STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

January 29, 2013
Revised February 15, 2013

Wilmington Regulatory Field Office
US Army Corps of Engineers
69 Darlington Avenue
Wilmington, North Carolina 28403

ATTN: Mr. Brad Shaver
NCDOT Coordinator

Dear Sir:

Subject: **Request for Modification to Individual Section 404 and Section 401 Water Quality Certification** for the proposed improvements to NC 24 from SR 1853 (John Nunnery Rd.) in Cumberland to US 421-701/SR 1296 (Sunset Avenue) in Sampson County. Federal Aid Project No. STPNHF-F-8-2(17), TIP No. R-2303B, C, and D. Debit $570.00 from WBS 34416.

References: Section 404 Individual Permit signed December 20, 2012 (SAW-1992- 03237) for R-2303
Section 401 Water Quality Certification ~~and Neuse Buffer Authorization~~ issued September 24, 2012 (20120240) for R-2303

This cover letter reflects revisions to the modification request dated January 29, 2013. Changes are provided in italics. The purpose of this letter is to submit the final design and revised impact calculations for modification of the Clean Water Act (CWA) Section 404 Individual Permit (IP) and Section 401 Water Quality Certification for R-2303B, C, and D. Included in this application package are the following: revised permit drawings, revised roadway plans, utility drawings, *revised Mitigation Plan, and revised EEP request letters. Revised EEP Acceptance Letters will be forthcoming.*

Permit History

In addition to R-2303B, C, and D there are three other sections associated with this project. A phased permit was issued in December 2012 where the A section was permitted with final design, and sections B through F were permitted with only preliminary design. This modification request only updates the final impacts to the R-2303B, C, and D sections of this project.

The revised design does not compromise NCDOT's compliance with the existing permit conditions. The revision has been evaluated for compliance with the avoidance/minimization criteria and is in compliance with all previous issues, including the following:

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

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

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

- Aquatic life passage
- FEMA compliance
- Cultural Resources
- Indirect and Cumulative Effects

Table 1. Project Schedule for R-2303B, C, and D

Section	Letting Type	Let Date
R-2303B	Traditional	May 21, 2013
R-2303C	Traditional	July 16, 2013
R-2303D	Traditional	July 16, 2013

Impacts to Jurisdictional Resources

Final wetland impact amounts increased only slightly in the B section, but wetland impacts within the C and D section went up from the original application numbers. The stream impacts did not change within the B section, but impacts went down in the C section and up in the D section. The main reason for the changes in impacts was from an updated wetland and stream delineation for all sections. Final design for sections B, C, and D has been updated. We have also added the utility impacts. Impacts to jurisdictional wetlands and surface waters for R-2303B, C, and D are summarized below in Tables 2 - 8.

Table 2. R-2303B Wetland Impacts

Permit Drawing Site Number (2012)	Map Label in FEIS (2010)	Type	Permanent Impacts (ac.)	Temporary Impacts (ac.)	Mitigation Required*
1	37	Riparian	1.4	0	Yes
2	37,39	Riparian	0.09	0	Yes
3	40	Non-Riparian	0.03	0	Yes
5	42	Riparian	0.04	0	Yes
7B	44	Riparian	0.27	0	Yes
8	46	Non-Riparian	0.09	0	Yes
10	73	Non-Riparian	0.15	0	*Yes****
11	76	Non-Riparian	0.11	0	Yes
12	75	Non-Riparian	0.31	0	Yes
14	82	Non-Riparian	0.13	0	Yes
15	83	Riparian	2.54	0	Yes
16	84	Non-Riparian	0.32	0	Yes
17	85	Non-Riparian	0.07	0	Yes
21	92-94	Riparian	0.20	0.12	Yes
		Total:	**5.75****	**0.12**	

*For permanent impacts
**An increase of 0.05 ac. from the original application
*** *This is a resource that is regulated by the NCDWQ but not by the USACE.*

Table 3. R-2303C Wetland Impacts

Permit Drawing Site Number (2012)	Map Label in FEIS (2010)	Type	Permanent Impacts (ac.)	Temporary Impacts (ac.)	Mitigation Required*
1	96	Non-Riparian	1.18	0	Yes
2	97	Riparian	0.31	0	Yes

Permit Drawing Site Number (2012)	Map Label in FEIS (2010)	Type	Permanent Impacts (ac.)	Temporary Impacts (ac.)	Mitigation Required*
5	105	Non-Riparian	1.31	0	Yes
6	108, 109	Riparian	0.14	0	Yes
7	113	Riparian	2.51	0	Yes
8	116	Riparian	0.01	0	Yes
9	118	Riparian	0.68	0	Yes
10	119	Riparian	0.26	0	Yes
12	126, 127	Riparian	4.24	0	Yes
13	128, 129	Non-Riparian	0.38	0	Yes
14	131, 132	Non-Riparian	0.66	0	Yes
16	135	Non-Riparian	0.08	0	Yes
18	137, 138	Riparian	0.66	0	Yes
19	139, 140	Riparian	0.58	0	Yes
20	141, 142	Riparian	0.95	0	Yes
21	143	Non-Riparian	0.06	0	Yes
24	145	Non-Riparian	0.02	0	Yes
		Total:	***14.03****	**0**	

*For permanent impacts
** An increase of *1.9* ac. from the original application

Table 4. R-2303D Wetland Impacts

Permit Drawing Site Number (2012)	Map Label in FEIS (2010)	Type	Permanent Impacts (ac.)	Temporary Impacts (ac.)	Mitigation Required*
1	146	Riparian	0.4	0	Yes
2	147	Riparian	0.75	0	Yes
3	149	Non-Riparian	0.59	0	Yes
4	150	Non-Riparian	1.35	0	Yes
5	151	Non-Riparian	0.15	0	Yes
6	152, 153	Riparian	0.1	0	Yes
7	153	Riparian	0.1	0	Yes
8	153	Riparian	0.02	0	Yes
9	154	Non-Riparian	<0.01	0	Yes
10	155	Riparian	0.42	0	Yes
11	156, 157	Riparian	0.37	0	Yes
12	155, 156, 157	Riparian	0.1	0	Yes
14	164	Riparian	*0.05*	0	Yes
15	164	Riparian	1.55	0	Yes
16***	161, 163	Riparian	0.11	0	Yes
18	165	Riparian	*1.44*	0.33	Yes
19***	167	Riparian	*0.62*	0	Yes
21	N/A	Non-Riparian	0.44	0	Yes
		Total:	***8.56****	**0.33**	

*For permanent impacts
** An increase of *0.18* ac. from the original application
*** Excluding excavation at sites 16 and 19 for wetland enhancement

Table 5. R-2303B Surface Water Impacts

Permit Drawing Site Number	Waterbody	Permanent (ft)	Temporary (ft)	Permanent (ac.)	Temporary (ac.)	Mitigation Required*
4	pond	0	0	0.25	0	No
6	pond	0	0	0.19	0	No
7A	stream	158	0	0.02	0	Yes
9	pond	0	0	0.73	0	No
13	ditch	0	0	<0.01	<0.01	No
18	ditch	0	0	<0.01	<0.01	No
19	pond	0	0	0.44	0	No
20	ditch	0	0	<0.01	<0.01	No
21	stream	138	113	0.05	<0.01	Yes
****Total:**		**296**	**113**	**1.70**	**0.02**	

* For permanent impacts
** No Change from Original Permit

Table 6. R-2303C Surface Water Impacts

Permit Drawing Site Number	Waterbody	Permanent (ft)	Temporary (ft)	Permanent (ac.)	Temporary (ac.)	Mitigation Required*
1	stream	84	10	0.01	<0.01	Yes
2	ditch	0	0	0.01	<0.01	No
3	pond	0	0	1.26	0.08	No
4	ditch	0	0	0.04	0	No
5	pond	0	0	0.45	0	No
6	stream	223	20	0.01	<0.01	Yes
7	stream	299	21	0.07	<0.01	Yes
9	stream	310	20	0.04	<0.01	Yes
10	stream	342	20	0.08	<0.01	Yes
11	pond /stream	329	20	0.26	<0.01	Yes
15	pond/stream	48	10	3.22	<0.01	Yes
17	pond	0	0	0.34	0	No
18	stream	281	20	0.02	<0.01	Yes
19	stream	100	10	0.01	<0.01	Yes
22	stream	36	20	0.01	<0.01	Yes
23	stream	147	10	0.02	<0.01	Yes
Total:		**2199****	**181**	**5.85**	**0.1**	

* For permanent impacts
**A decrease of 791 lf. from the original application

Table 7. R-2303D Surface Water Impacts

Permit Drawing Site Number	Waterbody	Permanent (ft)	Temporary (ft)	Permanent (ac.)	Temporary (ac.)	Mitigation Required*
2	stream	171	22	0.02	<0.01	Yes
6	stream	35	11	0.01	0.01	Yes
7	stream	33	16	<0.01	<0.01	Yes
12	stream	362	0	0.05	0.01	Yes
13	stream	454	10	0.03	<0.01	Yes
14	stream	317	20	0.09	<0.01	Yes
15	stream	149	20	0.07	<0.01	Yes
16***	pond/wetland	0	0	0.35	0	No
17	pond	0	0	0.02	0	No
20	stream	44	0	0.01	0	Yes
22	stream	255	25	0.03	<0.01	Yes
23	stream	19	8	<0.01	<0.01	Yes
24	stream	26	0	0.01	0	Yes
	Total:	**1,865****	**132**	**0.69**	**0.05**	

* For permanent impacts
** An increase of 73 lf. from the original application
*** Mitigation site

Permanent Impacts: Proposed permanent impacts for R-2303B, C, and D include fill, excavation, and mechanized clearing in wetlands. This includes impacts to *20.95* acres of riparian wetlands and *7.55* acres of non-riparian wetlands. Proposed permanent impacts to streams are *4,360* linear feet.

Temporary Impacts: There is 0.45 acre of temporary impacts to riparian wetlands for R-2303B, C, and D. Proposed temporary impacts to surface waters is 410 linear feet.

Utility Impacts: Within these sections of R-2303 there will be power, telephone, and water. Permanent impacts come as a result of excavation for water line relocations and minor fill due to utility pole relocations. Permanent impacts (excavation) total 0.16 acre (0.04 riparian and 0.12 non-riparian) within the B section, less than 0.01acre in the C section, and less than 0.01acre in the D section. *Within the B section sites 3 (0.01ac.), 4 (0.1 ac.), and 6 (0.01 ac.) are in non-riparian wetlands. Site 7 (0.04 ac.) of the B section is within a riparian wetland.*

Hand Clearing: The hand clearing totals due to the project construction are 3.7 acres in the B section, 0.23 acre in the C section, and 2.2 acres in the D section. Hand clearing totals due to the utility construction is 0.08 acre in the B section, 1.88 acres in the C section, and 0.8 acre in the D section.

Table 8. Summary of Wetland and Stream Impacts for R-2303B, C, and D

Section	Permanent Wetland (ac.)		Temporary Wetland (ac.)		Permanent Stream (lf.)	Temporary Stream (lf.)
	Riparian	Non-riparian	Riparian	Non-riparian		
B	4.58	1.33	0.12	0	296	113
C	*10.34*	3.69	0	0	2,199	181
D	*6.03*	2.53	0.33	0	1,865	132
Total	***20.95***	**7.55**	**0.45**	**0**	**4,360**	**426**

Avoidance and Minimization

All jurisdictional features were delineated, field verified and surveyed within the corridor for R-2303. Using these surveyed features, final designs were adjusted to avoid and/or minimize impacts to jurisdictional areas. NCDOT employs many strategies to avoid and minimize impacts to jurisdictional areas in all of its designs. Many of these strategies have been incorporated into BMP documents that have been reviewed and approved by the resource agencies and which will be followed throughout construction. All wetland areas not affected by the project will be protected from unnecessary encroachment. Individual avoidance and minimization items are as follows:

- No staging of construction equipment or storage of construction supplies will be allowed in wetlands or near surface waters.
- The project was designed to avoid or minimize disturbance to aquatic life movements.
- NCDOT and its contractors will not excavate, fill, or perform land clearing activities within Waters of the U.S. or any areas under the jurisdiction of the USACE, except as authorized by the USACE. To ensure that all borrow and waste activities occur on high ground, except as authorized by permit, the NCDOT shall require its contractors to identify all areas to be used to borrow material, or to dispose of dredged, fill or waste material. Documentation of the location and characteristics of all borrow and disposal sites associated with the project will be available to the USACE on request.
- Preformed Scour Holes will be used where practicable.
- Storm water will be treated using grass swales and an infiltration basin.
- NCDOT will implement Best Management Practices for Bridge Demolition and Removal.
- NCDOT will implement Best Management Practices for the Protection of Surface Waters.
- Special Sediment Control Fence will be used were applicable
- Bridge lengths have been designed to avoid impacts to higher quality wetlands, improve hydrology, and wildlife passage.
- Perpendicular stream crossings will be used where possible.
- 3:1 side slopes will be used within the jurisdictional areas.
- Bank stabilization will not place rip-rap in stream bottom and will reduce erosion and sedimentation.
- Reduced median width.
- Equalizer pipes at Site 2 will improve connectivity of and maintain sheet flow between adjacent wetlands.

Summary of Mitigation

The proposed construction of R-2303B, C, and D will impact *20.95* acres of riparian and 7.55 acres of non-riparian wetlands that will require mitigation. Within the B section, the impacts to 4.58 acres of riparian wetlands will be offset by *5.13* acres of on-site riparian wetland mitigation. The extra *0.55* acre of onsite from the B section will be applied to the impacts within the C section. The 1.33 acres of non-riparian impacts from the B section will be offset by compensatory mitigation provided by the EEP.

The C section has *10.34* acres of riparian wetland impacts that will mitigated by the 2.5 acres of on-site mitigation within this section, plus the extra *0.55* acre from the B section. The remaining impacts to *7.29* acres of riparian wetlands and 3.69 acres of non-riparian wetlands will be offset by compensatory mitigation provided by the EEP.

The D section has *6.03* acres of riparian wetland impacts that will mitigated by the 2.68 acres of on-site mitigation within this section. The remaining impacts to *3.35* acres of riparian wetlands and 2.53 acres of non-riparian wetlands will be offset by compensatory mitigation provided by the EEP.

Permanent stream impacts for the B section total 296 linear feet, *which will be mitigated by EEP*. The 2,199 linear feet of permanent stream impacts on the C section will be mitigated by the 550 linear feet of on-site mitigation and the difference *(1,649 linear feet)* will be offset by compensatory mitigation provided by the EEP. Of the 1,865 linear feet of permanent stream impacts within the D section 56 linear feet will be covered by on-site and the remaining 1,809 linear feet will be provided by the EEP.

Table 9. Summary of On-site Riparian Wetland Mitigation for R-2303

Section	Riparian Wetland Mitigation (ac) (Ratio)			Total Credits Proposed (ac)*
	Restoration (1:1)	Enhancement (5:1)	Preservation (10:1)	
R-2303B (Site 1)	*1.84*	1.08	0.02	***5.13***
R-2303B (Site 2)	2.19	0	0	
R-2303C (Site 1)	2.5	0	0	**2.5**
R-2303D (Site 1)	1.55	0.26	0	**2.68**
R-2303D (Site 2)	0.87	0	0	

Table 10. Summary of On-site Stream Mitigation for R-2303

Section	Stream Mitigation (lf) (Ratio)			Total Credits Proposed (lf)*
	Restoration (1:1)	Preservation (10:1)	NSD**	
R-2303C (Site 1)	550	0	0	**550**
R-2303D (Site 22)	0	0	56	**56**

** Natural Stream Design

Protected Species

The United States Fish and Wildlife Service (USFWS) list 8 federally protected species for Cumberland, Sampson, and Duplin Counties as of the September 22, 2010 listing (Table 7).

Table 11. Federally Protected Species in Cumberland, Sampson, and Duplin Counties

Scientific Name	Common Name	County	Federal Status	Habitat	Biological Conclusion
Alligator mississippiensis	American alligator	C, S, D	T(S/A)	Yes	N/A
Picoides borealis	Red-cockaded woodpecker	C, S, D	E	Yes	No Effect
Mycteria americana	Wood stork	S	E	No	No Effect
Neonympha mitchellii francisci	Saint Francis' satyr butterfly	C	E	No	No Effect
Schwalbea americana	American chaffseed	C	E	No	No Effect
Rhus michauxii	Michaux's sumac	C	E	No	No Effect
Lindera melissifolia	Pondberry	C, S	E	No	No Effect
Lysimachia asperulaefolia	Rough-leaved loosestrife	C	E	No	No Effect

Key: C= Cumberland, S= Sampson, D= Duplin, E= Endangered, T(S/A) = Threatened (Similarity of Appearance)

A review of the North Carolina Natural Heritage Program (NCNHP) database, updated October 2011, indicated one occurrence of a Red-cockaded woodpecker nest site within one mile of the project study area. A record from 1979 documenting a RCW nest site in the Town of Autryville (EO14156). No new information has been added by NHP regarding this historic element occurrence since our February 2012 NHP search. Nest tree surveys conducted in this area revealed no cavity trees. Since the FEIS, the wood stork has been added to Sampson County. During recent fieldwork no nests or wood storks were observed. A call of no effect was determined after a phone conversation (2/16/2012) with Gary Jordan (USFWS) concerning the lack of nests in Sampson County.

Bald and Golden Eagle Protection Act (BGPA)

In the July 9, 2007 Federal Register (72:37346-37372), the bald eagle was declared recovered, and removed (de-listed) from the Federal List of Threatened and Endangered wildlife. This delisting took effect August 8, 2007. After delisting, the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d) became the primary law protecting bald eagles. Habitat for the bald eagle is not present due to the lack of large water bodies in the study area.

Regulatory Approvals

Section 404: We are, therefore, requesting the modification of the USACE Individual 404 Permit signed December 20, 2012 (SAW 1992-03237), for the above-described activities. NCDOT will apply for a permit modification when designs are finalized and before construction commences on Sections E and F.

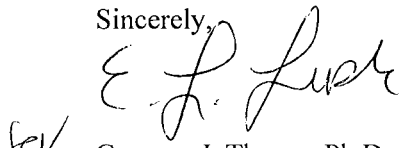
Section 401: We are hereby requesting a modification to the 401 Water Quality Certification from the NCDWQ issued September 24, 2012 (DWQ No.20120240). In compliance with Section 143-215.3D(e) of the NCAC, we will provide $570.00 to act as payment for processing the Section 401 permit modification. We are providing two (2) copies of this modification request to the NCDWQ, for their approval.

We respectfully request consideration of an expedited permit modification for Section B, given that impacts have increased only by 0.21 acre. ***If it is anticipated that issuance of final permit modifications for Sections B, C, and D is not achievable by February 26, 2013 we respectfully request issuance of the final permit modification for Section B only by February 26, 2013; holding processing of Sections C and D until further notice.***

A copy of this permit application and its distribution list will be posted on the NCDOT website at: http://www.ncdot.org/doh/preconstruct/pe/neu/permit.html

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Chris Manley at 919-707-6135 or cdmanley@ncdot.gov.

Sincerely,



fcv

Gregory J. Thorpe, Ph.D., Manager
Project Development and Environmental Analysis Unit

cc:

NCDOT Permit Application Standard Distribution List.

Mitigation Plan

NC Highway 24 Improvements
Sampson County, North Carolina
T.I.P. Number R-2303
WBS No. 34416
February 22, 2013

Transportation Improvement Project (TIP) R-2303 involves improvements to existing NC Highway 24 from 2.8 miles eastward of Interstate 95 (I-95) in Cumberland County to Interstate 40 (I-40) in Duplin County. The project is located within USGS Hydrologic Cataloging Unit (HUC) 03030006, and NC Division of Water Quality (NCDWQ) sub-basins 03-06-18 and 03-06-19 within the Cape Fear River Basin. NCDOT proposes to mitigate for permanent impacts to jurisdictional areas requiring mitigation through the following sources: NCDOT Umbrella Mitigation Banking Instrument (UMBI), onsite mitigation, and the Ecosystem Enhancement Program (EEP).

NCDOT UMBI SITE – PRIVATEER FARM (ONE ID #026-005)

The Privateer Farm stream and wetlands restoration site is located in USGS HUC 03030005 and NCDWQ Cape Fear River sub-basins 15 and 16 along Little Alligator Swamp and Harrison Creek. It is located in the Southeastern Plains Level III Ecoregion (Southeastern Floodplains and Low terraces Level IV Ecoregion) and includes portions of Cumberland and Bladen counties, approximately 6 miles from the southern boundary of CU 03030004. The Site has been closed out for monitoring and was incorporated into NCDOT's UMBI.

The NCDOT debit ledger below (as of July 24, 2012) includes the debit of 7.38 acres of riparian wetland restoration to mitigate for 2.46 acres of riparian impact for R-2303A at a 3:1 ratio.

Site Name	River Basin	HUC	Mitigation Type	Transfer from EEP	Available	TIP Debit	TIP Debit	TIP Debit
Privateer Site	Cape Fear	3030005				U-2519**	U-2519 MOD**	R-2303A**
**Out of service area ratios: 1.5:1 ratio for stream impacts 3:1 for wetland impacts			Warm Stream Restoration	25,676	7,157	18,519		
			Riverine Wetland Restoration	185.58	32.22	145.29	0.69	7.38

ON-SITE MITIGATION

1.0 BASELINE INFORMATION

TIP R-2303 involves improvements to existing NC Highway 24 from 2.8 miles eastward of Interstate 95 (I-95) in Cumberland County to Interstate 40 (I-40) in Duplin County. The study corridor for this project ranges from 400 feet wide for widening sections to 1000 feet wide for bypass areas and is situated within the inner Coastal Plain physiographic province. Topography within the study area is described as nearly level to sloping with the majority of the topographic breaks found near the larger wetland systems. Land use within the project study area between towns is mostly rural in nature and includes a mixture of agricultural, residential, silvicultural, and industrial uses.

The project is located within USGS Hydrologic Cataloging Unit 03030006, and NC Division of Water Quality (NCDWQ) sub-basins 03-06-18 and 03-06-19 within the Cape Fear River Basin. Sub-basin 03-06-18 includes the South River and its tributaries as well as Big Swamp and its tributaries while sub-basin 03-06-19 includes Little Coharie Creek, Bearskin Swamp, Moccasin Branch, Great Coharie Creek, Six Runs Creek, and Buckhall Creek along with all their tributaries.

The R-2303 Natural Resources Technical Report (NRTR) dated January 2004 provides further details concerning existing roadway/project study area conditions and jurisdictional resources. The mitigation site selection and mitigation work plan sections of this plan will refer to the identification labels given the affected jurisdictional resources in that document as well as the Final Environmental Impact Statement (FEIS) dated 3-31-2010.

2.0 SITE SELECTION

R-2303B Mitigation Site 1 (ONE ID #082-007)

This site begins on plan sheet 8 south of Station 423+50 Rt. at the existing intersection of Gray Street and Old Stage Road and ends south of Station 439 Rt. on plan sheet 9. It is part of the South River watershed and involves a series of ponds (43 and 45) as well as three jurisdictional wetlands (42, 44 and 46), and one intermittent stream (SR4) that flows out of pond 43. Lynn Haven sand, a hydric soil in Sampson County, is the soil type found within this area.

R-2303B Mitigation Site 2 (ONE ID #082-008)

This site begins on plan sheet 26 at Sta. 680+20 Lt. at the ROW line and ends on plan sheet 27 at Sta. 685+50.38 Lt. at Boren Brick Road. The pond (88) will be drained as part of the construction of R-2303B. Currently, the pond connects a jurisdictional wetland area upstream to jurisdictional wetlands and a UT to Big Swamp downstream through a series of pipes under Boren Brick Road and existing NC Hwy 24. The existing wetland system above Boren Brick Road, wetland 88A, will

be used as the reference wetland system.

R-2303C Mitigation Site 1 (ONE ID #082-009)

This site is located on plan sheet 23 from approximately Sta. 1000 to 1005 Lt. The pond (133) will be drained as part of the construction of R-2303B. The pond is surrounded by Wagram loamy sand soils. It has a headwater wetland system located adjacent to its northeastern corner and outflows into a UT to Little Coharie (LC11) through a 36" pipe under existing NC Hwy 24.

R-2303D Mitigation Site 1 (ONE ID #082-010)

This site is located on plan sheet 18 northwest of approximate Sta. 1290 to 1295 Lt. Wetland 161 located adjacent to NC Hwy 24 is a riparian wetland that is bisected by the existing causeway of NC 24. A portion of Wetland 161 has been clear cut. This wetland also includes an excavated pond and side cast spoil. Soils within this mitigation area are either Johns fine sandy loam or Kalmia sandy loam. Both are non-hydric with hydric inclusions in Sampson County.

R-2303D Mitigation Site 2 (ONE ID #082-011)

This site is located on plan sheet 20 from approximately Sta. 1321+50 Lt. to Sta. 1325+50 Lt. on plan sheet 21. It is bordered on the north and west by wetland 165 and on the east by wetland 167. The soils in this area are mapped as Paxville fine loamy sand, a hydric soil in Sampson County. Wetland 165 is part of a 4600 acre NCEEP high quality wetland mitigation site known as the Great Coharie Tract (GCT). An old abandoned causeway extends into the wetland from NC Hwy 24.

3.0 SITE PROTECTION INSTRUMENT

The mitigation areas are presently located within or will be located within the NCDOT Right-of-Way for the project. They will be managed to prohibit all use inconsistent with its use as mitigation property, including any activity that would materially alter the biological integrity or functional and educational value of the site, consistent with the mitigation plan.

The site is designated on the plan sheets as a mitigation area and will placed on the Natural Environment Section's Mitigation GeoDatabase. This database is provided to all NCDOT personnel as a record of mitigation sites and their attributes, including prohibited activities. NCDOT is held by virtue of the permit associated with this mitigation site and the associated roadway impacts to protect the site in perpetuity.

4.0 OBJECTIVES

The goal of the proposed onsite mitigation is to mitigate for impacts due to R-2303 by restoring adjacent wetland and stream systems to their natural conditions through the removal of the degrading factors of ponding, fill, and disturbance. This will be achieved on seven individual sites

described below for a total of 15.89 acres of wetland and 900 feet of stream.

5.0 MITIGATION WORK PLAN

Each mitigation site will be constructed along with the construction of its associated section of the roadway project. Following the successful completion of site grading and stabilization, each site will be replanted with appropriate native tree species. Wetland restoration areas will be planted with a mix of bare-root tree species at a density of 680 stems per acre. The stream restoration areas will be stabilized by planting a mix of live stakes on three foot centers and matting with coir fiber on the banks as necessary. Reforestation plans for each can be found in Appendix B.

Native wetland seed and mulch will be applied on all disturbed areas within the mitigation sites for stabilization purposes according to guidance and standard procedures of NCDOT's Roadside Environmental Unit. An as-built report will be submitted within 60 days of completion of the project.

The Natural Environment Section shall be contacted to provide construction assistance to ensure that each mitigation area is constructed appropriately.

R-2303B Mitigation Site 1

NCDOT will drain P43 and P45 in conjunction with the construction of R-2303B. Based on topography and soils, the draining of these two features will result in restoration of a total of 1.84 acres of riparian wetlands. It will also result in the enhancement of 5.41 acres of wetlands (wetlands 42 and 44) and the preservation of 0.23 acres at wetland 46.

R-2303B Mitigation Site 2

NCDOT will restore 2.19 acres of riparian wetlands at Site 2. The pond associated with this mitigation area, identified as 88 in the NRTR, will be drained as part of the construction of R-2303B. The existing 30" pipe under NC Hwy 24 will be replaced and the invert of the new structure will be adjusted to assist in the wetland restoration within the drained pond 88.

Wetland 88a is a riparian wetland located on the east side of Boren Brick Road. It will be used as a reference for the reforestation plan of wetland restoration within pond 88. Soils within this wetland as well as adjacent to the pond are mapped as Aycock silt loam, a non-hydric soil in Sampson County, as well as Nahunta loam, a non-hydric soil with hydric inclusions.

R-2303C Mitigation Site 1

The pond associated with this mitigation area, identified as 133 in the NRTR, will be drained as part of the construction of R-2303C. The existing pipe under NC Hwy 24 will be replaced and the invert of the new structure will be adjusted to assist in the wetland and stream restoration within the drained pond 133. This new structure will outfall into LC11, a UT to Little Coharie. LC11 has a C Sw classification and is a Rosgen E type channel. Based on valley length and topography, NCDOT will restore 550 ft. of the stream system within this drained pond area as well as restore 2.5 acres of riparian wetlands.

R-2303D Mitigation Site 1

This site involves removing a portion of pavement and causeway along existing NC 24 and grading to match elevations within the adjacent Wetland 161. It also involves backfilling the existing pond with material side cast to match the existing, adjacent wetland elevation. The clear cut portion of Wetland 161 within the ROW will be revegetated. This work will result in the restoration of 1.55 acres and enhancement of 1.3 acres of riparian wetland.

R-2303D Mitigation Site 2

This site involves the removal of an old roadway causeway and grading to match elevations within the adjacent Wetlands 165 and 167. NCDOT will restore 0.87 acres of riparian wetland in this area.

6.0 PERFORMANCE STANDARDS

The hydrologic success criteria requires that the site demonstrate saturation or inundation within 12 inches of the soil surface for a consecutive 12.5% of the growing season during years of normal rainfall. Groundwater monitoring gauge will be installed in existing, adjacent reference wetlands where practical and feasible for comparison to groundwater gauges throughout the restoration and enhancement (B site 1) areas.

Success for vegetation monitoring within the riparian buffer and wetland areas are based on the survival of at least 260 stems of five year old trees at year five. Assessment of channel stability will be based on the survival of riparian vegetation and lack of significant bank erosion, channel widening or down-cutting.

7.0 MONITORING REQUIREMENTS

Groundwater gauges will be installed within the wetland enhancement (on B Site 1) and restoration areas as for hydrologic monitoring. Gauges will be placed within the enhancement areas pre-construction to collect baseline data for comparison, analysis, and determination of enhancement area boundaries. Number and placement of gauges will be site specific and determined based on contour intervals.

The following components of Level 1 stream restoration monitoring will be performed each year of the 5-year monitoring period: reference photos, visual inspection of channel stability, and plant survival. Specific problem areas and proposed/required remedial action will be identified.

Vegetation monitoring will consist of counts of planted stems within 50 x 50 foot plots established within the restoration and enhancement (D site 1) areas. Plot locations will be randomly selected.

These monitoring activities will be conducted for five years and documented in an annual report distributed to the regulatory agencies.

8.0 OTHER INFORMATION

N/A

9.0 DETERMINATION OF CREDITS

Based on field and meeting discussions with agency representatives and per the NCDOT plans and 401/404 permit application for R-2303; NCDOT proposes the following types of mitigation and ratios for each site.

Roadway Section Site Number	Wetland Restoration Acres (1:1)	Wetland Enhancement Acres (5:1)	Wetland Preservation Acres (10:1)	Stream Restoration Feet (1:1)	Stream Preservation Feet (10:1)
B Site1	1.84	5.41	0.23		
B Site 2	2.19	-	-	-	-
C Site 1	2.5	-	-	550	-
D Site 1	1.55	1.3	-	-	-
D Site 2	0.87	-	-	-	-

An as-built report will be submitted within 60 days of completion of the each mitigation site to verify actual mitigation areas constructed and planted. The success of the mitigation areas and determination of final credits will be based upon successful completion and closeout of the monitoring period.

9.1 CREDIT RELEASE SCHEDULE

NCDOT proposes immediate, full release of the proposed mitigation as on-site mitigation for unavoidable impacts associated with R-2303.

10.0 GEOGRAPHIC SERVICE AREA

The proposed Geographic Service Area (GSA) for the mitigation sites is composed of the 8-digit Hydrologic Cataloging Unit (HUC) 03030006.

11.0 MAINTENANCE PLAN

The mitigation site will be held by NCDOT and placed on the NES mitigation geodatabase. Once monitoring is completed and the site is closed out, it will be placed in the NCDOT Stewardship Program for long term maintenance and protection.

If an appropriate third party recipient is identified in the future, then the transfer of the property will include a conservation easement or other measure to protect the natural features and mitigation value of the site in perpetuity.

12.0 LONG TERM ADAPTIVE MANAGEMENT PLAN

The sites will be managed by the NCDOT according to the mitigation plan. Beaver management will be instituted during the monitoring period if necessary. Encroachments into the mitigation areas will be investigated and appropriate measures taken to minimize any negative effects. In the event that unforeseen issues arise that affect the management of the site, any remediation will be addressed by NCDOT in coordination with the Interagency Review Team.

13.0 FINANCIAL ASSURANCES

NCDOT is held by permit conditions associated with R-2303 to preserve the mitigation areas. NCDOT has established funds for each project and within each Division to monitor mitigation sites and to protect them in perpetuity.

ECOSYSTEM ENHANCEMENT PROGRAM

Mitigation Total for Sections A-F*

Cape Fear 03030006 SICP	Stream			Wetland			Buffer (sq. ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts (feet/acres)	0	0	9186**	31.68	15.11	0	0	0

*See Appendix A for individual EEP Mitigation Acceptance Letters

APPENDIX A – EEP letters

Ecosystem Enhancement PROGRAM

February 19, 2013

Mr. Gregory J. Thorpe, Ph.D.
Manager, Project Development and Environmental Analysis Unit
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

Subject: EEP Mitigation Acceptance Letter:

R-2303B, NC 24 from SR 1853 (John Nunnery Road) to SR 1404 (Dowdy Road), Cumberland and Sampson Counties

The purpose of this letter is to notify you that the Ecosystem Enhancement Program (EEP) will provide the compensatory stream and non-riparian wetland mitigation for the subject project. Based on the information supplied by you on February 13, 2013, the impacts are located in CU 03030006 of the Cape Fear River basin in the Southern Inner Coastal Plain (SICP) Eco-Region, and are as follows:

Cape Fear 03030006 SICP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1	Zone 2
Impacts* (feet/acres)	0	0	296	0	1.33	0	0	0

*Some of the stream and wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

This mitigation acceptance letter replaces the mitigation acceptance letters issued on February 28, 2012 and January 29, 2013. EEP commits to implementing sufficient compensatory non-riparian wetland mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies in accordance with the N.C. Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument dated July 28, 2010. The stream impact and associated mitigation need were under projected by the NCDOT in the 2013 impact data. EEP will commit to implement sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the N.C. Department of Environment and Natural Resources' Ecosystem Enhancement Program In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from EEP.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-707-8420.

Sincerely,

James B. Stanfill for

Michael Ellison
EEP Acting Director

cc: Mr. Brad Shaver, USACE – Wilmington Regulatory Field Office
Ms. Amy Chapman, Division of Water Quality, Wetlands/401 Unit
File: R-2303 B Revised

MITIGATION REQUEST FORM
TRI-PARTY MOA (NCDOT)

Revised 3/24/2008

Fill in requested information, print out the form, sign and date, and either mail to EEP, 1652 Mail Service Center, Raleigh, NC 27699-1652, or fax to 919-715-2219. Attachments are acceptable for clarification purposes.

Electronic submissions are permissable; however, an acceptance letter cannot be sent until the original signed form has been received.

NCDOT CONTACT INFORMATION		REGULATORY CONTACT INFORMATION	
Agency/Division	NCDOT-Highways	**USACE Office**	Regulatory Field Office
Branch	PDEA-NEU	**USACE Contact**	Mr. Brad Shaver
Mailing Address	1598 Mail Service Center	**Mailing Address**	Post Office Box 1890
City, State, Zip	Raleigh, NC 27699-1598	**City, State, Zip**	Wilmington, NC 28402-1890
Project Manager	Chris Manley	**USACE Fax Number**	(910) 251-4025
Telephone Number	(919) 707-6000	**NCDWQ Contact**	
E-Mail Address	cdmanley@dot.state.nc.us	**Mailing Address**	
Supervisor	Chris Rivenbark	**City, State, Zip**	
Telephone Number	(919) 707-6000	**NCDWQ Fax Number**	

PROJECT LOCATION INFORMATION AND IMPACTS

TIP Number(s)		R-2303 C		
TIP Description		NC 24 FROM SR 1404 (DOWDY RD) TO SR 1303 (MITCHELL LOOP RD)		
Current Let Date		7/16/13		
NCDOT Highway Division		Division 3		
County(ies)		Sampson		
EEP Ecoregion(s)		Southern Inner Coastal Plain		
River Basin(s)		Cape Fear		
Cataloging Unit(s) (8-digit)		03030006		
Total Stream (feet)	**Warm**	1,649		
	Cool			
	Cold			
	TOTAL	1,649		
Total Riparian Wetland Impact (acres)		7.29		
Total Non-Riparian Wetland Impact (acres)		3.69		
Total Coastal Marsh Impact (acres)				
Total Buffer Impact	**Zone 1 (square feet)**			
	Zone 2 (square feet)			

OTHER INFORMATION

USACE Action ID Number (if known)	
NCDWQ Project Number (if known)	
NCDCM Project Number (if known)	

Comments:

IMPORTANT

Check below if this request is a:

☐ **New Mitigation Request**

☒ **Revision to a current acceptance**

Signature of Applicant or Agent:

Date:

MITIGATION REQUEST FORM
TRI-PARTY MOA (NCDOT)

Revised 3/24/2008

Fill in requested information, print out the form, sign and date, and either mail to EEP, 1652 Mail Service Center, Raleigh, NC 27699-1652, or fax to 919-715-2219. Attachments are acceptable for clarification purposes.

Electronic submissions are permissable; however, an acceptance letter cannot be sent until the original signed form has been received.

NCDOT CONTACT INFORMATION		REGULATORY CONTACT INFORMATION	
Agency/Division	NCDOT-Highways	**USACE Office**	Regulatory Field Office
Branch	PDEA-NEU	**USACE Contact**	Mr. Brad Shaver
Mailing Address	1598 Mail Service Center	**Mailing Address**	Post Office Box 1890
City, State, Zip	Raleigh, NC 27699-1598	**City, State, Zip**	Wilmington, NC 28402-1890
Project Manager	Chris Manley	**USACE Fax Number**	(910) 251-4025
Telephone Number	(919) 707-6000	**NCDWQ Contact**	
E-Mail Address	cdmanley@dot.state.nc.us	**Mailing Address**	
Supervisor	Chris Rivenbark	**City, State, Zip**	
Telephone Number	(919) 707-6000	**NCDWQ Fax Number**	

PROJECT LOCATION INFORMATION AND IMPACTS

TIP Number(s)		R-2303 D		
TIP Description		NC 24 FROM SR 1303 (MITCHELL LOOP RD) TO US 421-701/SR 1296		
Current Let Date		7/16/13		
NCDOT Highway Division		Division 3		
County(ies)		Sampson		
EEP Ecoregion(s)		Southern Inner Coastal Plain		
River Basin(s)		Cape Fear		
Cataloging Unit(s) (8-digit)		03030006		
Total Stream (feet)	**Warm**	1,809		
	Cool			
	Cold			
	TOTAL	1,809		
Total Riparian Wetland Impact (acres)		3.35		
Total Non-Riparian Wetland Impact (acres)		2.53		
Total Coastal Marsh Impact (acres)				
Total Buffer Impact	**Zone 1 (square feet)**			
	Zone 2 (square feet)			

OTHER INFORMATION

USACE Action ID Number (if known)	
NCDWQ Project Number (if known)	
NCDCM Project Number (if known)	

Comments:

IMPORTANT

Check below if this request is a:

☐ **New Mitigation Request**

☒ **Revision to a current acceptance**

Signature of Applicant or Agent:

Date:

APPENDIX B – Reforestation Details

PROJECT REFERENCE NO.	SHEET NO.
R-2208	RF-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

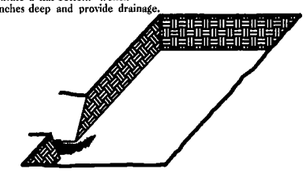
PLANTING DETAILS

SEEDLING / LINER BAREROOT PLANTING DETAIL

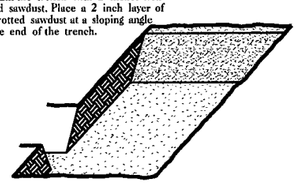
HEALING IN

1. Locate a healing-in site in a shady, well protected area.

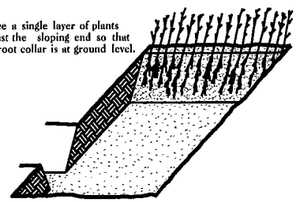
2. Excavate a flat bottom trench 12 inches deep and provide drainage.



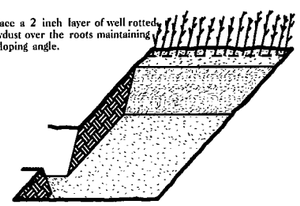
3. Backfill the trench with 2 inches well rotted sawdust. Place a 2 inch layer of well rotted sawdust at a sloping angle at one end of the trench.



4. Place a single layer of plants against the sloping end so that the root collar is at ground level.

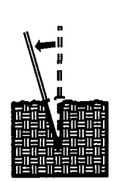


5. Place a 2 inch layer of well rotted sawdust over the roots maintaining a sloping angle.



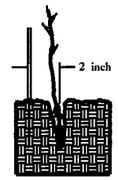
6. Repeat layers of plants and sawdust as necessary and water thoroughly.

DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



1. Insert planting bar as shown and pull handle toward planter.

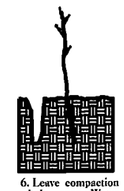
2. Remove planting bar and place seedling at correct depth.



3. Insert planting bar 2 inches toward planter from seedling.

4. Pull handle of bar toward planter, firming soil at bottom.

5. Push handle forward firming soil at top.



6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.

KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.

ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

REFORESTATION

☐ TREE REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

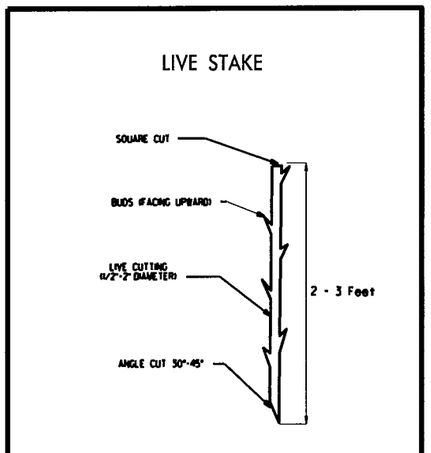
25% QUERCUS PHELLOS	WILLOW OAK	12 in - 18 in BR
25% QUERCUS NIGRA	WATER OAK	12 in - 18 in BR
25% BETULA NIGRA	RIVER BIRCH	12 in - 18 in BR
25% FRAXINUS PENNSYLVANICA	GREEN ASH	12 in - 18 in BR

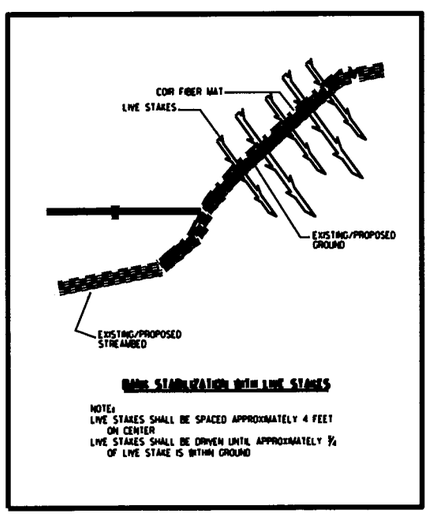
REFORESTATION DETAIL SHEET

N.C.D.O.T.- ROADSIDE ENVIRONMENTAL UNIT

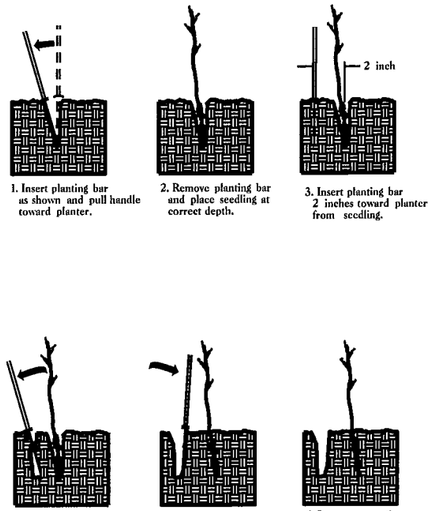
PLANTING DETAILS

LIVE STAKES PLANTING DETAIL





BAREROOT PLANTING DETAIL
DIBBLE PLANTING METHOD
USING THE KBC PLANTING BAR



1. Insert planting bar as shown and pull handle toward planter.
2. Remove planting bar and place seedling at correct depth.
3. Insert planting bar 2 inches toward planter from seedling.
4. Pull handle of bar toward planter, firming soil at bottom.
5. Push handle forward firming soil at top.
6. Leave compaction hole open. Water thoroughly.

PLANTING NOTES:

PLANTING BAG
During planting, seedlings shall be kept in a moist canvas bag or similar container to prevent the root systems from drying.

KBC PLANTING BAR
Planting bar shall have a blade with a triangular cross section, and shall be 12 inches long, 4 inches wide and 1 inch thick at center.

ROOT PRUNING
All seedlings shall be root pruned, if necessary, so that no roots extend more than 10 inches below the root collar.

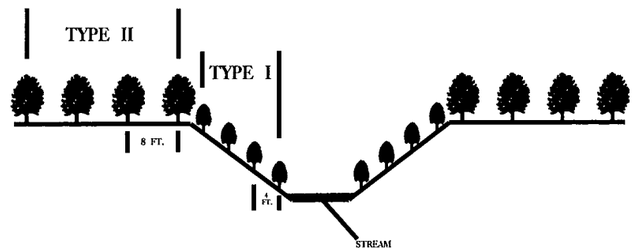
PROJECT REFERENCE NO.	SHEET NO.
R-2308	RF-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

☐ TYPE 1 STREAMBANK REFORESTATION SHALL BE PLANTED 3 FT. TO 5 FT. ON CENTER, RANDOM SPACING, AVERAGING 4 FT. ON CENTER, APPROXIMATELY 2724 PLANTS PER ACRE.

☐ TYPE 2 STREAMBANK REFORESTATION SHALL BE PLANTED 6 FT. TO 10 FT. ON CENTER, RANDOM SPACING, AVERAGING 8 FT. ON CENTER, APPROXIMATELY 680 PLANTS PER ACRE.

☐ NOTE: TYPE 1 AND TYPE 2 STREAMBANK REFORESTATION SHALL BE PAID FOR AS "STREAMBANK REFORESTATION"

STREAMBANK REFORESTATION TYPICAL



STREAMBANK REFORESTATION

MIXTURE, TYPE, SIZE, AND FURNISH SHALL CONFORM TO THE FOLLOWING:

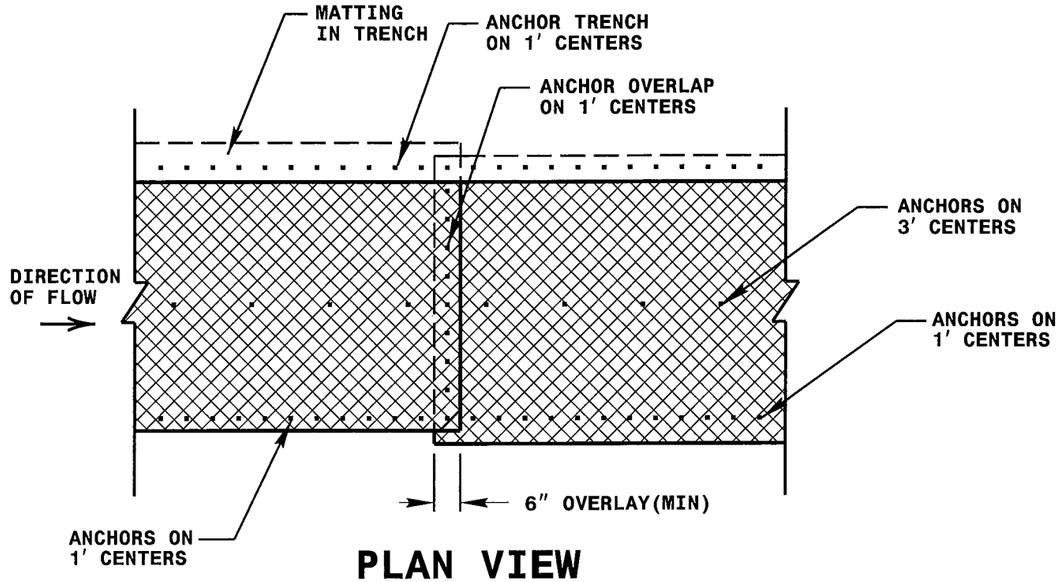
TYPE 1		
50% SALIX NIGRA	BLACK WILLOW	2 ft – 3 ft LIVE STAKES
50% CORNUS AMOMUM	SILKY DOGWOOD	2 ft – 3 ft LIVE STAKES
TYPE 2		
25% QUERCUS PHELLOS	WILLOW OAK	12 in – 18 in BR
25% QUERCUS NIGRA	WATER OAK	12 in – 18 in BR
25% BETULA NIGRA	RIVER BIRCH	12 in – 18 in BR
25% FRAXINUS PENNSYLVANICA	GREEN ASH	12 in – 18 in BR

☐ SEE PLAN SHEETS FOR AREAS TO BE PLANTED

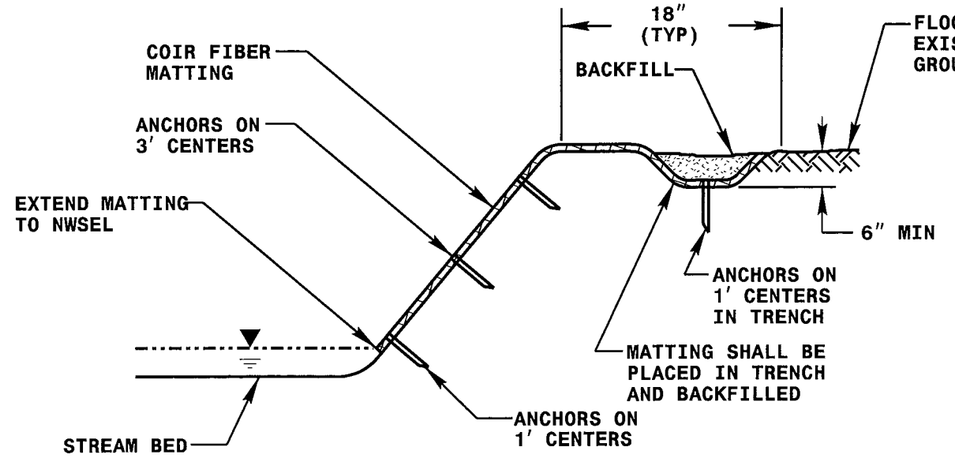
STREAMBANK REFORESTATION DETAIL SHEET 1 OF 2

N.C.D.O.T. - ROADSIDE ENVIRONMENTAL UNIT

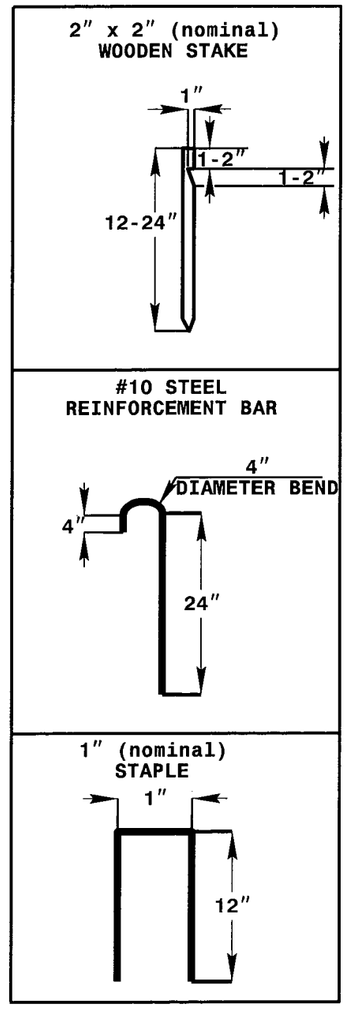
PROJECT REFERENCE NO.	SHEET NO.
R-2036	RF-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



PLAN VIEW



TYPICAL CROSS SECTION



ANCHOR OPTIONS

COIR FIBER MATTING DETAIL

NOT TO SCALE

STREAMBANK REFORESTATION
DETAIL SHEET 2 OF 2
N.C.D.O.T. - ROADSIDE ENVIRONMENTAL UNIT

Subject: Draft Minutes from 4B Interagency Hydraulic Design Review Meeting on February 25, 2009 for R-2303B in Sampson County

Team Members:

Brad Shaver- USACE	(absent)
Gary Jordan- USFWS	(present)
Travis Wilson-NCWRC	(present)
David Wainwright- NCDWQ	(present)
Kathy Matthews-EPA	(present)
Ron Lucas-FHWA	(present)
Chris Rivenbark-NCDOT-NEU	(present)
Chris Manley-NCDOT-NEU	(present)
Jackosn Provost- NCDOT-DIV 3	(absent)
Mason Herndon- DEO DIV 3	(present)
David Harris-REU	

Participants:
Galen Cail, NCDOT Hydraulics
Bill Elam, NCDOT Hydraulics
Brenda Moore, NCDOT Roadway
Joyce Drew, NCDOT Roadway
Roy Girolami, NCDOT Structures

GENERAL NOTES:

Proposed ditches will have 3:1 or flatter side slopes and meet grass swale criteria where practical.

We will put rock check dams or preformed scour holes at the end of ditches tying into wetlands where practical.

Station 387+00 to 407+00 –L-:

There is an additional wetland line showing on the plans. NEU believes this was to indicate High Quality Wetlands. The agencies requested NEU remove the additional line. The request was also made for NEU to adjust the size of the wetland symbols on the plans.

The proposed bridges over South River are 1200 feet long and will required drainage. The agencies prefer system drainage over scuppers.

Due to the width of the channel, there will probably be a bent in the channel.

There may be a slight shift in the alignment to avoid bents in the bank around 402+00–L-. This shift was not discussed in the 4B meeting.

Station 425+00 –L-:

The pond will have to be drained during construction, and rock fill may be used.

Station 431+00 –L- :

The pond will have to be drained during construction, and rock fill may be used.

Station 494+00 –L- :

There is a ditch on the plans that is not labeled as jurisdictional. It had been discussed in a previous site visit to revisit some of these sites to look at the jurisdictional streams again. This site visit may take place on March 11th or 12th.

Station 540+00 to 548+00 –L- :

There are three wetland sites in this area that do not appear to be connected by pipes. I don't think a conclusion was ever reached if they should be connected.

Station 623+50 –L- :

This wetland will be a total take.

Station 655+00 to 661+00 –L- :

We will use two 48" RCP as equalizer pipes in the wetland at the Big Swamp bridge site.

Station 670+00 –L- :

This wetland will be a total take.

Station 682+00 –L- :

This pond will be drained because the road cannot serve as the dam. Is there a jurisdictional stream above the pipe at –Y23-?

Station 713+50 –L- :

Existing Box Culvert will be replaced with 2 @ 7' x 8' RCBC. The box will be buried one foot with a sill in one barrel. There is a large scour hole on the downstream end that will be filled with rip rap.

Meeting adjourned

Subject: Minutes from 4C Interagency Permit Review Meeting
on December 8, 2011 for R-2303B in Sampson County

Team Members:

Brad Shaver- USACE	(present)
Gary Jordan- USFWS	(absent)
Travis Wilson-NCWRC	(absent)
Mason Herndon- NCDWQ	(present)
Chris Militscher-EPA *	(absent)
Ron Lucas-FHWA	(present)
Mark Pierce-PDEA	(present)
Chris Rivenbark-NCDOT-NEU	(present)
Chris Manley-NCDOT-NEU	(present)
Phil Harris-NCDOT-NEU	(present)
Jackson Provost- NCDOT-DIV 3	(present)

Participants:
Galen Cail, NCDOT Hydraulics
Bill Elam, NCDOT Hydraulics
Amy Keeter, NCDOT Hydraulics
Art McMillan, NCDOT Hydraulics
Gary Lovering, NCDOT Roadway
Kevin Moore, NCDOT Roadway
Omar Azizi, NCDOT Structures
Emily Murray, NCDOT Structures
Byron Moore, NCDOT-NES
Marissa Cox, NDCOT-NEU
Stephen Yeung, NCDOT Congestion Mgmt

*Chris Militscher provided comments. Below are Chris' comments with our responses to date:

On R-2303B, Sheet #6, Site 1, the South River crossing....It appears that there are impacts to the wetlands from a causeway.
-Will verify and show what will be expected for construction of bridge. However, at the time 4C permit was provided just showed hand clearing around proposed bridge, no causeway.

I note the following from the CP 4B meeting minutes:

The proposed bridges over South River are 1200 feet long and will require drainage. The agencies prefer system drainage versus deck drains that would outlet directly into the wetland.
-See response below for Site 2 bridge.

Due to the width of the river, there will probably be piers in the channel.
-Yes, propose 100' – 63" Bulb Tee girders. The 100' spans put a portion of bents just inside the West bank of both bridges. See profile view along bridge.

Since the meeting, the Hydraulics Unit has requested a shift in the alignment to avoid bents in the bank around 402+00–L- Lt. This shift was not discussed at the 4B meeting. The shift will be approximately 30'-40' to the South and is proposed to avoid as much of the South River banks, as possible, and to avoid bank scour. This will also improve the skew of the bridge crossing.

Please confirm what the CP 4A and ROD commitments are for this crossing with the permitting agencies. For some reason, I thought that all of the high quality wetlands on both sides of the South River were to be bridged.
-Based on updated delineation 1/17/12 there will be 62 sq ft of impact to high quality wetland in the NW quad of proposed bridge due to spill thru rip rap.

Regarding the the 30 to 40 foot horizontal shift that the Hydraulic Units made to the design after the CP 4B meeting, did it result in more or less impacts to jurisdictional high quality wetlands?
-Will result in increase of hand clearing impact of approximately 0.08 acres.

GENERAL NOTES:

Proposed ditches will have 3:1 or flatter side slopes and meet grass swale criteria, where practical.

Will provide non-erosive velocities where ditches tying into wetlands.

Rip rap along streams will be placed on banks only, where practical.

An updated JD is on the way. A number of sites may be eliminated or modified.
(Updated JD provided 1/17/12)

Make sure matchlines show up on plans.

Site 2; Station 393+00 –L-:

-Provide detail of swales under bridge/deck drains.
-Show Mechanized Clearing for wetland in Northeast quad of bridge.
-There was discussion on whether a drainage system would be used on the bridges. The Hydraulics department does not propose a drainage system but deck drains in the overbank/wetland outside of 50' imposed buffer. Propose 6" deck drains at 12' spacing. The average discharge per deck drain is 0.04 cfs. Have proposed a rock lined swale underneath the deck drains on the West and East end of the bridge in the area of steep topo. A drainage system is a potential maintenance problem, is costly and has a service life, at least half, of that of the bridge. The deck drains allow stormwater to be spread out and filtrated throughout the wetland versus concentrating in a system and discharging all at one location. Do not expect any significant erosion under the deck drains since minimal discharge and based on similar bridge deck drain layouts and clearances observed at other bridge sites.
-On profile sheet, state amount of area of existing road fill to be excavated under proposed bridge.

Site 6; Station 431+00 –L- RT :

-Provide Geotech detail for rock fill.

-For mitigation site, show and account for total impact of pond. Break out amount of impact under fill and note at bottom of summary sheet. Also, note on plans, "INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED". Also, show Hand Clearing impact out from toe of dam approximately 10' to allow access for removal. Need to provide dam excavation quantity to Roadway. Label mitigation site, "PROPOSED MITIGATION - SEE MITIGATION PLAN".

Site 7; Station 433+00 –L- :

-Investigate need for additional pipe for JS Sta 434+13 –L-. Review outlet angle into channel.

Site 13 & 14; Station 555+00 –L- :

-It was asked whether the wetlands on each side of the road were connected by a pipe or would be. It was answered that there is no existing pipe connecting the wetlands and and a new pipe is not proposed.

Site 17; Station 623+50 –L- RT:

-Verify if channel shown in wetland is a stream. If not, turn off level.

Site 18; Station 660+00 –L- :

-Show proposed piers.
-On profile sheet, state amount of area of existing road fill to be excavated under proposed bridge.
-Pier in NE quad is offset from stream bank.

Site 21; Station 674+50 –L- RT:

- Verify if channel shown is a stream. If not, turn off level.

Site 22; Station 681+00 –L- LT:

-For mitigation site, show and account for total impact of pond. Break out amount of impact under fill and note at bottom of summary sheet. Also, note on plans, "INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED". On plans label mitigation site, "PROPOSED MITIGATION - SEE MITIGATION PLAN".

Site 23; Station 681+00 –L- RT :

- Verify if channel shown is a stream. If not, turn off level.

Site 24; Station 713+40 –L-:

-Make sure sill is labeled in plan view.
-Review the amount of TDE and impact shown for construction phasing of box culvert. Investigate to see if footprint can be reduced by relocating temporary stilling basins, etc.

Meeting Adjourned

Subject: Draft Minutes from Interagency Permit Drawings (4B) Review Meeting on February 25, 2009 for R-2303C in Sampson County

Team Members:

Mason Herndon – Division 3	(present)
Jackson Provost – Division 3	(present)
David Wainwright – NCDWQ	(present)
Kathy Matthews – EPA	(present)
Chris Manley – NEU	(present)
Chris Rivenbark – NEU	(present)
Travis Wilson – NCWRC	(present)
Brad Shaver – USACE	(absent)*
Mark Pierce – Project Dev.	(present)
David Harris- NEU	(absent)
Ron Lucas-FHWA	(absent)
Gary Jordan-USFWS	(absent)

Participants:
Galen Cail – NCDOT Hydraulics
Dan Robinson – Kimley-Horn and Associates
Jason Lawing – Kimley-Horn and Associates
Brenda Moore – NCDOT Roadway Design
Thad Duncan – NCDOT Roadway Design
Roy Girolami – NCDOT Structures

* Comments by USACE.

The meeting began with Dan Robinson calling it to order and beginning to review the jurisdictional stream and wetland sites.

General Comments:

- Place rip rap protection along the toe of slopes in areas of inundated wetlands.
- A field meeting will be held within the next couple weeks to visit note-worthy sites.
- Try to minimize the amount of preformed scour holes located in wetlands.
- All ponds that would utilize the proposed roadway as it's dam will be drained.

Sheet 4:

- It was questioned whether wetland location number 96 (Sta. 735+00 -L- LT) would be considered a total take.

* there exists a cross pipe in the existing road section will there be an extension through the new section

Sheet 5:

* jurisdictional pipe crossing need proper burial and alignment.

Sheet 6:

- The use of rock fill to construct roadway embankment in the pond areas is acceptable and will be determined during construction.

*will the ponds still be connected in any manner, there appears to be a jurisdictional stream crossing road need proper burial and alignment.

Sheet 7:

- There will be minor additional impacts for ditching through wetland location number 105 (Sta. 774+00 -L- RT). However, it is necessary to drain the low areas from -Y28- (Old Brick Mill Road). New ditch will match dimensions of existing ditch that does not currently drain wetland number 105.

*there is a drainage feature running along the road and then back to the north, will this piped and if so it should be buried properly and correctly aligned.

Sheets 8:

*there is a drainage feature running along the road and then back to the north, will this piped and if so it should be buried properly and correctly aligned.

Sheets 9:

*wlb boundary dies into the jurisdictional stream feature, is this correct? There are tow depictions of the stream features on the south side of the road which is correct? The stream feature should be properly buried, sized, and aligned.

Sheets 10,11,12:

No Comments.

Sheet 13:

- To facilitate the correct placement and inverts of the proposed RCBC additional survey is needed upstream and downstream of the proposed slope stakes around Sta. 863+00 -L- to determine location of existing channel within wetland location number 113.
- Beaver dam upstream of proposed roadway will not be breached.
- It was noted by NCDOT Hydraulics staff that proposed culvert would be sized in conformance with NCDOT Design Guidelines and would not be oversized due to standing backwater from possible downstream beaver dam.

*sht 13 into 14, there are three channels depicted is this correct? The stream line turns into the wlb and makes some substantial turns, is the stream line the same as the wlb line? The stream has to cross the road and it should be properly buried, aligned, and sized.

Sheets 14:

- Natural spring location was noted at Sta. 865+50 -L- (RT).

Sheets 15:

*approximate stream location? Make sure pipe is properly sized, buried, and aligned (s,b,a). Is the stream line the same as the wetland line? Again no structures shown to discuss therefore please make sure crossing is properly s, b, a.

Sheets 16:

- No comments.

Sheets 17:

*at station 906 make sure pipe is properly s, b, a. same at station 913 +5.

Sheets 18:

- No comments.

Sheet 19:

- Place 2-48" (minimum, not buried) equalizer pipes at wetland location number 126 at approx. stations 938+50 and 940+50 -L-.
- Keep system drainage separate from equalizer pipes due to depth of fill in area.
- If possible, avoid placing preformed scour holes in wetland.
- No retention basin needed at Sta. 937+00 -L- (RT) due to proximity to wetland and possibility of being constantly inundated.
- Avoid placing piers in thalweg of Little Coharie Creek if possible. Bridge span arrangement still to be determined.
- Place 48" (minimum, not buried) equalizer pipe between wetland location numbers 126a and 127 at approx. station 946+50 -L-.
- No rip rap protection along the toe of fill is necessary in the wetlands surrounding the Little Coharie Creek.

*any equalization pipes proposed within floodplain? On bridge span please try to keep the bents out of the stream channel at least out of the thalweg.

Sheet 20:

- Place 48" (minimum, not buried) equalizer pipe between wetland location numbers 126a and 127 at approx. station 949+50 -L-.
- Place 48" (minimum, not buried) equalizer pipe between wetland location numbers 127 and 128 at approx. station 956+00 -L-.

*possible location for another equalization pipe around station 949+5.

Sheet 21:

*some sort of drainage feature is running both ways with the road appearing to be the dividing line? At station 969 +5

Sheet 22:

- No equalizer pipe will be necessary between wetland location numbers 131 and 132 (they do not connect presently).

- sht 22, possible equalization pipe at station 980

Sheet 23:

*will there be a stream relocation along the road at station 1001.

Sheet 24:

- Need survey on ditch along property line at Sta. 1005+50 -L- (RT).

Sheets 25:

- No comments.

Sheets 26:

*need proper s,b,a at station 1037.

Sheets 27:

- No comments.

Sheets 28:

*likely take at station 1065?

Sheet 29:

- Outlet system drainage from the East side of the Bearskin Swamp bridge outside the wetlands if possible.

Sheet 30:

- Cross pipe near Sta. 1089+00 -L- (LT) may not be necessary to drain wetland location number 144. Potential site to visit during upcoming field meeting.

*will the pipe be extended at station 1089?

Sheet 31:

- No comment.

Sheet 32:

- Potential site to visit during upcoming field meeting.

MEETING ADJOURNED

Subject: Draft Minutes from Interagency Permit Drawings (4C) Review Meeting on December 8, 2011 for R-2303C in Sampson County

Team Members:

Mason Herndon – NCDWQ	(present)	Greg Brew – Roadway Design	(present)
Jackson Provost – Division 3	(present)	Travis Wilson – NCWRC	(absent)
Kathy Matthews – EPA	(absent)	Mark Pierce – Project Dev.	(present)
Art McMillan – Hydraulics	(present)		
Brad Shaver – USACE	(present)		
Steven Yeung – Cong. Mgmt.	(present)		
Marissa Cox – NES	(present)		
Byron Moore – NES	(present)		
Chris Manley – NES	(present)		
Chris Rivenbark – NES	(present)		
David Harris- NES	(absent)		
Ron Lucas-FHWA	(present)		
Gary Jordan-USFWS	(absent)		

Participants:
Galen Cail – NCDOT Hydraulics
Dan Robinson – Kimley-Horn and Associates
Vance Blanton – Kimley-Horn and Associates

The meeting began with Dan Robinson calling it to order and beginning to review the permit drawings for the jurisdictional stream and wetland sites.

General Comments:

- There will be a new Jurisdictional Determination file with updated features distributed to the design team in the near future.
- Agencies would like blow ups at all sites that are small areas. Mainly for pipe outlet areas where temporary stream impacts are shown, but not clearly visible due to rip rap and small scale.
- Each proposed pipe will require 10 lf of temporary surface water impact for constructability upstream of entrance or headwall and 10 linear feet of temporary surface water impact downstream of pipe outlet protection. Excavation of existing roadway fill under/adjacent to existing bridges will be considered for enhancements credit (ratio of 3:1). The success criteria will be that the excavation reaches the elevation of the floodplain.
- If a tributary is JS NEU non-mitigatable (intermittent stream), show and quantify impacted area but not length
- Surface water impacts that correspond to pond impacts, should use a hatch with a "P" were the "S" is on other surface water impacts.

Sheet 4:

- Site 1: The new wetland file will show that the wetland in this area has been eliminated by fill from the property owner. Agencies requested a blow up of the pipe outlet area.
- Site 2: New wetland file will contain additional wetlands north of the roadwork and this portion of the stream is changing designation to jurisdictional intermittent.

Sheet 5:

- Site 3: The new file will show this site as part of Site 2.
- Site 4: The new file will show this JS as a Tributary (no linear impacts).

Sheet 6:

- Site 5: Use the hatch with a "P" in place of the "S".

Sheet 7:

- Site 6: Use the hatch with a "P" in place of the "S". The new file will show that the wetland south of the roadway construction is gone.
- Site 7: The new file will show that the stream changed designation to a non-jurisdictional ditch.

Sheets 8:

- Site 7: The new file will show that the stream changed designation to a non-jurisdictional ditch.
- Site 8: Show an additional 10 linear feet of temporary surface water impact upstream of the pipe and downstream of the banks only rip rap. Show a blow up of this area.
- Site 9: Skew the outlet pipe and extend past the western point of the wetland to avoid wetland impact. Then tail ditch outlet to stream and pickup roadside ditches in DI or pipe stub outs.

Sheets 9:

- Site 10: Show an additional 10 linear feet of temporary surface water impact upstream of the pipe and downstream of the banks only rip rap. Show a blow up of this area.

Sheets 13:

- Site 11: Show an additional 10 linear feet of temporary surface water impacts downstream of the channel improvements. Show a blow up of this area.

Sheet 14:

- Site 11: No Comments

Sheet 15:

- Site 12: No Comments
- Site 13: Agency asks if the driveway is needed or why the project is placing it back over wetlands. PDEA to follow up with consultant to verify wetland location and investigate if location is needed. Show an additional 10 linear feet of temporary surface water impact downstream of the banks only rip rap. Show a blow up of this area.

Sheet 16:

- Site 14: No Comments

Sheet 17:

- Site 14: Feature linework needs to be updated to "JS". Show an additional 10 linear feet of temporary surface water impact downstream of the banks only rip rap. Show a blow up of this area.

- Site 15: Use the hatch with a "P" in place of the "S".

Sheet 19:

- Site 16: Add an asterisks and footnote on the computation table as the excavation of roadway fill around existing bridge is not required for mitigation and will not be added into the total area. Show hand clearing limits under bridge out to a 20' perimeter surrounding bridge.

Sheet 20:

- Revisit requested 48" Equalizer pipe at Sta. 956+00 (per 4b meeting minutes)
  - Response: Was not able to be added because of a conflict with the proposed roadway drainage system. There is not sufficient cover to accommodate both roadway drainage and an equalizer pipe (not even a 24" pipe fits).
- Site 16: No Comments
- Site 17: No Comments

Formatted

Sheet 22:

- Site 18: No Comments

Sheet 23:

- Site 19: Use the hatch with a "P" in place of the "S". Add a note to plans: "Prior to construction, invert to be verified by NEU after pond is drained."

Sheet 24:

- Site 19: Use the hatch with a "P" in place of the "S".
- Site 20: No Comments
- Site 21: Use the hatch with a "P" in place of the "S".
- Site 22: Show an additional 10 linear feet of temporary surface water impact downstream of the banks only rip rap. Show a blow up of this area.

Sheet 26:

- Site 23: Show an additional 10 linear feet of temporary surface water impact upstream of the pipe and downstream of the banks only rip rap. Show a blow up of this area.

Sheet 28:

- Site 24: Show an additional 10 linear feet of temporary surface water impact downstream of the banks only rip rap. Show a blow up of this area.

-

Sheet 29:

- Site 25: No Comments
- Site 26: Hatching is ok as shown, but note this impact as a total take in the computation table.
- Site 27: No Comments.

Sheet 30:

- Site 28: Show an additional 10 linear feet of temporary surface water impact downstream of the banks only rip rap. Show a blow up of this area.

- Site 29: Wetlands north of the proposed roadway construction and west of the soil driveway will be removed in the new wetland file.
- Show the pipes connecting the DI that picks up the roadside ditch at Sta. 1095+.

Sheet 32:

- Site 30: No Comments, but it was noted that NEU staff should field determine if stream is jurisdictional and update new wetland file to reflect designation. Existing permit drawings indicate stream impacts based on site evaluation. NEU to confirm.

MEETING ADJOURNED

Subject: Draft minutes for 4B follow-up field review meeting
March 30, 2010 for R-2303D in Sampson County

Potential Mitigation Site Station 1290+00 to 1295+00 –L- LT :

Per discussion at the 4B meeting, this site was reviewed for potential wetland and stream mitigation. It was requested that the area between the two streams and South of existing NC 24 be excavated down to approximate natural floodplain. This would allow flow to easily access wetland mitigation site. This should be feasible and will be detailed in the drainage plans pending acceptance of mitigation site.

Great Coharie Creek Overflow Structure Station 1326+60 –L-:

Per discussion at the 4B meeting, this site was reviewed to see whether a multi barrel box culvert or a shorter bridge (as prescribed by the 4A concurrence) would be acceptable for the Great Coharie Creek overflow structure. The existing and 4A bridge lengths are 90' and 175', respectively. The request was made by the Hydraulics Unit considering the replacement length and improved conveyance of the mainline structure. A preliminary geotech investigation indicated a box culvert could be constructed. After discussion it was determined a multi barrel box culvert was not acceptable but a shorter bridge could be considered. The box culvert presented both concurrence agreement issues and constructability issues. The agencies requested that as a minimum, need 25' of wildlife bench on both the East and West side of the creek. It was estimated this would result in a bridge approximately 140' in length. There was concern by the agencies about shortening a bridge length that was agreed upon at 4A. Per the 5/24/07 4A , the bridge length was set to reduce wetland impacts. Considering the recently proposed wetland mitigation site (approximate Sta 1320+00 to 1326+00 –L- LT) and the area it can provide, the Hydraulics requests to proceed with shorter, 140', structure.

"New" Wetland Site Station 16+00 –SR1-:

There was a request to investigate stormwater treatment/control in the area behind the shopping center and around the existing 18" HDPE outlet. It was stated that the drainage to the outlet is mostly collected from the shopping center parking lot. The road project will contribute a minimal amount of water to this system and we would not anticipate addressing this drainage outfall. However, stormwater collected along –SR1- will be reviewed for BMP's.

Outlet Station 1445+00 –L- LT (Forest Trail) :

Per discussion at the 4B meeting, this site was reviewed for potential stream mitigation. Due to the close proximity of the existing daycare and poor condition of the existing stream, it was requested this site not be considered for mitigation other than the existing pipe removal. If any floodplain bench is proposed it would likely result in taking the daycare. It is proposed to remove existing road fill where pipe is to be removed. Also, considering existing stream banks are eroded and vertical between NC 24 and Forest Trail, the preferred pipe outlet location be inline with the stream versus into a bend of the stream. This will result in more stream loss but reduce potential for more bank erosion. Also, anticipate laying banks back at 2:1 with rip rap to further reduce potential for bank erosion. Due to site conditions it was deemed acceptable to not bury pipe 1'.

Subject: Minutes from 4C Interagency Permit Review Meeting on December 8, 2012 for R-2303D in Sampson County

Team Members:

Brad Shaver- USACE	(present)
Gary Jordan- USFWS	(absent)
Travis Wilson-NCWRC	(absent)
Mason Herndon- NCDWQ	(present)
Chris Militscher-EPA *	(absent)
Ron Lucas-FHWA	(present)
Mark Pierce-PDEA	(present)
Chris Rivenbark-NCDOT-NEU	(present)
Chris Manley-NCDOT-NEU	(present)
Phil Harris-NCDOT-NEU	(present)
Jackson Provost- NCDOT-DIV 3	(present)

Participants:
Galen Cail, NCDOT Hydraulics
Bill Elam, NCDOT Hydraulics
Amy Keeter, NCDOT Hydraulics
Art McMillan, NCDOT Hydraulics
Gary Lovering, NCDOT Roadway
Kevin Moore, NCDOT Roadway
Omar Azizi, NCDOT Structures
Emily Murray, NCDOT Structures
Byron Moore, NCDOT-NES
Marissa Cox, NDCOT-NEU
Stephen Yeung, NCDOT Congestion Mgmt

*Chris Militscher had no specific comments for section D. However, assumed similar comments for bridge over Great Coharie Creek as provided for South River bridge on B section. See comments below:

The proposed bridges over South River are 1200 feet long and will require drainage. The agencies prefer system drainage versus deck drains that would outlet directly into the wetland.
-See response below for Site 18 bridge.

Due to the width of the river, there will probably be piers in the channel.
-Yes, propose 105' – 63" Bulb Tee girders. The 105' spans put a portions of bents just inside the West bank of the westbound bridge due to skew of bridge to creek. See profile view along bridge.

General Comments:

Need a total summary of impacts for all the impact summary sheets.

Jackson requested pipe systems not tie to box culverts.

- Pipe systems were tied to box culverts in order to dissipate energy in box versus in the wetlands. Topo next to wetlands is steep so not a good location to outlet systems outside of wetlands either.

Rip rap along streams will be placed on banks only, where practical.

Will provide non-erosive velocities where ditches tying into wetlands.

An updated JD is on the way. A number of sites may be eliminated or modified. (Updated JD provided 1/17/12)

Site 1:

Make sure impacts due to proposed culvert construction phasing are shown and accounted for.

Site 4:

Tie pipes to tributaries.

- Pipes are equalizer pipes except pipe Sta 1171+82 –L-, which ties to existing ditch.

Sites 6, 7 & 8:

Jurisdictional Stream at first cross pipe is non-mitigable. Show impacts as square footage instead of linear.

Show all streams on south side of road as jurisdictional. All of these impacts will be linear. Update the jurisdictional streams in wet file if necessary.

Break out stream impacts for Sites 6, 7, and 8. They are all combined into Site 7.

Site 10 & 11:

Make sure impacts due to proposed culvert construction phasing are shown and accounted for.

Station 1224+00 Rt.- How will we connect wetlands at pinch point?

- Will proposed grading out.

Site 13:

Check as a site for possible stream mitigation

Make sure slope stakes at 4:1

It is possible that this stream is just a tributary.

Site 16:

Change the stream impacts to wetland impacts.

Show and note excavation on permit plan sheet. Excavated area will be graded to a verified elevation.

Site 18:

-There was discussion on whether a drainage system would be used on the bridges. The Hydraulics department does not propose a drainage system but deck drains in the overbank/wetland. Will discharge outside of a 50' imposed buffer except for drains located on East end of westbound bridge. These drains are necessary approximately 10' from creek bank due to spread. Propose 6" deck drains at 15' spacing. The average discharge per deck drain is 0.08 cfs. The deck drains on the eastbound bridge will discharge in the area where existing US 24 fill is to be excavated. A drainage system is a potential maintenance problem, is costly and has a service life, at least half, of that of the bridge. The deck drains allow stormwater to be spread out and filtrated throughout the wetland versus concentrating in a system and discharging all at one location. Do not expect any significant erosion under the deck drains since minimal discharge and based on similar bridge deck drain layouts and clearances observed at other bridge sites.

There has been discussion about phasing of bridge and whether a causeway or work bridge will be used. It is possible to build westbound bridge from portion of existing road fill along with additional temporary fill in wetlands. The additional impact to wetlands is approximately 0.4 ac. However, could reduce construction time and cost of temporary work bridge.

There was discussion that if the project requires shift in power line/easement into untouched wetlands may result in a permanent change of community type. If it does then will have to consider as an impact.

Site 20:

Show and note excavation on permit plan sheet.

Meeting adjourned.

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR LINEAR ROADWAY PROJECTS

(Version 1.2; Released September 2011)

Project/TIP No.: R-2303B **County(ies):** Cumberland Sampson

General Project Information

Project No.:	R-2303B		**Project Type:**	Roadway Widening		**Date:**	9/27/2011
NCDOT Contact:	Bill Elam		**Contractor / Designer:**				
	Address:	1020 Birch Ridge Road Raleigh NC 27610		**Address:**			
	Phone:	919-707-6718		**Phone:**			
	Email:	belam@ncdot.gov		**Email:**			
City/Town:	Stedman and Autryville		**County(ies):**	Cumberland	Sampson		
River Basin(s):	Cape Fear		**CAMA County?**	No	No		
Primary Receiving Water:	South River		**NCDWQ Stream Index No.:**	18-68-12-(0.5)			
NCDWQ Surface Water Classification for Primary Receiving Water		**Primary:**	Class C				
		Supplemental:	Swamp Waters (Sw)				
Other Stream Classification:							
303(d) Impairments:	None						
Buffer Rules in Effect	N/A						

Project Description

Project Length (lin. Miles or feet):	6.891 miles	**Surrounding Land Use:**	Rural Farmland with Flat terrain and Sandy Soils	
	Proposed Project		**Existing Site**	
Project Built-Upon Area (ac.)	86.00	ac.	23.00	ac.
Typical Cross Section Description:	4 lane divided with 38 ft grass median; 12 ft lanes and 4 ft paved shoulders		Two 12 ft lanes with 2 ft paved shoulders	
Average Daily Traffic (veh/hr/day):	Design/Future:	22000 (2030)	Existing:	13520 (2010)
General Project Narrative:	This project involves the widening of NC 24. The project is on both existing and new location. There are 3 major crossing on the project. There are two sites where streams are impacted for a total of 296 ft. 2 ponds and 17 wetland sites were impacted. Grass swales were used wherever possible. Grass shoulders and the grass median will provide infiltration. The side slopes of the ditches were 4:1 or flatter for most ditches. Most of the project is very flat. 90% of the ditches are flatter than 1%. Many of the existing ditches acted as storage. The new ditches will also be very flat. The average velocity in the ditch will be less than 2.6 fps. Pipes that are in jurisdictional streams are buried 20% or up to one foot. Preformed scours holes were used in three different locations.			

References

North Carolina Department of Transportation

Highway Stormwater Program

STORMWATER MANAGEMENT PLAN

FOR LINEAR ROADWAY PROJECTS

(Version 1.2; Released September 2011)

Project/TIP No.:	R-2303B	County(ies):	Cumberland Sampson	Page	of	1

Preformed Scour Holes and Energy Dissipators

Sheet No.	Station	Energy Dissipator Type	Riprap Type	Drainage Area (ac)	Conveyance Structure	Pipe/Structure Dimensions (in)	Q10 (cfs)	V10 (fps)
	73+23 -L- Lt	PFSH		1.00	Pipe	15	4.5	
	172+00-L- Rt	PFSH		0.90	Pipe	15	4.7	
	24+13 -Y- Rt	PFSH		12.00	Pipe	2 @ 18	10.0	

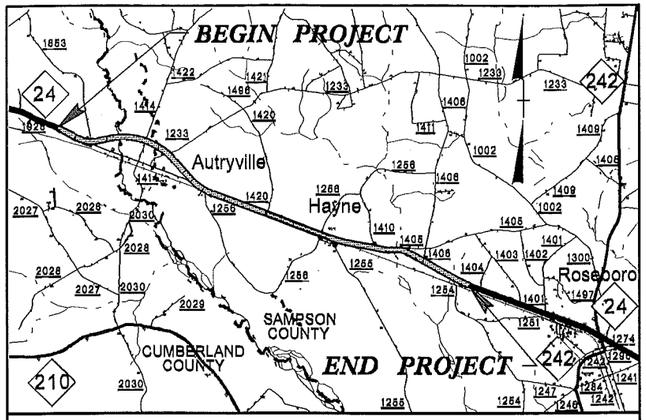
☐ YES ☐ NO Have minimum design criteria, as presented in the NCDOT Best Management Practices Toolbox (2008), NCDOT Standard Details, or FHWA HEC-14 (July 2006), been met and verified, as applicable? If No, provide further explanantion of why design criteria was not met.

Additional Comments

* Refer to the NCDOT Best Management Practices Toolbox, Version 1 (March 2008), NCDOT Standard Details, the Federal Highway Administration (FHWA) Hydraulic Engineering Circular No. 14 (HEC-14), Third Edition, Hydraulic Design of Energy Dissipators for Culverts and Channels (July 2006), as applicable, for design guidance and criteria.

6/30/99

TIP PROJECT: R-2303B



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CUMBERLAND & SAMPSON COUNTIES

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303B	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
34416.1.1	STPNHF-F-8-2(17)	P.E.	

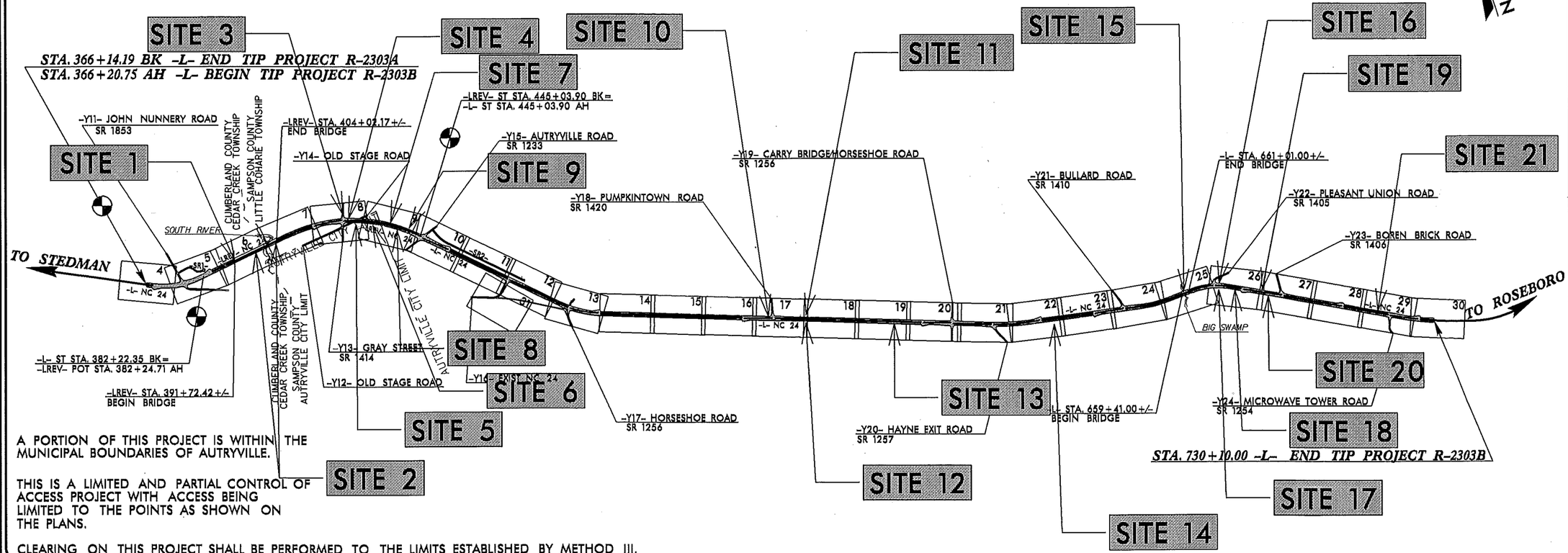
LOCATION: NC 24 FROM WEST OF SR 1853 (JOHN NUNNERY ROAD) TO WEST OF SR 1404 (DOWDY ROAD)

Permit Drawing Sheet 1 of 56

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURES

WETLAND AND SURFACE WATER IMPACTS PERMIT

NAD 83/95



A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF AUTRYVILLE.

THIS IS A LIMITED AND PARTIAL CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE POINTS AS SHOWN ON THE PLANS.

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

CONTRACT:

GRAPHIC SCALES

50 25 0 50 100 — PLANS

50 25 0 50 100 — PROFILE (HORIZONTAL)

10 5 0 10 20 — PROFILE (VERTICAL)

DESIGN DATA

ADT 2010 = 13520
ADT 2030 = 22000
DHV = 11 %
D = 65 %
T = 9 % *
V = 60 MPH
* TTST 6% DUAL 3%
FUNC. CLASS – ARTERIAL
TIER–STATEWIDE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2303B = 6.628 MILES
LENGTH STRUCTURES TIP PROJECT R-2303B = 0.263 MILES
TOTAL LENGTH TIP PROJECT R-2303B = 6.891 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MARCH 29, 2011

LETTING DATE: JUNE 18, 2013

GARY LOVERING, PE
PROJECT ENGINEER

KEVIN E. MOORE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER P.E.

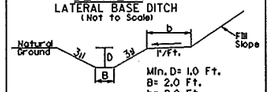
6/26/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r-2303b_HYD_PRM_WET_tsh.dgn
$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	2-G
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Permit Drawing
Sheet 2 of 56

DETAIL A
LATERAL BASE DITCH
(Not to Scale)

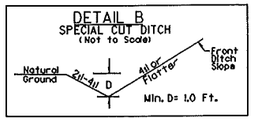


Min. D= 1.0 Ft.
B= 2.0 Ft.
b= 2.0 Ft.

Sta. 404+31 to 406+50 -L- Lt
Sta. 404+10 to 410+00 -L- Rt
Sta. 426+13 to 428+35 -L- Lt
Sta. 431+50 to 436+00 -L- Lt
Sta. 438+00 to 438+00 -L- Lt
Sta. 462+50 to 480+50 -L- Lt
Sta. 487+00 to 503+00 -L- Lt
Sta. 494+27 to 503+00 -L- Rt
Sta. 492+77 to 494+27 -L- Rt
Sta. 503+30 to 513+00 -L- Rt
Sta. 514+40 to 523+00 -L- Rt
Sta. 503+15 to 520+00 -L- Lt
Sta. 523+50 to 526+00 -L- Rt
Sta. 552+50 to 555+00 -L- Rt
Sta. 553+00 to 554+00 -L- Lt
Sta. 556+50 to 558+00 -L- Rt
Sta. 558+50 to 561+50 -L- Lt
Sta. 561+75 to 573+00 -L- Lt
Sta. 562+00 to 567+75 -L- Rt
Sta. 587+29 to 594+22 -L- Rt
Sta. 607+50 to 615+00 -L- Rt
Sta. 617+50 to 627+70 -L- Lt
Sta. 640+00 to 646+00 -L- Rt
Sta. 670+25 to 672+00 -L- Lt
Sta. 682+15 to 685+50 -L- Rt
Sta. 688+13 to 691+50 -L- Lt
Tie to -Y23- Lt ditch
Sta. 696+50 to 701+20 -L- Lt
Sta. 714+24 to 715+97-L- Rt

Sta. 11+31 to 14+00 -Y16- Rt
Sta. 11+10 to 13+00 -Y16- Lt
Sta. 16+25 to 18+64 -Y23- Lt
Ditch Should Be at Zero Depth

DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



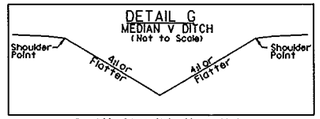
Min. D= 1.0 Ft.

Sta. 367+80 to 371+00 -L- Rt
Sta. 374+10 to 376+10 -L- Rt
Sta. 374+10 to 375+28 -L- Lt
Sta. 377+27 to 382+10 -L- Lt
Sta. 384+50 to 385+50 -L- Lt
Sta. 415+32 to 422+08 -L- Rt
Sta. 448+31 to 462+50 -L- Lt
Sta. 573+00 to 574+15 -L- Lt
Sta. 574+50 to 576+75 -L- Lt
Sta. 576+77 to 594+00 -L- Lt
Sta. 595+97 to 600+00 -L- Rt
Sta. 596+00 to 611+00 -L- Lt
Sta. 600+50 to 605+92 -L- Rt
Sta. 611+50 to 616+00 -L- Lt
Sta. 616+00 to 630+00 -L- Rt
Sta. 627+70 to 636+07 -L- Lt
Sta. 635+07 to 639+80 -L- Rt
Sta. 636+82 to 638+00 -L- Lt
Sta. 638+32 to 641+80 -L- Lt
Sta. 643+35 to 646+00 -L- Lt
Sta. 646+44 to 648+00 -L- Rt
Sta. 651+00 to 654+75 -L- Lt
Sta. 673+50 to 678+00 -L- Lt
Sta. 674+75 to 678+50 -L- Rt**
Sta. 679+00 to 681+90 -L- Rt**
Sta. 685+50 to 687+00 -L- Rt
Sta. 701+50 to 703+50 -L- Lt
Sta. 701+00 to 707+13 -L- Rt
Sta. 704+00 to 710+00 -L- Lt
Sta. 717+75 to 720+52 -L- Rt
Sta. 721+00 to 723+65 -L- Rt
Sta. 724+00 to 727+50 -L- Rt
Sta. 13+11 to 13+90 -Y15- Lt.
Sta. 13+11 to 14+45 -Y15- Rt.
Sta. 17+00 to 18+50 -Y15- Rt
Sta. 17+00 to 18+50 -Y15- Lt.
Sta. 14+40 to 17+00 -Y16- Rt
Sta. 18+75 to 19+67 -Y19- Lt
Sta. 18+80 to 19+90 -Y19- Rt
Sta. 21+19 to 22+50 -Y19- Lt
Sta. 21+95 to 22+50 -Y19- Rt
Sta. 11+31 to 13+00 -Y20- Rt
Sta. 12+50 to 14+34 -Y22- Rt
Sta. 12+50 to 14+50 -Y22- Lt
Sta 10+75 to 11+90 -Y24- Lt

Sta 10+59 to 11+03 -Y24- Rt
Tie to -L- Ditch

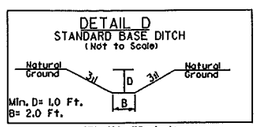
**Outlet on Natural Ground outside of wetlands

DETAIL G
MEDIAN V DITCH
(Not to Scale)



Sta. 368+85 to 372+60 -L- Med
Sta. 379+73 to 380+28 -L- Med
Sta. 446+89 to 453+50 -L- Med
Sta. 491+02 to 498+02 -L- Med
Sta. 538+89 to 546+00 -L- Med
Sta. 674+00 to 675+00 -L- Med
Sta. 698+75 to 702+50 -L- Med

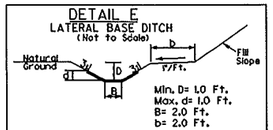
DETAIL D
STANDARD BASE DITCH
(Not to Scale)



Min. D= 1.0 Ft.
B= 2.0 Ft.

STA. 613+75 -L- Lt
STA. 666+87 -L- Lt
STA. 419+40 -L- Lt
STA. 11+50 -Y17- Rt
STA. 13+00 to 14+50 -Y20- Rt
STA. 15+31 -Y22- Rt

DETAIL E
LATERAL BASE DITCH
(Not to Scale)

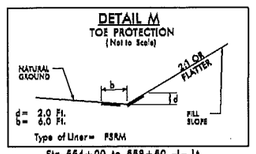


Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
B= 2.0 Ft.
b= 2.0 Ft.

Type of Liner= PSRM

Sta. 710+00 to 712+00 -L- Lt

DETAIL M
TOE PROTECTION
(Not to Scale)

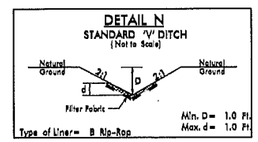


d= 2.0 Ft.
b= 6.0 Ft.

Type of Liner= PSRM

Sta. 554+00 to 558+50 -L- Lt
Sta. 12+50 to 14+34 -Y22- Rt

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

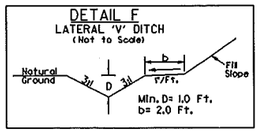


Min. D= 1.0 Ft.
Max. d= 1.0 Ft.

Type of Liner= B Rip-Rap

FROM STA. 391+95 TO STA. 393+75 -LREV- Rt
FROM STA. 391+95 TO STA. 393+40 -LREV- Lt
FROM STA. 401+85 TO STA. 402+85 -LREV- Rt
FROM STA. 401+75 TO STA. 403+87 -LREV- Lt

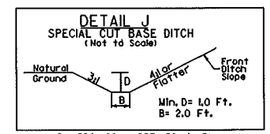
DETAIL F
LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1.0 Ft.
b= 2.0 Ft.

Sta. 377+43 to 382+22 -L- Rt

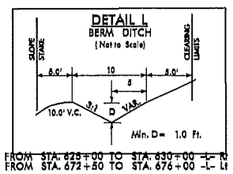
DETAIL J
SPECIAL CUT BASE DITCH
(Not to Scale)



Min. D= 1.0 Ft.
B= 2.0 Ft.

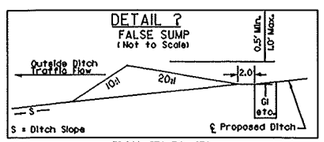
Sta. 526+00 to 537+50 -L- Rt
Sta. 528+50 to 542+13 -L- Lt
Sta. 547+37 to 553+00 -L- Lt
Sta. 547+37 to 552+50 -L- Rt

DETAIL L
BERM DITCH
(Not to Scale)



FROM STA. 625+00 TO STA. 630+00 -L- Rt
FROM STA. 672+50 TO STA. 676+00 -L- Lt

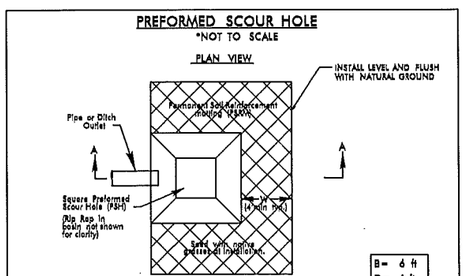
DETAIL ?
FALSE SUMP
(Not to Scale)



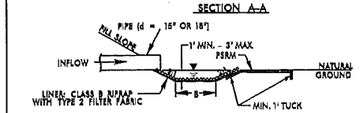
FROM STA. TO STA.

PREFORMED SCOUR HOLE
*NOT TO SCALE

PLAN VIEW



SECTION A-A



3/08

STA. 424+70 -L- Rt
STA. 476+60 -L- Lt
STA. 539+50 -L- Rt

6/20/2012
eminder
R:\Hydraulics\PERMITS Environmental\Drawings\R2303B Hyd_DRN_details.dgn
$$$$USERNAME$$$$
$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$$$$$$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 3 of 54

8/17/99

REVISIONS

SITE 1

SITE 2

NAD 83/95

6

19
ROLAND NUNNERY

390

395

400

19
ROLAND NUNNERY

19A

11

8

9

WW FENCE

FS

-L- STA. 387+00

MATCHLINE SHEET 5 -L-

-L- STA. 401+00

MATCHLINE SHEET 7 -L-

SEE DETAIL N

TEMP. WORK BRIDGE

-LREV- N 84° 22' 32.5" E

-LREV- N 84° 22' 32.5" E

CAT. 2GI

TYPE B-77

TYPE M350

90" RCP-III

GRAU-350

TOE PROTECTION
Sta 387+40 to 390+00 -L- Rt

WW FENCE

CL I RIP RAP
W/FILTER FABRIC
EST. 17 TONS
EST. 38 SY FABRIC

CLASS II RIP RAP
To Elev. 101.7'

SEE DETAIL N

Sta 7
Q= 41cfs
V= 6.9 fps

POND

SOUTH RIVER
CUMBERLAND COUNTY

9

19

ROLAND NUNNERY

19A

19

ROLAND NUNNERY

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES HAND CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

November 28, 2011
r2303b_hyd_prm_wet_psh6.dgn
R. Eastep

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh6.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 4 of 56

SITE 1

SITE 2

NAD 83/95

MATCHLINE SHEET 5 -L- STA. 387+00

MATCHLINE SHEET 7 -L- STA. 401+00

WW FENCE

SEE DETAIL N

TEMP. WORK BRIDGE

-LREV- N 84° 22' 32.5" E

TOE PROTECTION
Sta. 387+40 to 390+00 -L- Rt

CL I RIP RAP
W/FILTER FABRIC
EST. 17 TONS
EST. 38 SY FABRIC

Stout
Qs 41cfs
Vs 6.9 fps

CLASS II RIP RAP
To Elev. 101.7'

POND

ROLAND NUNNERY

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES HAND CLEARING

GRAPHIC/SCALE 1" = 50'

REVISIONS

8/17/99

6/27/2012
amkeefer
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh6.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh6.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-14

Permit Drawing
Sheet 5 of 56

391 + 63.99

-LREV-
STA 391+45.60
OFF 8.58

0.025 | 6:1 | 5.994:1 | 0.025

3:1 | 3:1

WLB | WLB

D.P. 109.71

S.S. 95.90 | S.S. 97.40

96 69

391 + 43.10

-LREV-
STA 391+40.97
OFF 8.47

0.025 | 6:1 | 5.994:1 | 0.025

3:1 | 3:1

WLB | WLB

D.P. 109.72

S.S. 96.11 | S.S. 97.47

96 66

391 + 38.46

-LREV-
STA 391+02.50
OFF 7.73

0.025 | 6:1 | 5.994:1 | 0.025

3:1 | 3:1

WLB | WLB

D.P. 109.84

S.S. 97.88 | S.S. 100.03

98 02

391 + 00.00

-LREV-
STA 390+52.49
OFF 6.76

0.025 | 6:1 | 5.994:1 | 0.025

3:1 | 3:1

WLB | WLB

D.P. 110.00

S.S. 99.39 | S.S. 99.81

99 72

390 + 50.00

— 4 —

6/20/2012
amkeester
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wat_xpLL_PSH6.dgn
November 28, 2011
R2303B_hyd_prm_wat_xpl_L_xsc14.dgn
am.keester

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 6 of 56

SITE 2

NAD 83/95

REVISIONS

8/17/99

-L- STA. 401+00

MATCHLINE SHEET 6 -L- STA. 401+00

-L- STA. 415+00

MATCHLINE SHEET 8 -L- STA. 415+00

-LREV- N 84°22'32.5" E

-LREV- N 84°22'32.5" E

19 ROLAND NUNNERY

21 JAMES H. SPELL

405

410

SOUTH RIVER
SAMPSON COUNTY
LITTLE COHARIE TOWNSHIP

SEE DETAIL N

SEE DETAIL N

Excavate to El 98
Est. 1000 cu yds

CL B RIP RAP
W/FILTER FABRIC
EST. 10 TONS
EST. 28 SY FABRIC

CL B RIP RAP
W/FILTER FABRIC
EST. 7 TONS
EST. 7 SY FABRIC

CLASS II RIP RAP
(STRUCTURE PAY ITEM)

WW FENCE

WW FENCE

15" w
2 Elbows

GRAU 350

TYPE B-77

TYPE M350

15" RCP-III

24" RCP-III

18" RCP-III

CAT-1
18" w
2 Elbows

0701 0702 0703 0704 0705 0706 0707 0708 0709 0710

2GI

HW

TDE

AUE

JAMES H. SPELL 21

RICHARD S. SESSOMS, JR. 20

21 JAMES H. SPELL

JUANITA C. LONG

CECIL HALL

21 JAMES H. SPELL

OLD STAGE ROAD

EIP

DALLAS BROCK

DENOTES MECHANIZED CLEARING

DENOTES HAND CLEARING

50' 0' 50' 100' 150'

GRAPHIC SCALE 1" = 50'

AUTRYVILLE CITY LIMIT

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh7.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh7.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Permit Drawing
Sheet 7 of 56

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99

SITE 2

NAD 83/95

MATCHLINE SHEET 6 -L- STA. 401+00

MATCHLINE SHEET 8 -L- STA. 415+00

-L- REV- N 84°22'32.5"E

-L- REV- N 84°22'32.5"E

19 ROLAND NUNNERY

21 JAMES H. SPELL

20 RICHARD S. SESSOMS, JR.

21 JAMES H. SPELL

CECIL HALL

21 JAMES H. SPELL

JUANITA C. LONG

21 JAMES H. SPELL

405

410

SEE DETAIL M

SEE DETAIL N

SEE DETAIL O

SEE DETAIL P

CL B RIP RAP W/FILTER FABRIC EST. 10 TONS EST. 28 SY FABRIC

CLASS II RIP RAP (STRUCTURE PAY ITEM)

CL B RIP RAP W/FILTER FABRIC EST. 7 SY FABRIC

Excavate to E/98 Est. 1000 cu yds

15" W 2 Elbows

GRAU 350

TYPE B-77

TYPE M350

0704 0705 0706 0707 0708 0709 0710 070

2GI

CAT-1

HW

WW FENCE

TOE

AUE

DENOTES MECHANIZED CLEARING

DENOTES HAND CLEARING

50' 0' 50' 100' 150'

GRAPHIC SCALE 1" = 50'

AUTRYVILLE CITY LIMIT

OLD STAGE ROAD

DALLAS BROCK

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh7.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh7.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R2303B	6_PFL

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 8 of 56

387+00 388+00 389+00 390+00 391+00 392+00 393+00 394+00 395+00 396+00 397+00 398+00 399+00 400+00 401+00 402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00

120
110
100
90
80
70

PI = 388+25.00
EL = 103.78

(-12.57)Q (-10.36)Q

West Bound Lane
℄ Sta. 397+87.87 -L-
Cr. El 110.7
10 @ 100', 1 @ 60', 1 @ 100', and 1 @ 60' 63" MBT

East Bound Lane
℄ Sta. 397+87.87 -L-
Cr. El 110.8
8 @ 100', 1 @ 60', 3 @ 100', and 1 @ 60' 63" MBT

-WBL-

PROP. 100 yr. WS ELEV. = 101.9

PROP. 50 yr. WS ELEV. = 100.7

CLASS II RIP RAP

ABUTMENT EXCAVATION
Excavate to El. 98

NATURAL GROUND CENTERLINE

NG. UPSTREAM

NWSE = 90.1
4/13/2009

PI = 408+50.00
EL = 107.38

(-0.36)Q (12.46)Q

MAXIMUM SPREAD ON BRIDGE
DA= 0.19 Ac
Q= 0.68 cfs
S(o)= 0.3%
Spread=7.6 ft
Shoulder Width=8 ft

DECK DRAINS
Use 6" Deck Drains on 12' Centers
USE DECK DRAINS
EBL: Sta. 391+76 to 400+25 and 402+25 to 403+96 -L- Rt
WBL: Sta. 391+76 to 399+70 and 401+65 to 403+96 -L- Lt
Ave. Q @ each deck drain = 0.04 cfs

SUPER STRUCTURE DEPTH
FOR 63" MBT
63"+17" (Deck Th)+9.6"(super(32"+tx.025)
= 7.5 ft

-EBL-

CLASS II RIP RAP
1.5:1

NG. DOWNSTREAM

ABUTMENT EXCAVATION
Excavate to El. 98
APPROX. 1000 CU.YDS

NWSE = 90.1
4/13/2009

387+00 388+00 389+00 390+00 391+00 392+00 393+00 394+00 395+00 396+00 397+00 398+00 399+00 400+00 401+00 402+00 403+00 404+00 405+00 406+00 407+00 408+00 409+00

6/21/202
C:\Projects
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_PSH7PFL.dgn
$$$$$$$YSTIME$$$$$
$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$$$CLENAME$$$

8/23/9

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-15

Permit Drawing
Sheet 9 of 54

-LREV-
STA 392+09.23
OFF 9.72

0.025 0.025

9441
392+06.74

-LREV-
STA 391+91.51
OFF 9.42

0.025 0.025

9506
391+89.01

-LREV-
STA 391+88.48
OFF 9.37

0.025 0.025

9514
391+85.98

391+68.16
BEGIN BRIDGE -LREV- STA. 391+76.57 +/-

-4-

6/20/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh7.dgn
$$$$$$$$USERNAME$$$$$$$$
$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$DGN$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 10 of 56

NAD 83/95

REVISIONS

09/16/11 R/W REVISION (PJS) - THE R/W LINE WAS ADJUSTED TO THE EXISTING PROPERTY LINE ON PARCEL 26A (PAMELA C. MELVIN) AND PARCEL 26 (HEATHER ELIZABETH MELVIN).

08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED ON PARCEL 25 (BERTIE A. WILLIAMS).

8/17/99

SITE 3

SITE 4

SITE 5

MATCHLINE SHEET 7 -L- STA. 415+00

MATCHLINE SHEET 9 -L- STA. 429+00

KATHIE-ELAINE HALL RAY

VIRGINIA MAE PHILLIPS SIMMONS

JAMES H. SPELL

BERTIE A. WILLIAMS

THORNTON HOMES CO.

HEATHER ELIZABETH MELVIN

PAMELA C. MELVIN (PER SAMPSON CO. GIS)

BOBBY L. HENDERSON

MICKIE W. SPELL

TERRY A. SPELL

JAKE H. SPELL

ROBERT F. CASHWELL

HARVEY S. SUTTON

AUTRYVILLE CITY LIMIT

N 36°04'26.8" E

N 83°52'33.5" E

S 19°47'48.3" W

SEE DETAIL "D"
2' Base Toe Ditch
Est. 40 cu yds excavation

CL B RIP RAP
W/FILTER FABRIC
EST. 8 TONS
EST. 21 SY FABRIC

Sta. 416+40
Outlet Ditch
Est. 60 cu yds
Use Flat

See Detail "B"
Special Cut Ditch
Sta. 415+32 to 422+08 -L- Rt

ROCK FILL IN POND
SEE DETAIL PROVIDED
BY GEOTECH

See Detail "M"
Rip Rap at Embankment

SEE DETAIL "A"
2' Base Lateral Ditch
Sta. 426+13 to 428+35 -L- Lt.

Grade To Drain
Remove Old Roadbed
To Natural Ground

Sta. 423+75 -L- Rt
CORE 12 076
CORE 13 108
CORE 14 078
SS 0.8 15"
SS 0.0667"
n=0.045

WW FENCE

AUE

PDE

RCP-III

RCP-IV

2GI

GRAU 35 - 2GI Type D

REMOVE

EXISTING R/W

DITCHES R/W

PSH

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

50' 0' 50' 100' 150'

GRAPHIC SCALE 1" = 50'

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh8.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh8.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

09/16/11 R/W REVISION (PJS) - THE R/W LINE WAS ADJUSTED TO THE EXISTING PROPERTY LINE ON PARCEL 26A (PAMELA C. MELVIN) AND PARCEL 26 (HEATHER ELIZABETH MELVIN).

08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED ON PARCEL 25 (BERTIE A. WILLIAMS).

8/17/99

SITE 3

SITE 4

SITE 5

MATCHLINE SHEET 7 -L- STA. 415+00

MATCHLINE SHEET 9 -L- STA. 429+00

KATHIE ELAINE HALL RAY

VIRGINIA MAE PHILLIPS SIMMONS

BERTIE A. WILLIAMS

JAMES H. SPELL

THORNTON HOMES CO.

HEATHER ELIZABETH MELVIN

PAMELA C. MELVIN (PER SAMPSON CO. GIS)

BOBBY L. HENDERSON

MICKIE W. SPELL

TERRY A. SPELL

JAKE H. SPELL

ROBERT F. CASHWELL

HARVEY S. SUTTON

AUTRYVILLE CITY LIMIT

N 86°04'26.4" E

N 83°52'33.5" E

S 10°47'46.3" W

WW FENCE

ROCK FILL IN POND
SEE DETAIL PROVIDED
BY GEOTECH

SEE DETAIL "D"
2' Base Ditch
Est. 40 cu yds excavation

CL B RIP RAP
W/FILTER FABRIC
EST. 8 TONS
EST. 21 SY FABRIC

See Detail "A"
Rip Rap at Embankment

SEE DETAIL "A"
2' Base Interior Ditch
Sta. 426+13 To 426+35

See Detail "B"
Special Cut Ditch
Sta. 415+32 to 422+08 -L- Rt

Grade To Drain
Remove Old Roadbed
To Natural Ground

Sta. 423+75 -L- Rt
Sta. 426+13 -L- Rt

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

GRAPHIC SCALE 1" = 50'

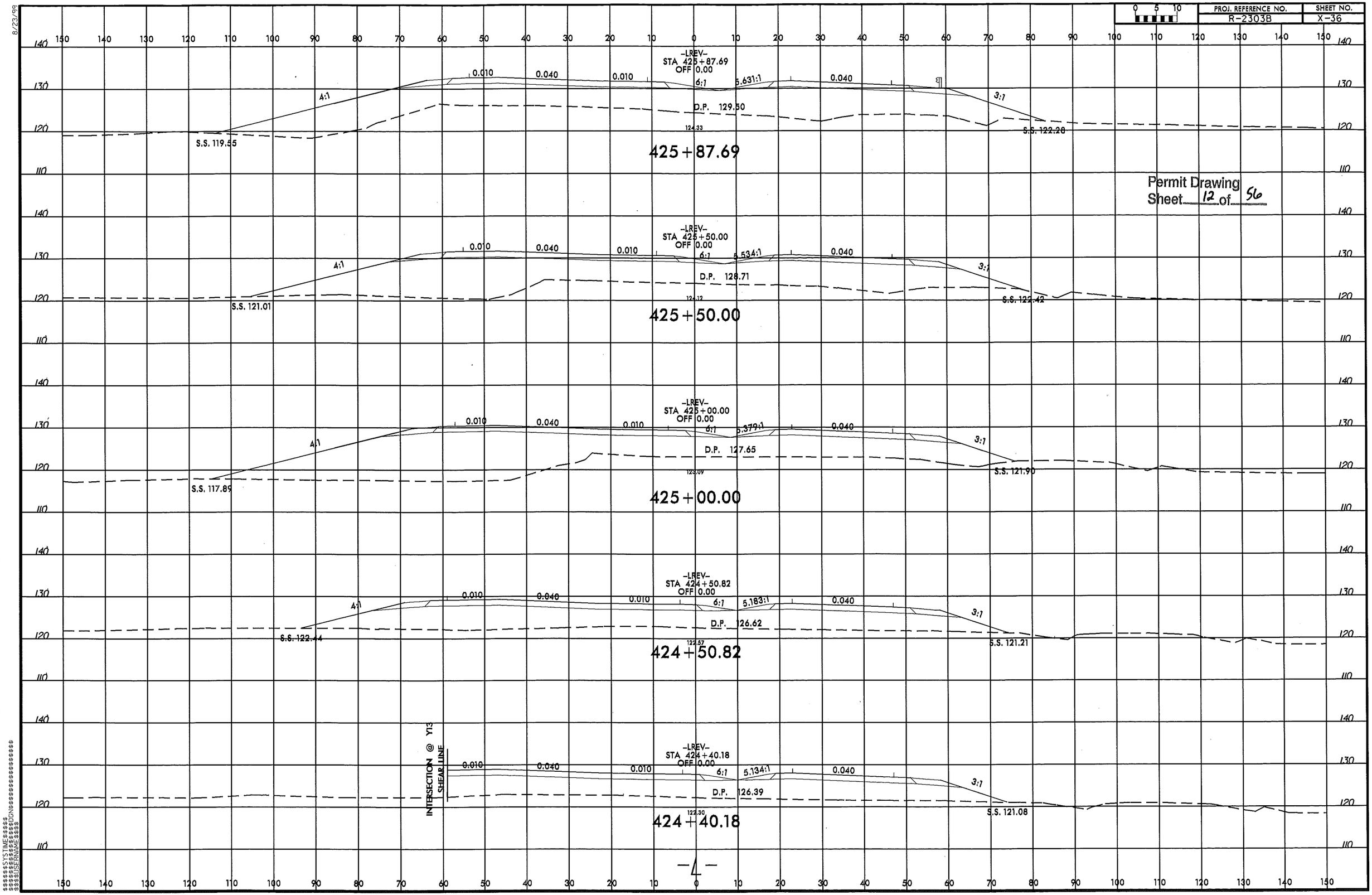
Permit Drawing
Sheet 11 of 56

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh8.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh8.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-36



Permit Drawing
Sheet 12 of 56

6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh8a.dgn
$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$DGNS$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-37

Permit Drawing
Sheet 13 of 56

-LREV-
STA 427+57.69
OFF 0.00

2.0 | 4:1 | 0.040 | 0.010 | 6:1 | 5.631:1 | 0.040 | 3:1 | 3:1 | 3:1

127.17 | S.S. 128.57 | D.P. 133.752 | 128.97 | S.S. 128.24

427+57.69

-LREV-
STA 427+50.82
OFF 0.00

2.0 | 4:1 | 0.040 | 0.010 | 6:1 | 5.631:1 | 0.040 | 3:1 | 3:1 | 3:1

127.11 | S.S. 128.70 | D.P. 133.580 | 128.66 | S.S. 128.18

427+50.82

-LREV-
STA 427+00.00
OFF 0.00

2.0 | 4:1 | 0.010 | 0.040 | 0.010 | 6:1 | 5.631:1 | 0.040 | 3:1 | 3:1 | 3:1

126.85 | S.S. 128.33 | D.P. 132.310 | 126.80 | S.S. 126.96

427+00.00

-LREV-
STA 426+50.00
OFF 0.00

2.0 | 4:1 | 0.010 | 0.040 | 0.010 | 6:1 | 5.631:1 | 0.040 | 3:1 | 3:1 | 3:1

126.60 | S.S. 128.05 | D.P. 131.060 | 128.79 | S.S. 123.06

426+50.00

-LREV-
STA 426+00.00
OFF 0.00

4:1 | 0.010 | 0.040 | 0.010 | 6:1 | 5.631:1 | 0.040 | WLB | 3:1 | 3:1

S.S. 120.61 | D.P. 129.81 | 124.13 | S.S. 122.23

426+00.00

-4-

6/22/2012
amkeester
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpl_1_psh8b.dgn
November 28, 20
R2303B_hyd_prm_wet_xpl_1_xsec37.dgn
am keester

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-177

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 14 of 56

130
120
110

3:1 0.020 0.020 3:1

120.04
15+31.35

3:1 0.020 0.020 3:1

120.07
15+02.72

3:1 0.020 0.020 3:1

120.11
14+75.62

3:1 0.020 0.020 3:1

120.12
14+62.01

WLB

3:1 0.020 0.025 3:1

120.17
14+25.00

3:1 0.020 0.037 3:1

120.19
14+00.00

0.025 0.050

120.21
13+75.00

120.23
13+50.00

-Y13-

6/22/2012
amkeester
R:\Hydraulics\PERMITS_Environmental\Drawings\r-2303b_hyd_prm_wet_xpl_yl3_psh8c.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpl_yl3.dgn
amkeester

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 15 of 56

REVISIONS

09/16/11 R/W REVISION (PJS) - THE R/W LINE WAS ADJUSTED TO THE EXISTING PROPERTY LINE ON PARCEL 26 (HEATHER ELIZABETH MELVIN), PARCEL 30 (DONNA BROWN HOLDEN), PARCEL 32 (BRYON D. SESSOMS), AND PARCEL 34 (CLARA E. JOHNSON).

08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED ON PARCEL 26 (HEATHER ELIZABETH MELVIN).

8/17/99

SITE 7B

SITE 7A

SITE 9

SITE 8

SITE 6

NAD 83'95

GEORGE R. SESSOMS
RUDOLPH L. SESSOMS

A. TART (24A)

AUTRYVILLE CITY LIMIT

(29) FRANCES S. FAIRCLOTH

(30) DONNA BROWN HOLDEN

(26) HEATHER ELIZABETH MELVIN

(28A) PAMELA B. MELVIN

(31) HELEN S. SESSOMS

(31A) DOUGLAS LEON NEW

(32) FRANCES A. FAIRCLOTH

(33) DOUGLAS NEW

(34) DANNY RAY JOHNSON

LOFTON E. BAREFOOT

WILLIE B. JOHNSON, JR.

REMOVE GUARDRAIL BARRICADE

See Detail "A"
2' Lateral Base Ditch
Sta. 431+50 to 436+00 -L- Lt

See Detail "A"
Lateral 2' Base Ditch
Sta. 438+00 to 439+98 -L- Lt

TOE PROTECTION
See Detail "K"
Sta. 436+00 to 437+00 -L- Lt

TOE PROTECTION
See Detail "K"
Sta. 440+20 to 441+70 -L- Lt

Rip Rap at Embankment
See Detail M

DRAIN POND

WW FENCE

CL I RIP RAP
W/FILTER FABRIC
EST. 9 TONS
EST. 17 SY FABRIC

CL B RIP RAP
W/FILTER FABRIC
EST. 4 TONS
EST. 16 SY FABRIC

NOTE: PROPOSED MITIGATION SHOWN IS CONCEPTUAL. SEE MITIGATION PLANS. INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED.

EXCAVATE DAM
APPROX. 3800 CU.YDS.

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

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

MATCHLINE SHEET 8 -L- STA. 429+00

MATCHLINE SHEET 10 -L- STA. 443+00

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh9.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh9.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 16 of 56

NAD 83/95

REVISIONS

09/16/11 R/W REVISION (PJS) – THE R/W LINE WAS ADJUSTED TO THE EXISTING PROPERTY LINE ON PARCEL 26 (HEATHER ELIZABETH MELVIN), PARCEL 30 (DONNA BROWN HOLDEN), PARCEL 32 (BRYON D. SESSOMS), AND PARCEL 34 (CLARA E. JOHNSON).

08/26/11 R/W REVISION (PJS) – THE OFFSETS WERE CORRECTED ON PARCEL 26 (HEATHER ELIZABETH MELVIN).

8/17/99

SITE 7B

SITE 7A

SITE 9

SITE 8

SITE 6

A. TART 24A

AUTRYVILLE CITY LIMIT

GEORGE R. SESSOMS
RUDOLPH L. SESSOMS

29 FRANCES S. FAIRCLOTH

30 DONNA BROWN HOLDEN

24 HEATHER ELIZABETH MELVIN

26 HEATHER ELIZABETH MELVIN

28 PAMELA B. MELVIN 28A

27

31 HELEN S. SESSOMS

31A DOUGLAS LEON NEW

32 FRANCES A. FAIRCLOTH

33 DOUGLAS NEW

34 DANNY RAY JOHNSON

LOFTON E. BAREFOOT

WILLIE B. JOHNSON, JR.

MATCHLINE SHEET 8 –L– STA. 429+00

MATCHLINE SHEET 10 –L– STA. 443+00

See Detail "A"
2' Lateral Base Ditch
Sta. 431+50 to 436+00 –L– Lt

See Detail "A"
Lateral 2' Base Ditch
Sta. 438+00 to 439+98 –L– Lt

TOE PROTECTION
See Detail "K"
Sta. 436+00 to 437+00 –L– Lt

TOE PROTECTION
See Detail "K"
Sta. 440+20 to 441+70 –L– Lt

Rip Rap at Embankment
See Detail M

REMOVE GUARDRAIL BARRIER

EXCAVATE DAM
APPROX. 3000 CU.YDS.

CL I RIP RAP
W/FILTER FABRIC
EST. 2 TONS
EST. 17 SY FABRIC

CL B RIP RAP
W/FILTER FABRIC
EST. 4 TONS
EST. 16 SY FABRIC

NOTE: PROPOSED MITIGATION SEE MITIGATION PLANS. INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED.

WW FENCE

DRAIN. POND

DENOTES EXCAVATION IN WETLAND
DENOTES IMPACTS IN SURFACE WATER
DENOTES IMPACTS IN SURFACE WATER (POND)
DENOTES FILL IN WETLAND
DENOTES MECHANIZED CLEARING
DENOTES HAND CLEARING

GRAPHIC SCALE 1" = 50'

PRETOLA LN

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh9.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh9.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303B	9B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 17 of 56

See Detail "A"
2' Lateral Base Ditch
Sta. 431+50 to 436+00 -L- Lt

50.00

SITE 7A

SITE 7B CAT-1

SITE 6

26
HEATHER ELIZABETH MELVIN

28A
PAMELA C. MELVIN

31
HELEN S. SESSOMS

ISFD
SOIL
POOL
WD
S
48" CHL
HTR
60" CHL
30" RCP-III
30" RCP-IV
WLB
2GI
TB 2GI
AUBRYVILLE
LIMIT
ACCESS EASEMENT

E E DENOTES EXCAVATION IN WETLAND

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

CL I RIP RAP
W/FILTER FABRIC
EST. 7 TONS
EST. 17 SY FABRIC

S S DENOTES IMPACTS IN SURFACE WATER

P P DENOTES IMPACTS IN SURFACE WATER (POND)

NOTE: PROPOSED MITIGATION- SEE MITIGATION PLANS. INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED.

NAD 83/95

20' 0' 20' 40' 60'
SCALE= 1"=40'

REVISIONS
8/17/99

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_PSH9B.dgn

November 28, 2011
R2303B_Hyd_prm_wet_psh9B.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-40

Permit Drawing
Sheet 18 of 56

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

160 150 140 130

-LREV-
STA 434+00.00
OFF 0.00

0.040 6:1 5.835:1 0.040

WLB

3:1 2.0 3:1 3:1

138.81 S.S. 141.50

D.P. 148.848

3:1

S.S. 139.21

138.26

434+00.00

-LREV-
STA 433+50.00
OFF 0.00

0.040 6:1 5.835:1 0.040

WLB

3:1 2.0 3:1 3:1

138.22 S.S. 141.86

D.P. 147.598

3:1

S.S. 136.59

140.33

433+50.00

-LREV-
STA 433+00.00
OFF 0.00

0.040 6:1 5.835:1 0.040

3:1 2.0 3:1 3:1

137.64 S.S. 139.04

D.P. 146.348

3:1

S.S. 133.63

136.88

433+00.00

-LREV-
STA 432+50.00
OFF 0.00

WLB

0.040 6:1 5.835:1 0.040

WLB

3:1 2.0 3:1 3:1

137.76 S.S. 139.33

D.P. 145.098

3:1

S.S. 133.26

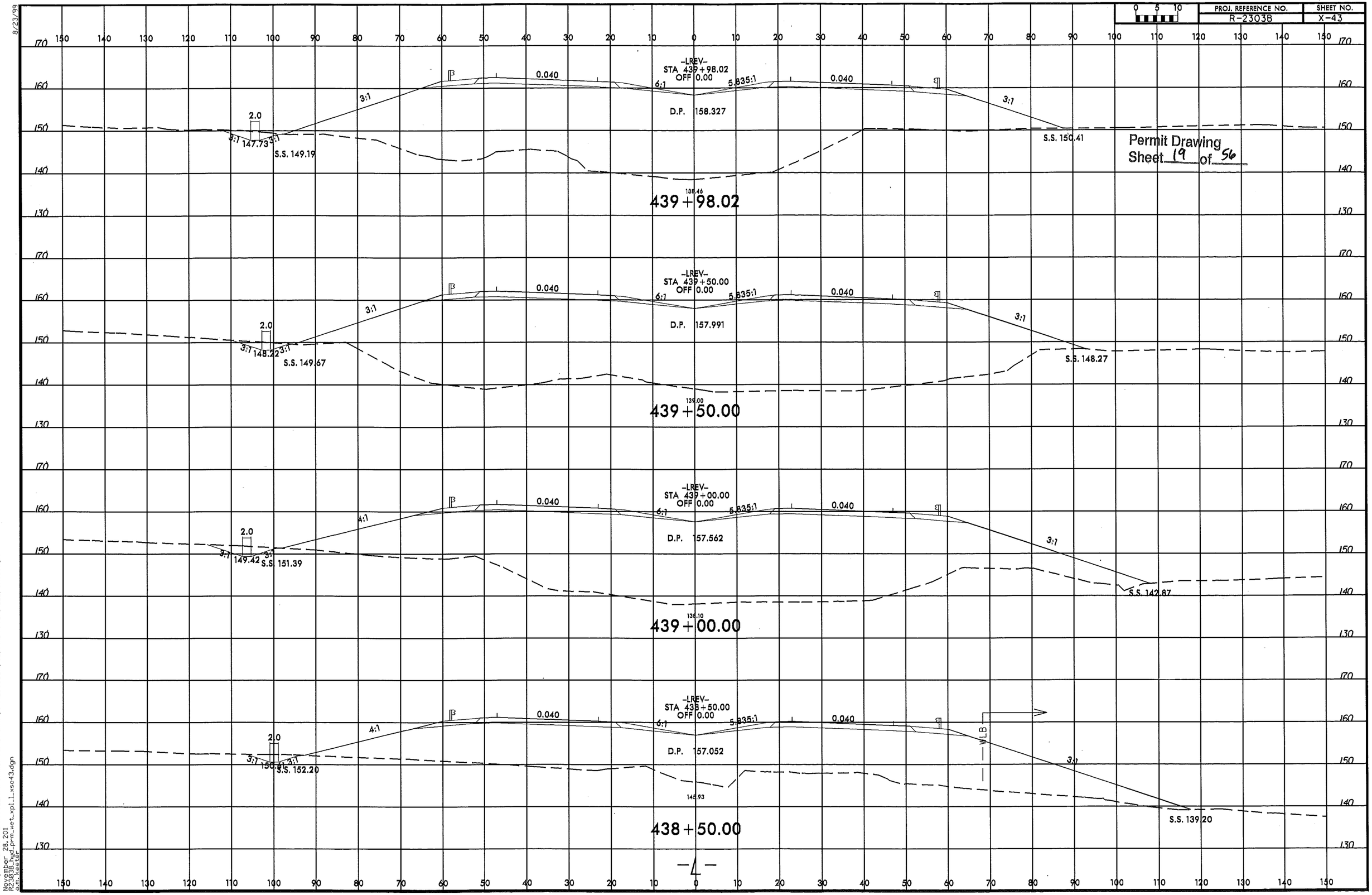
135.61

432+50.00

6/22/2012
cmkeever
R:\Hydraulics\PERMITS_Envlronmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh9a.dgn
November 28, 2011
R2303B_hyd_prm_wet_xpl1_xsc40.dgn
em_keever

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-43



Permit Drawing
Sheet 19 of 56

6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh9b.dgn
November 28, 2011
R2303B_hyd_prm_wet_xpl_1_xsc43.dgn
amkeeter

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 20 of 56

NAD 83/95

REVISIONS

11/22/11 R/W REVISION-ADDED PARCEL • 048A SAMPSON COUWATER & SEWER DISTRICT I, ADDED 60' ACCESS POINT TO THE PROPERTY LINE PARCEL 048 AND CHANGED PUE TO ROW, MOVED BEGIN ACCESS POINT TO THE END OF PUE THAT CHANGED TO ROW ON PARCELS 047/048. ADDED 60' ACCESS POINT AT THE PROPERTY LINE PARCEL 050. SHOWED ---------- PARCEL 051AND ADDED PROPERTY LINES, PER MB 71/98,DB. 1401,PG. 925.

8/17/99

MATCHLINE SHEET 16 -L- STA. 541+00

MATCHLINE SHEET 18 -L- STA. 555+00

SITE 10

SITE 11

SITE 12

SAMPSON COUNTY WATER & SEWER DISTRICT I

JAMES R. STARLING

RICHARD F. HALL

RICHARD FRANKLIN HALL

JAMES V. BROWN

PERRY W. SESSOMS

GEORGE L. HALL

JOSE PEDRAZA

NC 24 OUTRY HIGHWAY

See Detail K
TOE PROTECTION
Sta. 542+60 to 545+25 -L- Lt.

See Detail "J"
Special Cut Ditch
Sta. 547+37 to 553+00 -L- Lt

See Detail "A"
Lateral 2' Base Ditch
Sta. 553+00 to 554+00 -L- Lt

Q(10)=15 cfs
V(10)=2.5 fps

See Detail "A"
Lateral 2' Base Ditch
Sta. 552+50 to 555+00 -L- Rt

See Detail "J"
Special Cut Ditch
Sta. 547+37 to 552+50 -L- Rt

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

November 28, 2011
r2303b_hyd_prm_wet_psh17.dgn

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r-2303b_hyd_prm_wet_psh17.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 21 of 56

8/17/99

REVISIONS

11/22/11 R/W REVISION: ADDED PARCEL # 048A SAMPSON CO.WATER & SEWER DISTRICT I.
ADDED 60' ACCESS POINT AT PROPERTY LINE PARCEL 048 AND CHANGED PUE TO R/W.
MOVED BEGIN FENCE TO THE END OF PUE THAT CHANGED TO R/W ON PARCELS 047/048.
ADDED 60' ACCESS POINT AT PROPERTY LINE PARCEL 050.
SHOWED PARCEL 049 AND ADDED PROPERTY LINES PER MB 71/98 DB 1401 PG 925.

N 74° 38' 37" W

SITE 10

SITE 11

SITE 12

MATCHLINE SHEET 16 -L- STA. 541+00

MATCHLINE SHEET 18 -L- STA. 555+00

RICHARD F. HALL — 49

JAMES R. STARLING — 47

SAMPSON COUNTY WATER & SEWER DISTRICT I

RICHARD FRANKLIN HALL — 49

GEORGE L. HALL — 50

JOSE PEDRAZA — 51

GEORGE L. HALL — 53

JAMES V. BROWN — 48

PERRY W. SESSOMS

RETAIN

WW FENCE

ACCESS POINT

See Detail K
TOE PROTECTION
Sta. 542+60 to 545+25 -L- Lt.

See Detail "J"
Special Cut Ditch
Sta. 547+37 to 553+00 -L- Lt

See Detail "A"
Lateral 2' Base Ditch
Sta. 553+00 to 554+00 -L- Lt

Q(10) = 14 cfs
V(10) = 2.3 fps

See Detail "A"
Lateral 2' Base Ditch
Sta. 552+50 to 555+00 -L- Rt

See Detail "J"
Special Cut Ditch
Sta. 547+37 to 552+50 -L- Rt

NC 24 NUTR HIGHWAY

EXISTING R/W

REMOVE

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

GRAPHIC SCALE 1" = 50'

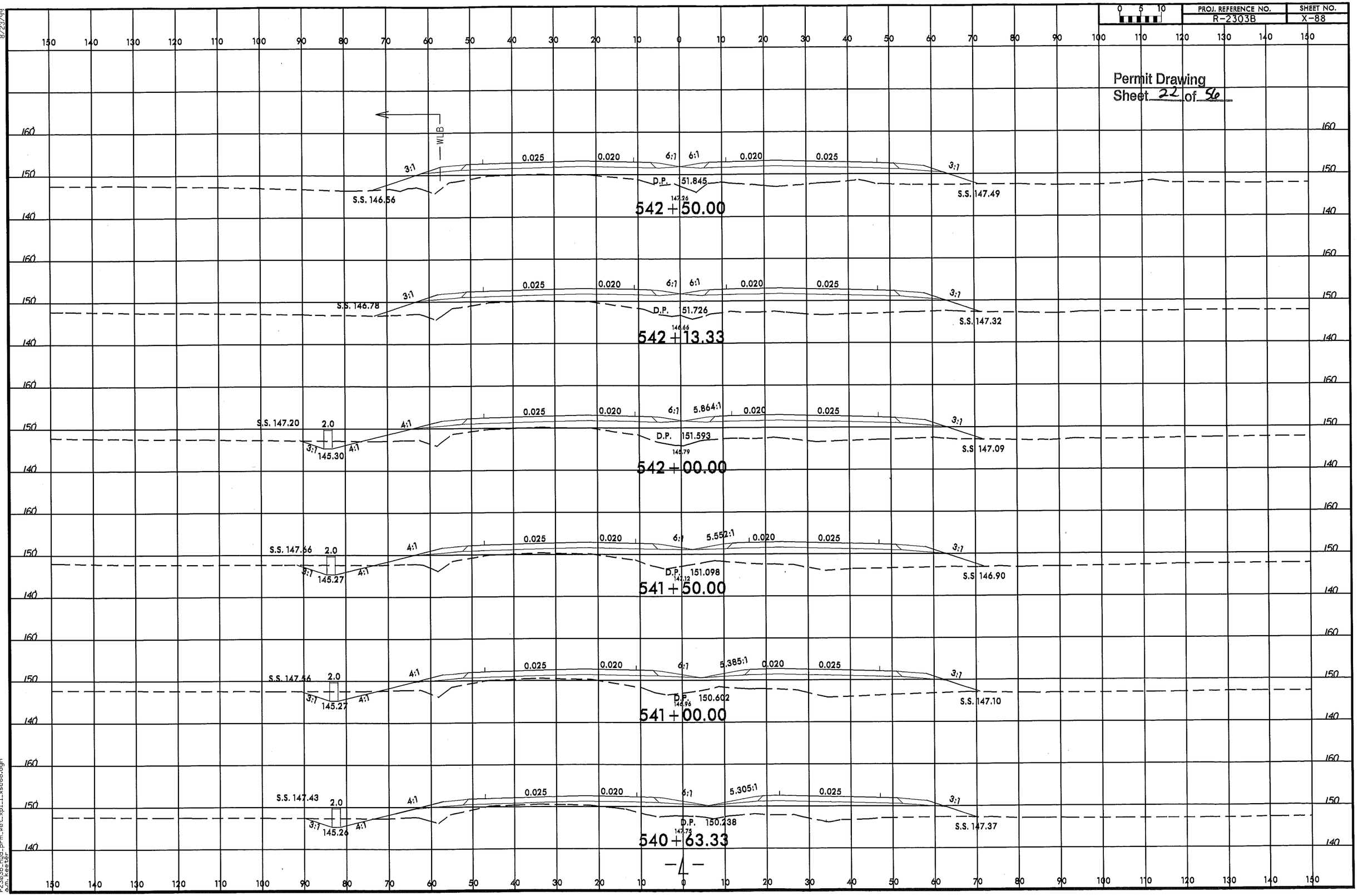
November 28, 2011
r2303b_hyd_prm_wet_psh17.dgn

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh17.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-88

Permit Drawing
Sheet 22 of 56



6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpl-L_pshi7.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpl1_xsc88.dgn
a.m.keeter

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 23 of 56

NAD 1983

8/17/99

REVISIONS

11/22/11 R/W REVISIONS: ADDED PROPERTY LINES PER DB 1200 PG 769 MB 27/90.
ADDED PARCELS 053A & 053B.

