PROJECT: B–5831

TIP #

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5831	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

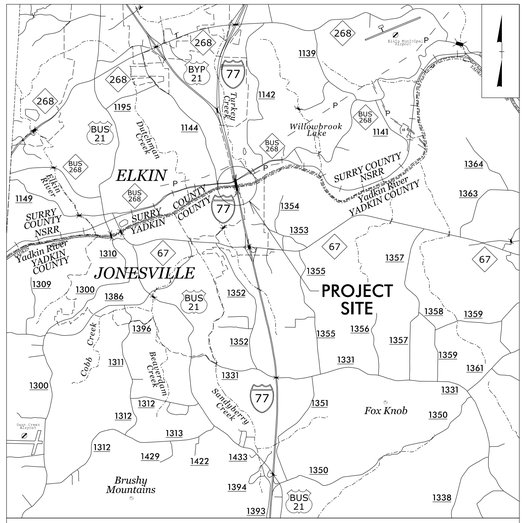
STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

PLAN FOR PROPOSED

HIGHWAY EROSION CONTROL

YADKIN & SURRY COUNTIES

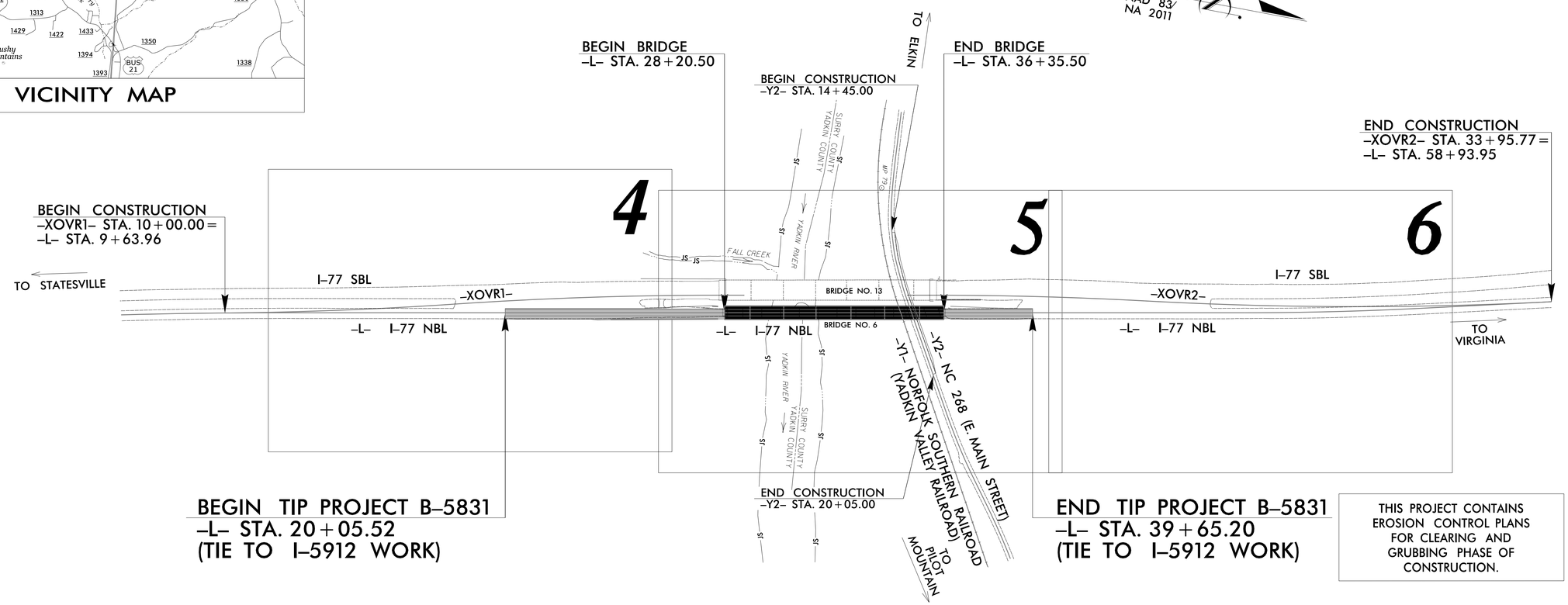


VICINITY MAP

LOCATION: REPLACE BRIDGE NO. 6 OVER YADKIN RIVER, NORFOLK SOUTHERN RAILROAD, AND NC 268 ON I–77 NBL

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

NAD 83/ NA 2011



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

GRAPHIC SCALE

50 25 0 50 100

PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG 010000 GENERAL STORMWATER CONSTRUCTION PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF ENERGY, MINERAL, AND LAND RESOURCES.

TGS ENGINEERS

Prepared in the Office of:

TGS ENGINEERS

706 HILLSBOROUGH ST. – SUITE 200
RALEIGH, NC 27603

Designed by:

Ben Henegar, PE — NAME

3564 — LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

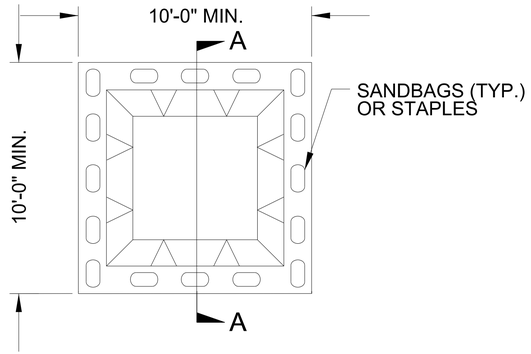
EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.04	Stilling Basin	
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C

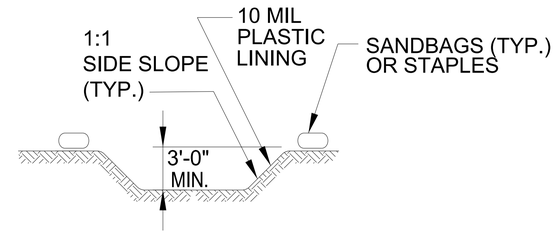
Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	A
1635.02	Rock Pipe Inlet Sediment Trap Type B	B
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	EW
	Silt Fence Coir Fiber Wattle Break	CFW
1636.03	Excelsior Wattle Barrier	EW EW EW
1636.03	Coir Fiber Wattle Barrier	CFW CFW CFW

PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A

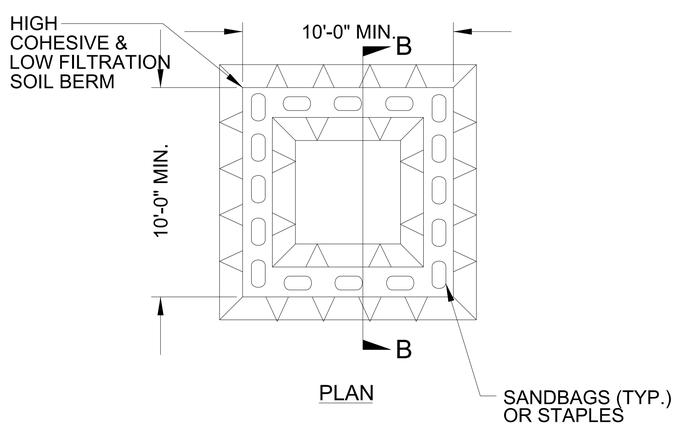
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

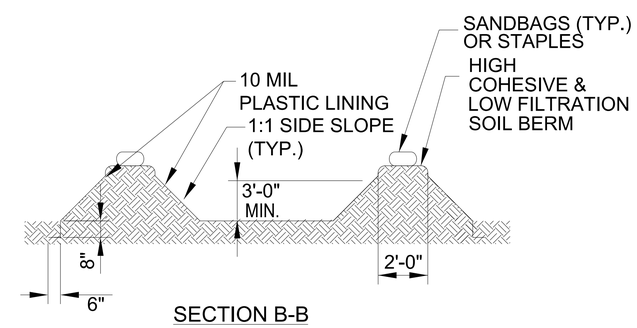
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

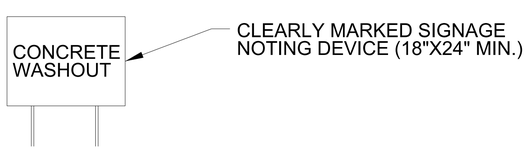
NOT TO SCALE



PLAN



SECTION B-B



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
B-5831	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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND HQW ZONES.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND HQW ZONES.

PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

DITCHLINE STRAW MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
2B–1	–XOVR1–	15+50	18+00	LT	160
2B–3	–XOVR2–	14+00	15+00	RT	65
2B–3	–XOVR2–	18+20	21+00	RT	175
2B–4	–XOVR2–	22+50	24+00	LT	95
2B–4	–XOVR2–	25+50	27+00	LT	95
4	–L–	20+00	24+50	RT	835
5	–L–	37+00	39+00	RT	375
5	–Y2–	14+50	16+00	LT	175
5	–Y2–	18+00	20+00	LT	235
				SUBTOTAL	2,210

SLOPE MATTING FOR EROSION CONTROL

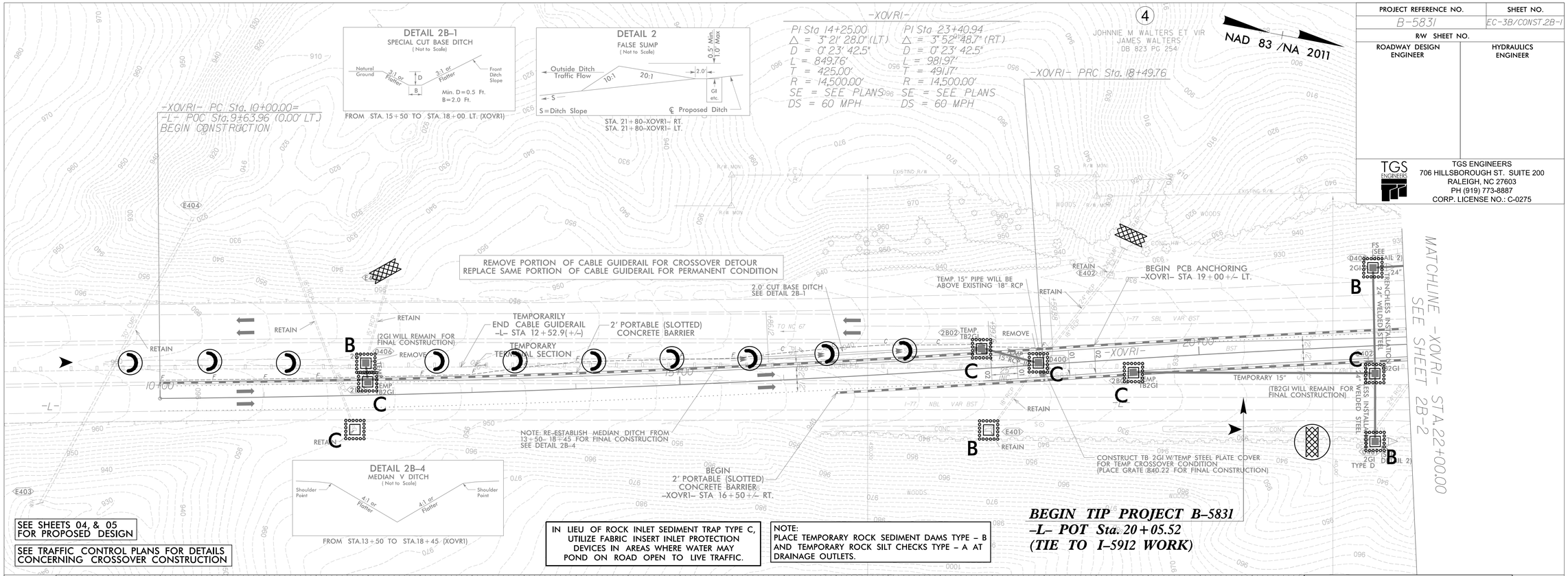
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	–L–	20+50	24+50	RT	3,775
5	–L–	25+00	28+50	RT	2,535
5	–L–	37+00	39+00	RT	725
5	–Y2–	15+00	16+00	LT	530
5	–Y2–	18+00	19+50	LT	565
				SUBTOTAL	8,130

