REVIEWER NOTES

1. RIGHT OF WAY SHOULD NOT BE REQUIRED

2. TWO STAGE CONSTRUCTION WITH INTERSTATE CROSS OVERS TO THE ALTERNATE DIRECTION BRIDGE AS THE DETOUR FOR EACH STAGE.

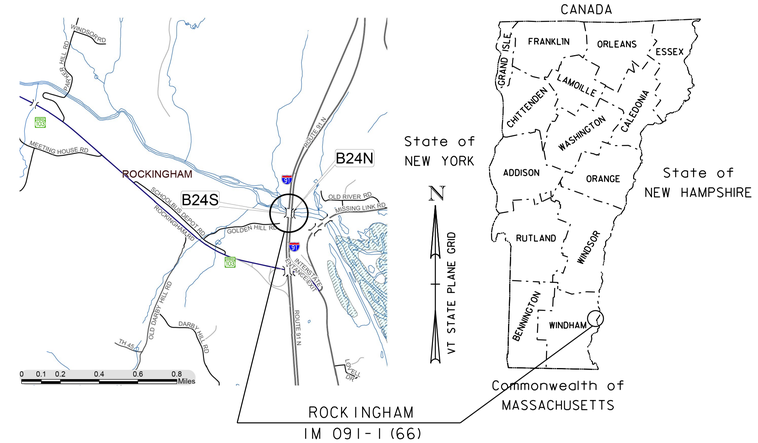
3. PLANS SHOW STAGE 1 AS SOUTH BOUND BRIDGE CLOSURE WITH DETOUR ON NORTH BOUND BRIDGE AND STAGE 2 AS THE NORTH BOUND CLOSURE WITH DETOUR ON SOUTH BOUND BRIDGE. THE STAGE 1 STAGE 2 CLOSURE SEQUENCE MAY BE ALTERED TO FACILITATE FINAL DESIGN OR DETOUR LOGISTICAL CONSTRUCTION MEANS AND METHODS. FINAL DESIGN ENGINEERING TO INVESTIGATE STAGE SEQUENCING ISSUES.

4. THERE IS NO ROADWAY WORK OR IMPROVEMENTS ANTICIPATED FOR THIS PROJECT.

5. PROJECT DESCRIPTION IS COPIED VERBATIM FROM THE VPINS DATA BASE PER STANDARD PROCEDURE.

6. FOR ADDITIONAL PROJECT INFORMATION, STUDIES AND REPORTS GO TO THE AGENCY PROJECT SHARE POINT SITE, LINK -> 13a130

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

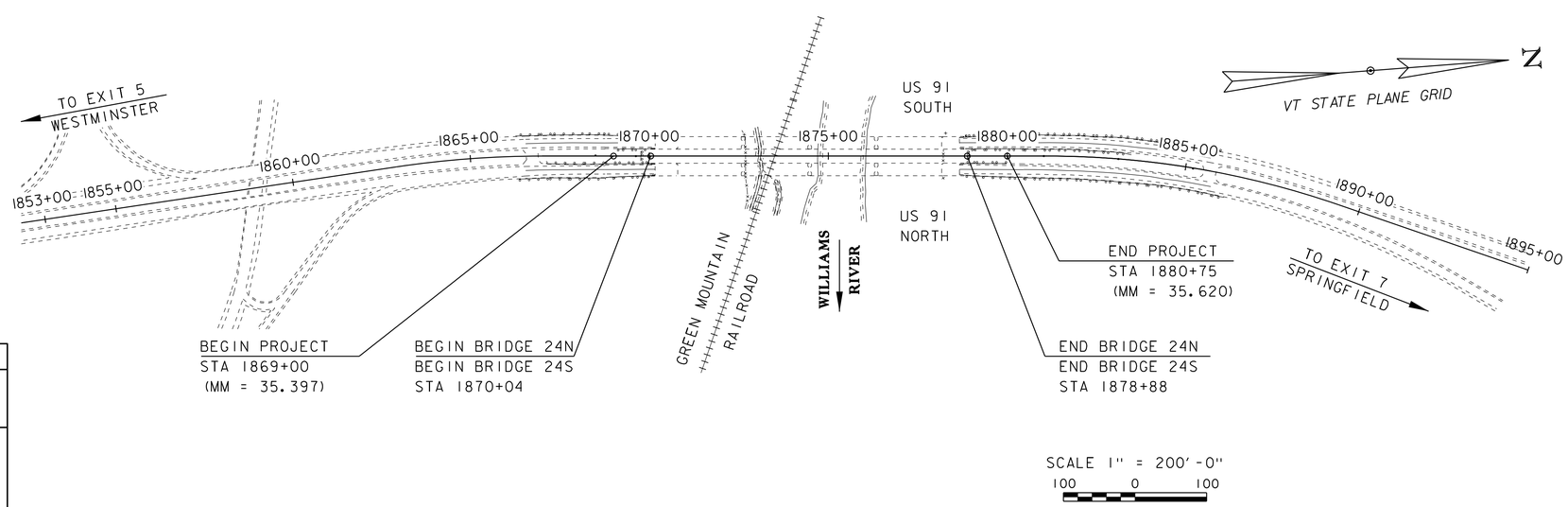
TOWN OF ROCKINGHAM
COUNTY OF WINDHAM

ROUTE NO : INTERSTATE 91, BRIDGE 24N AND 24S

PROJECT LOCATION: APPROXIMATELY 0.313 MILES NORTH OF INTERSTATE 91 EXIT 6 ROCKINGHAM

PROJECT DESCRIPTION: REPLACEMENT OF BRIDGE NUMBER(S) 24 N&S ON I-91 IN ROCKINGHAM, OVER THE GREEN MOUNTAIN RAILROAD AND THE WILLIAMS RIVER.

LENGTH OF STRUCTURE: 884.0 FEET
LENGTH OF ROADWAY: 291.0 FEET
LENGTH OF PROJECT: 1175.0 FEET



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

QUALITY ASSURANCE PROGRAM : LEVEL 1

SURVEYED BY : R.GILMAN
SURVEYED DATE : 04-22-2013

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83 (2011)

CONCEPTUAL PLANS
02-SEP-2015

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATOR
APPROVED _____ DATE _____

DIRECTOR OF PROJECT DELIVERY
APPROVED _____ DATE _____

PROJECT MANAGER : DOUGLAS BONNEAU, P.E.

PROJECT NAME : ROCKINGHAM
PROJECT NUMBER : IM 091-1(66)

SHEET 1 OF 33 SHEETS

PLAN SHEET INDEX

1	TITLE SHEET
2	PRELIMINARY INFORMATION SHEET
3	ROADWAY TYPICAL
4	BRIDGE TYPICALS
5	BRIDGE DETOUR TYPICALS
6 - 8	LAYOUT SHEET 1-3
9	SB & NB PROPOSED PROFILES
10	BRIDGE PLAN
11	BORING LAYOUT
12 - 19	STAGE 1 SB CROSS OVER LAYOUT 1-8
20	STAGE 2 NB RAMP CLOSURE LAYOUT
21 - 27	STAGE 2 NB CROSS OVER LAYOUT 1-7
28	SB COSS OVER PROFILES
29	NB COSS OVER PROFILES
30 - 31	I91 NB CROSS SECTIONS 1-2
32 - 33	I91 SB CROSS SECTIONS 1-2

BRIDGE 24N TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2017	6900	1200	100	11.7	900
2027	7000	1200	100	14.5	1100

20 year ESAL for flexible pavement from 2017 to 2027 : 3159000

40 year ESAL for flexible pavement from 2017 to 2037 : 9460000

Design Speed : 65 mph

BRIDGE 24S TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2017	6900	1500	100	9.8	1100
2027	7000	1500	100	11.8	1400

20 year ESAL for flexible pavement from 2017 to 2027 : 4189000

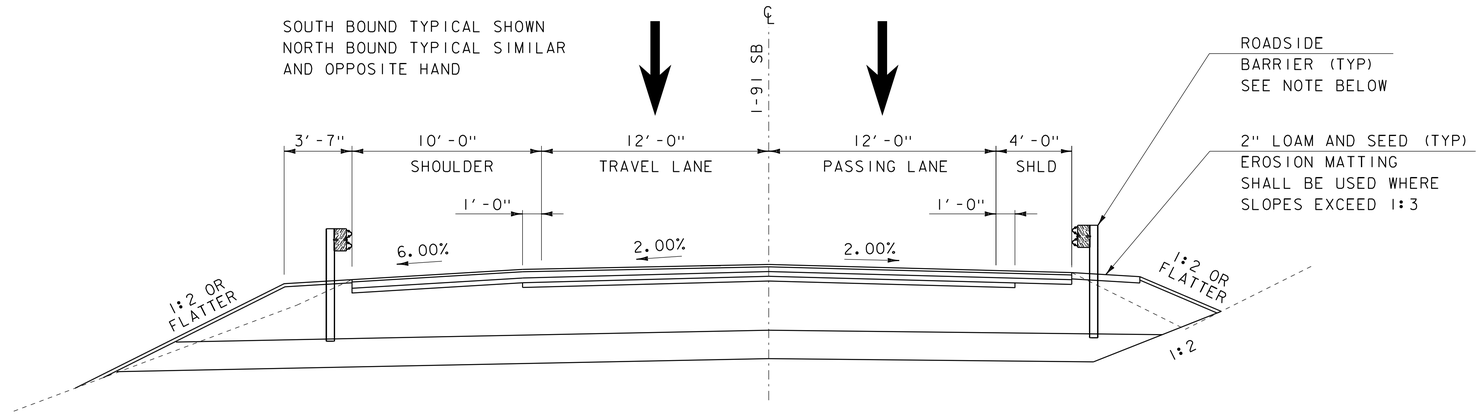
40 year ESAL for flexible pavement from 2017 to 2037 : 9460000

Design Speed : 65 mph

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130pi
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
PRELIMINARY INFORMATION SHEET

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 2 OF 33



PROPOSED I-91 SB ROADWAY TYPICAL

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

NOTES:

1. PAVEMENT DESIGN SHOWN IS THE MINIMUM DESIGN FOR FULL DEPTH CONSTRUCTION OF APPROACHES. DESIGN-BUILDER MAY DESIGN AN ALTERNATIVE PAVEMENT SECTION PROVIDED IT IS REVIEWED AND APPROVED BY VERMONT AGENCY OF TRANSPORTATION.

2. TYPICAL SECTION PROVIDED DOES NOT ADDRESS ALL POTENTIAL SCENARIOS. DESIGN BUILD ENTITY SHALL CONSIDER ALL POTENTIAL SCENARIOS IN THEIR PROPOSED DESIGN.

3. ROADSIDE BARRIER SHOWN FOR GRAPHICAL REPRESENTATION ONLY. ACTUAL ROADSIDE BARRIER SYSTEM TO BE DETERMINED BY CONTRACTOR WITH OPENINGS FOR DRAINAGE PROVIDED AND MEETING NCHRP REPORT 350 CRASH TEST LEVEL 4 (TL-4) RATING.

1.75" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIIS WEARING COURSE) (SEE NOTE 1)
3.5" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIS INTERMEDIATE LAYER) (SEE NOTE 1)
3.5" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIS BASE COURSE) (SEE NOTE 1)
3.5" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IIS BASE COURSE) (SEE NOTE 1)
24" SUBBASE OF DENSE GRADED CRUSHED STONE (SEE NOTE 1)
18" SAND BORROW OR SUBBASE OF DENSE GRADED CRUSHED STONE (SEE NOTE 1)

• TACK COAT: EMULSIFIED ASPHALT IS TO BE APPLIED AT THE RATE OF 0.025 GAL/SY BETWEEN SUCCESSIVE COURSES OF PAVEMENT AS DIRECTED BY THE ENGINEER.

•• FOR PG GRADE SEE SECTION 490 OF THE GENERAL SPECIAL PROVISIONS.

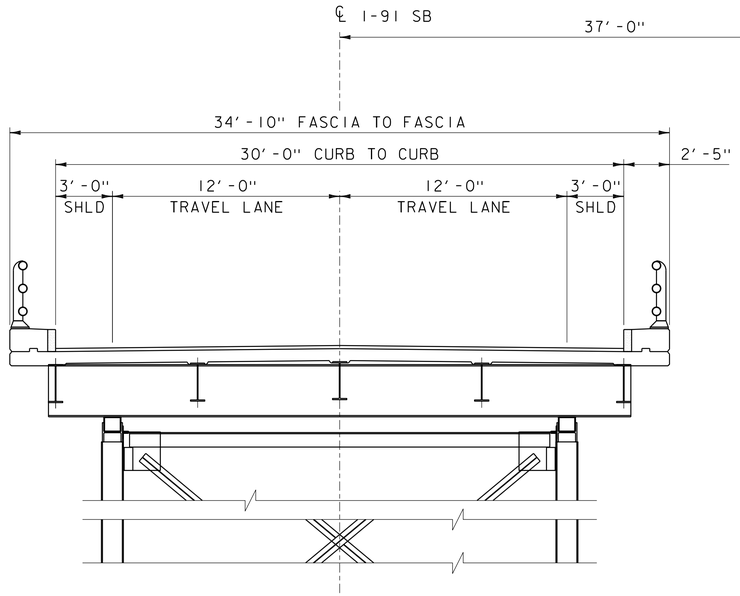
MATERIAL TOLERANCES
(IF USED ON PROJECT)

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

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

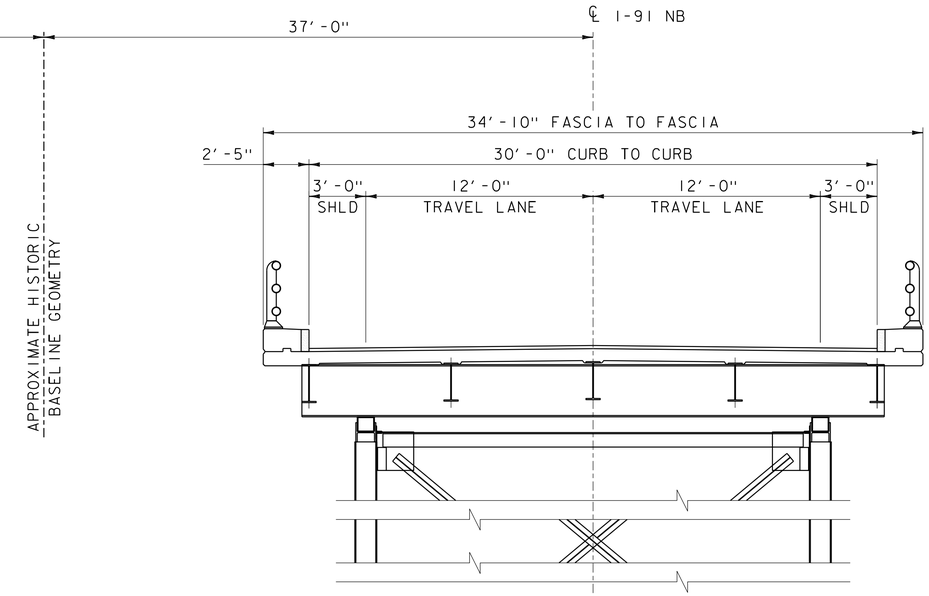
FILE NAME: s12a130typ.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
ROADWAY TYPICAL

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET $S•$ OF $T•$



EXISTING I-91 SB BRIDGE TYPICAL

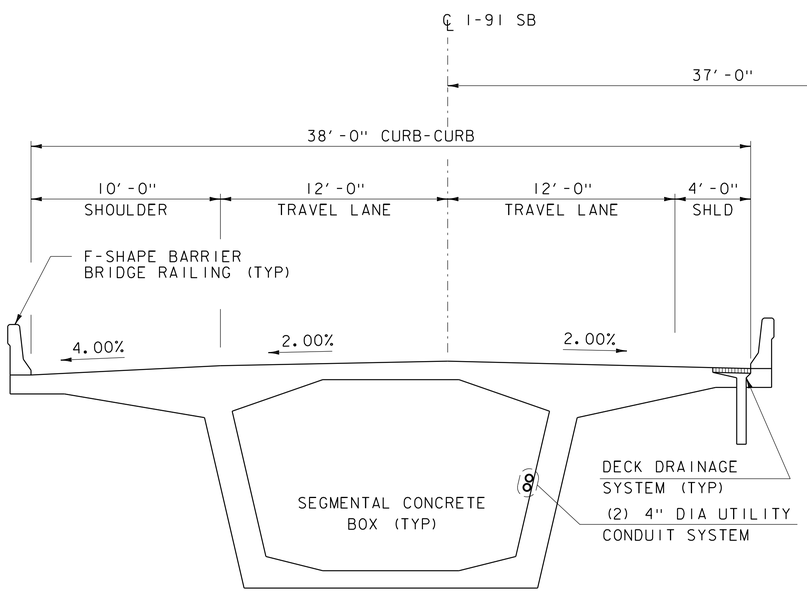
SCALE: 1/4" = 1'-0"



EXISTING I-91 NB BRIDGE TYPICAL

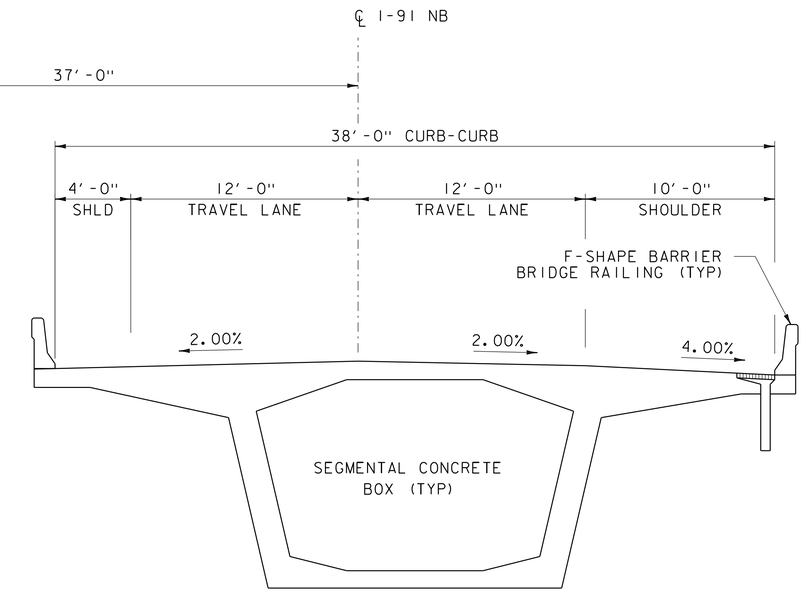
SCALE: 1/4" = 1'-0"

