TIP PROJECT: R-2201

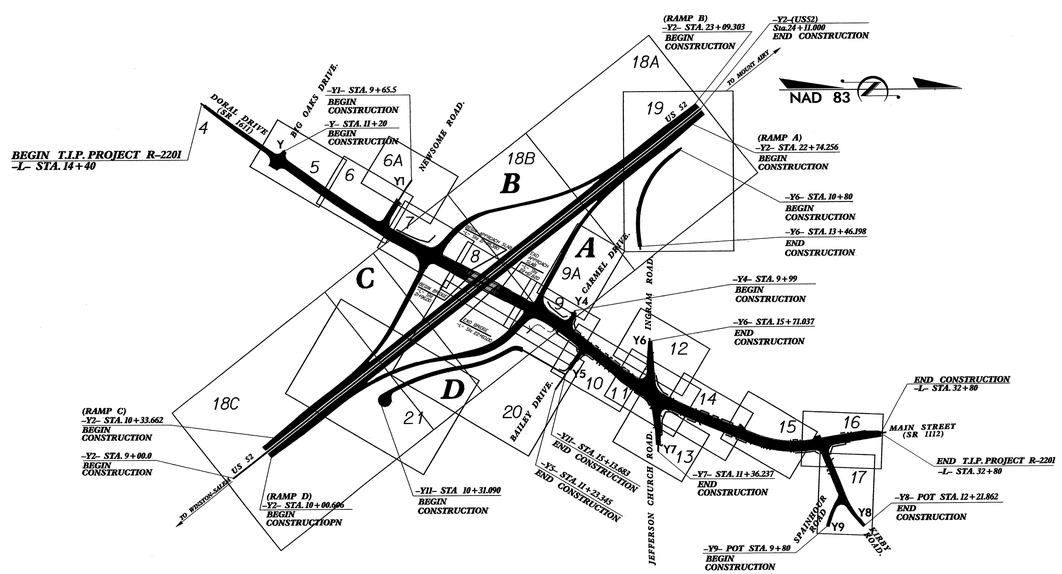
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

FORSYTH / STOKES COUNTY

LOCATION: SR 1611–SR 1112 TOBACCOVILLE ROAD FROM RJR ENTRANCE IN FORSYTH COUNTY TO SR 1115 (KIRBY ROAD) IN KING IN STOKES COUNTY

TYPE OF WORK: GRADING, DRAINAGE, PAVING, WIDENING, SIGNALS, STRUCTURE



METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2201	EC-1	

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

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
	Temporary Silt Fence	
	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle	
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	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

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

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT

1 South Wilmington St.
Raleigh, NC 27611

2006 ***STANDARD SPECIFICATIONS***

Roadway Standard Drawings

The following roadway metric standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated July 2006 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1622.01	Temporary Berms and Slope Drains	1633.01	Temporary Rock Silt Check Type A
1630.03	Temporary Silt Ditch	1633.02	Temporary Rock Silt Check Type B
1630.05	Temporary Diversion	1634.01	Temporary Rock Sediment Dam Type A
1632.01	Rock Inlet Sediment Trap Type A	1635.01	Rock Pipe Inlet Sediment Trap Type A
1632.02	Rock Inlet Sediment Trap Type B	1635.02	Rock Pipe Inlet Sediment Trap Type B

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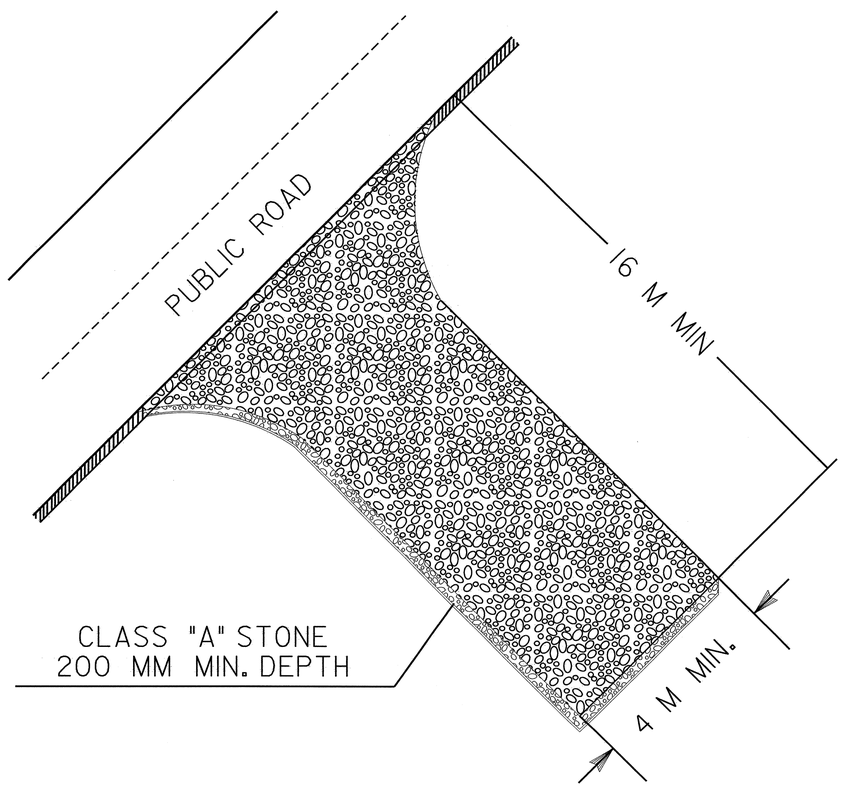
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-2
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



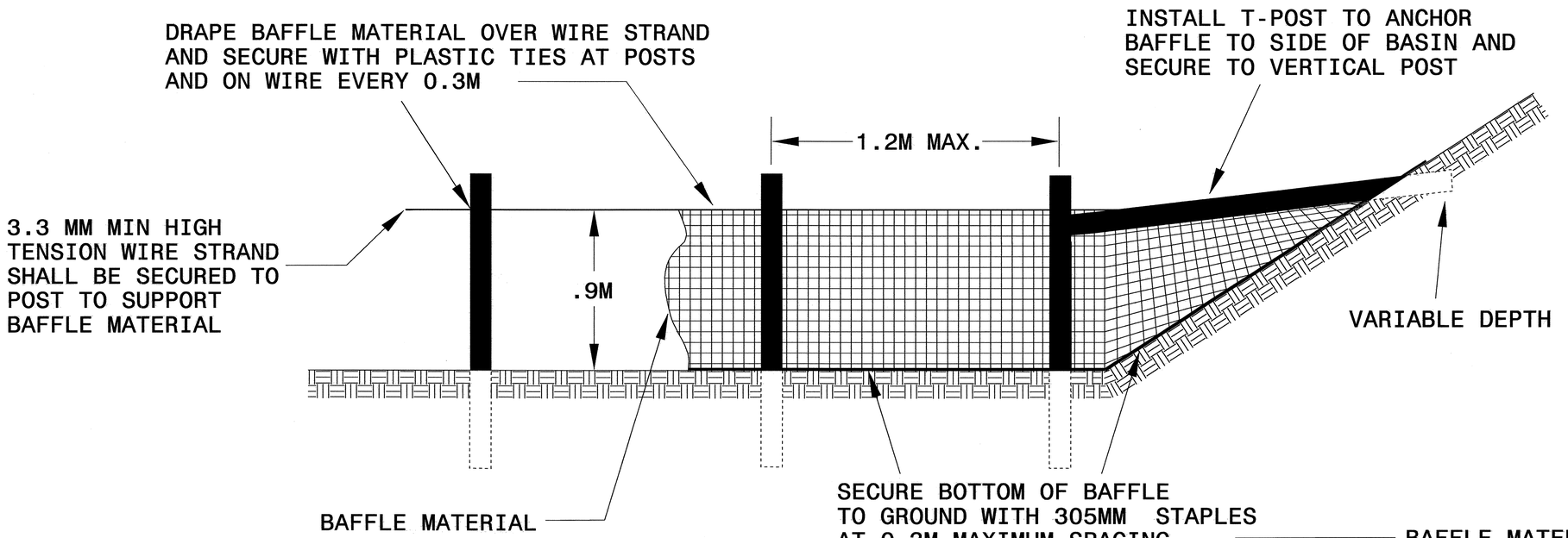
NOTES:

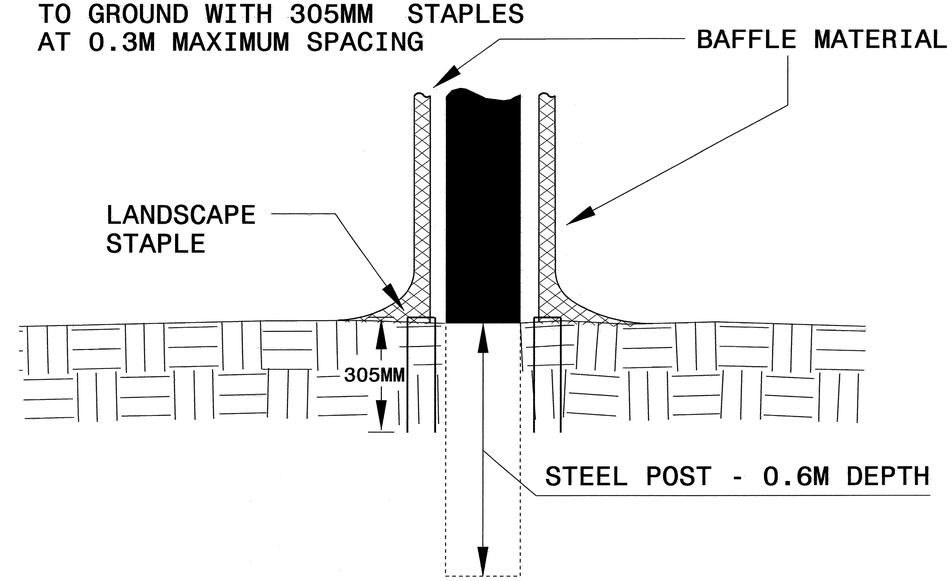
1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. GRAVEL CONSTRUCTION ENTRANCE SHALL BE LOCATED AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER

NOTE: FILTER FABRIC TO BE PLACED BENEATH STONE

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-2A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

COIR FIBER BAFFLE DETAIL



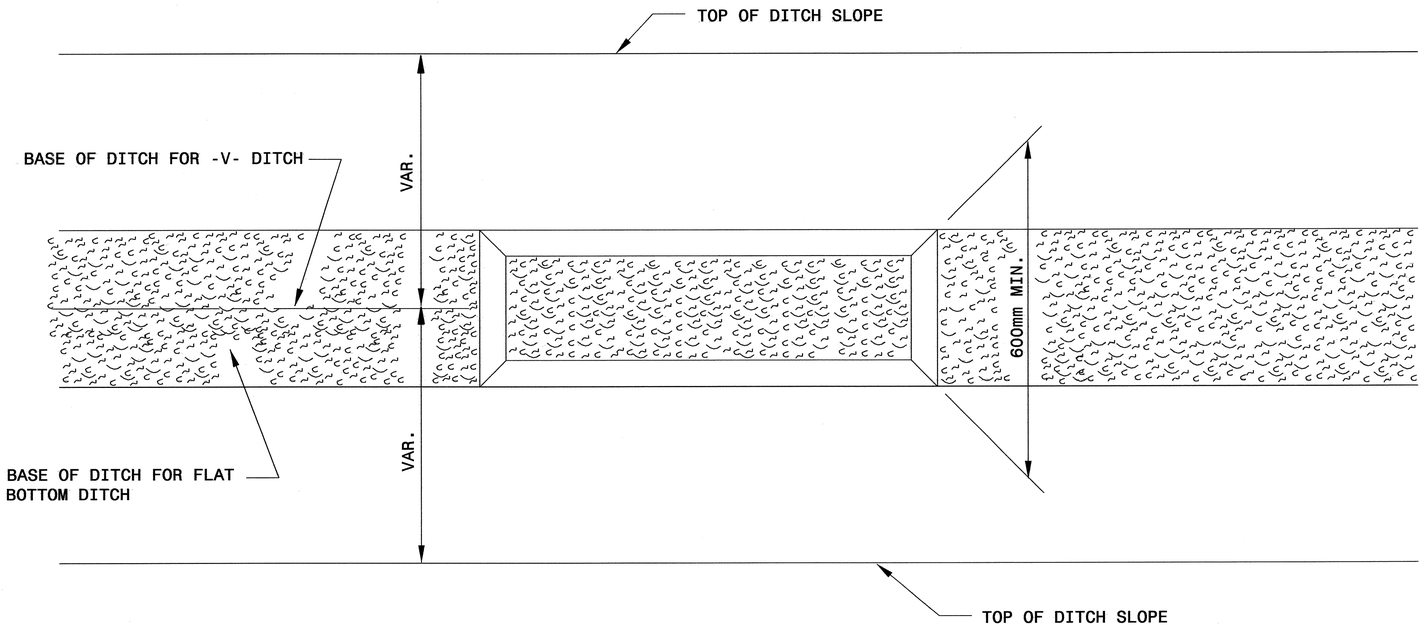


BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 305MM LANDSCAPE STAPLES

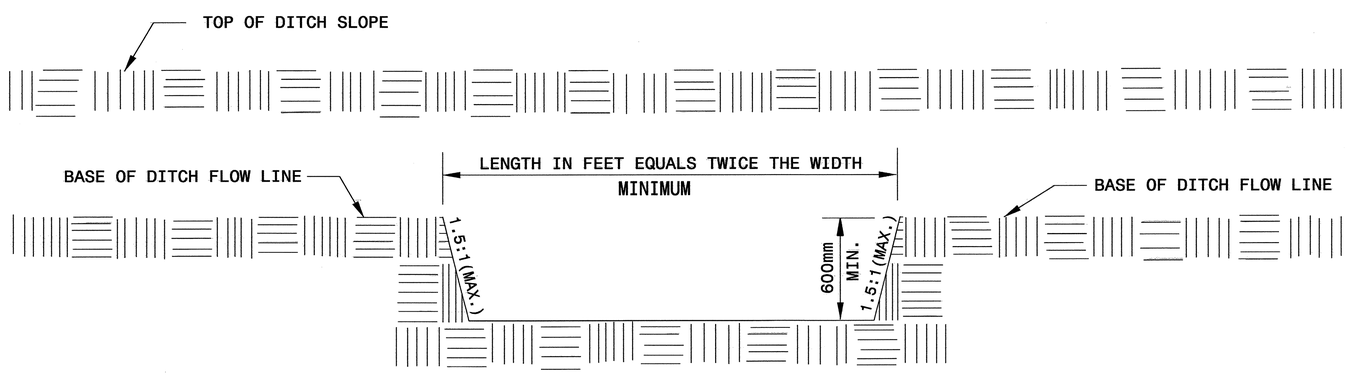
NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 6 M IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-2B
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SILT BASIN 'B' DETAIL



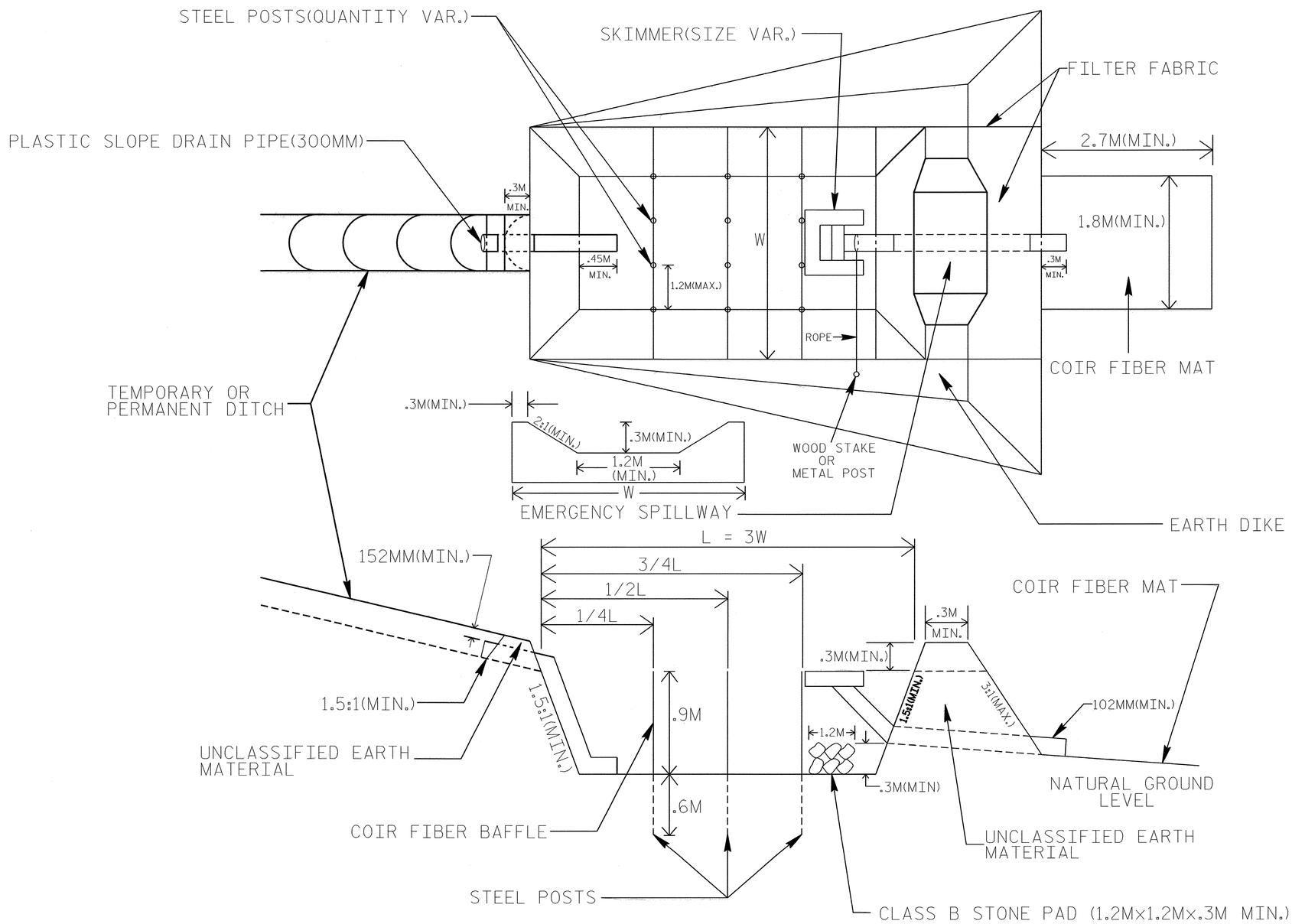
PLAN

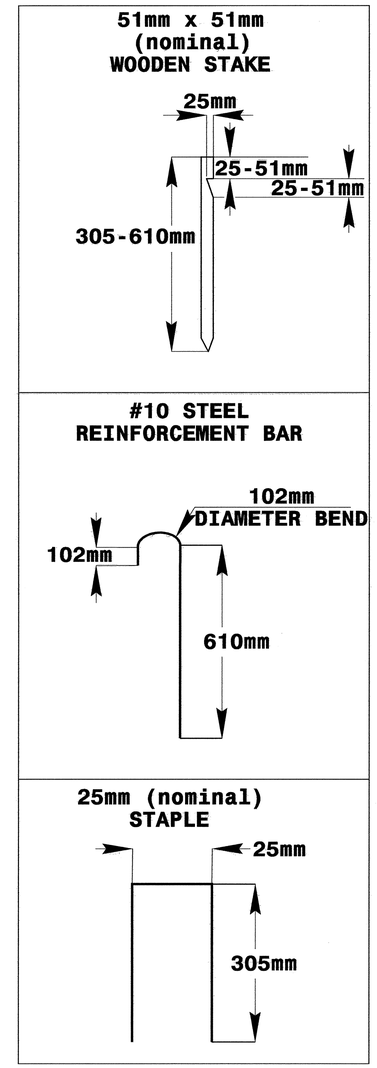


ELEVATION

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-2C
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SKIMMER BASIN WITH BAFFLES DETAIL





COIR FIBER MAT ANCHOR OPTIONS

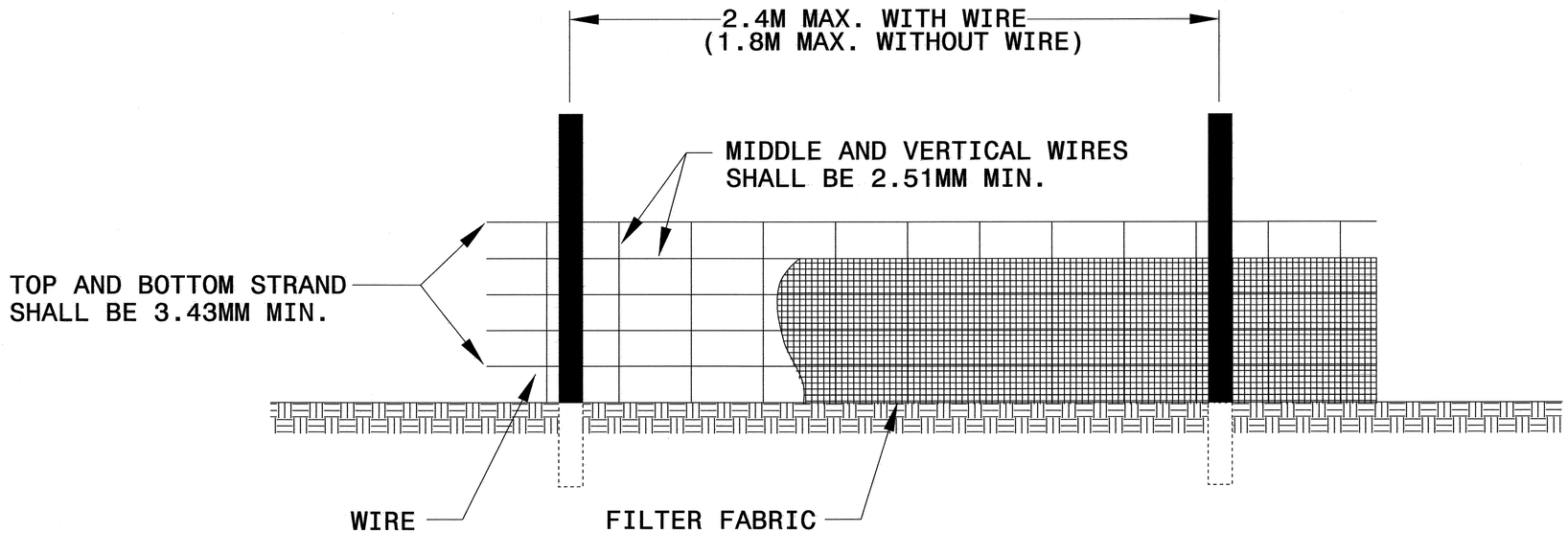
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 1.5M.
3. MINIMUM BASIN WIDTH SHALL BE 3M.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (M) USING Q/0.074, WHERE Q IS FLOW RATE (CMS) INTO BASIN.

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-2D
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY SILT FENCE DETAIL

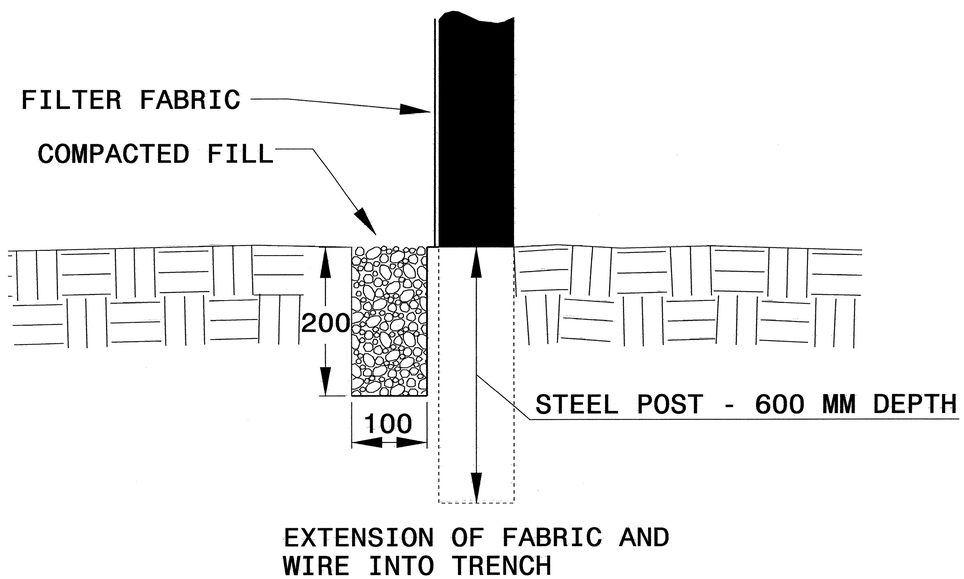


NOTES

USE WIRE A MINIMUM OF 800MM IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 300MM STAY SPACING.

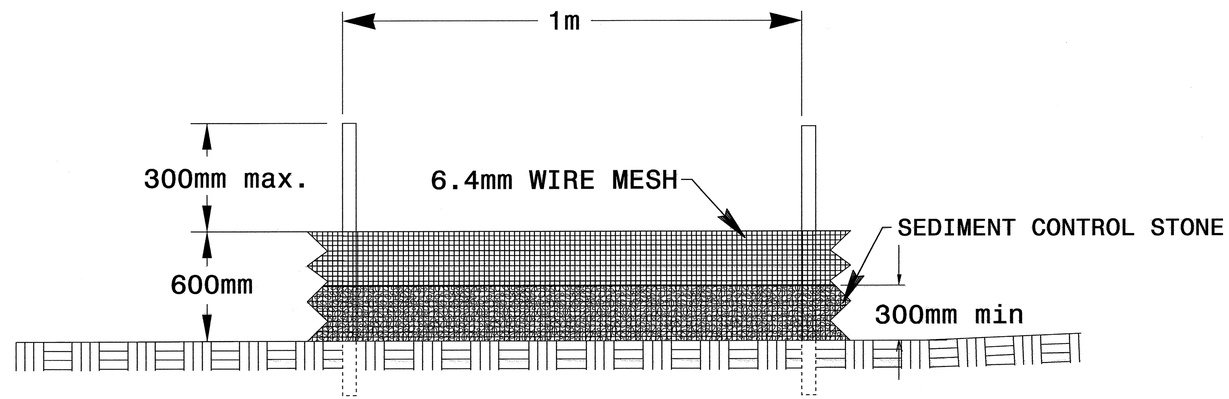
USE FILTER FABRIC A MINIMUM OF 900MM IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

PROVIDE 1.5M STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE. ANGLE STEEL TYPE.



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-2E
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL SEDIMENT CONTROL FENCE DETAIL



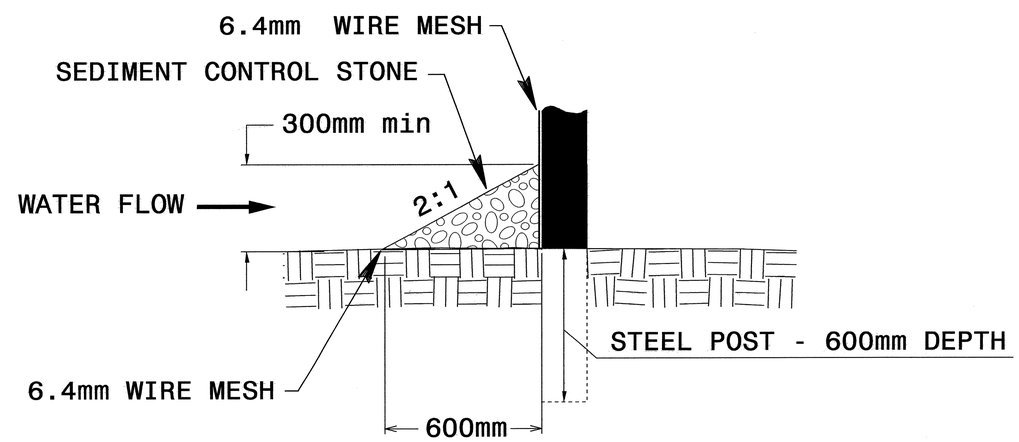
GENERAL NOTES:

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.

