

MINIMUM CRITERIA DETERMINATION CHECKLIST

STIP No.: B-5825
WBS No.: 45778.1.1

Project Location: Bridge No. 980035 on NC 67 (Reynolda Road) over the Yadkin River in Yadkin and Forsyth Counties.

Project Description: The proposed project involves replacing Bridge No. 980035 on NC 67 over the Yadkin River in Yadkin and Forsyth Counties. Right-of-way acquisition and construction are scheduled for state fiscal year 2020.

The replacement structure will be a 72-inch girder bridge approximately 1,065-feet long providing a minimum clear roadway width of 32-feet on new alignment to the north. The bridge will include two 12-foot travel lanes, 4-foot offsets, and bicycle safe rails. The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be raised from 3-feet to 6-feet.

The 72" Corrugated Metal Pipe (CMP) on SR 1600 (Donnaha Road) over an unnamed tributary to the Yadkin River will be replaced with a single 9' x 10' Reinforced Box Culvert (RCBC). The existing single 9' x 9' RCBC on NC 67 (Reynolda Road) over an unnamed tributary to the Yadkin River east of Bridge No. 980035 will be retained and extended.

Project construction on NC 67 (Reynolda Road) will extend approximately 1,533-feet from the west end of the new bridge and 1,402-feet from the east end of the new bridge. The approaches will be widened to provide two 12-foot travel lanes with 8-foot shoulders (11-feet with guardrail) including 4-foot paved.

Project construction on SR 1600 (Donnaha Road) will extend approximately 968-feet north from NC 67. SR 1600 will be realigned and widened to improve the sight distance to the west. The realignment of SR 1600 to the east will include two 12-foot travel lanes with 8-foot shoulders (11-feet with guardrail).

NC 67 has a functional classification of Minor Arterial and will be designed using Regional Tier Guidelines with a 60 mile per hour design speed.

Traffic will be maintained on-site using the existing bridge and roadway alignment during construction (see Figure 1).

Anticipated Permit or Consultation Requirements: A Section 404 Nationwide Permit (NWP) No. 33 will likely be applicable. An NWP No. 33 may also apply for temporary construction activities that are often used during bridge construction or rehabilitation. The USACE holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required, then a corresponding Section 401 Water Quality Certification from NCDWR will also be required.

Special Project Information:

Purpose and Need: The purpose of the proposed project is to replace a structurally deficient bridge. NCDOT records indicates Bridge 980035 has a sufficiency rating of 4 out of a possible 100 for a new structure. The bridge is considered structurally deficient due to a superstructure appraisal of 3 out of 9 according to Federal Highway Administration standards.

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Design Exception: Design exception required for the pavement cross slope on NC 67.

Relocations: One relocation is anticipated with the proposed project. The Donnaha Mart on the corner of NC 67 (Reynolda Road) and SR 1600 (Donnaha Road) will be impacted due to realignment of NC 67.

Environmental Commitments: The list of project commitments (green sheets) are located at the end of the checklist.

Pedestrian and Bicycle Accommodations: The bridge is located on a designated bike route. The Division of Bicycle and Pedestrian Transportation recommends that the replacement bridge include a minimum 4-foot paved shoulders (5-foot preferred) with bicycle-safe railing. The railing should be at least 42 inches high, with heights of 48 and 54 inches recommended for moderate hazards such as winds, high traffic and speeds of vehicles, and/or high drop-off to the ground surface.

The design will include 4-foot paved shoulders and bicycle safe rails to accommodate bicyclists.

Bridge Demolition: Bridge No. 980035 is constructed of concrete and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices.

Public Involvement: A landowner notification letter was sent to all property owners affected by this project. Property owners were invited to comment. No comments have been received to date.

PART A: MINIMUM CRITERIA

YES NO

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Is the proposed project listed as a type and class of activity allowed under the Minimum Criteria Rule in which environmental documentation is <u>not</u> required? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|-------------------------------------|--------------------------|

If the answer to number 1 is “no,” then the project does not qualify as a minimum criteria project. A state environmental assessment is required.

If yes, under which category? **Category 8**

PART B: MINIMUM CRITERIA EXCEPTIONS

YES NO

- | | | |
|--|--------------------------|-------------------------------------|
| 2. Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse air quality impacts? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Will the proposed activity have secondary impacts or cumulative impacts that may result in a significant adverse impact to human health or the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Is the proposed activity of such an unusual nature or does the proposed activity have such widespread implications that an uncommon concern for its environmental effects has been expressed to the Department? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

MINIMUM CRITERIA DETERMINATION CHECKLIST

- | | | |
|--|--------------------------|-------------------------------------|
| 5. Does the proposed activity have a significant adverse effect on wetlands; surface waters such as rivers, streams, and estuaries; parklands; prime or unique agricultural lands; or areas of recognized scenic, recreational, archaeological, or historical value? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Will the proposed activity endanger the existence of a species on the Department of Interior's threatened and endangered species list? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Could the proposed activity cause significant changes in land use concentrations that would be expected to create adverse water quality or ground water impacts? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. Is the proposed activity expected to have a significant adverse effect on long-term recreational benefits or shellfish, finfish, wildlife, or their natural habitats? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

