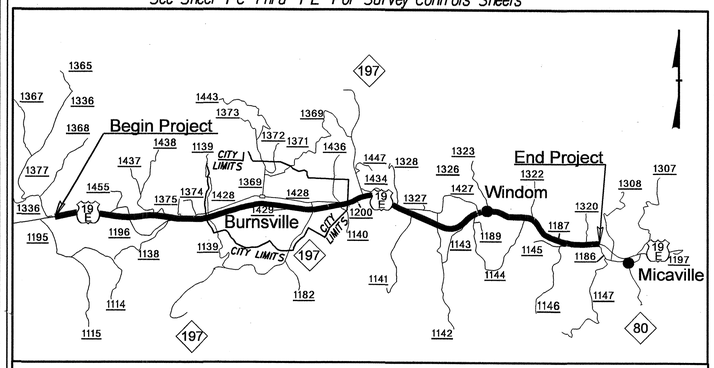
6/24/99

R-2519A

CONTRACT: C202332

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols
See Sheet 1-C Thru 1-E For Survey Controls Sheets




VICINITY MAP

★ PROPOSED TRAFFIC SIGNAL

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

# YANCEY COUNTY

**LOCATION:** US 19 E FROM EAST OF SR 1336 ( JACKS CREEK ROAD) TO SR 1186 (OLD US 19)

**TYPE OF WORK:** GRADING, DRAINAGE, PAVING, SIGNALS, CURB & GUTTER, CULVERTS, AND RETAINING WALLS

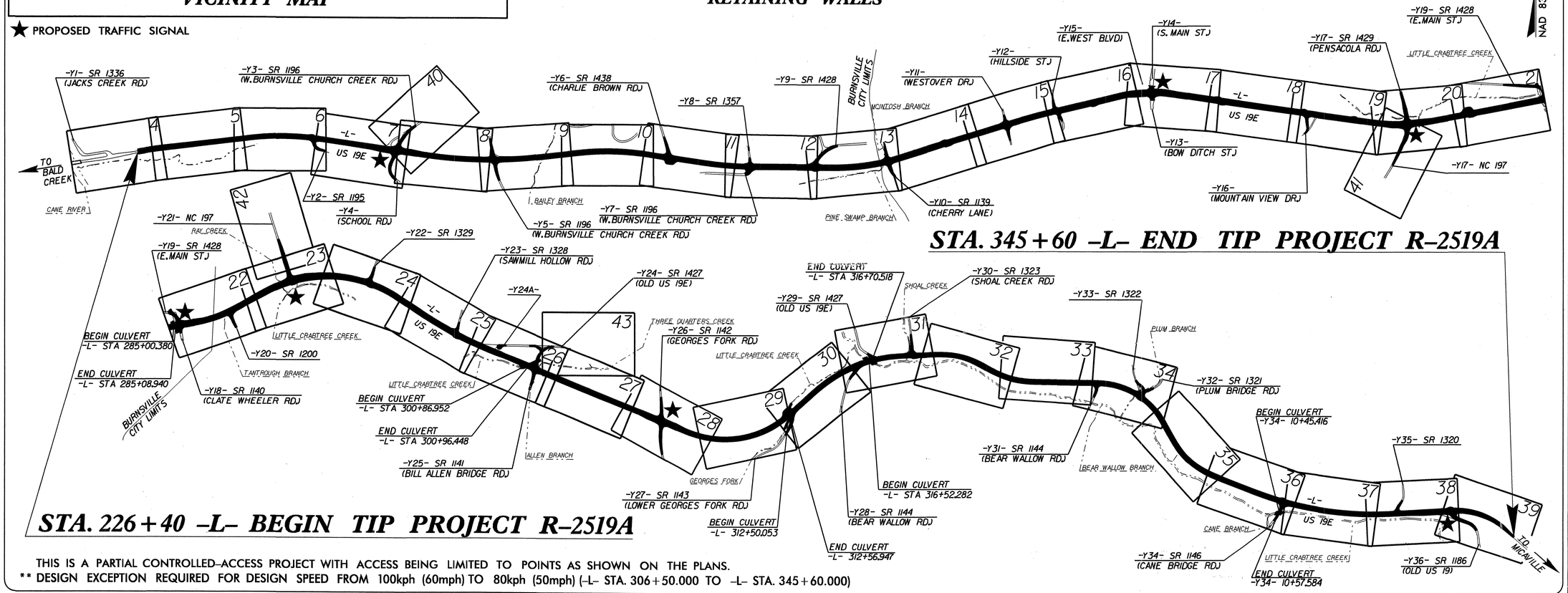
METRIC
ALL DIMENSIONS IN THESE PLANS ARE IN METERS

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| N.C. | R-2519A | 1 | |

| STATE PROJ. NO. | F. A. PROJ. NO. | DESCRIPTION |
|---|---|---|
| 35609.1.1 | | PE |
| 35609.2.1 | | R/W, UTIL |
| 35609.3.1 | | CONST |

Part 2 of 2

NAD 83/95




STA. 345+60 -L- END TIP PROJECT R-2519A

STA. 226+40 -L- BEGIN TIP PROJECT R-2519A

THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph) (-L- STA. 306+50.000 TO -L- STA. 345+60.000)

**GRAPHIC SCALES**

PLANS 5 0 10
PROFILE (HORIZONTAL) 5 0 10
PROFILE (VERTICAL) 1 0 2

**DESIGN DATA**

| | | |
|---|---|---|
| ADT 2011 | = | 28,450 |
| ADT 2031 | = | 40,093 |
| DHV | = | 8 % |
| D | = | 63 % |
| T | = | 8 % * |
| (C&G sect.)V | = | 80 km/h |
| (Shld. sect.) V | = | 100 km/h** |

* TTST 4 % DUAL 4 %
FUNC. CLASS. = ARTERIAL
STATEWIDE TIER

**PROJECT LENGTH**

| | | |
|---|---|---|
| LENGTH OF ROADWAY PROJECT R-2519A | = | 11.877 Km |
| LENGTH OF STRUCTURE PROJECT R-2519A | = | 0.043 Km |
| TOTAL LENGTH OF TIP PROJECT R-2519A | = | 11.920 Km |

Prepared in the Office of:
**DIVISION OF HIGHWAYS**
1000 Birch Ridge Dr., Raleigh, NC 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: MARCH 31, 2005

LETTING DATE: MAY 17, 2011

BRENDA MOORE, PE
PROJECT ENGINEER

KATRINA N. WASHINGTON, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 18533 ENGINEER T. HUTTINGHAM
2/4/11
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 19795 ENGINEER BRENDA L. MOORE
2/4/11
SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER P.E.

02-FEB-2011 08:52
R:\Roadway\Proj\R-2519a_rdy_tsh.dgn
$$$$USERNAME$$$$

TIP PROJECT: R-2519A

# STATE OF NORTH CAROLINA
## DIVISION OF HIGHWAYS

## PLAN FOR PROPOSED HIGHWAY EROSION CONTROL

# YANCEY COUNTY

**LOCATION: US 19 E FROM EAST OF SR 1336 ( JACKS CREEK ROAD) TO SR 1186 (OLD US 19)**

**TYPE OF WORK: GRADING, DRAINAGE, WIDENING, RESURFACING, CURB & GUTTER, SIGNALS, GUARDRAIL, RETAINING WALLS, AND CULVERTS**

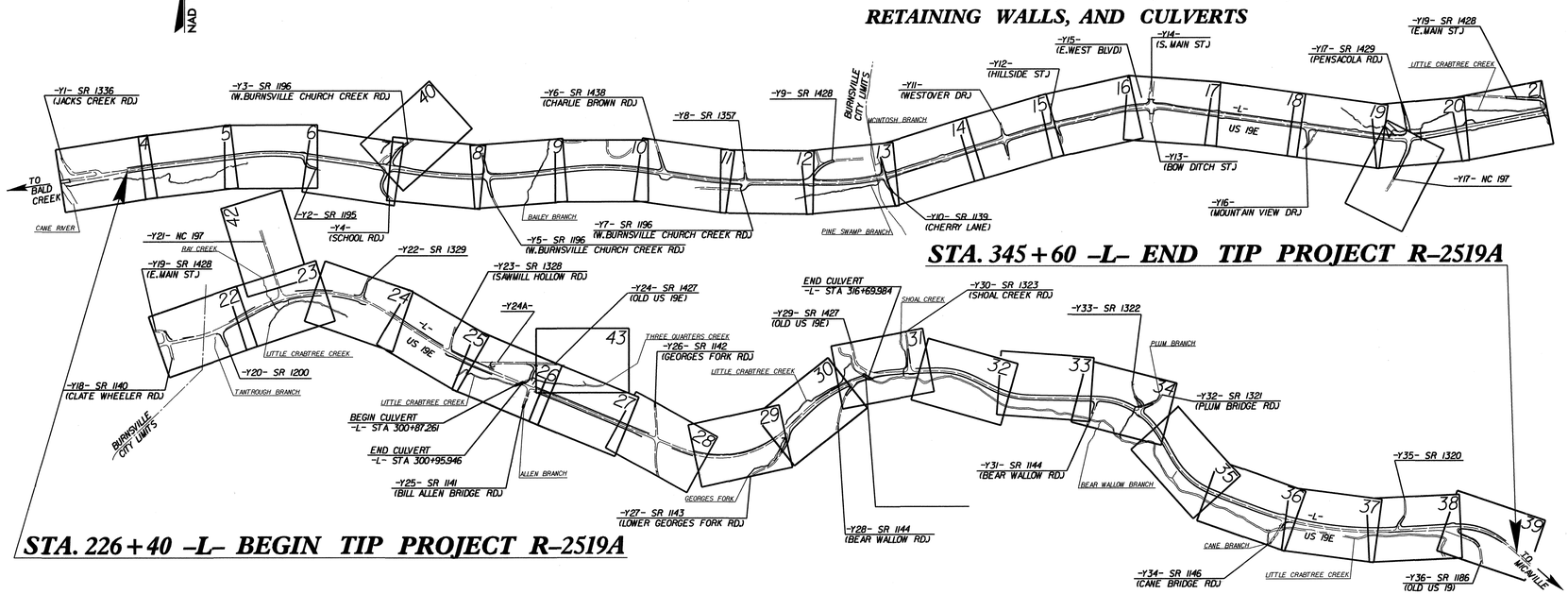
METRIC

ALL DIMENSIONS IN THESE PLANS ARE IN METERS UNLESS OTHERWISE SHOWN

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| N.C. | R-2519A | EC-1 | |

| STATE PROJ. NO. | F. A. PROJ. NO. | DESCRIPTION |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

NAD 83/95




**STA. 345+60 -L- END TIP PROJECT R-2519A**

**STA. 226+40 -L- BEGIN TIP PROJECT R-2519A**

## 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 | |
| | 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 | |
| | 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 | |
| | 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.**

**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**

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***

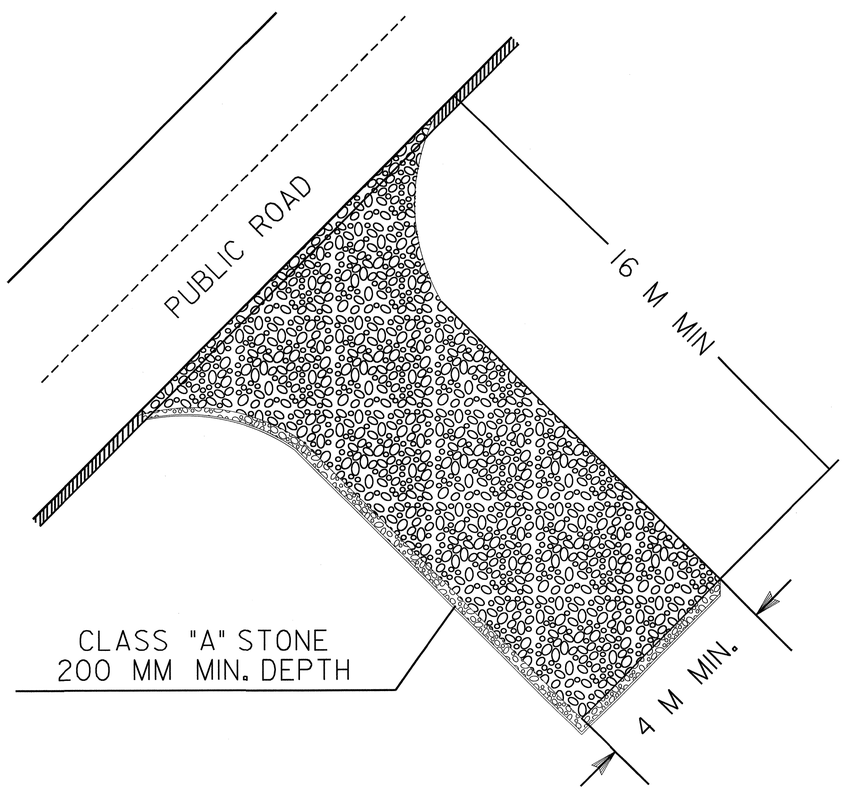
**Roadway Standard Drawings**

**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 | 1634.02 | Temporary Rock Sediment Dam Type B |
| 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 |

| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-2 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# TEMPORARY GRAVEL CONSTRUCTION ENTRANCE



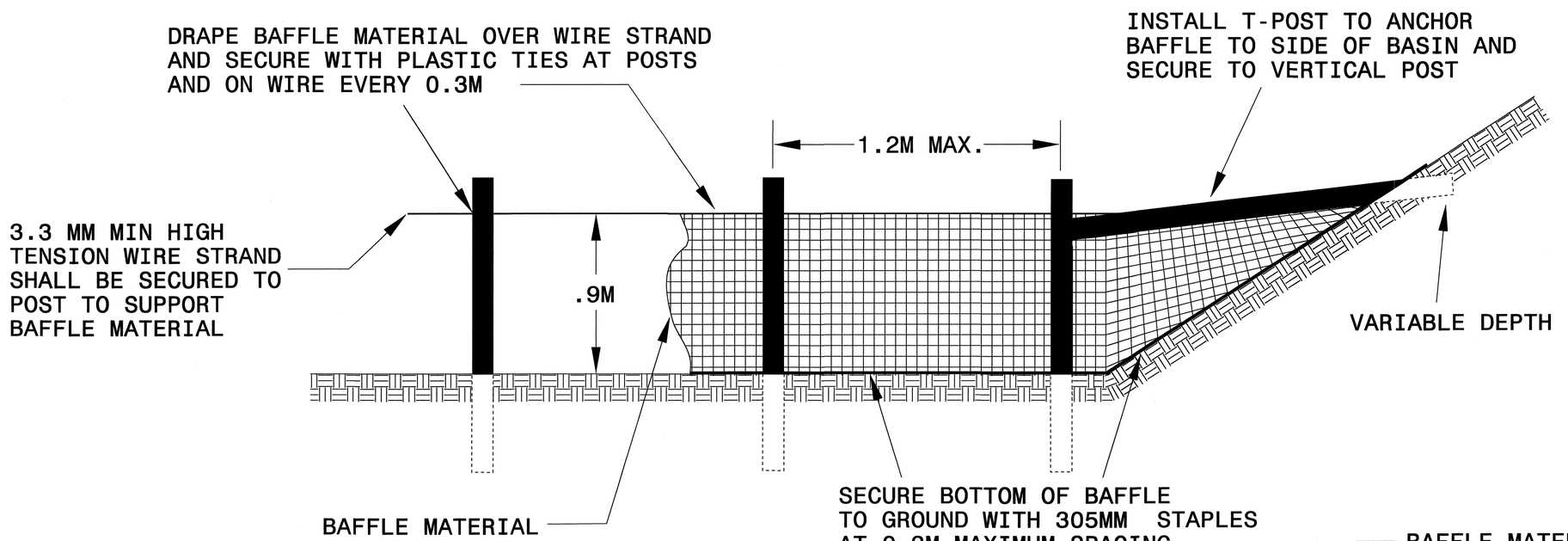

NOTES:

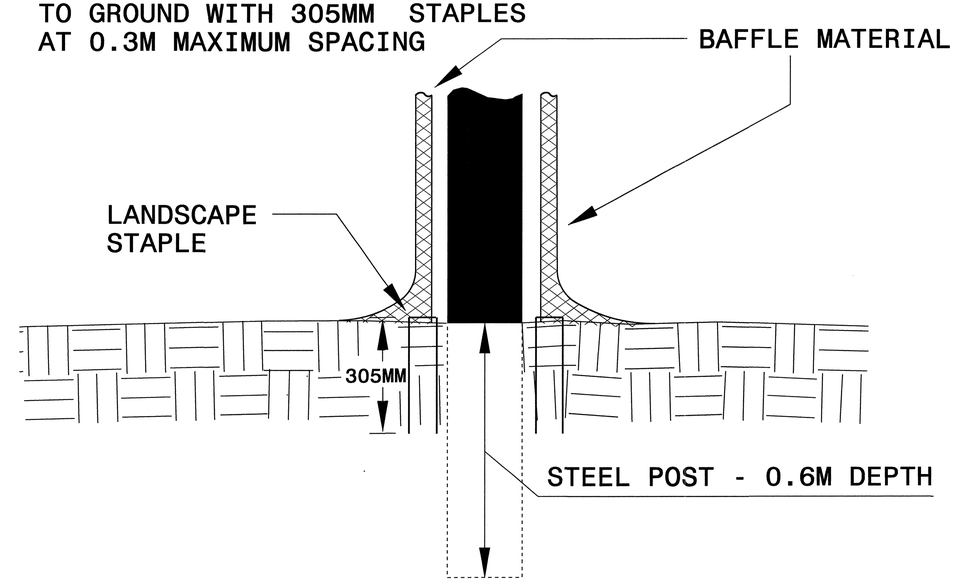
1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL 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-2519A | 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

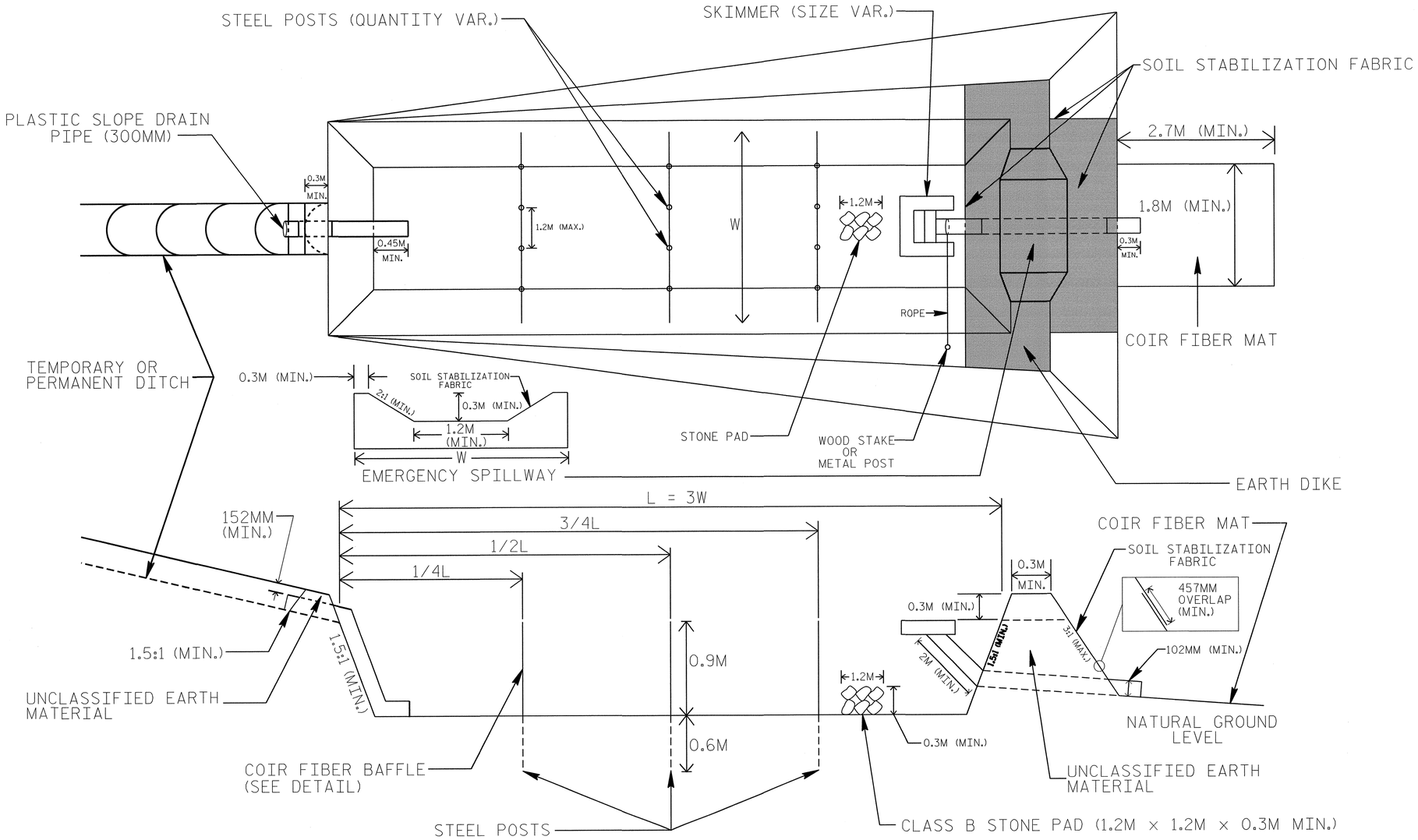
1. INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF ¼ THE BASIN LENGTH.

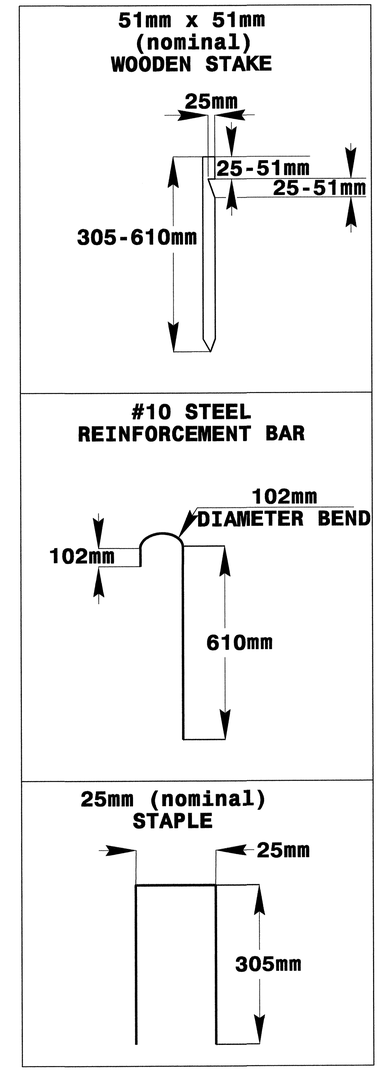
2. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 6 M IN LENGTH WITH A SPACING OF 1/3 THE BASIN LENGTH.

3. TOP HEIGHT OF COIR FIBER BAFFLES SHALL NOT BE BELOW BASE OF EMERGENCY SPILLWAY ELEVATION.

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-2B |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# SKIMMER BASIN WITH BAFFLES DETAIL




## COIR FIBER MAT ANCHOR OPTIONS

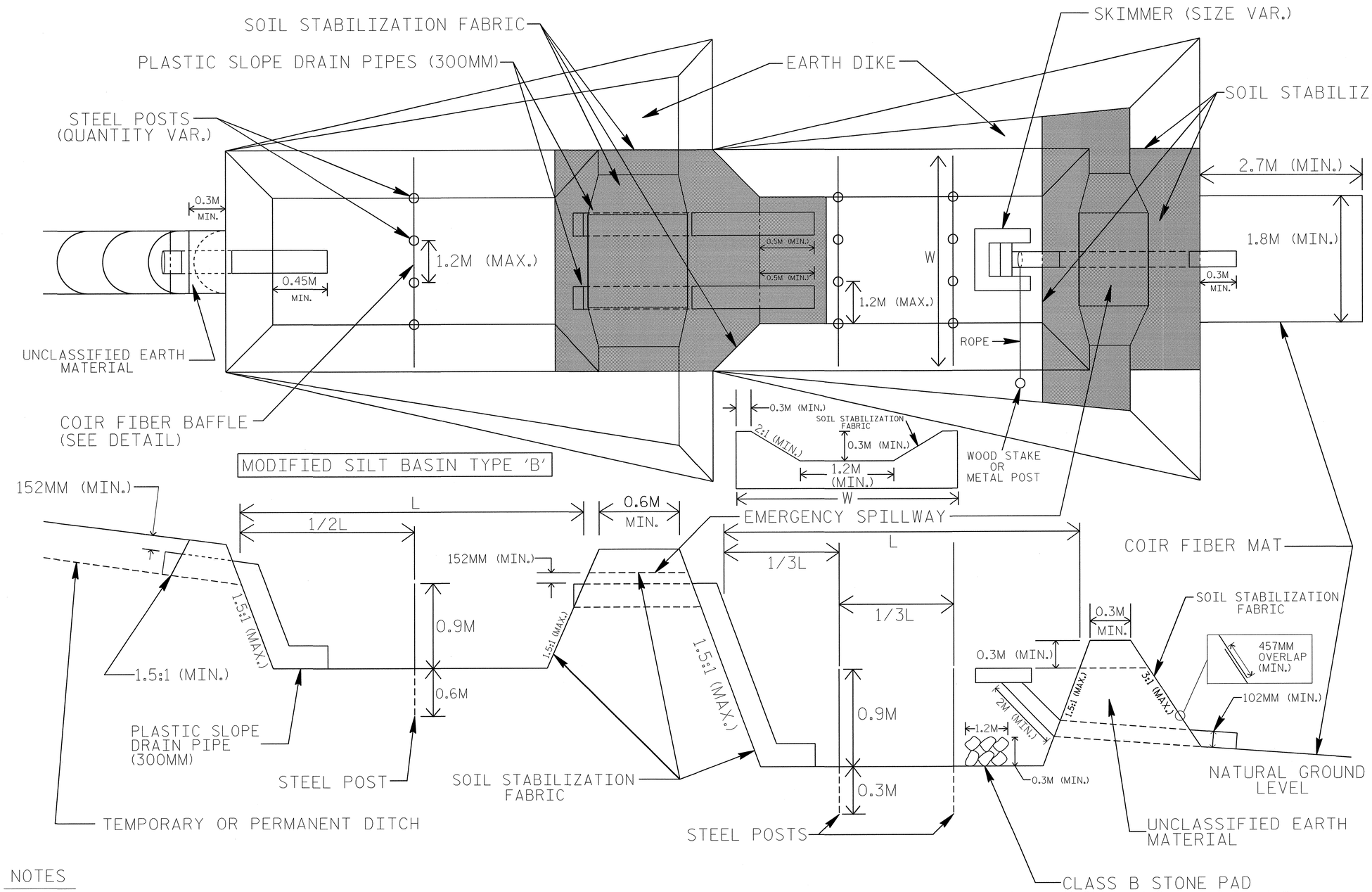
NOTES

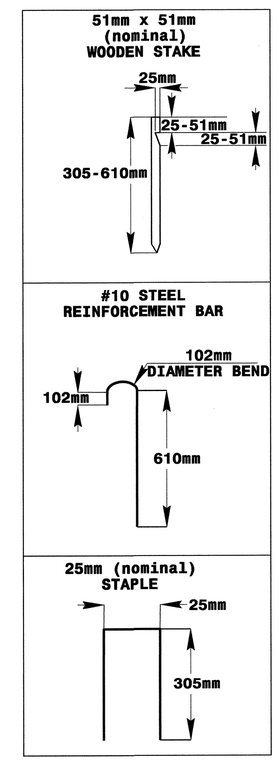
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 1.5M.
3. FOR BASIN DEPTH OF 1M, MINIMUM BASIN WIDTH SHALL BE 3M.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (M) USING Q/0.074, WHERE Q IS FLOW RATE (CMS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTER FABRIC AS DIRECTED.
6. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 457MM (MIN.).

NOT TO SCALE

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-2C |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# TIERED SKIMMER BASIN DETAIL




**COIR FIBER MAT ANCHOR OPTIONS**

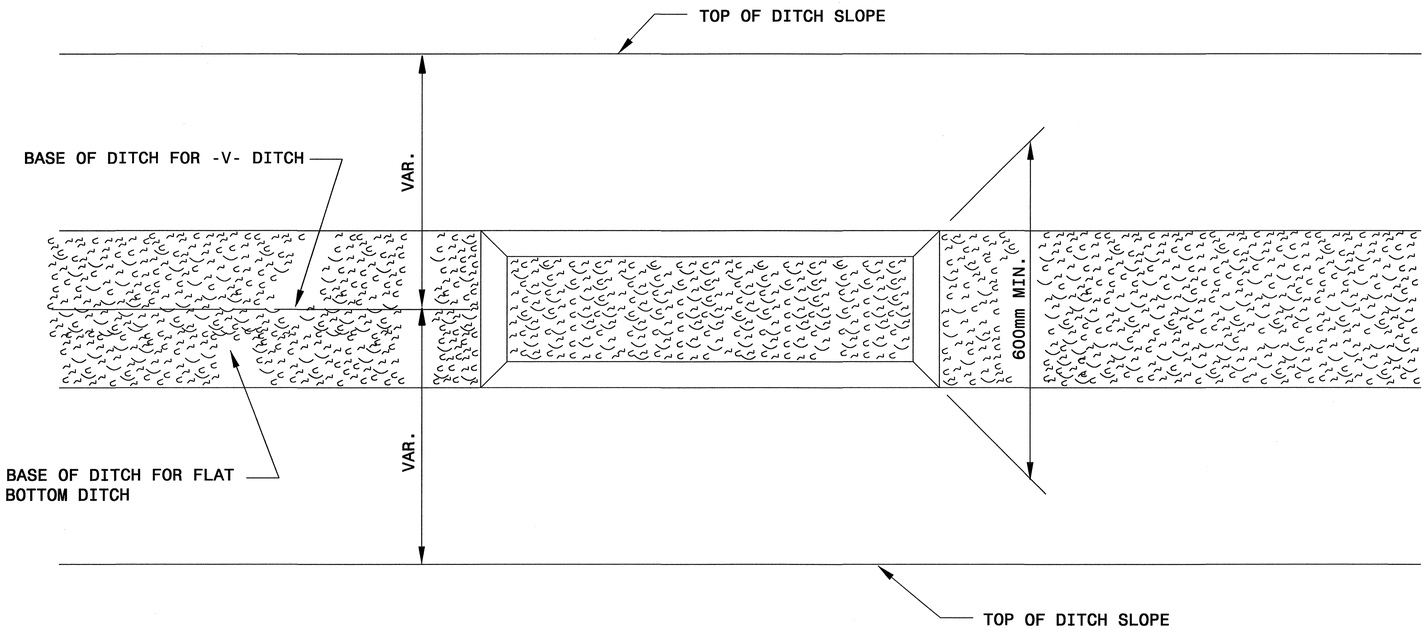
NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES OF BASINS.
2. LIMIT HEIGHT OF EARTH DIKES TO 1.5M.
3. ADDITIONAL MODIFIED SILT BASINS TYPE 'B' MAY BE NEEDED DEPENDING ON SLOPE.
4. FOR BASIN DEPTHS OF 1M, THE MINIMUM BASIN WIDTHS SHALL BE 3M.
5. DETERMINE EMERGENCY SPILLWAY LENGTHS (M) USING Q/0.074, WHERE Q IS FLOW RATE (CMS) INTO UPPER BASIN.
6. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAYS SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 457MM (MIN.).

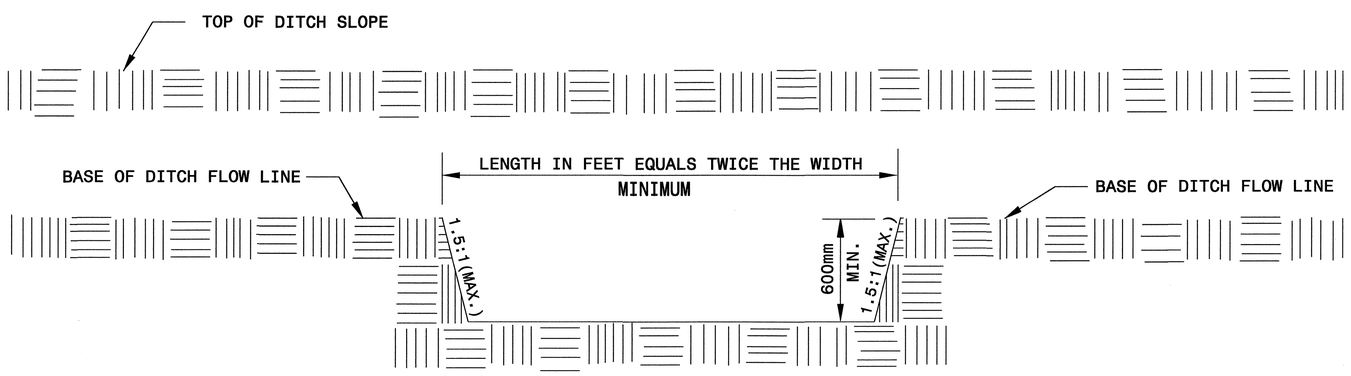
NOT TO SCALE

| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-2D |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# SILT BASIN 'B' DETAIL



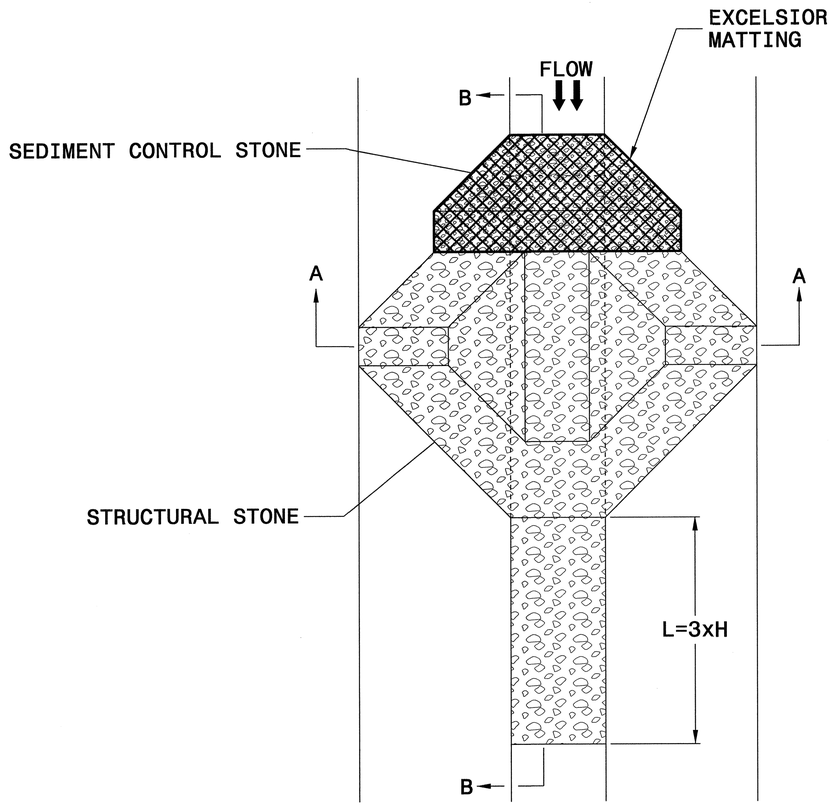

PLAN




ELEVATION

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-2E |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



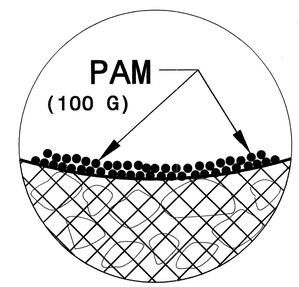

PLAN

NOTES

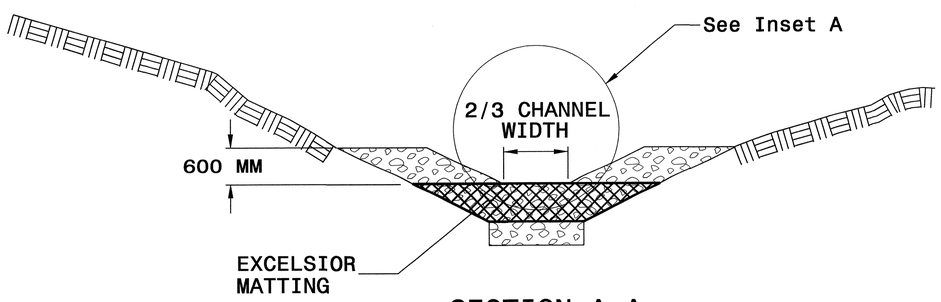
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 ROCK SILT CHECK.

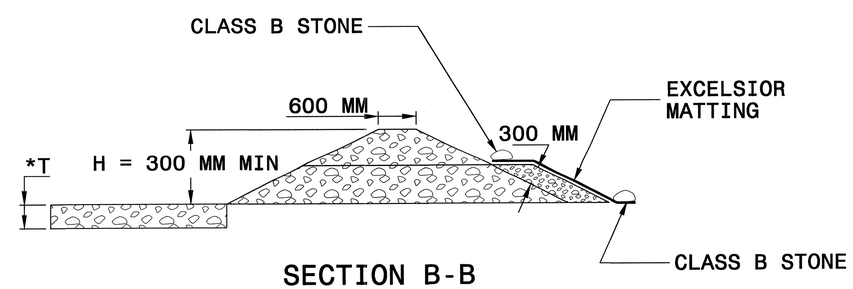
INITIALLY APPLY 100 GRAMS OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 12 MM.




INSET A




SECTION A-A



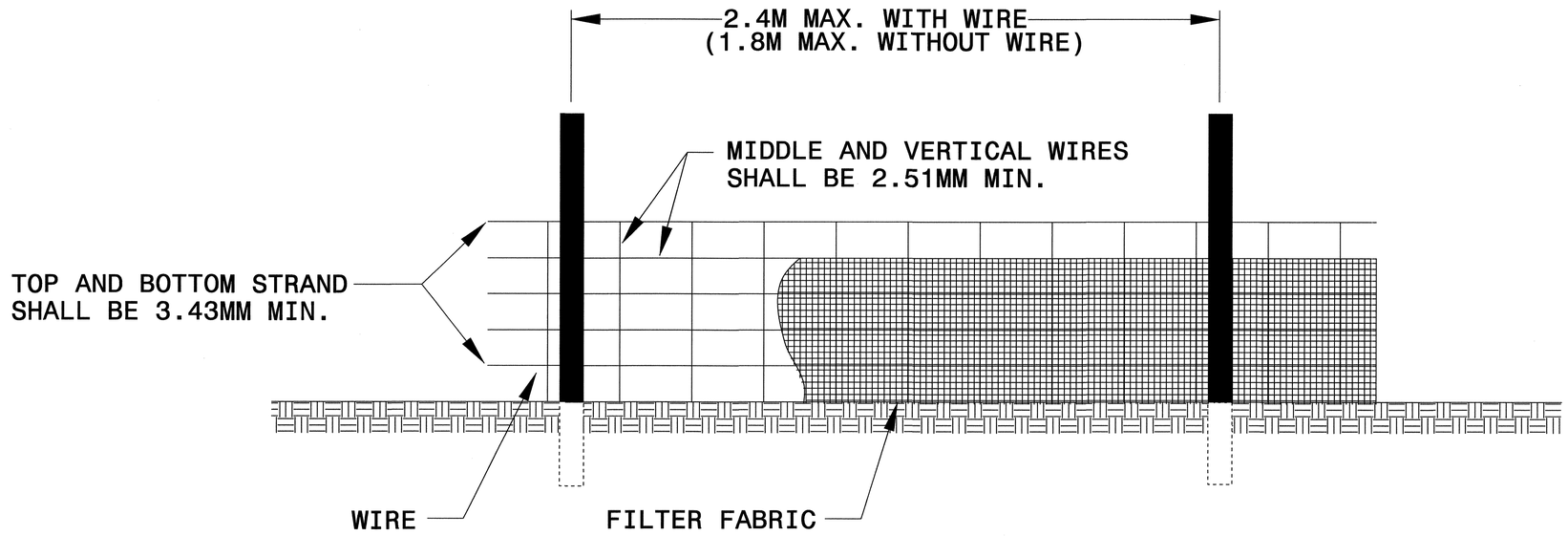

SECTION B-B

*T = 300 MM MIN., 450 MM MAX.

NOT TO SCALE

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-2F |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# TEMPORARY SILT FENCE DETAIL

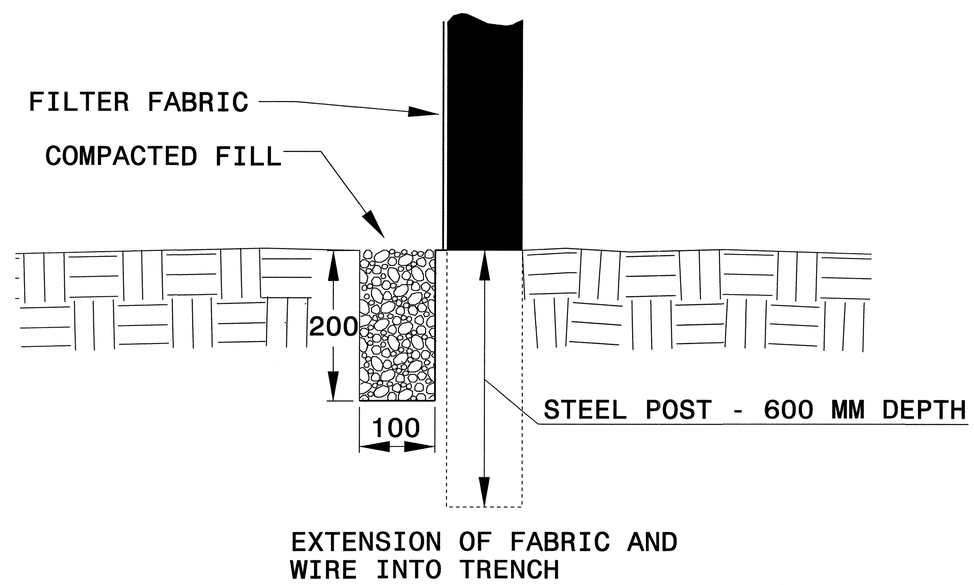



NOTES

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

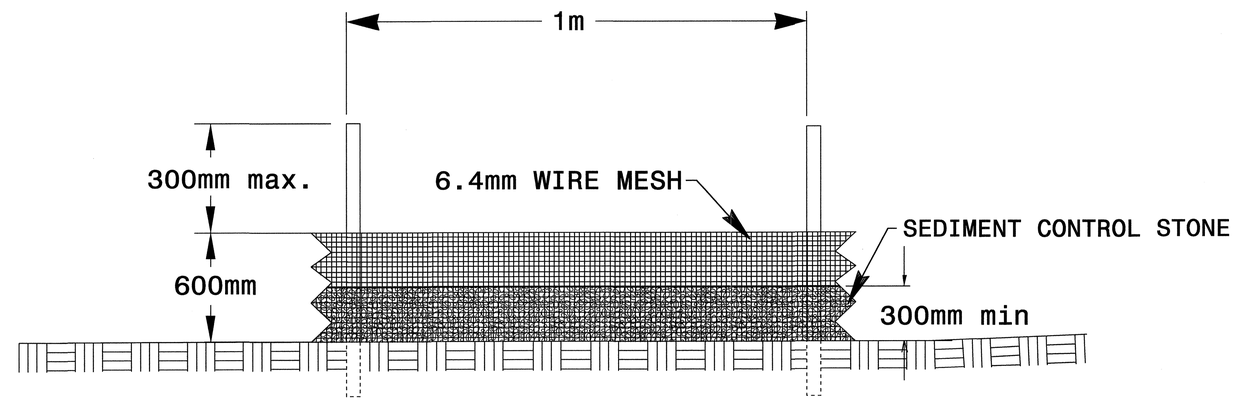
USE FILTER FABRIC A MINIMUM OF 900MM IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.

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



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-2G |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# SPECIAL SEDIMENT CONTROL FENCE DETAIL



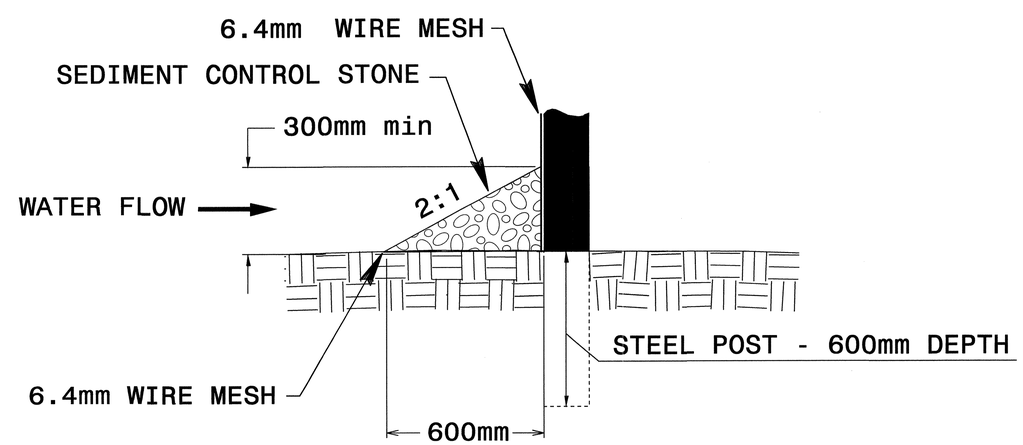

GENERAL NOTES:

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-2519A | EC-2H |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# STILLING BASIN

GENERAL NOTES:
CONSTRUCT THE COIR FIBER BAFFLES WITH A MATERIAL THAT MEETS THE SPECIFICATIONS OF THE COIR FIBER MAT SPECIAL PROVISION PROVIDED IN THE CONTRACT.

PROVIDE 1.5M STEEL POSTS OF THE SELF-FASTENER ANGLE STEEL TYPE. INSTALL STEEL POSTS WITH NO MORE THAN 0.9M OF THE POST APPEARING ABOVE THE GROUND.

ATTACH THE COIR FIBER MAT TO THE STEEL POSTS WITH WIRE OR OTHER ACCEPTABLE MEANS AND STAPLED INTO THE BOTTOM AND SIDE SLOPES OF THE STILLING BASIN WITH 12″ STAPLES.

INSTALL THE TOP OF THE COIR FIBER BAFFLE A MINIMUM OF 300MM LOWER THAN THE TOP OF THE STILLING BASIN BERMS.

USE THE TYPICAL SECTION SHOWN FOR THE STILLING BASIN AS A GUIDE. THE BASIN MAY HAVE ANY TYPE CONFIGURATION AS LONG AS SUFFICIENT VOLUME IS PROVIDED AND PROVISIONS ARE MADE FOR A PERMEABLE STONE DRAIN.

DO NOT EXCEED 1.5M IN HEIGHT FOR THE EARTH DIKES REQUIRED FOR STILLING BASINS. ADDITIONAL DEPTHS MAY BE ATTAINED BY EXCAVATING BELOW THE NATURAL GROUND LEVEL.

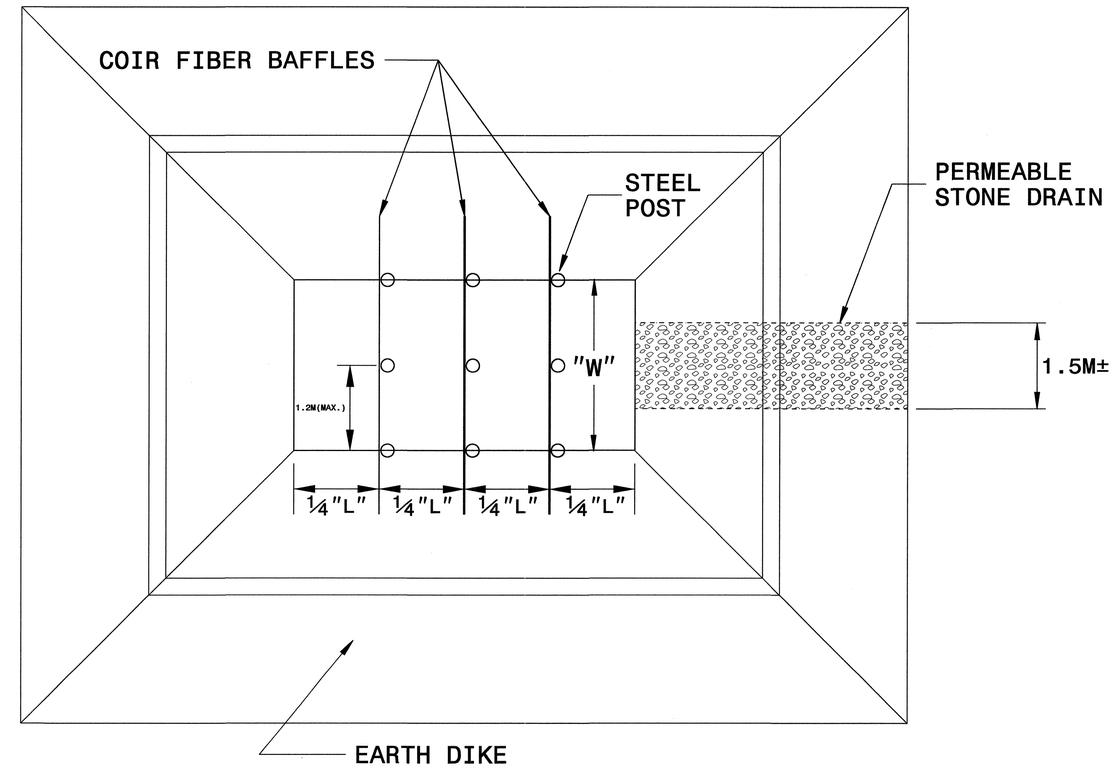
THE STILLING BASIN SIZE IS VARIABLE AND DEPENDENT ON SPECIFIC SITE REQUIREMENTS AS WELL AS PROPOSED CONSTRUCTION OPERATIONS.

SUBMIT THE SIZE, LOCATION AND PERMEABLE STONE DRAIN MATERIAL FOR APPROVAL PRIOR TO CONSTRUCTION.

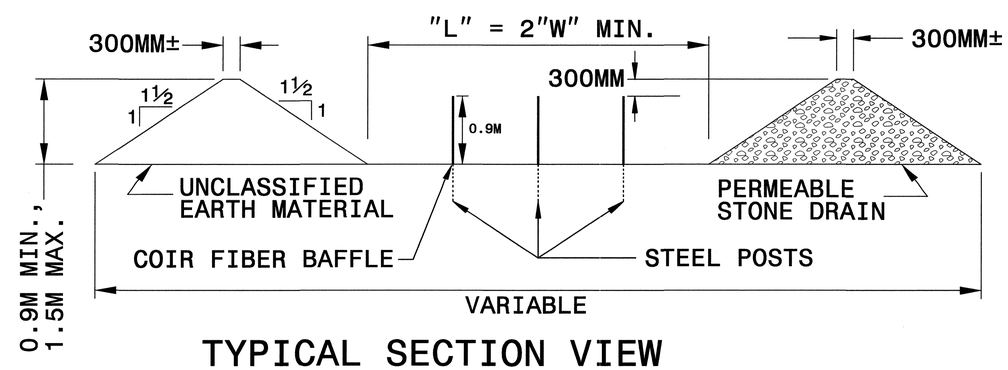
PUMP THE EFFLUENT INTO THE STILLING BASIN TO A MAXIMUM DEPTH OF 0.9 METERS.