USE 0.65mm HARDWARE CLOTH WIRE MESH WITH 6.4 mm MESH OPENINGS.

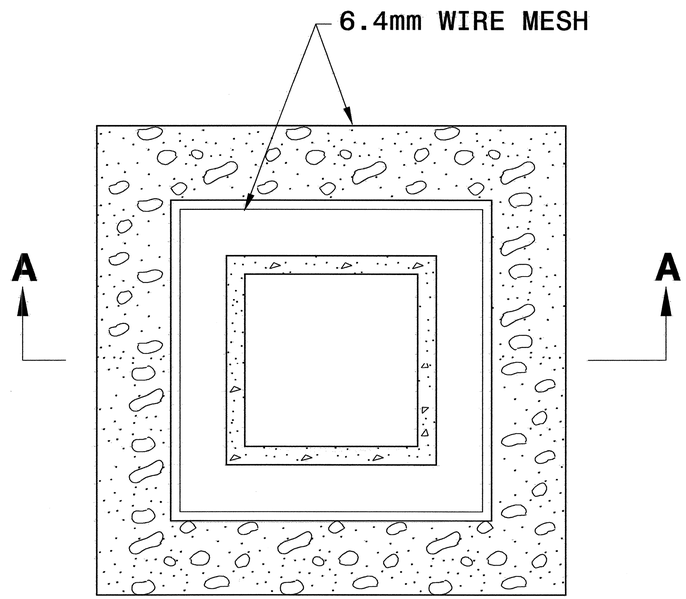
INSTALL 1.5m SELF FASTENER ANGLE STEEL POST 600mm DEEP MINIMUM.

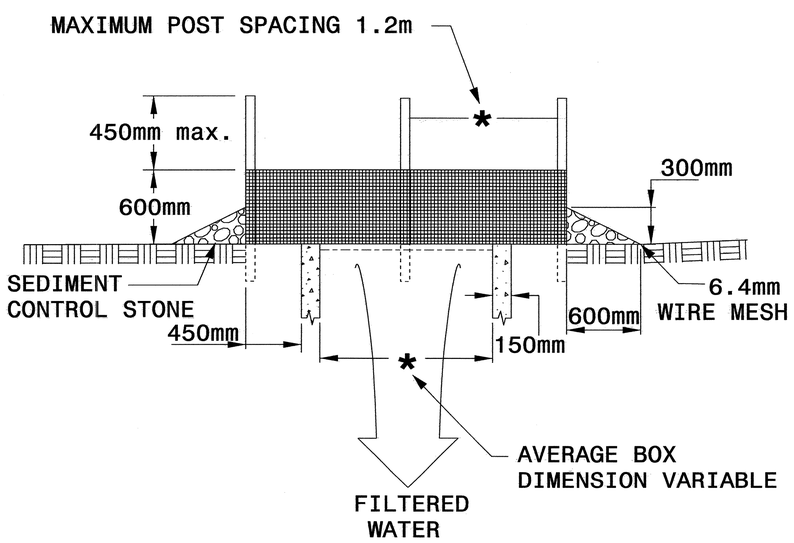
SPACE POST A MAXIMUM OF 1m.



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-2F
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

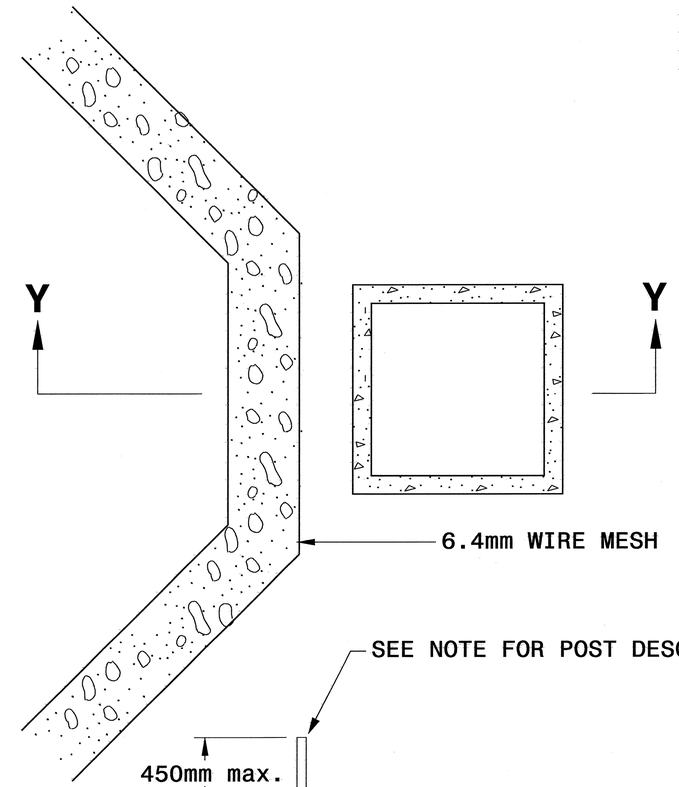
ROCK INLET SEDIMENT TRAP TYPE 'C' DETAIL

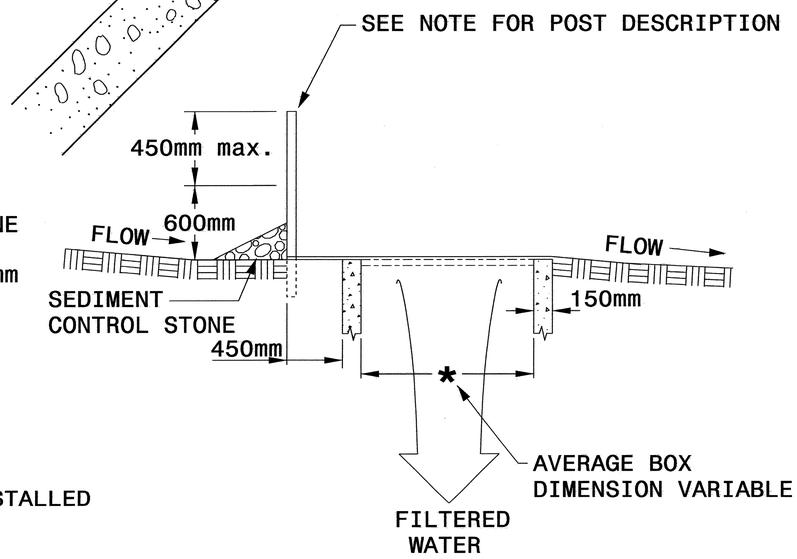




SECTION A-A

NOTE
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL.
USE HARDWARE CLOTH 0.65mm WIRE MESH WITH 6.4mm MESH OPENINGS.
PLACE TOP OF WIRE MESH A MINIMUM OF 300mm BELOW THE SHOULDER OR ANY DIVERSION POINT.
INSTALL WIRE MESH UNDER SEDIMENT CONTROL STONE.
USE 1.5m STEEL POST, INSTALLED 450mm DEEP MINIMUM, AND OF THE SELF-FASTENER ANGLE STEEL TYPE.
SPACE POST A MAXIMUM OF 1.2m.





SECTION Y-Y

MULTI-DIRECTIONAL FLOW

SINGLE-DIRECTIONAL FLOW

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-3
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

STATE OF NORTH CAROLINA

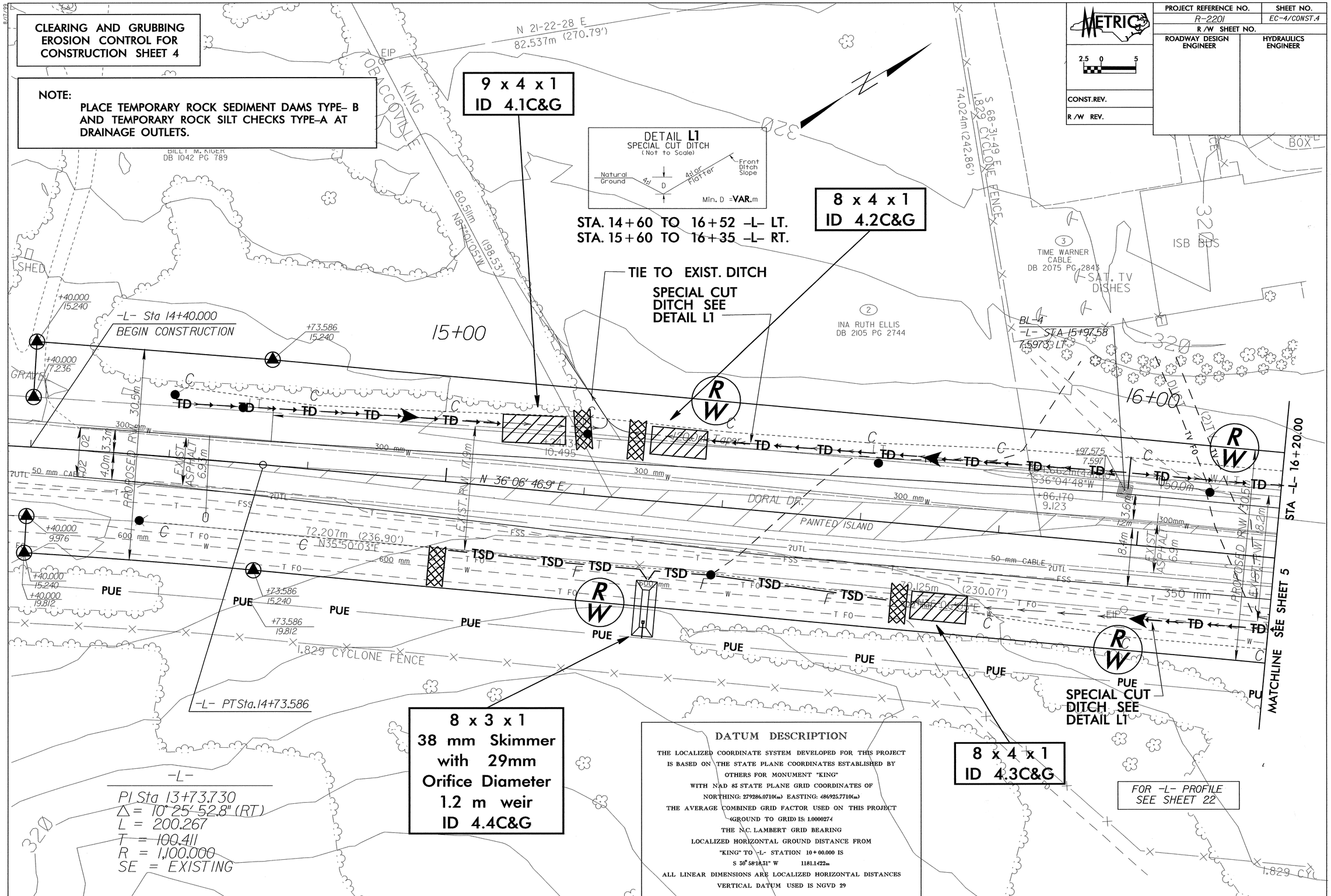
SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
4	-L-	16+35	15+60	RT	620
5	-L-	16+35	15+60	RT	620
9	-RAMPD-	5+20	4+80	RT	335
17	-Y9-	10+65	10+00	LT	545
19	-Y2-	22+80	21+60	RT	1215
20	-RAMPD-	3+52	3+11	LT	80
20	-RAMPD-	4+81.5	4+40	LT	545
20	-RAMPD-	5+20	4+80	RT	335
21	-Y2-	11+80.6	11+40	RT	415
21	-RAMPD-	0+40	0+00	RT	405
21	-RAMPC-	2+00	1+60	LT	410
				SUBTOTAL	5525
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					28520
				TOTAL	34045
				SAY	34500

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SM)
7	-RAMPB-	5+40	5+20	RT	260
21	-RAMPC-	3+40	2+40	RT	420
				SUBTOTAL	680
		ADDITIONAL PSRM TO BE INSTALLED			314
				TOTAL	994
				SAY	1000



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
METRIC
PROJECT REFERENCE NO.
R-2201
SHEET NO.
EC-4/CONST.4
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R /W REV.
9 x 4 x 1
ID 4.1C&G
8 x 4 x 1
ID 4.2C&G
8 x 3 x 1
38 mm Skimmer
with 29mm
Orifice Diameter
1.2 m weir
ID 4.4C&G
8 x 4 x 1
ID 4.3C&G
DETAIL L1
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
4:1
4:1 or Flatter
Front Ditch Slope
Min. D =VAR.m
STA. 14+60 TO 16+52 -L- LT.
STA. 15+60 TO 16+35 -L- RT.
TIE TO EXIST. DITCH
SPECIAL CUT DITCH SEE DETAIL L1
SPECIAL CUT DITCH SEE DETAIL L1
-L- Sta 14+40.000
BEGIN CONSTRUCTION
-L- PT Sta.14+73.586
15+00
16+00
STA -L- 16+20.00
MATCHLINE SEE SHEET 5
FOR -L- PROFILE SEE SHEET 22
N 21-22-28 E
82.537m (270.79')
N 36°06' 46.9" E
72.207m (236.90')
N35°50'03"E
DORAL DR.
PAINTED ISLAND
KING
TOBACCOVILLE
BILLY M. KIGER
DB 1042 PG 789
INA RUTH ELLIS
DB 2105 PG 2744
TIME WARNER CABLE
DB 2075 PG 2843
SAT. TV DISHES
ISB BUS
1.829 CYCLONE FENCE
-L-
PI Sta 13+73.730
Δ = 10° 25' 52.8" (RT)
L = 200.267
T = 100.411
R = 1,100.000
SE = EXISTING
DATUM DESCRIPTION
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "KING"
WITH NAD 83 STATE PLANE GRID COORDINATES OF
NORTHING: 279286.0710(m) EASTING: 486925.7710(m)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.0000274
THE N.C. LAMBERT GRID BEARING
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"KING" TO -L- STATION 10+00.000 IS
S 30° 58'18.31" W 1181.1422m
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NGVD 29

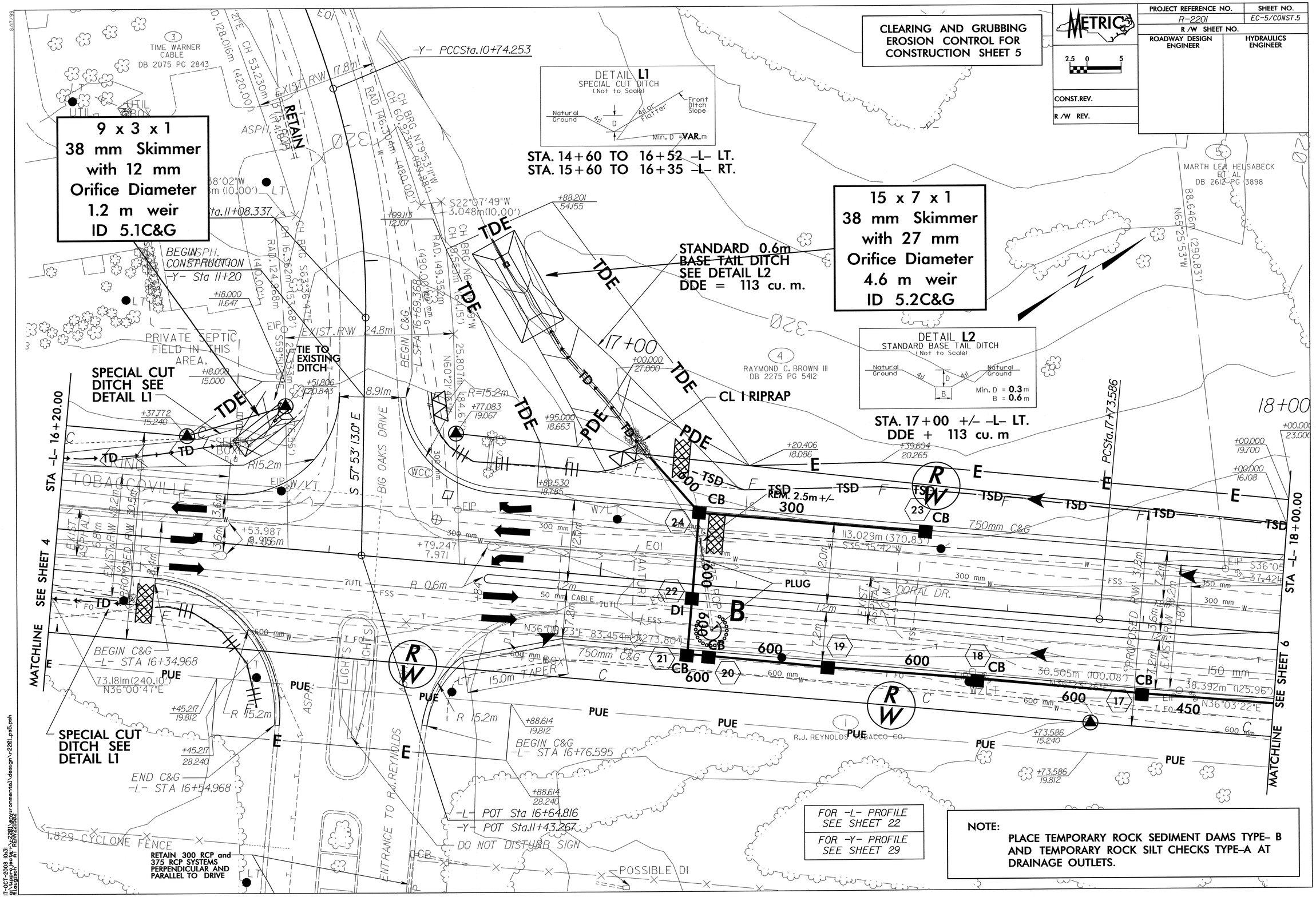
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-5/CONST.5
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

CONST.REV.

R /W REV.

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.

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PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-6/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6

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

MATCHLINE SEE SHEET 6A STA –Y1– 10+40.00

10 x 3 x 1
ID 6.1C&G

6 x 3 x 1
ID 6.2C&G

FOR –L– PROFILE SEE SHEET 22

FOR –Y1– PROFILE SEE SHEET 29

CL B RIPRAP
1.8 MTN
FILTER FABRIC
5.9 SM

MATCHLINE SEE SHEET 5 STA –L– 18+00.00

MATCHLINE SEE SHEET 7 STA –L– 19+80.00

101.776m (333.91')
N35°54'08"E

87.130m (285.86')
N53°17'48"W

375m (434.30')
N53°54'07"W

87.819m (288.12')
N53°54'07"W

42.337m (138.90')
N37°10'09"E

EAST BEND PROPERTIES
DB 2107 PG 3086

MARTH LEA HELSABECK
ET AL
DB 2612 PG 3898

BUBBLES AUTO
WASH, INC.
DB 2264 PG 2784

R.J. REYNOLDS TOBACCO CO.

PROPOSED R/W 21.9m
EXISTING R/W 18.1m
S 57° 45' 59.0" E
NEWSOME ROAD
EXIST. ASPHALT 11.6m
10.8m
RETAIN
16 M TAPER
BEGIN SIDEWALK
–L– STA 19+67.898
+70.327
10.930
+79.613
18.145
+82.335
15.233
8.25m
REM. 4m +/–
REM.
–L– POC Sta.19+56.891
–Y1– POT Sta.11+00.242
+70.262
10.710
+20.000
17.700
+31.856
15.240
+35.675
19.094
R 16.31
15.0m TAPER
W/SIGNAL
S34°41'09"W
39.884m (130.85')
EXISTING R/W 18.2m
+92.861
9.457
R 0.6
R 3.0
PAINTED ISLAND
BEGIN CHAIN LINK CA FENCE
–L– STA 19+01.994
15.199 RT
CA ROW
DORAL DR.
FS
H = 0.3m
REMOVE
FALSE SUMP
SEE DETAIL FS–B
Sheet No. 18
BL–5
–L– STA 19+01.00 (18.728 RT)
IRRIGATION CONTROL VALVE
NOTE: CLOSE DRIVEWAY
BEGIN 1.5m SIDEWALK
–L– STA 19+75.013
123.156m (404.06')
N32°31'01"E
60m Taper
W/SIGN
EXISTING R/W
375 RCP
PUE
PDE
CB
DI
EIP
TSD
FSS
WCC
WCR
HW
EQ
18+00
19+00
320
325
330
375
450
300 mm
350 mm
150 mm
45.717m (149.99')
S36°00'18"W
S53°54'50"E
5.805m (19.05')
S36°06'11"W
18.288m (60.00')
S36°06'11"W
13.993m (45.91')
46.7m Taper
78.566m (257.76')
N36°05'23"E
S46°14'47"E
6.014m (19.73')
N32°40'30"E
1.660m (5.45')
EXIST. ASPHALT 7.3m
PROPOSED R/W 30.6m
EXISTING R/W 38.3m
EXISTING R/W 18.4m
EXISTING R/W 29.0m
12.0m
7.2m
6.0m
10.7m
+33
+40
+75
+25.000
15.240
+25.000
19.812
+60.000
17.800
+11.000
23.000
+11.000
18.900
+20.915
15.240
+01.994
15.199
+01.004
18.173
+00.000
23.000

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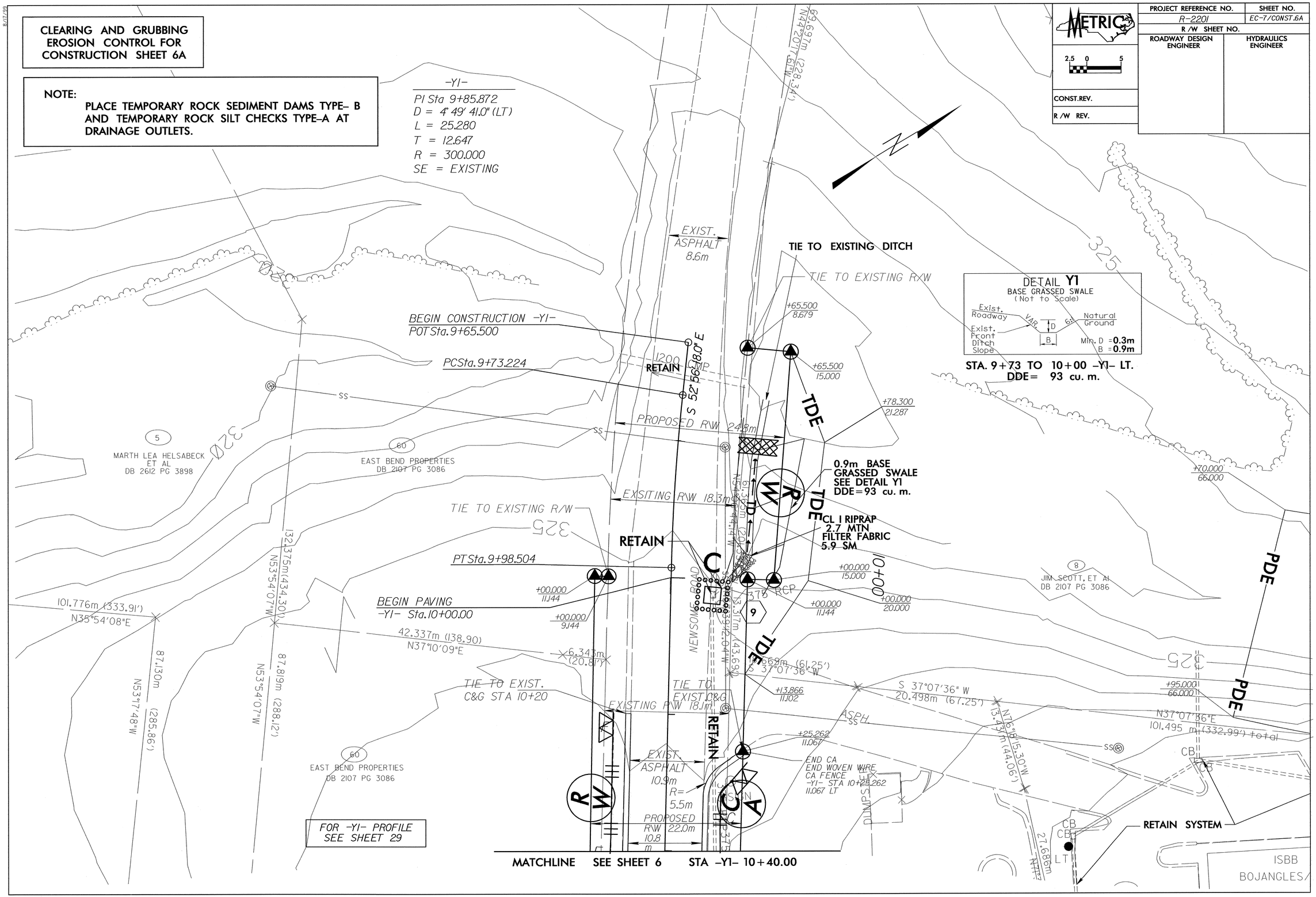
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6A

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

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-7/CONST.6A
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 2.5 0 5



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-8/CONST.7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R/W REV.	

METRIC 2.5 0 5

8/17/99

DETAIL B6
SPECIAL CUT GRASSED SWALE
(Not to Scale)
Natural Ground, 6:1, D, B, 6:1, Hinge Point, Fill Slope, Front Ditch Slope
Min. D = VAR. m
B = 0.6 m

DETAIL B5
TOE PROTECTION
(Not to Scale)
Natural Ground, d, 2:1 or Flatter, Fill Slope, Filter Fabric
d = 0.2 m
Type of Liner = CLASS B RIP RAP

STA. 5+20 TO 5+40 RAMP B RT.
DDE = 40 cu. m.

STA. 4+89 TO 5+20 –RAMP B– RT.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

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

DETAIL C
STANDARD GRASSED SWALE
(Not to Scale)
Natural Ground, 12:1, D, B, 12:1, Natural Ground
Min. D = VAR. m
B = 0.9 m

DETAIL I
0.9m BASE TAIL DITCH
(Not to Scale)
Natural Ground, 6:1, d, 6:1, Natural Ground, 0.9m
MIN. D = 0.3 m

STA. 21+40 +/– –L– RT.
DDE=320 cu. m.
STA. 21+70 +/– –L– LT.
DDE=145 cu. m.

STA 4+80+/– –RPB– LT.
DDE= 105 cu. m.

MATCHLINE SEE SHEET 18
RAMP B STA. 4+80.00

Ramp B
PT Sta. 4+86.563

CL B RIPRAP
15 MTN
FILTER FABRIC
28 SM

TOE PROTECTION
SEE DETAIL B5

RETAIN SYSTEM

CL B RIPRAP
2.1 MTN
FILTER FABRIC
6.8 SM

1.2m CURB CUT

8 EST. MTN CLASS 'B' RIPRAP ON DITCH SLOPE (3m Width); 24 SM F.F.

0.6m BASE GRASSED SWALE SEE DETAIL B6
DDE=40 cu. m.

TAIL DITCH SEE DETAIL I

GRADE DRAIN

400 CSP W/2 ELBOWS

300

375

450 CSP

–L– PT
Sta. 20+48.348

END GR TYPE 350 GRAU
–L– STA 20+60.245

15m TAPER
1.0m OFFSET

END GR
–L– STA. 21+20.859

END C&G/SW
–L– STA 20+96.268

END C&G/SW
–L– STA 21+08.176

S 41° 03' 54.4" E

EXIT RAMP FROM US 52 S.

RAMP B POT Sta. 5+57.433
RAMP C POT Sta. 4+00.704
–L– Sta. 20+92.895

NO ASSOCIATED PIPING FOUND FOR THIS WM.

END CHAIN LINK CA FENCE
BEGIN WOVEN WIRE CA FENCE
TIE TO EXISTING FENCE
–L– STA 20+24.492
23.995 RT
CA ROW

INSTALL GATE
UTILITIES ACCESS ONLY

PROPOSED 3.6M GRAVEL ACCESS ROAD

1.829 CYCLONE FENCE

A.T. WILLIAMS OIL COMPANY
DB 2073 PG 3475

R.J. REYNOLDS TOBACCO CO.

DORAL DR.

NOTE: CLOSE MASONIC ROAD

MASONIC RD.