APPROXIMATE HISTORIC BASELINE GEOMETRY



PROPOSED I-91 SB BRIDGE TYPICAL

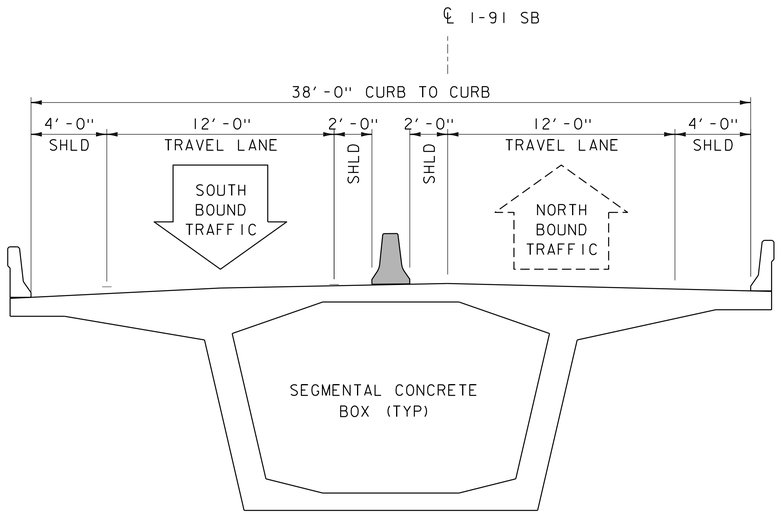
SCALE: 1/4" = 1'-0"



PROPOSED I-91 NB BRIDGE TYPICAL

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

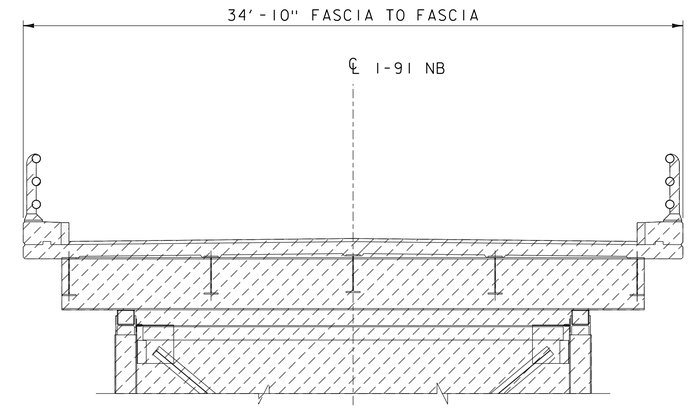
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130typ.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
BRIDGE TYPICALS	SHEET 4 OF 33



STAGE 2 NB DETOUR ON PROPOSED I-91 SB BRIDGE

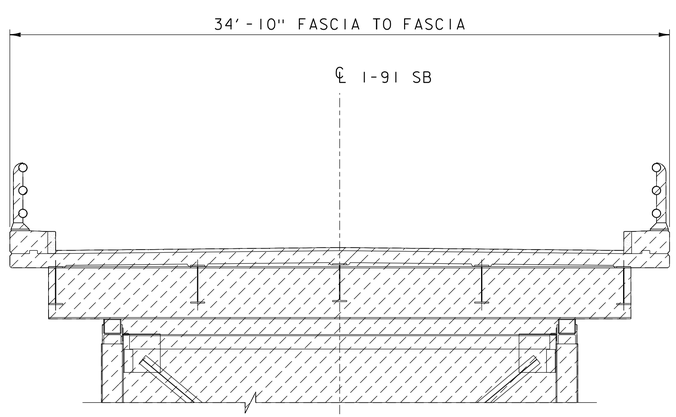
SCALE: 1/4" = 1'-0"

APPROXIMATE HISTORIC BASELINE GEOMETRY



STAGE 2 NB BRIDGE CONSTRUCTION

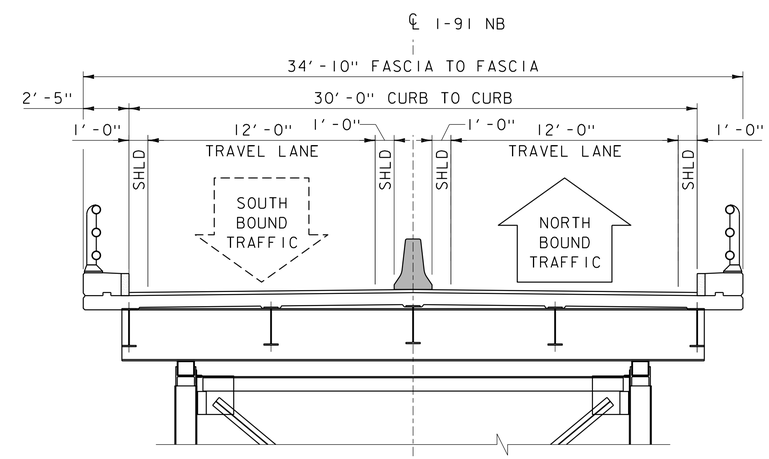
SCALE: 1/4" = 1'-0"



STAGE 1 SB BRIDGE CONSTRUCTION

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

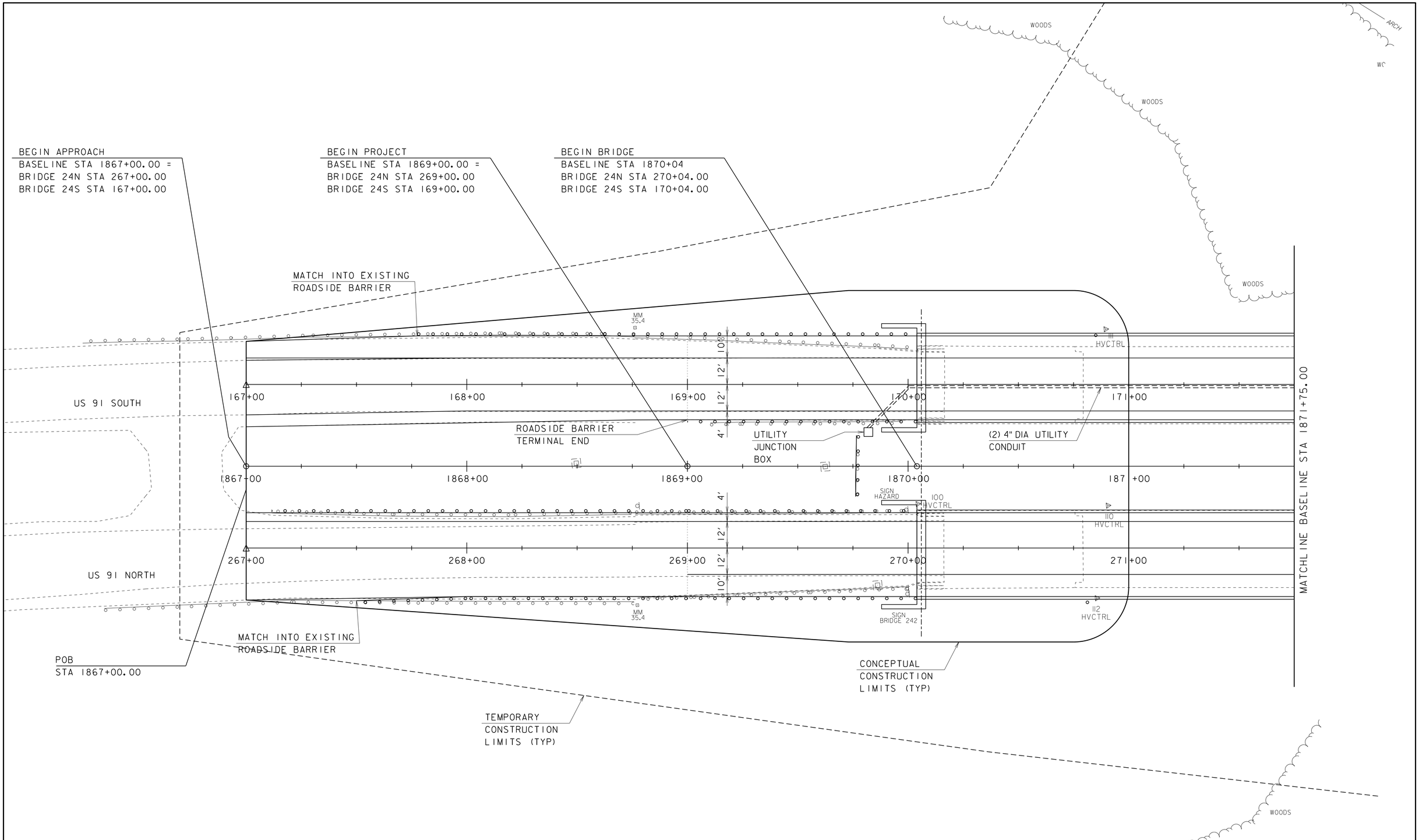
APPROXIMATE HISTORIC BASELINE GEOMETRY



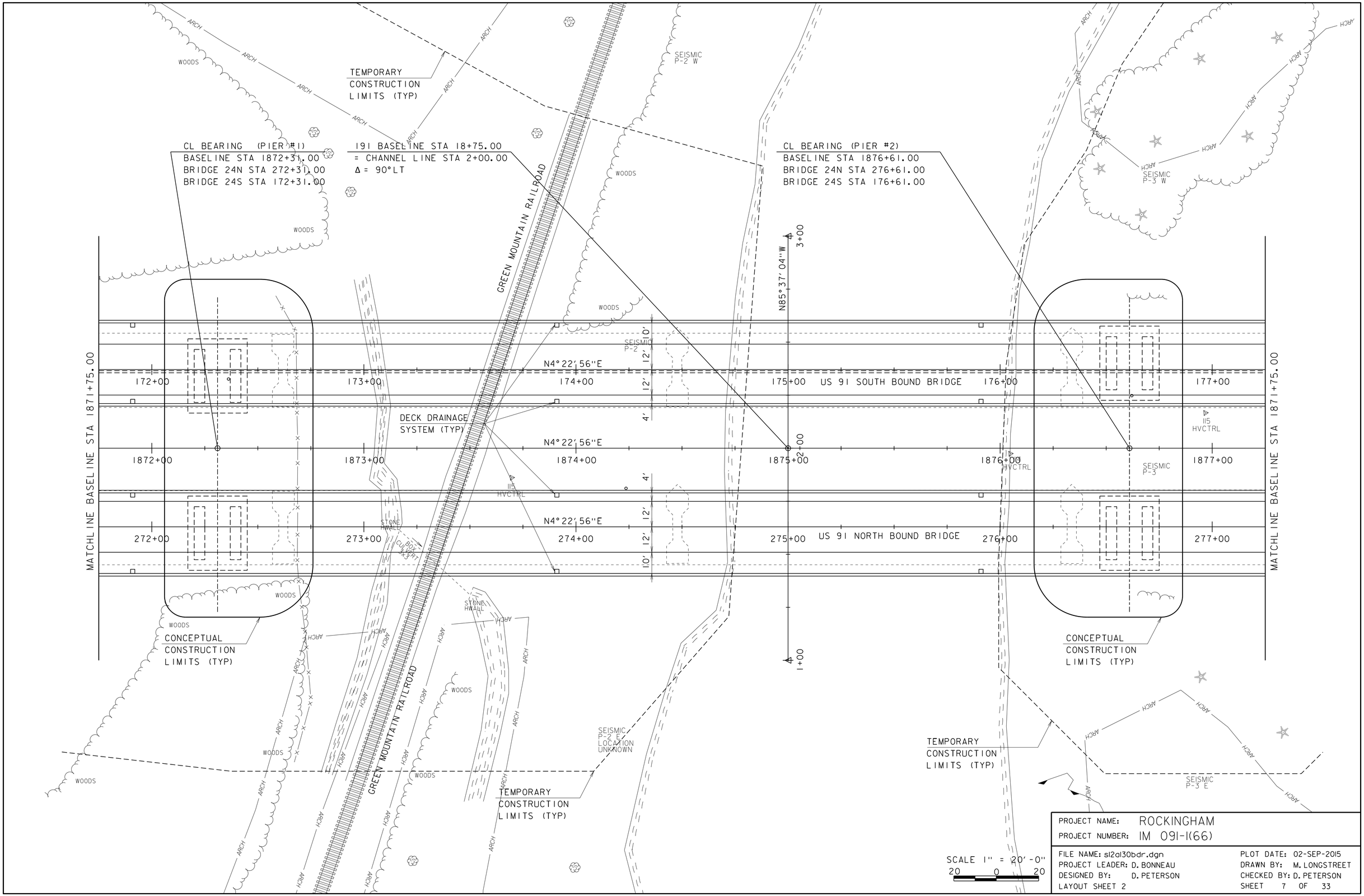
STAGE 1 SB DETOUR ON EXISTING NB BRIDGE

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

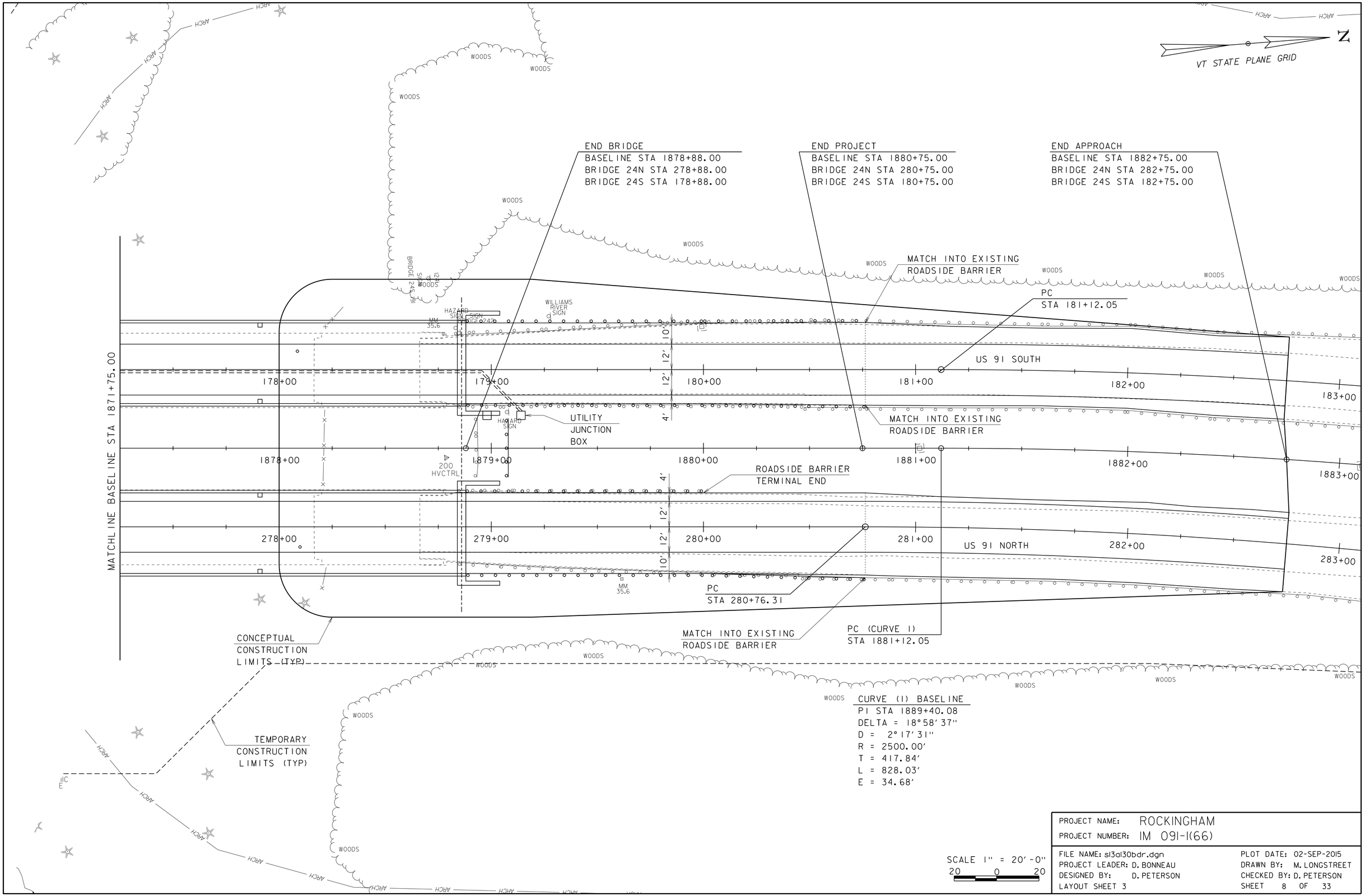
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130typ.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
BRIDGE DETOUR TYPICALS	SHEET 5 OF 33



PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130bdr.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
LAYOUT SHEET 1	SHEET 6 OF 33

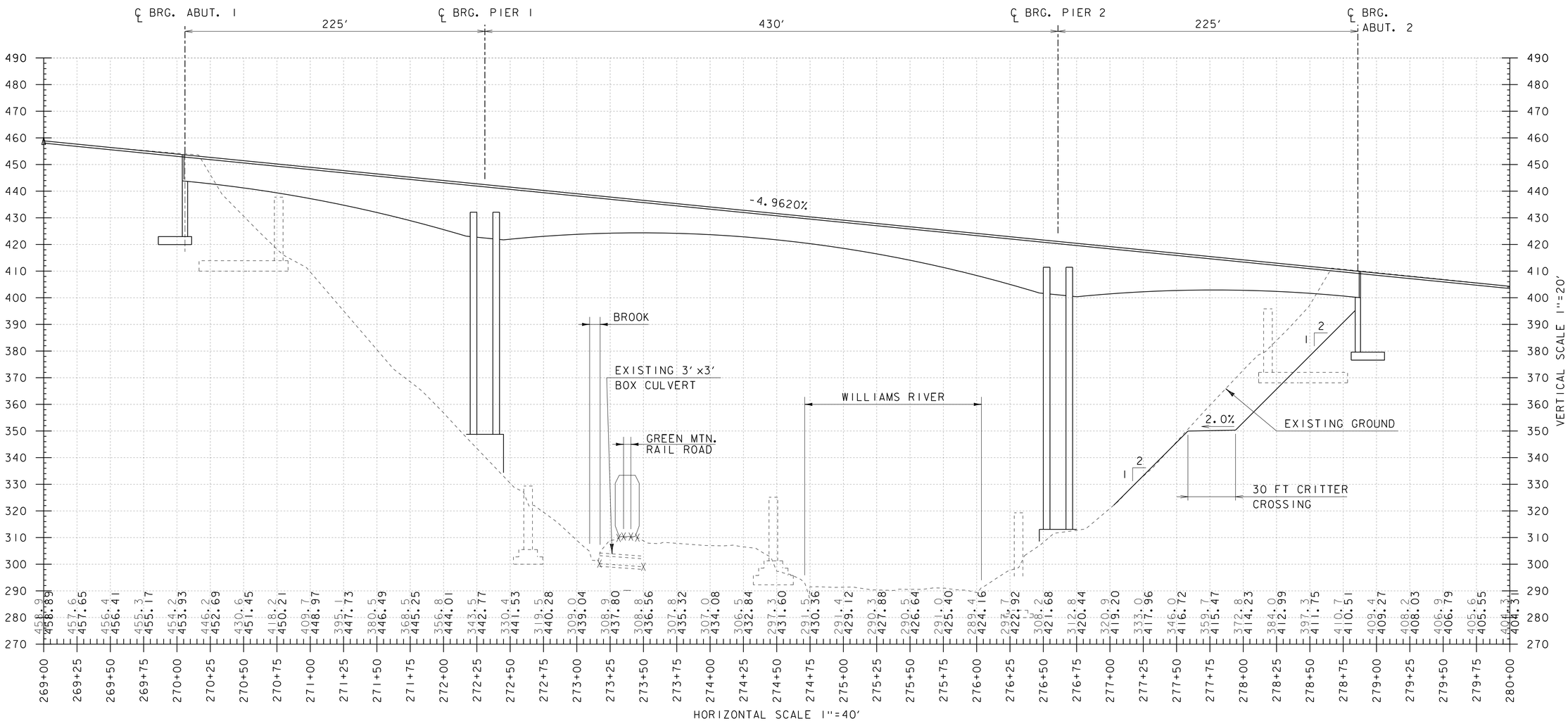


PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130bdr.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
LAYOUT SHEET 2	SHEET 7 OF 33