ADD POLYACRYLAMIDE (PAM) TO THE EFFLUENT PRIOR TO PUMPING INTO STILLING BASIN AT A DOSING RATE OF 5 MG PER LITER AND IN ACCORDANCE WITH THE FOLLOWING WEB SITE:

http://www.soil.ncsu.edu/publications/Soilfacts/AG439-68W.pdf



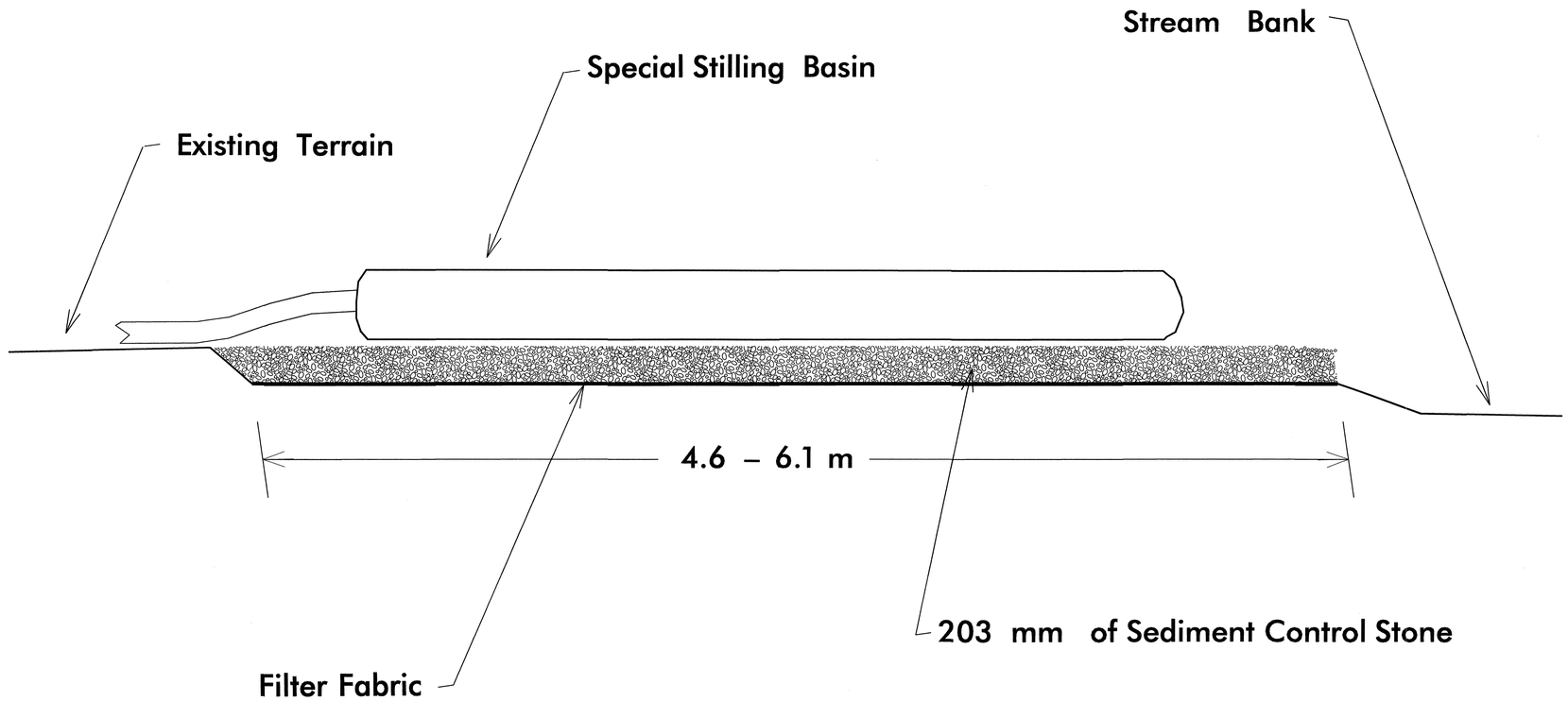

PLAN




TYPICAL SECTION VIEW

| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-21 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# SPECIAL STILLING BASIN WITH ROCK PAD




Not To Scale

Notes:

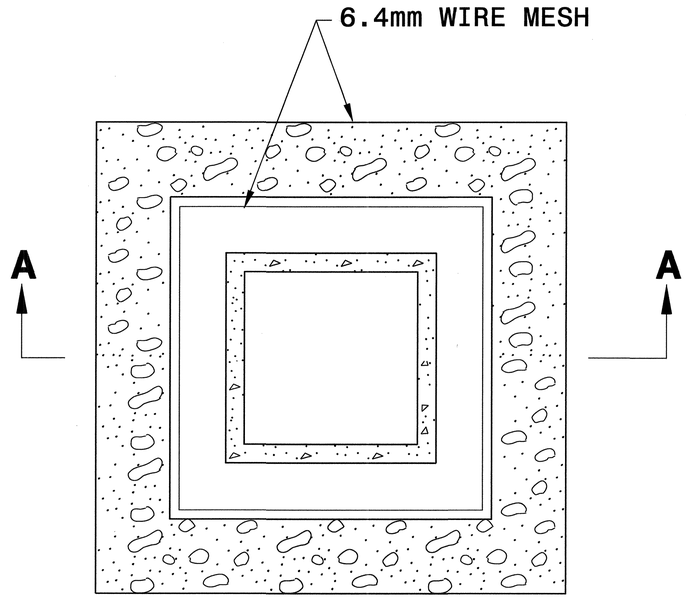
Provide Stabilized Outlet to Streambank

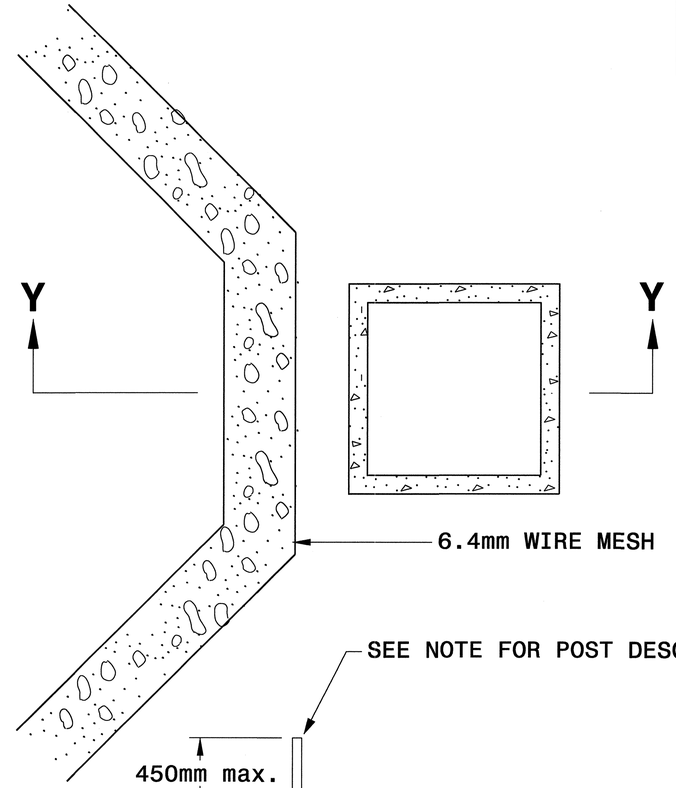
Add Polyacrylamide (PAM) to the effluent prior to pumping into Special Stilling Basin at a dosing rate of 5 mg per liter and in accordance with the following web site:

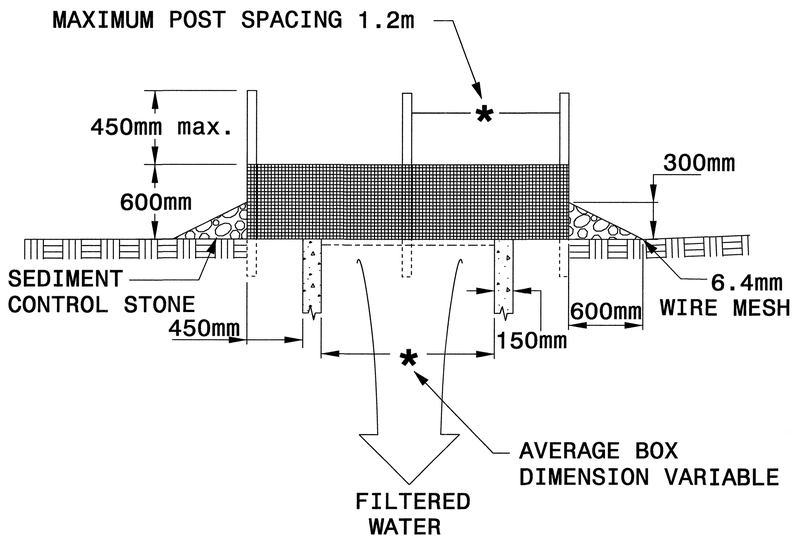
http://www.soil.ncsu.edu/publications/Soilfacts/AG439-68W.pdf

| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-2J |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# ROCK INLET SEDIMENT TRAP TYPE 'C' DETAIL

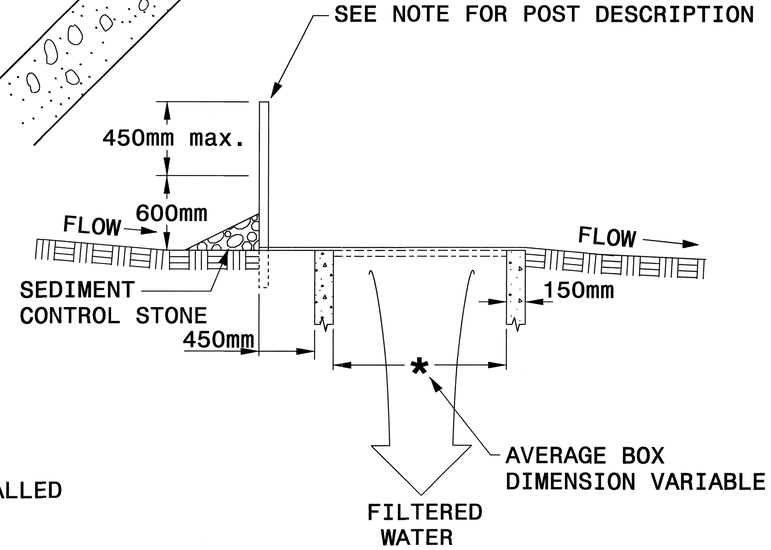



**SECTION A-A**

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.



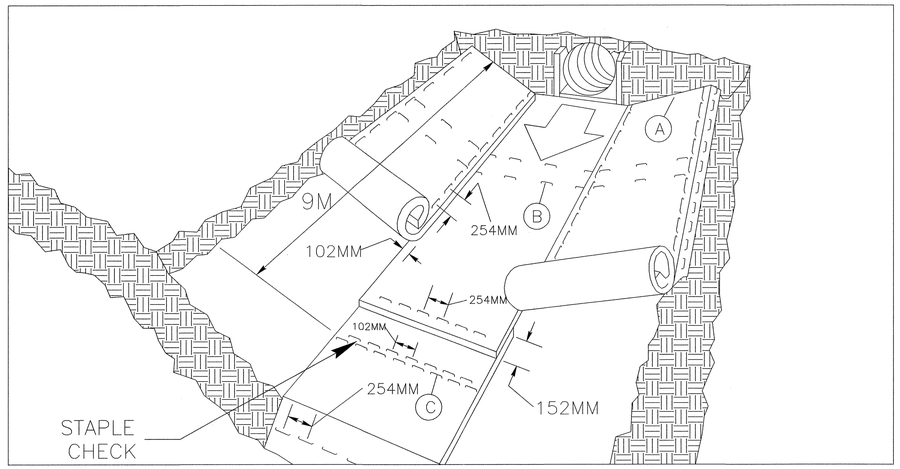

**SECTION Y-Y**

## MULTI-DIRECTIONAL FLOW

## SINGLE-DIRECTIONAL FLOW

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-2K |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# MATTING INSTALLATION DETAIL




**MATTING IN DITCHES**

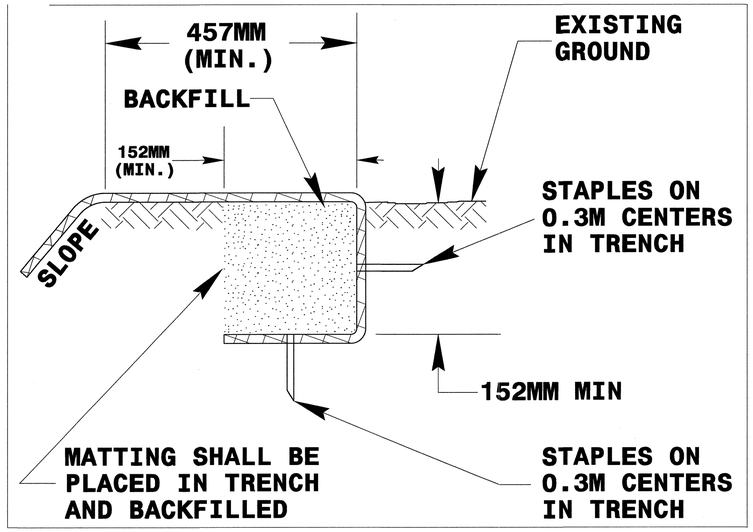
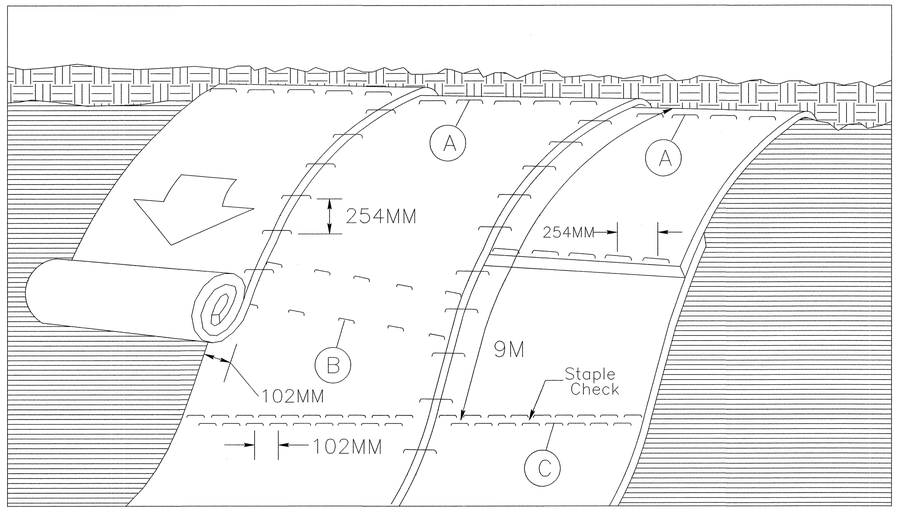



DIAGRAM (A)




**MATTING ON SLOPES**

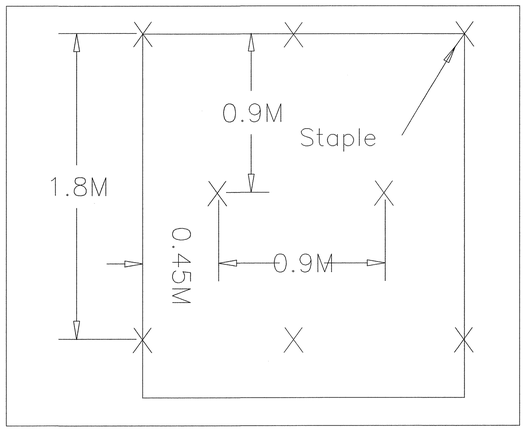



DIAGRAM (B)

Staple Check Pattern

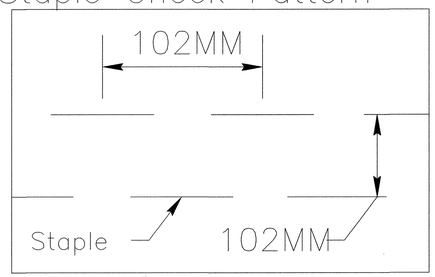



DIAGRAM (C)

NOTES:

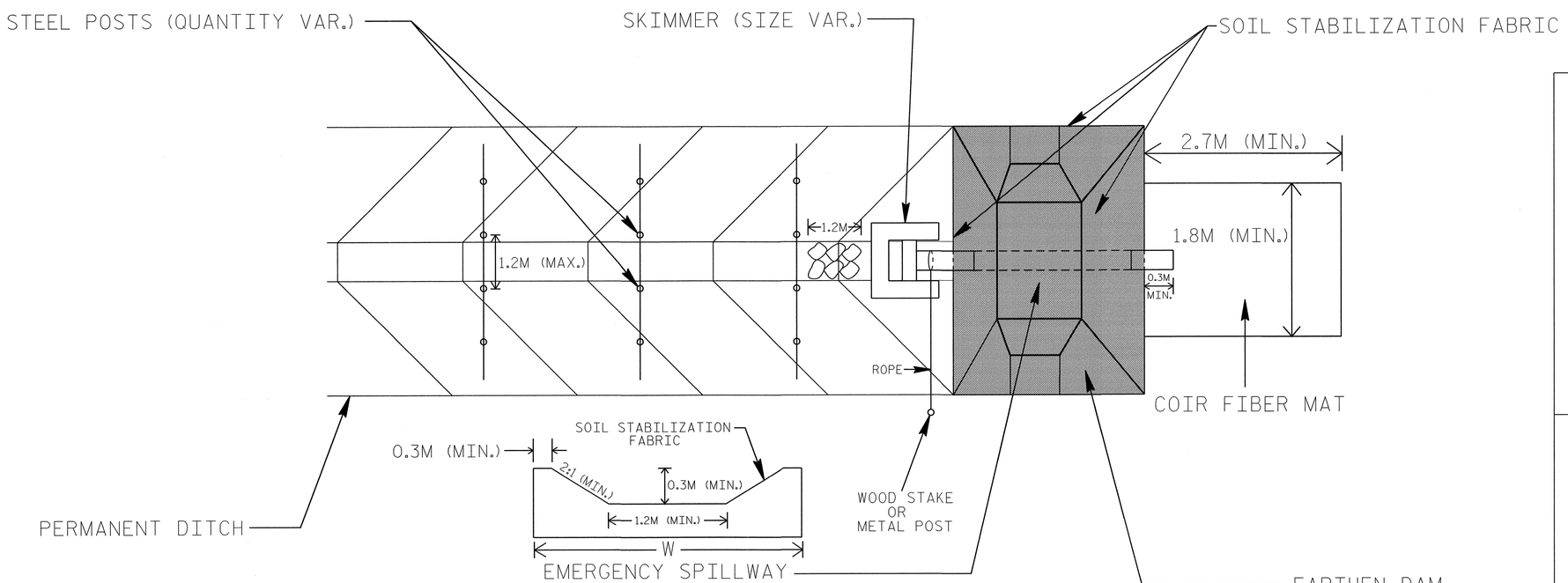
THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

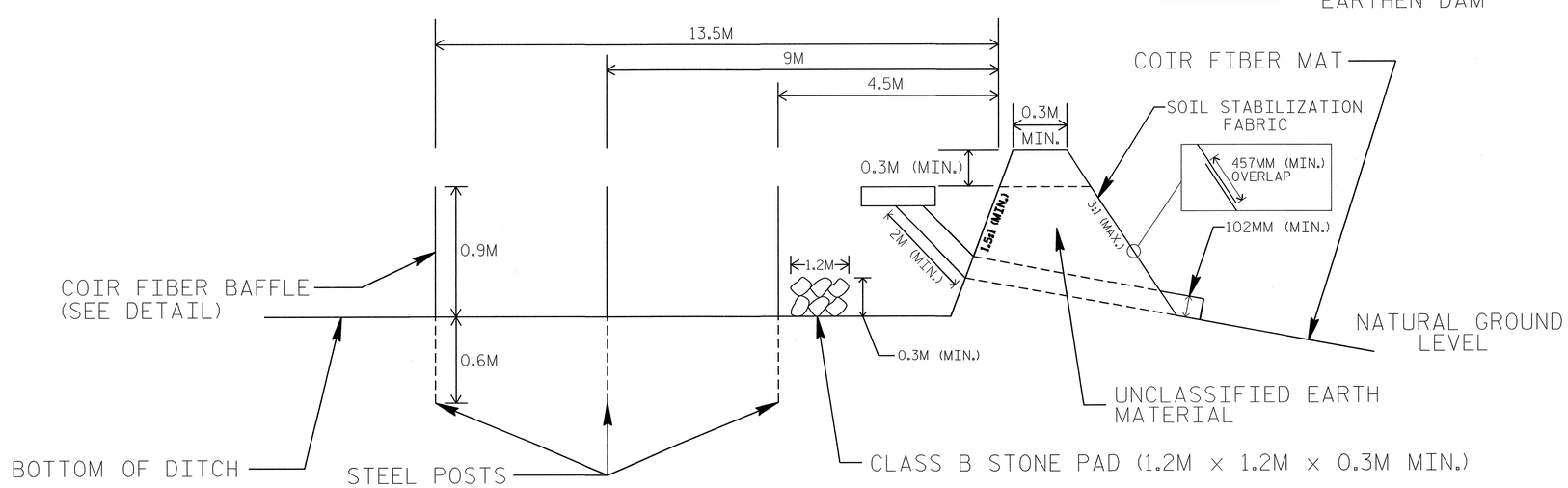
STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 25MM AND NOT LESS THAN 152MM IN LENGTH.

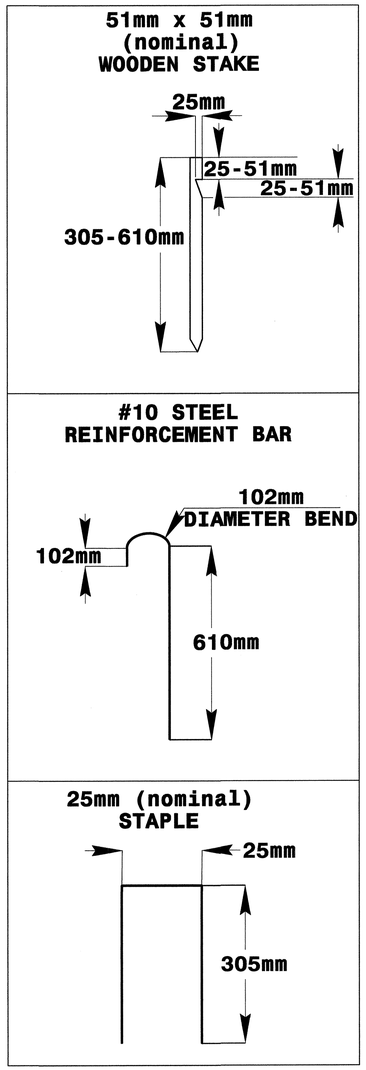
NOT TO SCALE

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-2L |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# EARTHEN DAM WITH SKIMMER




## COIR FIBER MAT ANCHOR OPTIONS

**NOTES**

1. LIMIT EARTHEN DAM HEIGHT TO 1.5M.
2. DETERMINE EMERGENCY SPILLWAY LENGTH (M) USING Q/0.074, WHERE Q IS FLOW RATE (CMS) INTO BASIN.
3. SOIL STABILIZATION FABRIC FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 457MM (MIN.).

NOT TO SCALE

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | 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- | 226+60 | 228+20 | LT | 645 |
| 5 | -L- | 228+40 | 230+00 | RT | 825 |
| 6 | -L- | 230+60 | 231+20 | LT | 365 |
| 6 | -L- | 233+00 | 233+40 | RT | 210 |
| 7 | -L- | 236+40 | 236+80 | RT | 175 |
| 7 | -L- | 236+80 | 237+20 | LT | 195 |
| 7 | -L- | 237+00 | 240+80 | RT | 1750 |
| 8 | -L- | 237+60 | 240+20 | LT | 1090 |
| 8 | -L- | 240+40 | 241+20 | LT | 825 |
| 9 | -L- | 240+80 | 241+00 | RT | 335 |
| 9 | -L- | 241+20 | 242+00 | LT | 250 |
| 9 | -L- | 242+00 | 242+40 | RT | 135 |
| 10 | -L- | 244+40 | 245+00 | RT | 135 |
| 10 | -L- | 247+00 | 248+20 | RT | 715 |
| 10 | -L- | 247+20 | 248+00 | LT | 335 |
| 11 | -L- | 248+60 | 249+00 | LT | 180 |
| 11 | -L- | 249+20 | 249+40 | LT | 75 |
| 11 | -L- | 250+20 | 250+40 | LT | 80 |
| 12 | -L- | 253+20 | 254+00 | LT | 120 |
| 12 | -L- | 254+00 | 254+20 | LT | 70 |
| 13 | -L- | 255+40 | 255+80 | RT | 235 |
| 13 | -L- | 257+60 | 258+00 | RT | 60 |
| 14 | -L- | 259+40 | 259+80 | RT | 85 |
| 18 | -L- | 273+60 | 274+40 | LT | 395 |
| 20 | -L- | 280+40 | 281+60 | LT | 590 |
| 22 | -L- | 285+40 | 286+00 | LT | 295 |
| 22 | -L- | 288+60 | 289+40 | LT | 280 |
| 28 | -L- | 307+00 | 309+40 | RT | 915 |
| 28 | -L- | 308+00 | 309+80 | LT | 995 |
| 29 | -L- | 310+00 | 310+40 | LT | 140 |

## MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SM) |
|---|---|---|---|---|---|
| 29 | -L- | 311+00 | 311+40 | RT | 265 |
| 30 | -L- | 313+40 | 314+20 | RT | 415 |
| 30 | -L- | 314+20 | 315+20 | LT | 185 |
| 30 | -L- | 314+60 | 315+60 | RT | 440 |
| 32 | -L- | 319+40 | 320+00 | LT | 320 |
| 32 | -L- | 321+00 | 323+00 | LT | 805 |
| 33 | -L- | 324+60 | 325+00 | LT | 180 |
| 35 | -L- | 329+40 | 332+60 | LT | 1985 |
| 36 | -L- | 332+60 | 333+00 | LT | 185 |
| 36 | -L- | 333+60 | 337+00 | LT | 1375 |
| 39 | -L- | 343+80 | 344+00 | LT | 25 |
| 39 | -L- | 344+00 | 344+60 | LT | 225 |
| 39 | -L- | 343+80 | 344+00 | RT | 240 |
| 6 | -D22- | 10+22 | 10+50 | LT | 30 |
| 7 | -Y4- | 10+20 | 11+20 | LT | 325 |
| 7 | -D2- | 11+07 | 11+37 | LT | 305 |
| 7 | -D2- | 10+73 | 11+07 | RT | 65 |
| 9 | -Y5- | 10+20 | 10+40 | RT | 70 |
| 13 | -Y10- | 10+20 | 10+40 | RT | 80 |
| 13 | -Y10- | 10+20 | 10+40 | LT | 30 |
| 16 | -Y12- | 10+20 | 10+40 | LT | 65 |
| 20 | -Y17- | 10+80 | 11+00 | RT | 55 |
| 20 | -Y17- | 11+00 | 11+20 | RT | 100 |
| 20 | -Y17- | 12+00 | 12+20 | RT | 35 |
| 21 | -Y19- | 10+40 | 11+60 | LT | 395 |
| 22 | -D17- | 11+45 | 11+64 | LT | 75 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | SUBTOTAL | | 20,775 |

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-3A |
| 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) |
|---|---|---|---|---|---|
| 24 | -Y22- | 10+20 | 10+40 | RT | 110 |
| 26 | -Y24- | 10+60 | 10+80 | LT | 45 |
| 26 | -Y24- | 11+00 | 11+20 | RT | 175 |
| 26 | -Y24A- | 10+20 | 10+40 | LT | 50 |
| 30 | -D16- | 10+30 | 10+45 | LT | 125 |
| 31 | -D21- | 10+10 | 10+53 | LT | 65 |
| 31 | -D21- | 10+32 | 10+53 | LT | 60 |
| 34 | -Y33- | 10+40 | 10+60 | LT | 35 |
| 36 | -Y34- | 10+60 | 10+80 | LT | 55 |
| 38 | -Y35- | 10+80 | 11+00 | RT | 65 |
| | | | SUBTOTAL | | 785 |
| | | | SUBTOTAL FROM MATTING SHEET EC-3A | | 20,775 |
| | | | MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER | | 201080 |
| | | | TOTAL | | 222640 |
| | | | SAY | | 223000 |

## MATTING FOR EROSION CONTROL

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SM) |
|---|---|---|---|---|---|

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-3B |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

STATE OF NORTH CAROLINA

# SOIL STABILIZATION SUMMARY SHEET

## PERMANENT SOIL REINFORCEMENT MAT

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SM) |
|---|---|---|---|---|---|
| 5 | -L- | 228+40 | 228+40 | LT | 245 |
| 5 | -L- | 228+80 | 230+60 | LT | 750 |
| 6 | -L- | 232+00 | 232+40 | RT | 180 |
| 7 | -L- | 234+00 | 234+20 | LT | 130 |
| 7 | -L- | 234+00 | 234+20 | LT | 75 |
| 7 | -L- | 235+20 | 235+80 | LT | 275 |
| 8 | -L- | 237+40 | 237+60 | LT | 85 |
| 17 | -L- | 269+00 | 269+80 | LT | 330 |
| 26 | -L- | 299+60 | 299+80 | LT | 100 |
| 26 | -L- | 300+80 | 301+00 | RT | 130 |
| 30 | -L- | 312+40 | 313+00 | LT | 240 |
| 30 | -L- | 312+60 | 313+20 | RT | 540 |
| 31 | -L- | 315+80 | 316+40 | LT | 360 |
| 31 | -L- | 316+40 | 316+80 | RT | 155 |
| 31 | -L- | 317+60 | 318+20 | LT | 195 |
| 38 | -L- | 341+40 | 343+80 | LT | 1485 |
| 38 | -L- | 342+40 | 342+60 | RT | 220 |
| 6 | -D1- | 10+20 | 10+40 | LT | 65 |
| 7 | -D2- | 10+20 | 10+60 | LT | 55 |
| 7 | -D2- | 10+20 | 10+60 | RT | 45 |
| 9 | -Y5- | 10+40 | 10+80 | LT | 115 |
| 9 | -Y5- | 11+20 | 11+80 | LT | 175 |
| 11 | -Y6- | 10+60 | 11+20 | LT | 210 |
| 11 | -D23- | 10+20 | 10+40 | RT | 60 |
| 11 | -D23- | 10+40 | 10+50 | RT | 70 |
| 12 | -Y7- | 10+20 | 10+40 | RT | 50 |
| 12 | -Y5- | 10+40 | 10+80 | LT | 115 |
| 12 | -D3- | 10+20 | 10+40 | LT | 45 |
| 13 | -Y9- | 11+40 | 11+60 | RT | 65 |
| 13 | -Y9- | 11+40 | 11+60 | LT | 65 |

## PERMANENT SOIL REINFORCEMENT MAT

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SM) |
|---|---|---|---|---|---|
| 13 | -Y10- | 11+20 | 11+40 | LT | 100 |
| 13 | -Y10- | 11+20 | 11+40 | RT | 50 |
| 15 | -Y11- | 11+00 | 11+20 | RT | 70 |
| 16 | -Y12- | 10+80 | 11+00 | RT | 65 |
| 19 | -Y16- | 10+40 | 10+80 | RT | 125 |
| 19 | -Y16- | 10+40 | 10+60 | LT | 70 |
| 19 | -Y16- | 10+60 | 10+80 | LT | 75 |
| 20 | -Y17- | 10+40 | 10+60 | LT | 70 |
| 22 | -D17- | 11+26 | 11+45 | LT | 85 |
| 22 | -Y20- | 10+20 | 10+60 | RT | 95 |
| 24 | -Y22- | 10+20 | 10+60 | LT | 40 |
| 24 | -D5- | 10+40 | 10+50 | LT | 25 |
| 25 | -Y23- | 10+40 | 10+60 | LT | 55 |
| 26 | -Y24- | 10+80 | 11+20 | LT | 115 |
| 27 | -D6- | 10+20 | 10+40 | LT | 25 |
| 27 | -D6- | 10+20 | 10+40 | RT | 25 |
| 28 | -D20- | 10+29 | 10+67 | LT | 65 |
| 28 | -Y26- | 10+40 | 10+80 | RT | 95 |
| 28 | -Y26- | 11+40 | 11+60 | LT | 55 |
| 30 | -Y27- | 10+20 | 10+80 | LT | 140 |
| 30 | -D8- | 10+20 | 10+48 | RT | 40 |
| 30 | -D8- | 10+20 | 10+48 | LT | 25 |
| 30 | -D9- | 10+20 | 10+40 | RT | 25 |
| 30 | -D9- | 10+20 | 10+40 | LT | 25 |
| 30 | -D10- | 10+20 | 10+40 | RT | 30 |
| 31 | -Y28- | 10+15 | 10+58 | RT | 155 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | SUBTOTAL | | 8375 |

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-3C |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

STATE OF NORTH CAROLINA

# SOIL STABILIZATION SUMMARY SHEET

## PERMANENT SOIL REINFORCEMENT MAT

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SM) |
|---|---|---|---|---|---|
| 31 | -Y30- | 10+40 | 11+00 | LT | 235 |
| 32 | -D11- | 10+20 | 10+60 | LT | 60 |
| 32 | -D11- | 10+20 | 10+60 | RT | 55 |
| 32 | -D12- | 10+20 | 10+40 | LT | 45 |
| 32 | -D12- | 10+20 | 10+40 | RT | 55 |
| 33 | -D13DET- | 10+10 | 10+92 | LT | 115 |
| 33 | -D13DET- | 10+30 | 10+92 | RT | 135 |
| 33 | -D14- | 10+40 | 11+40 | RT | 235 |
| 36 | -Y34- | 10+20 | 10+40 | LT | 55 |
| 36 | -Y34- | 10+40 | 10+60 | LT | 25 |
| 36 | -Y34- | 10+20 | 10+60 | RT | 50 |
| 36 | -Y34- | 10+60 | 10+80 | RT | 45 |
| 39 | -D15REV- | 10+40 | 10+67 | LT | 85 |
| 39 | -D15REV- | 10+20 | 10+60 | RT | 110 |
| 39 | -Y36- | 10+49 | 11+38 | LT | 315 |
| 42 | -Y21- | 10+80 | 11+80 | LT | 335 |
| 42 | -Y21- | 11+80 | 11+80 | RT | 25 |
| | | | | SUBTOTAL | 1980 |
| | | | SUBTOTAL FROM SHEET | EC-3C | 8375 |
| | | | ADDITIONAL PSRM TO BE INSTALLED | | 2030 |
| | | | | TOTAL | 12385 |
| | | | | SAY | 12500 |

## PERMANENT SOIL REINFORCEMENT MAT

| CONST SHEET NO. | LINE | FROM STATION | TO STATION | SIDE | ESTIMATE (SM) |
|---|---|---|---|---|---|

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-4/CONST.4 |
| 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 4

NAD 83/95

MATCHLINE -L- STA. 227+20 SEE SHEET NO. 5

GARY ADKINS
DB 209 PG 755

CHRISTOPHER WARREN COOPER
DB 288 PG 695

DENNIS WOODY
DB 135 PG 360

ARNOLD MCINTOSH
DB 207 PG 806

GARY ADKINS &
STROKES, AUSTIN
DB 349 PG 496

MATTHEW P. DICRISTINO
DB 332 PG 732

RIVERSIDE BAPTIST CHURCH
DB 164 PG 71

NORMAN V. RABEK
DB 297 PG 205

JOHN A. COOPER
DB 137 PG 463

BOYD WHEELER
DB 202 PG 672

ESTEL HIGGINS
DB 139 PG 553

SR 1336 JACKS CREEK RD

US 19E

CANE RIVER

POT Sta. 224+30.000

+28.275 BEGIN WW FENCE & C/A

+58 END FENCE

ACCESS POINT 18.0m

+20 28m (91.86')

+02.417 24.51m (80.42')

30m TAPER

PROP. CONC. 450mm C&G

TIE TO GUARDRAIL ON R-2518B

+40 BEGIN SBG

+82 END SBG

CAT-1

TIE WW FENCE TO PROJECT R-2518B

-L- TSSta. 226+45.636

-L- SCSta. 227+05.636

**STA. 226+40.000 -L- BEGIN TIP PROJECT R-2519A**

8 x 4 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
1.5 m weir
ID 4.1C

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

PIs Sta 226+85.636
Θs = 0° 51' 34.0"
Ls = 60.000
LT = 40.000
ST = 20.000

PI Sta 227+14.312
Δ = 0° 29' 49.5" (RT)
L = 17.352
T = 8.676
R = 2,000.000
SE = 0.03

PIs Sta 227+42.988
Θs = 0° 51' 34.0"
Ls = 60.000
LT = 40.000
ST = 20.000

FOR -L- PROFILE SEE SHEET 44

8/17/99

02-FEB-2011 08:33
R:\Environmental\Working\r2519aes04_EC_psh.dgn
mahancock AT REVIEW2\r2519

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-5/CONST.5 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

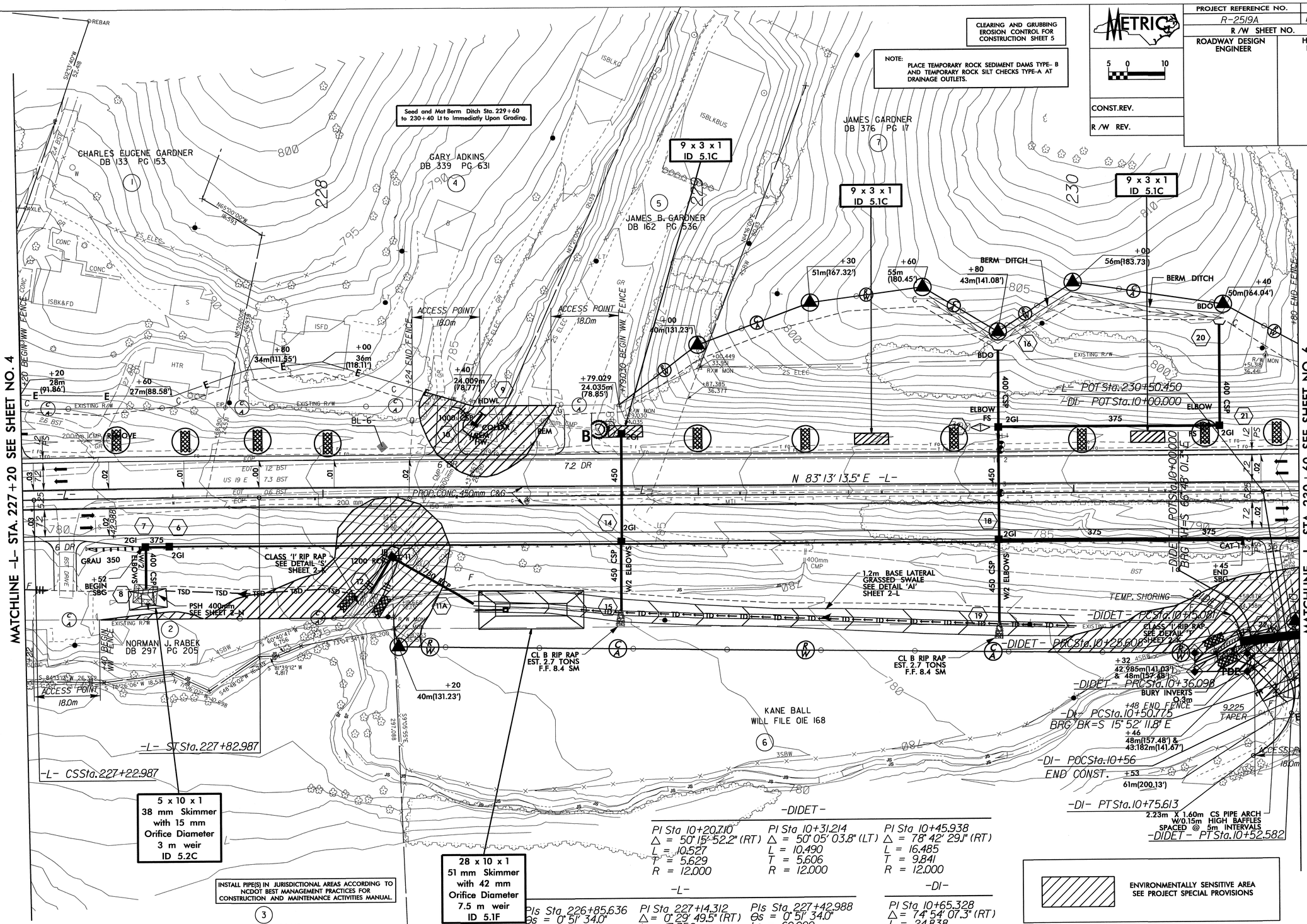
5 0 10

CONST.REV.

R/W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5

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




-DIDET-

| PI Sta 10+20.710 | PI Sta 10+31.214 | PI Sta 10+45.938 |
|---|---|---|
| Δ = 50° 15' 52.2" (RT) | Δ = 50° 05' 03.8" (LT) | Δ = 78° 42' 29.1" (RT) |
| L = 10.527 | L = 10.490 | L = 16.485 |
| T = 5.629 | T = 5.606 | T = 9.841 |
| R = 12.000 | R = 12.000 | R = 12.000 |

-L-

| PIs Sta 226+85.636 | PI Sta 227+14.312 | PIs Sta 227+42.988 |
|---|---|---|
| Θs = 0° 51' 34.0" | Δ = 0° 29' 49.5" (RT) | Θs = 0° 51' 34.0" |
| Ls = 60.000 | L = 17.352 | Ls = 60.000 |
| LT = 40.000 | T = 8.676 | LT = 40.000 |
| ST = 20.000 | R = 2,000.000 | ST = 20.000 |
| | SE = 0.03 | |

-DI-

| PI Sta 10+65.328 |
|---|
| Δ = 74° 54' 07.3" (RT) |
| L = 24.838 |
| T = 14.553 |
| R = 19.000 |

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

FOR -DIDET- DESIGN SEE SHEET 5-A
FOR -L- PROFILE SEE SHEET 44
FOR -DI- PROFILE SEE SHEET 72

02-FEB-2011 08:45
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mehancock AT RENV247768

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-6/CONST.6 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

NAD 83/95

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 6

-L-
PIs Sta 231+35.483
Θs = 1° 46' 19.3"
Ls = 60.000
LT = 40.002
ST = 20.002

PI Sta 232+53.744
Δ = 11° 34' 07.8" (RT)
L = 195.857
T = 98.263
R = 970.000
SE = 0.04

PIs Sta 233+71.340
Θs = 1° 46' 19.3"
Ls = 60.000
LT = 40.002
ST = 20.002

-L- POSSta.233+69.591
-Y2- POTSta.10+00.000

-L- CSSta.233+51.338

-D19- POTSta.10+00.000
BEARING AH = S 1°03' 43.8" E
-L- POCSta.232+22.776

-D19- PCSta.10+14.792

-D19- PTSta.10+24.692

-D19- POTSta.10+36.540
END CONST.

-D19A-PCSta.10+05.694

-D19A-PRCSta.10+29.140

-D19A-PTSta.10+38.185
END CONST

-D19A-POTSta.10+00.000
BEARING AH = S 37° 41' 46.2" E

-D19- POCSta.10+20.857

-L- TSSta.230+95.481

-L- SCSta.231+55.481

-Y2- PCSta.10+15.711
BEARING BACK =
S 1°02' 00.0" E

-D22- POTSta.10+00.000
BEARING AHEAD =
S 62°05' 30.4" E

-D22- POTSta.10+04.42
BEGIN CONST.

-D22- PCSta.10+32.735

MATCHLINE -L- STA. 230+60 SEE SHEET NO. 5

MATCHLINE -L- STA. 234+00 SEE SHEET NO. 7

LARRY MCINTOSH
DB 191 PG 106

RANDY MCINTOSH
DB 88 PG 296

JAMES GARDNER
DB 376 PG 17

GRADY MCINTOSH
DB 191 PG 268

DANNY RANDOLPH
DB 173 PG 570

WHEELER CEMETERY
DB 181 PG 175

ZULA WHEELER
DB 101 PG 501

JERRY JEROME MCINTOSH
DB 325 PG 291

ROSE MARILYN ANGELL
DB 184 PG 435

BILLY RAY BRADFORD
DB 207 PG 827

ACCESS POINT 18.0m

RETAIN AND LINE W/750 (1) WELDED STEEL PIPE

RETAIN AND LINE W/1650 WELDED STEEL PIPE

0.6m BASE DITCH
CLASS 'B' RIP RAP
EST. 85.9 TONS
F.F. 216 SM
SEE DETAIL 'R'
SHEET 2-K

CLASS 'I' RIP RAP
SEE DETAIL 'O'
SHEET 2-K

CLASS 'I' RIP RAP
SEE DETAIL 'S'
SHEET 2-K

2.23m X 1.60m CS PIPE ARCH
W/0.15m HIGH BAFFLES
SPACED @ 5m INTERVALS

12 x 4 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
1.5 m weir
(See Tiered Skimmer
Basin Detail)
ID 6.1F

Modified Silt Basin
Type 'B'
12 x 4 x 1
(See Tiered Skimmer
Basin Detail)
ID 6.1F

7 x 3 x 1
38 mm Skimmer
with 6 mm
Orifice Diameter
1.5 m weir
ID 6.2F

20 x 5 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
2.5 m weir
ID 6.1C

8 x 4 x 1
1.5 m weir
ID 6.2C

STREAM REALIGNMENT
CLASS I RIP RAP
EST. 5 TONS
F.F. 6.7 SM
DDE 23 CM
SEE DETAIL 'AX'
SHEET 2-L

CLASS 'B' RIP RAP
SEE DETAIL 'D'
SHEET 2-K

0.6m BASE DITCH
(GRASS) LINED
SEE DETAIL 'E'
SHEET 2-K

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

CL B RIP RAP
EST. 2.7 TONS
F.F. 8.4 SM

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

-D19-
PI Sta 10+19.846
Δ = 28° 21' 57.6" (RT)
L = 9.902
T = 5.054
R = 20.000

-D19A-
PI Sta 10+18.974
Δ = 67° 10' 05.3" (LT)
L = 23.446
T = 13.280
R = 20.000

PI Sta 10+33.741
Δ = 25° 54' 41.9" (RT)
L = 9.045
T = 4.601
R = 20.000

-D22-
PI Sta 10+48.485
Δ = 31° 57' 32.3" (LT)
L = 30.678
T = 15.750
R = 55.000

-Y2-
PI Sta 10+41.186
Δ = 75° 20' 00.0" (LT)
L = 43.389
T = 25.475
R = 33.000
SE = SEE PLANS

REVISIONS

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mwhite0001

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-7/CONST.7 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

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 7

NAD 83/95

★ PROPOSED TRAFFIC SIGNAL

MATCHLINE -L- STA. 234+00 SEE SHEET NO. 6

MATCHLINE -L- STA. 237+40 SEE SHEET NO. 8

MATCHLINE -Y3- STA. 11+40 SEE SHEET NO. 40

-L- PIs Sta 231+35.483 Θs = 1° 46' 19.3" Ls = 60.000 LT = 40.002 ST = 20.002

PI Sta 232+53.744 Δ = 11° 34' 07.8" (RT) L = 195.857 T = 98.263 R = 970.000 SE = 0.04

PIs Sta 233+71.340 Θs = 1° 46' 19.3" Ls = 60.000 LT = 40.002 ST = 20.002

-Y3- PI Sta 11+05.865 Δ = 32° 48' 03.1" (LT) L = 114.497 T = 58.865 R = 200.000 SE = SEE PLANS

-Y3- PT Sta. 11+61.497 BEARING AH = S 23° 48' 26.9" W

9 x 4 x 1 38 mm Skimmer with 12 mm Orifice Diameter 1.5 m weir ID 7.4C

14 x 6 x 1 ID 7.6C

6 x 4 x 1 ID 7.3C

6 x 2 x 0.6 ID 7.5C

6 x 10 x 1 38 mm Skimmer with 18 mm Orifice Diameter 7.5 m weir ID 7.1F

11 x 4 x 1 38 mm Skimmer with 12 mm Orifice Diameter 1.5 m weir ID 7.1C

6 x 3 x 1 1.5 m weir ID 7.2C

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

-Y2- PI Sta 10+41.186

-D22- PI Sta 10+65.606 Δ = 72° 18' 57.2" (LT) L = 3.786 T = 2.192 R = 3.000

-Y2- PI Sta 10+73.419 Δ = 112° 21' 12.7" (RT) L = 88.242 T = 67.161 R = 45.000

PI Sta 11+28.282 Δ = 31° 27' 57.0" (LT) L = 16.475 T = 8.451 R = 30.000

PI Sta 11+48.944 Δ = 28° 10' 20.0" (RT) L = 14.751 T = 7.528 R = 30.000

-Y4- PI Sta 10+94.873 Δ = 72° 33' 59.4" (LT) L = 63.326 T = 36.706 R = 50.000 SE = SEE PLANS

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

SPECIAL CUT DITCH W/GRASS LINED SEE DETAIL 'G' SHEET 2-K

ROCK CROSS VANE SEE SHEET 2-O

CLASS 'I' RIP RAP SEE DETAIL 'O' SHEET 2-K

LINE DITCH W/CLASS 'B' RIP RAP EST. 24.1 TONS F.F. 60.5 SM

1.5m BASE DITCH CLASS 'II' RIP RAP EST. 79.9 TONS F.F. 108.5 SM SEE DETAIL 'P' SHEET 2-K

STORMWATER RETENTION BASIN W/MICROPOOL AND OTCB SEE DETAIL 'AK', SHEET 2-L @ 450 cu. m/ EXC.

LINE EXISTING DITCH W/CLASS 'B' RIP RAP @ 40 TONS F.F. 40 SM

CL I RIP RAP EST. 6.4 TONS F.F. 12.5 SM

CL B RIP RAP EST. 0.9 TONS F.F. 4.2 SM

CL B RIP RAP EST. 3.0 TONS F.F. 5 SM

RANDY MCINTOSH DB 88 PG 296

VICKI BANKS TIPTON, ET. AL. DB 289 PG 22

THOMAS RICHARD FOX DB 225 PG 402

GARY ADKINS AND STOKES AUSTIN DB 325 PG 167

JERRY JEROME MCINTOSH DB 325 PG 291

UTILITIES APPROXIMATE LOCATION AS PER PROPERTY OWNER

(6) WM'S NO ASSOCIATED PIPING FOUND

END CONST. -Y2- POT Sta. 10+85.000

-D22- PT Sta. 10+67.200 BEARING AHEAD = N 13° 37' 59.8" E

-D22- PCC Sta. 10+63.413

POT -D2- Sta. 10+00.000

-L- POT Sta. 253+98.996, 43.039 RT.

PC Sta. 10+06.257 BEARING BACK = N 65° 14' 00.0" E

POT -D2- Sta. 10+10 BEGIN CONST.

PC Sta. 10+58.167 BEARING BACK = S 23° 26' 58.4" W

PT Sta. 10+94.500 BEARING AHEAD = S 2° 24' 47.3" E

PC Sta. 11+19.831

PT Sta. 11+21.493 BEARING AH = S 49° 07' 00.9" E

PT Sta. 11+36.307 BEARING AHEAD = S 33° 52' 44.3" E

PC Sta. 11+41.416

PT -D2- Sta. 11+56.167 END CONST.

POC -Y4- Sta. 11+12.391, 26.338 RT.

END CONST. -Y4- POT Sta. 11+34.000

-Y4- POT Sta. 11+38.561 END CONST.

POT Sta. 12+02.780 -Y2-

-L- ST Sta. 234+11.338

POT Sta. 10+74.500 -D22- POT Sta. 10+74.573

-L- S 81° 40' 00.1" E

PROP. CONC. 450mm C&G

END CONST. -Y2- POT Sta. 10+85.000

BEGIN WW FENCE

END FENCE

PROPOSED TRAFFIC SIGNAL

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mehancock

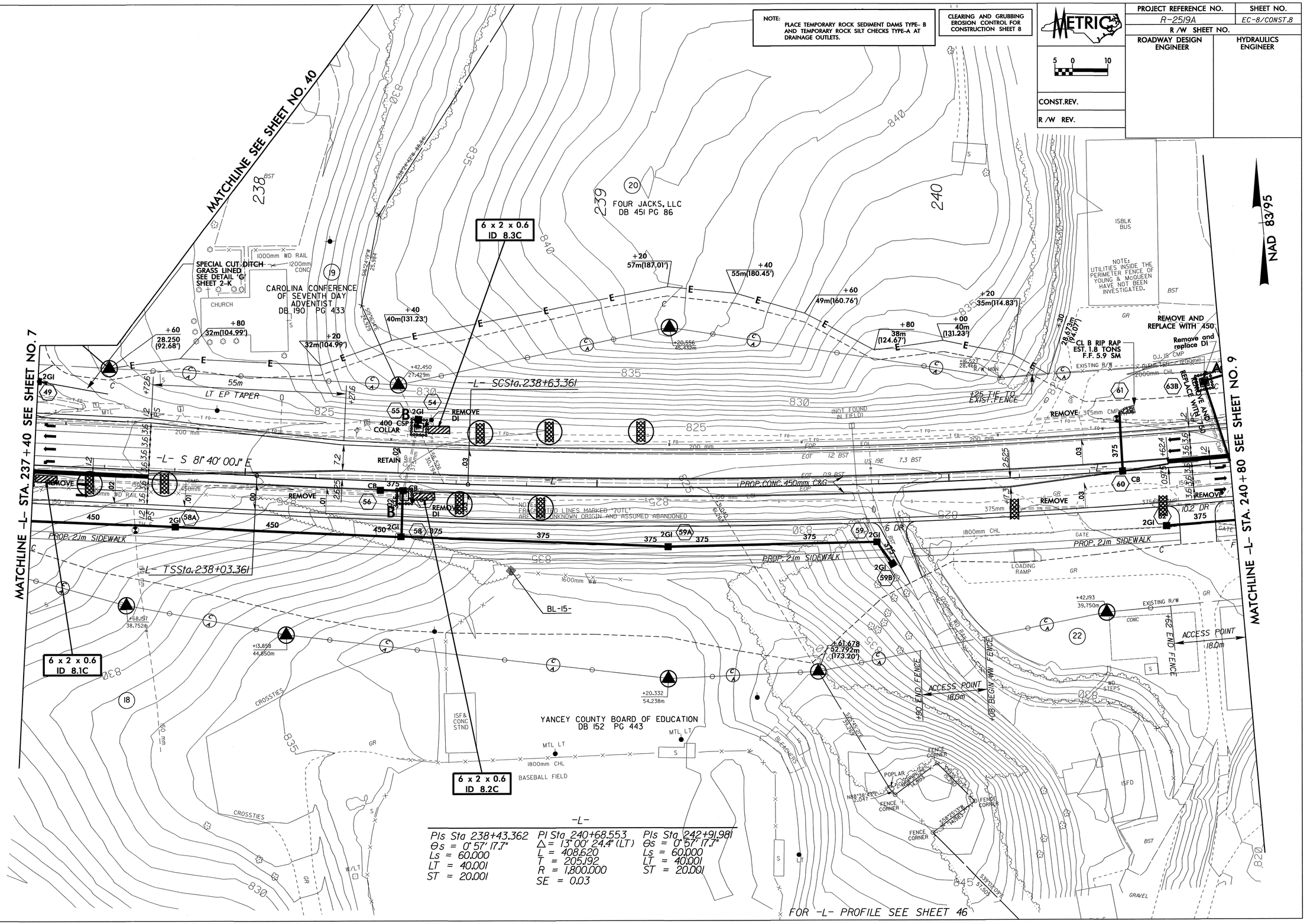
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-8/CONST.8 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

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 8




-L-

| PIs Sta 238+43.362 | PI Sta 240+68.553 | PIs Sta 242+91.981 |
|---|---|---|
| Θs = 0° 57' 17.7" | Δ = 13° 00' 24.4" (LT) | Θs = 0° 57' 17.7" |
| Ls = 60.000 | L = 408.620 | Ls = 60.000 |
| LT = 40.001 | T = 205.192 | LT = 40.001 |
| ST = 20.001 | R = 1,800.000 | ST = 20.001 |
| | SE = 0.03 | |

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mmcrocek

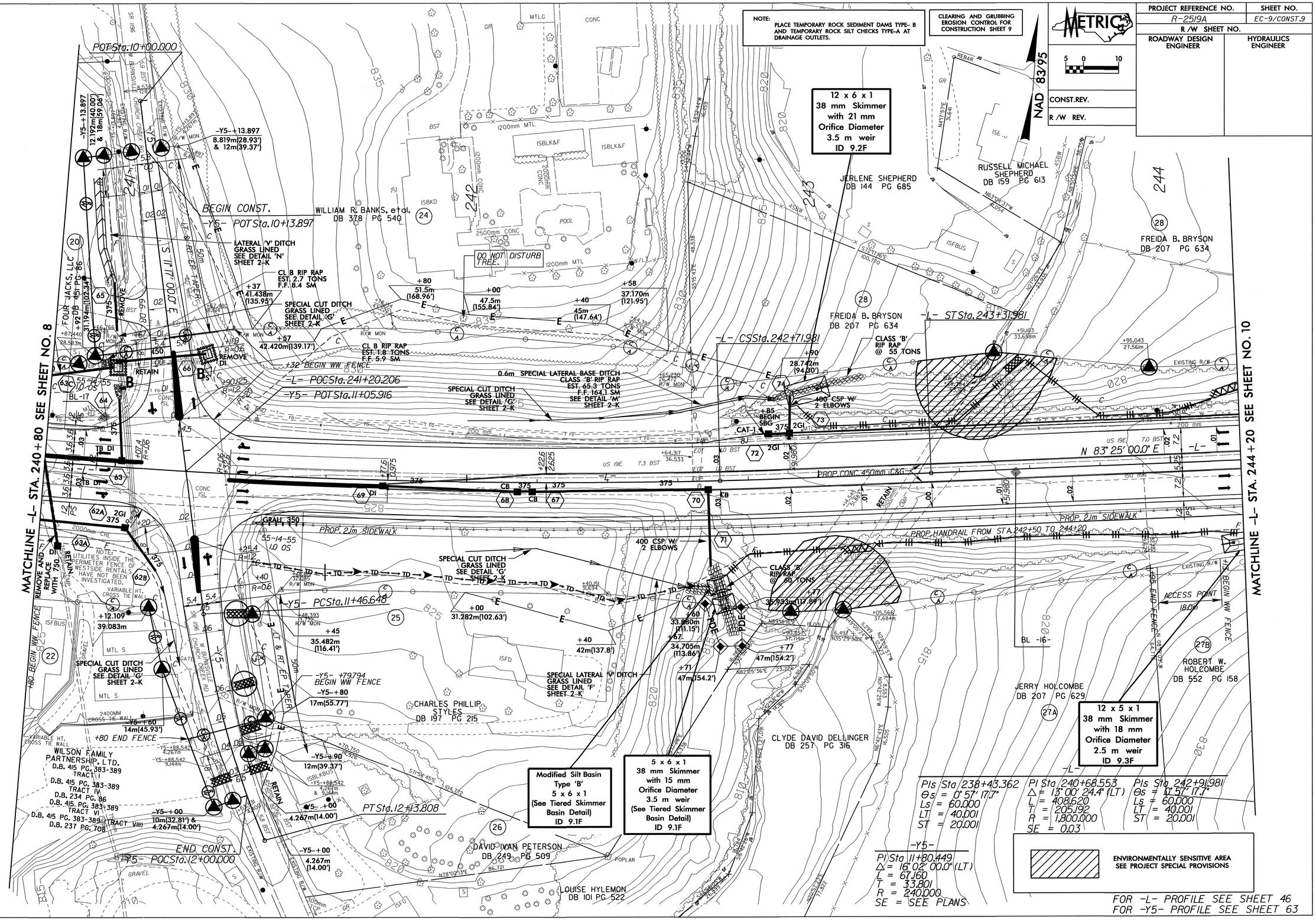
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-9/CONST.9 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC

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 9

NAD 83/95




FOR -L- PROFILE SEE SHEET 46
FOR -Y5- PROFILE SEE SHEET 63

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mattcrocker

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-10/CONST.10 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC 5 0 10

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 10

NAD 83/95

8 x 5 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
2.5 m weir
ID 10.1F

Seed and Mat Berm Ditch Sta. 247+00 to 257+60 Rt Immediately Upon Grading.