BEGIN GR
–L– STA 21+43.560

END C&G/SW
–L– STA. 20+94.846

END S/W
–L– STA. 20+78.500

MATCHLINE SEE SHEET 18
RAMP C STA. 3+60.00

CL B RIPRAP
2.1 MTN
FILTER FABRIC
6.8 SM

0.9m BASE GRASSED SWALE TAIL DITCH
SEE DETAIL C
DDE=320 cu. m

MATCHLINE SEE SHEET 6
STA –L– 19+80.00

MATCHLINE SEE SHEET 8
STA –L– 21+60.00

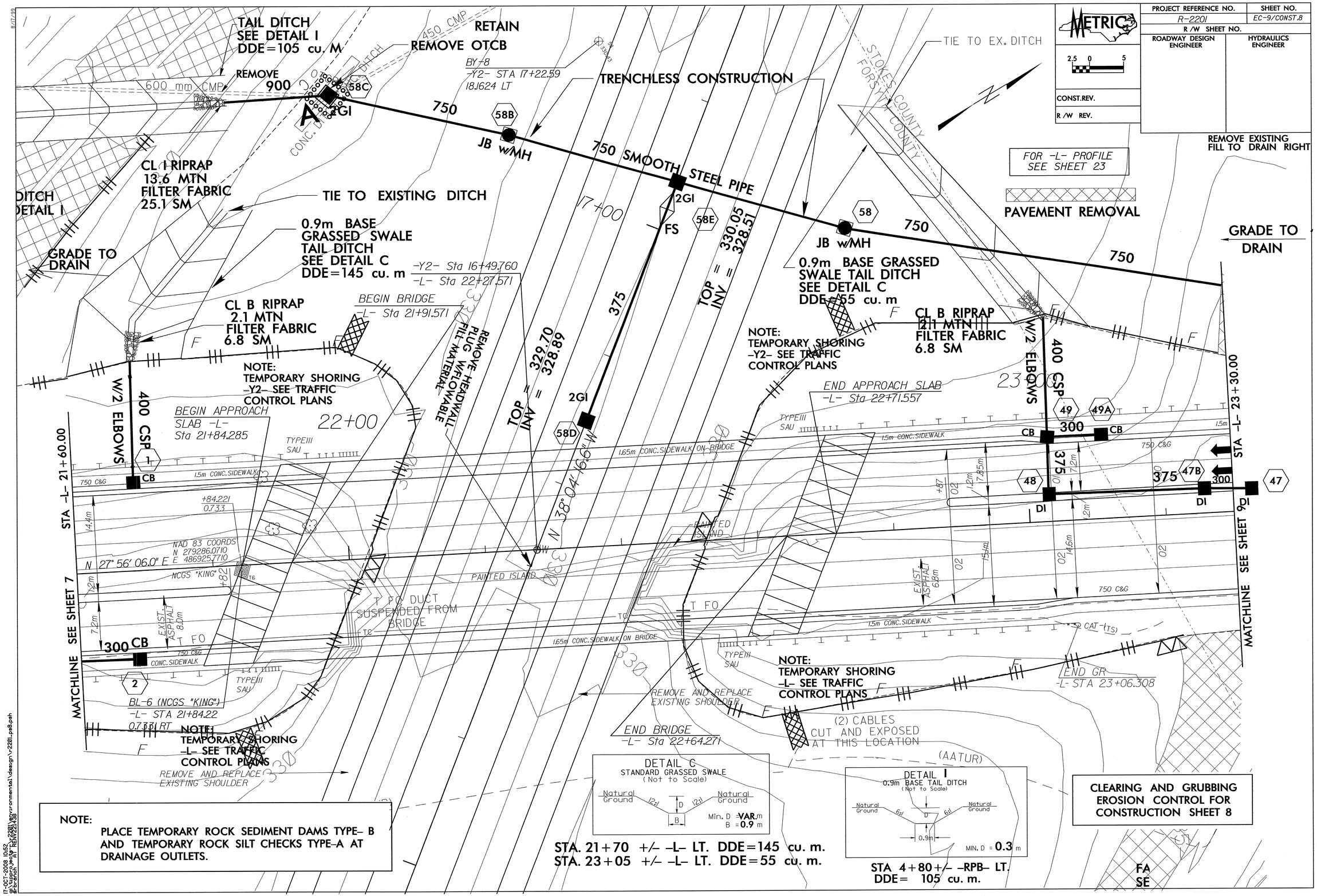
PAVEMENT REMOVAL

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-9/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

CONST.REV.

R /W REV.



NOTE:

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

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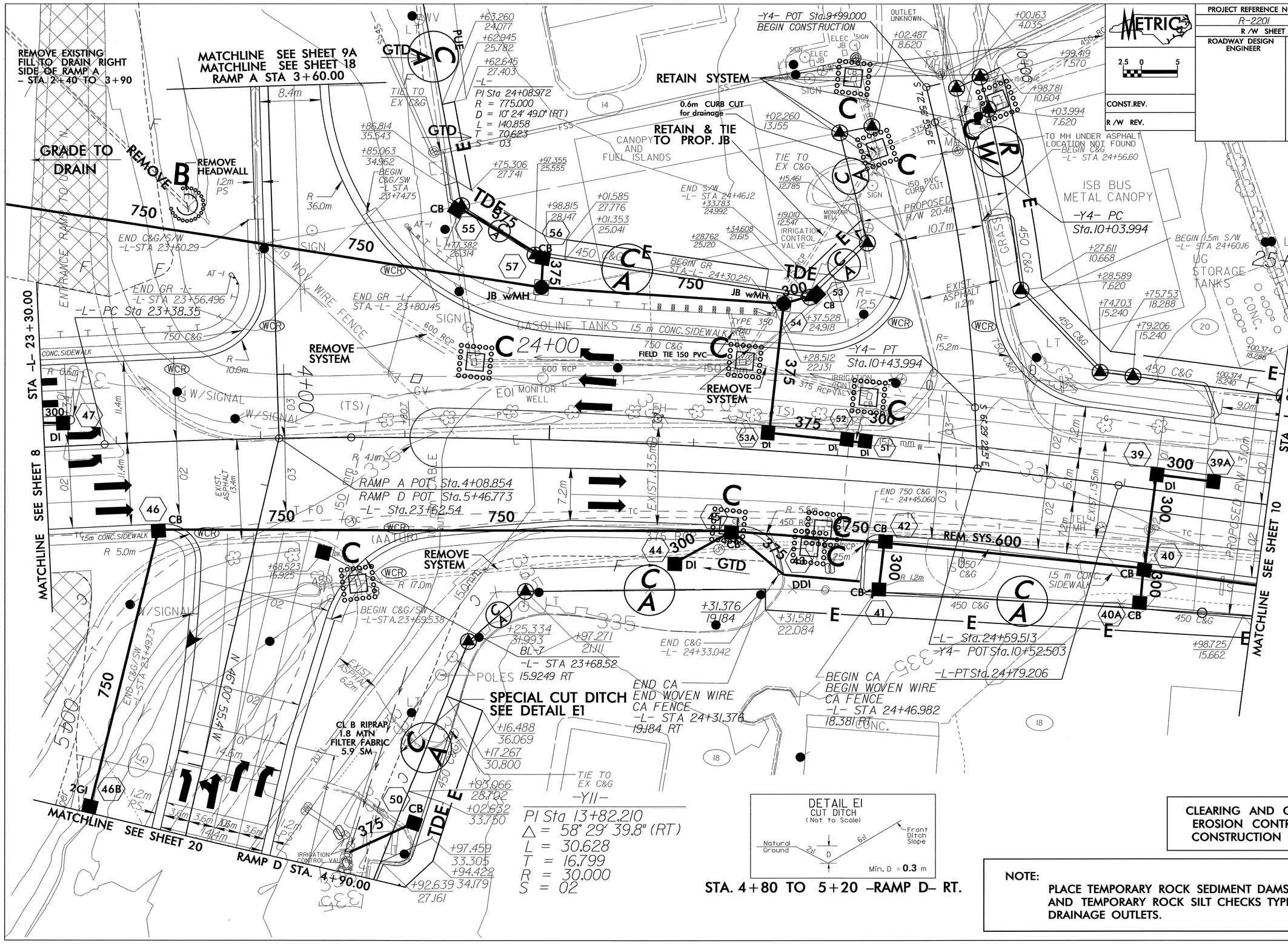
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-10/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 2.5 0 5



DETAIL E1
CUT DITCH
(Not to Scale)

CLEARING AND GRUBBING
EROSION CONTROL FOR CONSTRUCTION SHEET 9

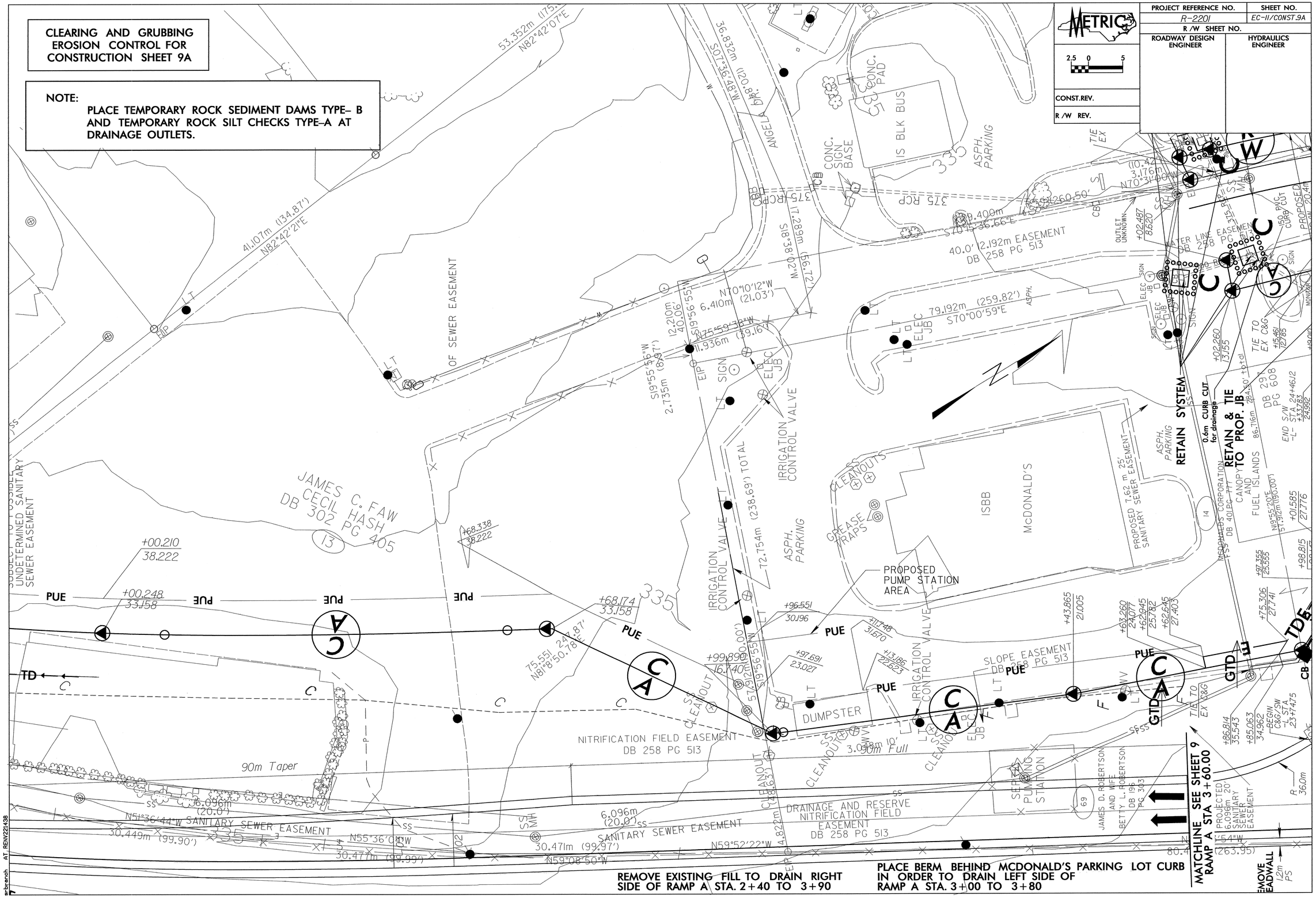
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE– B AND TEMPORARY ROCK SILT CHECKS TYPE–A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-11/CONST.9A
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 2.5 0 5

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9A

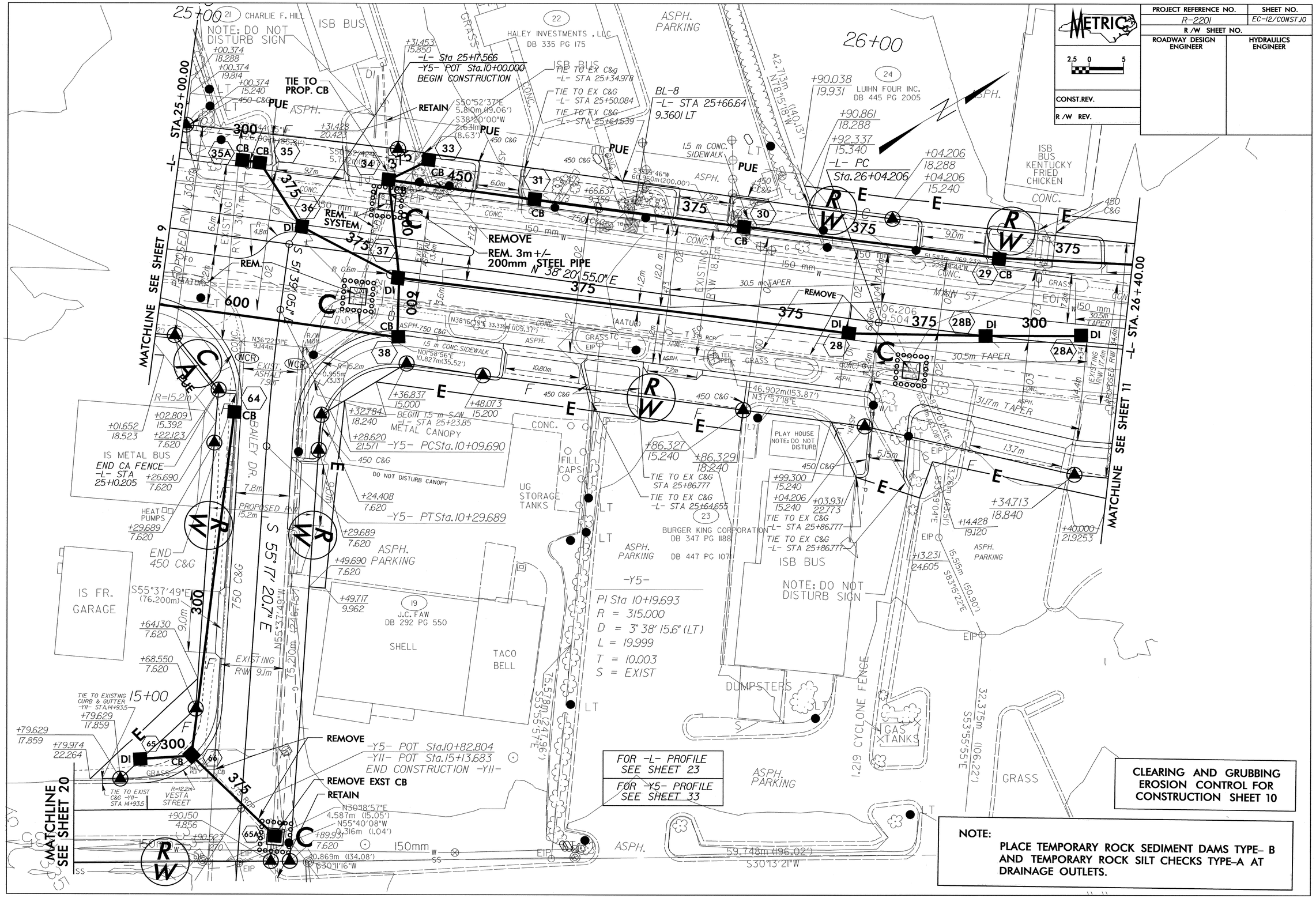
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.



AT REN/221438

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-12/CONST.10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 2.5 0 5



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 10

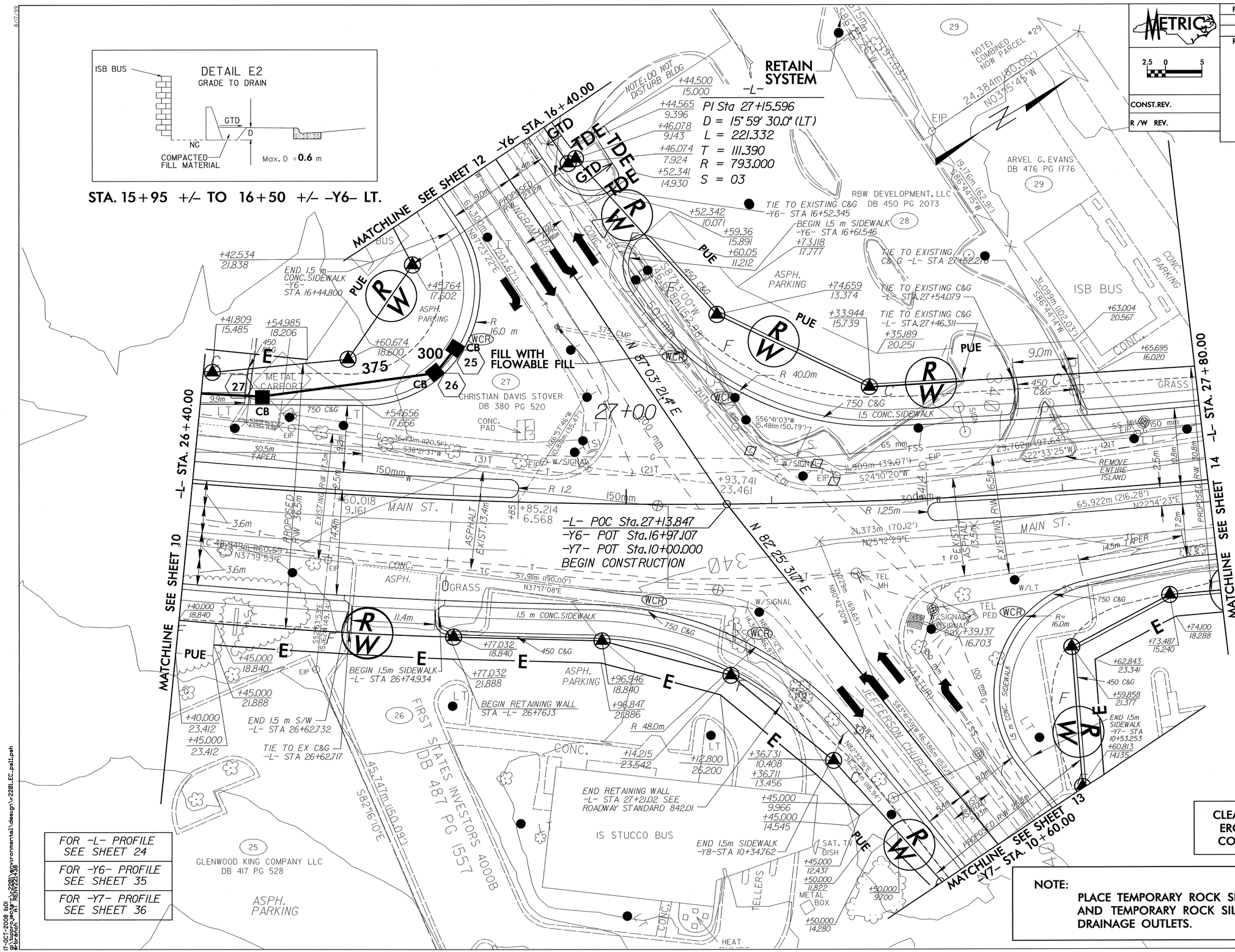
NOTE:

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

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-13/CONST.11
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 2.5 0 5



CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

NOTE:

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

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Serenity, NT Rel(22.1.0)

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-14/CONST.12
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

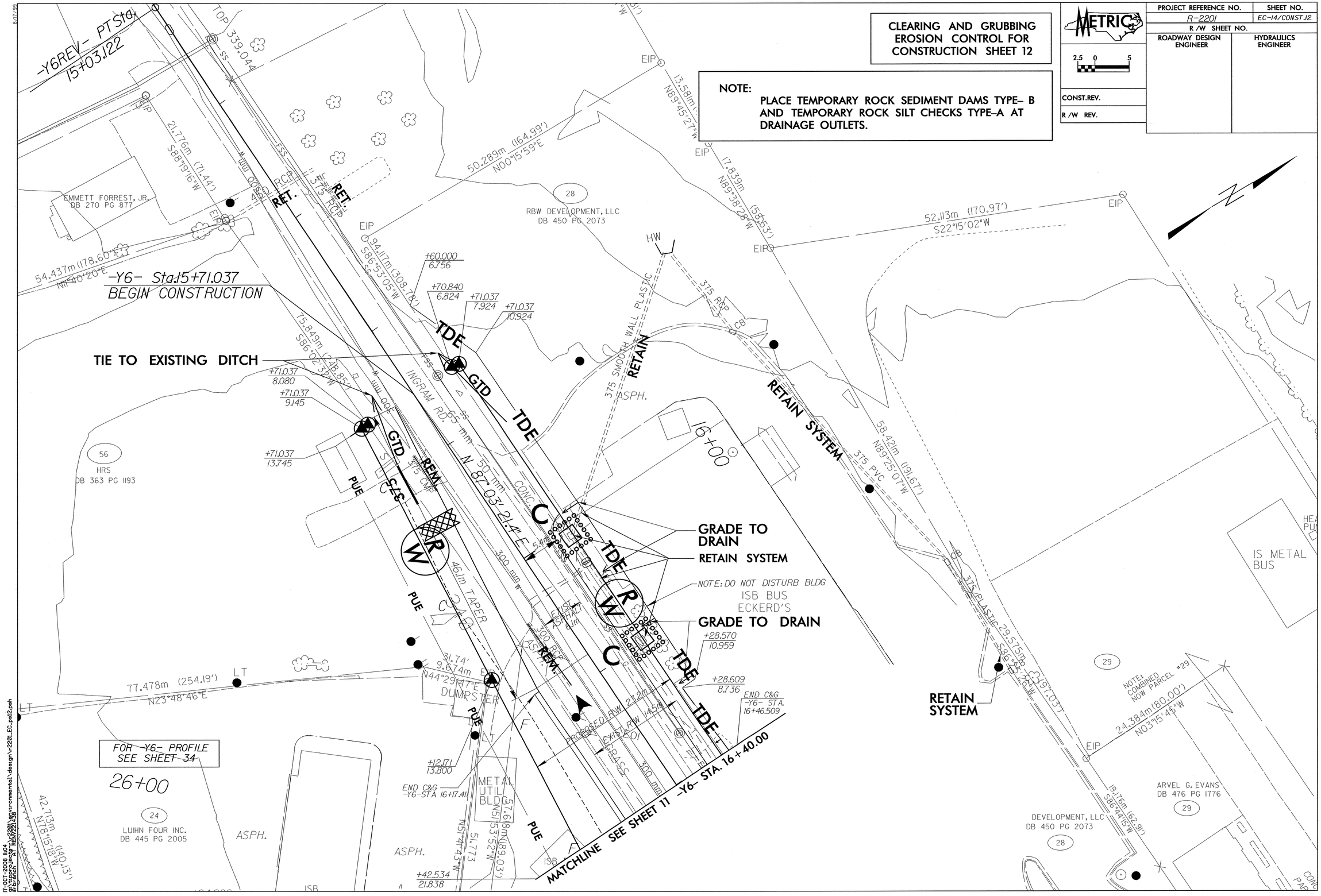
CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

NOTE:

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



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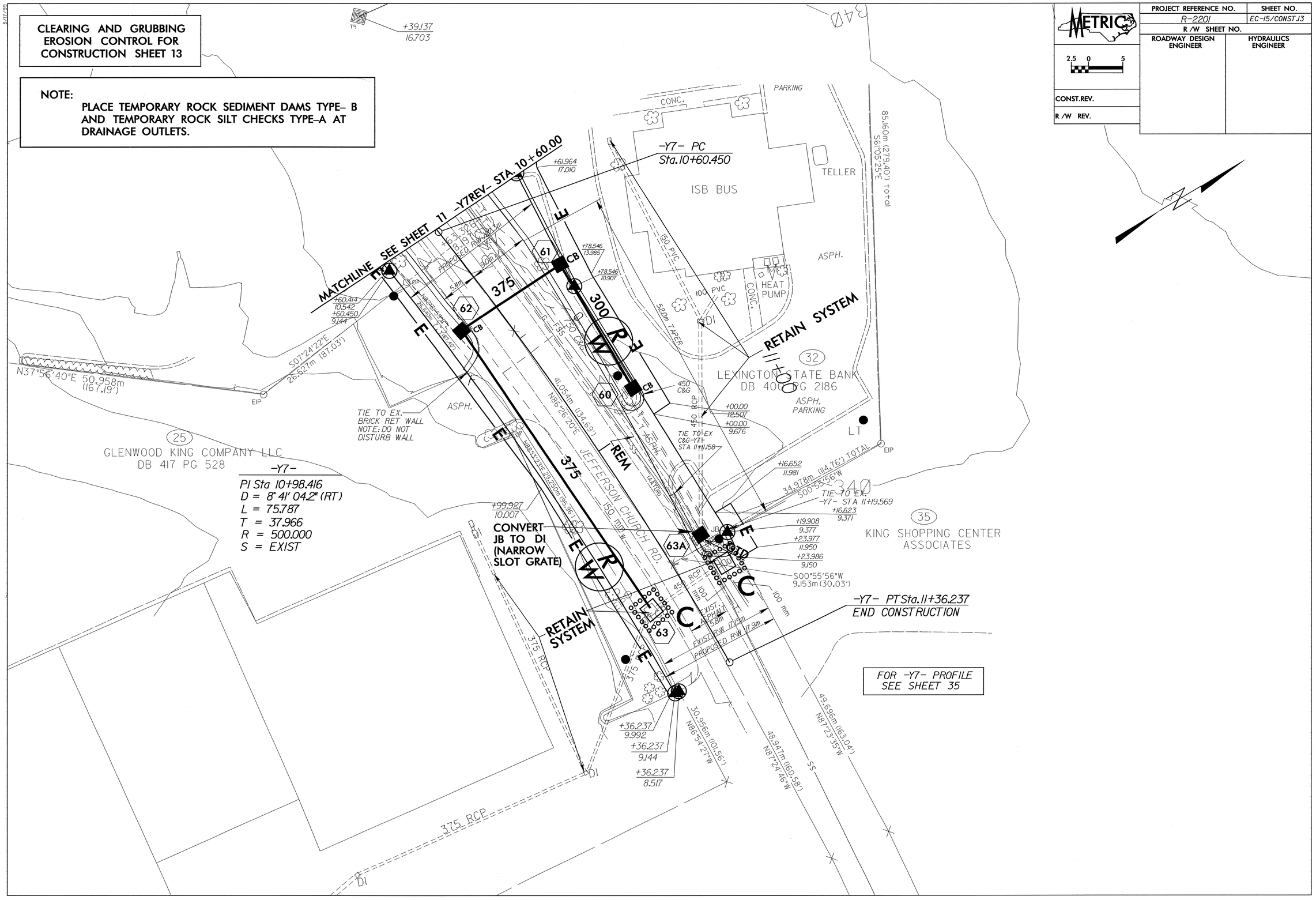
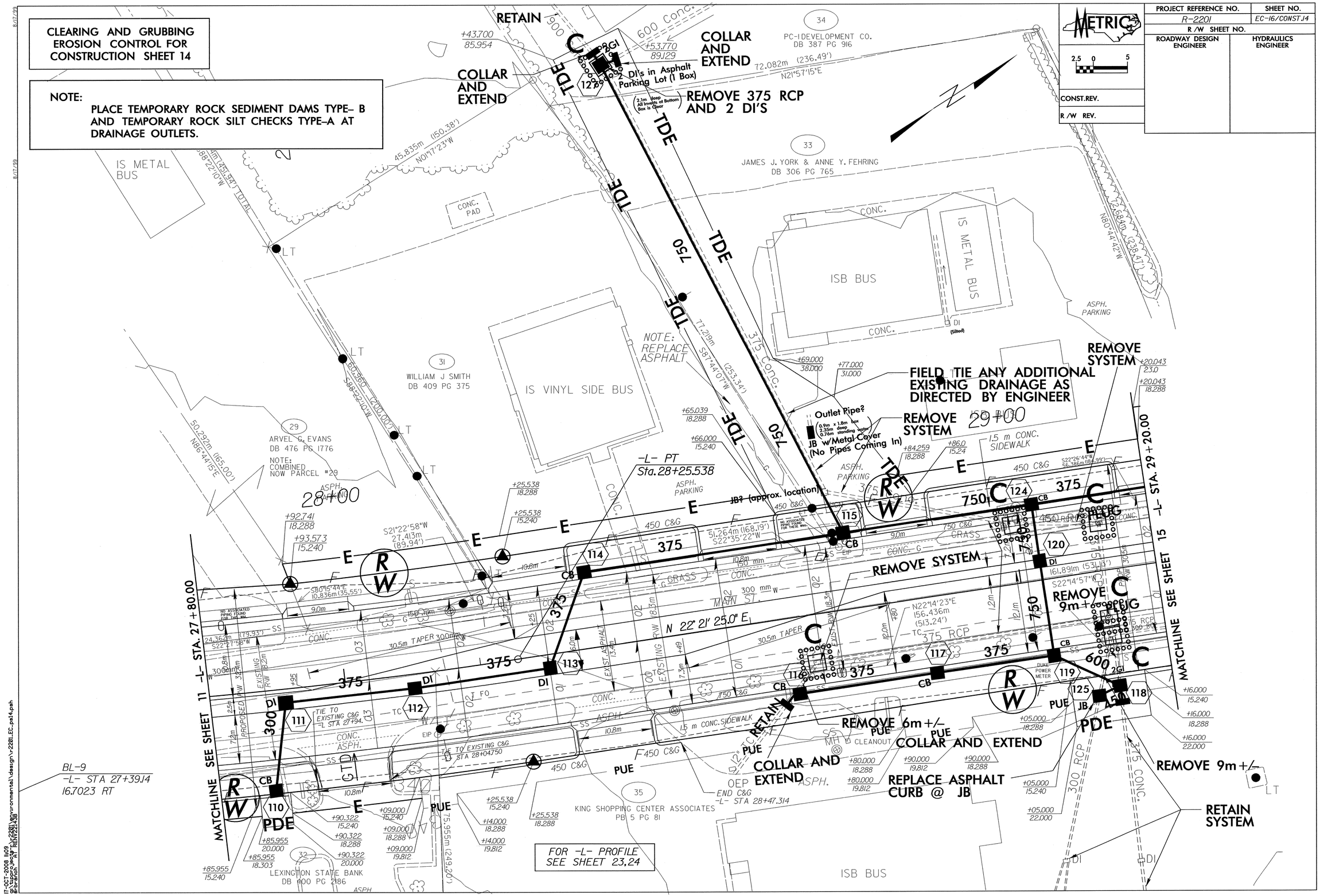
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13

