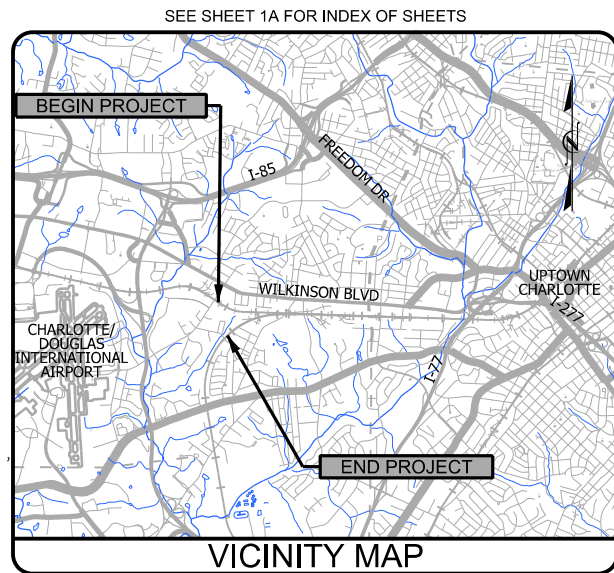


TIP PROJECT: P-5705A

CONTRACT:



STATE OF NORTH CAROLINA
RAIL DIVISION

MECKLENBURG COUNTY

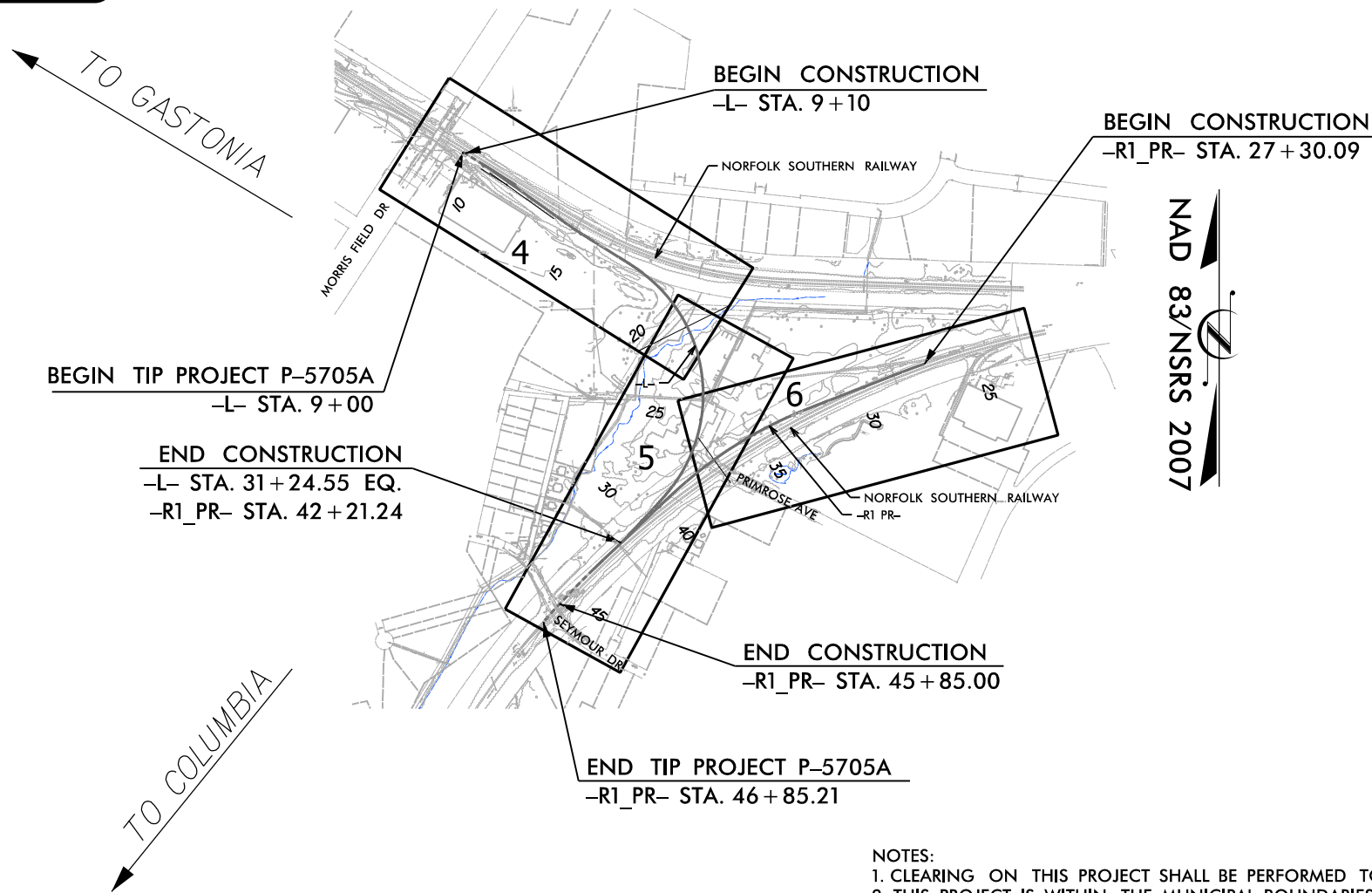
**LOCATION: CHARLOTTE JUNCTION NS MP-381.4
NS R-LINE MP R-0.3 TO MP R-0.5
TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE**

WETLAND AND SURFACE WATER IMPACTS PERMIT

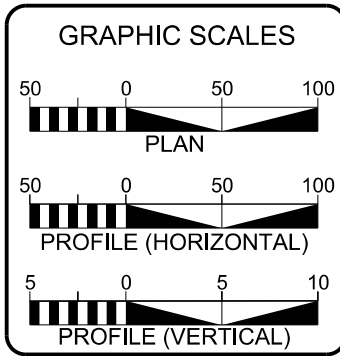
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	P-5705A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44475.1.1		P.E.	
44475.2.1		ROW / UTIL P.E.	
44475.3.1		CONST./UTIL CONST.	