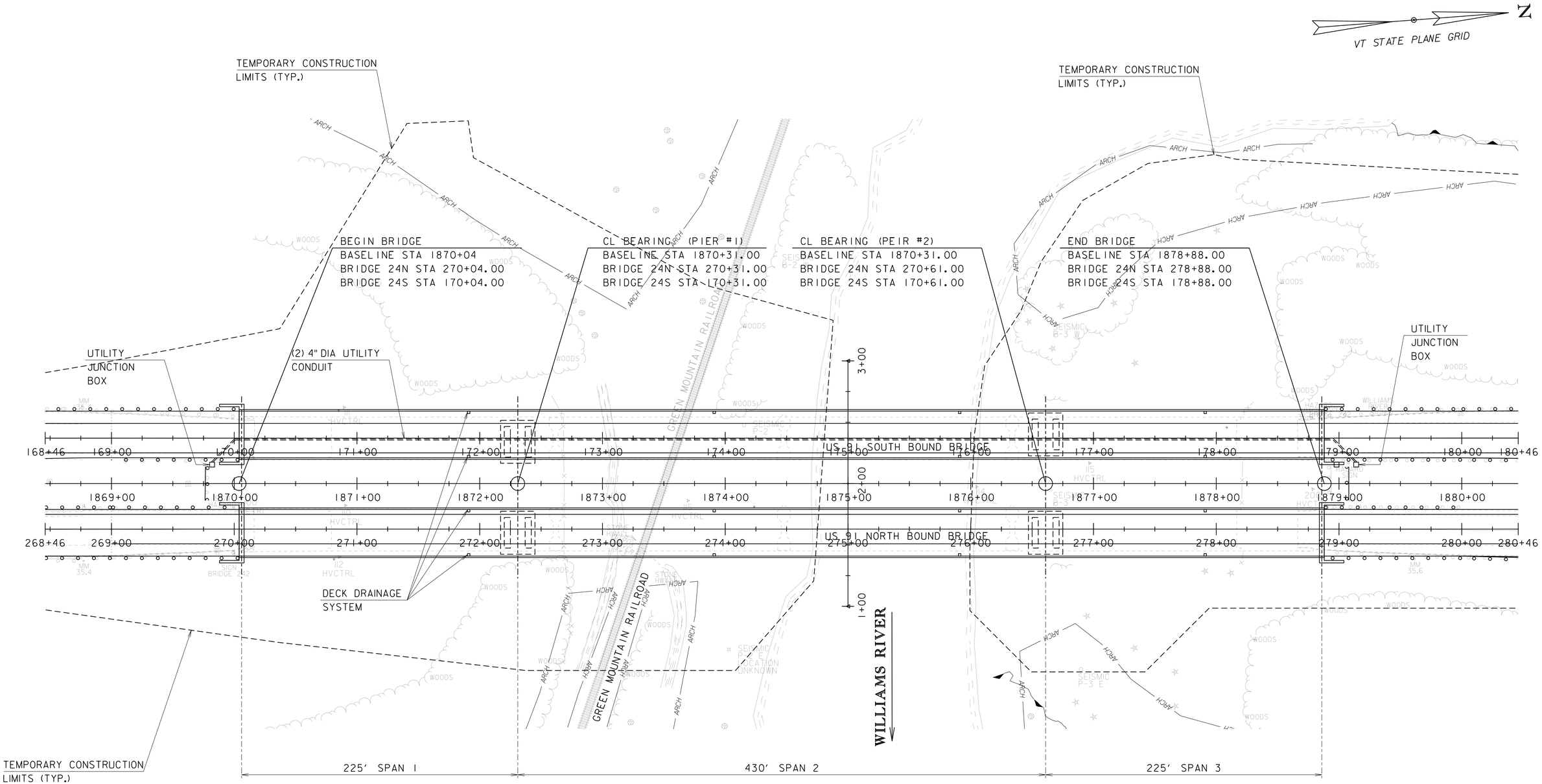


PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: sl3al30bdr.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
LAYOUT SHEET 3	SHEET 8 OF 33

NB 191 PROPOSED PROFILE / ELEVATION
SB 191 (SIMILAR)

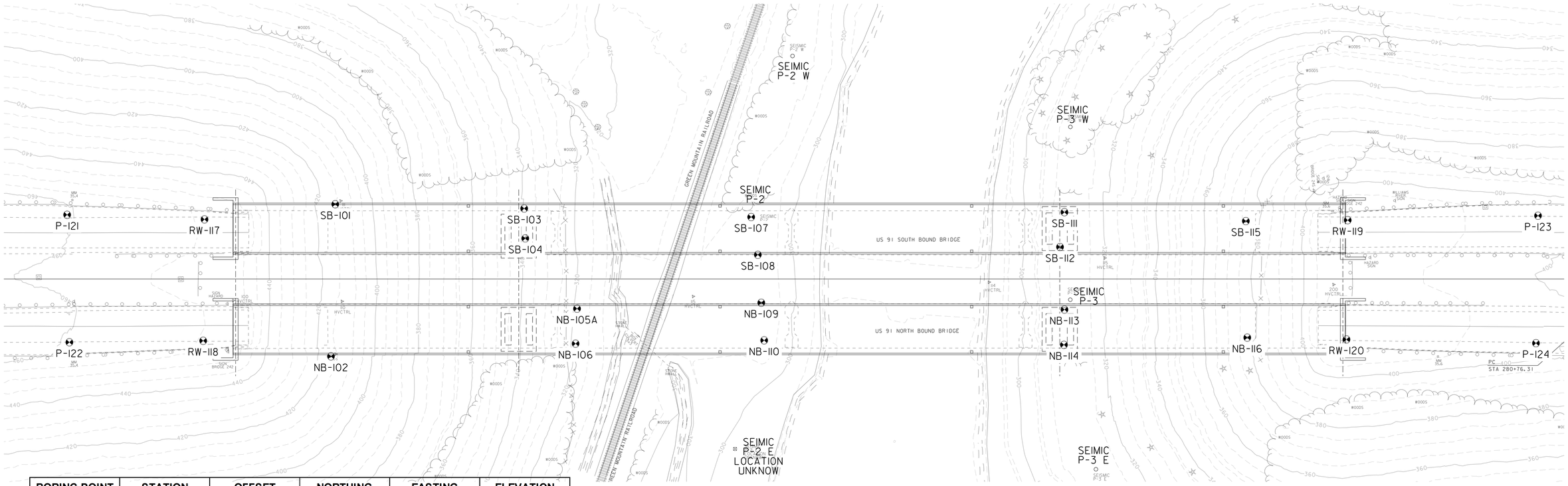


PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130pro.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
SB & NB PROPOSED PROFILES	SHEET 9 OF 33



SCALE 1" = 40'-0"
20 0 20

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130bdr.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
BRIDGE PLAN	SHEET 10 OF 33

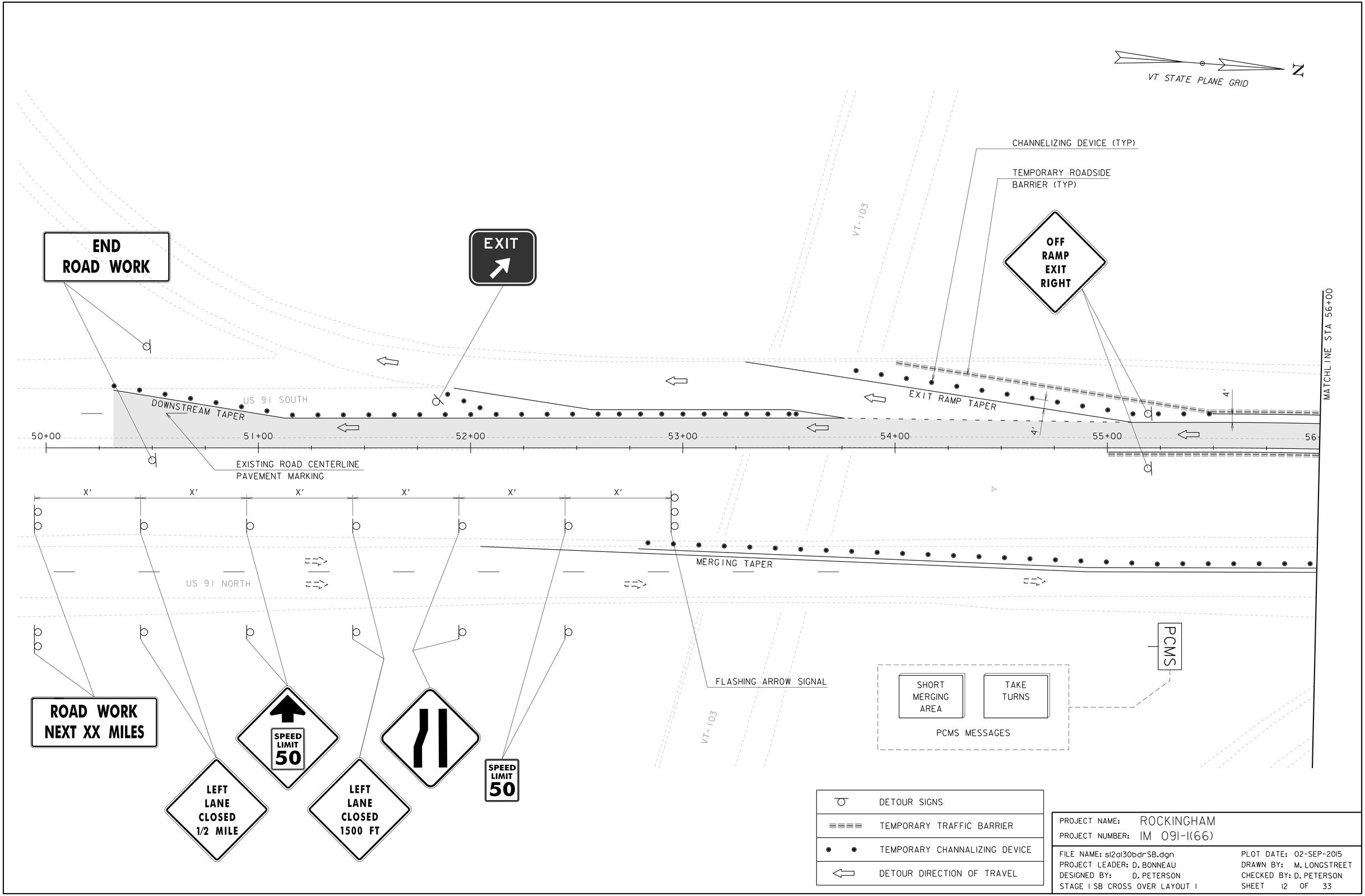


BORING POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
NB-102	1870+81.78	61.54	248535.65	1650310.81	415.80
NB-106	1872+76.21	51.44	248730.28	1650315.60	318.11
NB-109	1874+23.78	18.92	248879.91	1650294.45	308.00
NB-110	1874+26.08	48.83	248879.92	1650324.45	306.42
NB-113	1876+64.74	24.34	249119.76	1650318.26	312.09
NB-114	1876+64.33	52.38	249117.20	1650346.19	311.85
NB-116	1878+10.01	46.63	249262.89	1650351.59	377.69
NB-105A	1872+77.36	23.61	248733.57	1650287.94	318.56
P-121	1868+72.10	-51.03	248335.19	1650182.55	460.26
P-122	1868+73.89	50.35	248329.22	1650283.77	459.73
P-123	1880+41.08	-50.31	249500.70	1650272.59	402.44
P-124	1880+39.45	51.08	249491.33	1650373.56	401.68
RW-117	1869+81.29	-47.36	248443.78	1650194.55	454.52
RW-118	1869+80.22	49.16	248435.34	1650290.71	454.77
RW-119	1878+89.86	-46.75	249349.64	1650264.58	409.35
RW-120	1878+88.86	48.09	249341.40	1650359.07	409.91
SB-101	1870+85.19	-59.42	248548.30	1650190.46	415.04
SB-103	1872+35.34	-56.04	248697.75	1650205.31	339.20
SB-104	1872+36.22	-32.27	248696.82	1650229.08	339.12
SB-107	1874+15.74	-49.26	248877.10	1650225.86	309.67
SB-108	1874+21.04	-19.22	248880.10	1650256.21	308.78
SB-111	1876+64.72	-53.09	249125.65	1650241.06	311.88
SB-112	1876+61.20	-25.41	249120.02	1650268.39	311.69
SB-115	1878+08.88	-46.02	249268.85	1650259.13	375.89

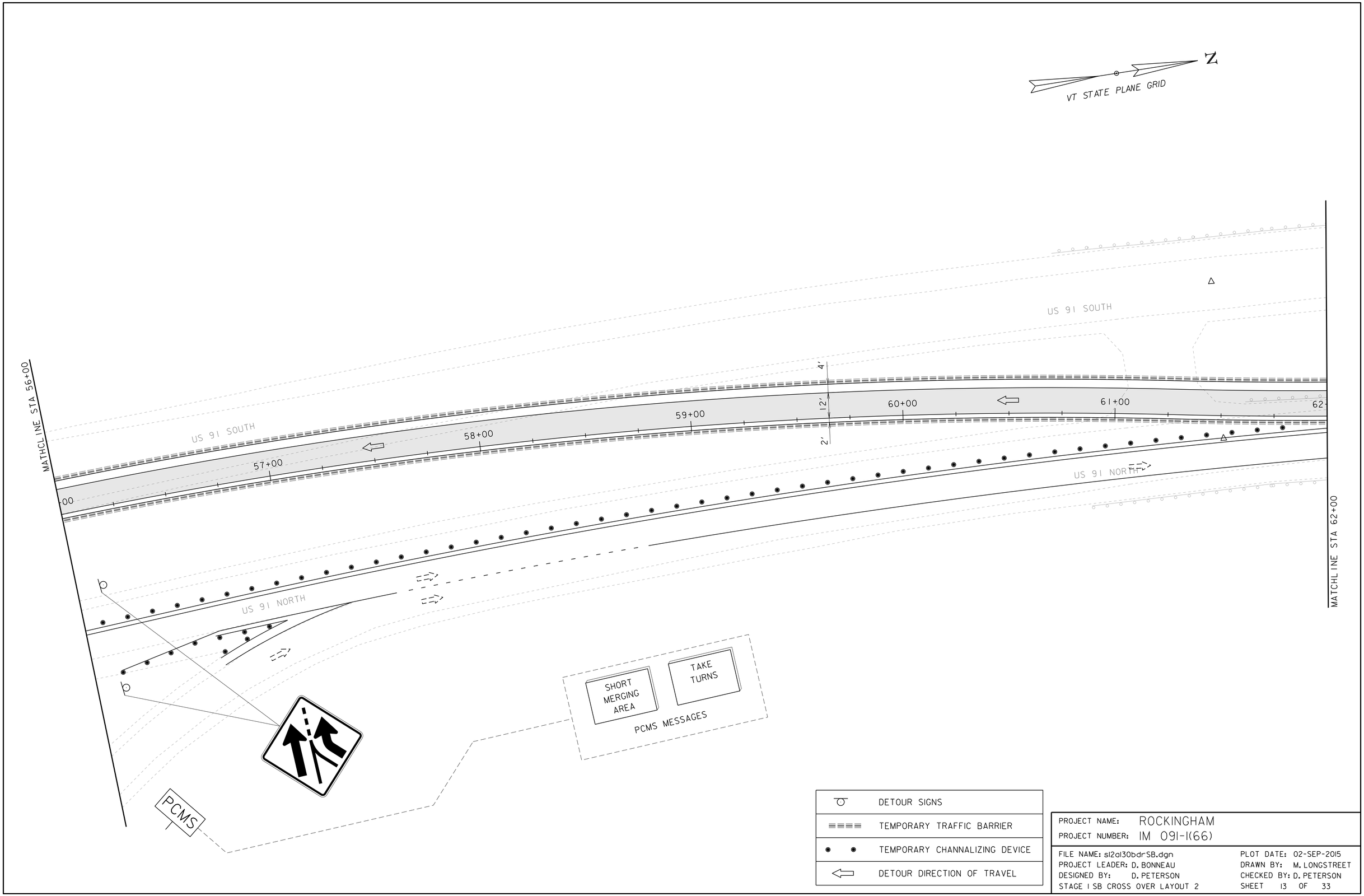
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bor.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
BORING LAYOUT

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 11 OF 33



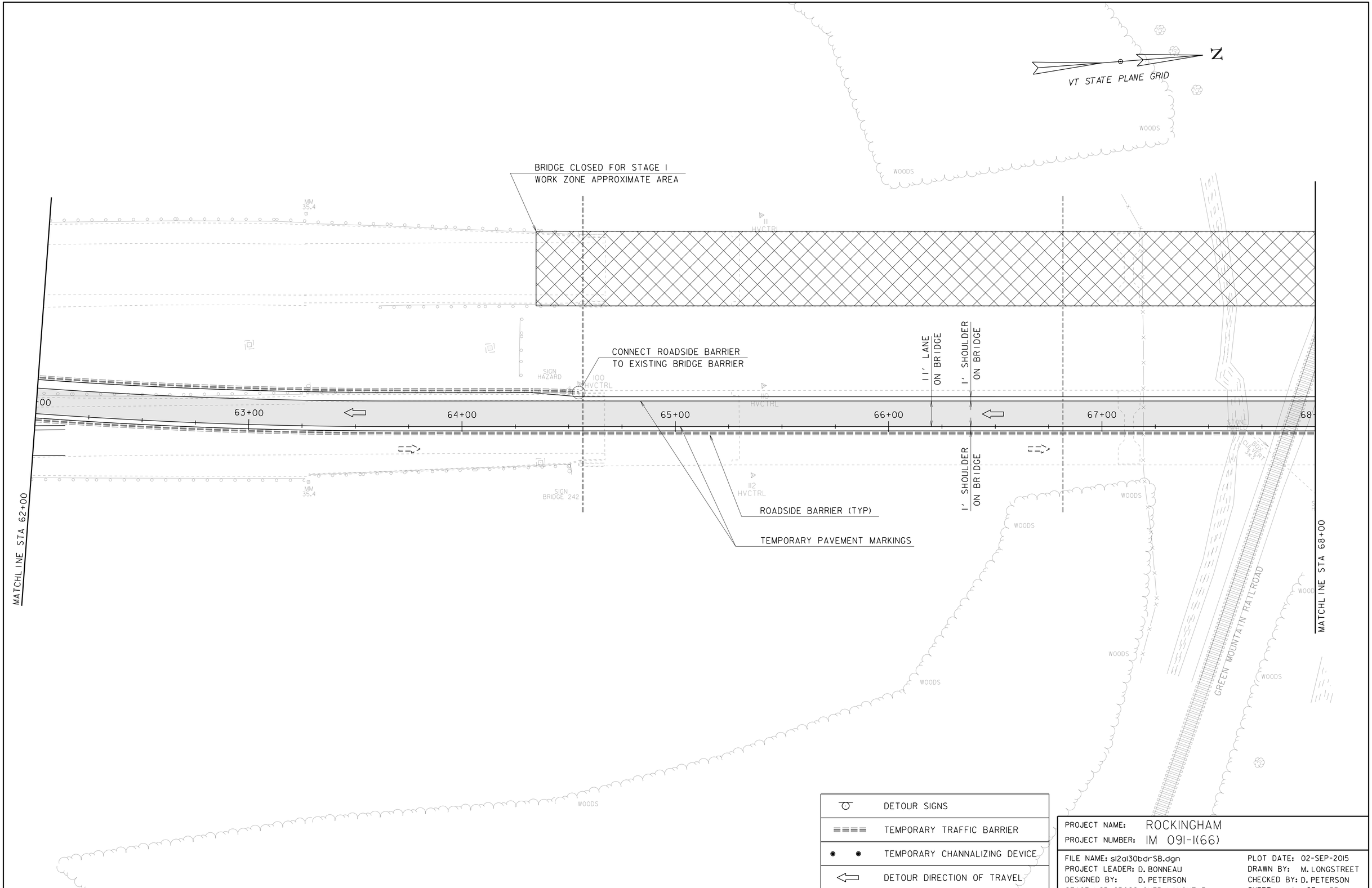
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130bdrSB.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
STAGE 1 SB CROSS OVER LAYOUT 1	SHEET 12 OF 33



PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

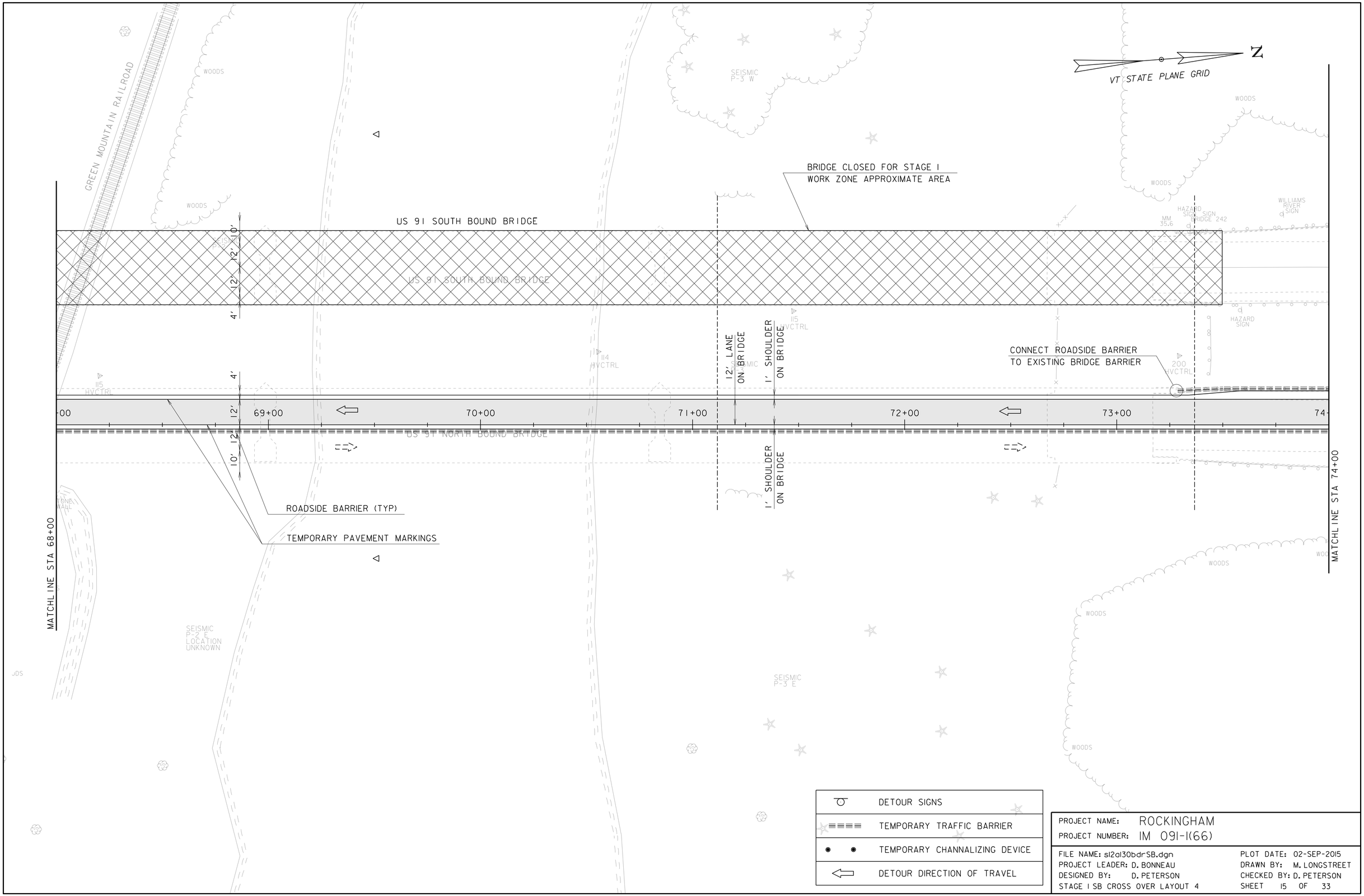
FILE NAME: s12a130bdrSB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 1 SB CROSS OVER LAYOUT 2

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 13 OF 33



PROJECT NAME:	ROCKINGHAM
PROJECT NUMBER:	IM 091-1(66)

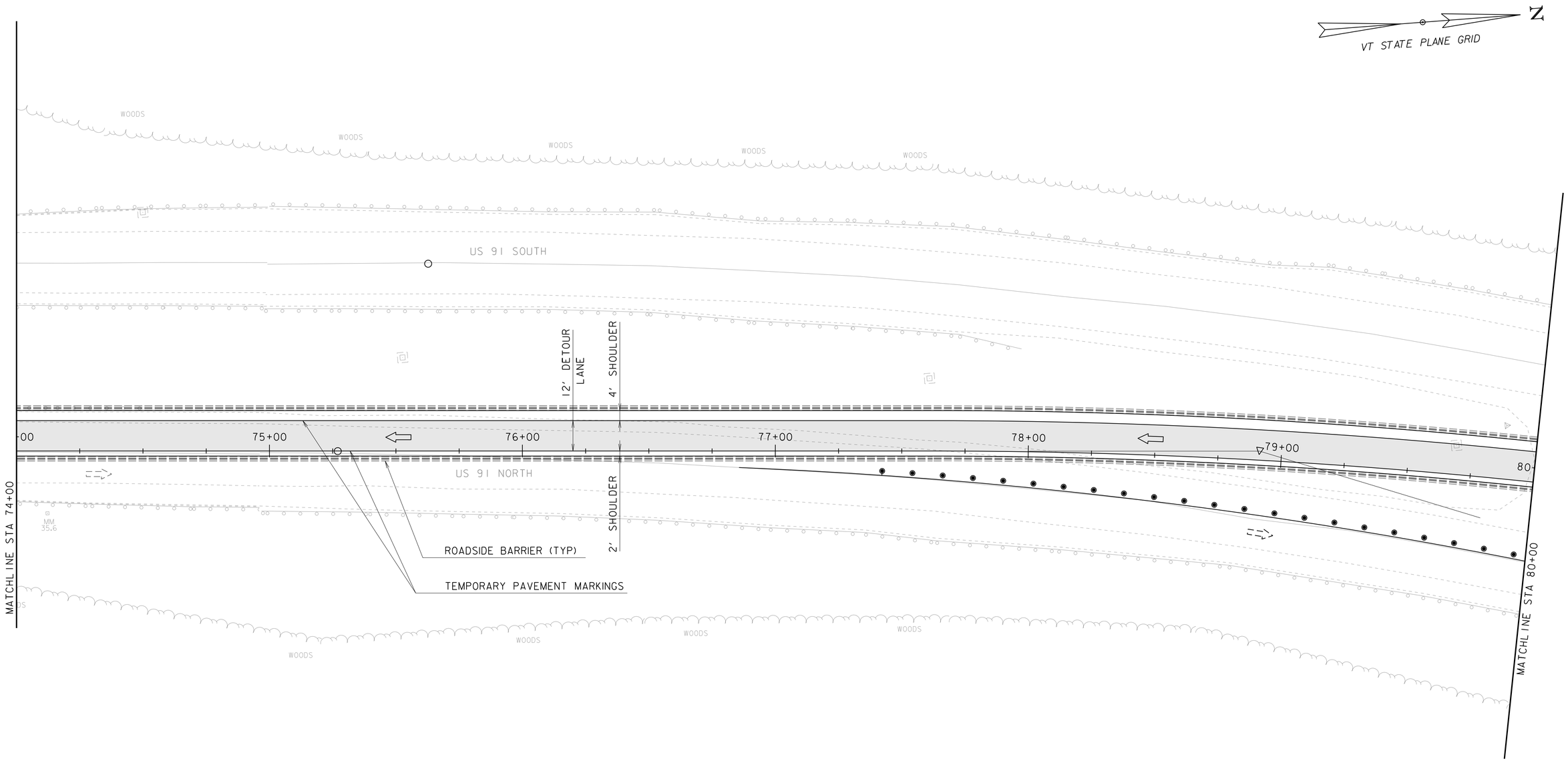
FILE NAME: s12a130bdrSB.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
STAGE 1 SB CROSS OVER LAYOUT 3	SHEET 14 OF 33



PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrSB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE I SB CROSS OVER LAYOUT 4

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 15 OF 33

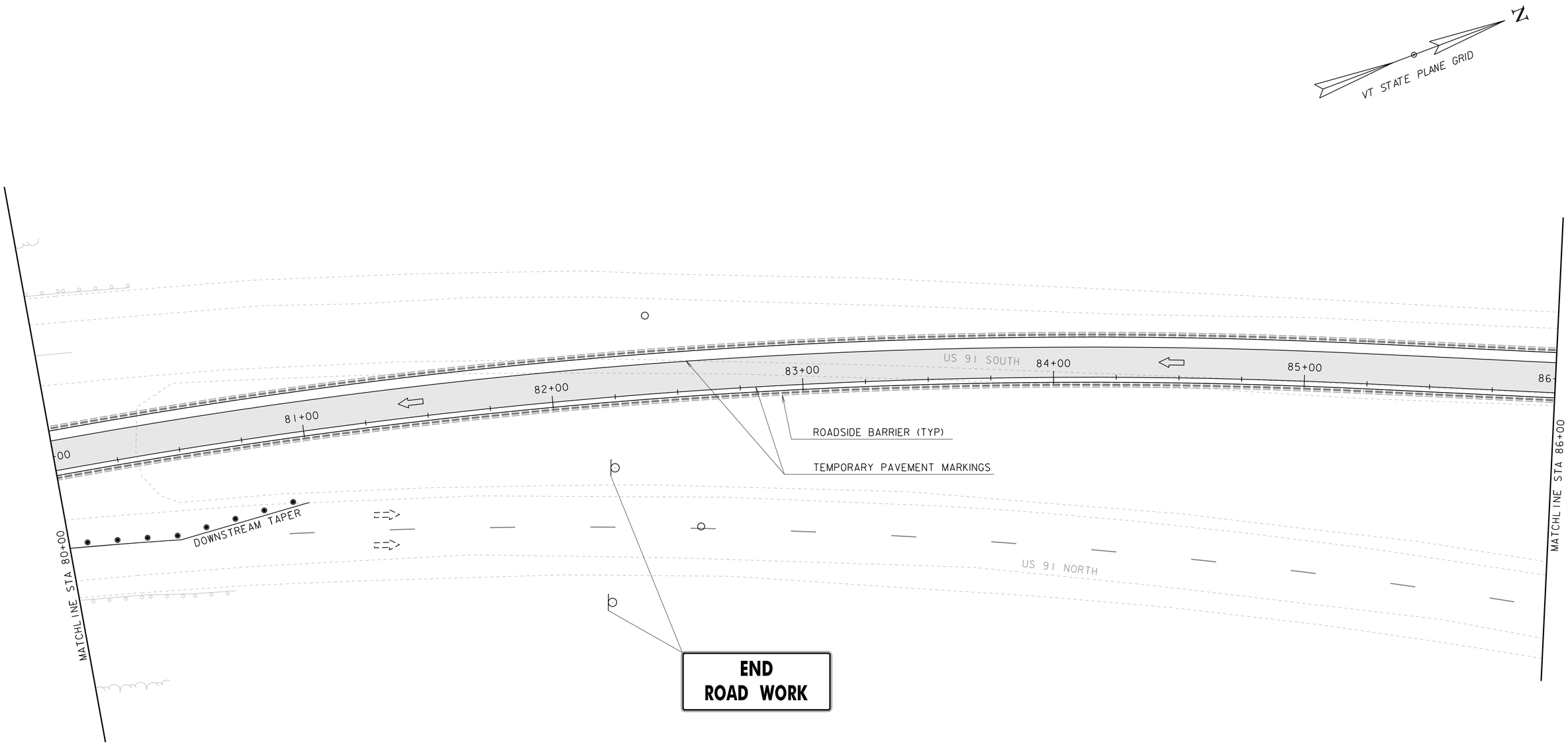


DETOUR SIGNS	
TEMPORARY TRAFFIC BARRIER	
TEMPORARY CHANNALIZING DEVICE	
DETOUR DIRECTION OF TRAVEL	

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrSB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 1 SB CROSS OVER LAYOUT 5

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 16 OF 33

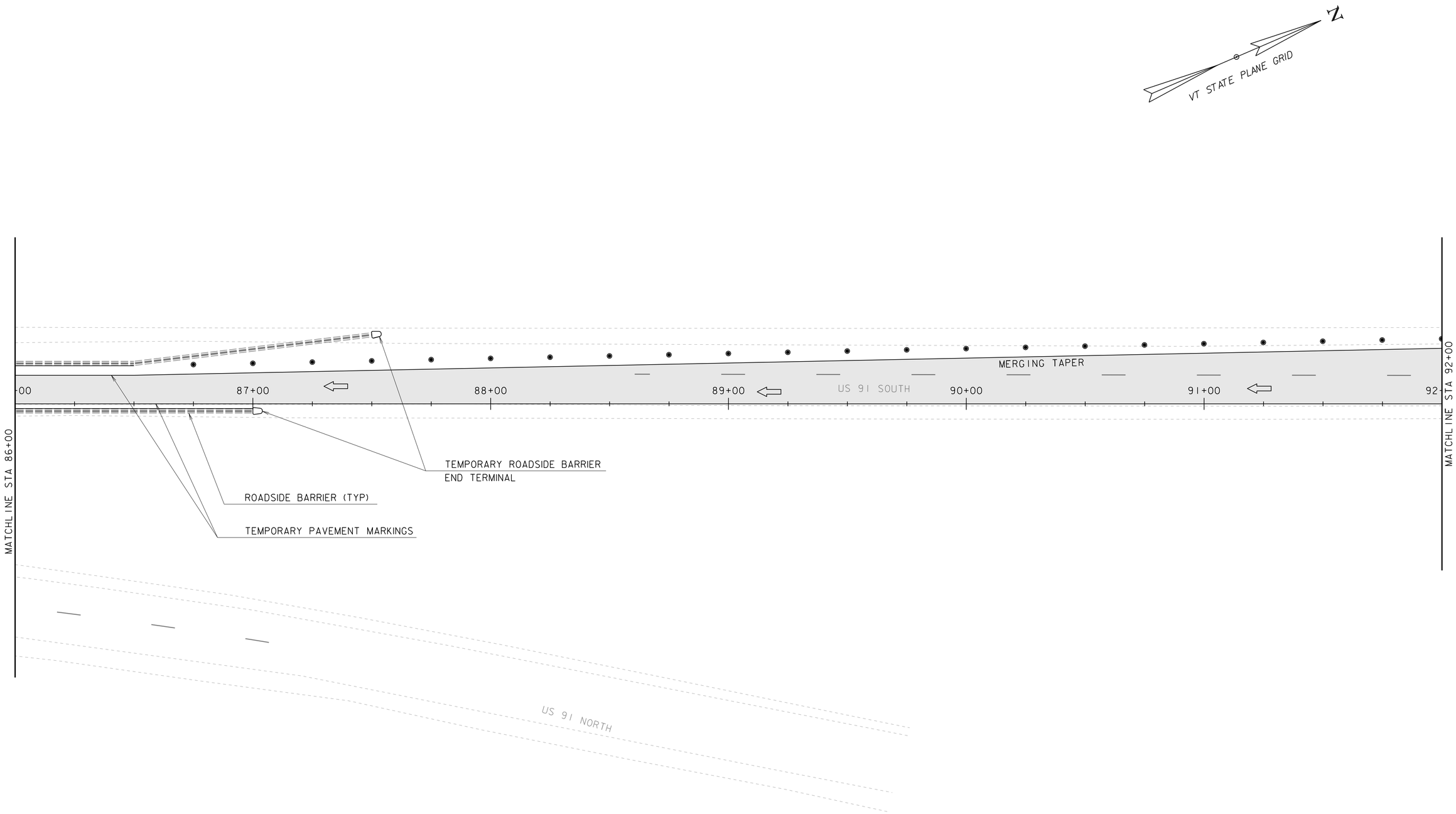


	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrSB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 1 SB CROSS OVER LAYOUT 6