555 560 565

49 RICHARD FRANKLIN HALL

53A GEORGE L. HALL

56 JIMMY M. HALL

SITE 11

MATCHLINE SHEET 17 -L- STA. 555+00

MATCHLINE SHEET 19 -L- STA. 569+00

TOE PROTECTION
See Detail "M"
Sta. 554+00 to 558+50 -L- Lt

Q(10)=7 cfs
V(10) =1.3 fps

See Detail "A"
Lateral 2' Base Ditch
Sta. 558+50 to 561+50 -L- Lt
If Guardrail can be eliminated;
Use this Typical
See Detail "B"
Special Cut Ditch
Sta. 558+50 to 561+50 -L- Lt

WW FENCE

ACCESS POINT

See Profile 561+75 Lt

See Detail "A"
Lateral 2' Base Ditch
Sta. 561+75 to 573+00 -L- Lt

ACCESS POINT

24"

REMOVE

EXISTING R/W

60'

NC 24 HWY

REMOVE

REMOVE

2GI

2GI

2GI

CL B RIP RAP
W/FILTER FABRIC
EST. 2 TONS
EST. 7 SY FABRIC

24"

ACCESS POINT

AUE AUE AUE AUE AUE AUE AUE AUE

See Detail "A"
Lateral 2' Base Ditch
Sta. 562+00 to 576+75 -L- Rt

JOHNSTON EXPRESS & REGRESS EASEMENT

Q(10)=5 cfs
V(10) =0.8 fps

CL B RIP RAP
W/FILTER FABRIC
EST. 1 TON
EST. 5 SY FABRIC

See Detail "A"
Lateral 2' Base Ditch
Sta. 556+50 to 558+00-L- Rt

WW FENCE

ACCESS POINT

53 GEORGE L. HALL, ETUL

SITE 12

53B GEORGE L. HALL

57 SOMBOON J. KACHAENCHAI

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

November 28, 2011
r2303b_hyd_prm_wet_pshl8.dgn

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_pshl8.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 24 of 56

NAD 83/95

8/17/99

REVISIONS

11/22/11 R/W REVISIONS: ADDED PROPERTY LINES PER DB 1200 PG 769 MB 27/90.
ADDED PARCELS 053A & 053B.

MATCHLINE SHEET 17 -L- STA. 555+00

MATCHLINE SHEET 19 -L- STA. 569+00

RICHARD FRANKLIN HALL
49

555

560

565

53A
GEORGE L. HALL

56
JIMMY M. HALL

SITE 11

SITE 12

See Detail "A"
Lateral 2' Base Ditch
Sta. 558+50 to 561+50 -L- Lt
If Guardrail can be eliminated;
Use this Typical
See Detail "B"
Special Cut Ditch
Sta. 558+50 to 561+50 -L- Lt

Q(10) = 7 cfs
V(10) = 1.3 fps

WW FENCE

ACCESS POINT

TOE PROTECTION
See Detail "M"
Sta. 554+00 to 558+50 -L- Lt

See Detail "A"
Lateral 2' Base Ditch
Sta. 561+75 to 573+00 -L- Lt

See Profile 561+75 Lt

24"

REMOVE

EXISTING R/W

NC 24 HUTRY HIGHWAY

60'

20'

CL B RIP RAP
W/FILTER FABRIC
EST. 1 TON
EST. 5 SY FABRIC

Q(10) = 5 cfs
V(10) = 0.8 fps

See Detail "A"
Lateral 2' Base Ditch
Sta. 556+50 to 558+00 -L- Rt

CL B RIP RAP
W/FILTER FABRIC
EST. 2 TONS
EST. 7 SY FABRIC

AUE

See Detail "A"
Lateral 2' Base Ditch
Sta. 562+00 to 576+75 -L- Rt

30' ACCESS EGRESS & REGRESS EASEMENT

53
GEORGE L. HALL, ETUX

53B
GEORGE L. HALL

57
SOMBOON J. KACHAENCHAI

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

November 28, 2011
r2303b_hyd_prm_wet_psh18.dgn
tm_turner

6/27/2012
amkeefer
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh18.dgn

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2303B	X-95

Permit Drawing
Sheet 25 of 56

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

150
140
130

2.0
3:1
3:1
140.00
S.S. 141.89
0.025
6:1
6:1
D.P. 141.14 143.129
0.025
4:1
S.S. 140.93

558+50.00

150
140
130

6:1
S.S. 142.64
0.025
6:1
6:1
D.P. 140.93 143.204
0.025
4:1
2.0
3:1
3:1
138.88
S.S. 140.73

558+00.00

150
140
130

3:1
S.S. 142.98
0.025
6:1
6:1
D.P. 140.31 143.392
0.025
3:1
2.0
3:1
3:1
138.82
S.S. 140.92

557+50.00

WLB

150
140
130

3:1
S.S. 142.74
0.025
6:1
6:1
D.P. 141.08 143.679
0.025
3:1
2.0
3:1
3:1
138.76
S.S. 141.19

557+00.00

WLB
WLB

150
140
130

3:1
S.S. 142.17
0.025
6:1
6:1
D.P. 140.64 143.979
0.025
3:1
2.0
3:1
3:1
138.70
S.S. 141.26

556+50.00

WLB
WLB

150
140
130

3:1
S.S. 142.44
0.025
6:1
6:1
D.P. 140.22 144.280
0.025
5.8:1
S.S. 141.00

556+00.00

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

-4-

6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh18.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpl_1_xsc95.dgn
am.keeter

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 2/8/13 Permit Drawing
Sheet 26 of 56

REVISIONS

08/26/11 R/W REVISION (PLS) - THE OFFSETS WERE CORRECTED AND ACCESS POINT WAS ADDED FROM -L- STA. 578+55.00 TO STA. 579+50.00 RT. ON PARCEL 57 (SAMBOON J. KACHAENCHAI), PARCEL 62 (DAVID NEIL FAIRCLOTH) WAS RENAMED TO (LINDA F. FAIRCLOTH), PARCEL 63 (WEYERHAEUSER COMPANY) WAS RENAMED TO (WEYERHAEUSER NR CO.).

MATCHLINE SHEET 18 -L- STA. 569+00

MATCHLINE SHEET 20 -L- STA. 583+00

NAD 83/96

56 JIMMY M. HALL

58 SCOTT McGOWAN

61 SABRA TYNDALL

62 LINDA F. FAIRCLOTH

HILDA HALL MATTHEWS

63 WEYERHAEUSER NR CO.

57 SOMBOON J. KACHAENCHAI

570 575 580

MTL B HTR WO DK SOIL LABANDI W/LT TOS ISBLKD 24" 36" WD RAIL 24" CONC REMOVE NC 24 AUTRY HWY 24" BST

S SOIL & GR HTR W/LT ISBLKD See Detail "B" Special Cut Ditch

POND CANOPY See Detail "B" Special Cut Ditch

ACCESS POINT AUE E WW FENCE SECOND TRACK HW RW CA

-L- S 69° 32' 36.7" E

2GI 36" CONC 24" CONC REMOVE

CL I RIP RAP W/GEOTEXTILE EST. 26 TONS EST. 50 SY GEOTEXTILE

See Detail "A" Lateral Base Ditch

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

CL I RIP RAP Est. 48 tons 89 Sq Yd GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 7 TONS EST. 21 SY GEOTEXTILE

EXISTING R/W 60' 24" HDPE 27" GR

GUARDRAIL SPOT LW SOIL & GR CONC LI ISFD 48" WW

ACCESS TO SEVERAL MOBILE HOMES

SITE 13

DENOTES IMPACTS IN SURFACE WATER

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

2/7/2013
11:09:11 AM
Est Files\Roadway\PERMITS_Environmental\Drawings\r2303b_hy4_prm_wet_psh19.dgn
November 28, 2011
08:46:19 AM
C:\Projects\r2303b_hy4_prm_wet_psh19.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 2/8/13 Permit Drawing
Sheet 27 of 56

REVISIONS

08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED AND ACCESS POINT WAS ADDED FROM -L- STA. 578+55.00 TO STA. 579+15.00 RT. ON PARCEL 57 (SAMBOON J. KACHAENCHAI). PARCEL 62 (DAVID NEIL FAIRCLOTH) WAS RENAMED TO (LINDA F. FAIRCLOTH). PARCEL 63 (WEYERHAEUSER COMPANY) WAS RENAMED TO (WEYERHAEUSER NR CO.).

8/17/99

NAD 1983

MATCHLINE SHEET 18 -L- STA. 569+00

MATCHLINE SHEET 20 -L- STA. 583+00

56 JIMMY M. HALL

56 JIMMY M. HALL

56 JIMMY M. HALL

58 SCOTT McGOWAN

61 SABRA TYNDALL

62 LINDA F. FAIRCLOTH

HILDA HALL MATTHEWS

57 SOMBOON J. KACHAENCHAI

63 WEYERHAEUSER NR CO.

570

575

580

MTL B

HTR

WO

SOIL

LABAND

W/LT

POND

CANOPY

S

FENCE TRACT

SOIL & GR

ISBLKD

ISFD

See Detail "B" Special Cut Ditch

ACCESS POINT

AUE

WW FENCE

SECOND TRACK

HW

24" CONC

36" WD RAIL

J CONC

REMOVE

NC 24 AUTRY HWY 24' BST

-L- S 69° 32' 36.7" E

CONCRETE MEDIAN

GUARDRAIL

2GI

36" CONC

24" HDPE

21' GR

EXISTING R/W

CONC LI

CANOPY SPOT LIT SOIL & GR

48" WW

CL B RIP RAP W/GEOTEXTILE EST. 7 TONS EST. 21 SY GEOTEXTILE

24" CONC

See Detail "A" Lateral Base Ditch

CL I RIP RAP W/GEOTEXTILE EST. 26 TONS EST. 50 SY GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

CL I RIP RAP Est. 48 tons 89 Sq Yd GEOTEXTILE

ACCESS TO SEVERAL MOBILE HOMES

SITE 13

DENOTES IMPACTS IN SURFACE WATER

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'

GRAPHIC SCALE 1" = 50'

November 28, 2011
C:\Projects\Environmental\Drawings\r2303b_hyd_prm_wet_psh19.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303B	19B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 2/8/13 Permit Drawing
Sheet 28 of 56

56
JIMMY M. HALL

FIELD TRACT
S
SOIL & GR
HTR
W/LT
ISBLKD
See Detail "B"
Special Cut Ditch
POND
See Detail "B"
Special Cut Ditch
SABRA TYNDAL
NAD 83/96
94
95
96
AUE
E
ACCESS POINT
WW FENCE
HW
SECOND TRACT
REMOVE
24" CONC
NC 24 AUTRY HWY 24' BST
48" RCP-III
15" RCP-III
30" CONC
66" RCP-III
REMOVE
2GI
36" CONC
2GI
Type A
SEABOARD COASTLINE ABAND RR
WW FENCE
CL I RIP RAP
W/GEOTEXTILE
EST. 26 TONS
EST. 50 SY GEOTEXTILE
CL B RIP RAP
W/GEOTEXTILE
EST. 2 TONS
EST. 7 SY GEOTEXTILE
CL I RIP RAP
Est. 48 tons
89 Sq Yd GEOTEXTILE
SITE 13

57
SOMBOON J. KACHAENCHAI

DENOTES IMPACTS IN SURFACE WATER

DENOTES MECHANIZED CLEARING

25' 0' 25' 50' 75'
SCALE: 1"=50'

REVISIONS
8/17/99

Plotted: August 28, 2013
Plotted By: Jeffrey Brown
File Name: H:\PROJECTS\Environmental\Drawings\R2303B_Hyd_prm_wet_PSH19B.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303B	19_PFL

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

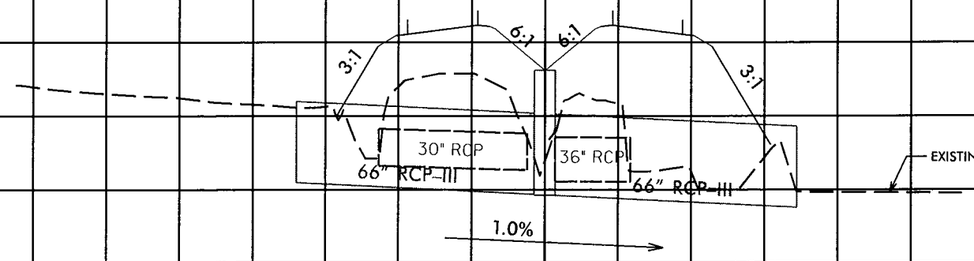
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 2/8/13 Permit Drawing
Sheet 29 of 56

100′ 0′ 100′

℄ STA. 576+80–L–
GP. ELEV = 146.2′
SKEW = 90°



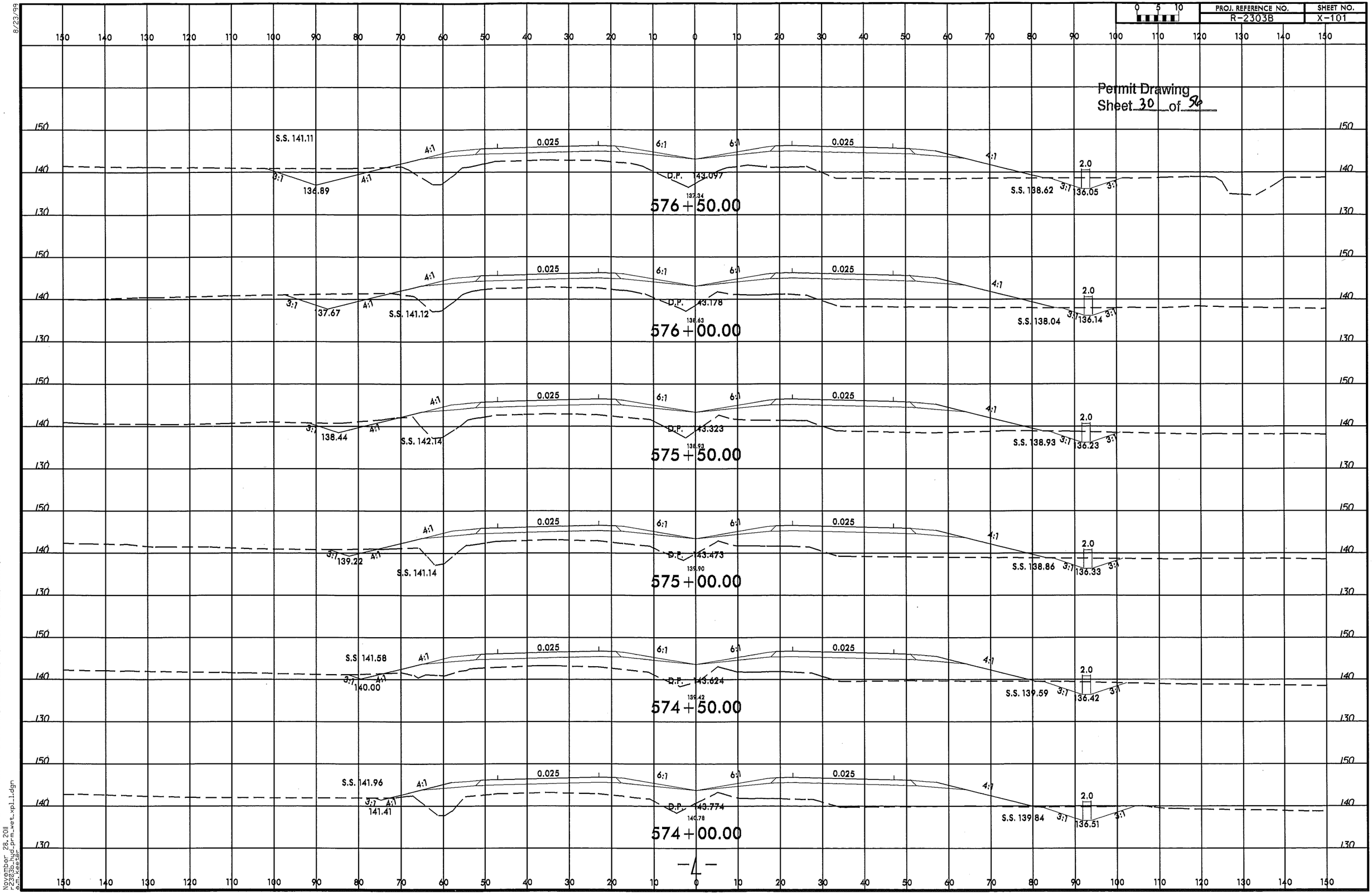
SITE 13

2/7/2013
dmoore
R:\Hydraulics PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_pshTPFL.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-101

Permit Drawing
Sheet 30 of 36



6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_pshl9.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpLL.dgn
a.m.keeter

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 31 of 56

NAD 83/95

SITE 14

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) – PARCEL 79 (JAMES C. BARNES) WAS RENAMED TO (BETTY H. BARNES), PARCEL 80 (BRIAN K. BUTLER) WAS SPLIT INTO PARCEL 80 (BURIL D. BUTLER) AND PARCEL 80A (BRIAN K. BUTLER).

MATCHLINE SHEET 21 –L– STA. 611+00

MATCHLINE SHEET 23 –L– STA. 625+00

80
BURIL D. BUTLER

80A
BRIAN K. BUTLER

82
LALA VAE M. BUTLER

79
BETTY H. BARNES

615 620 625

REBAR
W/LT
72' WD
S
GP
WD
HTR
REBAR
REBAR

SEE DETAIL "B"
Special Cut Ditch
Sta. 611+50 to Sta. 616+00 –L– Lt

SEE DETAIL "D"
Est. 10 cu yds
Excavation

PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE

TDE TDE

ACCESS POINT

WW FENCE

CL B RIP RAP
W/FILTER FABRIC
EST. 8 TONS
EST. 24 SY FABRIC

6' CONC HW

REMOVE

NC 24 AUTRY HWY 24 BST

24" RCP-III

8' CONC

2GI

EXISTING R/W

60'

15" RCP-IV

DI

18" RCP-IV

AUE AUE AUE AUE AUE AUE AUE AUE AUE AUE

CL B RIP RAP
W/FILTER FABRIC
EST. 5 TONS
EST. 14 SY FABRIC

SEE DETAIL "A"
Lateral 2' Base Ditch
Sta. 617+50 to 627+70 –L– Lt

SEE DETAIL "A"
Lateral 2' Base Ditch
Sta. 607+50 to 615+00 –L– Rt

SEABOARD COASTLINE RAILROAD

SEE DETAIL "B"
Special Cut Ditch
Sta. 616+00 to 630+00 –L– Rt

E E DENOTES EXCAVATION IN WETLAND

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh22.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh22.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 32 of 56

SITE 14

NAD 83/95

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) - PARCEL 79 (JAMES C. BARNES) WAS RENAMED TO (BETTY H. BARNES). PARCEL 80 (BRIAN K. BUTLER) WAS SPLIT INTO PARCEL 80 (BURIL D. BUTLER) AND PARCEL 80A (BRIAN K. BUTLER).

MATCHLINE SHEET 21 -L- STA. 611+00

MATCHLINE SHEET 23 -L- STA. 625+00

80 BURIL D. BUTLER

80A BRIAN K. BUTLER

79 BETTY H. BARNES

82 LALA VAE M. BUTLER

615 620 625

REBAR W/L WD 72" WD HTR GP

SEE DETAIL "B" Special Cut Ditch Sta. 611+50 to Sta. 616+00 -L- Lt

SEE DETAIL "D" Est. 10 cu yds Excavation

PUE

TDE

ACCESS POINT

CL B RIP RAP W/FILTER FABRIC EST. 8 TONS EST. 24 SY FABRIC

WW FENCE

EXISTING R/W

REMOVE 15" CONC HW

NC 24 AUTRY HWY 24 BST

24" RCP

36" CONC

2GI

SEE DETAIL "A" Lateral 2' Base Ditch Sta. 607+50 to 615+00 -L- Rt

AUE

SEE DETAIL "A" Lateral 2' Base Ditch Sta. 617+50 to 627+70 -L- Lt

CL B RIP RAP W/FILTER FABRIC EST. 5 TONS EST. 14 SY FABRIC

15" RCP IV

SEE DETAIL "B" Special Cut Ditch Sta. 616+00 to 630+00 -L- Rt

SEABOARD COASTLINE RAILROAD

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

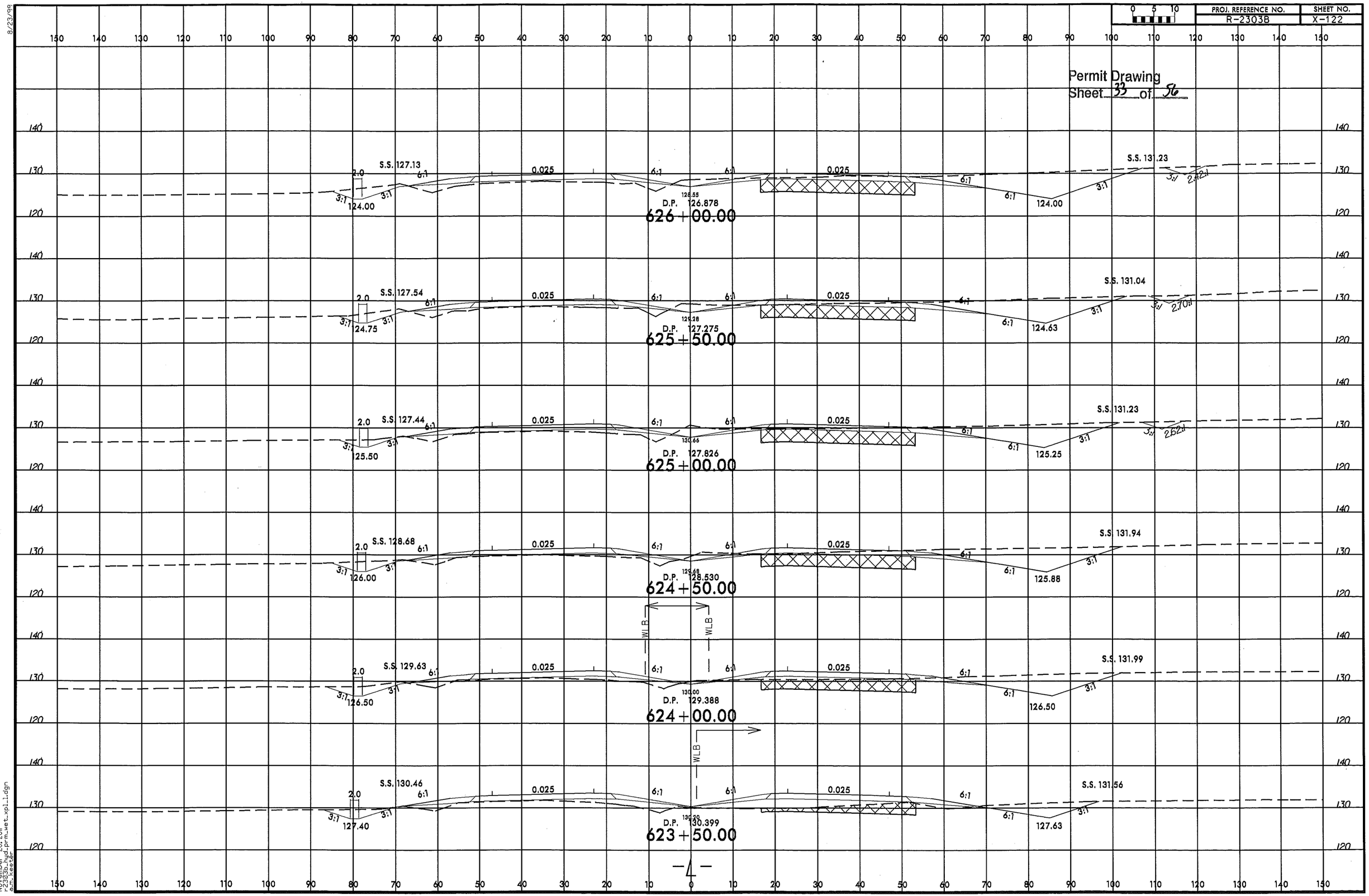
6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh22.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh22.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-122

Permit Drawing
Sheet 33 of 56



6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh22.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpll.dgn
a.m.keeter

SITE 15

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	25
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 34 of 56

NAD 83/95

REVISIONS
8/17/99
08/26/11 R/W REVISION (PJS) - PARCEL 89 (WILLIAM M. MANOR) WAS RENAMED TO (THOMAS C. TANNAHILL).

MATCHLINE SHEET 24 -L- STA. 653+00

MATCHLINE SHEET 26 -L- STA. 667+00

81 BURIL D. BUTLER

83 DORIS O. DAVIS, et al

82 LALA VAE M. BUTLER

89 THOMAS C. TANNAHILL

POND

CONC

ISFD

48' BST

12' BST

BURIL D. BUTLER

W/LT

CL B RIP RAP
Est. 5 Tons

ACCESS POINT

WW FENCE

REMOVE

6' CONC

CAT-I

4' BST

AUTRY HWY

60' BST

23' BST

NC 24

TYPE M350

24" RCP-III

15" RCP-IV

18" RCP-III

2GI

L N 88° 52' 07.5" E

SEE DETAIL "D"
2' Base Tail Ditch
Est. 20 cu yds excavation

AUB

18" CONC

48" CONC

PRAU 350

CL I RIP RAP
W/FILTER FABRIC
EST. 17 TONS
EST. 38 SY FABRIC

CLASS II RIP RAP
(STRUCTURE PAY ITEM)

BIG SWAMP

358W

DO NOT DISTURB
HORSE FENCE

See Detail "K"
TOE PROTECTION
Sta. 663+15 to 664+90 -L- Rt

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

HC/HC DENOTES HAND CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

November 28, 2011
r2303b_hyd_prm_wet_psh25.dgn

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh25.dgn

SITE 15

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	25
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 35 of 56

NAD 83/95

REVISIONS

08/26/11 R/W REVISION (PJS) - PARCEL 89 (WILLIAM M. MANOR) WAS RENAMED TO (THOMAS C. TANNAHILL).

8/17/99

81 BURIL D. BUTLER

83 DORIS O. DAVIS, et al

82 LALA VAE M. BUTLER

89 THOMAS C. TANNAHILL

POND

CONC

ISFD

48" BST

18" BST

W/LT

CL B RIP RAP
Est. 5 Tons

ACCESS POINT

REMOVE

WW FENCE

MATCHLINE SHEET 24 -L- STA. 653+00

MATCHLINE SHEET 26 -L- STA. 667+00

4' BST

NC 24

AUTRY HWY

23' BST

TYPE M350

24" RCP

2GI

TYPE B-17

15" RCP-IV

18" RCP-III

CMP-I

CL I RIP RAP
W/FILTER FABRIC
EST. 17 TONS
EST. 38 SY FABRIC

CLASS II RIP RAP
(STRUCTURE PAY ITEM)

DRAINAGE DITCH

SEE DETAIL "S"
2' Base Toe Ditch
Est. 20 cu yds excavation

18" CONC

See Detail "K"
TOE PROTECTION
Sta. 663+15 to 664+90 -L- Rt

DO NOT DISTURB
HORSE FENCE

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

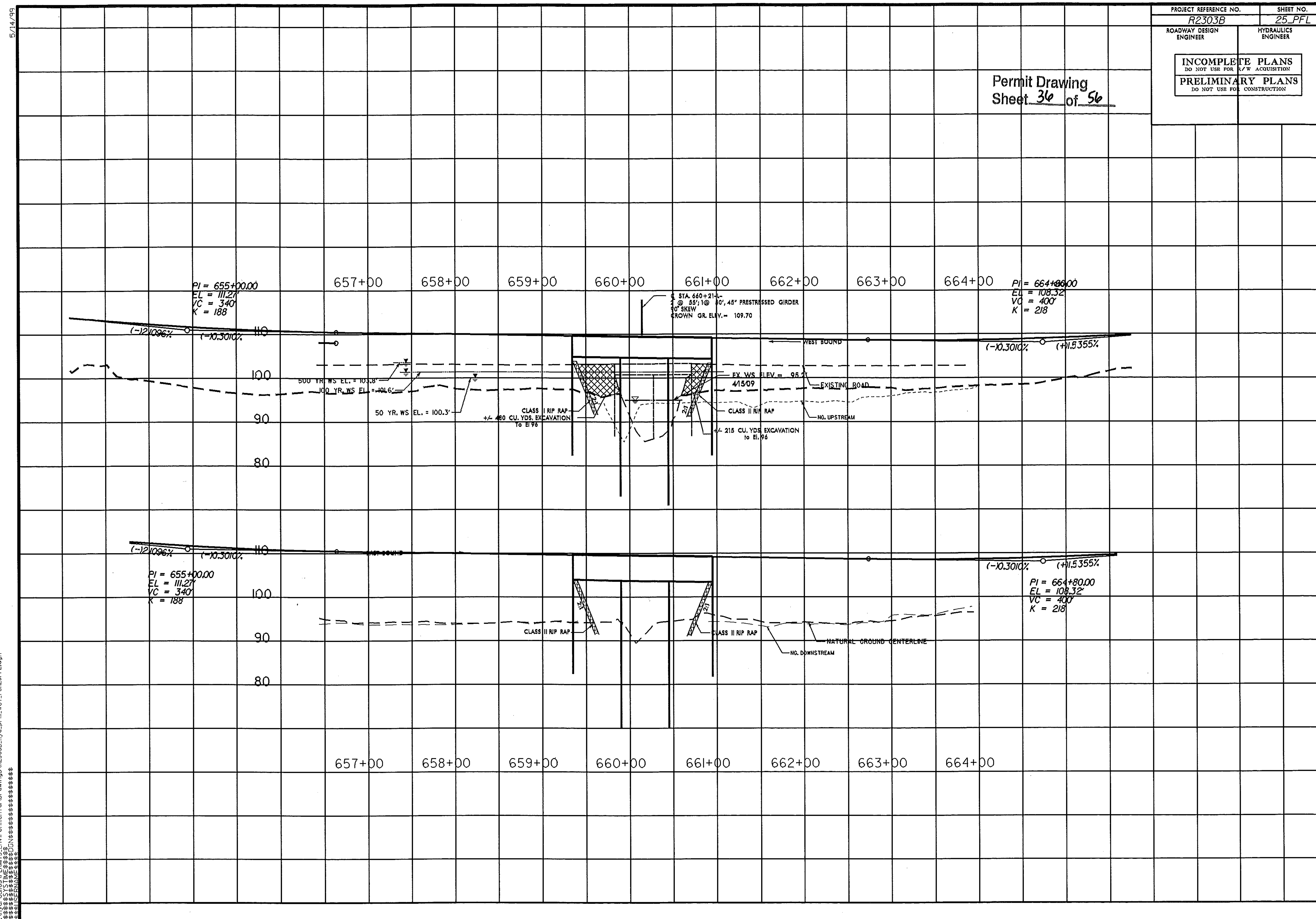
HC HC DENOTES HAND CLEARING

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

November 28, 2011
r2303b_hyd_prm_wet_psh25.dgn
pjs tested

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh25.dgn

5/14/99



6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_PSH25PFL.dgn
$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2303B	X-135

Permit Drawing
Sheet 37 of 56

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

120 110 100 90

658+00.00

W.L.B. 110.02 | 0.004 | 6:1 | W.L.B. | 6:1 | 0.025 | 109.48

3:1 | 3:1

D.P. 107.29

98.20

S.S. 94.88 | S.S. 93.88

657+50.00

W.L.B. 109.87 | 0.017 | 6:1 | W.L.B. | 6:1 | 0.025 | 109.63

3:1 | 3:1

D.P. 107.44

97.21

S.S. 94.53 | S.S. 94.01

657+00.00

W.L.B. 109.78 | 0.025 | 6:1 | W.L.B. | 6:1 | 0.025 | 109.78

3:1 | 3:1

D.P. 107.59

97.05

S.S. 95.32 | S.S. 94.16

656+50.00

W.L.B. 109.94 | 0.025 | 6:1 | W.L.B. | 6:1 | 0.025 | 109.94

3:1 | 3:1

D.P. 107.76

97.10

S.S. 95.89 | S.S. 94.19

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

6/22/2012
amkeefer
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh25a.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpll.dgn
amkeefer

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-139

Permit Drawing
Sheet 38 of 54

663+50.00

0.059 | 6:1 | 5.148:1 | 0.029 | 0.060 | 3:1 | 3:1

D.P. 106.38

S.S. 96.51 | 97.85 | S.S. 96.08

663+00.00

0.047 | 6:1 | 5.518:1 | 0.020 | 0.047 | 3:1 | 3:1

WLB | WLB

D.P. 106.15

S.S. 95.54 | 98.06 | S.S. 94.89

662+50.00

0.035 | 6:1 | 5.830:1 | 0.020 | 0.035 | 3:1 | 3:1

WLB | WLB | 107.81

D.P. 106.00

S.S. 94.64 | 97.76 | S.S. 93.96

662+33.50

0.031 | 6:1 | 5.915:1 | 0.031 | 3:1 | 3:1

108.00

D.P. 105.95

S.S. 94.72 | 97.84 | S.S. 94.17

662+05.42

0.025 | 6:1 | 5.965:1 | 0.025 | 3:1 | 3:1

108.26

D.P. 106.06

S.S. 94.98 | 97.95 | S.S. 94.19

November 28, 2011
r2303b_hyd_prm_wet_xpl_1.dgn
am.keeter

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

DATE	REVISION
09/18/11 R/W	REVISION (PJS) – PARCEL 85 (EDNA S. WILLIAMS BEASLEY) WAS RENAMED TO (KIM IVEY HALL). THE R/W LINE WAS ADJUSTED TO EXISTING PROPERTY LINE AND BUF. WAS ADJUSTED TO THE PROPOSED R/W. PARCEL 88, 88A, 88B, 88C & W. DEVELOPMENT AT –L– STA. 680+68.70 LT THE CLAIM ON PARCEL 90 (EUGENIO LUQUE) WAS ELIMINATED DUE TO THE ADJUSTMENT OF PROPOSED R/W TO THE EXISTING PROPERTY LINE.
08/26/11 R/W	REVISION (PJS) – PARCEL 89 (WILLIAM M. MAINOR) WAS RENAMED TO (PEARL A. BRADSHAW) AND EASTERN PARCEL 89A (T AND W DEVELOPMENT) WAS RENUMBERED TO 89B.

8/17/99

SITE 16

SITE 17

SITE 18

SITE 19

MATCHLINE SHEET 25 –L– STA. 667+00

MATCHLINE SHEET 27 –L– STA. 681+00

PLEASANT UNION BAPTIST CHURCH

CEMETERY

KIM IVEY HALL

PERRY F. BUTLER

EDNA S. WILLIAMS BEASLEY

GARY E. WILLIAMS

T AND W DEVELOPMENT

KELLY PAIGE

MARIA E. OLIVA

RONALD J. WOOD

PEARL A. BRADSHAW

THOMAS C. TANNAHILL

BOBBY RAY

S 84° 28' 43" W

–L– S 61° 06' 17" E

NAD 83/95

SEE DETAIL "M" Toe Protection Sta. 12+50 to 14+34 -Y22- Rt

SEE DETAIL B LATERAL "Y" DITCH Sta. 12+50 to 14+50 -Y22- Lt

See Detail "K" TOE PROTECTION Sta. 669+15 to 670+25 -L- Lt

See Detail "A" Lateral 2' Base Ditch Sta. 670+25 to 672+00 -L- Lt

SEE DETAIL "L" Berm Ditch STA. 672+50 to 676+00 -L- Lt

Special Ditch SEE DETAIL "B" Sta. 673+50 to 678+00 -L- Lt

See Detail "G" Special Median Ditch Grade Sta. 674+00 to 678+00 -L- Med

SEE DETAIL "B" Special Cut Ditch Sta. 674+75 to 678+50 Rt

CL B RIP RAP Est. 5 tons 14 yds Filter Fabric

CL B RIP RAP W/FILTER FABRIC EST. 5 TONS EST. 16 SY FABRIC

DO NOT DISTURB HORSE FENCE

WW FENCE

HTR

15SBK CHURCH

25BK CHURCH

18" RCP-III

24" RCP-III

15" RCP-III

24" CONC CAT-1

NC 24 AUTRY HWY

Permit Drawing
Sheet 39 of 56

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

F/F DENOTES IMPACTS IN SURFACE WATER (POND)

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

November 28, 2011
r2303b_hyd_prm_wet_psh26.dgn

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh26.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	26
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

08/17/99 R/W REVISION (PJS) - PARCEL 85 (EDNA S. WILLIAMS BEASLEY) WAS RENAMED TO (KIM IVEY HALL). THE R/W LINE WAS ADJUSTED TO EXISTING PROPERTY LINE AND R/E WAS ADJUSTED TO THE PROPOSED R/W (REVISION). 89A (T. & W. DEVELOPMENT AT -L- STA. 680+00 RT. THE CLAIM ON PARCEL 90 (EUGENIO LUQUE) WAS ELIMINATED DUE TO THE ADJUSTMENT OF PROPOSED R/W TO THE EXISTING PROPERTY LINE.

08/26/11 R/W REVISION (PJS) - PARCEL 89B (SECRETARY OF HOUSING & URBAN DEVELOPMENT) WAS RENUMBERED TO 89C. PARCEL 89 (WILLIAM M. MAINOR) WAS RENAMED TO (THOMAS C. TANNAHILL). WESTERN PARCEL 89A (T. AND W DEVELOPMENT) WAS RENAMED TO (PEARL A. BRADSHAW) AND EASTERN PARCEL 89A (T. AND W DEVELOPMENT) WAS RENUMBERED TO 89B.

8/17/99

November 28, 2011
r2303b_hyd_prm_wet_psh26.dgn

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh26.dgn

MATCHLINE SHEET 25 -L- STA. 667+00

MATCHLINE SHEET 27 -L- STA. 681+00

SITE 16

SITE 17

SITE 18

SITE 19

PLEASANT UNION BAPTIST CHURCH

CEMETERY

KIM IVEY HALL

PERRY F. BUTLER

EDNA S. WILLIAMS BEASLEY

GARY E. WILLIAMS

T AND W DEVELOPMENT

KELLY PAIGE

MARA E. OLIVA

RONALD J. WOOD

PEARL A. BRADSHAW

PEARL A. BRADSHAW

THOMAS C. TANNAHILL

BOBBY RAY

NAD 83/95

S 84°28'45"W

SEE DETAIL "M"
Toe Protection
Sta. 12+50 to 14+34 -Y22- Rt

SEE DETAIL "B"
LATERAL "Y" DITCH
Sta. 12+50 to 14+50 -Y22- Lt

See Detail "A"
Lateral 2' Base Ditch
Sta. 670+25 to 672+00 -L- Lt

See Detail "K"
TOE PROTECTION
Sta. 669+18 to 670+25 -L- Lt

SEE DETAIL "L"
Berm Ditch
STA. 672+50 to 676+00 -L- Lt

Special Ditch
SEE DETAIL "B"
Sta. 673+50 to 678+00 -L- Lt

See Detail "G"
Special Median Ditch Grade
Sta. 674+00 to 676+00 -L- Med

SEE DETAIL "B"
Special Cut Ditch
Sta. 674+75 to 678+50 Rt

CL B RIP RAP
Est. 5 tons
14 yds Filter Fabric

CL B RIP RAP
W/FILTER FABRIC
EST. 5 TONS
EST. 16 SY FABRIC

DO NOT DISTURB
HORSE FENCE

DO NOT DISTURB
HORSE FENCE

WW FENCE

WW FENCE

18" RCP-III

15" RCP-III

24" CONC

24" CONC-CAT-I

NC 86 NORTH HIGHWAY
COTTON GEAR
4 BST

NC 86 NORTH HIGHWAY
24 BST

MAG NAIL

MAG NAIL

MAG NAIL

COTTON GEAR

EXISTING R/W

GSBW

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

F F DENOTES IMPACTS IN SURFACE WATER (POND)

50' 0' 50' 100' 150'
GRAPHIC SCALE 1" = 50'

Permit Drawing
Sheet 40 of 56

Permit Drawing
Sheet

PROJECT REFERENCE NO.	SHEET NO.
R2303B	26B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 41 of 56

PERRY F. BUTLER

SITE 16

KELLY PA

SEE DETAIL B
LATERL "V" DITCH
Sta. 12+50 to 14+50 -Y22- Lt

See Detail "K"
TOE PROTECTION
Sta. 669+15 to 670+25 -L- Lt.

See Detail "A"
Lateral 2' Base Ditch
Sta. 670+25 to 672+00 -L- Lt

AUE — AUE — AUE — AUE — AUE — AUE — PUE — PUE — PUE

88B — 88 — 85

NAD 83'95

60' — EXISTING R/W — ON GEAR — COTTON GEAR

670 — 675

18" W Elbow

3GI — 18" RCP-III

24" RCP-III

2GI — 24" RCP-IV

2GI — 15" RCP-IV

2GI — 24"

2GI — 30" RCP-III

EIP — REMOVE — REMOVE

NC 24 AUTRY HIGHWAY

WLB — WLB — WLB

CAT-1

CL B RIP RAP
Est. 5 tons
14 yds Filter Fabric

CL B RIP RAP
W/FILTER FABRIC
EST. 5 TONS
EST. 16 SY FABRIC

See D
Specia
Sta. 67

SITE 17

SITE 18

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

P P DENOTES IMPACTS IN SURFACE WATER (POND)

25' 0' 25' 50' 75'
SCALE= 1"=50'

REVISIONS 8/17/99

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_PSH26B.dgn

November 28, 2011
R2303B_Hyd_prm_wet_psh26B.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-142

Permit Drawing
Sheet 42 of 56

WLB

4:1 | 0.020 | 0.070 | 6:1 | 5.290:1 | 0.070 | 3:1

S.S. 109.10 — D.P. 112.42 — 108.42 — 112.38 — S.S. 103.89

670+00.00

WLB

4:1 | 0.020 | 0.070 | 6:1 | 5.290:1 | 0.070 | 3:1

S.S. 108.10 — D.P. 112.01 — 107.44 — 112.98 — S.S. 103.94

669+50.00

4:1 | 0.020 | 0.070 | 6:1 | 5.290:1 | 0.070 | 3:1

S.S. 108.95 — D.P. 111.85 — 107.29 — 112.82 — S.S. 103.76

669+34.08

INTERSECTION @ Y22 SHEAR LINE

0.020 | 0.070 | 6:1 | 5.290:1 | 0.070 | 3:1

D.P. 111.45 — 106.78 — 112.41 — S.S. 103.56

669+00.00

INTERSECTION @ Y22 SHEAR LINE

0.020 | 0.070 | 0.070 | 0.010 | 0.027 | 0.010 | 0.070 | 3:1

106.09 — 111.82 — S.S. 103.69

668+58.50

6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpl_1_psh26a.dgn
November 28, 2011
R2303B_hyd_prm_wet_xpl_1.dgn
amkeeter

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-143

Permit Drawing
Sheet 43 of 56

672+34.10

S.S. 114.54 | 113.66 | 6:1 | 0.045 | 6:1 | 5.744:1 | 0.045 | 113.93 | 3:1 | S.S. 107.91

D.P. 112.10 | 112.26 | 107.91

672+00.00

2.0 | 3:1 | 112.00 | 3:1 | 4:1 | 0.020 | 0.053 | 6:1 | 5.583:1 | 0.053 | 113.91 | WLB | 3:1 | S.S. 113.49 | S.S. 106.86

D.P. 111.32 | 112.49

671+50.00

2.0 | 3:1 | 111.30 | 3:1 | S.S. 113.13 | 4:1 | 0.020 | 0.066 | 6:1 | 5.362:1 | 0.066 | 113.76 | WLB | 3:1 | S.S. 105.92

D.P. 112.68 | 106.30

671+32.71

2.0 | 3:1 | 111.09 | 3:1 | S.S. 113.01 | 4:1 | 0.020 | 0.070 | 6:1 | 5.290:1 | 0.070 | 113.67 | 3:1 | S.S. 105.90

D.P. 112.71 | 107.25

671+00.00

2.0 | 3:1 | 110.33 | 3:1 | S.S. 112.23 | 4:1 | 0.020 | 0.070 | 6:1 | 5.290:1 | 0.070 | 113.70 | WLB | 3:1 | S.S. 105.20

D.P. 112.74 | 106.17

670+50.00

2.0 | 3:1 | 110.20 | 3:1 | S.S. 111.49 | 4:1 | 0.020 | 0.070 | 6:1 | WLB | 5.290:1 | 0.070 | 113.62 | 3:1 | S.S. 103.77

D.P. 112.66 | 107.39

-L-

6/22/2012
amkeester
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpl_LL_psh26b.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpl_11.dgn
amkeester

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 44 of 56

NAD 83/95

REVISIONS
11/22/11 R/W REVISION: ADDED 2-60' ACCESS POINT AT PROPERTY LINE PARCELS 089 AND 092.
8/17/99

T AND W DEVELOPMENT

EUGENIO LUQUE

WW FENCE

NOTE: PROPOSED MITIGATION SEE MITIGATION PLANS. INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED.

SITE 19

(89B) HART-McNEILL INVESTMENTS

POND

CL B RIP RAP W/FILTER FABRIC EST. 2 TONS EST. 7 SY FABRIC

MATCHLINE SHEET 28 -L- STA. 681+00

Stop: Y23
Q100= 1 cfs
Vc= 2.3 fps
dc= 0.1 feet
Sc= 1.32 %
n=0.045

SEE DETAIL "A"
2' Base Ditch
Sta. 16+25 to Sta. 18+64 -Y23- Lt
Ditch Should Be at Zero Depth at 16+25

(91) THE RICHARD AND GRACE ADAMS PROPERTY MANAGEMENT TRUST

SEE DETAIL "A"
2' Base Ditch
Sta. 688+13 to 691+50 -L- Lt
Tie Ditch to -Y23- Lt ditch

CL B RIP RAP W/FILTER FABRIC EST. 2 TONS EST. 7 SY FABRIC

CL B RIP RAP W/FILTER FABRIC EST. 2 TONS EST. 7 SY FABRIC

WW FENCE

MATCHLINE SHEET 28 -L- STA. 695+00

2GI Type "D"

2GI Type D

NC 24 AUTRY HIGHWAY

COTTON GEAR

REMOVE 15" CONC

REMOVE 10' CONC

18" CONC

GRAU 350

CAT-1

ACCESS POINT

AUE

CL I RIP RAP W/FILTER FABRIC EST. 42 TONS EST. 94 SY FABRIC

CL B RIP RAP W/FILTER FABRIC EST. 3 TONS EST. 10 SY FABRIC

SEE DETAIL "A" Lateral 2' Base Sta. 682+15 to 685+50 -L- Rt

SEE DETAIL "B" Special Cut Ditch Sta. 685+50 to 687+00 -L-

SEE DETAIL "B" Special Cut Ditch

ISFD

BST

BK BUS

GR

48" BK

24" CONC

(89) THOMAS C. TANNAHILL
SITE 20

72" MTL RAIL

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER (POND)

GRAPHIC SCALE 1" = 50'

(92) BOREN CLAY PRODUCTS CO.

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh27.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh27.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	27
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 45 of 96

NAD 83/95

8/17/99

REVISIONS

11/22/11 R/W REVISION: ADDED 2-60' ACCESS POINT AT PROPERTY LINE PARCELS 089 AND 092

T AND W DEVELOPMENT

EUGENIO LUQUE

WW FENCE

NOTE: PROPOSED MITIGATION SEE MITIGATION PLANS. INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED.

SITE 19

898

POND

HART-McNELL INVESTMENTS

CL B RIP RAP W/FILTER FABRIC EST. 2 TONS EST. 7 SY FABRIC

Sta.- Y23 Q100= 7 cfs Vc 2.3 fps dc 0.1 feet Rc 1.37 n=0.045

SEE DETAIL "A" 2' Base Ditch Sta. 16+25 to Sta. 18+64 -Y23- Lt Ditch Should Be at Zero Depth at 16+25

THE RICHARD AND GRACE ADAMS PROPERTY MANAGEMENT TRUST

91

SEE DETAIL "A" 2' Base Ditch Sta. 688+13 to 691+50 -L- Lt Tie Ditch to -Y23- Lt ditch

CL B RIP RAP W/FILTER FABRIC EST. 2 TONS EST. 7 SY FABRIC

CL B RIP RAP W/FILTER FABRIC EST. 2 TONS EST. 7 SY FABRIC

WW FENCE

MATCHLINE SHEET 26 -L- STA. 681+00

MATCHLINE SHEET 28 -L- STA. 695+00

2GI Type "D"

2GI Type D

NC 24 ALTRY HIGHWAY

COTTON GEAR

REMOVE

EXISTING R/W

72" CHL & 3SBW

ACCESS POINT

SEE DETAIL "B" Special Cut Ditch

CL I RIP RAP W/FILTER FABRIC EST. 42 TONS EST. 94 SY FABRIC

CL B RIP RAP W/FILTER FABRIC EST. 3 TONS EST. 10 SY FABRIC

SEE DETAIL "A" Lateral 2' Base Sta. 682+15 to 685+50 -L- Rt

SEE DETAIL "B" Special Cut Ditch Sta. 685+50 to 687+00 -L- Rt

ISFD

48" BK

92

BOREN CLAY PRODUCTS CO.

BK BUS

89

THOMAS C. TANNAHILL

SITE 20

72" MTL SAIL

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER (POND)

GRAPHIC SCALE 1" = 50'

6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh27.dgn

November 28, 2011
r2303b_hyd_prm_wet_psh27.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303B	27B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 2/7/13 Permit Drawing
Sheet 46 of 56

REVISIONS

8/17/99

89B

HART-McNIELL INVESTMENTS

SITE 19

POND

CL B RIP RAP
W/GEOTEXTILE
EST. 2 TONS
EST. 7 SY GEOTEXTILE

RCP-III

HW

685

20' DOUBLE GATE

NAD 83/95

+00

-Y23- +80.00
30'

WW FENCE

-L- +50.00
100'

GRAU 350

48" WW

EXISTING R/W

60'

SD = 120' X 120'

SD = 125' X 125'

2GI

48" WW

DI

REMOVE

30" CONC

10' CONC HW

18" RCP-III

18" CONC

CAT-1

REMOVE

48" WW

60" WW

EXISTING R/W

60' CHL

COTTON GEAR

REMOVE 15" CONC

18"

ACCESS POINT

AUE

ACCESS POINT

ACCESS P

AUE

CL I RIP RAP
W/GEOTEXTILE
EST. 42 TONS
EST. 94 SY GEOTEXTILE

WD POST

CL B RIP RAP
W/GEOTEXTILE
EST. 3 TONS
EST. 10 SY GEOTEXTILE

SEE DETAIL "A"
Lateral 2' Base

SEE DETAIL "B"
Special Cut Ditch

TEMP SHORING LOC 5
SEE TMP-15

72" CHL

SEE DETAIL "B"
Special Cut Ditch

MTL

60" WW & 2SBW

60" WW & 2SBW

60" WW

ABAND ISFD

60" WW

60" CHL

60" WW

GATE

SOIL

18" CONC

SITE 20

89

THOMAS C. TANNAHILL

DENOTES IMPACTS IN SURFACE WATER

DENOTES MECHANIZED CLEARING

25' 0' 25' 50' 75'
SCALE: 1"=50'

2/7/2013
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_PSH27B.dgn
November 28, 2011
C:\Users\tgc.prm_wet_psh27B.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303B	27_PFL

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

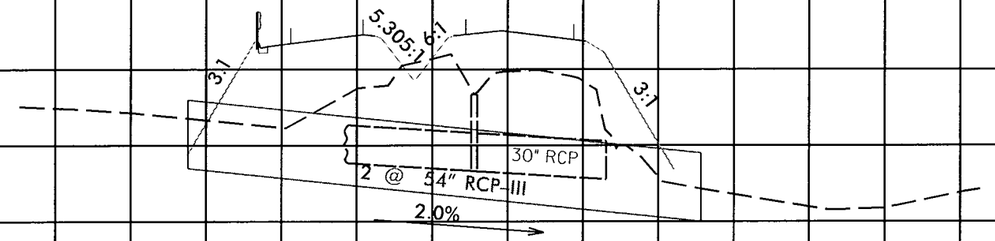
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Revised 2/8/13

Permit Drawing
Sheet 47 of 56

100′ 0 100′

℄ STA. 682+08–L–
GP. ELEV = 117.3′
SKEW = 90°



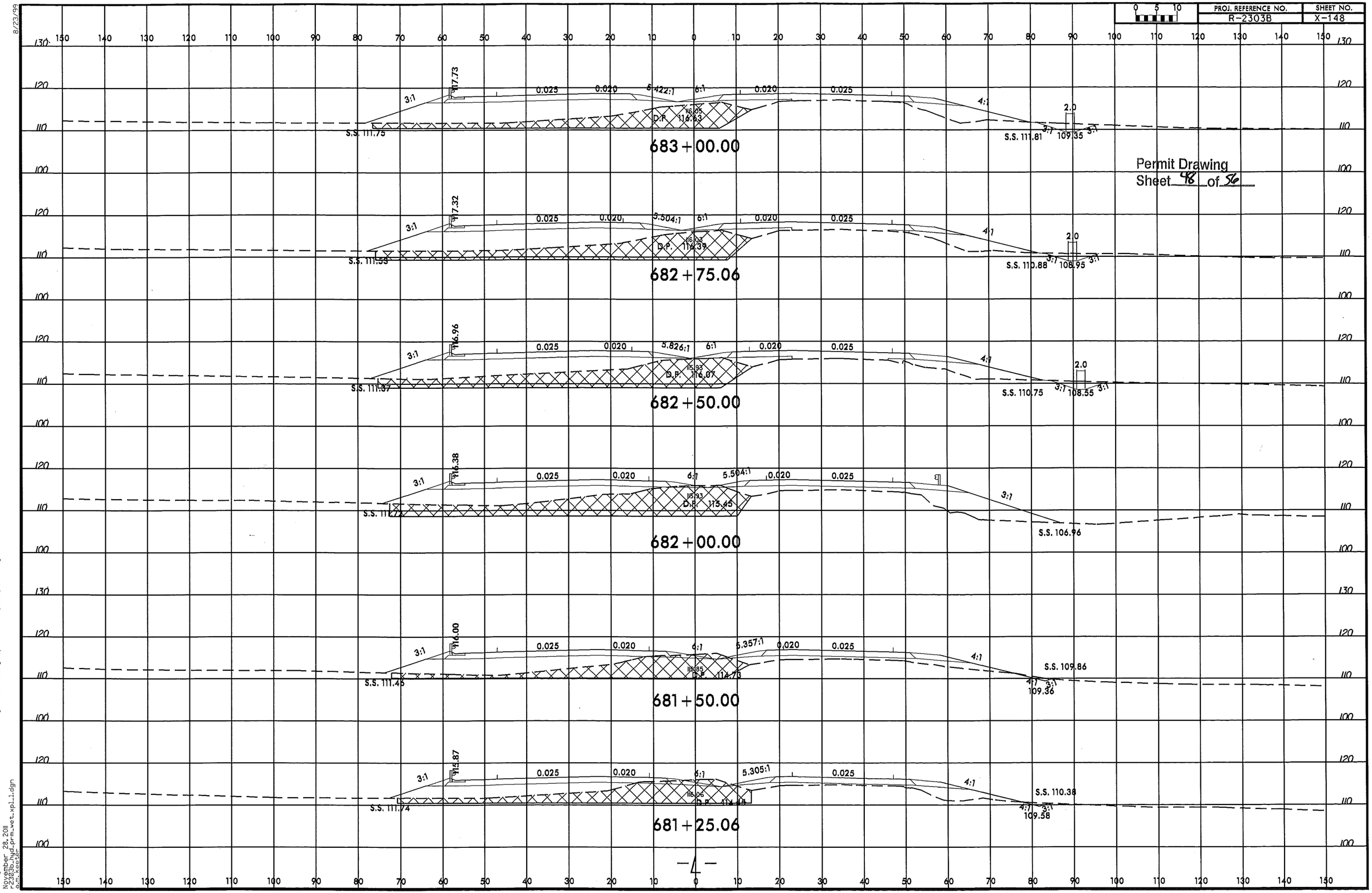
SITE 20

5/14/99

2/7/2013
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_psh27PFL.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303B	X-148



Permit Drawing
Sheet 48 of 56

6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpLL_psh27.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpl_1.dgn
amkeeter

SITE 21

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

Permit Drawing
Sheet 49 of 56
Revised 2-25-2013

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) – PARCEL 93 (ROBIE_D_FAIRCLOTH) AND PARCEL 93C (ELIZABETH_FAIRCLOTH) WAS SPLIT INTO PARCEL 93 (ROBIE_D_FAIRCLOTH) AND PARCEL 93C (ELIZABETH_FAIRCLOTH). PARCEL 95A (CHARLES S. LUCAS) WAS RENAMED (ANNIE HALL MCRORIE).

MATCHLINE SHEET 28 –L– STA. 709+00

MATCHLINE SHEET 30 –L– STA. 723+00

93C ELIZABETH FAIRCLOTH

93 ROBIE FAIRCLOTH

95A ANNIE HALL McRORIE

95 AUTRY MILLS PROPERTIES LLC
DB 1810 PG 104
MB 48 PG 23

93B ROY ROGER FAIRCLOTH

94 JERRY W. LUCAS

96 JESSE B. CARLISLE

97

710 715 720

SEE DETAIL "E"
2' Basal Ditch w/PSRM
DDE = 158 CY

SEE DETAIL "K"
TOE PROTECTION
EST 115 TONS
EST. 255 SY GEOTEXTILE

SEE DETAIL "K"
TOE PROTECTION
EST. 155 TONS
EST. 345 SY GEOTEXTILE

SEE DETAIL "A"
2' Lateral Base Ditch
DDE = 257 CY

SEE DETAIL "B"
Special Cut Ditch

TEMP SHORING LOC 6
SEE TMP-16

ACCESS POINT

WW FENCE

GRAU 350 TL-3

GRAU 350

CAT-1

NC 24 AUTRY HIGHWAY

SPECIAL DI

EXISTING R/W

SR 1254 WIGGINS MILL RD

GAPT

2SBD

CONC

GRAVEL

ARBOR

ISBKD

ISED

W/LT

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

DENOTES TEMPORARY FILL IN WETLAND

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

50' 15 0' 50' 100' 150'
GRAPHIC SCALE

STA. 713+35 –LREV– Lt and Rt

60 CUYDS EXCAVATION
EXISTING GROUND
COIR MAT
3d:1v EXISTING
INLET DETAIL
2' SILL W/ COIR FLOW BENCH
EST 120 SY GEOTEXTILE
EST 120 SY COIR MAT

60 CUYDS EXCAVATION
CLASS I RIP RAP
OUTLET DETAIL
1' LOW FLOW BENCH
2' SILL W/ LOW FLOW BENCH
EST 60 TONS Class I RIP Rap on Site Stones
EST 85 TONS Class I RIP Rap or Suitable Fill for Filling Scour Hole
EST 75 SY Geotextile

November 28, 2011
2303b_hyd_prm_wet_psh29.dgn

2/25/2013
belam
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh29.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 50 of 56
Revised 2-25-2013

SITE 21

NAD 83/95

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) - PARCEL 93 (ROBIE FAIRCLOTH) WAS SPLIT INTO PARCEL 93 (ROBIE FAIRCLOTH) AND PARCEL 93C (ELIZABETH FAIRCLOTH). PARCEL 95A (CHARLES S. LUCAS) WAS RENAMED (ANNIE HALL MCRORIE).

MATCHLINE SHEET 28 -L- STA. 709+00

MATCHLINE SHEET 30 -L- STA. 723+00

93C ELIZABETH FAIRCLOTH

93 ROBIE FAIRCLOTH

95A ANNIE HALL McRORIE

95 AUTRY MILLS PROPERTIES LLC
DB 1810 PG 104
MB 48 PG 23

93B ROY ROGER FAIRCLOTH

94 JERRY W. LUCAS

96 JESSE B. CARLISLE

97

SEE DETAIL "E"
2' Base Ditch w/PSRG
DDE = 158 CY

SEE DETAIL "K"
TOE PROTECTION
EST. 118 TONS
EST. 256 SY GEOTEXTILE

SEE DETAIL "A"
2' Lateral Rock Ditch
DDE = 257 CY

SEE DETAIL "B"
Special Cut Ditch

SEE DETAIL "F"
ROE PROTECTION
EST. 155 TONS
EST. 845 SY GEOTEXTILE

TEMP SHORING LOC 6
SEE TMP-16

STA. 713+35 -LREV- Lt and Rt

INLET DETAIL

OUTLET DETAIL

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

DENOTES TEMPORARY FILL IN WETLAND

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

GRAPHIC SCALE 50 15 0' 50' 100' 150'

November 28, 2011
r2303b_hyd_prmwet_psh29.dgn
2/25/2013
belam
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303b_hyd_prm_wet_psh29.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303B	29B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 51 of 56
Revised 2-25-2013

SITE 21

SEE DETAIL "E"
2' Base Ditch w/PSRM
DDE = 158 CY

SEE DETAIL "K"
TOE PROTECTION
EST. 115 TONS
EST. 255 SY GEOTEXTILE

ANNIE HALL McRORIE

93
ROBIE FAIRCLOTH

AUE — AUE — PUE — PUE — PUE — WW FENCE — PUE — PUE — PUE

ACCESS POINT

LOW FLOW SILL

TDE

GRAU 350 TL-3

GRAU 350

2GI

24" RCP-III

36" RCP-III

36" RCP-IV

15" RCP-IV

18" RCP-III

2GI Type A

4'x4' CONC

SPECIAL DI

20' GR

60'

REMOVE

12" CMP

EXISTING R/W

168

169

CAT-1

350

SR 1254 MILLSTONE CREEK CHURCH RD

50' BROADWAVE TOWER

EXISTING CONC

W/L T

ISBKD

94
JERRY W. LUCAS

SEE DETAIL "A"
2' Lateral Base Ditch
DDE = 257 CY

Sta. = 714+24 -L- Rt
Q= 3.2 cfs
V= 2.0 fps
d= 0.45 ft
s= 0.017
n= 0.04

SEE DETAIL "K"
TOE PROTECTION
EST. 155 TONS
EST. 245 SY GEOTEXTILE

ROGER FAIRCLOTH

93B

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

E E DENOTES EXCAVATION IN WETLAND

T T DENOTES TEMPORARY FILL IN WETLAND

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER

TEMP SHORING LOC 6
SEE SHEET 16

25' 0' 25' 50' 75'
SCALE: 1"=50'

REVISIONS 8/17/99

NAD 83/95

2/25/2013
belam
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_PSH29B.dgn

November 28, 2011
R2303B_Hyd_prm_wet_psh29B.dgn

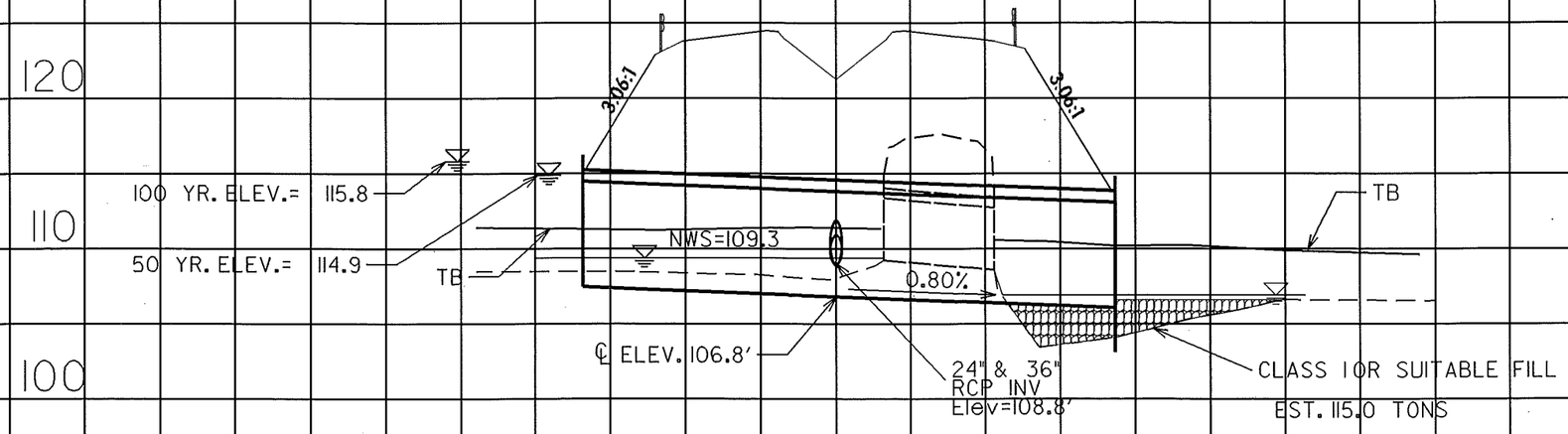
8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R2303B	29 PRL

Permit Drawing
Sheet 52 of 56

100' 0' 100'

℄ STA. 713+35 -L-
2 @7'x7' RCBC
GRADE PT. EL= 124.5
SKEW - 79°



SITE 21

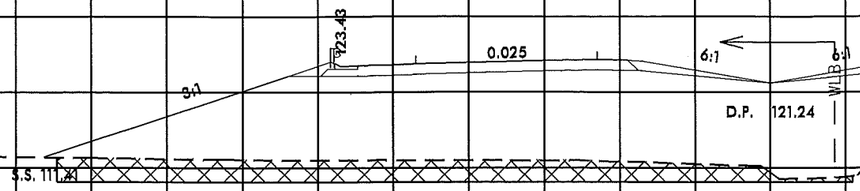
6/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_Hyd_prm_wet_PSH29_PRL.dgn
November 28, 2011
R2303B_Hyd_prm_wet_psh29_prl.dgn
amkeeter

8/23/99

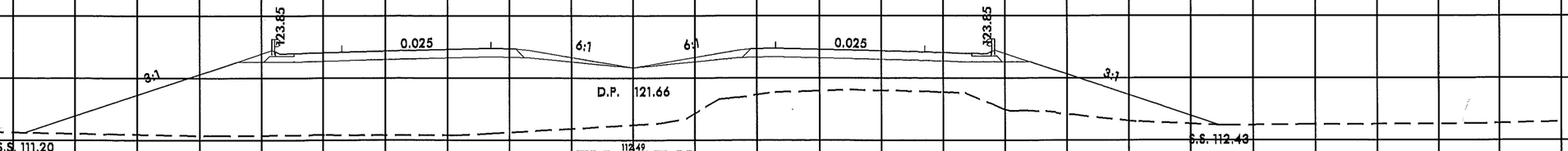
PROJ. REFERENCE NO. R-2303B | SHEET NO. X-160

Permit Drawing
Sheet 53 of 56

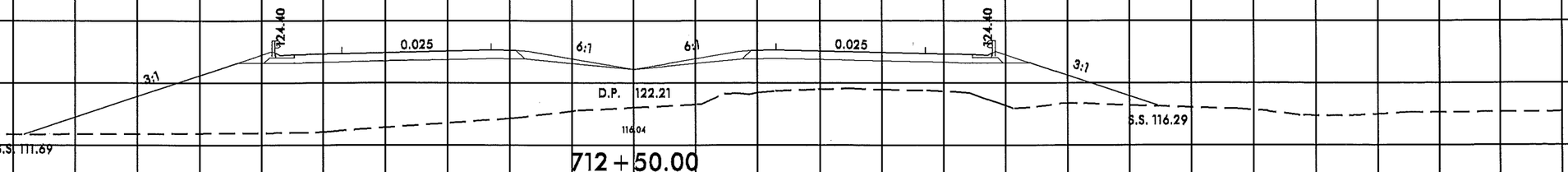
713 + 50.00



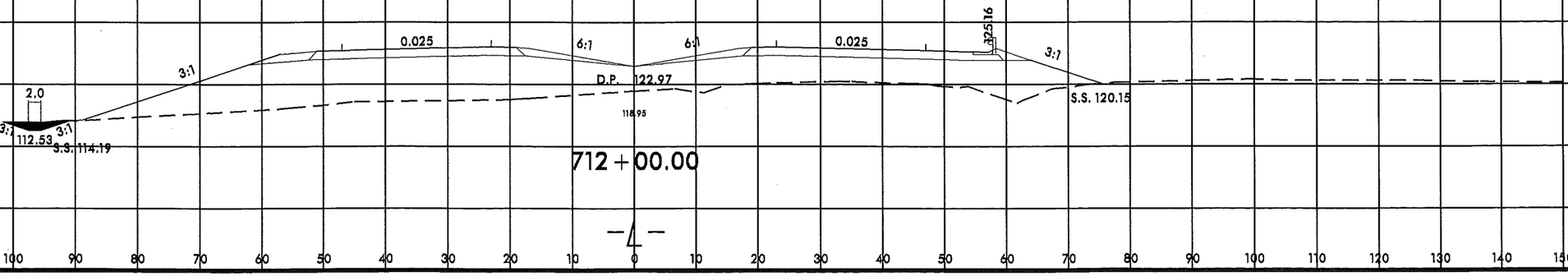
712 + 97.11



712 + 50.00



712 + 00.00



6/22/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303B_hyd_prm_wet_xpl1_psh29.dgn
November 28, 2011
r2303b_hyd_prm_wet_xpl1.dgn
am_keeter

PROJECT REFERENCE NO.	SHEET NO.
R2303B	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Revised 2/8/13 Permit Drawing
Sheet 54 of 56

REVISIONS

8/17/99

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
19	ROLAND NUNNERY	394 JOHN NUNNERY RD. STEDMAN, NC 28391
21	JAMES H. SPELL	P.O. BOX 98 ROSEBORO, NC 28382
26	HEATHER ELIZABETH MELVIN	124 EAST OLD STAGE RD. AUTRYVILLE, NC 28318
30	DONNA BROWN HOLDEN	182 OLD STAGE RD. AUTRYVILLE, NC 28318
31	HELEN S. SESSOMS	P.O. BOX 14 AUTRYVILLE, NC 28318
33	DOUGLAS NEW	P.O. BOX 53591 FAYETTEVILLE, NC 28305
46	EDDIE I. HALL	6510 AUTRY HWY. AUTRYVILLE, NC 28318
47	JAMES R. STARLING	P.O. BOX 31 AUTRYVILLE, NC 28318
49	RICHARD FRANKLIN HALL	5650 AUTRY HWY. AUTRYVILLE, NC 28318
50, 53	GEORGE L. HALL	5440 AUTRY HWY. AUTRYVILLE, NC 28318
56	JIMMY M. HALL	567 LIBBIE RD. AUTRYVILLE, NC 28318
81	BURIL D. BUTLER	3700 AUTRY HWY. AUTRYVILLE, NC 28318
82	LALA VAE M. BUTLER	3970 AUTRY HWY. AUTRYVILLE, NC 28318

NCDOT
DIVISION OF HIGHWAYS
CUMBERLAND & SAMPSON COUNTY
PROJECT: 34416.1.1 (R-2303B)
AUTRYVILLE
NC 24 FROM WEST OF SR 1853
TO WEST OF SR 1404

SHEET OF 10/16/11

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
83	DORIS O. DAVIS	P.O. BOX 3331 BURLINGTON, NC 27217
85	EDNA S. WILLIAMS BEASLEY	2241 PLEASANT UNION RD. ROSEBORO, NC 28382
88	PERRY F. BUTLER	2227 PLEASANT UNION RD. ROSEBORO, NC 28382
89	WILLIAM M. MAINOR	P.O. BOX 1809 ROSEBORO, NC 28382
89B	SECRETARY OF HOUSING & URBAN DEVELOPMENT	40 MARIETTA ST. ATLANTA, GA 30303
93	ROBIE D. FAIRCLOTH	4412 DUNN RD. ROSEBORO, NC 28382
94	JERRY W. LUCAS	2106 SAPONA RD. FAYETTEVILLE, NC 28301
95A	CHARLES S. LUCAS	2106 SAPONA RD. FAYETTEVILLE, NC 28301

NCDOT
DIVISION OF HIGHWAYS
CUMBERLAND & SAMPSON COUNTY
PROJECT: 34416.1.1 (R-2303B)
AUTRYVILLE
NC 24 FROM WEST OF SR 1853
TO WEST OF SR 1404

SHEET OF 10/16/11

WETLAND PERMIT IMPACT 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	388+00 to 391+28-L-	Fill	1.26			0.14						
*2	391+28 to 402+13-L-	Bridge			0.09	<0.01	3.53					
3	14+18 to 15+09-Y13-RT	Fill	0.01			0.02						
4	424+51 to 426+05-L-LT	Fill						0.25				
5	425+57 to 426+51-L-LT	Fill	0.02			0.02						
**6	430+34 to 432+25-L-RT	Fill/Pond						0.19				
7A	431+78 to 434+23-L-	Fill						0.02		158.00		
7B	431+78 to 434+23-L-	Fill	0.23		0.01	0.03						
8	437+97 to 439+15-L-RT	Fill	0.07			0.02						
9	438+58 to 441+68-L-LT	Fill						0.73				
***10	542+45 to 545+21-L-LT	Fill	0.09			0.06						
11	554+06 to 558+53-L-LT	Fill	0.01			0.10						
TOTALS:			1.69		0.10	0.39	3.53	1.19		158.00		

* Site 2: Impacts from piles are Str. # 1 148sf, Str. # 2 148sf.

** Site 6: Wetland Sta. 430+34-L-RT impact shown as total take due to Mitigation site. Additional impact outside of s.s. is 2.13 ac. .

***Site 10: This is a resource that is regulated by the NCDWQ but not by the USACE.

ATN Revised 3/31/05

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND/SAMPSON COUNTY
WBS - 34416.1.1 (R-2303B)

SHEET 2/25/2013

Permit Drawing
Sheet 55 of 56
Revised 2-25-2013

WETLAND PERMIT IMPACT 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)
12	554+38 to 557+27-L-RT	Fill	0.28			0.03						
13	576+76 to 576+89-L-RT	Fill						<0.01	<0.01			
14	623+20 to 624+12-L-RT	Fill	0.10		0.03	<0.01						
15	654+75 to 663+38-L-	Fill / Bridge	2.13			0.41	0.17					
16	669+18 to 670+85-L-LT	Fill	0.26			0.06						
17	670+13 to 672+92-L-RT	Fill	0.05			0.02						
18	674+45 to 674+81-L-RT	Fill						<0.01	<0.01			
19	680+56 to 684+21-L-LT	Fill / Pond						0.44				
20	681+95 to 682+15-L-RT	Fill						<0.01	<0.01			
21	712+14 to 714+41 -L-	Fill / RCBC	0.13	0.12	0.01	0.06		0.02	<0.01	138.00		
		Bank Stabilization						0.02	<0.01	55.00	88.00	
TOTALS:			2.95	0.12	0.04	0.58	0.17	0.41	0.03	193.00	88.00	
		GRAND TOTAL:	4.64	0.12	0.14	0.97	3.70	1.60	0.03	351.00	88.00	

* Site 14 Wetland sta. 623+20-L-RT impact shown as total take.
Additional impact outside slope stake is 0.04 ac..

* Site 15: Impacts from piles are Str. # 3 25sf, Str. # 4 25sf.

* Site 16 Wetland sta. 669+18-L-LT impact shown as total take due to ditch.
Additional impact outside of ditch is 0.04 ac..

* Site 19 Wetland sta. 680+56-L-LT impact shown as total take due to Mitigation site.
Additional impact outside of s.s. is 1.99 ac..

ATN Revised 3/31/05

NC DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

CUMBERLAND/SAMPSON COUNTY

WBS - 34416.1.1 (R-2303B)

SHEET 2/25/2013

Permit Drawing
Sheet 56 of 56
Revised 2-25-2013

03/08/99

TIP PROJECT: R-2303B

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
R-2303B	UEP-0

UTILITY WETLAND IMPACT PLAN
CUMBERLAND & SAMPSON COUNTIES

Utility Permit Drawing
Sheet 1 of 9

SITE-2 UEP-2 (ROADWAY SHEET UC-17)

IMPACTS: NONE

NOTE: PLAN MODIFICATION REQUIRED TO MINIMIZE DISTURBANCE IN WETLAND
(1) USE TRENCHLESS INSTALLATION FOR U/G TEL & FO LINES

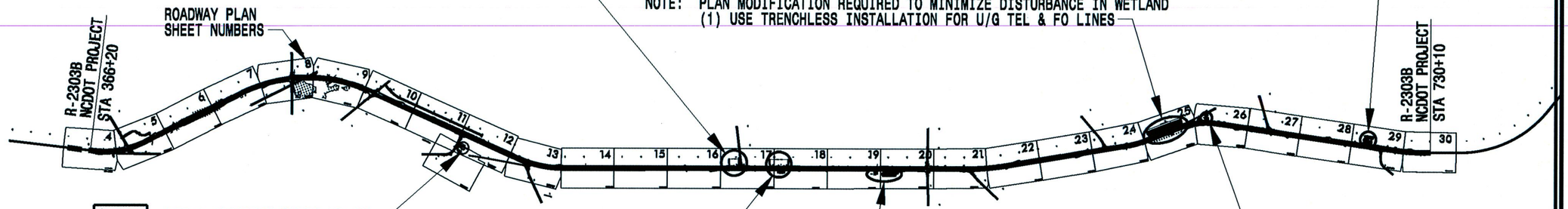
SITE-5 UEP-5 (ROADWAY SHEET UC-25)

IMPACTS: NONE

NOTE: PLAN MODIFICATION REQUIRED TO MINIMIZE DISTURBANCE IN WETLAND
(1) USE TRENCHLESS INSTALLATION FOR U/G TEL & FO LINES

SITE-7 UEP-7 (ROADWAY SHEET UC-29)

IMPACTS: EXCAVATION IN WETLAND = 0.041 ACRE (1795 SQFT)
PURPOSE: EXCAVATE TRENCH FOR WATER LINE INSTALLATION



SITE-1 UEP-1 (ROADWAY SHEET UC-12)

IMPACTS: HAND CLEARING IN WETLAND = 0.058 ACRE (2520 SQFT)
PURPOSE: HAND CLEAR 15' EACH SIDE OF POWER LINES

NOTE: PLAN MODIFICATION REQUIRED TO MINIMIZE DISTURBANCE IN WETLAND
(1) RELOCATE (MOVE IN-LINE) PROPOSED POWER POLE OUT OF WETLAND
(2) USE TRENCHLESS INSTALLATION FOR U/G TEL & FO LINES

SITE-3 UEP-3 (ROADWAY SHEETS UC-17 AND UC-18)

IMPACTS: EXCAVATION IN WETLAND = 0.014 ACRE (625 SQFT)
PURPOSE: EXCAVATE TRENCH FOR WATER LINE INSTALLATION

NOTE: PLAN MODIFICATION REQUIRED TO MINIMIZE DISTURBANCE IN WETLAND
(1) USE TRENCHLESS INSTALLATION FOR U/G TEL & FO LINES

SITE-6 UEP-6 (ROADWAY SHEET UC-26)

IMPACTS: EXCAVATION IN WETLAND = 0.010 ACRE (405 SQFT)
IMPACTS: HAND CLEARING IN WETLAND = 0.022 ACRE (965 SQFT)

PURPOSE: EXCAVATE TRENCH FOR WATER LINE INSTALLATION
PURPOSE: HAND CLEAR 15' EACH SIDE OF POWER LINES

SITE-4 UEP-4 (ROADWAY SHEETS UC-19 AND UC-20)

IMPACTS: EXCAVATION IN WETLAND = 0.095 ACRE (4150 SQFT)
PURPOSE: EXCAVATE TRENCH FOR WATER LINE INSTALLATION

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UEP-0	TITLE SHEET
UEP-1 (UC-12)	SITE-1
UEP-2 (UC-16)	SITE-2
UEP-3 (UC-17, UC-18)	SITE-3
UEP-4 (UC-19, UC-20)	SITE-4
UEP-5 (UC-25)	SITE-5
UEP-6 (UC-26)	SITE-6
UEP-7 (UC-29)	SITE-7

TOTAL PROJECT ENVIRONMENTAL IMPACTS DUE TO UTILITY RELOCATIONS:

(1) EXCAVATION IN WETLAND = 0.16 ACRE (6975 SQFT)
(2) HAND CLEARING IN WETLAND = 0.08 ACRE (3485 SQFT)

JANUARY 22, 2013

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES UNIT
UTILITIES ENGINEERING

1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 707-6690
FAX (919) 250-4121

Roger Worthington, P.E. — UTILITIES SECTION ENGINEER
Ron Wilkins, P.E. — UTILITIES SQUAD LEADER PROJECT ENGINEER
Eric Haugaard — UTILITIES PROJECT DESIGNER

23-JAN-2013 10:24
R:\Utilities\Rdy_Ut\Proj\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_TITLE_SHEET.dgn
$$$$USERNAME$$$$

8/17/99

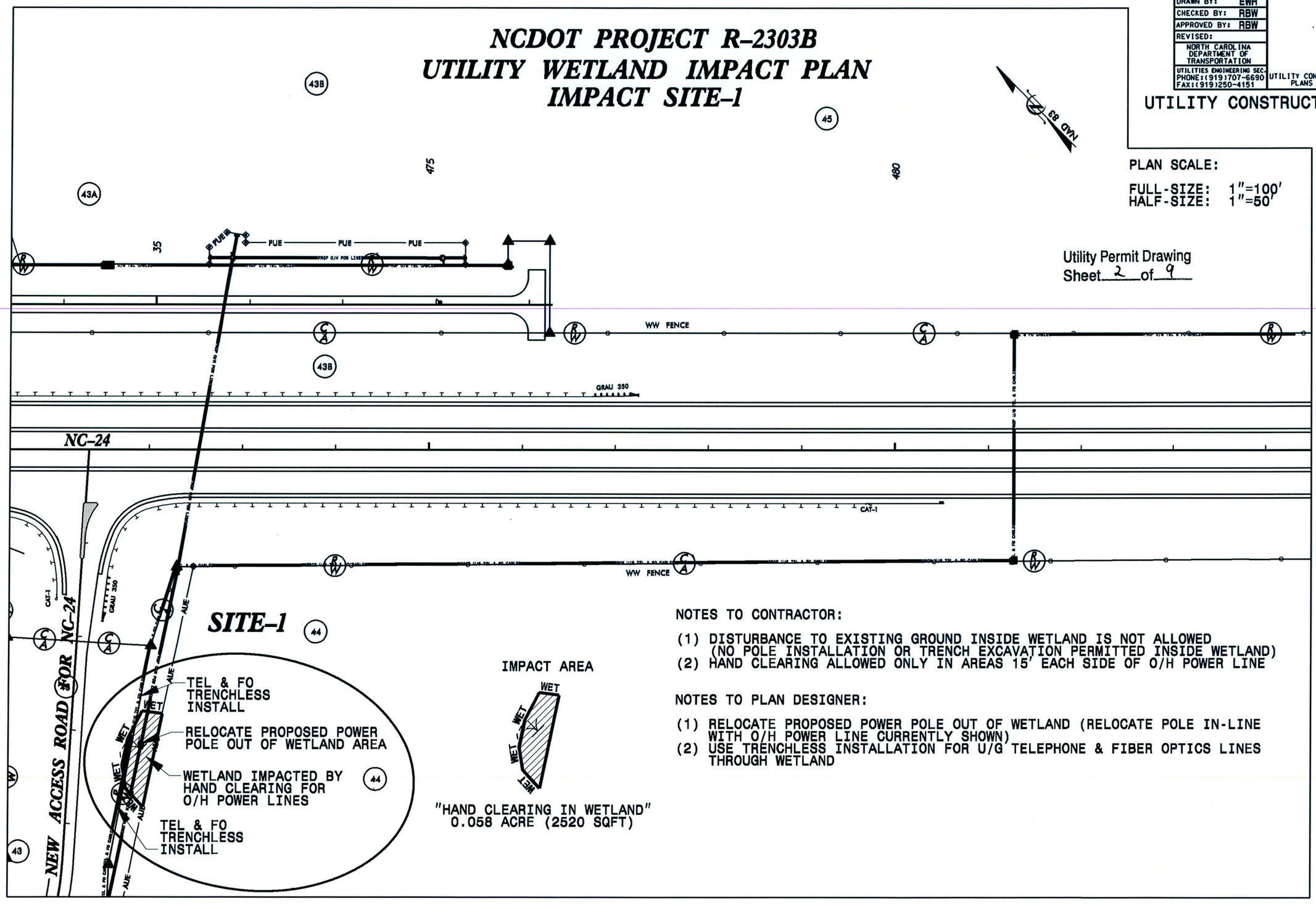
PROJECT REFERENCE NO.	SHEET NO.
R-2303B	UEP-1
DESIGNED BY: EWH	
DRAWN BY: EWH	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
UTILITIES ENGINEERING SEC.
PHONE:(919)707-6690
FAX:(919)250-4151

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NCDOT PROJECT R-2303B
UTILITY WETLAND IMPACT PLAN
IMPACT SITE-1



IMPACT AREA

"HAND CLEARING IN WETLAND"
0.058 ACRE (2520 SQFT)

PLAN SCALE:

FULL-SIZE: 1"=100'
HALF-SIZE: 1"=50'

Utility Permit Drawing
Sheet 2 of 9

NOTES TO CONTRACTOR:

(1) DISTURBANCE TO EXISTING GROUND INSIDE WETLAND IS NOT ALLOWED (NO POLE INSTALLATION OR TRENCH EXCAVATION PERMITTED INSIDE WETLAND)
(2) HAND CLEARING ALLOWED ONLY IN AREAS 15' EACH SIDE OF O/H POWER LINE

NOTES TO PLAN DESIGNER:

(1) RELOCATE PROPOSED POWER POLE OUT OF WETLAND (RELOCATE POLE IN-LINE WITH O/H POWER LINE CURRENTLY SHOWN)
(2) USE TRENCHLESS INSTALLATION FOR U/G TELEPHONE & FIBER OPTICS LINES THROUGH WETLAND

20-JAN-2013 10:35
R:\Utilities\Proj\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_SHEET_UEP-1.dgn
$$$$USERNAME$$$$

8/17/99

NCDOT PROJECT R-2303B
UTILITY ENVIRONMENTAL PERMIT DRAWING
IMPACT SITE-2

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	UEP-2
DESIGNED BY: EWH	
DRAWN BY: EWH	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

Utility Permit Drawing
Sheet 3 of 9

PLAN SCALE:

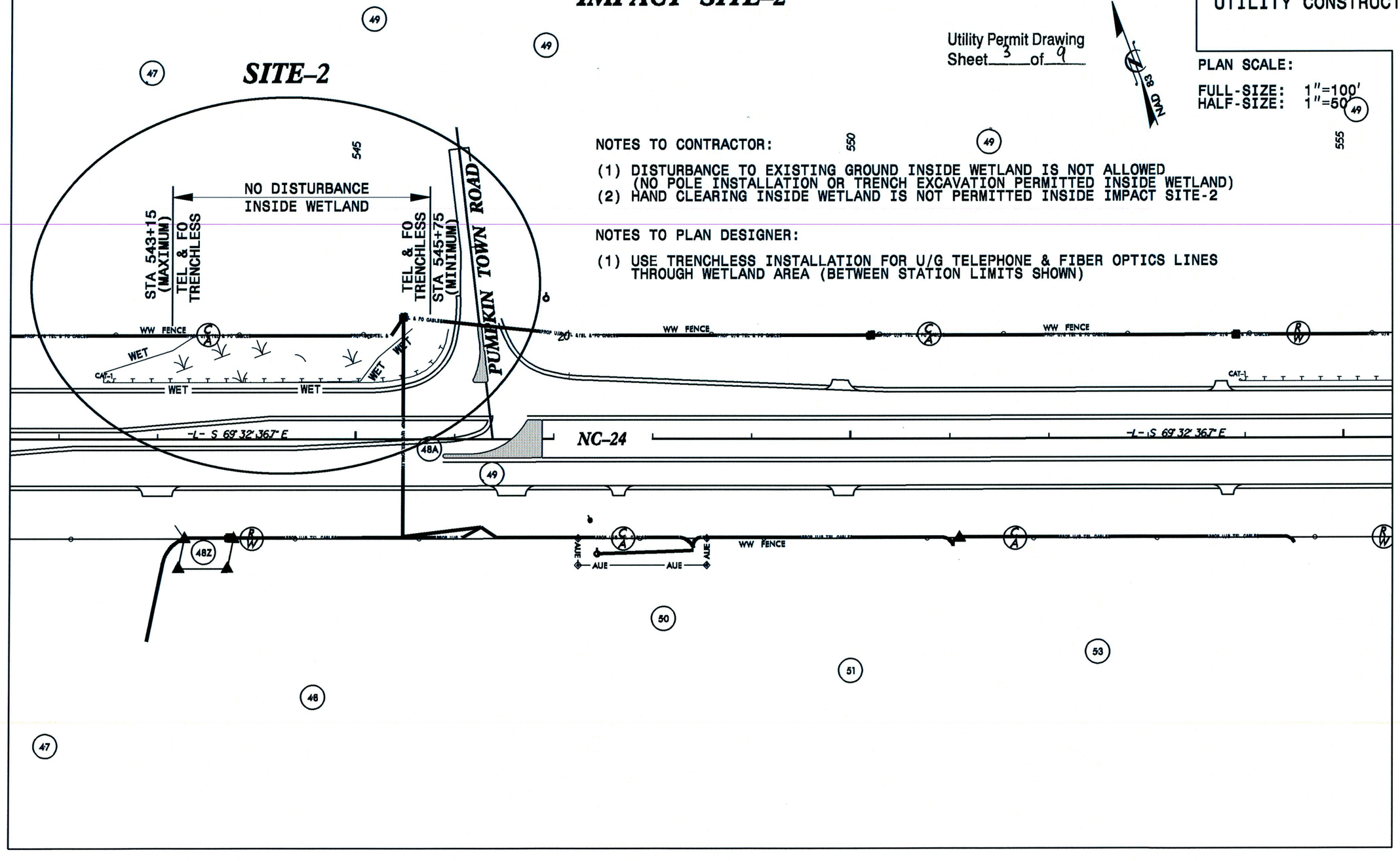
FULL-SIZE: 1"=100'
HALF-SIZE: 1"=50'

NOTES TO CONTRACTOR:

(1) DISTURBANCE TO EXISTING GROUND INSIDE WETLAND IS NOT ALLOWED (NO POLE INSTALLATION OR TRENCH EXCAVATION PERMITTED INSIDE WETLAND)
(2) HAND CLEARING INSIDE WETLAND IS NOT PERMITTED INSIDE IMPACT SITE-2

NOTES TO PLAN DESIGNER:

(1) USE TRENCHLESS INSTALLATION FOR U/G TELEPHONE & FIBER OPTICS LINES THROUGH WETLAND AREA (BETWEEN STATION LIMITS SHOWN)



20-JAN-2013 10:35
R:\Utilities\Projects\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_SHEET_UEP-2.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	UEP-3
DESIGNED BY: EWH	
DRAWN BY: EWH	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NCDOT PROJECT R-2303B
UTILITY ENVIRONMENTAL PERMIT DRAWING
IMPACT SITE-3

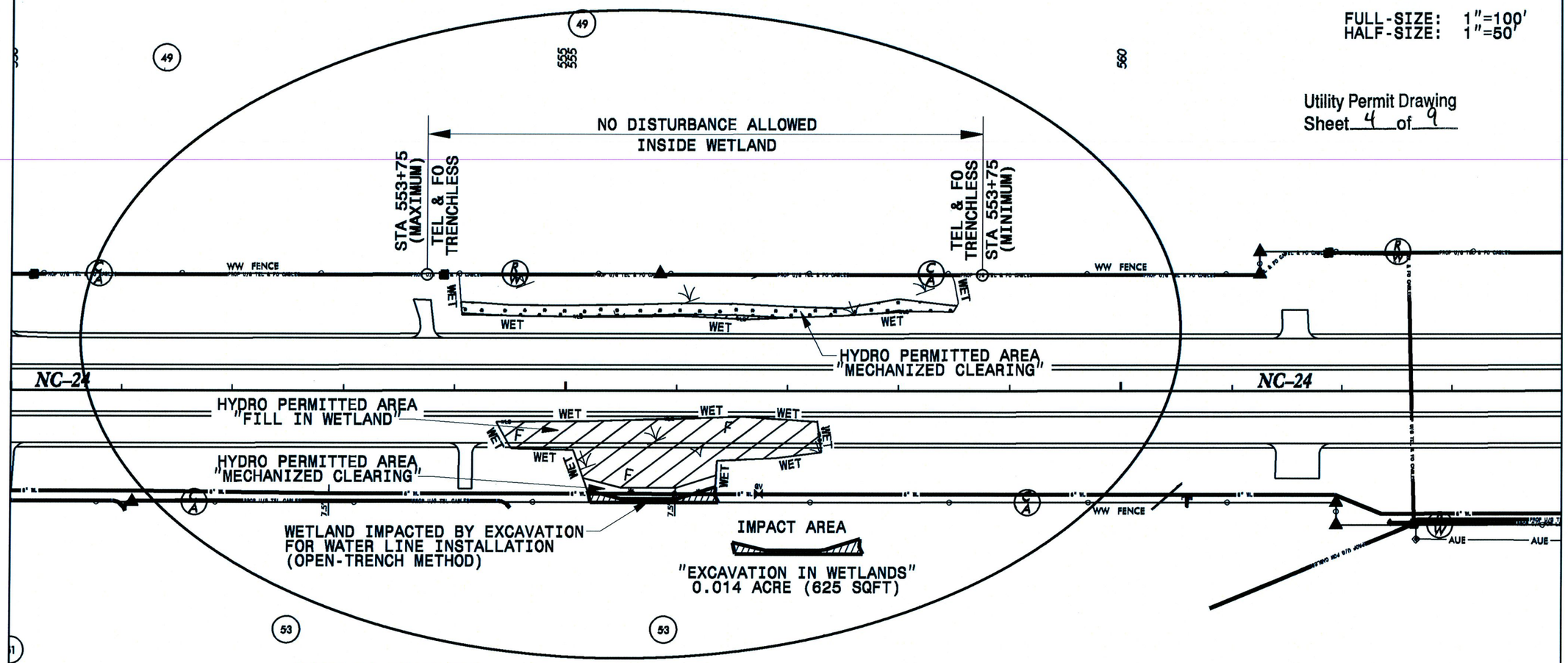
SITE-3

NAD 83

PLAN SCALE:

FULL-SIZE: 1"=100'
HALF-SIZE: 1"=50'

Utility Permit Drawing
Sheet 4 of 9



NOTES TO CONTRACTOR:

(1) DISTURBANCE TO EXISTING GROUND INSIDE WETLAND IS NOT ALLOWED (NO POLE INSTALLATION OR TRENCH EXCAVATION PERMITTED INSIDE WETLAND)
(2) HAND CLEARING INSIDE WETLAND IS NOT PERMITTED INSIDE IMPACT SITE-3

NOTES TO PLAN DESIGNER:

(1) USE TRENCHLESS INSTALLATION FOR U/G TELEPHONE & FIBER OPTICS LINES THROUGH WETLAND AREA (BETWEEN STATION LIMITS SHOWN ABOVE)

53B

20-JAN-2013 10:34
R:\Utilities\Proj\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_SHEET_UEP-3.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	UEP-4
DESIGNED BY: EWH	
DRAWN BY: EWH	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919)707-6690 FAX: (919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NCDOT PROJECT R-2303B
UTILITY ENVIRONMENTAL PERMIT DRAWING
IMPACT SITE-4

SITE-4

NAD 83

580 585 590

Utility Permit Drawing
Sheet 5 of 9

PLAN SCALE:

FULL-SIZE: 1"=100'
HALF-SIZE: 1"=50'

64 65 66

+00 108' LT

AUE AUE AUE AUE AUE

NC-24

NC-24

GRAU 350

CAT-1

WET WET WET WET WET WET WET WET

WETLAND IMPACTED BY EXCAVATION
FOR WATER LINE INSTALLATION
(OPEN-TRENCH METHOD)

63

IMPACT AREA

"EXCAVATION IN WETLANDS"
0.006 ACRE (250 SQFT)

IMPACT AREA

"EXCAVATION IN WETLANDS"
0.090 ACRE (3900 SQFT)

8/17/99

20-JAN-2013 10:34
R:\Utilities\Proj\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_SHEET_UEP-4.dgn
$$$$USERNAME$$$$

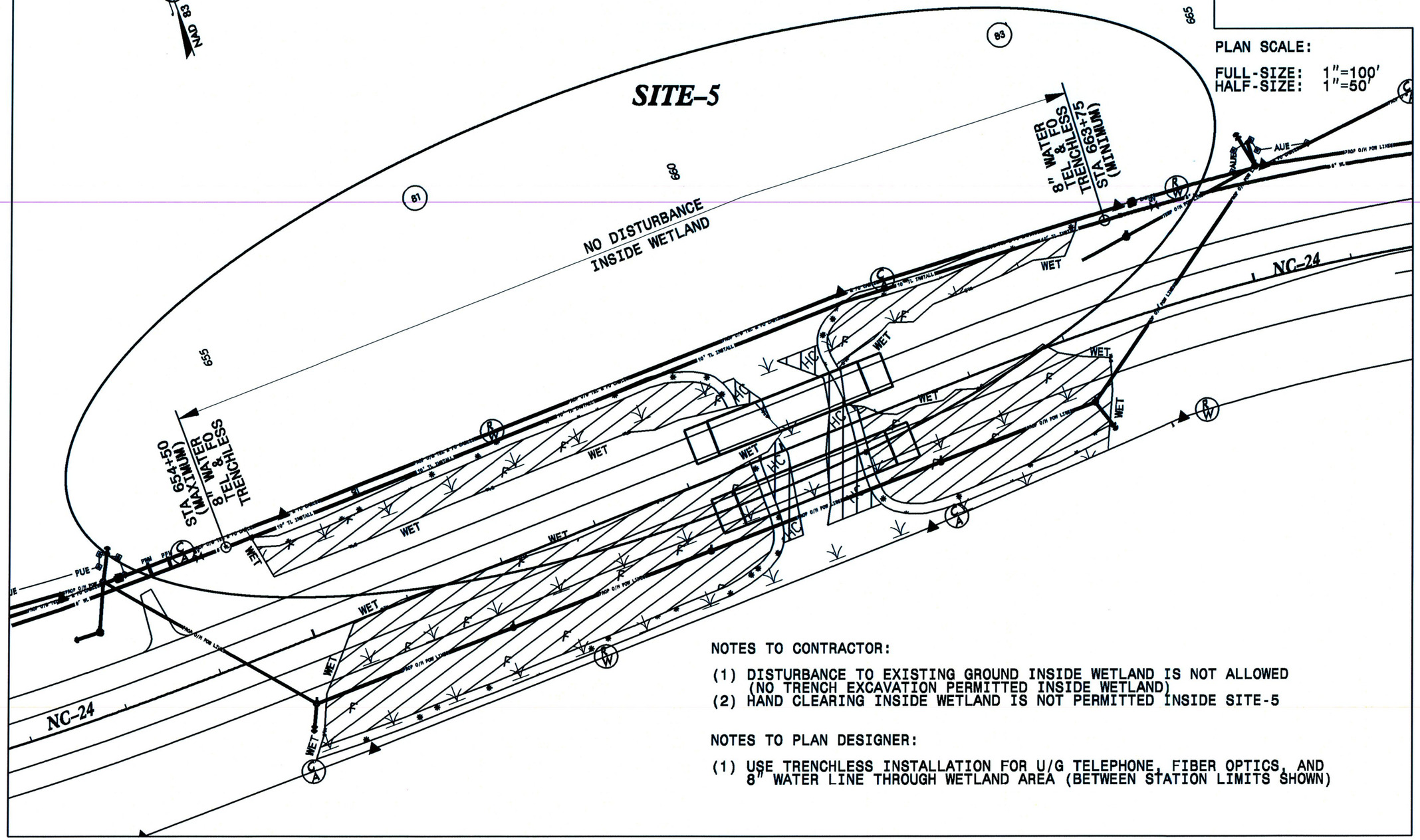
8/17/99

NCDOT PROJECT R-2303B
UTILITY ENVIRONMENTAL PERMIT DRAWING
IMPACT SITE-5

Utility Permit Drawing
Sheet 6 of 9

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	UEP-5
DESIGNED BY: EWH	
DRAWN BY: EWH	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



PLAN SCALE:

FULL-SIZE: 1"=100'
HALF-SIZE: 1"=50'

NOTES TO CONTRACTOR:

(1) DISTURBANCE TO EXISTING GROUND INSIDE WETLAND IS NOT ALLOWED (NO TRENCH EXCAVATION PERMITTED INSIDE WETLAND)
(2) HAND CLEARING INSIDE WETLAND IS NOT PERMITTED INSIDE SITE-5

NOTES TO PLAN DESIGNER:

(1) USE TRENCHLESS INSTALLATION FOR U/G TELEPHONE, FIBER OPTICS, AND 8" WATER LINE THROUGH WETLAND AREA (BETWEEN STATION LIMITS SHOWN)

20-JAN-2013 10:33
R:\Utilities\Proj\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_SHEET_UEP-5.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	UEP-6
DESIGNED BY: EWH	
DRAWN BY: EWH	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NCDOT PROJECT R-2303B
UTILITY ENVIRONMENTAL PERMIT DRAWING
IMPACT SITE-6

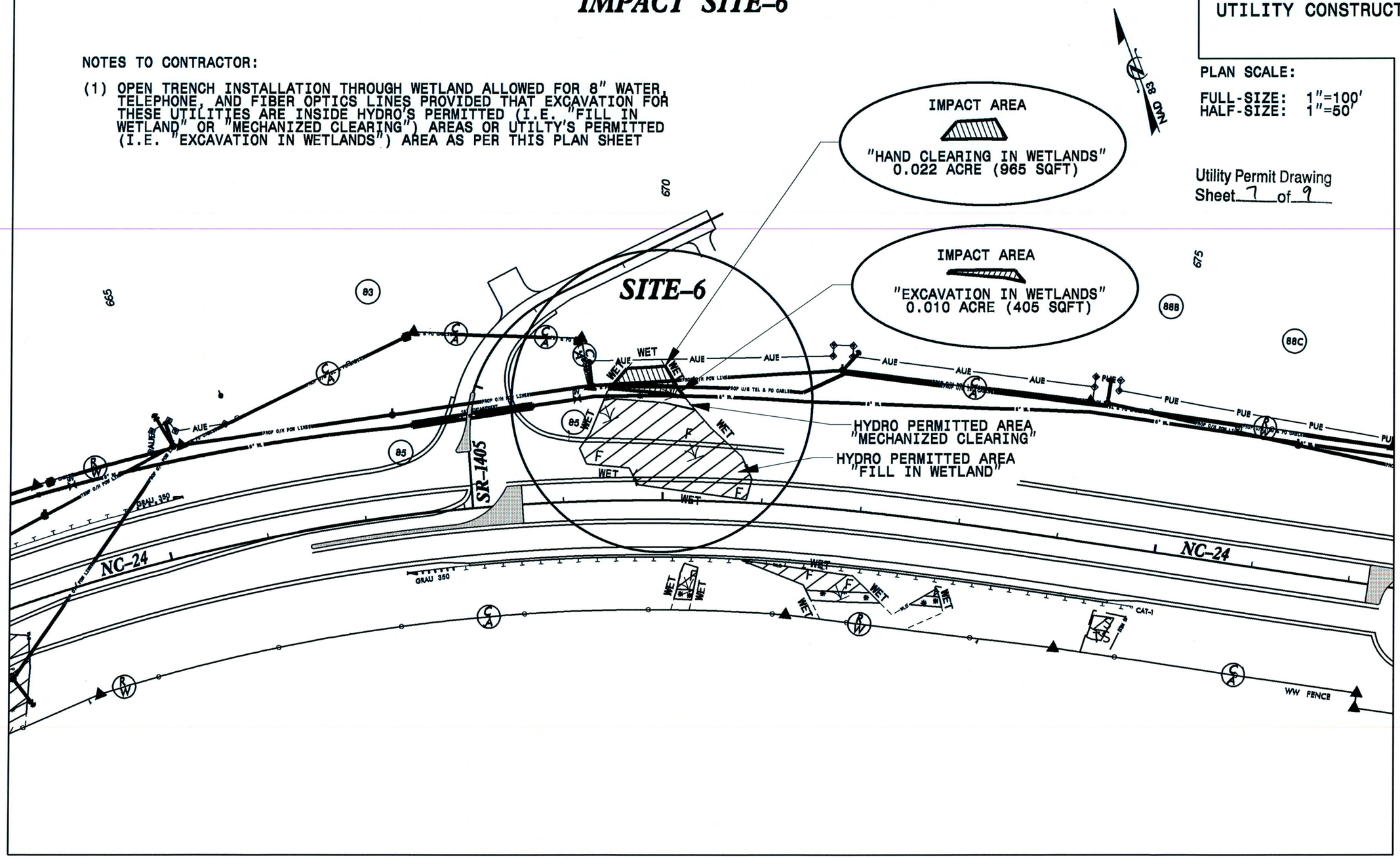
NOTES TO CONTRACTOR:

(1) OPEN TRENCH INSTALLATION THROUGH WETLAND ALLOWED FOR 8" WATER, TELEPHONE, AND FIBER OPTICS LINES PROVIDED THAT EXCAVATION FOR THESE UTILITIES ARE INSIDE HYDRO'S PERMITTED (I.E. "FILL IN WETLAND" OR "MECHANIZED CLEARING") AREAS OR UTILTY'S PERMITTED (I.E. "EXCAVATION IN WETLANDS") AREA AS PER THIS PLAN SHEET

PLAN SCALE:

FULL-SIZE: 1"=100'
HALF-SIZE: 1"=50'

Utility Permit Drawing
Sheet 7 of 9



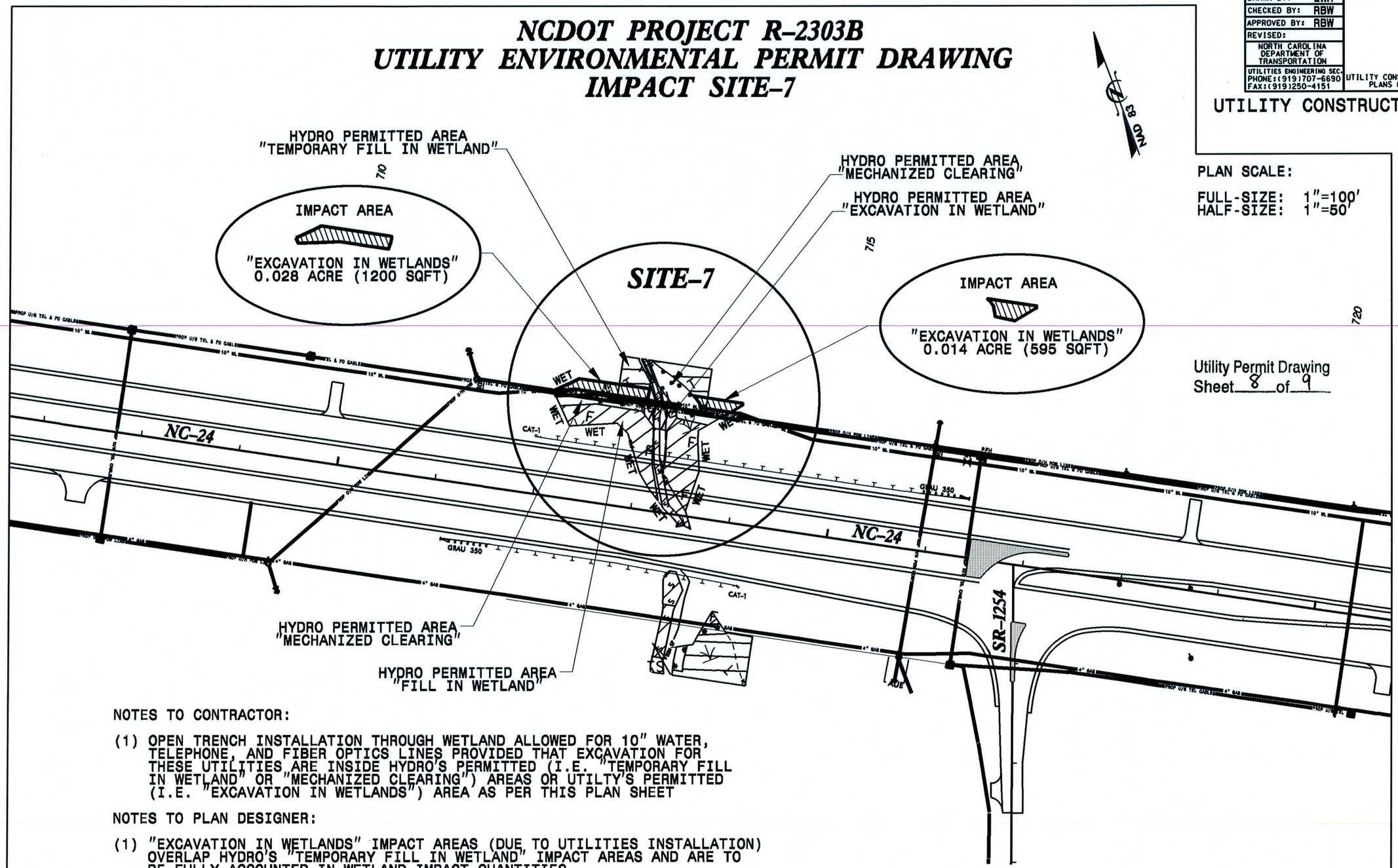
20-JAN-2013 10:32
R:\Utilities\Roadway\Proj\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_SHEET_UEP-6.dgn
$$$$USERNAME$$$$

8/17/99

NCDOT PROJECT R-2303B
UTILITY ENVIRONMENTAL PERMIT DRAWING
IMPACT SITE-7

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	UEP-7
DESIGNED BY: EWH	
DRAWN BY: EWH	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE:(919)707-6690 FAX:(919)250-4151	UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



PLAN SCALE:

FULL-SIZE: 1"=100'
HALF-SIZE: 1"=50'

Utility Permit Drawing
Sheet 8 of 9

NOTES TO CONTRACTOR:

(1) OPEN TRENCH INSTALLATION THROUGH WETLAND ALLOWED FOR 10" WATER, TELEPHONE, AND FIBER OPTICS LINES PROVIDED THAT EXCAVATION FOR THESE UTILITIES ARE INSIDE HYDRO'S PERMITTED (I.E. "TEMPORARY FILL IN WETLAND" OR "MECHANIZED CLEARING") AREAS OR UTILTY'S PERMITTED (I.E. "EXCAVATION IN WETLANDS") AREA AS PER THIS PLAN SHEET

NOTES TO PLAN DESIGNER:

(1) "EXCAVATION IN WETLANDS" IMPACT AREAS (DUE TO UTILITIES INSTALLATION) OVERLAP HYDRO'S "TEMPORARY FILL IN WETLAND" IMPACT AREAS AND ARE TO BE FULLY ACCOUNTED IN WETLAND IMPACT QUANTITIES

20-JAN-2013 10:30
R:\Utilities\Rdwy_Ut\Proj\R-2303B_ENVIRONMENTAL_PERMIT_DRAWING_SHEET_UEP-7.dgn
$$$$USERNAME$$$$

WETLAND PERMIT IMPACT 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	472+00 -L-	O/H POWER					0.06					
3	545+00 -L-	U/G WATER			0.01							
4	584+00 -L-	U/G WATER			0.10							
6	670+00 -L-	U/G WATER			0.01							
6	670+00 -L-	U/G POWER					0.02					
7	713+00 -L-	U/G WATER			0.04							
TOTALS:					0.16		0.08					

Utility Permit Drawing
Sheet 9 of 9

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND/SAMPSON COUNTY
WBS - 34416.1.1 (R-2303B)

SHEET 1/22/2013

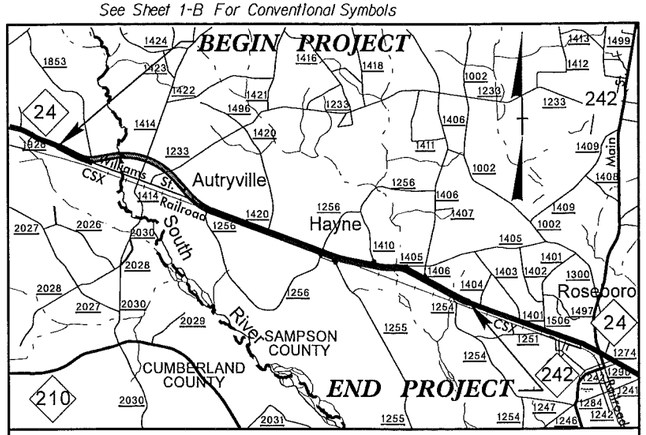
ATN Revised 3/31/05

09/06/99

TIP PROJECT: R-2303B

CONTRACT: C203087

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303B	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34416.1.1	STPNHF-F-8-2(17)	P.E.
34416.2.3		R/W & UTILITY
34416.3.4		CONST.

CUMBERLAND & SAMPSON COUNTIES

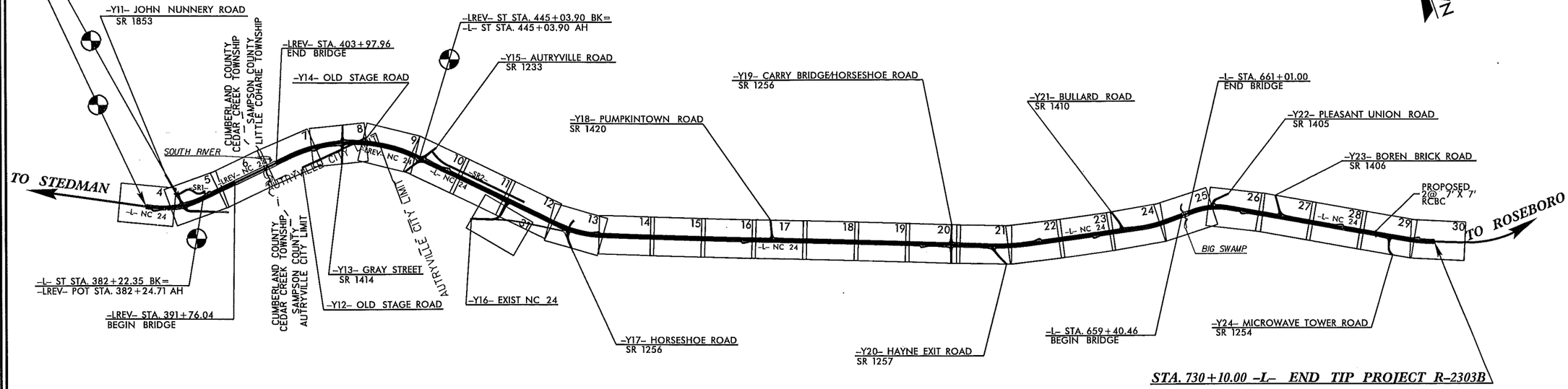
LOCATION: NC 24 FROM SR 1853 (JOHN NUNNERY RD) IN CUMBERLAND COUNTY TO SR 1404 (DOWDY RD) IN SAMPSON COUNTY

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

NAD 83/93

BEG. CONST. STA. 366+20.75 AH –L– (R-2303B)
END CONST. STA. 366+14.19 BK –L– (R-2303A)

STA. 376+35.51 –L– BEG. TIP PROJECT R-2303B
STA. 376+28.96 –L– END TIP PROJECT R-2303A



STA. 730+10.00 –L– END TIP PROJECT R-2303B

THIS IS A LIMITED AND PARTIAL CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE POINTS AS SHOWN ON THE PLANS.

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2013 = 14792
ADT 2033 = 23272
DHV = 11 %
D = 65 %
T = 9 % *
V = 60 MPH
* TTST 6% DUAL 3%
FUNC. CLASS – ARTERIAL
TIER–STATEWIDE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2303B = 6.437 MILES
LENGTH STRUCTURES TIP PROJECT R-2303B = 0.262 MILES
TOTAL LENGTH TIP PROJECT R-2303B = 6.699 MILES

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MARCH 29, 2011
LETTING DATE: MAY 21, 2013

GARY LOVERING, PE
PROJECT ENGINEER

KEVIN E. MOORE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

16-JAN-2013 14:21
r:\roadway\proj\r-2303b_rdy_tsh.dgn
$$$$USERNAME$$$$

12/05/11

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	1-B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 23
- 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
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

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:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite R/W Marker
- Proposed Control of Access Line with Concrete C/A Marker
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

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
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:
- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — THH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:
- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:
- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — THH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:
- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (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
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

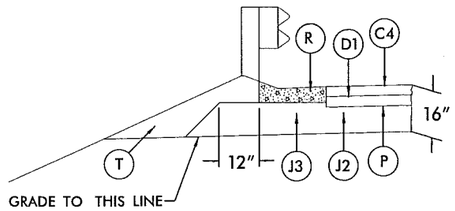
MISCELLANEOUS:
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?U/TL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

6/2/99

PAVEMENT SCHEDULE
(FINAL PAVEMENT DESIGN)

C1	PROP. APPROX. 1¼" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.50 LBS. PER SQ. YD.
C2	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH.
C4	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C5	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.
E3	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
E4	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.
J1	PROP. 8" AGGREGATE BASE COURSE.
J2	PROP. 10" AGGREGATE BASE COURSE.
J3	PROP. VAR. DEPTH AGGREGATE BASE COURSE.
P	PRIME COAT.
R	SHOULDER BERM GUTTER.
U	EXISTING PAVEMENT.
T	EARTH MATERIAL.
W	VARIABLE DEPTH ASPHALT PAVEMENT. (See Wedging Detail This Sheet)

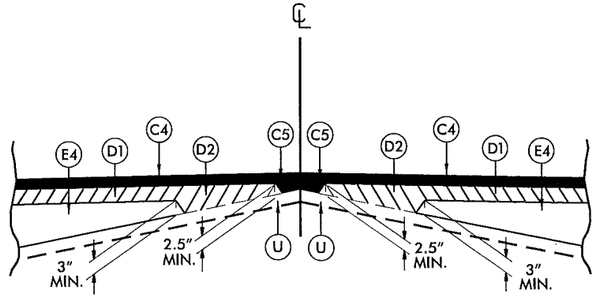
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



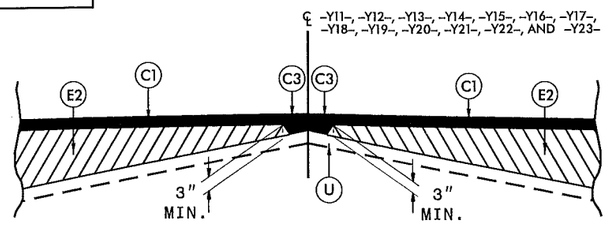
SHOULDER BERM GUTTER DETAIL

USE SHOULDER BERM GUTTER

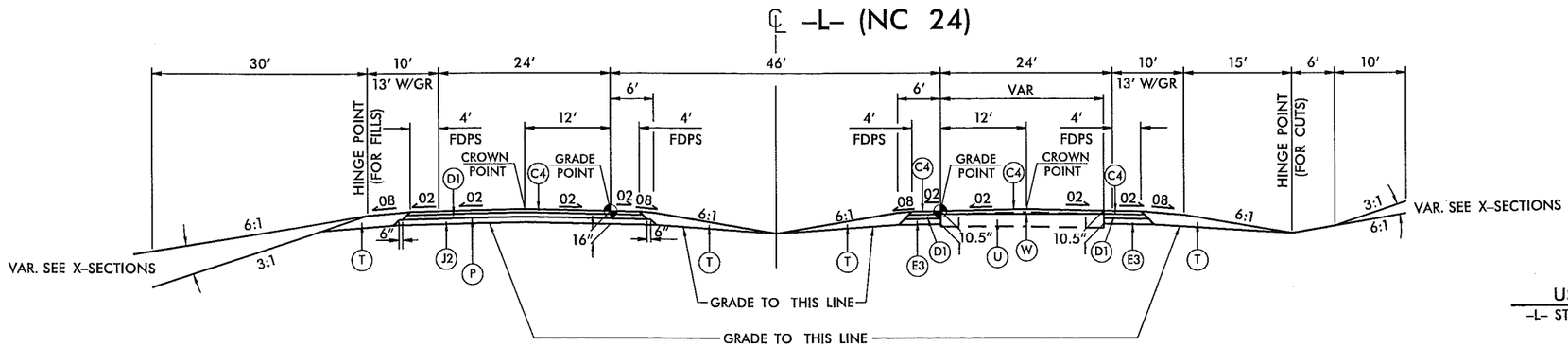
–LREV– STA. 389+76.70 TO STA. 391+52.04 (RT)
–LREV– STA. 390+32.73 TO STA. 391+52.04 (LT)
–LREV– STA. 404+21.96 TO STA. 404+40.32 (RT)
–LREV– STA. 404+21.96 TO STA. 406+46.57 (LT)
–LREV– STA. 426+25.00 TO STA. 441+68.75 (RT)
–L– STA. 462+85.00 TO STA. 478+25.00 (LT)
–L– STA. 463+56.00 TO STA. 464+99.75 (RT)
–L– STA. 468+92.95 (RT) TO –Y16– STA. 11+56.31 (RT)
–Y16– STA. 11+32.55 (LT) TO –L– STA. 480+50.00 (RT)
–L– STA. 654+59.75 TO STA. 659+16.29 (LT)
–L– STA. 655+30.00 TO STA. 659+16.29 (RT)
–L– STA. 661+25.17 TO STA. 663+07.25 (RT)
–L– STA. 668+00.00 TO STA. 674+60.00 (RT)
–L– STA. 680+70.00 TO STA. 684+70.00 (LT)
–L– STA. 710+82.00 TO STA. 714+38.25 (RT)
–L– STA. 712+33.75 TO STA. 715+25.00 (LT)



DETAIL SHOWING METHOD OF WEDGING
(SEE TYPICAL SECTIONS TO DETERMINE COMPOSITION OF WEDGING)



Detail Showing Method of Wedging



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 *
–L– STA. 366+20.75 AH TO STA. 368+00.00

* NOTE: CROWN POINT IS TRANSFERRED TO THE INSIDE EDGE OF TRAVEL AS SHOWN IN T.S. NO. 2 AND NO.3 IN THE SUPER ELEVATION TRANSITION AT STA. 367+00.75

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

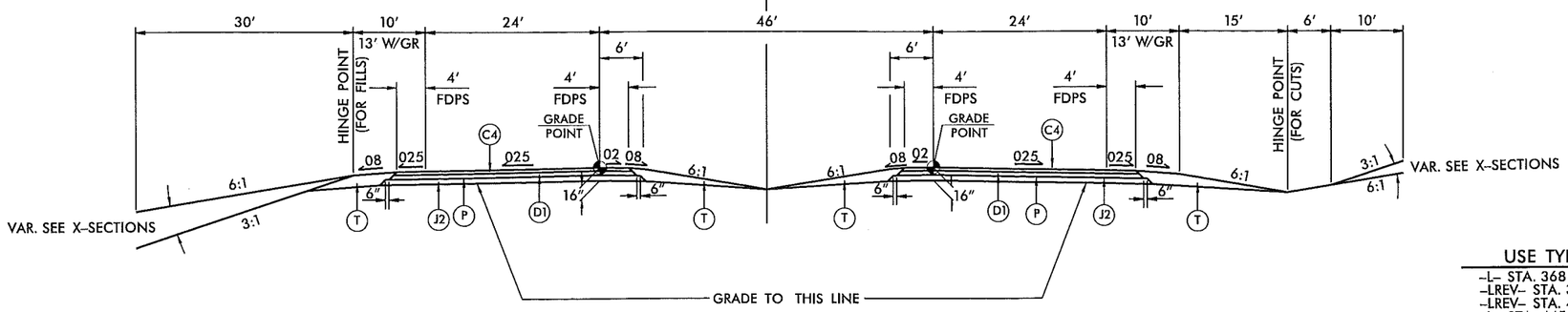
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

16-JAN-2013 14:21
r:\roadway\proj\r-2303b_rdy_typ.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	2-A
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

℄ –L– & –LREV– (NC24)



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

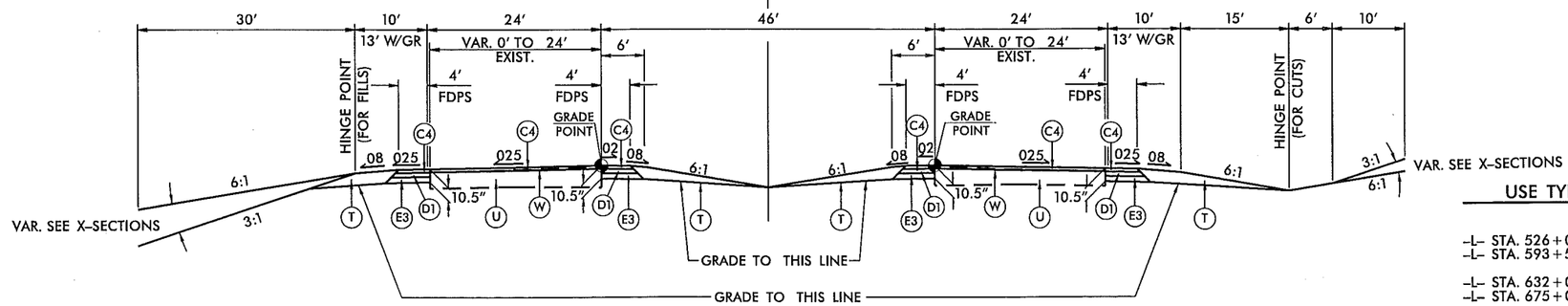
–L– STA. 368+00.00 TO STA. 382+22.35 BK
–LREV– STA. 382+24.71 AH TO STA. 391+76.04 (BEGIN BRIDGE)
–LREV– STA. 403+97.96 (END BRIDGE) TO STA. 445+03.90 BK
–L– STA. 445+03.90 AH TO STA. 526+00.00

–L– STA. 539+50.00 TO STA. 593+50.00
–L– STA. 612+00.00 TO STA. 632+00.00

–L– STA. 648+00.00 TO STA. 659+40.46 (BEGIN BRIDGE)
–L– STA. 661+01.00 (END BRIDGE) TO STA. 675+00.00
–L– STA. 681+00.00 TO STA. 687+50.00

–L– STA. 694+50.00 TO STA. 704+50.00
–L– STA. 708+75.00 TO STA. 718+50.00

℄ –L– (NC 24)



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

–L– STA. 526+00.00 TO STA. 539+50.00 (LT. LANE)
–L– STA. 593+50.00 TO STA. 612+00.00 (LT. LANE)

–L– STA. 632+00.00 TO STA. 648+00.00 (LT. LANE)
–L– STA. 675+00.00 TO STA. 681+00.00 (RT. LANE)

–L– STA. 687+50.00 TO STA. 694+50.00 (RT. LANE)
–L– STA. 704+50.00 TO STA. 708+75.00 (RT. LANE)
–L– STA. 718+50.00 TO STA. 730+10.00 (RT. LANE)

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C4	3″ S9.5C
D1	3″ I19.0C
E3	4½″ B25.0C
J2	10″ ABC
P	PRIME COAT
U	EXIST. PAVEMENT
T	EARTH MATERIAL
W	WEDGING

16-JAN-2013 14:21
r:\roadway\proj\r-2303b_rdy_typ.dgn
$$$$USERNAME$$$$

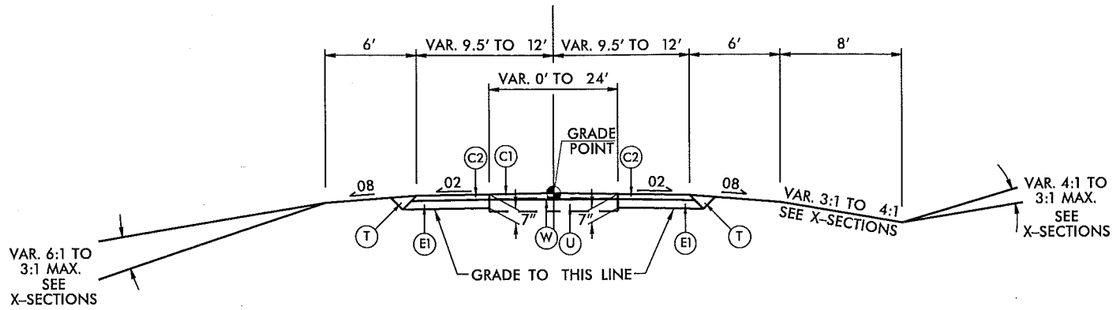
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	2-B
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

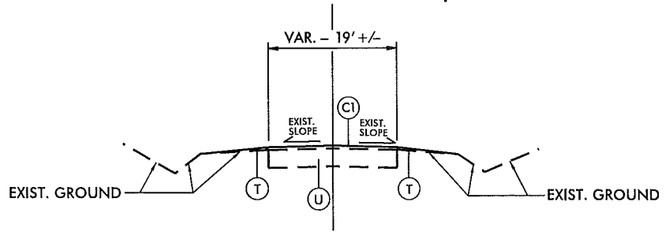
–Y12– (E OLD STAGE RD)
–Y13– (SR 1414 N GRAY ST)
–Y14– (E OLD STAGE RD)
–Y16– (NC 24 AUTRY HWY)
–Y17– (SR 1258 HORSESHOE RD)
–Y18– (SR 1420 PUMPKINTOWN RD)
–Y19– (SR 1256 CARRY BRIDGE RD)
–Y20– (SR 1257 HAYNE EXIST RD)
–Y21– (SR 1410 BULLARD RD)
–Y22– (SR 1405 PLEASANT UNION RD)
–Y23– (SR 1406 BOREN BRICK RD)

℄ –Y– LINES



TYPICAL SECTION NO. 5

℄ –Y15– (SR 1238 AUTRYVILLE RD)



TYPICAL SECTION NO. 6

–L– PAVEMENT DESIGN WIDENING

–Y11– STA. 18+06.73 TO STA. 18+58.59
–Y11– STA. 23+00.00 TO STA. 25+00.00
–Y12– STA. 20+50.00 TO STA. 21+84.03
–Y19– STA. 19+01.76 TO STA. 19+97.07

–Y20– STA. 11+31.92 TO STA. 11+99.03

–Y21– STA. 19+07.90 TO STA. 20+04.30

–Y23– STA. 17+71.63 TO STA. 17+91.12

–L– PAVEMENT DESIGN ALL NEW PVT.

–Y11– STA. 18+58.59 TO STA. 19+05.88
–Y11– STA. 20+28.41 TO STA. 23+00.00

–Y13– STA. 15+02.72 TO STA. 15+99.71
–Y13– STA. 17+18.26 TO STA. 18+66.60

–Y15– STA. 13+18.41 TO STA. 14+44.95
–Y15– STA. 15+77.42 TO STA. 16+72.53

–Y16– STA. 10+59.10 TO STA. 11+56.31

–Y17– STA. 10+59.00 TO STA. 11+64.65

–Y18– STA. 19+46.95 TO STA. 20+34.61

–Y19– STA. 21+15.03 TO STA. 22+02.84

–Y20– STA. 10+61.81 TO STA. 11+31.92

–Y22– STA. 13+81.73 TO STA. 15+64.73

–Y23– STA. 17+91.12 TO STA. 18+94.31

USE TYPICAL SECTION NO. 5

–Y11– STA. 15+50.00 TO STA. 18+06.73

–Y13– STA. 13+75.00 TO STA. 15+02.72
–Y13– STA. 18+66.60 TO STA. 20+00.00

–Y14– STA. 16+30.00 TO STA. 17+20.00

–Y15– STA. 13+00.00 TO STA. 13+18.41
–Y15– STA. 16+72.53 TO STA. 18+00.00

–Y16– STA. 11+56.31 TO STA. 19+50.00

–Y17– STA. 11+64.65 TO STA. 15+00.00

–Y18– STA. 18+00.00 TO STA. 19+46.95

–Y19– STA. 17+75.00 TO STA. 19+01.76
–Y19– STA. 22+02.84 TO STA. 22+71.00

–Y20– STA. 11+99.03 TO STA. 13+00.00

–Y21– STA. 17+75.00 TO STA. 19+07.90

–Y22– STA. 12+00.00 TO STA. 13+81.73

–Y23– STA. 16+75.00 TO STA. 17+71.63

USE TYPICAL SECTION NO. 6

–Y15– STA. 11+00.00 TO STA. 13+00.00
–Y15– STA. 18+00.00 TO STA. 18+50.00

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	1¼" SF9.5A
C2	2½" SF9.5A
E1	4½" B25.0B
U	EXIST. PAVEMENT
T	EARTH MATERIAL
W	WEDGING

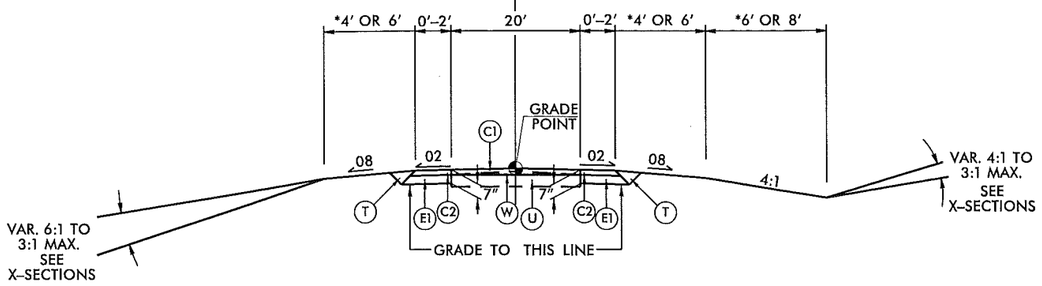
16-JAN-2013 14:21
r:\roadway\prj\r-2303b_rdy_typ.dgn
$$$$USERNAME$$$$

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	2-C
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

℄ –Y24– (SR 1254 MICROWAVE TOWER RD)



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7

USE 4' SHLD. AND 6' DITCH RT.
–Y24– STA. 11+49.15 TO STA. 12+50.00

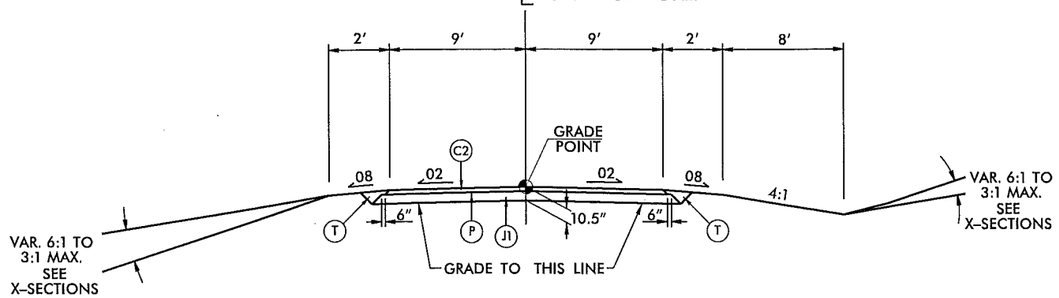
–L– PAVEMENT DESIGN WIDENING

–Y24– STA. 11+39.25 TO STA. 11+49.15

–L– PAVEMENT DESIGN ALL NEW PVT.