MATTING FOR EROSION CONTROL TOTALS

	ESTIMATE (SY)
DITCHLINE STRAW MATTING SUBTOTAL	2,210
DITCHLINE EXCELSIOR MATTING SUBTOTAL	N/A
SLOPE MATTING SUBTOTAL	8,130
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER	1,600
TOTAL	11,940
SAY	12,000

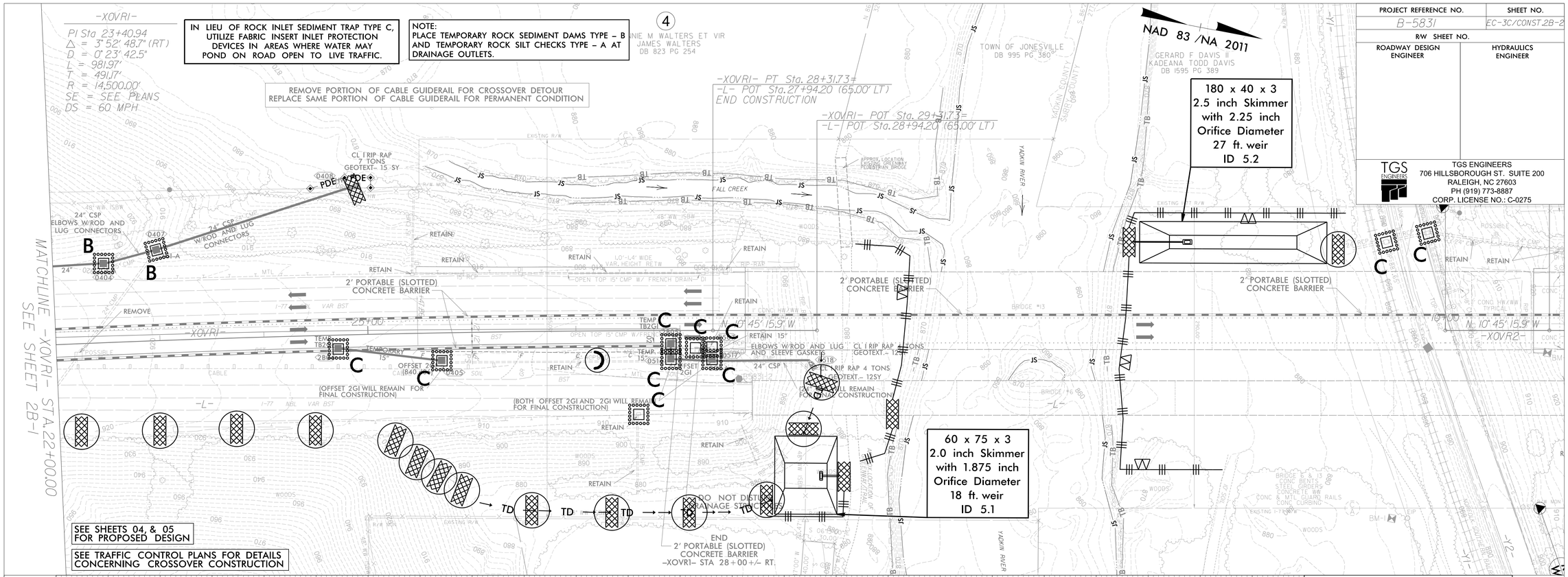
PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-3B/CONST.2B-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275



PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-3C/CONST.2B-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

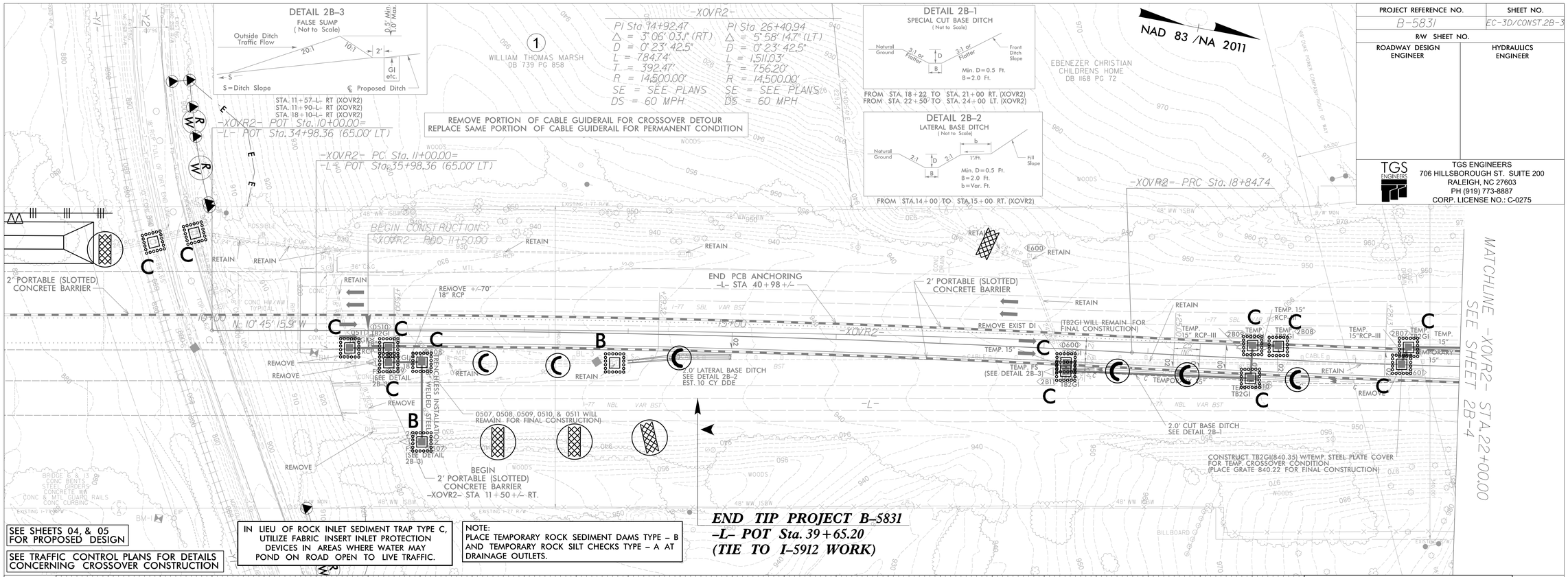
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275



PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-3D/CONST.2B-3
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

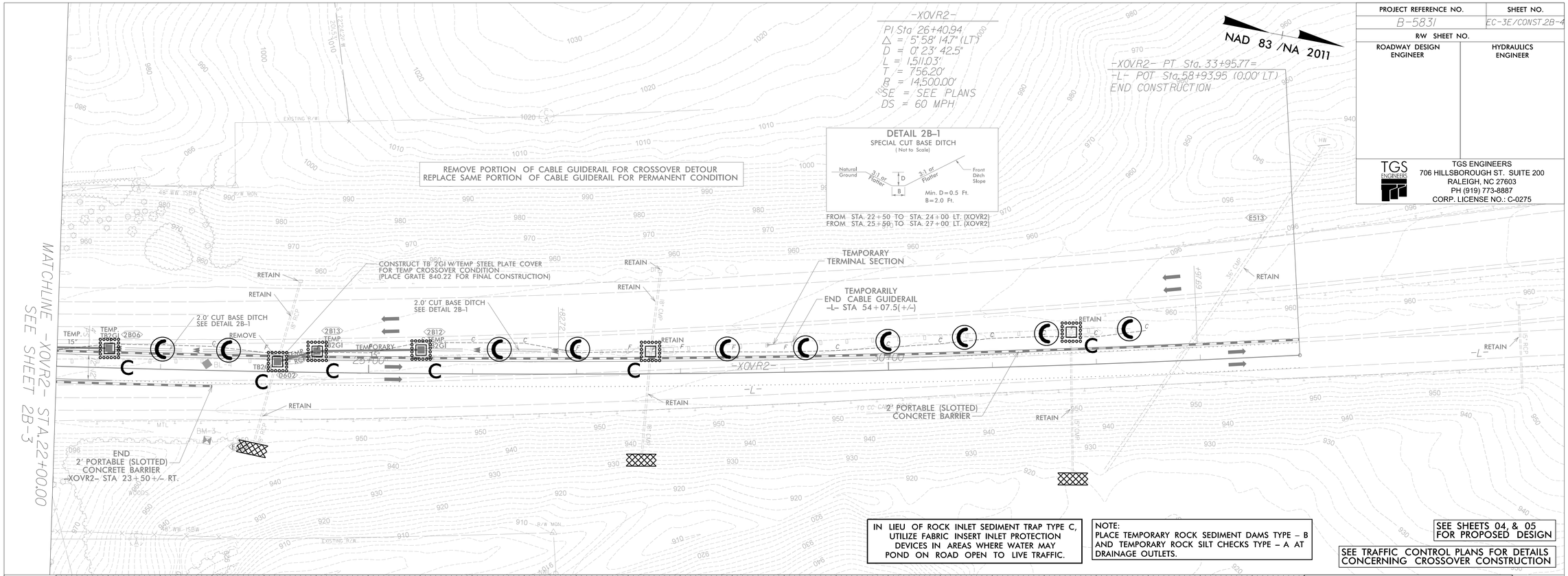
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

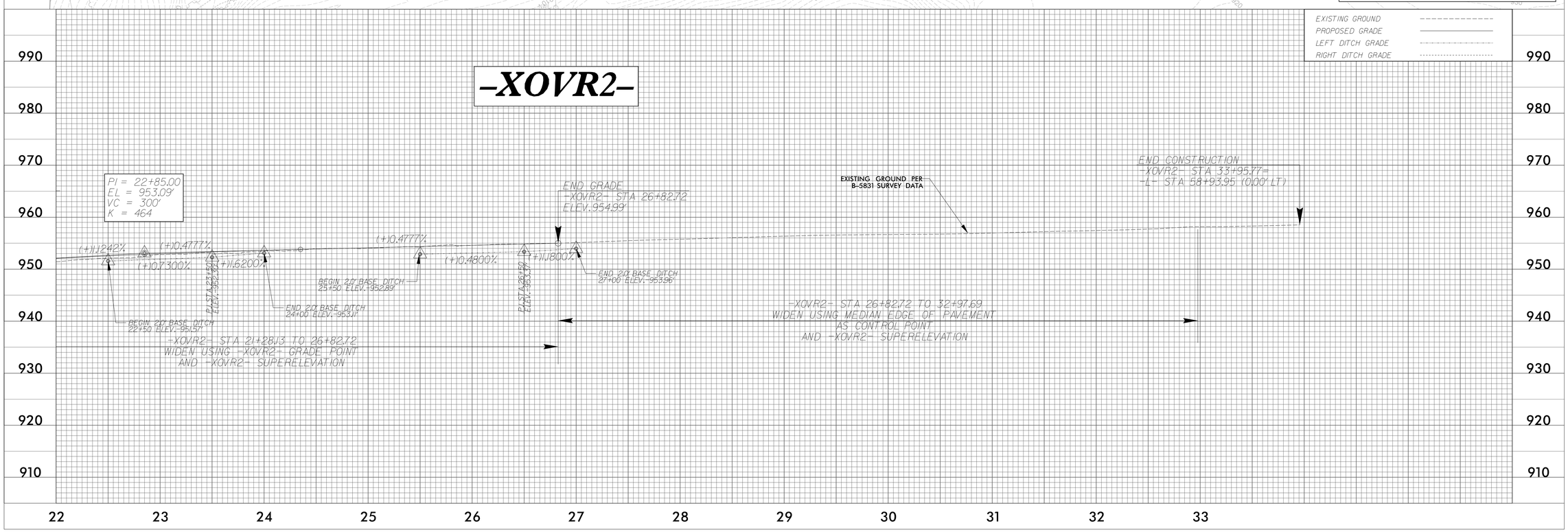
NAD 83 /NA 2011



PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-3E/CONST.2B-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

