



This application revision request has been replaced
by the November 15, 2019 version.
This version is only retained as an archived record.

GOVERNOR

SECRETARY

October 11, 2019

U.S. Army Corps of Engineers
Raleigh Regulatory Field Office
3331 Heritage Trade Drive, Suite 105
Raleigh, NC 27587

ATTN: Mr. David Bailey, NCDOT Regulatory Coordinator

Subject: **Request for Permit Revision to Section 404 Nationwide Permit 14, and Section 401 Water Quality Certification**, for the Proposed Replacement of Bridge No. 46 on US 70 Bypass, over the Eno River in Orange County, Federal Aid Project No. BRSTP-0070(120); TIP B-4962, Division 7, Debit \$570 from WBS Element 40174.1.1

Reference: 404 Nationwide 14 Permit, Action ID SAW-2018-02345, issued 1/31/2019
401 Certification 4135, DWR Project No. 20181693, issued 1/31/2019

Dear Mr. Bailey:

The North Carolina Department of Transportation (NCDOT) proposes to replace bridge number 46 on US 70 Bypass over the Eno River in Orange County with a three span, 265 feet long, 54-inch girder bridge along the existing alignment. A detour bridge will be constructed to the north of the existing bridge as an onsite detour during construction.

Please see the attached revised permit drawings for B-4962. Since receipt of the permits in January 2019, unanticipated bedrock has been found at the temporary bridge crossing. This requires temporary workpads for the installation of the bents for the temporary work bridge. These work pads would only be in place until the work bridge installation is complete. This action will result in an additional 127 linear feet of temporary construction impacts (<0.01 ac) for a total of 147 linear feet of temporary stream impacts for the project.

Since the project let in April of 2019, the project is now located in Proposed Critical Habitat for the Atlantic pigtoe mussel.

Section 7 compliance for the Atlantic pigtoe, has been met through the Programmatic Biological Opinion (PBO) issued by the U.S. Fish & Wildlife Service (USFWS). The findings of the surveys or use of the PBO indicate the following biological conclusion: Atlantic pigtoe: May Affect, Likely to Adversely Affect. The Department will follow reporting requirements pursuant to the PBO. The appropriate payment to the NC Nongame Aquatic Species Fund will be submitted by the end of the next quarter.

A copy of this permit application and its distribution list will be posted on the NCDOT Website at: <https://xfer.services.ncdot.gov/pdea/PermApps/>. If you have any questions or need additional information, please contact Jeff Hemphill at (919) 707-6126.

Sincerely,

A handwritten signature in black ink that reads "Michael Ly". The signature is written in a cursive style with a long, sweeping tail on the "y".

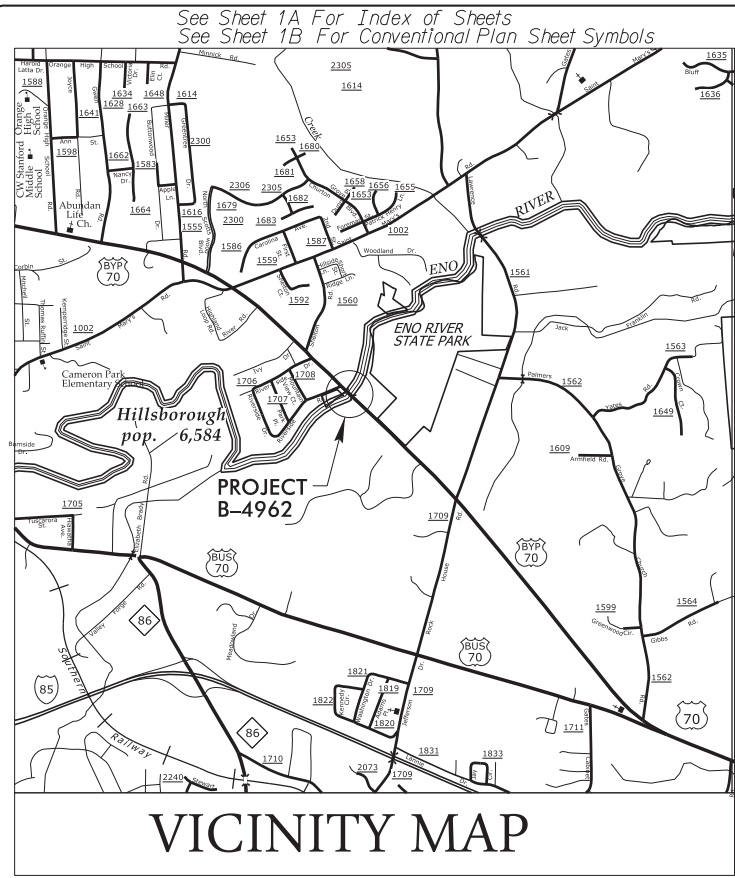
for
Philip S. Harris, P.E., Manager
Project Development and Environmental Analysis Unit

cc:
NCDOT Permit Application Standard Distribution List

09/28/19

TIP PROJECT: B-4962

CONTRACT: C204078



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ORANGE COUNTY

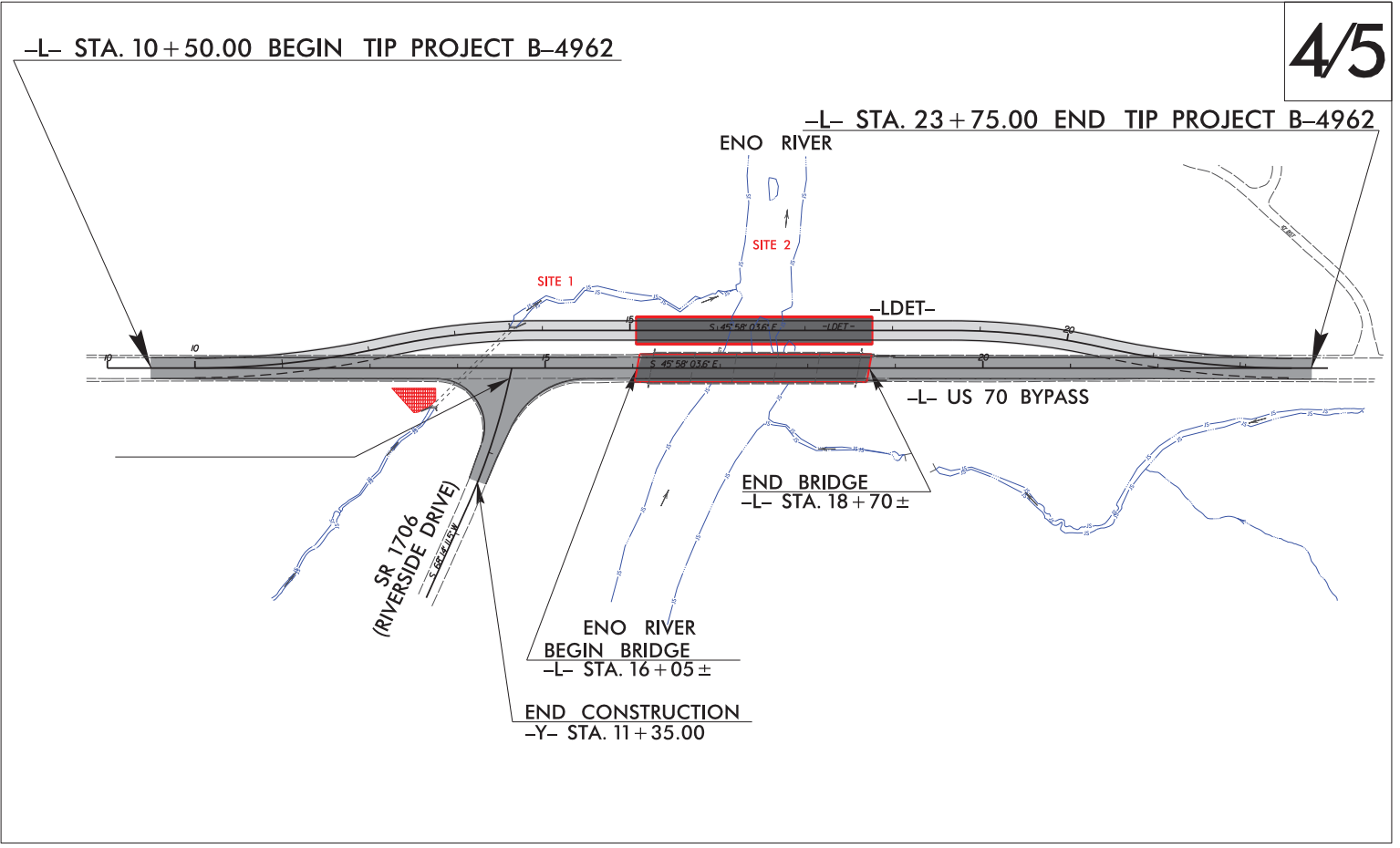
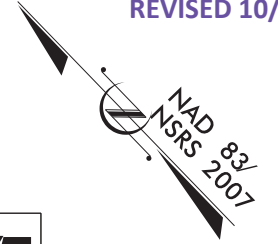
LOCATION: BRIDGE NO. 46 OVER ENO RIVER ON US 70 BYPASS
TYPE OF WORK: GRADING, DRAINAGE, PAVING, CULVERT
EXTENSION, AND STRUCTURE

