Submitted 12/21/2021

North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 2.08; Released April 2018)

WBS Element: 46377.1.2 **TIP No.:** R-5705A **County(ies):** Harnett

General Project Information

WBS Element:	46377.1.2	**TIP Number:**	R-5705A	**Project Type:**	New Location	**Date:**	11/8/2021
NCDOT Contact:	Nicole Hackler, PE			**Contractor / Designer:**	Kimley-Horn & Associates		
	Address: 1000 Birch Ridge Drive 1582 Mail Service Center Raleigh NC 27699				**Address:** One Bank of America Plaza 421 Fayetteville St, STE 600 Raleigh, NC 27601		
	Phone: 919-707-6029				**Phone:** 919-677-2000		
	Email: nmhackler@ncdot.gov				**Email:** dan.robinson@kimley-horn.com		
City/Town:	Angier			**County(ies):**	Harnett		
River Basin(s):	Cape Fear			**CAMA County?**	No		
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	4.364 miles	**Surrounding Land Use:**	Widening: Rural farmland; New location: Rural farmland, forests

	Proposed Project	**Existing Site**
Project Built-Upon Area (ac.)	51.2 ac.	14.3 ac.
Typical Cross Section Description:	Widening Section: 4 lanes divided (2 lanes each way) with 4' paved shoulder -12' lane widths, 6:1 outside ditch front slopes with 4:1 back slopes. Raised grass median with 1'-6" curb and gutter, rasied concrete islands for turn lanes. New location section: Same as above except 4'-10' varied paved shoulders	2 lanes with paved shoulder and grass ditches - 11' lane widths, 2-4' paved shoulder, 3:1 side slopes or flatter
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 27100 Year: 2045	Existing: 15900 Year: 2022
General Project Narrative: (Description of Minimization of Water Quality Impacts)	This is a Central managed project. Existing drainage patterns have been maintained to the best extent practical. -Direct discharges are avoided where possible. Some pipe outlets have been moved to outlet right before wetlands to avoid impacts. -3:1 slopes with guardrail used for all culvert crossings (the use of 2:1 slopes is not feasible due to Geotech conditions and slope stability). -Erosion control basins have been placed outside of all wetland boundaries. -Vegetated conveyances used throughout the project, many of which which meet swale standards, will have a positive water quality benefit. These were used instead of closed system conveyance to the maximum extent practical. -Excluded driveways/driveway fill from access points that were in wetland areas. -Hand clearing proposed at all wetland locations except for 2 areas where clean water diversions will impact the wetland. -Culvert barrels with sills will be back filled with native material. Native material will consist of material that is excavated from the stream bed or floodplain at the project site during culvert construction. Native material is subject to approval by the engineer and may be subject to permit conditions. -Riprap pads used at the outlet of any open pipe. -Where conditions dictated, ditches were stopped before wetland boundaries with a riprap pad at the end to slow down velocities. -Where a ditch was already running through a wetland and was pushed out in proposed condition, the proposed ditch was designed with slope reduced and base widths increased as much as possible to get velocities down close to or below 2 ft/s. -All box culverts have slopes of less than 1% so there is no need for sills. This should help reduce velocities at culvert outlets. -Bank stabilization and outlet improvements have been proposed at box culverts to minimize erosion. -The pond being drained at site 27 will have a proposed channel with constructed banks and floodplain to match pre-dam conditions and low flow stream conditions as much as possible.	

Waterbody Information

Surface Water Body (1):	UT to East Buies Creek		**NCDWR Stream Index No.:**	18-18-1-(2)		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply IV (WS-IV)			
		Supplemental Classification:	None			
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:	SAU, SAP, SAO, SAL, SAM			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

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WBS Element:	46377.1.2	TIP No.:	R-5705A	County(ies):	Harnett	Page	2	of	2

Additional Waterbody Information

Surface Water Body (2):	East Buies Creek		**NCDWR Stream Index No.:**	18-18-1-(2)		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply IV (WS-IV)			
		Supplemental Classification:	None			
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:	East Buies Creek			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**		**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

Surface Water Body (3):	Buies Creek		**NCDWR Stream Index No.:**	18-18		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply IV (WS-IV)			
		Supplemental Classification:	None			
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:	Buies Creek			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

Surface Water Body (4):	UT to Black River		**NCDWR Stream Index No.:**	18-68-12-1a		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	Swamp Waters (Sw)			
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:	SAJ, SAI			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

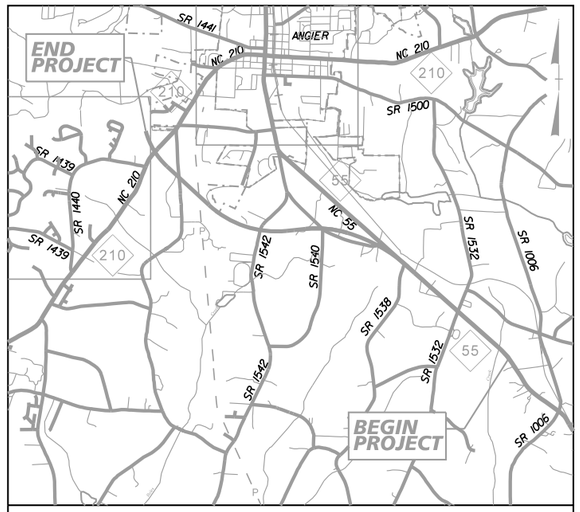
Surface Water Body (5):	UT to West Buies Creek		**NCDWR Stream Index No.:**	18-18-2-(1)		
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Class C			
		Supplemental Classification:	None			
Other Stream Classification:						
Impairments:						
Aquatic T&E Species?		Comments:				
NRTR Stream ID:	SAH, SAG, SAQ, SAS, SAT			**Buffer Rules in Effect:**	N/A	
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A	
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)		
(If yes, provide justification in the General Project Narrative)						

Submitted 12/21/2021

09/08/99

TIP PROJECT: R-5705A

See Sheet 1B For Conventional Plan Sheet Symbols



VICINITY MAP

ROW PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HARNETT COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5705A	1	

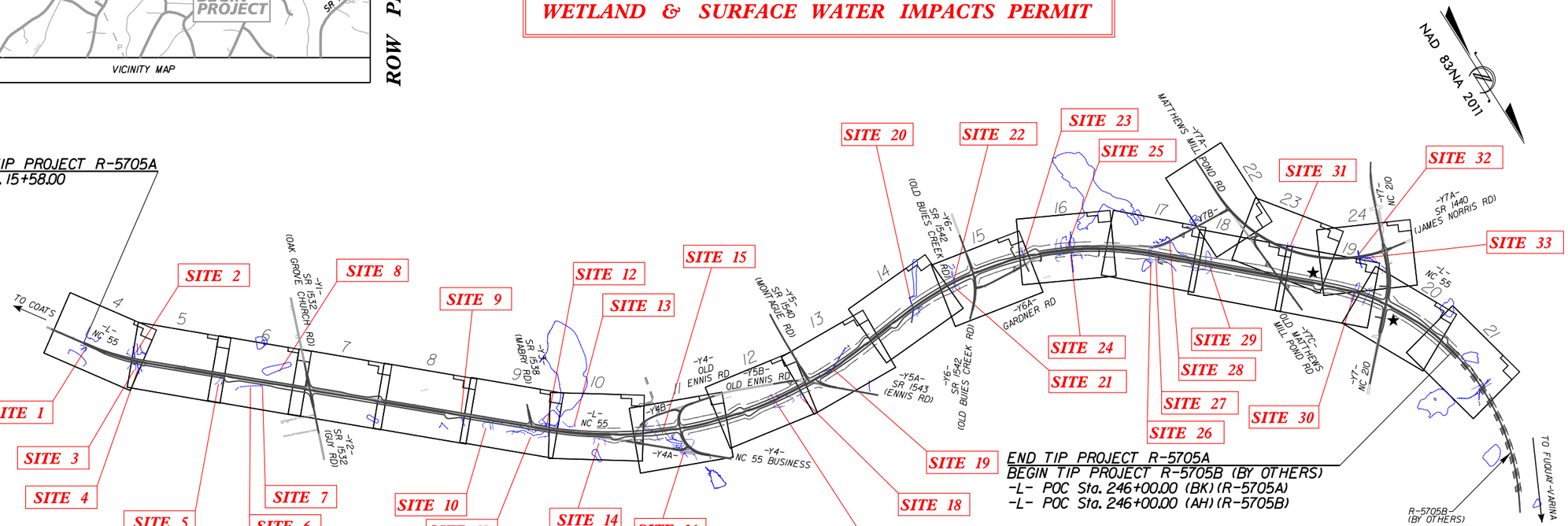
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46377.1.2		P.E.
46377.2.1		RIGHT-OF-WAY
46377.2.5		UTILITIES

PERMIT DRAWING
SHEET 1 OF 71

LOCATION: NC 55 FROM SOUTH OF SR 1532 (OAK GROVE CHURCH ROAD) TO NORTH OF NC 210

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS AND CULVERTS

WETLAND & SURFACE WATER IMPACTS PERMIT



** DESIGN SPEED = 50 MPH FROM -L- STA. 15+58.00 TO STA. 112+18.00 (EXISTING NC 55)
60 MPH FROM -L- STA. 112+18.00 TO STA. 246+00.00 (NEW LOCATION)

★ TRAFFIC SIGNAL

THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO ONE DRIVEWAY PER PARCEL AND FULL-CONTROL AT U-TURN BULBS
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

FINAL PERMIT DRAWINGS
SUBMITTED: 11-15-21
FINAL SUBMITTAL

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT:

$FILE$

11/15/2021

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

5 2.5 0 5 10
PROFILE (VERTICAL)

DESIGN DATA

AADT 2022 = 15,900
AADT 2045 = 27,100
K = 9%
D = 60%
T = 4%*
** V = 50/60 MPH
* (TTST 1% + DUAL 3%)
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-5705A = 4.364 MILES

PLANS PREPARED FOR THE NCDOT BY:

Kimley»Horn ©2019

NC LICENSE #F-0102
227 FAYETTEVILLE STREET, SUITE 600
RALEIGH, NORTH CAROLINA 27601
PHONE: (919) 677-2000

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 9, 2021

LETTING DATE:
OCTOBER 18, 2022

JEFFREY W. MOORE, P.E.
PROJECT ENGINEER

EVERETT J. LOVING, P.E.
PROJECT DESIGN ENGINEER

NICOLE M. HACKLER, P.E.
SENIOR PROJECT MANAGER
NCDOT PROJECT MANAGEMENT UNIT

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION

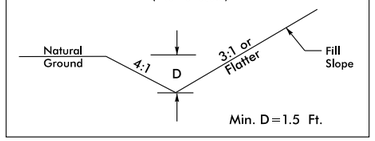
Submitted 12/21/2021

5/14/99

REVISIONS

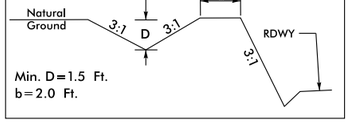
11/15/2021

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



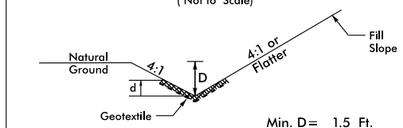
FROM STA. 21+00 TO STA. 23+00 –L– RT
FROM STA. 26+85 TO STA. 28+75 –L– LT
FROM STA. 26+70 TO STA. 31+00 –L– RT
FROM STA. 53+50 TO STA. 59+30 –L– RT
FROM STA. 53+09 TO STA. 57+00 –L– LT
FROM STA. 63+30 TO STA. 64+81 –L– RT
FROM STA. 68+50 TO STA. 72+50 –L– RT
FROM STA. 76+00 TO STA. 77+20 –L– RT
FROM STA. 74+50 TO STA. 76+75 –L– LT
FROM STA. 78+50 TO STA. 80+50 –L– RT
FROM STA. 91+50 TO STA. 94+50 –L– RT
FROM STA. 93+00 TO STA. 96+00 –L– LT
FROM STA. 104+50 TO STA. 109+50 –L– RT
FROM STA. 108+40 TO STA. 110+00 –L– LT
FROM STA. 123+18 TO STA. 124+85 –L– LT
FROM STA. 132+50 TO STA. 133+50 –L– LT
FROM STA. 133+00 TO STA. 134+80 –L– RT
FROM STA. 134+58 TO STA. 140+00 –L– LT
FROM STA. 136+20 TO STA. 142+50 –L– RT
FROM STA. 151+00 TO STA. 153+20 –L– LT
FROM STA. 164+00 TO STA. 164+80 –L– RT
FROM STA. 178+50 TO STA. 180+50 –L– RT
FROM STA. 182+50 TO STA. 186+20 –L– LT
FROM STA. 198+25 TO STA. 201+50 –L– LT
FROM STA. 233+35 TO STA. 234+40 –L– LT
FROM STA. 233+90 TO STA. 235+00 –L– RT
FROM STA. 216+74 TO STA. 221+50 –L– RT
FROM STA. 224+50 TO STA. 227+30 –L– RT
FROM STA. 13+55 TO STA. 14+05 –Y1– LT
FROM STA. 10+70 TO STA. 13+50 –Y2– RT
FROM STA. 19+76 TO STA. 21+73 –Y5– LT
FROM STA. 13+50 TO STA. 15+40 –Y6– LT
FROM STA. 24+70 TO STA. 27+45 –Y7– RT
FROM STA. 29+00 TO STA. 31+95 –Y7– LT

DETAIL 3
BERM 'V' DITCH
(Not to Scale)



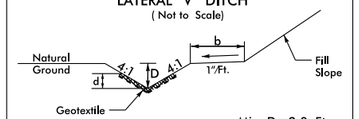
FROM STA. 16+28 TO STA. 17+55 –L– RT
FROM STA. 186+50 TO STA. 188+70 –L– RT
FROM STA. 190+00 TO STA. 190+50 –L– RT

DETAIL 4
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



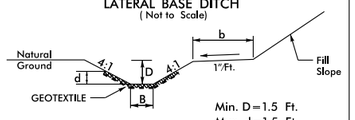
FROM STA. 90+50 TO STA. 91+50 –L– RT
FROM STA. 27+45 TO STA. 29+00 –Y7– LT

DETAIL 5
LATERAL 'V' DITCH
(Not to Scale)



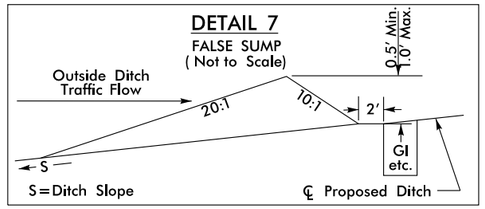
FROM STA. 24+06 TO STA. 26+30 –L– LT.

DETAIL 6
LATERAL BASE DITCH
(Not to Scale)



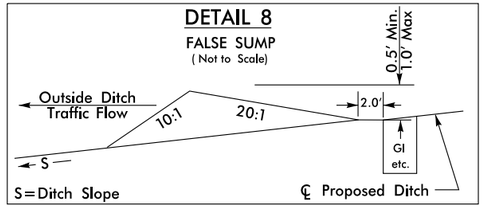
FROM STA. 23+00 TO STA. 24+88 –L– RT.

DETAIL 7
FALSE SUMP
(Not to Scale)



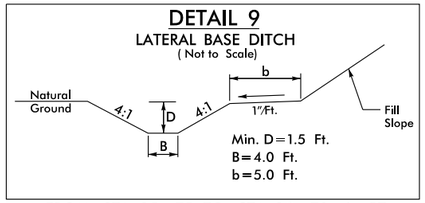
FROM STA. 47+33 TO STA. 47+48 –L– RT
FROM STA. 51+40 TO STA. 51+55 –L– RT
FROM STA. 50+00 TO STA. 50+15 –L– RT
FROM STA. 81+54 TO STA. 81+69 –L– LT
FROM STA. 83+54 TO STA. 83+69 –L– LT
FROM STA. 84+02 TO STA. 84+17 –L– LT
FROM STA. 86+04 TO STA. 86+19 –L– LT
FROM STA. 183+83 TO STA. 183+98 –L– RT

DETAIL 8
FALSE SUMP
(Not to Scale)



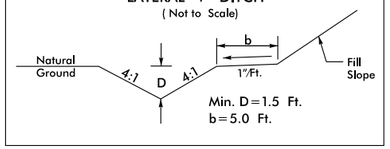
FROM STA. 192+53 TO STA. 192+68 –L– RT
FROM STA. 194+52 TO STA. 194+67 –L– RT
FROM STA. 207+33 TO STA. 207+48 –L– LT
FROM STA. 204+83 TO STA. 204+98 –L– LT
FROM STA. 11+24 TO STA. 11+39 –Y2– LT
FROM STA. 12+00 TO STA. 12+15 –Y2– LT

DETAIL 9
LATERAL BASE DITCH
(Not to Scale)



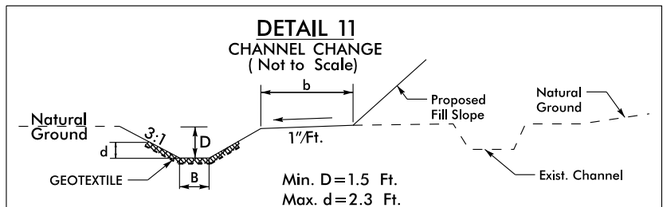
FROM STA. 25+75 TO STA. 26+70 –L– RT.

DETAIL 10
LATERAL 'V' DITCH
(Not to Scale)



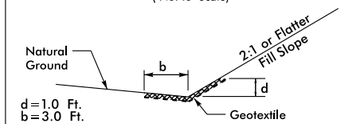
FROM STA. 153+20 TO STA. 154+75 –L– RT.

DETAIL 11
CHANNEL CHANGE
(Not to Scale)



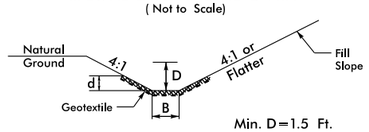
FROM STA. 42+50 TO STA. 43+50 –L– RT

DETAIL 12
TOE PROTECTION
(Not to Scale)



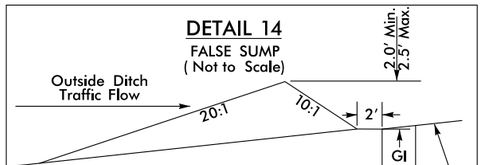
FROM STA. 44+00 TO STA. 45+68 –L– RT.
FROM STA. 161+07 TO STA. 162+43 –L– LT
FROM STA. 196+65 TO STA. 197+50 –L– RT
FROM STA. 227+95 TO STA. 230+45 –L– RT
FROM STA. 44+00 TO STA. 45+00 –Y7A– RT
FROM STA. 10+37 TO STA. 10+70 –Y7B– LT
FROM STA. 10+70 TO STA. 11+50 –Y7B– RT

DETAIL 13
SPECIAL LATERAL BASE DITCH
(Not to Scale)



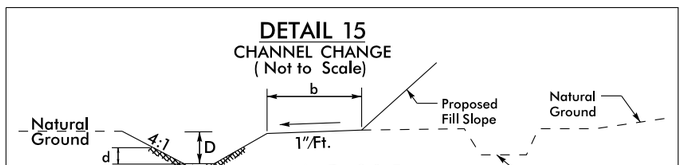
FROM STA. 72+00 TO STA. 73+02 –L– LT.

DETAIL 14
FALSE SUMP
(Not to Scale)



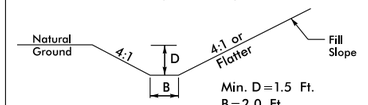
FROM STA. 77+22 TO STA. 77+82 –L– LT
FROM STA. 122+18 TO STA. 122+78 –L– LT
FROM STA. 124+85 TO STA. 125+45 –L– LT
FROM STA. 126+00 TO STA. 126+60 –L– LT
FROM STA. 20+85 TO STA. 21+15 –Y7A– RT

DETAIL 15
CHANNEL CHANGE
(Not to Scale)



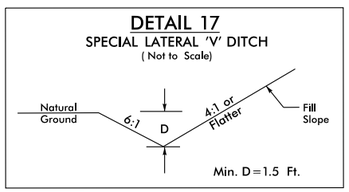
FROM STA. 42+60 TO STA. 44+30 –Y7A– RT

DETAIL 16
SPECIAL LATERAL BASE DITCH
(Not to Scale)



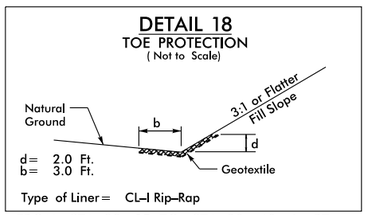
FROM STA. 72+50 TO STA. 73+25 –L– RT
FROM STA. 151+50 TO STA. 153+75 –L– RT
FROM STA. 154+05 TO STA. 156+50 –L– RT
FROM STA. 178+00 TO STA. 179+00 –L– LT

DETAIL 17
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



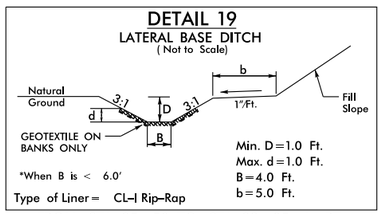
FROM STA. 82+50 TO STA. 85+00 –L– LT.
FROM STA. 146+50 TO STA. 148+50 –L– LT

DETAIL 18
TOE PROTECTION
(Not to Scale)



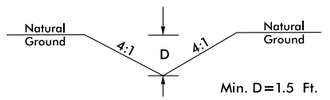
FROM STA. 88+15 TO STA. 90+40 –L– RT.
FROM STA. 90+48 TO STA. 90+58 –L– RT.

DETAIL 19
LATERAL BASE DITCH
(Not to Scale)



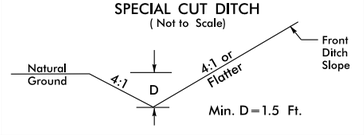
FROM STA. 85+50 TO STA. 88+05 –L– RT

DETAIL 20
STANDARD 'V' DITCH
(Not to Scale)



FROM STA. 100+25 TO 101+50 –L– RT
AT STA. 64+81 RT

DETAIL 21
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 103+50 TO STA. 104+50 –L– RT
FROM STA. 159+50 TO STA. 160+50 –L– RT
FROM STA. 177+50 TO STA. 178+50 –L– RT
FROM STA. 23+50 TO STA. 24+50 –Y4– LT
FROM STA. 10+30 TO STA. 11+00 –Y6A– RT
FROM STA. 34+00 TO STA. 36+00 –Y7– LT

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PROJECT REFERENCE NO.	SHEET NO.
R–5705A	2D–1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 2 OF 71

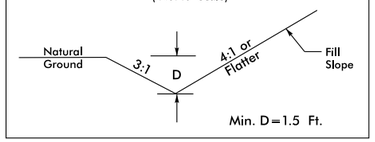
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Submitted 12/21/2021

5/14/99

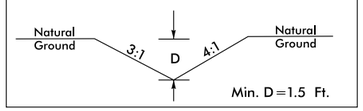
REVISIONS

DETAIL 22
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



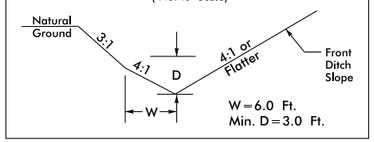
FROM STA. 130+09 TO STA. 132+50 –L– LT
FROM STA. 10+88 TO STA. 12+85 –Y3– RT
FROM STA. 10+88 TO STA. 12+95 –Y3– LT
FROM STA. 13+13 TO STA. 15+00 –Y4– LT
FROM STA. 16+00 TO STA. 16+63 –Y4B– LT
FROM STA. 10+65 TO STA. 13+50 –Y5A– RT
FROM STA. 17+65 TO STA. 22+44 –Y6– RT
FROM STA. 17+50 TO STA. 22+00 –Y6– LT
FROM STA. 14+80 TO STA. 16+90 –Y7A– RT
FROM STA. 29+00 TO STA. 30+50 –Y7A– RT
FROM STA. 32+50 TO STA. 34+00 –Y7A– LT
FROM STA. 31+50 TO STA. 36+50 –Y7A– RT
FROM STA. 39+50 TO STA. 41+00 –Y7A– LT
FROM STA. 39+50 TO STA. 40+50 –Y7A– RT
FROM STA. 10+55 TO STA. 12+50 –Y7C– LT

DETAIL 23
STANDARD 'V' DITCH
(Not to Scale)



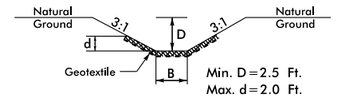
FROM STA. 15+15 TO 16+63 –Y4B– LT.

DETAIL 25
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 112+85 TO STA. 118+75 –L– LT.
FROM STA. 121+00 TO STA. 123+18 –L– LT.
FROM STA. 190+00 TO STA. 192+50 –L– RT.

DETAIL 26
STANDARD BASE DITCH
(Not to Scale)



*When B is < 6.0'
Type of Liner= CL–I Rip–Rap

AT STA. 45+00 –L– LT (EST. 70 L.F.)
AT STA. 108+30 –L– LT (EST. 90 L.F.)

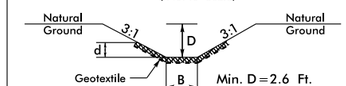
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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	2D-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 3 OF 71

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

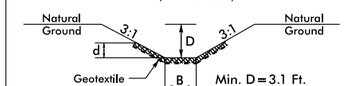
DETAIL 27
STANDARD BASE DITCH
(Not to Scale)



*When B is < 6.0'
Type of Liner= CL–I Rip–Rap

AT STA. 22+30 –Y4– RT. (EST. 50 L.F.)

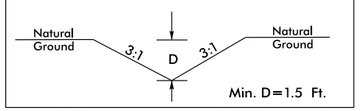
DETAIL 28
STANDARD BASE DITCH
(Not to Scale)



Type of Liner= CL–II Rip–Rap

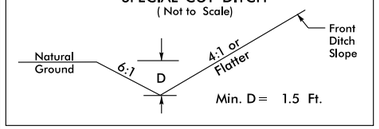
AT STA. 19+25 –Y4A– RT. (EST. 50 L.F.)

DETAIL 29
STANDARD 'V' DITCH
(Not to Scale)



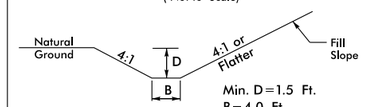
AT STA. 143+50 –L– LT (EST. 55 L.F)
AT STA. 18+50 –Y6A– LT (EST. 50 L.F)

DETAIL 30
SPECIAL CUT DITCH
(Not to Scale)



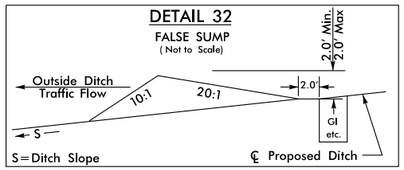
FROM STA. 145+50 TO STA. 146+50 –L– LT.

DETAIL 31
SPECIAL LATERAL BASE DITCH
(Not to Scale)



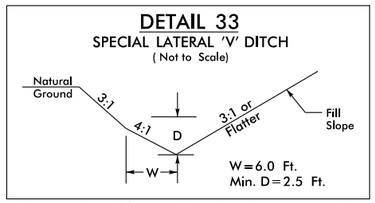
FROM STA. 45+00 TO STA. 46+00 –L– LT
FROM STA. 92+25 TO STA. 93+00 –L– LT
FROM STA. 160+50 TO STA. 161+80 –L– RT
FROM STA. 161+80 TO STA. 164+00 –L– RT
FROM STA. 173+00 TO STA. 173+65 –L– RT
FROM STA. 202+50 TO STA. 203+80 –L– LT
FROM STA. 203+80 TO STA. 205+00 –L– LT
FROM STA. 10+50 TO STA. 13+15 –Y1– LT
FROM STA. 22+00 TO STA. 23+50 –Y4– LT

DETAIL 32
FALSE SUMP
(Not to Scale)



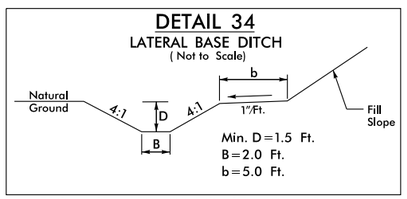
FROM STA. 17+15 TO STA.17+50 –Y6– LT

DETAIL 33
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



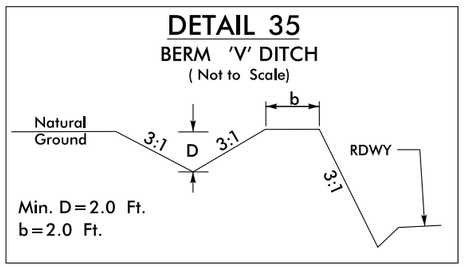
FROM STA. 166+10 TO STA. 170+00 –L– RT
FROM STA. 194+50 TO STA. 195+50 –L– RT

DETAIL 34
LATERAL BASE DITCH
(Not to Scale)



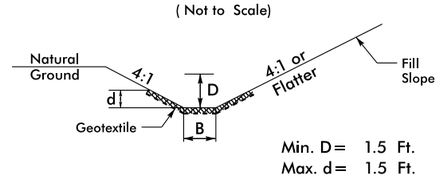
FROM STA. 179+00 TO STA. 181+50 –L– LT.

DETAIL 35
BERM 'V' DITCH
(Not to Scale)



FROM STA. 190+50 TO STA. 192+50 –L– RT.

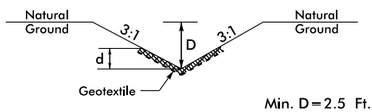
DETAIL 36
SPECIAL LATERAL BASE DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

FROM STA. 20+00 TO STA. 22+00 –Y4– LT

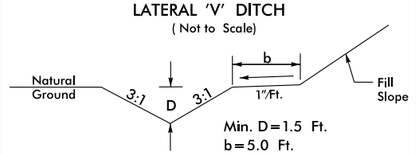
DETAIL 37
STANDARD 'V' DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

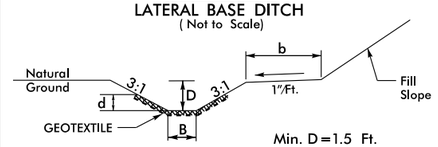
FROM –L– STA. 132+50 LT. TO
–Y5B– STA. 13+90 LT. (EST. 64 L.F,
HEAD DITCH THROUGH –Y5B–)

DETAIL 38
LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 132+10 TO STA. 133+00 –L– RT
FROM STA. 30+50 TO STA. 31+20 –Y7A– RT
FROM STA. 31+70 TO STA. 32+50 –Y7A– LT
FROM STA. 41+00 TO STA. 42+25 –Y7A– LT
FROM STA. 43+00 TO STA. 45+50 –Y7A– LT

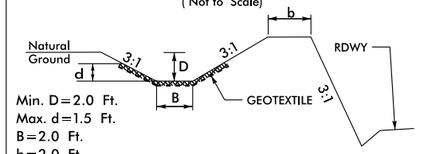
DETAIL 39
LATERAL BASE DITCH
(Not to Scale)



*When B is < 6.0'
Type of Liner= CL–I Rip–Rap

FROM STA. 197+50 TO STA. 198+90 –L– RT

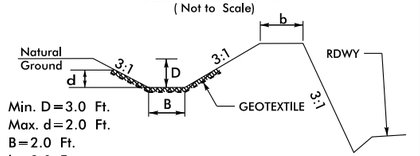
DETAIL 40
BERM BASE DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

FROM STA. 205+00 TO STA. 205+50 –L– LT.
FROM STA. 208+50 TO STA. 212+00 –L– LT.

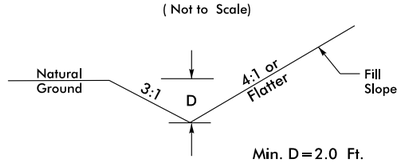
DETAIL 41
BERM BASE DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

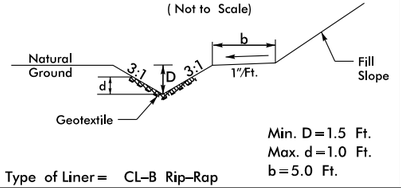
FROM STA. 207+50 TO STA. 208+50 –L– LT.

DETAIL 42
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 15+92 TO STA. 22+00 –Y7A– LT.

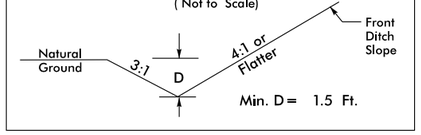
DETAIL 43
LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

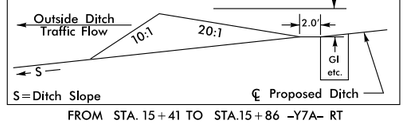
FROM STA. 29+50 TO STA. 30+80 –Y7A– LT
FROM STA. 40+50 TO STA. 42+00 –Y7A– RT

DETAIL 44
SPECIAL CUT DITCH
(Not to Scale)



FROM STA. 26+12 TO STA. 29+00 –Y7A– RT
FROM STA. 26+00 TO STA. 29+50 –Y7A– LT
FROM STA. 45+50 TO STA. 46+00 –Y7A– LT

DETAIL 45
FALSE SUMP
(Not to Scale)



FROM STA. 15+41 TO STA.15+86 –Y7A– RT

11/15/2021

Submitted 12/21/2021

5/14/99

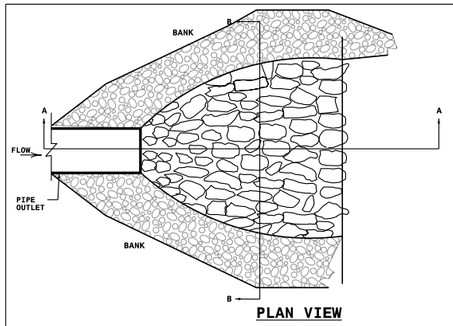
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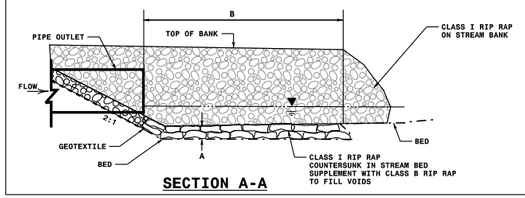
PROJECT REFERENCE NO.	SHEET NO.
R-5705A	2D-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 4 OF 71

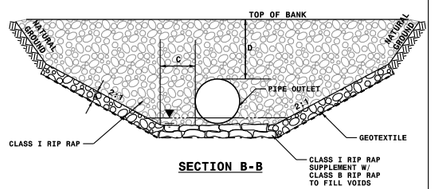
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PLAN VIEW



SECTION A-A



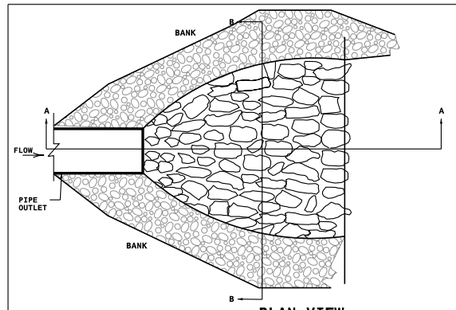
SECTION B-B

BASIN NUMBER	STATION	CULVERT SIZE	RIP RAP BASIN A	B	C	D
1	154+77 -L-	66"	1.5'	13'	0'	0.5'

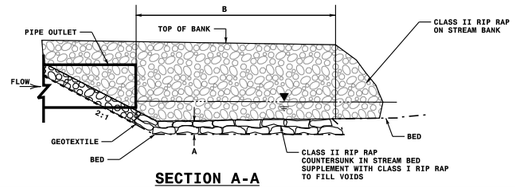
ALL DIMENSIONS ARE APPROXIMATE

NOTE:
USE CLASS I RIP RAP IN STREAM BED AND SUPPLEMENT WITH CLASS B TO FILL VOIDS AS NECESSARY

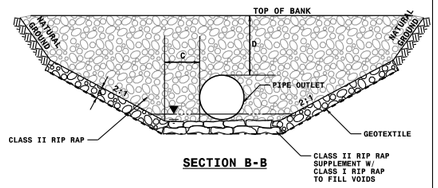
DETAIL 46
SPECIAL OUTLET PROTECTION
(NOT TO SCALE)
AT STA. 154+77 –L– LT



PLAN VIEW



SECTION A-A



SECTION B-B

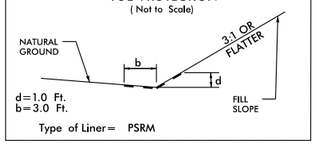
BASIN NUMBER	STATION	CULVERT SIZE	RIP RAP BASIN A	B	C	D
1	42+52.7 -Y7A-	72" RCP	1.5'	25'	0'	0.5'

ALL DIMENSIONS ARE APPROXIMATE

NOTE:
USE CLASS II RIP RAP IN STREAM BED AND SUPPLEMENT WITH CLASS I TO FILL VOIDS AS NECESSARY

DETAIL 47
SPECIAL OUTLET PROTECTION
(NOT TO SCALE)
AT STA. 42+52.70 –Y7A– LT

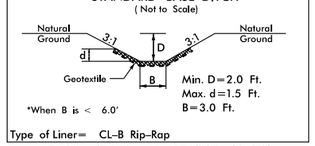
DETAIL 48
TOE PROTECTION
(Not to Scale)



Type of Liner= PSRM

FROM STA. 215+08 TO STA. 215+52 –L– LT.

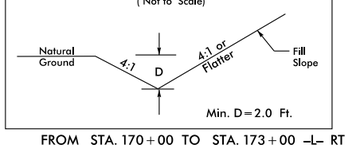
DETAIL 49
STANDARD BASE DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

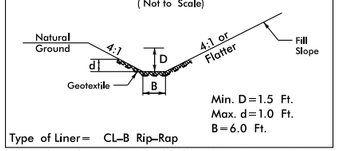
AT –Y7– STA. 27+45 LT. (EST. 60 L.F)

DETAIL 50
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 170+00 TO STA. 173+00 –L– RT

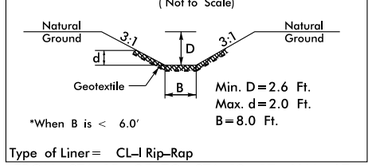
DETAIL 51
SPECIAL LATERAL BASE DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

FROM STA. 21+00 TO STA. 22+50 –L– LT

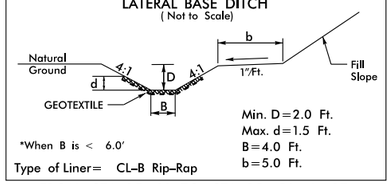
DETAIL 52
STANDARD BASE DITCH
(Not to Scale)



Type of Liner= CL–I Rip–Rap

FROM STA. 15+95 TO STA. 19+17 –Y4A– LT.

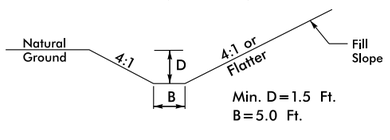
DETAIL 53
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= CL–B Rip–Rap

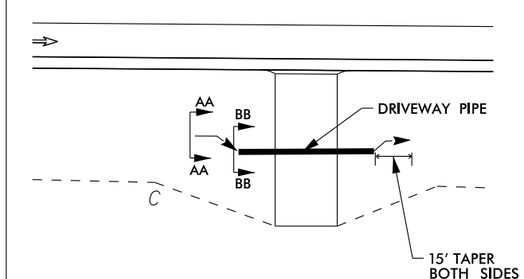
FROM STA. 25+10 TO STA. 25+50 –L– RT

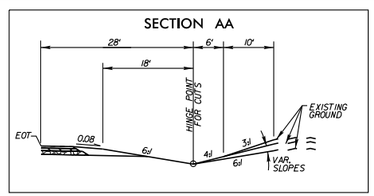
DETAIL 54
SPECIAL LATERAL BASE DITCH
(Not to Scale)

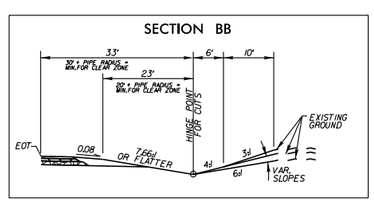


FROM STA. 80+50 TO STA. 81+82 –L– RT.
FROM STA. 88+64 TO STA. 90+50 –L– LT

DETAIL 55 – PIPE FLARE OUT





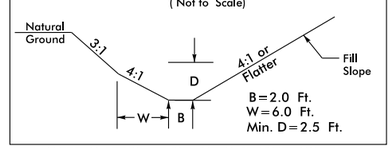


AT STA. 95+06 –L– RT
AT STA. 98+24 –L– LT
AT STA. 104+45 –L– LT
AT STA. 119+50 –L– LT

AT STA. 147+00 –L– RT
AT STA. 157+55 –L– RT
AT STA. 177+08 –L– RT
AT STA. 186+69 –L– LT

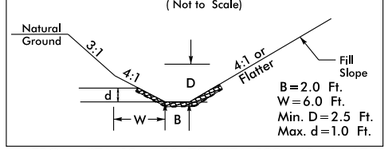
AT STA. 188+90 –L– RT
AT STA. 235+90 –L– RT

DETAIL 56
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM STA. 105+50 TO STA. 106+30 –L– LT

DETAIL 57
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM STA. 106+30 TO STA. 108+40 –L– LT

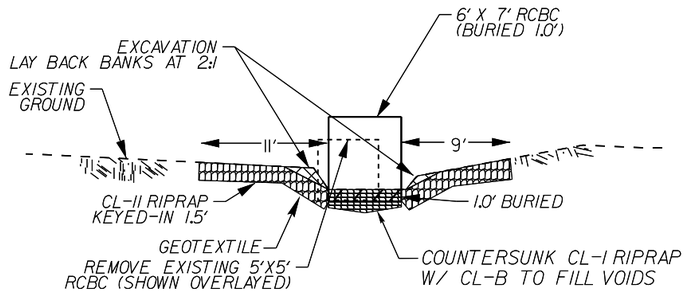
11/15/2021

Submitted 12/21/2021

5/14/99

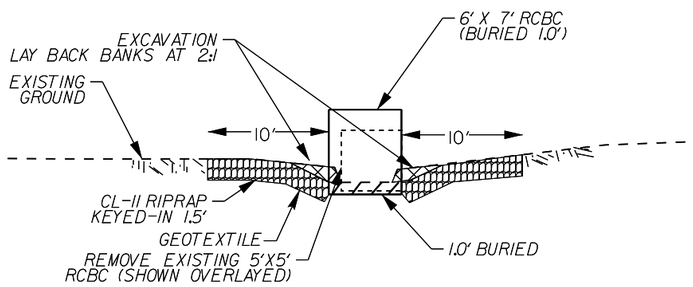
REVISIONS

DETAIL 58 TYPICAL OUTLET CHANNEL IMPROVEMENTS
LOOKING DOWNSTREAM
NOT TO SCALE



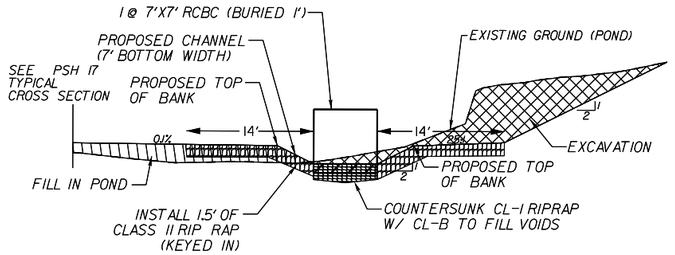
APPROX. STA. 24+10 -L- LT

DETAIL 59 TYPICAL - INLET CHANNEL IMPROVEMENTS
LOOKING DOWNSTREAM
NOT TO SCALE

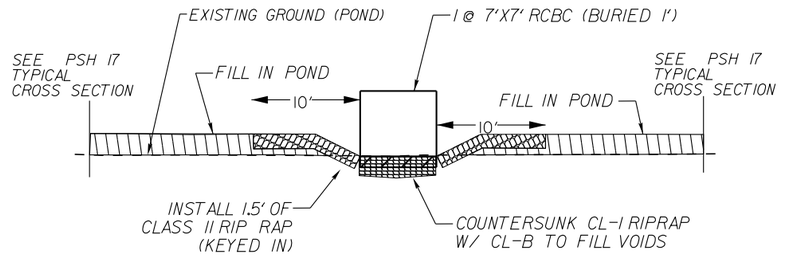


APPROX. STA. 24+70 TO 25+00 -L- RT

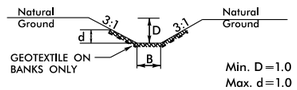
DETAIL 60 TYPICAL OUTLET CHANNEL IMPROVEMENTS
LOOKING DOWNSTREAM
NOT TO SCALE



DETAIL 61 TYPICAL - INLET CHANNEL IMPROVEMENTS
LOOKING DOWNSTREAM
NOT TO SCALE



DETAIL 62
STANDARD BASE DITCH
(Not to Scale)



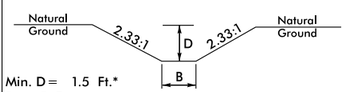
Min. D = 1.0 Ft.
Max. d = 1.0 Ft.
B = 4.0 Ft.

*When B is < 6.0'

Type of Liner = CL-I Rip-Rap

FROM STA. 86+50 TO STA. 86+87 -L- RT

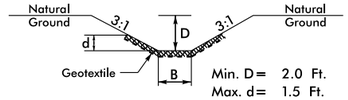
DETAIL 63
STANDARD BASE DITCH
(Not to Scale)



Min. D = 1.5 Ft.*
B = 5 Ft.
*MATCH EXIST DITCH INV.

STA. 174+10 -L- LT (EST. 78 L.F.)

DETAIL 64
STANDARD BASE DITCH
(Not to Scale)

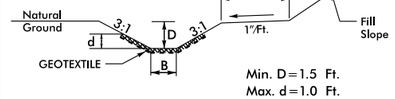


Min. D = 2.0 Ft.
Max. d = 1.5 Ft.
B = 6 Ft.

Type of Liner = Class I Rip-Rap

STA. 162+53 -L- LT (EST. 73 L.F.)

DETAIL 65
LATERAL BASE DITCH
(Not to Scale)

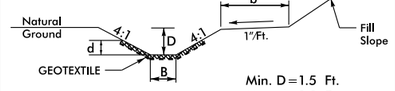


Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
B = 8.0 Ft.
b = 5.0 Ft.

Type of Liner = CL-B Rip-Rap

FROM STA. 42+00 TO STA. 42+58 -Y7A- RT.

DETAIL 66
LATERAL BASE DITCH
(Not to Scale)

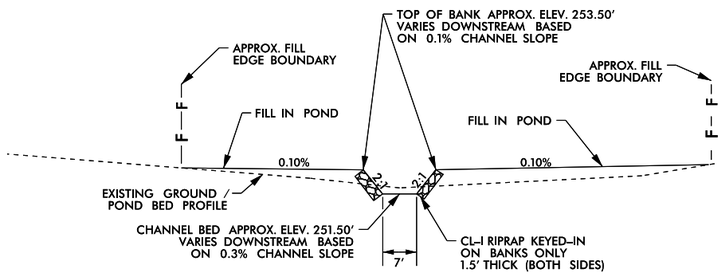


Min. D = 1.5 Ft.
Max. d = 1.0 Ft.
B = 2.0 Ft.
b = 5.0 Ft.

Type of Liner = CL-B Rip-Rap

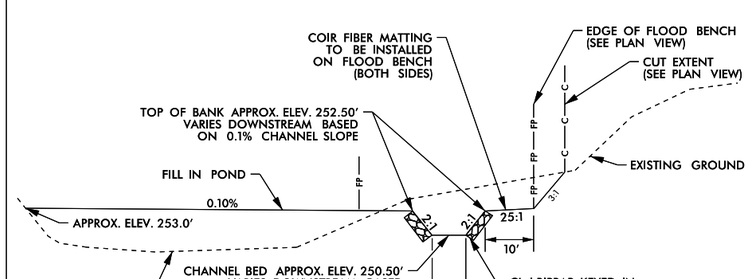
FROM STA. 42+25 TO STA. 42+48 -Y7A- LT.
FROM STA. 42+55 TO STA. 43+00 -Y7A- LT.

DETAIL TYPICAL SECTION P1



NOT TO SCALE

DETAIL TYPICAL SECTION P2



NOT TO SCALE

11/15/2021

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	2D-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING
SHEET 5 OF 71

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

Submitted 12/21/2021

5/14/99

REVISIONS

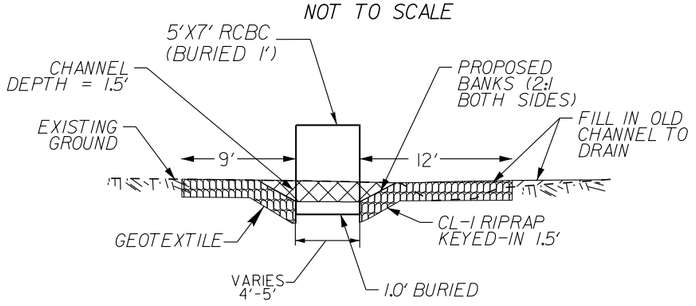
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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	2D-5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

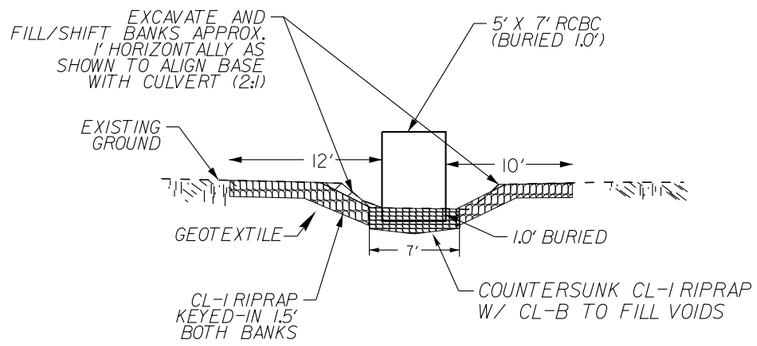
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 6 OF 71

DETAIL 67 TYPICAL - INLET CHANNEL IMPROVEMENTS
LOOKING DOWNSTREAM
NOT TO SCALE

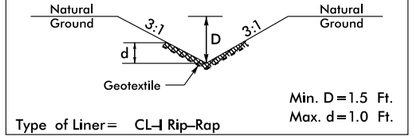


DETAIL 68 TYPICAL OUTLET CHANNEL IMPROVEMENTS
LOOKING DOWNSTREAM
NOT TO SCALE



DETAIL 69

STANDARD 'V' DITCH
(Not to Scale)



Min. D=1.5 Ft.
Max. d=1.0 Ft.

Type of Liner= CL-I Rip-Rap

FROM STA. 20+80 TO STA. 23+30 -Y7B- LT
(EQUATES TO: -L- LT. STA. 195+00 TO STA. 197+26)

11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
E E — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	DENOTES MECHANIZED CLEARING

PERMIT DRAWING
SHEET 7 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

VAN COATS
DB 3459 PG 434
PB 2016 PG 364

(1A) JAMES JOHNSON
DB 615 PG 21
PB 2016 PG 364

(1) JAMES JOHNSON
DB 731PG 732

(3) TONY WARREN
DB 3271PG 355

(5) DANNY HEDGEPETH
DB 926 PG 126
PC* E PG 76A

(4) HOWARD BRIDGES
DB 1754 PG 517

DOUGLAS JOHNSON
DB 3605 PG 628
PB 2016 PG 364

(2) JAMES JOHNSON
DB 730 PG 223

BEGIN CONSTRUCTION
-L- POT Sta. 12+60.83

BEGIN TIP PROJECT R-5705A
-L- POT Sta. 15+58.00

15+00

20+00

MATCHLINE -L- STA 24+50 (SEE SHEET 5)

N 34° 10' 11.1" W
-L-
NC 55

NC 55 24' BST

SITE 1

SITE 2

SITE 3

SITE 4

CLEAN OUT PIPE OUTLET & RETAIN

BERM 'V' DITCH SEE DETAIL 3

ACCESS POINT

REMOVE

SPECIAL LATERAL & BASE DITCH SEE DETAIL 51 EST. 100 TONS CL-B RIPRAP EST. 250 S.Y. GFD

RIPRAP PAD AT OUTLET EST. 3 TONS CL-B RIPRAP EST. 10 S.Y. GFD

SEE TYPICAL OUTLET CHANNEL DETAIL 58 QUANTITIES IN TABLE ABOVE

6' x 7' RCBC (1.0' BURIED)

SPECIAL LATERAL 'V' DITCH SEE DETAIL

CLEAN WATER DIVERSION

GRADE TO DRAIN (TAPER PROPOSED DITCH INTO EXIST. DITCH)

LATERAL 8' BASE DITCH SEE DETAIL 6 EST. 130 C.Y. DDE EST. 165 TONS CL-I RIPRAP EST. 380 S.Y. GFD

DITCH ENTERING WETLAND CALCS -L- STA. 21+00 TO 22+50 LT	
DA	1.19 AC.
C (FUTURE)	0.58
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	4.28 C.F.S
V_{10} (FUTURE)	2.00 F.P.S
SLOPE	0.048 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

CULVERT #1
ONE BARREL

	NORTH	EAST	ELEV.
CUL1	624925.48	2088902.82	249.12
CUL2	624928.77	2088898.61	249.13
CE1	624927.00	2088900.66	253.56
HW1	624928.18	2088898.34	255.20
CUL3	624854.02	2088887.29	248.84
CUL4	624857.34	2088882.93	248.64
CE2	624856.33	2088884.79	253.47
HW2	624856.18	2088885.51	255.04

DITCH ENTERING WETLAND CALCS -L- STA. 23+75 TO 24+00 RT	
DA	6.23 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	19.30 C.F.S
V_{10} (FUTURE)	2.00 F.P.S
SLOPE	0.017 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 24+00 TO 24+70 RT	
DA	6.64 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	20.58 C.F.S
V_{10} (FUTURE)	1.22 F.P.S
SLOPE	0.004 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

RY INVESTMENT
OPERTIES LLC
3497 PG 845

SEE SHEET 25 FOR -L- PROFILE

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
E E — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	DENOTES MECHANIZED CLEARING

PERMIT DRAWING
SHEET 8 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

VAN COATS
DB 3459 PG 434
PB 2016 PG 364

(IA) JAMES JOHNSON
DB 615 PG 21
PB 2016 PG 364

(1) JAMES JOHNSON
DB 731PG 732

(3) TONY WARREN
DB 3271PG 355

(5) DANNY HEDGEPETH
DB 926 PG 126
PC# E PG 76A

(4) HOWARD BRIDGES
DB 1754 PG 517

DOUGLAS JOHNSON
DB 3605 PG 628
PB 2016 PG 384

(2) JAMES JOHNSON
DB 730 PG 223

BEGIN TIP PROJECT R-5705A
-L- POT Sta. 15+58.00

BEGIN CONSTRUCTION
-L- POT Sta. 12+60.83

15+00

20+00

MATCHLINE -L- STA 24+50 (SEE SHEET 5)

N 34° 10' 11.1" W

-L-
NC 55

NC 55 24' BST

SITE 1

SITE 2

SITE 3

SITE 4

ACCESS POINT

CLEAN OUT PIPE OUTLET & RETAIN

REMOVE

BERM "V" DITCH
SEE DETAIL 3

SPECIAL LATERAL & BASE DITCH
SEE DETAIL 5)
EST. 100 TONS CL-B RIPRAP
EST. 250 S.Y. GFD

SEE TYPICAL OUTLET CHANNEL DETAIL 58 QUANTITIES IN TABLE ABOVE

RIPRAP PAD AT OUTLET
EST. 5 TONS CL-B RIPRAP
EST. 10 S.Y. GFD

6' x 7' RCBC
(1.0' BURIED)

15" RCP-IV

TB 2GFL

SPECIAL LATERAL
"V" DITCH
SEE DETAIL 1

CLEAN WATER DIVERSION

GRADE TO DRAIN
(TAPER PROPOSED DITCH INTO EXIST. DITCH)

LATERAL B' BASE DITCH
SEE DETAIL 6
EST. 130 C.Y. DDE
EST. 165 TONS CL-I RIPRAP
EST. 380 S.Y. GFD

CULVERT #1
ONE BARREL

DITCH ENTERING WETLAND CALCS -L- STA. 21+00 TO 22+50 LT	
DA	1.19 AC.
C (FUTURE)	0.58
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	4.28 C.F.S
V_{10} (FUTURE)	2.00 F.P.S
SLOPE	0.048 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

	NORTH	EAST	ELEV.
CUL1	624925.48	2088902.82	249.12
CUL2	624928.77	2088898.61	249.13
CE1	624927.00	2088900.66	253.56
HW1	624928.18	2088898.34	255.20
CUL3	624854.02	2088887.29	248.84
CUL4	624857.34	2088882.93	248.64
CE2	624856.33	2088884.79	253.47
HW2	624856.18	2088885.51	255.04

DITCH ENTERING WETLAND CALCS -L- STA. 23+75 TO 24+00 RT	
DA	6.23 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	19.30 C.F.S
V_{10} (FUTURE)	2.00 F.P.S
SLOPE	0.017 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 24+00 TO 24+70 RT	
DA	6.64 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	20.58 C.F.S
V_{10} (FUTURE)	1.22 F.P.S
SLOPE	0.004 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

RY INVESTMENT
PERTIES LLC
3497 PG 845

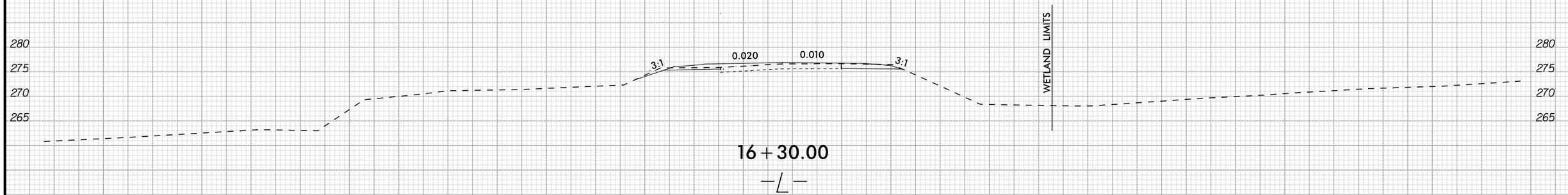
SEE SHEET 25 FOR -L- PROFILE

Submitted 12/21/2021

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

PERMIT DRAWING
SHEET 9 OF 71

SITE 1



16 + 30.00

—℄—

11/15/2021

Submitted 12/21/2021

REVISIONS

5/14/99

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING		DENOTES MECHANIZED CLEARING

PERMIT DRAWING
SHEET 10 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 24+50 (SEE SHEET 4)

MATCHLINE -L- STA 38+00 (SEE SHEET 6)

25+00 30+00 35+00

(5) DANNY HEDGEPETH DB 926 PG 126 PC* E PG 76A

(8) DANNY HEDGEPETH DB 124 PG 820 MB 2014 PG 9

(9) CHARLES GRAY DB 3252 PG 220

(10) CHARLES GRAY DB 1442 PG 909 MB 2004 PG 19

(7) JEFFREY WALTERS DB 968 PG 612

(6) JESSE MABRY DB 915 PG 464

(2)

SITE 2

SITE 3

SITE 4

LATERAL 'V' DITCH
SEE DETAIL 5
EST. 140 TONS CL-B RIPRAP
EST. 300 S.Y. GFD
EST. 120 C.Y. DDE

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SEDIMENT CONTROL BASIN

ACCESS POINT

2GI

3GI-A

18" RCP

15" RCP-IV

REMOVE

DI

-L- NC 55

N 48°17'28.4" W

4'-0" RCBC (1' BURIED)

LATERAL 4' BASE DITCH
SEE DETAIL 53
EST. 25 TONS CL-B RIPRAP
EST. 60 S.Y. GFD
EST. 20 C.Y. DDE

LATERAL 4' BASE DITCH
SEE DETAIL 9
EST. 200 C.Y. DDE

SEE TYPICAL INLET CHANNEL DETAIL 59
QUANTITIES ON SHEET 4

GRADE TO DRAIN

CULTIVATED

TREES

DECK

POND

CONC

WOOD RAMP

EXIST R/W

DITCH ENTERING WETLAND CALCS -L- STA 24+70 TO 24+85 RT	
DA	45.77 AC.
C	0.50
I_{10}	3.8 IN./HR
Q_{10}	87 C.F.S
V_c	1.81 F.P.S
SLOPE	0.004 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA 25+10 TO 25+50 RT	
DA	2.22 AC.
C	0.59
I_{10}	6.2 IN./HR
Q_{10}	8.12 C.F.S
V_c	1.96 F.P.S
SLOPE	0.02 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

SEE SHEET 25 FOR -L- PROFILE

Submitted 12/21/2021

5/14/99

REVISIONS

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING		DENOTES MECHANIZED CLEARING

PERMIT DRAWING
SHEET 11 OF 71

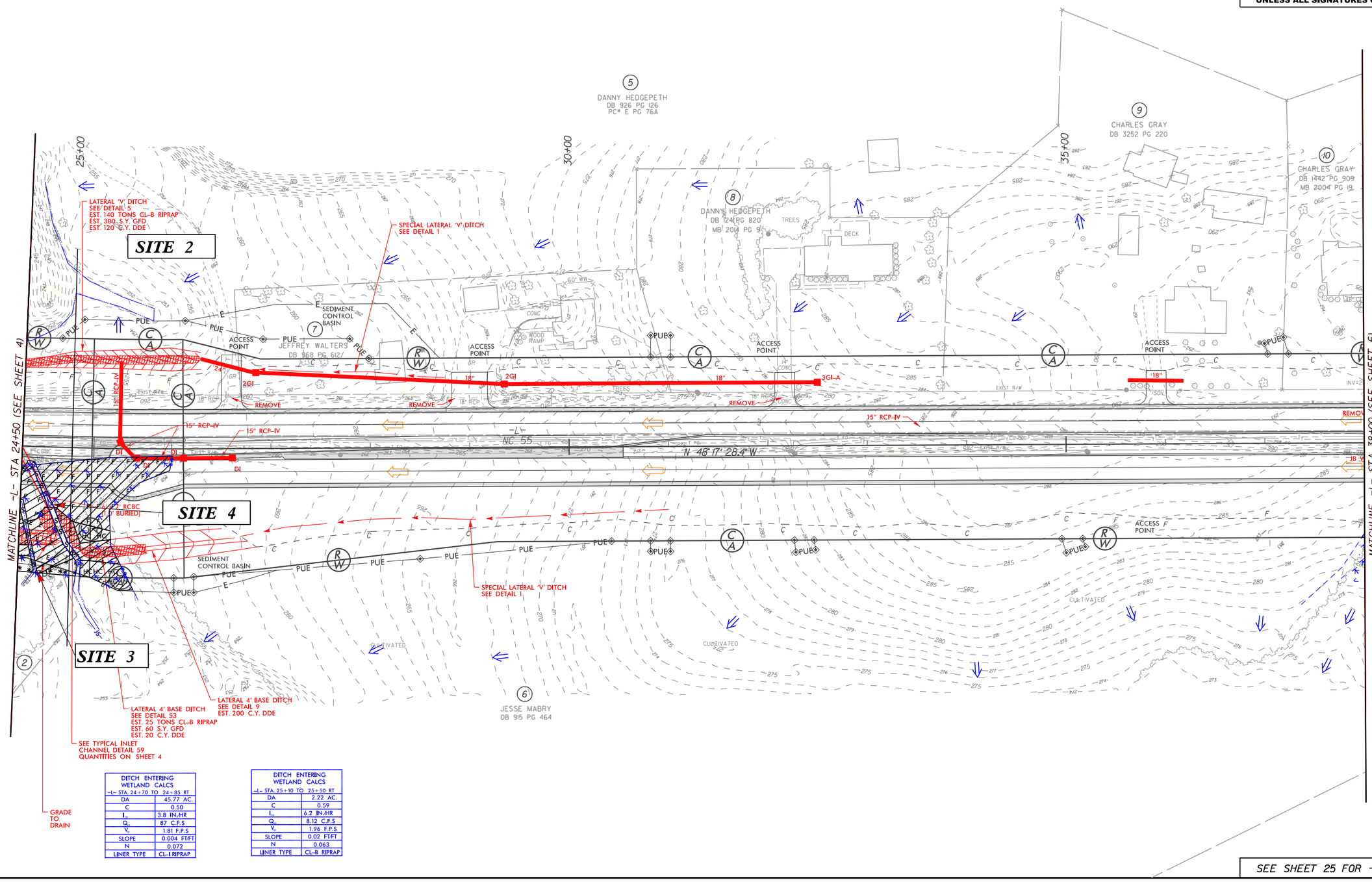
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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011



DITCH ENTERING WETLAND CALCS -L- STA 24+70 TO 24+85 RT	
DA	45.77 AC.
C	0.50
I_{10}	3.8 IN./HR
Q_{10}	87 C.F.S.
V_c	1.81 F.P.S.
SLOPE	0.004 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA 25+10 TO 25+50 RT	
DA	2.22 AC.
C	0.59
I_{10}	6.2 IN./HR
Q_{10}	8.12 C.F.S.
V_c	1.96 F.P.S.
SLOPE	0.02 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

SEE SHEET 25 FOR -L- PROFILE

11/15/2021

Submitted 12/21/2021

WETLAND AND STREAM IMPACTS

SITE IMPACT ZOOM: 1"=40'

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	4A/5A

PERMIT DRAWING SHEET 12 OF 71

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING
- S S — DENOTES IMPACTS IN SURFACE WATER
- TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES MECHANIZED CLEARING

NAD 83 NSRS 2007

SITE 2

SITE 3

SITE 4

RIPRAP PAD AT OUTLET
EST. 3 TONS CL-B RIPRAP
EST. 10 S.Y. CL-B RIPRAP

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

CLEAN WATER DIVERSION

SEDIMENT CONTROL BASIN

6' x 7' RCBC (1.0' BURIED)

18" RCP-IV

15" RCP-IV

24"

2GI

REMOVE

DI

TB 2GI

PUE

TDE

ACCESS POINT

POND

EXIST R/W

NC 55 24' BST

JEFFREY WA

DB 968 P

SITES 2,3,4

20' 0' 20' 40'
GRAPHIC SCALE

REVISIONS

11/15/2021

Submitted 12/21/2021

WETLAND AND STREAM IMPACTS

SITE IMPACT ZOOM: 1"=40'

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	4A/5A

PERMIT DRAWING SHEET 13 OF 71

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING
- S S — DENOTES IMPACTS IN SURFACE WATER
- TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- DENOTES MECHANIZED CLEARING

NAD 83 NSRS 2007

SITE 2

SITE 3

SITE 4

RIPRAP PAD AT OUTLET
EST. 3 TONS CL B RIPRAP
EST. 10 S.Y. CL B RIPRAP

PDE
PUE
ACCESS POINT
JEFFREY WA
DB 9868 P
24"
2GI
REMOVE
18" RCP
15" RCP-IV
TB 2GI
DI
EXIST R/W
NC 55 24' BST
SPECIAL LATERAL 'V' DITCH SEE DETAIL 1
CLEAN WATER DIVERSION
TDE
6' x 7' RCBC (1.0' BURIED)
SEDIMENT CONTROL BASIN

SITES 2,3,4

20' 0' 20' 40'
GRAPHIC SCALE

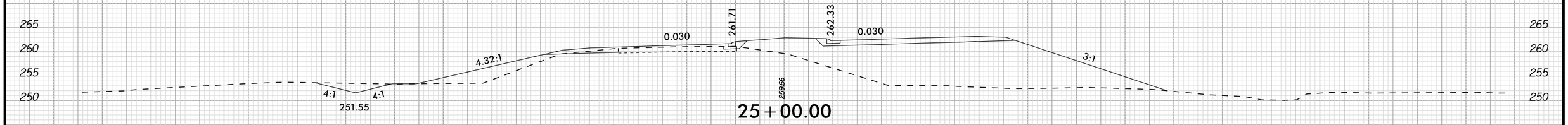
REVISIONS

11/15/2021

Submitted 12/21/2021

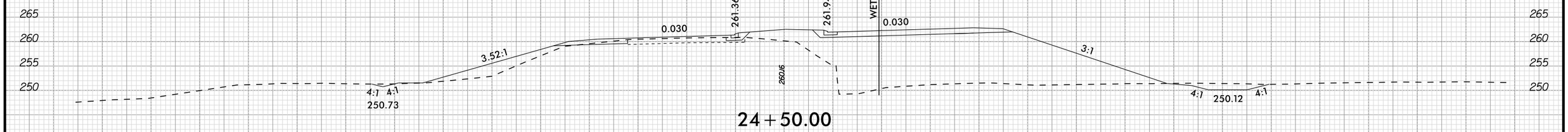
PERMIT DRAWING
SHEET 14 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

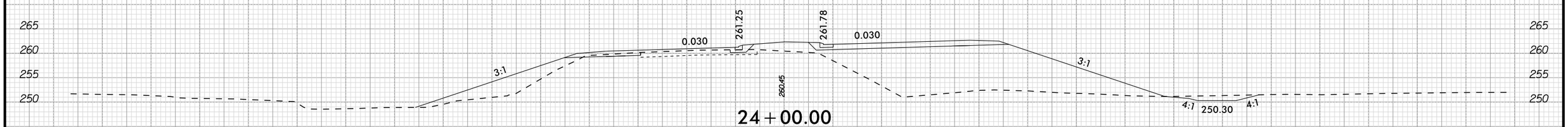


25+00.00

SITE 4

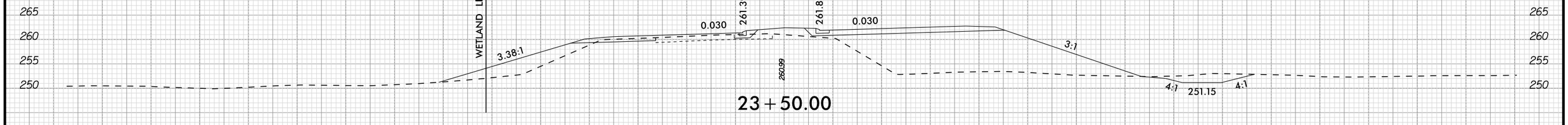


24+50.00



24+00.00

SITE 2



23+50.00

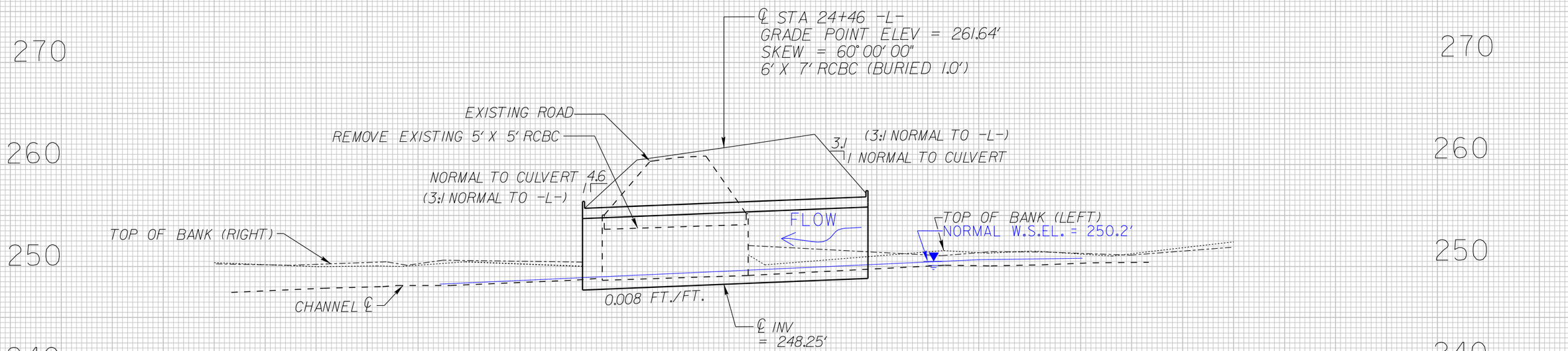
11/15/2021

Submitted 12/21/2021

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

PERMIT DRAWING
SHEET 15 OF 71

SITE 2,3,4



11/15/2021

Submitted 12/21/2021

LEGEND

- F F — DENOTES FILL IN WETLAND
- S S — DENOTES IMPACTS IN SURFACE WATER
- HC HC — DENOTES HAND CLEARING
- TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- P P — DENOTES IMPACTS IN SURFACE WATER (POND)

PERMIT DRAWING
SHEET 16 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 NA 2011

REVISIONS 5/14/99

11/15/2021

MATCHLINE -L- STA 38+00 (SEE SHEET 5)

MATCHLINE -L- STA 50+50 (SEE SHEET 7)

SITE 5

SITE 6

SITE 7

SITE 8

10 CHARLES GRAY DB 1442 PG 909 MB 2004 PG 19

11 NANCY MYATT DB 1101PG 767

12 CHARLES GRAY DB 2830 PG 178

13 SHERRY OATES DB 1822 PG 69 DB 2007 PG 518

14 SHERRILL MCLAMB DB 786 PG 810

15 NANCY MYATT DB 1101PG 767

18 SHERRILL MCLAMB DB 738 PG 754

20 VIRGINIA HOLLIDAY DB 635 PG 530

21 UNKNOWN PROPERTY OWNER

22 NANCY MYATT DB 1159 PG 680

6 JESSE MABRY DB 915 PG 464

100

40+00

45+00

50+00

NC 55

N 48° 17' 28.4" W

48" SPLIT RAIL

ACCESS POINT

REMOVE

RIPRAP PAD, AT OUTLET
3 TONS CL-B RIPRAP
11 S.Y. GFD

CHANNEL CHANGE (4.0' BASE)
SEE DETAIL 11
EST. 150 C.Y. DDE
EST. 95 TONS CL-I RIPRAP
EST. 210 S.Y. GFD

MIN. DEPTH 2GI-A
SEE DETAIL 840d17
SHEET 2C-1

TOE PROTECTION
SEE DETAIL 12
EST. 40 TONS CL-B RIPRAP
EST. 130 S.Y. GFD

GRADE TO DRAIN
APPROX. GRADE 15%
PROTECT W/EST. 15 TONS
CL-B RIPRAP
EST. 40 S.Y. GFD

DRAIN POINT W/ 4' BASE DIA.
APPROX. START ELEV. 297.0'
END ELEV. 295.0'
SEE DETAIL 30
EST. 50 TONS CL-I RIPRAP
EST. 145 C.Y. EXC.
EST. 400 C.Y. DDE
SPECIAL LATERAL
4' BASE DITCH
SEE DETAIL 31

FALSE SUMP
SEE DETAIL 7

O.E.P
10-YR
HW/D = 0.8

O.E.P
10-YR
HW/D = 2.0

Submitted 12/21/2021

REVISIONS	
5/14/99	

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
P P — DENOTES IMPACTS IN SURFACE WATER (POND)	

PERMIT DRAWING
SHEET 17 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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NAD 83 NA 2011

MATCHLINE -L- STA 38+00 (SEE SHEET 5)

MATCHLINE -L- STA 50+50 (SEE SHEET 7)

40+00 45+00 50+00

SITE 5 SITE 6 SITE 7 SITE 8

(10) CHARLES GRAY DB 1442 PG 909 MB 2004 PG 19

(12) CHARLES GRAY DB 2830 PG 178

(13) SHERRY OATES DB 1822 PG 69 DB 2007 PG 518

(14) SHERRILL MCLAMB DB 786 PG 810

(18) SHERRILL MCLAMB DB 738 PG 754

(20) VIRGINIA HOLLIDAY DB 639 PG 530

(21) UNKNOWN PROPERTY OWNER

(11) NANCY MYATT DB 1101 PG 767

(6) JESSE MABRY DB 915 PG 464

(15) NANCY MYATT DB 1101 PG 767

(22) NANCY MYATT DB 1159 PG 680

REMOVE 18" RCP

REMOVE 2GI

REMOVE O.E.P

10-YR HW/D = 0.8

REMOVE 15" RCP

REMOVE 24" RCP

42" RCP-IV

48" RCP-IV

18" RCP-IV

DIMOND CONC ISLAND

REMOVE EXIST JB

REMOVE

DRAIN TO DI W/ BASE DITCH APPROX. START ELEV. 297.0' END ELEV. 293.0' SEE DETAIL 3G EST. 50 TONS CL-1 RIPRAP EST. 145 C.Y. EXC. EST. 400 C.Y. DDE

SPECIAL LATERAL V BASE DITCH SEE DETAIL 3H

RIPRAP PAD AT OUTLET 3 TONS CL-B RIPRAP 17 S.Y. GFD

CHANNEL CHANGE (4.0' BASE) SEE DETAIL 11 EST. 150 C.Y. DDE EST. 95 TONS CL-1 RIPRAP EST. 210 S.Y. GFD

MIN. DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1

TOE PROTECTION SEE DETAIL 12 EST. 40 TONS CL-B RIPRAP EST. 130 S.Y. GFD

GRADE TO DRAIN APPROX. GRADE 15% PROTECT W/EST. 15 TONS CL-B RIPRAP EST. 40 S.Y. GFD

FALSE SUMP SEE DETAIL 7

ACCESS POINT

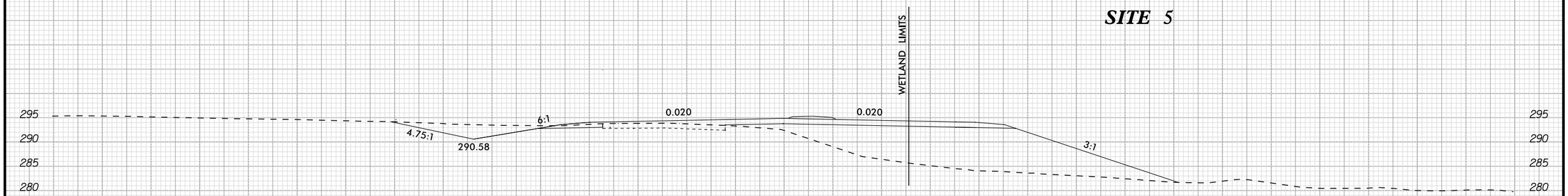
11/15/2021

Submitted 12/21/2021

PERMIT DRAWING
SHEET 18 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 5



38+30.00

—L—

11/15/2021

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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INCOMPLETE PLANS
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

LEGEND

- F F — DENOTES FILL IN WETLAND
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 19 OF 71

REVISIONS 5/14/99

11/15/2021

MATCHLINE -L- STA 64+00 (SEE SHEET 7)

MATCHLINE -L- STA 78+00 (SEE SHEET 9)

65+00 70+00 75+00

(28) CAROL BLALOCK
DB 88E PG 258

(32) DANIEL MORTON
DB 3441 PG 835
MB 2008 PG 1042

(35) JAMES GARNER
DB 1602 PG 219
MB 2002 PG 303

(35) JAMES GARNER
DB 1071 PG 120

(41) BUCKEYE GAS PRODUCTS
DB 817 PG 394

(43) LYNN MUCHINSON
DB 1508 PG 838

(46) JULEE JOHNSON
DB 2967 PG 15
MB 2011 PG 317

(48) BENNY WEAVER
DB 2458 PG 329
MB 2006 PG 930

(44) JEAN GARNER
DB 1665 PG 80
MB 2001 PG 1260

(45)

(33) MARIO HERNANDEZ
DB 2857 PG 342
MB 2011 PG 303

(34) JAMES GARNER
DB 1145 PG 360

(36) BARBARA HENRIES
DB 2007 PG 3

(37) D&D MOTOR SPORTS LLC
DB 2803 PG 711

(31) CURTIS ADAMS
DB 508 PG 169

(39) WILLIAM HART
NO DEED INFO
PC* F PG 326C

(40) JIMMY WALTERS
DB 1102 PG 980
PC* F PG 326C

(42) JIMMY WALTERS
DB 606 PG 222

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 13
EST. 60 TONS CL-B RIPRAP
EST. 160 S.Y. GFD

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

STANDARD 'V' DITCH
SEE DETAIL 20
BEGIN ELEV. = 314.28'
END ELEV. = 314.00'
APPROX. SLOPE = 0.6%
EST. 5 C.Y. DDE

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 16

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14 S.Y. GFD

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14 S.Y. GFD

SITE 9

-L- NC 55
N 48° 09' 47.9" W
N 48° 15' 11.4" W

REMOVE 15" RCP
REMOVE 24" RCP-IV
REMOVE 15" RCP-IV

ACCESS POINT
PUE
TDE
WOODS
POND
BST
GR
72" CMP
INV=299.65'