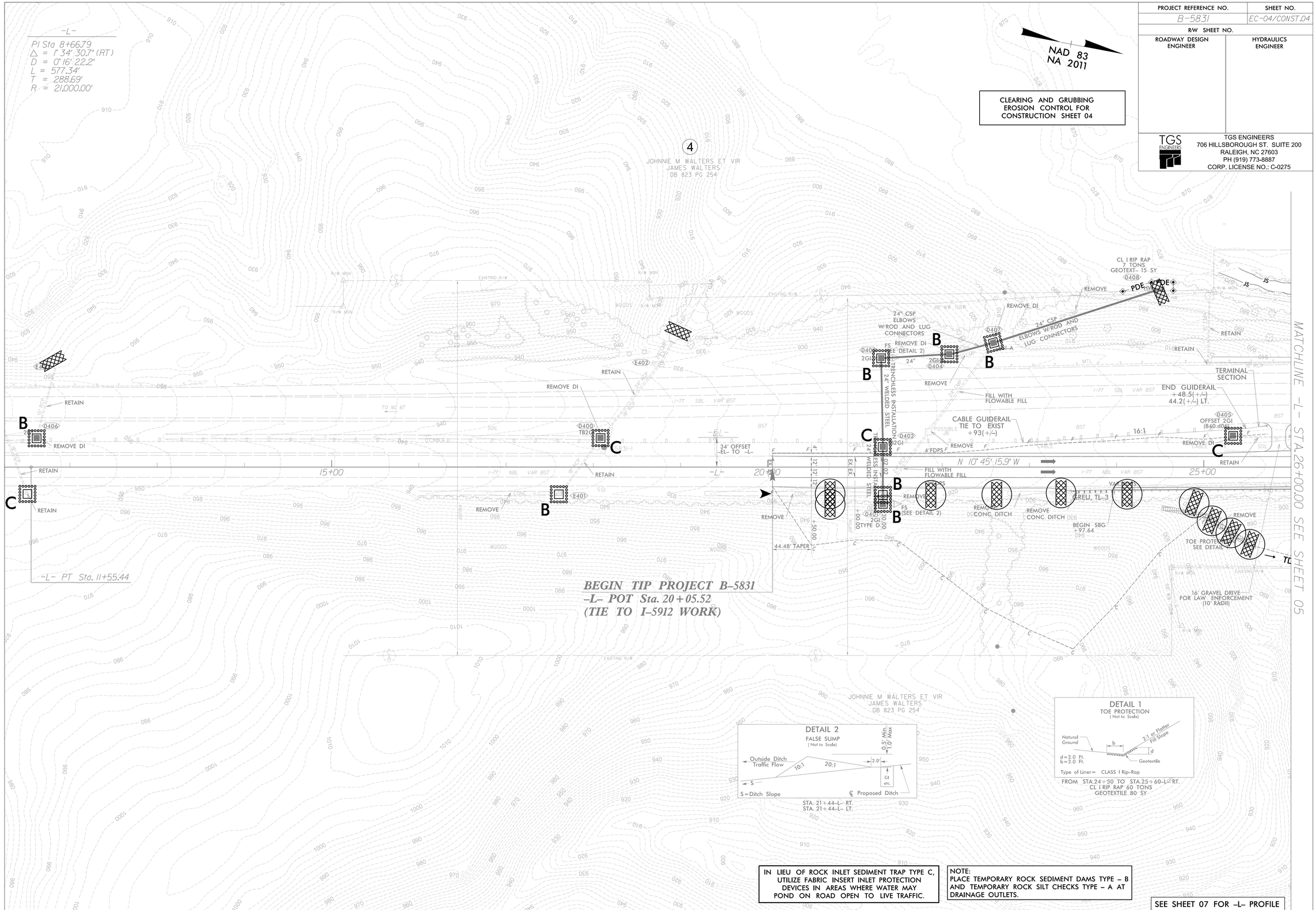
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275





PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-04/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275



IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

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

SEE SHEET 07 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-05/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

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

180 x 40 x 3
2.5 inch Skimmer
with 2.25 inch
Orifice Diameter
27 ft. weir
ID 5.2

60 x 75 x 3
2.0 inch Skimmer
with 1.875 inch
Orifice Diameter
18 ft. weir
ID 5.1

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

NAD 83
NA 2011

MATCHLINE –L– STA. 26+00.00 SEE SHEET 04

MATCHLINE –L– STA. 40+50.00 SEE SHEET 06

-Y1-
PI Sta 13+96.84
Δ = 28° 35' 46.2" (LT)
D = 3° 59' 33.9"
L = 716.20'
T = 365.73'
R = 1,435.00'

-Y2- PCC Sta. 13+43.76
BEGIN CONSTRUCTION
-Y2- POC 14+45.00
-Y2- PT Sta. 14+72.31
-Y2- PC Sta. 15+00.84
-Y2- PT Sta. 15+70.54
-Y2- PC Sta. 16+39.32
-Y2- PT Sta. 16+98.42
-Y1- PT Sta. 17+47.32
-L- POT Sta. 34+75.05=
-Y1- POT Sta. 17+68.75
-L- POT Sta. 35+15.16=
-Y2- POT Sta. 17+57.73
END TIP PROJECT B-5831
-L- POT Sta. 39+65.20
(TIE TO I-5912 WORK)
END CONSTRUCTION
-Y2- POT 20+05.00
END CONSTRUCTION
-Y1- POT 23+57.00
-Y2- PC Sta. 21+64.43
-Y2- PT Sta. 22+11.40
-Y2- PC Sta. 22+37.59

BEGIN APP. SLAB
-L- POT 27+96.50
BEGIN BRIDGE
-L- POT 28+20.50
END BRIDGE
-L- POT 36+35.50
END APP. SLAB
-L- POT 36+59.50

N 10° 45' 15.9" W
N 60° 01' 34.0" E
N 60° 20' 06.5" E
N 58° 13' 55.2" E

REMOVE & RESET
EXIST. GUARDRAIL
FOR SBG INSTALLATION

4
JOHNNIE M WALTERS ET VIR
JAMES WALTERS
DB 823 PG 254

1
WILLIAM THOMAS MARSH
DB 739 PG 858

2
GRAHAM & FRANCES GREENE
JIMMIE & JUDSON TAYLOR
DB 1317 PG 676

3
TOWN OF ELKIN
DB 279 PG 413

TOWN OF JONESVILLE
DB 995 PG 380

GERARD F DAVIS II
KADEANA TODD DAVIS
DB 1595 PG 389

TOWN OF JONESVILLE
DB 1046 PG 347

JOHNNIE M WALTERS
JAMES WALTERS
DB 1087 PG 49

YADKIN COUNTY
SURRY COUNTY

YADKIN RIVER

FALL CREEK

DETAIL 2
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
10:1
20:1
2.0'
0.5' Min. 1.0' Max.
GI etc.
S = Ditch Slope
℄ Proposed Ditch
STA. 17+95–Y2– LT.