**PERMIT DRAWING
SHEET 1 OF 8**

TO CHARLOTTE →



- NOTES:
 1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III MODIFIED.
 2. THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF CHARLOTTE



PROJECT LENGTH	
LENGTH OF RAIL TIP PROJECT	0.402 MILES
LENGTH OF STRUCTURES TIP PROJECT	0.000 MILES
TOTAL LENGTH OF RAIL TIP PROJECT	0.402 MILES
LENGTH MEASURED ALONG -L-	
NCDOT CONTACT:	MATTHEW SIMMONS, P.E. <small>NCDOT PROJECT MANAGER</small>

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: 03/09/2018 LETTING DATE:	COREY VERNIER, P.E. <small>RAIL PROJECT ENGINEER</small> DAVID HAWKINS, P.E. <small>STRUCTURE PROJECT ENGINEER</small> JAMES BYRD, P.E. <small>HYDRAULICS PROJECT ENGINEER</small> MATTHEW SIMMONS, P.E. <small>NCDOT PROJECT MANAGER</small>
---	--

RAIL ENGINEER	HYDRAULICS ENGINEER
DATE: JULY 27, 2018	
SIGNATURE: _____	SIGNATURE: _____
<small>P.E.</small>	<small>P.E.</small>

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

**NC DEPARTMENT OF
TRANSPORTATION**
RAIL DIVISION
 DESIGN AND CONSTRUCTION

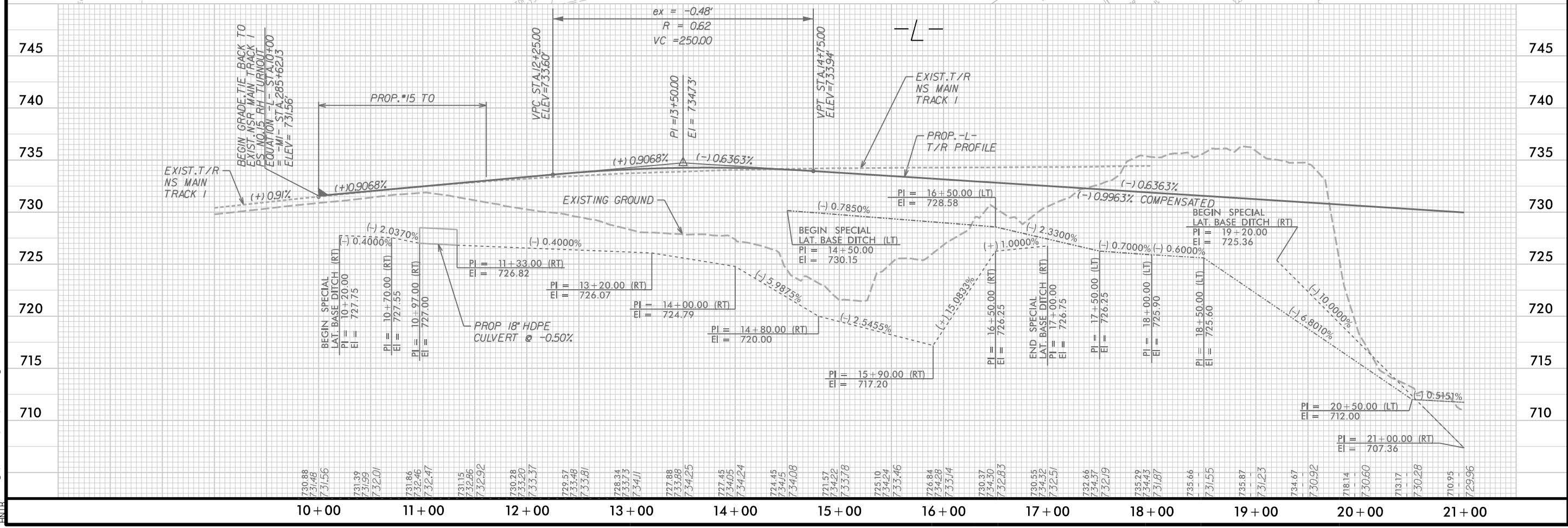
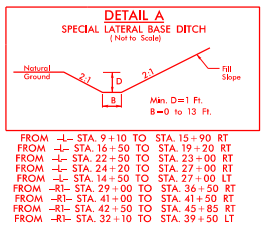
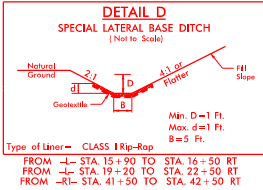
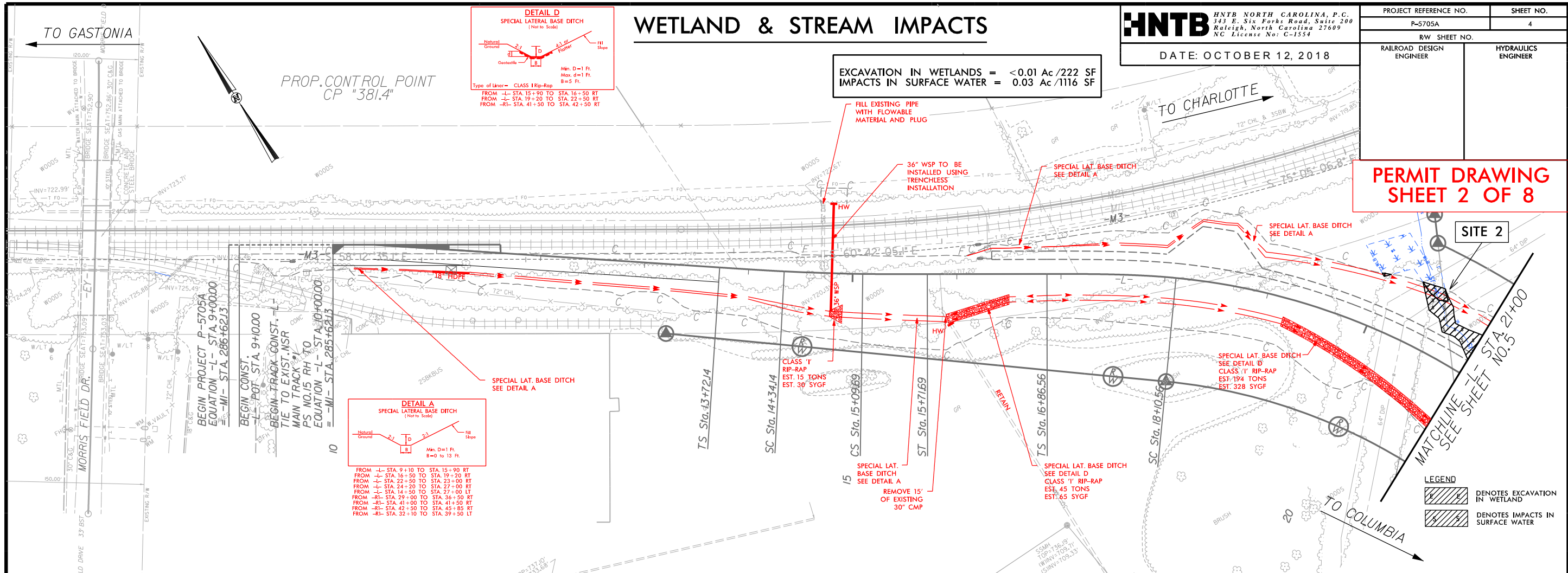
WETLAND & STREAM IMPACTS