FREIDA B. BRYSON
DB 207 PG 634

ROBERT J. BROWN
DB 94 PG 329

DAVID BANKS
DB 359 PG 92

CHARLES AYERS et AL
DB 234 PG 32

ACCESS POINT 18.0m

BEGIN WW FENCE

END FENCE

PSH 375mm SEE SHEET 2-N

+05 26.550m(87.11') & 33m(108.27')

+18 33m(108.27')

+18 26.342m(86.42')

+70 25.471m (83.57')

+98 32.462m(106.50') & 40m(131.23')

+04 40m(131.23') & 31.121m(102.10')

+20 40m(131.23')

+82 42.234m (138.56')

+98 39m(127.95')

400 CSP W/2 ELBOWS

GRAU-350

PROPOSED CONC EXPRESSWAY GUTTER -L- 246+20 TO 247+00

8:1 TAPER

PROP. CONC. 450mm C&G

PROP. 2.1m SIDEWALK

TYPE D 2GI

REMOVE

CAT-I

'V' DITCH GRASS LINED SEE DETAIL 'L' SHEET 2-K @ 20 CM EXC.

PROPOSED SBG -L- 244+80 TO 246+80

NOTE: FRAGMENTED LINES MARKED "?" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED

CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM

TRANSITION CUT DITCH TO EXISTING DITCH

BERM DITCH

-L- CSSta. 247+45.133

-L- SCSta. 244+88.375

-L- TSSta. 244+28.375

MATCHLINE -L- STA. 244+20 SEE SHEET NO. 9

MATCHLINE -L- STA. 247+60 SEE SHEET NO. 11

ROBERT W. HOLCOMBE
DB 552 PG 158

HOLCOMBE
PG 629

12 x 5 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
2.5 m weir
ID 9.3F

CEMETERY

+52 END FENCE

+90 50.582m (165.95') BEGIN WW FENCE

+00 53m(173.88')

+35 44.349m (145.50')

CHARLES W. BANKS
DB 209 PG 110

-L-

| PIs Sta 244+68.377 | PI Sta 246+17.246 | PIs Sta 247+65.134 |
|---|---|---|
| Θs = 1°25'56.6" | Δ = 12°15'33.4" (RT) | Θs = 1°25'56.6" |
| Ls = 60.000 | L = 256.758 | Ls = 60.000 |
| LT = 40.001 | T = 128.871 | LT = 40.001 |
| ST = 20.001 | R = 1,200.000 | ST = 20.001 |
| | SE = 0.04 | |

FOR -L- PROFILE SEE SHEET 47

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mwhitacre

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-11/CONST.11 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

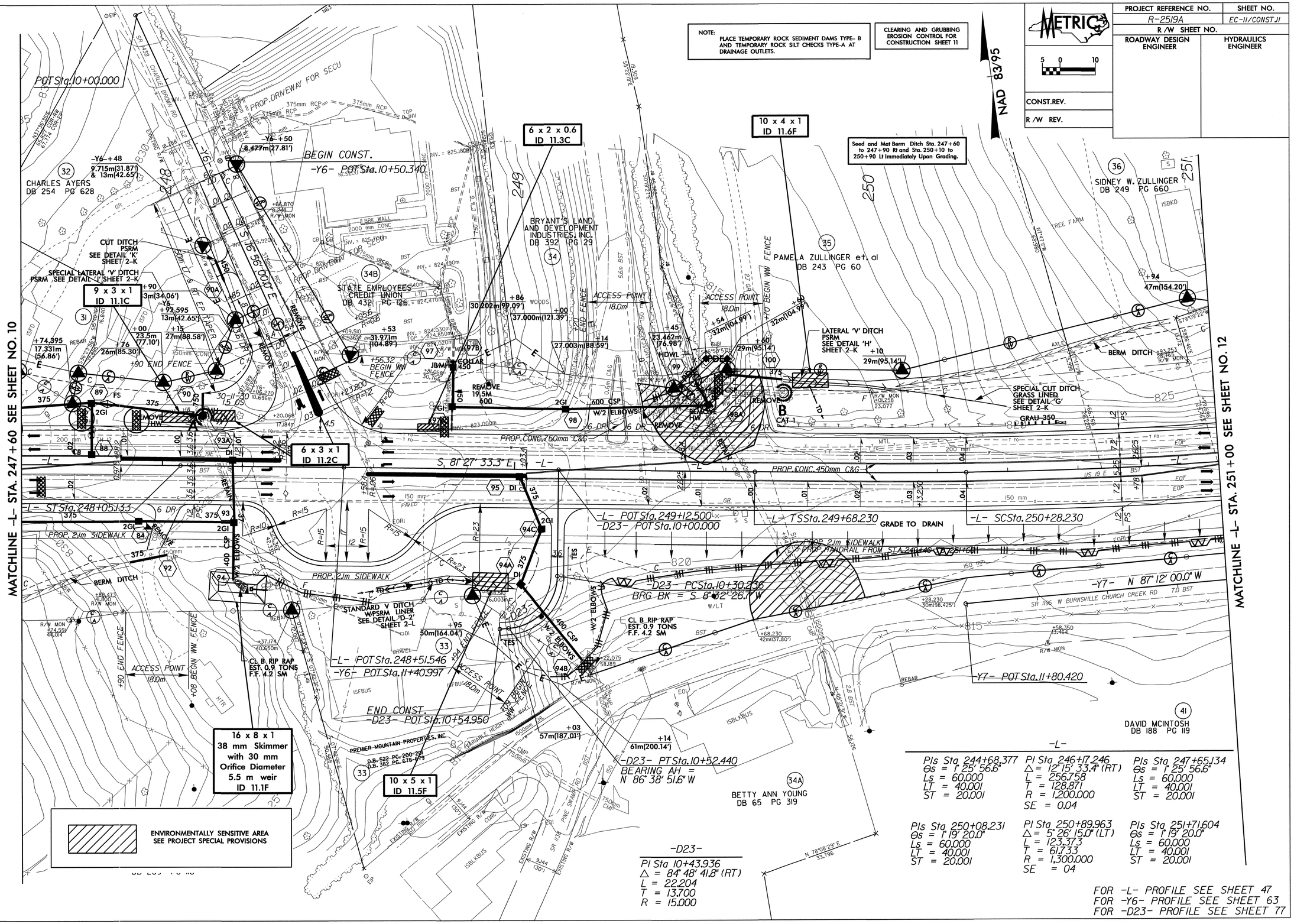
METRIC 5 0 10

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 11

NAD 83/95

Seed and Mat Berm Ditch Sta. 247+60 to 247+90 Rt and Sta. 250+10 to 250+90 Lt Immediately Upon Grading.




-L-

| | | |
|---|---|---|
| PIs Sta 244+68.377<br>Θs = 1° 25' 56.6"<br>Ls = 60.000<br>LT = 40.001<br>ST = 20.001 | PI Sta 246+17.246<br>Δ = 12° 15' 33.4" (RT)<br>L = 256.758<br>T = 128.871<br>R = 1,200.000<br>SE = 0.04 | PIs Sta 247+65.134<br>Θs = 1° 25' 56.6"<br>Ls = 60.000<br>LT = 40.001<br>ST = 20.001 |
| PIs Sta 250+08.231<br>Θs = 1° 19' 20.0"<br>Ls = 60.000<br>LT = 40.001<br>ST = 20.001 | PI Sta 250+89.963<br>Δ = 5° 26' 15.0" (LT)<br>L = 123.373<br>T = 61.733<br>R = 1,300.000<br>SE = 04 | PIs Sta 251+71.604<br>Θs = 1° 19' 20.0"<br>Ls = 60.000<br>LT = 40.001<br>ST = 20.001 |

-D23-

PI Sta 10+43.936
Δ = 84° 48' 41.8" (RT)
L = 22.204
T = 13.700
R = 15.000

FOR -L- PROFILE SEE SHEET 47
FOR -Y6- PROFILE SEE SHEET 63
FOR -D23- PROFILE SEE SHEET 77

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mattancock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-12/CONST.12 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

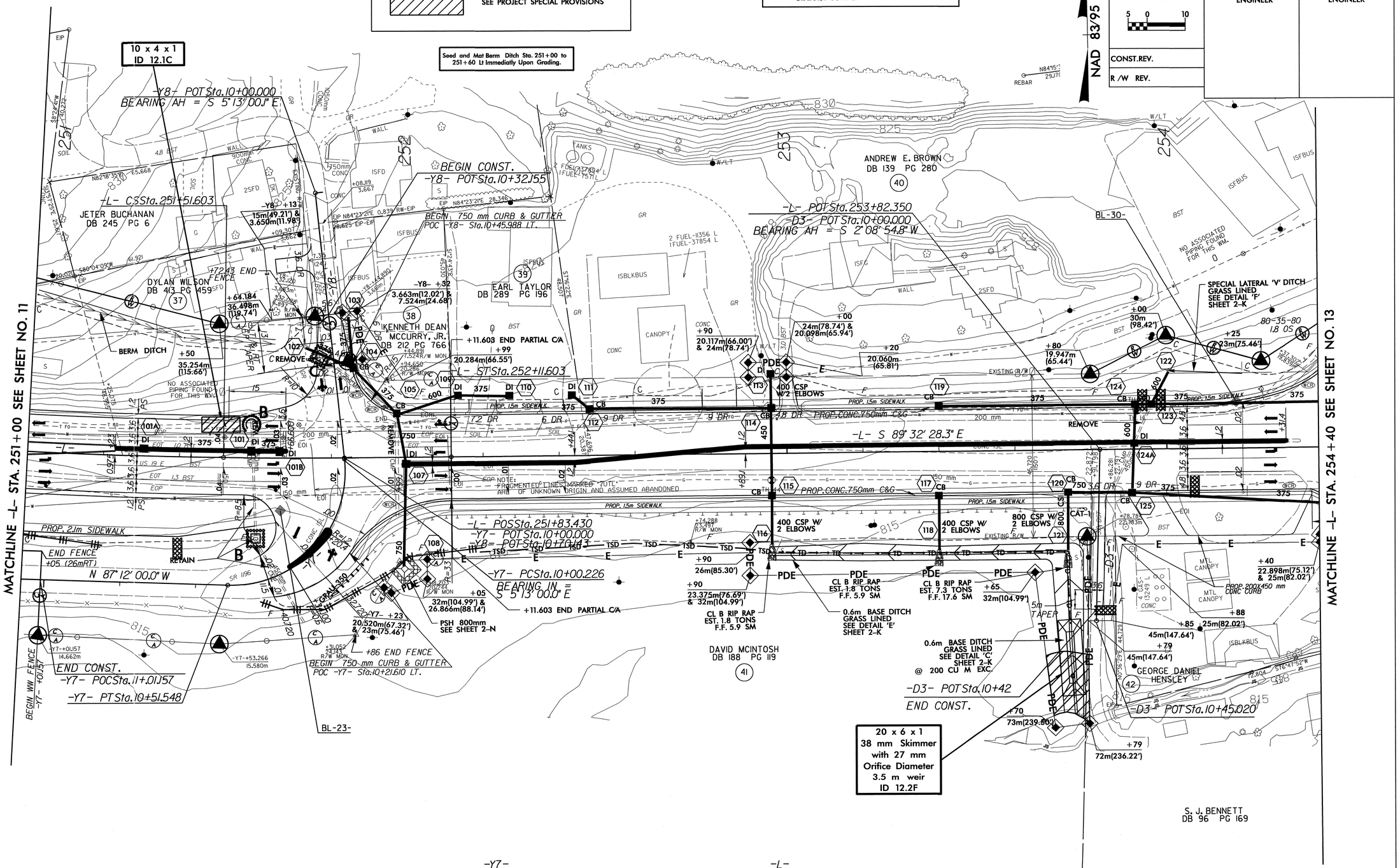
NAD 83/95

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 12

Seed and Mat Berm Ditch Sta. 251+00 to 251+60 Lt Immediately Upon Grading.




-Y7-

PI Sta 10+34.747
Δ = 98° 01' 00.0" (RT)
L = 51.321
T = 34.521
R = 30.000
SE = SEE PLANS

-L-

| PIs Sta 250+08.231 | PI Sta 250+89.963 | PIs Sta 251+71.604 |
|---|---|---|
| Θs = 1° 19' 20.0" | Δ = 5° 26' 15.0" (LT) | Θs = 1° 19' 20.0" |
| Ls = 60.000 | L = 123.373 | Ls = 60.000 |
| LT = 40.001 | T = 61.733 | LT = 40.001 |
| ST = 20.001 | R = 1,300.000 | ST = 20.001 |
| | SE = 04 | |

FOR -L- PROFILE SEE SHEET 48
FOR -Y7- PROFILE SEE SHEET 63
FOR -Y8- PROFILE SEE SHEET 64
FOR -D3- PROFILE SEE SHEET 72
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

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mwhorsey

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-13/CONST.13 |
| 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 13

NAD 83/95

MATCHLINE -L- STA. 254+40 SEE SHEET NO.12

MATCHLINE -L- STA. 257+80 SEE SHEET NO. 14

GERALD W. HONEYCUTT AND WIFE DONNA HONEYCUTT DB 230 PG 5

DO NOT DISTURB EXIST.SIGN

HIGH FIVE HOSPITALITY HOLDINGS, LLC DB 528 PG 361-368

YANCEY COUNTY RESCUE SQUAD DB 228 PG 723

FRANK MANEY DB 191 PG 582

-Y9- PC Sta.10+20.626

-Y9- POT Sta.10+00.000

-Y9- S 86° 15' 06.9" W

BEGIN CONST.

-Y9- POC Sta.11+07.000

-Y9- +14.881 6.146m(20.18')

-Y9- +25 12m(39.37')

-Y9- +03.148 5.888m(31.09')

-Y9- PT Sta.11+69.883

-Y9- +05.522 13m(42.65')

-L- POT Sta.254+43.469

-Y9- POT Sta.11+80.000

-L- PC Sta.255+23.530

-Y9- +22 13m(42.65')

-Y9- +25.973 13m(42.65')

-Y9- +87 26.806m(87.95')

+93 26m(85.30') & 22.723m(74.55')

+15 26m(85.30') & 22.881m(74.41')

BARBARA FORD DB 216 PG 10

PROP. 200X450 mm CONC CURB

PROP. 15m SIDEWALK

REMOVE

-L- POC Sta. 256+17.000= -D4REV- POT Sta. 10+00.000

TOE PROTECTION PSRM SEE DETAIL 'A' SHEET 2-K

1200mm BLK WALL

FUEL TANK

TRUCK SCALES

CONC WHEEL GUARDS

HIGH FIVE HOSPITALITY HOLDINGS, LLC DB 528 PG 361-368

USI9E BUS 7.2 BST

BURNSVILLE CITY LIMITS

-Y10- POT Sta.9+80.000

BEARING AH = S 11° 10' 00.0" E

-Y10- POT Sta.9+91.742

BEGIN CONST.

-Y10- +91.742 15m(49.21')

2.1m X 2.1m RCBC W/SILLS

-L- POC Sta.257+52.804

-Y10- POT Sta.10+70.161

-Y10- +43.757 15m(49.21')

2 @ 1.83m X 1.83m

400 CSP W/2 ELBOWS

PROP. CONC. 450mm C&G

PROP. CONC. 750mm C&G

-L- PROP. CONC. 450mm C&G

S 89° 32' 28.3" E

PREMIER MTN. PROPERTIES DB 198 PG 527

FRANK DEYTON DB 322 PG 241

S. J. BENNETT DB 96 PG 169

YANCEY MOBILE HOME SALES DB 364 PG 470

CL B RIP RAP EST. 2.7 TONS F.F. 8.4 SM

CLASS 'I' RIP RAP SEE DETAIL 'A2' SHEET 2-L

2.41m X 1.70m CSPA BURIED 0.3m

PROPOSED RETAINING WALL #1 -L- 256+27 TO 257+20

TIE PROP. RETAINING WALL TO RCBC WING WALL

BANK PROTECTION SEE DETAIL C-12 SHEET 2-M

-Y10- PC Sta.10+71.330

ENERGY DISSIPATOR BASIN SEE SHEET 2-P

900 CSP W/ELBOWS

TIE SPRING BOX TO 2GI

LATERAL 'V' DITCH GRASS LINED SEE DETAIL 'N' SHEET 2-K

LATERAL 'V' DITCH GRASS LINED SEE DETAIL 'B' SHEET 2-K

0.6m BASE DITCH GRASS LINED SEE DETAIL 'C' SHEET 2-K @150 CU M EXC

RIP RAP @ EMBANKMENT CLASS 'I' EST. 15 TONS F.F. 6.7 SM SEE DETAIL 'D' SHEET 2-K

CL B RIP RAP EST. 4.5 TONS F.F. 11.7 SM

-D4REV- POT Sta.10+50.000

-D4REV- POT Sta.10+35.000

BRG BK = S 5° 29' 30.2" E

END CONST.

12 x 9 x 1 38 mm Skimmer with 27 mm Orifice Diameter 6.5 m weir ID 13.1F

20 x 11 x 1 38 mm Skimmer with 36 mm Orifice Diameter 8.5 m weir ID 13.3F

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

-Y10- PT Sta.11+35.617

BEARING AH = S 39° 30' 00.0" E

-Y10- PC Sta.11+44.243

END CONST.

0.9m SPECIAL CUT BASE DITCH SEE DETAIL 'U' SHEET 2-K

-Y10- PT Sta.11+71.793

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

-L-

PI Sta 256+63.645
Δ = 17° 41' 52.6" (LT)
L = 277.999
T = 140.115
R = 900.000
SE = 0.03

-Y10-

| PI Sta 11+04.145 | PI Sta 11+58.050 |
|---|---|
| Δ = 28° 20' 00.0" (LT) | Δ = 9° 34' 00.0" (LT) |
| L = 64.286 | L = 27.550 |
| T = 32.815 | T = 13.807 |
| R = 130.000 | R = 165.000 |
| SE = SEE PLANS | SE = SEE PLANS |

FOR -L- PROFILE SEE SHEET 48
FOR -Y9- & -Y10- PROFILE SEE SHEET 64
FOR -D4- PROFILE SEE SHEET 72
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

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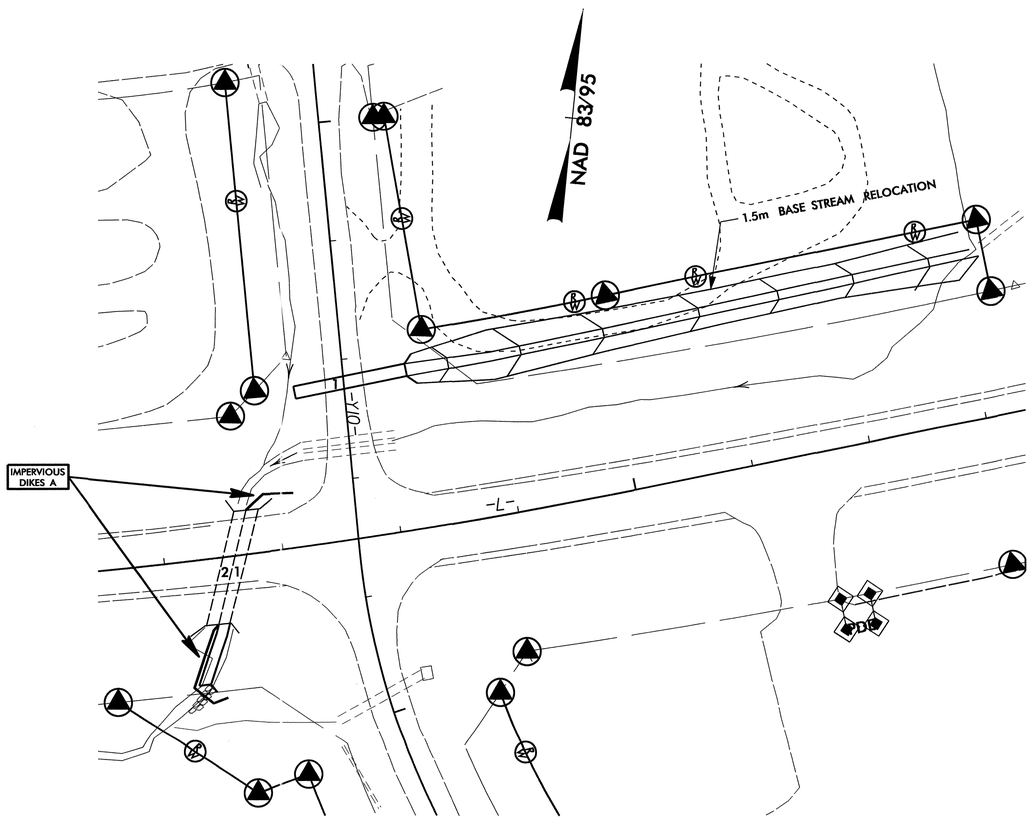
mshercock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-14/CONST13 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 257+31.9 –L– (SHEET 1 OF 2)

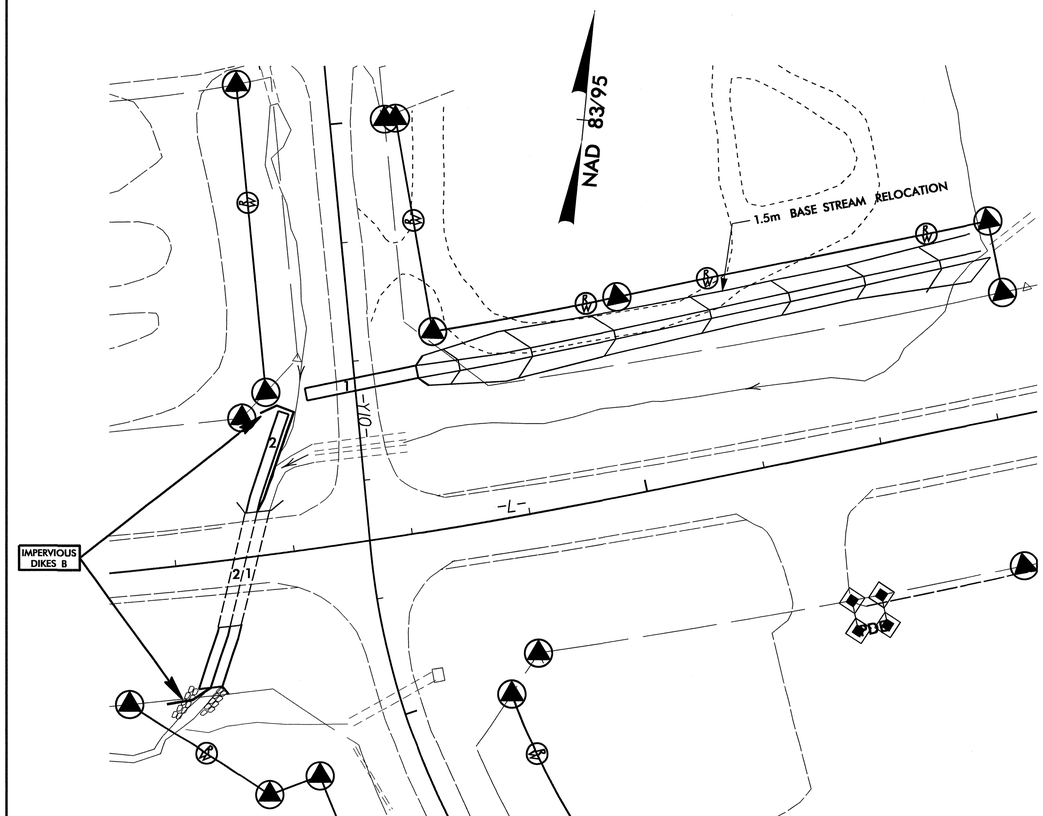
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT 1.5 METER BASE STREAM RELOCATION AND 19 METERS +/- OF BARREL 1 UNDER –Y10–.
3. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW.
4. CONSTRUCT OUTLET EXTENSION OF BARREL 1, AND PORTION OF OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKES A.




## PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW.
7. CONSTRUCT OUTLET EXTENSION OF BARREL 2, AND REMAINDER OF OUTLET CHANNEL IMPROVEMENTS.
8. CONSTRUCT 18 METERS +/- OF BARREL 2 INLET EXTENSION.
9. REMOVE IMPERVIOUS DIKES B.

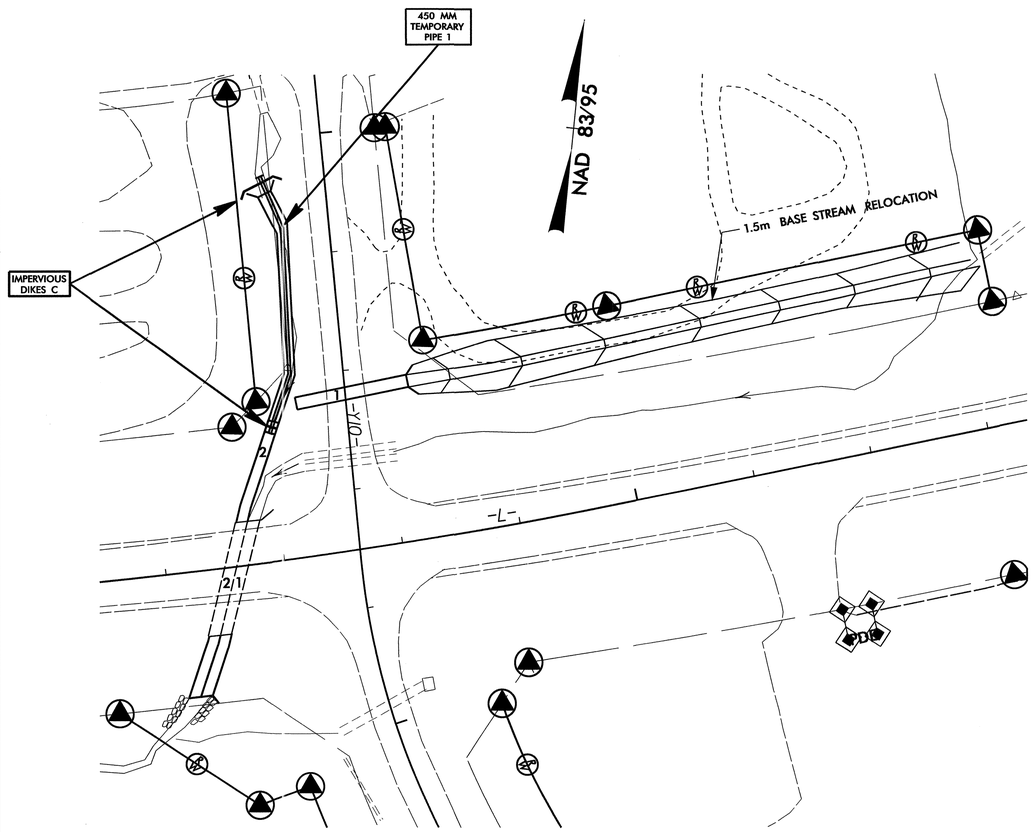


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-15/CONST13 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 257+31.9 –L– (SHEET 2 OF 2)

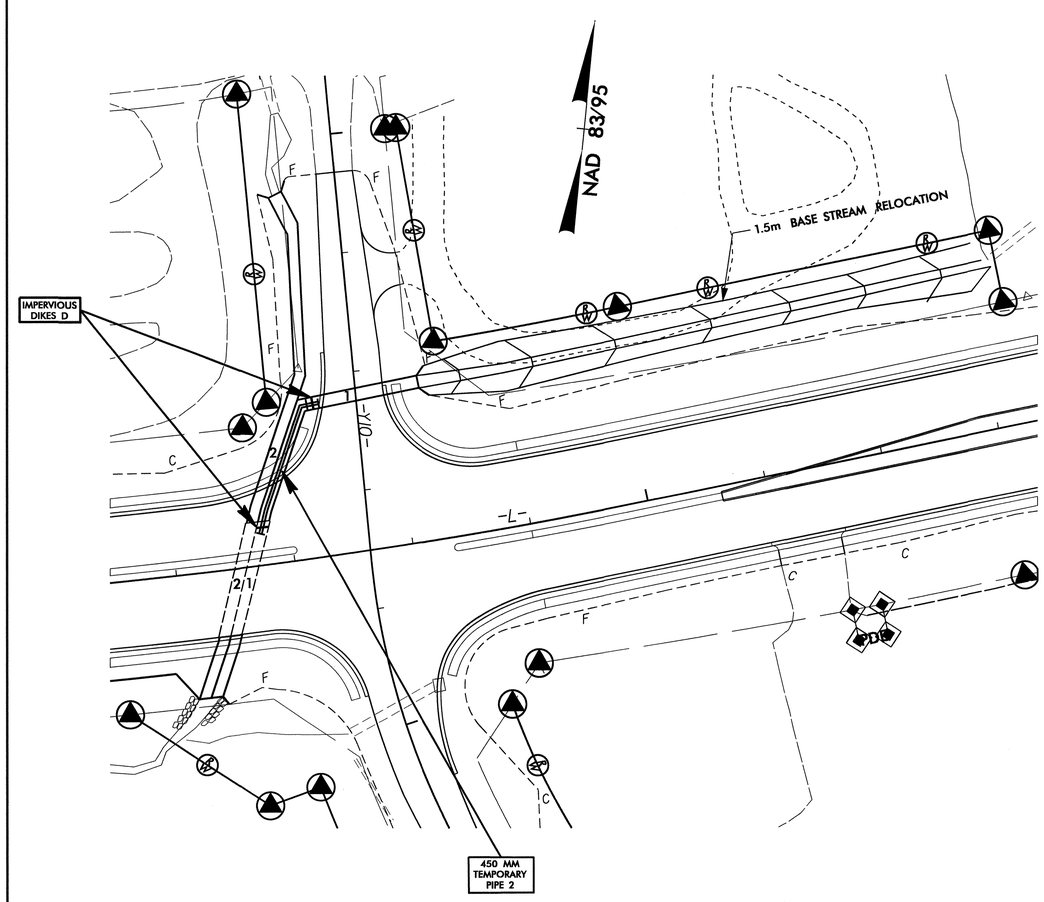
## PHASE III

10. CONSTRUCT IMPERVIOUS DIKES C AND INSTALL 450 MM TEMPORARY PIPE 1, DIVERTING FLOW.
11. CONSTRUCT REMAINDER OF BARREL 2.
12. REMOVE IMPERVIOUS DIKES C AND TEMPORARY PIPE 1, ALLOWING FLOW THROUGH COMPLETED BARREL 2.




## PHASE IV

13. DIVERT FLOW THROUGH 1.5 METER BASE STREAM RELOCATION AND PORTION OF BARREL 1 CONSTRUCTED UNDER –Y10–.
14. CONSTRUCT IMPERVIOUS DIKES D AND INSTALL 450 MM TEMPORARY PIPE 2, DIVERTING FLOW.
15. CONSTRUCT REMAINDER OF BARREL 1.
16. REMOVE IMPERVIOUS DIKES D AND TEMPORARY PIPE 2, ALLOWING FLOW THROUGH COMPLETED BARREL 1.
17. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
18. COMPLETE ROADWAY.



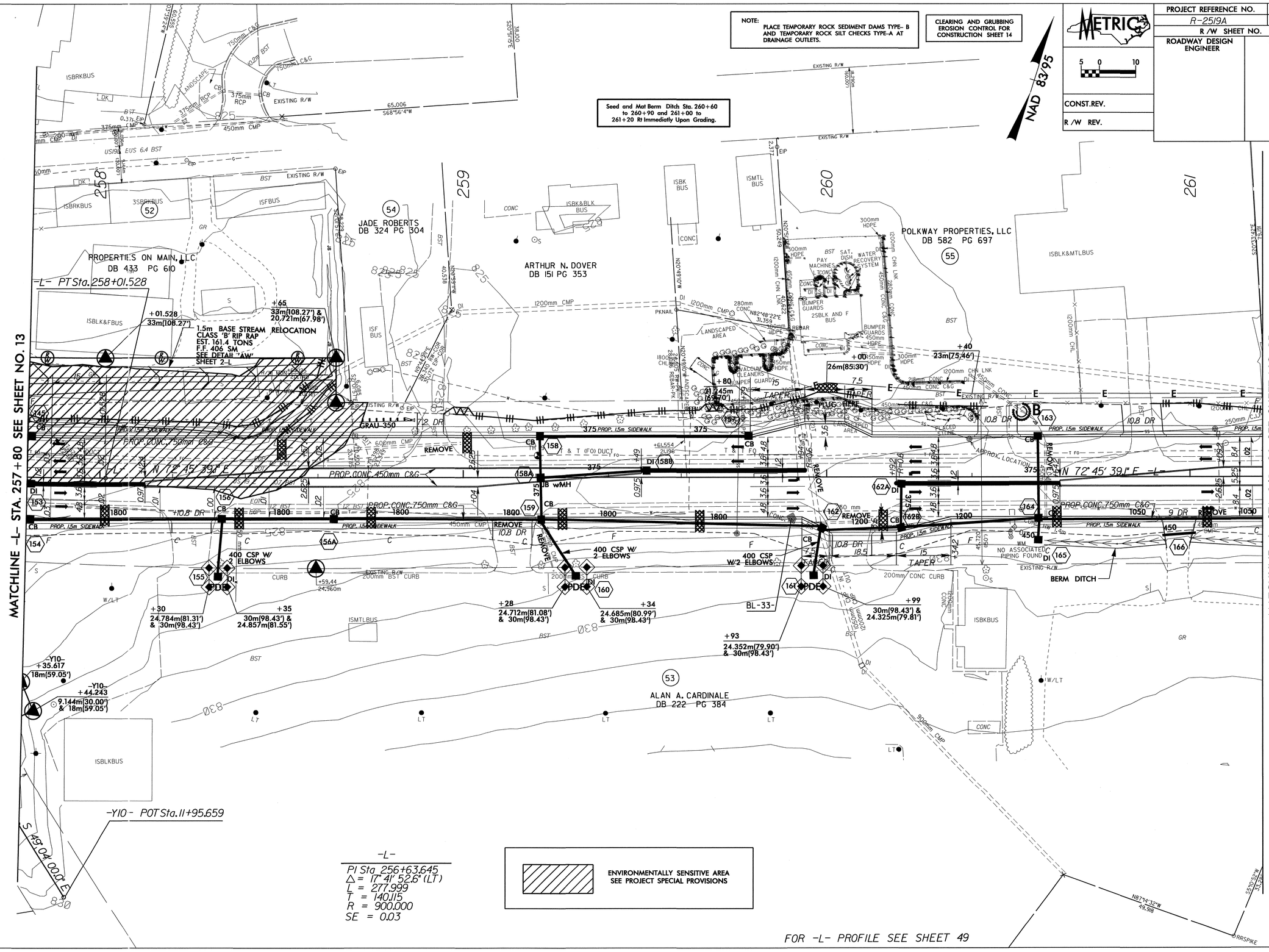
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-16/CONST.14 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC

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 14

Seed and Mat Berm Ditch Sta. 260+60 to 260+90 and 261+00 to 261+20 Rt Immediatly Upon Grading.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-17/CONST.15 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

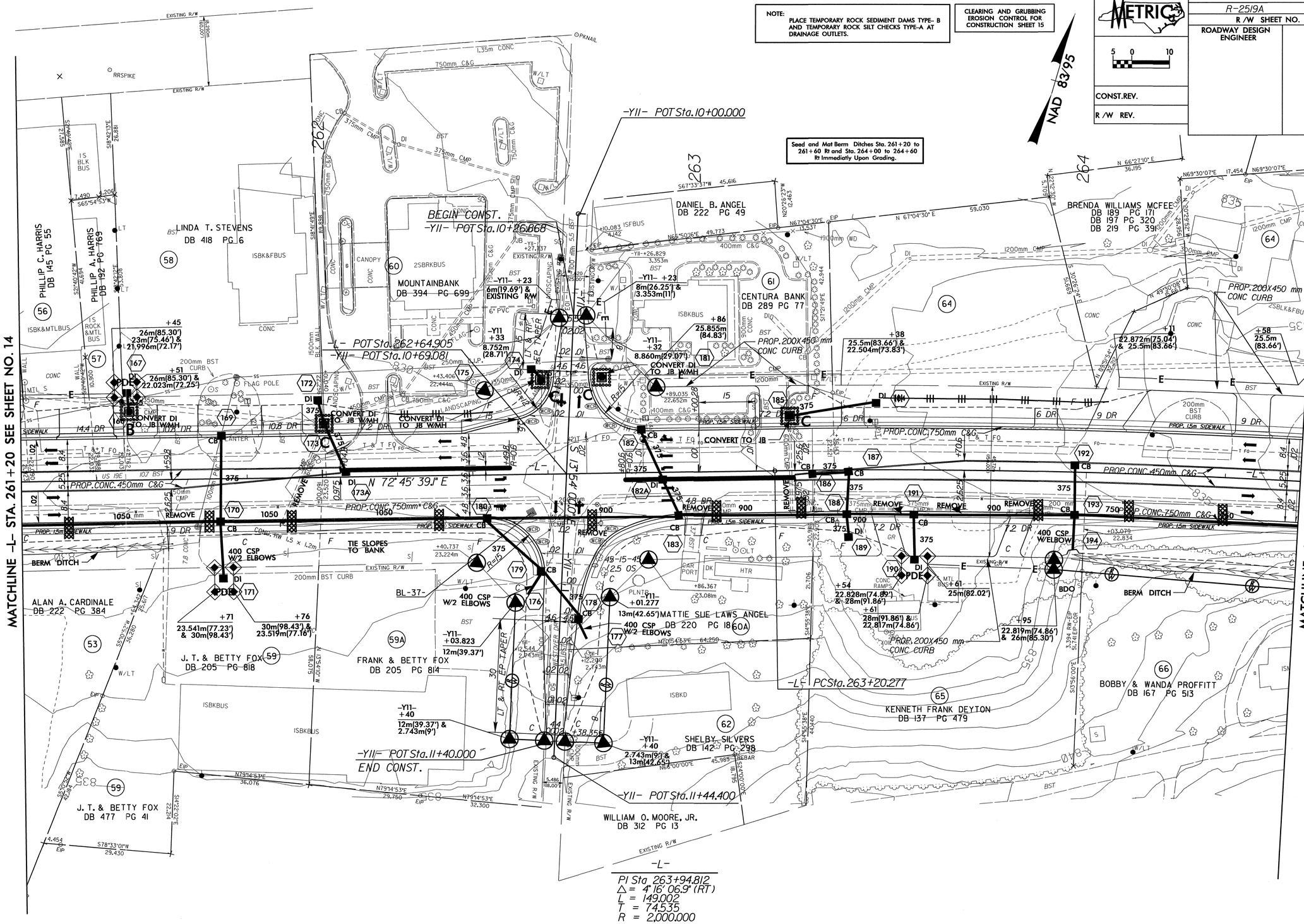
METRIC 5 0 10

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 15

Seed and Mat Berm Ditches Sta. 261+20 to 261+60 Rt and Sta. 264+00 to 264+60 Rt Immediatly Upon Grading.

NAD 83/95




PI Sta 263+94.812
Δ = 4° 16' 06.9" (RT)
L = 149.002
T = 74.535
R = 2,000.000
SE = 0.02

FOR -L- PROFILE SEE SHEET 49
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

8/17/99

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mmorrock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-18/CONST.16 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

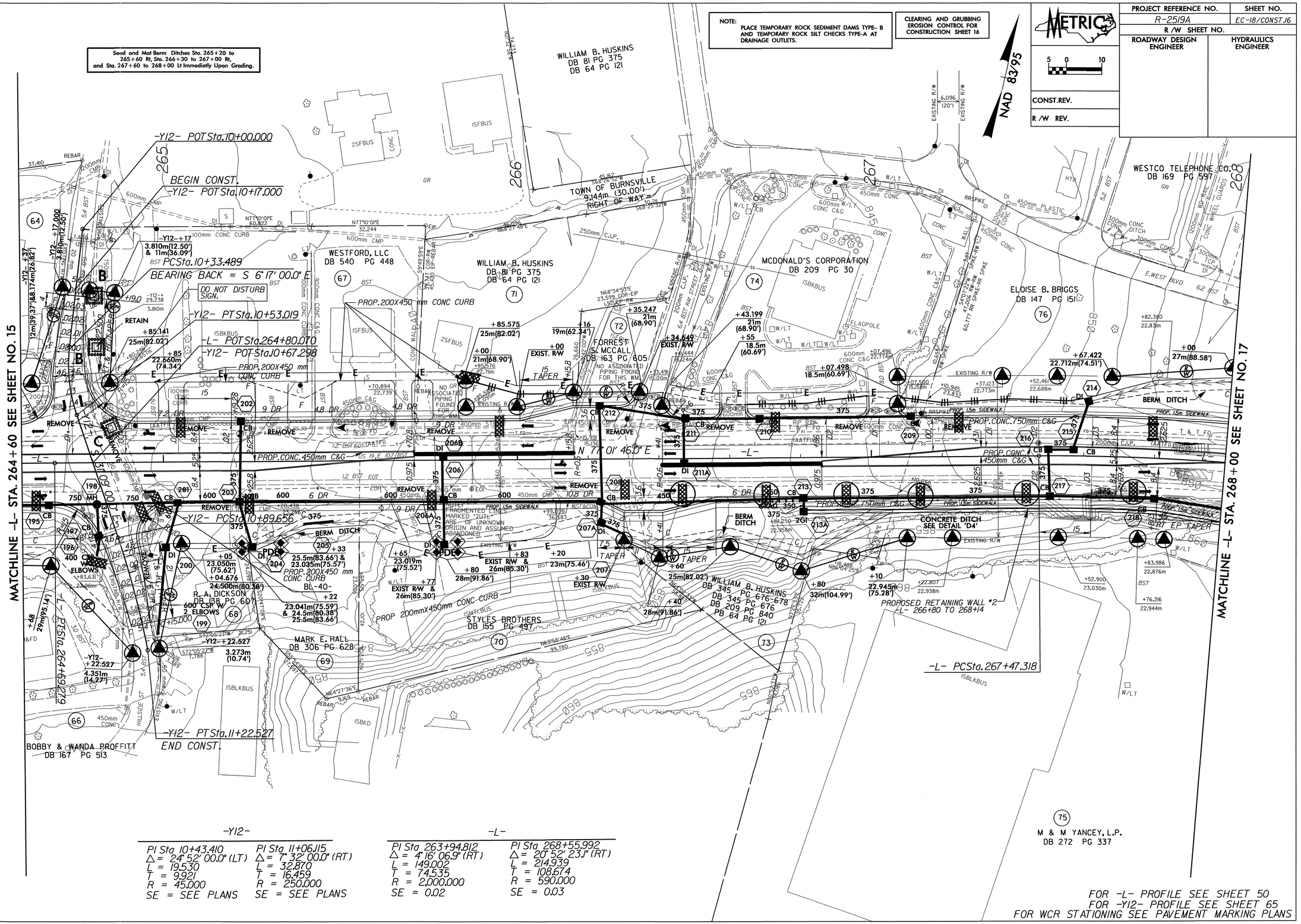
METRIC 5 0 10

NAD 83/95

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 16

Seed and Mat Berm Ditches Sta. 265+20 to 265+60 Rt, Sta. 266+30 to 267+00 Rt, and Sta. 267+60 to 268+00 Lt Immediatly Upon Grading.




-Y12-

| | |
|---|---|
| PI Sta 10+43.410 | PI Sta 11+06.115 |
| Δ = 24° 52' 00.0" (LT) | Δ = 7° 32' 00.0" (RT) |
| L = 19.530 | L = 32.870 |
| T = 9.921 | T = 16.459 |
| R = 45.000 | R = 250.000 |
| SE = SEE PLANS | SE = SEE PLANS |

-L-

| | |
|---|---|
| PI Sta 263+94.812 | PI Sta 268+55.992 |
| Δ = 4° 16' 06.9" (RT) | Δ = 20° 52' 23.1" (RT) |
| L = 149.002 | L = 214.939 |
| T = 74.535 | T = 108.674 |
| R = 2,000.000 | R = 590.000 |
| SE = 0.02 | SE = 0.03 |

FOR -L- PROFILE SEE SHEET 50
FOR -Y12- PROFILE SEE SHEET 65
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

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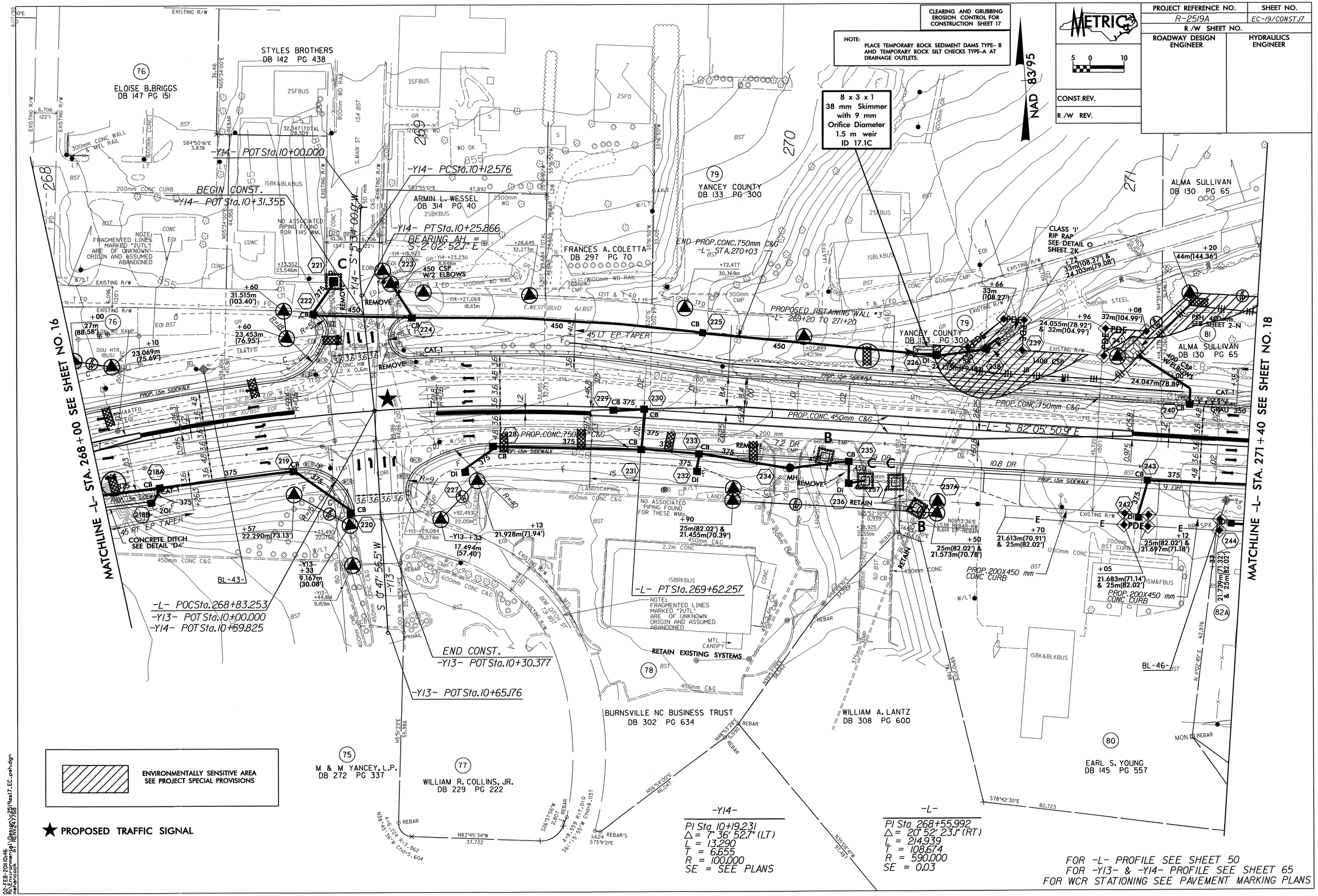
mmoncock



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.
METRIC
PROJECT REFERENCE NO. R-2519A
SHEET NO. EC-19/CONST.17
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
NAD 83/95
8 x 3 x 1 38 mm Skimmer with 9 mm Orifice Diameter 1.5 m weir ID 17.1C
STYLES BROTHERS DB 142 PG 438
ELOISE B.BRIGGS DB 147 PG 151
ARMIN L. WESSEL DB 314 PG 40
FRANCES A. COLETTA DB 297 PG 70
YANCEY COUNTY DB 133 PG 300
ALMA SULLIVAN DB 130 PG 65
BEGIN CONST. -Y14- POT Sta.10+31.355
-Y14- POT Sta.10+00.000
-Y14- PC Sta.10+12.576
-Y14- PT Sta.10+25.866
BEARING AH = S 2°02'52.7" E
END PROP.CONC.750mm C&G -L- STA.270+03
PROPOSED RETAINING WALL #3 -L- 269+20 TO 271+20
CLASS 'I' RIP RAP SEE DETAIL O SHEET 2K
-L- S 82°05'50.9" E
-L- PT Sta.269+62.257
-L- POC Sta.268+83.253
-Y13- POT Sta.10+00.000
-Y14- POT Sta.10+59.825
END CONST. -Y13- POT Sta.10+30.377
-Y13- POT Sta.10+65.176
CONCRETE DITCH SEE DETAIL 'D4'
RETAIN EXISTING SYSTEMS
BURNSVILLE NC BUSINESS TRUST DB 302 PG 634
WILLIAM A. LANTZ DB 308 PG 600
M & M YANCEY, L.P. DB 272 PG 337
WILLIAM R. COLLINS, JR. DB 229 PG 222
EARL S. YOUNG DB 145 PG 557
MATCHLINE -L- STA. 268+00 SEE SHEET NO. 16
MATCHLINE -L- STA. 271+40 SEE SHEET NO. 18
ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS
★ PROPOSED TRAFFIC SIGNAL
-Y14- PI Sta 10+19.231 Δ = 7° 36' 52.7" (LT) L = 13.290 T = 6.655 R = 100.000 SE = SEE PLANS
-L- PI Sta 268+55.992 Δ = 20° 52' 23.1" (RT) L = 214.939 T = 108.674 R = 590.000 SE = 0.03
FOR -L- PROFILE SEE SHEET 50
FOR -Y13- & -Y14- PROFILE SEE SHEET 65
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-20/CONST.18 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

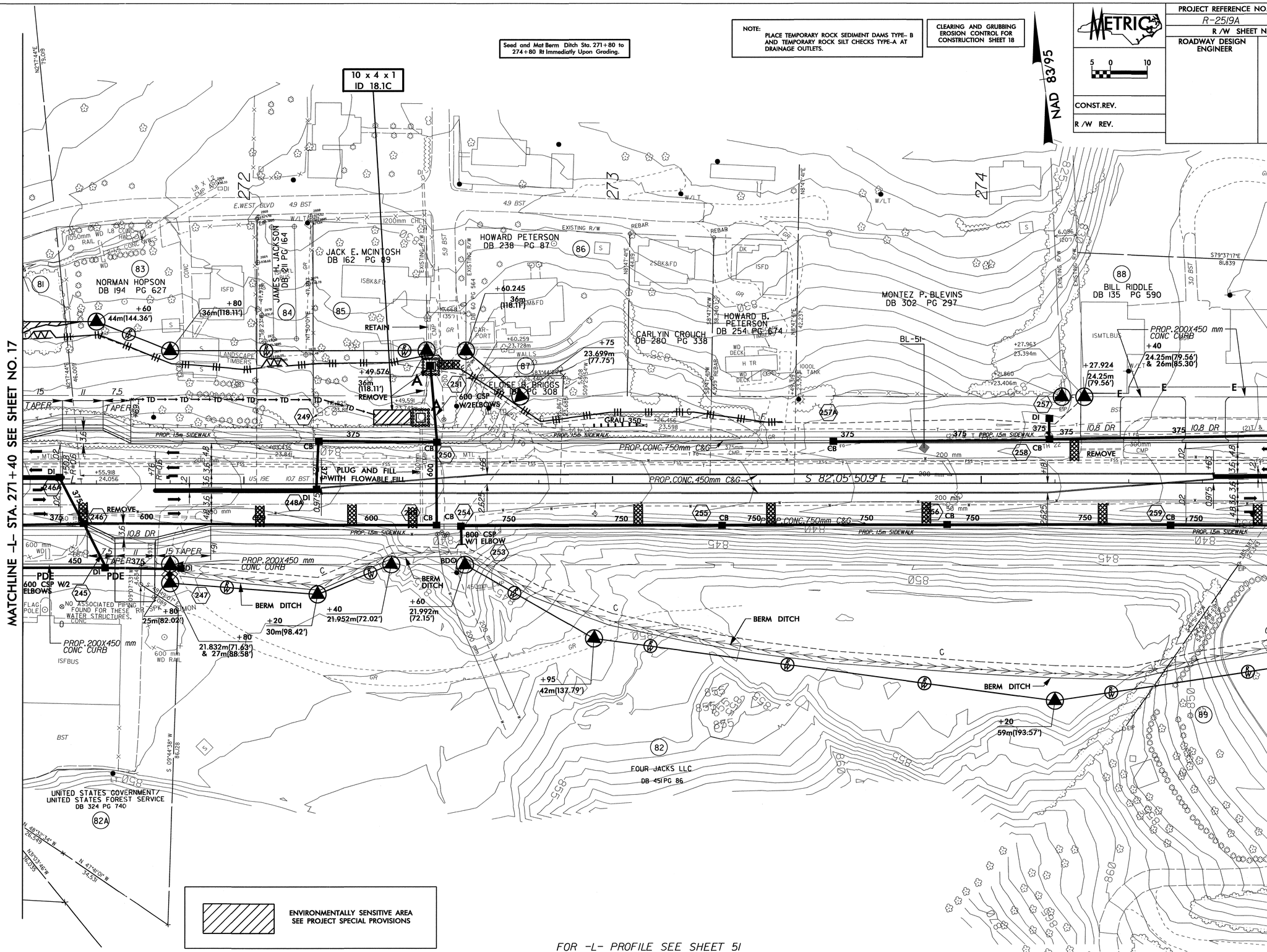
CONST.REV.