DETAIL 3
FALSE SUMP
(Not to Scale)
Outside Ditch Traffic Flow
20:1
10:1
2'
0.5' Min. 1.0' Max.
GI etc.
S = Ditch Slope
℄ Proposed Ditch
STA. 36+55–L– LT
STA. 36+88–L– RT

-Y2-

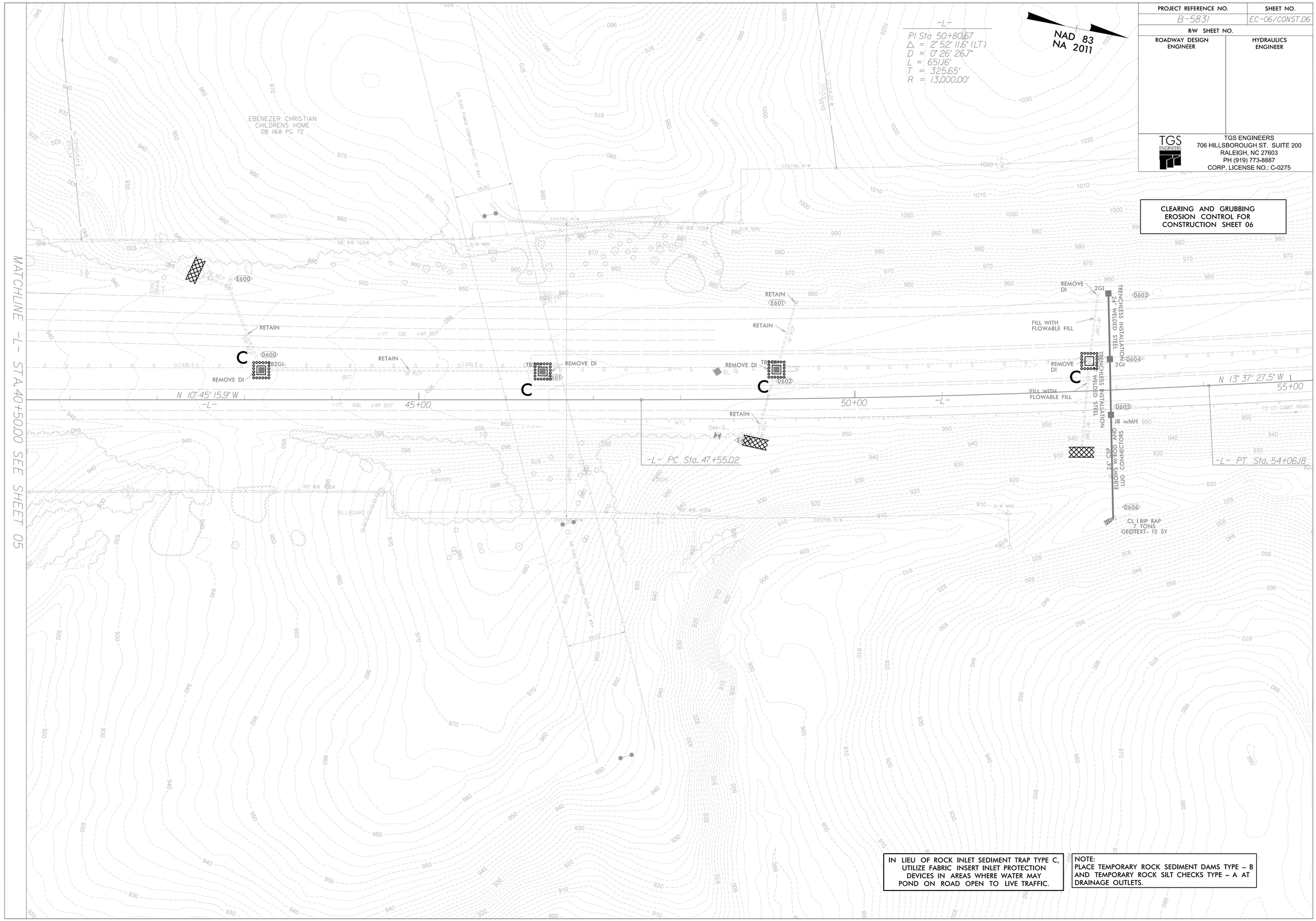
PI Sta 12+54.60	PI Sta 14+08.19	PI Sta 15+35.75
Δ = 4° 05' 18.8" (LT)	Δ = 9° 49' 13.5" (LT)	Δ = 7° 59' 15.7" (LT)
D = 2° 17' 30.6"	D = 7° 38' 22.0"	D = 11° 27' 33.0"
L = 178.40'	L = 128.55'	L = 69.71'
T = 89.24'	T = 64.43'	T = 34.91'
R = 2,500.00'	R = 750.00'	R = 500.00'
	SE = SEE PLANS	SE = SEE PLANS
PI Sta 16+68.88	PI Sta 21+87.92	PI Sta 23+22.84
Δ = 4° 30' 53.6" (LT)	Δ = 1° 47' 38.8" (LT)	Δ = 5° 05' 20.6" (LT)
D = 7° 38' 22.0"	D = 3° 49' 11.0"	D = 2° 59' 12.5"
L = 59.10'	L = 46.97'	L = 170.38'
T = 29.57'	T = 23.49'	T = 85.25'
R = 750.00'	R = 1,500.00'	R = 1,918.30'
SE = SEE PLANS		