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

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-15/CONST.13
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 2.5 0 5




CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
METRIC
PROJECT REFERENCE NO.
R-2201
SHEET NO.
EC-16/CONST.14
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
RETAIN
COLLAR AND EXTEND
2 DI's in Asphalt Parking Lot (1 Box)
REMOVE 375 RCP AND 2 DI'S
PC-I DEVELOPMENT CO. DB 387 PG 916
JAMES J. YORK & ANNE Y. FEHRING DB 306 PG 765
IS METAL BUS
CONC. PAD
ISB BUS
IS VINYL SIDE BUS
WILLIAM J SMITH DB 409 PG 375
ARVEL G. EVANS DB 476 PG 1776
NOTE: COMBINED NOW PARCEL #29
NOTE: REPLACE ASPHALT
FIELD TIE ANY ADDITIONAL EXISTING DRAINAGE AS DIRECTED BY ENGINEER
REMOVE SYSTEM
Outlet Pipe?
JB w/Metal Cover (No Pipes Coming In)
JB? (approx. location)
-L- PT Sta. 28+25.538
N 22° 21' 25.0" E
REMOVE 9m+/-
REMOVE 6m+/-
COLLAR AND EXTEND
REPLACE ASPHALT CURB @ JB
RETAIN SYSTEM
KING SHOPPING CENTER ASSOCIATES PB 5 PG 81
LEXINGTON STATE BANK DB 400 PG 2186
BL-9 -L- STA 27+39.14 16.7023 RT
MATCHLINE SEE SHEET 11 -L- STA. 27+80.00
MATCHLINE SEE SHEET 15 -L- STA. 29+20.00
FOR -L- PROFILE SEE SHEET 23,24
ISB BUS
ASPH. PARKING
1.5 m CONC. SIDEWALK
30.5m TAPER
375 RCP
300 RCP
375 CONC.
600 Conc.
450 C&G
PUE
PDE
TDE
RW
CB
DI
JB
CLEANOUT
DUKE POWER METER
GRASS
MAIN ST.
EXISTING RW
PROPOSED RW
EXIST. ASPHALT
CONC.
ASPH.
GTD
LT
RETAIN
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CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 15

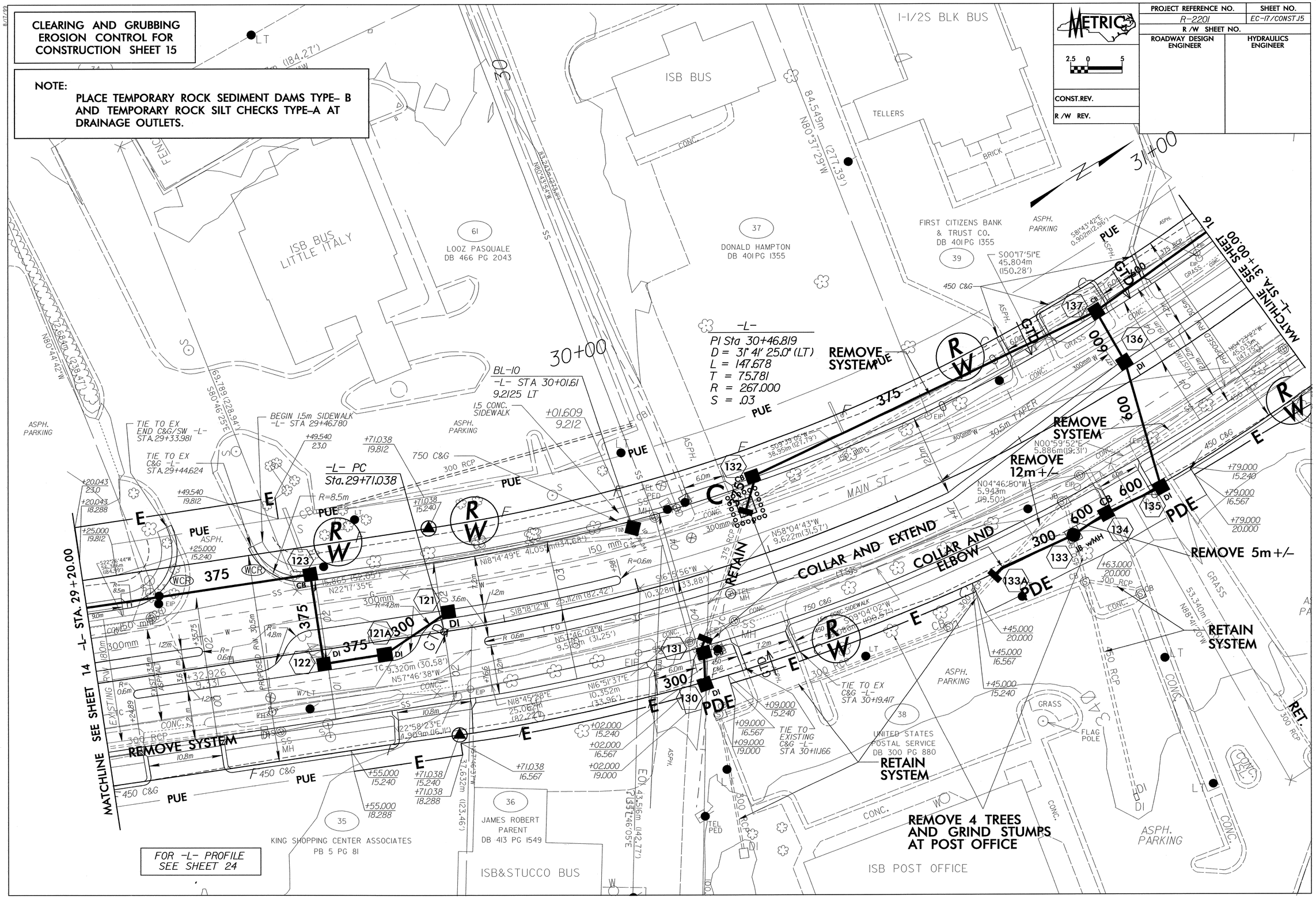
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-17/CONST.15
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

CONST.REV.

R /W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-18/CONST.16
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

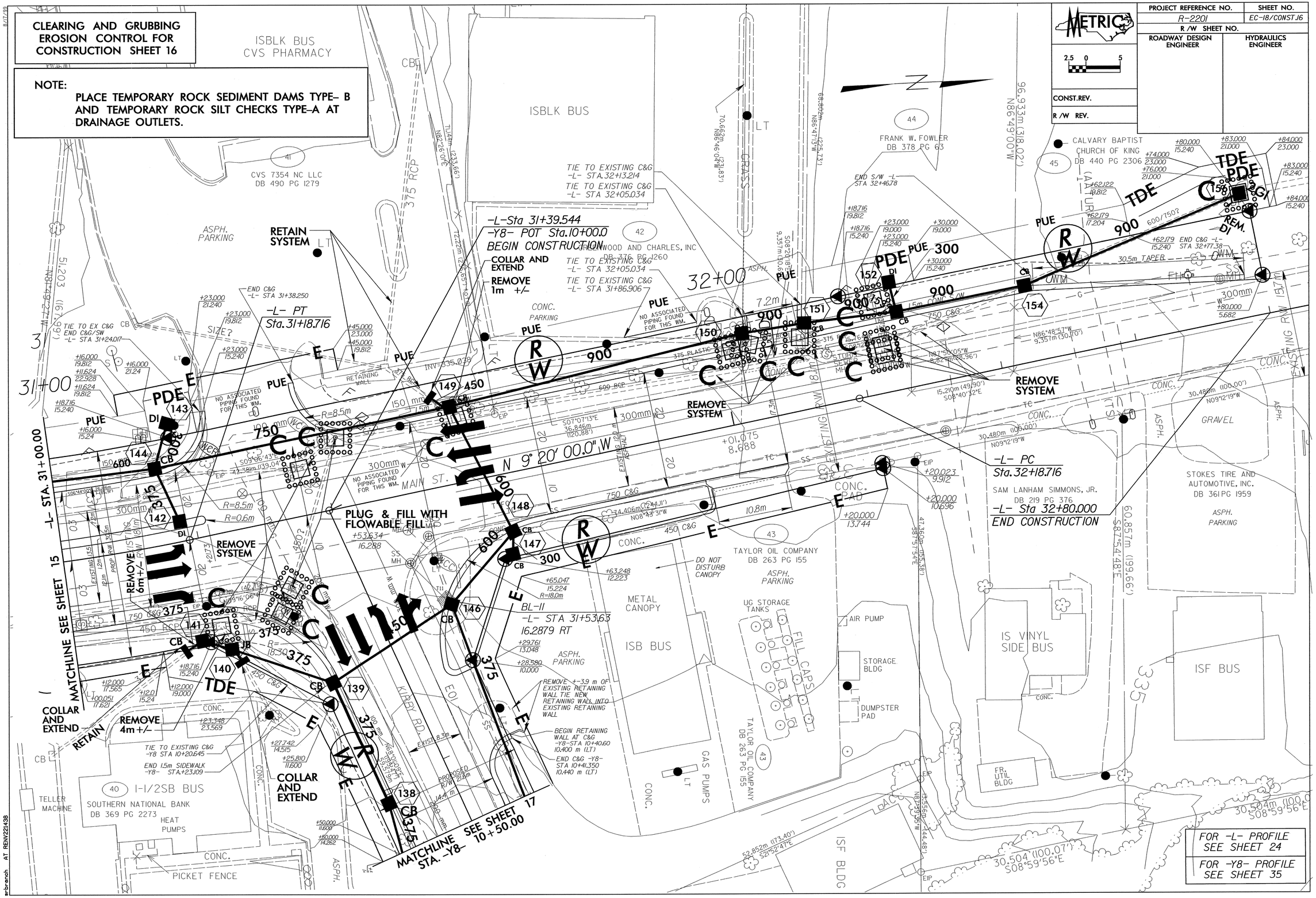
METRIC 2.5 0 5

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 16

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



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-19/CONST.17
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 2.5 0 5

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CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17

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

DETAIL E1
CUT DITCH
(Not to Scale)
Natural Ground, 2:1, D, 6:1, Front Ditch Slope
Min. D = 0.3 m

STA. 10+00 TO 10+65 -Y9- LT.

-Y8-
PI Sta 11+69.192
D = 21° 05' 50.0" (LT)
L = 80.606
T = 40.765
R = 218.910
S = EXIST

-Y8- PT
Sta.12+09.034

-Y8- POT Sta.12+21.862
END CONSTRUCTION

-Y9- PT Sta.10+80.256
-Y8- POC STA 11+34.951

-Y8- PC
Sta.11+28.427

-Y9- PCC
Sta.10+52.213

-Y9- PC
Sta.10+02.213

-Y9- POT Sta.9+80.000
BEGIN CONSTRUCTION

END 750 C&G
-Y8- STA.11+88

END 750 C&G
-Y8- STA 11+62.909

BEGIN 750 C&G
-Y9- STA 10+45.208

TIE TO EXIST C&G
-Y9- STA.10+51.042

-Y9-

PI Sta 10+27.288	PI Sta 10+66.494
D = 10° 53' 33.8" (RT)	D = 26°46'34.42"(RT)
L = 50.000	L = 28.040
T = 25.076	T = 14.281
R = 263.000	R = 60.000
S = EXIST	S = EXIST

300 mm COLLAR AND EXTEND

FOR -Y8- PROFILE SEE SHEET 35
FOR -Y9- PROFILE SEE SHEET 36

STANDARD CUT DITCH SEE DETAIL E1

SEE SHEET 16 STA. -Y8- 10+50.00 MATCHLINE

REMOVE SYSTEM

REMOVE 4m x

RET. CB

KIRBY RD.

SPANHOUR RD.

ISB BLDG
SUPERIOR COURT
JUSTICE OFFICE

ISF BLDG

F.R. UTIL BLDG

DUMPSTER PAD

GAS PUMPS

CONC.

TAYLOR OIL COMPANY
DB 263 PG 155
43

SHELBY SMITH
DB 182 PG 491
55

MARGARET MONTEITH
DBA MAGPIEHAIG PROPERTIES,LLC
DB 271PG 731
63

MARY VIRGINIA LOFTIN
DB 406 PG 399
66

DONALD A. HAUSER & WIFE
JEAN P. HAUSER
DB 316 PG 160
54

THE COMMUNITY BANK
DB 441PG 1220
53

SOUTHERN NATIONAL BANK
DB 369 PG 2273
40

UNITED STATES POSTAL SERVICE
DB 300 PG 880
38

NO ASSOCIATED PIPING FOUND FOR THIS WM.

EXIST R/W

PROPOSED R/W

ASPHALT

ASPH. PARKING

Tree Canopy

N 46° 51' 36.7" E

N 67° 57' 26.7" E

N 73° 50' 52.0" W

N 44°50'18" W

86.995m (285.42')

59.777m (196.12')
S88°01'48"E

13.556m (44.48')
N87°39'35"W

S87°54'39"E 42.650m (139.93')

30.504m (100.07')
S08°59'59"E

30.213
S29°19'51"E

6.042m (19.82')
N47°10'23"E

N47°10'22"E
25.182

58.674m (192.56')
N57°42'22"E

21.159
S63°17'16"E (69.42')

21.281m (69.82')
S69°45'38"E

21.303m (69.89')
S74°18'48"E

0.582m (1.91')
S14°32'47"W

S35°23'07"E
8.670m (28.45')

76.545m (251.13')
N67°45'54"W

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arbranch AT REW22143B

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-20/CONST.18A
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

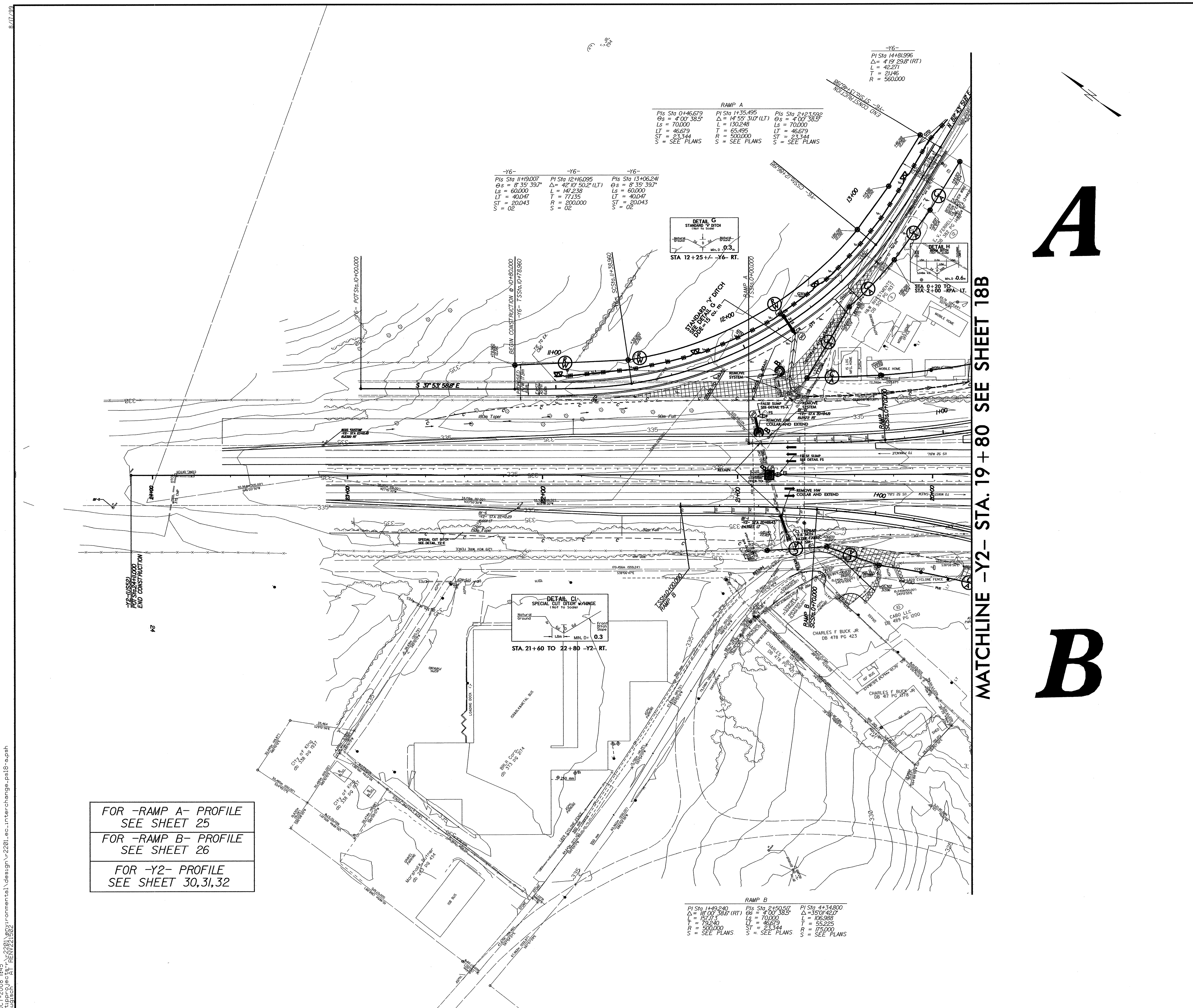
METRIC

CONST.REV.

R /W REV.

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18A

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



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mlaugisch AT RENV221502

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-21/CONST.18B
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC

0

MATCH LINE -Y2- STA. 19+80 SEE SHEET 18A

MATCH LINE -Y2- STA. 12+60 SEE SHEET 18C

A

B

C

D

RAMP A

Pls Sta 0+46.679
Bs = 4.00' 38.5"
Ls = 80.000
LS = 46.679
ST = 23.344
S = SEE PLANS

PI Sta 1+35.495
Δ = 14° 55' 31.0" (LT)
L = 130.848
T = 65.495
R = 500.000
S = SEE PLANS

Pls Sta 2+23.988
Bs = 4.00' 38.5"
Ls = 70.000
LT = 46.679
ST = 23.344
S = SEE PLANS

RAMP B

Pl Sta 1+89.940
Δ = 18° 00' 19.8" (RT)
L = 152.113
T = 76.940
R = 500.000
S = SEE PLANS

Pls Sta 2+50.516
Bs = 4.00' 38.5"
Ls = 70.000
LT = 46.679
ST = 23.344
S = SEE PLANS

Pl Sta 4+34.800
Δ = 35°04'40.0"
L = 106.968
T = 55.226
R = 175.000
S = SEE PLANS

RAMP B

Pls Sta 0+46.679
Bs = 4.00' 38.5"
Ls = 70.000
LT = 46.679
ST = 23.344
S = SEE PLANS

Pl Sta 1+40.158
Δ = 15° 56' 29.0" (LT)
L = 156.461
T = 70.551
R = 500.000
S = SEE PLANS

Pls Sta 2+32.750
Bs = 4.00' 38.5"
Ls = 70.000
LT = 46.679
ST = 23.344
S = SEE PLANS

RAMP B

Pls Sta 0+46.679
Bs = 4.00' 38.5"
Ls = 70.000
LT = 46.679
ST = 23.344
S = SEE PLANS

Pl Sta 1+53.941
Δ = 31° 01' 36.3" (RT)
L = 180.000
T = 92.231
R = 300.000
S = SEE PLANS

Pls Sta 2+59.875
Bs = 4.00' 38.5"
Ls = 70.000
LT = 46.679
ST = 23.344
S = SEE PLANS

DETAIL E1
CUT-DITCH
(Not to Scale)
Min. D = 0.3 m

DETAIL D1
STANDARD BASE DITCH W/ PSRM
(Not to Scale)
MIN. D = 0.3 m
B = 0.6 m
MAX. d = 0.30 m

DETAIL D2
LATERAL BASE DITCH
(Not to Scale)
Min. D = 0.3 m
B = 0.9 m
b = VARIES

STA. 4+80 TO 5+20 -RAMP D- RT.
STA. 10+00 TO 10+65 -Y9- LT.

STA 3+11 TO 3+52 -RPD- LT.
DDE= 45 cu. m.

STA. 4+40 TO 4+81.5 -RAMP D- LT.

DETAIL H
SERA-DITCH
(Not to Scale)
Min. D = 0.6 m

STA 0+20 TO
STA 2+00 -RPA- LT.

15 x 7 x 1
36 mm Skimmer
with 28 mm
Orifice Diameter
4.6 m weir
ID18B.3C&G

15 x 7 x 1
ID18B.4C&G

DETAIL C
STANDARD SAVASE TABLE
(Not to Scale)

STA. 21+40 +/- -L- RT.
DDE=320 cu.m.
STA. 21+70 +/- -L- LT.
DDE=145 cu. m.

DETAIL B
SPECIAL CUT BASE DITCH
(Not to Scale)
EX. RAMP MIN. NEWSONE RD
PROP. -RAMP B-
REMOVE FILL
Min. D = 0.6 m
B = 0.9 m
Min. d = 0.3 m

STA 2+50 TO 3+40 -RPB- LT.

DETAIL B1
LATERAL BASE DITCH
(Not to Scale)
PROP. -RAMP B-
EX. RAMP
EX. -Y2-
RETAIN EX. DITCH
REMOVE FILL
Min. D = 0.6 m
B = 0.9 m
b = 1.5 m
Min. d = 0.3 m

STA 3+40 TO 5+20 -RPB- LT.

DETAIL B2
LATERAL BASE DITCH
(Not to Scale)
Min. D = 0.3 m
b = 1.5 m
Min. d = 0.3 m

STA. 2+60 TO 3+50 -RPB- RT.

DETAIL B3
SPECIAL LATERAL BASE DITCH W/ PSRM
(Not to Scale)
Min. D = 0.3 m
Min. d = 0.3 m
b = 1.5 m

STA. 3+50 TO 4+80 -RPB- RT.

DETAIL I
0.3m BASE TAIL DITCH
(Not to Scale)
Min. D = 0.3 m

STA. 4+80+/- -RPB- LT.
DDE= 105 cu. m.

31 x 16 x 1
64 mm Skimmer
with 57 mm
Orifice Diameter
13.6 m weir
ID 18B.1F

DETAIL B4
BASE GRASSED SWALE W/ PSRM
(Not to Scale)
Min. D = 0.3 m to 0.6 m
B = 0.3 m to Ex.
MAX. d = 0.45 m

STA. 4+80 -RPB- RT.
DDE= 115 cu.m.

DETAIL C1
SPECIAL CUT DITCH w/HINGE
(Not to Scale)
Min. D = 0.3

STA. 1+80 TO 2+40 -RPC- RT.
STA. 2+40 TO 3+40 -RPC- RT.
STA. 11+40 TO 11+80.60 -Y2- RT.
STA. STA. 0+00 TO 0+40 -RAMPD- RT
STA. STA. 21+60 TO 22+800 -Y2- RT

DETAIL C3
SPECIAL LATERAL Y DITCH
(Not To Scale)

STA. 2+30 TO 3+40 -RPC- LT.

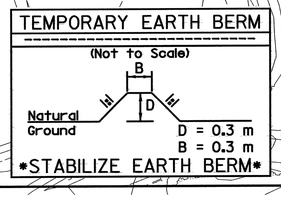
DETAIL C2
SPECIAL CUT DITCH
(Not To Scale)
Min. D = 0.3 m

STA. 1+60 TO 2+00 -RPC- LT.

