



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

October 7, 2013

U.S. Army Corps of Engineers
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Mr. Steven Kichefski
NCDOT Coordinator

SUBJECT: **Application for Modification to Section 404 Nationwide Permit 33** for the proposed widening of I-485 (Charlotte Outer Loop) from I-77 to SR 3642 (Rea Road) south of Charlotte in Mecklenburg County, Federal Aid Project No. IMNHF-0485(8), Division 10, WBS Element No. 39929.1.1, TIP No. R-4902.

REFERENCE: Section 404 Permit, issued March 7, 2013, USACE Action ID SAW-2011-00255.

Dear Sir:

The North Carolina Department of Transportation (NCDOT) proposes to modify the approved Section 404 permit for the above referenced project. Installation of a temporary work trestle, utilized during construction of the permanent bridge over McAlpine Creek, has resulted in temporary impacts to the creek. The temporary impact is limited to two (24" diameter) pipe piles and two (12"x 12") brace piles, which are supportive structures for the trestle. The temporary impact is six linear feet (<0.01 acre). Temporary piles are currently being removed. The duration of piles within the creek will total approximately three weeks. This temporary impact does not constitute loss of water and does not require mitigation.

Please see the enclosed copy of the updated permit drawings and work trestle specifications for the above reference project.

All other impacts remain as stated in the February 1, 2013 application and subsequent permits.

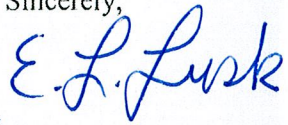
MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE: NCDOT.GOV

LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: <https://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please call Erin Cheely at (919) 707-6108.

Sincerely,

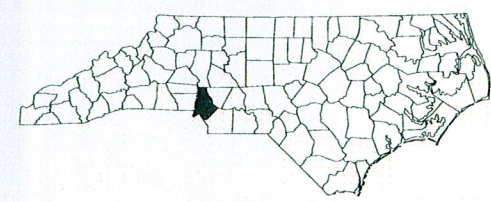

for

Richard W. Hancock, P.E., Manager
Project Development and Environmental
Analysis Unit

cc: NCDOT Permit Application Standard Distribution List

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4902	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
39929.3.1	IMNHF-485(8)	P.E.	

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

MECKLENBURG COUNTY

LOCATION: I-485 FROM I-77 TO SR 3624 (REA ROAD) SOUTH OF CHARLOTTE

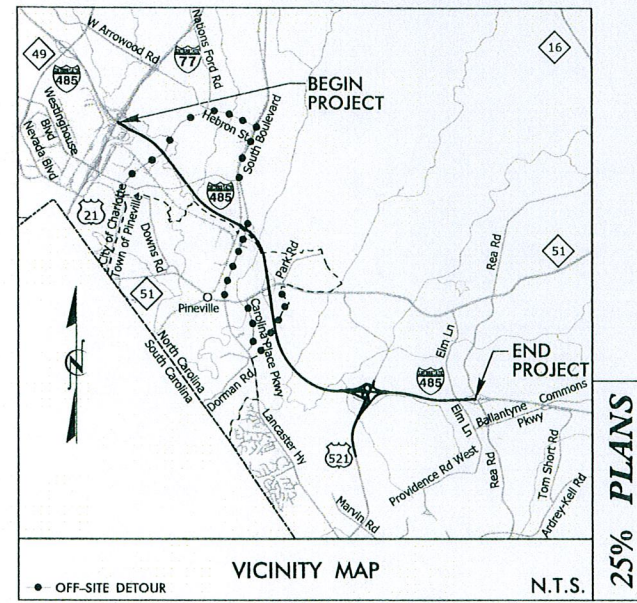
TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNING, ITS & STRUCTURES