SEE SHEET 07 FOR –L– PROFILE
SEE SHEET 08 FOR –Y1– & –Y2– PROFILES

PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-06/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 06



IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

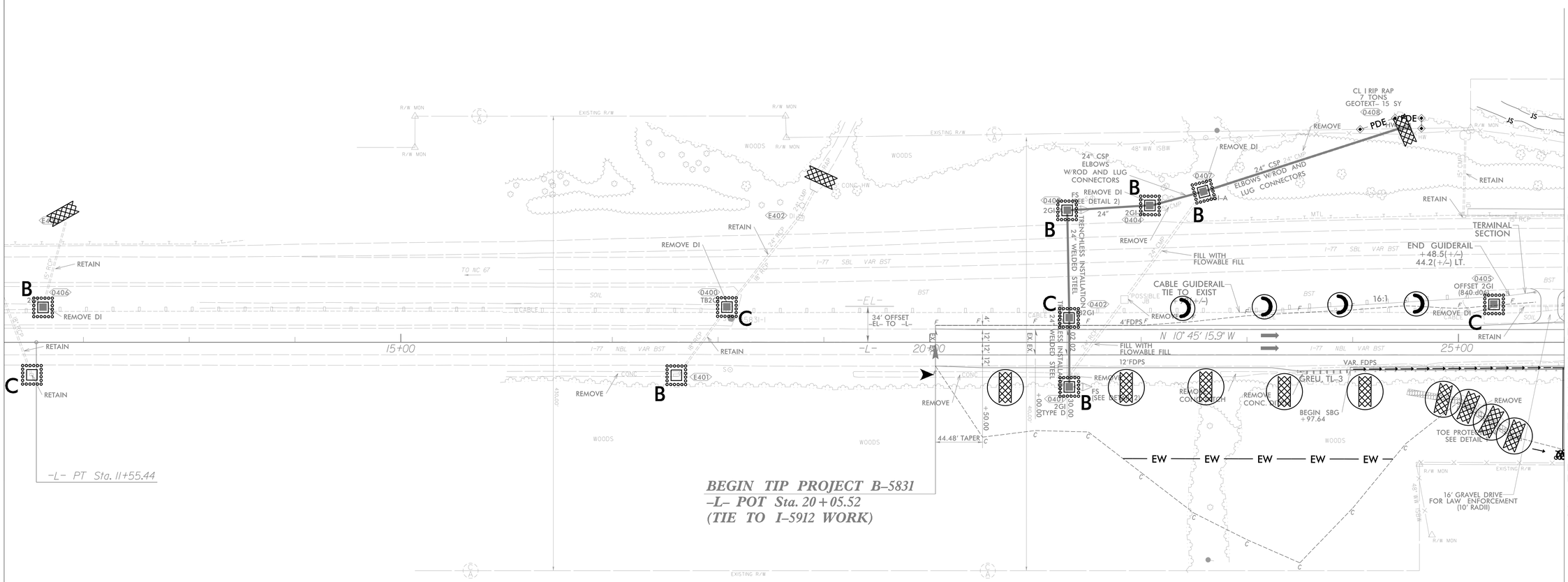
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-07/CONST.04
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

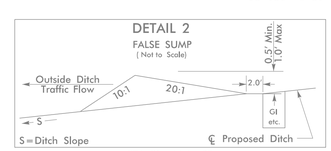
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

-L-
PI Sta 8+66.79
△ = 1° 34' 30.7" (RT)
D = 0° 16' 22.2"
L = 577.34'
T = 288.69'
R = 21,000.00'

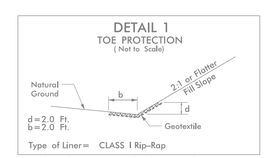
NAD 83
NA 2011



JOHNNIE M WALTERS ET VIR
JAMES WALTERS
DB 823 PG 254



STA. 21+44-L- RT.
STA. 21+44-L- LT.



FROM STA.24+50 TO STA.25+60-L- RT.
CL I RIP RAP 60 TONS
GEOTEXTILE 80 SY

IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.