12 x 4 x 1
ID 18B.1C&G

11 x 4 x 1
ID 18B.2C&G

TEMPORARY EARTH BERM
(Not to Scale)



D = 0.3 m
B = 0.3 m
STABILIZE EARTH BERM

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18B

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

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8/17/09

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 18C

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

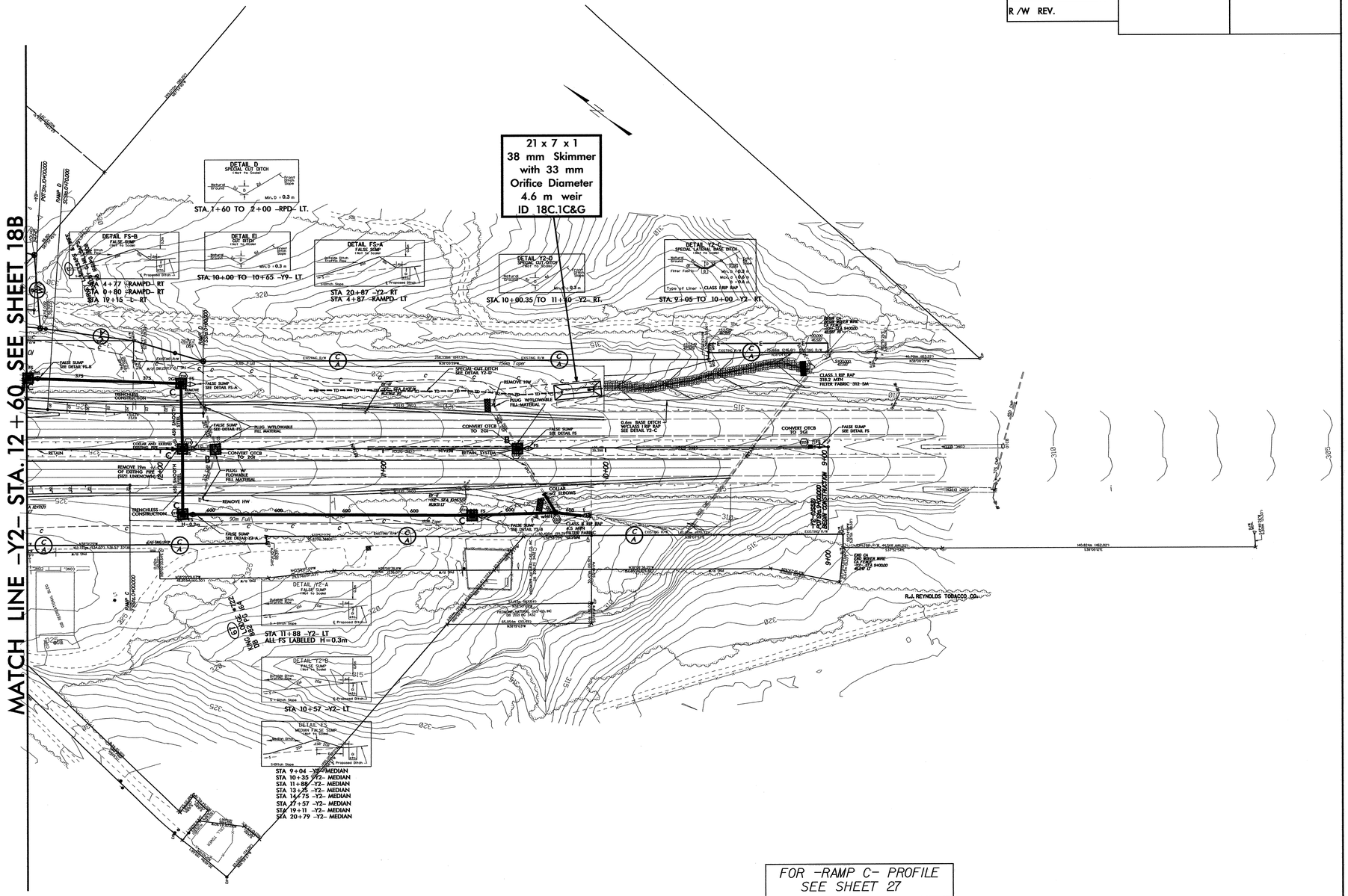
PROJECT REFERENCE NO.	SHEET NO.
R-22-1	EC-22/CONST.18C
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

0

CONST.REV.

R /W REV.



FOR -RAMP C- PROFILE SEE SHEET 27
FOR -RAMP D- PROFILE SEE SHEET 28
FOR -Y2- PROFILE SEE SHEET 30,31,32

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Rbaldwin AT REV22192

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-23/CONST J9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 19

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

57
G.E. STONE, JR.
DB 113 PG 294

N

RAMP A

PIs Sta 0+46.679	PI Sta 1+35.495	PIs Sta 2+23.592
Θs = 4° 00' 38.5"	Δ = 14° 55' 31.0" (LT)	Θs = 4° 00' 38.5"
Ls = 70.000	L = 130.248	Ls = 70.000
LT = 46.679	T = 65.495	LT = 46.679
ST = 23.344	R = 500.000	ST = 23.344
S = SEE PLANS	S = SEE PLANS	S = SEE PLANS

-Y6-	-Y6-	-Y6-
PIs Sta 11+19.007	PI Sta 12+16.095	PIs Sta 13+06.241
Θs = 8° 35' 39.7"	Δ = 42° 10' 50.2" (LT)	Θs = 8° 35' 39.7"
Ls = 60.000	L = 147.238	Ls = 60.000
LT = 40.047	T = 77.135	LT = 40.047
ST = 20.043	R = 200.000	ST = 20.043
S = 02	S = 02	S = 02

FOR -Y6- PROFILE SEE SHEET 34

PAVEMENT REMOVAL

DETAIL G
STANDARD 'V' DITCH
(Not to Scale)

Natural Ground — 2:1 — D — 2:1 — Natural Ground

Min. D = 0.3 m

STA 12+25+/- -Y6- RT.
DDE=

STANDARD 'V' DITCH
SEE DETAIL G
DDE=15 cu. m

DETAIL Y2-E
SPECIAL CUT DITCH w/HINGE
(Not to Scale)

Natural Ground — 2:1 — D — 6:1 — Front Ditch Slope — 1.8m

MIN. D= 0.3

STA. 21+60 TO 22+80 -Y2- RT.

-Y6- POT Sta.10+00.000

BEGIN CONSTRUCTION @ 10+80.000
-Y6- TS Sta.10+78.960

S 37° 53' 58.8" E

TIE TO EX. C&G

PROPOSED R/W 17.9m

EXIST R/W 15.4m

SC Sta.11+38.960

-Y6- CS Sta.12+86.198

END CONSTRUCTION
-Y6- ST Sta.13+46.198

RAMP A
TS Sta.0+00.000

TS Sta.0+00.000
RAMP B

MATCHLINE -Y2- STA. 20+80
SEE SHEET 18A,18B

GRADE TO DRAIN

REMOVE SYSTEM

FALSE SUMP SEE DETAIL FS-A

REMOVE HW COLLAR AND EXTEND

OBLITERATE AND ABANDON

RETAIN

H&W INVESTMENTS
DB 505 PG 1937

E. V. FERRELL, JR.
DB 382 PG 1418

BEGIN CA
BEGIN WOVEN WIRE
CA FENCE
-Y6- STA 13+44.901
20.304 RT

ISB&BLK&METAL BUS

MOBILE HOME OFFICE

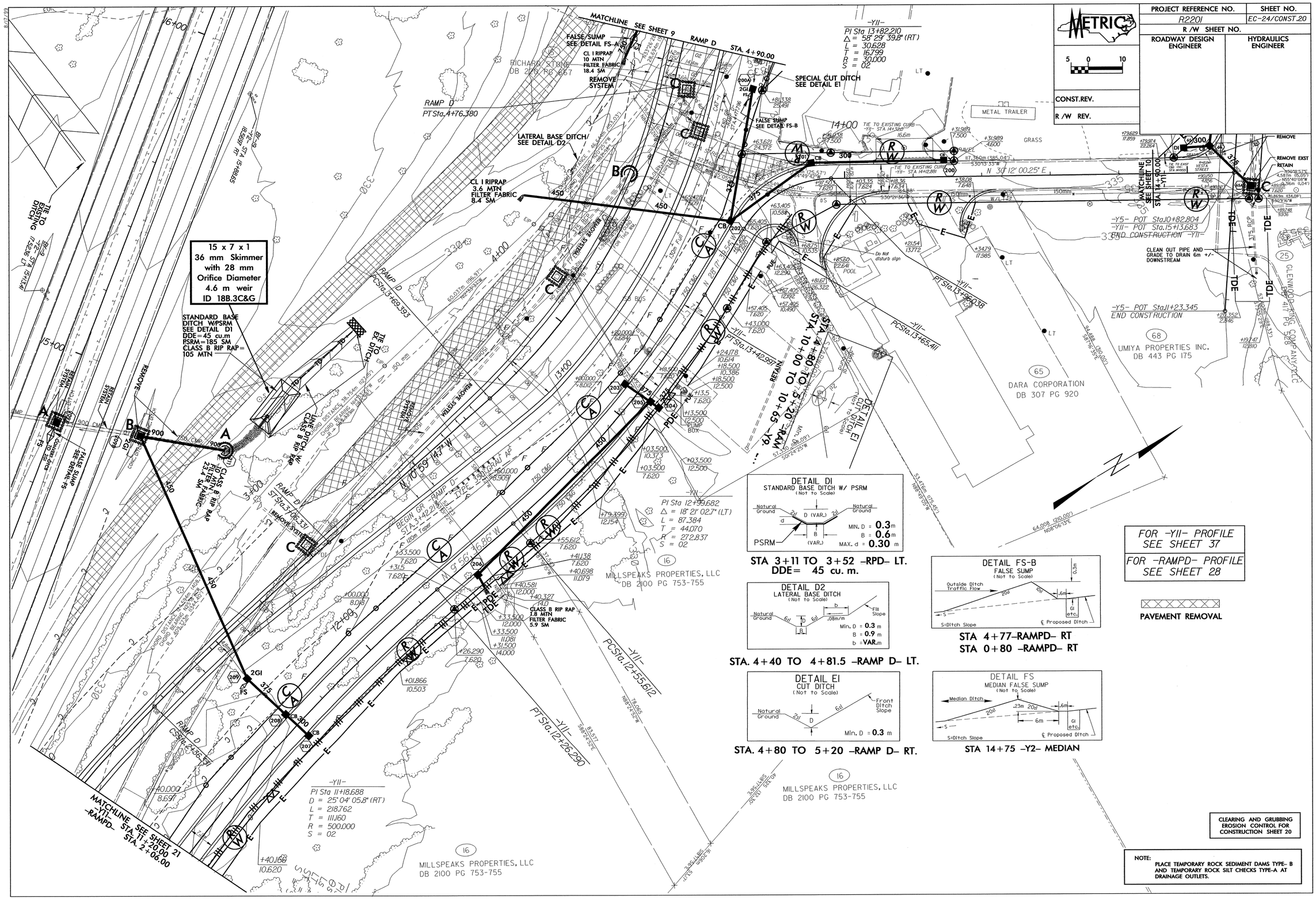
LAND

AT REN\221438

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R2201	EC-24/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-25/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.

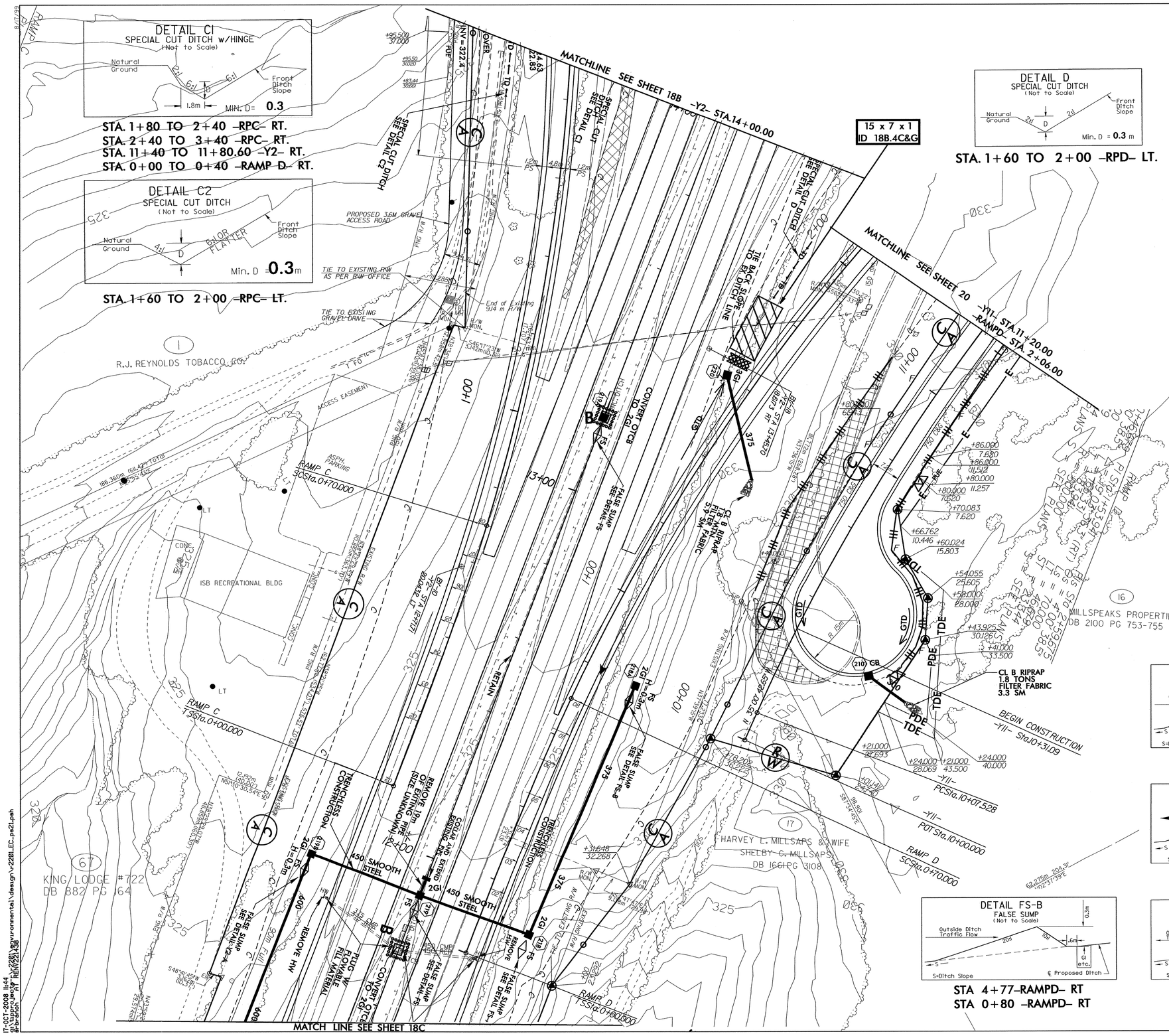
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 21

FOR -Y11- PROFILE SEE SHEET 37

FOR -RAMPD- PROFILE SEE SHEET 28

PAVEMENT REMOVAL



REVISIONS

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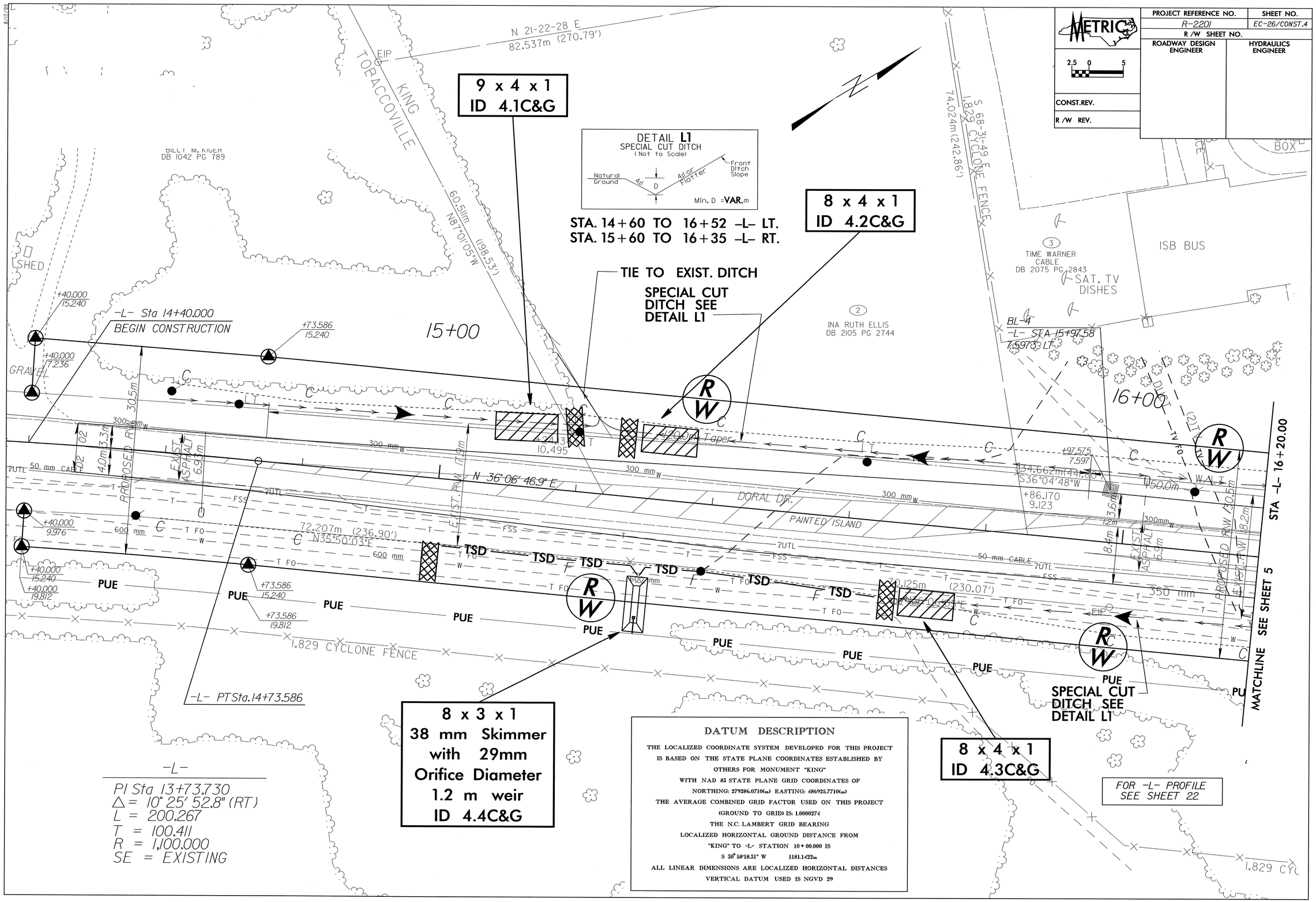
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-26/CONST.4
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

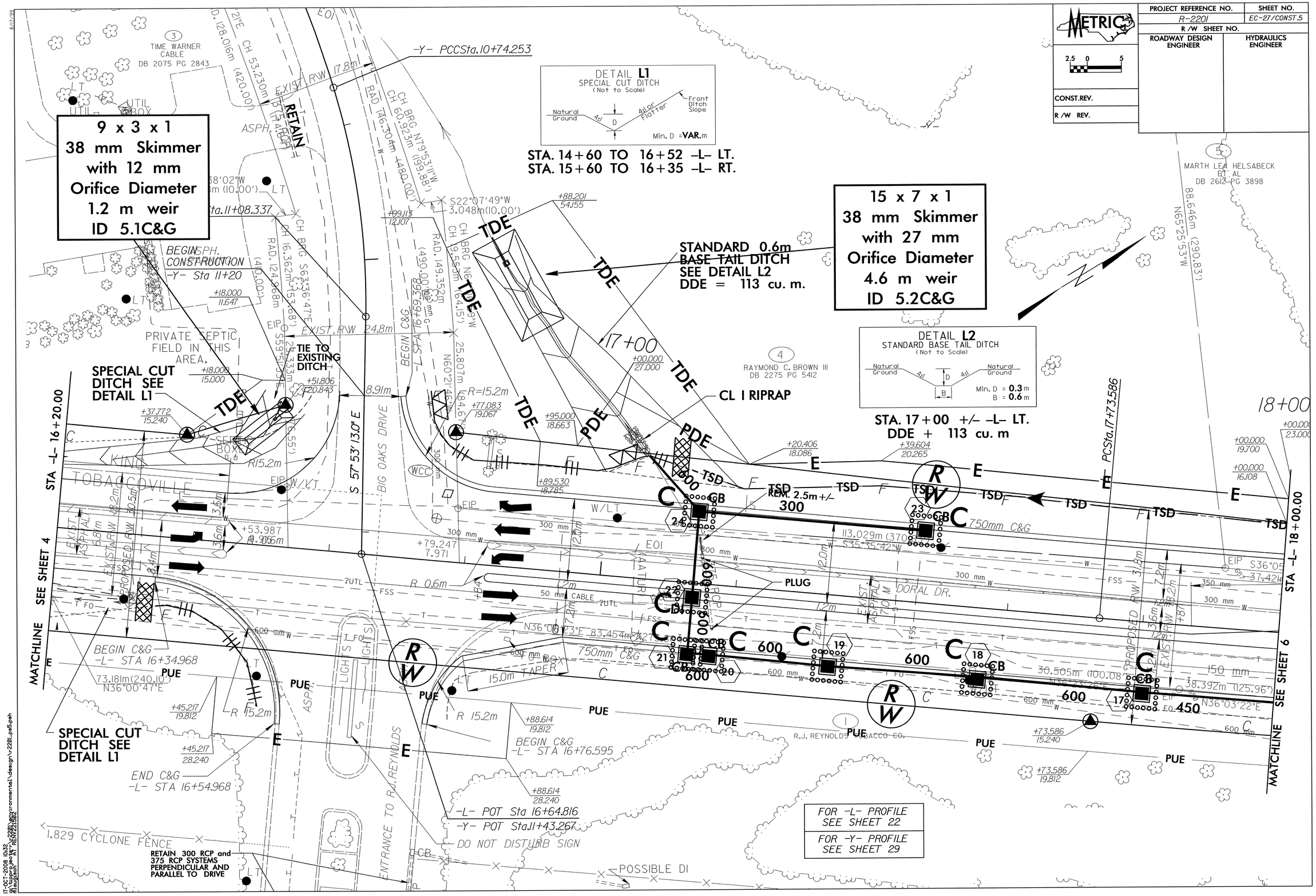
METRIC

2.5 0 5

CONST.REV.

R /W REV.





METRIC
PROJECT REFERENCE NO.
R-2201
SHEET NO.
EC-27/CONST.5
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
9 x 3 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.2 m weir
ID 5.1C&G
15 x 7 x 1
38 mm Skimmer
with 27 mm
Orifice Diameter
4.6 m weir
ID 5.2C&G
DETAIL L1
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
Front Ditch Slope
Min. D = VAR.m
STA. 14+60 TO 16+52 -L- LT.
STA. 15+60 TO 16+35 -L- RT.
STANDARD 0.6m
BASE TAIL DITCH
SEE DETAIL L2
DDE = 113 cu. m.
DETAIL L2
STANDARD BASE TAIL DITCH
(Not to Scale)
Min. D = 0.3 m
B = 0.6 m
STA. 17+00 +/- -L- LT.
DDE + 113 cu. m
CL I RIPRAP
SPECIAL CUT DITCH SEE DETAIL L1
SPECIAL CUT DITCH SEE DETAIL L1
TIE TO EXISTING DITCH
BEGIN CONSTRUCTION
-Y- Sta 11+20
PRIVATE SEPTIC FIELD IN THIS AREA.
TIME WARNER CABLE
DB 2075 PG 2843
RAYMOND C. BROWN III
DB 2275 PG 5412
MARTH LEA HELSABECK ET AL
DB 2612 PG 3898
R.J. REYNOLDS TOBACCO CO.
-Y- PCCSta.10+74.253
-L- POT Sta 16+64.816
-Y- POT Sta.11+43.267
DO NOT DISTURB SIGN
RETAIN 300 RCP and 375 RCP SYSTEMS PERPENDICULAR AND PARALLEL TO DRIVE
1.829 CYCLONE FENCE
ENTRANCE TO R.J. REYNOLDS
BIG OAKS DRIVE
DORAL DR.
750mm C&G
PLUG
STA -L- 16+20.00
STA -L- 18+00.00
MATCHLINE SEE SHEET 4
MATCHLINE SEE SHEET 6
FOR -L- PROFILE SEE SHEET 22
FOR -Y- PROFILE SEE SHEET 29

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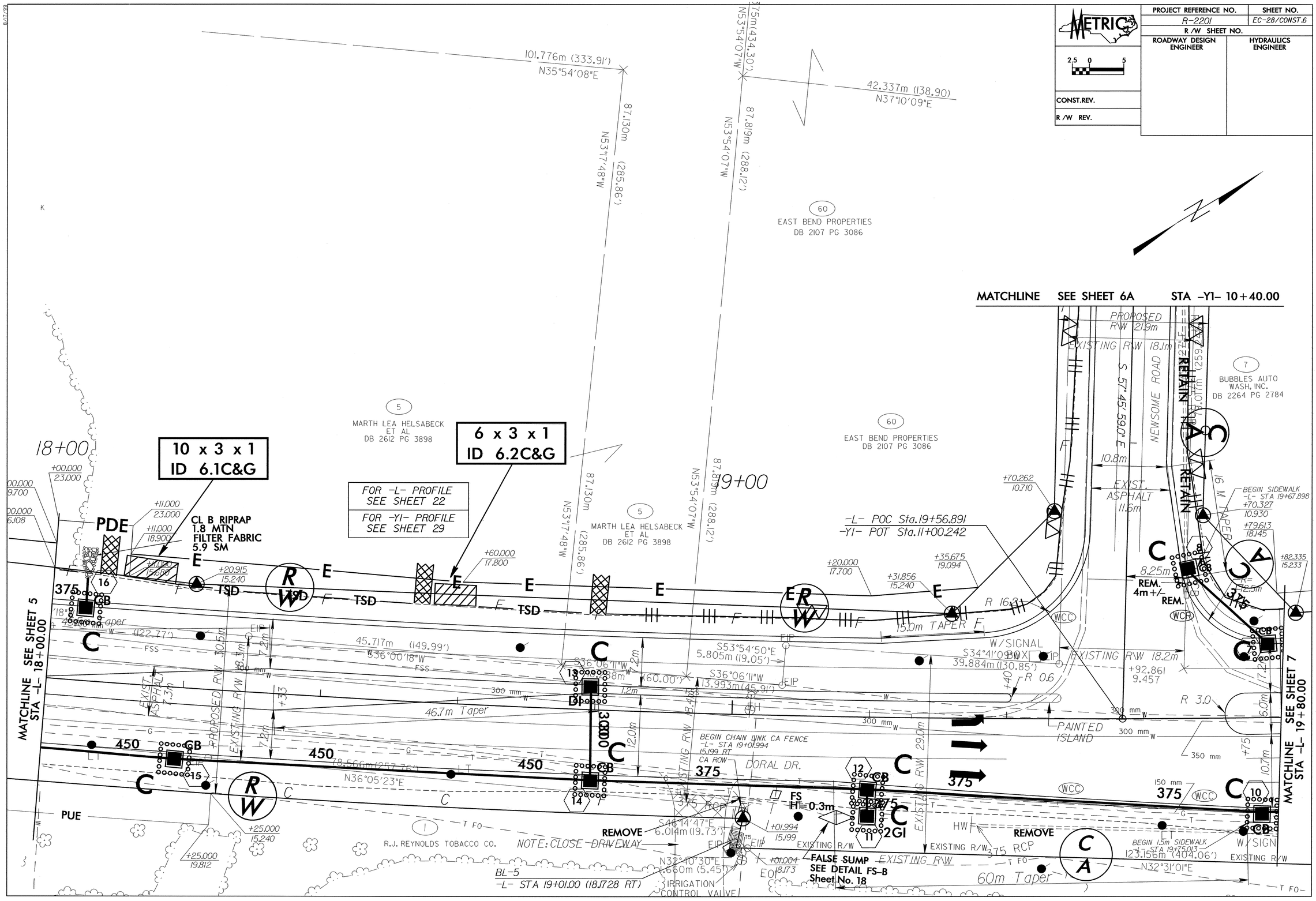
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-28/CONST.6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-29/CONST.6A
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.

8/17/99

-Y1-
PI Sta 9+85.872
D = 4° 49' 41.0" (LT)
L = 25.280
T = 12.647
R = 300.000
SE = EXISTING

N44°20'17.61"W (228.34')

EXIST. ASPHALT 8.6m

TIE TO EXISTING DITCH

TIE TO EXISTING R/W

+65.500
8.679

BEGIN CONSTRUCTION -Y1-
POT Sta. 9+65.500

PCSta. 9+73.224

S 52°56'18.0" E

1200 CMP

RETAIN

+65.500
15.000

+78.300
21.287

TDE

PROPOSED R/W 24.8m

SS

DETAIL Y1
BASE GRASSED SWALE
(Not to Scale)

Exist. Roadway
Exist. Front Ditch Slope
VAR
D
B
6:1
Natural Ground
Min. D = 0.3m
B = 0.9m

STA. 9+73 TO 10+00 -Y1- LT.
DDE= 93 cu. m.

14 x 6 x 1
38.0mm Skimmer
with 24.0mm
Orifice Diameter
3.6 m weir
ID 6A.1F

0.9m BASE GRASSED SWALE SEE DETAIL Y1 DDE=93 cu. m.