–Y24– STA. 10+59.61 TO STA. 11+39.25

℄ –SR1– & –SR2–

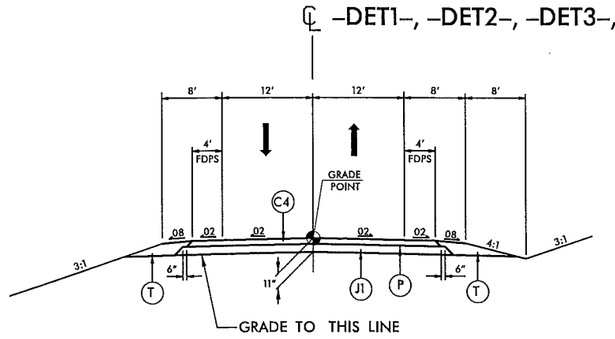


TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8

–SR1– STA. 10+10.00 TO STA. 18+25.89
–SR2– STA. 10+09.17 TO STA. 39+14.00

℄ –DET1–, –DET2–, –DET3–, –DET4–



TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9

–DET1– STA. 13+10.00 TO STA. 20+95.11
–DET2– STA. 12+48.62 TO STA. 17+49.96
–DET3– STA. 10+00.00 TO STA. 16+75.33
–DET4– STA. 10+00.00 TO STA. 18+07.63

WIDEN USING EXISTING GRADE & SE

–DET1– STA. 10+00.00 TO STA. 13+10.00
–DET2– STA. 10+00.00 TO STA. 12+48.62
–DET3– STA. 16+75.33 TO STA. 20+03.58
–DET4– STA. 18+07.63 TO STA. 20+95.11

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	1¼" SF9.5A
C2	2½" SF9.5A
C4	3" S9.5C
E1	4½" B25.0B
J1	8" ABC
P	PRIME COAT
U	EXIST. PAVEMENT
T	EARTH MATERIAL
W	WEDGING

16-JAN-2013 14:21
I:\roadway\gra\r-2303b_rdy_typ.dgn
$$$$USERNAME$$$$

6/2/99

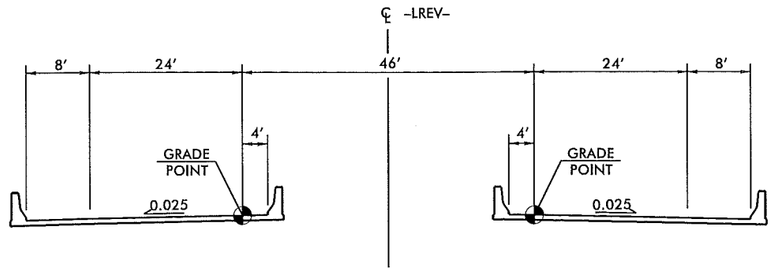
PROJECT REFERENCE NO.	SHEET NO.
R-2303B	2-D
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

STRUCTURE TYPICAL SECTIONS
(NOT TO SCALE)

–LREV– STRUCTURE

NC 24 OVER SOUTH RIVER



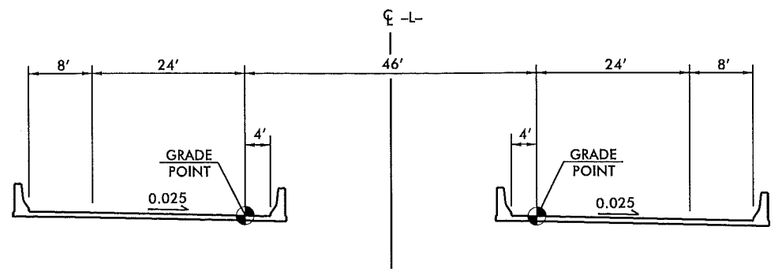
TYPICAL SECTION NO. 10

USE TYPICAL SECTION NO. 10

–LREV– STA. 391+76.04 (BEGIN BRIDGE) TO LREV– STA. 403+97.96 (END BRIDGE)

–L– STRUCTURE

NC 24 OVER BIG SWAMP



TYPICAL SECTION NO. 11

USE TYPICAL SECTION NO. 11

–L– STA. 659+40.46 (BEGIN BRIDGE TO
–L– STA. 661+01.00 (END BRIDGE)

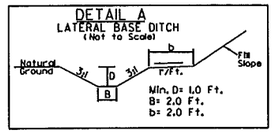
16-JAN-2013 14:21
R:\Projects\PDEA\r-2303b_rdy_typ.dgn
$$$$USERNAME$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	2-G
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

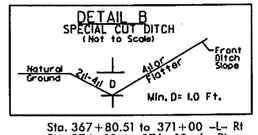
DITCH DETAILS

DETAIL A
LATERAL BASE DITCH
(Not to Scale)



Sta. 404+31.84 to 406+50 –L– Lt
Sta. 404+10.98 to 410+00 –L– Rt
Sta. 426+13 to 428+35.56 –L– Lt.
Sta. 431+50 to 436+00 –L– Lt
Sta. 438+00 to 439+98.02 –L– Lt
Sta. 462+50 to 480+50 –L– Lt
Sta. 487+00 to 503+00 –L– Lt
Sta. 494+27.68 to 503+00 –L– Rt
Sta. 492+77.68 to 494+27.68 –L– Rt
Sta. 503+30 to 513+00 –L– Rt
Sta. 514+40 to 523+00 –L– Rt
Sta. 503+15 to 520+00 –L– Lt
Sta. 523+50 to 526+00 –L– Rt
Sta. 552+50 to 555+00 –L– Rt
Sta. 553+00 to 554+00 –L– Lt
Sta. 556+50 to 558+00 –L– Rt
Sta. 558+50 to 561+50 –L– Lt
Sta. 561+75 to 573+00 –L– Lt
Sta. 562+00 to 576+75 –L– Rt
Sta. 587+29.73 to 594+22.23 –L– Rt
Sta. 607+50 to 615+00 –L– Rt
Sta. 617+50 to 627+60 –L– Lt
Sta. 640+00 to 646+00 –L– Rt
Sta. 670+25 to 672+00 –L– Lt
Sta. 682+15 to 685+50 –L– Rt
Sta. 688+13.79 to 691+50 –L– Lt
Tie to –Y23– Lt ditch
Sta. 696+50 to 701+20 –L– Lt
Sta. 714+24 to 715+97.11 –L– Rt
Sta. 11+31.75 14+00 –Y16– Rt
Sta. 11+10.19 13+00 –Y16– Lt
Sta. 17+00 to 18+64 –Y23– Lt
Ditch Should Be at Zero Depth

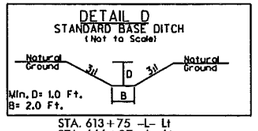
DETAIL B
SPECIAL CUT DITCH
(Not to Scale)



Sta. 367+80.51 to 371+00 –L– Rt
Sta. 374+10 to 376+10 –L– Rt
Sta. 374+10 to 375+28 –L– Lt
Sta. 377+27.35 to 382+10.51 –L– Lt
Sta. 384+50 to 385+50 –L– Lt
Sta. 415+32.69 to 422+08.01 –L– Rt
Sta. 448+31.02 to 462+50 –L– Lt
Sta. 573+00 to 574+15 –L– Lt
Sta. 574+50 to 576+75 –L– Lt
Sta. 576+77 to 594+00 –L– Lt
Sta. 595+97.62 to 600+00 –L– Rt
Sta. 596+00 to 611+00 –L– Lt
Sta. 600+50 to 605+92 –L– Rt
Sta. 611+50 to 616+00 –L– Lt
Sta. 616+00 to 630+00 –L– Rt
Sta. 627+60 to 635+07.06 –L– Lt
Sta. 635+07 to 639+50 –L– Rt
Sta. 636+82 to 637+50 –L– Lt
Sta. 638+32.06 to 641+50 –L– Lt
Sta. 643+35 to 646+00 –L– Lt
Sta. 646+44.03 to 648+00 –L– Rt
Sta. 651+00 to 654+75 –L– Lt
Sta. 673+50 to 678+00 –L– Lt
Sta. 674+75 to 678+50 –L– Rt**
Sta. 679+00 to 681+90 –L– Rt**
Sta. 685+50 to 687+00.06 –L– Rt
Sta. 701+50 to 703+50 –L– Lt
Sta. 701+00 to 707+13 –L– Rt
Sta. 704+00 to 710+00 –L– Lt
Sta. 717+75 to 720+52.75 –L– Rt
Sta. 721+00 to 723+65 –L– Rt
Sta. 724+00 to 727+50 –L– Rt
Sta. 13+11 to 13+90 –Y15– Lt.
Sta. 13+11 to 14+44.95– Rt.
Sta. 17+00 to 18+50 –Y15– Rt
Sta. 17+00 to 18+50 –Y15– Lt.
Sta. 14+40 to 17+00 –Y16– Rt
Sta. 18+75 to 19+67 –Y19– Lt
Sta. 18+80 to 19+90 –Y19– Rt
Sta. 21+19 to 22+50 –Y19– Lt
Sta. 21+95 to 22+50 –Y19– Rt
Sta. 12+50 to 14+50 –Y22– Lt
Sta 10+75 to 11+90 –Y24– Lt

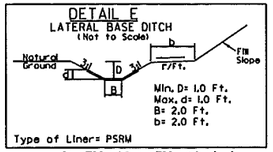
**Outlet on Natural Ground outside of wetlands

DETAIL D
STANDARD BASE DITCH
(Not to Scale)



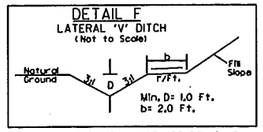
STA. 613+75 –L– Lt
STA. 666+87 –L– Lt
STA. 419+40 –L– Lt
STA. 11+50 –Y17– Rt
STA. 13+00 to 14+50 –Y20– Rt

DETAIL E
LATERAL BASE DITCH
(Not to Scale)



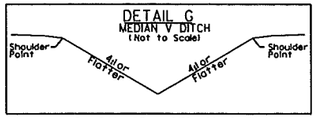
Sta. 710+00 to 712+00 –L– Lt

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



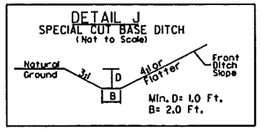
Sta. 377+43.01 to 382+22.35 –L– Rt

DETAIL G
MEDIAN 'V' DITCH
(Not to Scale)



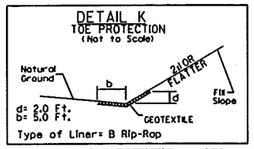
Sta. 368+85 to 372+60 –L– Med
Sta. 379+73 to 380+28 –L– Med
Sta. 446+89 to 453+50 –L– Med
Sta. 491+02 to 498+02 –L– Med
Sta. 538+89 to 546+00 –L– Med
Sta. 674+00 to 675+00 –L– Med
Sta. 698+75 to 702+50 –L– Med

DETAIL J
SPECIAL CUT BASE DITCH
(Not to Scale)



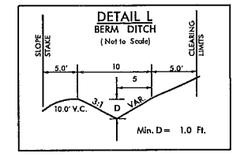
Sta. 526+00 to 537+50 –L– Rt
Sta. 528+50 to 542+13 –L– Lt
Sta. 547+37.30 to 553+00 –L– Lt
Sta. 547+37 to 552+50 –L– Rt

DETAIL K
TOE PROTECTION
(Not to Scale)



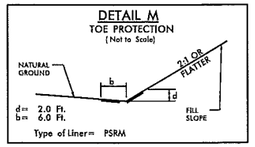
Sta 387+40 to 390+00 –L– Rt GEOTEXTILE = 375 sq.yds 170 tons Rip Rap
Sta. 388+00 to 391+70 –L– Lt GEOTEXTILE = 550 sq.yds 250 tons Rip Rap
Sta. 436+00 to 437+00 –L– Lt GEOTEXTILE = 135 sq.yds 65 tons Rip Rap
Sta. 440+20 to 441+70 –L– Lt GEOTEXTILE = 220 sq.yds 100 tons Rip Rap
Sta. 542+60 to 545+25 –L– Lt. GEOTEXTILE = 390 sq.yds 175 tons Rip Rap
Sta. 663+15 to 665+50 –L– Rt GEOTEXTILE = 340 sq.yds 150 tons Rip Rap
Sta. 669+15 to 670+25 –L– Lt GEOTEXTILE = 160 sq.yds 75 tons Rip Rap
Sta. 711+00 to 713+37 –L– Rt GEOTEXTILE = 345 sq.yds 155 tons Rip Rap
Sta. 713+75 to 715+50 –L– Lt GEOTEXTILE = 255 sq.yds 115 tons Rip Rap

DETAIL L
BERM DITCH
(Not to Scale)



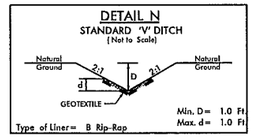
FROM STA. 625+00 TO STA. 630+00 –L– Rt
FROM STA. 672+50 TO STA. 676+00 –L– Lt

DETAIL M
TOE PROTECTION
(Not to Scale)



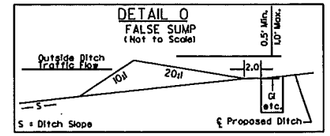
Sta. 554+00 to 558+50 –L– Lt 650 sq. yds PSRM
Sta. 12+50 to 15+00 –Y22– Rt

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



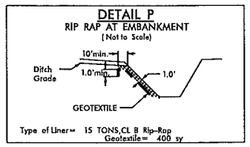
FROM STA. 391+95 TO STA. 393+75 –LREV– Rt
FROM STA. 391+95 TO STA. 393+60 –LREV– Lt
FROM STA. 401+85 TO STA. 402+85 –LREV– Rt
FROM STA. 401+75 TO STA. 403+87 –LREV– Lt

DETAIL O
FALSE SUMP
(Not to Scale)



STA. 387+30 –LREV– Lt
STA. 387+30 –LREV– Rt
STA. 646+00 –L– Lt
STA. 696+00 –L– Lt.

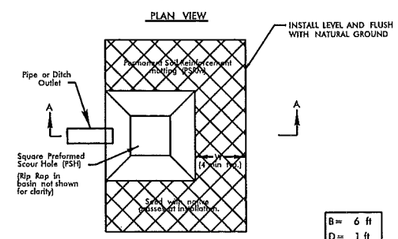
DETAIL P
RIP RAP AT EMBANKMENT
(Not to Scale)



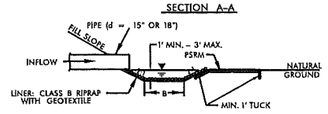
STA. 425+04 –L– Lt
STA. 440+04 –L– Lt

PREFORMED SCOUR HOLE
*NOT TO SCALE

PLAN VIEW



SECTION A-A



308

STA. 424+70 –L– Rt
STA. 539+50 –L– Rt

17-JAN-2013 08:47
N:\Design\R2303B_Hyd_DRN.dgn
ssestill

PROJECT REFERENCE NO.	SHEET
R-2303B	

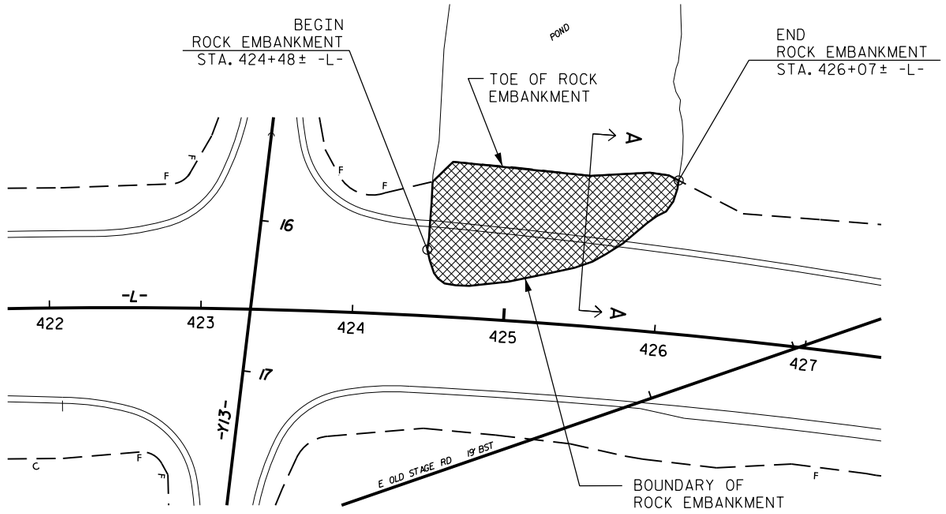
GEOTECHNICAL ENGINEER

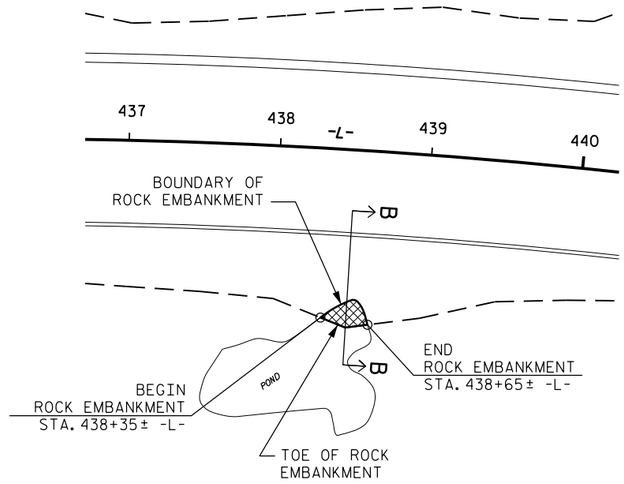
NORTH CAROLINA PROFESSIONAL SEAL 32171 ENGINEER JUYOUNG PARK

SIGNATURE DATE

ENGINEER

SIGNATURE DATE

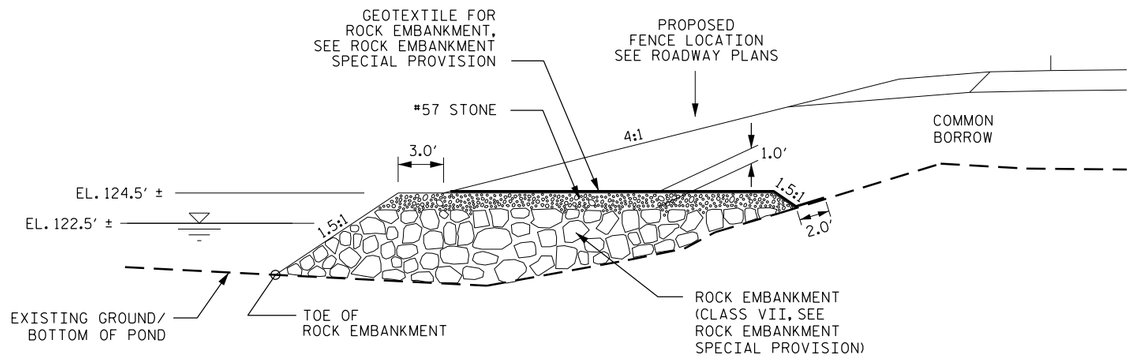




ROCK EMBANKMENT AREA

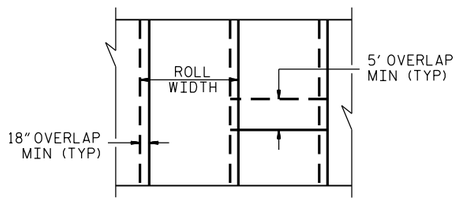
PLAN VIEW

NOT TO SCALE



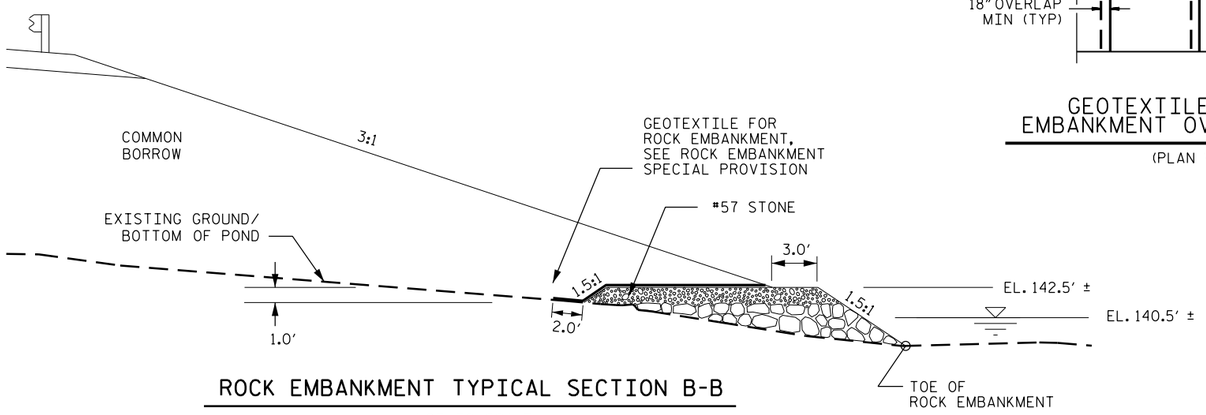
ROCK EMBANKMENT TYPICAL SECTION A-A

NOT TO SCALE



GEOTEXTILE FOR ROCK EMBANKMENT OVERLAP DETAIL

(PLAN VIEW)



ROCK EMBANKMENT TYPICAL SECTION B-B

NOT TO SCALE

ROCK EMBANKMENT STATIONS		
BEGIN	END	LOCATION
424+48± -L-	426+07± -L-	LEFT
438+35± -L-	438+65± -L-	RIGHT

ESTIMATED QUANTITIES	
ROCK EMBANKMENTS	1,800 TONS
#57 STONE	950 TONS
GEOTEXTILE FOR ROCK EMBANKMENTS	1,050 SY

FOR ROCK EMBANKMENT, SEE ROCK EMBANKMENTS SPECIAL PROVISION.

THE ESTIMATED QUANTITIES OF ROCK EMBANKMENTS INCLUDE ADDITIONAL TONNAGE FOR THE ANTICIPATED SETTLEMENT OF ROCK EMBANKMENTS.

THE ESTIMATED QUANTITIES OF #57 STONE INCLUDE ADDITIONAL TONNAGE FOR FOR FILLING OF GAPS BETWEEN CLASS VII AND EXCAVATION FOR FENCE POST, IF NECESSARY.

PREPARED BY: J. PARK	DATE: 08/2012
REVIEWED BY: J. BATTS	DATE: 08/2012

GEOTECHNICAL ENGINEERING UNIT

☐ EASTERN REGIONAL OFFICE
☐ WESTERN REGIONAL OFFICE
☐ CONTRACT OFFICE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

ROCK EMBANKMENT DETAILS

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99

BEG. CONST. STA. 366+20.75 AH -L- (R-2303B)
END CONST. STA. 366+14.19 BK -L- (R-2303A)

FROM -L- STA. 366+20.75 LT. TO -Y11- STA. 15+50.00 RT.
THE R/W WILL BE PURCHASED UNDER R-2303A

FROM -L- STA. 366+20.75 RT. TO -Y11- STA. 21+55.07 RT.
THE R/W WILL BE PURCHASED UNDER R-2303A

NAD 83/93

GEORGIA JOHNSON
DB 4689 PG 165
PB 65 PG 3

SUSAN M. JIMENEZ
DB 3798 PG 629
PB 65 PG 3

LEVIE E. JOHNSON
DB 2749 PG 677

VIRGINIA JOHNSON MAVROPOULOS
DB 2749 PG 674
PB 65 PG 3

LEVIE E. JOHNSON
DB 836 PG 34
DB 2749 PG 677

BARBARA JOHNSON
DB 7229 PG 540

JOHNNY GODWIN
LEVIE JOHNSON
DB 5410 PG 229

DOUGLAS L. NEW
DB 3903 PG 797

LEVIE JOHNSON
DB 3713 PG 463

CITY OF FAYETTEVILLE
DB 3330 PG 268
PB 63 PG 40-43

LEVIE E. JOHNSON
DB 3012 PG 845

-L-
PIs Sta 367+80.77
θs = 2° 59' 21.6"
Ls = 240.00'
LT = 160.02'
ST = 80.02'

PI Sta 374+32.93
Δ = 27° 56' 26.1" (LT)
D = 2° 29' 28.0"
L = 1,121.61'
T = 572.19'
R = 2,300.00'
SE = 06 (SEE PLANS)

MATCHLINE SHEET 5 -L- STA. 373+00

SEE DITCH DETAILS SHEET 2-G FOR DITCH DETAILS
SEE SHEET 32 FOR -L- PROFILE
MONOLITHIC CONCRETE ISLAND

See Detail "B"
Special Cut Ditch

Special Median Ditch

NOTE USE -L- PAVEMENT DESIGN FOR DRIVEWAY.

15-JAN-2013 14:21
I:\Projects\2303b_rdy_psh1.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS
12/21/11 R/W REVISION (KEW) - MOVED C/A TO PROPERTY LINE BETWEEN PARCELS 012 AND 013 ON -Y11-.
08/26/11 R/W REVISION (PJS) - PARCEL NUMBER WAS REMOVED ON PARCEL 1 (MICHAEL W. BARRETT). THE OFFSETS WERE CORRECTED ON PARCEL 6 (THELMA NUNNERY) AND PARCEL 15 (ROBERT L NUNNERY). TCE WAS ADDED ON PARCEL 13 (GREGORY P. NUNNERY).

8/17/99

NAD 83/95

MATCHLINE SHEET 4 -L- STA. 373+00

MATCHLINE SHEET 6 -L- STA. 387+00

BEGIN CONSTRUCTION -Y11- POT STA.15+50.00

-Y11- POT STA.18+40.00
-SRI- POT STA.10+00.00

END CONSTRUCTION -SRI- POT STA.18+25.89
POT Sta. 18+30.89

END CONSTRUCTION -Y11- POT STA.25+00.00

STA. 376+35.51 -L- BEG. TIP PROJECT R-2303B
STA. 376+28.96 -L- END TIP PROJECT R-2303A

CS Sta. 376+82.35

PC Sta. 12+74.25

PT Sta. 14+39.17

PC Sta. 15+58.84

PT Sta. 17+04.24

PC Sta. 20+28.43

PT Sta. 22+27.12

-L- ST STA.382+22.35 bk
-LREV- POT Sta. 382+24.71 AH

-L- PC Sta. 384+69.27

-LREV- PC Sta. 385+97.10

FROM -L- STA. 366+20.75 LT
TO -Y11- STA. 15+50.00 RT.
THE R/W WILL BE PURCHASED UNDER R-2303A

FROM -L- STA. 366+20.75 RT.
TO -Y11- STA. 21+55.07 RT.
THE R/W WILL BE PURCHASED UNDER R-2303A

NC 24 & SR 1853/JOHN NUNNERY RD./EXIST. NC 24

EXIST. NC 24 -Y11-

-LREV-
PI Sta 387+23.70
Δ = 1°12'32.2" (RT)
D = 0°28'38.9"
L = 253.19'
T = 126.60'
R = 12,000.00'
SE = NC (SEE PLANS)

-L-
PI Sta 374+32.93
Δ = 27°56'26.1" (LT)
D = 2°29'28.0"
L = 1,121.61'
T = 572.19'
R = 2,300.00'
SE = 06 (SEE PLANS)

PI Sta 380+62.37
Θs = 2°59'21.6"
Ls = 240.00'
LT = 160.02'
ST = 80.02'

PI Sta 387+13.29
Δ = 2°19'45.7" (RT)
D = 0°28'38.9"
L = 487.46'
T = 243.96'
R = 12,000.00'
SE = NC

-SRI-
PI Sta 13+66.16
Δ = 62°59'32.8" (RT)
D = 38°11'49.9"
L = 164.91'
T = 91.91'
R = 150.00'
SE = 04 (SEE PLANS)

PI Sta 16+37.83
Δ = 55°32'22.4" (LT)
D = 38°11'49.9"
L = 145.40'
T = 78.98'
R = 150.00'
SE = 04 (SEE PLANS)

-Y11-
PI Sta 21+34.76
Δ = 58°38'17.0" (LT)
D = 28°38'52.4"
L = 204.69'
T = 112.32'
R = 200.00'
SE = 06 (SEE PLANS)

BL-42
BY12 - T1

-L- 375+60 (R-2303A)
-L- 375+66.56 (R2303B)
SPLICE BOX

MARIE NUNNERY LIVING TRUST
DB 6435 PG 56
DB 5296 PG 564
DB 3489 PG 694
DB 953 PG 258
DB 6054 PG 897
PB 19 PG 48
PB 94 PG 153

ROBERT L. NUNNERY
DB 6054 PG 897

JOHN P. NUNNERY
DB 6620 PG 218
PB 19 PG 48

ROY HALL
DB 953 PG 258
PB 19 PG 48

JEWEL A. STANLEY
DB 743 PG 265
& DB 2822 PG 481

GREGORY P. NUNNERY
DB 3247 PG 14
PB 19 PG 48

JOHN PRESTON NUNNERY
DB 4302 PG 109
PB 19

LEBURN R. STRICKLAND
DB 4788 PG 969
PB 19 PG 48

JERRY TAYLOR
DB 6301 PG 857

TONY KNUDSEN, et ux
DB 692 PG 31
MB 19 PG 48

THELMA NUNNERY
DB 463 PG 179
PB 19 PG 48

JAMES ANTHONY NUNNERY
DB 4794 PG 223
PB 96 PG 68

LINDA BULLARD NOWELL
DB 3351 PG 9
PB 78 PG 26

BETTY C. SUTTON
DB 8340 PG 985
PB 19 PG 48

RANDALL D. THORNESS
DB 7362 PG 641
PB 78 PG 26

DAVID I. MORRIS
DB 7774 PG 571

CITY OF FAYETTEVILLE
DB 3310 PG 268
PB 63 PG 40-43

MICHAEL W. BARRETT
DB 7575 PG 227

LARRY O. SUTTON
DB 2307 PG 234

JAMES A. NUNNERY
DB 3057 PG 201

MONOLITHIC CONCRETE ISLAND
PAVEMENT REMOVAL (OBLITERATE)

SEE DETAILS SHEET 2-G FOR DITCH DETAILS
SEE SHEET 32 FOR -LREV- PROFILE
SEE SHEET 46 FOR -Y11- PROFILE
SEE SHEET 53 FOR -SRI- PROFILE

E:\JAN-2013 (4:21)
R:\JAN-2013\R-2303b_rdy_psh5.dgn
\\ssseng\ENGRAVES\ssss

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

MATCHLINE SHEET 5 -L- STA. 387+00

MATCHLINE SHEET 7 -L- STA. 401+00

NAD 83/95

6
THELMA NUNNERY
DB 363 PG 179
PB 19 PG 48

JAMES ANTHONY NUNNERY
DB 4734 PG 223
PB 96 PG 68

LINDA BULLARD NOWELL
DB 3351 PG 9
PB 78 PG 26

9
DAVID I. MORRIS
DB 7774 PG 571

11

8

19
ROLAND NUNNERY
DB 2750 PG 638
DB 2747 PG 465
DB 2262 PG 473
DB 619 PG 275
DB 590 PG 275
DB 519 PG 266

19A
JOHN STEVEN NUNNERY
DB 5296 PG 564 MB 94 PG 153 MB 96 PG 05

19B
ROLAND NUNNERY
DB 2750 PG 638
DB 2747 PG 465
DB 2262 PG 473
DB 619 PG 275
DB 590 PG 275
DB 519 PG 266

N 77°23'23" E 430.94'
S 22°11'57" E 445.88'
S 22°11'57" E 153.78'
N 45°10'56" E 229.11'
N 72°19'12" E 260.06'
S 72°32'44" E 659.36'
N 40°29'29" E 553.30'
N 40°29'29" E 608.83'
S 68°41'57" E 808.06'
S 68°41'57" E 800.00'
N 84° 22' 32.5" E 1,350.00'
N 05°29'46" E 100.00'
-LREV- N 84° 22' 32.5" E
-LREV- N 84° 22' 32.5" E
N 20°28'44" E 466.19'
N 18°54'55" E 255.32'
N 20°28'44" E 401.18'
N 20°25'20" E 265.56'
N 10°05'48" E 985.53'
N 10°05'48" E 985.53'
S 70°01'27" E 150.70'
S 69°53'16" E 100.00'
S 69°53'16" E 566.00'

-BLB-16
-BLB-17
-BLB-18

390
395
400

BEGIN BRIDGE -LREV- STA. 391+76.04

-L- PC Sta. 391+38.46

-LREV- PT Sta. 388+50.29

-L- PT Sta. 389+57.19

SEE DETAIL "K"
TOE PROTECTION
EST. 250 TONS
EST. 550 SY GEOTEXTILE

+00 115' LT

+00 END FENCE

WW FENCE

END SBG
STA. 391+52.04 LT

BEGIN SBG
STA. 390+66.04 LT

BEGIN SBG
STA. 389+66.70 RT

END SBG
STA. 391+52.04 RT

TYPE M350

TYPE B-77

2GI Type A

GRAU-350

50:1 TAPER

SEE DETAIL N

SEE DETAIL "K"
TOE PROTECTION
EST. 170 TONS
EST. 375 SY GEOTEXTILE
WW FENCE

CL I RIP RAP
W/GEOTEXTILE
EST. 17 TONS
EST. 38 SY GEOTEXTILE

+00 115' RT

+00 END FENCE

CLASS II RIP RAP
(STRUCTURE PAY ITEM)

See Detail O

See Detail O

30" RCP-III

36" RCP-III

POND

KENNETH M. CAPERS
DB 8451 PG 726

LACHEL R. BELCHER
DB 4889 PG 646

ROBERT LEE NUNNERY
DB 6756 PG 852
DB 7108 PG 49
DB 8492 PG 327

CEDAR CREEK TOWNSHIP
CUMBERLAND COUNTY

SAMPSON COUNTY
LITTLE COHARIE
TOWNSHIP

AUTRYVILLE CITY LIMIT

SOUTH RIVER

-L-
PI Sta 387+13.29
Δ = 2° 19' 45.7" (RT)
D = 0° 28' 38.9"
L = 401.86'
T = 243.96'
R = 12,000.00'
SE = NC

-L-
PI Sta 398+07.38
Δ = 3° 11' 35.8" (LT)
D = 0° 14' 19.4"
L = 1,334.51'
T = 868.94'
R = 24,000.00'
SE = NC

-LREV-
PI Sta 387+23.70
Δ = 1° 12' 32.1" (RT)
D = 0° 28' 38.9"
L = 253.19'
T = 126.60'
R = 12,000.00'
SE = NC (SEE PLANS)

BRIDGE APPROACH SLABS
SEE SHEET 33 FOR -LREV- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS
SEE SHEET 2-F FOR BRIDGE RELATIONSHIP SKETCH
SEE SHEETS S-1 TO S-142 FOR STRUCTURE PLANS

08-JAN-2013 14:22
...\2303b_rdg_ps\6.dgn
...\ssistant\Files\...

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

09/26/12 R/W REVISION (KEM) - CHANGED PARCEL NUMBER 019 TO 019B.

8/17/99

NAD 83/95

MATCHLINE SHEET 6 -L- STA. 401+00

MATCHLINE SHEET 8 -L- STA. 415+00

19B
ROLAND NUNNERY
DB 2750 PG 638
DB 2747 PG 465
DB 2262 PG 473
DB 619 PG 275
DB 590 PG 275
DB 59 PG 266

21
JAMES H. SPELL
DB 849 PG 524
DB 898 PG 393
DB 1079 PG 753

20
RICHARD S. SESSOMS, JR.
DB 1022 PG 148

DALLAS BROCK
DB 721 PG 697

JUANITA C. LONG
DB 1289 PG 781

CECIL HALL

405

410

END BRIDGE -LREV- STA 403+97.96

-LREV- PI Sta. 407+39.46

-LREV- SC Sta. 409+39.46

-LREV- N 84° 22' 32.5" E

-LREV- N 84° 22' 32.5" E

-LREV- TS Sta. 410+01.92

-LREV- SC Sta. 412+01.92

POT Sta. 10+00.00

-BLB-19

-BLB-20

-BLB-21

-BY1-99

Spread 2' base to 10' Line Front and Sides with Class 1 Rip Rap Est 20 tons

See Detail "A" Lateral 2' Base Ditch

CL B RIP RAP W/GEOTEXTILE EST. 10 TONS EST. 28 SY GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS HTR EST. 7 SY GEOTEXTILE

CLASS II RIP RAP (STRUCTURE PAY ITEM) PROP. R/W

LIMIT OF EXCAVATION (STRUCTURE PAY ITEM)

SEE DETAIL N

BEGIN FENCE +80

BEGIN SBG STA 404+21.96 LT

END SBG STA 406+56.57 LT

END SBG STA 404+50.32 RT

BEGIN SBG STA 404+21.96 RT

15" w/ 2 Elbows 2GI

SD1 TAPER

GRAU 350

TYPE B-77

TYPE M350

TYPE M450

WW FENCE

CHORD

END LIMITED C/A BEGIN FULL C/A +80 110' LT

+01.92 115' LT

+01.92 110' LT

+01.92 115' RT

50' INC

END LIMITED C/A BEGIN FULL C/A +80 115' RT 125' RT

TDE

ISFD

ISMTL BUS

CONC

SOIL

W/LT

HW

AUTRYVILLE CITY LIMIT

SOUTH RIVER SAMPSON COUNTY LITTLE COHARIE TOWNSHIP

-LREV-

PIs Sta 411+35.26
Θs = 1° 38' 13.3"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 416+87.32
Δ = 15° 47' 29.1" (RT)
D = 1° 38' 13.3"
L = 964.64'
T = 485.40'
R = 3,500.00'
SE = 04 (SEE PLANS)

-L-

PIs Sta 398+07.39
Δ = 3° 11' 35.1" (LT)
D = 6° 14' 19.4"
L = 1,331.51'
T = 668.93'
R = 24,000.00'
SE = NC

PIs Sta 408+72.50
Θs = 1° 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 427+34.28
Δ = 49° 25' 58.6" (RT)
D = 1° 28' 08.8"
L = 3,316.74'
T = 1,795.18'
R = 3,900.00'
SE = 04

PIs Sta 443+70.57
Θs = 1° 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

MONOLITHIC CONCRETE ISLAND

BRIDGE APPROACH SLABS

SEE SHEET 33 FOR -LREV- PROFILE

SEE SHEET 2-F FOR BRIDGE RELATIONSHIP SKETCH

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

SEE SHEETS S-1 TO S-142 FOR STRUCTURE PLANS

FILE: JAN-2013 V6.22
R:\JAN-2013 V6.22\r2303b_rdy_psh7.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

-LREV-
PI Sta 432+62.81
Δ = 31° 24' 00.5" (RT)
D = 1° 28' 08.8"
L = 2,137.34'
T = 1,096.25'
R = 3,900.00'
SE = 04 (SEE PLANS)

PI Sta 432+62.81
Δ = 31° 24' 00.5" (RT)
D = 1° 28' 08.8"
L = 2,137.34'
T = 1,096.25'
R = 3,900.00'
SE = 04 (SEE PLANS)

PIs Sta 443+70.57
Θs = 1° 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-L-
PIs Sta 408+72.50
Θs = 1° 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 427+34.29
Δ = 49° 25' 58.6" (RT)
D = 1° 28' 08.8"
L = 3,564.74'
T = 1,895.92'
R = 3,900.00'
SE = 04

PIs Sta 443+70.57
Θs = 1° 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

BEGIN CONSTRUCTION
-Y14- POT STA.16+30.00
END CONSTRUCTION
-Y14- POT STA.17+20.00
POT Sta. 17+50.00

-LREV-

-L- STA. 429+00

MATCHLINE SHEET 8

MATCHLINE SHEET 10 -L- STA. 443+00

NAD 83/95

DWIGHT A. TART
DB 1499 PG 828
MB 23 PG 84
24A

STACY R. CARR, III
DB 1273 PG 87
MB 21 PG 88
MB 23 PG 84
24

HEATHER ELIZABETH MELVIN
DB 1777 PG 01
MB 1 PG 24
26

PAMELA B. MELVIN
DB 1446 PG 482
28

THORNTON HOMES CO.
DB 1669 PG 547
27

GEORGE R. SESSOMS
RUDOLPH L. SESSOMS
DB 1332 PG 808

FRANCES S. FAIRCLOTH
DB 824 PG 586
DB 971PG 566
29

DONNA BROWN HOLDEN
DB 1281PG 208
30

HELEN S. SESSOMS
DB 1332 PG 805
31

DOUGLAS LEON NEW
DB 1748 PG 398
MB 70 PG 16
31A

DOUGLAS NEW
DB 1200 PG 303
MB 32 PG 45
33

FRANCES A. FAIRCLOTH
DB 1815 PG 92
32

DANNY RAY JOHNSON
DB 1796 PG 475
MB 60 PG 71
34

LOFTON E. BAREFOOT
DB 913 PG 893

WILLIE B. JOHNSON, JR.
DB 846 PG 363

AUTRYVILLE CITY LIMIT

See Detail "A"
2' Lateral Base Ditch

See Detail "K"
TOE PROTECTION
EST. 65 TONS
EST. 135 SY GEOTEXTILE

See Detail "K"
TOE PROTECTION
EST. 100 TONS
EST. 220 SY GEOTEXTILE

See Detail "P"
CL B RIP RAP W/GEOTEXTILE
EST. 15 TONS
EST. 400 SY GEOTEXTILE

CL I RIP RAP
W/GEOTEXTILE
EST. 3 TONS
EST. 17 SY GEOTEXTILE

CL B RIP RAP
W/GEOTEXTILE
EST. 4 TONS
EST. 16 SY GEOTEXTILE

ROCK EMBANKMENT
SEE DETAIL SHEET 9-L

REMOVE PIPE AND STABILIZE

REMOVE GUARDRAIL BARRIER

GRAU 350 TL-3

WW FENCE

DRAIN POND

POND

NOTE: PROPOSED MITIGATION-
SEE MITIGATION PLANS.
INVERTS MAY NEED TO BE ADJUSTED ONCE
POND IS DRAINED AND ELEVATIONS VERIFIED.

NOTE:
DEWATERING PLAN WILL BE
REQUIRED PRIOR TO DAM
REMOVAL.

EXCAVATE DAM TO EL.126
APPROX. 3000 CU.YDS.

-BLB-24
-BLB-25
-BLB-26

-BY2-10½ PINC

SEE SHEET 34 FOR -LREV- PROFILE
SEE SHEET 47 FOR -Y14- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

END SBG
STA.441+68.75 RT

300' TAPER

150' TAPER

20' DOUBLE GATE

16-JAN-2013 14:22
R:\Hydraulics\Projects\R-2303b_rdy_psh9.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

REVISIONS

08/16/11 R/W REVISION (PJS) - THE R/W LINE WAS ADJUSTED TO THE EXISTING PROPERTY LINE ON PARCEL 26A (PAMELA C. MELVIN) AND PARCEL 26 (HEATHER ELIZABETH MELVIN).

08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED ON PARCEL 25 (BERTIE A. WILLIAMS).

8/17/99

-LREV-

Pls Sta 411+35.26
Os = Γ 38' 13.3"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

Pl Sta 416+87.32
Δ = 15° 47' 29.1" (RT)
D = Γ 38' 13.3"
L = 964.64'
T = 485.40'
R = 3,500.00'
SE = 04 (SEE PLANS)

Pl Sta 432+62.81
Δ = 3° 24' 00.5" (RT)
D = Γ 28' 08.8"
L = 2,137.34'
T = 1,096.25'
R = 3,900.00'
SE = 04 (SEE PLANS)

Pls Sta 443+70.57
Os = Γ 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-L-

~~Pls Sta 408+72.50~~
~~Os = Γ 28' 08.8"~~
~~Ls = 200.00'~~
~~LT = 133.34'~~
~~ST = 66.67'~~

~~Pl Sta 427+34.29~~
~~Δ = 49° 25' 55.6" (RT)~~
~~D = Γ 28' 08.8"~~
~~L = 3,364.74'~~
~~T = 1,795.12'~~
~~R = 3,900.00'~~
~~SE = 04~~

~~Pls Sta 443+70.57~~
~~Os = Γ 28' 08.8"~~
~~Ls = 200.00'~~
~~LT = 133.34'~~
~~ST = 66.67'~~

NC 24 & SR 1414(GRAY ST.)

1920/2720 -Y13- SR 1414
664/824 664/824 NC 24 11888/18608
-100/210 -100/210
SR 1414 -Y13- 856/1496
2013 ADT 2035 ADT

BEGIN CONSTRUCTION
-Y13- POT STA.13+75.00

KATHIE ELAINE HALL RAY
DB 1058 PG 768

-Y13- +09.51 EXIST. R/W
-Y13- +21.80 58' LT
-Y13- +40.60 52' LT

25
BERTIE A. WILLIAMS
DB 1029 PG 78
MB 21 PG 88

-Y13- +75 EXIST. R/W 40' LT
BEGIN WOVEN WIRE FENCE
~~-L- POC STA.423+32.69~~
-LREV- POC STA.423+32.69
-Y13- POT STA.16+58.98

STACY R. CARR, III
DB 1273 PG 87
MB 21 PG 88
MB 23 PG 84

24

21
JAMES H. SPELL
DB 849 PG 524
DB 898 PG 393
DB 1079 PG 753

-LREV- PCC Sta. 421+68.56

SEE DETAIL "D"
2' Base Tail Ditch
Est. 40 cu yds excavation

CL B RIP RAP W/GEOTEXTILE
EST. 8 TONS
EST. 21 SY GEOTEXTILE

END FULL C/A
BEGIN LIMITED C/A
+50
110' LT

WW FENCE

150' TAPER

22
VIRGINIA MAE PHILLIPS SIMMONS
DB 772 PG 517
DB 643 PG 246

-Y13- +03 46.57' RT

180-60-180 4° OFF.

ROCK EMBANKMENT
SEE DETAIL SHEET 2-L

See Detail "P"
CL B RIP RAP W/GEOTEXTILE
EST. 15 TONS
EST. 400 SY GEOTEXTILE

300' TAPER

SEE DETAIL "A"
2' Base Lateral Ditch

-Y14- +82.47 EXIST. R/W WW FENCE

-BY1-97

-Y14-

MATCHLINE SHEET 7 -L- STA. 415+00

MATCHLINE SHEET 9 -L- STA. 429+00

-LREV-

-Y12- 40' LT END WOVEN WIRE FENCE

-Y12- POT STA.20+50.00

BEGIN SBG
LREV STA.426+25.00
57' RT

WW FENCE
LREV STA. 425+98.48
67'

Grade To Drain
Remove Old Roadbed
To Natural Ground

-BLB-23
BY-23

THORNTON HOMES CO.
DB 1669 PG 547

-Y13- POT STA.18+16.87
-Y14- POT STA.10+00.00

26
HEATHER ELIZABETH MELVIN
DB 1777 PG 01
MB 1 PG 24

-Y13- POT STA.18+27.35
-Y12- POT STA.21+99.62

END CONSTRUCTION
-Y13- POT STA.20+00.00

PAMELA C. MELVIN (PER SAMPSON CO. GIS)
DB 1206 PG 194
(DEED DOES NOT COVER GIS OWNERSHIP)
MB 1 PG 24

26A

-BY-95 PINC 20+47.19

-BLT-99

-BTL-98

AUSTRYVILLE CITY LIMIT

E OLD STAGE RD (SR 1851)

N 84° 04' 26" E

TERRY A. SPELL
DB 1282 PG 251

MICKIE W. SPELL
DB 1273 PG 766

JAKE H. SPELL
DB 771 PG 460

23
ROBERT F. CASHWELL
DB 692 PG 234

HARVEY S. SUTTON
DB 82 PG 367

BOBBY L. HENDERSON
DB 965 PG 595
MB 1 PG 24

MONOLITHIC CONCRETE ISLAND
PAVEMENT REMOVAL (OBLITERATE)
SEE DETAILS SHEET 2-G FOR DITCH DETAILS
SEE SHEET 34 FOR -LREV- PROFILE
SEE SHEET 46 FOR -Y12- PROFILE
SEE SHEET 47 FOR -Y13- PROFILE

IE JAN-2013 14:22
P:\projects\r-2303b_rdy_psh8.dgn
Projects\r-2303b_rdy_psh8.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83'95

REVISIONS
8/17/99
09/26/12 R/W REVISION (KEM) - CHANGED NAME TO JOHN A.BROCK,et ux DB 766/143; DB 1144/287 AND DB 885/47 ON PARCEL 035.
02/03/12 R/W REVISION (KEM) - ADDED NOTE: "DO NOT DISTURB GRAVES" ON PARCEL 35.
12/21/11 R/W REVISION (KEM) - MOVED END OF C/A TO -Y15- STA.14+00 FOR RIGHT-IN RIGHT-OUT DRIVE ON PARCEL 35.
08/26/11 R/W REVISION (PJS) - PARCEL 36 (DEUTSCHE BANK NATION TRUST COMPANY) WAS RENAMED TO ISTEVEN FILZEN).

NC 24 & SR 1233(AUTRYVILLE RD.)

3040 / 4640 -Y15- SR 1233
2248 / 3368 -100 / 210 NC 24 9704 / 15464
11888 / 18608 NC 24 -L-
-100 / 210 -100 / -100
SR 1233 -Y15- 792 / 1272

PT Sta.10+00.00

STEVEN FILZEN
DB 1789 PG 846
-Y15- POT STA.11+50.00
-SR2- POT STA.10+00.00

BEGIN CONSTRUCTION
-Y15- POT STA.11+00.00
-SR2- PC Sta. 10+90.72

JOHN A. BROCK, et ux
DB 766/143
DB 766/143; DB 1144/287
DB 885/47

DOUGLAS L. NEW
DB 1068 PG 321

HOYLE S. BROOME
DB 677 PG 286

DOUGLAS NEW
DB 1200 PG 303
MB 32 PG 45

-LREV- ST Sta.445+03.90 BK
-L- ST Sta.445+03.90 AH

DO NOT DISTURB GRAVES

See Detail "B" Special Cut Ditch

END C/A AND WOVEN WIRE FENCE

BEGIN WOVEN WIRE FENCE

300' TAPER

150' TAPER

150-50-150 6.5° OFF.

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS
EST. 7 SY GEOTEXTILE

END FULL C/A
BEGIN LIMITED C/A

END LIMITED C/A
BEGIN FULL C/A

WW FENCE

-SR2- S 45°19' 35.7" E

-L- POT STA.445+73.52
-Y15- POT STA.15+11.18

-BLB-21
-BLB-27

-BLB-28

-BLB-29

END CONSTRUCTION
-Y15- POT STA.18+50.00

-LREV-
PI Sta 432+62.81
Δ = 31° 24' 00.5" (RT)
D = 1° 28' 08.8"
L = 2,137.34'
T = 1,096.25'
R = 3,900.00'
SE = 04 (SEE PLANS)

PIs Sta 443+70.57
Θs = 1° 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-L-
PI Sta 427+34.28
Δ = 49° 25' 58.6" (RT)
D = 1° 28' 08.8"
L = 3,364.74'
T = 1,795.78'
R = 3,900.00'
SE = 04

PIs Sta 443+70.57
Θs = 1° 28' 08.8"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-SR2-
PI Sta 13+38.28
Δ = 27° 01' 46.8" (LT)
D = 5° 33' 45.7"
L = 485.91'
T = 247.56'
R = 1,030.00'

-Y15-
PI Sta 9+00.11
Δ = 6° 41' 01.4" (RT)
D = 3° 20' 30.7"
L = 200.00'
T = 100.11'
R = 1,714.49'

MONOLITHIC CONCRETE ISLAND
SEE SHEET 35 FOR -LREV- AND -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS
SEE SHEET 48 FOR -Y15- PROFILE
SEE SHEET 53 FOR -SR2- PROFILE

EUNICE H. RILEY
DB 733 PG 162
DB 1083 PG 554

MATCHLINE SHEET 9 -L- STA. 443+00

MATCHLINE SHEET 11 -L- STA. 457+00

18-JAN-2013 14:22
\\Ncdot.gov\dfs\RDU\Projects\R-2303b_rdy_psh10.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/93

REVISIONS

8/17/99

09/26/12 R/W REVISION (KEW) - ADDED PARCEL 0431 ROOSEVELT FAIRCLOTH TO PARCEL 043 FOR IMPROVEMENT ACQUISITION.
08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED ON PARCEL 42 (ADIRONDACK TIMBER CO., INC.).

MATCHLINE SHEET 10 -L- STA. 457+00

MATCHLINE SHEET 12 -L- STA. 471+00

MATCHLINE SHEET 31 -Y16- STA. 13+00

38 HOYLE S. BROOME
DB 677 PG 286
DB 1702 PG 531

40 ERNEST E. HOWELL
DB 917 PG 949
DB 1035 PG 767

42 ADIRONDACK TIMBER CO., INC
DB 1376 PG 642

43A HARRISON L. FAIRCLOTH
DB 1533 PG 53
MB 49 PG 5

41 WILLIE FRANK MCGOWAN
DB 1240 PG 786

39 ELVA MARIE FAIRCLOTH
DB 736 PG 149

EUNICE H. RILEY
DB 733 PG 162
DB 1083 PG 554

SANDRA AUTRY JACKSON
DB 1240 PG 789

GEORGE J. SMITH
DB 937 PG 936

43 FAIRCLOTH HEIRS
DB 565 PG 304
DB 855 PG 387
MB 49 PG 5

43I ROOSEVELT FAIRCLOTH (IMPROVEMENT ONLY)

-SR2- S 45°19'35.7" E

-L- S 45°19'35.7" E

See Detail "B" Special Cut Ditch

See Detail "A" Lateral 2' Base Ditch

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 5 TONS EST. 14 SY GEOTEXTILE

WW FENCE

BEGIN SBG STA. 462185 LT

END SBG STA. 464799.75 RT

BEGIN SBG STA. 463+56.00 RT

BEG SBG -L- STA. 468192.95 RT

15" CSP w/2 Elbows

GRAU 350 TL-3

2GI

-BLB-30

-BLB-31

-BLB-32

-BLB-33

300' TAPER

24" SYCAMORE

18" OAK

48" WD

12" WD POST

3/12" WD POST (CROSSES)

MONOLITHIC CONCRETE ISLAND

SEE SHEET 35 FOR -L- PROFILE

SEE SHEET 53 & 54 FOR -SR2- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

IE-JAN-2013 14:22
N:\Projects\2303B\Design\c2303b_rdy_psh11.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED ON PARCEL 43B (ROOSEVELT A. FAIRCLOTH). THE EXIST. R/W WAS ABANDONED ALONG NC 24 (AUTRY HWY.) ON PARCEL 44 (H. BREWER HONEYCUTT).

NAD 83/95

WOODS

HARRISON L. FAIRCLOTH
DB 1533 PG 53
MB 49 PG 5

43A

43B
ROOSEVELT A. FAIRCLOTH
DB 1533 PG 50
MB 49 PG 5

N 45°53'17" E
757.42'

N 45°52'19" E
638.45'

POT STA. 394+28.88

45
MARY FAIRCLOTH FINNEY
DB 1533 PG 47
MB 49 PG 5

44
H. BREWER HONEYCUTT
DB 750 PG 605
DB 1038 PG 108

N 89°55'08" E
485.77'

S 89°55'08" W
642.15'
63.70'

475

480

485

35

-SR2- +72.00
64' LT

-SR2- +92.00
53' LT
61' LT

-SR2- +53.00
30' LT
48' LT

-SR2- +28.00
30' LT
53' LT

-SR2- +74.00
30' LT
55' LT

-SR2- +18.75
55' LT

PUE — PUE — PUE — PUE

END CONSTRUCTION
-SR2- POT STA. 39+14.00

R 20'

-SR2- STA 38+72.00
9' LT & 9' RT

-SR2- +28.68
125' LT

-SR2- S 45°19'35.7" E

See Detail "A"
Lateral 2' Base Ditch

CL B RIP RAP
W/GEOTEXTILE
EST. 2 TONS
EST. 7 SY GEOTEXTILE

CARPORT
HTR

WW FENCE

15" CSP
w/2 Elbows
150' TAPER

30' PERPETUAL INGRESS, EGRESS & ACCESS EASEMENT

END SBG
STA. 478+25 LT

GRAU 350

S 46°47'48" E
370.00'

4SELEC
S 46°47'48" E
466.12'

S 46°47'48" E
55.76

-L- S 45°19'35.7" E

-Y16-

-L- +79.10

-L- +47.90
124.87' RT

-L- +30
125' RT

BEGIN SBG
-Y16- STA 11+32.55 RT

-Y16- +05
80' LT
END WOVEN WIRE FENCE

See Detail "A"
Lateral 2' Base Ditch
Sta. 11+10 to 13+00 -Y16- Lt

END SBG
-Y16- STA 11+56.31 RT

-BLB-34

-L- POT STA 471+35.00
-Y16- POT STA. 10+00.00

-BLB-35

-BLB-36
-BY2A-36

-BY2A-130

NC 24 & EXIST. NC 24

	NC 24		NC 24
9704 / 15464	-L-	-100 / -100	2176 / 3616
		-L-	11880 / 19080

EXIST. NC 24 -Y16-
2176 / 3616

7813 ADT
2033 AST

ABANDON R/W

EXISTING R/W

6' CONC. MW

18" CONC

NC 24 AUTRY HWY

24' BST

DO NOT DISTURB BST

SEABOARD COASTLINE ABAND. RR

MONOLITHIC CONCRETE ISLAND

PAVEMENT REMOVAL (OBLITERATE)

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

SEE SHEET 36 FOR -L- PROFILE

SEE SHEET 48 FOR -Y16- PROFILE

SEE SHEET 54 FOR -SR2- PROFILE

MATCHLINE SHEET 11 -L- STA. 471+00

MATCHLINE SHEET 31 -Y16- STA. 13+00

MATCHLINE SHEET 13 -L- STA. 485+00

15-JAN-2013 18:23
R:\NC\Projects\R-2303b\Roadway\r2303b_rdy_psh12.dgn
$$$$USERNAME$$$$

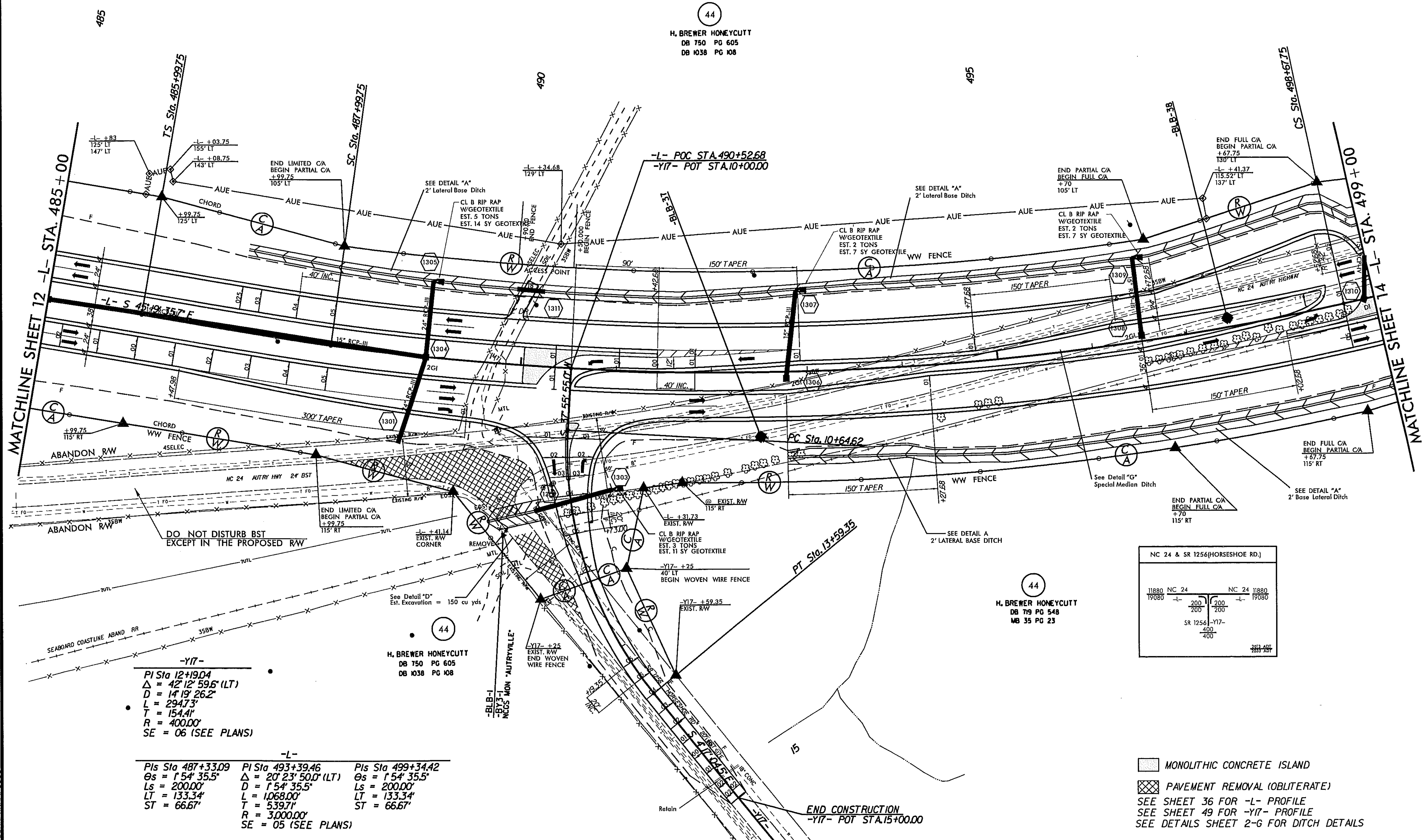
PROJECT REFERENCE NO.	SHEET NO.
R-2303B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

08/26/11 R/W REVISION (PJS) - THE EXIST. R/W WAS ABANDONED ALONG NC 24 (AUTRY HWY) ON PARCEL 44 (H. BREWER HONEYCUTT).

8/17/99



-Y17-

PI Sta 12+19.04
Δ = 42° 12' 59.6" (LT)
D = 14° 19' 26.2"
L = 294.73'
T = 154.41'
R = 400.00'
SE = 06 (SEE PLANS)

-L-

PIs Sta 487+33.09	PI Sta 493+39.46	PIs Sta 499+34.42
θs = 1° 54' 35.5"	Δ = 20° 23' 50.0" (LT)	θs = 1° 54' 35.5"
Ls = 200.00'	D = 1° 54' 35.5"	Ls = 200.00'
LT = 133.34'	L = 1,068.00'	LT = 133.34'
ST = 66.67'	T = 539.71'	ST = 66.67'
	R = 3,000.00'	
	SE = 05 (SEE PLANS)	

NC 24 & SR 1256(HORSESHOE RD.)

11880/19080 NC 24 -L- ; NC 24 -L- 11880/19080
200/200 ; 200/200
SR 1256 -Y17- 400/400
2013 ADT / 2033 ADT

MONOLITHIC CONCRETE ISLAND

PAVEMENT REMOVAL (OBLITERATE)

SEE SHEET 36 FOR -L- PROFILE
SEE SHEET 49 FOR -Y17- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

16-JAN-2013 14:23
R:\Roadway\Proj\r2303b_rdy_psh13.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

09/13/12 R/W REVISION - ADDED ACCESS BREAK AND DRIVEWAY TO PARCEL NO.47 (JAMES R.STARLING)

08/26/11 R/W REVISION (PJS) - PARCEL 46A (JUDITH W. CASWELL) WAS RENAMED TO (SUSAN RENEGAR, ET. AL.). PARCEL 46 (EDDIE I. HALL) AND PARCEL 47 (JAMES R. STARLING) WERE COMBINED INTO PARCEL 47 (JAMES R. STARLING) RIGHT OF "-L-".

8/17/99

NAD 83/95

MATCHLINE SHEET 13 STA. -L- 499+00

MATCHLINE SHEET 15 STA. -L- 513+00

ST Sta. 500+67.75

-BLB-39

-BLB-40

-BLB-41

44
H. BREWER HONEYCUTT
DB 750 PG 605
DB 1038 PG 108

46
EDDIE I. HALL
DB 1353 PG 472

46A
SUSAN RENEGAR, ET AL
DB 1714 PG 665
DB 1319 PG 865

47
JAMES R. STARLING
DB 909 PG 852
DB 793 PG 740

500

505

510

CHORD

+67.75
105' LT

+67.75
105' RT

SEE DETAIL "A"
2' Lateral Base Ditch

CL B RIP RAP
W/GEOTEXTILE
EST. 2 TONS
EST. 7 SY GEOTEXTILE

CL 1 RIP RAP
Est. 40 tons
78 Sq Yd GEOTEXTILE

CL 1 RIP RAP
W/GEOTEXTILE
EST. 3 TONS
EST. 7 SY GEOTEXTILE

ACCESS POINT
+75.00 END FENCE
+35.00 BEGIN FENCE

WW FENCE

REMOVE

-L- S 69° 32' 36.7" E

-L- S 69° 32' 36.7" E

18"-DR

15"-DR

30"-DR

24"

30" CONC.

40" INC.

HW

S 18°48'23" W
654.90'

-L-

PIs Sta 487+33.09	PI Sta 493+39.46	PIs Sta 499+34.42
θs = 1° 54' 35.5"	Δ = 20° 23' 50.0" (LT)	θs = 1° 54' 35.5"
Ls = 200.00'	D = 1° 54' 35.5"	Ls = 200.00'
LT = 133.34'	L = 1,068.00'	LT = 133.34'
ST = 66.67'	T = 539.71'	ST = 66.67'
	R = 3,000.00'	
	SE = 05 (SEE PLANS)	

SEE SHEET 37 FOR -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

16-JAN-2013 14:23
R:\projects\R2303b_rdy_psh14.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

8/17/99

REVISIONS

47
JAMES R. STARLING
DB 909 PG 852
DB 793 PG 740

515 520 525

-BLB-42 -BLB-43

MATCHLINE SHEET 14 -L- STA. 513+00

MATCHLINE SHEET 19 -L- STA. 527+00

SEE DETAIL "A"
2' Lateral Base Ditch

TEMP SHORING LOC 1
SEE TMP-?

+60
105' LT

CL I RIP RAP
Est. 33 Tons
62 Sq Yds GEOTEXTILE

CL B RIP RAP
W/GEOTEXTILE
EST. 2 TONS
EST. 7 SY GEOTEXTILE

TEMP SHORING LOC 2
SEE TMP-?

WW FENCE

CL B RIP RAP
W/GEOTEXTILE
EST. 1 TON
EST. 5 SY GEOTEXTILE

NC 24 AUTRY HIGHWAY

NC 24 AUTRY HWY 24' BST

EXISTING R/W

REMOVE

30" CONC

36" CONC

15" RCP-III

2GI

-L- S 69° 32' 36.7" E

SEASHORE CONST LINE ABAND RR

HW

+60
105' RT

SEE DETAIL "A"
2' Base Lateral Ditch

SEE DETAIL "A"
2' Base Lateral Ditch

47
JAMES R. STARLING
DB 909 PG 852
DB 793 PG 740
DB 984 PG 357

SEE SHEET 37 FOR -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

15-JAN-2013 16:23
R:\Projects\R-2303b\Drgn\r2303b_rdy_psh15.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS 8/17/99

MATCHLINE SHEET 15 -L- STA. 527+00

MATCHLINE SHEET 17 -L- STA. 541+00

47
JAMES R. STARLING
DB 909 PG 852
DB 793 PG 740

POND

530 535 540

-BLB-44 -BLB-45 -BLB-46

See Detail "J"
Special Cut Ditch

+35
105' LT

CL B RIP RAP
W/GEOTEXTILE
EST. 2 TONS
EST. 7 SY GEOTEXTILE

+35
END FENCE

+95
BEGIN FENCE

ACCESS POINT

SOIL 24"

18"CONC

REMOVE 15' DI

WW FENCE

END PARTIAL C/A
BEGIN FULL C/A
+90
105' LT

SEE DETAIL "J"
Special Cut Ditch

See Detail "G"
Median Ditch
Sta. 538+89 to 546+00 -L- Med

END FULL C/A
BEGIN PARTIAL C/A
+25
105' LT

150' TAPER

NC 24 AUTRY HIGHWAY

AUTRY HWY 24 EAST

-L- S 69° 32' 36.7" E

2G (1602)

12" DI

24"

(1601)

(1603)

(1604)

(1605)

(1606)

(1607)

(1608)

(1609)

DI

15" RCP

FSH

+50
105' RT

+85
END FENCE

+45
BEGIN FENCE

SEE DETAIL "J"
Special Cut Ditch

END PARTIAL C/A
BEGIN FULL C/A
+90
105' RT

END FULL C/A
BEGIN PARTIAL C/A
+25
100' RT

+63.33
150'
TAPER

MONOLITHIC CONCRETE ISLAND

SEE SHEET 38 FOR -L- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

15-JAN-2013 14:23
R:\U-2303b_roadway\r-2303b_rdy_psh16.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 1983

REVISIONS

8/17/99

09/26/12 R/W REVISION (KEM) - ADDED PARCEL 048Z DORIS MARIE BROWN DB 1034 / 263 AND ADDED FENCE AND 12' DOUBLE GATE ON PARCEL 048Z.
06/14/11 R/W REVISION (PJS) - THE PUE WAS ADDED FROM -L- STA.543+21.20 TO STA.543+77.00 RT.
08/26/11 R/W REVISION (PJS) - ACCESS POINT WAS SHIFTED 40' TO THE EAST ON PARCEL 53 (GEORGE L HALL).
12/21/11 R/W REVISION (KEM): ADDED PARCEL 048A SAMPSON CO. WATER & SEWER DISTRICT I.
SHIFTED 60' ACCESS POINT TO PROPERTY LINE ON PARCEL 048 AND CHANGED PUE TO R/W.
PLACED 60' ACCESS POINT AT PROPERTY LINE ON PARCEL 050 AND REMOVED DRIVE RIGHT OF STA.547+00.
REVISED PROPERTY LINES ON PARCEL 05J AND ADDED PROPERTY LINES ON PARCEL 53.

NC 24 & SR 1420(PUMPKINTOWN RD.)

400/400 -Y18- SR 1420
11880/19080 NC 24 200/200 200/200 NC 24 11880/19080
2013 ADT
2033 ADT

MATCHLINE SHEET 16 -L- STA. 541+00

MATCHLINE SHEET 18 -L- STA. 555+00

-L- POT STA.546+38.33
-Y18- POT STA.20+94.03

BEGIN CONSTRUCTION
-Y18- POT STA.18+00.00

GPS MON "R2303B-4" NAD83/2011 N: 693,732.367 E: 2,011,971.41

-L- S 69°32'36.7"E

S 69°32'36.7"E

JAMES R. STARLING
DB 909 PG 852
DB 793 PG 740

SAMPSON COUNTY
WATER & SEWER DISTRICT I
DB 1739 PG 985

RICHARD F. HALL
DB 871 PG 971

RICHARD FRANKLIN HALL
DB 1350 PG 104
MB 27 PG 90

DORIS MARIE BROWN
DB 1034/263

JAMES V. BROWN
DB 1034 PG 263
MB 18 PG 35

PERRY W. SESSOMS
DB 1228 PG 670
DB 1060 PG 824

GEORGE L. HALL
DB 1486 PG 624
MB 27 PG 90

JOSE PEDRAZA
DB 1200 PG 767
DB 1761 PG 905
MB 27 PG 90

GEORGE L. HALL
DB 143 PG 64
DB 1200 PG 769
DB 1306 PG 504
DB 1401 PG 925
MB 25 PG 25
MB 27 PG 90
MB 71 PG 98

SEE DETAIL "K"
TOE PROTECTION
EST. 175 TONS
EST. 390 SY GEOTEXTILE

WW FENCE 150' TAPER

WW FENCE 300' TAPER

ACCESS POINT

12' DOUBLE GATE

25' DR

18' DR

See Detail "J"
Special Cut Ditch

See Detail "A"
Lateral 2' Base Ditch

See Detail "A"
Lateral 2' Base Ditch
W/GEOTEXTILE
EST. 1,170 SY

See Detail "J"
Special Cut Ditch

SEABOARD COASTLINE ABAND RR

NC 24 WITRY HIGHWAY

MONOLITHIC CONCRETE ISLAND

SEE SHEET 38 FOR -L- PROFILE
SEE SHEET 49 FOR -Y18- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

IF JAN 2013 J:\23
R:\Highway\projects\r2303b_rdy_psh17.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 1983

REVISIONS
12/21/11 R/W REVISIONS (KEM) - ADDED PROPERTY LINES ON PARCEL 53 AND ADDED PARCELS 053A & 053B.
8/17/99

MATCHLINE SHEET 17 -L- STA. 555+00

MATCHLINE SHEET 19 -L- STA. 569+00

555

560

565

49 RICHARD FRANKLIN HALL
DB 1350 PG 104
MB 27 PG 90

53A GEORGE L. HALL
DB 1200 PG 769
DB 1443 PG 64
MB 25 PG 25
MB 27 PG 90

56 JIMMY M. HALL
DB 927 PG 15
DB 862 PG 72

53 GEORGE L. HALL, ETUL
DB 1401 PG 925
MB 27 PG 90

53B GEORGE L. HALL
DB 1443 PG 64
DB 1200 PG 769
DB 1306 PG 504
DB 1401 PG 925
MB 25 PG 25
MB 27 PG 90

57 SOMBOON J. KACHAENCHAI
DB 113 PG 786
DB 198 PG 534
DB 1562 PG 096
DB 1705 PG 365
DB 28 PG 74
MB 17 PG 85

-BLB-50

-BLB-51

-L- S 69°32'36"E 822.23'

-L- S 69°32'36"E 966.37'

N 20°26'06" E 822.23'

N 21°57'20" E 1023.27'

N 39°56'32" W 966.37'

N 48°03'28" E 1023.27'

POND

ISBKD

36" CONC

ACCESS POINT

See Detail "A" Lateral 2' Base Ditch

WW FENCE

TOE PROTECTION See Detail "A" EST. 650 SY GEOTEXTILE

10" PLASTIC

18" CONC REMOVE 24'-DR

18" PLASTIC

24" CONC REMOVE 15'-DR

EXISTING R/W

NC 24 AUTRY HIGHWAY

CL B RIP RAP W/GEOTEXTILE EST. 1 TON EST. 5 SY GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

ISMTL POULTRY HOUSE

RUINS

U/G TANK 250 GAL GAS PUMP

TANK VENT

GAS PUMP

SOIL

AUE

SEE SHEET 39 FOR -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

6-JAN-2013 14:23
R-2303b_rdy_psh18.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99 12/10/12 R/W REVISION (TLS) - REVISED THE AUE BEHIND PARCEL 62 TO PREVENT A CLAIM ON HILDA HALL MATTHEWS.

MATCHLINE SHEET 18 -L- STA. 569+00

MATCHLINE SHEET 20 -L- STA. 583+00

NAD 83'95

-BLB-52

-BLB-53

-BLB-54

-L- S 69° 32' 36.7" E

N 34° 33' 18" E 351.36'

N 30° 08' 50" E 195.49'

S 49° 27' 51" E 231.81'

N 22° 18' 28" E 108.27'

N 21° 18' 38" E 288.08'

S 52° 41' 03" E 132.65'

S 45° 09' 12" E 224.24'

N 39° 04' 18" E 266.65'

N 24° 00' 00" E 195.47'

N 24° 24' 32" E 88.59'

S 69° 38' 31" E 199.34'

S 52° 06' 36" E 360.09'

S 39° 19' 35" W 248.08'

S 15° 05' 33" E 154.40'

56 JIMMY M. HALL DB 927 PG 15 DB 862 PG 72

56 JIMMY M. HALL DB 154 PG 332

56 JIMMY M. HALL DB 982 PG 34

58 SCOTT McGOWAN DB 1647 PG 268

61 SABRA TYNDALL DB 1368 PG 034 DB 1349 PG 492 DB 1318 PG 589

HILDA HALL MATTHEWS DB 917 PG 425

62 LINDA F. FAIRCLOTH DB 1096 PG 605

63 WEYERHAEUSER NR CO. DB 1788 PG 627

57 SOMBOON J. KACHAENCHAI DB #3 PG 786 DB 398 PG 534 DB 1362 PG 016 DB 1395 PG 365 MB 28 PG 74 MB 17 PG 85

REBAR, MTL B, W/O, S, SOIL, LABANDI, 20' IND FENCE, 70LS, 70' BEGIN FENCE, SOIL & GR, ISBLKD, POND, CANOPY, HTR, GARDEN SHOP LT, CONC, ISFD, 105' LT, 118' LT, 125' LT, 263' LT, 261' LT, 48" WW, 24" CONC, 36" CONC, 36" RD RAIL, 36" DR, 32" DR, 27' GR, 120', 100', 105', 24' HDPE, 2GI, 1GI, EXISTING R/W, EIP, EIR, SPK, F, ACCESS POINT, WW FENCE, AUE, E, HW, (1901), (1902), (1903), (1904), (1905), (1906), (1907), (1908), (1909), (1910), (1912), (1913)

+90 105' LT 125' LT

+10 END FENCE +70 BEGIN FENCE

+30 105' LT

+98 105' LT 118' LT

+05.83 192.76'

+50 120' LT

+00 120' LT

+00 105' LT

+05 END FENCE +65 BEGIN FENCE

+47.66 118' LT

+80.34 263' LT

+10.35 261' LT

+84.92 105' LT

+70 END FENCE +30 BEGIN FENCE

+09.70 120' RT 131' RT

+95 100' RT 120' RT

+55 END FENCE +08.48 5.04' +15 BEGIN FENCE

See Detail "A" Lateral Base Ditch

See Detail "B" Special Cut Ditch

CL I RIP RAP W/GEOTEXTILE EST. 26 TONS EST. 50 SY GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

CL I RIP RAP Est. 48 tons 89 Sq Yd GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 7 TONS EST. 21 SY GEOTEXTILE

ACCESS TO SEVERAL MOBILE HOMES

REMOVE 24" CONC

REMOVE 24" CONC 30" CONC

REMOVE 24" HDPE 18" DIP

NC 24 AUTRY HWY 24" BST

REMOVE 24" BST

SEE SHEET 39 FOR -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

15-JAN-2013 14:23
R:\R-2303B\Roadway\r-2303b_rdy_psh19.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC 24 & SR 1410(CARRY BRIDGE RD.)/ SR 1256(HORSESHOE RD.)

728 / 1048
-Y19- SR 1410
464 / 424 | 200 / 200
11880 / 19080 NC 24 -L- NC 24 11816 / 18856
-100 / -100 | 200 / 200
SR 1256 -Y19-
264 / 424
2813 ADT 2533 ADT

NAD 83'95

BEGIN CONSTRUCTION
-Y19- STA.17+75.00

MATCHLINE SHEET 19 -L- STA. 583+00

MATCHLINE SHEET 20 -L- STA. 597+00

-L- POT STA.595+29.73
-Y19- POC STA.20+56.01

END CONSTRUCTION
-Y19- POT STA.22+71.00

-Y19-
PI Sta 20+20.69
Δ = 2° 58' 12.1" (LT)
D = 1° 01' 23.3"
L = 290.28'
T = 145.17'
R = 5,600.00'
SE = 02 (SEE PLANS)

PC Sta. 18+75.51

PT Sta. 21+65.80

HILDA HALL MATTHEWS
DB 917 PG 425

64 RANDY CLAY FAIRCLOTH
DB 1333 PG 859

65 VICKIE HORNE
DB 875 PG 192

66 SUSAN WILSON
DB 1039 PG 769

67 KENNETH W. NUNNERY
DB 856 PG 722
DB 979 PG 224
DB 998 PG 454
DB 897 PG 378

68 TROY W. NUNNERY
DB 1536 PG 248

71 FAYE NUNNERY HEIRS
DB 897 PG 443

74 JESSIE P. BUTLER
DB 750 PG 254

63 WEYERHAEUSER NR CO.
DB 1788 PG 627

70 WILLIAM T. MCLEOD
DB 1671 PG 276
MB 46 PG 3-A

JIMMY AUTRY
DB 1128 PG 235

CHARLOTTE McKAY
DB 1346 PG 805

-BLB-55

-BLB-56

-BLB-57

-BLB-58

-BLB-59

-BY5-112

NC 24 AUTRY HIGHWAY

SR 1255 HORSESHOE RD 20' BST

HORNE STRETCH RD 20' BST

WW FENCE

CONC WW FENCE

END PARTIAL C/A BEGIN FULL C/A +30 100' RT 125' RT

END FULL C/A BEGIN PARTIAL C/A +70.00 110' RT 125' RT

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

See Detail "A" Lateral 2' Base Ditch

See Detail "B" Special Cut Ditch

END WOVEN WIRE FENCE

BEGIN WOVEN WIRE FENCE

150' TAPER

300' TAPER

ACCESS POINT

MONOLITHIC CONCRETE ISLAND

SEE SHEET 40 FOR -L- PROFILE

SEE SHEET 50 FOR -Y19- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

REVISIONS
08/26/11 R/W REVISION (PJS) - PARCEL 63 (WEYERHAEUSER COMPANY) WAS RENAMED TO WEYERHAEUSER NR CO.), PARCEL 65 (JUDSON E. HORNE) WAS RENAMED TO (VICKIE HORNE), PARCEL 71 (AUDREY FAYE NUNNERY HEIRS).
09/16/11 R/W REVISION (PJS) - THE CLAIM ON PARCEL 70A (JIMMY AUTRY) WAS ELIMINATED DUE TO THE ADJUSTMENT OF PROPOSED R/W TO THE EXISTING R/W ON PARCEL 70 (WILLIAM T. MCLEOD) AT -Y19- STA. 22+64.53 LT.
12/21/11 R/W REVISION (KEW) - PLACED 60' ACCESS POINTS AT THE PROPERTY LINE ON PARCELS 064 AND 065.

8/17/99

15-JAN-2013 14:23
E:\NCDOT\2013\projects\r-2303b_rdy_psh20.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/99

REVISIONS

09/16/11 R/W REVISION (PJS) - ACCESS POINT WAS ADDED ON PARCEL 80 (BURIL D. BUTLER).
08/26/11 R/W REVISION (PJS) - PARCEL 71(AUDREY FAYE NUNNERY GODBOLD) WAS RENAMED TO (FAYE NUNNERY HEIRS). ACCESS POINT WAS SHIFTED 120' TO THE EAST ON PARCEL 75 (J. W. EZZELL). PARCEL 79 (JAMES C. BARNES) WAS RENAMED TO (BETTY H. BARNES). PARCEL 80 (BRIAN K. BUTLER) WAS RENAMED TO (BURIL D. BUTLER).

MATCHLINE SHEET 20 -L- STA. 597+00

MATCHLINE SHEET 22 -L- STA. 611+00

NAD 83/95

74 JESSIE P. BUTLER DB 750 PG 254

71 FAYE NUNNERY HEIRS DB 857 PG 445

75 J. W. EZZELL DB 1053 PG 596

77 RUBY DRENNON DB 708 PG 630

78 SANDRA D. PENN DB 1189 PG 75

80 BURIL D. BUTLER DB 1252 PG 740

600 605 610

-L- POC STA.606+50.00
-Y20- POT STA.10+00.00

PC Sta. 606+14.65

PC Sta. 10+28.07

PCC Sta. 11+31.92

PT Sta. 14+19.32

END CONSTRUCTION
-Y20- POT STA.14+29.00

-BLB-57 -BLB-58 -BLK-114

See Detail "B" Special Cut Ditch

SEE DETAIL "B" Special Ditch

SEE DETAIL "A" Lateral 2' Base Ditch

SEE DETAIL "B" Special Cut Ditch

SEE DETAIL "D" Standard Base Ditch Est. 25 cu yds excavation

300' TAPER

150' TAPER

WW FENCE

ACCESS POINT

ISBLK BUS ABAND 750 TAPER

MTL CANOPY CONC

SOIL

15" 20' DR

18" PLASTIC REMOVE

18" CONC REMOVE

NC 24 AUTRY HIGHWAY

SR 1255 HAYNE STRETCH RD

L S 69° 32' 36.7" E

S 69° 06' 41" E 390.92'

N 37° 57' 35" E 380.6'

N 22° 57' 35" E 385.8'

S 75° 54' 55" E 89.00'

N 20° 56' 41" E 204.39'

N 20° 36' 47" E 204.39'

N 20° 18' 41" E 185.45'

N 20° 20' 13" E 185.45'

N 20° 27' 53" E 185.29'

N 20° 25' 38" E 395.28'

N 21° 05' 06" E 128.39'

N 21° 05' 06" E 16.85'

N 21° 05' 06" E 172.50'

N 20° 55' 05" E 178.67'

N 20° 55' 05" E 400.00'

N 20° 55' 05" E 212.60'

S 69° 34' 22" E 398.20'

S 69° 34' 22" E 100.00'

S 69° 46' 50" E 100.00'

S 69° 46' 50" E 327.00'

S 69° 46' 50" E 35.67'

S 69° 46' 51" E 48.31'

S 69° 32' 36" E 367.00'

S 26° 07' 05" E 1,000.00'

-L- +03.00 125' LT 162.50' LT END AUE BEGIN PUE

-L- +74 110' LT 125' LT

-L- +61.23 69.48'

-L- +50 110' RT 125' RT NA

-L- +75 125' RT

-L- +92.32 125' RT 151' RT

-L- +12.32 125' RT 151' RT

-Y20- +30 39.58' RT

-Y20- +40 EXIST. R/W

-Y20- +00 EXIST. R/W END WOVEN WIRE FENCE

-Y20- +60 EX. R/W

-Y20- +71 EX. R/W

-Y20- +03 EX. R/W

-Y20- +29 EX. R/W

-Y20- +00 EXIST. R/W 35' LT

+00 33' LT BEGIN WOVEN WIRE FENCE

+17.16 63.76' RT

+75.00

+38.35

+63.79

+54.73

+15.85 65.68'

+20.04 86.81'

+00 END FENCE

+40 BEGIN FENCE

+70 BEGIN FENCE

-100 BEGIN FENCE

+40 END FENCE

2101 2102 2103 2104 2105 2106 2107 2108 2109 2110

-L-
PI Sta 6|0+99.14
Δ = 9° 23' 19.4" (LT)
D = 0° 58' 16.0"
L = 966.80'
T = 484.48'
R = 5,900.00'
SE = 03 (SEE PLANS)

-Y20-
PI Sta 10+80.62
Δ = 21° 38' 09.3" (LT)
D = 20° 50' 05.4"
L = 103.84'
T = 52.55'
R = 275.00'
SE = 03 (SEE PLANS)

PI Sta 12+75.94
Δ = 9° 24' 11.8" (LT)
D = 3° 16' 18.8"
L = 287.40'
T = 144.02'
R = 1,751.16'
SE = 03 (SEE PLANS)

NC 24 & SR 1257(HAYNE EXIT RD.)

11816 18856 NC 24 -L- 460 860 528 848 NC 24 11816 18856

SR 1257 -Y20- 1056 1696

2011 497 2033 ASH

WILLIAM T. MCLEOD DB 671 PG 216 MAP 46, PCL 3-A

JOAN H. BULLINGTON DB 1084 PG 62 DB 817 PG 45 DB 1512 PG 644

MIRIAM HARRIS ELLIS DB 1556 PG 58

JIMMY AUTRY DB 1728 PG 235

HAROLD WAYNE JOHNSON DB 1293 PG 147

SHARON FAYE SMITH DB 1769 PG 312

JAMES C. SESSOMS DB 1321 PG 10 DB 996 PG 641

CHARLES K. ROYAL, JR. DB 1314 PG 090

RUBY DRENNON DB 708 PG 630

BETTY H. BARNES DB 907 PG 399 DB 923 PG 345

LeCARLA G. ROYAL DB 1362 PG 821

MONOLITHIC CONCRETE ISLAND

SEE SHEET 40 FOR -L- PROFILE

SEE SHEET 50 FOR -Y20- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

15-JAN-2013 14:23
R:\HIGHWAY\r2303b_rdy_psh21.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) - PARCEL 79 (JAMES C. BARNES) WAS RENAMED TO (BETTY H. BARNES). PARCEL 80 (BRIAN K. BUTLER) WAS SPLIT INTO PARCEL 80 (BURIL D. BUTLER) AND PARCEL 80A (BRIAN K. BUTLER).

MATCHLINE SHEET 21 -L- STA. 611+00

MATCHLINE SHEET 23 -L- STA. 625+00

NAD 83/95

615 620 625

80
BURIL D. BUTLER
DB 1252 PG 740

80A
BRIAN K. BUTLER
DB 1282 PG 399

82
LALA VAE W. BUTLER
DB 698 PG 408
WF 03E-205

79
BETTY H. BARNES
DB 923 PG 345
DB 907 PG 399

-BLB-59 -BLB-60 -BLB-61

PT Sta. 615+81.45

-L- S 78°55'56" E

SEE DETAIL "B"
Special Cut Ditch
Sta. 611+50 to Sta. 616+00 -L- Lt

SEE DETAIL "D"
Est. 10 cu yds
Excavation

SEE DETAIL "A"
Lateral 2' Base Ditch

150' TAPER

CL B RIP RAP
W/GEOTEXTILE
EST. 8 TONS
EST. 24 SY GEOTEXTILE

CL B RIP RAP
W/GEOTEXTILE
EST. 5 TONS
EST. 14 SY GEOTEXTILE

END PARTIAL C/A
BEGIN FULL C/A
+70
110' LT
130' LT

END FULL C/A
BEGIN PARTIAL C/A
+00
100' LT
118' LT
130' LT

WW FENCE

ACCESS POINT

REMOVE EXISTING CONC HW

NC 24 AUTRY HWY 24' BST

2GI Type A (2205)

2GI (2207)

2GI (2209)

2GI (2210)

18" RCP-IV

15" RCP-IV

24" RCP III

8" CONC

SEABOARD COASTLINE RAILROAD

BURIL D. BUTLER
DB 1252 PG 740 80

LALA VAE W. BUTLER
DB 698 PG 408
DB 1264 PG 564
WF 03E-205 82

-L-
PI Sta 610+99.14
Δ = 9° 23' 19.4" (LT)
D = 0° 58' 16.0"
L = 966.80'
T = 484.48'
R = 5,900.00'
SE = 03 (SEE PLANS)

MONOLITHIC CONCRETE ISLAND
SEE SHEET 41 FOR -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

15-JAN-2013 14:23
R:\projects\2303b_rdy_psh22.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS

8/17/99

09/26/12 R/W REVISION (KEM) - NO REVISION.
12/21/11 R/W REVISION (KEM) - REMOVED 60' ACCESS POINT FROM FORMER PARCEL 082A LEFT OF -L- STA 630+75.
09/16/11 R/W REVISION (PJS) - PARCEL 82A (KINGDOM HALL OF JEHOVAHS WITNESSES) WAS ELIMINATED AND COMBINED WITH PARCEL 82 (LALA VAE M. BUTLER).

MATCHLINE SHEET 22 -L- STA. 625+00

MATCHLINE SHEET 24 -L- STA.639+00

625 630 635

82 LALA VAE M. BUTLER DB 698 PG 408 WF 03E-205

-BLB-62 -BLB-63 -BLB-64

POND

SEE DETAIL "A" Lateral 2' Base Ditch

CL B RIP RAP Est. 8 tons 21 Sq Yds GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

+88 END FENCE

+48 BEGIN FENCE

-L- +64.92 113' LT 122' LT

-L- +86.25 113' LT 125' LT

50' SOIL & GR

SEE DETAIL "B" Special Cut Ditch

END PARTIAL C/A BEGIN FULL C/A +00 100' LT

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

END FULL C/A BEGIN PARTIAL C/A +45 100' LT

SEE DETAIL "B" Special Ditch

+75 END FENCE

+25 BEGIN FENCE

150' TAPER

ACCESS POINT

WW FENCE

EXISTING R/W

5' CONC

75' OF REMOVE

NC 24 AUTRY HIGHWAY

18" CONC

18" DI

-L- S 78°55'56" E

2GI "D"

2GI Type A

24" RCP-III

18" w/ 2 Elbows

BDO

SEE DETAIL "B" Special Cut Ditch

SEE DETAIL L Berm Ditch

+80 100' RT 135' RT

END PARTIAL C/A BEGIN FULL C/A +00 100' RT 125' RT

-L- +90 125' RT 148' RT

-L- +10 125' RT 148' RT

END FULL C/A BEGIN PARTIAL C/A +45 110' RT 125' RT

+40 END FENCE

+00 BEGIN FENCE

ACCESS POINT

+57.06 R 42'

+37.06

+62.06

MONOLITHIC CONCRETE ISLAND

SEE SHEET 41 FOR -L- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

16-JAN-2013 14:23
R:\Roadway\Proj\r-2303b_rdy_psh23.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99 08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED ON PARCEL 82 (LALA VAE M. BUTLER).

NC 24 & SR 1410(BULLARD RD.)

NAD 83/95

MATCHLINE SHEET 23 -L- STA. 639+00

MATCHLINE SHEET 25 -L- STA. 653+00

-L- S 78°55'56" E

-L- POT STA.642+57.00
-Y21- POT STA.20+64.76

BEGIN CONSTRUCTION
-Y21- POC STA.17+75.00

PC Sta. 17+19.15

PT Sta. 20+10.64

TS Sta. 646+78.19

SC Sta. 649+18.19

CS Sta. 652+74.35

LALA VAE M. BUTLER
DB 698 PG 408
WF 03E-205

LALA VAE M. BUTLER
DB 1264 PG 564
WF 03E-205

-Y21-
PI Sta 18+66.13
Δ = 18° 09' 11.0" (RT)
D = 6° 13' 40.1"
L = 291.48'
T = 146.97'
R = 920.00'
SE = 05 (SEE PLANS)

-L-

PIs Sta 648+38.21	PI Sta 650+96.51	PIs Sta 653+54.36
θs = 2° 27' 19.9"	Δ = 7° 17' 16.5" (LT)	θs = 2° 27' 19.9"
Ls = 240.00'	D = 2° 02' 46.6"	Ls = 240.00'
LT = 160.02'	L = 356.15'	LT = 160.02'
ST = 80.01'	T = 178.32'	ST = 80.01'
	R = 2,800.00'	
	SE = 06 (SEE PLANS)	

MONOLITHIC CONCRETE ISLAND
SEE SHEET 42 FOR -L- PROFILE
SEE SHEET 51 FOR -Y21- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

16-JAN-2013 14:23
R:\Roadway\Projects\r-2303b_rdy_psh24.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS
8/17/99
08/26/11 R/W REVISION (PJS) - PARCEL 89 (WILLIAM M. MAINOR) WAS RENAMED TO (THOMAS C. TANNAHILL).

MATCHLINE SHEET 24 -L- STA. 653+00

MATCHLINE SHEET 26 -L- STA. 667+00

81
BURIL D. BUTLER
DB 1263 PG 642
DB 1694 PG 19
MB 63 PG 81

83
DORIS O. DAVIS, et al
DB 1009 PG 122
DB 802 PG 333
97E-226

82
LALA VAE M. BUTLER
DB 698 PG 408
DB 1264 PG 564
WF 03E-205

89
THOMAS C. TANNAHILL
DB 1797 PG 579

TEMP SHORING LOC 3
SEE TMP-?

TEMP SHORING LOC 4
SEE TMP-?

POND

ISFD

CONC

48" BST

BEGIN BRIDGE -L- STA. 659+40.46

END BRIDGE -L- STA. 661+01.00

ST Sta. 655+14.35

SC Sta. 663+90.79

TS Sta. 661+10.79

-BLB-68

-BLB-69

655

660

665

CL B RIP RAP
Est. 5 TONS
EST. 14 SY GEOTEXTILE

+14.35
125' LT

+14.35
125' RT

+21.80
142.31' LT

+24.00
153.60' LT

+43.60
126.76' LT
144.60' LT

+68
END FENCE

+76
BEGIN FENCE

+10.79
125' LT

+10.79
125' RT

+90.79
110' LT

+90.79
110' RT

+10.80
130.60' LT

+04.80
121.29' LT

+28.60
136.80' LT

+37.50
125.20' LT

+79.80
121.29' LT

EXRW
110'

SEE DETAIL "D"
2' Base Tail Ditch
Est. 20 cu yds excavation

REMOVE

GPS MON "R2303B-8"

GPS MON "R2303B-9"
-BLB-9
-BTB-9

WW FENCE

CHORD

BEGIN SBG
ST A.654+59.75 LT

BEGIN SBG
ST A.655+30 RT

END SBG
ST A.661+34.74 M-LT

END SBG LT & RT
ST A.659+16.29

BEGIN SBG
ST A.661+25.11 RT

BEGIN SBG
ST A.661+25.11 M-LT

END SBG
ST A.663+07.25 RT

ACCESS POINT

12' DR

151 CONC

18" CONC

NC 24

4" BST
NUTRY HWY 23' BST
4" BST

TYPE M350

TYPE B

2GI Type A

2GI

15" RCP-IV

18" RCP-III

14" RCP-III

14" PLASTIC

50:1 TAPER

150' TAPER

GRAU 350 TL-3 40' INC.

CL I RIP RAP
W/GEOTEXTILE
EST. 17 TONS
EST. 38 SY GEOTEXTILE

CLASS II RIP RAP
(STRUCTURE PAY ITEM)

DO NOT DISTURB
HORSE FENCE

SEE DETAIL "K"
TOE PROTECTION
EST. 115 TONS
EST. 255 SY GEOTEXTILE

L IN 88°52'07.6" E

S 65°51'42" E 1217.14'

V Big Swamp

Pls Sta 648+38.21	Pl Sta 650+96.51	Pls Sta 653+54.36
θs = 2° 27' 19.9"	Δ = 7° 17' 16.5" (LT)	θs = 2° 27' 19.9"
Ls = 240.00'	D = 2° 02' 46.6"	Ls = 240.00'
LT = 160.02'	L = 356.15'	LT = 160.02'
ST = 80.01'	T = 178.32'	ST = 80.01'
	R = 2,800.00'	
	SE = 06 (SEE PLANS)	

Pls Sta 662+97.51	Pl Sta 667+66.29	Pls Sta 672+26.09
θs = 4° 06' 48.8"	Δ = 21° 47' 57.8" (RT)	θs = 4° 06' 48.8"
Ls = 280.00'	D = 2° 56' 17.7"	Ls = 280.00'
LT = 186.72'	L = 741.92'	LT = 186.72'
ST = 93.38'	T = 375.50'	ST = 93.38'
	R = 1,950.00'	
	SE = 07 (SEE PLANS)	

MONOLITHIC CONCRETE ISLAND
BRIDGE APPROACH SLABS
PAVEMENT REMOVAL (OBLITERATE)
SEE SHEET 42 FOR -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS
SEE SHEET 2-F FOR BRIDGE RELATIONSHIP SKETCH
SEE SHEETS S-1 TO S-142 FOR STRUCTURE PLANS

IF JAN-2013 16:24
R:\Projects\2303b\Design\r2303b_rdy_psh25.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/99

REVISIONS

05/07/12 R/W REVISION (KEM) - CHANGED PROPERTY OWNER NAME ON PARCEL 088C TO MARIA E. OLIVA AND DEED TO DB 1819 PG 211. CHANGED PARCEL 089C TO 089B.
02/03/12 R/W REVISION (KEM) - CHANGED PARCEL 089B TO 089A AND RENAMED IT TO PEARL A. BRADSHAW, DB 1800 PG 520.
09/16/11 R/W REVISION (PJS) - PARCEL 85 (EDNA S. WILLIAMS BEASLEY) WAS RENAMED TO (KIM IVEY HALL). THE R/W LINE WAS ADJUSTED TO EXISTING PROPERTY LINE AND PUE WAS ADJUSTED TO THE PROPOSED R/W ON PARCEL 89B (T & W DEVELOPMENT AT -L- STA. 680+68.70 LT. THE CLAIM ON PARCEL 90 (EUGENIO LUQUE) WAS ELIMINATED DUE TO THE ADJUSTMENT OF PROPOSED R/W TO THE EXISTING PROPERTY LINE. PARCEL 89B (SECRETARY OF HOUSING & URBAN DEVELOPMENT) WAS RENUMBERED TO 89C.

MATCHLINE SHEET 25 -L- STA. 667+00

MATCHLINE SHEET 27 -L- STA. 681+00

PLEASANT UNION BAPTIST CHURCH
DB 542 PG 237
DB 674 PG 93
DB 676 PG 496

PC Sta. 13+78.83

KIM IVEY HALL
DB 1802 PG 633

GARY E. WILLIAMS
DB 670 PG 98
MB 44 PG 46

T AND W DEVELOPMENT
DEED NOT FOUND
MB 44 PG 46

BOBBY RAY
DB 1577 PG
MB 44 PG 46

PERRY F. BUTLER
DB 875 PG 27

KELLY PAIGE
DB 1624 PG 325
MB 44 PG 46

MARIA E. OLIVA
DB 1819 PG 211
MB 44 PG 46

RONALD J. WOOD
DB 1568 PG 823
MB 44 PG 46

PEARL A. BRADSHAW
DB 1800 PG 520
MB 44 PG 46

PEARL A. BRADSHAW
DB1800 PG 520
MB 44 PG 46

EDNA S. WILLIAMS BEASLEY
DB 875 PG 27

THOMAS C. TANNAHILL
DB 1797 PG 579

BEGIN CONSTRUCTION
-Y22- POT STA.12+00.00

POC STA.668+08.50
-Y22- POT STA.16+13.23

POT Sta. 10+00.00

BEGIN SBG
STA.668+00 RT

END SBG
STA.674+60 RT

BEGIN SBG
STA.680+70 LT

-BLB-70

-BLB-71

CS Sta. 671+32.71

ST Sta. 674+12.71

-L-
PIs Sta 662+97.51
Θs = 4° 06' 48.8"
Ls = 280.00'
LT = 186.72'
ST = 93.38'

PI Sta 667+66.29
Δ = 21° 47' 57.8" (RT)
D = 2° 56' 17.7"
L = 741.92'
T = 375.50'
R = 1,950.00'
SE = 07 (SEE PLANS)

PIs Sta 672+26.09
Θs = 4° 06' 48.8"
Ls = 280.00'
LT = 186.72'
ST = 93.38'

-Y22-
PI Sta 14+81.14
Δ = 68° 35' 38.9" (LT)
D = 38° 11' 49.9"
L = 179.58'
T = 102.31'
R = 150.00'
SE = 04 (SEE PLANS)

NC 24 & SR 1405(PLEASANT UNION RD.)

MONOLITHIC CONCRETE ISLAND

PAVEMENT REMOVAL (OBLITERATE)

SEE SHEET 43 FOR -L- PROFILE

SEE SHEET 51 FOR -Y22- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

DETAILS SKETCH

15-JAN-2013 14:24
R-2303b_rdy_psh26.dgn
kstephens
USER:
DGN:

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS

09/26/12 R/W REVISION (KEM) - CHANGED NAME TO HANSON BRICK EAST,LLC ON PARCEL 092

05/24/12 R/W REVISION (KEM) - REMOVED PROPOSED FENCE ON PARCEL 092. WILL RESET EXISTING FENCE AT PROPOSED R/W AS C/A.

02/02/12 R/W REVISION (KEM) - CHANGED PARCEL 089C TO 089B AND RENAMED IT TO HART-McNIELL INVESTMENTS, DB 1804 PG 779.

12/21/11 R/W REVISION (KEM) - PLACED 60' ACCESS POINTS AT THE PROPERTY LINE ON PARCELS 089 AND 092.

09/16/11 R/W REVISION (PJS) - THE CLAIM ON PARCEL 90 (EUGENIO LUQUE) WAS ELIMINATED DUE TO THE ADJUSTMENT OF THE PROPOSED R/W LINE TO THE EXISTING PROPERTY LINE. PARCEL 89B (SECRETARY OF HOUSING & URBAN DEVELOPMENT) WAS RENUMBERED TO 89C.

8/17/99

MATCHLINE SHEET 26 -L- STA. 681+00

MATCHLINE SHEET 28 -L- STA. 695+00

NC 24 & SR 1406(BOREN BRICK RD.)

100/100 -Y24- SR 1406 -100/-100 -100/-100 11416/18456 NC 24 NC 24 11416/18456

2019 ADT 18500 ADT

BEGIN CONSTRUCTION -Y23- POT STA.16+75.00

-L- POT STA.687+00.06

-Y23- POT STA.19+59.43

NOTE: PROPOSED MITIGATION. SEE MITIGATION PLANS. INVERTS MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED.

T AND W DEVELOPMENT DEED NOT FOUND WB 44 PG 46

EUGENIO LUQUE DB 1601 PG 151 WB 44 PG 46

S 85°41'35" W 440.60'

S 85°07'06" W 450.86'

+31.60 30' RT END WOVEN WIRE FENCE

WW FENCE 48' WW

WW FENCE 24" CONC

SR 1406 BOREN BRICK RD

-BLB-72

-BLB-73

-BLB-74

-BLB-73 -BLB-73

-BY9-122

-Y23- +65 EXIST. R/W 68' LT

-Y23- +75 EXIST. R/W 50' LT

-Y23- +95 50' LT 68' LT

SEE DETAIL "A" 2' Base Ditch

-Y23- +80 50' LT BEGIN WOVEN WIRE FENCE

-Y23- +80.00 30'

+85.00 -Y23- INCL

+20 GATE

+00 100' LT

+14.31 20' INCL

END SBG STA.684+70 LT

+50.00 LT

180-10-180 0.5' OFF.

GRAU 350

POND

89B

HART-McNIELL INVESTMENTS DB 1804 PG 779 WB 46 PG 62

91

THE RICHARD AND GRACE ADAMS PROPERTY MANAGEMENT TRUST DB 899 PG 624 DB 772 PG 416 WB 66 PG 9

690

695

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

150' TAPER

2704

2713

RCP-III

+00.00

2705

-L- S 61°06'17" E

2GI Type "D"

2707

2708

300' TAPER

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

SEE DETAIL "A" 2' Base Ditch

WW FENCE

2703

+55.00

150' TAPER

2702

2GI Type D

CL B RIP RAP W/GEOTEXTILE EST. 2 TONS EST. 7 SY GEOTEXTILE

REMOVE

23' DR

18" CONC

REMOVE

48" WW

NC 24 AUTRY HIGHWAY

60'

COTTON GEAR

18" CONC

REMOVE

15" CONC

60' CHL

60' WW

EXISTING R/W

45' DR

72' CHL & 3SBW

2712

2711

2710

2709

ACCESS POINT

150' TAPER

CL 1 RIP RAP W/GEOTEXTILE EST. 42 TONS EST. 94 SY GEOTEXTILE

CL B RIP RAP W/GEOTEXTILE EST. 3 TONS EST. 10 SY GEOTEXTILE

TEMP SHORING LOC 5 SEE TMP-7

SEE DETAIL "A" Lateral 2' Base

SEE DETAIL "B" Special Cut Ditch

SEE DETAIL "B" Special Cut Ditch

AUE

ABAND 15FD

+00 52' RT 117' RT

+17.50 123' RT 133' RT

+80.00 120' RT 142' RT

+70.88 166.90' RT

+03.66 167.30' RT

+22.97

+62.97

+90.87

DO NOT DISTURB EXIST. FENCE

DO NOT DISTURB LEACH FIELD

DO NOT DISTURB EXIST. FENCE

LEACH FIELD

LEACH FIELD

+55 97' RT 112' RT

+15 97' RT 112' RT

CONC CURB

ACCESS POINT

CHL GATE +15

48' BK

92

HANSON BRICK EAST, LLC DB 773 PG 207 WB 6 PG 44

BST

BK BUS

W/LT

GR

+26.00 126' RT 135' RT

+56.00 115' RT 126' RT

+95.60 115' RT 126' RT

+44.48 339.86' RT

+72.81 329.81' RT

EXISTING FENCE HAS BEEN RELOCATED TO PROPOSED R/W. DO NOT DISTURB HORSE FENCE

89

THOMAS C. TANNAHILL DB 1797 PG 579

72' MTL RAD

N 79° 40' 31" W 348.82'

EIP

MTL GATE

18" CONC

SOIL

48" WW

60" WW & 2SBW

60" WW & 3SBW

MONOLITHIC CONCRETE ISLAND

SEE SHEET 43 FOR -L- PROFILE

SEE SHEET 52 FOR -Y23- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

15-JAN-2013 14:24
R:\Roadway\Projects\r-2303b_rdy_psh27.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS

09/26/12 R/W REVISION (KEM) - ADDED 16' DOUBLE GATES AND DRIVEWAYS TO PROGRESS ENERGY'S UTILITY EASEMENT (BOTH SIDES).
ADDED 45' DRIVE (APPROVED BY DCE AND DISTRICT ENGINEER) ON PARCEL 092.
CHANGED NAME TO HANSON BRICK EAST,LLC ON PARCEL 092.

05/24/12 R/W REVISION (KEM) - REPLACED ACCESS POINT FROM 697+35 TO 697+95 AND REMOVED PROPOSED FENCE TO ACCESS POINT ON PARCEL 092.
WILL RESET EXISTING FENCE AT PROPOSED R/W AS C/A.
SHIFTED ACCESS POINT TO MATCH EASTERN PROPERTY LINE OF PARCEL 093A.
CORRECTED STATION LABELS AT ACCESS POINT TO +15 AND +75 ON PARCEL 093C.
ADDED ACCESS POINT TO PARCEL 093B AT THE WESTERN PROPERTY LINE.

8/17/99

16-JAN-2013 14:24
K:\Projects\R-2303b_rdy_psh28.dgn
$$USER$$

MATCHLINE SHEET 27 -L- STA. 695+00

MATCHLINE SHEET 29 -L- STA. 709+00

695 700 705

91 THE RICHARD AND GRACE ADAMS PROPERTY MANAGEMENT TRUST
DB 899 PG 624
DB 772 PG 416
MB 66 PG 9

93C ELIZABETH FAIRCLOTH
DB 781 PG 840

ROBIE FAIRCLOTH
DB 891PG 297
93

-BLB-75 -BLB-76 -BLB-77

See Detail O

SEE DETAIL "A" 2' Lateral Ditch

SEE DETAIL "G" Special Median Ditch

END PARTIAL C/A BEGIN FULL C/A +20 100' LT 115' LT

SEE DETAIL "B" Special Cut Ditch

END FULL C/A BEGIN PARTIAL C/A +50 105' LT 115' LT

16' DOUBLE GATE

10' CAROLINA POWER AND LIGHT UTILITY EASEMENT

SEE DETAIL "B" Special Cut Ditch

WW FENCE

ACCESS POINT

-L- S 61°06'17" E

NC 24 HWY

DO NOT DISTURB EXIST. FENCE

CL B RIP RAP W/GEOTEXTILE EST. 3 TONS EST. 11 SY GEOTEXTILE

MTL GATE

60' BLK WALL & TANK

92 HANSON BRICK EAST, LLC
DB 773 PG 207
MB 6 PG 44

THE RICHARD AND GRACE ADAMS PROPERTY MANAGEMENT TRUST
DB 899 PG 624
DB 772 PG 416
MB 66 PG 9

END PARTIAL C/A BEGIN FULL C/A +20 110' RT

END FULL C/A BEGIN PARTIAL C/A +50 110' RT

SEE DETAIL "B" Special Cut Ditch

93A ALTRY MILLS PROPERTIES LLC
DB 1010 PG 104
MB 77 PG 80

ROY ROGER FAIRCLOTH
DB 831PG 295
DB 1696 PG 576
MB 64 PG 36
93B

FLOYD RUNION
DB 994 PG 380

MONOLITHIC CONCRETE ISLAND

SEE SHEET 44 FOR -L- PROFILE

SEE DETAILS SHEET 2-G FOR DITCH DETAILS

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) - PARCEL 93 (ROBIE D. FAIRCLOTH) WAS SPLIT INTO PARCEL 93 (ROBIE FAIRCLOTH) AND PARCEL 93C (ELIZABETH FAIRCLOTH). PARCEL 95A (CHARLES S. LUCAS) WAS RENAMED (ANNIE HALL MCRORIE).

MATCHLINE SHEET 28 -L- STA. 709+00

MATCHLINE SHEET 30 -L- STA. 723+00

93C
ELIZABETH FAIRCLOTH
DB 781 PG 840

93
ROBIE FAIRCLOTH
DB 891 PG 297

95A
ANNIE HALL McRORIE
DB 1067 PG 740

95
AUTRY MILLS PROPERTIES LLC
DB 1810 PG 104
WB 48 PG 23

93B
ROY ROGER FAIRCLOTH
DB 834 PG 295
DB 1696 PG 576
WB 64 PG 36

94
JERRY W. LUCAS
DB 1001 PG 287

96
JESSE B. CARLISLE
DB 676 PG 2
DB 739 PG 42

710 715 720

N 61°06'24" W 408.83'

N 26°30'23" W 216.84'

N 61°10'26" W 418.03'

N 87°17'04" E 23.80'

N 73°16'26" E 81.74'

N 67°09'26" E 35.57'

N 29°38'26" E 83.74'

N 68°27'26" E 15.62'

N 18°15'26" E 16.00'

N 29°34'26" E 10.00'

N 10°26'15" E 382.32'

SEE DETAIL "E"
2' Base Ditch w/PSRM

SEE DETAIL "K"
TOE PROTECTION
EST. 115 TONS
EST. 255 SY GEOTEXTILE

SEE DETAIL "K"
TOE PROTECTION
EST. 155 TONS
EST. 345 SY GEOTEXTILE

TEMP SHORING LOC 6
SEE TMP-?

SEE DETAIL "A"
2' Lateral Base Ditch

SEE DETAIL "B"
Special Cut Ditch

-L- POT STA.716+90.37
-Y24- POT STA.10+00.00

PC Sta. 720+52.75

BEGIN SBG STA.712+33.75 LT

END SBG STA.715+25 LT

BEGIN SBG STA.710+82 RT

END SBG STA.713+26 RT

END CONSTRUCTION
-Y24- POT STA.12+50.00

PC Sta. 13+00.99

PT Sta. 15+19.93

-L-
PI Sta 724+66.82
Δ = 8° 27' 27.3" (LT)
D = 1° 01' 23.3"
L = 826.63'
T = 414.07'
R = 5,600.00'
SE = 03 (SEE PLANS)

-Y24-
PI Sta 14+18.04
Δ = 50° 10' 32.7" (LT)
D = 22° 55' 05.9"
L = 218.93'
T = 117.04'
R = 250.00'

NC 24 & SR 1254(MICROWAVE TOWER RD.)

MONOLITHIC CONCRETE ISLAND
SEE SHEET 44 FOR -L- PROFILE
SEE SHEET 52 FOR -Y24- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS
SEE SHEETS C-1 TO C-5 FOR CULVERT PLANS

16-JAN-2013 14:24
R:\CHANNEL\Projects\2303b_rdy_psh29.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

01/03/13 R/W REVISION (KEM) - REMOVED DRIVEWAY AND ADDED NOTE FOR CONTRACTOR TO CUT OFF HANDICAP RAMP AT PROPOSED R/W ON PARCEL 097.

09/16/11 R/W REVISION (PJS) - THE R/W WAS ADJUSTED TO THE PROPERTY LINE ON PARCEL 95 (ROBIE BRANDON FAIRCLOTH) AT -L- STA. 731+26.63 LT., AND ON PARCEL 100 (CHARLES G. SESSOMS) AT -L- STA. 731+12.53 AND STA. 731+13.05 RT.

08/26/11 R/W REVISION (PJS) - THE R/W MONUMENT WAS MOVED FROM -L- STA. 723+15.00 RT. ON PARCEL 97 (NATHAN W. TANNER) TO STA. 724+56.00 RT. ON PROPERTY LINE BETWEEN PARCEL 97 (NATHAN W. TANNER) AND PARCEL 98 (CONNIE INEZ HALL). THE R/W WAS EXTENDED AT -L- STA. 731+10.00 RT. AND TCE WAS ADDED FROM -L- STA. 730+85.00 TO STA. 731+10.00 RT. ON PARCEL 100 (CHARLES G. SESSOMS) DUE TO REVISED DRIVEWAY CONNECTION ON PROJECT R-2303C.

8/17/99

NAD 83/95

STA. 730+10.00 -L- END PROJECT R-2303B

MATCHLINE SHEET 29 -L- STA. 723+00

725 730 735

95
AUTRY MILLS PROPERTIES LLC
DB 1810 PG 104
MB 48 PG 23

-BLB-81 -BLB-82 -BLB-83

PT Sta. 728+79.38

END PARTIAL C/A
BEGIN FULL C/A
+15
105' LT
125' LT

END FULL C/A
BEGIN PARTIAL C/A
+40
100' LT
125' LT

+46.20
130.00' LT
+63.64
120.00' LT
+56
100.00' LT

+79.38
100' LT

END PARTIAL C/A
BEGIN FULL C/A
+10.00
105' LT
100' LT

+26.63
105' LT
TIE TO R-2303C

WW FENCE

HTR

HUBERT AUTRY HEIRS
WB 88-E-17
DB 559 PG 508

GRADE TO DRAIN

-L- S 69°33'44.4" E

NC 24 AUTRY HWY 24' BST

REMOVE

15" CONC

12" DR

50' INC.

ACCESS POINT

PUE

+94.05
PROP. R/W

+67.79
PROP. R/W

+60.43
125.00' RT

+79.44
129.00' RT

SEE DETAIL "B"
Special Guiddith

END PARTIAL C/A
BEGIN FULL C/A
+56
100' RT

NOTE:
CUT OFF WOODEN HANDICAP RAMP AT PROP. R/W

97
NATHAN W. TANNER
DB 93 PG 9

98
CONNIE INEZ HALL
DB 1663 PG 623
DB 1088 PG 400
DB 1088 PG 403(MAP)

END FULL C/A
BEGIN PARTIAL C/A
+40
100' RT

+87.17
116.00' RT

+98.25
100' RT

+11.60
116.00' RT

+03.86
127.00' RT

TERRY R. HUDSON
DB 1462 PG 282
MB 39 PG 48

99
WD
DK
HTR
WD
DK
LT

99A
SHANNON E. FAIRCLOTH
DB 1394 PG 796
MB 39 PG 48

+79.38
100' RT

+83.08
116' RT
127' RT

+03.86
115' RT
129' RT

END PARTIAL C/A
BEGIN FULL C/A
+10.00
100' RT
130' RT

+84.34
100' RT

+12.53
130' RT
TIE TO R-2303C

100
CHARLES G. SESSOMS
DB 1658 PG 805
DB 1088 PG 392

+85
130' RT
195' RT

+13.05
195' RT
TIE TO R-2303C

35SBW

TOMMY R. HALL
DB 1317 PG 567

MARGIE L. LOCKWOOD
DB 802 PG 750
DB 907 PG 650
DB 845 PG 183

CLEVELAND GODBOLD ET UX
DB 862 PG 168
DB 992 PG 285

ISFD
ISF BUS
S
G
GR

-L-
PI Sta 724+66.82
Δ = 8°27'27.3" (LT)
D = 1°01'23.3"
L = 826.63'
T = 414.07'
R = 5,600.00'
SE = 03 (SEE PLANS)

S 69°34'22" E 223.97'
S 69°34'22" E 219.09'
S 69°34'22" E 109.21'
S 69°34'22" E 80.56'
S 69°34'22" E 220.00'
S 69°34'22" E 385.95'
S 69°34'22" E 137.49'
S 17°24'33" W 142.97'
S 17°24'30" W 12.52'
S 22°38'55" E 130.51'

MONOLITHIC CONCRETE ISLAND
SEE SHEET 45 FOR -L- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

16-JAN-2013 14:24
N:\...\2303b_rdy_psh30.dgn
...\ROADWAY\...

PROJECT REFERENCE NO.	SHEET NO.
R-2303B	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99

08/26/11 R/W REVISION (PJS) - THE OFFSETS WERE CORRECTED AND EXIST. R/W ENDED 50' TO THE EAST FROM EXIST. 18' CONC. PIPE ON PARCEL 44 (H. BREWER HONEYCUTT).

NAD 83/95

MATCHLINE SHEET 12 -Y16- STA. 13+00

FAIRCLOTH HEIRS
DB 565 PG 301
DB 855 PG 387
WB 48 PG 5

See Detail "A"
Lateral 2' Paved Ditch

CL B RIP RAP W/GEOTEXTILE
EST. 3 TONS
EST. 10 SY GEOTEXTILE

-Y16- +40.60
60' RT

-Y16- +40.60
50' LT

PC Sta. 14+40.60

H. BREWER HONEYCUTT
DB 750 PG 605
DB 1038 PG 108

DO NOT DISTURB BST

ABANDON R/W

45ELEC

6' CONC

ADIRONDACK TIMBER CO., INC
DB 1376 PG 642

-Y16- +86.73
EXIST. R/W

-Y16- +85.43
69' LT

DO NOT DISTURB BST

ABANDON R/W

35BW

-BY2A-150

N/L

GEORGE J. SMITH
DB 937 PG 936

See Detail "B"
Special Cut Ditch

-Y16- +53.00
60' RT

ABANDON R/W

END EXIST. R/W
50' EAST OF PIPE

-Y16- +45.00
EXIST. R/W

-Y16- +15.57
EXIST. R/W

RETAIN

CLARA P. FAIRCLOTH
DB 733 PG 435

JOHNNIE N. FAIRCLOTH
DB. 874 PG 781

-Y16- +50.00
EXIST. R/W

CL B RIP RAP W/GEOTEXTILE
EST. 3 TONS
EST. 11 SY GEOTEXTILE

-Y16- +00
EXIST. R/W

-Y16- +70.20
50' LT

-BY2A-129

S 01° 15' 41" W
357.20'

HUBERT C. FAIRCLOTH
DB 1077 PG 992
DB 885 PG 282

-Y16-

PT Sta 17+70.20

-Y16- +50.00
EXIST. R/W

NC 24 & EXIST. NC 24

9704 / 15464 NC 24 -L- -100 / -100

NC 24 -L- 2176 / 3616 11880 / 19080

EXIST. NC 24 -Y16- 2176 / 3616

2303 APL / 2303 ASH

44
H. BREWER HONEYCUTT
DB 750 PG 605
DB 1038 PG 108

END CONSTRUCTION
-Y16- POT STA.19+50.00

101
ELIZABETH F. FAIRCLOTH
DB 1253 PG 201

REBAR

S 69° 30' 57" E
274.44'

S 01° 15' 46" W
1,032.92'

EIP

-Y16-
PI Sta 16+24.26
Δ = 62° 56' 53.2" (RT)
D = 19° 05' 54.9"
L = 329.60'
T = 183.65'
R = 300.00'
SE = 06

PAVEMENT REMOVAL (OBLITERATE)

SEE SHEET 48 FOR -Y16- PROFILE
SEE DETAILS SHEET 2-G FOR DITCH DETAILS

IF JAN-2013 16:24
R:\Projects\2303b\Design\2303b_rdy_psh31.dgn
$$$$USERNAME$$$$

09/08/99

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SAMPSON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303C	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34416.1.1	STPNHF-F-8-2(1	PE	

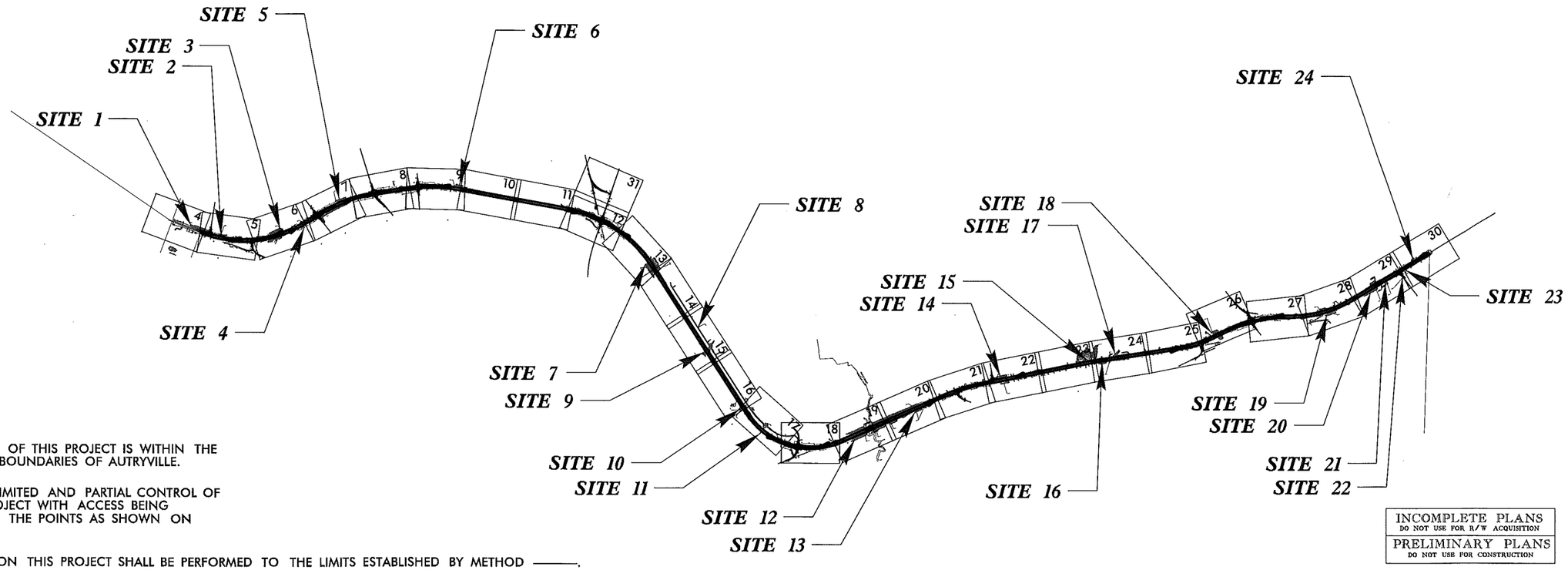
LOCATION: NC 24 FROM SR 1404 (DOWDY ROAD) TO SR 1303 (MITCHELLS LOOP ROAD)

WETLAND /STREAM PERMIT DRAWINGS

Permit Drawing
Sheet 1 of 75

TIP PROJECT: R-2303C

CONTRACT:



A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF AUTRYVILLE.

THIS IS A LIMITED AND PARTIAL CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE POINTS AS SHOWN ON THE PLANS.

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

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2010 = 10760
ADT 2030 = 17800
DHV = 11 %
D = 55 %
T = 9 % *
V = 60 MPH

* TTST 6 DUAL 3

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R- 2303C =
LENGTH STRUCTURES TIP PROJECT R- 2303C =
TOTAL LENGTH TIP PROJECT R- 2303C =

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: APRIL 17, 2009

LETTING DATE: APRIL 19, 2011

BRENDA MOORE, PE
PROJECT ENGINEER

THAD DUNCAN, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER

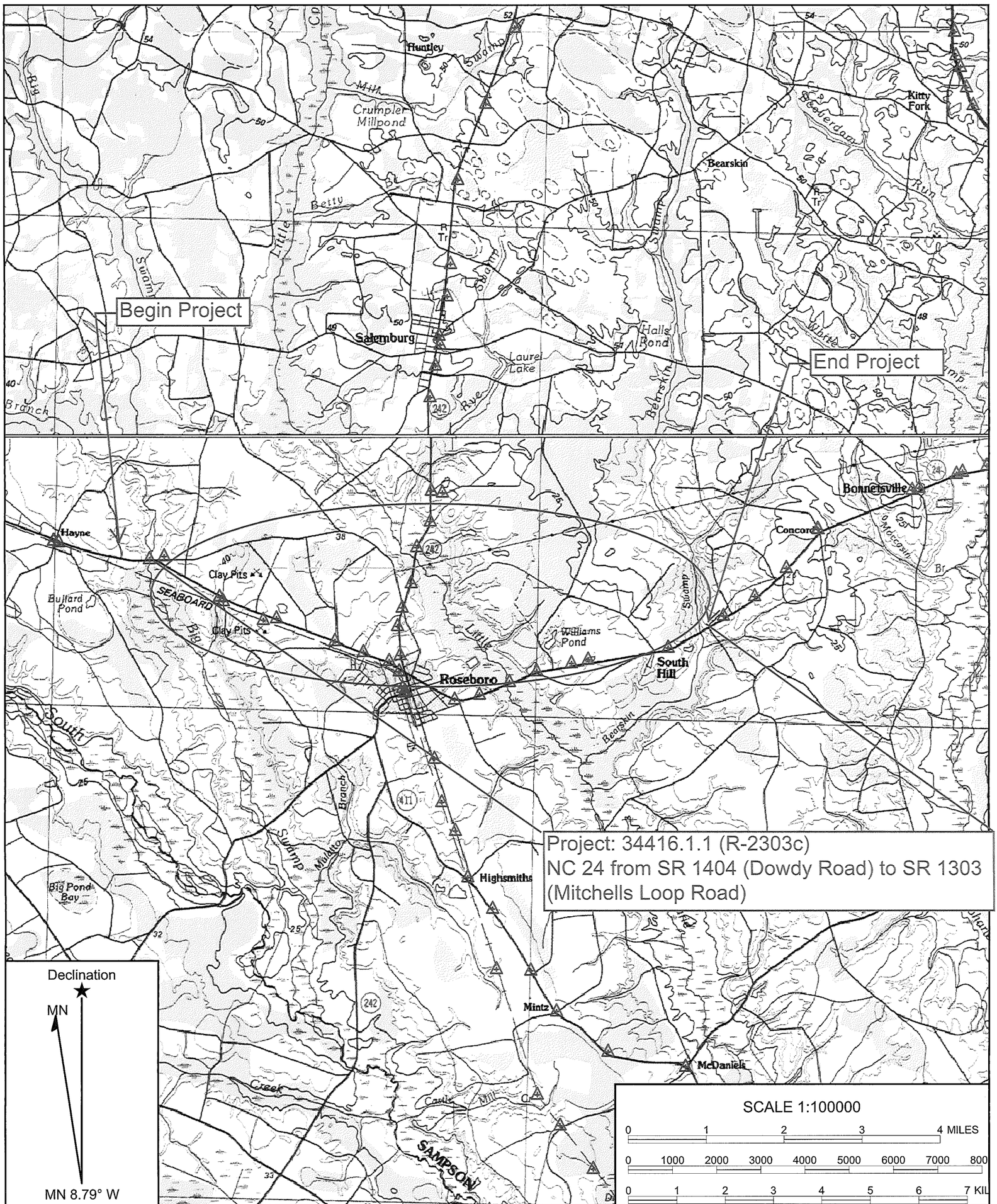
P.E.
SIGNATURE:

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

P.E.
STATE HIGHWAY DESIGN ENGINEER

8/3/2012
K:\RAL_Roadway\0ll056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_tsh.dgn

Permit Drawing
Sheet 2 of 75



Name: ELIZABETHTOWN
Date: 11/03/11
Scale: 1 inch = 8,333 ft.