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343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
P-5705A	4
RW SHEET NO.	
RAILROAD DESIGN ENGINEER	HYDRAULICS ENGINEER

DATE: OCTOBER 12, 2018

PERMIT DRAWING SHEET 2 OF 8



10/15/2018 10:57:05a p5705a_perm_psh_04.dgn

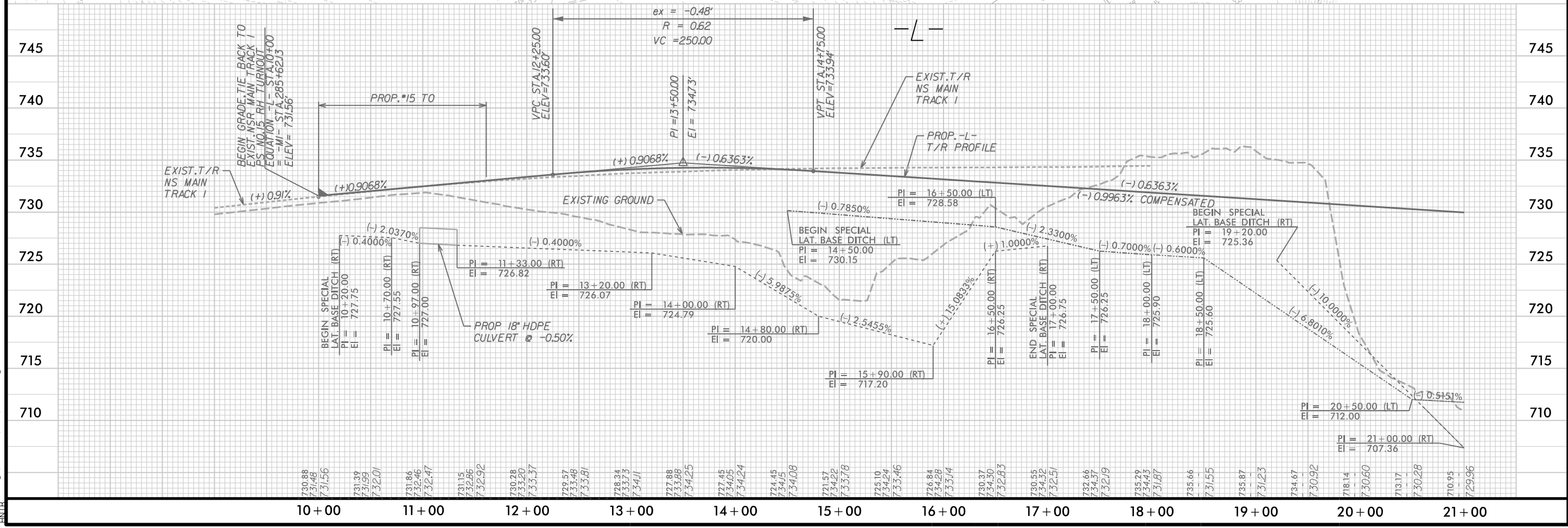
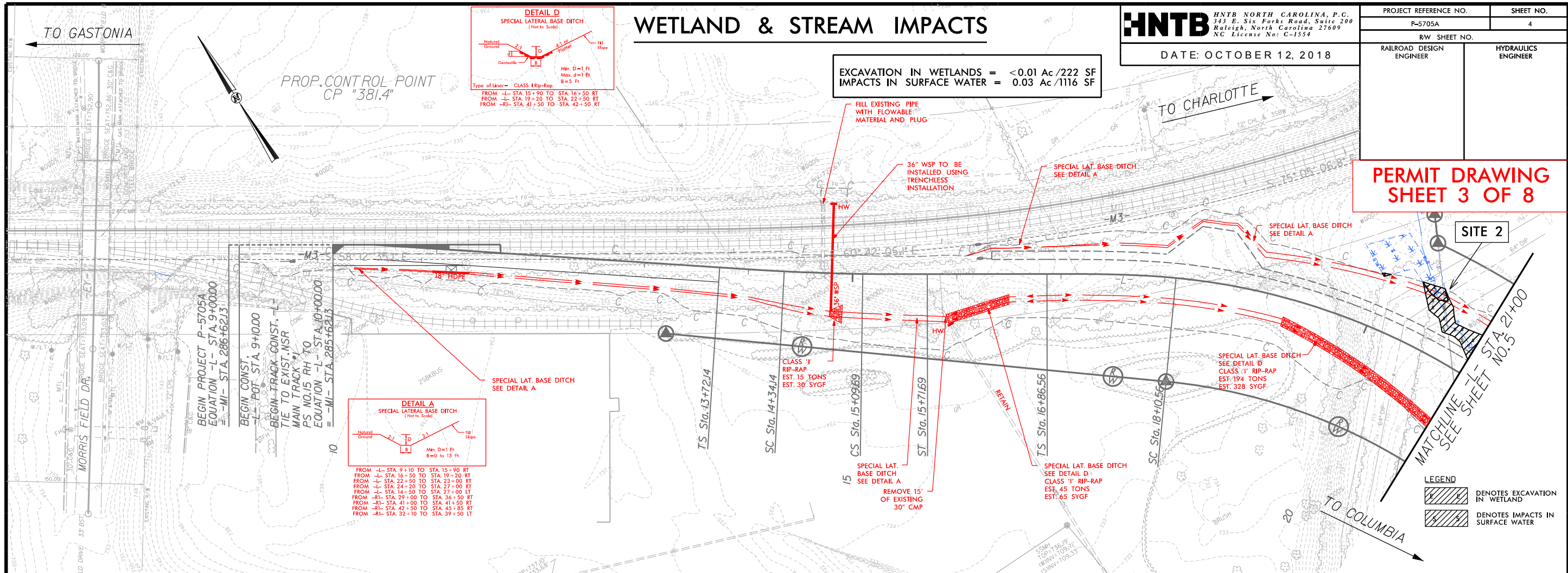
WETLAND & STREAM IMPACTS