PART C: COMPLIANCE WITH STATE AND FEDERAL REGULATIONS

- | | YES | NO |
|--|-------------------------------------|-------------------------------------|
| 9. Is a federally protected threatened or endangered species, or its habitat, likely to be impacted by the proposed action? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. Does the action require the placement of temporary or permanent fill in waters of the United States? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. Does the project require the placement of a significant amount of fill in high quality or relatively rare wetland ecosystems, such as mountain bogs or pine savannahs? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 12. Is the proposed action located in an Area of Environmental Concern, as defined in the coastal Area Management Act? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 13. Does the project require stream relocation or channel changes? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Cultural Resources

- | | | |
|---|-------------------------------------|-------------------------------------|
| 14. Will the project have an "effect" on a property or site listed on the National Register of Historic Places? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Will the proposed action require acquisition of additional right of way from publicly owned parkland or recreational areas? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

MINIMUM CRITERIA DETERMINATION CHECKLIST

Response to Question 9: Threatened and Endangered Species

Small-anthered Bittercress: Suitable habitat is present within the project study area, however, this species is only known to occur in the Dan River drainage of the Roanoke River Basin. A review of the NCNHP records, updated April 2019, indicates no known occurrences of the small-anthered bittercress within 1.0 mile of the project study area. Due to the lack of habitat, a biological conclusion of NO EFFECT has been rendered for this species.

Northern Long-eared Bat (NLEB): A review of NCNHP records, updated April 2019, indicates no known occurrences of the NLEB within 1.0 mile of the project study area. The nearest hibernacula record is 77 miles southwest of the project study area. There are no known NLEB roost trees within 150 feet of the project area. NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) Rule. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

Response to Question 10: Waters of the United States

Three jurisdictional streams (totaling approximately 900 linear feet) and two jurisdictional wetlands (totaling approximately 0.05 acres) were identified within the study area. Exact impact acreages, including required extent of fill placement, will be determined during final design. The amount of water resources and wetlands within the study area, described above, represents the maximum extent of potential fill in Waters of the United States. NCDOT will be pursuing the required USACE and NCDWR permits.

Response to Question 15: Parkland

Donnaha Park is owned by the State of North Carolina and is not a Section 6(f) resource. The land was donated to the State of North Carolina by the United States of America as a recreational use for the traveling public and as a source for roadway materials in connection with the maintenance and operation of a public highway.

Donnaha Park will be impacted with the proposed project due to the relocation of Donnaha Road. The Park will be closed during construction.

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PART D:(To be completed when either category #8, 12(i) or #15 of the rules are used.)

Project length: 0.758-miles

Right of Way width: Variable 100-feet to 220-feet

Project completion date: June 2022

Total acres of newly disturbed ground surface: 7-acres

Total acres of wetland impacts: 0.05-acre

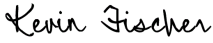
Total linear feet of stream impacts: 900-linear feet permanent

Project purpose: The purpose of the proposed project is to replace a structurally deficient bridge. NCDOT records indicates Bridge 980035 has a sufficiency rating of 4 out of a possible 100 for a new structure. The bridge is considered structurally deficient due to a superstructure appraisal of 3 out of 9 according to Federal Highway Administration standards.

If Part D of the checklist is completed, send a copy of the entire checklist document to:

David B. Harris, PE
 State Roadside Environmental Engineer
 Mail Service Center 1557
 Raleigh, NC 27699-1557
 (919) 707-2920
 Fax: (919) 715-2554
 Email: davidharris@ncdot.gov


Reviewed by:

DocuSigned by:

 FD19A18D98FC496

Kevin Fischer, PE, Assistant State Structures Engineer
 NCDOT, Structures Management Unit

Date: 7/12/2019 | 2:50 PM EDT

Prepared by:

DocuSigned by:

 E3EB7119684E416

Stacy B. Oberhausen, PE, CPM
 TGS Engineers

Date: 7/12/2019 | 11:15 AM PDT

PROJECT COMMITMENTS

STIP No. B-5825

WBS No. 45778.1.1

**Bridge No. 35 on NC 67 over the Yadkin River
Yadkin and Forsyth Counties**

NCDOT Hydraulic Design Unit – FEMA Coordination

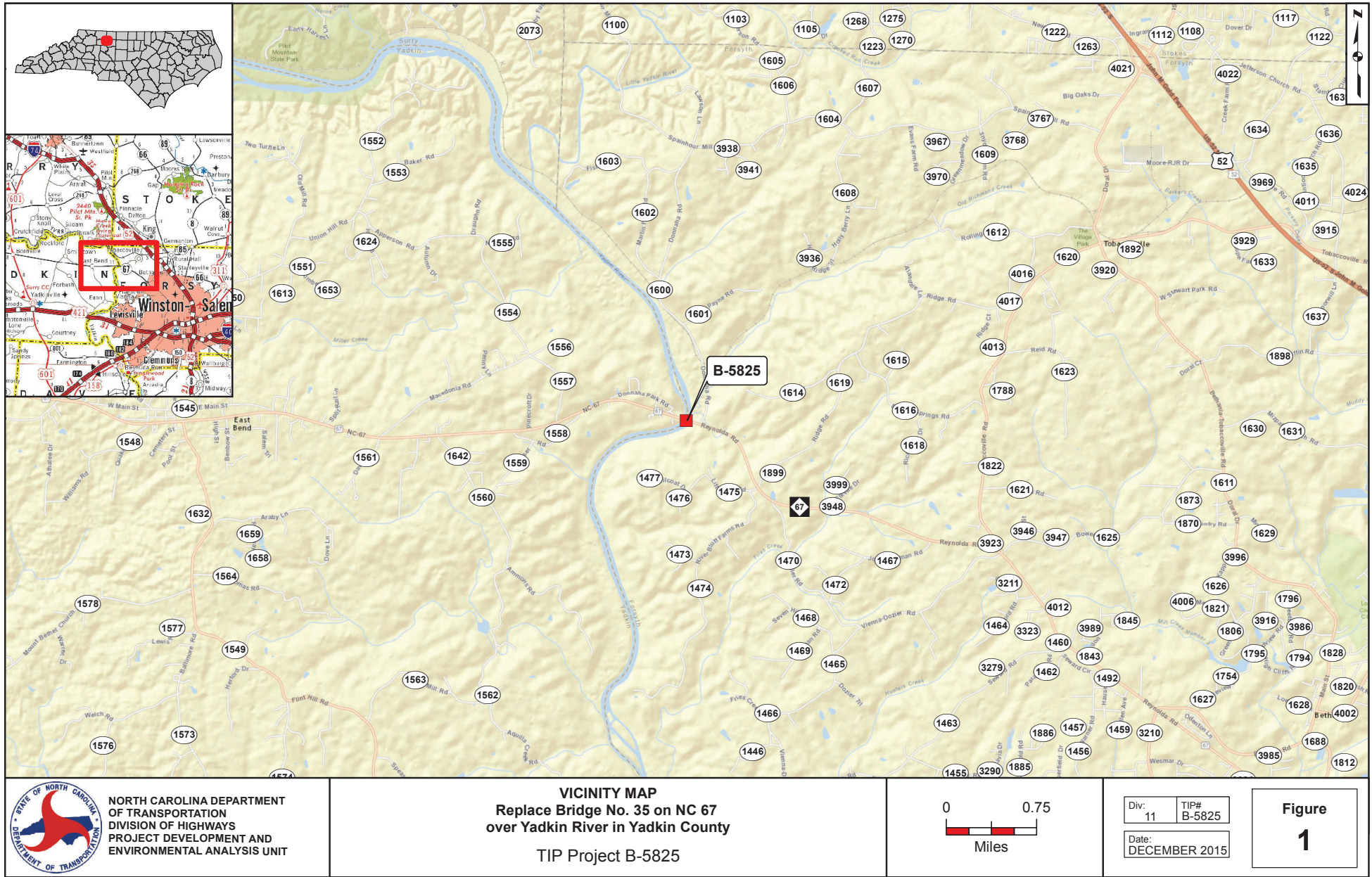
The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP) to determine the status of the project with regard to applicability of NCDOT’S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Division Construction - FEMA

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Division 11 – Donnaha Park

Donnaha Park will be closed during construction. NCDOT will maintain coordination with Yadkin County Parks and Recreation during construction.





STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

April 11, 2017

TO: Michael Turchy, Environmental Program Consultant
Environmental Coordination & Permitting Group Western, NES - PDEA

CC: Angela Sanderson, Project Engineer
Project Development Group - Western Region, PDEA

FROM: Chris Manley, Environmental Program Consultant
Biological Surveys Group, NES - PDEA

SUBJECT: *Streamline Section 7 Consultation for the Northern Long-Eared Bat* associated with the replacement of Bridge No. 35 over the Yadkin River on NC 67 in Yadkin County, **TIP No. B-5825**.

The North Carolina Department of Transportation (NCDOT, Division 11) proposes to replace Bridge No. 35 over the Yadkin River on NC 67 in Yadkin County, TIP No. B-5825. The existing bridge is a 15 span reinforced concrete, continuous I-beams structure with concrete guardrails. The overall length of the structure is 1084 feet. Construction plans for the new structure have not been finalized as of this writing.