WETLAND AND STREAM IMPACTS

TIP PROJECT: R-4902

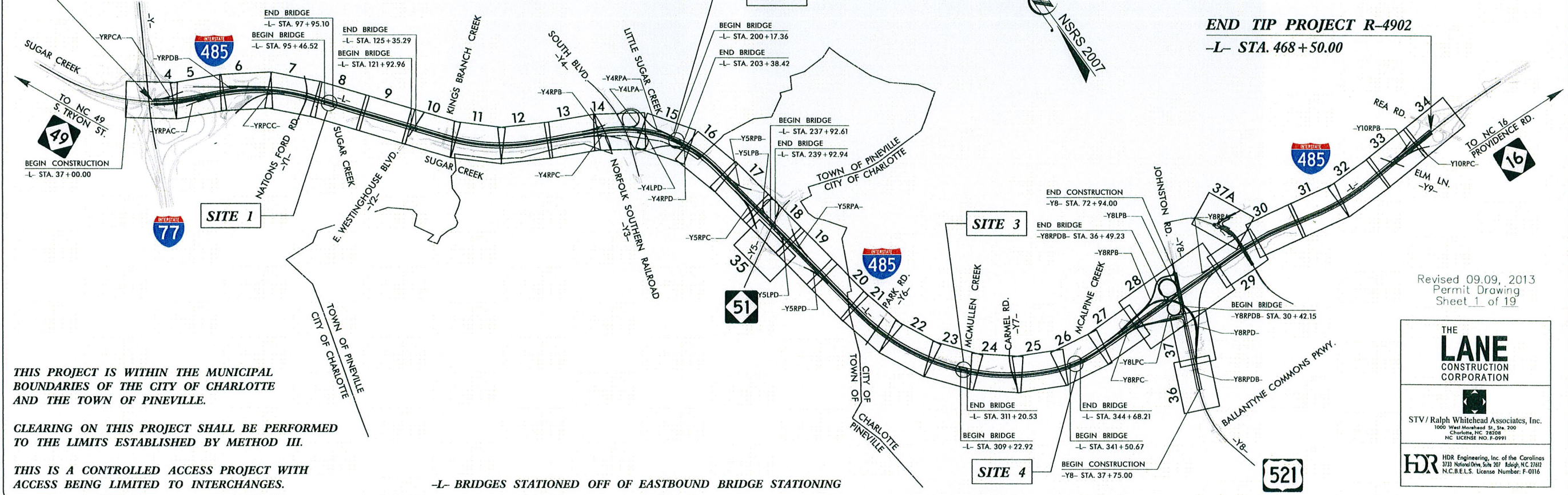
CONTRACT: C202831

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Standard Symbology Sheet



BEGIN TIP PROJECT R-4902

-L- STA. 44 + 65.00



END TIP PROJECT R-4902

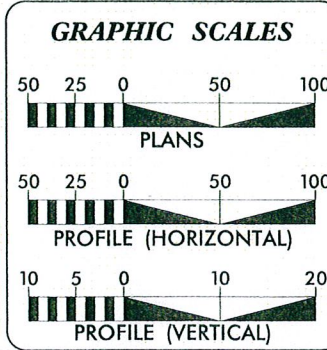
-L- STA. 468 + 50.00

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF CHARLOTTE AND THE TOWN OF PINEVILLE.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

-L- BRIDGES STATIONED OFF OF EASTBOUND BRIDGE STATIONING



DESIGN DATA	
ADT 2015	= 153,800
ADT 2035	= 220,700
DHV	= 10 %
D	= 60 %
T	= 10 % *
V	= 70 MPH
*(TTST 5 + DUAL 5)	
FUNCTIONAL CLASSIFICATION:	
INTERSTATE STATEWIDE TIER	

PROJECT LENGTH	
LENGTH OF ROADWAY TIP PROJECT R-4902 = 7.773 MILES	
LENGTH OF STRUCTURE TIP PROJECT R-4902 = 0.254 MILES (BASED ON 485 OUTER BRIDGES)	
TOTAL LENGTH OF TIP PROJECT R-4902 = 8.027 MILES	
NCDOT CONTACT: TERESA BRUTON, PE Project Engineer - Transportation Program Management	

PLANS PREPARED FOR THE NCDOT BY:	
STV/RALPH WHITEHEAD ASSOCIATES, INC. 1000 West Morehead St., Ste. 200, Charlotte NC, 28208 NC License Number F-0991	
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: OCTOBER 1, 2012	JOHN N. JOHNSON, PE PROJECT ENGINEER
LETTING DATE: OCTOBER 1, 2012	JOSEPH A. FREEMAN, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER	
SIGNATURE: _____	P.E.
ROADWAY DESIGN ENGINEER	
SIGNATURE: _____	P.E.

Revised 09.09.2013
Permit Drawing
Sheet 1 of 19

THE
LANE
CONSTRUCTION CORPORATION

STV / Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC LICENSE NO. F-0991

HDR HDR Engineering, Inc. of the Carolinas
3732 National Drive, Suite 207 Raleigh, NC 27612
N.C.B.E.L.S. License Number: F-0116

9/23/2013
R:\1\2\0\1\1\PERMITS\Environmental\Drawings\4902_Hyd_Prm_psh26.dgn
w:\psh26

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER (BANK STABILIZATION)
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

-L-			
Pls Sta 274+76.46	Pl Sta 308+20.60	Pl Sta 342+49.93	Pls Sta 350+75.36
$\Theta_s = 1'50''00.0''$	$\Delta = 54'22''42.9''$ (LT)	$\Delta = 21'00''00.0''$ (LT)	$\Theta_s = 3'00''00.0''$
$L_s = 400.00'$	$D = 0'55''00.0''$	$D = 1'30''00.0''$	$L_s = 400.00'$
$LT = 266.68'$	$L = 5,932.21'$	$L = 1,400.00'$	$LT = 266.70'$
$ST = 133.35'$	$T = 3,210.82'$	$T = 707.94'$	$ST = 133.37'$
	$R = 6,250.45'$	$R = 3,819.72'$	
	$e = 4.0\%$	$e = 6.0\%$	
	$RUNOFF = 400'$	$RUNOFF = 400'$	
	$DS = 75$ MPH	$DS = 75$ MPH	