WETLAND AND SURFACE WATER IMPACTS PERMIT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4962	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40174.1.1	BRSTP-0070(120)	P.E.	
40174.2.1		ROW & UTILITIES	

PERMIT DRAWING
SHEET 1 OF 12

REVISED 10/09/2019

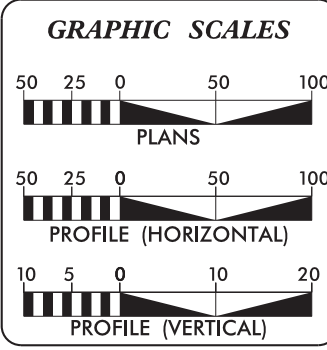


10/03/2019
Permit Modification
NCDOT Hydraulic
Craig J. Lee

- Added temporary work pads to install temporary work bridge.
- Temporary work pads are only for the installation/removal of the work bridges and are not to be used for existing structure removal or new bridge construction.
- Temporary work pads should not block more than 50% of the channel at any time

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

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2018	=	15000
ADT 2038	=	19000
K	=	10 %
D	=	70 %
T	=	5 % *
V	=	50 MPH
V _{DET}	=	40 MPH
*TTST	=	2% DUAL = 3%
FUNC CLASS	=	MINOR ARTERIAL "REGIONAL TIER"

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4962	=	0.201 MILES
LENGTH STRUCTURE TIP PROJECT B-4962	=	0.050 MILES
TOTAL LENGTH OF TIP PROJECT B-4962	=	0.251 MILES

Prepared in the Office of:

504 Meadowland Drive
Hillsborough, NC 27278-8551
Voice: (919) 732-3883
Fax: (919) 732-6776
www.summitde.net

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MAY 18, 2018

LETTING DATE: APRIL 16, 2019

JAMES A. SPEER, PE
PROJECT ENGINEER

BRANDON W. JOHNSON, PE
PROJECT DESIGN ENGINEER

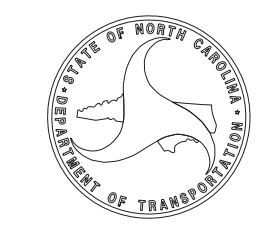
DAVID STUTTS, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

SIGNATURE: _____

ROADWAY DESIGN ENGINEER

SIGNATURE: _____





31-JAN-2019 14:50
B4962-Hyd_perm_tsh.dgn
jason.patskoski

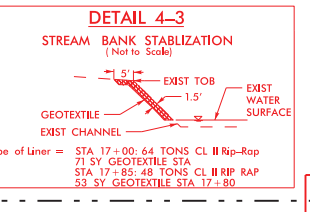
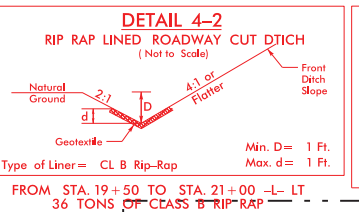
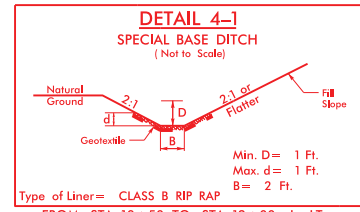
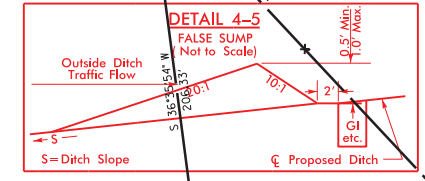
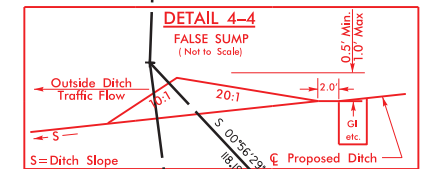
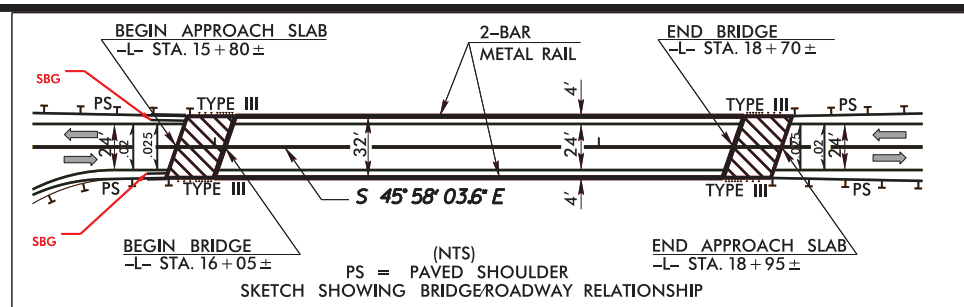
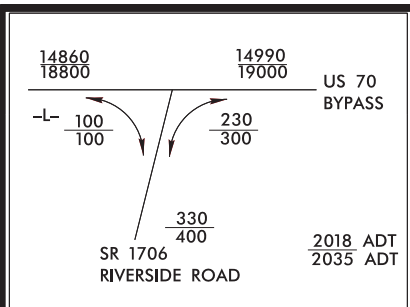
PROJECT REFERENCE NO.	SHEET NO.
B-4962	2/CONST. 4
RAW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**PERMIT DRAWING
SHEET 2 OF 12**