The project to replace Bridge No. 35 has been reviewed for effects on the northern long-eared bat (NLEB). As of May 4, 2015, NLEB is listed by the U.S. Fish and Wildlife Service (USFWS) as "Threatened" under the Endangered Species Act of 1973. As of April 11, 2017, NLEB is listed by USFWS (http://www.fws.gov/raleigh/species/cntylist/nc_counties.html) as "Probable/Potential" in Yadkin County. USFWS also established a final rule under the authority of section 4(d) of the Endangered Species Act that provides measures for the conservation of NLEB. The USFWS has tailored the final 4(d) rule to prohibit the take of NLEB from certain activities within areas where they are in decline. This incidental take protection applies only to known NLEB occupied maternity roost trees and known NLEB hibernacula. Effective February 16, 2016, incidental take resulting from tree removal is prohibited if it 1) occurs within a ¼ mile radius of known NLEB hibernacula; or 2) cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot radius from the known maternity tree during the pup season (June 1-July 31).

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT &
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

According to the North Carolina Natural Heritage Program (NHP) Biotics Database, most recently updated January 2017, **the nearest NLEB hibernacula record is 77 miles southwest of the project (EO ID 32171) and no known NLEB roost trees occur within 150 feet of the project area.** EO 32171 represents Black Rock Cliffs site with multiple observations from 1986 to 2011.

NCDOT has also reviewed the USFWS Asheville Field office website (http://www.fws.gov/asheville/htmls/project_review/NLEB_in_WNC.html) for consistency with NHP records. This project is located entirely outside of the red highlighted areas (12-digit HUC) that the USFWS Asheville Field Office has determined to be representative of an area that may require consultation.

For the proposed action, NCDOT has committed to the conservation measures listed below:

- 1) No alterations of a known hibernacula entrance or interior environment if it impairs an essential behavioral pattern, including sheltering northern long-eared bats (January 1 through December 31);
- 2) No tree removal within a 0.25 mile radius of a known hibernacula (January 1 through December 31); and
- 3) No cutting or destroying a known, occupied maternity roost tree, or any other trees within a 150-foot radius from the known, occupied maternity tree during the period from June 1 through and including July 31.

NCDOT has determined that the proposed action does not require separate consultation on the grounds that the proposed action is consistent with the final Section 4(d) rule, codified at 50 C.F.R. § 17.40(o) and effective February 16, 2016. NCDOT may presume its determination is informed by best available information and consider Section 7 responsibilities fulfilled for NLEB.

If you need any additional information, please contact Chris Manley at 919-707-6135.

16-01-0080



**NO NATIONAL REGISTER OF HISTORIC PLACES
ELIGIBLE OR LISTED ARCHAEOLOGICAL SITES
PRESENT FORM**



This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

PROJECT INFORMATION

Project No: B-5825 *County:* Yadkin
WBS No: 45778.1.1 *Document:* Categorical Exclusion
F.A. No: *Funding:* State Federal

Federal Permit Required? Yes No *Permit Type:* Nationwide

Project Description: Replace Bridge 35 on NC 67 over the Yadkin River in Yadkin and Forsyth Counties. The Area of Potential Effects (A.P.E.) is approximately 620 meters (2,033 ft.) long and 75 meters (250 ft.) wide. No design plans were provided.

SUMMARY OF ARCHAEOLOGICAL FINDINGS

The North Carolina Department of Transportation (NCDOT) Archaeology Group reviewed the subject project and determined:

- There are no National Register listed ARCHAEOLOGICAL SITES within the project's area of potential effects. (Attach any notes or documents as needed.)
- No subsurface archaeological investigations were required for this project.
- Subsurface investigations did not reveal the presence of any archaeological resources.
- Subsurface investigations did not reveal the presence of any archaeological resources considered eligible for the National Register.
- All identified archaeological sites located within the APE have been considered and all compliance for archaeological resources with Section 106 of the National Historic Preservation Act and GS 121-12(a) has been completed for this project.

Brief description of review activities, results of review, and conclusions:
see attached report

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence

Other:

Signed:

CALEB SMITH

1/4/2017

NCDOT ARCHAEOLOGIST

Date

16-01-0080



**HISTORIC ARCHITECTURE AND LANDSCAPES
NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM**

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	B-5825	County:	Yadkin
WBS No.:	45778.1.1	Document Type:	CE
Fed. Aid No:		Funding:	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Federal Permit(s):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Permit Type(s):	NWP
<u>Project Description:</u>			
Replace Bridge No. 35 on NC 67 over Yadkin River.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- There are no historic properties present or affected by this project. (Attach any notes or documents as needed.)

Date of field visit: n/a

Description of review activities, results, and conclusions:

Review of HPOGIS web service was undertaken on February 5, 2016. Based on this review, there are no existing NR, DE, LL, SL or SS properties in the project area. One house constructed in 1945 and one store built in 1940 are within the Area of Potential Effects; however neither the house nor the store possess the architectural integrity and/or distinction to meet the criteria for National Register listing either individually or as a historic district.. The bridge itself, Yadkin County Bridge No. 67, was built in 1950. The structure does not exemplify any distinctive engineering or aesthetic type and is not eligible for the National Register of Historic Places. No historic properties will be affected by this project.