NAD 83
NSRS 2007

THE
LANE
CONSTRUCTION
CORPORATION



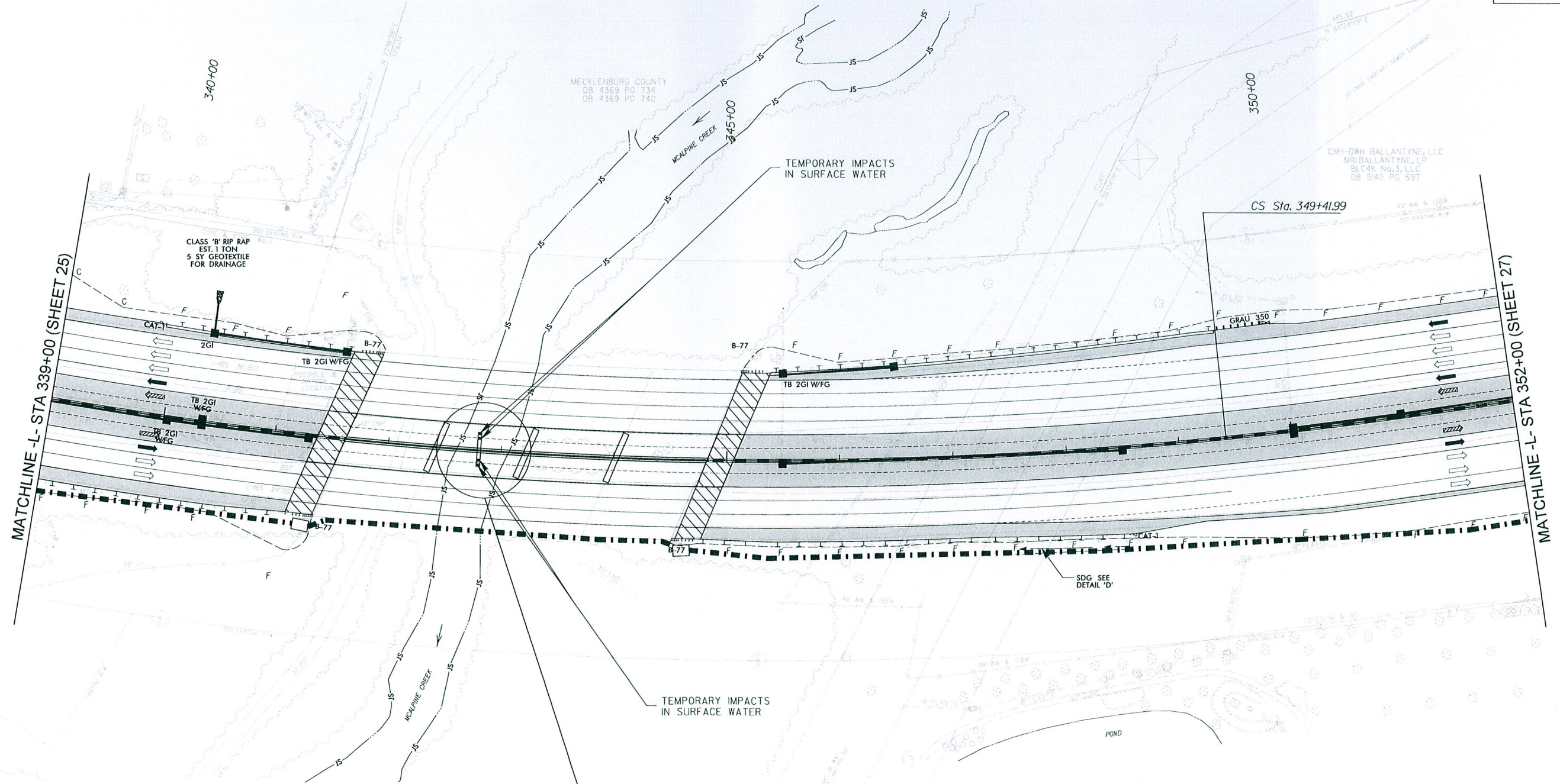
STV / Ralph Whithead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC LICENSE NO. F-0591



HDR Engineering, Inc. of the Carolinas
3713 Noland Drive, Suite 201, Raleigh, NC 27612
N.C.B.E.L.S. License Number: F-0116

PROJECT REFERENCE NO.	SHEET NO.
R-4902	26
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

	EXISTING LANE
	PROPOSED LANE
	FUTURE LANE

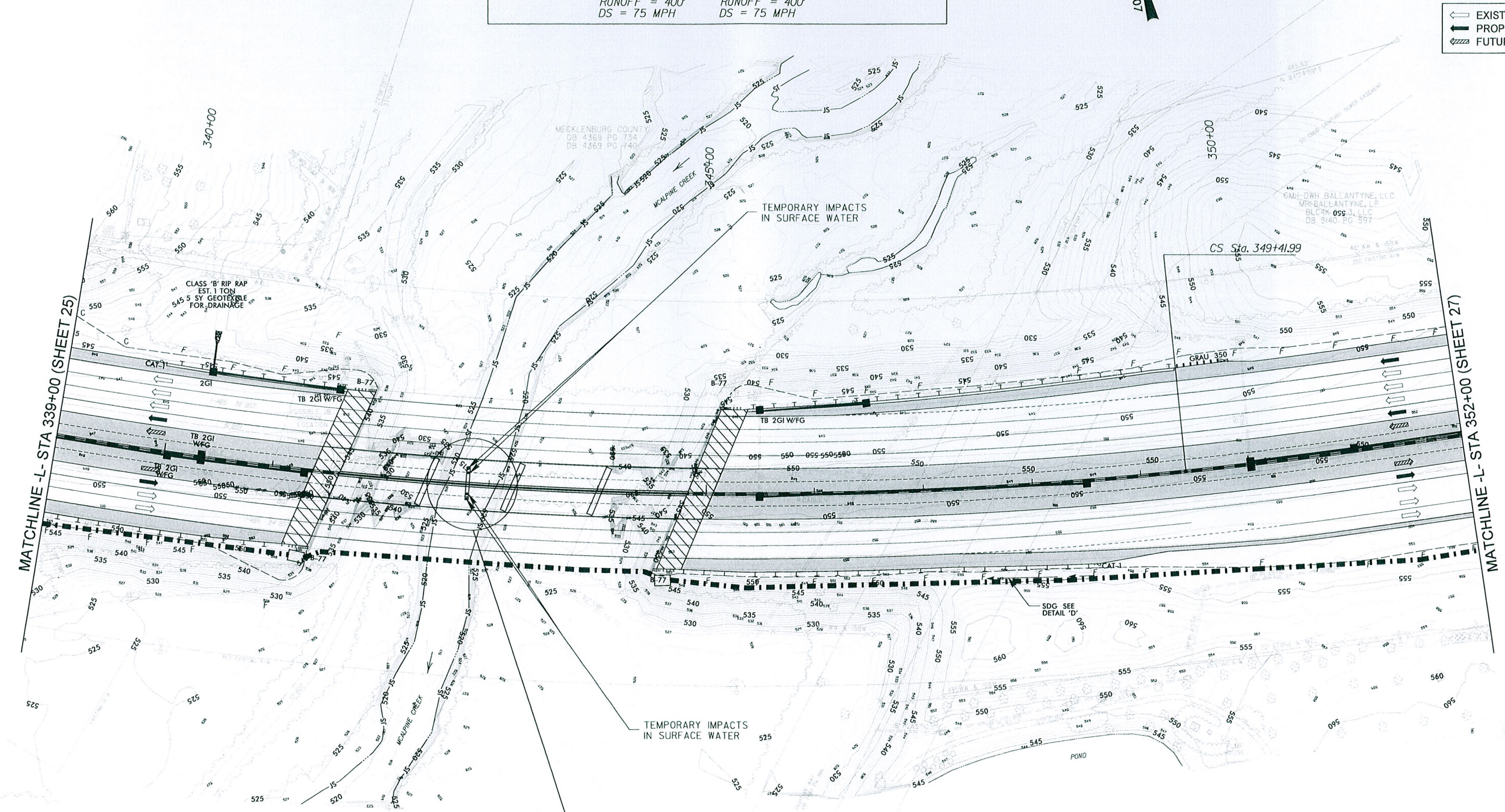


SITE 4

Revised 09.09, 2013
Permit Drawing
Sheet 14 of 19

SEE SHEET 60 FOR -LLT- PROFILE
SEE SHEET 60 FOR -LRT- PROFILE

9/23/2013
R:\Hydraulics\PERMITS\Environmental\Drawings\R4902_Hyd_Prm_psh26a.dgn
r4902