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 17 OF 33

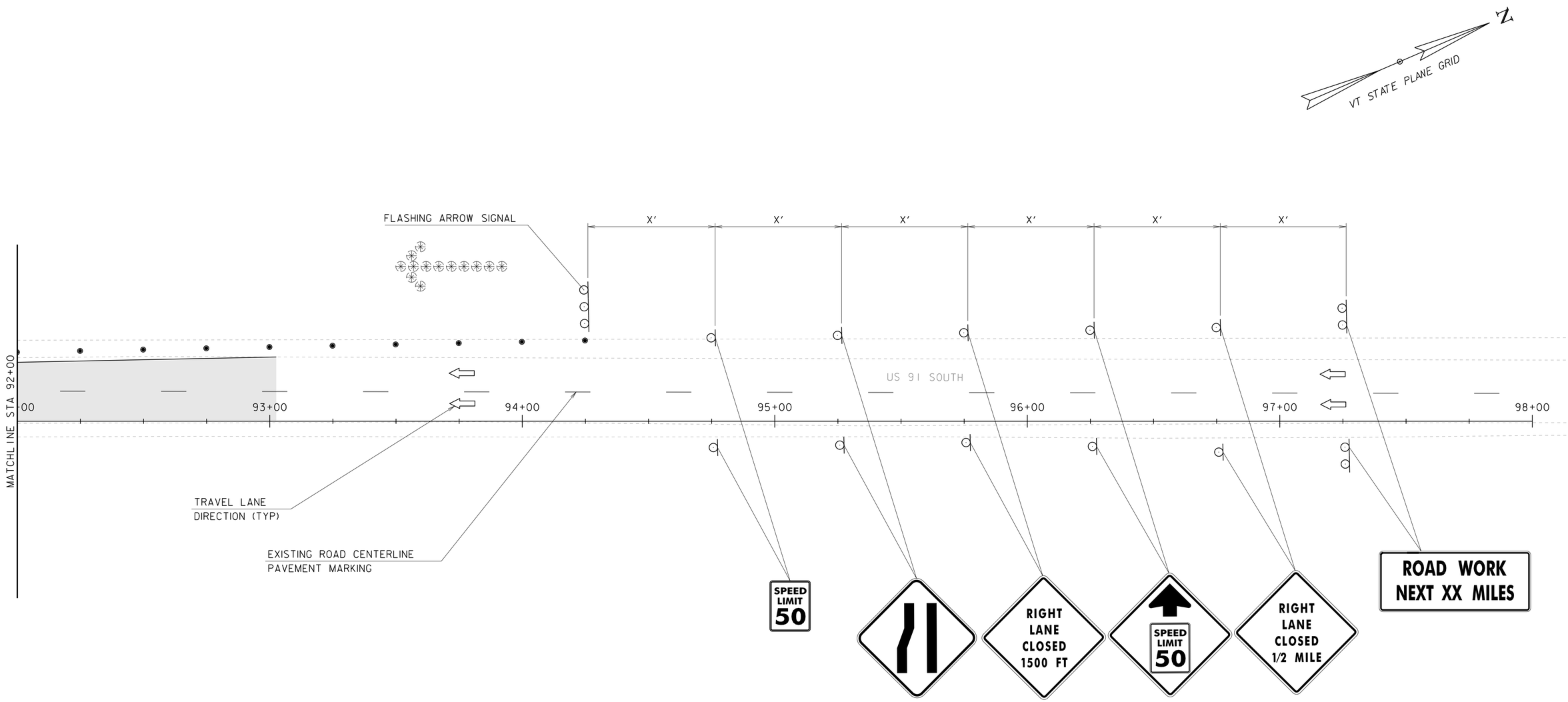


	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrSB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 1 SB CROSS OVER LAYOUT 7

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 18 OF 33

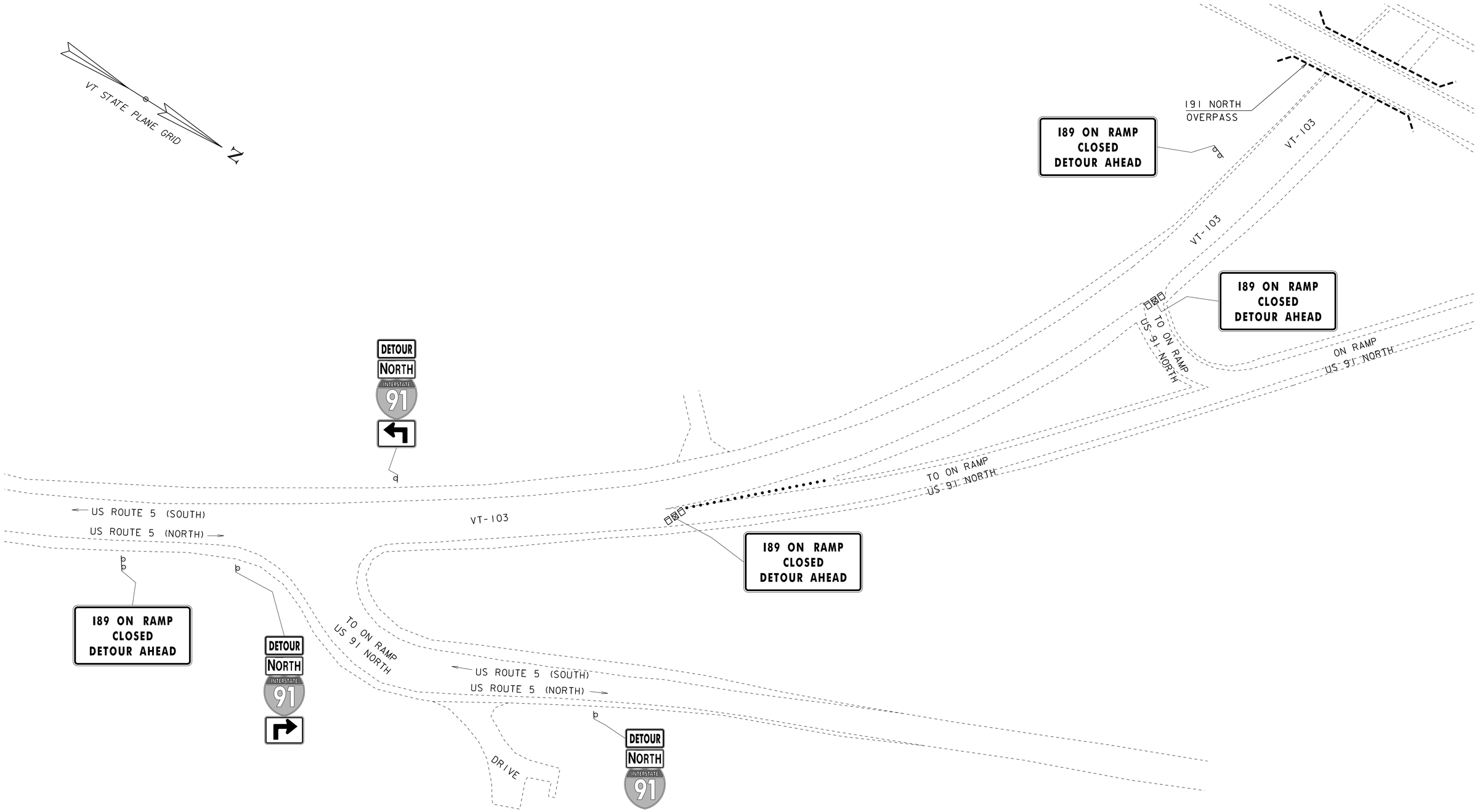


	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

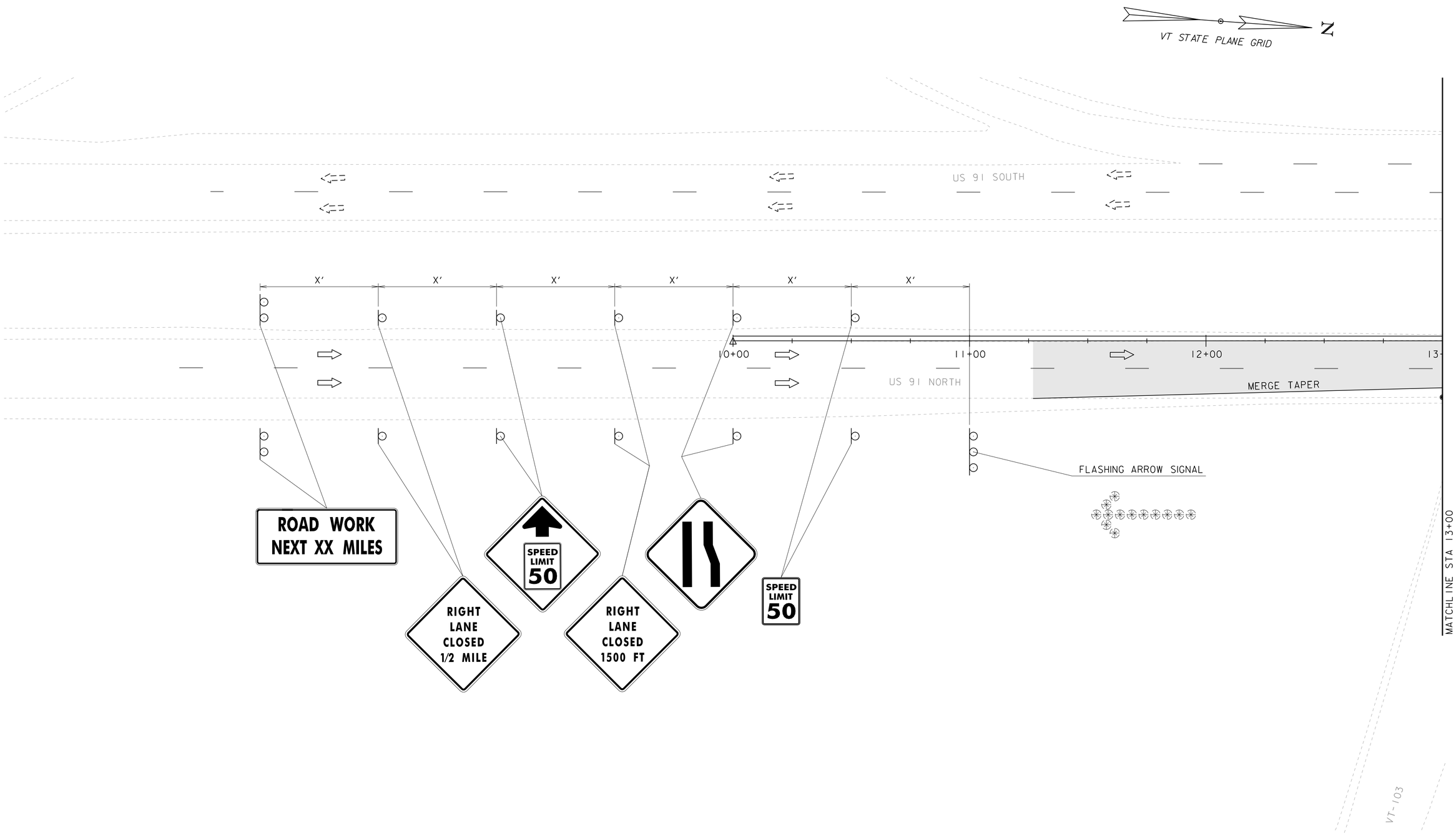
PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrSB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 1 SB CROSS OVER LAYOUT 8

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 19 OF 33



PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130bdrNB.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
STAGE 2 NB RAMP CLOSURE LAYOUT	SHEET 20 OF 33

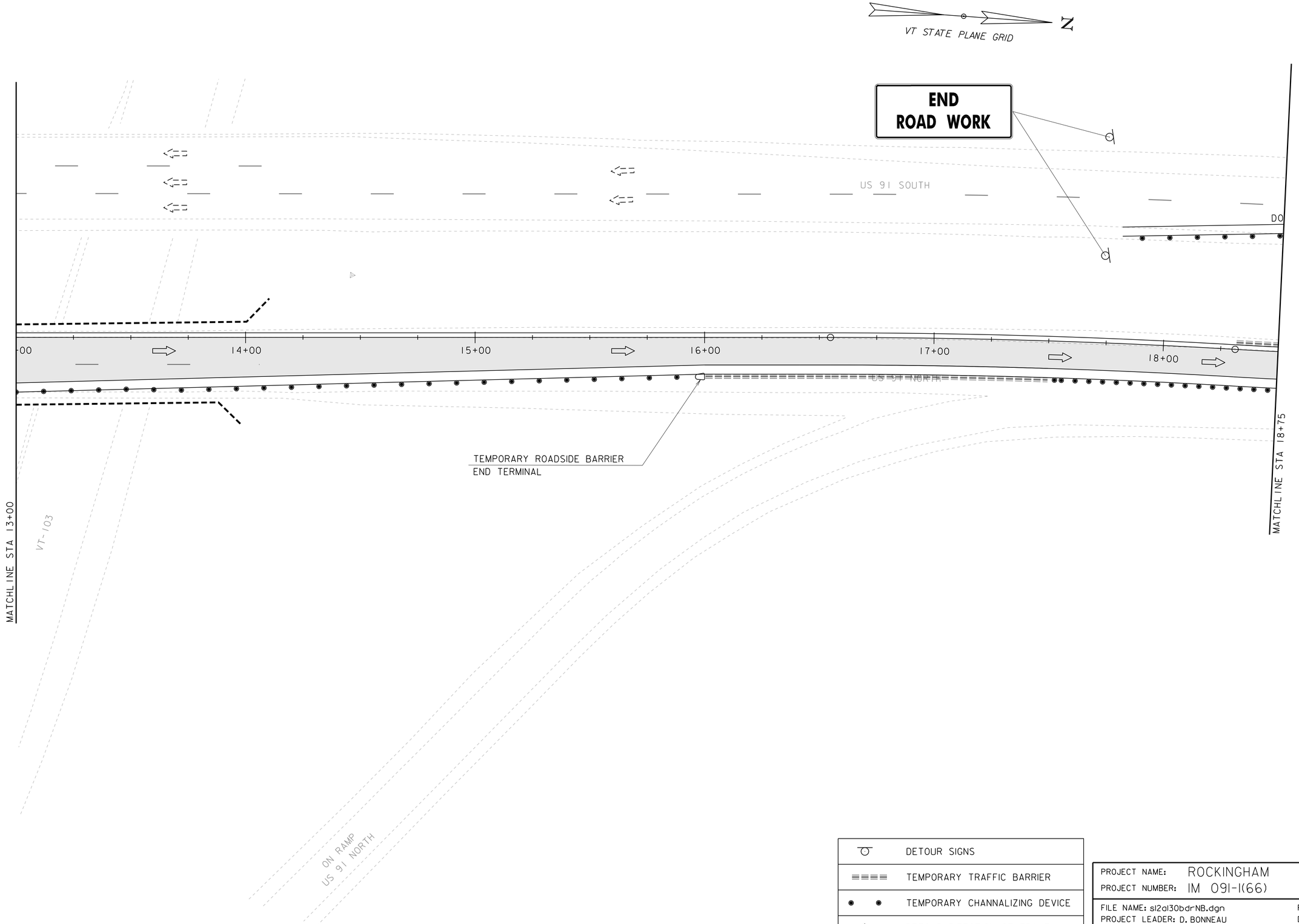


	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrNB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 2 NB CROSS OVER LAYOUT 1

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 21 OF 33

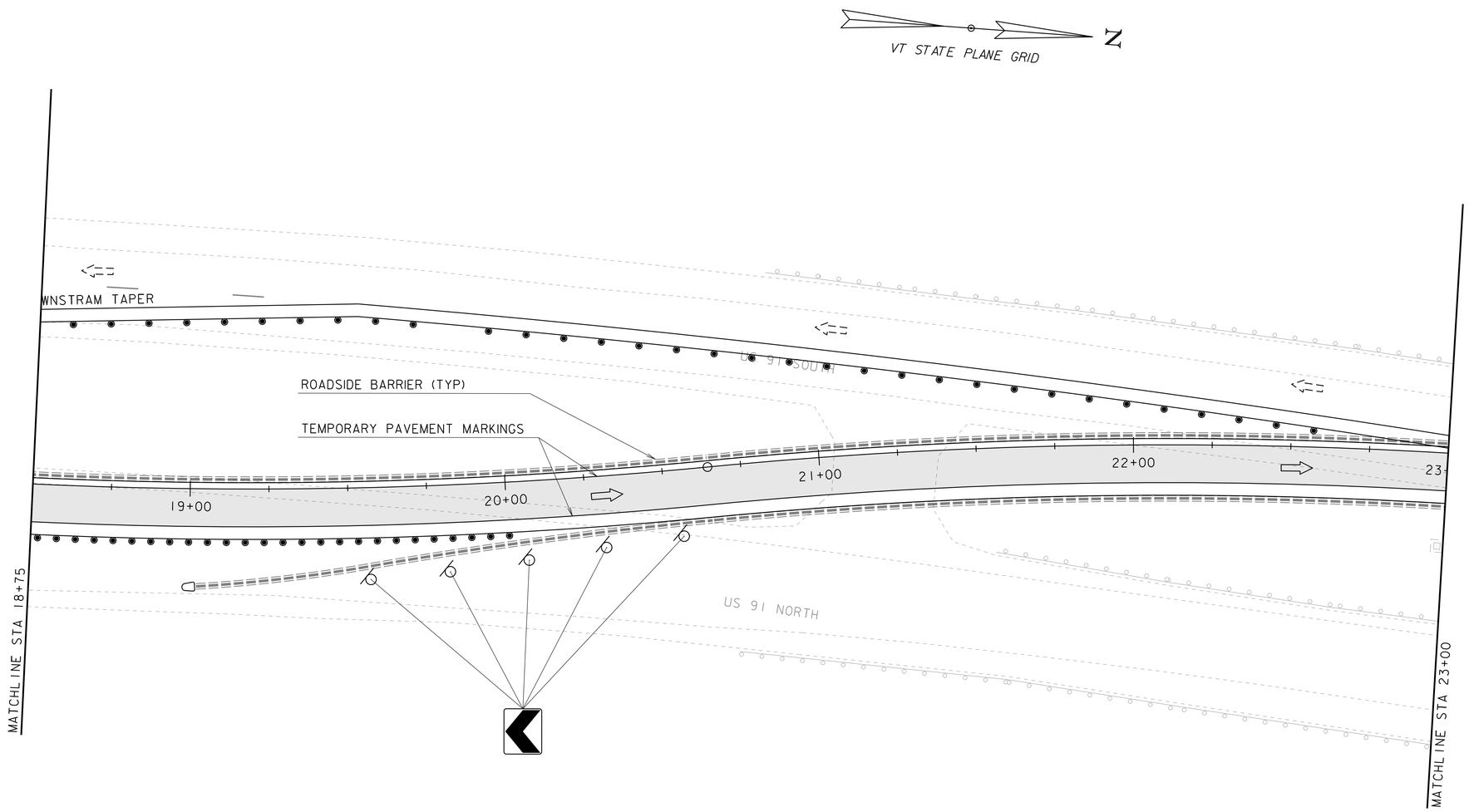


	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrNB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 2 NB CROSS OVER LAYOUT 2

