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STRUCTURES DETAIL SHEETS

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: April 2015

DRAINAGE AREA : 56.8 sq. mi (Total for Gihon River at Bridges 1 and 2)  
 CHARACTER OF TERRAIN : Hilly to mountainous, mixed land cover  
 STREAM CHARACTERISTICS : Well defined banks, incised, semi-alluvial and sinuous  
 NATURE OF STREAMBED : Mostly gravel and cobbles with some boulders and ledge

PEAK FLOW DATA

Q 2.33 =	1,510 cfs *	Q 50 =	5,820 cfs
Q 10 =	3,325 cfs	Q 100 =	7,330 cfs
Q 25 =	4,600 cfs	Q 500 =	12,920 cfs

DATE OF FLOOD OF RECORD : Unknown  
 ESTIMATED DISCHARGE : Unknown  
 WATER SURFACE ELEV. : Unknown  
 NATURAL STREAM VELOCITY : @ Q50 = 9.8 fps  
 ICE CONDITIONS : Moderate  
 DEBRIS : Moderate  
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? : No  
 IS ORDINARY RISE RAPID? : No  
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? : No  
 IF YES, DESCRIBE :

WATERSHED STORAGE : 1% HEADWATERS : X  
 UNIFORM :  
 IMMEDIATELY ABOVE SITE :

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE : Single span concrete T-beam bridge  
 YEAR BUILT : 1929  
 CLEAR SPAN(NORMAL TO STREAM) : 33'  
 VERTICAL CLEARANCE ABOVE STREAMBED : 13'  
 WATERWAY OF FULL OPENING : 410 sq. ft.  
 DISPOSITION OF STRUCTURE : Replace superstructure  
 TYPE OF MATERIAL UNDER SUBSTRUCTURE : Unknown, may be ledge

WATER SURFACE ELEVATIONS AT:

Q2.33 =	569.6'	VELOCITY =	7.1 fps
Q10 =	571.7'	"	9.2 fps
Q25 =	572.8'	"	8.9 fps
Q50 =	574.1'	"	9.3 fps
Q100 =	576.0'	"	11.0 fps

LONG TERM STREAMBED CHANGES : None noted.

IS THE ROADWAY OVERTOPPED BELOW Q100: No  
 FREQUENCY: Above Q100  
 RELIEF ELEVATION: 579.8'  
 DISCHARGE OVER ROAD @Q100: None

UPSTREAM STRUCTURE

TOWN: Johnson DISTANCE: 4,100'  
 HIGHWAY #: TH 33 STRUCTURE #: CB 30  
 CLEAR SPAN: 37' CLEAR HEIGHT: 10'  
 YEAR BUILT: 1870 FULL WATERWAY: 370 sq. ft.  
 STRUCTURE TYPE: Single span covered bridge

DOWNSTREAM STRUCTURE

TOWN: Johnson DISTANCE: 4,100'  
 HIGHWAY #: TH 3 STRUCTURE #: 4  
 CLEAR SPAN: 54' CLEAR HEIGHT: 19'  
 YEAR BUILT: 1959 FULL WATERWAY: Unknown  
 STRUCTURE TYPE: Single span covered bridge on steel beams

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A STR.	4A STR.	5A SEMI
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY							
POSTING							
OPERATING							
COMMENTS:							

AS BUILT "REBAR" DETAIL

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

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT	
2016	2800	320	66	5.1	190	20 year ESAL for flexible pavement from 2016 to 2036 : 1841000
2036	2900	330	66	7.6	290	40 year ESAL for flexible pavement from 2016 to 2056 : 4370000
						Design Speed : 25 mph

PROPOSED STRUCTURE

STRUCTURE TYPE: Single span solid slab unit superstructure  
 CLEAR SPAN(NORMAL TO STREAM): 33'  
 VERTICAL CLEARANCE ABOVE STREAMBED: 14'  
 WATERWAY OF FULL OPENING: 450 sq. ft.

WATER SURFACE ELEVATIONS AT:

Q2.33 =	569.6	VELOCITY=	7.1 fps
Q10 =	571.6'	"	9.2 fps
Q25 =	572.8'	"	8.9 fps
Q50 =	574.1'	"	9.2 fps
Q100 =	575.9'	"	10.7 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: No  
 FREQUENCY: Above Q100  
 RELIEF ELEVATION: 479.8'  
 DISCHARGE OVER ROAD @Q100: None

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 579.3'  
 VERTICAL CLEARANCE: @ Q50 = 5.2'

SCOUR: Design for 6' minimum or to ledge.

REQUIRED CHANNEL PROTECTION: Stone Fill, Type IV as needed

PERMIT INFORMATION

AVERAGE DAILY FLOW: - DEPTH OR ELEVATION:  
 ORDINARY LOW WATER: -  
 ORDINARY HIGH WATER: - Depth = 3.0'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: No temporary bridge required. An offsite detour will be used.  
 CLEAR SPAN (NORMAL TO STREAM):  
 VERTICAL CLEARANCE ABOVE STREAMBED:  
 WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

\*The Gihon River splits into two channels that flow through Bridges 1 and 2. The flows listed are the total flows for the river upstream and through the bridges. Flows are higher downstream of the confluence of Bell Brook.

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN TRAFFIC ON AN OFF SITE DETOUR.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. THERE ARE NO SIDEWALKS

DESIGN VALUES

1. DESIGN LIVE LOAD HL-93
2. FUTURE PAVEMENT dp: 3.0 INCH
3. DESIGN SPAN L: 37.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS) Δ: ---
5. PRESTRESSING STRAND (0.50 INCH DIAMETER - LOW RELAX) fy: ---
6. PRESTRESSED CONCRETE STRENGTH f'c: ---
7. PRESTRESSED CONCRETE RELEASE STRENGTH f'cr: ---
8. CONCRETE, HIGH PERFORMANCE CLASS AA f'c: ---
9. CONCRETE, HIGH PERFORMANCE CLASS A f'c: ---
10. CONCRETE, HIGH PERFORMANCE CLASS B f'c: ---
11. CONCRETE, CLASS C f'c: ---
12. REINFORCING STEEL fy: ---
13. STRUCTURAL STEEL AASHTO M270 fy: ---
14. NOMINAL BEARING RESISTANCE OF SOIL qn: ---
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) φ: ---
16. NOMINAL BEARING RESISTANCE OF ROCK qn: ---
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) φ: ---

18. PILE RESISTANCE FACTOR φ: ---
19. LATERAL PILE DEFLECTION Δ: ---
20. BASIC WIND SPEED V3s: ---
21. MINIMUM GROUND SNOW LOAD pg: ---
22. SEISMIC DATA PGA: 0 Ss: --- S1: ---

23. ---  
 24. ---  
 25. ---  
 26. ---

PROJECT NAME: JOHNSON  
 PROJECT NUMBER: BF 0248(4)  
 FILE NAME: z13c066PI Sheet Builder\_BR.1 PLOT DATE: 6/19/2015  
 PROJECT LEADER: W. PELLETTIER DRAWN BY: P. ROTH  
 DESIGNED BY: J. NAJDOWSKI CHECKED BY:  
 PRELIMINARY INFORMATION SHEET (BRIDGE 1) SHEET 2 OF 47

INDEX OF SHEETS

SEE PRELIMINARY INFORMATION SHEET (BRIDGE 1) FOR INDEX

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: April 2015

DRAINAGE AREA : 56.8 sq. mi (Total for Gihon River at Bridges 1 and 2)  
 CHARACTER OF TERRAIN : Hilly to mountainous, mixed land cover  
 STREAM CHARACTERISTICS : Well defined banks, incised, semi-alluvial and sinuous  
 NATURE OF STREAMBED : Mostly gravel and cobbles with some boulders and ledge

PEAK FLOW DATA

Q 2.33 = 1,510 cfs \*                      Q 50 = 5,820 cfs  
 Q 10 = 3,325 cfs                          Q 100 = 7,330 cfs  
 Q 25 = 4,600 cfs                          Q 500 = 12,920 cfs

DATE OF FLOOD OF RECORD : Unknown  
 ESTIMATED DISCHARGE : Unknown  
 WATER SURFACE ELEV. : Unknown  
 NATURAL STREAM VELOCITY : @ Q50 = 14.5 fps  
 ICE CONDITIONS : Moderate  
 DEBRIS : Moderate  
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? : No  
 IS ORDINARY RISE RAPID? : No  
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? : No  
 IF YES, DESCRIBE : \_\_\_\_\_

WATERSHED STORAGE : 1%                      HEADWATERS : X  
 UNIFORM : \_\_\_\_\_  
 IMMEDIATELY ABOVE SITE : \_\_\_\_\_

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE : Single span concrete T-beam bridge  
 YEAR BUILT : 1928  
 CLEAR SPAN(NORMAL TO STREAM) : 50'  
 VERTICAL CLEARANCE ABOVE STREAMBED : 10'  
 WATERWAY OF FULL OPENING : 440 sq. ft.  
 DISPOSITION OF STRUCTURE : Replace superstructure  
 TYPE OF MATERIAL UNDER SUBSTRUCTURE : Ledge

WATER SURFACE ELEVATIONS AT:

Q2.33 = 571.2'                      VELOCITY = 9.6 fps  
 Q10 = 573.8'                          "                      12.4 fps  
 Q25 = 575.5'                          "                      13.6 fps  
 Q50 = 576.9'                          "                      14.6 fps  
 Q100 = 578.1'                          "                      15.3 fps

LONG TERM STREAMBED CHANGES : None noted.

IS THE ROADWAY OVERTOPPED BELOW Q100: No  
 FREQUENCY: Above Q100  
 RELIEF ELEVATION: 579.8'  
 DISCHARGE OVER ROAD @Q100: None

UPSTREAM STRUCTURE

TOWN: Johnson                                      DISTANCE: 4,100'  
 HIGHWAY #: TH 33                                      STRUCTURE #: CB 30  
 CLEAR SPAN: 37'    CLEAR HEIGHT: 10'  
 YEAR BUILT: 1870    FULL WATERWAY: 370 sq. ft.  
 STRUCTURE TYPE: Single span covered bridge

DOWNSTREAM STRUCTURE

TOWN: Johnson                                      DISTANCE: 4,100'  
 HIGHWAY #: TH 3    STRUCTURE #: 4  
 CLEAR SPAN: 54'    CLEAR HEIGHT: 19'  
 YEAR BUILT: 1959    FULL WATERWAY: Unknown  
 STRUCTURE TYPE: Single span covered bridge on steel beams

LRFR LOAD RATING FACTORS

LOADING LEVELS	TRUCK						
	H-20	HL-93	3S2	6 AXLE	3A STR.	4A STR.	5A SEMI
TONNAGE	20	36	36	66	30	34.5	38
INVENTORY							
POSTING							
OPERATING							
COMMENTS:							

AS BUILT "REBAR" DETAIL

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

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT	
2016	2800	320	66	5.1	190	20 year ESAL for flexible pavement from 2016 to 2036 : 1841000
2036	2900	330	66	7.6	290	40 year ESAL for flexible pavement from 2016 to 2056 : 4370000
						Design Speed : 25 mph

PROPOSED STRUCTURE

STRUCTURE TYPE: SINGLE SPAN PREFABRICATED BRIDGE UNIT STRUCTURE

CLEAR SPAN(NORMAL TO STREAM): 50'  
 VERTICAL CLEARANCE ABOVE STREAMBED: 11'  
 WATERWAY OF FULL OPENING: 500 sq. ft.

WATER SURFACE ELEVATIONS AT:

Q2.33 = 571.2'                      VELOCITY= 9.6 fps  
 Q10 = 573.8'                          "                      12.4 fps  
 Q25 = 575.5'                          "                      13.6 fps  
 Q50 = 576.9'                          "                      14.6 fps  
 Q100 = 577.9'                          "                      15.3 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: No  
 FREQUENCY: Above Q100  
 RELIEF ELEVATION: 579.8'  
 DISCHARGE OVER ROAD @Q100: None

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 577.4'  
 VERTICAL CLEARANCE: @ Q50 = 0.6'

SCOUR: Design for 6' minimum or to ledge. Both abutments are reportedly founded on sound ledge.  
 REQUIRED CHANNEL PROTECTION: Stone Fill, Type IV, as needed

PERMIT INFORMATION

AVERAGE DAILY FLOW: -                          DEPTH OR ELEVATION:  
 ORDINARY LOW WATER: -                          -  
 ORDINARY HIGH WATER: -                          Depth = 3.0'

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: No temporary bridge required. An offsite detour will be used.  
 CLEAR SPAN (NORMAL TO STREAM): \_\_\_\_\_  
 VERTICAL CLEARANCE ABOVE STREAMBED: \_\_\_\_\_  
 WATERWAY AREA OF FULL OPENING: \_\_\_\_\_

ADDITIONAL INFORMATION

\*The Gihon River splits into two channels that flow through Bridges 1 and 2. The flows listed are the total flows for the river upstream and through the bridges. Flows are higher downstream of the confluence of Bell Brook.

TRAFFIC MAINTENANCE NOTES

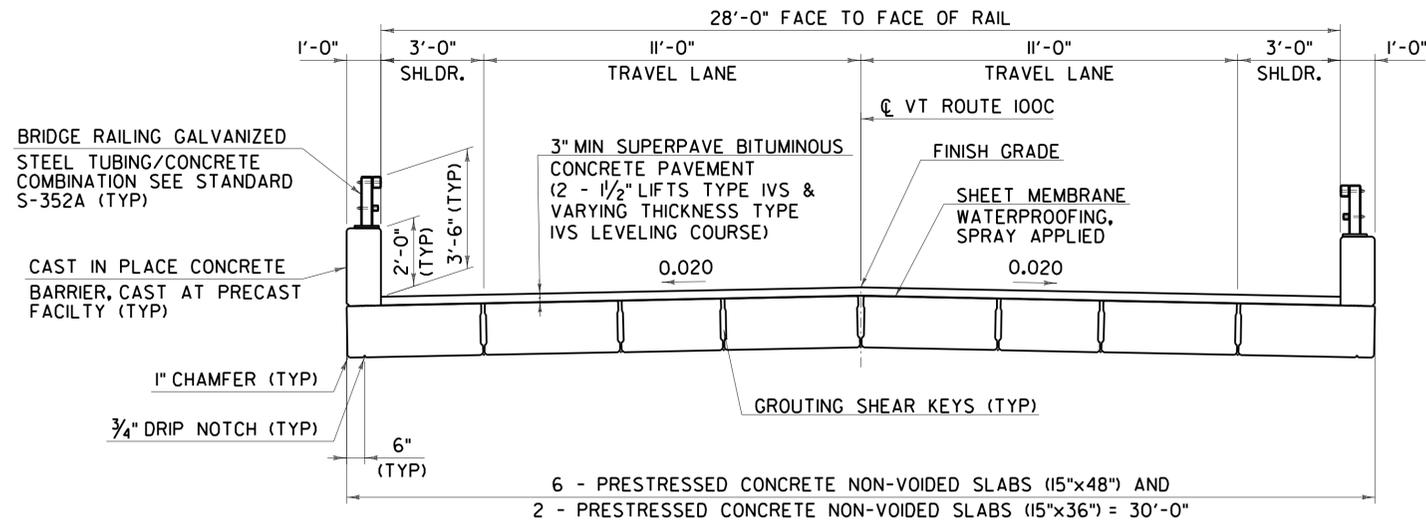
1. MAINTAIN TRAFFIC ON AN OFF SITE DETOUR.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. THERE ARE NO SIDEWALKS

DESIGN VALUES

1. DESIGN LIVE LOAD HL-93
2. FUTURE PAVEMENT dp: 3.0 INCH
3. DESIGN SPAN L: 51.55 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS) Δ: ---
5. PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX) fy: ---
6. PRESTRESSED CONCRETE STRENGTH f'ci: ---
7. PRESTRESSED CONCRETE RELEASE STRENGTH f'cr: ---
8. CONCRETE, HIGH PERFORMANCE CLASS AA f'c: ---
9. CONCRETE, HIGH PERFORMANCE CLASS A f'c: ---
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11. CONCRETE, CLASS C f'c: ---
12. REINFORCING STEEL fy: ---
13. STRUCTURAL STEEL AASHTO M270 fy: ---
14. NOMINAL BEARING RESISTANCE OF SOIL qn: ---
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) φ: ---
16. NOMINAL BEARING RESISTANCE OF ROCK qn: ---
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) φ: ---

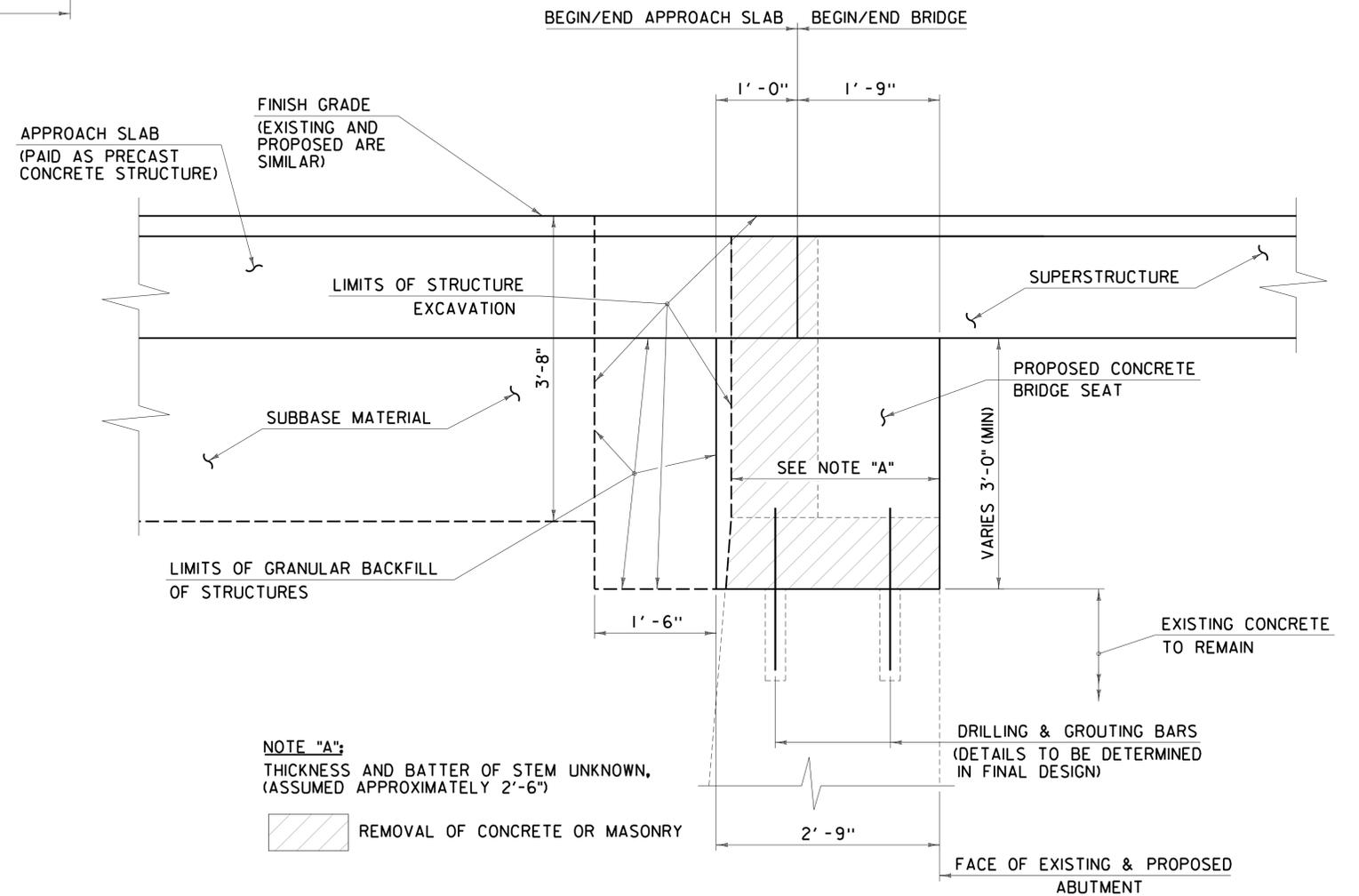
18. PILE RESISTANCE FACTOR φ: ---
19. LATERAL PILE DEFLECTION Δ: ---
20. BASIC WIND SPEED V3s: ---
21. MINIMUM GROUND SNOW LOAD pg: ---
22. SEISMIC DATA PGA: 0 Ss: --- S1: ---
23. ---
24. ---
25. ---
26. ---

PROJECT NAME: JOHNSON  
 PROJECT NUMBER: BF 0248(4)  
 FILE NAME: z13c066PI Sheet Builder\_BR2. PLOT DATE: 6/19/2015  
 PROJECT LEADER: W. PELLETIER DRAWN BY: P. ROTH  
 DESIGNED BY: J. NAJDOWSKI CHECKED BY:  
 PRELIMINARY INFORMATION SHEET (BRIDGE 2) SHEET 3 OF 47



**BRIDGE 1 TYPICAL SECTION**

SCALE: 3/8" = 1'-0"



NOTE "A":  
THICKNESS AND BATTER OF STEM UNKNOWN,  
(ASSUMED APPROXIMATELY 2'-6")

REMOVAL OF CONCRETE OR MASONRY

**TYPICAL ABUTMENT EARTHWORK SECTION - BRIDGE 1**

SCALE: 1" = 1'-0"

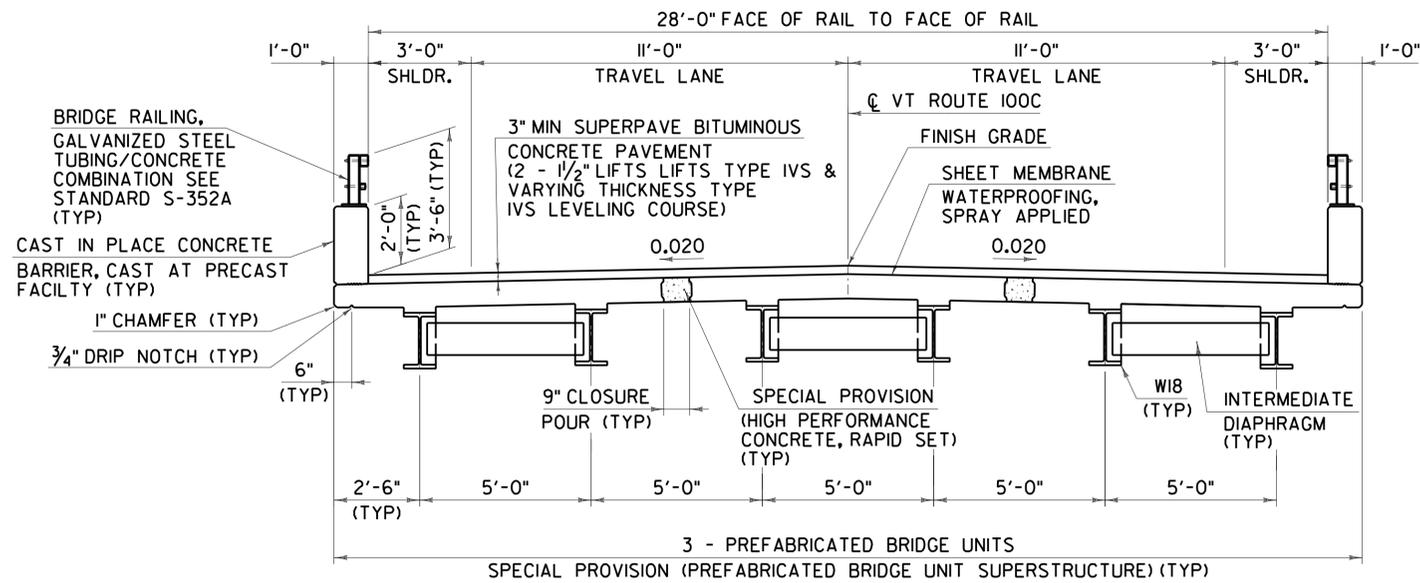
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PROJECT NUMBER: BF 0248 (4)