SUPPORT DOCUMENTATION

Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes – **NO HISTORIC PROPERTIES PRESENT OR AFFECTED**

Shelby Reap

NCDOT Architectural Historian

Feb 5, 2016

Date

02/08/19

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Plan Sheet Symbols
See Sheet RW-?? For Survey Control Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

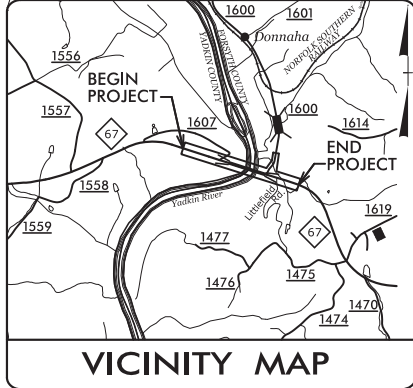
YADKIN & FORSYTH COUNTIES

LOCATION: REPLACE BRIDGE NO. 35 OVER THE
YADKIN RIVER ON NC 67

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

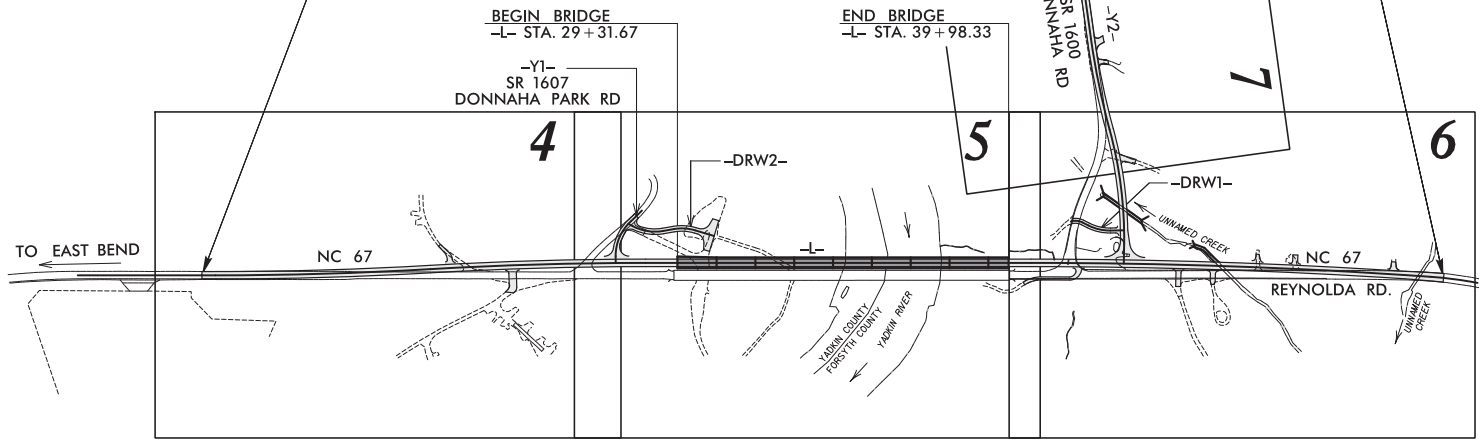
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N.C.	B-5825	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45778.1.1	N/A	PE	
45778.2.1	N/A	RW & UTIL	
45778.3.1	N/A	CONST.	

TIP PROJECT: B-5825



VICINITY MAP

BEGIN TIP PROJECT B-5825
-L- STA. 14 + 00.00



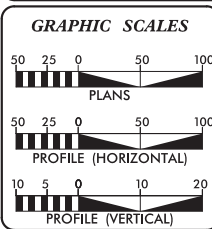
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-L- STA. 54 + 00.00

DESIGN EXCEPTION
-L- LINE PAVEMENT CROSS SLOPE ON ROADWAY APPROACHES AND BRIDGE DECK

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT:



DESIGN DATA

ADT 2020 =	5100
ADT 2040 =	5600
K =	12 %
D =	80 %
T =	4 % *
V =	60 MPH
* TTST = 1% DUAL 3%	
FUNC CLASS = MINOR ARTERIAL REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5825	=	0.556 mile
LENGTH STRUCTURES TIP PROJECT B-5825	=	0.202 mile
TOTAL LENGTH TIP PROJECT B-5825	=	0.758 mile

Prepared For
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

TGS ENGINEERS
706 HILLSBOROUGH ST SUITE 200
RALEIGH, NC 27603

By: PH (919) 773-8887
CORP. LICENSE NO.: C-0276

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JULY 26, 2019

LETTING DATE: JUNE 16, 2020

TOMMY REGISTER, PE
PROJECT ENGINEER

V. MARCUS LOWERY, PE
PROJECT DESIGN ENGINEER

DAVID STUTTS, PE
NCDOT CONTACT

HYDRAULICS ENGINEER


SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.