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Raleigh, North Carolina 27609
NC License No: C-1554


PROJECT REFERENCE NO.	SHEET NO.
P-5705A	4
RW SHEET NO.	
RAILROAD DESIGN ENGINEER	HYDRAULICS ENGINEER

DATE: OCTOBER 12, 2018

**PERMIT DRAWING
SHEET 3 OF 8**



10/15/2018 10:57:05a p5705a_perm_psh_04.dgn

LEGEND
 DENOTES IMPACTS IN SURFACE WATER
 IMPACTS IN SURFACE WATER = 0.14 Ac / 6306 SF

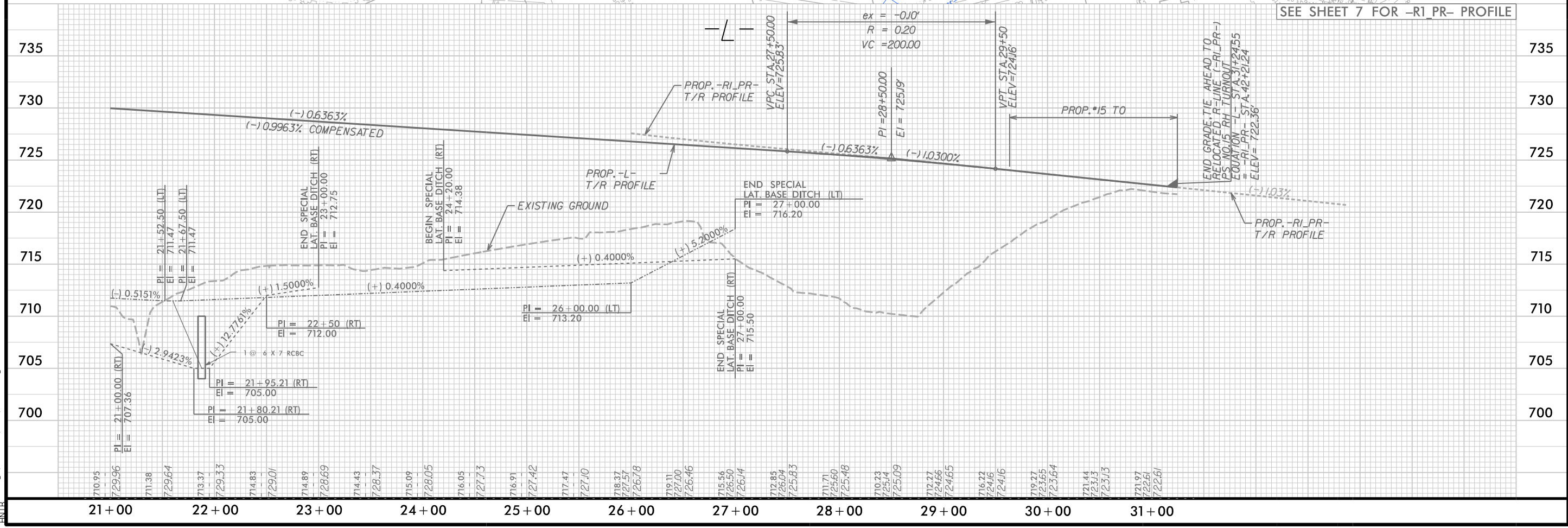
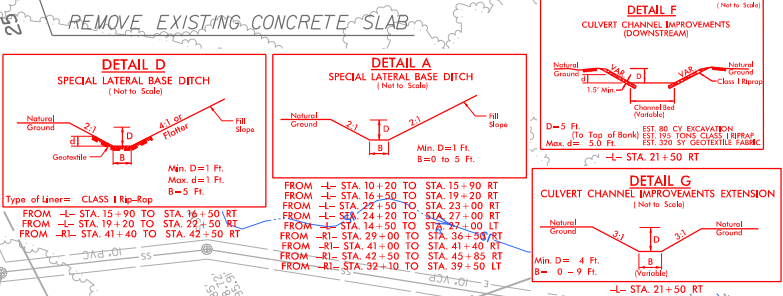
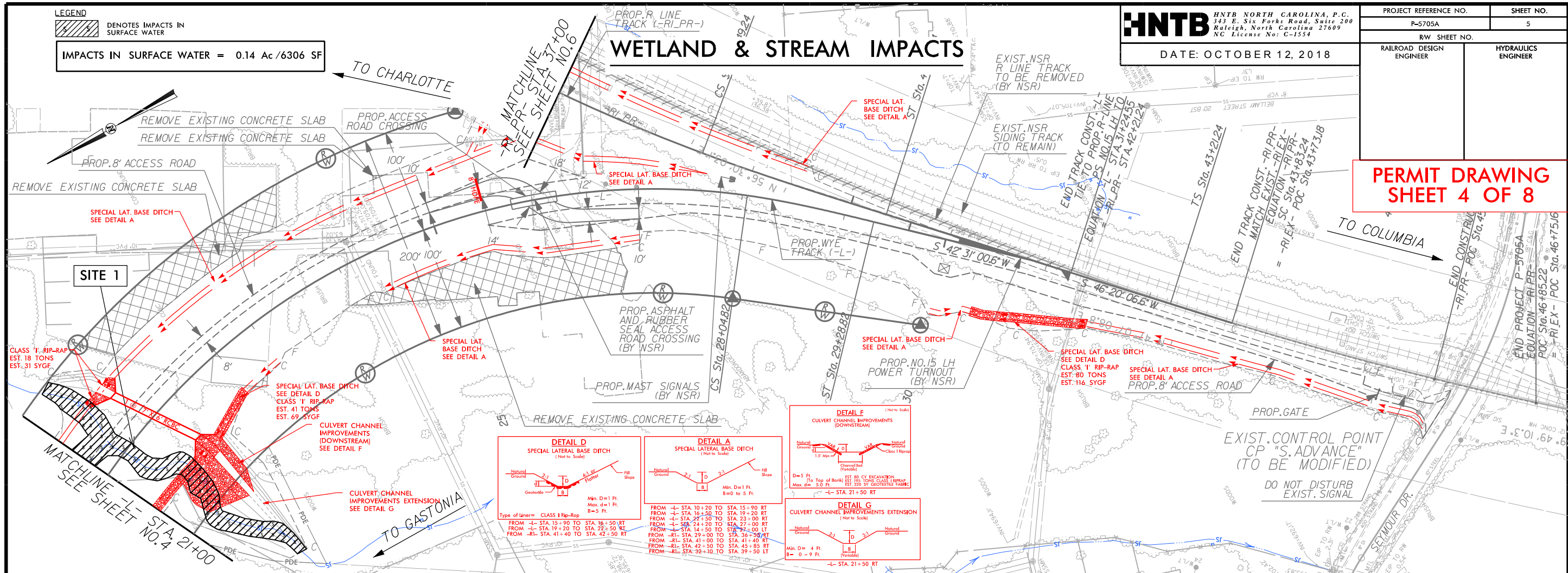
HNTB HNTB NORTH CAROLINA, P.C.
 343 E. Six Forks Road, Suite 200
 Raleigh, North Carolina 27609
 NC License No: C-1554