SEE SHEET 2B-1 FOR INTERSECTION DETAIL
SEE SHEET 27 FOR -L- PROFILE

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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INCOMPLETE PLANS
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NAD 83/NA 2011

LEGEND

F/F DENOTES FILL IN WETLAND

HC/HC DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 20 OF 71

REVISIONS 5/14/99

11/15/2021

MATCHLINE -L- STA 64+00 (SEE SHEET 7)

MATCHLINE -L- STA 78+00 (SEE SHEET 9)

65+00 70+00 75+00

NC 55 BST

N 48°09'47.9" W

N 48°15'11.4" W

SITE 9

28 CAROL BLALOCK
DB 88E PG 258

32 DANIEL MORTON
DB 3441 PG 835
MB 2008 PG 1042

35 JAMES GARNER
DB 1602 PG 219
MB 2002 PG 303

35 JAMES GARNER
DB 1071 PG 120

41 BUCKEYE GAS PRODUCTS
DB 817 PG 394

43 LYNN MUCHINSON
DB 1508 PG 838

46 JULEE JOHNSON
DB 2967 PG 15
MB 2011 PG 317

48 BENNY WEAVER
DB 2458 PG 329
MB 2006 PG 930

44 JEAN GARNER
DB 1665 PG 80
MB 2001 PG 1260

45

33 MARIO HERNANDEZ
DB 2857 PG 342
MB 2011 PG 303

34 JAMES GARNER
DB 1145 PG 360

36 BARBARA HENRIES
DB 2007 PG 3

37 D&D MOTOR SPORTS LLC
DB 2803 PG 711

31 CURTIS ADAMS
DB 508 PG 169

39 WILLIAM HART
NO DEED INFO
PC* F PG 326C

40 JIMMY WALTERS
DB 1102 PG 980
PC* F PG 326C

42 JIMMY WALTERS
DB 606 PG 222

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 13
EST. 60 TONS CL-B RIPRAP
EST. 160 S.Y. GFD

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

24" RCP-IV

15" RCP-IV

REMOVE

ACCESS POINT

PUE

TDE

STANDARD 'V' DITCH
SEE DETAIL 20
BEGIN ELEV. =314.28'
END ELEV. =314.00'
APPROX. SLOPE=0.6%
EST. 5 C.Y. DDE

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 16

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14 S.Y. GFD

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14 S.Y. GFD

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

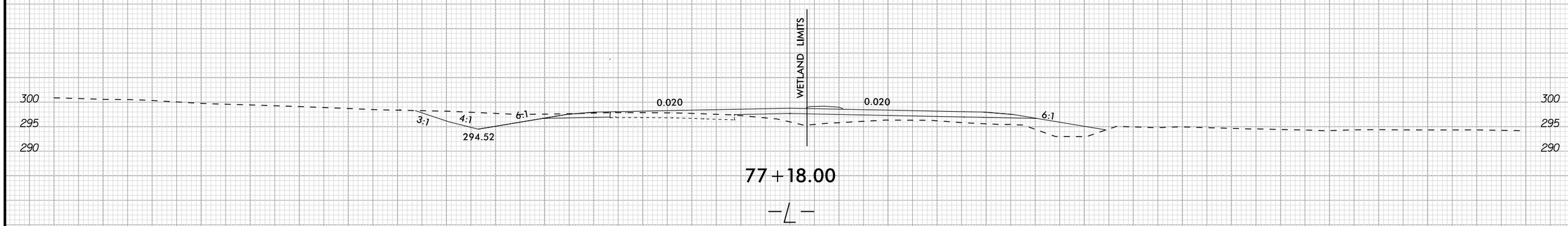
SEE SHEET 2B-1 FOR INTERSECTION DETAIL
SEE SHEET 27 FOR -L- PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 21 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 9



77+18.00

—℄—

11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
E E — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	T T — DENOTES TEMPORARY FILL IN WETLAND

PERMIT DRAWING SHEET 22 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 78+00 (SEE SHEET 8)

80+00 85+00 90+00

-Y3- SR 1538 (MABRY RD) N 19° 50' 33.4" E

BEGIN CONSTRUCTION -Y3- POT Sta. 10+88.00

(46) JULEE JOHNSON DB 2967 PG 15 MB 2011 PG 317

(44) JEAN GARNER DB 1665 PG 80 MB 2001 PG 1260

(48) BENNY WEAVER DB 2458 PG 329 MB 2006 PG 930

(50) FRANK D'ALESIO DB 3604 PG 42 MB 2017 PG 390

(52) W E COLLIER DB 2768 PG 34

(45) JEANETTE STRICKLAND DB 1405 PG 740 MB 2000 PG 84

(47) MR CURRIN DB 1315 PG 641

(42) JIMMY WALTERS DB 606 PG 222

(49) BARBARA SMETZER DB 2038 PG 935

SITE 10

SITE 11

SITE 12

FALSE SUMP SEE DETAIL 7

SPECIAL LATERAL 'V' DITCH SEE DETAIL 17

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

SPECIAL LATERAL 5' BASE DITCH SEE DETAIL 54

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

RIPRAP PAD BEFORE ENTERING WETLAND EST. 6 TONS CL-B RIPRAP EST. 15 S.Y. GFD

RIPRAP PAD AT OUTLET EST. 33 TONS CL-I RIPRAP EST. 42 S.Y. GFD

4' BASE (HEAD) DITCH SEE DETAIL 62 EST. 18 TONS CL-I RIPRAP EST. 47 S.Y. GFD EST. 15 C.Y. DDE APPROX. GRADE = 4.5%

TOE PROTECTION SEE DETAIL 18 EST. 115 TONS CL-I RIPRAP EST. 280 S.Y. GFD

TOE PROTECTION SEE DETAIL 18 EST. 5 TONS CL-I RIPRAP EST. 15 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 4 EST. 60 TONS CL-B RIPRAP EST. 135 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

DITCH ENTERING WETLAND CALCS -L- STA. 80+75 TO 81+82 RT	
DA	0.65 AC.
C	0.59
I_{10}	6.2 IN./HR
Q_p	2.40 C.F.S
V_p	1.05 F.P.S
SLOPE	0.011 FT/FT
N	0.063
LINER TYPE	RIPRAP PAD

JURISDICTIONAL STREAM / CHANNEL CHANGE DITCH WITHIN WETLAND -L- STA. 85+50 TO 87+00 RT	
DA	35.51 AC.
C (FUTURE)	0.51
I_{10}	4.27 IN./HR
Q_p (FUTURE)	77.39 C.F.S
V_p (FUTURE)	2.69 F.P.S
SLOPE	0.01 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

JURISDICTIONAL STREAM / CHANNEL CHANGE DITCH WITHIN WETLAND -L- STA. 87+00 TO 88+05 RT	
DA	35.51 AC.
C (FUTURE)	0.51
I_{10}	4.27 IN./HR
Q_p (FUTURE)	77.39 C.F.S
V_p (FUTURE)	1.76 F.P.S
SLOPE	0.003 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 89+40 TO 90+50 LT	
DA	0.98 AC.
C (FUTURE)	0.53
I_{10}	6.2 IN./HR
Q_p (FUTURE)	3.22 C.F.S
V_p (FUTURE)	1.94 F.P.S
SLOPE	0.016 FT/FT
N	0.035
LINER TYPE	NONE

DITCH ENTERING WETLAND CALCS -L- STA. 90+50 TO 91+15 RT	
DA	3.69 AC.
C (FUTURE)	0.46
I_{10}	6.2 IN./HR
Q_p (FUTURE)	10.52 C.F.S
V_p (FUTURE)	2.00 F.P.S
SLOPE	0.018 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

SEE SHEET 2B-1 & 2B-2 FOR INTERSECTION DETAIL
SEE SHEET 27 FOR -L- PROFILE
SEE SHEET 34 FOR -Y3- PROFILE

11/15/2021

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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INCOMPLETE PLANS
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	T T	DENOTES TEMPORARY FILL IN WETLAND

PERMIT DRAWING
SHEET 23 OF 71

MATCHLINE -L- STA 78+00 (SEE SHEET 8)

-Y3- SR 1538 (MABRY RD) N 19°50'33.4"E

BEGIN CONSTRUCTION -Y3- POT Sta.10+88.00

80+00 85+00 90+00

(46) JULEE JOHNSON DB 2967 PG 15 MB 2011 PG 317

(44) JEAN GARNER DB 1665 PG 80 MB 2001 PG 1260

(48) BENNY WEAVER DB 2458 PG 329 MB 2006 PG 930

(50) FRANK D'ALESIO DB 3604 PG 42 MB 2017 PG 390

(52) W E COLLINS DB 2768 PG 34

(45) JEANETTE STRICKLAND DB 1405 PG 740 MB 2000 PG 84

(47) MR CURRIN DB 1315 PG 641

(42) JIMMY WALTERS DB 606 PG 222

(49) BARBARA SMETZER DB 2038 PG 935

N 48°15'11.4"W -L- NC 55

MONO CONC ISLAND

ACCESS POINT

PUE

REMOVE

SITE 10

SITE 11

SITE 12

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH SEE DETAIL 17

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

SPECIAL LATERAL 5' BASE DITCH SEE DETAIL 54

FALSE SUMP SEE DETAIL 7

RIPRAP PAD BEFORE ENTERING WETLAND EST. 6 TONS CL-B RIPRAP EST. 15 S.Y. GFD

4' BASE (HEAD) DITCH SEE DETAIL 62 EST. 18 TONS CL-I RIPRAP EST. 47 S.Y. GFD EST. 15 C.Y. DOE APPROX. GRADE = 4.5%

TOE PROTECTION SEE DETAIL 18 EST. 115 TONS CL-I RIPRAP EST. 280 S.Y. GFD

TOE PROTECTION SEE DETAIL 18 EST. 5 TONS CL-I RIPRAP EST. 15 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 4 EST. 60 TONS CL-B RIPRAP EST. 135 S.Y. GFD

RIPRAP PAD AT OUTLET EST. 23 TONS CL-I RIPRAP EST. 62 S.Y. GFD

DITCH ENTERING WETLAND CALCS -L- STA. 80+75 TO 81+82 RT	
DA	0.65 AC.
C	0.59
I_{10}	6.2 IN./HR
Q_p	2.40 C.F.S
V_p	1.05 F.P.S
SLOPE	0.011 FT/FT
N	0.063
LINER TYPE	RIPRAP PAD

JURISDICTIONAL STREAM / CHANNEL CHANGE DITCH WITHIN WETLAND -L- STA. 85+50 TO 87+00 RT	
DA	35.51 AC.
C (FUTURE)	0.51
I_{10}	4.27 IN./HR
Q_p (FUTURE)	77.39 C.F.S
V_p (FUTURE)	2.69 F.P.S
SLOPE	0.01 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

JURISDICTIONAL STREAM / CHANNEL CHANGE DITCH WITHIN WETLAND -L- STA. 87+00 TO 88+05 RT	
DA	35.51 AC.
C (FUTURE)	0.51
I_{10}	4.27 IN./HR
Q_p (FUTURE)	77.39 C.F.S
V_p (FUTURE)	1.76 F.P.S
SLOPE	0.003 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 89+40 TO 90+50 LT	
DA	0.98 AC.
C (FUTURE)	0.53
I_{10}	6.2 IN./HR
Q_p (FUTURE)	3.22 C.F.S
V_p (FUTURE)	1.94 F.P.S
SLOPE	0.016 FT/FT
N	0.035
LINER TYPE	NONE

DITCH ENTERING WETLAND CALCS -L- STA. 90+50 TO 91+15 RT	
DA	3.69 AC.
C (FUTURE)	0.46
I_{10}	6.2 IN./HR
Q_p (FUTURE)	10.52 C.F.S
V_p (FUTURE)	2.00 F.P.S
SLOPE	0.018 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

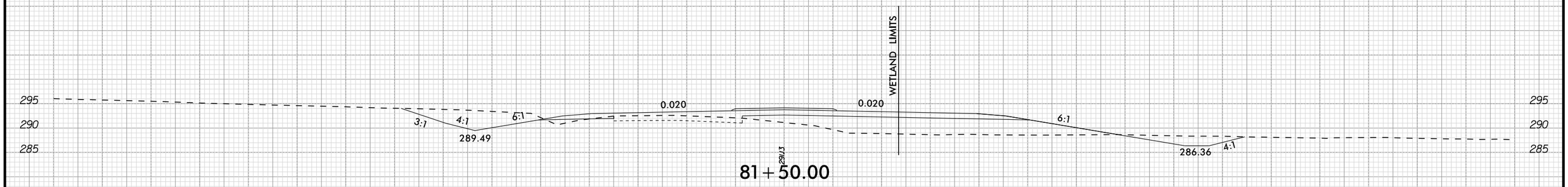
SEE SHEET 2B-1 & 2B-2 FOR INTERSECTION DETAIL
SEE SHEET 27 FOR -L- PROFILE
SEE SHEET 34 FOR -Y3- PROFILE

Submitted 12/21/2021

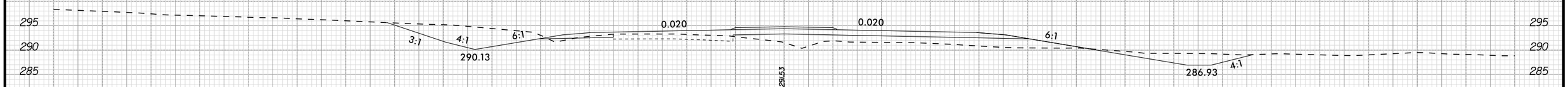
PERMIT DRAWING
SHEET 24 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 10



81+50.00



81+00.00

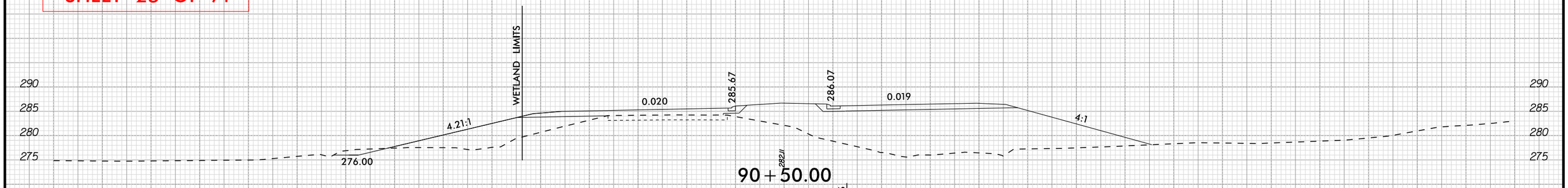
11/15/2021

Submitted 12/21/2021

PERMIT DRAWING
SHEET 25 OF 71

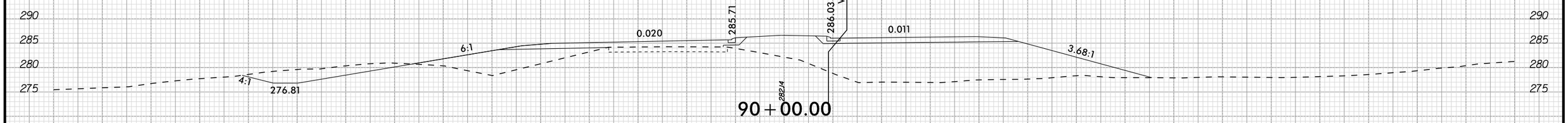
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 12

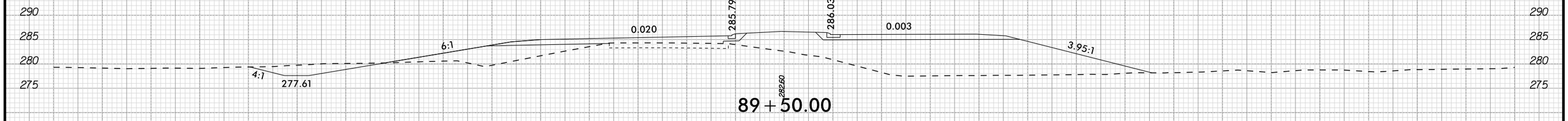


90 + 50.00

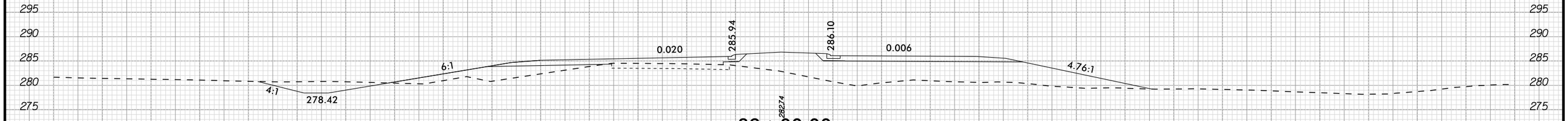
SITE 11



90 + 00.00



89 + 50.00



89 + 00.00

11/15/2021

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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INCOMPLETE PLANS
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NAD 83/NA 2011

REVISIONS
5/14/99

LEGEND

- F F — DENOTES FILL IN WETLAND
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 26 OF 71

MATCHLINE -L- STA 92+50 (SEE SHEET 9)

MATCHLINE -L- STA 105+50 (SEE SHEET 11)

POND
POND
WOODS
WOODS
WOODS
CULTIVATED
CULTIVATED
CULTIVATED

95+00
100+00
105+00

(51) ISABEL LOREDO
DB 3258 PG 986
MB 2014 PG 313

(56) JERRY TUCKER
DB 2208 PG 537
MB 2001 PG 641

KENNETH SNIPES
DB 3372 PG 76

(57) CLAY GARDNER
DB 3454 PG 424

(58)

(52) W E COLLIER
DB 2768 PG 34

(53) A M COLLIER
DB 3278 PG 598

(54) A M COLLIER
DB 3278 PG 600

(55) NANCY CURRIN
DB 2627 PG 807
MB 2009 PG 275

(49) BARBARA SMETZER
DB 2038 PG 935

SITE 13

SITE 14

-L- NC 55

FILL IN WETLAND

N 48°15'11.4" W

-Y4A- ACCESS ROAD

TERMINAL END SECTION
BEGIN CONSTRUCTION
-Y4A- POT Sta. 11+40.00

TOE
TOE

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL
4' BASE DITCH
SEE DETAIL 31

DRIVEWAY FLARE OUT
SEE DETAIL 55

DRIVEWAY FLAREOUT
SEE DETAIL 55

ACCESS POINT

PUE

REMOVE

18"

15" RCP-IV

TB 2GI

DI

GRADE TO DRAIN
SEE CROSS SECTIONS
APPROX GRADE = 4.0%

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

STANDARD 'V' DITCH
SEE DETAIL 20
EST. 55 C.Y. DDE

SPECIAL CUT
'V' DITCH
SEE DETAIL 21

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

DITCH ENTERING WETLAND CALCS
-L- STA. 100+25 RT

DA	0.66 AC.
C	0.50
I_{10}	6.2 IN/HR
Q_{10}	2.06 C.F.S.
V_c	1.24 F.P.S.
SLOPE	0.004 FT/FT
N	0.035
LINER TYPE	NONE

SEE SHEET 2B-2 FOR INTERSECTION DETAIL
SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 37 FOR -Y4A- PROFILE

11/15/2021

Submitted 12/21/2021

REVISIONS 5/14/99

11/15/2021

LEGEND

F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 27 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 92+50 (SEE SHEET 9)

MATCHLINE -L- STA 105+50 (SEE SHEET 11)

SITE 13

SITE 14

POND

WOODS

CULTIVATED

95+00

100+00

105+00

TOE

51 ISABEL LOREDO
DB 3288 PG 986
MB 2014 PG 313

56 JERRY TUCKER
DB 2208 PG 537
MB 2001 PG 641

KENNETH SNIPES
DB 3372 PG 76

57 CLAY GARDNER
DB 3454 PG 424

52 W E COLLIER
DB 2768 PG 34

53 A M COLLIER
DB 3278 PG 598

54 A M COLLIER
DB 3278 PG 600

49 BARBARA SMETZER
DB 2038 PG 935

55 NANCY CURRIN
DB 2627 PG 807
MB 2009 PG 275

58

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL
4' BASE DITCH
SEE DETAIL 31

DRIVEWAY FLARE OUT
SEE DETAIL 55

DRIVEWAY FLAREOUT
SEE DETAIL 55

ACCESS POINT

PUE

REMOVE

TB 2GI

15" RCP-IV

18"

15"

GRADE TO DRAIN
SEE CROSS SECTIONS
APPROX GRADE = 4.0%

FILL IN WETLAND

NC 55

SSBW ELEC

EXIST R/W

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

STANDARD 'V' DITCH
SEE DETAIL 20
EST. 55 C.Y. DDE

SPECIAL CUT
'V' DITCH
SEE DETAIL 21

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

N 48°15'11.4" W

Y4A ACCESS ROAD

TERMINAL END SECTION

BEGIN CONSTRUCTION
-Y4A- POT Sta. 11+40.00

DITCH ENTERING WETLAND CALCS -L- STA. 100+25 RT	
DA	0.66 AC.
C	0.50
I_{10}	6.2 IN/HR
Q_{10}	2.06 C.F.S.
V_s	1.24 F.P.S.
SLOPE	0.004 FT/FT
N	0.035
LINER TYPE	NONE

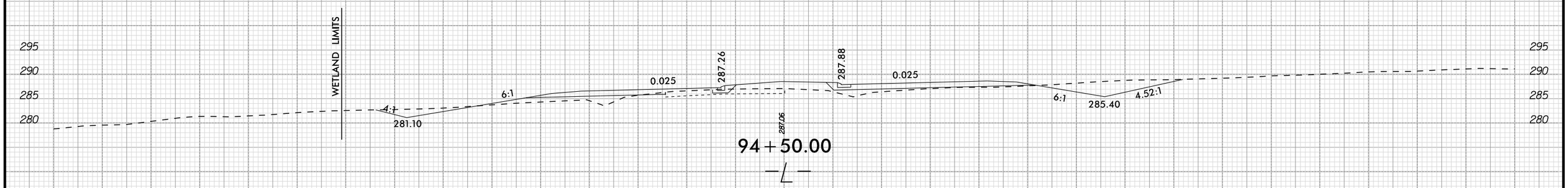
SEE SHEET 2B-2 FOR INTERSECTION DETAIL
SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 37 FOR -Y4A- PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 28 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 13



94+50.00
—℄—

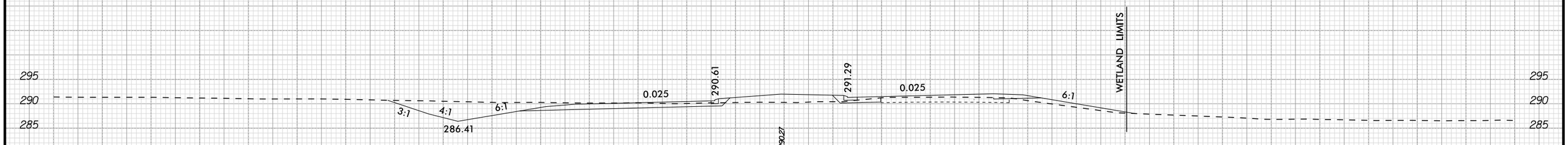
11/15/2021

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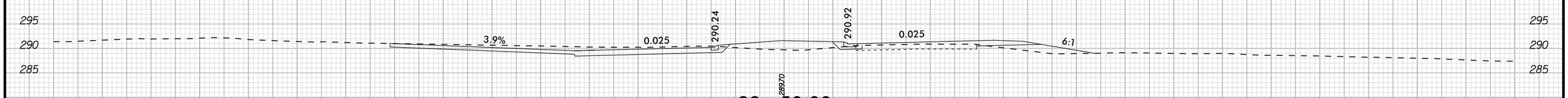
PERMIT DRAWING
SHEET 29 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 14



99+00.00



98+50.00

11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	P P	DENOTES IMPACTS IN SURFACE WATER (POND)

PERMIT DRAWING SHEET 30 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NC 2011

MATCHLINE -L- STA 105+50 (SEE SHEET 10)

MATCHLINE -L- STA 119+00 (SEE SHEET 12)

BEGIN CONSTRUCTION -Y4- POT Sta. 13+03.00

N 29° 36' 44.9" W

CURRIN HEIRS LLC DB 2612 PG 367

ENNIS RD 20' BST

OLD ENNIS RD -Y4-

S 76° 21' 12.4" E

EXIST R/W

GRADE TO DRAIN

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

REMOVE

GRADE TO DRAIN TO 15" RCP INLET

STANDARD 'V' DITCH SEE DETAIL 23

PDE

15" RCP

TDE

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

DO NOT DISTURB TREE

57 CLAY GARDNER DB 3454 PG 424

PROPOSED WORK (BY OTHERS)

LTIVATED

-Y4B- N 76° 21' 12.4" W ACCESS ROAD 2

INV=284.63'

24" RCP

RETAIN

BEGIN CONSTRUCTION -Y4B- POT Sta. 15+05.00

110+00

WOODS

59 CLAY GARDNER DB 3454 PG 424 MB 2009 PG 277

115+00

59 CLAY GARDNER DB 3454 PG 424 MB 2009 PG 277

CULTIVATED

60 HERMAN WOOD DB 904 PG 981

101 LINDA SEALE DB 3454 PG 424

15+00

N 22° 29' 23.7" E

GRADE TO DRAIN

STANDARD 4' BASE DITCH SEE DETAIL 26 BEGIN ELEV. 284.09 END ELEV. 281.50 GRADE AT 3.35% EST. 40 C.Y. DDE EST. 100 TONS CL-I RIPRAP EST. 220 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 56

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL CUT 'V' DITCH SEE DETAIL 25

-L- NC 55

SITE 15

TB 2GI

15" RCP-IV

DI

30" RCP-IV

48" RCP-IV

RIPRAP PAD AT OUTLET 26 TONS CL-I RIPRAP 50 S.Y. GFD

RIPRAP PAD AT OUTLET 11 TONS CL-I RIPRAP 22 S.Y. GFD

20+00

58 CLAY GARDNER DB 3454 PG 422 MB 2009 PG 275

15+00

59 CLAY GARDNER DB 3454 PG 424 MB 2009 PG 277

N 48° 15' 11.4" W

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 36 EST. 180 TONS CL-I RIPRAP EST. 410 S.Y. GFD

S 78° 06' 51.3" W

BACKFILL POND AS NECESSARY TO ESTABLISH MIN. DEPTH IN DITCH. EST. 420 C.Y. BACKFILL

DRAIN POND VIA STANDARD 8' BASE DITCH SEE DETAIL 52 APPROX. GRADE =1.0% EST. 450 TONS CL-I RIPRAP EST. 800 S.Y. GFD EST. 150 C.Y. DDE

-Y4A- ACCESS ROAD 1 N 47° 59' 00.9" W

20+00

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

SPECIAL CUT DITCH SEE DETAIL 21

25+00

END CONSTRUCTION -Y4A- POT Sta. 12+90.74

CULTIVATED

55 NANCY CURRIN DB 2627 PG 807 MB 2009 PG 275

BEGIN CONSTRUCTION -Y4A- POT Sta. 17+50.00

SITE 16

END CONSTRUCTION -Y4- POT Sta. 25+77.00

NC 55 BUSINESS -Y4- N 48° 18' 23.2" W

STANDARD 4' BASE DITCH SEE DETAIL 28 GRADE AT 0.6% EST. 100 C.Y. DDE EST. 60 TONS CL-II RIPRAP EST. 150 S.Y. GFD

STANDARD 4' BASE DITCH SEE DETAIL 27 GRADE AT 0.6% EST. 110 C.Y. DDE EST. 45 TONS CL-I RIPRAP EST. 140 S.Y. GFD

102 NANCY CURRIN DB 2933 PG 858 MB 2009 PG 277

DITCH ENTERING WETLAND CALCS -L- STA. 106+30 TO 108+40 LT	
DA	2.05 AC.
C (FUTURE)	0.52
I_m	6.2 IN./HR
Q_m (FUTURE)	6.63 C.F.S
V_m (FUTURE)	1.88 F.P.S
SLOPE	0.022 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 108+40 TO 109+00 LT	
DA	1.63 AC.
C (FUTURE)	0.50
I_m	6.2 IN./HR
Q_m (FUTURE)	5.05 C.F.S
V_m (FUTURE)	1.94 F.P.S
SLOPE	0.008 FT/FT
N	0.035
LINER TYPE	NONE

OUTFALL DITCH THROUGH WETLAND CALCS -L- STA. 108+30 HEAD DITCH	
DA	20.53 AC.
C (FUTURE)	0.50
I_m	5.2 IN./HR
Q_m (FUTURE)	53.45 C.F.S
V_m (FUTURE)	3.76 F.P.S
SLOPE	0.033 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 108+50 TO 109+50 RT	
DA	0.78 AC.
C	0.33
I_m	6.2 IN./HR
Q_m	1.59 C.F.S
V_m	1.10 F.P.S
SLOPE	0.004 FT/FT
N	0.035
LINER TYPE	NONE

DITCH ENTERING WETLAND CALCS -Y4- STA. 22+00 TO 22+40 LT	
DA	2.01 AC.
C (FUTURE)	0.51
I_m	6.2 IN./HR
Q_m (FUTURE)	6.32 C.F.S
V_m (FUTURE)	1.98 F.P.S
SLOPE	0.009 FT/FT
N	0.035
LINER TYPE	NONE

DITCH ENTERING WETLAND CALCS -Y4- STA. 21+10 TO 22+00 LT	
DA	4.98 AC.
C (FUTURE)	0.56
I_m	6.2 IN./HR
Q_m (FUTURE)	17.20 C.F.S
V_m (FUTURE)	2.92 F.P.S
SLOPE	0.05 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

SEE SHEET 2B-2 & 2B-5 FOR INTERSECTION DETAIL
SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 34 FOR -Y4- PROFILE
SEE SHEET 37 FOR -Y4A- PROFILE
SEE SHEET 38 FOR -Y4B- PROFILE

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	P P	DENOTES IMPACTS IN SURFACE WATER (POND)

PERMIT DRAWING SHEET 31 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NC 2011

MATCHLINE -L- STA 105+50 (SEE SHEET 10)

MATCHLINE -L- STA 119+00 (SEE SHEET 12)

BEGIN CONSTRUCTION -Y4B- POC Sta. 10+02.00
END CONSTRUCTION -Y4B- POC Sta. 11+10.00

BEGIN CONSTRUCTION -Y4B- POT Sta. 15+05.00

BEGIN CONSTRUCTION -Y4- POT Sta. 13+03.00

END CONSTRUCTION -Y4A- POT Sta. 12+90.74

BEGIN CONSTRUCTION -Y4A- POT Sta. 17+50.00

END CONSTRUCTION -Y4- POT Sta. 25+77.00

N 76° 21' 12.4" W ACCESS ROAD 2 -Y4B-

S 76° 21' 12.4" E OLD ENNIS RD -Y4-

N 47° 59' 00.9" W ACCESS ROAD 1 -Y4A-

N 48° 15' 11.4" W

N 29° 36' 44.9" W

N 22° 29' 23.7" E

S 78° 06' 51.3" W

NC 55 BUSINESS -Y4- N 48° 18' 23.2" W

SITE 15

SITE 16

CLAY GARDNER DB 3454 PG 424

CLAY GARDNER DB 3454 PG 424 MB 2009 PG 277

CLAY GARDNER DB 3454 PG 422 MB 2009 PG 275

CURRIN HEIRS LLC DB 2612 PG 367

LINDA SEALE DB 3454 PG 424

HERMAN WOOD DB 904 PG 981

NANCY CURRIN DB 2627 PG 807 MB 2009 PG 275

NANCY CURRIN DB 2933 PG 858 MB 2009 PG 277

PROPOSED WORK (BY OTHERS)

GRADE TO DRAIN

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

REMOVE

GRADE TO DRAIN TO 15" RCP INLET

STANDARD 'V' DITCH SEE DETAIL 23

RETAIN

GRADE TO DRAIN

STANDARD '4' BASE DITCH SEE DETAIL 26 BEGIN ELEV. 284.09 END ELEV. 281.50 GRADE AT 3.35% EST. 40 C.Y. DDE EST. 100 TONS CL-I RIPRAP EST. 220 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 56

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

DO NOT DISTURB TREE

SPECIAL CUT 'V' DITCH SEE DETAIL 25

RIPRAP PAD AT OUTLET 11 TONS CL-I RIPRAP 22 S.Y. GFD

RIPRAP PAD AT OUTLET 20 TONS CL-I RIPRAP 50 S.Y. GFD

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 36 EST. 180 TONS CL-I RIPRAP EST. 410 S.Y. GFD

BACKFILL POND AS NECESSARY TO ESTABLISH MIN. DEPTH IN DITCH. EST. 420 C.Y. BACKFILL

DRAIN POND VIA STANDARD 8" BASE DITCH SEE DETAIL 52 APPROX. GRADE = 1.0% EST. 450 TONS CL-I RIPRAP EST. 800 S.Y. GFD EST. 150 C.Y. DDE

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

SPECIAL CUT DITCH SEE DETAIL 21

REMOVE

STANDARD 4' BASE DITCH SEE DETAIL 28 GRADE AT 0.6% EST. 100 C.Y. DDE EST. 60 TONS CL-II RIPRAP EST. 150 S.Y. GFD

STANDARD 4' BASE DITCH SEE DETAIL 27 GRADE AT 0.6% EST. 110 C.Y. DDE EST. 45 TONS CL-I RIPRAP EST. 140 S.Y. GFD

DITCH ENTERING WETLAND CALCS -L- STA. 106+30 TO 108+40 LT	
DA	2.05 AC.
C (FUTURE)	0.52
I_m	6.2 IN./HR
Q_m (FUTURE)	6.63 C.F.S
V_m (FUTURE)	1.88 F.P.S
SLOPE	0.022 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 108+40 TO 109+00 LT	
DA	1.63 AC.
C (FUTURE)	0.50
I_m	6.2 IN./HR
Q_m (FUTURE)	5.05 C.F.S
V_m (FUTURE)	1.94 F.P.S
SLOPE	0.008 FT/FT
N	0.035
LINER TYPE	NONE

OUTFALL DITCH THROUGH WETLAND CALCS -L- STA. 108+30 HEAD DITCH	
DA	20.53 AC.
C (FUTURE)	0.50
I_m	5.2 IN./HR
Q_m (FUTURE)	53.45 C.F.S
V_m (FUTURE)	3.76 F.P.S
SLOPE	0.033 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

DITCH ENTERING WETLAND CALCS -L- STA. 108+50 TO 109+50 RT	
DA	0.78 AC.
C	0.33
I_m	6.2 IN./HR
Q_m	1.59 C.F.S
V_m	1.10 F.P.S
SLOPE	0.004 FT/FT
N	0.035
LINER TYPE	NONE

DITCH ENTERING WETLAND CALCS -Y4- STA. 22+00 TO 22+40 LT	
DA	2.01 AC.
C (FUTURE)	0.51
I_m	6.2 IN./HR
Q_m (FUTURE)	6.32 C.F.S
V_m (FUTURE)	1.98 F.P.S
SLOPE	0.009 FT/FT
N	0.035
LINER TYPE	NONE

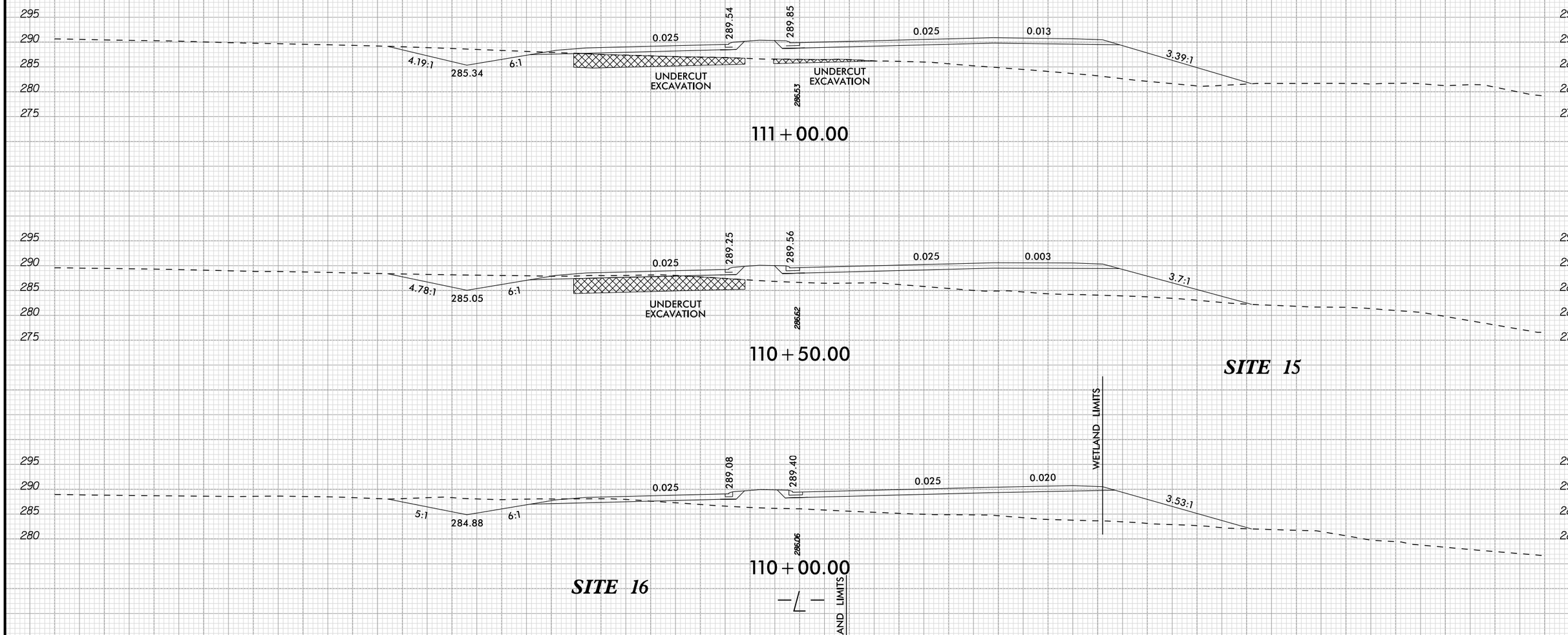
DITCH ENTERING WETLAND CALCS -Y4- STA. 21+10 TO 22+00 LT	
DA	4.98 AC.
C (FUTURE)	0.56
I_m	6.2 IN./HR
Q_m (FUTURE)	17.20 C.F.S
V_m (FUTURE)	2.92 F.P.S
SLOPE	0.05 FT/FT
N	0.072
LINER TYPE	CL-I RIPRAP

SEE SHEET 2B-2 & 2B-5 FOR INTERSECTION DETAIL
SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 34 FOR -Y4- PROFILE
SEE SHEET 37 FOR -Y4A- PROFILE
SEE SHEET 38 FOR -Y4B- PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 32 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -



11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
F F — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	

PERMIT DRAWING
SHEET 33 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

CHRISTOPHER SCOTT
DB 1268 PG 466

CLYDE SNYDER
DB 1223 PG 264

JOHNNY PEARCE
DB 3011 PG 477

CECIL AUSLEY
DB 2006 PG 688

DETRICE JOHNSON
DB 3544 PG 730

ADRIANO ALVAREZ
DB 2199 PG 280

JUAN GONZALEZ
DB 2377 PG 712
PC# F PG 620A

DAVID FELDMANN
DB 3586 PG 623
PC# RCPG 620A

HERMAN WOOD
DB 904 PG 981

HERMAN WOOD
DB 612 PG 58

JAMES BURGIN
DB 1880 PG 98
MB 2000 PG 565

JAMES BURGIN
DB 1880 PG 98
MB 2000 PG 565

TONY MABRY
DB 1417 PG 6
MB 2000 PG 279

HERMAN WOOD
DB 904 PG 981

JAMES BURGIN
DB 1321 PG 0296

OLD ENNIS RD
N 67° 11' 39.9" W

ENNIS RD 20' BST

BEGIN CONSTRUCTION
-Y5B- POT Sta. 12+15.00

END CONSTRUCTION
-Y5B- POT Sta. 13+19.00

TERMINAL END SECTION

SITE 17

SITE 18

MATCHLINE -L- STA 119+00 (SEE SHEET 11)

MATCHLINE -L- STA 133+00 (SEE SHEET 13)

SEE SHEET 2B-2 & 2B-3 FOR INTERSECTION DETAIL
SEE SHEET 29 FOR -L- PROFILE
SEE SHEET 38 FOR -Y5A- PROFILE

11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING		

PERMIT DRAWING SHEET 34 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 119+00 (SEE SHEET 11)

MATCHLINE -L- STA 133+00 (SEE SHEET 13)

SITE 17

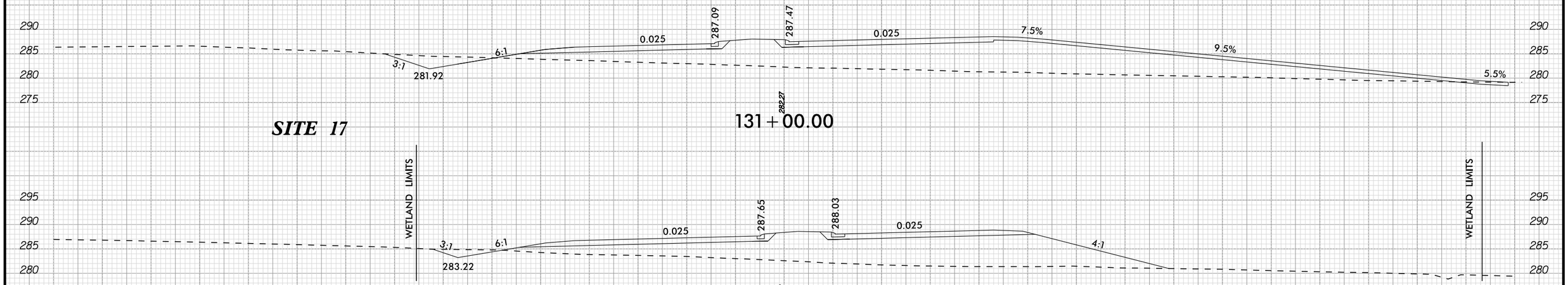
SITE 18

SEE SHEET 2B-2 & 2B-3 FOR INTERSECTION DETAIL
SEE SHEET 29 FOR -L- PROFILE
SEE SHEET 38 FOR -Y5A- PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 35 OF 71

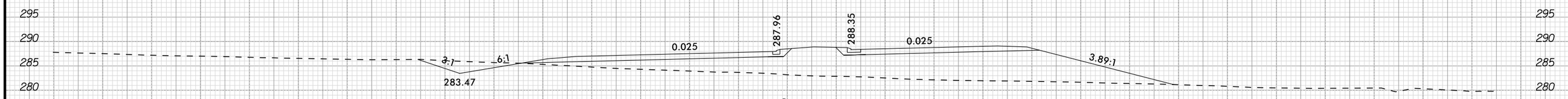
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -



SITE 17

131+00.00

128+50.00



128+00.00

11/15/2021

Submitted 12/21/2021

REVISIONS 5/14/99

11/15/2021

LEGEND

- F F — DENOTES FILL IN WETLAND
- P P — DENOTES IMPACTS IN SURFACE WATER (POND)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 36 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

-Y5- SR 1540 (MONTAGUE RD) N 0° 58' 22" E

BEGIN CONSTRUCTION
-Y5- POT Sta. 19+76.00

135+00 | 20+00 | 140+00 | 145+00

DITCH WETLAND CALCS -L- STA. 140+00 LT.	
DA	2.05 AC.
C (FUTURE)	0.55
I_{10}	6.2 IN/HR
Q_{10} (FUTURE)	6.99 C.F.S.
V_{10} (FUTURE)	1.96 F.P.S.
SLOPE	0.007 FT/FT
N	0.04
LINER TYPE	GRASS

JON SALSBURY
DB 2382 PG 966
PC# F PG 620A

JUAN GONZALEZ
DB 2377 PG 712
PC# F PG 620A

(104) DAVID FELDMANN
DB 3586 PG 623
PC# F PG 620A

(103) BENNIE MANGUM
DB 799 PG 611

(64) JOSEPH LIPSCOMB
DB 1903 PG 67

(65) WILLIAM HAWLEY
DB 1889 PG 108
MB 2016 PG 67

(66) WILLIAM HAWLEY
DB 1889 PG 108
MB 2016 PG 67

(67) DANIEL HONEYCUTT
DB 3182 PG 966

(62) TONY MABRY
DB 1417 PG 6
MB 2000 PG 279

(63) CHRISTY JORDAN
DB 3524 PG 729
MB 2000 PG 466

(105) STEPHEN YEO
DB 3359 PG 962
MB 2000 PG 466

LETESHA WYNN
DB 2436 PG 830
MB 2000 PG 466

BOBBY MABRY
DB 3404 PG 350
MB 2016 PG 25

SHIRLEY HAWLEY
DB 3184 PG 180

THOMAS NORMAN
DB 2175 PG 234

CULTIVATED

SITE 19

N 22° 47' 34.0" W

N 46° 27' 13.9" W

N 47° 29' 43.8" W

S 84° 06' 40.8" W

-L- NC 55

-Y5A- SR 1543 (EWNS RD)

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

STANDARD 'V' DITCH SEE DETAIL 29 EST. 5 C.Y. DDE APPROX. GRADE=3.6%

SPECIAL CUT 'V' DITCH SEE DETAIL 30

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

20' RIPRAP PAD AT OUTLET 16 TONS CL-B RIPRAP 44 S.Y. GFD

GRADE TO DRAIN REMOVE ABANDONED DRIVEWAY

GRADE TO DRAIN APPROX. GRADE=4.0%

RETAIN

ACCESS POINT

REMOVE

15" RCP-IV | 24" RCP-IV | 30" RCP-IV | TB 2GI | TB 2GI-A | DI

PUE

MATCHLINE -L- STA 133+00 (SEE SHEET 12)

MATCHLINE -L- STA 146+50 (SEE SHEET 14)

END CONSTRUCTION
-Y5A- POT Sta. 13+80.00

SEE SHEET 2B-3 FOR INTERSECTION DETAIL
SEE SHEET 29 FOR -L- PROFILE
SEE SHEETS 34 AND 35 FOR -Y5- PROFILE

Submitted 12/21/2021

REVISIONS 5/14/99

11/15/2021

LEGEND

F F DENOTES FILL IN WETLAND

P P DENOTES IMPACTS IN SURFACE WATER (POND)

HC HC DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 37 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

JON SALISBURY
DB 2382 PG 966
PC# F PG 620A

JUAN GONZALEZ
DB 2377 PG 712
PC# F PG 620A

DAVID FELDMANN
DB 3586 PG 623
PC# F PG 620A

BENNIE MANGUM
DB 799 PG 611

JOSEPH LIPSCOMB
DB 1903 PG 67

WILLIAM HAWLEY
DB 1889 PG 108
MB 2016 PG 67

TONY MABRY
DB 1417 PG 6
MB 2000 PG 279

CHRISTY JORDAN
DB 3524 PG 729
MB 2000 PG 466

STEPHEN YEO
DB 3359 PG 962
MB 2000 PG 466

LETESHA WYNN
DB 2136 PG 830
MB 2000 PG 466

BOBBY MABRY
DB 3404 PG 350
MB 2016 PG 25

SHIRLEY HAWLEY
DB 3184 PG 180

DANIEL HONEYCUTT
DB 3182 PG 966

THOMAS NORMAN
DB 2175 PG 234

SR 1540 (MONTAGUE RD) N 0°58'22" E

-Y5- POT Sta. 19+76.00 BEGIN CONSTRUCTION

-Y5A- POT Sta. 13+80.00 END CONSTRUCTION

-Y5A- SR 1543 (LEWIS RD)

-L- NC 55

MATCHLINE -L- STA 133+00 (SEE SHEET 12)

MATCHLINE -L- STA 146+50 (SEE SHEET 14)

SITE 19

N 22°47' 34.0" W

N 46° 27' 13.9" W

N 47° 29' 43.8" W

S 84° 06' 40.8" W

DITCH WETLAND CALCS -L- STA. 140+00 LT.	
DA	2.05 AC.
C (FUTURE)	0.55
I_{10}	6.2 IN/HR
Q_{10} (FUTURE)	6.99 C.F.S.
V_{10} (FUTURE)	1.96 F.P.S.
SLOPE	0.007 FT/FT
N	0.04
LINER TYPE	GRASS

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

GRADE TO DRAIN APPROX GRADE = 4.0%

REMOVE

20' RIPRAP PAD AT OUTLET
16 TONS CL-B RIPRAP
44 S.Y. GFD

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

GRADE TO DRAIN
REMOVE ABANDONED DRIVEWAY

STANDARD 'V' DITCH SEE DETAIL 29
EST. 5 C.Y. DDE
APPROX. GRADE = 3.0%

SPECIAL CUT 'V' DITCH SEE DETAIL 30

RETAIN

ACCESS POINT

TB 2GI

TB 2GI-A

15" RCP-IV

18" RCP-IV

24" RCP-IV

30" RCP-IV

DI

PUE

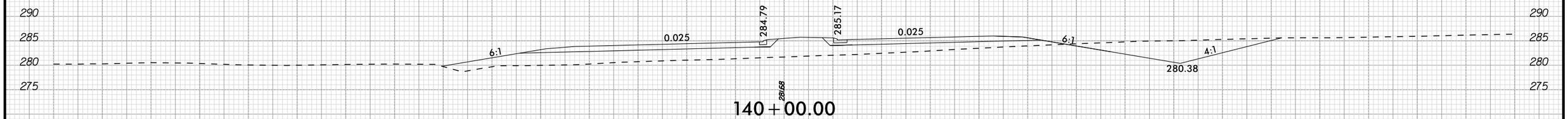
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SEE SHEET 2B-3 FOR INTERSECTION DETAIL
SEE SHEET 29 FOR -L- PROFILE
SEE SHEETS 34 AND 35 FOR -Y5- PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 38 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -



140+00.00



139+50.00

SITE 19



139+00.00

11/15/2021

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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REVISIONS
5/14/99

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING		

PERMIT DRAWING
SHEET 39 OF 71

MATCHLINE -L- STA 146+50 (SEE SHEET 13)

MATCHLINE -L- STA 160+50 (SEE SHEET 15)

66 WILLIAM HAWLEY
DB 1889 PG 108
MB 2016 PG 67

67 DANIEL HONEYCUTT
DB 3182 PG 966

68 SUNFLIGHT LLC
DB 1690 PG 178

69 STEVEN WICKER
DB 1889 PG 51
MB 2004 PG 81

70 NORDAN FARMS INC
DB 1690 PG 178

12' WD

GR

CULTIVATED

POND

SOIL

S 84° 06' 40.8" W

-L- NC 55

150+00

155+00

160+00

SITE 20

ACCESS POINT

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 17

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

LATERAL 'V' DITCH
SEE DETAIL 10
EST. 80 C.Y. DDE

EST. 45 TONS CL-I RIPRAP ON BANKS
EST. 10 TONS COUNTERSUNK CL-I RIPRAP IN STREAM BED
SUPPLEMENT VOIDS W/
EST. 3 TONS CL-B RIPRAP
EST. 70 S.Y. GFD
SEE DETAIL 46

66" RCP-IV
(1.0' BURIED)

TB 2GI-A
15" RCP-IV
TB 2GI
15" RCP-IV
TB 2GI
15" RCP-IV
TB 2GI
15" RCP-IV

REMOVE

SPECIAL LATERAL
2' BASE DITCH
SEE DETAIL 16

PIPE FLAREOUT
SEE DETAIL 55

SEDIMENT CONTROL BASIN

SPECIAL CUT 'V' DITCH
SEE DETAIL 21

CLEAN WATER DIVERSION

DITCH WETLAND CALCS -L- STA. 154+05 RT.	
DA	8.21 AC.
C (FUTURE)	0.50
I_{10}	5.2 IN./HR
Q_{10} (FUTURE)	21.32 C.F.S.
V_c (FUTURE)	3.46 F.P.S.
SLOPE	0.015 FT/FT
N	0.035
LINER TYPE	GRASS

DESIGN NOTE:
UNABLE TO ACHIEVE <2 FPS VELOCITY INTO WETLAND DUE TO EXISTING DITCH HAVING >2 FPS VELOCITY INTO WETLAND (SEE CALCULATIONS ABOVE)

SEE SHEET 2B-3 FOR INTERSECTION DETAIL
SEE SHEET 30 FOR -L- PROFILE

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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INCOMPLETE PLANS
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REVISIONS
5/14/99

11/15/2021

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
E E — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	

PERMIT DRAWING
SHEET 40 OF 71

MATCHLINE -L- STA 146+50 (SEE SHEET 13)

MATCHLINE -L- STA 160+50 (SEE SHEET 15)

150+00

155+00

160+00

-L- NC 55

S 84° 06' 40.8" W

SITE 20

ACCESS POINT

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 17

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

LATERAL 'V' DITCH
SEE DETAIL 10
EST. 80 C.Y. DDE

EST. 45 TONS CL-I RIPRAP ON BANKS
EST. 10 TONS COUNTERSUNK CL-I RIPRAP IN STREAM BED
SUPPLEMENT VOIDS W/
EST. 3 TONS CL-B RIPRAP
EST. 70 S.Y. GFD
SEE DETAIL 46

66" RCP-IV (1.0' BURIED)

TB 2GI-A
15" RCP-IV
TB 2GI
15" RCP-IV
15" RCP-IV
TB 2GI
15" RCP-IV
TB 2GI

REMOVE

66" RCP-IV (1.0' BURIED)

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 16

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 16

SPECIAL CUT 'V' DITCH
SEE DETAIL 21

PIPE FLAREOUT
SEE DETAIL 55

PIPE FLAREOUT
SEE DETAIL 55

SEDIMENT CONTROL BASIN

ACCESS POINT

CLEAN WATER DIVERSION

67 DANIEL HONEYCUTT
DB 3182 PG 966

68 SUNFLIGHT LLC
DB 1690 PG 178

69 STEVEN WICKER
DB 1889 PG 51
MB 2004 PG 81

70 NORDAN FARMS INC
DB 1690 PG 178

CULTIVATED

POND

DITCH WETLAND CALCS -L- STA. 154+05 RT.	
DA	8.21 AC.
C (FUTURE)	0.50
I_{10}	5.2 IN./HR
Q_{10} (FUTURE)	21.32 C.F.S.
V_c (FUTURE)	3.46 F.P.S.
SLOPE	0.015 FT/FT
N	0.035
LINER TYPE	GRASS

DESIGN NOTE:
UNABLE TO ACHIEVE <2 FPS VELOCITY INTO WETLAND DUE TO EXISTING DITCH HAVING >2 FPS VELOCITY INTO WETLAND (SEE CALCULATIONS ABOVE)

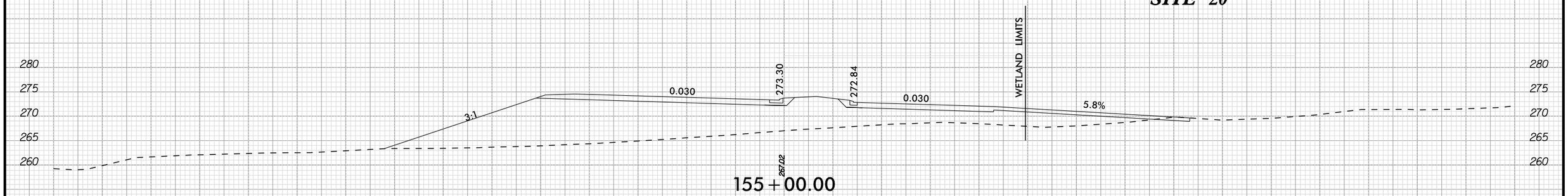
SEE SHEET 2B-3 FOR INTERSECTION DETAIL
SEE SHEET 30 FOR -L- PROFILE

Submitted 12/21/2021

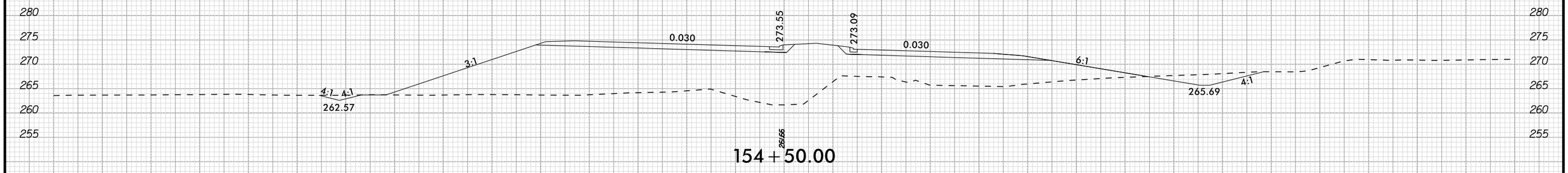
PERMIT DRAWING
SHEET 41 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

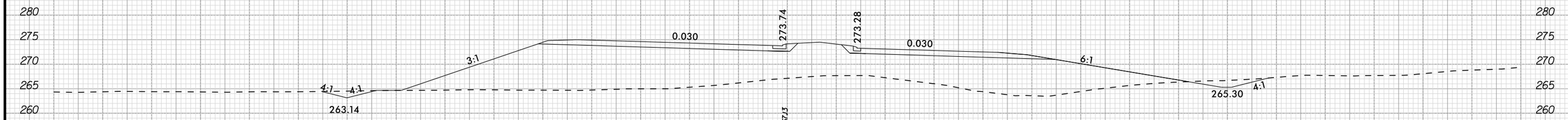
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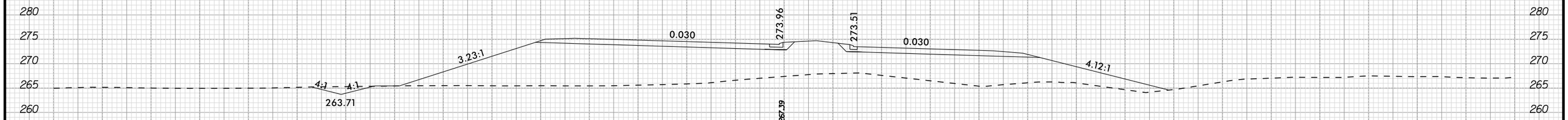
155 + 00.00



154 + 50.00



154 + 25.00



154 + 00.00
—℄—

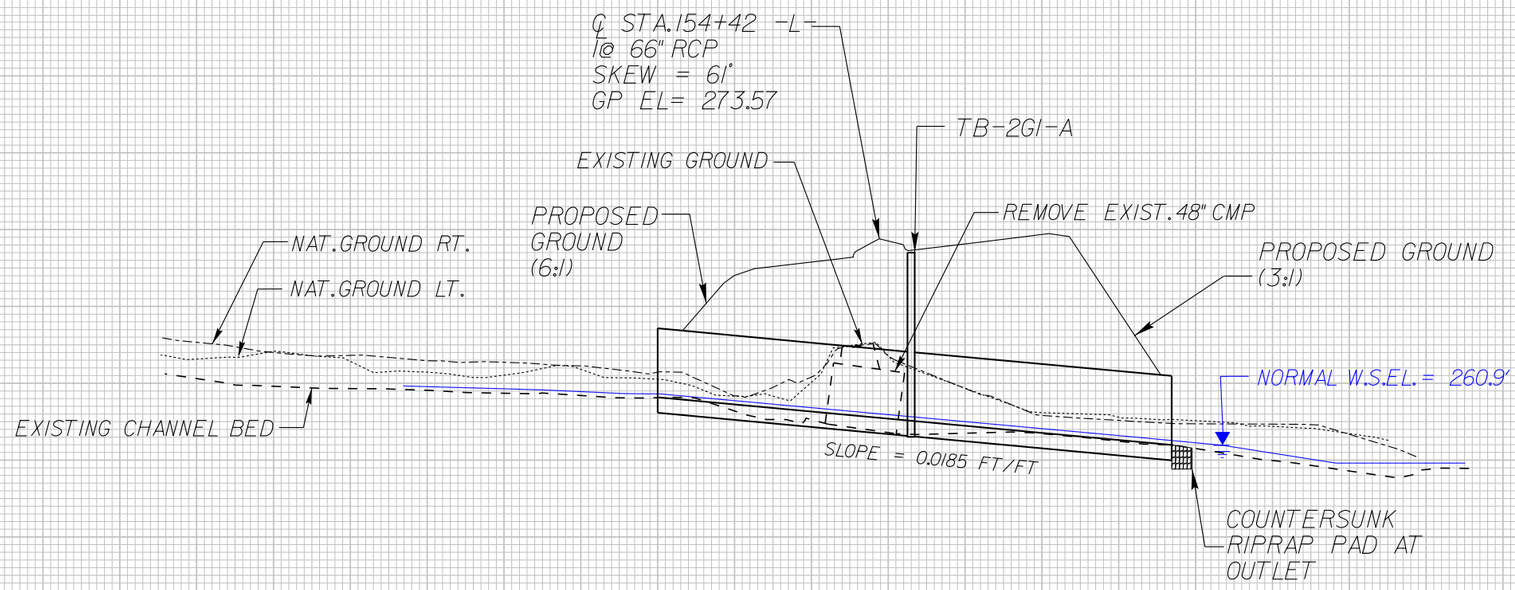
11/15/2021

Submitted 12/21/2021

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

PERMIT DRAWING SHEET 42 OF 71

SITE 20



11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 43 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 160+50 (SEE SHEET 14)

MATCHLINE -L- STA 174+50 (SEE SHEET 16)

SITE 22

SITE 21

SITE 23

-Y6- SR 1542 (OLD BUIES CREEK RD) N 12° 08' 31" E

-Y6- SR 1542 (OLD BUIES CREEK RD) N 46° 38' 57.9" E

-Y6A- GARDNER RD N 85° 26' 54.9" W

N 87° 24' 27.9" W

N 89° 47' 18.5" W

-L- NC 55

BEGIN CONSTRUCTION -Y6- POT Sta.13+41.00

END CONSTRUCTION -Y6- POT Sta.22+44.00

END CONSTRUCTION -DRW2- PT Sta. 12+00.00

BEGIN CONSTRUCTION -Y6A- POC Sta.16+66.00

END CONSTRUCTION -Y6A- POC Sta.11+17.00
DO NOT DISTURB TREES

END CONSTRUCTION -Y6A- POC Sta.18+19.00

165+00 | 170+00 | 15+00 | 20+00

68 SUNFLIGHT LLC DB 1690 PG 178

72 SUNFLIGHT LLC DB 1690 PG 178

73 SUNFLIGHT LLC DB 1690 PG 178

74 DOUGLAS WILLIAMS DB 2663 PG 491

71 JAMIE MASON DB 2721PG 84

70 NORDAN FARMS INC DB 1690 PG 178

106 CONNIE ADAMS DB 950 PG 790

107 GILBERT RITTER DB 1183 PG 808

CONNIE RITTER DB 1857 PG 257

CHRISTIAN CRUZ DB 3447 PG 522

RICHARD MILLER DB 3415 PG 856 MB 2004 PG 428

SUNNY DEAN DB 3502 PG 424 MB 2015 PG 249

81 PUE

STANDARD 6' BASE DITCH
SEE DETAIL 64
EST. 20 C.Y. DDE
EST. 50 TONS CL-I RIP RAP
EST. 100 S.Y. GFD

TOE PROTECTION
SEE DETAIL 12
EST. 42 TONS CL-B RIPRAP
EST. 130 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

SPECIAL LATERAL 'V' DITCH SEE DETAIL 33

SPECIAL LATERAL 'V' DITCH SEE DETAIL 50

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14 S.Y. GFD

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

FALSE SUMP TO ELEV. 279.9' SEE DETAIL 32

SPECIAL CUT DITCH SEE DETAIL 21

STANDARD 'V' DITCH
SEE DETAIL 29
EST. 35 C.Y. DDE
APPROX. GRADE=2.0%

36" RCP-IV | 30" RCP-IV | 24" RCP-IV | 15" RCP-IV | 15" RCP

TB 2GI-A | TB 2GI

REMOVE | RETAIN | GRADE TO DRAIN

DITCH WETLAND CALCS -L- STA. 161+80 RT

DA	0.63 AC.
C (FUTURE)	0.56
I_{10}	6.2 IN./HR
Q_p (FUTURE)	2.17 C.F.S
V_p (FUTURE)	1.76 F.P.S
SLOPE	0.016 FT/FT
N	0.035
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA. 161+80 RT

DA	2.42 AC.
C (FUTURE)	0.55
I_{10}	6.2 IN./HR
Q_p (FUTURE)	7.78 C.F.S
V_p (FUTURE)	1.53 F.P.S
SLOPE	0.004 FT/FT
N	0.35
LINER TYPE	GRASS

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 44 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 160+50 (SEE SHEET 14)

MATCHLINE -L- STA 174+50 (SEE SHEET 16)

SITE 22

SITE 23

SITE 21

BEGIN CONSTRUCTION -Y6- POT Sta.13+41.00

END CONSTRUCTION -DRW2- PT Sta. 12+00.00

END CONSTRUCTION -Y6- POT Sta.22+44.00

BEGIN CONSTRUCTION -Y6A- POC Sta.16+66.00

END CONSTRUCTION -Y6A- POC Sta.11+17.00
DO NOT DISTURB TREES

END CONSTRUCTION -Y6A- POC Sta.18+19.00

TERMINAL END SECTION

-Y6- SR 1542 (OLD BUIES CREEK RD) N 12° 08' 31" E

-Y6- SR 1542 (OLD BUIES CREEK RD) N 46° 38' 57" E

-Y6A- GARDNER RD N 85° 26' 54" W

N 87° 24' 27" W

N 89° 47' 18.6" W

-L- NC 55

15+00

165+00

170+00

20+00

15+00

SUNFLIGHT LLC DB 1690 PG 178 (68, 72, 73)

DOUGLAS WILLIAMS DB 2663 PG 491 (74)

JAMIE MASON DB 2721 PG 84 (71)

NORDAN FARMS INC DB 1690 PG 178 (70)

CONNIE ADAMS DB 950 PG 790 (106)

GILBERT RITTER DB 1183 PG 808 (107)

CONNIE RITTER DB 1857 PG 257

CHRISTIAN CRUZ DB 3447 PG 522

RICHARD MILLER DB 3416 PG 856 MB 2004 PG 428

SUNNY DEAN DB 3502 PG 424 MB 2015 PG 249

(81)

STANDARD 6' BASE DITCH SEE DETAIL 64
EST. 20 C.Y. DDE
EST. 50 TONS CL-I RIP RAP
EST. 100 S.Y. GFD

TOE PROTECTION SEE DETAIL 12
EST. 42 TONS CL-B RIPRAP
EST. 130 S.Y. GFD

RETAIN

36" RCP-IV

15" RCP-IV

TB 2GI-A

TB 2GI

DI

REMOVE

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14 S.Y. GFD

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

24" RCP-IV

30" RCP-IV

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

SPECIAL LATERAL 'V' DITCH SEE DETAIL 33

SPECIAL LATERAL 'V' DITCH SEE DETAIL 50

FALSE SUMP TO ELEV. 279.9' SEE DETAIL 32

SPECIAL CUT DITCH SEE DETAIL 21

STANDARD 'V' DITCH SEE DETAIL 29
EST. 35 C.Y. DDE
APPROX. GRADE=2.0%

GRADE TO DRAIN

DO NOT DISTURB WELL

ACCESS POINT

PUE

CULTIVATED

DECK

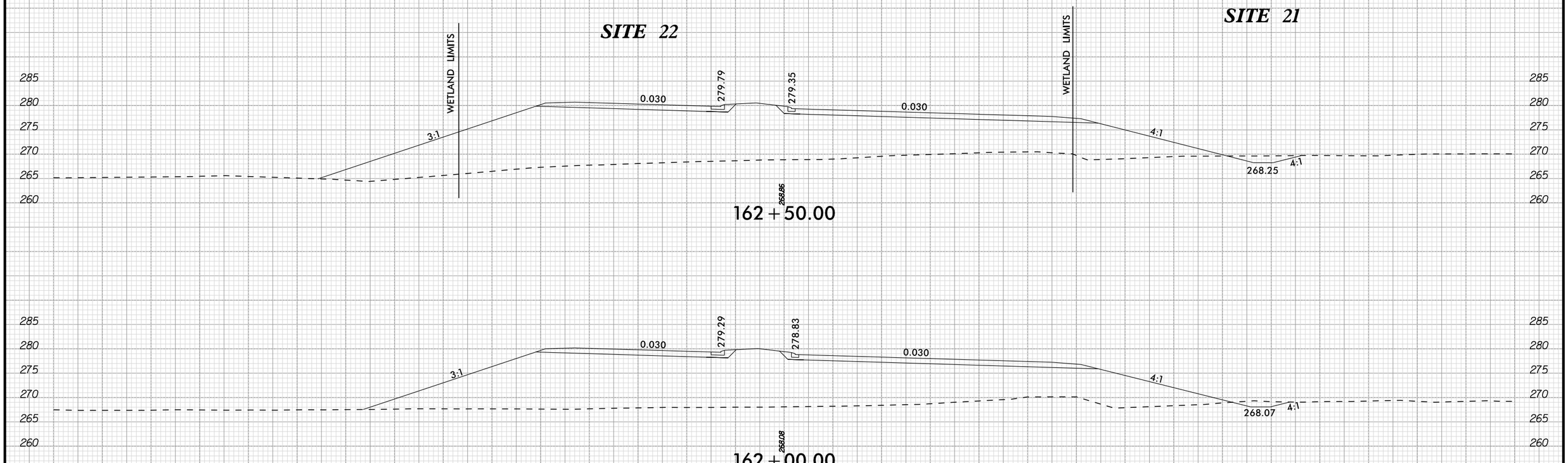
DITCH WETLAND CALCS -L- STA. 161+80 RT	
DA	0.63 AC.
C (FUTURE)	0.56
I_m	6.2 IN./HR
Q_m (FUTURE)	2.17 C.F.S.
V_m (FUTURE)	1.76 F.P.S.
SLOPE	0.016 FT/FT
N	0.035
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA. 161+80 RT	
DA	2.42 AC.
C (FUTURE)	0.55
I_m	6.2 IN./HR
Q_m (FUTURE)	7.78 C.F.S.
V_m (FUTURE)	1.53 F.P.S.
SLOPE	0.004 FT/FT
N	0.35
LINER TYPE	GRASS

Submitted 12/21/2021

PERMIT DRAWING
SHEET 45 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -



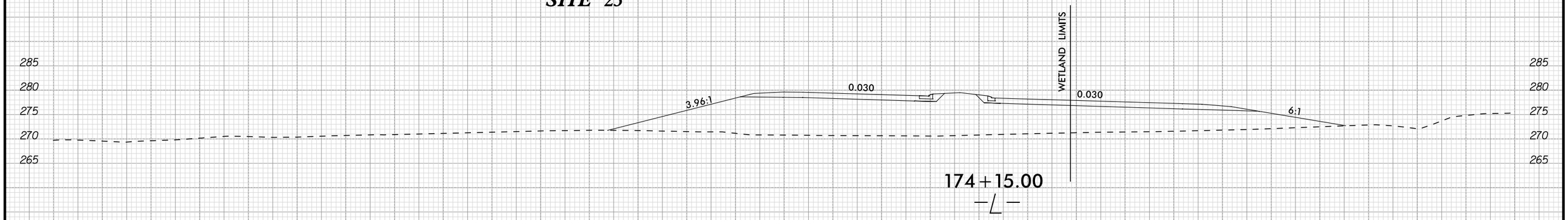
11/15/2021

Submitted 12/21/2021

PERMIT DRAWING
SHEET 46 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 23



11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	P P	DENOTES IMPACTS IN SURFACE WATER (POND)

PERMIT DRAWING
SHEET 47 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 174+50 (SEE SHEET 15)

MATCHLINE -L- STA 188+00 (SEE SHEET 17)

(76) ILLIAM TYSON
DB 1446 PG 986

(78) DAVID GARDNER
DB 1085 PG 714

(80) DAVID GARDNER
DB 1085 PG 714
MB 2003 PG 1243

(82) JAMES ALLEN
DB 3355 PG 413

(84) JEREMY SKOLOZYNSKI
DB 3258 PG 306
PC* E PG 118D

(85) MICHAEL ANTHONY
DB 1286 PG 579
PC* F PG 26B

(79) DAVID ADAMS
DB 1635 PG 609

(77) JERRY GREGORY
DB 1684 PG 453
MB 2000 PG 477

(75) RAFAEL CERVANTES
DB 2403 PG 599
MB 2000 PG 477

(81) CLINTON ADAMS
DB 1291 PG 300
MB 2003 PG 1071

(81) CLINTON ADAMS
DB 528 PG 185

(83) RICHARD HALL
DB 982 PG 219

DITCH WETLAND CALCS -L- STA. 181+50 LT.	
DA	1.32 AC.
C (FUTURE)	0.43
I_{10}	6.2 IN/HR
Q_v (FUTURE)	3.48 C.F.S
V_v (FUTURE)	1.5 F.P.S
SLOPE	0.005 FT/FT
N	0.035
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA. 182+50 LT.	
DA	0.74 AC.
C (FUTURE)	0.34
I_{10}	6.2 IN/HR
Q_v (FUTURE)	1.55 C.F.S
V_v (FUTURE)	1.8 F.P.S
SLOPE	0.015 FT/FT
N	0.035
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA. 180+50 RT.	
DA	1.51 AC.
C (FUTURE)	0.53
I_{10}	6.2 IN/HR
Q_v (FUTURE)	4.94 C.F.S
V_v (FUTURE)	1.31 F.P.S
SLOPE	0.003 FT/FT
N	0.035
LINER TYPE	GRASS

SITE 25

SITE 24

REALIGN AND WIDEN EXISTING DITCH TO PROPERTY LINE
MATCH EXISTING DITCH INVERT ELEVATIONS
SEE DETAIL 63
EST 10 CY DDE

20' RIPRAP PAD AT OUTLET
20 TONS CL-B RIPRAP
45 S.Y. GFD

GRADE TO DRAIN (FILL)

FILL POND TO ELEV. 250.0' AT THIS SIDE
FILL TO ELEV. 249.0' AT OPPOSITE SIDE
GRADE AT APPROX. 1.2% TO DRAIN
(SEE GRADE TO DRAIN ARROWS)
EST. 1030 C.Y. BACKFILL

LATERAL 2' BASE DITCH
SEE DETAIL 34
EST. 60 C.Y. DDE
DITCH TO BE EXCAVATED
AFTER POND HAS BEEN
FILLED

TYPICAL OUTLET
IMPROVEMENTS
SEE DETAIL 68 &
QUANTITIES IN
TABLE ABOVE

PROPOSED SINGLE GATE,
47" HIGH, 12' WIDE, 12' OPENING
STA 182+00 TO 182+12 LT

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL
2' BASE DITCH
SEE DETAIL 16

PIPE FLAREOUT
SEE DETAIL 55

FALSE SUMP
SEE DETAIL 7

SPECIAL CUT
'V' DITCH
SEE DETAIL 21

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

TYPICAL INLET
IMPROVEMENTS
SEE DETAIL 67 &
QUANTITIES IN
TABLE ABOVE
GRADE CHANNEL
AT 1.0%

PIPE FLAREOUT
SEE DETAIL 55

BERM 'V' DITCH
SEE DETAIL 3

REMOVE FENCE AND
BRICK COLUMNS

REMOVE
& BACKFILL TO
DRAIN

CONTRACTOR SHALL COORDINATE
DRIVEWAY REPLACEMENT LIMITS
WITH THE PROPERTY OWNER.
CONTRACTOR TO ADJUST AS
DIRECTED BY THE ENGINEER.

N 22° 04' 22.0" E
54' 36.2" E
G.T.D
N 32° 54' 14.5" E
N 48° 01' 02.7" E
S 76° 53' 18.3" E
END CONSTRUCTION
-DRW4- POT Sta. 11+26.90
N 5° 24' 08.4" E
END CONSTRUCTION
-DRW3- POT Sta. 12+38.00
END CONSTRUCTION
-DRW5- POT Sta. 11+07.00

175+00
180+00
185+00

GREU TL-3

TB 2GI
15" RCP-IV
15" RCP
18" RCP
2GI-D
2GI
15" CSP W/ELBOWS
REMOVE
RIPRAP
EXIST R/W
ACCESS POINT
PUE
SEDIMENT CONTROL BASIN
WOODS
POND
48" ELEC
48" CONC
48" CHL
30' SS EASEMENT PER TOWN OF ANGIER

SEE SHEET 2B-4 FOR INTERSECTION DETAIL
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 40 FOR -DRW3- PROFILE
SEE SHEET 40 FOR -DRW4- PROFILE

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	P P	DENOTES IMPACTS IN SURFACE WATER (POND)

PERMIT DRAWING SHEET 48 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 174+50 (SEE SHEET 15)

MATCHLINE -L- STA 188+00 (SEE SHEET 17)

(76) WILLIAM TYSON DB 1446 PG 986

(78) DAVID GARDNER DB 1085 PG 714

(80) DAVID GARDNER DB 1085 PG 714 MB 2003 PG 1283

(82) JAMES ALLEN DB 3355 PG 413

(84) JEREMY SKOLOZYNSKI DB 3258 PG 306 PC* C PG 11BD

(85) MICHAEL ANTHONY DB 1286 PG 579 PC* F PG 26B

(79) DAVID ADAMS DB 1655 PG 609

(77) JERRY GREGORY DB 4684 PG 453 MB 2000 PG 477

(75) RAFAEL CERVANTES DB 5403 PG 599 MB 2000 PG 477

(81) CLINTON ADAMS DB 1291 PG 300 MB 2003 PG 1071

(81) TON ADAMS 528 PG 185

(83) RICHARD HALL DB 982 PG 219

REALIGN AND WIDEN EXISTING DITCH TO PROPERTY LINE MATCH EXISTING DITCH INVERT ELEVATIONS SEE DETAIL 63 EST 10 CY DDE

20' RIPRAP PAD AT OUTLET 20 TONS CL-B RIPRAP 45 S.Y. GFD

GRADE TO DRAIN (FILL)

FILL POND TO ELEV. 250.0' AT THIS SIDE FILL TO ELEV. 249.0' AT OPPOSITE SIDE GRADE AT APPROX. 1.2% TO DRAIN (SEE GRADE TO DRAIN ARROWS) EST. 1030 C.Y. BACKFILL

LATERAL 2' BASE DITCH SEE DETAIL 34 EST. 60 C.Y. DDE DITCH TO BE EXCAVATED AFTER POND HAS BEEN FILLED

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 16

SPECIAL CUT 'V' DITCH SEE DETAIL 21

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

TYPICAL OUTLET IMPROVEMENTS SEE DETAIL 68 & QUANTITIES IN TABLE ABOVE

PROPOSED SINGLE GATE, 42" HIGH, 12' WIDE, 12' OPENING STA 182+00 TO 182+12 -LT

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

PIPE FLAREOUT SEE DETAIL 55

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

FALSE SUMP SEE DETAIL 7

TYPICAL INLET IMPROVEMENTS SEE DETAIL 67 & QUANTITIES IN TABLE ABOVE GRADE CHANNEL AT 1.0%

PIPE FLAREOUT SEE DETAIL 55

BERM 'V' DITCH SEE DETAIL 3

REMOVE FENCE AND BRICK COLUMNS

REMOVE & BACKFILL TO DRAIN

CONTRACTOR SHALL COORDINATE DRIVEWAY REPLACEMENT LIMITS WITH THE PROPERTY OWNER. CONTRACTOR TO ADJUST AS DIRECTED BY THE ENGINEER.