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 18

Seed and Mat Berm Ditch Sta. 271+80 to 274+80 Rt Immediatly Upon Grading.




FOR -L- PROFILE SEE SHEET 51

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mehancock AT RENI247768

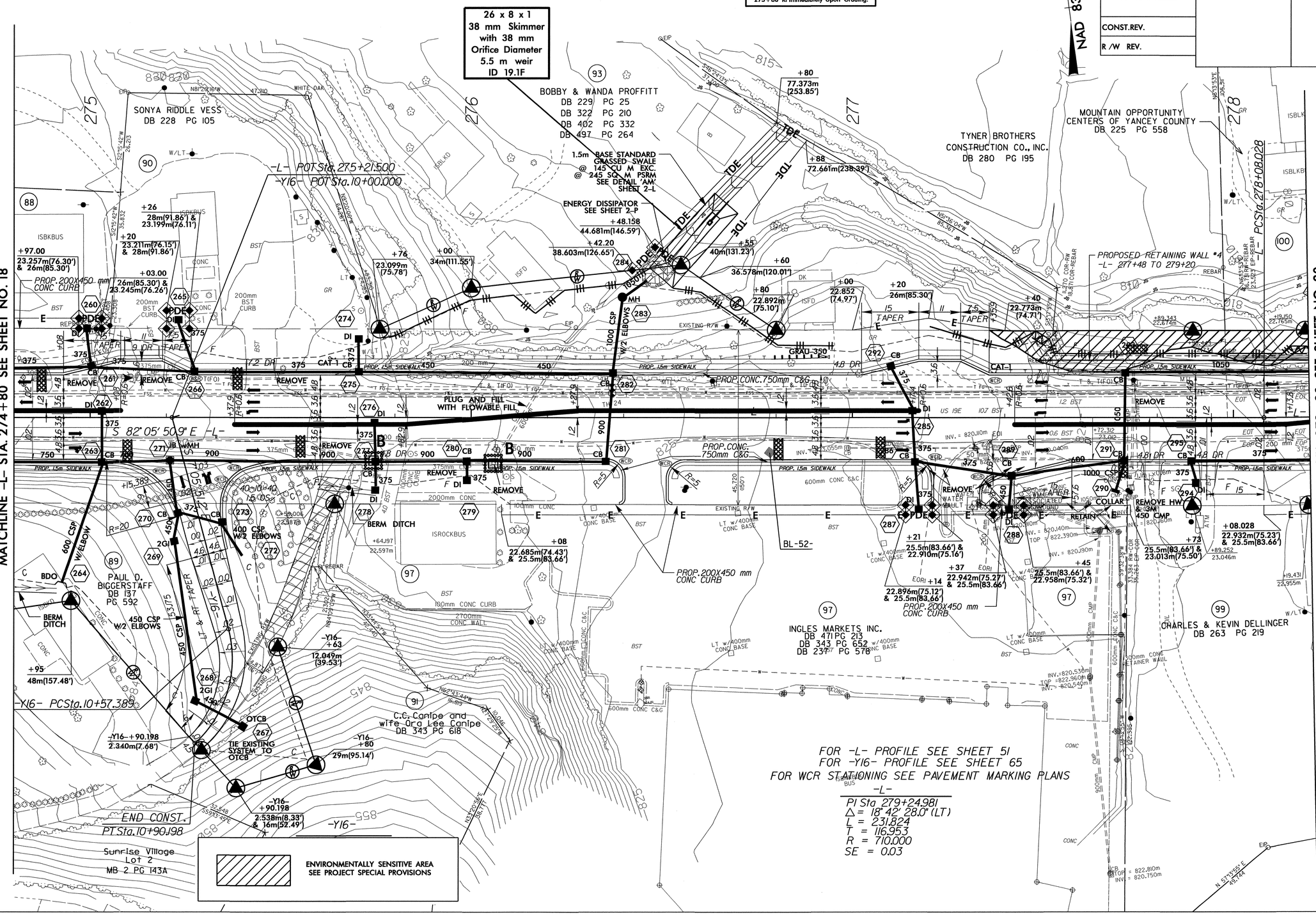
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-21/CONST.19 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC

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 19

Seed and Mat Berm Ditch Sta. 274+80 to 274+90 Rt and Sta. 275+50 to 275+80 Rt Immediately Upon Grading.




FOR -L- PROFILE SEE SHEET 51
FOR -Y16- PROFILE SEE SHEET 65
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

-L-
PI Sta 279+24.981
Δ = 18° 42' 28.0" (LT)
L = 231.824
T = 116.953
R = 710.000
SE = 0.03

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mehancock AT RENV247768

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-22/CONST.20 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC 5 0 10

NAD 83/95

-Y17-

PI Sta 11+24.83
Δ = 15° 50' 00.0" (RT)
L = 45.597
T = 22.945
R = 165.000
SE = SEE PLANS

PI Sta 12+01.039
Δ = 24° 06' 00.0" (RT)
L = 60.991
T = 30.953
R = 145.000
SE = SEE PLANS

PI Sta 12+73.510
Δ = 2° 22' 00.0" (RT)
L = 41.306
T = 20.656
R = 1,000.000
SE = SEE PLANS

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 20

7 x 3 x 1
38 mm Skimmer
with 6 mm
Orifice Diameter
1.5 m weir
ID 20.1C

BEGIN CONST.
-Y17- POT Sta.10+23.000

-Y17- PCSta.11+01.239

-Y17- PT Sta.11+46.835

-L- POCSta.279+42.984

-Y17- POT Sta.11+58.788

MATCHLINE -L- STA. 278+20 SEE SHEET NO. 19

MATCHLINE -L- STA. 281+60 SEE SHEET NO. 21

MATCHLINE -Y17- STA. 12+30 SEE SHEET NO. 41

CHARLES RANDOLPH
DB 220 PG 451

FRANK FOX
DB 191 PG 260

WALLACE B. EDGE
DB 201 PG 625

CHARLES & KEVIN DELLINGER
DB 263 PG 219

DELX, INC.
DB 354 PG 537
UNRECORDED PLAT

RUSSELL DAVID ROLAND
DB 363 PG 130

ELOISE B. BRIGGS
DB 94 PG 413

GREG & MADELINE BRYANT
DB 139 PG 448
DB 192 PG 33

LUTHER H. LAWHERN
DB 151 PG 337

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

CLASS "I" RIP RAP
SEE DETAIL "AZ"
SHEET 2-L

1.0m BASE
GRASSED SWALE
SEE DETAIL 'X'
SHEET 2-L

0.6m BASE LATERAL
GRASSED SWALE
SEE DET. 'V' SHT. 2-K

LOW FLOW BENCH
SEE DET. C-12 SHT. 2-M
EST. 120 CU. M. DDE
EST. 13 TONS RIP RAP

LOW FLOW BENCH
SEE DETAIL C-12 SHEET 2-M
EST. 40 CU./M. DDE
EST. 14 TONS RIP RAP

PSH 1050mm
SEE SHEET 2-N

CLASS I RIP RAP
SEE DETAIL 'W'
EST. 100 TONS

PROPOSED RETAINING WALL

PROP. 200X450 mm CONC CURB

PROP. CONC. 450mm C&G

PROP. CONC. 750mm C&G

PROP. 15m SIDEWALK

BERM DITCH

Seed and Mat Berm Ditch Sta. 280+80 to 281+60 Rt Immediately Upon Grading.

NOTE:
FRAGMENTED LINES MARKED "?UTL" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED

-L-
PI Sta 279+24.981
Δ = 18° 42' 28.0" (LT)
L = 231.824
T = 116.953
R = 710.000
SE = 0.03

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

★ PROPOSED TRAFFIC SIGNAL

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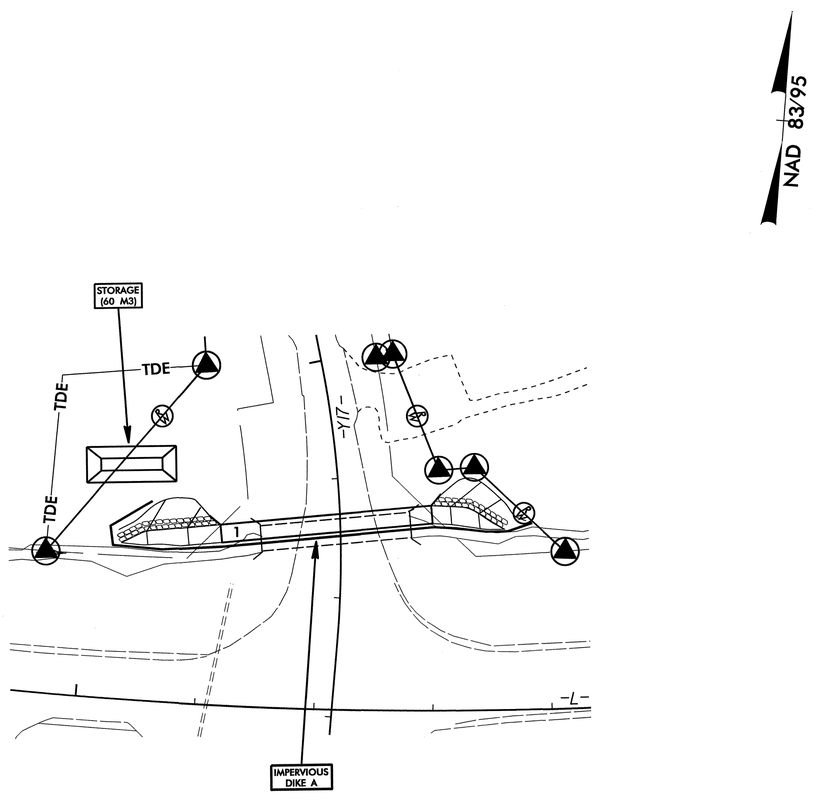
mehancock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-23/CONST.20 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 11+28.90 –Y17–

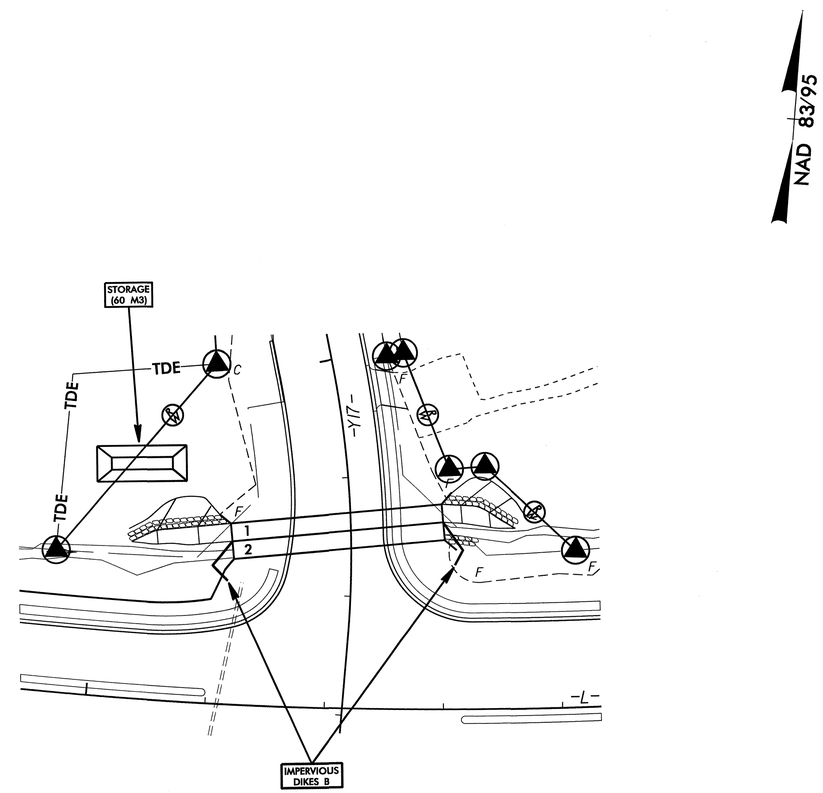
## PHASE I

1. CONSTRUCT STILLING BASIN (60 M3).
2. REMOVE EXISTING CULVERT.
3. CONSTRUCT IMPERVIOUS DIKE A, DIVERTING FLOW.
4. CONSTRUCT BARREL 1 OF PROPOSED CULVERT AND PORTION OF THE INLET/OUTLET CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKE A.




## PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1 OF PROPOSED CULVERT.
7. CONSTRUCT BARREL 2 OF PROPOSED CULVERT AND REMAINDER OF THE INLET/OUTLET CHANNEL IMPROVEMENTS.
8. REMOVE IMPERVIOUS DIKES B, ALLOWING NORMAL FLOW THROUGH PROPOSED CULVERT.
9. REMOVE STILLING BASIN.
10. COMPLETE ROADWAY.

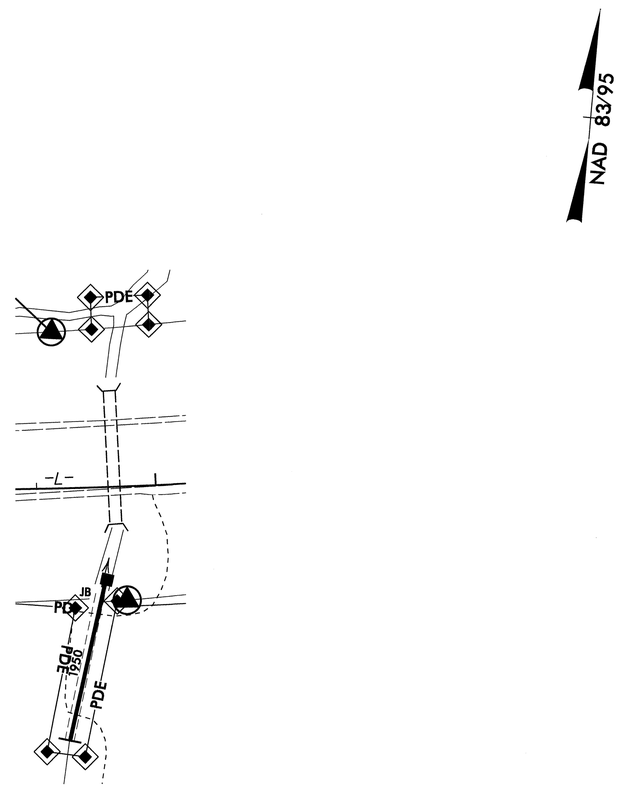


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-24/CONST.20 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 279+93.0 -L-

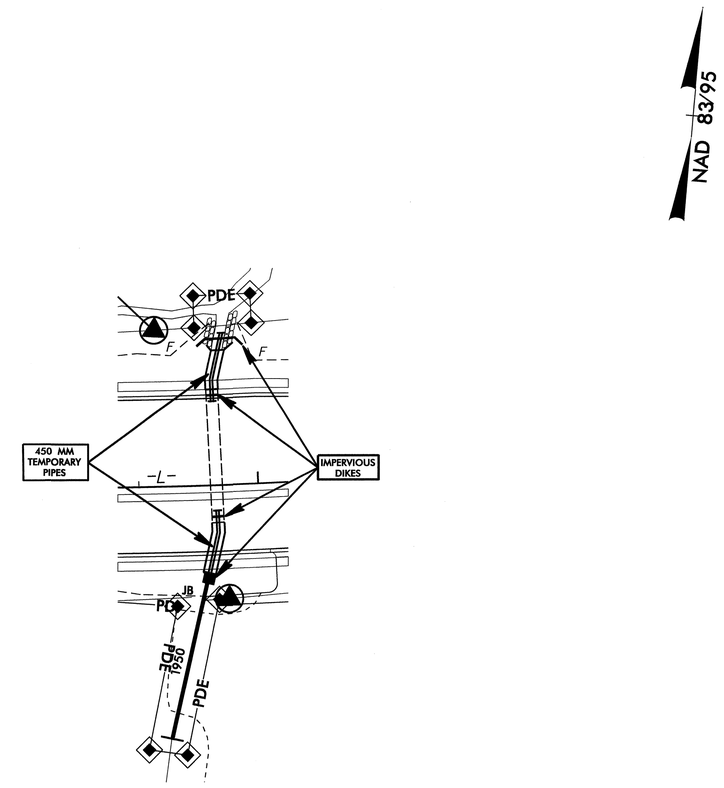
## PHASE I

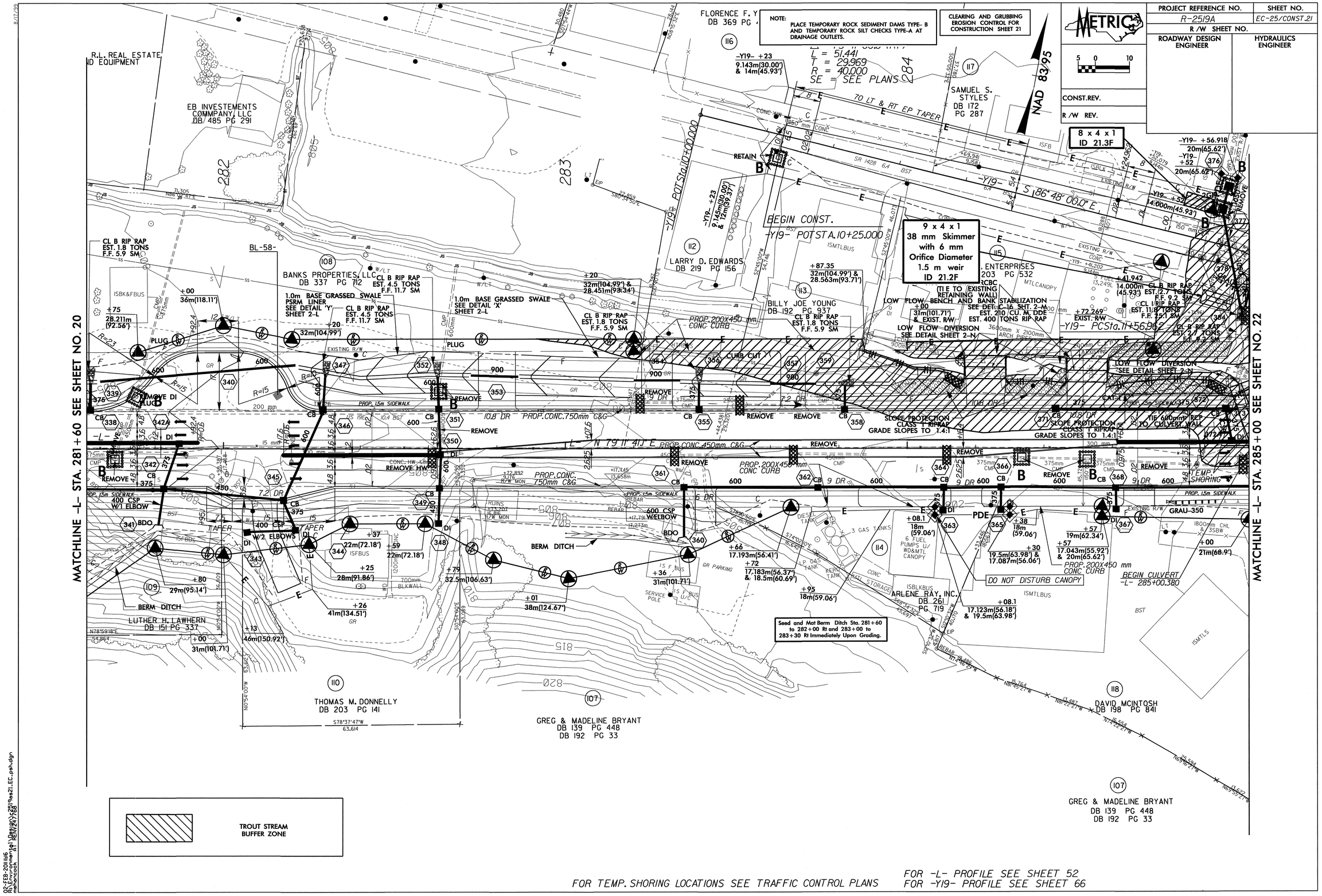
1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. REMOVE EXISTING 1500 MM CSP.
3. INSTALL 1950 MM RCP, UTILIZING "BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES" TO DEWATER SITE.
4. CONSTRUCT JUNCTION BOX.




## PHASE II

5. CONSTRUCT IMPERVIOUS DIKES AND INSTALL 450 MM TEMPORARY PIPES, DIVERTING FLOW.
6. CONSTRUCT PROPOSED CULVERT EXTENSIONS AND PROPOSED OUTLET CHANNEL IMPROVEMENTS.
7. REMOVE IMPERVIOUS DIKES AND TEMPORARY PIPES.
8. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
9. COMPLETE ROADWAY.






FOR TEMP. SHORING LOCATIONS SEE TRAFFIC CONTROL PLANS

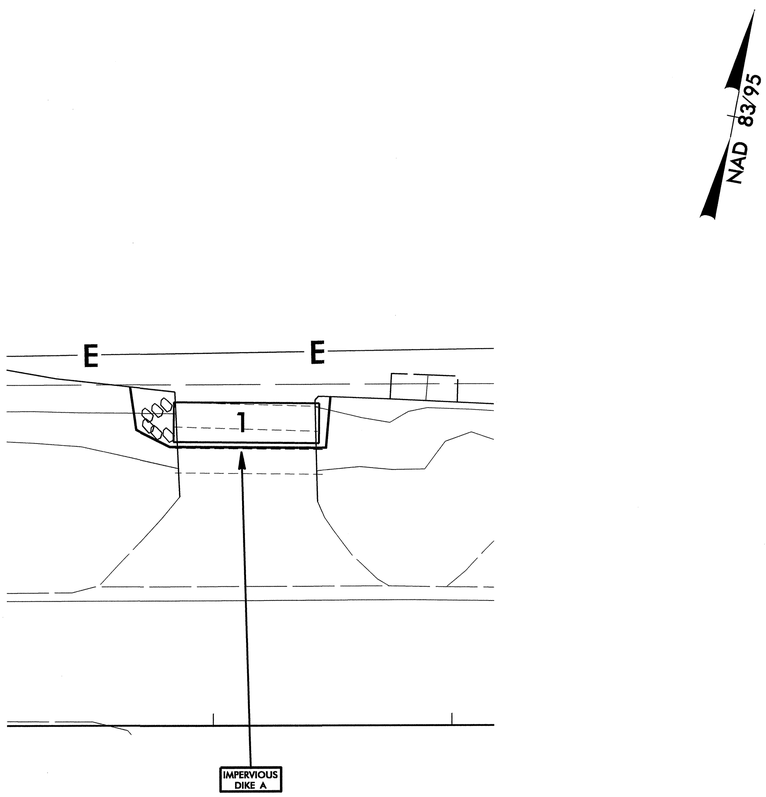
FOR -L- PROFILE SEE SHEET 52
FOR -Y19- PROFILE SEE SHEET 66

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-26/CONST.21 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 284+22.74 –L– (23.5M LT.)

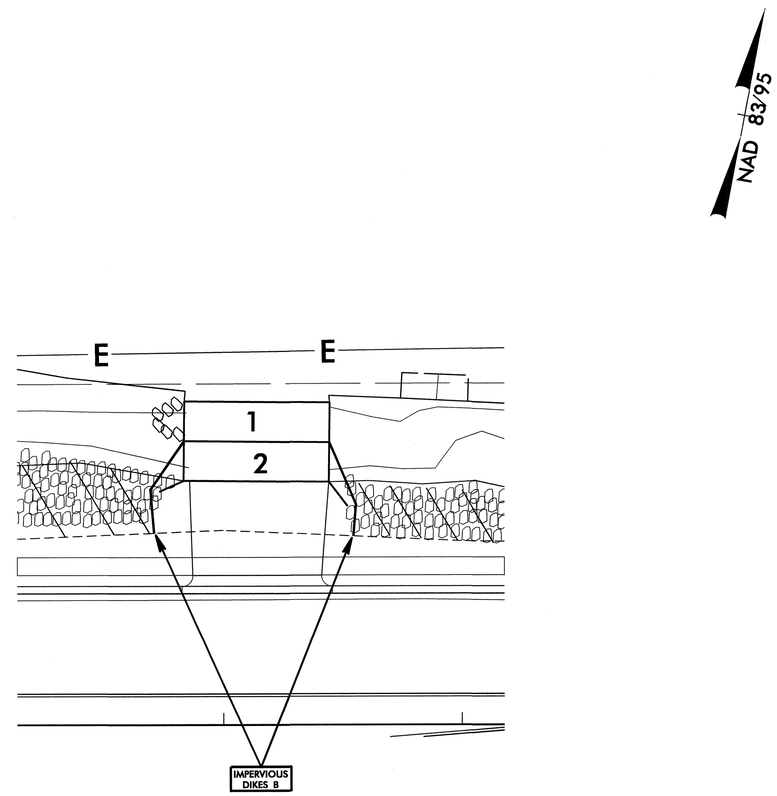
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. REMOVE EXISTING 3600 MM X 2100 MM ARCH PIPES.
3. CONSTRUCT IMPERVIOUS DIKE A, DIVERTING FLOW.
4. CONSTRUCT BARREL 1 OF PROPOSED CULVERT, AND PORTION OF THE CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKE A.




## PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
7. CONSTRUCT BARREL 2 OF PROPOSED CULVERT.
8. CONSTRUCT REMAINDER OF THE CHANNEL IMPROVEMENTS.
9. REMOVE IMPERVIOUS DIKES B.
10. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
11. COMPLETE ROADWAY.

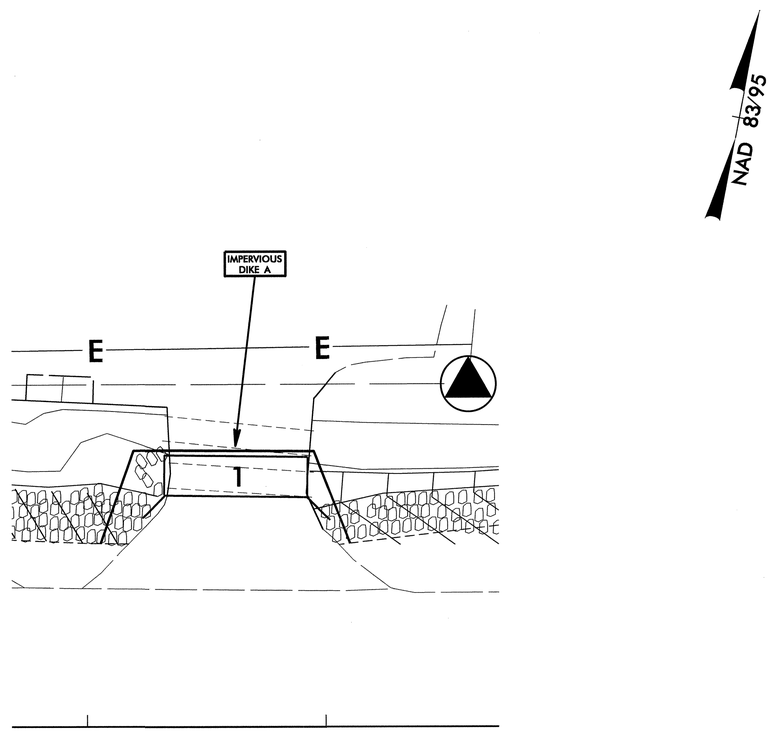


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-27/CONST.21 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 284+52.46 –L– (23.0M LT.)

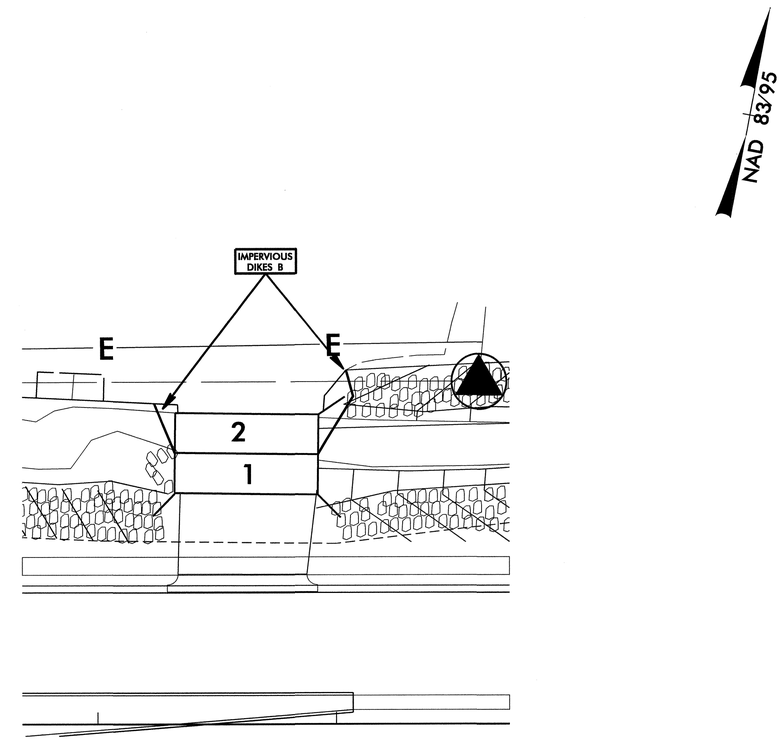
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. REMOVE EXISTING 3600 MM X 2100 MM ARCH PIPES.
3. CONSTRUCT IMPERVIOUS DIKE A, DIVERTING FLOW.
4. CONSTRUCT BARREL 1 OF PROPOSED CULVERT, AND PORTION OF THE CHANNEL IMPROVEMENTS.
5. REMOVE IMPERVIOUS DIKE A.




## PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
7. CONSTRUCT BARREL 2 OF PROPOSED CULVERT.
8. CONSTRUCT REMAINDER OF THE CHANNEL IMPROVEMENTS.
9. REMOVE IMPERVIOUS DIKES B.
10. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
11. COMPLETE ROADWAY.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-28/CONST.22 |
| 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 22

NAD 83/95

-DI7-
PI Sta 10+16.341
Δ = 46° 20' 49.6" (RT)
L = 10.311
T = 5.351
R = 12.500

PI Sta 11+04.181
Δ = 19° 05' 57.8" (LT)
L = 16.667
T = 8.412
R = 50.000

PI Sta 11+82.663
Δ = 107° 04' 51.7" (LT)
L = 23.361
T = 16.918
R = 12.500

-Y19-
PI Sta 11+86.931
Δ = 73° 41' 00.0" (RT)
L = 51.441
T = 29.969
R = 40.000
SE = SEE PLANS

-Y19- POCSta.11+88.660
-DI7- POTSta.10+00.000
BEARING AH = N 48° 35' 51.2" E

-DI7- PCSta.10+10.990
10 x 5 x 1
ID 22.1C

-DI7- PTSta.10+21.102

-Y19- PTSta.12+08.402
BEARING AH = S 13° 07' 00.0" E

-DI7- PCSta.11+65.745

-DI7- POTSta.11+99.737

-DI7- POTSta.11+95
END CONST.

-DI7- PTSta.11+89.107
BEARING AH = N 31° 14' 08.6" W

-L- PCSta.285+86.237

-DI7- PCSta.10+95.770

-DI7- PTSta.11+12.437

-L- PTSta.287+87.653

-L- PCSta.287+35.854

-Y20- POTSta.10+00.000

-DI7- S 85° 03' 19.2" E

-DI7- N 75° 50' 43" E

-L- N 79° 11' 41.1" E

-L- N 60° 16' 34.5" E

-Y20- END CULVERT
-L- 285+08.940

-L- POTSta.285+23.067
-Y18- POTSta.10+00.000
-Y19- POTSta.12+30.788

-Y18- POTSta.10+50.000
BEARING BACK = S 13° 07' 00.0" E

-Y20- POTSta.10+75.992
END CONST.

-L-
PI Sta 286+87.870
Δ = 18° 55' 06.6" (LT)
L = 201.416
T = 101.633
R = 610.000
SE = 0.03

MATCHLINE -L- STA. 285+00 SEE SHEET NO. 21

MATCHLINE -L- STA. 288+40 SEE SHEET NO. 23

NOTE: FRAGMENTED LINES MARKED "2UTL" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED

NOTE: PROPOSED RETAINING WALL #5 HAS BEEN ELIMINATED

NOTE: UTILITIES INSIDE PREIMETER FENCE OF GLEN RIVEN MILLS WERE NOT INVESTIGATED.

GLEN RAVEN FILAMENT FABRICS, LLC
DB 349 PG 71

ELOISE B. BRIGGS
DB 147 PG 253

DB 519 PG 296
GARY ATKINS

YANCEY COUNTY

DAVID MCINTOSH
DB 198 PG 841

GREG & MADELINE BRYANT
DB 139 PG 448
DB 192 PG 33

BURNSVILLE CITY LIMITS

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

CL B RIP RAP
EST. 0.9 TONS
F.F. 4.2 SM
400 GSP W/
2 ELBOWS

L B RIP RA
ST. 0.9 TOI
.F. 4.2 SM

LOW FLOW BENCH AND BANK STABILIZATION
SEE DETAIL C-15
EST. 70 CU. M. DDE
CLASS I RIP RAP
EST. 44 TONS

0.6m BASE GRASSED SWALE SEE DETAIL 'Z' SHEET 2-L @ 55 CM EXC

PROP. 200X450 mm CONC CURB

PROP. CONC. 750mm C&G

PROP. 15m SIDEWALK

TEMP. SHORING

45 LT EP TAPER

LT & RT EP TAPER

90 TAPER

REMOVE

RETAIN

REMOVE AND REPLACE w/JBMH

PSH 750mm SEE SHEET 2-N

10 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 22.1F

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

FOR TEMP SHORING LOCATIONS SEE TRAFFIC CONTROL

FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

FOR -L- PROFILE SEE SHEET 53
FOR -Y18- & -Y19- PROFILE SEE SHEET 66
FOR -Y20- PROFILE SEE SHEET 67
FOR -DI7- PROFILE SEE SHEET 76

8/17/99

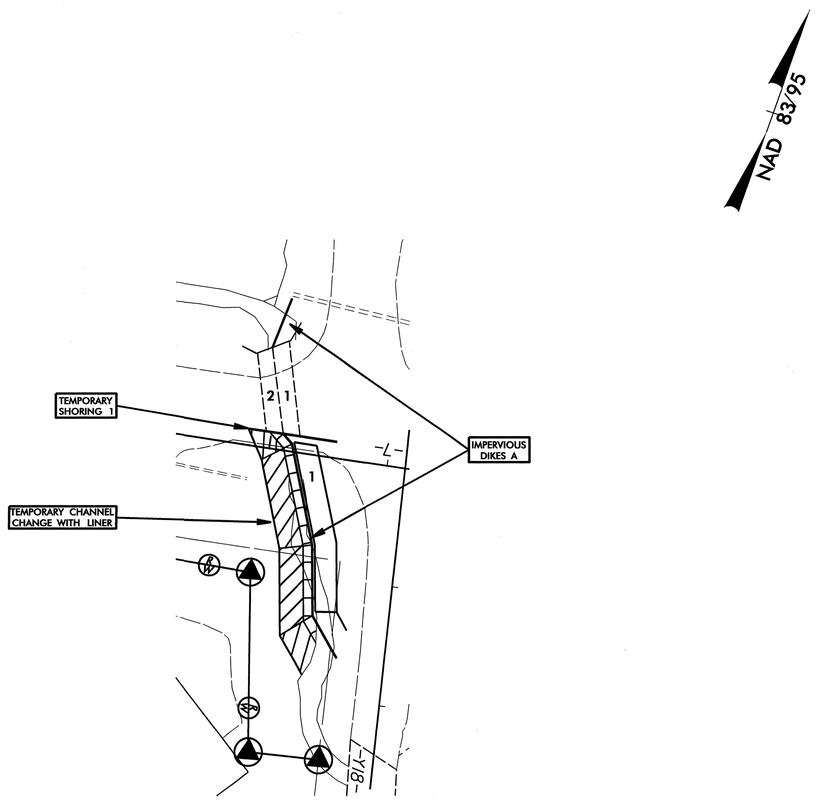
RP:EEB-20ILN21
R:\Hydraulics\Proj\2519aa22_EC_psh.dgn
mehancock at REN247768

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-29/CONST.22 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 285+04.66 –L– (SHEET 1 OF 2)

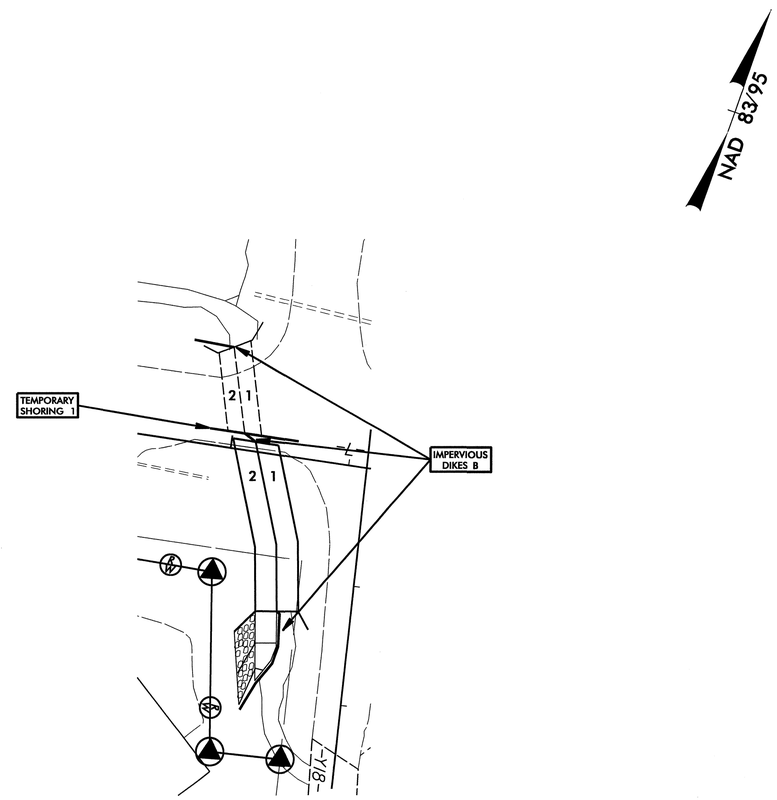
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. INSTALL TEMPORARY SHORING 1 AND REMOVE PORTION OF EXISTING CULVERT.
3. CONSTRUCT IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER (1.5M BASE, 2M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH BARREL 2 OF EXISTING CULVERT.
4. CONSTRUCT DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT.
5. REMOVE IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE.




## PHASE II

6. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1 OF EXISTING AND PROPOSED CULVERTS.
7. CONSTRUCT DOWNSTREAM PORTION OF BARREL 2 OF PROPOSED CULVERT.
8. CONSTRUCT DOWNSTREAM CHANNEL IMPROVEMENTS.
9. REMOVE IMPERVIOUS DIKES B AND TEMPORARY SHORING 1.

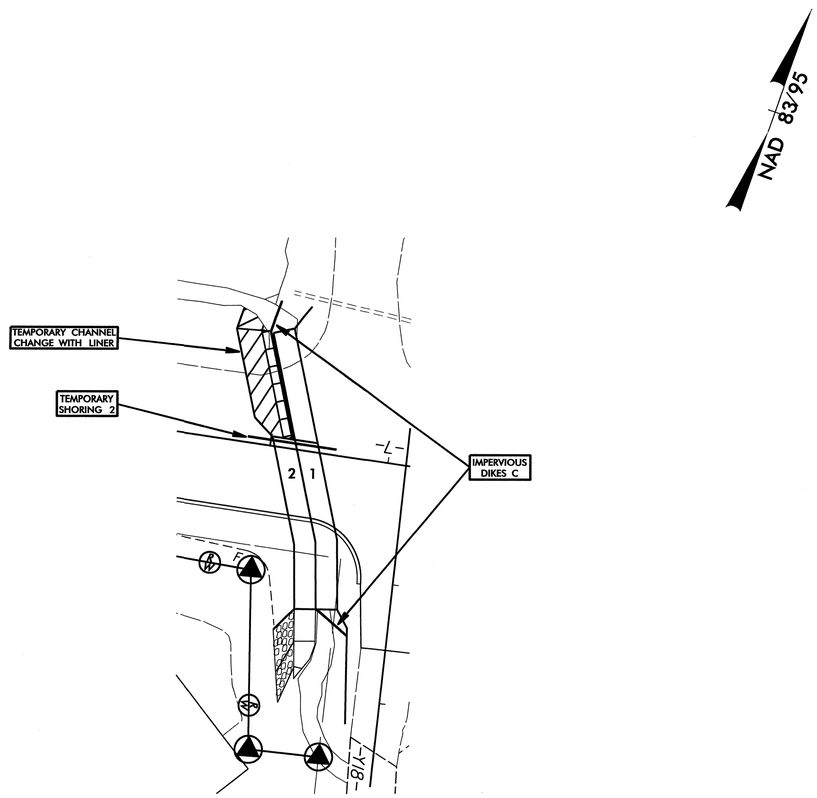


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-30/CONST.22 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 285+04.66 –L– (SHEET 2 OF 2)

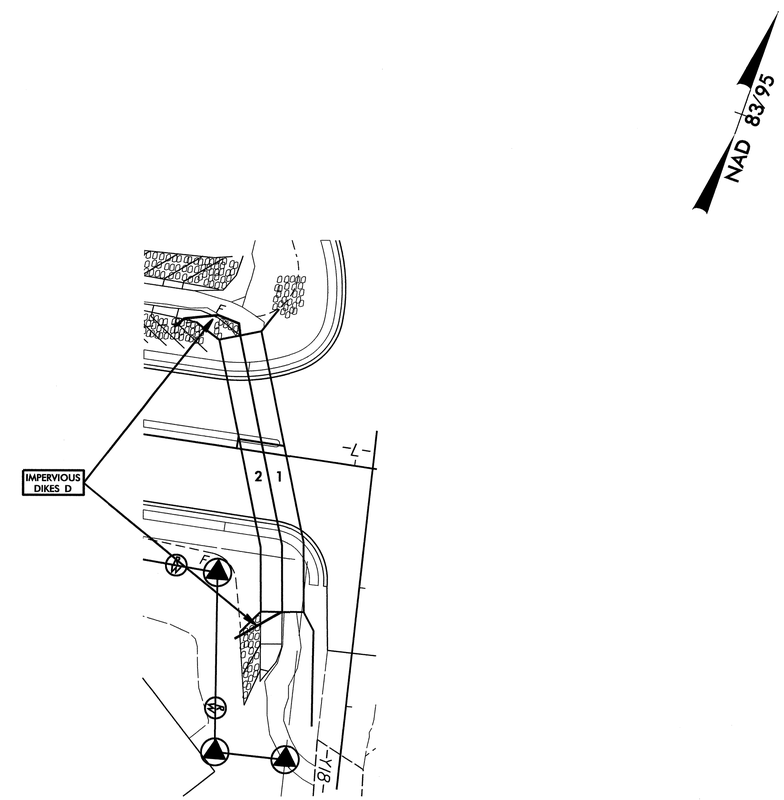
## PHASE III

10. INSTALL TEMPORARY SHORING 2.
11. CONSTRUCT ROADWAY OVER COMPLETED DOWNSTREAM PORTION OF PROPOSED CULVERT AND SWITCH TRAFFIC.
12. REMOVE REMAINDER OF EXISTING CULVERT.
13. CONSTRUCT IMPERVIOUS DIKES C AND TEMPORARY CHANNEL CHANGE WITH LINER (1.5M BASE, 2M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH BARREL 2 OF PROPOSED CULVERT.
14. CONSTRUCT UPSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT.
15. REMOVE IMPERVIOUS DIKES C AND TEMPORARY CHANNEL CHANGE.




## PHASE IV

16. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH BARREL 1 OF PROPOSED CULVERT.
17. CONSTRUCT UPSTREAM PORTION OF BARREL 2 OF PROPOSED CULVERT AND ANY NECESSARY UPSTREAM CHANNEL IMPROVEMENTS.
18. REMOVE IMPERVIOUS DIKES D.
19. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
20. REMOVE TEMPORARY SHORING 2, AND COMPLETE ROADWAY.

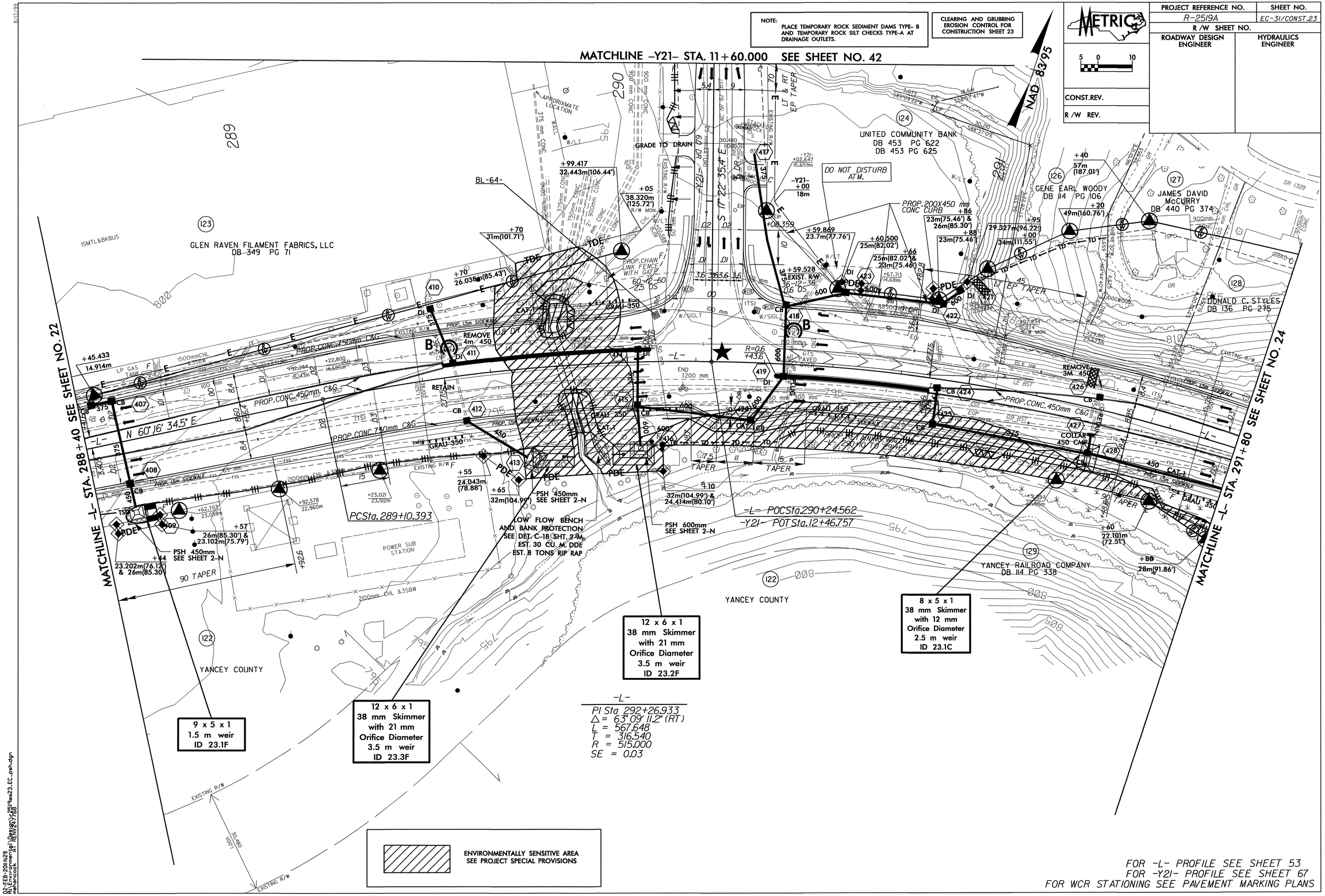


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-31/CONST.23 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

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 23




FOR -L- PROFILE SEE SHEET 53
FOR -Y21- PROFILE SEE SHEET 67
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

8/17/99

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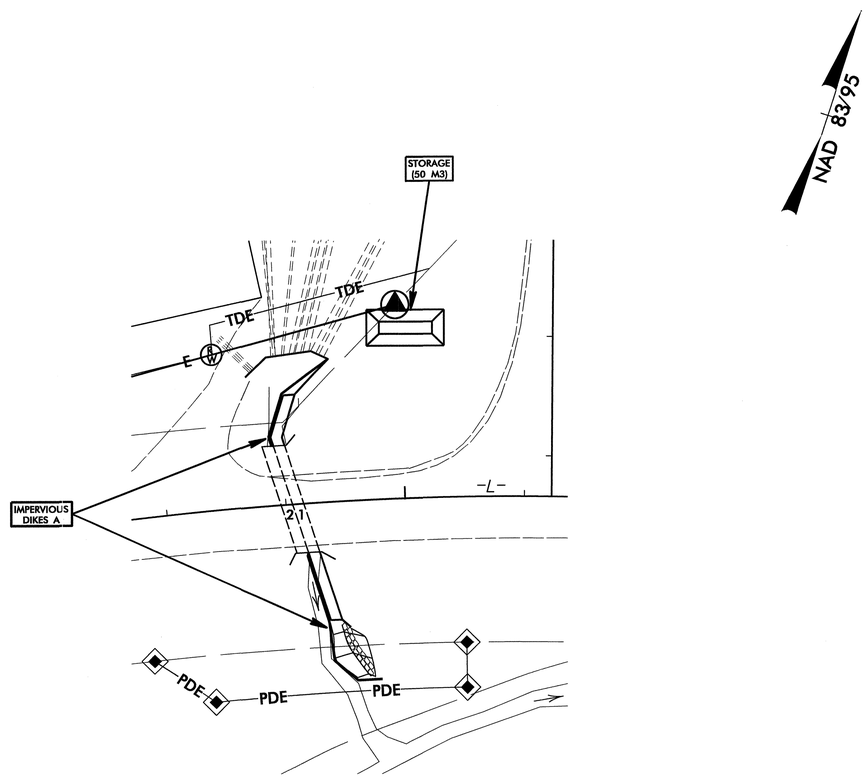
mehancock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-32/CONST.23 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 289 + 81 –L–

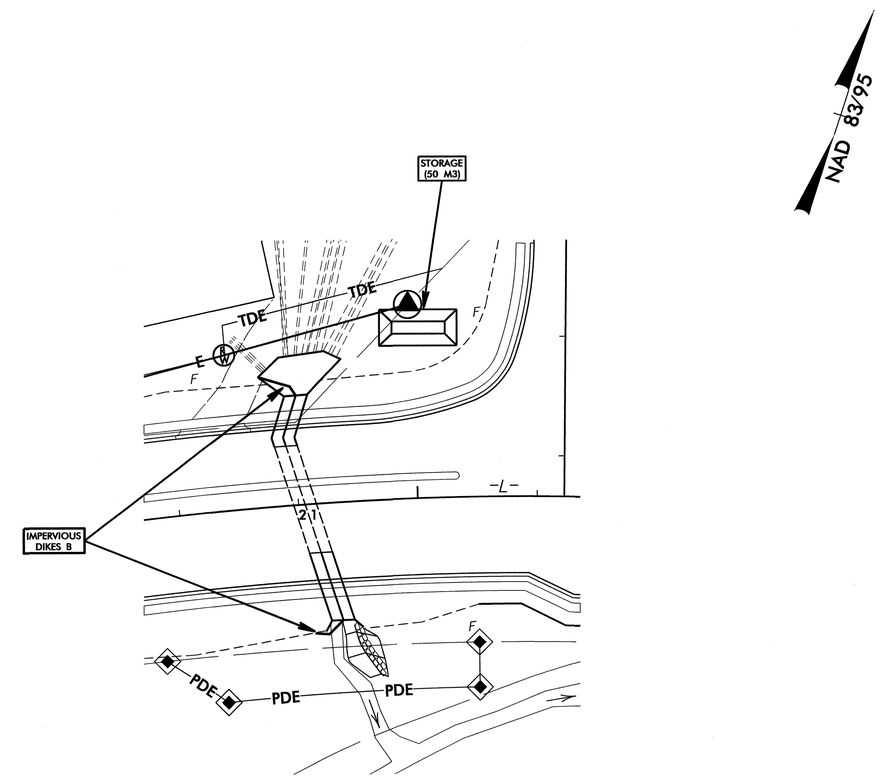
## PHASE I

1. CONSTRUCT STILLING BASIN (50 M3).
2. REMOVE EXISTING CONCRETE HEADWALL AND 6 METERS +/- OF EXISTING PIPES AT INLET OF EXISTING CULVERT.
3. CONSTRUCT PROPOSED ENDWALL FOR EXISTING PIPES AND EXCAVATE INLET AREA OF THE PROPOSED CULVERT AS NEEDED.
4. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARREL 2.
5. CONSTRUCT PROPOSED CULVERT EXTENSIONS AND OUTLET CHANNEL IMPROVEMENTS FOR BARREL 1.
6. REMOVE IMPERVIOUS DIKES A.