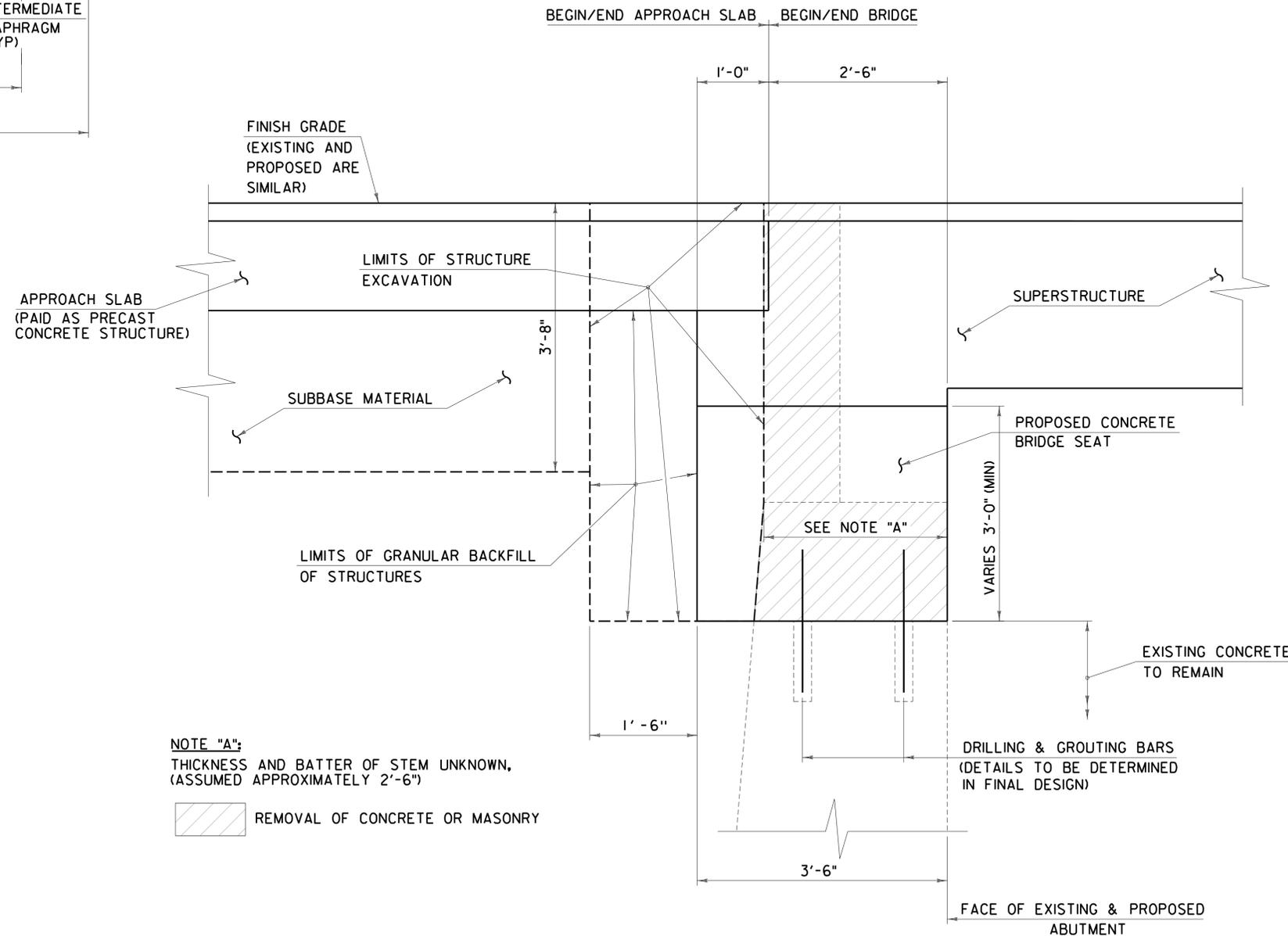
FILE NAME: z13c066typ\_01.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: J. NAJDOWSKI  
TYPICAL BRIDGE SECTION SHEET 1

PLOT DATE: 6/19/2015  
DRAWN BY: L. ROBERTS  
CHECKED BY:  
SHEET 4 OF 47



**BRIDGE 2 TYPICAL SECTION**

SCALE: 3/8" = 1'-0"



**TYPICAL ABUTMENT EARTHWORK SECTION - BRIDGE 2**

SCALE: 1" = 1'-0"

NOTE "A":  
THICKNESS AND BATTER OF STEM UNKNOWN,  
(ASSUMED APPROXIMATELY 2'-6")

REMOVAL OF CONCRETE OR MASONRY

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USER = 5237



PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066typ\_02.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: J. NAJDOWSKI  
TYPICAL BRIDGE SECTION SHEET 2

PLOT DATE: 6/19/2015  
DRAWN BY: L. ROBERTS  
CHECKED BY:  
SHEET 5 OF 47





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
CH	CHANNEL EASEMENT
CONST	CONSTRUCTION EASEMENT
CUL	CULVERT EASEMENT
D&C	DISCONNECT & CONNECT
DIT	DITCH EASEMENT
DR	DRAINAGE EASEMENT
DRIVE	DRIVEWAY EASEMENT
EC	EROSION CONTROL
HWY	HIGHWAY EASEMENT
I&M	INSTALL & MAINTAIN EASEMENT
LAND	LANDSCAPE EASEMENT
R&RES	REMOVE & RESET
R&REP	REMOVE & REPLACE
SR	SLOPE RIGHT
UE	UTILITY EASEMENT
(P)	PERMANENT EASEMENT
(T)	TEMPORARY EASEMENT
■	BNDNS BOUND SET
□	BNDNS BOUND TO BE SET
●	IPNS IRON PIN SET
⊙	IPNS IRON PIN TO BE SET
⊠	CALC EXISTING ROW POINT
○	PROW PROPOSED ROW POINT
[LENGTH]	LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

POINT CODE	DESCRIPTION
⊕	APL BOUND APPARENT LOCATION
□	BM BENCHMARK
□	BND BOUND
⊕	CB CATCH BASIN
⊕	COMB COMBINATION POLE
⊕	DITHR DROP INLET THROATED DNC
⊕	EL ELECTRIC POWER POLE
○	FPOLE FLAGPOLE
○	GASFIL GAS FILLER
○	GP GUIDE POST
×	GSO GAS SHUT OFF
○	GUY GUY POLE
○	GUYW GUY WIRE
×	GV GATE VALUE
⊕	H TREE HARDWOOD
△	HCTRL CONTROL HORIZONTAL
△	HVCTRL CONTROL HORIZ. & VERTICAL
◇	HYD HYDRANT
●	IP IRON PIN
●	IPIPE IRON PIPE
□	LI LIGHT - STREET OR YARD
□	MB MAILBOX
○	MH MANHOLE (MH)
□	MM MILE MARKER
□	PM PARKING METER
□	PMK PROJECT MARKER
POST	POST STONE/WOOD
RRSIG	RAILROAD SIGNAL
RRSL	RAILROAD SWITCH LEVER
S	TREE SOFTWOOD
SAT	SATELLITE DISH
⊕	SHRUB SHRUB
SIGN	SIGN
STUMP	STUMP
TEL	TELEPHONE POLE
TIE	TIE
TSIGN	SIGN W/DOUBLE POST
VCTRL	CONTROL VERTICAL
WELL	WELL
WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UTILITY 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+TELEP.
— G —	GAS LINE
— W —	WATER LINE
— S —	SANITARY SEWER (SEPTIC)

ABOVE GROUND UTILITIES (AERIAL)

— AGU —	UTILITY (GENERIC-UNKNOWN)
— T —	TELEPHONE
— E —	ELECTRIC
— C —	CABLE (TV)
— EC —	ELECTRIC+CABLE
— ET —	ELECTRIC+TELEPHONE
— AER E&T —	ELECTRIC+TELEPHONE
— CT —	CABLE+TELEPHONE
— ECT —	ELECTRIC+CABLE+TELEP.
—	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 — — — — —	BARRIER FENCE
— — — — —	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
— — — — —	PROPERTY LINE (P/L)
— — — — —	SLOPE RIGHTS
6f — — — — —	6F PROPERTY BOUNDARY
4f — — — — —	4F PROPERTY BOUNDARY
HAZ — — — — —	HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLGY

EPSC MEASURES

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

ENVIRONMENTAL RESOURCES

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

ARCHEOLOGICAL & HISTORIC

— — — — —	ARCHEOLOGICAL BOUNDARY
HISTORIC DIST — — — — —	HISTORIC DISTRICT BOUNDARY
HISTORIC — — — — —	HISTORIC AREA
⊕	HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLGY

EXISTING FEATURES

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

PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066leg.dgn  
PROJECT LEADER: W. PELLETTIER  
DESIGNED BY: J. NAJDOWSKI  
CONVENTIONAL SYMBOLS LEGEND SHEET

PLOT DATE: 6/19/2015  
DRAWN BY: P. ROTH  
CHECKED BY:  
SHEET 8 OF 47



GPS CONTROL POINTS

WILLOW JOHNSON  
 NORTH = 783529.516  
 EAST = 1576565.987  
 ELEV. = 468.400

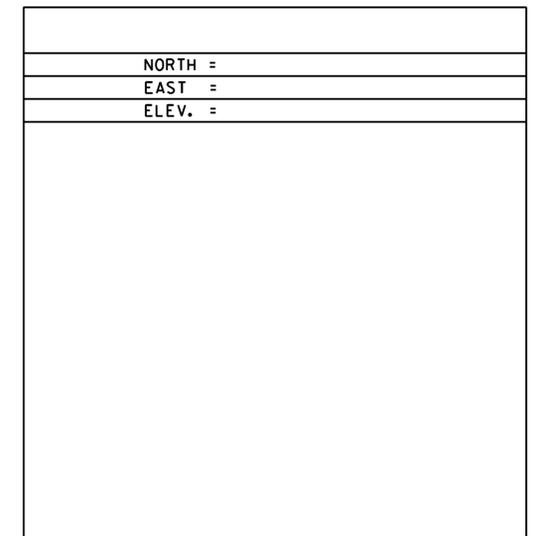
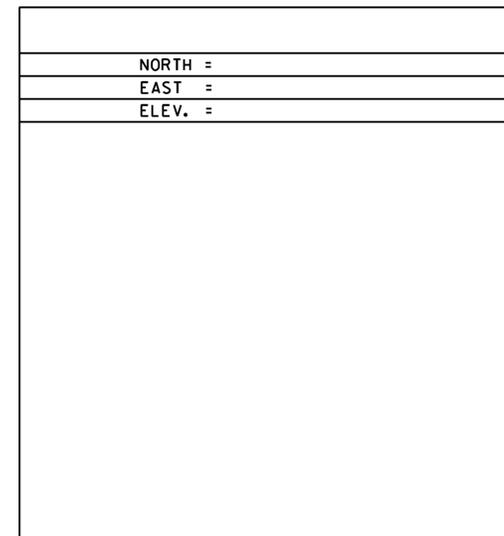
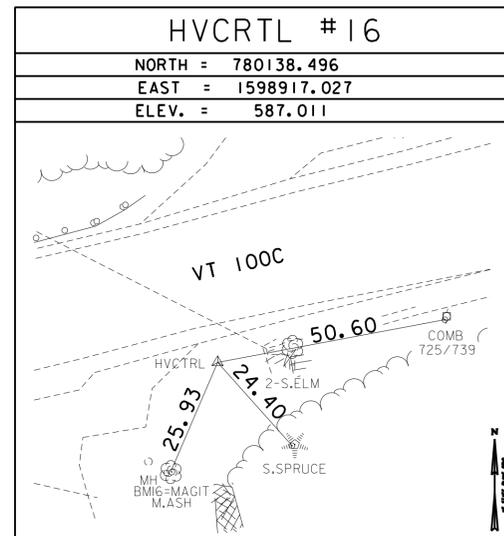
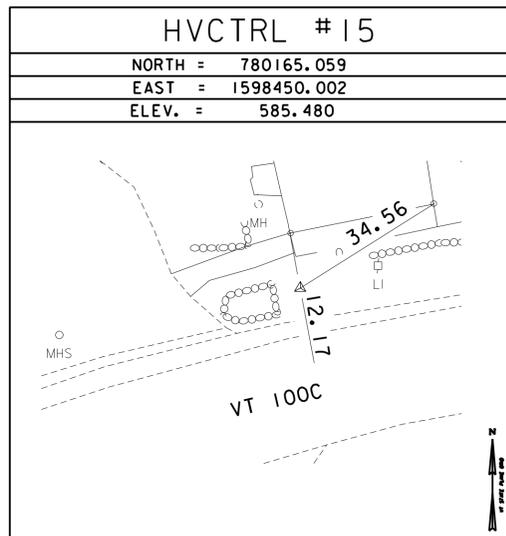
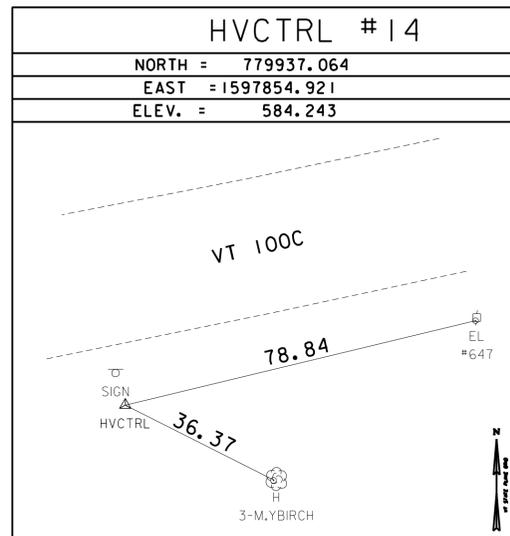
A99012  
 NORTH = 782485.886  
 EAST = 1579355.260  
 ELEV. = 517.970

JOHNSON, VT. SET 12 CM (5 INCHES) BELOW GROUND IN THE TOP OF A FENO STYLE MONUMENT. 6.5 M (21.3 FT) SOUTHWEST OF AND ABOUT 0.3 M (1.0 FT) LOWER THAN THE CL OF VT ROUTE 15, 12.7 M (41.7 FT) EAST NORTHEAST OF THE CL OF THE LAMOILLE VALLEY RAILROAD, 8.3 M (27.2 FT) EAST OF AN UNNUMBERED TELEGRAPH POLE, 40.8 M (133.9 FT) NORTHWEST OF POLE NO 1829, 49.4 M (162.1 FT) SOUTHEAST OF POLE NO 320T/1830, AND 0.3 M (1.0 FT) NORTHEAST OF A FIBERGLASS WITNESS. NOTE, MARK IS INTERVISIBLE WITH MARK A99012.

JOHNSON, VT. THE MARK IS SET 5 CM (2 INCHES) BELOW GROUND, 9.2 M (30.2 FT) SOUTH OF AND ABOUT 0.2 M (0.7 FT) HIGHER THAN THE CENTERLINE OF VT ROUTE 15, 51.7 M (169.6 FT) SOUTHEAST OF POLE NO 1819, 62.2 M (204.1 FT) NORTHEAST OF THE NORTHEAST CORNER OF A ONE STORY HOUSE, AND 41.0 M (134.5 FT) SOUTHWEST OF POLE NO 1818 AND A FIBERGLASS WITNESS. MARK IS INTERVISIBLE WITH MARK LIN DALE (LIN DALE IS NOT GPSABLE WITHOUT MAJOR BRUSH AND TREE CLEARING.) MARK IS INTERVISIBLE WITH MARK WILLOW JOHNSON.

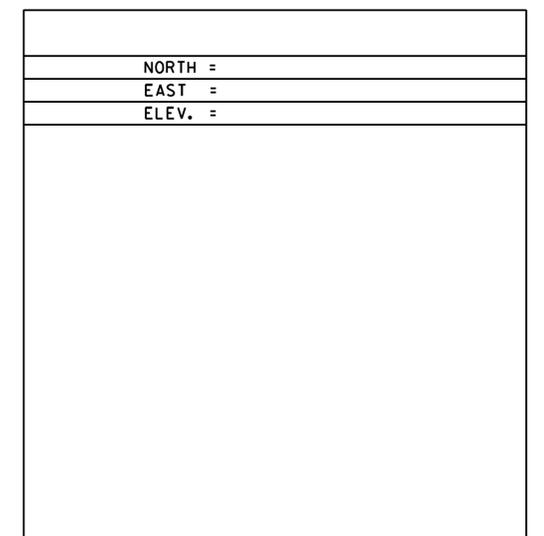
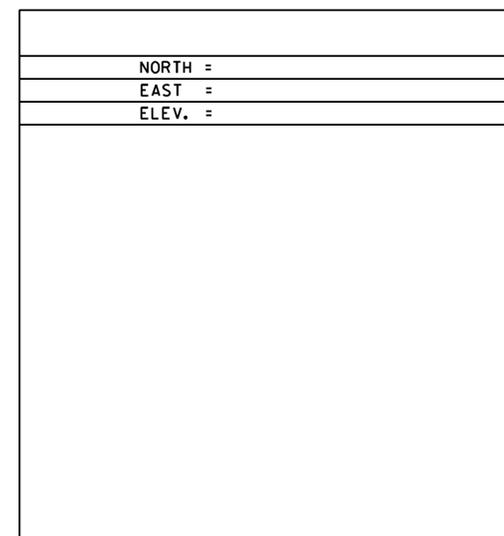
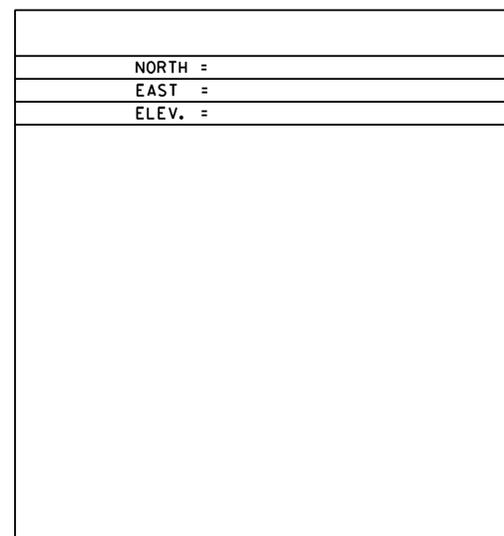
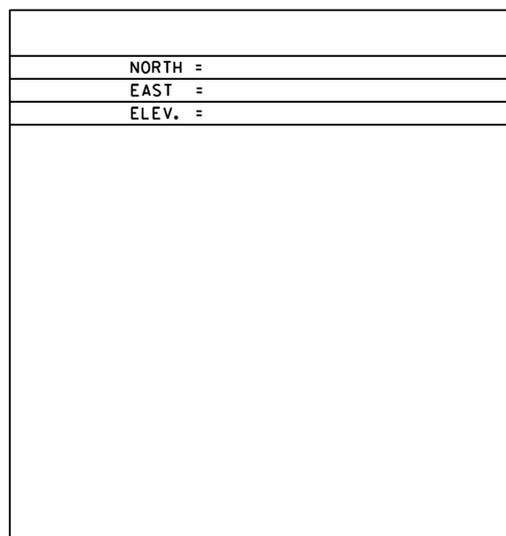
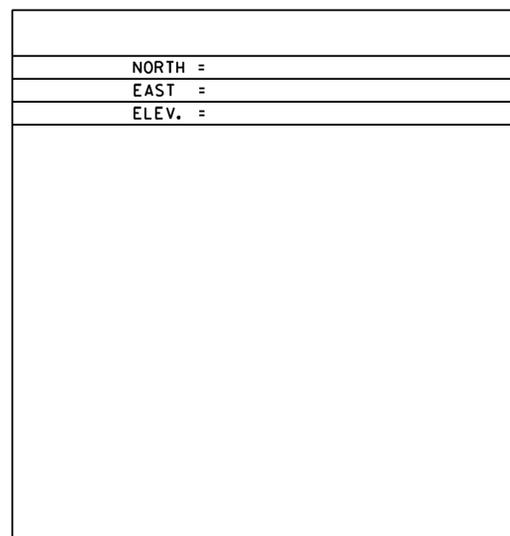
THIS TRAVERSE IS AN EXTENSION OF A TRAVERSE THAT WAS RUN FOR THE LVRR [04X503]

TRAVERSE TIES



\*SECONDARY TRAVERSE COMPLETED 5/20/2013 BY L.ORVIS P.C. & G.HITCHCOCK

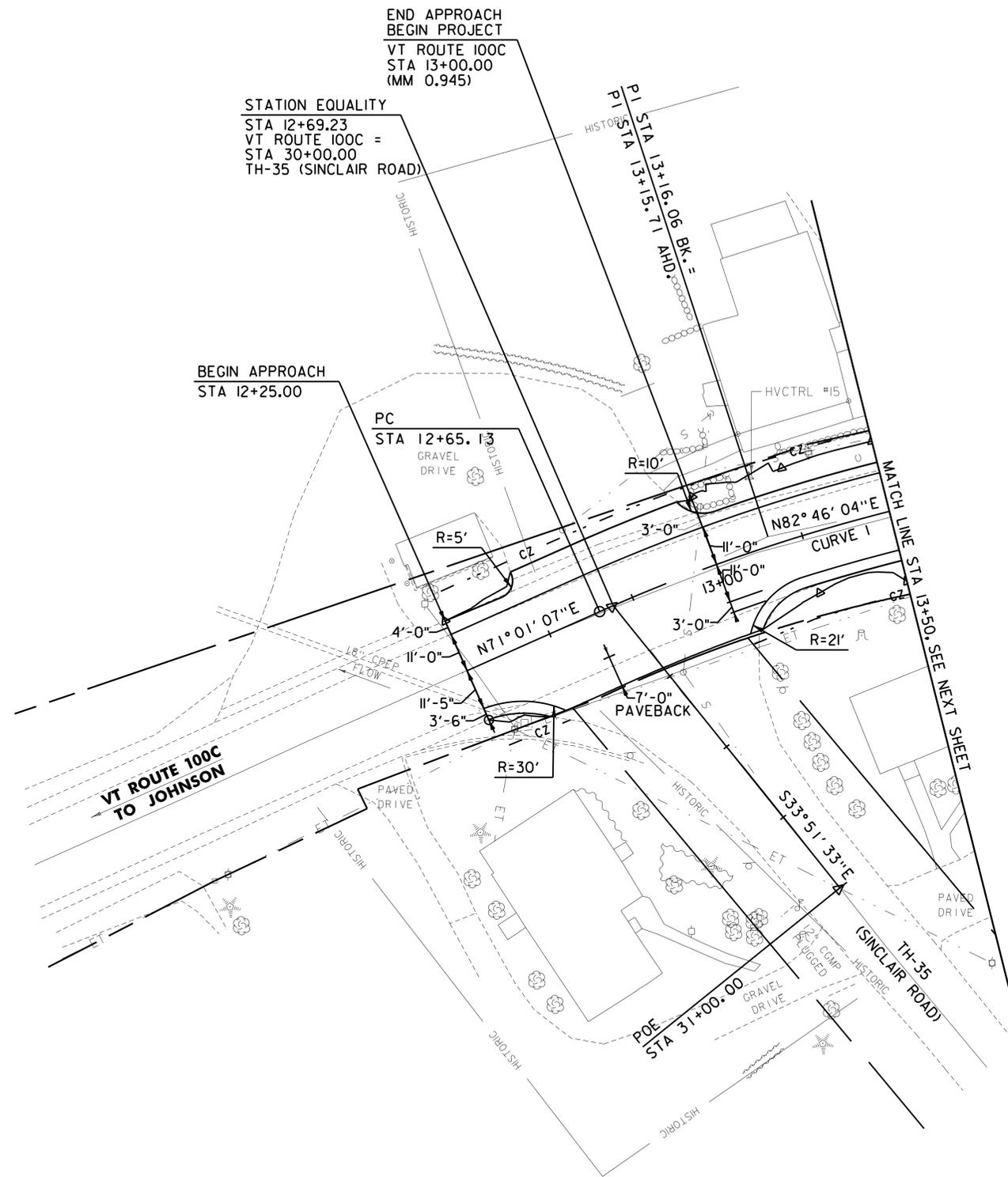
ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (96)
ADJUSTMENT	COMPASS

PROJECT NAME: JOHNSON	
PROJECT NUMBER: BF 0248(4)	
FILE NAME: survey\13C066+1.dgn	PLOT DATE: \$\$\$DATE\$\$\$
PROJECT LEADER: W.PELLETTIER	DRAWN BY: G.HITCHCOCK
DESIGNED BY:	CHECKED BY:
TIE SHEET	SHEET \$S*\$ OF \$T*\$

FILE NAME = N:\p\066666\projects\ANY\K3\28410\CADD\MSTN13\066666\Consul\lmts\13\066666.dgn  
 DATE/TIME = 6/19/2015  
 USER = 5237



**CURVE 1 (VT ROUTE 100C)**

Δ = 11°44'57"  
 D = 11°34'30"  
 R = 495.00'  
 T = 50.93'  
 L = 101.51'  
 E = 2.61'  
 BANK = N.C.