CL I RIPRAP
2.7 MTN
FILTER FABRIC
5.9 SM

+70.000
66.000

5
MARTH LEA HELSABECK ET AL
DB 2612 PG 3898

60
EAST BEND PROPERTIES
DB 2107 PG 3086

EXISTING R/W 18.3m

TIE TO EXISTING R/W

RETAIN

PT Sta. 9+98.504

+00.000
11.44

+00.000
15.000

+00.000
20.000

10+00

375 RCP

BEGIN PAVING
-Y1- Sta. 10+00.00

+00.000
9.44

9

6 SEWER

13.37m (43.69')

S 39°12'04" W

TDE

PDE

JIM SCOTT, ET AI
DB 2107 PG 3086

101.776m (333.91')
N35°54'08"E

132.375m (434.30')
N53°54'07"W

42.337m (138.90)
N37°10'09"E

6.343m
(20.81')

87.130m
(285.86')
N53°17'48"W

87.819m (288.12')
N53°54'07"W

TIE TO EXIST. C&G STA 10+20

TIE TO EXIST C&G

+13.866
11.02

S 37°07'36" W
20.498m (67.25')

+95.000
66.000

N37°07'36"E
101.495 m (332.99') total

EXISTING R/W 18.1m

ASPH

N76°28'15.30"W
13.43m (44.06')

+25.262
11.067

END CA
END WOVEN WIRE
CA FENCE
-Y1- STA 10+25.262
11.067 LT

CB

EXIST. ASPHALT 10.9m

R= 5.5m

PROPOSED R/W 22.0m
10.8 m

DUMPSTER

27.686m

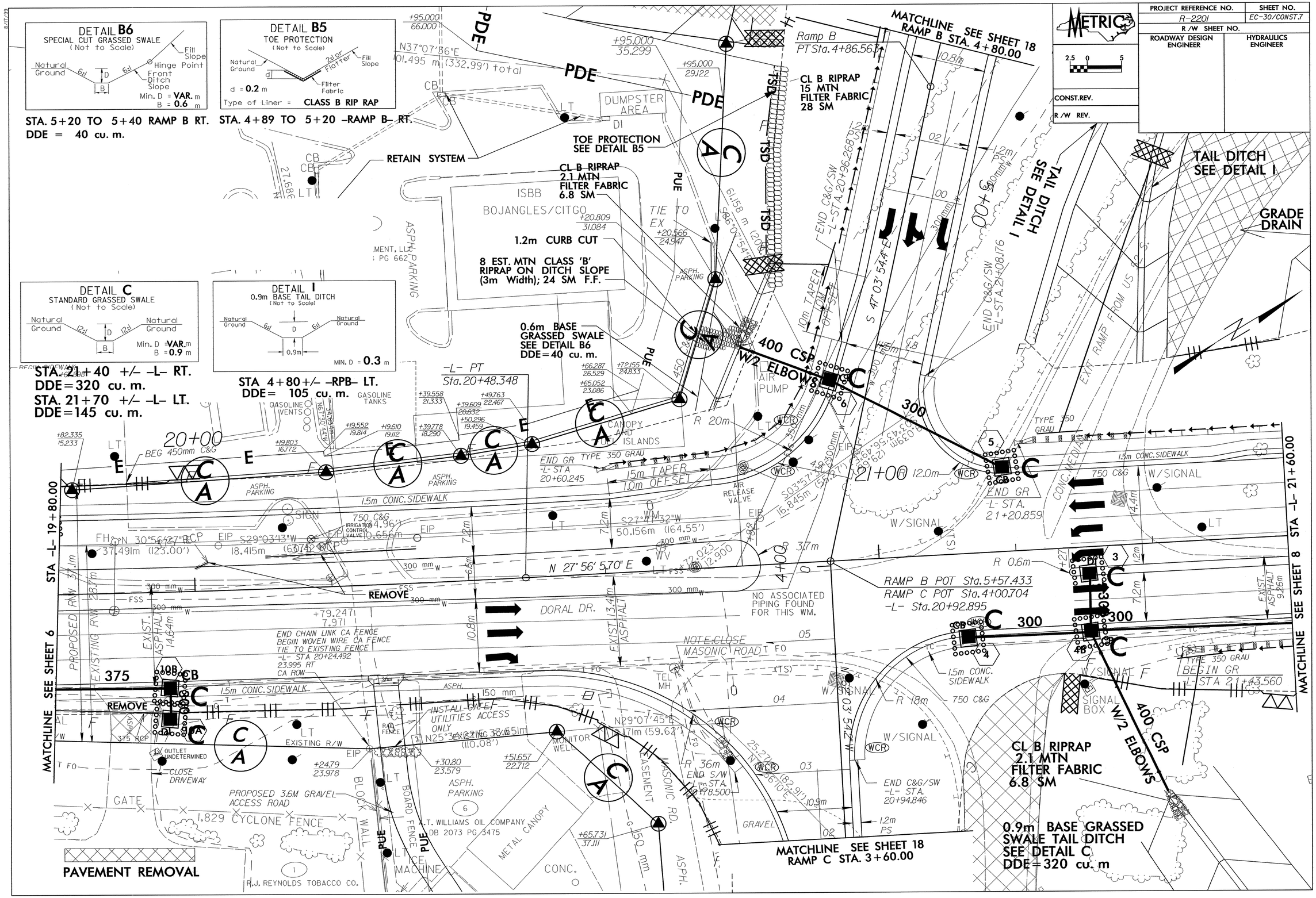
LT

RETAIN SYSTEM

ISBB
BOJANGLES

FOR -Y1- PROFILE
SEE SHEET 29

MATCHLINE SEE SHEET 6 STA -Y1- 10+40.00


8/17/99
DETAIL B6
SPECIAL CUT GRASSED SWALE
(Not to Scale)
Natural Ground
6:1
D
B
6:1
Fill Slope
Hinge Point
Front Ditch Slope
Min. D = VAR. m
B = 0.6 m
DETAIL B5
TOE PROTECTION
(Not to Scale)
Natural Ground
d
2:1 or Flatter
Fill Slope
Filter Fabric
d = 0.2 m
Type of Liner = CLASS B RIP RAP
DETAIL C
STANDARD GRASSED SWALE
(Not to Scale)
Natural Ground
12:1
D
B
Natural Ground
Min. D = VAR.m
B = 0.9 m
DETAIL I
0.9m BASE TAIL DITCH
(Not to Scale)
Natural Ground
6:1
D
0.9m
MIN. D = 0.3 m
STA. 5+20 TO 5+40 RAMP B RT.
DDE = 40 cu. m.
STA. 4+89 TO 5+20 –RAMP B– RT.
STA. 21+40 +/– –L– RT.
DDE=320 cu. m.
STA. 21+70 +/– –L– LT.
DDE=145 cu. m.
STA 4+80+/– –RPB– LT.
DDE= 105 cu. m.
METRIC
2.5 0 5
CONST.REV.
R /W REV.
PROJECT REFERENCE NO.
R-2201
SHEET NO.
EC-30/CONST.7
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
MATCHLINE SEE SHEET 18
RAMP B STA. 4+80.00
Ramp B
PT Sta. 4+86.563
CL B RIPRAP
15 MTN
FILTER FABRIC
28 SM
TOE PROTECTION
SEE DETAIL B5
RETAIN SYSTEM
CL B RIPRAP
2.1 MTN
FILTER FABRIC
6.8 SM
1.2m CURB CUT
8 EST. MTN CLASS 'B'
RIPRAP ON DITCH SLOPE
(3m Width); 24 SM F.F.
0.6m BASE
GRASSED SWALE
SEE DETAIL B6
DDE=40 cu. m.
TAIL DITCH
SEE DETAIL I
GRADE DRAIN
400 CSP
W/2 ELBOWS
-L- PT
Sta. 20+48.348
END GR TYPE 350 GRAU
-L- STA
20+60.245
15m TAPER
1.0m OFFSET
END GR
-L- STA.
21+20.859
BEGIN GR
-L- STA 21+43.560
RAMP B POT Sta. 5+57.433
RAMP C POT Sta. 4+00.704
-L- Sta. 20+92.895
NO ASSOCIATED PIPING FOUND FOR THIS WM.
END CHAIN LINK CA FENCE
BEGIN WOVEN WIRE CA FENCE
TIE TO EXISTING FENCE
-L- STA 20+24.492
23.995 RT
CA ROW
NOTE: CLOSE MASONIC ROAD
INSTALL GATE
UTILITIES ACCESS ONLY
PROPOSED 3.6M GRAVEL ACCESS ROAD
1.829 CYCLONE FENCE
PAVEMENT REMOVAL
REMOVE
DORAL DR.
MASONIC RD.
MATCHLINE SEE SHEET 6
MATCHLINE SEE SHEET 8
MATCHLINE SEE SHEET 18
RAMP C STA. 3+60.00
CL B RIPRAP
2.1 MTN
FILTER FABRIC
6.8 SM
0.9m BASE GRASSED SWALE TAIL DITCH
SEE DETAIL C
DDE=320 cu. m
R.J. REYNOLDS TOBACCO CO.
T.T. WILLIAMS OIL COMPANY
DB 2073 PG 3475
BOJANGLES/CITGO
DUMPSTER AREA
GASOLINE TANKS
GASOLINE VENTS
CANOPY AND ISLANDS
AIR PUMP
ASPH. PARKING
1.5m CONC. SIDEWALK
750 C&G
W/SIGNAL
METAL CANOPY
CONC.
GRAVEL
BLOCK WALL
BOARD FENCE
EXISTING R/W
PROPOSED R/W
EXIST. ASPHALT
EXIT RAMP FROM US 1 & 5
375
300
400
450
375 RCP
CLOSE DRIVEWAY
OUTLET UNDETERMINED
GATE
SIGN
SIGNAL BOX
TYPE 350 GRAU
CONC. MEDIAN
20+00
21+00
BEG 450mm C&G
END C&G/SW
-L- STA. 20+94.846
END C&G/SW
-L- STA. 21+08.176
END C&G/SW
-L- STA. 20+96.268
END S/W
-L- STA.
20+78.500
MONITOR WELL
TEL MH
AIR RELEASE VALVE
IRRIGATION CONTROL VALVE
N 27° 56' 5.70" E
S 47° 03' 54.4" E
N 30°56'27" W
S29°03'13" W
S27°57'32" W
N29°07'45" E
N25°34'23" W
S03°57'54" W
S03°56'43" W
N 86°07'54" E
S86°07'54" E

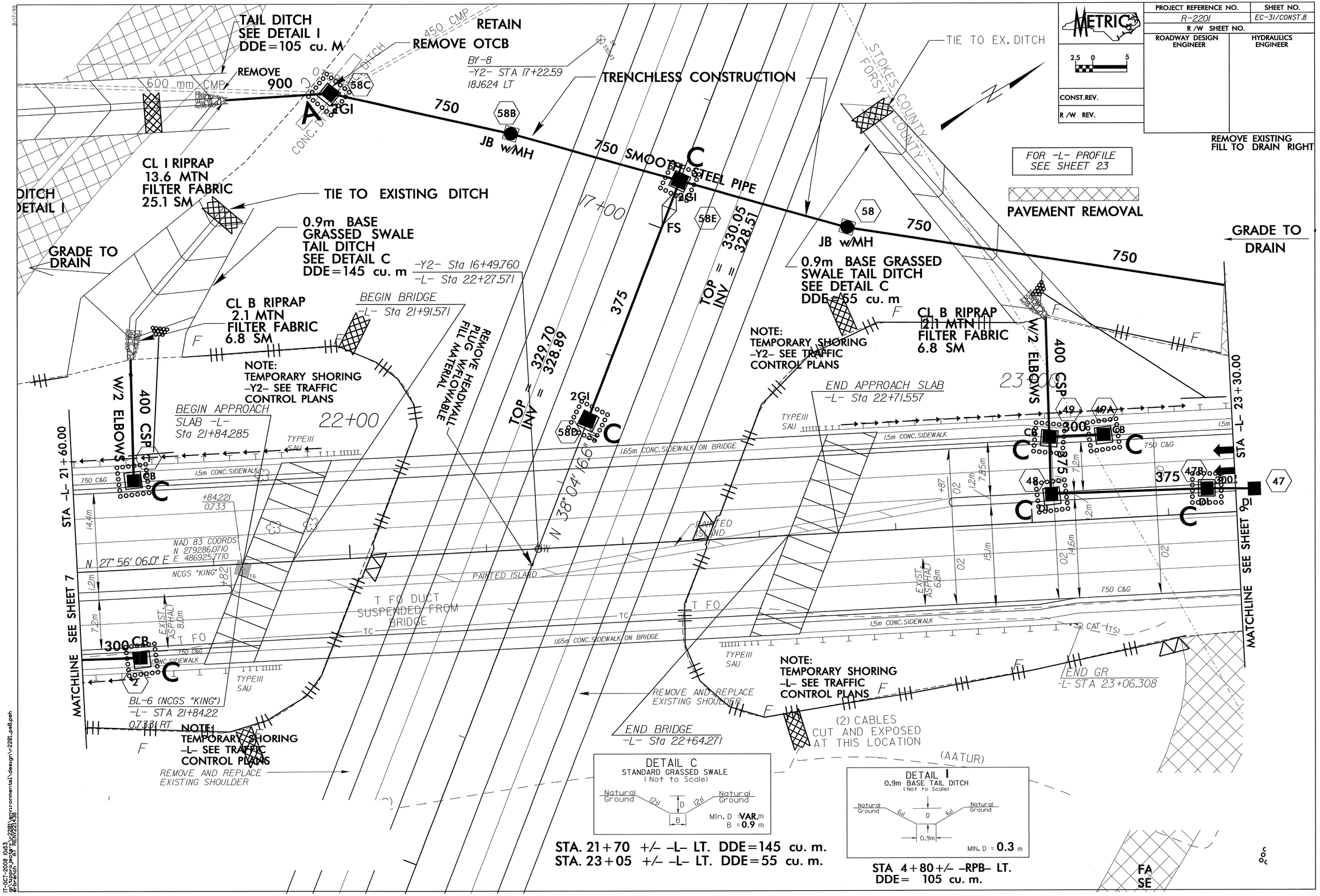
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-31/CONST.8
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

CONST.REV.

R /W REV.

REMOVE EXISTING FILL TO DRAIN RIGHT



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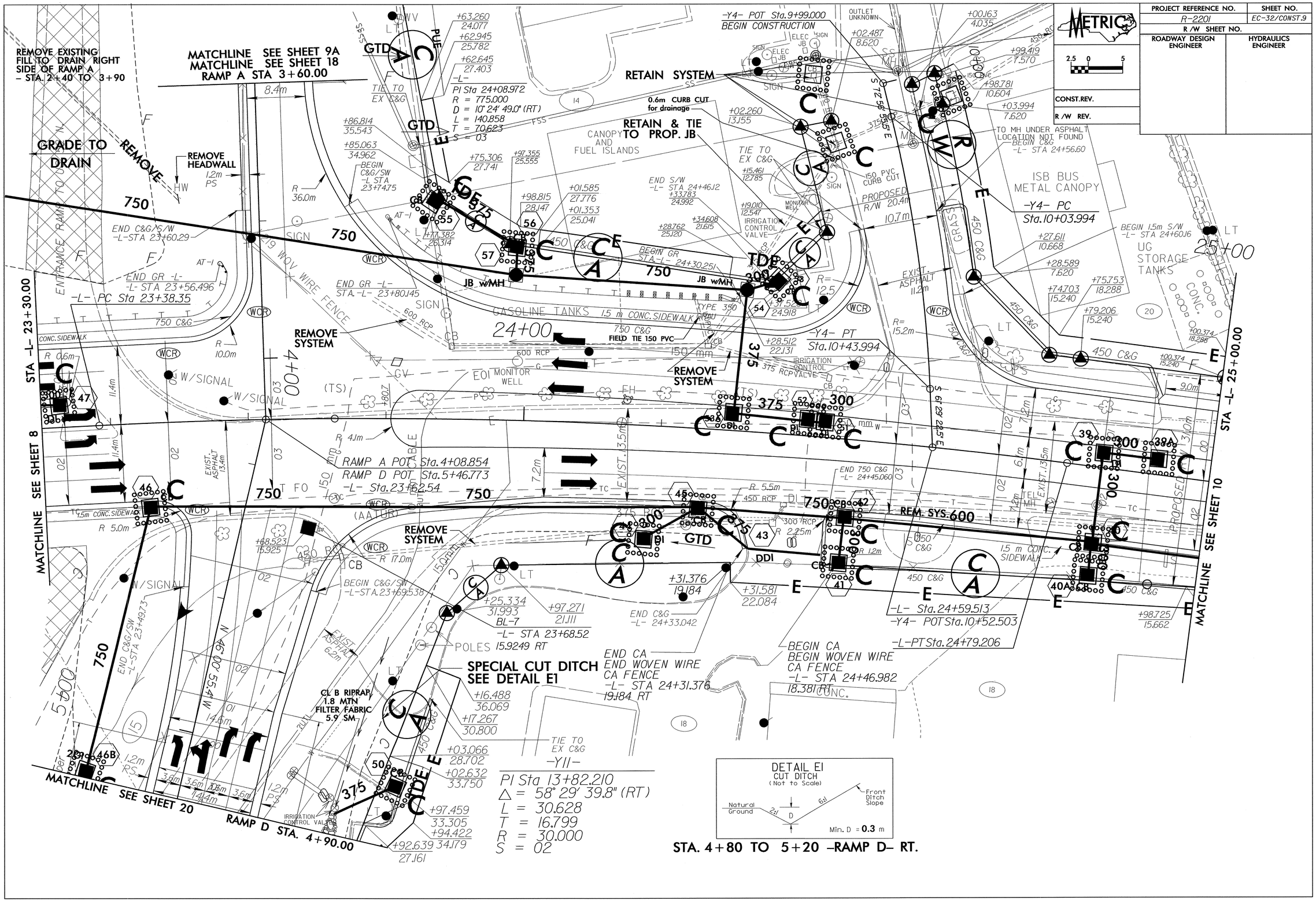
Branch: AT REV(22) 488

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-32/CONST.9
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 2.5 0 5

CONST.REV.

R /W REV.



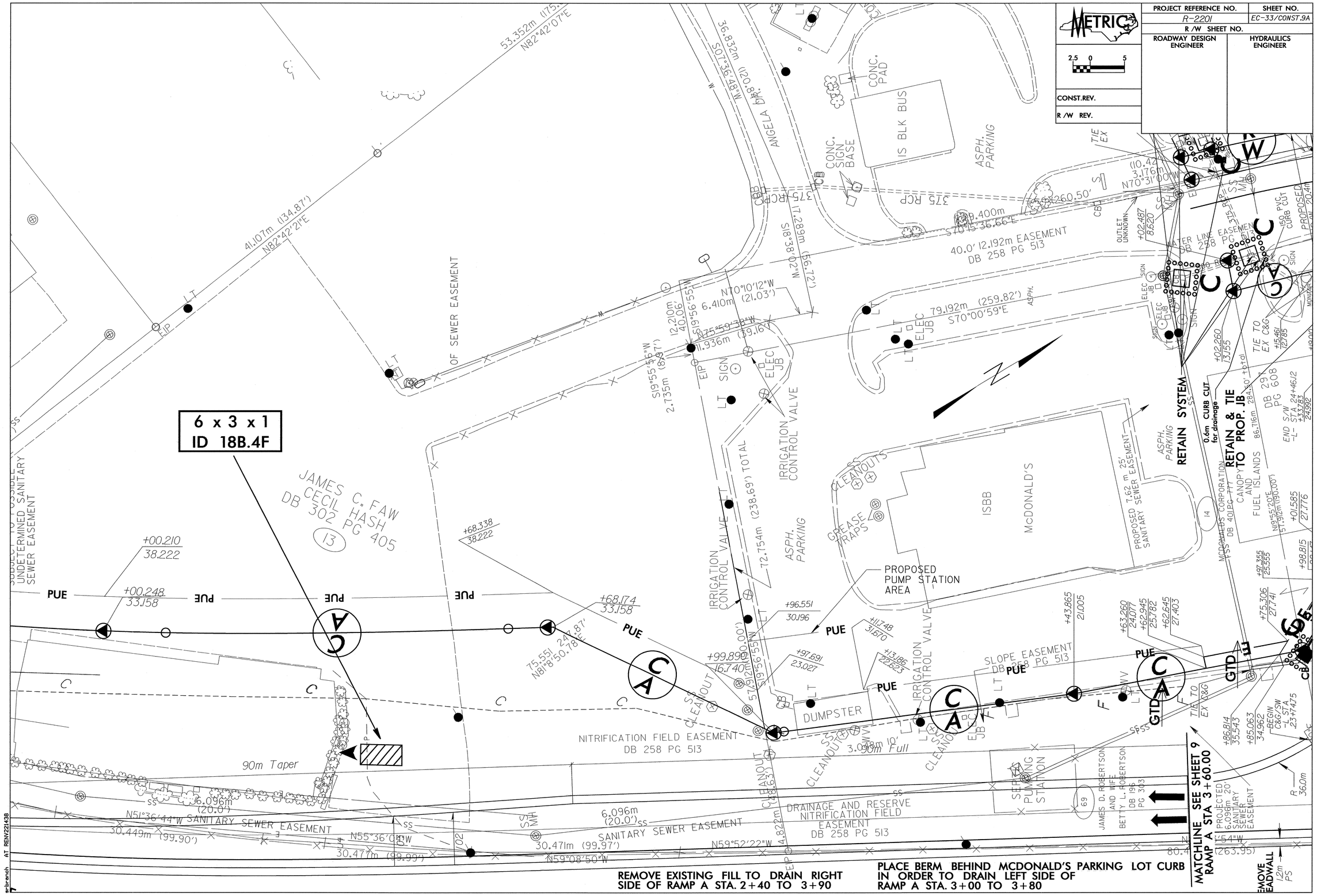
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-33/CONST.9A
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-34/CONST.10
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

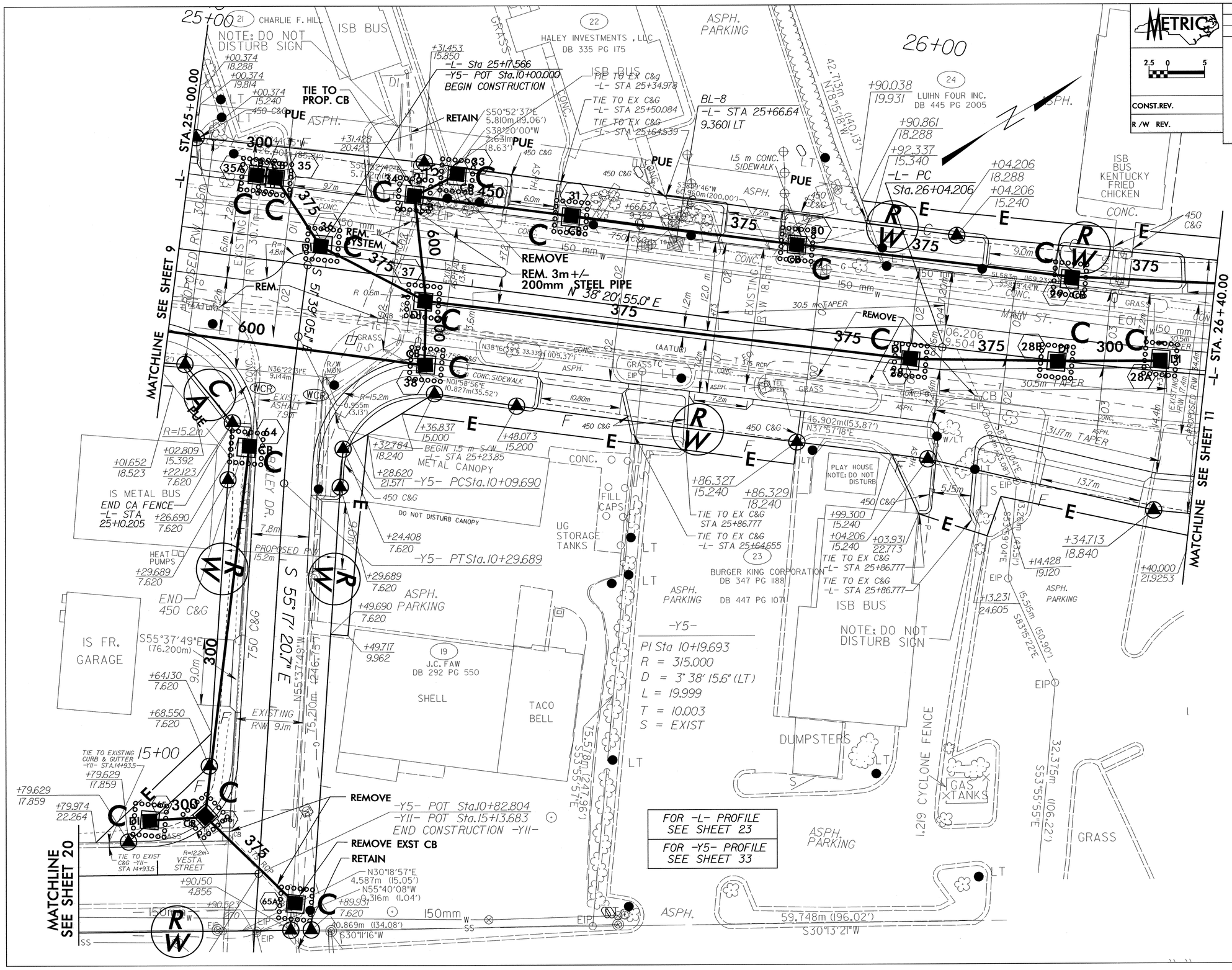
METRIC

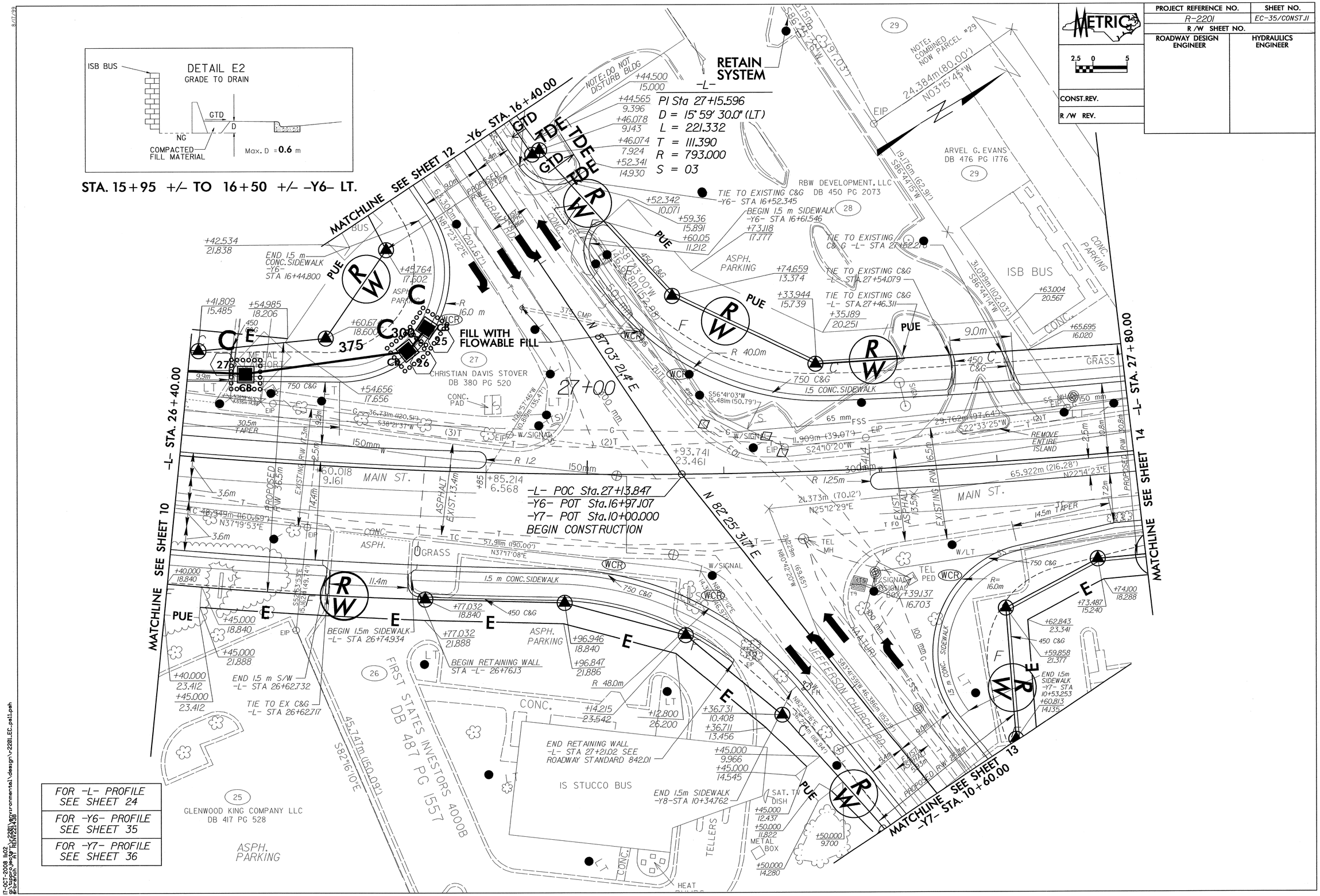
2.5 0 5

CONST.REV.