## PHASE II

7. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
8. CONSTRUCT PROPOSED CULVERT EXTENSIONS FOR BARREL 2.
9. CONSTRUCT ANY REMAINING CHANNEL IMPROVEMENTS.
10. REMOVE IMPERVIOUS DIKES B AND STILLING BASIN.
11. COMPLETE ROADWAY.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-33/CONST.24 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

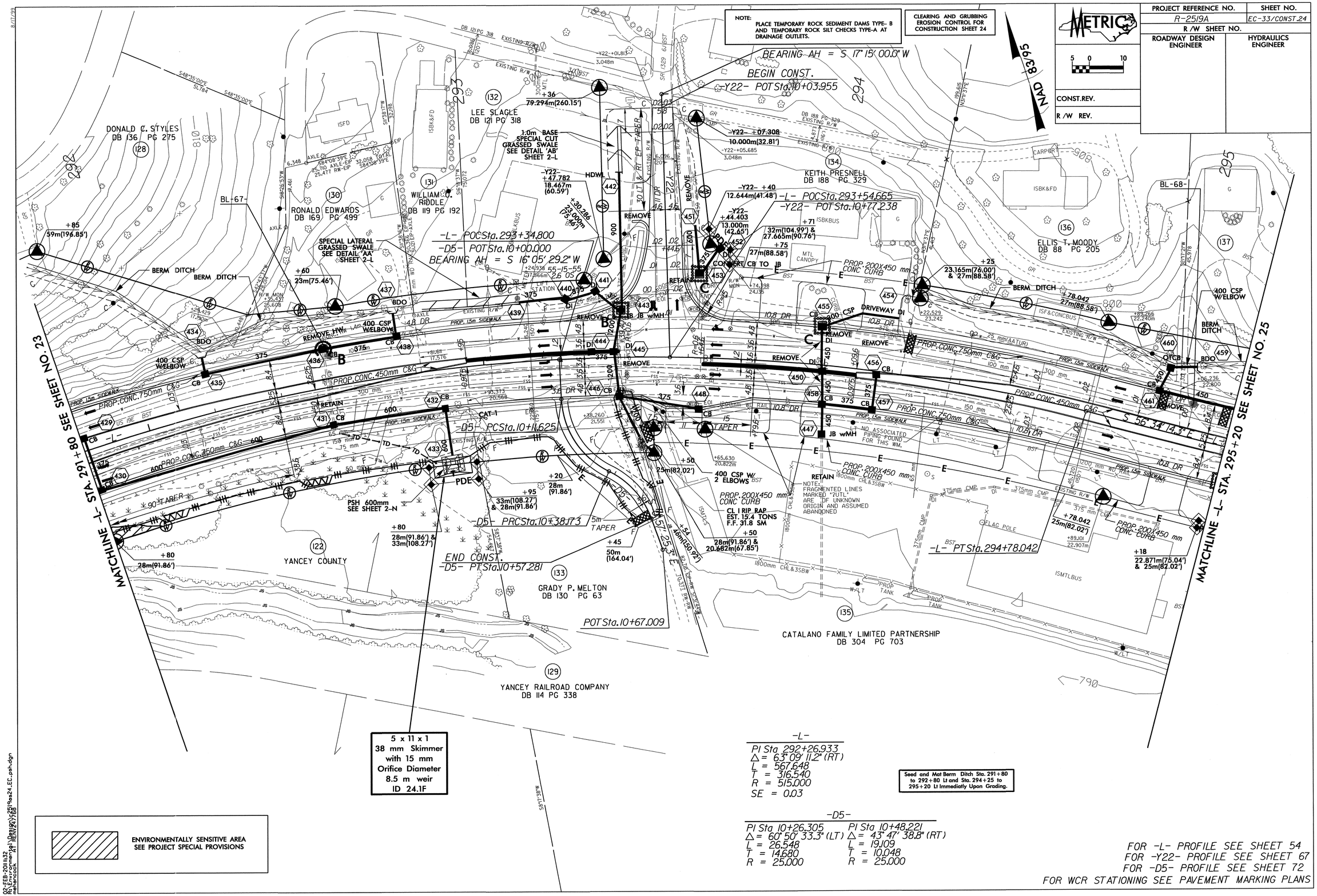
CONST.REV.

R /W REV.

NAD 83/95

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 24




5 x 11 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
8.5 m weir
ID 24.1F

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

-L-

PI Sta 292+26.933
Δ = 63° 09' 11.2" (RT)
L = 567.648
T = 316.540
R = 515.000
SE = 0.03

-D5-

| PI Sta 10+26.305 | PI Sta 10+48.221 |
|---|---|
| Δ = 60° 50' 33.3" (LT) | Δ = 43° 47' 38.8" (RT) |
| L = 26.548 | L = 19.109 |
| T = 14.680 | T = 10.048 |
| R = 25.000 | R = 25.000 |

Seed and Mat Berm Ditch Sta. 291+80 to 292+80 Lt and Sta. 294+25 to 295+20 Lt Immediatly Upon Grading.

FOR -L- PROFILE SEE SHEET 54
FOR -Y22- PROFILE SEE SHEET 67
FOR -D5- PROFILE SEE SHEET 72
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

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mahancock
A1 REV(24x17.66)

8/17/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-34/CONST.25 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 25

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

Seed and Mat Berm Ditches Sta. 295+20 to 296+90 Lt and Sta. 298+40 to 298+60 Lt Immediatly Upon Grading.

10 x 5 x 0.6
38 mm Skimmer
with 9 mm
Orifice Diameter
2.5 m weir
ID 25.1C

NAD 83/95

-Y23-
PI Sta. 10+21.672
△ = 2° 26' 30.5" (LT)
L = 17.047
T = 8.525
R = 400.000
SE = SEE PLANS

-Y23- POT Sta. 10+00.000
BRG AH = S 16° 04' 30.5" W

-Y23- PCS Sta. 10+13.147

-Y23- +30.194
3.353m(11.00') & 12m(39.37')

-Y23- PT Sta. 10+30.194
BRG AH = S 13° 38' 00.0" W
BEGIN CONST.

-L- PCS Sta. 296+25.645

-L- POC Sta. 297+71.045
-Y23- POT Sta. 10+88.792

MATCHLINE -L- STA. 295+20 SEE SHEET NO. 24

MATCHLINE -L- STA. 298+60 SEE SHEET NO. 26

PHILLIP R. BANKS
DB 129 PG 29

TINA MARIE SINK
DB 302 PG 264

JOE WILLIAMS
DB 142 PG 327

LES JUNIOR ETERSON
53 PG 406

BANKS HOLDING COMPANY, L.P.
DB 418 PG 121

KNARLD EDWARD CARROLL
DB 253 PG 56

KEITH PRESNELL
DB 248 PG 715

ROBERT L. YOUNG
DB 296 PG 627

KENNETH ALDEN PRICE
DB 109 PG 306

JAY (HANNAH) STYLES
DB 78 PG 285

CATALANO FAMILY LIMITED PARTNERSHIP
DB 304 PG 703

CLYDE RUSSELL HUGHES
DB 266 PG 366

HARRISON BENNETT
DB 255 PG 721

KEITH W. PRESNELL
DB 277 PG 507

ANN-MARGARET MASTROPAOLO & GERRARD L. PAGELS
DB 538 PG 619

-L-
PI Sta. 297+71.472
△ = 11° 06' 19.7" (LT)
L = 290.740
T = 145.827
R = 1,500.000
SE = 0.02

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

FOR -L- PROFILE SEE SHEET 54
FOR -Y23- PROFILE SEE SHEET 67
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

8/17/99

02-FEB-2011 11:35
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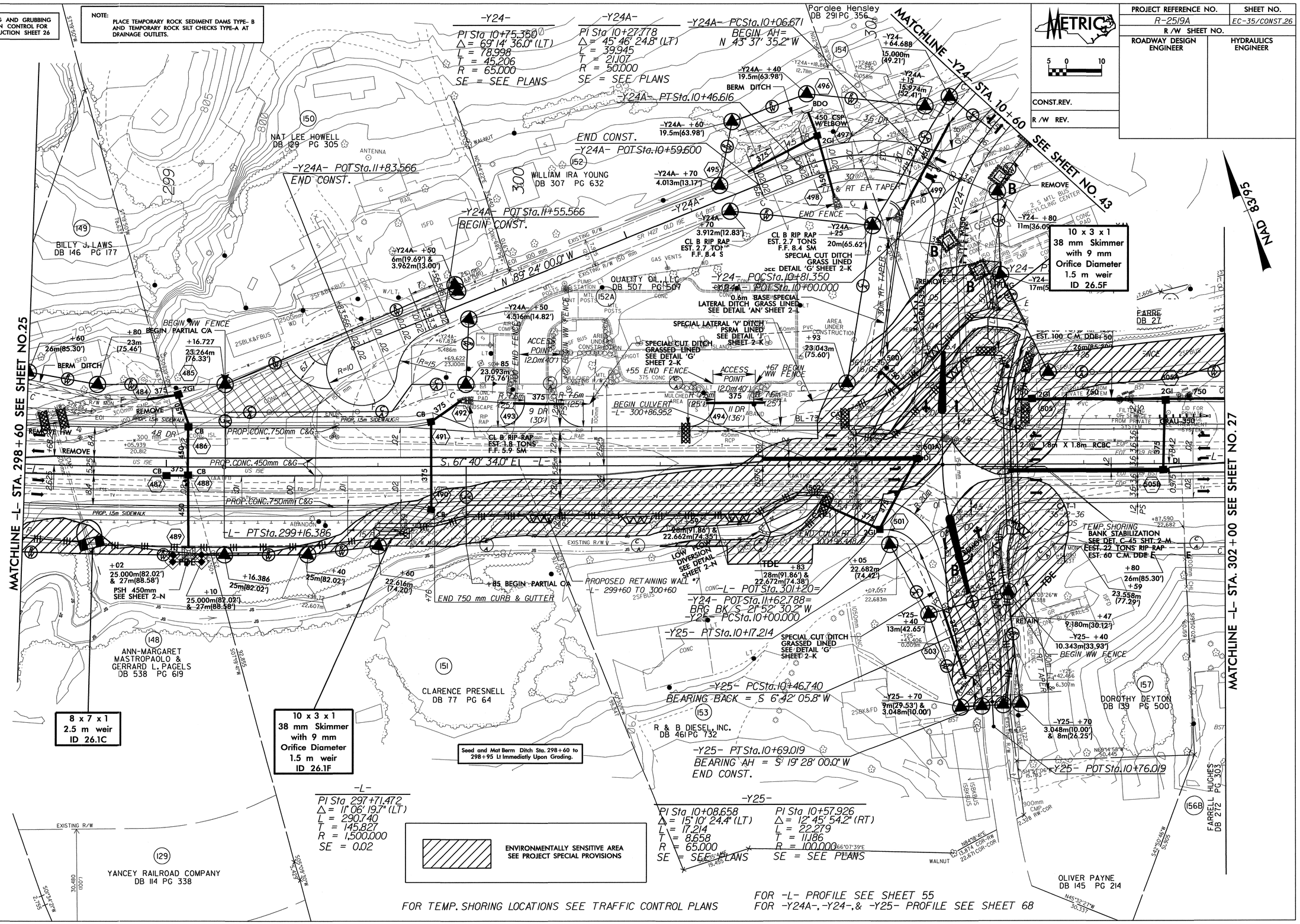
mlewcock



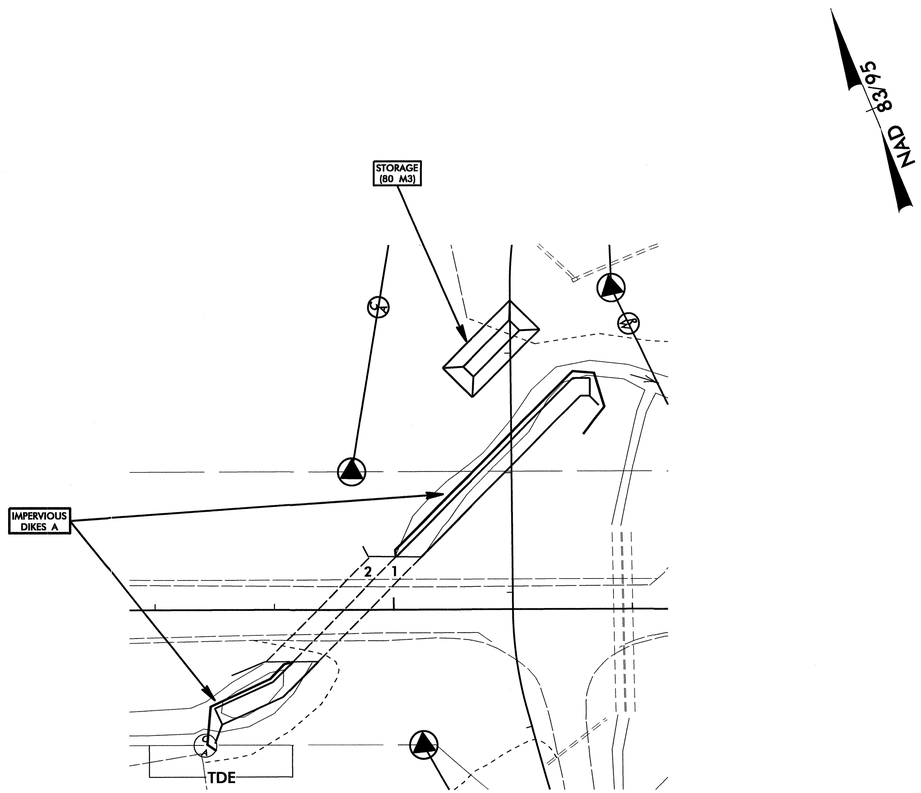
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 26
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
METRIC
PROJECT REFERENCE NO. R-2519A
SHEET NO. EC-35/CONST.26
R /W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R /W REV.
MATCHLINE -Y24- STA. 10+60 SEE SHEET NO. 43
MATCHLINE -L- STA. 298+60 SEE SHEET NO.25
MATCHLINE -L- STA. 302+00 SEE SHEET NO. 27
NAD 83/95
-Y24- PI Sta 10+75.350 Δ = 69° 14' 36.0" (LT) L = 78.998 T = 45.206 R = 65.000 SE = SEE PLANS
-Y24A- PI Sta 10+27.778 Δ = 45° 46' 24.8" (LT) L = 39.945 T = 21.107 R = 50.000 SE = SEE PLANS
-Y24A- PCSta.10+06.671 BEGIN AH= N 43° 37' 35.2" W
-Y24A- PTSta.10+46.616
END CONST. -Y24A- POTSta.10+59.600
-Y24A- POTSta.11+83.566 END CONST.
-Y24A- POTSta.11+55.566 BEGIN CONST.
N 89° 24' 00.0" W
-Y24- POCSta.10+81.350
-Y24A- POTSta.10+00.000
-L- PTSta.299+16.386
S 67° 40' 34.0" E
-L- POTSta.301+20=
-Y24- POTSta.11+62.788= BRG BK S 21° 52' 30.2" W
-Y25- PCSta.10+00.000
-Y25- PTSta.10+17.214
-Y25- PCSta.10+46.740 BEARING BACK = S 6° 42' 05.8" W
-Y25- PTSta.10+69.019 BEARING AH = S 19° 28' 00.0" W END CONST.
-Y25- POTSta.10+76.019
-L- PI Sta 297+71.472 Δ = 11° 06' 19.7" (LT) L = 290.740 T = 145.827 R = 1,500.000 SE = 0.02
-Y25- PI Sta 10+08.658 Δ = 15° 10' 24.4" (LT) L = 17.214 T = 8.658 R = 65.000 SE = SEE PLANS
PI Sta 10+57.926 Δ = 12° 45' 54.2" (RT) L = 22.279 T = 11.186 R = 100.000 SE = SEE PLANS
8 x 7 x 1 2.5 m weir ID 26.1C
10 x 3 x 1 38 mm Skimmer with 9 mm Orifice Diameter 1.5 m weir ID 26.1F
10 x 3 x 1 38 mm Skimmer with 9 mm Orifice Diameter 1.5 m weir ID 26.5F
Seed and Mat Berm Ditch Sta. 298+60 to 298+95 Lt Immediatly Upon Grading.
ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS
FOR TEMP. SHORING LOCATIONS SEE TRAFFIC CONTROL PLANS
FOR -L- PROFILE SEE SHEET 55
FOR -Y24A-, -Y24-, & -Y25- PROFILE SEE SHEET 68
NAT LEE HOWELL DB 129 PG 305
WILLIAM IRA YOUNG DB 307 PG 632
BILLY J. LAWS DB 146 PG 177
QUALITY OIL, LLC DB 507 PG 507
ANN-MARGARET MASTROPAOLO & GERRARD L. PAGELS DB 538 PG 619
CLARENCE PRESNELL DB 77 PG 64
R & B DIESEL, INC. DB 461 PG 732
YANCEY RAILROAD COMPANY DB 114 PG 338
DOROTHY DEYTON DB 139 PG 500
OLIVER PAYNE DB 145 PG 214
FARRELL HUGHES DB 272 PG 303
Paralee Hensley DB 291 PG 356

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-36/CONST.26 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 300 + 91.7 –L–

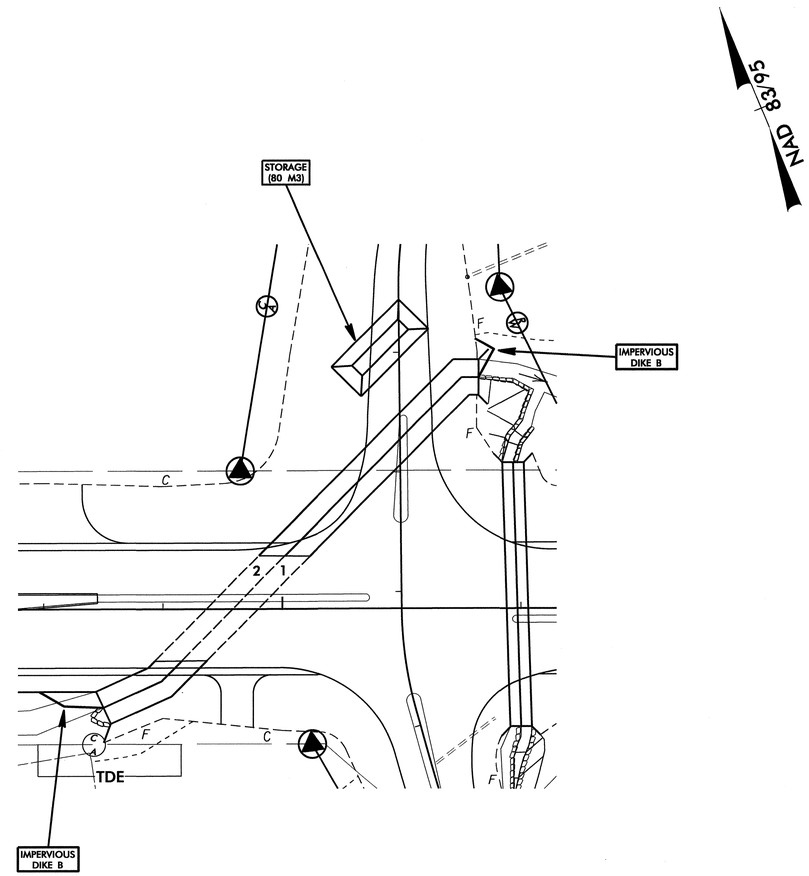
## PHASE I

1. CONSTRUCT STILLING BASIN (80 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARREL 2 OF EXISTING CULVERT.
3. CONSTRUCT PROPOSED CULVERT EXTENSIONS FOR BARREL 1.
4. REMOVE IMPERVIOUS DIKES A.




## PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARREL 1.
6. CONSTRUCT PROPOSED CULVERT EXTENSIONS FOR BARREL 2.
7. REMOVE IMPERVIOUS DIKES B.
8. CONSTRUCT NECESSARY UPSTREAM/DOWNSTREAM CHANNEL IMPROVEMENTS.
9. REMOVE STILLING BASIN.
10. COMPLETE ROADWAY.

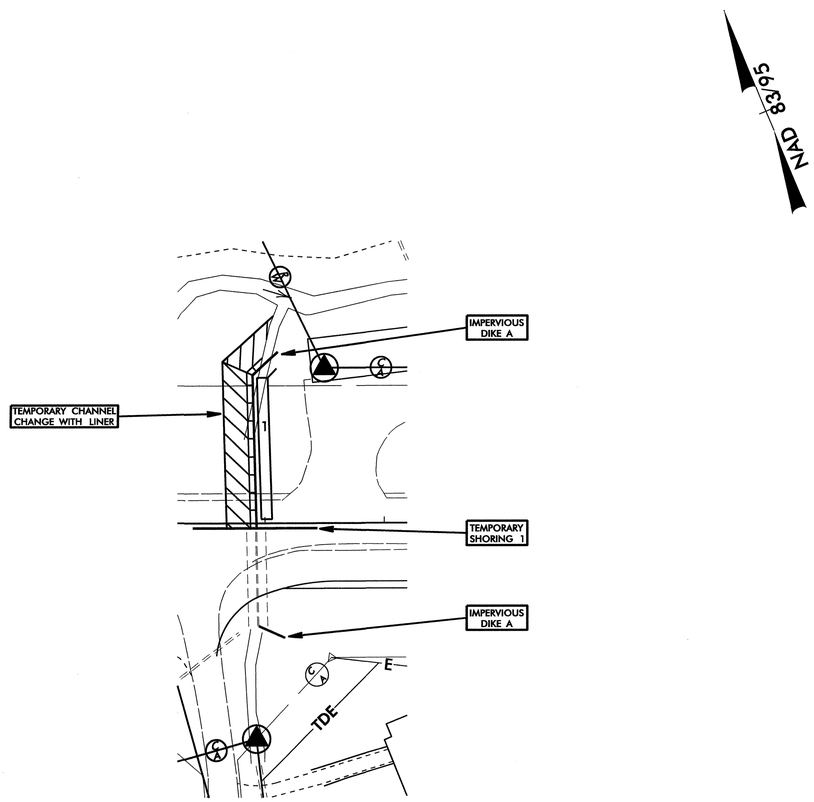


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-37/CONST.26 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 301+39.6 –L– (SHEET 1 OF 2)

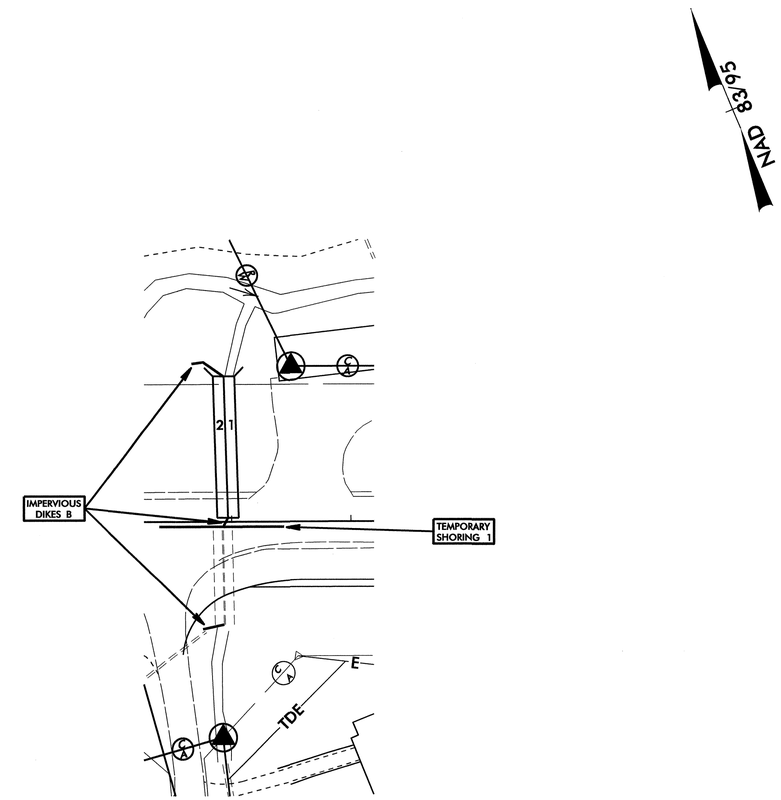
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT REQUIRED TEMPORARY PAVEMENT WIDENING ON SOUTH SIDE OF ROAD AND SHIFT TRAFFIC.
3. INSTALL TEMPORARY SHORING 1 AND REMOVE PORTION OF EXISTING 1500 MM CSP'S.
4. CONSTRUCT IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER (1M BASE, 2M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH WESTERN EXISTING 1500 MM CSP.
5. CONSTRUCT DOWNSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT.
6. REMOVE IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE.




## PHASE II

7. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH EASTERN EXISTING 1500 MM CSP AND BARREL 1 OF PROPOSED CULVERT.
8. CONSTRUCT DOWNSTREAM PORTION OF BARREL 2 OF PROPOSED CULVERT.
9. REMOVE IMPERVIOUS DIKES B AND TEMPORARY SHORING 1.

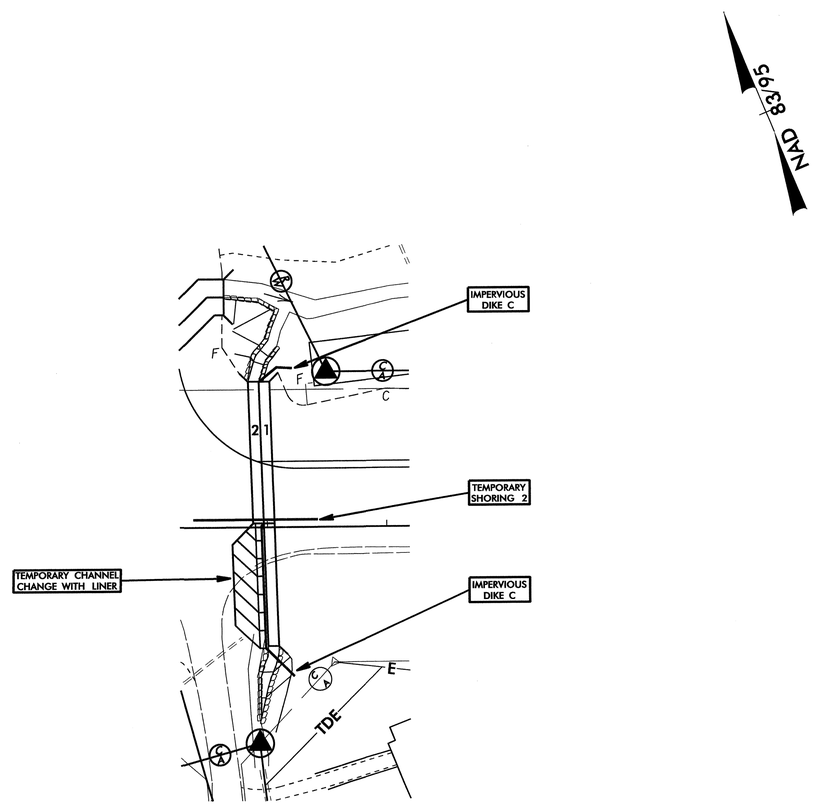


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-38/CONST.26 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 301+39.6 –L– (SHEET 2 OF 2)

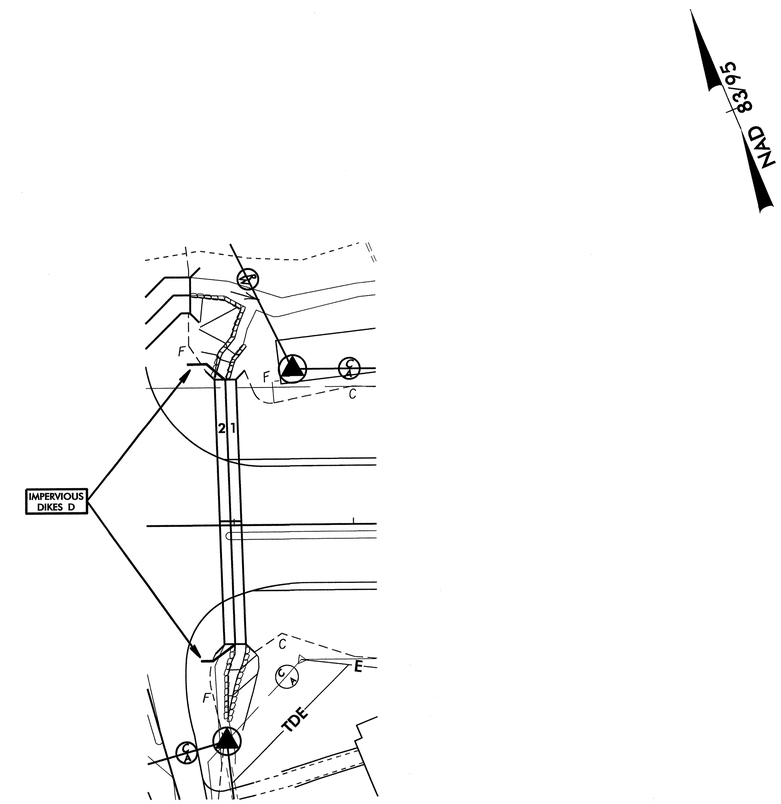
## PHASE III

10. INSTALL TEMPORARY SHORING 2.
11. CONSTRUCT NECESSARY DOWNSTREAM CHANNEL IMPROVEMENTS AND ROADWAY OVER COMPLETED DOWNSTREAM PORTION OF PROPOSED CULVERT AND SWITCH TRAFFIC.
12. REMOVE TEMPORARY PAVEMENT AND REMAINDER OF EXISTING 1500 MM CSP'S.
13. CONSTRUCT IMPERVIOUS DIKES C AND TEMPORARY CHANNEL CHANGE WITH LINER (1M BASE, 2M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH BARREL 2 OF PROPOSED CULVERT.
14. CONSTRUCT UPSTREAM PORTION OF BARREL 1 OF PROPOSED CULVERT AND PORTION OF UPSTREAM CHANNEL IMPROVEMENTS.
15. REMOVE IMPERVIOUS DIKES C AND TEMPORARY CHANNEL CHANGE.




## PHASE IV

16. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH BARREL 1 OF PROPOSED CULVERT.
17. CONSTRUCT UPSTREAM PORTION OF BARREL 2 OF PROPOSED CULVERT AND ANY REMAINING NECESSARY UPSTREAM CHANNEL IMPROVEMENTS.
18. REMOVE IMPERVIOUS DIKES D.
19. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
20. REMOVE TEMPORARY SHORING 2, AND COMPLETE ROADWAY.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-39/CONST.27 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

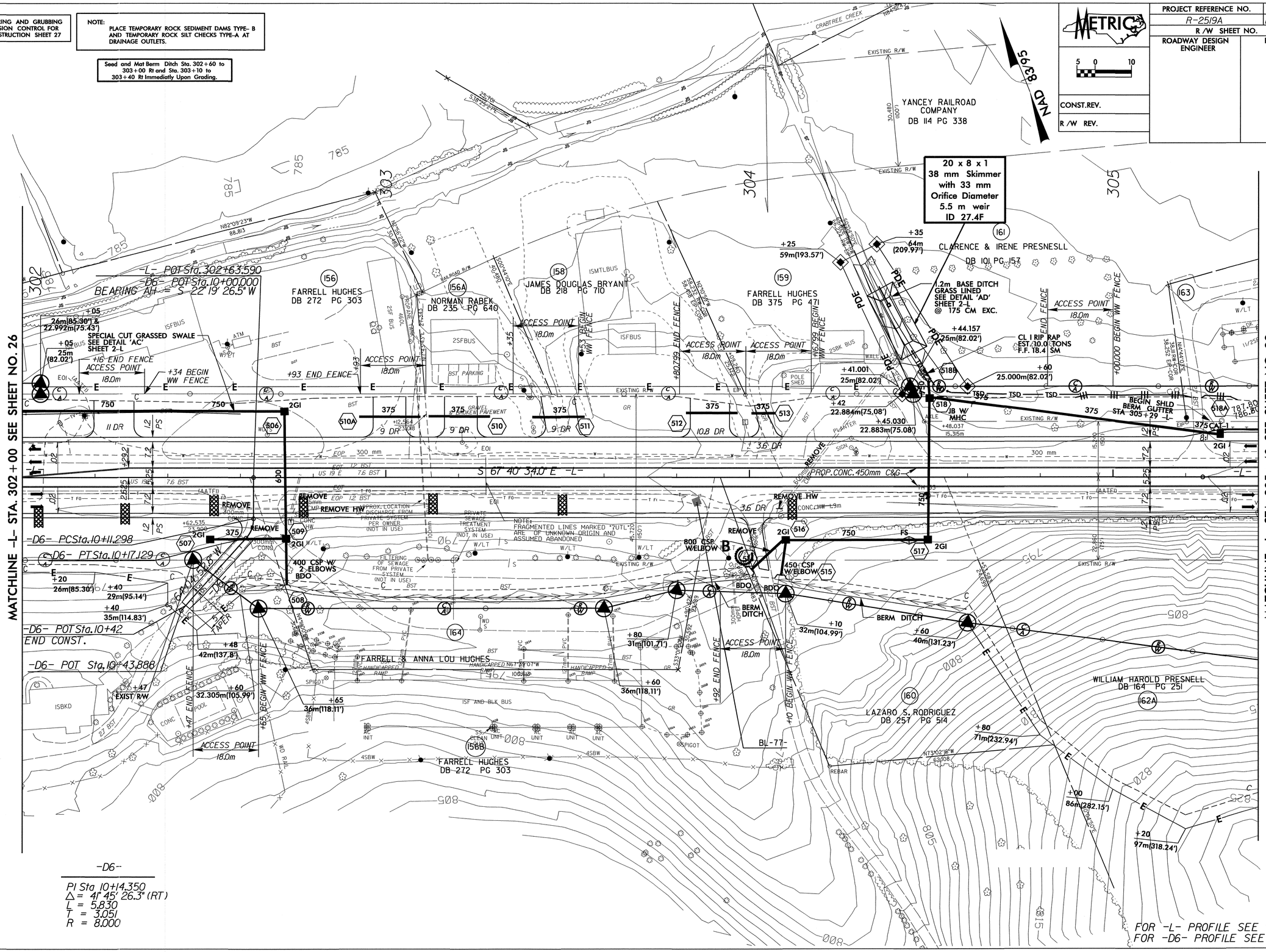
CONST.REV.

R /W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 27

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

Seed and Mat Berm Ditch Sta. 302+60 to 303+00 Rt and Sta. 303+10 to 303+40 Rt Immediatly Upon Grading.

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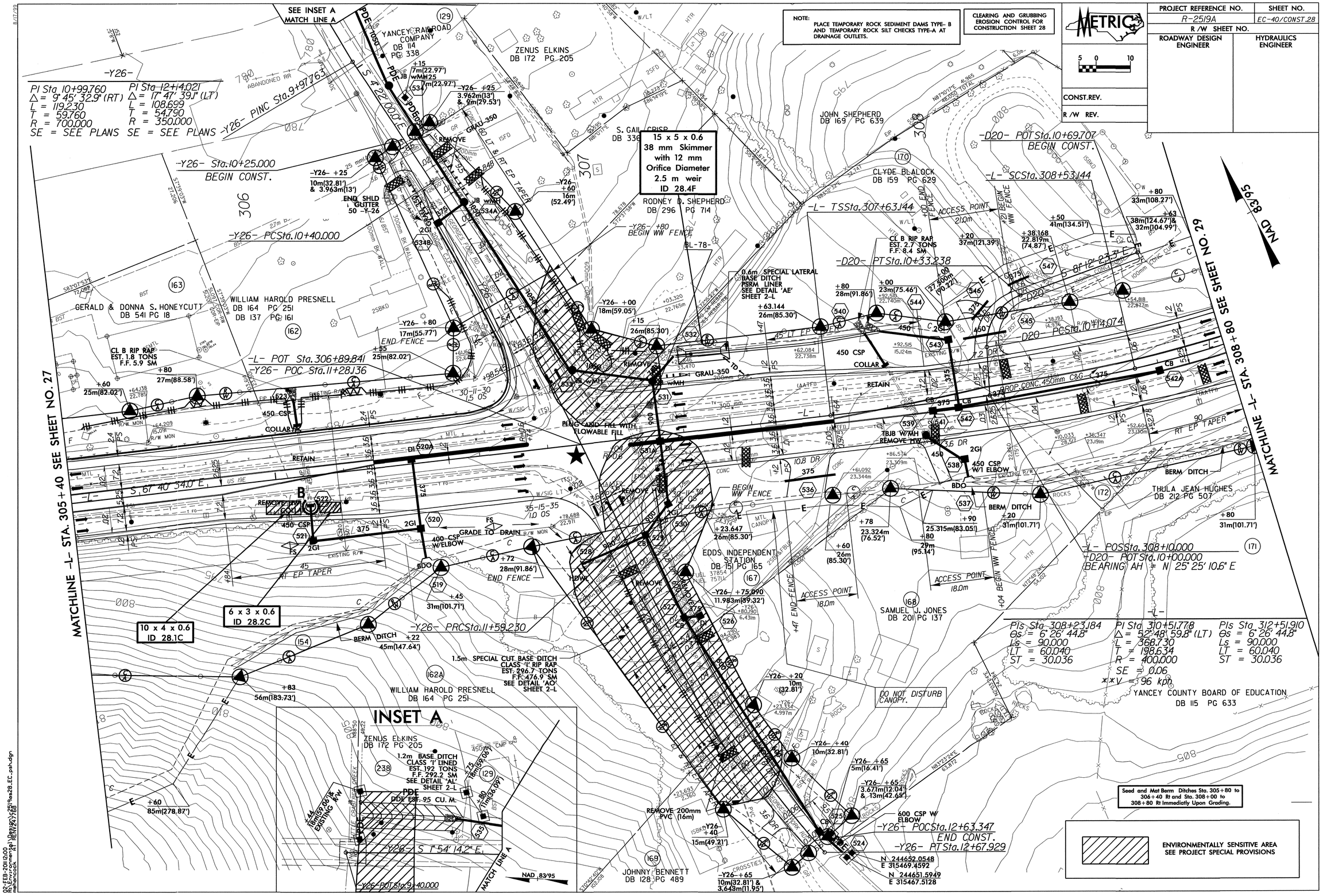
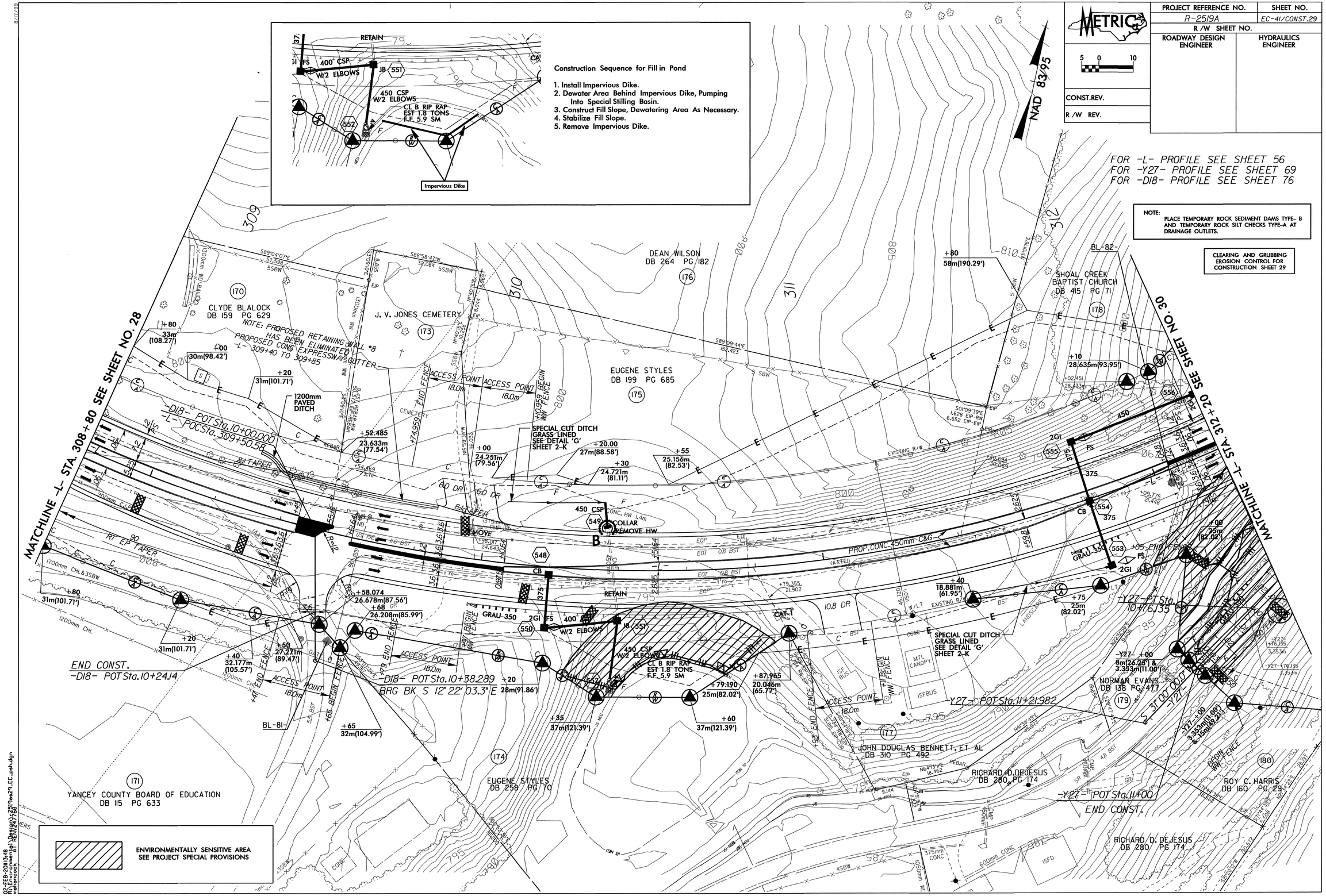


NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 28
METRIC
PROJECT REFERENCE NO. R-2519A
SHEET NO. EC-40/CONST.28
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
SEE INSET A MATCH LINE A
PI Sta 10+99.760 Δ = 9° 45' 32.9" (RT) L = 119.230 T = 59.760 R = 700.000 SE = SEE PLANS
PI Sta 12+14.021 Δ = 17° 47' 39.1" (LT) L = 108.699 T = 54.790 R = 350.000 SE = SEE PLANS
-Y26- PINC Sta.9+97.763
-Y26- Sta.10+25.000 BEGIN CONST.
-Y26- PCSta.10+40.000
-L- POT Sta.306+89.841
-Y26- POC Sta.11+28.136
-Y26- PRCSta.11+59.230
-Y26- POTSta.9+40.000
-Y26- POCSta.12+63.347 END CONST.
-Y26- PTSta.12+67.929
-Y26- S 1°54'14.2" E
-Y26- S 67°40'34.0" E
-L- S 4°22'00.0" E
-L- TSSta.307+63.144
-L- SCSta.308+53.144
-D20- POTSta.10+69.707 BEGIN CONST.
-D20- PTSta.10+33.238
-D20- PCSta.10+14.074
-L- POSSta.308+10.000
-D20- POTSta.10+00.000 BEARING AH = N 25° 25' 10.6" E
-L- S 8°12'23.3" E
-Y26- +80 BEGIN WW FENCE
-Y26- +80 BEGIN WW FENCE
15 x 5 x 0.6 38 mm Skimmer with 12 mm Orifice Diameter 2.5 m weir ID 28.4F
10 x 4 x 0.6 ID 28.1C
6 x 3 x 0.6 ID 28.2C
YANCEY RAILROAD COMPANY DB 114 PG 338
ZENUS ELKINS DB 172 PG 205
S. GAIL CRISP DB 336
RODNEY D. SHEPHERD DB 296 PG 714
JOHN SHEPHERD DB 169 PG 639
CLYDE BLALOCK DB 159 PG 629
GERALD & DONNA S. HONEYCUTT DB 541 PG 18
WILLIAM HAROLD PRESNELL DB 164 PG 251 DB 137 PG 161
EDDS INDEPENDENT STATION DB 151 PG 165
SAMUEL J. JONES DB 201 PG 137
THULA JEAN HUGHES DB 212 PG 507
YANCEY COUNTY BOARD OF EDUCATION DB 115 PG 633
JOHNNY BENNETT DB 128 PG 489
MATCHLINE -L- STA. 305+40 SEE SHEET NO. 27
MATCHLINE -L- STA. 308+80 SEE SHEET NO. 29
NAD 83/95
INSET A
ZENUS ELKINS DB 172 PG 205
1.2m BASE DITCH CLASS 'I' LINED EST. 192 TONS F.F. 292.2 SM SEE DETAIL 'AL' SHEET 2-L
DDE EST. 95 CU. M.
1.5m SPECIAL CUT BASE DITCH CLASS 'I' RIP RAP EST. 296.7 TONS F.F. 476.9 SM SEE DETAIL 'AO' SHEET 2-L
0.6m SPECIAL LATERAL BASE DITCH PSRM LINER SEE DETAIL 'AE' SHEET 2-L
CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM
CL B RIP RAP EST. 2.7 TONS F.F. 8.4 SM
PLUG AND FILL WITH FLOWABLE FILL
DO NOT DISTURB CANOPY.
REMOVE 200mm PVC (16m)
600 CSP W/ ELBOW
N 244652.0548 E 315469.4592
N 244651.5949 E 315467.5128
PIs Sta 308+23.184 Θs = 6° 26' 44.8" Ls = 90.000 LT = 60.040 ST = 30.036
PI Sta 310+51.778 Δ = 52° 48' 59.8" (LT) L = 368.730 T = 198.634 R = 400.000 SE = 0.06 **V = 96 kph
PIs Sta 312+51.910 Θs = 6° 26' 44.8" Ls = 90.000 LT = 60.040 ST = 30.036
Seed and Mat Berm Ditches Sta. 305+80 to 306+40 Rt and Sta. 308+00 to 308+80 Rt Immediatly Upon Grading.
ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-41/CONST.29 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC

5 0 10

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| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-42/CONST.30 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 30

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

-Y27-
PI Sta 10+16.706
Δ = 57° 53' 38.7" (RT)
L = 25.261
T = 13.828
R = 25.000
SE = SEE PLANS

PI Sta 10+52.266
Δ = 14° 28' 23.7" (RT)
L = 47.995
T = 24.126
R = 190.000
SE = SEE PLANS

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

FOR -L- PROFILE SEE SHEET 57

FOR -D16- PROFILE SEE SHEET 75

12 x 7 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
4.5 m weir
ID 30.1C

-L- POSSta.312+61.529
-Y27- POT Sta.10+00.000

-L- ST Sta.313+11.874

-Y27- PCSta.10+02.879
BEARING BACK = S 41° 22' 02.4" E

-L- POSSta.313+02.930
-D8- POT Sta.10+00.000
BEARING AH = S 43° 17' 55.4" E

-L- PI Sta 308+23.184
Θs = 6° 26' 44.8"
Ls = 90.000
LT = 60.040
ST = 30.036

-L-
PI Sta 310+.
Δ = 52° 48'
L = 368.73
T = 198.53
R = 400.00
SE = 0.06
**V = 96 kph

PIs Sta 314+01.908
Θs = 4° 28' 06.5"
Ls = 90.000
LT = 60.019
ST = 30.017

PI Sta 316+01.330
Δ = 32° 43' 50.7" (LT)
L = 329.617
T = 169.442
R = 577.000
SE = 0.06

PIs Sta 317+91.523
Θs = 4° 28' 06.5"
Ls = 90.000
LT = 60.019
ST = 30.017

-L- POT Sta.313+12.000
-D9- POT Sta.10+00.000
BEARING AH = S 43° 23' 03.4" E

-Y28-
PI Sta 10+12.569
Δ = 43° 00' 00.0" (RT)
L = 18.762
T = 9.848
R = 25.000
SE = SEE PLANS

PI Sta 10+69.835
Δ = 23° 26' 00.0" (LT)
L = 53.169
T = 26.961
R = 130.000
SE = SEE PLANS

PI Sta 11+36.930
Δ = 5° 42' 00.0" (LT)
L = 59.690
T = 29.870
R = 600.000

-D8-
PI Sta 10+26.115
Δ = 46° 33' 12.8" (RT)
L = 12.188
T = 6.453
R = 15.000

PI Sta 10+45.515
Δ = 49° 30' 17.7" (LT)
L = 12.960
T = 6.916
R = 15.000

-D9-
PI Sta 10+36.059
Δ = 10° 35' 38.7" (LT)
L = 9.245
T = 4.636
R = 50.000

-D10-
PI Sta 10+27.157
Δ = 41° 37' 50.3" (LT)
L = 21.798
T = 11.405
R = 30.000

BEGIN CULVERT
-L- 312+50.053

END CULVERT
-L- 312+56.553

600 CSP W/
2 ELBOWS

SHOAL CREEK BAPTIST CHURCH
DB 415 PG 71

-L- ST Sta.313+41.889

Beam Stream Relocation
GF S2 - Sta 0+00.000

-D16- POT Sta.10+00
-L- POSSta.314+30
BRG AH = S 39° 06' 05.0" E

-L- SCSta.314+31.889

RCV SEE SHEET 2-O

GEORGES FORK
STREAM RELOCATION
SEE SHEET 2-Q

STREAM PLUG
SEE SHEET 2-E

CLASS B RIP RAP
SEE SHEET 2-K (EST. DRE 15 C.M.)

INLET AND
OUTLET
BURIED Ø.3m

PLUG AND FILL
WITH FLOWABLE FILL
PROP. CONC 450mm CAP

-D16- POT Sta.10+17.939
-D10- POT Sta.10+00.000

MATCHLINE -L- STA. 312+20 SEE SHEET NO. 29

MATCHLINE -L- STA. 315+60 SEE SHEET NO. 31

REMOVE

400 CSP
W/2 ELBOWS

400 CSP W/
2 ELBOWS

0.6m BASE DITCH
GRASSED LINED
SEE DETAIL 'E' CL B RIP RAP
SHEET 2-K EST 1.8 TONS
F.F. 5.9 SM

-D16- PT Sta.10+32.546

1.0m BASE DITCH
GRASS LINED
SEE DETAIL 'AF'
SHEET 2-L
EST. 26 C.M. DDE

ELIZABETH YOUNG
HUSKINS
DB 264 PG 231

NOTE: PROPOSED RETAINING WALL #9
HAS BEEN ELIMINATED

DANNY HIGGINS
DB 201 PG 179

-D10- POT Sta.10+10.000
BEGIN CONST.

-D10- PCSta.10+15.752

END CONST.
-Y28-
POCSta.10+67.662
-Y28- PT Sta.10+96.043

-Y28- PCSta.11+07.061

-Y28- POCSta.11+27.106
-D10- POT Sta.10+45.413

WINDOM METHODIST CHURCH
DB 128 PG 24

PCSta.10+38.599

BARBARA FORD
DB 216 PG 36

-Y27- PCCSta.10+28.140

TAPER

ROY C. HARRIS
DB 160 PG 29

-D9- PCSta.10+31.423

NORMA P. EVANS
DB 142 PG 368

-D9- PT Sta.10+40.668
BEARING AH = S 53° 58' 42.1" E

PCSta.10+19.662

-D8- PT Sta.10+31.850
BEARING AH = S 3° 15' 17.4" W

-D8- PT Sta.10+51.559
BEARING AH = S 46° 15' 00.3" E

-D8- POT Sta.10+58
END CONST.

-D8- POT Sta.10+60.107

-D9- PT Sta.10+45
END CONST.

-D9- POT Sta.10+52.722

-D16- PT Sta.10+57.734

-D10- PT Sta.10+37.549

-D10- POT Sta.10+42.519
END CONST.