SITE 25

SITE 24

DITCH WETLAND CALCS -L- STA. 180+50 RT.	
DA	1.51 AC.
C (FUTURE)	0.53
I	6.2 IN./HR
Q_p (FUTURE)	4.94 C.F.S
V_p (FUTURE)	1.31 F.P.S
SLOPE	0.003 FT/FT
N	0.035
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA. 180+00 LT.	
DA	1.32 AC.
C (FUTURE)	0.43
I	6.2 IN./HR
Q_p (FUTURE)	3.48 C.F.S
V_p (FUTURE)	1.5 F.P.S
SLOPE	0.005 FT/FT
N	0.035
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA. 182+50 LT.	
DA	0.74 AC.
C (FUTURE)	0.34
I	6.2 IN./HR
Q_p (FUTURE)	1.55 C.F.S
V_p (FUTURE)	1.8 F.P.S
SLOPE	0.015 FT/FT
N	0.035
LINER TYPE	GRASS

N 22° 04' 22.0" E
54' 36.2" E
G.T.D
S 76° 53' 18.3" E
END CONSTRUCTION
-DRW4- POT Sta. 11+26.90
N 5° 24' 08.4" E
END CONSTRUCTION
-DRW3- POT Sta. 12+38.00
END CONSTRUCTION
-DRW5- POT Sta. 11+07.00
N 32° 54' 14.5" E
N 48° 01' 02.1" E

SEE SHEET 2B-4 FOR INTERSECTION DETAIL
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 40 FOR -DRW3- PROFILE
SEE SHEET 40 FOR -DRW4- PROFILE

Submitted 12/21/2021

WETLAND AND STREAM IMPACTS

SITE IMPACT ZOOM: 1"=40'

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	16A/B

PERMIT DRAWING
SHEET 49 OF 71

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING
- S S — DENOTES IMPACTS IN SURFACE WATER
- TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- P P — DENOTES IMPACTS IN SURFACE WATER (POND)

SITE 25

LATERAL 2' BASE DITCH
SEE DETAIL 34
EST. 60 C.Y. DDE
DITCH TO BE EXCAVATED
AFTER POND HAS BEEN
FILLED

TYPICAL OUTLET
IMPROVEMENTS
SEE DETAIL 68 &
QUANTITIES IN
TABLE ABOVE

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

FALSE SUMP
SEE DETAIL 7

5' x 7' RCBC
(1.0' BURIED)

15" RCP-IV

TB 2GI

REMOVE

SITE 24

SITE 24,25

ACCESS POINT

JAMES ALLE
DB 3355 PG

PROPOSED SINC
47" HIGH, 12' WIDE
STA 182+00 TO

NAD 83 NSRS 2007

30' SS EASEMENT

WOODS

NC 55

GREU TL-3

PUE

20' 0' 20' 40'
GRAPHIC SCALE

REVISIONS

11/15/2021

Submitted 12/21/2021

WETLAND AND STREAM IMPACTS

SITE IMPACT ZOOM: 1"=40'

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	16A/B

PERMIT DRAWING
SHEET 50 OF 71

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING
- S S — DENOTES IMPACTS IN SURFACE WATER
- TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
- P P — DENOTES IMPACTS IN SURFACE WATER (POND)

SITE 25

LATERAL 2' BASE DITCH
SEE DETAIL 34
EST. 60 C.Y. DDE
DITCH TO BE EXCAVATED
AFTER POND HAS BEEN
FILLED

ACCESS
POINT

TYPICAL OUTLET
IMPROVEMENTS
SEE DETAIL 68 &
QUANTITIES IN
TABLE ABOVE

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

15" RCP-IV

TB 2GI

REMOVE

SITE 24

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

FALSE SUMP
SEE DETAIL 7

18"

5' x 7' RCBC
(1.0' BURIED)

NAD 83 / NSRS 2007

JAMES ALLE
DB 3355 PG

PROPOSED SINC
4'Z" HIGH, 12' WIDE
STA 182+00 TO

WOODS

NC 55

GREU TL-3

PUE

GRAPHIC SCALE
20' 0' 20' 40'

SITE 24,25

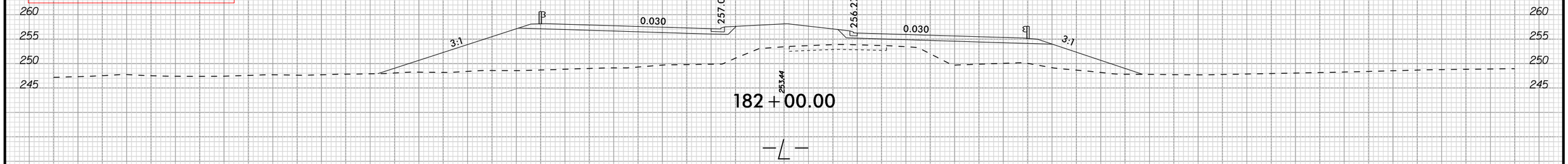
REVISIONS

11/15/2021

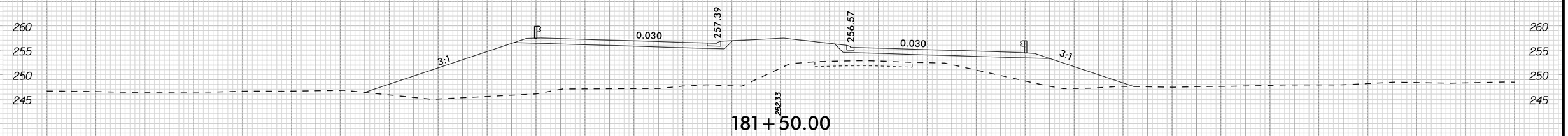
Submitted 12/21/2021

PERMIT DRAWING
SHEET 51 OF 71

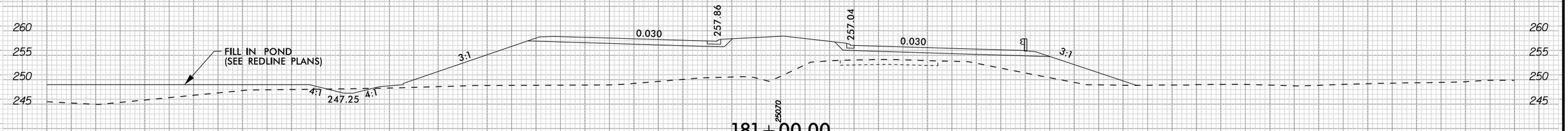
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -



182 + 00.00



181 + 50.00



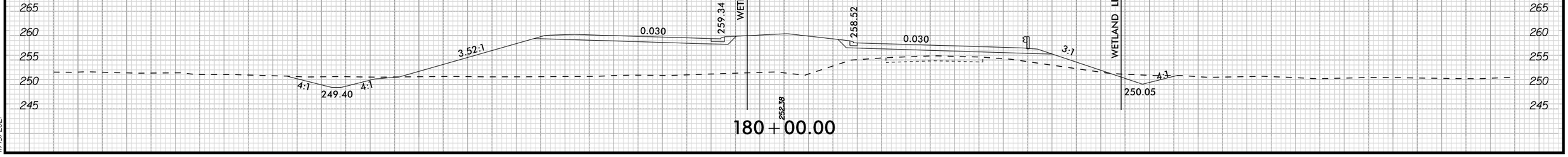
181 + 00.00



180 + 50.00

SITE 25

SITE 24



180 + 00.00

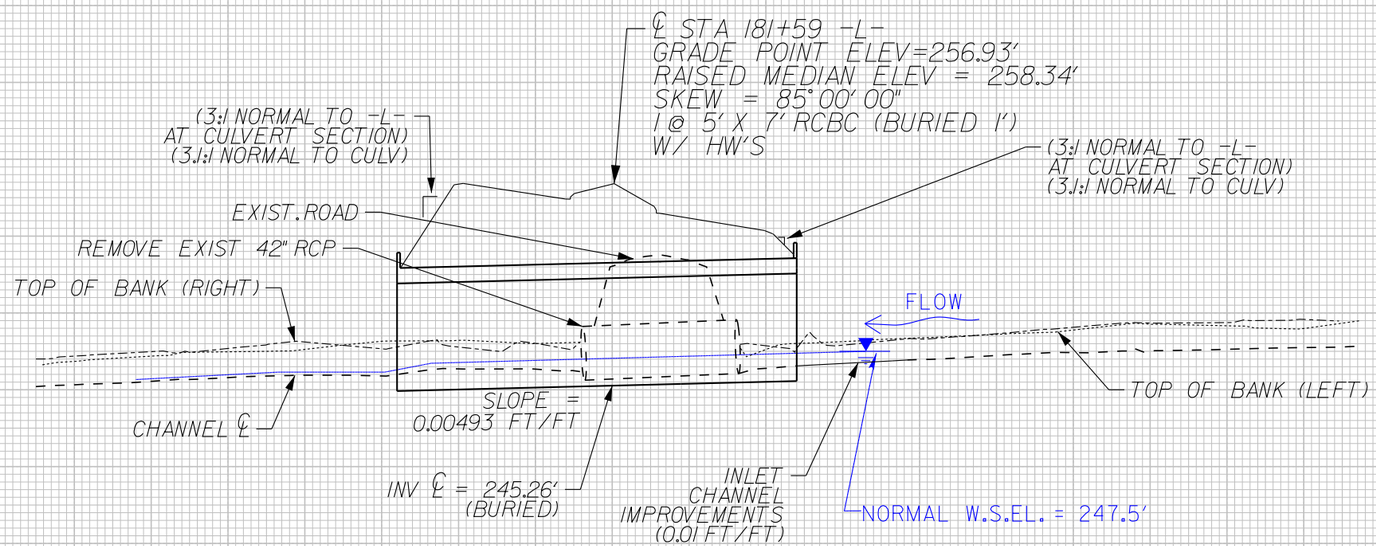
11/15/2021

Submitted 12/21/2021

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

PERMIT DRAWING
SHEET 52 OF 71

SITE 24,25



260 260

250 250

240 240

11/15/2021

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
E E — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	F F — DENOTES IMPACTS IN SURFACE WATER (POND)

PERMIT DRAWING
SHEET 53 OF 71

REVISIONS
5/14/99
11/15/2021

NAD 83/NA 2011

MATCHLINE -L- STA 188+00 (SEE SHEET 16)

MATCHLINE -L- STA 202+00 (SEE SHEET 18)

BEGIN CONSTRUCTION -Y7B- POT Sta. 18+00.00

END CONSTRUCTION -Y7B- POT Sta. 19+00.00

S 85° 16' 23.4" E -Y7B- ACCESS ROAD 3

TERMINAL END SECTION

REMOVE EXIST GUARDRAIL

REMOVE CMAP W/WEIR WALL

RETAIN

SITE 28

SITE 27

SITE 26

N 37° 40' 52.7" W

N 40° 40' 27.5" E

N 38° 28' 29.2" W

END CONSTRUCTION -DRW7- POT Sta. 11+45.00

SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7B- PROFILE

WOODS

POND

48" ELEC.

GARDNER RD 20' BST

40' CONC. ACCESS POINT

ACCESS POINT

PUE

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

REMOVE

STANDARD JSD DITCH
SEE DETAIL 69
EST. 95 C.Y. DDE
EST. 122 TONS CL-1 RIPRAP
EST. 285 S.Y. GFD

GRADE TO DRAIN
SEE CROSS SECTIONS
APPROX GRADE = 2.0-4.0%

GRADE TO DRAIN
SEE CROSS SECTIONS
APPROX GRADE = 4.0%

GRADE TO DRAIN (SEE DETAIL)

SOIL

INV=255.54

GTD

TB 2GI

FALSE SUMP SEE DETAIL 8

MIN DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1

15" CSP W/ELBOWS

2GI

B.D.O.

SPECIAL CUT 'V' DITCH SEE DETAIL 25

BERM 'V' DITCH SEE DETAIL 3

BERM 'V' DITCH SEE DETAIL 35

PIPE FLAREOUT SEE DETAIL 55

GRADE TO DRAIN PROTECT INLET W/CL-8 RIPRAP EST. 9 TONS EST. 30 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 33

MIN DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1

TOE PROTECTION SEE DETAIL 12 EST. 40 TONS CL-8 RIPRAP EST. 100 S.Y. GFD

LATERAL 3' BASE DITCH SEE DETAIL 39 EST. 63 TONS CL-1 RIPRAP EST. 160 S.Y. GFD

RIPRAP PAD AT OUTLET 8 TONS CL-8 RIPRAP 21 S.Y. GFD

SEE TYPICAL SECTION P2

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

CLEAN WATER DIVERSION

TYPICAL OUTLET IMPROVEMENTS SEE DETAIL 40 QUANTITIES IN TABLE ABOVE

GRADE TO DRAIN (SEE DETAIL)

GRADE CULVERT ENTRANCE TO DRAIN W/ 7' BASE DITCH & 2:1 SIDE SLOPES (SEE DETAIL TYPICAL SECTION P1) START ELEVATION = APPROX. 252.0' END ELEV. = APPROX. 251.2' APPROX. GRADE =0.3%

GREU TL-3

88 WILLIAM ARMENTROUT DB 1061 PG 509 PC* F PG 26B

86 EVERETT BLAKE DB 1327 PG 119 PC* F PG 26B

85

116 GORDAN SARTIN DB 2321 PG 153 MB 2005 PG 923

90 CLAY GARDNER DB 2983 PG 694 MB 2005 PG 923

87 KBNK HOLDINGS LLC DB 2441 PG 803 MB 2004 PG 1274

83 RICHARD HALL DB 982 PG 219

89 ROBERT COHEN DB 2725 PG 684 MB 2004 PG 688

"THIS POND WASN'T LOCATED WERE ASKED TO LEAVE BY THE PROPERTY OWNER AND TOLD NOT TO GET BACK ON HER PROPERTY."

Submitted 12/21/2021

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
E E — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	P P — DENOTES IMPACTS IN SURFACE WATER (POND)

PERMIT DRAWING
SHEET 54 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS
5/14/99
11/15/2021

MATCHLINE -L- STA 188+00 (SEE SHEET 16)

MATCHLINE -L- STA 202+00 (SEE SHEET 18)

NAD 83/NA 2011

BEGIN CONSTRUCTION -Y7B- POT Sta. 18+00.00

END CONSTRUCTION -Y7B- POT Sta. 19+00.00

S 85° 16' 23.4" E

ACCESS RD. 3

TERMINAL END SECTION

REMOVE CMAP W/WEIR WALL

RETAIN

SITE 28

SITE 27

SITE 26

REMOVE EXIST GUARDRAIL

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

REMOVE

STANDARD JSA DITCH
SEE DETAIL 69
EST. 95 C.Y. DDE
EST. 122 TONS CL-B RIPRAP
EST. 285 S.Y. GFD

GRADE TO DRAIN (SEE TYP. SECTION P2)

SEE TYPICAL SECTION P2

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

CLEAN WATER DIVERSION

TYPICAL INLET IMPROVEMENTS SEE DETAIL #1 QUANTITIES IN TABLE ABOVE

GREU TL-3

GRADE TO DRAIN SEE CROSS SECTIONS APPROX GRADE = 2.0-4.0%

GRADE TO DRAIN SEE CROSS SECTIONS APPROX GRADE = 4.0%

RETAIN

REMOVE

RETAIN

GTD

TB 2GI

N 38° 27' 52" W

N 42° 40' 27" E

FALSE SUMP SEE DETAIL 8

MIN DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1

2GI

15" CSP W/ELBOWS

B.D.O.

SPECIAL CUT 'V' DITCH SEE DETAIL 25

BERM 'V' DITCH SEE DETAIL 3

BERM 'V' DITCH SEE DETAIL 3

BERM 'V' DITCH SEE DETAIL 35

PIPE FLAREOUT SEE DETAIL 55

GRADE TO DRAIN PROTECT INLET W/CL-B RIPRAP
EST. 9 TONS
EST. 30 S.Y. GFD

MIN DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1

SPECIAL LATERAL 'V' DITCH SEE DETAIL 33

TOE PROTECTION SEE DETAIL 12
EST. 40 TONS CL-B RIPRAP
EST. 100 S.Y. GFD

LATERAL 3(BASE DITCH SEE DETAIL 39
EST. 63 TONS CL-1 RIPRAP
EST. 160 S.Y. GFD

RIPRAP PAD AT OUTLET
8 TONS CL-B RIPRAP
21 S.Y. GFD

SEE TYPICAL SECTION P1

GRADE TO DRAIN (SEE TYP. SECTION P1)

GRADE CULVERT ENTRANCE TO DRAIN W/ 7' BASE DITCH & 2:1 SIDE SLOPES (SEE DETAIL TYPICAL SECTION P1)
START ELEVATION = APPROX. 252.0'
END ELEV. = APPROX. 251.2'
APPROX. GRADE = 0.3%

END CONSTRUCTION -DRW7- POT Sta. 11+45.00

N 38° 28' 29.2" W

THIS POND WASN'T LOCATED WHEN STAKED TO LEAVE FOR THE PROPERTY OWNER WAS TOLD NOT TO GET BACK ON THEIR PROPERTY

WILLIAM ARMENTROUT DB 1061 PG 309 PC* F PG 26B

EVERETT BLAKE DB 1327 PG 119 PC* F PG 26B

GORDAN SARTIN DB 2321 PG 153 MB 2005 PG 923

CLAY GARDNER DB 2983 PG 694 MB 2005 PG 923

KBNK HOLDINGS LLC DB 2441 PG 803 MB 2004 PG 1274

RICHARD HALL DB 982 PG 219

ROBERT COHEN DB 2725 PG 684 MB 2004 PG 688

SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7B- PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 55 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 27

SITE 26



25689

194 + 50.00

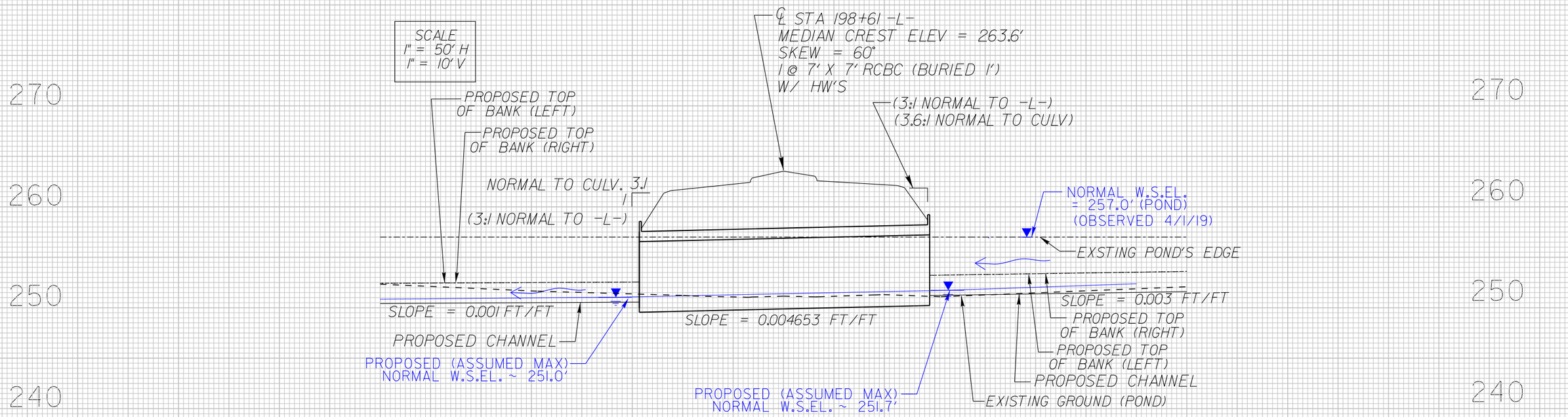
11/15/2021

Submitted 12/21/2021

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

PERMIT DRAWING
SHEET 56 OF 71

SITE 27,28



11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F — DENOTES FILL IN WETLAND	E E — DENOTES EXCAVATION IN WETLAND
HC HC — DENOTES HAND CLEARING	DENOTES MECHANIZED CLEARING

PERMIT DRAWING
SHEET 57 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE (SEE SHEET 22)

MATCHLINE (SEE SHEET 23)

MATCHLINE (SEE SHEET 23)

MATCHLINE -L- STA 202+00 (SEE SHEET 17)

MATCHLINE -L- STA 216+00 (SEE SHEET 19)

205+00

210+00

215+00

DITCH WETLAND CALCS -L- STA 203+80 LT.	
DA	1.60 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	4.96 C.F.S
V_{10} (FUTURE)	1.37 F.P.S
SLOPE	0.004 FT/FT
N	0.04
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA 203+80 LT.	
DA	0.36 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	1.12 C.F.S
V_{10} (FUTURE)	1.98 F.P.S
SLOPE	0.055 FT/FT
N	0.04
LINER TYPE	GRASS

SITE 29

SITE 27

(90) CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923

(91) CLAY GARDNER
DB 3363 PG 296

(92) REBECCA PARTIN
DB 693 PG 508

REBECCA PARTIN
DB 693 PG 508

CULTIVATED

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

MIN. DEPTH OF FILL SEE DETAIL 1 SHEET 2C-1

BERM 2' BASE DITCH SEE DETAIL 40 EST. 20 TONS CL-B RIPRAP EST. 55 S.Y. GFD

BERM 2' BASE DITCH SEE DETAIL 41 EST. 50 TONS CL-B RIPRAP EST. 135 S.Y. GFD

BERM 2' BASE DITCH SEE DETAIL 40 EST. 140 TONS CL-B RIPRAP EST. 380 S.Y. GFD

B.D.O.

CLEAN WATER DIVERSION

18" CSP W/ELBOWS

24" CSP W/ELBOWS

24"

2GI-A

FALSE SUMP SEE DETAIL 8

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

RIPRAP PAD AT OUTLET 20 TONS CL-I RIPRAP 40 S.Y. GFD

-Y7C- ACCESS ROAD 4

BEGIN CONSTRUCTION -Y7C- POT Sta. 14+95.00

END CONSTRUCTION -Y7C- POT Sta. 15+95.00

TERMINAL END SECTION

RETAIN

GRADE TO DRAIN

TOE PROTECTION SEE DETAIL 12 EST. 35 S.Y. PSRM

N 3° 28' 35.5" W

-L- NC 55

N 47° 19' 32.7" W

PUE

WLD

TDE

ACCESS POINT

FLARE CUT DITCH OUT TO TIE TO EXIST. DITCH

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

-Y7C- OLD MATTHEWS MILL POND RD

N 3° 42' 43.0" W

SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7C- PROFILE
SEE SHEET 40 FOR -DRW5 PROFILE

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING
- DENOTES MECHANIZED CLEARING

PERMIT DRAWING
SHEET 58 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

DITCH WETLAND CALCS -L- STA 203+80 LT.	
DA	1.60 AC.
C (FUTURE)	0.50
I_R	6.2 IN./HR
Q_R (FUTURE)	4.96 C.F.S
V_R (FUTURE)	1.37 F.P.S
SLOPE	0.004 FT/FT
N	0.04
LINER TYPE	GRASS

DITCH WETLAND CALCS -L- STA 203+80 LT.	
DA	0.36 AC.
C (FUTURE)	0.50
I_R	6.2 IN./HR
Q_R (FUTURE)	1.12 C.F.S
V_R (FUTURE)	1.98 F.P.S
SLOPE	0.055 FT/FT
N	0.04
LINER TYPE	GRASS

MATCHLINE (SEE SHEET 22)

MATCHLINE (SEE SHEET 23)

MATCHLINE (SEE SHEET 23)

MATCHLINE -L- STA 202+00 (SEE SHEET 17)

MATCHLINE -L- STA 216+00 (SEE SHEET 19)

205+00

210+00

215+00

SITE 29

SITE 27

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

MIN. DEPTH OF FILL SEE DETAIL 1 SHEET 2C-1

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

B.D.O.

BERM 2' BASE DITCH SEE DETAIL 40 EST. 20 TONS CL-B RIPRAP EST. 55 S.Y. GFD

18" CSP W/ELBOWS

24"

2GI-A

FALSE SUMP SEE DETAIL 8

CLEAN WATER DIVERSION

BERM 2' BASE DITCH SEE DETAIL 41 EST. 50 TONS CL-B RIPRAP EST. 135 S.Y. GFD

24" CSP W/ELBOWS

FALSE SUMP SEE DETAIL 8

BERM 2' BASE DITCH SEE DETAIL 40 EST. 140 TONS CL-B RIPRAP EST. 380 S.Y. GFD

RIPRAP PAD AT OUTLET 15 TONS CL-I RIPRAP 60 S.Y. GFD

FLARE CUT DITCH OUT TO TIE TO EXIST. DITCH

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

ACCESS POINT

RETAIN

-Y7C- ACCESS ROAD 4

BEGIN CONSTRUCTION -Y7C- POT Sta. 14+95.00

END CONSTRUCTION -Y7C- POT Sta. 15+95.00

TERMINAL END SECTION

GRADE TO DRAIN

TOE PROTECTION SEE DETAIL 12 EST. 35 S.Y. PSRM

N 3° 28' 35.5" W

N 47° 19' 32.7" W

NC 55

N 3° 42' 43.0" W

-Y7C- OLD MATTHEWS MILL POND RD

CULTIVATED

CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923

CLAY GARDNER
DB 3363 PG 298

REBECCA PARTIN
DB 693 PG 508

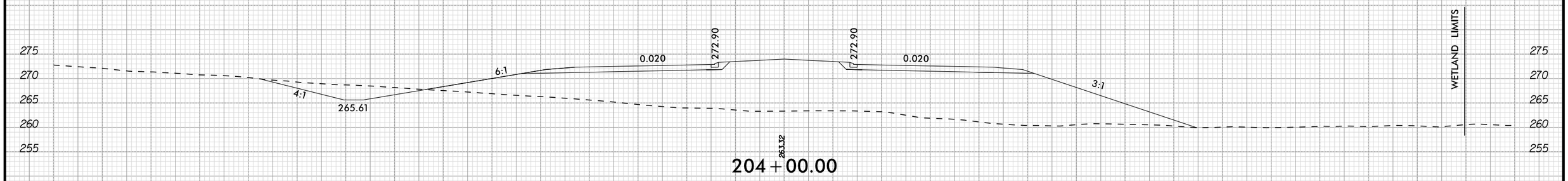
SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7C- PROFILE
SEE SHEET 40 FOR -DRW5 PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 59 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 29



204+00.00

11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 60 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE (SEE SHEET 23)

MATCHLINE (SEE SHEET 24)

MATCHLINE -L- STA 216+00 (SEE SHEET 18)

MATCHLINE -L- STA 230+00 (SEE SHEET 20)

220+00

225+00

20+00

CULTIVATED

WOODS

(92) REBECCA PARTIN
DB 693 PG 508

(95)

(94) DEBORAH MATTHEWS
DB 903 PG 584

(113) WALLACE DUNCAN
DB 1615 PG 136
MB 2002 PG 431

(93) CUTTS CHAPEL FWB CHURCH
DB 2124 PG 562
MB 2002 PG 1391

NUNEZ CONCRETE INC
DB 2433 PG 335
MB 2006 PG 892

REBECCA PARTIN
DB 693 PG 508

SITE 30

SEDIMENT CONTROL BASIN

RIPRAP PAD AT OUTLET
8 TONS CL-B RIPRAP
21 S.Y. GFD

30" RCP

N 47° 19' 32.7" W

-L-
NC 55

15" RCP-IV
DI
TB 2GI

REMOVE & BACKFILL

GRADE TO DRAIN

CLEAN WATER DIVERSION

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

RIPRAP PAD AT OUTLET
EST. 3 TONS CL-B RIPRAP
EST. 10 S.Y. GFD

TOE PROTECTION
SEE DETAIL 12
EST. 100 TONS CL-B RIPRAP
EST. 280 S.Y. GFD

54" RCP-IV

END CONSTRUCTION
-Y7C- POT Sta. 20+84.00

BEGIN CONSTRUCTION
-Y7C- POT Sta. 19+84.00
TERMINAL END SECTION

RETAIN EXIST. ROADWAY EMBANKMENT TO ACT AS FALSE SUMP DURING HIGH FLOW

OLD MATTHEWS MILL POND RD -Y7C-

N 34° 42' 43.0" W

EXIST R/W

48" CMP

48" SPLIT RAIL

48" CHL

16" CONC

CONC

GR

DITCH WETLAND CALCS -L- STA. 227+30 RT.	
DA	0.9 AC.
C (FUTURE)	0.5
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.79 C.F.S.
V_{10} (FUTURE)	1.18 F.P.S.
SLOPE	0.003 FT/FT
N	0.035
LINER TYPE	GRASS

★ TRAFFIC SIGNAL
SEE SHEET 2B-4 FOR INTERSECTION DETAIL
SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7C- PROFILE

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 61 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE (SEE SHEET 23)

MATCHLINE (SEE SHEET 24)

MATCHLINE -L- STA 216+00 (SEE SHEET 18)

MATCHLINE -L- STA 230+00 (SEE SHEET 20)

220+00

225+00

20+00

CULTIVATED

(92) REBECCA PARTIN DB 693 PG 508

RIPRAP PAD AT OUTLET
8 TONS CL-B RIPRAP
21 S.Y. GFD

30" RCP

N 47° 19' 32.7" W

-L- NC 55

15" RCP-IV

DI

TB 2GI

SITE 30

SEDIMENT CONTROL BASIN

WOODS

54" RCP-IV

RIPRAP PAD AT OUTLET
EST. 8 TONS CL-B RIPRAP
EST. 21 S.Y. GFD

REMOVE & BACKFILL

GRADE TO DRAIN

CLEAN WATER DIVERSION

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

RIPRAP PAD AT OUTLET
EST. 3 TONS CL-B RIPRAP
EST. 10 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

TOE PROTECTION
SEE DETAIL 12
EST. 100 TONS CL-B RIPRAP
EST. 280 S.Y. GFD

END CONSTRUCTION
-Y7C- POT Sta. 20+84.00

BEGIN CONSTRUCTION
-Y7C- POT Sta. 19+84.00
TERMINAL END SECTION

RETAIN EXIST. ROADWAY EMBANKMENT TO ACT AS FALSE SUMP DURING HIGH FLOW

OLD MATTHEWS MILL POND RD -Y7C-

N 34° 42' 43.0" W

MATTHEWS MILL POND RD -Y7C-

DITCH WETLAND CALCS -L- STA. 227+30 RT.	
DA	0.9 AC.
C (FUTURE)	0.5
I_{10}	6.2 IN/HR
Q_{10} (FUTURE)	2.79 C.F.S.
V_{10} (FUTURE)	1.18 F.P.S.
SLOPE	0.003 FT/FT
N	0.035
LINER TYPE	GRASS

(94) DEBORAH MATTHEWS DB 1903 PG 584

(113) WALLACE DUNCAN DB 1515 PG 136 MB 2002 PG 431

(93) CUTTS CHAPEL FWB CHURCH DB 2124 PG 562 MB 2002 PG 391

NUNEZ CONCRETE INC DB 2433 PG 335 MB 2006 PG 892

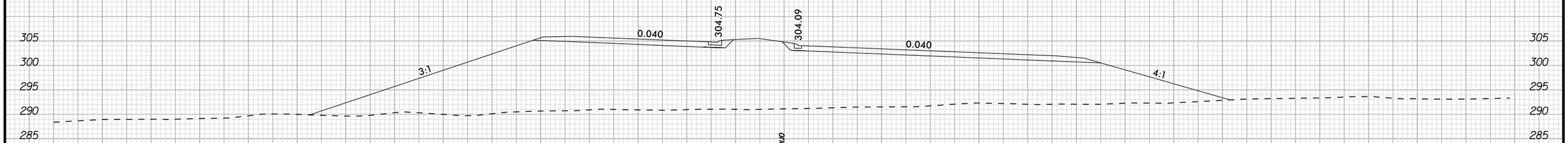
REBECCA PARTIN DB 693 PG 508

★ TRAFFIC SIGNAL
SEE SHEET 2B-4 FOR INTERSECTION DETAIL
SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7C- PROFILE

Submitted 12/21/2021

PERMIT DRAWING
SHEET 62 OF 71

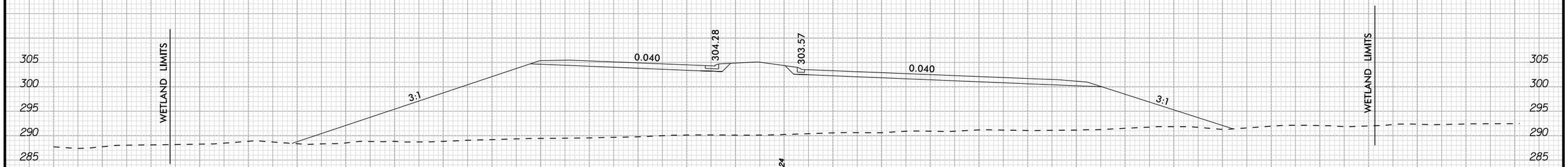
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET – OF –



29+10

229+00.00

SITE 30



29+24

228+50.00

—L—

11/15/2021

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

LEGEND

- F F — DENOTES FILL IN WETLAND
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 63 OF 71

REVISIONS
5/14/99

11/15/2021

NAD 83/NA 2011

25+00 | 30+00 | 35+00

(117) DAVID GARDER
DB 3103 PG 553

CULTIVATED

DITCH ENTERING WETLAND CALCS -Y7A- STA. 30+00 TO 30+80 LT	
DA	0.61 AC.
C (FUTURE)	0.57
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.15 C.F.S
V_{10} (FUTURE)	0.77 F.P.S
SLOPE	0.003 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -Y7A- STA. 31+70 TO 33+00 LT	
DA	0.57 AC.
C (FUTURE)	0.58
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.05 C.F.S
V_{10} (FUTURE)	1.95 F.P.S
SLOPE	0.012 FT/FT
N	0.035
LINER TYPE	GRASS

SITE 31

WOODS

S 34° 39' 38.4" E

N 66° 05' 58.6" E

MATCHLINE -Y7A- STA 24+00 (SEE SHEET 22)

LATERAL 'V' DITCH
SEE DETAIL 43
EST. 5 C.Y. DDE
EST. 39 TONS CL-B RIPRAP
EST. 150 S.Y. GFD

LATERAL
'V' DITCH
EST. 5 C.Y. DDE
SEE DETAIL 38

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 22

SPECIAL CUT DITCH
SEE DETAIL 44

RIPRAP PAD AT OUTLET
20 TONS CL-I RIPRAP
39 S.Y. GFD

SEDIMENT CONTROL HC BASIN

HC HC HC

-Y7A-
MATTHEWS MILL POND RD

42" RCP-IV

HW

CLEAN WATER DIVERSION

(92) REBECCA PARTIN
DB 693 PG 508

MATCHLINE -Y7A- STA 37+50 (SEE SHEET 24)

CULTIVATED

SPECIAL CUT DITCH
SEE DETAIL 44

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 22

LATERAL
'V' DITCH
EST. 5 C.Y. DDE
SEE DETAIL 38

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 22

N 86° 20' 21.6" E

END CONSTRUCTION
-DRWII- POT Sta. 11+05.00

GRADE TO DRAIN
SEE CROSS SECTION

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 22

-Y7C-
ACCESS ROAD 4
N 3° 28' 35.5" W

(90) CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923

(118) EXMAN GREGORY
DB 408 PG 607

END CONSTRUCTION
-Y7C- POT Sta. 12+99.57

MATCHLINE (SEE SHEET 18)

MATCHLINE (SEE SHEET 18)

MATCHLINE (SEE SHEET 19)

Submitted 12/21/2021

5/14/99

REVISIONS

LEGEND

F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 64 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

25+00

30+00

35+00

DAVID GARDER
DB 3103 PG 553
(117)

CULTIVATED

DITCH ENTERING WETLAND CALCS -Y7A- STA. 30+00 TO 30+80 LT	
DA	0.61 AC.
C (FUTURE)	0.57
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.15 C.F.S
V_{10} (FUTURE)	0.77 F.P.S
SLOPE	0.003 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -Y7A- STA. 31+70 TO 33+00 LT	
DA	0.57 AC.
C (FUTURE)	0.58
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.05 C.F.S
V_{10} (FUTURE)	1.95 F.P.S
SLOPE	0.012 FT/FT
N	0.035
LINER TYPE	GRASS

SITE 31

S 34° 39' 38.4" E

N 66° 05' 58.6" E

MATCHLINE -Y7A- STA 24+00 (SEE SHEET 22)

MATCHLINE -Y7A- STA 37+50 (SEE SHEET 24)

WOODS

REBECCA PARTIN
DB 693 PG 508
(92)

LATERAL 'V' DITCH
SEE DETAIL 43
EST. 5 C.Y. DDE
EST. 39 TONS CL-B RIPRAP
EST. 350 S.Y. GFD

LATERAL 'V' DITCH
EST. 5 C.Y. DDE
SEE DETAIL 38

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 22

SPECIAL CUT DITCH
SEE DETAIL 44

RIPRAP PAD AT OUTLET
20 TONS CL-I RIPRAP
39 S.Y. GFD

SEDIMENT CONTROL HC BASIN

-Y7A-
MATTHEWS MILL POND

42" RCP-IV

HW

CLEAN WATER DIVERSION

SPECIAL CUT DITCH
SEE DETAIL 44

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 22

LATERAL 'V' DITCH
EST. 5 C.Y. DDE
SEE DETAIL 38

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 22

REBECCA PARTIN
DB 693 PG 508
(92)

MATCHLINE (SEE SHEET 19)

15"

PUE

N 86° 20' 21.6" E

END CONSTRUCTION
-DRWII- POT Sta. 11+05.00

GRADE TO DRAIN
SEE CROSS SECTION

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 22

CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923
(90)

-Y7C-
ACCESS ROAD 4
N 37° 28' 35.5" W

LYMAN GREGORY
DB 408 PG 607
(118)

MATTHEWS MILL POND TO BE REMOVED

END CONSTRUCTION
-Y7C- POT Sta. 12+99.57

MATCHLINE (SEE SHEET 18)

MATCHLINE (SEE SHEET 18)

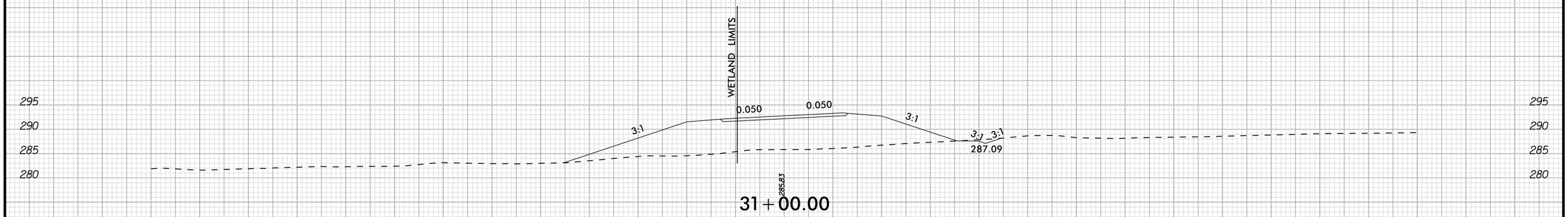
11/15/2021

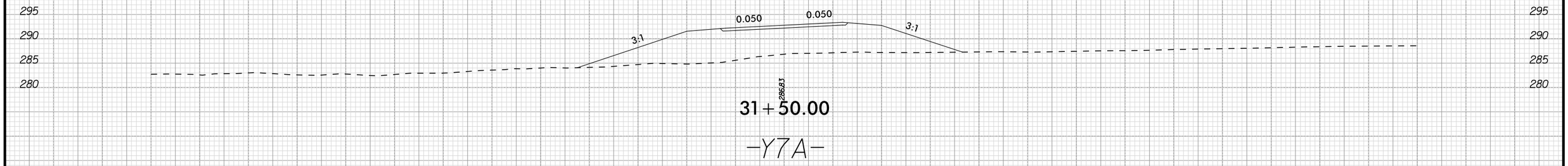
Submitted 12/21/2021

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SHEET 65 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 31





-Y7A-

11/15/2021

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

- F F — DENOTES FILL IN WETLAND
- E E — DENOTES EXCAVATION IN WETLAND
- HC HC — DENOTES HAND CLEARING
- S S — DENOTES IMPACTS IN SURFACE WATER
- TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER

PERMIT DRAWING
SHEET 66 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

20+00 | 40+00 | 45+00 | 50+00 | 25+00

-Y7A- STA 36+00 (SEE SHEET 23)

MATTHEWS MILL POND RD

JAMES JOHNSON
DB 2386 PG 596
MB 2008 PG 100

(92) REBECCA PARTIN
DB 693 PG 508

(108) NC DUMPSTER LLC
DB 3337 PG 30

JAMES JOHNSON
DB 1969 PG 136
MB 2014 PG 66

(109) PATSY MCLEAN
DB 1231PG 527

KENNETH EDWARDS
DB 3551PG 561
MB 2004 PG 738

(110) NCS CONTRACTING LLC
DB 3427 PG 571

(111) ROBERT SURLES
DB 537 PG 126

(112) DILLARD ENTERPRISES INC
DB 875 PG 308

(97) HUGH SURLES
DB 1107 PG 399

-Y7A- (JAMES NORRIS RD) SR 1440
N 80° 04' 54.0" W

JAMES NORRIS RD

BEGIN CONSTRUCTION
-Y7- POT Sta. 21+88.45

END CONSTRUCTION
-Y7A- POC Sta. 47+90.00

-Y7- NC 210
N 20° 46' 46.6" E

MATCHLINE -Y7A- (SEE SHEET 23)

MATCHLINE (SEE SHEET 19)

MATCHLINE (SEE SHEET 19)

MATCHLINE -Y7- STA 29+50 (SEE SHEET 20)

SITE 32

SITE 33

DITCH ENTERING WETLAND CALCS -Y7A- STA. 42+25 TO 42+48 LT	
DA	0.75 AC.
C (FUTURE)	0.58
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.72 C.F.S.
V_{10} (FUTURE)	1.95 F.P.S.
SLOPE	0.04 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -Y7A- STA. 42+55 TO 43+00 LT	
DA	0.81 AC.
C (FUTURE)	0.56
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.82 C.F.S.
V_{10} (FUTURE)	1.99 F.P.S.
SLOPE	0.041 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -Y7A- STA. 42+00 TO 42+58 RT	
DA	1.33 AC.
C (FUTURE)	0.45
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	3.68 C.F.S.
V_{10} (FUTURE)	1.90 F.P.S.
SLOPE	0.054 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

CHANNEL CHANGE IN WETLAND CALCS -Y7A- STA. 42+60 TO 44+30 RT	
DA	13.1 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	40.6 C.F.S.
V_{10} (FUTURE)	4.94 F.P.S.
SLOPE	0.039 FT/FT
N	0.045
LINER TYPE	CL-I BANKS

DESIGN NOTE:
UNABLE TO ACHIEVE <2 FPS VELOCITY INTO WETLAND DUE TO EXISTING DITCH HAVING >2 FPS VELOCITY INTO WETLAND

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

LATERAL 'V' DITCH EST. 100 C.Y. DDE SEE DETAIL 38

SEDIMENT CONTROL BASIN

LATERAL 2' BASE DITCH SEE DETAIL 66 EST. 8 TONS CL-B RIPRAP EST. 17 S.Y. GFD

CL-II RIPRAP ON BANKS CL-II RIPRAP IN STREAM BED SUPPLEMENT WITH CL-I RIPRAP AS CONTRACTOR DEEMS NECESSARY EST. 35 TONS CL-II RIPRAP EST. 80 S.Y. GFD SEE DETAIL 47

LATERAL 2' BASE DITCH SEE DETAIL 66 EST. 10 C.Y. DDE EST. 14 TONS CL-B RIPRAP EST. 40 S.Y. GFD.

LATERAL 'V' DITCH EST. 80 C.Y. DDE SEE DETAIL 38

SPECIAL CUT DITCH SEE DETAIL 44

72" RCP-JV (1.0' BURIED)

CLEAN WATER DIVERSION

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

LATERAL 'V' DITCH SEE DETAIL 43 EST. 90 C.Y. DDE EST. 30 TONS CL-B RIPRAP EST. 70 S.Y. GFD

LATERAL 8' BASE DITCH SEE DETAIL 65 EST. 30 C.Y. DDE EST. 50 TONS CL-B RIPRAP EST. 120 S.Y. GFD

CHANNEL CHANGE SEE DETAIL 15 EST. 190 C.Y. DDE EST. 130 TONS CL-I RIPRAP ON BANKS ONLY EST. 310 S.Y. GFD

TOE PROTECTION SEE DETAIL 12 EST. 30 TONS CL-B RIPRAP EST 90 S.Y. GFD

RIPRAP PAD AT OUTLET 15 TONS CL-I RIPRAP 30 S.Y. GFD

RETAIN

RETAIN SYSTEM

24" RCP

36" RCP-JV

REMOVE

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

STANDARD 3' BASE DITCH SEE DETAIL 49 EST. 60 C.Y. DDE EST. 35 TONS CL-B RIPRAP EST. 95 S.Y. GFD (GRADE AT APPROX. 10%)

SPECIAL LATERAL 'V' DITCH SEE DETAIL 4 EST. 65 TONS CL-B RIPRAP EST. 165 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SEE SHEET 2B-6 FOR INTERSECTION DETAIL
SEE SHEET 36 FOR -Y7- PROFILE
SEE SHEET 37 FOR -Y7A- PROFILE

Submitted 12/21/2021

5/14/99

REVISIONS

11/15/2021

LEGEND

F F — DENOTES FILL IN WETLAND	S S — DENOTES IMPACTS IN SURFACE WATER
E E — DENOTES EXCAVATION IN WETLAND	TS TS — DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC — DENOTES HAND CLEARING	

PERMIT DRAWING
SHEET 67 OF 71

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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NAD 83/NA 2011

JAMES JOHNSON
DB 2386 PG 596
MB 2008 PG 100

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DB 3427 PG 571

(111) ROBERT SURLES
DB 537 PG 126

(112) DILLARD ENTERPRISES INC
DB 875 PG 308

(97) HUGH SURLES
DB 1107 PG 399

BEGIN CONSTRUCTION
-Y7- POT Sta. 21+88.45

-Y7- NC 210
N 20° 46' 46.6" E

-Y7A- SR 1440 (JAMES NORRIS RD)
N 80° 04' 54.0" W

END CONSTRUCTION
-Y7A- POC Sta. 47+90.00

MATTHEWS MILL POND RD

JAMES NORRIS RD

-Y7A- STA 36+00 (SEE SHEET 23)

MATCHLINE (SEE SHEET 19)

MATCHLINE (SEE SHEET 19)

MATCHLINE -Y7- STA 29+50 (SEE SHEET 20)

20+00
40+00
45+00
50+00
25+00

RETAIN
RETAIN SYSTEM
24" RCP
72" RCP-IV (1.0' BURIED)
36" RCP-IV
REMOVE

SITE 32
SITE 33

SEDIMENT CONTROL BASIN

CLEAN WATER DIVERSION

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

LATERAL 'V' DITCH EST. 100 C.Y. DDE SEE DETAIL 38

LATERAL 2' BASE DITCH SEE DETAIL 66 EST. 8 TONS CL-B RIPRAP EST. 17 S.Y. GFD

CL-II RIPRAP ON BANKS
CL-II RIPRAP IN STREAM BED
SUPPLEMENT WITH CL-I RIPRAP AS CONTRACTOR DEEMS NECESSARY
EST. 35 TONS CL-II RIPRAP
EST. 80 S.Y. GFD
SEE DETAIL 47

LATERAL 2' BASE DITCH SEE DETAIL 66 EST. 10 C.Y. DDE EST. 14 TONS CL-B RIPRAP EST. 40 S.Y. GFD.

LATERAL 'V' DITCH EST. 80 C.Y. DDE SEE DETAIL 38

SPECIAL CUT DITCH SEE DETAIL 44

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

LATERAL 'V' DITCH SEE DETAIL 43 EST. 90 C.Y. DDE EST. 30 TONS CL-B RIPRAP EST. 70 S.Y. GFD

LATERAL 8' BASE DITCH SEE DETAIL 65 EST. 30 C.Y. DDE EST. 50 TONS CL-B RIPRAP EST. 120 S.Y. GFD

CHANNEL CHANGE SEE DETAIL 15 EST. 190 C.Y. DDE EST. 130 TONS CL-I RIPRAP ON BANKS ONLY EST. 310 S.Y. GFD

TOE PROTECTION SEE DETAIL 12 EST. 30 TONS CL-B RIPRAP EST 90 S.Y. GFD

RIPRAP PAD AT OUTLET 15 TONS CL-I RIPRAP 30 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

STANDARD 3' BASE DITCH SEE DETAIL 49 EST. 60 C.Y. DDE EST. 35 TONS CL-B RIPRAP EST. 95 S.Y. GFD (GRADE AT APPROX. 10%)

SPECIAL LATERAL 'V' DITCH SEE DETAIL 4 EST. 65 TONS CL-B RIPRAP EST. 165 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

DITCH ENTERING WETLAND CALCS -Y7A- STA. 42+25 TO 42+48 LT

DA	0.75 AC.
C (FUTURE)	0.58
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.72 C.F.S
V_{10} (FUTURE)	1.95 F.P.S
SLOPE	0.04 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -Y7A- STA. 42+55 TO 43+00 LT

DA	0.81 AC.
C (FUTURE)	0.56
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	2.82 C.F.S
V_{10} (FUTURE)	1.99 F.P.S
SLOPE	0.041 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

DITCH ENTERING WETLAND CALCS -Y7A- STA. 42+00 TO 42+58 RT

DA	1.33 AC.
C (FUTURE)	0.45
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	3.68 C.F.S
V_{10} (FUTURE)	1.90 F.P.S
SLOPE	0.054 FT/FT
N	0.063
LINER TYPE	CL-B RIPRAP

CHANNEL CHANGE IN WETLAND CALCS -Y7A- STA. 42+60 TO 44+30 RT

DA	13.1 AC.
C (FUTURE)	0.50
I_{10}	6.2 IN./HR
Q_{10} (FUTURE)	40.6 C.F.S
V_{10} (FUTURE)	4.94 F.P.S
SLOPE	0.039 FT/FT
N	0.045
LINER TYPE	CL-I BANKS

DESIGN NOTE:
UNABLE TO ACHIEVE < 2 FPS VELOCITY INTO WETLAND DUE TO EXISTING DITCH HAVING > 2 FPS VELOCITY INTO WETLAND

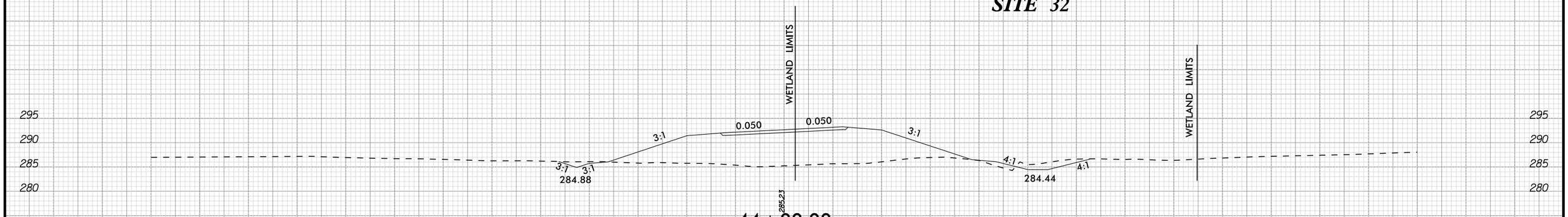
SEE SHEET 2B-6 FOR INTERSECTION DETAIL
SEE SHEET 36 FOR -Y7- PROFILE
SEE SHEET 37 FOR -Y7A- PROFILE

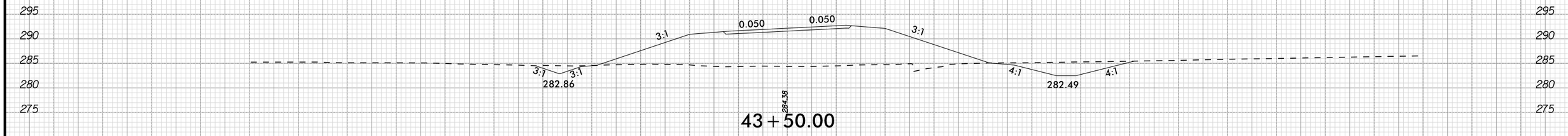
Submitted 12/21/2021

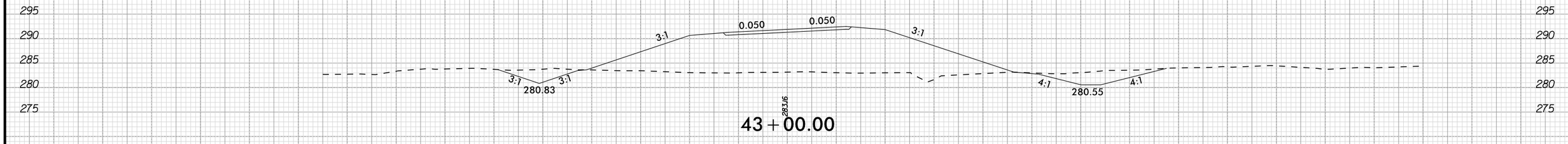
PERMIT DRAWING
SHEET 68 OF 71

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

SITE 32







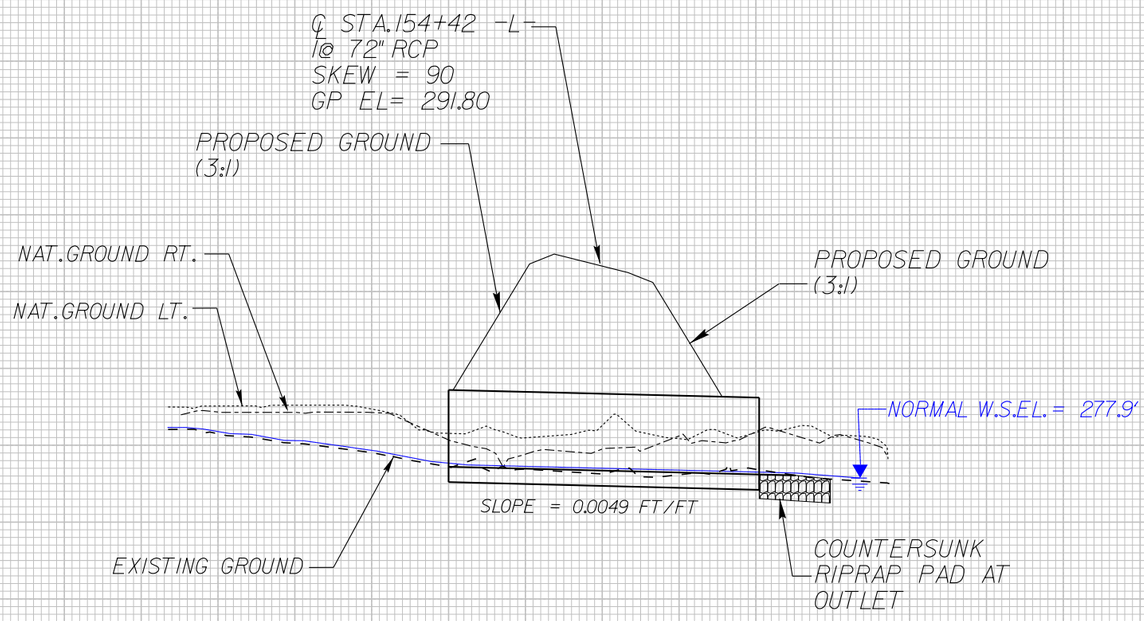
11/15/2021

Submitted 12/21/2021

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET - OF -

PERMIT DRAWING
SHEET 69 OF 71

SITE 32



290 280 270 260

290 280 270 260

11/15/2021

Submitted 12/21/2021

WETLAND AND SURACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND 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)	SURFACE WATER IMPACTS: Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	-L- 16+20 to 16+40 LT/RT	24" RCP					< 0.01		< 0.01		30	
2	-L- 23+03 to 24+16 LT/RT	6' x 7' RCBC	0.02		< 0.01		0.03	< 0.01	< 0.01	34	10	
3	-L- 24+28 to 24+54 RT	Roadway Fill						0.01	< 0.01	116	10	
4	-L- 24+54 to 24+83 RT	6' x 7' RCBC	0.22		0.10	0.07	0.06	< 0.01		51		
4	-L- 24+83 to 25+09 RT	Bank Stabilization						< 0.01	< 0.01	49	10	
5	-L- 37+97 to 38+48 RT	24" RCP	0.05				0.01					
6	-L- 42+50 to 44+74 RT	42" RCP						0.05	< 0.01	268	30	
7	-L- 44+74 to 45+04 RT	42" RCP						< 0.01	< 0.01	30		
8	-L- 44+50 to 49+00 LT	42" RCP						0.95				
9	-L- 76+77 to 77+38 RT	24" RCP	0.04				< 0.01					
10	-L- 80+58 to 81+90 RT	Roadway Fill	0.09		0.05		0.04					
11	-L- 82+04 to 91+50 RT	Roadway Fill	1.11		0.10		0.35	0.01	< 0.01	224	86	
12	-L- 89+35 to 92+38 LT	54" RCP	0.09	0.91	0.04		0.09					
13	-L- 94+02 to 94+88 LT	Roadway Fill					0.02					
14	-L- 98+38 to 99+24 RT	Roadway Fill	< 0.01				0.02					
15	-L- 106+38 to 113+76 LT/RT	48" RCP	0.97		0.34		0.32	< 0.01	< 0.01	102	35	
15	-L- 106+38 to 113+76 LT/RT	48" RCP						0.21				
16	-Y4A- 18+96 to 19+58 RT	48" RCP			< 0.01		0.02	0.01	< 0.01	57	9	
17	-L- 127+00 to 130+67 RT/LT	Roadway Fill	0.66		0.06		0.17					
18	-L- 132+03 to 132+13 RT	48" RCP						< 0.01	< 0.01	41	7	
19	-L- 136+18 to 140+48 RT	Roadway Fill	0.05				0.01					
19	-L- 136+18 to 140+48 RT	Roadway Fill						0.23				
20	-L- 153+56 to 154+84 RT/LT	66" RCP	0.08		0.06	0.02	0.02	0.04	< 0.01	204	31	
20	-L- 154+84 LT	Bank Stabilization						< 0.01	< 0.01	12	14	
TOTALS*:			3.36	0.91	0.76	0.09	1.17	1.53	0.03	1186	270	0

*Rounded totals are sum of actual impacts

NOTES:

0.055 acres of mechanized clearing on Site 4 is for clean water diversion erosion control feature

0.008 acres of mech. clearing on Site 4 is for temporary excavation associated with a temporary pipe for culvert phasing (shown as "E" hatching on plans but quantified as mechanized clearing in this table)

0.91 acres of temporary fill in wetland on Site 12 is being used to quantify the impact for the potential that the ponded water in the wetland will need to be temporarily drained during construction

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
09-13-2021
Harnett
R-5705A
46377.1.2

Submitted 12/21/2021

WETLAND AND SURACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS: Permanent Fill In Wetlands (ac)	WETLAND IMPACTS: Temp. Fill In Wetlands (ac)	WETLAND IMPACTS: Excavation in Wetlands (ac)	WETLAND IMPACTS: Mechanized Clearing in Wetlands (ac)	WETLAND IMPACTS: Hand Clearing in Wetlands (ac)	SURFACE WATER IMPACTS: Permanent SW impacts (ac)	SURFACE WATER IMPACTS: Temp. SW impacts (ac)	SURFACE WATER IMPACTS: Existing Channel Impacts Permanent (ft)	SURFACE WATER IMPACTS: Existing Channel Impacts Temp. (ft)	SURFACE WATER IMPACTS: Natural Stream Design (ft)
21	-L- 161+48 to 162+68 RT	36" RCP	0.06		0.04		0.03					
22	-L- 162+58 to 162+77 LT	36" RCP	0.04		0.03		< 0.01					
23	-L- 173+93 to 174+24 LT	30" RCP	0.02		0.02		0.02					
24	-L- 179+18 to 183+23 RT	5' x 7' RCBC	0.07		0.05	0.03	0.17	0.02	< 0.01	154	33	
25	-L- 179+25 to 182+36 LT	5' x 7' RCBC	0.31		0.06	0.03	0.16					
25	-L- 179+25 to 182+36 LT	5' x 7' RCBC						0.35				
26	-L- 194+11 to 194+75 RT	30" RCP	< 0.01				0.02					
27	-L- 194+13 to 202+60 RT/LT	Roadway Fill	0.18		0.05	< 0.01	0.02					
27	-L- 194+13 to 202+60 RT/LT	7' x 7' RCBC						5.05				
28	-Y7B- 20+53 to 20+69 RT	Bank Stabilization						< 0.01	< 0.01	19	15	
29	-L- 203+22 to 204+58 RT/LT	36" RCP	0.35		0.04	0.05	0.04					
30	-L- 227+38 to 229+82 RT/LT	54" RCP	0.96				0.14	0.02	< 0.01	224	20	
31	-Y7A- 30+84 to 31+61 LT	42" RCP	0.06				0.03					
32	-Y7A- 42+45 to 44+70 RT/LT	72" RCP	0.15		0.07	< 0.01	0.05	0.03	< 0.01	153	23	
33	-Y7A- 42+67 to 44+64 RT	Roadway Fill						0.03	< 0.01	178	11	
SHEET TOTALS*:			2.20		0.36	0.12	0.69	5.50	< 0.01	728	102	0
PROJECT TOTALS*:			5.56	0.91	1.12	0.21	1.86	7.03	0.03	1915	373	

*Rounded totals are sum of actual impacts

NOTES:

0.006 Acres of mechanized clearing on site 27 represents remnant wetland piece which will have significantly less supporting hydrology post-construction. The plans still call for hand clearing per guidance from 4B meeting

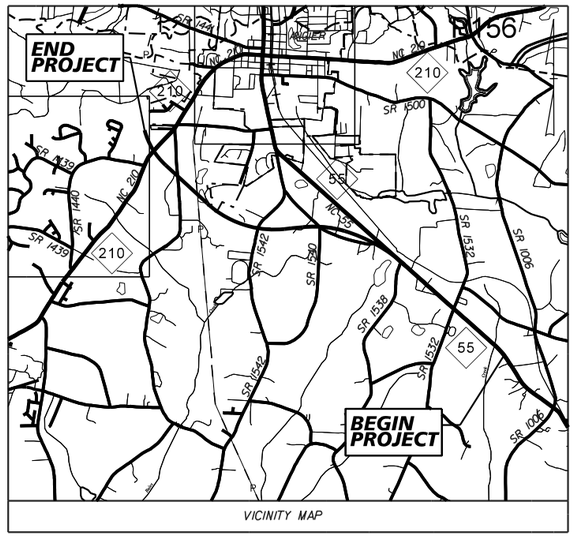
0.004 acres of mechanized clearing on Site 20, 0.012 acres of mechanized clearing on Site 24, and 0.005 acres of mechanized clearing on Site 25 is for temporary excavation associated with culvert construction and phasing (shown as "E" hatching on plans but quantified as mechanized clearing in this table).

There will be 0.15 acres of Temporary Fill in wetlands in the Hand Clearing areas for Erosion Control measures.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
09-13-2021
Harnett
R-5705A
46377.1.2
SHEET 71 OF 71

Submitted 12/21/2021

TIP PROJECT: R-5705A



VICINITY MAP

65% PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY ENVIRONMENTAL PERMIT PLANS
HARNETT COUNTY

T.I.P. NO.	SHEET NO.
R-5705A	UE-01

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.

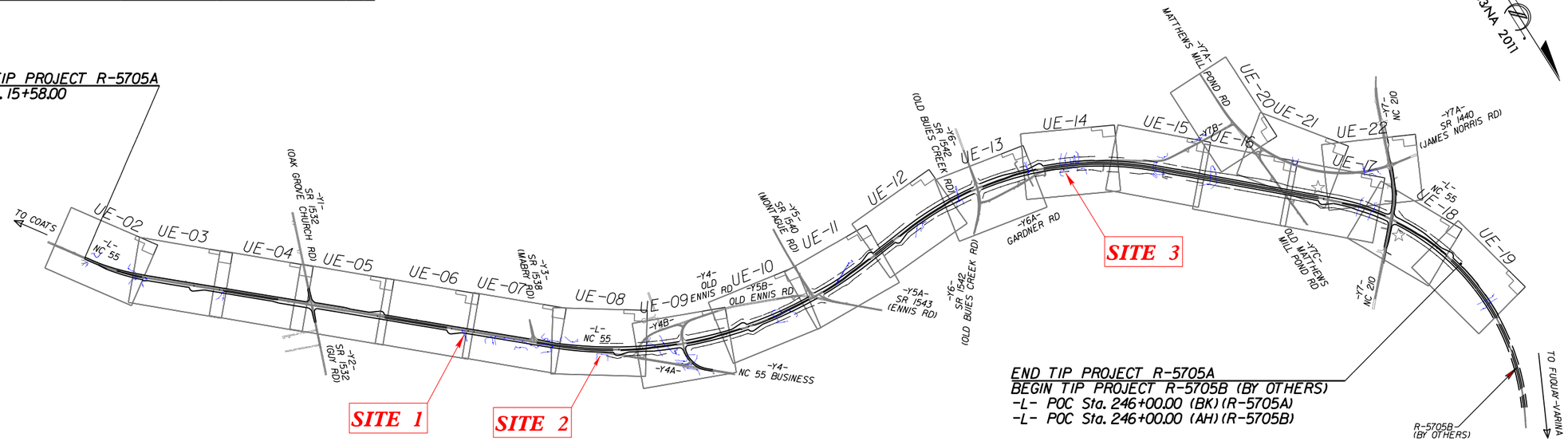
PERMIT DRAWING
SHEET 1 OF 14

PRELIMINARY

LOCATION: NC 55 FROM SOUTH OF SR 1532 (OAK GROVE CHURCH ROAD) TO NORTH OF NC 210

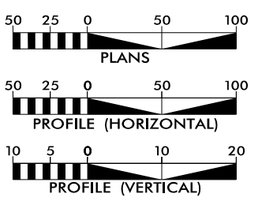
TYPE OF WORK: AERIAL AND UNDERGROUND RELOCATIONS OF WATER, SANITARY SEWER, POWER AND COMMUNICATIONS LINES

UTILITIES WETLAND & SURFACE WATER IMPACTS PERMIT



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.:	*DESCRIPTION:*
UE-1	*TITLE SHEET*
UE-02 THRU UE-22	*ENVIRONMENTAL PERMIT PLAN SHEETS*

UTILITY OWNERS WITH CONFLICTS

(A) POWER – DUKE ENERGY
(B) COMMUNICATIONS – CHARTER
(C) WATER – HARNETT REGIONAL WATER
(D) TOWN OF ANGIER

PREPARED IN THE OFFICE OF:

KCI
http://www.kci.com

KCI Associates of N.C., P.A.
4505 Falls of Neuse Road, Suite 400
Raleigh, NC 27609
Phone (919) 783-9214
Fax (919) 783-9266

JOHN FAISON	*UTILITY PROJECT MANAGER*
L. KELSEY BARTLETT	*PROJECT UTILITY COORDINATOR*
DANIEL ALLEN	*PROJECT UTILITY DESIGNER IN TRAINING*

DIVISION OF HIGHWAYS
UTILITIES UNIT
1555 BIRCH SERVICE CENTER
RALEIGH, NC 27699

KELVIN MARTIN	*UTILITY ENGINEER*
VACANT	*UTILITY AREA COORDINATOR*
KELVIN MARTIN	*UTILITY COORDINATOR*

09/08/99
M:\2010\05\10\0583AM R-5705 AB&C\R-5705A\Utilities\Impacts Assessment Utilities\Utility Impacts Sheets\01_290_001_R-5705A_ut_U001_tsh.dgn
8/20/2021
Shannon.Emrich

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-06

UTILITIES BY OTHERS

REFERENCE ROADWAY PLAN SHEET 08

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 2 OF 14

NAD 83/NA 2011

MATCHLINE -L- STA 64+00 (SEE UO-05)

MATCHLINE -L- STA 78+00 (SEE UO-07)

-L- PC Sta. 75+52.36

-L- PT Sta. 76+69.99

65+00

70+00

75+00

HARNETT REGIONAL WATER PROPOSED 16" WATER LINE

28 CAROL BLALOCK DB 88E PG 258

32 DANIEL MORTON DB 3441 PG 835 MB 2008 PG 1042

35 JAMES GARNER DB 1602 PG 2197 PG 303

38 JAMES GARNER DB 1071 PG 120

41 BUCKEYE GAS PRODUCTS DB 817 PG 394

43 LYNN MUCHINSON DB 1508 PG 838

46 JULEE JOHNSON DB 2967 PG 15 MB 2011 PG 317

48 BENNY WEAVER DB 2458 PG 329 MB 2006 PG 930

44 JEAN GARNER DB 1665 PG 80 MB 2001 PG 1260

45

33 MARIO HERNANDEZ DB 2857 PG 342 MB 2011 PG 303

34 JAMES GARNER DB 1145 PG 360

36 BARBARA HENRIES DB 2007 PG 3

37 D&Q MOTOR SPORTS LLC DB 2803 PG 711

39 WILLIAM HART NO DEED INFO PC* F PG 326C

40 JIMMY WALTERS DB 1102 PG 980 PC* F PG 326C

42 JIMMY WALTERS DB 606 PG 222

31 CURTIS ADAMS DB 508 PG 169

SITE 1

30'L x 10'W BORE PIT

10'L x 10'W RECEIVING PIT

BORE AND JACK OF 8" WATER LINE

PROPOSED DUKE ENERGY, CENTURYLINK, & CHARTER/SPECTRUM JOINT USE LINE

PROPOSED SEGRA HANDHOLE

ABANDONED COMM LINES

PROPOSED CENTURYLINK HANDHOLE & TEL LINE TO TIE INTO AERIAL

SEGRA TO DIRECTIONALLY BORE PROPOSED U/G FOC CONDUITS

PROPOSED DUKE ENERGY, CENTURYLINK, & CHARTER/SPECTRUM JOINT USE LINE

Harnett Co Dept Public Utilities, 16", DIP

Harnett Co Dept Public Utilities, 8" PVC

Century Link, FO

Century Link, Copper

Spirit Comm, FO

TV, Spectrum

ABANDONED

REM

RPL

PUE

HC

WOODS

POND

BST

GR

N 48°09'47.9" W

N 48°15'11.4" W

NC 55

8/17/99

8/22/2021
K:\Projects\U-5705\U005B3AM R-5705 AB&C\R-5705A\Utilities\Impacts Assessment Utilities\Utility Impacts Sheets\02_R5705A_ut_prm_rdy08A_UO06A_psh.dgn
Shannon Emrich

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-06

UTILITIES BY OTHERS

REFERENCE ROADWAY PLAN SHEET 08

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 3 OF 14

NAD 83/NA 2011

MATCHLINE -L- STA 64+00 (SEE UO-05)

MATCHLINE -L- STA 78+00 (SEE UO-07)

-L- PC Sta. 75+52.36

-L- PT Sta. 76+69.99

65+00

70+00

75+00

28 CAROL BLALOCK DB 88E PG 258

32 DANIEL MORTON DB 3441 PG 835 MB 2008 PG 1042

35 JAMES GARNER DB 1602 PG 2197 PG 303

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42 JIMMY WALTERS DB 606 PG 222

31 CURTIS ADAMS DB 508 PG 169

HARNETT REGIONAL WATER PROPOSED 16" WATER LINE

SEGRA TO DIRECTIONALLY BORE PROPOSED U/G FOC CONDUITS

PROPOSED DUKE ENERGY, CENTURYLINK, & CHARTER/SPECTRUM JOINT USE LINE

ABANDONED COMM LINES

PROPOSED SEGRA HANDHOLE

PROPOSED CENTURYLINK HANDHOLE & TEL LINE TO TIE INTO AERIAL

PROPOSED DUKE ENERGY, CENTURYLINK, & CHARTER/SPECTRUM JOINT USE LINE

BORE AND JACK OF 8" WATER LINE

30'L x 10'W BORE PIT

10'L x 10'W RECEIVING PIT

SITE 1

HC

ABANDONED

REM

RPL

BM#4

N 48°09'47.9"W

N 48°15'11.4"W

NC 55

Harnett Co Dept Public Utilities, 16", DIP

Harnett Co Dept Public Utilities, 8", PVC

Century Link, Fo

Century Link, Copper

Spirit Comm, Fo

TV Spectrum

8/17/99

8/22/2021
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Shannon Emrich

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-06A

WETLAND AND STREAM IMPACTS
SITE IMPACT ZOOM: 1" = 40'

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 4 OF 14

NAD 83/NA 2011

Harnett Co Dept Public Utilities , 16", DIP

16" WL

EXIST R/W

TV, Spectrum

Century Link, FO

15" RCP-IV

NC 55 25' BST

Harnett Co Dept Public Utilities , 8", P

Century Link, Copper

FO, Spirit Comm

N 48°15' 11.4" W

REM

ABANDONED

PROP O/H POW & TEL LINES

PROP U/G (FO) TEL CABLES

8" WL

8" TL IN

WOODS

PUE

+24.41
106.48' RT

+56.02
113.58' RT

+52.21
106.98' RT

+89.74
107.5' RT

+29.07

30'L x 10'W BORE PIT

SITE 1

HC

PROPOSED DUKE ENERGY, CENTURYLINK, & CHARTER/SPECTRUM JOINT USE LINE

8/17/99
8/20/2021 10:05:00 AM R-5705 AB&C\R-5705A\Utilities\Impacts Assessment Utilities\Utility Impacts Sheets\04_R5705A_ut_prm_rdy08_U006_psh_zoom wo con.dgn
Shannon Emrich

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-06A

WETLAND AND STREAM IMPACTS
SITE IMPACT ZOOM: 1" = 40'

UTILITIES BY OTHERS

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LEGEND

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- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 5 OF 14

NAD 83/NA 2011

Harnett Co Dept Public Utilities , 16", DIP

Century Link, FO

TV, Spectrum

15" RCP-IV

NC 55 25' BST

Harnett Co Dept Public Utilities , 8", PVC

Century Link, Copper

FO, Spirit Comm

N 48°15' 11.4" W

ABANDONED

ABANDONED

REM

REM

16" WL

8" WL

8" TL IN

PROP U/G (FO) TEL CABLES

PROP O/H POW & TEL LINES

PUE

+24.41
106.48' RT

+56.02
113.58' RT

+52.21
106.98' RT

+89.74
107.5' RT

+29.07

30'L x 10'W BORE PIT

HC

SITE 1

PROPOSED DUKE ENERGY, CENTURYLINK, & CHARTER/SPECTRUM JOINT USE LINE

WOODS

8/17/99

8/20/2021
M:\26\05\2605100583AM R-5705 AB&C\R-5705A\Utilities\Impacts Assessment Utilities\Utility Impacts Sheets\05_R5705A_ut_prm_rdy08_U006_psh_zoom w con.dgn
ShannonEmrich

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-08

UTILITIES BY OTHERS

REFERENCE ROADWAY PLAN SHEET 10

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 6 OF 14

NAD 83/NA 2011

MATCHLINE -L- STA 92+00 (SEE SHEET UO-07)

MATCHLINE -L- STA 105+50 (SEE SHEET UO-07)

95+00

100+00

105+00

HARNETT REGIONAL WATER PROPOSED 16" WATER LINE

SEGRA TO DIRECTIONALLY BORE PROPOSED U/G FOC CONDUITS

ABANDONED COMM LINES

PROPOSED CHARTER/SPECTRUM AERIAL SPAN

DUKE ENERGY EXISTING POLE NOT SHOWN IN FINAL SURVEY

PROPOSED DUKE ENERGY, CENTURYLINK, & CHARTER/SPECTRUM JOINT USE LINE

HARNETT REGIONAL WATER PROPOSED 8" WATER LINE

PROPOSED CHARTER/SPECTRUM U/G 2" CONDUIT SERVICE LINE AT A DEPTH OF 36"

PROPOSED SEGRA HANDHOLE

-L- NC 55

SITE 2

-Y4A- POT Sta. 10+00.00

-Y4A- POT Sta. 11+40.00

TERMINAL END SECTION

BEGIN CONSTRUCTION

ISABEL LOREDO
DB 3258 PG 986
MB 2014 PG 313

KENNETH SNIPES
DB 3372 PG 76

JERRY TUCKER
DB 2208 PG 537
MB 2001PG 641

CLAY GARDNER
DB 3454 PG 424

W E COLLIER
DB 2768 PG 34

A M COLLIER
DB 3278 PG 598

A M COLLIER
DB 3278 PG 600

BARBARA SMETZER
DB 2038 PG 935

NANCY CURRIN
DB 2627 PG 807
MB 2009 PG 275

POND

WOODS

CULTIVATED

Century Link, Copper

8/29/2021 10:05:38 AM R-5705 AB&C\R-5705A\Utilities\Impacts Assessment Utilities\Utility Impacts Sheets\06_R5705A_ut_prm_rdy10A_UU08A_psh.dgn
Shannon.Emrich

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-08

UTILITIES BY OTHERS

REFERENCE ROADWAY PLAN SHEET 10

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 7 OF 14

NAD 83/NA 2011

MATCHLINE -L- STA 92+00 (SEE SHEET U0-07)

MATCHLINE -L- STA 105+50 (SEE SHEET U0-07)

HARNETT REGIONAL WATER
PROPOSED 16" WATER LINE

SEGRA TO DIRECTIONALLY BORE
PROPOSED U/G FOC CONDUITS

ABANDONED COMM LINES

PROPOSED CHARTER/SPECTRUM
AERIAL SPAN

DUKE ENERGY EXISTING POLE
NOT SHOWN IN FINAL SURVEY

PROPOSED DUKE ENERGY, CENTURYLINK,
& CHARTER/SPECTRUM JOINT USE LINE

HARNETT REGIONAL WATER
PROPOSED 8" WATER LINE

PROPOSED CHARTER/SPECTRUM U/G 2"
CONDUIT SERVICE LINE AT A DEPTH OF 36"

PROPOSED SEGRA HANDHOLE

SITE 2

-Y4A- POT Sta. 10+00.00

TERMINAL END SECTION
BEGIN CONSTRUCTION
-Y4A- POT Sta. 11+40.00

N 48°15'11.4" W

49 BARBARA SMETZER
DB 2038 PG 935

51 ISABEL LOREDO
DB 3258 PG 986
MB 2014 PG 313

52 W E COLLIER
DB 2768 PG 34

53 A M COLLIER
DB 3278 PG 598

54 A M COLLIER
DB 3278 PG 598

53 A M COLLIER
DB 3278 PG 600

55 NANCY CURRIN
DB 2627 PG 807
MB 2009 PG 275

56 JERRY TUCKER
DB 2208 PG 537
MB 2001 PG 641

57 CLAY GARDNER
DB 3454 PG 424

KENNETH SNIPES
DB 3372 PG 16

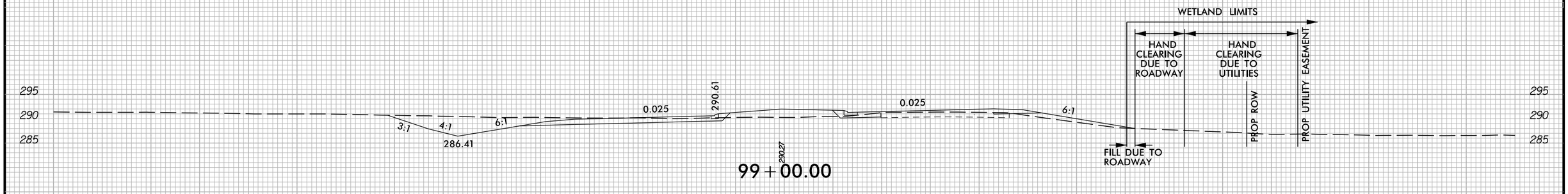
8/20/2021
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Shannon.Emrich

Submitted 12/21/2021

PERMIT DRAWING
SHEET 8 OF 14

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET _ OF _

SITE 2



8/20/2021

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-14

UTILITIES BY OTHERS

REFERENCE ROADWAY SHEET 16

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 9 OF 14

NAD 83/NA 2011

MATCHLINE -L- STA 174+00 (SEE UO-13)

MATCHLINE -L- STA 188+00 (SEE UO-15)

WILLIAM TYSON
DB 1446 PG 986

DAVID GARDNER
DB 1085 PG 714
MB 2003 PG 1243

DAVID GARDNER
DB 1085 PG 714

JEREMY SKOLOZYNSKI
DB 3258 PG 306
PC* C PG 118D

JAMES ALLEN
DB 3355 PG 413

MICHAEL ANTHONY
DB 1286 PG 579
PC* F PG 26B

DAVID ADAMS
DB 1635 PG 609

JERRY GREGORY
DB 1684 PG 453
MB 2000 PG 477

RAFAEL CERVANTES
DB 3403 PG 599
MB 2000 PG 477

CLINTON ADAMS
DB 1291PG 300
MB 2003 PG 1071

CLINTON ADAMS

RICHARD HALL
DB 982 PG 219

HARNETT REGIONAL WATER
PROPOSED 6" WATER LINE

-L- POC Sta.174+00.00 =
-DRW3- POT Sta.10+00.00
Δ = 90°

-L- POC Sta.176+76.00 =
-DRW4- POT Sta.10+00.00
Δ = 90°

-L- POC Sta.186+21.00 =
-DRW5- POT Sta.10+00.00
Δ = 90°

PROPOSED SINGLE GATE.
47" HIGH, 12' WIDE, 12' OPENING
STA 182+00 TO 182+12 LT

-DRW3- PC Sta.10+76.13
-DRW3- PT Sta.10+93.81
-DRW4- PC Sta.10+94.27
-DRW4- PT Sta.11+22.56
S 76° 53' 18.3" E
END CONSTRUCTION
-DRW4- POT Sta.11+26.90
-DRW4- POT Sta.11+37.00
-Y6A- POT Sta.19+06.00
N 5° 24' 08.4" E
END CONSTRUCTION
-DRW3- POT Sta.12+38.00
-DRW3- POT Sta.12+50.00

-DRW5- PC Sta.10+78.15
-DRW5- PT Sta.10+91.33
END CONSTRUCTION
-DRW5- POT Sta.11+07.00
-DRW5- POT Sta.11+30.00

10'L x 10'W x 5'D
ENTRY POINT SLURRY
CONTAINMENT PIT

10'L x 10'W x 5'D
EXIT POINT SLURRY
CONTAINMENT PIT

DIRECTIONAL DRILLING
OF 12" WATER LINE

TOWN OF ANGIER PROPOSED
12" WATER LINE BETTERMENT

PROPOSED DUKE ENERGY, CENTURYLINK,
& CHARTER/SPECTRUM JOINT USE LINE

SITE 3

HC

ABANDON

REM

NC 55

BL-22

GREU TL-3

POND

WOODS

CONC

REMOVE FENCE AND BRICK COLUMNS

CONTRACTOR SHALL COORDINATE DRIVEWAY REPLACEMENT LIMITS WITH THE PROPERTY OWNER. CONTRACTOR TO ADJUST AS DIRECTED BY THE ENGINEER.