R /W REV.

REVISIONS





METRIC
PROJECT REFERENCE NO.
R-2201
SHEET NO.
EC-35/CONST.11
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
DETAIL E2
GRADE TO DRAIN
ISB BUS
GTD
D
NG
COMPACTED FILL MATERIAL
Max. D = 0.6 m
STA. 15+95 +/- TO 16+50 +/- -Y6- LT.
RETAIN SYSTEM
-L-
PI Sta 27+15.596
D = 15° 59' 30.0" (LT)
L = 221.332
T = 111.390
R = 793.000
S = 03
MATCHLINE SEE SHEET 12 -Y6- STA. 16+40.00
MATCHLINE SEE SHEET 10 -L- STA. 26+40.00
MATCHLINE SEE SHEET 14 -L- STA. 27+80.00
MATCHLINE SEE SHEET 13 -Y7- STA. 10+60.00
FILL WITH FLOWABLE FILL
CHRISTIAN DAVIS STOVER DB 380 PG 520
RBW DEVELOPMENT, LLC DB 450 PG 2073
ARVEL G. EVANS DB 476 PG 1776
ISB BUS
MAIN ST.
-L- POC Sta.27+13.847
-Y6- POT Sta.16+97.107
-Y7- POT Sta.10+00.000
BEGIN CONSTRUCTION
N 87°03'21.4" E
N 82°25'31.7" E
JEFFERSON CHURCH RD.
FIRST STATES INVESTORS 4000B DB 487 PG 1557
GLENWOOD KING COMPANY LLC DB 417 PG 528
IS STUCCO BUS
ASPH. PARKING
CONC. PARKING
TIE TO EXISTING C&G -Y6- STA 16+52.345
BEGIN 1.5 m SIDEWALK -Y6- STA 16+61.546
TIE TO EXISTING C&G -L- STA 27+62.278
TIE TO EXISTING C&G -L- STA 27+54.079
TIE TO EXISTING C&G -L- STA 27+46.311
END 1.5 m CONC. SIDEWALK -Y6- STA 16+44.800
BEGIN 1.5m SIDEWALK -L- STA 26+74.934
END 1.5 m S/W -L- STA 26+62.732
TIE TO EX C&G -L- STA 26+62.717
BEGIN RETAINING WALL STA -L- 26+76.13
END RETAINING WALL -L- STA 27+21.02 SEE ROADWAY STANDARD 842.01
END 1.5m SIDEWALK -Y8- STA 10+34.762
END 1.5m SIDEWALK -Y7- STA 10+53.253
1.5 CONC. SIDEWALK
REMOVE ENTIRE ISLAND
FOR -L- PROFILE SEE SHEET 24
FOR -Y6- PROFILE SEE SHEET 35
FOR -Y7- PROFILE SEE SHEET 36

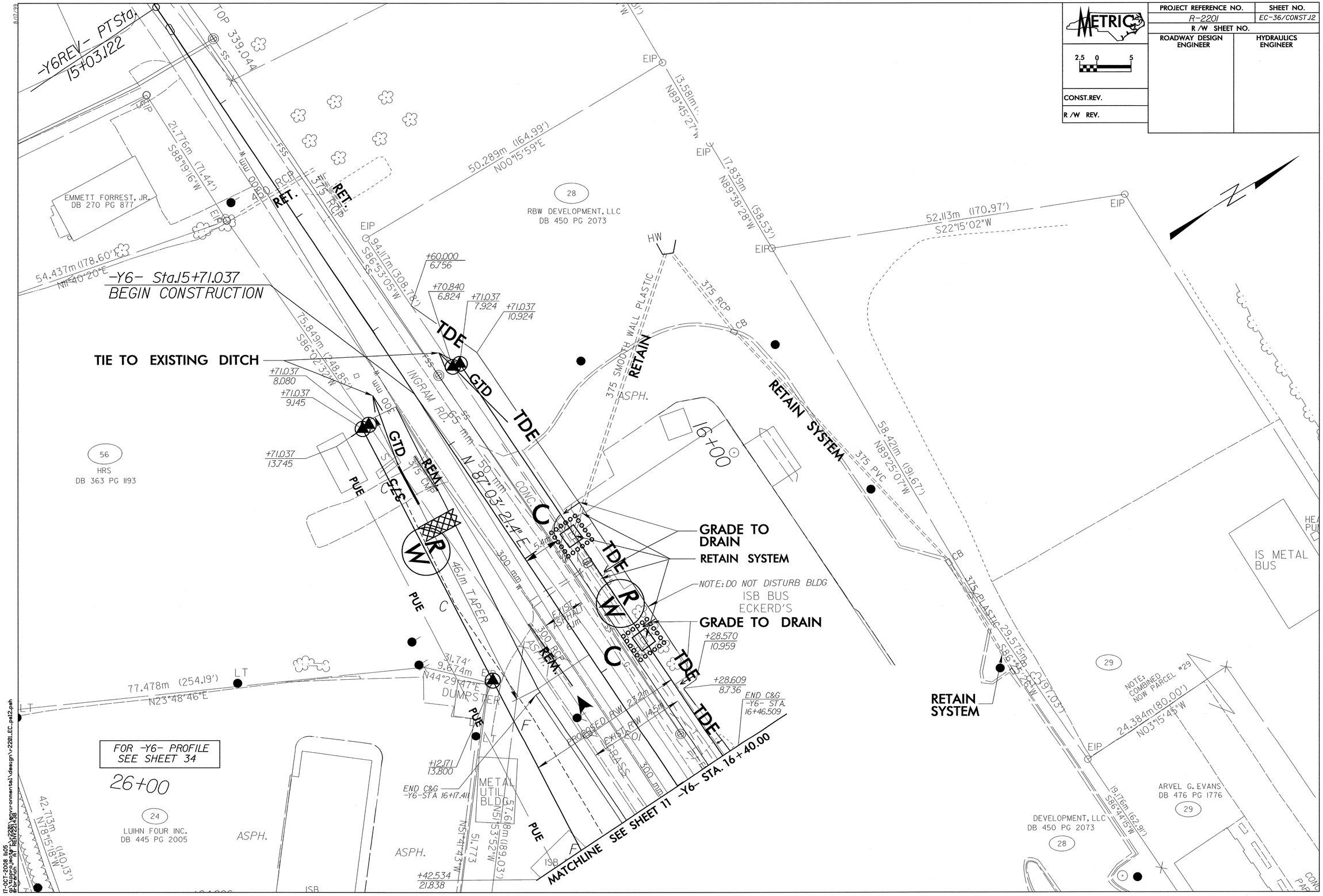
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-36/CONST.12
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

2.5 0 5

CONST.REV.

R /W REV.



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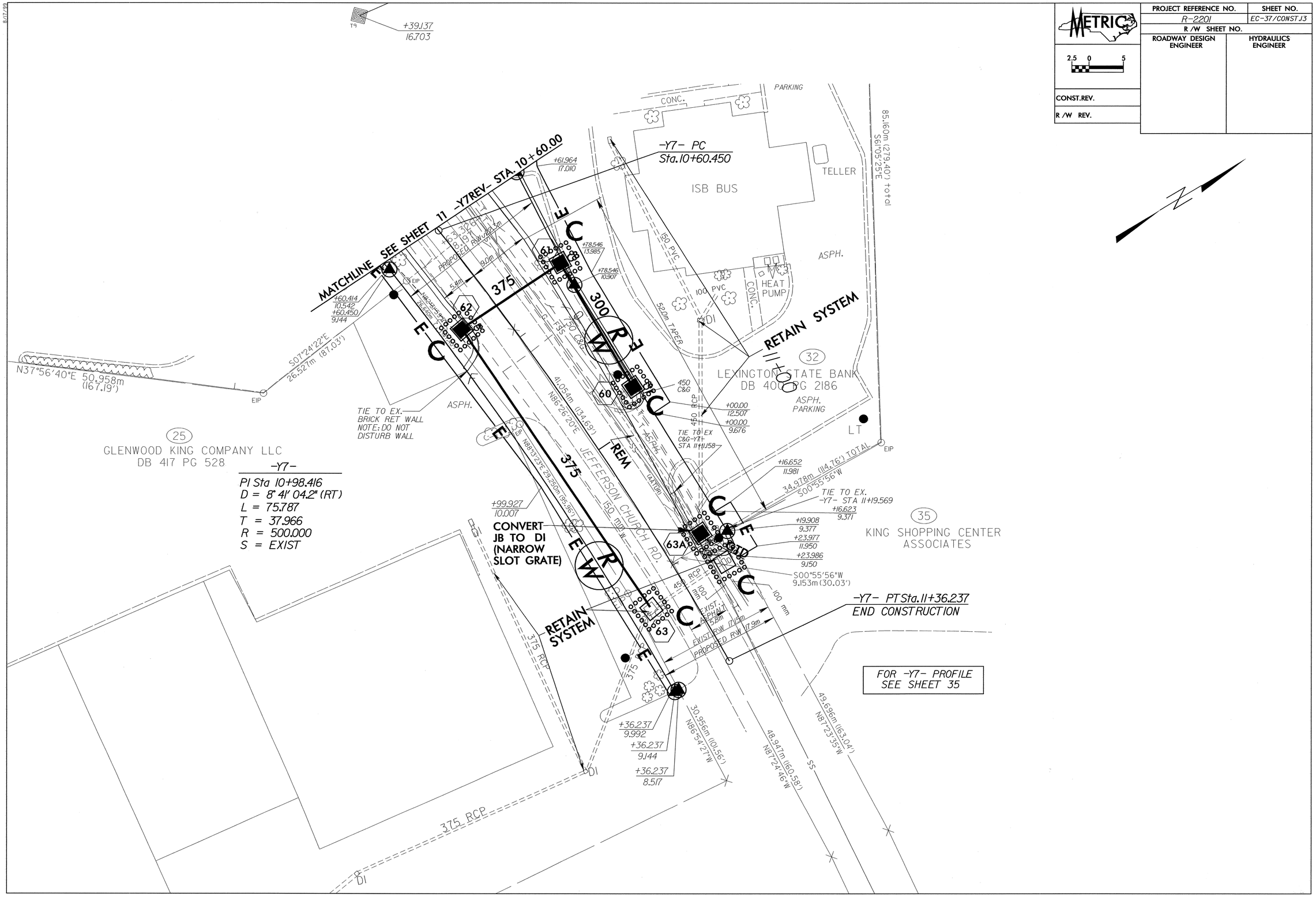
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-37/CONST.13
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

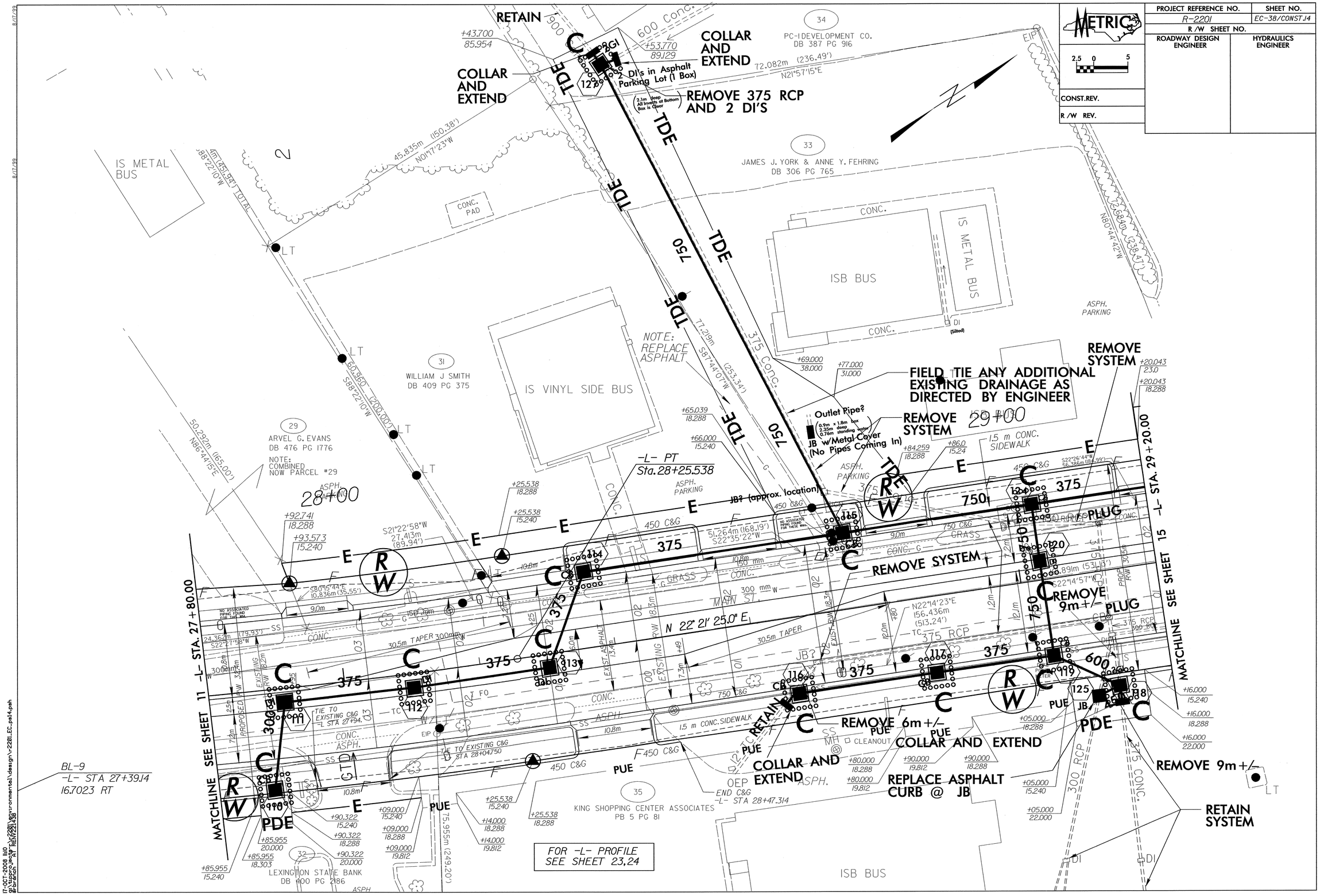
METRIC

2.5 0 5

CONST.REV.

R /W REV.





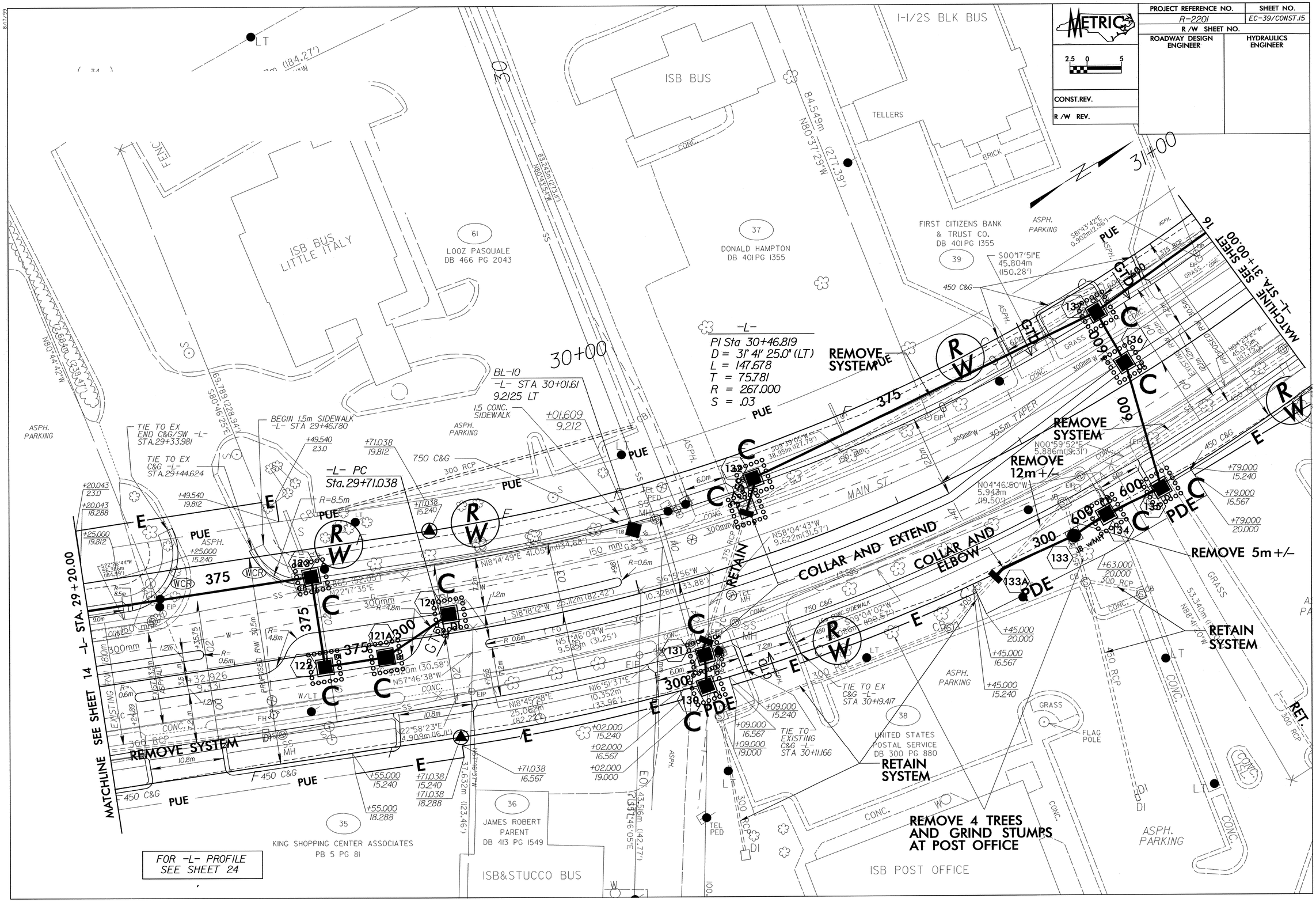
METRIC
PROJECT REFERENCE NO.
R-2201
SHEET NO.
EC-38/CONST.14
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
RETAIN
COLLAR AND EXTEND
COLLAR AND EXTEND
2 DI's in Asphalt Parking Lot (1 Box)
REMOVE 375 RCP AND 2 DI'S
PC-I DEVELOPMENT CO. DB 387 PG 916
JAMES J. YORK & ANNE Y. FEHRING DB 306 PG 765
IS METAL BUS
CONC. PAD
ISB BUS
IS METAL BUS
ASPH. PARKING
NOTE: REPLACE ASPHALT
WILLIAM J SMITH DB 409 PG 375
IS VINYL SIDE BUS
ARVEL G. EVANS DB 476 PG 1776
NOTE: COMBINED NOW PARCEL #29
FIELD TIE ANY ADDITIONAL EXISTING DRAINAGE AS DIRECTED BY ENGINEER
REMOVE SYSTEM
Outlet Pipe?
JB w/Metal Cover (No Pipes Coming In)
-L- PT Sta. 28+25.538
JB? (approx. location)
REMOVE SYSTEM
REMOVE 9m+/-
PLUG
N 22° 21' 25.0" E
MATCHLINE SEE SHEET 11 -L- STA. 27+80.00
MATCHLINE SEE SHEET 15 -L- STA. 29+20.00
REMOVE 6m+/-
COLLAR AND EXTEND
COLLAR AND EXTEND
REPLACE ASPHALT CURB @ JB
REMOVE 9m+/-
RETAIN SYSTEM
KING SHOPPING CENTER ASSOCIATES PB 5 PG 81
LEXINGTON STATE BANK DB 400 PG 2186
BL-9 -L- STA 27+39.14 16.7023 RT
FOR -L- PROFILE SEE SHEET 23,24
ISB BUS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-39/CONST.15
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

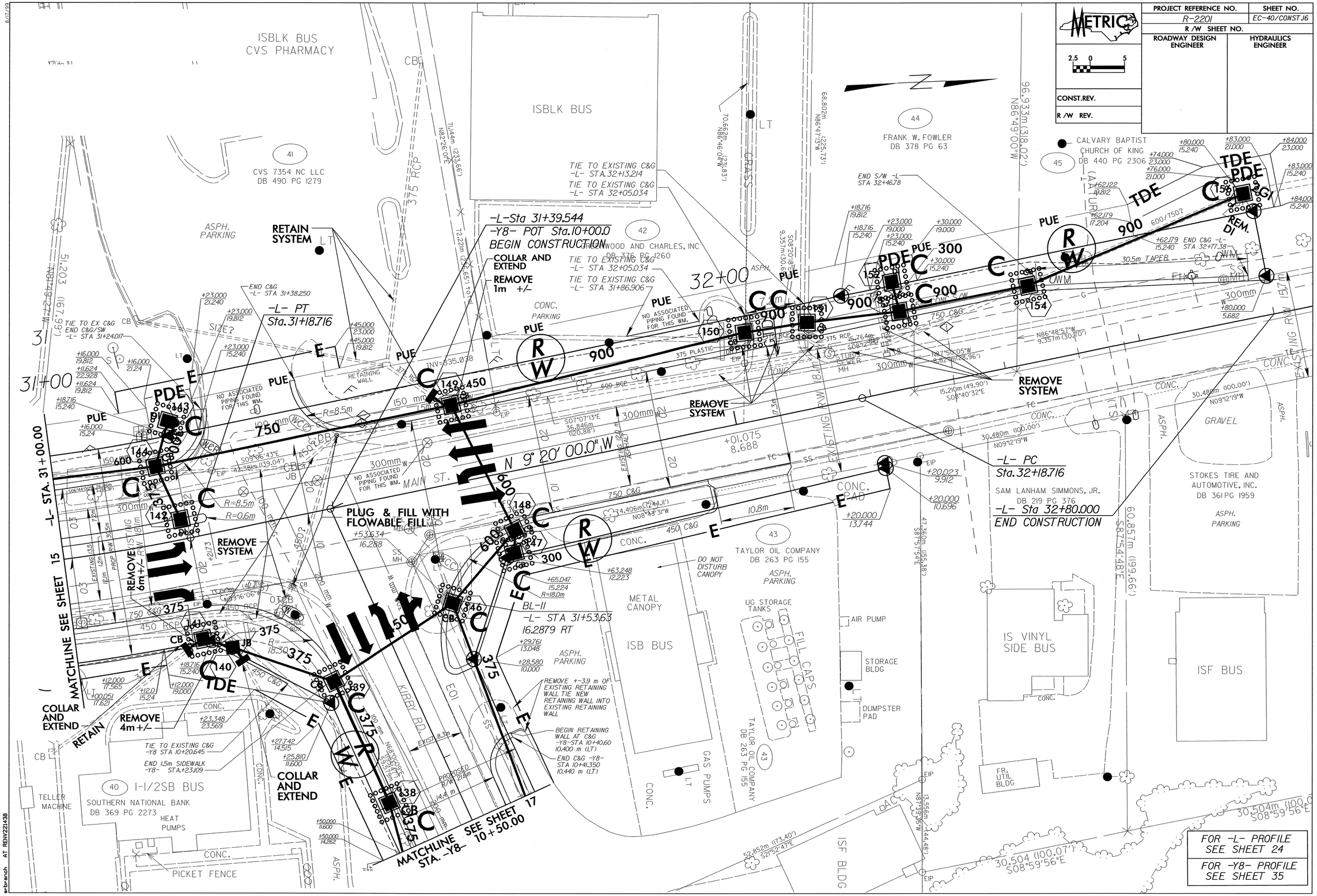
METRIC

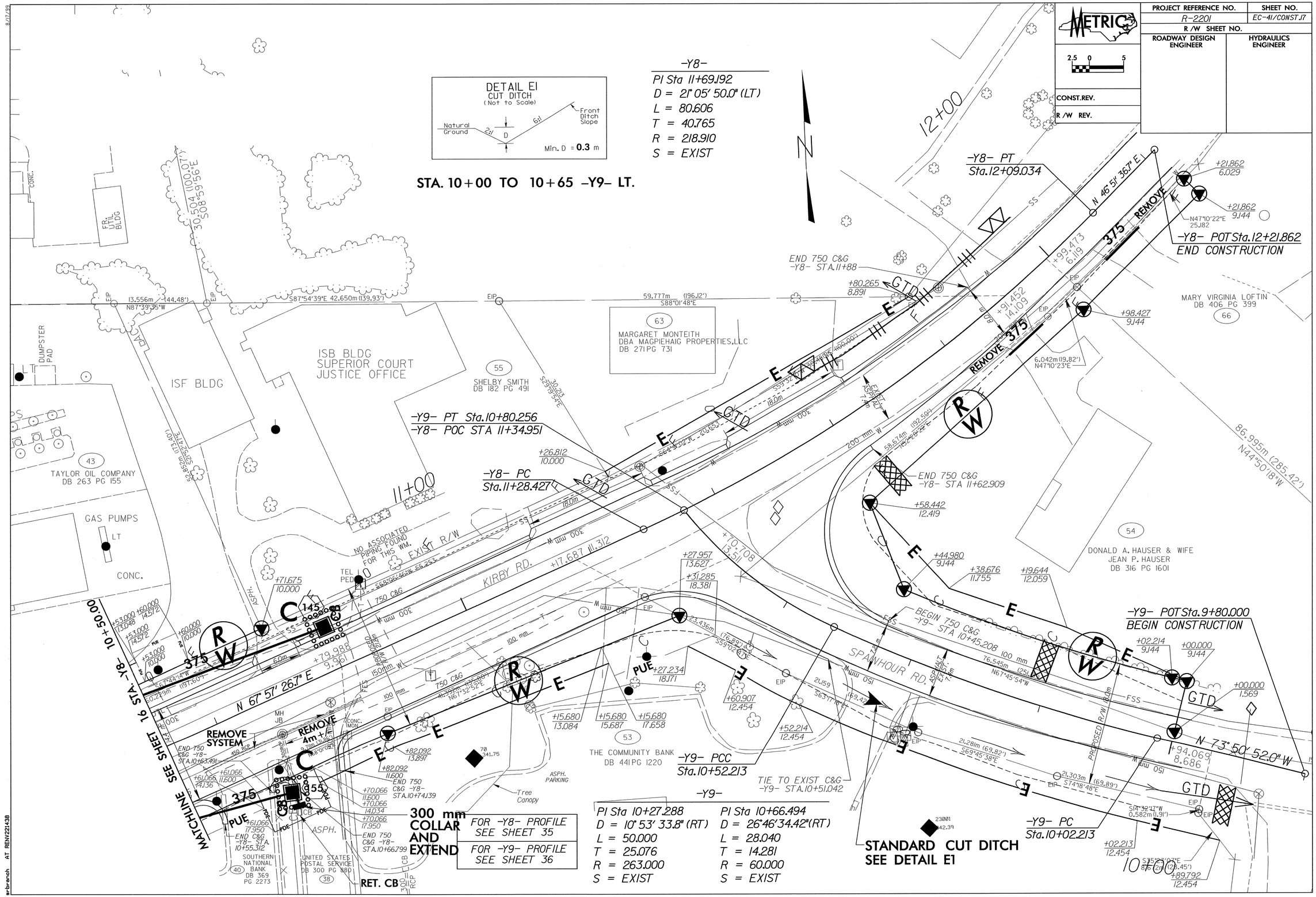
2.5 0 5



PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-40/CONST.J6
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

