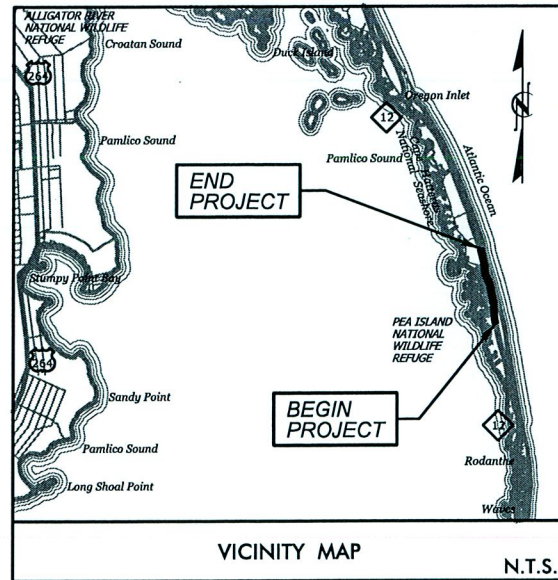


PROJECT: B-2500A

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Standard Symbology Sheet

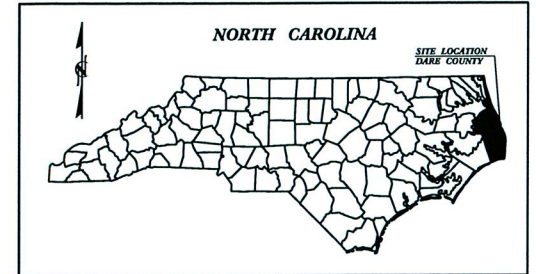


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

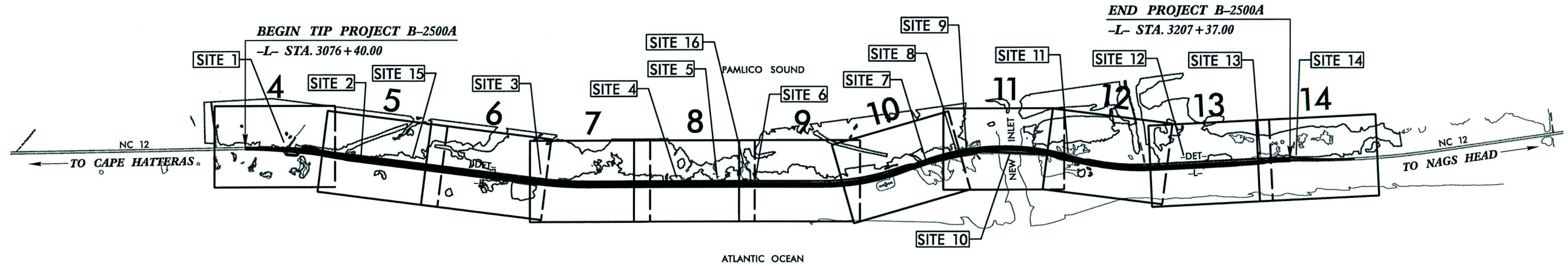
DARE COUNTY

LOCATION: PHASE II, NC 12 LONG-TERM IMPROVEMENTS AT PEA ISLAND
TYPE OF WORK: GRADING, PAVING, DRAINAGE & STRUCTURE

WETLAND & SURFACE WATER IMPACTS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2500A	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
32635.1.6		P.E.	
32635.2.2	BRNH-0012(55)	UTIL.	
32635.3.6	BRNH-0012(55)	CONST.	

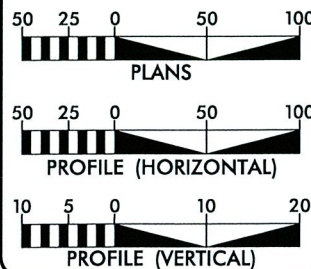


Indicates Impacts to CAMA Wetland

Permit Drawing
Sheet 4 of 59

CONTRACT:

GRAPHIC SCALES



DESIGN DATA

ADT 2012 = 7,300
ADT 2032 = 10,900
DHV = N/A
D = N/A
T = 6%
V = 60 MPH
FUNC. CLASSIFICATION:
COLLECTOR
T = 1% TTST+5% DUALS
REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-2500A = 0.366 MILES
LENGTH OF STRUCTURE TIP PROJECT B-2500A = 2.114 MILES
TOTAL LENGTH OF TIP PROJECT B-2500A = 2.480 MILES

NCDOT CONTACT: GARY LOVERING, PE
Project Engineer, Roadway Design

PLANS PREPARED FOR THE NCDOT BY:
STV/RALPH WHITEHEAD ASSOCIATES, INC.
1000 West Morehead St., Ste. 200, Charlotte NC, 28208
NC License Number F-0991

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
SEPTEMBER 17, 2013

JOHN N. JOHNSON, PE
PROJECT ENGINEER

SEAN C. STEPHENS, EI
PROJECT DESIGNER

HYDRAULICS
ENGINEER

PRELIMINARY SEALANS
DO NOT USE FOR CONSTRUCTION

SIGNATURE: _____
ROADWAY DESIGN
ENGINEER

PRELIMINARY SEALANS
DO NOT USE FOR CONSTRUCTION

SIGNATURE: _____

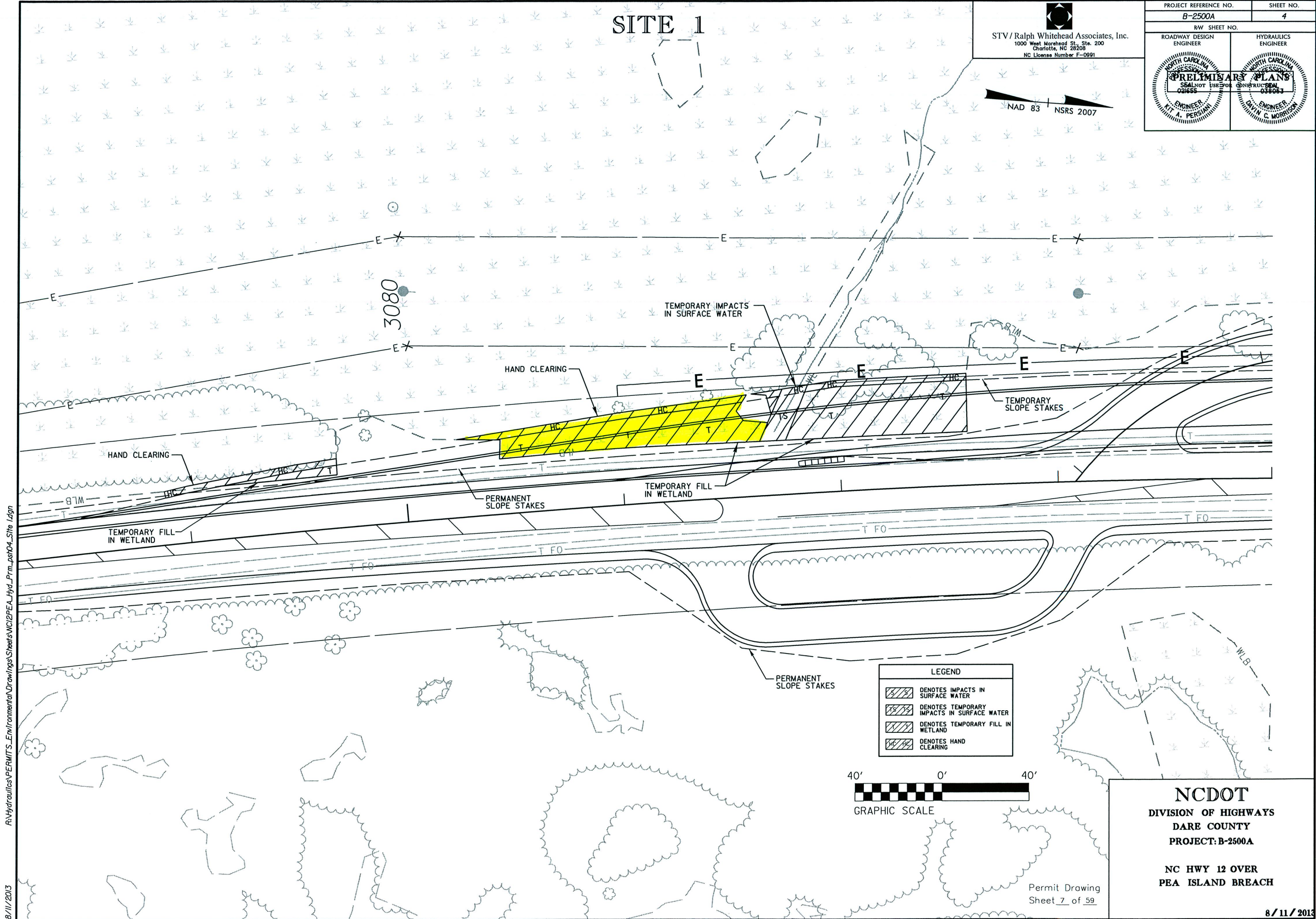
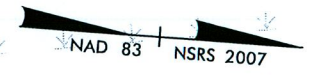


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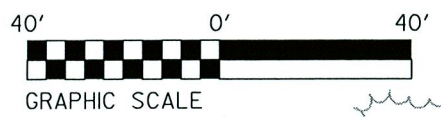
STV/Ralph Whitehead Associates, Inc.
 1000 West Morehead St., Ste. 200
 Charlotte, NC 28208
 NC License Number F-0991

PROJECT REFERENCE NO. B-2500A	SHEET NO. 4
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER

PRELIMINARY PLANS
 SEAL NOT USE FOR CONSTRUCTION
 021655 038063
 ENGINEER
 D. MORRISON



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



NCDOT
 DIVISION OF HIGHWAYS
 DARE COUNTY
 PROJECT: B-2500A

NC HWY 12 OVER
 PEA ISLAND BREACH

Permit Drawing
 Sheet 7 of 59

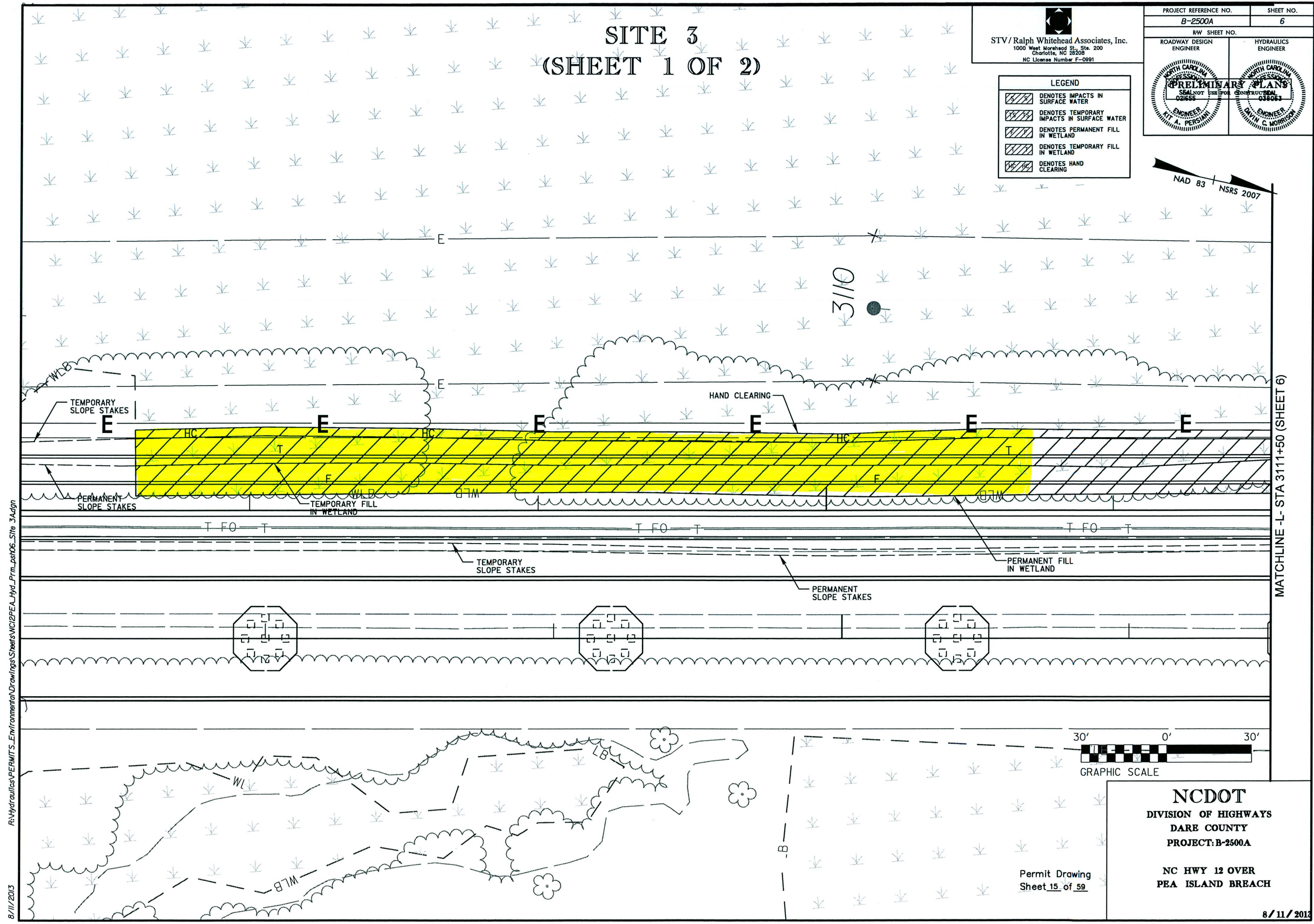
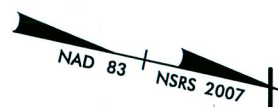
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 8/11/2013

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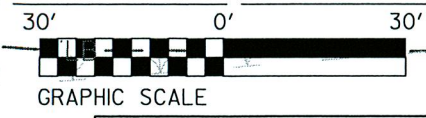
STV/Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

PROJECT REFERENCE NO. B-2500A	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES PERMANENT FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



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8/11/2013





NCDOT
DIVISION OF HIGHWAYS
DARE COUNTY
PROJECT: B-2500A

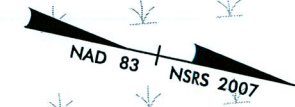
NC HWY 12 OVER
PEA ISLAND BREACH

Permit Drawing
Sheet 15 of 59

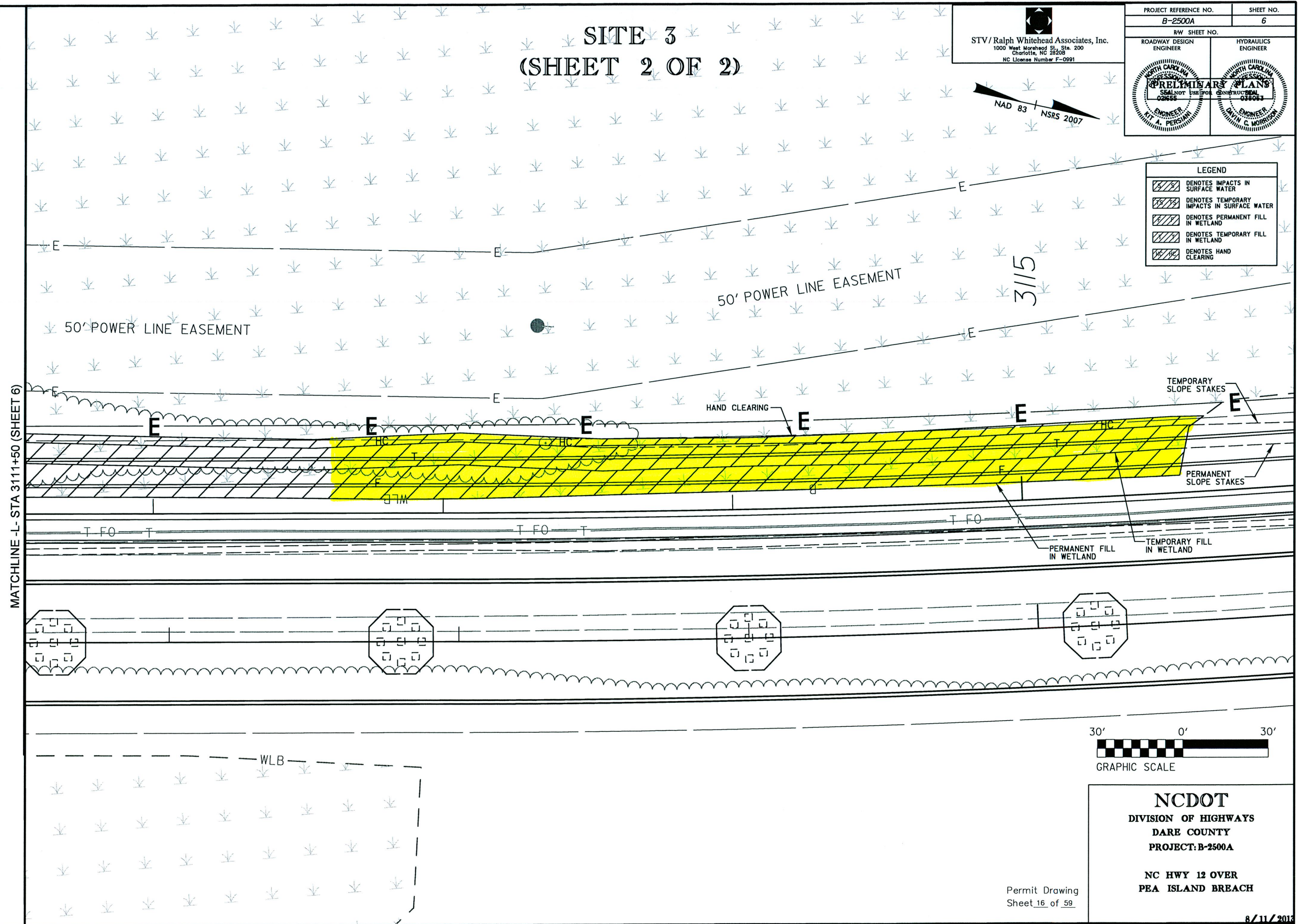
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STV/Ralph Whitehead Associates, Inc.
 1000 West Morehead St., Ste. 200
 Charlotte, NC 28208
 NC License Number F-0991

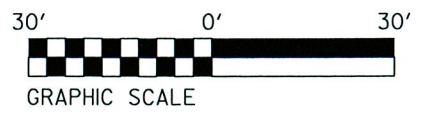
PROJECT REFERENCE NO. B-2500A	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	



LEGEND	
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	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES PERMANENT FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



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 8/11/2013



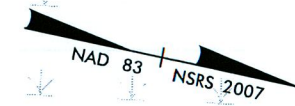
NCDOT
 DIVISION OF HIGHWAYS
 DARE COUNTY
 PROJECT: B-2500A

 NC HWY 12 OVER
 PEA ISLAND BREACH

Permit Drawing
Sheet 16 of 59

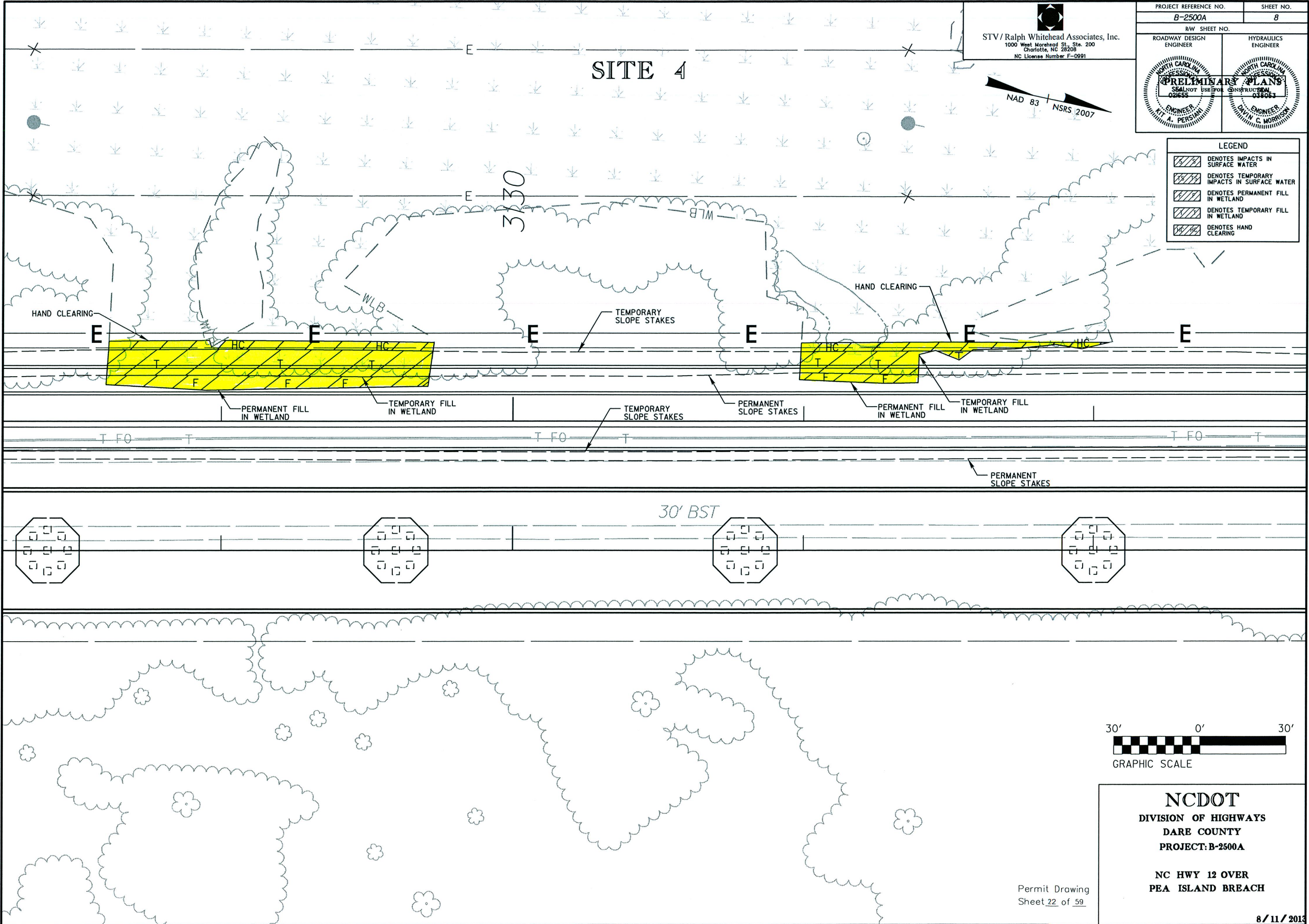
8/11/2013

STV / Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991



SITE 4

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES PERMANENT FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



NCDOT
DIVISION OF HIGHWAYS
DARE COUNTY
PROJECT: B-2500A

NC HWY 12 OVER
PEA ISLAND BREACH

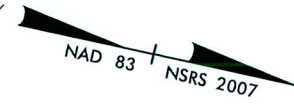
Permit Drawing
Sheet 22 of 59

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8/11/2013

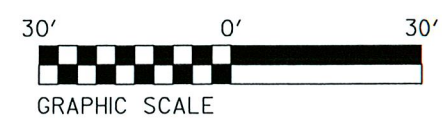
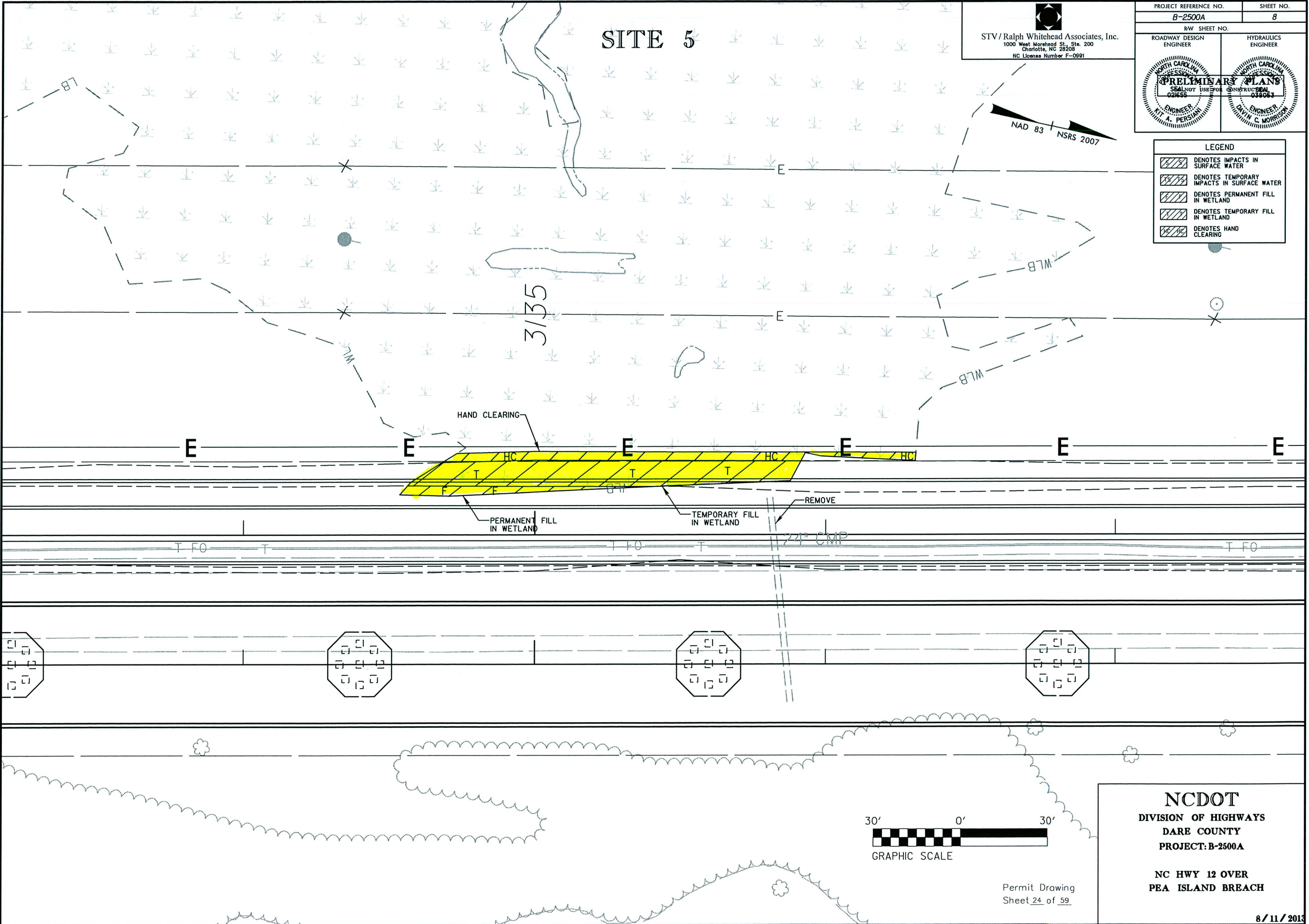
SITE 5

STV / Ralph Whitehead Associates, Inc.
 1000 West Morehead St., Ste. 200
 Charlotte, NC 28208
 NC License Number F-0991

PROJECT REFERENCE NO. B-2500A	SHEET NO. 8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES PERMANENT FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



NCDOT
 DIVISION OF HIGHWAYS
 DARE COUNTY
 PROJECT: B-2500A

NC HWY 12 OVER
 PEA ISLAND BREACH

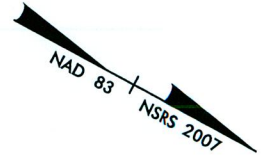
Permit Drawing
 Sheet 24 of 59

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 8/11/2013

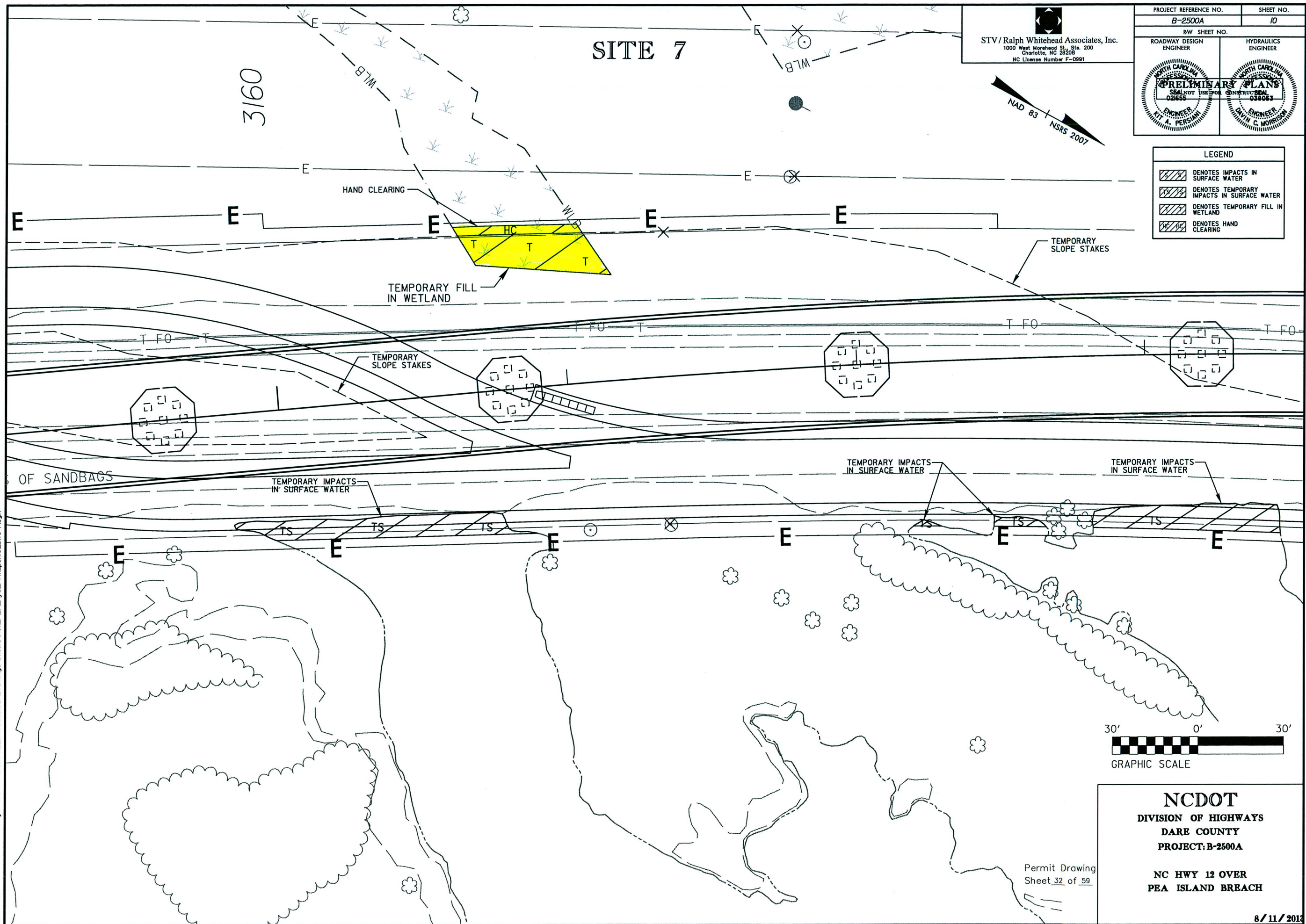
SITE 7

STV/Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

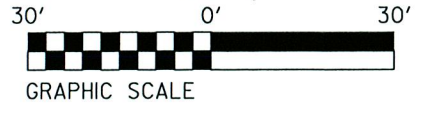
PROJECT REFERENCE NO. B-2500A	SHEET NO. 10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



LEGEND	
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	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



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8/11/2013



NCDOT
DIVISION OF HIGHWAYS
DARE COUNTY
PROJECT: B-2500A

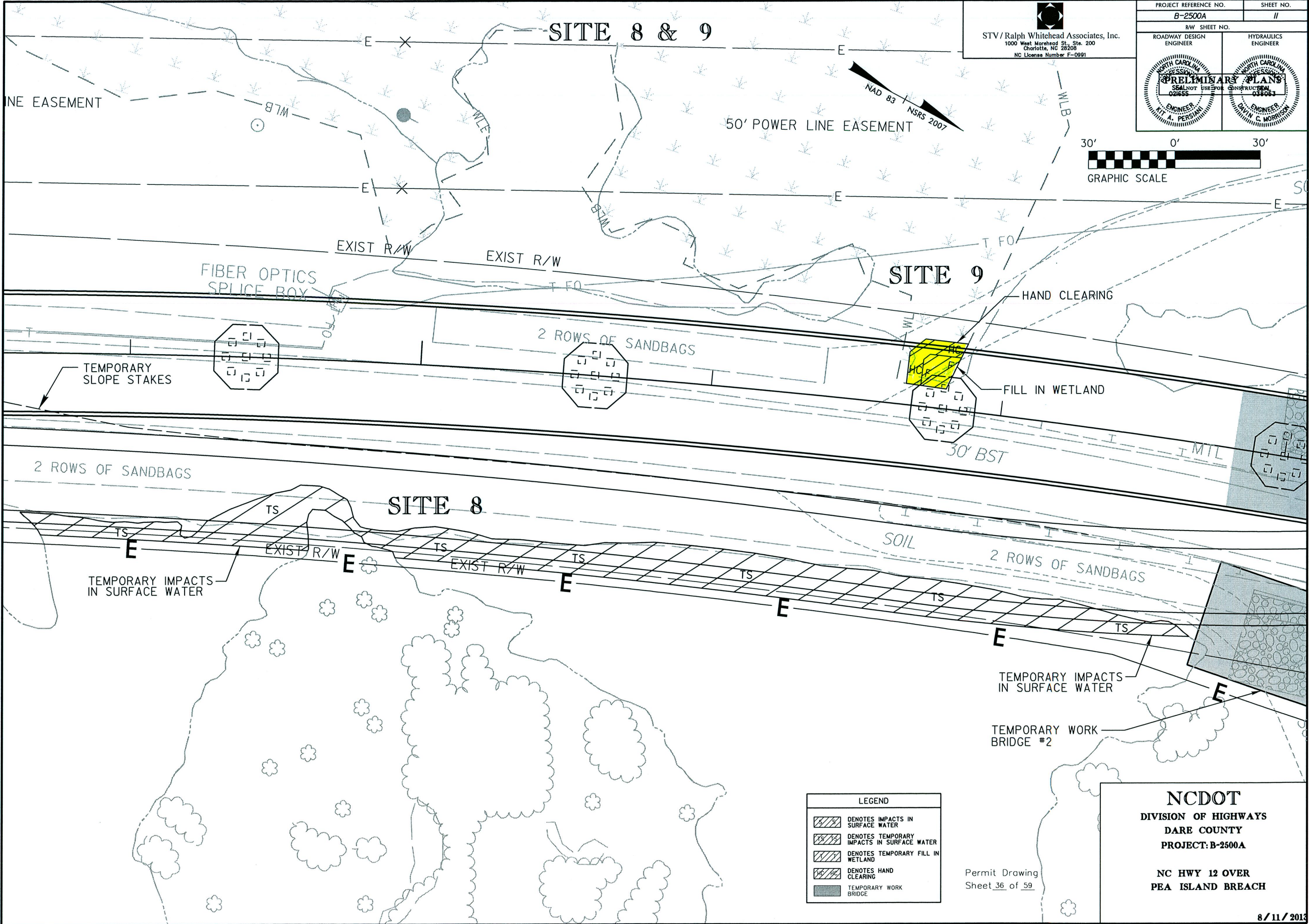
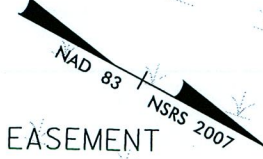
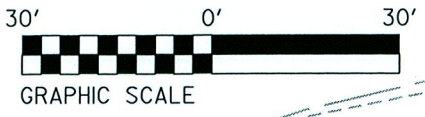
NC HWY 12 OVER
PEA ISLAND BREACH

Permit Drawing
Sheet 32 of 59

PROJECT REFERENCE NO. B-2500A	SHEET NO. II
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	ENGINEER

STV/Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

PRELIMINARY PLANS
SEAL NOT USE FOR CONSTRUCTION
ENGINEER
K. A. PERSHON
ENGINEER
D. W. MORRISON



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING
	TEMPORARY WORK BRIDGE

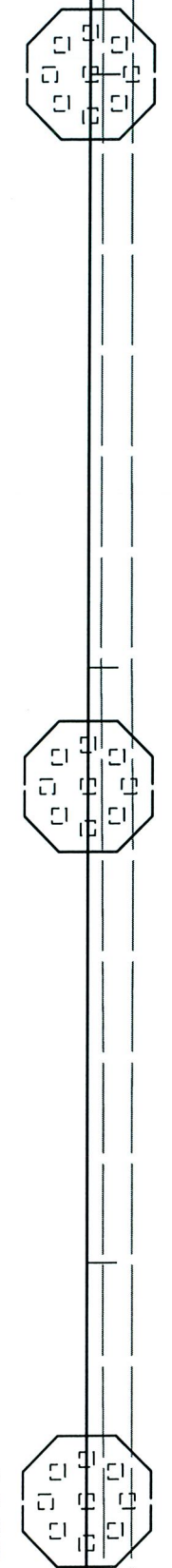
Permit Drawing
Sheet 36 of 59

NCDOT
DIVISION OF HIGHWAYS
DARE COUNTY
PROJECT: B-2500A

NC HWY 12 OVER
PEA ISLAND BREACH

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8/11/2013

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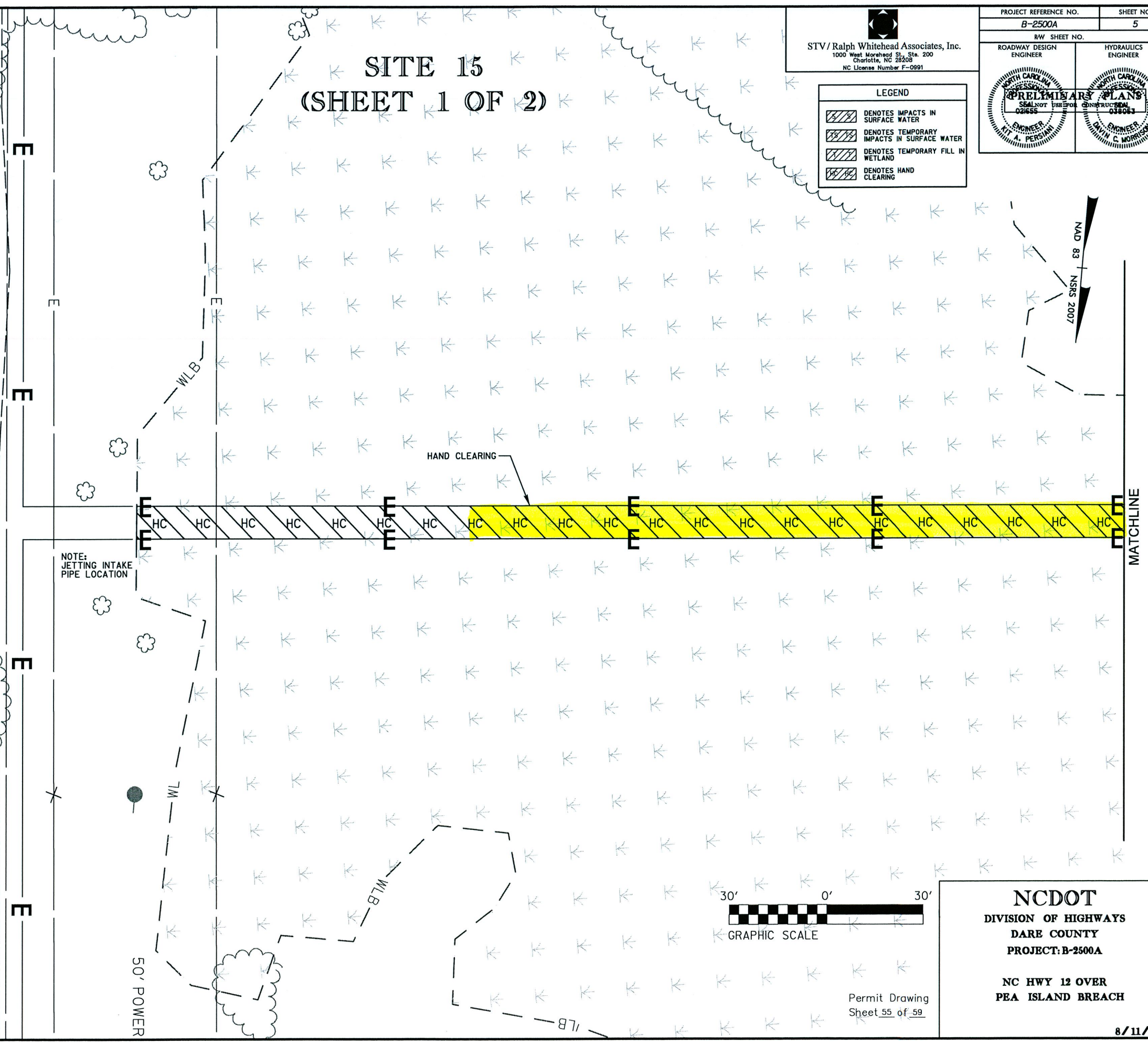
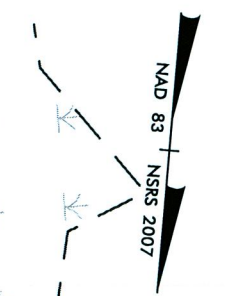


SITE 15 (SHEET 1 OF 2)

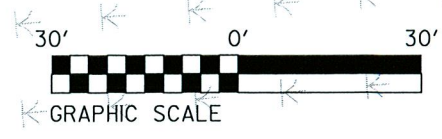
STV/Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

PROJECT REFERENCE NO. B-2500A	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



NOTE:
JETTING INTAKE
PIPE LOCATION



NC DOT
DIVISION OF HIGHWAYS
DARE COUNTY
PROJECT: B-2500A



NC HWY 12 OVER
PEA ISLAND BREACH





Permit Drawing
Sheet 55 of 59

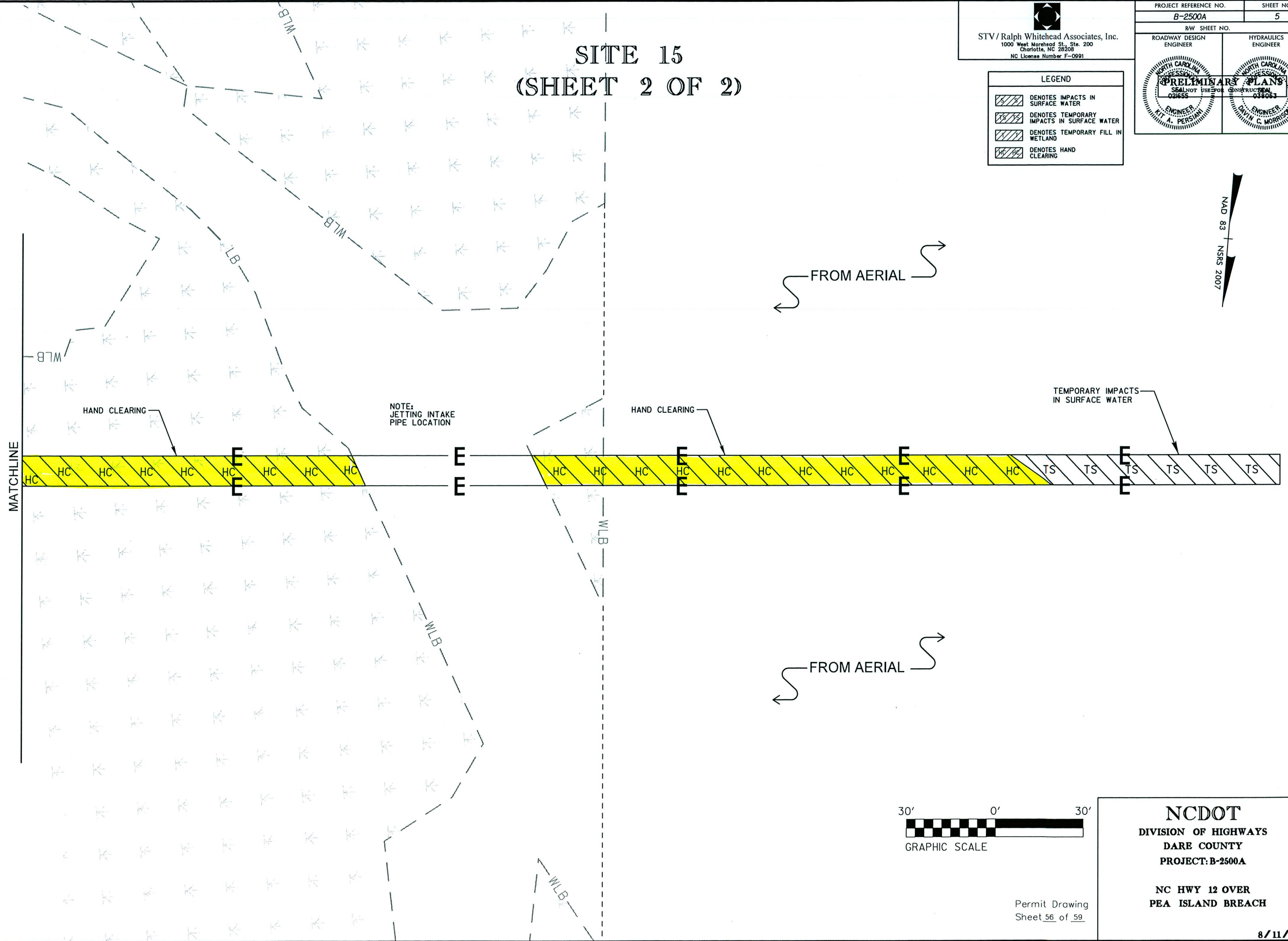
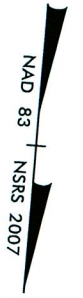
8/11/2013

SITE 15 (SHEET 2 OF 2)

STV/Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

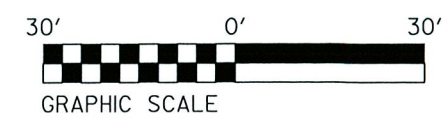
PROJECT REFERENCE NO. B-2500A	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



MATCHLINE

NOTE:
JETTING INTAKE
PIPE LOCATION



NCDOT
DIVISION OF HIGHWAYS
DARE COUNTY
PROJECT: B-2500A

NC HWY 12 OVER
PEA ISLAND BREACH

Permit Drawing
Sheet 56 of 59

8/11/2013 R:\Hydraulics\PERMITS_Env\Ironmental\Drawings\Sheets\VICI2\PEA_Hyd_Prm_pst105X_Site 15B.dgn

STV/Ralph Whitehead Associates, Inc.
 1000 West Main Street, Suite 200
 Charlotte, NC 28208
 NC License Number 4-0281

PROJECT REFERENCE NO. B-2500A	SHEET NO. 6
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

NAD 83
 NSRS 2007

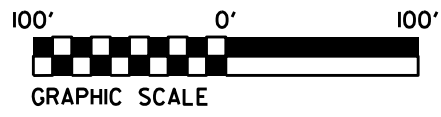
MATCHLINE - L - STA 3100+00 (SHEET 5)

MATCHLINE - R - STA 3200 (SHEET 7)

SITE

LEGEND

	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES PERMANENT FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



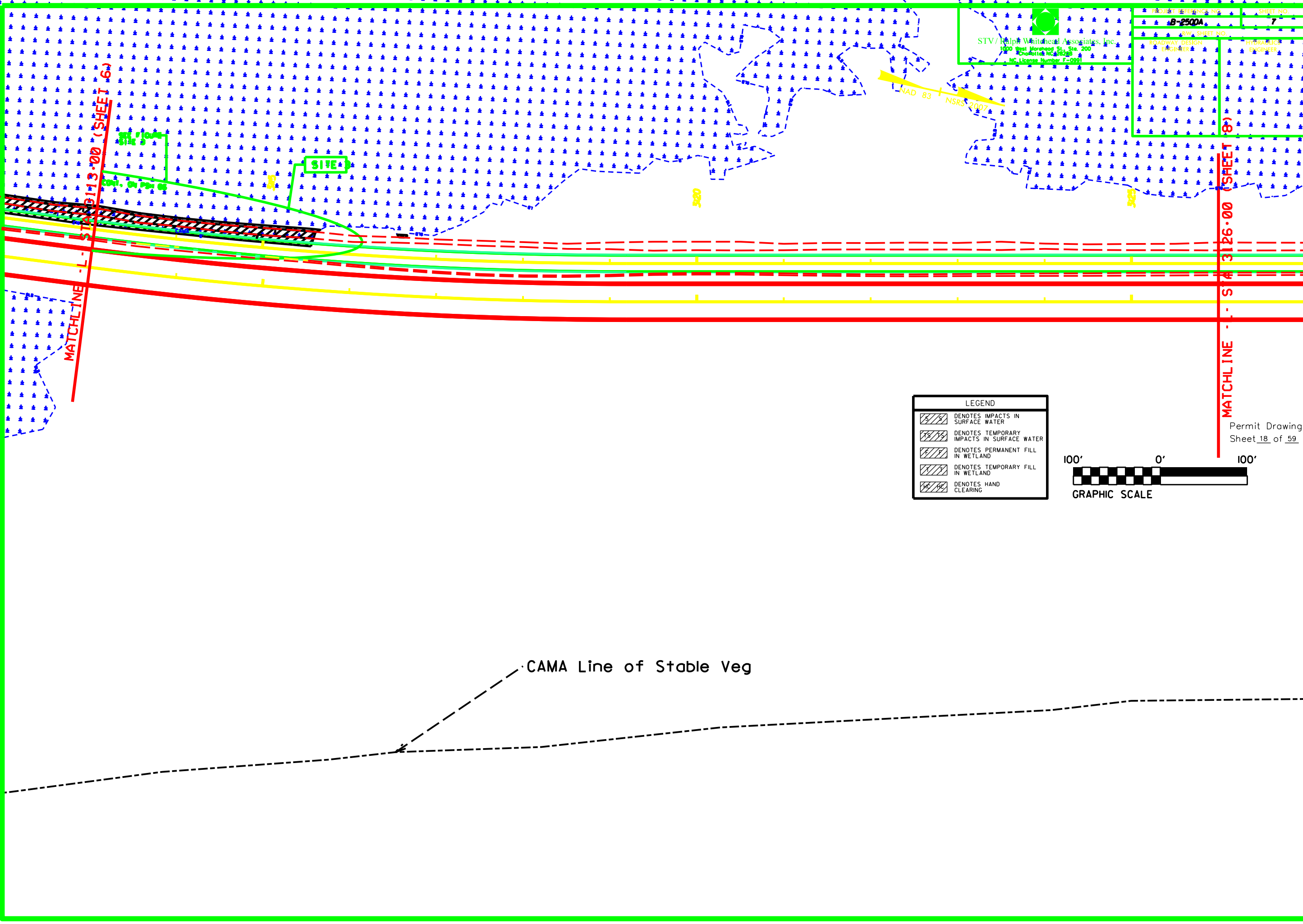
Permit Drawing Sheet 13 of 59

CAMA Line of Stable Veg

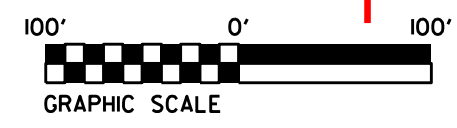
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 \$DATES\$

PROJECT REFERENCE NO.	SHEET NO.
B-2500A	7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULIC ENGINEER

STV/Ralph Whitehead Associates, Inc.
 1000 West Morehead St., Ste. 200
 Charlotte, NC 28203
 NC License Number F-0991



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES PERMANENT FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



Permit Drawing
 Sheet 18 of 59

CAMA Line of Stable Veg

MATCHLINE - L - STA 3113+00 (SHEET 6)

MATCHLINE - R - STA 3126+00 (SHEET 8)

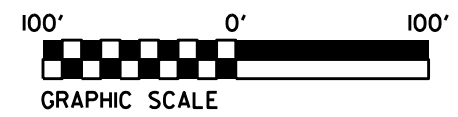
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 \$DATES

STV / Ralph Whitehead Associates, Inc.
 1000 West Wendover St., Ste. 200
 Charlotte, NC 28203
 Lic. No. 34008 F-0291

MATCHLINE - L - STA 3126+00 (SHEET 7)

MATCHLINE - L - STA 3139+00 (SHEET 9)

\$FILES\$
\$DATES\$



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES PERMANENT FILL IN WETLAND
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING

Permit Drawing
 Sheet 20 of 59

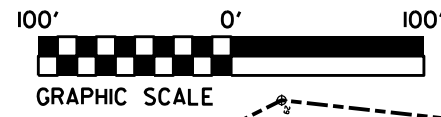
CAMA Line of Stable Veg

STV/Ralph Whithead Associates, Inc.
 1000 West Moreland St., Ste. 200
 Charlotte, NC 28204
 NC License Number F-0981

PROJECT REFERENCE NO. B-2500A	SHEET NO. 9
RDW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCHLINE -L- STA 3139+00 (SHEET 8)

MATCHLINE -L- STA 3152+00 (SHEET 10)



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING

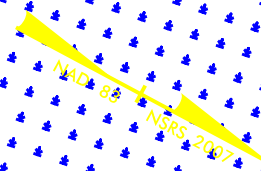
Permit Drawing
 Sheet 26 of 59

CAMA Stable Line of Veg

\$FILES\$
 \$DATES\$

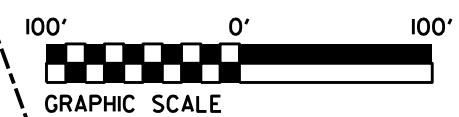
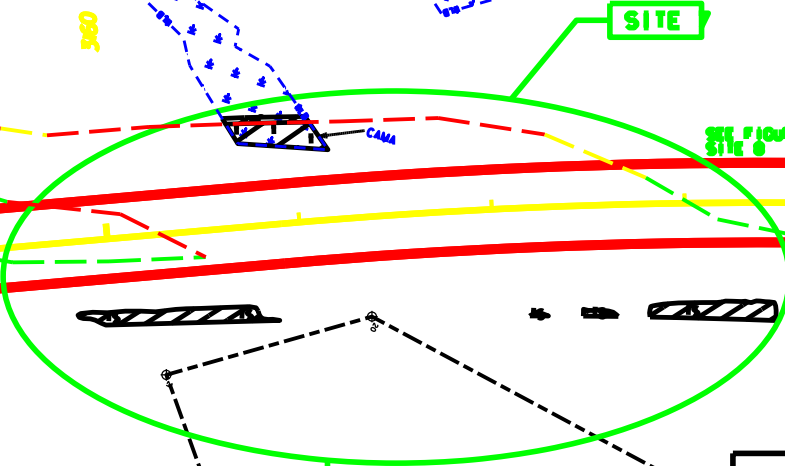
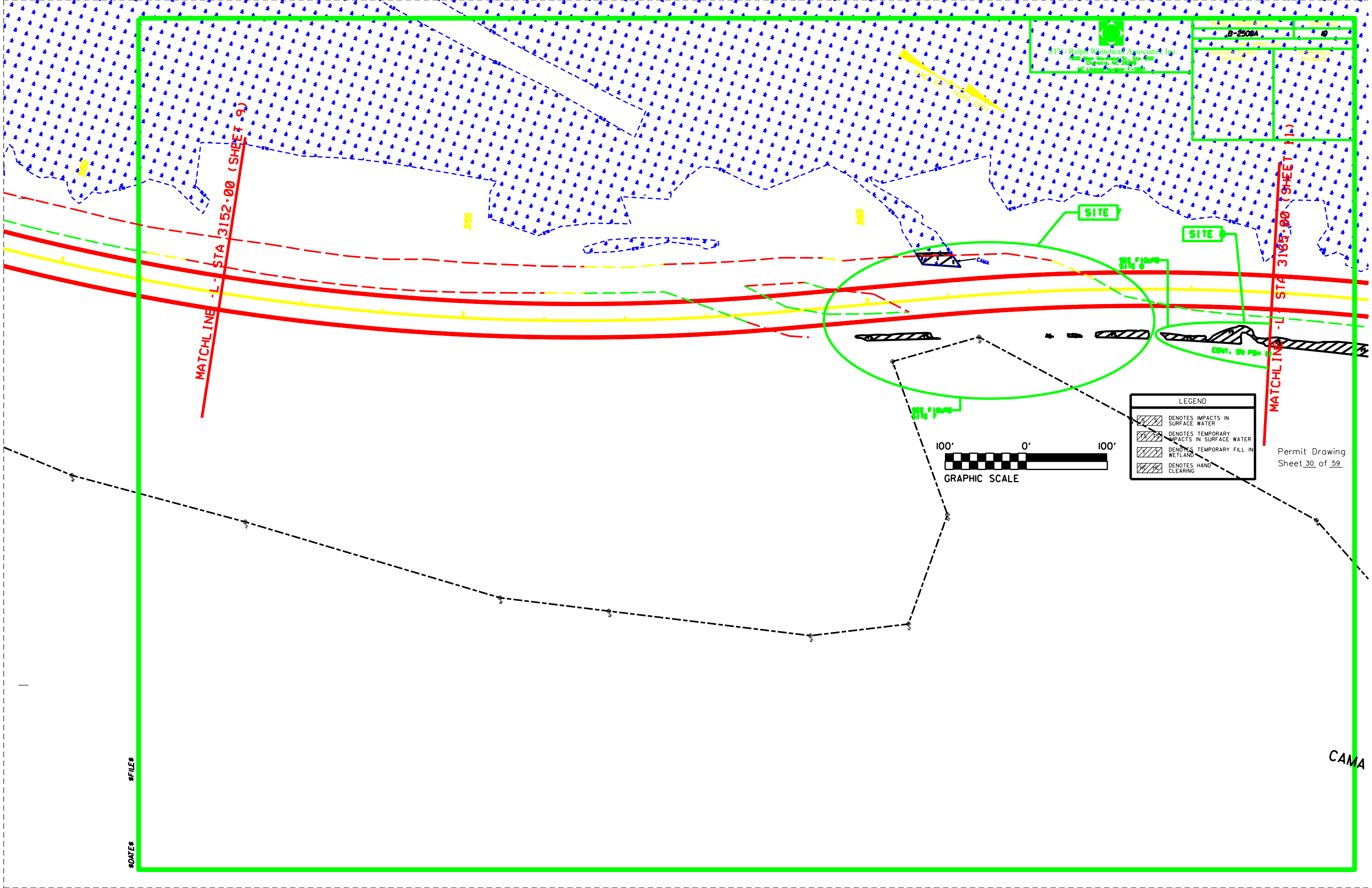
STV/Ralph Whitehead Associates, Inc.
 1000 West Morehead St., Ste. 400
 Charlotte, NC 28228
 NC License Number E-0081

PROJECT REFERENCE NO. B-2500A	SHEET NO. 10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE -L- STA 3152+00 (SHEET 9)

MATCHLINE -L- STA 3165+00 (SHEET 11)



LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING

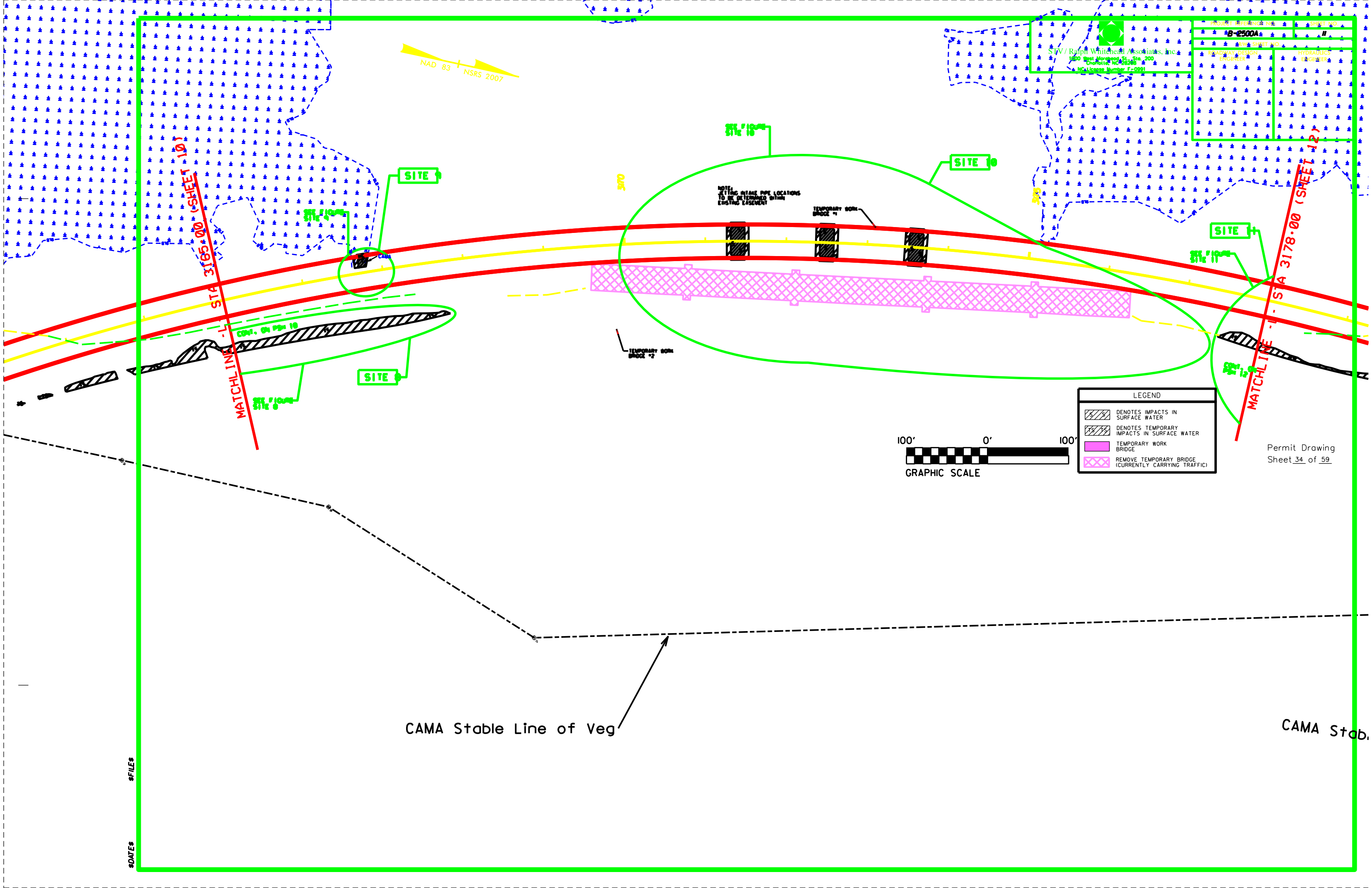
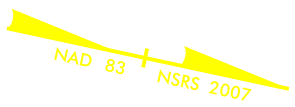
Permit Drawing
 Sheet 30 of 59

SFILES
 SDATES

CAMA

PROJECT REFERENCE NO.	SHEET NO.
B-2500A	11
PLAN SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STV / Ralph Whitehead Associates, Inc.
 1600 West Moreland St., Ste. 200
 Charlotte, NC 28228
 NC License Number F-0981

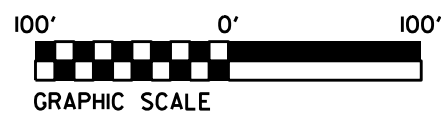


NOTE:
 EXISTING BRIDGE PIPE LOCATIONS
 TO BE RETAINED WITH
 EXISTING EASEMENT

TEMPORARY WORK
 BRIDGE #1

TEMPORARY WORK
 BRIDGE #2

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	TEMPORARY WORK BRIDGE
	REMOVE TEMPORARY BRIDGE (CURRENTLY CARRYING TRAFFIC)



Permit Drawing
 Sheet 34 of 59

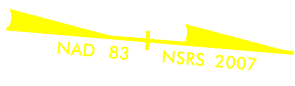
CAMA Stable Line of Veg

CAMA Stab.

\$FILES
 \$DATES

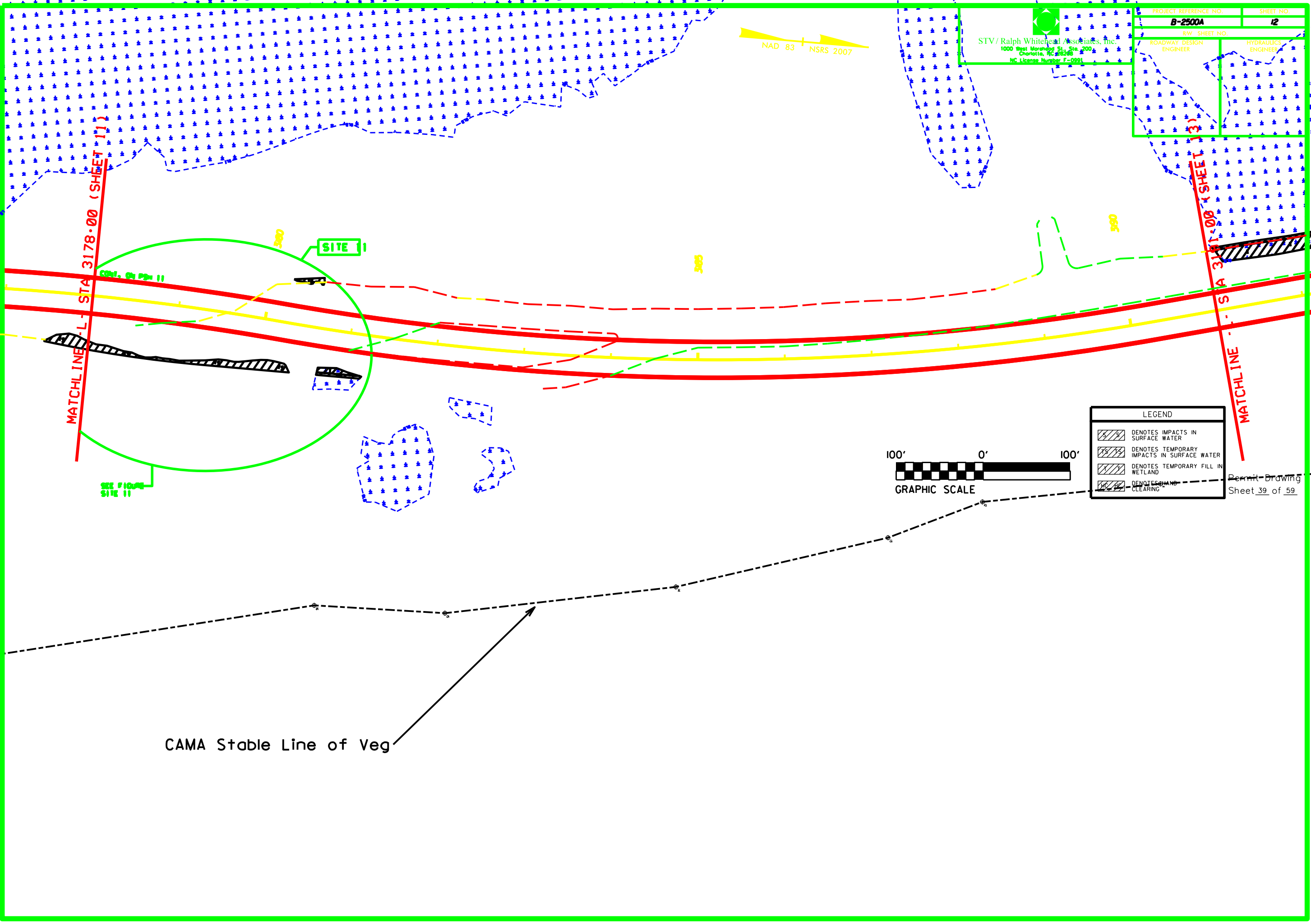
PROJECT REFERENCE NO.	SHEET NO.
B-2500A	12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STV / Ralph Whitehead / Associates, Inc.
 1000 West Morehead St., Ste. 200
 Charlotte, NC 28226
 NC License Number F-0091



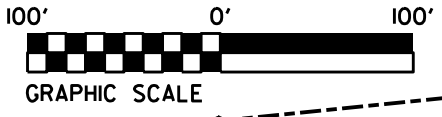
MATCHLINE - L - STA 3178+00 (SHEET 11)

MATCHLINE - R - STA 3181+00 (SHEET 13)



SEE FIGURE SITE 11

CAMA Stable Line of Veg



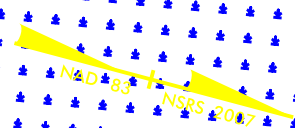
LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES SHAND CLEARING

Permit Drawing
 Sheet 39 of 59

\$FILES
\$DATES

STV/Ralph Whitehead Associates, Inc.
1000 West Wendover St., Ste. 200
Charlotte, NC 28203
NC License No. 00001 F-0001

ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER



MATCHLINE -L- STA 3191+00 (SHEET 12)

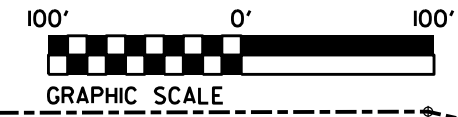
MATCHLINE -L- STA 3204+00 (SHEET 14)

SITE 12

SITE 13

SITE 13

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



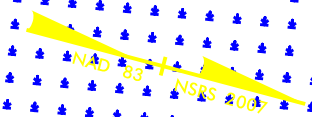
Permit Drawing Sheet 43 of 59

CAMA Stable Line of Veg

\$FILES\$
\$DATES\$

STV / Ralph Whitehead Associates, Inc.
 1000 West Moreland St., Ste. 200
 Charlotte, NC 28228
 Lic. Number F-0991

PROJECT REFERENCE NO.	SHEET NO.
8-2500A	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE L: STA 204+00 (SHEET 13)

ST 13
 3205

SITE 13

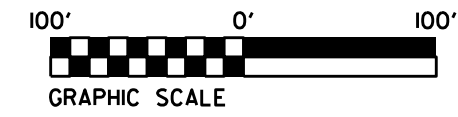
3200

ST 14
 3200

SITE 14

Cont. on Pgt 13

LEGEND	
	DENOTES IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
	DENOTES TEMPORARY FILL IN WETLAND
	DENOTES HAND CLEARING



CAMA Stable Line of Veg

Permit Drawing
 Sheet 47 of 59

\$FILES\$
 \$DATES\$