8/17/99

8/20/2021
R:\2016\05100583AM R-5705 AB&CV\R-5705A\Utilities\Impacts Assessment Utilities\Utility Impacts Sheets\16_R5705A_ut_prm_rdy16A_U014A_psh.dgn
Shannon Emrich

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-14

UTILITIES BY OTHERS

REFERENCE ROADWAY SHEET 16

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING SHEET 10 OF 14

NAD 83/NA 2011

HARNETT REGIONAL WATER
PROPOSED 6" WATER LINE

MATCHLINE -L- STA 174+00 (SEE U0-13)

MATCHLINE -L- STA 188+00 (SEE U0-15)

WILLIAM TYSON
DB 1446 PG 986

DAVID GARDNER
DB 1085 PG 714

DAVID GARDNER
DB 1085 PG 714
MB 2093 PG 1243

JAMES ALLEN
DB 3355 PG 413

JEREMY SKOLOZYNSKI
DB 3258 PG 306
PC* E/PG 1180

MICHAEL ANTHONY
DB 1286 PG 579
PC* F/PG 26B

DAVID ADAMS
DB 1635 PG 609

JERRY GREGORY
DB 1684 PG 453
MB 2000 PG 417

RAFAEL CERVANTES
DB 3803 PG 599
MB 2000 PG 417

CLINTON ADAMS
DB 1291PG 300
MB 2003 PG 1071

CLINTON ADAMS

RICHARD HALL
DB 982 PG 219

-L- POC Sta.174+00.00 =
-DRW3- POT Sta.10+00.00
Δ = 90°

-L- POC Sta.176+76.00 =
-DRW4- POT Sta.10+00.00
Δ = 90°

-L- POC Sta.186+21.00 =
-DRW5- POT Sta.10+00.00
Δ = 90°

-DRW3- PC Sta.10+76.13

-DRW3- PT Sta.10+93.81

-DRW4- PC Sta.10+94.27

-DRW4- PT Sta.11+22.56

S 76° 53' 18.3" E
END CONSTRUCTION
-DRW4- POT Sta.11+26.90
-DRW4- POT Sta.11+37.00

-Y6A- POT Sta.19+06.00

N 5° 24' 08.4" E
END CONSTRUCTION
-DRW3- POT Sta.12+38.00
-DRW3- POT Sta.12+50.00

-DRW5- PC Sta.10+78.15

-DRW5- PT Sta.10+91.33

END CONSTRUCTION
-DRW5- POT Sta.11+07.00
-DRW5- POT Sta.11+30.00

N 18° 54' 36.2" E

N 22° 04' 22.0" E

N 32° 54' 14.5" E

N 46° 01' 02.1" E

10'L x 10'W x 5'D
ENTRY POINT SLURRY
CONTAINMENT PIT

10'L x 10'W x 5'D
EXIT POINT SLURRY
CONTAINMENT PIT

DIRECTIONAL DRILLING
OF 12" WATER LINE

TOWN OF ANGIER PROPOSED
12" WATER LINE BETTERMENT

PROPOSED DUKE ENERGY, CENTURYLINK,
& CHARTER/SPECTRUM JOINT USE LINE

PROPOSED SINGLE GATE,
47' HIGH, 12' WIDE, 12' OPENING
STA 182+00 TO 182+12 LT

SITE 3

ABANDON

REMOVE FENCE AND BRICK COLUMNS

CONTRACTOR SHALL COORDINATE DRIVEWAY REPLACEMENT LIMITS WITH THE PROPERTY OWNER. CONTRACTOR TO ADJUST AS DIRECTED BY THE ENGINEER.

Century Link Copper

POND

WOODS

HC

REM

8/17/99

8/20/2021
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Shannon Enrich

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-14A

WETLAND AND STREAM IMPACTS
SITE IMPACT ZOOM: 1" = 40'

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.

LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 11 OF 14

POT Sta. 10+00.00 -L-
NC 55
REM
REM
REM
6" WL
12" WL
12" WL INSTALL
GREW TL-3
WOODS
PUE
HC
SITE 3
+82.32
118.57' RT
+80
130.31' RT
+25.31
105.39' RT
10'L x 10'W x 5'D
ENTRY POINT SLURRY
CONTAINMENT PIT
DIRECTIONAL DRILLING
OF 12" WATER LINE
TOWN OF ANGIER PROPOSED
12" WATER LINE BETTERMENT
79
DAVID ADAMS
B 1635 PG 609
10+94.27
N 16°59'49" E
217.46'
202.09
S 63°44'21" E
-DRW5- PC
-DRW5- F
NAD 83/NA 2011

8/17/99

8/20/2021
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Shannon Emrich

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	UE-14A

WETLAND AND STREAM IMPACTS
SITE IMPACT ZOOM: 1" = 40'

UTILITIES BY OTHERS

NOTE:
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LEGEND

- DENOTES TEMPORARY IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- DENOTES PERMANENT IMPACTS DUE TO ROADWAY (DETERMINED BY OTHERS)
- HC HC — DENOTES HAND CLEARING

PERMIT DRAWING
SHEET 12 OF 14

POT Sta. 10+00.00

NC 55

REM

REM

REM

6" WL

6" WL

6" WL

12" WL

12" WL INSTALL

12" WL INSTALL

PUE

HC

+82.32
118.57' RT

+80
130.31' RT

+25.31
105.39' RT

10'L x 10'W x 5'D
ENTRY POINT SLURRY
CONTAINMENT PIT

DIRECTIONAL DRILLING
OF 12" WATER LINE

TOWN OF ANGIER PROPOSED
12" WATER LINE BETTERMENT

SITE 3

79
DAVID ADAMS
B 1635 PG 609
10+94.27

N 16°59'49" E
217.46

202.09
S 63°44'21" E

WOODS

-DRW5- PC

-DRW5- PT

NAD 83/NA 2011

8/17/99

8/25/2021
10:05:33 AM
Shannon Emrich

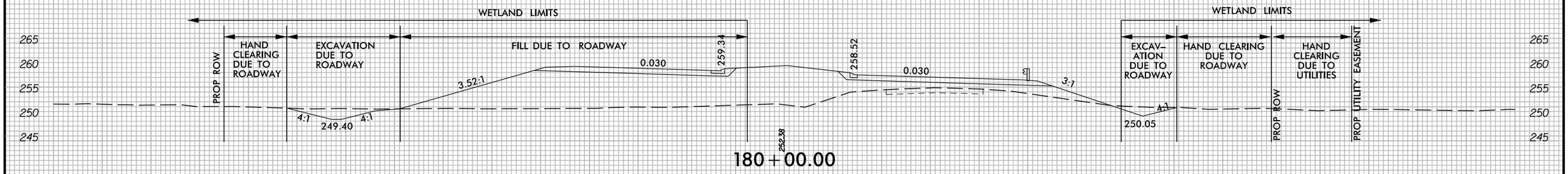
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Submitted 12/21/2021

PERMIT DRAWING
SHEET 13 OF 14

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705A	PERMIT SHEET _ OF _

SITE 3



8/20/2021

Submitted 12/21/2021

WETLAND AND SURACE WATER IMPACTS 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-77+27/77+56 RT	OH Power & Telephone Line					0.01					
2	-L- 98+43/100+17 RT	OH Power & Telephone Line					0.11					
3	-L-179+12/183+33 RT	OH Power & Telephone Line					0.11					
TOTALS*:							0.23			0	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
August 2021
Harnett County
R-5705A Utility Permit Plans
46377.1.2

Submitted 12/21/2021

North Carolina Department of Transportation

Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
FOR NCDOT PROJECTS

(Version 2.08; Released April 2018)

WBS Element:	46377.1.3	TIP No.:	R-5705B	County(ies):	WAKE/HARNETT	Page 1 of 4

General Project Information

WBS Element:	46377.1.3	**TIP Number:**	R-5705B	**Project Type:**	Roadway Relocation	**Date:**	9/20/2021
NCDOT Contact:	Nicole Hackler, PE			**Contractor / Designer:**	TGS Engineers (Rusty Lassiter)		
Address:	1000 Birch Ridge Drive Raleigh, NC 27610			**Address:**	706 Hillsborough Street Suite 200 Raleigh, NC 27603		
Phone:	919-707-6029			**Phone:**	919-773-8887 ext. 121		
Email:	nmhackler@ncdot.gov			**Email:**	rlassiter@tgsengineers.com		
City/Town:	Angier			**County(ies):**	Wake	Harnett	
River Basin(s):	Cape Fear	Neuse		**CAMA County?**	No	No	
Wetlands within Project Limits?	Yes						

Project Description

Project Length (lin. miles or feet):	4.437 miles	**Surrounding Land Use:**	Business; Residential; Rural Farmland

	Proposed Project	**Existing Site**
Project Built-Upon Area (ac.)	51.0 ac.	12.0 ac.
Typical Cross Section Description:	4-lane divided roadway with a 30-foot raised median and 10-foot shoulders (4-foot paved shoulders)	Two 11-foot lanes with 3-foot paved shoulders
Annual Avg Daily Traffic (veh/hr/day):	Design/Future: 44400 Year: 2042	Existing: 30200 Year: 2022

General Project Narrative: (Description of Minimization of Water Quality Impacts)

Currently, NC 55 is primarily a two-lane roadway throughout the R5705B corridor, with turn lanes at major intersections. To relieve congestion and improve mobility, R5705B is proposing to widen portions of NC 55 to a median-divided, four-lane roadway and build a multi-lane bypass west of Angier. Proposed typical section for widening of NC 55 will be a 4-lane divided roadway with a 23-foot raised median, curb and gutter with a 10-foot berm. Proposed typical section for new location of NC 55 will be a 4-lane divided roadway with a 30-foot raised median and 10-foot shoulders (including 4-foot paved shoulders).

Waterbody Information

Surface Water Body (1):	UT to Neills Creek		**NCDWR Stream Index No.:**	18-16-(0.7)a	
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply IV (WS-IV)		
		Supplemental Classification:	None		
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:				**Buffer Rules in Effect:**	N/A
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A
Deck Drains Discharge Over Water Body?	No	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

WBS Element:	46377.1.3	TIP No.:	R-5705B	County(ies):	Wake Harnett	Page 2 of 4

Additional Waterbody Information

Surface Water Body (2):	UT to Neills Creek		**NCDWR Stream Index No.:**	18-16-(0.7)a	
NCDWR Surface Water Classification for Water Body		**Primary Classification:**	Water Supply IV (WS-IV)		
		Supplemental Classification:			
Other Stream Classification:					
Impairments:					
Aquatic T&E Species?		Comments:			
NRTR Stream ID:	SAF,SAE,SAC,SAD,SAB,SY,SAA,SZ,SW,SV,SX			**Buffer Rules in Effect:**	N/A
Project Includes Bridge Spanning Water Body?	No	**Deck Drains Discharge Over Buffer?**	N/A	**Dissipator Pads Provided in Buffer?**	N/A
Deck Drains Discharge Over Water Body?	N/A	(If yes, provide justification in the General Project Narrative)		(If yes, describe in the General Project Narrative; if no, justify in the General Project Narrative)	
(If yes, provide justification in the General Project Narrative)					

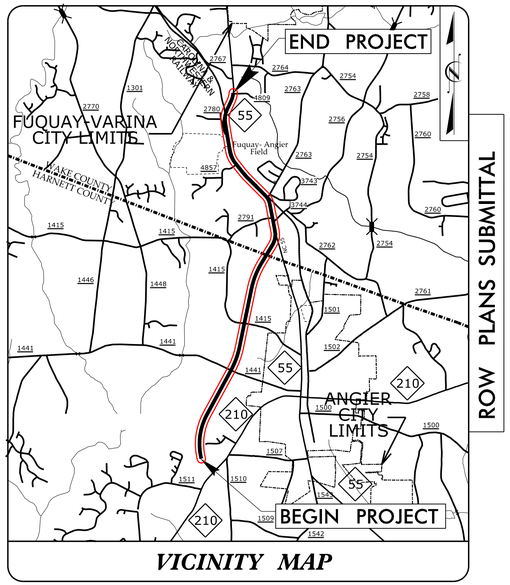
Submitted 12/21/2021

09/08/09

TIP PROJECT: R-5705B

CONTRACT:

See Sheet 1A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HARNETT & WAKE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5705B	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46377.1.3		PE
46377.2.2		ROW
46377.2.6		UTILITIES

LOCATION: NC 55 FROM NC 210 TO SR 4809 (JICARILLA LANE)

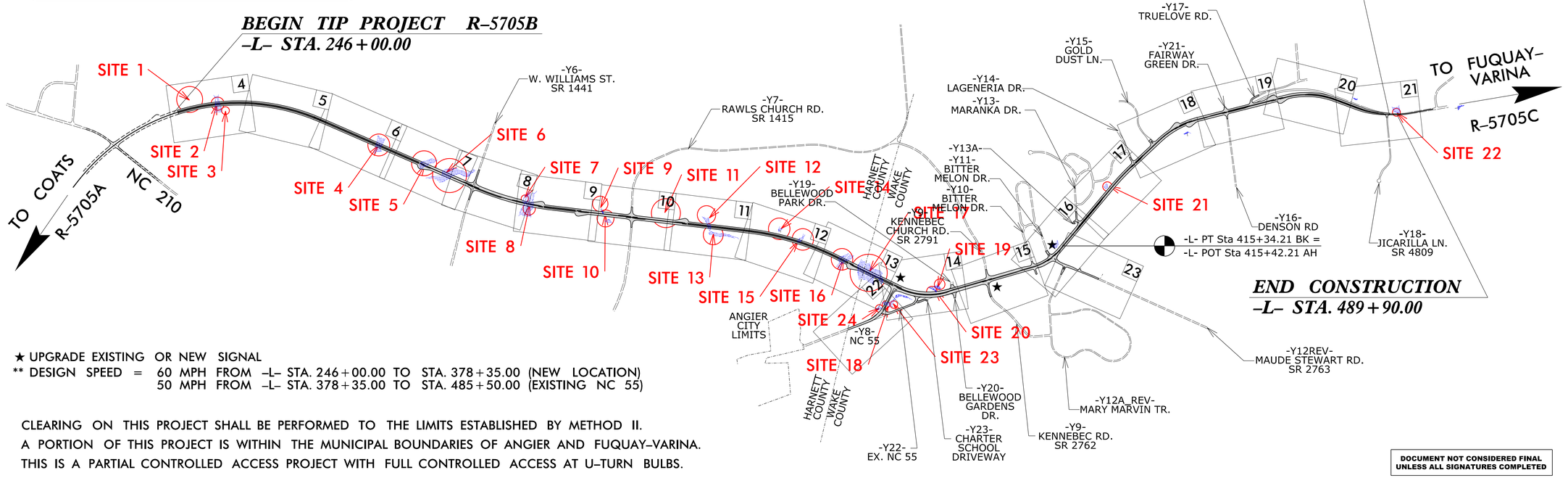
TYPE OF WORK: PAVING, GRADING, DRAINAGE, SIGNALS & CULVERT

NAD 83/NA 2011

WETLAND AND SURFACE WATER IMPACTS PERMIT

BEGIN TIP PROJECT R-5705B
-L- STA. 246+00.00

END TIP PROJECT R-5705B
-L- STA. 485+57.00



END CONSTRUCTION
-L- STA. 489+90.00

★ UPGRADE EXISTING OR NEW SIGNAL
** DESIGN SPEED = 60 MPH FROM -L- STA. 246+00.00 TO STA. 378+35.00 (NEW LOCATION)
50 MPH FROM -L- STA. 378+35.00 TO STA. 485+50.00 (EXISTING NC 55)

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF ANGIER AND FUQUAY-VARINA.
THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH FULL CONTROLLED ACCESS AT U-TURN BULBS.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 5 10

DESIGN DATA

ADT 2022 = 30,200
ADT 2045 = 44,200
K = 9 %
D = 60 %
T = 4 % *
**V = 50 & 60 MPH
* TTST = 1% DUAL 3%
FUNC CLASS = MINOR ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY PROJECT R-5705B = 4.536 MILES
TOTAL LENGTH PROJECT = 4.536 MILES

Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

By:
TGS ENGINEERS
706 HILLSBOROUGH ST
SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 3, 2021

LETTING DATE:
OCTOBER 18, 2022

TOMMY REGISTER, P.E.
PROJECT ENGINEER

NICOLE M. HACKLER, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

9/17/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\R5705B_Rdy_tsh.dgn
User:rlassiter

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

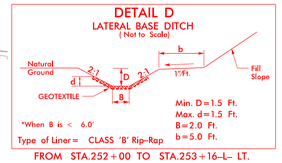
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TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _1_ OF _47_

NAD 83/NA 2011

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



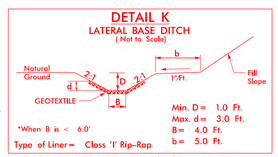
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

*When B is < 6.0'

Type of Liner= CLASS 'B' Rip-Rap

FROM STA.252+00 TO STA.253+16 –L– LT.

DETAIL K
LATERAL BASE DITCH
(Not to Scale)



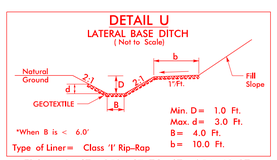
Min. D= 1.0 Ft.
Max. d= 3.0 Ft.
B= 4.0 Ft.
b= 5.0 Ft.

*When B is < 6.0'

Type of Liner= Class 'I' Rip-Rap

FROM –L– STA. 254+16 TO STA. 255+50 RT

DETAIL U
LATERAL BASE DITCH
(Not to Scale)



Min. D= 1.0 Ft.
Max. d= 3.0 Ft.
B= 4.0 Ft.
b= 10.0 Ft.

*When B is < 6.0'

Type of Liner= Class 'I' Rip-Rap

FROM –L– STA. 253+67 TO STA. 254+18 RT

DETAIL N
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner= CL I Rip-Rap

FROM STA. 253+15 –L– LT.

SITE 1

3' STANDARD BASE DITCH
SEE DETAIL 'AE'
S=1.3%
L=325'
EST. 475 CY DDE

CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 14 SY

SEE NCDOT TIP PROJECT R-5705A FOR RIGHT OF WAY PURCHASED UNDER NCDOT TIP PROJECT R-5705A

END PROPOSED R/W TIP PROJECT R-5705A
BEGIN PROPOSED R/W TIP PROJECT R-5705B
℄
100' LT

RIP RAP AT EMBANKMENT
SEE DETAIL 'N'

CLASS 'I' RIP RAP

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP

CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY

PROPOSED 15" RCP COMING FROM CB#2104 (R-5705A) DESIGNED BY OTHERS

15" RCP-IV
24" RCP-IV

SURFACE WATER IMPACT

BURY PIPE

PUE

ACCESS POINT

WOODS

CULTIVATED

ROBERTA WOOLARD

ROY GARDNER

WILLIAM WHEELER

ROBERT PHELPS

JESUS GARCIA

JAMES JOHNSON

CLARENCE LYON

ISFD

SITE 2

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

4.0' LATERAL BASE DITCH
SEE DETAIL U
CLASS 'I' RIP RAP
(54' STREAM RELOCATION)

4.0' LAT. BASE DITCH
SEE DETAIL K
CLASS 'I' RIP RAP

END PROPOSED R/W TIP PROJECT R-5705A
BEGIN PROPOSED R/W TIP PROJECT R-5705B
℄
111.85' RT

SITE 3

MATCHLINE SHEET 5
–L– STA. 259+00.00

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
P P	DENOTES IMPACTS IN SURFACE WATER (POND)
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 24 FOR –L– PROFILE

9/20/2021
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Submitted 12/21/2021

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

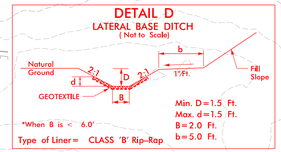
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _2_ OF _47_

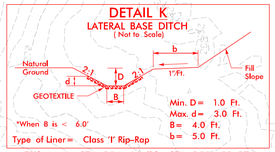
NAD 83/NA 2011

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



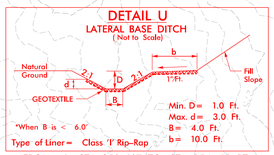
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
*When B is < 6.0'
Type of Liner= CLASS 'B' Rip-Rap
FROM STA.252+00 TO STA.253+16-L- LT.

DETAIL K
LATERAL BASE DITCH
(Not to Scale)



Min. D= 1.0 Ft.
Max. d= 3.0 Ft.
B= 4.0 Ft.
b= 5.0 Ft.
*When B is < 6.0'
Type of Liner= Class 'I' Rip-Rap
FROM -L- STA. 254+16 TO STA. 255+50 RT

DETAIL U
LATERAL BASE DITCH
(Not to Scale)



Min. D= 1.0 Ft.
Max. d= 3.0 Ft.
B= 4.0 Ft.
b= 10.0 Ft.
*When B is < 6.0'
Type of Liner= Class 'I' Rip-Rap
FROM -L- STA. 253+67 TO STA. 254+18 RT

DETAIL N
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner= CL I Rip-Rap
FROM STA. 253+15 -L- LT.

SITE 1

3' STANDARD BASE DITCH
SEE DETAIL 'AE'
S=1.3%
L=325'
EST. 475 CY DDE

CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 14 SY

SEE NCDOT TIP PROJECT R-5705A
FOR RIGHT OF WAY PURCHASED
UNDER NCDOT TIP PROJECT R-5705A

END PROPOSED R/W TIP PROJECT R-5705A
BEGIN PROPOSED R/W TIP PROJECT R-5705B
℄
100' LT

RIP RAP AT EMBANKMENT
SEE DETAIL 'N'

CLASS 'I' RIP RAP

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP

CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY

PROPOSED 15" RCP
COMING FROM CB#2104
(R-5705A) DESIGNED BY OTHERS

15" RCP-IV
24" RCP-IV
GREU TL-3
CAT-1
ACCESS POINT
SURFACE WATER IMPACT
BURY PIPE
PUE
PDE
TDE
CULTIVATED
WOODS
ROY GARDNER
ROBERTA WOOLARD
WILLIAM WHEELER
JESUS GARCIA
ROBERT PHELPS
JAMES JOHNSON
CLARENCE LYON

SITE 2

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

4.0' LATERAL BASE DITCH
SEE DETAIL 'U'
CLASS 'I' RIP RAP
(54' STREAM RELOCATION)

4.0' LAT. BASE DITCH
SEE DETAIL 'K'
CLASS 'I' RIP RAP

END PROPOSED R/W TIP PROJECT R-5705A
BEGIN PROPOSED R/W TIP PROJECT R-5705B
℄
111.85' RT

SITE 3

MATCHLINE SHEET 5
-L- STA. 259+00.00

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
P P	DENOTES IMPACTS IN SURFACE WATER (POND)
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND

HORIZONTAL SCALE
100' 0' 100'

SEE SHEET 24 FOR -L- PROFILE

9/20/2021
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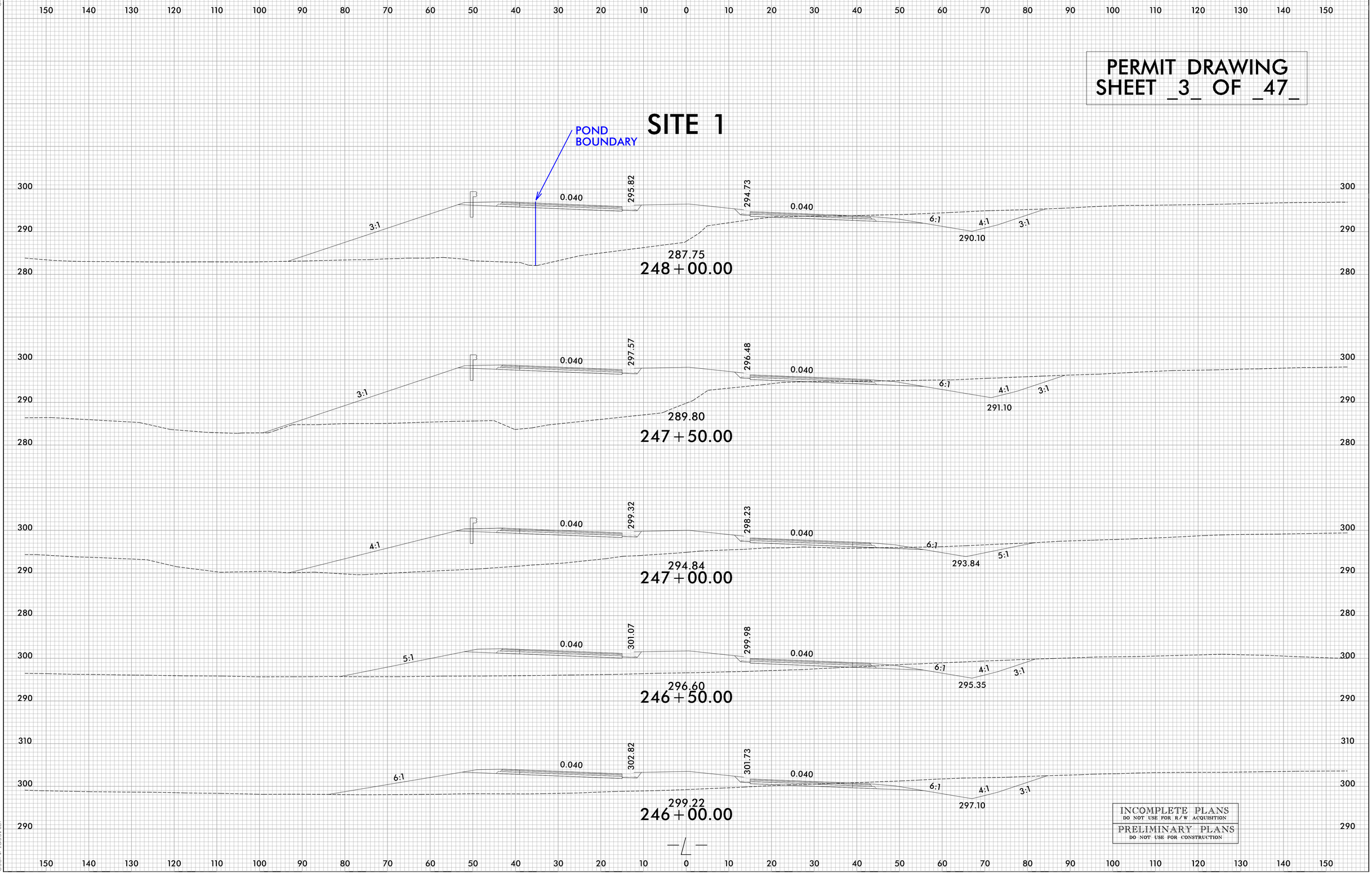
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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-1

PERMIT DRAWING
SHEET _3_ OF _47_

SITE 1



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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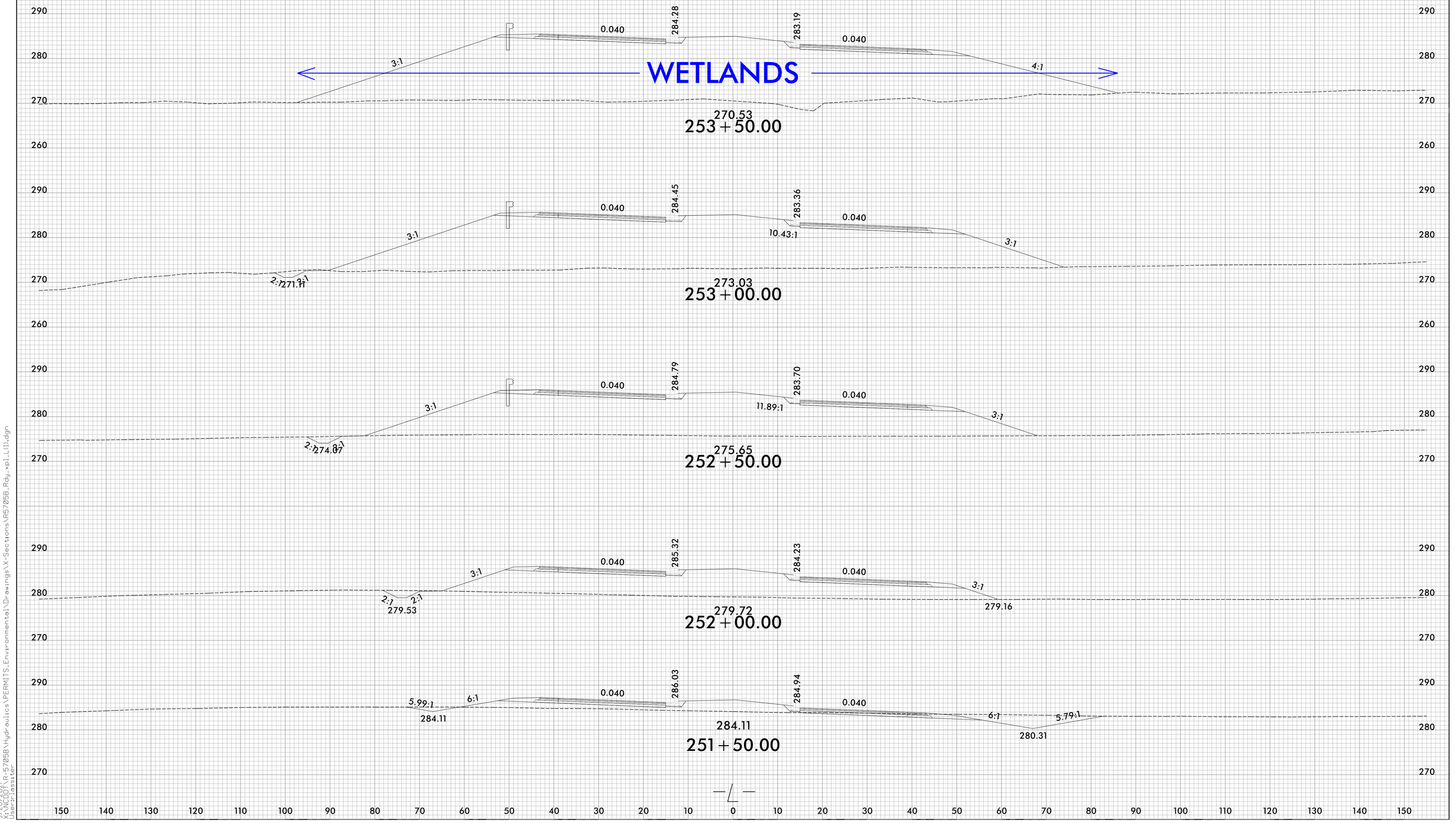
Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-3

PERMIT DRAWING
SHEET _4_ OF _47_

SITE 2 and SITE 3



9/20/2021
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User:lossiter

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

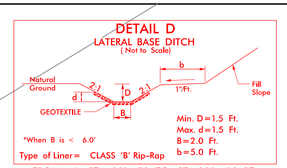
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _5_ OF _47_

NAD 83/NA 2011

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



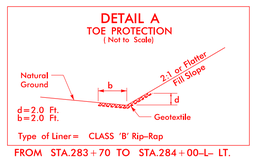
*When B is < 6.0'

Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 281+72 TO STA.283+89 RT
FROM –L– STA. 283+92 TO STA. 287+00 RT

DETAIL A
TOE PROTECTION
(Not to Scale)



d=2.0 Ft.
b=2.0 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM STA.283+70 TO STA.284+00–L– LT.

MATCHLINE SHEET 5
–L– STA. 273+00.00

MATCHLINE SHEET 7
–L– STA. 287+00.00

POND

203 RONALD E WHEELER (TIC) & REDDIN ADAMS WHEELER (TIC)

204 BARBARA ENNIS

205 LEOTERRA HONEYCUTT LLC

202 LEOTERRA HONEYCUTT OAKS LLC

206 JERRY SMITH

CULTIVATED

CENTURY LINK COPPER

LATERAL BASE DITCH SEE DETAIL C

CLASS 'B' RIP RAP EST. 2 TONS GEOTEXTILE EST. 7 SY

CLASS 'I' RIP RAP

ACCESS POINT

15" RCP-IV

48" RCP-IV

HW

RIP RAP AT EMBANKMENT SEE DETAIL N

BEGIN SBG 282+00 LT. AND 281+71 RT.
END SBG 286+60 LT. AND 286+35 RT.

CLASS 'I' RIP RAP

CLASS 'B' RIP RAP EST. 2 TONS GEOTEXTILE EST. 7 SY

TOE PROTECTION SEE DETAIL 'A'

15" CSP

CAT–1

GREU TL–3

SURFACE WATER IMPACT

CSP

CURV PIPE 0.9%

2.0' LATERAL BASE DITCH SEE DETAIL 'D' CLASS 'B' RIP RAP

PUE

–L– ST Sta. 273+65.93

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

E E DENOTES EXCAVATION IN WETLAND

HC HC DENOTES HAND CLEARING

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 4

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 25 FOR –L– PROFILE

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User: lassiter

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

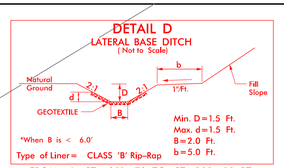
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PERMIT DRAWING SHEET _6_ OF _47_

NAD 83/NA 2011

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



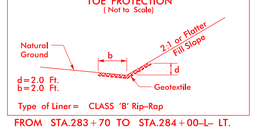
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

*When B is < 6.0'

Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 281+72 TO STA.283+89 RT
FROM –L– STA. 283+92 TO STA. 287+00 RT

DETAIL A
TOE PROTECTION
(Not to Scale)



d=2.0 Ft.
b=2.0 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM STA.283+70 TO STA.284+00–L– LT.

MATCHLINE SHEET 5 –L– STA. 273+00.00

MATCHLINE SHEET 7 –L– STA. 287+00.00

BEGIN SBG 282+00 LT. AND 281+71 RT.
END SBG 286+60 LT. AND 286+35 RT.

203 RONALD E WHEELER (TIC) & REDDIN ADAMS WHEELER (TIC)

204 BARBARA ENNIS

205 LEOTERRA HONEYCUTT OAKS LLC

202 LEOTERRA HONEYCUTT LLC

206 JERRY SMITH

POND

CULTIVATED

LATERAL BASE DITCH SEE DETAIL C

CLASS 'B' RIP RAP EST. 2 TONS GEOTEXTILE EST. 7 SY

CLASS 'I' RIP RAP

CLASS 'B' RIP RAP EST. 2 TONS GEOTEXTILE EST. 7 SY

TOE PROTECTION SEE DETAIL 'A'

ACCESS POINT

15" RCP-IV

48" RCP-IV

15" CSP

CAT–1

GREU TL–3

GREU TL–

SURFACE WATER IMPACT

HW

RIP RAP AT EMBANKMENT SEE DETAIL N

CURB INLET

CURB PIPE 0.9%

2.0' LATERAL BASE DITCH SEE DETAIL 'D' CLASS 'B' RIP RAP

PUE

-L- ST Sta. 273+65.93

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 4

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 25 FOR –L– PROFILE

8/20/2021
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User: lassiter

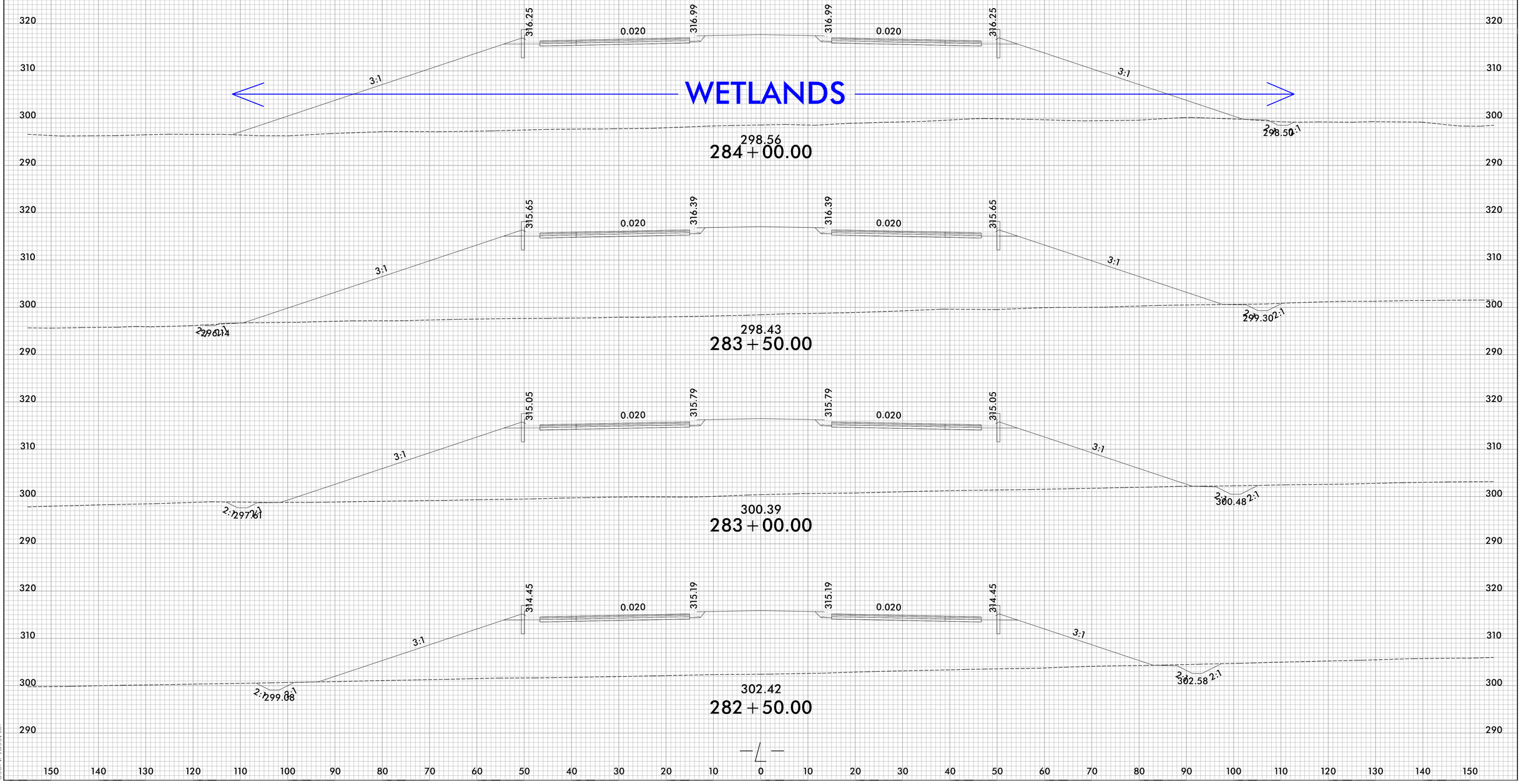
Submitted 12/21/2021

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-14

PERMIT DRAWING
SHEET _7_ OF _47_

SITE 4



9/20/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\X-Sections\R5705B_Rdy_xpLL(1).dgn
User:lassiter

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PROJECT REFERENCE NO.	SHEET NO.
R-5705B	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

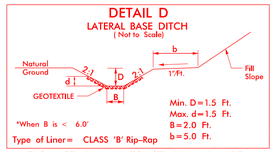
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SHEET _8_ OF _47_

NAD 83/NA 2011

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



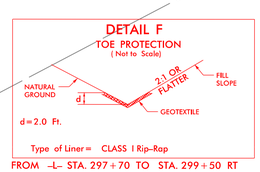
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2.0 Ft.
b = 5.0 Ft.

*When B is < 6.0'

Type of Liner = CLASS 'B' Rip-Rap

FROM STA.290+50 TO STA.295+58-L- RT.
FROM STA.290+00 TO STA.293+50-L- LT.
FROM STA.299+50 TO STA.301+17-L- LT.

DETAIL F
TOE PROTECTION
(Not to Scale)



d = 2.0 Ft.

Type of Liner = CLASS I Rip-Rap

FROM -L- STA. 297+70 TO STA. 299+50 RT

SITE 5

BEGIN SBG 291+66 LT. AND 290+70 RT.
END SBG 301+16 LT. AND 301+00 RT.

204 BARBARA ENNIS
207 BARRY DOYLE
206 JERRY SMITH
207 BARRY DOYLE

290 295 300

CULTIVATED

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

CLASS 'B' RIP RAP
EST. 1 TON
GEOTEXTILE
EST. 5 SY

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP

2' LATERAL BASE DITCH
SEE DETAIL D
CLASS 'B' RIP RAP

CLASS 'I' RIP RAP

ACCESS POINT

CAT-1

GREU TL-3

SURFACE WATER IMPACT

15" RCP-IV

15" CSP

BURY PIPE 0.8'

HW

WOODS

PUE

MATCHLINE SHEET 6
-L- STA. 287+00.00

MATCHLINE SHEET 8
-L- STA. 300+00.00

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP

TOE PROTECTION
SEE DETAIL 'F'

WILLIAM FARMER
208

POND

F F — DENOTES FILL IN WETLAND

E E — DENOTES EXCAVATION IN WETLAND

HC HC — DENOTES HAND CLEARING

100' 0' 100'
HORIZONTAL SCALE

SITE 6

CHALYBEATE SPRINGS OFF RD NC

SEE SHEET 25 FOR -L- PROFILE

8/20/2021
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User: Lossiter

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

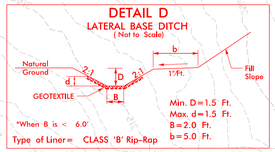
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PERMIT DRAWING SHEET _9_ OF _47_

NAD 83/NA 2011

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



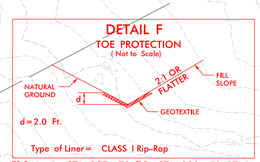
Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2.0 Ft.
b = 5.0 Ft.

*When B is < 6.0'

Type of Liner = CLASS 'B' Rip-Rap

FROM STA.290+50 TO STA.295+58 –L– RT.
FROM STA.290+00 TO STA.293+50 –L– LT.
FROM STA.299+50 TO STA.301+17 –L– LT.

DETAIL F
TOE PROTECTION
(Not to Scale)



d = 2.0 Ft.

Type of Liner = CLASS I Rip-Rap

FROM –L– STA. 297+70 TO STA. 299+50 RT

SITE 5

BEGIN SBG 291+66 LT. AND 290+70 RT.
END SBG 301+16 LT. AND 301+00 RT.

204 BARBARA ENNIS
207 BARRY DOYLE
206 JERRY SMITH
207 BARRY DOYLE

CULTIVATED
WOODS

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP

CLASS 'B' RIP RAP
EST. 1 TON
GEOTEXTILE
EST. 5 SY

2' LATERAL BASE DITCH
SEE DETAIL D
CLASS 'B' RIP RAP

CLASS 'I' RIP RAP

ACCESS POINT

CAT-1

GREU TL-3

15" RCP-IV
15" CSP

SURFACE WATER IMPACT

BURY PIPE 0.8'

HW

MATCHLINE SHEET 6
–L– STA. 287+00.00

MATCHLINE SHEET 8
–L– STA. 300+00.00

PUE

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP

TOE PROTECTION
SEE DETAIL 'F'

208 WILLIAM FARMER

F F DENOTES FILL IN WETLAND

E E DENOTES EXCAVATION IN WETLAND

HC HC DENOTES HAND CLEARING

POND

100' 0' 100'
HORIZONTAL SCALE

SITE 6

CHALYBEATE SPRINGS OFF RD NC

SEE SHEET 25 FOR –L– PROFILE

8/20/2021
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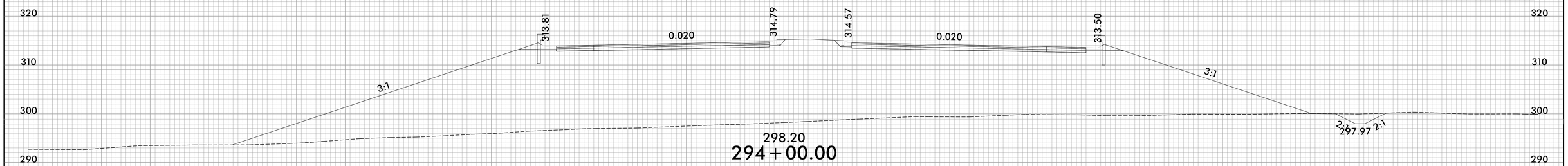
Submitted 12/21/2021

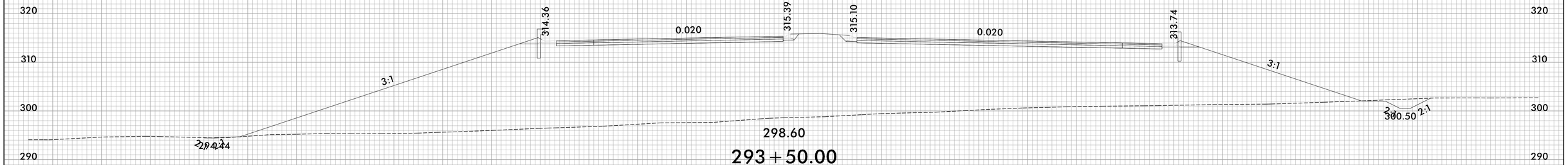
6/23/16

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	R-5705B	X-18

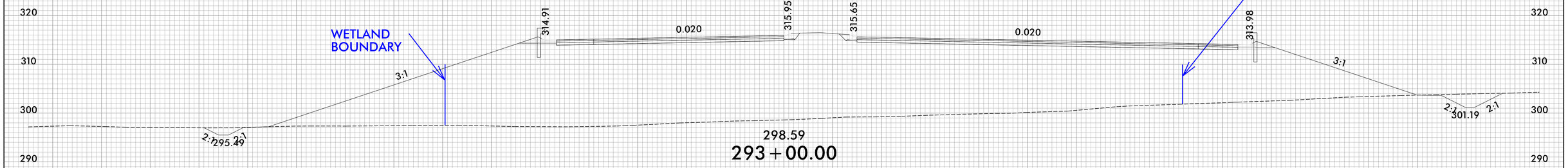
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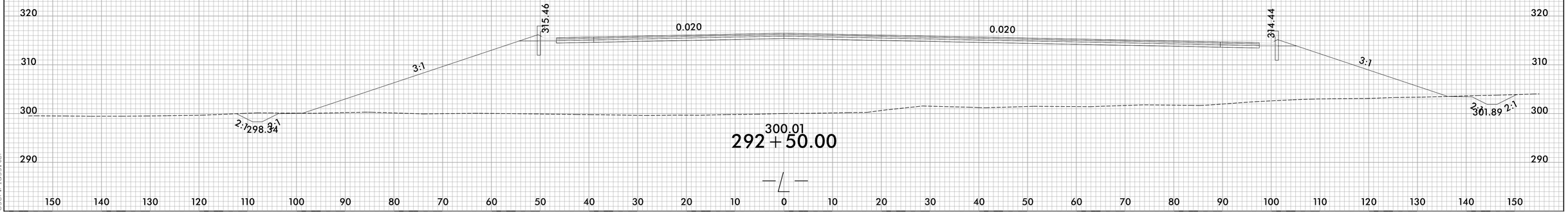
PERMIT DRAWING
SHEET _10_ OF _47_





SITE 5





150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\X-Sections\R5705B_Rdy_xpl_L(1).dgn
User:lossiter

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

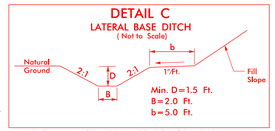
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _11_ OF _47_

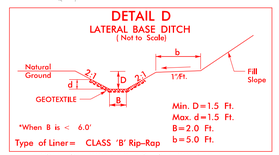
DETAIL C
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

FROM –L– STA. 300+68 TO STA. 302+50 RT

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

*When B is < 6.0'
Type of Liner= CLASS 'B' Rip-Rap

FROM STA.299+50 TO STA.301+17–L– LT.

NAD 83/NA 2011

–Y6– POT Sta. 10+00.00

–L– PC Sta. 303+16.42

–Y6– POT Sta. 19+42.34

BEGIN SBG 291+66 LT. AND 290+70 RT.
END SBG 301+16 LT. AND 301+00 RT.

24" RCP-IV
CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
11 SY
2' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP
JB W/MH
15" RCP-IV
GREU TL-3
CAT-1
15" CSP
2' LATERAL BASE DITCH
SEE DETAIL 'C'
CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
7 SY
CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY
TOE PROTECTION
SEE DETAIL 'A'
ACCESS POINT
18" CSP
FS
CB
ROD AND LUG
PUE
PDE

MATCHLINE SHEET 7
–L– STA. 300+00.00

MATCHLINE SHEET 9
–L– STA. 312+00.00

SITE 6

POND
BARRY DOYLE
207
209
RECIE FARMER
210
LAURA DICKENS
211
JERRY SMITH
212
LINWOOD MATTHEWS
216
SUSAN CHRISCOE

F F DENOTES FILL IN WETLAND

E E DENOTES EXCAVATION IN WETLAND

HC HC DENOTES HAND CLEARING

100' 0' 100'
HORIZONTAL SCALE

SEE SHEETS 25 THRU 26 FOR –L– PROFILE
SEE SHEET 33 FOR –Y6– PROFILE

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X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\R5705B_Rdy_psh_08.dgn
User: lassiter

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

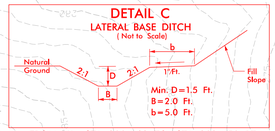
INCOMPLETE PLANS
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _12_ OF _47_

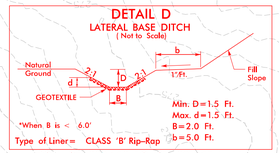
DETAIL C
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

FROM –L– STA. 300+68 TO STA. 302+50 RT

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
*When B is < 6.0'
Type of Liner= CLASS 'B' Rip-Rap

FROM STA.299+50 TO STA.301+17–L– LT.

NAD 83/NA 2011

–Y6– POT Sta. 10+00.00

BEGIN SBG 291+66 LT. AND 290+70 RT.
END SBG 301+16 LT. AND 301+00 RT.

24" RCP-IV
CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
11 SY
2' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP
JB W/MH
PDE
PUE
–L– PC Sta. 303+16.42
15" RCP-IV
CAT-1
15" CSP
GREU TL-3
FS
18" CSP
TOE PROTECTION
SEE DETAIL 'A'
ACCESS POINT
ROD AND LUG
CB
2' LATERAL BASE DITCH
SEE DETAIL 'C'
CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
7 SY
CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY
–Y6– POT Sta. 19+42.34

MATCHLINE SHEET 7
–L– STA. 300+00.00

MATCHLINE SHEET 9
–L– STA. 312+00.00

BARRY DOYLE 207
RECIE FARMER 209
LINWOOD MATTHEWS 212
LAURA DICKENS 210
JERRY SMITH 211
SUSAN CHRISCOE 216

SITE 6

F F DENOTES FILL IN WETLAND

E E DENOTES EXCAVATION IN WETLAND

HC HC DENOTES HAND CLEARING

100' 0' 100'
HORIZONTAL SCALE

SEE SHEETS 25 THRU 26 FOR –L– PROFILE
SEE SHEET 33 FOR –Y6– PROFILE

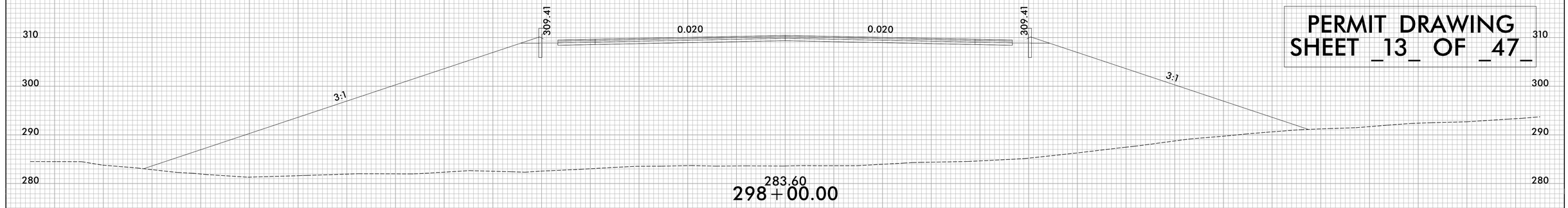
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User: lassiter

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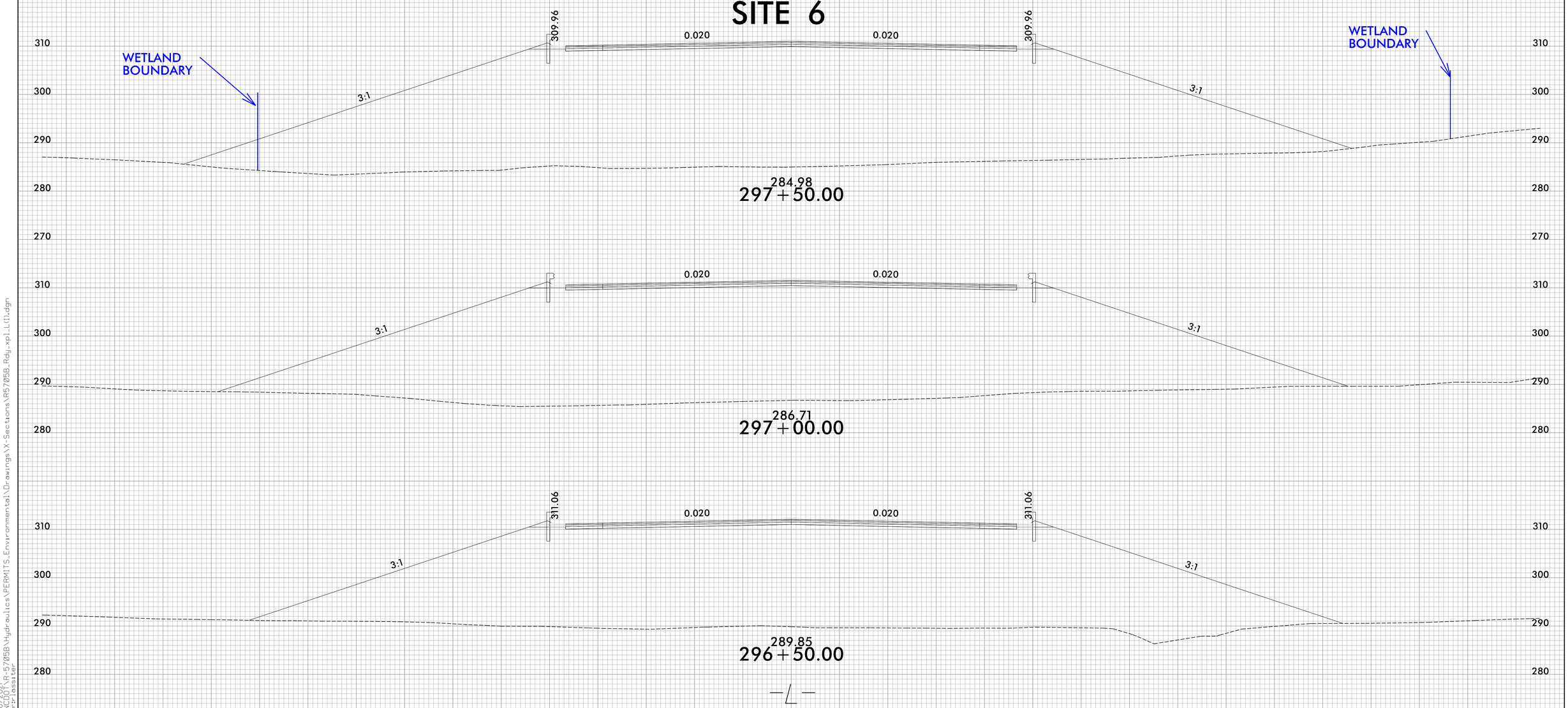
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-20

PERMIT DRAWING
SHEET _13_ OF _47_



SITE 6



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SHEET _14_ OF _47_

NAD 83/NA 2011

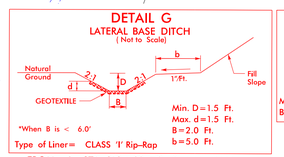
PROJECT REFERENCE NO.	SHEET NO.
R-5705B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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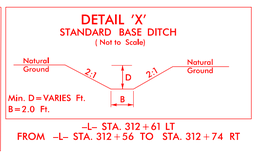
DETAIL G
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= CLASS 'I' Rip-Rap

FROM –L– STA. 312+69 TO STA. 317+00 RT
FROM –L– STA. 313+82 TO STA. 317+50 LT

DETAIL 'X'
STANDARD BASE DITCH
(Not to Scale)



–L– STA. 312+61 LT
FROM –L– STA. 312+56 TO STA. 312+74 RT

SITE 7

BEGIN SBG 311+87 LT. AND END SBG 315+75 LT.

SITE 8

MATCHLINE SHEET 8
–L– STA. 312+00.00

MATCHLINE SHEET 10
–L– STA. 326+00.00

–L– PT Sta. 317+84.22

2' STANDARD BASE DITCH
SEE DETAIL 'X'
EST. DDE=25 CY
L= 53'
S= 1.9%

CLASS 'B' RIP RAP
EST. 2 TONS

2' LAT. BASE DITCH
SEE DETAIL G
CLASS 'I' RIP RAP

18" CSP

15" RCP-IV

2@ 7'x7' RCBC WITH SILLS

CAT-1

2GI

SURFACE WATER IMPACT

ACCESS POINT

PUE

CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
EST. 10 SY

2' STANDARD BASE DITCH
SEE DETAIL 'X'
EST. DDE=10 CY
L= 20'
S= 1.0%

212 LINWOOD MATTHEWS
218 ANN BLALOCK
217 DANNY HONEYCUTT
216 SUSAN CHRISCOE

WOODS
CULTIVATED

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
P P	DENOTES IMPACTS IN SURFACE WATER (POND)
E E	DENOTES EXCAVATION IN WETLAND
	DENOTES MECHANIZED CLEARING
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 26 FOR –L– PROFILE

8/20/2021
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SHEET _15_ OF _47_

NAD 83/NA 2011

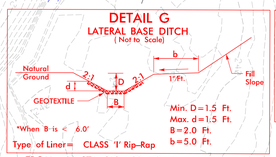
PROJECT REFERENCE NO.	SHEET NO.
R-5705B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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DETAIL G
LATERAL BASE DITCH
(Not to Scale)

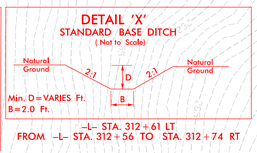


Min. D = 1.5 Ft.
Max. d = 1.5 Ft.
B = 2.0 Ft.
b = 5.0 Ft.

*When B is < 6.0'
Type of Liner = CLASS 'I' Rip-Rap

FROM –L– STA. 312+69 TO STA. 317+00 RT
FROM –L– STA. 313+82 TO STA. 317+50 LT

DETAIL 'X'
STANDARD BASE DITCH
(Not to Scale)



Min. D = VARIES Ft.
B = 2.0 Ft.

–L– STA. 312+61 LT
FROM –L– STA. 312+56 TO STA. 312+74 RT

SITE 7

BEGIN SBG 311+87 LT. AND END SBG 315+75 LT.

212
LINWOOD MATTHEWS

315

2' STANDARD BASE DITCH
SEE DETAIL 'X'
EST. DDE = 25 CY
L = 53'
S = 1.9%

CLASS 'B' RIP RAP
EST. 2 TONS

2' LAT. BASE DITCH
SEE DETAIL G
CLASS 'I' RIP RAP

218
ANN BLALOCK

–L– PT Sta. 317+84.22

320

18" CSP

15" RCP-IV

AT-1

2GI

SURFACE WATER IMPACT

15" RCP-IV

2@ 7'x7' RCBC WITH SILLS

CAT-1

15" RCP-IV

ACCESS POINT

PUE

2' LAT. BASE DITCH
SEE DETAIL G
CLASS 'I' RIP RAP

CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
EST. 10 SY

DANNY HONEYCUTT
217

2' STANDARD BASE DITCH
SEE DETAIL 'X'
EST. DDE = 10 CY
L = 20'
S = 1.0%

216
SUSAN CHRISCOE

325

218
ANN BLALOCK

CULTIVATED

WOODS

MATCHLINE SHEET 8
–L– STA. 312+00.00

MATCHLINE SHEET 10
–L– STA. 326+00.00

SITE 8

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
P P	DENOTES IMPACTS IN SURFACE WATER (POND)
E E	DENOTES EXCAVATION IN WETLAND
	DENOTES MECHANIZED CLEARING
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 26 FOR –L– PROFILE

8/20/2021
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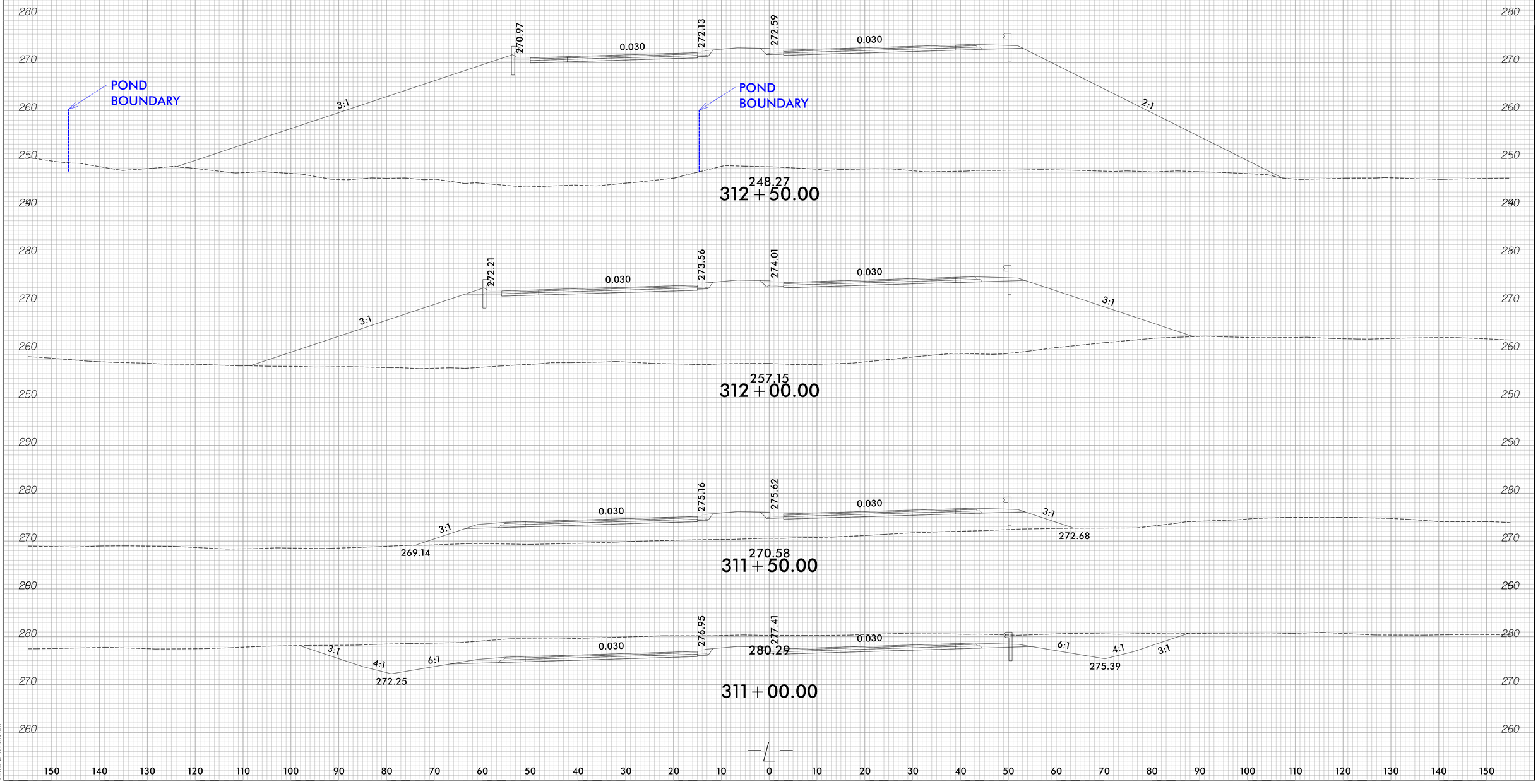
Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-26

PERMIT DRAWING
SHEET _16_ OF _47_

SITE 7



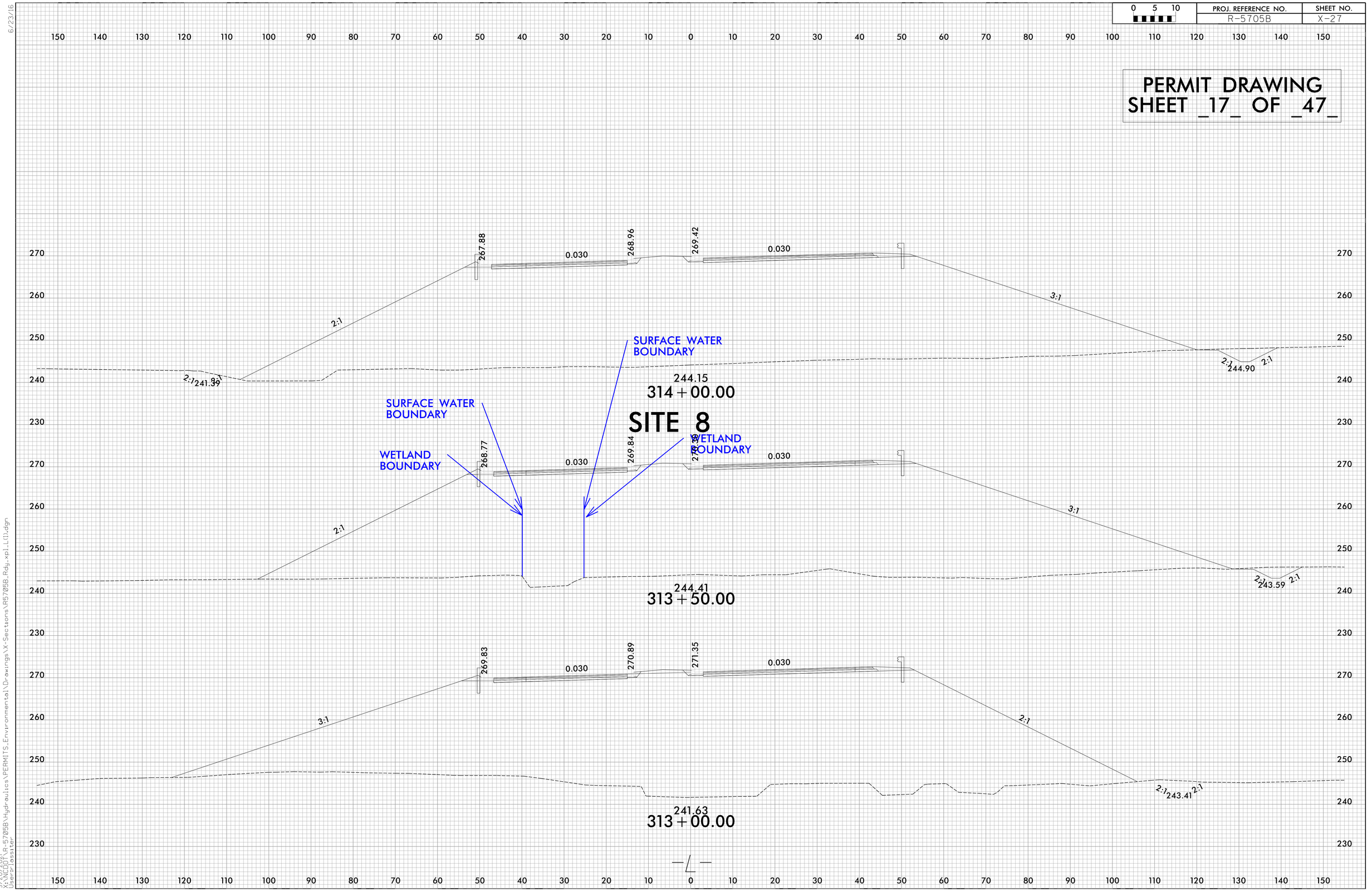
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User:tlassiter

Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-27

PERMIT DRAWING
SHEET _17_ OF _47_



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User:lassiter

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SHEET _18_ OF _47_

(NOT TO SCALE)

SKEWED MULTI–BARREL CULVERT LOW FLOW CHANNEL,SILLS AND FLOOD PLAIN

*NOTES:

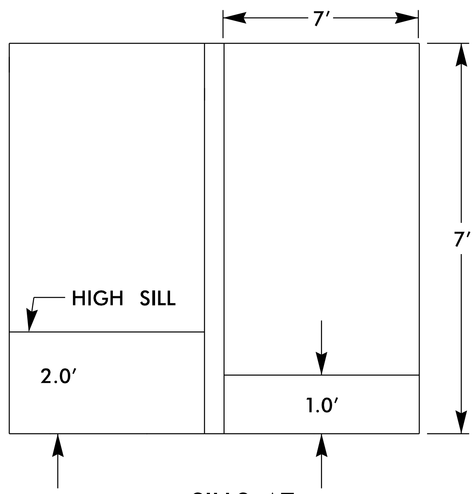
1) NATIVE MATERIAL CONSISTS OF MATERIAL THAT IS EXCAVATED FROM THE THE STREAM OR FLOODPLAIN AT THE PROJECT SITE DURING CONSTRUCTION. ONLY MATERIAL THAT IS EXCAVATED FROM THE STREAM BED MAY BE USED TO LINE THE LOW FLOW CULVERT BARREL. RIP–RAP MAY BE USED TO SUPPLEMENT THE NATIVE MATERIAL IN THE HIGH FLOW CULVERT BARREL(S). IF RIP–RAP IS USED TO LINE THE HIGH FLOW CULVERT BARREL(S), NATIVE MATERIAL SHOULD BE PLACED ON TOP TO FILL VOIDS AND PROVIDE A FLAT SURFACE FOR ANIMAL PASSAGE. NATIVE MATERIAL IS SUBJECT TO APPROVAL BY THE ENGINEER AND MAY BE SUBJECT TO PERMIT CONDITIONS.

2) SILLS ARE TO BE 1.0 FT. WIDE, CAST SEPARATELY AND ATTACHED BY DOWELS.

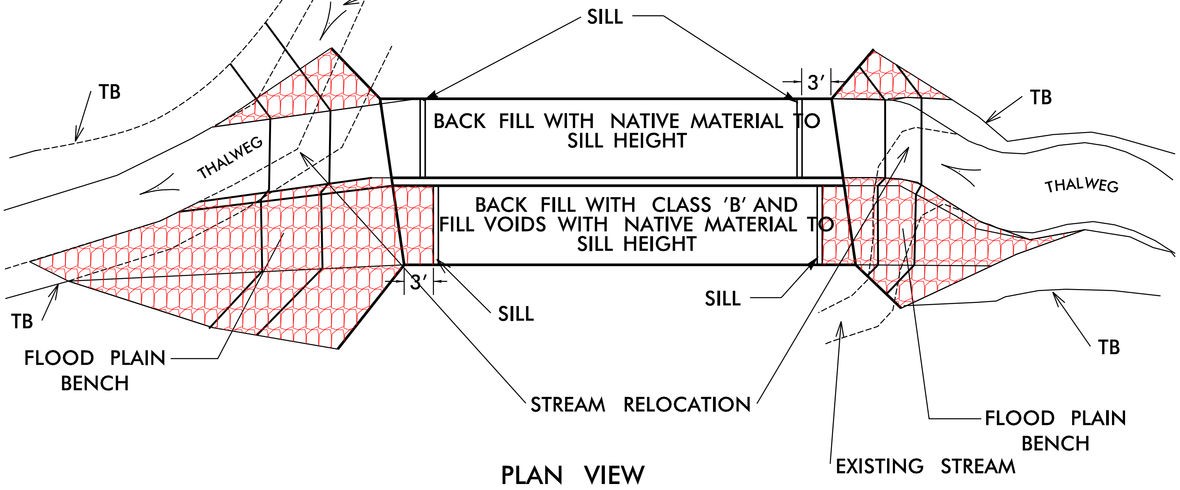
3) TOP OF LOW FLOW SILLS SHOULD MATCH STREAM BED ELEVATION IN LOW FLOW CHANNEL OF STREAM. (THALWEG)

4) DO NOT SET ELEVATION OF HIGH SILL ABOVE BANK FULL.