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER (BANK STABILIZATION)
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

-L-			
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$L_s = 400.00'$	$D = 0'55''00.0''$	$D = 1'30''00.0''$	$L_s = 400.00'$
$LT = 266.68'$	$L = 5,932.21'$	$L = 1,400.00'$	$LT = 266.70'$
$ST = 133.35'$	$T = 3,210.82'$	$T = 707.94'$	$ST = 133.37'$
	$R = 6,250.45'$	$R = 3,819.72'$	
	$e = 4.0\%$	$e = 6.0\%$	
	$RUNOFF = 400'$	$RUNOFF = 400'$	
	$DS = 75$ MPH	$DS = 75$ MPH	

NAD 83
NRS 2007

THE
LANE
CONSTRUCTION
CORPORATION

STV / Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC LICENSE NO. F-0991

PROJECT REFERENCE NO.
R-4902

SHEET NO.
26A

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

EXISTING LANE

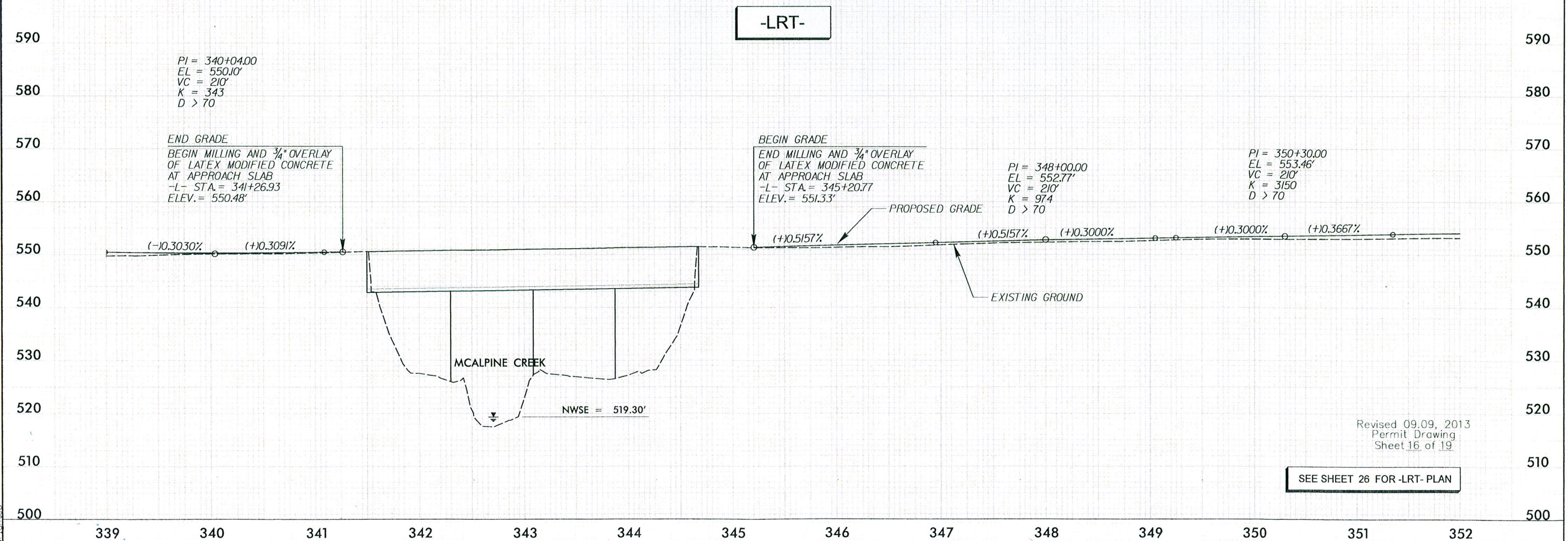
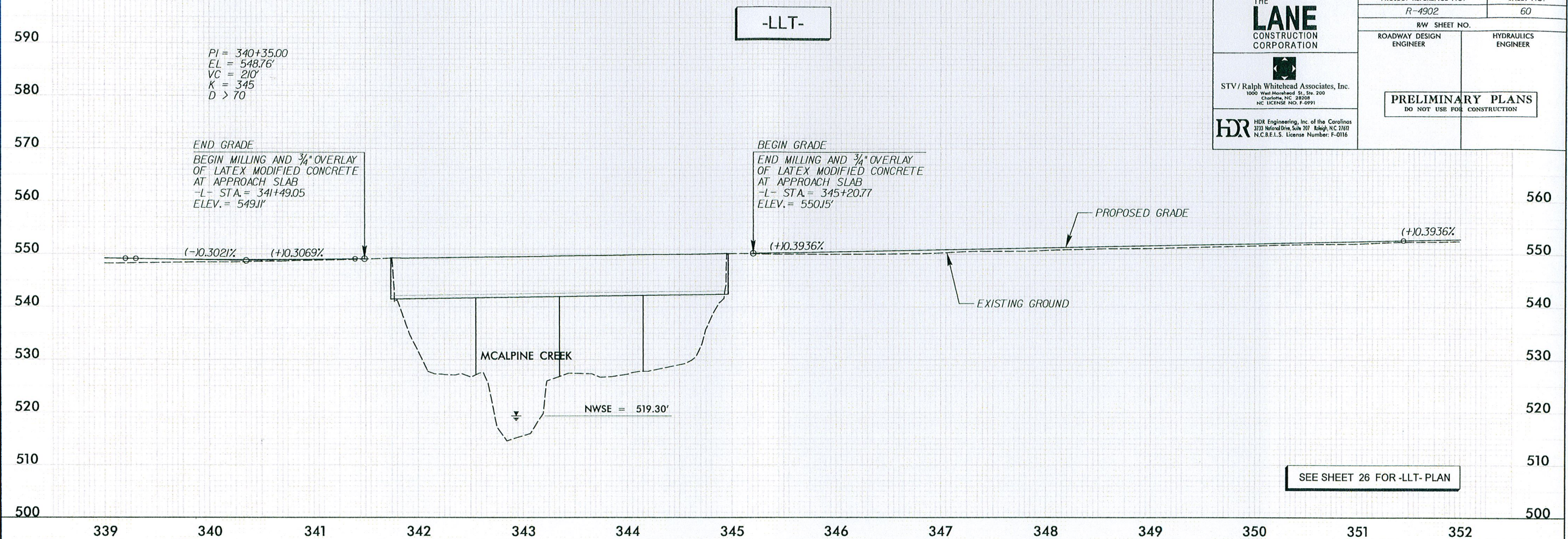
PROPOSED LANE

