

**SOIL CLASSIFICATION**

**AASHTO**

A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

**ROCK QUALITY DESIGNATION**

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

**SHEAR STRENGTH**

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

**CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY**

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

**COMMONLY USED SYMBOLS**

▽	Water Elevation
⊕	Standard Penetration Boring
⊗	Auger Boring
⊙	Rod Sounding
⊖	Sample
N	Standard Penetration Test
	Blow Count Per Foot For:
	2" O. D. Sampler
	1 3/8" I. D. Sampler
	Hammer Weight Of 140 Lbs.
	Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1 1/8"
BX	Core Size 1 5/8"
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
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)
VTSPG	NAD83 - See Note 7

**COLOR**

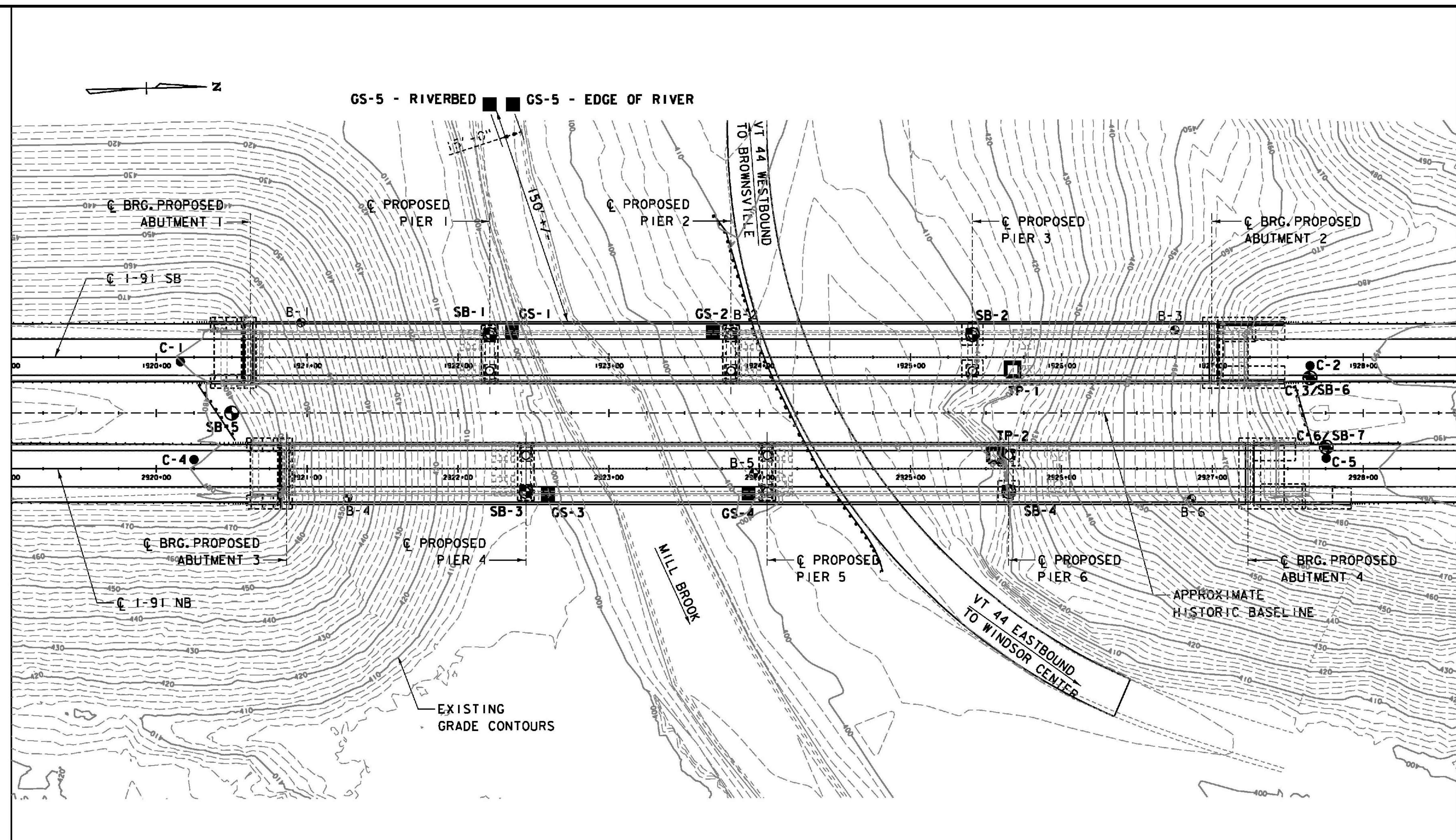
blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mitc	Multicolored
or	Orange		