REVISED 10/09/2019

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER



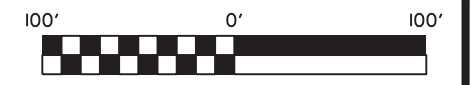
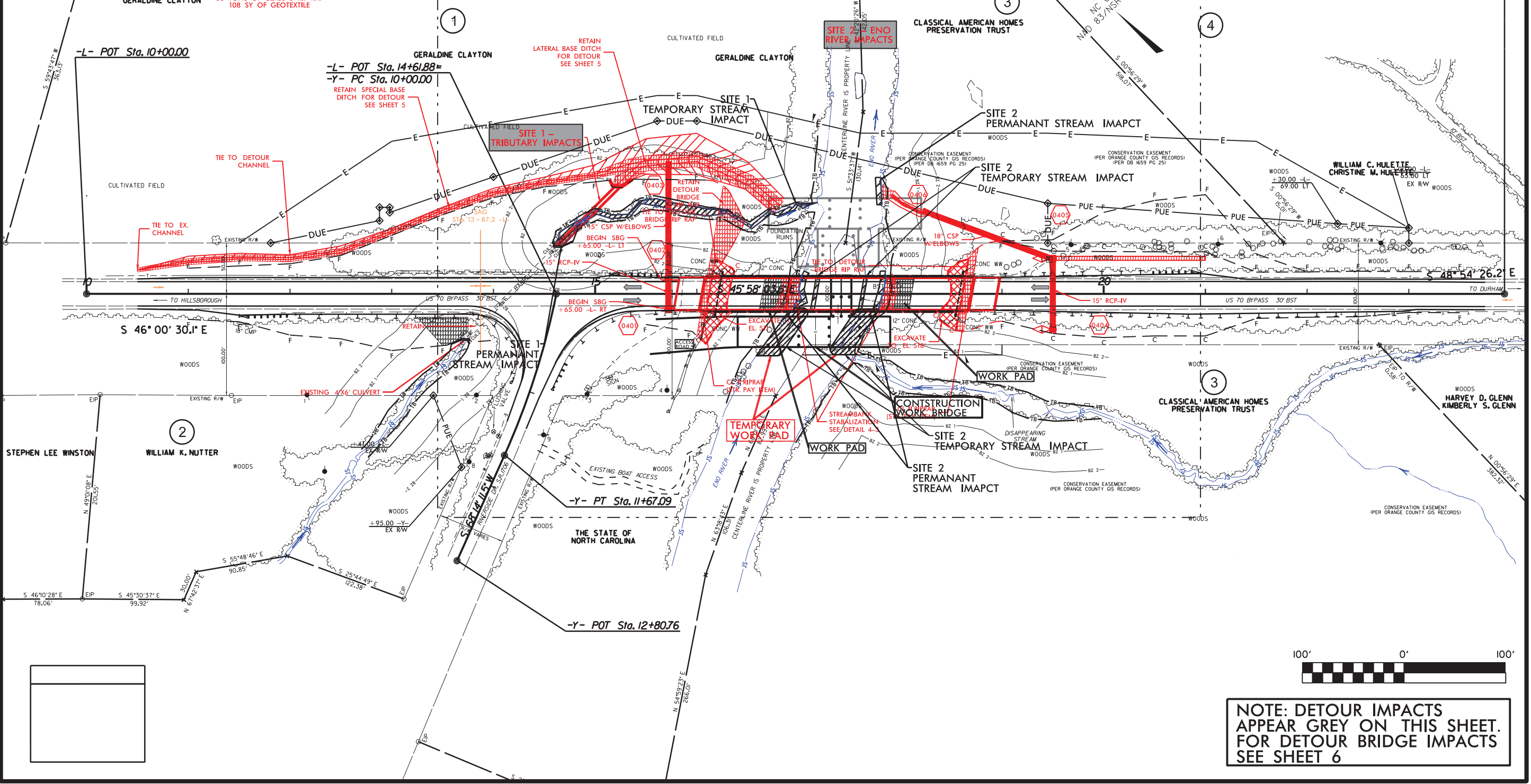
JOHN PILPCHUK
JOHNNA WEBB PILPCHUK

GERALDINE CLAYTON

FROM STA. 10+50 TO STA. 12+00 -L- LT
36 TONS OF CLASS B RIP RAP
108 SY OF GEOTEXTILE

FROM STA. 19+50 TO STA. 21+00 -L- LT
36 TONS OF CLASS B RIP RAP
106 SY OF GEOTEXTILE

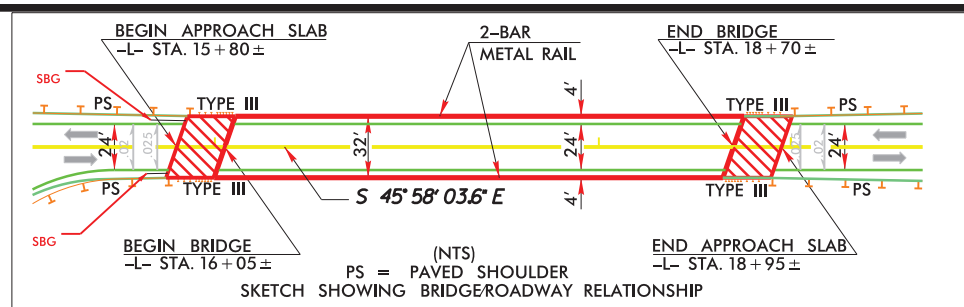
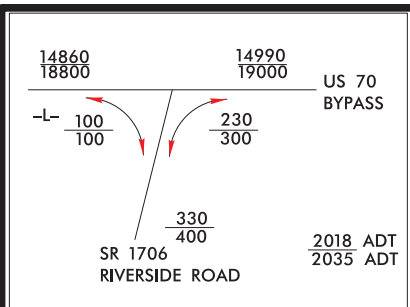
SEE SHEET 4 FOR ENLARGEMENT



**NOTE: DETOUR IMPACTS
APPEAR GREY ON THIS SHEET.
FOR DETOUR BRIDGE IMPACTS
SEE SHEET 6**

REVISIONS

8/17/99
SYTIME
DESIGN
CALCULATE

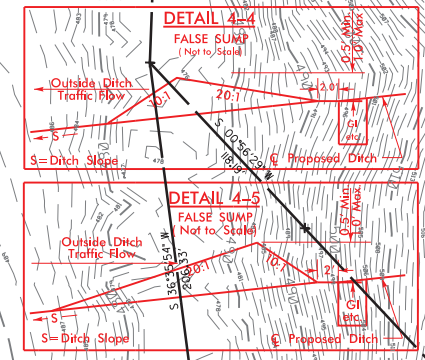
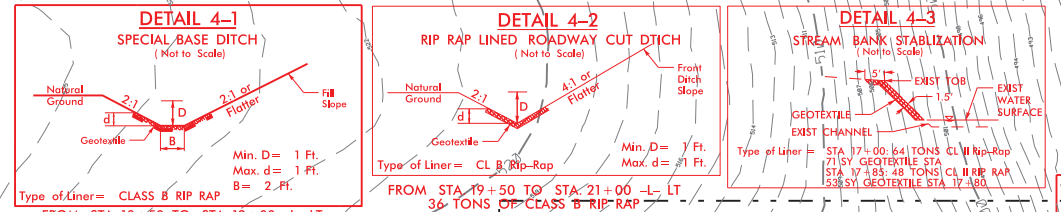