Location: 034° 58' 07.00" N 078° 29' 24.07" W

Copyright (C) 2009 MyTopo

6/2/99

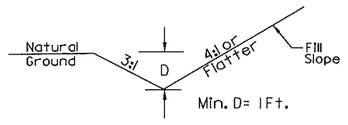
PROJECT REFERENCE NO.	SHEET NO.
R-2303C	2-H
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

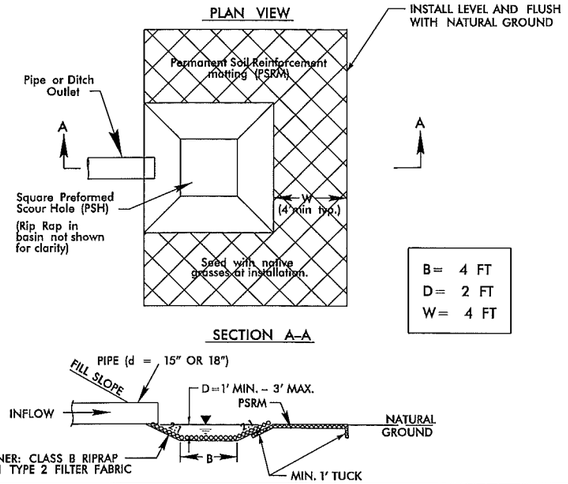
Permit Drawing
Sheet 3 of 75

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



FROM STA. 730+10 TO STA. 732+94 -L- (RT)
FROM STA. 730+10 TO STA. 734+72 -L- (LT)
FROM STA. 734+78 TO STA. 741+00 -L- (RT)
FROM STA. 737+85 -L- (LT) TO STA. 17+66 -Y25- (RT)
FROM STA. 741+55 TO STA. 748+46.50 -L- (RT)
FROM STA. 746+50 TO STA. 749+50 -L- (LT)
FROM STA. 11+00 TO STA. 16+00 -Y26- (LT)
FROM STA. 15+00 -Y26- (RT) TO STA. 14+50 -Y27- (LT)
FROM STA. 11+98 TO STA. 15+87 -Y27- (RT)
FROM STA. 16+00 -Y26- (LT) TO STA. 752+00 -L- (RT)
FROM STA. 770+00 TO STA. 774+00 -L- (LT)
FROM STA. 777+80 TO STA. 778+50 -L- (LT)
FROM STA. 780+48 TO STA. 782+45 -L- (LT)
FROM STA. 786+03 TO STA. 790+44 -L- (RT)
FROM STA. 788+00 TO STA. 790+07 -L- (LT)
FROM STA. 790+07 TO STA. 792+02.31 -L- (LT)
FROM STA. 790+45 TO STA. 795+89.82 -L- (RT)
FROM STA. 797+00 TO STA. 798+00 -L- (RT)
FROM STA. 803+50 TO STA. 804+75 -L- (RT)
FROM STA. 804+86 TO STA. 810+00 -L- (RT)
FROM STA. 818+00 TO STA. 820+50 -L- (RT)
FROM STA. 820+50 TO STA. 823+00 -L- (RT)
FROM STA. 828+00 TO STA. 833+50 -L- (LT)
FROM STA. 830+00 TO STA. 835+55 -L- (RT)
FROM STA. 841+80 TO STA. 844+00 -L- (RT)
FROM STA. 846+50 TO STA. 849+16.97 -L- (RT)
FROM STA. 849+16.97 TO STA. 851+02.41 -L- (RT)
FROM STA. 853+50 TO STA. 856+50 -L- (RT)
FROM STA. 867+00 TO STA. 868+50 -L- (RT)
FROM STA. 873+50 TO STA. 876+50 -L- (RT)
FROM STA. 876+50 TO STA. 878+00 -L- (RT)
FROM STA. 879+50 TO STA. 884+08 -L- (RT)
FROM STA. 910+00 TO STA. 913+55 -L- (RT)
FROM STA. 916+00 TO STA. 923+00 -L- (RT)
FROM STA. 55+76 TO STA. 57+50 -Y33A- (LT)
FROM STA. 924+50 TO STA. 928+00 -L- (RT)
FROM STA. 933+44 TO STA. 937+00 -L- (LT)
FROM STA. 958+50 TO STA. 967+00 -L- (LT)
FROM STA. 968+55 TO STA. 976+50 -L- (LT)
FROM STA. 978+50 TO STA. 981+00 -L- (LT)
FROM STA. 1015+50 TO STA. 1016+90 -L- (LT)
FROM STA. 1016+90 TO STA. 1028+40 -L- (LT)
FROM STA. 1041+00 TO STA. 1045+50 -L- (LT)
FROM STA. 1047+00 TO STA. 1060+00 -L- (LT)
FROM STA. 1047+00 TO STA. 1062+50 -L- (RT)
FROM STA. 1066+50 TO STA. 1068+00 -L- (LT)

DETAIL 2
PREFORMED SCOUR HOLE
•NOT TO SCALE

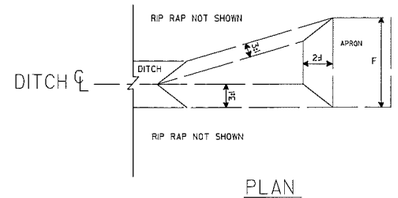


FROM STA. 734+72 -L- (LT)
FROM STA. 753+75 -L- (LT)
FROM STA. 761+50 -L- (LT)
FROM STA. 763+50 -L- (RT)
FROM STA. 767+00 -L- (RT)
FROM STA. 808+27 -L- (LT)
FROM STA. 811+50 -L- (LT)
FROM STA. 847+32 -L- (LT)
FROM STA. 849+17 -L- (LT)
FROM STA. 852+00 -L- (LT)
FROM STA. 865+00 -L- (LT)
FROM STA. 886+50 -L- (RT)
FROM STA. 947+75 -L- (RT)
FROM STA. 951+00 -L- (RT)
FROM STA. 954+73 -L- (RT)
FROM STA. 1033+00 -L- (LT)
FROM STA. 1039+53 -L- (LT)
FROM STA. 52+65 -Y33A- (LT)
FROM STA. 54+94 -Y33A- (LT)

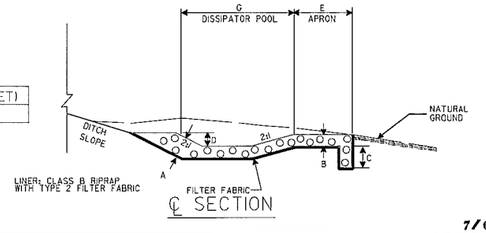
DETAIL 3
FLARED 'V' DITCH WITH ENERGY DISSIPATOR APRON

DIM. (ft)	RIP RAP BASIN #
	1
A	1.0'
B	1.0'
C	2.0'
D	1.5'
E	4.0'
F	10.0'
G	20.0'

ALL DIMENSIONS APPROXIMATE



PLAN

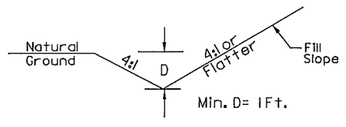


BASIN #	LOCATION (AT OUTLET)
1	865+25 -L- (RT)

7/08

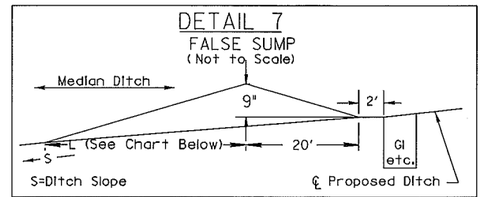
865+25 -L- (RT)

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



FROM STA. 740+60 TO STA. 742+00 -L- (LT)
FROM STA. 16+40 TO STA. 16+85 -Y25- (RT)
FROM STA. 16+85 TO STA. 17+75 -Y25- (LT)
FROM STA. 17+10 TO STA. 17+66 -Y25- (RT)
FROM STA. 12+00 TO STA. 12+85 -Y28- (LT)
FROM STA. 12+85 TO STA. 14+10 -Y28- (LT)
FROM STA. 16+15 TO STA. 17+50 -Y28- (LT)
FROM STA. 22+98 TO STA. 24+04.19 -Y29- (RT)
FROM STA. 23+54.50 TO STA. 24+50 -Y29- (LT)
FROM STA. 24+04 TO STA. 27+50 -Y29- (RT)
FROM STA. 26+50 TO STA. 27+50 -Y29- (LT)
FROM STA. 14+50 TO STA. 15+65 -Y30- (RT)
FROM STA. 11+00 TO STA. 12+06.81 -Y30- (LT)
FROM STA. 14+30 TO STA. 15+50 -Y30- (LT)
FROM STA. 16+32 TO STA. 20+50 -Y31- (LT)
FROM STA. 25+50 TO STA. 27+50 -Y31- (LT)
FROM STA. 20+50 TO STA. 22+29.23 -Y32- (RT)
FROM STA. 20+50 TO STA. 22+29.23 -Y32- (LT)
FROM STA. 10+45 TO STA. 12+50 -Y32A- (RT)
FROM STA. 784+04.6 TO STA. 784+80.22 -L- (RT)
FROM STA. 875+00 TO STA. 876+50 -L- (LT)
FROM STA. 876+50 TO STA. 877+50 -L- (LT)
FROM STA. 907+00 TO STA. 908+50 -L- (LT)
FROM STA. 908+50 TO STA. 911+00 -L- (LT)
FROM STA. 911+00 TO STA. 913+58 -L- (LT)
FROM STA. 913+58 TO STA. 915+00 -L- (LT)
FROM STA. 11+65 TO STA. 13+80 -Y34- (RT)
FROM STA. 11+24 TO STA. 13+80 -Y34- (LT)
FROM STA. 12+25 TO STA. 14+00 -Y35- (RT)
FROM STA. 12+25 TO STA. 13+86 -Y35- (LT)
FROM STA. 12+00 TO STA. 13+00 -Y36- (RT)
FROM STA. 13+00 TO STA. 16+15 -Y36- (RT)
FROM STA. 14+50 TO STA. 16+15 -Y36- (LT)
FROM STA. 10+20 TO STA. 10+94.65 -Y36A- (LT)
FROM STA. 9+82 TO STA. 10+97 -Y36B- (LT)
FROM STA. 10+25 TO STA. 10+97 -Y36B- (RT)
FROM STA. 1044+32 TO STA. 1045+50 -L- (RT)
FROM STA. 12+60 TO STA. 16+00 -Y37- (RT)
FROM STA. 12+60 TO STA. 17+35 -Y37- (LT)
FROM STA. 21+14.03 TO STA. 22+50 -Y37- (RT)
FROM STA. 21+33.97 TO STA. 23+00 -Y37- (LT)
FROM STA. 1094+50 TO STA 1096+00 -L- (LT)

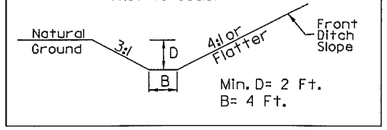
DETAIL 7
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

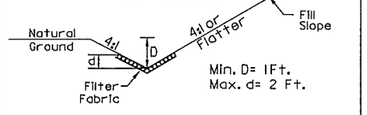
FROM STA. 741+64 TO STA. 742+04 -L-
FROM STA. 744+58 TO STA. 744+98 -L-
FROM STA. 753+33 TO STA. 753+73 -L-
FROM STA. 774+02 TO STA. 774+42 -L-
FROM STA. 807+08 TO STA. 807+48 -L-
FROM STA. 811+08 TO STA. 811+48 -L-
FROM STA. 817+58 TO STA. 817+98 -L-
FROM STA. 820+38 TO STA. 820+78 -L-
FROM STA. 831+52 TO STA. 831+92 -L-
FROM STA. 841+77 TO STA. 842+17 -L-
FROM STA. 849+19 TO STA. 849+59 -L-
FROM STA. 858+02 TO STA. 858+42 -L-
FROM STA. 861+02 TO STA. 861+42 -L-
FROM STA. 865+02 TO STA. 865+42 -L-
FROM STA. 867+77 TO STA. 868+17 -L-
FROM STA. 873+02 TO STA. 873+42 -L-
FROM STA. 876+52 TO STA. 876+92 -L-
FROM STA. 880+02 TO STA. 880+42 -L-
FROM STA. 882+67 TO STA. 883+07 -L-
FROM STA. 883+35 TO STA. 883+75 -L-
FROM STA. 886+52 TO STA. 886+92 -L-
FROM STA. 888+02 TO STA. 888+42 -L-
FROM STA. 889+27 TO STA. 889+67 -L-
FROM STA. 893+02 TO STA. 893+42 -L-
FROM STA. 900+02 TO STA. 900+42 -L-
FROM STA. 904+52 TO STA. 904+92 -L-
FROM STA. 908+08 TO STA. 908+48 -L-
FROM STA. 913+18 TO STA. 913+58 -L-
FROM STA. 917+48 TO STA. 917+98 -L-
FROM STA. 926+06 TO STA 926+46 -L-
FROM STA. 927+52 TO STA. 928+02 -L-
FROM STA. 929+52 TO STA. 929+92 -L-
FROM STA. 937+02 TO STA. 937+42 -L-
FROM STA. 941+35 TO STA. 941+75 -L-
FROM STA. 947+77 TO STA. 948+17 -L-
FROM STA. 955+58 TO STA. 955+98 -L-
FROM STA. 958+48 TO STA. 958+98 -L-
FROM STA. 961+02 TO STA. 961+42 -L-
FROM STA. 969+58 TO STA. 969+98 -L-
FROM STA. 980+98 TO STA. 981+48 -L-
FROM STA. 984+50 TO STA. 985+00 -L-
FROM STA. 997+02 TO STA. 997+52 -L-
FROM STA. 999+02 TO STA. 999+52 -L-
FROM STA. 1001+70 TO STA. 1002+10 -L-
FROM STA. 1004+08 TO STA. 1004+48 -L-
FROM STA. 1008+34 TO STA. 1008+74 -L-
FROM STA. 1011+08 TO STA. 1011+48 -L-
FROM STA. 1016+21 TO STA. 1016+61 -L-
FROM STA. 1026+58 TO STA. 1026+98 -L-
FROM STA. 1042+02 TO STA. 1042+42 -L-
FROM STA. 1065+60 TO STA. 1066+00 -L-
FROM STA. 1067+02 TO STA. 1067+42 -L-
FROM STA. 1072+52 TO STA. 1073+02 -L-
FROM STA. 1075+52 TO STA. 1075+92 -L-
FROM STA. 1081+68 TO STA. 1082+08 -L-
FROM STA. 1087+58 TO STA. 1087+98 -L-
FROM STA. 1088+98 TO STA. 1089+48 -L-
FROM STA. 1089+98 TO STA. 1090+48 -L-
FROM STA. 1092+48 TO STA. 1092+98 -L-

DETAIL 4
LATERAL BASE DITCH
(Not to Scale)



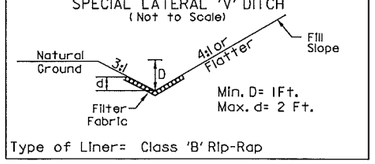
FROM STA. 735+12 TO STA. 737+85 -L- (LT)

DETAIL 6
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



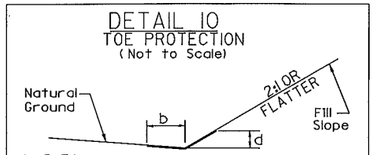
FROM STA. 16+40 TO 16+85 -Y25- (LT)

DETAIL 9
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 856+50 TO STA. 858+00 -L- (RT)
FROM STA. 913+70 TO STA. 916+00 -L- (RT)
FROM STA. 1066+00 TO STA. 1066+50 -L- (LT)

DETAIL 10
TOE PROTECTION
(Not to Scale)



FROM STA. 746+00 TO STA. 746+15 -L- (LT)
FROM STA. 29+45 TO STA. 33+00 -Y33A- (LT)
FROM STA. 958+00 TO STA. 958+50 -L- (LT)
FROM STA. 981+20 TO STA. 982+23 -L- (LT)
FROM STA. 1009+00 TO STA. 1009+50 -L- (LT)
FROM STA. 1010+00 TO STA. 1010+50 -L- (LT)
FROM STA. 1051+00 TO STA. 1054+15 -L- (LT)
FROM STA. 1059+56 TO STA. 1059+60 -L- (LT)
FROM STA. 11+56 TO STA. 11+87 -Y38- (RT)
FROM STA. 1089+65 TO STA. 1090+35 -L- (RT)

8/23/2012
R:\SACTS\Roadway\0110560078 (R-2303C\Hydraulics\r-2303c_HYD_details.dgn

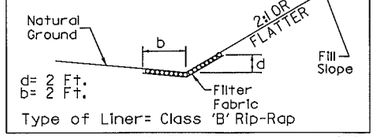
PROJECT REFERENCE NO.	SHEET NO.
R-2303C	2-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

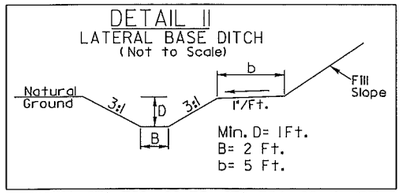
Permit Drawing
Sheet 4 of 75

DETAIL 8
TOE PROTECTION
(Not to Scale)



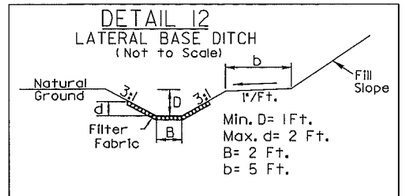
FROM STA. 742+45 TO STA. 744+55 -L- (LT)
FROM STA. 855+10 TO STA. 856+80 -L- (LT)
FROM STA. 860+85 TO STA. 862+75 -L- (RT)
FROM STA. 861+00 TO STA. 863+38 -L- (LT)
FROM STA. 862+90 TO STA. 865+25 -L- (RT)
FROM STA. 863+54 TO STA. 864+33 -L- (LT)
FROM STA. 887+00 TO STA. 888+66 -L- (RT)
FROM STA. 888+82 TO STA. 890+05 -L- (RT)
FROM STA. 906+50 TO STA. 908+66 -L- (RT)
FROM STA. 933+00 TO STA. 936+50 -L- (RT)
FROM STA. 27+95 TO STA. 28+90 -Y33A- (LT)
FROM STA. 45+75 TO STA. 47+45 -Y33A- (LT)
FROM STA. 1005+45 TO STA. 1006+75 -L- (RT)
FROM STA. 1063+50 TO STA. 1065+10 -L- (LT)
FROM STA. 1065+16 TO STA. 1066+00 -L- (LT)
FROM STA. 1065+00 TO STA. 1066+25 -L- (RT)
FROM STA. 1073+00 TO STA. 1074+50 -L- (LT)

DETAIL 11
LATERAL BASE DITCH
(Not to Scale)



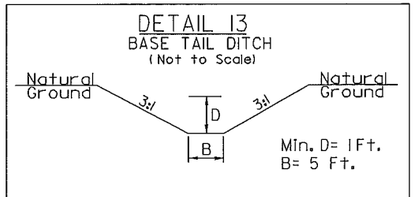
FROM STA. 752+00 TO STA. 754+00 -L- (RT)
FROM STA. 833+50 TO STA. 837+50 -L- (LT)
FROM STA. 949+25 TO STA. 950+50 -L- (LT)

DETAIL 12
LATERAL BASE DITCH
(Not to Scale)



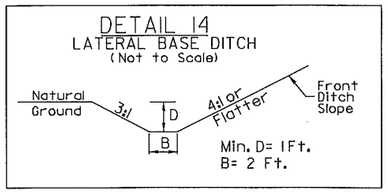
FROM STA. 754+00 TO STA. 757+26.05 -L- (RT)

DETAIL 13
BASE TAIL DITCH
(Not to Scale)



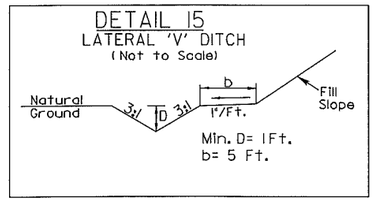
FROM STA. 764+80 -L- (RT)

DETAIL 14
LATERAL BASE DITCH
(Not to Scale)



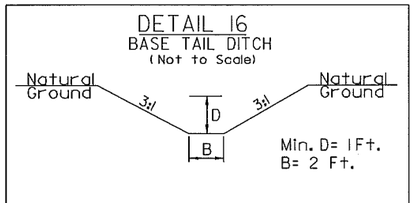
FROM STA. 770+00 TO STA. 775+11 -L- (RT)
FROM STA. 835+55 TO STA. 840+50 -L- (RT)
FROM STA. 968+50 TO STA. 978+50 -L- (RT)
FROM STA. 11+00 TO 12+00 -Y38- (LT)

DETAIL 15
LATERAL 'V' DITCH
(Not to Scale)



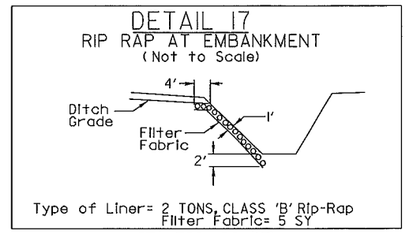
FROM STA. 779+19.42 TO STA. 780+42 -L- (LT)
FROM STA. 858+00 TO STA. 860+50 -L- (RT)

DETAIL 16
BASE TAIL DITCH
(Not to Scale)



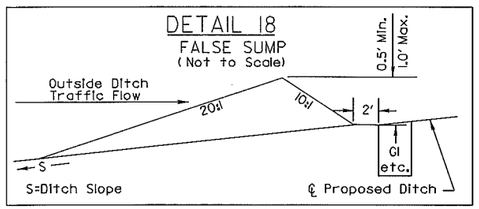
STA. 790+07 -L- (LT)
STA. 17+21 -Y33A- (LT)
STA. 61+20 -Y33A- (LT)
STA. 61+50 -Y33A- (RT)

DETAIL 17
RIP RAP AT EMBANKMENT
(Not to Scale)



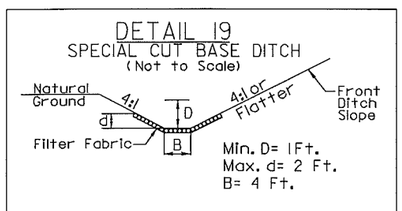
STA. 790+28 (LT)
STA. 913+55 (RT)

DETAIL 18
FALSE SUMP
(Not to Scale)



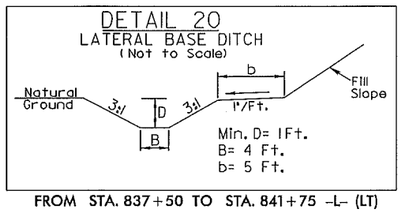
FROM STA. 798+26 TO STA. 798+66 -L- (RT)
FROM STA. 900+02 TO STA. 900+42 -L- (LT)
FROM STA. 904+52 TO STA. 904+92 -L- (LT)
FROM STA. 932+02 TO STA. 932+42 -L- (LT)
FROM STA. 958+48 TO STA. 958+98 -L- (RT)
FROM STA. 55+33 TO STA. 55+73 -Y33A- (RT)
FROM STA. 1072+52 TO STA. 1072+92 -L- (LT)

DETAIL 19
SPECIAL CUT BASE DITCH
(Not to Scale)



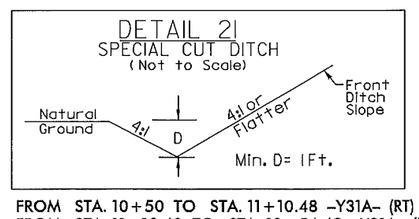
FROM STA. 14+63 TO STA. 16+11 -Y32A- (RT)
FROM STA. 17+18 TO STA. 18+15 -Y31- (RT)

DETAIL 20
LATERAL BASE DITCH
(Not to Scale)



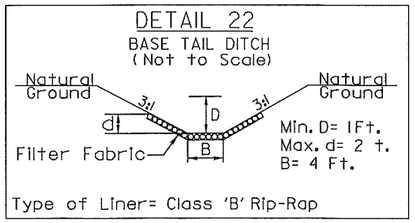
FROM STA. 837+50 TO STA. 841+75 -L- (LT)

DETAIL 21
SPECIAL CUT DITCH
(Not to Scale)



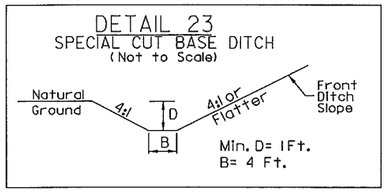
FROM STA. 10+50 TO STA. 11+10.48 -Y31A- (RT)
FROM STA. 11+10.48 TO STA. 12+54.48 -Y31A- (LT)
FROM STA. 841+17.68 TO STA. 841+80 -L- (RT)
FROM STA. 894+00 TO STA. 904+50 -L- (RT)
FROM STA. 929+50 TO STA. 931+50 -L- (RT)

DETAIL 22
BASE TAIL DITCH
(Not to Scale)



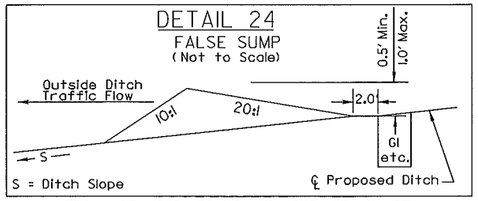
FROM STA. 841+75 -L- (LT)

DETAIL 23
SPECIAL CUT BASE DITCH
(Not to Scale)



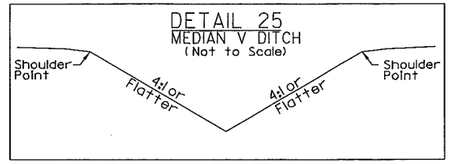
FROM STA. 22+29 TO STA. 22+56 -Y32- (LT)

DETAIL 24
FALSE SUMP
(Not to Scale)



FROM STA. 860+52 TO STA. 860+92 -L- (RT)
FROM STA. 900+02 TO STA. 900+42 -L- (RT)
FROM STA. 904+52 TO STA. 904+92 -L- (RT)
FROM STA. 45+07 TO STA. 45+47 -Y33A- (RT)
FROM STA. 915+43 TO STA. 915+83 -L- (LT)
FROM STA. 929+52 TO STA. 929+92 -L- (RT)
FROM STA. 933+00 TO STA. 933+40 -L- (RT)
FROM STA. 55+33 TO STA. 55+73 -Y33A- (LT)

DETAIL 25
MEDIAN V DITCH
(Not to Scale)



FROM STA. 790+44 TO STA. 791+50 -L-
FROM STA. 852+00 TO STA. 852+50 -L-
FROM STA. 894+00 TO STA. 904+50 -L- (LT)
FROM STA. 906+00 TO STA. 906+48.77 -L-
FROM STA. 931+00 TO STA. 931+69.44 -L-
FROM STA. 951+00 TO STA. 951+90 -L-
FROM STA. 1024+50 TO STA. 1025+00 -L-
FROM STA. 1025+00 TO STA. 1029+90 -L-
FROM STA. 1035+00 TO STA. 1036+00 -L-
FROM STA. 1077+50 TO STA. 1078+50 -L-

6/12/2012
8/23/2012
R:\RAL\Roadway\011056078 (R-2303C\Hydraulics\r-2303c_HYD_details.dgn

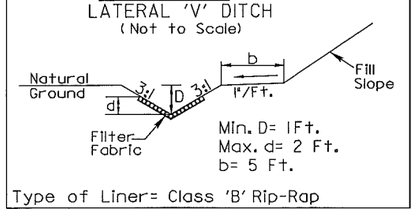
6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	2-J
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

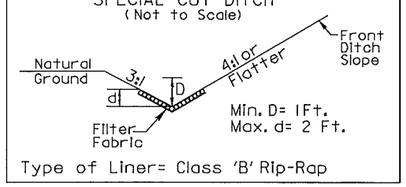
Permit Drawing
Sheet 5 of 75

DETAIL 26
LATERAL 'V' DITCH
(Not to Scale)



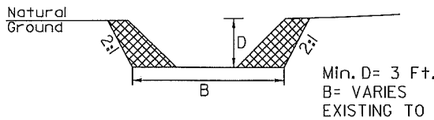
FROM STA. 865+25 TO STA. 867+00 -L- (RT)
FROM STA. 1062+50 TO STA. 1065+00 -L- (RT)

DETAIL 27
SPECIAL CUT DITCH
(Not to Scale)



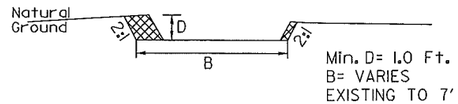
FROM STA. 928+00 TO STA. 929+50 -L- (RT)

DETAIL 28
INLET CHANNEL
(Not to Scale)



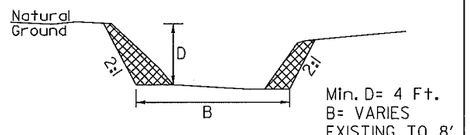
STA. 863+15 -L- (RT)

DETAIL 30
INLET CHANNEL
(Not to Scale)



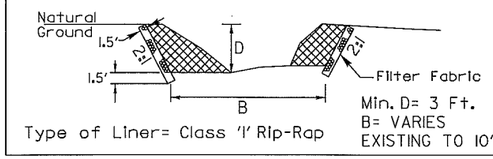
STA. 888+67 -L- (RT)

DETAIL 32
INLET CHANNEL
(Not to Scale)



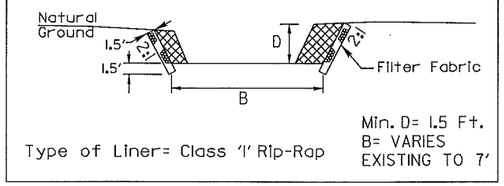
STA. 906+61 -L- (RT)

DETAIL 29
OUTLET CHANNEL
(Not to Scale)



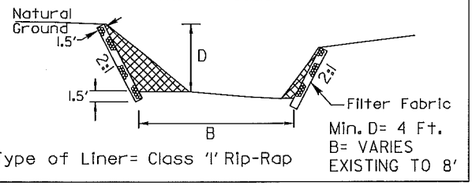
STA. 863+15 -L- (LT)

DETAIL 31
OUTLET CHANNEL
(Not to Scale)



STA. 888+67 -L- (LT)

DETAIL 33
OUTLET CHANNEL
(Not to Scale)



STA. 906+61 -L- (LT)

8/23/2012
R:\HAL_Roadway\d11056078 (R-2303C)\Hydraulics\r-2303c_HYD_details.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 6 of 75

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NAD 1983

ROBIE BRANDON FAIRCLOTH

730

735

NANCY T. FAIRCLOTH

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

V_D= 2.49 FT/S
Q_D= 31.08 CFS

HUBERT AUTRY

HTR

OW

TIE IN EXIST DITCH

SITE 1

WW FENCE

15'

PDE

PSH

42" RCP-III

EXISTING R/W

60'

NC 24 HWY

NC 24 AUTRY HIGHWAY

15" CONC

REMOVE

10' CONC HW

30" CONC

24"CONC

18"CONC

15"CONC

15" RCP-IV

OUTLET PROTECTION
CLASS 'B' RIP RAP
STHRM BANKS ONLY
EST 10 TONS
EXT 28 SY FF

UNNAMED TRIB TO BIG SWAMP (EST INTERMITTENT JURISDICTIONAL STREAM)

CLEVELAND GODBOLD, ET UX

ISF

ISFD

ISF BUS

CHARLES G. SESSOMS

MARGIE L. AMAN

TOMMY R. HALL

PUE

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 3 TONS
EXT 10 SY FF

CONNIE INEZ HALL

TERRY R. HUDSON

SHANNON E. FAIRCLOTH

WD
DK

WDI
DKL

LT

SITE 1- IMPACT ZOOM-IN (SCALE 1"=50')

MATCH LINE -L- STA. 738+00 SEE SHEET NO. 5

R/W REV: REVISING THE R/W TO TIE TO R-2303B. 10/20/11 TFD

10/4/2011
K:\RAL_Roadway\2011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r-2303c_prm_psh_04.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

F/F DENOTES EXCAVATION IN WETLAND

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S/S DENOTES IMPACTS IN SURFACE WATER

TS/TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NAD 83/95

Permit Drawing
Sheet 7 of 75

ROBIE BRANDON FAIRCLOTH

730

735

NANCY T. FAIRCLOTH

HUBERT AUTRY

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

V_D= 2.49 FT/S
Q_D= 31.08 CFS

HTR

TIE IN EXIST DITCH

OW

SITE 1

WW FENCE

PDE

PSH

42" RCP-III

EXISTING R/W

60'

NC 24 NUTRY HIGHWAY

15" CONC

REMOVE

10' CONC HW

30" CONC

30" RCP

24" CONC

15" RCP-IV

WW FENCE

PUE

OUTLET PROTECTION
CLASS 'B' RIPRAP
STREAM BANKS ONLY
EST 12 TONS
EST 28 SY FF

UNNAMED TRIB TO BIG SWAMP (EST INTERMITTENT JURISDICTIONAL STREAM)

CLEVELAND GODBOLD, ET UX

ISF

ISFD

ISF BUS

CONNIE INEZ HALL

TERRY R. HUDSON

WD DK

WD DKL

LT

SHANNON E. FAIRCLOTH

CHARLES G. SESSOMS

MARGIE L. AMAN

TOMMY R. HALL

SITE 1- IMPACT ZOOM-IN (SCALE 1"=50')

MATCH LINE -L- STA. 738+00 SEE SHEET NO. 5

R/W REV: REVISING THE R/W TO TIE TO R-2303B. 10/20/11 TFD

10/4/2011
K:\RAL_Roadway\2011056878 (R-2303C)\Hydraulics\PERMITS_Enviornmental\Drawings\r2303c_prm_psh_04.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-3

Permit Drawing
Sheet 8 of 75

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

130 / 120 / 110

0.025 0.020 4:1 3:1 4.857:1 5:1 0.010 0.025 5:1 3:1

115.64 D.P. 120.448 115.20

736+00.00

0.025 0.020 4:1 3:1 4.972:1 5:1 0.010 0.025 5:1 3:1

115.56 D.P. 120.575 115.11

735+71.25

0.025 0.020 4:1 3:1 5:1 4.876:1 0.010 0.025 5:1 3:1

115.49 D.P. 120.508 115.05

735+50.00

SITE 1

WETLAND BOUNDARIES

CLEARING LIMITS

WETLAND IMPACTS

WETLAND IMPACTS

0.025 0.020 6:1 5:1 4.496:1 0.010 0.025 4:1 3:1

D.P. 120.446 113.67

734+90.46

0.025 0.020 5:1 3:1 5:1 4.504:1 0.010 0.025 4:1

116.19 D.P. 120.274

734+50.00

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

$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 9 of 75

NAD 83/95

MATCH LINE -L- STA. 738+00 SEE SHEET NO. 4

MATCH LINE -L- STA. 752+00 SEE SHEET NO. 6

MATCH LINE -Y26- STA. 11+50 SEE SHEET NO. 31

SITE 1

SITE 2

OUTLET PROTECTION CLASS 'B' RIP RAP EST 13 TONS EST 14 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 52 TONS EST 115 SY FF SEE DETAIL 8 SHEET 2-I

TOE PROTECTION EST 9 SY PSRM SEE DETAIL 10 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 3 TONS EST 10 SY FF

TIE EXISTING DITCH INTO PROPOSED

OUTLET PROTECTION CLASS 'B' RIPRAP STREAM BANKS ONLY EST 1 TONS EST 22 SY FF

UNNAMED TRIB TO BIG CRAMP (BS5) INTERMITTANT JURISDICTIONAL STREAM

WW FENCE

SITE 2 - IMPACT ZOOM-IN (SCALE 1"=50')

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

10/4/2002
K:\NAL_Roadway\0110556078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_05.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 10 of 75

NAD 83/95

MATCH LINE -L- STA. 738+00 SEE SHEET NO. 4

MATCH LINE -L- STA. 752+00 SEE SHEET NO. 6

MATCH LINE -Y26- STA. 11+50 SEE SHEET NO. 31

SITE 1

SITE 2

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 13 TONS
EST 14 SY FF

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

TOE PROTECTION
CLASS 'B' RIP RAP
EST 52 TONS
EST 115 SY FF
SEE DETAIL 8
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

TOE PROTECTION
EST 9 SY PSRM
SEE DETAIL 10
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 3 TONS
EST 10 SY FF

TIE EXISTING DITCH
INTO PROPOSED

OUTLET PROTECTION
CLASS 'B' RIPRAP
STREAM BANKS ONLY
EST 7 TONS
EST 22 SY FF

TIE EXISTING DITCH

UNNAMED TRIB
TO BIG SWAMP (BS5)
INTERMITTANT
JURISDICTIONAL STREAM

WW FENCE

SITE 2 - IMPACT ZOOM-IN (SCALE 1"=50')

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

12/4/2012
K:\RAL_Roadway\0110556078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_05.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-7

Permit Drawing
Sheet 11 of 75

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

140
130
120

4.83:1 | 0.050 | 5.642:1 | 6:1 | 0.050 | 4:1 | 3:1 | 126.68

D.P. 127.755

744+61.27

130
120

3:1 | 0.050 | 5.642:1 | 6:1 | 0.050 | 4:1 | 3:1 | 125.00

D.P. 127.151

744+00.00

130
120

3:1 | 0.050 | 5.642:1 | 6:1 | 0.050 | 4:1 | 3:1 | 124.62

D.P. 127.015

743+86.27

130
120
110

3:1 | 0.050 | 0.050 | 5.642:1 | 6:1 | 0.050 | 4:1 | 3:1 | 123.63

D.P. 126.658

743+50.00

WETLAND BOUNDARIES

WETLAND IMPACTS

SITE 2

CLEARING LIMITS

140
130
120

3:1 | 0.050 | 0.050 | 5.642:1 | 6:1 | 0.050 | 4:1 | 3:1 | 122.25

D.P. 126.165

743+00.00

—L—

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

$$$$SYSTIME$$$$
$$$$SDUN$$$$
$$$$SBNAME$$$$
$$$$SFILE$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 12 of 75

NAD 83/95

DENOTES IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER (POND)

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

MATCH LINE -L- STA. 752+00 SEE SHEET NO. 5

MATCH LINE -L- STA. 766+00 SEE SHEET NO. 7

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

UTILIZE ROCK FILL FROM STA 755+60 TO 759+70 LT UP TO ELEVATION 131.0

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

SITE 3

SITE 4

BOREN CLAY PRODUCTS

FALSE SUMP SEE DETAIL 7 SHEET 2-H

15" CONC

15" RCP-IV

18" RCP-IV

15" RCP-III

18" RCP-III

15" RCP-III

15" MH

WW FENCE

PDE

POND

WE 129.8

WE 129.5

WE 129.6

EXIST 18" CONC

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

TIE EXISTING DITCH TO PROPOSED

UTILIZE ROCK FILL FROM STA 755+00 TO 758+60 RT UP TO ELEVATION 131.0

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 21 SY FF

PONDS TO BE DRAINED DURING CONSTRUCTION

30" RCP

12

13

755

760

765

10/4/2012
K:\RAL_Roadway\0110056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_06.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 13 of 75

NAD 83/95

DENOTES IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER (POND)

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

MATCH LINE -L- STA. 752+00 SEE SHEET NO. 5

MATCH LINE -L- STA. 766+00 SEE SHEET NO. 7

SITE 3

SITE 4

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

UTILIZE ROCK FILL FROM STA 755+60 TO 759+70 LT UP TO ELEVATION 131.0

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

TIE EXISTING DITCH TO PROPOSED

UTILIZE ROCK FILL FROM STA 755+00 TO 758+60 RT UP TO ELEVATION 131.0

PONDS TO BE DRAINED DURING CONSTRUCTION

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 21 SY FF

BOREN CLAY PRODUCTS

WW FENCE

PDE

15" RCP-IV

18" RCP-IV

15" RCP-III

18" RCP-III

30" RCP-III

48" RCP-III

15" MH

POND WE 129.8

POND WE 129.5

POND WE 129.6

755

760

765

12

13

8/17/99

R:\4/2012
R:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_06.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 14 of 75

NAD 83/95

8/17/99

MATCH LINE -L- STA. 766+00 SEE SHEET NO. 6

MATCH LINE -L- STA. 780+00 SEE SHEET NO. 8

SITE 5

SITE 5

V_D = 1.44 FT/S
Q_D = 11.80 CFS

SR 1403 OLD BRICK MILL RD 22' BST

TIE EXISTING DITCH INTO PROPOSED

RETAIN EX 24" RCP AND EXTEND 12 LF. W/ CONCRETE COLLAR

CLEAN SILT OUT OF OUTLET AND GRADE TO DRAIN

BORDEN CLAY PRODUCTS

POND WE 1012

POND WE 1053

UTILIZE ROCK FILL FROM STA 774+80 TO 777+80 LT UP TO ELEVATION 131.0

PONDS TO BE DRAINED DURING CONSTRUCTION

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

WW FENCE

FALSE SUMP SEE DETAIL 7 SHEET 2-H

15" RCP-IV

REMOVE

2@36" RCP-III

18" RCP-III

PSH

PDE

+20 110' RT 120' RT

+80 110' RT 120' RT

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

BORDEN CLAY PRODUCTS

TIE EXISTING DITCH INTO PROPOSED

TIE PROPOSED DITCH INTO EXISTING

UNNAMED TRIB TO LITTLE CHARITY CREEK NON-JURISDICTIONAL STREAM

AUDREY LEE STARLING KERR
MARGARET ROSE STARLING WATKINS
DOROTHY SUE STARLING FAISON

IVEY FELTON HAIRR ET AL

SR 1403 OLD BRICK MILL RD 22' BST

PUE

DENOTES FILL IN WETLAND

DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

10/4/2018
K:\RAL_Roadway\0110056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_07.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 15 of 75

NAD 83/95

SITE 5

MATCH LINE -L- STA. 766+00 SEE SHEET NO. 6

MATCH LINE -L- STA. 780+00 SEE SHEET NO. 8

SR 1403 OLD BRICK MILL RD 20' BST

TIE EXISTING DITCH INTO PROPOSED

BORDEN CLAY PRODUCTS

CLEAN SILT OUT OF OUTLET AND GRADE TO DRAIN

RETAIN EX 24" RCP AND EXTEND 12 LF. W/ CONCRETE COLLAR

24" CMP

24" CONC

TDE

PUE

REMOVE

15" RCP-IV

WW FENCE

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

UTILIZE ROCK FILL FROM STA 774+80 TO 777+80 LT UP TO ELEVATION 1310

PONDS TO BE DRAINED DURING CONSTRUCTION

POND WE 1013

POND WE 1015

2@36" RCP-III

2GI

18" RCP-III

PSH

PDE

+20 110' RT 120' RT

+80 110' RT 120' RT

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

TIE PROPOSED DITCH INTO EXISTING

UNNAMED TRIB TO LITTLE CHARRIE CREEK NON-JURISDICTIONAL STREAM

IVEY FELTON HAIRR ET AL

AUDREY LEE STARLING KERR
MARGARET ROSE STARLING WATKINS
DOROTHY SUE STARLING FAISON

EXISTING R/W

EXISTING B/W

V_D = 1.44 FT/S
Q_D = 11.80 CFS

DENOTES FILL IN WETLAND

DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

10/4/2012
K:\RAL_Roadway\0110056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_07.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-21

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

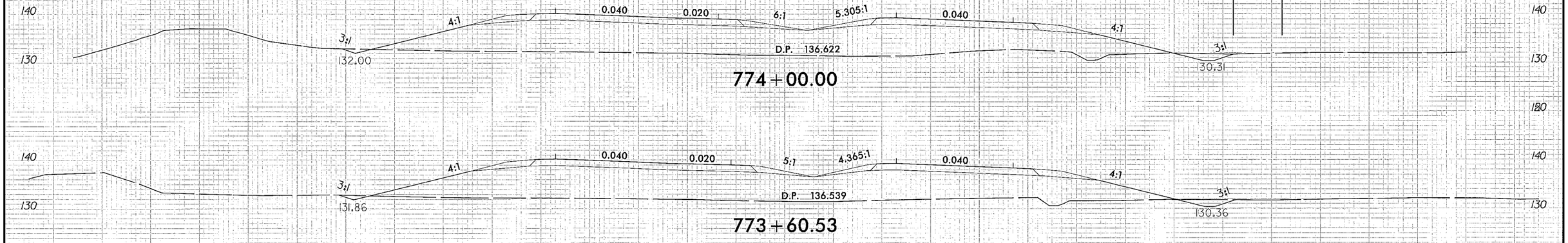
WETLAND BOUNDARIES

Permit Drawing
Sheet 16 of 75

SITE 5

WETLAND IMPACTS

CLEARING LIMITS



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

STEVEN D. GRIFFIN
SEAL
030282
ENGINEER

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 17 of 75

SITE 6 IMPACT ZOOM-IN (SCALE: 1' = 50')

GRADE TO DRAIN
72" RCP-III
2GI
2" RCP-III
HW

NAD 83/95

MATCH LINE -L- STA. 794+00 SEE SHEET NO. 8

MATCH LINE -L- STA. 808+00 SEE SHEET NO. 10

SITE 6

GRADE TO DRAIN
RONALD CANNADY
23
795
SR 1491 (OLD US 701) 20' BST
-Y30-
ISFD
ABAND TELEPHONE BOX
25
GEORGE A. BRO... AND EVA BRO...
REMOVE
15" RCP-N
2GI
18"
24"
MH
WW FENCE
WATTIE ROBINSON
JACOLYN B. CLARK
SHIRLEY J. OWENS
EDWARD C. MAXWELL
DARRYL L. ANDERSON
JAMES DINO WILLIAMS JR.
27
30
RICHARD S. HALL
28
29
WILLIAM S. WELLONS, JR
805
CEM
FALSE SUMP SEE DETAIL 7 SHEET 2-H
CLASS I OUTLET PROTECTION STREAM BANKS ONLY EST. 38 TONS EST 48 SY FF
OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 14 SY FF
72" RCP-III
15"
FALSE SUMP SEE DETAIL 8 SHEET 2-I
MTL S
26
BOBBY EARL JACKSON
ISBKD
JACOLYN B. CLARK
36" CONC
MARY L. UNDERWOOD
DAVID E. UNDERWOOD
12" RCP
EXISTING R/W
SR 1491 MYRTLE RD 26' BST
RET WALL
TIE EXISTING DITCH INTO PROPOSED
UNNAMED TRIB TO LITTLE COHARIE CREEK NON-JURISDICTIONAL STREAM
21
IVEY FELTON HAIRR, ET AL
UNNAMED TRIB TO LITTLE COHARIE CREEK (LC4) INTERMITTANT JURISDICTIONAL STREAM
R=517.15'
JERRY ALLEN SMITCHUM
ISBKD
WD DECK
ANGEL LUIS RIVERA-MORENO
LESTER FREEMAN
KELLY E. BLACK AND AMY L. BLACK
15" RCP
60.00'

DENOTES FILL IN WETLAND
DENOTES MECHANIZED CLEARING
DENOTES IMPACTS IN SURFACE WATER
DENOTES TEMPORARY IMPACTS IN SURFACE WATER

10/4/2018
K:\RAL_Roadway\2011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_09.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 18 of 75

SITE 6 IMPACT ZOOM-IN (SCALE: 1" = 50').

GRADE TO DRAIN
72" RCP-III
2GI
2" RCP-III
HW
F
C
A

SITE 6

MATCH LINE -L- STA. 794+00 SEE SHEET NO. 8

MATCH LINE -L- STA. 808+00 SEE SHEET NO. 10

WILLIAM S. WELLONS, JR
29
NAD 83/95
805
795
GRADE TO DRAIN
RONALD CANNADY
23
SR 1430 (OLD LUCAS RD) 20' BST
Y30
RW
C
F
ISFD
ABAND
TELEPHONE BOX
25
GEORGE A. BRO
AND EVA BRO
15FD
REMOVE
15" RCP-IV
2GI
18"
24"
MH
12" RCP-III
15"
CLASS I OUTLET PROTECTION
STREAM BANKS ONLY
EST 38 TONS
EST 98 SY FF
FALSE SUMP
SEE DET NO. 7
SHEET 2-H
CEM.
WW FENCE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 5 TONS
EST 14 SY FF
27
JAMES DINO WILLIAMS JR.
30
WATTIE ROBINSON
SHIRLEY J. OWENS
JACOLYN B. CLARK
MTL
S
FALSE SUMP
SEE DET NO. 8
SHEET 2-J
26
BOBBY
EARL
JACKSON
ISBKD
MARY L. UNDERWOOD
DAVID E. UNDERWOOD
EDWARD C. MAXWELL
DARRYL L. ANDERSON
RICHARD S. HALL
28
UNNAMED TRIB TO
LITTLE COHARIE CREEK
NON-JURISDICTIONAL STREAM
21
IVEY FELTON HAIRR, ET AL
TIE EXISTING DITCH
INTO PROPOSED
SR 1497 MYRTLE RD 26' BST
12" RCP
EXISTING R/W
R=517.15'
UNNAMED TRIB TO
LITTLE COHARIE CREEK (LC4)
INTERMITTANT
JURISDICTIONAL STREAM
JERRY ALLEN MITCHUM
ANGEL LUIS
RIVERA-MORENO
LESTER FREEMAN
KELLY E. BLACK
AND
AMY L. BLACK
WD
DECK
15" RCP
SOIL

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

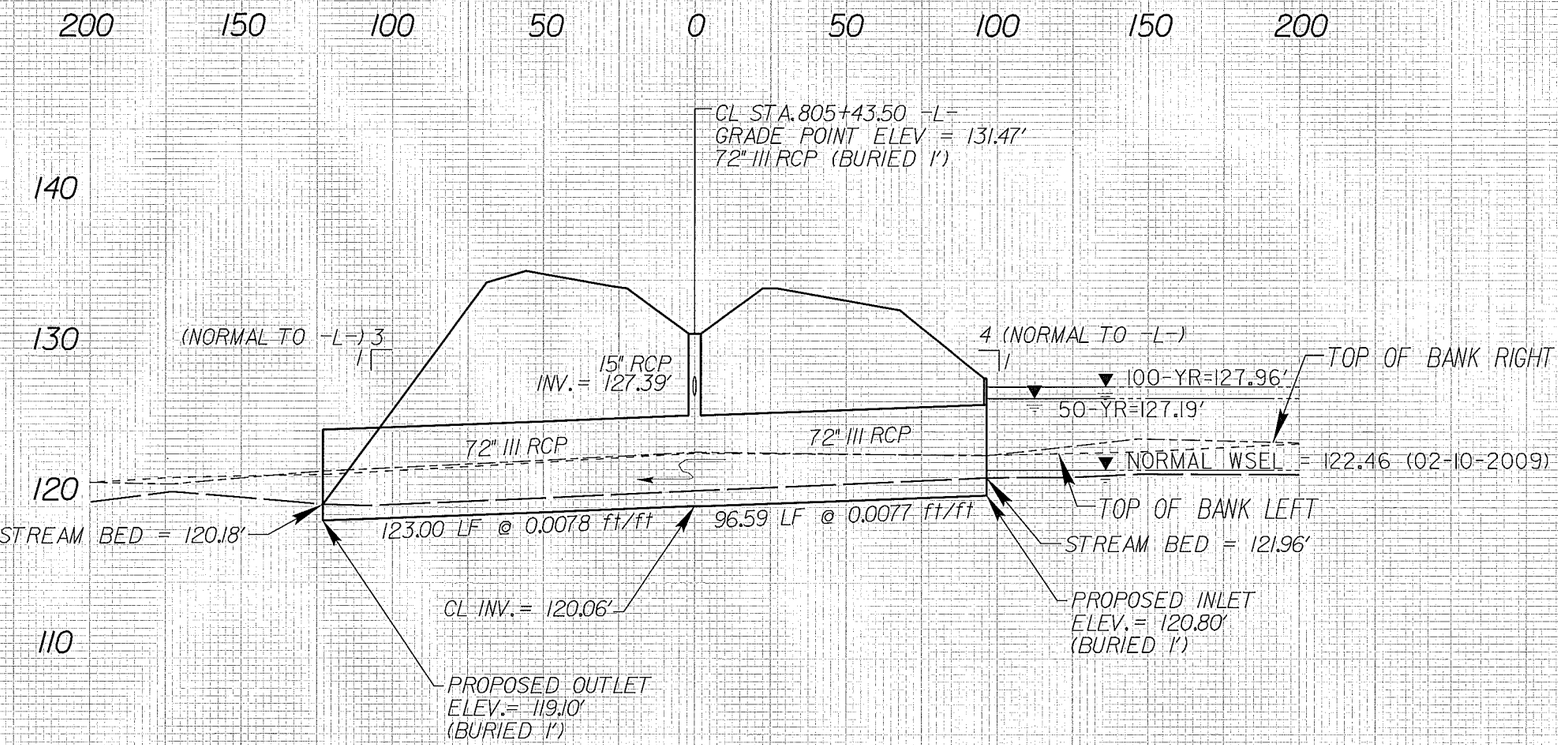
DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

10/4/2013
K:\RAL_Roadway\01105607B (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_09.dgn

PROJ. REFERENCE NO.	SHEET NO.
R-2303c	

Permit Drawing
Sheet 19 of 75



SITE 6

72" CLASS III RCP AT STATION -L- 0805+43.50

8/3/2012 K:\RAL_Roadway\0110560018 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\Profiles\0805+43.50_L_72inIII.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-37

Permit Drawing
Sheet 20 of 75

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

140
130
120

B 0.015 6:1 6:1 0.025
3:1 4:1 3:1
D.P. 132.462
125.45
808+50.00

B 0.005 6:1 6:1 0.025
3:1 4:1 3:1
D.P. 132.310
125.08
808+00.00

B 0.000 6:1 6:1 0.025
3:1 4:1 3:1
D.P. 132.239
124.91
807+76.65

B 0.005 6:1 6:1 0.025
3:1 4:1 3:1
D.P. 132.158
124.71
807+50.00

WETLAND BOUNDARIES
SITE 6
WETLAND IMPACTS
CLEARING LIMITS

B 0.015 6:1 6:1 0.025
3:1 4:1 3:1
D.P. 132.006
124.34
807+00.00

110

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

$$$$$SYSTIME$$$$
$$$$$SYSNAME$$$$
$$$$$USERNAME$$$$
$$$$$DGNS$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 21 of 75

NAD 83/95

855

40
S.M.P. FARMS

860

41
BELLE L. PARKER

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC7) PERENNIAL JURISDICTIONAL STREAM

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL 29 SHEET 2-J

UTILIZE ROCK FILL FROM STA 860+45 TO 864+45 LT UP TO ELEVATION 100.0

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 9 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 42 TONS EST 93 SY FF SEE DETAIL 8 SHEET 2-I

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-J

MATCH LINE -L- STA. 850+00 SEE SHEET NO. 12

MATCH LINE -L- STA. 864+00 SEE SHEET NO. 14

WW FENCE

PDE

18" RCP-N

15" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

FALSE SUMP SEE DETAIL 24 SHEET 2-I

TOE PROTECTION CLASS 'B' RIP RAP EST 39 TONS EST 44 SY FF SEE DETAIL 8 SHEET 2-I

INLET CHANNEL IMPROVEMENTS SEE DETAIL 29 SHEET 2-J

UTILIZE ROCK FILL FROM STA 861+75 TO 864+15 RT UP TO ELEVATION 100.0

SITE 7

SITE 7 - IMPACT ZOOM-IN (SCALE: 1" = 50')

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

1/24/2013
K:\RAL_Roadway\01\1056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_13.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 22 of 75

NAD 83'95

MATCH LINE -L- STA. 850+00 SEE SHEET NO. 12

MATCH LINE -L- STA. 864+00 SEE SHEET NO. 14

855

860

40
S.M.P. FARMS

41
BELLE L. PARKER

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

TOE PROTECTION
CLASS 'B' RIP RAP
EST 42 TONS
EST 93 SY FF
SEE DETAIL 8
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

UNNAMED TRIB TO
LITTLE COHARIE CREEK (LC7)
PERENNIAL
JURISDICTIONAL STREAM

OUTLET CHANNEL
IMPROVEMENTS
SEE DETAIL 29
SHEET 2-J

UTILIZE ROCK FILL FROM
STA 860+45 TO 864+45 LT
UP TO ELEVATION 100.0

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

WW FENCE

PDE

18" RCP-N

ZGI

DI

-L-

15"

18" RCP-N

18" CSP W/ ELBOWS
AND W/ ROD & LUG
CONNECTORS

ZGI

FALSE SUMP
SEE DETAIL 24
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 20 TONS
EST 44 SY FF
SEE DETAIL 8
SHEET 2-I

INLET CHANNEL
IMPROVEMENTS
SEE DETAIL 28
SHEET 2-I

UTILIZE ROCK FILL FROM
STA 861+75 TO 864+15 RT
UP TO ELEVATION 100.0

SITE 7

SITE 7 - IMPACT ZOOM-IN (SCALE: 1" = 50')

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

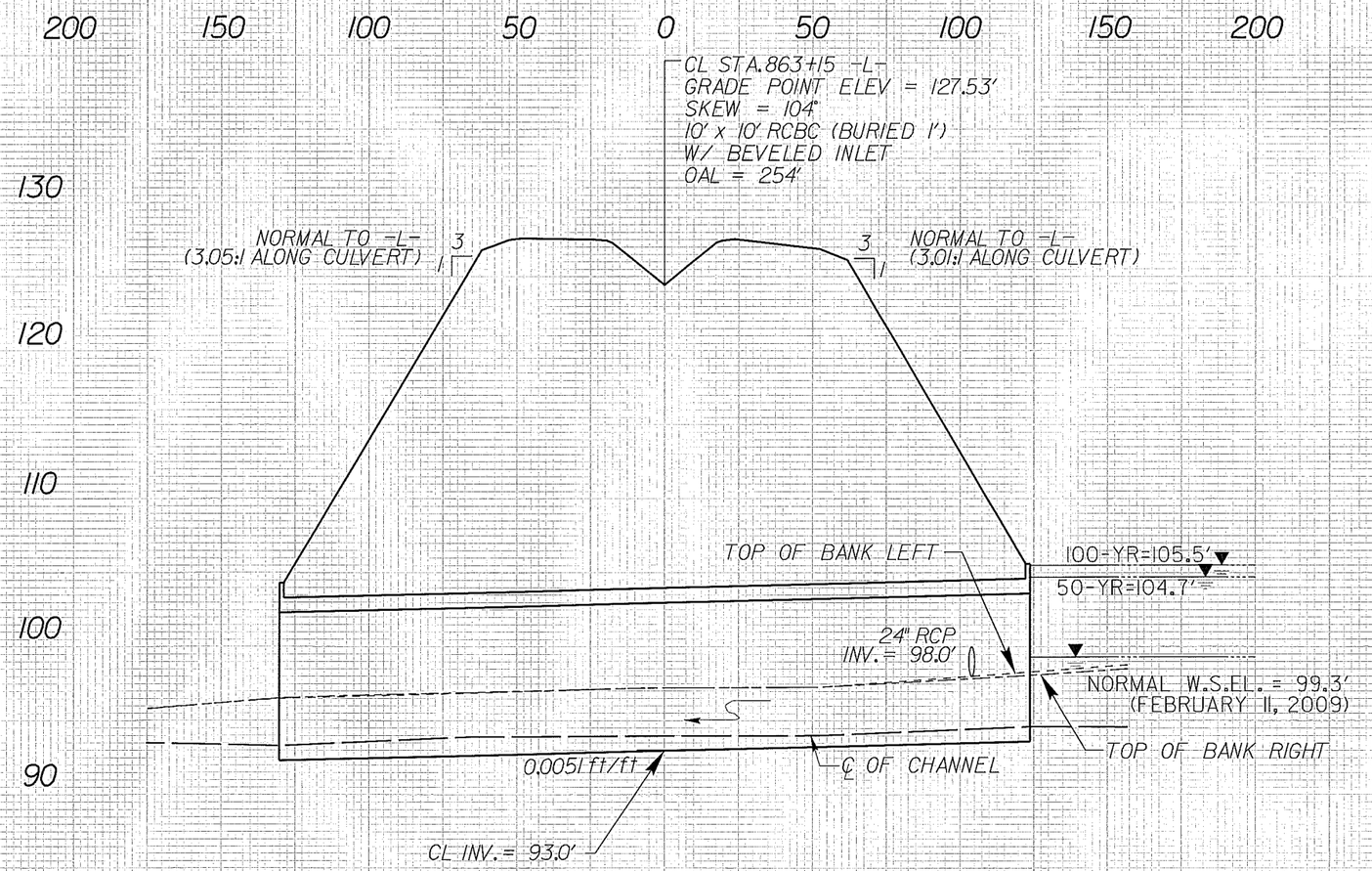
DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

1/24/2003
K:\RAL_Roadway\011056078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_13.dgn

	PROJ. REFERENCE NO.	SHEET NO.
	R-2303c	

Permit Drawing
Sheet 23 of 75



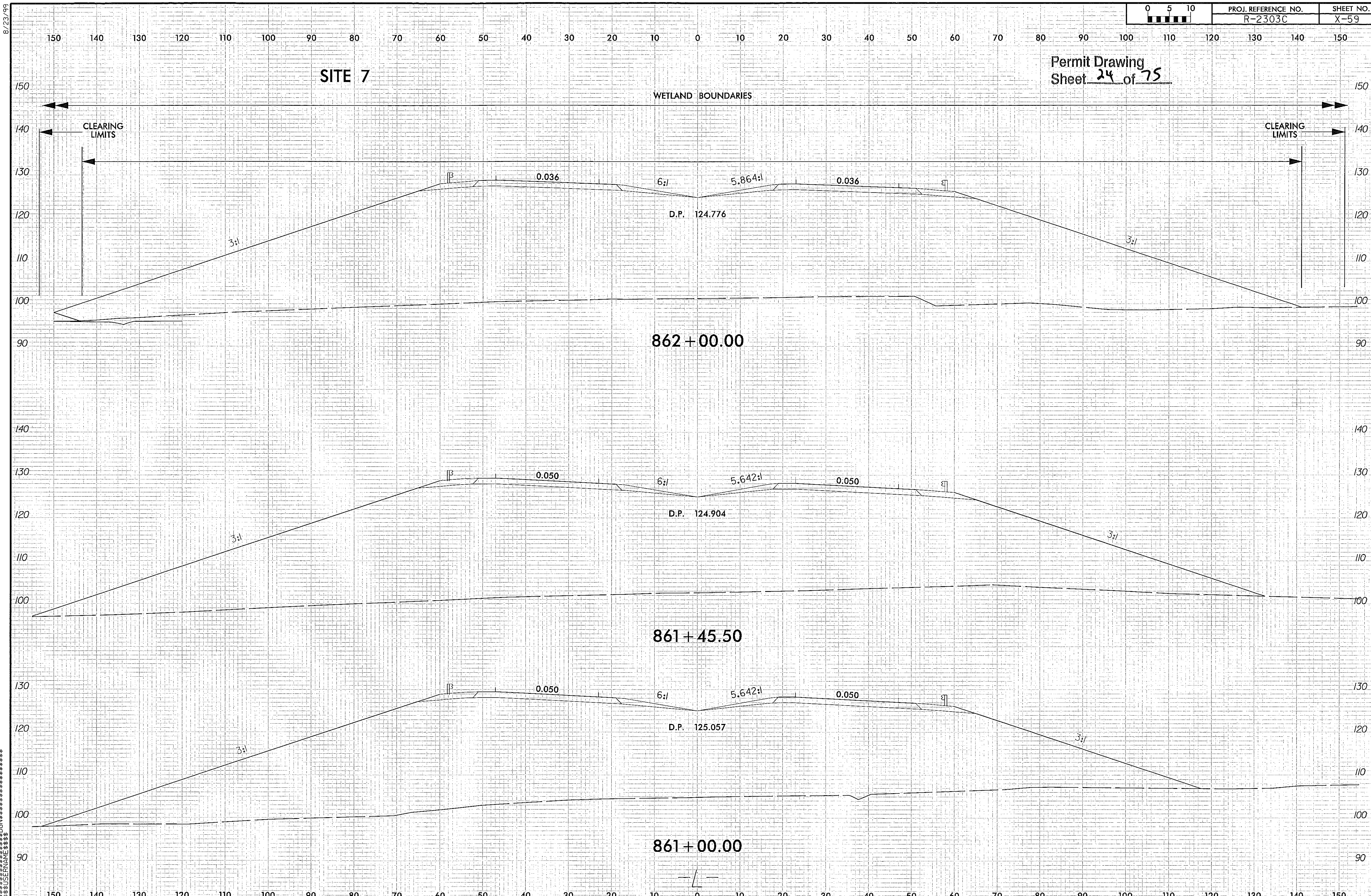
SITE 7

10' x 10' RCBC AT STATION -L- 0863+15

K:\RAL_Roadway\Q\110560718 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\Profiles\0863+15_1_LCT.dgn

8/3/2012

8/23/99



$$$$SYSTIME$$$$
$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 25 of 75

NAD 83/95

SITE 7

UTILIZE ROCK FILL FROM STA 860+45 TO 864+45 LT UP TO ELEVATION 100.0

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC7) PERENNIAL JURISDICTIONAL STREAM

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

865

GRADE TO DRAIN

GRADE TO DRAIN

18' CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

FALSE SUMP SEE DETAIL 7 SHEET 2-H

WW FENCE

18" RCP-III

18" RCP-III

15" RCP-N

24" RCP-III

15" RCP-N

15" RCP-N

15" RCP-N

24" RCP-N

24" RCP-N

870

875

-L-

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

WW FENCE

TOE PROTECTION CLASS B RIPRAP EST 22 TONS EST 50 SY FF SEE DETAIL 9 SHEET 2-I

STREAM LOCATION UNKNOWN

APPROXIMATE

SCRUB

NATURAL SPRING

V_D = 0.34 FT/S
Q_D = 15.47 CFS

453.86
1043.98

OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 14 SY FF

WD P051 24" RCP-N

+54 175' LT 347' LT

+03 175' LT 347' LT

PDE

PDE

PDE

PDE

MATCH LINE -L- STA. 864+00 SEE SHEET NO. 13

MATCH LINE -L- STA. 878+00 SEE SHEET NO. 15

41
BELLE L. PARKER

42
BOBBY WAYNE JACKSON

43
BELLE LEE PARKER

BELLE L. PARKER

BOBBY WAYNE JACKSON

BELLE LEE PARKER

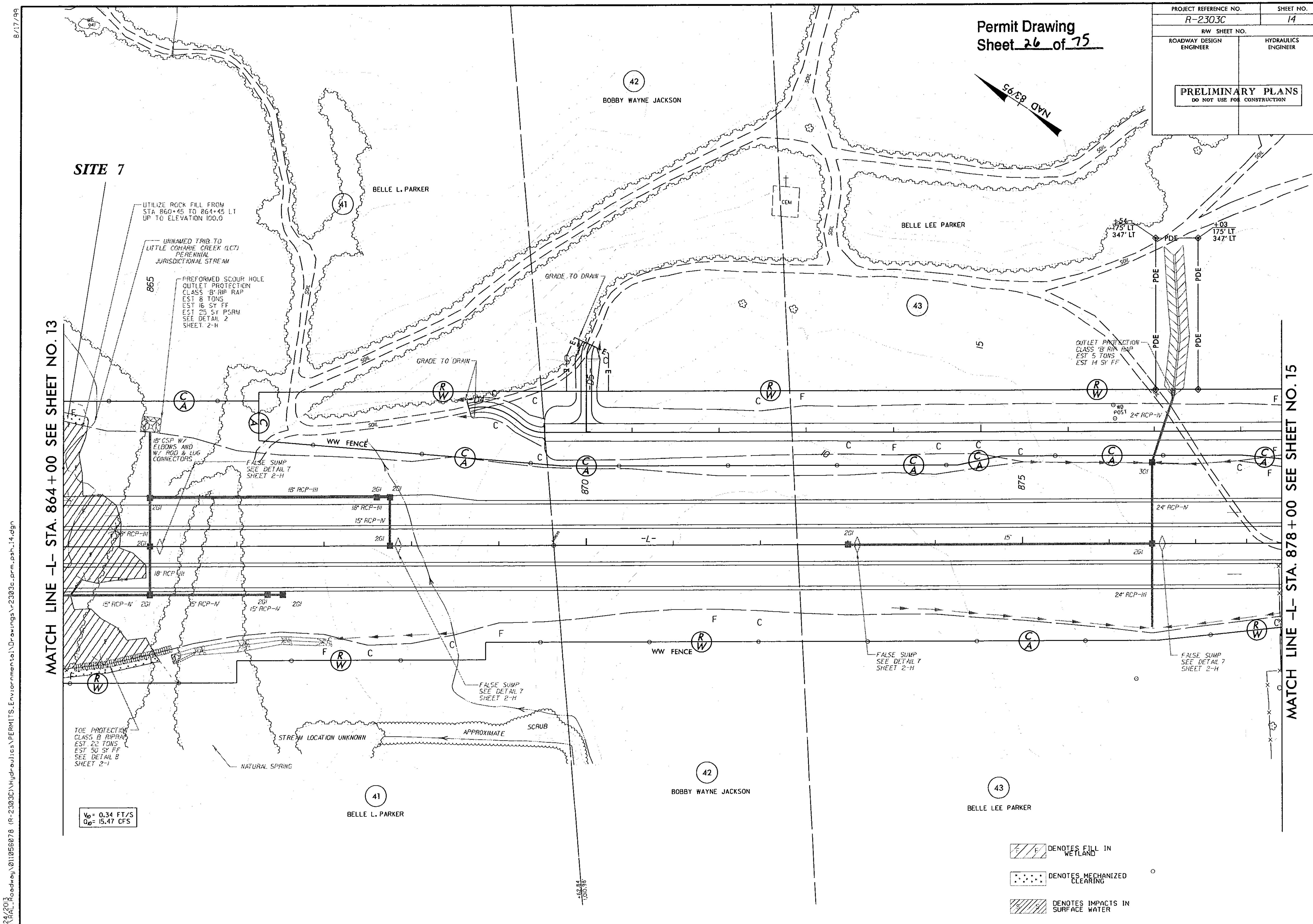
CEM

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

1/24/2003
K:\RAL_Roadway\011056078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_14.dgn



PROJECT REFERENCE NO.
R-2303C
SHEET NO.
14
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
Permit Drawing
Sheet 26 of 75
NAD 83/95
SITE 7
UTILIZE ROCK FILL FROM STA 860+45 TO 864+45 LT UP TO ELEVATION 100.0
UNNAMED TRIB TO LITTLE COHARIE CREEK (LCT) PERENNIAL JURISDICTIONAL STREAM
PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H
18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS
FALSE SUMP SEE DETAIL 7 SHEET 2-H
TOE PROTECTION CLASS B RIPRAP EST 22 TONS EST 50 SY FF SEE DETAIL 8 SHEET 2-I
STREAM LOCATION UNKNOWN
NATURAL SPRING
APPROXIMATE
SCRUB
GRADE TO DRAIN
OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 14 SY FF
+54 175' LT 347' LT
+03 175' LT 347' LT
PDE
41 BELLE L. PARKER
42 BOBBY WAYNE JACKSON
43 BELLE LEE PARKER
CEM
WW FENCE
18" RCP-III
15" RCP-IV
24" RCP-IV
24" RCP-III
2GI
3GI
-L-
865
870
875
+62.84 1,010.98'
MATCH LINE -L- STA. 864+00 SEE SHEET NO. 13
MATCH LINE -L- STA. 878+00 SEE SHEET NO. 15
V_{10} = 0.34 FT/S
Q_{10} = 15.47 CFS
DENOTES FILL IN WETLAND
DENOTES MECHANIZED CLEARING
DENOTES IMPACTS IN SURFACE WATER
8/17/99
1/24/2013
K:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_14.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

MATCH LINE -L- STA. 878+00 SEE SHEET NO. 14

MATCH LINE -L- STA. 892+00 SEE SHEET NO. 16

SITE 8

SITE 9 - IMPACT ZOOM-IN (SCALE: 1" = 50')

UNNAMED TRIB TO LITTLE COHARIE CREEK (LCB) INTERMITTANT JURISDICTIONAL STREAM

UNNAMED TRIB TO LITTLE COHARIE CREEK NON-JURISDICTIONAL STREAM

LILLIAN LEIGH HERRING

THOMAS L. SUTTON ET UX

THOMAS L. SUTTON

BELLE LEE PARKER

HOG LAGOON (ABAND)

WD & MTL HOG HOUSE (ABAND)

WD & MTL TURKEY HOUSE (ABAND)

HOG LAGOON

OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 16 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

STREAM LOCATION UNKNOWN

LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 20 TONS EST 45 SY FF SEE DETAIL 8 SHEET 2-I

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL 31 SHEET 2-I

TOE PROTECTION EST 275 SY PSRM SEE DETAIL 10 SHEET 2-H

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 50 TONS EST 115 SY FF SEE DETAIL 8 SHEET 2-I

INLET CHANNEL IMPROVEMENTS SEE DETAIL 30 SHEET 2-J

TOE PROTECTION CLASS 'B' RIP RAP EST 35 TONS EST 75 SY FF SEE DETAIL 8 SHEET 2-I

WW FENCE

10 FT ROAD

30" RCP-N

30" RCP-III

15" RCP-N

18" RCP-IV

-Y33A-

-L-

-DT-

-DT1-

-DT2-

880

885

20

30

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

Permit Drawing
Sheet 27 of 75

10/4/2002
K:\TAL_Roadway\B11056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_15.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

MATCH LINE -L- STA. 878+00 SEE SHEET NO. 14

MATCH LINE -L- STA. 892+00 SEE SHEET NO. 16

NAD 83/95

SITE 8

SITE 9

SITE 9 - IMPACT ZOOM-IN (SCALE: 1" = 50')

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC8) INTERMITTANT JURISDICTIONAL STREAM

UNNAMED TRIB TO LITTLE COHARIE CREEK NON-JURISDICTIONAL STREAM

APPROXIMATE SCHOOL LOCATION

43 BELLE LEE PARKER

44 LILLIAN LEIGH HERRING

45 THOMAS L. SUTTON ET UX

45 THOMAS L. SUTTON

WW FENCE

OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 16 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 50 TONS EST 115 SY FF SEE DETAIL 8 SHEET 2-I

TOE PROTECTION CLASS 'B' RIP RAP EST 20 TONS EST 45 SY FF SEE DETAIL 8 SHEET 2-I

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL 31 SHEET 2-I

INLET CHANNEL IMPROVEMENTS SEE DETAIL 30 SHEET 2-J

TOE PROTECTION EST 275 SY PSRM SEE DETAIL 10 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 35 TONS EST 75 SY FF SEE DETAIL 8 SHEET 2-I

30" RCP-N

30" RCP-III

15" RCP-N

18" RCP-N

-Y33A-

-L-

-DT-

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S/S DENOTES IMPACTS IN SURFACE WATER

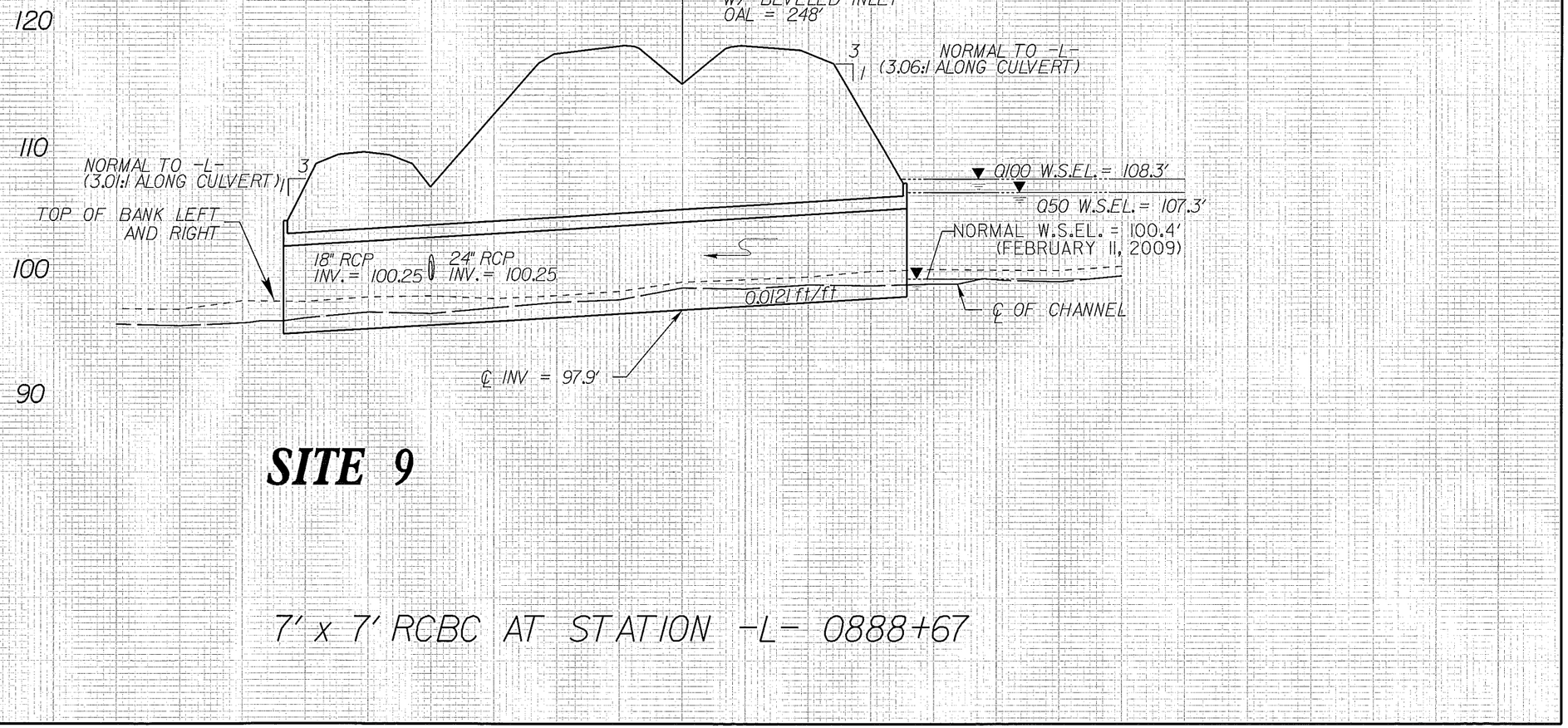
TS/TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

Permit Drawing
Sheet 28 of 75

10/4/2012
K:\RAL\Roadway\0110560078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_15.dgn

	PROJ. REFERENCE NO.	SHEET NO.
	R-2303c	

Permit Drawing
Sheet 29 of 75



SITE 9

7' x 7' RCBC AT STATION -L- 0888+67

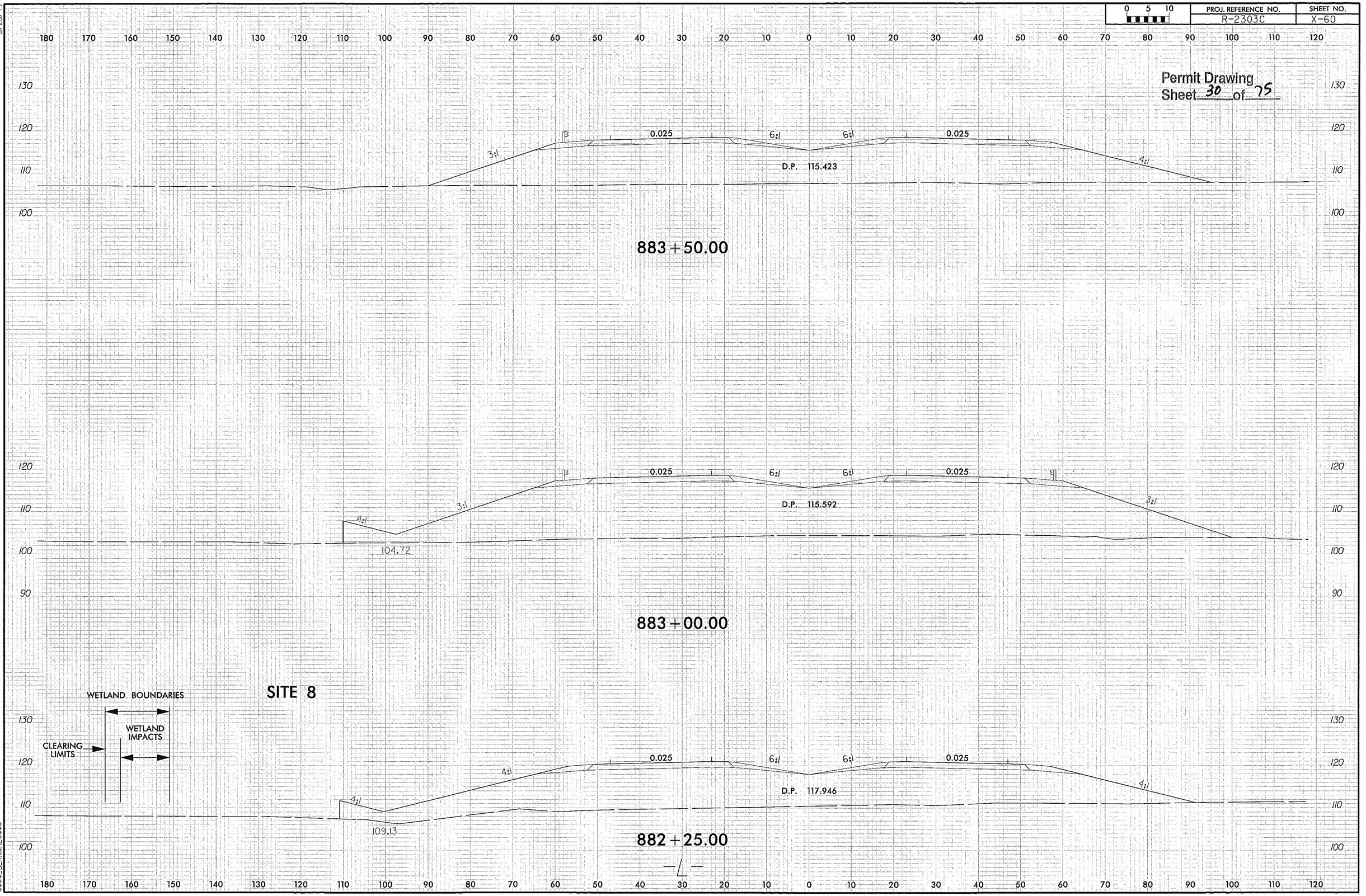
K:\RAL_Roadway\0110566078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\Profiles\0888+67_-L-C8.dgn

8/3/2012

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-60

Permit Drawing
Sheet 30 of 75



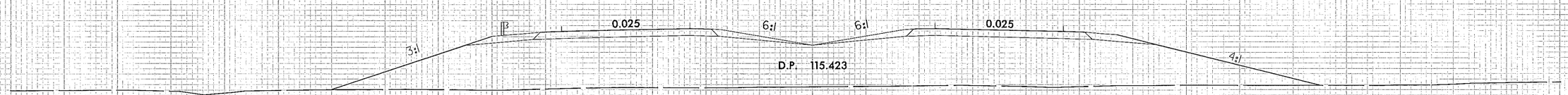
8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-61

Permit Drawing
Sheet 31 of 75

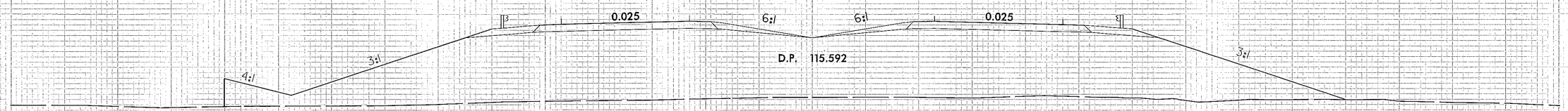
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

120 110 100 90



890+00.00

110 100 130 120 110 100



889+50.00

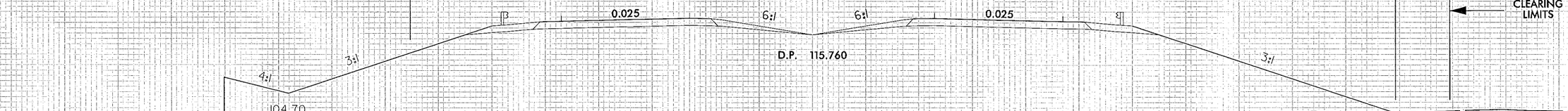
WETLAND BOUNDARIES

WETLAND IMPACTS

SITE 9

CLEARING LIMITS

130 120 110 100



889+00.00

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

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGN$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 32 of 75

NAD 83/95

MATCH LINE -L- STA. 892+00 SEE SHEET NO. 15

MATCH LINE -L- STA. 906+00 SEE SHEET NO. 17

WE 101.7 HOG LAGOON

WE 100.2

WD & MTL HOG HOUSE (ABAND)

WD & MTL HOG HOUSE

TOWN OF ROSEBORO TANK

SEWAGE TREATMENT PLANT

72" CHL & 2SI

36" CONC

72" CHL & 2SBW

GATES

BST

CONC LIFT STATION

E. ROSEBORO ST

12" DIP

CARL T. WOLFORD

JOHNNY GENE JOHNSON

TOE PROTECTION CLASS 'B' RIP RAP EST 40 TONS EST 90 SY FF SEE DETAIL 8 SHEET 2-I

FALSE SUMP SEE DETAIL 18 SHEET 2-I

TOE PROTECTION EST 275 SY PSRM SEE DETAIL 10 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

THOMAS L. SUTTON

WW FENCE

-Y33A-

-L-

-Y33B-

18" RCP-III

18" RCP-IV

15" RCP-IV

15" RCP-III

15" RCP-V

ISBKD

WILLIE EDWARD WILLIAMS

CHRISTAL WEAVER FREEMAN

THE CHILDREN OF MORRIS CLIFFORD HERRING, ET UX

SITE 10

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

10/4/2021
K:\RAL_Roadway\B11056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_16.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 33 of 75

NAD 83'95

MATCH LINE -L- STA. 892+00 SEE SHEET NO. 15

MATCH LINE -L- STA. 906+00 SEE SHEET NO. 17

WE 101.7 HOG LAGOON

WE 100.2

WD & MTL HOG HOUSE (ABAND)

WD & MTL HOG HOUSE (ABAND)

SEWER TREATMENT PLANT

TOWN OF ROSEBORO

TANK

72' CHL & 25W

GATES

BST

CONC LIFT STATION

E. ROSEBORO ST

JOHNNY GENE JOHNSON

CARL T. WOLFORD

TOE PROTECTION CLASS 'B' RIP RAP EST 40 TONS EST 90 SY FF SEE DETAIL 8 SHEET 2-1

FALSE SUMP SEE DETAIL 18 SHEET 2-1

TOE PROTECTION EST 275 SY PSRM SEE DETAIL 10 SHEET 2-H

THOMAS L. SUTTON

FALSE SUMP SEE DETAIL 7 SHEET 2-H

-Y33A-

WW FENCE

-L-

FALSE SUMP SEE DETAIL 24 SHEET 2-I

WILLIE EDWARD WILLIAMS

PUE

18" RCP-III

18" RCP-IV

15" RCP-IV

15BKD

SCMP

-Y33B-

CHRISTAL WEAVER FREEMAN

THE CHILDREN OF MORRIS CLIFFORD HERRING, ET UX

SITE 10

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

10/4/2012
K:\RAL_Roadway\B11056278 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_16.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 34 of 75

NAD 83/95

SITE 10 - IMPACT ZOOM IN (SCALE: 1" = 50')

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES FILL IN WETLAND
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER (POND)
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER

MATCH LINE -L- STA. 906+00 SEE SHEET NO. 16

MATCH LINE -L- STA. 920+00 SEE SHEET NO. 18

TOE PROTECTION CLASS 'B' RIP RAP EST 40 TONS EST 90 SY FF SEE DETAIL 8 SHEET 2-I

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL 34 SHEET 2-I

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 22 SHEET 2-H

UTILIZE ROCK FILL FROM STA 912+85 TO 913+90 LT UP TO ELEVATION 105.0

OUTLET PROTECTION CLASS 'I' RIP RAP EST 17 TONS EST 38 CY FF

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

WE 103.9

POND

55

CARL T. WOLFORD

STATE OF NORTH CAROLINA

57

TIE INTO RCBC

TIE INTO RCBC

GRADE TO DRAIN

FALSE SUMP SEE DETAIL 24 SHEET 2-I

FALSE SUMP SEE DETAIL 18 SHEET 2-I

SITE 11

REMOVE

18" RCP

72" CMP

WW FENCE

FALSE SUMP SEE DETAIL 24 SHEET 2-I

INLET CHANNEL IMPROVEMENTS SEE DETAIL 32 SHEET 2-J

FALSE SUMP SEE DETAIL 7 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 55 TONS EST 135 SY FF SEE DETAIL 8 SHEET 2-I

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC9) PERENNIAL JURISDICTIONAL STREAM

WALNUT ST. (PER WB 1 PG 166)

DILLON ST. (PER WB 1 PG 166)

SCRUB

SITE 10

FALSE SUMP SEE DETAIL 7 SHEET 2-H

RIPRAP EMBANKMENT PROTECTION EST 2 TONS EST 5 SY FF SEE DETAIL 17 SHEET 2-I

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC10) SCRUB INTERMITTANT JURISDICTIONAL STREAM

CHAIN LINK FENCE

WHITE INVESTMENT CO.

58

FALSE SUMP SEE DETAIL 7 SHEET 2-H

10/4/2012
K:\RAL_Roadway\0110656078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_17.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 35 of 75

NAD 83/95

SITE 10 - IMPACT ZOOM-IN (SCALE: 1" = 50')

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

MATCH LINE -L- STA. 906+00 SEE SHEET NO. 16

MATCH LINE -L- STA. 920+00 SEE SHEET NO. 18

TOE PROTECTION CLASS 'B' RIP RAP EST 40 TONS EST 90 SY FF SEE DETAIL 8 SHEET 2-I

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL 34 SHEET 2-J

TIE INTO RCBC

TIE INTO RCBC

GRADE TO DRAIN

INLET CHANNEL IMPROVEMENTS SEE DETAIL 32 SHEET 2-J

FALSE SUMP SEE DETAIL 7 SHEET 2-H

TOE PROTECTION CLASS 'B' RIP RAP EST 125 SY FF SEE DETAIL 8 SHEET 2-I

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC9) PERENNIAL JURISDICTIONAL STREAM

WALNUT ST. (PER WB 1 PG 166)

DILLON ST. (PER WB 1 PG 165)

SITE 10

CARL T. WOLFORD

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 22 SHEET 2-H

CARL T. WOLFORD

WE 1039

POND

UTILIZE ROCK FILL FROM STA 912+85 TO 913+90 LT UP TO ELEVATION 105.0

OUTLET PROTECTION CLASS 'I' RIP RAP EST 17 TONS EST 38 CY FF

RIPRAP EMBANKMENT PROTECTION EST 2 TONS EST 5 SY FF SEE DETAIL 17 SHEET 2-I

FALSE SUMP SEE DETAIL 7 SHEET 2-H

WW FENCE

SCRUB

SITE 11

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

STATE OF NORTH CAROLINA

FALSE SUMP SEE DETAIL 24 SHEET 2-I

FALSE SUMP SEE DETAIL 18 SHEET 2-I

FALSE SUMP SEE DETAIL 24 SHEET 2-I

REMOVE

WW FENCE

CHAIN LINK FENCE

WHITE INVESTMENT CO.

FALSE SUMP SEE DETAIL 7 SHEET 2-H

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC10) INTERMITTANT JURISDICTIONAL STREAM

STATE OF NORTH CAROLINA

STUB-IB

18" RCP

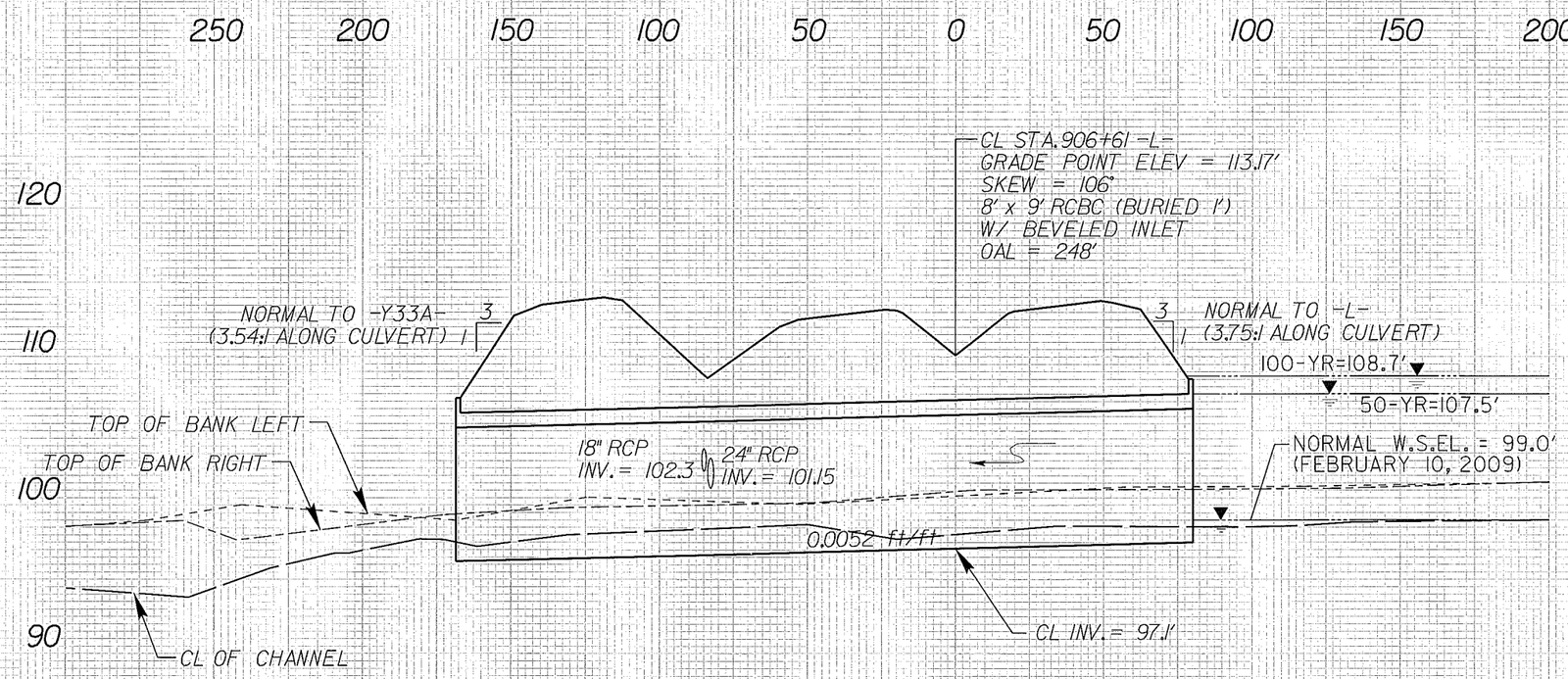
72" CPE RCP

18" CONC

10/6/2002
K:\RAL_Roadway\0110056078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_17.dgn

	PROJ. REFERENCE NO.	SHEET NO.
	R-2303c	

Permit Drawing
Sheet 36 of 75



SITE 10

8' x 9' RCBC AT STATION -L- 0906+61

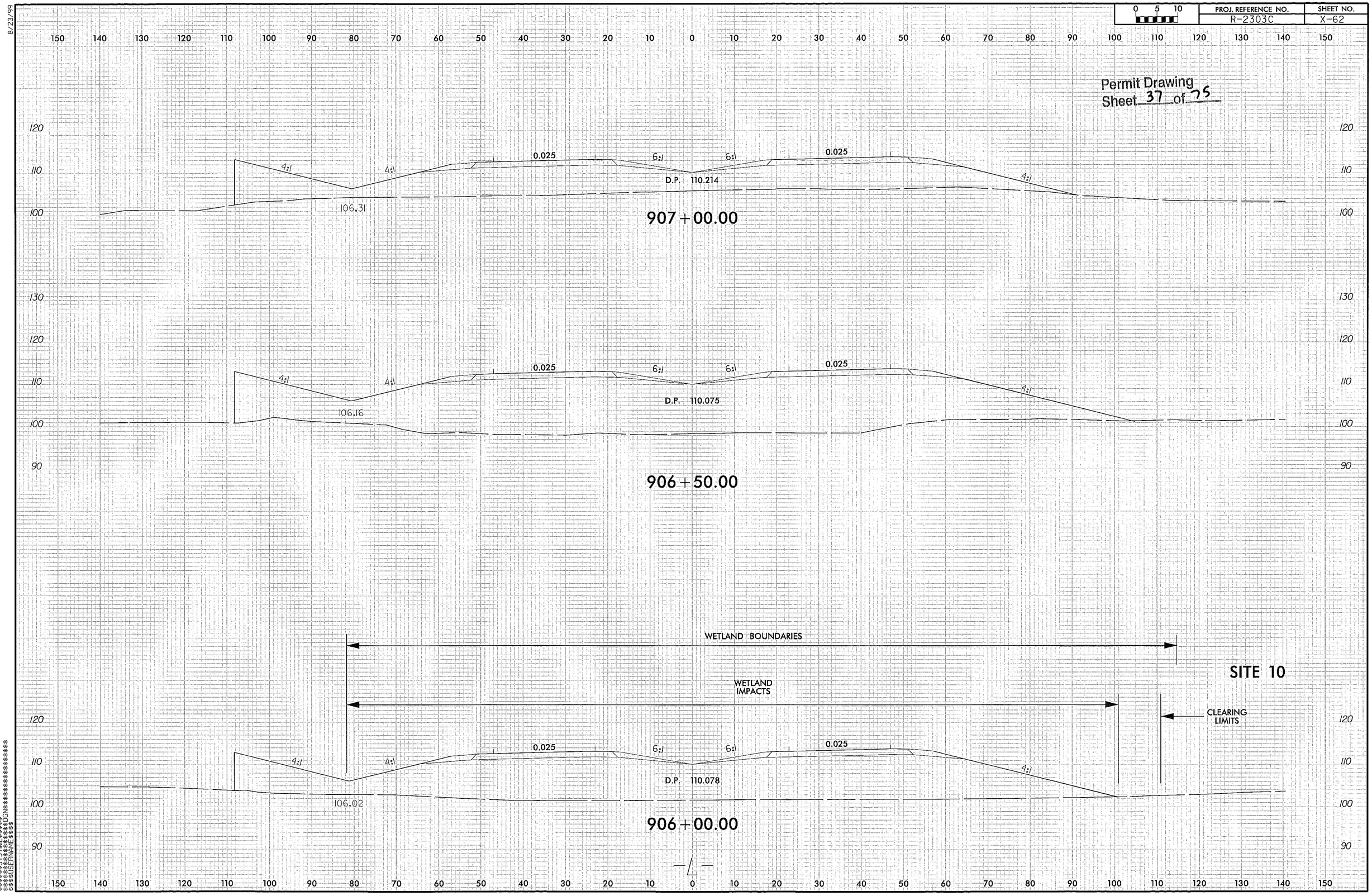
K:\RAL_Roadway\DII0560078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\Profiles\0906+61_LT.C93d

8/3/2012

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-62

Permit Drawing
Sheet 37 of 75



$$$$$$$SYSTIME$$$$$$$
$$$$$$$SENAME$$$$$$$
$$$$$$$SENAME$$$$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 38 of 75

NAD 83/95

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

MATCH LINE -L- STA. 934+00 SEE SHEET NO. 18

MATCH LINE -L- STA. 948+00 SEE SHEET NO. 20

60 BENJAMIN R. GOFF, III

64 RICCI TADLOCK

65 ANN W. WHEELER AND JANE B. COPELAND

61 CHARLES DUBOSE

66 CHARLES B. WILLIAMS AND LELA J. WILLIAMS

940

945

REMOVE

SPECIAL LATERAL 'A' DITCH SEE DETAIL 1 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

CLASS II RIP RAP EST 800 TONS EST 850 SY FF

CLASS II RIP RAP

WW FENCE

TOP OF BANK

EDGE OF WATER

OUTLET PROTECTION CLASS 'B' RIP RAP EST 7 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

15" RCP-IV

48" RCP-III EQ.PIPE

18" RCP-IV

24" RCP-III

15" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

10" PVC

24" FORCE MAIN

LIFT STATION

CONC. RIP-RAP

HW

BLK

ISBD

PUE

TOE PROTECTION CLASS 'B' RIP RAP EST 73 TONS EST 162 SY FF SEE DETAIL 8 SHEET 2-I

OUTLET PROTECTION CLASS 'I' RIP RAP EST 4 TONS EST 12 SY FF

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

LITTLE COHARIE CREEK (LC6) PERENNIAL JURISDICTIONAL STREAM

CLASS II RIP RAP EST 775 TONS EST 825 SY FF

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

SITE 12

SITE 12

10/4/2012
K:\RAL_Roadway\0110556078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_19.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 39 of 75

NAD 83/95

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

MATCH LINE -L- STA. 934+00 SEE SHEET NO. 18

MATCH LINE -L- STA. 948+00 SEE SHEET NO. 20

60 BENJAMIN R. GOFF, III

64 RICCI TADLOCK

61 CHARLES DUBOSE

65 ANN W. WHEELER AND JANE B. COPELAND

66 CHARLES B. WILLIAMS AND LELA J. WILLIAMS

940

945

REMOVE

SPECIAL LATERAL V-DITCH SEE DETAIL 1 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

CLASS II RIP RAP EST 800 TONS EST 850 SY FF

CLASS II RIP RAP

WW FENCE

TOP OF BANK

EDGE OF WATER

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

15" RCP-IV

48" RCP-III E.O. PIPE

18" RCP-IV

24" RCP-III

15" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

10" PVC

CONC. BRIDGE

TOE PROTECTION CLASS 'B' RIP RAP EST 73 TONS EST 162 SY FF SEE DETAIL 8 SHEET 2-I

OUTLET PROTECTION CLASS 'I' RIP RAP EST 4 TONS EST 12 SY FF

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

LITTLE COHARIE CREEK (LC6) PERENNIAL JURISDICTIONAL STREAM

CLASS II RIP RAP EST 775 TONS EST 825 SY FF

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 3 SHEET 2-H

SITE 12

SITE 12

PUE

10/4/2018
K:\RAL_Roadway\0110560278 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_19.dgn

PROJ. REFERENCE NO.	SHEET NO.
R-2303c	

Permit Drawing
Sheet 40 of 75

940+00 941+00 942+00 943+00 944+00 945+00

110
100
90
80
70
60

℄ LOWPOINT
APPROX. STA = 953+65
APPROX. ELEV. = 97.02

CL STA 943+12.5 -L-
EAST BOUND LANE (=EBL=)
1@ 90', 1@ 105', 1@ 100', OAL = 295'
63" MODIFIED BULB TEE
W/ SPILL THROUGH SLOPES
CL ELEV = 100.77'
90° SKEW

EXISTING BRIDGE AND ROADWAY

LOWSTEEL @ LOWSIDE OF 2.5% SUPERELEVATION

(=)0.3654%

50-YR=90.6'

100-YR=91.4'

NATURAL GROUND @ ℄ OF BRIDGE

2' (TYP)

2:1 (TYP) NORMAL TO END BENT

CLASS II RIP RAP (TYP.)

3.5' (TYP)

NATURAL GROUND DOWNSTREAM

NORMAL W.S.EL. = 85.4'
@ EXISTING BRIDGE
(DECEMBER 15, 2008)

100=YR THEORETICAL SCOUR

500=YR THEORETICAL SCOUR

SITE 12

EAST BOUND LANE BRIDGE AT STATION -L- 0943+12.50

K:\RAL_Roadway\DII0560178 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\Profiles\0943+00_Little_Cohanie_eb_bridge.dgn

8/3/2012

PROJ. REFERENCE NO.	SHEET NO.
R-2303c	

Permit Drawing
Sheet 41 of 75

940+00 941+00 942+00 943+00 944+00 945+00 946+00

110
100
90
80
70
60

(-)0.3654%

-CL STA 943+12.5 -L-
WEST BOUND LANE (-WBL-)
1 @ 90', 1 @ 100', 1 @ 105', OAL = 295'
63" MODIFIED BULB TEE
W/ SPILL THROUGH SLOPES
CL ELEV = 100.77'
90° SKEW

℄ LOWPOINT
APPROX. STA = 953+65
APPROX. ELEV. = 97.02

EXISTING BRIDGE AND ROADWAY

LOWSTEEL @ LOWSIDE OF 2.5% SUPERELEVATION

NATURAL GROUND @ ℄ OF BRIDGE

100-YR=91.4'

50-YR=90.6'

2' (TYP)

2:1 (TYP) NORMAL TO END BENT

NATURAL GROUND UPSTREAM

CLASS II RIP RAP (TYP.)

3.5' (TYP)

EXCAVATION = 4300 CY (BRIDGE AREA AND EMBANKMENT)

NORMAL W.S.EL. = 85.4'
@ EXISTING BRIDGE
(DECEMBER 15, 2008)

100-YR THEORETICAL SCOUR

500-YR THEORETICAL SCOUR

SITE 12

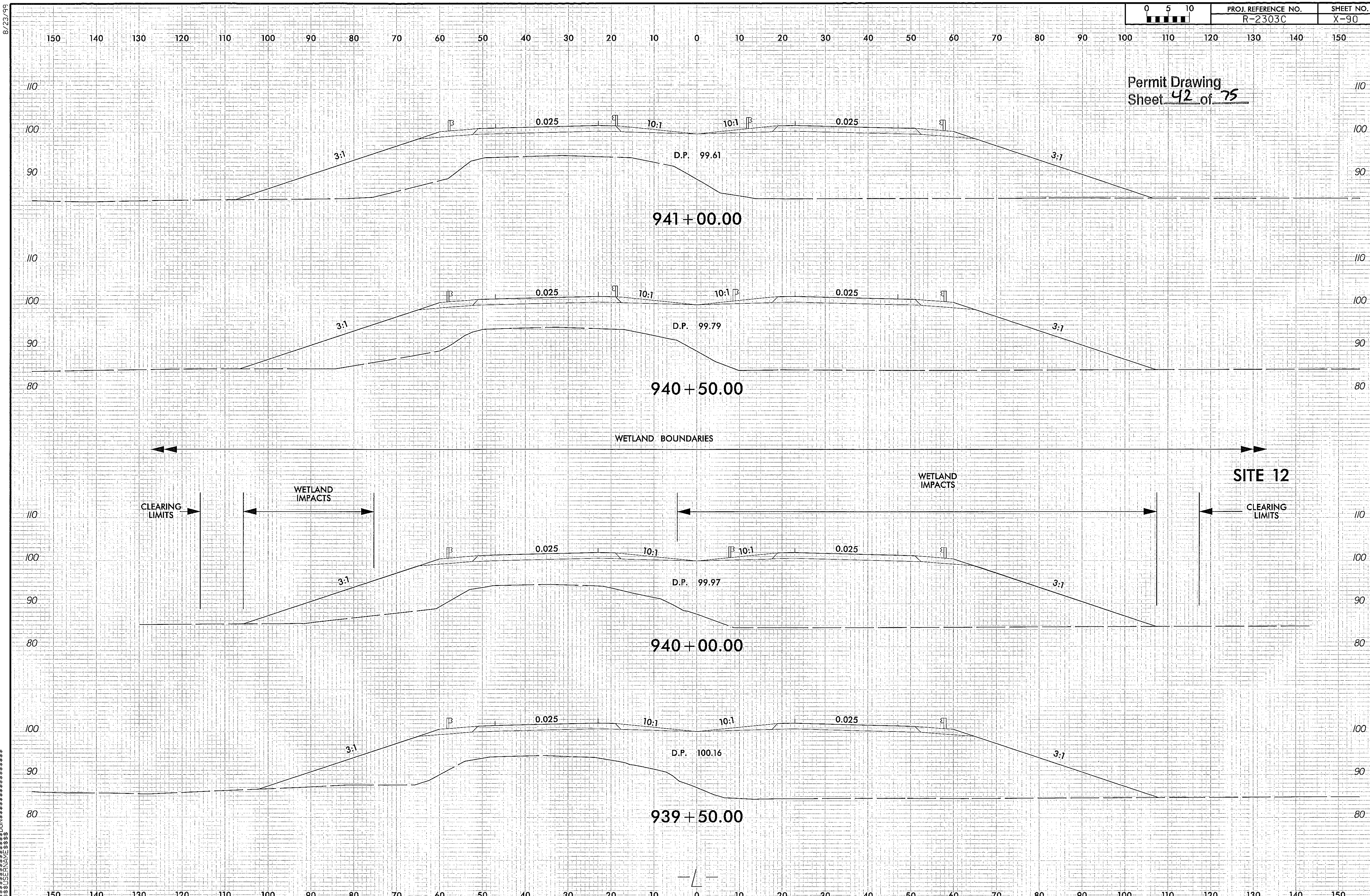
WEST BOUND LANE BRIDGE AT STATION -L- 0943+12.50

K:\RAL_Roadway\DII056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\Profiles\0943+00_L_little_catarle_wb_bridge.dgn

8/3/2012

PROJ. REFERENCE NO.	SHEET NO.
R-2303C	X-90

Permit Drawing
Sheet 42 of 75



8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 43 of 75

NAD 83/95

ANN W. WHEELER AND JANE B. COPELAND

65

950

955

960

67

ANN W. WHEELER, ET AL

MATCH LINE -L- STA. 948+00 SEE SHEET NO. 19

MATCH LINE -L- STA. 962+00 SEE SHEET NO. 21

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

SITE 12

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

TOE PROTECTION
EST 30 SY PSRM
SEE DETAIL 10
SHEET 2-H

WW FENCE

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

15" RCP-IV

18" RCP-IV

15" RCP-III

18" RCP-III

NC 24 25' BST

REMOVE NC 24 25' BST

10" PVC

EARTH

MTL GATE

ABAN B

PUE

2GI

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

SITE 12

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

66

CHARLES B. WILLIAMS AND LELA J. WILLIAMS

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

FALSE SUMP
SEE DETAIL 18
SHEET 2-I

SITE 13

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

DENOTES FILL IN WETLAND

DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

10/4/2012
K:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_20.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 44 of 75

NAD 83/95

ANN W. WHEELER AND JANE B. COPELAND

65

67

ANN W. WHEELER, ET AL

CHARLES B. WILLIAMS AND LELA J. WILLIAMS

66

MATCH LINE -L- STA. 948+00 SEE SHEET NO. 19

MATCH LINE -L- STA. 962+00 SEE SHEET NO. 21

SITE 12

SITE 12

SITE 13

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

FALSE SUMP SEE DETAIL 7 SHEET 2-H

TOE PROTECTION EST 30 SY PSRM SEE DETAIL 10 SHEET 2-H

WW FENCE

18" CSP W/ ELBOWS AND W/ END & LUG CONNECTORS

15" RCP-IV

18" RCP-IV

18" RCP-III

15" RCP-III

48" RCP-IV EQ PIPE

NC 24 25' BST

REMOVE NC 24 25' BST

10" PVC

PUE

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 18 SHEET 2-I

FALSE SUMP SEE DETAIL 7 SHEET 2-H

DENOTES FILL IN WETLAND

DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

10/4/2012
K:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_20.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-97

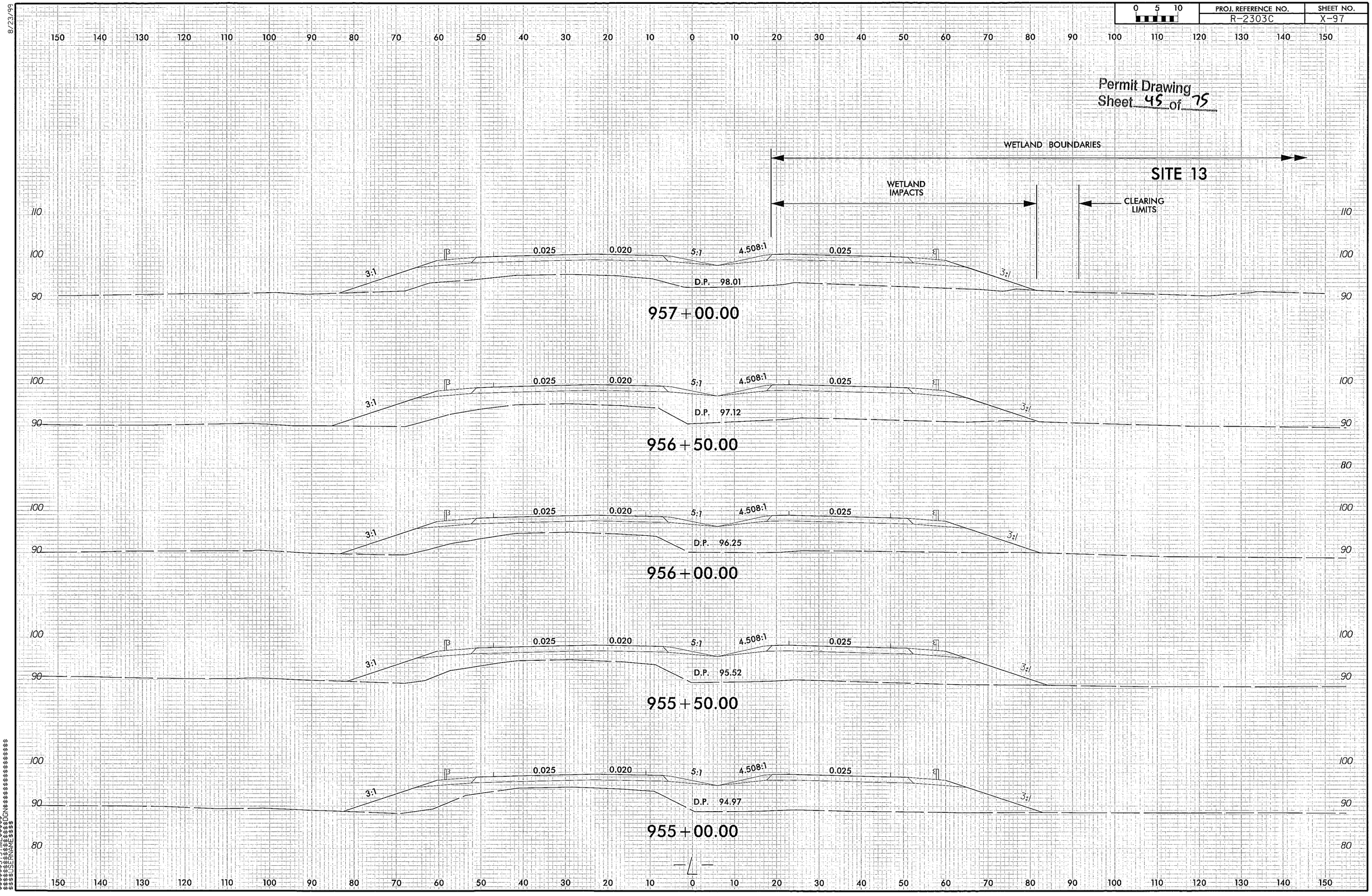
Permit Drawing
Sheet 45 of 75

WETLAND BOUNDARIES

SITE 13

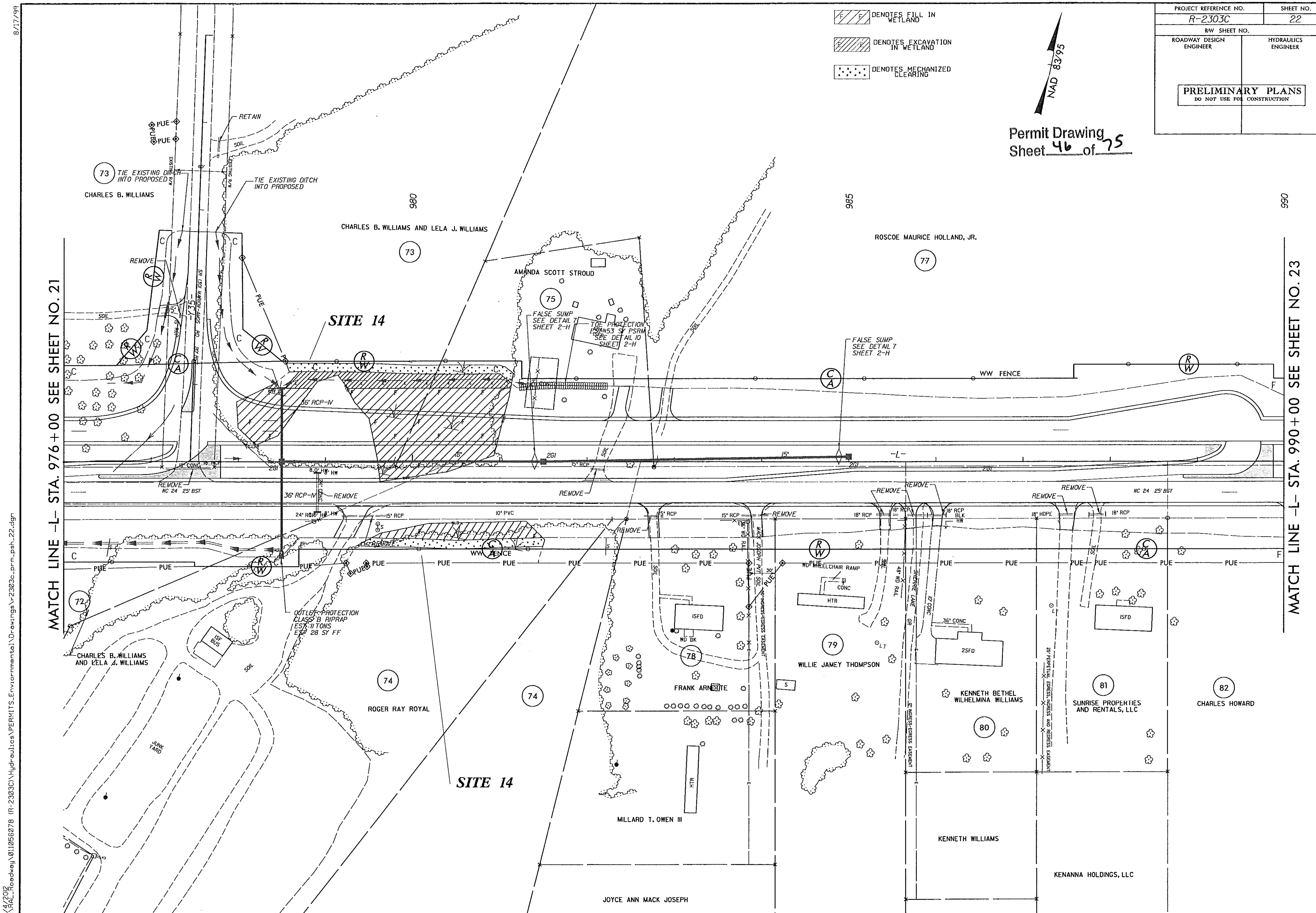
WETLAND IMPACTS

CLEARING LIMITS



$$$$SYSTIME$$$$
$$$$SCALE$$$$
$$$$ZONE$$$$

8/17/99



10/4/2012
K:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Enviornmental\Drawings\r2303c_prm_psh_22.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 47 of 75

NAD 83/95

F/F DENOTES FILL IN WETLAND

F/F DENOTES EXCAVATION IN WETLAND

DENOTES MECHANIZED CLEARING

MATCH LINE -L- STA. 976+00 SEE SHEET NO. 21

MATCH LINE -L- STA. 990+00 SEE SHEET NO. 23

SITE 14

SITE 14

CHARLES B. WILLIAMS

CHARLES B. WILLIAMS AND LELA J. WILLIAMS

AMANDA SCOTT STROUD

ROSCOE MAURICE HOLLAND, JR.

CHARLES B. WILLIAMS AND LELA J. WILLIAMS

ROGER RAY ROYAL

FRANK ARNETTE

MILLARD T. OWEN III

JOYCE ANN MACK JOSEPH

WILLIE JAMEY THOMPSON

KENNETH BETHEL
WILHELMINA WILLIAMS

KENNETH WILLIAMS

SUNRISE PROPERTIES AND RENTALS, LLC

KENANNA HOLDINGS, LLC

CHARLES HOWARD

TIE EXISTING DITCH INTO PROPOSED

RETAIN

REMOVE

FALSE SUMP SEE DETAIL 7 SHEET 2-H

TOE PROTECTION CLASS B RIPRAP SEE DETAIL 10 SHEET 2-H

OUTLET PROTECTION CLASS B RIPRAP EST. 11 TONS EST. 28 SY FF

WW FENCE

WD WHEELCHAIR RAMP

ISFD

2SFD

HTR

JUNK YARD

ISE BUS

36" RCP-N

24" RCP-N

15" RCP

18" RCP

18" HDPE

10" PVC

36" CONC

NC 24 25' BST

PUE

SOIL

20' ACCESS-EGRESS EASEMENT

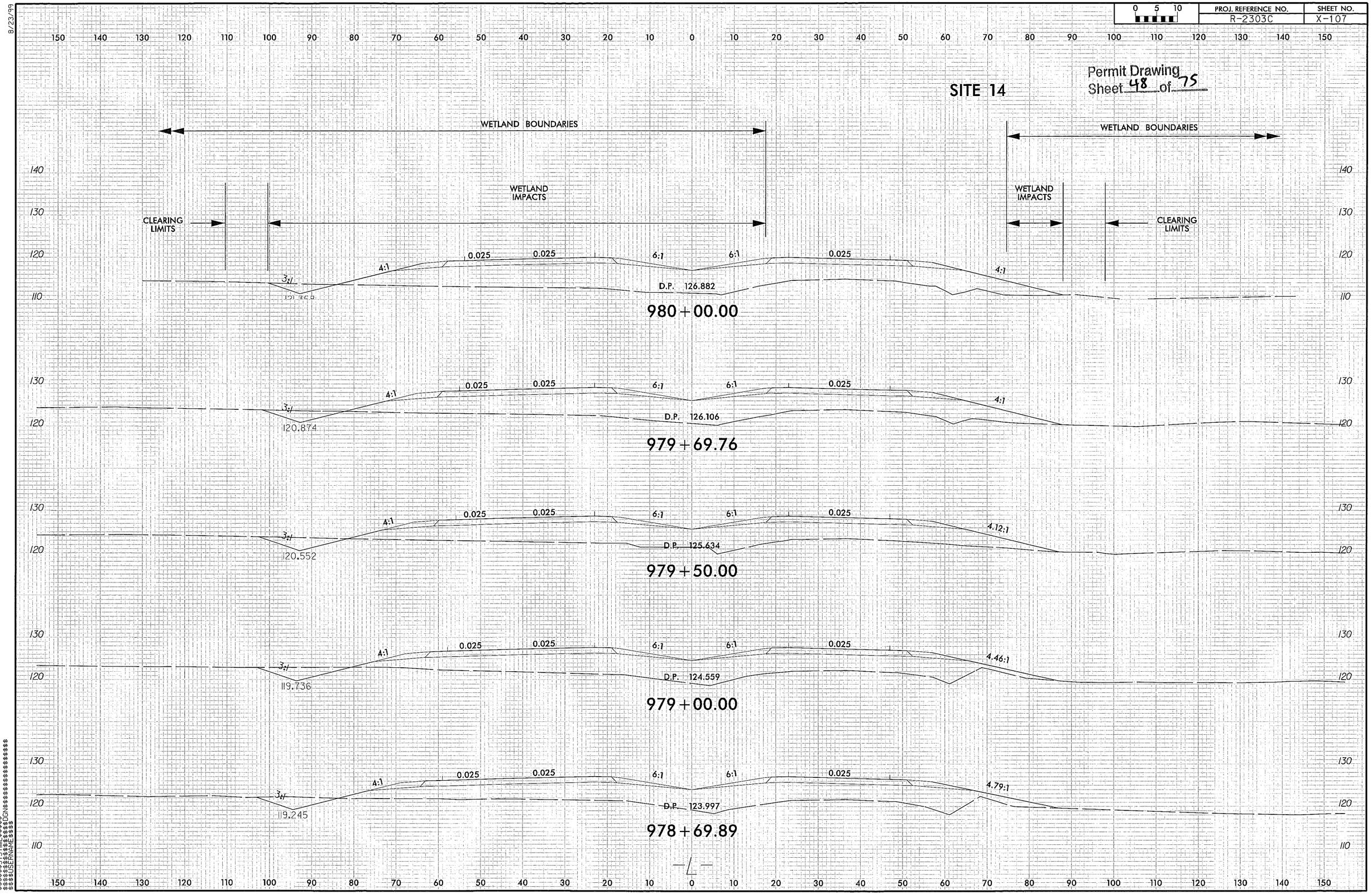
25' ACCESS-EGRESS AND REGRESS EASEMENT

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-107

Permit Drawing
Sheet 48 of 75

SITE 14



$$$$SYSTIME$$$$
$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 49 of 75

SITE 15

NOTE: CLEAR PATH FOR C/A FENCE 6' WIDE TO MINIMIZE IMPACTS TO TREES.

MATCH LINE -L- STA. 990+00 SEE SHEET NO. 22

MATCH LINE -L- STA. 1004+00 SEE SHEET NO. 24

ROSCOE MAURICE HOLLAND, JR. (77)

RICKY WALTON SESSOMS (91)

GWENDOLYN M. KING (83)

MUHAMMAD B. ABDUL-ALIM (84)

MICHAEL A. CORPREW (85)

JOHNNIE LEE WEST (86)

GEORGE HARRIS, SR. (87)

GEORGE B. FANN (88)

GEORGE FANN (92)

(93)

JEANETTE H. WILLIAMS

WELL
SEPTIC TANK
PROPANE TANK ON CONC SLAB
1S BLK BLDG
NAD 83/95

BRICK FOUNTAIN
GAZEBO

POND WILL BE DRAINED. PIPE INVERT MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED BY NEU.

FALSE SUMP SEE DETAIL 7 SHEET 2-H

GRADE TO DRAIN

FALSE SUMP SEE DETAIL 1 SHEET 2-H

WW FENCE

48" CMP

48" CMC

CHL GATES

15" RCP-IV

60" RCP-III

18" RCP

REMOVE

NC 24 25' BST

RIP-RAP

CLASS I RIPRAP STREAM BANKS ONLY EST 26 TONS EST 56 SY FF

UNNAMED TRIB TO LITTLE COHARIE CREEK (LCII) PERENNIAL JURISDICTIONAL STREAM

SITE 15 - IMPACT ZOOM-IN SCALE (1"=50')

DENOTES IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER (POND)

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

10/4/2018
K:\RAL_Roadway\0110560078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_23.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 50 of 75

WELL
S
SEPTIC TANK
PROPANE TANK ON CONC SLAB
IS BLK BLDG
WELL
NAD 83-95

SITE 15

NOTE: CLEAR PATH FOR C/A FENCE 6' WIDE TO MINIMIZE IMPACTS TO TREES.

MATCH LINE -L- STA. 990+00 SEE SHEET NO. 22

MATCH LINE -L- STA. 1004+00 SEE SHEET NO. 24

ROSCOE MAURICE HOLLAND, JR. (77)

RICKY WALTON SESSOMS (91)

BRICK FOUNTAIN

GAZEBO

POND WILL BE DRAINED. PIPE INVERT MAY NEED TO BE ADJUST TO ENSURE POND IS DRAINED AND ELEVATIONS VERIFIED BY NEU.

GRADE TO DRAIN

FALSE SUMP SEE DETAIL 7 SHEET 2-A

FALSE SUMP SEE DETAIL 7 SHEET 2-H

WW FENCE

DO NOT DISTURB WELL IN PUE

REMOVE 15" RCP

NC 24 25' BST

15" RCP

18" RCP

15" RCP-IV

60" RCP-III

RIP-RAP

CLASS I RIPRAP STREAM BANKS ONLY EST 26 TONS EST 56 SY FF

UNNAMED TRIB TO LITTLE COHARIE CREEK (LCII) PERENNIAL JURISDICTIONAL STREAM

GWENDOLYN M. KING (83)

MUHAMMAD B. ABDUL-ALIM (84)

MICHAEL A. CORPREW (85)

JOHNNIE LEE WEST (86)

GEORGE HARRIS, SR. (87)

GEORGE B. FANN (88)

GEORGE FANN (82)

JEANETTE H. WILLIAMS (93)

SITE 15 - IMPACT ZOOM-IN SCALE (1"=50')

DENOTES IMPACTS IN SURFACE WATER

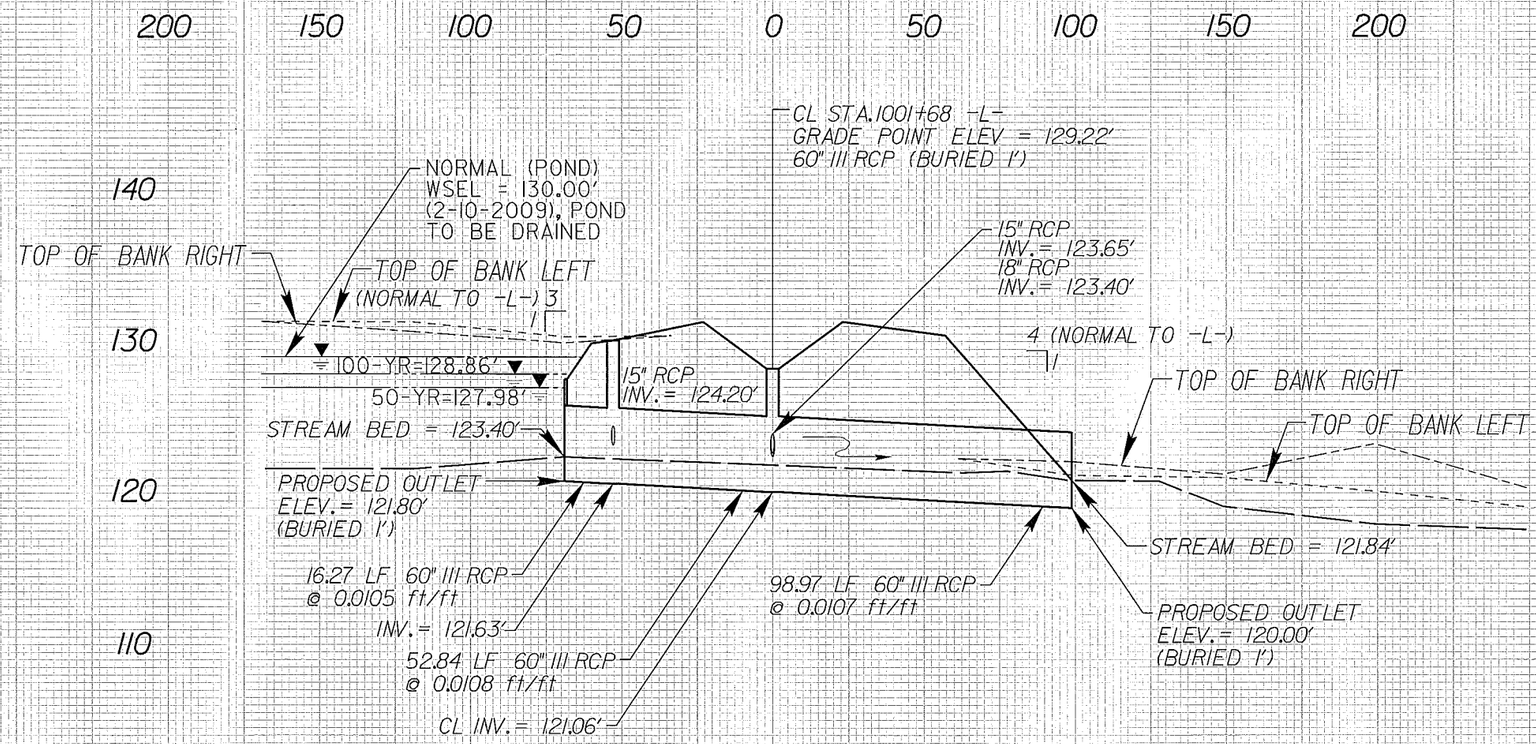
DENOTES IMPACTS IN SURFACE WATER (POND)

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

10/4/2012
K:\RAL_Roadway\d11056878 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_23.dgn

	PROJ. REFERENCE NO.	SHEET NO.
	R-2303c	

Permit Drawing
Sheet 51 of 75



SITE 15

60" CLASS III RCP AT STATION -L- 1001+68

K:\RAL_Roadway\01056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\Profiles\V001+68_60inIII.dgn
8/3/2012

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

Permit Drawing
Sheet 52 of 75

MATCH LINE -L- STA. 1004+00 SEE SHEET NO. 23

MATCH LINE -L- STA. 1018+00 SEE SHEET NO. 25

SITE 15

NOTE: CLEAR PATH FOR C/A FENCE 6' WIDE TO MINIMIZE IMPACTS TO TREES.

SITE 17

SITE 16

SITE 17

RICKY WALTON SESSOMS

THOMAS HOGAN, JR.

CHARLES ERIC LIPSCOMB

PENNY FRAN SANDY

RICKY WALTON SESSOMS

OWEN C. WILLIFORD

TONY CURTIS SUTLES

WALTON WALTER SESSOMS

JOHNNIE LEE WEST

JEANETTE H. WILLIAMS

THORNTON HOMES CO.

KENNETH WAYNE STRICKLAND

RUBY C. JOHNSON

JEANETTE H. WILLIAMS

JEANETTE H. WILLIAMS

NO CHANNEL OVERLAND FLOW

CLASS B RIPRAP OUTLET PROTECTION EST 2 TONS EST 7 SY FF

GRADE TO DRAIN

TOE PROTECTION EST 28 SY PSRM SEE DETAIL 10 SHEET 2-H

POND WILL BE DRAINED WITH NEW CROSSPIPE

FALSE SUMP SEE DETAIL 7 SHEET 2-H

CLASS B RIPRAP EST 35 TONS EST 75 SY FF SEE DETAIL 8 SHEET 2-I

POND ME 128.3

CLASS B RIPRAP OUTLET PROTECTION EST 5 TONS EST 11 SY FF

CLASS I RIPRAP OUTLET PROTECTION EST 10 TONS EST 38 SY FF

UNNAMED TRIB TO LITTLE COHARIE CREEK (LCII) PERENNIAL JURISDICTIONAL STREAM

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

10/4/2012
C:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_24.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

Permit Drawing
Sheet 53 of 75

MATCH LINE -L- STA. 1004+00 SEE SHEET NO. 23

MATCH LINE -L- STA. 1018+00 SEE SHEET NO. 25

SITE 15

SITE 16

SITE 17

NOTE: CLEAR PATH FOR C/A FENCE 6' WIDE TO MINIMIZE IMPACTS TO TREES.

RICKY WALTON SESSOMS

91

94

THOMAS HOGAN, JR.

148

148A

148B

148C

CHARLES ERIC LIPSCOMB

1010

1015

10

CLASS B RIPRAP OUTLET PROTECTION EST 2 TONS EST 2 SY FF

GRADE TO DRAIN

WAREHOUSE MTL

12" CMP

TOE PROTECTION EST 28 SY PSRM SEE DETAIL 10 SHEET 2-H

TOE PROTECTION EST 28 SY PSRM SEE DETAIL 10 SHEET 2-H

POND WILL BE DRAINED WITH NEW CROSS PIPE

95

WALTER SESSOMS

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

98

OWEN C. WILLIFORD

100

TONY CURTIS SURLES

101

RICKY WALTON SESSOMS

PENNY FRAN SANDY

103

GRAU 350

ISBLV BUS

ISBKFD

ISBKD

SOIL

15" RCP

24" RCP-III

REMOVE

48" RCP-III

REMOVE

GATE

NC 24 25' BST

CAT-1

24" RCP

REMOVE

15" RCP

RETAIN

105

ISBKFD

36" CONC

ISFD

W/LT

93

JOHNNIE LEE WEST

FALSE SUMP SEE DETAIL 7 SHEET 2-H

CLASS B RIPRAP EST 35 TONS EST 75 SY FF SEE DETAIL B SHEET 2-I

POND WE 1283

CLASS B RIPRAP OUTLET PROTECTION EST 11 SY FF

97

THORNTON HOMES CO.