FUTURE LANE

SEE SHEET 60 FOR -LLT- PROFILE
SEE SHEET 60 FOR -LRT- PROFILE

SITE 4

Revised 09.09, 2013
Permit Drawing
Sheet 15 of 19



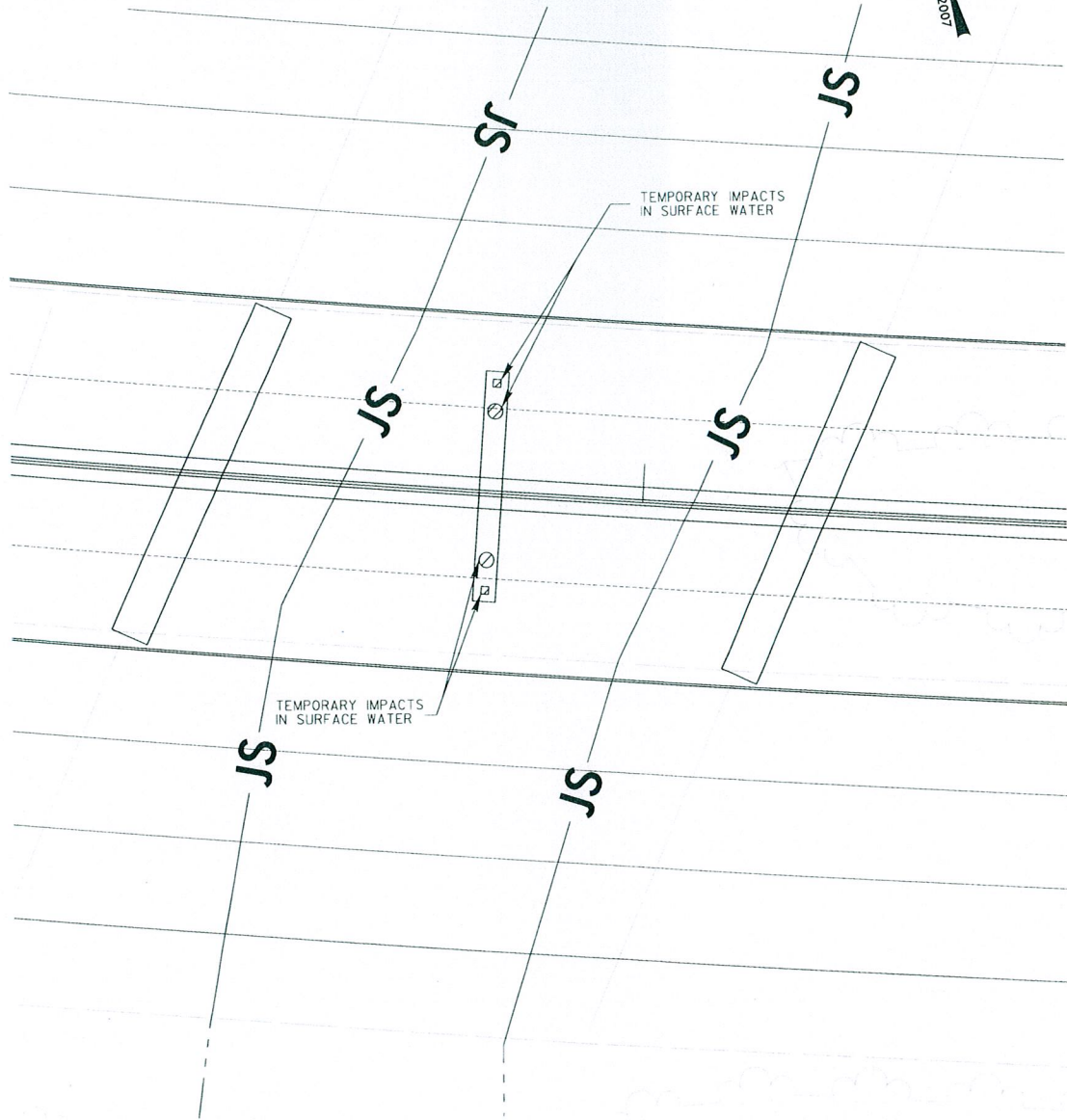
LEGEND



DENOTES IMPACTS IN
SURFACE WATER
(BANK STABILIZATION)



DENOTES TEMPORARY
IMPACTS IN SURFACE WATER



SITE 4



Rev'd 09.09.2013
Permit Drawing
Sheet 17 of 19

NCDOT

DIVISION OF HIGHWAYS
MECKLENBURG COUNTY

PROJECT: C202831 (R-4902)

I-485 FROM I-77 TO

SR3624 (REA ROAD)

SOUTH OF CHARLOTTE

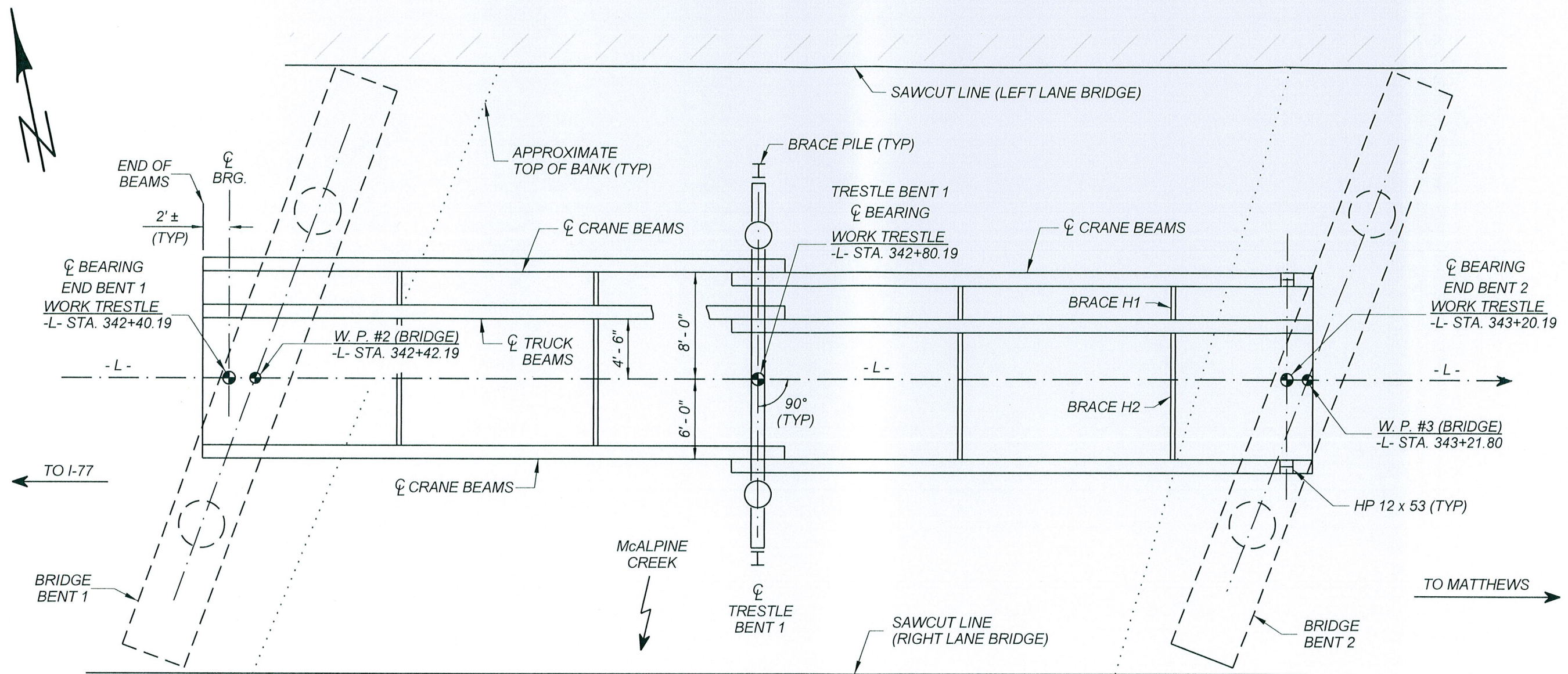
SHEET

OF

01 / 29 / 2013

WETLAND PERMIT IMPACT SUMMARY												
			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- Sta. 96+15 to 97+05	Temporary Barge							0.06		75	
2	-L- Sta. 200+40 to 201+80	Temporary Barge							0.15		100	
3	-L- Sta. 309+65 to 310+05	Temporary Barge							0.04		76	
		Bank Stabilization								45		
4	-L- Sta. 342+80	Temporary Trestle							<0.01		6	
TOTALS:								0.00	0.25	45	257	

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MECKLENBURG COUNTY
R-4902
I-485 WIDENING FROM I-77 TO REA ROAD



NOTES

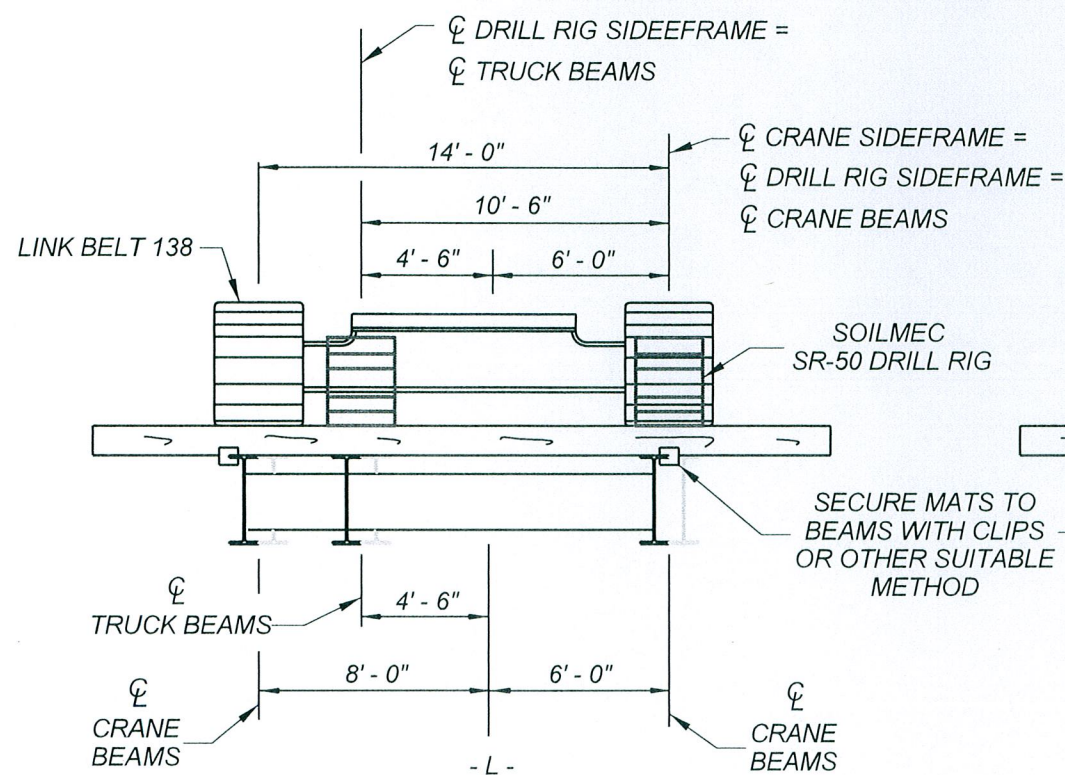
1. WORK TRESTLE DESIGN IS BASED ON TWO LOADING CONDITIONS:
 - 1) A SOILMEC SR-50 DRILL RIG WALKING ACROSS THE TRESTLE.
 - 2) A LINK BELT 138 CRANE WORKING FROM THE TRESTLE WITH THE CENTERPIN OF THE CRANE LOCATED AT THE C.L. OF TRESTLE BENT 1.
2. ONLY ONE MACHINE MAY BE ON THE TRESTLE AT ANY GIVEN TIME.
3. ALL STEEL IS GRADE 50.
4. FOR DETAILS AND MEMBERS NOT SHOWN, REFER TO JOHNS PASS FINGER PLANS.
5. DRIVE ALL PILES TO A MINIMUM TIP ELEVATION OF 487.0.
6. DRIVE 24" PIPE PILES (BENT 1) TO 100 TONS BEARING CAPACITY.
7. DRIVE HP 12x53 PILES TO 80 TONS BEARING CAPACITY.