5) PLACE SILLS 3.0′ INSIDE INLET AND OUTLET



SILLS AT
INLET AND OUTLET



PLAN VIEW

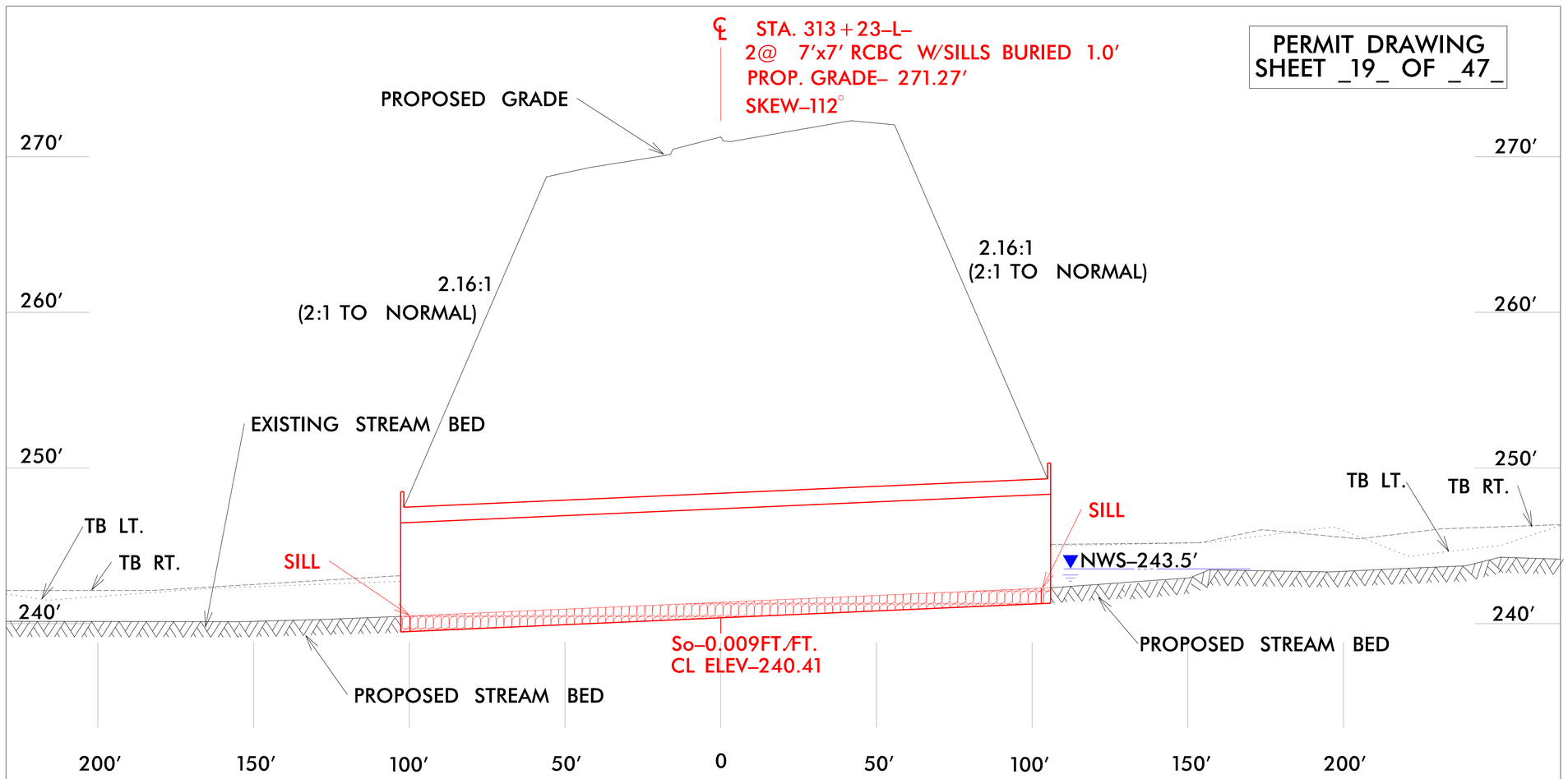
CULVERT DETAIL SHEET

SITE 8

Submitted 12/21/2021

Submitted 12/21/2021

PERMIT DRAWING
SHEET _19_ OF _47_



CULVERT AND STREAM PROFILE

SITE 8

Submitted 12/21/2021

8/17/99

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SHEET _20_ OF _47_

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

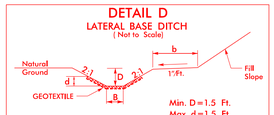
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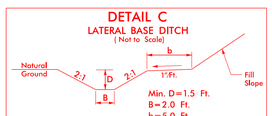
NAD 83/NA 2011

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



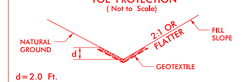
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
*When B is < 6.0'
Type of Liner= CLASS 'B' Rip-Rap
FROM -L- STA. 328+10 TO STA. 331+50 RT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
FROM -L- STA. 337+50 TO STA. 339+00 RT

DETAIL F
TOE PROTECTION
(Not to Scale)



d=2.0 Ft.
Type of Liner= CLASS I Rip-Rap
FROM -L- STA. 337+50 TO STA. 337+96 LT

SITE 9

SITE 10

SITE 11

-Y7- POT Sta. 10+00.00

-Y7- PT Sta. 16+43.65

MATCHLINE SHEET 9
-L- STA. 326+00.00

MATCHLINE SHEET 11
-L- STA. 339+50.00

2' STANDARD BASE DITCH SEE DETAIL Q CLASS I RIP RAP
CL 'I' RIP RAP
CLASS 'B' RIP RAP EST. 7 TONS GEOTEXTILE EST. 7 SY
15" CSP
SURFACE WATER IMPACT
GREU TL-3
CAT-1
15" RCP-IV
48" RCP-IV
DRAIN POND
ACCESS POINT
PUE
TDE
PDE
2' LATERAL BASE DITCH SEE DETAIL 'D' CLASS 'B' RIP RAP
2' LATERAL BASE DITCH SEE DETAIL 'C'
CLASS 'I' RIP RAP SEE DETAIL GEOTEXTILE SEE 23 SY
CULTIVATED
WOODS
ISFD
BOBBY ELKINS
SUNFLIGHT LLC
ANN BLALOCK
RAMS CHURCH RD 27 EST
EXISTING
72" CMP
72" CHL
48" CMP

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
P P	DENOTES IMPACTS IN SURFACE WATER (POND)
E E	DENOTES EXCAVATION IN WETLAND
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEETS 26 & 27 FOR -L- PROFILE
SEE SHEET 33 FOR -Y7- PROFILE

8/20/2021
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SHEET _21_ OF _47_

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

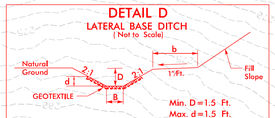
INCOMPLETE PLANS
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CORP. LICENSE NO.: C-0275

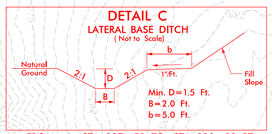
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DETAIL D
LATERAL BASE DITCH
(Not to Scale)



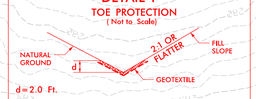
*When B is < 6.0'
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
Type of Liner= CLASS 'B' Rip-Rap
FROM -L- STA. 328+10 TO STA. 331+50 RT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
FROM -L- STA. 337+50 TO STA. 339+00 RT

DETAIL F
TOE PROTECTION
(Not to Scale)



d=2.0 Ft.
Type of Liner= CLASS I Rip-Rap
FROM -L- STA. 337+50 TO STA. 337+96 LT

SITE 9

SITE 10

SITE 11

MATCHLINE SHEET 9
-L- STA. 326+00.00

MATCHLINE SHEET 11
-L- STA. 339+50.00

-Y7- POT Sta. 10+00.00

-Y7- PT Sta. 16+43.65

2' STANDARD BASE DITCH SEE DETAIL Q CLASS I RIP RAP

CL 'I' RIP RAP

CLASS 'B' RIP RAP EST. 7 TONS GEOTEXTILE EST. 7 SY

15" CSP

48" RCP-IV

SURFACE WATER IMPACT

ACCESS POINT

DRAIN POND

PUE

TDE

PDE

2' LATERAL BASE DITCH SEE DETAIL 'D' CLASS 'B' RIP RAP

2' LATERAL BASE DITCH SEE DETAIL C

CLASS 'I' RIP RAP (SEE 19 BOTH) GEOTEXTILE SEE 23 BY

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
P P	DENOTES IMPACTS IN SURFACE WATER (POND)
E E	DENOTES EXCAVATION IN WETLAND
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

HORIZONTAL SCALE
100' 0' 100'

SEE SHEETS 26 & 27 FOR -L- PROFILE
SEE SHEET 33 FOR -Y7- PROFILE

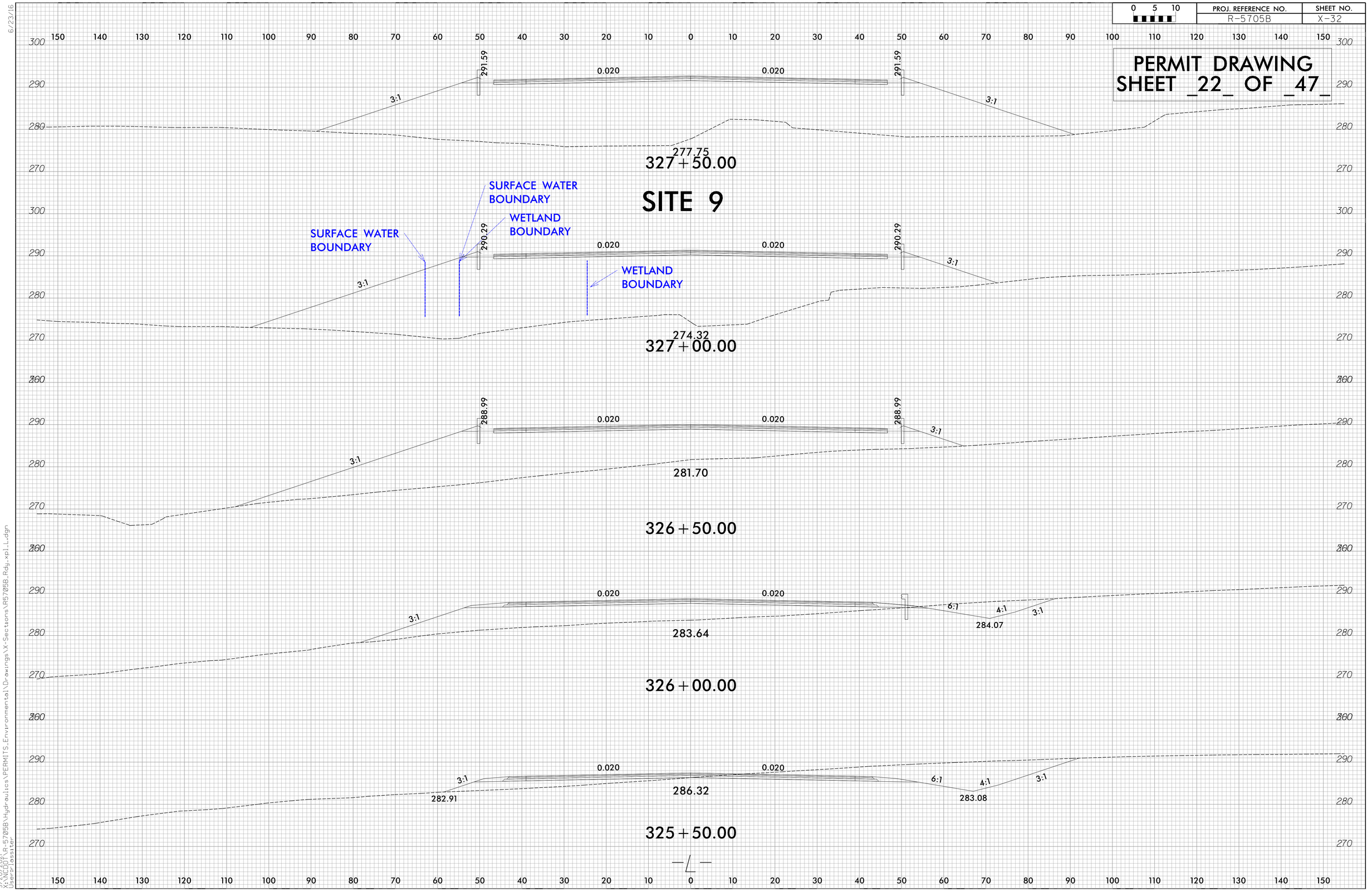
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User: lassiter

Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-32

PERMIT DRAWING
SHEET _22_ OF _47_



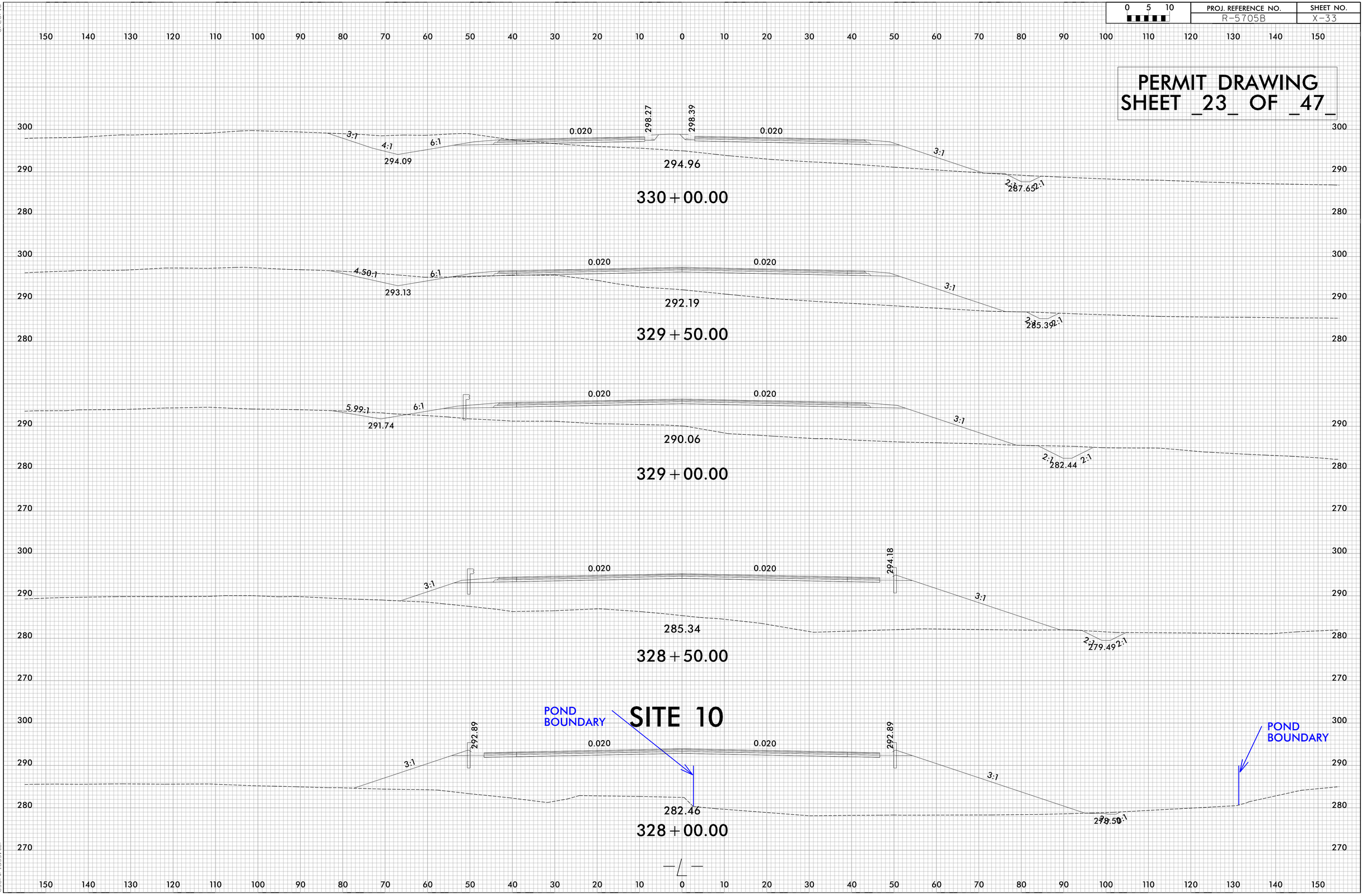
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User:lassiter

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0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-33

PERMIT DRAWING
SHEET _23_ OF _47_



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User:lassiter

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-36

PERMIT DRAWING
SHEET _24_ OF _47_

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

300
290
280

0.020 0.020
4:1
6:1
4.05:1
291.89
290.24
339+00.00

SITE 11

POND BOUNDARY

0.020 0.020
4:1
3:1
2:1
2:1
286.63
288.15
338+50.00

0.020 0.020
4:1
3:1
2:1
290.77
291.00
338+00.00

0.020 0.020
3:1
6:1
5.62:1
294.58
294.78
337+50.00

0.020 0.020
5.17:1
6:1
6:1
4:1
3:1
299.79
295.43
295.43
337+00.00

0.020 0.020
3:1
4:1
6:1
6:1
4:1
3:1
303.71
296.07
296.07
336+50.00

9/20/2021
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User:lassiter

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8/17/99

PERMIT DRAWING
SHEET _25_ OF _47_

NAD 83/NA 2011

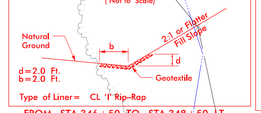
PROJECT REFERENCE NO.	SHEET NO.
R-5705B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

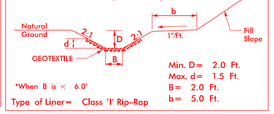
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PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL A
TOE PROTECTION
(Not to Scale)



d=2.0 Ft.
b=2.0 Ft.
Type of Liner= CL 'I' Rip-Rap
FROM STA.346+50 TO STA.348+50 LT

DETAIL S
LATERAL BASE DITCH
(Not to Scale)



Min. D= 2.0 Ft.
Max. d= 1.5 Ft.
B= 2.0 Ft.
b= 5.0 Ft.
*When B is < 6.0'
Type of Liner= Class 'I' Rip-Rap
FROM -L- STA. 346+68 TO STA. 354+00 RT
FROM -L- STA. 343+50 TO STA. 346+65 RT

BEGIN SBG 344+92 LT. AND 344+34 RT.
END SBG 348+35 LT. AND 350+63 RT.

SITE 11

SITE 12

SITE 13

MATCHLINE SHEET 10
-L- STA. 339+50.00

MATCHLINE SHEET 12
-L- STA. 353+50.00

CULTIVATED
WOODS
TDE
340
345
350
219
SUNFLIGHT LLC
220
DWIGHT STEPHENSON
ACCESS POINT
CLASS 'B' RIP RAP
EST. 1 TON
GEOTEXTILE
EST. 5 SY
CL 'I' RIP RAP
2' LATERAL BASE DITCH
SEE DETAIL C
15" RCP-IV
FS
CSP
SURFACE WATER IMPACT
TOE PROTECTION
SEE DETAIL A
TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY
GREU TL-3
CAT-1
60" RCP-IV
BURY PIPE 1.0'
HW
PUE
2' LATERAL BASE DITCH
DETAIL S
CLASS 'I' RIP RAP
-L-

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

E E DENOTES EXCAVATION IN WETLAND

P P DENOTES IMPACTS IN SURFACE WATER (POND)

HC HC DENOTES HAND CLEARING

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 27 FOR -L- PROFILE

8/20/2021
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PERMIT DRAWING SHEET _26_ OF _47_

NAD 83/NA 2011

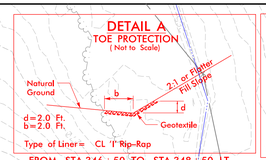
PROJECT REFERENCE NO.	SHEET NO.
R-5705B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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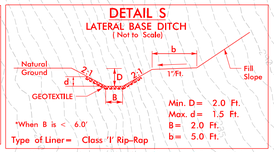
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RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL A
TOE PROTECTION
(Not to Scale)



d=2.0 Ft.
b=2.0 Ft.
Type of Liner= CL 'I' Rip-Rap
FROM STA.346+50 TO STA.348+50 LT

DETAIL S
LATERAL BASE DITCH
(Not to Scale)



Min. D= 2.0 Ft.
Max. d= 1.5 Ft.
B= 2.0 Ft.
b= 5.0 Ft.
*When B is < 6.0'
Type of Liner= Class 'I' Rip-Rap
FROM -L- STA. 346+68 TO STA. 354+00 RT
FROM -L- STA. 343+50 TO STA. 346+65 RT

SITE 11

SITE 12

SITE 13

BEGIN SBG 344+92 LT. AND 344+34 RT.
END SBG 348+35 LT. AND 350+63 RT.

MATCHLINE SHEET 10
-L- STA. 339+50.00

MATCHLINE SHEET 12
-L- STA. 353+50.00

219
SUNFLIGHT LLC

220
DWIGHT STEPHENSON

CLASS 'B' RIP RAP
EST. 1 TON
GEOTEXTILE
EST. 5 SY

CL 'I' RIP RAP

2' LATERAL BASE DITCH
SEE DETAIL C

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

TOE PROTECTION
SEE DETAIL A

SURFACE WATER IMPACT

ACCESS POINT

15" RCP-IV

15" CSP

FS

GREU TL-3

CAT-1

60" RCP-IV

BURY PIPE 1.0'

HW

2' LATERAL BASE DITCH
DETAIL S
CLASS 'I' RIP RAP

PUE

TDE

CULTIVATED

WOODS

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

E E DENOTES EXCAVATION IN WETLAND

P P DENOTES IMPACTS IN SURFACE WATER (POND)

HC HC DENOTES HAND CLEARING

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 27 FOR -L- PROFILE

8/20/2021
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User: lassiter

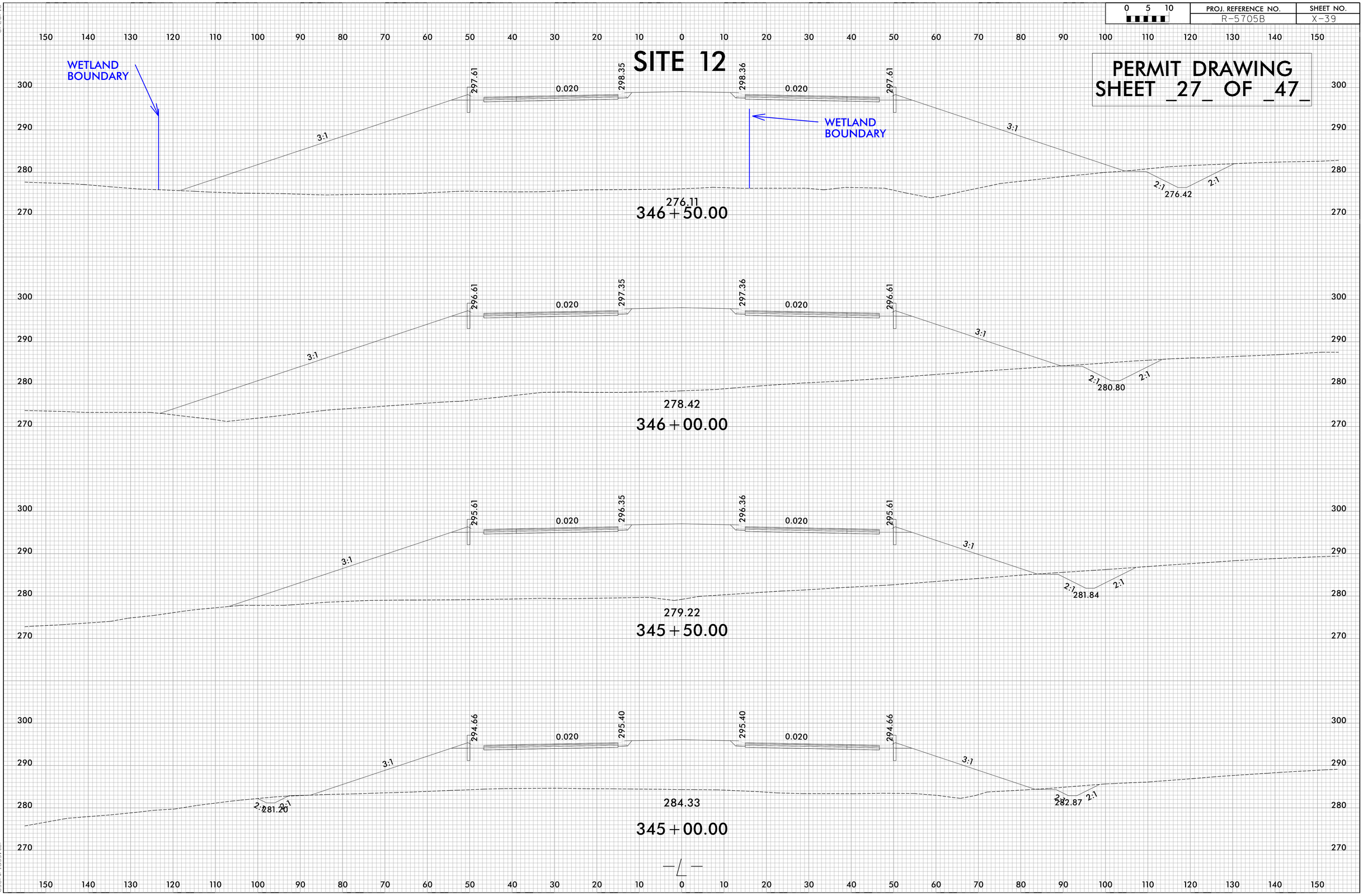
Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-39

SITE 12

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SHEET _27_ OF _47_



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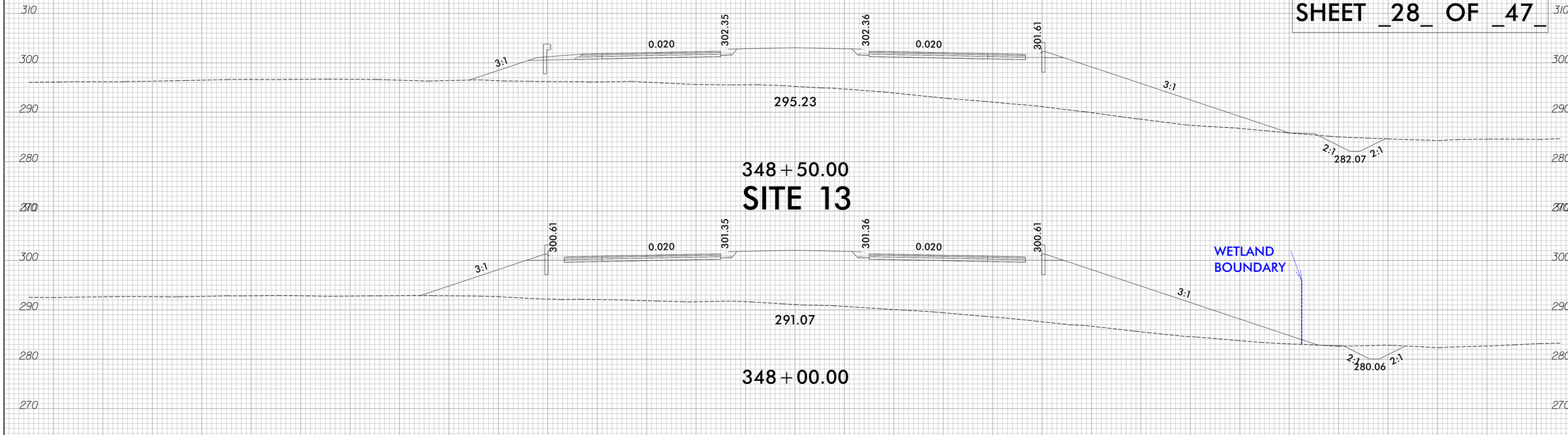
Submitted 12/21/2021

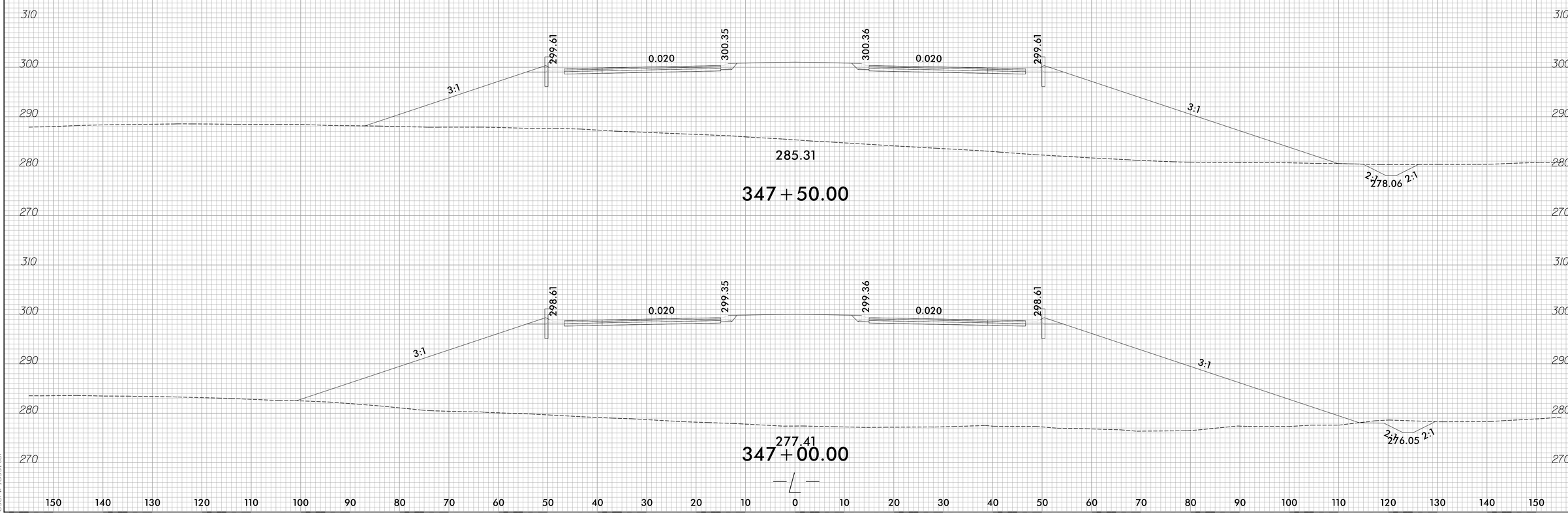
6/23/16

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	R-5705B	X-40

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

PERMIT DRAWING
SHEET _28_ OF _47_





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User:lossiter

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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CORP. LICENSE NO.: C-0275

PERMIT DRAWING
SHEET _29_ OF _47_

NAD 83/NA 2011

SITE 14

SITE 15

MATCHLINE SHEET 11
-L- STA. 353+50.00

MATCHLINE SHEET 13
-L- STA. 367+50.00

-L- PC Sta. 353+67.90

220 DWIGHT STEPHENSON

221 ROBERTA WOOLARD

CULTIVATED

15" RCP-IV

24" RCP-IV

CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
EST. 11 SY

SURFACE WATER IMPACT

ACCESS POINT

2' LATERAL BASE DITCH
SEE DETAIL C

F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 27 THRU 28 FOR -L- PROFILE

8/20/2021
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SHEET _30_ OF _47_

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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CORP. LICENSE NO.: C-0275

SITE 14

NAD 83/NA 2011

355 360 365

220 DWIGHT STEPHENSON

221 ROBERTA WOOLARD

CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
EST. 11 SY

SURFACE WATER IMPACT

ACCESS POINT

15" RCP-IV

24" RCP-IV

2' LATERAL BASE DITCH
SEE DETAIL C

MATCHLINE SHEET 11
-L- STA. 353+50.00

-L- PC Sta. 353+67.90

MATCHLINE SHEET 13
-L- STA. 367+50.00

CULTIVATED

SITE 15

220 DWIGHT STEPHENSON

221 ROBERTA WOOLARD

CULTIVATED

F F DENOTES FILL IN WETLAND

HC HC DENOTES HAND CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 27 THRU 28 FOR -L- PROFILE

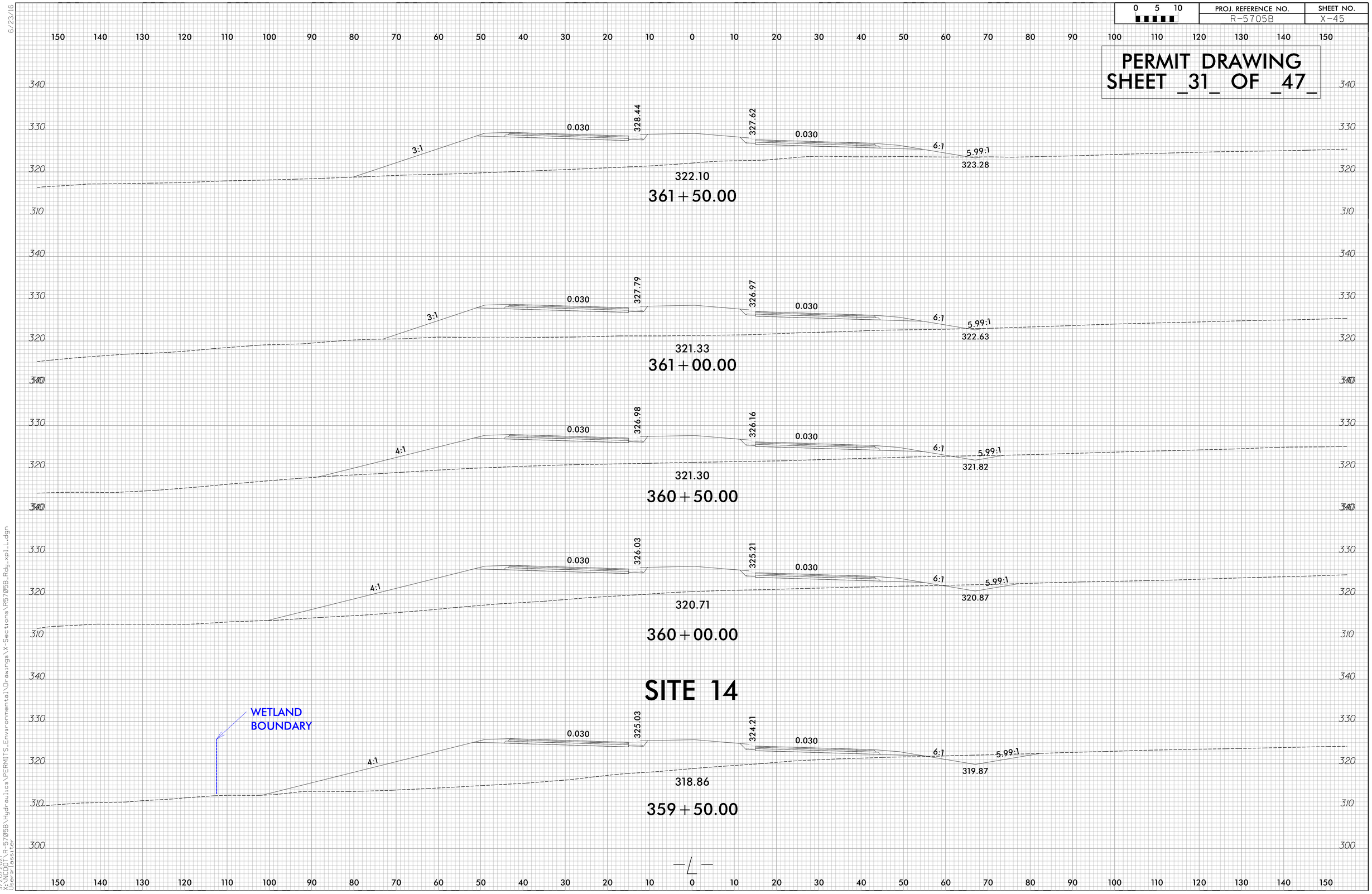
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	R-5705B	X-45

PERMIT DRAWING
SHEET _31_ OF _47_



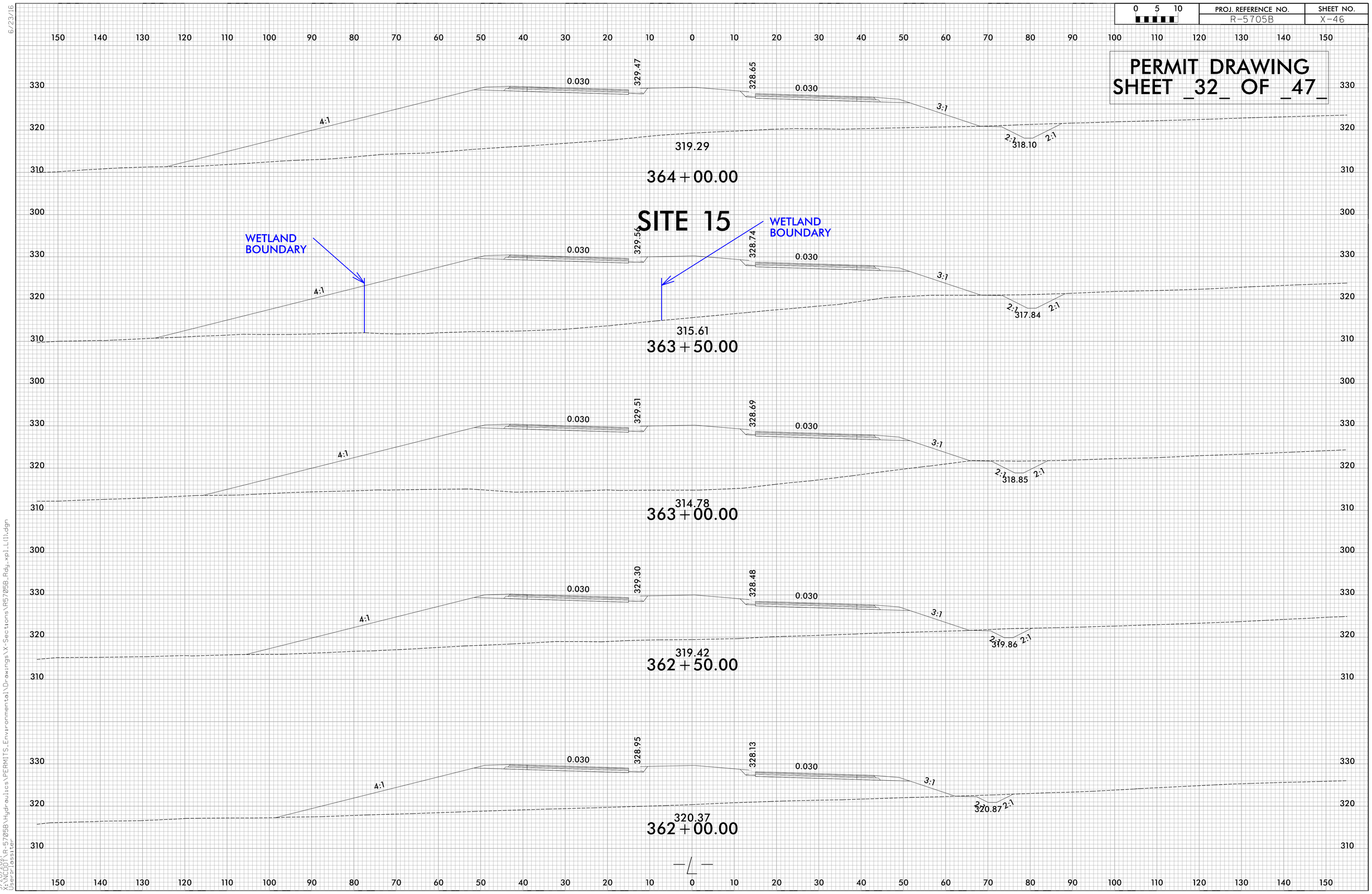
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User:tlassiter

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6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-46

PERMIT DRAWING
SHEET _32_ OF _47_



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User:lossiter

Submitted 12/21/2021

8/17/99

PERMIT DRAWING
SHEET _33_ OF _47_

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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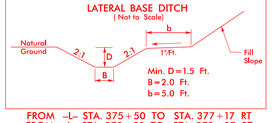
TGS ENGINEERS
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RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/NA 2011

SITE 16

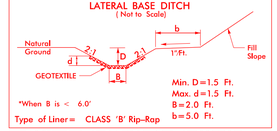
SITE 17

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 375+50 TO STA. 377+17 RT
FROM –L– STA. 370+50 TO STA. 372+07 RT
FROM –L– STA. 372+10 TO STA. 373+00 RT
FROM –L– STA. 380+00 TO STA. 381+50 RT

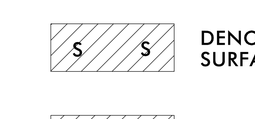
DETAIL D
LATERAL BASE DITCH
(Not to Scale)



*When B is < 6.0'
Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 377+28 TO STA. 380+00 RT
FROM –L– STA. 370+00 TO STA. 372+39 LT.

DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM –L– STA. 375+00 TO STA. 375+50 RT

DETAIL AB
STANDARD BASE DITCH
(Not to Scale)



–L– STA. 376+07 LT

370

375

380

221
ROBERTA WOOLARD

223
RUTH PETREA

222
RICHARD BULLOCK

30' EASEMENT

WAKE COUNTY
HARNETT COUNTY

CULTIVATED

WOODS

ACCESS POINT

2' LATERAL BASE DITCH SEE DETAIL D CLASS 'B' RIP RAP

CLASS 'I' RIP RAP

15" CSP

15" RCP-IV

SURFACE WATER IMPACT

BURY PIPE 1.0

2' LATERAL BASE DITCH SEE DETAIL C

–L– PT Sta. 370+67.12

STANDARD BASE DITCH SEE DETAIL AB

CLASS 'I' RIP RAP EST. 40 TONS GEOTEXTILE EST. 75 SY

30" CMP

ALT. PIPE

SPECIAL LAT. 'V' DITCH SEE DETAIL J

2' LATERAL BASE DITCH SEE DETAIL C

2' LATERAL BASE DITCH SEE DETAIL D CLASS 'B' RIP RAP

2' LATERAL BASE DITCH SEE DETAIL C CLASS 'B' RIP RAP EST. 3 TON GEOTEXTILE EST. 10 SY

PUE

24" RCP

MATCHLINE SHEET 12
–L– STA. 367+50.00

MATCHLINE SHEET 14
–L– STA. 381+00.00

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 28 FOR –L– PROFILE

8/20/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\R5705B_Rdy_psh_13.dgn
User: lassiter

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8/17/99

PERMIT DRAWING
SHEET _34_ OF _47_

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

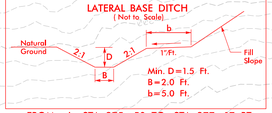
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

SITE 16

SITE 17

NAD 83/NA 2011

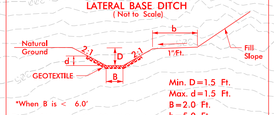
DETAIL C
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

FROM –L– STA. 375+50 TO STA. 377+17 RT
FROM –L– STA. 370+50 TO STA. 372+07 RT
FROM –L– STA. 372+10 TO STA. 373+00 RT
FROM –L– STA. 380+00 TO STA. 381+50 RT

DETAIL D
LATERAL BASE DITCH
(Not to Scale)

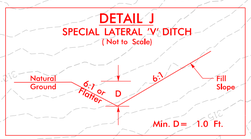


*When B is < 6.0'
Type of Liner= CLASS 'B' Rip-Rap

Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

FROM –L– STA. 377+28 TO STA. 380+00 RT
FROM –L– STA. 370+00 TO STA. 372+39 LT.

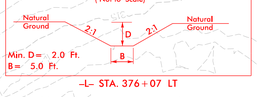
DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1.0 Ft.

FROM –L– STA. 375+00 TO STA. 375+50 RT

DETAIL AB
STANDARD BASE DITCH
(Not to Scale)



Min. D= 2.0 Ft.
B= 5.0 Ft.

–L– STA. 376+07 LT

MATCHLINE SHEET 12
–L– STA. 367+50.00

MATCHLINE SHEET 14
–L– STA. 381+00.00

2' LATERAL BASE DITCH SEE DETAIL D CLASS 'B' RIP RAP

CLASS 'I' RIP RAP

STANDARD BASE DITCH SEE DETAIL AB

CLASS 'I' RIP RAP EST. 40 TONS GEOTEXTILE EST. 75 SY

ACCESS POINT

SURFACE WATER IMPACT

15" CSP

15" RCP-IV

BURY PIPE 0.6'

2' LATERAL BASE DITCH SEE DETAIL C

–L– PT Sta. 370+67.12

BURY PIPE 1.0'

ALT. PIPE

2' LATERAL BASE DITCH SEE DETAIL C

SPECIAL LAT. 'V' DITCH SEE DETAIL J

2' LATERAL BASE DITCH SEE DETAIL D CLASS 'B' RIP RAP

2' LATERAL BASE DITCH SEE DETAIL C CLASS 'B' RIP RAP EST. 3 TON GEOTEXTILE EST. 10 SY

ROBERTA WOOLARD

RUTH PETREA

RICHARD BULLOCK

HARNETT COUNTY
WAKE COUNTY

WAKE COUNTY
HARNETT COUNTY

CULTIVATED

WOODS

F F DENOTES FILL IN WETLAND

S S DENOTES IMPACTS IN SURFACE WATER

E E DENOTES EXCAVATION IN WETLAND

HC HC DENOTES HAND CLEARING

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 28 FOR –L– PROFILE

8/20/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\0-awings\With Contours\R5705B_Rdy_psh_13_con.dgn
User: lassiter

Submitted 12/21/2021

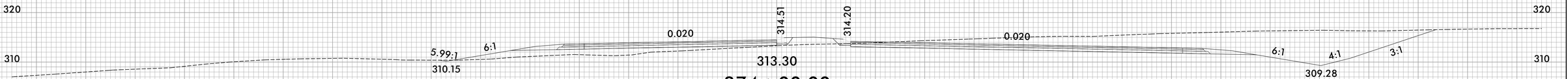
6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-50

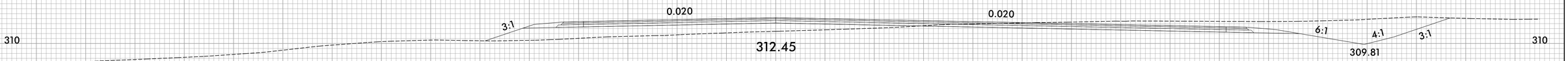
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SHEET _35_ OF _47_

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

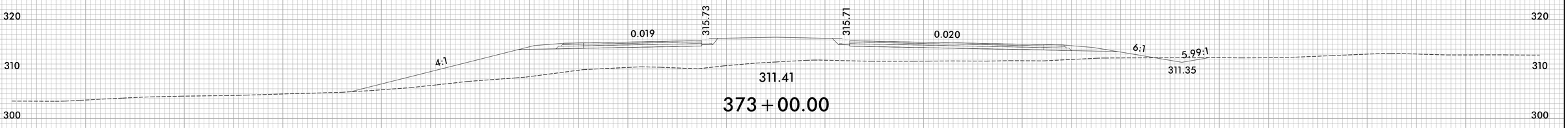
320
310
300



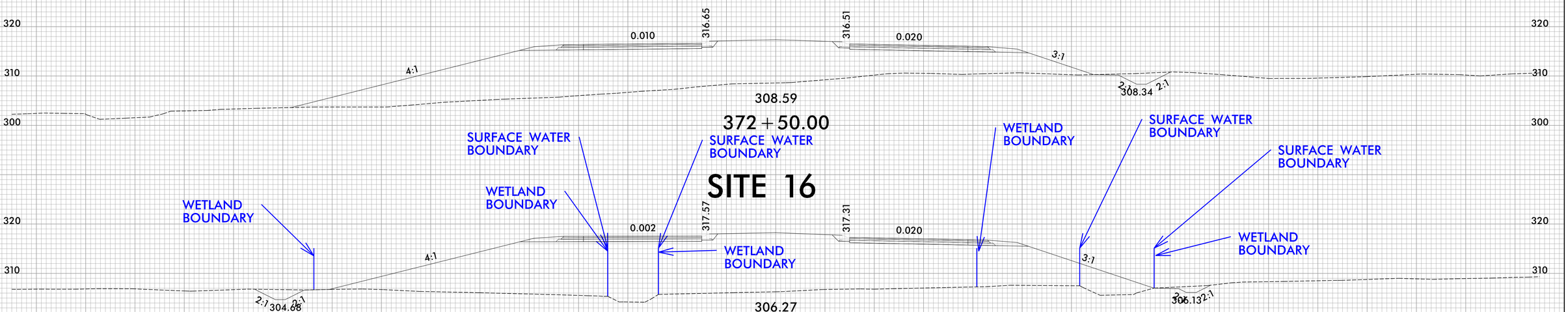
313.30
374+00.00



312.45
373+50.00



311.41
373+00.00



308.59
372+50.00

306.27
372+00.00

9/20/2021
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User:lassiter

Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-51

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

PERMIT DRAWING
SHEET _36_ OF _47_

320 310 300 290

0.020 313.60 313.35 0.020
3.59:1 3:1
304.83
376+50.00
304.50 2:1

SURFACE WATER BOUNDARY
SURFACE WATER BOUNDARY
WETLAND BOUNDARY
WETLAND BOUNDARY
WETLAND BOUNDARY

SITE 17

0.020 313.41 313.16 0.020
3:1 3:1
304.80
376+00.00
306.06 2:1

SURFACE WATER BOUNDARY
SURFACE WATER BOUNDARY

320 310 300 290

0.020 313.40 313.15 0.020
3:1 6:1 4.14:1
308.10
375+50.00
307.63

320 310 300

0.020 313.57 313.32 0.020
3:1 6:1 4.11:1
310.92
375+00.00
309.19

320 310 300

0.020 313.96 313.67 0.020
5.99:1 6:1 6:1 4:1 3:1
309.62
312.14
374+50.00
309.07

300

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

9/20/2021
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User:lossiter

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	14

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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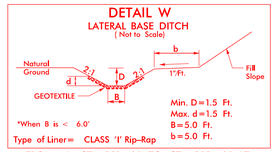
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RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _37_ OF _47_

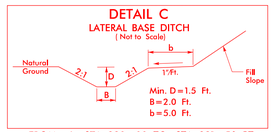
NAD 83/NA 2011

DETAIL W
LATERAL BASE DITCH
(Not to Scale)



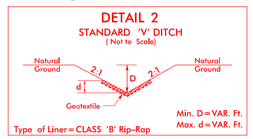
FROM –L– STA. 391+00 TO STA. 392+00 LT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



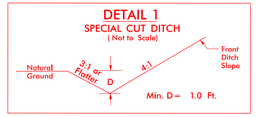
FROM –L– STA. 380+00 TO STA. 381+50 RT
FROM –Y8– STA. 12+92 TO STA. 13+00 RT

DETAIL 2
STANDARD 'V' DITCH
(Not to Scale)



FROM STA. 17+00 –Y22– LT.

DETAIL 1
SPECIAL CUT DITCH
(Not to Scale)



FROM –Y22– STA. 11+00 TO STA. 12+30 RT
FROM –Y22– STA. 14+63 TO STA. 16+50 RT.

S S DENOTES IMPACTS IN SURFACE WATER

E E DENOTES EXCAVATION IN WETLAND

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 18

SITE 19

SITE 20

MATCHLINE SHEET 13 –L– STA. 381+50.00

MATCHLINE SHEET 22 –Y8– STA. 13+00.00

MATCHLINE SHEET 15 –L– STA. 395+00.00

223 RUTH PETREA

308 BELLEWOOD HOMEOWNERS ASSOC. INC

KRYSTAL LAUREN MOORE

LENNAR CAROLN

MICHAEL LANCE REESE

PROPOSED DITCH CLEAN-OUT
LENGTH– +/–240'
EXCAVATION– +/–70cu.yds
TO ELEV– 324.0'

5' LAT. BASE DITCH
SEE DETAIL W
CLASS 'I' RIP RAP

STANDARD V DITCH
SEE DETAIL 2
DDE– 5cu.yds.
FF– 9sq.yds
RIP RAP– 7 TONS

SPECIAL CUT DITCH
SEE DETAIL 1

RETAIN CB

15" RCP–IV
18" RCP–IV
24" RCP–IV
30" RCP
48" RCP–IV

CAROLINA CHARTER ACADEMY HOLDINGS LLC

304 BELLEWOOD HOMEOWNERS ASSOCIATION, INC.

303

305A SUMMER DISALVO & JUSTIN DISALVO

305B PETER CAMPBELL

305C

305D NATASSIA SANTANA & JOEL J. GOMEZ

306 DAVID ALEXANDER BERNAL

307

100' 0' 100'
HORIZONTAL SCALE

304 UPGRADE EXISTING OR NEW SIGNAL

SEE SHEETS 28 THRU 29 FOR –L– PROFILE
SEE SHEET 33 FOR –Y8– PROFILE

8/6/2021
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User:jassler

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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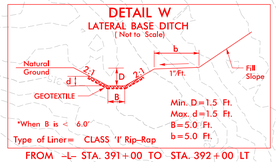
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RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _38_ OF _47_

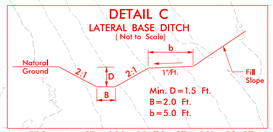
NAD 83/NA 2011

DETAIL W
LATERAL BASE DITCH
(Not to Scale)



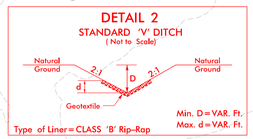
Type of Liner= CLASS 'I' Rip-Rap
FROM –L– STA. 391+00 TO STA. 392+00 LT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 380+00 TO STA. 381+50 RT
FROM –Y8– STA. 12+92 TO STA. 13+00 RT

DETAIL 2
STANDARD 'V' DITCH
(Not to Scale)



Type of Liner= CLASS 'B' Rip-Rap
FROM STA. 17+00 –Y22– LT.

DETAIL 1
SPECIAL CUT DITCH
(Not to Scale)



FROM –Y22– STA. 11+00 TO STA. 12+30 RT
FROM –Y22– STA. 14+63 TO STA. 16+50 RT.

S S DENOTES IMPACTS IN SURFACE WATER

E E DENOTES EXCAVATION IN WETLAND

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 18

SITE 20

SITE 19

MATCHLINE SHEET 13
–L– STA. 381+50.00

MATCHLINE SHEET 22
–Y8– STA. 13+00.00

MATCHLINE SHEET 15
–L– STA. 395+00.00

223 RUTH PETREA

308 BELLEWOOD HOMEOWNERS ASSOC. INC

KRYSTAL LAUREN MOORE

LENNAR CAROLINA

MICHAEL LANCE REESE

PROPOSED DITCH CLEAN-OUT
LENGTH– +/–240'
EXCAVATION– +/–70cu.yds
TO ELEV– 324.0'

5' LAT. BASE DITCH
SEE DETAIL W
CLASS 'I' RIP RAP

STANDARD V DITCH
SEE DETAIL 2
DDE– 5cu.yds.
FF– 9sq.yds
RIP RAP– 7 TONS

SPECIAL CUT DITCH
SEE DETAIL 1

RETAIN CB

305A SUMMER DISALVO & JUSTIN DISALVO
305B PETER CAMPBELL
305C ROBERT CRAIG EVANS
305D NATASSIA SANTANA & JOEL J. GOMEZ
307
306 DAVID ALEXANDER BERNAL
304 BELLEWOOD HOMEOWNERS ASSOCIATION, INC.
303 CAROLINA CHARTER ACADEMY HOLDINGS LLC

UPGRADE EXISTING OR NEW SIGNAL

100' 0' 100'
HORIZONTAL SCALE

SEE SHEETS 28 THRU 29 FOR –L– PROFILE
SEE SHEET 33 FOR –Y8– PROFILE

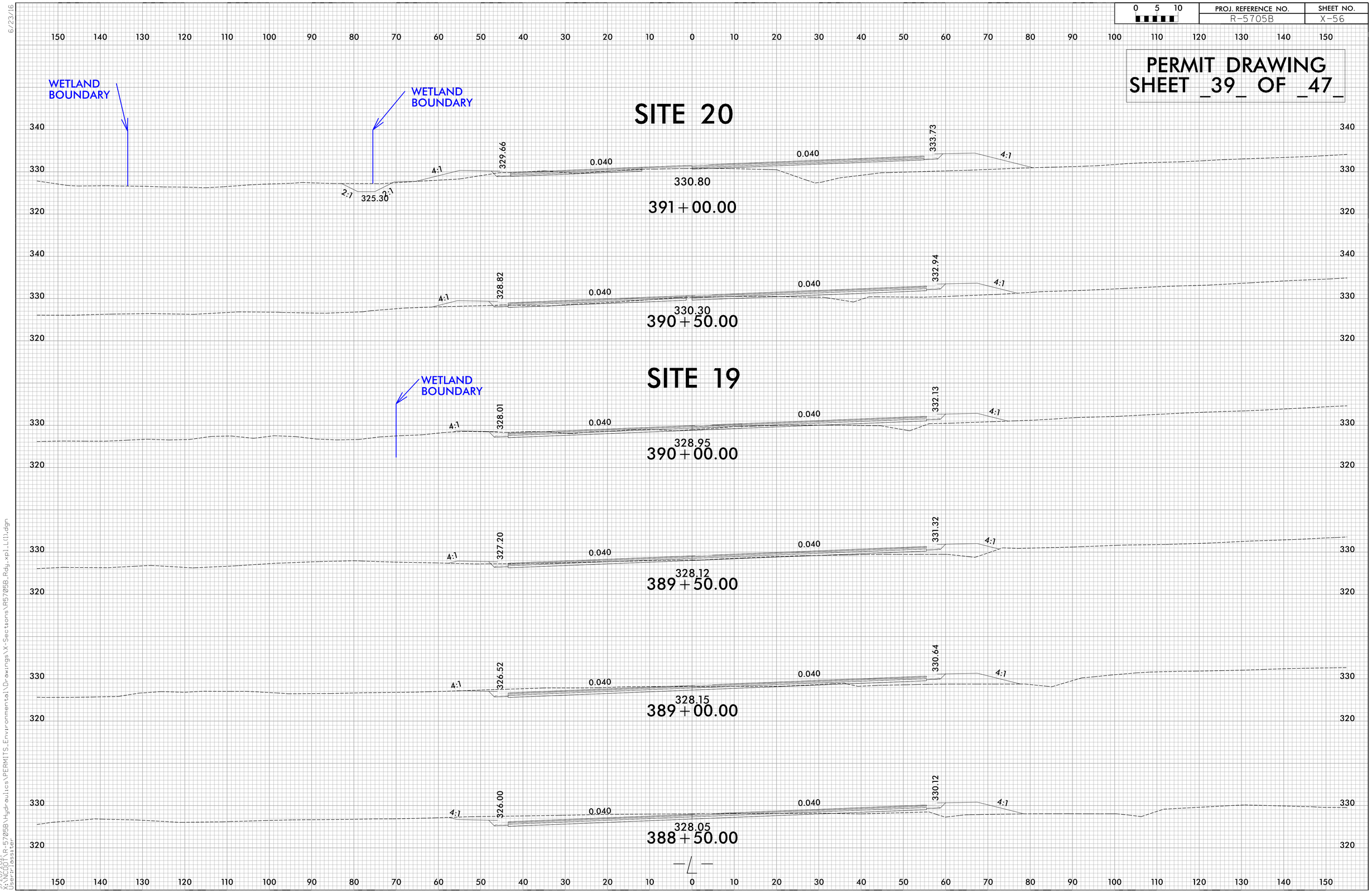
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User:Lossiter

Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-56

PERMIT DRAWING
SHEET _39_ OF _47_



9/20/2021
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User:tlassiter

Submitted 12/21/2021

8/17/99

PERMIT DRAWING
SHEET _40_ OF _47_

NAD 83/NA 2011

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

MATCHLINE SHEET 16
-L- STA. 422+00.00

MATCHLINE SHEET 18
-L- STA. 436+00.00

-Y14- POT Sta. 10+00.00

-Y14- PC Sta. 11+21.15

-Y14- PT Sta. 12+02.39

-L- PC Sta. 429+29.71

-L- PT Sta. 434+79.55

SPECIAL BACK OF CURB
CUT DITCH
SEE DETAIL T

'B' RIP RAP

STEPHEN OMMS
CHAD MOODY
ANTHONY VALLE
MICHAEL LAGNESE
DANIELLE HARRISON
CHRIS THOMPSON
CRAIG GOLDEN
CLAUDE SIMMONS
MATTHEW BAIRD
JANET BLACKMAN
DENNIS GOLDENSOHN
THEODORE PATEREK
CHRISTOPHER CARVER
RICHARD SCANLON
PHILIP BROWN
CHRISTOPHER M. MURPHY AND SPOUSE, TABITHA L. MURPHY
JOHNSONS LANDING HOMEOWNERS ASSC
THEODORE FRANZESE
TERRY RITCH
SHANE RUNDGREN
2015-3 IH2 BORROWER LP
BRUCE WEITZ
DEREK LAWHORN
JONATHAN MCLEAN
KENNEBEC FLYING CLUB
AIRPORT

COYOTE MELON DR 22' BST
MALAHAR LN 22' BST
NC 55/N RALEIGH ST 34' BST

15" RCP-IV
24" RCP-IV
18" RCP-IV

CONC MTL C
CONC MTL G

DENOTES MECHANIZED CLEARING

100' 0' 100'
HORIZONTAL SCALE

SITE 21

SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 35 FOR -Y13- & -Y14- PROFILES

9/20/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\R5705B_Rdy_psh_17.dgn
User:lassiter

Submitted 12/21/2021

8/17/99

PERMIT DRAWING
SHEET _41_ OF _47_

NAD 83/NA 2011

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
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TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

MATCHLINE SHEET 16
-L- STA. 422+00.00

MATCHLINE SHEET 18
-L- STA. 436+00.00

-Y14- POT Sta. 10+00.00

-Y14- PC Sta. 11+21.15

-Y14- PT Sta. 12+02.39

-L- PC Sta. 429+29.71

-L- PT Sta. 434+79.55

SPECIAL BACK OF CURB CUT DITCH SEE DETAIL T

'B' RIP RAP

15" RCP-IV

24" RCP-IV

STEPHEN OMMS
CHAD MOODY
ANTHONY VALLE
MICHAEL LAGNESE
DANIELLE HARRISON
CHRIS THOMPSON
CRAIG GOLDEN
PHILIP BROWN
CHRISTOPHER M. MURPHY AND SPOUSE, TABITHA L. MURPHY
RICHARD SCANLON
CHRISTOPHER CARVER
THEODORE PATEREK
DENNIS GOLDENSOHN
JANET BLACKMAN
MATTHEW BAIRD
CLAUDE SIMMONS
JOHNSONS LANDING HOMEOWNERS ASSC
THEODORE FRANZESE
TERRY RITCH
SHANE RUNDGREN
2015-3 IH2 BORROWER LP
BRUCE WEITZ
DEREK LAWHORN
JONATHAN MCLEAN
KENNEBEC FLYING CLUB
AIRPORT
COYOTE MELON DR 22' BST
MALAHAR LN 22' BST
NC 55/N RALEIGH ST 34' BST

255 257 258 259 260 261 264 267 268 269 251

425 430 435

SITE 21

DENOTES MECHANIZED CLEARING

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 35 FOR -Y13- & -Y14- PROFILES

9/20/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\With Contours\R5705B_Rdy_psh_17_con.dgn
[beir.lassiter]

Submitted 12/21/2021

8/17/99

PERMIT DRAWING
SHEET _42_ OF _47_

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

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RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/NA 2011

MATCHLINE SHEET 20
-L- STA. 477+50.00

-L- PC Sta. 480+20.81

-L- PT Sta. 485+54.32

-L- POT Sta. 486+80.31

-L- PT Sta. 489+35.98

CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY

SPECIAL CUT DITCH
SEE DETAIL L

STANDARD 'V' DITCH
SEE DETAIL AA *
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 14 SY

15" RCP-IV
18" RCP-IV
24" RCP-IV

ACCESS POINT
PUE
PUE POINT
TDE

ANS TRUST THE
ALESSANDRO BIANCO
SHIREY JO BAIRD
GLENN POND
DANA HALEY
DONALD HESTER
BRYAN ZIMMERMAN
JIMMIE HANKS
LISA WILSHIRE
PEGGY WATERS
CLAYTON FAMILY LLC
CITIMORTGAGE INC

289 290 291 292 293 294 295 296 297

SR 2141 BALDWINS RD BST
NC 55 34' BST
JICARILLA LN 18' BST

F F DENOTES FILL IN WETLAND

T T DENOTES TEMPORARY FILL IN WETLAND

SITE 22

100' 0' 100'
HORIZONTAL SCALE

-L-	
PI Sta 482+90.42	PI Sta 488+08.47
△ = 20° 22' 43.0" (LT)	△ = 9° 59' 32.3" (LT)
D = 3° 49' 11.0"	D = 3° 54' 30.0"
L = 533.51'	L = 255.67'
T = 269.60'	T = 128.16'
R = 1,500.00'	R = 1,465.99'
SE = 04	
RO = 200'	

SEE SHEET 32 FOR -L- PROFILE

10/6/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\R5705B_Rdy_psh_21.dgn
User: tassler

Submitted 12/21/2021

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PERMIT DRAWING SHEET _43_ OF _47_

NAD 83/NA 2011

MATCHLINE SHEET 20
-L- STA. 477+50.00

-L- PC Sta. 480+20.81

-L- PT Sta. 485+54.32

-L- POT Sta. 486+80.31

-L- PT Sta. 489+35.98

CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY

SPECIAL CUT DITCH
SEE DETAIL L

STANDARD 'V' DITCH
SEE DETAIL AA *
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 14 SY

15" RCP-IV
18" RCP-IV
24" RCP-IV

ACCESS POINT
PUE
PUE POINT
TDE
POND

289 ANS TRUST THE
290 GLENN POND
291 DANA HALEY
292 ANS TRUST THE
293 DONALD HESTER
294 ALESSANDRO BIANCO
295 BRYAN ZIMMERMAN
296 JIMMIE HANKS
297 SHIREY JO BAIRD
PEGGY WATERS
LISA WILSHIRE
CLAYTON FAMILY LLC
CITIMORTGAGE INC

F F DENOTES FILL IN WETLAND

T T DENOTES TEMPORARY FILL IN WETLAND

SITE 22

100' 0' 100'
HORIZONTAL SCALE

-L-	
PI Sta 482+90.42	PI Sta 488+08.47
Δ = 20° 22' 43.0" (LT)	Δ = 9° 59' 32.3" (LT)
D = 3° 49' 11.0"	D = 3° 54' 30.0"
L = 533.51'	L = 255.67'
T = 269.60'	T = 128.16'
R = 1,500.00'	R = 1,465.99'
SE = 04	
RO = 200'	

SEE SHEET 32 FOR -L- PROFILE

10/26/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\With Contours\R5705B_Rdy_psh_21_con.dgn
User: tassler

Submitted 12/21/2021

8/17/99

PERMIT DRAWING
SHEET _44_ OF _47_

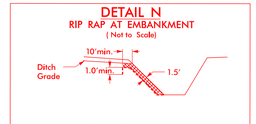
PROJECT REFERENCE NO.	SHEET NO.
R-5705B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

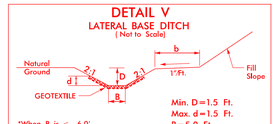
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL N
RIP RAP AT EMBANKMENT
(Not to Scale)



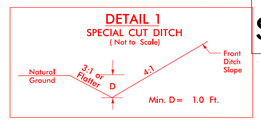
Type of Liner = Class 'I' Rip-Rap
FROM –Y8– STA. 13+62 TO STA. 13+78 RT

DETAIL V
LATERAL BASE DITCH
(Not to Scale)



*When B is < 6.0'
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=5.0 Ft.
b=5.0 Ft.
Type of Liner = CLASS 'B' Rip-Rap
FROM –Y8– STA. 13+84 TO STA. 18+50 RT

DETAIL 1
SPECIAL CUT DITCH
(Not to Scale)



FROM –Y22– STA. 11+00 TO STA. 12+30 RT
FROM –Y22– STA. 14+63 TO STA. 16+50 RT.

–Y8– STA. 22+38.00
END CONST.

SITE 24

NAD 83/NA 2011

SITE 18

SITE 23

MATCHLINE SHEET 14
–Y8– STA. 13+00.00

OCEAN 3 LLC
LINDERMAN PROPERTIES LLC
RICHARD BULLOCK
NANCY GILES
MICKEY BARBOUR
RUTH PETREA
STUART MATTHEWS
RANDY SMITH
RICHARD DWIGHT BULLOCK
SUNNI SKYS LLC
CAROLINA CHARTER ACADEMY HOLDINGS LLC
DB 18395 PG 1890
PB 2018 PG2405

224 225 226 227 228 229 230 231 309 223 303

DO NOT DISTURB USTs

CLASS I RIP RAP
RIP RAP AT EMBANKMENT SEE DETAIL N
5' LAT. BASE DITCH SEE DETAIL V CLASS 'B' RIP RAP
CLASS B RIP RAP EST. 2 TONS GEOTEXTILE EST. 7 SY.
SPECIAL CUT DITCH SEE DETAIL 1
CLASS B RIP RAP EST. 2 TONS GEOTEXTILE EST. 7 SY.
SURFACE WATER IMPACT
BURY PIPE 1.0'
TB JB w/MH
RIM=320.8'
INV=316.8'
CB

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 33 FOR –Y8– PROFILE

1/8/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\R5705B_Rdy_psh_22.dgn
User: lassiter

Submitted 12/21/2021

8/17/99

PERMIT DRAWING
SHEET _45_ OF _47_

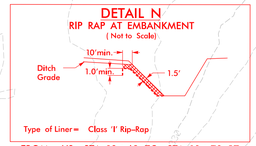
PROJECT REFERENCE NO.	SHEET NO.
R-5705B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

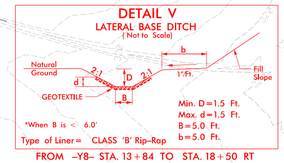
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL N
RIP RAP AT EMBANKMENT
(Not to Scale)



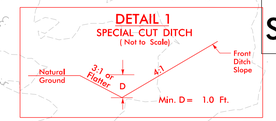
FROM –Y8– STA. 13+62 TO STA. 13+78 RT

DETAIL V
LATERAL BASE DITCH
(Not to Scale)



FROM –Y8– STA. 13+84 TO STA. 18+50 RT

DETAIL 1
SPECIAL CUT DITCH
(Not to Scale)



FROM –Y22– STA. 11+00 TO STA. 12+30 RT
FROM –Y22– STA. 14+63 TO STA. 16+50 RT.

–Y8– STA. 22+38.00
END CONST.

NAD 83/NA 2011

MATCHLINE SHEET 14
–Y8– STA. 13+00.00

SURFACE WATER IMPACT

DO NOT DISTURB USTs

CLASS B RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY.

SPECIAL CUT DITCH
SEE DETAIL 1

CLASS B RIP RAP
EST. 2 TONS
GEOTEXTILE EST. 7 SY.

5' LAT. BASE DITCH
SEE DETAIL V
CLASS 'B' RIP RAP

RIP RAP AT EMBANKMENT
SEE DETAIL N

CLASS I RIP RAP

BURY PIPE 1.0'

TB JB w/MH

RIM=320.8
INV=316.8

CAROLINA CHARTER ACADEMY, INC.
DB 18395 PG 1890
PB 2018 PG2405

RICHARD BULLOCK
NANCY GILES
MICKEY BARBOUR
RANDY SMITH
RICHARD DWIGHT BULLOCK
STUART MATTHEWS
RUTH PETREA
SUNNISKYS LLC
OCEAN 3 LLC
LINDERMAN PROPERTIES LLC

SITE 24
SITE 18
SITE 23

F F	DENOTES FILL IN WETLAND
S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND
HC HC	DENOTES HAND CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'
HORIZONTAL SCALE

SEE SHEET 33 FOR –Y8– PROFILE

1/8/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\With Contours\R5705B_Rdy_psh_22_con.dgn
User: lasalter

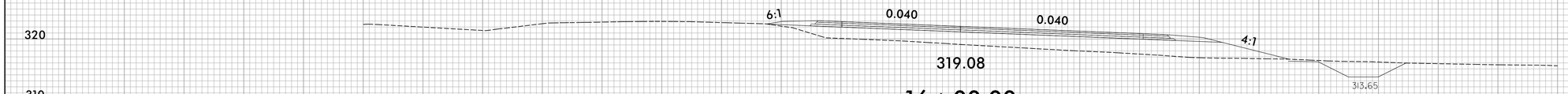
Submitted 12/21/2021

6/23/16

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-5705B	X-101

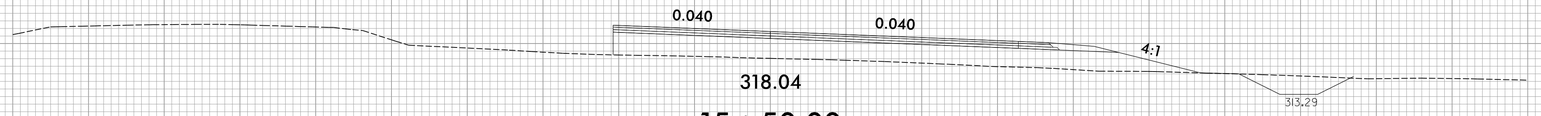
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

PERMIT DRAWING
SHEET _46_ OF _47_



319.08

16 + 00.00

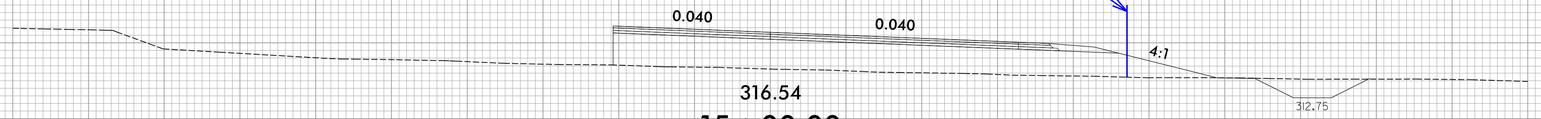


318.04

15 + 50.00

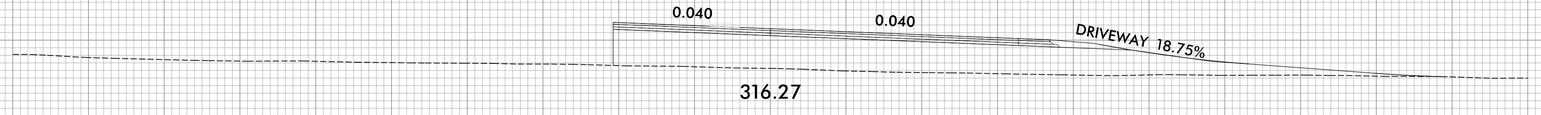
SITE 24

WETLAND BOUNDARY



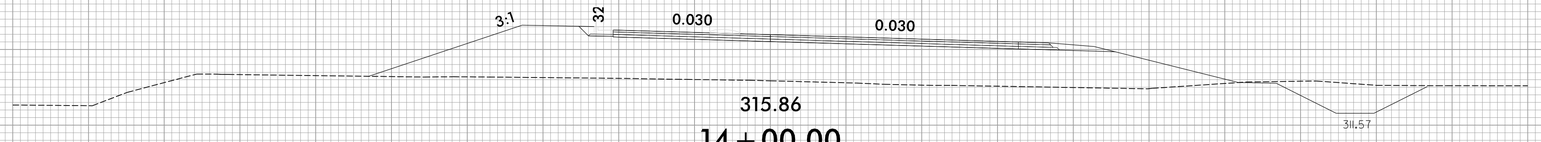
316.54

15 + 00.00



316.27

14 + 50.00

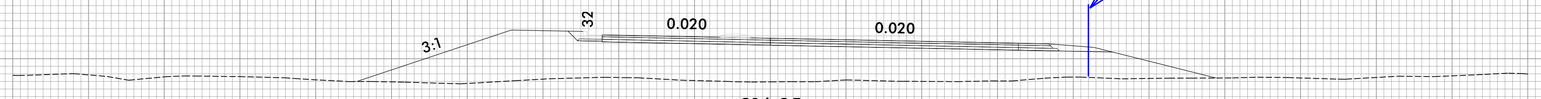


315.86

14 + 00.00

SITE 18

WETLAND BOUNDARY



316.95

13 + 50.00

-Y8-

300 320 310

9/20/2021
X:\NCDOT\R-5705B\Hydraulics\PERMITS_Environmental\Drawings\X-Sections\R5705B_Rdy_xpl_Y8_Site18-24.dgn
User:lassiter

Submitted 12/21/2021

WETLAND AND SURACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS: Permanent Fill In Wetlands (ac)	WETLAND IMPACTS: Temp. Fill In Wetlands (ac)	WETLAND IMPACTS: Excavation in Wetlands (ac)	WETLAND IMPACTS: Mechanized Clearing in Wetlands (ac)	WETLAND IMPACTS: Hand Clearing in Wetlands (ac)	SURFACE WATER IMPACTS: Permanent SW impacts (ac)	SURFACE WATER IMPACTS: Temp. SW impacts (ac)	SURFACE WATER IMPACTS: Existing Channel Impacts Permanent (ft)	SURFACE WATER IMPACTS: Existing Channel Impacts Temp. (ft)	SURFACE WATER IMPACTS: Natural Stream Design (ft)
1	247+50-250+00-L-(Pond)	Roadway Fill						0.77				
2	253+00-253+70-L-	66" RCP/Roadway Fill	0.32		< 0.01		0.04	< 0.01	< 0.01	183	61	
	253+00-L- Lt	Bank Stabilization								15		
3	254+00-L- Rt	Roadway Fill						< 0.01		110		
4	283+62-284+64-L-	48"RCP/Roadway Fill	0.50		< 0.01		0.04	0.02	< 0.01	213	39	
	284+00-L- Lt	Bank Stabilization								10		
5	292+37-293+74-L-	Roadway Fill	0.43				0.03					
6	296+76-298+52-L-	48"RCP/Roadway Fill	1.16				0.19					
	298+52-301+10 Lt.	Lateral Ditch			0.04							
7	312+53-L- Lt(Pond)	Roadway Fill						0.11				
8	312+77-314+35-L-	2@7'x7' RCBC/Roadway Fill	0.73		0.07	0.08	0.07	0.07	0.01	400	60	
	313+50-L- Lt&Rt	Bank Stabilization								114		
9	327+00-327+29-L-	48"RCP	0.03					0.01	< 0.01	168	12	
10	327+00-329+00-L- Rt.	48"RCP/Roadway Fill			0.03		0.09	0.25				
11	338+41-L-(Pond)	36"RCP						0.98				
12	346+34-346+96-L-	60" RCP/Roadway Fill	0.22				0.02	0.02	< 0.01	300	39	
13	346+68-349+95-L- Rt.	Lateral Ditch	0.04		0.07		0.11					
14	359+42-L- Lt.	Roadway Fill	< 0.01				0.01					
15	363+50-L-Lt.	24"RCP	0.12				0.01	< 0.01	< 0.01	86	20	
16	371+11-372+36-L-	48"RCP/Roadway Fill	0.45		0.02		0.05	0.02	< 0.01	207	42	
17	375+00-380+00-L-	60"RCP/Roadway Fill	1.46				0.20	0.02	< 0.01	235	48	
	375+80-378+61-L- Rt.	Lateral Ditch			0.07							
18	13+85-Y8-Rt.&Lt.	Bank Stabilization 60"/54"							< 0.01	20		
	13+40-13+84-Y8-	60"RCP/Roadway Fill	0.14		< 0.01		0.05	0.01	< 0.01	136	39	
	12+31-Y22-	54"RCP	< 0.01		< 0.01		0.02	< 0.01	< 0.01	12	34	
19	390+30-L-Lt.	Roadway Fill	0.02				0.02	< 0.01	< 0.01	84	17	
20	391+15-L-Lt.	Ditch Excavation			< 0.01		0.02					
21	428+90-L-Lt.	24"RCP				0.02						
22	486+80-L-Lt.	24"RCP	< 0.01	< 0.01								
23	13+68-Y8-Lt.	60"RCP							< 0.01		16	
24	15+00-Y8-Rt.	15"RCP	0.02		0.02		0.02					
SHEET TOTALS*:			5.65	< 0.01	0.35	0.09	0.97	2.31	0.05	2293	427	

*Rounded totals are sum of actual impacts

**Notes:

There will be 0.08 acres of Temporary Fill in wetlands in the Hand Clearing areas for Erosion Control measures.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
11/8/2021
HARNETT/WAKE
R-5705B
46377.1.3
SHEET 47 OF 47

Submitted 12/21/2021

TIP PROJECT: R-5705C

CONTRACT:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WAKE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5705C	1	

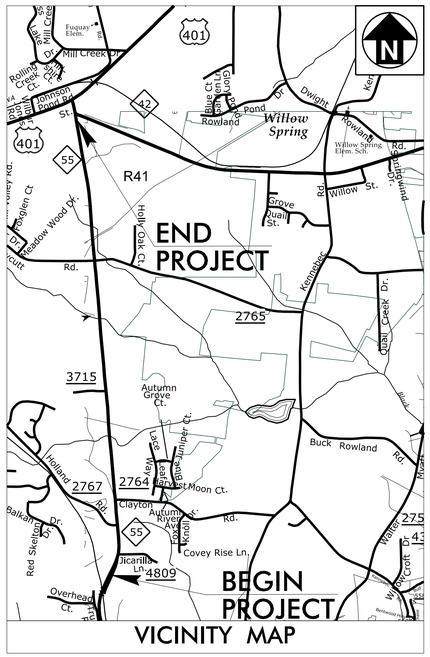
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46377.1.1		

PERMIT DRAWING
SHEET 1 OF 26

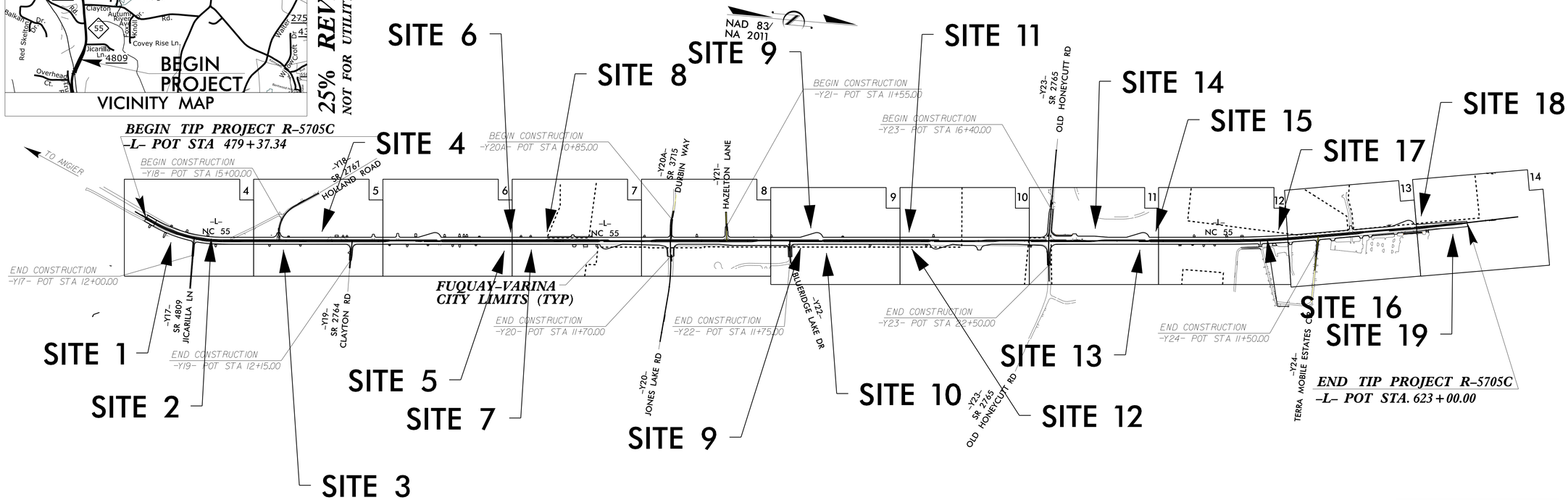
LOCATION: NC 55 FROM SOUTH OF SR 4809 (JICARILLA LANE) TO NC 42 IN FUQUAY-VARINA

TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND CULVERT EXTENSIONS

WETLAND AND SURFACE WATER IMPACTS PERMIT



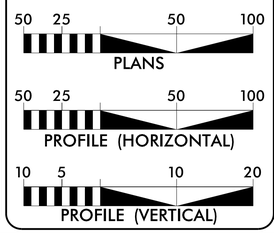
25% REVIEW PLANS
NOT FOR UTILITY OR HYDRAULIC DESIGN



PORTIONS OF THIS PROJECT ARE WITHIN THE MUNICIPAL BOUNDARIES OF FUQUAY-VARINA
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD __.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2022 = 28800
ADT 2045 = 46500
K = 9 %
D = 60 %
T = 4 % *
V = 50 MPH
* (TTST =1% DUAL 3%)
FUNC CLASS =
MINOR ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-5705C = 2.692 MILES
TOTAL LENGTH OF TIP PROJECT R-5705C = 2.692 MILES

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 17, 2020

LETTING DATE:

GLENN W. MUMFORD, PE
PROJECT ENGINEER

HERB TURNER, PE
HYDRAULICS ENGINEER

NICOLE M. HACKLER, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$DGN$$$$$$

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 15

FOR –Y17– PROFILE SEE SHEET 21

PERMIT DRAWING SHEET 2 OF 26

NAD 83/2011

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

P P DENOTES IMPACTS IN SURFACE WATER (POND)