PROJECT REFERENCE NO. P-5705A
 SHEET NO. 5
 RW SHEET NO.
 RAILROAD DESIGN ENGINEER
 HYDRAULICS ENGINEER

DATE: OCTOBER 12, 2018

WETLAND & STREAM IMPACTS

**PERMIT DRAWING
 SHEET 4 OF 8**



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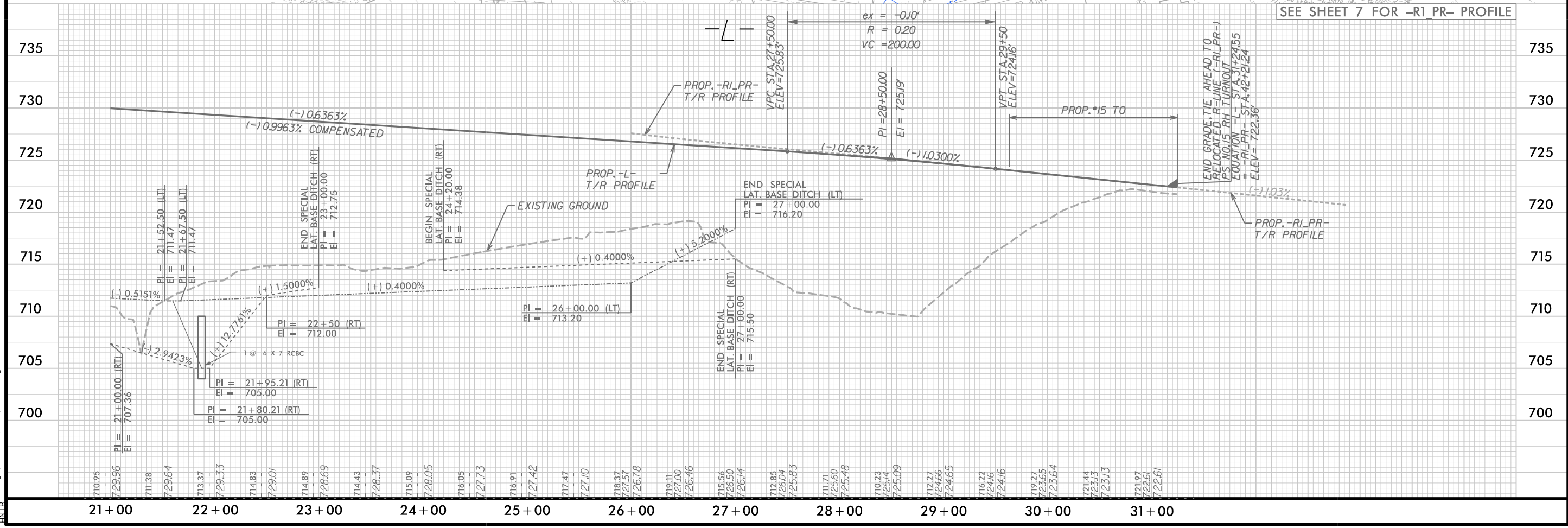
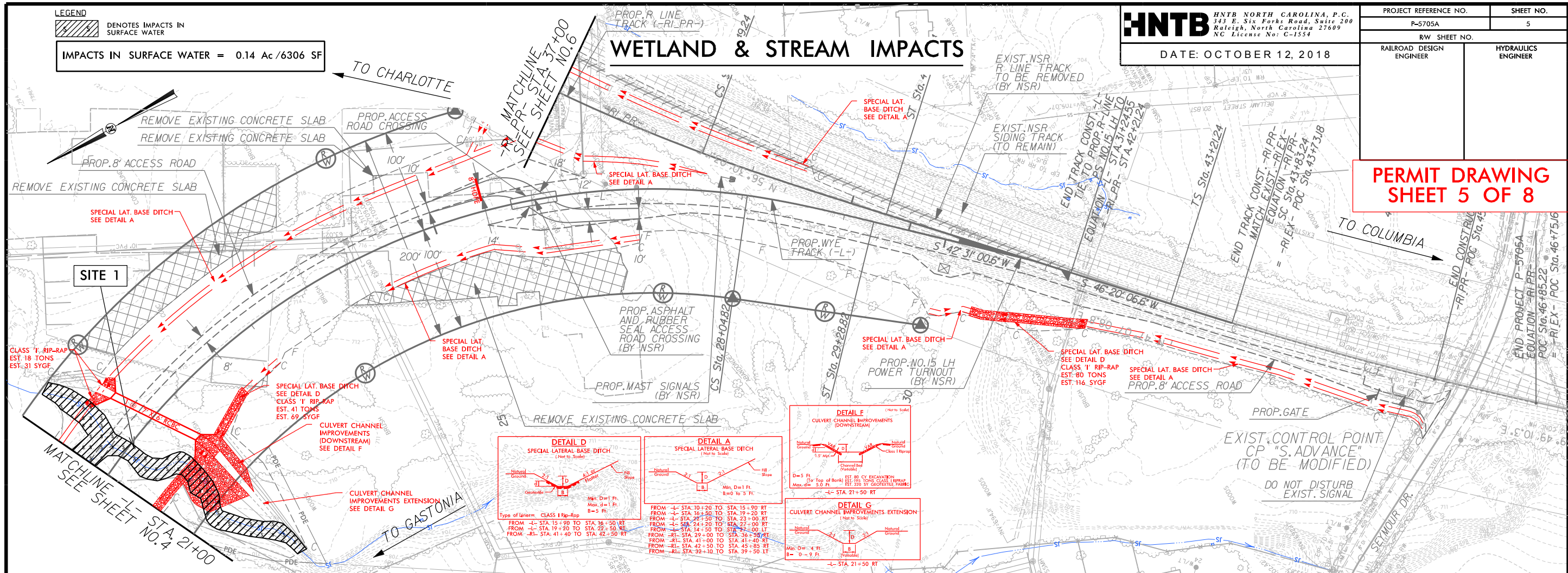
LEGEND
 DENOTES IMPACTS IN SURFACE WATER
 IMPACTS IN SURFACE WATER = 0.14 Ac / 6306 SF

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 Raleigh, North Carolina 27609
 NC License No: C-1554

