

5/28/17

**STV** 100 Years  
**STV Engineers, Inc.**  
 900 West Trade St., Suite 715  
 Charlotte, NC 28202  
 NC License Number F-0991

PROJECT REFERENCE NO. U-4751	SHEET NO. 40
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<i>(Signature)</i>	<i>(Signature)</i>
SEAL 043891	SEAL 26971
DATE 04/20/17	DATE 04/20/17

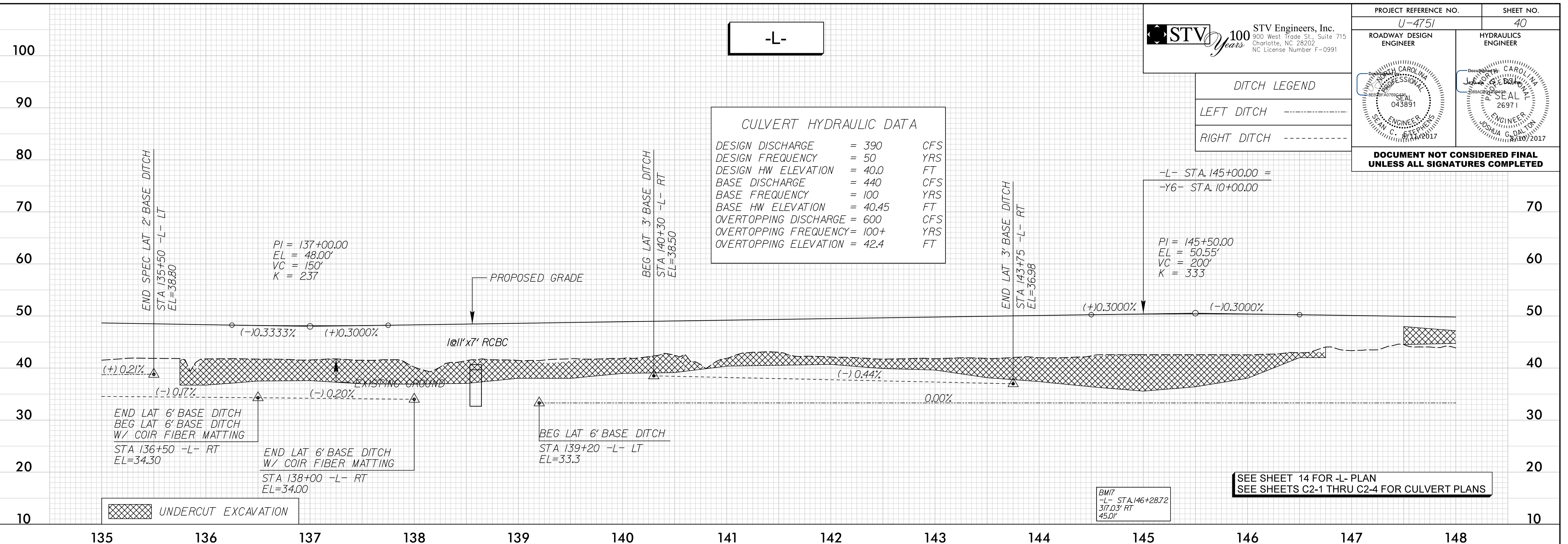
**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

DITCH LEGEND

LEFT DITCH	-----
RIGHT DITCH	-----

CULVERT HYDRAULIC DATA

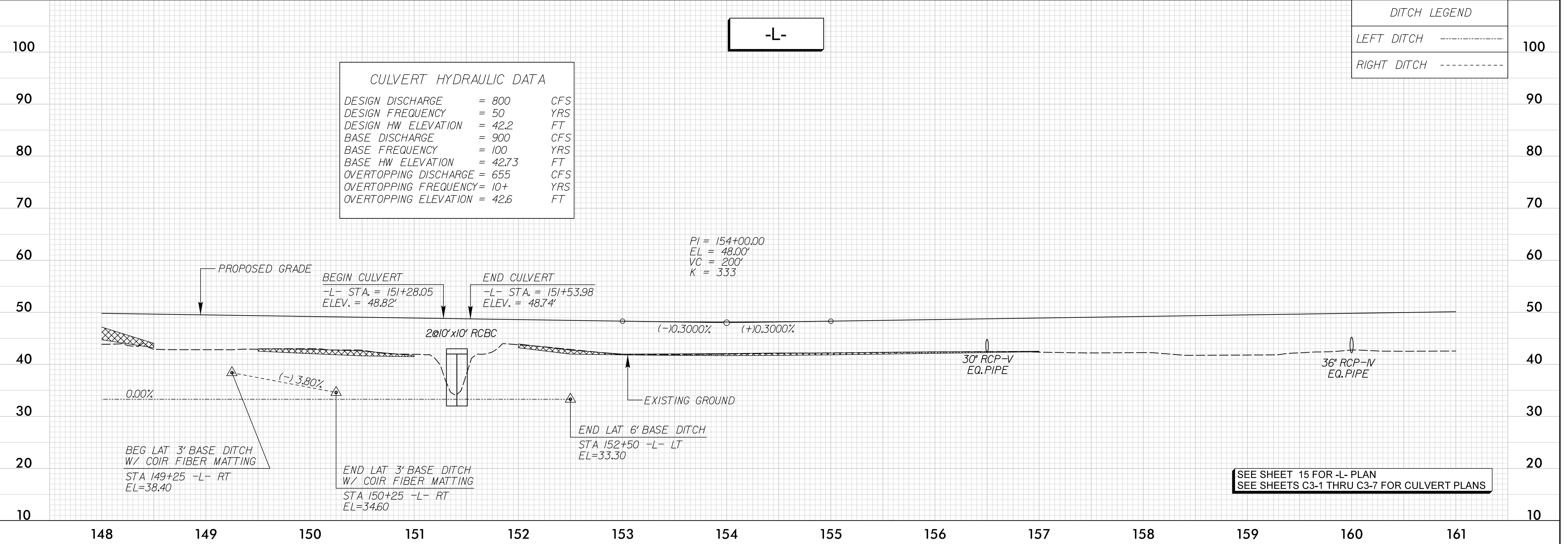
DESIGN DISCHARGE	= 390	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 40.0	FT
BASE DISCHARGE	= 440	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 40.45	FT
OVERTOPPING DISCHARGE	= 600	CFS
OVERTOPPING FREQUENCY	= 100+	YRS
OVERTOPPING ELEVATION	= 42.4	FT



SEE SHEET 14 FOR -L- PLAN  
SEE SHEETS C2-1 THRU C2-4 FOR CULVERT PLANS

BM7  
-L- STA. 146+28.72  
37.03' RT  
45.0'

T:\4751\2017\proj\way\p\proj\SH\U4751\_LRDY\_psh40.plt.dgn



CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 800	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 42.2	FT
BASE DISCHARGE	= 900	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 42.73	FT
OVERTOPPING DISCHARGE	= 655	CFS
OVERTOPPING FREQUENCY	= 10+	YRS
OVERTOPPING ELEVATION	= 42.6	FT

DITCH LEGEND

LEFT DITCH	-----
RIGHT DITCH	-----

SEE SHEET 15 FOR -L- PLAN  
SEE SHEETS C3-1 THRU C3-7 FOR CULVERT PLANS