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



PROJECT NAME: JOHNSON  
 PROJECT NUMBER: BF 0248 (4)  
 FILE NAME: z13c066666.dgn  
 PROJECT LEADER: W. PELLETIER  
 DESIGNED BY: A. HAWKINS  
 PLAN LAYOUT SHEET 1

PLOT DATE: 6/19/2015  
 DRAWN BY: A. KIRBY  
 CHECKED BY:  
 SHEET 10 OF 47

**SPECIAL PROVISION (BURIED GUARDRAIL END, GALVANIZED)**  
 STA 13+57.3 - STA 14+21.8 RT

**SPECIAL PROVISION (GUARDRAIL APPROACH SECTION TO CONCRETE BRIDGE RAILING)**

STA 14+21.8 - STA 14+34.3 RT  
 STA 14+23.8 - STA 14+36.3 LT  
 STA 14+78.0 - STA 14+90.5 LT  
 STA 14+80.9 - STA 14+93.4 RT  
 STA 15+60.0 - STA 15+72.5 LT  
 STA 15+63.7 - STA 15+76.2 RT  
 STA 16+33.7 - STA 16+46.2 RT  
 STA 16+70.8 - STA 16+95.8 LT

**ANCHOR FOR STEEL BEAM RAIL**

STA 13+65.8 RT  
 STA 14+17.8 LT  
 STA 14+96.5 LT  
 STA 15+11.9 RT  
 STA 15+44.5 LT  
 STA 15+57.7 RT  
 STA 16+52.2 RT  
 STA 17+64.3 LT

**STEEL BEAM GUARDRAIL, GALVANIZED**

STA 14+11.3 - STA 14+23.8 LT  
 STA 14+90.5 - STA 15+05.0 LT  
 STA 14+93.4 - STA 15+18.4 RT  
 STA 15+38.0 - STA 15+60.0 LT  
 STA 15+49.2 - STA 15+63.7 RT  
 STA 16+46.2 - STA 16+60.7 RT  
 STA 16+95.8 - STA 17+72.8 LT

**BRIDGE RAILING, GALVANIZED STEEL TUBING/CONCRETE COMBINATION**

STA 14+34.32 - STA 14+80.90 RT  
 STA 14+36.30 - STA 14+78.01 LT  
 STA 15+72.49 - STA 16+33.35 LT  
 STA 15+76.17 - STA 16+33.67 RT

**REMOVAL OF EXISTING DELINEATOR**

STA 14+02.0 RT  
 STA 14+18.0 LT  
 STA 15+00.0 LT  
 STA 15+00.0 RT  
 STA 15+56.0 RT  
 STA 15+57.0 LT  
 STA 16+66.0 RT  
 STA 17+71.0 LT

**REMOVAL AND DISPOSAL OF GUARDRAIL**

STA 14+02.0 - STA 14+39.0 RT  
 STA 14+18.0 - STA 14+39.0 LT  
 STA 14+77.0 - STA 15+00.0 LT  
 STA 14+77.0 - STA 15+00.0 RT  
 STA 15+56.0 - STA 15+79.0 RT  
 STA 15+57.0 - STA 15+79.0 LT  
 STA 16+33.0 - STA 17+71.0 LT  
 STA 16+33.0 - STA 16+66.0 RT

**SPECIAL PROVISION (BRIDGE RAILING, GALVANIZED HDSB/FASCIA MOUNTED/ STEEL TUBING)**

STA 16+33.35 - STA 16+70.84 LT

**DELINEATOR WITH STEEL POST**

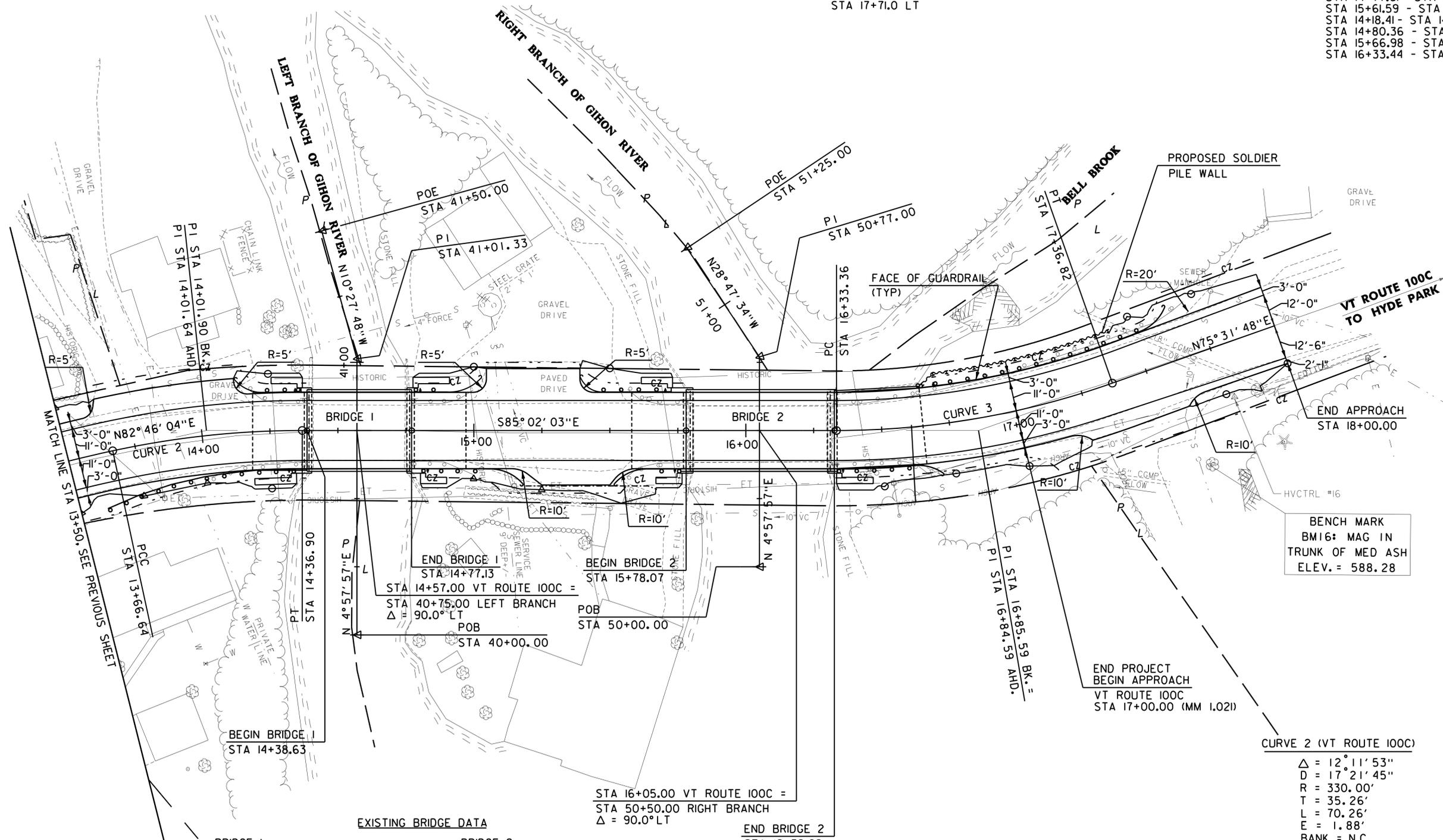
STA 14+11.3 LT  
 STA 15+05.0 LT  
 STA 15+18.4 RT  
 STA 15+38.0 LT  
 STA 15+49.2 RT  
 STA 16+60.7 RT  
 STA 17+72.8 LT

**SOLDIER PILE WALL**

STA 16+66.51 - STA 17+41.57 LT

**SPECIAL PROVISION (UNIT BLOCK RETAINING WALL)**

STA 14+26.04 - STA 14+36.90 LT  
 STA 14+77.61 - STA 14+91.06 LT  
 STA 15+61.59 - STA 15+73.09 LT  
 STA 14+18.41 - STA 14+34.72 RT  
 STA 14+80.36 - STA 14+89.97 RT  
 STA 15+66.98 - STA 15+76.58 RT  
 STA 16+33.44 - STA 16+46.88 RT



**BRIDGE 1:**  
 CAST-IN-PLACE CONCRETE T-BEAMS  
 CONCRETE ABUTMENTS & WINGWALLS  
 CL BRG. - CL BRG. = 38'-3" +/-  
 OUT TO OUT WIDTH = 23'-9" +/-  
 CURB TO CURB WIDTH = 22'-1" +/-  
 LT/RT CURB WIDTH = 10"  
 CLEAR SIDEWALK WIDTH = N/A  
 VERTICAL CLEARANCE = N/A  
 YEAR BUILT - 1928

**BRIDGE 2:**  
 CAST-IN-PLACE CONCRETE T-BEAMS  
 CONCRETE ABUTMENTS & WINGWALLS  
 CL BRG. - CL BRG. = 54'-0" +/-  
 OUT TO OUT WIDTH = 23'-9" +/-  
 CURB TO CURB WIDTH = 22'-1" +/-  
 LT/RT CURB WIDTH = 10"  
 CLEAR SIDEWALK WIDTH = N/A  
 VERTICAL CLEARANCE = N/A  
 YEAR BUILT - 1928

**EXISTING BRIDGE DATA**

END BRIDGE 1  
 STA 14+77.13  
 STA 14+57.00 VT ROUTE 100C =  
 STA 40+75.00 LEFT BRANCH  
 Δ = 90.0° LT  
 POB  
 STA 40+00.00

BEGIN BRIDGE 2  
 STA 15+78.07  
 STA 16+05.00 VT ROUTE 100C =  
 STA 50+50.00 RIGHT BRANCH  
 Δ = 90.0° LT  
 POB  
 STA 50+00.00

END BRIDGE 2  
 STA 16+32.62

**CURVE 1 (VT ROUTE 100C)**

Δ = 11° 44' 57"  
 D = 11' 34' 30"  
 R = 495.00'  
 T = 50.93'  
 L = 101.51'  
 E = 2.61'  
 BANK = N.C.

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



PROJECT NAME: JOHNSON  
 PROJECT NUMBER: BF 0248 (4)  
 FILE NAME: z13c066bdr.dgn  
 PROJECT LEADER: W. PELLETIER  
 DESIGNED BY: A. HAWKINS  
 PLAN LAYOUT SHEET 2

**CURVE 2 (VT ROUTE 100C)**

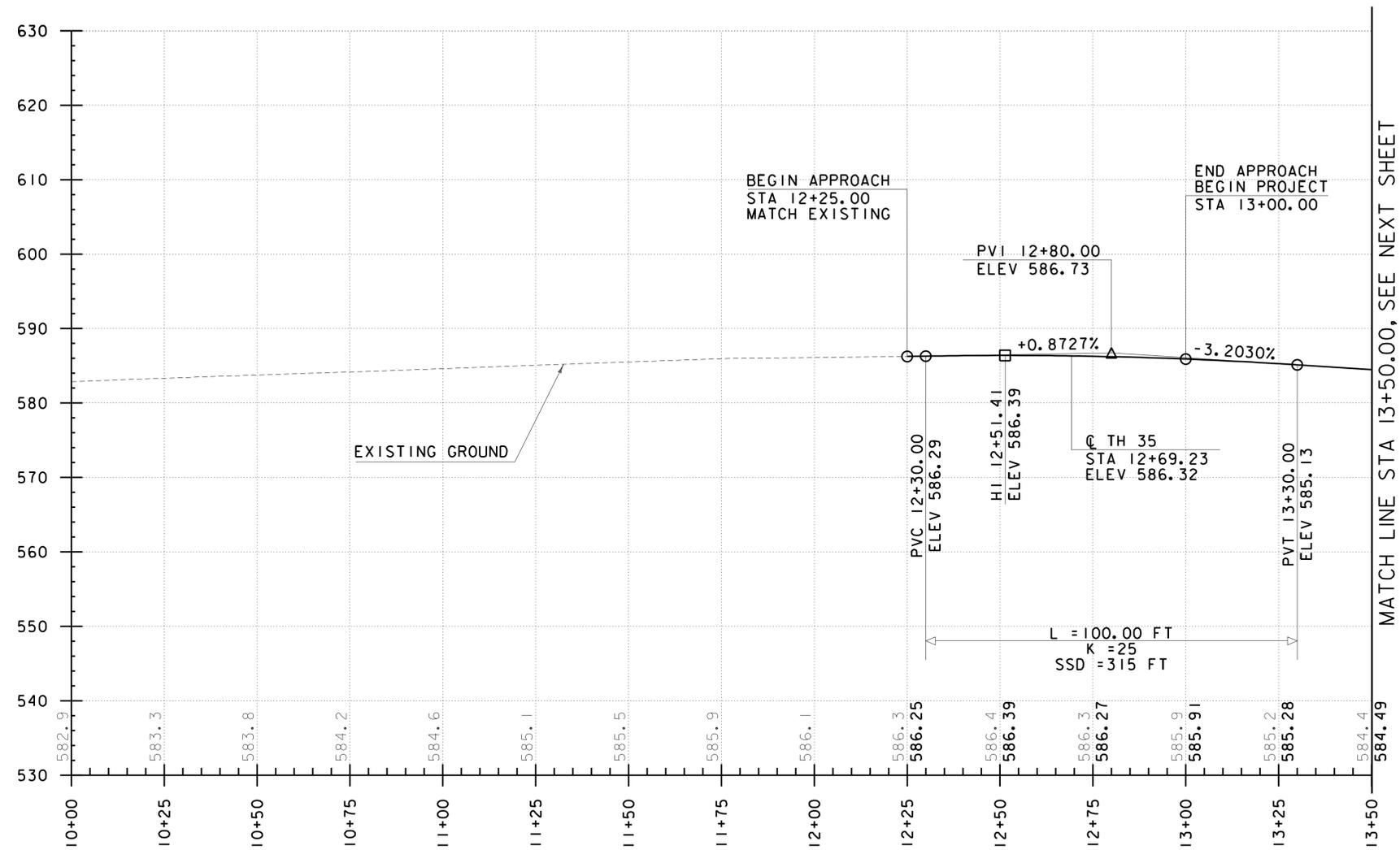
Δ = 12° 11' 53"  
 D = 17' 21' 45"  
 R = 330.00'  
 T = 35.26'  
 L = 70.26'  
 E = 1.88'  
 BANK = N.C.

**CURVE 3 (VT ROUTE 100C)**

Δ = 19° 26' 09"  
 D = 18' 47' 08"  
 R = 305.00'  
 T = 52.23'  
 L = 103.46'  
 E = 4.44'  
 BANK = N.C.

FILE NAME = N:\p\projects\JOHNSON\BF0248\13c066\CONSULT\plan\z13c066bdr.dgn  
 DATE/TIME = 6/19/2015 5:23:37  
 USER = JAW

FILE NAME = N:\p\projects\13c066\13c066\CADD\MSTN13c066\Consul\13c066pro.dgn  
 DATE/TIME = 6/19/2015 5:23  
 USER =



**PROFILE - VT ROUTE 100C**

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

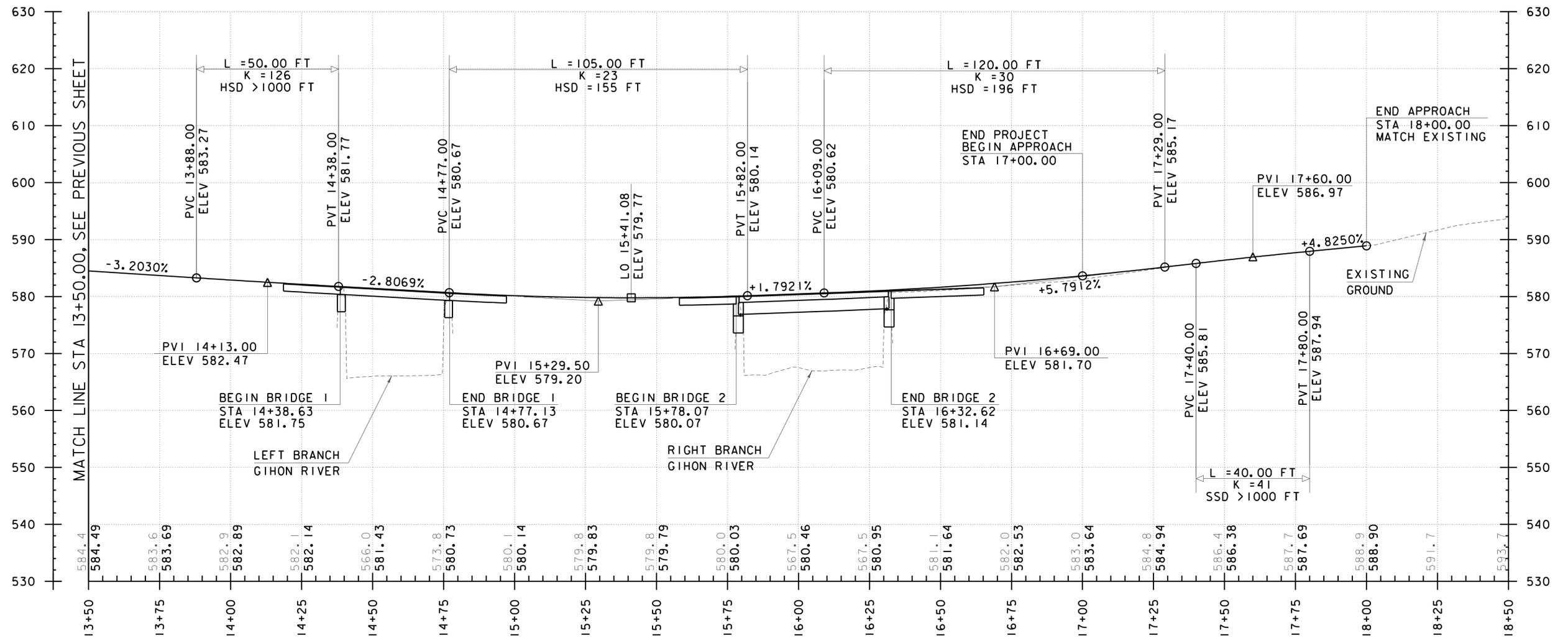
MATCH LINE STA 13+50.00, SEE NEXT SHEET

**NOTE:**

1. THE GRADES SHOWN TO THE NEAREST TENTH ARE THE EXISTING GROUND ELEVATIONS ALONG CENTERLINE. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE PROPOSED GRADES ALONG CENTERLINE.

PROJECT NAME: JOHNSON	
PROJECT NUMBER: BF 0248 (4)	
FILE NAME: z13c066pro.dgn	PLOT DATE: 6/19/2015
PROJECT LEADER: W. PELLETIER	DRAWN BY: A. KIRBY
DESIGNED BY: A. HAWKINS	CHECKED BY:
VT ROUTE 100C PROFILE SHEET 1	SHEET 12 OF 47





**PROFILE - VT ROUTE 100C**

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

**NOTE:**

1. THE GRADES SHOWN TO THE NEAREST TENTH ARE THE EXISTING GROUND ELEVATIONS ALONG CENTERLINE. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE PROPOSED GRADES ALONG CENTERLINE.

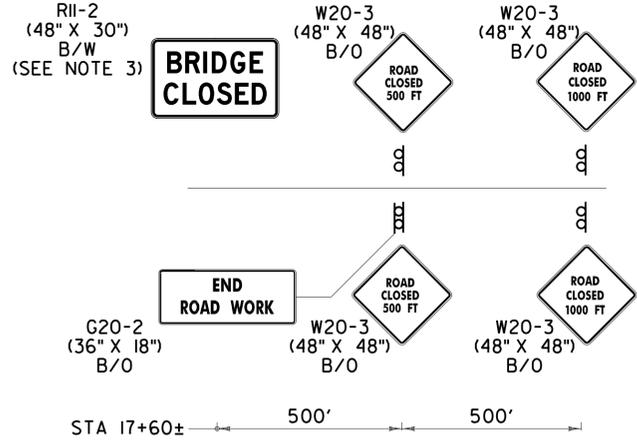
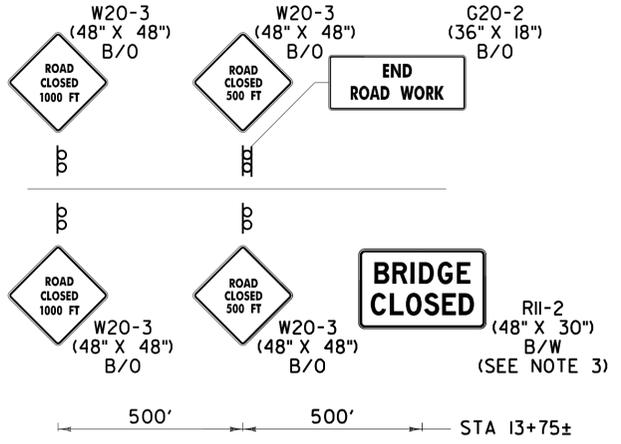
PROJECT NAME: JOHNSON  
 PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066pro.dgn  
 PROJECT LEADER: W. PELLETIER  
 DESIGNED BY: A. HAWKINS  
 VT ROUTE 100C PROFILE SHEET 2

PLOT DATE: 6/19/2015  
 DRAWN BY: A. KIRBY  
 CHECKED BY:  
 SHEET 13 OF 47

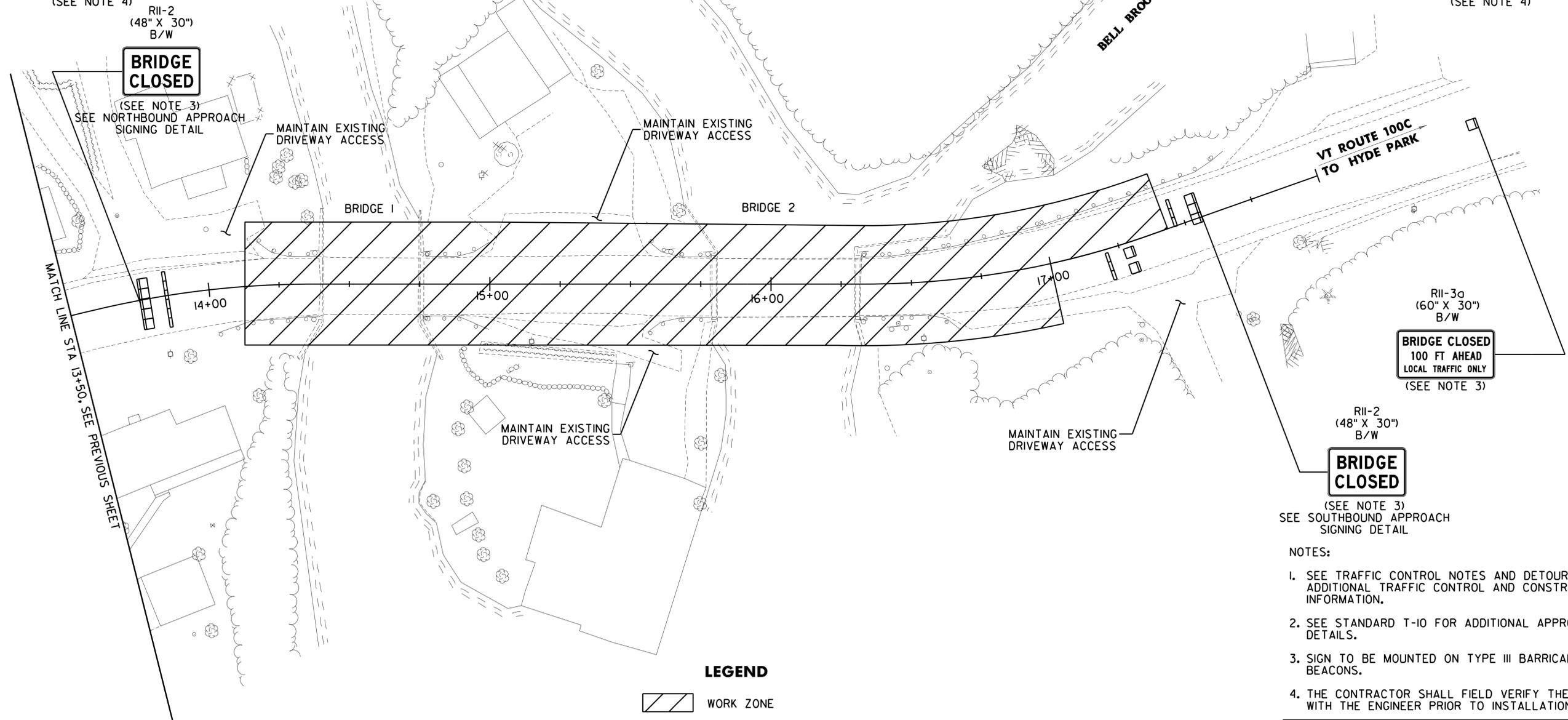






**NORTHBOUND APPROACH SIGNING DETAIL**  
(SEE NOTE 4)

**SOUTHBOUND APPROACH SIGNING DETAIL**  
(SEE NOTE 4)



**LEGEND**

- WORK ZONE
- TYPE III BARRICADE
- TEMPORARY BARRIER
- G/W GREEN LETTERING ON WHITE BACKGROUND
- B/W BLACK LETTERING ON WHITE BACKGROUND
- B/O BLACK LETTERING ON ORANGE BACKGROUND

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



- NOTES:**
- SEE TRAFFIC CONTROL NOTES AND DETOUR MAP FOR ADDITIONAL TRAFFIC CONTROL AND CONSTRUCTION SEQUENCING INFORMATION.
  - SEE STANDARD T-10 FOR ADDITIONAL APPROACH SIGNING DETAILS.
  - SIGN TO BE MOUNTED ON TYPE III BARRICADE WITH FLASHING BEACONS.
  - THE CONTRACTOR SHALL FIELD VERIFY THE SIGN LOCATIONS WITH THE ENGINEER PRIOR TO INSTALLATION.

PROJECT NAME: JOHNSON	
PROJECT NUMBER: BF 0248 (4)	
FILE NAME: z13c066bdr.tc.dgn	PLOT DATE: 6/19/2015
PROJECT LEADER: W. PELLETTIER	DRAWN BY: A. KIRBY
DESIGNED BY: A. HAWKINS	CHECKED BY:
TRAFFIC CONTROL PLAN LAYOUT SHEET 2	SHEET 15 OF 47

FILE NAME: N:\p\projects\13c066bdr\13c066bdr.tc.dgn  
 DATE/TIME: 6/19/2015 5:23:37  
 USER: 5237

**TRAFFIC CONTROL NOTES:**

TRAFFIC WILL BE MAINTAINED ON A REGIONAL DETOUR VIA VT ROUTE 100 AND VT ROUTE 15 BETWEEN JOHNSON AND HYDE PARK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DETOUR AND CONSTRUCTION SIGNING. THE EXACT LOCATION WILL BE COORDINATED BETWEEN THE ENGINEER AND THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH M.U.T.C.D.

THE BID PRICE FOR ITEM 641.0 TRAFFIC CONTROL SHALL INCLUDE ALL APPROACH, DETOUR AND ON-SITE CONSTRUCTION SIGNING, BARRELS, CONES, TYPE III BARRICADES, AND RELOCATING AND REMOVING OF THESE DEVICES AS NECESSARY. THE FOLLOWING ITEMS SHALL BE PAID FOR UNDER THEIR RESPECTIVE ITEM NUMBERS:

- ITEM 621.90 TEMPORARY TRAFFIC BARRIER
- ITEM 621.95 REMOVE AND RESET TEMPORARY TRAFFIC BARRIER
- ITEM 630.15 FLAGGERS
- ITEM 641.15 PORTABLE CHANGEABLE MESSAGE SIGN
- ITEM 646.600 TEMPORARY 4 INCH WHITE LINE
- ITEM 646.610 TEMPORARY 4 INCH YELLOW LINE

ALL SIGNS AND BARRICADES SHALL BE INSPECTED DAILY AND REPAIRED AS NECESSARY. ALL SIGNS AND BARRICADES SHALL BE CLEARED OF DUST AND DEBRIS AT A MINIMUM WEEKLY.