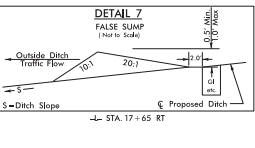
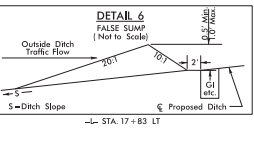
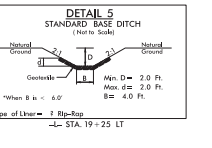
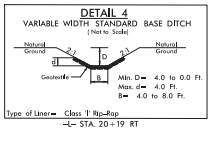
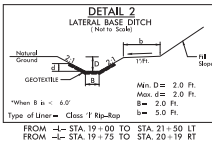
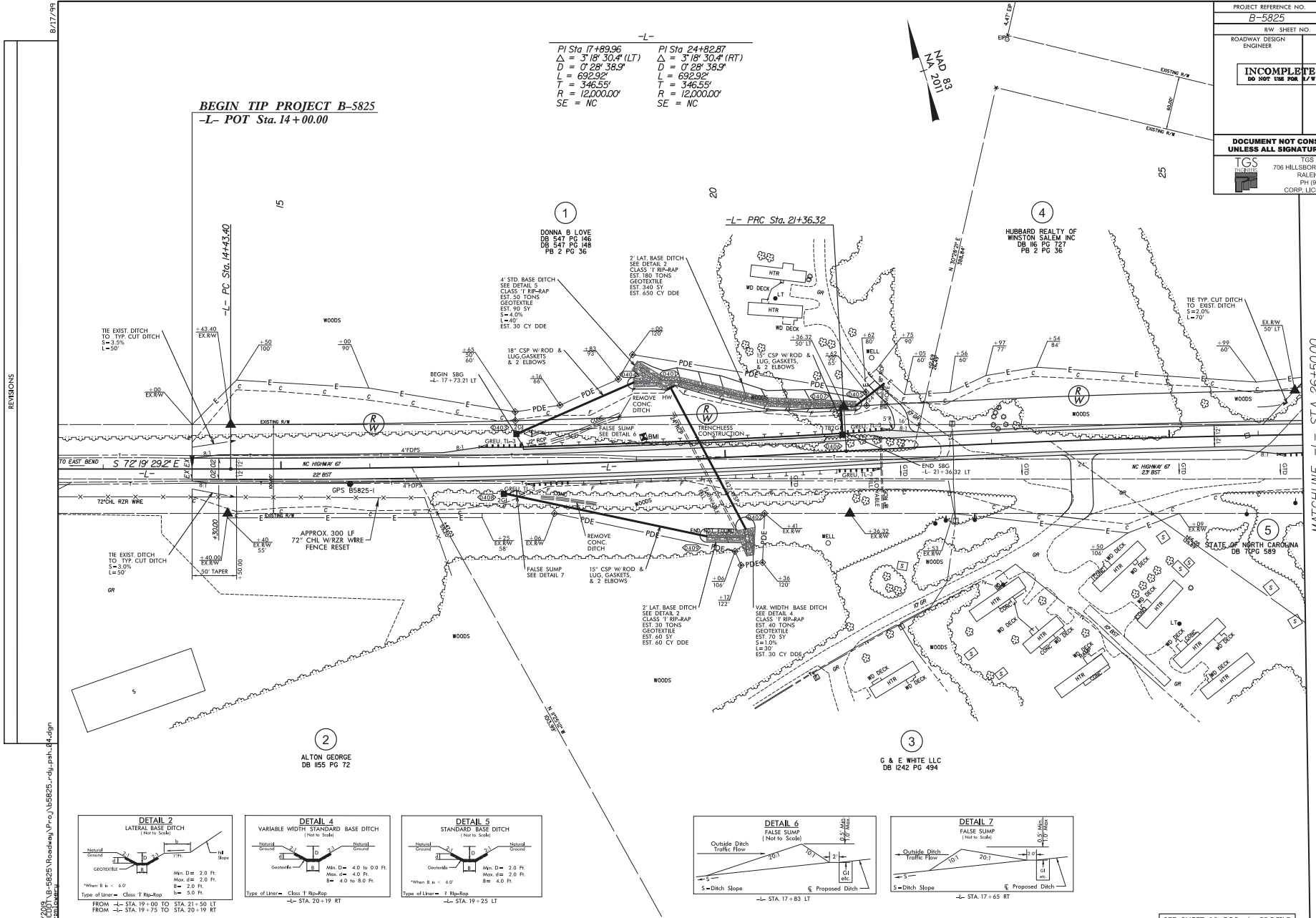
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PROJECT REFERENCE NO. B-5825	SHEET NO. 04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ANY ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-0897 CORP. LICENSE NO.: C-4275	

