

R-2721 Utility Environmental Impact Narrative

Date: June 21, 2018

Utility Owner: Town of Cary, N.C.

Contact: Hinde Engineering, Inc.
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Cary, NC 27513
rwilkins@hindeengineering.com

Utility: Gravity Sewer (various sizes)

General Utility Relocation:

This narrative applies to the relocation of two sanitary sewer outfall lines owned and maintained by the Town of Cary. Both lines are currently located inside utility easements owned by the Town of Cary which will be inside a portion of the proposed right-of-way and crossing the proposed project in a perpendicular configuration. Both lines conflict with proposed construction and the relocation of each is briefly described below.

Environmental Impacts:

- **Site A1:**

1. Station 247+52 to Station 247+89 -L-

This gravity sewer line is 42 inches in diameter and is being relocated across the entire width of the right-of-way with all manholes being located outside the right-of-way and control of access. This will involve installation of approximately 500 linear feet of pipe and four new precast manholes and will require 0.05 acres of hand clearing, 0.03 acres of excavation in wetlands and approximately 0.02 acres of temporary fill in wetlands. These impacts have been listed on the impact summary sheet and noted on the plans.

- **Site A2:**

1. Station 280+27 to Station 280+65 -L-

This gravity sewer line is 36 inches in diameter and is being relocated across the entire width of the right-of-way with all manholes being located outside the right-of-way and control of access. This will involve the relocation of 160 linear feet of pipe and three new precast manholes. This will require 0.03 acres of hand clearing, 0.01 acres of excavation in wetlands and 0.01 acres of temporary fill in wetlands, and 0.01 acres of temporary stream impact due to excavation across the existing jurisdictional stream (width of excavation will not exceed fifteen feet). These impacts have been listed on the impact summary sheet and noted on the plans.

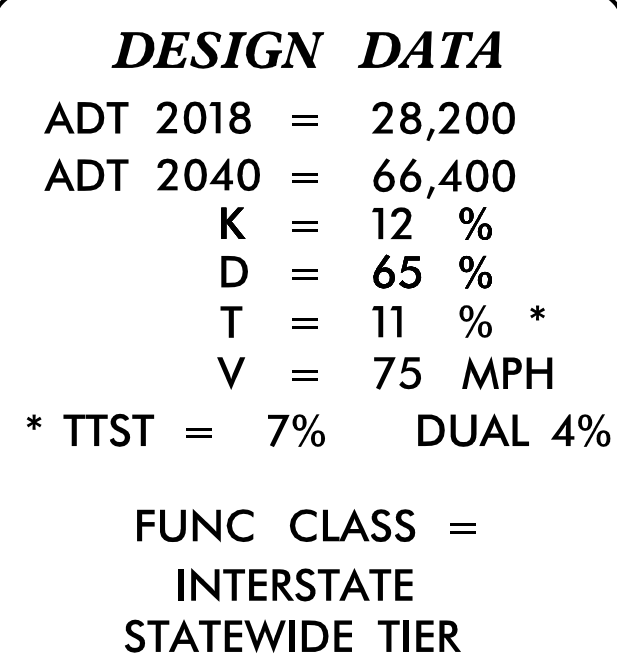
TIP PROJECT: R-2721

65% SUBMITTAL

EAU PERMIT DRAWINGS
WAKE COUNTY

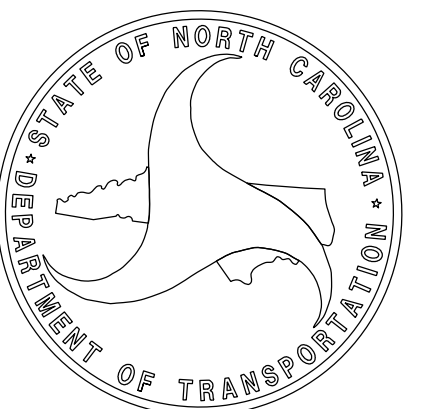
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES

NAD 83 / 2011



<i>Prepared In the Office of:</i> LOCHNER H. W. LOCHNER, INC. 2840 DALLAS PLACE, SUITE 202 RALEIGH, NC 27612 (919)571-7111 NC License Number F-0159		 ECOLOGICAL ENGINEERING SUNGATE DESIGN GROUP, P.A. 805 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27609 TEL (919) 856-2243 NC FIRM LICENSE NO. F-1144 1151 SE Cary Parkway Suite 101 Cary, NC 27518 (919) 557-0929 NC FIRM LICENSE NO. C-8
2018 STANDARD SPECIFICATIONS		
RIGHT OF WAY DATE: February 18, 2020		
LETTING DATE: February 18, 2020		
Brian K. Eason, PE PROJECT ENGINEER		
Christina L. Yokeley, EI PROJECT DESIGN ENGINEER		
Dennis Jernigan, PE NCDOT CONTACT		

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



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UAD TRILLC
3 16161PG 089
A 1996 PG 771
A 1979 PG 361