99

KENNETH WAYNE STRICKLAND

CLASS I RIPRAP OUTLET PROTECTION EST 19 TONS EST 38 SY FF

JEANETTE H. WILLIAMS

96

JEANETTE H. WILLIAMS

RUBY C. JOHNSON

102

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC11) PERENNIAL JURISDICTIONAL STREAM

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

8/17/99

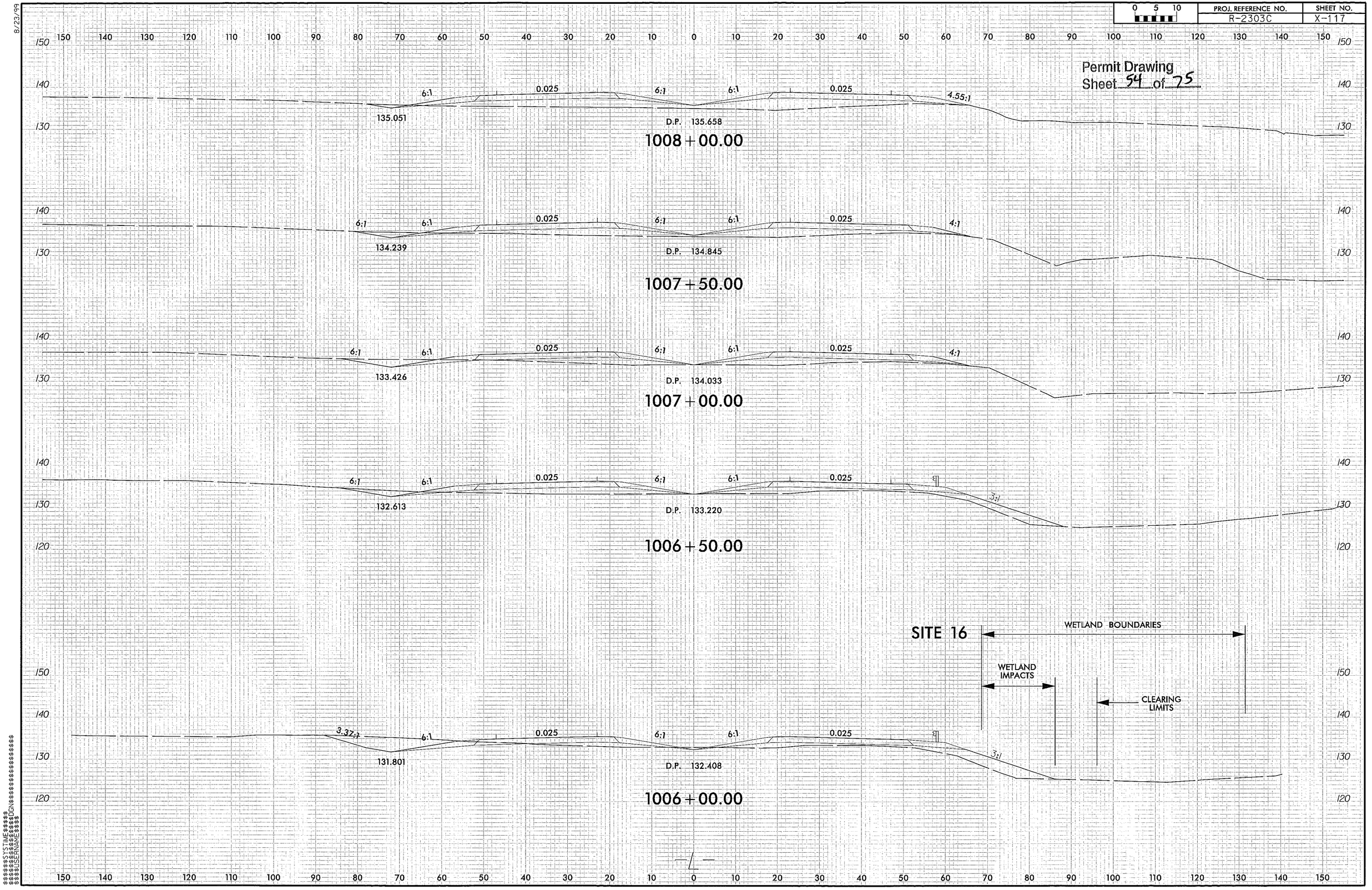
10/4/2012
K:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_24.dgn

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
R-2303C	X-117

0 5 10

Permit Drawing
Sheet 54 of 75



$$$$SYSTIME$$$$
$$$$LOGIN$$$$
$$$$DRAWING$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 55 of 75

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S/F DENOTES IMPACTS IN SURFACE WATER

TS/F DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 18

SITE 18 - IMPACT ZOOM-IN (SCALE: 1" = 50')

NAD 83/95

MATCH LINE -L- STA. 1032+00 SEE SHEET NO. 25

MATCH LINE -L- STA. 1046+00 SEE SHEET NO. 26

108 JOHN KEITH HOBBS, ETUX AND THOMAS DALE HOBBS, JR., ETUX

112 MATTHEW D. NEAL, ETUX AND PATRICK G. NEAL, ETUX

113 AMOS BUTLER HEIRS

114 JAMES EARL SAMPSON

115 AMOS BUTLER HEIRS

JAMES GODWIN

FOREST MONK

BERLENE MONK BUTLER

UNNAMED TRIB TO BEARSKIN SWAMP (BRII) PERENNIAL JURISDICTIONAL STREAM

UNNAMED TRIB TO BEARSKIN SWAMP (BR2) NON-JURISDICTIONAL STREAM

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIPRAP EST 2 TONS EXT 7 SY

18" CSP W/ ELBOWS AND ROD & LUG CONNECTORS

OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 14 CY FF

REMOVE EXIST 18' RCP AND ADJACENT ROADWAY FILL GRADE DITCH TO MATCH NATURAL CONDITION

FALSE SUMP SEE DETAIL 7 SHEET 2-H

CLASS I RIPRAP STREAM BANKS ONLY EST 17 TONS EST 38 SY FF

OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 21 CY FF

EXTND EXIST 24" RCP 20 LF W/ CONC. COLLAR

EXTND EXIST 24" RCP 24 LF W/ CONC. COLLAR

REMOVE ASPHALT IN ABANDONMENT AREA

GRADE TO DRAIN

RETAIN

REMOVE

2SFD (ABAND) (DILAPIDATED)

ISFD

ISBKD

CANOPY

W/LT

PUE

WW FENCE

-L-

-Y36A-

-137-

SR 1259 UNDERWOOD RD 20' BST

SR 1258 MARION AZALEE RD 20' BST

NC 24 25' BST

10/4/2012
K:\RAL_Roadway\0110566078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_26.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 56 of 75

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SITE 18

SITE 18 - IMPACT ZOOM-IN (SCALE: 1" = 50')

NAD 83/95

MATCH LINE -L- STA. 1032+00 SEE SHEET NO. 25

MATCH LINE -L- STA. 1046+00 SEE SHEET NO. 26

108 JOHN KEITH HOBBS, ETUX AND THOMAS DALE HOBBS, JR., ETUX

113 AMOS BUTLER HEIRS

115

112 JOHN KEITH HOBBS, ETUX AND THOMAS DALE HOBBS, JR., ETUX; MATTHEW D. NEAL, ETUX AND PATRICK G. NEAL, ETUX

114 JAMES EARL SAMPSON

JAMES GODWIN

FOREST MONK

BERLENE MONK BUTLER

UNNAMED TRIB TO BEARSKIN SWAMP (BR1) PERENNIAL JURISDICTIONAL STREAM

UNNAMED TRIB TO BEARSKIN SWAMP (BR2) NON-JURISDICTIONAL STREAM

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EXT 7 SY

18" CSP W/ ELBOWS AND ROD & LUG CONNECTORS

OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 14 CY FF

REMOVE EXIST 18" RCP AND ADJACENT ROADWAY FILL GRADE DITCH TO MATCH NATURAL CONDITION

FALSE SUMP SEE DETAIL 7 SHEET 2-H

CLASS I RIPRAP STREAM BANKS ONLY EST 17 TONS EXT 38 SY FF

OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 21 CY FF

EXTND EXIST 24 RCP 20 LF W/ CONC.COLLAR

EXTND EXIST 24 RCP 24 LF W/ CONC.COLLAR

REMOVE ASPHALT IN ABANDONMENT AREA

-Y36A-

-L-

-Y37-

WW FENCE

PUE

PDE

GRADE TO DRAIN

REMOVE

RETAIN

(ABAND)

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-129

Permit Drawing
Sheet 57 of 75

SITE 18

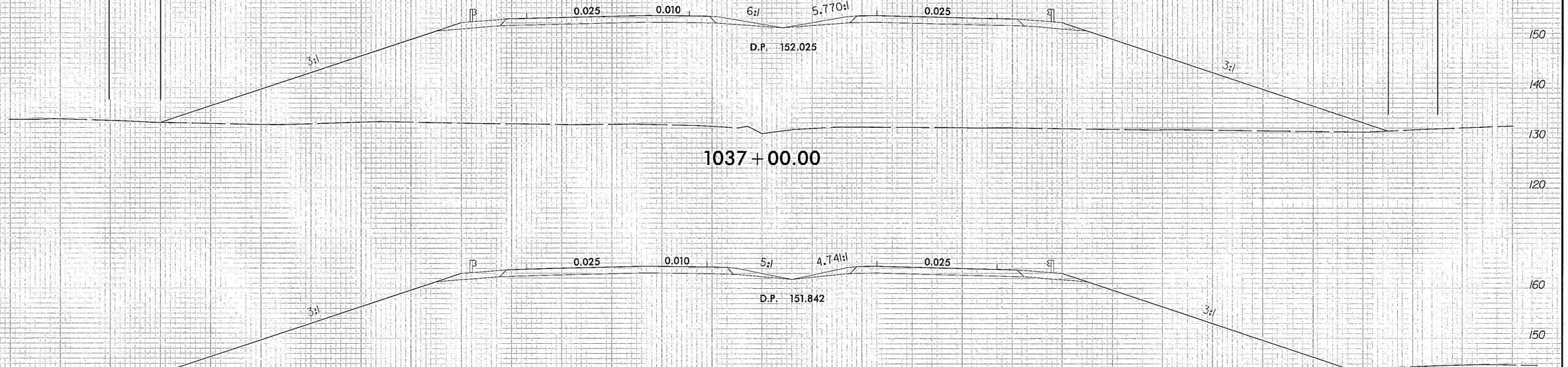
WETLAND BOUNDARIES

CLEARING LIMITS

WETLAND IMPACTS

WETLAND IMPACTS

CLEARING LIMITS



160 150 140 130 120

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

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$FILENAME$$$$
$$$$USERDOMAIN$$$$
$$$$PROJECTNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	28
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 58 of 75

NAD 83/95

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

MATCH LINE -L- STA. 1060+00 SEE SHEET NO. 27

MATCH LINE -L- STA. 1074+00 SEE SHEET NO. 29

SITE 19

TOE PROTECTION
CLASS 'B' RIP RAP
EST 45 TONS
EST 95 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 20 TONS
EST 45 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 40 TONS
EST 85 SY FF
SEE DETAIL 8
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

FALSE SUMP
SEE DETAIL 18
SHEET 2-I

TIE EXISTING DITCH INTO PROPOSED

UNNAMED TRIB TO BEARSKIN SWAMP (BRT) INTERMITTANT JURISDICTIONAL STREAM

CLASS I RIP RAP STREAM BANKS ONLY EST 38 TONS EXT 75 SY FF

TOE PROTECTION
CLASS 'B' RIP RAP
EST 35 TONS
EST 70 SY FF
SEE DETAIL 8
SHEET 2-I

SITE 19 - IMPACT ZOOM-IN (SCALE: 1" = 50')

K:\4200\RAL_roadway\0110956078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_28.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 59 of 75

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

NAD 83/95

MATCH LINE -L- STA. 1060+00 SEE SHEET NO. 27

MATCH LINE -L- STA. 1074+00 SEE SHEET NO. 29

SITE 19

SITE 19

SITE 19 - IMPACT ZOOM-IN (SCALE: 1" = 50')

TOE PROTECTION
CLASS 'B' RIP RAP
EST 45 TONS
EST 95 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 20 TONS
EST 45 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 40 TONS
EST 85 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 35 TONS
EST 70 SY FF
SEE DETAIL 8
SHEET 2-I

CLASS I RIP RAP
STREAM BANKS ONLY
EST 38 TONS
EST 76 SY FF

OUTLET PROTECTION
CLASS I RIP RAP
EST 8 TONS
EST 10 SY FF

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

FALSE SUMP
SEE DETAIL 1B
SHEET 2-I

UNNAMED TRIB TO BEARSKIN SWAMP (BR7)
INTERMITTANT
JURISDICTIONAL STREAM

TIE EXISTING DITCH INTO PROPOSED

REMOVE

RETAIN

WATERLINE OBSCURED

WW FENCE

HTR BUS

MTL GATE

MTL SHED

ISBK

BR COLUMNS

15" RCP-N

18" RCP-N

72" RCP-III

15" RCP REMOVE

RIP-RAP

PUE

PDE

124

125

126

107

106

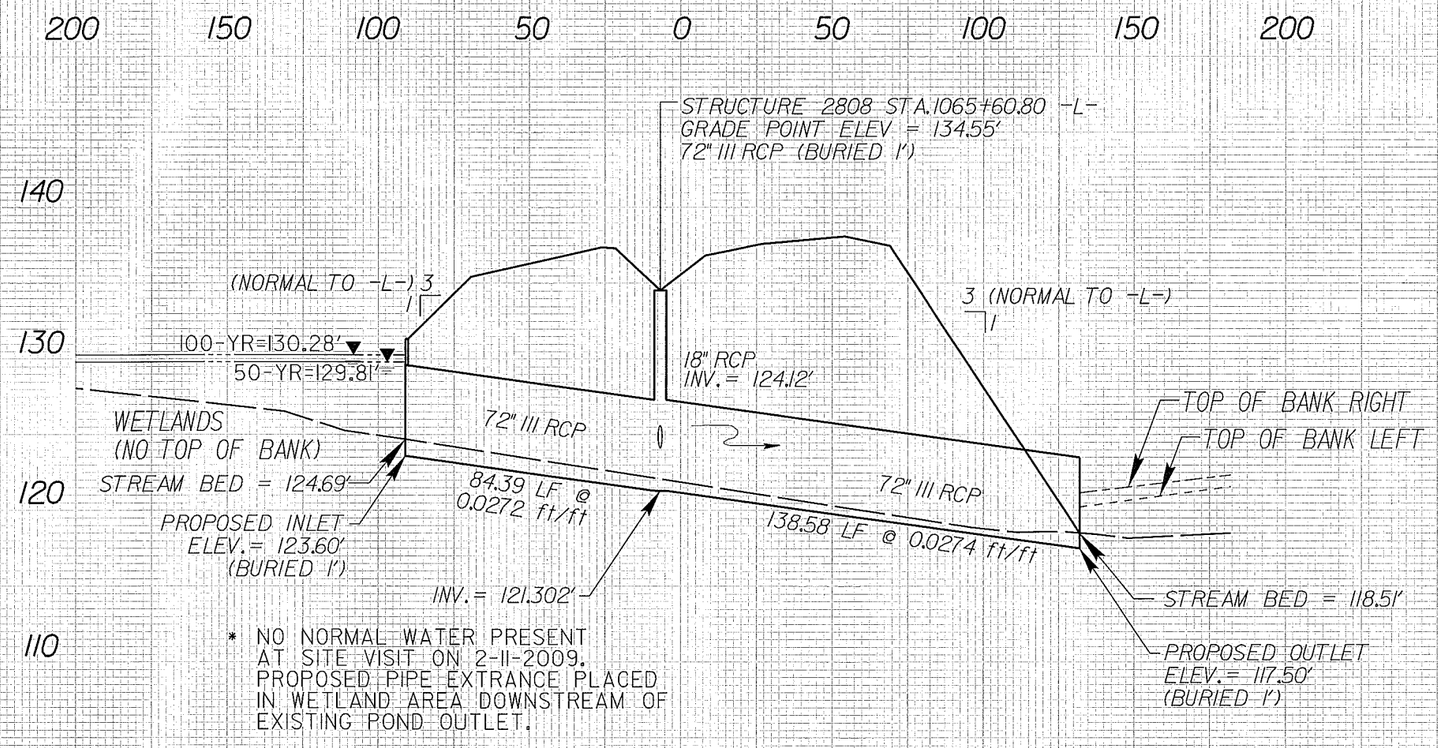
105

C/A

R/W

	PROJ. REFERENCE NO.	SHEET NO.
	R-2303c	

Permit Drawing
Sheet 60 of 75



SITE 19

72" CLASS III RCP AT STATION -L- 1065+60.80

K:\RAL_Roadway\0110560078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\Profiles\1065+60.80_L_72inIII.dgn
8/3/2012

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-141

Permit Drawing
Sheet 61 of 75

SITE 19

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

WETLAND BOUNDARIES

CLEARING LIMITS

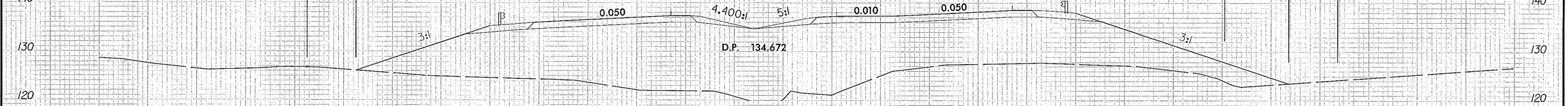
WETLAND IMPACTS

WETLAND IMPACTS

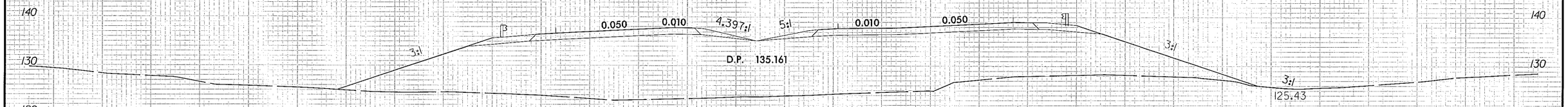
WETLAND BOUNDARIES

WETLAND IMPACTS

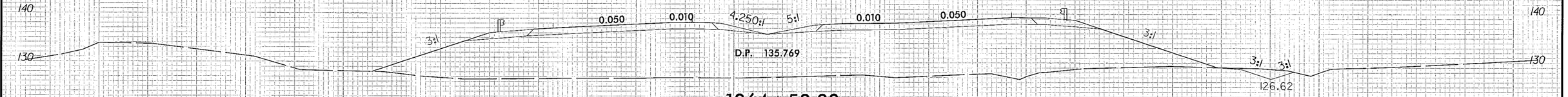
CLEARING LIMITS



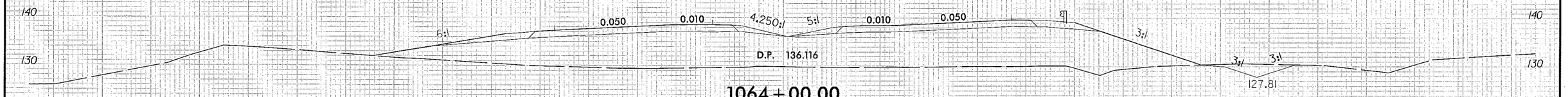
1065+50.00



1065+00.00



1064+50.00



1064+00.00

$$$$SYSTIME$$$$
$$$$SIGNATURE$$$$
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 62 of 75

NAD 83/95

MATCH LINE -L- STA. 1074+00 SEE SHEET NO. 28

MATCH LINE -L- STA. 1088+00 SEE SHEET NO. 30

124 SAMPSON COUNTY

128 T&W DEVELOPMENT

130 BERTHILDA BARBOZA ROBLES

126 WASTE INDUSTRIES, LLC

1075 1080 1085

TOE PROTECTION
CLASS 'B' RIP RAP
EST 40 TONS
EST 85 SY FF
SEE DETAIL 8
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

WW FENCE

CLASS II RIP RAP
EST 700 TONS
EST 750 SY FF

CLASS II RIP RAP

TOP OF BANK

EDGE OF WATER

NC 24 24" BST

15" RCP-IV

15" RCP-III

CONC. BRIDGE

15" RCP-N

18" RCP-III

18" RCP-IV

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

18" HDPE

30" RCP-III

ISFD

ISBKD

CONC

REMOVE

18" RCP

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

PUE

DUE

OUTLET PROTECTION
CLASS B RIP RAP
EST 2 TONS
EST 7 SY FF

BEARSKIN SWAMP (BR3)
PERENNIAL
JURISDICTIONAL STREAM

CLASS II RIP RAP
EST 800 TONS
EST 850 SY FF

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EXT 21 SY FF

TOE PROTECTION
EST 11 SY PSRM
SEE DETAIL 10
SHEET 2-H

CLASS B RIPRAP
STREAM BANKS ONLY
EST 14 TONS
EXT 34 SY FF

UNNAMED TRIB TO
BEARSKIN SWAMP (BR4)
INTERMITTANT
JURISDICTIONAL STREAM

SITE 20

SITE 21

SITE 22

SITE 22 - IMPACT ZOOM-IN (SCALE 1"=50')

24" RCP | 24' CONC

SR 1239 MCLAURIN RD

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

10/4/2012
K:\NAL_Roadway\0110056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r-2303c_prm_psh_29.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 63 of 75

NAD 83/95

MATCH LINE -L- STA. 1074+00 SEE SHEET NO. 28

MATCH LINE -L- STA. 1088+00 SEE SHEET NO. 30

124 SAMPSON COUNTY

126 WASTE INDUSTRIES, LLC

128 T&W DEVELOPMENT

130 BERTHILDA BARBOZA ROBLES

1075 1080 1085

TOE PROTECTION CLASS 'B' RIP RAP EST 40 TONS EST 85 SY FF SEE DETAIL 8 SHEET 2-I

FALSE SUMP SEE DETAIL 7 SHEET 2-H

WW FENCE

CLASS II RIP RAP EST 700 TONS EST 750 SY FF

CLASS II RIP RAP

TOP OF BANK

EDGE OF WATER

FALSE SUMP SEE DETAIL 7 SHEET 2-H

ISFD

ISBKD

CONC

REMOVE

18" HDPE

18" RCP

15" RCP

FALSE SUMP SEE DETAIL 7 SHEET 2-H

NC 24 24" BST

15" RCP-IV

15" RCP-III

CONC CONC. BRIDGE

15" RCP-IV

18" RCP-III

15" RCP-IV

18" RCP

18" RCP-III

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

30" RCP-III

PUE

DUE

OUTLET PROTECTION CLASS B RIP RAP EST 2 TONS EST 7 SY FF

BEARSKIN SWAMP (BR3) PERENNIAL JURISDICTIONAL STREAM

CLASS II RIP RAP EST 800 TONS EST 850 SY FF

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY FSRM SEE DETAIL 2 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST. 8 TONS EXT. 21 SY FF

TOE PROTECTION EST 11 SY FSRM SEE DETAIL 10 SHEET 2-H

CLASS B RIPRAP STREAM BANKS ONLY EST 14 TONS EXT 34 SY FF

2@30" RCP-III

UNNAMED TRIB TO BEARSKIN SWAMP (BR4) INTERMITTANT JURISDICTIONAL STREAM

SITE 20

SITE 21

SITE 22

SITE 22 - IMPACT ZOOM-IN (SCALE 1"=50')

24" RCP

24" CONC

SR 1238 HOLLY SPRINGS RD

-L138-

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

12/6/2012
K:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_29.dgn

PROJ. REFERENCE NO.	SHEET NO.
R-2303c	

Permit Drawing
Sheet 64 of 75

1078+00 1079+00 1080+00 1081+00 1082+00 1083+00

130
120
110
100
90
80

℄ LOWPOINT
APPROX. STA = 1077+95
APPROX. ELEV. = 109.20

CL STA 1081+04.5 -L-
EAST BOUND LANE (-EBL-)
45" PRESTRESSED GIRDER
1 @ 40', 1 @ 65', 1 @ 40'
W/ SPILL THROUGH SLOPES
CL ELEV = 110.57'
90° SKEW

LOWSTEEL @ LOWSIDE
OF 2.5% SUPERELEVATION

EXISTING BRIDGE
AND ROADWAY

(+)0.5055%

100-YR=100.4'

50-YR=99.6'

2' (TYP)

NATURAL GROUND
@ ℄ OF BRIDGE

CLASS II
RIP RAP
(TYP.)

NATURAL GROUND
DOWNSTREAM

2:1 (TYP)
NORMAL TO
END BENT

3.5' (TYP)

NORMAL W.S.EL. = 92.4'
@ EXISTING BRIDGE
(DECEMBER 15, 2008)

100-YR THEORETICAL
SCOUR

500-YR THEORETICAL
SCOUR

SITE 20 & 21

EAST BOUND LANE BRIDGE AT STATION -L- 1081+04.50

K:\RAL_Roadway\0110560078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\Profiles\V081+04.5_L_bearskin_eb_bridge.dgn
8/3/2012

	PROJ. REFERENCE NO.	SHEET NO.
	R-2303c	

Permit Drawing
Sheet 65 of 75

1078+00 1079+00 1080+00 1081+00 1082+00 1083+00 1084+00

130
120
110
100
90
80

℄ LOWPOINT
APPROX. STA = 1077+95
APPROX. ELEV. = 109.20

CL STA 1081+04.5 -L-
WEST BOUND LANE (-WBL-)
45" PRESTRESSED GIRDER
1 @ 40', 1 @ 65', 1 @ 40'
W/ SPILL THROUGH SLOPES
CL ELEV = 110.57'
90° SKEW

LOWSTEEL @ LOWSIDE
OF 2.5% SUPERELEVATION

EXISTING BRIDGE
AND ROADWAY

(+)0.5055%

NATURAL GROUND
@ ℄ OF BRIDGE

100-YR=100.4'

50-YR=99.6'
2' (TYP)

NATURAL GROUND
UPSTREAM

CLASS II
RIP RAP
(TYP.)

3.5' (TYP)

2:1 (TYP)
NORMAL TO
END BENT

EXCAVATION = 1100 CY
(BRIDGE AREA AND
EMBANKMENT)

NORMAL W.S.EL. = 92.4'
@ EXISTING BRIDGE
(DECEMBER 15, 2008)

100-YR THEORETICAL
SCOUR

500-YR THEORETICAL
SCOUR

SITE 20

WEST BOUND LANE BRIDGE AT STATION -L- 1081+04.50

K:\RAL_Roadway\01105607B (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\Profiles\1081+045_L_bearskin_wb_bridge.dgn
8/3/2012

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-147

Permit Drawing
Sheet 66 of 75

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

120
110
100

0.025 0.025

1080+36.00

120
110
100

0.025 0.025

10:1 10:1

3:1 3:1

D.P. 108.102

1080+00.00

WETLAND BOUNDARIES

WETLAND BOUNDARIES

SITE 20

CLEARING LIMITS

WETLAND IMPACTS

WETLAND IMPACTS

CLEARING LIMITS

120
110
100

0.025 0.025

10:1 10:1

3:1 3:1

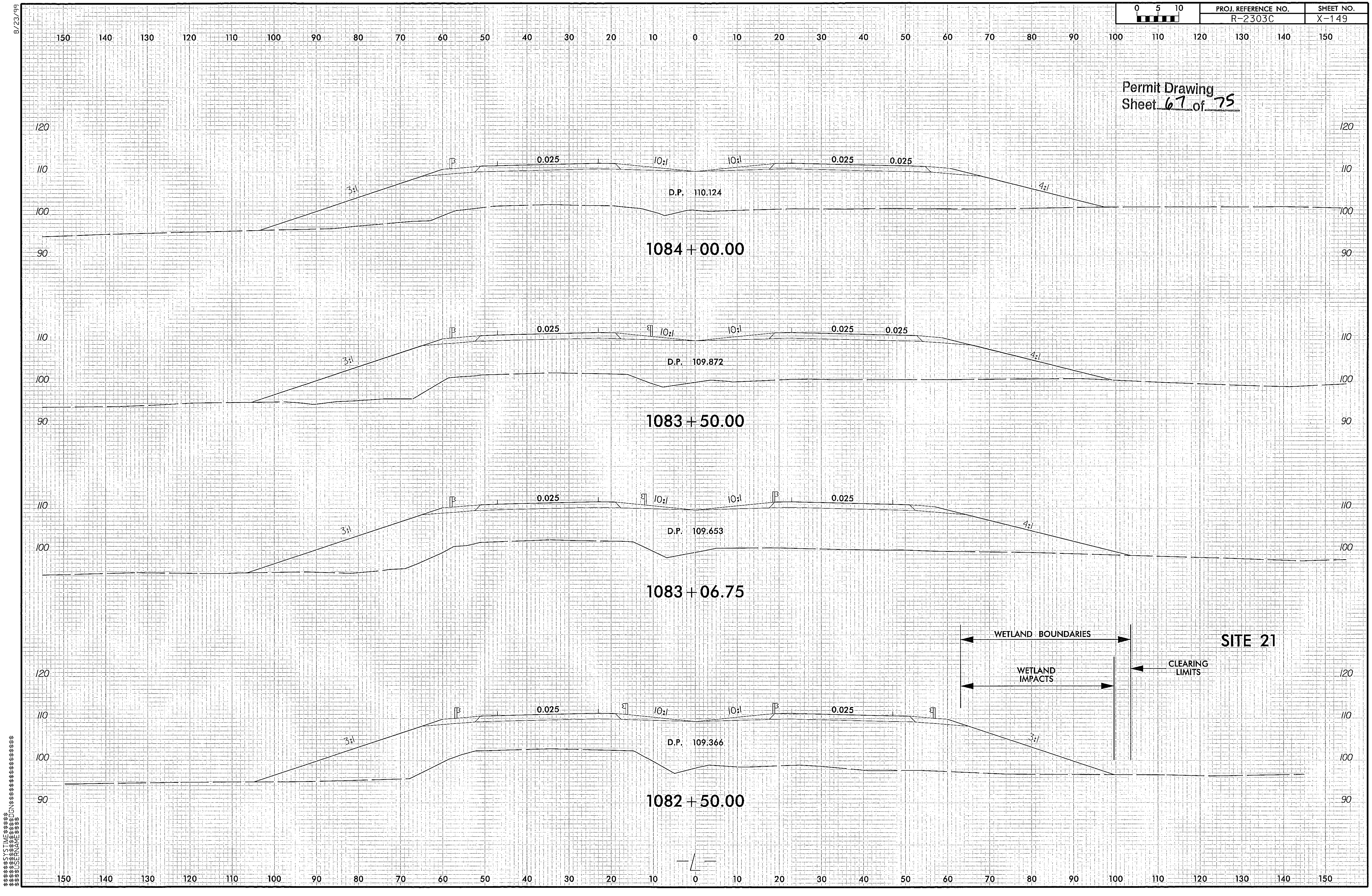
D.P. 107.850

1079+50.00

90
80

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

$$$$SYSTIME$$$$
$$$$USERNAME$$$$


8/23/99
0 5 10
PROJ. REFERENCE NO.
R-2303C
SHEET NO.
X-149
Permit Drawing
Sheet 67 of 75
0.025
10:1
10:1
0.025
0.025
3:1
4:1
D.P. 110.124
1084 + 00.00
0.025
10:1
10:1
0.025
0.025
3:1
4:1
D.P. 109.872
1083 + 50.00
0.025
10:1
10:1
0.025
3:1
4:1
D.P. 109.653
1083 + 06.75
WETLAND BOUNDARIES
SITE 21
CLEARING LIMITS
WETLAND IMPACTS
0.025
10:1
10:1
0.025
3:1
3:1
D.P. 109.366
1082 + 50.00
-L-
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 68 of 75

NAD 83/95

SITE 24

MATCH LINE -L- STA. 1088+00 SEE SHEET NO. 30

128 131 134 135 137 132 133

RUINS
FALSE SUMP SEE DETAIL 7 SHEET 2-H
1095
1100
SOIL
72" WD
CMP
ISBKD
CONC
ANTENNA
WD DK
2SFD
36" CONC
48" CONC
ACCESS POINT
RW
GR
W/LT
F
C
D
EXISTING R/W
8' CONC
24" RCP
30" RCP-III
NC 24 24" BST
REMOVE
15" HDPE
2GI
8' CONC HWALL
-L-
18" RCP-III
15" RCP-N
15" RCP-III
15" RCP
18" RCP
48" CMP
MTL CARPORT
WW FENCE
PUE
CLASS 'B' RIP RAP STREAM BANKS ONLY EST 2 TONS EST 7 SY FF
SITE 23
UNNAMED TRIB TO BEARSKIN SWAMP (BR4) INTERMITTANT JURISDICTIONAL STREAM
TOE PROTECTION EST 65 SY PSRM SEE DETAIL 10 SHEET 2-H
SITE 23 - IMPACT ZOOM-IN (SCALE: 1" = 50')
2SBKD
POOL
48" WD RAIL
ISBK BUS
CANOPY
15" CMP
48" CONC
48" CML

F/F DENOTES FILL IN WETLAND
DENOTES MECHANIZED CLEARING
S/S DENOTES IMPACTS IN SURFACE WATER
TS/TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

R/W REV: REVISING THE R/W TO TIE TO R-2303D. 10/20/11 TFD

10/4/2012
K:\RAL_Roadway\011056078 (R-2303C)\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_30.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	30
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 69 of 75

NAD 83/95

MATCH LINE -L- STA. 1088+00 SEE SHEET NO. 30

SITE 24

SITE 23

FALSE SUMP SEE DETAIL 7 SHEET 2-H

FALSE SUMP SEE DETAIL 2 SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

CLASS 'B' RIP RAP STREAM BANKS ONLY EST 2 TONS EST 7 SY FF

UNNAMED TRIB TO BEARSKIN SWAMP (BRA) INTERMITTANT JURISDICTIONAL STREAM

TOE PROTECTION EST 65 SY PSRM SEE DETAIL 10 SHEET 2-H

SITE 23 - IMPACT ZOOM-IN (SCALE: 1" = 50')

ACCESS POINT

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

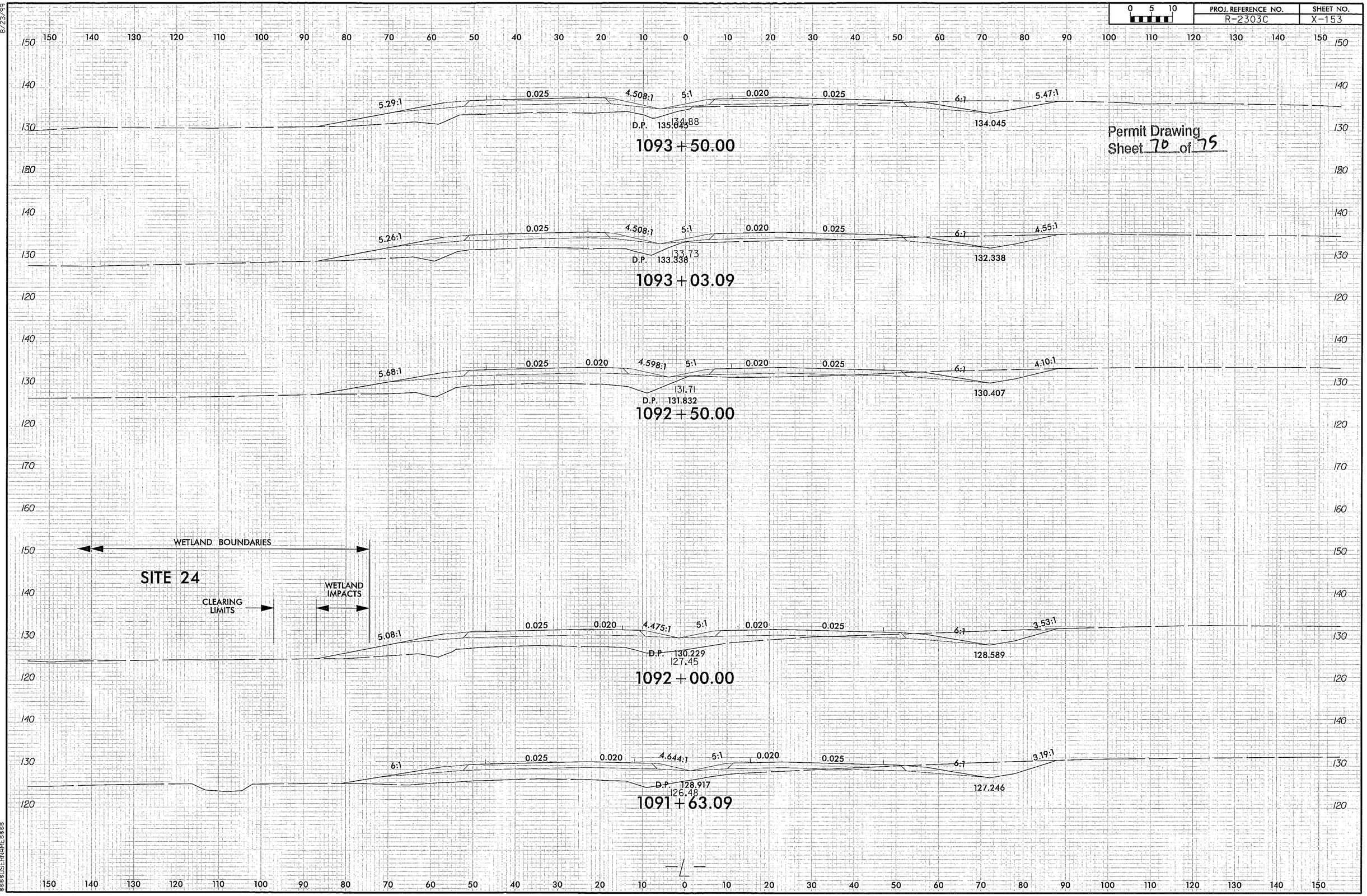
DENOTES TEMPORARY IMPACTS IN SURFACE WATER

R/W REV.: REVISING THE R/W TO TIE TO R-2303D. 10/20/11 TFD

10/4/2011
K:\TraDOT\Roadway\0112656078 (R-2303C\Hydraulics\PERMITS_Environmental\Drawings\r2303c_prm_psh_30.dgn

8/23/99

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303C	X-153



Permit Drawing
Sheet 70 of 75

$$$$$$$SYSTIME$$$$$$$
$$$$$$$USERNAME$$$$$$$

	OWNER'S NAME	ADDRESS
(1)	Hubert Autry	
(2)	Margie L. Aman	
(3)	Cleveland Godbold, Et Ux	
(6)	Ruth Stephens	
(7)	Jefferson B. Strickland	
(8)	Hubert Autry	
(9)	N.C. Natural Gas Corp	
(10)	Christopher Michael Greene	
(13)	Boren Clay Products	P.O. Box 518 Rosebory, NC 28382
(14)	Audrey Lee Starling Kerr Margaret Rose Starling Watkins, Et Al	
(17)	Paul R. Faircloth	
(18)	Herman James Faircloth	
(23)	Ronald Cannady	1390 Bass Lake Rd. Roseboro, NC 28382
(24)	George Brock	650 Lucas Rd. Roseboro, NC 28382
(40)	S.M.P Farms	P.O. Box 2889 Roseboro, NC 28382
(41)	Belle L. Parker	
(44)	Lillian Leigh Herring	812 Yorkshire Trail Chesapeake, VA 23322
(45)	Thomas L. Sutton, Et Ux	
(46)	Thomas L. Sutton	
(55)	Carl. T. Wolford	4200 Pleasantview Dr Fayetteville, NC 28301
(60)	Benjamin R. Goff, III	
(61)	Charles Dubose	

PROPERTY OWNER NAME AND ADDRESS R-2303C

NCDOT
DIVISION OF HIGHWAYS
SAMPSON COUNTY

PROJECT: R-2303c
LOCATION: NC 24 FROM SR 1404 (DOWDY ROAD) TO SR 1303 (MITCHELLS LOOP ROAD)

11/04/2011 **Sheet 1 of 2**

$FILE$

11/8/2011

Permit Drawing
Sheet 71 of 75

	OWNER'S NAME	ADDRESS
(65)	Ann W.Wheeler and Jane B.Copeland	9336 Roseboro Hwy Roseboro,NC 28382
(66)	Charles B.Williams and Lela J.Williams	
(73)	Charles B.Williams and Lela J.Williams	
(74)	Roger Ray Royal	1234 Underwood Rd Roseboro,NC 28382
(75)	Amanda Scott Stroud	
(91)	Ricky Walton Sessoms	712 Clinton St Roseboro,NC 28382
(98)	Charles Eric Lipscomb	
(110)	John Keith Hobbs,Et Ux and Thomas Dale Hobbs,Jr.,Et Ux	
(113)	Amos Butler Heirs	
(124)	Sampson County	
(126)	Waste Industries,LLC	7434 Roseboro Hwy Roseboro,NC 28382
(129)	Baron M.Van Liew	
(131)	Forest Monk	15 Washington St Spring Valley,NY 10977
(132)	Kennety R.Gautier	6945 Roseboro Hwy Roseboro,NC 28382
(134)	James Monk	138 Seaman St New Brunswick,NY 08901

PROPERTY OWNER NAME AND ADDRESS R–2303c

NCDOT
DIVISION OF HIGHWAYS
SAMPSON COUNTY

PROJECT: R–2303c
LOCATION: NC 24 FROM SR 1404 (DOWDY ROAD) TO SR 1303 (MITCHELLS LOOP ROAD)

11/04/2011 **Sheet 2 of 2**

$FILE$
11/8/2011

Permit Drawing
Sheet 72 of 75

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS						
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	Permanent Non Mitigable Impacts (ac)	Temporary Non Mitigable Impacts (ac)
1	734+14 to 739+72	42" RCP/WETLAND	0.87		0.20	0.11		0.01		74.00				
1	734+14 to 739+73	BANK STABILIZATION						<0.01	<0.01	10.00	10.00			
2	741+85 to 744+50	36" RCP/WETLAND	0.26			0.05							0.01	
2	741+85 to 744+50	BANK STABILIZATION											<0.01	<0.01
3	755+00 to 760+34	POND											1.26	0.08
4	764+28 to 765+07	30" RCP											0.04	
5	769+44 to 777+78	WETLAND/POND	0.95		0.16	0.20		0.45						
6	804+86 to 807+86	STREAM	0.10			0.04		0.01		213.00				
6	804+86 to 807+86	BANK STABILIZATION						<0.01	<0.01	10.00	20.00			
7	860+27 to 865+12	WETLAND/STREAM	2.34			0.17		0.07		260.00				
7	860+27 to 865+12	BANK STABILIZATION						<0.01	<0.01	39.00	21.00			
8	881+97 to 882+31	WETLAND	<0.01			<0.01								
9	887+38 to 889+49	WETLAND/STREAM	0.64			0.04		0.03		255.00				
9	887+38 to 889+49	BANK STABILIZATION						0.01	<0.01	55.00	20.00			
SHEET TOTALS			5.17		0.36	0.61		0.59	0.01	916	71		1.31	0.08

Permit Drawing
Sheet 73 of 75

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SAMPSON COUNTY
STPNHF-F-8-2(1 (R-2303C)

SHEET 1 of 3 1/25/2013

ATN Revised 3/31/05

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS						
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	Permanent Non Mitigable Impacts (ac)	Temporary Non Mitigable Impacts (ac)
10	905+77 to 907+41	WETLAND/STREAM	0.25			0.01		0.04		262.00			0.03	
10	905+77 to 907+41	BANK STABILIZATION						<0.01	<0.01	80.00	20.00		<0.01	
11	912+92 to 913+67	POND/STREAM						0.26		315.00				
11	912+92 to 913+67	BANK STABILIZATION						<0.01	<0.01	14.00	20.00			
12	937+08 to 957+49	WETLAND (BRIDGE)	3.56		0.16*	0.68	0.23							
13	955+51 to 958+83 (RT)	WETLAND	0.32			0.06								
14	977+98 to 981+52	WETLAND	0.46		0.09	0.11								
15	999+64 to 1005+57	POND/STREAM						<0.01		38.00			3.22	
15	999+64 to 1005+57	BANK STABILIZATION						<0.01	<0.01	10.00	10.00			
16	1005+48 to 1007+04	WETLAND	0.05			0.03								
17	1007+77 to 1010+99	POND											0.34	
18	1035+56 to 1037+40	WETLAND/STREAM	0.60			0.06		0.02		271.00				
18	1035+56 to 1037+40	BANK STABILIZATION						<0.01	<0.01	10.00	20.00			
19	1064+16 to 1067+96	48" CMP	0.49			0.09		<0.01		90.00				
19	1064+16 to 1067+96	BANK STABILIZATION						<0.01	<0.01	10.00	10.00			
SHEET TOTALS			5.73		0.09	1.05	0.23	0.35	0.01	1100	80		3.59	0.00

Site 12 contains 216 SF of impacts due to bents in stream

* Excavation of roadway fill around existing bridge is not required for mitigation and is not added into the total area

Permit Drawing
Sheet 74 of 75

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SAMPSON COUNTY
STPNHF-F-8-2(1 (R-2303C)

ATN Revised 3/31/05

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS						
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)	Permanent Non Mitigable Impacts (ac)	Temporary Non Mitigable Impacts (ac)
20	1075+74 to 1080+69	WETLAND (BRIDGE)	0.82			0.13								
21	1082+39 to 1083+15	WETLAND	0.04			0.02								
22	1086+79 to 1087+86	24" RCP						<0.01		26.00				
22	1086+79 to 1087+86	BANK STABILIZATION						<0.01	<0.01	10.00	20.00			
23	1088+55 to 1089+59	18" RCP						0.02		137.00				
23	1088+55 to 1089+59	BANK STABILIZATION						<0.01	<0.01	10.00	10.00			
24	1091+76 to 1092+23	WETLAND	<0.01			0.01								
SHEET TOTALS			0.87			0.16		0.03	<0.01	183.00	30.00			
PROJECT TOTALS			11.77		0.45	1.83	0.23	0.96	0.02	2199.00	181.00		4.90	0.08

Permit Drawing
Sheet 75 of 75

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SAMPSON COUNTY
STPNHF-F-8-2(1 (R-2303C)

SHEET 3 of 3 1/25/2013

ATN Revised 3/31/05

09/08/99

CONTRACT: **TIP PROJECT: R-2303C**

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

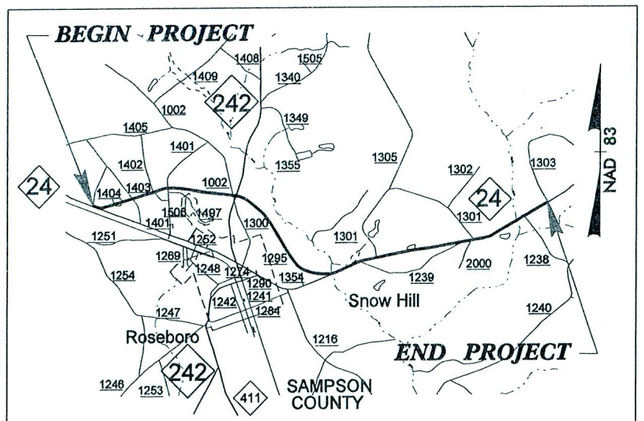
T.I.P. NO.	SHEET NO.
R-2303C	U-1

UTILITY WETLAND IMPACT PLAN
SAMPSON COUNTY

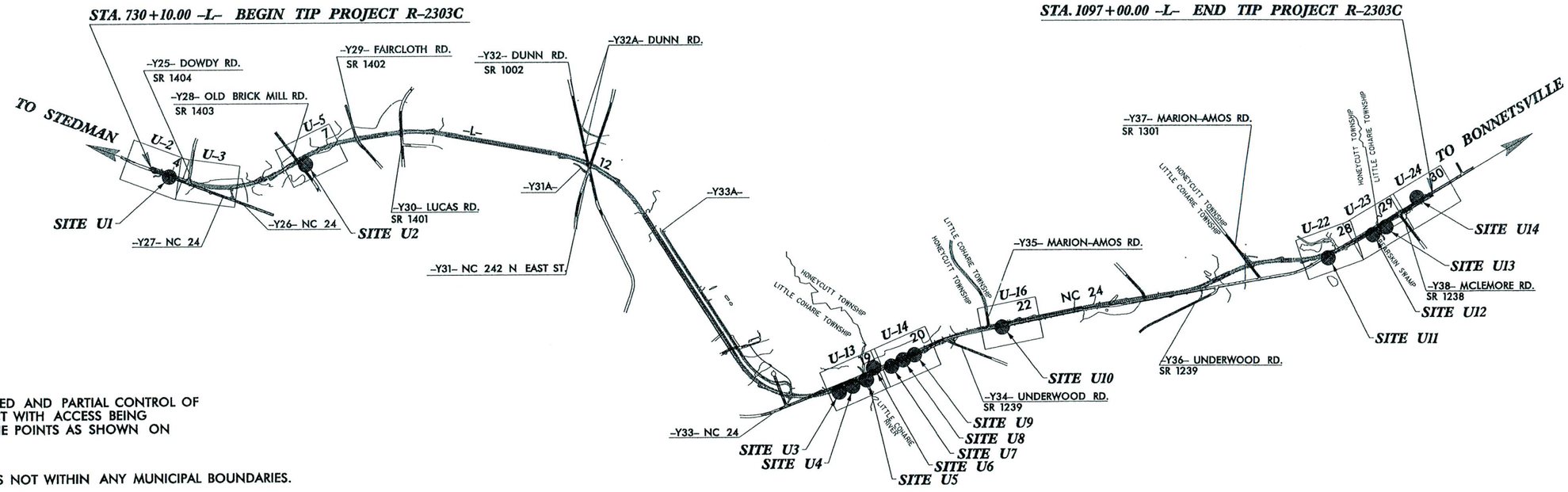
LOCATION: NC 24 FROM SR 1404 (DOWDY ROAD) TO SR 1303 (MITCHELL LOOP ROAD)

TYPE OF WORK: UTILITY RELOCATION WORK

Utility Permit Drawing
Sheet 1 of 10



VICINITY MAP



THIS IS A LIMITED AND PARTIAL CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE POINTS AS SHOWN ON THE PLANS.

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

NAD 83/ NSRS 2007

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

UTILITY OWNERS ON PROJECT

(1) Progress Energy (Power Distribution /Transmission)
(2) South River EMC (Power Distribution /Transmission)
(3) Century Link (Telecommunications)
(4) Star Vision (Cable Television)
(5) PNG (Distribution Gas)

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES ENGINEERING SECTION
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

Roger Worthington, P.E. — *UTILITIES SECTION ENGINEER*
Steve McKee, P.E. — *UTILITIES SQUAD LEADER PROJECT ENGINEER*
Brandy Creech — *UTILITIES COORDINATION CONSULTANT*

09-MAR-2012 15:42
Y:\Projects\NCDOT_Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_tsh_environmental.dgn
CNewsome AT RALEWCNEWSOME

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U2
R/W SHEET NO.	4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

NAD 83/NSRS 2007

Utility Permit Drawing
Sheet 2 of 10

8/17/99

REVISIONS

STA 730+10.00 -L-
BEGIN STATE PROJECT R-2303C

ROBIE BRANDON FAIRCLOTH
DB 1529 PG 346
MB 48 PG 23

-SRI-
PI Sta 12+49.88
Δ = 80° 09' 41.8" (LT)
D = 114° 35' 29.6"
L = 69.95'
T = 42.08'
R = 50.00'
SE = SEE PLANS

PI Sta 11+15.88
Δ = 78° 00' 40.1" (RT)
D = 114° 35' 29.6"
L = 68.08'
T = 40.50'
R = 50.00'
SE = SEE PLANS

EXIST. PE OH LINES TO REMAIN

EXIST. PE OH LINES TO BE REMOVED

EXIST. PE OH LINES TO BE REMOVED

EXIST. PE OH LINES TO REMAIN

EXIST. PE OH LINES TO REMAIN

EXIST. PE OH LINES TO BE REMOVED

POT Sta. 728+79.38

TS Sta. 737+37.21

PT Sta. 11+43.46

PC Sta. 12+07.80

POC Sta. 12+77.00

END CONSTRUCTION

PT Sta. 12+77.76

-L- POT Sta. 732+76.44
-SRI- POT Sta. 10+00.00

BEARING AH =
S 82° 08' 01.3" W

S 69° 33' 44.4" E

N 22°16'43" W
830.99'

N 18°23'00" E
165.59'

MATCH LINE -L- STA. 738+00 SEE NO. U3

HUBERT AUTRY
WB 88-E-17
DB 559 PG 508

NANCY T.
DB 134

MARCH L. AMAN
DB 802 PG 150
DB 907 PG 650

CLEVELAND GODBOLD ESTATE
DB 762, LEC 162

TOMMY R. HALL
DB 1317 PG 567

CHARLES G. SESSOMS
DB 1658 PG 805
DB 1088 PG 392

CONNIE INEZ HALL
DB 1663 PG 623
DB 1088 PG 400
DB 1088 PG 403(MAP)

TERRY R. HUDSON
DB 1762 PG 282
MB 39 PG 48

SHANNON E. FAIRCLOTH
DB 1394 PG 796
MB 39 PG 48

SITE UI
HAND CLEARING IN WETLANDS
0.12 AC

HAND CLEARING IN WETLANDS

03-MAR-2012 15:42
J:\PROJECTS\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_psh_U002.dgn
CNessone
AT RALEWKNEWSOME

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U5
R/W SHEET NO.	7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Utility Permit Drawing
Sheet 3 of 10

NAD 83/NSRS 2007

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

-L-
PIs Sta 770+30.32
Θs = 1° 28' 22.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 777+72.84
Δ = 19° 42' 45.0" (RT)
D = 1° 28' 22.4"
L = 1,338.35'
T = 675.85'
R = 3,890.00'
SE = .04
RO = 200'

EXIST. PE OH LINES (3 PH) TO REMAIN

EXIST. PE OH LINES TO BE REMOVED

TIE EXISTING DITCH INTO PROPOSED

-Y28- POT Sta. 12+00.00
BEGIN CONSTRUCTION

ST Sta. 766+03.90

BOREN CLAY PRODUCTS
DB 874 PG 486
13

CLEAN SILT OUT OF OUTLET AND GRADE TO DRAIN

LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H

RETAIN EX 24" RCP AND EXTEND 12 LF. W/ CONCRETE COLLAR

-BL- 102 PINC
-BY- 102 PINC

+03.90 100' LT

+10 100' LT END FENCE

150' TAPER

300' TAPER

180-60-180 6.5' OS

REMOVE

N 58° 49' 09.3" E 15'

18" RCP-III

PSH

PDE

+03.90 110' RT

+80 110' RT 120' RT

+20 110' RT 120' RT

+50 110' RT END FENCE

TS Sta. 768+96.99

-L- POC Sta. 769+20.53

-Y28- POT Sta. 15+02.53

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

EXIST. SREMC OH POWER TO BE REMOVED

BOREN CLAY PRODUCTS
DB 874 PG 486
13

-Y28- POT Sta. 17+17.94

-Y28- +85 EX. R/W
-Y28- +84 55' RT
-Y28- +05 57' RT
-Y28- +07 EX. R/W
PUE
PROP.

-Y28- +02 EX. R/W 48' LT

-Y28- +35 65' LT BEGIN FENCE

SITE U2
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE U2
HAND CLEARING IN WETLANDS
0.11 AC

SITE U2

-Y28- +50 EX. R/W 45' LT

-Y28- +85 EX. R/W

TIE EXISTING DITCH INTO PROPOSED

-Y28- POT Sta. 17+50.00
END CONSTRUCTION

LATERAL 2' BASE DITCH SEE DETAIL 14 SHEET 2-I

SC Sta. 770+96.99

WW FENCE

+00 100' RT

+21 119.05' RT

-Y28- +55 40' RT

-Y28- +50 EX. R/W 40' RT

-Y28- +94 48' LT

-Y28- +00 EX. R/W 40' LT

-Y28- +11 64' RT

-Y28- +31 64' RT

-Y28- +27 41.86' RT

-Y28- +75 45.17' RT 90' RT

-Y28- +95 46.55' RT 90' RT

-Y28- +45 50' RT

-Y28- +65 60' LT

-Y28- +68 115' LT

-Y28- +66 126' LT

+36 126.22' LT

+95 130' LT BEGIN FENCE

+95 115' LT

+89.01

+71.99

+96.99

+75.53

+65.53

+25.93

+60.53

+2.99

+0.22

0707 15" RCP-IV

0708 2@1

0709 2@1

0710

0702

0703

0704

0705

0706

FALSE SUMP SEE DETAIL 7 SHEET 2-H

8:1 CAT-1

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

+85 115' LT 130' LT

UTILIZE ROCK FILL FROM STA 774+80 TO 777+80 LT UP TO ELEVATION 131.0

PONDS TO BE DRAINED DURING CONSTRUCTION

BOREN CLAY PRODUCTS
DB 874 PG 486
13

LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H

-BL- 103 PINC

LATERAL 'V' DITCH SEE DETAIL 15 SHEET 2-I

2@36" RCP-III

+00 75' RT

+79 100' RT

+50 100' RT

TIE PROPOSED DITCH INTO EXISTING

UNNAMED TRIB TO LITTLE COHARIE CREEK NON-JURISDICTIONAL STREAM

IVEY FELTON HAIRR ET AL
DB 1577 PG 330
16

AUDREY LEE STARLING KERR
MARGARET ROSE STARLING WATKINS
DOROTHY SUE STARLING FAISON
DB 1100 PG 302
MB 27 PG 47
14

EXIST. SREMC OH POWER TO BE REMOVED

EXIST OH POW LINE

EXIST. POWER LINE

HAND CLEARING IN WETLANDS

REVISIONS 8/17/99

09-MAR-2012 15:43
R:\Projects\NCDOT\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_psh_U005.dgn
Chesnutte
ATRAILEWKNEWSOME

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U13
R/W SHEET NO.	19
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

Utility Permit Drawing
Sheet 4 of 10

NAD 83/NSRS 2007

-L-
PIs Sta 934+37.78
Θs = 4° 11' 58.9"
Ls = 280.00'
LT = 186.72'
ST = 93.38'

REVISIONS
8/17/99

64
RICCI TADLOCK
DB 1460 PG 622

60
BENJAMIN R. GOFF, III
DB 1126 PG 466

65
ANN W. WHEELER AND JANE B. COPELAND
DB 1288 PG 843
DB 1288 PG 853
DB 1288 PG 856
DB 1389 PG 845

61
CHARLES DUBOSE
DB 781PG 153

66
CHARLES B. WILLIAMS AND LELA J. WILLIAMS
DB 1548 PG 13

213.08'
N68°20'04"E

ST Sta. 936+24.39

EXIST. PE OH LINES TO BE REMOVED

+00
BEGIN FENCE

BM# 709 ELEVATION = 89.90'
-BL- STA: 939+96 115' LEFT
R/R SPIKE SET IN 22" GUM

+24.39
110' LT
120' LT

CHORD

CLASS II RIP RAP

BEGIN BRIDGE
-L- STA 941+65.00

+30
120' LT

EXCAVATION
EST 4300 CY

WW FENCE

+85
120' LT

EXIST 115 KV TRANSMISSION LINE TO BE REMOVED

+25.00
115' LT
120' LT

+53
151.06' LT

+06.58
115' LT

+38
115' LT

SITE U6
HAND CLEARING IN WETLANDS
0.01 AC

BEGIN SPECIAL GRADING
-L- POT STA 939+35.00

N 66°16'21"E

TYPE M350

TYPE B-77

REM.

REM. GR

EXIST OH POW LINE

-BL- 128 PINC

-BL- 129 PINC

END BRIDGE
-L- STA 944+60.00

END SPECIAL GRADING
-L- POT STA 946+88.00

PROP.

PUE

+04
140' RT

+24.39
125' RT

+80
141' RT

+13.96
141' RT

+34.56
125' RT

+21
262.16' RT

+97.58
125.00' RT

+31
142' RT

+05
203' RT

SITE U3
HAND CLEARING IN WETLANDS
0.02 AC

SITE U4
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE U4
HAND CLEARING IN WETLANDS
0.19 AC

SITE U4
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE U5
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE U5
HAND CLEARING IN WETLANDS
0.72 AC

PROP 115 KV TRANSMISSION LINE

EXIST 115 KV TRANSMISSION LINE — SPECIFIC 100' POWERLINE RIGHT OF WAY

SITE U3

SITE U4

SITE U5

HAND CLEARING IN WETLANDS

MATCH LINE -L- STA. 948+00 SEE U14

03-MAR-2012 15:43
V:\PROJECTS\NCDOT\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_psh_U013.dgn
R.PAGE
Awesome
A1 RALEIGH

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U14
R/W SHEET NO.	20
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

Utility Permit Drawing
Sheet 5 of 10

NAD 83/NSRS 2007

REVISIONS 8/17/99

MATCH LINE -L- STA. 948+00 SEE U13

ANN W. WHEELER AND JANE B. COPELAND
DB 1288 PG 843
DB 1288 PG 853
DB 1288 PG 856
DB 1389 PG 845

65

-BL- 130 PINC

-BL- 131 PINC

950

955

960

SPECIAL 100' POWERLINE RIGHT OF WAY

EXIST. PE OH LINES TO BE REMOVED

LATERAL 2' BASE DITCH TO CONNECT WETLANDS AND BREACH BERM SEE DETAIL II SHEET 2-I

+65 115' LT END PARTIAL C/A BEGIN FULL C/A

MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-I

+13 115' LT 141' LT

+34 115' LT 142' LT

+25 115' LT END FULL C/A BEGIN PARTIAL C/A

PLUE

PROP R/W

WW FENCE

+04 END FENCE

ACCESS POINT

+64 BEGIN FENCE

67

ANN W. WHEELER, ET AL
DB 1288 PG 843
DB 1288 PG 853
DB 1288 PG 856
DB 1389 PG 845

LATERAL 'V' DITCH SEE DETAIL I SHEET 2-H

BM# 710 ELEVATION = 107.43'
-BL- STA. 965+60 97' LEFT
R/R SPIKE SET IN 28" GUM

EXISTING R/W

30' R/W

50' R/W (AS SHOWN ON SR 591)

150' TAPER

GRAU 350

12" DR.

10" PS

24" PS

10" PVC

EXIST OH POW LINE

PROP O/H POW LINES

REM.

GUARDRAIL R=20

GUARDRAIL R=57

R=421'

N 66°16'21.3" E

CATV

12" DR.

WW FENCE

PROP.

PUE

+54 142' RT 152' RT

+75 141' RT 151' RT

+65 125' RT 135' RT END PARTIAL C/A BEGIN FULL C/A

+65 128' RT

+25 100' RT 135' RT END FULL C/A BEGIN PARTIAL C/A

+25 116' RT

+25 END FENCE

+86 BEGIN FENCE

SITE U7
HAND CLEARING IN WETLANDS
0.08 AC

SITE U7
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE U7

SITE U8
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE U8
HAND CLEARING IN WETLANDS
0.08 AC

SITE U8

SITE U9
HAND CLEARING IN WETLANDS
0.028 AC

SITE U9

66

CHARLES B. WILLIAMS AND LELA J. WILLIAMS
DB 1548 PG 13

2110.22'
S66°45'07"W

HAND CLEARING IN WETLANDS

03-MAR-2012 15:43
X:\Projects\NCDOT\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_psh_U014.dgn
User: Raleigh WSDOT

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U16
R/W SHEET NO.	22
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

NAD 83/NSRS 2007

Utility Permit Drawing
Sheet 6 of 10

REVISIONS 8/17/99

09-MAR-2012 15:44
V:\Projects\NCDOT\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_psh_U016.dgn
User:some
PSFile: A RALEIGH WIDE

-Y35- POT Sta. 10+00.00
-BY8- 219 PINC
-Y35- POT Sta. 12+25.00
BEGIN CONSTRUCTION
EXIST. PE OH LINES TO BE REMOVED
-Y35- +00 EX. R/W
-Y35- +05 58' RT
-Y35- +24 55' RT
-Y35- +20 EX. R/W
PUE
73
CHARLES B. WILLIAMS DB 1548 PG 13
-Y35- +25 EX. R/W 45' RT
-Y35- +25 EX. R/W 50' LT
LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H
-Y35- +53 51.27' LT
-L- POT Sta. 977+44.76
-Y35- POT Sta. 14+88.26
-Y35- +40 55' RT
-Y35- +35 55' LT
+60 110' LT END FENCE
PROP. 50 115' LT BEGIN FENCE
+54 115' LT
300' TAPER
180-60-180 6.5' OS
36" RCP-N
CHARLES B. WILLIAMS AND LELA J. WILLIAMS DB 1548 PG 13
AMANDA SCOTT STROUD DB 1530 PG 654
75
LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H
179.00' S69°55'32"W
ROSCOE MAURICE HOLLAND, JR. DB 1719 PG 620
77
EXIST. PE OH LINES TO BE REMOVED
+30 BEGIN FENCE
+25 95' LT 115' LT
+82.78 6.57'
+76.36 5.66'
+70
12' DR.
REM.
+10 END FENCE
+58 95' LT 111' LT END PARTIAL C/A BEGIN FULL C/A
+88 95' LT 111' LT END FULL C/A BEGIN PARTIAL C/A
WW FENCE
+53
+133 R 42'
4' PS
24'
N 78°42'54.2" E
15'
2204
2205
2202
2201
2GI
-L-
36" RCP-N
10" REM.
150' TAPER
EXIST OH POW LINE
+07
+85 END FENCE
+24 116' RT
+70 100' RT 120' RT
+79 128' RT
+48 120' RT
+47 END FENCE
+85.60 116' RT
+85.60 152' RT
+24 116' RT
+65 116' RT
+16
+25
+56 100' RT END FULL C/A BEGIN PARTIAL C/A END FENCE
+76 100' RT END PARTIAL C/A BEGIN FULL C/A BEGIN FENCE
PROP. 12' DR.
PUE
LATERAL 2' BASE DITCH SEE DETAIL 14 SHEET 2-I
304.33' AXLE-EP N65°33'40"E
72
+50 115' RT 120' RT
CHARLES B. WILLIAMS AND LELA J. WILLIAMS DB 1548 PG 13
-BL- 133 PINC
-BY8- 133 POT
SITE U10
FILL IN WETLANDS 1.0'X1.0' <0.01 AC
EXIST. PE OH LINES TO BE REMOVED
74
SITE U10 HAND CLEARING IN WETLANDS 0.14 AC
ROGER RAY ROYAL DB 835 PG 448
ROGER RAY ROYAL DB 837 PG 595
78
FRANK ARNETTE DB 1610 PG 700
79
WILLIE JAMEY THOMPSON DB 1357 PG 587
-BL- 6 PINC
KENNETH BETHEL WILHELMINA WILLIAMS DB 1643 PG 872 DB 1711 PG 560
80
KENNETH WILLIAMS DB 1512 PG 543
81
SUNRISE PROPERTIES AND RENTALS, LLC DB 1691PG 642
82
CHARLES HOWARD DB 1333 PG 347
KENANNA HOLDINGS, LLC DB 1608 PG 162
EXIST. PE OH LINES TO REMAIN
MILLARD T. OWEN III DB 1206 PG 105
JOYCE ANN MACK JOSEPH DB 1380 PG 690
225.47' S78°38'14"W
269.62' S78°38'14"W
149.92' S78°38'39"W
150.00' S78°38'39"W
145.37' S11°21'21"E
175.65' S11°21'21"E
290.59' S11°21'21"E
HAND CLEARING IN WETLANDS

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U22
R/W SHEET NO.	28
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/NSRS 2007

Utility Permit Drawing
Sheet 7 of 10

8/17/99

REVISIONS

-L-
PI Sta 1065+24.72
Δ = 24° 55' 16.4" (LT)
D = 1° 56' 08.4"
L = 1,287.47'
T = 654.08'
R = 2,960.00'
SE = .05
RO = 200'

PIs Sta 1072+24.79
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

EXIST. PE OH LINES TO REMAIN

SAMPSON COUNTY
DB 933 PG 606

METERS

SANITARY SEWER LIFT STATION

TOWER

POWER BOX

EXIST. UG POW LINE

1065

1070

EXIST. PE OH LINES TO BE REMOVED

CS Sta. 1071+58.12

ST Sta. 1073+58.12

MATCH LINE -L- STA. 1074+00 SEE U23

+55 105' LT
END FULL C/A
BEGIN PARTIAL C/A

WW FENCE

LATERAL 'V' DITCH W/ CLASS 'B' RIP RAP
EST 15 TONS
EST 35 SY FF
SEE DETAIL 9
SHEET 2-H

+23 199' LT

+54 188' LT

+40.26 150.63' LT
ACCESS POINT REM.-E

+21 152' LT

+63 105' LT

+75
BEGIN FENCE

+58.12 105' LT

+58.12 100' LT

BM. 715 ELEVATION = 129.58'
BL- STA. 1074+11.8' LEFT
R/R SPIKE SET IN 28" WALNUT

180-60-180
6.5°05

150' TAPER

PROP.

+55
END FENCE

GRAU 350

CAT-1

72" RCP-III

15" RCP-IV

18"

24"

36"

EXIST OH POW LINE

PROP O/H POW LINES

PUE

PDE

REM.

CHORD

R=20

36' DR.

+85
END FENCE

ACCESS POINT

+30.00 105' RT 130' RT

+58.12 105' RT
BEGIN FENCE

-BL- 8 PINC

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

+55 110' RT
END FULL C/A
BEGIN PARTIAL C/A

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

-Y36B- +95
EX. R/W

-Y36B-

S 6° 15' 58" W

POT Sta. 9+59.00

PT Sta. 11+40.45

PC Sta. 10+00.00

-Y36B- +68
EX. R/W
38' LT

-Y36B- +06
EX. R/W
46' LT

-Y36B- POC Sta.10+25.00
BEGIN CONSTRUCTION

-Y36B- POC Sta.10+96.95
END CONSTRUCTION

-BL- 7 PINC

LATERAL 'V' DITCH
W/ CLASS 'B' RIP RAP
EST 50 TONS
EST 200 SY FF
SEE DETAIL 26
SHEET 2-J

+86.66
EX. R/W

+86
152' RT

-BL- 142 PINC

SITE U11
HAND CLEARING IN WETLANDS
0.18 AC

+09
157' RT
168' RT

SITE U11
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

+29
156' RT
167' RT

EXIST. PE OH LINES TO REMAIN

GILBERT L. OATES
DB 1058 PG 246

WASTE INDUSTRIES, LLC
DB 1659 PG 416
DB 1659 PG 419

ARCH AVE

SITE U11

-Y36B-
PI Sta 10+70.23
Δ = 1° 54' 56.3" (RT)
D = 1° 21' 50.1"
L = 140.45'
T = 70.23'
R = 4,200.80'
SE = N/A

HAND CLEARING IN WETLANDS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

08-MAR-2012 15:44
V:\PROJECTS\NCDOT\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_psh_U022.dgn
CNewsome
AT RALEIGH\NEWSOME

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U23
R/W SHEET NO.	29
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

NAD 83/NSRS 2007

Utility Permit Drawing
Sheet 8 of 10

REVISIONS
8/17/99

MATCH LINE -L- STA. 1074+00 SEE U22

MATCH LINE -L- STA. 1088+00 SEE U24

124
SAMPSON COUNTY
DB 933 PG 606

128
T&W DEVELOPMENT
DB 1369 PG 743

130
BERTHILDA BARBOZA ROBLES
DB 1367 PG 770

126
WASTE INDUSTRIES, LLC
DB 1659 PG 416
DB 1659 PG 419

129
BARON M. VAN LIEW
DB 1209 PG 765

1075 1080 1085

EXIST. PE OH LINES TO BE REMOVED

BEGIN BRIDGE
-L- STA.1080+32.00

END BRIDGE
-L- STA.1081+77.00

-BL- 144 PINC
-BYII- 144 POT

-L- POT Sta. 1087+13.09
-Y38- POT Sta. 10+00.00
BEARING AH = S 37° 57' 54.8" E

-BL- 143 PINC

-L- POT Sta. 1084+08.00

-Y38- POT Sta. 12+50.00
END CONSTRUCTION

MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-1

CLASS II RIP RAP

EXCAVATION EST. 1100 CY

WW FENCE

END FENCE

ACCESS POINT 10' DRIVE

ACCESS POINT 12' DRIVE

GRAU 350

BEGIN SPECIAL GRADING

END SPECIAL GRADING

300' TAPER

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

BM# 716 ELEVATION = 14.59'
-BM- -Y38- STA. 6+10 17' LEFT
RR SPIKE SET IN 48" OAK

SITE UI2
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE UI2
HAND CLEARING
IN WETLANDS
0.18 AC

SITE UI2
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

SITE UI2
HAND CLEARING
IN WETLANDS
0.01 AC

SITE U12

SITE U13

HAND CLEARING IN WETLANDS

LATERAL 2' BASE DITCH
SEE DETAIL 14
SHEET 2-1

09-MAR-2012 15:44
C:\Projects\NCDOT\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r2303c_rdy_psh_U023.dgn
dlawson

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	U24
R/W SHEET NO.	30
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Utility Permit Drawing
Sheet 9 of 10

NAD 83/NSRS 2007

8/17/99

REVISIONS

HAND CLEARING IN WETLANDS

SITE U14

SITE U14
HAND CLEARING
IN WETLANDS
0.02 AC

SITE U14
FILL IN WETLANDS
1.0'X1.0' <0.01 AC

EXIST. PE OH LINES
TO BE REMOVED

MATCH LINE -L- STA. 1088+00 SEE U23

T&W DEVELOPMENT
DB 1369 PG 743

FOREST MONK
DB 886 PG 24
DB 1212 PG 823

131 FOREST MONK
DB 1212 PG 820

132 KENNETH R. GAUTIER
DB 906 PG 763
DB 1016 PG 147
DB 1575 PG 978
DB 1136 PG 607

133 MICHAEL PROCAVIS FOR ROSES
DB 1323 PG 494

134 JAMES MONK
DB 795 PG 280

135 ROSA DEAVER HEIRS
DB 1528 PG 838

GREGORY LYMAN GRIFFIN
DB 1080 PG 696

BERNICE MILLER
DB 1063 PG 779

JEFFREY POPE
DB 1124 PG 751

RAEFORD HORNE
DB 885 PG 13

JEFFERY J. LUCAS
TONYA SESSOMS LUCAS
DB 1315 PG 237
MB 31PG 45

JEWELL H. SESSOMS
JERRY G. SESSOMS
DB 1575 PG 952
MB 52 PG 29

KENNETH R. GAUTIER
DB 906 PG 763
DB 1016 PG 147
DB 1575 PG 978
DB 1136 PG 607

+22 143' LT
+20 BEGIN FENCE
+26 100' LT

+30 END FENCE

+70 115' LT

+74.54 100' LT ACCESS POINT

+90 BEGIN FENCE

+07 130' LT

+20 100' LT

+60 100' LT 120' LT END PARTIAL C/A BEGIN FULL C/A

+47.50 120' LT TIE TO R-2303D

+87.21 105' RT TIE TO R-2303D

+88.50 122.95' RT TIE TO R-2303D

+84 BEGIN FENCE

+60 105' RT END PARTIAL C/A BEGIN FULL C/A

+35 105' RT

+28 END FENCE

+02 BEGIN FENCE

+24 END FENCE

+37 130' RT 141' RT

+61 129' RT 141' RT

+16 137.30' RT

Y38 +40 90' LT BEGIN FENCE

REM. 3001 3002 3003 3004 3005 3006 3007 3008 3010 3011

12' DR. 150' TAPER

ACCESS POINT

-BL- 145 PINC

-BL- 146 PINC

N 59° 09' 28.5" E

N 59° 07' 01" E 160.00'

N 59° 03' 57" E 464.54'

S 34°51'55" E 55.77'

S 31° 08' 14" E 200.66'

PROP. PUE

EXIST. PE OH LINES
TO BE COORD. UNDER R-2303D

STA. 1097+00.00 -L-
END STATE PROJECT R-2303C

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

08-MAR-2012 15:44
N:\Projects\NCDOT\NCDOT Utility On-Call Contract\R-2303C Sampson County\Environmental\r-2303c_rdy_psh_U024.dgn
User: Newsome
Plotted at RALEWNEWSOME

WETLAND PERMIT IMPACT 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)
U1	733+07 -L-	POWER					0.117					
U2	16+33 -Y28-	POWER	<0.01				0.108					
U3	936+39 -L-	POWER					0.019					
U4	937+54 -L-	POWER	<0.02				0.192					
U5	942+21 -L-	POWER	<0.03				0.718					
U6	947+07 -L-	POWER					0.013					
U7	948+32 -L-	POWER	<0.01				0.083					
U8	955+66 -L-	POWER	<0.01				0.076					
U9	958+17 -L-	POWER					0.017					
U10	979+24 -L-	POWER	<0.01				0.143					
U11	1065+10 -L-	POWER	<0.01				0.184					
U12	1076+34 -L-	POWER	<0.02				0.173					
U13	1082+62 -L-	POWER					0.013					
U14	1091+70 -L-	POWER	<0.01				0.020					
0	0	0										
0	0	0										
0	0	0										
0	0	0										
0	0	0										
0	0	0										
0	0	0										
0	0	0										
TOTALS:			<0.003 (130SF)		0.0000		1.881		0.0000		0	

NOTE: Centurylink Communication to install lines by trenchless directional bore.
No wetland or stream impact.

Utility Permit Drawing
Sheet 10 of 10

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SAMPSON COUNTY
R-2303 C

SHEET 3/9/2012

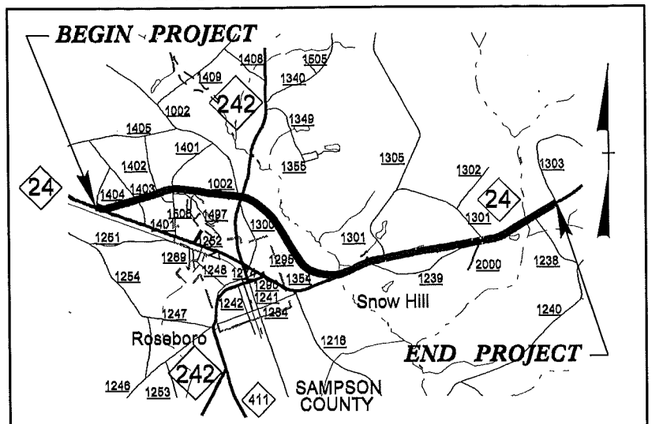
ATN Revised 3/31/05

09/08/99

TIP PROJECT: R-2303C

CONTRACT: C203161

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SAMPSON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303C	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34416.1.1	STPNHF-F-8-2(17)	PE
34416.2.4		ROW & UTL.

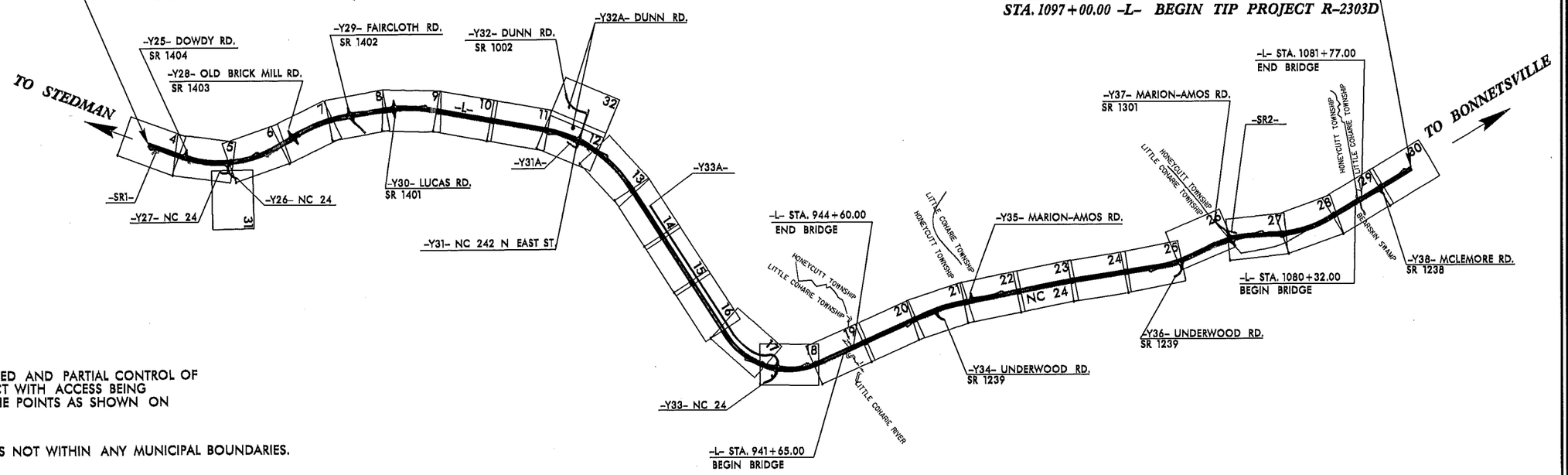
LOCATION: NC 24 FROM SR 1404 (DOWDY ROAD) TO SR 1303 (MITCHELL LOOP ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURES

NAD 83/95

STA. 730+10.00 -L- END TIP PROJECT R-2303B
STA. 730+10.00 -L- BEGIN TIP PROJECT R-2303C

STA. 1097+00.00 -L- END TIP PROJECT R-2303C
STA. 1097+00.00 -L- BEGIN TIP PROJECT R-2303D



THIS IS A LIMITED AND PARTIAL CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE POINTS AS SHOWN ON THE PLANS.

THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

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

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2013 = 13,296
ADT 2033 = 19,536
DHV = 11 %
D = 55 %
T = 8 % *
V = 60 MPH
FUNC CLASS = ARTERIAL
* (TTST 5% + DUAL 3%)
CLASS = STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2303C = 6.866 MILES
LENGTH STRUCTURES TIP PROJECT R-2303C = 0.083 MILES
TOTAL LENGTH TIP PROJECT R-2303C = 6.949 MILES

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MAY 27, 2011

LETTING DATE: JULY 16, 2013

G. E. BREW, PE
PROJECT ENGINEER

THAD F. DUNCAN, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: *P.E.*

ROADWAY DESIGN ENGINEER

SIGNATURE: *P.E.*

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

P.E.
STATE HIGHWAY DESIGN ENGINEER

16-JAN-2013 10:17
R:\Roadway\Proj\r2303c_rdy_tsh.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	1-B

01/20/11

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- 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

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:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line
- Proposed Right of Way Line with Iron Pin and Cap Marker
- Proposed Right of Way Line with Concrete or Granite Marker
- Existing Control of Access
- Proposed Control of Access
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Wheel Chair Ramp — WCR
- 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
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (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
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- A/G Tank; Water, Gas, Oil
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

6/2/98

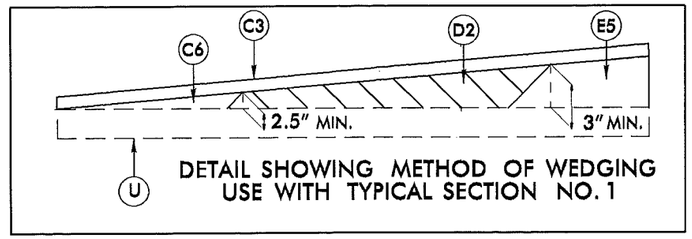
PAVEMENT SCHEDULE

(FINAL PAVEMENT DESIGN)

C1	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E1A	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	T	EARTH MATERIAL.
C2	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	E2	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	V1	MILLING ASPHALT PAVEMENT 1½" DEPTH.
C3	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E3	PROP. APPROX. 5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)
C4	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E3A	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.		
C5	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH.	E4	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.		
C6	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	E5	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 4½" IN DEPTH.		
C7	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	J1	PROP. 8" AGGREGATE BASE COURSE.		
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.	J2	PROP. 10" AGGREGATE BASE COURSE.		
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	P	PRIME COAT AT THE RATE OF .35 GAL. PER SQ. YD.		
E1	PROP. APPROX. 4½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.		

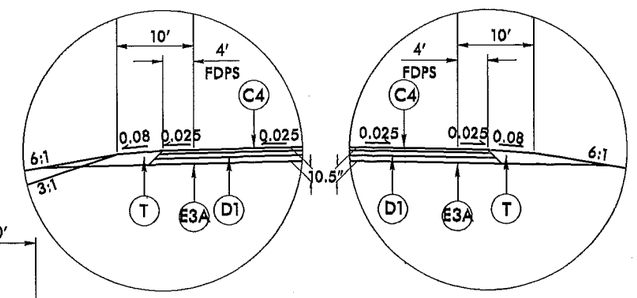
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

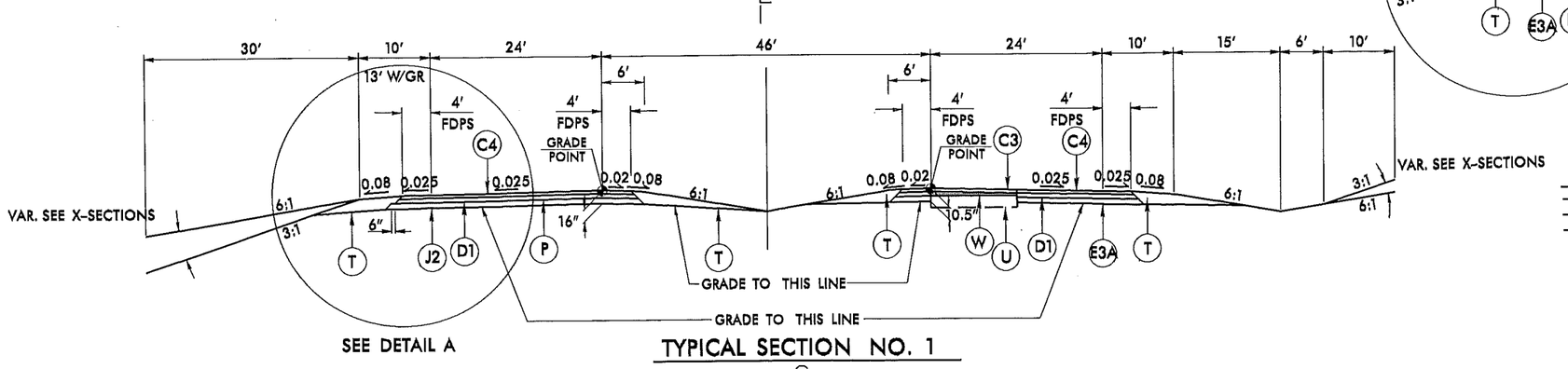
PROJECT REFERENCE NO.	SHEET NO.
R-2303C	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER



DETAIL SHOWING METHOD OF WEDGING
USE WITH TYPICAL SECTION NO. 1

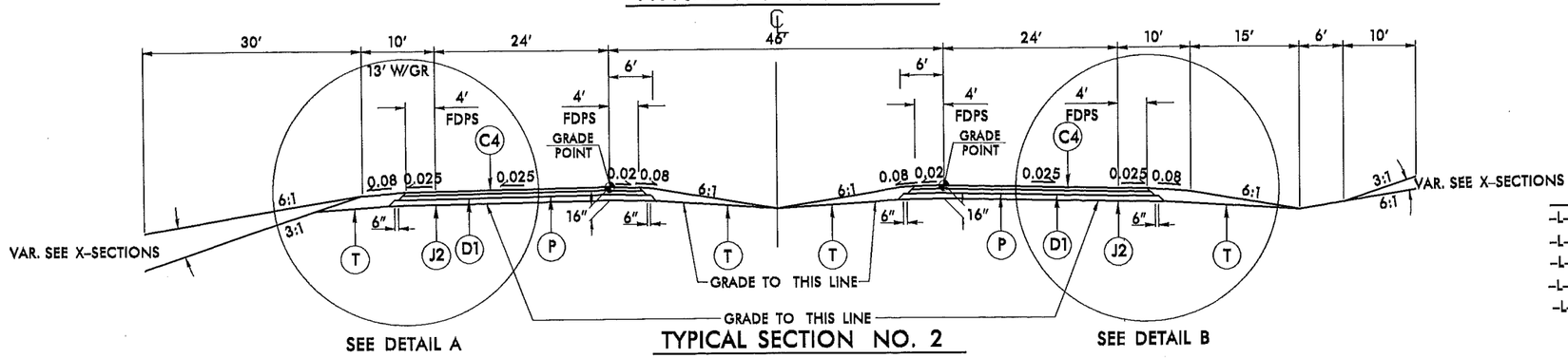
ALTERNATE PAVEMENT DESIGN





TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
-L- 730+10.00 TO 732+00.00
-L- 994+50.00 TO 1000+50.00
-L- 1003+50.00 TO 1005+00.00



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
-L- 732+00.00 TO 941+65.00 (BEGIN BRIDGE)
-L- 944+60.00 (END BRIDGE) TO 994+50.00
-L- 1000+50.00 TO 1003+50.00
-L- 1005+00.00 TO 1080+32.00 (BEGIN BRIDGE)
-L- 1081+77.00 (END BRIDGE) TO 1097+00.00

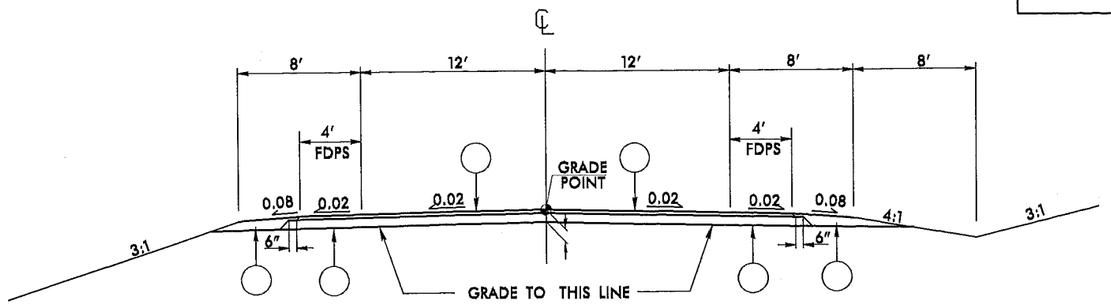
16-JAN-2013 10:17
e:\projects\2303c_rdy_typ.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	2-A
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	2½" SF9.5A
C5	VAR. SF9.5A
E1	4½" B25.0B
E2	5" B25.0B
E4	VAR. B25.0B
U	EXIST. PAVEMENT
T	EARTH MATERIAL
W	WEDGING

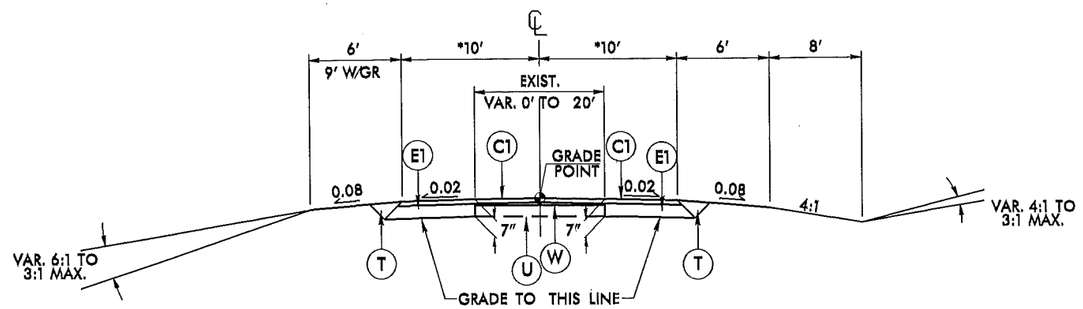
PAVEMENT DESIGN REQUESTED



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

-DET1- 15+23.87 TO 24+95.62
-DET2- 12+55.00 TO 16+31.31
-DET3- 11+49.27 TO 15+50.00
-DET4- 10+50.00 TO 17+59.00
-DET5- 10+41.75 TO 17+18.00

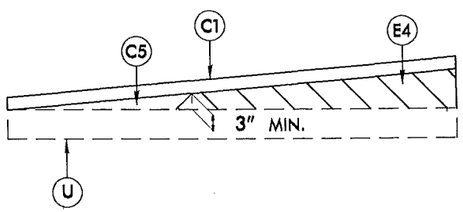


TYPICAL SECTION NO. 4

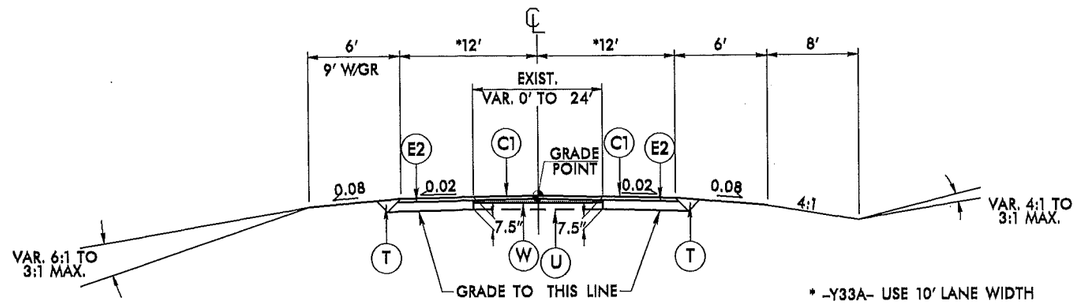
*-Y38- USE 9′ LANE WIDTH

USE TYPICAL SECTION NO. 4

-Y25- 16+40.00 TO 18+12.78
-Y28- 12+00.00 TO 14+55.19
-Y28- 15+49.87 TO 17+50.00
-Y29- 19+00.00 TO 21+69.46
-Y29- 22+65.12 TO 27+50.00
-Y30- 11+00.00 TO 13+02.30
-Y30- 13+96.33 TO 15+65.00
-Y31A- 10+00.00 TO 14+34.97
-Y32- 13+50.00 TO 22+79.35
-Y32A- 10+12.00 TO 12+50.00
-Y32A- 15+36.14 TO 16+11.00
-Y34- 10+47.00 TO 13+80.00
-Y35- 12+25.00 TO 14+41.23
-Y36- 10+47.34 TO 16+15.00
-Y37- 12+60.00 TO 19+81.15
-Y37- 20+75.45 TO 23+00.00
-Y38- 10+47.37 TO 12+50.00
-SR1- 10+47.02 TO 12+77.00
-SR2- 10+04.30 TO 12+76.32



DETAIL SHOWING METHOD OF WEDGING
USE WITH TYPICAL SECTION NO. 3 & 4



TYPICAL SECTION NO. 5

* -Y33A- USE 10′ LANE WIDTH

USE TYPICAL SECTION NO. 5

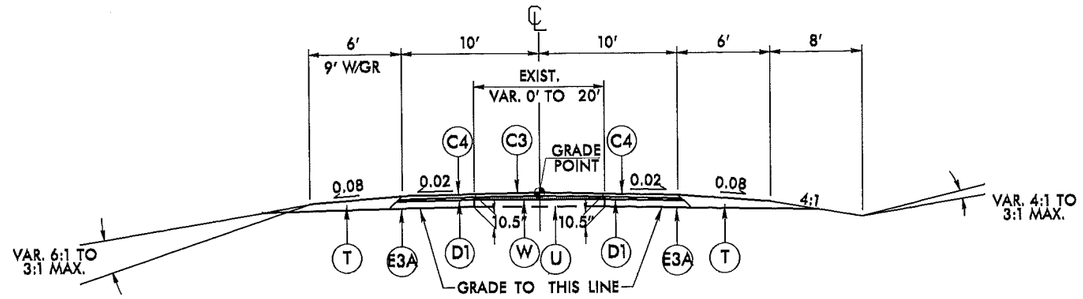
-Y26- 10+47.00 TO 16+00.00
-Y27- 10+12.00 TO 15+87.00
-Y33- 10+47.00 TO 15+44.00
-Y33A- 10+00.00 TO 64+59.17

6/2/95
16-JAN-2013 10:17
K:\ROADWAY\PROJECTS\R-2303C\rdy_typ.dgn
USER:mmcmillan

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	2-B
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

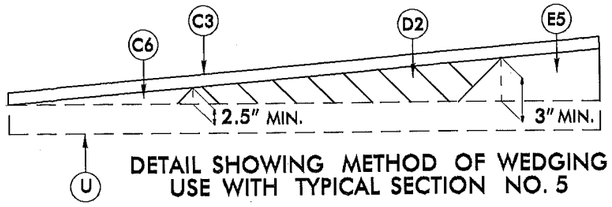
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C3	3" S9.5B
C4	3" S9.5C
C5	VAR. SF9.5A
C6	VAR. S9.5B
D1	3" I19.0C
D2	VAR. I19.0C
E3A	4½" B25.0C
E5	VAR. B25.0C
J1	6" ABC
U	EXIST. PAVEMENT
T	EARTH MATERIAL
W	WEDGING

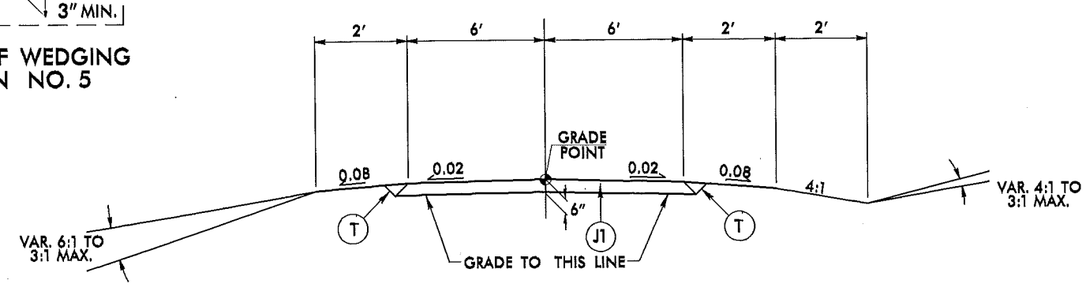


TYPICAL SECTION NO. 6

USE TYPICAL SECTION NO. 6
-Y31- 15+70.00 TO 23+67.05
-Y31- 24+61.92 TO 27+50.00

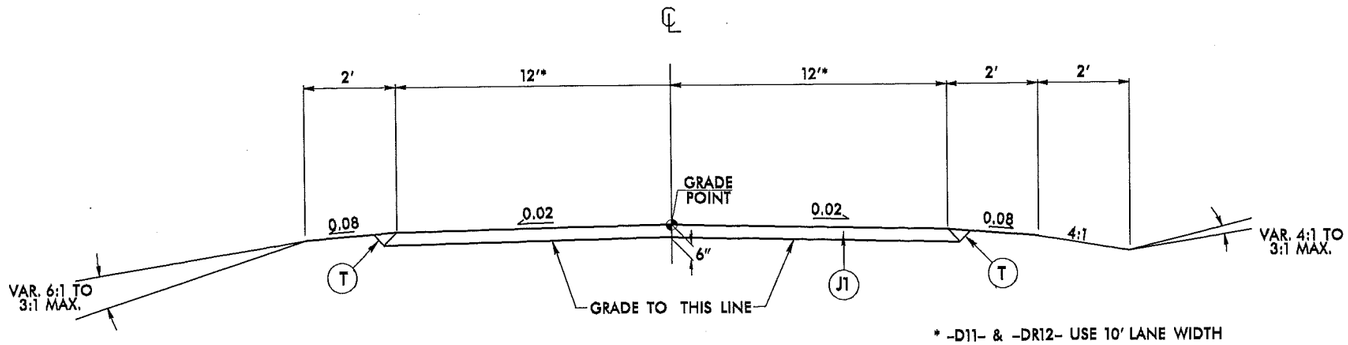


DETAIL SHOWING METHOD OF WEDGING
USE WITH TYPICAL SECTION NO. 5



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7
-D2- 10+05.00 TO 11+33.47
-D3- 10+00.00 TO 11+65.92
-D4- 10+00.00 TO 10+94.37
-D5- 10+00.00 TO 10+90.74
-D6- 10+04.00 TO 11+05.02
-D7- 10+00.00 TO 11+65.18
-D8- 10+40.00 TO 11+47.19
-D9- 10+00.00 TO 10+85.82



* -D11- & -DR12- USE 10' LANE WIDTH

TYPICAL SECTION NO. 6A

USE TYPICAL SECTION NO. 6A
-DR10- 10+25.48 TO 14+12.29
-D11- 10+00.00 TO 12+14.66
-D12- 10+00.00 TO 11+32.96

6.62/2996

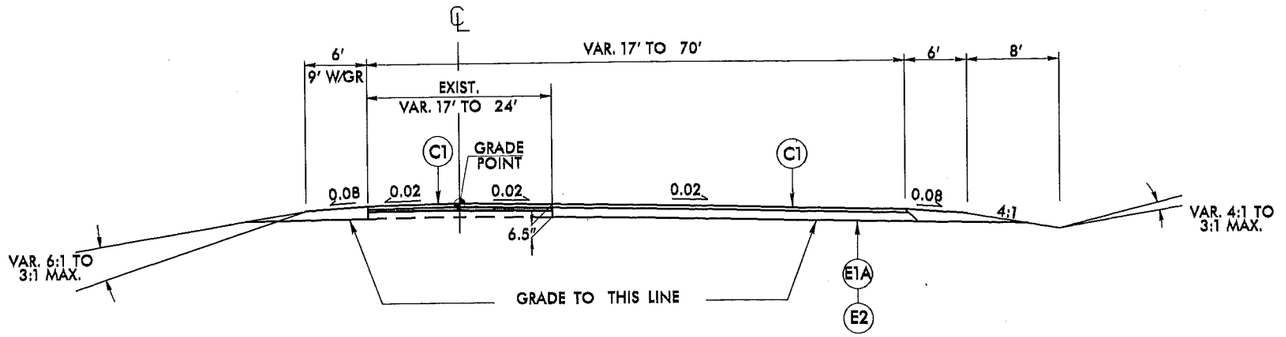
16-JAN-2013 10:17
r:\projects\2303c\roadway\sht\2303c_rdy_typ.dgn

6/2/99

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	2½" SF9.5A
C2	1½" SF9.5B
E1	4½" B25.0B
E1A	4" B25.0B
E2	5" B25.0B
E3	5½" B25.0B
T	EARTH MATERIAL
V1	1½" MILLING
U	EXISTING PAV.

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	2-C
ROADWAY DESIGN	PAVEMENT DESIGN ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



TYPICAL SECTION NO. 8

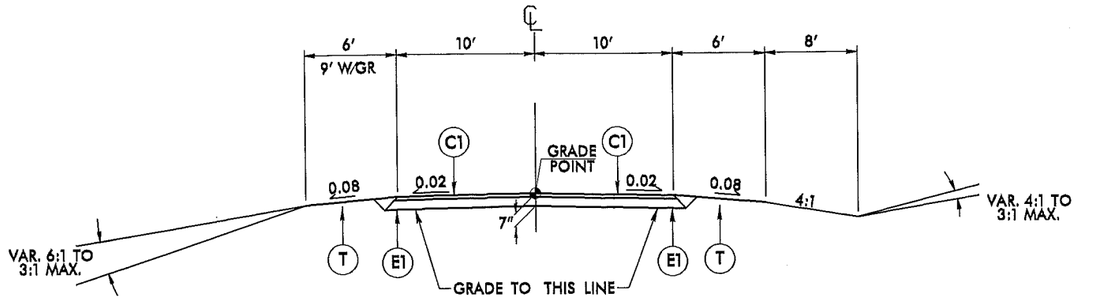
USE TYPICAL SECTION NO. 8

NOTE: USE E1A

-Y32B- 10+15.00 TO 10+93.06
-Y36A- 10+20.00 TO 10+94.65
-Y36B- 10+25.00 TO 10+96.95

NOTE: USE E2

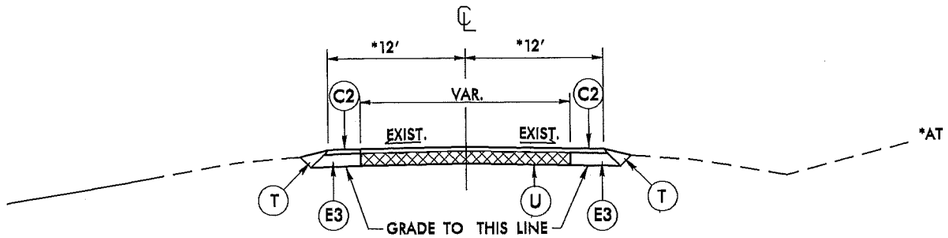
-Y33B- 10+15.00 TO 10+90.52



TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9

-SR1- 10+47.02.00 TO 12+77.00
-SR2- 10+04.30 TO 12+76.32

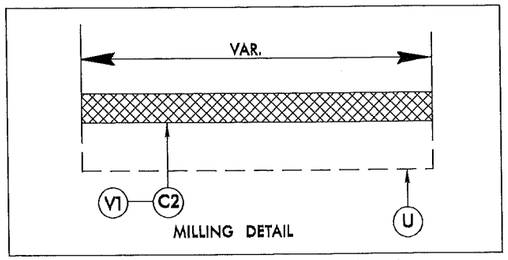


TYPICAL SECTION NO. 10

USE TYPICAL SECTION NO. 10

SR 1233 FROM NC 242 TO NC 24

*AT CURB & GUTTER LOCATIONS, RESURFACE BEYOND 12' TO EDGE OF PAVEMENT.



SR 1233 AT GURB & GUTTER LOCATION

16-JAN-2013 10:17
r:\roadgen\OPEN\r2303c_rdy_typ.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

REVISIONS
8/17/99
R/W REV.: REVISING DRIVEWAY ON PARCEL 4. 11/5/12 RWB

STA 730+10.00 -L-
END STATE PROJECT R-2303B
BEGIN STATE PROJECT R-2303C

-SRI-
PI Sta 12+49.88
Δ = 80° 09' 41.8" (LT)
D = 114° 35' 29.6"
L = 69.95'
T = 42.08'
R = 50.00'
SE = SEE PLANS

PI Sta 11+15.88
Δ = 78° 00' 40.1" (RT)
D = 114° 35' 29.6"
L = 68.08'
T = 40.50'
R = 50.00'
SE = SEE PLANS

NAD 83/95

AUTRY MILLS PROPERTIES LLC
DB 1810 PG 104
MB 48 PG 23

R/W ACQUIRED UNDER R-2303B

POT Sta. 728+79.38

-BLB-81 PINC

730

HUBERT AUTRY HEIRS
WB 88-E-17
DB 559 PG 506

735

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

-BLB-82 PINC

-BLB-83 PINC

TS Sta. 737+37.21

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

+80
BEGIN FENCE

TIE IN EXIST DITCH

+20
END FENCE
END FULL C/A
BEGIN PARTIAL C/A

WW FENCE

ACCESS POINT

+26.63
105' LT
TIE TO R-2303B

+95
105' LT
115' LT

+60
105' LT
115' LT

PDE

4' BASE DITCH
SEE DETAIL 4
SHEET 2-H

+37.21
105' LT

PSH

450' TAPER

18" DR.

150' TAPER
42" RCP-III

-L-

REMOVE

-L- POT Sta. 732+76.44
-SRI- POT Sta. 10+00.00
BEARING AH =
S 22° 08' 01.8" W

PC Sta. 10+75.39

+95
105' RT
END CHL FENCE

+95
END FENCE
END FULL C/A
BEGIN PARTIAL C/A
105' RT

+12.54
130' RT
TIE TO R-2303B

N 79° 51' 18" W
-SRI-

+20
90' RT
117' RT

+04
BEGIN CHL FENCE

+50
90' RT

+65
105' RT

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 3 TONS
EST 7 SY FF

PT Sta. 11+43.46

+43
159' RT

+44.72
195' RT

+13.05
195' RT
TIE TO R-2303B

PC Sta. 12+07.80

POC Sta. 12+77.00
END CONSTRUCTION

PT Sta. 12+77.76

S 73°47'15" E
367.75'

S 19° 50' 59" W
15.75'
S 23° 20' 28" E
17.39'

+50
END CHL FENCE

+78
BEGIN CHL FENCE

+37.21
105' RT

OUTLET PROTECTION
CLASS 'B' RIP RAP
STREAM BANKS ONLY
EST 10 TONS
EST 128 SY FF

UNNAMED TRIB
TO BIG SWAMP (BSW)
INTERMITTANT
JURISDICTIONAL STREAM

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

CONNIE INEZ HALL
DB 1663 PG 623
DB 1088 PG 400
DB 1088 PG 403(MAP)

TERRY R. HUDSON
DB 1462 PG 282
MB 39 PG 48

SHANNON E. FAIRCLOTH
DB 1394 PG 796
MB 39 PG 48

CHARLES G. SESSOMS
DB 1658 PG 805
DB 1088 PG 392

MARGIE L. LOCKWOOD
DB 802 PG 750
DB 907 PG 650
DB 845 PG 183

CLEVELAND GODWOLD, ET UX
DB 862 PG 168
DB 892 PG 185

CHARLES G. SESSOMS
DB 850 PG 478
DB 1244 PG 171
DB 1438 PG 588
MB 42 PG 100

TOMMY R. HALL
DB 1317 PG 567

R/W ACQUIRED UNDER R-2303B

NC 24 AUTRY HWY 24' BST

NC 24 AUTRY HIGHWAY

EXISTING R/W

GPS NON "R2303B"

S 69° 34' 22" E
219.09'

S 69°34'22" E
109.21'

S 69°34'22" E
110.56'

S 69°34'22" E
220.00'

S 69°34'22" E
385.95'

S 17° 24' 33" W
12.52'

S 69°34'22" E
137.49'

S 22°30'55" E
130.57'

S 60°24'01" W
158.33'

MATCH LINE -L- STA. 738+00 SEE SHEET NO. 5

FOR -L- PROFILE SEE SHEET 33
FOR -SRI- PROFILE SEE SHEET 55

16-JAN-2013 10:28
R:\Roadway\Proj\r-2303c_rdy_psh_04.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
NO RIGHT OF WAY OR CONSTRUCTION

REVISIONS

8/17/99 R/W REVISION-UPDATING PROPERTY INFORMATION ON PARCEL 10. 8/21/12 RWB

-L- STA. 738+00 SEE SHEET NO. 4

MATCH LINE -L- STA. 752+00 SEE SHEET NO. 6

MATCH LINE -Y26- STA. 11+50 SEE SHEET NO. 31

NAD 83/95

-Y25- PT Sta. 13+93.98
BEARING AH = S 8° 19' 05.2" W

PC Sta. 15+33.32

-Y25- POC Sta. 16+40.00
BEGIN CONSTRUCTION

PT Sta. 18+13.17
BEARING AH = S 10° 01' 47.9" W

-L-
Pls Sta 764+70.58
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

Pls Sta 738+70.55
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-Y25-
PI Sta 16+73.25
Δ = 1° 42' 42.9" (RT)
D = 0° 36' 42.3"
L = 279.84'
T = 139.93'
R = 9,366.00'
SE = SEE PLANS

-Y26-
PI Sta 13+31.66
Δ = 65° 21' 33.8" (LT)
D = 19° 05' 54.9"
L = 342.22'
T = 192.45'
R = 300.00'
SE = .06
RD = 108'

-L- POC Sta. 740+11.25
-Y25- POT Sta. 18+60.14

-L- POC Sta. 751+04.07
-Y26- POT Sta. 10+00.00
BEARING AH = S 4° 04' 16.9" E

END CONSTRUCTION
-Y27- POT Sta. 15+87.00

PC Sta. 11+39.22

SC Sta. 739+37.21

CS Sta. 741+76.55

ST Sta. 742+38.38

CHORD
BEARING AH = S 20° 33' 26" W
DIST = 606.32'

BM #301
-BYII- STA 9+52.51
55.37' RIGHT
ELEV. 1264.44'

NANCY T. FAIRCLOTH
DB 1347 PG 819

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 13 TONS
EST 14 SY FF

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

LATERAL 'V' DITCH
W/ CLASS 'B' RIP RAP
EST 9 TONS
EST 36 SY FF
SEE DETAIL 6
SHEET 2-H

JAMES FRANKLIN BOELER
DB 1334 PG 001

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

HUBERT AUTRY HEIRS
WB 88-E-17
DB 559 PG 508
WB 71 PG 85

CHRISTOPHER MICHAEL GREENE, et al
DB X082 PG 487
WB 03E/84

KIMBERLY LANE HOBBS
ROBERT EURAL LANE
DB 1150 PG 72
DB 1026 PG 720
DB 1215 PG 836

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

TOE PROTECTION
CLASS 'B' RIP RAP
EST 52 TONS
EST 115 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 9 SY PSRM
SEE DETAIL 10
SHEET 2-H

-BLB-84 PINC
-BYII-84 PDT

-BLB-85 PINC

WW FENCE

300' TAPER

36" RCP-III

18" RCP-III

24" RCP-III

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

LATERAL 'V' DITCH
W/ CLASS 'B' RIP RAP
EST 40 TONS
EST 160 SY
SEE DETAIL 9
SHEET 2-H

TIE EXISTING DITCH INTO PROPOSED

OUTLET PROTECTION
CLASS 'B' RIP RAP
STREAM BANK ONLY
EST 7 TONS
EST 22 SY FF

UNNAMED TRIB TO BIG SWAMP (B95)
INTERMITTANT
JURISDICTIONAL STREAM

TO BE DEEDED TO
PIEDMONT NATURAL GAS CORP.

CHARLES G. SESSONS
DB 850 PG 478
DB 1244 PG 171
DB 1438 PG 588
MB 42 PG 100

JEFFERSON B. STRICKLAND, ET AL
DB 1657 PG 873
MB 42 PG 100

ERNEST J. MAROSCHAK
DB 835 PG 812
DB 836 PG 349
DB 1183 PG 675
DB 1617 PG 761

NC 24 & SR 1404 (DOWDY RD.)

200 / 200	-Y25- SR 1404	
10,520 / 17,400	NC 24	10,720 / 17,600
<200 / <200	200 / 200	

2010 ADT
2030 ADT

NC 24 BYPASS AND -Y26-

10,720 / 17,600	NC 24 -L-	NC 24 6,440 / -L- 10,800
	4,280 / 7,000	<200 / <200
	4,280 / 7,000	

2010 ADT
2030 ADT

FOR -L- PROFILE SEE SHEET 33
FOR -Y25- PROFILE SEE SHEET 47
FOR -Y26- PROFILE SEE SHEET 47
FOR -Y27- PROFILE SEE SHEET 47

16-JAN-2013 10:28
R:\Roadway\PROJ\r-2303c_rdy_psh_05.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS
8/17/99
R/W REVISION-UPDATING THE PROPERTY INFORMATION ON PARCEL 13, 8/21/12 RWB

-L-
PI Sta 752+47.26
Δ = 47° 44' 49.4" (LT)
D = 1° 56' 08.4"
L = 2,466.70'
T = 1,310.06'
R = 2,960.00'
SE = .05
RO = 200'

PIs Sta 764+70.58
θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

NAD 83'95

MATCH LINE -L- STA. 752+00 SEE SHEET NO. 5

MATCH LINE -L- STA. 766+00 SEE SHEET NO. 7

ROBERT EURAL LANE
KIMBERLY LANE HOBBS
DB 1180 PG 172
DB 1025 PG 1220
DB 1215 PG 836

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

UTILIZE ROCK FILL FROM
STA 755+60 TO 759+70 LT
UP TO ELEVATION 131.0

BOREN CLAY PRODUCTS
DB 874 PG 496

CS Sta. 764+03.90

BEGIN SBG +07.96

48" RCP-III
EQ. PIPE

GUARDRAIL
R=52

GUARDRAIL
R=20

BND SBG +51.97

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

LATERAL 2' BASE DITCH
SEE DETAIL 11
SHEET 2-I

TIE EXISTING DITCH
TO PROPOSED

-BLB-87 POT

LATERAL 2' BASE DITCH
W/ CLASS 'B' RIP RAP
EST 65 TONS
EST 348 SY FF
SEE DETAIL 12
SHEET 2-I

UTILIZE ROCK FILL FROM
STA 755+00 TO 758+60 RT
UP TO ELEVATION 131.0

PONDS TO BE
DRAINED DURING
CONSTRUCTION

5' BASE TAIL DITCH
SEE DETAIL 13
SHEET 2-I
100 LF @ 0%
EST 50 CY. DDE

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 21 SY FF

FOR -L- PROFILE SEE SHEET 34
SBG: SHOULDER BERM GUTTER

N87°25'10"E

DATE: JAN-2013 10:28
R:\Roadway\r2303c_rdy_psh_06.dgn
USER: cfernandez

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

NAD 83/95

-L-
PIs Sta 770+30.32
Θs = 1° 28' 22.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'
PI Sta 771+72.84
Δ = 19° 42' 45.0" (RT)
D = 1° 28' 22.4"
L = 1,338.35'
T = 675.85'
R = 3,890.00'
SE = .04
RO = 200'

MATCH LINE -L- STA. 766+00 SEE SHEET NO. 6

MATCH LINE -L- STA. 780+00 SEE SHEET NO. 8

ST Sta. 766+03.90

TS Sta. 768+96.99

-L- POC Sta. 769+20.53

-Y28- POT Sta. 15+02.53

-Y28- POT Sta. 17+17.94

-Y28- POT Sta. 12+00.00
BEGIN CONSTRUCTION

-Y28- POT Sta. 17+50.00
END CONSTRUCTION

SC Sta. 770+96.99

BORDEN CLAY PRODUCTS
DB 874 PG 496

STEVEN TEW
DB 1784 PG 535
MB 27 PG 47

IVEY FELTON HAIRR ET AL
DB 1577 PG 330

UNNAMED TRIB TO LITTLE COHARIE CREEK
NON-JURISDICTIONAL STREAM

TIE EXISTING DITCH INTO PROPOSED

RETAIN EX 24" RCP AND EXTEND 12 LF. W/ CONCRETE COLLAR

CLEAN SILT OUT OF OUTLET AND GRADE TO DRAIN

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 15
SHEET 2-I

LATERAL 2' BASE DITCH
SEE DETAIL 14
SHEET 2-I

4:1 LATERAL DITCH
SEE DETAIL 5
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

UTILIZE ROCK FILL FROM STA 774+80 TO 777+80 LT UP TO ELEVATION 131.0

PONDS TO BE DRAINED DURING CONSTRUCTION

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

TIE PROPOSED DITCH INTO EXISTING

WW FENCE

BEGIN FENCE

END FENCE

REMOVE

PSH

PDE

TDE

PUE

ECM

HW

BL- 103 PINC

-BL- 102 PINC
-BY- 102 PINC

150' TAPER

300' TAPER

180-60-180
6.5' OS

15" RCP-IV

18" RCP-III

2@36" RCP-III

8:1 CAT. I

OLD BRICK MILL RD 22' EST

EXISTING R/W

NC 24 BYPASS & SR 1403 (OLD BRICK MILL RD.)				
	200 / 200			
6,440 / 10,600 NC 24 BYP	≤200 / ≤200	200 / 200	NC 24 BYP	6,640 / 10,800
	200 / 200	≤200 / ≤200		
	-Y28- SR 1403			
	200 / 200			
	2010 ADT / 2030 ADT			

FOR -L- PROFILE SEE SHEET 34
FOR -Y28- PROFILE SEE SHEET 47

R/W REV: UPDATING THE PROPERTY INFORMATION ON PARCEL 13, 8/21/12 RWB

I:\6_JAN-2015_10-29-2015\r-2303c_rdy_psh_07.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	8
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/99

R/W REV.: UPDATING THE PROPERY INFORMATION ON PARCEL 17 AND 18. 8/21/12 RWB

16-JAN-2013 10:29
R:\Roadway\Proj\r-2303c_rdy_psh_08.dgn
$$$$USERNAME$$$$

MATCH LINE -L- STA. 780+00 SEE SHEET NO. 7

MATCH LINE -L- STA. 794+00 SEE SHEET NO. 9

NAD 83/95

-Y29-
PI Sta 23+15.10
Δ = 35° 10' 37.6" (LT)
D = 19° 05' 54.9"
L = 184.19'
T = 95.10'
R = 300.00'
SE = .05
RO = 95'
-L-

PI Sta 24+87.41
Δ = 11° 25' 09.6" (RT)
D = 6° 52' 41.7"
L = 166.02'
T = 83.29'
R = 833.00'
SE = .06
RO = 162

PIs Sta 785+02.00
θs = 1° 28' 22.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

DONALD RAY KELLY
DB 992 PG 986

DONALD RAY KELLY
ELIZABETH JUNE KELLY
DB 1579 PG 795

JUNE ELIZABETH KELLY
DB 1579 PG 795

LONNIE P. FAIRCLOTH
DB 1028 PG 622

BILLY DEAN FAIRCLOTH
DB 1818 PG 301
MB 78 PG 62

BILLY DEAN FAIRCLOTH
DB 963 PG 939
DB 1146 PG 240

BOREN CLAY PRODUCTS
DB 874 PG 496

IVEY FELTON HAIRR, ET AL
DB 1577 PG 330
MB 57 PG 84

RONALD CANNADY
DB 1080 PG 812

STEVEN TEW
DB 1784 PG 535
MB 27 PG 47

JERRY ALLEN MITCHUM
DB 1623 PG 930

BEGIN CONSTRUCTION
-Y29- POT Sta. 19+00.00

-L- POT Sta. 785+00.22
-Y29- POT Sta. 22+16.95

-BL- 104 PINC
-BYI- 104 PINC

-BL- 105 PINC

-BYI- 203 PINC 18+68.48

-BYI- 204 POT 23+73.17

END CONSTRUCTION
-Y29- POT Sta. 27+50.00

ST Sta. 786+35.33
CS Sta. 784+35.33
PC Sta. 22+20.00
PRC Sta. 24+04.19
PT Sta. 25+70.21
BEARING AH =
S 41° 15' 47.4" E
TS Sta. 792+99.45

N 81° 28' 39.2" E

GRADE TO DRAIN

CLASS 'I' OUTLET PROTECTION
STREAM BANKS ONLY
EST 17 TONS
EST 37 SY FF

CLASS 'B' OUTLET PROTECTION
STREAM BANKS ONLY
EST 10 TONS
EST 28 SY FF

UNNAMED TRIB TO
LITTLE COHARIE CREEK (LC1)
INTERMITTANT
JURISDICTIONAL STREAM

UNNAMED TRIB TO
LITTLE COHARIE CREEK (LC2)
PERENNIAL
JURISDICTIONAL STREAM

RIPRAP EMBANKMENT
PROTECTION
EST 2 TONS
EST 5 SY FF
SEE DETAIL 17
SHEET 2-I

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 11 TONS
EST 28 SY FF

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 3 TONS
EST 10 SY FF

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

2' BASE TAIL DITCH
SEE DETAIL 16
SHEET 2-I
112 LF @ 0.3%
EST 20 CY DDE

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

MEDIAN 'V' DITCH
SEE DETAIL 25
SHEET 2-I

TIE PROPOSED DITCH
INTO EXISTING

TIE EXISTING DITCH
INTO PROPOSED

FILL EXIST DITCH

WW FENCE

300' TAPER

150' TAPER

150-50-150
6' OS

FOR -L- PROFILE SEE SHEET 35
FOR -Y29- PROFILE SEE SHEET 48

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

8/17/99

R/W REV.: UPDATING THE PROPERTY INFORMATION ON PARCEL 24 AND 25. REVISING THE RIGHT OF WAY ON PARCEL 24 AND 25. 1/23/12 TFD

R/W REV.: UPDATING RIGHT OF WAY ON PARCEL 24. 5/16/12 TFD

16-JAN-2013 10:29
R:\Roadway\Projects\2303c_rdy_psh_09.dgn
$$$$USERNAME$$$$

-L-
PIs Sta 794+32.79
Es = 1° 28' 22.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 800+41.52
Δ = 15° 51' 57.8" (RT)
D = 1° 28' 22.4"
L = 1,077.20'
T = 542.07'
R = 3,890.00'
SE = .04
RO = 200'

PIs Sta 806+43.32
Es = 1° 28' 22.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-Y30- POT Sta. 10+00.00
BEARING AH =
S 3° 31' 21.4" E

-BL- 106 PINC
-BY2- 106 PINC

-Y30- +00
EX. R/W

BEGIN CONSTRUCTION
-Y30- POT Sta. 11+00.00

GRADE TO DRAIN

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

RONALD CANNADY
DB 1080 PG 812

+92
115' LT
END FENCE

-L- POC Sta. 796+42.31
-Y30- POT Sta. 13+49.32

+29.40
110' LT

180-60-180
6.5' OS

+98.47
ON PL
BEGIN FENCE

+123.34
30.15' RT

+75.23
ON PL

207.59' COR-R/W

35' R/W-EIP

300' TAPER

150' TAPER

EVA BROCK, ETAL
DB 1088 PG 392

WW FENCE

EVA BROCK
DB 995 PG 73

+95
95' LT
130' LT
END LIMITED C/A
BEGIN FULL C/A

-BL- 107 PINC

+75
130' LT
END FULL C/A
BEGIN LIMITED C/A

CLASS I OUTLET PROTECTION
STREAM BANKS ONLY
ESK 38 TONS
EST 78 SY FF

WILLIAM S. WELLONS, JR
DB 1310 PG 964

NAD 83/95

108.01'
N53°05'41"W

CHORD

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

+76.65
105' LT

CAT-1

72" RCP-III

101' PS

REMOVE

16" RCP-N

15" RCP-N

18" RCP-N

24" RCP-N

150' TAPER

+86.64
PL

CHL FENCE

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

FALSE SUMP
SEE DETAIL 8
SHEET 2-I

-Y30- +17
47.06 LT
BEGIN CHL FENCE

-Y30- +65
EX. R/W
35' LT

-Y30- +75
60' RT

+99.45
120' RT

-Y30- +17
48.33' RT
END FENCE

-Y30- +65
EX. R/W
35' RT

SC Sta. 794+99.45

UNNAMED TRIB TO
LITTLE COHARIE CREEK
NON-JURISDICTIONAL STREAM

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

IVEY FELTON HARR, ET AL
DB 1577 PG 330
MB 57 PG 84

BOBBY EARL JACKSON
DB 1066 PG 259
MB8PG42

JACOLYN B. CLARK
DB 1406 PG 774
MB 8 PG 42

MARY L. UNDERWOOD
DAVID E. UNDERWOOD
DB 1567 PG 831
MB 8 PG 42

WATTIE ROBINSON
DB 955 PG 86
MB 8 PG 42

SHIRLEY J. OWENS
DB 988 PG 682
MB 8 PG 42

EDWARD C. MAXWELL
DB 1089 PG 568
MB 8 PG 42

DARRYL L. ANDERSON
DB 1746 PG 770
MB 8 PG 42

JACOLYN B. CLARK
DB 1467 PG 605
MB 8 PG 42

JAMES DINO WILLIAMS JR.
DB 1051 PG 666
DB 1349 PG 154
MB 8 PG 42
MB 25 PG 76

RICHARD S. HALL
DB 1328 PG 53
MB 25 PG 76

CS Sta. 805+76.65

ST Sta. 807+76.65

END CONSTRUCTION
-Y30- POT Sta. 15+65.00

SR 1497 -WYATTE RD 26' BST

TIE EXISTING DITCH
INTO PROPOSED

BM# 701 ELEVATION = 131.19'
-BY2- STA. 21+26 219' RIGHT
R/R SPIKE SET IN 16" OAK

JERRY ALLEN MITCHUM
DB 1623 PG 930

KELLY E. BLACK
AND
AMY L. BLACK
DB 1773 PG 841
MB 8 PG 42

ANGEL LUIS
RIVERA-MORENO
DB 1658 PG 13
MB 8 PG 42

LESTER FREEMAN
DB 925 PG 547
MB 8 PG 42

UNNAMED TRIB TO
LITTLE COHARIE CREEK (LC4)
INTERMITTANT
JURISDICTIONAL STREAM

MATCH LINE -L- STA. 794+00 SEE SHEET NO. 8

MATCH LINE -L- STA. 808+00 SEE SHEET NO. 10

NC 24 BYPASS &
SR 1401 (LUCAS RD.)

6,640 / 10,800	NC 24 BYP	400 / 400	NC 24 BYP	6,840 / 11,000
		200 / 200		
		-Y30- SR 1401		
		400 / 400		2010 ADT / 2030 ADT

FOR -L- PROFILE SEE SHEET 35
FOR -Y30- PROFILE SEE SHEET 48

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

MATCH LINE -L- STA. 808+00 SEE SHEET NO. 9

MATCH LINE -L- STA. 822+00 SEE SHEET NO. 11

WILLIAM S. WELLONS, JR
DB 1310 PG 964

RUFUS W. HALL, ET AL
DB 1363 PG 314

TOMMY DAVID CAIN, ET AL
DB 806 PG 805
DB 806 PG 807

-BL- 108 PINC

-BL- 108 PINC

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

BEGIN SBG +23.49

END SBG +08.26

GRAU 350

8:1

WW FENCE

15" CSP
W/ FLOWS

15" RCP-IV

18" RCP-III

-L- S 79° 42' 38.2" E

285.08'
N62°56'50"E

893.97'
N86°24'26"W

893.58'
S24°39'45"W

N 54°26'33" W
1408.94'

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

FOR -L- PROFILE SEE SHEET 36

SBG: SHOULDER BERM GUTTER

16-JAN-2013 10:29
R:\Roadmpu\Proj\r-2303c_rdy_psh_10.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS
8/17/99
R/W REV-COMBINED PARCEL 36 WITH PARCEL 33 TO BE PARCEL 33 & UPDATED PROPERTY OWNER NAME TFD 1/23/12

MATCH LINE -L- STA. 822+00 SEE SHEET NO. 10

MATCH LINE -L- STA. 836+00 SEE SHEET NO. 12

-BL- 110 PINC

-BL- 111 PINC

825

830

835

31

TOMMY DAVID CAIN, ET AL
DB 806 PG 805
DB 806 PG 807

32

CAROL B. ADAIR
DB 1761 PG 906
MB 34 PG 95

33

NELLIE & ELTON WILSON HEIRS
DB 739 PG 659

34

THORNTON HOMES CO.
DB 1672 PG 166
MB 34 PG 95

35

CAROL ADAIR
DB 1354 PG 844

BM# 703 ELEVATION = 135.77'
-BL- STA. 830+16 168' RIGHT
R/R SPIKE SET IN 18" PINE

+65
105' LT
130' LT

+75
105' LT

+75
115' RT

+55.55
130' LT
END LIMITED C/A
BEGIN FULL C/A

+80.00
115' RT
130' RT

+55.55
130' RT
END LIMITED C/A
BEGIN FULL C/A

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

LATERAL 'V' DITCH
SEE DETAIL I
SHEET 2-H

LATERAL 2' BASE DITCH
SEE DETAIL II
SHEET 2-I

LATERAL 2' BASE DITCH
SEE DETAIL 14
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

WW FENCE

15" RCP-III

30" RCP-III

CAT-1

-L- S 79° 42' 38.2" E

CHORD

AXLE

TS Sta. 834+55.55

RUFUS W. HALL, ET AL
DB 1363 PG 314

NELLIE BULLARD WILSON
DB 739 PG 659

NELLIE & ELTON WILSON HEIRS
DB 722 PG 336

FOR -L- PROFILE SEE SHEET 36

16-JAN-2013 10:29
R:\Roadway\Proj\r-2303c_rdy_psh_11.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/99

REVISIONS

R/W REV-COMBINED PARCEL 36 WITH PARCEL 33 TO BE PARCEL 33 & UPDATED PROPERTY OWNER NAME. TFD 1/23/12

MATCH LINE -Y31- STA. 20+00 SEE SHEET NO. 32

MATCH LINE -L- STA. 836+00 SEE SHEET NO. 11

MATCH LINE -L- STA. 850+00 SEE SHEET NO. 13

NAD 83/95

-L-
PI Sta 835+88.89
Θs = 1° 44' 29.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 849+63.56
Δ = 43° 21' 46.4" (RT)
D = 1° 44' 29.4"
L = 2,489.95'
T = 1,308.02'
R = 3,290.00'
SE = .05
RO = 200'

-BL- 112 PINC
-BY3- 112 PINC

-BL- 150 PINC
-BY4- 150 PINC

-BL- 113 PINC

TIE INTO EXISTING DITCH AND GRADE TO DRAIN

-Y32A- POT Sta.15+36.14
BEGIN CONSTRUCTION

-Y32A- POT Sta.16+11.00
END CONSTRUCTION

LATERAL 4' BASE DITCH W/ CLASS 'B' RIP RAP
EST 30 TONS
EST 197 SY FF
SEE DETAIL 19
SHEET 2-I

LATERAL 4' BASE DITCH
SEE DETAIL 20
SHEET 2-I

4' BASE TAIL DITCH W/ CLASS 'B' RIP RAP
EST 16 TONS
EST 107 SY FF
SEE DETAIL 22
SHEET 2-I
L = 80'
S = 10%
DOE = 140 CY

OUTLET PROTECTION CLASS 'B' RIP RAP
EST 3 TONS
EST 10 SY FF

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

-Y31- +50
60' LT

-Y31- +20
55' LT

+35
130' LT
BEGIN FENCE

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

+52
130' LT
135' LT
SHEET 2-H

+12
130' LT
135' LT

+44
139' LT

+88
130' LT

+52
134' LT

+88
180.27' LT

+62.75
145' LT

+55.55
145' LT

+00
145' LT
END FULL C/A
BEGIN LIMITED C/A

+80
145' LT
END FULL C/A
BEGIN LIMITED C/A

+45
145' LT

+74.35
EX. R/W

+45.63
EX. R/W
END FENCE

+76
EX. R/W
GRADE TO DRAIN

-Y32A- +45
EX. R/W
50' RT

-Y32A- +10
EX. R/W

-Y32A- +05
50' RT

-Y32A- +11
40' LT

-Y31- +50
55' RT

-Y31- +20
55' RT

-Y31A- +75
45' RT

-Y31A- +00
45' RT

-Y31A- +50
50' RT

-Y31- +05
45' RT

-Y31- +50
40' & EX. R/W

-Y31- +00
EX. R/W

-Y31- +65
EX. R/W

-Y31- +05
EX. R/W

-Y32B- +00
EX. R/W
43' LT

-Y32B- +95
EX. R/W
40' LT

-Y32B- +93.06
EX. R/W

+00
110' RT
BEGIN FENCE

+00
110' RT
END FENCE

+85
110' RT
125' RT

+07
121.78' RT

+14
139' RT

+75
126.43' RT

+88
150' RT

+80
110' RT
END FULL C/A
BEGIN LIMITED C/A

+95
EX. R/W

+16.83

+31.97

+77.80

+81.97

+67.00

+56.96

+86.97

+76.96

+01.96

+98.96

+01.97

+25.00

+39.17

+30.02

+31.91

SC Sta. 836+55.55

-Y31A- POT Sta. 10+00.00
BEGIN CONSTRUCTION

PC Sta. 11+10.48

PRC Sta. 12+54.48

PT Sta. 14+13.42

BEARING AH=
S 71° 27' 02.5" E

-Y31- POT Sta. 26+33.29

-Y31A- POT Sta. 14+44.97

-Y31- POT Sta. 27+50.00
END CONSTRUCTION

-L- POC Sta. 844+76.97

-Y31- POT Sta. 24+14.48

-Y32B- POT Sta.10+00.00

-Y32B- POT Sta.10+15.00
BEGIN CONSTRUCTION

-Y32B- POT Sta.10+93.06
END CONSTRUCTION

POT Sta. 11+43.98

PI Sta 11+85.76
Δ = 41° 15' 15.1" (RT)
D = 28° 38' 52.4"
L = 144.00'
T = 75.28'
R = 200.00'
SE = NC

PI Sta 13+38.42
Δ = 45° 31' 56.6" (LT)
D = 28° 38' 52.4"
L = 158.94'
T = 83.93'
R = 200.00'
SE = NC

S 67° 10' 21.5" E

S 18° 32' 57.5" W

S 17° 48' 17.6" E

33 NELLIE & ELTON WILSON HEIRS
DB 722 PG 336

35 CAROL ADAIR
DB 1354 PG 844

38 BARBARA HALL MATTHEWS
DB 744 PG 537

37 MERCEDES CARROLL
DB 959 PG 941

40 S.M.P. FARMS
DB 762 PG 437

39 S.M.P. FARMS
DB 762 PG 440

46 THE TOWN OF ROSEBORO
DB 598 PG 642
MB 54 PG 28

SPECIAL CUT DITCH
SEE DETAIL 21
SHEET 2-I

SPECIAL CUT DITCH
SEE DETAIL 21
SHEET 2-I

LATERAL 2' BASE DITCH
SEE DETAIL 11
SHEET 2-I

LATERAL 2' BASE DITCH
SEE DETAIL 14
SHEET 2-I

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 21 SY FF

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

TIE EXISTING DITCHES INTO PROPOSED

TIE PROPOSED DITCH TO EXISTING

GRADE TO DRAIN UNTIL POSITIVE GRADE ACHIEVED (APPROX. 250')

GRADE TO DRAIN UNTIL POSITIVE GRADE ACHIEVED (APPROX. 350')

150' TAPER

300' TAPER

180-60-180
6.5% OS

15" RCP-III

18" RCP-III

30" RCP-III

15" RCP-N

18" RCP-N

REMOVE

WW FENCE

PUE

PDE

PSH

EIP ON

EIP

RETAIN

NC 24 BYPASS & NC 242 (N. EAST ST.)

		4,960 / 7,200				
		-Y31- NC 242				
		240 / 400	1,080 / 1,400			
6,840 / 11,000	-L- NC 24	400 / 800	680 / 1,000	-L- NC 24	7,880 / 12,200	
		-Y31- NC 242				
		4,800 / 7,200				

2010 ADT
2035 ADT

FOR -L- PROFILE SEE SHEET 37
FOR -Y31- PROFILE SEE SHEET 49
FOR -Y32A- PROFILE SEE SHEET 50
FOR -Y32B- PROFILE SEE SHEET 50
FOR -Y31A- PROFILE SEE SHEET 55

16-JAN-2013 10:29
R:\Highway\Projects\2303c_rdy_psh_12.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L-
PI Sta 849+63.56
Δ = 43° 21' 46.4" (RT)
D = 1° 44' 29.4"
L = 2,489.95'
T = 1,308.02'
R = 3,290.00'
SE = .05
RO = 200'

PIs Sta 862+12.17
θs = 1° 44' 29.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

NAD 83/95

855

-BL- 114 PINC

860

-BL- 115 PINC

40
S.M.P. FARMS
DB 762 PG 437

41
BELLE L. PARKER
DB 1023 PG 98
MB 27 PG 42

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC7) PERENNIAL JURISDICTIONAL STREAM

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL 29 SHEET 2-J

UTILIZE ROCK FILL FROM STA 860+45 TO 864+45 LT UP TO ELEVATION 100.0

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

+30
130' LT
END LIMITED C/A
BEGIN FULL C/A

+78
130' LT
137' LT

PSH

PDE

+17
130' LT
137' LT

MEDIAN 'V' DITCH
SEE DETAIL 25
SHEET 2-I

+50
130' LT
END FULL C/A
BEGIN LIMITED C/A

TOE PROTECTION
CLASS 'B' RIP RAP
EST 42 TONS
EST 93 SY FF
SEE DETAIL 8
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

+95
130' LT
165' LT

WW FENCE

CHORD

+00
164.55' LT

+45.50
165' LT

+90
165' LT

1 @ 10' X 10' RCBC

BEGIN SBG +48.66

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

CAT-1

8:1

150' TAPER

+96.97

18" RCP-IV

24'

+76.97
R 42'

DI

18" RCP-IV

-L-

15'

18" RCP-III

GRAU 350

SBG

BEGIN SBG +75.82

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

+36.97

C 150' TAPER

WW FENCE

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

+50
110' RT
END FULL C/A
BEGIN LIMITED C/A

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

+20
110' RT
130'RT

LATERAL 'V' DITCH
W/ CLASS 'B' RIP RAP
EST 30 TONS
EST 120 SY FF
SEE DETAIL 9
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 15
SHEET 2-I

+15
130' RT
155' RT

FALSE SUMP
SEE DETAIL 24
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 20 TONS
EST 44 SY FF
SEE DETAIL 8
SHEET 2-I

+45.50
155' RT

+50
155.73' RT

INLET CHANNEL IMPROVEMENTS
SEE DETAIL 28
SHEET 2-J

CHORD

+10
155.34' RT

+45.50
155' RT

CS Sta. 861+45.50

UTILIZE ROCK FILL FROM STA 861+75 TO 864+15 RT UP TO ELEVATION 100.0

ST Sta. 863+45.50

MATCH LINE -L- STA. 850+00 SEE SHEET NO.12

MATCH LINE -L- STA. 864+00 SEE SHEET NO. 14

FOR -L- PROFILE SEE SHEET 37

SBG: SHOULDER BERM GUTTER

16-JAN-2013 10:29
R:\Hydro\Roadway\r2303c_rdy_psh_13.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

D4
PI Sta 10+29.97
Δ = 53° 04' 57.6" (RT)
D = 95° 29' 34.7"
L = 55.59'
T = 29.97'
R = 60.00'

D4
PI Sta 10+80.91
Δ = 40° 19' 53.9" (LT)
D = 143° 14' 22.0"
L = 28.16'
T = 14.69'
R = 40.00'

D5
PI Sta 10+08.79
Δ = 24° 47' 20.4" (LT)
D = 143° 14' 22.0"
L = 17.31'
T = 8.79'
R = 40.00'

MATCH LINE -L- STA. 864+00 SEE SHEET NO. 13

MATCH LINE -L- STA. 878+00 SEE SHEET NO. 15

42
BOBBY WAYNE JACKSON
DB 1332 PG 570
MB 27 PG 42

41
BELLE L. PARKER
DB 1023 PG 98
MB 27 PG 42

43
BELLE LEE PARKER
DB 1023 PG 98
DB 1751 PG 851
MB 27 PG 42

ELVIS W. JACKSON
DB 1792 PG 582
MB 27 PG 42

UTILIZE ROCK FILL FROM STA 860+45 TO 864+45 LT UP TO ELEVATION 100.0

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC7) PERENNIAL JURISDICTIONAL STREAM

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

-Y33A- POT Sta.10+00.00
BEGIN CONST.
-D4- PT Sta. 10+94.37

-BL- 116 PINC

PC Sta. 10+66.22

PT Sta. 10+55.59
BEARING AH =
S 6° 15' 52.3" W

GRADE TO DRAIN

-Y33A- +34
108' LT

-Y33A- +25
46.79' LT
87' LT

-D5- PC Sta. 10+00.00
BEGIN CONST.

PT Sta. 10+17.31
BEARING AH =
S 57° 11' 53.4" W

-Y33A- +73
46.85' LT
90' LT

-Y33A- POT Sta. 10+47.60
-D5- POT Sta. 11+00.74

-BL- 117 PINC

+54
175' LT
347' LT

+03
175' LT
347' LT

2' BASE TAIL DITCH
SEE DETAIL 16
SHEET 2-I
180 LF @ 0.19%
EST 85 CY DDE

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 5 TONS
EST 14 SY FF

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

+25
120' LT
165' LT
175' LT

PSH

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

-D4- PC Sta. 10+00.00
BEGIN CONST.

WW FENCE

END SBG +75.01

GRAU 350

END SBG +56.20

CAT-1

-Y33A- S 32° 48' 06.6" E

-L- S 32° 51' 52.9" E

WD POST

24" RCP-N

18" RCP-III

15" RCP-N

+75
90' LT

+25
90' LT

+75
100' LT

+55
100' LT

+00
130' RT
155' RT

+85
110' RT
130' RT

+55
110' RT

FLARE 'V' DITCH TO CREATE 10' WEIR W/ CLASS 'B' RIP RAP EST 13 TONS EST 35 SY FF SEE DETAIL 3 SHEET 2-H

LATERAL 'V' DITCH W/ CLASS 'B' RIP RAP EST 35 TONS EST 140 SY FF SEE DETAIL 26 SHEET 2-J

LATERAL 'V' DITCH SEE DETAIL I SHEET 2-H

FALSE SUMP SEE DETAIL 7 SHEET 2-H

TOE PROTECTION CLASS B RIPRAP EST 22 TONS EST 50 SY FF SEE DETAIL 8 SHEET 2-I

NATURAL SPRING

STREAM LOCATION UNKNOWN

APPROXIMATE

SCRUB

FOR -L- PROFILE SEE SHEET 38
FOR -Y33A- PROFILE SEE SHEET 53
FOR -D4- & -D5- PROFILE SEE SHEET 56
SBG: SHOULDER BERM GUTTER

R/W REV.: UPDATING THE PROPERTY INFORMATION ON PARCEL 43. 5/16/12 TFD

15-JAN-2013 10:29
C:\Projects\2303c_rdy_psh_14.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

MATCH LINE -L- STA. 878+00 SEE SHEET NO. 14

MATCH LINE -L- STA. 892+00 SEE SHEET NO. 16

-D6-
PI Sta 10+34.39
Δ = 25° 49' 24.8" (LT)
D = 38° 11' 49.9"
L = 67.61'
T = 34.39'
R = 150.00'

-D7-
PI Sta 10+84.85
Δ = 41° 01' 15.4" (RT)
D = 114° 35' 29.6"
L = 35.80'
T = 18.70'
R = 50.00'

PI Sta 11+39.24
Δ = 25° 30' 38.2" (LT)
D = 114° 35' 29.6"
L = 22.26'
T = 11.32'
R = 50.00'

-D8-
PI Sta 10+59.46
Δ = 15° 22' 00.4" (LT)
D = 28° 38' 52.4"
L = 53.64'
T = 26.98'
R = 200.00'

-BL- 118 PINC

-BL- 119 PINC

-BL- 120 PINC

UNNAMED TRIB TO UTTLE COHARIE CREEK (LC8) INTERMITTANT JURISDICTIONAL STREAM

THOMAS L. SUTTON ET UX
DB 1230 PG 719

-D7- POT Sta. 10+00.00
BEARING AH =
S 38° 47' 18.7" W
BEGIN CONST.

-D6- POT Sta. 10+00.00

PC Sta. 10+66.15

-D6- POC Sta. 10+04.00
BEGIN CONST.

PT Sta. 11+01.95
S 79° 48' 34.5" W

-D7- +00
18' LT

PC Sta. 11+27.93

-D7- +50
33' LT

PT Sta. 11+50.19

-D8- POT Sta. 10+00.00
BEARING AH =
S 72° 33' 53.8" W

PC Sta. 10+32.48

-D8- POC Sta. 10+40.00
BEGIN CONST.

-D8- +30
20' RT

-D8- +30
16' LT

-Y33A- POT Sta. 30+81.40

-D8- POT Sta. 11+57.19
BEARING BK =
S 57° 11' 53.4" W

THOMAS L. SUTTON
DB 572 PG 399

PT Sta. 10+86.12

LILLIAN LEIGH HERRING
DB 1468 PG 41
DB 877 PG 615
MB 29 PG 44

HEAD STONE ONLY NO BARIAL DATES

Sta. 11+10.95

-D6- +00
20' LT

-D7- +00
18' RT

-D7- +46
31' RT

-D6- +00
20' RT

PT Sta. 10+67.61
BEARING AH =
S 42° 15' 08.7" W

-Y33A- POT Sta. 27+29.66

-D6- POT Sta. 11+15.37

+40.32
175' RT

BELLE LEE PARKER
DB 1023 PG 98
DB 1751 PG 851
MB 27 PG 42

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 5 TONS
EST 16 SY FF

+90
175' LT

+94
175' LT
188' LT

+21
175' LT
188' LT

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

TOE PROTECTION
CLASS 'B' RIP RAP
EST 20 TONS
EST 45 SY FF
SEE DETAIL 8
SHEET 2-I

OUTLET CHANNEL
IMPROVEMENTS
SEE DETAIL 31
SHEET 2-J

+06
190' RT

+25
190' LT

+96
165' LT

+37
165' LT

+00
165' LT

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

TOE PROTECTION
EST 275 SY PSRM
SEE DETAIL 10
SHEET 2-H

+98.61
20.07'

BEGIN SBG
+14.89

END SBG
+02.39

GRAU 350

12' DR.