**PERMIT DRAWING
SHEET 3 OF 12**
REVISED 10/09/2019

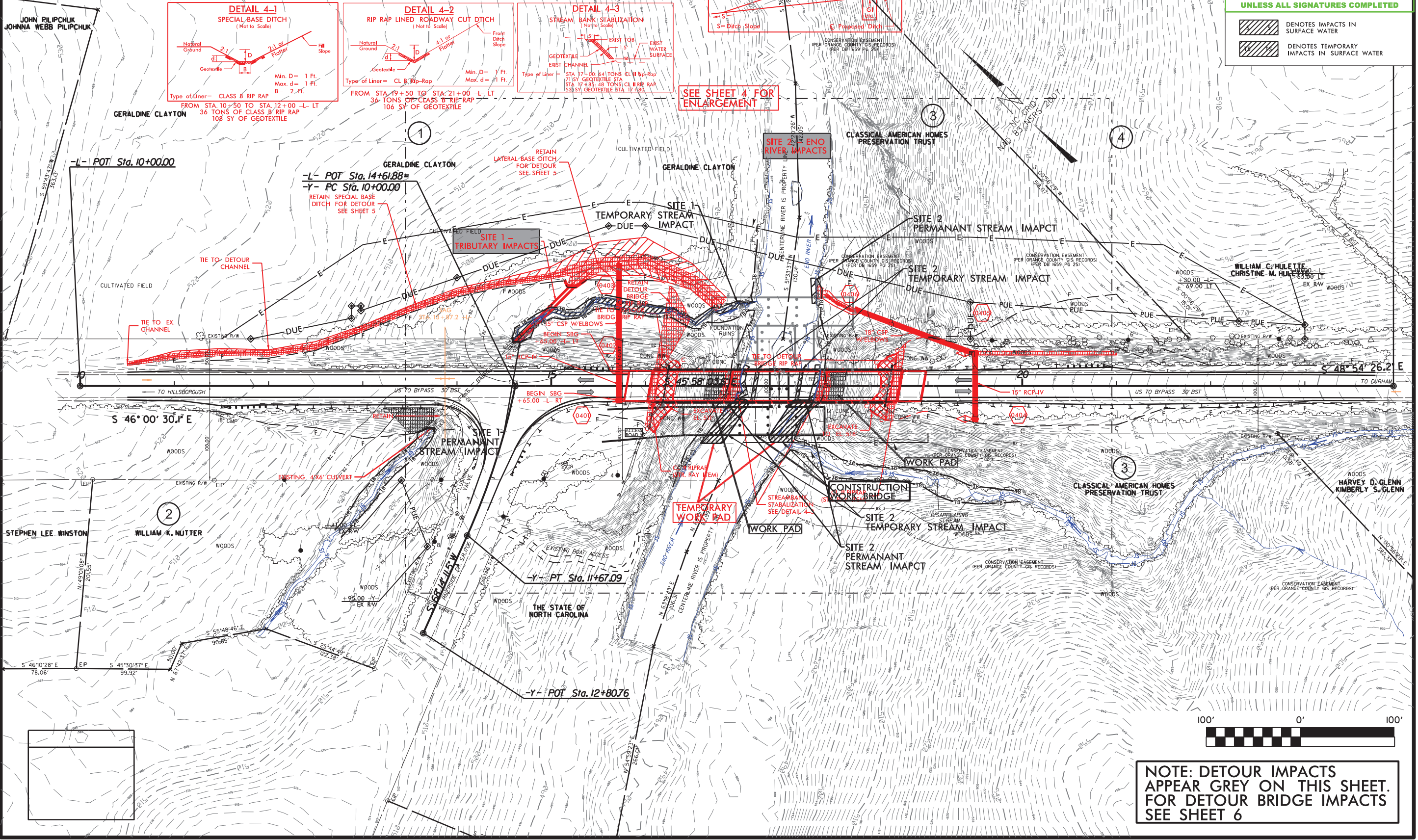
PROJECT REFERENCE NO. B-4962	SHEET NO. 2/CONST.4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