ROGER F. PENLAND
DB 254 PG 405

JAMES G. MARSH, JR.
DB 297 PG 447

CL B RIP RAP
EST 1.8 TONS
F.F. 5.9 SM

HERMAN HUGHES
DB 158 PG 229

DANNY HUGHES
DB 196 PG 820

JETER BISS BUCHANAN
DB 156 PG 547

-D16-
PI Sta 10+25.880
Δ = 55° 47' 36.8" (RT)
L = 14.607
T = 7.941
R = 15.000

-Y28- PT Sta.11+66.751

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

8/17/99

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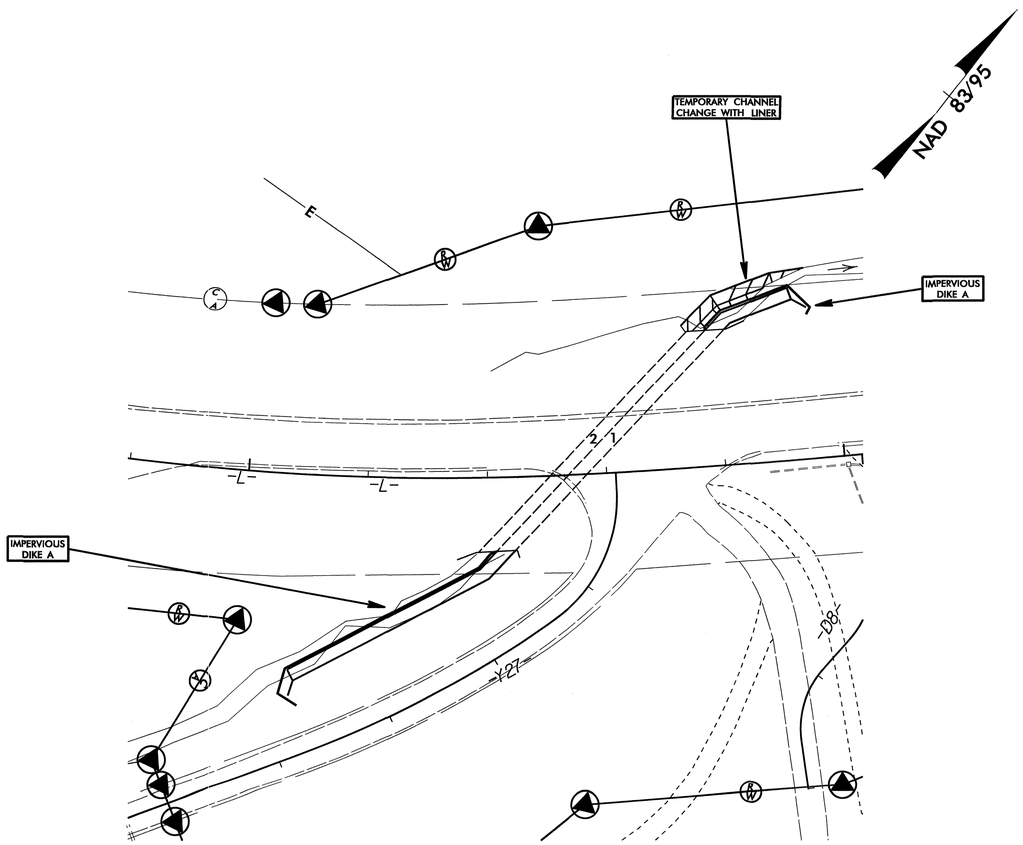
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-43/CONST.30 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 312 + 53.5 –L–

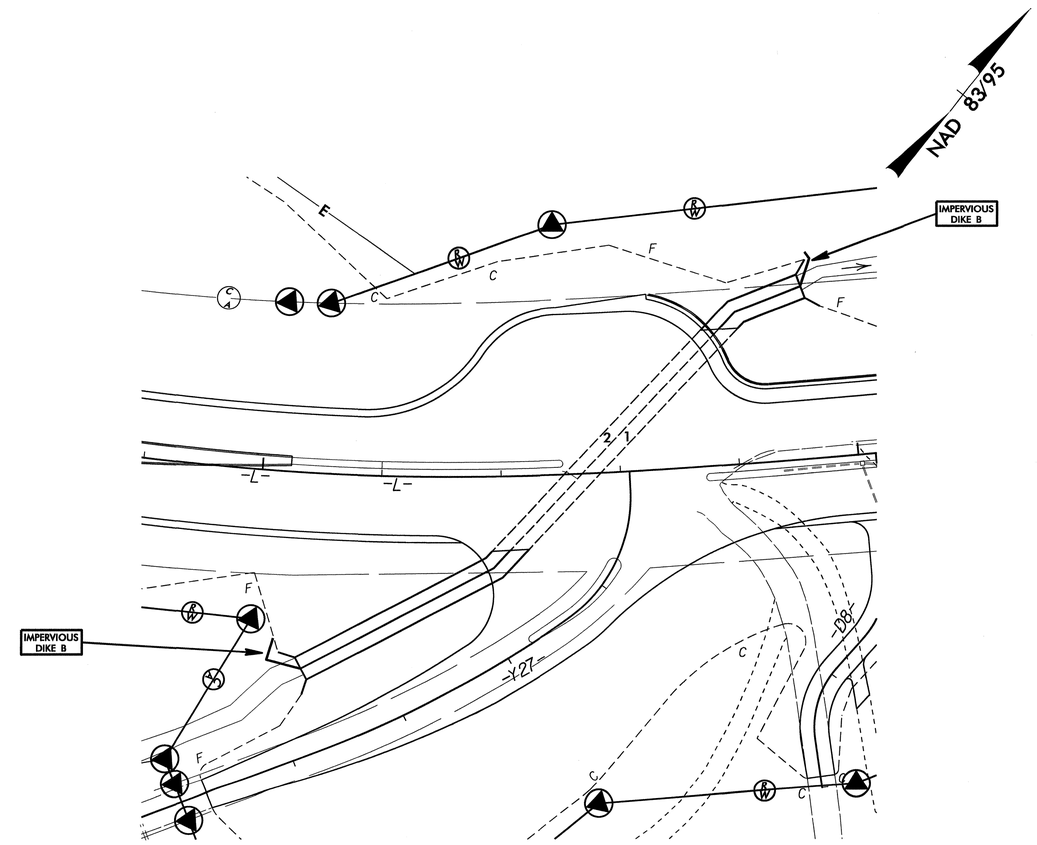
## PHASE I

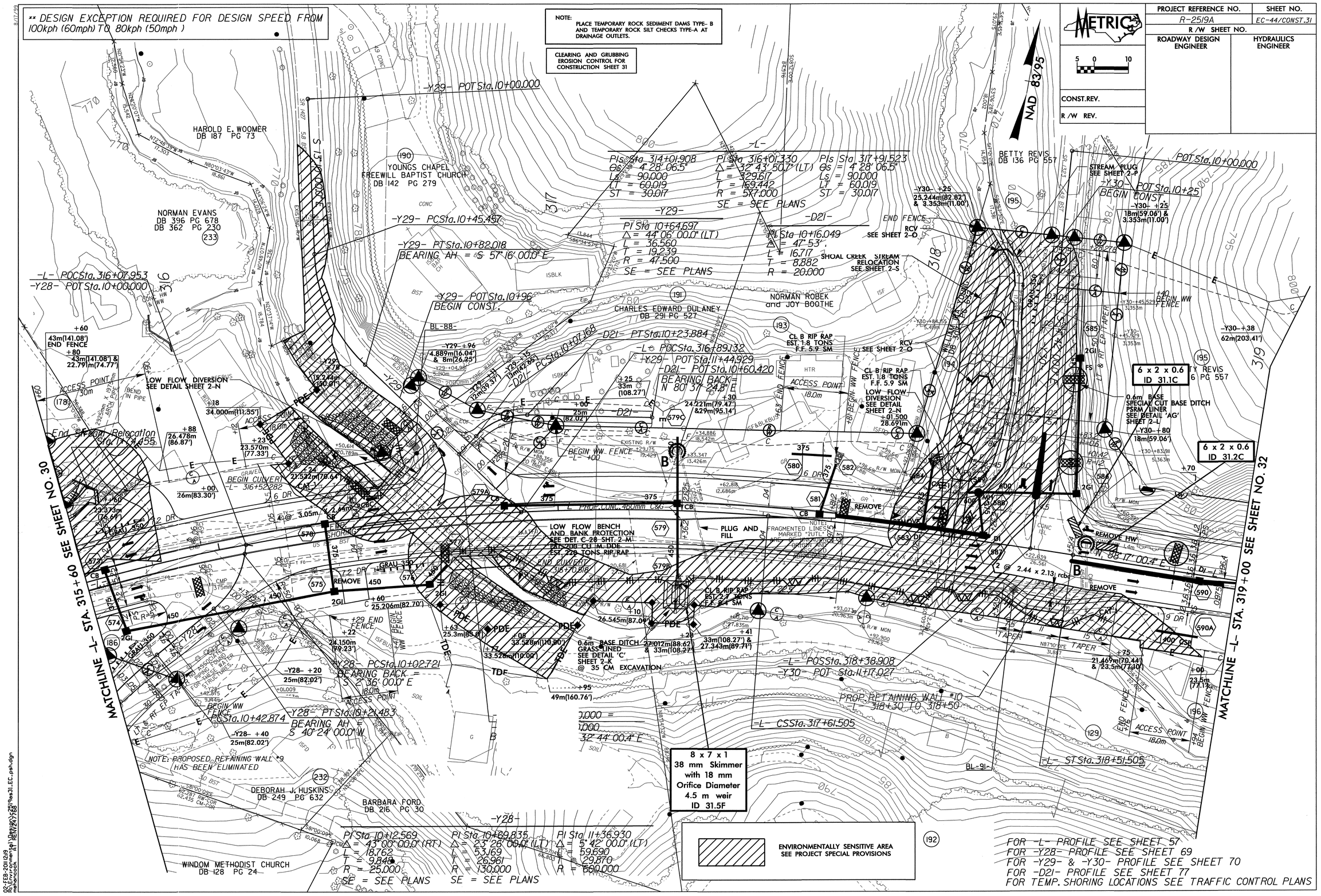
1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE WITH LINER (1M BASE, 1M DEEP, 2:1 SIDE SLOPES), DIVERTING FLOW THROUGH BARREL 2 OF EXISTING CULVERT.
3. CONSTRUCT PROPOSED UPSTREAM AND DOWNSTREAM CULVERT EXTENSIONS OF BARREL 1.
4. REMOVE IMPERVIOUS DIKES A AND TEMPORARY CHANNEL CHANGE.




## PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH COMPLETED BARREL 1.
6. CONSTRUCT PROPOSED UPSTREAM AND DOWNSTREAM CULVERT EXTENSIONS OF BARREL 2.
7. REMOVE IMPERVIOUS DIKES B.
8. COMPLETE ANY NECESSARY UPSTREAM/DOWNSTREAM CHANNEL IMPROVEMENTS.
9. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S), AND COMPLETE ROADWAY.





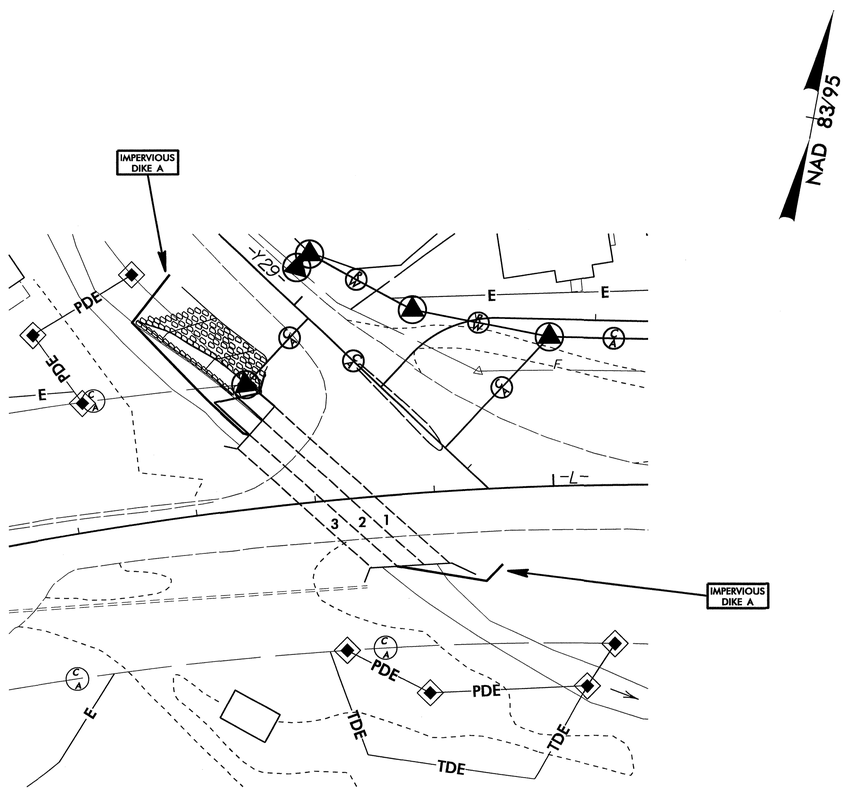
** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE- B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 31
METRIC
PROJECT REFERENCE NO.
R-2519A
SHEET NO.
EC-44/CONST.31
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
NAD 83/95
HAROLD E. WOOMER DB 187 PG 73
YOUNGS CHAPEL FREEWILL BAPTIST CHURCH DB 142 PG 279
NORMAN EVANS DB 396 PG 678 DB 362 PG 230
CHARLES EDWARD DULANEY DB 291 PG 527
NORMAN ROBEK and JOY BOOTHE
BETTY REVIS DB 136 PG 557
DEBORAH J. HUSKINS DB 249 PG 632
BARBARA FORD DB 216 PG 30
WINDOM METHODIST CHURCH DB 128 PG 24
MATCHLINE -L- STA. 315+60 SEE SHEET NO. 30
MATCHLINE -L- STA. 319+00 SEE SHEET NO. 32
-Y29- POT Sta. 10+00.000
-Y29- PC Sta. 10+45.457
-Y29- PT Sta. 10+82.018
BEARING AH = S 57° 16' 00.0" E
-Y29- POT Sta. 10+96
BEGIN CONST.
-L- POC Sta. 316+07.953
-Y28- POT Sta. 10+00.000
-Y28- PC Sta. 10+02.721
BEARING BACK = S 2° 36' 00.0" E
-Y28- PT Sta. 10+21.483
BEARING AH = S 40° 24' 00.0" W
-Y28- PC Sta. 10+42.874
-Y28- POT Sta. 10+25
BEGIN CONST.
-Y30- POT Sta. 10+25
BEGIN CONST.
-Y30- POT Sta. 10+00.000
-L- POC Sta. 316+89.132
-Y29- POT Sta. 11+44.929
-D21- POT Sta. 10+60.420
BEARING BACK = N 80° 37' 24.8" E
-D21- PT Sta. 10+23.884
-D21- PC Sta. 10+07.168
-L- POS Sta. 318+38.908
-Y30- POT Sta. 11+17.027
-L- CS Sta. 317+61.505
-L- ST Sta. 318+51.505
PROP. RETAINING WALL #10 -L- 318+30 TO 318+50
PI Sta 314+01.908 Δ = 4° 28' 06.5" Ls = 90.000 LT = 60.019 ST = 30.017
PI Sta 316+01.330 Δ = 32° 43' 50.7" (LT) L = 329.617 T = 169.442 R = 577.000 SE = SEE PLANS
PI Sta 317+91.523 Δ = 4° 28' 06.5" Ls = 90.000 LT = 60.019 ST = 30.017
PI Sta 10+64.697 Δ = 44° 06' 00.0" (LT) L = 36.560 T = 19.239 R = 47.500 SE = SEE PLANS
PI Sta 10+16.049 Δ = 47° 53' L = 16.717 T = 8.882 R = 20.000
PI Sta 10+12.569 Δ = 43° 00' 00.0" (RT) L = 18.762 T = 9.848 R = 25.000 SE = SEE PLANS
PI Sta 10+69.835 Δ = 23° 26' 00.0" (LT) L = 53.169 T = 26.961 R = 130.000 SE = SEE PLANS
PI Sta 11+36.930 Δ = 5° 42' 00.0" (LT) L = 59.690 T = 29.870 R = 600.000
SHOAL CREEK STREAM RELOCATION SEE SHEET 2-S
CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM
LOW FLOW DIVERSION SEE DETAIL SHEET 2-N
LOW FLOW BENCH AND BANK PROTECTION SEE DET. C-28 SHT. 2-M
PLUG AND FILL
0.6m BASE DITCH GRASS LINED SEE DETAIL 'C' SHEET 2-K @ 35 CM EXCAVATION
0.6m BASE SPECIAL CUT BASE DITCH PSRM LINER SEE DETAIL 'AG' SHEET 2-L
6 x 2 x 0.6 ID 31.1C
6 x 2 x 0.6 ID 31.2C
8 x 7 x 1 38 mm Skimmer with 18 mm Orifice Diameter 4.5 m weir ID 31.5F
NOTE: PROPOSED RETAINING WALL #9 HAS BEEN ELIMINATED
ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS
FOR -L- PROFILE SEE SHEET 57
FOR -Y28- PROFILE SEE SHEET 69
FOR -Y29- & -Y30- PROFILE SEE SHEET 70
FOR -D21- PROFILE SEE SHEET 77
FOR TEMP. SHORING LOCATIONS SEE TRAFFIC CONTROL PLANS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-45/CONST.31 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 316+61.4 –L– (SHEET 1 OF 3)

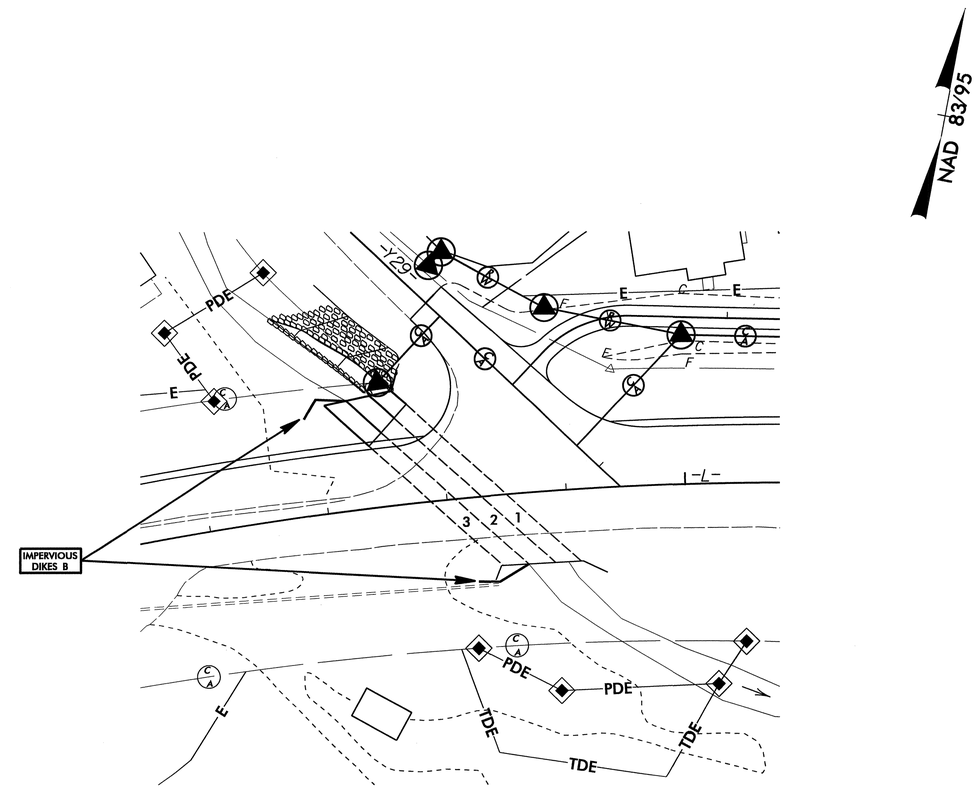
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARREL 3 OF EXISTING CULVERT.
3. CONSTRUCT PROPOSED UPSTREAM CULVERT EXTENSION OF BARRELS 1 AND 2, AND PORTION OF UPSTREAM CHANNEL IMPROVEMENTS.
4. REMOVE IMPERVIOUS DIKES A.




## PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH BARRELS 1 AND 2.
6. CONSTRUCT PROPOSED UPSTREAM CULVERT EXTENSION OF BARREL 3.
7. REMOVE IMPERVIOUS DIKES B.
8. CONSTRUCT TEMPORARY WIDENING AND SHIFT TRAFFIC TO WESTBOUND SIDE OF ROAD.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-46/CONST.31 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

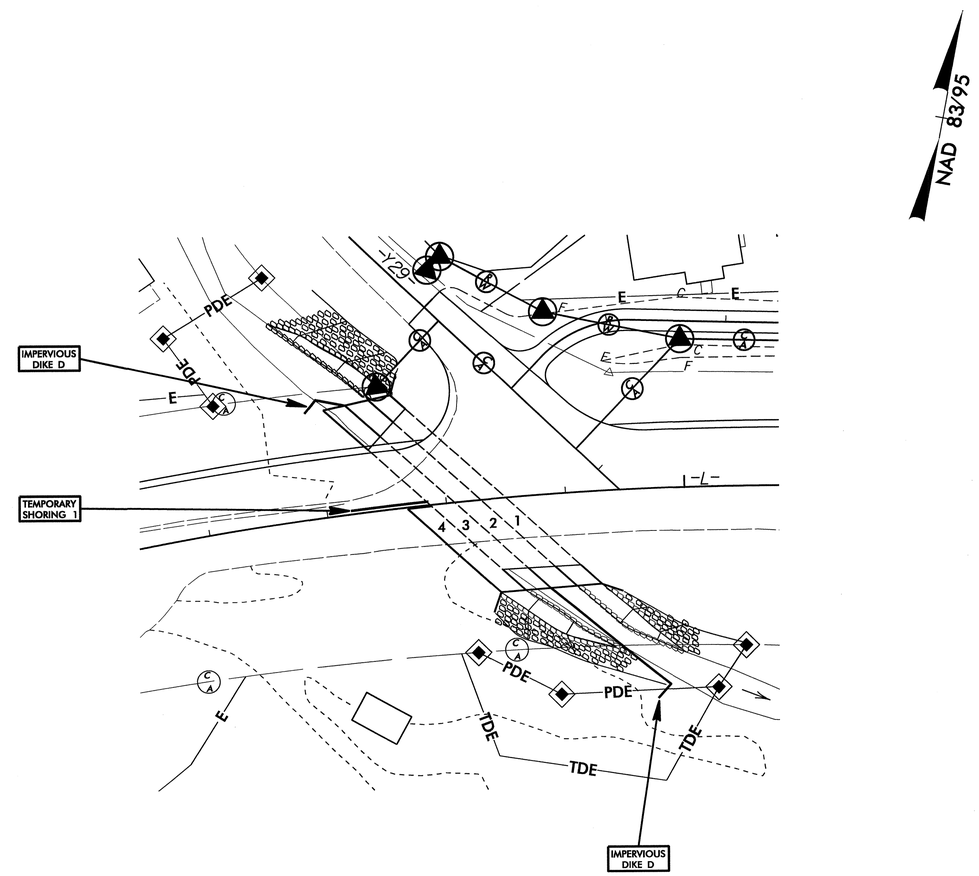
# CULVERT CONSTRUCTION SEQUENCE STA. 316 + 61.4 –L– (SHEET 2 OF 3)

## PHASE III

9. CONSTRUCT IMPERVIOUS DIKES C, DIVERTING FLOW THROUGH BARREL 3.
10. CONSTRUCT PROPOSED DOWNSTREAM CULVERT EXTENSION OF BARRELS 1 AND 2, AND PORTION OF DOWNSTREAM CHANNEL IMPROVEMENTS.
11. REMOVE IMPERVIOUS DIKES C.

## PHASE IV

12. CONSTRUCT IMPERVIOUS DIKES D, DIVERTING FLOW THROUGH BARRELS 1 AND 2.
13. CONSTRUCT PROPOSED DOWNSTREAM CULVERT EXTENSION OF BARREL 3.
14. INSTALL TEMPORARY SHORING 1.
15. CONSTRUCT DOWNSTREAM PORTION OF NEW BARREL (BARREL 4) OF PROPOSED CULVERT, AND ANY REMAINING DOWNSTREAM CHANNEL IMPROVEMENTS.
16. REMOVE IMPERVIOUS DIKES D.

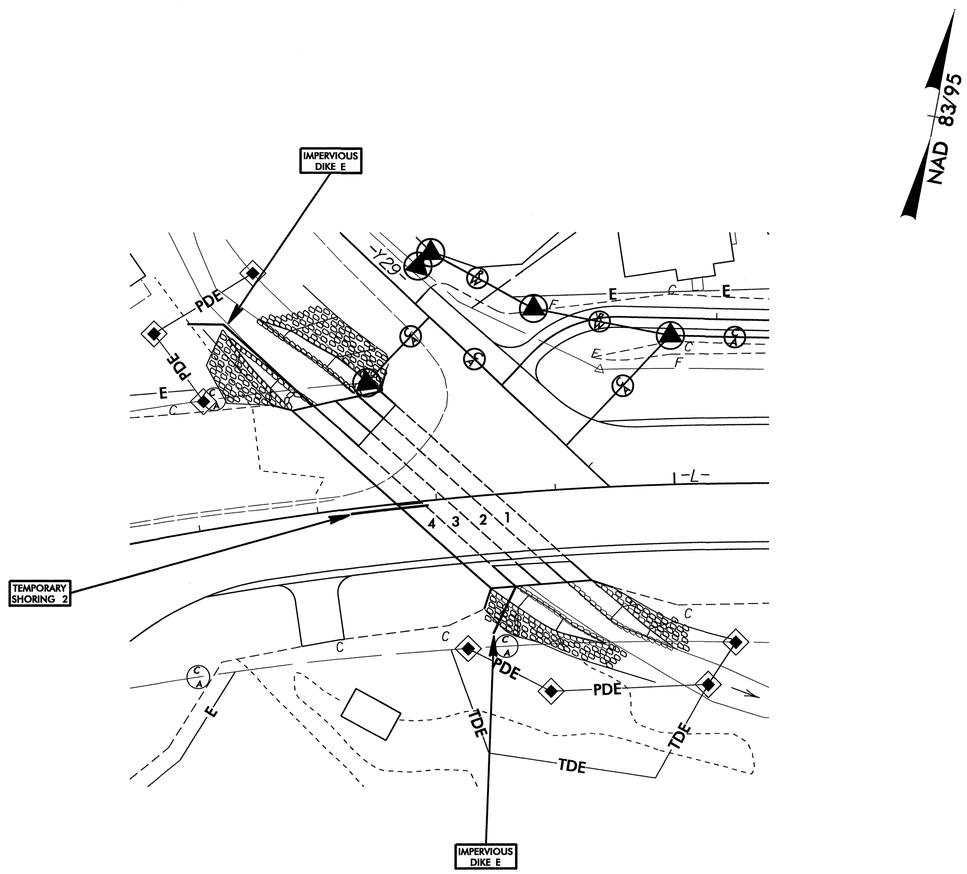


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-47/CONST.31 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 316+61.4 -L- (SHEET 3 OF 3)

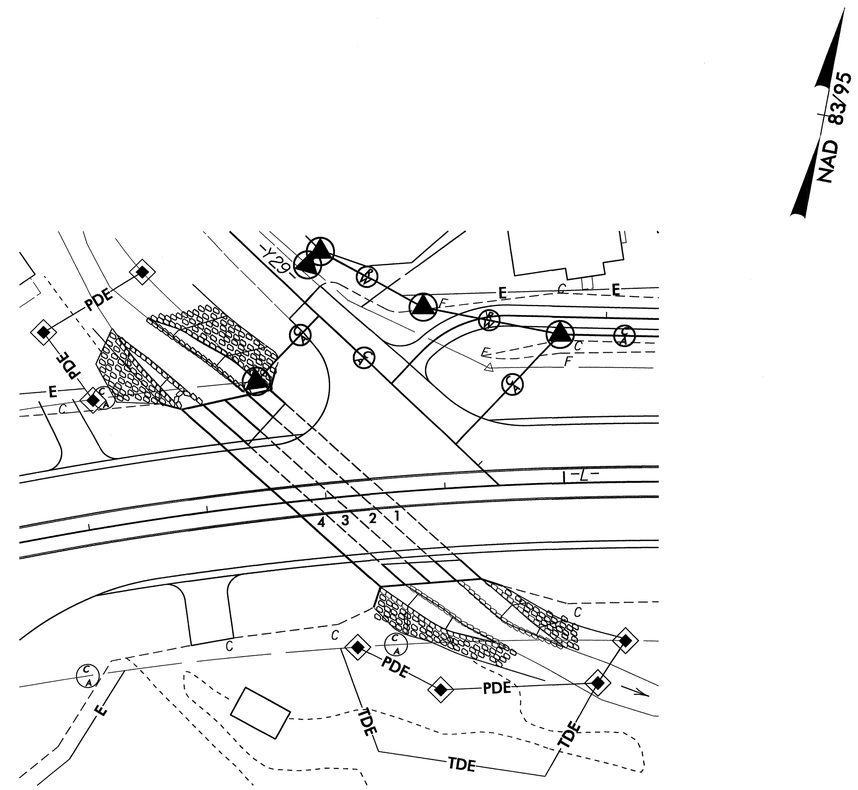
## PHASE V

17. REMOVE TEMPORARY SHORING 1 AND INSTALL TEMPORARY SHORING 2.
18. CONSTRUCT ROADWAY OVER COMPLETED DOWNSTREAM PORTION OF THE CULVERT AND SWITCH TRAFFIC.
19. CONSTRUCT IMPERVIOUS DIKES E, DIVERTING FLOW THROUGH BARRELS 1, 2, AND 3.
20. CONSTRUCT REMAINING UPSTREAM PORTION OF BARREL 4 OF PROPOSED CULVERT, AND ANY REMAINING UPSTREAM CHANNEL IMPROVEMENTS.
21. REMOVE IMPERVIOUS DIKES E.




## PHASE VI

22. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
23. REMOVE TEMPORARY SHORING 2.
24. COMPLETE ROADWAY.

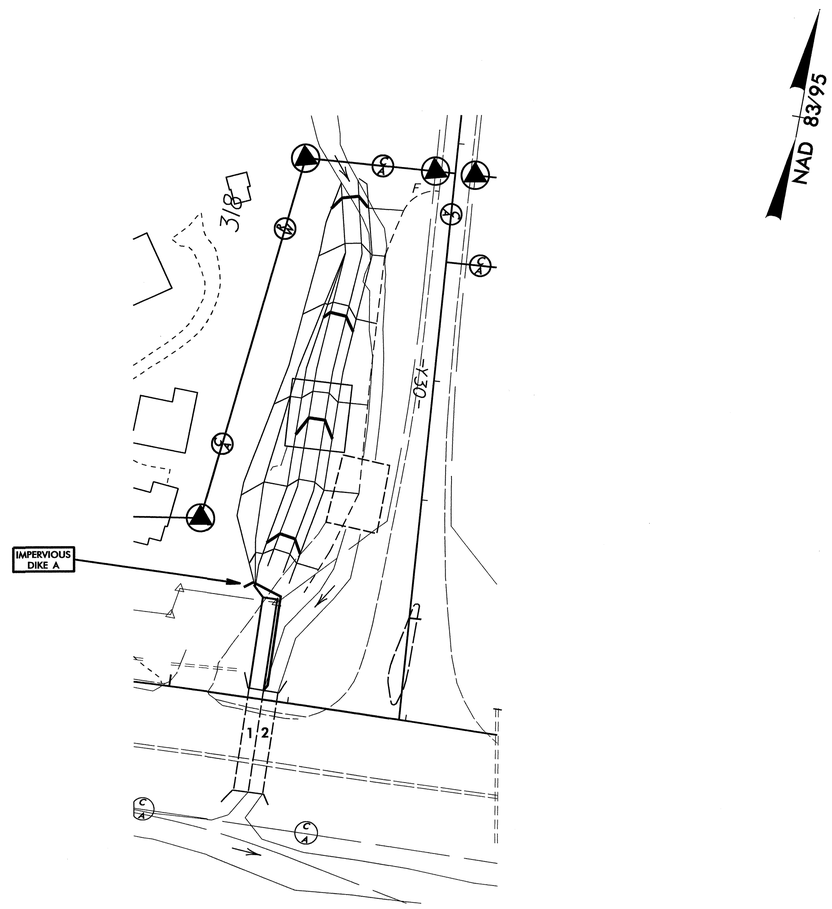


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-48/CONST.31 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 318+15.7 -L-

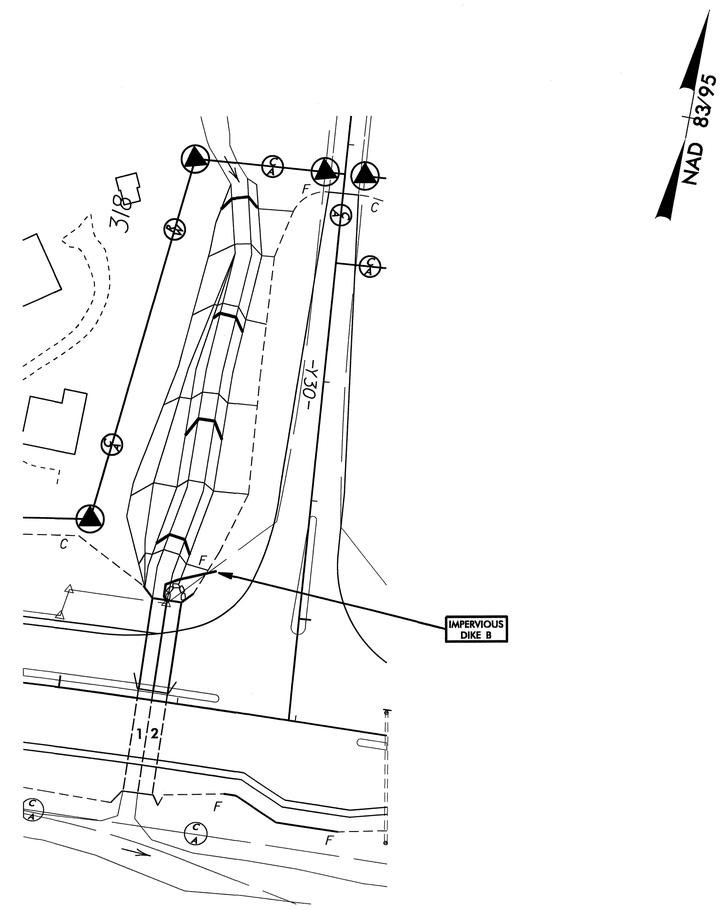
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT STREAM RELOCATION AND CLEAN OUT BARREL 2 OF EXISTING CULVERT.
3. CONSTRUCT IMPERVIOUS DIKE A, DIVERTING FLOW THROUGH BARREL 2 OF EXISTING CULVERT.
4. CONSTRUCT PROPOSED CULVERT EXTENSION OF BARREL 1.
5. REMOVE IMPERVIOUS DIKE A.




## PHASE II

6. CONSTRUCT IMPERVIOUS DIKE B, DIVERTING FLOW THROUGH COMPLETED BARREL 1.
7. CONSTRUCT PROPOSED CULVERT EXTENSION OF BARREL 2.
8. COMPLETE ANY NECESSARY CHANNEL IMPROVEMENTS.
9. REMOVE IMPERVIOUS DIKE B AND ANY REMAINING SPECIAL STILLING BASIN(S).
10. COMPLETE ROADWAY.



** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-49/CONST.32 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

-DII- POT Sta.10+00.000
BEARING AH = S 10°59' 55.1" W
-DII- POCSta.10+03.000
BEGIN CONST.
PCSta.10+09.684
-DII- PT Sta.10+27.320
BRG AH = S 0°53' 38.7" W
-DII- PCSta.10+60.115
-DII- PT Sta.10+75.480
BRG AH = S 9°41' 51.3" W
-L- POCSta.320+14.000
-DII- POT Sta.10+84.097

PI Sta 10+18.525
Δ = 10°06' 16.4" (LT)
L = 17.636
T = 8.841
R = 100.000

PI Sta 10+67.813
Δ = 8°48' 12.6" (RT)
L = 15.365
T = 7.698
R = 100.000

-DI2-

PI Sta 10+16.314
Δ = 43°38' 54.2" (RT)
L = 19.045
T = 10.012
R = 25.000

PI Sta 10+44.515
Δ = 40°49' 36.0" (LT)
L = 21.377
T = 11.165
R = 30.000

BEGIN CONST.
-DI2- PCSta.10+06.303
BRG BK=S 32°29' 38.1" W
-DI2- PT Sta.10+25.348
BRG AH=S 76°08' 32.3" W
-DI2- PCSta.10+33.350
-DI2- PT Sta.10+54.727
BEARING AH = S 35°18' 56.3" W
-DI2- POT Sta.10+00.000

-L- TSSta.321+54.622
-L- POSSta.321+95.000
-DI2- POT Sta.10+71.206
-L- STSta.321+51.732
-L- CSSta.320+61.732
-L- SCSta.319+99.235
-L- TSSta.319+09.235

MATCHLINE -L- STA. 319+00 SEE SHEET NO. 31

MATCHLINE -L- STA. 322+40 SEE SHEET NO. 33

NAD 83/95

BERM DITCH
CUT DITCH PSRM LINED SEE DETAIL 'AH' SHEET 2-L
SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K
REMOVE 1HV AND PORTION OF PIPE
CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM
CL B RIP RAP EST. 8.4 TONS F.F. 14.2 SM
PROP CONC 400mm C&G
ACCESS POINT 18.0m
BETTY REVIS DB 136 PG 557
LILLIAN ROBINSON DB 136 PG 566
ED GOUGE DB 108 PG 45
YANCEY RAILROAD COMPANY DB 114 PG 338
MILTON WEISS DB 136 PG 569
DEWEY PATE, JR. DB 268 PG 355
PATSY B. MURPHY DB 136 PG 601
HDWL 1200 CSP W/2 ELBOWS
600 CSP W/2 ELBOWS
600 CSP W/ELBOW
400 CSP W/ELBOW
LITTLE CRABTREE CREEK
CHRISTMAS TREES

6 x 2 x 0.6 ID 32.1C
10 x 2 x 0.6 ID 32.2C
9 x 4 x 1 1.5 m weir ID 32.1F
9 x 9 x 1 38 mm Skimmer with 21 mm Orifice Diameter 6.5 m weir ID 32.5F

Seed and Mat Berm Ditch Sta. 320+20 to 322+00 Lt Immediatly Upon Grading.

NOTE: FRAGMENTED LINES MARKED "AUT" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED

PIs Sta 319+69.306
Θs = 8°35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 320+30.597
Δ = 11°56' 09.8" (RT)
L = 62.497
T = 31.362
R = 300.000
SE = SEE PLANS
**V = 85 kph

PIs Sta 320+91.797
Θs = 8°35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PIs Sta 322+14.685
Θs = 8°03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

PI Sta 322+73.821
Δ = 10°25' 37.7" (LT)
L = 58.236
T = 29.199
R = 320.000
SE = 0.06
**V = 88 kph

PIs Sta 323+32.915
Θs = 8°03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 32

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

FOR -L- PROFILE SEE SHEET 58
FOR -DII- & -DI2- PROFILE SEE SHEET 73

8/17/99

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| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-50/CONST.33 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

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 33

-DI4REV-
PI Sta 11+00.718
Δ = 20° 57' 01.9" (LT)
L = 73.131
T = 36.979
R = 200.000

PI Sta 11+46.038
Δ = 10° 28' 31.0" (RT)
L = 18.283
T = 9.167
R = 100.000

-DI4-
PI Sta 11+91.285
Δ = 52° 57' 00.5" (LT)
L = 27.725
T = 14.941
R = 30.000

-DI4DET-
PI Sta 10+11.933
Δ = 100° 04' 26.0" (LT)
L = 17.466
T = 11.933
R = 10.000

-L-
PIs Sta 322+14.685
Θs = 8° 03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

PI Sta 322+73.821
Δ = 10° 25' 37.7" (LT)
L = 58.236
T = 29.199
R = 320.000
SE = SEE PLANS
**V = 88 kph

PIs Sta 323+32.915
Θs = 8° 03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

-DI3REV-
PI Sta 10+35.160
Δ = 69° 48' 22.3" (RT)
L = 24.367
T = 13.954
R = 20.000

PI Sta 10+69.802
Δ = 7° 53' 33.3" (LT)
L = 6.888
T = 3.449
R = 50.000

PI Sta 11+30.698
Δ = 66° 31' 34.6" (LT)
L = 23.222
T = 13.319
R = 20.000

-DI3-
PI Sta 10+39.779
Δ = 49° 57' 38.4" (RT)
L = 43.599
T = 23.294
R = 50.000

PI Sta 11+33.250
Δ = 64° 12' 06.9" (LT)
L = 22.411
T = 12.546
R = 20.000

-DI3DET-
PI Sta 10+63.691
Δ = 14° 49' 52.3" (LT)
L = 2.589
T = 1.302
R = 10.000

PI Sta 10+80.847
Δ = 39° 55' 19.0" (RT)
L = 6.968
T = 3.632
R = 10.000

SHEET NO. 32

HYDRAULICS ENGINEER

NAD 83/95

Seed and Mat Berm Ditch Sta. 322+60 to 322+90 Lt Immediately Upon Grading.

FOR -DI3DET- DESIGN SEE SHEET 33-A
FOR -L- PROFILE SEE SHEET 58
FOR -DI3REV- PROFILE SEE SHEET 74
FOR -DI4REV- PROFILE SEE SHEET 75
FOR -DI4DET- DESIGN SEE SHEET 33-A

-DI3REV- PT Sta. 10+45.574
-DI3REV- PCSta. 10+66.353
-DI3REV- PT Sta. 10+73.241
-DI3- POT Sta. 10+00.000 =
-DI3REV- POT Sta. 10+00.000
BEARING AH = S 19° 57' 42.9" W
-DI3- PCSta. 10+16.484
-DI4REV- PT Sta. 11+55.153 BK =
-DI4- POT Sta. 11+54.543 AH
-DI3REV- PCSta. 10+21.207
BEGIN CONST.
-DI4DET- PCSta. 10+00.000
BEGIN CONST.
-DI3REV- PCSta. 11+17.579
-DI3REV- S 81° 52' 31.9" W
S 89° 46' 05.2" W
S 62° 56' 59.9" W
S 62° 57' 00.0" W
-DI3REV- PT Sta. 11+40.801
-DI3- PCSta. 11+20.703
-DI3- S 69° 55' 21.7" W
S 15° 20' 57.3" W
-DI3- PT Sta. 10+60.083
-DI3DET- PCSta. 10+62.390
-DI3DET- POT Sta. 10+00.000
-DI3DET- S 79° 58' 08.3" E
-DI3DET- PT Sta. 10+64.978
BRG AH = N 85° 11' 59.3" E
-DI4-
PT Sta. 12+04.068
BEARING AH =
S 9° 59' 59.5" W
-DI4REV-
PRCSta. 11+36.87
Sta. 11+76.344
-DI4DET- PT Sta. 10+17.466
-DI3DET- PCSta. 10+77.215
-DI3DET- PT Sta. 10+84.182
-DI3- PT Sta. 11+43.114
-L- OSSta. 323+02.858
-L- POSSta. 323+23.000
-DI3- POT Sta. 11+55.744
BEARING BK =
S 5° 43' 14.8" W
-L- POSSta. 323+04.95
-DI3REV- POT Sta. 11+80.916
-L- ST Sta. 323+92.858
-L- POT Sta. 325+00.000
-DI4- POT Sta. 12+17.001
-DI4DET- POT Sta. 11+00.000
BRG BK = S 54° 52' 41.7" E
-L- Sta. 322+44.622

MATCHLINE -L- STA. 322+40 SEE SHEET NO. 32

MATCHLINE -L- STA. 325+80 SEE SHEET NO. 34

PATSY B. MURPHY
DB 136 PG 601

DONNA GOUGE
DB 399 PG 677

BEULAH HUGHES
DB 448 PG 92
DB 146 PG 329

JOEL RALPH MURPHY
JOEY RANDALL MURPHY
BY WILL
DB 111 PG 200

DAVID WAYNE GARLAND
DB 202 PG 591

ELLIS REECE BOONE
DB 173 PG 487

ALLEN D. BOONE
DB 217 PG 391

SHERRILL McCOURRY
DB 436 PG 607

YANCEY RAILROAD COMPANY
DB 114 PG 338

DEWEY PATTERSON

LITTLE CRABTREE CREEK

CUT DITCH PSRM LINED SEE DETAIL 'AH' SHEET 2-L

0.6m SPECIAL CUT / BASE DITCH GRASSED LINED SEE DETAIL 'Q' SHEET 2-K

PIPE OUTLET CHANNEL SEE DETAIL 'W' SHEET 2-K

PSH 375mm SEE SHEET 2-N

PSH 600 SEE SHEET 2-N

BERM DITCH

ACCESS POINT 18.0m

+10 END FENCE

+28 BEGIN WW FENCE

+66 END FENCE

+84 BEGIN WW FENCE

+27 END FENCE

+45 BEGIN WW FENCE

15 x 6 x 0.6
ID 33.2C

8 x 3 x 0.6
ID 33.1C

9 x 9 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
6.5 m weir
ID 32.5F

8 x 9 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
6.5 m weir
ID 33.1F

10 x 7 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
4.5 m weir
ID 33.2F

REMOVE HW AND STRUCTURE

REMOVE HW

REMOVE

PROP. CONC. 450mm C&G

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

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R:\Structure\work\r2519a\s33_EC_psh.dgn

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-5i/CONST.34 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

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 34

-DI4- POT Sta. 10+00.000
BEARING AH = S 25° 00' 03.7" E
-DI4- PCSta. 10+11.224

-DI4- PT Sta. 10+35.784
BEARING AH = S 62° 56' 59.9" W

-DI4DET-
PI Sta 10+98.243
Δ = 53° 17' 55.5" (RT)
L = 11.163
T = 6.022
R = 12.000

-DI4-
PI Sta 10+26.662
Δ = 87° 57' 03.6" (RT)
L = 24.561
T = 15.438
R = 16.000

-DI4- POCSta. 10+28.000
BEGIN CONST.

-Y33DET-
PI Sta 10+19.374
Δ = 42° 21' 39.8" (RT)
L = 36.967
T = 19.374
R = 50.000
SE = SEE PLANS

-DI4REV-
PI Sta 10+54.624
Δ = 16° 28' 31.0" (RT)
L = 18.283
T = 9.167
R = 100.000

PI Sta 11+91.285
Δ = 52° 57' 00.5" (LT)
L = 27.725
T = 14.941
R = 30.000

-DI4REV- PCSta. 10+45.457 AH =
-DI4- POT Sta 10+45.457 BK

-DI4REV- PRCSta. 10+63.739

PI Sta 10+06.847
Δ = 7° 50' 00.0" (LT)
L = 13.672
T = 6.847
R = 100.000
SE = SEE PLANS

PI Sta 10+28.921
Δ = 34° 03' 11.1" (LT)
L = 23.774
T = 12.249
R = 40.000
SE = SEE PLANS

PI Sta 10+53.630
Δ = 36° 29' 11.1" (RT)
L = 25.472
T = 13.185
R = 40.000
SE = SEE PLANS

-Y33-
-Y33- PCSta. 10+00.000
-Y33DET- PCSta. 10+00.000
-Y33- PT Sta. 10+13.672
BRG AH S 23° 20' 00.0" E
PLUM BRANCH TRIBUTARY STREAM RELOCATION SEE SHEET 2-R
RCV SEE SHEET 2-O
-Y33- PCSta. 10+16.672
-Y33- PRCSta. 10+40.445
RCV SEE SHEET 2-O

-L- TS Sta. 325+85.327

-L- POSSta. 326+22.085
-Y31- POT Sta. 10+00.000
BRG AH = S 5° 32' 00.0" W
-DI4DET-
PCSta. 10+92.221

-DI4DET- S 64° 18' 13.5" E

-L- POCSta. 326+49.022
-DI4DET- PT Sta. 11+03.384

Y33DET- PT Sta. 10+36.967
BRG AH = S 26° 50' 59.4" W

-Y31- POCSta. 10+15.998
-Y31- +30
16.254m(53.33')

-L- POCSta. 327+66.375
-Y33DET- PT Sta. 10+62.999
-L- SCSta. 326+75.327

-Y31- PT Sta. 10+42.911
-Y31- +55
9.144m (30.00')
END CONST.
-Y31- POT Sta. 10+58.994

-Y31-
PI Sta 10+29.556
Δ = 17° 08' 00.0" (RT)

-Y32DET-
PI Sta 9+80.223
Δ = 37° 15' 08.5" (RT)
L = 39.011
T = 20.223
R = 60.000
SE = SEE PLANS

PI Sta 10+04.936
Δ = 16° 51' 12.9" (LT)
L = 11.766
T = 5.926
R = 40.000
SE = SEE PLANS

-L- POCSta. 328+07.257
-Y32- POT Sta. 10+69.223
BRG BK = S 22° 34' 00.0" W

PIs Sta. 326+45.398
θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 327+91.925
Δ = 42° 28' 40.7" (RT)
L = 222.414
T = 116.597
R = 300.000
SE = 0.06
**V = 85 kph

PIs Sta
θs =
Ls =
LT =
ST =

FOR -Y32DET- DESIGN SEE SHEET 34-A
FOR -Y33DET- DESIGN SEE SHEET 34-A

-Y32-
PI Sta 9+80.775
Δ = 38° 11' 49.9" (RT)
L = 40.000
T = 20.775
R = 60.000

PI Sta 10+56.071
Δ = 46° 32' 00.0" (LT)
L = 24.365
T = 12.899
R = 30.000
SE = SEE PLANS

-Y32- PCSta. 9+60.000
BRG BK = S 30° 54' 10.1" W

-Y32DET- PCSta. 9+99.011
BEGIN WW FENCE
-Y32DET- PT Sta. 10+10.777

BEGIN CONST.
-Y32- POT Sta. 10+00.000

BEGIN CONST.
-Y32DET- POT Sta. 10+12.493

-Y32- PT Sta. 10+67.536
-Y32DET- POT Sta. 10+63.842
BRG BK = S 51° 18' 06.2" W

-Y32- PCSta. 10+
-Y32- S 89° 06' 00.0" E

-L- POCSta. 328+97.1
-L- SCSta. 328+97.1

MATCHLINE -L- STA. 325+80 SEE SHEET NO. 33

MATCHLINE -L- STA. 329+20 SEE SHEET NO. 35

8 x 8 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
5.5 m weir
ID 34.1C

7 x 3 x 1
38 mm Skimmer
with 6 mm
Orifice Diameter
1.5 m weir
ID 34.5C

6 x 2 x 0.6
ID 34.2C

6 x 2 x 0.6
ID 34.3&34.4C

6 x 12 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
9.5 m weir
ID 34.3F

6 x 8 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
5.5 m weir
ID 34.4F

CUT DITCH PSRM LINED SEE DETAIL 'AH' SHEET 2-L

SPECIAL CUT DITCH PSRM LINED SEE DETAIL 'I' SHEET 2-K

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

PLUM BRANCH STREAM RELOCATION SEE SHEET 2-R

ROCK CROSS VANE BACKFILLED w/ CLASS 'I' RIP RAP (45 TONS) SEE SHEET 2-O

PSH 400mm SEE SHEET 2-N

CL B RIP RAP EST. 4.5 TONS F.F. 11.7 SM

STREAM PLUG SEE SHEET 2-P

BERM DITCH

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

DANIEL KEITH HUGHES DB 285 PG 14

CARRIE BLEVINS DB 106 PG 189

TROY G. BOONE DB 119 PG 605

ARNOLD ZEB PHILLIPS DB 206 PG 788

DONNA GOUGE DB 399 PG 677

BEULAH HUGHES DB 448 PG 329 DB 146 PG 329

SHERRILL McCOURRY DB 436 PG 607

BERDELLA PETERSON DB 98 PG 208

FRED PETERSON DB 185 PG 407

SADIE FORTNER DB 214 PG 299

02-FEB-2011 12:36
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mhancock

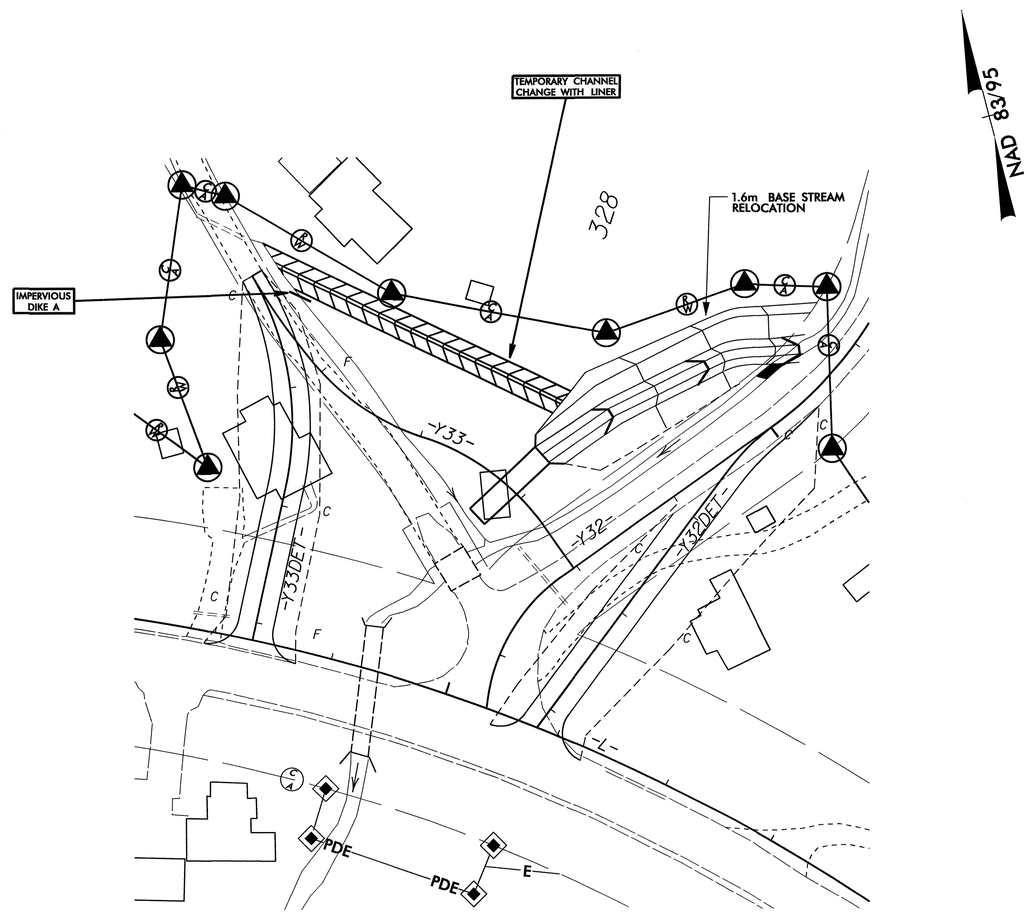
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-52/CONST.34 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

# CULVERT CONSTRUCTION SEQUENCE STA. 327+86.6 –L– (SHEET 1 OF 2)

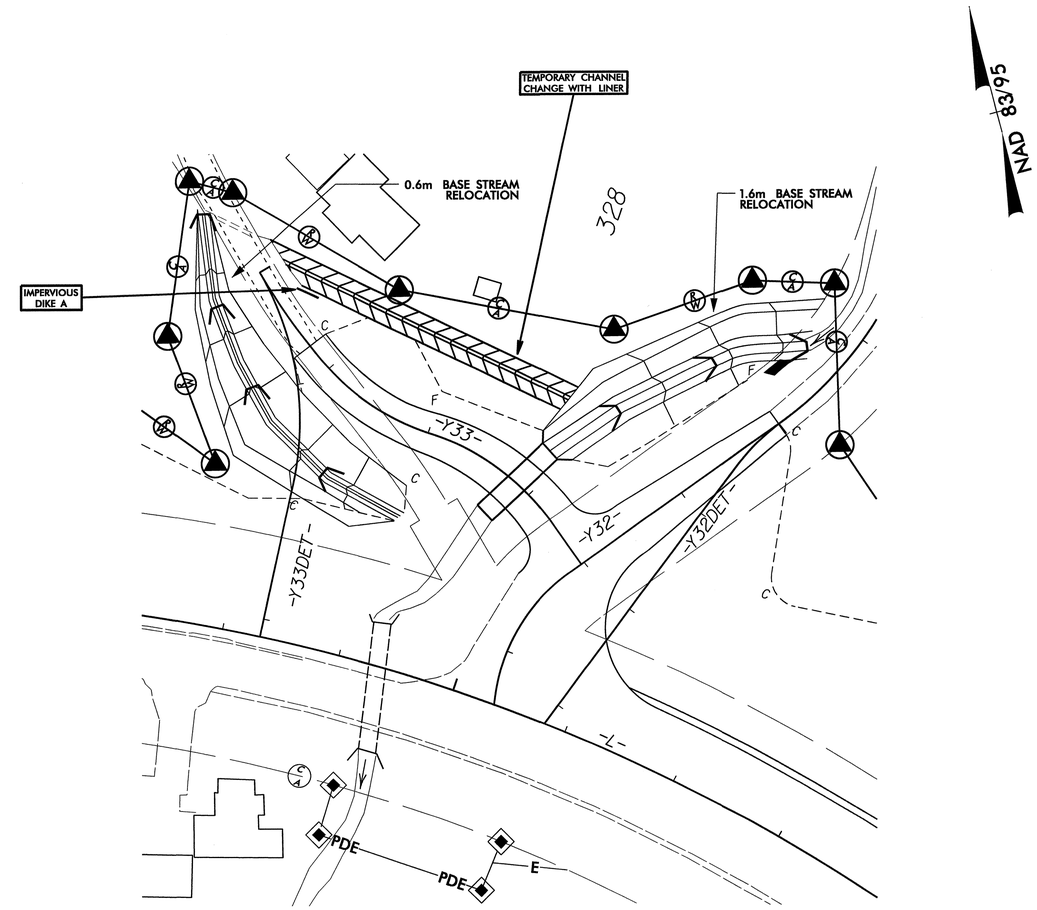
## PHASE I

1. UTILIZE SPECIAL STILLING BASIN(S) AS NEEDED THROUGHOUT CULVERT CONSTRUCTION.
2. CONSTRUCT –Y32DET– AND –Y33DET–, AND SHIFT TRAFFIC.
3. CONSTRUCT 1.6 METER BASE STREAM RELOCATION.
4. CONSTRUCT 15 METERS +/– OF PROPOSED CULVERT EXTENSION.
5. CONSTRUCT IMPERVIOUS DIKE A AND TEMPORARY CHANNEL CHANGE WITH LINER (0.6M BASE, 1M DEEP, 2:1 SIDE SLOPES).
6. DIVERT FLOWS THROUGH TEMPORARY CHANNEL CHANGE AND 1.6 METER BASE STREAM RELOCATION.