30" RCP-N

S 32° 48' 06.6" E -Y33A-

PC Sta. 10+66.15

WW FENCE

-Y33A- POT Sta. 27+93.44

-D7- POT Sta. 11+75.12
BEARING BK =
S 54° 17' 55.8" W

+84.58
18.46'

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

18" RCP-N

BM: TOT / ELEVATION = 107.59' F
-BL- STA. 894+76.49 278' RIGHT
R/R SPIKE SET IN 24" GUM

+00
105' LT

+70
95' LT

+90
175' LT

+40
98' LT

+90
105' LT

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

LOCATION 30" RCP-N

30" RCP-III

-L- S 32° 51' 52.9" E

10 7.01" RCBC

15" RCP-N

CAT-1

END SBG +53.47

GRAU 350 SBG

SBG

SBG

PSH

BEGIN SBG +18.72

UNNAMED TRIB TO
LITTLE COHARIE CREEK
NON-JURISDICTIONAL STREAM

PERENNIAL

+05
95' RT

+15
110' RT

+30
110' RT
125' RT

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

WW FENCE

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

TOE PROTECTION
CLASS 'B' RIP RAP
EST 50 TONS
EST 115 SY FF
SEE DETAIL 8
SHEET 2-I

+45
125' RT

+00
125' RT

INLET CHANNEL
IMPROVEMENTS
SEE DETAIL 30
SHEET 2-J

TOE PROTECTION
CLASS 'B' RIP RAP
EST 35 TONS
EST 75 SY FF
SEE DETAIL 8
SHEET 2-I

BELLE LEE PARKER
DB 1023 PG 98
DB 1751 PG 851
MB 27 PG 42

LILLIAN LEIGH HERRING
DB 1468 PG 41
DB 877 PG 615
MB 29 PG 44

THOMAS L. SUTTON ET UX
DB 1230 PG 719

THOMAS L. SUTTON
DB 572 PG 399

ER etux
536
42

RESIDENCE

228.44'
N57°59'42"E

FOR -L- PROFILE SEE SHEET 38
FOR -Y33A- PROFILE SEE SHEET 53
FOR -D6-, -D7-, -D8- PROFILE SEE SHEET 57
SBG: SHOULDER BERM GUTTER

15-JAN-2013 10:30
R:\ROADWAY\R-2303C\...\r-2303c_rdy_psh_15.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

MATCH LINE -L- STA. 892+00 SEE SHEET NO. 15

MATCH LINE -L- STA. 906+00 SEE SHEET NO. 17

R/W REVISION: UPDATING THE PROPERTY INFORMATION ON PARCELS 54 AND 56. 8/21/12. RWB

WE 1002
WE 1001 HOG LAGOON
SWINE HOUSE
WD & MTL HOG HOUSE (ABAND)
WD & ST. HOG HOUSE
SEWER TREATMENT PLANT
NAD 83/95
TOWN OF ROSEBORO DB 1160 PG 603
TANK
GATES
-BL- 123 PINC
-BY5- 123 PINC
-BL- 122 PINC
-BL- 121 PINC
N 31° 15' 49" W 188.26'
N 31° 15' 49" W 241.93'
CARL T. WOLFORD DB 1202 PG 639 MB 31PG 85
JOHNNY GENE JOHNSON DB 1501PG 633 MB 31PG 85
TOE PROTECTION CLASS 'B' RIP RAP EST 40 TONS EST 90 SY FF SEE DETAIL 8 SHEET 2-I
FALSE SUMP SEE DETAIL 18 SHEET 2-I
TOE PROTECTION EST 275 SY PSRM SEE DETAIL 10 SHEET 2-H
THOMAS L. SUTTON DB 572 PG 399
LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H
FALSE SUMP SEE DETAIL 7 SHEET 2-H
-Y33A- S 32° 48' 06.6" E
WW FENCE
S 32° 51' 52.9" E
FALSE SUMP SEE DETAIL 7 SHEET 2-H
+30 125' RT
SPECIAL CUT DITCH SEE DETAIL 21 SHEET 2-I
FALSE SUMP SEE DETAIL 24 SHEET 2-I
WILLIE EDWARD WILLIAMS DB 807 PG 09
PATRICIA A. BRYANT DB 1522 PG 498 MB 31PG 85
CARL T. WOLFORD DB 1202 PG 639
TROY K. AUTRY SHIRLEY S. AUTRY DB 1372 PG 316 MB 31PG 85
FALSE SUMP SEE DETAIL 24 SHEET 2-I
FALSE SUMP SEE DETAIL 18 SHEET 2-I
JACOLYN B. CLARK DB 1468 PG 660 MB 31PG 85
OLLIS H. AVERITTE DB 847 PG 219
POT Sta. 10+00.00
-Y33B- POT Sta.10+15.00
BEGIN CONSTRUCTION
-Y33B- POT Sta.10+90.52
END CONSTRUCTION
CHRISTAL WEAVER FREEMAN WB 04E PG 439
POT Sta. 11+14.25
SUSAN G. HERRING, et al DB 845 PG 279 WB 94E PG 236 MB 1PG 166 MB 28 PG 09 MB 52 PG 51
(THESE 3 MAP BOOKS AND SAMPSON CO. GIS WERE USED TO DEVELOP THIS PARCEL)
FOR -L- PROFILE SEE SHEET 39
FOR -Y33A- PROFILE SEE SHEET 53 & 54
FOR -Y33B- PROFILE SEE SHEET 50

\\Rdcrdfs1\projects\2303c_rdy_psh_16.dgn
8/21/2012 10:30:36 AM
User:rbwilson
Pw:\\Rdcrdfs1\Projects\R-2303c_rdy_psh_16.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/98

MATCH LINE -L- STA. 906+00 SEE SHEET NO. 16

MATCH LINE -L- STA. 920+00 SEE SHEET NO. 18

NAD 83/95

TOE PROTECTION CLASS 'B' RIP RAP EST 40 TONS EST 90 SY FF SEE DETAIL 8 SHEET 2-I

PC Sta. 47+33.22

-BL- 160 PINC

-BL- 124 PINC

-BL- 125 PINC

OUTLET CHANNEL IMPROVEMENTS SEE DETAIL 33 SHEET 2-J

UTILIZE ROCK FILL FROM STA 912+85 TO 913+90 LT UP TO ELEVATION 105.0

OUTLET PROTECTION CLASS 'I' RIP RAP EST 17 TONS EST 38 CY FF

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

PT Sta. 56+16.53

BEARING AH= S 58°06' 24.7" E

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

STATE OF NORTH CAROLINA DB 1076 PG 605

57

CARL T. WOLFORD DB 1202 PG 639

55

CHORD

TIE INTO RCBC

18 8'x9' RCBC BEGIN SBG +27.91 GRAU 350

LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H

LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H

FALSE SUMP SEE DETAIL 24 SHEET 2-I

FALSE SUMP SEE DETAIL 18 SHEET 2-I

PC Sta. 57+03.08

REMOVE

+50 100' LT END FULL C/A BEGIN LIMITED C/A

GRADE TO DRAIN

SC Sta. 909+28.77

+28.77 100' LT

PSH

END SBG +76.15

GRAU 350

SBG

-Y33A-

-L-

WW FENCE

150' TAPER

+50 100' LT END LIMITED C/A BEGIN FULL C/A

TS Sta. 906+48.77

+75 124.81' RT

+06 125.60' RT

MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-I

INLET CHANNEL IMPROVEMENTS SEE DETAIL 32 SHEET 2-J

TOE PROTECTION CLASS 'B' RIP RAP EST 55 TONS EST 125 SY FF SEE DETAIL 8 SHEET 2-I

FALSE SUMP SEE DETAIL 7 SHEET 2-H

+28.77 130' RT

S 41°43'58" E 326.98'

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC9) PERENNIAL JURISDICTIONAL STREAM

WALNUT ST. (PER MB 1 PG 166)

SCRUB

+50 130' RT END LIMITED C/A BEGIN FULL C/A

+50 110' RT END FULL C/A BEGIN LIMITED C/A WHITE INVESTMENT CO. DB 1292 PG 957

58

+57.12 BEGIN CHAIN LINK FENCE

CHAIN LINK FENCE

+10 130' RT 110' RT

LATERAL 'V' DITCH W/ CLASS 'B' RIP RAP EST 46 TONS EST 184 SY FF SEE DETAIL 9 SHEET 2-H

UNNAMED TRIB TO LITTLE COHARIE CREEK (LC10) INTERMITTANT JURISDICTIONAL STREAM

RIPRAP EMBANKMENT PROTECTION EST 2 TONS EST 5 SY FF SEE DETAIL 17 SHEET 2-I

FALSE SUMP SEE DETAIL 6 SHEET 2-H

STATE OF NORTH CAROLINA DB 1076 PG 605

Pls Sta 908+35.49	Pl Sta 923+28.30	Pl Sta 51+82.20	Pl Sta 59+10.27
Θs = 4° 11' 58.9"	Δ = 7° 27' 48.0" (LT)	Δ = 25° 18' 18.1" (LT)	Δ = 46° 15' 55.7" (LT)
Ls = 280.00'	D = 2° 59' 59.2"	D = 2° 51' 53.2"	D = 11° 48' 48.8"
LT = 186.72'	L = 2,415.62'	L = 883.31'	L = 391.63'
ST = 93.38'	T = 1,399.53'	T = 448.98'	T = 207.20'
	R = 1,910.00'	R = 2,000.00'	R = 485.00'
	SE = .07	SE = .03	SE = .06
	RO = 160'	RO = 63'	RO = 126'

FOR -L- PROFILE SEE SHEET 39
FOR -Y33A- PROFILE SEE SHEET 54
SBG: SHOULDER BERM GUTTER

16-JAN-2015 10:30 V:\2303c_rdy_psh_17.dgn

R/W REV.: REVISING THE DRIVE ON PARCEL 64. 1/23/12 TFD

R/W REV.: REVISING THE DRIVE ON PARCEL 64. 5/16/12 TFD

8/17/99

16-JAN-2013 10:30
R:\Roadway\Proj\r2303c_rdy_psh_18.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

-L-

PI Sta 923+28.30	PIs Sta 934+37.78
Δ = 72° 27' 48.0" (LT)	θs = 4° 11' 58.9"
D = 2° 59' 59.2"	Ls = 280.00'
L = 2,415.62'	LT = 186.72'
T = 1,399.53'	ST = 93.38'
R = 1,910.00'	
SE = .07	
RO = 280'	

-Y33-

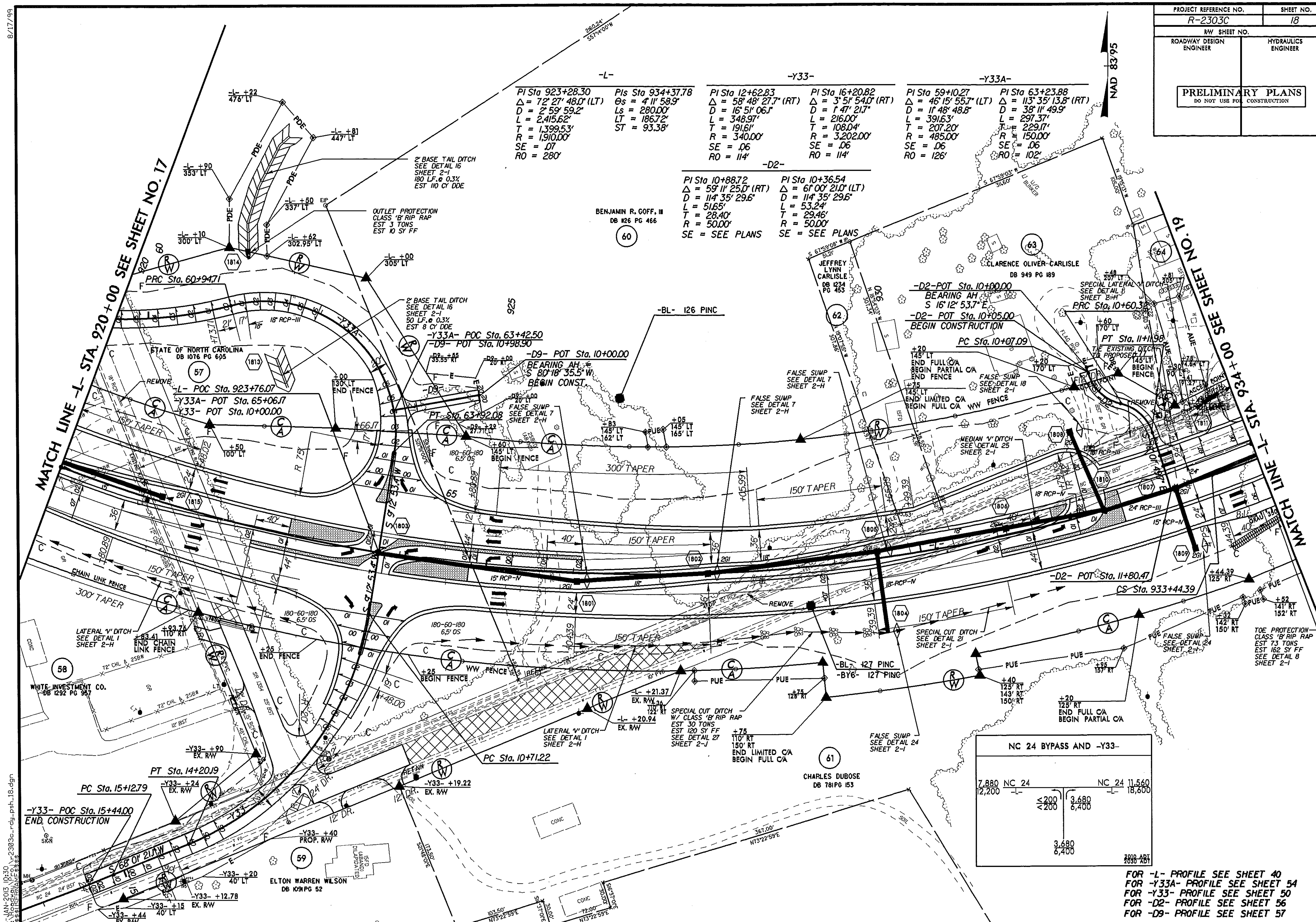
PI Sta 12+62.83	PI Sta 16+20.82
Δ = 58° 48' 27.7" (RT)	Δ = 3° 51' 54.0" (RT)
D = 16° 51' 06.1"	D = 1° 47' 21.7"
L = 348.97'	L = 216.00'
T = 191.61'	T = 108.04'
R = 340.00'	R = 3,202.00'
SE = .06	SE = .06
RO = 114'	RO = 114'

-Y33A-

PI Sta 59+10.27	PI Sta 63+23.88
Δ = 46° 15' 55.7" (LT)	Δ = 113° 35' 13.8" (RT)
D = 11° 48' 48.8"	D = 38° 11' 49.9"
L = 391.63'	L = 297.37'
T = 207.20'	T = 229.17'
R = 485.00'	R = 150.00'
SE = .06	SE = .06
RO = 126'	RO = 102'

-D2-

PI Sta 10+88.72	PI Sta 10+36.54
Δ = 59° 11' 25.0" (RT)	Δ = 61° 00' 21.0" (LT)
D = 114° 35' 29.6"	D = 114° 35' 29.6"
L = 51.65'	L = 53.24'
T = 28.40'	T = 29.46'
R = 50.00'	R = 50.00'
SE = SEE PLANS	SE = SEE PLANS



NC 24 BYPASS AND -Y33-		
NC 24 (-L-): 7,880 / 12,200	-Y33-: 3,680 / 6,400	NC 24 (-L-): 11,560 / 18,600
Left turn: <200 / <200	Right turn: 3,680 / 6,400	2010 ADT / 2030 ADT

FOR -L- PROFILE SEE SHEET 40
FOR -Y33A- PROFILE SEE SHEET 54
FOR -Y33- PROFILE SEE SHEET 50
FOR -D2- PROFILE SEE SHEET 56
FOR -D9- PROFILE SEE SHEET 57

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

8/17/99

R/W REV.: REVISING THE DRIVE ON PARCEL 64. 1/23/12 TFD

R/W REV.: REVISING THE DRIVE ON PARCEL 64. 5/16/12 TFD

Revised:1/6/2012 10:30:30 AM
R:\Roadway\Proj\r-2303c_rdy_psh_19.dgn
$$$$USERNAME$$$$

MATCH LINE -L- STA. 934+00 SEE SHEET NO. 18

MATCH LINE -L- STA. 948+00 SEE SHEET NO. 20

NAD 83/95

-L-
PIs Sta 934+37.78
θs = 4° 11' 58.9"
Ls = 280.00'
LT = 186.72'
ST = 93.38'

60 BENJAMIN R. GOFF, III
DB 1126 PG 466

64 RICCI TADLOCK
DB 1460 PG 622

61 CHARLES DUBOSE
DB 781 PG 153

65 ANN W. WHEELER AND JANE B. COPELAND
DB 1288 PG 843
DB 1288 PG 853
DB 1288 PG 856
DB 1389 PG 845

66 CHARLES B. WILLIAMS AND LELA J. WILLIAMS
DB 1548 PG 13

S 70°44'47" W 213.26'

BM# 709 ELEVATION = 89.90'
-BL- STA 939+96
115' LEFT
R/R SPIKE SET IN 22" GUM

+05 BEGIN FENCE REMOVE

ST Sta. 936+24.39

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 ~~37.04~~ 39
110' LT
120' LT

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

CHORD

N 66°16'21.3" E -L-

BEGIN SBG +48.81

BEGIN SPECIAL GRADING
-L- POT STA 939+35.00

-BL- 128 PINC

+BEGIN SBG +04.37

CHORD

TOE PROTECTION
CLASS 'B' RIP RAP
EST 73 TONS
EST 162 SY FF
SEE DETAIL 8
SHEET 2-1

+04 140' RT

+24.39 125' RT

OUTLET PROTECTION
CLASS 'I' RIP RAP
EST 4 TONS
EST 12 SY FF

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

+80 141' RT

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

WW FENCE

CLASS II RIP RAP
EST 800 TONS
EST 850 SY FF

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

BEGIN APPROACH SLAB
-L- STA. 941+40.83

CLASS II RIP RAP

BEGIN BRIDGE
-L- STA. 941+65.00

END SBG +40.00

EXCAVATION
EST 4300 CY

+30 120' LT

END SBG +40.00

+20 125' RT

+13.96 141' RT

+34.56 125' RT

LITTLE COHARIE CREEK (LC6)
PERENNIAL
JURISDICTIONAL STREAM

SBMC 60' POWERLINE RIGHT OF WAY

+21 262.16' RT

END APPROACH SLAB
-L- STA. 944+84.17

END BRIDGE
-L- STA. 944+60.00

+97.58 125.00' RT

+75 125' RT

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

BEGIN SBG +85.00

CLASS II RIP RAP
EST 775 TONS
EST 825 SY FF

+31 142' RT

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FR
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

END SPECIAL GRADING
-L- POT STA 946+86.00

+05 203' RT

EDGE OF WATER

BEGIN SBG +84.99

+85 120' LT

+25.00 115' LT 120' LT

+06.58 115' LT

+53 151.06' LT

+38 115' LT

TOP OF BANK

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

15" RCP-N
48" RCP-III EQ. PIPE
24" RCP-III
18" RCP-N
TYPE M350
TYPE B-77
REM. GR
SBG
PUE
PSH
WW
WLB
MTL
FSS
FG
CMP
CONC
TOP RAP
CAT-I
2GI
20'
24'
40'

FOR -L- PROFILE SEE SHEET 40
SBG: SHOULDER BERM GUTTER

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

MATCH LINE -L- STA. 948+00 SEE SHEET NO. 19

MATCH LINE -L- STA. 962+00 SEE SHEET NO. 21

SRSMC 60' POWERLINE RIGHT OF WAY

ANN W. WHEELER AND JANE B. COPELAND
DB 1288 PG 843
DB 1288 PG 853
DB 1288 PG 856
DB 1389 PG 845

-BL- 150 PINC

-BL- 131 PINC

950

955

960

65

67

LATERAL 2' BASE DITCH TO CONNECT WETLANDS AND BREACH BERM SEE DETAIL 11 SHEET 2-1

+65 115' LT END PARTIAL C/A BEGIN FULL C/A

MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-1

OUTLET PROTECTION CLASS 'B' RIP RAP EST 2 TONS EST 7 SY FF

+13 115' LT 141' LT

+34 115' LT 142' LT

FALSE SUMP SEE DETAIL 7 SHEET 2-H

+25 115' LT END FULL C/A BEGIN PARTIAL C/A

WW FENCE

TOE PROTECTION EST 30 SY PSRM SEE DETAIL 10 SHEET 2-H

+04 END FENCE

ACCESS POINT

END SBG +53.26

+64 BEGIN FENCE

ANN W. WHEELER, ET AL
DB 1288 PG 843
DB 1288 PG 853
DB 1288 PG 856
DB 1389 PG 845

LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H

BM# 710 ELEVATION = 107.43'
-BL- STA. 965+60 97' LEFT
R/R SPIKE SET IN 28" GUM

2021 2019 2018 2001 2008 2009 2006 2007 2002 2003 2013 2010 2004 2020 2014 2015 2012 2016 2005 2017

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

150' TAPER

GRAU 350

REMOVE NC 24 25' BST

15" RCP-IV

18" RCP-IV

48" RCP-III EQ. PIPE

18" RCP-III

15" RCP-III

N 66°15'23" E

GUARDRAIL R=20

GUARDRAIL R=52

SBG

PSH

PUE

+54 142' RT 152' RT

+75 141' RT 151' RT

+65 128' RT

+65 125' RT 135' RT END PARTIAL C/A BEGIN FULL C/A

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

+25 116' RT

+25 100' RT 135' RT END FULL C/A BEGIN PARTIAL C/A

66

CHARLES B. WILLIAMS AND LELA J. WILLIAMS
DB 1548 PG 13

FALSE SUMP SEE DETAIL 7 SHEET 2-H

END SBG +79.74

FALSE SUMP SEE DETAIL 18 SHEET 2-1

ABAN. 8"

+26 END FENCE

+86 BEGIN FENCE

FALSE SUMP SEE DETAIL 7 SHEET 2-H

210.22'
S66°45'07"W

FOR -L- PROFILE SEE SHEET 41
SBG: SHOULDER BERM GUTTER

I6-JAN-2015 10:30 \\r2303c_rdy_psh_20.dgn

8/17/99

R/W REV.: ADDING A DRIVEWAY TO PARCEL 73. REVISING THE DRIVEWAY ON PARCEL 70 AND 71. 1/23/11 TFD

16-JAN-2013 10:30
R:\Highway\Projects\R-2303c\rdy_psh_21.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

-L-
PIs Sta 965+56.21
Θs = 1° 28' 22.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 969+45.99
Δ = 9° 29' 48.0" (RT)
D = 1° 28' 22.4"
L = 644.76'
T = 323.12'
R = 3,890.00'
SE = .04
RO = 200'

PIs Sta 973+34.30
Θs = 1° 28' 22.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-Y34-
PI Sta 11+85.02
Δ = 48° 38' 56.1" (LT)
D = 19° 05' 54.9"
L = 254.73'
T = 135.61'
R = 300.00'
SE = .06
RO = 108'

MATCH LINE -L- STA. 962+00 SEE SHEET NO. 20

MATCH LINE -L- STA. 976+00 SEE SHEET NO. 22

TS Sta. 964+22.87

SC Sta. 966+22.87

CS Sta. 972+67.63

ST Sta. 974+67.63

-L- POC Sta. 967+66.94
-Y34- POT Sta. 10+00.00
BEARING AH =
S 20° 05' 20.0" E

PC Sta. 10+49.41

PT Sta. 13+04.13

POT Sta. 15+07.15

-Y34- POT Sta. 13+80.00
END CONSTRUCTION

-BL- 132 PINC
-BY7- 132 POT

-BL- 5 PINC

-BY7- 217 PINC

UNNAMED TRIB TO LITTLE COHARIE CREEK NON-JURISDICTIONAL STREAM

69 ANN HARPER WHEELER
DB 1389 PG 842
MB 19 PG 59
MB 38 PG 79

71 JANE B. COPELAND
DB 1389 PG 853

72 CHARLES B. WILLIAMS
DB 1548 PG 13

73 CHARLES B. WILLIAMS
DB 1548 PG 13

68 TODD ALLEN WHEELER
DB 1497 PG 935

67 ANN W. WHEELER, ET AL
DB 1289 PG 843
DB 1288 PG 853
DB 1288 PG 856
DB 1389 PG 845

66 CHARLES B. WILLIAMS AND LELA J. WILLIAMS
DB 1548 PG 13

70 AUBREY PAYTON CRUMPLER
DB 1199 PG 137

GEORGE HALL, JR
DB 856 PG 441

BILLY RAY HALL
DB 1361PG 664

FULTON WAYNE BROCK
DB 1329 PG 612

NC 24 & SR 1239
(-Y34- UNDERWOOD RD.)

11,560 18,600	NC 24 BYP	NC 24 BYP	11,560 18,600

≤200 200 ≤200 200

-Y34- SR 1239

240 400 2010 ADT 2030 ADT

FOR -L- PROFILE SEE SHEET 41
FOR -Y34- PROFILE SEE SHEET 51

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

NC 24 & SR 1301
(-Y35- MARION-AMOS RD.)

720
1,200

-Y35- SR 1301

280 600 | 440 600

11,560 NC 24 18,600 BYP

NC 24 11,720 18,600 BYP

2010 ADT
2030 ADT

-Y35- POT Sta. 10+00.00

-BY8- 219 PINC

-Y35- POT Sta. 12+25.00
BEGIN CONSTRUCTION

-Y35- +00 EX. R/W
-Y35- +05 58' RT
-Y35- +24 55' RT
-Y35- +20 EX. R/W
PUE
RETAIN
TIE EXISTING DITCH INTO PROPOSED
TIE EXISTING DITCH INTO PROPOSED
-Y35- +25 EX. R/W 50' LT
-Y35- +25 EX. R/W 45' RT
LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H
-Y35- +53 51.27' LT
-L- POT Sta. 977+44.76
-Y35- POT Sta. 14+88.26
-Y35- +40 55' RT
-Y35- +35 55' LT
LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H REMOVE
LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H
BM" 711 ELEVATION = 123.36'
-BY8- STA. 12+16 19' LEFT
R/R SPIKE SET IN 24" OAK
+60 110' LT END FENCE
+54 115' LT BEGIN FENCE
+25 98' LT 115' LT
+30 BEGIN FENCE
+58 95' LT 111' LT END PARTIAL C/A BEGIN FULL C/A
+88 95' LT 111' LT END FULL C/A BEGIN PARTIAL C/A
FALSE SUMP SEE DETAIL 7 SHEET 2-H
TOE PROTECTION EST. 53 SY PSRM SEE DETAIL 10 SHEET 2-H
300' TAPER
12' DR. ACCESS POINT
20' DR. ACCESS POINT
+10 END FENCE
WW FENCE
36" RCP-N
REMOVE NC 24 25' BST
REMOVE
150' TAPER
+85 END FENCE
+45 BEGIN FENCE
+47 END FENCE
+24 118' RT
+70 100' RT 120' RT
+29 128' RT
+48 120' RT
+50 115' RT 120' RT
+85.60 118' RT
+85.67 166' RT
+66.46 118' RT
+76 100' RT END PARTIAL C/A BEGIN FULL C/A BEGIN FENCE
+54 100' RT END FULL C/A BEGIN PARTIAL C/A END FENCE
OUTLET PROTECTION CLASS B RIPRAP EST. 11 TONS EST. 28 SY FF
-BL- 133 PINC
-BY8- 133 POT
-BL- 6 PINC
WD WHEELCHAIR RAMP
CONC RAMP
HTR
ISFD
2SFD
WD DK
SHED
36" CONC
LATERAL 2' BASE DITCH SEE DETAIL 14 SHEET 2-I
304.33' AXLE-EIP N55°33'40"E
JUNK YARD
SOIL
S.S.
ECM
-Y35- 976+00 SEE SHEET NO. 21
MATCH LINE -L- STA. 990+00 SEE SHEET NO. 23
980
985
990

CHARLES B. WILLIAMS
DB 1548 PG 13
(73)

CHARLES B. WILLIAMS AND LELA J. WILLIAMS
DB 1548 PG 13
(73)

AMANDA SCOTT EVANS
DB 1530 PG 654
(75)

ROSCOE MAURICE HOLLAND, JR.
DB 1719 PG 620
(77)

CHARLES B. WILLIAMS AND LELA J. WILLIAMS
DB 1548 PG 13
(72)

ROGER RAY ROYAL
DB 835 PG 448
(74)

ROGER RAY ROYAL
DB 837 PG 595
(74)

FRANK ARNETTE
DB 1610 PG 700
(78)

WILLIE JAMEY THOMPSON
DB 1357 PG 587
(79)

KENNETH BETHEL
WILHELMINA WILLIAMS
DB 1643 PG 872
DB 1711 PG 560
(80)

SUNRISE PROPERTIES AND RENTALS, LLC
DB 1691 PG 642
(81)

ESSIE BLACKMON OATES
DB 1807 PG 665
(82)

MILLARD T. OWEN III
DB 1206 PG 105

KENNETH WILLIAMS
DB 1512 PG 543

KENANNA HOLDINGS, LLC
DB 1608 PG 162

JOYCE ANN MACK JOSEPH
DB 1380 PG 690

N 78°42'54.2"E
225.47' S78°38'14"W
269.62' S78°38'14"W
150.00' S78°38'39"W
149.92' S78°38'39"W
N10°14'53"E 181.16'
N05°44'55"E 226.65'
S11°27'21"E 175.69'
S11°27'21"E 145.37'
S11°27'21"E 290.39'
S11°27'21"E 362.62'
S11°27'21"E 290.36'
N05°45'10"E 886.09'

FOR -L- PROFILE SEE SHEET 42
FOR -Y35- PROFILE SEE SHEET 51

R/W REV.: UPDATING THE PROPERTY INFORMATION ON PARCEL 75. 8/21/12 RWB

16-JAN-2013 10:30
R:\Roadway\R-2303c_rdy_psh_22.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

R/W REV: UPDATING THE PROPERTY INFORMATION ON PARCEL 86 AND 91. 8/21/12 RWB

16-JAN-2013 10:30
R:\R-2303C_rdy_psh_23.dgn
$$$$USERNAME$$$$

MATCH LINE -L- STA. 990+00 SEE SHEET NO. 22

MATCH LINE -L- STA. 1004+00 SEE SHEET NO. 24

ROSCOE MAURICE HOLLAND, JR.
DB 1719 PG 620
77

RICKY WALTON SESSOMS
DB 1008 PG 871
91

GWENDOLYN M. KING
DB 1379 PG 459
83

MUHAMMAD B. ABDUL-ALIM
DB 828 PG 825
84

MICHAEL A. CORPREW
DB 1333 PG 344
85

PEGGY JEAN WEST
DB 1059 PG 17
86

GEORGE HARRIS, SR. HEIRS
DB 1085 PG 170
87

GEORGE B. FANN
DB 750 PG 199
DB 1692 PG 526
88

GEORGE FANN
DB 771PG 536
92

JEANETTE H. WILLIAMS
DB 1605 PG 115

PI Sta 1003+58.50
Δ = 2° 27' 14.2" (RT)
D = 0° 34' 22.6"
L = 428.30'
T = 214.18'
R = 10,000.00'

NOTE: CLEAR PATH FOR C/A FENCE 6' WIDE TO MINIMIZE IMPACTS TO TREES.

BM# 712 ELEVATION = 132.67'
-L- STA. 1003+96 267' LEFT
RR SPIKE SET IN 26" PINE

POND WILL BE DRAINED. PIPE INVERT MAY NEED TO BE ADJUSTED ONCE POND IS DRAINED AND ELEVATIONS VERIFIED BY NEU.

-BL- 134 PINC

-BL- 135 PINC

DO NOT DISTURB WELL IN PUE.

PC Sta. 1001+44.32

-L- N 78° 42' 54.2" E

UNNAMED TRIB TO LITTLE COHARIE CREEK (LCII) PERENNIAL JURISDICTIONAL STREAM

CLASS I RIPRAP STREAM BANKS ONLY EST 26 TONS EST 56 SY FF

FOR -L- PROFILE SEE SHEET 42

SBG: SHOULDER BERM GUTTER

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS
8/17/99
R/W REV.- REMOVING PERMANENT DRAINAGE EASEMENT ON PARCEL 91 12/19/12 TFD

MATCH LINE -L- STA. 1004+00 SEE SHEET NO. 23

MATCH LINE -L- STA. 1018+00 SEE SHEET NO. 25

-L-
PI Sta 1003+58.50
Δ = 2° 27' 14.2" (RT)
D = 0° 34' 22.6"
L = 428.30'
T = 214.18'
R = 10,000.00'

-DI2-
PI Sta 10+76.90
Δ = 78° 39' 57.4" (LT)
D = 114° 35' 29.6"
L = 68.65'
T = 40.97'
R = 50.00'

-DII-
PI Sta 11+52.01
Δ = 68° 28' 29.9" (RT)
D = 114° 35' 29.6"
L = 59.76'
T = 34.03'
R = 50.00'

NOTE: CLEAR PATH FOR C/A FENCE 6' WIDE TO MINIMIZE IMPACTS TO TREES.

BEGIN CONSTRUCTION -DI2- STA. 10+00.00
BEARING AH= S 81° 10' 08.5" W

PC Sta. 10+35.93

-L- POT Sta. 1007+88.00
-DI2-/POT Sta. 11+80.90

PT Sta. 11+04.58
BEARING AH= S 2° 30' 11.1" W

BEGIN CONSTRUCTION -DII- STA. 10+00.00

-L- POT Sta. 1013+46.00
-DII- POT Sta. 12+65.18
PT Sta. 11+77.74

PC Sta. 11+17.98

N 81° 10' 08.5" E

PT Sta. 1005+72.62

RICKY WALTON SESSOMS
DB 1008 PG 871
91

THOMAS HOGAN, JR.
DB 565 PG 30
DB 856 PG 717
94

MELEA O. HOLLINGSWORTH
DB 1815 PG 709
MB 78 PG 51
148

DEBORAH S. OWEN, ETAL
DB 1818 PG 199
MB 78 PG 51
148A

148B

148C

OWEN C. WILLIFORD
DB 1280 PG 337
MB 54 PG 51
98

RICKY WALTON SESSOMS
DB KK19 PG 64
MB 12 PG 62
101

PENNY FRAN SANDY
DB 1290 PG 209
MB 12 PG 62
103

WALTON WALTER SESSOMS
(DB 1562 PG 909)
95

TONY CURTIS SUPLES
DB 1561 PG 634
100

ANNIE LEE WEST
B 707 PG 277
B 945 PG 597
93

THORNTON HOMES CO.
DB 1730 PG 604
97

LORA ANN WILLIAMS
DB 1822/580
96

KENNETH WAYNE STRICKLAND
DB 1178 PG 380
99

LORA ANN WILLIAMS
DB 1832/580
96

RUBY C. JOHNSON
DB 1245 PG 885
102

-BL- 136 PINC

-BL- 137 PINC

CLASS B RIPRAP
OUTLET PROTECTION
EST 2 TONS
EST 7 SY FF

CLASS B RIPRAP
EST 35 TONS
EST 75 SY FF
SEE DETAIL 8
SHEET 2-I

CLASS B RIPRAP
OUTLET PROTECTION
EST 3 TONS
EST 11 SY FF

CLASS I RIPRAP
OUTLET PROTECTION
EST 17 TONS
EST 36 SY FF

TOE PROTECTION
EST 28 SY PSRM
SEE DETAIL 10
SHEET 2-H

POND WILL BE
DRAINED WITH
NEW CROSSPIPE

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL I
SHEET 2-H

WW FENCE

GRADE TO DRAIN

ACCESS POINT

BEGIN FENCE

END FENCE

END SBG

WAREHOUSE MTL

ISBKD

ISFD

CONC

SOIL

POND NE 128.3

UNNAMED TRIB TO
LITTLE COHARIE CREEK (LCII)
PERENNIAL
JURISDICTIONAL STREAM

FOR -L- PROFILE SEE SHEET 43
FOR -DI- & -DI2- PROFILE SEE SHEET 58
SBG: SHOULDER BERM GUTTER

16-JAN-2013 10:31
R:\Roadway\PROJ\r-2303c_rdy_psh_24.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	25
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC 24 & SR 1239
(-Y36- UNDERWOOD RD.)

11,720 NC 24 18,600 BYP — NC 24 11,720 18,600 BYP
AVG 100 / 100
-Y36- SR 1239
100 / 100
2010 ADT 2030 ADT

NAD 83/95

-L-
PIs Sta 1026+46.66
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 1030+32.66
Δ = 12° 18' 53.7" (LT)
D = 1° 56' 08.4"
L = 636.21'
T = 319.34'
R = 2,960.00'
SE = .05
RO = 200'

-Y36-
PI Sta 13+07.18
Δ = 77° 38' 06.4" (RT)
D = 22° 02' 12.6"
L = 352.30'
T = 209.18'
R = 260.00'
SE = .06
RO = 108'

MATCH LINE -L- STA. 1018+00 SEE SHEET NO. 24

MATCH LINE -L- STA. 1032+00 SEE SHEET NO. 26

1020 1025 1030

PENNY FRAN SANDY
DB 1290 PG 209
MB 12 PG 62
103

NARVIN RAMIREZ
DB 1350 PG 438
104

JOHN KEITH HOBBS, ETUX
AND
THOMAS DALE HOBBS, JR., ETUX
DB 1690 PG 33
MB 10 PG 80
108

ECM
+95 END FENCE
+55 BEGIN FENCE
ACCESS POINT
+70 105' LT 120' LT 132' LT
+95 105' LT 131' LT
PUE
+40 105' LT END PARTIAL C/A BEGIN FULL C/A
LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H
OUTLET PROTECTION CLASS B RIPRAP EST 3 TONS EST 10 SY FF
MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-I
TS Sta. 1025+13.32
SC Sta. 1027+13.32
MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-I
+13.32 105' LT
+13.32 118' LT END FULL C/A BEGIN PARTIAL C/A
CHORD
WW FENCE
18" RCP-N
12' DR.
MTL CARPORT
ISBKD
150' TAPER
18" RCP-III
FALSE SUMP SEE DETAIL 7 SHEET 2-H
150' TAPER
15" RCP-N
-L- N 81° 10' 08.5" E
REMOVE
EIP
NC 24 25' BST
RETAIN + REMOVE
12' DR.
ACCESS POINT
+45 90' RT 100' RT
+20 END FENCE
+75.81 76.16'
+76 90' RT 94' RT
+88 BEGIN FENCE
+60 90' RT 115' RT END PARTIAL C/A BEGIN FULL C/A
WW FENCE
DAN BENJAMIN
DB 1060 PG 284
107
+13.32 115' RT 125' RT
+35 115' RT 126' RT
-BL- 138 PINC
CHORD
+13.32 100' RT END FULL C/A BEGIN PARTIAL C/A
+96 END FENCE
30' DR.
ACCESS POINT
+55 BEGIN FENCE
+37 127' RT 138' RT
+58 129' RT 139' RT
-Y36- +40 55' RT
JOHN KEITH HOBBS, ETUX
AND
THOMAS DALE HOBBS, JR., ETUX
DB 1690 PG 33
MB 10 PG 80
+05.13 131.74' RT
+05 125' RT END FENCE
180-60-180 DEG. CS
EXISTING R/W
300' TAPER
30" RCP-III
REMOVE
LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H
-Y36- +38 EX. R/W
-Y36- +45 40' RT
-Y36- +50 50' RT
PT Sta. 14+50.30
-Y36- POT Sta. 16+15.00
END CONSTRUCTION
-Y36- POT Sta. 19+75.04
-BY9- 222 PINC
S 64° 03' 45.9" W
TIE EXISTING DITCH TO PROPOSED
-Y36- +15 EX. R/W 40' LT
LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H
MATTHEW NEAL
DB 1693 PG 713
111
-Y36- +58 EX. R/W
-Y36- +50 45' LT
MATTHEW D. NEAL, ETUX
AND
PATRICK G. NEAL, ETUX
DB 1740 PG 423
MB 10 PG 80
112
OUTLET PROTECTION CLASS B RIPRAP EST 8 TONS EST 21 SY FF
GRADE TO DRAIN
OUTLET PROTECTION CLASS B RIPRAP EST 2 TONS EST 7 SY FF
SR 1239
-Y36- +90 EX. R/W
S52°00'23"E 52.26'
N63°59'37"E 41.53'
S52°00'23"E 41.53'
N63°59'37"E 41.53'

ELIZABETH B. PARKER
GEORGE L. PARKER
DB 1309 PG 575
DB 1309 PG 577
109

RUBY C. JOHNSON
DB 1245 PG 885
102

WILLIAM H. HARRIS
DB 1702 PG 800
106

GEORGE FRANKLIN MURPHY
DB 1093 PG 892
105

GEORGE F. MURPHY
DB 1353 PG 838

ISFD
ISFD (ABAND)
2SBKD
ISBLKD
CONC
48" CONC
MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-I
S42°59'48"E 306.49' ECM-R/W
S42°59'48"E 358.98' ECM-ECM
S42°59'48"E 372.22' (TOTAL)
N26°11'57"W 323.78'
S80°00'53"W 76.21'
S80°00'54"W 93.26'
S63°35'06"W 212.57'
N40°18'25"W 243.37' CORR. ANGLE
N26°39'28"W 246.80'
S43°07'16"E 239.55'
N09°35'28"W 246.80'

FOR -L- PROFILE SEE SHEET 43
FOR -Y36- PROFILE SEE SHEET 51

R/W ABANDONMENT

R/W.REV.: UPDATING THE PROPERTY INFORMATION ON PARCEL 111. 1/23/11 TFD
R/W.REV.: UPDATING THE RIGHT OF WAY ON PARCEL 112. 5/16/12 TFD

16-JAN-2013 10:23
I:\r-2303c_rdy_psh_25.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	26
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC 24 & SR 1239
(-Y36- UNDERWOOD RD.)

11,720 NC 24 BYP 18,600 — NC 24 BYP 11,720 18,600
≤100 ≤100 — ≤100 ≤100
-Y36- SR 1239
100 / 100
2010 ADT 2030 ADT

NC 24 & SR 1301
(-Y37- MARION AMOS RD.)

880 / 1,200
-Y37- SR 1301
440 / 600 — 440 / 600
11,720 18,600 -L- NC 24 — NC 24 -L- 11,720 18,600
2010 ADT 2030 ADT

-L-

PI Sta 1030+32.66
Δ = 12° 18' 53.7" (LT)
D = 1° 56' 08.4"
L = 636.21'
T = 319.34'
R = 2,960.00'
SE = .05
RO = 200'

PIs Sta 1034+16.21
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PIs Sta 1041+52.75
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

PI Sta 1047+17.30
Δ = 19° 05' 46.9" (RT)
D = 1° 56' 08.4"
L = 986.58'
T = 497.89'
R = 2,960.00'
SE = .05
RO = 200'

-D3-

PI Sta 11+56.85
Δ = 29° 14' 29.8" (RT)
D = 114° 35' 29.6"
L = 25.52'
T = 13.04'
R = 50.00'
SE = SEE PLANS

-Y37-

PI Sta 16+00.77
Δ = 19° 37' 12.9" (LT)
D = 6° 52' 41.7"
L = 285.25'
T = 144.04'
R = 833.00'
SE = .06
RO = 144'

PI Sta 18+62.78
Δ = 39° 07' 05.7" (RT)
D = 16° 51' 06.1"
L = 232.13'
T = 120.80'
R = 340.00'
SE = .06
RO = 114'

(108) JOHN KEITH HOBBS, ETUX AND THOMAS DALE HOBBS, JR., ETUX
DB 1690 PG 33
MB 10 PG 80

-L- POC Sta. 1032+15.99
-Y36- POT Sta. 10+00.00
BEARING AH =
S 13° 34' 20.5" E

R/W ABANDONMENT

-D3-POT Sta. 10+00.00
BEGIN CONSTRUCTION
BEARING AH
S 54° 12' 15.9" E

PC Sta. 11+43.80
PT Sta. 11+69.32

UNNAMED TRIB TO BEARSKIN SWAMP (BR1) PERENNIAL JURISDICTIONAL STREAM

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

PREFORMED SCOUR HOLE OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 16 SY FF EST 25 SY PSRM SEE DETAIL 2 SHEET 2-H

OUTLET PROTECTION CLASS B RIPRAP EST 2 TONS EXT 7 SY FF

18" CSP W/ ELBOWS AND ROD & LUG CONNECTORS

CS Sta. 1033+49.53

BEGIN SBG +00.00
ST Sta. 1035+49.53

-D3-POT Sta. 12+12.92
BEARING BK
S 24° 57' 46.1" E

PC Sta. 10+98.00

-Y36A- POT Sta. 10+20.00
BEGIN CONSTRUCTION

-Y36A- POT Sta. 10+94.85
END CONSTRUCTION

POT Sta. 10+00.00

POT Sta. 11+33.12

BEGIN SBG +98.16

END SBG +06.31

CLASS I RIPRAP STREAM BANKS ONLY EST 117 TONS EST 38 SY FF

LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H

MEDIAN 'V' DITCH SEE DETAIL 25 SHEET 2-I

50' TAPER END FENCE

END FENCE

ACCESS POINT

REMOVE ASPHALT IN ABANDONMENT AREA

ABANDON R/W

GRADE TO DRAIN

EXTND EXIST 24" RCP 20 LF. W/ CONC. COLLAR

EXTND EXIST 24" RCP 24 LF. W/ CONC. COLLAR

EXTND EXIST 24" RCP

RETAIN

REMOVE

N 64° 58' 58.0" E -L-

N 79° 58' 26.5" E -Y36A-

CHORD

CHORD

END SBG +53.26

BEGIN SBG +00.00

150' TAPER

300' TAPER

150' TAPER

50' TAPER

GRAU 350

PSH

SBG

WW FENCE

NAD 83'95

MATCH LINE -L- STA. 1032+00 SEE SHEET NO. 25

MATCH LINE -L- STA. 1046+00 SEE SHEET NO. 27

R/W REV.: UPDATING THE PROPERTY INFORMATION ON PARCELS 108 AND 112. 8/21/12 RWB

(112) MATTHEW D. NEAL, ETUX AND PATRICK G. NEAL, ETUX
DB 1740 PG 423
MB 10 PG 80

(113) AMOS BUTLER HEIRS
DB 162 PG 381
DB 284 PG 60
MB 25 PG 58

(114) JAMES EARL SAMPSON
DB 762 PG 237

JAMES GODWIN
DB 1378 PG 168

FOREST MONK
DB 1212 PG 820

BERLENE MONK, BUTLER
DB 955 PG 551

-Y37- POT Sta. 12+60.00
BEGIN CONSTRUCTION

LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H

REMOVE

PC Sta. 14+56.74

PT Sta. 12+57.29

-BY10- 226 PINC

PRC Sta. 17+41.99

-Y37-POC Sta. 18+11.46
-SR2- POT Sta. 12+86.38
BEARING BK
S 49° 07' 02.8" W

POT Sta. 12+86.38
BEARING AH
S 39° 08' 41.2" E

PT Sta. 10+41.99

PC Sta. 10+41.99

-Y37- +60 EX R/W 45' LT
-Y37- +60 EX R/W 40' RT
-Y37- +50 40' LT
-Y37- +20 50' RT
-Y37- +95 86' LT
-Y37- +62 74' LT
-Y37- +49 80.35' LT
-Y37- +35 EX. R/W
-Y37- +36 66' RT
-Y37- +84 87' LT
-Y37- +40 50' LT
-Y37- +50 125' RT
-Y37- +60 68' RT
-Y37- +50 50' RT

OUTLET PROTECTION CLASS 'B' RIP RAP EST 5 TONS EST 14 CY FF

REMOVE EXIST 18" RCP AND ADJACENT ROADWAY FILL GRADE DITCH TO MATCH NATURAL CONDITION

FALSE SUMP SEE DETAIL 7 SHEET 2-H

LATERAL 'V' DITCH SEE DETAIL 1 SHEET 2-H

OUTLET PROTECTION CLASS 'B' RIP RAP EST 8 TONS EST 21 CY FF

UNNAMED TRIB TO BEARSKIN SWAMP (BR2) NON-JURISDICTIONAL STREAM

LATERAL 'V' DITCH SEE DETAIL 5 SHEET 2-H

GRADE TO DRAIN

SBG: SHOULDER BERM GUTTER

FOR -L- PROFILE SEE SHEET 44
FOR -Y36- PROFILE SEE SHEET 51
FOR -Y37- PROFILE SEE SHEET 52
FOR -Y36A- PROFILE SEE SHEET 51
FOR -SR2- PROFILE SEE SHEET 55
FOR -D3- PROFILE SEE SHEET 56

IE: JAN-2013 10:31
C:\Projects\2303c_rdy_psh_26.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NC 24 & SR 1301
(-Y37- MARION AMOS RD.)

880
1,200

-Y37- SR 1301
440 600 | 440 600

11,720 18,600 NC 24 -L- NC 24 11,720 18,600

2010 ADT
2030 ADT

NAD 83/95

-SR2-
PI Sta 12+37.45
Δ = 48° 37' 33.8" (LT)
D = 114° 35' 29.6"
L = 42.43'
T = 22.59'
R = 50.00'
SE = SEE PLANS

-L-
PI Sta 1047+17.30
Δ = 19° 05' 46.9" (RT)
D = 1° 56' 08.4"
L = 986.55'
T = 497.89'
R = 2,960.00'
SE = .05
RO = 200'

Pls Sta 1052+72.63
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

Pls Sta 1058+03.98
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

-Y37-
PI Sta 18+62.78
Δ = 39° 07' 05.7" (RT)
D = 16° 51' 06.1"
L = 232.13'
T = 120.80'
R = 340.00'
SE = .06
RO = 114'

PI Sta 21+24.91
Δ = 19° 16' 50.7" (LT)
D = 19° 05' 54.9"
L = 100.95'
T = 50.96'
R = 300.00'
SE = .03
RO = 45'

ROGER R. ROYAL
DB 1314 PG 218

TERA CULBRETH
DB 967 PG 998
MB. 14 PAGE 15

HAROLD T. CULBRETH
DB 1434 PG 195

WILMA FOWLER
DB 1304 PG 483

SAMPSON COUNTY
DB 933 PG 606

PT Sta. 19+74.12
BEARING AH =
S 19° 48' 15.5" E
PC Sta. 12+14.86

-SR2- POT Sta. 10+04.30
BEGIN CONSTRUCTION
BEARING AH =
N 82° 15' 23.3" W

-L- POC Sta. 1046+24.39
-Y37- POT Sta. 20+28.30

PC Sta. 20+73.95
PT Sta. 21+74.90
BEARING AH =
S 39° 05' 06.2" E

-Y37- POT Sta. 23+00.00
END CONSTRUCTION

POT Sta. 24+67.93

TS Sta. 1056+70.64
SC Sta. 1058+70.64
CS Sta. 1052+05.96
ST Sta. 1054+05.98

TRANSITION PROTECTION
PSRM EST. 20 SY
SEE DETAIL 10
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY FF

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 3 TONS
EST 10 SY FF

BM# 714 ELEVATION = 146.80
-BY10- STA. 19+14 51' LEFT
REMOVE R/R SPIKE SET IN 14" PINE

CHORD

WW FENCE

MATCH LINE -L- STA. 1046+00 SEE SHEET NO. 26

MATCH LINE -L- STA. 1060+00 SEE SHEET NO. 28

GILBERT L. OATES
DB 1058 PG 246

FOR -L- PROFILE SEE SHEET 44
FOR -Y37- PROFILE SEE SHEET 52
FOR -SR2- PROFILE SEE SHEET 55

R/W REV.: REVISING RIGHT OF WAY ON PARCEL 124. 10/9/12 TFD

16-JAN-2013 10:31
C:\Projects\R-2303c_rdy_psh_27.dgn
$$$$USERNAME$$$$

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	28
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L-

PI Sta 1065+24.72
Δ = 24° 55' 16.4" (LT)
D = 1° 56' 08.4"
L = 1,287.41'
T = 654.08'
R = 2,960.00'
SE = .05
RO = 200'

PIs Sta 1072+24.79
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'

NAD 83/95

MATCH LINE -L- STA. 1060+00 SEE SHEET NO. 27

MATCH LINE -L- STA. 1074+00 SEE SHEET NO. 29

SAMPSON COUNTY
DB 933 PG 606

CEMETERY

SANITARY SEWER LIFT STATION

TOWER

ISBK

MTL SHED

MTL GATE

BRICK COLUMNS

12" CHLS SSW

POWER BOX

POND ELEV 150'

1065

1070

TOE PROTECTION
CLASS 'B' RIP RAP
EST 45 TONS
EST 95 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 20 TONS
EST 45 SY FF
SEE DETAIL 8
SHEET 2-I

TOE PROTECTION
CLASS 'B' RIP RAP
EST 40 TONS
EST 85 SY FF
SEE DETAIL 8
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

FALSE SUMP
SEE DETAIL 18
SHEET 2-I

CS Sta. 1071+58.12

ST Sta. 1073+58.12

+55
103' LT
END FULL C/A
BEGIN PARTIAL C/A

WW FENCE

50' TAPER

RETAIN

LATERAL 'V' DITCH
SEE DETAIL 3
SHEET 2-H

+23
199' LT

+54
188' LT

+40.24
150.63' LT

ACCESS POINT

+21
152' LT

+35
130' LT

+75
BEGIN FENCE

+58.12
105' LT

CHORD

+80
102.71' LT

+58.12
100' LT

LATERAL 'V' DITCH
W/ CLASS 'B' RIP RAP
EST 15 TONS
EST 35 SY FF
SEE DETAIL 9
SHEET 2-H

HTR BUS

R=20'

END SBG
+03.52

+68
105' LT

+24
105' LT

+55
END FENCE

BEGIN SBG
+30.36

SBG

CAT-1

GRAU 350

72" RCP-IV

15" RCP-N

18" RCP-N

72" RCP-III

15" RCP-REMOVE

EXISTING R/W

RIP-RAP

+90.10

+85
END FENCE

150' TAPER

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

-BL- 8 PINC

+30.00
105' RT
130' RT

+58.12
105' RT
BEGIN FENCE

+09
157' RT
168' RT

+29
152' RT
167' RT

UNNAMED TRIB TO
BEARSKIN SWAMP (BR7)
INTERMITTANT
JURISDICTIONAL STREAM

WATERLINE OBSCURED

CLASS I RIP RAP
STREAM BANKS ONLY
EST 38 TONS
EXT 78 SY FF

TOE PROTECTION
CLASS 'B' RIP RAP
EST 35 TONS
EST 70 SY FF
SEE DETAIL 8
SHEET 2-I

WASTE INDUSTRIES, LLC
DB 1659 PG 416
DB 1659 PG 419

LATERAL 'V' DITCH
SEE DETAIL 1
SHEET 2-H

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 2 TONS
EST 7 SY END FULL C/A
BEGIN PARTIAL C/A

+46
GRAU 350

150' TAPER

PC Sta. 10+00.00

TIE EXISTING DITCH
INTO PROPOSED

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

+25
135' RT

-Y36B-
EX. R/W

-Y36B- +25
EX. R/W
TIE EXISTING DITCH
INTO PROPOSED

-Y36B-
S 61° 15' 58.8" W
140.45'

-DRIO- +60
EX. R/W

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 3 TONS
EST 10 SY FF

N 82° 37' 05.3" E
26.86' LT

-DRIO- +52.67

-BL- 142 PINC

-DRIO- +21
25' LT

-DRIO-

POT Sta. 9+50.00

-DRIO- POT Sta. 10+25.48
BEGIN CONST.

-DRIO- +30
ON ROW

-DRIO- +46
30' RT

-DRIO- POT Sta. 14+12.29
END PROFILE

-DRIO- POT Sta. 14+21.42

LATERAL 'V' DITCH
W/ CLASS 'B' RIP RAP
EST 50 TONS
EST 200 SY FF
SEE DETAIL 26
SHEET 2-J

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

-Y36B- +36.99
EXIST. R/W
TIE EXISTING DITCH
INTO PROPOSED

-Y36B- POC Sta.10+25.00
BEGIN CONSTRUCTION

-Y36B- +06
EX. R/W
46' LT

PT Sta. 11+40.45

-BL- 7 PINC

-Y36B- POC Sta.10+96.95
END CONSTRUCTION

GILBERT L. OATES
DB 1058 PG 246

125

-Y36B-
PI Sta 10+70.23
Δ = 1° 54' 56.3" (RT)
D = 1° 21' 50"
L = 140.45'
T = 70.23'
R = 4,200.80'
SE = N/A

R 200'

-L- +55.11
307.66' RT

-L- +84
346' RT

-L- +09
335' RT

TIE TO EXISTING DRIVEWAY

126

FOR -L- PROFILE SEE SHEET 45
FOR -Y36B- PROFILE SEE SHEET 51
FOR -DRIO- PROFILE SEE SHEET 58
SBG: SHOULDER BERM GUTTER

R/W REV.: REVISING RIGHT OF WAY ON PARCEL 124. 10/9/12 TFD

I:\...\2303c_rdy_psh_26.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

MATCH LINE -L- STA. 1074+00 SEE SHEET NO. 28

MATCH LINE -L- STA. 1088+00 SEE SHEET NO. 30

124
SAMPSON COUNTY
DB 933 PG 606

128
T&W DEVELOPMENT
DB 1369 PG 743

130
BERTHILDA BARBOZA ROBLES
DB 1367 PG 770

126
WASTE INDUSTRIES, LLC
DB 1659 PG 416
DB 1659 PG 419

129
BARON M. VAN LIEW
DB 1209 PG 765

1075 1080 1085

TOE PROTECTION
CLASS 'B' RIP RAP
EST 40 TONS
EST 85 SY FF
SEE DETAIL 8
SHEET 2-I

MEDIAN 'V' DITCH
SEE DETAIL 25
SHEET 2-I

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

BEGIN SBG +53.56

+20 100' LT 115' LT

WW FENCE

END SBG +06.74

+05 115' LT

CLASS II RIP RAP
EST 700 TONS
EST 750 SY FF

CLASS II RIP RAP

BEGIN BRIDGE
-L- STA.1080+32.00

TOP OF BANK

EDGE OF WATER

EXCAVATION
EST 1100 CY

+00 115' LT

BEGIN SBG +02.00

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

END APPROACH SLAB
-L- STA.1082+01.17

+00 115' LT

-L- POT Sta. 1087+13.09
-Y38- POT Sta. 10+00.00
BEARING Ahd
S 37° 57' 54.5" E

END SBG +75.00

+70 100' LT

+55 END FENCE

ISFD

ISBKD +92 138' LT

ACCESS POINT 10' DR

ACCESS POINT 12' DRF

-BL- 144 PINC
-BYII- 144 POT

RUN OF BEARSKIN SWAMP

N 59° 09' 28.5" E

-L-

NC 24 24' BST

15" RCP-IV

15" RCP-III

18" RCP-III

18" RCP

30" RCP-III

TYPE M350

TYPE B-77

REM. GR

CONC

REMOVE

GRAU 350

SBG

SBG CAT-

BEGIN SPECIAL GRADING
-L- POT STA.1074+00.00

END SPECIAL GRADING
-L- POT STA.1084+08.00

300' TAPER

18" CSP W/ ELBOWS AND W/ ROD & LUG CONNECTORS

FALSE SUMP
SEE DETAIL 7
SHEET 2-H

180-60-180
6.5' OS

+55 115' RT
END FENCE

END SBG +24.47

BEGIN SBG +02.00

WW FENCE

PUE

PSH

DUE

BM# 716 ELEVATION = 114.59'
-BYII- STA. 6+10 17' LEFT
P/R SPIKE SET IN 48" OAK

+53 141' RT 151' RT

+60 139.35' RT

+74 141' RT 151' RT

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS -Y38- +95
EXT 21 SY FF 65' RT

TOE PROTECTION
EST 17 SY PSRM
SEE DETAIL 10
SHEET 2-H

CLASS B RIPRAP
STREAM BANKS ONLY
EST 14 TONS
EXT 34 SY FF

2030' RCP-III

UNNAMED TRIB TO BEARSKIN SWAMP (BR4)
INTERMITTANT
JURISDICTIONAL STREAM

-Y38- +50
EX. R/W

-Y38- POT Sta. 12+50.00
END CONSTRUCTION

LATERAL 2' BASE DITCH
SEE DETAIL 14
SHEET 2-I

OUTLET PROTECTION
CLASS B RIP RAP
EST 2 TONS
EST 7 SY FF

-BL- 143 PINC

BEGIN APPROACH SLAB
-L- STA.1080+07.83

END BRIDGE
-L- STA.1081+77.00

+50 105' RT 115' RT

END SBG +07.00

+05 115' RT

+89 115' RT 140' RT

+32 115' RT 140' RT

CLASS II RIP RAP
EST 800 TONS
EST 850 SY FF

PREFORMED SCOUR HOLE
OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 8 TONS
EST 16 SY FF
EST 25 SY PSRM
SEE DETAIL 2
SHEET 2-H

BEARSKIN SWAMP (BR3)
PERENNIAL
JURISDICTIONAL STREAM

NC 24 & SR 1238 (-Y38- MCLEMORE RD.)

11,720 NC 24 18,600 -L-		NC 24 11,720 -L- 18,400
240 400	200 200	
-Y38- SR 1238		
440 600		

2010 ADT
2035 ADT

FOR -L- PROFILE SEE SHEET 45
FOR -Y38- PROFILE SEE SHEET 52
SBG: SHOULDER BERM GUTTER

16-JAN-2013 10:31
R:\Projects\R-2303c\Roadway\r2303c_rdy_psh_29.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	30
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99 R/W REV.- ADDED ADDITIONAL LABELING TO ACCESS POINT ON PARCEL 132 AND SHOWED PROPOSED DRAINAGE AND DRIVEWAY 11/30/12 TFD

MATCH LINE -L- STA. 1088+00 SEE SHEET NO. 29

NAD 83/95

128A
SALLIE MAZINGO
DB 1464 PG 129
DB 982 PG 881
DB 851PG 63
MB 13 PG 36

FOREST MONK
DB 886 PG 24
DB 1212 PG 823

134
JAMES MONK
DB 795 PG 280

135
ROSA DEAVER BEST
DB 1528 PG 838

137
GREGORY LYMAN GRIFFIN
DB 1080 PG 696

RAEFORD HORNE
DB 885 PG 13

JEFFREY POPE
DB 1124 PG 751

JEFFERY J. LUCAS
TONYA SESSOMS LUCAS
DB 1315 PG 237
MB 31PG 45

JEWELL H. SESSOMS
JERRY O. SESSOMS
DB 1575 PG 952
MB 52 PG 29

131

133
MICHAEL R. GAUTIER
DB 1323 PG 494

132
KENNETH R. GAUTIER
DB 906 PG 763
DB 1016 PG 147
DB 1575 PG 978
DB 1136 PG 607
MB 52 PG 29

KENNETH R. GAUTIER
DB 906 PG 763
DB 1016 PG 147
DB 1575 PG 978
DB 1136 PG 607
MB 52 PG 29

TIE TO R-2303D
BERNICE MILLER
DB 1063 PG 779

PROP. DRIVEWAY UNDER R-2303D

PROP. DRAINAGE UNDER R-2303D

-BL- 146 PINC

-BL- 145 PINC

FALSE SUMP SEE DETAIL 7 SHEET 2-H

LATERAL "V" DITCH SEE DETAIL 5 SHEET 2-H

CLASS 'B' RIP RAP STREAM BANKS ONLY EST 2 TONS EST 7 SY FF

UNNAMED TRIB TO BEARSKIN SWAMP (BR4) INTERMITTANT JURISDICTIONAL STREAM

TOE PROTECTION EST 65 SY PSRM SEE DETAIL 10 SHEET 2-H

BEGIN FENCE

END FENCE

ACCESS POINT

150' TAPER

12' DR.

REMOVE

N 59° 09' 28.51" E

N 59° 07' 01" E
160.00'

N 59° 03' 57" E
464.54'

ST A. 1097+00.00 -L-
END STATE PROJECT R-2303C
BEGIN STATE PROJECT R-2303D

R/W ACQUIRED UNDER R-2303D

FOR -L- PROFILE SEE SHEET 46

16-JAN-2013 10:32
N:\Projects\2013\01-02\R-2303C_rdy_psh_30.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS

8/17/99 R/W REVISION-UPDATED PROPERTY LINE FILE WTB 12/12/11

-BY12-132 PINC

-Y26- +00 EX. R/W 40' LT

POT Sta. 16+25.44

-Y26- POT Sta. 16+00.00
END CONSTRUCTION

TIE EXISITING DITCH INTO PROPOSED

-Y26- +00 EX. R/W 37' RT

PT Sta. 14+81.44
BEARING AH =
S 69° 25' 50.7" E

-Y26- +50 45' LT

LATERAL 'V' DITCH SEE DETAIL I SHEET 2-H

-Y26- +50 50' LT

-Y26- +50 50' LT

-Y26- +80 50' RT

TIE PROPOSED DITCH INTO EXISTING

-Y26- +78 EX. R/W

LATERAL 'V' DITCH SEE DETAIL I SHEET 2-H

-Y26- POC Sta. 12+47.52
-Y27- POT Sta. 10+00.00

-Y27- +80 EX. R/W

-Y27- +40 45' RT

-Y27- +37 67' LT

-Y27- +32 16' RT

-Y27- +72 48.90' RT

-Y27- +35 45' RT

PC Sta. 10+39.24

-Y27- +04.28 69.23' LT

-Y27- +06 77' LT

TIE EXISITING DITCH INTO PROPOSED

-Y27- +30 66.07' LT

-Y27- +70 70' LT

-BL8-86 PINC

-BL8-86 POT

PT Sta. 11+97.61
BEARING AH =
N 69° 32' 01.3" W

-Y27- +45 62.53' LT

LATERAL 'V' DITCH SEE DETAIL I SHEET 2-H

-Y27- +45 72' & 82' LT

-Y27- +45 72' & 93' LT

-Y27- +75 55' LT

MATCH LINE -Y26- STA. 11+50 SEE SHEET NO. 5

N 69° 32' 01.3" W

-Y26-
PI Sta 13+31.66
Δ = 65° 21' 33.8" (LT)
D = 19° 05' 54.9"
L = 342.22'
T = 192.45'
R = 300.00'
SE = .06
RO = 108'

-Y27-
PI Sta 11+22.84
Δ = 45° 22' 16.9" (RT)
D = 28° 38' 52.4"
L = 158.38'
T = 83.60'
R = 200.00'
SE = .06
RO = 102'

FOR -Y26- PROFILE SEE SHEET 47
FOR -Y27- PROFILE SEE SHEET 47

16-JAN-2013 10:32
\\Pdfs\projects\R-2303c_rdy\r-2303c_rdy_psh_31.dgn

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303C	32
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

-Y32-
PI Sta 18+55.20
Δ = 58° 13' 12.1" (LT)
D = 8° 54' 38.5"
L = 653.37'
T = 358.04'
R = 643.00'
SE = .06
RO = 138 '

-Y32A-
PI Sta 11+02.55
Δ = 59° 31' 46.3" (LT)
D = 57° 17' 44.8"
L = 103.90'
T = 57.19'
R = 100.00'
SE = .06
RO = 96'

-Y32- POT Sta. 13+50.00
BEGIN CONSTRUCTION
BEARING BACK =
S 13° 07' 30.2" E

PC Sta. 14+97.16

-Y32- POC Sta. 18+33.00
-Y32A- POT Sta. 10+00.00
BEARING AH =
S 46° 35' 27.6" W

PT Sta. 21+50.54
BEARING AH =
S 71° 20' 42.3" E

RC Sta. 10+45.36

PT Sta. 11+49.26

-Y32A- POT Sta. 12+50.00
END CONSTRUCTION

-Y31- POT Sta. 15+70.00
BEGIN CONSTRUCTION

-Y31- POT Sta. 16+82.50

-Y32- POT Sta. 22+91.35

KATHERINE L. PERNELL
ALAN M. BROWN
DB 1577 PG 83
(141)

CAROL B. ADAIR
DB 1761 PG 906
MB 34 PG 95
(32)

THORNTON HOMES CO.
DB 1672 PG 166
MB 34 PG 95
(34)

CAROL ADAIR
DB 1354 PG 844
(35)

NELLIE & ELTON WILSON HEIRS
DB 722 PG 336
(33)

MERCEDES CARROLL
DB 959 PG 941
(37)

NANCY E. FAIRCLOTH
DB 1434 PG 41
(140)

HUBERT MATTHEWS
DB 1121 PG 153

JAMES B. NUNNERY, JR.
DB 1121 PG 156

LINDA LEE NUNNERY
DB 1073 PG 715

JAMES B. NUNNERY, JR.
DB 1121 PG 156
(142)

GEORGE C. EDWARDS
DB 1337 PG 613
(143)

GEORGE C. EDWARDS
DB 832 PG 500

T. L. EDWARDS
DB 782 PG 323
DB 1337 PG 609
(145)

DAVID JOHN MIXON
DB 1689 PG 992
(146)

S.M.P. FARMS
DB 762 PG 437

LATERAL 'V' DITCH
SEE DETAIL 5
SHEET 2-H

LATERAL 4' BASE DITCH
SEE DETAIL 23
SHEET 2-I

LATERAL
4' BASE DITCH
W/ CLASS 'B' RIP RAP
EST 19 TONS
EST 129 SY FF
SEE DETAIL 19
SHEET 2-I

OUTLET PROTECTION
CLASS 'B' RIP RAP
EST 17 TONS
EST 42 SY FF

OUTLET PROTECTION
CLASS 'B' RIP RAP
STREAM BANKS ONLY
EST 15 TONS
EST 142 SY FF

UNNAMED TRIB TO
LITTLE COHARIE CREEK

TIE INTO EXISTING DITCHES

MATCH LINE -Y31- STA. 20+00 SEE SHEET NO. 12

FOR -Y31- PROFILE SEE SHEET 49
FOR -Y32- PROFILE SEE SHEET 49
FOR -Y32A- PROFILE SEE SHEET 50

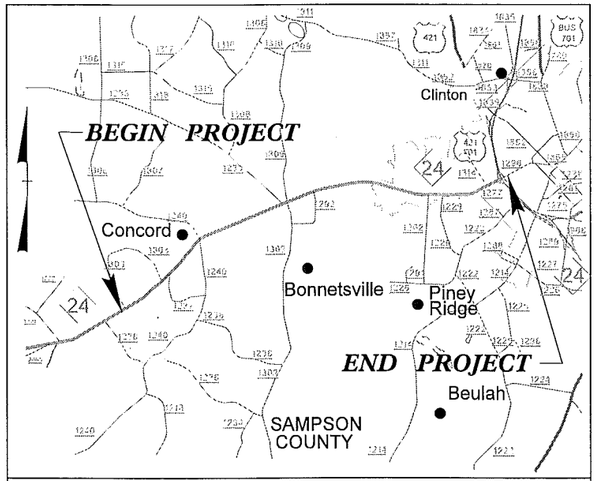
16-JAN-2013 10:32
I:\projects\r2303c_rdy_psh_32.dgn

09/08/94

TIP PROJECT: R-2303D

CONTRACT:

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SAMPSON COUNTY

Permit Drawing
Sheet 1 of 79

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303D	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34416.1.1		PE
34416.2.5		R/W, UTIL.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

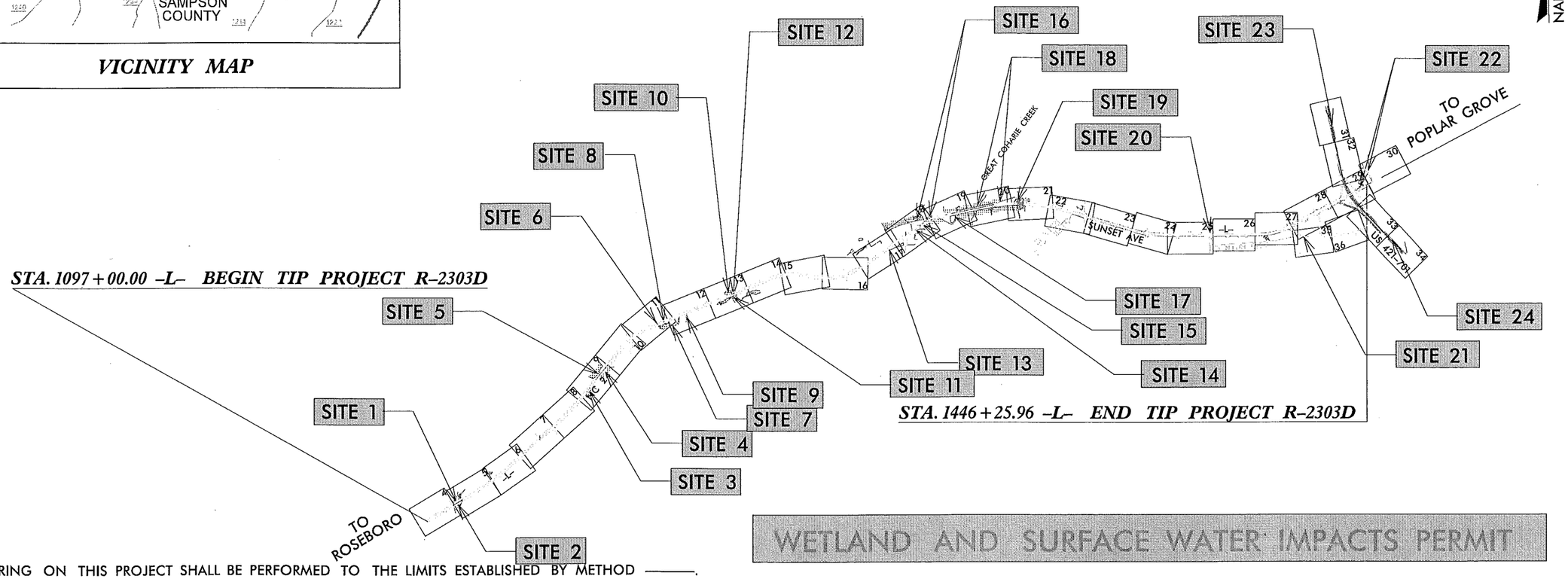
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

LOCATION: NC 24 FROM SR 1303 (MITCHELL LOOP ROAD) TO US 421-701/SR 1296 (SUNSET AVENUE)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, RESURFACING, CURB & GUTTER, SIGNALS, AND STRUCTURES

STA. 1449+56.13 –L– END CONSTRUCTION



WETLAND AND SURFACE WATER IMPACTS PERMIT

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD ———.
PORTIONS OF THIS PROJECT ARE WITHIN THE TOWN LIMITS OF BELVOIR & LITTLE COHAIRE AND CITY LIMITS OF CLINTON.
THIS IS A LIMITED AND PARTIAL CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE POINTS AS SHOWN ON THE PLANS.

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2012 = 39520
ADT 2032 = 58720
DHV = 11 %
D = 55 %
T = 8 % *
V (SHOULDER) = 60 MPH
V (CURB & GUTTER) = 50 MPH
* (TTST 5% + DUAL 3%)
FUNC. CLASS = ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2303D = 6.35 MILES
LENGTH STRUCTURES TIP PROJECT R-2303D = 0.26 MILES
TOTAL LENGTH TIP PROJECT R-2303D = 6.61 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JUNE 30, 2011

LETTING DATE: JUNE 18, 2013

GREG BREW, PE
PROJECT ENGINEER

WAYNE BEST
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

P.E.
STATE HIGHWAY DESIGN ENGINEER

10/2/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_HYD_PRM_WET_tsh.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

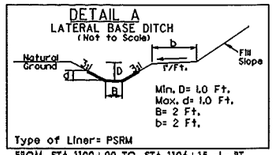
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	2-E
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 2 of 79

DETAIL A
LATERAL BASE DITCH
(Not to Scale)

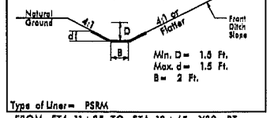


Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
B= 2 Ft.
b= 2 Ft.

Type of Liner= PSRM

FROM STA. 1100+00 TO STA. 1106+15 -L- RT.
FROM STA. 1158+80 TO STA. 1160+46 -L- LT.
FROM STA. 1171+70 TO STA. 1174+68 -L- LT.
FROM STA. 1176+55 TO STA. 1180+50 -L- RT.
FROM STA. 1180+50 TO STA. 1186+00 -L- RT. (16+00 -Y42- RT.)
FROM STA. 16+00 TO STA. 17+88 -Y42- RT.
FROM STA. 1189+00 TO STA. 1197+50 -L- RT.
FROM STA. 1249+80 TO STA. 1248+15 -L- LT.
FROM STA. 1247+00 TO STA. 1246+72 -L- RT.
FROM STA. 1279+00 TO STA. 1285+70 -L- LT.
FROM STA. 1287+10 TO STA. 1289+00 -L- LT.
FROM STA. 9+40 TO STA. 10+85 -RPD- LT.
FROM STA. 17+15 TO STA. 20+50 -SR1- RT.
FROM STA. 15+94 TO STA. 17+19 -RPA- RT

DETAIL B
SPECIAL CUT BASE DITCH
(Not to Scale)

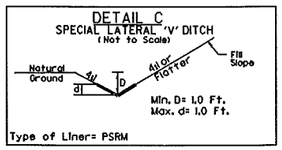


Min. D= 1.5 Ft.
Max. d= 1.5 Ft.
B= 2 Ft.

Type of Liner= PSRM

FROM STA. 11+85 TO STA. 12+45 -Y39- RT.
FROM STA. 1154+50 TO STA. 1157+70 -L- LT
FROM STA. 18+50 TO STA. 22+00 -Y42- LT.

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

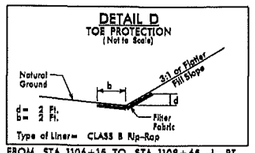


Min. D= 1.0 Ft.
Max. d= 1.0 Ft.

Type of Liner= PSRM

FROM STA. 1141+80 TO STA. 1142+41 -L- LT (14+20 -Y40- RT.)
FROM STA. 12+93 TO STA. 14+20 -Y40- RT.
FROM STA. 1152+00 TO STA. 1153+60 -L- LT.
FROM STA. 1160+80 TO STA. 1162+63 -L- LT
FROM STA. 1163+10 TO STA. 1164+11 -L- LT
FROM STA. 1164+80 TO STA. 1165+81 -L- LT
FROM STA. 1166+20 TO STA. 1167+00 -L- LT.
FROM STA. 1168+00 TO STA. 1169+20 -L- LT.
FROM STA. 1174+68 TO STA. 1179+50 -L- LT.
FROM STA. 1197+60 TO STA. 1198+50 -L- LT
FROM STA. 1200+05 TO STA. 1200+50 -L- LT
FROM STA. 1201+90 TO STA. 1202+50 -L- RT
FROM STA. 1211+00 TO STA. 1213+80 -L- LT.
FROM STA. 1297+55 TO STA. 1300+00 -L- LT
FROM STA. 1300+40 TO STA. 1301+50 -L- RT
FROM STA. 1302+00 TO STA. 1302+95 -L- RT.
FROM STA. 8+90 TO STA. 14+00 -RPC- LT
FROM STA. 17+50 TO STA. 18+50 -Y52- RT
FROM STA. 17+25 TO STA 18+00 -Y52- LT
FROM STA. 11+00 TO STA. 14+50 -RPA- LT
FROM STA. 12+60 TO STA. 12+80 -Y39- LT
FROM STA. 11+50 TO STA. 12+70 -Y44- RT.
FROM STA. 11+50 TO STA. 12+50 -Y44- LT.
FROM STA. 16+80 TO STA. 18+00 -Y44- LT.
FROM STA. 12+93 TO STA. 13+93 -Y40- LT.
FROM STA. 46+00 TO STA. 51+50 -Y52- RT.
FROM STA. 19+05 TO STA. 21+00 -SR1- LT

DETAIL D
TOE PROTECTION
(Not to Scale)

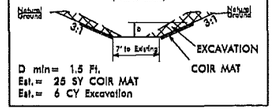


b= 3 Ft.
d= 2 Ft.

Type of Liner= CLASS B Rip-Rap

FROM STA. 1106+15 TO STA. 1108+65 -L- RT
FROM STA. 1109+00 TO STA. 1110+45 -L- RT
FROM STA. 1106+95 TO STA. 1109+50 -L- LT
FROM STA. 1109+80 TO STA. 1110+20 -L- LT
FROM STA. 1163+30 TO STA. 1167+40 -L- RT
FROM STA. 1170+00 TO STA. 1172+45 -L- LT
FROM STA. 1170+70 TO STA. 1176+00 -L- RT
FROM STA. 1197+25 TO STA. 1197+70 -L- LT
FROM STA. 1197+80 TO STA. 1198+40 -L- RT
FROM STA. 1199+30 TO STA. 1201+65 -L- RT
FROM STA. 1204+75 TO STA. 1205+15 -L- RT
FROM STA. 1207+45 TO STA. 1207+80 -L- RT
FROM STA. 1221+00 TO STA. 1224+50 -L- RT
FROM STA. 1224+80 TO STA. 1225+45 -L- RT
FROM STA. 1222+18 TO STA. 1224+10 -L- LT
FROM STA. 1224+40 TO STA. 1225+15 -L- LT
FROM STA. 1266+50 TO STA. 1269+25 -L- RT
FROM STA. 1290+60 TO STA. 1300+00 -L- RT
FROM STA. 1296+25 TO STA. 1297+40 -L- LT
FROM STA. 1301+50 TO STA. 1305+32 -L- RT
FROM STA. 1304+90 TO STA. 1305+32 -L- RT
FROM STA. 1317+82 TO STA. 1325+78 -L- LT & RT
FROM STA. 1328+10 TO STA. 1326+80 -L- RT
FROM STA. 1328+10 TO STA. 1329+05 -L- LT
FROM STA. 13+55 TO STA. 16+95 -SR1- RT
FROM STA. 14+50 TO STA. 16+50 -SR1- LT

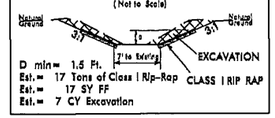
DETAIL E
CULVERT INLET CHANNEL
(Not to Scale)



D min= 1.5 Ft.
Est.= 25 SY COIR MAT
Est.= 6 CY Excavation

STA. 1109+60 -L- LT

DETAIL F
CULVERT OUTLET CHANNEL
(Not to Scale)



D min= 1.5 Ft.
Est.= 17 Tons of Class I Rip-Rap
Est.= 17 SY FF
Est.= 7 CY Excavation

STA. 1108+85 -L- RT

DETAIL G
STANDARD BASE DITCH
(Not to Scale)

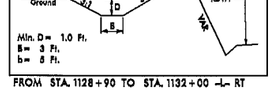
Min. D= EXISTING
Max. d= 2.0 Ft.
B= 3 Ft.

*When B is < 6.0'

Type of Liner= CLASS I Rip-Rap

STA. 1128+95 -L- LT
FROM STA. 1197+50 TO STA. 1197+90 -L- RT
FROM STA. 1338+41 TO STA. 1339+29 -L- LT

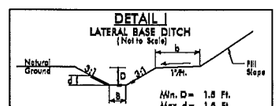
DETAIL H
BERM BASE DITCH
(Not to Scale)



Min. D= 1.0 Ft.
B= 3 Ft.
b= 8 Ft.

FROM STA. 1128+90 TO STA. 1132+00 -L- RT

DETAIL I
LATERAL BASE DITCH
(Not to Scale)

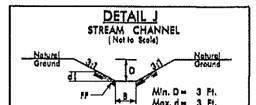


Min. D= 1.5 Ft.
Max. d= 1.5 Ft.
B= 8 Ft.
b= 5 Ft.

Type of Liner= PSRM

FROM STA. 1129+00 TO STA. 1131+00 -L- LT
EST. 1800 SY
FROM STA. 1248+23 TO STA. 1251+00 -L- LT.
FROM STA. 1248+87 TO STA. 1250+65 -L- RT.

DETAIL J
STREAM CHANNEL
(Not to Scale)



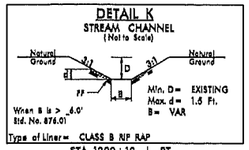
When B is > 6.0'
Std. No. 876.01

Min. D= 3 Ft.
Max. d= 3 Ft.
B= VAR

Type of Liner= CLASS I RIP RAP

STA. 1198+00 -L- RT
EST 55 TONS; EST 70 SY FF; EST 20 CY EXCAV
STA. 1276+55 -L- LT
EST 35 TONS; EST 40 SY FF; EST 35 CY EXCAV
STA. 1281+30 -L- RT
EST 35 TONS; EST 40 SY FF; EST 25 CY EXCAV
STA. 1291+75 -L- RT
EST 40 TONS; EST 50 SY FF; EST 10 CY EXCAV
STA. 16+40 -Y44- LT
EST 35 TONS; EST 40 SY FF; EST 60 CY EXCAV
STA. 16+75 -Y44- RT
EST 70 TONS; EST 80 SY FF; EST 100 CY EXCAV
STA. 1294+70 -L- RT
EST 40 TONS; EST 40 SY FF; EST 30 CY EXCAV

DETAIL K
STREAM CHANNEL
(Not to Scale)



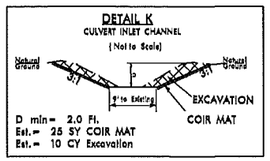
When B is > 4.0'
Std. No. 876.01

Min. D= EXISTING
Max. d= 1.5 Ft.
B= VAR

Type of Liner= CLASS B RIP RAP

STA. 1200+10 -L- RT
EST 55 TONS; EST 70 SY FF; EST 20 CY EXCAV

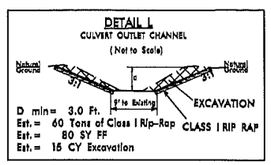
DETAIL K
CULVERT INLET CHANNEL
(Not to Scale)



D min= 2.0 Ft.
Est.= 25 SY COIR MAT
Est.= 10 CY Excavation

STA. 1224+30 -L- LT

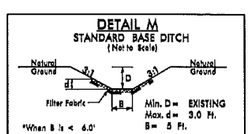
DETAIL L
CULVERT OUTLET CHANNEL
(Not to Scale)



D min= 3.0 Ft.
Est.= 60 Tons of Class I Rip-Rap
Est.= 80 SY FF
Est.= 15 CY Excavation

STA. 1224+60 -L- RT

DETAIL M
STANDARD BASE DITCH
(Not to Scale)



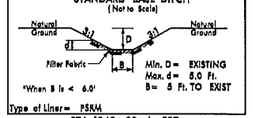
Min. D= EXISTING
Max. d= 3.0 Ft.
B= 5 Ft.

*When B is < 6.0'

Type of Liner= CLASS I Rip-Rap

STA. 1248+19 -L- LT
EST 80 TONS; EST 100 SY FF; EST 60 CY EXCAV
STA. 1248+79 -L- RT
EST 80 TONS; EST 100 SY FF; EST 60 CY EXCAV
STA. 1347+60 -L- LT
EST 110 TONS; EST 140 SY FF; EST 110 CY EXCAV

DETAIL N
STANDARD BASE DITCH
(Not to Scale)



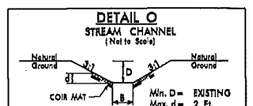
Min. D= EXISTING
Max. d= 5.0 Ft.
B= 5 Ft. TO EXIST

*When B is < 6.0'

Type of Liner= PSRM

STA. 1249+00 -L- RRT

DETAIL O
STREAM CHANNEL
(Not to Scale)



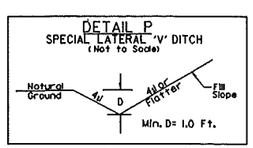
When B is > 6.0'
Std. No. 876.01

Min. D= EXISTING
Max. d= 2 Ft.
B= VAR

Type of Liner= COIR MAT

STA. 1290+05 -L- LT
EST 75 SY COIR MAT; EST 25 CY EXCAV
STA. 1294+80 -L- LT
EST 70 SY COIR MAT; EST 30 CY EXCAV

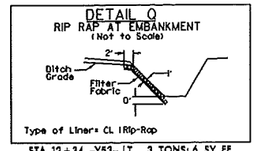
DETAIL P
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1.0 Ft.

FROM STA. 1131+00 TO STA. 1139+75 -L- LT
FROM STA. 5+84 TO STA. 10+00 -RPC- RT
FROM STA. 10+00 TO STA. 15+00 -RPA- RT

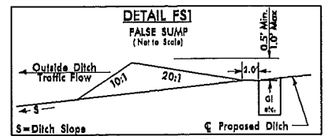
DETAIL Q
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner= CL I Rip-Rap

STA. 12+34 -Y53- LT 3 TONS; 6 SY FF
STA. 12+54 -Y53- LT 3 TONS; 6 SY FF
STA. 12+57 -Y53- RT 3 TONS; 6 SY FF
STA. 12+77 -Y53- RT 3 TONS; 6 SY FF

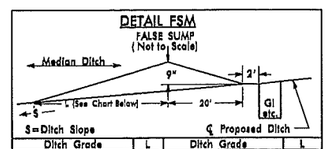
DETAIL FS1
FALSE SUMP
(Not to Scale)



S=Ditch Slope ℄ Proposed Ditch

FROM STA. TO STA.

DETAIL FSM
FALSE SUMP
(Not to Scale)

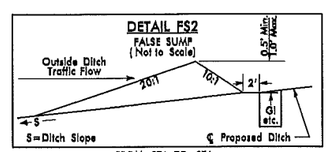


S=Ditch Slope ℄ Proposed Ditch

Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

FROM STA. TO STA.

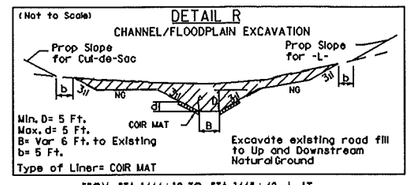
DETAIL FS2
FALSE SUMP
(Not to Scale)



S=Ditch Slope ℄ Proposed Ditch

FROM STA. TO STA.

DETAIL R
CHANNEL/FLOODPLAIN EXCAVATION
(Not to Scale)



Min. D= 5 Ft.
Max. d= 5 Ft.
B= Var 6 Ft. to Existing
b= 5 Ft.

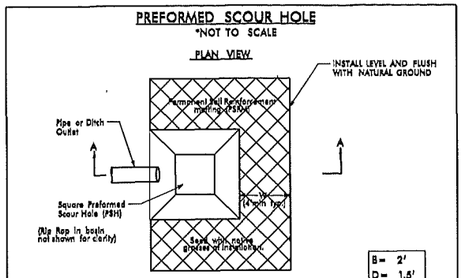
Excavate existing road fill to Up and Downstream Natural Ground

Type of Liner= COIR MAT

FROM STA. 1444+10 TO STA. 1445+40 -L- LT
EST EXCAV = 530 CY
EST COIR MAT = 400 SY

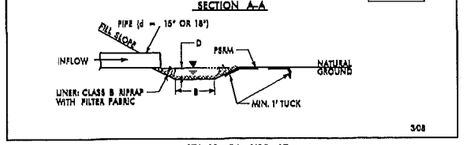
PREFORMED SCOUR HOLE
*NOT TO SCALE

PLAN VIEW



B= 2'
D= 1.5'
W= 4'

SECTION A-A



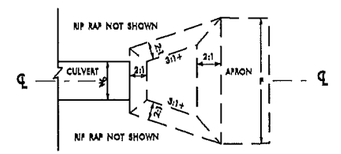
308

STA. 12+84 -Y39- LT
STA. 1106+18 -L- RT
STA. 1167+68 -L- RT
STA. 1169+20 -L- LT
STA. 1170+50 -L- RT
STA. 1176+45 -L- RT
STA. 1199+10 -L- RT
STA. 1201+90 -L- RT
STA. 1220+63 -L- RT
STA. 17+10 -SR1- RT

DETAIL S
RIP-RAPPED ENERGY DISSIPATOR BASIN

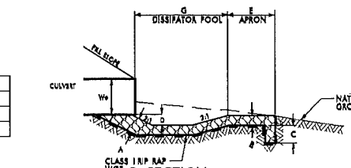
DIM. (ft)	RIP RAP BASIN #		
	#1	#	#
A	2.0'	2.0'	#
B	2.0'	2.0'	#
C	1.5'	1.5'	#
D	1.5'	1.5'	#
E	5'	5'	#
F	16'	16'	#
G	15'	15'	#

ALL DIMENSIONS APPROXIMATE



PLAN

BASIN #	LOCATION (AT OUTLET)
#1	STA 1205+25 -L- RT
#2	STA 1329+20 -L- LT
#	#



℄ SECTION

7/08

FROM STA. TO STA.

$$$$$$SYSTIME$$$$$$
$$$$$$DATE$$$$$$
$$$$$$FILENAME$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 3 of 79

8/17/99

REVISIONS

SITE 1

FROM –L– STA. 1095+47.50 LT
TO –L– STA. 1098+58.46 LT
THE R/W WILL BE PURCHASED
UNDER R-2303C

STA. 1097+00.00 –L– BEGIN TIP PROJECT R-2303D

MILLARD T. OWEN, III

1095

1105

72" WD

AUE

ISBKD

CONC

ANTENNA

POOL

48" CONC

1 GREGORY LYMAN GRIFFIN

ROSA DEAVER BEST

WD DK

2SFD

35" CONC

2 ISBKD

4

6

RAEFORD HORNE

RAEFORD HORNE

+10.00 –L–
BEG WW FENCE
+14.00 –L–
END WW FENCE
BERNICE MILLER

JEFFREY POPE

GRADE TO DRAIN

2GI

15" RCP-III

15" RCP

DI

REMOVE

RIP RAP

NC 24 24' BST
NC 24 (ROSEBORO HIGHWAY)
REMOVE

15" CMP

ROBERT BUTLER

JEFFERY J. LUCAS
TONYA SESSOMS LUCAS

5

48" CONC

PUE

2" LATERAL BASE DITCH
SEE DETAIL A

JEWELL H. SESSOMS
JERRY G. SESSOMS

3B

3A

48" CMP

WILLIAM H. HARRIS
LINDA T. HARRIS

3

HTR.

2SBKD

KENNETH R. GAUTIER

48" WD RAIL

24" PVC

SOIL

CANOPY

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'
SCALE: 1"=50'

SITE 2

1105

8

BEG. WW FENCE

SPECIAL CUTHERYL SIMMONS
SEE DETAIL B
EST 75 SY PSRM

7

END WW FENCE

8C

SPECIAL LATERAL
V DITCH
SEE DETAIL C
60 SY PSRM

DA=0.83
Q10=3.2cfs
V10=1.5fps

SR 1203 MITCHELL LOOP RD EST

PSH
SEE DETAIL

REMOVE

CAT-1

18" RCP

8

8A

MATCH LINE –L– STA 1107+50 SEE SHEET 5

GRASS SWALE (TAIL)
DA= 3.6ac (2.8p, 3.8n)
SLOPE= 0.010-0.039
PROF. 1
Q10= 5.0 cfs
V10= 2.1-3.2 FPS
n10= 0.4'

STA 1129+90 –L– LT

POND

9/27/2012
mmcdaniel
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh4.dgn

November 28, 2011
R2303d_hyd_prm_wet_psh4.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303D	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 4 of 79

NAD 8395

SITE 1

FROM -L- STA. 1095+47.50 -LT
TO -L- STA. 1098+58.46 LT
THE R/W WILL BE PURCHASED
UNDER R-2303C

STA. 1097+00.00 -L- BEGIN TIP PROJECT R-2303D

MILLARD T. OWEN, III

ROSA DEAVER BEST

GREGORY LYMAN GRIFFIN

BERNICE MILLER

JEFFREY POPE

RAEFORD HORNE

ROBERT BUTLER

JEFFERY J. LUCAS
TONYA SESSOMS LUCAS

KENNETH R. GAUTIER

JEWELL H. SESSOMS
JERRY G. SESSOMS

WILLIAM W. HARRIS
LINDA T. HARRIS

MATCH LINE -L- STA 1107+50 SEE SHEET 5

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SCALE: 1"=50'

SITE 2

REVISIONS

8/17/99

10/2012
R:\Hydraulics\PERMITS Environmental\Drawings\R2303D_Hyd_prm_wet_psh4.dgn
November 28, 2011
r2303d_hyd_prm_wet_psh4.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303D	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 5 of 79

NAD 83/95

262.41'
S47°53'16"W

SITE 1

1110 1115 1120

8 MARION STRICKLAND

INLET CHANNEL
SEE DETAIL E
EST 25 SY C.I.R. MAT
EST 6 CY EXCAVATION

PDE TDE TDE TDE

RW CA RW

BEGIN SBG 1110+40 -L- LT

FSI 2GI

GRAU 350

1@7'x7' RCBC

30" RCP-III

2GI-A

36" RCP-III 36" RCP-III 36" RCP-III

FSM

30" RCP-III

-L- N 59°09'28.5" E

24" RCP-III

FSM

2GI-A

15" RCP-III

FSI

2GI

15" RCP-III

18" RCP-III

2GI-A

MATCH LINE -L- STA 1107+50 SEE SHEET 4

MATCH LINE -L- STA 1121+00 SEE SHEET 6

CAT-1 END SBG 1109+20 -L- RT

FS2 2GI

PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE PUE

MARION STRICKLAND

MARION STRICKLAND

MARION STRICKLAND

SILT CHANNEL
SEE DETAIL F
EST 17 TONS CLASS I
EST 17 SY FF
EST 7 CY EXCAVATION

8A 8A

SITE 2

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S/S DENOTES IMPACTS IN SURFACE WATER

TS/TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'
SCALE= 1"=50'

42.08' W
S23°

REVISIONS 8/17/99

9/7/2012
amkoster
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh5.dgn
November 28, 2011
r2303d_hyd_prm_wet_psh5.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303D	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 6 of 79

8/17/95

REVISIONS

SITE 1

SITE 2

MATCH LINE -L- STA 1107+50 SEE SHEET 4

MATCH LINE -L- STA 1121+00 SEE SHEET 6

NAD 83/95

262.41'
S47°53'16"W

MARION STRICKLAND

INLET CHANNEL
SEE DETAIL E
EST 25 SY COIR MAT
EST 6 CY EXCAVATION

BEGIN SBG 107+50 -L- LT

END SBG 110+40 -L- LT

END SBG 1109+20 -L-/RT

OUTLET CHANNEL
SEE DETAIL F
EST 17 TONS CLASS I
EST 17 SY FF
EST 7 CY EXCAVATION

1@7'x7' RCBC

2-30" RCP-III

34" RCP-III

36" RCP-III

30" RCP-III

24" RCP-III

18" RCP-III

15" RCP-III

12" X 5" RCP-III

2GI

2GI-A

FSM

FS1

FS2

CAT-1

PDE

TDE

PUE

8

8A

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'
SCALE: 1"=50'

AZ 203°W
29.00'

T:\50497\
cadd.dgn
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh5.dgn
November 28, 2011
r2303d_hyd_prm_wet_psh5.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303D	5B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SITE 1

EST 25 SY COIR MAT
EST 6 CY EXCAVATION

TDE
TDE
TDE
PDE
15" W/ELBOWS
2GI
BEGIN SBG 1107+50 -L- LT-
WLB
WLB
R/W
NAD 83'95
END SBG
Permit Drawing
Sheet 7 of 79
GRAU 350
1110+00
3.5' X 2.5'
1@7'x7' RCBC
30" RCP–III
2GI–A
36" RCP–III
36" RCP–III
36" RCP–III
2GI
2GI
2GI–A
WLB
30" RCP–III
FSM
15" RCP–III
2GI
15" W/ELBOWS
CAT–1
END SBG 1109+20 -L- RT-
FS2
C
A
PUE
PUE
PUE
PUE
PUE
PUE

SITE 2

OUTLET CHANNEL
SEE DETAIL F
EST 17 TONS CLASS I
EST 17 SY FF

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

15' 0' 15' 30' 45'
SCALE= 1"=30'

REVISIONS
8/17/99

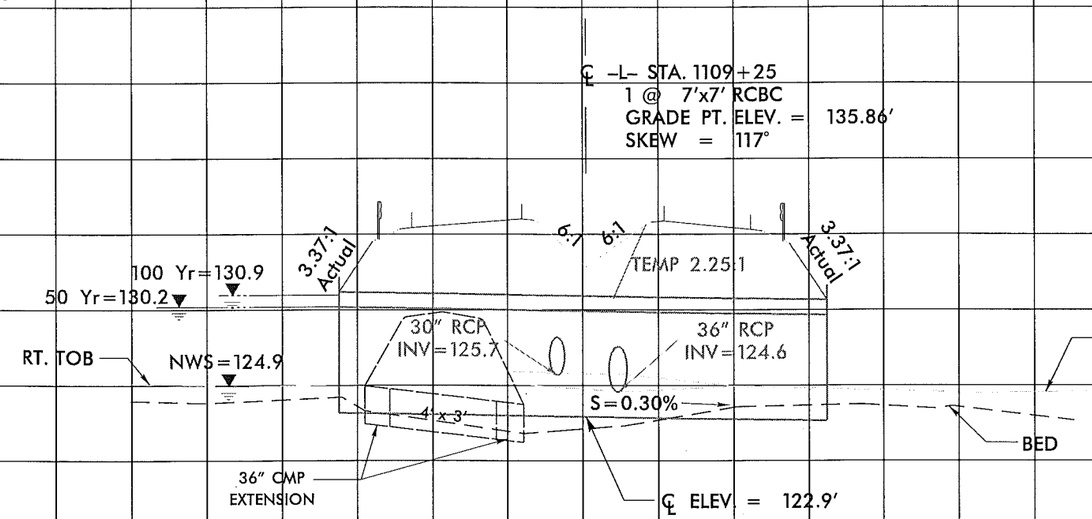
9/27/2012
amkoster
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_PSH5B.dgn
November 28, 2011
r2303d_hyd_prm_wet_psh5b.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R2303D	5_PFL
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 8 of 79



9/27/2012
mmbaxter
R:\Projects\VPEBMTS_Environmental\Drawings\R2303D_Hyd_prm_wet_pst5PFL.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$USERNAME$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 9 of 79

WLB

0.025 0.025 6:1 6:1 0.025

3:1

S.S. 128.04

D.P. 132.74

125.73

3:1

S.S. 124.17

WLB

0.025 0.025 6:1 6:1 0.025

3:1

D.P. 132.78

125.71

3:1

S.S. 123.97

WLB

SHEAR TO -Y39-

0.025 0.025 6:1 6:1 0.025

D.P. 132.94

125.55

3:1

S.S. 125.35

WLB

SHEAR TO -Y39-

0.025 0.025 0.020 0.020 0.025

128.36

4:1

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh5.dgn
November 28, 2011
r2303d_hyd_xpl_prm_wet.dgn
am_keeter

PROJECT REFERENCE NO.	SHEET NO.
R2303D	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 10 of 79

SITE 5

MATCH LINE -L- STA 1161+50 SEE SHEET 8

MATCH LINE -L- STA 1175+00 SEE SHEET 10

MICHAEL A. FISHER

ANNIE GRAHAM HEIRS

CALVIN GANDY, JR.

SALLIE FISHER PETERSON

BERTHA P. FISHER

JOHN D. MOORE

JOYCE ANNE SAMPSON

JUDY KAREN DAVIS

JEFF C. GRAHAM

ROBERT D. POPE, ETUX

SPECIAL LATERAL V DITCH SEE DETAIL C

SPECIAL LATERAL V DITCH SEE DETAIL D

SPECIAL LATERAL BASE DITCH SEE DETAIL C

ISBKD

HTR

ISF G

CONC

WD DK

AUE

BENNET LN

PUE

RCP-III

2GI-D

2GI-A

2GI

15" CONC

18" CONC

30" CONC

36" CONC

20" RCP-III

30" RCP-III

NC 24 24' BST

NC 24 (ROSEBORO HIGHWAY)

-L- N 39° 27' 06.9" E

GRAU 350

BEGIN SEG #3+02 -L- RT

END SEG #3+00 -L- LT

EXISTING R/W

CONTROL R/W

CAT-1

DAp = 0.74
DAg = 0.70
Q10 = 2.2 cfs
V10 = 0.9 fps

DA = 0.36
Q10 = 2.1 cfs
V10 = 1.2 fps

DA = 0.20
Q10 = 1.2 cfs
V10 = 1.0 fps

1165

1170

1175

23

33

32

31

30

29

28

27

35

39

48"

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

F F DENOTES EXCAVATION IN WETLAND

50' 0' 50' 100' 150'
SCALE: 1"=50'

23
JEFF C. GRAHAM

SITE 3

SITE 4

REVISIONS

8/17/99

9/27/2012
omkester
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh9.dgn
November 28, 2011
R2303d_hyd_prm_wet_psh9.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303D	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 11 of 79

NAD 83/95

REVISIONS

8/17/99

SITE 5

MICHAEL A. FISHER

ANNIE GRAHAM HEIRS

CALVIN GANDY, JR.

BERTHA P. FISHER

SALLIE FISHER PETERSON

JOHN D. MOORE

JOYCE ANNE SAMPSON

JUDY KAREN DAVIS

JEFF C. GRAHAM

ROBERT D. POPE, ETUX

SPECIAL LATERAL V DITCH SEE DETAIL C

SPECIAL LATERAL V DITCH SEE DETAIL D

SPECIAL LATERAL BASE DITCH SEE DETAIL

DAp=0.14
DA=0.70
Q10=2.9 cfs
V10=0.9 fps

DA=0.26
Q10=2.1 cfs
V10=1.2 fps

DA=0.20
Q10=1.2 cfs
V10=1.0 fps

MATCH LINE -L- STA 1161+50 SEE SHEET 8

MATCH LINE -L- STA 1175+00 SEE SHEET 10

BEGIN SBG 1163+00 -L- RT

END SBG 1173+00 -L-

NC 24 24' BST

NC 24 (ROSEBORO HIGHWAY)

GRAU 350

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES EXCAVATION IN WETLAND

SCALE= 1"=50'

SITE 3

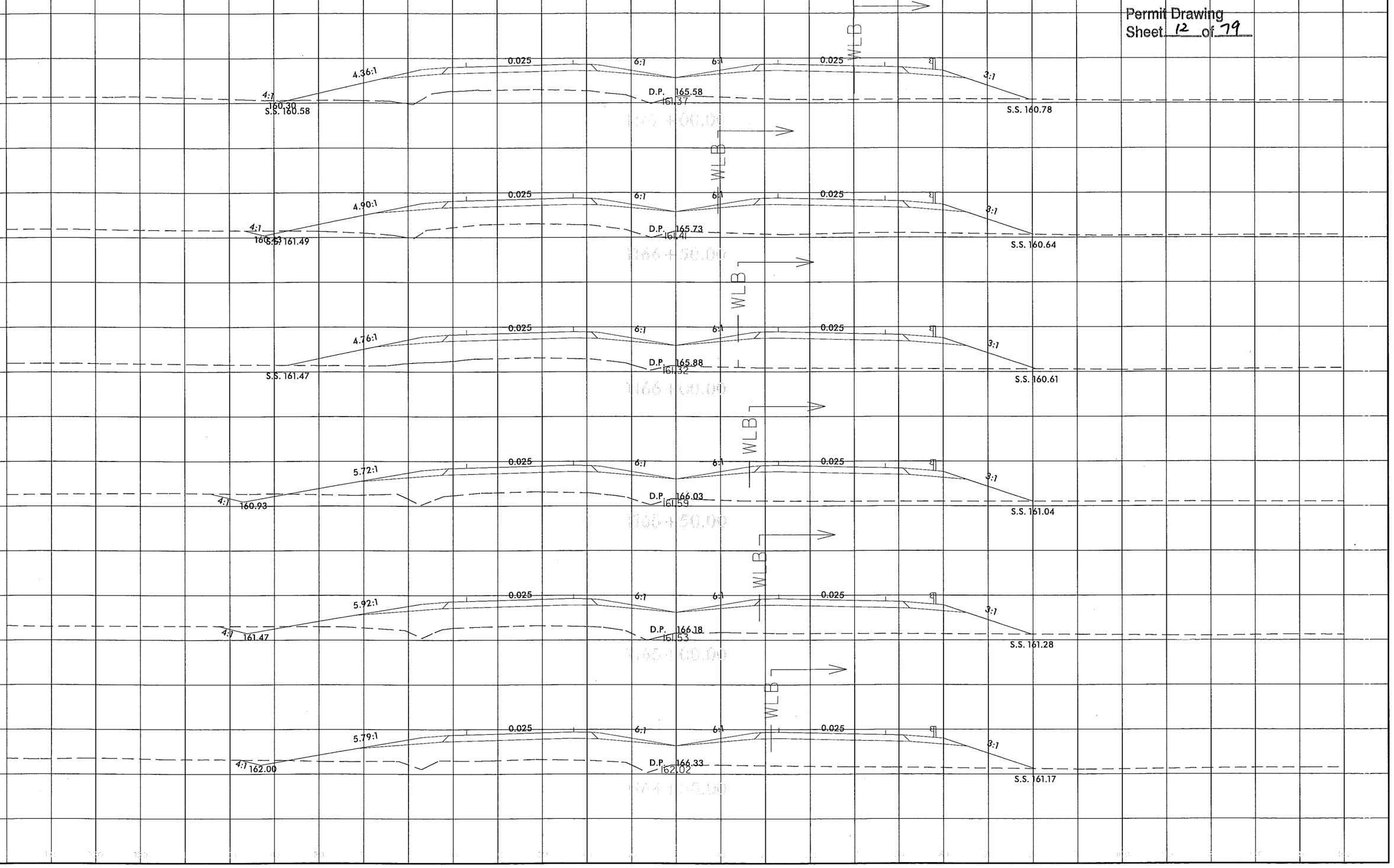
SITE 4

10/2/2012
Administrator
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh09.dgn
November 28, 2011
R2303d_hyd_prm_wet_psh9.dgn

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 12 of 79



9/27/2012
gmeister
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh9a.dgn
November 28, 2011
r2303d_hyd_xpl_prm_wet.dgn
Sam Keeler

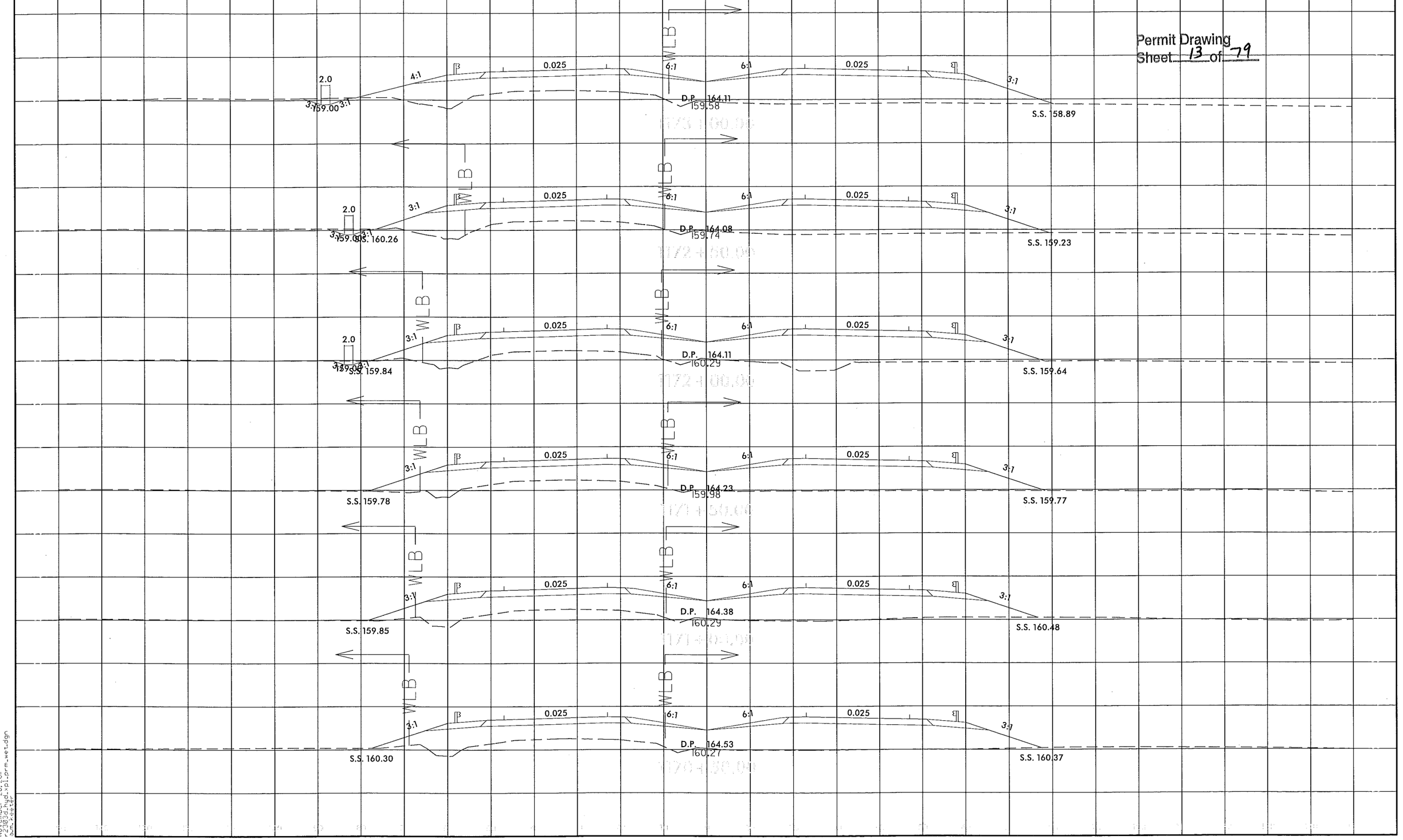
8/23/99

0

PROJ. REFERENCE NO.

SHEET NO.

Permit Drawing
Sheet 13 of 79

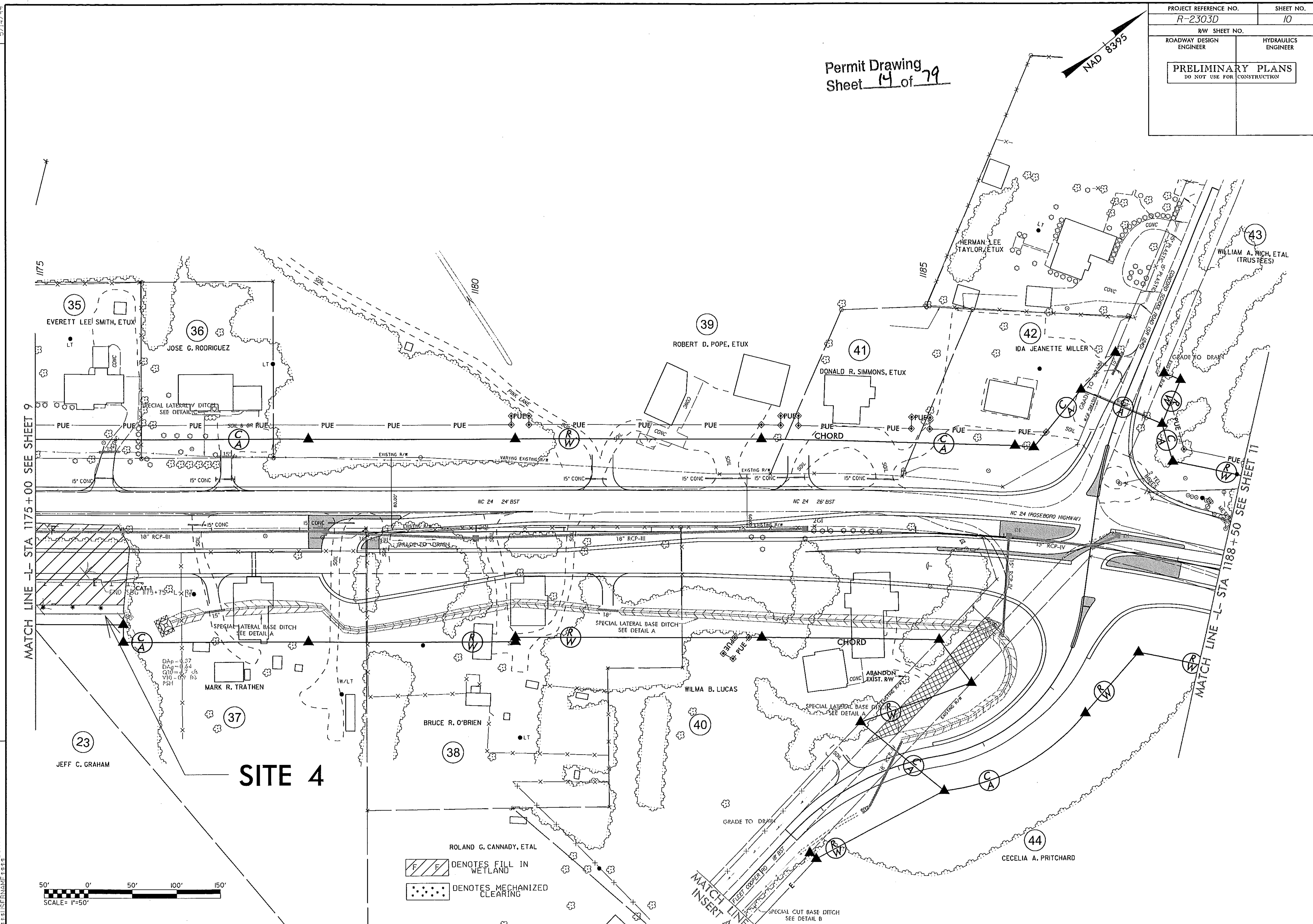


9/27/2012
cmeissner
R:\Hydraulics\PERMITS_Environmental\Drawings\23036d_hyd_xpl_prm_wet_pst9b.dgn
November 28, 2011
r23036d_hyd_xpl_prm_wet.dgn
bm_reeter

5/14/99

REVISIONS

Parcel numbers and owner information revised for parcels 23,40,& 42. WAS 2/20/12



9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh10.dgn
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 15 of 79

NAD 83/95

REVISIONS
5/14/99
Parcel numbers and owner information revised for parcels 23,40,& 42. WAS 2/20/12

10/2/2012
cmilleder
K:\Projects\Location\PERMITS_Environmental\Drawings\R2303D_Hyd_prms_west_path10.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$DGNS$$$$$$$$$$$$$$$$$$$$$$
$$$$$$ITECHIMAGE$$$$$

MATCH LINE -L- STA 1175+00 SEE SHEET 9

MATCH LINE -L- STA 1188+50 SEE SHEET 11

MATCH LINE INSERT A

SITE 4

35 EVERETT LEE SMITH, ETUX

36 JOSE G. RODRIGUEZ

37 MARK R. TRATHEN

38 BRUCE R. O'BRIEN

39 ROBERT D. POPE, ETUX

40 WILMA B. LUCAS

41 DONALD R. SIMMONS, ETUX

42 IDA JEANETTE MILLER

43 WILLIAM A. RICH, ETAL (TRUSTEES)

44 CECELIA A. PRITCHARD

23 JEFF C. GRAHAM

HERMAN LEE TAYLOR, ETUX

ROLAND G. CANNADY, ETAL

SPECIAL LATERAL DITCH SEE DETAIL

SPECIAL LATERAL BASE DITCH SEE DETAIL A

SPECIAL CUT BASE DITCH SEE DETAIL B

CHORD

GRADE TO DRAIN

ABANDON EXIST. R/W

NC 24 (ROSEBORO HIGHWAY)

NC 24 24' BST

NC 24 28' BST

FLEET COOPER RD 18' BST

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
SCALE= 1"=50'

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 16 of 79

NAD 83/95

FOR -L- PROFILE SEE SHEET 40

REVISIONS

5/14/99 Property lines relocated in parcels 45,46 & 47, parcel numbers and owner information revised for parcel 47. WAS 2/20/12

9/27/2012
amoseley
N:\Hydraulics\FEMA\TIS_Environmental\Drawings\R2303D_Hyd_permit_sht11.dgn

MATCH LINE -L- STA 1188+50 SEE SHEET 10

MATCH LINE -L- STA 1202+00 SEE SHEET 12

WILLIAM A. RICH, ETAL (TRUSTEES)

BLDG (ABAND)

43

1190

45

WILLIAM H. POPE, ETUX

1195

51

ERNEST M. ODUM, ETUX

1200

EARNEST E. GURLEY

46

47

ROBERT T. LITTLE

CAR PORT

44

CECELIA A. PRITCHARD

SITE 6

SITE 7

PUE

ACCESS POINT

CHORD

EXISTING R/W

LATERAL BASE DITCH SEE DETAIL A

SPECIAL LATERAL V DITCH SEE DETAIL C

STD BERM DITCH STA 1201+65 LT

3' BASE DITCH SEE DETAIL G EST. 50 TONS EST. 60 SY FF EST. 30 CY EXC

3' OUTLET CHANNEL SEE DETAIL J EST 55 TONS CLASS I EST 70 SY FF EST 20 CY EXCAVATION

NC 24 (ROSEBORO HIGHWAY)

GRAU 350

S 67° 50' 51" E

15" PLASTIC

15" RCP-III

18" RCP-III

24" RCP-III

30" RCP-III

2GI

FS2

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'
SCALE= 1"=50'

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

Permit Drawing
Sheet 17 of 79

FOR -L- PROFILE SEE SHEET 40

REVISIONS

5/14/99

Property lines relocated in parcels 45,46 & 47, parcel numbers and owner information revised for parcel 47. WAS 2/20/12

MATCH LINE -L- STA 1188+50 SEE SHEET 10

MATCH LINE -L- STA 1202+00 SEE SHEET 12

WILLIAM A. RICH, ETAL (TRUSTEES)

43

BLDG (ABAND)

45

WILLIAM H. POPE, ETUX

51

ERNEST M. ODUM, ETUX

SITE 6

EARNEST E. GURLEY

46

47

ROBERT T. LITTLE

SPECIAL LATERAL V DITCH SEE DETAIL C

SPECIAL LATERAL V DITCH SEE DETAIL C

STD BERM DITCH BEGIN STA 1201+65 LT.

LATERAL BASE DITCH SEE DETAIL A

44

CECELIA A. PRITCHARD

3' BASE DITCH SEE DETAIL G EST. 50 TONS EST. 60 SY RIP EST. 30 CY CDE

3' OUTLET CHANNEL SEE DETAIL J EST 65 TONS CLASS I EST 90 SY RIP EST 20 CY EXCAVATION

SITE 7

PUE

ACCESS POINT

CHORD

EXISTING R/W

NC 64 (ROSEBORO HIGHWAY)

18" RCP-III

24" RCP-III

30" RCP-III

36" RCP-III

42" RCP-III

48" RCP-IV

54" RCP-IV

2GI

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'

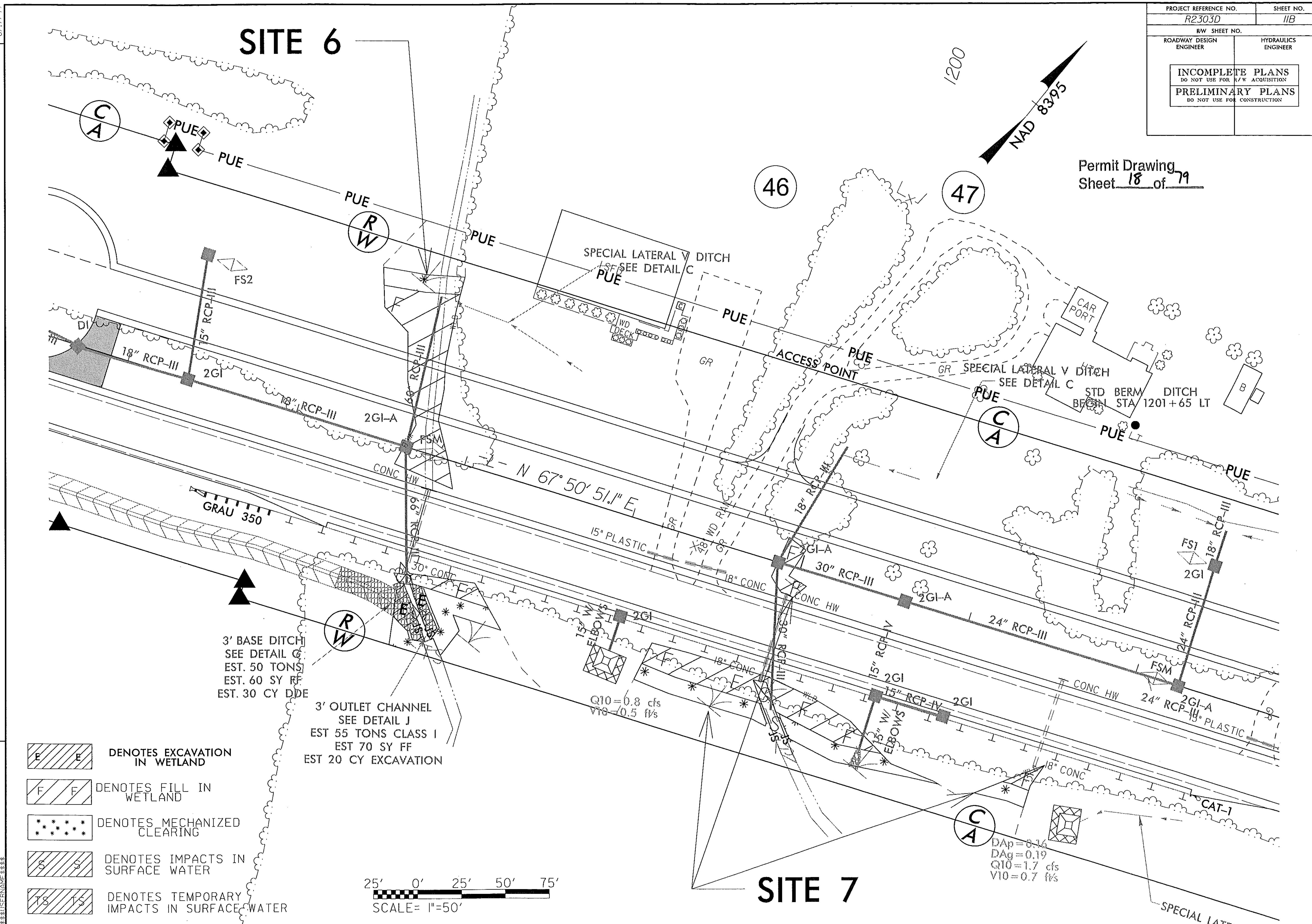
SCALE= 1"=50'

DA=0.14
DA2=0.19
Q10=1.7 cfs
V10=0.7 fps

11/2/2012
engineer
N:\Projects\Eco\PERMITS Environmental\Drawings\R2303D_11hd_pms_wet_pshl1.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$USER$$$$$$$$
$$$$$$$$DGNFILE$$$$$$
$$$$$$$$REFERENCE$$$$$

8/17/99

REVISIONS



9/27/2012
amkoeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_PSH11B.dgn
$$$$$$SYSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

5/14/99

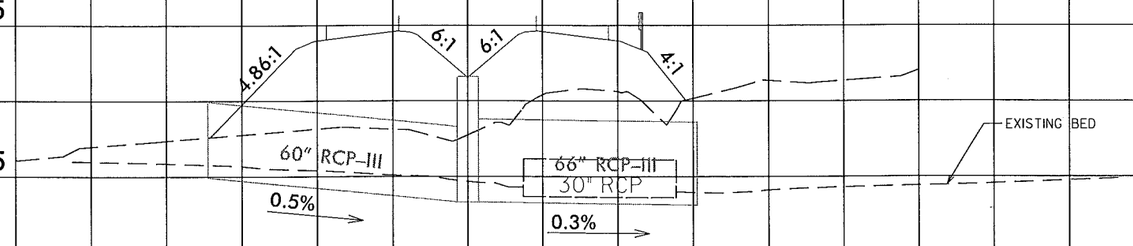
PROJECT REFERENCE NO.	SHEET NO.
R2303D	11_PFL
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 19 of 79

100′ 0 100′

℄ STA. 1197+65 –L–
ELEV. = 151.6′
G.P. ELEV = 154.6′
SKEW = 80°



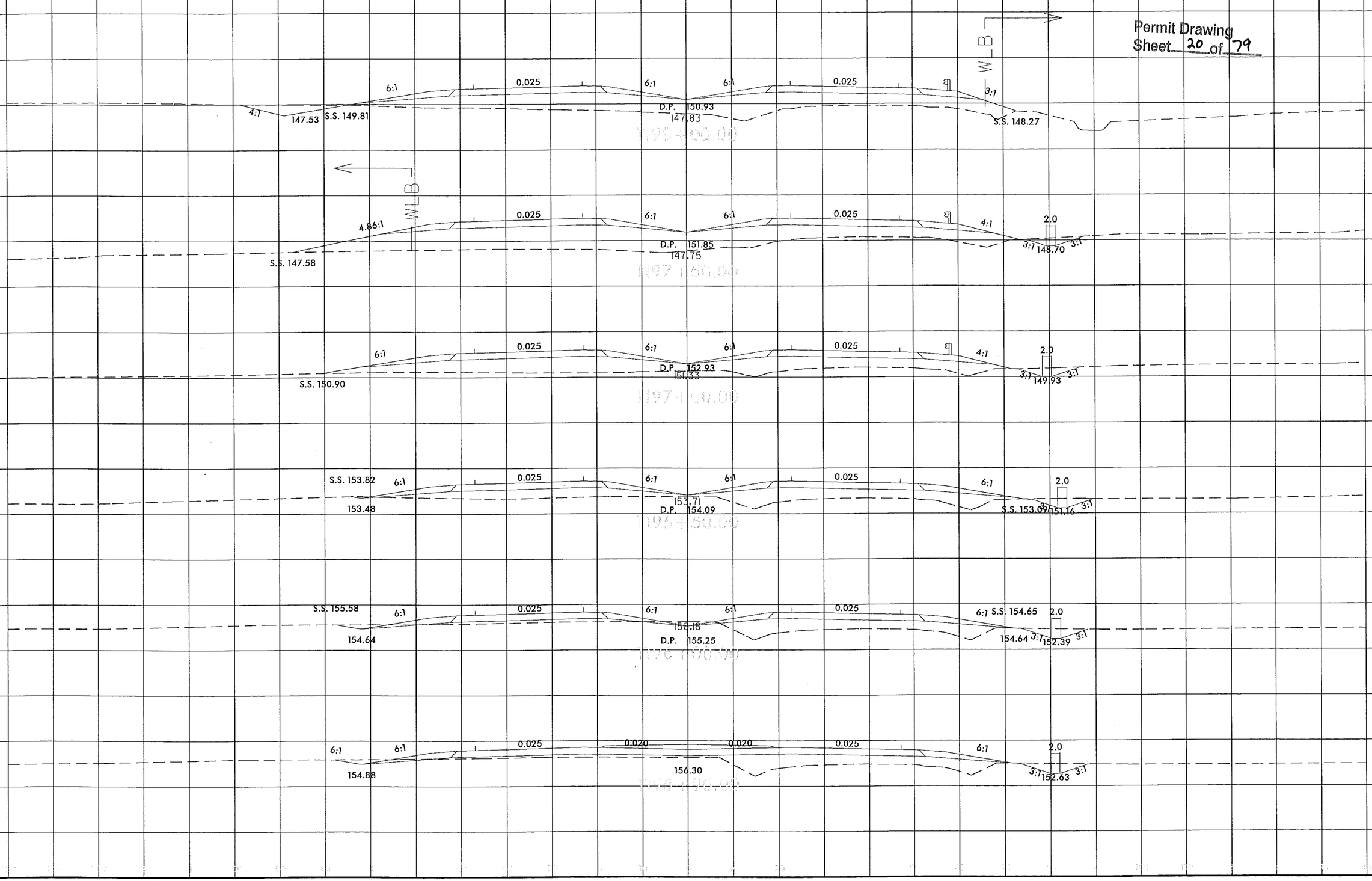
SITE 7

9/27/2012
amkeeter
R:\Hydraulics_PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh11PFL.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$ENAME$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 20 of 79

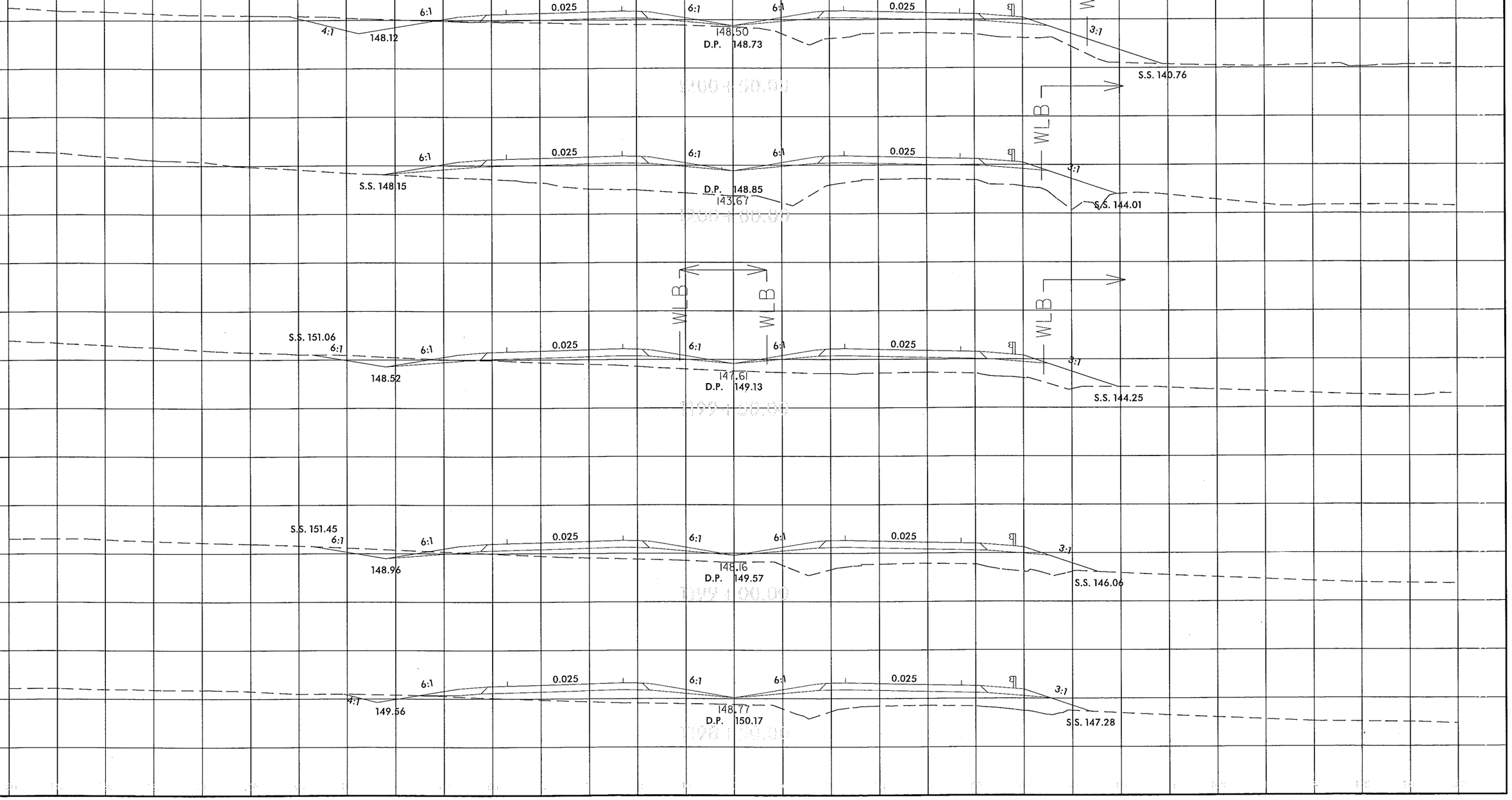


9/27/2012
amkeator
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh11a.dgn
$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 21 of 79

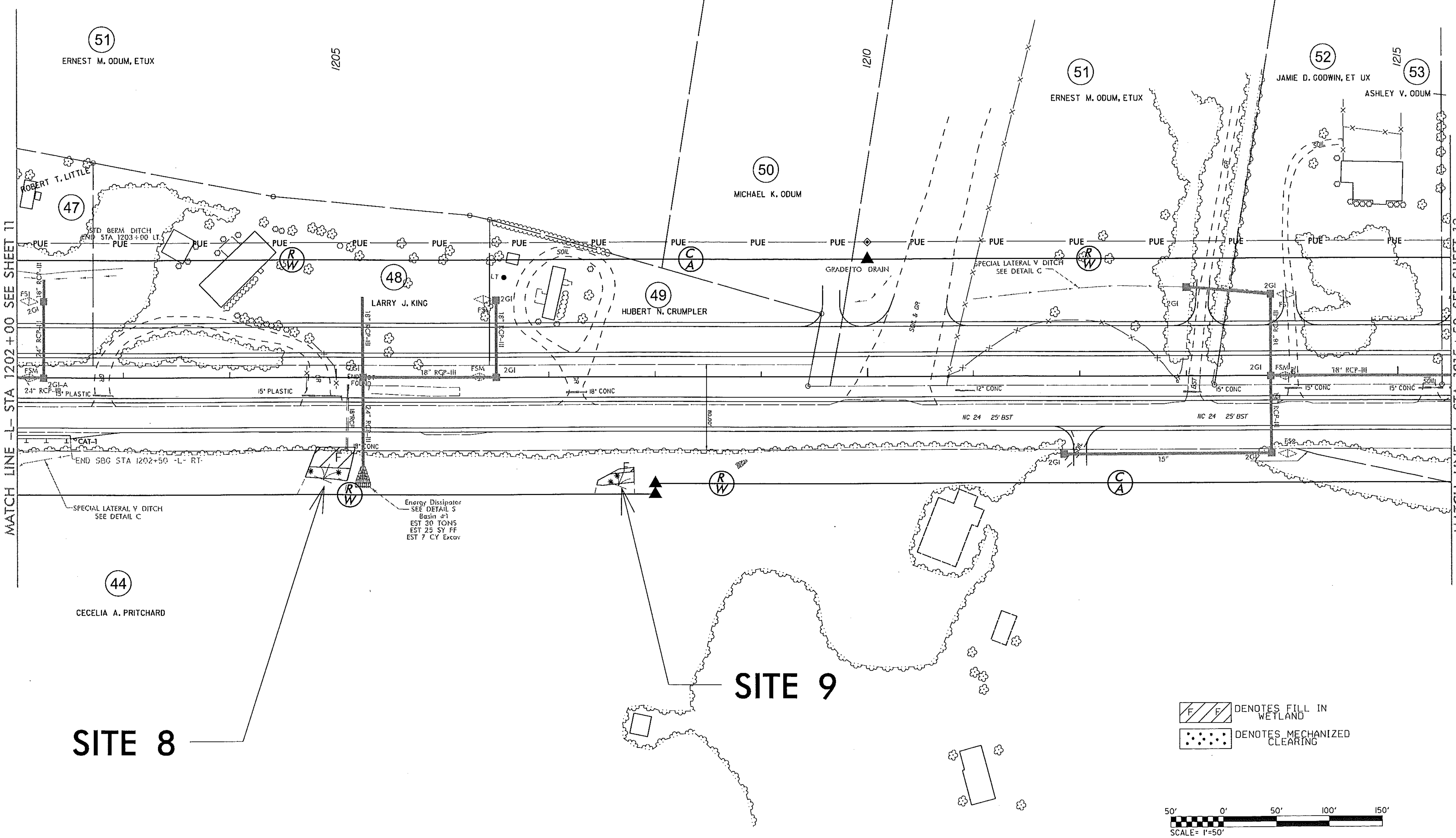


9/27/2012
amkeator
R:\Hydraulics\PERMITS_Environmental\Drawings\v2303d_hyd_xpl_prm_wet_psh11b.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGNS$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 22 of 79



REVISIONS

Property lines relocated in parcels 47 & 48, parcel numbers and owner information revised for parcels 51 & 52. WAS 2/20/12

5/14/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh12.dgn
$$$$$$SYSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 23 of 79

NAD 83/95

FOR -L- PROFILE SEE SHEET 41

MATCH LINE -L- STA 1202+00 SEE SHEET 11

MATCH LINE -L- STA 1215+50 SEE SHEET 13

51 ERNEST M. ODUM, ETUX

47 ROBERT T. LITTLE

48 LARRY J. KING

49 HUBERT N. CRUMPLER

50 MICHAEL K. ODUM

51 ERNEST M. ODUM, ETUX

52 JAMIE D. GODWIN, ET UX

53 ASHLEY V. ODUM

44 CECELIA A. PRITCHARD

SITE 8

SITE 9

PUE

SOIL

RW

SOIL & GR

GRADE TO DRAIN

SPECIAL LATERAL V DITCH SEE DETAIL C

SPECIAL LATERAL V-DITCH SEE DETAIL C

CAT-1 END SBG STA 1202+50 -L- RT

Energy Dissipator SEE DETAIL S Basin #1 EST 20 TONS EST 25 SY FF EST 7 CY Excav

2GI

FSJ

FSM

18" RCP-III

24" RCP-III

24"-RCP-III PLASTIC

18" CONC

15" CONC

NC 24 25' BST

F/F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
SCALE: 1"=50'

REVISIONS

5/14/99

Property lines relocated in parcels 47 & 48, parcel numbers and owner information revised for parcels 51 & 52. WAS 2/20/12

10/2/2012
ERNEST ODUM
E:\Projects\Active\Projects\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_pak12.dgn
$$$$$$$SYSTIME$$$$$$$
$$$$$$$USER$$$$$$$
$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$
$$$$$$$CELLNAME$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	12B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PUE PUE PUE PUE PUE

R/W

1205

48

SOIL

NAD 8395

Permit ~~Drawing~~
Sheet 24 of 79

2GI

FSJ

18" RCP-III

18" RCP-III

2GI

END OF FOUND

18" RCP-III

FSM

2GI

5" PLASTIC

GR

GR

18" CONC

18"RCP

24" RCP-III

18" CONC

F

F

R/W

Energy Dissipator
SEE DETAIL S
Basin #1
EST 30 TONS
EST 25 SY FF
EST 7 CY Excav

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

SITE 8

SITE 9

15' 0' 15' 30' 45'
SCALE= 1"=30'

REVISIONS

8/17/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_PSH12B.dgn
$$$$$$$SYSTIME$$$$$$
$$$$$$$USER$$$$$$
$$$$$$$DGNFILE$$$$$$

8/23/99

0

PROJ. REFERENCE NO. | SHEET NO.