DENOTES IMPACTS IN SURFACE WATER
 DENOTES TEMPORARY IMPACTS IN SURFACE WATER



SEE SHEET 4 FOR ENLARGEMENT



**NOTE: DETOUR IMPACTS
APPEAR GREY ON THIS SHEET.
FOR DETOUR BRIDGE IMPACTS
SEE SHEET 6**

REVISIONS

8/17/99
SYTIME
DESIGN

OF CLASS B RIP RAP OF GEOTEXTILE

1

-L- ENLARGEMENT

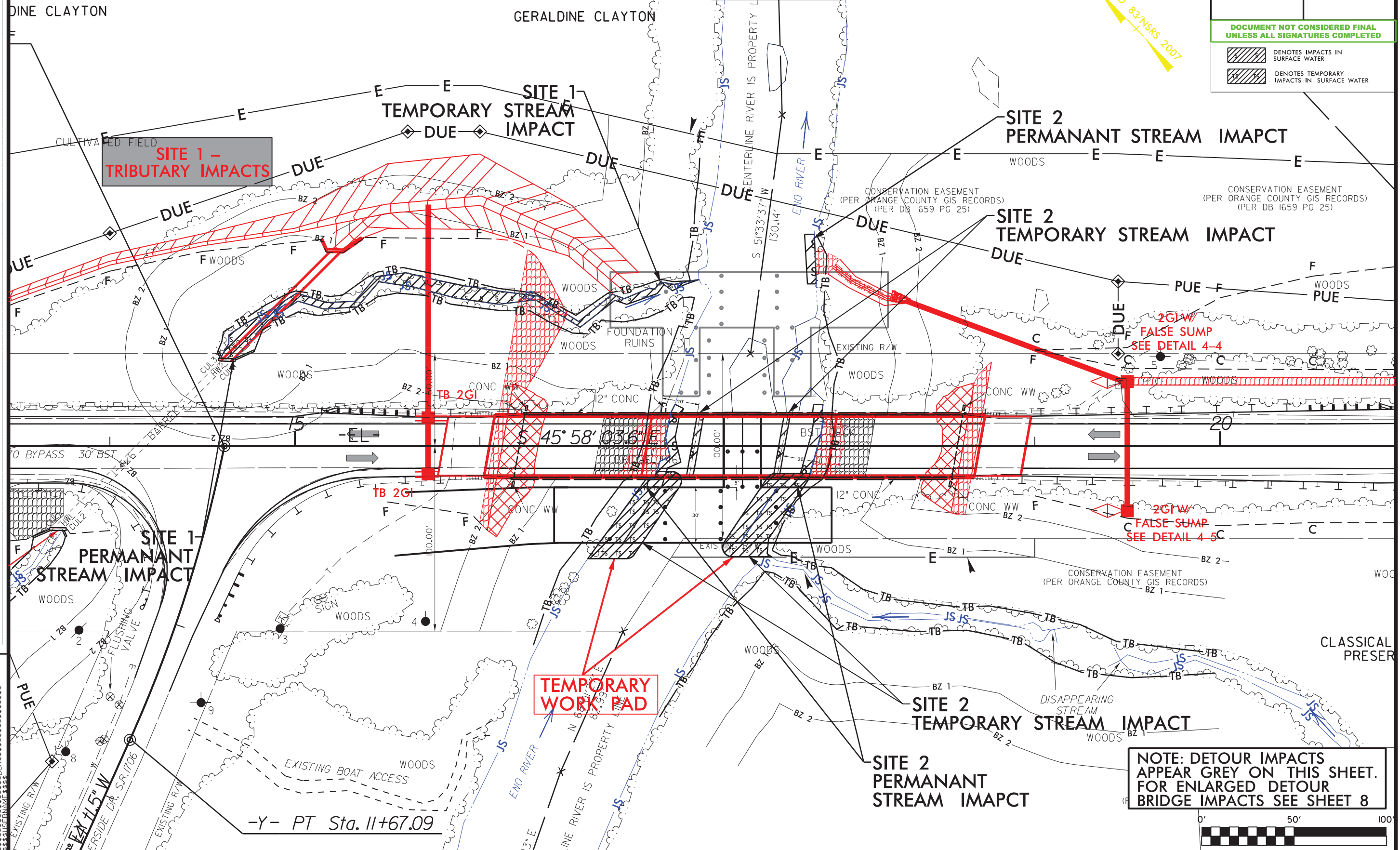
PERMIT DRAWING SHEET 4 OF 12

CLASSICAL AMERICAN HOMES PRESERVATION TRUST REVISED 10/09/2019

PROJECT REFERENCE NO. B-4962	SHEET NO. 4/CONST.4
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER



REVISIONS



NOTE: DETOUR IMPACTS APPEAR GREY ON THIS SHEET. FOR ENLARGED DETOUR BRIDGE IMPACTS SEE SHEET 8



-Y- PT Sta. 11+67.09

SYSTEMS DESIGN GROUP

OF CLASS B RIP RAP OF GEOTEXTILE

PROJECT REFERENCE NO. B-4962	SHEET NO. 4/CONST.4
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PERMIT DRAWING SHEET 5 OF 12

REVISED 10/09/2019

L- ENLARGEMENT

SITE 2 ENO RIVER IMPACTS

SITE 1 - TRIBUTARY IMPACTS

SITE 1 TEMPORARY STREAM IMPACT

SITE 2 PERMANANT STREAM IMPACT

SITE 2 TEMPORARY STREAM IMPACT

SITE 1 PERMANANT STREAM IMPACT

TEMPORARY WORK PAD

SITE 2 TEMPORARY STREAM IMPACT

SITE 2 PERMANANT STREAM IMPACT

NOTE: DETOUR IMPACTS APPEAR GREY ON THIS SHEET. FOR ENLARGED DETOUR BRIDGE IMPACTS SEE SHEET 8

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



REVISIONS

1

DINE CLAYTON

CULTIVATED FIELD
GERALDINE CLAYTON

CLASSICAL AMERICAN HOMES PRESERVATION TRUST

CULTIVATED FIELD

F WOODS

WOODS

WOODS

CONSERVATION EASEMENT (PER ORANGE COUNTY GIS RECORDS) (PER DB 1659 PG 25)

10 BYPASS 30' BST

FLUSHING VALVE

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

-Y- PT Sta. 11+67.09

S 45° 58' 05.6"

ENTERLINE RIVER IS PROPERTY LINE
S 51° 33' 37" W 130.14'

ENO RIVER

ENO RIVER

INE RIVER IS PROPERTY

CLASSICAL PRESER

DISAPPEARING STREAM

EA 11.5" W

RSIDE DR S.R.1706

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

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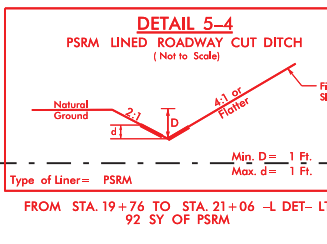
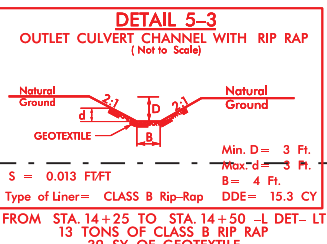
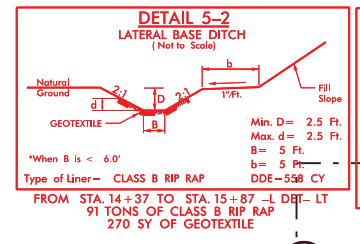
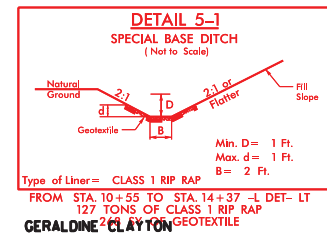
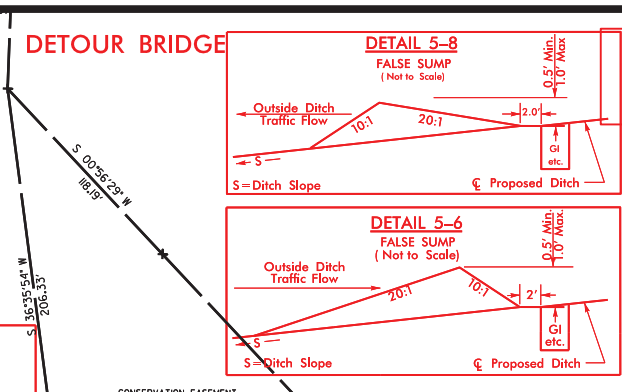
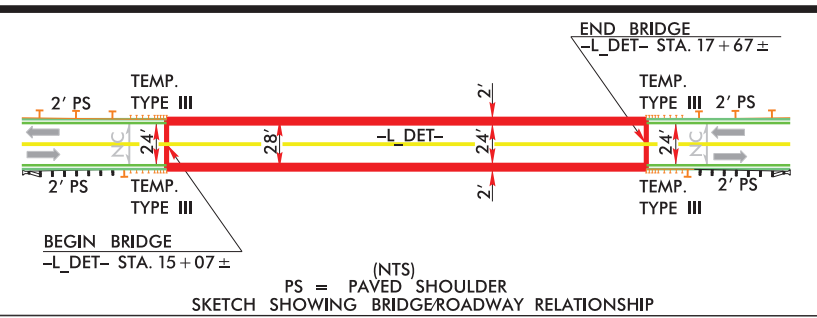
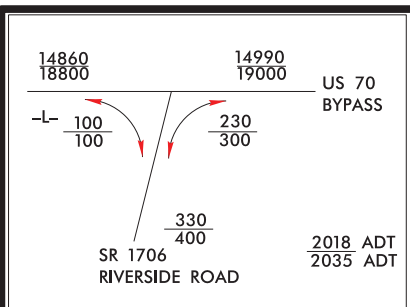
EXISTING R/W

EXISTING R/W

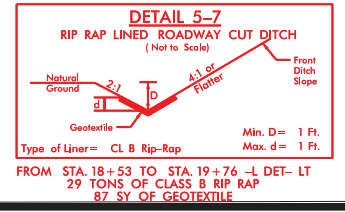
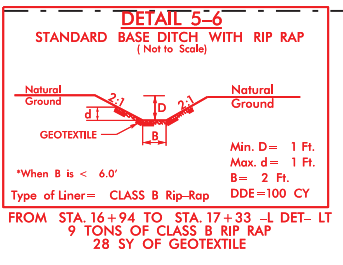
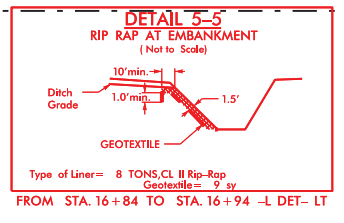
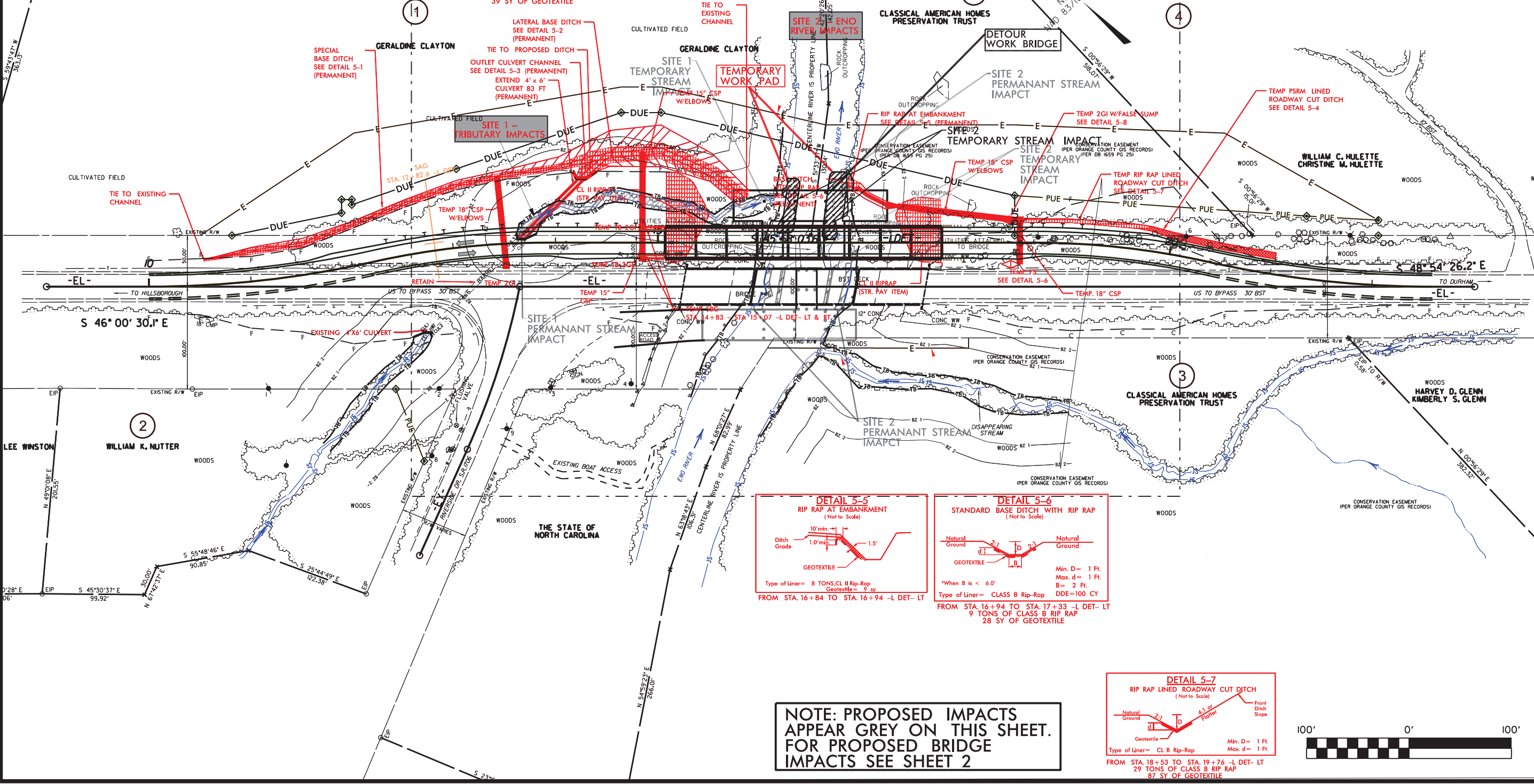
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PROJECT REFERENCE NO. B-4962	SHEET NO. 6/CONST.5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 DENOTES IMPACTS IN SURFACE WATER  DENOTES TEMPORARY IMPACTS IN SURFACE WATER	

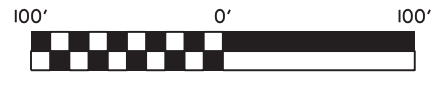
**PERMIT DRAWING
SHEET 6 OF 12**
REVISED 10/09/2019



SEE SHEET 8 FOR ENLARGEMENT



**NOTE: PROPOSED IMPACTS
APPEAR GREY ON THIS SHEET.
FOR PROPOSED BRIDGE
IMPACTS SEE SHEET 2**



REVISIONS

8/17/1999
14860 18800 14990 19000
US 70 BYPASS
SR 1706 RIVERSIDE ROAD
2018 ADT 2035 ADT
PS = PAVED SHOULDER
SKETCH SHOWING BRIDGEROADWAY RELATIONSHIP
PSRM LINED ROADWAY CUT DITCH
SPECIAL BASE DITCH
LATERAL BASE DITCH
OUTLET CULVERT CHANNEL WITH RIP RAP
PSRM LINED ROADWAY CUT DITCH
SPECIAL BASE DITCH
LATERAL BASE DITCH
OUTLET CULVERT CHANNEL WITH RIP RAP
PSRM LINED ROADWAY CUT DITCH
RIP RAP AT EMBANKMENT
STANDARD BASE DITCH WITH RIP RAP
RIP RAP LINED ROADWAY CUT DITCH

PROJECT REFERENCE NO. B-4962	SHEET NO. 8/CONST.5
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

**PERMIT DRAWING
SHEET 8 OF 12**

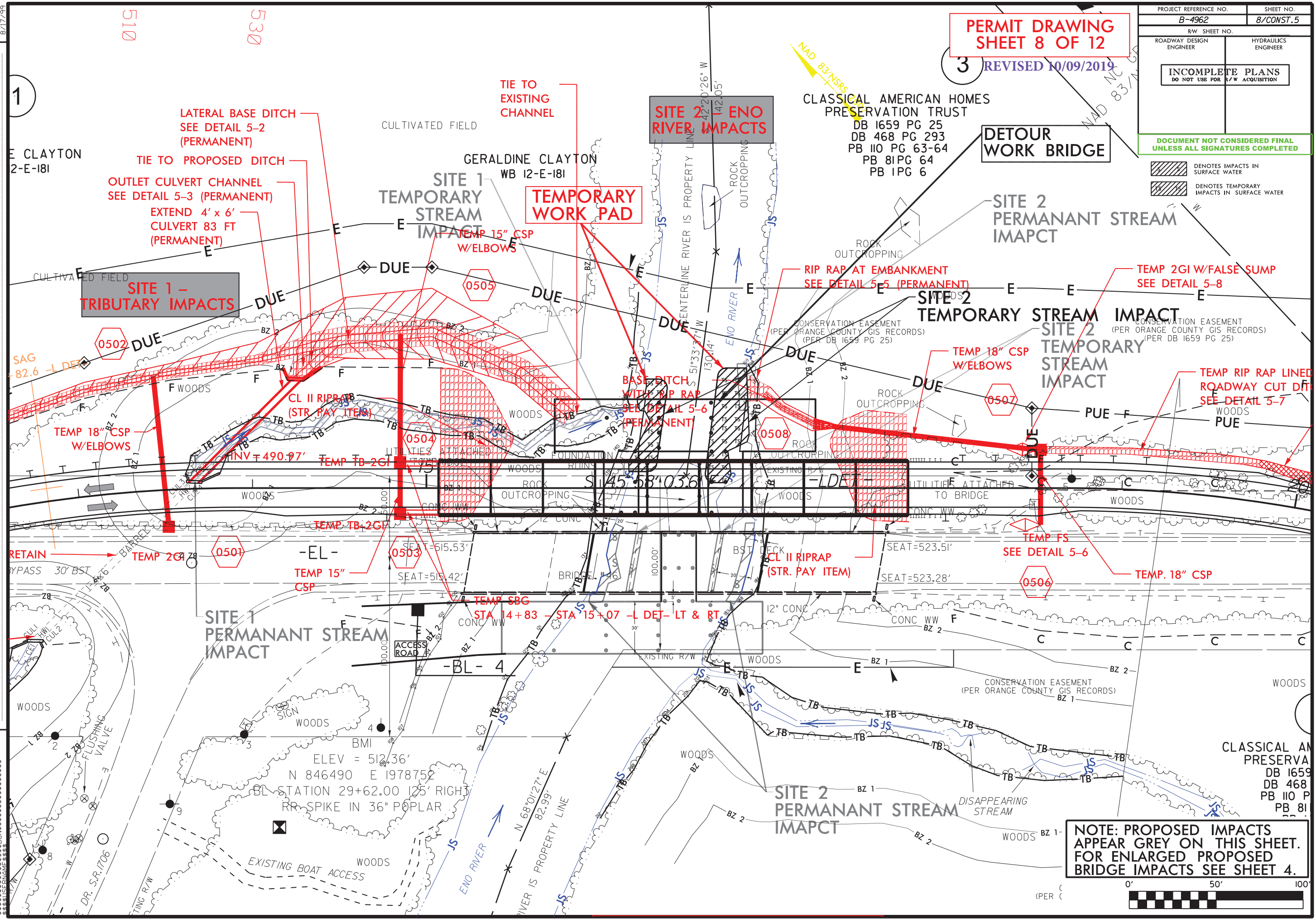
3 REVISED 10/09/2019

CLASSICAL AMERICAN HOMES
PRESERVATION TRUST
DB 1659 PG 25
DB 468 PG 293
PB 110 PG 63-64
PB 81 PG 64
PB 1 PG 6

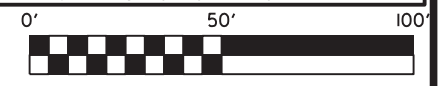
**DETOUR
WORK BRIDGE**

**SITE 2
PERMANENT STREAM
IMPACT**

- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY IMPACTS IN SURFACE WATER



**NOTE: PROPOSED IMPACTS
APPEAR GREY ON THIS SHEET.
FOR ENLARGED PROPOSED
BRIDGE IMPACTS SEE SHEET 4.**



REVISIONS



8/17/99

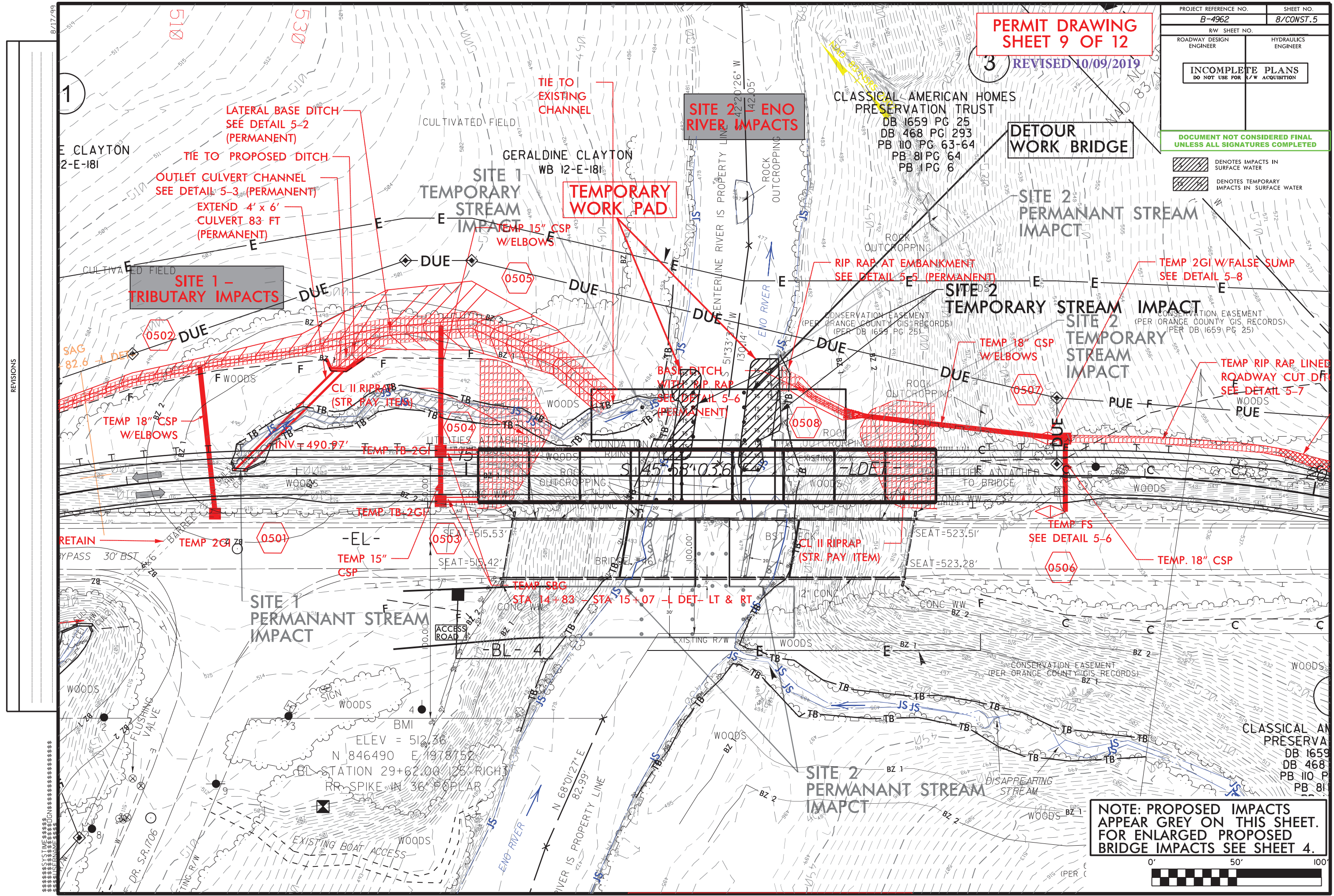
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RAW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

**PERMIT DRAWING
SHEET 9 OF 12**

REVISED 10/09/2019

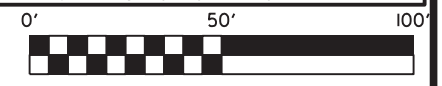
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER



REVISIONS

**NOTE: PROPOSED IMPACTS
APPEAR GREY ON THIS SHEET.
FOR ENLARGED PROPOSED
BRIDGE IMPACTS SEE SHEET 4.**



B.17/99

SYSTEMS DESIGN

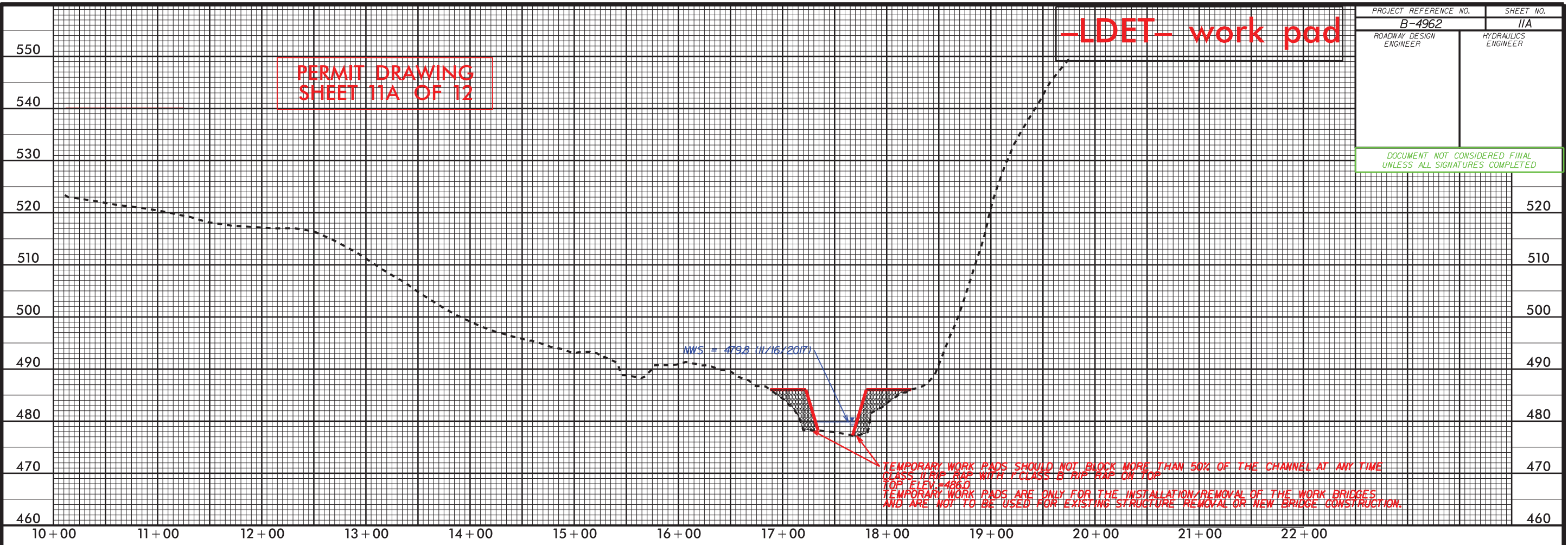
5/28/99

PROJECT REFERENCE NO. B-4962	SHEET NO. 11A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

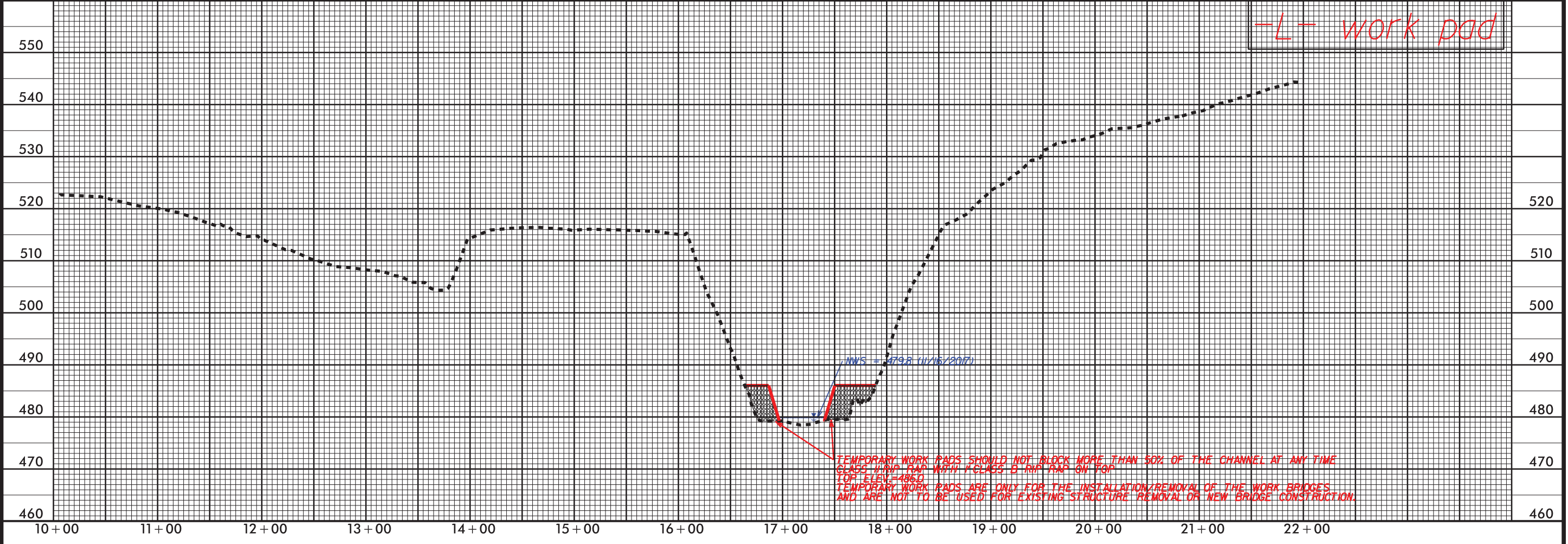
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 11A OF 12

-LDET- work pad



-L- work pad



\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DATE\$\$\$\$\$

WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Temp Fill In Wetlands (ac)	Permanent 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	14+60 -L- LT to 17+15 -L- LT	Proposed Fill Slope						0.03	<0.01*	267	20	
2	16+90 to 17+86 -L- CL	Stream Bank Stabilization						0.01		74		
2	17+24 to 17+54 -L- LT	Detour Bridge							< 0.01 **			
2	17+09 to 17+69 -L- LT	Detour Work Bridge							< 0.01 ***			
2	16+43 -L- RT to 17+76 -L- RT	Construction Work Bridge							< 0.01 ****			
2	16+58 -L- RT to 17+78 -L- RT	Temporary Work Pads (-L-)									60*****	
2	16+15 -LDET- LT to 16+85 -LDET- LT	Temporary Work Pads (-L DET-)									67*****	
TOTALS*:								0.04	< 0.01	341	147	

NOTES:

*Rounded totals are sum of actual impacts

*Temp SW impacts of Proposed fill slope= 31.9 sf

**Detour Bridge = 11.2 sf

***Detour Work Bridge = 25.2 sf

****Construction Work Bridge = 29.4 sf

*****10' of bank stabilization impact is within this temporary surface water impact and has already been accounted for.

*****25' of bank stabilization impact is within this temporary surface water impact and has already been accounted for.

NC DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 10/03/2019 Revised
 ORANGE COUNTY
 B-4962
 BRIDGE REPLACEMENT ON US 70 BYPASS OVER
 ENO RIVER
 SHEET 13 OF 13