PORTABLE CHANGEABLE MESSAGE SIGNS "PCMS" SHALL BE PLACED AT THE APPROXIMATE LOCATIONS SHOWN ON THE PLANS OR WHERE DESIGNATED BY THE ENGINEER. TWO SIGNS SHALL ALSO BE PLACED AT THE PROJECT LOCATION 14 DAYS PRIOR TO THE START OF CONSTRUCTION FOR NOTIFICATION OF THE IMPENDING DETOURS. THESE SIGNS SHALL REMAIN IN PLACE FOR USE AT THE DISCRETION OF THE ENGINEER TO NOTIFY MOTORISTS OF CHANGING CONDITIONS. PAYMENT FOR THESE SIGNS SHALL BE INCLUDED IN ITEM 641.15 PORTABLE CHANGEABLE MESSAGE SIGN.

THE STATE ROUTE MARKERS USED FOR THE DETOUR AS SHOWN ON THE PLANS SHALL FOLLOW STANDARDS E-127 AND E-136B. THESE SIGNS SHALL BE REMOVED AT THE END OF THE CLOSURE PERIOD. THESE SIGNS AND THEIR REMOVAL SHALL BE PAID FOR UNDER ITEM 641.0 TRAFFIC CONTROL.

ACCESS TO ALL EXISTING DRIVES AND SIDE ROADS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ANY CHANGES TO THE NORMAL FLOW OF TRAFFIC OR ACCESS TO EXISTING DRIVEWAYS WITH THE TOWN OF JOHNSON AND THE RESPECTIVE ADJOINING LANDOWNERS AFFECTED BY THE CHANGES. THE CONTRACTOR SHALL PROTECT ALL CONSTRUCTION ZONE DROP-OFFS WHILE MAINTAINING ACCESS TO THE RESPECTIVE EXISTING DRIVES OR SIDEROADS.

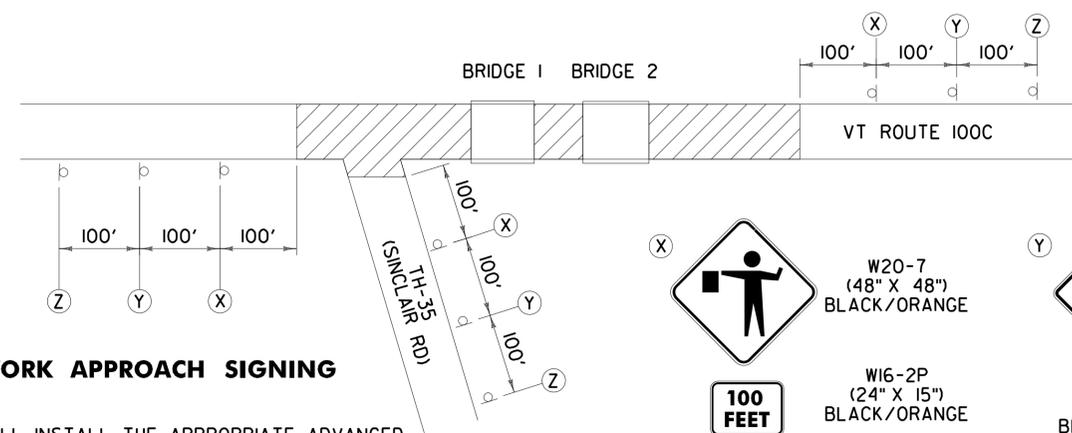
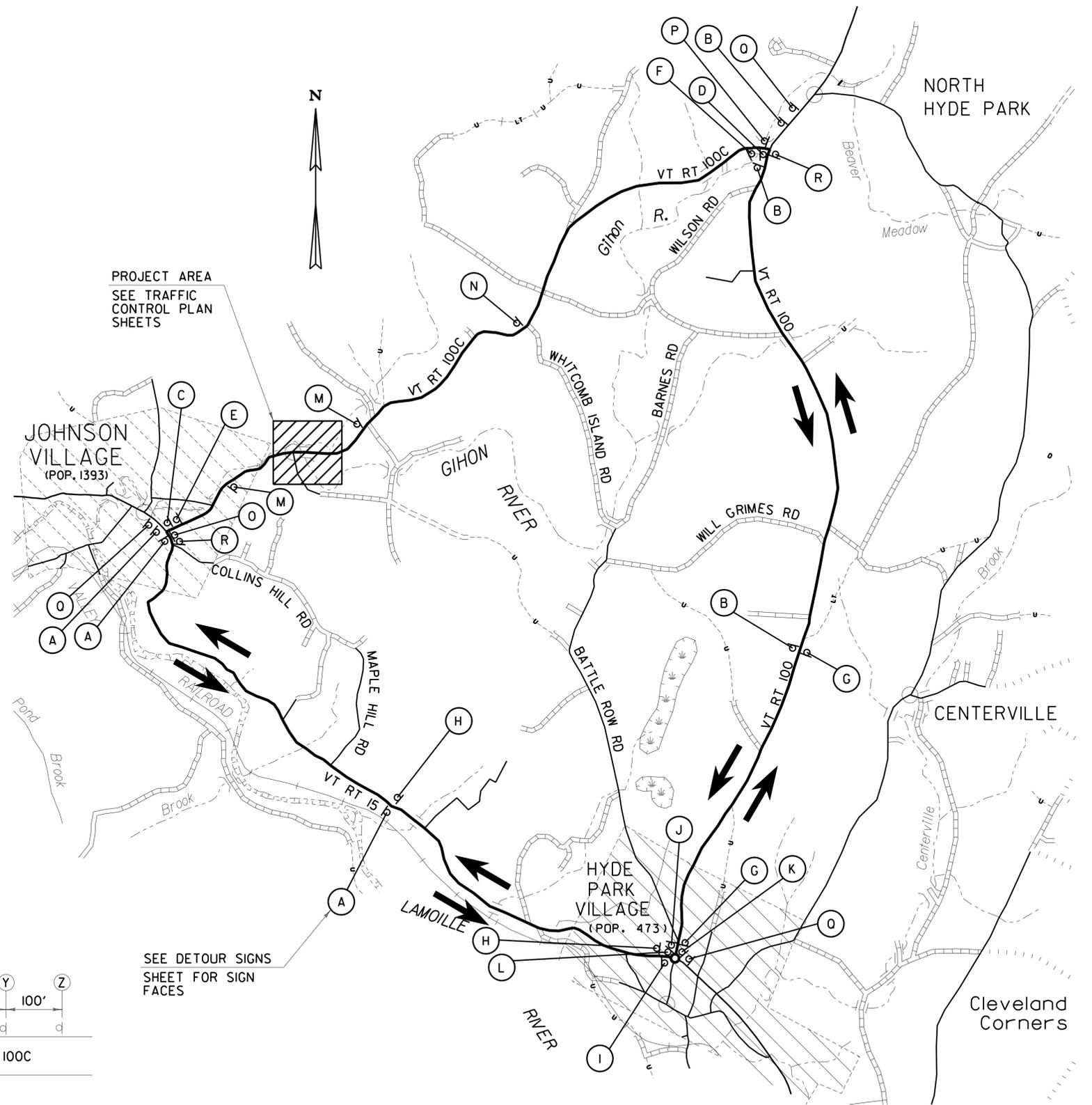
INSTALLATION OF DETOUR SIGNS SHALL NOT BLOCK ANY EXISTING TRAFFIC CONTROL SIGN ASSEMBLIES AND SHALL MODIFY OR BE PLACED ADJACENT TO EXISTING SIGN ASSEMBLIES WHEN POSSIBLE. THE CONTRACTOR SHALL WHENEVER POSSIBLE MAINTAIN AT LEAST 100 FEET BETWEEN SIGN ASSEMBLIES.

EXISTING SIGNS THAT ARE IN CONFLICT WITH THE TRAFFIC FLOW OF THE DETOUR SHALL BE REMOVED OR COVERED BY THE CONTRACTOR. ALL SIGNS REMOVED OR COVERED SHALL BE REPLACED OR UNCOVERED WHEN THE TRAFFIC CONTROL PLAN IS DISASSEMBLED. PAYMENT FOR THIS WORK WILL BE INCIDENTAL TO ITEM 641.0 TRAFFIC CONTROL.

CONTACT DIG-SAFE AT 1-888-344-7233 48 HOURS PRIOR TO BREAKING GROUND TO INSTALL ANY POST.

**CONSTRUCTION SEQUENCING:**

- INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- INSTALL DETOUR SIGNS AND CLOSE BRIDGE 1 AND BRIDGE 2.
- MAINTAIN ACCESS TO ALL EXISTING DRIVES LOCATED IN THE WORK ZONE DURING THE CLOSURE.
- COMPLETE BRIDGE 2 INCLUDING BRIDGE APPROACH RAILING INSTALLATION AND SOLDIER PILE RETAINING WALL CONSTRUCTION.
- COMPLETE BRIDGE 1 CONSTRUCTION INCLUDING BRIDGE APPROACH RAILING INSTALLATION.
- CONSTRUCT ROADWAY APPROACHES FOR BRIDGE 1 FROM STA 12+25 TO STA 14+38, BETWEEN BRIDGES FROM STA 14+77 TO STA 15+75, AND BRIDGE 2 FROM STA 16+32 TO STA 18+00 UP TO THE BINDER COURSE.
- CONSTRUCT PAVEMENT TOP COURSE, APPLY PERMANENT PAVEMENT MARKINGS AND COMPLETE GUARDRAIL INSTALLATION.
- REMOVE DETOUR SIGNS.
- COMPLETE ALL OTHER INCIDENTALS.



- X 100 FEET
- Y BE PREPARED TO STOP  
W20-7 (48" X 48") BLACK/ORANGE
- Z ROAD WORK AHEAD  
W20-1 (48" X 48") BLACK/ORANGE
- W16-2P (24" X 15") BLACK/ORANGE

**NOTE:**  
THE CONTRACTOR SHALL INSTALL THE APPROPRIATE ADVANCED WARNING AS SHOWN WHEN WORK IS BEING PERFORMED OUTSIDE OF THE BRIDGE CLOSURE WORK AREAS. THESE SIGNS SHALL BE COVERED OR REMOVED WHEN NOT IN USE.

**TEMPORARY DETOUR MAP**

**NOT TO SCALE**

PROJECT NAME: JOHNSON	PLOT DATE: 6/19/2015
PROJECT NUMBER: BF 0248 (4)	DRAWN BY: A. KIRBY
FILE NAME: z13c066r.dgn	DESIGNED BY: A. HAWKINS
PROJECT LEADER: W. PELLETIER	CHECKED BY:
TRAFFIC CONTROL NOTES AND DETOUR MAP	SHEET 16 OF 47



FILE NAME: N:\p\projects\NANY\K3\28410\CADD\MSTN13\066\Consul\mnts\Highway\z13c066r.dgn  
 DATE/TIME: 6/19/2015 10:52:37  
 USER: 5237

FILE NAME = N:\p\projects\VT\13c066\CONSTR\13c066\Highway\13c066detstgns.dgn  
 DATE/TIME = 6/19/2015 10:52:37  
 USER = 5237

**A** (3)

M4-8 (24" X 12") B/O  
 M3-1 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M3-1 (24" X 12") G/W  
 M3-2 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M6-3 (21" X 15") G/W

**B** (3)

M4-8 (24" X 12") B/O  
 M3-3 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M3-1 (24" X 12") G/W  
 M3-4 (24" X 12") G/W  
 MI-5 (24" X 24") G/W  
 M6-3 (21" X 15") G/W

**C** (1)

M4-8 (24" X 12") B/O  
 M3-1 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M3-1 (24" X 12") G/W  
 M3-2 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M6-1R (21" X 15") G/W

**D** (1)

M4-8 (24" X 12") B/O  
 M3-3 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M3-1 (24" X 12") G/W  
 M3-4 (24" X 12") G/W  
 MI-5 (24" X 24") G/W  
 M6-1R (21" X 15") G/W

**E** (1)

M4-8 (24" X 12") B/O  
 M3-1 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M3-1 (24" X 12") G/W  
 M3-2 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M5-1L (21" X 15") G/W

**F** (1)

M4-8 (24" X 12") B/O  
 M3-3 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M3-1 (24" X 12") G/W  
 M3-4 (24" X 12") G/W  
 MI-5 (24" X 24") G/W  
 M5-1R (21" X 15") G/W

**G** (2)

M4-8 (24" X 12") B/O  
 M3-1 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M6-3 (21" X 15") G/W

**H** (2)

M4-8 (24" X 12") B/O  
 M3-3 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M6-3 (21" X 15") G/W

**I** (1)

M4-8 (24" X 12") B/O  
 M3-1 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M5-3 (21" X 15") G/W

**J** (1)

M4-8 (24" X 12") B/O  
 M3-3 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M5-1R (21" X 15") G/W

**M** (2)

R11-3a (60" X 30") B/W

**N** (1)

R11-3a (60" X 30") B/W

**O** (1)

R11-3a (60" X 30") B/W  
 M4-1OR (48" X 18") B/O

**P** (1)

R11-3a (60" X 30") B/W  
 M4-1OL (48" X 18") B/O

**Q** (3)

B	R	I	D	G	E		
C	L	O	S	E	D		
V	T		I	O	O	C	

PORTABLE CHANGEABLE MESSAGE SIGN - PHASE 1

**R** (2)

J	O	H	N	S	O	N	
*M	M	M	M		D	D	-
*M	M	M	M		D	D	

PORTABLE CHANGEABLE MESSAGE SIGN - PHASE 2

\* M=MONTH  
 D=DAY

**R** (2)

M4-8a (24" X 18") B/O

**K** (1)

M4-8 (24" X 12") B/O  
 M3-1 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M6-2 (21" X 15") G/W

**L** (1)

M4-8 (24" X 12") B/O  
 M3-3 (24" X 12") G/W  
 MI-5 (30" X 24") G/W  
 M6-2 (21" X 15") G/W

- NOTES:**
- SIGN COLORS:  
 B/W: BLACK LETTERING ON WHITE BACKGROUND  
 G/W: GREEN LETTERING ON WHITE BACKGROUND  
 B/O: BLACK LETTERING ON ORANGE BACKGROUND
  - THE ESTIMATED NUMBER OF EACH SIGN PACKAGE REQUIRED IS REPRESENTED BY THE NUMBER UNDERNEATH EACH LETTER DESIGNATOR.
  - SEE TRAFFIC CONTROL NOTES AND DETOUR MAP FOR SIGN LOCATIONS.

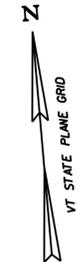
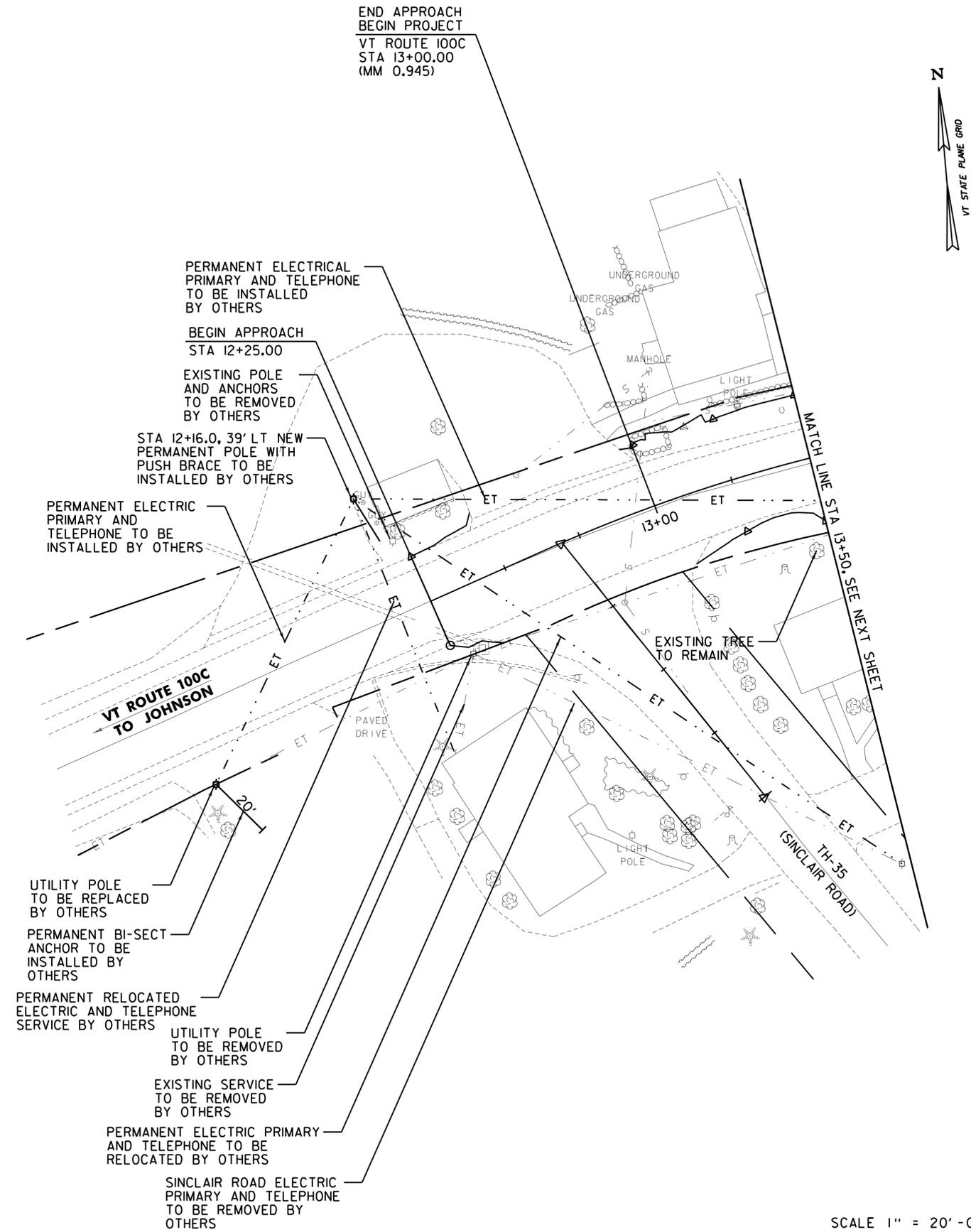
SIGN	ROAD TYPE	WIDTH	HEIGHT	LETTER SIZE
M-P	CONVENTIONAL	5'	2'-6"	6C 5C 4C

PROJECT NAME: JOHNSON  
 PROJECT NUMBER: BF 0248 (4)  
 FILE NAME: z13c066detstgns.dgn  
 PROJECT LEADER: W. PELLETTIER  
 DESIGNED BY: A. HAWKINS  
 DETOUR SIGNS DETAILS SHEET

PLOT DATE: 6/19/2015  
 DRAWN BY: A. KIRBY  
 CHECKED BY:  
 SHEET 17 OF 47



FILE NAME = N:\p\projects\VT\13c0666\CONSULT\13c0666\Highway\13c0666\drut\_pre.dgn  
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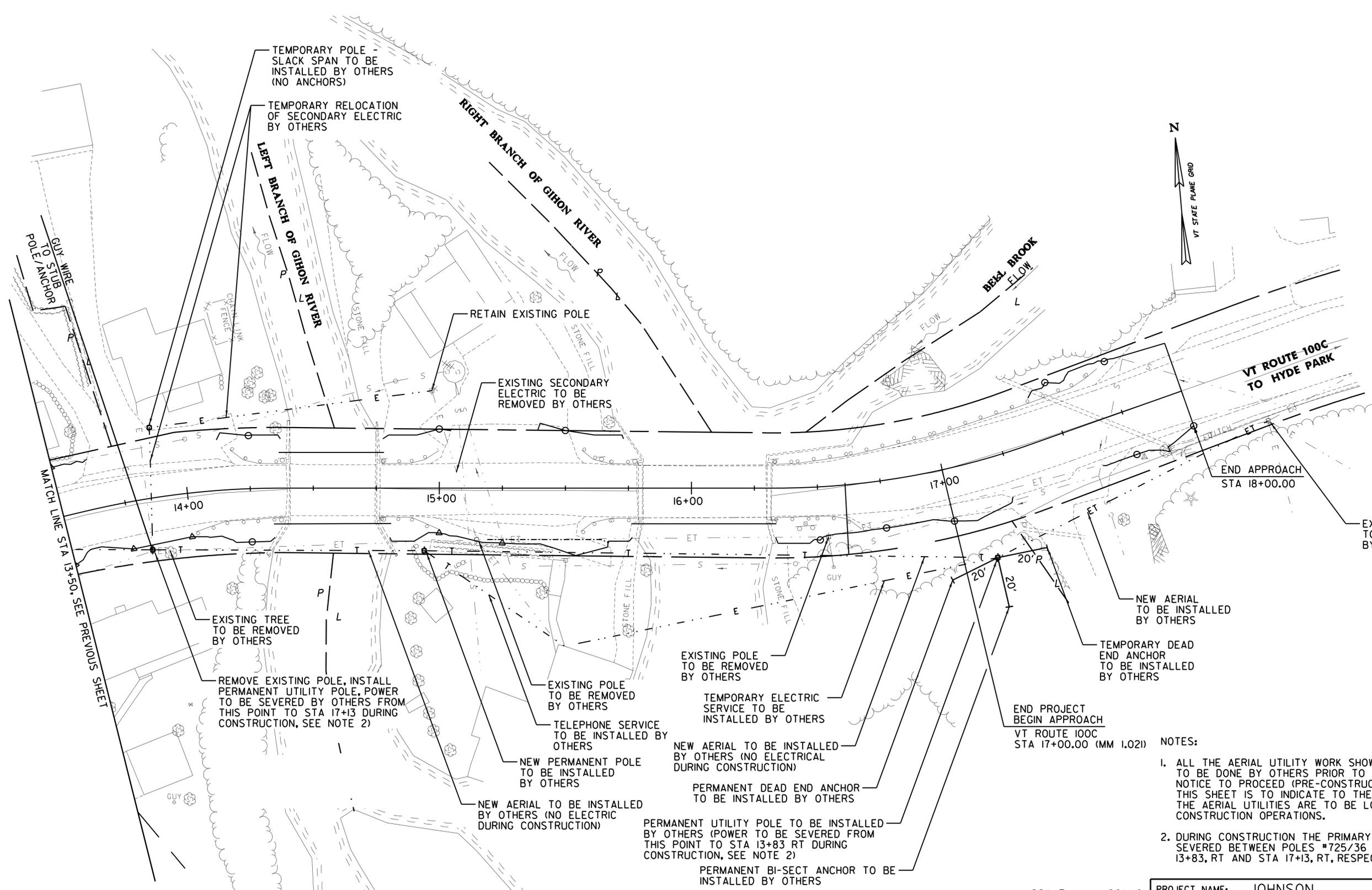


NOTE:  
 1. ALL THE AERIAL UTILITY WORK SHOWN ON THIS SHEET IS TO BE DONE BY OTHERS PRIOR TO THE CONTRACTORS NOTICE TO PROCEED (PRE-CONSTRUCTION). THE INTENT OF THIS SHEET IS TO INDICATE TO THE CONTRACTOR WHERE THE AERIAL UTILITIES ARE TO BE LOCATED DURING CONSTRUCTION OPERATIONS.