50' 0' 50' 100' 150'
GRAPHIC SCALE

REVISIONS 8/17/99

BEGIN TIP PROJECT R-5705C
END TIP PROJECT R-5705B
–L– STA. 479+39.87

–L– POT Sta. 478+10.00

–L– PC Sta. 480+20.81

–L– PT Sta. 488+13.34

–L– POC Sta. 485+03.91

–Y17– POT Sta. 10+00.00
TIE PROPOSED R/W TO R/W BY OTHERS FROM TIP PROJECT R-5705B

END CONSTRUCTION
–Y17– STA 12+00.00

ANS TRUST THE
DB 15463 PG 1242

ANS TRUST THE
DB 15463 PG 1242
MB 1997 PG 217

ALESSANDRO BIANCO
DB 16667 PG 561
MB 2016 PG 361

SHIREY JO BAIRD
DB 4976 PG 589
MB 2016 PG 361

ANS TRUST THE
DB 15463 PG 1242
MB 1997 PG 217

GLENN POND
DB 15271 PG 1414
MB 1990 PG 464

DANA HALEY
DB 8060 PG 312

DONALD HESTER
DB 5150 PG 389
MB 2005 PG 372

BRYAN ZIMMERMAN
DB 11490 PG 1062
MB 2005 PG 372

JIMMIE HANKS
DB 4890 PG 294
MB 1986 PG 56

LISA A. OSHIRE
DB 14985 PG 1237
MB 1986 PG 56

PEGGY WATERS
DB 8568 PG 1614

CLAYTON FAMILY LLC
DB 13908 PG 1871
MB 2009 PG 1003

CITIMORTGAGE INC
DB 14649 PG 300

SITE 1
R5705-AZ18

SITE 2

PROPOSED C/A ROW FROM TIP PROJECT R-5705B FURTHER COORDINATION IS REQUIRED WITH TRS

R/W BY OTHERS

EASEMENT BY OTHERS

ABANDONED RR R/W

NC 55 N RALEIGH ST (FP BST)

NC 55 34' BST

EXISTING R/W

CAT-1

–L– 50'

–L– F-6' C&G

2'-9" C&G

2'-6" C&G

1'-6" C&G

36" WD RAIL

48" CHL

48" CONC

15" RCP

12" RCP

ISFD

ISF/BKD

HTR

S

WOODS

CULTIVATED

–L–

PI Sta 484+26.56
Δ = 30° 16' 20.6" (LT)
D = 3° 49' 11.0"
L = 792.53'
T = 405.75'
R = 1,500.00'
SE = .04
RUNOFF = 200'

MATCHLINE –L– STA. 491+50.00 SEE SHEET NO. 5

SS TIME 8/17/99 DGN

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD — PO Box 700, Fuquay-Varina, NC 27526, www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 15

FOR –Y17– PROFILE SEE SHEET 21

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

P P DENOTES IMPACTS IN SURFACE WATER (POND)

50' 0' 50' 100' 150'
GRAPHIC SCALE

PERMIT DRAWING SHEET 3 OF 26

NAD 83/2011

BEGIN TIP PROJECT R-5705C
END TIP PROJECT R-5705B
–L– STA. 479+39.87

–L– POC Sta. 478+10.00

–L– PC Sta. 480+20.81

–L– PT Sta. 488+13.34

–L– POT Sta. 491+50.00

MATCHLINE –L– STA. 491+50.00 SEE SHEET NO. 5

–Y17– POC Sta. 485+03.91

–Y17– POT Sta. 10+00.00
TIE PROPOSED R/W TO R/W BY OTHERS FROM TIP PROJECT R-5705B

END CONSTRUCTION –Y17– STA 12+00.00

PROPOSED C/A ROW FROM TIP PROJECT R-5705B FURTHER COORDINATION IS REQUIRED WITH TGS

SITE 1
R5705-AZ18

SITE 2

ANS TRUST THE
DB 15463 PG 1242

ANS TRUST THE
DB 15463 PG 1242
MB 1997 PG 217

ALESSANDRO BIANCO
DB 16667 PG 561
MB 2016 PG 361

SHIREY JO BAIRD
DB 4976 PG 589
MB 2016 PG 361

GLENN POND
DB 15271 PG 1414
MB 1990 PG 464

DANA HALEY
DB 8060 PG 312

DONALD HESTER
DB 5150 PG 389
MB 2005 PG 372

BRYAN ZIMMERMAN
DB 11490 PG 1062
MB 2005 PG 372

JIMMIE HANKS
DB 4890 PG 294
MB 1986 PG 56

LISA WISHIRE
DB 14967 PG 1237
MB 1986 PG 56

PEGGY WATERS
DB 8568 PG 1614

CLAYTON FAMILY LLC
DB 13908 PG 1871
MB 2009 PG 1003

CITIMORTGAGE INC
DB 14649 PG 300

–L–
PI Sta 484+26.56
△ = 30° 16' 20.6" (LT)
D = 3° 49' 11.0"
L = 792.53'
T = 405.75'
R = 1,500.00'
SE = .04
RUNOFF = 200'

REVISIONS 8/17/99

SSSS

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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FOR –L– PROFILE SEE SHEET 15
FOR –Y18– PROFILE SEE SHEET 21
FOR –Y19– PROFILE SEE SHEET 22

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

P P DENOTES IMPACTS IN SURFACE WATER (POND)

NAD 83/2011

PERMIT DRAWING SHEET 4 OF 26

REVISIONS 8/17/99

MATCHLINE –L– STA. 491+50.00 SEE SHEET NO. 4

MATCHLINE –L– STA. 505+50.00 SEE SHEET NO. 6

GRAPHIC SCALE 50' 0' 50' 100' 150'

JEFFERY JUDD
DB 13520 PG 1434
MB 1986 PG 2262

LLYOD OLIVE
DB 8669 PG 2505
MB 2000 PG 810

SARAH MURRAY
DB 1049 PG 11
MB 1988 PG 374

EDNA RUSSELL
MB 1988 PG 374

JEROME RUSSEL
WILL 214100-E
MB 1985 PG 1307

JUAN RODRIGUEZ
DB 11304 PG 1094
MB 1985 PG 1307

RICHARD RUSSELL
DB 3625 PG 66
MB 1985 PG 1307

PEGGY WATERS
DB 8568 PG 1614

WILLIAM BAGLIANI
DB 15322 PG 543

RUBEN AGUIRRE
DB 15730 PG 85
MB 1988 PG 374

CLAYTON FAMILY LLC
DB 13908 PG 1871
MB 2009 PG 1003

KATHY MOORE
DB 9460 PG 2526
MB 1983 PG 508

BEGIN CONSTRUCTION
–Y18– STA 16+42.89

–Y18– PT Sta. 16+39.21

–Y18– POT Sta. 10+00.00

–Y18– PC Sta. 12+95.22

–L– POT Sta. 494+25.75
–Y18– POT Sta. 17+29.94

–L– POT Sta. 502+17.48
–Y19– POT Sta. 10+00.00

HIGH POINT
–L– 502+68.63

END CONSTRUCTION
–Y19– STA 12+15.00

–Y19– POT Sta. 12+99.02

SITE 3

SITE 4

–Y18–
PI Sta 14+86.17
Δ = 61° 55' 01.7" (LT)
D = 18° 00' 00.0"
L = 343.98'
T = 190.95'
R = 318.31'

BM #24

$$$$SYSTIME$$$$
$$$$SCALE$$$$

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD
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www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 15
FOR –Y18– PROFILE SEE SHEET 21
FOR –Y19– PROFILE SEE SHEET 22

S S DENOTES IMPACTS IN SURFACE WATER
F F DENOTES FILL IN WETLAND
P P DENOTES IMPACTS IN SURFACE WATER (POND)

NAD 83/2011

PERMIT DRAWING SHEET 5 OF 26

REVISIONS 8/17/99

MATCHLINE –L– STA. 491+50.00 SEE SHEET NO. 4

MATCHLINE –L– STA. 505+50.00 SEE SHEET NO. 6

JEFFERY JUDD
DB 13520 PG 1434
MB 1986 PG 2262

MB 1986 PG 2262

LLYOD OLIVE
DB 8669 PG 2505
MB 2000 PG 810

EDNA RUSSELL
MB 1988 PG 374

SARAH MURRAY
DB 1049 PG 11
MB 1988 PG 374

JEROME RUSSEL
WILL 214100-E
MB 1985 PG 1307

BEGIN CONSTRUCTION
–Y18– STA 16+42.89

–Y18– POT Sta.10+00.00

–Y18– PG Sta 12+95.22

LLYOD OLIVE
DB 8669 PG 2505
MB 2000 PG 810

JUAN RODRIGUEZ
DB 11304 PG 1094
MB 1985 PG 1307

RICHARD RUSSELL
DB 3625 PG 66
MB 1985 PG 1307

PEGGY WATERS
DB 8568 PG 1614

–Y18– PT Sta. 16+39.21

WILLIAM BAGLIANI
DB 15322 PG 543

RUBEN AGUIRRE
DB 15730 PG 85
MB 1988 PG 374

CLAYTON FAMILY LLC
DB 13908 PG 1871
MB 2009 PG 1003

KATHY MOORE
DB 9460 PG 2526
MB 1983 PG 508

HIGH POINT
–L– 502+68.63

–L– POT Sta.494+25.75
–Y18– POT Sta.17+29.94

–L– POT Sta.502+17.48
–Y19– POT Sta.10+00.00

SITE 3

SITE 4

–Y18–
PI Sta 14+86.17
△ = 61° 55' 01.7" (LT)
D = 18° 00' 00.0"
L = 343.98'
T = 190.95'
R = 318.31'

–Y19– POT Sta. 12+99.02

END CONSTRUCTION
–Y19– STA 12+15.00

Century Link, FO
Spirit Communications, FO
Century Link, FO & T-V-F-O
Century Link, Copper

$$$$$SYSTIME$$$$
$$$$$SYSFILE$$$$

Submitted 12/21/2021

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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FOR –L– PROFILE SEE SHEET 15
FOR –Y18– PROFILE SEE SHEET 21
FOR –Y19– PROFILE SEE SHEET 22

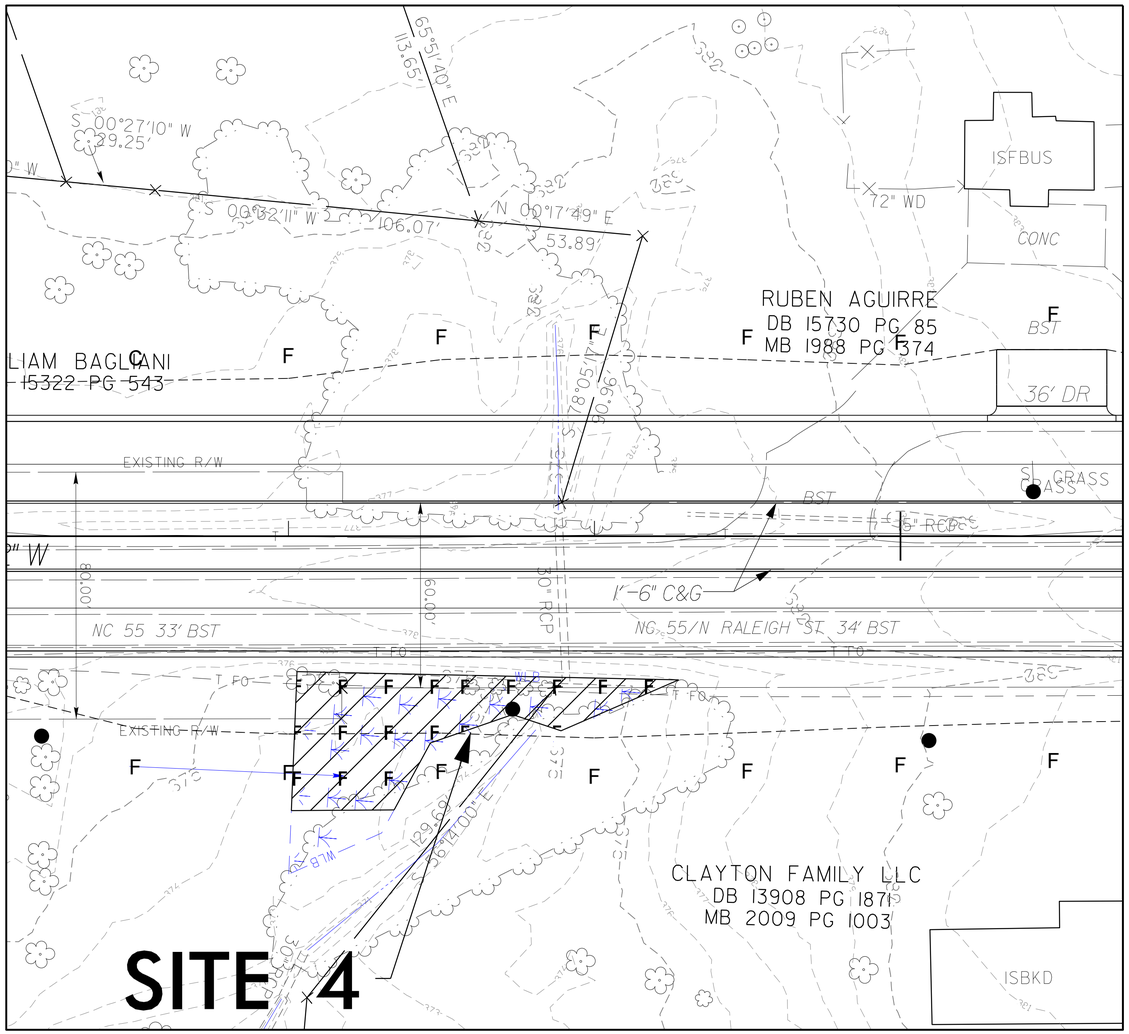
25′ 0′ 25′ 50′ 75′
GRAPHIC SCALE

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

NAD 83/2011

PERMIT DRAWING
SHEET 6 OF 26



SITE SCALE

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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FOR –L– PROFILE SEE SHEETS 15 & 16

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

PERMIT DRAWING SHEET 7 OF 26

50' 0' 50' 100' 150'
GRAPHIC SCALE

NAD 83/2011

REVISIONS
8/17/99

MATCHLINE –L– STA. 505+50.00 SEE SHEET NO. 5

MATCHLINE –L– STA. 519+50.00 SEE SHEET NO. 7

18.25' N 42°56' W
S 87°11'32" W 14.87'
312.91' N 08°05'32" W
S 85°10'22" W 515.31'
S 88°56'59" E 292.25'
N 85°02'45" E 272.28'
100.00' S 06°02'44" E
115.83' S 09°38'09" E
130.00' N 05°17'36" W
151.58' N 05°17'36" W
5/0
5/5
BL 30
BL 70

PATRICIA SCOTT
DB 16853 PG 2077

MARY WILLIFORD
NO DEED INFO

THELMA MELVIN
WILL 553 ODE
MB 1993 PG 431

BILE HOME PARK LLC
B 14611 PG 1896

CURTIS NESMITH
DB 15499 PG 2370
MB 1999 PG 877

BEGIN FULL C/A
END FULL C/A

MARTIN DAVIS
DB 14008 PG 1179

WILLIAM BARNHOUSE
DB 2385 PG 368

ROBERT SULLIVAN
DB 12904 PG 680
MB 1983 PG 508

BOBBY CAPPS
DB 13152 PG 217
MB 1988 PG 368

ANN JAMES
DB 4504 PG 540
MB 1988 PG 368

JOHN KELLY
DB 4745 PG 78
MB 1988 PG 368

LOUIS WOOTEN
DB 8646 PG 379
MB 1983 PG 508

JEFFERSON BRACKETT
DB 3326 PG 618
MB 1983 PG 508

SITE 6

SITE 5

SITE 5

N 4°54'20.2" W

PROP. CONC. MONOLITHIC ISLAND

150' TAPER

425' LEFT TURN LANE

EXISTING R/W

Century Link, COPPER

Spectrum, TV

Spirit Communications, FO

NC 55 34' BST

2'-6" C&G

15" RCP

20' DR

48" CHL

36" CHL

40" CONC

36" CONC

2SFD

ISFD

ISBKD

DECK

HTR

BST

WOODS

POND

243.72' S 00°29'54" E
221.15' S 00°29'00" E
200.59' S 00°30'02" E
154.42' S 00°29'59" E
36.45' N 00°29'59" W
97.53' N 00°32'40" W
102.91' S 00°32'40" E
294.60' S 00°22'33" E
S 85°05'47" W 176.10'
S 85°05'47" W 208.48'
N 85°06'29" E 220.34'
S 85°06'09" W 230.39'
N 85°05'47" E 260.72'
S 85°05'47" W 300.65'
N 84°14'19" E 300.00'
S 84°42'24" W 300.00'
N 85°00'06" E 290.25'
S 84°56'38" E 300.20'
S 85°05'47" W 300.65'
N 87°01'38" E 320.74'
S 87°01'38" W 320.74'
S 84°56'38" E 300.20'
S 84°42'24" W 300.00'

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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FOR –L– PROFILE SEE SHEETS 15 & 16

REVISIONS
8/17/99

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

GRAPHIC SCALE 50' 0' 50' 100' 150'

PERMIT DRAWING
SHEET 8 OF 26

NAD 83/2011

MATCHLINE –L– STA. 505+50.00 SEE SHEET NO. 5

MATCHLINE –L– STA. 519+50.00 SEE SHEET NO. 7

SITE 6

SITE 5

SITE 5

PATRICIA SCOTT
DB 16853 PG 2077

CURTIS NESMITH
DB 15499 PG 2370
MB 1999 PG 877

MARTIN DAVIS
DB 14008 PG 1179

WILLIAM BARNHOUSE
DB 2385 PG 368

MARY WILLIFORD
NO DEED INFO

THELMA MELVIN
WB 553 PG 66
MB 1989 PG 431

ROBERT SULLIVAN
DB 12904 PG 680
MB 1983 PG 508

BOBBY CAPPS
DB 13152 PG 217
MB 1988 PG 368

ANN JAMES
DB 4504 PG 540
MB 1988 PG 368

JOHN KELLY
DB 4745 PG 78
MB 1988 PG 368

LOUIS WOOTEN
DB 8646 PG 379
MB 1983 PG 508

JEFFERSON BRACKETT
DB 3326 PG 618
MB 1983 PG 508

BILE HOME PARK LLC
B 1461 PG 1896

BEGIN FULL C/A

END FULL C/A

PROP. CONC. MONOLITHIC ISLAND

N 4° 54' 20.2" W

Century Link, Copper

Spectrum, TV

Spirit Communications, FO

POND

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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FOR –L– PROFILE SEE SHEET 16

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

PERMIT DRAWING SHEET 9 OF 26

NAD 83/2011

50' 0' 50' 100' 150'
GRAPHIC SCALE

REVISIONS
8/17/99

MATCHLINE –L– STA. 519 + 50.00 SEE SHEET NO. 6

MATCHLINE –L– STA. 533 + 50.00 SEE SHEET NO. 8

SITE 5
SITE 6
SITE 7
SITE 8

520
525
530

EUGENE LOCKHART
DB 13576 PG 1993

ABUNDANT SPACE SELF STORAGE LLC
DB 14218 PG 510
MB 2010 PG 600

GARLAND MCLAMB LLC
DB 17141 PG 2683

IMPERIAL SELF STORAGE LLC
DB 16715 PG 2194
MB 2017 PG 274

LOUISE FREEMAN
DB 11541 PG 1249
MB 1993 PG 204

HILDA WILSON
DB 15707 PG 2688
MB 1993 PG 204

-L- POINT OF BEGINNING STA. 520+15.34

BEGIN FULL C/A

END FULL C/A

425' LEFT TURN LANE

PROPOSED 5' SIDEWALK

PROP. CONC. MONOLITHIC ISLAND

Century Link, Copper

Other, FO Spirit Communications

Town of Fuquay-Varina, 12" PVC

N 4°54'20.2" W

N 03°29'21" W 405.57'

S 85°17'08" W 27.28'

N 85°17'08" E 30.53'

N 84°38'23" E 460.21'

N 12°41'45" W 382.55'

S 10°47'04" W 219.53'

N 09°51'26" W 253.97'

S 81°58'47" W 32.62'

N 00°22'37" W 719.07'

S 02°59'41" E 104.78'

S 85°50'29" E 143.48'

N 81°42'33" W 320.04'

EXISTING R/W

50.00'

WOODS

GRV

GR.

ISBLKBUS

ISBKBUS

ISBK/FD

ISFB

ISMTL

2SFD

DECK

BM#25

CBL

HTR

18" RCP

15" RCP

24" RCP

30" RCP

36" RCP

42" RCP

60" CONC. WALK

72" CHL

72" WD

48" CHL

40' DR

44' DR

20' DR

65'R

30" C&G

2'-6" C&G

1'-6" C&G

NC 55/N RALEIGH ST 34' BST

NC 55 37' BST

400' TAPER

+42.75

+39.22

+39.28

+39.30

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
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FOR –L– PROFILE SEE SHEET 16

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

50' 0' 50' 100' 150'
GRAPHIC SCALE

PERMIT DRAWING SHEET 10 OF 26

NAD 83/2011

REVISIONS
8/17/99

MATCHLINE –L– STA. 519+50.00 SEE SHEET NO. 6

MATCHLINE –L– STA. 533+50.00 SEE SHEET NO. 8

SITE 5
SITE 6
SITE 7
SITE 8
SITE 8
SITE 8

EUGENE LOCKHART
DB 13576 PG 1993

ABUNDANT SPACE SELF STORAGE LLC
DB 14218 PG 510
MB 2010 PG 600

GARLAND MCLAMB LLC
DB 17141 PG 2683

GARLAND MCLAMB LLC
DB 17141 PG 2683

LOUISE FREEMAN
DB 11541 PG 1249
MB 1993 PG 204

HILDA WILSON
DB 15707 PG 2688
MB 1993 PG 204

IMPERIAL SELF STORAGE LLC
DB 16715 PG 2194
MB 2017 PG 274

-L- POINT OF BEGIN STA. 520+15.34

BEGIN FULL C/A

END FULL C/A

-L-
N 4°54'20.2" W

N 84°38'23" E 460.21'

N 03°29'21" W 405.57'

S 85°17'08" W 272.38'

N 85°17'08" E 305.35'

S 10°47'04" W 219.53'

253.97'
N 09°51'26" W

719.07'
N 00°22'37" W

S 85°50'29" E 1434.48'

S 18°58'26" W 104.78'

425' LEFT TURN LANE

400' TAPER

EXISTING R/W

PROPOSED 5' SIDEWALK

PROP. CONC. MONOLITHIC ISLAND

NC 55/N RALEIGH ST 34' BST

Century Link Copper

Fiber FO Spirit Communications

Town of Fuquay-Varina, 12" PVC

ISBLKBUS

ISBK/FD

ISFB

ISMTL

2SFD

DECK

HTR

WOODS

GR.

GRV

BST

DI

CB

RCP

CHL

SF

SS

W

G

S

FO

T

02

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
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FOR –L– PROFILE SEE SHEET 17

FOR –Y22– PROFILE SEE SHEET 24

REVISIONS
8/17/99

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

NAD 83 NC GRID NAD 83 NA 2011

50' 0' 50' 100' 150'
GRAPHIC SCALE

PERMIT DRAWING
SHEET 11 OF 26

NAD 83/2011

MATCHLINE –L– STA. 547+50.00 SEE SHEET NO. 8

MATCHLINE –L– STA. 561+50.00 SEE SHEET NO. 10

SITE 9

-L- POT Sta.549+55.98
-Y22- POT Sta.10+00.00

SITE 9

SITE 9

SITE 10

SITE 11

SITE 11

SITE 12

SITE 11

FILL IN WETLAND

FILL IN WETLAND

BEGIN FULL C/A

END FULL C/A

575' LEFT TURN LANE

575' RIGHT TURN LANE

LOW POINT 552+14.10

HIGH POINT 556+99.11

LOW POINT 560+13.41

BL-76

-L-
N 4°54' 20.2" W

-Y22- PC Sta. 11+79.40

-Y22- PT Sta.13+21.63

END CONSTRUCTION
-Y22- STA 11+75.00

-Y22-
PI Sta 12+51.71
△ = 25° 28' 00.4" (LT)
D = 17° 54' 17.8"
L = 142.23'
T = 72.31'
R = 320.00'

BCELD MEADOWBROOK LLC
DB 1609 PG 2458
MB 1970 PG 217

SOUTH LAKES MAETER AASN INC.
DB 14186 PG 1094
MB 2008 PG 373

TOWN OF FUQUAY VARINA
DB 15344 PG 2186
MB 2014 PG 1219

BM#26

WOODS

POND

PROP.CONC.MONOLITHIC ISLAND

Century Link, Copper

NC 55 55' BST

Spirit Communications, FO

Town of Fuquay-Varina, 12"

PGNC, 4", Plastic

NC 55/N RALEIGH ST 35' BST Spirit Communications, FO

NC 55 34' BST

20' DR

30" C&G

2'-6" C&G

1'-6" C&G

72' WD PROPOSED 5' SIDEWALK

EXISTING SIDEWALK TO REMAIN

60' CONC WALK

EXISTING R/W

PROP. R/W

MARK SANCHEZ DB 15684 PG 1763 MB 2008 PG 373 2SFD

DONALD BOUCHARD DB 15749 PG 1369 MB 2008 PG 373 2SFD

BECKY LEARWOOD DB 14871 PG 418 MB 2008 PG 373 DECK

MARK ROBERTSON DB 15241 PG 144 MB 2008 PG 373

KATHLEEN OLSON DB 16814 PG 1984 MB 2008 PG 373

SYSTEM SELECTION

Submitted 12/21/2021

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 17

FOR –Y22– PROFILE SEE SHEET 24

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

PERMIT DRAWING SHEET 12 OF 26

NAD 83/2011

NC GRID NAD 83 NA 2011

GRAPHIC SCALE 50' 0' 50' 100' 150'

MATCHLINE –L– STA. 547+50.00 SEE SHEET NO. 8

MATCHLINE –L– STA. 561+50.00 SEE SHEET NO. 10

550 555 560

SITE 9

–L– POT Sta. 549+55.98
–Y22– POT Sta. 10+00.00

SITE 11

SITE 11

SITE 9

SITE 9

SITE 10

SITE 12

SITE 11

FILL IN WETLAND

FILL IN WETLAND

BEGIN FULL C/A

END FULL C/A

LOW POINT 552+14.10

HIGH POINT 556+99.11

LOW POINT 558+13.41

BL 76

–L–
N 4°54' 20.2" W

575' LEFT TURN LANE

575' RIGHT TURN LANE

65.0' 72' WD 65.0'

EXISTING SIDEWALK TO REMAIN

72' WD PROPOSED 5' SIDEWALK

60' CONC WALK

END CONSTRUCTION
–Y22– STA 11+75.00

–Y22– PC Sta. 11+79.40

–Y22– PT Sta. 13+21.63

–Y22–
PI Sta 12+51.71
△ = 25° 28' 00.4" (LT)
D = 17° 54' 17.8"
L = 142.23'
T = 72.31'
R = 320.00'

BCELD MEADOWBROOK LLC
DB 1609 PG 2458
MB 1970 PG 217

SOUTH LAKES MAETER AASN INC.
DB 14186 PG 1094
MB 2008 PG 373

TOWN OF FUQUAY VARINA
DB 15844 PG 2186
MB 2014 PG 1219

DONALD BOUCHARD DB 15749 PG 1369 MB 2008 PG 373

MARK SANCHEZ DB 15684 PG 1763 MB 2008 PG 373

BEVERLY EARWOOD DB 14871 PG 418 MB 2008 PG 373

MARK ROBERTSON DB 15341 PG 144 MB 2008 PG 373

KATHLEEN OLSON DB 17614 PG 1984 MB 2008 PG 373

BM=26

Century Link, Copper

Spirit Communications, FO

Town of Fuquay-Varina, 12"

PGNC, 4", Plastic

NC 55/N RALEIGH ST 35' BST

NC 55 55' BST

NC 55 34' BST

20' DR

PROP. CONC. MONOLITHIC ISLAND

2'-6" C&G

6" C&G

7'-6" C&G

30" C&G

24" RCP

DCB

WOODS

EXISTING R/W

PROP. R/W

SYSTEM\$\$\$

Submitted 12/21/2021

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 17

FOR –Y22– PROFILE SEE SHEET 24

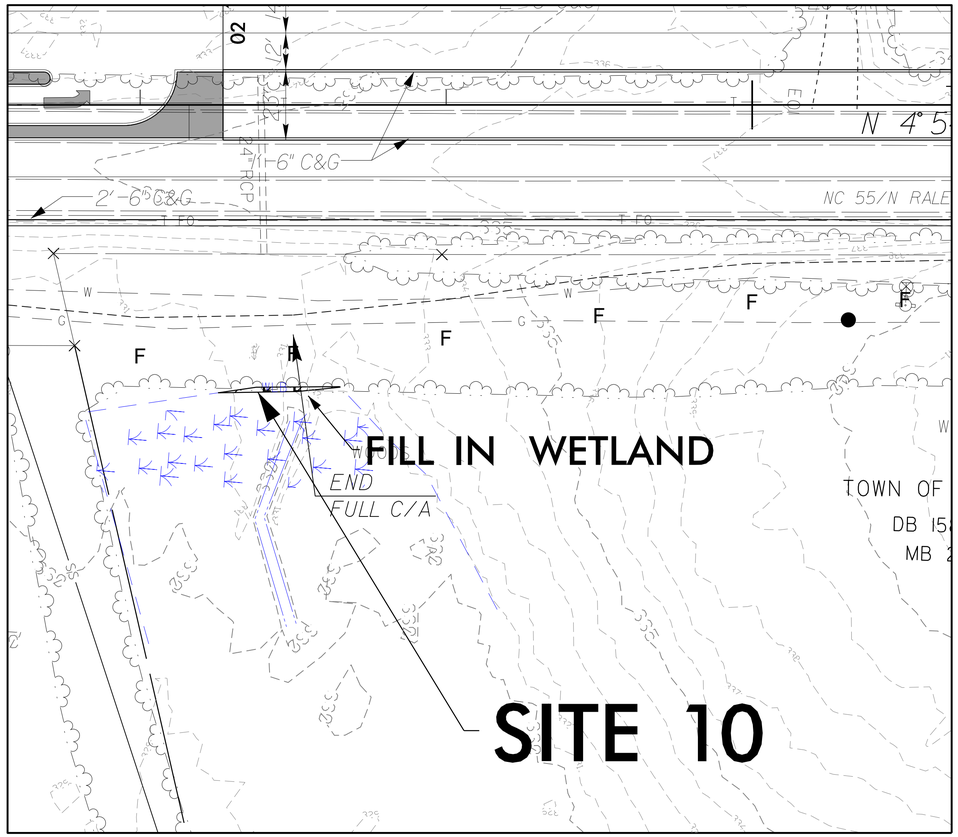
NAD 83/2011

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

25′ 0′ 25′ 50′ 75′
GRAPHIC SCALE

PERMIT DRAWING
SHEET 13 OF 26



Submitted 12/21/2021

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
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PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEETS 17 & 18

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

50' 0' 50' 100' 150'
GRAPHIC SCALE

PERMIT DRAWING SHEET 14 OF 26

NAD 83/2011

565 570 575

SITE 11

SITE 12

BEGIN FULL C/A

END FULL C/A

HIGH POINT -L- 569+63.00

425' LEFT TURN LANE

150' TAPER

100' RIGHT TURN LANE

120' TAPER

+17.50

MICHAEL RODGERS
DB 8108 PG 1165

MIDDLEBY MARSHALL INC.
DB 4533 PG 318
MB 1997 PG 1694

DEERE & COMPANY
DB 14947 PG 362
MB 1996 PG 998

Other Town of Fuquay-Varina

CenturyLink, FO

N 4°54'20.2" W

N 88°56'27.7" W 935.25'

S 89°10'08.9" W 925.24'

S 89°10'08.9" W 2091.12'

S 89°58'58.8" W 2508.68'

MATCHLINE –L– STA. 561+50.00 SEE SHEET NO. 9

MATCHLINE –L– STA. 575+50.00 SEE SHEET NO. 11

POND

PROP. CONC. MONOLITHIC ISLAND

NC 55 48' BST

NC 55 50' BST

Public Service Company of N C Inc., 4", Plastic

PSNC, 4", Plastic

Spectrum, TV/FO
Spirit Communications, FO
Duke Energy Progress
Town of Fuquay-Varina, 16', DIP
Town of Fuquay-Varina, 6', Unknown

Century Link, Copper/FO
Spirit Communications, FO
Duke Energy Progress
Town of Fuquay-Varina, 16', DIP
Town of Fuquay-Varina, 6', Unknown

2'-6" C&G
1'-6" C&G
20' DR
18" C&G
30" C&G
30" BST
50' R
BST
WOODS
EXISTING R/W
FULL OF DEBRIS
260' T

I:\SIS\11\SHEETS\R-5705C_SHEET_10.DGN 8/5/2021 11:28:58 AM

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEETS 17 & 18

S S NADDENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

50' 0' 50' 100' 150'
GRAPHIC SCALE

PERMIT DRAWING SHEET 15 OF 26

NAD 83/2011

REVISIONS 8/17/99

SITE 11

SITE 12

565 570 575

BEGIN FULL C/A

END FULL C/A

HIGH POINT -L- 569+63.00

425' LEFT TURN LANE

150' TAPER

100' RIGHT TURN LANE

120' TAPER

MICHAEL ROGERS DB 8108 PG 1165

MIDDLEBY MARSHALL INC. DB 4533 PG 318 MB 1997 PG 1694

DEERE & COMPANY DB 14947 PG 362 MB 1996 PG 998

Other Town of Fuquay-Varina

Century Link, FO

Spectrum, TV/FO
Spirit Communications, FO
Duke Energy Progress
Town of Fuquay-Varina, 16", DIP
Town of Fuquay-Varina, 6", Unknown

Century Link, Copper/FO
Spirit Communications, FO
Duke Energy Progress
Town of Fuquay-Varina, 16", DIP
Town of Fuquay-Varina, 6", Unknown

PROP. CONC. MONOLITHIC ISLAND

EXISTING R/W

PSNC, 4", Plastic

FULL OF DEBRIS

POND

MATCHLINE –L– STA. 561+50.00 SEE SHEET NO. 9

MATCHLINE –L– STA. 575+50.00 SEE SHEET NO. 11

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
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Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 18

FOR –Y23– PROFILE SEE SHEET 24

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

PERMIT DRAWING
SHEET 16 OF 26

NAD 83/2011

50' 0' 50' 100' 150'
GRAPHIC SCALE

REVISIONS 8/17/99

MATCHLINE –L– STA. 575+50.00 SEE SHEET NO. 10

MATCHLINE –L– STA. 589+50.00 SEE SHEET NO. 12

BEGIN CONSTRUCTION
-Y23- STA 16+40.00

-L- POT Sta.577+60.99
-Y23- POC Sta.19+84.50

-Y23- PC Sta. 18+23.36

-Y23- PT Sta. 21+21.27

END CONSTRUCTION
-Y23- STA 22+50.00

-Y23- POT Sta. 24+25.47

-Y23-
PI Sta 19+72.45
Δ = 5° 57' 29.5" (LT)
D = 2° 00' 00.0"
L = 297.91'
T = 149.09'
R = 2,864.79'

SITE 13

SITE 14

SITE 15

SITE 15

BUY & GO INC
DB 14156 PG 292

DONALD CHESSON F
DB 10616 PG 2213

DONALD CHESSON
DB 10614 PG 2448

TOWN OF FUQUAY VARINA
DB 15545 PG 1152

WILLOW CREEK HOMEOWNERS ASSOC INC
DB 8265 PG 264
MBF 1998 PG 180E

WILLOW CREEK HOA

CHRISTOPHER MICHAEL SMITH
DB 8376 PG 803

CARLOS PEMULLA
DB 6428 PG 2715

JOHN BOWEN
DB 6122 PG 2316

ALICIA CLARK
DB 9254 PG 1609

AARON RODGERS
DB 14956 PG 1425

KELI MOON
DB 8926 PG 1889

DENISE HARMON
DB 16505 PG 958

CHRISSY MILLS
DB 11030 PG 350

VIPUL KARUNDIA
DB 9169 PG 1234

RHONDA LEMAY
DB 16931 PG 2208

PAUL STALLINGS
DB 16938 PG 450

LUVIER TRIANA
DB 11076 PG 1098

LAURA SHIPMAN
DB 12068 PG 283

LIVINTON SUAREZ
DB 12588 PG 2393

GREGORY BRYANT
DB 9511 PG 477

JANE HUNN
DB 8[illegible] PG 120

DB 1[illegible] PG 2004

13800 / 21700	–Y23– SR 2765 OLD HONEYCUTT RD	
6860 / 9000		2900 / 6800
24500 / 39600	NC 55 –L–	21200 / 39400
300 / 400		1000 / 2400
2022/2045 TRAFFIC VOLUMES	5300 / 8700	–Y23– SR 2765 OLD HONEYCUTT RD

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 18

FOR –Y23– PROFILE SEE SHEET 24

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

50' 0' 50' 100' 150'
GRAPHIC SCALE

PERMIT DRAWING SHEET 17 OF 26

NAD 83/2011

REVISIONS 8/17/99

MATCHLINE –L– STA. 575+50.00 SEE SHEET NO. 10

MATCHLINE –L– STA. 589+50.00 SEE SHEET NO. 12

BEGIN CONSTRUCTION
–Y23– STA 16+40.00

–L– POT Sta. 577+60.99
–Y23– POC Sta. 19+84.50

–Y23– PC Sta. 18+23.36

–Y23– PT Sta. 21+21.27

END CONSTRUCTION
–Y23– STA 22+50.00

–Y23– POT Sta. 24+25.47

LOW POINT
–L– 580+66.54

SITE 13

SITE 14

SITE 15

BUY & GO INC
DB 14156 PG 292

DONALD CHESSON F
DB 10616 PG 2213

DONALD CHESSON
DB 10614 PG 2448

TOWN OF FUQUAY VARINA
DB 15545 PG 1152

WILLOW CREEK HOMEOWNERS ASSOC INC
DB 8265 PG 264
MBF 1998 PG 1805

WILLOW CREEK HOA

–Y23–
PI Sta 19+72.45
Δ = 5° 57' 29.5" (LT)
D = 2° 00' 00.0"
L = 297.91'
T = 149.09'
R = 2,864.79'

2022/2045 TRAFFIC VOLUMES

	13800 / 21700 –Y23– SR 2765 OLD HONEYCUTT RD	
6860 / 9000		2900 / 6800
24500 / 39600 NC 55 –L–		21200 / 39400
300 / 400		1000 / 2400
	5300 / 8700 –Y23– SR 2765 OLD HONEYCUTT RD	

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, PO Box 700, Fuquay-Varina, NC 27526, www.mottmac.com/americas

FOR –L– PROFILE SEE SHEETS 18 & 19

8/17/99

REVISIONS

50' 0' 50' 100' 150'
GRAPHIC SCALE

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

NAD 83/2011

PERMIT DRAWING
SHEET 18 OF 26

–L–
PI Sta 601+03.53
△ = 4° 52' 12.6" (LT)
D = 0° 34' 22.6"
L = 850.00'
T = 425.26'
R = 10,000.00'
SE = NC
RUNOFF = N/A

595

600

–L– PC Sta. 596+78.27

LIBERTY FELICIANO
DB 14057 PG 1121
MB 2004 PG 414

DEBORAH DOVER
DB 12902 PG 2495
MB 2004 PG 414

WILLOW CREEK II HOMEOWNERS ASSN INC
DB 11837 PG 2400

WILLOW CREEK II HOMEOWNERS ASSN INC
593 PG 1449

SITE 15

SITE 15

FRANCISCO RODRIGUEZ
DB 9256 PG 1784

SUE STEPHENSON
DB 11463 PG 167

6240 NC 55 LLC
DB 11633 PG 1846

JCLU LTD VPTNRP LTD
PTNRP THE
DB 13910 PG 1929

Century Link, Copper

Town of Fuquay-Varina, 12", Unknown

Town of Fuquay-Varina, 16" Sprint Communications

BRYANT ESTATE DR

SITE 13

SITE 16

SITE 16

SITE 17

JOEL RAY SMITH
DB 13422 PG 755

MICHAEL LLOYD LESSARD
DB 15619 PG 1888

ENGLISH FUQUAY VARINA CONGREGATION OF JEHOVAHS WIT
DB 11734 PG 1853

ETTA GRAY
DB 11028 P

TERRA MOBILE ESTATE CIRCLE

MATCHLINE –L– STA. 589+50.00 SEE SHEET NO. 11

MATCHLINE –L– STA. 603+50.00 SEE SHEET NO. 13

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, PO Box 700, Fuquay-Varina, NC 27526, www.mottmac.com/americas

FOR –L– PROFILE SEE SHEETS 18 & 19

8/17/99

REVISIONS

50' 0' 50' 100' 150'
GRAPHIC SCALE

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

NAD 83/2011

PERMIT DRAWING
SHEET 19 OF 26

–L–
PI Sta 601+03.53
Δ = 4° 52' 12.6" (LT)
D = 0° 34' 22.6"
L = 850.00'
T = 425.26'
R = 10,000.00'
SE = NC
RUNOFF = N/A

–L– PC Sta. 596+78.27

–L– N 4° 54' 20.2" W

MATCHLINE –L– STA. 589+50.00 SEE SHEET NO. 11

MATCHLINE –L– STA. 603+50.00 SEE SHEET NO. 13

SITE 15

SITE 13

SITE 16

SITE 17

LIBERTY FELICIANO
DB 14057 PG 1121
MB 2004 PG 414

DEBORAH DOVER
DB 12902 PG 2445
MB 2004 PG 414

WILLOW CREEK II HOMEOWNERS ASSN INC
DB 11837 PG 2400

WILLOW CREEK II HOMEOWNERS ASSN INC
DB 11837 PG 2400
593 PG 1449

FRANCISCO RODRIGUEZ
DB 9256 PG 1784

SUE STEPHENSON
DB 11463 PG 1167

6240 NC 55 LLC
DB 11633 PG 1846

JCLU LTD VPTNRP LTD
PTNRP THE
DB 13910 PG 1929

ENGLISH FUQUAY VARINA CONGREGATION OF JEHOVAHS WIT
DB 11734 PG 1853

JOEL RAY SMITH
DB 13422 PG 755

MICHAEL LLOYD LESSARD
DB 15619 PG 1888

ETTA GRAY
DB 11028 P

ISB CHURCH

ISBLK BUS.

METAL CANOPY

TERRA MOBILE ESTATE CIRCLE

BRYANT ESTATE DR

NC 55 34' BST

20' DR

28' DR

34' DR

Submitted 12/21/2021

REVISIONS 8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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FOR –L– PROFILE SEE SHEET 19

FOR –Y24– PROFILE SEE SHEET 25

PERMIT DRAWING SHEET 20 OF 26

50' 0' 50' 100' 150'
GRAPHIC SCALE

NAD 83/2011

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

–L–
PI Sta 619+98.87
△ = 1° 43' 48.1" (LT)
D = 0° 17' 11.3"
L = 603.89'
T = 301.97'
R = 20,000.00'
SE = NC
RUNOFF = N/A

–L–
PI Sta 601+03.53
△ = 4° 52' 12.6" (LT)
D = 0° 34' 22.6"
L = 850.00'
T = 425.26'
R = 10,000.00'
SE = NC
RUNOFF = N/A

–L– PT Sta. 605+28.27

–L– POT Sta. 606+81.19
–DRI– POT Sta. 10+00.00

–DRI– POT Sta. 13+74.45

END CONSTRUCTION
–DRI– STA 11+50.00

SITE 18

SITE 18

HIGH POINT
–L– 612+51.83

–L– PC Sta. 616+96.90

BEGIN FULL C/A

LOW POINT
–L– 617+24.26

BEGIN FULL C/A

ANN JUDD HARVEY
DB 4281 PG 588
MB 87 PG 1061

AMERICAN BUILDERS & CONTRACTORS SUPPLY CO INC
DB 16565 PG 41

FUQUAY WAREHOUSE & STORAGE LLC
DB 15770 PG 1312

TCK ENTERTAINMENT LLC
DB 16690 PG 2728

ISMTL SELF STORAGE

IS MTL BUS

ISBLK BUS

WOODS

CAT-1

GREEN TL 3

RETAINING WALL 2

BL-104

BL-105

N 9° 46' 32.7" W

S 85° 02' 31" E

MATCHLINE –L– STA. 603+50.00 SEE SHEET NO. 12

MATCHLINE –L– STA. 617+50.00 SEE SHEET NO. 14

Submitted 12/21/2021

PERMIT DRAWING
SHEET 21 OF 26

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

50' 0' 50' 100' 150'
GRAPHIC SCALE

NAD 83/2011

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR -L- PROFILE SEE SHEET 19

FOR -Y24- PROFILE SEE SHEET 25

REVISIONS 8/17/99

-L-
PI Sta 601+03.53
△ = 4° 52' 12.6" (LT)
D = 0° 34' 22.6"
L = 850.00'
T = 425.26'
R = 10,000.00'
SE = NC
RUNOFF = N/A

-L- PT Sta. 605+28.27

-L- POT Sta. 606+81.19
-DRI- POT Sta. 10+00.00

-L-
PI Sta 619+98.87
△ = 1° 43' 48.1" (LT)
D = 0° 17' 11.3"
L = 603.89'
T = 301.97'
R = 20,000.00'
SE = NC
RUNOFF = N/A

-L- PC Sta. 616+96.90

SITE 18

SITE 18

ISMTL SELF STORAGE

ISMTL SELF STORAGE

S 27°20'18" W
375.12'

N 9° 46' 32.7" W

-L- 8" PVC

-DRI- S 85° 02' 31.8" E

END CONSTRUCTION
-DRI- STA 11+50.00

-DRI- POT Sta. 13+74.45

AMERICAN BUILDERS & CONTRACTORS SUPPLY CO INC
DB 16565 PG 41

FUQUAY WAREHOUSE & STORAGE LLC
DB 15770 PG 1312

ANN JUDD HARVEY
DB 4281 PG 588
MB 87 PG 1061

TCK ENTERTAINMENT LLC
DB 16690 PG 2728

BL-104

BL-105

CAT-1

GREU TL 3

HIGH POINT -L- 602+51.83

LOW POINT -L- 617+24.25

BEGIN FULL C/A

BEGIN FULL C/A

RETAINING WALL 2

TES

Century Link Copper

Town of Fuquay-Varina, NC, DIP, Not in Service

Town of Fuquay-Varina, NC Unknown

Spirit Communications, FO

Spectrum

Duke Energy Progress

2'-6" C&G

EXISING R/W

WOODS

HTR

CONC

GRAV DR 22' BST

COTTEN GRAV DR 22' BST

I S MTL BUS

I S BLK BUS

OH PWR SOUTHBNT OPTICAL OVERTS SEE DUE TO CONC COVERS ON DYS

MATCHLINE -L- STA. 603+50.00 SEE SHEET NO. 12

MATCHLINE -L- STA. 617+50.00 SEE SHEET NO. 14

SYSTIMES$$$

Submitted 12/21/2021

PERMIT DRAWING SHEET 22 OF 26

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

50' 0' 50' 100' 150'
GRAPHIC SCALE

NAD 83/2011

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEETS 19 & 20

REVISIONS 8/17/99

–L–
PI Sta 619+98.87
△ = 1° 43' 48.1" (LT)
D = 0° 17' 11.3"
L = 603.89'
T = 301.97'
R = 20,000.00'
SE = NC
RUNOFF = N/A

MATCHLINE –L– STA. 617+50.00 SEE SHEET NO. 13

SITE 18

SITE 19

END TIP PROJECT R-5705C
–L– STA. 623+00.00

–L– PT Sta. 623+00.79

–L– POT Sta. 628+56.49

554' TAPER

225' TAPER

150' TAPER

END FULL C/A

TES

MILLENNIUM TRUST CO LLCFBO JAMES SERINO IRA
DB 17057 PG 1834

ANCHOR PROPERTIES OF RALEIGH LLC
DB 16377 PG 2389

PROPERTIES OF RALEIGH LLC
DB 17057 PG 1856

MAYO JONES
NO DEED

LINDA THOMAS
DB 5446 PG 145

ACC INVESTMENTS
DB 4375 PG 319
MB 1988 PG 1352

ACC INVESTMENTS
DB 4840 PG 744
MB 1991 PG 24

VICTOR PRIETO
DB 9598 PG 387

BRYAN FAMILY LTD
DB 9442 PG 2142
MB 1995 PG 2120

PRY ROGERS
DB 13455 PG 1142
MB 1995 PG 1205

HAROLD JOHNSON
DB 2926 PG 177

JOHNSON
DB 278

Town of Fuquay-Varina, 12", Unknown

Century Link Copper

Town of Fuquay-Varina, 6", Unknown

FO, Split Communications

Eakes St (Not In Service)

Eakes St

5 Points Ln

U/G TANKS

GAS PUMP

MTL CANOPY

ISBK BUS

ISBKD ABAND.

ISBLKD

ISBLK BUS

BLK WALL

5' CONC WALK

WOODS

GRASS

CONC

BST

EXISTING R/W

MATCHLINE –L– STA. 617+50.00 SEE SHEET NO. 13

Submitted 12/21/2021

PERMIT DRAWING
SHEET 23 OF 26

NAD 83/2011

GRAPHIC SCALE 50' 0' 50' 100' 150'

S S DENOTES IMPACTS IN SURFACE WATER

F F DENOTES FILL IN WETLAND

-L-
PI Sta 619+98.87
△ = 1° 43' 48.1" (LT)
D = 0° 17' 11.3"
L = 603.89'
T = 301.97'
R = 20,000.00'
SE = NC
RUNOFF = N/A

SITE 18

SITE 19

END TIP PROJECT R-5705C
-L- STA. 623+00.00

-L- PT Sta. 623+00.79

554' TAPER

END FULL C/A

225' TAPER

150' TAPER

MILLENNIUM TRUST CO LLCFBO
JAMES SERINO IRA
DB 17057 PG 1834

ANCHOR PROPERTIES OF RALEIGH LLC
DB 16377 PG 2389

MAYO JONES
NO DEED

LINDA THOMAS
DB 5446 PG 145

ACC INVESTMENTS
DB 4375 PG 319
MB 1988 PG 1352

ACC INVESTMENTS
DB 4840 PG 744
MB 1991 PG 24

VICTOR PRIETO
DB 9598 PG 387

BRYAN FAMILY LTD
DB 8442 PG 972
MB 1989 PG 1942

PRY ROGERS
PROPERTIES, LLC
DB 13455 PG 1114
MB 1995 PG 1201

HAROLD JOHNSON
DB 2926 PG 177

-L- POT Sta. 628+56.49

-EY2 LT-

-EY2 RT-

BL-106

U575I-AZ22

MATCHLINE -L- STA. 617+50.00 SEE SHEET NO. 13

REVISIONS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR -L- PROFILE SEE SHEETS 19 & 20

$$$

Submitted 12/21/2021

WETLAND AND SURFACE WATER IMPACTS 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	From Sta. 482+54 to	Roadway Fill						0.01				
	Sta. 483+02 Rt											
2	From Sta. 486+27 to	Roadway Fill	0.15									
	Sta. 487+51 -L- Lt											
3	From Sta. 494+32 to	Roadway Fill						0.03				
	Sta. 495+08 -L- Rt											
4	From Sta. 498+01 to	Roadway Fill	0.07									
	Sta. 499+28 -L- Rt/Lt											
5	From Sta. 517+27 to	Roadway Fill	0.17									
	Sta. 519+72 -L- Rt											
6	From Sta. 518+36 to	Roadway Fill	0.28									
	Sta. 520+22 -L- Lt											
7	From Sta. 519+56 to	Roadway Fill	0.15					0.01		116		
	Sta. 522+84 -L- Rt											
8	From Sta. 522+74 to	Roadway Fill	0.03					0.01		140		
	Sta. 523+151 -L- Lt/Rt											
THIS PAGE SUBTOTAL*:			0.86					0.07		256	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
11/10/2021
WAKE COUNTY
R-5705C
46377.1.1
SHEET 24 OF 26

Revised 2018 Feb

Submitted 12/21/2021

WETLAND AND SURFACE WATER IMPACTS 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)
9	From Sta. 550+05 to	Roadway Fill	0.45					0.02		159		
	Sta. 554+27 -L- Lt/Rt											
10	From Sta. 553+25 to	Roadway Fill	< 0.01									
	Sta. 553+66 -L- Rt											
11	From Sta. 559+37 to	Roadway Fill	0.45					0.01		115		
	Sta. 564+73 -L- Lt/Rt											
12	From Sta. 561+43 to	Roadway Fill	0.01									
	Sta. 563+02 -L- Rt											
13	From Sta. 579+43 to	Roadway Fill	0.98					0.14		582		
	Sta. 590+37 -L- Rt											
14	From Sta. 581+10 to	Roadway Fill	0.92									
	Sta. 586+74 -L- Lt											
15	From Sta. 586+93 to	Roadway Fill	0.97					0.06		357		
	Sta. 592+43 -L- Lt											
THIS PAGE SUBTOTAL*:			3.78					0.22		1214	0	0
PAGE 1 SUBTOTALS*:			0.86					0.07		256	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
11/10/2021
WAKE COUNTY
R-5705C
46377.1.1

Submitted 12/21/2021

WETLAND AND SURFACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
							Hand			Existing	Existing	
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)	Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Channel Impacts Permanent (ft)	Channel Impacts Temp. (ft)	Natural Stream Design (ft)
16	From Sta. 599+85 to	Roadway Fill	0.31					< 0.01		93		
	Sta. 602+02 -L- Lt											
17	From Sta. 602+10 to	Roadway Fill	0.08									
	Sta. 602+85 -L- Lt											
18	From Sta. 613+01 to	Roadway Fill	0.65					< 0.01		155		
	Sta. 622+39 -L- Lt/Rt											
19	From Sta. 619+79 to	Roadway Fill	0.06									
	Sta. 621+47 -L- Rt											
THIS PAGE SUBTOTAL*:			1.11					0.01		248	0	0

PAGE 1 SUBTOTALS*:	0.86					0.07		256	0	0
PAGE 2 SUBTOTALS*:	3.78					0.22		1214	0	0

PROJECT TOTALS*:	5.75	0	0	0	0	0.31	0	1718	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
11/10/2021
WAKE COUNTY
R-5705C
46377.1.1

Submitted 12/21/2021

TIP PROJECT: R-5705C

CONTRACT:

$$$

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MOTT MACDONALD, PO Box 700, Fuquay-Varina, NC 27526, www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 16

PERMIT DRAWING
SHEET 2 OF 8

MITIGABLE IMPACTS ZONE 1

MITIGABLE IMPACTS ZONE 2

GRAPHIC SCALE 50' 0' 50' 100' 150'

NAD 83/2011

REVISIONS 8/17/99

MATCHLINE –L– STA. 519+50.00 SEE SHEET NO. 6

MATCHLINE –L– STA. 533+50.00 SEE SHEET NO. 8

SITE 1

SITE 1

EUGENE LOCKHART
DB 13576 PG 1993

ABUNDANT SPACE SELF STORAGE LLC
DB 14218 PG 510
MB 2010 PG 600

GARLAND MCLAMB LLC
DB 17141 PG 2683

GARLAND MCLAMB LLC
DB 17141 PG 2683

LOUISE FREEMAN
DB 11541 PG 1249
MB 1993 PG 204

HILDA WILSON
DB 15707 PG 2688
MB 1993 PG 204

IMPERIAL SELF STORAGE LLC
DB 16715 PG 2194
MB 2017 PG 274

ISBKBUS

ISBK/FD

ISFB

ISMTL

2SFD

HTR

DECK

520

525

530

-L- N 4°54'20.2" W

N 03°29'21" W 403.57'

S 85°47'08" W 272.38'

N 85°47'08" E 90.35'

N 84°36'22" E 480.21'

N 37°41'42" W 385.55'

S 12°47'04" W 219.53'

253.97' N 09°51'26" W

S 83°58'42" W 30.32'

S 02°59'47" E 104.78'

N 18°42'37" W 320.04'

S 86°50'28" E 14.48'

719.07' N 00°22'37" W

LOW POINT -L- 520+19.34

BEGIN FULL C/A

END FULL C/A

BEGIN FULL C/A

END FULL C/A

425' LEFT TURN LANE

400' TAPER

PROPOSED 5' SIDEWALK

PROP. CONC. MONOLITHIC ISLAND

60' CONC. WALK

EXISTING R/W

EXISTING EASEMENT

50.00'

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Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MOTT MACDONALD
PO Box 700 Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR –L– PROFILE SEE SHEET 17

FOR –Y22– PROFILE SEE SHEET 24

MITIGABLE IMPACTS ZONE 1

MITIGABLE IMPACTS ZONE 2

50' 0' 50' 100' 150'
GRAPHIC SCALE

NAD 83 NC CRD NA 2011

PERMIT DRAWING
SHEET 3 OF 8

NAD 83/2011

REVISIONS
8/17/99

MATCHLINE –L– STA. 547+50.00 SEE SHEET NO. 8

MATCHLINE –L– STA. 561+50.00 SEE SHEET NO. 10

SITE 2

SITE 3

-L- POT Sta.549+55.98
-Y22- POT Sta.10+00.00

-Y22- PC Sta. 11+79.40

-Y22- PT Sta. 13+21.63

END CONSTRUCTION
-Y22- STA 11+75.00

-Y22-
PI Sta 12+51.71
Δ = 25° 28' 00.4" (LT)
D = 17° 54' 17.8"
L = 142.23'
T = 72.31'
R = 320.00'

-L- N 4°54'20.2" W

BCELD MEADOWBROOK LLC
DB 1609 PG 2458
MB 1970 PG 217

SOUTH LAKES MAETER AASN INC.
DB 14186 PG 1094
MB 2008 PG 375

TOWN OF FUQUAY VARINA
DB 15844 PG 2186
MB 2014 PG 1219

DONALD BOUCHARD DB 3048 PG 359

MARK SANCHEZ DB 3048 PG 359

BEVERLY YEARWOOD DB 16871 PG 418 MB 2008 PG 375

KATHLEEN OLSON DB 16814 PG 1996 MB 2008 PG 375

POND

BEGIN FULL C/A

END FULL C/A

75' LEFT TURN LANE

575' RIGHT TURN LANE

PROP. CONC. MONOLITHIC ISLAND

PROPOSED 5' SIDEWALK

EXISTING SIDEWALK TO REMAIN

60' CONC WALK

EXISTING R/W

PROP. CONC. MONOLITHIC ISLAND

Century Link, Copper

Spirit Communications, FO

Town of Fuquay-Varina, 12" PSNC, 4" Plastic

BM#26

WOODS

ISFD

DECK

CONC

24" RCP

30" C&G

2'-6" C&G

1'-6" C&G

20' DR

$SYSTIMESTAMP$
$SYSCONTEXT$
$USERNAME$

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of: MATT MACDONALD, PO Box 700 Fuquay-Varina, NC 27526 www.mattmac.com/americas

FOR –L– PROFILE SEE SHEET 18

FOR –Y23– PROFILE SEE SHEET 24

PERMIT DRAWING SHEET 4 OF 8

NAD 83/2011

MITIGABLE IMPACTS ZONE 1

MITIGABLE IMPACTS ZONE 2

50' 0' 50' 100' 150'
GRAPHIC SCALE

REVISIONS 8/17/99

MATCHLINE –L– STA. 575+50.00 SEE SHEET NO. 10

MATCHLINE –L– STA. 589+50.00 SEE SHEET NO. 12

BEGIN CONSTRUCTION -Y23- STA 16+40.00

-L- POT Sta. 577+60.99
-Y23- POC Sta. 19+84.50

-Y23- PC Sta. 18+23.36

-Y23- PT Sta. 21+21.27

END CONSTRUCTION -Y23- STA 22+50.00

-Y23- POT Sta. 24+25.47

-Y23-
PI Sta 19+72.45
Δ = 5° 57' 29.5" (LT)
D = 2° 00' 00.0"
L = 297.91'
T = 149.09'
R = 2,864.79'

SITE 4

SITE 4

SITE 4

2022/2045 TRAFFIC VOLUMES	13800 / 21700	–Y23– SR 2765 OLD HONEYCUTT RD
	6860 / 9000	2900 / 6800
	24500 / 39600	NC 55 –L– 21200 / 39400
	300 / 400	1000 / 2400
	5300 / 8700	–Y23– SR 2765 OLD HONEYCUTT RD

WILLOW CREEK HOMEOWNERS ASSOC INC DB 8265 PG 2661 MB 1998 PG 1806

TOWN OF FUQUAY VARINA DB 15545 PG 152

DONALD CHESSON DB 10616 PG 2213

DONALD CHESSON DB 10674 PG 2448

BUY & GO INC DB 14156 PG 292

WILLOW CREEK HOA

Submitted 12/21/2021

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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FOR -L- PROFILE SEE SHEETS 18 & 19

8/17/99

REVISIONS

50' 0' 50' 100' 150'
GRAPHIC SCALE

ALLOWABLE IMPACTS ZONE 1
ALLOWABLE IMPACTS ZONE 2
MITIGABLE IMPACTS ZONE 1
MITIGABLE IMPACTS ZONE 2

NAD 83/2011

BUFFER DRAWING
SHEET 5 OF 8

-L-
PI Sta 601+03.53
Δ = 4° 52' 12.6" (LT)
D = 0° 34' 22.6"
L = 850.00'
T = 425.26'
R = 10,000.00'
SE = NC
RUNOFF = N/A

SITE 4

SITE 5

-L- PC Sta. 596+78.27

-L- N 4°54'20.2"W

MATCHLINE -L- STA. 589+50.00 SEE SHEET NO. 11

MATCHLINE -L- STA. 603+50.00 SEE SHEET NO. 13

LIBERTY FELICIANO
DB 14057 PG 1121
MB 2004 PG 414

DEBORAH DOVER
DB 13902 PG 2425
MB 2004 PG 414

YELLOW CREEK II HOMEOWNERS ASSN INC
DB 11837 PG 2400
MB 2004 PG 414

FRANCISCO RODRIGUEZ
DB 9256 PG 1784

SUE STEPHENSON
DB 11463 PG 1167

6240 NC 55 LLC
DB 11633 PG 1846

JCLU LTD VPTNRP LTD
PTNRP THE
DB 13910 PG 1929

ENGLISH FUQUAY VARINA CONGREGATION OF JEHOVAHS WIT
DB 11734 PG 1853

JOEL RAY SMITH
DB 13422 PG 755

MICHAEL LLOYD LESSARD
DB 15619 PG 1888

ETTA GRAY
DB 11028 P

ISB CHURCH

ISBLK BUS.

METAL CANOPY

WOODS

TERRA MOBILE ESTATE CIRCLE 18' BST

BRYANT ESTATE DR 16' BST

Century Link, Copper

Town of Fuquay-Varina, 12", Unknown

Town of Fuquay-Varina 16" DIP (Not In Service)

Spirit Communications, FO

TV, Spectrum

SSFM Valve

S 01°45'40" W 280.19'

S 01°45'40" W 220.50'

S 01°45'40" W 104.29'

N 85°12'40" E 100.00'

S 04°57'01" E 86.64'

S 04°57'01" E 163.26'

S 88°53'20" E 786.98'

S 89°56'20" E 1,100.00'

S 89°22'45" E 2,638.98'

N 89°11'48" W 659.76'

N 89°22'45" W 2,634.43'

N 89°56'20" W 1,100.00'

S 85°03'47" W 165.28'

S 88°53'20" W 786.98'

S 89°22'45" E 2,634.43'

N 89°11'48" W 659.76'

595

600

Submitted 12/21/2021

PERMIT DRAWING
SHEET 6 OF 8

PROJECT REFERENCE NO.	SHEET NO.
R-5705C	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared in the Office of:
MATT MACDONALD
PO Box 700
Fuquay-Varina, NC 27526
www.mottmac.com/americas

FOR -L- PROFILE SEE SHEETS 19 & 20

50' 0' 50' 100' 150'
GRAPHIC SCALE

MITIGABLE IMPACTS ZONE 1

MITIGABLE IMPACTS ZONE 2

-L-
PI Sta. 619+98.87
Δ = 1° 43' 48.1" (LT)
D = 0° 17' 11.3"
L = 603.89'
T = 301.97'
R = 20,000.00'
SE = NC
RUNOFF = N/A

NAD 83/2011

SITE 6

SITE 6

END TIP PROJECT R-5705C
-L- STA. 623+00.00

-L- PT Sta. 623+00.79

MATCHLINE -L- STA. 617+50.00 SEE SHEET NO. 13

REVISIONS

8/17/99

ANCHOR PROPERTIES OF RALEIGH LLC
DB 16377 PG 2359

MILLENNIUM TRUST CO LLC FBO JAMES SERINO IRA
DB 17057 PG 1834

LINDA THOMAS
DB 5446 PG 145

ACC INVESTMENTS
DB 4375 PG 319
MB 1988 PG 1352

ACC INVESTMENTS
DB 4840 PG 744
MB 1991 PG 24

VICTOR PRETO
DB 9598 PG 387

HAROLD JOHNSON
DB 2928 PG 177

BRYAN FAMILY LTD
DB 1483 PG 373
DB 1483 PG 342

PROPERTY ROGERS
DB 1695 PG 120

MAYO JONES
NO DEED

PROPERTIES OF RALEIGH LLC
DB 16377 PG 1856

Town of Fuquay-Varina, 12", Unknown

Century Link Copper

FO, Spirit Communications

Town of Fuquay-Varina 16" DIP (Not In Service)

554' TAPER

225' TAPER

150' TAPER

END FULL C/A

WOODS

GRASS

BLK WALL

CONC

ISF/BK BUS

ISBK BUS

ISBKD ABAND.

ISBLKD

MTL CANOPY

GAS PUMP

U/G TANKS

5' CONC WALK

COULTON + LOCATE

N 11°34'49" E 266.00'

S 11°34'49" E 266.00'

N 13°16'38" W 217.41'

S 13°17'01" E 212.10'

N 14°08'50" W 238.22'

S 14°08'50" E 238.22'

N 11°30'20" W

N 11°30'20" W

N 13°16'38" W 1459.58'

S 13°16'38" E 1459.58'

N 14°08'50" W 2020.00'

S 14°08'50" E 2020.00'

N 11°30'20" W 3798.32'

S 11°30'20" E 3798.32'

N 13°25'58" W 3760.68'

S 13°25'58" E 3760.68'

N 05°25'28" W 3760.68'

S 05°25'28" E 3760.68'

-L- PT Sta. 623+00.79

-EY2 LT-

-EY2 RT-

-BL12-106-

-BY-U5751-AZ22

-L-

-L-

-L-

Submitted 12/21/2021

RIPARIAN BUFFER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	IMPACTS									BUFFER REPLACEMENT	
			TYPE			ALLOWABLE			MITIGABLE				
			ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft^2)	ZONE 2 (ft^2)	TOTAL (ft^2)	ZONE 1 (ft^2)	ZONE 2 (ft^2)	TOTAL (ft^2)	ZONE 1 (ft^2)	ZONE 2 (ft^2)
1	From -L- Sta. 521+54 to	Roadway Fill	x						10742	6748	17489		
	Sta. 523+74 Lt/Rt												
2	From -L- Sta. 549+50 to	Roadway Fill	x						10851	6638	17489		
	Sta. 551+59 Lt/Rt												
3	From -L- Sta. 558+86 to	Roadway Fill	x						9364	5469	14833		
	Sta. 560+30 Lt/Rt												
4	From -L- Sta. 582+07 to	Roadway Fill	x						13950	6502	20452		
	Sta. 592+01 Lt/Rt												
4	From -L- Sta. 582+07 to	Roadway Fill			x				34255	11164	45418		
	Sta. 592+01 Lt/Rt												
5	From -L- Sta. 600+16 to	Roadway Fill	x			7682	5039	12721					
	Sta. 601+49 Lt/Rt												
6	From -L- Sta. 618+85 to	Roadway Fill	x						10546	6563	17108		
	Sta. 620+74 Lt/Rt												
TOTALS*:						**7682**	**5039**	**12721**	**89706**	**43084**	**132790**	**0**	**0**

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
12/20/21
WAKE COUNTY
R-5705C
46377.1.1
SHEET 7 OF 8

Submitted 12/21/2021

WETLANDS IN BUFFER IMPACTS SUMMARY

SITE NO.	STATION (FROM/TO)		WETLANDS IN BUFFERS ZONE 1 (ft^2)	WETLANDS IN BUFFERS ZONE 2 (ft^2)
1	From -L- 521+54	to 523+52 Rt/Lt	2944	1750
2	From -L- 550+31	to 550+81 Lt	371	640
3	From -L- 560+04	to 560+30 Lt	0	550
4	From -L- 582+07	to 591+98 Rt/Lt	41380	12552
5	From -L- 600+18	to 601+49 Lt	3977	3121
6	From -L- 618+59	to 620+78 Rt/Lt	3350	982
TOTAL:			**52022**	**19595**

Revised 2018 Feb

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
12/20/21
WAKE COUNTY
R-5705C
46377.1.1
SHEET 8 OF 8

Rev. Jan 2009

5/14/99

REVISIONS

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P.O. BOX 33068 • RALEIGH, N.C. 27636-3068

PROJECT REFERENCE NO.	SHEET NO.
R-5705A	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-
PI Sta 21+82.71
△ = 14° 07' 17.3" (LT)
D = 1° 38' 13.3"
L = 862.63'
T = 433.51'
R = 3,500.00'
SE = 0.03
RO = 72'

VAN COATS
DB 3459 PG 434
PB 2016 PG 364

(1A) JAMES JOHNSON
DB 615 PG 21
PB 2016 PG 364

(1) JAMES JOHNSON
DB 731 PG 732

(3) TONY WARREN
DB 3271 PG 355

(5) DANNY HEDGEPETH
DB 926 PG 126
PC* E PG 76A

(4) HOWARD BRIDGES
DB 1754 PG 517

(2) JAMES JOHNSON
DB 730 PG 223

DOUGLAS JOHNSON
DB 3605 PG 628
PB 2016 PG 364

GREGORY INVESTMENT PROPERTIES LLC
DB 3497 PG 845

QUANTITY ESTIMATE	
GEOTEXTILE	140 S.Y.
CLASS-II RIPRAP CULVERT	90 TONS
CLASS-I RIPRAP CHANNEL BED-COUNTERSUNK	10 TONS
CLASS-B RIPRAP CHANNEL BED-COUNTERSUNK	3 TONS
EXCAVATION CULVERT	50 CY
CHANNEL	5 CY

-L- PC Sta. 17+49.20

BEGIN CONSTRUCTION -L- POT Sta. 12+60.83

BEGIN TIP PROJECT R-5705A -L- POT Sta. 15+58.00

15+00

20+00

+97.50

N 34° 10' 11.5" W -L- NC 55

690' LANE DROP

150' LANE TAPER

690' MEDIAN TAPER

MATCHLINE -L- STA 24+50 (SEE SHEET 5)

SPECIAL LATERAL 6' BASE DITCH
SEE DETAIL 51
EST. 100 TONS CL-B RIPRAP
EST. 250 S.Y. GFD

RIPRAP PAD AT OUTLET
EST. 3 TONS CL-B RIPRAP
EST. 10 S.Y. GFD

SEE TYPICAL OUTLET CHANNEL DETAIL 58
QUANTITIES IN TABLE ABOVE

CLEAN OUT PIPE OUTLET & RETAIN

BERM 'V' DITCH SEE DETAIL 3

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

CLEAN WATER DIVERSION

LATERAL 8' BASE DITCH
SEE DETAIL 6
EST. 130 C.Y. DDE
EST. 165 TONS CL-I RIPRAP
EST. 380 S.Y. GFD

GRADE TO DRAIN (TAPER PROPOSED DITCH INTO EXIST. DITCH)

REMOVE

CULVERT #1
ONE BARREL

	NORTH	EAST	ELEV.
CUL1	624925.48	2088902.82	249.12
CUL2	624928.77	2088898.61	249.13
CE1	624927.00	2088900.66	253.56
HW1	624928.18	2088898.34	255.20
CUL3	624854.02	2088887.29	248.84
CUL4	624857.34	2088882.93	248.64
CE2	624856.33	2088884.79	253.47
HW2	624856.18	2088885.51	255.04

SEE SHEET 25 FOR -L- PROFILE
SEE SHEETS 2D-1TO 2D-4 FOR DRAINAGE DETAILS

3/5/2021

5/14/99

REVISIONS

3/5/2021

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-
PI Sta 21+82.71
Δ = 14° 07' 17.3" (LT)
D = 1° 38' 13.3"
L = 862.63'
T = 433.51'
R = 3,500.00'
SE = 0.03
RO = 150'

-L- PT Sta. 26+11.83

MATCHLINE -L- STA 24+50 (SEE SHEET 4)

MATCHLINE -L- STA 38+00 (SEE SHEET 6)

25+00 30+00 35+00

(5) DANNY HEDGEPETH DB 926 PG 126 PC* E PG 76A

(8) DANNY HEDGEPETH DB 1241 PG 820 MB 2014 PG 9

(9) CHARLES GRAY DB 3252 PG 220

(10) CHARLES GRAY DB 1442 PG 909 MB 2004 PG 19

(7) JEFFREY WALTERS DB 968 PG 612

(6) JESSE MABRY DB 915 PG 464

(2)

NC 55

N 48° 17' 28.4" W

MONO CONC ISLAND

LATERAL 'V' DITCH SEE DETAIL 5 EST. 140 TONS CL-B RIPRAP EST. 300 S.Y. GFD EST. 120 C.Y. DDE

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SEDIMENT CONTROL BASIN

6' x 7' RCBC (1.0' BURIED)

LATERAL 4' BASE DITCH SEE DETAIL 53 EST. 25 TONS CL-B RIPRAP EST. 60 S.Y. GFD EST. 20 C.Y. DDE

LATERAL 4' BASE DITCH SEE DETAIL 9 EST. 200 C.Y. DDE

SEE TYPICAL INLET CHANNEL DETAIL 59 QUANTITIES ON SHEET 4

GRADE TO DRAIN

FALSE SUMP SEE DETAIL 8

100' TAPER

CULTIVATED

SEE SHEET 2B-1 FOR INTERSECTION DETAILS 1 AND 2
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 25 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 38+00 (SEE SHEET 5)

MATCHLINE -L- STA 50+50 (SEE SHEET 7)

10 CHARLES GRAY DB 1442 PG 909 MB 2004 PG 19

11 NANCY MYATT DB 1101PG 767

12 CHARLES GRAY DB 2830 PG 173

13 SHERRY OATES DB 1822 PG 69 DB 2007 PG 518

14 SHERRILL MCLAMB DB 786 PG 810

15 NANCY MYATT DB 1101PG 767

16 NANCY MYATT DB 1101PG 767

17 NANCY MYATT DB 1101PG 767

18 SHERRILL MCLAMB DB 738 PG 754

19 SHERRILL MCLAMB DB 839 PG 291

20 VIRGINIA HOLLIDAY DB 635 PG 530

21 UNKNOWN PROPERTY OWNER

22 NANCY MYATT DB 1159 PG 680

6 JESSE MABRY DB 915 PG 464

100

40+00 45+00 50+00

-L- NC 55 N 48° 17' 28.4" W

FALSE SUMP SEE DETAIL 8 END C/A +22 90' LT

+82.53 90' LT 100' TAPER

BEGIN C/A +82 90' LT

+74.51 118.92' LT

+93.8 124.23' LT

+01.75 95.3' LT

+42.02 124.02' LT

+28.79 97.1' LT

+24.3 99.3' LT

+19.73 90' LT

+06.57 96.63' LT

+08.39 90' LT

END C/A +87 90' LT

BEGIN C/A +47 90' LT

+59.97 115.2' LT

+47.58 90' LT

END C/A +11 90' LT

BEGIN C/A BEGIN CLF +15 90' LT

END C/A END CLF +15 90' LT

+90 270' LT

+20 210' LT

+30 170' LT

DRAIN POND W/4' BASE DITCH APPROX. START ELEV. 297.0' END ELEV. 296.0' SEE DETAIL 26 EST. 60 TONS CL-I RIPRAP EST. 145 S.Y. GFD EST. 400 C.Y. DDE

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

BEGIN C/A +75 90' LT

+63 90' LT

+79 124' LT

+48 161.5' LT

+73 90' LT

END C/A +40 90' LT

+87 182' LT

+90 436' LT

+21 321' LT

+86.23 117.62' LT

+06 114.62' LT

+02.27 90' LT

+82.04 90' LT

BEGIN C/A BEGIN CLF +24 90' LT

+89 90' LT

+96 98' LT

ACCESS POINT

PUE

PDE

TDE

CLF

REMOVE

REMOVE EXIST JB

HW

O.E.P 10-YR HW/D = 0.8

O.E.P 10-YR HW/D = 2.0

2GI

2GI-A

18" 24" 30" 36" 48" 42" RCP-IV 24" RCP-IV 28" RCP 24" RCP 18" CMP 15" RCP

4' PS

20' CONC DR 20' DR 28' DR

1'-6" C&G

10' MONO CONC ISLAND

RIPRAP PAD AT OUTLET 3 TONS CL-B RIPRAP 11 S.Y. GFD

END C/A +26.93 95' RT

+23.53 101.91' RT

+42.84 111.40' RT

BEGIN CLF +60.4 95' RT

+63.33 105.67' RT

RETAIN

+32 95' RT

CHANNEL CHANGE (4.0' BASE) SEE DETAIL 11 EST. 150 C.Y. DDE EST. 95 TONS CL-I RIPRAP EST. 210 S.Y. GFD

+07 130' RT

END C/A END CLF +50 130' RT

ACCESS POINT

MIN DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1

BEGIN C/A BEGIN CLF +10 105' RT

TOE PROTECTION SEE DETAIL 12 EST. 40 TONS CL-B RIPRAP EST. 130 S.Y. GFD

END CLF +21 105' RT

END C/A +78 105' RT

ACCESS POINT

BEGIN CLF +87 105' RT

+79.97 105' RT

+78.99 113.57' RT

+59.84 105' RT

+69 144' RT

BEGIN C/A +38 105' RT

GRADE TO DRAIN APPROX. GRADE 15% PROTECT W/EST. 15 TONS CL-B RIPRAP EST. 40 S.Y. GFD

+59.12 111.29' RT

100' TAPER

240' TAPER

FALSE SUMP SEE DETAIL 7

+14.24

+31

+16

SEE SHEETS 2D-1TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 26 FOR -L- PROFILE

3/5/2021

2022 ADT / 2045 ADT			
	-Y1- SR 1532 (OAK GROVE CHURCH RD)		DHV = 9% DIR = 60% TTST = 1% DUAL = 3%
-L- NC 55	9300 / 14100	500 / 1100	1700 / 3000
		300 / 800	11000 / 17100 -L- NC 55
DHV = 9% DIR = 60% TTST = 2% DUAL = 2%			DHV = 9% DIR = 60% TTST = 2% DUAL = 2%
			900 / 1900
	-Y2- SR 1532 (GUY RD)	2300 / 5900	DHV = 9% DIR = 60% TTST = 1% DUAL = 4%

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

5/14/99

REVISIONS

3/5/2021

MATCHLINE -L- STA 50+50 (SEE SHEET 6)

MATCHLINE -L- STA 64+00 (SEE SHEET 8)

-L-
PI Sta 57+12.71
△ = 0° 07' 40.5" (RT)
D = 0° 06' 52.5"
L = 111.64'
T = 55.82'
R = 50,000.00'
SE = NC
RO = NONE

-Y1- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y1- POT Sta. 10+45.00

-L- POT Sta. 52+56.13 =
-Y1- POT Sta. 14+55.00
△ = 111° 00' 17.1"

-L- POT Sta. 52+55.16 =
-Y2- POT Sta. 10+00.00
△ = 110° 56' 35.7"

-L- PC Sta. 56+56.89

-L- PT Sta. 57+68.53

END CONSTRUCTION
-Y2- POT Sta. 13+60.00

(99) CANDACE TAYLOR
DB 2609 PG 517
MB 2009 PG 136

(24) A AND L PROPERTIES LLC
DB 3350 PG 890

(27) CARRIE BULLARD
DB 502 PG 121

(28) CAROL BLALOCK
DB 88E PG 258

(21) UNKNOWN PROPERTY OWNER

(22)