## PHASE II

7. CONSTRUCT –Y32– AND –Y33–, REMOVE –Y32DET– AND Y–33DET–, AND SHIFT TRAFFIC.
8. CONSTRUCT 0.6 METER BASE STREAM RELOCATION.
9. REMOVE EXISTING BRIDGE AND START EXCAVATION FOR REMAINDER OF PROPOSED CULVERT EXTENSION.

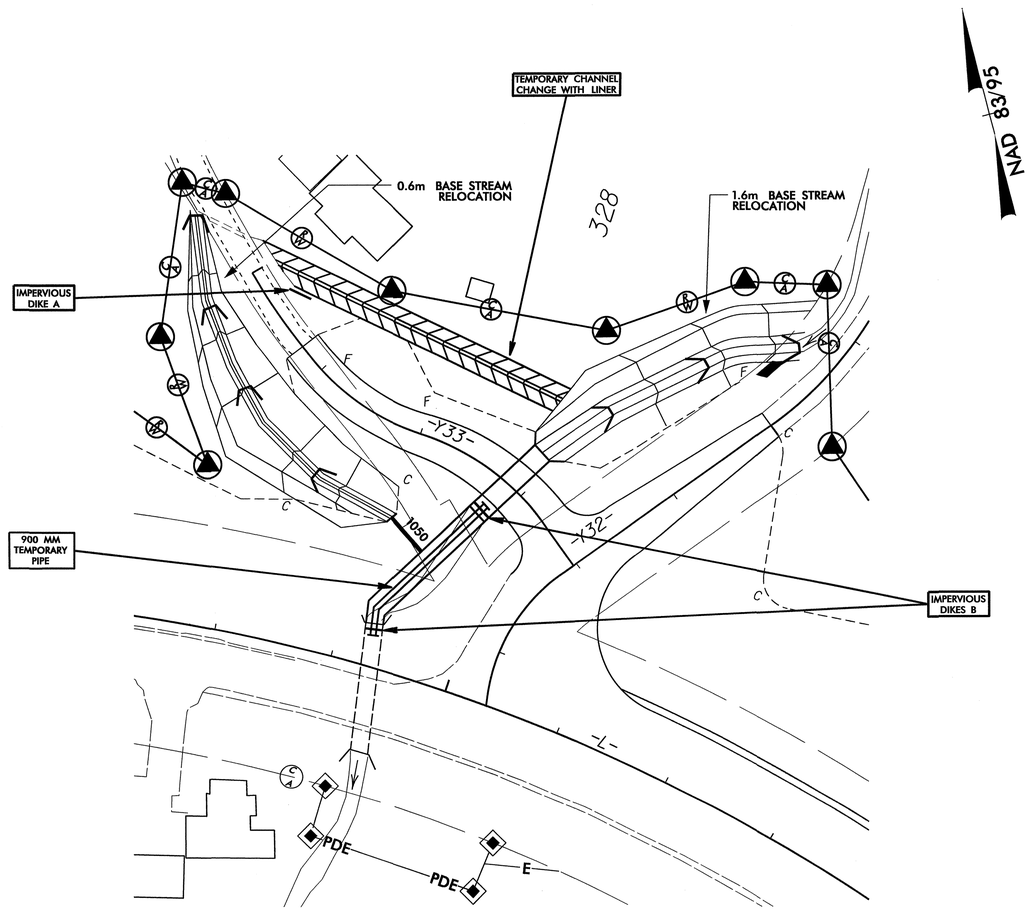


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-53/CONST.34 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 327+86.6 -L- (SHEET 2 OF 2)

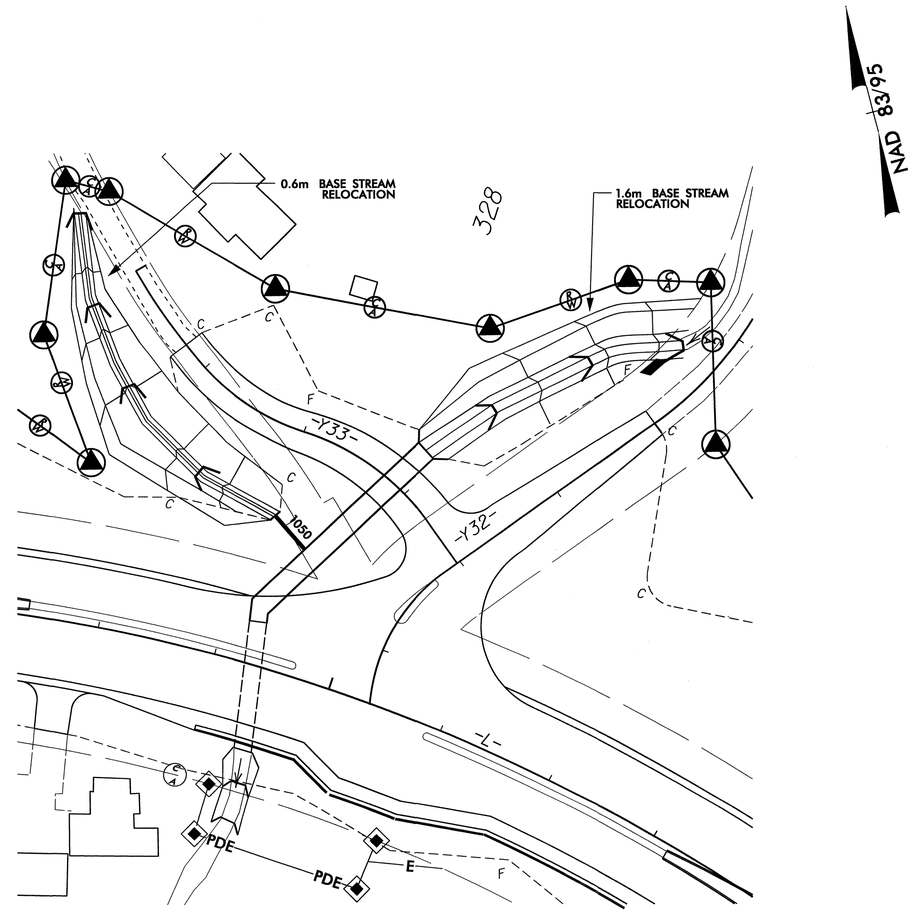
## PHASE III

10. CONSTRUCT IMPERVIOUS DIKES B AND INSTALL 900 MM TEMPORARY PIPE, DIVERTING FLOW.
11. CONSTRUCT REMAINDER OF PROPOSED CULVERT EXTENSION AND INSTALL 1050 MM RCP, CONNECTING THE PROPOSED CULVERT WITH THE 0.6 METER BASE STREAM RELOCATION.
12. REMOVE IMPERVIOUS DIKES B AND TEMPORARY PIPE, ALLOWING FLOW THROUGH COMPLETED CULVERT.




## PHASE IV

13. REMOVE IMPERVIOUS DIKE A AND TEMPORARY CHANNEL CHANGE, DIVERTING FLOW THROUGH THE 0.6 METER BASE STREAM RELOCATION.
14. COMPLETE ANY NECESSARY UPSTREAM/DOWNSTREAM CHANNEL IMPROVEMENTS.
15. REMOVE ANY REMAINING SPECIAL STILLING BASIN(S).
16. COMPLETE ROADWAY.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-54/CONST.35 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

-L-

| | | |
|---|---|---|
| PIs Sta 326+45.398<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 | PI Sta 327+91.925<br>Δ = 42° 28' 40.7" (RT)<br>L = 222.414<br>T = 116.597<br>R = 300.000<br>SE = 0.06<br>**V = 85 kph | PIs Sta 329+27.806<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 |
| PIs Sta 330+67.086<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 | PI Sta 331+55.524<br>Δ = 22° 04' 18.3" (LT)<br>L = 115.567<br>T = 58.509<br>R = 300.000<br>SE = SEE PLANS<br>**V = 85 kph | PIs Sta 332+42.647<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 |

NAD 83/95

FOR -L- PROFILE SEE SHEET 59

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 35

Seed and Mat Berm Ditch Sta. 330+00 to 330+85 Lt Immediately Upon Grading.

MATCHLINE -L- STA. 329+20 SEE SHEET NO. 34

MATCHLINE -L- STA. 332+60 SEE SHEET NO. 36

JACK HAROLD HUGHES DB 192 PG 199

ARNOLD ZEB PHILLIPS DB 206 PG 788

OLLIE EDITH STYLES ESTATE DB 91 PG 312

BRETT HUGHES DB 341 PG 1 DB 287 PG 115

CHARLES R. DELLINGER DB 300 PG 612

JOHN GRIFFITH HEIRS DB 12 PG 41

SADIE FORTNER DB 214 PG 299

ALTON RAY DB 224 PG 715

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

LITTLE CRABTREE CREEK

-L- TS Sta. 330+07.015

-L- SC Sta. 330+97.015

-L- ST Sta. 529+87.746

-L- CS Sta. 332+12.587

9 x 4 x 1 ID 35.1C

8 x 12 x 1 38 mm Skimmer with 24 mm Orifice Diameter 9.5 m weir ID 35.1F

CL I RIP-RAP EST. 6.4 TONS F.F. 14.2 SM

CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM

PSH 400mm SEE SHEET 2-N

BL-103

BL-104

ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

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mwhitacock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-55/CONST.36 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

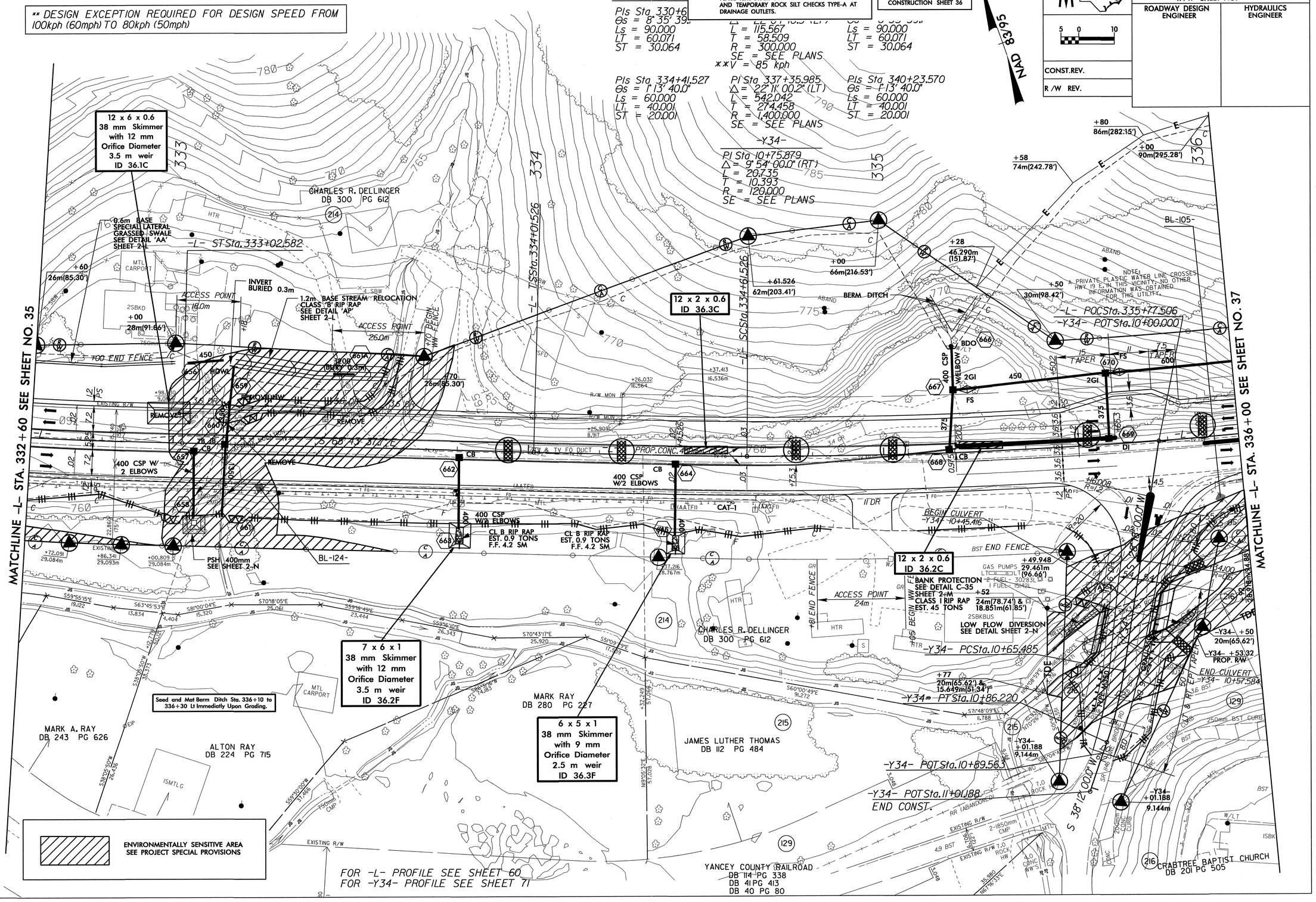
CONST.REV.

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 36

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

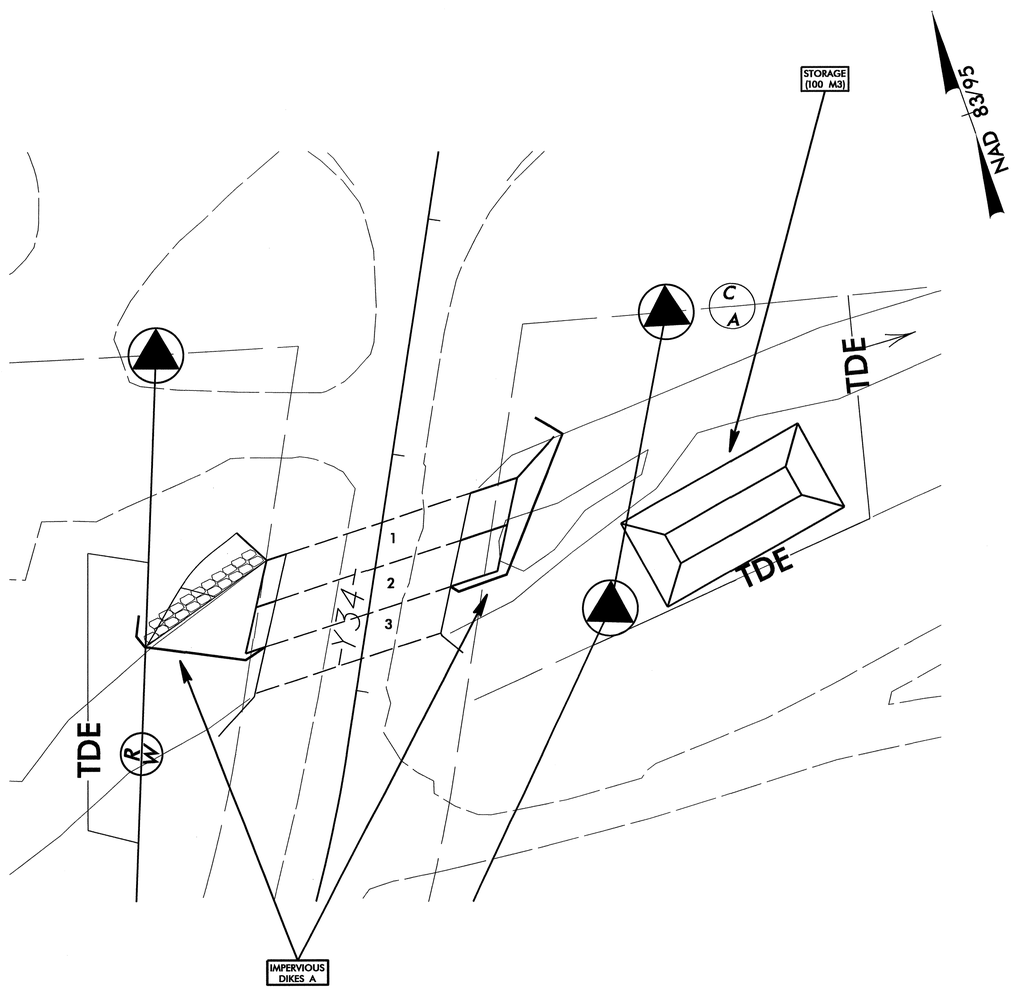


| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-56/CONST.36 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# CULVERT CONSTRUCTION SEQUENCE STA. 10+51.5 -Y34-

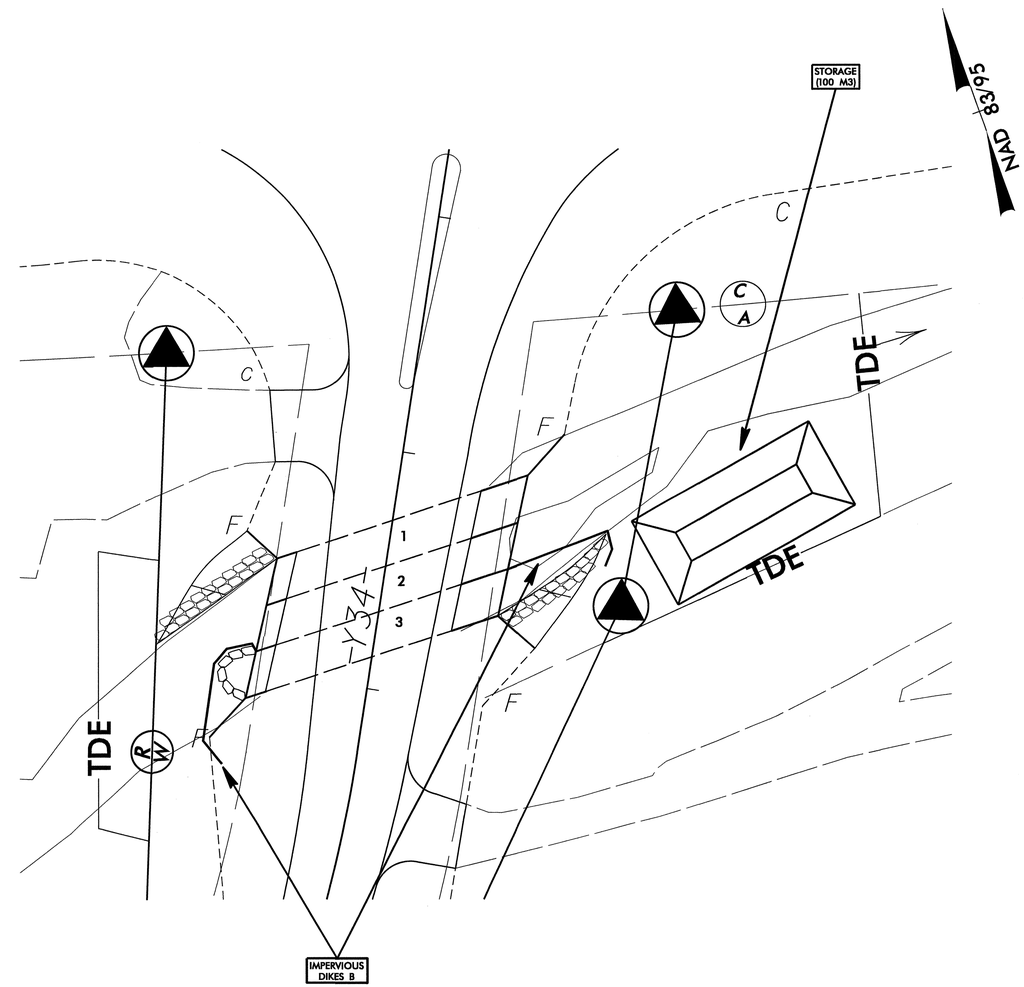
## PHASE I

1. CONSTRUCT STILLING BASIN (100 M3).
2. CONSTRUCT IMPERVIOUS DIKES A, DIVERTING FLOW THROUGH BARREL 3 OF EXISTING CULVERT.
3. CONSTRUCT PROPOSED CULVERT EXTENSIONS FOR BARRELS 1 AND 2, AND PORTION OF THE CHANNEL IMPROVEMENTS.
4. REMOVE IMPERVIOUS DIKES A.




## PHASE II

5. CONSTRUCT IMPERVIOUS DIKES B, DIVERTING FLOW THROUGH COMPLETED BARRELS 1 AND 2.
6. CONSTRUCT PROPOSED CULVERT EXTENSIONS FOR BARREL 3, AND REMAINDER OF THE CHANNEL IMPROVEMENTS.
7. REMOVE IMPERVIOUS DIKES B.
8. REMOVE STILLING BASIN.
9. COMPLETE ROADWAY.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-57/CONST.37 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

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 37

Seed and Mat Berm Ditch Sta. 338+80 to 339+40 Lt Immediatly Upon Grading.

-L-
PIs Sta 334+41.527
Θs = 1° 13' 40.0"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 337+35.985
Δ = 22° 11' 00.2" (LT)
L = 542.042
T = 274.458
R = 1,400.000
SE = 0.03

PIs Sta 340+23.570
Θs = 1° 13' 40.0"
Ls = 60.000
LT = 40.001
ST = 20.001

DORIS F. PROFFITT
DB 212 PG 420

JENNINGS E. RAY
DB 258 PG 533

CHARLES R. DELLINGER
DB 300 PG 612

JOHN MARK CHRISTIAN FREEMAN
DB 294 PG 605

CRABTREE BAPTIST CHURCH
DB 201 PG 505

GERALD BURLESON
DB 234 PG 394

DONNA MICHELLE BRIGGS FOX

YANCEY RAILROAD COMPANY
DB 114 PG 338

J.R. WHEELER
DB 285 PG 485

DONNA MICHELLE BRIGGS FOX
DB 279 PG 112

JUDITH A. ELLIS, ETAL
DB 265 PG 345

12 x 5 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
2.5 m weir
ID 37.3C

12 x 6 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
3.5 m weir
ID 37.2C

8 x 11 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
8.5 m weir
ID 37.3F

MATCHLINE -L- STA. 336+00 SEE SHEET NO. 36

MATCHLINE -L- STA. 339+40 SEE SHEET NO. 38

-L- PROP. CONC. 450mm C&G & TV FO DUCT

BERM DITCH

CHRISTMAS TREES

ACCESS POINT 18.0m

LITTLE CRABTREE CREEK

NOTE: PROPOSED RETAINING WALL #11 HAS BEEN ELIMINATED

PSH 450mm SEE SHEET 2-N

SEED BED

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

FOR -L- PROFILE SEE SHEET 60

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mbrocker

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-58/CONST.38 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.

NAD 83/95

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

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 38

-Y35- POT Sta. 10+00.000

-Y35-
PI Sta 10+55.129
Δ = 38° 14' 00.0" (RT)
L = 33.365
T = 17.330
R = 50.000
SE = SEE PLANS

PI Sta 11+08.820
Δ = 23° 50' 00.0" (LT)
L = 24.958
T = 12.662
R = 60.000
SE = SEE PLANS

-Y35- PCSta. 10+37.798

-Y35- PT Sta. 10+71.163
BRG AH = S 34° 17' 00.0" W

-Y35- PCSta. 10+96.158

-Y35- PT Sta. 11+21.116
BRG AH = S 10° 27' 00.0" W

-L- CSSta. 340+03.569

-L- POSSta. 340+40.112
-Y35- POT Sta. 11+26.151

-L- ST Sta. 340+63.569

-L- TSSta. 342+26.564

-L- POSSta. 342+75.338
-Y36- POT Sta. 10+00.000

-Y36- PCSta. 10+12.480
BRG BK = S 1° 28' 00.0" E

-Y36-
PI Sta. 10+28.891
Δ = 66° 34' 00.0" (LT)
L = 29.045
T = 16.412
R = 25.000
SE = SEE PLANS

PI Sta 334
Θs = 1° 13' 4
Ls = 60.000
LT = 40.001
ST = 20.001

L = 542.042
T = 274.458
R = 1,400.000
SE = 0.03

Ls = 60.000
LT = 40.001
ST = 20.001

PIs Sta. 342+86.635
Θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 343+89.679
Δ = 27° 23' 38.4" (RT)
L = 143.435
T = 73.115
R = 300.000
SE = SEE PLANS
**V = 85 kph

PIs Sta 344+90.063
Θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

MATCHLINE -L- STA. 339+40 SEE SHEET NO. 37

MATCHLINE -L- STA. 342+80 SEE SHEET NO. 39

BEGIN CONST.
-Y35- POC Sta. 10+60.000

END FENCE

WOOD BRIDGE

1.2m BASE STREAM RELOCATION
CLASS 'B' RIP RAP
SEE DETAIL 'AQ'
SHEET 2-L

CL B RIP RAP
EST. 0.9 TONS
F.F. 4.2 SM

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

CL B RIP RAP
EST. 2.7 TONS
F.F. 9.2 SM

CL B RIP RAP
EST. 0.9 TONS
F.F. 4.2 SM

NOTE: PROPOSED RETAINING WALL HAS BEEN ELIMINATED

PROPOSED RETAINING WALL NO. 1
-L- 341+22.73 to 341+89.69

PLUG AND FILL WITH FLOWABLE FILL

8 x 4 x 0.6
ID 38.3C

8 x 4 x 1
ID 38.2C

14 x 6 x 0.6
ID 38.1C

Seed and Mat Berm Ditches Sta. 339+40 to 340+20 Lt and Sta. 342+60 to 342+80 Lt Immediatly Upon Grading.

G. E. FREEMAN
DB 258 PG 108

JOHN ERIC GARLAND
DB 280 PG 536

OVEL TOMBERLIN
DB 118 PG 371

RALPH R. TOMBERLIN
DB 130 PG 603

HUEY HARDING
DB 115 PG 34

YANCEY RAILROAD COMPANY
DB 114 PG 338

R. C. FOX, JR.
DB 125 PG 627

OVEL TOMBERLIN
DB 118 PG 371

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

★ PROPOSED TRAFFIC SIGNAL

FOR -L- PROFILE SEE SHEET 61
FOR -Y35- & -Y36- PROFILE SEE SHEET 71

8/17/99

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mwescoe

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-59/CONST.39 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 39

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

Seed and Mat Berm Ditches Sta. 342+80 to 343+60 Lt and Sta. 344+25 to 344+77 Lt Immediatly Upon Grading.

NAD 83/95

-L-
PIs Sta 342+86.635
Δs = 8° 35' 39.1"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 343+89.679
Δ = 27° 23' 38.4" (RT)
L = 143.435
T = 73.115
R = 300.000
SE = SEE PLANS
** V = 85 kph

PIs Sta 344+90
Δs = 8° 35' 39.1
Ls = 90.000
LT = 60.071
ST = 30.064

-D15-
PI Sta 10+22.059
Δ = 28° 59' 29.0" (LT)
L = 20.240
T = 10.341
R = 40.000

-D15REV- PCSta.10+27.105

BEGIN CONST.
-D15REV- POT STA.10+02.00
-D15REV- POT Sta.10+00.000
BEARING AH = N 74° 56' 22.1" W

-D15REV-
PI Sta 10+32.850
Δ = 32° 02' 58.8" (LT)
L = 11.187
T = 5.744
R = 20.000

-D15REV- PCSta.10+88.799

PI Sta 10+92.562
Δ = 41° 14' 23.7" (LT)
L = 7.198
T = 3.763
R = 10.000

-D15REV- PT Sta.10+38.293
BEARING AH = S 73° 00' 39.1" W

-L- SCSta.343+16.564

-D15REV- PT Sta.10+95.997
BEARING AH = S 31° 46' 15.4" W

-D15- PT Sta.10+31.957
BEARING AH = S 24° 18' 08.6" W

BEGIN CONST.
-D15- POT Sta.10+00.000
BEARING AH = S 53° 17' 37.6" W

-D15- PCSta.10+11.717

-L- POCSta.343+77.00
-D15REV- POT Sta.11+08.886

-L- POCSta.344+16.440
-D15- POT Sta.10+45.781

-L- CSSta.344+59.998

END CONST.
-Y36- POCSta.11+40
BEGIN WW FENCE

-Y36- PT Sta.10+41.525

-Y36-
PI Sta 10+28.891
Δ = 66° 34' 00.0" (LT)
L = 29.045
T = 16.412
R = 25.000
SE = SEE PLANS

PI Sta 11+34.607
Δ = 62° 06' 00.0" (RT)
L = 70.450
T = 39.133
R = 65.000
SE = SEE PLANS

-Y36- PCSta.10+95.473
-Y36- PT Sta.11+65.924

-Y36- POT Sta.11+96.960

-L- STSta.345+49.998

**STA. 345 + 60.000 -L- END TIP PROJECT R-2519A**

WALTCHLINE -L- STA. 342 + 80 SEE SHEET NO. 38

S 68° 02' 00.0" E

S 48° 47' 00.0" E -L-

S 5° 56' 00.0" E

-L- POT Sta. 346+17.171

6 x 3 x 0.6
ID 39.1C

10 x 5 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
2.5 m weir
ID 39.5F

400 CSP W/2 ELBOWS

450 CSP W/ 2 ELBOWS

600 CSP W/ELBOW

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

PSH 400mm
SEE SHEET 2-N

END FENCE

HW COLLAR

RETAIN

REMOVE 703A CB

GRAU-350
+79.5
BEGIN SBG

END SBG

BERM DITCH

ACCESS POINT

160m TAPER

LT EP TAPER

RT EP TAPER

GERALD T. BLALOCK
DB 198 PG 359

OVEL TOMBERLIN
DB 118 PG 371

MICAVILLE PRESBYTERIAN CHURCH
DB 249 PG 376

GEORGE BUCHANAN
DB 138 PG 156

JERALYNE J. RAY
DB 248 PG 9

S. G. HALL
DB 58 PG 161

MICHAEL ANTHONY GILLEY
DB 295 PG 455

RABON ROBINSON
DB 202 PG 112

HALL CEMETERY

HERMAN BEAVER
DB 237 PG 225

FOR -L- PROFILE SEE SHEET 61
FOR -Y36- PROFILE SEE SHEET 71
FOR -D15REV- PROFILE SEE SHEET 73

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mbecock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-60/CONST.40 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

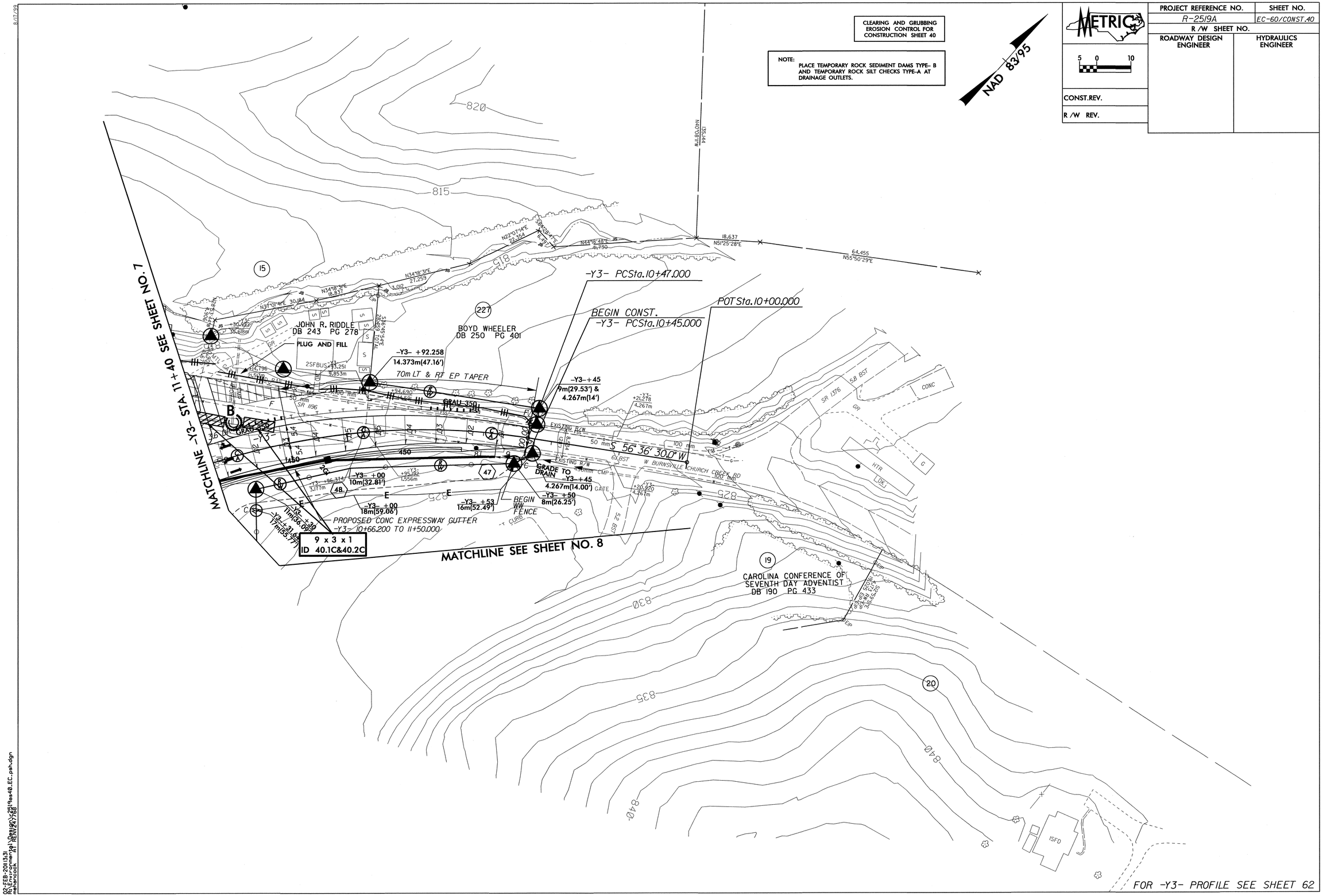
CONST.REV.

R/W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 40

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

NAD 83/95




FOR -Y3- PROFILE SEE SHEET 62

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mehancock AT RENV247768

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-61/CONST.41 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

CONST.REV.

R /W REV.

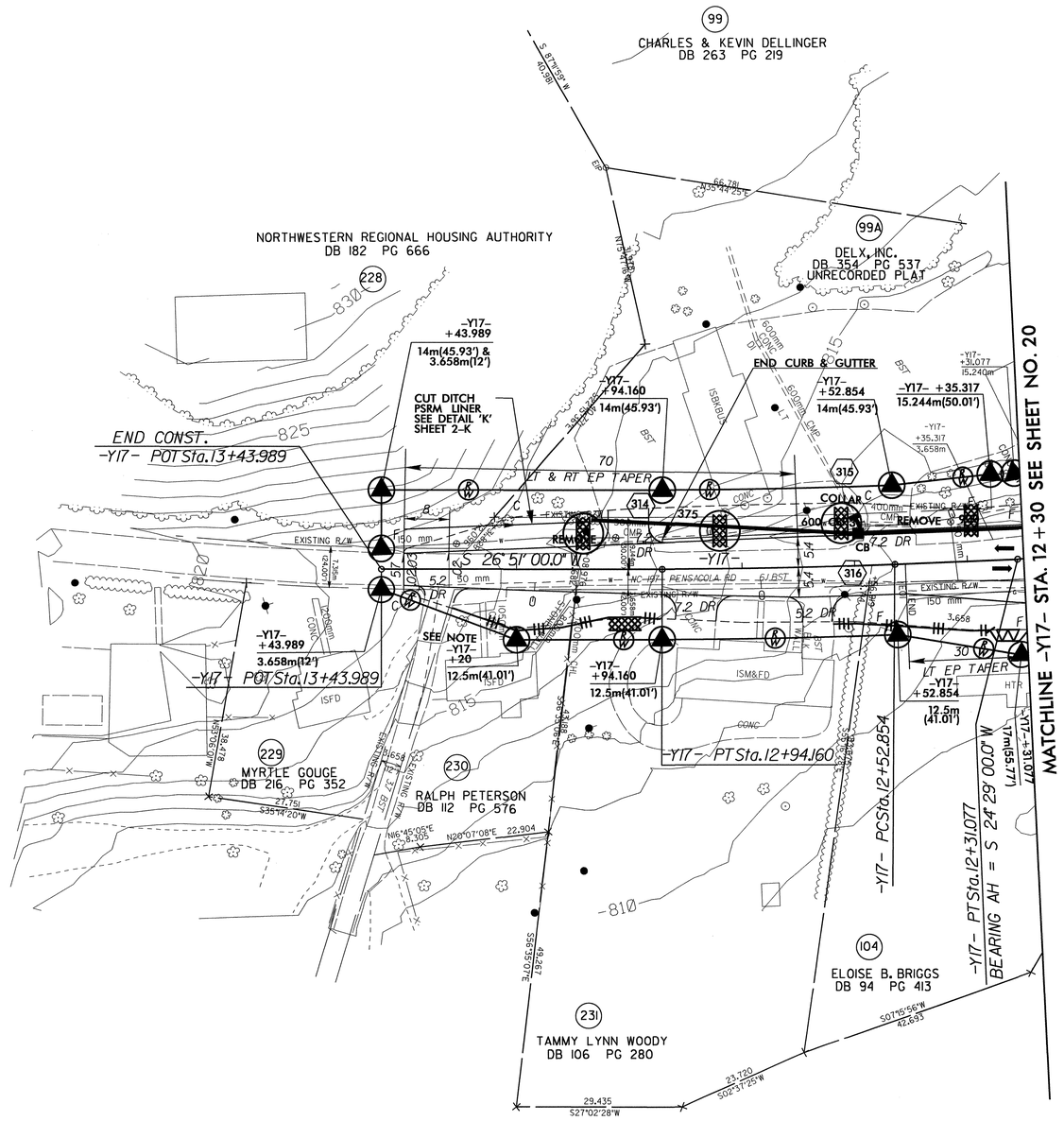
METRIC

5 0 10

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 41

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

NAD 83/95




FOR -Y17- PROFILE SEE SHEET 66

8/17/99

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R:\Environ\Common\31\Roadway\25\9ss41_EC_psh.dgn
mmcoccoli

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-62/CONST.42 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

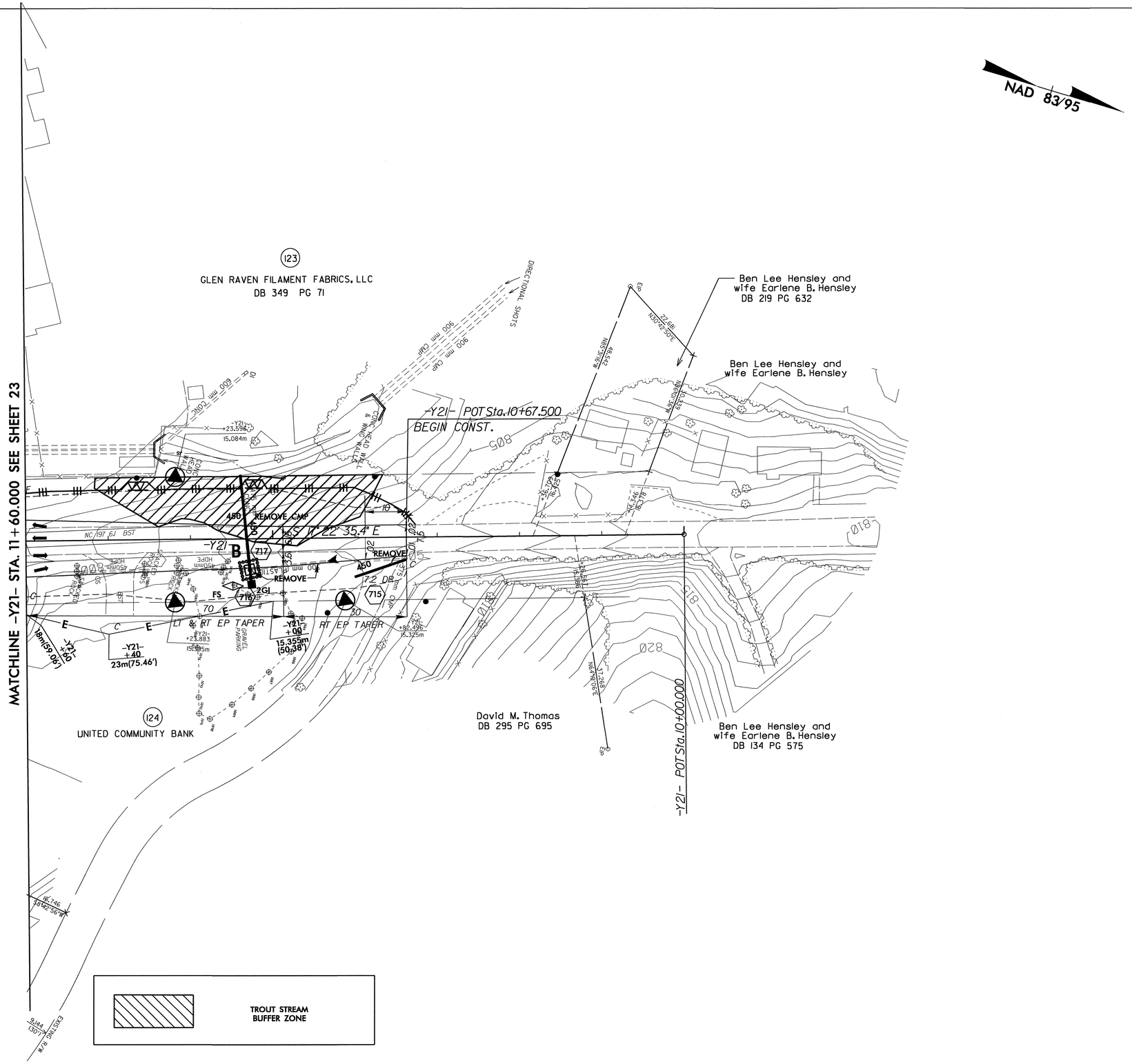
5 0 10

CONST.REV.

R/W REV.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 42

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




FOR -Y21- PROFILE SEE SHEET 67

8/17/99

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mehancock AT REN1247768

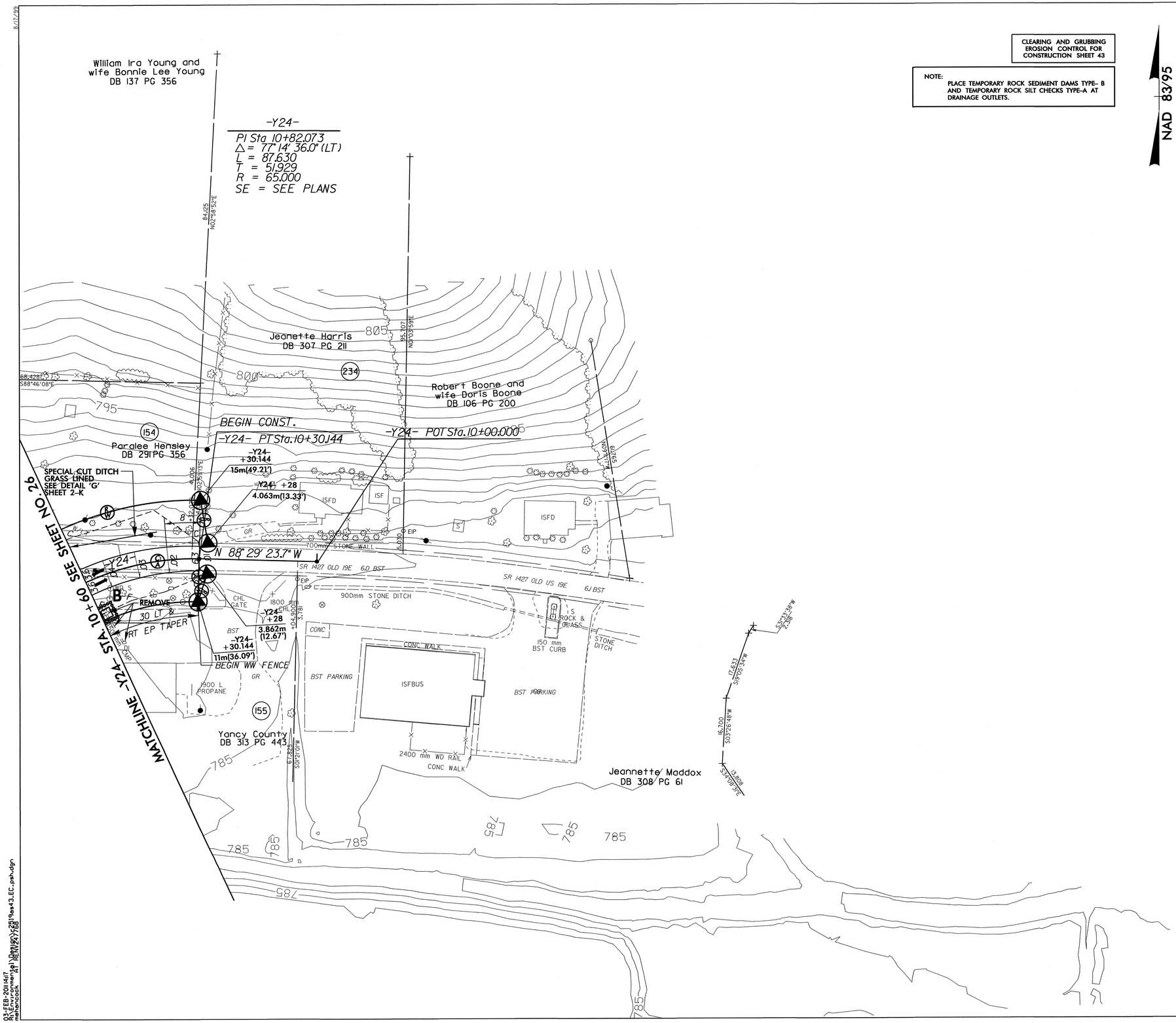
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-63/CONST.43 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 43

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

NAD 83/95

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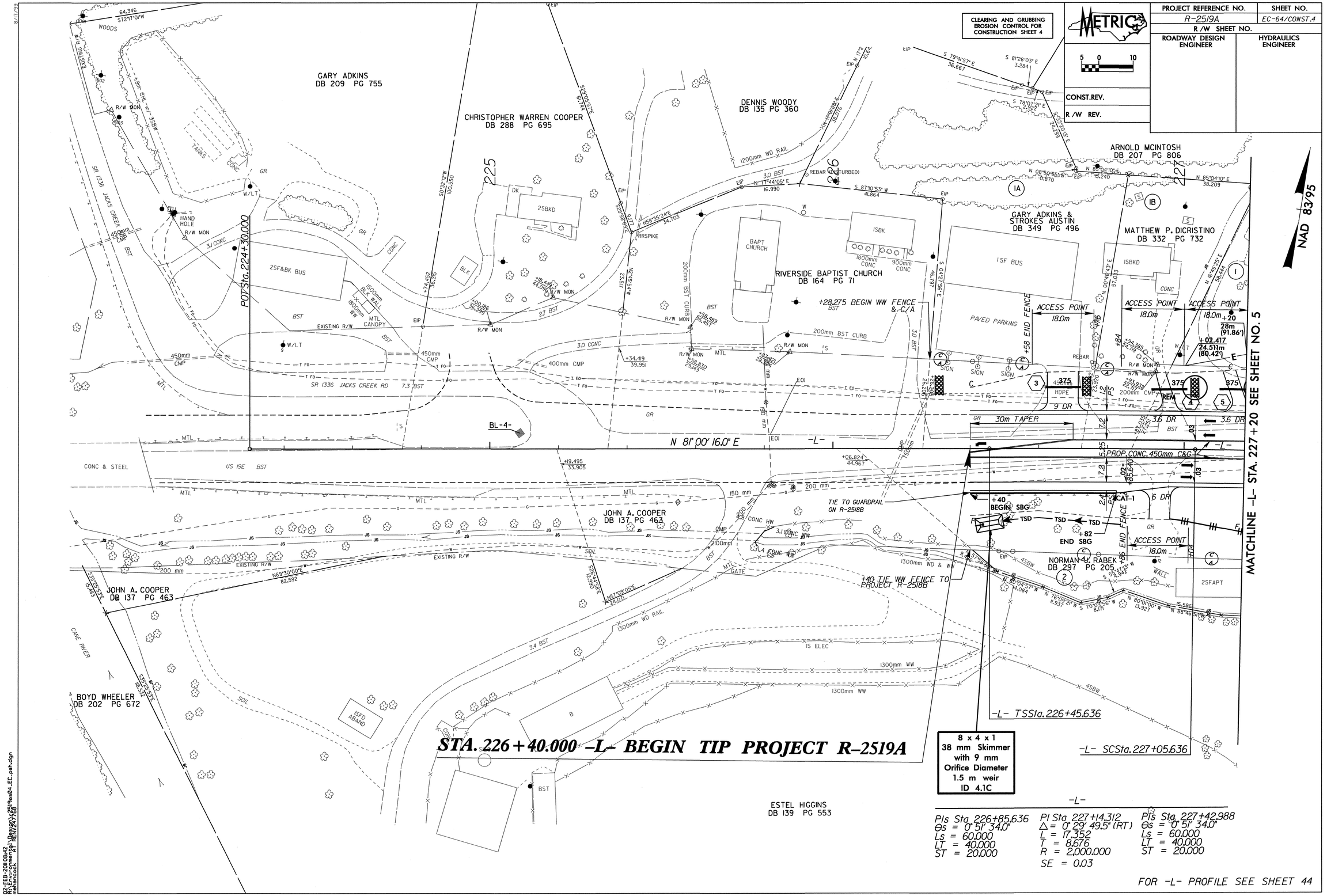
mahacock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-64/CONST.4 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

METRIC




# STA. 226+40.000 -L- BEGIN TIP PROJECT R-2519A

-L-

| PIs Sta 226+85.636 | PI Sta 227+14.312 | PIs Sta 227+42.988 |
|---|---|---|
| Θs = 0° 51' 34.0" | Δ = 0° 29' 49.5" (RT) | Θs = 0° 51' 34.0" |
| Ls = 60.000 | L = 17.352 | Ls = 60.000 |
| LT = 40.000 | T = 8.676 | LT = 40.000 |
| ST = 20.000 | R = 2,000.000 | ST = 20.000 |
| | SE = 0.03 | |

FOR -L- PROFILE SEE SHEET 44

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mehancock AT REN1247768

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-65/CONST.5 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC

5 0 10

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

Seed and Mat Berm Ditch Sta. 229+60 to 230+40 Lt to Immediatly Upon Grading.

Place Matting for Erosion Control on Slope as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.