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



PROJECT NAME: JOHNSON	
PROJECT NUMBER: BF 0248 (4)	
FILE NAME: z13c0666drut_pre.dgn	PLOT DATE: 6/19/2015
PROJECT LEADER: W. PELLETIER	DRAWN BY: A. KIRBY
DESIGNED BY: L. WHEELER	CHECKED BY:
PRE-CONSTRUCTION UTILITY LAYOUT SHEET 1 SHEET 18 OF 47	



TEMPORARY POLE - SLACK SPAN TO BE INSTALLED BY OTHERS (NO ANCHORS)

TEMPORARY RELOCATION OF SECONDARY ELECTRIC BY OTHERS

RIGHT BRANCH OF GIHON RIVER

LEFT BRANCH OF GIHON RIVER

RETAIN EXISTING POLE

EXISTING SECONDARY ELECTRIC TO BE REMOVED BY OTHERS

BELL BROOK

VT ROUTE 100C TO HYDE PARK

END APPROACH STA 18+00.00

EXISTING ANCHOR TO BE REMOVED BY OTHERS

POLE TO SLUB ANCHOR

MATCH LINE STA 13+50. SEE PREVIOUS SHEET

EXISTING TREE TO BE REMOVED BY OTHERS

REMOVE EXISTING POLE, INSTALL PERMANENT UTILITY POLE, POWER TO BE SEVERED BY OTHERS FROM THIS POINT TO STA 17+13 DURING CONSTRUCTION, SEE NOTE 2)

EXISTING POLE TO BE REMOVED BY OTHERS

TELEPHONE SERVICE TO BE INSTALLED BY OTHERS

NEW PERMANENT POLE TO BE INSTALLED BY OTHERS

NEW AERIAL TO BE INSTALLED BY OTHERS (NO ELECTRICAL DURING CONSTRUCTION)

EXISTING POLE TO BE REMOVED BY OTHERS

TEMPORARY ELECTRIC SERVICE TO BE INSTALLED BY OTHERS

NEW AERIAL TO BE INSTALLED BY OTHERS (NO ELECTRICAL DURING CONSTRUCTION)

PERMANENT DEAD END ANCHOR TO BE INSTALLED BY OTHERS

PERMANENT UTILITY POLE TO BE INSTALLED BY OTHERS (POWER TO BE SEVERED FROM THIS POINT TO STA 13+83 RT DURING CONSTRUCTION, SEE NOTE 2)

PERMANENT BI-SECT ANCHOR TO BE INSTALLED BY OTHERS

NEW AERIAL TO BE INSTALLED BY OTHERS

TEMPORARY DEAD END ANCHOR TO BE INSTALLED BY OTHERS

END PROJECT BEGIN APPROACH VT ROUTE 100C STA 17+00.00 (MM 1.021)

NOTES:

1. ALL THE AERIAL UTILITY WORK SHOWN ON THIS SHEET IS TO BE DONE BY OTHERS PRIOR TO THE CONTRACTORS NOTICE TO PROCEED (PRE-CONSTRUCTION). THE INTENT OF THIS SHEET IS TO INDICATE TO THE CONTRACTOR WHERE THE AERIAL UTILITIES ARE TO BE LOCATED DURING CONSTRUCTION OPERATIONS.
2. DURING CONSTRUCTION THE PRIMARY ELECTRIC SHALL BE SEVERED BETWEEN POLES #725/36 AND #725/739 (STA 13+83, RT AND STA 17+13, RT, RESPECTIVELY)

SCALE 1" = 20' - 0"



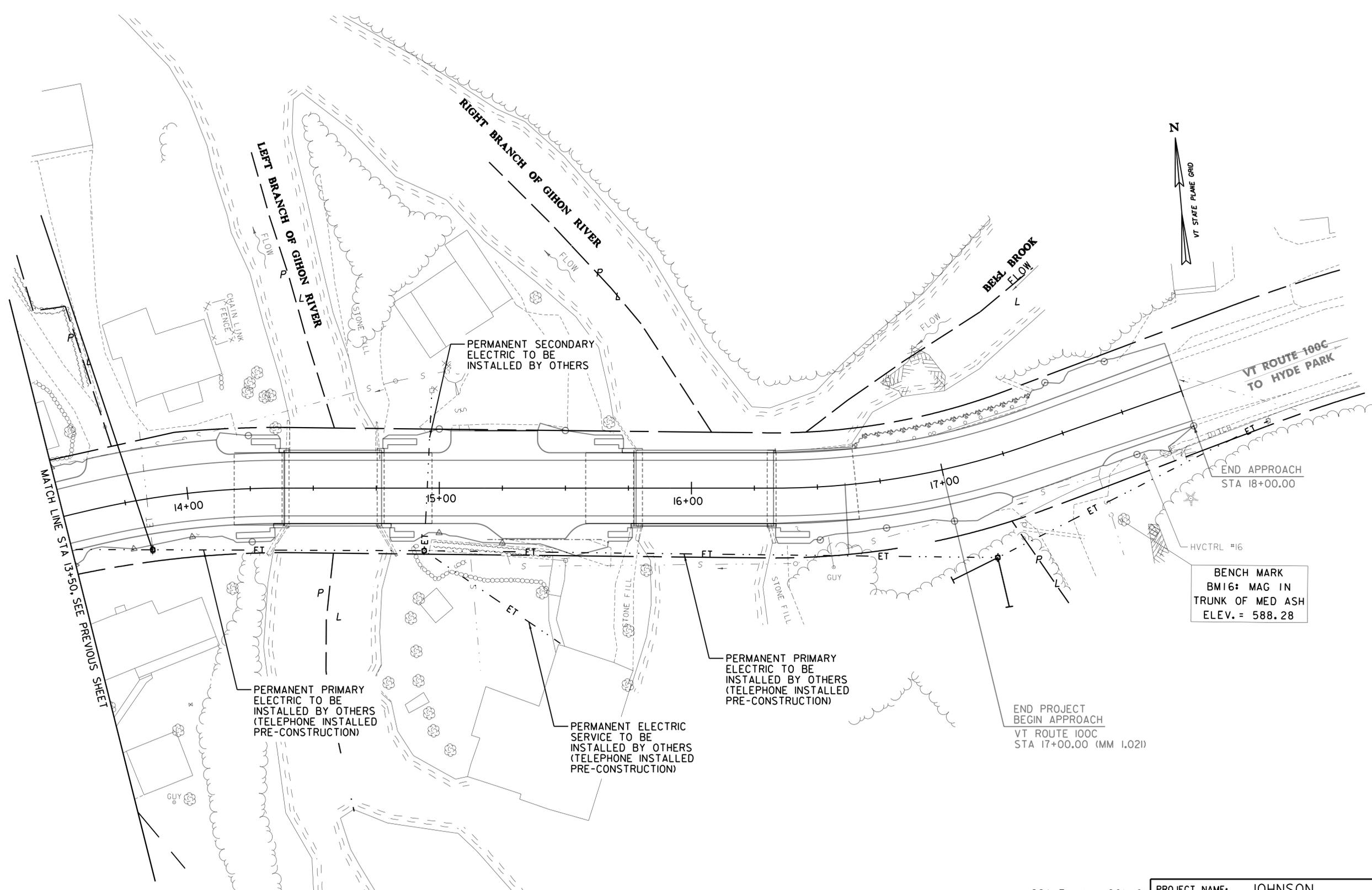
PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066bdrut\_pre.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: L. WHEELER  
PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
PRE-CONSTRUCTION UTILITY LAYOUT SHEET 2 SHEET 19 OF 47

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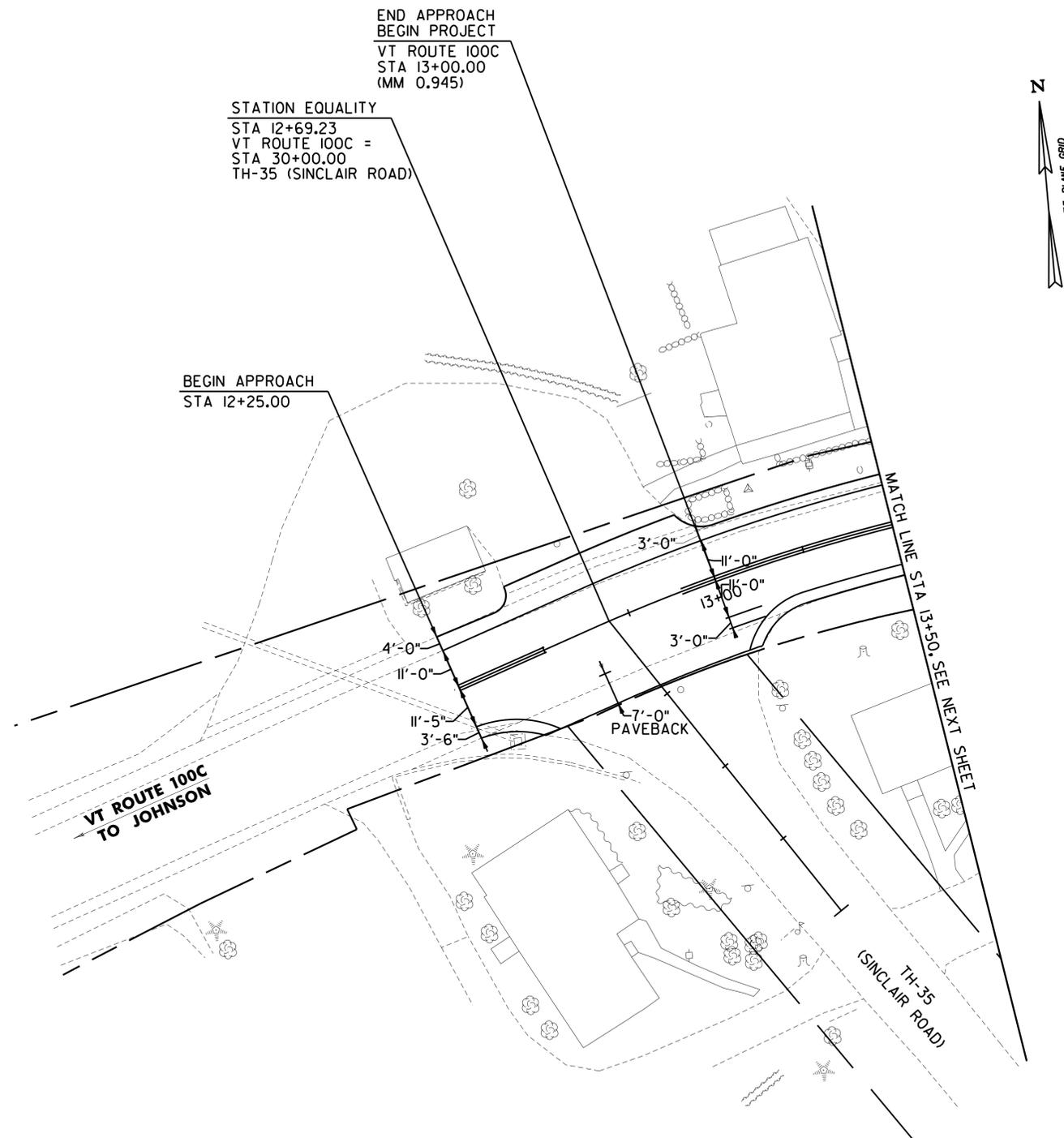


SCALE 1" = 20'-0"  
 20 0 20



PROJECT NAME: JOHNSON	
PROJECT NUMBER: BF 0248 (4)	
FILE NAME: z13c066bdrut_post.dgn	PLOT DATE: 6/19/2015
PROJECT LEADER: W. PELLETIER	DRAWN BY: A. KIRBY
DESIGNED BY: A. HAWKINS	CHECKED BY:
POST-CONSTRUCTION UTILITY LAYOUT SHEET 2 SHEET 21 OF 47	

FILE NAME = N:\p\projects\VT\VT03\28410\CADD\MSTIN13\066\Consul\mnts\Highway\z13\066bdr-ssp.dgn  
DATE/TIME = 6/19/2015  
USER = 5237



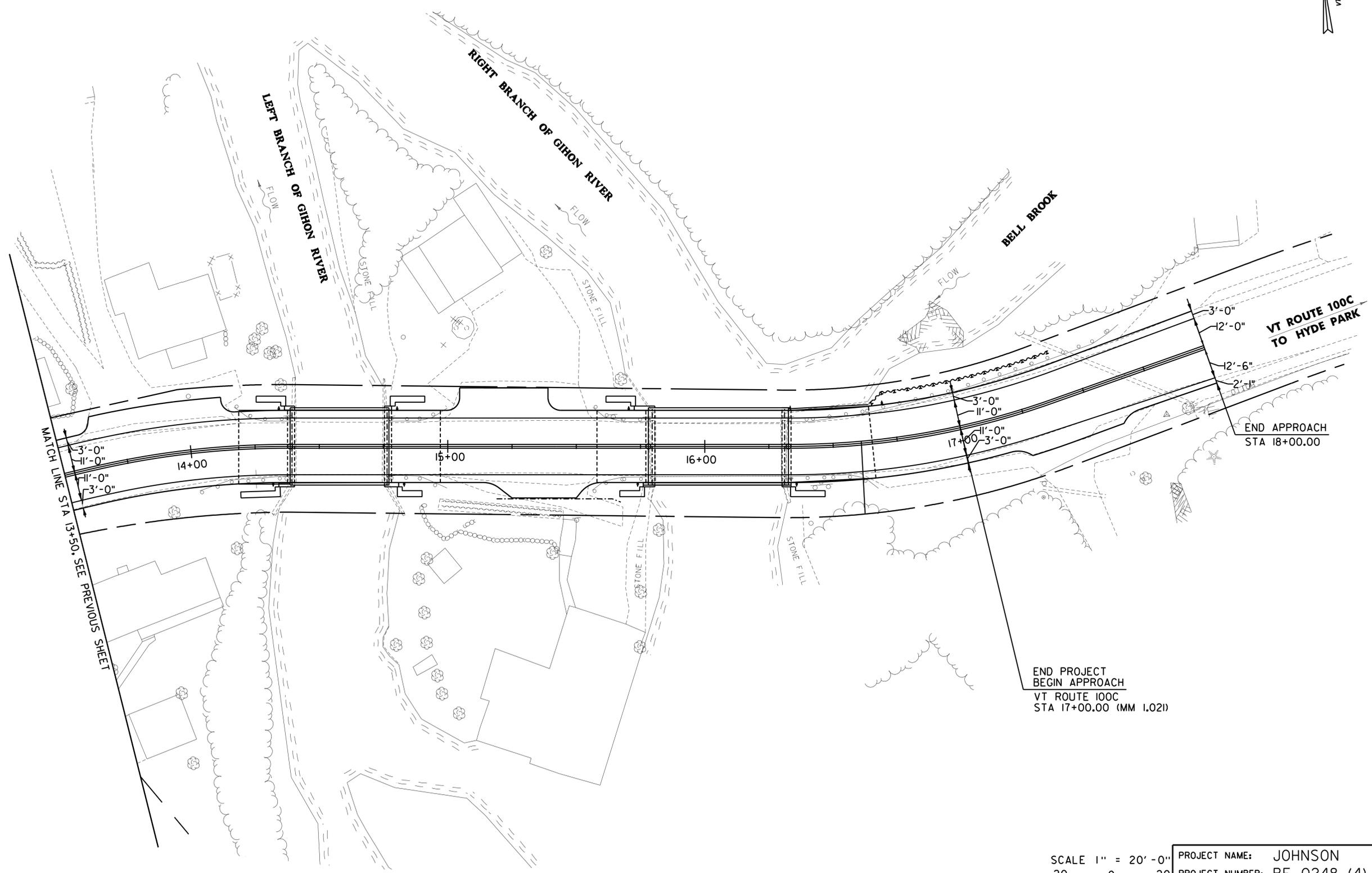
SCALE 1" = 20'-0"  
20 0 20



PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066bdr-ssp.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: A. HAWKINS  
TRAFFIC SIGNS AND LINES SHEET 1

PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
SHEET 22 OF 47



MATCH LINE STA 13+50. SEE PREVIOUS SHEET

END PROJECT  
BEGIN APPROACH  
VT ROUTE 100C  
STA 17+00.00 (MM 1.021)

END APPROACH  
STA 18+00.00

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



PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066bdrssp.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: A. HAWKINS  
TRAFFIC SIGNS AND LINES SHEET 2

PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
SHEET 23 OF 47

FILE NAME = N:\p\066\projects\ANNEX3\28410\CADD\MSTIN13c066\Consul\mnts\Highway\z13c066bdrssp.dgn  
DATE/TIME = 6/19/2015 5:23:37  
USER =

**SOIL CLASSIFICATION**

**AASHTO**

A1	GRAVEL AND SAND
A2	SILTY OR CLAYEY GRAVEL AND SAND
A3	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**

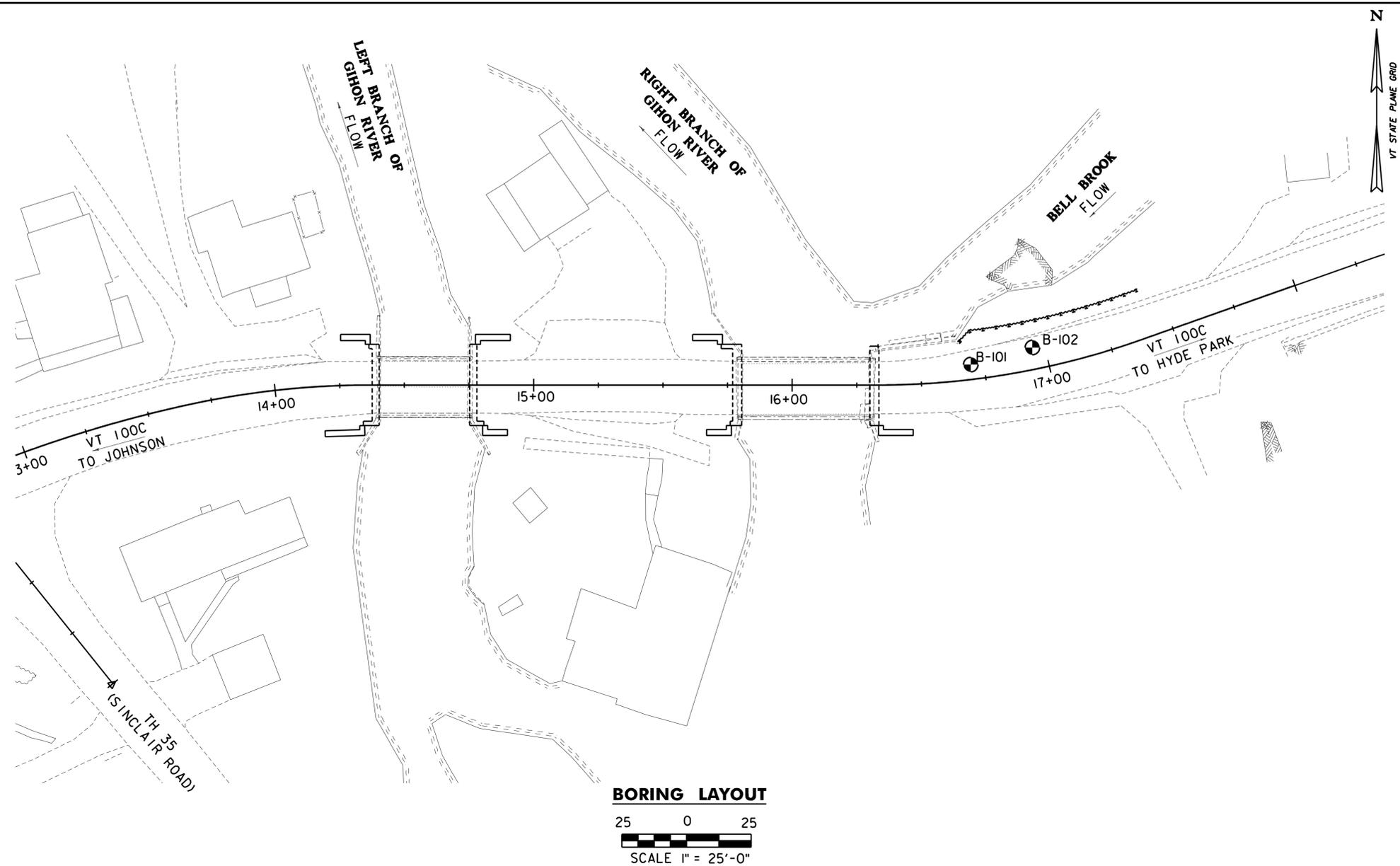
DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	VERY LOOSE	<2	VERY SOFT
5-10	LOOSE	2-4	SOFT
11-24	MED. DENSE	5-8	MED. STIFF
25-50	DENSE	9-15	STIFF
>50	VERY DENSE	16-30	VERY STIFF
		31-60	HARD
		>60	VERY HARD

**COMMONLY USED SYMBOLS**

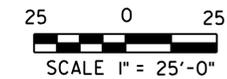
- ▼ WATER ELEVATION
- ⊙ STANDARD PENETRATION BORING
- ⊕ AUGER BORING
- ⊙ ROD SOUNDING
- ⊙ SAMPLE
- S STANDARD PENETRATION TEST
- N BLOW COUNT PER FOOT FOR:
  - 2" O. D. SAMPLER
  - 1 3/8" I. D. SAMPLER
  - HAMMER WEIGHT OF 140 LBS.
  - HAMMER FALL OF 30"
- VS FIELD VANE SHEAR TEST
- US UNDISTURBED SOIL 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
- %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**

bik	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	mtc	MULTICOLORED
or	ORANGE		



**BORING LAYOUT**



**BORING CHART**

HOLE NO.	SURVEY STATION	OFFSET (FT)	GROUND EL. (FT)	EL. TLOB (FT)
B-101	16+95.00	8.47 LT	581.0	571.0
B-102	16+69.53	5.75 LT	582.0	570.0

**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).
- SILT** - 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**

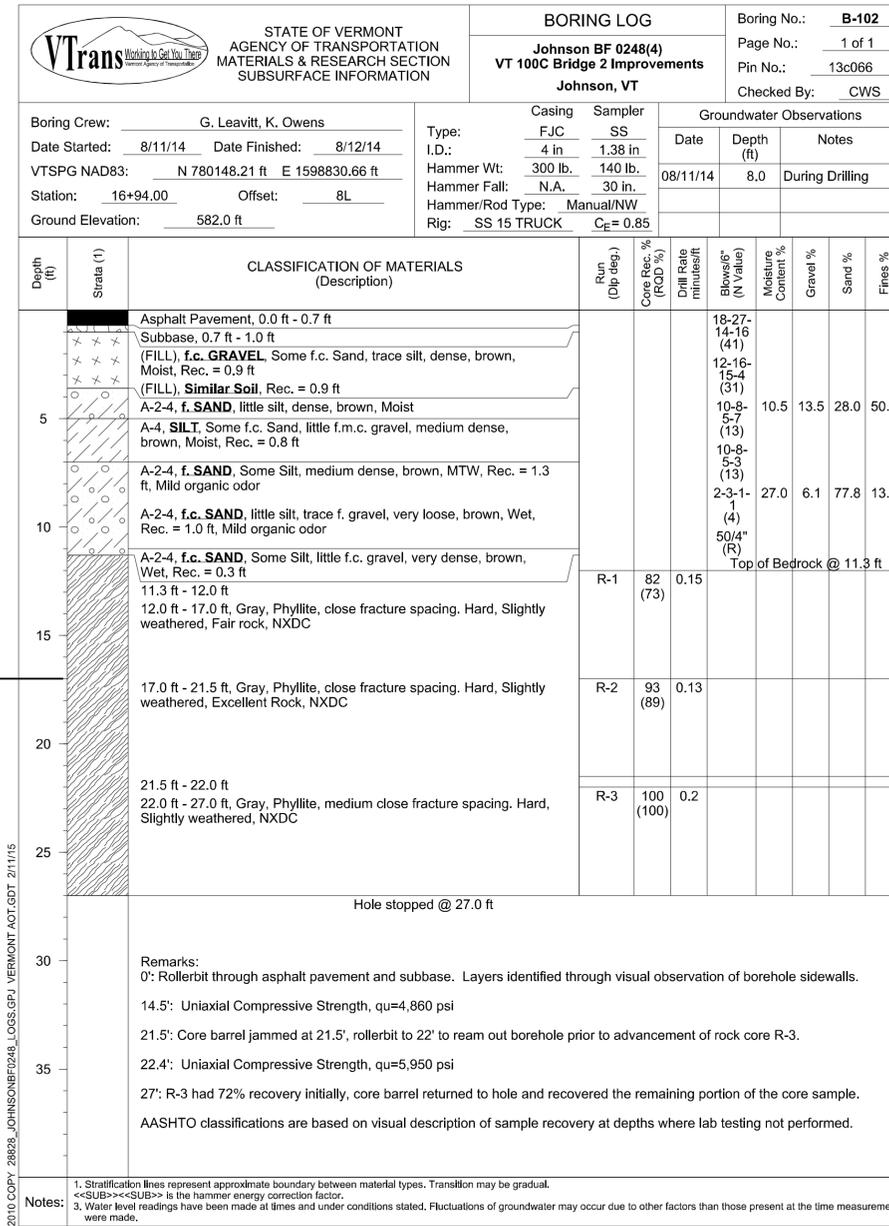
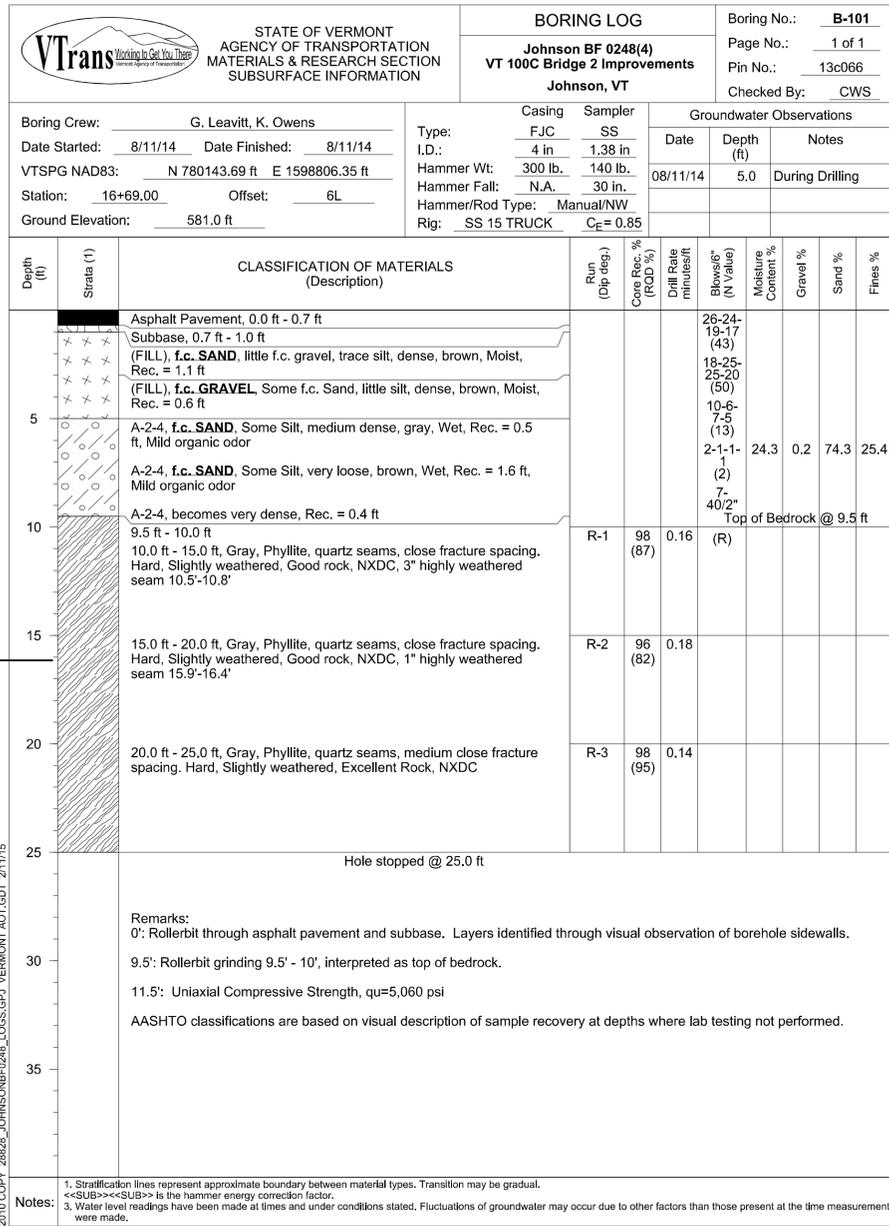
- THE SUBSURFACE EXPLORATIONS SHOWN HEREIN WERE MADE BETWEEN AUGUST 11 AND AUGUST 12, 2014 BY CLOUGH HARBOUR & ASSOCIATES, LLP.
- ADDITIONAL EXPLORATIONS (ONE AT EACH ABUTMENT AND ONE NEAR END OF WALL NEAR STA. 17+40) WILL BE MADE PRIOR TO FINAL DESIGN.
- SOIL AND ROCK CLASSIFICATIONS, PROPERTIES AND 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.



PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066borringinfo.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: C. SYMMES  
BORING INFORMATION SHEET

PLOT DATE: 6/19/2015  
DRAWN BY: P. ROTH  
CHECKED BY:  
SHEET 24 OF 47



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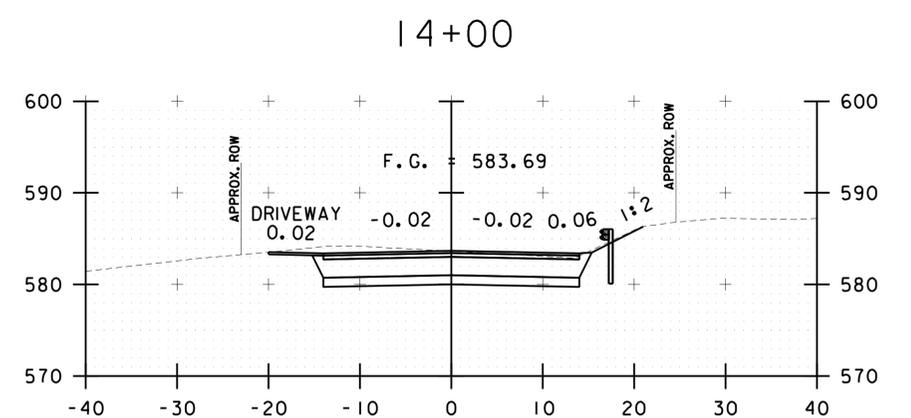
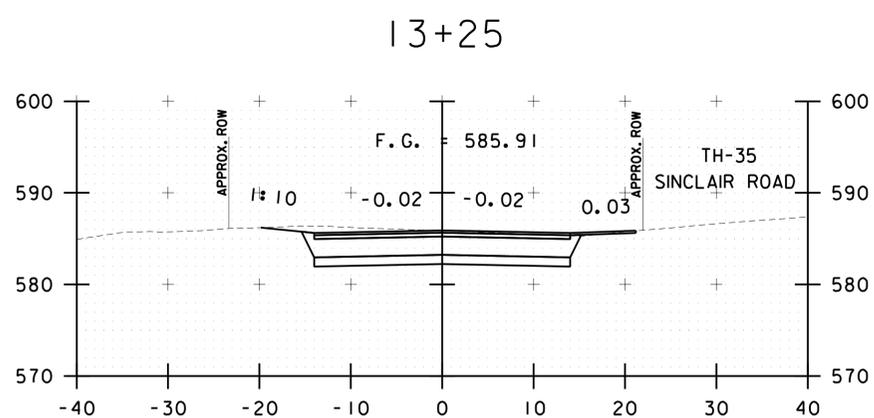
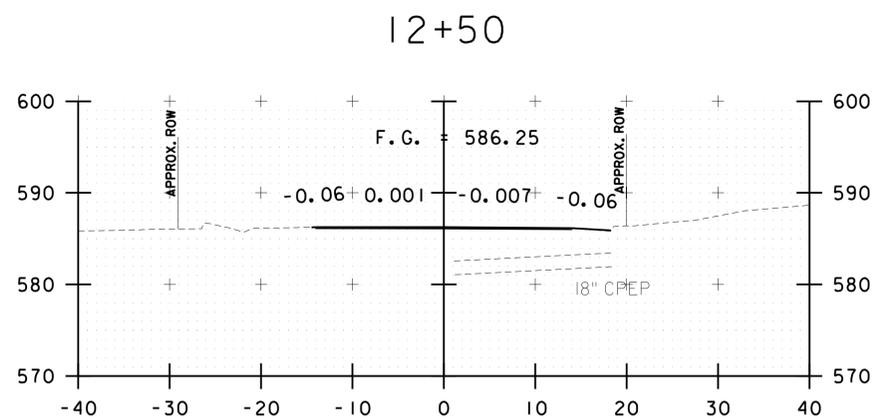
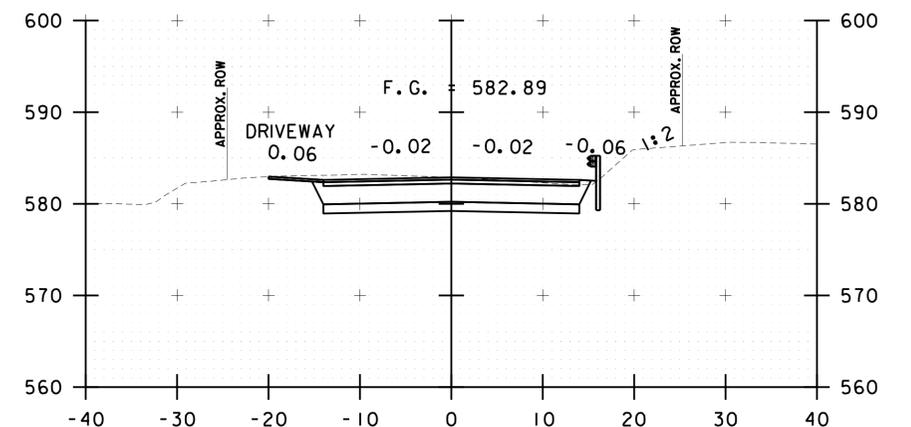
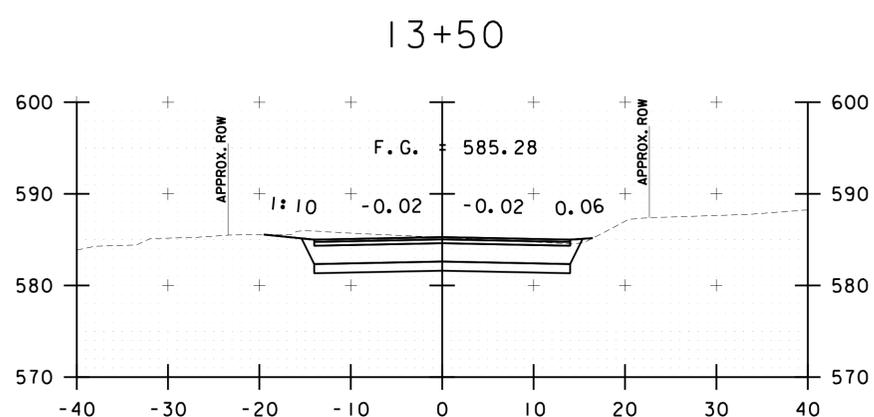
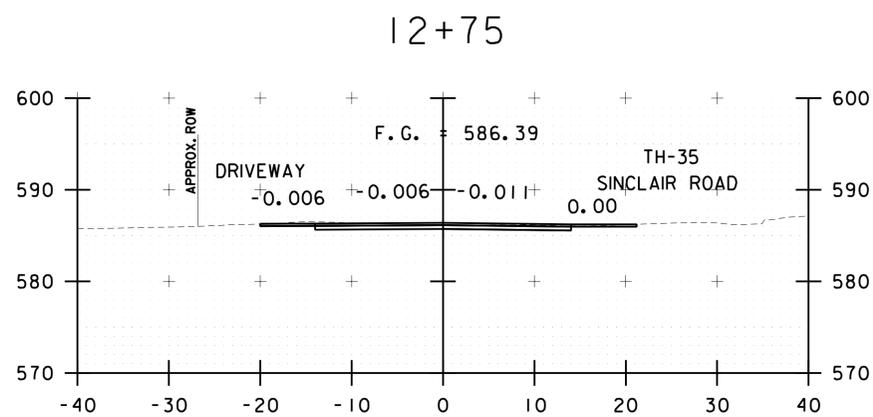
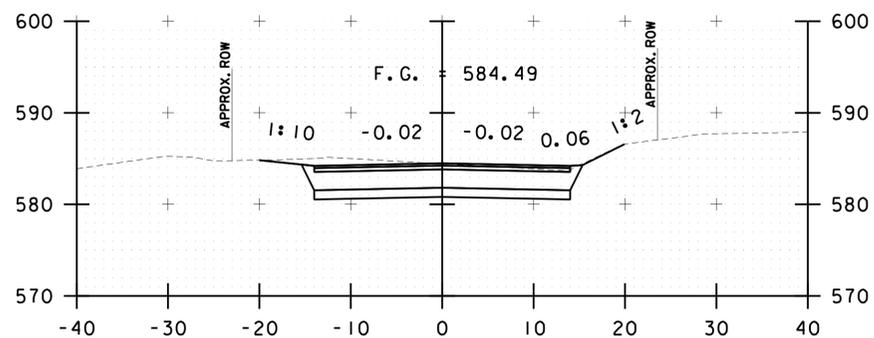
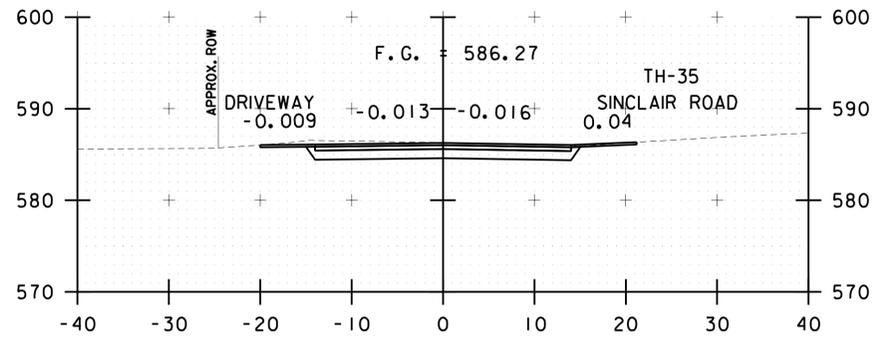


PROJECT NAME: JOHNSON	PLOT DATE: 6/19/2015
PROJECT NUMBER: BF 0248 (4)	DRAWN BY: P. ROTH
FILE NAME: z13c066borr\inginfo.dgn	CHECKED BY:
PROJECT LEADER: W. PELLETTIER	SHEET 25 OF 47
DESIGNED BY: C. SYMMES	
BORING LOG SHEET	





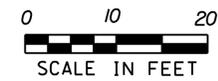
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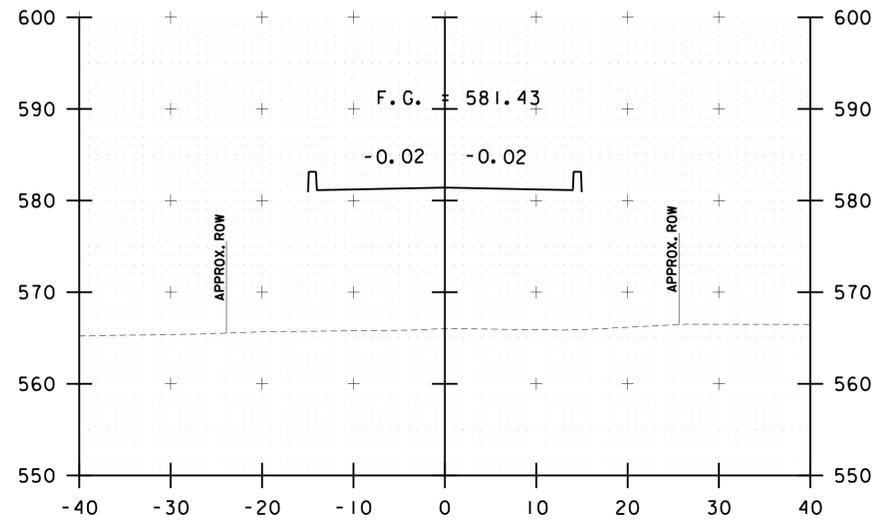
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STA. 12+25 TO STA. 14+00



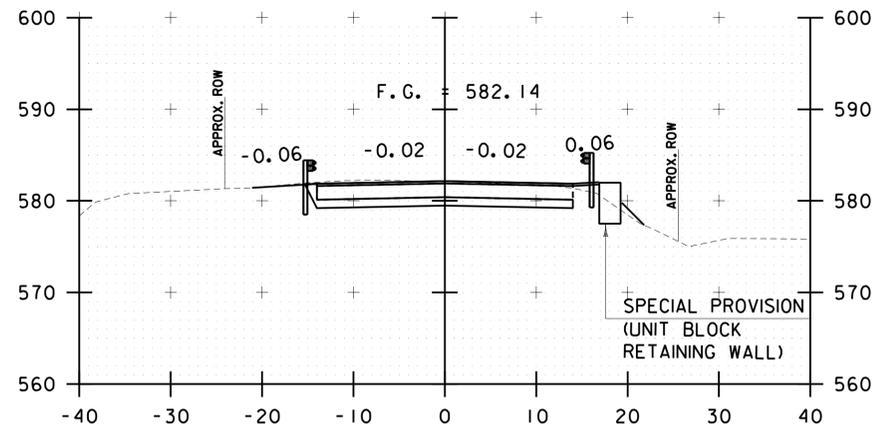
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PROJECT NUMBER: BF 0248 (4)	
FILE NAME: z13c066xsc.dgn	PLOT DATE: 6/19/2015
PROJECT LEADER: W. PELLETIER	DRAWN BY: A. KIRBY
DESIGNED BY: A. HAWKINS	CHECKED BY:
MAINLINE CROSS SECTIONS SHEET 1	SHEET 28 OF 47

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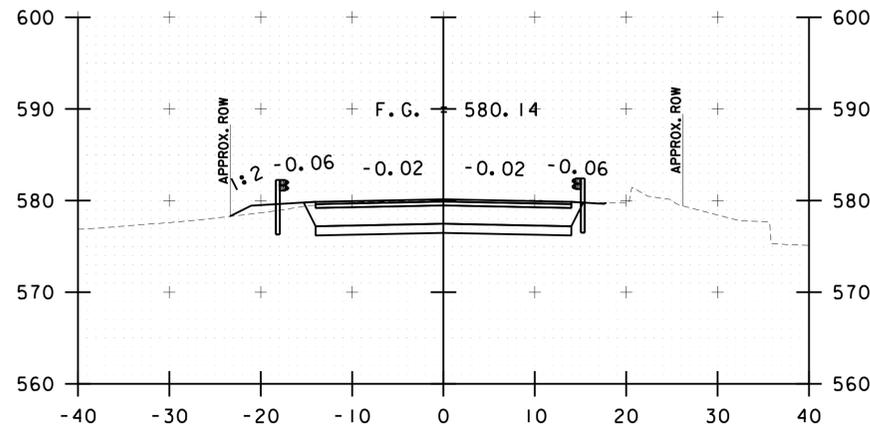


14+50

BEGIN BR | STA 14+38.63

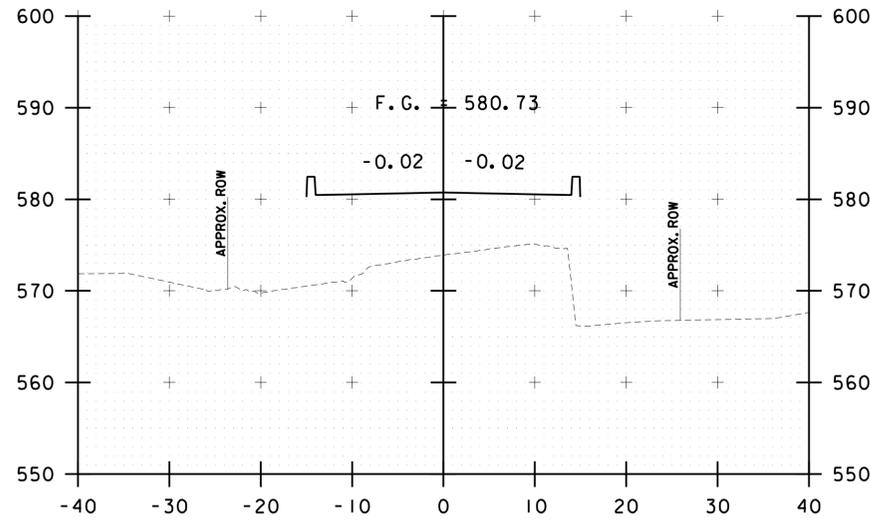


14+25

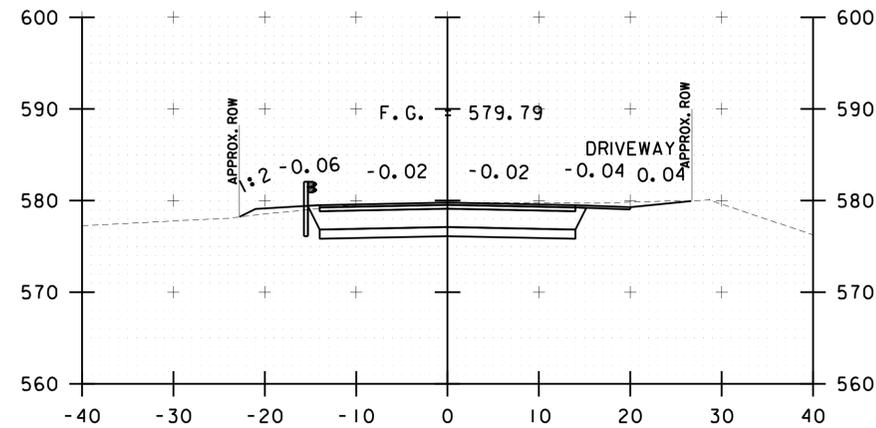


15+00

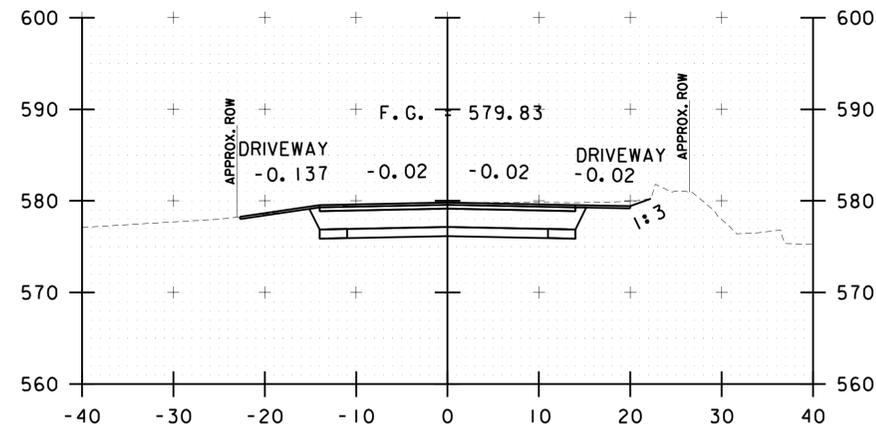
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14+75

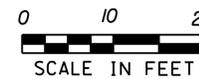


15+50



15+25

STA. 14+25 TO STA. 15+50



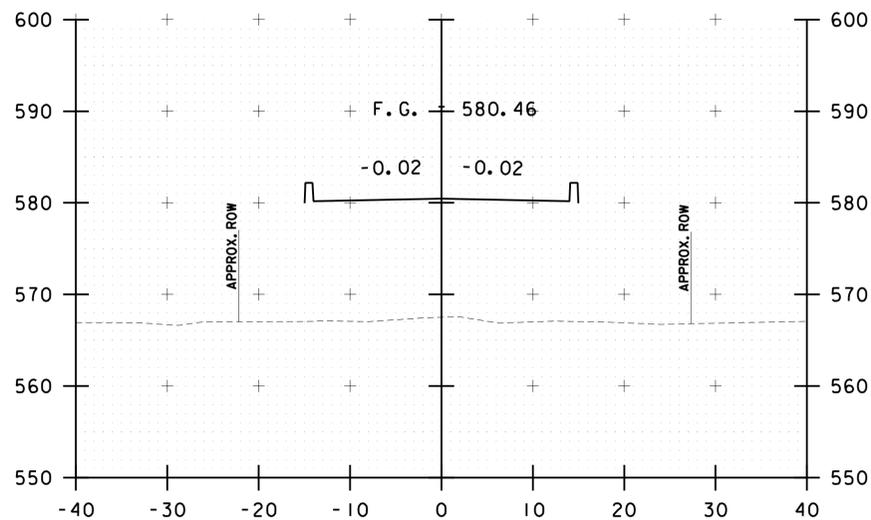
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 PROJECT NUMBER: BF 0248 (4)

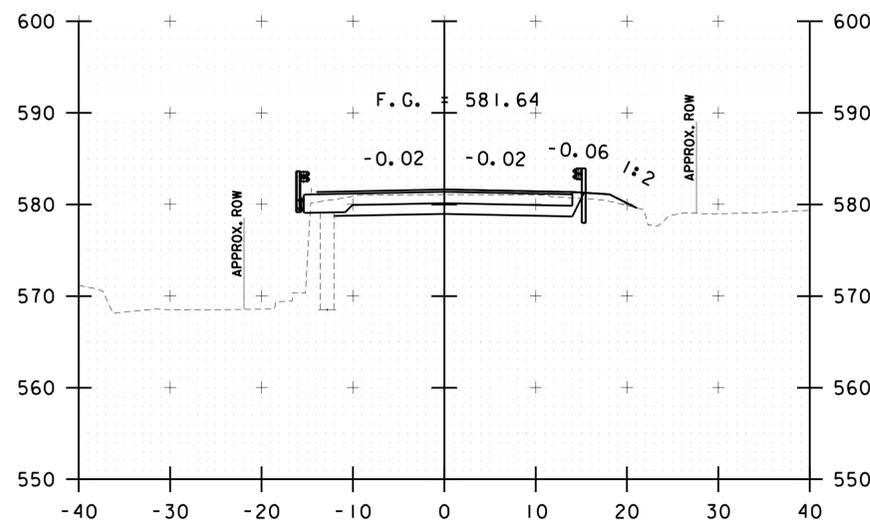
FILE NAME: z13c066xsc.dgn  
 PROJECT LEADER: W. PELLETIER  
 DESIGNED BY: A. HAWKINS  
 MAINLINE CROSS SECTIONS SHEET 2