(23) NANCY MYATT
DB 1229 PG 887

(100) NANCY MYATT
DB 1101PG 767

(26) JEAN SMITH
DB 3175 PG 397
MB 2013 PG 271

(25) TONI GAINES
DB 3183 PG 524
MB 2013 PG 271

(29) CARRIE BULLARD
DB 695 PG 318

(30) LUCILLE PATE
DB 634 PG 613

(31) CURTIS ADAMS
DB 508 PG 169

SEE SHEET 2B-1 FOR INTERSECTION DETAILS 3 AND 4
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 26 FOR -L- PROFILE
SEE SHEET 33 FOR -Y1- PROFILE
SEE SHEET 34 FOR -Y2- PROFILE

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NAD 83/NA 2011

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS 5/14/99

3/5/2021

-L-
PI Sta 76+11.18
Δ = 0° 05' 23.5" (LT)
D = 0° 04' 35.0"
L = 117.63'
T = 58.82'
R = 75,000.00'
SE = NC
RO = NONE

-L- PT Sta. 76+69.99

-L- PC Sta. 75+52.36

MATCHLINE -L- STA 64+00 (SEE SHEET 7)

MATCHLINE -L- STA 78+00 (SEE SHEET 9)

65+00 70+00 75+00

(28) CAROL BLALOCK DB 88E PG 258

(32) DANIEL MORTON DB 3441 PG 835 MB 2008 PG 1042

(35) JAMES GARNER DB 1602 PG 2197 MB 2002 PG 303

(38) JAMES GARNER DB 1071 PG 120

(41) BUCKEYE GAS PRODUCTS DB 817 PG 394

(43) LYNN MUCHINSON DB 1508 PG 838

(46) JULEE JOHNSON DB 2967 PG 15 MB 2011 PG 317

(48) BENNY WEAVER DB 2458 PG 329 MB 2006 PG 930

(44) JEAN GARNER DB 1665 PG 80 MB 2001 PG 1260

(33) MARIO HERNANDEZ DB 2857 PG 342 MB 2011 PG 303

(34) JAMES GARNER DB 1145 PG 360

(36) BARBARA HENRIES DB 2007 PG 3

(37) D&O MOTOR SPORTS LLC DB 2803 PG 711

(39) WILLIAM HART NO DEED INFO PC* F PG 326C

(40) JIMMY WALTERS DB 1102 PG 980 PC* F PG 326C

(42) JIMMY WALTERS DB 606 PG 222

(31) CURTIS ADAMS DB 508 PG 169

(45) JEANETTE STRICKLAND DB 1405 PG 740 MB 2000 PG 84

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 13 EST. 60 TONS CL-B RIPRAP EST. 160 S.Y. GFD

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

STANDARD 'V' DITCH SEE DETAIL 20 BEGIN ELEV. = 314.28' END ELEV. = 314.00' APPROX. SLOPE = 0.6% EST. 5 C.Y. DDE

SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 16

RIPRAP PAD AT OUTLET 5 TONS CL-B RIPRAP 14 S.Y. GFD

SEE SHEET 2B-2 FOR INTERSECTION DETAIL 5
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 27 FOR -L- PROFILE

5/14/99

REVISIONS

3/5/2021

2022 ADT / 2045 ADT	–Y3– SR 1538 (MABRY RD)	DHV = 9%, DIR = 65%, TTST = 1%, DUAL = 3%
	600 / 800	
–L– NC 55	11000/17100, 100/200, 500/600, 11400/17500	–L– NC 55
DHV = 9%, DIR = 60%, TTST = 2%, DUAL = 2%		DHV = 9%, DIR = 60%, TTST = 2%, DUAL = 2%

–L–
PI Sta 119+02.62
△ = 47° 38' 07.8" (LT)
D = 0° 52' 53.3"
L = 5,404.08'
T = 2,869.25'
R = 6,500.00'
SE = 0.025
R0 = 150'

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE –L– STA 78+00 (SEE SHEET 8)

MATCHLINE –L– STA 92+00 (SEE SHEET 10)

80+00 85+00 90+00

(46) JULEE JOHNSON
DB 2967 PG 15
MB 2011 PG 317

(44) JEAN GARNER
DB 1665 PG 80
MB 2001 PG 1260

(45) JEANETTE STRICKLAND
DB 1405 PG 740
MB 2000 PG 84

(42) JIMMY WALTERS
DB 606 PG 222

(47) MR CURRIN
DB 1315 PG 641

(48) BENNY WEAVER
DB 2458 PG 329
MB 2006 PG 930

(49) BARBARA SMETZER
DB 2038 PG 935

(50) FRANK D'ALESIO
DB 3604 PG 42
MB 2017 PG 390

(51) ISABEL LOREDO
DB 3258 PG 986
MB 2014 PG 313

(52) W E COLLIER
DB 2768 PG 34

–Y3– POT Sta. 10+00.00

BEGIN CONSTRUCTION
–Y3– POT Sta. 10+88.00

–L– POT Sta. 88+43.18 =
–Y3– POT Sta. 13+75.00
△ = 111°54'15.0"

–L– PC Sta. 90+33.37

N 19° 50' 33.4" E

N 48° 15' 11.4" W

SR 1538 (MABRY RD)

NC 55

SEE SHEET 2B-2 FOR INTERSECTION DETAIL 6
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 27 FOR –L– PROFILE
SEE SHEET 34 FOR –Y3– PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS 5/14/99

3/5/2021

-L-
PI Sta 119+02.62
△ = 47° 38' 07.8" (LT)
D = 0° 52' 53.3"
L = 5,404.08'
T = 2,869.25'
R = 6,500.00'
SE = 0.025
RO = 150'

NAD 83/NA 2011

MATCHLINE -L- STA 92+00 (SEE SHEET 9)

MATCHLINE -L- STA 105+50 (SEE SHEET 11)

95+00

100+00

105+00

(51) ISABEL LOREDO
DB 3258 PG 986
MB 2014 PG 313

(56) JERRY TUCKER
DB 2208 PG 537
MB 2001PG 641

KENNETH SNIPES
DB 3372 PG 76

(57) CLAY GARDNER
DB 3454 PG 424

(49) BARBARA SMETZER
DB 2038 PG 935

(52) W E COLLIER
DB 2768 PG 34

(53) A M COLLIER
DB 3278 PG 600

(54) A M COLLIER
DB 3278 PG 598

(55) NANCY CURRIN
DB 2627 PG 807
MB 2009 PG 275

(58)

-L- NC 55

-Y4A- ACCESS ROAD 1

-Y4A- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y4A- POT Sta. 11+40.00

TERMINAL END SECTION

280' MEDIAN TAPER (LT/RT)

+00 218' LT

+70 112' LT

END C/A
END CLF
+20 100' LT
112'

BEGIN C/A
BEGIN CLF
+80 100' LT

ACCESS POINT

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SPECIAL LATERAL
4' BASE DITCH
SEE DETAIL 31

+00 100' LT

REMOVE

DRIVEWAY FLARE OUT
SEE DETAIL 55

+28.23 100' LT

+14.38 110.97' LT

END CLF
+05.43 100' LT

END C/A
+19 100' LT

BEGIN C/A
BEGIN CLF
+79 100' LT

ACCESS POINT

+11.01 113.16' LT

+90.75 115.02' LT

END CLF
+89.34 100' LT

BEGIN FULL C/A
+88 100' LT

BEGIN CLF
+09.74 100' LT

+09.21 127.52' LT

BEGIN CLF
+07 100' LT 116.5'

+89.18 131.35' LT

+84.99 110.09' LT

+62.47 108.61' LT

END CLF
+63.05 100.09' LT

END FULL C/A
+50 100' LT

END C/A
+35 100' LT

END CLF
+10 100' LT

DRIVEWAY FLAREOUT
SEE DETAIL 55

BEGIN C/A
BEGIN CLF
+95 100' LT

ACCESS POINT

+16.92 115.15' RT

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

SEDIMENT CONTROL BASIN

+40 159' RT

ACCESS POINT

END C/A
END CLF
+06 115' RT 118.68'

BEGIN C/A
+66 100' RT

+18.24 123.47' RT

+19.91 137.74' RT

+98.50 123.67' RT

+00.46 140.13' RT

ACCESS POINT

END C/A
+76 95' RT

BEGIN C/A
BEGIN CLF
+36 95' RT

DRIVEWAY FLARE OUT
SEE DETAIL 55

+53 95' RT

+40.63 120.83' RT

+43.88 114.03' RT

+65.90 113.73' RT

+57.67 130.85' RT

END C/A
END CLF
+70 95' RT

BEGIN C/A
+30 95' RT

ACCESS POINT

BEGIN CLF
+88 95' RT

+80.48 114.22' RT

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

STANDARD 'V' DITCH
SEE DETAIL 20
EST. 55 C.Y. DDE

BEGIN FULL C/A
+88 120' RT

+29.68 130.28' RT

+81.89 136.75' RT

END CLF
+40 123.5' RT

+33.82 157.59' RT

+68 140' RT

+59.96 123.58' RT

+53.01 161.25' RT

+36.29 143.95' RT

END FULL C/A
+50 100' RT

BEGIN CLF
+60 119.07' RT

SPECIAL CUT
'V' DITCH
SEE DETAIL 21

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 1

GRADE TO DRAIN
SEE CROSS SECTIONS
APPROX GRADE = 4.0%

18" RCP

15" RCP-IV

2'-9" C&G

1'-6" C&G

TB 2GI

4' PS

20' DR

12' EXIST

No Associated Piping found

SEE SHEET 2B-2 FOR INTERSECTION DETAIL 7
SEE SHEETS 2D-1TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 37 FOR -Y4A- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NC 2011

MATCHLINE -L- STA 105+50 (SEE SHEET 10)

MATCHLINE -L- STA 119+00 (SEE SHEET 12)

-Y4B- PT Sta. 13+20.06
-Y4B- PC Sta. 10+00.00
BEGIN CONSTRUCTION
-Y4B- POC Sta. 10+02.00
END CONSTRUCTION
-Y4B- POC Sta. 11+10.00
-Y4B- PCC Sta. 11+58.42
-Y4B- PC Sta. 15+59.63
-Y4B- PT Sta. 16+85.27
BEGIN CONSTRUCTION
-Y4- POT Sta. 13+03.00
-Y4- PC Sta. 14+21.25
-Y4- PT Sta. 17+75.36
-Y4- PC Sta. 19+25.01
BEGIN CONSTRUCTION
-Y4B- POT Sta. 15+05.00
-L- PI Sta 119+02.62
Δ = 41° 38' 07.8" (LT)
D = 0° 52' 53.3"
L = 5,404.08'
T = 2,869.25'
R = 6,500.00'
SE = 0.025
RO = 150'
-Y4- PI Sta 16+35.36
Δ = 81° 09' 23.9" (LT)
D = 22° 55' 05.9"
L = 354.11'
T = 214.11'
R = 250.00'
SE = 0.04
RO = 72'
-Y4- PI Sta 22+44.79
Δ = 70° 47' 46.9" (LT)
D = 12° 43' 56.6"
L = 556.03'
T = 319.78'
R = 450.00'
SE = 0.035
RO = 63'
-Y4B- PI Sta 10+79.97
Δ = 19° 18' 46.2" (RT)
D = 12° 11' 26.1"
L = 158.42'
T = 79.97'
R = 470.00'
-Y4B- PI Sta 12+39.51
Δ = 11° 26' 00.5" (RT)
D = 7° 04' 24.8"
L = 161.64'
T = 81.09'
R = 810.00'
-Y4B- PI Sta 16+26.18
Δ = 46° 44' 27.5" (RT)
D = 37° 12' 18.2"
L = 125.63'
T = 66.55'
R = 154.00'
SE = 0.02
RO = NONE
-Y4A- PI Sta 15+44.73
Δ = 0° 16' 10.5" (RT)
D = 0° 13' 45.1"
L = 117.63'
T = 58.82'
R = 25,000.00'
-Y4A- PI Sta 19+23.80
Δ = 53° 54' 07.8" (LT)
D = 37° 12' 18.2"
L = 144.88'
T = 78.30'
R = 154.00'
SE = NC
RO = NONE

SEE SHEET 2B-2 FOR INTERSECTION DETAIL 8
SEE SHEET 2B-5 FOR INTERSECTION DETAILS 18 AND 19
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 28 FOR -L- PROFILE
SEE SHEET 34 FOR -Y4- PROFILE
SEE SHEET 37 FOR -Y4A- PROFILE
SEE SHEETS 38 & 39 FOR -Y4B- PROFILE

3/5/2021

5/14/99

REVISIONS

3/5/2021

-Y5B-
PI Sta 13+19.80
Δ = 11° 15' 53.4" (RT)
D = 7° 00' 00.3"
L = 160.92'
T = 80.72'
R = 818.50'

-L-
PI Sta 119+02.62
Δ = 47° 38' 07.8" (LT)
D = 0° 52' 53.3"
L = 5,404.08'
T = 2,869.25'
R = 6,500.00'
SE = 0.025
RO = 150'

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

PATSY JONES
DB 748 PG 498

JOHNNY PEARCE
DB 2705 PG 775

CHRISTOPHER SCOTT
DB 1268 PG 466

CLYDE SNYDER
DB 1223 PG 264

JOHNNY PEARCE
DB 3011 PG 477

CECIL AUSLEY
DB 2006 PG 688

DETRICE JOHNSON
DB 3544 PG 730

ADRIANO ALVAREZ
DB 2199 PG 280

JUAN GONZALEZ
DB 2377 PG 712
PC# F PG 620A

DAVID FELDMANN
DB 3586 PG 623
PC# F PG 620A

(60) HERMAN WOOD
DB 904 PG 981

HERMAN WOOD
DB 612 PG 58

(61) JAMES BURGIN
DB 1880 PG 98
MB 2000 PG 565

(62) TONY MABRY
DB 1417 PG 6
MB 2000 PG 279

-Y5B- POT Sta. 10+00.00
-Y5B- POT Sta. 13+19.00
-Y5B- PC Sta. 12+39.08
-Y5B- PT Sta. 14+00.00
-Y5B- OLD ENNIS RD N 67° 11' 39.9" W
-L- NC 55

BEGIN CONSTRUCTION
-Y5B- POT Sta. 12+15.00

END CONSTRUCTION
-Y5B- POT Sta. 13+19.00

TERMINAL END SECTION

MATCHLINE -L- STA 119+00 (SEE SHEET 11)

MATCHLINE -L- STA 133+00 (SEE SHEET 13)

120+00 | 125+00 | 130+00 | 10+00

RETAIN | REMOVE

CLEAN WATER DIVERSION | ACCESS POINT | FALSE SUMP TO ELEV. 290.2' SEE DETAIL 14 | FALSE SUMP TO ELEV. 286.7' SEE DETAIL 14 | FALSE SUMP TO ELEV. 287.0' SEE DETAIL 14 | FALSE SUMP TO ELEV. 285.4' SEE DETAIL 14

SPECIAL CUT DITCH SEE DETAIL 25

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

STANDARD 'V' DITCH SEE DETAIL 37 EST. 40 TONS CL-B RIPRAP EST. 90 S.Y. GFD EST. 180 C.Y. DDE GRADE AT 2.7%

150' TAPER

24" RCP-IV | 15" RCP-IV | 18" RCP-IV | 48" RCP-IV (BURIED 0.8') | 48" HW

TB 2GI | TB 2GI-A | 1'-6" C&G | 2'-9" C&G | 4' PS

RIPRAP PAD AT OUTLET
5 TONS CL-B RIPRAP
14 S.Y. GFD

RIPRAP PAD AT OUTLET
3 TONS CL-B RIPRAP
10 S.Y. GFD

RIPRAP PAD AT OUTLET
15 TONS CL-I RIPRAP
30 S.Y. GFD

SEE SHEET 2B-3 FOR INTERSECTION DETAIL 9
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 29 FOR -L- PROFILE
SEE SHEET 38 FOR -Y5B- PROFILE

-L-
PI Sta 119+02.62
△ = 47° 38' 07.8" (LT)
D = 0° 52' 53.3"
L = 5,404.08'
T = 2,869.25'
R = 6,500.00'
SE = 0.025
RO = 150'

-Y5A-
PI Sta 11+59.64
△ = 23° 39' 39.9" (LT)
D = 10° 44' 58.8"
L = 220.11'
T = 111.65'
R = 533.00'
SE = 0.035
RO = 63'

PI Sta 13+90.74
△ = 1° 02' 29.9" (LT)
D = 1° 00' 00.0"
L = 104.16'
T = 52.08'
R = 5,729.58'
SE = EXIST
RO = EXIST

2022 ADT
2045 ADT

-Y5-
SR 1540
(MONTAGUE RD)

500/600

-L-
NC 55
DHV = 9%
DIR = 60%
TTST = 1%
DUAL = 3%

8650/12300
100/100
300/400
9100/14400
400/300
600/2100
1100/2500

-L-
NC 55
DHV = 9%
DIR = 60%
TTST = 3%
DUAL = 1%

-Y5A-
SR 1540
(ENNIS RD)
DHV = 12%
DIR = 65%
TTST = 1%
DUAL = 1%

DHV = 12%
DIR = 65%
TTST = 1%
DUAL = 1%

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

JON SALSBURY
DB 2382 PG 966
PC# F PG 620A

JUAN GONZALEZ
DB 2377 PG 712
PC# F PG 620A

-Y5- SR 1540 (MONTAGUE RD)
N 0° 58' 22.1" E

(104) DAVID FELDMANN
DB 3586 PG 623
PC# F PG 620A

(103) BENNIE MANGUM
DB 799 PG 611

(64) JOSEPH LIPSCOMB
DB 1903 PG 67

(65) WILLIAM HAWLEY
DB 1889 PG 108
MB 2016 PG 67

(66) WILLIAM HAWLEY
DB 1889 PG 108
MB 2016 PG 67

(67) DANIEL HONEYCUTT
DB 3182 PG 966

(62) TONY MABRY
DB 1417 PG 6
MB 2000 PG 279

(63) CHRISTY JORDAN
DB 3524 PG 729
MB 2000 PG 466

(105) STEPHEN YEO
DB 3359 PG 962
MB 2000 PG 466

LETESHA WYNN
DB 2136 PG 830
MB 2000 PG 466

BOBBY MABRY
DB 3404 PG 350
MB 2016 PG 25

SHIRLEY HAWLEY
DB 3184 PG 180

THOMAS NORMAN
DB 2175 PG 234

BEGIN CONSTRUCTION
-Y5- POT Sta. 19+76.00

-L- PT Sta. 144+37.45

-L- POC Sta. 134+22.65 =
-Y5- POT Sta. 22+62.00
△ = 92° 05' 01.0"
-L- POC Sta. 135+19.00 =
-Y5A- POT Sta. 10+00.00
△ = 79° 51' 06.0"
N 22° 47' 34.0" W

-Y5A- PC Sta. 10+47.99

-Y5A- PT Sta. 12+68.10
N 46° 27' 13.9" W
-Y5A- PC Sta. 13+38.66

END CONSTRUCTION
-Y5A- POT Sta. 13+80.00
-Y5A- PT Sta. 14+42.82

N 47° 29' 43.8" W

S 84° 06' 40.8" W

MATCHLINE -L- STA 133+00 (SEE SHEET 12)

MATCHLINE -L- STA 146+50 (SEE SHEET 14)

135+00
140+00
145+00
20+00

BL-15 = BY2
BL-16
BY2-106

EXIST 10' SE
+85 EX R/W 37' LT
+28.32 EX R/W
+48.58 EX R/W
+33.77 62.61' RT
+53.5 59.35' RT
PUE
+50 46' LT
SPECIAL LATERAL 'V' DITCH SEE DETAIL 1
END C/A +30 (Y5) 50' RT
BEGIN C/A BEGIN WWF +30 (Y5) 50' LT
GRADE TO DRAIN APPROX. GRADE = 4.0%
+10(L) 100' LT
EX R/W 100' LT
SPECIAL LATERAL 'V' DITCH SEE DETAIL 14' PS
REMOVE
WWF
END C/A END WWF +76 100' LT
ACCESS POINT
BEGIN C/A BEGIN WWF +36 100' LT
20' RIPRAP PAD AT OUTLET
16 TONS CL-B RIPRAP
44 S.Y. GFD
-L- NC 55
30" RCP-IV
24" RCP-IV
15" RCP-IV
1'-6" C&G
2'-9" C&G
TB 2GI
TB 2GI-A
DI
POND
20' DR
4' PS
400' R
100'
SPECIAL LATERAL 'V' DITCH SEE DETAIL 1
+50(L) 100' RT
BEGIN C/A BEGIN WWF +67 (Y5A) 45' LT
+00 100' RT
+00 115' RT
+24 100' RT
+74
150' TAPER (LT/RT)
+24
END C/A END WWF +70 100' RT
BEGIN FULL C/A BEGIN WWF +65 100' RT
+37.45 100' RT
END FULL C/A END WWF +50 100' RT
STANDARD 'V' DITCH SEE DETAIL 29 EST. 5 C.Y. DDE APPROX. GRADE = 3.6%
+36 100' LT 135'
+80 100' LT 135'
+37.45 100' LT
+10 116.12' LT
+48 143' LT
+50 125' LT
SPECIAL CUT 'V' DITCH SEE DETAIL 30
RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD
RETAIN
ACCESS POINT
GRADE TO DRAIN REMOVE ABANDONED DRIVEWAY
END C/A END WWF +76 100' LT
TDE
WWF
4' PS
15" RCP-IV
1'-6" C&G
TB 2GI
2'-9" C&G
DI
12'
15'
100'
400' R
SPECIAL LATERAL 'V' DITCH SEE DETAIL 22
160' TAPER (LT/RT)
+49 50' RT
+62.08 46.7' RT
+00.57 46.43' RT
+00.50 38.67' RT
+38.66 EX R/W
+62 EX R/W
+92(L) 132' RT
+34.10
BEGIN C/A BEGIN WWF +36 120' RT
END C/A END WWF +76 120' RT
END C/A END WWF +67 (Y5A) 55' RT
-Y5A- SR 1543 (ENNIS RD)
EX 15" RCP
EX 24" RCP
EX 30" RCP
EX 36" RCP
EX 42" RCP
EX 48" RCP
EX 54" RCP
EX 60" RCP
EX 66" RCP
EX 72" RCP
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EX 7968" RCP
EX 7974" RCP
EX 7980" RCP
EX 7986" RCP
EX 7992" RCP
EX 7998" RCP
EX 8004" RCP
EX 8010" RCP
EX 8016" RCP
EX 8022" RCP
EX

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

5/14/99

REVISIONS

3/5/2021

NAD 83/NA 2011

-L-
PI Sta 174+91.54
△ = 48° 33' 46.5" (RT)
D = 1° 08' 45.3"
L = 4,237.91'
T = 2,255.64'
R = 5,000.00'
SE = 0.03
RO = 180'

66 WILLIAM HAWLEY
DB 1889 PG 108
MB 2016 PG 67

67 DANIEL HONEYCUTT
DB 3182 PG 966

68 SUNFLIGHT LLC
DB 1690 PG 178

69 STEVEN WICKER
DB 1889 PG 51
MB 2004 PG 81

70 NORDAN FARMS INC
DB 1690 PG 178

MATCHLINE -L- STA 146+50 (SEE SHEET 13)

MATCHLINE -L- STA 160+50 (SEE SHEET 15)

-L- PC Sta. 152+35.90

S 84° 06' 40.8" W

NC 55

276.28' N 66°15'42" W

543.26' N 34°54'57" E

80.05' N 33°03'20" E

350.74' S 86°56'40" E

14.74' S 86°56'40" E

N 04°05'55" E 214.68'

N 45°43'53" W 99.13'

150+00

155+00

160+00

BL-17

BL-18

BL-19

CULTIVATED

POND

WOODS

ISFD

GR

12' WD

ACCESS POINT

BEGIN C/A
BEGIN WWF
+36
100' LT

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 17

BEGIN
FULL C/A
+80
100' LT

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

END
FULL C/A
+35.9
110' LT

END C/A
END WWF
+94
110' LT

ACCESS POINT

BEGIN C/A
+54
110' LT

+60
127' LT

LATERAL 'V' DITCH
SEE DETAIL 10
EST. 80 C.Y. DDE

EST. 45 TONS CL-I RIPRAP ON BANKS
EST. 10 TONS COUNTERSUNK CL-I RIPRAP IN STREAM BED
SUPPLEMENT VOIDS W/
EST. 3 TONS CL-B RIPRAP
EST. 70 S.Y. GFD
SEE DETAIL 46

+50
127' LT

BEGIN WWF
+15
100' LT
110'

PDE

66" RCP-IV
(1.0' BURIED)

TB 2GI-A

TB 2GI

15" RCP-IV

REMOVE

66" HW

2'-9" C&G

1'-6" C&G

4' PS

150' TAPER (LT/RT)

SPECIAL CUT 'V' DITCH
SEE DETAIL 21

CLEAN WATER DIVERSION

SPECIAL LATERAL 2' BASE DITCH
SEE DETAIL 16

SEDIMENT CONTROL BASIN

+48
140' RT

+40
188' RT

+23
205' RT

+33
100' RT

+70
110' RT

+30
100' RT

+40
122' RT

+25
100' RT

+85
100' RT

+94
132' RT

+50
110' RT

SEE SHEET 2B-4 FOR INTERSECTION DETAIL 12
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 30 FOR -L- PROFILE

5/14/99

REVISIONS

3/5/2021

-L-	-Y6-
PI Sta 174+91.54	PI Sta 18+72.92
△ = 48° 33' 46.5" (RT)	△ = 34° 30' 26.8" (RT)
D = 1° 08' 45.3"	D = 4° 51' 20.1"
L = 4,237.91'	L = 710.68'
T = 2,255.64'	T = 366.48'
R = 5,000.00'	R = 1,180.00'
SE = 0.03	SE = 0.03
RO = 180'	RO = 57'

-DRW2-
PI Sta 10+97.77
△ = 14° 20' 15.0" (LT)
D = 114° 35' 29.6"
L = 12.51'
T = 6.29'
R = 50.00'

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE -L- STA 160+50 (SEE SHEET 14)

MATCHLINE -L- STA 174+00 (SEE SHEET 16)

-Y6- PC Sta. 15+06.43

-L- POC Sta. 165+57.98 = -Y6- POC Sta. 16+56.11, △ = 79° 51' 06.0", 15+00

-Y6- PT Sta. 22+17.11

-Y6- POT Sta. 22+44.00

BEGIN CONSTRUCTION -Y6- POT Sta. 13+41.00

END CONSTRUCTION -DRW2- POT Sta. 11+27.00

-DRW2- PT Sta. 11+03.99

-DRW2- PC Sta. 10+91.48

-DRW2- POT Sta. 11+60.00

-L- POC Sta. 172+45.00 = -DRW2- POT Sta. 10+00.00, △ = 90°

-Y6A- PC Sta. 10+30.38

N 64° 28' 35.4" W

-Y6A- POT Sta. 10+00.00 = -Y6- POC Sta. 18+85.00, △ = 95° 26' 10.0"

END CONSTRUCTION -Y6A- POC Sta. 11+17.00

-Y6A- PCC Sta. 11+97.53

-Y6A- PT Sta. 13+23.36

BEGIN CONSTRUCTION -Y6A- POC Sta. 16+66.00

-Y6A- PC Sta. 16+56.17

END CONSTRUCTION -Y6A- POC Sta. 18+19.00

-Y6A- PT Sta. 18+29.78

N 89° 47' 18.6" W

S 2° 47' 41.0" W

S 17° 08' 02.0" W

-Y6- SR 1542 (OLD BUIES CREEK RD) N 12° 08' 31.1" E

-Y6- SR 1542 (OLD BUIES CREEK RD) N 46° 38' 51.9" E

-Y6A- GARDNER RD N 85° 26' 54.9" W

-L- NC 55

68 SUNFLIGHT LLC DB 1690 PG 178

72 SUNFLIGHT LLC DB 1690 PG 178

73 SUNFLIGHT LLC DB 1690 PG 178

74 DOUGLAS WILLIAMS DB 2663 PG 491

70 NORDAN FARMS INC DB 1690 PG 178

71 JAMIE MASON DB 2721PG 84

106 CONNIE ADAMS DB 950 PG 790

107 GILBERT RITTER DB 1183 PG 808

CONNIE RITTER DB 1857 PG 257

SUNNY DEAN DB 3502 PG 424 MB 2015 PG 249

RICHARD MILLER DB 3415 PG 856 MB 2004 PG 428

CHRISTIAN CRUZ DB 3447 PG 522

NORDAN FARMS INC DB 1690 PG 178

STANDARD 6' BASE DITCH SEE DETAIL 64 EST. 20 C.Y. DDE EST. 50 TONS CL-I RIP RAP EST. 100 S.Y. GFD

TOE PROTECTION SEE DETAIL 12 EST. 42 TONS CL-B RIPRAP EST. 130 S.Y. GFD

RETAIN +49 170' LT +87 172' LT

BEGIN WWF +74 100' LT

END WWF +27 100' LT

END C/A END WWF +06.43(Y6) 40' RT

BEGIN C/A BEGIN WWF +06.43(Y6) 60' LT

END C/A END WWF +14 100' LT

BEGIN C/A BEGIN WWF +74 100' LT

END WWF +92 100' LT

END C/A END WWF +57 100' RT

END C/A +25(Y6) 60' RT

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

SPECIAL LATERAL 'V' DITCH SEE DETAIL 32

SPECIAL LATERAL 'V' DITCH SEE DETAIL 33

SPECIAL LATERAL 'V' DITCH SEE DETAIL 50

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

SPECIAL CUT DITCH SEE DETAIL 21

FALSE SUMP TO ELEV. 279.9' +35(L) 110' RT

RIPRAP PAD AT OUTLET 5 TONS CL-B RIPRAP 14 S.Y. GFD

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

STANDARD 'V' DITCH SEE DETAIL 29 EST. 35 C.Y. DDE APPROX. GRADE = 2.0%

GRADE TO DRAIN +90 (L) EX R/W

ACCESS POINT

150' TAPER (LT/RT)

36" RCP-IV

15" RCP-IV

24" RCP-IV

30" RCP-IV

36" HW

4' PS

20' DR

TB 2GI-A

TB 2GI

2'-9" C&G

1'-6" C&G

DI

REMOVE

RETAIN

PDE

PUE

CULTIVATED

ISFD

HTR

BK BLDG

GAZEBO

DECK

POND

Harnett Co Dept Public Utilities, 8", PVC

Spectrum, Copper

Century Link, FO

Century Link, Copper

Harnett Co Dept Public Utilities, 6", PVC

Century Link, Copper

Spectrum, Copper

EXIST R/W

EX R/W

EXIST

BL-20

GR

EIP

15" RCP

12" CONC

36" CONC

2022 ADT 2045 ADT

-Y6- SR 1542 (OLD BUIES CREEK RD) DHV = 10% DIR = 60% TTST = 1% DUAL = 3%

3900 3800

-L- NC 55 BYPASS 9100 14400 600 700 2800 2200 11700 18200 -L- NC 55 BYPASS

DHV = 9% DIR = 60% TTST = 1% DUAL = 3%

500 200 900 2500

1900 3600

-Y6- SR 1542 (OLD BUIES CREEK RD) DHV = 10% DIR = 60% TTST = 1% DUAL = 3%

-Y6A-

PI Sta 11+14.65	PI Sta 12+60.46	PI Sta 17+43.01
△ = 17° 58' 04.9" (LT)	△ = 3° 00' 14.6" (LT)	△ = 4° 20' 23.7" (LT)
D = 10° 44' 58.8"	D = 2° 23' 14.4"	D = 2° 29' 59.3"
L = 167.15'	L = 125.83'	L = 173.61'
T = 84.27'	T = 62.93'	T = 86.85'
R = 533.00'	R = 2,400.00'	R = 2,292.00'
		SE = 0.04
		RO = 16'

SEE SHEET 2B-4 FOR INTERSECTION DETAIL 13
SEE SHEET 2B-6 FOR INTERSECTION DETAIL 20
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 35 FOR -Y6- PROFILE
SEE SHEET 38 FOR -Y6A- PROFILE
SEE SHEET 40 FOR -DRW2- PROFILE

5/14/99

REVISIONS

3/5/2021

-L-
PI Sta 174+91.54
Δ = 48° 33' 46.5" (RT)
D = 1° 08' 45.3"
L = 4,237.91'
T = 2,255.64'
R = 5,000.00'
SE = 0.03
RO = 180'

-DRW3-
PI Sta 10+85.01
Δ = 13° 30' 27.9" (LT)
D = 76° 23' 39.7"
L = 17.68'
T = 8.88'
R = 75.00'

-DRW4-
PI Sta 11+10.26
Δ = 81° 00' 13.3" (RT)
D = 286° 28' 44.0"
L = 28.28'
T = 17.08'
R = 20.00'

-DRW5-
PI Sta 10+84.78
Δ = 15° 06' 47.6" (RT)
D = 114° 35' 29.6"
L = 13.19'
T = 6.63'
R = 50.00'

QUANTITY ESTIMATE
(TOTAL FOR ENTIRE CULVERT)

CLASS-I RIPRAP	110 TONS
CLASS-B RIPRAP	3 TONS
GEOTEXTILE	170 S.Y.
EXCAVATION	
CULVERT	150 CY
CHANNEL	10 CY

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

(76) WILLIAM TYSON
DB 1446 PG 986

REALIGN AND WIDEN EXISTING DITCH TO PROPERTY LINE
MATCH EXISTING DITCH INVERT ELEVATIONS
SEE DETAIL 63
EST 10 CY DDE

175+00

20' RIPRAP PAD AT OUTLET
20 TONS CL-B RIPRAP
45 S.Y. GFD

BEGIN WWF
+28
102.52' LT

-L- POC Sta.174+00.00 =
-DRW3- POT Sta. 10+00.00
Δ = 90°

+24
170' LT
BEGIN FULL C/A
+17
100' LT

+98
145' LT

(78) DAVID GARDNER
DB 1085 PG 714

-L- POC Sta.176+83.00 =
-DRW4- POT Sta. 10+00.00
Δ = 90°

END FULL C/A
+92
115' LT

END C/A
END WWF
+56
115' LT

ACCESS POINT

LATERAL 2' BASE DITCH
SEE DETAIL 34
EST. 60 C.Y. DDE
DITCH TO BE EXCAVATED
AFTER POND HAS BEEN
FILLED

BEGIN C/A
BEGIN WWF
+16
115' LT

(80) DAVID GARDNER
DB 1085 PG 714
MB 2003 PG 1243

180+00

GRADE TO DRAIN (FILL)

FILL POND TO ELEV. 250.0' AT THIS SIDE
FILL TO ELEV. 249.0' AT OPPOSITE SIDE
GRADE AT APPROX. 1.2% TO DRAIN
(SEE GRADE TO DRAIN ARROWS)
EST. 1030 C.Y. BACKFILL

+72
235' LT

+27
115' LT
235'

TDE

+10
115' LT
177'

END WWF
+50
113.79' LT
130'

BEGIN WWF
+70
112.82' LT

(82) JAMES ALLEN
DB 3355 PG 413

TYPICAL OUTLET
IMPROVEMENTS
SEE DETAIL 68 &
QUANTITIES IN
TABLE ABOVE

PROPOSED SINGLE GATE,
47" HIGH, 12' WIDE, 12' OPENING
STA 182+00 TO 182+12 LT

+43
110' LT

+78.5
112.44' LT

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

SPECIAL LATERAL
'V' DITCH
C SEE DETAIL 1

(84) JEREMY SKOLOZYNSKI
DB 3258 PG 306
PC# C PG 118D

185+00

-L- POC Sta.186+21.00 =
-DRW5- POT Sta. 10+00.00
Δ = 90°

(85) MICHAEL ANTHONY
DB 1286 PG 579
PC# F PG 26B

+27.92
115.35' LT
+29.50
100' LT
+47.36
117.48' LT
+49.22
100' LT

END C/A
+25
100' LT

BEGIN C/A
+53
110' LT

END C/A
END WWF
+93
110' LT

BEGIN C/A
BEGIN WWF
+85
100' LT

ACCESS POINT

PIPE FLAREOUT
SEE DETAIL 55

PUE

SPECIAL LATERAL
2' BASE DITCH
SEE DETAIL 16

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

CAT-I

5' x 7' RCBC
(1.0' BURIED)

GREU TL-3

10' PS

20' DR

4' PS

2'-9" C&G

1'-6" C&G

REMOVE

TB 2GI

-L-
NC 55

SPECIAL CUT
'V' DITCH
SEE DETAIL 21

FALSE SUMP
SEE DETAIL 7

2GI-D

2GI

15" CSP
W/ELBOWS

B.D.O.

N 48° 01' 02.1" E

N 32° 54' 14.5" E

N 22° 06' 28.5" E

N 18° 54' 36.2" E

-DRW3- PC Sta. 10+76.13

-DRW3- PT Sta. 10+93.81

-DRW4- PC Sta. 10+93.18

-DRW4- PT Sta. 11+21.46

S 76° 53' 18.3" E

END CONSTRUCTION
-DRW4- POT Sta. 11+32.83

-DRW4- POT Sta. 11+38.28

-DRW5- PC Sta. 10+78.15

-DRW5- PT Sta. 10+91.33

END CONSTRUCTION
-DRW5- POT Sta. 11+07.00

-DRW5- POT Sta. 11+30.00

-Y6A- POT Sta. 19+06.00

N 5° 24' 08.4" E

END CONSTRUCTION
-DRW3- POT Sta. 12+38.00

-DRW3- POT Sta. 12+50.00

MATCHLINE -L- STA 174+00 (SEE SHEET 15)

MATCHLINE -L- STA 188+00 (SEE SHEET 17)

(75) RAFAEL CERVANTES
DB 3403 PG 599
MB 2000 PG 477

(77) JERRY GREGORY
DB 1684 PG 453
MB 2000 PG 477

(79) DAVID ADAMS
DB 1635 PG 609

(81) CLINTON ADAMS
DB 528 PG 185

CLINTON ADAMS
DB 1291PG 300
MB 2003 PG 1071

(83) RICHARD HALL
DB 982 PG 219

TYPICAL INLET
IMPROVEMENTS 100' RT
SEE DETAIL 67 &
QUANTITIES IN
TABLE ABOVE
GRADE CHANNEL
AT 1.0%

BEGIN WWF
+84
100' RT

END WWF
+70
100' RT

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

+74.16
122.57' RT

+10
119.98' RT
END WWF
+56
100' RT

+74
144' RT

+66.79
117.67' RT

+43
100' RT

SEDIMENT
CONTROL
BASIN

+91
163' RT

+85.06
128.89' RT

END C/A
END WWF
+91
130' RT

BEGIN WWF
+74.94
130' RT

+76.67
144.31' RT

BERM 'V' DITCH
SEE DETAIL 3

BEGIN C/A
+51
130' RT

+54.32
130' RT

+56.2
146.55' RT

BEGIN WWF
+00
100' RT

+64.58(L)
EX R/W
REMOVE
& BACKFILL TO
DRAIN

BEGIN FULL C/A
+17
100' RT

END FULL C/A
END WWF
+50
100' RT

+96(L)
230' RT

+11 (L)
250' RT

BEGIN C/A
+10
100' RT

END C/A
+97
100' RT

BEGIN C/A
+57
100' RT
+82.32
118.57' RT
+80
130.31' RT

BEGIN WWF
+03
100' RT
+03.27
118.08' RT
+00.17
134.06' RT

PIPE FLAREOUT
SEE DETAIL 55

SEE SHEET 2B-4 FOR INTERSECTION DETAIL 14
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 40 FOR -DRW3- PROFILE
SEE SHEET 40 FOR -DRW4- PROFILE
SEE SHEET 40 FOR -DRW5- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

-L-
PI Sta 174+91.54
Δ = 48° 33' 46.5" (RT)
D = 1° 08' 45.3"
L = 4,237.91'
T = 2,255.64'
R = 5,000.00'
SE = 0.03
R0 = 180'

-Y7B-
PI Sta 16+25.89
Δ = 1° 09' 04.6" (RT)
D = 1° 00' 00.0"
L = 115.13'
T = 57.57'
R = 5,729.58'

-Y7B-
PI Sta 21+35.08
Δ = 4° 46' 36.2" (RT)
D = 4° 05' 33.2"
L = 116.72'
T = 58.39'
R = 1,400.00'

-Y7B-
PI Sta 22+70.46
Δ = 19° 26' 04.1" (RT)
D = 12° 43' 56.6"
L = 152.64'
T = 77.06'
R = 450.00'

-Y7B- PT Sta. 16+83.45
BEGIN CONSTRUCTION -Y7B- POT Sta. 18+00.00
END CONSTRUCTION -Y7B- POT Sta. 19+00.00
-Y7B- PC Sta. 20+76.69
-Y7B- PCC Sta. 21+93.41
REMOVE EXIST GUARDRAIL
-Y7B- PT Sta. 23+46.04
-L- POC Sta.189+65.00 = -DRW6- POT Sta. 10+00.00 Δ = 90°
-L- POT Sta.195+87.00 = -DRW7- POT Sta. 10+00.00 Δ = 90°
-DRW6- PC Sta. 10+75.53
-DRW6- PT Sta. 10+83.80
-DRW6- POT Sta. 11+30.00
END CONSTRUCTION -DRW6- POT Sta. 11+07.00
-L- PT Sta. 194+73.82
-DRW7- PC Sta. 11+02.43
-DRW7- PT Sta. 11+30.76
-DRW7- POT Sta. 11+97.96
END CONSTRUCTION -DRW7- POT Sta. 11+45.00
-L- PT Sta. 202+00
N 47° 19' 32.7" W
N 42° 40' 27.3" E
N 36° 50' 37.1" E
N 27° 22' 17.1" E
S 85° 16' 23.4" E
N 38° 28' 29.2" W
MATCHLINE -L- STA 188+00 (SEE SHEET 16)
MATCHLINE -L- STA 202+00 (SEE SHEET 18)

(85) EVERETT BLAKE
DB 1327 PG 119
PC* F PG 26B

(86) EVERETT BLAKE
DB 1327 PG 119
PC* F PG 26B

(87) KBNK HOLDINGS LLC
DB 24419 PG 803
MB 2004 PG 1274

(88) WILLIAM ARMENTROUT
DB 1061 PG 509
PC* F PG 26B

(89) ROBERT COHEN
DB 2725 PG 684
MB 2004 PG 688

(90) CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923

(116) GORDAN SARTIN
DB 2321 PG 153
MB 2005 PG 923

(83) RICHARD HALL
DB 982 PG 219

GRADE TO DRAIN SEE CROSS SECTIONS APPROX GRADE = 2.0-4.0%
GRADE TO DRAIN SEE CROSS SECTIONS APPROX GRADE = 4.0%
STANDARD 'V' DITCH SEE DETAIL 29 EST. 35 C.Y. DDE APPROX. GRADE = 4.3%
RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD
TOE PROTECTION SEE DETAIL 18 EST. 118 TONS. CL-I RIPRAP EST. 280 S.Y. GFD
REMOVE CMAP W/WEIR WALL
TERMINAL END SECTION
SEE TYPICAL SECTION P2
SPECIAL LATERAL 'V' DITCH SEE DETAIL 1
CLEAN WATER DIVERSION
TYPICAL OUTLET IMPROVEMENTS SEE DETAIL 60 QUANTITIES IN TABLE ABOVE
TYPICAL INLET IMPROVEMENTS SEE DETAIL 61 QUANTITIES IN TABLE ABOVE
END 2'-9" C&G TRANSITION TO 1'-6" C&G -L- STA 196+44 LT SEE DETAIL SHEET 2A-1
7' x 7' RCBC (1.0' BURIED)
15" RCP-IV
2GI
B.O.D.
15" CSP W/ELBOWS
FALSE SUMP SEE DETAIL 8
MIN DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1
SPECIAL CUT 'V' DITCH SEE DETAIL 25
BERM 'V' DITCH SEE DETAIL 3
BERM 'V' DITCH SEE DETAIL 35
GRADE TO DRAIN PROTECT INLET W/CL-B RIPRAP EST. 9 TONS EST. 30 S.Y. GFD
SPECIAL LATERAL 'V' DITCH SEE DETAIL 33
LATERAL 3' BASE DITCH SEE DETAIL 39 EST. 63 TONS CL-I RIPRAP EST. 160 S.Y. GFD
TOE PROTECTION SEE DETAIL 12 EST. 40 TONS CL-B RIPRAP EST. 100 S.Y. GFD
RIPRAP PAD AT OUTLET 8 TONS CL-B RIPRAP 21 S.Y. GFD
GRADE TO DRAIN (FILL)
GRADE CULVERT ENTRANCE TO DRAIN W/ 7' BASE DITCH & 2:1 SIDE SLOPES (SEE DETAIL TYPICAL SECTION P1) START ELEVATION = APPROX. 252.0' END ELEV. = APPROX. 251.2' APPROX. GRADE = 0.3%
ACCESS POINT
RETAIN
REMOVE
TDE
PDE
DUE
PUE
GREU TL-3
CAT-1
10' PS
4' PS
20' DR
20' CONC DR
1'-6" C&G
2'-9" C&G

QUANTITY ESTIMATE

GEOTEXTILE	900 S.Y.
CLASS-II RIPRAP	
CULVERT	110 TONS
CLASS-I RIPRAP	
CHANNEL BANKS	395 TONS
CHANNEL BED-COUNTERSUNK	22 TONS
CLASS-B RIPRAP	
CHANNEL BED-COUNTERSUNK	4 TONS
EXCAVATION	
CULVERT	80 CY
CHANNEL	1050 CY
FILL IN POND (EXCLUDING RDY FILL)	3100 CY
NET	2050 CY FILL

-DRW6-
PI Sta 10+79.67
Δ = 9° 28' 20.0" (LT)
D = 114° 35' 29.6"
L = 8.27'
T = 4.14'
R = 50.00'

-DRW7-
PI Sta 11+19.56
Δ = 81° 08' 56.5" (LT)
D = 286° 28' 44.0"
L = 28.33'
T = 17.13'
R = 20.00'

SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 31 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7B- PROFILE
SEE SHEET 40 FOR -DRW6- PROFILE
SEE SHEET 41 FOR -DRW7- PROFILE

5/14/99

REVISIONS

3/5/2021

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE (SEE SHEET 22)

MATCHLINE (SEE SHEET 23)

MATCHLINE -L- STA 202+00 (SEE SHEET 17)

MATCHLINE -L- STA 216+00 (SEE SHEET 19)

205+00

210+00

215+00

(90) CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923

(91) CLAY GARDNER
DB 3363 PG 296

(92) REBECCA PARTIN
DB 693 PG 508

REBECCA PARTIN
DB 693 PG 508

CULTIVATED

SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

+50 100' LT WWF

MIN DEPTH 2GI-A SEE DETAIL 840d17 SHEET 2C-1

4' PS

100'

1801

24" SPECIAL LATERAL 4' BASE DITCH SEE DETAIL 31

B.D.O.

1804

1803

18" CSP W/ELBOWS

24"

2GI-A

FALSE SUMP SEE DETAIL 8

BERM 2' BASE DITCH SEE DETAIL 40 EST. 20 TONS CL-B RIPRAP EST. 55 S.Y. GFD

+50 115' LT

CLEAN WATER DIVERSION

BERM 2' BASE DITCH SEE DETAIL 41 EST. 50 TONS CL-B RIPRAP EST. 135 S.Y. GFD

24" CSP W/ELBOWS

FALSE SUMP SEE DETAIL 8

BERM 2' BASE DITCH SEE DETAIL 40 EST. 140 TONS CL-B RIPRAP EST. 380 S.Y. GFD

+66 154' LT

+10 130' LT

-Y7C- ACCESS ROAD 4

+00(Y7C) EX R/W

RETAIN

BEGIN CONSTRUCTION -Y7C- POT Sta. 14+95.00

END CONSTRUCTION -Y7C- POT Sta. 15+95.00

TERMINAL END SECTION -Y7C- PC Sta. 18+01.16

GRADE TO DRAIN +30 120' LT

TOE PROTECTION SEE DETAIL 12 EST. 35 S.Y. PSRM

N 3° 28' 35.5" W

1'-6" C&G

12' 12' 15' 15' 12' 12'

36" RCP-LV

-L- N 47° 19' 32.7" W NC 55

RIPRAP PAD AT OUTLET 15 TONS CL-I RIPRAP 30 S.Y. GFD

1802

WWF

ACCESS POINT

PUE

END C/A END WWF +40 100' RT

BEGIN C/A BEGIN WWF +00 100' RT

+22.31 120' RT

+65.7 100' RT

+45.98 120' RT

END C/A END WWF +77(L) 100' RT

ACCESS POINT

BEGIN C/A BEGIN WWF +37(L) 100' RT

FLARE CUT DITCH OUT TO TIE TO EXIST. DITCH

RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD

N 86°41'00" W 1004.65'

-Y7C- PT Sta. 19+24.42

N 3° 42' 43.0" W

OLD MATTHEWS MILL POND RD

TDE

+85 309' RT

+33 451' RT

+69 415' RT

668.57' N 04°09'10" W

649.60' N 87°13'58" W

-Y7C-
PI Sta 11+43.06
△ = 69° 34' 34.1" (LT)
D = 37° 12' 18.2"
L = 187.01'
T = 106.99'
R = 154.00'
SE = NC
RO = NONE

SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7C- PROFILE

5/14/99

REVISIONS

3/5/2021

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

-L-

PIs Sta 223+65.74
Θs = 1° 50' 53.7"
Ls = 240.00'
LT = 160.01'
ST = 80.01'

PI Sta 251+52.68
Δ = 72° 05' 05.6" (RT)
D = 1° 32' 24.8"
L = 4,680.20'
T = 2,706.95'
R = 3,720.00'
SE = 0.04

MATCHLINE (SEE SHEET 23)

MATCHLINE (SEE SHEET 24)

MATCHLINE -L- STA 216+00 (SEE SHEET 18)

MATCHLINE -L- STA 230+00 (SEE SHEET 20)

CULTIVATED

220+00

225+00

(92) REBECCA PARTIN
DB 693 PG 508

+15 100' LT

RIPRAP PAD AT OUTLET
8 TONS CL-B RIPRAP
21 S.Y. GFD

WWF

1914

BEGIN FULL C/A +54 100' LT

+05.73 100' LT

END FULL C/A +45 100' LT

+45.73 100' LT

300' TAPER

+45.73

200' TAPER (LT/RT)

+59 100' LT

+50 100' LT

+86 117' LT

SEDIMENT CONTROL BASIN

END WWF +84 111.69' LT 128'

BEGIN WWF +14 115' LT 128'

PDE

+47 100' LT

WOODS

1908

54" RCP-IV

RIPRAP PAD AT OUTLET
33 TONS CL-I RIPRAP
62 S.Y. GFD

(95)

WWF

4' PS

100'

1'-6" C&G

12'

30" RCP

15'

N 47° 19' 32.7" W

-L-
NC 55

15" RCP-IV

DI

1906

1909

1901

1903

TB 2GI

2'-9" C&G

1902

1905

TB 2GI-A

30" RCP-IV

54" RCP-IV

REMOVE & BACKFILL

20+00

GRADE TO DRAIN

1913

1912

1915

WWF

CLEAN WATER DIVERSION

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

+90(L) 100' RT

+61.66(L) 130' RT

+79(Y7C) EX R/W

+46 130' RT

BEGIN FULL C/A +54 100' RT

+49 155' RT

+44 187' RT

END FULL C/A +45 110' RT

+52 139' RT

+45.73 110' RT

+48 110' RT

+00 115' RT

+48 110' RT

+95.73

150' TAPER (LT/RT)

RIPRAP PAD AT OUTLET
EST. 3 TONS CL-B RIPRAP
EST. 10 S.Y. GFD

1907

HW

TOE PROTECTION
SEE DETAIL 12
EST. 100 TONS CL-B RIPRAP
EST. 280 S.Y. GFD

(94) DEBORAH MATTHEWS
DB 903 PG 584

(113) WALLACE DUNCAN
DB 1615 PG 136
MB 2002 PG 431

(93) CUTTS CHAPEL FWB CHURCH
DB 2124 PG 562
MB 2002 PG 1391

NUNEZ CONCRETE INC
DB 2433 PG 335
MB 2006 PG 892

REBECCA PARTIN
DB 693 PG 508

BL-27

BL-28

-L- TS Sta. 222+05.73

-L- SC Sta. 224+45.73

END CONSTRUCTION
-Y7C- POT Sta. 20+84.00

BEGIN CONSTRUCTION
-Y7C- POT Sta. 19+84.00
TERMINAL END SECTION

RETAIN EXIST. ROADWAY EMBANKMENT TO ACT AS FALSE SUMP DURING HIGH FLOW

-Y7C- POT Sta. 24+67.00

OLD MATTHEWS MILL POND RD

-Y7C-

N 3° 42' 43.0" W

BY4-108

Burnett Co Depot Public Utilities, C. Pwr

Century Link Copper

Matthews Mill Pond Road Road

ISBKD

ISFD

CONC

48" CMP

48" SPLIT RAIL

EOI

★ TRAFFIC SIGNAL
SEE SHEET 2B-4 FOR INTERSECTION DETAIL 15
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 32 FOR -L- PROFILE
SEE SHEET 39 FOR -Y7C- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

-L-
PI Sta 251+52.68
Δ = 72° 05' 05.6" (RT)
D = 1° 32' 24.8"
L = 4,680.20'
T = 2,706.95'
R = 3,720.00'
SE = 0.04

-Y7-
PI Sta 25+89.10
Δ = 3° 31' 49.8" (RT)
D = 0° 55' 26.9"
L = 382.04'
T = 191.08'
R = 6,200.00'

-Y7-
PI Sta 29+75.19
Δ = 19° 19' 39.1" (RT)
D = 5° 00' 00.0"
L = 386.55'
T = 195.13'
R = 1,145.92'
SE = 0.055
R0 = 132'

MATCHLINE -Y7- STA 29+50 (SEE SHEET 24)

MATCHLINE -L- STA 230+00 (SEE SHEET 19)

MATCHLINE -L- STA 242+00 (SEE SHEET 21)

-Y7- POC STA 30+17.00 = -DRW8- POT Sta. 10+00.00 △ = 90°

-Y7- PT Sta. 31+66.61

-L- POC Sta. 232+91.08 = -Y7- POT Sta. 33+00.44 △ = 103° 54' 18.0"

-DRW8- POT Sta. 11+50.00

S 53° 50' 34.8" E

END CONSTRUCTION -DRW8- POT STA 10+75.00

-DRW10- POT Sta. 11+30.00

S 46° 21' 44.4" E

END CONSTRUCTION -DRW10- POT Sta. 10+92.00

-DRW10- POT Sta. 10+00.00 = -Y7- POT STA 34+65.00 △ = 90°

END CONSTRUCTION -Y7- POT Sta. 37+65.00

-L- POT Sta. 10+68.00

300' RT TURN TAPER

100' RT TURN TAPER

150' TAPER (LT/RT)

(95) WILBERT AMERSON DB 3190 PG 648 MB 2014 PG 323

(94) DEBORAH MATTHEWS DB 903 PG 584

(113) WALLACE DUNCAN DB 1615 PG 136 MB 2002 PG 431

(114) RDD LLC DB 1612 PG 643 MB 2006 PG 892

(115) LAMCO CUSTOM BUILDERS LLC DB 3549 PG 267

(96) LAMCO CUSTOM BUILDERS LLC DB 3549 PG 267

(97) HUGH SURLES DB 1107 PG 399

(98) ROY GARDNER DB 814 PG 991

(112) DILLARD ENTERPRISES INC DB 875 PG 308

NUNEZ CONCRETE INC DB 2433 PG 335 MB 2006 PG 892

NUNEZ CONCRETE INC DB 2433 PG 335 MB 2006 PG 892

WILLIAM & MARY ANN SMITH DB 1615 PG 136 MB 2002 PG 431

WILLIAM & MARY ANN SMITH DB 1615 PG 136 MB 2002 PG 431

ISF CHURCH

ISBKD

ISFD ABAND

WOODS

CULTIVATED

HTR

BM#11

Century Link, FO

Century Link, Copper

Conterra Ultra Broadband LLC, FO

PROP. GAS LINE (APPROX)

Harnett Co Dept Public Utilities, 16", PVC

COMM PARK LN

CONC PARKING

EXIST R/W

BL-29=BY5

BL-30

BY5-110 -BY5- #

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

SPECIAL CUT 'V' DITCH SEE DETAIL 21

PROTECT INLET W/ 5 TONS CL-B RIPRAP EST. 15 S.Y. GFD

ACCESS POINT

REMOVE

TB 2GI-A 2'-9" C&G

2'-9" C&G

1'-6" C&G

30" RCP-IV

30" RCP-IV 50-YR HWD = 1.0 100-YR HWD = 1.0

4' PS

NC 55

NC 210

EX R/W 50' RT

EX R/W 70' LT

EXIST

★ TRAFFIC SIGNAL
SEE SHEET 2B-5 FOR INTERSECTION DETAIL 16
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 33 FOR -L- PROFILE
SEE SHEETS 35 & 36 FOR -Y7- PROFILE
SEE SHEET 41 FOR -DRW8- PROFILE
SEE SHEET 41 FOR -DRW10- PROFILE

2022 ADT 2045 ADT

-Y7- NC 210 — DHV = 8% DIR = 55% TTST = 2% DUAL = 4%

17600 / 24300

-L- NC 55 BYPASS — DHV = 9% DIR = 60% TTST = 1% DUAL = 3%

11700 / 18200 | 3600 / 2500 | 7500 / 11500 | 15900 / 27100

1000 / 1600 | 1400 / 1500

-L- NC 55 BYPASS — DHV = 9% DIR = 60% TTST = 1% DUAL = 3%

9000 / 13400

-Y7- NC 210 — DHV = 8% DIR = 55% TTST = 2% DUAL = 4%

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

REVISIONS 5/14/99

3/5/2021

-L-
PI Sta 251+52.68
Δ = 72° 05' 05.6" (RT)
D = 1° 32' 24.8"
L = 4,680.20'
T = 2,706.95'
R = 3,720.00'
SE = 0.04

END TIP PROJECT R-5705A
BEGIN TIP PROJECT R-5705B (BY OTHERS)
-L- POC Sta. 246+00.00 (BK)(R-5705A)
-L- POC Sta. 246+00.00 (AH)(R-5705B)

MATCHLINE -L- STA 242+00 (SEE SHEET 20)

245+00 250+00 255+00

98 ROY GARDNER DB 814 PG 991

TIE PROPOSED 15" RCP-IV TO PROPOSED CB 0404 ON R-5705B (BY OTHERS)

END PROPOSED R/W TIP PROJECT R-5705A
BEGIN PROPOSED R/W TIP PROJECT R-5705B
EX P/L 100' RT

END PROPOSED R/W TIP PROJECT R-5705A
BEGIN PROPOSED R/W TIP PROJECT R-5705B
EX P/L 111.85' RT

END CONSTRUCTION
-L- POC Sta. 255+42.82

BL-33 BL-31

SEE SHEET 2B-5 FOR INTERSECTION DETAIL I7
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 33 FOR -L- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

REVISIONS 5/14/99

3/5/2021

-Y7A-
PI Sta 35+36.87
Δ = 79° 29' 31.6" (LT)
D = 2° 29' 28.0"
L = 3,191.02'
T = 1,912.62'
R = 2,300.00'
SE = 0.05
RO = 135'

-Y7B-
PI Sta 16+25.89
Δ = 1° 09' 04.6" (RT)
D = 1° 00' 00.0"
L = 115.13'
T = 57.57'
R = 5,729.58'

PI Sta 21+35.08
Δ = 4° 46' 36.2" (RT)
D = 4° 05' 33.2"
L = 116.72'
T = 58.39'
R = 1,400.00'

PI Sta 22+70.46
Δ = 19° 26' 04.1" (RT)
D = 12° 43' 56.6"
L = 152.64'
T = 77.06'
R = 450.00'

15+00

20+00

(117) DAVID GARDER
DB 3103 PG 553

DAVID GARDNER
DB 1085 PG 174
PC#1 PG 253

WOODS

-Y7A- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y7A- POT Sta. 14+60.00

-Y7A- PC Sta. 16+24.24

-Y7A- POC Sta.19+53.77 =
-Y7B- POT Sta. 10+00.00
Δ = 77°37'34".0"

CULTIVATED

MATCHLINE -Y7A- STA 24+00 (SEE SHEET 23)

RIPRAP PAD AT OUTLET
3 TONS CL-B RIPRAP
10 S.Y. GFD

+80 EX R/W

+24.24 50' LT 27' TYP

150' TAPER

+80.17 50' LT

+13.66 70.45' LT

+26.68 50' LT

SPECIAL LATERAL 'V' DITCH SEE DETAIL 42

+12 50' LT

+00 55' LT

RIPRAP PAD AT OUTLET
3 TONS CL-B RIPRAP
10 S.Y. GFD

+12 50' LT

SPECIAL LATERAL 'V' DITCH SEE DETAIL 42

IRRIGATION SYSTEM

Century Link, Copper

Harnett Co Dept Public Utilities, 4", PVC

MATTHEWS MILL POND RD 18' BST

N 0° 35' 22.4" W

-Y7A- MATTHEWS MILL POND RD

RETAIN

EXIST

65.25' RT

18" RCP

REMOVE 20' DR

REMOVE

20' DR

PUE

+60 EX R/W

+44.53 37.68' RT

+15.82 65.15' RT

+44.52 44.2' RT

+25.97 79.73' RT

+35.74 72.85' RT

+36.01 84.79' RT

+56 84.11' RT

+56.78 68.64' RT

FALSE SUMP SEE DETAIL 45

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

+24.24 45' RT

+24.24

210' TAPER

+34.24

+00 45' RT

+06.82(Y7A) 60.97' RT

+73(Y7B) EX R/W

TOE PROTECTION SEE DETAIL 12 EST. 23 TONS CL-B RIPRAP EST. 70 S.Y. GFD

+71.22(Y7A) 65.25' RT

TOE PROTECTION SEE DETAIL 12 EST. 12 TONS CL-B RIPRAP EST. 35 S.Y. GFD

FALSE SUMP SEE DETAIL 14

TIE TO EXIST. DITCH SEE CROSS SECTION 20+50 -Y7A- RT.

RIPRAP PAD AT OUTLET
2 TONS CL-B RIPRAP
7 S.Y. GFD

R5705-AZ32

END CONSTRUCTION
-Y7B- POT Sta.11+75.00

-Y7B- ACCESS ROAD 3

S 86° 25' 28.0" E

TRACY PERRY
DB 802 PG 325

S 88°33'58" W 199.49'

N 88°33'58" E 200.01'

S 00°21'08" E 140.00'

S 88°31'18" W 1046.10'

(116) GORDAN SARTIN
DB 2321 PG 153
MB 2005 PG 923

(119) GORDON SARTIN
DB 568 PG 60
MB 2005 PG 923

S 88°34'59" W 193.07'

N 88°34'59" E 194.89'

N 03°11'58" W 140.00'

(90) CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923

-Y7B- PC Sta. 15+68.33

EXIST R/W

RETAIN

15+00

BL-26

MATCHLINE (SEE SHEET 18)

SEE SHEET 2B-6 FOR INTERSECTION DETAIL 21
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 36 FOR -Y7A- PROFILE
SEE SHEET 39 FOR -Y7B- PROFILE

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS 5/14/99

3/5/2021

-Y7A-
PI Sta 35+36.87
△ = 79° 29' 31.6" (LT)
D = 2° 29' 28.0"
L = 3,191.02'
T = 1,912.62'
R = 2,300.00'
SE = 0.05
RO = 135'

-Y7C-
PI Sta 11+43.06
△ = 69° 34' 34.1" (LT)
D = 37° 12' 18.2"
L = 187.01'
T = 106.99'
R = 154.00'
SE = NC
RO = NONE

-DRWII-
PI Sta 10+42.22
△ = 59° 00' 00.0" (LT)
D = 114° 35' 29.6"
L = 51.49'
T = 28.29'
R = 50.00'

NAD 83/NA 2011

25+00 30+00 35+00

(117) DAVID GARDER
DB 3103 PG 553

(92) REBECCA PARTIN
DB 693 PG 508

(90) CLAY GARDNER
DB 2983 PG 694
MB 2005 PG 923

(118) LYMAN GREGORY
DB 408 PG 607

(92) REBECCA PARTIN
DB 693 PG 508

CULTIVATED
WOODS
ISFD
ISBKD

MATCHLINE -Y7A- STA 24+00 (SEE SHEET 22)

MATCHLINE -Y7A- STA 37+50 (SEE SHEET 24)

-Y7A- POC Sta. 25+60.00 =
-Y7C- POT Sta. 10+00.00
△ = 90°

N 66° 05' 58.6" E

-Y7C- PC Sta. 10+36.08

S 34° 39' 38.4" E

-DRWII- PC Sta. 10+13.93

-DRWII- PT
Sta. 10+65.42

-Y7C- POC Sta. 10+65.00 =
-DRWII- POT Sta. 10+00.00
△ = 90°

N 86° 20' 21.6" E

-DRWII- POT Sta. 11+20.00
END CONSTRUCTION
-DRWII- POT Sta. 11+05.00

GRADE TO DRAIN
SEE CROSS SECTION

-Y7C- PT Sta. 12+23.09

-Y7C-
ACCESS ROAD 4
N 3° 28' 35.5" W

END CONSTRUCTION
-Y7C- POT Sta. 12+99.57

-Y7A-
MATTHEWS MILL POND RD

LATERAL 'V' DITCH
SEE DETAIL 43
EST. 5 C.Y. DDE
EST. 39 TONS CL-B RIPRAP
EST. 150 S.Y. GFD

LATERAL
'V' DITCH
EST. 5 C.Y. DDE
SEE DETAIL 38

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 22

SPECIAL CUT DITCH
SEE DETAIL 44

RIPRAP PAD AT OUTLET
20 TONS CL-I RIPRAP
39 S.Y. GFD

SEDIMENT
CONTROL
BASIN

42" RCP-IV

CLEAN WATER
DIVERSION

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 22

LATERAL
'V' DITCH
EST. 5 C.Y. DDE
SEE DETAIL 38

SPECIAL LATERAL
'V' DITCH
SEE DETAIL 22

+08 50' LT
+00 55' LT
+38 55' LT
+66 79' LT
+45 98' LT
+00 55' LT
+20 45' LT
+49 76' RT
+09 75' RT
+54 45' RT
+75 55' RT
+77 85' RT
+93 85' RT
+85 85' RT
+15(Y7A) 55' RT
+13(Y7C) EX R/W
+80.93(Y7C) 42.33' RT
+99.31(Y7C) EX R/W
+29.66(Y7C) 48.42' RT
+99.57(Y7C) 41.93' RT

R5705-AZ33=BY4

SEE SHEET 2B-6 FOR INTERSECTION DETAIL 22
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 36 FOR -Y7A- PROFILE
SEE SHEET 39 FOR -Y7C- PROFILE
SEE SHEET 41 FOR -DRWII- PROFILE

MATCHLINE (SEE SHEET 18)
MATCHLINE (SEE SHEET 18)
MATCHLINE (SEE SHEET 19)

5/14/99

REVISIONS

3/5/2021

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PROJECT REFERENCE NO.	SHEET NO.
R-5705A	24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/NA 2011

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y7-
PI Sta 25+89.10
△ = 3° 31' 49.8" (RT)
D = 0° 55' 26.9"
L = 382.04'
T = 191.08'
R = 6,200.00'

PI Sta 29+75.19
△ = 19° 19' 39.1" (RT)
D = 5° 00' 00.0"
L = 386.55'
T = 195.13'
R = 1,145.92'
SE = 0.055
RO = 132'

-Y7A-
PI Sta 35+36.87
△ = 79° 29' 31.6" (LT)
D = 2° 29' 28.0"
L = 3,191.02'
T = 1,912.62'
R = 2,300.00'
SE = 0.05
RO = 135'

20+00 | 25+00 | 30+00 | 35+00 | 40+00 | 45+00 | 50+00

JAMES JOHNSON
DB 2386 PG 596
MB 2008 PG 100

JAMES JOHNSON
DB 1969 PG 136
MB 2014 PG 66

KENNETH EDWARDS
DB 3551 PG 561
MB 2004 PG 738

(92) REBECCA PARTIN
DB 693 PG 508

(108) NC DUMPSTER LLC
DB 3337 PG 30

(109) PATSY MCLEAN
DB 1231 PG 527

(110) NCD CONTRACTING LLC
DB 3427 PG 571

(111) ROBERT SURLES
DB 537 PG 126

(112) DILLARD ENTERPRISES INC
DB 875 PG 308

(97) HUGH SURLES
DB 1107 PG 399

BEGIN CONSTRUCTION
-Y7- POT Sta. 21+88.45

-Y7- PC Sta. 23+98.02

-Y7A- POT Sta. 50+32.00

-Y7A- POC Sta. 46+74.10 =
-Y7- POC Sta. 24+34.87
△ = 82° 18' 53.0"

-Y7A- PT Sta. 48+15.26

-Y7A- SR 1440 (JAMES NORRIS RD) N 80° 04' 54.0" W

END CONSTRUCTION
-Y7A- POC Sta. 47+90.00

-Y7A- STA 37+50 (SEE SHEET 23)

MATCHLINE -Y7A-

MATCHLINE (SEE SHEET 19)

MATCHLINE (SEE SHEET 19)

MATCHLINE -Y7- STA 29+50 (SEE SHEET 20)

-Y7A- MATTHEWS MILL POND RD

JAMES NORRIS RD

-Y7- NC 210

RETAIN

RETAIN SYSTEM

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

LATERAL 'V' DITCH EST. 100 C.Y. DDE SEE DETAIL 38

SEDIMENT CONTROL BASIN

LATERAL 2' BASE DITCH SEE DETAIL 66 EST. 8 TONS CL-B RIPRAP EST. 17 S.Y. GFD

CL-II RIPRAP ON BANKS
CL-II RIPRAP IN STREAM BED SUPPLEMENT WITH CL-I RIPRAP AS CONTRACTOR DEEMS NECESSARY
EST. 35 TONS CL-II RIPRAP
EST. 80 S.Y. GFD
SEE DETAIL 47

LATERAL 2' BASE DITCH SEE DETAIL 66 EST. 10 C.Y. DDE EST. 14 TONS CL-B RIPRAP EST. 40 S.Y. GFD.

LATERAL 'V' DITCH EST. 80 C.Y. DDE SEE DETAIL 38

SPECIAL CUT DITCH SEE DETAIL 44

72" RCP-IV (1.0' BURIED)

CLEAN WATER DIVERSION

SPECIAL LATERAL 'V' DITCH SEE DETAIL 22

LATERAL 'V' DITCH SEE DETAIL 43 EST. 90 C.Y. DDE EST. 30 TONS CL-B RIPRAP EST. 70 S.Y. GFD

LATERAL 8' BASE DITCH SEE DETAIL 65 EST. 30 C.Y. DDE EST. 50 TONS CL-B RIPRAP EST. 120 S.Y. GFD

CHANNEL CHANGE SEE DETAIL 15 EST. 190 C.Y. DDE EST. 130 TONS CL-I RIPRAP ON BANKS ONLY EST. 310 S.Y. GFD

TOE PROTECTION SEE DETAIL 12 EST. 30 TONS CL-B RIPRAP EST 90 S.Y. GFD

RIPRAP PAD AT OUTLET 15 TONS CL-I RIPRAP 30 S.Y. GFD

REMOVE

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

STANDARD 3' BASE DITCH SEE DETAIL 49 EST. 60 C.Y. DDE EST. 35 TONS CL-B RIPRAP EST. 95 S.Y. GFD (GRADE AT APPROX. 10%)

-Y7- PCC Sta. 27+80.06

SPECIAL LATERAL 'V' DITCH SEE DETAIL 4 EST. 65 TONS CL-B RIPRAP EST. 165 S.Y. GFD

SPECIAL LATERAL 'V' DITCH SEE DETAIL 1

PUE | PDE | RW | EXIST | 4" PS | 24" RCP | 48" CMP | 48" CMP-IV | 96" RCP-IV | 30' DR | 20' CONC DR | 275' TAPER (LT/RT) | 100' TAPER

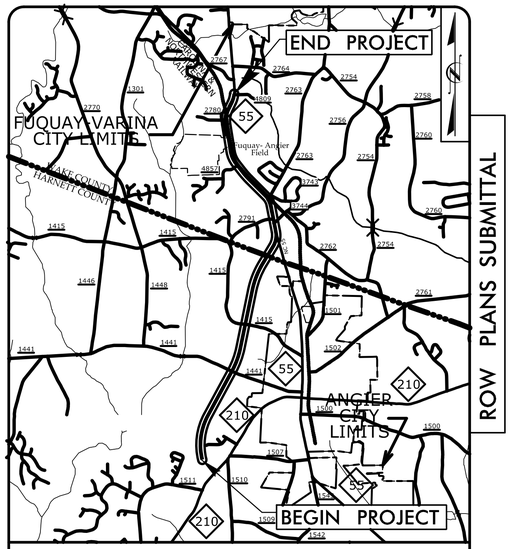
SEE SHEET 2B-6 FOR INTERSECTION DETAIL 23
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 35 FOR -Y7- PROFILE
SEE SHEET 37 FOR -Y7A- PROFILE

09/08/49

TIP PROJECT: R-5705B

CONTRACT:

See Sheet 1A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HARNETT & WAKE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5705B	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46377.1.3		PE
46377.2.2		ROW
46377.2.6		UTILITIES

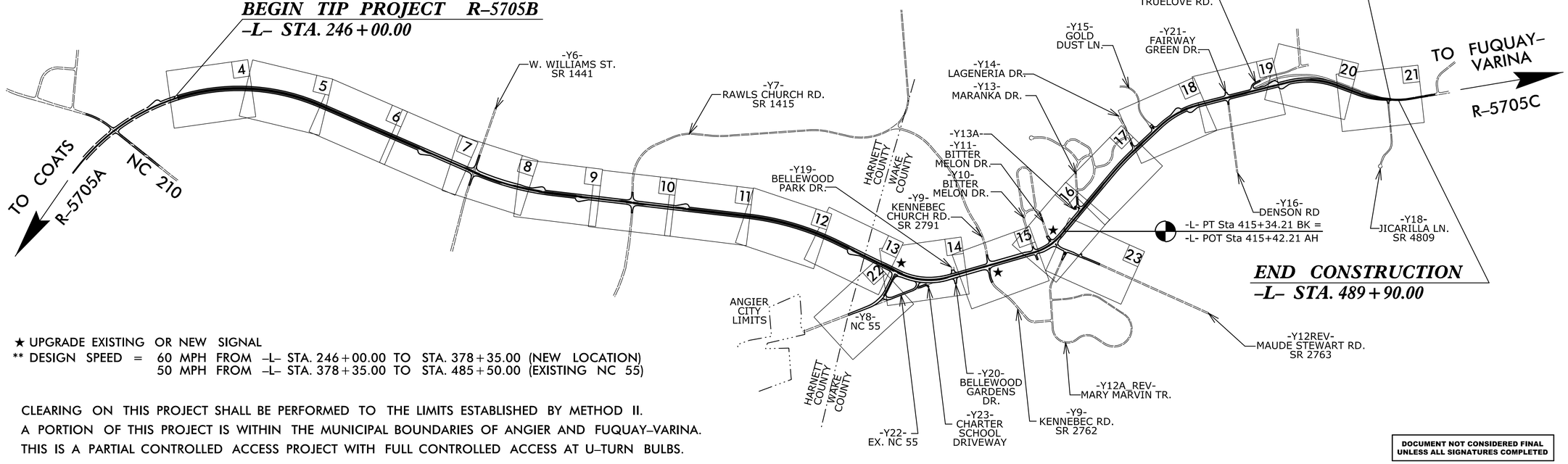
LOCATION: NC 55 FROM NC 210 TO SR 4809 (JICARILLA LANE)

TYPE OF WORK: PAVING, GRADING, DRAINAGE, SIGNALS & CULVERT

NAD 83/NA 2011

BEGIN TIP PROJECT R-5705B
-L- STA. 246+00.00

END TIP PROJECT R-5705B
-L- STA. 485+57.00



END CONSTRUCTION
-L- STA. 489+90.00

★ UPGRADE EXISTING OR NEW SIGNAL
** DESIGN SPEED = 60 MPH FROM -L- STA. 246+00.00 TO STA. 378+35.00 (NEW LOCATION)
50 MPH FROM -L- STA. 378+35.00 TO STA. 485+50.00 (EXISTING NC 55)

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF ANGIER AND FUQUAY-VARINA.
THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH FULL CONTROLLED ACCESS AT U-TURN BULBS.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 5 10
PROFILE (VERTICAL)

DESIGN DATA

ADT 2022 = 30,200
ADT 2045 = 44,200
K = 9 %
D = 60 %
T = 4 % *
**V = 50 & 60 MPH
* TTST = 1% DUAL 3%
FUNC CLASS = MINOR ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY PROJECT R-5705B = 4.536 MILES
TOTAL LENGTH PROJECT = 4.536 MILES

Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610
By:

TGS ENGINEERS
706 HILLSBOROUGH ST
SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 3, 2021

LETTING DATE:
OCTOBER 18, 2022

TOMMY REGISTER, P.E.
PROJECT ENGINEER

NICOLE M. HACKLER, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

12/2/2021
X:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_tsh.dgn
User:bevans

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Computed Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil — S
- Potential Contamination Area: Soil — S
- Known Contamination Area: Water — W
- Potential Contamination Area: Water — W
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Secondary Horiz and Vert Control Point
- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Exist Permanent Easement Pin and Cap
- New Permanent Easement Pin and Cap
- Vertical Benchmark
- Existing Right of Way Marker
- Existing Right of Way Line
- New Right of Way Line — RW
- New Right of Way Line with Pin and Cap — RW
- New Right of Way Line with Concrete or Granite R/W Marker — RW
- New Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- New Control of Access — CA
- Existing Easement Line — E
- New Temporary Construction Easement — E
- New Temporary Drainage Easement — TDE
- New Permanent Drainage Easement — PDE
- New Permanent Drainage / Utility Easement — DUE
- New Permanent Utility Easement — PUE
- New Temporary Utility Easement — TUE
- New Aerial Utility Easement — AUE

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- U/G Telephone Cable LOS B (S.U.E.*) — T
- U/G Telephone Cable LOS C (S.U.E.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E*) — W
- U/G Water Line LOS C (S.U.E*) — W
- U/G Water Line LOS D (S.U.E*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

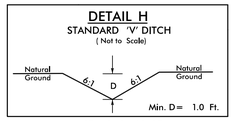
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

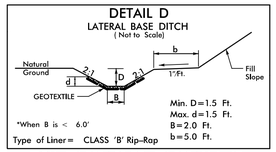
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL H
STANDARD 'V' DITCH
(Not to Scale)



–L– STA. 246+83 RT

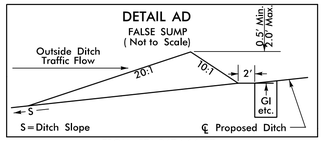
DETAIL D
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= CLASS 'B' Rip–Rap

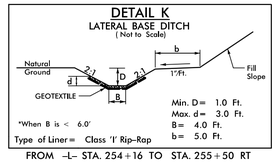
FROM STA.252+00 TO STA.253+16–L– LT.

DETAIL AD
FALSE SUMP
(Not to Scale)



FROM STA.247+64 RT.