PROJECT REFERENCE NO. P-5705A	SHEET NO. 5
RW SHEET NO.	
RAILROAD DESIGN ENGINEER	HYDRAULICS ENGINEER

DATE: OCTOBER 12, 2018

**PERMIT DRAWING
 SHEET 5 OF 8**



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WETLAND & STREAM IMPACTS

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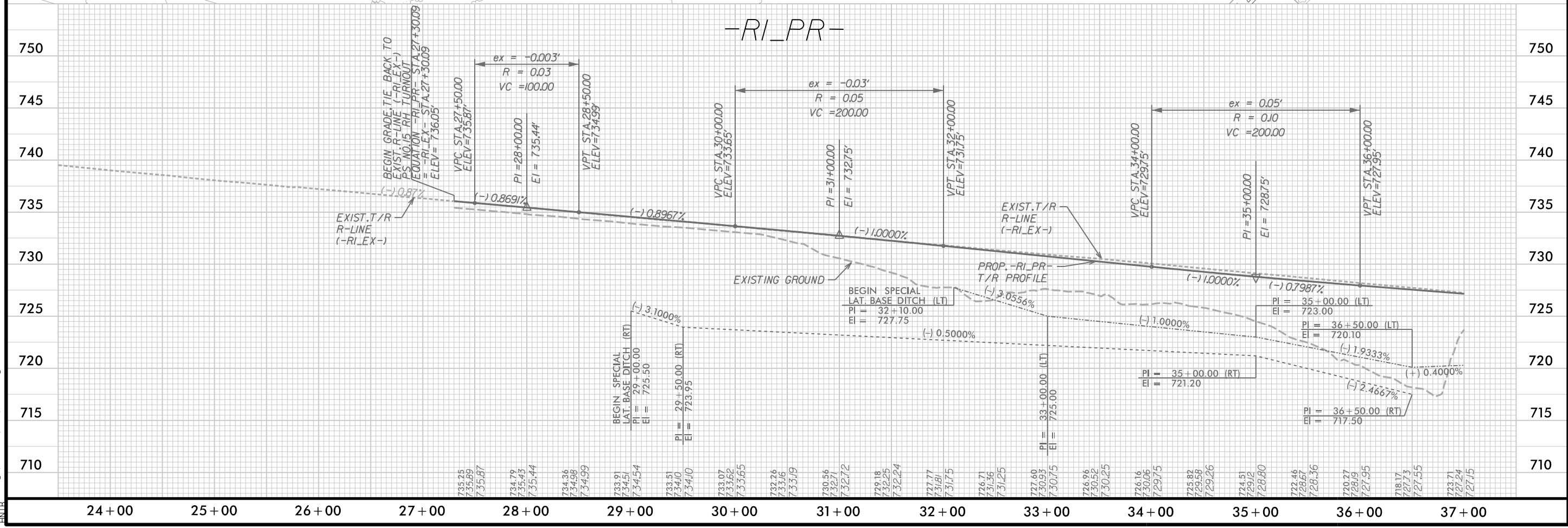
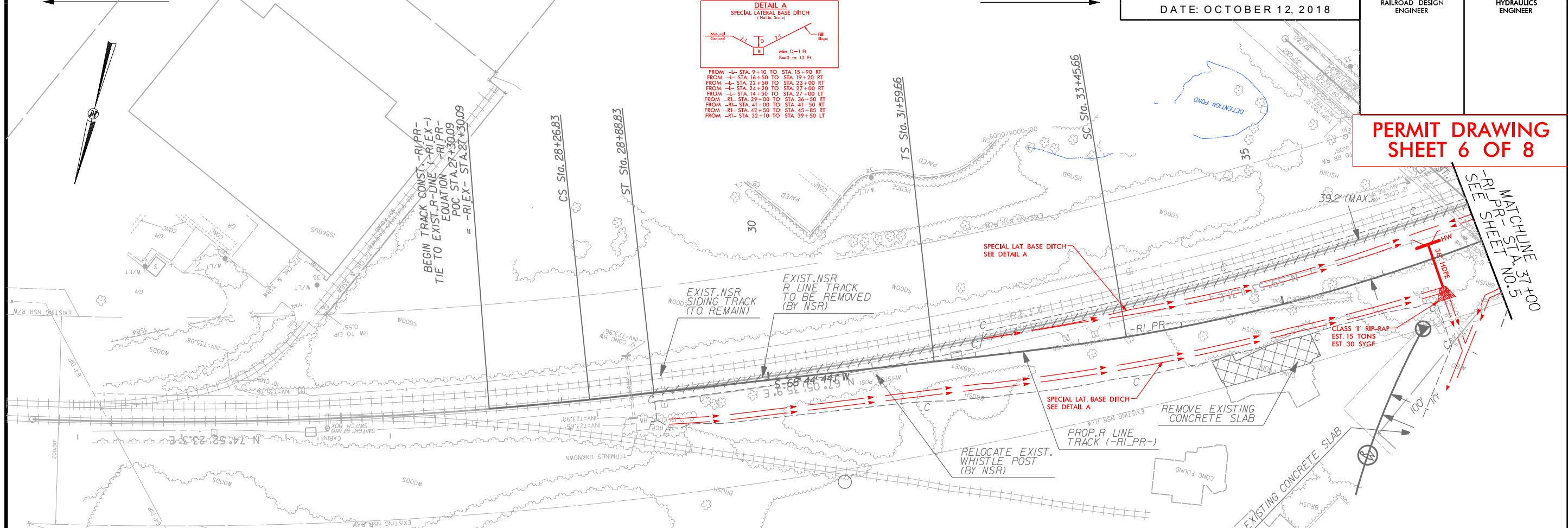
PROJECT REFERENCE NO. P-5705A	SHEET NO. 6
RW SHEET NO.	
RAILROAD DESIGN ENGINEER	HYDRAULICS ENGINEER