SEE SHEET 07 FOR -L- PROFILE

PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-08/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
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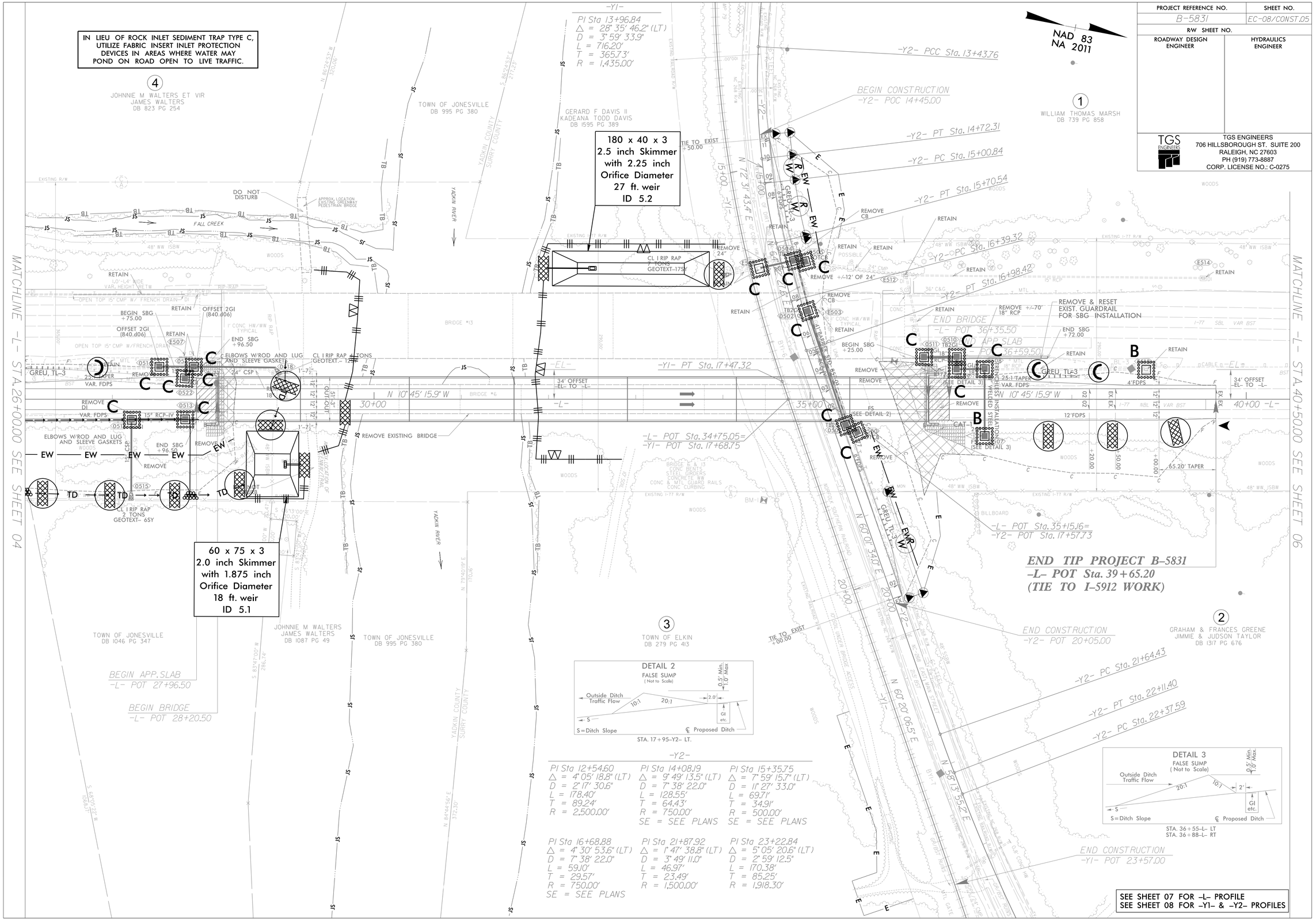
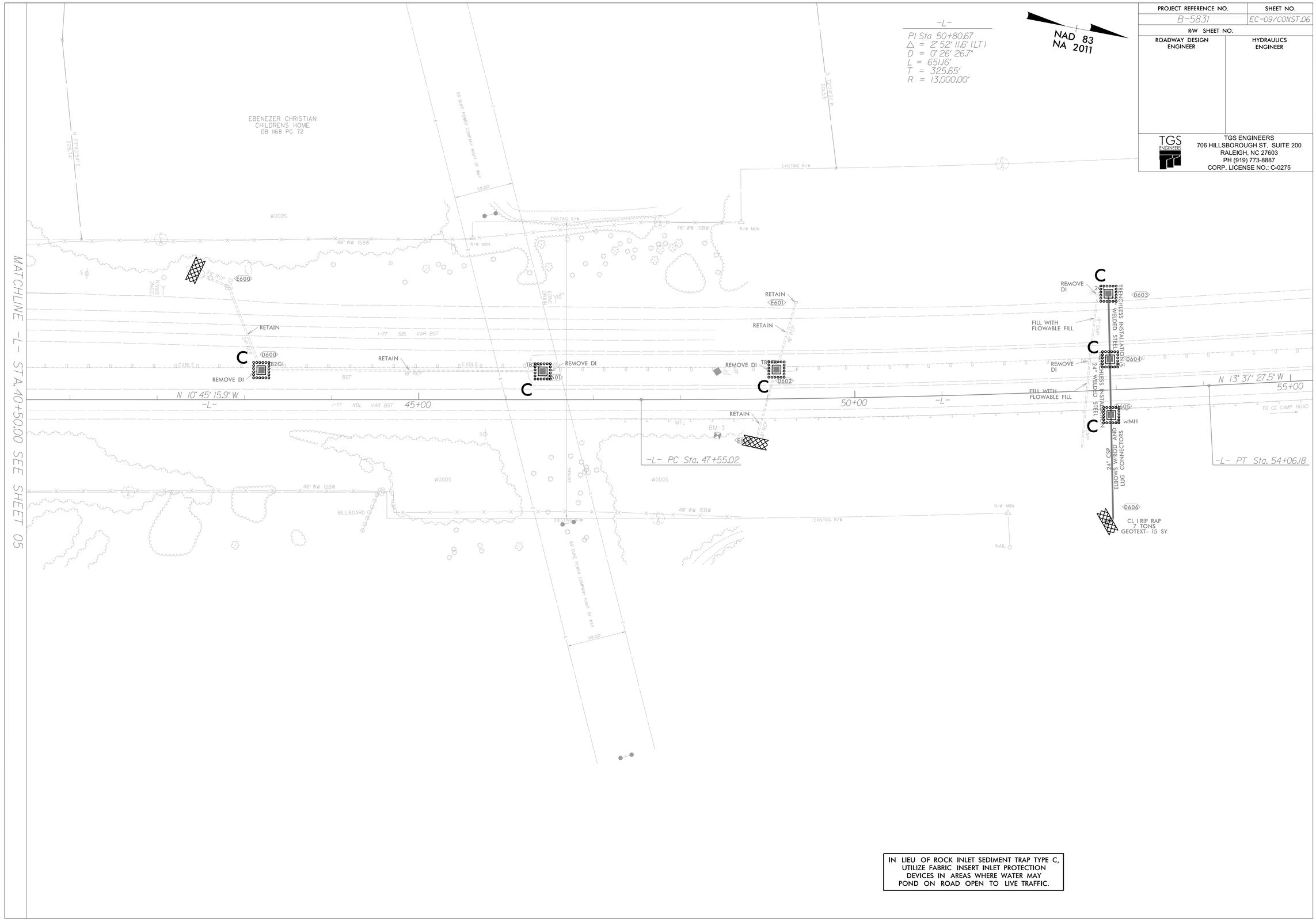


PROJECT REFERENCE NO.	SHEET NO.
B-5831	EC-09/CONST.06
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275



IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C, UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN AREAS WHERE WATER MAY POND ON ROAD OPEN TO LIVE TRAFFIC.