWISE NOTED ON PLANS.
5. END TERMINAL SHALL BE A VTRANS APPROVED PRODUCT MEETING MASH TESTING CRITERIA. ANY TERMINAL USED SHALL BE FROM THE VTRANS APPROVED PRODUCTS LIST.
6. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE NOTED.

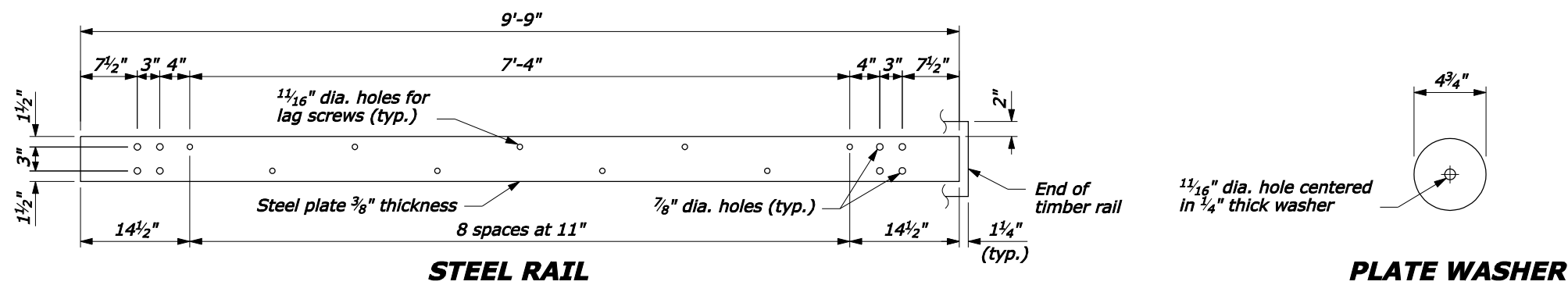
REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
I	JAN. 4, 2021	CORRECTED NOTE 3 REFERENCES
OTHER DETAILS REQUIRED: HSD-621.07A, HSD-621.07B		
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN		

## MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION

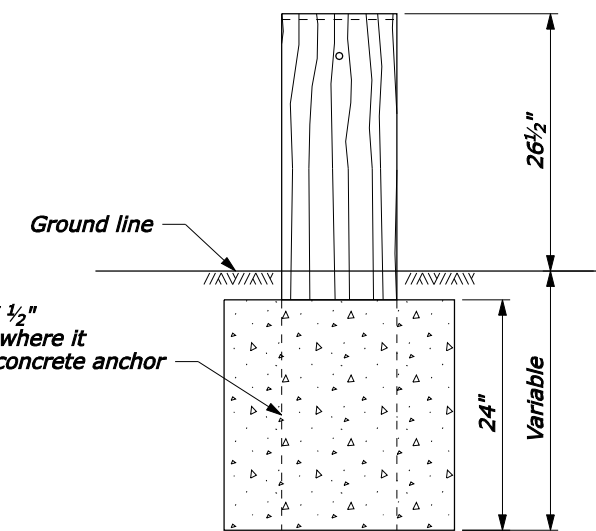
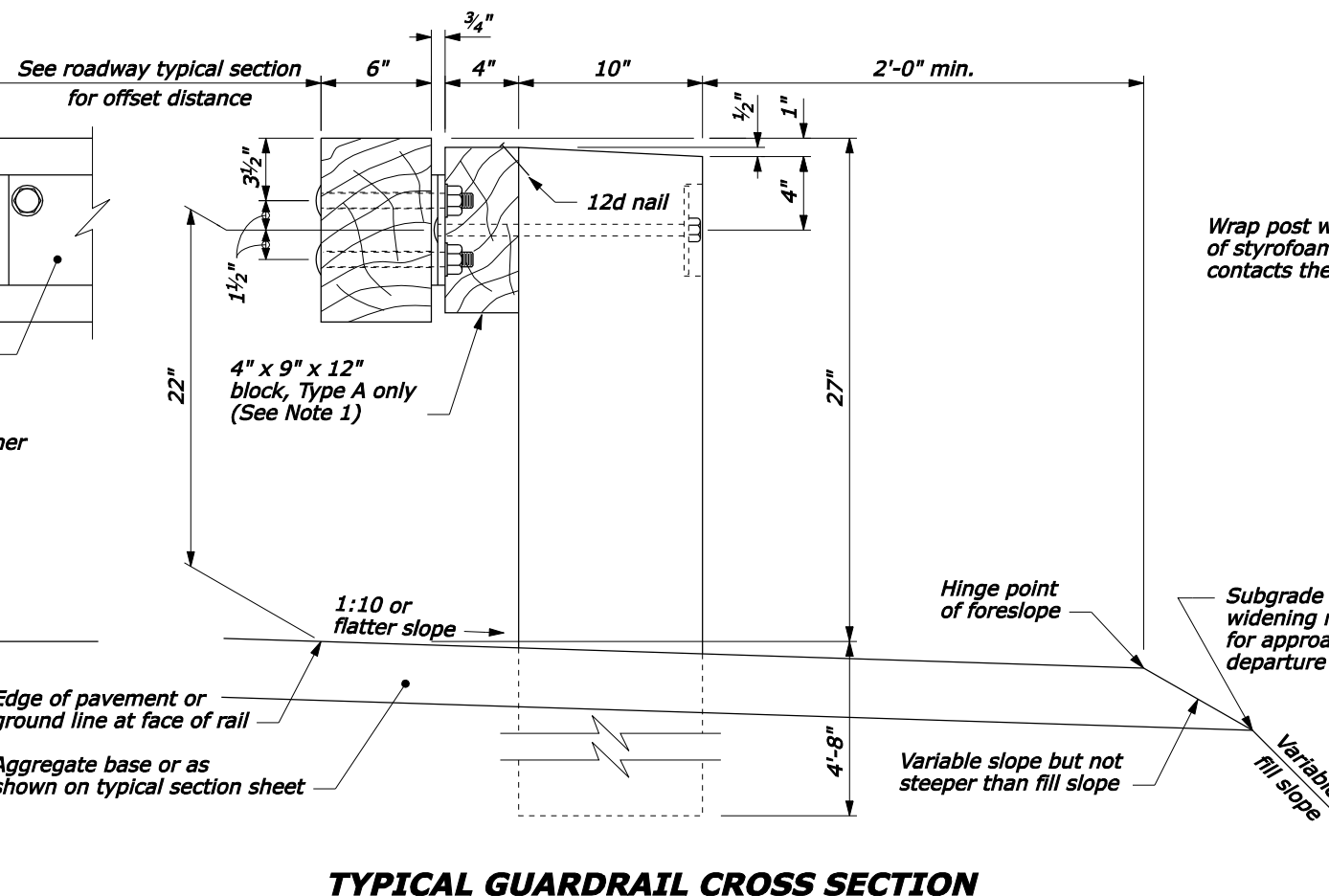
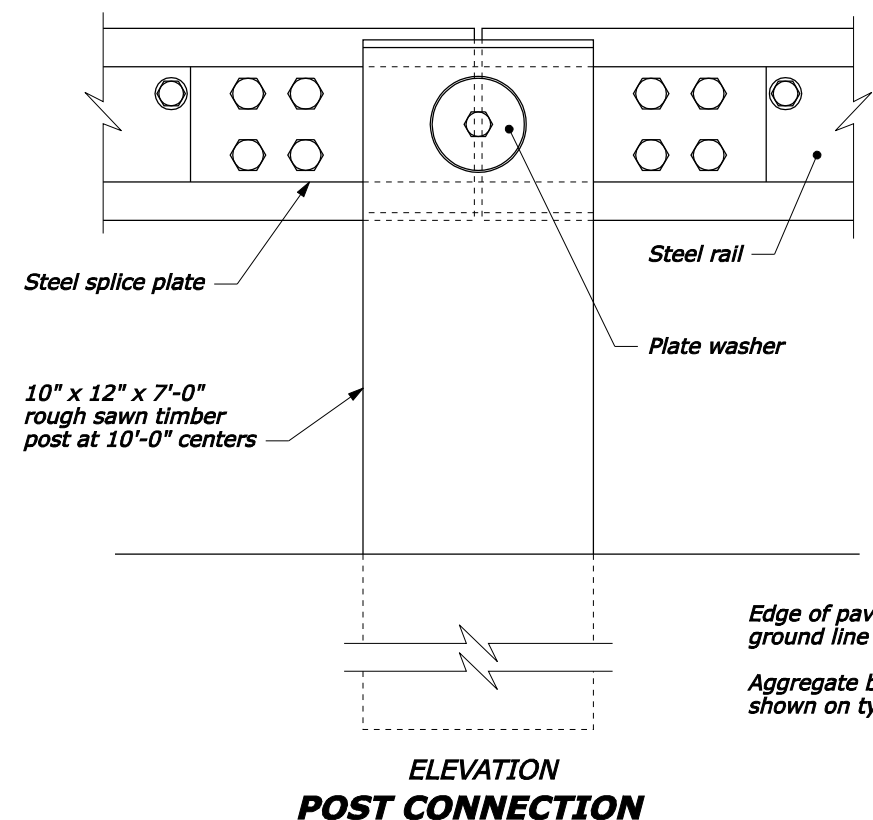
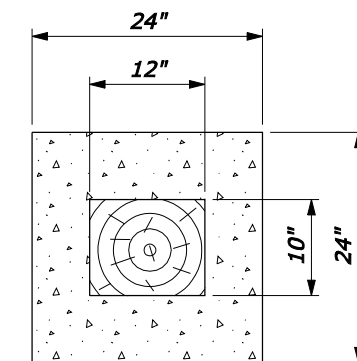
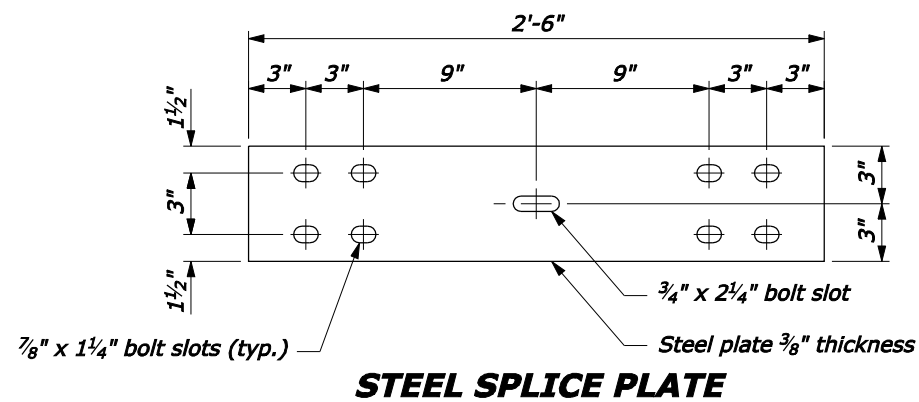
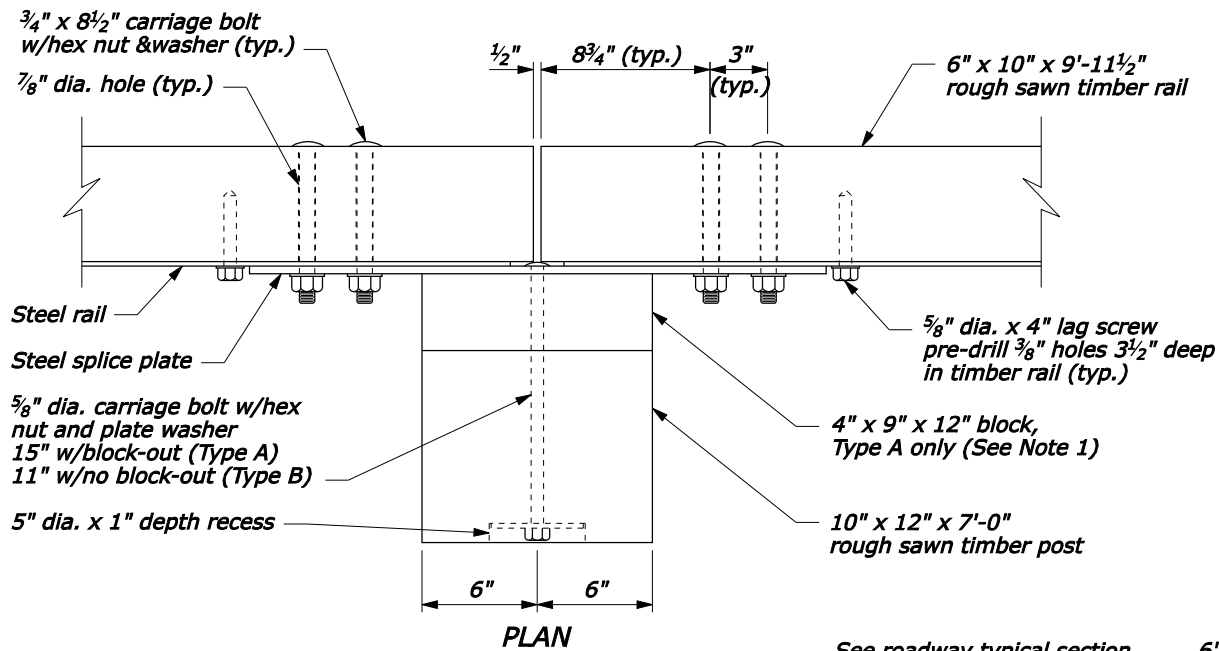


HIGHWAY SAFETY  
& DESIGN DETAIL  
HSD-621.07F





- NOTE:**
1. Use the Type A, blocked-out, system or the Type B, non-blocked-out, system as specified in the plans.
  2. Use weathering steel for all structural steel and fastener hardware as specified.
  3. Place a terminal section (See Standards 617-61 and 617-62) on both approach and trailing ends of barrier installations.



24" dia. round anchor is an acceptable alternative. Reduced size acceptable in solid rock.

**CONCRETE ANCHOR FOR SHORT GUARDRAIL POST**

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
<b>STEEL-BACKED TIMBER GUARDRAIL TYPE A &amp; TYPE B</b>	
STANDARD APPROVED FOR USE 3/1990	STANDARD
REVISED: 4/1994 6/2005	617-60

20:56:00 03/20/08 06:42 AM [US Customary.dgn] [US Customary.dgn] 2007 06:42 AM