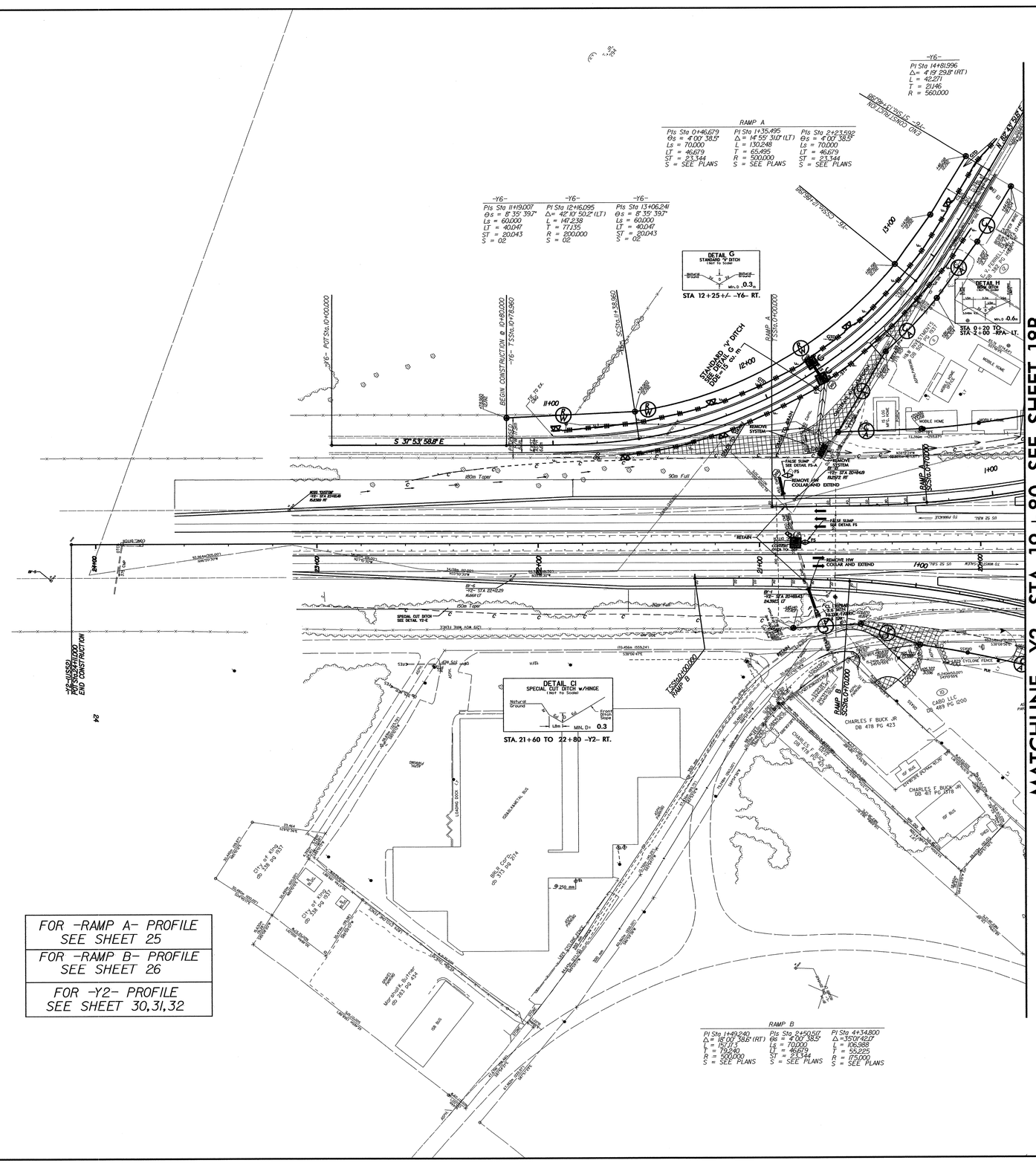
METRIC 2.5 0 5





METRIC
PROJECT REFERENCE NO.
R-2201
SHEET NO.
EC-41/CONST.17
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
DETAIL E1
CUT DITCH
(Not to Scale)
Natural Ground
Front Ditch Slope
Min. D = 0.3 m
-Y8-
PI Sta 11+69.192
D = 21° 05' 50.0" (LT)
L = 80.606
T = 40.765
R = 218.910
S = EXIST
STA. 10+00 TO 10+65 -Y9- LT.
-Y8- PT
Sta.12+09.034
-Y8- POT Sta.12+21.862
END CONSTRUCTION
END 750 C&G
-Y8- STA.11+88
MARGARET MONTEITH
DBA MAGPIEHAIG PROPERTIES,LLC
DB 271 PG 731
ISB BLDG
SUPERIOR COURT
JUSTICE OFFICE
ISF BLDG
SHELBY SMITH
DB 182 PG 491
MARY VIRGINIA LOFTIN
DB 406 PG 399
TAYLOR OIL COMPANY
DB 263 PG 155
GAS PUMPS
CONC.
-Y9- PT Sta.10+80.256
-Y8- POC STA 11+34.951
-Y8- PC
Sta.11+28.427
END 750 C&G
-Y8- STA 11+62.909
DONALD A. HAUSER & WIFE
JEAN P. HAUSER
DB 316 PG 1601
NO ASSOCIATED PIPING FOUND FOR THIS WM.
EXIST R/W
KIRBY RD.
SPANHOUR RD.
BEGIN 750 C&G
-Y9- STA 10+45.208
-Y9- POT Sta.9+80.000
BEGIN CONSTRUCTION
N 67° 57' 26.7" E
N 73° 50' 52.0" W
REMOVE SYSTEM
REMOVE 4m +/-
MATCHLINE SEE SHEET 16 STA. -Y8- 10+50.00
THE COMMUNITY BANK
DB 441 PG 1220
-Y9- PCC
Sta.10+52.213
TIE TO EXIST C&G
-Y9- STA.10+51.042
-Y9- PC
Sta.10+02.213
300 mm COLLAR AND EXTEND
FOR -Y8- PROFILE SEE SHEET 35
FOR -Y9- PROFILE SEE SHEET 36
RET. CB
SOUTHERN NATIONAL BANK
DB 369 PG 2273
UNITED STATES POSTAL SERVICE
DB 300 PG 880
STANDARD CUT DITCH
SEE DETAIL E1
-Y9-
PI Sta 10+27.288
D = 10° 53' 33.8" (RT)
L = 50.000
T = 25.076
R = 263.000
S = EXIST
PI Sta 10+66.494
D = 26° 46' 34.42" (RT)
L = 28.040
T = 14.281
R = 60.000
S = EXIST

METRIC	PROJECT REFERENCE NO.	SHEET NO.
	R-2201	EC-42/CONST.18A
	R /W SHEET NO.	
CONST.REV.	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R /W REV.		



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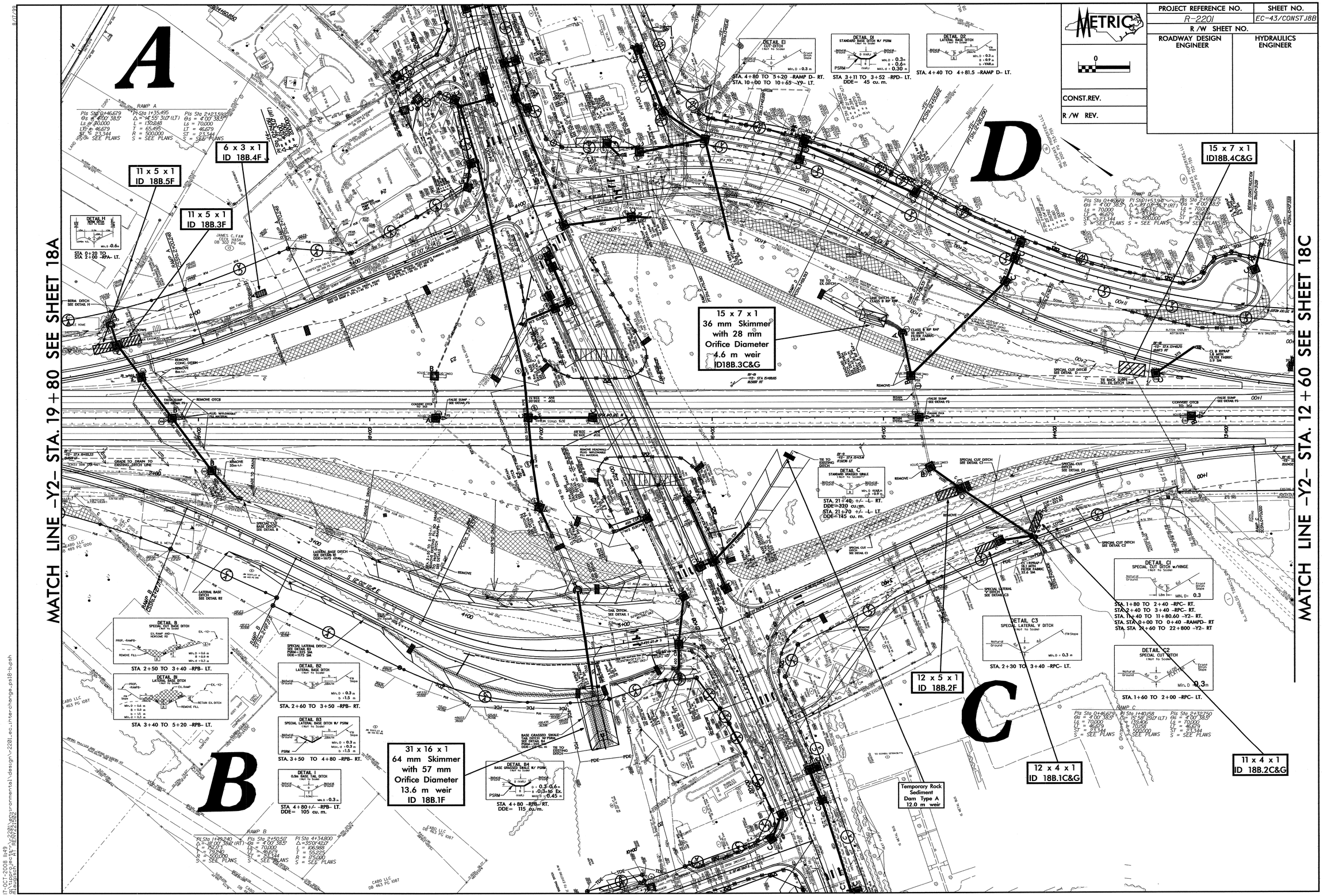
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-43/CONST.J8B
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC



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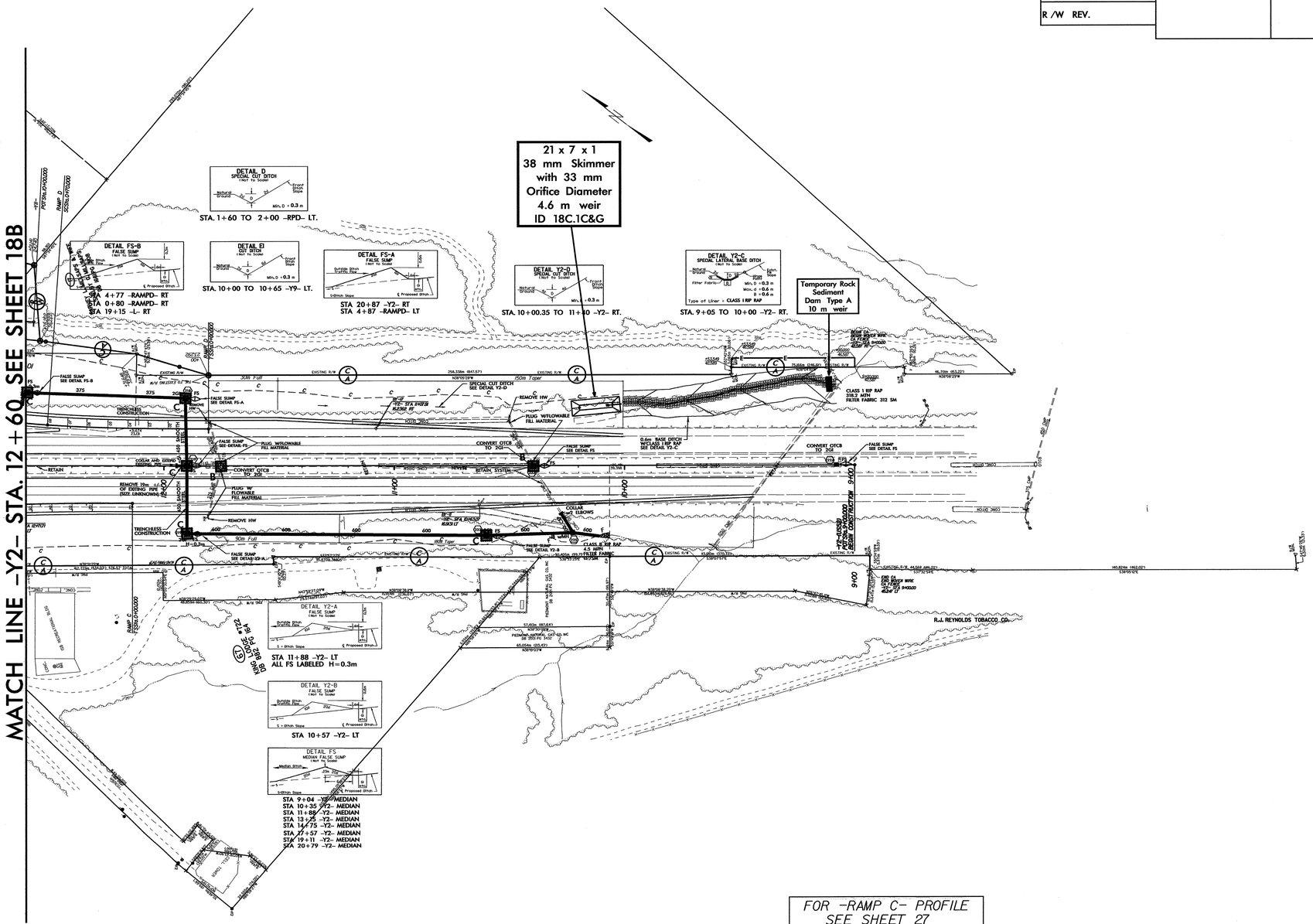
PROJECT REFERENCE NO.	SHEET NO.
R-22-1	EC-44/CONST.J8C
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

CONST.REV.

R /W REV.



FOR -RAMP C- PROFILE SEE SHEET 27
FOR -RAMP D- PROFILE SEE SHEET 28
FOR -Y2- PROFILE SEE SHEET 30,31,32

17-OCT-2008 14:07
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mlaugisch AT REN722.1502

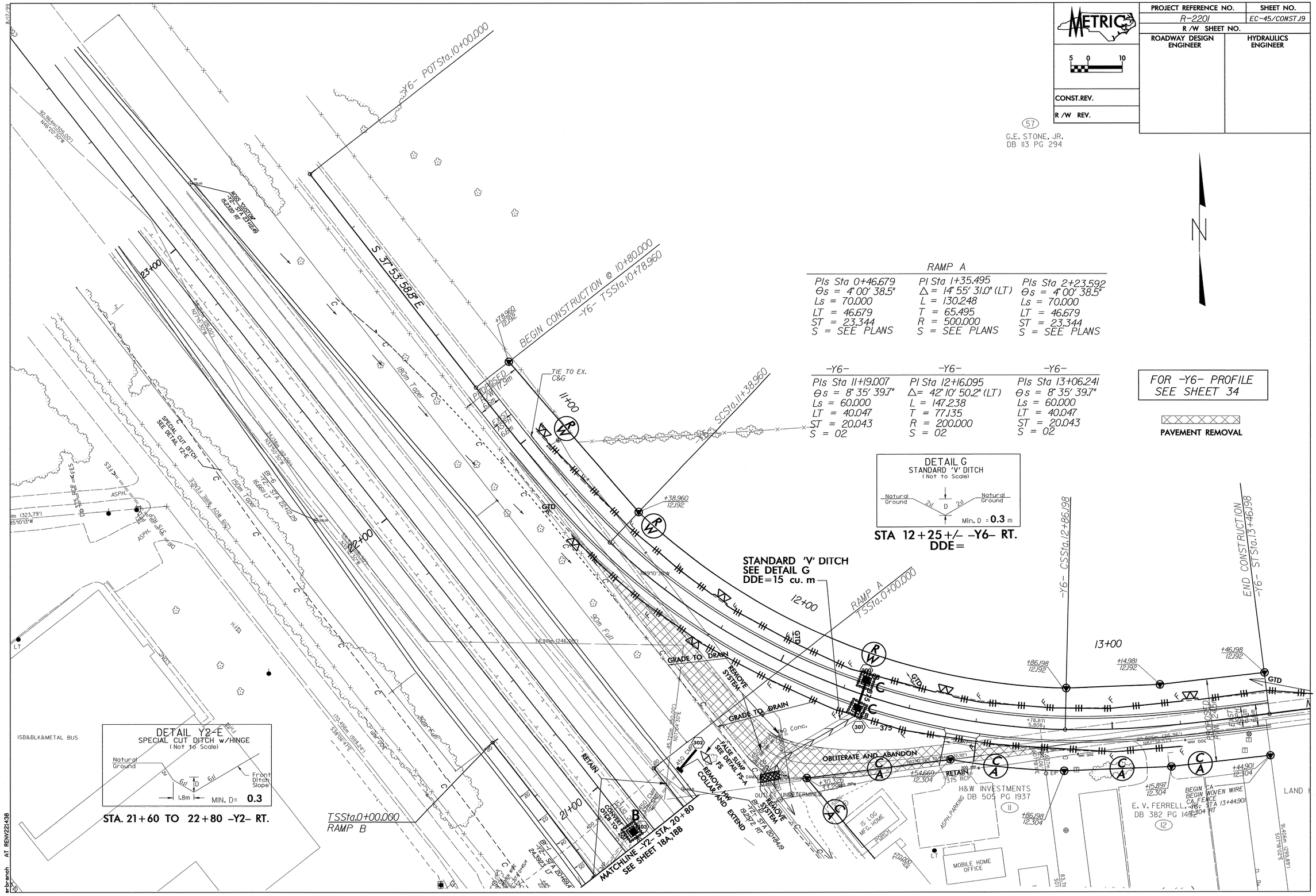
PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-45/CONST.19
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC

5 0 10

CONST.REV.

R/W REV.



RAMP A

PIs Sta 0+46.679	PI Sta 1+35.495	PIs Sta 2+23.592
Θs = 4° 00' 38.5"	Δ = 14° 55' 31.0" (LT)	Θs = 4° 00' 38.5"
Ls = 70.000	L = 130.248	Ls = 70.000
LT = 46.679	T = 65.495	LT = 46.679
ST = 23.344	R = 500.000	ST = 23.344
S = SEE PLANS	S = SEE PLANS	S = SEE PLANS

-Y6-	-Y6-	-Y6-
PIs Sta 11+19.007	PI Sta 12+16.095	PIs Sta 13+06.241
Θs = 8° 35' 39.7"	Δ= 42° 10' 50.2" (LT)	Θs = 8° 35' 39.7"
Ls = 60.000	L = 147.238	Ls = 60.000
LT = 40.047	T = 77.135	LT = 40.047
ST = 20.043	R = 200.000	ST = 20.043
S = 02	S = 02	S = 02

FOR -Y6- PROFILE SEE SHEET 34

PAVEMENT REMOVAL

DETAIL G
STANDARD 'V' DITCH
(Not to Scale)
Natural Ground 2:1 D 2:1 Natural Ground
Min. D = 0.3 m

STA 12+25+/- -Y6- RT.
DDE=

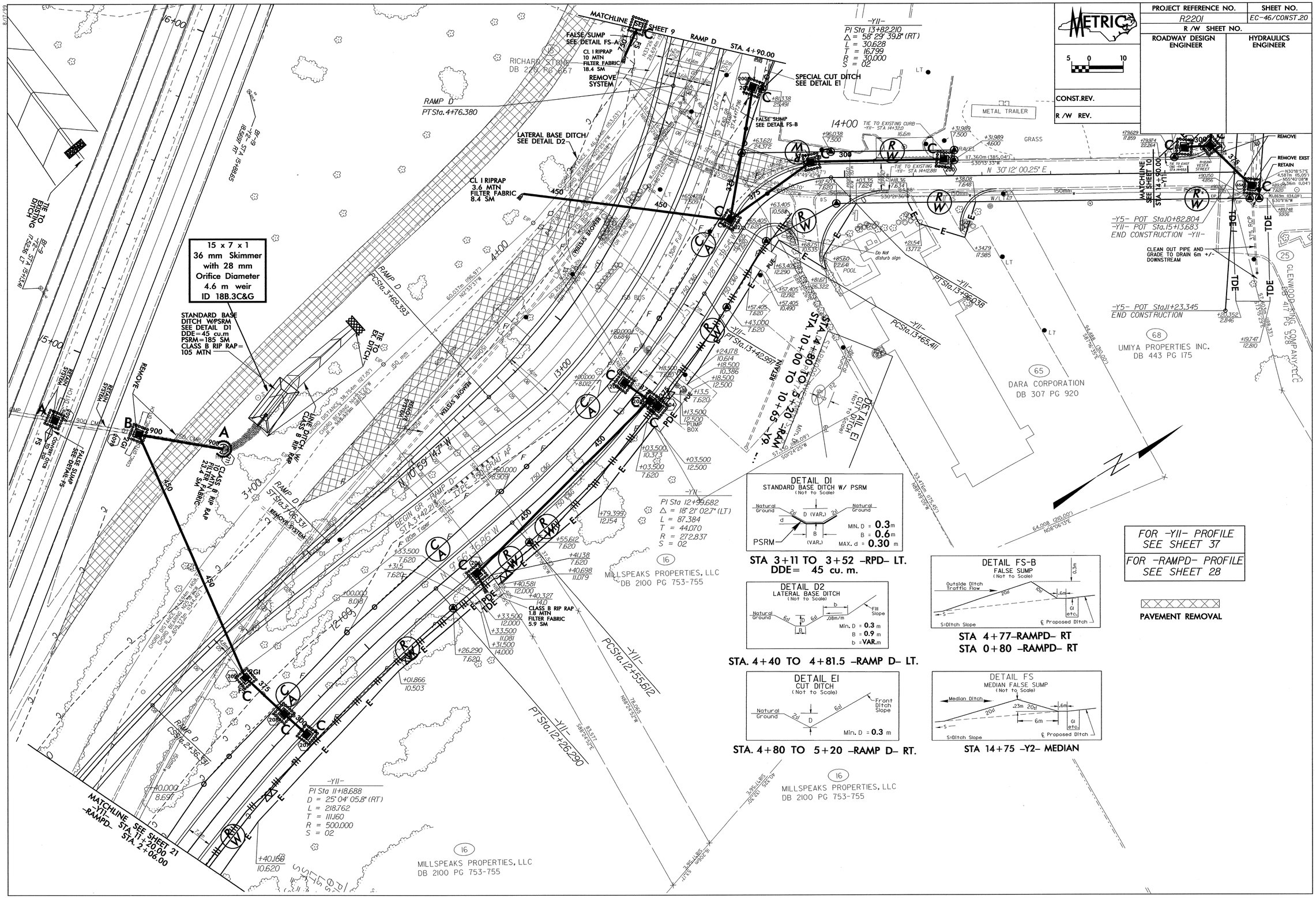
DETAIL Y2-E
SPECIAL CUT DITCH w/HINGE
(Not to Scale)
Natural Ground 6:1 D 6:1 Front Ditch Slope
1.8m MIN. D= 0.3

STA. 21+60 TO 22+80 -Y2- RT.

AT RENV221438

PROJECT REFERENCE NO.	SHEET NO.
R2201	EC-46/CONST.20
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST.REV.	
R /W REV.	

METRIC 5 0 10

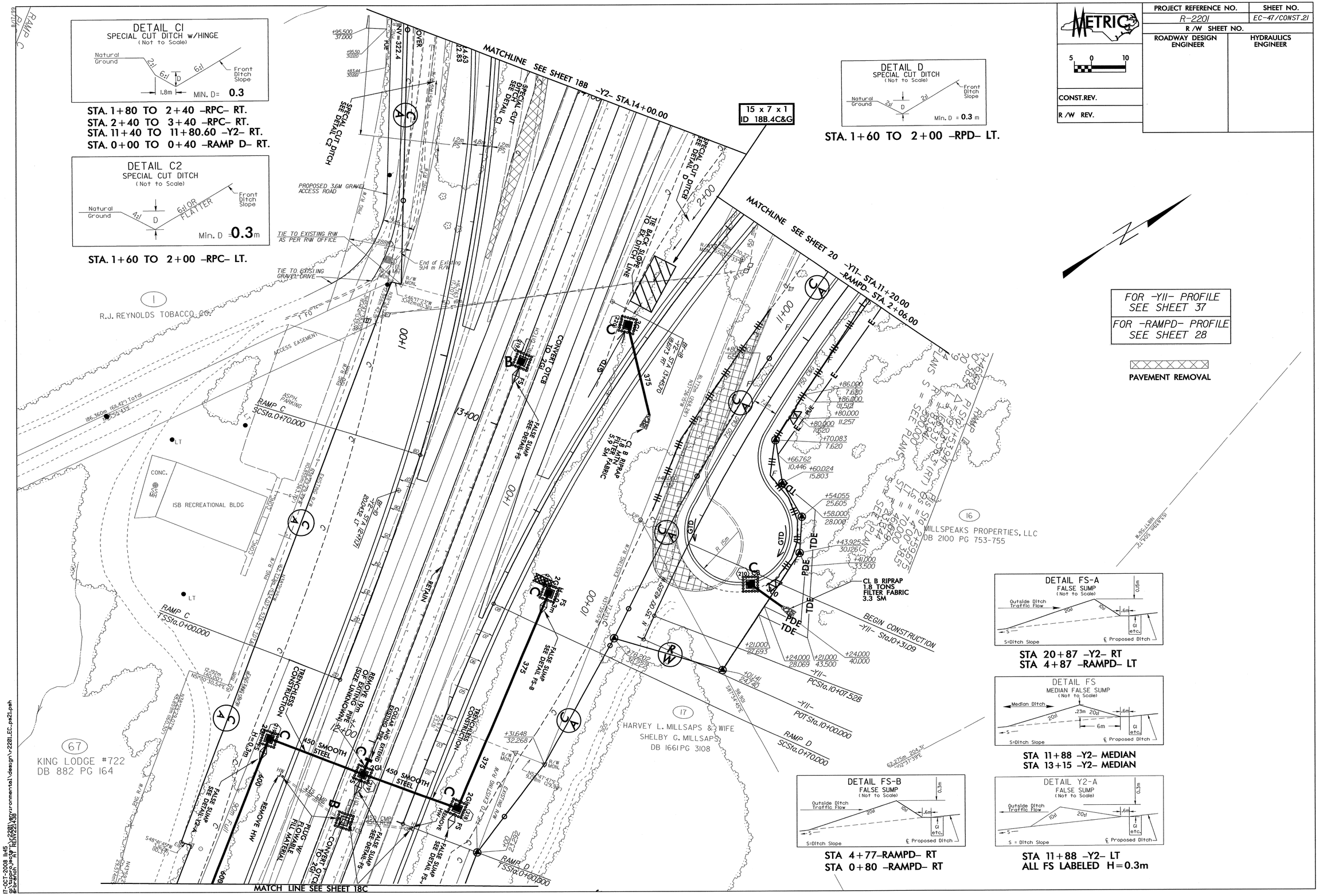


PROJECT REFERENCE NO.	SHEET NO.
R-2201	EC-47/CONST.21
R /W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

METRIC 5 0 10

CONST.REV.

R /W REV.



REVISIONS

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