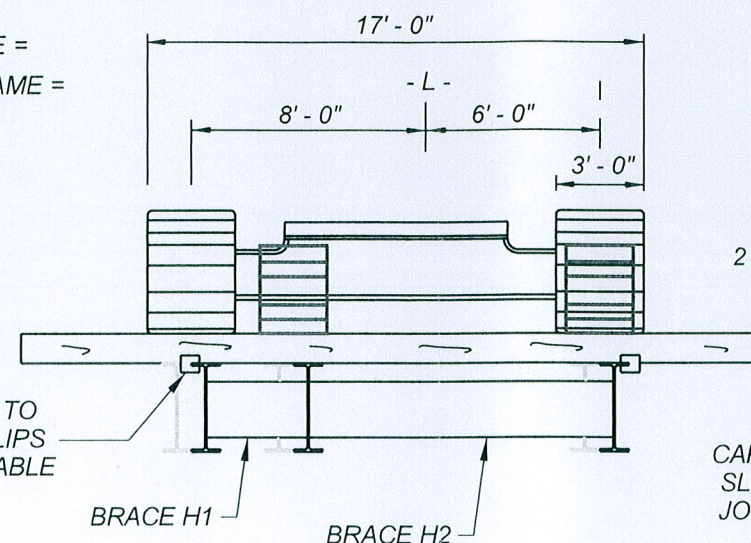
7/16/13

STRUCTURE 6

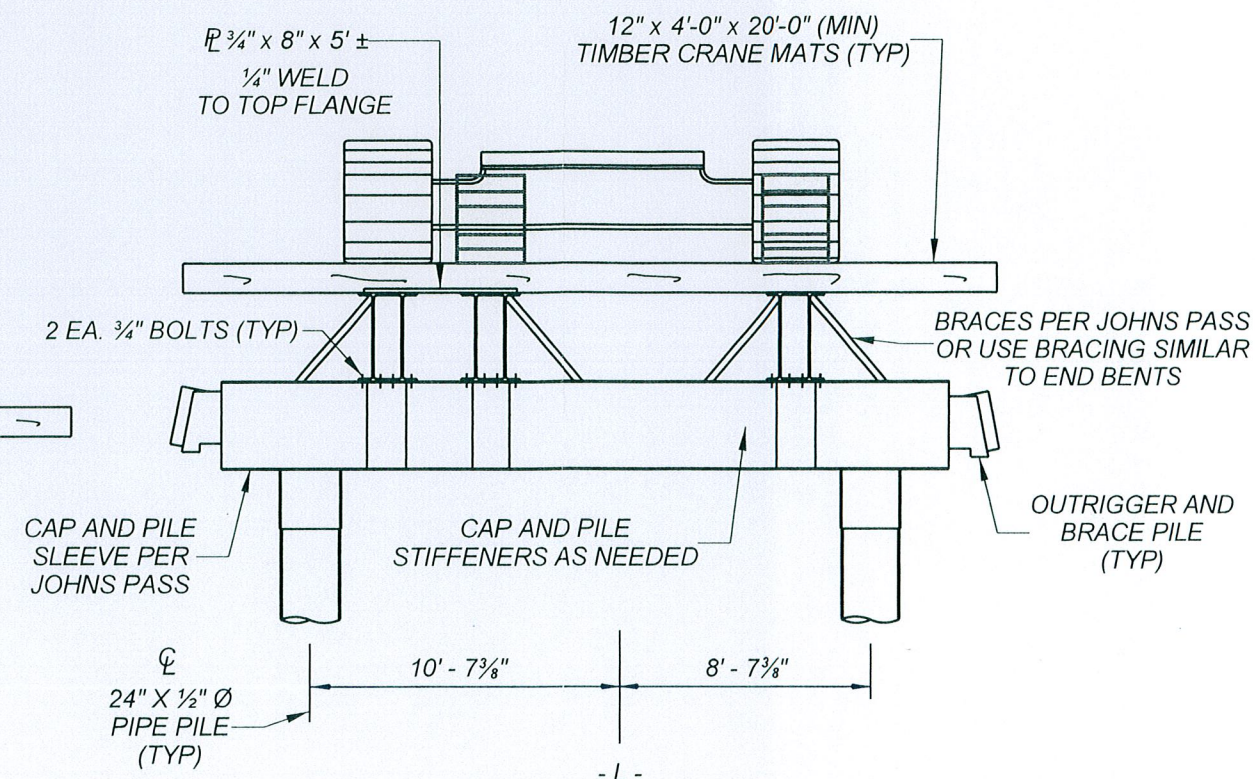
Contractor LANE	Plans By  Dave Wissell, PE, PC 6407 Riverside Oaks Drive Huntersville, NC 28078 704-875-2340 <u>www.davewissell.com</u>	
WORK TRESTLE BRIDGE (6) ON I-485 OVER MCALPINE CREEK		
NC PROJ # C-202831 • MECKLENBURG • TIP R-4902		
DATE: 6/11/13	JOB #	SHEET
SCALE: N/A	DW-1799-T1	1 of 2