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 22 OF 33

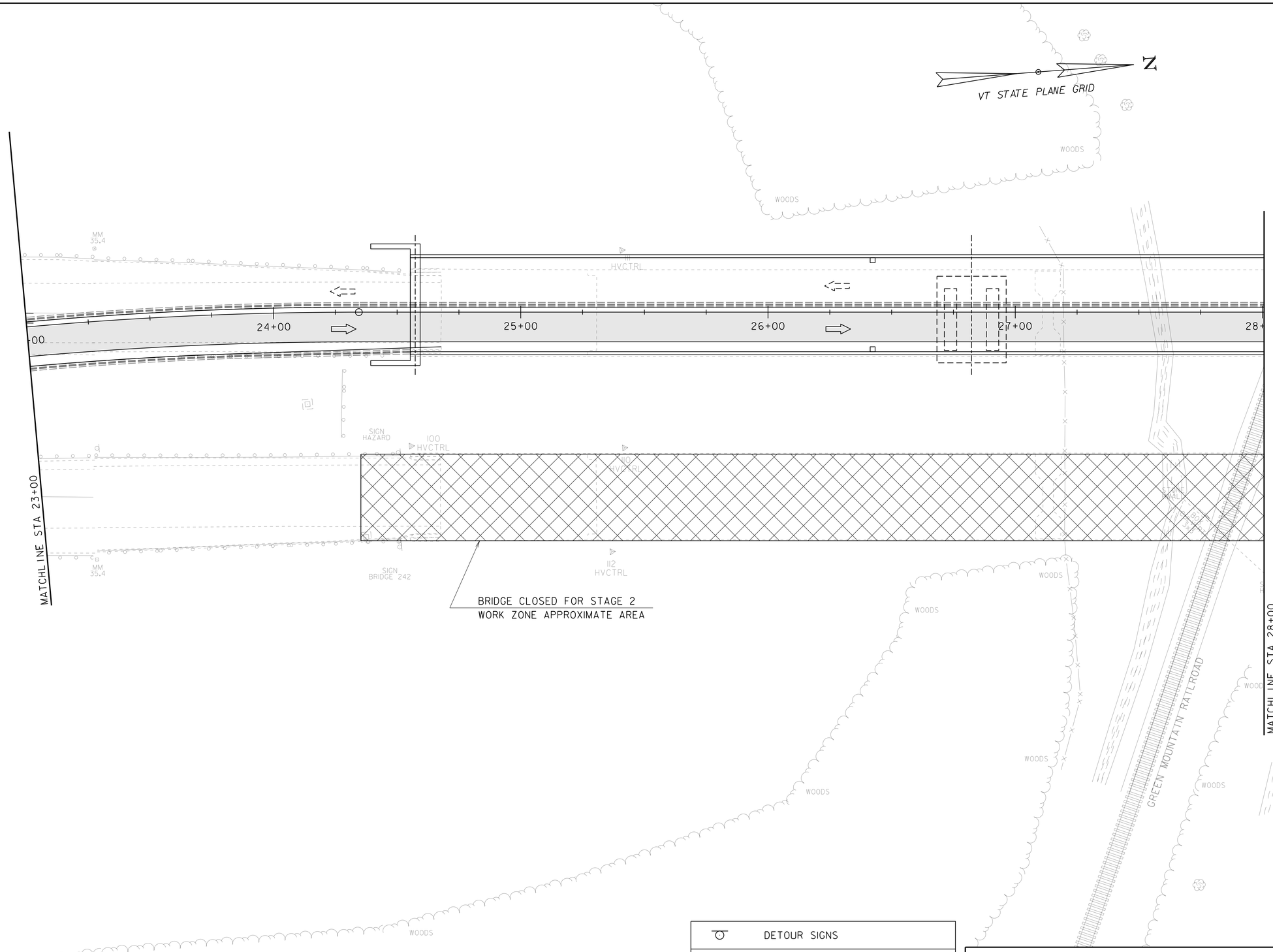


	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrNB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 2 NB CROSS OVER LAYOUT 3

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 23 OF 33



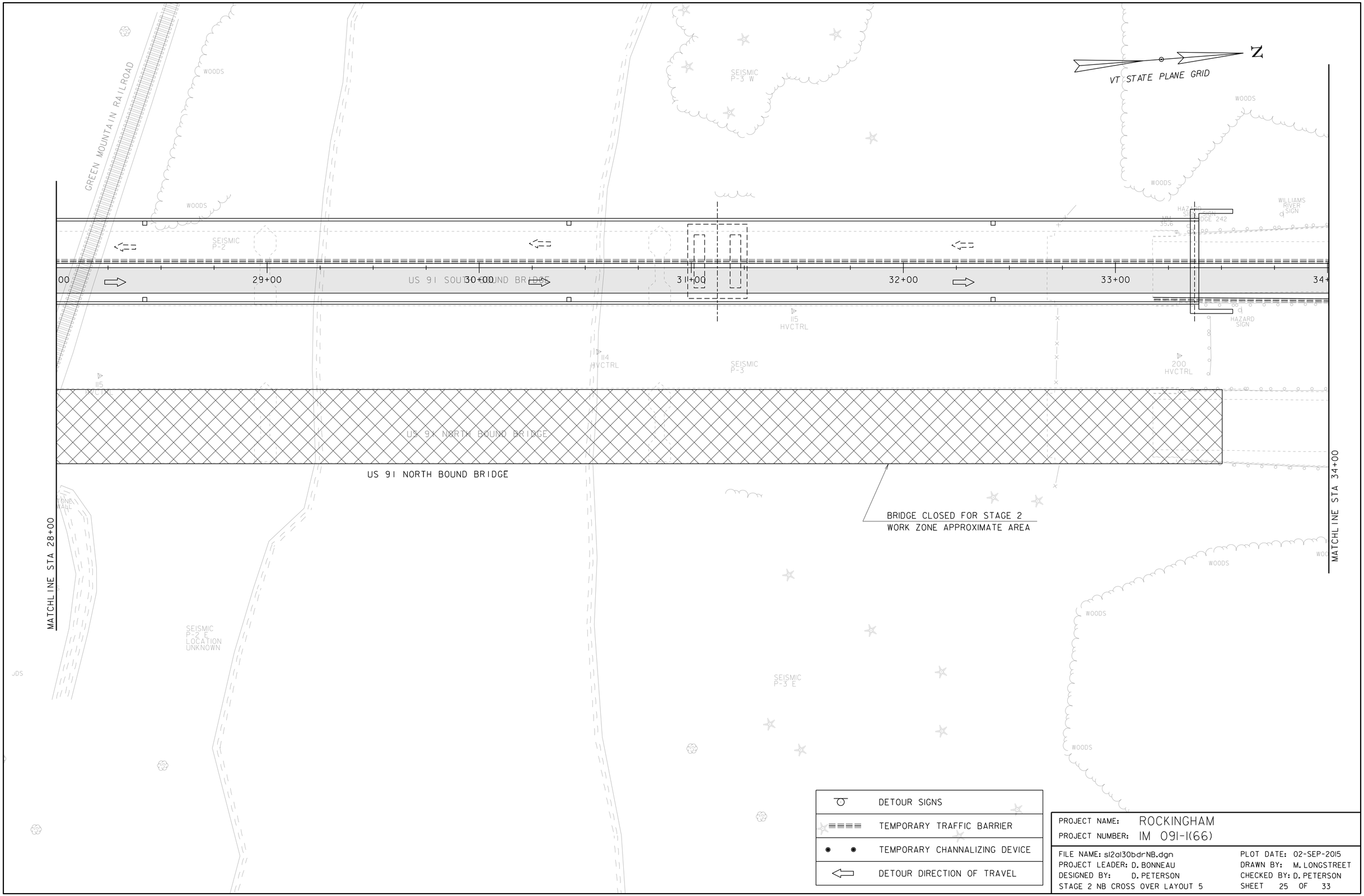
	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME:

PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrNB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 2 NB CROSS OVER LAYOUT 4

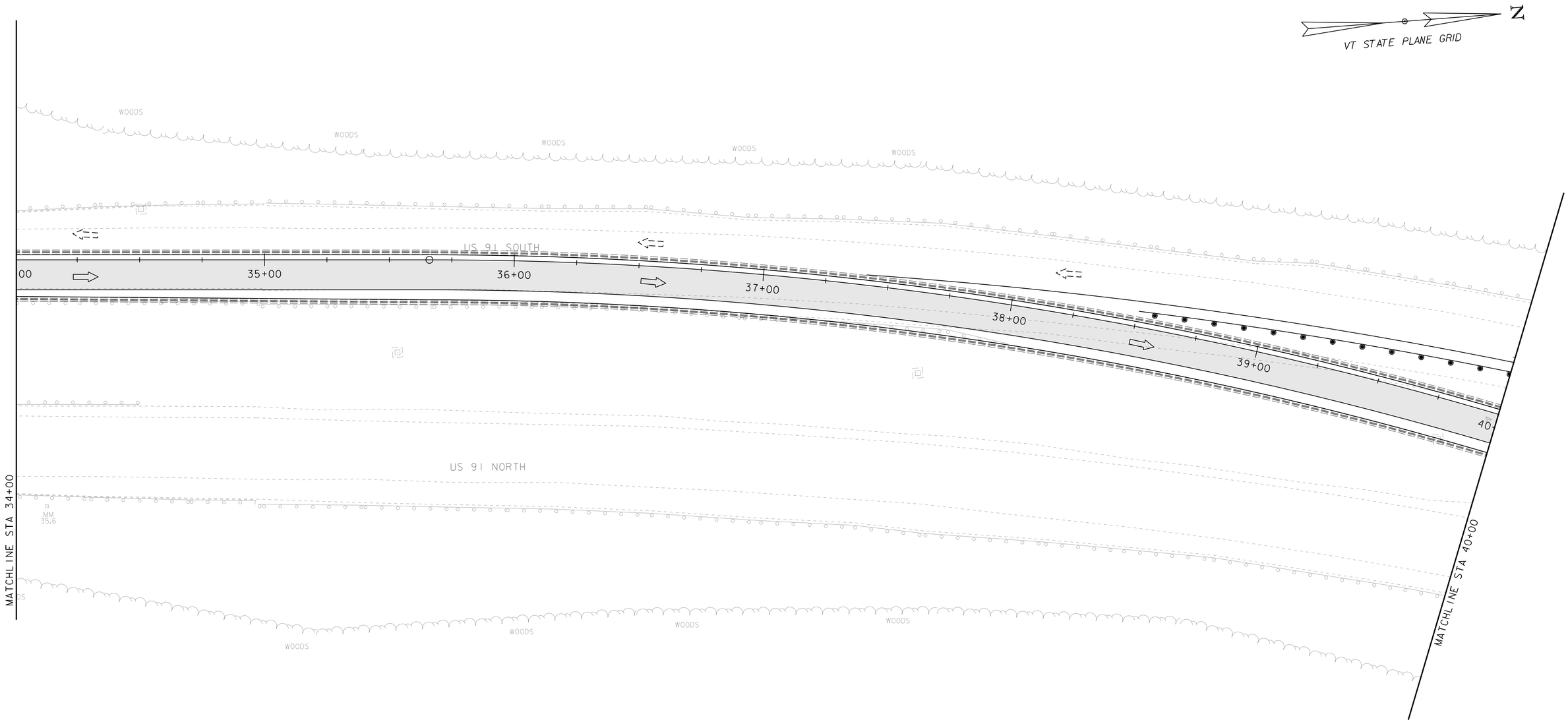
PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 24 OF 33



PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrNB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 2 NB CROSS OVER LAYOUT 5

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 25 OF 33

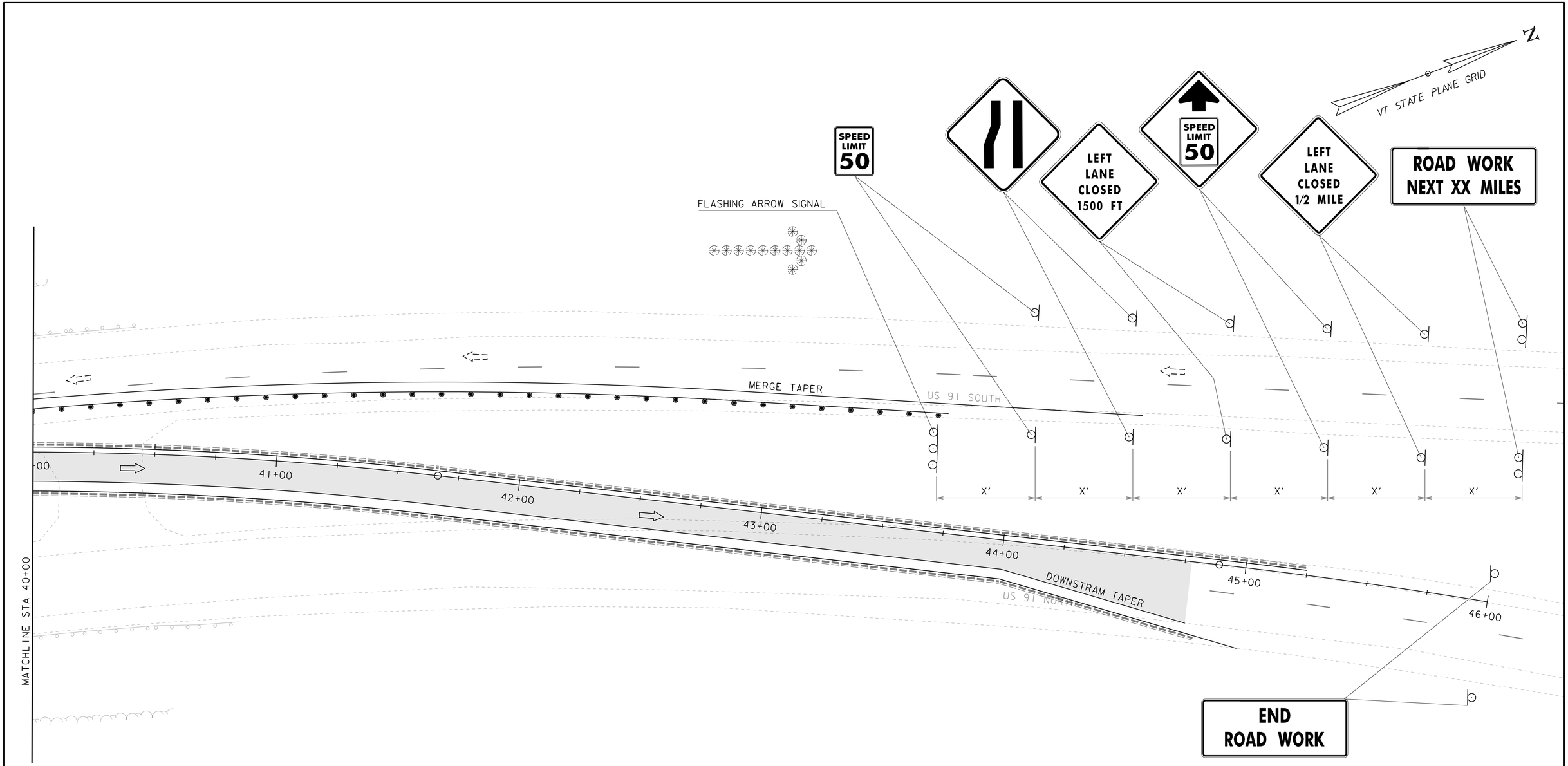


	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrNB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 2 NB CROSS OVER LAYOUT 6

PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 26 OF 33



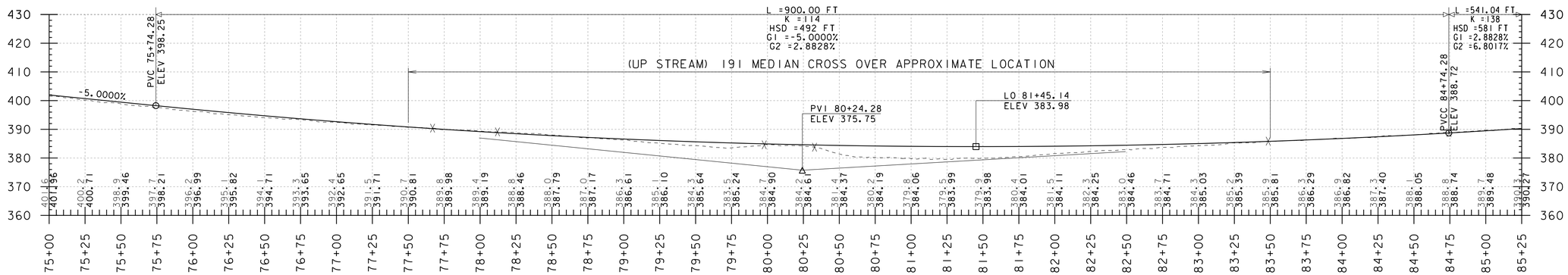
	DETOUR SIGNS
	TEMPORARY TRAFFIC BARRIER
	TEMPORARY CHANNALIZING DEVICE
	DETOUR DIRECTION OF TRAVEL