PLOT DATE: 6/19/2015  
 DRAWN BY: A. KIRBY  
 CHECKED BY:  
 SHEET 29 OF 47



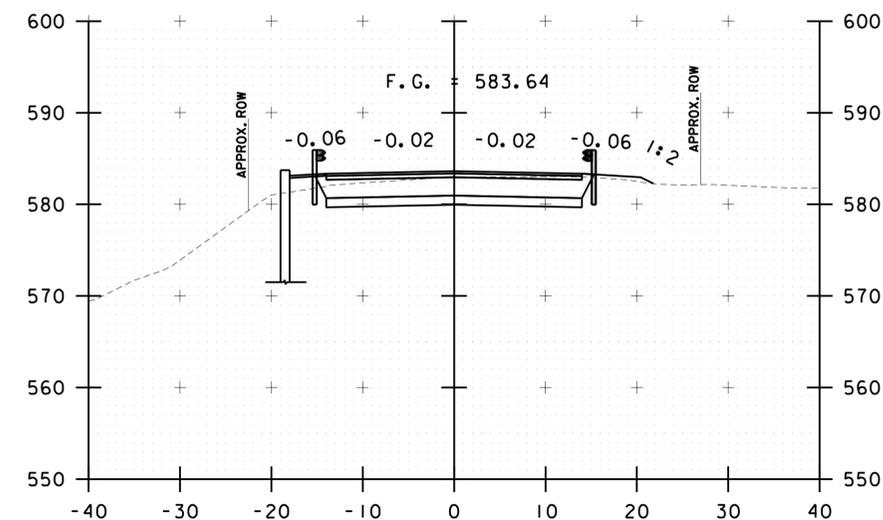
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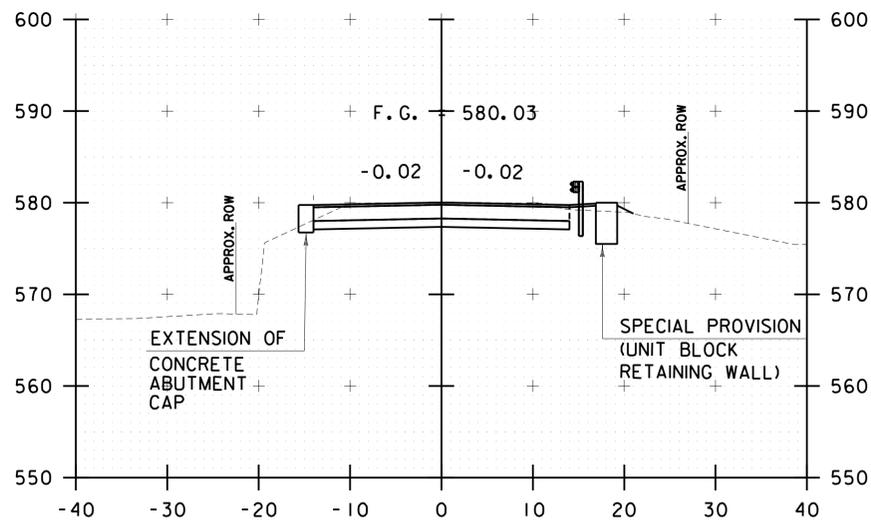
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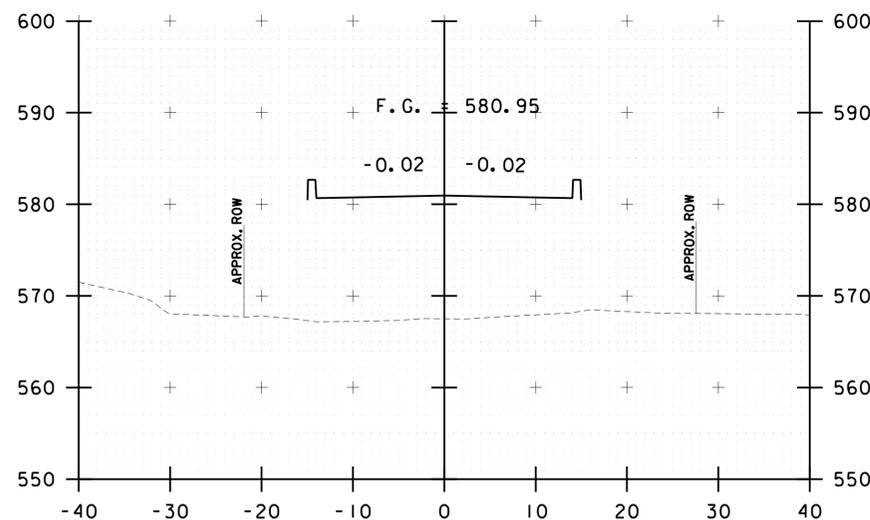


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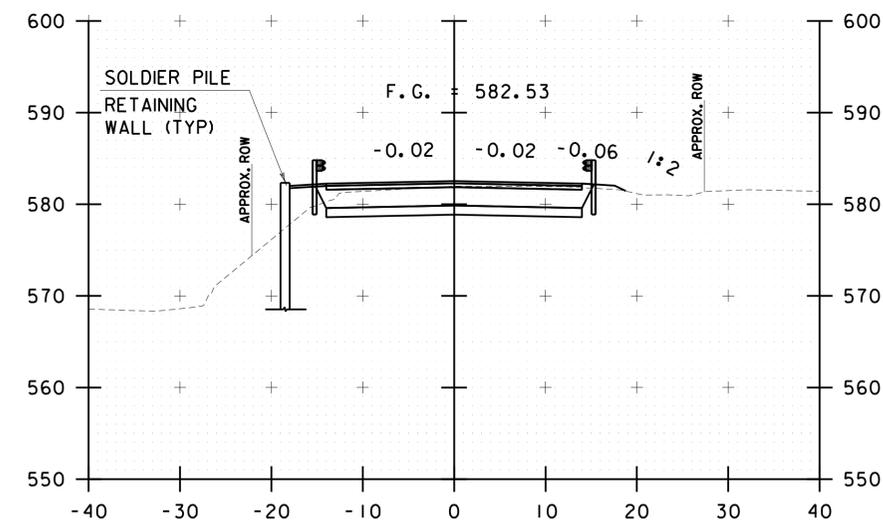
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15+75



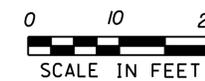
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16+75

STA. 15+75 TO STA. 17+00

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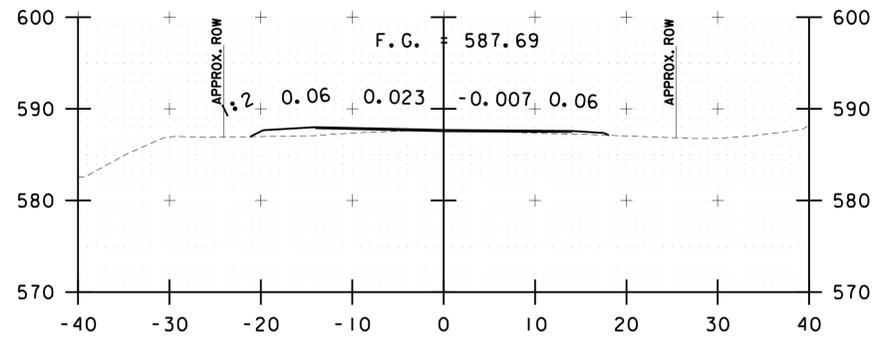


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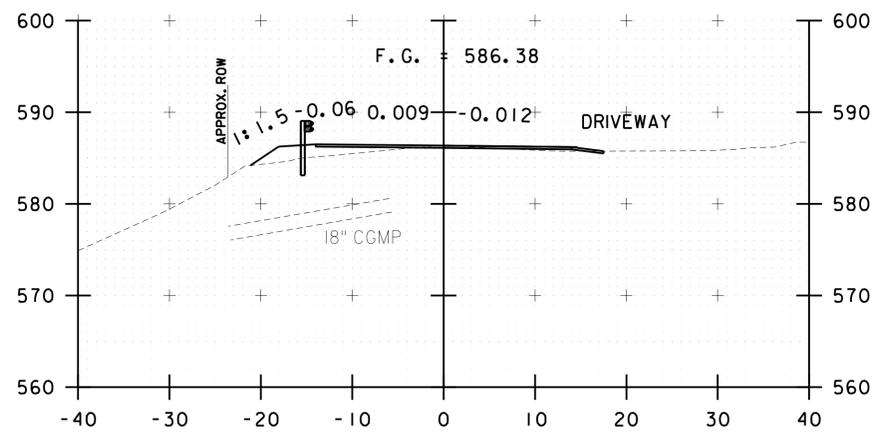
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DESIGNED BY: A. HAWKINS  
MAINLINE CROSS SECTIONS SHEET 3

PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
SHEET 30 OF 47

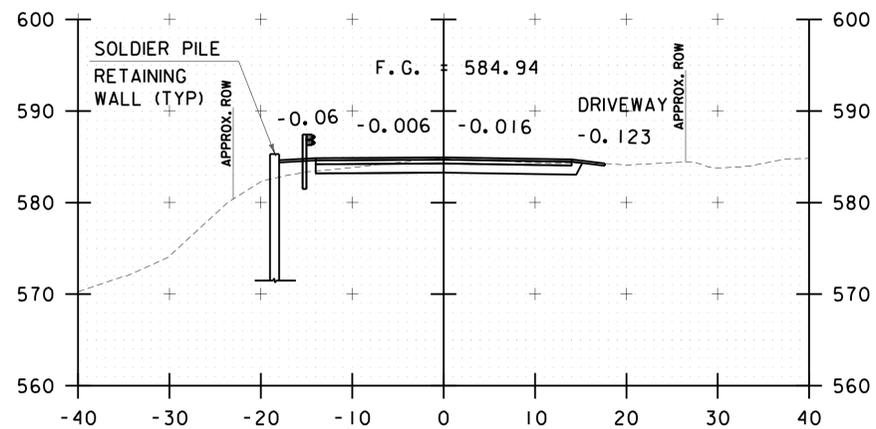
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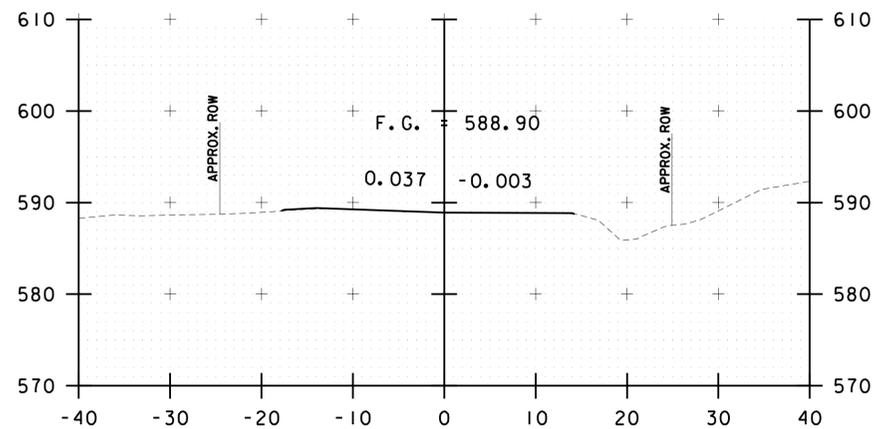
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17+50



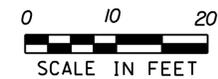
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18+00

END APPROACH STA 18+00.00

STA. 17+25 TO STA. 18+00



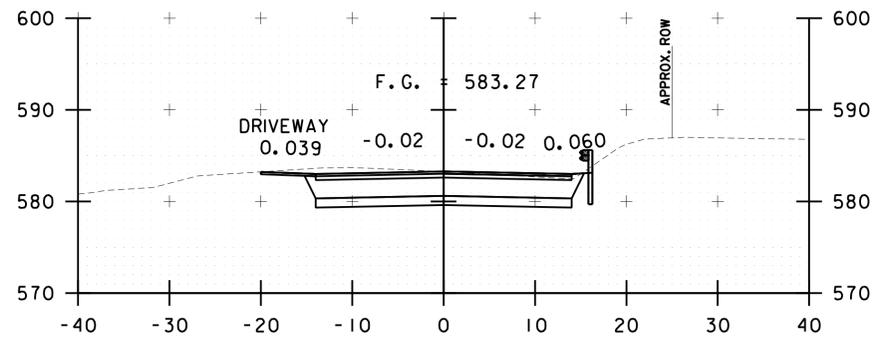
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 PROJECT NUMBER: BF 0248 (4)

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 PROJECT LEADER: W. PELLETIER  
 DESIGNED BY: A. HAWKINS  
 MAINLINE CROSS SECTIONS SHEET 4

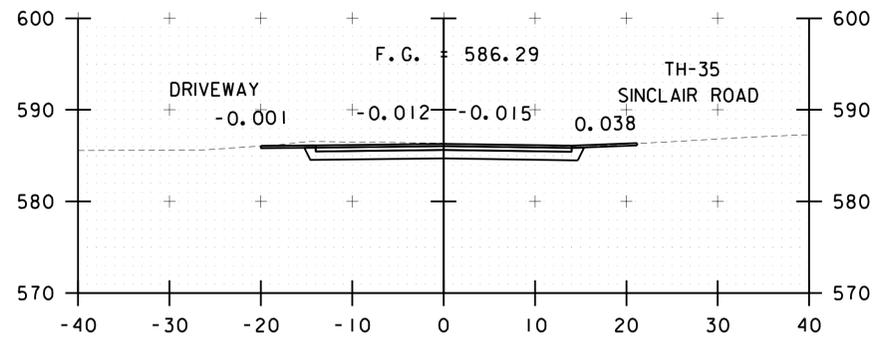
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 DRAWN BY: A. KIRBY  
 CHECKED BY:  
 SHEET 31 OF 47



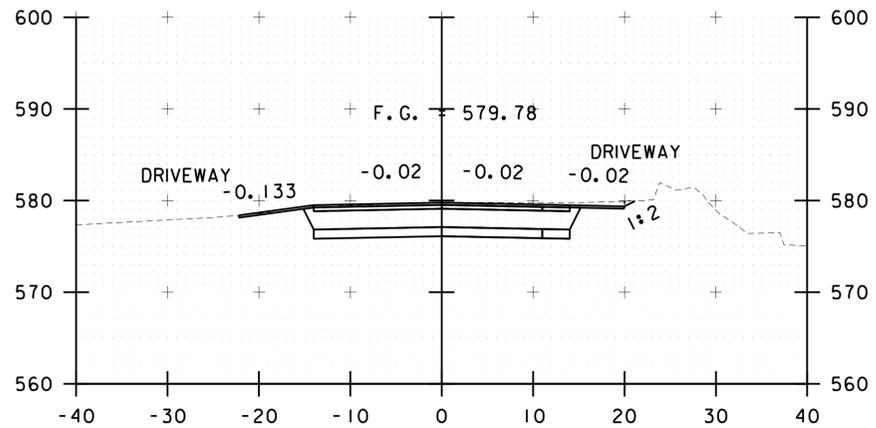
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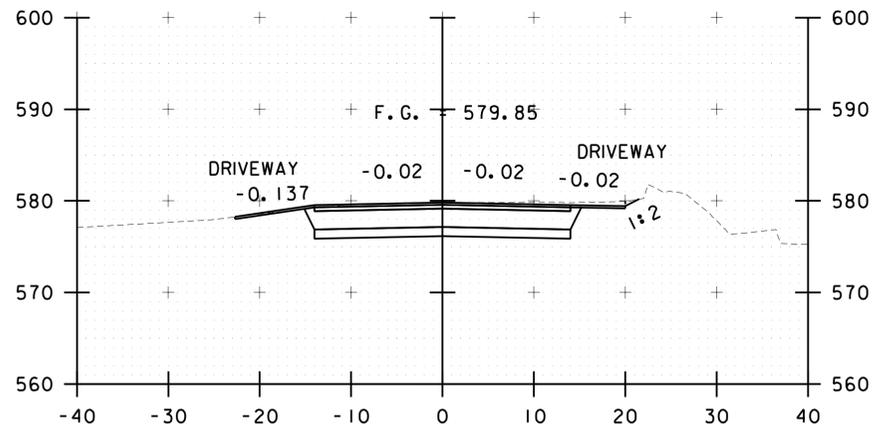
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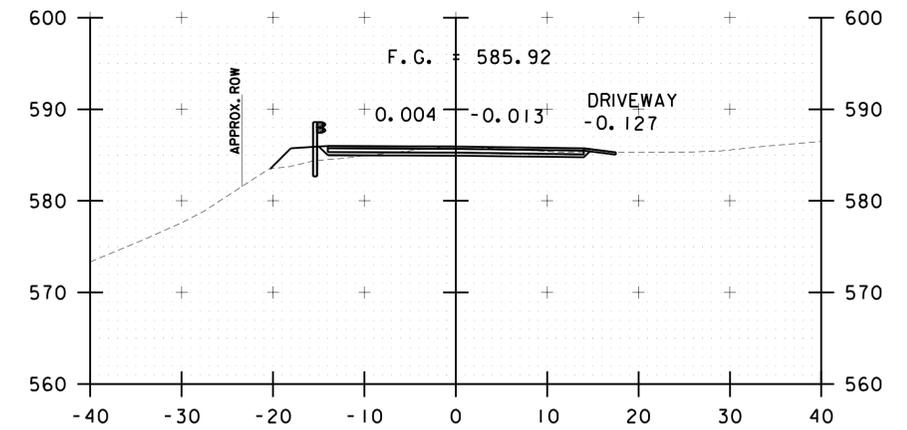
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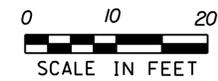
15+38



15+22



17+42



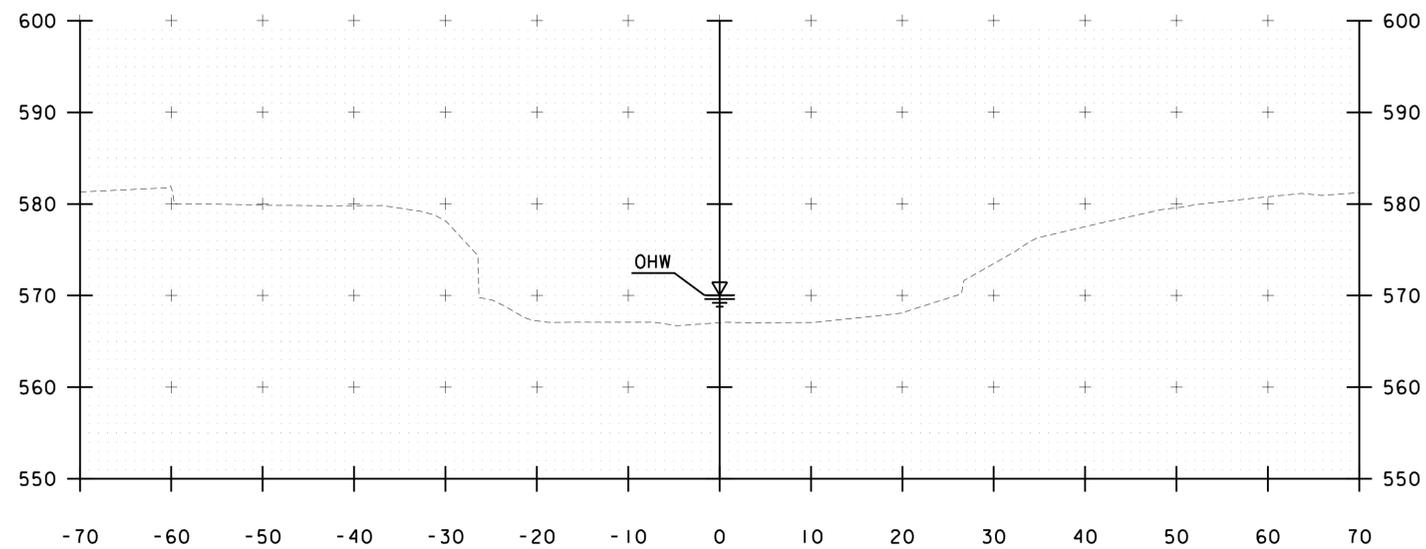
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FILE NAME: z13c066xsc.dgn	PLOT DATE: 6/19/2015
PROJECT LEADER: W. PELLETIER	DRAWN BY: A. KIRBY
DESIGNED BY: A. HAWKINS	CHECKED BY:
DRIVEWAY CROSS SECTIONS SHEET	SHEET 33 OF 47



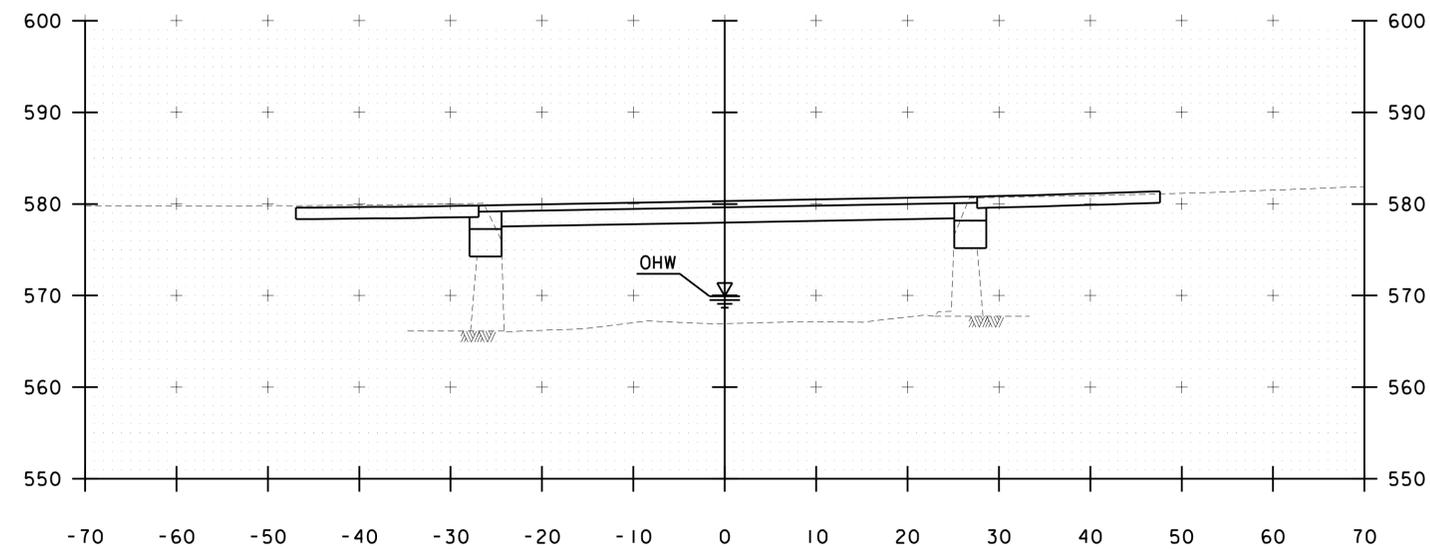




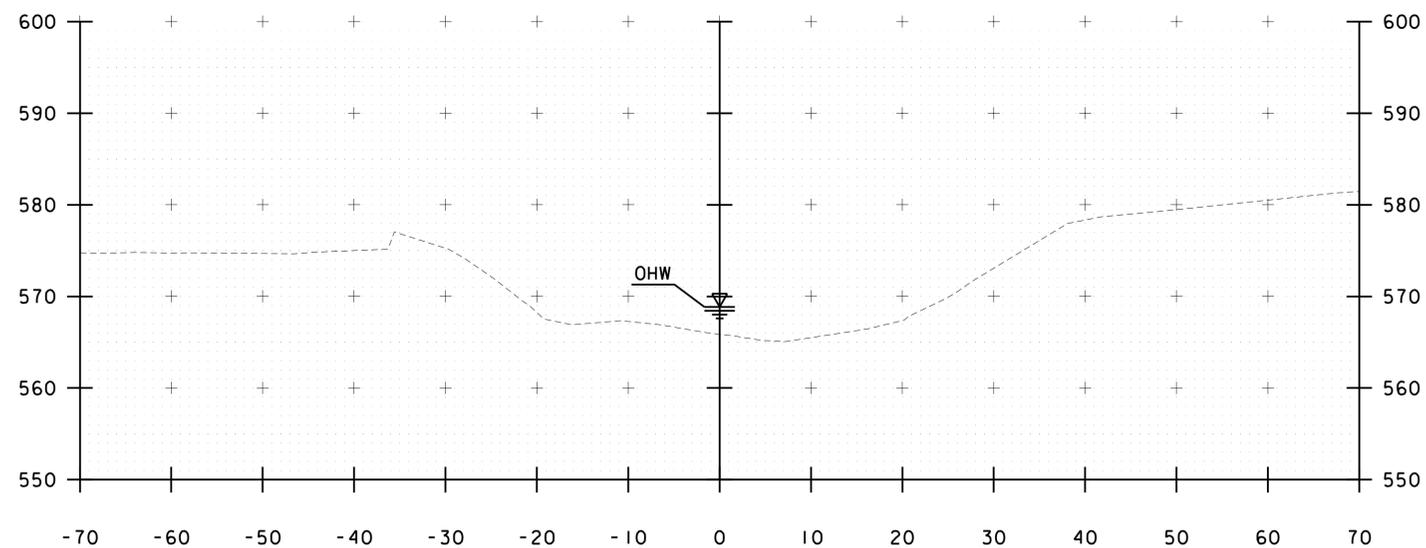
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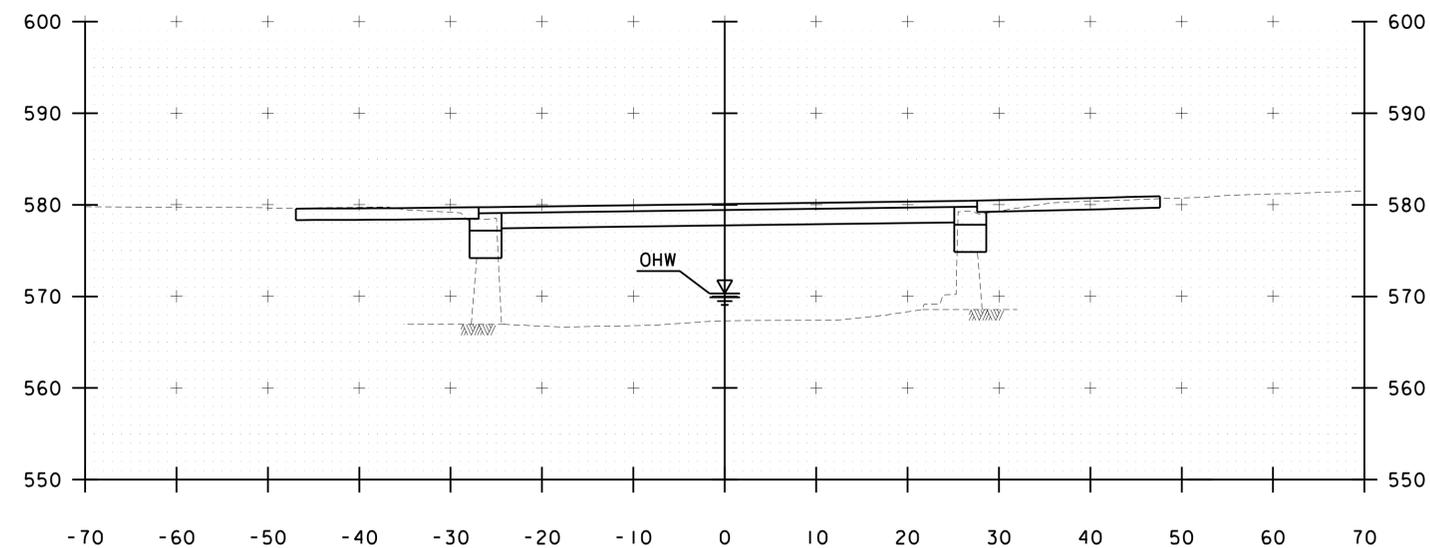
50+25



50+45

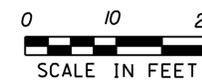


50+00



50+35

STA. 50+00 TO STA. 50+45



PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066xsc.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: J. PARKER  
RIGHT BRANCH GHON RIVER SECTIONS SHEET 1 SHEET 37 OF 47

PLOT DATE: 6/19/2015  
DRAWN BY: P. ROTH  
CHECKED BY:





## EPSC PLAN NARRATIVE

### 1.1 PROJECT DESCRIPTION

BRIDGE 1 AND BRIDGE 2 ARE LOCATED ALONG ON VT ROUTE 100C OVER THE LEFT BRANCH AND RIGHT BRANCH OF THE GIHON RIVER, RESPECTIVELY. THE PROJECT CONSISTS OF REMOVING THE EXISTING DECK AND SUPERSTRUCTURE OF BOTH BRIDGES AND REPLACING THEM WITH A NEW DECK AND SUPERSTRUCTURE USING ACCELERATED BRIDGE CONSTRUCTION METHODS. DURING CONSTRUCTION TRAFFIC WILL BE MAINTAINED ON AN OFF-SITE DETOUR.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.37 ACRE.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

### 1.2 SITE INVENTORY

#### 1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT SITE IS HILLY WITH STEEP SLOPES ADJACENT TO THE GIHON RIVER BRANCHES. THE PROJECT AREA CONSISTS OF WELL ESTABLISHED VEGETATION WITH A MIXTURE OF TREES, SHRUBS, GRASS AND LAWN AREAS. VT ROUTE 100C, SINCLAIR ROAD (TH-35), AND SIX DRIVEWAYS ARE WITHIN THE PROJECT LIMITS. THERE ARE SEVEN RESIDENCES ALONG VT ROUTE 100C WITHIN THE LIMITS OF THE PROJECT. ONE RESIDENCE IS LOCATED IN BETWEEN THE TWO BRIDGES.