S.S. 158.29
4.07:1
6:1
154.83
6:1
0.025
6:1
157.50
D.P. 155.44
6:1
0.025
6:1
S.S. 156.41
154.83

Permit Drawing
Sheet 25 of 79

S.S. 158.03
3.89:1
6:1
154.46
6:1
0.025
6:1
155.90
D.P. 155.07
6:1
0.025
6:1
S.S. 153.60

S.S. 156.85
5.46:1
6:1
154.02
6:1
0.025
6:1
153.92
D.P. 154.63
6:1
0.025
4.89:1
S.S. 150.38

— WLB

S.S. 156.47
5.29:1
6:1
153.58
6:1
0.025
6:1
153.45
D.P. 154.19
6:1
0.025
4:1
S.S. 147.38

S.S. 155.55
6:1
153.14
6:1
0.025
6:1
152.65
D.P. 153.75
6:1
0.025
4.90:1
S.S. 149.52

S.S. 153.59
6:1
152.70
6:1
0.025
6:1
151.92
D.P. 153.30
6:1
0.025
6:1
S.S. 150.37

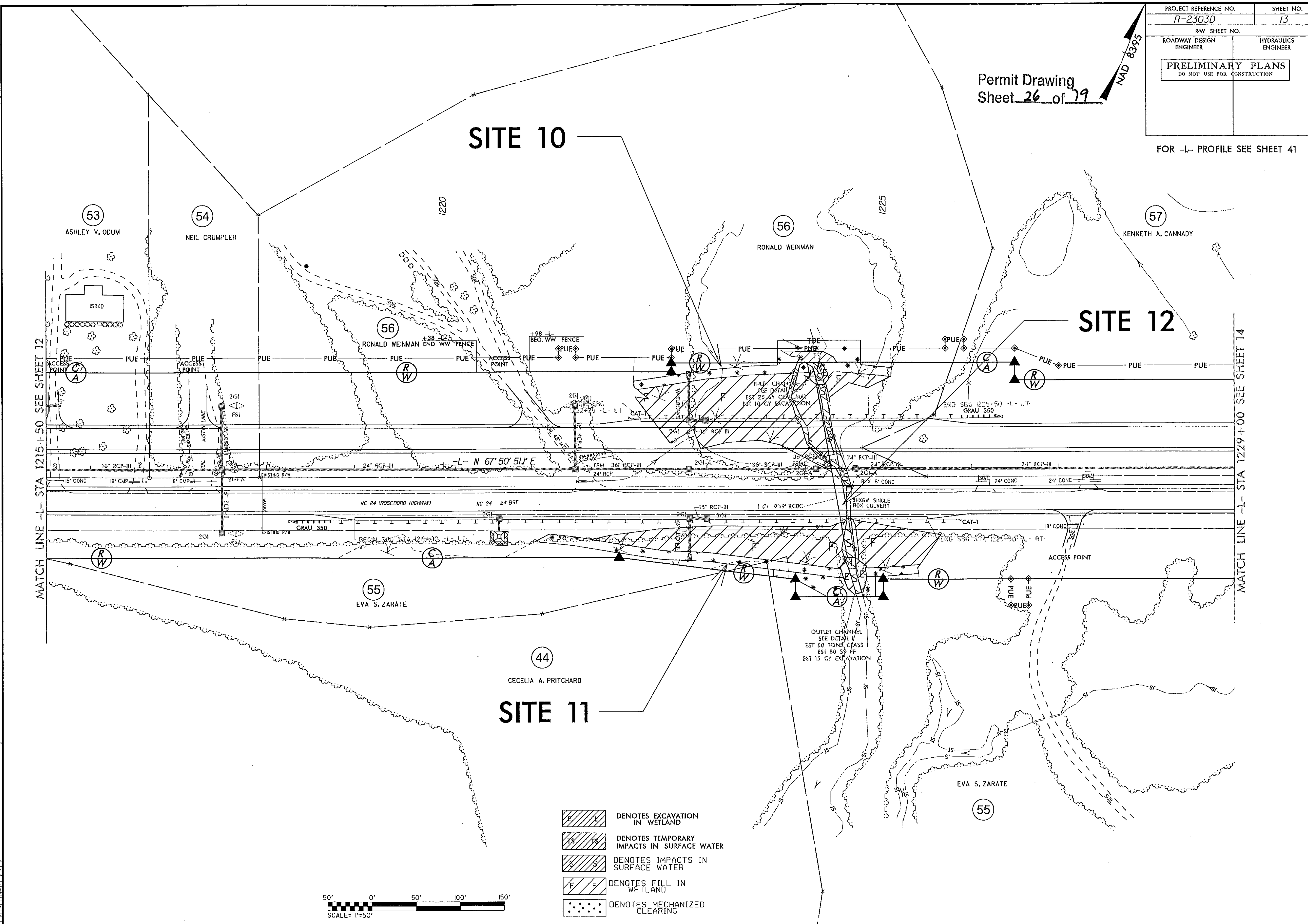
9/27/2012
cmkeeler
K:\Hydraulics\PERMITS_Environmental\Drawings\23036d_hyd_xpl_prm_wet_psh12.dgn
$$$$SYSTIMES$$$$
$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 26 of 79

FOR -L- PROFILE SEE SHEET 41



REVISIONS

Property lines relocated in parcels 54 & 56, parcel numbers and owner information revised for parcels 54,55,56 & 57 and access points added for parcel 56. WAS 2/20/12

5/14/99

9/27/2012
amkoeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh13.dgn
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 27 of 79

NAD 83/95

FOR -L- PROFILE SEE SHEET 41

SITE 10

SITE 12

SITE 11

MATCH LINE -L- STA 1215+50 SEE SHEET 12

MATCH LINE -L- STA 1229+00 SEE SHEET 14

53 ASHLEY V. ODUM

54 NEIL CRUMPLER

56 RONALD WEINMAN

57 KENNETH A. CANNADY

55 EVA S. ZARATE

44 CECELIA M. PRITCHARD

ISBKO

ACCESS POINT

PUE

RW

BEGIN SBG STA 1219+00 -L- LT

END SBG 1225+50 -L- LT

END SBG STA 1225+50 -L- RT

GRAU 350

NC 24 (ROSEBORO HIGHWAY)

NC 24 > 24 BST

INLET CHANNEL SEE DETAIL EST 25 SY COIR MAT EST 10 CY EXCAVATION

OUTLET CHANNEL SEE DETAIL EST 60 TONS CLASS B EST 80 SY FF EST 15 CY EXCAVATION

9'X9' RCBC

9HX6W SINGLE BOX CULVERT

DENOTES EXCAVATION IN WETLAND

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
SCALE= 1"=50'

REVISIONS

5/14/99

Property lines relocated in parcels 54 & 56, parcel numbers and owner information revised for parcels 54,55,56 & 57 and access points added for parcel 56. WAS 2/20/12

10/2/2012
E:\Projects\VERNIS_Environmental\Drawings\R2303D_Hyd_pmt_set_pshts.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$DGNFILENAME$$$$

SITE 10

Permit Drawing
Sheet 28 of 79

PROJECT REFERENCE NO.	SHEET NO.
R2303D	13B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 8395

1225

PUE — PUE — PUE — PUE — PUE — PUE

TDE

INLET CHANNEL
SEE DETAIL K
EST 25 SY COIR MAT
EST 10 CY EXCAVATION

2GI FS1
-BEGIN SBG
1222+75 -L- LT

CAT-1

18" RCP-III

2GI

15" RCP-III

15" WELBOWS

-END SBG 1225+50 -L- LT-
GRAU 350

48" WW&3SBW
2GI-A

FSM 36" RCP-III

24" RCP

2GI-A

36" RCP-III

FSM 36" RCP-III

2GI-A

24" RCP-III

24" RCP-III

8' X 6' CONC

SOIL

24" CONC

24" C

15" RCP-III

1 @ 9'x9' RCBC

8HX6W SINGLE
BOX CULVERT

2GI

2GI

15" WELBOWS

CAT-1

18" CON

-END SBG STA 1225+30 -L- RT-

ACCI

PUE

PUE

PUE

SITE 11

SITE 12

DENOTES IMPACTS IN SURFACE WATER

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

OUTLET CHANNEL
SEE DETAIL I
EST 60 TONS CLASS I
EST 80 SY FF
EST 15 CY EXCAVATION

DENOTES EXCAVATION IN WETLAND

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

20' 0' 20' 40' 60'
SCALE= 1"=40'

REVISIONS

8/17/99

9/27/2012
amkaeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_PSH13B.dgn

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R2303D	13_PFL
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 29 of 29

200′ 100′ 0′ 100′ 200′

140
130
120
110

℄ Sta 1224+46 -L-
1@ 9′ x 9′ RCBC
Elev=140.6
Skew=80°

6:1 6:1
3.05:1 3.05:1

100 Yr
=130.1′

50 Yr
=128.4′

36″ RCP
INV=121.0′

24″ RCP
INV=121.0′

NWS=119.9′

Top of Bank

℄ ELEV. = 117.9′

s = 1.00%

Bed

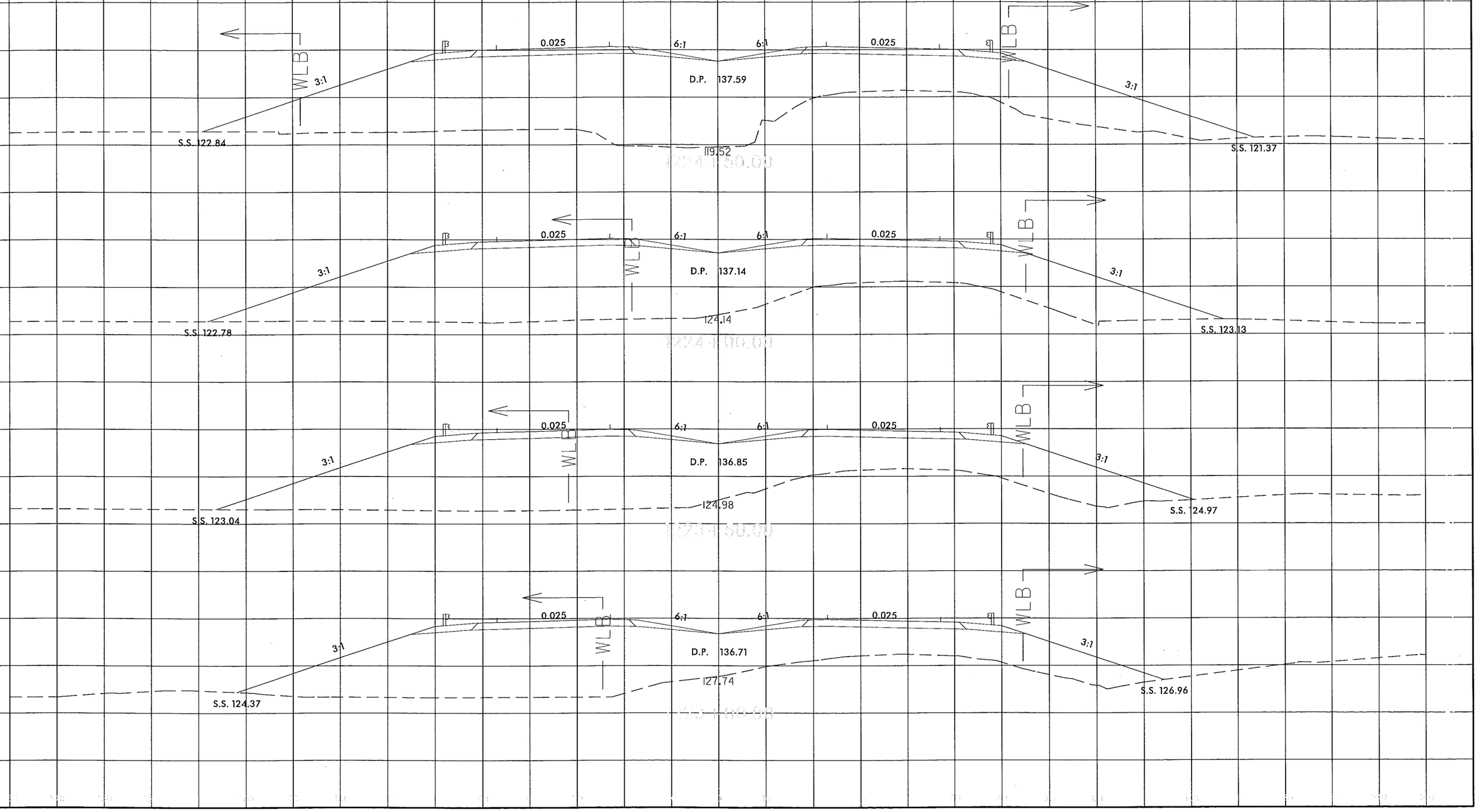
SITE 12

9/27/2012
dmwalker
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_13yd_prm_wet_psh13PFL.dgn
$$$$$$$$SYSTEM$$$$$$
$$$$$$$$DESIGN$$$$$$$$$$$$$$$$$$
$$$$$$$$PLANS$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 30 of 79



9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\23034_hyd_xpl_prm_wet_psh13.dgn
$$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGNFILE$$$$
$$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 8395

FOR –L– PROFILE SEE SHEET 43

Permit Drawing
Sheet 31 of 79

REVISIONS

5/14/99 R/W Rev.: Relocated property line between Parcel 80 and 80B (new parcel). Revised property owner's name and deed book information on Parcels 77A, 80B and 81. WTB 8/31/2012

9/27/2012
cmkeeter
K:\Projects\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_path17.dgn
$$$$$$SYSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$CHANGE$$$$$$

SITE 13

MATCH LINE –L– STA 1269+50 SEE SHEET 16

MATCH LINE –L– STA 1283+00 SEE SHEET 18

TRUSTEES OF THE CLINTON CONGREGATION OF JEHOVAH'S WITNESSES

CITIMORTGAGE INC.

CHURCH OF GOD OF PROPHECY

GEORGE W. RACKLEY

HENRY D. SURLES

CAROLYN WILEY

VERTIE MAE L

ANIUEL E. SPELL, ETUX

MARILYN W. BOONE

HEATHER WATSON, ET AL

LYNETTE AVENUE

CHORD

4 GRAVES

SOD BERM DITCH FROM STA 1266+00 -L- LT TO STA 1271+00 -L- LT

2' INLET CHANNEL SEE DETAIL I EST 35 TONS CLASS I EST 40 SQ FF EST 35 CY EXCAVATION

2' LATERAL BARE DITCH SEE DETAIL A

4' OUTLET CHANNEL SEE DETAIL J EST 35 TONS CLASS I EST 40 SY FF EST 25 CY EXCAVATION

N 54° 43' 49.4" E

24" RCP-III

15" RCP-III

18" RCP-III

48" CONC

60" CMP

24" CONC

CONC HW

CONC POND

1SBKD

2SBK

BST

FLAG POLE

S

W

LT

HW

1270

1275

1280

(74) (78A) (79) (80) (80B) (77) (77A) (81)

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'
SCALE= 1"=50'

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	17
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 43

Permit Drawing
Sheet 17 of 74

NAD 83/95

MATCH LINE -L- STA 1269+50 SEE SHEET 16

MATCH LINE -L- STA 1283+00 SEE SHEET 18

74 GEORGE W. RACKLEY

TRUSTEES OF THE CLINTON CONGREGATION OF JEHOVAH'S WITNESSES

CONC POND

CITIMORTGAGE, INC.

60' CMP

CONC HW

24' CONC

48' CONC

FLAG POLE

ISBKD

2SBK CHURCH OF GOD OF PROPHECY

CHURCH OF GOD OF PROPHECY

WO

78A HENRY D. SURLES

80 HTR (ABAND)

80B VERTIE MAE

79 CAROLYN WILEY

3' INLET CHANNEL SEE DETAIL J
EST 35 TONS CLASS
EST 40 SY FP
EST 35 CY EXCAVATION

2' LATERAL BASE DITCH SEE DETAIL A

STD BERM DITCH FROM STA 1268+00 TO STA 1271+00

4 GRAVES

CHORD

2GI FS2 FSM 18" RCP-III 24" RCP-III 18 wMH 66" RCP-III 2GI-A GRADE DETAIL 30" RCP

4' OUTLET CHANNEL SEE DETAIL J
EST 35 TONS CLASS
EST 40 SY FP
EST 25 CY EXCAVATION

ANIUEL E. SPELL, ETUX

77A

81 MARILYN W. BOONE

77 ANIUEL E. SPELL, ETUX

HEATHER WATSON, ET AL

SITE 13

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SCALE: 1"=50'

LINETTE AVENUE

REVISIONS

R/W Rev.- Relocated property line between Parcel 80 and 80B (new parcel).Revised property owner's name and deed book information on Parcels 77A,80B and 81. WTB 8/31/2012

5/14/99

10/2/2012
R:\Hydraulics\PERMITS Environmental\Drawings\R2303D_Hyd_prm_wet_pshT.dgn
$$$$$$$SYSTIME$$$$$$$
$$$$$$$USERNAME$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	17B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

REVISIONS

8/17/99

9/27/2012
amkeater
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_PSH17B.dgn
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$$$$$CELLNAME$$$$$$

EST 40 SY FF
EST 35 CY EXCAVATION

R/W ISFD

SITE 13

Permit Drawing
Sheet 33 of 79

2' LATER
SEE DETAIL A

HW

66" RCP-III

1280+00

NAD 8395

2GI-A

FSM

66" RCP-III

FSM

2GI-A
SPECIAL DETAIL

30" RCP

JS JS

JS JS

JS

JB w/MH

66" RCP-III

JS

JS

JS

JS

66" RCP-III

ANIL

R/W

4' OUTLET CHANNEL
SEE DETAIL J
EST 35 TONS CLASS I
EST 40 SY FF
EST 25 CY EXCAVATION

15' 0' 15' 30' 45'
SCALE= 1"=30'

JS JS DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

8/23/99

0 25

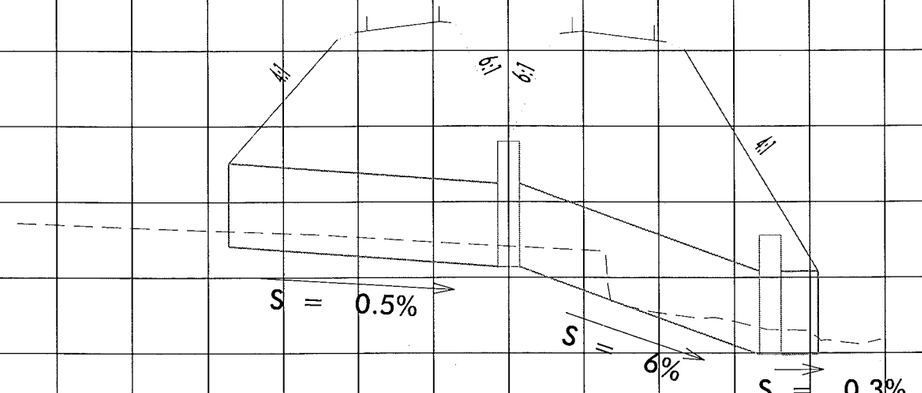
PROJ. REFERENCE NO.	SHEET NO.
R2303D	17 PRL

SITE 13

Permit Drawing
Sheet 34 of 79

100 0 100

℄ STA. 1278+55 –L–
66" RCP–TYPE III



110

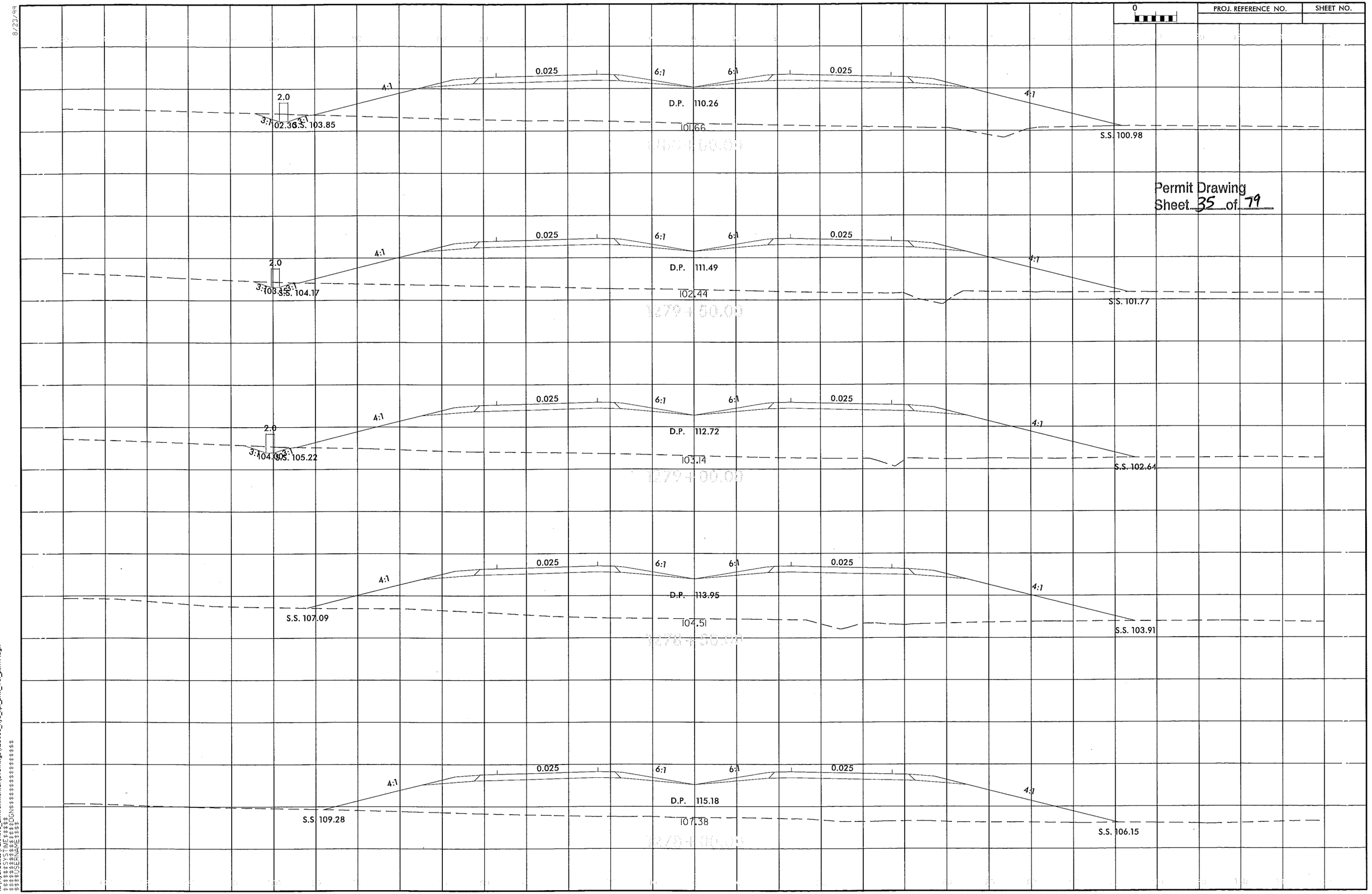
100

90

9/27/2012
amkoehr
Z:\projects\PERMITS_Environmental\Drawings\R2303D_hyd_prm_wet_pah\17FIL.dgn
$$$$$$$SYSTIME$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.



Permit Drawing
Sheet 35 of 79

9/27/2012
amkeater
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh17.dgn
$$$$$$$SYSTIME$$$$$
$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 36 of 79

NAD 83/95

REVISIONS

5/14/99

R/W Rev.:Relocated property line between Parcel 80,and 80B (new parcel) Revised property owner's name and deed book information on Parcels 77A,and 80B.WTB 8/31/12

MATCH LINE -L- STA 1283+00 SEE SHEET 17

MATCH LINE -L- STA 1296+50 SEE SHEET 19

SITE 16

SITE 15

SITE 14

BEGIN SBG STA 1289+25 -L- RT

NORTH CAROLINA REAL ESTATE SERVICES CORPORATION (85)

NORTH CAROLINA REAL ESTATE SERVICES INC. (85)

JIMMY G. TEW (80A)

RUBY C. TEW VANN (80)

ANIUEL E. SPELL (77)

ANIUEL E. SPELL, ETUX (77A)

ETT, HEIRS (80B)

JAMES COLWELL (82)

WILBERT O. BROWN, ETUX (83)

WILLIAM V. SMITH (85A)

JOHNNY F. PATTERSON, ETUX (84)

HEATHER WATSON, ET AL

GRAU 350

NC 24 (ROSEBORO HIGHWAY)

NC 24 26' BST

BACKFILL POND TO ELEV. 90.5' OR TO FIELD VERIFIED NATURAL WETLAND ELEV.

PROPOSED ON-SITE MITIGATION AREA

SEE MITIGATION PLANS

GRADE AREA TO ELEV 90.5' OR TO THE FIELD VERIFIED NATURAL WETLAND ELEV
EST 4500 CY EXCAVATION

5' INLET CHANNEL SEE DETAIL O
EST 70 SY COIR MAT
EST 30 CY EXCAVATION

8' INLET CHANNEL SEE DETAIL O
EST 75 SY COIR MAT
EST 25 CY EXCAVATION

2' LATERAL BASE DITCH SEE DETAIL A

2' SPECIAL LATERAL V DITCH SEE DETAIL C

7' INLET CHANNEL SEE DETAIL J
EST 70 TONS CLASS I
EST 90 SY FF
EST 100 CY EXCAVATION

7' OUTLET CHANNEL SEE DETAIL J
EST 35 TONS CLASS I
EST 40 SY FF
EST 60 CY EXCAVATION

8' OUTLET CHANNEL SEE DETAIL J
EST 40 TONS CLASS I
EST 50 SY FF
EST 10 CY EXCAVATION

11' OUTLET CHANNEL SEE DETAIL J
EST 40 TONS CLASS I
EST 40 SY FF
EST 30 CY EXCAVATION

+00 -LREV- 135' LT

+45 -LREV- 110', 126' & 135' LT

GRADE TO DRAIN

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER (POND)

DENOTES EXCAVATION IN WETLAND

50' 0' 50' 100' 150'
SCALE= 1"=50'

9/27/2012
cmhoefer
R:\Projects\Rdwy\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_pshtt.dgn
USER NAME = $$USERNAME$$
DESIGN = $$DESIGN$$
SYSTIME = $$SYSTIME$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 37 of 79

NAD 83/95

REVISIONS

5/14/99

R/W Rev.: Relocated property line between Parcel 80,and 80B (new parcel) Revised property owner's name and deed book Information on Parcels 77A,and 80B,WTB 8/31/12

10/2/2012
ed Hunter
...\Projects\...\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_pak18.dgn
$$$$$$$$USERNAME$$$$$$$$
$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$

MATCH LINE -L- STA 1283+00 SEE SHEET 17

MATCH LINE -L- STA 1296+50 SEE SHEET 19

NORTH CAROLINA REAL ESTATE SERVICES CORPORATION (85)

NORTH CAROLINA REAL ESTATE SERVICES INC. (85)

NC 24 (ROCKBORO HIGHWAY)

JIMMY C. TEW (80A)

RUBY C. TEW VANN (80)

ANIUEL E. SPELL (77)

ANIUEL E. SPELL, ETUX (77A)

ETT, HEIRS (80B)

JAMES COLWELL (82)

WILBERT O. BROWN, ETUX (83)

WILLIAM V. SMITH (85A)

JOHNNY F. PATTERSON, ETUX (84)

HEATHER WATSON, ET AL

POND WE 5'

BEGIN SBG STA 1284+25 -L- RT

GRAU 350

PROPOSED ON-SITE MITIGATION AREA

SEE MITIGATION PLANS

BACKFILL POND TO ELEV. 90.5' OR TO FIELD VERIFIED NATURAL WETLAND ELEV.

GRADE AREA TO ELEV 90.5' OR TO THE FIELD VERIFIED NATURAL WETLAND ELEV
EST 4500 CY EXCAVATION

5' INLET CHANNEL
SEE DETAIL O
EST 70 SY COIR MAT
EST 30 CY EXCAVATION

8' INLET CHANNEL
SEE DETAIL O
EST 75/SY COIR MAT
EST 25 CY EXCAVATION

2' LATERAL BASE DITCH
SEE DETAIL A

2' SPECIAL LATERAL V DITCH
SEE DETAIL C

7' INLET CHANNEL
SEE DETAIL J
EST 70 TONS CLASS I
EST 80 SY FF
EST 100 CY EXCAVATION

7' OUTLET CHANNEL
SEE DETAIL J
EST 35 TONS CLASS I
EST 40 SY FF
EST 60 CY EXCAVATION

8' OUTLET CHANNEL
SEE DETAIL J
EST 40 TONS CLASS I
EST 50 SY FF
EST 10 CY EXCAVATION

11' OUTLET CHANNEL
SEE DETAIL J
EST 40 TONS CLASS I
EST 40 SY FF
EST 30 CY EXCAVATION

SPECIAL LATERAL V DITCH
SEE DETAIL C

GRADE TO DRAIN

RETAIN

SITE 14

SITE 15

SITE 16

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

S S DENOTES IMPACTS IN SURFACE WATER (POND)

E E DENOTES EXCAVATION IN WETLAND

50' 0' 50' 100' 150'
SCALE=-1"=50'

PROJECT REFERENCE NO.	SHEET NO.
R2303D	18B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 38 of 79

EST 70 SY COIR
EST 30 CY EXCAV

CHANNEL
ETAIL O
COIR MAT
EXCAVATION

83

SOIL

ISBLKBUS

ISBKBUS

48" RAIL

60" RCP-IV

1290+00

2GI-A

60" RCP-IV

RAU 350

0+25 -L- RT

18" CONC

BST

GR

HW

GRADE

15" RCP-III

15" RCP-IV

2GI

72" RCP-IV

1295+00

PDE

NAD 83/95

SITE 14

SITE 15

20' 0' 20' 40' 60'
SCALE= 1"=40'

DENOTES EXCAVATION IN WETLAND 83

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

8' OUTLET CHANNEL
SEE DETAIL J
EST 40 TONS CLASS I
EST 50 SY FF
EST 10 CY EXCAVATION

84

REVISIONS

8/17/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_PSHT18b.dgn
$$$$$$$SYSTIME$$$$$$
$$$$$$$USERNAME$$$$$$
$$$$$$$DGNSETNAME$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	18_PRL

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

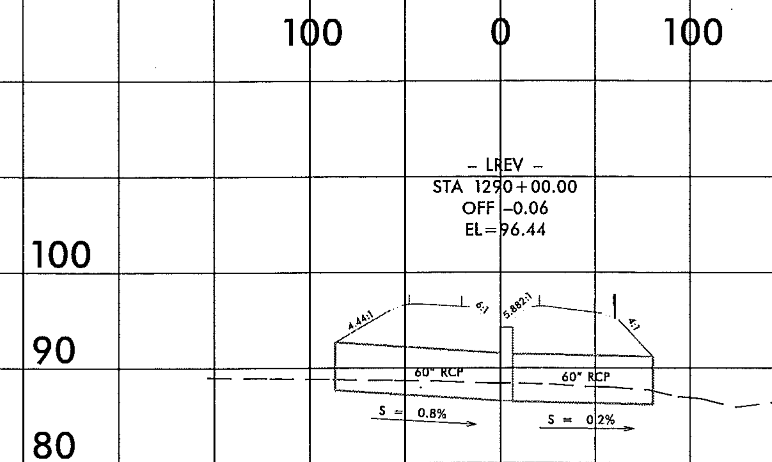
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

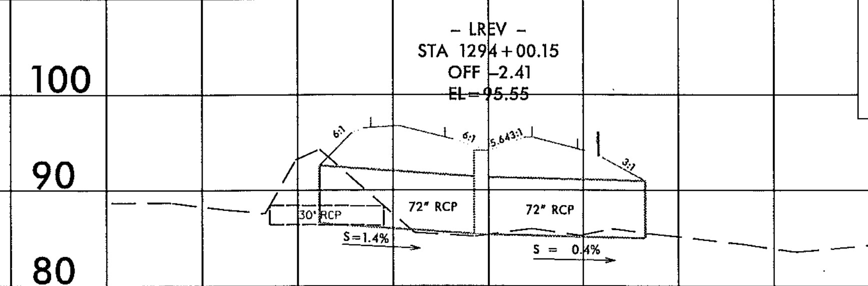
Permit Drawing
Sheet 39 of 79

5/14/99

SITE 14



SITE 15



9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh18PFL.dgn
$$$$SYSTIME$$$$
$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

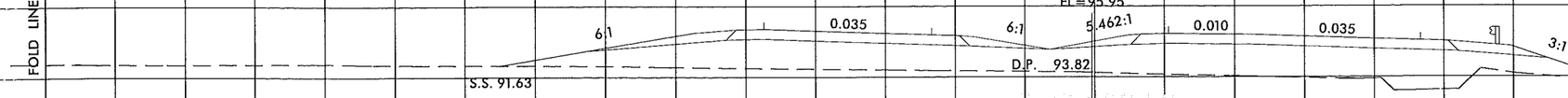
8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

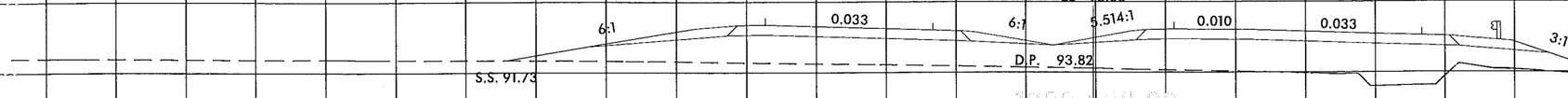
Permit Drawing
Sheet 40 of 79

FOLD LINE

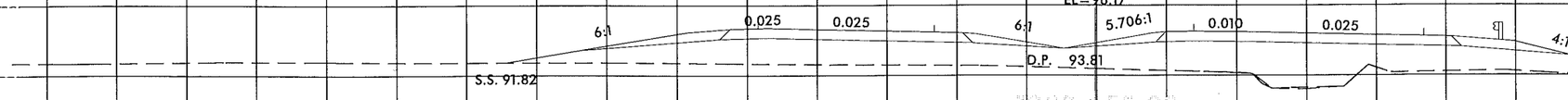
– LREV –
STA 1290+90.50
OFF -0.38
EL=95.95



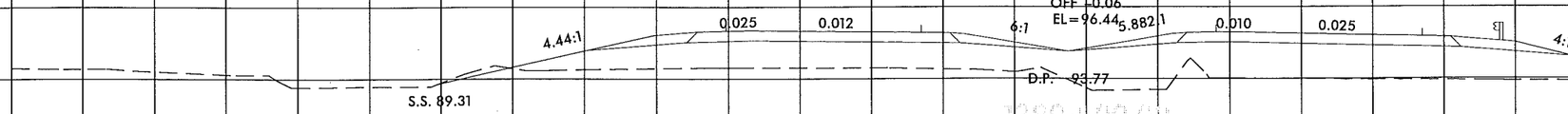
– LREV –
STA 1290+82.09
OFF -0.33
EL=96.00



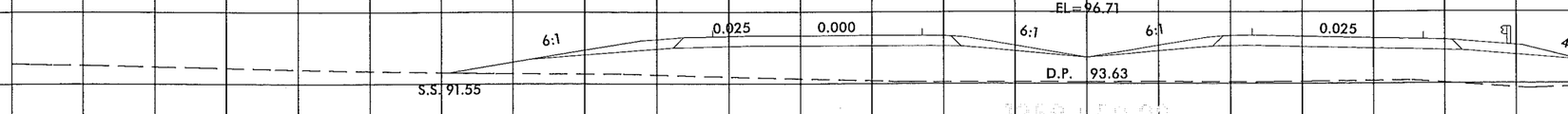
– LREV –
STA 1290+50.00
OFF -0.20
EL=96.17



– LREV –
STA 1290+00.00
OFF -0.06
EL=96.44



– LREV –
STA 1289+50.00
OFF -0.00
EL=96.71

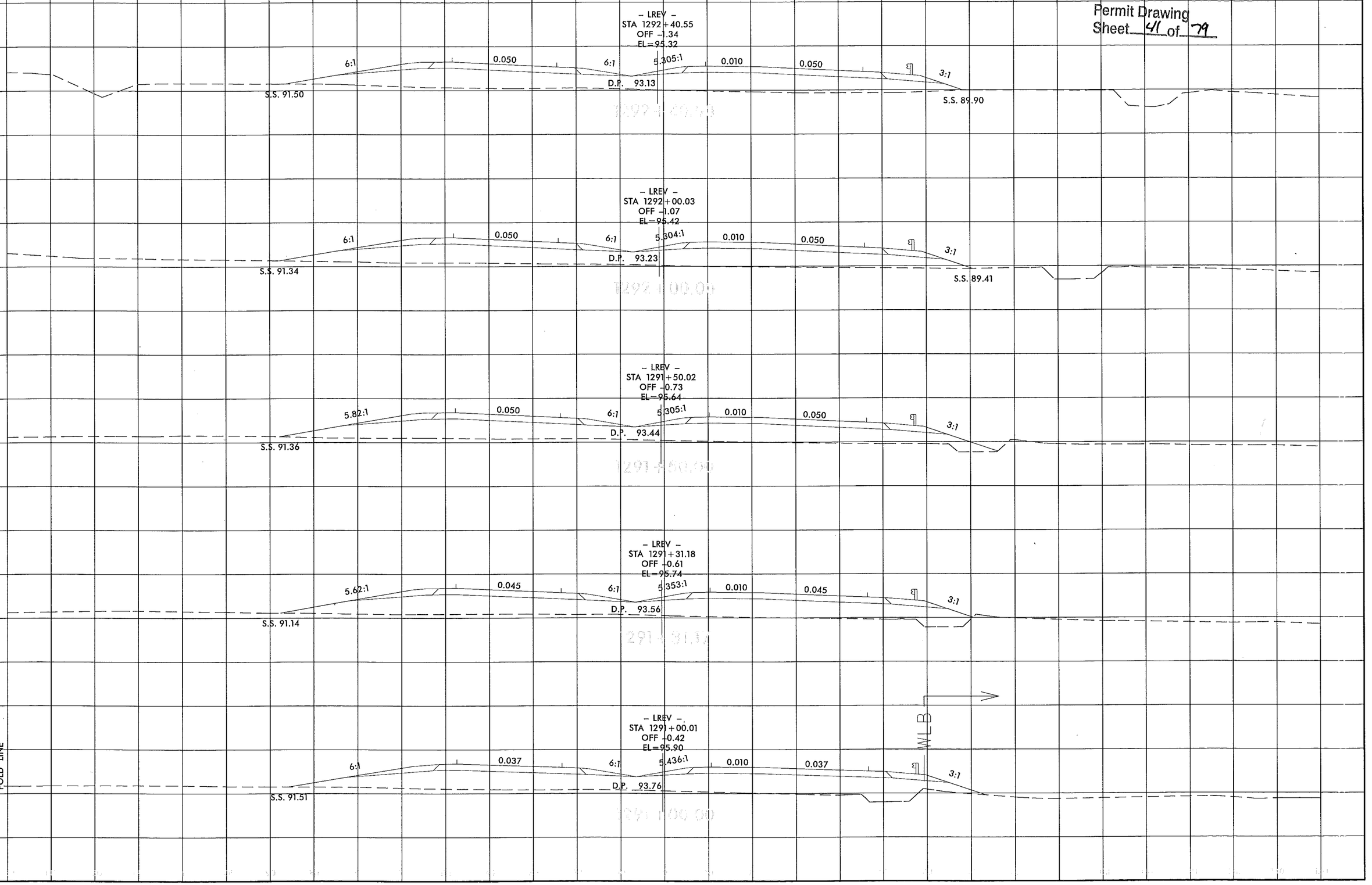


9/27/2012
amkeater
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xsl_prm_wet_psh18a.dgn
$$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 41 of 79



9/27/2012
amkeator
R:\Hydraulics\PERMITS_Environmental\Drawings\v2303d_hyd_xpl_prm_wet_psh18b.dgn
$$$$SYSTEMES$$$$
$$$$DGNES$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 42 of 79

NAD 83/95

SITE 16

SITE 18

SITE 15

SITE 17

85A WILLIAM V. SMITH

86 CLINTON CONGREGATION OF JEHOVAH'S WITNESSES CLINTON NORTH CAROLINA, INC.

87 LAMONT BUTLER

88 SULA RUTH BUTLER

85 N.C. REAL ESTATE SERVICES, INCORPORATED

91B JAMES CARNETT BONEY FAMILY TRUST

84 JOHNNY F. PATTERSON, ETUX

89 LONNIE W. GLASPIE

MATCH LINE -L- STA 1296+50 SEE SHEET 18

MATCH LINE -L- STA 1310+00 SEE SHEET 20

PUE

15" SPECIAL LATERAL V DITCH SEE DETAIL C

ISFD (ABAND)

ISBKD

48" CONC

15" CONC

-LREV-

GRAU 350

BEGIN SBC STA 1304+80 -LREV- RT

END SBC STA 1305+34 -LREV- RT

TYPE M350 LONNIE W. GLASPIE

NC 24 24' BST

NC 24 (ROSEBORO HIGHWAY)

END SBG STA 1300+25 -L- RT

FLOODED AREA

ISFBUS SPECIAL LATERAL V DITCH SEE DETAIL C

ROCK PLATING SEE DETAIL

POND

-LREV- N 22°06'08" E

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES IMPACTS IN SURFACE WATER (POND)

DENOTES HAND CLEARING

DENOTES TEMPORARY FILL IN WETLAND

50' 0' 50' 100' 150'
SCALE: 1"=50'

REVISIONS
5/14/99
R/W Revision: Driveway relocation to eastern side of property for parcel 86. WTB 08/22/12

9/27/2012
RMeador
R:\Projects\VFBMTS_Environmental\Drawings\R2303D_Hyd_pmt_wet_path19.dgn
$$$$$$SYSTIME$$$$$$
$$$$$$ENGINEER$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 43 of 79

NAD 83/95

SITE 16

SITE 18

SITE 15

SITE 17

MATCH LINE -L- STA 1296+50 SEE SHEET 18

MATCH LINE -L- STA 1310+00 SEE SHEET 20

85A WILLIAM V. SMITH

86 CLINTON/CONGREGATION OF JEHOVAH'S WITNESSES CLINTON/NORTH CAROLINA, INC.

87 LAMONT BUTLER

88 SULA RUTH BUTLER

85 N.C. REAL ESTATE SERVICES, INCORPORATED

91B JAMES CARNETT BONEY FAMILY TRUST

84 JOHNNY F. PATTERSON, ETUX

89 LONNIE W. GLASPIE

PUE

SPECIAL LATERAL V DITCH SEE DETAIL

ISFD (ABAND)

ISBKD

FLOODED AREA

BEGIN SBG STA 1301+80 -REV- LT

END SBG STA 1305+34 -REV- LT

BEGIN SBG STA 1303+03 -REV- RT

END SBG STA 1300+25 -L- RT

END SBG STA 1305+14 -REV- RT

NC 24 24' BST

NC 24 (ROSEBORO HIGHWAY)

ISFBUS SPECIAL LATERAL V DITCH SEE DETAIL C1

ROCK PLATING SEE DETAIL

POND

F / F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

P / P DENOTES IMPACTS IN SURFACE WATER (POND)

HC / HC DENOTES HAND CLEARING

T / T DENOTES TEMPORARY FILL IN WETLAND

SCALE= 1"=50'

REVISIONS

5/14/99 R/W Revision-Driveway relocation to eastern side of property for parcel 86. WTB 08/22/12

10/2/2012
E:\Projects\DesignStage\ENVIRONMENTAL Environmental\Drawings\R2303D_Hyd_prm_ws8_pshtl.dgn
$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$USERNAME$$$$$$$$
$$$$$$$$DGNFILE$$$$$$$$

5/14/99

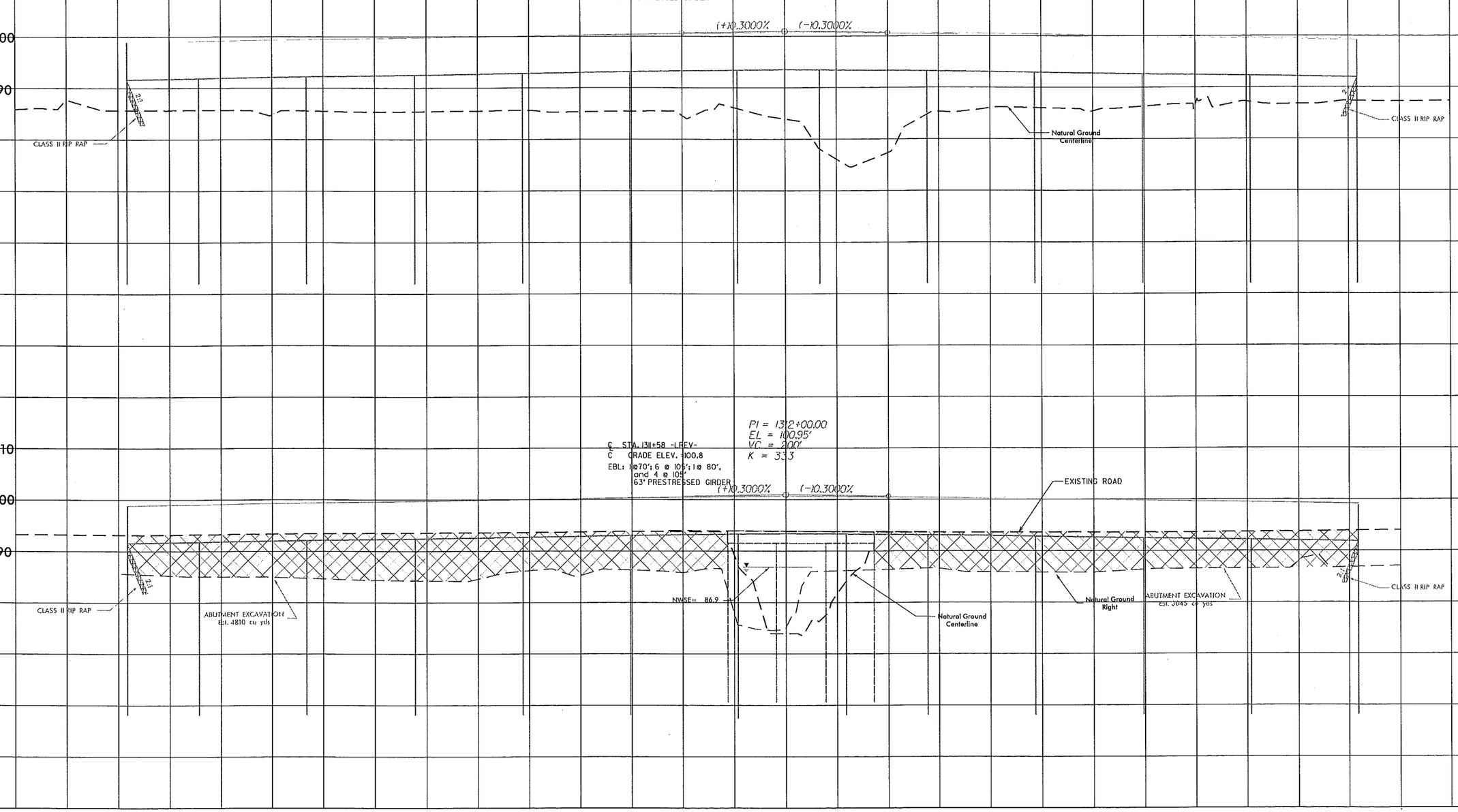
PROJECT REFERENCE NO.	SHEET NO.
R2303D	19_PRL
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SITE 18

Permit Drawing
Sheet 44 of 79

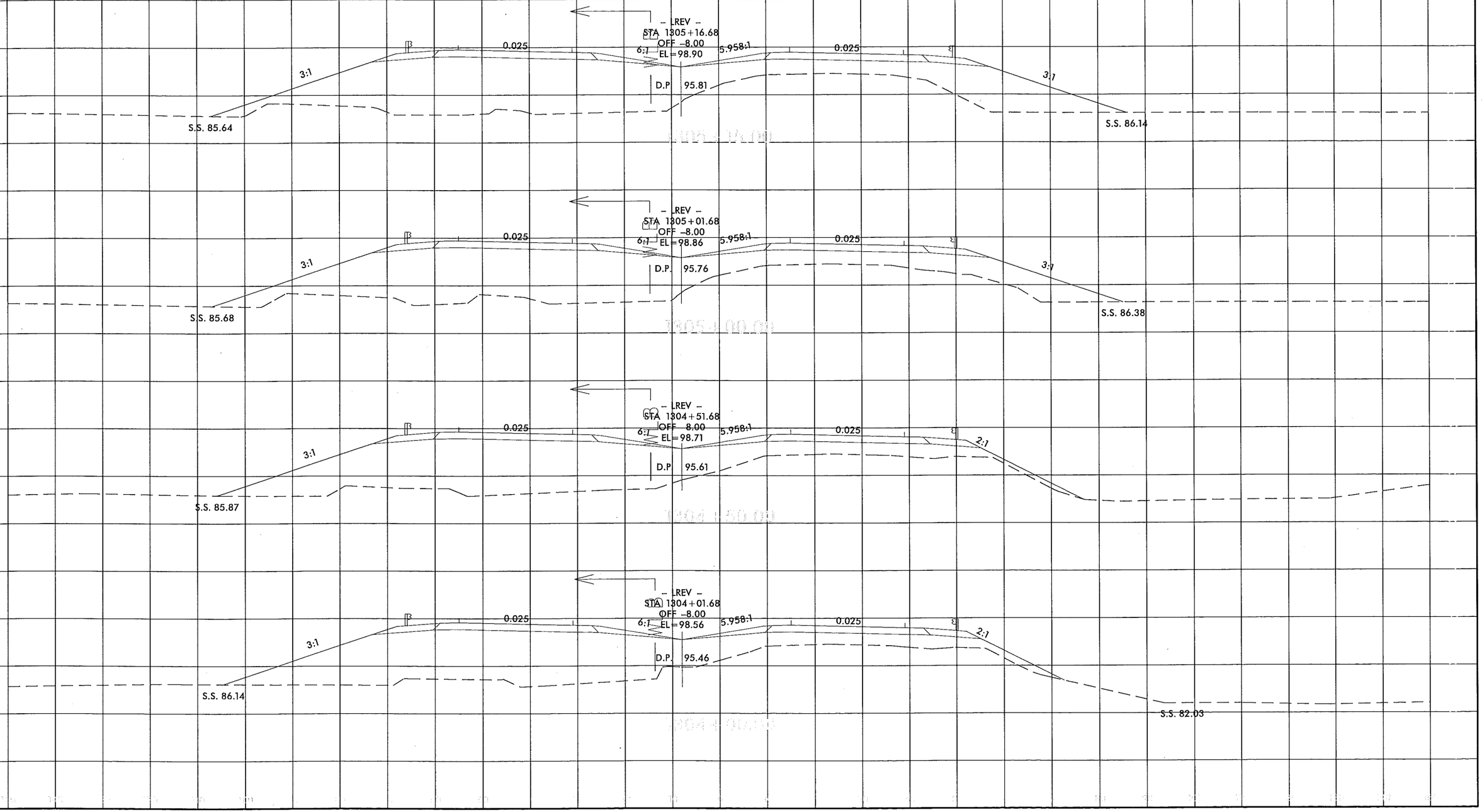


9/27/2012
rmiller
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wsf_PSH19PFL.dgn
$$$$$$$$SYSTEM$$$$$$$$
$$$$$$$$USER NAME$$$$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 45 of 79

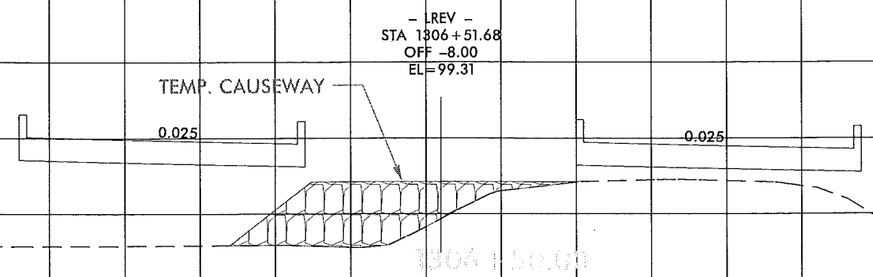


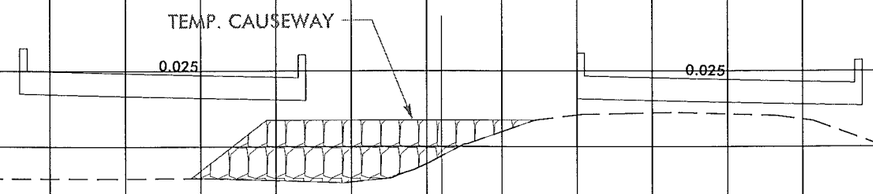
9/27/2012
arkwerter
R:\Hydraulics\PERMITS_Environmental\Drawings\23034_hyd_xpl_prm_wet_psh19.dgn
$$$$USERNAME$$$$
$$$$SYSTIME$$$$
$$$$DGNSETS$$$$
$$$$DGNS$$$$

8/23/99

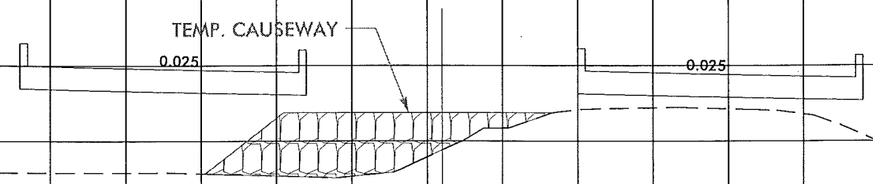
0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 46 of 79

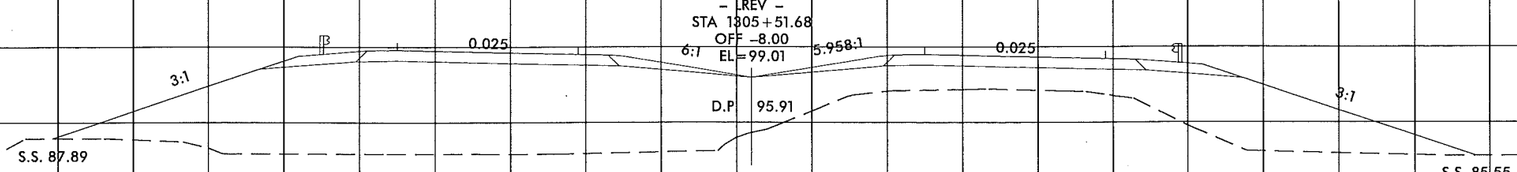




S.S. 85.17



S.S. 85.36



9/28/2012
cmeister
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xsl_prm_wet_psh19b.dgn
$$$$$$$$SYSTEM$$$$$$
$$$$$$$$$$$$$$$$DGNNAME$$$$
$$$$USERNAME$$$$

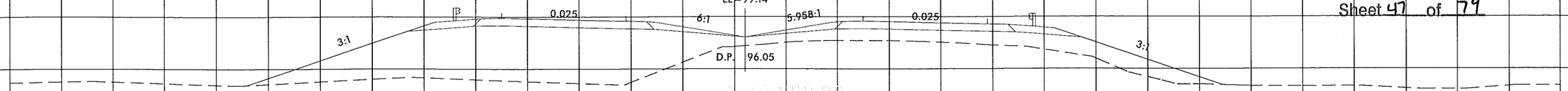
8/23/99

0

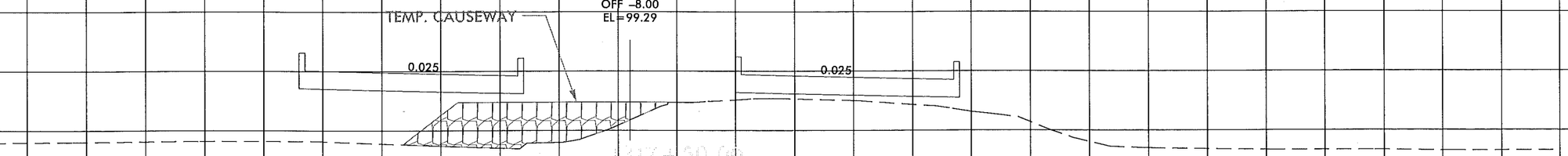
PROJ. REFERENCE NO. | SHEET NO.

Permit Drawing
Sheet 47 of 79

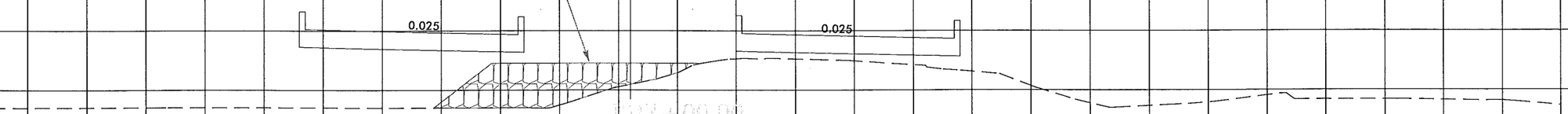
– LREV –
STA 1318+01.679
OFF –8.00
EL=99.14



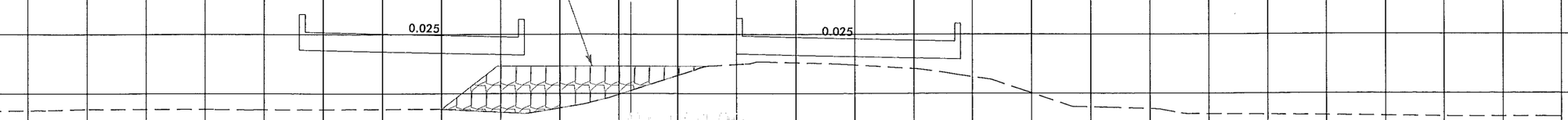
– LREV –
STA 1317+51.68
OFF –8.00
EL=99.29



– LREV –
STA 1317+01.68
OFF –8.00
EL=99.44



– LREV –
STA 1316+51.68
OFF –8.00
EL=99.59



9282012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh19c.dgn
$$$$$$$SYSTIME$$$$$
$$$$$$$ENTER$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$USERNAME$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 8395

FOR -L- PROFILE SEE SHEET 45

Permit Drawing
Sheet 48 of 79

SITE 18

Revised property line (located on r2303d ls pr1.dgn in Roadway Directory and LocationSurveys Directory) all we did was copy what L&S Unit sent us.

STATE OF NORTH CAROLINA

91A

91B

JAMES CARNETT BONEY FAMILY TRUST

JOHNNY F. PATTERSON, ETUX

84

LONNIE W. GLASPIE

91

GREAT COHARIE CREEK

FLOODED AREA

N 29 (ROSEBORO HIGHWAY)

EXISTING R/W

EREV N 78°26'08" E

L N 78°26'08" E

CONC

MATCH LINE -L- STA 1310+00 SEE SHEET 19

1310

1315

1320

PUE

PDE

TYPE B-77

TYPE M350

JACK W. GRIFFIN, ET AL

93

15" RCP III-LREV

S 89°58'25.4" E

END SBG

BEGIN SBG END APPROACH SLAB STA 1317+82 -LREV- RT

92

COHARIE INCORPORATED

MATCH LINE -L- STA 1323+50 SEE SHEET 21

SITE 19

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

T T DENOTES TEMPORARY FILL IN WETLAND

50' 0' 50' 100' 150'

SCALE: 1"=50'

REVISIONS

5/14/99 R/W Rev.- Property owner's name and deed book information revised on Parcel 93. WTB 8/31/12

9/27/2012
User: wbeaver
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_pak20.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 45

Permit Drawing
Sheet 49 of 79

SITE 18

Revised property line (located on r2303d is prldgn in Roadway Directory and LocationSurveys Directory)-all we did was copy what L&S Unit sent us.

STATE OF NORTH CAROLINA

91A

91B

JAMES CARNETT BONEY FAMILY TRUST

JOHNNY F. PATTERSON, ETUX

84

LONNIE W. GLASPIE

91

GREAT COHARIE CREEK

FLOODED AREA

MATCH LINE -L- STA 1310+00 SEE SHEET 19

24" REINFORCED CONCRETE PIPE

PUE

JACK W. GRIFFIN, ET AL

201

93

18" RCP-III

15" RCP-III

WIRE FENCE

BLDG

TYPE M350

PDE

BEGIN SBG END APPROACH SLAB STA 1317+82 -LREV- RT

92

COHARIE INCORPORATED

END SBG

MATCH LINE -L- STA 1323+50 SEE SHEET 21

SITE 19

HC HC DENOTES HAND CLEARING

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

T T DENOTES TEMPORARY FILL IN WETLAND

50' 0' 50' 100' 150'

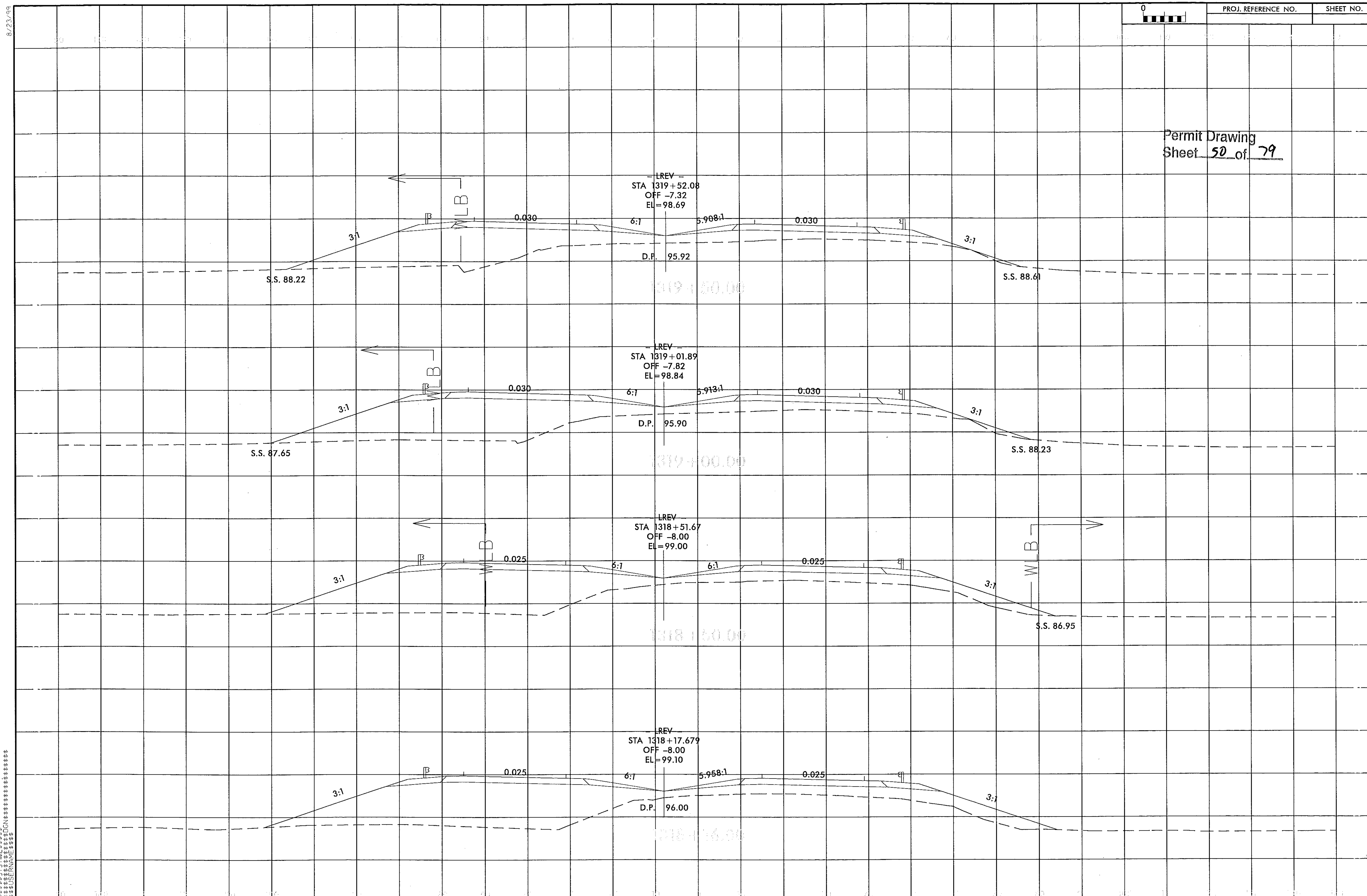
SCALE: 1"=50'

REVISIONS

5/14/99

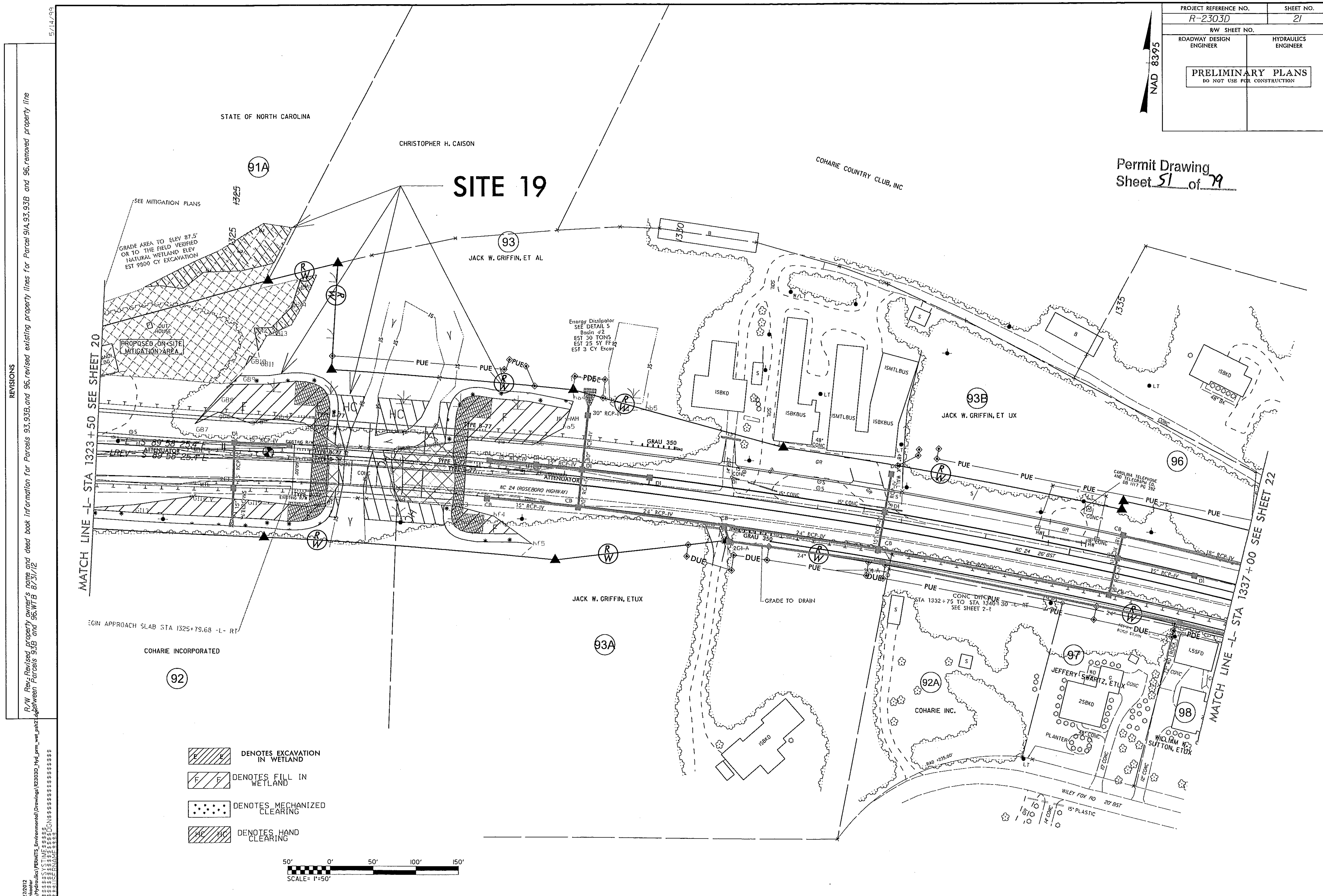
R/W Rev.-Property owner's name and deed book information revised on Parcel 93. WTB 8/31/12

10/2/2012
J:\Hydraulics\ENVPERMITS Environments\Drawings\R2303D_Hyd_pmt_wet_pa20.dgn
$$$$$$$SYSTIME$$$$$$
$$$$$$$USER$$$$$$
$$$$$$$LEVNAME$$$$$



8/23/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh20.dgn
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$
$$$USERNAME$$$$


PROJECT REFERENCE NO. R-2303D
SHEET NO. 21
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
NAD 83/95
Permit Drawing
Sheet 51 of 79
SITE 19
STATE OF NORTH CAROLINA
CHRISTOPHER H. CAISON
91A
COHARIE COUNTRY CLUB, INC
93
JACK W. GRIFFIN, ET AL
93B
JACK W. GRIFFIN, ET UX
96
SEE MITIGATION PLANS
GRADE AREA TO ELEV 87.5' OR TO THE FIELD VERIFIED NATURAL WETLAND ELEV EST 9800 CY EXCAVATION
PROPOSED ON-SITE MITIGATION AREA
OUT HOUSE
Energy Dissipator SEE DETAIL S Basin #2 EST 30 TONS EST 25 SY FF EST 3 CY Excav
CAROLINA TELEPHONE AND TELEGRAPH CO. DB 1117 PG 392
NC 24 (ROSEBORO HIGHWAY)
NC 24 26' BST
-L- S 89°58'25.4" E
-LREV- S 89°58'25.4" E
ATTENUATOR
GRAU 350
GRADE TO DRAIN
CONC DITCH STA 1332+75 TO STA 1340+30 -L- RT SEE SHEET 2-?
MATCH LINE -L- STA 1323+50 SEE SHEET 20
MATCH LINE -L- STA 1337+00 SEE SHEET 22
BEGIN APPROACH SLAB STA 1325+79.68 -L- RT
COHARIE INCORPORATED
92
JACK W. GRIFFIN, ETUX
93A
92A
COHARIE INC.
97
JEFFERY SWARTZ, ETUX
98
WILLIAM K. SUTTON, ETUX
WILEY FOX RD 20' BST
DENOTES EXCAVATION IN WETLAND
DENOTES FILL IN WETLAND
DENOTES MECHANIZED CLEARING
DENOTES HAND CLEARING
50' 0' 50' 100' 150'
SCALE= 1"=50'
5/14/99
REVISIONS
R/W Rev.:Revised property owner's name and deed book information for Parcels 93,93B,and 96,revised existing property lines for Parcel 91A,93,93B and 96,removed property line between Parcels 93B and 96.WTB 8/31/12
9/27/2012
amkooter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh21.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

Permit Drawing
Sheet 52 of 79

SITE 19

STATE OF NORTH CAROLINA

CHRISTOPHER H. CAISON

COHARIE COUNTRY CLUB, INC

91A

93

JACK W. GRIFFIN, ET AL

SEE MITIGATION PLANS

GRADE AREA TO ELEV 87.5' OR TO THE FIELD VERIFIED NATURAL WETLAND ELEV
EST 9800 CY EXCAVATION

PROPOSED ON-SITE MITIGATION AREA

Energy Dissipator SEE DETAIL 5 Basin #2 EST 30 TONS EST 25 SY FF EST 6 CY Excav

93E

JACK W. GRIFFIN, ET UX

96

MATCH LINE -L- STA 1323+50 SEE SHEET 20

MATCH LINE -L- STA 1337+00 SEE SHEET 22

BEGIN APPROACH SLAB STA 1325+79.68 L- RT

COHARIE INCORPORATED

92

JACK W. GRIFFIN, ETUX

93A

GRADE TO DRAIN

CONC DITCH STA 1332+78 TO STA 1340+30 SEE SHEET 2-I

92A

COHARIE INC.

97

JEFFERY W. SWARTZ, ETUX

98

WILLIAM C. SUTTON, ETUX

WILEY FOX RD

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

DENOTES HAND CLEARING

50' 0' 50' 100' 150'
SCALE: 1"=50'

REVISIONS

R/W Rev.: Revised property owner's name and deed book information for Parcels 93,93B,and 96,revised existing property lines for Parcel 91A,93,93B and 96,removed property line between Parcels 93B and 96.WTB 8/31/12

5/14/99

10/2/2013
c:\pwworkdir\jwilliams\EBAMTS_Environmental\Drawings\R2303D_Hyd_prm_wet_pak21.dgn
R:\Hydraulics\VEBAMTS_Environmental\Drawings\R2303D_Hyd_prm_wet_pak21.dgn
$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$USERNAME$$$$$$$$
$$$$$$$$DGNSETS$$$$$$$$

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R2303D	21_PRL
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SITE 19

Permit Drawing
Sheet 53 of 79

1325+00 1326+00 1327+00 1328+00

℄ STA. 1326+94 -L-
℄ GRADE ELEV. = 98.8
WBL: 2 @ 65' and 1@ 50'
45° PRESTRESSED GIRDER

SUPER STRUCTURE DEPTH
FOR 45° Prestressed Girder
45"+12" (Deck Th)+10.8"(super(34ftx.025)
= 5.7 ft

(-)0.3000% (+)0.3007% (+)0.3007% (+)3.1194%

110
100
90
80

MAXIMUM SPREAD ON BRIDGE
DA = 0.10 Ac
Q = 0.24 cfs
s(o) = 0.3%
Spread = 4.7 ft.
Shoulder Width: WBL = 4 ft. EBL = 10 ft.

Deck Drains
Use 6" Scuppers on 15 ft. centers

East and West Bound Lane
Sta. 1326+04 to 1326+35 and 1327+10
to 1327+84 -L- Rt.

Ave Q @ each deck drain = 0.04 cfs

CLASS II RIP RAP
NWSE= 86.9
2:1

℄ STA. 1326+94 -L-
℄ GRADE ELEV. = 98.8
WBL: 2 @ 65' and 1@ 50'
45° PRESTRESSED GIRDER

(-)0.3000% (+)0.3007% (+)0.3007% (+)3.1194%

ABUTMENT EXCAVATION
Est. 110 cu yds

ABUTMENT EXCAVATION
Est. 450 cu yds

CLASS II RIP RAP
NWSE= 86.9
2:1
2:1

EXISTING ROAD

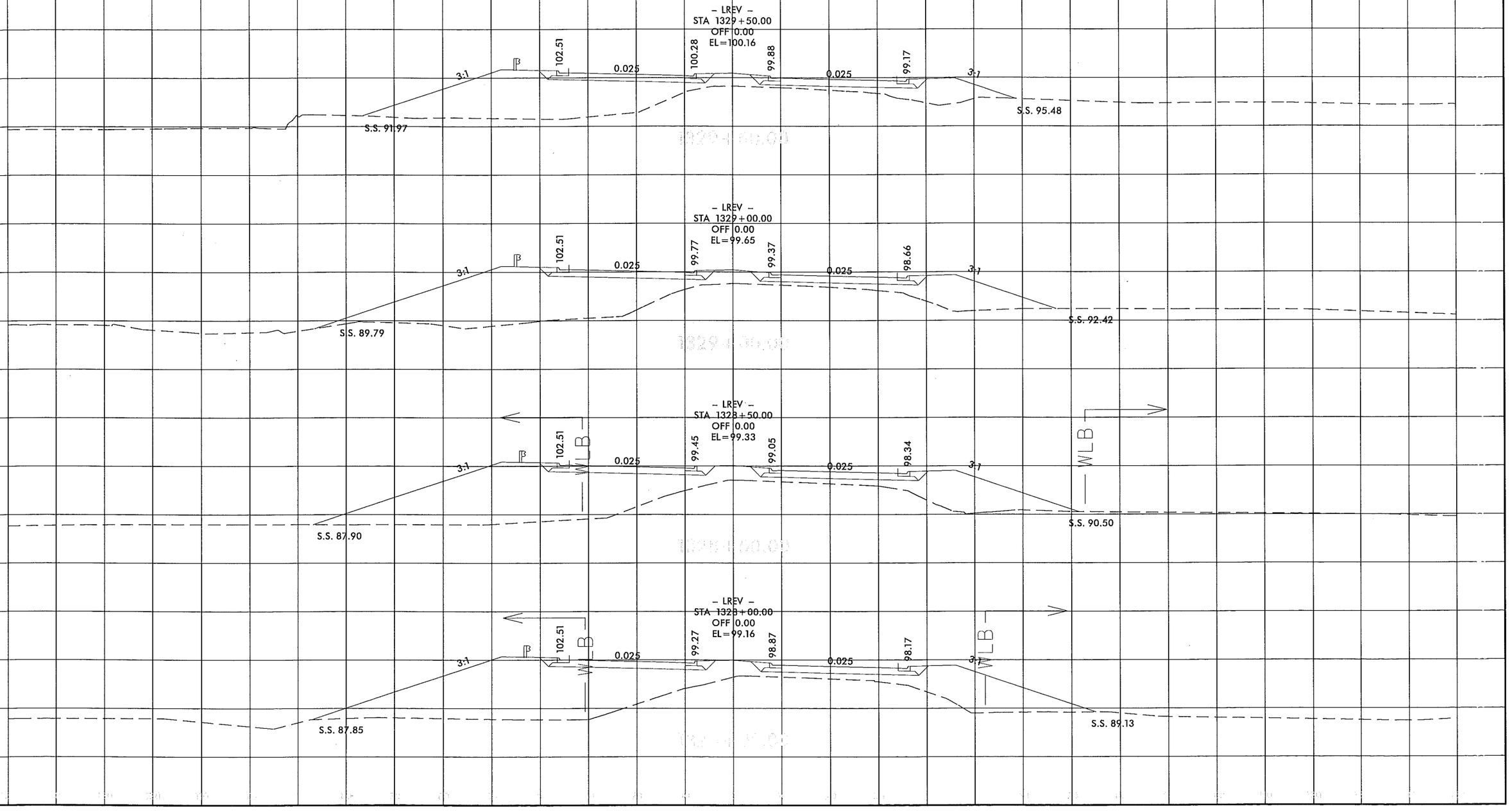
110
100
90
80

9/27/2012
mmoore
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_pst\21PFL.dgn
$$$$$$$$$$SYSTIME$$$$$$$$$$
$$$$$$$$$$DGNS$$$$$$$$$$
$$$$$$$$$$ENAME$$$$$$$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 54 of 79



9/27/2012
omkeefer
R:\Hydraulics\PERMITS_Environmental\Drawings\v2303d_hyd_xpl_prm_wet_psh21.dgn
$$$$$$$$SYSTIME$$$$$
$$$$$$$$DGNS$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

SITE 20

MATCH LINE -L- STA 1377+50 SEE SHEET 24

MATCH LINE -L- STA 1391+50 SEE SHEET 26

CLINTON PENTECOSTAL HOLINESS CHURCH

CLINTON PENTECOSTAL HOLINESS CHURCH

131

BOBBY R. HALL

132

JUNE M. MASSENGILL

133

25' ACCESS EASEMENT

POHLEMEIER MANAGEMENT L.L.C.

134

SPRING VIEW FARMS

135A

WADE-CARTER ENTERPRISES INC.

136

K. E. AUSTIN CORP.

138

139

140

126

THE TRUSTEES OF SAMPSON TECHNICAL INST.

ISBKBUS

ISMTLBUS

ISBLK BUS

135

A. G. THORNTON, ETAL

137

HARRIS SIGHT AND SOUND, INC. ISMTLBUS

FAIRCLOTH FAMILY PROPERTIES, LLC.

NC LAND LIMITED PARTNERSHIP

CITY OF CLINTON

CLINTON CITY LIMITS

NC 24 (SUNSET AVENUE)

EDWARDS DRIVE

Permit Drawing
Sheet 55 of 79

TS TS DENOTES TEMPORARY IMPACTS IN SL

S S DENOTES IMPACTS IN SURFACE WATER

50' 0' 50' 100' 150'
SCALE= 1"=50'

REVISIONS

5/14/99

9/27/2012
amkoster
N:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_prm_wvd_psh25.dgn
$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$USER$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$FNAME$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	25B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 56 of 79

SITE 20

13 GAS PUMPS
U/MTL CANOPY

PARKER GAS COMPANY, INC.

K. E. AUSTIN CORP.

MTL CANOPY

ISFBUS

ISBLKBUS

GAS-10,000 GAL
GAS-10,000 GAL
GAS-12,000 GAL
GAS-12,000 GAL
GAS-12,000 GAL
GAS-12,000 GAL

138

139

140

72" CHL

PUE

PDE

E

S

SS

W

LT

CB

DI

REMOVE

RETAIN

EXTEND 5" RCP-IV

COLLAR AND EXTEND 15" RCP-IV

COLLAR AND EXTEND 24" RCP-IV

EXTEND 15" RCP-IV

REMOVE JB & REPLACE W/TB JB w/MH

Adj. MH

SPECIAL DETAIL

36" CONC

48" RCP-IV

15" RCP-IV

24" CONC

18" CONC

8"DIP

30"PVC

EXISTING

5' EASEMENT

OVERLAND ROAD (SR 1229)

NC 24 (SUNSET AVENUE)

60.00'

90.00'

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES IMPACTS IN SURFACE WATER

TS

SCALE= 1"=20'

NAD 83/95

REVISIONS 8/17/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_prm_wet_pal258.dgn
$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$
$$$$$$DGNS$$$$$$$$$$$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

REVISIONS

5/14/99

MATCH LINE -L- STA 1377+50 SEE SHEET 24

MATCH LINE -L- STA 1391+50 SEE SHEET 26

SITE 20

CLINTON PENTECOSTAL HOLINESS CHURCH

BOBBY R. HALL

JUNE M. MASSENGILL

POHLEMEIER MANAGEMENT L.L.C.

SPRING VIEW FARMS

WADE-CARR ENTERPRISES INC.

K. E. AUSTIN CORP.

25' ACCESS EASEMENT

EDWARDS DRIVE

THE TRUSTEES OF SAMPSON TECHNICAL INST.

A. G. THORNTON, ETAL

HARRIS SIGHT AND SOUND, INC.

FAIRCLOTH FAMILY PROPERTIES, LLC.

NC LAND LIMITED PARTNERSHIP

CITY OF CLINTON

Permit Drawing
Sheet 57 of 79

TS TS DENOTES TEMPORARY IMPACTS IN SL

S S DENOTES IMPACTS IN SURFACE WATER

SCALE= 1"=50'

10/2/2012
mmeadows
R:\Hydraulics\PERMITS Environmental\Drawings\2303d_hyd_prm_wet_pak25.dgn
$$$$$$$USERNAME$$$$$$$
$$$$$$$SYSTIME$$$$$$$

8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

156.48 0.025 0.025 0.025 155.90 3:1 S.S. 155.00

156.39 0.025 0.025 0.025 155.79 3:1 S.S. 155.41

3:1 S.S. 155.79 156.40 0.025 0.025 0.025 0.025 SHEAR TO -Y48-

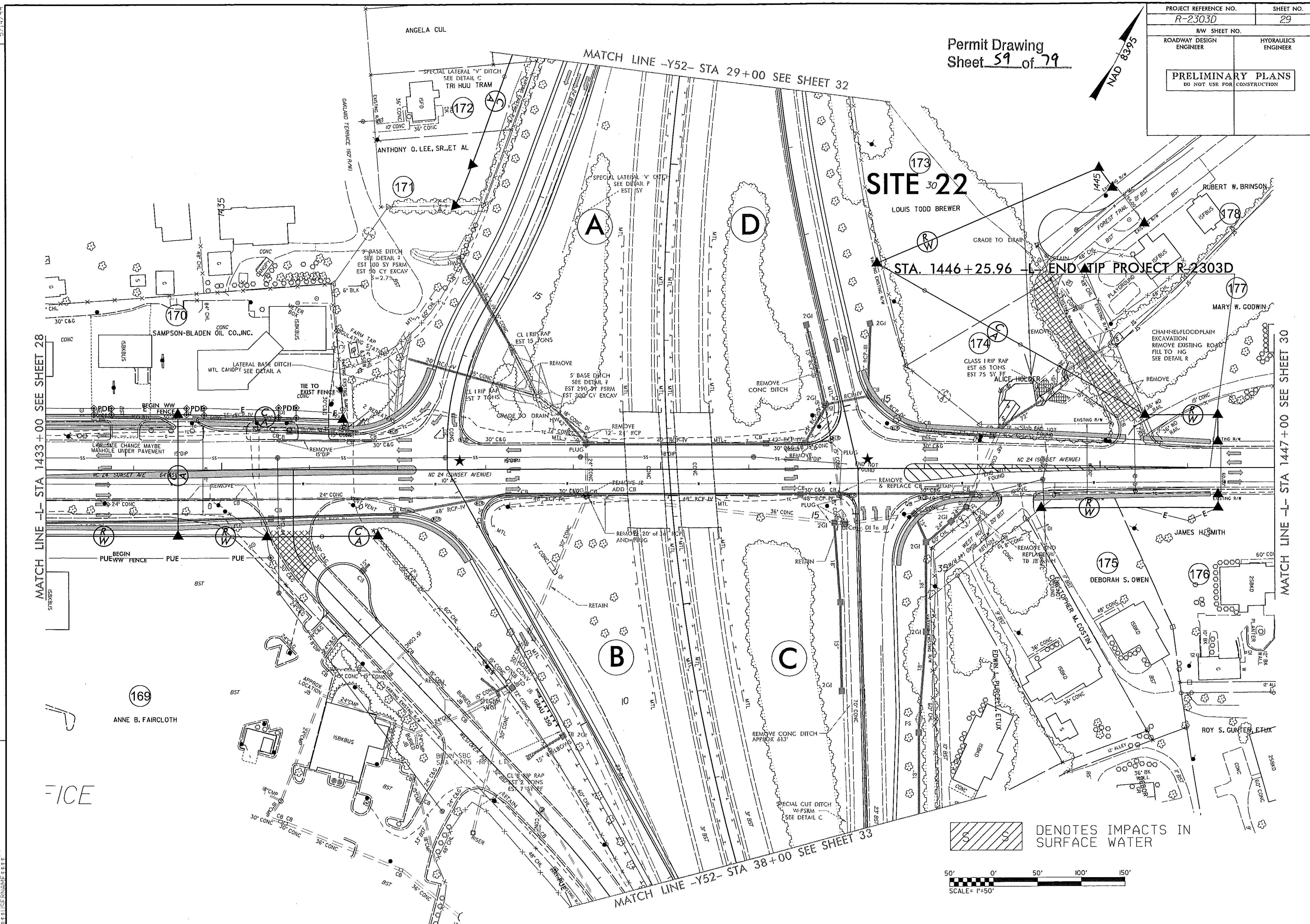
Permit Drawing
Sheet 58 of 79

3:1 S.S. 148.14 156.15 0.025 0.025 0.025 0.025 0.025 SHEAR TO -Y48-

156.21 0.025 0.025 0.025 0.025 0.025 SHEAR TO -Y48-

156.40 0.025 0.025 0.025 156.02

9/27/2012
mwaelter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh25.dgn
$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$



REVISIONS

5/14/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_prm_wet_psh29.dgn
$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	29
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 60 of 79

NAD 83/95

REVISIONS

5/14/99

MATCH LINE -Y52- STA 29+00 SEE SHEET 32

MATCH LINE -L- STA 1433+00 SEE SHEET 28

MATCH LINE -L- STA 1447+00 SEE SHEET 30

MATCH LINE -Y52- STA 38+00 SEE SHEET 33

SITE 22

LOUIS TODD BREWER

STA. 1446+25.96 -L- END TIP PROJECT R-2303D

ANGELA CUL

ANTHONY O. LEE, SR., ET AL

SAMPSON-BLADEN OIL CO., INC.

ANNE B. FAIRCLOTH

RUBERT W. BRINSON

MARY W. GODWIN

JAMES H. SMITH

DEBORAH S. OWEN

CHRISTOPHER M. COSTIN

EDWIN PURCELL ETUX

ROY S. GUNTER ETUX

ALICE HOLDER

OAKLAND TERRACE (60' R/W)

NC 24 (SUNSET AVENUE)

SPECIAL LATERAL "V" DITCH SEE DETAIL C TRI HUU TRAN

SPECIAL LATERAL "V" DITCH SEE DETAIL P EST. 15Y

5' BASE DITCH SEE DETAIL F EST 100 SY FSRM EST 80 CY EXCAV S=2.7%

LATERAL BASE DITCH MTL CANOPY SEE DETAIL A

5' BASE DITCH SEE DETAIL F EST 290 SY FSRM EST 300 CY EXCAV

CL I RIP RAP EST 15 TONS

CL I RIP RAP EST 7 TONS

CLASS I RIP RAP EST 69 TONS EST 75 SY FF

CHANNEL/FLOODPLAIN EXCAVATION REMOVE EXISTING ROAD FILL TO NG SEE DETAIL R

REMOVE CONC DITCH

REMOVE CONC DITCH APPROX 913'

SPECIAL CUT DITCH SW/FSRM SEE DETAIL C

BEGIN WW FENCE

TIE TO EXIST FENCE

LARGE SIZE CHANGE MAYBE MANHOLE UNDER PAVEMENT

REMOVE 15" DIP

REMOVE 12"in 24" RCP

REMOVE 20' of 30" RCP AND PLUG

REMOVE & REPLACE CB

REMOVE JB ADD CB

REMOVE AND REPLACE W/ TB JB SW

GRADE TO DRAIN

RETAIN

PLUG

END RCP FOUND

BBDUN SBG STA 10+05 -RPB- LT

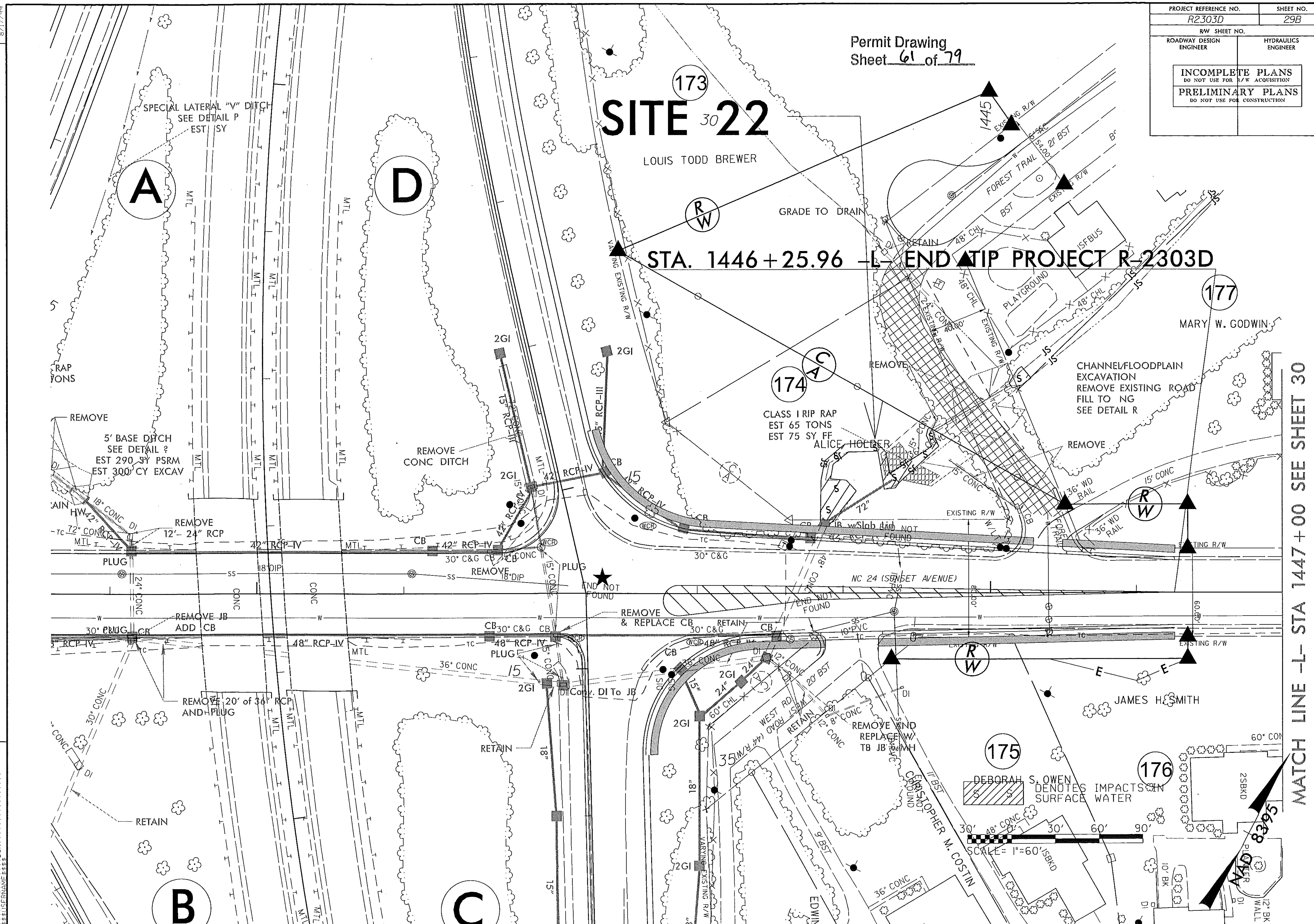
CL B RIP-RAP EST 2 TONS EST 2 SY FF

APPROX LOCATION JB

DENOTES IMPACTS IN SURFACE WATER

SCALE= 1"=50'

10/2/2012
Alignment
R:\Hydraulics\PERMITS Environmental\Drawings\23034_hyd_pmt_wet_pak20.dgn
$$$$$$$SYSTIME$$$$$$$
$$$$$$$USERNAME$$$$$$$



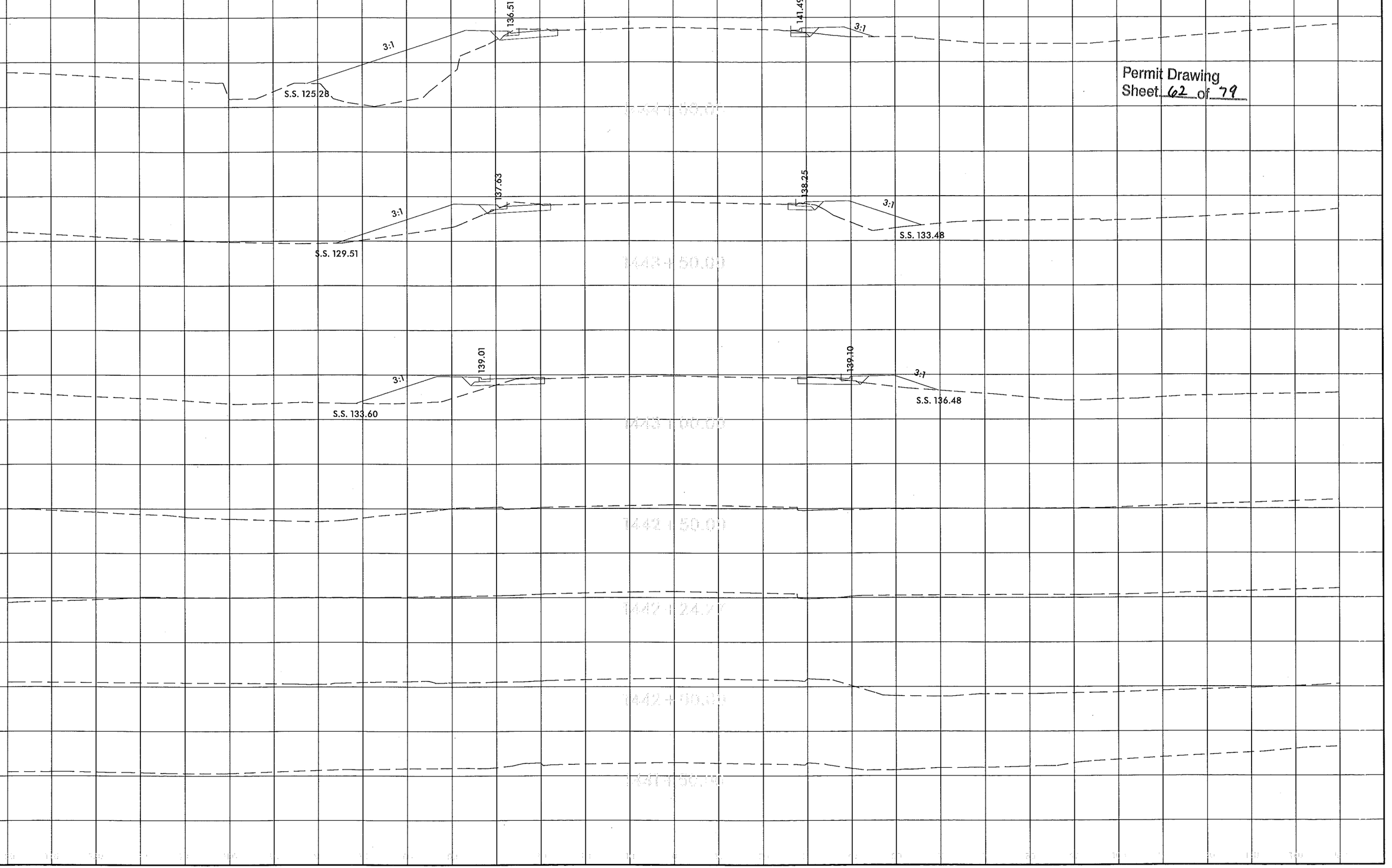
9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_prm_wet_psh29B.dgn

REVISIONS

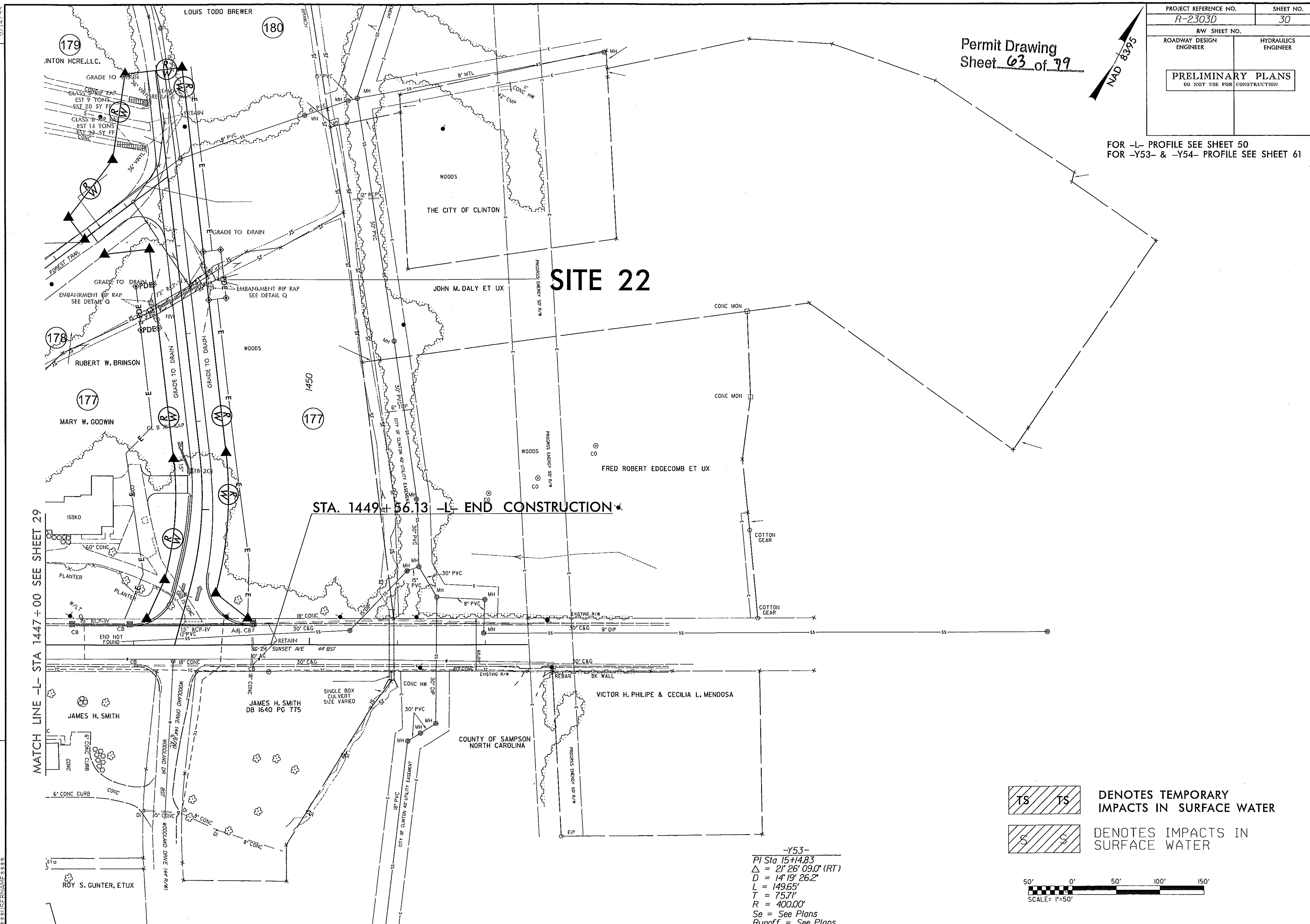
8/23/99

0	PROJ. REFERENCE NO.	SHEET NO.

Permit Drawing
Sheet 62 of 79



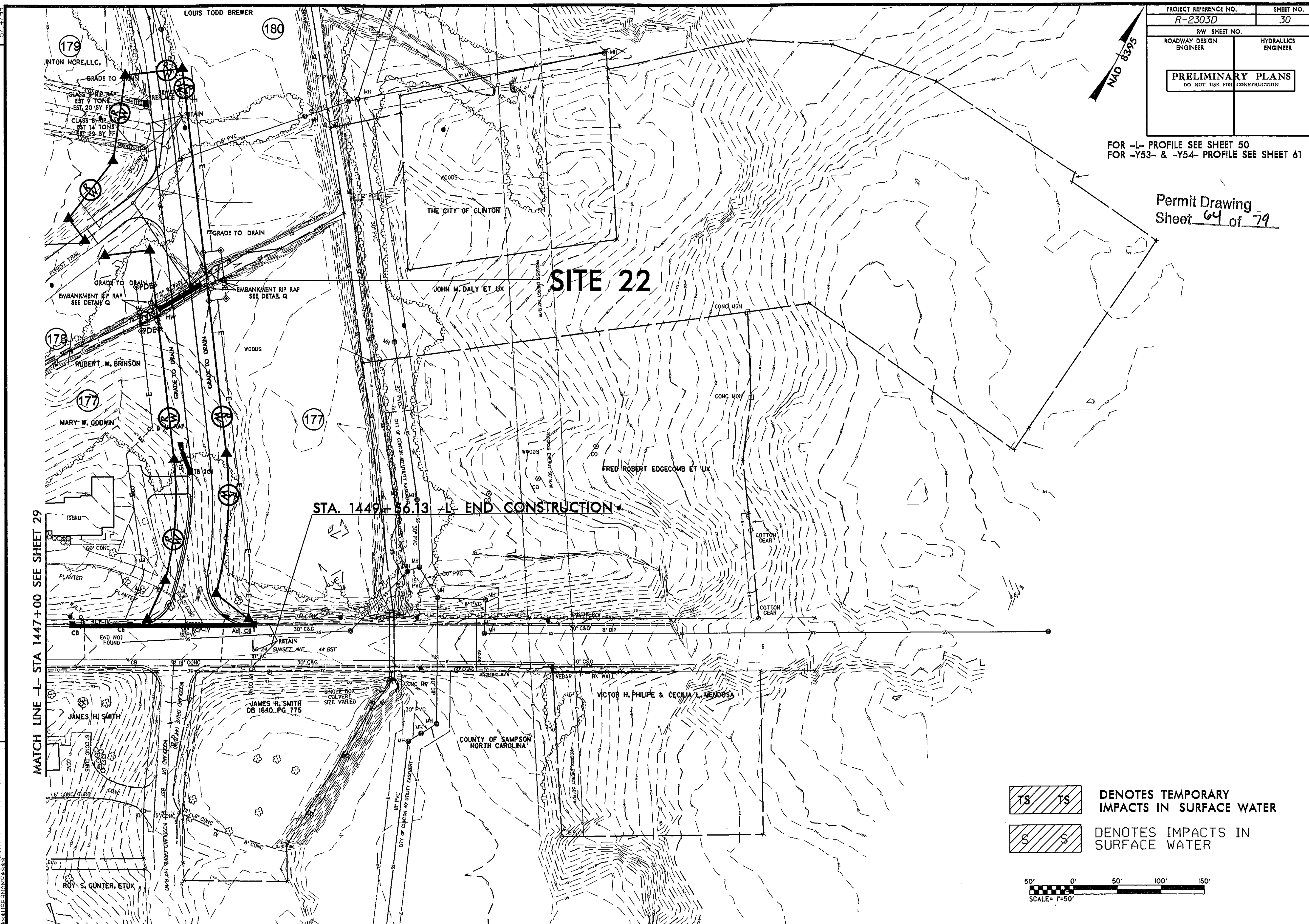
9/27/2012
amkeeter
N:\Hydraulics\PERMITS Environmental\Drawings\r2303d_hyd_xpl_prm_wet_psh29.dgn
$$$$USERNAME$$$$
$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$TIME$$$$
$$$$DATE$$$$



REVISIONS

5/14/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_prm_wet_psh30.dgn



REVISIONS

5/14/99

10/3/2012
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_prm_wet_psh30.dgn
$$$$$$SYSTIME$$$$$
$$$$$$DGN$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	30B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 65 of 79

SITE 22

REVISIONS

8/17/99

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\r2303d_hyd_prm_wet_psh30B.dgn

RETAIN
CLASS B RIP RAP
EST 14 TONS
EST 32 SY FF
CONC
36" VINYL
8" PVC
15" PVC
MH
12" RCP
30" PVC
PVC
FOREST TRAIL
GRADE TO DRAIN
72" RCP-W
EMBANKMENT RIP RAP
SEE DETAIL Q
PDE
HW
WOODS
178
177
RUBERT W. BRINSON
MARY W. GODWIN
CL B RIP RAP
15" TB 2GI
1450
THE CITY OF CLINTON
JOHN M. DALY ET UX
NAD 83'95
6" CP
CITY OF CLINTON 40' UTILI
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
DENOTES IMPACTS IN SURFACE WATER
SCALE= 1"=40'

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R2303D	30_PFL
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 66 of 79

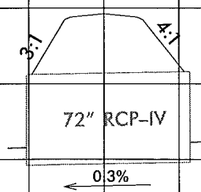
100′ 0 100′

℄ STA. 12+55 –Y53–
ELEV. = 119.7′
SKEW = 65°

120

110

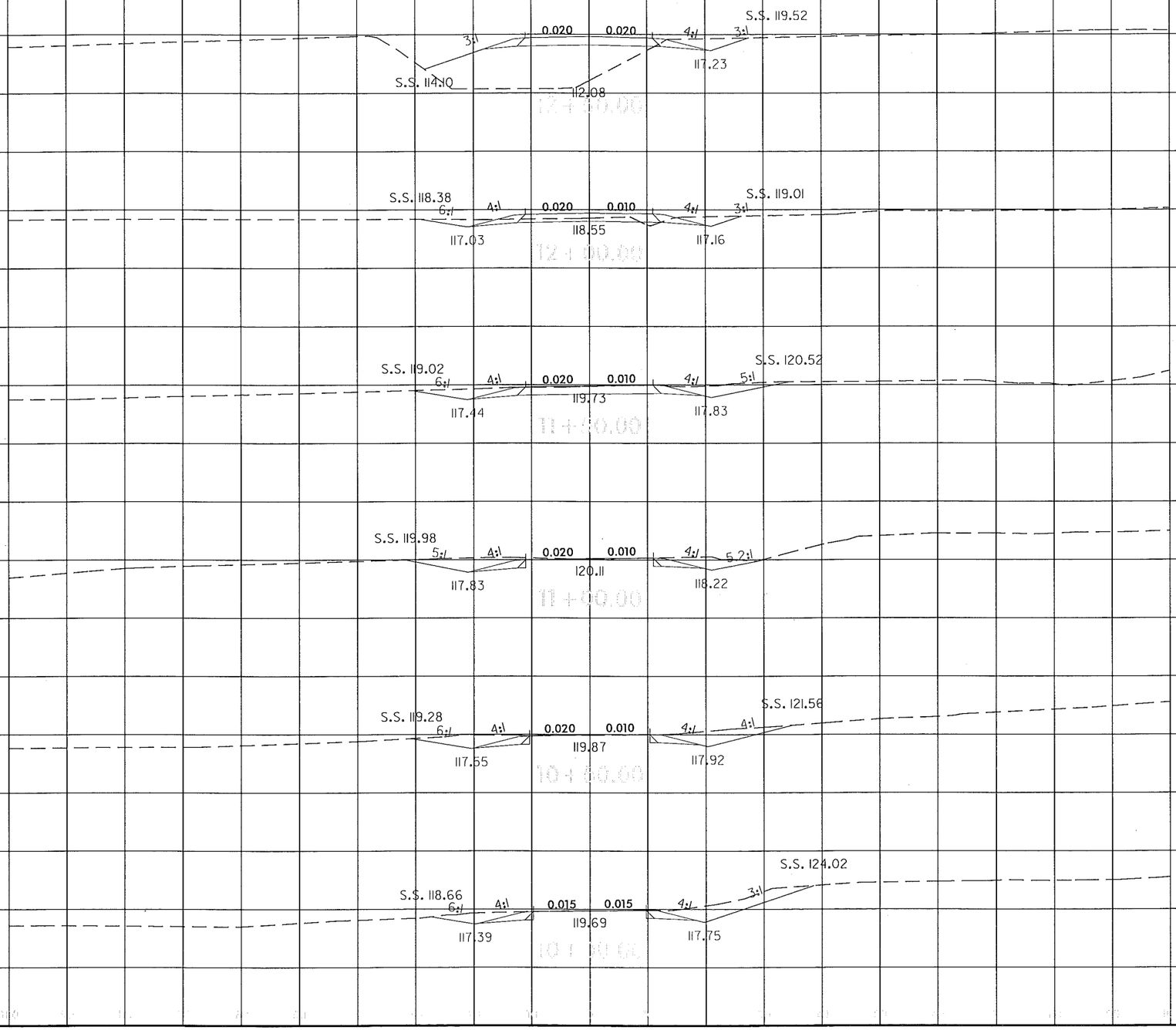
100



SITE 22

9/27/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh30PFL.dgn
$$$$USERNAME$$$$
$$$$SYSTIME$$$$
$$$$DGN$$$$

Permit Drawing
Sheet 67 of 79



8/23/99
9/27/2012
amkaeter
R:\projects\fisc\PERMITS_Environmental\Drawings\r2303d_hyd_xpl_y_prm_wet_psh30.dgn
$$$$$$$$$$VSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$$$RNAME$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	35
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 68 of 79

FOR –Y50– PROFILE SEE SHEET 57
FOR –SR1– PROFILE SEE SHEET 62

NAD 8395

MATCH LINE –Y50– STA 18+00 SEE SHEET 28

MATCH LINE –SR1– STA 13+00 SEE SHEET 27

MATCH LINE –SR1– STA 25+50 SEE SHEET 36

FAIRCLOTH FAMILY PROPERTIES, LLC

158

140A

165
SHAMROCK PLAZA

166
IMMANUEL BAPTIST CHURCH OF CLINTON, N.C.

169

ANNE B. FAIRCLOTH

25

25BK

ISBLKBUS

BST

8" BST CURB

12" CMP & 65BW

24" RCP

36" WD RAIL

GRADE TO DRAIN

SPECIAL LATERAL V DITCH
SEE DETAIL C

LATERAL BASE DITCH
SEE DETAIL A

PROP SERVIC

S 65°03'22"E

PA47 PA48 PA49 PA50 PA51 PA52 PA53 PA54 PA55 PA56 A1-PA56

POND

DITCH

PDE

18"

-Y50- S 1°48'37"E

EIP

BARN

25 ELEC

SOIL

SITE 21

CLINTON CITY LIMITS

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
SCALE= 1"=50'

REVISIONS

R/W Rev. Added parcel number, property owner's name, and deed book information for Parcel 158. WTB 8/31/12

5/14/99

9/27/2012
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_pak3d.dgn
$$$$$$$$$$USER NAME = $$$$$$$$$$
$$$$$$$$$$SYSTIME = $$$$$$$$$$
$$$$$$$$$$DGN = $$$$$$$$$$$$$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	35
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 69 of 79

FOR -Y50- PROFILE SEE SHEET 57
FOR -SR1- PROFILE SEE SHEET 62

NAD 83395

MATCH LINE -SR1- STA 13+00 SEE SHEET 27

MATCH LINE -Y50- STA 18+00 SEE SHEET 28

MATCH LINE -SR1- STA 25+50 SEE SHEET 36

FAIRCLOTH FAMILY PROPERTIES, LLC

158

140A

165
SHAMROCK PLAZA

166
IMMANUEL BAPTIST CHURCH OF CLINTON, N.C.

ANNE B. FAIRCLOTH

169

ISBLKBUS

BST

6" BST CURB

72" CHL & SSBW

SPECIAL LATERAL V DITCH
SEE DETAIL C

GRADE TO DRAIN

LATERAL BASE DITCH
SEE DETAIL A

POND

DITCH

PDE

PROP SERVIC

140A
FAIRCLOTH FAMILY PROPERTIES, LLC

25' ELEC

SPR

EIP

BARN

SITE 21

CLINTON CITY LIMITS

F F DENOTES FILL IN WETLAND

DENOTES MECHANIZED CLEARING

50' 0' 50' 100' 150'
SCALE: 1"=50'

REVISIONS

R/W Rev. Added parcel number, property owner's name, and deed book Information for Parcel 158. WTB 8/31/12

5/14/99

10/2/2012
R2303Dsht.dgn
$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$DGN$$$$$$$$
$$$$$$$$CLEANAVE$$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	36_PSH
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 70 of 79

SITE 23

REVISIONS

8/17/99

10/2/2012
amkeeler
R:\Hydraulics\PERMITS Environmental\Drawings\R2303D_Hyd_prm_wet_psh36.dgn
$$$$$$$$$$SYSTIME$$$$$$$$$$
$$$$$$$$$$USERNAME$$$$$$$$$$

179 180 171 173

60" CHL 72" CHL&3SBW 60" CONC W/LT 3SBW

CLASS I RIP RAP
EST 3 TONS
FOR 6 SY FF

JB wMH

LATERAL V DITCH
SEE DETAIL C

COLLAR AND
EXTEND 15" RCP-III

2GI

REMOVE

Adj. 2GI
(REPAIR APRON)

RETAIN

REMOVE HW
COLLAR AND
EXTEND 24" RCP-III

4' CAW

COLLAR AND
EXTEND 18" RCP-III 2GI-D

LATERAL V DITCH
SEE DETAIL C

COLLAR AND
EXTEND 18" RCP-IV 2GI-D

REMOVE
16"-18" RCP

SPECIAL LATERAL "V" DITCH
SEE DETAIL C

CL B RIP RAP

LATERAL BASE DITCH
SEE DETAIL A

FDE

24" BST

4' BST

MTE

MTL

18"RCP

24" RCP

15" PVC

FOREST TRAIL 20' BST

WOODS

36" WD RAIL

24' BST

24' C&G

BST

60" CONC

48" CONC

ISBKBUS

36" BK WALL

72" CONC

17' BST

25' BST

S

66+58 -L-

S S DENOTES IMPACTS IN SURFACE WATER

TS TS DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100'

SCALE 1"=50'

PROJECT REFERENCE NO.	SHEET NO.
R2303D	36_PSH
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 71 of 79

SITE 23

REVISIONS

8/17/99

10/2012
cmlcarter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh36.dgn
$$$$$$$$SYTME$$$$$$
$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USTEREN$$$$$$

DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

SCALE-1"=50'

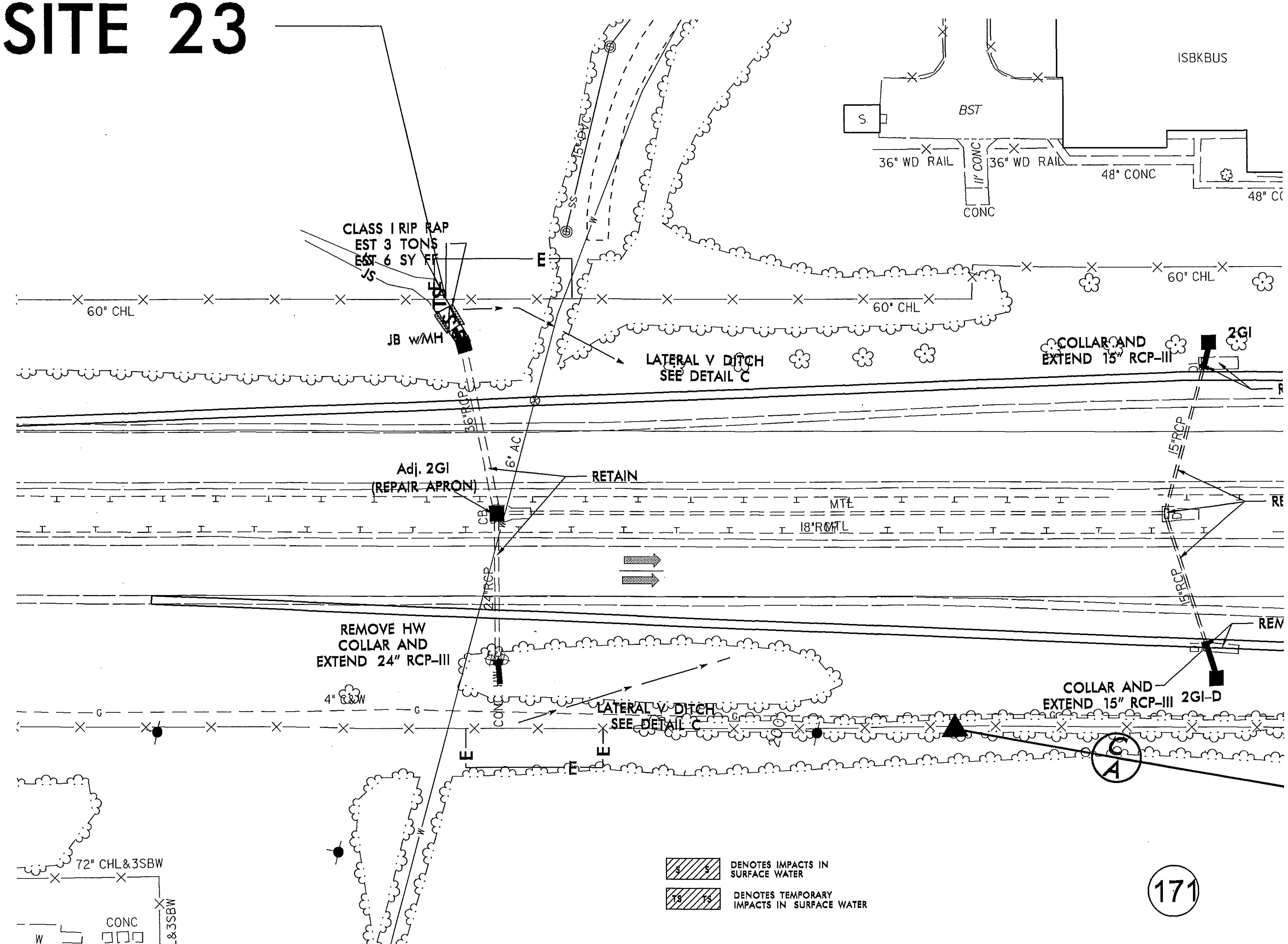
PROJECT REFERENCE NO.	SHEET NO.
R2303D	36B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 72 of 79

SITE 23



171

8/17/99

10/3/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh36B.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303D	37_PSH
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 73 of 79

SITE 24

REVISIONS

8/17/99

DENOTES IMPACTS IN SURFACE WATER

50' 0' 50'

SCALE 1"=50'

10/2/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh37.dgn

PROJECT REFERENCE NO.	SHEET NO.
R2303D	37_PSH
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 24 of 79

SITE 24

REVISIONS

8/17/99

CLASS I RIP RAP
EST 35 TONS
EST 20 SY FF

24" RCP
42" RCP-III
FW
3612
3613
18" WMH
MTL
RETAIN
TRENCHLESS INSTALLATION
42" WELDED STEEL
15"RCP
18"RCP
COLLAR AND
EXTEND 15" RCP-III
3322
REMOVE
3323
261-A
CAT-1
24" RCP-III
3610
3611
18" RCP-IV
SPECIAL LATERAL V. DITCH
SEE DETAIL C
18" RCP-III
3321
3324
60' CML
END SBG
STA 45+70 -Y52- RT
CONC
GR
182
183
72' CHL&3SBW
ISFBUS
SCALE
SILO
CANOPY
ISBKBUS
ISFD
ISBKD
POOL
36" BLK WALL
15" CMP
24" GALV
DENOTES IMPACTS IN SURFACE WATER
50' 0' 50'
SCALE 1"=50'

10/3/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh37.dgn
$$$$$$$$SYTME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R2303D	37B
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SITE 24

Permit Drawing
Sheet 75 of 79

REVISIONS 8/17/99

20' CONC
56" BK WALL
G
183
2SBKD
WD DK
CONC
48" CHL
12" BK WALL
CONC
POOL
CONC
48" WD
CHL
183
CLASS I RIP RAP
EST 35 TONS
EST 20 SY FF
JS
JS
PDE
24" RCP-III
42" RCP-III
S
HW
CONE BARR
3612
3613
JB w/MH
JB w/MH
MTL
MTL
24"RCP
RETAIN
TRENCHLESS INSTALLATION
42" WELDED STEEL
18"RCP
MTL
MTL
RETAIN
24"RCP
3610
2GI-A
CAT-1
2GI-A
24" RCP-III
2GI-A
3611
24" RCP-III
60" CHL
24" RCP-III
3324
42" RCP-III
REMOVE
60" CHL
SPECIAL LATERAL V DITCH
SEE DETAIL C
15"RCP
RETAIN
24"RCP
G
G
G
15"RCP
CB
W
TC
W
TC
15" CMP
TC
W
W/LT
W/LT
72" CHL&3SBW
30" C&G
33' BST
30" C&G
30" C&G
96" CONC
FLAG POLE
30" C&G
TC
30" C&G
30" C&G
BST
30" C&G
72" CHL&3SBW
DENOTES IMPACTS IN SURFACE WATER
2" GAL V.
3SBW
72" CHL&3SBW
SOIL
ISFD
WD DK
25' 0' 25'
SCALE: 1"=25'

10/2/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D_Hyd_prm_wet_psh37B.dgn
$$$$SYSTIME$$$$
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 76 of 79

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
6	ANN T. STRICKLAND	4200 HWY. 24 ROSEBORO, NC 28328
30	JEFF C. GRAHAM	428 FLEET COOPER RD. CLINTON, NC 28382
37	MARIE FISHER PARKER	5814 ROSEBORO HWY. ROSEBORO, NC 28382
44	FOY SHELTON THORNTON	1323 GOVERNOR MOORE RD. CLINTON, NC 28328
47	CECELIA A. PRITCHARD	P.O. BOX 3521 ASHEBORO, NC 27204
48	WILLIAM H. POPE	5130 ROSEBORO HWY. CLINTON, NC 28328
49	SIDNEY D. POPE	512 CONCORD SCHOOL RD. CLINTON, NC 28328
53	MARGARET L. FISHER	P.O. BOX 548 ROSEBORO, NC 28382
54	MARGARET C. FISHER	523 FRANCKTOWN RD. RICHLANDS, NC 28574
56	JESSE MARSHBURN II	503 COHARIE DR. CLINTON, NC 28328

NCDOT
DIVISION OF HIGHWAYS
SAMPSON COUNTY
PROJECT: 34416.1.1 (R-2303D)
CLINTON
NC 24 FROM SR 1303
TO US 421-701 / SR 1296

SHEET OF 4/21/11

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
81	HENRY D. SURLES	1843 FLEET COOPER RD. ROSEBORO, NC 28382
82	ROBERT A. BOONE	106 SANDY CREEK DR. SANDY CREEK, NC 28451
88	WILBERT O. BROWN	2510 BASS LAKE RD. ROSEBORO, NC 28382
89	JOHNNY F. PATTERSON	686 DIXIE RD. CLINTON, NC 28328
??	CHURCH OF GOD PROPHECY	3497 ROSEBORO HWY. CLINTON, NC 28328
93	JAMES BUTLER, ETUX.	
95	LONNIE W. GLASPIE	208 OAKMONT DR. CLINTON, NC 28328
97	THE NATURE CONSERVANCY	ONE UNIVERSITY PLAZA, SUITE 290 DURHAM, NC 27707
98	JACK B. GRIFFIN	2550 ROSEBORO HWY. CLINTON, NC 28328
99	COHARIE, INC.	P.O. BOX 860 CLINTON, NC 28328

NCDOT
DIVISION OF HIGHWAYS
SAMPSON COUNTY
PROJECT: 34416.1.1 (R-2303D)
CLINTON
NC 24 FROM SR 1303
TO US 421-701 / SR 1296

SHEET OF 4/21/11

PROPERTY OWNERS
NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
146	K.E. AUSTIN, CORP.	3301 BURNT MILL DR. WILMINGTON, NC 28403
149	FAIRCLOTH FAMILES PROPERTIES, LLC	1301 SE 10TH ST. BENTONVILLE, AR 72716
??	LOUIS TODD BREWER	

NCDOT
DIVISION OF HIGHWAYS
SAMPSON COUNTY
PROJECT: 34416.1.1 (R-2303D)
CLINTON
NC 24 FROM SR 1303
TO US 421-701 / SR 1296

SHEET OF 4/21/11

REVISIONS
8/17/99

9/20/2012
amkeeter
R:\Hydraulics\PERMITS_Environmental\Drawings\R2303D Hyd prm wet PROPOWNERS.dgn
$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$
$$$$$$DGNSETS$$$$$$

WETLAND PERMIT IMPACT 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	1106+95 to 1110+17-L-LT	Fill	0.16			0.24						
2	1106+68 to 1110+21-L-	Fill / RCBC	0.63			0.12		0.02	<0.01	171.00	22.00	
		Bank Stabilzation						<0.01				
3	1163+26 to 1167+43-L-RT	Fill	0.50			0.09						
4	1169+69 to 1176+07-L-RT	Fill	1.23			0.12						
5	1169+59 to 1172+52-L-LT	Fill	0.06		0.02	0.07						
6	1197+30 to 1197+97-L-LT	Fill	0.07		0.01	0.02		<0.01	0.01	35.00	11.00	
7	1199+32 to 1201+65-L-RT	Fill	0.06		0.01	0.03		<0.01	<0.01	33.00	16.00	
8	1204+71 to 1205+18-L-RT	Fill	0.02			<0.01						
9	1207+46 to 1207+80-L-RT	Fill	<0.01			<0.01						
10	1222+18 to 1225+09-L-LT	Fill	0.35			0.07						
11	1221+04 to 1225+66-L-RT	Fill	0.28			0.09						
TOTALS:			3.36		0.04	0.85		0.03	0.01	239.00	49.00	

Permit Drawing
Sheet 77 of 79

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND / SAMPSON COUNTY
WBS - XXXXX.1.1 (R-2303D)

SHEET 1/25/2013

ATN Revised 3/31/05

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
12	1224+08 to 1224+64-L-	RCBC			0.02	0.08		0.04	0.01	296.00		
		Bank Stablization						0.01		66.00		
13	1278+32 to 1281+53-L-	66" RCP						0.03	<0.01	411.00	10.00	
		Bank Stablization						<0.01		43.00		
14	1289+68 to 1291+91-L-	Fill / 60" RCP	0.02		<0.01	0.03		0.08	<0.01	287.00	20.00	
		Bank Stablization						0.01		30.00		
15	1292+13 to 1299+88-L-RT	Fill / 72" RCP	1.35		0.02	0.16		0.06	<0.01	120.00	20.00	
		Bank Stablization				0.02		0.01		29.00		
16	1295+68 to 1297+37-L-LT	Fill	0.07			0.04						
*	1292+00 to 1294+59-L-LT	Fill			0.25			0.35				
17	1303+81 to 1304+67-L-RT	Pond						0.02				
18	1301+67 to 1321+13-L-	Bridge	1.14	0.33		0.29	2.00					
TOTALS:			2.58	0.33	0.30	0.62	2.00	0.61	0.04	1282.00	50.00	

SITE 16* EXCAVATION IS A MITIGATION

Permit Drawing
Sheet 78 of 79

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND / SAMPSON COUNTY
WBS - XXXXX.1.1 (R-2303D)

SHEET 1/25/2013

ATN Revised 3/31/05

WETLAND PERMIT IMPACT 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)
19	1321+64 to 1329+01-L-	Bridge	0.41			0.20	0.20					
*	1324+00 to 1325+65-L-LT	Fill			0.10							
20	1391+00-L-LT	RCP						<0.01		29.00		
		Bank Stablization						<0.01		15.00		
21	SR1	Fill	0.36			0.08						
22	1444+00-L-LT	72" RCP						0.02		110.00		
		Bank Stablization						<0.01		61.00		
	12+22 to 12+69-Y53-LT	72" RCP						0.01	<0.01	56.00	25.00	56.00
		Bank Stablization						<0.01		28.00		
23	17+40-Y52-LT	36" RCP						<0.01	<0.01	9.00	8.00	
		Bank Stablization						<0.01		10.00		
24	52+66-Y52-LT	42" STEEL						<0.01		17.00		
		Bank Stablization						<0.01		9.00		
TOTALS:			0.77		0.10	0.28	0.20	0.05	<0.01	344.00	33.00	56.00
		GRAND TOTAL	6.71	0.33	0.44	1.75	2.2	0.69	0.05	1865	132	56

SITE 19* EXCAVATION IS A MITIGATION

Permit Drawing
Sheet 79 of 79

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND / SAMPSON COUNTY
WBS - XXXXX.1.1 (R-2303D)

SHEET 1/25/2013

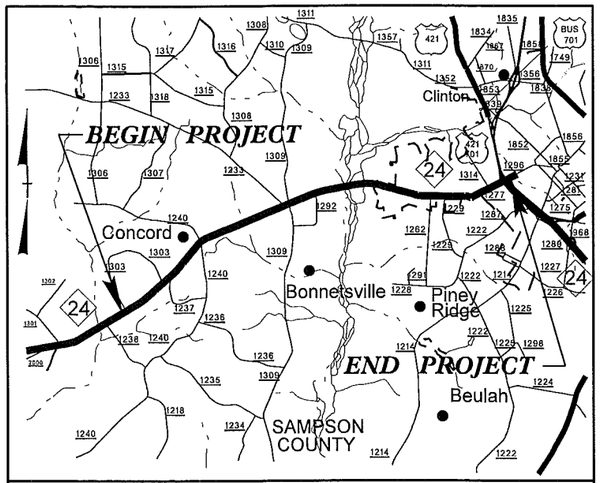
ATN Revised 3/31/05

09/28/99

TIP PROJECT: R-2303D

CONTRACT:

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SAMPSON COUNTY

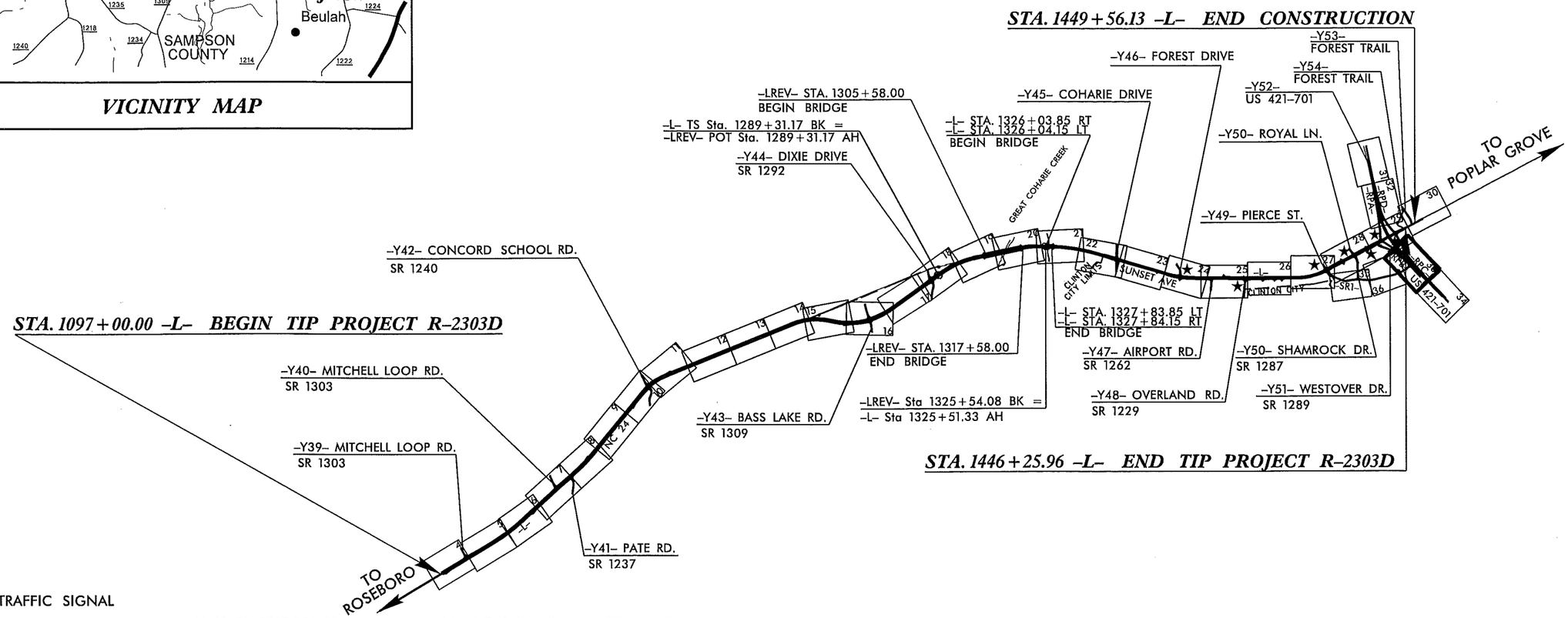
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303D	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34416.1.1		PE
34416.2.5		R/W, UTIL.