PROJECT NAME: ROCKINGHAM
PROJECT NUMBER: IM 091-1(66)

FILE NAME: s12a130bdrNB.dgn
PROJECT LEADER: D. BONNEAU
DESIGNED BY: D. PETERSON
STAGE 2 NB CROSS OVER LAYOUT 7

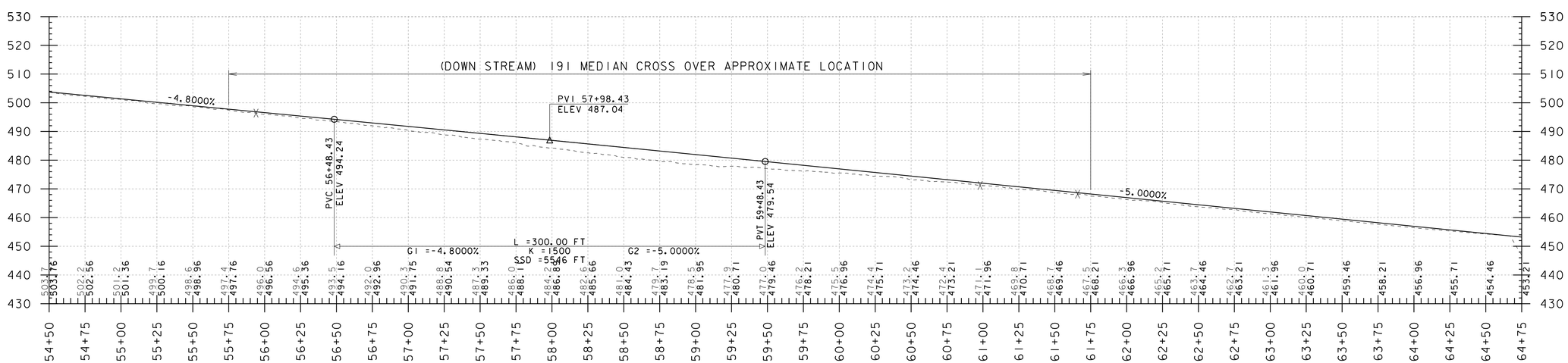
PLOT DATE: 02-SEP-2015
DRAWN BY: M. LONGSTREET
CHECKED BY: D. PETERSON
SHEET 27 OF 33

SB 191 CROSS OVER PROFILE (SEGMENT 3 OF 3)



(SEGMENT 2 OF 3, NOT SHOWN, -5% TANGENT GRADE)

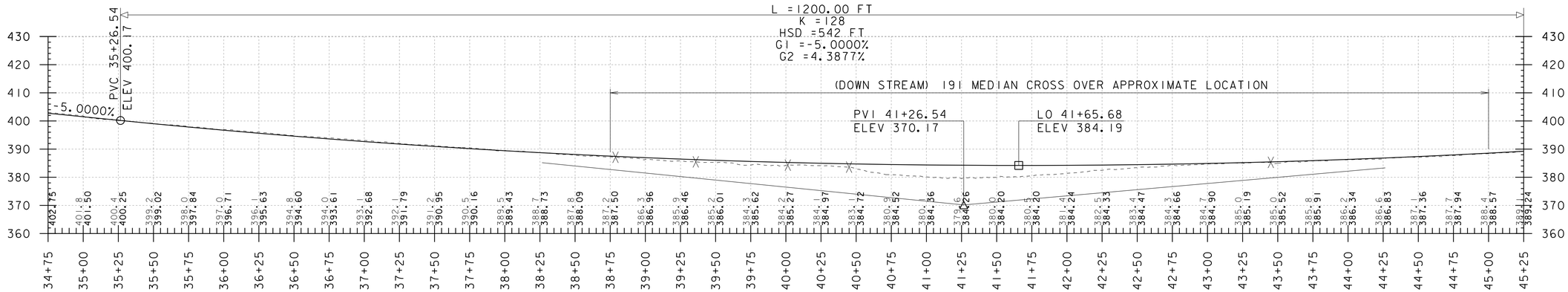
SB 191 CROSS OVER PROFILE (SEGMENT 1 OF 3)



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

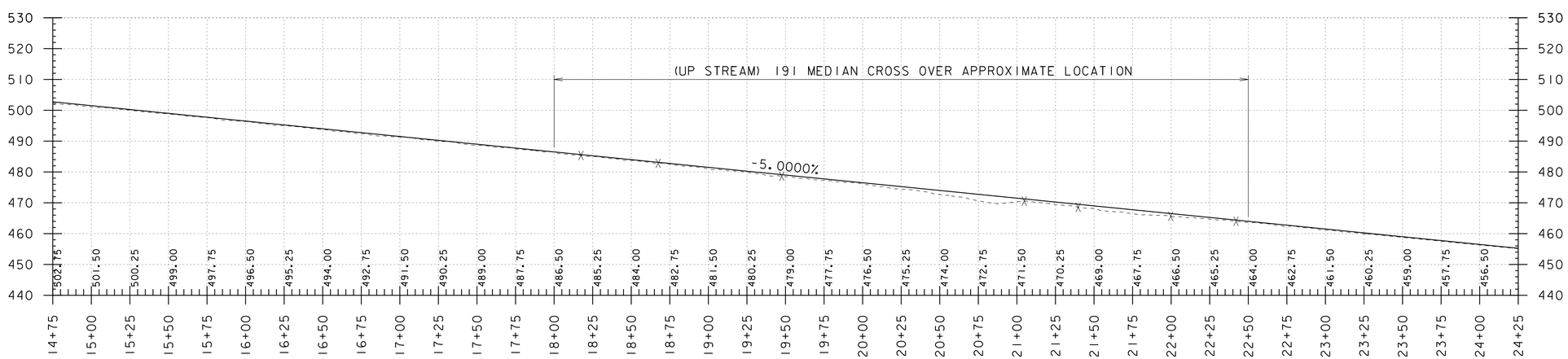
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130pro.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
SB CROSS OVER PROFILES	SHEET 28 OF 33

NB 191 CROSS OVER PROFILE (SEGMENT 3 OF 3)



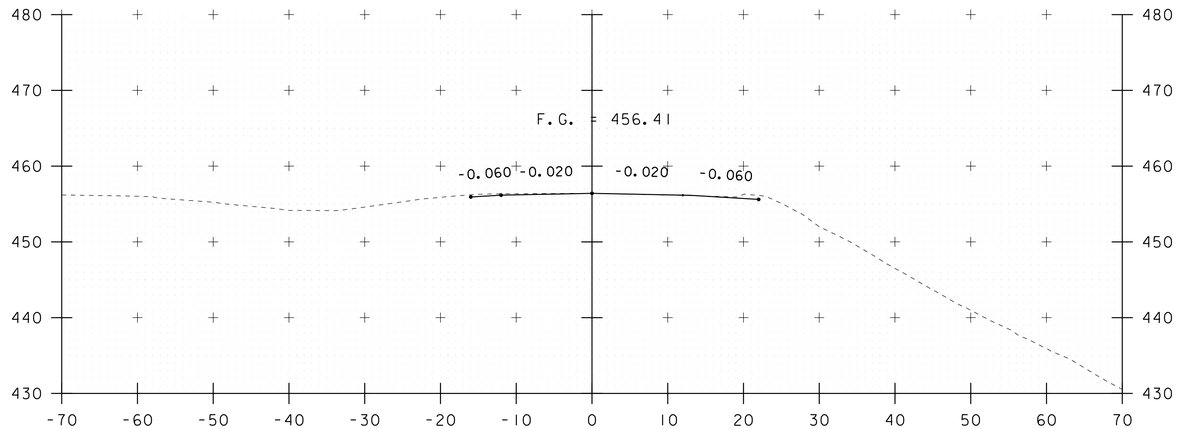
(SEGMENT 2 OF 3, NOT SHOWN, -5% TANGENT GRADE)

NB 191 CROSS OVER PROFILE (SEGMENT 1 OF 3)

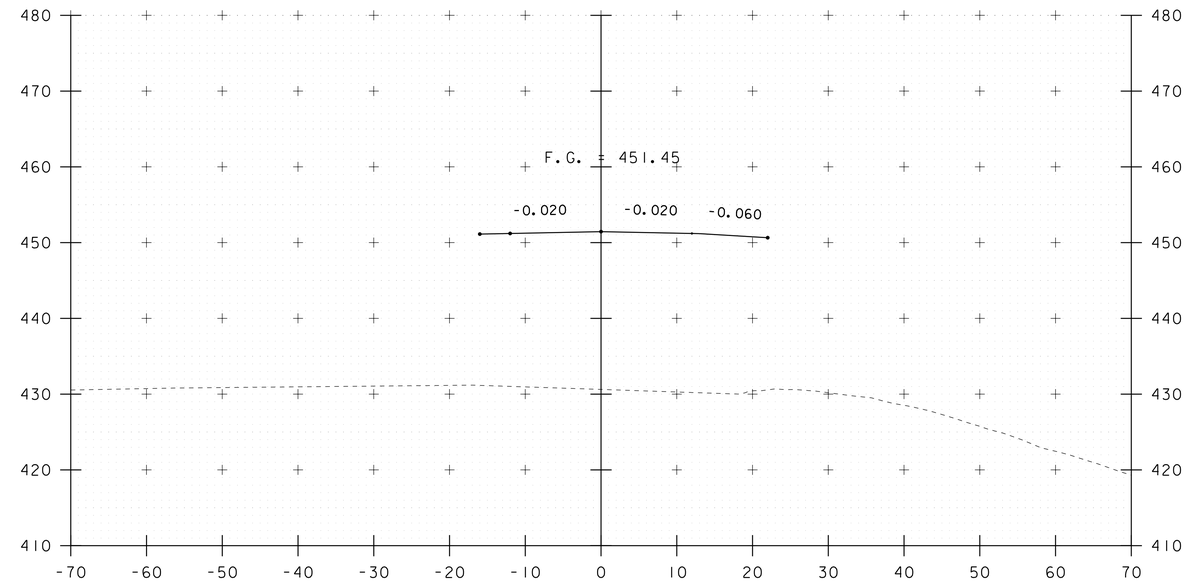


SCALE: HORIZONTAL 1" = 40'
VERTICAL 1" = 20'

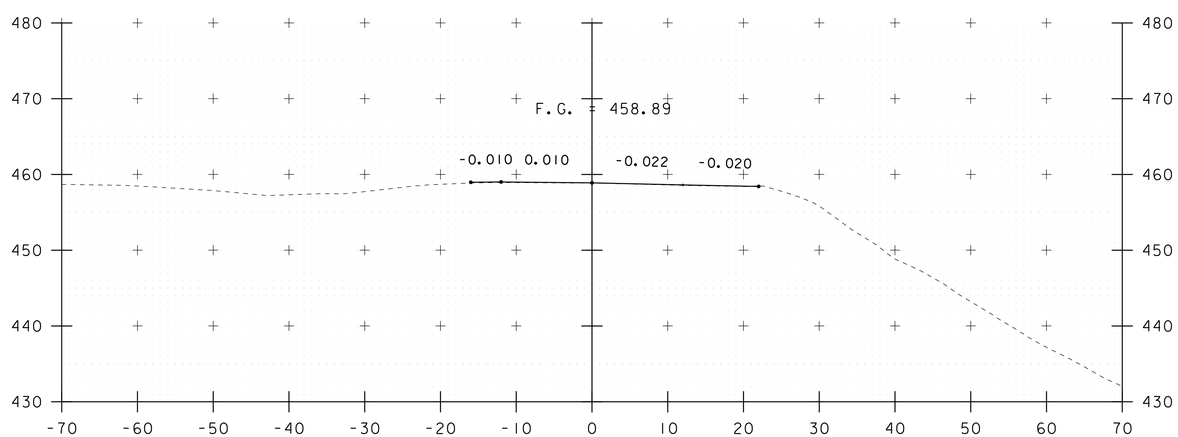
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130pro.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
NB CROSS OVER PROFILES	SHEET 29 OF 33



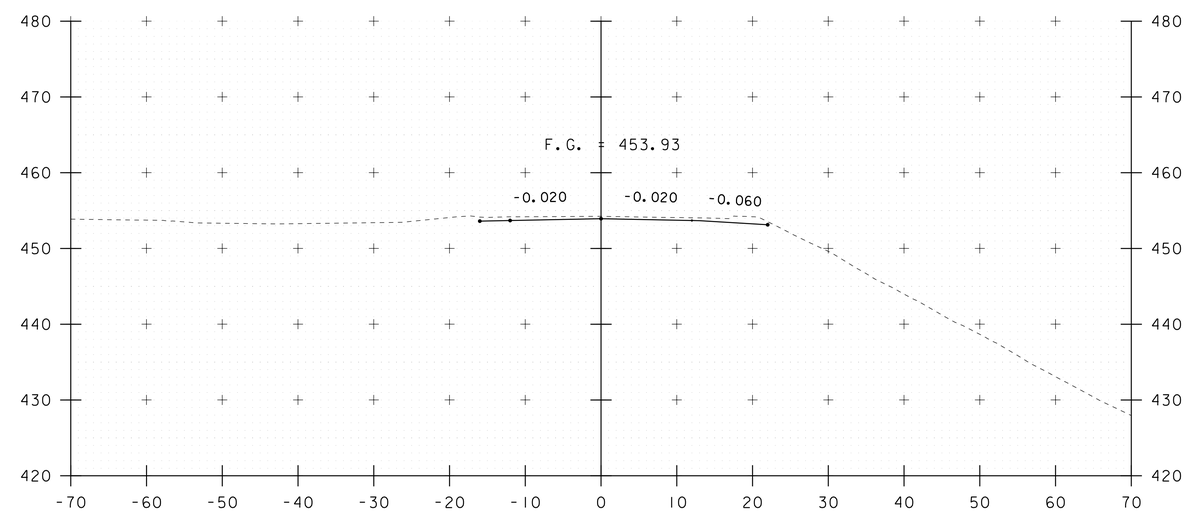
269+50



270+50



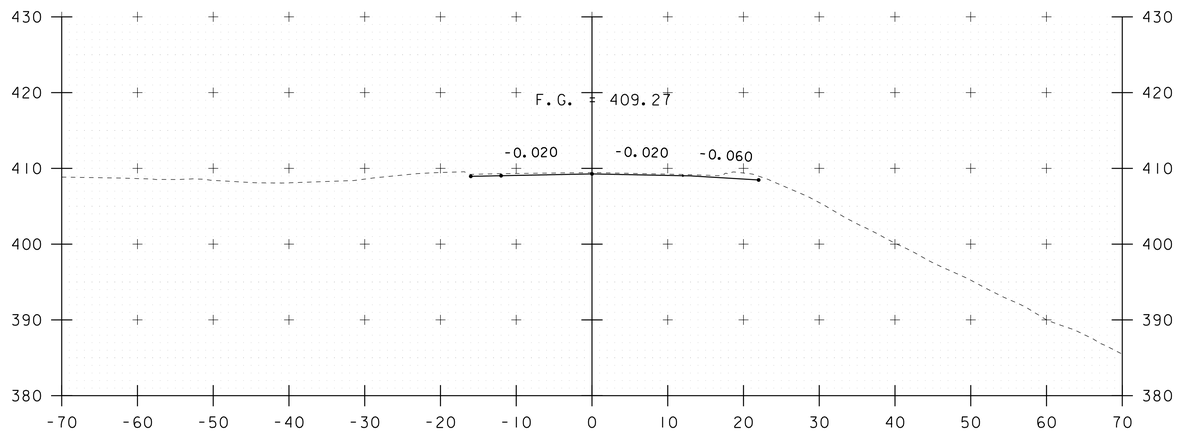
269+00



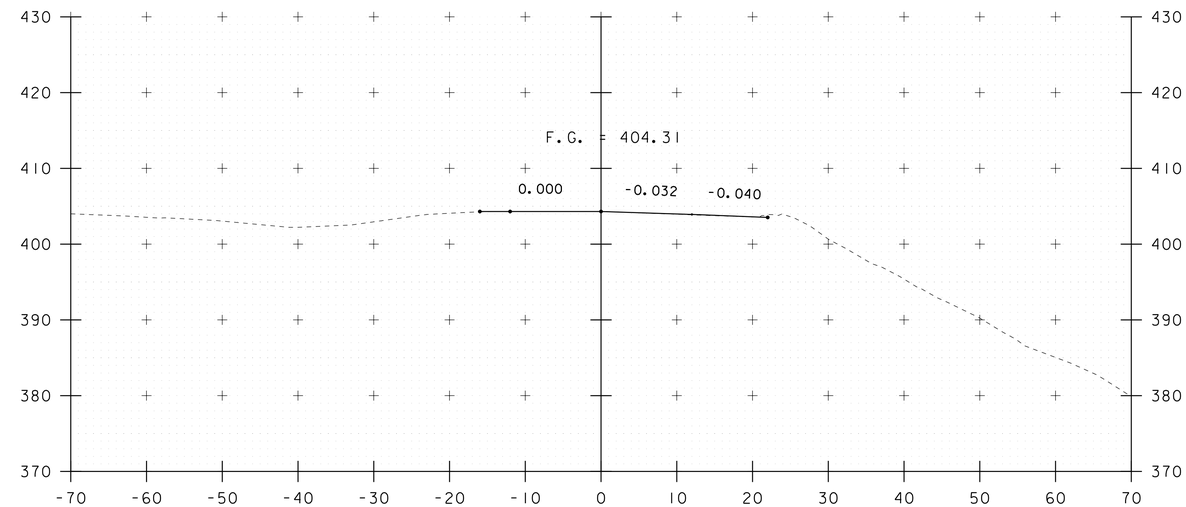
270+00

STA. 269+00 TO STA. 270+50

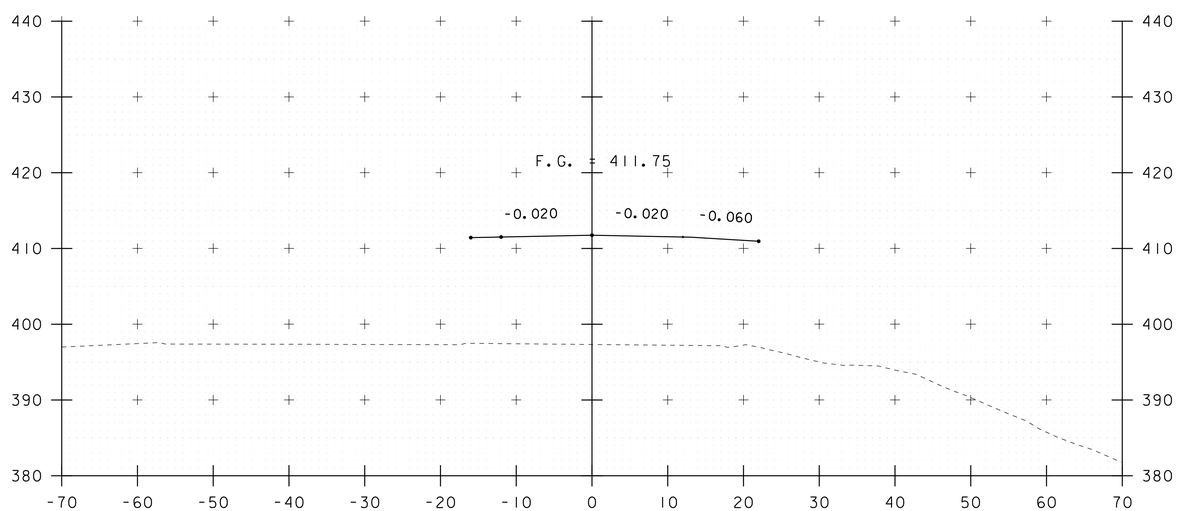
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130xs.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
191NB CROSS SECTIONS 1	SHEET 30 OF 33