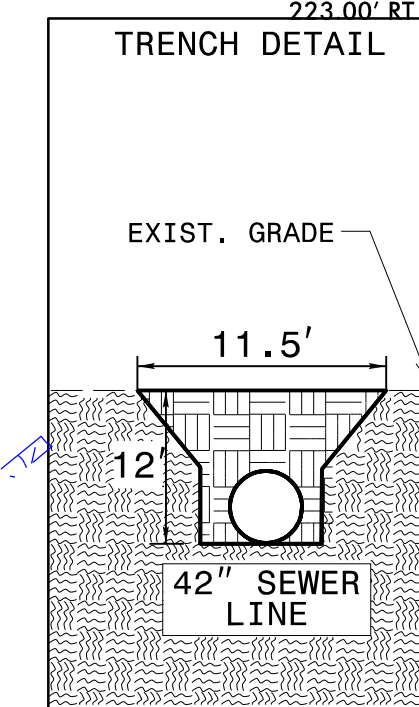
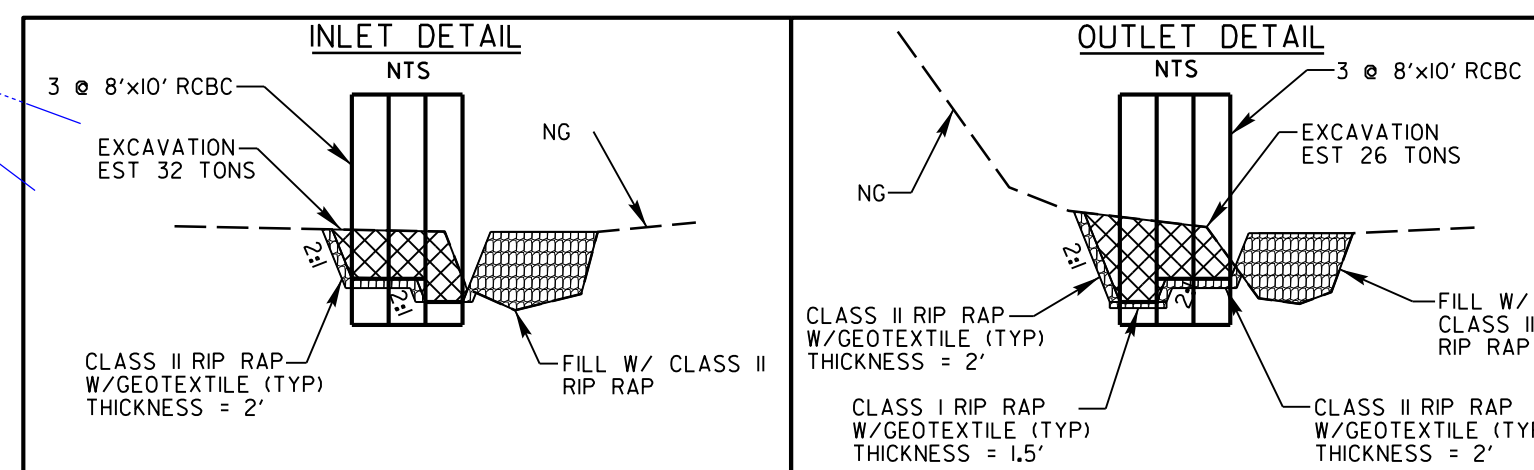
(92)
QUAD TRI LLC
DB 16161 PG 089
BM 1979 PG 361

MATCHLINE SHEET 20
-L- STA 239+00.00

MATCHLINE SHEET 22
-L- STA 252 + 00.00

WETLAND UTILITY
PERMIT DRAWING
SHEET 3 OF 6

SEE SHEET 75 FOR -L- PROFILE



LEGEND

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES HAND CLEARING

Pis Sta 254+60.65	PI Sta 268+06.07	Pis Sta 281+29.00
$\theta s = 0^{\circ} 46' 23.8"$	$\Delta = 18^{\circ} 37' 12.0" (RT)$	$\theta s = 0^{\circ} 46' 23.8"$
$Ls = 210.00'$	$D = 0^{\circ} 44' 11.2"$	$Ls = 210.00'$
$LT = 140.00'$	$L = 2,528.35'$	$LT = 140.00'$
$ST = 70.00'$	$T = 1,275.42'$	$ST = 70.00'$
	$R = 7,780.00'$	
	$SE = 0.03$	

MATCHLINE SHEET 23
-L- STA 278+00.00

MATCHLINE SHEET 25
-L- STA 291+00.00

SITE 2

A2 HAND CLEARING WETLANDS
0.03 ACRES
A2 EXCAVATION WETLANDS
0.01 ACRES
A2 TEMPORARY FILL WETLANDS
0.01 ACRES
A2 SURFACE WATER IMPACTS
0.01 ACRES

**WETLAND UTILITY
PERMIT DRAWING
SHEET 4 OF 6**

SEE SHEET 77 FOR -L- PROFILE

LEGEND

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES EXCAVATION IN WETLAND
- DENOTES TEMPORARY FILL IN WETLAND
- DENOTES HAND CLEARING

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SITE 2

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0.03 ACRES
A2 EXCAVATION WETLANDS
0.01 ACRES
A2 TEMPORARY FILL WETLANDS
0.01 ACRES
A2 SURFACE WATER IMPACTS
0.01 ACRES

**WETLAND UTILITY
PERMIT DRAWING
SHEET 5 OF 6**

SEE SHEET 77 FOR -L- PROFILE

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)
A1	247+52 to 247+89 -L-	42" Gravity Sewer		0.02	0.03*		0.05					
A2	280+27 to 280+65 -L-	36" Gravity Sewer		0.01	0.01*		0.03		0.01		15	
TOTALS*:			0.00	0.03	0.04	0.00	0.08	0.00	0.01	0	15	0

*Excavation in existing maintained sewer easement - Temporary Impact
 NOTES: