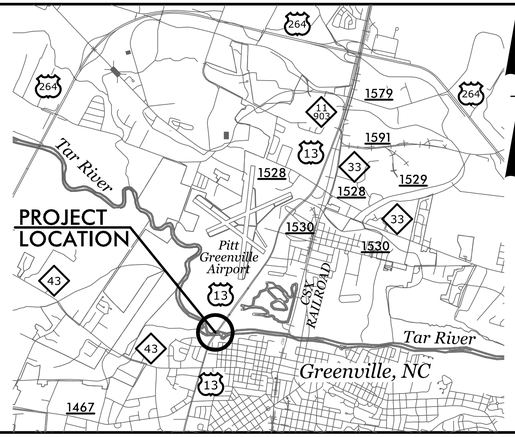
TIP PROJECT: B-4786



VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

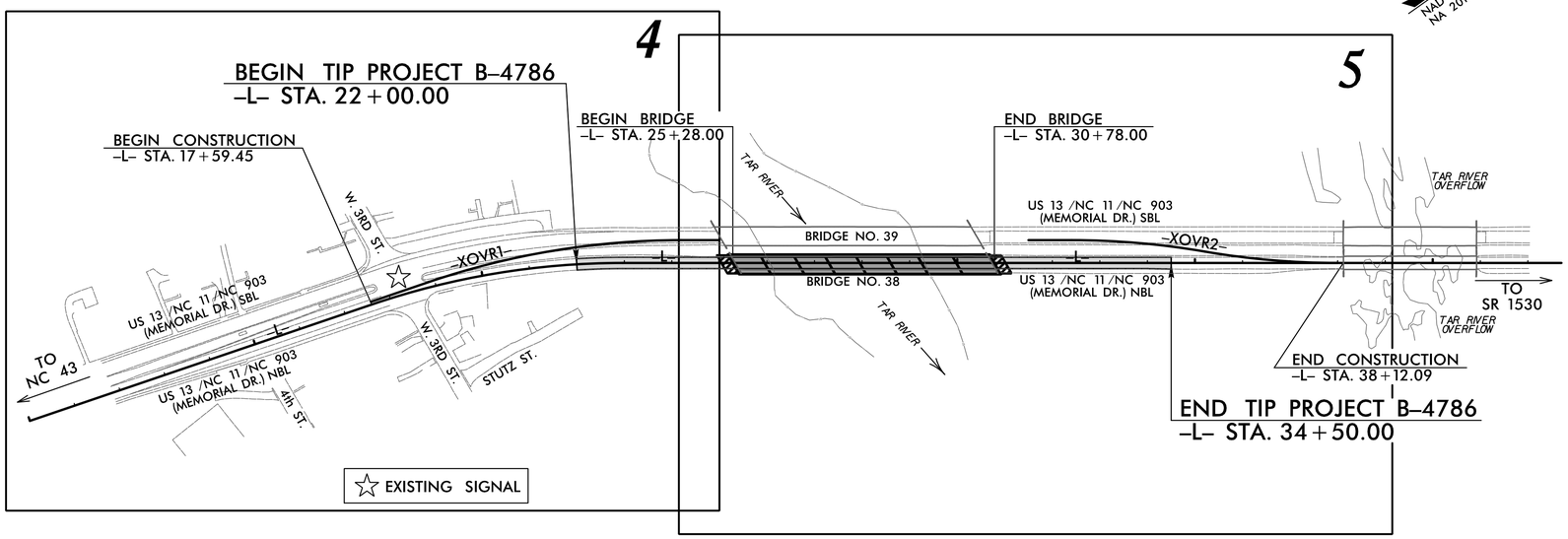
PITT COUNTY

LOCATION: BRIDGE NO. 38 OVER TAR RIVER ON US 13 IN GREENVILLE

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4786	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
38222.1.FR2	BRSTP-0013(041)	PE
38222.2.2	BRSTP-0013(041)	R/W, UTIL



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT

Refer To E. C. Special Provisions for Special Considerations.

GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

TGS ENGINEERS

Prepared In the Office of:

TGS ENGINEERS

201 W. MARION ST-STE 200
SHELBY, NC 28150

Designed by:

Andrew H. Cochrane, PE *3015*
NAME *LEVEL III CERTIFICATION NO.*

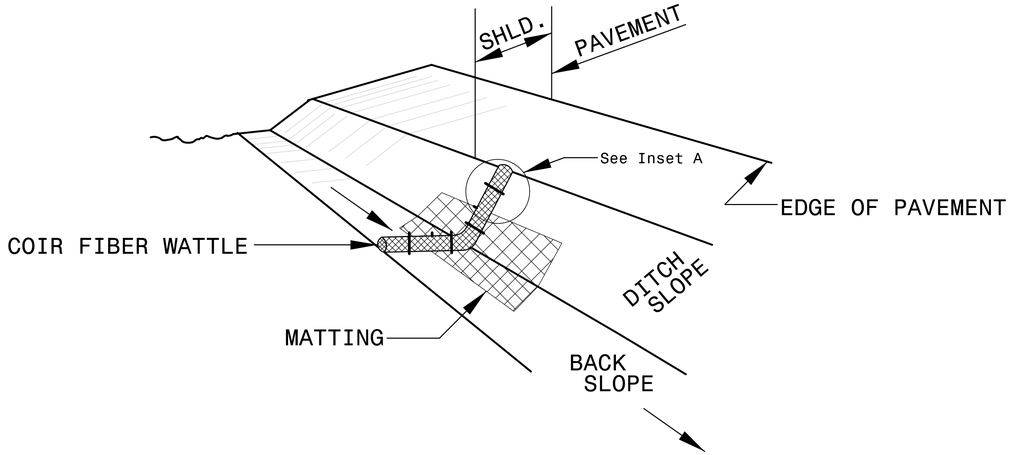
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

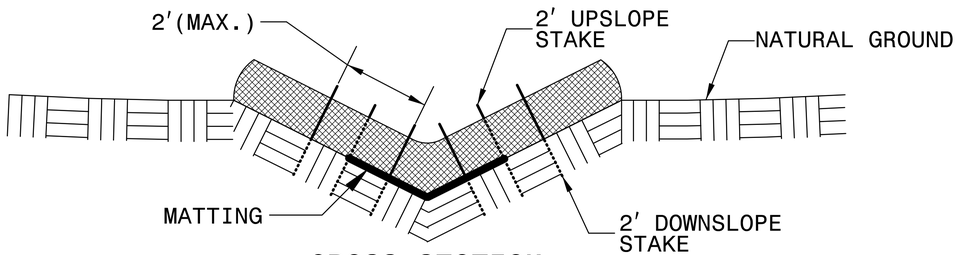
1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

PROJECT REFERENCE NO.	SHEET NO.
B-4786	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

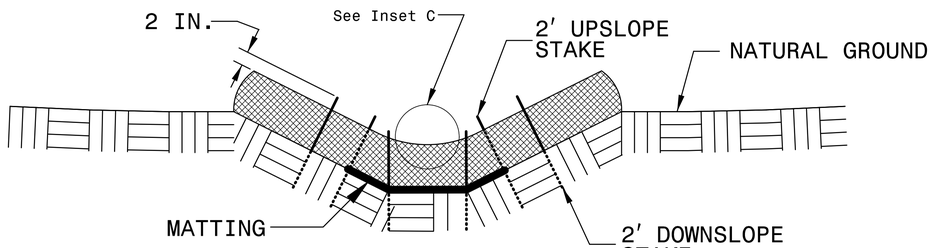
COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

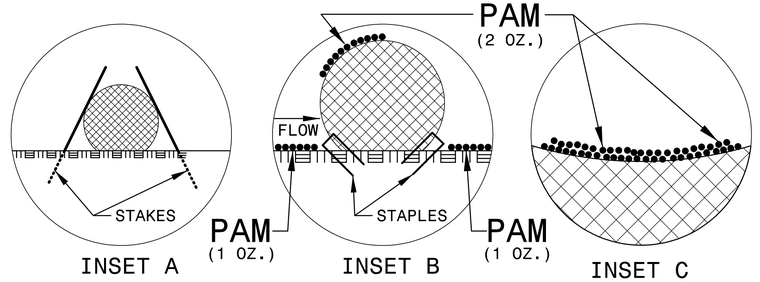
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

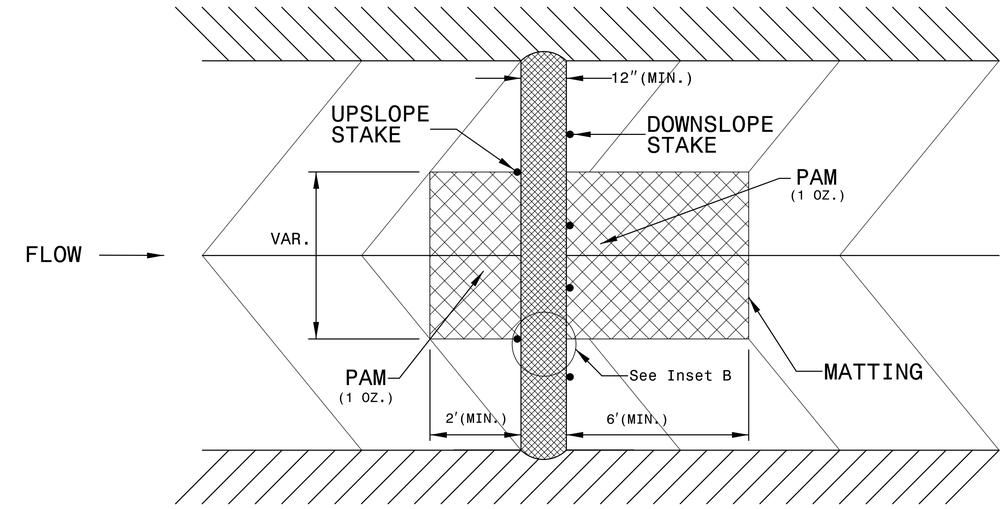
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
B-4786	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
B-4786	EC-04/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

NAD 83 /NA 2011

BEGIN TIP PROJECT B-4786
-L- POC Sta. 22+00.00

APPROX. LOCATION OF PROPOSED SOUTH TAR RIVER GREENWAY, PHASE 3 (EB-5539) (FUTURE PROJECT BY OTHERS)

JOHN PAGE HEIRS

RE-LAP EXIST. GUARDRAIL AFTER DETOUR REMOVAL

RETAIN

GREU, TL-3
STA 24+35+/-

50' TAPER

REMOVE EXIST.

GREU, TL-3

15" RCP-IV

BEGIN GUARDRAIL
-L- STA 21+40.42

BEGIN SBG
-L- 16.36
23.48 RT

USE ROCK PLATING FROM -L- STA 23+75+/- TO 25+49+/- RT
EXTEND ROCK PLATING LIMITS TO 2:1 SLOPES
CLASS II RIP RAP

CLASS B RIP RAP
1 TON,S SY GEO

RETAIN SYSTEM

ATLANTIC-PACIFIC PROPERTIES, LLC

DANNATA LAKIA LUNSFORD

JEFFREY HAGANS, ET UX

DAISY MAE HIGHSMITH

ISAAC A. ARTIS, JR.

ISAAC A. ARTIS, ET UX

ULYSSES GRANT BELL, III, ET UX

JO ANN B. STATON

JACQUELINE SCOTT SMITH

LYMAN EARL SCOTT, ET UX

WALTER BOLDEN

WILLIAM D. DAVIS

RUEBELL HYMAN, ET UX

MARTY REARDON

VIVIAN CRUMP

PATRICIA GRIMES SHORT, ET UX

MICHAEL L. WILSON, ET UX

ROY CLAYTON EVERETT

ULYSSES G. BELL, JR.

NASSEEM AWARTANI

RUEBELL HYMAN HARDY, ET UX

M. R. CHANDLER COMPANY, LLC

TIMANNA C. THUNDERSON

BENJAMIN JOHNSON, ET UX

CALVIN BECKETT HEIRS

THE STATE HIGHWAY AND PUBLIC WORKS COMMISSION

THE CITY OF GREENVILLE, NORTH CAROLINA

-L- PC Sta. 17+59.45
BEGIN CONSTRUCTION

-L- POT Sta. 10+00.00

-L-
PI Sta 20+30.46
Δ = 18° 48' 00.0" (RT)
D = 3° 30' 00.0"
L = 537.14'
T = 271.01'
R = 1,637.02'
SE = SEE PLANS

-L- PT Sta. 22+96.59

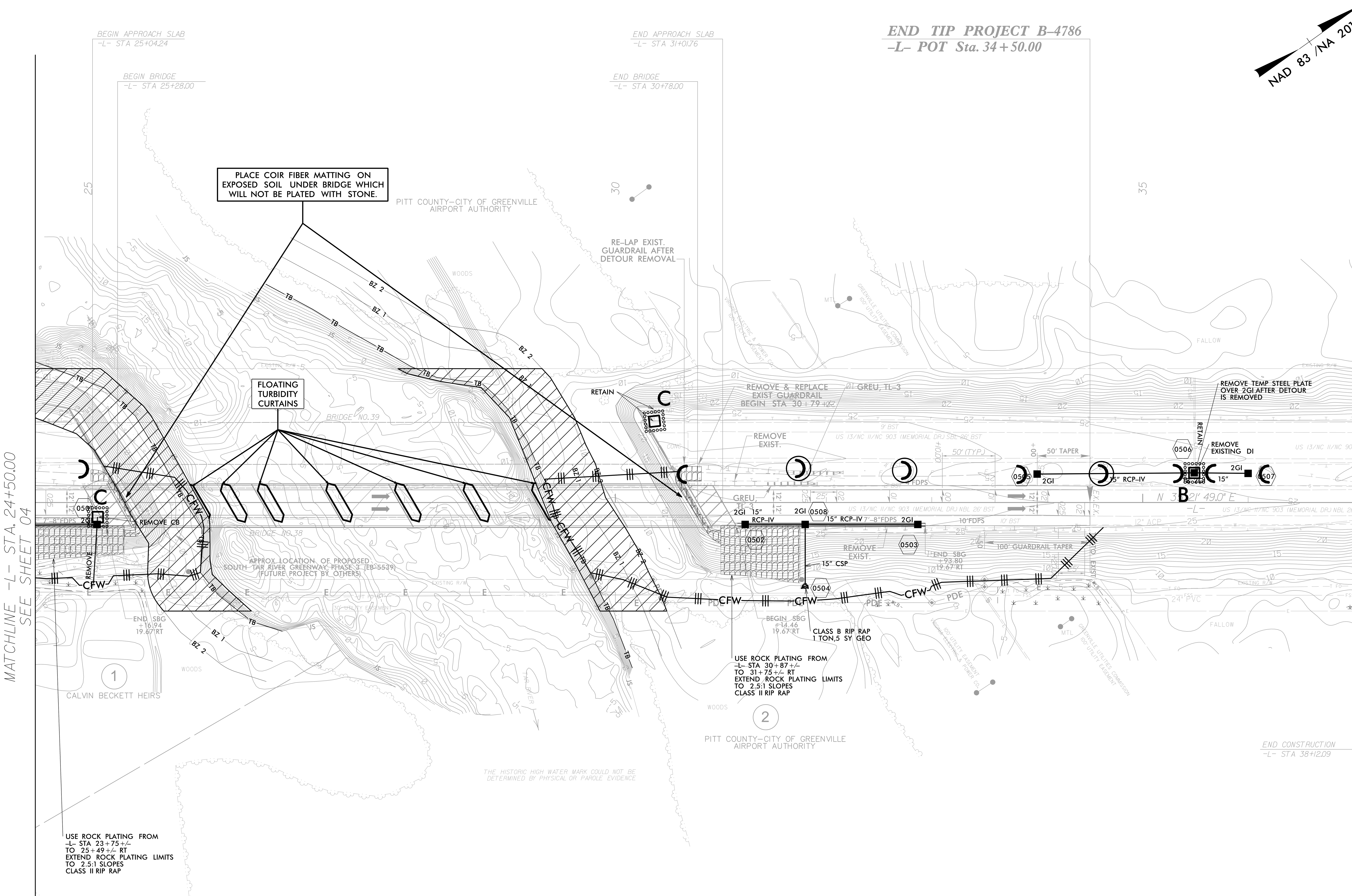
MATCHLINE -L- STA. 24+50.00
SEE SHEET 05

NOTE:
PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD (AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

EXISTING SIGNAL

PROJECT REFERENCE NO.	SHEET NO.
B-4786	EC-05/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275


END TIP PROJECT B-4786
-L- POT Sta. 34+50.00
NAD 83 /NA 2011
MATCHLINE -L- STA. 24+50.00
SEE SHEET 04
BEGIN APPROACH SLAB
-L- STA 25+04.24
BEGIN BRIDGE
-L- STA 25+28.00
END APPROACH SLAB
-L- STA 31+01.76
END BRIDGE
-L- STA 30+78.00
PLACE COIR FIBER MATTING ON EXPOSED SOIL UNDER BRIDGE WHICH WILL NOT BE PLATED WITH STONE.
PITT COUNTY-CITY OF GREENVILLE AIRPORT AUTHORITY
RE-LAP EXIST. GUARDRAIL AFTER DETOUR REMOVAL
FLOATING TURBIDITY CURTAINS
RETAIN
REMOVE & REPLACE EXIST GUARDRAIL BEGIN STA 30+79 +/-
GREU, TL-3
REMOVE EXIST.
REMOVE TEMP STEEL PLATE OVER 2GI AFTER DETOUR IS REMOVED
REMOVE EXISTING DI
50' TAPER
15" RCP-IV
2GI
REMOVE CB
APPROX. LOCATION OF PROPOSED SOUTH TAR RIVER GREENWAY PHASE 3 (EB-5539) (FUTURE PROJECT BY OTHERS)
15" CSP
100' GUARDRAIL TAPER
END SBG
CLASS B RIP RAP 1 TON,5 SY GEO
USE ROCK PLATING FROM -L- STA 30+87 +/- TO 31+75 +/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP
CALVIN BECKETT HEIRS
END CONSTRUCTION
-L- STA 38+12.09
THE HISTORIC HIGH WATER MARK COULD NOT BE DETERMINED BY PHYSCAL OR PAROLE EVIDENCE
USE ROCK PLATING FROM -L- STA 23+75 +/- TO 25+49 +/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

NOTE:
PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD (AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

NOTE:
UTILIZE SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

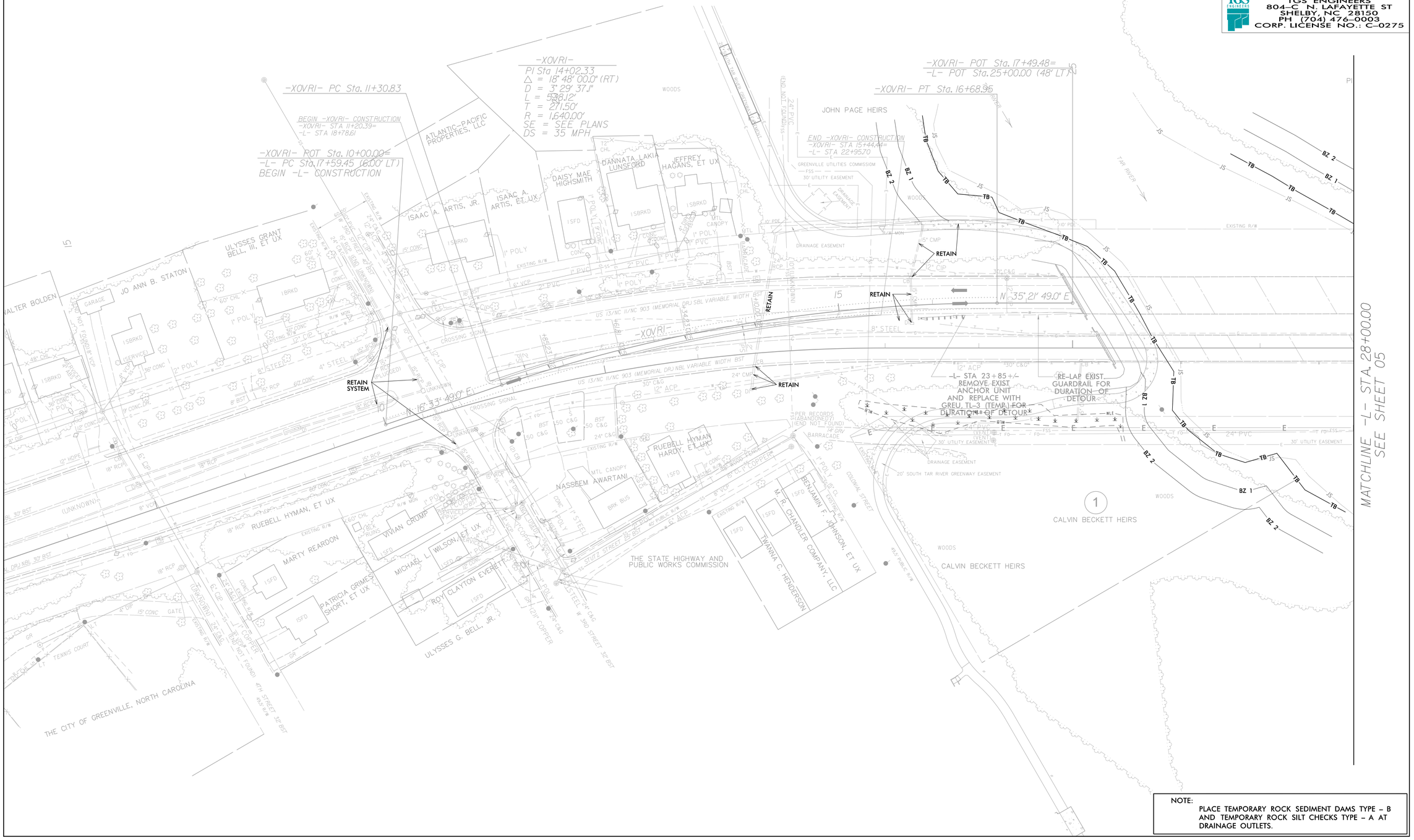
DETOUR

UTILIZE PERIMETER EROSION CONTROL MEASURES AS SHOWN ON SHEETS EC–04 & EC–05. NO ADDITIONAL EROSION CONTROL ITEMS ARE REQUIRED ON THIS SHEET.

NAD 83 /NA 2011

PROJECT REFERENCE NO.	SHEET NO.
B–4786	EC–06/CONST.48&5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
804–C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476–0003
CORP. LICENSE NO.: C–0275



NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

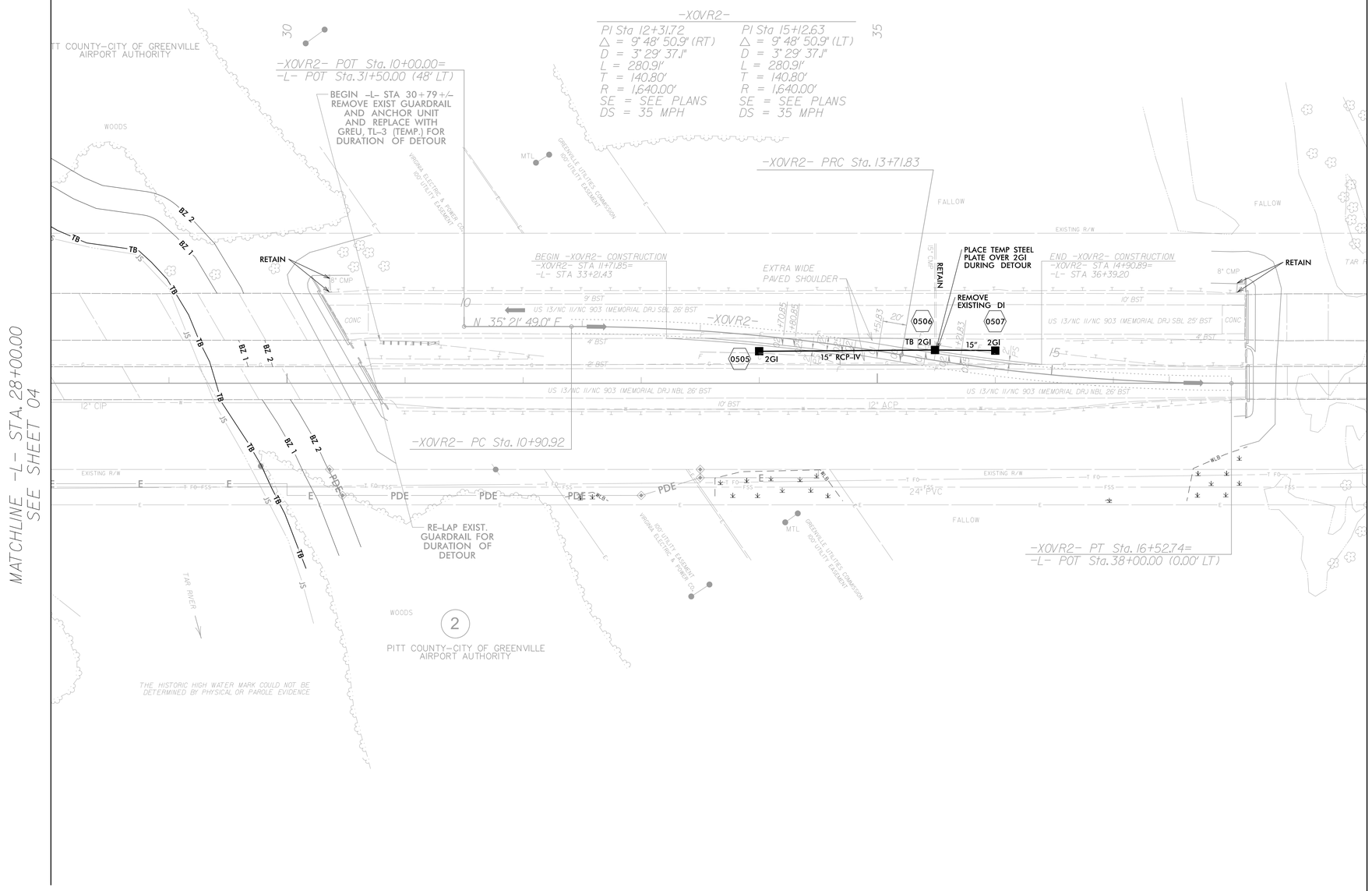
DETOUR

UTILIZE EROSION CONTROL MEASURES AS SHOWN ON SHEETS EC–05 & EC–09. NO ADDITIONAL EROSION CONTROL ITEMS ARE REQUIRED ON THIS SHEET.

NAD 83 /NA 2011

PROJECT REFERENCE NO.	SHEET NO.
B–4786	EC–07/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
804–C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476–0003
CORP. LICENSE NO.: C–0275



NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

PROJECT REFERENCE NO.	SHEET NO.
B-4786	EC-08/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

NAD 83 /NA 2011

BEGIN TIP PROJECT B-4786
-L- POC Sta. 22+00.00

APPROX. LOCATION OF PROPOSED SOUTH TAR RIVER GREENWAY, PHASE 3 (EB-5539) (FUTURE PROJECT BY OTHERS)

JOHN PAGE HEIRS

RE-LAP EXIST. GUARDRAIL AFTER DETOUR REMOVAL

RETAIN

GREU, TL-3 STA 24+35+/-

50' TAPER

REMOVE EXIST. 15" RCP-IV

BEGIN GUARDRAIL -L- STA 21+40.42

BEGIN SBG -L- 16.36 23.48 RT

RETAIN SYSTEM

CONCEPTUAL TEMPORARY ACCESS ROAD (CONTRACTOR DESIGNED)

CLASS B RIP RAP 1 TON,S SY GEO

USE ROCK PLATING FROM -L- STA 23+75+/- TO 25+49+/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

Place Matting for Erosion Control on Slope as Work Allows. -L- Sta. 24+00 to 25+28 RT

MATCHLINE -L- STA. 24+50.00 SEE SHEET 05

-L- PT Sta. 22+96.59

-L- PC Sta. 17+59.45 BEGIN CONSTRUCTION

-L- POT Sta. 10+00.00

-L-
PI Sta 20+30.46
△ = 18° 48' 00.0" (RT)
D = 3° 30' 00.0"
L = 537.14'
T = 271.01'
R = 1,637.02'
SE = SEE PLANS

NOTE:
PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD (AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

EXISTING SIGNAL

PROJECT REFERENCE NO.	SHEET NO.
B-4786	EC-09/CONST.5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
804-C N. LAFAYETTE ST
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275

NAD 83 /NA 2011

END TIP PROJECT B-4786
-L- POT Sta. 34+50.00

MATCHLINE -L- STA. 24+50.00
SEE SHEET 04

BEGIN APPROACH SLAB
-L- STA 25+04.24

BEGIN BRIDGE
-L- STA 25+28.00

END APPROACH SLAB
-L- STA 31+01.76

END BRIDGE
-L- STA 30+78.00

PLACE COIR FIBER MATTING ON EXPOSED SOIL UNDER BRIDGE WHICH WILL NOT BE PLATED WITH STONE.

FLOATING TURBIDITY CURTAINS

PITT COUNTY-CITY OF GREENVILLE AIRPORT AUTHORITY

RE-LAP EXIST. GUARDRAIL AFTER DETOUR REMOVAL

RETAIN

REMOVE & REPLACE EXIST GUARDRAIL BEGIN STA 30+79+/-

GREU, TL-3

REMOVE EXIST.

REMOVE TEMP STEEL PLATE OVER 2GI AFTER DETOUR IS REMOVED

REMOVE EXISTING DI

REMOVE CB

BRIDGE NO.39

BRIDGE NO.38

APPROX. LOCATION OF PROPOSED SOUTH TAR RIVER GREENWAY, PHASE 3 (EB-5539) (FUTURE PROJECT BY OTHERS)

50' TAPER

50' (TYP.)

100' GUARDRAIL TAPER

15" CSP

END SBG +16.94 19.67'RT

BEGIN SBG +14.46 19.67'RT

END SBG 93.80 19.67'RT

CLASS B RIP RAP 1 TON.5 SY GEO

USE ROCK PLATING FROM -L- STA 23+75+/- TO 25+49+/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

USE ROCK PLATING FROM -L- STA 30+87+/- TO 31+75+/- RT EXTEND ROCK PLATING LIMITS TO 2.5:1 SLOPES CLASS II RIP RAP

1 CALVIN BECKETT HEIRS

2 PITT COUNTY-CITY OF GREENVILLE AIRPORT AUTHORITY

THE HISTORIC HIGH WATER MARK COULD NOT BE DETERMINED BY PHYSICAL OR PAROLE EVIDENCE

END CONSTRUCTION
-L- STA 38+12.09

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 24+00 to 25+28 RT

CONCEPTUAL TEMPORARY ACCESS ROAD (CONTRACTOR DESIGNED)

CONCEPTUAL TEMPORARY WORK BRIDGE (CONTRACTOR DESIGNED)

Place Matting for Erosion Control on Slope as Work Allows.
-L- Sta. 30+78 to 31+75 RT

CONCEPTUAL TEMPORARY ACCESS ROAD (CONTRACTOR DESIGNED)

NOTE:
PERIMETER EROSION CONTROL DEVICES ARE LOCATED PER PRELIMINARY DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD (AS SHOWN ON EC-08 & EC-09). ADJUST AS NEEDED PER FINAL DESIGN OF TEMPORARY BRIDGE & ACCESS ROAD.

Place Matting for Erosion Control on Slopes Adjacent to Permitted Wetlands as Work Allows.

NOTE:
UTILIZE SPECIAL STILLING BASIN(S) AS STILLING BASIN WHERE APPLICABLE.