DATE: OCTOBER 12, 2018

**PERMIT DRAWING
SHEET 6 OF 8**

← TO CHARLOTTE

TO COLUMBIA →



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WETLAND & STREAM IMPACTS

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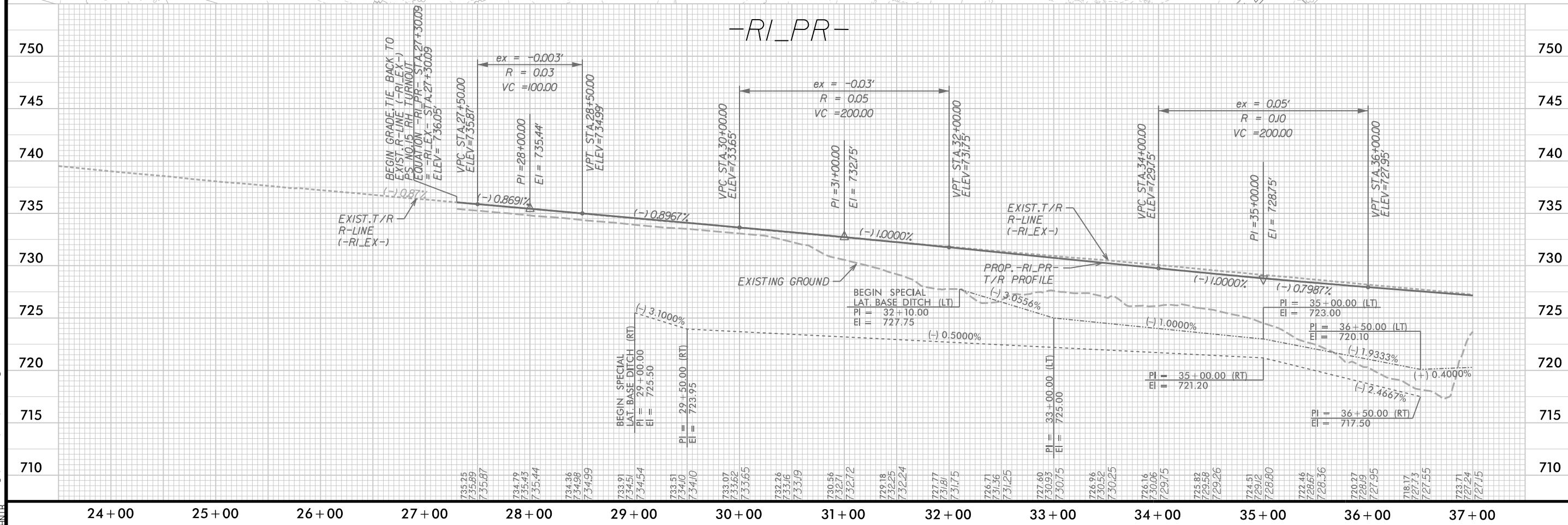
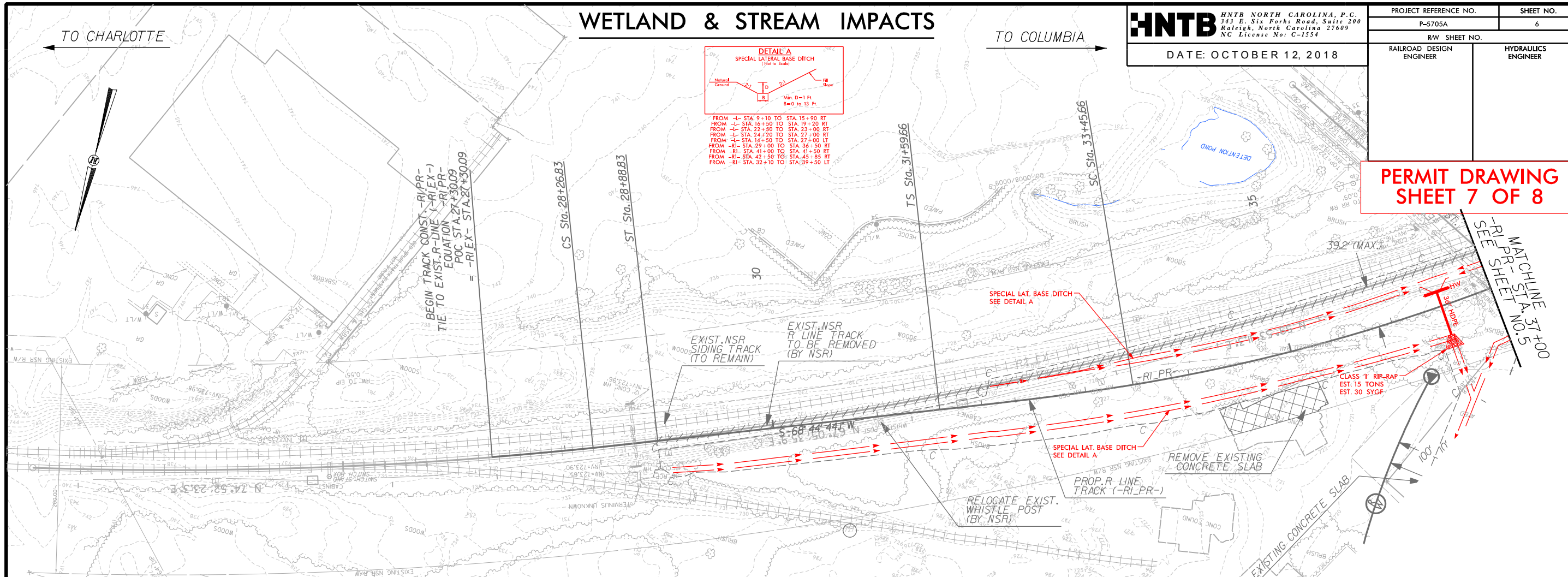
PROJECT REFERENCE NO. SHEET NO.
P-5705A 6

RW SHEET NO.

DATE: OCTOBER 12, 2018

RAILROAD DESIGN ENGINEER HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 7 OF 8



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WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			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- 21+00 TO 21+72	1 @ 7' X 6' RCBC						0.14		349		
2	-L- 20+31 to 21+00	SPECIAL LAT. BASE DITCH			< 0.01			0.03		78		
TOTALS*:					< 0.01			0.17		427	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 10/1/2018
 Mecklenburg County
 P-5705A