LOCATION: NC 24 FROM SR 1303 (MITCHELL LOOP ROAD) TO US 421-701/SR 1296 (SUNSET AVENUE)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, RESURFACING, CURB & GUTTER, SIGNALS, AND STRUCTURES

NAD 83/95



★ TRAFFIC SIGNAL

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
PORTIONS OF THIS PROJECT ARE WITHIN THE TOWN LIMITS OF BELVOIR & LITTLE COHAIRE AND CITY LIMITS OF CLINTON.
THIS IS A LIMITED AND PARTIAL CONTROL OF ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE POINTS AS SHOWN ON THE PLANS.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2013 = 40480
ADT 2033 = 59680
DHV = 11 %
D = 55 %
T = 8 % *
V (SHOULDER) = 60 MPH
V (CURB & GUTTER) = 50 MPH
* (TTST 5% + DUAL 3%)
FUNC. CLASS = ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2303D = 6.35 MILES
LENGTH STRUCTURES TIP PROJECT R-2303D = 0.26 MILES
TOTAL LENGTH TIP PROJECT R-2303D = 6.61 MILES

Prepared In the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JUNE 30, 2011

LETTING DATE: JUNE 18, 2013

GREG BREW, PE
PROJECT ENGINEER

WAYNE BEST
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

P.E.
STATE HIGHWAY DESIGN ENGINEER

15-MAY-2012 11:54
R:\Roadway\Proj\r2303d_rdy_tsh.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR –L– PROFILE SEE SHEET 37
FOR –Y39– PROFILE SEE SHEET 53

264/424
132/212 –Y39– SR 1302 132/212
12688/19408 –L– US 24 12688/19408
2013 ADT
2033 ADT

NAD 83/95

FROM –L– STA. 1095+47.50 LT
TO –L– STA. 1098+58.46 LT
THE R/W WILL BE PURCHASED
UNDER R-2303C

STA. 1097+00.00 –L– BEGIN TIP PROJECT R-2303D

R/W ACQUIRED UNDER R-2303C

R/W ACQUIRED UNDER R-2303C

-Y39- POT Sta. 10+00.00

BEGIN CONSTRUCTION
-Y39- POT Sta. 11+84.96

BEGIN SBC 1106+00 -L- RT.

-Y39- POT Sta. 14+00.00
-L- POT Sta. 1106+15.89

MATCH LINE -L- STA 1107+50 SEE SHEET 5

-L- N 59° 09' 28.5" E

-BL- 146

1 GREGORY LYMAN GRIFFIN DB 1080 PG 696

2 JOSEPH ROBERT MILLER DB 1716 PG 71

3 JEWELL SESSOMS DB 1066 PG 177 DB 1575 PG 952 DB 1575 PG 964 DB 1576 PG 848

3A JEWELL SESSOMS DB 1576 PG 818

3B JEFFREY LUCAS, ET AL DB 1327 PG 302

4 RAEFORD HORNE DB 885 PG 13

5 ROBERT BUTLER DB 1535 PG 405

6 CHERYL SIMMONS DB 1318 PG 127

7 WILLIAM HARRIS DB 1575 PG 982

8 STANLEY S. SMITH DB 1771 PG 820

8A PATRICK DUDLEY NEAL DB 1773 PG 296

8C WILLIAM H. HARRIS LINDA T. HARRIS DB 906 PG 509 DB 1576 PG 815 PB 52 PG 29

ROSA DEAVER BEST DB 1528 PG 838

KENNETH R. GAUTIER DB 906 PG 763 DB 1016 PG 147 DB 1575 PG 978 PB 52 PG 29

JEFFREY POPE DB 824 PG 751

MILLARD T. OWEN, III DB 135 PG 904 MB 34 PG 31

RAEFORD HORNE DB 885 PG 13

ROBERT BUTLER DB 1535 PG 405

WILLIAM H. HARRIS LINDA T. HARRIS DB 906 PG 509 DB 1576 PG 815 PB 52 PG 29

JEWELL SESSOMS DB 1576 PG 818

N 59° 59' 03" E 251.31'

N 59° 03' 57" E 464.54'

S 31° 43' 28" E 268.21'

S 31° 57' 00" E 553.22'

S 28° 41' 19" E

S 37° 08' 18" E 230.53'

S 53° 20' 31" E 264.63'

S 53° 20' 31" E 193.83'

S 53° 20' 31" E 146.28'

S 53° 20' 31" E 40.86'

S 53° 20' 31" E 78.90'

S 53° 20' 31" E 156.60'

S 53° 20' 31" E 257.07'

S 53° 20' 31" E 391.77'

S 53° 20' 31" E 393.35'

S 32° 42' 15" E 544.68'

S 31° 08' 18" E 200.39'

S 60° 01' 28" W 54.4'

N 59° 04' 03" E 192.79'

POND

Property lines relocated in parcels 3A,3B & 8, parcel numbers and owner information revised for parcels 2,3A,3B,8A & 8C, access points added for parcels 2 & 4 and parcel 2 PUE changed to AUE. WAS 2/20/2012

REVISIONS 5/14/99

30-OCT-2012 15:46
R:\projects\R-2303d_rdy_psh_04.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 37

REVISIONS

5/14/99

Parcel numbers and owner information revised for parcels 8 & 8A. WAS 2/20/12

MATCH LINE -L- STA 1107+50 SEE SHEET 4

8 STANLEY S. SMITH DB 1771 PG 820

8A PATRICK DUDLEY NEAL DB 1773 PG 296

1110 1115 1120

-L- PC Sta. 1116+25.43

-L- N 59° 09' 28.5" E

-BL- 148

-BL- 149

MATCH LINE -L- STA 1121+00 SEE SHEET 6

INLET CHANNEL SEE DETAIL E EST 25 SY COIR MAT EST 6 CY EXCAVATION

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST. 115 TONS EST. 215 SY FF

CL B RIP RAP EST 1 TON EST 5 SY FF

BEGIN SBG 1107+50 -L- LT

END SBG 1110+40 -L- LT

GRAU 350

1@7'x7' RCBC

REMOVE

30" RCP-III

36" RCP-III

24" RCP-III

18" RCP-III

15" RCP-III

4' x 3' CONC

2GI

2GI-A

FSM

EXISTING R/W

END SBG 1109+20 -L- RT

CAT-1

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST. 100 TONS EST. 185 SY FF

OUTLET CHANNEL SEE DETAIL F EST 17 TONS CLASS I EST 17 SY FF EST 7 CY EXCAVATION

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST. 65 TONS EST. 120 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST. 20 TONS EST. 40 SY FF

PUE

+20.00 -L- 100' & 110'

+50.00 -L- 100' & 110'

+75.00 -L- 100'

+10 100' & 135' LT

+25.43 -L- 100'

+25.43 -L- 105'

+15.50 -L- 121' & 131'

+35.50 -L- 121' & 131'

+89.00 -L- 121' & 131'

+09.00 -L- 121' & 131'

50'

-L-
PI Sta 1121+91.60
Δ = 11° 03' 21.5" (LT)
D = 0° 58' 45.9"
L = 1128.83'
T = 566.18'
R = 5,850.00'
Se = .03
Runoff = 150'

S 42° 08' W 1289

30-OCT-2012 16:03
R:\Roadway\Projects\2303d_rdy_psh_05.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 38

REVISIONS

5/14/99

Access point revised for parcel 8A. WAS 5/23/12

30-OCT-2012 16:10
R:\Roadway\Projects\2303d_rdy_psh_06.dgn
dessiq\DEPARTMENT\USERS

-L-
PI Sta 1121+91.60
Δ = 11° 03' 21.5" (LT)
D = 0° 58' 45.9"
L = 1128.83'
T = 566.18'
R = 5,850.00'
Se = .03
Runoff = 150'

MATCH LINE -L- STA 1121+00 SEE SHEET 5

MATCH LINE -L- STA 1134+50 SEE SHEET 7

-L- PT Sta 1127+54.26

-BL- 9

8 STANLEY S. SMITH DB 1771 PG 820

9 JAMES L. HOPE DB 1781 PG 760

10 MARION FAIRCLOTH DB 385 PG 190 DB 1089 PG 868

10 MARION FAIRCLOTH DB 1357 PG 193

9 JAMES L. HOPE DB 1781 PG 670

8A PATRICK DUDLEY NEAL DB 1773 PG 296

8B ALBERTENE GOODMAN DB 1482 PG 560

10 MARION FAIRCLOTH DB 1041 PG 590

JAMES C. NORTON ET UX DB 860 PG 420

20' EASEMENT DB 1303 PG 753

BM= 718

202.00' N19°55'28"E

379.00'

641.00' N19°55'28"E

640.89' S84°42'23"W

N23°37'32"W

N.C.DOT MON. "SSY006"

+45.00 -L- 100' & 160'

+15.00 -L- 100' & 160'

+15.00 -L- END WW FENCE

+45.00 -L- BEG. WW FENCE

+75.00 -L- 100' & 110' 120'

+02.00 -L- 110' & 120'

+15.00 -L- END WW FENCE

+54.26 -L- 100'

+15.00 -L- END WW FENCE 50'L

3' BASE DITCH SEE DETAIL G S=0.00% EST 50 TONS EST 55 SY FF EST 40 CY DDE

5' LATERAL BASE DITCH SEE DETAIL I

+70.00 -L- 110' BEG. FULL C/A END PARTIAL C/A

+35.00 -L- 110' CL B RIP RAP END PARTIAL C/A BEG. FULL C/A EST 11 SY FF

SPECIAL LATERAL V DITCH SEE DETAIL P

EXISTING R/W

ACCESS POINT

REMOVE 15" RCP

REMOVE 18" RCP

REMOVE 18" & HW

6' CONC HW

24" DR

12" DR

18" RCP

18" RCP-III

24" RCP-III

42" RCP-III

2GI

2GI-A

2GI-D

180' TAPER

45 ELEC

4' PS

FSM

CONC

SOIL

EIP

-L- N 48° 06' 07.0" E

S 17° 04' 38" E 460.55'

S 23° 21' 58" E 238.90'

S 71° 25' 08" W 310.00'

S 57° 47' 09" W 366.80'

S 48° 35' 01" W 118.29'

S 32° 40' 23" E 71.50'

S 32° 40' 22" E 200.00'

S 18° 27' 34" E 151.67'

S 76° 57' 19" W 130.00'

S 57° 39' 38" W 79.51'

+60 -L- END WW FENCE

+62.00 -L- END WW FENCE

+22.00 LT -L- END WW FENCE

+06.50 -L- 121' & 131'

+09.50 -L- 121' & 131'

+29.50 -L- 121' & 131'

+54.26 -L- 105' & 115'

+86.50 -L- 121' & 131'

+20 -L- BEG. WW FENCE

+48 -L- 121' & 131' RT

+68 -L- 121' & 131' RT

+35 -L- 121' RT

+35.00 -L- 115' & 135' END PARTIAL C/A BEG. FULL C/A

+55.00 -L- 105' 121' & 135' END FULL C/A BEG. PARTIAL C/A

+55.00 -L- 155'

+25.00 -L- BEG. WW FENCE

+55.00 -L- END WW FENCE

SPECIAL BERM DITCH SEE DETAIL H

PUE

121' DR

REVISIONS

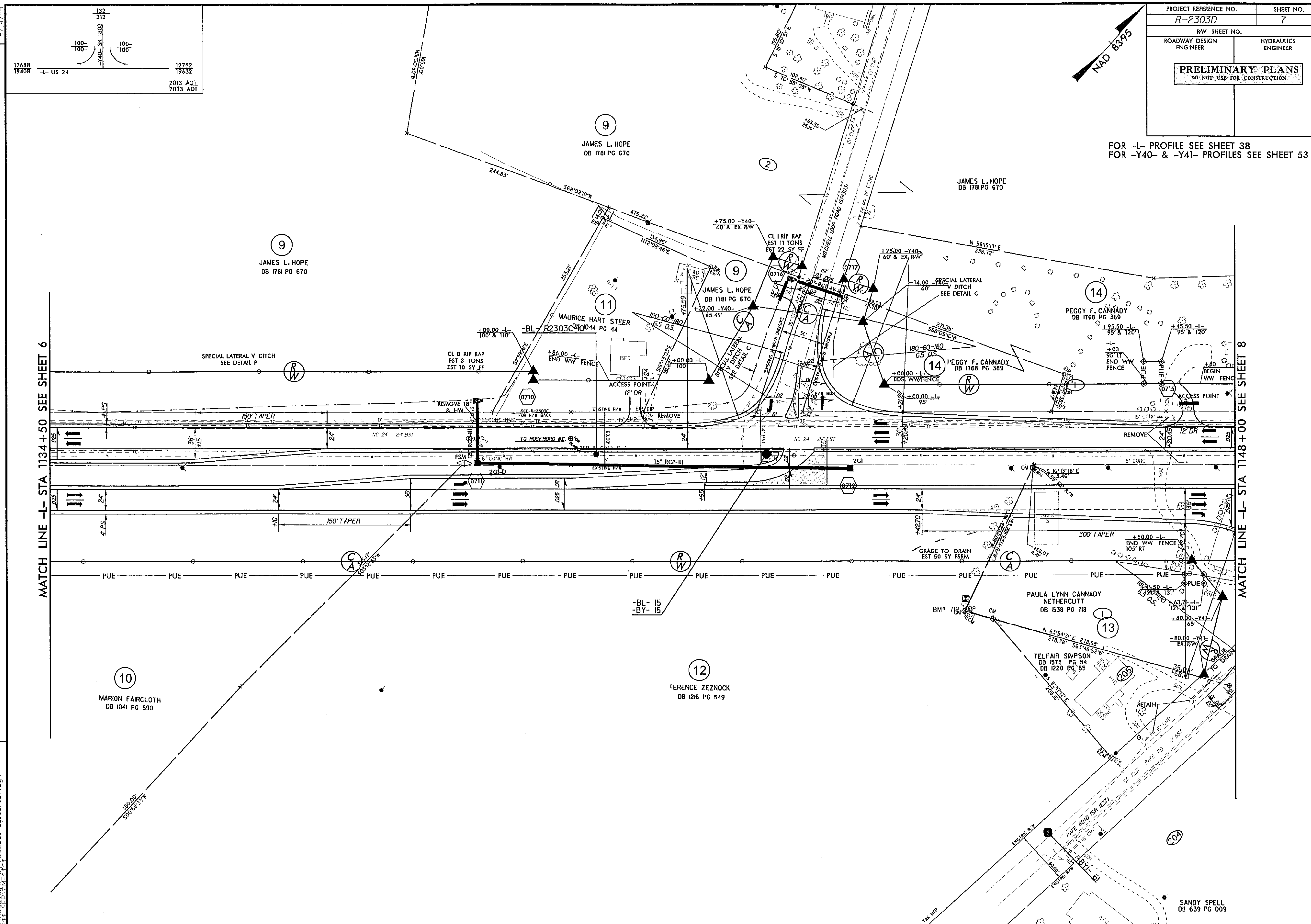
Property lines relocated in parcels 12,13 & 14, parcel numbers and owner information revised for parcels 9,12,13 & 14. WAS 2/20/12

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 38
FOR -Y40- & -Y41- PROFILES SEE SHEET 53

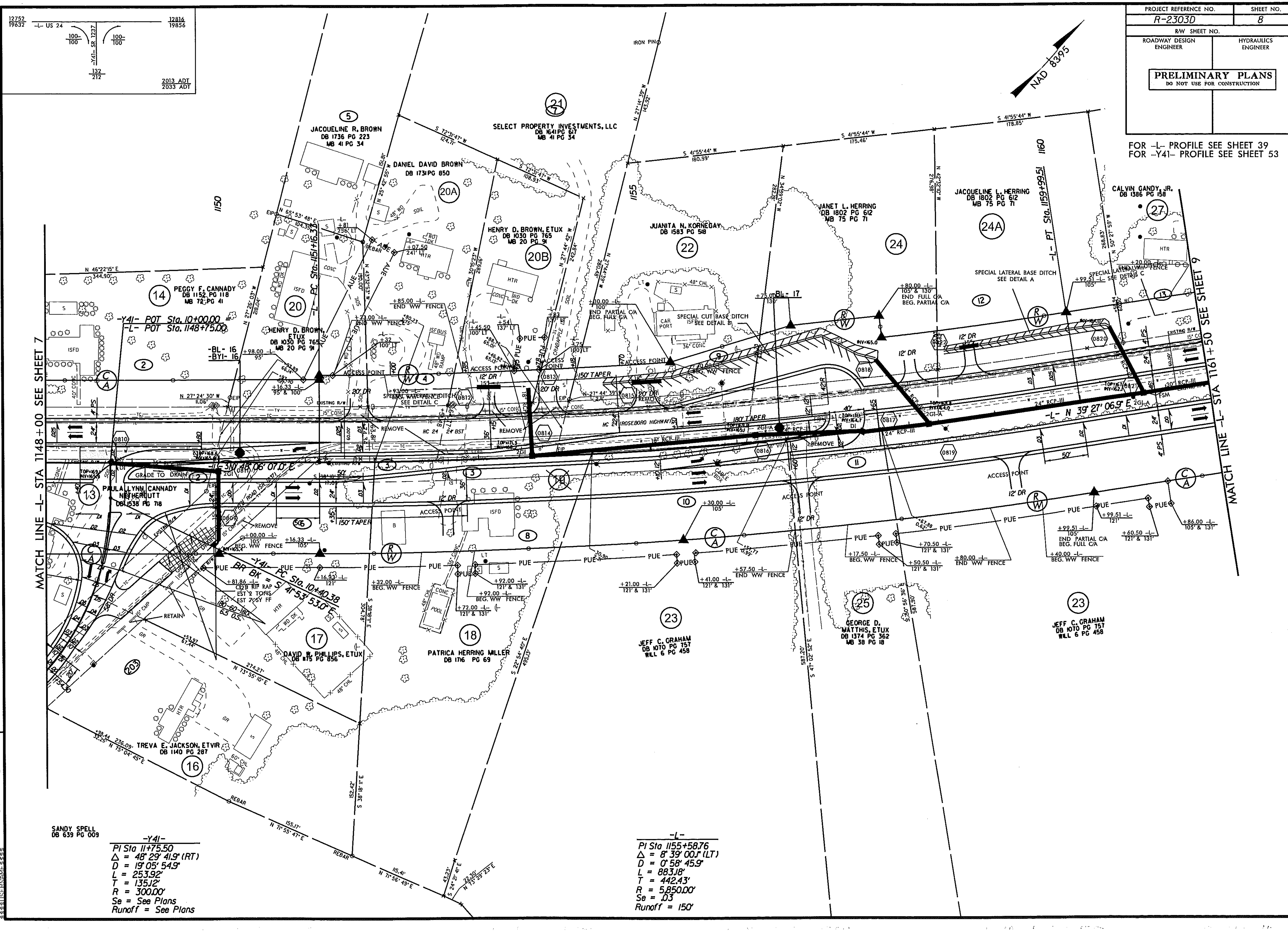


31-OCT-2012 15:37
R:\Roadway\Proj\r2303d_rdy_psh_07.dgn

5/14/99

REVISIONS

R/W REV: Added driveway access for Parcel 24 and 24A WTB 10/23/12



23-OCT-2012 11:54
R:\Roadway\Proj\r2303d_rdy_psh_08.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 39

REVISIONS

5/14/99

R/W Rev.: Revised Property Owner's Name Parcel 30. Added additional deed book information and removed existing property line Parcel 32. WTB 8/31/12

MATCH LINE -L- STA 1161+50 SEE SHEET 8

MATCH LINE -L- STA 1175+00 SEE SHEET 10

ANNIE GRAHAM HEIRS
DB 935 PG 483

MICHAEL A. FISHER
DB 1096 PG 273

CALVIN GANDY, JR.
DB 1386 PG 158

WILLIAM PETERSON
DB 904 PG 586

BERTHA P. FISHER
DB 941 PG 702
DB 904 PG 603

JOHN D. MOORE
DB 904 PG 608
DB 941 PG 581

JOYCE ANNE SAMPSON
DB 1802 PG 606

JUDY KAREN DAVIS
DB 1802 PG 609

EVERETT LEE SMITH, ETUX
DB 816 PG 634
MB 5 PG 80

JEFF C. GRAHAM
DB 1070 PG 757
WILL 6 PG 458

ROBERT D. POPE, ETUX
DB 740 PG 550
MB 5 PG 80
MB 28 PG 98

BEGIN SBG 1163+00 -L- RT

END SBG 1173+00 -L-

NC 24 (ROSEBORO HIGHWAY)

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 150 TONS EST 270 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 230 TONS EST 410 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 380 TONS EST 700 SY FF

CL I RIP RAP EST. 40 TONS EST. 75 SY FF

PSH SEE DETAIL

SPECIAL LATERAL V DITCH SEE DETAIL C

SPECIAL LATERAL V DITCH SEE DETAIL D

SPECIAL LATERAL-BASE DITCH SEE DETAIL

REMOVE 18" & HW'S

ACCESS POINT

BEG. WW FENCE

END WW FENCE

30" RCP-III

18" CONC

36" CONC

12' DR

2GI-D

2GI-A

2GI

(23) JEFF C. GRAHAM DB 1070 PG 757 WILL 6 PG 458

7:AUG-2012 13:05
R:\Roadway\R-2303d_rdy_psh_09.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 40
FOR -Y42- PROFILE SEE SHEET 54

NAD 83/95

928/1248 | 200/200 | 464/624 | 12816/19856 -L- US 24 13208/20728 | 400/400 | 528/848 | 1192/1672 -Y42- SR 1240

2013 ADT
2033 ADT

MATCH LINE INSERT A

MATCH LINE -L- STA 1175+00 SEE SHEET 9

MATCH LINE -L- STA 1188+50 SEE SHEET 11

REVISIONS

5/14/99

Parcel numbers and owner information revised for parcels 23,40,& 42. WAS 2/20/12

01-NOV-2012 11:19
R:\ROADWAY\PROJECTS\r-2303d-rdy-psh_10.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 40

REVISIONS
5/14/99
Property lines relocated in parcels 45, 46 & 47, parcel numbers and owner information revised for parcel 47. WAS 2/20/12

MATCH LINE -L- STA 1188+50 SEE SHEET 10

MATCH LINE -L- STA 1202+00 SEE SHEET 12

WILLIAM A. RICH, ETAL (TRUSTEES) DB 1258 PG 235 — 43

BLDG (ABAND)

WILLIAM H. POPE, ETUX DB 1079 PG 781, DB 949 PG 844, DB 1221 PG 044, MB 5 PG 80, MB 28 PG 98 — 45

ERNEST M. ODUM, ETUX DB 832 PG 814, DB 744 PG 612, DB 779 PG 498, MB 5 PG 80, MB 6 PG 66, DB 898 PG 658 — 51

CECELIA A. PRITCHARD DB 963 PG 609 — 44

EARNEST E. GURLEY DB 1439 PG 451 — 46

ROBERT T. LITTLE DB 1229 PG 5 — 47

-BL- 22

-BL- 23

NC 24 (ROSEBORO HIGHWAY)

BEGIN SBC STA 1197+35 -L- RT

S 81° 21' 09" E 577.31'

N 15° 27' 14" W 390.79'

N 24° 42' 46" W 20.00'

N 39° 29' 42" W 55.00'

N 15° 40' 23" W 246.90'

N 16° 50' 46" E 12.65'

N 78° 31' 03" E 216.59'

N 15° 50' 42" W 39.62'

N 49° 39' 52" W 57.20'

318.47' N 57° 37' 18" E

12.12' +11.79

11.56' 38.25'

LATERAL BASE DITCH SEE DETAIL A

3' BASE DITCH SEE DETAIL G EST. 50 TONS EST. 60 SY FF EST. 30 CY DDE

3' OUTLET CHANNEL SEE DETAIL J EST 55 TONS CLASS I EST 70 SY FF EST 20 CY EXCAVATION

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 30 TONS EST 60 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 25 TONS EST 50 SY FF

SPECIAL LATERAL V DITCH SEE DETAIL C

4' BASE CHANNEL SEE DETAIL K EST 5 TONS CLASS B EST 14 SY FF EST 5 CY EXCAVATION

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 150 TONS EST 240 SY FF

CL B RIP RAP EST 1 TON EST 5 SY FF

PSH SEE DETAIL

REMOVE 30" & HW

REMOVE 18" & HW

REMOVE

7 PLUG & FILL

STD BERM DITCH BEGIN STA 1201+65 LT

03-NOV-2017 09:44
R:\Roadway\Projects\R-2303d_rdy_psh_11.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 41

REVISIONS

5/14/99

Property lines relocated in parcels 47 & 48, parcel numbers and owner information revised for parcels 51 & 52. WAS 2/20/12

MATCH LINE -L- STA 1202+00 SEE SHEET 11

MATCH LINE -L- STA 1215+50 SEE SHEET 13

51
ERNEST M. ODUM, ETUX
DB 1132 PG 814
DB 744 PG 612
DB 779 PG 498
MB 5 PG 80
MB 6 PG 66
DB 898 PG 658

47
ROBERT T. LITTLE
DB 1439 PG 451

48
LARRY J. KING
DB 1280 PG 345

49
HUBERT N. CRUMPLER
DB 1129 PG 978

50
MICHAEL K. ODUM
DB 1459 PG 481
MB 42 PG 96

51
ERNEST M. ODUM, ETUX
DB 1132 PG 814
DB 744 PG 612
DB 779 PG 498
MB 5 PG 80
MB 6 PG 66
DB 898 PG 658

52
JAMIE D. GODWIN, ET UX
DB 1768 PG 921

53
ASHLEY V. ODUM
DB 1452 PG 904
MB 6 PG 66

44
CECELIA A. PRITCHARD
DB 963 PG 609

-BL- 24

-BL- 25

N 78° 36' 37" E 172.04'
N 73° 18' 18" E 185.35'
N 80° 19' 23" E 19.14'
N 12°59'02" W 471.44'
N 12°59'02" W 486.58'
N 12°58'06" W 462.45'
N 83°40'27" E 156.43'
N 83° 38' 21" E 270.59'
N 79°00' 40" E 270.59'

SPECIAL LATERAL V DITCH SEE DETAIL C

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 20 TONS EST 40 SY FF

Energy Dissipator SEE DETAIL 5 Basin #1 EST 30 TONS EST 25 SY FF EST 7 CY Excav

CL B RIP RAP EST 1 TON EST 5 SY FF

GRADE TO DRAIN

ACCESS POINT

-L- ±00 126' LT

-L- ±00 100' & 110' RT

-L- +70 END WW FENCE

-L- ±30 BEGIN WW FENCE

-L- +90 BEGIN WW FENCE

-L- +85 110' LT END WW FENCE

-L- +20 BEGIN WW FENCE

-L- +41 END WW FENCE

END SBG STA 1202+50 -L- RT

END STA 1203+00 LT

24" RCP-III

18" RCP-III

PLUG & FILL

REMOVE

ISFD

ISFD (ABAND)

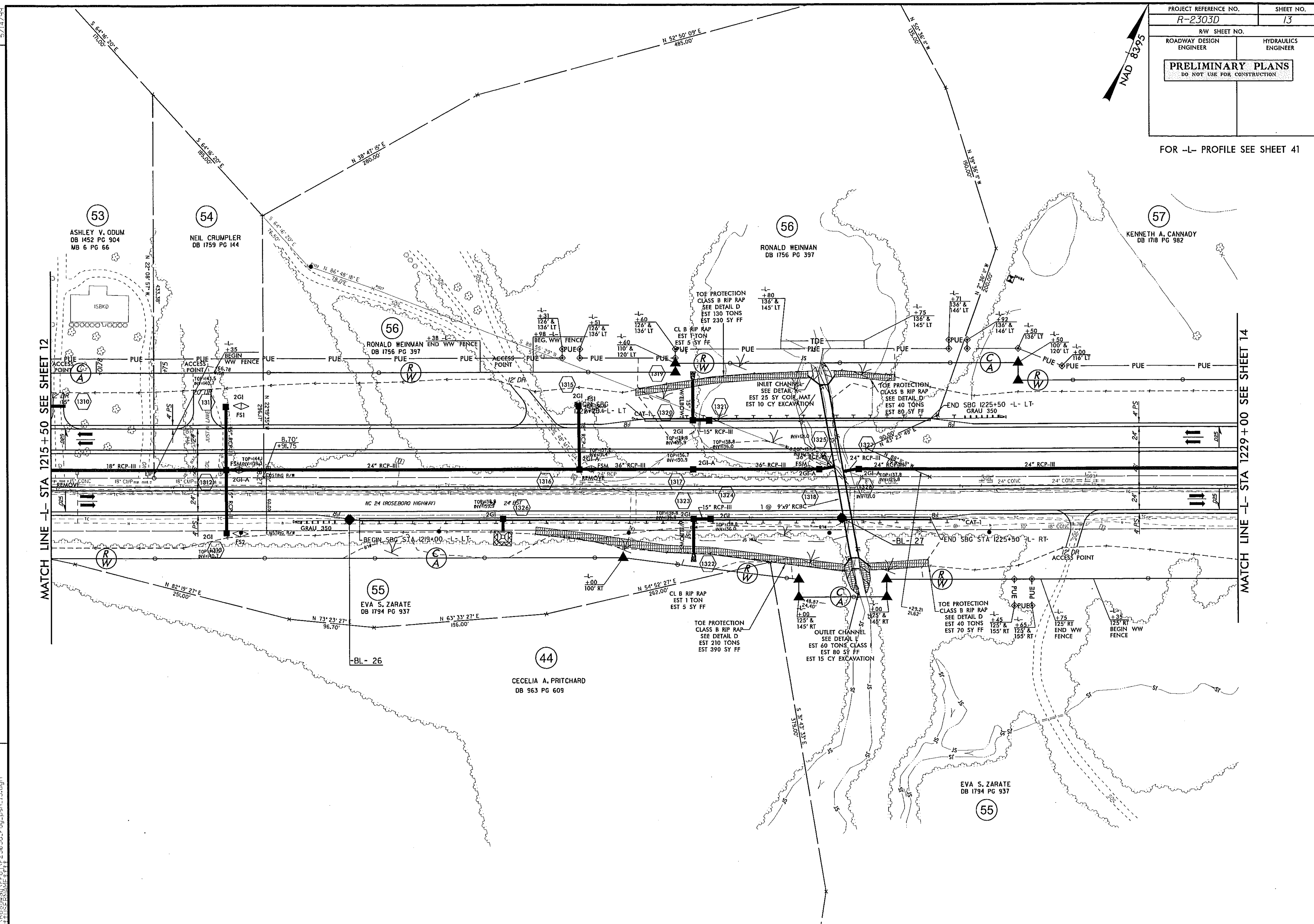
FOR -L- PROFILE SEE SHEET 41

02-NOV-2012 09:44
R:\Roadway\Projects\2303d_rdy_psh_12.dgn
USER:cpeterson
FILE USED:R2303d_rdy_psh_12.dgn

5/14/99

REVISIONS

Property lines relocated in parcels 54 & 56, parcel numbers and owner information revised for parcels 54, 55, 56 & 57 and access points added for parcel 56. WAS 2/20/12



02-NOV-2012 09:44
R:\Roadway\Proj\r2303d_rdy_psh_13.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 42

REVISIONS

5/14/99

Property lines relocated in parcels 55, 56A & 60 and access points added for parcel 57. WAS 2/20/12

owner information revised for parcels 55, 56A & 60 and access points added for parcel 57. WAS 2/20/12

MATCH LINE -L- STA 1229+00 SEE SHEET 13

MATCH LINE -L- STA 1242+50 SEE SHEET 15

-BL- 28

-BL- 29

57 KENNETH A. CANNADY DB 1718 PG 982

63 EUGENE CRUMPLER DB 768 PG 488

61 ANN T. STRICKLAND DB 953 PG 363

JOHNNY M. PARKER, ETUX DB 1203 PG 543

60

58 ROBERT LEWIS CANNADY DB 1613 PG 491

58 ROBERT L. CANNADY, ETUX DB 963 PG 291

58A ROBERT L. CANNADY DB 1267 PG 792

55 EVA S. ZARATE DB 1794 PG 937

DONALD R. CLACK, ETUX DB 871 PG 694 DB 963 PG 294

59

62

DORIS F. VONCANNON DB 1564 PG 710

CHORD

ACCESS POINT

BEGIN WW FENCE

END WW FENCE

STD BERM DITCH WW FENCE FROM STA 1232+10 TO STA 1235+50 -L- LT

GRADE TO DRAIN

12' DR

24" RCP-III

15" RCP-III

18" RCP-III

15" CONC

FSM

FS1

FS2

2GI

2GI-A

2GI-D

EXISTING R/W

NC 24 24' BST

NC 24 (ROSEBORO HIGHWAY)

REMOVE CONC

ISBK

CONC

ISFD

CAR PORT

HTR

S 28° 26' 15" W 189.46'

S 85° 33' 45" E 871.00'

N 68° 02' 13" E 156.38'

N 68° 58' 30" E 74.39'

N 5° 33' 44" W 18.03'

N 22° 24' 27" W 198.26'

N 5° 29' 40" W 822.23'

N 67° 27' 42" E 129.71'

N 80° 28' 19" E 55.00'

N 72° 31' 44" E 137.10'

S 4° 40' 22" E 96.83'

S 3° 46' 48" E 107.86'

S 3° 46' 48" E 165.40'

N 68° 50' 03" E 36.40'

S 3° 49' 45" W 205.11'

S 3° 49' 45" W 152.53'

S 3° 49' 45" W 201.27'

S 3° 49' 45" W 201.27'

N 13° 59' 55" W 95.00'

02-NOV-2012 09:45
R:\STIP\R-2303d_rdy_psh_14.dgn
R2303DSHEET14.DGN

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 42

NAD 83/95

MATCH LINE -L- STA 1242+50 SEE SHEET 14

MATCH LINE -L- STA 1256+00 SEE SHEET 16

-BL- 30

NC 24 (ROSEBORO HIGHWAY)

EUGENE CRUMPLER DB 768 PG 488 (63)

EUGENE CRUMPLER DB 792 PG 319 (63)

WILLIAM E. CRUMPLER DB 1008 PG 105 (63A)

WILLIAM E. CRUMPLER, ETAL DB 1168 PG 641

EUGENE T. CRUMPLER, ETUX DB 888 PG 322

SARAH C. DUDLEY DB 907 PG 393

ALBERT B.CRUMPLER,ETUX DB 981 PG 604

LILLIAN S. McCULLEN DB 602 PG 446

ELBERT CANNADY, ETUX DB 1335 PG 648 DB 709 PG 064 MB 1 PG 377 (68)

ELBERT CANNADY, ETUX DB 884 PG 800 MB 1 PG 377 (68)

ELBERT CANNADY, ETUX DB 957 PG 858 MB 1 PG 377 (68)

ALBERT L. CARTER, ETUX DB 1158 PG 726 DB 1356 PG 074 (67)

DORIS F. VONCANNON DB 1564 PG 710 (62)

FIRST TRACT DB 1564 PG 710

ALBERT B. CRUMPLER DB 1252 PG 676 DB 830 PG 701 (64)

WILLIAM S. GRANTHAM DB 1509 PG 87 (64A)

DONNIE M. AUTRY, ETAL DB 1068 PG 843 (65)

EVA S. ZARATE DB 1794 PG 937 (55)

DIANNA G. WOOD DB 1260 PG 578 (71)

2' LATERAL BASE DITCH SEE DETAIL A

5' BASE DITCH SEE DETAIL M EST 80 TONS EST 100 SY FF EST 60 CY EXCAV

5' LATERAL BASE DITCH SEE DETAIL I

5' OUTLET DITCH SEE DETAIL M EST 80 TONS CLASS I EST 100 SY FF EST 60 CY EXCAV

5' BASE DITCH CLEANOUT SEE DETAIL N S=0.00% EST 360 SY PSRM EST 270 CY EXCAV

CL I RIP RAP EST 11 TONS EST 22 SY FF

15" RCP-III

180' TAPER

REVISIONS

R/W Rev.:Removed errant property line from Parcel 63. WTB 8/31/12

5/14/99

02-NOV-2012 09:45
R:\R-2303d_rdy_psh_15.dgn
PSHEET
USERNAME

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	15
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 42

NAD 83/95

MATCH LINE -L- STA 1242+50 SEE SHEET 14

MATCH LINE -L- STA 1256+00 SEE SHEET 16

-L- SR5 Sta 1242+68.36

-L- SR5 Sta 1250+28.36

CS Sta 1247+48.36

-BL- 30

NC 24 (ROSEBORO HIGHWAY)

EUGENE CRUMPLER DB 768 PG 488 (63)

EUGENE CRUMPLER DB 792 PG 349 (63)

WILLIAM E. CRUMPLER DB 1008 PG 105 (63A)

WILLIAM E. CRUMPLER, ETAL DB 868 PG 641

EUGENE T. CRUMPLER, ETUX DB 888 PG 322

SARAH C. DUDLEY DB 907 PG 393

ALBERT B. CRUMPLER, ETUX DB 981 PG 604

LILLIAN S. McCULLEN DB 602 PG 446

ELBERT CANNADY, ETUX DB 1335 PG 648 DB 709 PG 064 WB 1 PG 377 (68)

ELBERT CANNADY, ETUX DB 884 PG 800 WB 1 PG 377 (68)

ELBERT CANNADY, ETUX DB 957 PG 858 WB 1 PG 377 (68)

ALBERT L. CARTER, ETUX DB 1158 PG 726 DB 1356 PG 074 (67)

DORIS F. VONCANNON DB 1564 PG 710 (62)

FIRST TRACT DB 1564 PG 710

ALBERT B. CRUMPLER DB 1252 PG 676 DB 830 PG 701 (64)

WILLIAM S. GRANTHAM DB 1509 PG 87 (64A)

DONNIE M. AUTRY, ETAL DB 1068 PG 843 (65)

EVA S. ZARATE DB 1794 PG 937 (55)

DIANNA G. WOOD DB 1260 PG 578 (71)

2' LATERAL BASE DITCH SEE DETAIL A

5' BASE DITCH SEE DETAIL M EST 80 TONS EST 100 SY FF EST 60 CY EXCAV

5' OUTLET DITCH SEE DETAIL M EST 80 TONS CLASS I EST 100 SY FF EST 60 CY EXCAV

5' BASE DITCH CLEANOUT SEE DETAIL N S=0.00% EST 360 SY FSRM EST 270 CY EXCAV

5' LATERAL BASE DITCH SEE DETAIL I

CL I RIP RAP EST 11 TONS EST 22 SY FF

GRADE TO DRAIN

RETAIN

REMOVE 36"-12" RCP

REMOVE

ACCESS POINT

12' DR ACCESS POINT

BEGIN WW FENCE

END WW FENCE

EXIST R/W

END PARTIAL C/A BEGIN LIMITED C/A

END LIMITED C/A BEGIN FULL C/A

CHORD

180' TAPER

-L-

PI Sta 1243+64.97	PIs Sta 1248+41.75	PIs Sta 1251+88.38	PI Sta 1261+24.83
Δ = 24° 31' 13.7" (RT)	Θs = 4° 24' 26.5"	Θs = 2° 57' 48.9"	Δ = 40° 31' 30.7" (LT)
D = 3° 08' 53.2"	Ls = 280.00'	Ls = 240.00'	D = 2° 28' 10.7"
L = 778.89'	LT = 186.72'	LT = 160.02'	L = 1,640.93'
T = 395.50'	ST = 93.39'	ST = 80.02'	T = 856.47'
R = 1,820.00'			R = 2,320.00'
Se = .07			Se = .06

REVISIONS

5/14/09 R/W Rev.: Removed errant property line from Parcel 63. WTB 8/31/12

31-AUG-2012 13:07
R:\Projects\R-2303d\Roadway\Design\r-2303d_rdy_psh_15.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	16
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83-95

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR –L– PROFILE SEE SHEET 43
FOR –Y43– PROFILE SEE SHEET 54

REVISIONS

Parcel 68 R/W, TCE & access point revised. WAS 5/22/2012

MATCH LINE –L– STA 1256+00 SEE SHEET 15

MATCH LINE –L– STA 1269+50 SEE SHEET 17

JULIAN BUTLER, ETUX
DB 815 PG 496

R. B. TYNDALL, ETUX
DB 1044 PG 036

ALICE FAIRCLOTH
DB 993 PG 874

GEORGE W. RACKLEY
DB 179 PG 497

RYAN KEITH CANNADY
DB 1712 PG 935
MB 1 PG 377

MARCOS A. LUNA
DB 1768 PG 91

SAMUEL L. CANNADY, ETUX
DB 830 PG 077
MB 1 PG 377

GRAHAM G. POPE, ETUX
DB 756 PG 105
MB 1 PG 377

SAMUEL E. SPELL, ETUX
DB 857 PG 167

MARY D. WOOD
DB 1494 PG 430
DB 1025 PG 300
DB 674 PG 533

LARRY G. TYNDALL, ETUX
DB 963 PG 481
MB 1 PG 377

EVA S. ZARATE
DB 1794 PG 935

MARY D. G. WOOD, ETVIR
DB 1073 PG 491

W. RAY SINCLAIR, ETUX
DB 844 PG 280
MB 6 PG 39

DIANNA G. WOOD
DB 1260 PG 578

LYNETTE AVENUE (60' R/W)

FM CRUMPLER MB 1 PG 377

FM CRUMPLER LINE MB 1 PG 377

bearing of salemburg 1042 mbl pg 377 used to orient LUNA parcel db 1768 pg 91 bearing 180 degrees matches closing bearing db 1768 pg 91 parcel anchored to computed CL point ca274 mb pg 377

STD BERM DITCH
FROM STA 1266+00 TO STA 1271+00 – LT

BEGIN CONSTRUCTION
-Y43- POC Sta. 13+18.84

-Y43- PC Sta. 11+60.93

-Y43- PT Sta. 13+48.98

-Y43- PC Sta. 15+27.08
BRG BK S 21°41'22" E

-Y43- PC Sta. 15+45.74
-L- POC Sta. 1262+93.79

-Y43- PT Sta. 17+66.99

END CONSTRUCTION
-Y43- POT Sta. 17+60.77

-Y43- POT Sta. 10+00.00

-Y43- POT Sta. 18+60.02

-BY4- 69

TOE PROTECTION
CLASS II RIP RAP
SEE DETAIL D
EST 160 TONS
EST 300 SY FF

CL B RIP RAP
EST 5 TONS
EST 16 SY FF

CL I RIP RAP
EST 11 TONS
EST 22 SY FF

150' TAPER

-L-	
PI Sta 1261+24.83	PIs Sta 1269+89.31
Δ = 40° 31' 30.7" (LT)	Θs = 2° 57' 48.9"
D = 2° 28' 10.7"	Ls = 240.00'
L = 1,640.93'	LT = 160.02'
T = 856.47'	ST = 80.02'
R = 2,320.00'	
Se = .06	

-Y43-	
PI Sta 12+55.13	PI Sta 16+47.78
Δ = 6° 27' 49.4" (LT)	Δ = 15° 37' 14.7" (RT)
D = 4° 30' 03.0"	D = 6° 30' 39.2"
L = 188.05'	L = 239.92'
T = 94.20'	T = 120.71'
R = 1,273.00'	R = 880.00'
Se = See Plans	Se = See Plans
Runoff = See Plans	Runoff = See Plans

1920 / 2720
728 / 1048 | 928 / 1248
15128 / 23448 –L– US 24 15792 / 24272
464 / 624 | 928 / 1248
1656 / 2296
–Y43– SR 1309

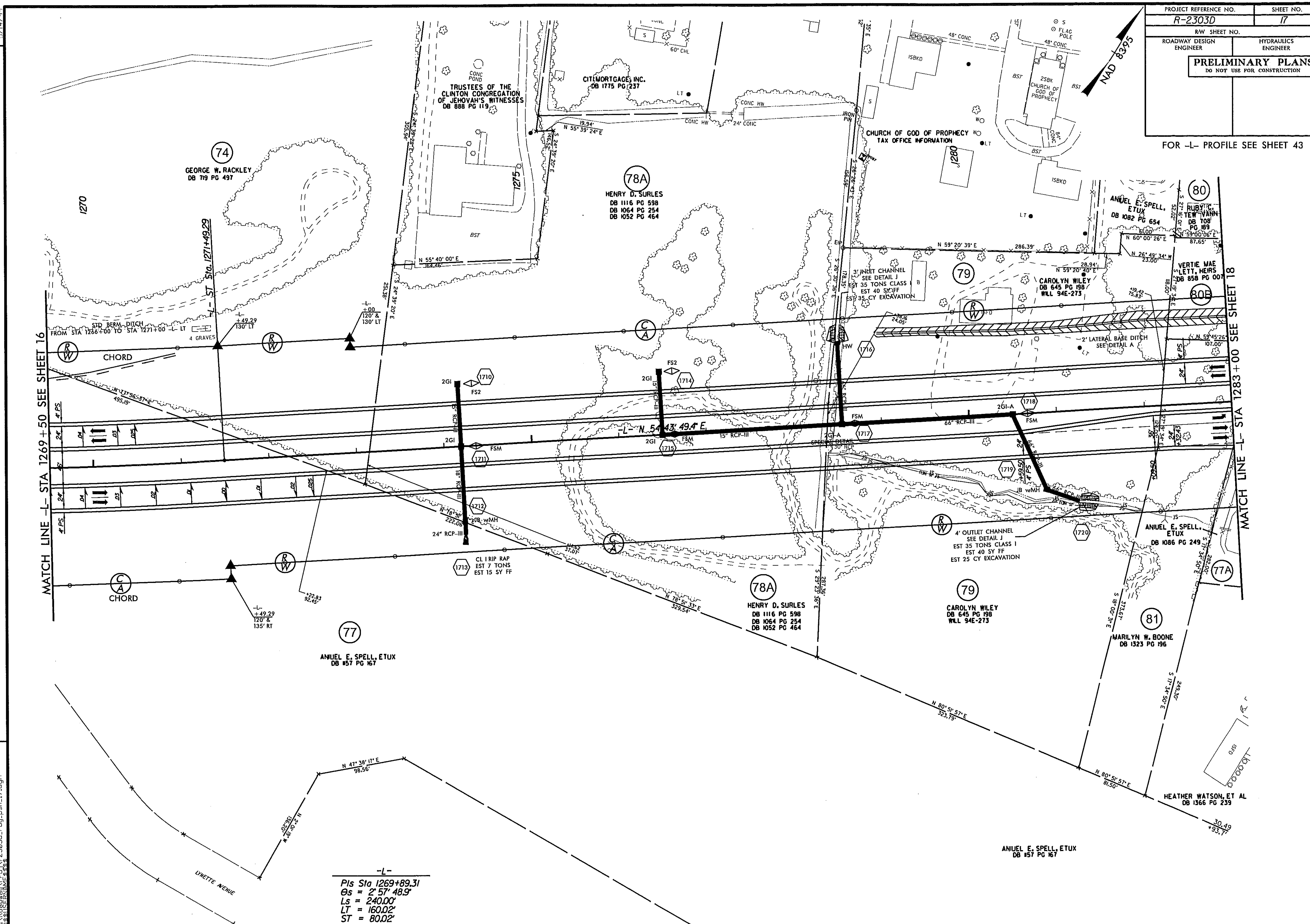
2013 ADT
2033 ADT

22-MAY-2012 14:41
R:\Projects\R-2303d\r-2303d_rdy_psh_16.dgn
$$$$USERNAME$$$$

REVISIONS

R/W Rev.: Relocated property line between Parcel 80 and 80B (new parcel). Revised property owner's name and deed book Information on Parcels 77A, 80B and 81. WTB 8/31/2012

5/14/99



31-AUG-2012 13:11
R:\Roadway\Proj\r2303d_rdy_psh_17.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	18
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR –L– PROFILE SEE SHEET 44
FOR –Y44– PROFILE SEE SHEET 55

NAD 83/95

REVISIONS
5/14/99
R/W Rev.- Relocated property line between Parcel 80 and 80B (new parcel) Revised property owner's name and deed book information on Parcels 77A and 80B. WTB 8/31/12

MATCH LINE –L– STA 1283+00 SEE SHEET 17

MATCH LINE –L– STA 1296+50 SEE SHEET 19

-BL- 34
-BY5- 34
-Y44- POT Sta. 10+00.00
-BL- 35
BEGIN CONSTRUCTION
-Y44- POT Sta. 11+41.95
-Y44- PC Sta. 11+87.57
-Y44- PT Sta. 13+08.26
BRG AH S 35° 16' 10.61" E
-BY5- 71
-BY5- 72
-Y44- PC Sta. 14+05.88
-Y44- POT Sta. 13+59.33
-L- POT Sta. 1286+50.00
-Y44- PRC Sta. 16+49.59
-Y44- END CONSTRUCTION
-Y44- PT Sta. 18+53.83
-Y44- POT Sta. 19+93.84
-L- N 54° 43' 49.4" E
BEGIN SBG STA 1289+25 -L- RT
-L- TS Sta. 1289+31.17 BK = -LREV- POT Sta. 1289+31.17 AH
BRG BK = N 54° 43' 49.4" E
-L- SC Sta. 1291+51.07
-LREV- SC Sta. 1291+51.07

JIMMY G. TEW
DB 971 PG 298

RUBY C. TEW VANN
DB 709 PG 189

ANUEL E. SPELL
DB 987 PG 578

VERTIE MAE LETT, HEIRS
DB 858 PG 007

ANUEL E. SPELL, ETUX
DB 1086 PG 249

HEATHER WATSON, ET AL
DB 1366 PG 239

JAMES COLWELL
DB 1041 PG 938
DB 1030 PG 670

WILBERT O. BROWN, ETUX
SOIL

NORTH CAROLINA REAL ESTATE SERVICES CORPORATION
DB 1696 PG 722

NORTH CAROLINA REAL ESTATE SERVICES INC.
DB 1696 PG 722

WILBERT O. BROWN, ETUX
DB 832 PG 668
DB 838 PG 275

JOHNNY F. PATTERSON, ETUX
DB 1177 PG 079

WILLIAM V. SMITH
DB 1805 PG 303

PROPOSED ON-SITE MITIGATION AREA
SEE MITIGATION PLANS

NC 24 (ROSEBORO HIGHWAY)
NC 24 26' BST
EXISTING R/W
PLANTER
CAR PORT
POND WC
GRADE TO DRAIN
RIP RAP
HWY SIGN
GUY
ISFD
ISBKBUS
ISBL KBUS
48" MTL RAIL
48" RAIL
60" RCP-IV
15" RCP-III
15" RCP-IV
18" RCP-III
2GI-A
2GI-D
GRAU 350
CHORD
150' TAPER
180' TAPER
RETAIN
STOP BRK
PDE
RDE
CAT-1
ISFD ABAND

2' SPECIAL LATERAL V DITCH SEE DETAIL C
2' LATERAL BASE DITCH SEE DETAIL A
7' INLET CHANNEL SEE DETAIL J EST 70 TONS CLASS I EST 80 SY FF EST 100 CY EXCAVATION
7' OUTLET CHANNEL SEE DETAIL J EST 35 TONS CLASS I EST 40 SY FF EST 60 CY EXCAVATION
8' INLET CHANNEL SEE DETAIL O EST 75 SY COIR MAT EST 25 CY EXCAVATION
5' INLET CHANNEL SEE DETAIL B EST 70 SY COIR MAT EST 30 CY EXCAVATION
CL I RIP RAP EST 11 TONS EST 22 SY FF
TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 60 TONS EST 1000 SY FF
RIP RAP OUTLET CHANNEL ENDS CLASS I EST 50 SY FF EST 10 CY EXCAVATION
TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 60 TONS EST 110 SY FF
10' OUTLET CHANNEL SEE DETAIL J EST 35 TONS CLASS I EST 40 SY FF EST 60 CY EXCAVATION
SPECIAL LATERAL V DITCH SEE DETAIL C

-LREV-
PIs Sta 1290+84.41
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'
PI Sta 1296+68.58
Δ = 19° 50' 02.0" (RT)
D = 1° 56' 08.4"
L = 1,024.65'
T = 517.50'
R = 2,960.00'
Se = .05

-Y44-
PI Sta 12+48.75
Δ = 23° 03' 00.1" (LT)
D = 19° 05' 54.9"
L = 120.69'
T = 61.17'
R = 300.00'
Se = See Plans
Runoff = See Plans

PI Sta 15+38.40
Δ = 55° 51' 13.4" (RT)
D = 22° 55' 05.9"
L = 243.71'
T = 132.52'
R = 250.00'
Se = See Plans
Runoff = See Plans

PI Sta 17+52.71
Δ = 19° 30' 13.7" (LT)
D = 9° 32' 57.5"
L = 204.24'
T = 103.12'
R = 600.00'
Se = See Plans
Runoff = See Plans

-L-
PIs Sta 1290+64.51
Θs = 1° 56' 08.4"
Ls = 200.00'
LT = 133.34'
ST = 66.67'
PI Sta 1296+48.68
Δ = 19° 50' 02.0" (RT)
D = 1° 56' 08.4"
L = 1,024.65'
T = 517.50'
R = 2,960.00'
Se = .05

-L- US 24
15792/24272
16056/24696
100/100
264/424
-Y44- SR 1292
264/424

2013 ADT
2033 ADT

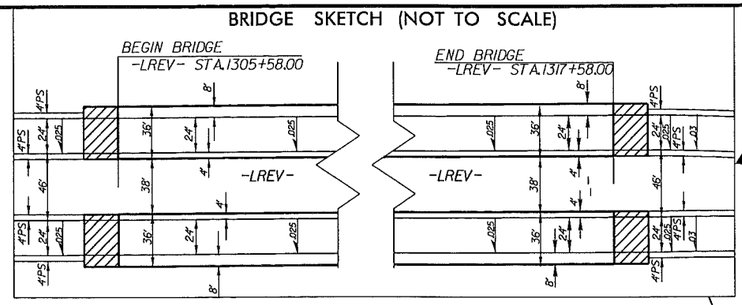
31-AUG-2012 13:12
R:\Survey\Projects\R-2303d_rdy_psh_18.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 44

BRIDGE SKETCH (NOT TO SCALE)



NAD 83'95

REVISIONS
5/14/99
R/W Revision-Driveway relocation to eastern side of property for parcel 86. WTB 08/22/12

MATCH LINE -L- STA 1296+50 SEE SHEET 18

85A
WILLIAM V. SMITH
DB 1805 PG 303

86
CLINTON CONGREGATION OF JEHOVAH'S WITNESSES CLINTON NORTH CAROLINA, INC.
DB 1801 PG 688

87
LAMONT BUTLER
DB 1374 PG 366

88
SULA RUTH BUTLER
DB 1777 PG 365

85
N.C. REAL ESTATE SERVICES, INCORPORATED
DB 1608 PG 49

91B
JAMES CARNETT BONEY FAMILY TRUST
DB 1361 PG 22

84
JOHNNY F. PATTERSON, ETUX
DB 1177 PG 079

89
LONNIE W. GLASPIE
DB 1225 PG 140

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 60 TONS EST 110 SY FF

CL B RIP RAP EST 1 TON EST 5 SY FF

SPECIAL LATERAL V DITCH SEE DETAIL C

BEGIN SBG STA 1301+80 -LREV- RT

END SBG STA 1305+34 -LREV- LT

BEGIN BRIDGE -LREV- STA 1305+58.00

BEGIN APPROACH SLAB -LREV- STA 1305+34.00

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 220 TONS EST 400 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 540 TONS EST 1000 SY FF

END SBG STA 1300+25 -L- RT

ROCK PLATING SEE DETAIL

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 30 TONS EST 55 SY FF

FLOODED AREA

MATCH LINE -L- STA 1310+00 SEE SHEET 20

02-NOV-2012 09:50
C:\Projects\R-2303d\roadway\r-2303d_rdy_psh_19.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 45

REVISIONS
5/14/99
R/W Rev.: Property owner's name and deed book information revised on Parcel 93. WTB 8/31/12

Revised property line (located on r2303d is pr1dgn in Roadway Directory and LocationSurveys Directory) all we did was copy what L&S Unit sent us.

STATE OF NORTH CAROLINA
DB 1567 PG 211
MB 9 PG 12
MB 8 PG 2

N 70° 26' 21" E 99.48'
N 22° 00' 21" E 498.21'

91A

91B
JAMES CARNETT BONEY FAMILY TRUST
DB 1361 PG 22

-BL- R23030-6

JOHNNY F. PATTERSON, ETUX
DB 1177 PG 079

N 35° 15' 14" W 34.58'

S 76° 09' 37" E 176.08'

GREAT COHARIE CREEK

FLOODED AREA

LONNIE W. GLASPIE
DB 1225 PG 140

N 13° 37' 14" W 44.24'

+70.79 6.59'

+26.31 7.36'

-LREV- N 78° 26' 08" E

-L- N 78° 26' 08" E

NC 24 (ROSEBORO HIGHWAY)

EXISTING R/W

18° 54' 47" R 40.81'

N 11° 25' E 48.84'

+27.21 62.12'

S 4° 29' 42" W 78.43'

S 7° 35' 14" E 303.52'

S 8° 04' 36" E 132.85'

S 18° 35' 24" W 243.09'

N 80° 42' 17" E 100.91'

S 7° 35' 47" E 74.84'

JOHNNY F. PATTERSON, ETUX
DB 1177 PG 079

MATCH LINE -L- STA 1310+00 SEE SHEET 19

-LREV- PC Sta. 1318+50.72

-LREV- +50.72 110' LT

+50.81 0.28'

PE B-77

END BRIDGE
-LREV- STA 1317+58.00

END APPROACH SLAB
-LREV- STA 1317+82.00

BEGIN SBG END APPROACH SLAB STA 1317+82 -LREV- RT

-LREV- +50.72 100' & 110' RT BEGIN WW FENCE

-L- PC Sta. 1318+49.48

TOE PROTECTION
CLASS B RIP RAP
SEE DETAIL D
EST 400 TONS
EST 730 SY FF

2011 CL B RIP RAP
EST 1 TONS
EST 5 SY FF

GRADE POINT'S

-LREV- +75 100' & 110' RT

-LREV- +98.50 110' LT

-LREV- +60 122' & 134' LT

-LREV- +66.30 110' LT BEGIN WW FENCE

-LREV- +80 122' & 134' LT

-BL- R23030-7

-LREV- +44.69 101.37', 110' 116', & 126' LT

-LREV- +95.85 116' LT

PUE

B28.32

N 71° 44' 21" E

2012 JACK W. GRIFFIN, ET AL
DB 645 PG 165
DB 1365 PG 201

15" RCP

S 80° 58' 25" E

2013

2014

2015

CL B RIP RAP
EST 2 TONS
EST 7 SY FF

TOE PROTECTION
CLASS B RIP RAP
SEE DETAIL D
EST 400 TONS
EST 730 SY FF

-LREV- +66.30 100' LT

-LREV- +75 120' RT

-LREV- PT Sta. 1321+66.30

-L- PT Sta. 1322+41.93

850' TAPER LT & RT
GRADE POINT TRANSITION

92
COHARIE INCORPORATED
DB 953 PG 555
DB 953 PG 558

MATCH LINE -L- STA 1323+50 SEE SHEET 21

END SBG

-LREV-	-L-
PI Sta 1320+09.05	PI Sta 1320+46.38
Δ = 11° 35' 26.5" (RT)	Δ = 11° 35' 26.5" (RT)
D = 3° 40' 22.2"	D = 2° 57' 12.2"
L = 315.58'	L = 392.45'
T = 158.33'	T = 196.90'
R = 1,560.00'	R = 1,940.00'
Se = .03	Se = .03
Runoff = 120'	Runoff = 108'

08-SEP-2016 16:17
R:\projects\R2303d\roadway\sheets\r2303d_rdy_psh_20.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 83/95

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE SEE SHEET 45

REVISIONS

5/14/09 R/W Rev. Revised property owner's name and deed book information for Parcels 93,93B and 96, revised existing property lines between Parcels 93B and 96. WTB 8/31/12

STATE OF NORTH CAROLINA
DB 1567 PG 21
MB 9 PG 12
MB 8 PG 2

CHRISTOPHER H. CAISON
DB 1437 PG 707

COHARIE COUNTRY CLUB, INC
DB 555 PG 301

91A

93

JACK W. GRIFFIN, ET AL
DB 645 PG 166
DB 1266 PG 47
WILL #E-146

93B

JACK W. GRIFFIN, ET UX
DB 645 PG 166
DB 1266 PG 47
81' & WILL #E-146
93' LT

96

92

COHARIE INCORPORATED
DB 953 PG 555
DB 953 PG 558

93A

JACK W. GRIFFIN, ETUX
DB 888 PG 335
DB 795 PG 260
MB 19 PG 26
MB 19 PG 57

92A

COHARIE INC.
TAX OFFICE INFORMATION
MB 19 PG 57
MB 19 PG 26

97

JEFFERY L. SWARTZ, ETUX
DB 1294 PG 630
MB 19 PG 57
MB 19 PG 26

98

WILLIAM K. SUTTON, ETUX
DB 1246 PG 241
MB 19 PG 57
MB 19 PG 26

TIGATION PLANS

PROPOSED ON-SITE MITIGATION AREA

OUT HOUSE

-LREV- +44.47 200.44' LT

-LREV- +50 END WW FENCE

N 73°40'21" E 125.00'

-L- +20 224.57' LT

N 75°40'21" E 100.00'

N 82°54'22" E 39.44'

N 84°12'36" E 73.76'

N 89°11'46" E 46.47'

S 84°32'07" E 115.18'

S 76°44'43" E 101.64'

S 73°37'15" E 60.26'

S 67°56'16" E 100.35'

S 64°36'12" E 144.91'

N 25°53'58" E 166.00'

1325

1330

1335

END APPROACH SLAB
-L- STA 1328+08.02 LT

END BRIDGE
-L- STA 1327+83.85 LT

BEGIN APPROACH SLAB
-L- STA 1325+79.98 LT

BEGIN BRIDGE
-L- STA 1326+84.35 LT PUE

-L- +00 100' LT END LIMITED C/A END WW FENCE

Energy Dissipator SEE DETAIL S Basin #2 EST 30 TONS EST 25 SY FF EST 3 CY Excav

-L- +35 94.44' & 116' LT

-L- +20 116' LT

-L- +23 128' LT

-L- +43 122' LT

-L- +55 100' LT

-L- +00 116' LT PDE

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 400 TONS EST 730 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 55 TONS EST 100 SY FF

-BL- 38 JB w/MH

30" RCP-IV

MATCH LINE -L- STA 1323+50 SEE SHEET 20

MATCH LINE -L- STA 1337+00 SEE SHEET 22

ISBKD

ISMTLBUS

ISBKBUS

TIDS

W/LT

LT

S

B

CONC

GR

PROP 2'-6" CBG

36' DR

CONC DRIVE

POWER/TEL BOX ON 9X18 FT CONCRETE PAD

CAROLINA TELEPHONE AND TELEGRAPH CO. DB 1117 PG 392

PUE

+07.16 56.60'

W/ TRANSFORMER

CM

HW

GRADE POINT

-LREV- +54.08 100' RT

CL B RIP RAP EST 1 TONS EST 5 SY FF

650' TAPER LT & RT GRADE POINT TRANSITION

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 400 TONS EST 730 SY FF

EGIN APPROACH SLAB STA 1325+79.68 -L- RT

EQUATION: -LREV- Sta 1325+54.08 BK = -L- Sta 1325+55.33 AH

END BRIDGE
-L- STA 1327+84.15 RT

BEGIN BRIDGE
-L- STA 1326+03.85 RT

BEGIN APPROACH SLAB
-L- STA 1325+79.68 RT

END APPROACH SLAB
-L- STA 1328+08.32 RT

S 04° 49' 09" E 394.01'

-L- +00 52' RT

-L- +55 93.44' & 77.00' RT

-L- +00 100' RT END LIMITED C/A END WW FENCE

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 22 TONS EST 40 SY FF

DUE 16 DR

PROP. RETAINING WALL #1 FROM -L- STA. 1331+50 TO STA.1346+55

GRADE TO DRAIN

-L- +10 88' & 88' RT

-L- +70 52' & 68' RT

-L- +90 52' & 68' RT

-L- +45 52' & 68' RT

CONC. DRCMP

STA 1332+75 TO STA 1340+30 -L- RT SEE SHEET 2-9

+96.28 37.67'

+42.97 54.61'

S 81° 45' 47" E 207.04'

S 80° 27' 42" E 341.00'

S 08° 28' 54" E 4.482.90 JB

S 09° 39' 27" W 160.36'

PLANTER

28' CONC

S 79° 52' 45" CHORD=12.29'

S 77° 52' 50" E 123.48'

S 77° 52' 50" 127.00'

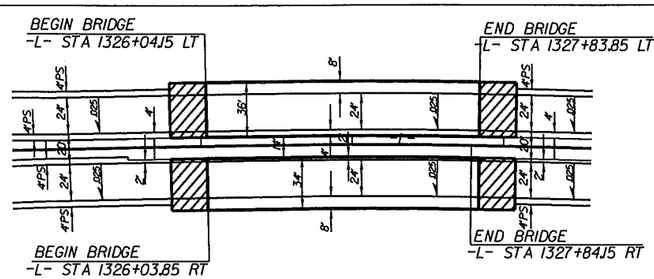
WILEY FOX RD 20' BST

15" PLASTIC

N 87° 36' 28" E 531.98'

-L-
PI Sta 1334+00.44
Δ = 16° 06' 35.6" (RT)
D = 0° 57' 17.7"
L = 1,687.02'
T = 849.11'
R = 6,000.00'
Se = .025
Runoff = 90'

BRIDGE SKETCH (NOT TO SCALE)



31-AUG-2012 13:14
R:\Roadway\Projects\2303d_rdy_psh_21.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	22
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR –L– PROFILE SEE SHEET 46
FOR –Y45– PROFILE SEE SHEET 55

NAD 83/95

REVISIONS

5/14/99 R/W Rev.: Revised property owner's name and deed book information on Parcels 92B,96,103,and 106.Revised property lines on Parcel 96 and 103.Removed property line dividing Parcel 103.WTB 8/31/12

MATCH LINE –L– STA 1337+00 SEE SHEET 21

MATCH LINE –L– STA 1350+50 SEE SHEET 23

-Y45- POT Sta. 10+00.00

-Y45- PC Sta. 11+56.62

-Y45- PRC Sta. 14+43.38

-Y45- PT Sta. 13+38.35

-Y45- RT Sta. 15+53.23

-Y45- POT Sta. 19+17.06

BEGIN CONSTRUCTION
-Y45- POC Sta. 12+97.17

-Y45- POC Sta. 15+03.26
-L- POT Sta. 13+48+68.88

END CONSTRUCTION
-Y45- POT Sta. 17+10.46

THOMAS H. WEIKERT, ETUX
DB 1460 PG 519
MB 5 PG 14

JACKIE B. DIXON
DB 905 PG 379
DB 645 PG 550

JUDITH GRIFFIN
DB 888 PG 333A
DB 1164 PG 356

PRESTAGE-COHARIE, LLC
DB 1608 PG 182

HARRY W. STILES, ETUX
DB 745 PG 515

JEFFERY D. HEATH, ETUX
DB 1180 PG 638

WILLIAM K. SUTTON, ETUX

WILLIAM L. SUTTON, ETUX
DB 1446 PG 098
MB 19 PG 57
MB 19 PG 26

ELLIOTT L. SPELL, ETUX
DB 1300 PG 228
MB 19 PG 57
MB 19 PG 26

COHARIE INC.
MB 19 PG 57
MB 19 PG 26

JIMMY CARAY, ETUX
DB 1684 PG 105
MB 19 PG 57
MB 19 PG 26

RALPH W. JERNIGAN, ETUX
DB 1027 PG 236
DB 1003 PG 158

JOHN F. MARSHALL, ETUX
DB 1151 PG 569
DB 941 PG 326

LEWIS WARREN, ETUX
DB 1221 PG 476

LUTHER D. STARLING JR.
DB 1752 PG 56

COHARIE R/W RESERVED AREA
MB 19 PG 57
MB 19 PG 26

CLINTON CITY LIMITS

WILEY FOX ROAD (50' R/W)

NC 24 (ROSEBORO HIGHWAY)

NC 24 (SUNSET AVENUE)

PROP. RET. WALL

PROP. 1'-6" C&G

PROP. CONC. SIDEWALK

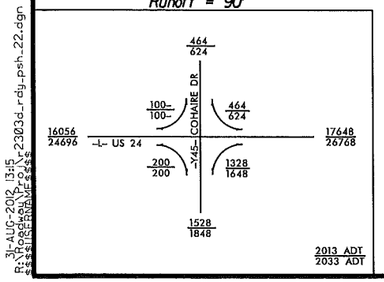
PROP. RET. WALL FROM –L– STA 1331+50 TO STA 1346+55

DO NOT DISTURB EXISTING WALL

-L-
PI Sta 1334+00.44
Δ = 16° 06' 35.6" (RT)
D = 0° 57' 17.7"
L = 1,687.02'
T = 849.11'
R = 6,000.00'
Se = .025
Runoff = 90'

-Y45-

PI Sta 13+00.01	PI Sta 14+98.31
Δ = 1° 22' 09.0" (RT)	Δ = 0° 57' 02.7" (LT)
D = 0° 28' 38.9"	D = 0° 51' 55.8"
L = 286.76'	L = 109.85'
T = 143.39'	T = 54.93'
R = 12,000.00'	R = 6,620.00'
Se = See Plans	Se = See Plans
Runoff = See Plans	Runoff = See Plans



31-AUG-2012 13:15
R:\STRUCTURE\2303d_rdy_psh_22.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	23
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 46

REVISIONS

5/14/99

Revised R/W on Parcels 112,114,116,118 & 120, WAS 3/27/2012

MATCH LINE -L- STA 1350+50 SEE SHEET 22

MATCH LINE -L- STA 1364+00 SEE SHEET 24

HAMPTON HUBBARD
DB 1060 PG 900
113

CHRISTOPHER H. CAISON
DB 1437 PG 707
115

CHERIE E. GRIFFIN
DB 1751 PG 913
117

ISAAC CORTES, JR., ETUX
DB 1050 PG 500
MB 5 PG 98
119

TRUSTEES OF FIRST UNITED METHODIST CHURCH & CHRISTOPHER H. CAISON, JOSEPH W. BEST, JR., KIMBALL CAISON
DB 1298 PG 574
MB 5 PG 98
121

CHARLES R. KNOWLES, ETUX
DB 1078 PG 060
MB 5 PG 98
123

KAY KNOWLES B. MILLER
DB 1240 PG 940
MB 5 PG 98
125

TRUSTEES OF FIRST UNITED METHODIST CHURCH & CHRISTOPHER H. CAISON, JOSEPH W. BEST, JR., KIMBALL CAISON
DB 1298 PG 574
MB 5 PG 98
121

R. McPHAIL HERRING
DB 874 PG 085
MB 5 PG 98
127

128

MICHAEL W. THORNTON, ETUX
DB 1461 PG 645
MB 25 PG 69
112

FOXCROFT SUBDIVISON
VACANT LOT 3
TAX OFFICE INFORMATION
MB 25 PG 69
116

BART SMITH
DB 1788 PG 80
MB 25 PG 69
114

KELLY F. STANLEY
DB 1679 PG 875
118

HB BARWICK, INC.
DB 1567 PG 129
MB 26 PG 73
120

DALE W. DENNING, ETUX
DB 1177 PG 529
MB 26 PG 73
122

CLINTON PENTECOSTAL HOLINESS CHURCH
DB 1361 PG 103
MB 7 PG 93
124

THE TRUSTEES OF SAMPSON TECHNICAL INST.
DB 837 PG 558
DB 856 PG 689
126

"FOXCROFT" SUBDIVISON
COMMON AREA NOJ
(FOR PRIVATE ACCESS)
MB 25 PG 69

NC 24 (SUNSET AVENUE)

PROP. 1'-6" C&G

PROP. 2'-6" C&G

PROP. 24" C&G

REMOVE APPROX 20" OF CONC. DITCH

DO NOT DISTURB EXISTING WALL

-BL- 41

-BL- 55

-BY7- 55

02-NOV-2012 10:03
E:\NCDOT\PROJECTS\2303d-rdy-psh-23.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	24
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

★ TRAFFIC SIGNAL
FOR -L- PROFILE SEE SHEET 47
FOR -Y46- PROFILE SEE SHEET 56

REVISIONS
5/14/99
R/W Rev.: Property line added between parcels 130 and 131 to form Parcel 130A, parcel number and owner information added for Parcel 130A WTB 8/31/12

MATCH LINE -L- STA 1364+00 SEE SHEET 23

MATCH LINE -L- STA 1377+50 SEE SHEET 25

-L- PT Sta. 1374+51.90

-L- PC Sta. 1366+20.32

-L- S 73° 51' 49.5" E

-Y46- PC Sta. 11+88.18

-Y46- PT Sta. 13+28.41

BEGIN CONSTRUCTION
-Y46- POC Sta. 12+56.95

-Y46- POT Sta. 10+00.00

-Y46- POT Sta. 14+60.67
-L- POC Sta. 1369+80.67

END CONSTRUCTION
-Y46- POT Sta. 15+71.14

-Y46- POT Sta. 17+19.93

-L- S 85° 57' 31.9" E

-L-
PI Sta 1370+38.87
Δ = 16° 05' 48.0" (LT)
D = 1° 56' 08.4"
L = 831.58'
T = 418.55'
R = 2,960.00'
Se = .025
Runoff = 90'

-Y46-
PI Sta 12+61.02
Δ = 38° 15' 43.1" (RT)
D = 27° 17' 01.3"
L = 140.24'
T = 72.85'
R = 210.00'
Se = See Plans
Runoff = See Plans

CLINTON PENTECOSTAL HOLINESS CHURCH
DB 1754 PG 486
MB 63 PG 05
131

JAMES E. SINCLAIR, ETAL
DB 977 PG 130
DB 982 PG 092
130

GEORGE E. WILSON FAMILY ENTERPRISES, LLC
DB 1792 PG 869
MB 70 PG 57
130A

TRACEY L. MARTIN
DB 1425 PG 817

DICKSON L. MARTIN, ETUX
DB 1425 PG 817
MB 5 PG 98

RUFUS H. HERRING, ETUX
DB 1345 PG 504
MB 5 PG 98

HUBERT L. BRYANT, ETUX
DB 903 PG 251
MB 20 PG 94
MB 5 PG 98

L. L. WALLS, JR.
DB 1737 PG 352
MB 5 PG 98

JEAN D. PETERSON
DB 1425 PG 817
MB 5 PG 98

BOBBY E. BAKER ETUX
DB 925 PG 98
MB 5 PG 98

BOBBY E. BUNKER
DB 1737 PG 287
MB 5 PG 98

NELL H. CALDWELL
DB 1003 PG 021
DB 1175 PG 69
MB 5 PG 98
129

THE TRUSTEES OF SAMPSON TECHNICAL INST.
DB 837 PG 558
DB 856 PG 689
126

128

1365

ISTA DRIVE

FOREST DR

-Y46- FOREST DR

-L- US 24

17648/26768 | 1992/2472 | 200/200 | 1728/2048 | 21096/31336 | 664/824 | 2584/3544 | 3312/4592

2013 ADT
2033 ADT

1375

3l: AUG-2012 13:17
R:\Scoping\2012\R-2303d_rdy_psh_24.dgn
\\ssscifs\DEPARTMENTS\

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	25
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

★ TRAFFIC SIGNAL

FOR -L- PROFILE SEE SHEET 47
FOR -Y47- & -Y48- PROFILES SEE SHEET 56

21096 / 31336 -L- US 24 22352 / 33232
928 / 1248 2184 / 3144
-Y47- SR 1262
3112 / 4392
2013 ADT / 2033 ADT

CLINTON PENTECOSTAL HOLINESS CHURCH
DB 1777 PG 800
MB 51 PG 48

CLINTON PENTECOSTAL HOLINES CHURCH
DB 1754 PG 486
MB 63 PG 05

BOBBY R. HALL
DB 1501 PG 725
MB 45 PG 80

JUNE M. MASSENGILL
DB 794 PG 046
MB 45 PG 80

POHLEMEIER MANAGEMENT L.L.C.
DB 1700 PG 71
MB 51 PG 048

SPRING VIEW FARMS
DB 1588 PG 118
MB 51 PG 48

WADE-CARY ENTERPRISES INC.
DB 1771 PG 832
MB 45 PG 80

PARKER GAS COMPANY, INC.
DB 1046 PG 746

K. E. AUSTIN CORP.
DB 1102 PG 808

THE TRUSTEES OF SAMPSON TECHNICAL INST.
DB 837 PG 558
DB 856 PG 689

A. G. THORNTON, ETAL
DB 837 PG 250
& EXCEPTIONS FROM
DB 1392 PG 140
DB 963 PG 931
DB 1041 PG 107

HARRIS SIGHT AND SOUND, INC.
DB 1400 PG 647

FAIRCLOTH FAMILY PROPERTIES, LLC
DB 1275 PG 715

NC LAND LIMITED PARTNERSHIP
DB 1286 PG 822

CITY OF CLINTON
DB 1055 PG 575

-BL- R2303D-8
-BY9- R2303D-8

-Y47- POT Sta. 10+00.00
-L- POT Sta. 1379+94.15

-Y48- POT Sta. 10+00.00
-L- POT Sta. 1390+74.36

-L- S 89°57' 37.9" E

-Y48- POT Sta. 10+46.73
BRG BK S 17° 02' 22.1" E

-Y48- PT Sta. 10+80.06

-Y47- S 3° 42' 22.4" W

END CONSTRUCTION
-Y47- POT Sta. 11+46.27

-Y47- POT Sta. 14+00.00

END CONSTRUCTION
-Y48- POT Sta. 13+48.17

-Y48- S 6° 19' 33.9" W

-Y48- POT Sta. 14+00.00

-BY10- 91

TIE TO EXIST C&G

-Y48-
PI Sta 10+63.41
Δ = 6° 21' 56.1" (RT)
D = 19° 05' 54.9"
L = 33.33'
T = 16.68'
R = 300.00'
Se = See Plans
Runoff = See Plans

22352 / 33232 -L- US 24 23016 / 34056
264 / 424 -Y48- SR 1229 928 / 1248
1192 / 1672
2013 ADT / 2033 ADT

REVISIONS
R/W Rev.: Revised deed book information for Parcel 138. WTB 8/31/12

MATCH LINE -L- STA 1377+50 SEE SHEET 24

MATCH LINE -L- STA 1391+50 SEE SHEET 26

24-AUG-2012 13:17
R:\2303d_rdy_psh\2303d_rdy_psh_25.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	26
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

FOR -L- PROFILE SEE SHEET 48

REVISIONS

5/14/99

Parcel numbers and owner information revised for parcels 146 & 146A WAS 5/22/12

OUTSIDE LIMITS

S 87° 52' 14" E 171.09' — REBAR — N 89° 51' 42" E 157.58' — EIP — N 89° 50' 42" E 197.74' — EIP

N 89° 22' 25" E 60.47'

N 89° 22' 27" E 150.00'

N 89° 22' 27" E 150.00'

N 6° 37' 27" E 60.00'

N 6° 37' 27" E 471.49'

N 6° 37' 27" E 200.00'

N 6° 37' 27" E 200.00'

N 6° 37' 27" E 150.00'

N 0° 38' 08" E 1380.12'

N 2° 27' 27" E 965.99'

MATCH LINE -L- STA 1391+50 SEE SHEET 25

MATCH LINE -L- STA 1405+50 SEE SHEET 27

(139) K. E. AUSTIN CORP. DB 1102 PG 808

(142) GUPTA & BAKRI, LLC DB 1332 PG 854 DB 1453 PG 081 DB 1453 PG 084 DB 1453 PG 087 MB 43 PG 93

(143) JS INVESTMENT HOLDINGS,LLC. DB 1671 PG 436

(144) TABLEROCK REAL PROPERTY INVESTMENTS,LLC. DB 1455 PG 028 MB 43 PG 93

(145) BENTON & SONS #4 LLC. DB 1661PG 68

(146) ERASTUS BALKCUM, JR., ETUX DB 739 PG 380 DB 739 PG 388 DB 739 PG 382 DB 1167 PG 671 MB 5 PG 67

(146A) ARWAND USHER,III, ETUX DB 792 PG 209 DB 815 PG 522 MB 5 PG 67

(146A) ERASTUS BALKCUM, JR., ETUX DB 739 PG 380 DB 739 PG 388 DB 739 PG 382 DB 1167 PG 671 MB 5 PG 67

(147) SHELTON A. DAVIS & WIFE SHARON T. DB 1650 PG 900

(148) GEDDIE W. TEW, ETUX DB 1177 PG 464

(140) FAIRCLOTH FAMILY PROPERTIES, LLC. DB 1275 PG 775

(149) CATHERINE P. WATSON DB 806 PG 225

NC LAND LIMITED PARTNERSHIP DB 1286 PG 822

1395 1400 1405

-L- S 89° 57' 37.9" E

-BL- 45 -BL- 46

CLINTON CITY LIMITS

22-MAY-2012 10:58
R:\Projects\R-2303d\Design\2303d_rdy_psh_26.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	27
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83 95

★ TRAFFIC SIGNAL
FOR -L- PROFILE SEE SHEET 48
FOR -Y49- PROFILE SEE SHEET 57
FOR -SR1- PROFILE SEE SHEET 62

REVISIONS
5/14/99
R/W Rev.: Revised property owner's name and deed book information for Parcel 158. WTB 8/31/12

MATCH LINE -L- STA 1405+50 SEE SHEET 26

MATCH LINE -SR1- STA 13+00 SEE SHEET 35

MATCH LINE -L- STA 1419+00 SEE SHEET 28

-L- PC Sta. 1407+39.41

-L- PT Sta. 1416+63.52

-L- S 89° 57' 31.9" E

-L- N 62° 21' 45.5" E

BEGIN CONSTRUCTION
-Y49- POT Sta. 10+82.26

-Y49- POT Sta. 10+00.00

-BYII- 83

-BL- 47

-BL- 48

-BYII- 48

-Y49- POT Sta. 12+29.17

-L- POT Sta. 1417+27.92

-SR1A- POT Sta. 10+00.00

PI Sta 11+90.65
Δ = 37° 02' 42.1" (LT)
D = 28° 38' 52.4"
L = 129.31'
T = 67.01'
R = 200.00'

-L-
PI Sta 1412+10.60
Δ = 27° 34' 37.1" (LT)
D = 2° 59' 03.0"
L = 924.11'
T = 471.19'
R = 1,920.00'
Se = .035
Runoff = 126'

EUGENE T. LINKOUS, ETUX
DB 1090 PG 438
DB 1304 PG 82

SUDIE M. JOHNSON, ET VIR
DB 1481 PG 516

TRUSTEES OF WEST CLINTON FREE WILL BAPTIST CHURCH
DB 804 PG 454

NOEL THOMPSON
DB 1100 PG 830
DB 1195 PG 503

MILTON W. LINKOUS
DB 1301 PG 037
DB 1272 PG 240

WING KO, ETUX
DB 1052 PG 526

FAIRCLOTH FAMILY PROPERTIES, LLC.
DB 1593 PG 355

FAIRCLOTH FAMILY PROPERTIES, LLC.
DB 1643 PG 928

FAIRCLOTH FAMILY PROPERTIES, LLC.
DB 1685 PG 394

FAIRCLOTH FAMILY PROPERTIES, LLC
DB 1270 PG 032
DB 1275 PG 772
DB 1245 PG 364
DB 835 PG 213
DB 1517 PG 184
DB 1517 PG 196
DB 1565 PG 455
DB 1693 PG 560
DB KHO PG 48
MB 9 PG 29
MB 60 PG 18

SUNSET AVENUE CAR WASH, LLC.
DB 1588 PG 984
MB 9 PG 63

BK CAR WASH

CATHERINE P. WATSON
DB 806 PG 225

J.L. HONEYCUTT, ETUX
DB 573 PG 005

BETTY H. COOMBS, ETAL
DB 1384 PG 145

JOHN F. CRUMPLER ETUX
DB 579 PG 365
DB 598 PG 128

WILLIAM T. HARRIS, ETUX
DB 1158 PG 1

JOHN F. CRUMPLER
DB 720 PG 328

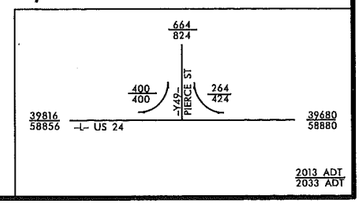
WILLIAM H. HARRIS, WIFE
LINDA P. HARRIS
DB 1158 PG 1

REBECCA K. JACKSON
DB 1206 PG 161
DB 844 PG 175
DB 816 PG 120

CLINTON CITY LIMITS

24" CASEMENT

2013 ADT
2033 ADT



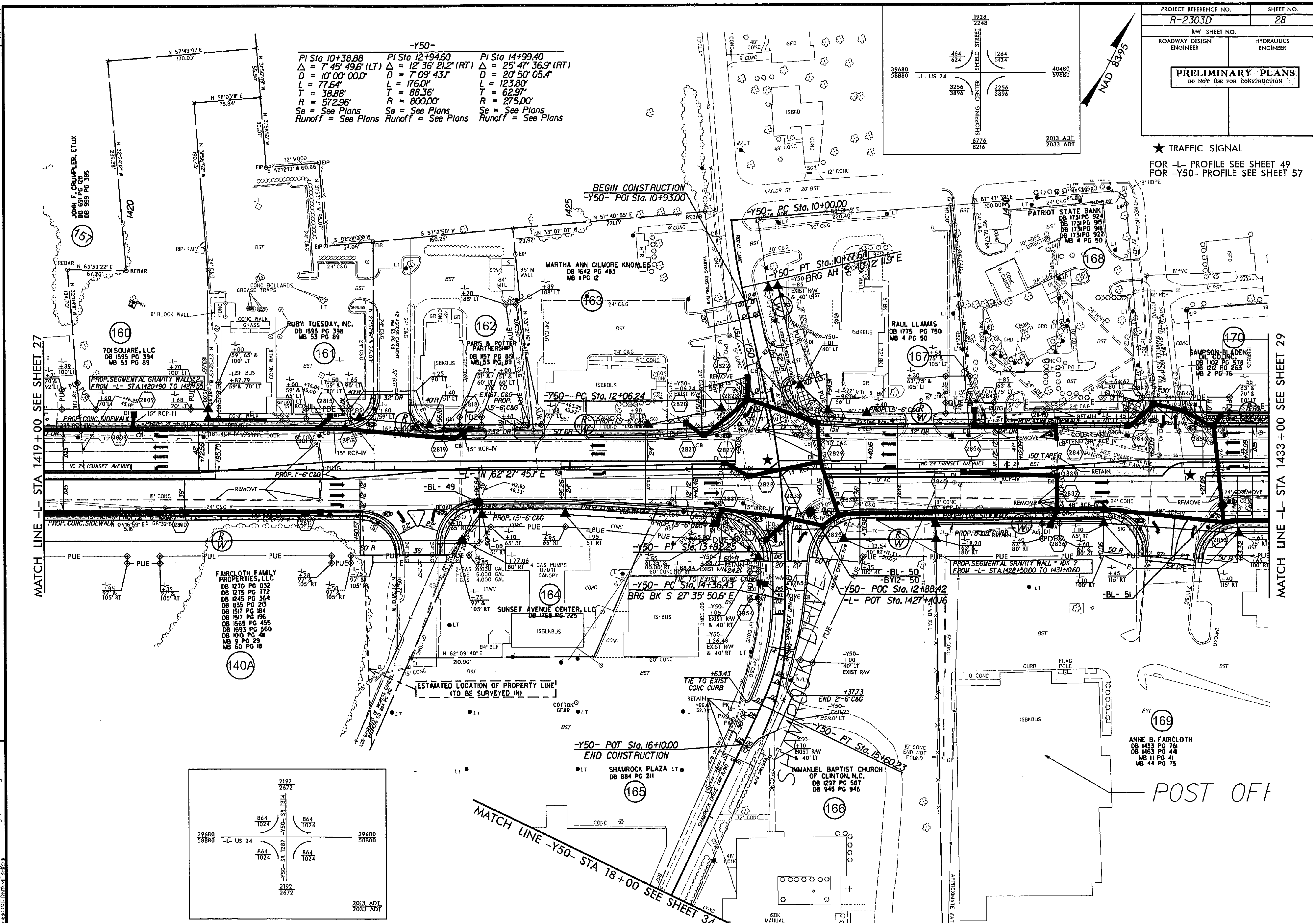
27-AUG-2012 13:18
R:\R-2303d_r-dy_psh_27.dgn
USER:tbeasley
DESIGN NAME: r-2303d_r-dy_psh_27

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	28
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

★ TRAFFIC SIGNAL

FOR -L- PROFILE SEE SHEET 49
FOR -Y50- PROFILE SEE SHEET 57



REVISIONS

R/W Rev: Added TCE to Parcel 170 due to adding a driveway and channelization. WTB 9/5/12

5/14/99

05-SEP-2012 07:46
R:\Roadway\Proj\r2303d_rdy_psh_28.dgn
$$$$USERNAME$$$$

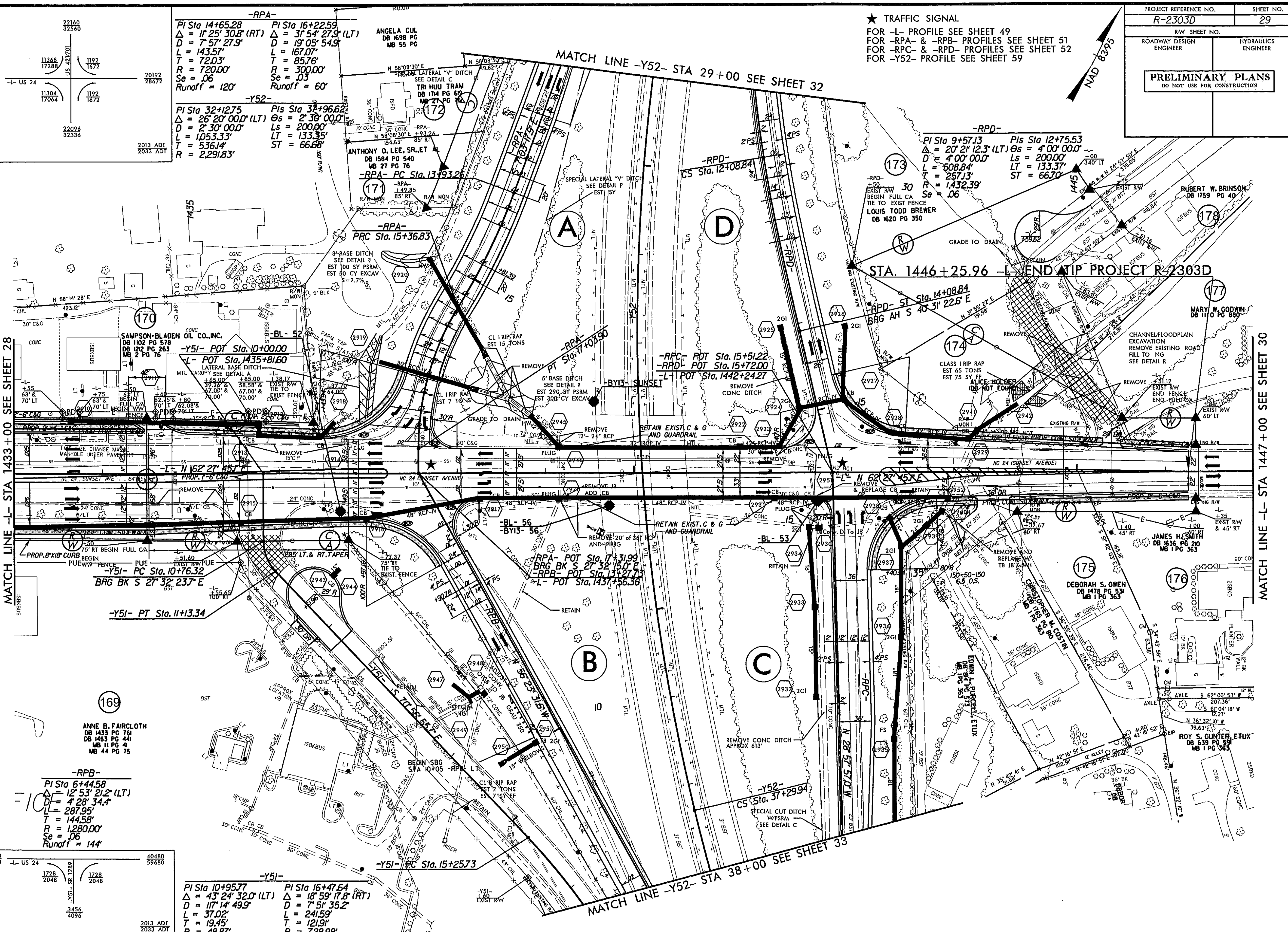
PROJECT REFERENCE NO.	SHEET NO.
R-2303D	29
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

★ TRAFFIC SIGNAL
FOR -L- PROFILE SEE SHEET 49
FOR -RPA- & -RPB- PROFILES SEE SHEET 51
FOR -RPC- & -RPD- PROFILES SEE SHEET 52
FOR -Y52- PROFILE SEE SHEET 59

REVISIONS
R\W Rev.: ADDED TCE on Parcel 170 due to adding a driveway and channelization. WTB 9/5/12

5/14/99



	22160 / 32560		
40480 / 59680 (-L- US 24)	11368 / 17288 · 1192 / 1672 (US 421/701) · 11304 / 17064 · 1192 / 1672	20192 / 28672	
	22096 / 32336		2013 ADT / 2033 ADT

40480 / 59680 (-L- US 24)	1728 / 2048 · 1728 / 2048 (-Y51- SR 1289)	40480 / 59680	
	3456 / 4096		2013 ADT / 2033 ADT

-RPA-

PI Sta 14+65.28	PI Sta 16+22.59
Δ = 11° 25' 30.8" (RT)	Δ = 31° 54' 27.9" (LT)
D = 7° 57' 27.9"	D = 19° 05' 54.9"
L = 143.57'	L = 167.07'
T = 72.03'	T = 85.76'
R = 720.00'	R = 300.00'
Se = .06	Se = .03
Runoff = 120'	Runoff = 60'

-Y52-

PI Sta 32+12.75	PIs Sta 32+96.62
Δ = 26° 20' 00.0" (LT)	Θs = 2° 30' 00.0"
D = 2° 30' 00.0"	Ls = 200.00'
L = 1,053.33'	LT = 133.35'
T = 536.14'	ST = 66.68'
R = 2,291.83'	

-RPD-

PI Sta 9+57.13	PIs Sta 12+75.53
Δ = 20° 21' 12.3" (LT)	Θs = 4° 00' 00.0"
D = 4° 00' 00.0"	Ls = 200.00'
L = 508.84'	LT = 133.37'
T = 257.13'	ST = 66.70'
R = 1,432.39'	
Se = .06	

-RPB-

PI Sta 6+44.58
Δ = 12° 53' 21.2" (LT)
D = 4° 28' 34.4"
L = 287.95'
T = 144.58'
R = 1,280.00'
Se = .06
Runoff = 144'

-Y51-

PI Sta 10+95.77	PI Sta 16+47.64
Δ = 43° 24' 32.0" (LT)	Δ = 18° 59' 17.8" (RT)
D = 117° 14' 49.9"	D = 7° 51' 35.2"
L = 37.02'	L = 241.59'
T = 19.45'	T = 121.91'
R = 48.87'	R = 728.98'

05-SEP-2012 07:47
R:\Roadway\Proj\r2303d_rdy_psh_29.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	30
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR -L- PROFILE SEE SHEET 50
FOR -Y53- & -Y54- PROFILE SEE SHEET 61

REVISIONS 5/14/99

Parcel numbers and owner information revised for parcels 178 & 179. WAS 5/22/2012

22-MAY-2012 11:03
R:\projects\2303d_r-dy_psh_30.dgn
$$$$USERNAME$$$$

MATCH LINE -L- STA 1447+00 SEE SHEET 29

LOUIS TODD BREWER
DB 1620 PG 354
MB 4 PG 130

INTON HCRE,LLC.
DB 1620 PG 78

BEGIN CONSTRUCTION
-Y53- POT Sta. 10+00.00

BEGIN CONSTR.
-Y54- POT Sta. 11+50.00

-Y54- POT Sta. 12+58.00
-Y53- POT Sta. 11+21.00

-Y54- PT Sta. 12+58.22
-Y53- PT Sta. 11+21.22

-Y53- PC Sta. 14+39.12

-Y53- PT Sta. 15+88.77

-Y53- POT Sta. 16+57.69
BRG BK S 12° 29' 28.9" E
-L- POT Sta. 1448+46.36

STA. 1449+56.13 -L- END CONSTRUCTION

-L- POT Sta. 1452+48.24

-L- N 62° 27' 45.7" E

THE CITY OF CLINTON
DB 1495 PG652

JOHN M. DALY ET UX
DB M3 PG 88
DB 806 PG 508
MB 19 PG 90

FRED ROBERT EDGECOMB ET UX
DB 1268 PG 630
DB 1304 PG 603
DB 1624 PG 305

RUBERT W. BRINSON
DB 1759 PG 40

MARY W. GODWIN
DB 1110 PG 880

JAMES H. SMITH
DB 1636 PG 210
MB 1 PG 363

JAMES H. SMITH
DB 1640 PG 775

COUNTY OF SAMPSON
NORTH CAROLINA
DB 1653 PG 642

VICTOR H. PHILIPE & CECILIA L. MENDOSA
DB 1542 PG 592
DB 406 PG 504
MB 1 PG 28

LOT CONSISTS OF 3 PARCELS
160097
160098
160099

COTTON GEAR

ROY S. GUNTER, ETUX
DB 639 PG 591
MB 1 PG 363

-Y53-
PI Sta 15+14.83
Δ = 21° 26' 09.0" (RT)
D = 14° 19' 26.2"
L = 149.65'
T = 75.71'
R = 400.00'
Se = See Plans
Runoff = See Plans

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	31
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR –Y52– PROFILE SEE SHEET 58
FOR –RPD– PROFILE SEE SHEET 52

MATCH LINE –Y52– STA 15+50 SEE SHEET 32

REVISIONS

8/17/99

ALFONZO H. WILLIAMSON ET AL
DB 806 PG 319
DB 806 PG 323

INVERT NOT OBTAINED DUE TO BOLTED LID

TOP=116.43'

ALFONZO H. WILLIAMSON ET UX
DB 1519 PG 457
MB 4 PG 62

FAYE B. ROBINSON ET VIR
DB 813 PG 796
MB 4 PG 62

MICHAEL R. PRINGLE ET UX
DB 827 PG 187
MB 4 PG 62

FREDERICK D. MOSELEY ET UX
DB 733 PG 540
MB 4 PG 62

ALFONZO H. WILLIAMSON
MB 4 PG 62

ALFONZO H. WILLIAMSON
2SBKD
MB 4 PG 62

WEST BONEY ST. 18' BST

EARL ST. 18' BST

CITY OF CLINTON 40' UTILITY EASEMENT

INVERTS NOT OBTAINED DUE TO BOLTED LIDS

NO RECORD FOUND OF GAS LINE EASEMENT

NOTE: FUTURE SEWER SYSTEM IMPROVEMENT

WOODS

VARYING EXISTING R/W

60' CHL

EXISTING R/W

R/W MON.

EOP 4 BST
EOT
EOP 14 BST
US 421 24 BST NBL
US 421 32 BST SBL

-BY13- 85

ARM TAP VALVE

36" MTL RAIL

CONC HW

10' X 8' CONC

72" CONC

THE CITY OF CLINTON
DB 1220 PG 449
DB 1039 PG 366
MB 28 PG 91

60" CONC

72" CHL&SSBW

ALFONZO H. WILLIAMSON ET AL
DB 806 PG 319
MB 28 PG 91

S 59°47'07" W 160.00'
S 30°12'53" E 160.30'
S 59°47'07" W 80.00'
S 30°12'53" E 80.00'
N 30°08'35" W 125.00'
S 30°08'35" E 125.00'
N 59°51'25" E 60.00'
N 59°51'25" E 125.00'
N 30°08'35" W 125.00'
S 59°51'25" W 125.00'
S 59°51'25" W 60.00'
S 59°47'07" W 205.63'
S 59°05'58" E 208.53'
S 59°02'58" E 15.58'
S 59°20'59" E 68.39'
S 21° 41' 41" E 209.81'
S 46° 45' 48" E 90.87'
S 61° 01' 09" E 118.36'
S 32° 11' 31" E 84.46'
N 84° 31' 33" E 68.40'
N 15° 53' 36" W 991.94'
S 15° 53' 36" E 991.94'
-67.81 132.36'
-62.49
-28.47 153.42'
32'
72' CHL&SSBW
60' CONC
60'

02-NOV-2012 10:50
R:\Roadsou pc\r-2303d_rdy_psh_31.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	32
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR –Y52– PROFILE SEE SHEET 59
FOR –RPA– PROFILE SEE SHEET 51
FOR –RPD– PROFILE SEE SHEET 52

REVISIONS

Parcel numbers and owner information revised for parcels 173 & 180. WAS 5/22/2012

NAD 83/95

MATCH LINE –Y52– STA 15+00 SEE SHEET 31

MATCH LINE –Y52– STA 29+00 SEE SHEET 29

180 LOUIS TODD BREWER DB 1620 PG 354 MB 4 PG 150

CHARLES D. WOODARD, ETUX DB 1034 PG 26 MB 4 PG 130

179 CLINTON HCRE,LLC. DB 1760 PG 78

173 LOUIS TODD BREWER DB 1620 PG 350

171 ANTHONY O. LEE, SR., ET AL DB 1584 PG 540

BRETH GAS CO

-RPD- ST Sta. 5+00.00
-Y52- POT Sta. 22+64.48 (39' LT)

-RPD- SC Sta. 7+00.00

-RPD- TS Sta. 24+16.61

-Y52- SC Sta. 26+76.61

-RPD- +90 EXIST R/W & 95' LT

-RPD- +25 EXIST R/W & 90' LT

-Y52- +10 EXIST R/W & 120' LT

-Y52- +75 EXIST R/W & 120' LT

-Y52- +25 EXIST R/W & 120' RT

-Y52- +90 EXIST R/W & 120' RT

-Y52- +56.92 EXIST R/W

-RPA- +00 100' RT

-RPA- POT Sta. 5+00.00
-Y52- POT Sta. 21+74.74 (39' RT)

-RPA- PC Sta. 9+02.92

-RPA- +02.92 85' RT

-RPA- +99 85' RT

-RPA- PT Sta. 10+99.41

-BY13- 86

-BY13- 87

-Y52- S 12° 10' 10.4" E

S 9°52' 10.4" E

S 7°03' 17.9" E -RPA-

CLASS I RIP RAP EST 3 TONS EST 6 SY F

600' TAPER

200' FULL LANES

200' TAPER

LATERAL V DITCH SEE DETAIL C

LATERAL BASE DITCH SEE DETAIL A

SPECIAL LATERAL "V" DITCH SEE DETAIL C

COLLAR AND EXTEND 15" RCP-III

COLLAR AND EXTEND 18" RCP-IV

REMOVE HW 24" CONC COLLAR AND EXTEND 24" RCP-III

REMOVE 16"-18" RCP

REMOVE

RETAIN

TIE WW FENCE TO SLOPE STAKES

ISBKBUS

WOODS

MOORE STREET (60' R/W)

-RPA-

PI Sta 10+01.19
Δ = 2° 48' 52.5" (RT)
D = 1° 25' 56.6"
L = 196.49'
T = 98.27'
R = 4,000.00'
Se = .03
Runoff = 72'

-RPD-

PIs Sta 6+33.37 PI Sta 9+57.13
θs = 4° 00' 00.0" Δ = 20° 21' 12.3" (LT)
Ls = 200.00' D = 4° 00' 00.0"
LT = 133.37' L = 508.84'
ST = 66.70' T = 257.13'
R = 1,432.39'
Se = .06

-Y52-

PIs Sta 26+09.96 PI Sta 28+12.75
θs = 2° 30' 00.0" Δ = 26° 20' 00.0" (LT)
Ls = 200.00' D = 2° 30' 00.0"
LT = 133.35' = 1053.33'
ST = 66.68' = 536.14'
R = 2,291.83'

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	33
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR –RPB– PROFILE SEE SHEET 51
FOR –RPC– PROFILE SEE SHEET 52
FOR –Y52– PROFILE SEE SHEET 60
FOR –SR1– PROFILE SEE SHEET 62

NAD 83'95

REVISIONS
R/W Rev.: Deleted property line in the southeast quardant beside Parcel 182 WTB 8/31/12

MATCH LINE –Y52– STA 38+00 SEE SHEET 29

MATCH LINE –Y52– STA 52+00 SEE SHEET 34

MATCH LINE –SR1– STA 35+50 SEE SHEET 35

-RPC-
PI Sta 6+79.84
Δ = 14° 32' 13.4" (RT)
D = 4° 03' 48.7"
L = 357.74'
T = 179.84'
R = 1,410.00'
Se = .06
Runoff = 1.44'

-RPC- PC Sta. 5+00.00
-Y52- POT Sta. 44+34.08 (39' LT)
-RPC- PT Sta. 8+57.74
-Y52- PT Sta. 39+29.94
-RPC- N 28° 57' 57.0" W
-Y52- S 43° 30' 10.4" E
-Y52- S 43° 29' 20.9" E
-Y52- POT Sta. 51+91.90
END CONSTRUCTION
-Y52- +51.90 TIE TO EXISTING FENCE

-Y51-
PI Sta 19+26.12
Δ = 6° 28' 17.0" (RT)
D = 3° 24' 12.3"
L = 248.91'
T = 124.68'
R = 1,683.48'

-Y52-
PIs Sta 37+96.62
Θs = 2° 30' 00.0"
Ls = 200.00'
LT = 133.35'
ST = 66.68'

-RPB-
PI Sta 6+44.58
Δ = 12° 53' 21.2" (LT)
D = 4° 28' 34.4"
L = 287.95'
T = 144.58'
R = 1,280.00'
Se = .06
Runoff = 1.44'

-SRI-
PI Sta 36+12.22
Δ = 30° 15' 47.5" (LT)
D = 4° 35' 01.2"
L = 660.24'
T = 338.02'
R = 1,250.00'
Se = See Plans
Runoff = See Plans

-Y51- PT Sta. 7+87.95
-RPB- PC Sta. 3+01.44
-Y52- POT Sta. 40+91.90
-RPB- PC Sta. 5+00.00 (39' LT)
-Y51- PT Sta. 20+50.35
-SRIREV- POT Sta. 39+45.47
-Y51- POT Sta. 23+17.78
-SRIREV- PT Sta. 38+59.31
-SRIREV- PC Sta. 36+49.60
-Y51- PC Sta. 18+27.35

EDGEWOOD AVE 18' BST
EDGEWOOD AVENUE
ROYAL ST (44' R/W)
30' ALLEY (GLENDALE STREET)
ALLEY (GLENDALE ST) 19' BST
HERRING ST
HERRING STREET (44'R/W)
22' BST
VARYING EXISTING R/W
60' TAPER
300' TAPER
500' FULL LANE
SPECIAL CUT DITCH W/PSRM SEE DETAIL C
REMOVE CONC DITCH APPROX. 613'
2GI JB w/MH
15" RCP-IV
REMOVE 12" – 15" RCP
RETAIN
COLLAR AND EXTEND 15" RCP-III
SPECIAL LATERAL "V" DITCH SEE DETAIL P
SPECIAL LATERAL V DITCH SEE DETAIL C
TIE TO EXIST C&G
END SBG STA 45+70 -Y52- RT
APPROXIMATE WATER LINE LOCATION
PUE
48" BK WALL
56" BK WALL
36" BLK WALL
72" CHL&3SBW
MTL CANOPY
CONC SLAB
SILO
POOL
FLAG POLE

DEBORAH H. PEARSON
DB 1623 PG 544
MB 1 PG 363

BECKY T. DREES JOHNSON
DB 1716 PG 49
MB 6 PG 54
MB 3 PG 165

CYNTHIA H. MCLAMB, ETVIR
DB 1332 PG 936
MB 6 PG 54
MB 3 PG 165

ELLIOT V. FAISON
DB 1780 PG 322
MB 6 PG 54
MB 3 PG 165

JAMES C. ALDERMAN
DB 1699 PG 384
MB 6 PG 54
MB 3 PG 165

DEBORAH S. OWEN
DB 1439 PG 579
MB 6 PG 54
MB 3 PG 165

O. L. McCULLEN, ETUX
DB 933 PG 259
MB 6 PG 54
MB 3 PG 165

JAMES E. GALLAGHER, ETUX
DB 803 PG 005
MB 6 PG 54
MB 3 PG 165

MILLARD T OWEN, III, ETUX
DB 1108 PG 295

SOUTHEASTERN GRAIN COMPANY LLC.
DB 1796 PG 400

SOUTHERN STATES COOPERATIVE, INC.
DB 1036 PG 283

COHARIE HOG FARM, INC
DB 1138 PG 402
DB 1152 PG 109
DB 1146 PG 858
DB 1536 PG 233
DB 1681 PG 761

D. M. FAIRCLOTH
DB 852 PG 105
DB 852 PG 107
DB 852 PG 109

182
183
181

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	34
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR –Y52– PROFILE SEE SHEET 60

REVISIONS

MATCH LINE –Y52– STA 52+00 SEE SHEET 33

N 64° 55' 54" W
175.00'

S 70° 04' 06" W
65.00'

N 10° 59' 48" W
CHORD AS THE CREEK MEANDERS 788.31'

183

MILLARD T. OWEN, III, ETUX
DB 1108 PG 295
MB 6 PG 54
MB 3 PG 165

DEBORAH S. OWEN
DB 1530 PG 903

CLASS I RIP RAP
EST 35 TONS
EST 20 SY FF

-Y52-
+50
EXIST R/W
& 105'

-Y52-
+80
EXIST. R/W & 105'

24" RCP-III

42" RCP-III

VARYING EXISTING R/W

PIDE

HW

DNC BASIN

3612
JB wMH

3613
JB wMH

-BY13- 90

VARYING EXISTING R/W

R/W MON

MTL

RETAIN

TRENCHLESS INSTALLATION
42" WELDED STEEL

72" CONC

3610
2GI-A
24" RCP-III

3611
2GI-A

42" RCP-III
REMOVE

RETAIN

60' CHL

72" CONC

24" CONC

15" CMP

VARYING EXISTING R/W

72" CNL & 3SBW

IRON PIN

S 41° 43' 03" E
3.9'

S 10° 23' 27" E
96.85'

FELICIA BEST LEWIS
DB 1690 PG 618

ISPD

WD DK

S 10° 23' 27" W
101.54'

FELICIA BEST LEWIS
DB 1661 PG 918

S 79° 37' 39" W
87.31'

S 79° 36' 33" W
200.00'

S 12° 22' 01" E
100.00'

ISBKD

ROBERT L. AYCOCK, ETUX
DB 904 PG 212

S 85° 47' 19" E
65.46'

S 10° 23' 27" E
100.25'

S 10° 23' 27" E
100.00'

N 78° 16' 33" E
117.58'

S 11° 09' 27" W
7.07'

WILLIE FRANK FAISON
DB 1699 PG 179

S 10° 23' 27" E
414.73'

S 82° 06' 33" W
402.71'

JS WLL

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	35
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR –Y50– PROFILE SEE SHEET 57
FOR –SR1– PROFILE SEE SHEET 62

NAD 83'95

MATCH LINE –SR1– STA 13+00 SEE SHEET 27

MATCH LINE –Y50– STA 18+00 SEE SHEET 28

MATCH LINE –SR1– STA 25+50 SEE SHEET 36

158
PEGGY S. WEST
DB 1167 PG 079
MB 9 PG 29
MB 60 PG 18

FAIRCLOTH FAMILY PROPERTIES, LLC
DB 1270 PG 032
DB 1275 PG 772
DB 1245 PG 364
DB 835 PG 213
DB 1517 PG 184
DB 1517 PG 196
DB 1565 PG 455
DB 1693 PG 560
DB 1090 PG 41
MB 9 PG 29
MB 60 PG 18

140A

165
SHAWROCK PLAZA
DB 884 PG 211

166
IMMANUEL BAPTIST CHURCH OF CLINTON, N.C.
DB 1297 PG 587
DB 945 PG 946

169
ANNE B. FAIRCLOTH
DB 1433 PG 761
DB 1463 PG 441
MB 11 PG 41
MB 44 PG 75

-SRIREV- PC Sta. 16+57.76

-SRIREV- PRC Sta. 18+21.91

-Y50- POT Sta. 20+85.31

-SRIREV- POC Sta. 21+47.77

-SRIREV- PRC Sta. 23+29.39

S 66°03'02" E 405.00'

N 76°50'52" E 524.66'

S 1°48'32" E

S 2°20'59" E 106.34'

S 83°08'57" W 393.19'

72' CHL & 65BWS S 66°22'22" W

-SRIREV- +00 40' LT

-SRIREV- +57.76 60' LT

-SRIREV- +00 50' RT

-SRIREV- +24 60' LT

-SRIREV- +00 60' LT

-SRIREV- +00 135' LT

-SRIREV- +25 110' LT

-SRIREV- +29.39 45' LT

-SRIREV- +57.76 70' RT & 75' RT

-SRIREV- +00 75' RT & 85' RT

-SRIREV- +25 75' RT & 85' RT

-SRIREV- +21.91 75' RT

-SRIREV- +50 50' RT

-SRIREV- +00 45' LT

-SRIREV- +25 45' LT

-SRIREV- +85 45' LT

-SRIREV- +29.39 45' LT

-SRIREV- +29.39 50' RT & 60' RT

-Y50- +47.97 EXIST. R/W

-Y50- +40 EXIST. R/W

-Y50- +40 EXIST. R/W

-SR1- +21.91 60' LT

-SR1- +00 60' LT

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST. 85 TONS EST. 160 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST. 150 TONS EST. 280 SY FF

CL I RIP RAP EST 15 TONS EST 30 SY FF

CL I RIP RAP

PSRP SEE DETAIL

PDE

SPECIAL LATERAL V DITCH SEE DETAIL C

LATERAL BASE DITCH SEE DETAIL A

GRADE TO DRAIN

150' TAPER RT

150-50-150 65 D.S.

180-60-180 65 D.S.

24" CMP

36" CMP

36" WD RAIL

25' ELEC

SRR

BARN

EIP

POND

DITCH

CONC

ISBL KBUS

CLINTON CITY LIMITS

SANDY WHITTED ESTATE
DB 480 PG 525
DB 536 PG 169

FAIRCLOTH FAMILY PROPERTIES, LLC
DB 1270 PG 032
DB 1275 PG 772
DB 1245 PG 364
DB 835 PG 213
DB 1517 PG 184
DB 1517 PG 196
DB 1565 PG 455
DB 1693 PG 560
DB 1090 PG 41
MB 9 PG 29
MB 60 PG 18

-SRIREV-

PI Sta 17+42.92	PI Sta 20+79.50	PI Sta 25+20.33
Δ = 37° 37' 08.5" (LT)	Δ = 24° 13' 49.2" (RT)	Δ = 21° 37' 14.3" (LT)
D = 22° 55' 05.9"	D = 4° 46' 28.7"	D = 5° 43' 46.5"
L = 164.14'	L = 507.48'	L = 377.35'
T = 85.15'	T = 257.59'	T = 190.95'
R = 250.00'	R = 1,200.00'	R = 1,000.00'
Se = See Plans	Se = See Plans	Se = See Plans
Runoff = See Plans	Runoff = See Plans	Runoff = See Plans

REVISIONS
R/W Rev. Added parcel number, property owner's name, and deed book Information for Parcel 158. WTB 8/31/12

5/14/99

31-AUG-2012 13:26
R:\STIPROJ\2303d_rdy_psh_35.dgn
$$$$STIPRNME$$$$

R-2303D	36
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

FOR –SR1– PROFILE SEE SHEET 63

REVISIONS

5/14/

Parcel numbers and owner information revised for parcels 140, 140A, 169 & 181. WAS 5/22/2012

22-MAY-2012 11:10
R:\Roadway\Projects\r-2303d_rdy_psh_36.dgn
$$$$USERNAME$$$$

169
ANNE B. FAIRCLOTH
DB 1433 PG 761
DB 1433 PG 761
MB 11 PG 41
MB 44 PG 75

APPROXIMATE WATER LINE LOCATION

APPROXIMATE WATER LINE LOCATION

FUTURE DRIVEWAY DONE BY OTHERS

169

-SR1- +85 85' LT

-SR1- +40 85' LT

-SR1- +85 45' LT

-SR1- +06.74 45' LT

-SR1- +45 45' LT

32' DR

3510

CONCRETE DRIVE

30

BACKSIDE OF THE NEW "LOWES" BUILDING

CHAIN LINK FENCE

-SR1- PC Sta. 32+74.20

NORTH LOCATION

APPROXIMATE WATER LINE LOCATION

BOLLARDS

BACK OF CONC CURB

APPROXIMATE WATER LINE LOCATION

N 76°56'40"E 771.90'

-SR1-

-SR1- +74.20 45' LT

CONCRETE DRIVE

35

181

SOUTHERN STATES COOPERATIVE, INC.
DB 1030 PG 283

APPROXIMATE WATER LINE LOCATION

3512

85' CHC @ 358W

24' DR

GRAVEL DRIVE

MATCH LINE -SR1- STA 25+50 SEE SHEET 35

ROAD

N 76°56'40"E -SR1-

3511

CL B RIP RAP
EST 3 TONS
EST 11 SY FF

-SR1- +06.74 60' RT

-SR1- +00 40' RT

-SR1- PT Sta. 27+06.74

-SR1- +74.20 40' RT

3513

GRADE TO DRAIN

-SR1- +00 40' RT

GRADE TO DRAIN

-SR1- +85 40' RT

15"

3514

-SR1- +50 70' RT

-SR1- +50 165' RT

12" CHC @ 358W

12" HDPE

-SR1- +00 165' RT

CANVAS & MTL SILO (TIPITYPE)

140A
FAIRCLOTH FAMILY PROPERTIES, LLC
DB 1270 PG 032
DB 1275 PG 772
DB 1245 PG 364
DB 835 PG 213
DB 1517 PG 184
DB 1517 PG 196
DB 1565 PG 455
DB 1693 PG 560
DB 1040 PG 411
MB 9 PG 29
MB 60 PG 18

S 40°30'37" W 246.64'

S 30°00'47" E 213.95'

182
SOUTHEASTERN GRAIN COMPANY LLC
DB 1769 PG 400

2 SM TL BARN

COHARIE HOG FARM, INC
DB 1138 PG 402
DB 1152 PG 103
DB 1146 PG 858
DB 1536 PG 233
DB 1611 PG 767

N 65°30'21" E 301.25'

MATCH LINE -SR1- STA 35+50 SEE SHEET 33

-SR1-

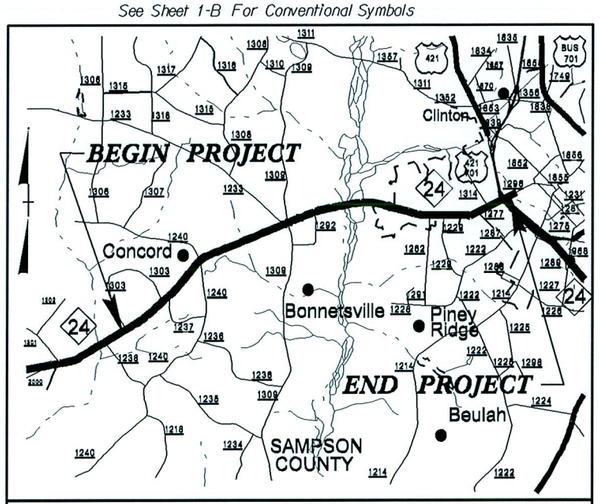
PI Sta 25+20.33	PI Sta 36+12.22
Δ = 21° 37' 14.3" (LT)	Δ = 30° 15' 47.5" (LT)
D = 5° 43' 46.5"	D = 4° 35' 01.2"
L = 377.35'	L = 660.24'
T = 190.95'	T = 338.02'
R = 1,000.00'	R = 1,250.00'
Se = See Plans	Se = See Plans
Runoff = See Plans	Runoff = See Plans

09/08/99

TIP PROJECT: R-2303D

CONTRACT:

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY WETLAND IMPACT PLAN
SAMPSON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303D	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
34416.1.1		PE
34416.2.5		R/W, UTIL.

LOCATION: NC 24 FROM SR 1303 (MITCHELL LOOP ROAD) TO US 421-701/SR 1296 (SUNSET AVENUE)

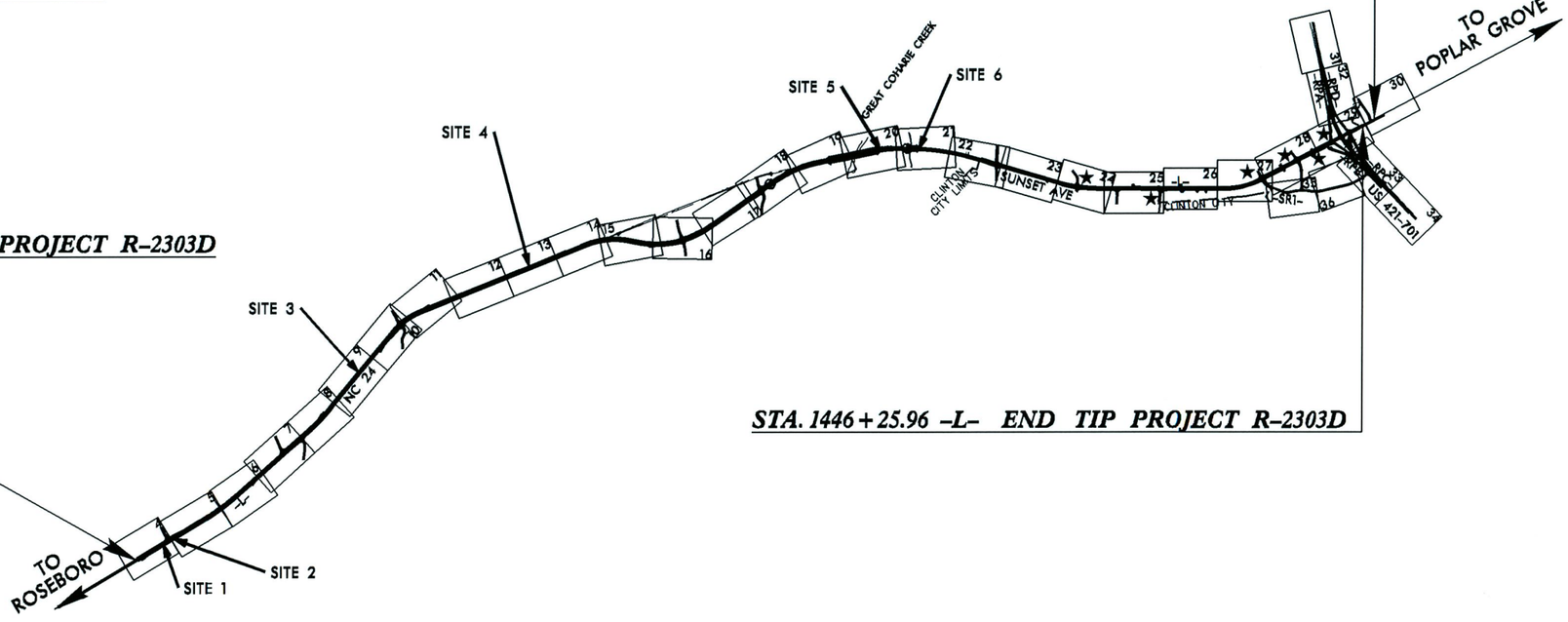
TYPE OF WORK: GRADING, DRAINAGE, PAVING, RESURFACING, CURB & GUTTER, SIGNALS, AND STRUCTURES

Utility Permit Drawing
Sheet 1 of 7

NAD 83'95

STA. 1449+56.13 -L- END CONSTRUCTION

STA. 1097+00.00 -L- BEGIN TIP PROJECT R-2303D



STA. 1446+25.96 -L- END TIP PROJECT R-2303D

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

PLANS: 50 25 0 50 100
PROFILE (HORIZONTAL): 50 25 0 50 100
PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2013 = 40480
ADT 2033 = 59680
DHV = 11 %
D = 55 %
T = 8 % *
V (SHOULDER) = 60 MPH
V (CURB & GUTTER) = 50 MPH
* (TTST 5% + DUAL 3%)
FUNC. CLASS = ARTERIAL
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2303D = 6.35 MILES
LENGTH STRUCTURES TIP PROJECT R-2303D = 0.26 MILES
TOTAL LENGTH TIP PROJECT R-2303D = 6.61 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JUNE 30, 2011

LETTING DATE: JUNE 18, 2013

BRENDA MOORE, PE
PROJECT ENGINEER

KATRINA N. WASHINGTON, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

P.E.
STATE HIGHWAY DESIGN ENGINEER

22-JAN-2013 07:28
R:\Utilities\Rgy_Ut\Proj\r2303d_UT_PRM_WET_tsh.dgn
$$$$USERNAME$$$$

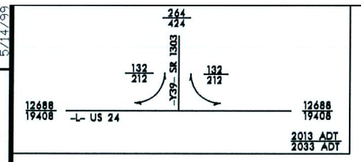
PROJECT REFERENCE NO.	SHEET NO.
R-2303D	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

UTILITY WETLAND IMPACT

Utility Permit Drawing
Sheet 2 of 7



REVISIONS

5/14/99

Property lines relocated in parcels 3A,3B & 8, parcel numbers and owner information revised for parcels 2,3A,3B,8,8A & 8C, access points added for parcels 2 & 4 and parcel 2 PUE changed to A.E. WAS 2/20/2012

FROM -L- STA. 1095+47.50 LT
TO -L- STA. 1098+58.46 LT
THE R/W WILL BE PURCHASED
UNDER R-2303C

STA. 1097+00.00 -L- BEGIN TIP PROJECT R-2303D

R/W ACQUIRED UNDER R-2303C

R/W ACQUIRED UNDER R-2303C

BEGIN CONSTRUCTION -Y39- POT Sta. 11+84.96

MATCH LINE -L- STA 1107+50 SEE SHEET 5

SITE 1
FILL IN
WETLAND
< 0.01 AC

SITE 1
HAND CLEARING
IN WETLAND
0.066 AC

HC HC DENOTES HAND CLEARING

23-JAN-2013 10:19
U:\Projects\Permits\r-2303d_UT_PRM_WET_sht_04.dgn
USERNAME=sss

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	9
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

UTILITY WETLAND IMPACT

SITE 3
FILL IN
WETLAND
< 0.01 AC

SITE 3
HAND CLEARING
IN WETLAND
0.283 AC

Utility Permit Drawing
Sheet 3 of 7

REVISIONS

5/14/99

MATCH LINE -L- STA 1161+50 SEE SHEET 8

MATCH LINE -L- STA 1175+00 SEE SHEET 10

MICHAEL A. FISHER
DB 1096 PG 273

ANNIE GRAHAM HEIRS
DB 935 PG 483

CALVIN GANDY, JR.
DB 1386 PG 158

WILLIAM PETERSON
DB 904 PG 586

JEFF C. GRAHAM
DB 1070 PG 757
WILL 6 PG 458

MB 28 PG 98

SPECIAL LATERAL V DITCH
SEE DETAIL C

SPECIAL LATERAL V DITCH
SEE DETAIL D

PSH
SEE DETAIL

TOE PROTECTION
CLASS B RIP RAP
SEE DETAIL D
EST 230 TONS
EST 410 SY FF

TOE PROTECTION
CLASS B RIP RAP
SEE DETAIL D
EST 380 TONS
EST 700 SY FF

CL I RIP RAP
EST. 40 TONS
EST. 75 SY FF

BEGIN SBG 1163+00 -L- RT

BEGIN SBG 1173+00 -L- RT

END SBG 1173+00 -L- RT

GRAU 350

NC 24 (ROSEBORO HIGHWAY)

DENOTES HAND CLEARING

23-JAN-2013 10:23
U:\Projects\Permits\R-2303d_UT_PRM_WET_psh_09.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Utility Permit Drawing
Sheet 4 of 7

NAD 83/95

UTILITY WETLAND IMPACT

SITE 4
HAND CLEARING
IN WETLAND
0.156 AC

SITE 4
FILL IN
WETLAND
< 0.01 AC

MATCH LINE -L- STA 1215+50 SEE SHEET 12

MATCH LINE -L- STA 1229+00 SEE SHEET 14

53 ASHLEY V. ODUM
DB 1452 PG 904
MB 6 PG 66

54 NEIL CRUMPLER
DB 1759 PG 144

56 RONALD WEINMAN
DB 1756 PG 397

57 KENNETH A. CANNADY
DB 1718 PG 982

55 EVA S. ZARATE
DB 1794 PG 937

44 CECELIA A. PRITCHARD
DB 963 PG 609

ISBKD

BEGIN SBG STA 1219+00 -L- LT

END SBG STA 1225+50 -L- RT

-BL- 26

-BL- 27

NC 24 (ROSEBORO HIGHWAY)

NC 24 24' BST

EXISTING R/W

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 130 TONS EST 230 SY FF

CL B RIP RAP EST 1 TON EST 5 SY FF

INLET CHANNEL SEE DETAIL K EST 25 SY COIR MAT EST 10 CY EXCAVATION

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 40 TONS EST 60 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 210 TONS EST 390 SY FF

OUTLET CHANNEL SEE DETAIL I EST 60 TONS CLASS I EST 80 SY FF EST 15 CY EXCAVATION

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 40 TONS EST 70 SY FF

12' DR ACCESS

12' DR

121' DR ACCESS POINT

END WW FENCE

BEGIN WW FENCE

1 @ 9'x9' RCBC

DENOTES HAND CLEARING

REVISIONS

5/14/99

23-JAN-2013 10:26
User:rogers
c:\projects\roadway\r-2303d\Permits\r-2303d_UT_PRM_WET_pth_13.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	20
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83\95

Utility Permit Drawing
Sheet 5 of 7

UTILITY WETLAND IMPACT

REVISIONS

5/14/99

MATCH LINE -L- STA 1310+00 SEE SHEET 19

MATCH LINE -L- STA 1323+50 SEE SHEET 21

STATE OF NORTH CAROLINA
DB 1567 PG 211
MB 9 PG 12
MB 8 PG 2

91A

N 70° 26' 21" E
99.48'

N 22° 00' 21" E
498.21'

91B

JAMES CARNETT BONEY FAMILY TRUST
DB 1361 PG 22

-BL- R2303D-6

JOHNNY F. PATTERSON, ETUX
DB 1177 PG 079

N 35° 09' 37" E
116.08'

84

LONNIE W. GLASPIE
DB 1225 PG 140

91

GREAT COHARIE CREEK

FLOODED AREA

NC 24 (ROSEBORO HIGHWAY)

EXISTING R/W

REPEATER

S 18° 54' 47" W
40.81'

S 1° 35' 34" E
303.52'

S 4° 29' 49" W
75.75'

S 8° 04' 36" E
132.89'

S 18° 35' 32" E
24.59'

N 80° 42' 17" E
100.91'

S 1° 35' 47" E
74.84'

END BRIDGE
-LREV- STA 1317+58.00

END APPROACH SLAB
-LREV- STA 1317+82.00

BEGIN SBG END APPROACH SLAB STA 1317+82 -LREV- RT-

SITE 5
HAND CLEARING
IN WETLAND
0.055 AC

SITE 5
FILL IN
WETLAND
< 0.01 AC

TOE PROTECTION
CLASS B RIP RAP
SEE DETAIL D
EST 400 TONS
EST 730 SY FF

-BL- R2303D-7

-LREV- ±50.72 110' LT

-LREV- ±39.50 110' LT

-LREV- ±60 130' & 134' LT

-LREV- ±85 130' & 134' LT

-LREV- ±44.30 110' LT BEGIN WW FENCE

-LREV- ±44.69 101.37', 110', 116', & 126' LT

-LREV- ±92.85 116' LT

-LREV- ±50.72 110' & 110' RT BEGIN WW FENCE

PDE

-LREV- +74 100' & 110' RT

CL B RIP RAP
EST 1 TONS
EST 5 SY FF

TOE PROTECTION
CLASS B RIP RAP
SEE DETAIL D
EST 400 TONS
EST 730 SY FF

-LREV- ±39.50 120' RT

-LREV- ±46.10 100' LT

-LREV- ±20 120' RT

CL B RIP RAP
EST 2 TONS
EST 7 SY FF

550' TAPER LT & RT
GRADE POINT TRANSITION

GRADE POINTS

92

COHARIE INCORPORATED
DB 953 PG 555
DB 953 PG 558

93

JACK W. GRIFFIN, ET UX
DB 645 PG 90
DB 946 PG 0014

2010 2011 2012 2013 2015

TYPE M350

TYPE B-77

END SBG

DENOTES HAND CLEARING

23-JAN-2013 10:31
U:\Eng\Survey\Planning\Permits\r-2303d_UT_PRM_WET_osh_20.dgn
$$USERNAME$$

PROJECT REFERENCE NO.	SHEET NO.
R-2303D	21
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83/95

UTILITY WETLAND IMPACT

Utility Permit Drawing
Sheet 6 of 7

REVISIONS

5/14/98

SITE 6
FILL IN WETLAND
< 0.01 AC

SITE 6
HAND CLEARING IN WETLAND
0.184 AC

SEE MITIGATION PLANS

MATCH LINE -L- STA 1323+50 SEE SHEET 20

MATCH LINE -L- STA 1337+00 SEE SHEET 22

PROPOSED ON-SITE MITIGATION AREA

PUE

OUT HOUSE

-LREV- +44.47 200.44' LT

-LREV- +50 END WW FENCE

-L- +20 224.5' LT

-L- +20 116' LT

END APPROACH SLAB -L- STA 1328+08.02 LT

END BRIDGE -L- STA 1327+83.85 LT

BEGIN APPROACH SLAB -L- STA 1325+79.68 LT

BEGIN BRIDGE -L- STA 1326+04.15 LT

-L- +00 100' LT END LIMITED C/A END WW FENCE

-L- +23 128' LT

-L- +43 122' LT

-L- +55 100' LT

Energy Dissipator SEE DETAIL S Basin #2 EST 30 TONS EST 25 SY PP EST 3 CY Excav

-L- +35 94.44' & 116' LT

-L- +00 116' LT

PDE

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 400 TONS EST 730 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 55 TONS EST 100 SY FF

TOE PROTECTION CLASS B RIP RAP SEE DETAIL D EST 22 TONS EST 40 SY FF

-BL- 38 wMH

30" RCP-IV

GRAU 350

PROP. 2'-6" C&G

PROP. 1'-6" C&G

60' CHL

ATTENUATOR

EXPOSED WIRE

NC 24 (ROSEBORO HIGHWAY)

15" RCP-IV

24" RCP-IV

CB

REMOVE

36' DR

18" DR

GRADE POINT

680' TAPER LT. & RT. GRADE POINT TRANSITION

-LREV- +54.08 100' RT

CL B RIP RAP EST 1 TONS EST 5 SY FF

BEGIN APPROACH SLAB STA 1325+79.68 -L- RT

END BRIDGE -L- STA 1327+84.15 RT

BEGIN BRIDGE -L- STA 1326+03.85 RT

BEGIN APPROACH SLAB -L- STA 1325+79.68 RT

END APPROACH SLAB -L- STA 1328+08.32 RT

-L- +00 100' RT END LIMITED C/A END WW FENCE

-L- +00 52' RT

-L- +55 97.55' RT

PROP. RETAINING WALL #1 FROM -L- STA. 1331+20 TO STA.1341+00

GRADE TO DRAIN

-L- +70 53' & 68' RT

-L- +90 53' & 68' RT

-L- +80 58' & 68' RT

-L- +50 68' RT

-L- +45 58' & 68' RT

-L- +00 68' RT

-L- +04 81' & 88' LT

-L- +28 81' & 93' LT

-L- +44 65' LT

-L- +65 65' LT

-L- +30 68' & 75' LT

75' LT POWER/TEL BOX ON 3X8 FT CONC SLAB

CAROLINA TELEPHONE AND TELEGRAPH CO. DB 1117 PG 392

+07.16 66.60'

PUBUS

PUEPUE

W/ TRANSFORMER

PROP. 1'-6" C&G

NC 24 26' BST

PROP. 2'-6" C&G

STA 1332+75 TO STA 1340+30 -L- SEE SHEET 2-I

CONC. DITCH

+96.28 57.67'

+42.97 54.67'

+07.16 66.60'

PI STA 1335+85.56
Δ = 9°04'18.8" (RT)
D = 9°57'44.3"
T = 79.76'
L = 158.72'
R = 575.00'

PROP. 2'-6" C&G

18" RCP-IV

24" RCP-IV

PROP. U/G FOM & CATV LINE

PROP. U/G FOM & POW CABLE

CONC. DITCH

ROCK GRADE

ISBKD

ISMTLBUS

ISBKBUS

2SBKD

WD DK

G

CONC

PLANTER

20' CONC

12' CONC

RAD 235.00'

WILEY FOX RD 20' BST

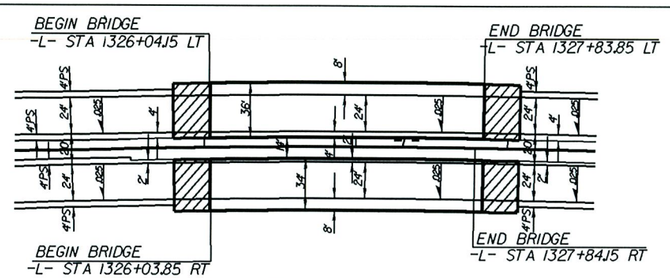
15" PLASTIC

TAX OFFICE INFORMATION

91A 92 92A 93 93A 93B 96 97 98

HC DENOTES HAND CLEARING

BRIDGE SKETCH (NOT TO SCALE)



23-JAN-2013 10:34
I-UTILITY\ROUNDS\Permit\r2303d_UT_PRM_WET_psh_21.dgn

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	1106+36 -L-	POWER	< 0.01				0.07					
2	1107+50 -L-	POWER					0.05					
3	1169+12 -L-	POWER	< 0.01				0.28					
4	1222+17 -L-	POWER	< 0.01				0.16					
5	1319+83 -L-	POWER	< 0.01				0.06					
6	1325+14 -L-	POWER	< 0.01				0.18					
TOTALS:			< 0.01			0.00	0.80			0.00	0.00	

Utility Permit Drawing
Sheet 7 of 7

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CUMBERLAND / SAMPSON COUNTY
WBS - 34416.1.1 (R-2303D)

SHEET 1/22/2013

ATN Revised 3/31/05