#### 1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THERE ARE TWO WATER SOURCES ON THE PROJECT SITE; GIHON RIVER AND BELL BROOK. THE VANR BANK FULL WIDTH (BFW) EQUATION ESTIMATES THE BFW OF THE GIHON RIVER TO BE APPROXIMATELY 78 FEET. THE STREAMBED CONSISTS OF GRAVEL AND COBBLES WITH SOME BOULDERS IN THE STREAM CHANNEL AND ALONG BOTH BANKS BASED ON FIELD AND PHOTOGRAPHIC OBSERVATIONS OF THE STUDY AREA. THE OVERBANK CONDITIONS IMMEDIATELY ADJACENT TO THE STREAM WERE TYPICALLY ARMORED WITH LARGE ROCKS, DENSE BRUSH, AND SMALL TREES. THE OVERBANK CONDITIONS IN THE ISLAND BETWEEN THE EAST AND WEST BRANCHES OF THE GIHON RIVER ARE LESS VEGETATED WITH BRUSH ALONG THE STREAM BANKS AND LAWN AND GRAVEL AREAS FURTHER UPLAND. THREE CULVERTS AND ONE DROP INLET ARE LOCATED WITHIN THE LIMITS.

#### 1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF FOREST, SHRUBBERY AND LAWN AREAS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

#### 1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF LAMOILLE, VERMONT. SOILS ON THE PROJECT SITE ARE AS LISTED:  
ADAMS LOAMY FINE SAND, 2-8% SLOPES, "K FACTOR" = .20  
POTSDAM SILT LOAM, 15-25% SLOPES, "K FACTOR" = .37  
SALMON VARIANT, 8-15%, "K FACTOR" = .32  
SALMON VERY FINE SANDY LOAM, 25-50% SLOPES, "K FACTOR" = .32  
THE SOIL IS CONSIDERED MODERATELY ERODIBLE.

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

#### 1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO  
HISTORICAL OR ARCHEOLOGICAL AREAS: YES, BOTH BRIDGES ARE HISTORICAL ALONG WITH SOME PROPERTY NORTHWEST OF THE START OF THE PROJECT. THERE ARE ARCHEOLOGICAL AREAS ON THE SOUTHEASTERN SIDE OF THE BRIDGE WHICH ARE TO BE AVOIDED DURING CONSTRUCTION.  
PRIME AGRICULTURAL LAND: NO  
THREATENED AND ENDANGERED SPECIES: NO  
WATER RESOURCE: GIHON RIVER, BELL BROOK  
WETLANDS: NO

### 1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

### 1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL 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.

#### 1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

BARRIER FENCE SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES. DUE TO SITE CONSTRAINTS, BARRIER FENCE SHALL BE PLACED AS SHOWN IN THE EPSC PLANS.

#### 1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

#### 1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR'S PROGRESS SCHEDULE.

DUE TO THE LIMITED PROJECT WORK SITE, FORMAL STABILIZED CONSTRUCTION ENTRANCES WILL NOT BE REQUIRED.

#### 1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN. DUE TO THE SITE CONSTRAINTS, SILT FENCE MAY NEED TO BE PLACED AS CLOSE AS TWO FEET TO THE TOE OF SLOPE. FILTER FABRIC DROP INLET PROTECTION SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

#### 1.4.5 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 PROJECT AREA IS RELATIVELY FLAT. THEREFORE IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

#### 1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

NO CHANNELIZED FLOW CONDITIONS ARE PROPOSED IN THE DESIGN AND THEREFORE NO STONE CHECK DAMS ARE SHOWN IN THE EPSC PLANS.

#### 1.4.7 CONSTRUCT PERMANENT CONTROLS

NO PERMANENT STORMWATER TREATMENT DEVICES ARE PROPOSED.

#### 1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

#### 1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

#### 1.4.10 STABILIZE SOIL 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.

#### 1.4.11 DE-WATERING ACTIVITIES

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.

TREATMENT OF DEWATERING COFFERDAM IS NOT ANTICIPATED.

#### 1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

### 1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VAOT EPSC PLAN CONTRACTOR CHECKLIST.

#### 1.5.1 CONSTRUCTION SEQUENCE

##### 1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SPECIFICATION 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

#### 1.5.3 UPDATES

PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066epscgn.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: A. HAWKINS  
EPSC PLAN NARRATIVE

PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
SHEET 40 OF 47



SOIL TYPE: WATER



ADAMS LOAMY FINE SAND  
2%-8% SLOPES  
NOT HIGHLY ERODIBLE  
K = 0.17

POTSDAM SILT LOAM  
15%-25% SLOPES  
HIGHLY ERODIBLE  
K = 0.49

VT ROUTE 100C  
TO VT 15

MATCH LINE STA 13+50. SEE NEXT SHEET

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

PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066epscox.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: A. HAWKINS  
EPSC EXISTING SITE PLAN SHEET 1

PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
SHEET 41 OF 47



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USER =

SOIL TYPE: WATER

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



ADAMS LOAMY FINE SAND  
2%-8% SLOPES  
NOT HIGHLY ERODIBLE  
K = 0.17

**NADEAU, ALBERT M.**

LEFT BRANCH OF GIBON RIVER

**ROMERO, ROBERT H. & CASEY - TRUSTEES**

VILLAGE SEWER PUMP STATION

GRAVEL DRIVE

PAVED DRIVE

**PEINERT, JOHN C. - TRUSTEE**

BELL BROOK

VT ROUTE 100C TO HYDE PARK

**MARSH, GREGORY K.**

**THOMPSON, PHILIP W. & MICHAEL J.**

**ROMERO, ROBERT H. & CASEY - TRUSTEES**

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

POTSDAM SILT LOAM  
15%-25% SLOPES  
HIGHLY ERODIBLE  
K = 0.49

MATCH LINE STA 13+50. SEE PREVIOUS SHEET

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

PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066epscox.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: A. HAWKINS  
EPSC EXISTING SITE PLAN SHEET 2

PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
SHEET 42 OF 47



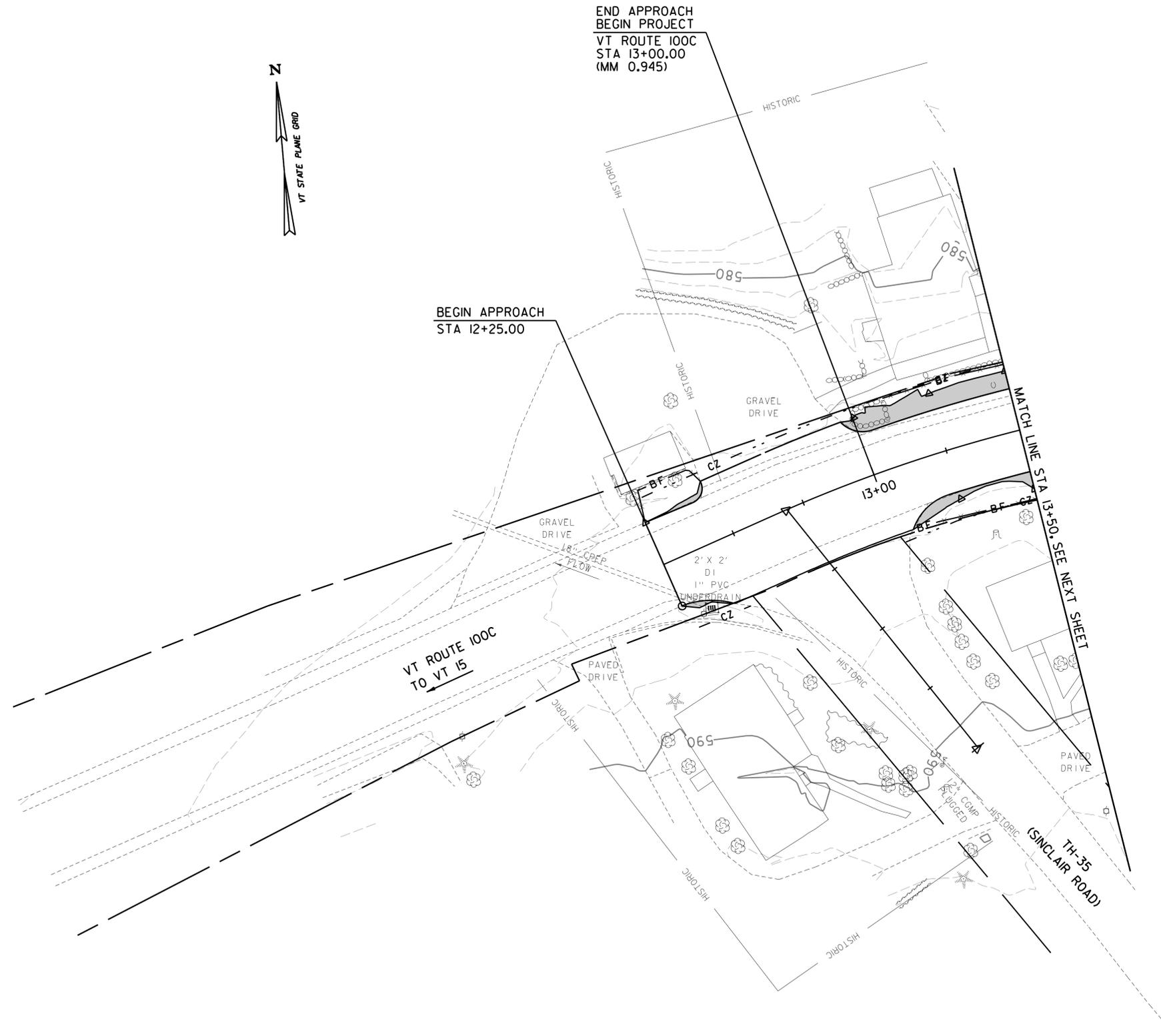
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USER: 5237

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 USER =



END APPROACH  
 BEGIN PROJECT  
 VT ROUTE 100C  
 STA 13+00.00  
 (MM 0.945)

BEGIN APPROACH  
 STA 12+25.00



**LEGEND**

**INLET PROTECTION DEVICE, TYPE I**  
 STA 12+33.0 RT

**BARRIER FENCE**  
 STA 12+25.0 - STA 12+47.0 LT  
 STA 13+06.4 - STA 13+50.0 RT  
 STA 13+10.5 - STA 13+50.0 LT

- BF ——— BF ——— BARRIER FENCE
- - - - - RIPARIAN BUFFER ZONE
- ▣ FILTER FABRIC DROP INLET PROTECTION
- ▨ DISTURBED AREAS REQUIRING VEGETATION
- SILT FENCE

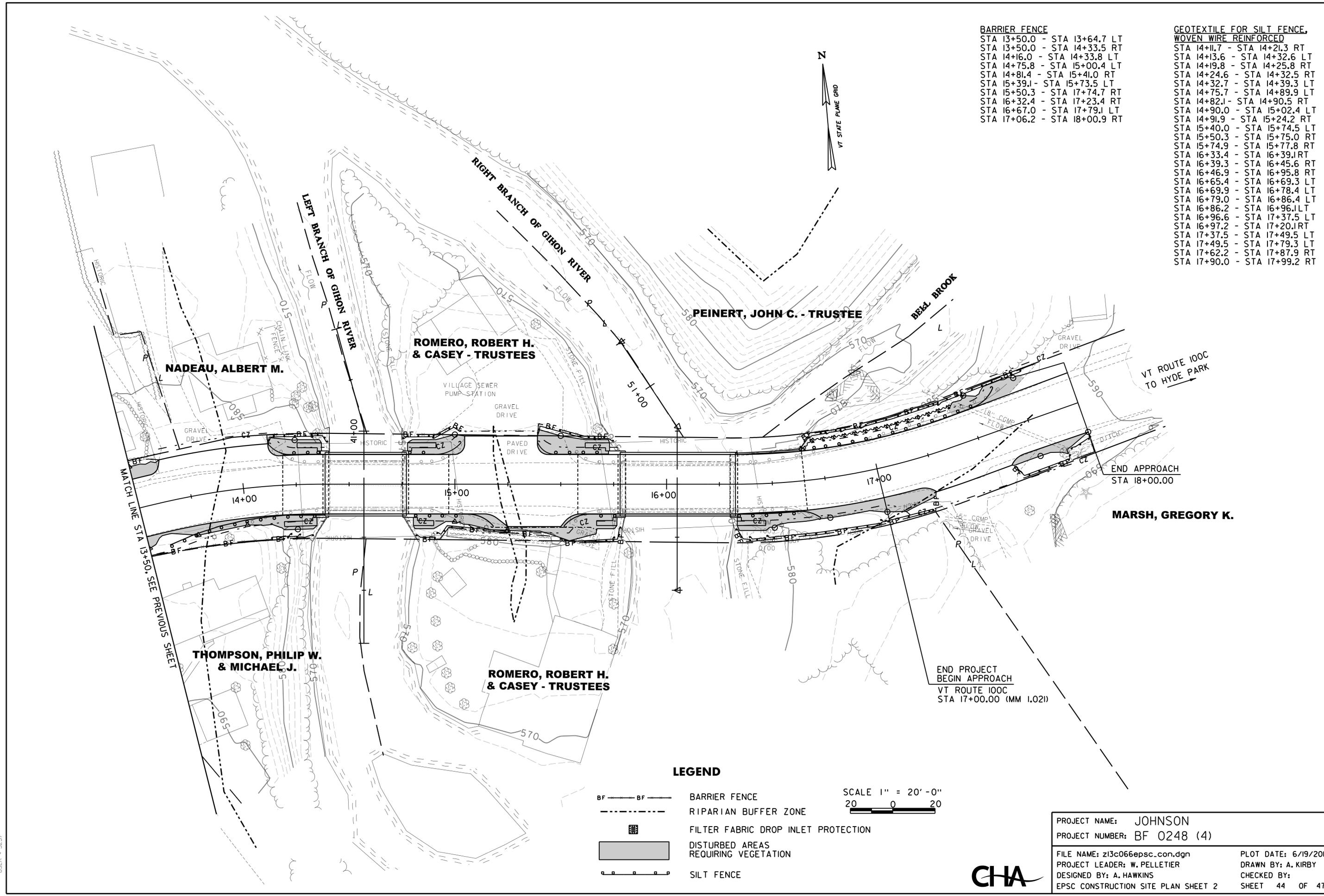
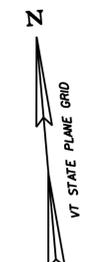
SCALE 1" = 20' - 0"  
 20 0 20

PROJECT NAME: JOHNSON	
PROJECT NUMBER: BF 0248 (4)	
FILE NAME: z13c066epsc.con.dgn	PLOT DATE: 6/19/2015
PROJECT LEADER: W. PELLETIER	DRAWN BY: A. KIRBY
DESIGNED BY: A. HAWKINS	CHECKED BY:
EPSC CONSTRUCTION SITE PLAN SHEET I	SHEET 43 OF 47



**BARRIER FENCE**  
 STA 13+50.0 - STA 13+64.7 LT  
 STA 13+50.0 - STA 14+33.5 RT  
 STA 14+16.0 - STA 14+33.8 LT  
 STA 14+75.8 - STA 15+00.4 LT  
 STA 14+81.4 - STA 15+41.0 RT  
 STA 15+39.1 - STA 15+73.5 LT  
 STA 15+50.3 - STA 17+74.7 RT  
 STA 16+32.4 - STA 17+23.4 RT  
 STA 16+67.0 - STA 17+79.1 LT  
 STA 17+06.2 - STA 18+00.9 RT

**GEOTEXTILE FOR SILT FENCE,  
 WOVEN WIRE REINFORCED**  
 STA 14+11.7 - STA 14+21.3 RT  
 STA 14+13.6 - STA 14+32.6 LT  
 STA 14+19.8 - STA 14+25.8 RT  
 STA 14+24.6 - STA 14+32.5 RT  
 STA 14+32.7 - STA 14+39.3 LT  
 STA 14+75.7 - STA 14+89.9 LT  
 STA 14+82.1 - STA 14+90.5 RT  
 STA 14+90.0 - STA 15+02.4 LT  
 STA 14+91.9 - STA 15+24.2 RT  
 STA 15+40.0 - STA 15+74.5 LT  
 STA 15+50.3 - STA 15+75.0 RT  
 STA 15+74.9 - STA 15+77.8 RT  
 STA 16+33.4 - STA 16+39.1 RT  
 STA 16+39.3 - STA 16+45.6 RT  
 STA 16+46.9 - STA 16+95.8 RT  
 STA 16+65.4 - STA 16+69.3 LT  
 STA 16+69.9 - STA 16+78.4 LT  
 STA 16+79.0 - STA 16+86.4 LT  
 STA 16+86.2 - STA 16+96.1 LT  
 STA 16+96.6 - STA 17+37.5 LT  
 STA 16+97.2 - STA 17+20.1 RT  
 STA 17+37.5 - STA 17+49.5 LT  
 STA 17+49.5 - STA 17+79.3 LT  
 STA 17+62.2 - STA 17+87.9 RT  
 STA 17+90.0 - STA 17+99.2 RT



MATCH LINE STA 13+50. SEE PREVIOUS SHEET

END APPROACH  
 STA 18+00.00

END PROJECT  
 BEGIN APPROACH  
 VT ROUTE 100C  
 STA 17+00.00 (MM 1.021)

**LEGEND**

- BF — BF BARRIER FENCE
- RIPARIAN BUFFER ZONE
- [Grid Symbol] FILTER FABRIC DROP INLET PROTECTION
- [Shaded Area] DISTURBED AREAS  
 REQUIRING VEGETATION
- SILT FENCE

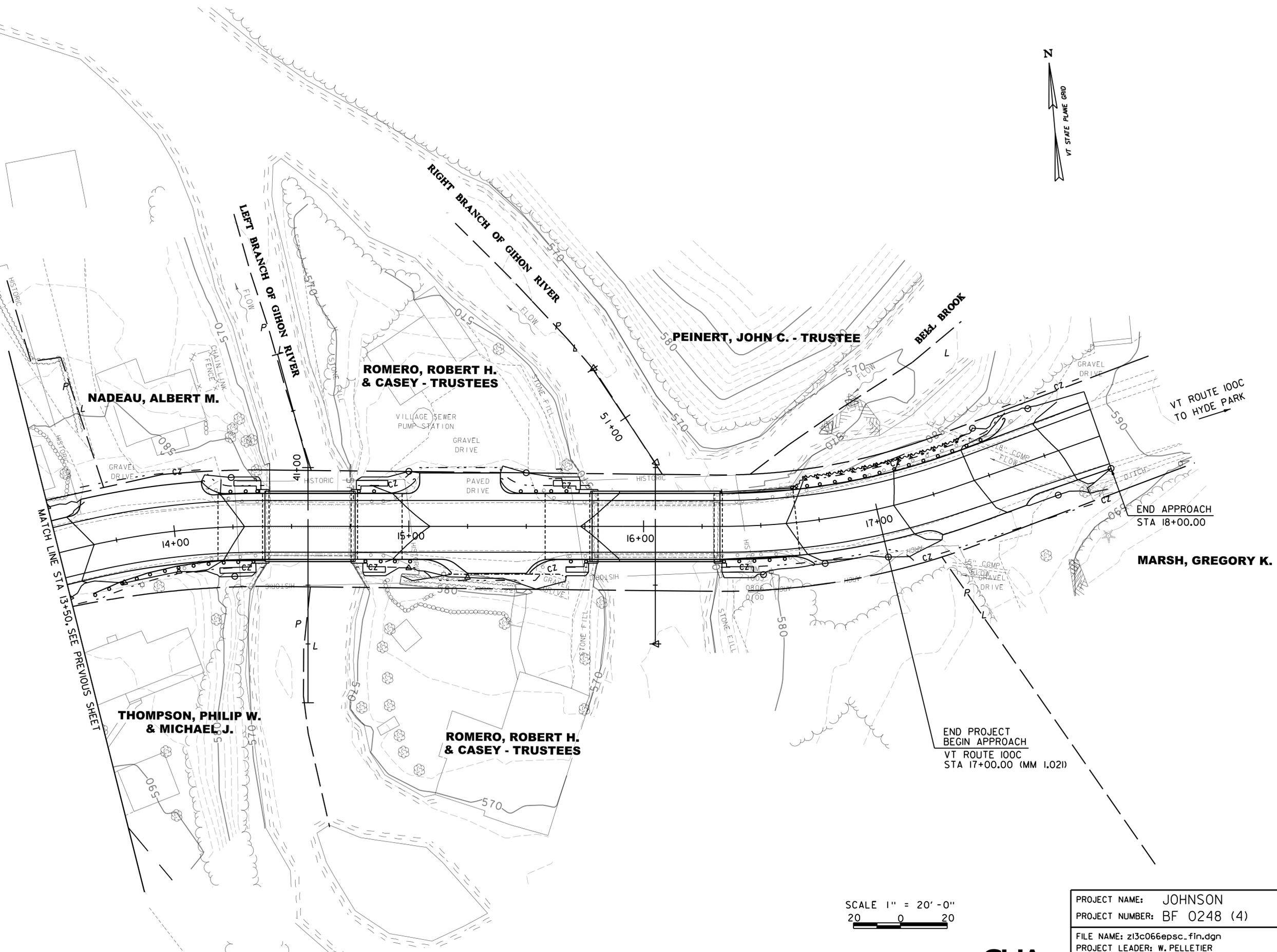
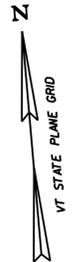
SCALE 1" = 20'-0"  
 20 0 20

PROJECT NAME: JOHNSON	PLOT DATE: 6/19/2015
PROJECT NUMBER: BF 0248 (4)	DRAWN BY: A. KIRBY
FILE NAME: z13c066epsc.con.dgn	CHECKED BY:
PROJECT LEADER: W. PELLETIER	SHEET 44 OF 47
DESIGNED BY: A. HAWKINS	
EPSC CONSTRUCTION SITE PLAN SHEET 2	



FILE NAME = N:\p\projects\NANY\K3\28410\CADD\MSTN13\066\Consul\mnts\Highway\z13c066epsc.con.dgn  
 DATE/TIME = 6/19/2015 5:23:37  
 USER =





MATCH LINE STA 13+50. SEE PREVIOUS SHEET

NADEAU, ALBERT M.

ROMERO, ROBERT H. & CASEY - TRUSTEES

PEINERT, JOHN C. - TRUSTEE

THOMPSON, PHILIP W. & MICHAEL J.

ROMERO, ROBERT H. & CASEY - TRUSTEES

MARSH, GREGORY K.

VT ROUTE 100C TO HYDE PARK

END APPROACH STA 18+00.00

END PROJECT BEGIN APPROACH  
VT ROUTE 100C  
STA 17+00.00 (MM 1.021)

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



PROJECT NAME: JOHNSON  
PROJECT NUMBER: BF 0248 (4)

FILE NAME: z13c066epsc.fln.dgn  
PROJECT LEADER: W. PELLETIER  
DESIGNED BY: A. HAWKINS  
EPSC FINAL SITE PLAN SHEET 2

PLOT DATE: 6/19/2015  
DRAWN BY: A. KIRBY  
CHECKED BY:  
SHEET 46 OF 47

FILE NAME = N:\p\projects\13c066\13c066.dwg  
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USER =