-L-

PI Sta 17+89.96 $\Delta = 3' 18'' 30.4'' (LT)$ $D = 0' 28'' 36.9''$ $L = 692.92'$ $T = 346.55'$ $R = 12,000.00'$ SE = NC	PI Sta 24+82.87 $\Delta = 3' 18'' 30.4'' (RT)$ $D = 0' 28'' 36.9''$ $L = 692.92'$ $T = 346.55'$ $R = 12,000.00'$ SE = NC
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-L- POT Sta. 14+00.00

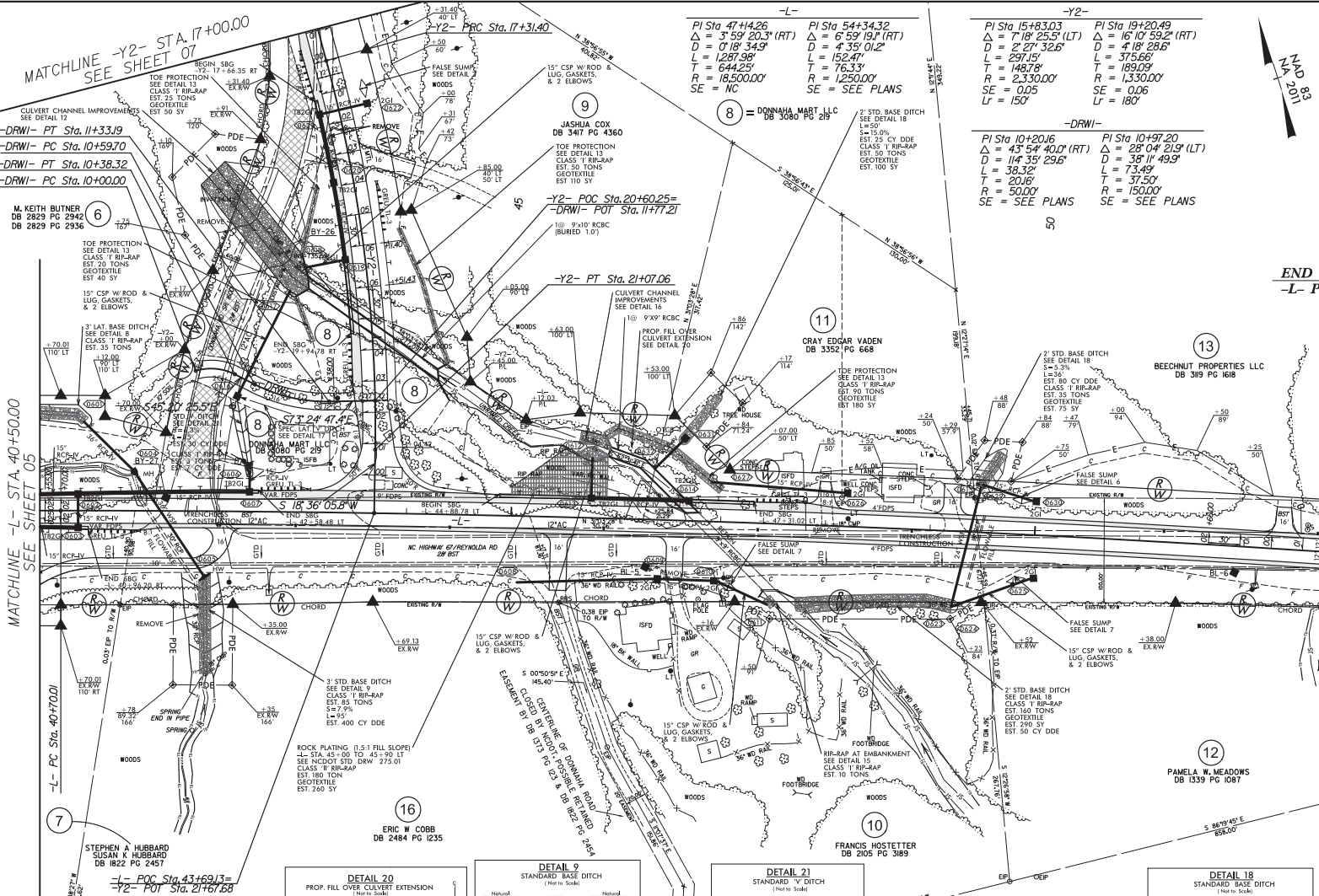


SEE SHEET 08 FOR -L- PROFILE

MATCHLINE -L- STA. 26+50.00
SEE SHEET 05

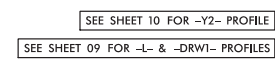
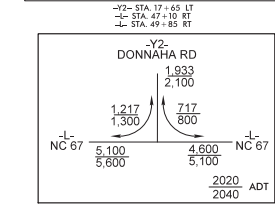
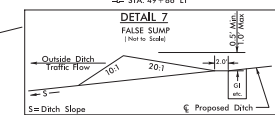
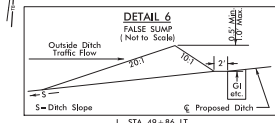
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8/17/09
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8/17/09