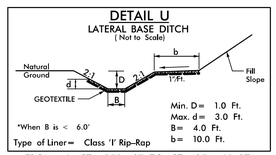
DETAIL K
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= Class 'I' Rip–Rap

FROM –L– STA. 254+16 TO STA. 255+50 RT

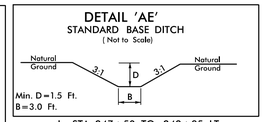
DETAIL U
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= Class 'I' Rip–Rap

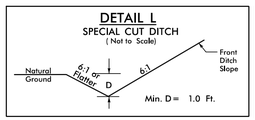
FROM –L– STA. 253+67 TO STA. 254+18 RT

DETAIL 'AE'
STANDARD BASE DITCH
(Not to Scale)



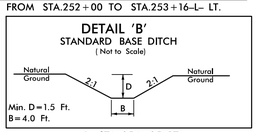
–L– STA. 247+50 TO 249+85 LT

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)



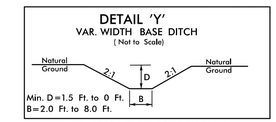
FROM –L– STA. 255+50 TO STA. 256+00 RT

DETAIL 'B'
STANDARD BASE DITCH
(Not to Scale)



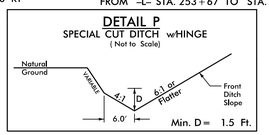
–L– STA. 254+25 RT

DETAIL 'Y'
VAR. WIDTH BASE DITCH
(Not to Scale)



–L– STA. 255+38 TO 255+65 LT

DETAIL P
SPECIAL CUT DITCH w/HINGE
(Not to Scale)



FROM –L– STA. 247+00 TO STA. 247+50 RT

NAD 83/NA 2011

3' STANDARD BASE DITCH
SEE DETAIL 'AE'
S=1.3%
L=325'
EST. 475 CY DDE

SEE NCDOT TIP PROJECT R–5705A FOR RIGHT OF WAY PURCHASED UNDER NCDOT TIP PROJECT R–5705A

END TIP PROJECT R–5705A
BEGIN TIP PROJECT R–5705B
–L– STA. 246+00.00

END PROPOSED R/W TIP PROJECT R–5705A
BEGIN PROPOSED R/W TIP PROJECT R–5705B
℄
100' LT

CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 14 SY

DRAIN POND

BL–33

CLASS 'I' RIP RAP

VAR. WIDTH BASE DITCH
SEE DETAIL 'Y'
L=36'
S=1.4%

+92
100'
123' E

+94
150'

CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY

+32
100'

END FENCE (WW)
+65.00
100' LT

BEGIN FENCE (WW)
+25.00
100' LT

ACCESS POINT

200
ROBERTA WOOLARD
DB 586 PG 209

END FENCE (WW)
+25

BEGIN FENCE (WW)
+85

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'

BEGIN FENCE (WW)
+00

PROPOSED 15" RCP
COMING FROM CB#2104
(R–5705A) DESIGNED BY OTHERS

TB 2GI

15" RCP–IV

2'–9" C&G

1'–6" C&G

24' WIDTH

20' MED.

GREU TL–3

CAT–1

8:1

24" RCP–IV

15" RCP–IV

CB

–L–

FALSE SUMP
SEE DETAIL 'AD'

SPECIAL CUT DITCH
w/HINGE
SEE DETAIL P

STANDARD 'V' DITCH
SEE DETAIL H
EST. DDE .5 CY
L= 63'
S= 5.9%

CULTIVATED

SEE NCDOT TIP PROJECT R–5705A FOR RIGHT OF WAY PURCHASED UNDER NCDOT TIP PROJECT R–5705A

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

–L–
PI Sta 251+52.68
△ = 72° 05' 05.6" (RT)
D = 1° 32' 24.8"
L = 4,680.20'
T = 2,706.95'
R = 3,720.00'
SE= 0.04
RO = 240'

ROY GARDNER
DB 814 PG 991

BL–31

LOW POINT
–L– STA. 253+70.00
EL. 283.75'

BURY PIPE 1.0' F
HW

4.0' LATERAL BASE DITCH
SEE DETAIL U
CLASS 'I' RIP RAP

4.0' LAT. BASE DITCH
SEE DETAIL K
CLASS 'I' RIP RAP
EST. 350 TONS
GEOTEXTILE
EST. 410 SY

STANDARD BASE DITCH
SEE DETAIL B

END PROPOSED R/W TIP PROJECT R–5705A
BEGIN PROPOSED R/W TIP PROJECT R–5705B
℄
111.85' RT

SPECIAL CUT DITCH
SEE DETAIL L

201
WILLIAM WHEELER
DB 3438 PG 741

MATCHLINE SHEET 5
–L– STA. 259+00.00

WOODS

N 17°59'10" E
431.56'

N 16°48'18" E
402.56'

N 17°58'04" E
123.58'

206.46'
N 22°34'10" W

650.94'
S 10°47'40" E

S 10°45'20" E
886.63'

S 89°46'09" E
159.86'

S 89°46'09" E
61.39'

S 89°46'09" E
105.89'

S 17°08'56" E
26.05'

90.00'
S 17°08'56" E

N 28°33'15" E
118.84'(M&P)

JESUS GARCIA
DB 2299 PG 755

ROBERT PHELPS
DB 1368 PG 48

JAMES JOHNSON
DB 2310 PG 997

CLARENCE LYON
DB 2979 PG 572

ISFD

12" CONIC

14" CONIC

12" RCP

SOIL

SEE SHEET 24 FOR –L– PROFILE

3/3/2021
X:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_04.dgn
User:bevans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

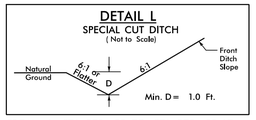
REVISIONS

7-19-2021 PARCEL 203 HAS BEEN SUBDIVIDED. REVISED PROPERTY LINES, OWNERS, DEED BOOK DATA AND EASEMENTS FOR PARCELS 203 & 203A.
10-19-2021 ADDED PARCEL NUMBER 203A (DBE)
REVISED PROPERTY OWNER & DEED BOOK DATA FOR PARCEL 202 (DBE)

8/17/99

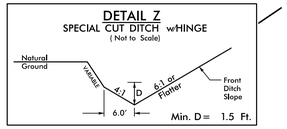
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_05.dgn
10/19/2021
User: Evans

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)



FROM –L– STA. 272+50 TO STA. 273+50 LT

DETAIL Z
SPECIAL CUT DITCH wHINGE
(Not to Scale)



FROM –L– STA. 259+00 TO STA. 261+00 LT

NAD 83/NA 2011

MATCHLINE SHEET 4
–L– STA. 259+00.00

MATCHLINE SHEET 6
–L– STA. 273+00.00

200
ROBERTA WOOLARD
DB 586 PG 209

201
WILLIAM WHEELER
DB 3438 PG 741

202
LEOTERRA HONEYCUTT OAKS, LLC
DB 3882 PG 703

203
RONALD E WHEELER (TIC)
& REDDIN ADAMS WHEELER (TIC)
DB 3566 PG 722

203A
REDDIN ADAM WHEELER
& MEGHAN JORDAN ERICKSON
DB 3566 PG 722

CULTIVATED

WOODS

POND

Century Link, Copper

N 46°32'20" E
140.00'

CL 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY
+00.00
100' LT

+75.00
100' LT

+00.00
110' LT

SPECIAL CUT DITCH
W/HINGE
SEE DETAIL Z

CLASS 'B' RIP RAP
EST. 1 TON
GEOTEXTILE
EST. 5 CY

END FENCE (WW)
+89.00
100' LT

BEGIN FENCE (WW)
+49.00
100' LT

ACCESS POINT

BL-35

N 02°29'05" W
996.60' (TOTAL)

+25.93
100' LT

END FENCE (WW)
+15.00
100' LT

BEGIN FENCE (WW)
+75.00
100' LT

SPECIAL CUT DITCH
SEE DETAIL L

60' TYP

200' RW WIDTH

15" RCP-IV

2'-9" C&G

1'-6" C&G

12' MED

12' 12'

CB

–L–

N 02°29'05" W
N 35°
ISLD
GRANO

S 77°44'05" W
100.00'

N 12°00'55" E
100.00'

6:1
3,150.62.20

+35
120'

+33
124'

+67
142'

+00
100'

+24.66
149'

+28
144'

+57
159'

PUE

HIGH POINT
–L– STA. 267+14.61
ELEV. = 313.09'

+35.00
100' RT

END FENCE (WW)

+95.00
100' RT

BEGIN FENCE (WW)

+25.93
100' RT

–L– CS Sta. 271+25.93

BL-34

N 72°
5.80' W

–L–
PIs Sta 272+05.94
Θs = 1° 50' 53.7"
Ls = 240.00'
LT = 160.01'
ST = 80.01'

SEE SHEET 24 FOR –L– PROFILE

8/17/99

REVISIONS

7-19-2021 REVISED PROPERTY LINES,OWNER & DEED BOOK DATA FOR PARCELS 203 & 205.ADDED PARCEL NUMBER 205A.(DBE)
10-19-2021 REVISED PROPERTY OWNER FOR PARCEL 205.RENUMBERED PARCEL 205A TO PARCEL 202.(DBE)

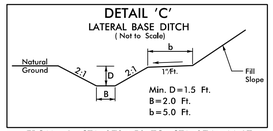
10/19/2021
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tsmith.evans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

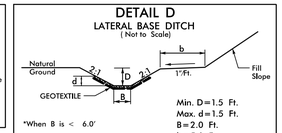
DETAIL 'C'
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

FROM –L– STA. 273+50 TO STA. 274+44 LT.
FROM –L– STA. 282+00 TO STA. 283+58 LT.

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



*When B is < 6.0'

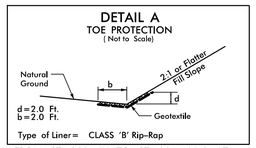
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 281+72 TO STA.283+89 RT
FROM –L– STA. 283+92 TO STA. 287+00 RT

CULTIVATED

DETAIL A
TOE PROTECTION
(Not to Scale)

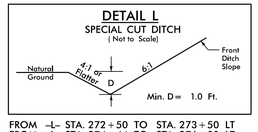


d=2.0 Ft.
b=2.0 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM STA.283+70 TO STA.284+00–L– LT.

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)

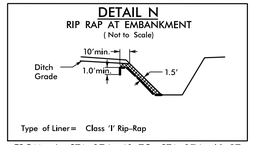


Min. D= 1.0 Ft.

FROM –L– STA. 272+50 TO STA. 273+50 LT
FROM –L– STA. 274+44 TO STA. 276+00 LT
FROM –L– STA. 274+00 TO STA. 274+60 RT
FROM –L– STA. 274+79 TO STA. 275+50 RT

CULTIVATED

DETAIL N
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner= Class 'I' Rip-Rap

FROM –L– STA. 274+40 TO STA. 274+60 RT
FROM –L– STA. 275+00 TO STA. 275+50 RT

NAD 83/NA 2011

MATCHLINE SHEET 5
–L– STA. 273+00.00

MATCHLINE SHEET 7
–L– STA. 287+00.00

203
RONALD E WHEELER (TIC)
& REDDIN ADAMS WHEELER (TIC)
DB 3566 PG 722

204
BARBARA ENNIS
DB 2235 PG 534
MB 2006 PG 182

205
LEOTERRA HONEYCUTT LLC
DB 3882 PG 713
MB 2020 PG 367

202
LEOTERRA HONEYCUTT OAKS LLC
DB 3882 PG 703
MB 2020 PG 367

206
JERRY SMITH
DB 3087 PG 394
MB 2013 PG 63

R5705-AZ34

Century 2 Link Copper

POND

N 70°01'59" W 390.69'

S 09°03'09" W 832.69'

S 17°10'38" E 230.48'

BEGIN SBG 282+00 LT. AND 281+71 RT.
END SBG 286+60 LT. AND 286+35 RT.

LATERAL BASE DITCH SEE DETAIL G
CLASS 'B' RIP RAP EST. 2 TONS LOW POINT
GEOTEXTILE –L– STA. 274+45.04 EST. 7 SY ELEV. = 306.82'
SPECIAL CUT DITCH SEE DETAIL L
+65.93 100' LT
CLASS 'I' RIP RAP
END FENCE (WW) +05.00 100' LT
SPECIAL CUT DITCH SEE DETAIL L
BEGIN FENCE (WW) +65.00 100' LT
ACCESS POINT
END FENCE (WW) +00.00 100' LT
BEGIN FENCE (WW) +60.00 100' LT
ACCESS POINT
CLASS 'I' RIP RAP
2.0' LATERAL BASE DITCH SEE DETAIL 'C'
CLASS 'B' RIP RAP EST. 2 TONS GEOTEXTILE EST. 7 SY
+34 112.33'
+44 140'
+70.00 135' LT
TOE PROTECTION SEE DETAIL 'A'
+80 118.26' 135'
+66 128'
+00.00 100' LT
+66 100'

0602 0603 0604 0605 0606 0607 0608 0609 0610 0611 0612 0613 0614 0615 0616

15" CSP
ROD AND LUG CONNECTORS W/ELBOWS
CAT–T
GREU TL–
15" RCP–IV
2GI
CULTIVATED
–L–
N 28°27'20.3" E
1'–6" C&G
2'–9" C&G
50' TRANSITION CURB
200' R/W WIDTH
30' MED.
12' 12'
02 01 00
+15.93
48" RCP–IV
HW
RIP RAP AT EMBANKMENT SEE DETAIL N
SPECIAL CUT DITCH SEE DETAIL L
+65.93 100' RT
+89.00 100' RT
+00.00 115' RT
+35.00 100' RT END FENCE (WW)
+95.00 100' RT BEGIN FENCE (WW)
+45 100'
+58.00 100' RT
END FENCE (WW) +72
BEGIN FENCE (WW) +92
+15 126'
BURY PIPE 0.8'
2.0' LATERAL BASE DITCH SEE DETAIL 'D' CLASS 'B' RIP RAP
+68.00 129' RT
+67 150'
+00.00 117' RT
+90 138'
PUE
B
+L– ST Sta. 273+65.93
N 10°03'56" W 381.38'
N 79°09'56" W 281.22'
S 69°29'07" E 163.20'
S 11°07'07" W 60.00'
S 78°52'53" E 10.00'
S 11°07'07" W 350.00'
N 78°52'53" W 39.27' 25' R
S 11°07'07" W 80.00'
S 78°52'53" E 28.27'
N 52.85'
S 69°23'39" E 216.45'
S 69°23'39" E 29.48'

SEE SHEET 25 FOR –L– PROFILE

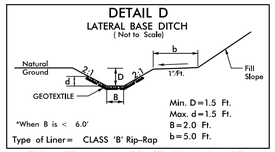
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



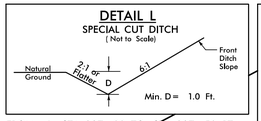
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

*When B is < 6.0'

Type of Liner= CLASS 'B' Rip-Rap

FROM STA.290+50 TO STA.295+58–L– RT.
FROM STA.290+00 TO STA.293+50–L– LT.
FROM STA.299+50 TO STA.301+17–L– LT.

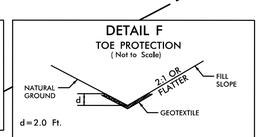
DETAIL L
SPECIAL CUT DITCH
(Not to Scale)



Min. D= 1.0 Ft.

FROM –L– STA. 287+00 TO STA. 287+50 RT

DETAIL F
TOE PROTECTION
(Not to Scale)



d=2.0 Ft.

Type of Liner= CLASS I Rip-Rap

FROM –L– STA. 297+70 TO STA. 299+50 RT

NAD 83/NA 2011

MATCHLINE SHEET 6
–L– STA. 287+00.00

MATCHLINE SHEET 8
–L– STA. 300+00.00

290 295 300

CULTIVATED

S 00°45'15" W 101.40'

S 78°49'55" E 216.10'

204
BARBARA ENNIS
DB 2235 PG 534
MB 2006 PG 182

207
BARRY DOYLE
DB 737 PG 829
MB 21PG 18

206
JERRY SMITH
DB 3087 PG 394
MB 2013 PG 63

207
BARRY DOYLE
DB 737 PG 829
MB 21PG 18

BEGIN SBG 291+66 LT. AND 290+70 RT.
END SBG 301+16 LT. AND 301+00 RT.

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

END FENCE (WW) +10.00 100' LT
BEGIN FENCE (WW) +70.00 100' LT
END FENCE (WW) +28.00 100' LT
BEGIN FENCE (WW) +88.00 100' LT

ACCESS POINT

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'

+17.00 100' LT

+46 119.64' 129'

+44 150'

+60.00 137' LT

CLASS 'B' RIP RAP
EST. 1 TON
GEOTEXTILE
EST. 5 SY

+50.00 127' LT

+65.00 115' LT

2' LATERAL BASE DITCH
SEE DETAIL D

CLASS 'I' RIP RAP +70.00 174' LT

271.00' S 20°45' 45" W

N 87°24'45" W 376.80'

15" CSP

ROD AND LUG CONNECTORS W/ELBOWS

WOODS

0705 0706 0707 0708 0710

15" RCP-IV 2GI

N 28° 27' 20.3" E

–L–

200' R/W WIDTH

1'-6" C&G

4'R

100' TAPER

+90.70

+67.70 27.00' OFF.

65'R

GREU TL-3

0700 0701 0702 0703 0712 0714

S 78°49'55" E 183.38'

HIGH POINT
–L– STA. 287+79.61
ELEV. = 320.74'

SPECIAL CUT DITCH
SEE DETAIL L

+50.00 100' RT
+65 120'

+10.00 100' RT
END FENCE (WW)

+70.00 100' RT
BEGIN FENCE (WW)

+17.00 100' RT
+12 120'

206
JERRY SMITH
DB 3087 PG 394
MB 2013 PG 63

+60.00 165' RT
+58 187'

2.0' LATERAL BASE DITCH
SEE DETAIL 'D'

+83 159'

+50.00 123' RT

BURY PIPE 0.8'

0718 HW

+73.00 138' RT

208
WILLIAM FARMER
DB 1214 PG 551

+50.00 130' RT

TOE PROTECTION
SEE DETAIL 'F'

+90 158'

+35.00 100' RT
END FENCE (WW)

+95.00 100' RT
BEGIN FENCE (WW)

+73 120'

839.03' S 0°22'06" E

931.79' S 0°38'16" E

BL-37

BL-38

POND

CHALYBEATE SPRINGS OFF RD NC
DB 685 PG 947

S 01°41'11" E 86.51'
S 36°58'16" E 58.39'

SEE SHEET 25 FOR –L– PROFILE

3/3/2021
X:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_07.dgn
User:bevans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

8/17/99

REVISIONS

10-19-2021 COMBINED PROPERTY LINES FOR PARCELS 212,213,214 & 215 INTO PARCEL 212,DELETED PARCEL NUMBERS 213,214 & 215.(DBE)

10/19/2021
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_ps08.dgn
User:Reyons

DETAIL A
TOE PROTECTION
(Not to Scale)

Natural Ground; 2:1 or Flatter Fill Slope; b; d; Geotextile

d=2.0 Ft.
b=2.0 Ft.

Type of Liner= CL 'I' Rip-Rap

FROM STA.311+50 TO STA.312+60 LT
FROM STA.311+50 TO STA.312+50 RT

DETAIL P
SPECIAL CUT DITCH w/HINGE
(Not to Scale)

Natural Ground; Hinge; 4:1; D; 6:1 or Flatter; Front Ditch Slope; 6.0'

Min. D= 1.5 Ft.

FROM -L- STA. 303+50 TO STA. 306+00 RT
FROM -L- STA. 307+50 TO STA. 309+00 RT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)

Natural Ground; 2:1; D; 2:1; b; 1'Ft.; Fill Slope; B

Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

FROM -L- STA. 300+68 TO STA. 302+50 RT

DETAIL I
FALSE SUMP
(Not to Scale)

0.5' Min. 1.0' Max.; Outside Ditch Traffic Flow; 20:1; 10:1; 2'; GI etc.; S; S=Ditch Slope; ℄ Proposed Ditch

-L- STA.311+13 LT

DETAIL AC
FALSE SUMP
(Not to Scale)

0.5' Min. 1.0' Max.; Outside Ditch Traffic Flow; 10:1; 20:1; 2.0'; GI etc.; S; S=Ditch Slope; ℄ Proposed Ditch

FROM STA.311+13 RT.

DETAIL D
LATERAL BASE DITCH
(Not to Scale)

Natural Ground; 2:1; d; GEOTEXTILE; b; D; 2:1; 1'Ft.; Fill Slope; B

*When B is < 6.0'

Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

Type of Liner= CLASS 'B' Rip-Rap

FROM STA.299+50 TO STA.301+17-L- LT.

-Y6- STA. 12+25.00
BEGIN CONST.
BARRY DOYLE
DB 737 PG 829
207

BEGIN SBG 291+66 LT. AND 290+70 RT.
END SBG 301+16 LT. AND 301+00 RT.

BY6-111
-Y6- POT Sta. 10+00.00

-L- PC Sta. 303+16.42

-Y6- STA. 18+00.00
END CONST.

-Y6- POT Sta. 19+42.34

BL-39=BY6

BL-40

BL-41

-L-
PI Sta 310+55.64
△ = 16° 49' 11.4" (LT)
D = 1° 08' 45.3"
L = 1,467.81'
T = 739.22'
R = 5,000.00'
SE = 03
RO = 180'

ANNUAL AVERAGE DAILY TRAFFIC
(Vehicles per Day)

4600 / 9500
2100 / 4100
400 / 500
16000 / 25700
800 / 400
800 / 400
14900 / 24300
2300 / 3600
2022 / 2042
SR 1441
W. WILLIAMS ST.

NAD 83/NA 2011

MATCHLINE SHEET 7
-L- STA. 300+00.00

MATCHLINE SHEET 9
-L- STA. 312+00.00

209 RECIE FARMER DB 407 PG 480

210 LAURA DICKENS DB 485 PG 202

211 JERRY SMITH DB 755 PG 458
JERRY SMITH DB 3139 PG 53

212 LINWOOD MATTHEWS
DB 617 PG 770
DB 918 PG 720
DB 1253 PG 191

216 SUSAN CHRISCOE
WB 12E PG 114
SUSAN CHRISCOE DB 3075 PG 893

BARRY DOYLE DB 737 PG 829 207

Town of Angier 8" PVC
Century Link, Copper
SR 1441 (W. WILLIAMS ST.) 24' BST
SR 1441 EAST WILLIAMS ST 24' BST
Spectrum Copper
Town of Angier 8" PVC

ISFD
BK B
2SBKG
3SBFD
WOODS
CULTIVATED

S 66°12'57.8" E 968.00'
N 01°18'41" E 968.00'
S 01°15'45" E 249.01'
S 00°39'45" E 237.46'
N 00°48'20" E 222.12'
N 00°48'20" E 222.12'
S 01°43'29" W 200.00'
S 01°43'29" W 50.00'
S 88°16'31" E 100.00'
N 01°43'29" E 50.00'
S 01°43'29" W 779.69'
N 01°38'16" W 282.71'
S 01°37'40" E 301.35'

SEE SHEETS 25 THRU 26 FOR -L- PROFILE
SEE SHEET 33 FOR -Y6- PROFILE

8/17/99

REVISIONS

10-19-2021 RENUMBERED PARCEL 215 TO 212.(DBE)

10/18/2021
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psht_09.dgn
User:Revons

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL F
TOE PROTECTION
(Not to Scale)

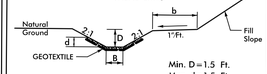


d=2.0 Ft.

Type of Liner= CLASS I Rip-Rap

FROM –L– STA. 311+50 TO STA. 312+60 LT
FROM –L– STA. 311+50 TO STA. 312+50 RT

DETAIL G
LATERAL BASE DITCH
(Not to Scale)



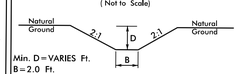
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

*When B is < 6.0'

Type of Liner= CLASS 'I' Rip-Rap

FROM –L– STA. 312+69 TO STA. 317+00 RT
FROM –L– STA. 313+82 TO STA. 317+50 LT

DETAIL 'X'
STANDARD BASE DITCH
(Not to Scale)



Min. D=VARIES Ft.
B=2.0 Ft.

–L– STA. 312+61 LT
FROM –L– STA. 312+56 TO STA. 312+74 RT

–L–

PI Sta 310+55.64
Δ = 16° 49' 11.4" (LT)
D = 1° 08' 45.3"
L = 1,467.81'
T = 739.22'
R = 5,000.00'
SE = 03
RO = 180'

BEGIN SBG 311+87 LT. AND END SBG 315+75 LT.

NAD 83/NA 2011

WOODS

CULTIVATED

212
LINWOOD MATTHEWS
DB 617 PG 770
DB 918 PG 720
DB 1253 PG 191

218
ANN BLALOCK
WB 93E PG 169

–L– PT Sta. 317+84.22

MATCHLINE SHEET 8
–L– STA. 312+00.00

MATCHLINE SHEET 10
–L– STA. 326+00.00

BL-43

BL-42

BL-44

N 11° 38' 08.9" E
–L–

N 30°39'57" E
1938.62'

CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
EST. 10 SY

+50.00
152' LT

2' STANDARD BASE DITCH
SEE DETAIL 'X'
EST. DDE= 25 CY
L= 53'
S= 1.9%

+55.00
174' LT

+00
172.05'

CLASS 'B' RIP RAP
EST. 2 TONS

+00
181'

2' LAT. BASE DITCH
SEE DETAIL G
CLASS 'I' RIP RAP
EST. 500 TONS
GEOTEXTILE
EST. 610 SY

+68
175'

+84.00
160' LT

TOE PROTECTION
SEE DETAIL 'A'

ROD AND LUG ELBOWS

18" CSP

+47
END FENCE (WW)

100' TAPER

+75
BEGIN FENCE (WW)

180'

ROD AND LUG CONNECTORS W/ELBOWS

+77.00
100' LT

+84.22
100' LT

END FENCE (WW)
+80.00
100' LT

BEGIN FENCE (WW)
+40.00
100' LT

ACCESS POINT

+75.00
100' LT

+00
125'

+61.00
100' LT

+55
100'

+00.00
100' LT

+80.00
27.00' OFF.

65'R

60' TYP

2GI

AT-1

CAT-1

TB2GI

4'R

1'-6" C&G

2'-9" C&G

15" RCP-IV

CB

200' RW WIDTH

12' 12'

5.5'

2'-9" C&G TRANSITION CURB

54.22' MED.

2'R
16.06

3'

6'

+97.13

100' TAPER

+71
END FENCE (WW)
TOE PROTECTION
SEE DETAIL 'A'

+99
BEGIN FENCE (WW)

ELBOWS
ROD AND LUG

8:1

+77.00
100' RT

+84.22
100' RT

END FENCE (WW)

+44.23
100' RT

BEGIN FENCE (WW)

+30
100'

+75.00
100' RT

+83.75
107'

+55.00
164' RT

+05
157'

+61.00
100' RT

+61
110'

+90
100'

+71.93
27.00' OFF.

ANN BLALOCK
WB 93E PG 169

CULTIVATED

SEE SHEET 26 FOR –L– PROFILE

216
SUSAN CHRISCOE
DB 3075 PG 893

217
DANNY HONEYCUTT
DB 3127 PG 706
MB 2008 PG 171

2' STANDARD BASE DITCH
SEE DETAIL 'X'
EST. DDE=10 CY
L= 20'
S= 1.0%

CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
EST. 10 SY

+80.00
165' RT

+55.00
160' RT

+17.00
152' RT

+45
164'

2' LAT. BASE DITCH
SEE DETAIL G
CLASS 'I' RIP RAP
EST. 700 SY
GEOTEXTILE
EST. 550 TONS

LOW POINT
–L– STA. 316+14.21
ELEV. = 267.71'

+05.00
100' RT
END FENCE (WW)
+26

BEGIN FENCE (WW)
+46

PUE

S 27°13'39" E
118.58'

S 30°16'07" E
118.58'

N 62°34'40" W
64.05'

N 27°13'49" W
91.76'

S 71°04'58" W
30.05'

N 69°43'23" W
57.63'

S 52°52'57" W
29.71'

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

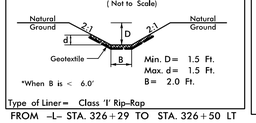
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

REVISIONS
8/17/99
7-19-2021 REVISED PUE ON PARCEL 218.(DBE)

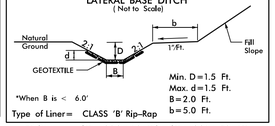
12/14/2021
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_10.dgn
User: revans

DETAIL Q
STANDARD BASE DITCH
(Not to Scale)



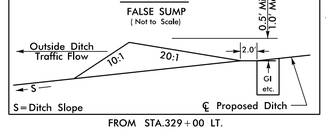
Type of Liner= Class 'I' Rip-Rap
FROM –L– STA. 326+29 TO STA. 326+50 LT

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



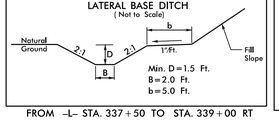
Type of Liner= CLASS 'B' Rip-Rap
FROM –L– STA. 328+10 TO STA. 331+50 RT

DETAIL AC
FALSE SUMP
(Not to Scale)



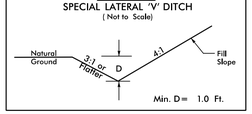
FROM STA.329+00 LT.

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



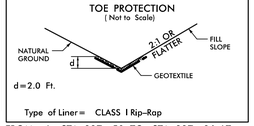
FROM –L– STA. 337+50 TO STA. 339+00 RT

DETAIL R
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



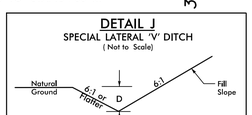
FROM –Y7– STA. 11+00 TO STA. 12+25 LT
FROM –Y7– STA. 14+00 TO STA. 16+00 LT
FROM –Y7– STA. 11+00 TO STA. 11+75 RT
FROM –Y7– STA. 14+00 TO STA. 16+00 RT

DETAIL F
TOE PROTECTION
(Not to Scale)



Type of Liner= CLASS I Rip-Rap
FROM –L– STA. 337+50 TO STA. 337+96 LT

DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM –L– STA. 339+00 TO STA. 339+50 RT
FROM –L– STA. 331+50 TO STA. 332+00 RT

WOODS

218
ANN BLALOCK
WB 93E PG 169

SPECIAL LAT. 'V' DITCH
SEE DETAIL R

–Y7– PI Sta 148+0.22
Δ = 4° 05' 16.8" (RT)
D = 1° 15' 00.7"
L = 326.99'
T = 163.57'
R = 4,583.00'

BOBBY ELKINS
DB 2488 PG 543
MB 2008 PG 126

219
SUNFLIGHT LLC
DB 2724 PG 826

–Y7– P.O.T. Sta. 10+00.00

0.93' EIP TO R/W

S 84°06'26.8" E

–Y7– STA. 10+80.00
BEGIN CONST.

BY7-135

–L– STA. 332+45.75
–Y7– STA. 13+16.00

BL-45

TOE PROTECTION
SEE DETAIL F

2' STANDARD BASE DITCH
SEE DETAIL Q
CLASS I RIP RAP

CL 'I' RIP RAP

CLASS 'B' RIP RAP
EST. 2 TONS
GEOTEXTILE
EST. 7 SY

ROD AND LUG CONNECTORS W/ELBOWS

15" CSP

ACCESS POINT

FALSE SUMP
SEE DETAIL AC

BEGIN FENCE (WW)

END FENCE (WW)

ROD AND LUG CONNECTORS W/ELBOWS

48" RCP-IV

15" RCP-IV

GREU TL-3

DRAIN POND

REMOVE DRAIN POND

BURY PIPE 0.8'

2' LATERAL BASE DITCH
SEE DETAIL 'D'
CLASS 'B' RIP RAP
EST. 220 TONS
GEOTEXTILE
EST. 575 SY

SPECIAL LAT. 'V' DITCH
SEE DETAIL J

SPECIAL LAT. 'V' DITCH
SEE DETAIL R

TOE PROTECTION
SEE DETAIL F

2' LATERAL BASE DITCH
SEE DETAIL C

CLASS 'I' RIP RAP
EST 10 TONS
GEOTEXTILE
SET. 23 SY

DRAIN POND

–Y7– STA. 15+00.00
END GRADE

–Y7– STA. 16+00.00
END CONST.

–Y7– PT Sta. 16+43.65

BEGIN SBG 326+23 LT. AND 326+47 RT.
END SBG 328+48 LT. AND 328+75 RT.

R5705-AZ36 = BY7

HIGH POINT
–L– STA. 333+91.00
ELEV. = 301.95'

MATCHLINE SHEET 9
–L– STA. 326+00.00

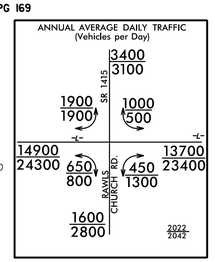
MATCHLINE SHEET 11
–L– STA. 339+50.00

RAWLS CHURCH RD 23' EST

Century Link Conduit

Town of Angier

ANNUAL AVERAGE DAILY TRAFFIC
(Vehicles per Day)



SEE SHEETS 26 & 27 FOR –L– PROFILE
SEE SHEET 33 FOR –Y7– PROFILE

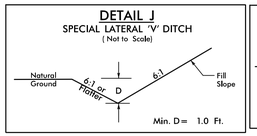
8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

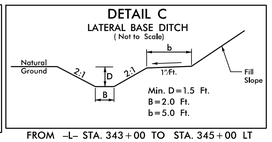
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



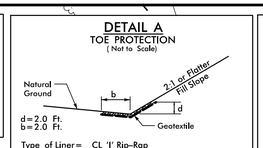
FROM –L– STA. 343+00 TO STA. 343+50 RT
FROM –L– STA. 342+50 TO STA. 343+00 LT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



FROM –L– STA. 343+00 TO STA. 345+00 LT

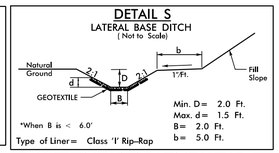
DETAIL A
TOE PROTECTION
(Not to Scale)



Type of Liner= CL 'I' Rip-Rap

FROM STA.346+50 TO STA.348+50 LT

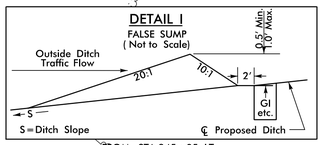
DETAIL S
LATERAL BASE DITCH
(Not to Scale)



Type of Liner= Class 'I' Rip-Rap

FROM –L– STA. 346+68 TO STA. 354+00 RT
FROM –L– STA. 343+50 TO STA. 346+65 RT

DETAIL I
FALSE SUMP
(Not to Scale)



FROM STA.345+05 LT.

NAD 83/NA 2011

CULTIVATED

BL-47

BL-48

BL-49

BL-46

N 89°50'56" W 293.84'

WOODS

340

345

350

BEGIN SBG 344+92 LT. AND 344+34 RT.
END SBG 348+35 LT. AND 350+63 RT.

TDE

+11
289'

219
SUNFLIGHT LLC
DB 2724 PG 826

220
DWIGHT STEPHENSON
DB 2179 PG 585

BEGIN FENCE (WW)
+25.00
100' LT

END FENCE (WW)
+65.00
100' LT

ACCESS POINT

180'

+16.00
150' LT

+67.00
100' LT

SPECIAL LAT. 'V' DITCH
SEE DETAIL J

2' LATERAL BASE DITCH
SEE DETAIL C

+40.00
100' LT

+80.00
100' LT

FALSE SUMP
SEE DETAIL I

CLASS 'B' RIP RAP
EST. 1 TON
GEOTEXTILE
EST. 5 SY

+05
120.13'

+57.00
162' LT

CL 'I' RIP RAP
+45
135.77'

+58
167'

+82
100'
125'

+65.00
100' LT

TRANSITION STONE
CLASS 'B' RIP RAP
EST. 5 TONS
GEOTEXTILE
EST. 15 SY

END FENCE (WW)
+75.00
100' LT

BEGIN FENCE (WW)
+35.00
100' LT

ACCESS POINT

TOE PROTECTION
SEE DETAIL A

GREU TL-3

+18.34
27.00' OFF.

65'R

100' TAPER

200' R/W WIDTH

1'-6" C&G

4'R

5.5'R

+93.13

2.2%
+74.21

–L–

N 11° 38' 08.9" E

2GI

ELBOWS
ROD AND
LUG

CAT-1

15" RCP-IV

1104
1101
1103
1102
1108
1106
1107
1100
1105

CSPH

ELBOW

BURY PIPE 1.0'

HW

+27.90

60' TYP

50'
TRANSITION
CURB

2'-9" C&G

30' MED.

+00
100'

+25.00
100' RT

+50
120'

LOW POINT
–L– STA. 342+52.27
ELEV. = 293.61'

SPECIAL LAT. 'V' DITCH
SEE DETAIL J

+13
100'

+40.00
100' RT

+49.00
100' RT

+85
129'

+90
129'

PUE

SOIL

2' LATERAL BASE DITCH
DETAIL S
CLASS 'I' RIP RAP
EST. 535 TONS
GEOTEXTILE
EST. 650 SY

+73.00
146' RT

+73
167'

2' LATERAL BASE DITCH
DETAIL S
CLASS 'I' RIP RAP
EST. 960 TONS
GEOTEXTILE
EST. 1,195 SY

+51.00
117' RT

END FENCE (WW)

+35.00
100' RT

BEGIN FENCE (WW)

+88
130'

+17
100'

S 67°45'53" W
323.59'

N 22°37'07" W
213.25'

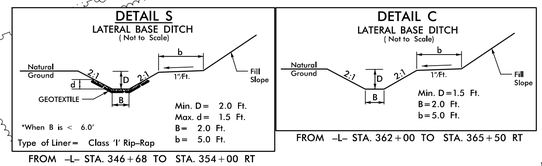
MATCHLINE SHEET 10
–L– STA. 339+50.00

MATCHLINE SHEET 12
–L– STA. 353+50.00

SEE SHEET 27 FOR –L– PROFILE

3/3/2021
X:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_11.dgn
User:bevans

8/17/99



FROM –L– STA. 346+68 TO STA. 354+00 RT

FROM –L– STA. 362+00 TO STA. 365+50 RT

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/NA 2011

MATCHLINE SHEET 11
–L– STA. 353+50.00

MATCHLINE SHEET 13
–L– STA. 367+50.00

220
DWIGHT STEPHENSON
DB 2179 PG 585

221
ROBERTA WOOLARD
DB 1275 PG 306

N. 89°45'42" W
1283.55'

355
360
365

+67.90 100' LT
+80 100'
+30 120'
+00 118'
+70 100'
+40.00 100' LT
+72.30 156' LT
CLASS 'B' RIP RAP
EST. 3 TONS
GEOTEXTILE
EST. 11 SY
HIGH POINT
–L– STA. 363+43.33
ELEV. = 329.12'
END FENCE (WW) +90.00 100' LT
BEGIN FENCE (WW) +50.00 100' LT
ACCESS POINT
+71 100'
+78 114'
+94 100'
+50.00 100' RT END FENCE (WW)
+10.00 100' RT BEGIN FENCE (WW)
+67.90 100' RT
–L– PC Sta. 353+67.90

CULTIVATED
15" RCP-IV
24" RCP-IV
CB
1201
1202
1203
1204
1205
1206
1207
200' R/W WIDTH
30' MED.
12' 12'
2'-9" C&G
1'-6" C&G
2' LATERAL BASE DITCH SEE DETAIL S
2' LATERAL BASE DITCH SEE DETAIL C
BL-50
BL-51
BM#17

–L–
PI Sta 362+25.78
Δ = 19° 28' 17.8" (RT)
D = 1° 08' 45.3"
L = 1,699.22'
T = 857.88'
R = 5,000.00'
SE = 0.3
R0 = 180'

SEE SHEET 27 THRU 28 FOR –L– PROFILE

3/3/2021
X:\NW2001\R-5705B\Roadway\Proj\R5705B_Rdy_psh_12.dgn
User:bevans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

REVISIONS

10-19-2021 REVISED ACCESS POINT FOR PARCEL 222 TO BE 100' WIDE.(DBE)

8/17/99

DETAIL C
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, b, 1':Ft., Fill Slope, B
Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.

FROM –L– STA. 375+50 TO STA. 377+17 RT
FROM –L– STA. 370+50 TO STA. 372+07 RT
FROM –L– STA. 372+10 TO STA. 373+00 RT
FROM –L– STA. 380+00 TO STA. 381+50 RT

DETAIL D
LATERAL BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, b, 1':Ft., Fill Slope, GEOTEXTILE, d, B
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
*When B is < 6.0'
Type of Liner= CLASS 'B' Rip-Rap

FROM –L– STA. 377+28 TO STA. 380+00 RT
FROM –L– STA. 370+00 TO STA. 372+39 LT.

DETAIL J
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground, 6:1 or Flatter, D, 6:1, Fill Slope
Min. D= 1.0 Ft.

FROM –L– STA. 375+00 TO STA. 375+50 RT

DETAIL AB
STANDARD BASE DITCH
(Not to Scale)

Natural Ground, 2:1, D, 2:1, Natural Ground, B
Min. D= 2.0 Ft.
B= 5.0 Ft.

–L– STA. 376+07 LT

NAD 83/NA 2011

MATCHLINE SHEET 12
–L– STA. 367+50.00

MATCHLINE SHEET 14
–L– STA. 381+50.00

TOP=295.04'
TOP=301.39'
TOP=305.87'
TOP=316.87'
30' EASEMENT
WAKE COUNTY
HARNETT COUNTY
CULTIVATED
WOODS
N 89°48'20"E 360.73'
S 0°21'52" W 212.12'
S 0°21'52" W 116.33'
N 89°48'20"E 365.72'
N 0°38'52" E 482.03'
N 31°06'26.7" E
N 0°38'52" E 728.00'
24" HDPE
00°CM 3.45 (BASIS)

221
ROBERTA WOOLARD
DB 1275 PG 306

222
RICHARD BULLOCK
DB 8191PG 168

223
RUTH PETREA
DB 13020 PG 154

END FENCE (WW) +07.12 100' LT
BEGIN FENCE (WW) +67.12 100' LT
ACCESS POINT
2' LATERAL BASE DITCH SEE DETAIL D CLASS 'B' RIP RAP 116'
+03 105.28'
+88 CLASS 'I' RIP RAP 128'
+08 120.73'
+37.00 125' LT
+00.00 100' LT
STANDARD BASE DITCH SEE DETAIL AB
LOW POINT –L– STA. 375+72.22 ELEV. = 313.42'
+48.00 100' LT
+86 100'
+88 117'
+09 117'
+20 100'
TDE
CLASS 'I' RIP RAP EST. 40 TONS GEOTEXTILE EST. 75 SY
END FENCE (WW) +40.00 100' LT
+57.06 BEGIN 2'-6" C&G
+89.94
150' MEDIAN TRANSITION
8:1 TAPER
60' TYP
15" CSP
ROD AND LUG CONNECTORS W/ELBOWS
15" RCP-IV
18" RCP-IV
60" RCP-IV
CB
1'-6" C&G
2'-6" C&G
4'R
65'R
BL-52
BL-53
BURY PIPE 1.0' HW
ALT. PIPE
2' LATERAL BASE DITCH SEE DETAIL C
–L– PT Sta. 370+67.12
+62 108'
+82 100'
+37.00 100' RT
+67.12 100' RT
+58.94 27.00' OFF.
+32.13 136'
+42.00 164' RT
+48.00 100' RT
+83 136'
+09 120'
SPECIAL LAT. 'V' DITCH SEE DETAIL J
END FENCE (WW) +06
BEGIN FENCE (WW) +26
PUE
2' LATERAL BASE DITCH SEE DETAIL C
+40.00 100' RT
END FENCE (WW)
BEGIN FENCE (WW) +40.00 100' RT
2' LATERAL BASE DITCH SEE DETAIL D CLASS 'B' RIP RAP EST. 215 TONS GEOTEXTILE EST. 530 SY
2' LATERAL BASE DITCH SEE DETAIL C CLASS 'B' RIP RAP EST. 3 TON GEOTEXTILE EST. 10 SY
+30.00 100' RT
+30 120'
END FENCE (WW) +40.00 100' LT

SEE SHEET 28 FOR –L– PROFILE

10/19/2021
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User:Revons

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/NA 2011

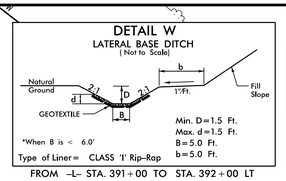
REVISIONS

5-20-2021 DELETED PARCEL NUMBER 305. UPDATED SURVEYS AND ADDED PARCEL NUMBERS AND PROPERTY OWNER DATA FOR PARCELS 305A,305B,305C & 305D.
7-16-2021 REVISED EASEMENTS ON PARCELS 304,305A,305B,305C,305D,306 & 307. REMOVED PUE FROM PARCEL 308.
9-1-2021 REMOVED C/A FENCE FROM –L– STA.389+00 RT TO THE END OF THE SHEET.(DBE)
10-19-2021 ADDED DESIGN FOR –Y22– AND –Y23–. REVISED R/W AND EASEMENTS ON PARCELS 223 & 303. REVISED –L– MEDIAN TO ALLOW A LEFTOWER AND U-TURN AT –Y20–.REVISED DESIGN ALONG –Y8–(DBE)
11-15-2021 REVISED PROPERTY OWNER & DEED BOOK DATA FOR PARCEL 304.(DBE)
W 15/2021 REVISED DESIGN FOR –Y8– AND MEDIAN DESIGN FOR –L–, REVISED R/W AND EASEMENTS ON PARCELS 223 & 303.UPDATED WETLANDS ON PARCEL 223(DBE)

W:\3\2001\R-5705B\Roadway\Proj\R5705B_Rdy_ps1_14.dgn
User:bevans

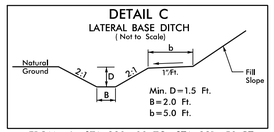
8/17/99

DETAIL W
LATERAL BASE DITCH
(Not to Scale)



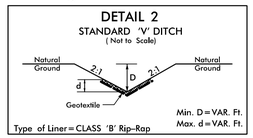
Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=5.0 Ft.
b=5.0 Ft.
*When B is < 6.0'
Type of Liner= CLASS 'I' Rip-Rap
FROM –L– STA. 391+00 TO STA. 392+00 LT

DETAIL C
LATERAL BASE DITCH
(Not to Scale)



Min. D=1.5 Ft.
B=2.0 Ft.
b=5.0 Ft.
FROM –L– STA. 380+00 TO STA. 381+50 RT
FROM –Y8– STA. 12+92 TO STA. 13+00 RT

DETAIL 2
STANDARD 'V' DITCH
(Not to Scale)



Min. D=VAR. Ft.
Max. d=VAR. Ft.
Type of Liner=CLASS 'B' Rip-Rap
FROM STA. 17+00 –Y22– LT.

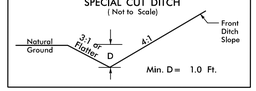
–Y19–
PI Sta 10+95.22
Δ = 22° 07' 54.7" (LT)
D = 22° 55' 05.9"
L = 96.57'
T = 48.89'
R = 250.00'

ANNUAL AVERAGE DAILY TRAFFIC
(Vehicles per Day)

13700 / 23400	NC 55		28800 / 42200
400 / 1100		15500 / 19900	
16000 / 21000			2022 / 2042

–L–
PI Sta 387+98.92
Δ = 42° 06' 28.1" (LT)
D = 4° 35' 01.2"
L = 918.65'
T = 481.18'
R = 1,250.00'
SE = 04
RO = 200'

DETAIL 1
SPECIAL CUT DITCH
(Not to Scale)



Min. D= 1.0 Ft.
FROM –Y22– STA. 11+00 TO STA. 12+30 RT
FROM –Y22– STA. 14+63 TO STA. 16+50 RT.

MATCHLINE SHEET 13
–L– STA. 381+50.00

MATCHLINE SHEET 22
–Y8– STA. 13+00.00

MATCHLINE SHEET 15
–L– STA. 395+00.00

–L– STA. 382+59.43
–Y8– STA. 10+00.00

–L– PC Sta. 383+17.74

–Y22– POT Sta. 18+29.53=
–L– POC Sta. 386+93.18

–Y22– PT Sta. 17+46.09

–Y19– POT Sta. 10+00.00

–Y19– PC Sta. 10+46.33

–Y19– STA. 11+00.00
BEGIN CONST.

–Y19– PT Sta. 11+42.90

–L– PT Sta. 392+36.39 N 78° 59' 58.5" E

–Y23– PC Sta. 15+89.05

–Y23– PT Sta. 10+75.75

–Y23– PC Sta. 10+23.52

–Y23– POT Sta. 10+00.00=
–Y22– POC Sta. 16+94.67

–Y23– PT Sta. 12+33.87

–Y23– STA. 12+33.87
END CONST.

–Y23– POT Sta. 12+62.62

–Y19– POT Sta. 12+00.00 =
–L– POT Sta. 393+50.42

–Y20– POT Sta. 10+00.00 =
–L– POT Sta. 393+67.05

–Y20– POT Sta. 12+00.00

–Y20– STA. 11+48.00
END CONST.

N 16° 06' 58.6" W
N 16° 20' 15.8" W
N 74° 02' 34.4" E
N 33° 32' 15.2" E
S 89° 37' 24.3" E
N 11° 00' 01.8" W

BELLEWOOD HOMEOWNERS ASSOC. INC
DB 17585 PG 811
PB BM2019 PG 1565-1569
308

KRYSTAL LAUREN MOORE
DB 17941 PG 2460
PB BM2019 PG 1565-1569

LENNAR CAROLINAS LLC
DB 17584 PG 186
PB BM2019 PG 1565-1569

MICHAEL LANCE REESE
DB 17928 PG 1579
PB BM2019 PG 1565-1569

LACEY JO BAYALIT
DB 17944 PG 960
PB BM2019 PG 1565-1569

RUTH PETREA
DB 13020 PG 154
223

PROPOSED DITCH CLEAN-OUT
LENGTH= +/-240'
EXCAVATION= +/-78cu.yds
TO ELEV= 324.0

5' LAT. BASE DITCH
SEE DETAIL W
CLASS 'I' RIP RAP
EST. 250 TONS
GEOTEXTILE
EST. 200 SY

300' MEDIAN TRANSITION

PETER CAMPBELL
DB 18043 PG 1250
305A

SUMMER DISALVO &
JUSTIN DISALVO
DB 18088 PG 1683
305B

PROPERTY OF CRAIG EVANS
DB 18051 PG 1
305C

NATASSIA SANTANA &
JOEL J. GOMEZ
DB 18047 PG 2563
305D

DAVID ALEXANDER BERNAL
DB 17938 PG 1209
PB BM2019 PG 1984-1989
306

BELLEWOOD HOMEOWNERS ASSOCIATION, INC.
DB 17672 PG 600
304

CAROLINA CHARTER ACADEMY HOLDINGS LLC
DB 18395 PG 1880
PB 2018 PG1240
303

BELLEWOOD HOMEOWNERS ASSOCIATION, INC.
DB 17672 PG 600
304

–Y23–
PI Sta 10+51.42
Δ = 49° 52' 31.1" (LT)
D = 95° 29' 34.7"
L = 52.23'
T = 27.90'
R = 60.00'

–Y23–
PI Sta 12+05.34
Δ = 90° 22' 50.2" (RT)
D = 114° 35' 29.6"
L = 78.87'
T = 50.33'
R = 50.00'

–Y22–
PI Sta 16+75.62
Δ = 59° 59' 06.9" (LT)
D = 38° 11' 49.9"
L = 157.04'
T = 86.58'
R = 150.00'

★ NEW SIGNAL

SEE SHEETS 28 THRU 29 FOR –L– PROFILE
SEE SHEET 33 FOR –Y8– PROFILE
SEE SHEET 37 FOR –Y19–, –Y20–, –Y22– & –Y23– PROFILES

8/17/99

REVISIONS

7-19-2021 REVISED EASEMENTS ON PARCELS 232,234,236,237,238,239,240,241& 242. REMOVED PUE FROM PARCELS 233 & 308.
UPDATED SURVEY ON PARCEL 240 TO SHOW GARAGE.REMOVED C/A FENCE FROM ENTIRE SHEET.(JDBE)
10-19-2021 REVISED PROPERTY OWNER & DEED BOOK DATA FOR PARCELS 233,236,243 & 304.ADDED 'DO NOT DISTURB GRAVESITE' NOTE TO PARCEL 234.(DBE)

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

ANNUAL AVERAGE DAILY TRAFFIC (Vehicles per Day)
2100 / 4200
1000 / 850 — 800 / 2900
28900 / 42200 — 1550 / 1250 — 1200 / 1100 — 28300 / 44200
3100 / 2900
2022 / 2042

NAD 83/NA 2011

MATCHLINE SHEET 14 –L– STA. 395+00.00

MATCHLINE SHEET 16 –L– STA. 408+00.00

–Y9– STA. 9+64.00 BEGIN CONST.

–Y9– PT Sta. 10+15.96

–L– STA. 400+00.01 –Y9– STA. 12+15.32

–L– PC Sta. 403+02.62

–Y9– PC Sta. 12+58.03

–Y9– PT Sta. 13+49.27

–Y9– PC Sta. 13+99.88

–Y9– STA. 15+25.00 END CONST.

–Y9– PT Sta. 16+80.36

–EY9– POT STA. 22+84.76

–L DRV1– PC Sta. 7+75.67

–L DRV1– POT Sta. 9+95.44

–L DRV1– POT Sta. 12+25.99

–L– STA. 407+20 BEGIN RETAINING WALL w/HANDRAIL 49.50' RT

BY9-116

BY9-124

N 11°00'01.5" W

N 77°00'27.0" E

N 87°40'20.5" E

–L–	–Y9–		
PI Sta 405+97.57	PI Sta 8+87.62	PI Sta 13+03.66	PI Sta 15+35.75
Δ = 3°22'43.8" (LT)	Δ = 10°17'43.8" (RT)	Δ = 2°36'50.2" (LT)	Δ = 40°13'39.7" (LT)
D = 0°34'22.6"	D = 4°00'00.0"	D = 2°51'53.2"	D = 15°26'37.0"
L = 589.72'	L = 257.39'	L = 91.24'	L = 260.48'
T = 294.94'	T = 129.04'	T = 45.63'	T = 135.87'
R = 10,000.00'	R = 1,432.39'	R = 2,000.00'	R = 371.00'
SE = NC			

REMOVE EXISTING SIGNAL

SEE SHEET 29 FOR –L– PROFILE
SEE SHEET 32 FOR –L–DRV1– PROFILE
SEE SHEET 34 FOR –Y9– PROFILE

10/19/2021
X:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh15.dgn
User:Revans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

REVISIONS

6-23-2021 REVISED DESIGN FOR -Y12 REV- ALONG WITH R/W AND EASEMENTS FOR PARCELS 244,246 & 251.(DBE)
7-19-2021 REVISED EASEMENTS ON PARCELS 242,244,245 & 250.REMOVED C/A FENCE FROM ENTIRE SHEET.(DBE)
10-19-2021 REVISED PROPERTY OWNER & DEED BOOK DATA FOR PARCELS 243,245 & 255. ADDED "DO NOT DISTURB SIGN" NOTES TO PARCEL 245.(DBE)

8/17/99

10/19/2021
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy.psk_16.dgn
User:ReVans

ANNUAL AVERAGE DAILY TRAFFIC (Vehicles per Day)

BITTER MELON ROAD

500 / 800
200 / 400 — 250 / 300
28300 / 44200 — 25700 / 37200
3250 / 7650 SR 2763 — 600 / 800
3900 / 8600
2022 / 2042

NAD 83/NA 2011

CHRISTOPHER M. MURPHY AND SPOUSE, TABITHA L. MURPHY DB 17405 PG 1935

VIRGINIA EDWARDS MB 2005 PG 2248 DB 15663 PG 343

-Y11- POT Sta. 10+00.00

-Y13- POT Sta. 10+00.00

MOHLER INVESTMENTS, LLC DB 17569 PG 1018

SUSAN HARMITH DB 9825 PG 388 MB 2005 PG 2248

MARY CHANCE DB 10338 PG 2828 MB 2005 PG 2248

RICHARD MESTLER DB 16168, PG 1503 MB 2005 PG 2248

GEOFFREY ARNOLD DB 16571 PG 1018 MB 2010 PG 431

KDC CAPITAL, LLC DB 17610 PG 2151

JOHNSONS LANDING HOMEOWNERS ASSOC INC DB 16581 PG 1977 MB 2005 PG 347

JAMES CLARKE DB 16530 PG 1783 MB 2007 PG 2731

JOSEPH SCUNZIANO DB 14846 PG 280 MB 2007 PG 2731

IHG INVESTMENT DB 15757 PG 489 MB 2010 PG 431

BERYL ROAD PROPERTIES LLC DB 13860 PG 198 MB 2006 PG 1754

BYRD PROPERTIES INC DB 5658 PG 814

ROBERT PEELE DB 16139 PG 1326 MB 2007 PG 487

NC PROPERTY NETWORK INC DB 16217 PG 1180 MB 2008 PG 2308

RUDINE BODDIE DB 16782 PG 1365 MB 2008 PG 2308

KENNEBEC FLYING CLUB DB 10991 PG 2406 MB 2004 PG 1049

-Y10- STA. 14+50.00
BEGIN CONST.

-L- STA. 408+77.03
-Y10- STA. 15+39.60
POT Sta. 10+00.00

-Y11- PC Sta. 13+27.04

-Y11- STA. 13+50.00
BEGIN CONST.

-Y11- PT Sta. 14+30.38

-L- STA. 412+35.12
-Y11- STA. 14+88.12

-Y13- STA. 10+40.00
BEGIN CONST.

-Y13- PC Sta. 11+55.51

-Y13- STA. 12+03.37
-Y13A- STA. 10+00.00

-Y13A- PC Sta. 10+44.43

-Y13A- PT Sta. 10+81.61

-Y13A- POT Sta. 11+17.49

-L- PCC Sta. 408+92.34

-L_DRV2- PT Sta. 12+17.98

-L_DRV2- POT Sta. 12+72.34

-L_DRV2- PC Sta. 10+37.57

-L_DRV2- PRC Sta. 11+27.78

-Y12- PC Sta. 11+10.31

-L- STA. 412+30.54
-Y12- STA. 9+84.16

-L- STA. 412+57.05
-Y12_REV- STA. 10+00.00

-Y12_REV- PC Sta. 10+08.44

-Y12_REV- PT Sta. 11+67.86

-L- PT Sta 415+34.21 BK =
-L- POT Sta 415+42.21 AH

-L- STA. 420+32.37
-Y13- STA. 13+10.60

-Y13- PT Sta. 12+59.50
N 55° 40' 51.1" E

MATCHLINE SHEET 15
-L- STA. 408+00.00

MATCHLINE SHEET 23
-Y12_REV- STA. 12+07.69

MATCHLINE SHEET 17
-L- STA. 422+00.00

N 74° 33' 51.0" E

N 76° 52' 14.7" E

N 57° 07' 57.8" E

N 45° 01' 34.1" W

DO NOT DISTURB SIGNS

DO NOT DISTURB CURB OR PARKING LOT

DO NOT DISTURB RUNWAY LIGHTS

-L- STA. 408+72
END RETAINING WALL
OFFSET 49.50'

LOW POINT
-L- STA. 418+32.26
ELEV. = 335.69'

-Y12-	-Y12_REV-
PI Sta 11+80.56	PI Sta 10+90.08
Δ = 14° 33' 28.7" (LT)	Δ = 30° 26' 50.5" (LT)
D = 10° 25' 02.7"	D = 19° 05' 54.9"
L = 139.75'	L = 159.42'
T = 70.25'	T = 81.64'
R = 550.00'	R = 300.00'

-L_DRV2-	
PI Sta 10+83.46	PI Sta 11+73.66
Δ = 25° 50' 31.0" (RT)	Δ = 25° 50' 31.0" (LT)
D = 28° 38' 52.4"	D = 28° 38' 52.4"
L = 90.21'	L = 90.21'
T = 45.88'	T = 45.88'
R = 200.00'	R = 200.00'

-L-		-Y11-	-Y13-	-Y13A-
PI Sta 405+97.57	PI Sta 412+21.15	PI Sta 13+79.23	PI Sta 12+09.32	PI Sta 10+65.88
Δ = 3° 22' 43.8" (LT)	Δ = 30° 38' 48.7" (LT)	Δ = 19° 44' 16.9" (LT)	Δ = 36° 19' 57.2" (LT)	Δ = 71° 07' 09.5" (LT)
D = 0° 34' 22.6"	D = 4° 46' 28.7"	D = 19° 05' 54.9"	D = 34° 56' 11.2"	D = 190° 59' 09.4"
L = 589.72'	L = 641.87'	L = 103.35'	L = 104.00'	L = 37.24'
T = 294.94'	T = 328.91'	T = 52.19'	T = 53.81'	T = 21.45'
R = 10,000.00'	R = 1,200.00'	R = 300.00'	R = 164.00'	R = 30.00'
SE = NC	SE = 04			
	R0 = 200'			

★ UPGRADE EXISTING OR NEW SIGNAL

SEE SHEETS 29 THRU 30 FOR -L- PROFILE
SEE SHEET 32 FOR -L_DRV2- PROFILE
SEE SHEET 34 FOR -Y10- & -Y11- PROFILES
SEE SHEET 35 FOR -Y12-, -Y13-, & -Y13A- PROFILES

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

NAD 83/NA 2011

REVISIONS

7-19-2021 REMOVED C/A FENCE FROM ENTIRE SHEET.(DBE)
10-19-2021 REVISED PROPERTY OWNER & DEED BOOK DATA FOR PARCEL 255.(DBE)

8/17/99

MATCHLINE SHEET 16
-L- STA. 422+00.00

MATCHLINE SHEET 18
-L- STA. 436+00.00

-Y14- POT Sta. 10+00.00

-Y14- STA. 11+15.00
BEGIN CONST.

-Y14- PC Sta. 11+21.15

-Y14- PT Sta. 12+02.39

-L- PC Sta. 429+29.71

-L- PT Sta. 434+79.55

-L- STA. 435+18.61
-Y14- STA. 12+70.61

HIGH POINT
-L- STA. 423+94.37
ELEV. = 342.99'

LOW POINT
-L- STA. 429+30.73
ELEV. = 339.44'

PHILIP BROWN
DB 16498 PG 346
MB 2016 PG 227
255

CHRISTOPHER M. MURPHY AND SPOUSE, TABITHA L. MURPHY
DB 17405 PG 1935

RICHARD SCANLON
DB 16692 PG 1538
MB 2007 PG 2273
257

CHRISTOPHER CARVER
DB 16686 PG 495
MB 2007 PG 2731
258

THEODORE PATERECK
DB 16560 PG 1268
MB 2007 PG 2273
259

DENNIS GOLDENSOHN
DB 16702 PG 1021
MB 2007 PG 2273
260

JANET BLACKMAN
DB 16664 PG 324
MB 2007 PG 2273
261

MATTHEW BAIRD
DB 16485 PG 195
MB 2007 PG 2730

CLAUDE SIMMONS
DB 15914 PG 57
MB 2007 PG 2730

JOHNSONS LANDING HOMEROWNERS ASSC
DB 17131PG 1400
MB 2007 PG 2273
264

THEODORE FRANZESE
DB 16875 PG 2030
MB 2007 PG 2273

TERRY RITCH
DB 15798 PG 2080
MB 2007 PG 2273

SHANE RUNDGREN
DB 15781PG 445
MB 2007 PG 2273
268

2015-3 1H2 BORROWER LP
DB 16072 PG 310
MB 2006 PG 1060
267

DEREK LAWHORN
DB 15813 PG 261
MB 2007 PG 2273

JONATHAN MCLEAN
DB 13174 PG 1304
MB 2006 PG 1060
269

BRUCE WEITZ
DB 16786 PG 1463
MB 2007 PG 2273

CRAIG GOLDEN
DB 15596 PG 198
MB 2007 PG 2730

DANIELLE HARRISON
DB 15552 PG 730
MB 2007 PG 2731

MICHAEL LAGNESE
DB 16178 PG 585
MB 2008 PG 366

CHRIS THOMPSON
DB 15434 PG 2602
MB 2008 PG 366

ANTHONY VALLE
DB 15662 PG 2546
MB 2007 PG 2731

CHAD MOODY
DB 15165 PG 1102
MB 2008 PG 366

STEPHEN OMMS
DB 15178 PG 241
MB 2007 PG 2731

KENNEBEC FLYING CLUB
DB 10991PG 2406
MB 2004 PG 1049
251

AIRPORT

COYOTE MELON DR 22' BST

MALAHAR LN 22' BST

NC 55/N RALEIGH ST 34' BST

Century Link, Copper

Century Link, Copper
Town of Angier, 12"

Spectrum, FO

Spectrum Communications, FO

Century Link, FO

100' TAPER

N 45°01'34" W

BL-59

R5705-AZ16

R5705-AZ17

-L-	-Y14-
PI Sta 432+04.95	PI Sta 11+62.05
Δ = 6° 48' 15.4" (RT)	Δ = 16° 16' 29.0" (LT)
D = 1° 14' 15.0"	D = 20° 02' 00.6"
L = 549.85'	L = 81.24'
T = 275.25'	T = 40.89'
R = 4,630.00'	R = 286.00'
SE = 02	
RO = 100'	

SEE SHEET 30 FOR -L- PROFILE
SEE SHEET 35 FOR -Y13- & -Y14- PROFILES

10/19/2021
12:00:25
User:Revans
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PROJECT REFERENCE NO.	SHEET NO.
R-5705B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

REVISIONS

7-9-2021 REMOVED C/A FENCE FROM ENTIRE SHEET.(DBE)

8/17/99

NAD 83/NA 2011

277 PULTE HOME COMPANY
DB 16984 PG 2790
MB 2011 PG 422

273 BETHEL CHURCH INC
DB 10629 PG 1277

272 CHRISTOPHER LEE GRAINGER
DB 15448 PG 1736
MB 1994 PG 1865

271 MITCHELL HAM
DB 16708 PG 1894
MB 1994 PG 1865

PHILLIP BROWN
DB 1542 PG 1588
MB 2008 PG 1060

MICHAEL QUINTILONE
DB 16405 PG 949
MB 2006 PG 1060

270

274 JEFFREY ZDENEK
DB 11414 PG 697
MB 1995 PG 174

JAMES HARTE
DB 16238 PG 2540

276

277

KENNEBEC FLYING CLUB
DB 10991 PG 2406
MB 2004 PG 1049

251

KENNEBEC FLYING CLUB
DB 12789 PG 261
MB 1994 PG 1856

275

-Y15- POT Sta. 10+00.00

-Y15- STA. 11+50.00
BEGIN CONST.

-L- STA. 440+25.90
-Y15- STA. 12+75.00

LOW POINT
-L- STA. 444+94.65
ELEV. = 345.00'

HIGH POINT
-L- STA. 437+35.59
ELEV. = 352.74'

-L- PC Sta. 441+49.51

-L- PT Sta. 449+60.45

BL-60

BL-61

MATCHLINE SHEET 17
-L- STA. A36+00.00

MATCHLINE SHEET 19
-L- STA. 450+00.00

-L-
PI Sta 445+63.89
Δ = 29° 02' 22.4" (RT)
D = 3° 34' 51.6"
L = 810.94'
T = 414.38'
R = 1,600.00'
SE = 04
RO = 200'

SEE SHEETS 30 THRU 31 FOR -L- PROFILE
SEE SHEETS 36 FOR -Y15- PROFILE

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12/14/2021
User:bevans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

REVISIONS
7-19-2021 REMOVED C/A FENCE FROM ENTIRE SHEET.(DBE)

8/17/99

NAD 83/NA 2011

MATCHLINE SHEET 18
–L– STA. 450+00.00

MATCHLINE SHEET 20
–L– STA. 464+00.00

JAMES HARTE
DB 16298 PG 2540

PULTE HOME COMPANY
DB 16984 PG 2790
MB 2011 PG 422

WARREN BROOKS

GIDEON BURNETT
DB 16868 PG 1805
MB 1976 PG 330

BENJAMIN DICKENS
DB 15685 PG 675

THOMAS TRUELOVE
DB 1501 PG 1058
MB 8002 PG 2441.3'

HARTELAND LLC
DB 15559 PG 213
MB 2000 PG 479

A E SAUNDERS
MB 1989 PG 544

KENNEBEC FLYING CLUB
DB 12789 PG 261
MB 1994 PG 1856

–Y21– STA. 10+05.00
BEGIN CONST.
–Y21– POT Sta. 11+00.00 =
–L– POT Sta. 454+87.65

–Y21– POT Sta. 10+00.00

–Y17– STA. 10+75.00
BEGIN ROAD CONST.

–Y17– PC Sta. 11+77.92

–Y17– STA. 9+44.62
BEGIN DRAINAGE

–Y17– PT Sta. 10+00.00

–Y17– PT Sta. 13+13.38

–L– STA. 454+92.43
–Y16– STA. 10+00.00

–Y16– STA. 11+25.00
END CONST.

–Y16– POT Sta. 11+96.72

–L– STA. 459+58.88
–Y17– STA. 13+44.09

–L–	–Y17–	–Y17–
PI Sta 445+63.89	PI Sta 12+58.34	PI Sta 8+95.42
Δ = 29° 02' 22.4" (RT)	Δ = 77° 36' 35.0" (LT)	Δ = 12° 35' 58.8" (LT)
D = 3° 34' 51.6"	D = 57° 17' 44.8"	D = 5° 59' 58.4"
L = 810.94'	L = 135.45'	L = 210.01'
T = 414.38'	T = 80.42'	T = 105.43'
R = 1,600.00'	R = 100.00'	R = 955.00'
SE = 04		
R0 = 200'		

SEE SHEET 31 FOR –L– PROFILE
SEE SHEET 36 FOR –Y16 & –Y17– PROFILES
SEE SHEET 37 FOR –Y21– PROFILE

12/14/2021
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy.psl
User:bevans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

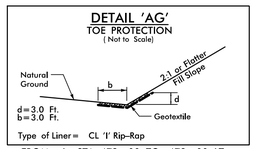
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

REVISIONS
7-19-2021 REVISED PUE ON PARCEL 286.REMOVED C/A FENCE FROM ENTIRE SHEET.(DBE)
8/17/99

12/14/2021
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User: bevans

DETAIL 'AG'
TOE PROTECTION
(Not to Scale)



Type of Liner = CL 'I' Rip-Rap
FROM -L- STA. 472+00 TO 473+00 LT

NAD 83/NA 2011

-Y17- PC Sta. 7+89.99
-Y17- POT Sta. 7+75.00

THOMAS TRUELOVE
DB 11307 PG 1058
MB 2002 PG 211
285

MARK HORSFIELD
DB 17056 PG 2755
MB 1997 PG 1258

WILLIAM BANISTER
DB 17081PG 1561
410

RACHEL TURNER
DB 3229 PG 262
285

PRENTICE MCLEAN
DB 16904 PG 2492
MB 1983 PG 1382
288

ANS TRUST THE
DB 15463 PG 1242
289

JACK SEARCY
DB 1744 PG 405 TB 2GI
286

HARTELAND LLC
DB 15559 PG 213
MB 2000 PG 479
282

JACK SEARCY
DB 2475 PG 142
286

JACK SEARCY
DB 1744 PG 405
286

JACK SEARCY
DB 2798 PG 346

A E SAUNDERS
MB 1989 PG 544
279

GLENN POND
DB 15271PG 1414
MB 1990 PG 464
290

-L- PC Sta. 466+19.13

-L- PT Sta. 475+23.62

HIGH POINT
-L- STA. 473+94.02
ELEV. = 375.14'

MATCHLINE SHEET 19
-L- STA 464+00.00

MATCHLINE SHEET 21
-L- STA. 477+50.00

-L-
PI Sta 470+85.59
△ = 34° 32' 56.7" (RT)
D = 3° 49' 11.0"
L = 904.49'
T = 466.47'
R = 1,500.00'
SE = 04
RO = 200'

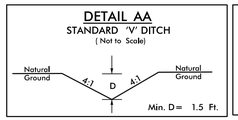
SEE SHEETS 31 THRU 32 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

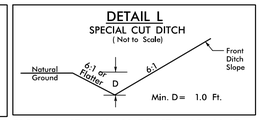
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL AA
STANDARD 'V' DITCH
(Not to Scale)



FROM –L– STA. 485+50 TO STA. 486+80 LT

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)



FROM –L– STA. 482+00 TO STA. 485+00 LT

NAD 83/NA 2011

8/17/99

REVISIONS

7-19-2021 REMOVED C/A FENCE FROM ENTIRE SHEET.(DBE)

MATCHLINE SHEET 20
–L– STA. 477+50.00

ANS TRUST THE
DB 15463 PG 1242
289

292
ANS TRUST THE
DB 15463 PG 1242
MB 1997 PG 217

ALESSANDRO BIANCO
DB 16667 PG 561
MB 2016 PG 361
294

SHIREY JO BAIRD
DB 4976 PG 589
MB 2016 PG 361
297

290
GLENN POND
DB 15271 PG 1414
MB 1990 PG 464

291
DANA HALEY
DB 8060 PG 312

293
DONALD HESTER
DB 5150 PG 389
MB 2005 PG 372

BRYAN ZIMMERMAN
DB 11490 PG 1062
MB 2005 PG 372
295

296
JIMMIE HANKS
DB 4890 PG 294
MB 1986 PG 56

LISA WILSHIRE
DB 14923 PG 1237
MB 1986 PG 56

CLAYTON FAMILY LLC
DB 13908 PG 1871
MB 2009 PG 1003

CITIMORTGAGE INC
DB 14649 PG 300

PEGGY WATERS
DB 8568 PG 1614

R5705-AZ18

–L– PC Sta. 480+20.81

–L– PT Sta. 485+54.32

END TIP PROJECT R-5705B
–L– STA. 485+57.00

–L– POT Sta. 486+80.31

–L– STA. 486+90.00
END CONSTRUCTION

–L– PT Sta. 489+35.98

510.13' ROADWAY TRANSITION (LT\RT)
USE 1500' RADIUS CURVES FOR PROPOSED EOT)

N 25° 22' 00.4" E

–L–	
PI Sta 482+90.42	PI Sta 488+08.47
Δ = 20° 22' 43.0" (LT)	Δ = 9° 59' 32.3" (LT)
D = 3° 49' 11.0"	D = 3° 54' 30.0"
L = 533.51'	L = 255.67'
T = 269.60'	T = 128.16'
R = 1,500.00'	R = 1,465.99'
SE = 04	
RO = 200'	

SEE SHEET 32 FOR –L– PROFILE
SEE SHEET 36 FOR –Y18– PROFILE

12/14/2021
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_21.dgn
User:bevans

8/17/99

REVISIONS

7-19-2021 ADDED OWNER,DEED BOOK DATA AND PARCEL NUMBER TO PARCEL 309.(DBE)
12-8-2021 ADDED DESIGN FOR -Y22-, REVISED R/W AND EASEMENTS ON PARCELS 223,230,231 & 303.(DBE) REVISED DESIGN ALONG -Y8-. UPDATED WETLANDS ON PARCELS

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

DETAIL N
RIP RAP AT EMBANKMENT
(Not to Scale)

Type of Liner = Class 'I' Rip-Rap

FROM -Y8- STA. 13+62 TO STA. 13+78 RT

DETAIL V
LATERAL BASE DITCH
(Not to Scale)

Min. D=1.5 Ft.
Max. d=1.5 Ft.
B=5.0 Ft.
b=5.0 Ft.

*When B is < 6.0'

Type of Liner = CLASS 'B' Rip-Rap

FROM -Y8- STA. 13+84 TO STA. 18+50 RT

DETAIL 1
SPECIAL CUT DITCH
(Not to Scale)

Min. D= 1.0 Ft.

FROM -Y22- STA. 11+50 TO STA. 12+30 RT

NAD 83/NA 2011

-Y8- STA. 22+38.00
END CONST.

-Y8- POT Sta. 23+14.08

-Y8- PT Sta. 18+36.50

-Y8- PC Sta. 13+88.55

MATCHLINE SHEET 13
-Y8- STA. 13+00.00

MATCHLINE SHEET 14
-Y22- STA. 13+10.00

-Y8- POC Sta. 15+27.66=
-Y22- POT Sta. 10+00.00

N 44° 23' 30.6" E

-Y22- PC Sta. 10+16.41

-Y22- PT Sta. 11+48.42

-Y8-	-Y22-
PI Sta 16+23.54	PI Sta 10+89.32
Δ = 42° 46' 34.8" (RT)	Δ = 60° 30' 29.1" (LT)
D = 9° 32' 57.5"	D = 45° 50' 11.8"
L = 447.95'	L = 132.01'
T = 234.99'	T = 72.91'
R = 600.00'	R = 125.00'
SE = 04	
RO = 160'	

R5705-AZ14 = BY8

BY8-114

OCEAN 3 LLC
DB 2430 PG 397

LINDERMAN PROPERTIES LLC
DB 3329 PG 971
MB 2016 PG 135

RICHARD BULLOCK
DB 8191 PG 168

NANCY GILES
DB 1018 PG 831

MICKEY BARBOUR
DB 16870 PG 1325
MB 2017 PG 287

RICHARD BULLOCK
MB 2017 PG 287

STUART MATTHEWS
DB 2459 PG 81

RUTH PETREA
DB 13020 PG 154

RANDY SMITH
DB 5189 PG 84

RICHARD DWIGHT BULLOCK
DB 17155 PG 2388
MB 2017 PG 287

RICHARD BULLOCK
DB 15410 PG 1000

SUNNI SKYS LLC
DB 13623 PG 2473

CAROLINA CHARTER ACADEMY HOLDINGS LLC
DB 18395 PG 1880
PB 2018 PG 2240

400' UNIFORM TRANSITION
(RIGHT LANE DROP)

SEE SHEET 33 FOR -Y8- PROFILE
SEE SHEET 37 FOR -Y22- PROFILE

12/14/2021
K:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_22.dgn
User:kevans

PROJECT REFERENCE NO.	SHEET NO.
R-5705B	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

REVISIONS
8/17/99
6-23-2021 REVISED DESIGN FOR -Y12_REV- AND -Y12A_REV- ALONG WITH R/W AND EASEMENTS FOR PARCELS 246,247,248,249,251 & 301.(DBE)

6/23/2021
R:\NCDOT\R-5705B\Roadway\Proj\R5705B_Rdy_psh_23.dgn
User:eyons

NAD 83/NA 2011

MATCHLINE SHEET 16
-Y12_REV- STA. 12+07.69

-Y12_REV- PT Sta. 12+50.05

-Y12_REV- STA. 12+94.64
-Y12A_REV- 10+00.00

-Y12_REV- PC Sta. 15+81.47

-Y12_REV- STA. 19+47.60
END CONST.

-Y12- POT Sta. 20+96.76

-Y12A_REV- STA. 11+88.00
END CONST.

-Y12A_REV- POT Sta. 12+56.07

-Y12_REV- PC Sta. 16+57.50

-Y12_REV- PT Sta. 19+09.66

-Y12_REV- POT Sta. 19+47.60

-Y12- PT Sta. 19+41.10

100' TAPER

37.95' TAPER

UNIFORM TRANSITION

146.37'

145.62'

BY12-117

N 29°16'09" E 335.85'

N 29°13'48" E 400.29'

N 27° 45' 36.1" E

N 29° 12' 17.1" E

N 28° 18' 13.9" E

S 60° 44' 31" E

S 60°43'57" E 230.00'

N 29°28'53" E 335.17'

N 29°16'07" E 150.00'

N 29°16'07" E 235.00'

KENNEBEC FLYING CLUB
DB 1099 PG 2406
MB 2004 PG 1049

BOBBY TERRY
DB 16685 PG 561
MB 1981 PG 574

ANGELA MITCHELL
DB 8297 PG 1736
MB 1981 PG 975

RANDY GRIMES
DB 3247 PG 26
MB 1984 PG 262

JOHN JANKENS
DB 3939 PG 110
MB 1984 PG 262

DANIEL POOLE
DB 3389 PG 926
MB 1984 PG 262

MICHAEL MARSH
DB 3811 PG 915
MB 1984 PG 262

RUDINE BODDIE
DB 16782 PG 1368
MB 2008 PG 2308

DO NOT DISTURB RUNWAY LIGHTS

DO NOT DISTURB FENCE

CLASS I RIP RAP
EST. 9 TONS
GEOTEXTILE- 10sy

-Y12_REV-

PI Sta 11+80.56
Δ = 14° 33' 28.7" (LT)
D = 10° 25' 02.7"
L = 139.75'
T = 70.25'
R = 550.00'

PI Sta 17+61.34
Δ = 3° 26' 03.2" (RT)
D = 0° 57' 17.7"
L = 359.63'
T = 179.87'
R = 6,000.00'

-Y12_REV-

PI Sta 17+83.59
Δ = 1° 26' 41.0" (RT)
D = 0° 34' 22.6"
L = 252.15'
T = 126.08'
R = 10,000.00'

SEE SHEET 35 FOR -Y12_REV- & -Y12A_REV- PROFILES