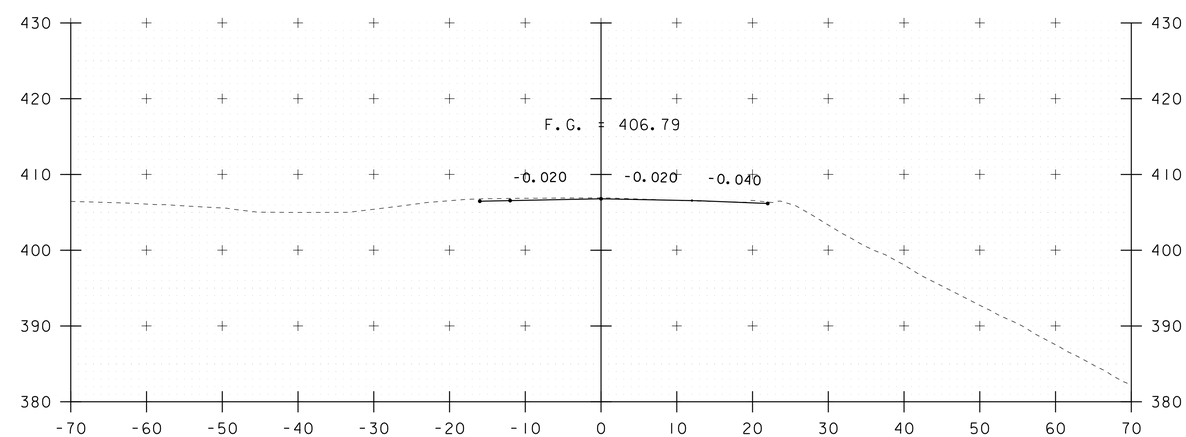
279+00



280+00



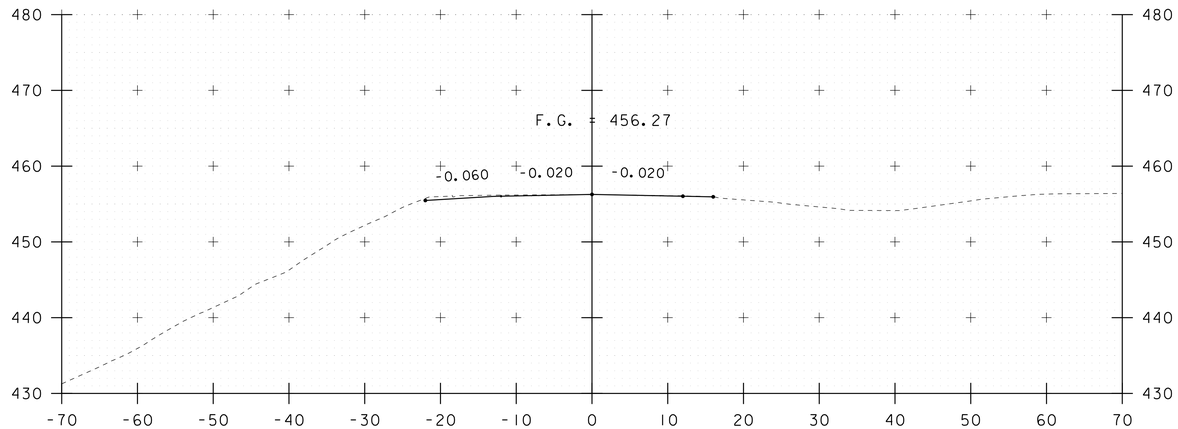
278+50



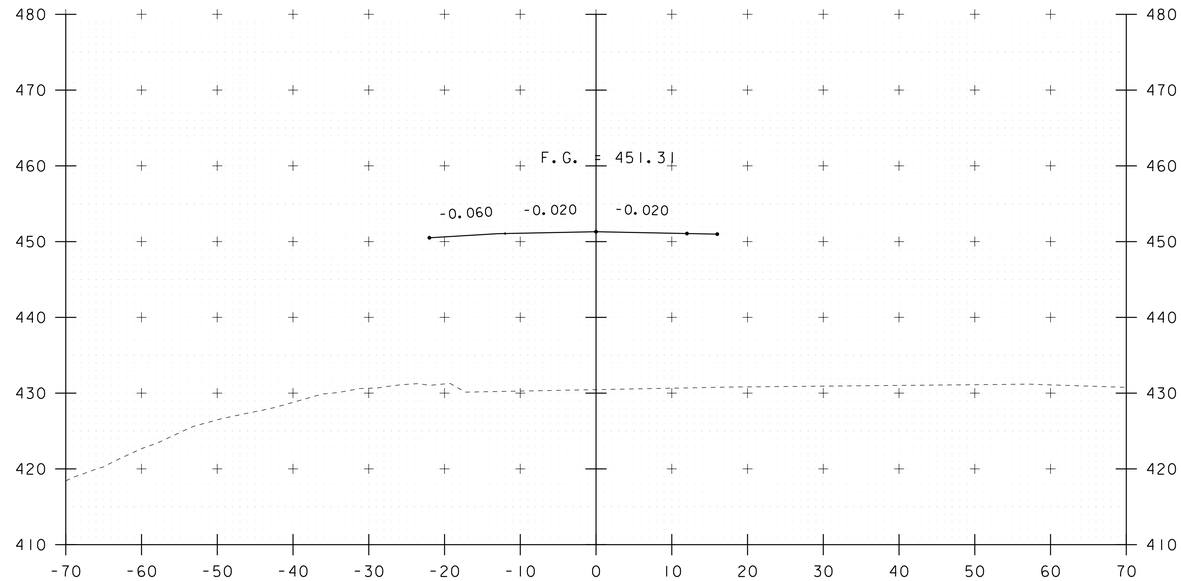
279+50

STA. 278+50 TO STA. 280+00

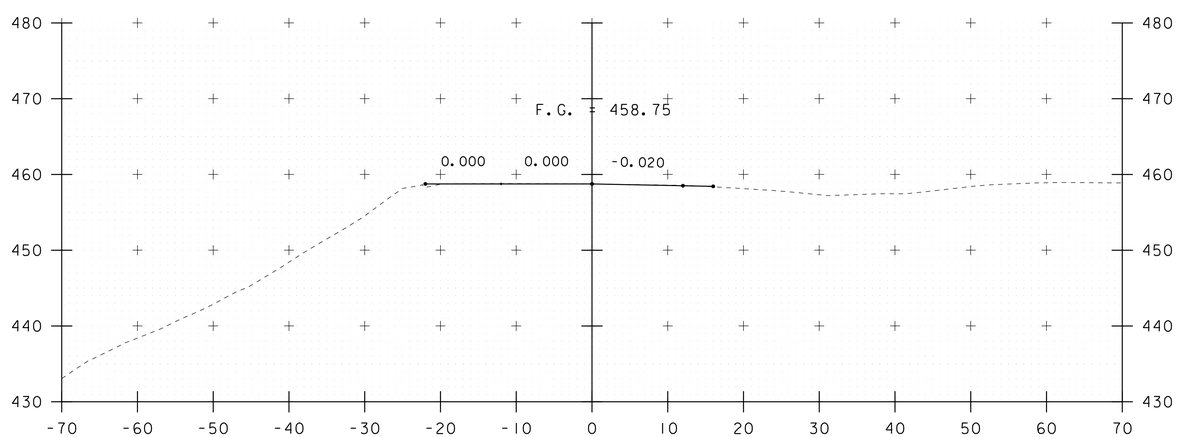
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130xs.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
191NB CROSS SECTIONS 2	SHEET 31 OF 33



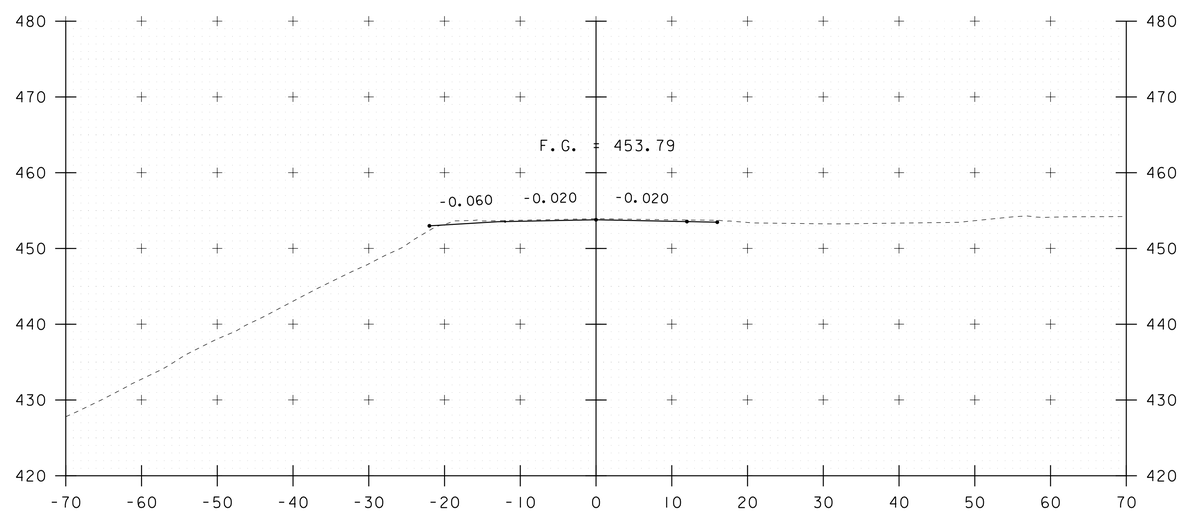
169+50



170+50



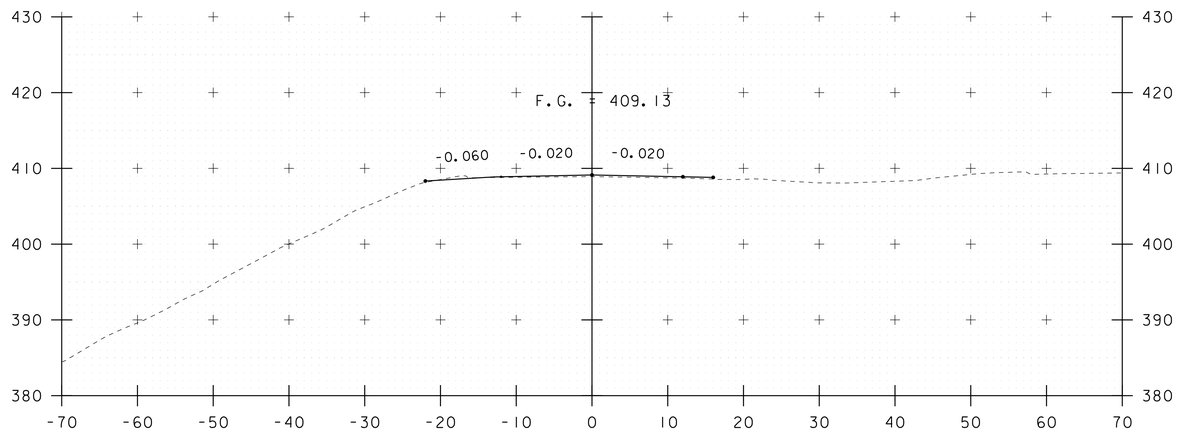
169+00



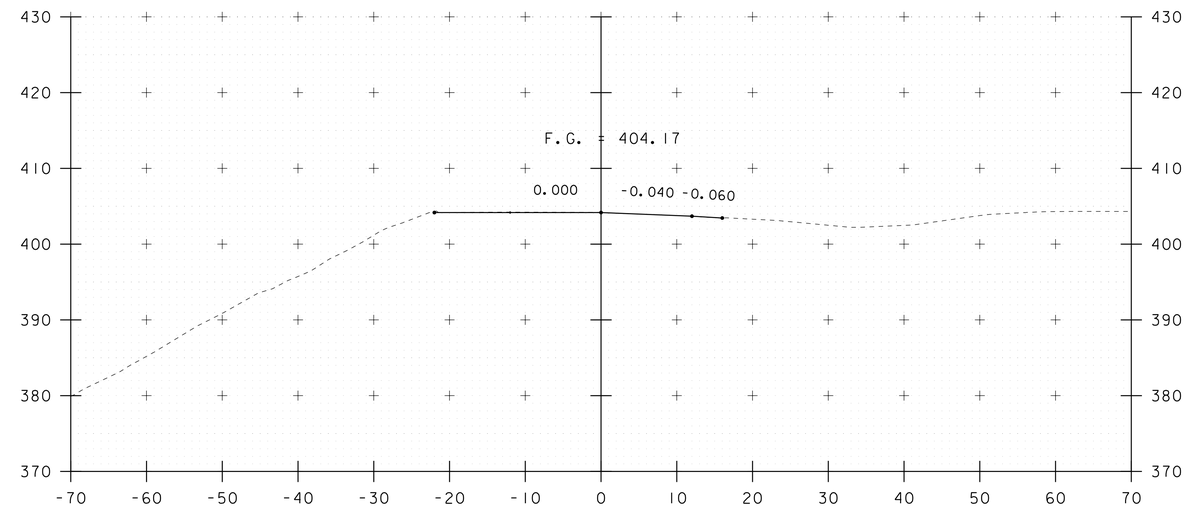
170+00

STA. 169+00 TO STA. 170+50

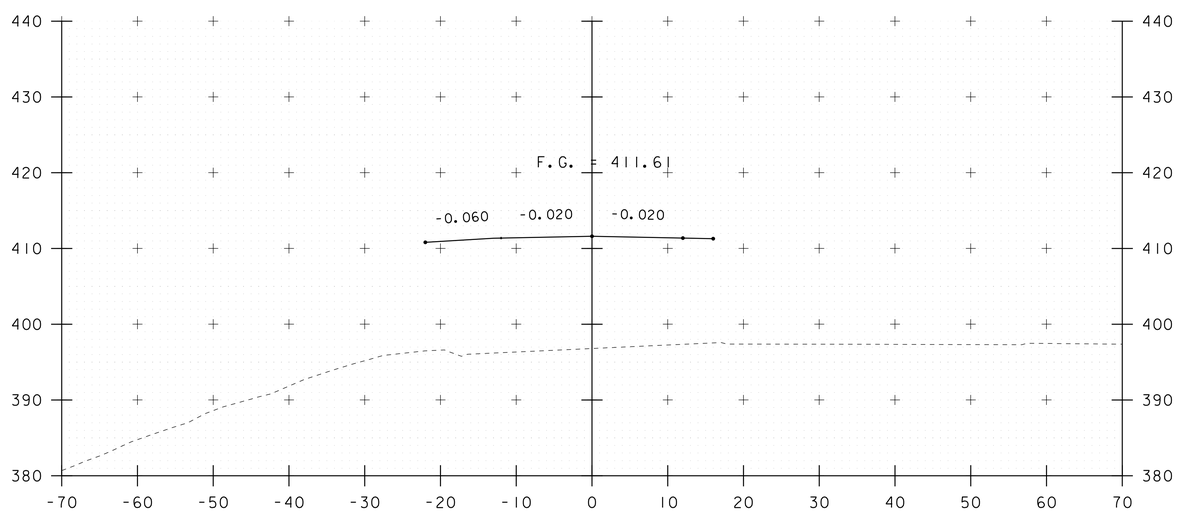
PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130xs.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
191SB CROSS SECTIONS 1	SHEET 32 OF 33



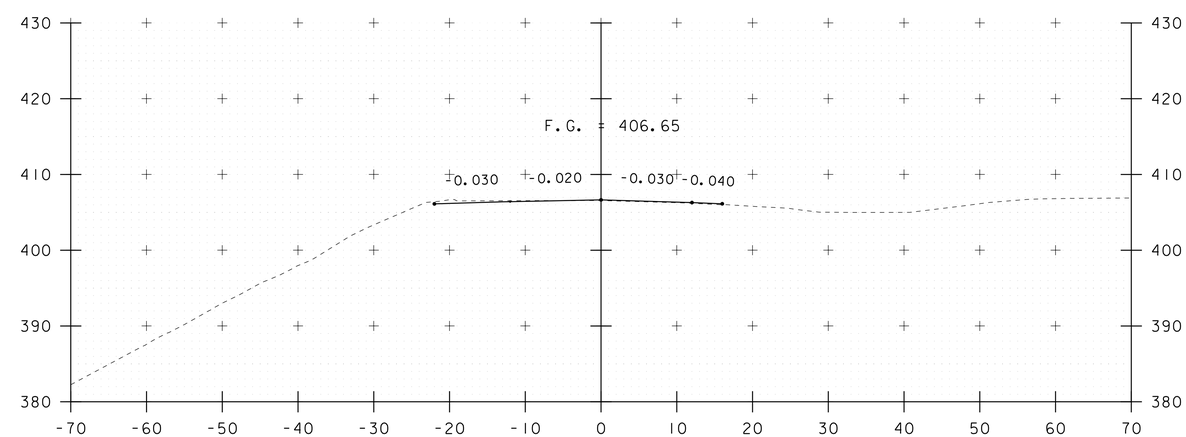
179+00



180+00



178+50



179+50

STA. 178+50 TO STA. 180+00

PROJECT NAME: ROCKINGHAM	
PROJECT NUMBER: IM 091-1(66)	
FILE NAME: s12a130xs.dgn	PLOT DATE: 02-SEP-2015
PROJECT LEADER: D. BONNEAU	DRAWN BY: M. LONGSTREET
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
191SB CROSS SECTIONS 2	SHEET 33 OF 33