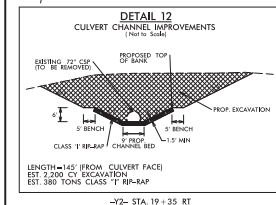
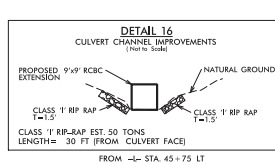
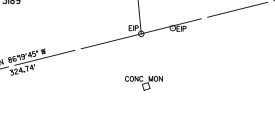
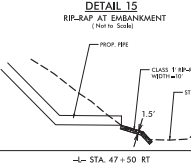
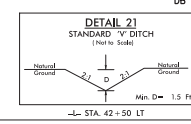
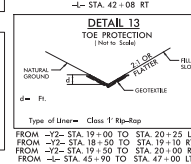
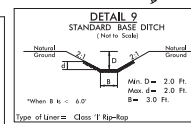
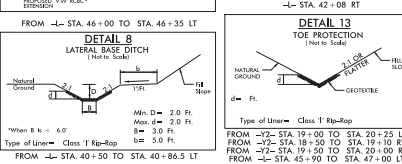
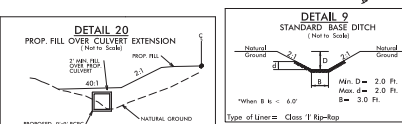


PROJECT REFERENCE NO. B-5825	SHEET NO. 06
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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END TIP PROJECT B-5825
-L- POC Sta. 54+00.00



SEE SHEET 10 FOR -Y2- PROFILE
SEE SHEET 09 FOR -L- & -DRWL- PROFILES



REVISIONS

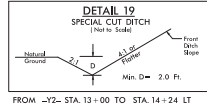
8/17/09

8/17/09

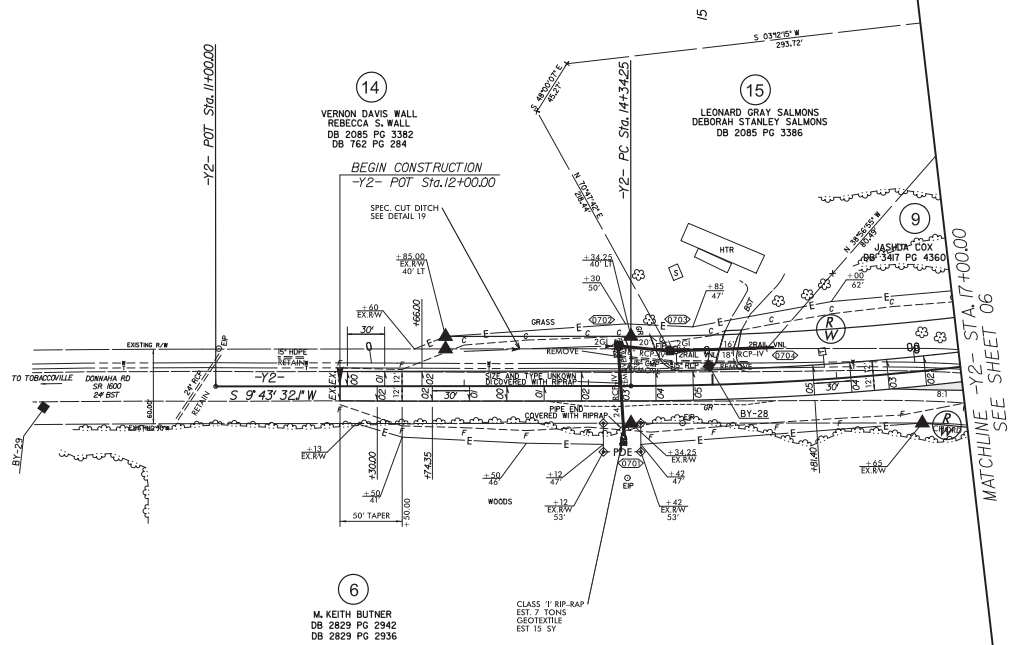
REVISIONS

\\c001\B-5825\Roadway\Proc\B5825_rdy\psh_07.dgn
 B5825.dwg

-Y2-
 PI Sta. 15+83.03
 $\Delta = 7' 18" 25.5' (LT)$
 $D = 2' 27" 32.6'$
 $L = 297.15'$
 $T = 148.78'$
 $R = 2,330.00'$
 $SE = 0.05$
 $Lr = 150'$



PROJECT REFERENCE NO. B-5825	SHEET NO. 07
RW SHEET NO.	
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MATCHLINE -Y2- STA 17+00.00
SEE SHEET 06

SEE SHEET 10 FOR -Y2- PROFILE