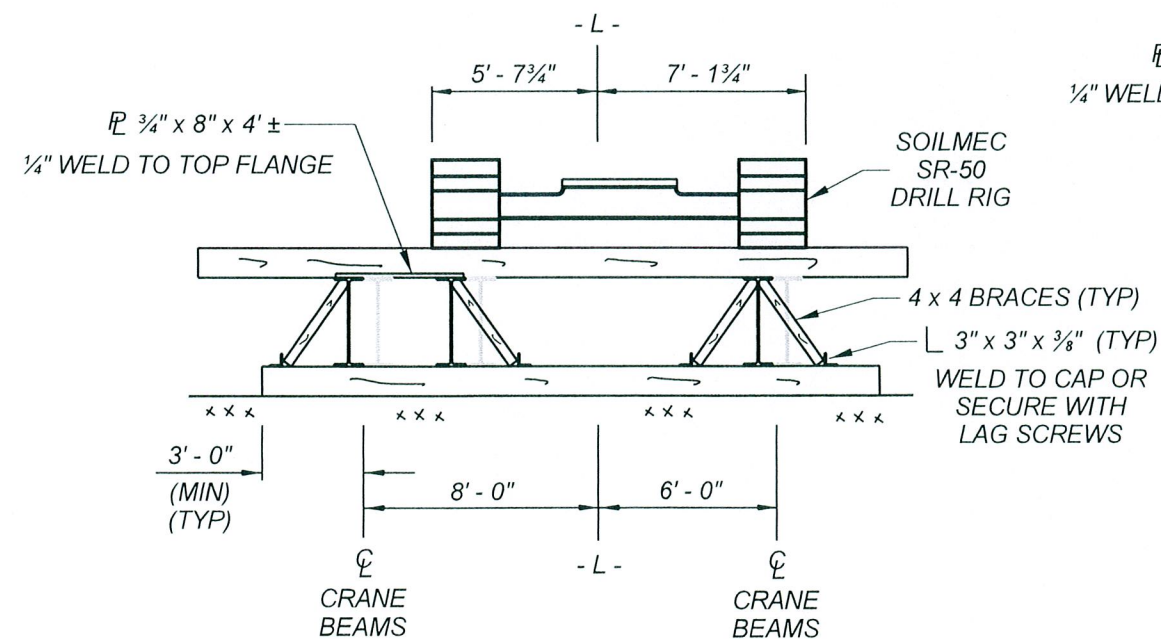
SPAN A



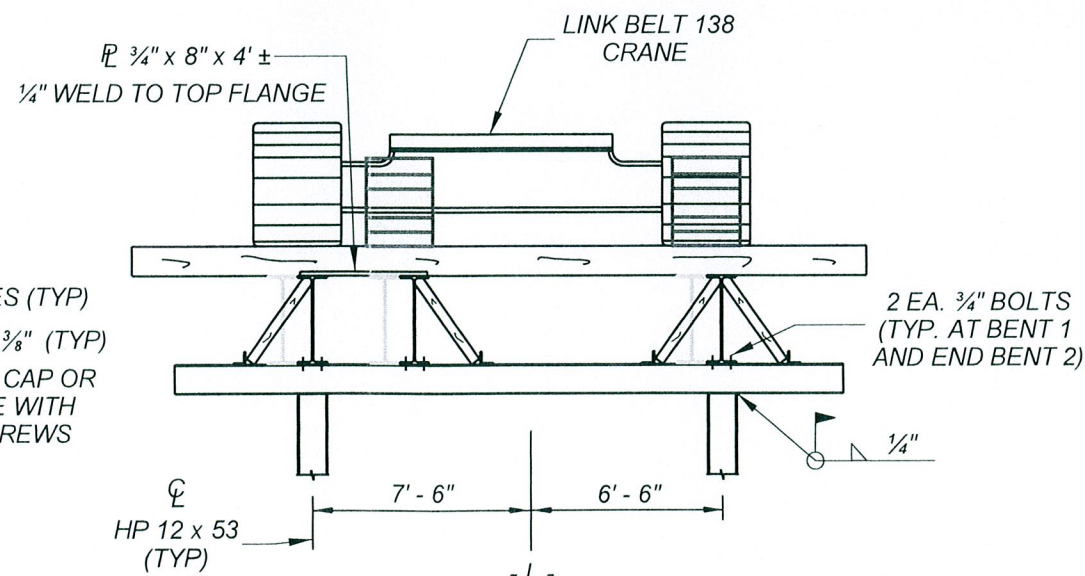
SPAN B



TRESTLE BENT 1



END BENT 1



END BENT 2



7/16/13

STRUCTURE 6

Contractor LANE	Plans By Dave Wissell, PE, PC 6407 Riverside Oaks Drive Huntersville, NC 28078 704-875-2340 www.davewissell.com
WORK TRESTLE BRIDGE (6) ON I-485 OVER MCALPINE CREEK	
NC PROJ # C-202831 • MECKLENBURG • TIP R-4902	
DATE: 6/11/13 SCALE: N/A	JOB # DW-1799-T1 SHEET 2 of 2