**KEY**

SB-1	⊕	BORING
C-1	●	PAVEMENT CORE
GS-1	■	GRAB SAMPLE
TP-1	□	TEST PITS
B-1	⊕	EXISTING BORING

**DEFINITIONS (AASHTO)**

<b>BEDROCK (LEDGE)</b> - Rock in its native location of indefinite thickness.	<b>VARVED</b> - Alternate layers of silt and clay.
<b>BOULDER</b> - A rock fragment with an average dimension > 12 inches.	<b>HARDPAN</b> - Extremely dense soil, cemented layer, not softened when wet.
<b>COBBLE</b> - Rock fragments with an average dimension between 3 and 12 inches.	<b>MUCK</b> - Soft organic soil (containing > 10% organic material).
<b>GRAVEL</b> - Rounded particles of rock < 3" and > 0.075" (*10 sieve).	<b>MOISTURE CONTENT</b> - Weight of water divided by dry weight of soil.
<b>SAND</b> - Particles of rock < 0.075" (*10 sieve) and > 0.0025" (*200 sieve).	<b>FLOWING SAND</b> - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
<b>SILT</b> - Soil < 0.0025" (*200 sieve), non or slightly plastic and exhibits no strength when air-dried.	<b>STRIKE</b> - Angle from magnetic north to line of intersection of bed with a horizontal plane.
<b>CLAY</b> - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.	<b>DIP</b> - Inclination of bed with a horizontal plane.



**BORING LAYOUT PLAN**

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

**BORING NOTES:**

1. THE EXISTING BORINGS WERE PERFORMED FROM AUGUST TO SEPTEMBER, 2011 BY NEW HAMPSHIRE BORINGS, INC., AND OBSERVED AND LOGGED BY TERRACON PERSONNEL.
2. THE SUPPLEMENTAL BORINGS AND TEST PITS WERE PERFORMED IN JANUARY, 2013 BY NEW HAMPSHIRE BORING, INC., AND WERE OBSERVED AND LOGGED BY JACOBS PERSONNEL.
3. REFER TO THE RFP DOCUMENTS FOR ADDITIONAL BORING INFORMATION FOR PRIOR SUBSURFACE INVESTIGATION.
4. ADDITIONAL NOTES TO BE ADDED UPON COMPLETION OF FINAL GEOTECHNICAL REPORT.
5. SUBSEQUENT TO DEVELOPMENT OF BORING LOGS BASELINE STATIONING FOR 1-91 SB WAS REVISED TO REFLECT 1000 SERIES STATIONS RATHER THAN 2000 SERIES. STATIONS REPORTED IN BORING LOGS ON 1-91 ARE 1000 HIGHER THAN ACTUAL CENTERLINE 1-91SB STATIONS.

PROJECT NAME:	WINDSOR
PROJECT NUMBER:	IM 091-1(64)
FILE NAME:	z10a188BORI.dgn
PROJECT LEADER:	J. WILSON
DESIGNED BY:	D. HA
BORING INFORMATION SHEET	
PLOT DATE:	7/30/2015
DRAWN BY:	S. GUNN
CHECKED BY:	P. MURPHY
SHEET	45 OF 156