CHARLES EUGENE GARDNER
DB 133 PG 153

GARY ADKINS
DB 339 PG 631

JAMES B. GARDNER
DB 162 PG 536

JAMES GARDNER
DB 376 PG 17

NORMAN J. RABEK
DB 297 PG 205

ESTEL HIGGINS
DB 139 PG 553

KANE BALL
WILL FILE OIE 168

MATCHLINE -L- STA. 227+20 SEE SHEET NO. 4

MATCHLINE -L- STA. 230+60 SEE SHEET NO. 6

NAD 83/95

-L- POT Sta. 230+50.450
-DI- POT Sta. 10+00.000

N 83° 13' 13.5" E -L-

-L- ST Sta. 227+82.987

-L- CSSta. 227+22.987

-DIDET - PCSta. 10+15.081

-DIDET - PRCSta. 10+25.608

-DIDET - PRCSta. 10+36.098

-DI- PCSta. 10+50.775
BRG BK=S 15° 52' 11.8" E

-DI- POCSta. 10+56
END CONST.

-DI- PTSta. 10+75.613

-DIDET - PTSta. 10+52.582

5 x 10 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
3 m weir
ID 5.2C

28 x 10 x 1
51 mm Skimmer
with 42 mm
Orifice Diameter
7.5 m weir
ID 5.1F

-DIDET-

| PI Sta 10+20.710 | PI Sta 10+31.214 | PI Sta 10+45.938 |
|---|---|---|
| Δ = 50° 15' 52.2" (RT) | Δ = 50° 05' 03.8" (LT) | Δ = 78° 42' 29.1" (RT) |
| L = 10.527 | L = 10.490 | L = 16.485 |
| T = 5.629 | T = 5.606 | T = 9.841 |
| R = 12.000 | R = 12.000 | R = 12.000 |

-L-

| PIs Sta 226+85.636 | PI Sta 227+14.312 | PIs Sta 227+42.988 |
|---|---|---|
| θs = 0° 51' 34.0" | Δ = 0° 29' 49.5" (RT) | θs = 0° 51' 34.0" |
| Ls = 60.000 | L = 17.352 | Ls = 60.000 |
| LT = 40.000 | T = 8.676 | LT = 40.000 |
| ST = 20.000 | R = 2,000.000 | ST = 20.000 |
| | SE = 0.03 | |

-DI-

| PI Sta 10+65.328 |
|---|
| Δ = 74° 54' 07.3" (RT) |
| L = 24.838 |
| T = 14.553 |
| R = 19.000 |

FOR -DIDET- DESIGN SEE SHEET 5-A
FOR -L- PROFILE SEE SHEET 44
FOR -DI- PROFILE SEE SHEET 72

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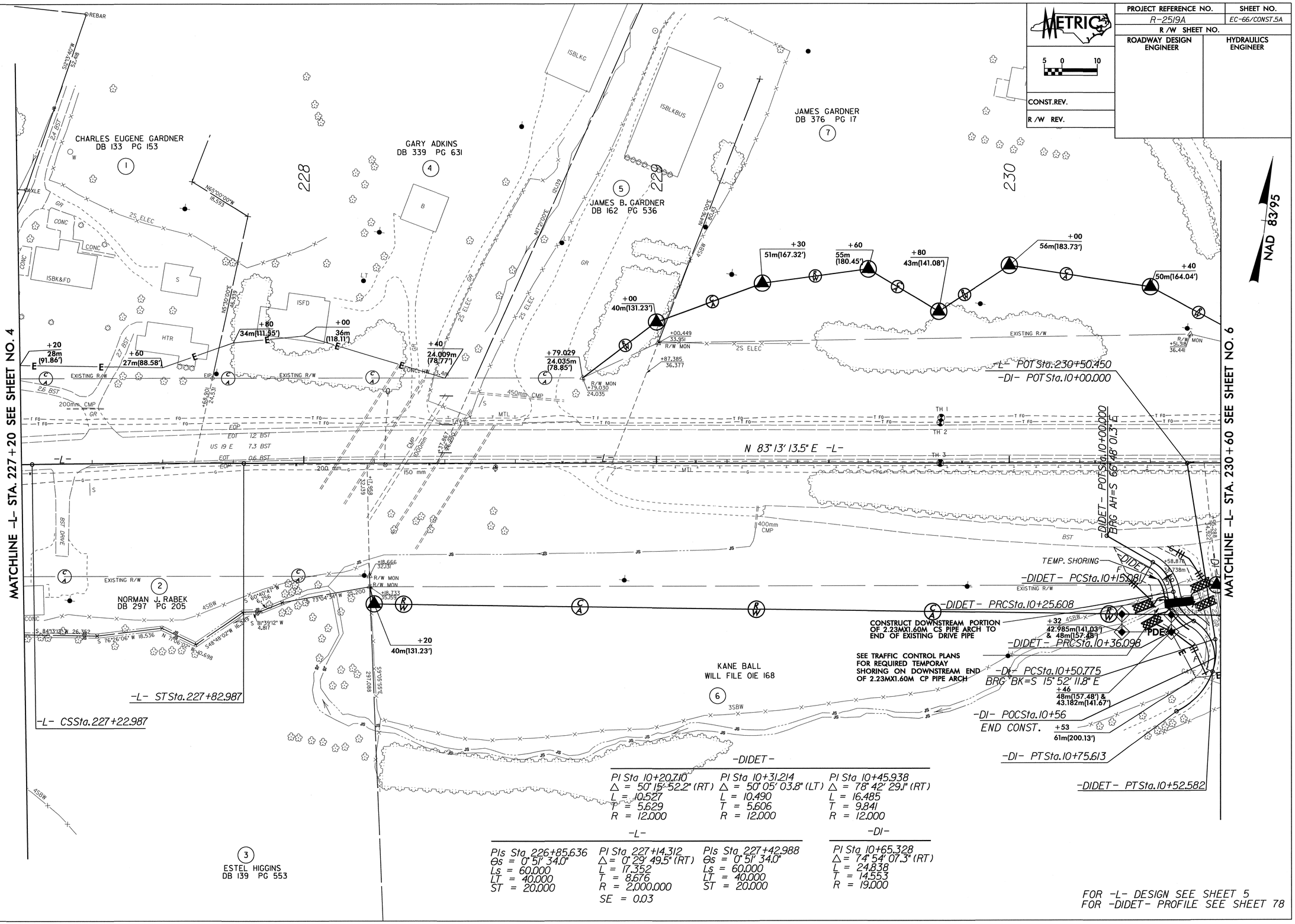
mmoncock (A) (NEW)

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-66/CONST.5A |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10




-DIDET-

| PI Sta 10+20.710 | PI Sta 10+31.214 | PI Sta 10+45.938 |
|---|---|---|
| Δ = 50° 15' 52.2" (RT) | Δ = 50° 05' 03.8" (LT) | Δ = 78° 42' 29.1" (RT) |
| L = 10.527 | L = 10.490 | L = 16.485 |
| T = 5.629 | T = 5.606 | T = 9.841 |
| R = 12.000 | R = 12.000 | R = 12.000 |

-L-

| Pls Sta 226+85.636 | PI Sta 227+14.312 | Pls Sta 227+42.988 |
|---|---|---|
| Θs = 0° 51' 34.0" | Δ = 0° 29' 49.5" (RT) | Θs = 0° 51' 34.0" |
| Ls = 60.000 | L = 17.352 | Ls = 60.000 |
| LT = 40.000 | T = 8.676 | LT = 40.000 |
| ST = 20.000 | R = 2,000.000 | ST = 20.000 |
| | SE = 0.03 | |

-DI-

| PI Sta 10+65.328 |
|---|
| Δ = 74° 54' 07.3" (RT) |
| L = 24.838 |
| T = 14.553 |
| R = 19.000 |

FOR -L- DESIGN SEE SHEET 5
FOR -DIDET- PROFILE SEE SHEET 78

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mawarcock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-67/CONST.6 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC 5 0 10

NAD 83/95

8/17/99

REVISIONS

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mmcintosh

-L-

PIs Sta 231+35.483
Θs = 1° 46' 19.3"
Ls = 60.000
LT = 40.002
ST = 20.002

PI Sta 232+53.744
Δ = 11° 34' 07.8" (RT)
L = 195.857
T = 98.263
R = 970.000
SE = 0.04

PIs Sta 233+71.340
Θs = 1° 46' 19.3"
Ls = 60.000
LT = 40.002
ST = 20.002

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

Place Matting for Erosion Control on Slope as Work Allows.

LARRY MCINTOSH
DB 191 PG 106

RANDY MCINTOSH
DB 88 PG 296

JAMES GARDNER
DB 376 PG 17

GRADY MCINTOSH
DB 191 PG 268

DANNY RANDOLPH
DB 173 PG 570

ROSE MARILYN ANGELL
DB 184 PG 435

BILLY RAY BRADFORD
DB 207 PG 827

WHEELER CEMETERY
DB 181 PG 175

ZULA WHEELER
DB 101 PG 501

JERRY JEROME MCINTOSH
DB 325 PG 291

MATCHLINE -L- STA. 230+60 SEE SHEET NO. 5

MATCHLINE -L- STA. 234+00 SEE SHEET NO. 7

-L- POSSta.233+69.591
-Y2- POTSta.10+00.000

8 x 4 x 1
1.5 m weir
ID 6.2C

-L- CSSta.233+51.338

-DI9- POTSta.10+00.000
BEARING AH = S 1° 03' 43.8" E
-L- POCSta.232+22.276

-DI9- PCSta.10+14.792

-DI9- PTSta.10+24.69

-DI9- POTSta.10+36.540
END CONST.

-DI9A-PCSta.10+05.694

-DI9A-PRCSta.10+29.140

-DI9A-PTSta.10+38.185
END CONST

-L- TSSta.230+95.481

-L- SCSta.231+55.481

-DI9A-POTSta.10+00.000
BEARING AH = S 1° 37' 41' 46.2" E

-DI9- POCSta.10+20.857

7 x 3 x 1
38 mm Skimmer
with 6 mm
Orifice Diameter
1.5 m weir
ID 6.2F

-Y2- PCSta.10+15.711
BEARING BACK =
S 1° 02' 00.0" E

-D22- POTSta.10+00.000
BEARING AHEAD =
S 62° 05' 30.4" E

-D22- POTSta.10+04.42
BEGIN CONST.

-D22- PCSta.10+32.735

20 x 5 x 1
38 mm Skimmer
with 24 mm
Orifice Diameter
2.5 m weir
ID 6.1C

12 x 4 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
1.5 m weir
(See Tiered Skimmer
Basin Detail)
ID 6.1F

Modified Silt Basin
Type 'B'
12 x 4 x 1
(See Tiered Skimmer
Basin Detail)
ID 6.1F

Place Matting for Erosion Control on Slope as Work Allows.

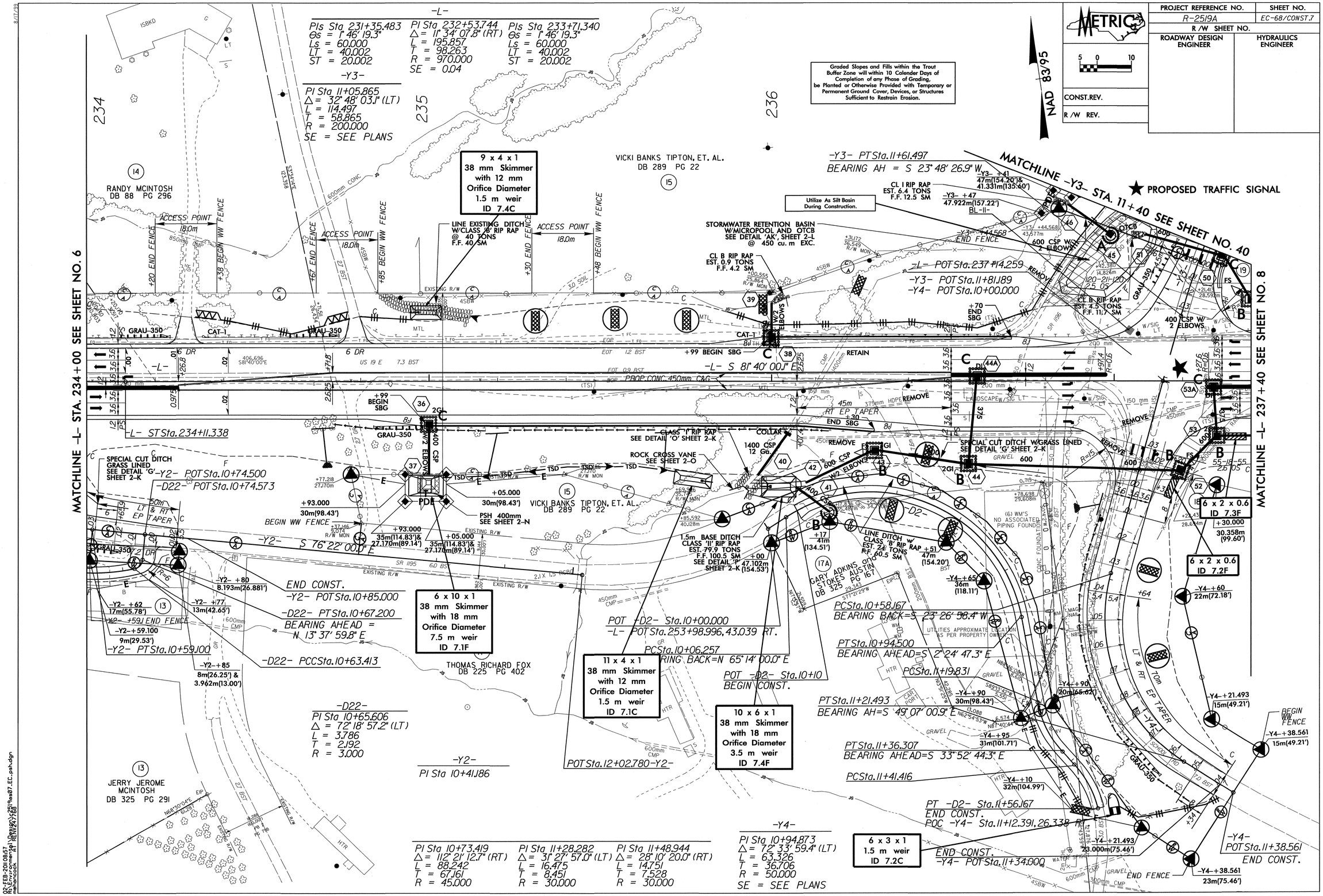
-DI9-
PI Sta 10+19.846
Δ = 28° 21' 57.6" (RT)
L = 9.902
T = 5.054
R = 20.000

-DI9A-
PI Sta 10+18.974
Δ = 67° 10' 05.3" (LT)
L = 23.446
T = 13.280
R = 20.000

PI Sta 10+33.741
Δ = 25° 54' 41.9" (RT)
L = 9.045
T = 4.601
R = 20.000

-D22-
PI Sta 10+48.485
Δ = 31° 57' 32.3" (LT)
L = 30.678
T = 15.750
R = 55.000

-Y2-
PI Sta 10+41.186
Δ = 75° 20' 00.0" (LT)
L = 43.389
T = 25.475
R = 33.000
SE = SEE PLANS



METRIC
PROJECT REFERENCE NO.
R-2519A
SHEET NO.
EC-68/CONST.7
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
NAD 83/95
Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.
-L-
PIs Sta 231+35.483
Θs = 1° 46' 19.3"
Ls = 60.000
LT = 40.002
ST = 20.002
PI Sta 232+53.744
Δ = 11° 34' 07.8" (RT)
L = 195.857
T = 98.263
R = 970.000
SE = 0.04
PIs Sta 233+71.340
Θs = 1° 46' 19.3"
Ls = 60.000
LT = 40.002
ST = 20.002
-Y3-
PI Sta 11+05.865
Δ = 32° 48' 03.1" (LT)
L = 114.497
T = 58.865
R = 200.000
SE = SEE PLANS
9 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 7.4C
RANDY MCINTOSH
DB 88 PG 296
VICKI BANKS TIPTON, ET. AL.
DB 289 PG 22
-Y3- PT Sta.11+61.497
BEARING AH = S 23° 48' 26.9" W
MATCHLINE -Y3- STA. 11+40 SEE SHEET NO. 40
PROPOSED TRAFFIC SIGNAL
Utilize As Silt Basin During Construction.
STORMWATER RETENTION BASIN W/MICROPOOL AND OTCB SEE DETAIL 'AK', SHEET 2-L @ 450 cu. m EXC.
CL I RIP RAP EST. 6.4 TONS F.F. 12.5 SM
CL B RIP RAP EST. 0.9 TONS F.F. 4.2 SM
CL B RIP RAP EST. 4.5 TONS F.F. 11.7 SM
-L- POT Sta.237+14.259
-Y3- POT Sta.11+81.189
-Y4- POT Sta.10+00.000
LINE EXISTING DITCH W/CLASS 'B' RIP RAP @ 40 TONS F.F. 40 SM
ACCESS POINT 18.0m
+20 END FENCE
+38 BEGIN WW FENCE
+67 END FENCE
+85 BEGIN WW FENCE
+30 END FENCE
+48 BEGIN WW FENCE
+99 BEGIN SBG
-L- S 81° 40' 00.1" E
PROP. CONC. 450mm C&G
RETAIN
REMOVE
RT EP TAPER
END SBG
-L- ST Sta.234+11.338
SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K
-Y2- POT Sta.10+74.500
-D22- POT Sta.10+74.573
CLASS 'I' RIP RAP SEE DETAIL 'O' SHEET 2-K
ROCK CROSS VANE SEE SHEET 2-O
1400 CSP 12 Ga.
SPECIAL CUT DITCH W/GRASS LINED SEE DETAIL 'G' SHEET 2-K
600 CSP W/ 2 ELBOWS
400 CSP W/ 2 ELBOWS
PSH 400mm SEE SHEET 2-N
BEGIN WW FENCE
-Y2- S 76° 22' 00.0" E
1.5m BASE DITCH CLASS 'II' RIP RAP EST. 79.9 TONS F.F. 100.5 SM SEE DETAIL 'P' SHEET 2-K
LINE DITCH W/ CLASS 'B' RIP RAP EST. 24 TONS F.F. 60.5 SM
GARY ADKINS and STOKES AUSTIN DB 325 PG 167
END CONST.
-Y2- POT Sta.10+85.000
-D22- PT Sta.10+67.200
BEARING AHEAD = N 13° 37' 59.8" E
-Y2- PT Sta.10+59.100
-D22- PCC Sta.10+63.413
6 x 10 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
7.5 m weir
ID 7.1F
THOMAS RICHARD FOX
DB 225 PG 402
POT -D2- Sta.10+00.000
-L- POT Sta.253+98.996, 43.039 RT.
PCSta.10+06.257
BEARING BACK=N 65° 14' 00.0" E
POT -D2- Sta.10+10
BEGIN CONST.
11 x 4 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
1.5 m weir
ID 7.1C
10 x 6 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
3.5 m weir
ID 7.4F
PCSta.10+58.167
BEARING BACK=S 23° 26' 58.4" W
PT Sta.10+94.500
BEARING AHEAD=S 2° 24' 47.3" E
PCSta.11+19.831
PT Sta.11+21.493
BEARING AH=S 49° 07' 00.9" E
PT Sta.11+36.307
BEARING AHEAD=S 33° 52' 44.3" E
PCSta.11+41.416
PT -D2- Sta.11+56.167
END CONST.
POC -Y4- Sta.11+12.391, 26.338 RT
6 x 3 x 1
1.5 m weir
ID 7.2C
END CONST.
-Y4- POT Sta.11+34.000
-Y4- POT Sta.11+38.561
END CONST.
6 x 2 x 0.6
ID 7.3F
6 x 2 x 0.6
ID 7.2F
-D22-
PI Sta 10+65.606
Δ = 72° 18' 57.2" (LT)
L = 3.786
T = 2.192
R = 3.000
-Y2-
PI Sta 10+41.186
POT Sta.12+02.780-Y2-
JERRY JEROME MCINTOSH
DB 325 PG 291
PI Sta 10+73.419
Δ = 112° 21' 12.7" (RT)
L = 88.242
T = 67.161
R = 45.000
PI Sta 11+28.282
Δ = 31° 27' 57.0" (LT)
L = 16.475
T = 8.451
R = 30.000
PI Sta 11+48.944
Δ = 28° 10' 20.0" (RT)
L = 14.751
T = 7.528
R = 30.000
-Y4-
PI Sta 10+94.873
Δ = 72° 33' 59.4" (LT)
L = 63.326
T = 36.706
R = 50.000
SE = SEE PLANS
MATCHLINE -L- STA. 234+00 SEE SHEET NO. 6
MATCHLINE -L- 237+40 SEE SHEET NO. 8

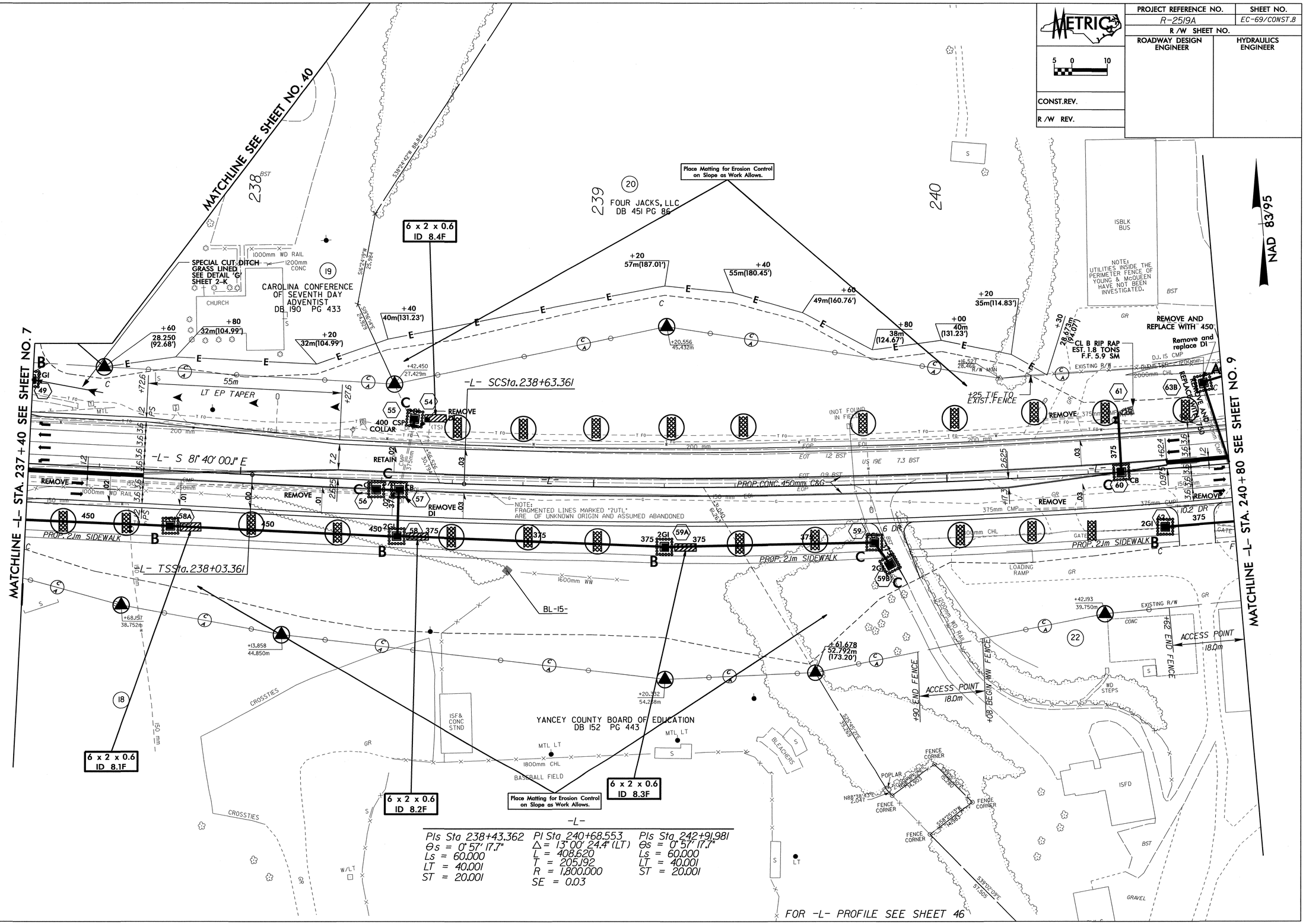
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-69/CONST.8 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

CONST.REV.

R /W REV.




PIs Sta 238+43.362
Θs = 0° 57' 17.7"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 240+68.553
Δ = 13° 00' 24.4" (LT)
L = 408.620
T = 205.192
R = 1,800.000
SE = 0.03

PIs Sta 242+91.981
Θs = 0° 57' 17.7"
Ls = 60.000
LT = 40.001
ST = 20.001

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mwhorcock
8/17/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-70/CONST.9 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC

NAD 83/95

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

POT Sta.10+00.000

-Y5-+13.897
12.192m(40.00') & 18m(59.06')

-Y5-+13.897
8.819m(28.93') & 12m(39.37')

Place Matting for Erosion Control on Slope as Work Allows.

BEGIN CONST.
-Y5- POT Sta.10+13.897

WILLIAM R. BANKS, et al.
DB 378 PG 540

LATERAL 'V' DITCH GRASS LINED SEE DETAIL 'N' SHEET 2-K

CL B RIP RAP EST. 2.7 TONS F.F. 8.4 SM

+37
41.438m
(135.95')

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

+57
42.420m(139.17')

CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM

+32 BEGIN WW FENCE

-L- POC Sta.241+20.206

-Y5- POT Sta.11+05.916

+80
51.5m
(168.96')

+00
47.5m
(155.84')

+40
45m
(147.64')

+58
37.170m
(121.95')

DO NOT DISTURB TREE.

0.6m SPECIAL LATERAL BASE DITCH CLASS 'B' RIP RAP EST. 65.3 TONS F.F. 164.1 SM SEE DETAIL 'M' SHEET 2-K

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 9.2F

JERLENE SHEPHERD
DB 144 PG 685

RUSSELL MICHAEL SHEPHERD
DB 159 PG 613

FREIDA B. BRYSON
DB 207 PG 634

-L- CS Sta.242+71.981

-L- ST Sta.243+31.981

CLASS 'B' RIP RAP @ 55 TONS

+90
28.742m
(94.30')

400 CSP W/ 2 ELBOWS

+85
BEGIN SBG

Place Matting for Erosion Control on Slope as Work Allows.

MATCHLINE -L- STA. 240+80 SEE SHEET NO. 8

MATCHLINE -L- STA. 244+20 SEE SHEET NO. 10

PROP. CONC. 450mm ICG

PROP. 2.1m SIDEWALK

PROP. HANDRAIL FROM STA. 242+50 TO 244+20

GRAU 350

NOTE: UTILITIES INSIDE THE PERIMETER FENCE OF WESTSIDE RENTALS HAVE NOT BEEN INVESTIGATED.

REMOVE AND REPLACE WITH 750

+80 BEGIN WW FENCE

+12.109
39.083m

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

-Y5- PCS Sta.11+46.648

+45
35.482m
(116.41')

-Y5- +79.794
BEGIN WW FENCE

-Y5-+80
17m(55.77')

-Y5-+60
14m(45.93')

+80 END FENCE

WILSON FAMILY PARTNERSHIP, LTD.
D.B. 415 PG. 383-389 TRACT I
D.B. 415 PG. 383-389 TRACT IV
D.B. 234 PG. 86
D.B. 415 PG. 383-389 TRACT VI
D.B. 415 PG. 383-389 (TRACT VIII)
D.B. 237 PG. 708

-Y5-+90
12m(39.37')

-Y5-+00
10m(32.81') & 4.267m(14.00')

-Y5-+00
4.267m
(14.00')

PT Sta.12+13.808

END CONST.
-Y5- POC Sta.12+00.000

CHARLES PHILLIP STYLES
DB 197 PG 215

+00
31.282m(102.63')

+40
42m(137.8')

SPECIAL LATERAL 'V' DITCH GRASS LINED SEE DETAIL 'F' SHEET 2-K

+60
33.980m
(111.15')

+67.
34.705m
(113.86')

+71
47m(154.2')

+77
47m(154.2')

+77
35.933m(117.89')

400 CSP W/ 2 ELBOWS

CLASS 'B' RIP RAP @ 60 TONS

ACCESS POINT 18.0m

BEGIN WW FENCE

BL -16-

JERRY HOLCOMBE
DB 207 PG 629

ROBERT W. HOLCOMBE
DB 552 PG 158

12 x 5 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
2.5 m weir
ID 9.3F

CLYDE DAVID DELLINGER
DB 257 PG 316

Modified Silt Basin Type 'B' 5 x 6 x 1 (See Tiered Skimmer Basin Detail) ID 9.1F

5 x 6 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
3.5 m weir
(See Tiered Skimmer Basin Detail)
ID 9.1F

DAVID IVAN PETERSON
DB 249 PG 509

LOUISE HYLEMON
DB 101 PG 522

-L-

Pls Sta 238+43.362
Θs = 0°57' 17.7"
Ls = 60.000
LT = 40.001
ST = 20.001

Pl Sta 240+68.553
Δ = 13°00' 24.4" (LT)
L = 408.620
T = 205.192
R = 1,800.000
SE = 0.03

Pls Sta 242+91.981
Θs = 0°57' 17.7"
Ls = 60.000
LT = 40.001
ST = 20.001

-Y5-

Pl Sta 11+80.449
Δ = 16°02' 00.0" (LT)
L = 67.160
T = 33.801
R = 240.000
SE = SEE PLANS

FOR -L- PROFILE SEE SHEET 46
FOR -Y5- PROFILE SEE SHEET 63

8/17/99

02-FEB-2011 09:10
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mmarcock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-71/CONST.10 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC 5 0 10

NAD 83/95

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

Seed and Mat Berm Ditch Sta. 247+00 to 257+60 Rt Immediately Upon Grading.

8 x 5 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
2.5 m weir
ID 10.1F

Place Matting for Erosion Control on Slope as Work Allows.

12 x 5 x 1
38 mm Skimmer
with 18 mm
Orifice Diameter
2.5 m weir
ID 9.3F

Place Matting for Erosion Control on Slope as Work Allows.

MATCHLINE -L- STA. 244+20 SEE SHEET NO. 9

MATCHLINE -L- STA. 247+60 SEE SHEET NO. 11

FREIDA B. BRYSON
DB 207 PG 634

ROBERT J. BROWN
DB 94 PG 329

DAVID BANKS
DB 359 PG 92

CHARLES AYERS
et AL
DB 234 PG 32

ROBERT W. HOLCOMBE
DB 552 PG 158

HOLCOMBE
07 PG 629

CHARLES W. BANKS
DB 209 PG 110

CEMETERY

PROPOSED CONC EXPRESSWAY GUTTER
-L- 246+20 TO 247+00

PROP. CONC. 450mm C&G

PROP. 2.1m SIDEWALK

PROPOSED SBG
-L- 244+80 TO 246+80

'V' DITCH
GRASS LINED
SEE DETAIL 'L'
SHEET 2-K
@ 20 CM EXC.

NOTE:
FRAGMENTED LINES MARKED "?U"
ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED

-L- CSSta.247+45.133

-L- SCSta.244+88.375

-L- TSSta.244+28.375

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

TRANSITION CUT
DITCH TO
EXISTING DITCH

BERM DITCH

ACCESS POINT 18.0m

END FENCE

BEGIN WW FENCE

PSH 375mm
SEE SHEET 2-N

+05
26.550m(87.11')
& 33m(108.27')

+18
33m(108.27')

+18
26.342m(86.42')

+70
25.471m
(83.57')

+98
32.462m(106.50')
& 40m(131.23')

+82
42.234m
(138.56')

+04
40m(131.23') &
31.121m(102.10')

+20
40m(131.23')

+98
39m(127.95')

+90
50.582m
(165.95')

+00
53m(173.88')

+35
44.349m
(145.50')

+28.5
END
SBG

+52 END FENCE

-L-

| PIs Sta 244+68.377 | PI Sta 246+17.246 | PIs Sta 247+65.134 |
|---|---|---|
| Θs = 1° 25' 56.6" | Δ = 12° 15' 33.4" (RT) | Θs = 1° 25' 56.6" |
| Ls = 60.000 | L = 256.758 | Ls = 60.000 |
| LT = 40.001 | T = 128.871 | LT = 40.001 |
| ST = 20.001 | R = 1,200.000 | ST = 20.001 |
| | SE = 0.04 | |

FOR -L- PROFILE SEE SHEET 47

02-FEB-2011 09:12
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mbecock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-72/CONST.JI |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

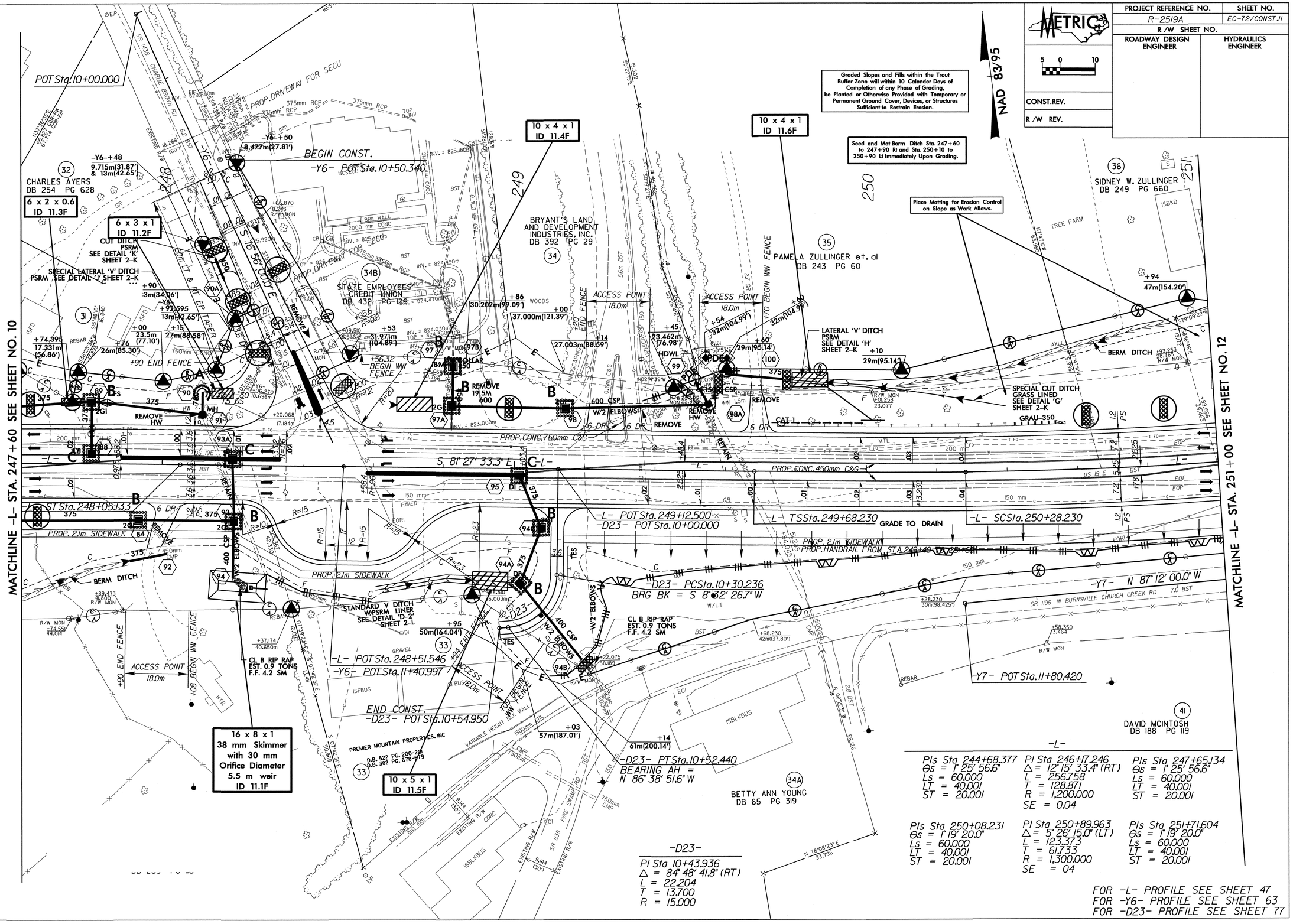
METRIC 5 0 10

NAD 83/95

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

Seed and Mat Berm Ditch Sta. 247+60 to 247+90 Rt and Sta. 250+10 to 250+90 Lt Immediately Upon Grading.

Place Matting for Erosion Control on Slope as Work Allows.




8/17/99

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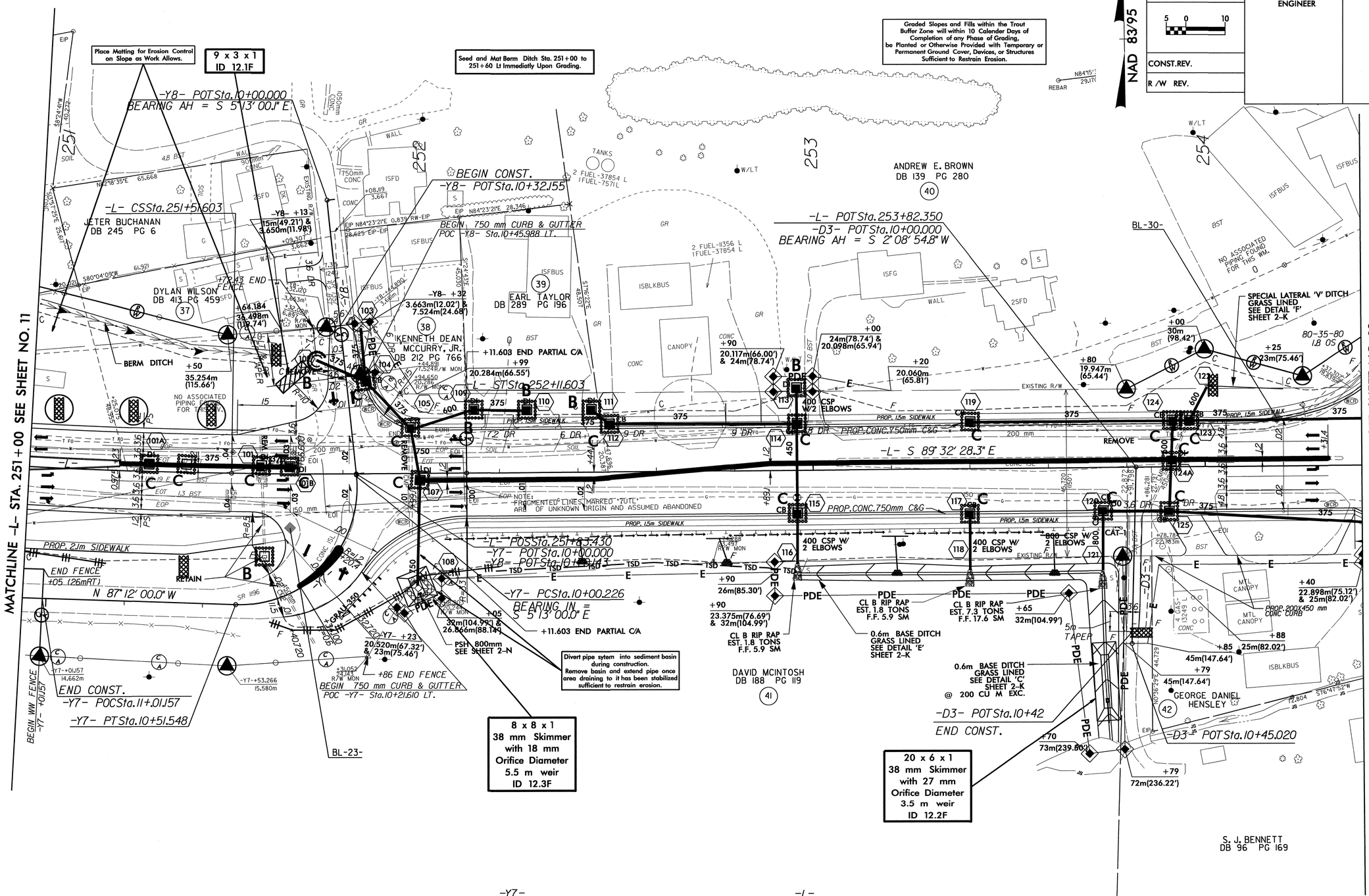
R:\Environmental\Hydraulics\Roadway\Plans\Roadway\Roadway\R-2519A\R2519A_all_EC_psh.dgn
mehancock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-73/CONST.12 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95




| -Y7- | -L- | | |
|---|---|---|---|
| PI Sta 10+34.747 | PIs Sta 250+08.231 | PI Sta 250+89.963 | PIs Sta 251+71.604 |
| Δ = 98° 01' 00.0" (RT) | θs = 1° 19' 20.0" | Δ = 5° 26' 15.0" (LT) | θs = 1° 19' 20.0" |
| L = 51.321 | Ls = 60.000 | L = 123.373 | Ls = 60.000 |
| T = 34.521 | LT = 40.001 | T = 61.733 | LT = 40.001 |
| R = 30.000 | ST = 20.001 | R = 1,300.000 | ST = 20.001 |
| SE = SEE PLANS | | SE = 04 | |

FOR -L- PROFILE SEE SHEET 48
FOR -Y7- PROFILE SEE SHEET 63
FOR -Y8- PROFILE SEE SHEET 64
FOR -D3- PROFILE SEE SHEET 72
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

8/17/99

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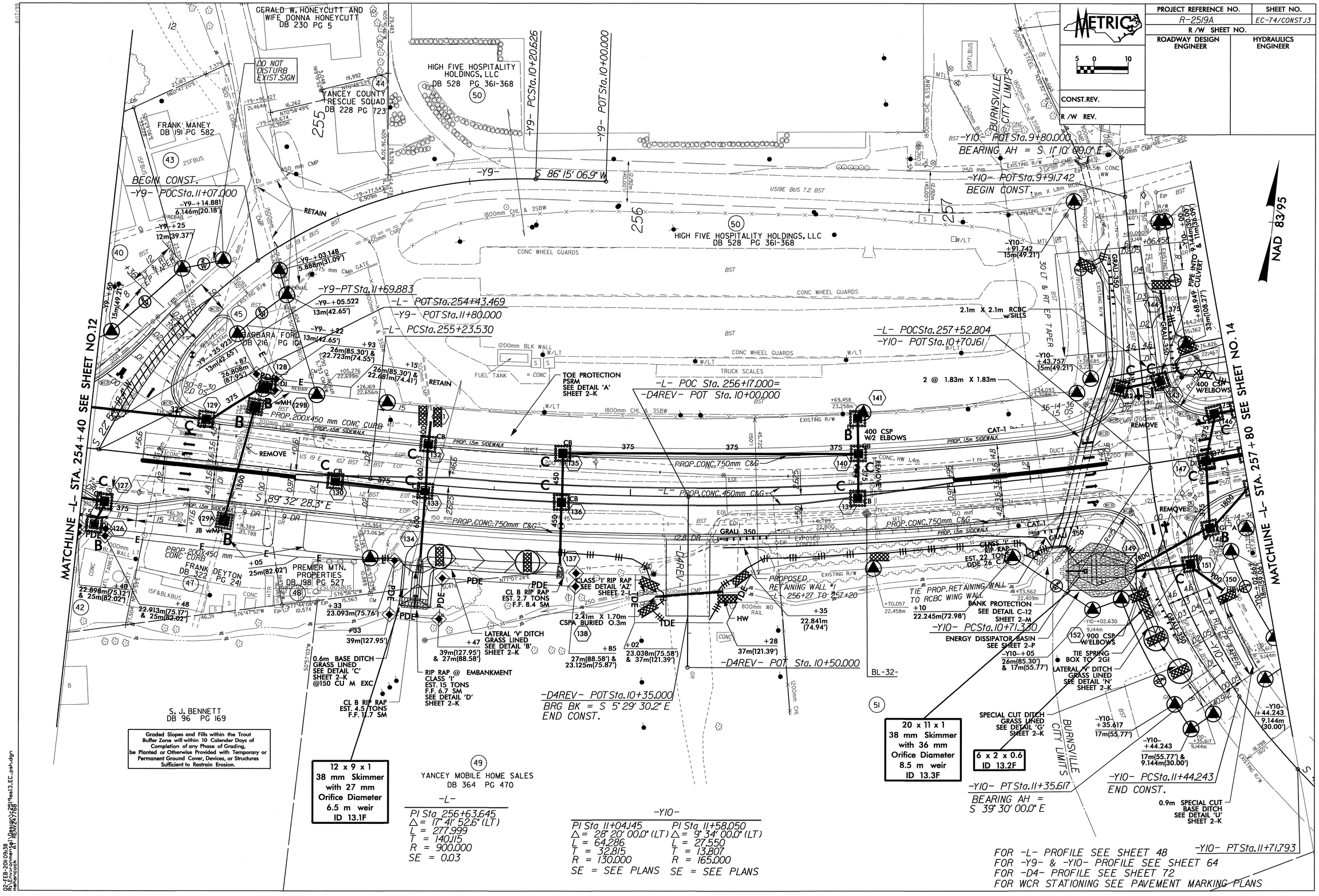
mwhorcock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-74/CONST.J3 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.




Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

02-FEB-2011 09:38
rb:Environmental\ HENRY\R2519A\Sta13.EC_psh.dgn
mbrooks

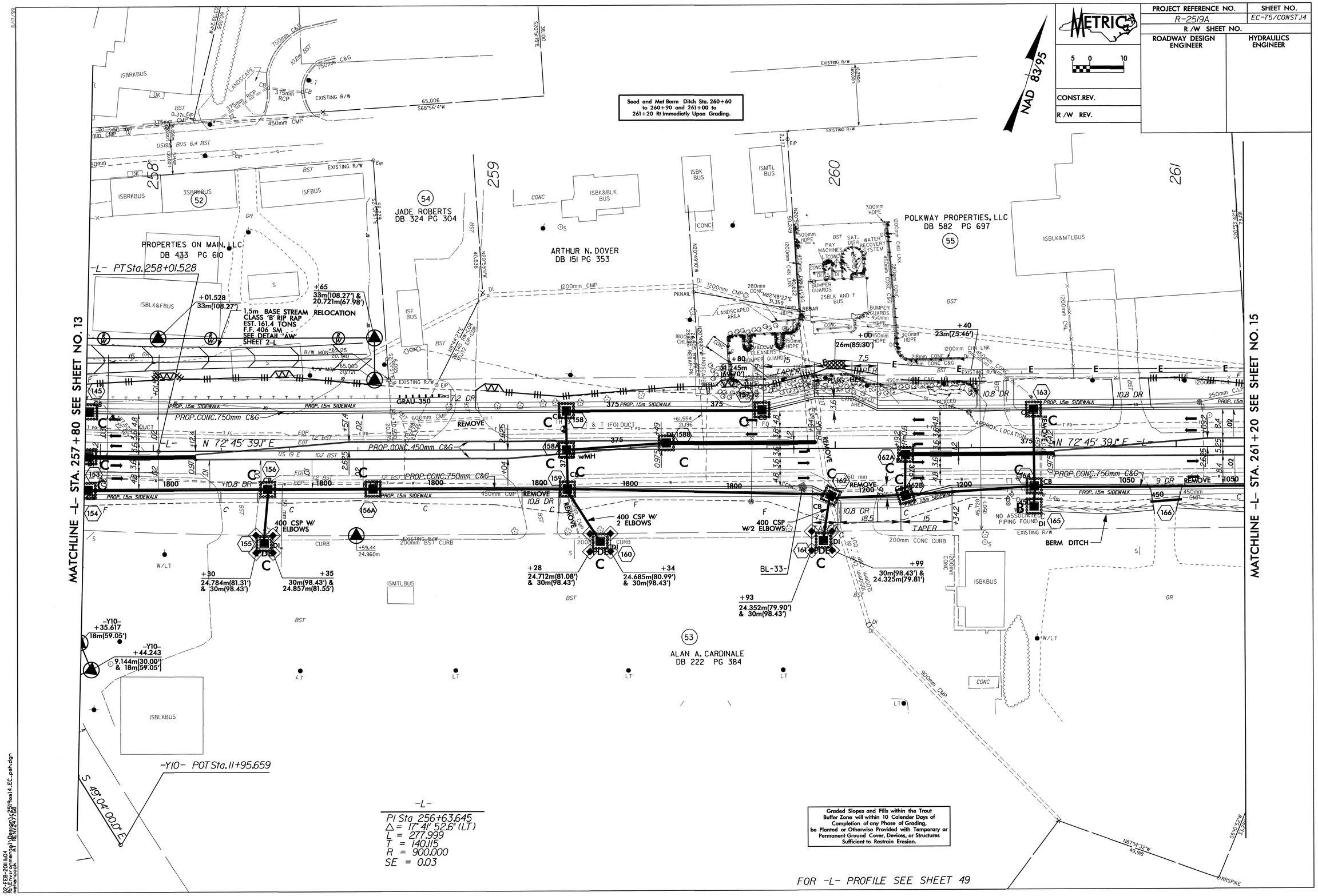
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-75/CONST.14 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.

NAD 83/95




8/17/99

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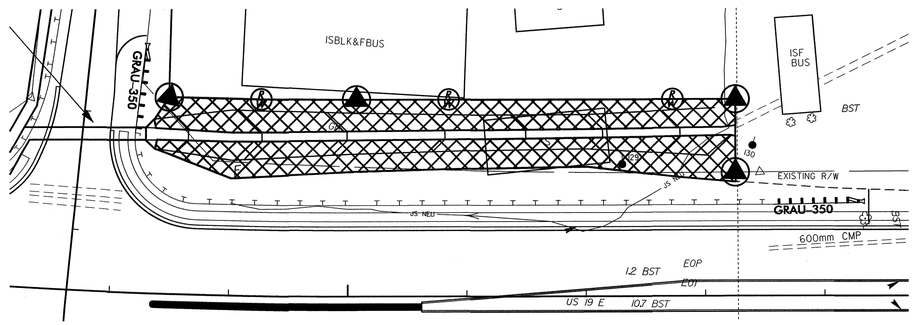
R:\Environmental\Hydraulics\R2519as14_EC_psh.dgn
mwhancock
R1 REV 11/17/98

| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-75A/CONST J4 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 0.1 HECTARE STREAMBANK REFORESTATION



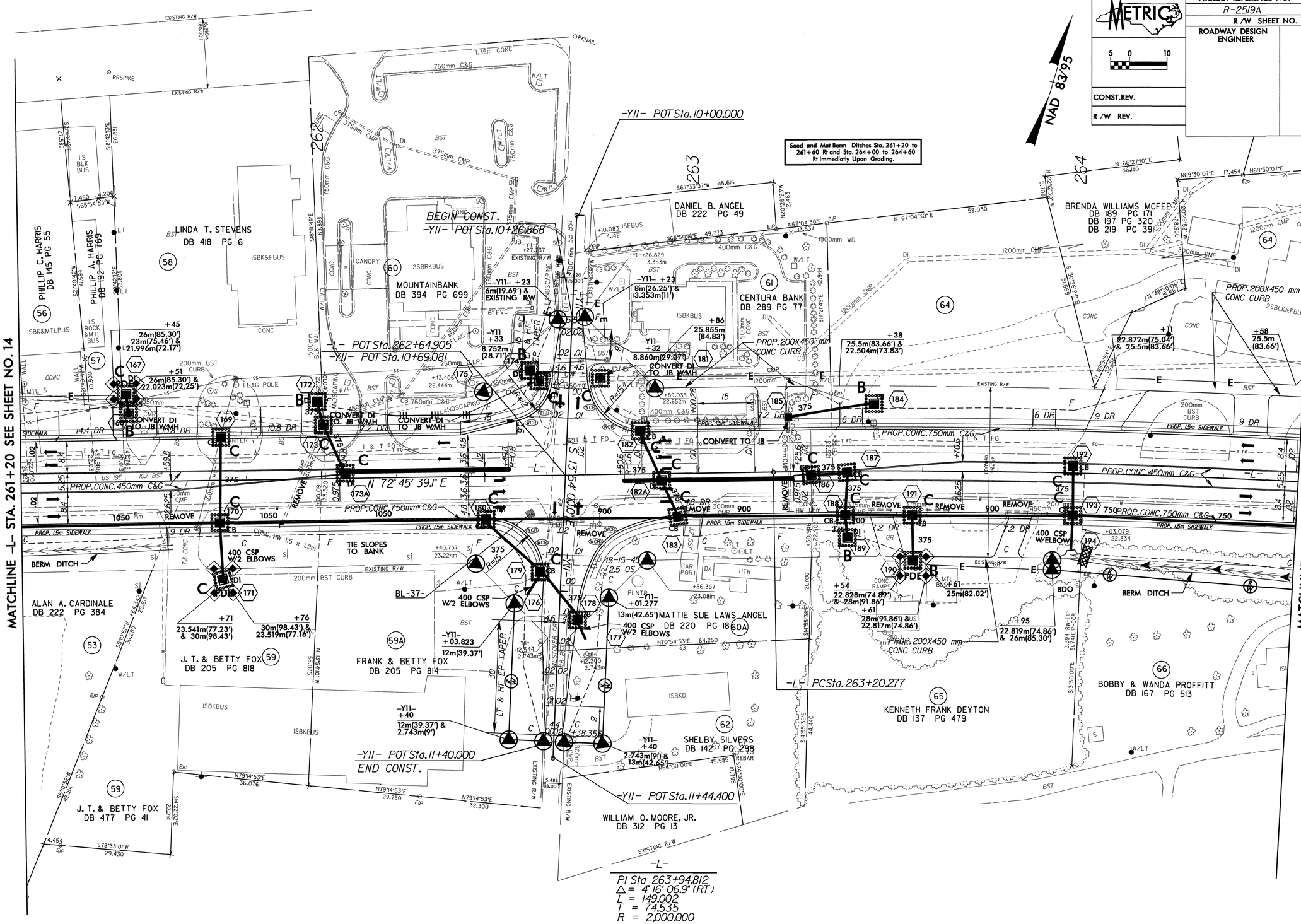

SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-76/CONST.15 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC

5 0 10

NAD 83/95




FOR -L- PROFILE SEE SHEET 49
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

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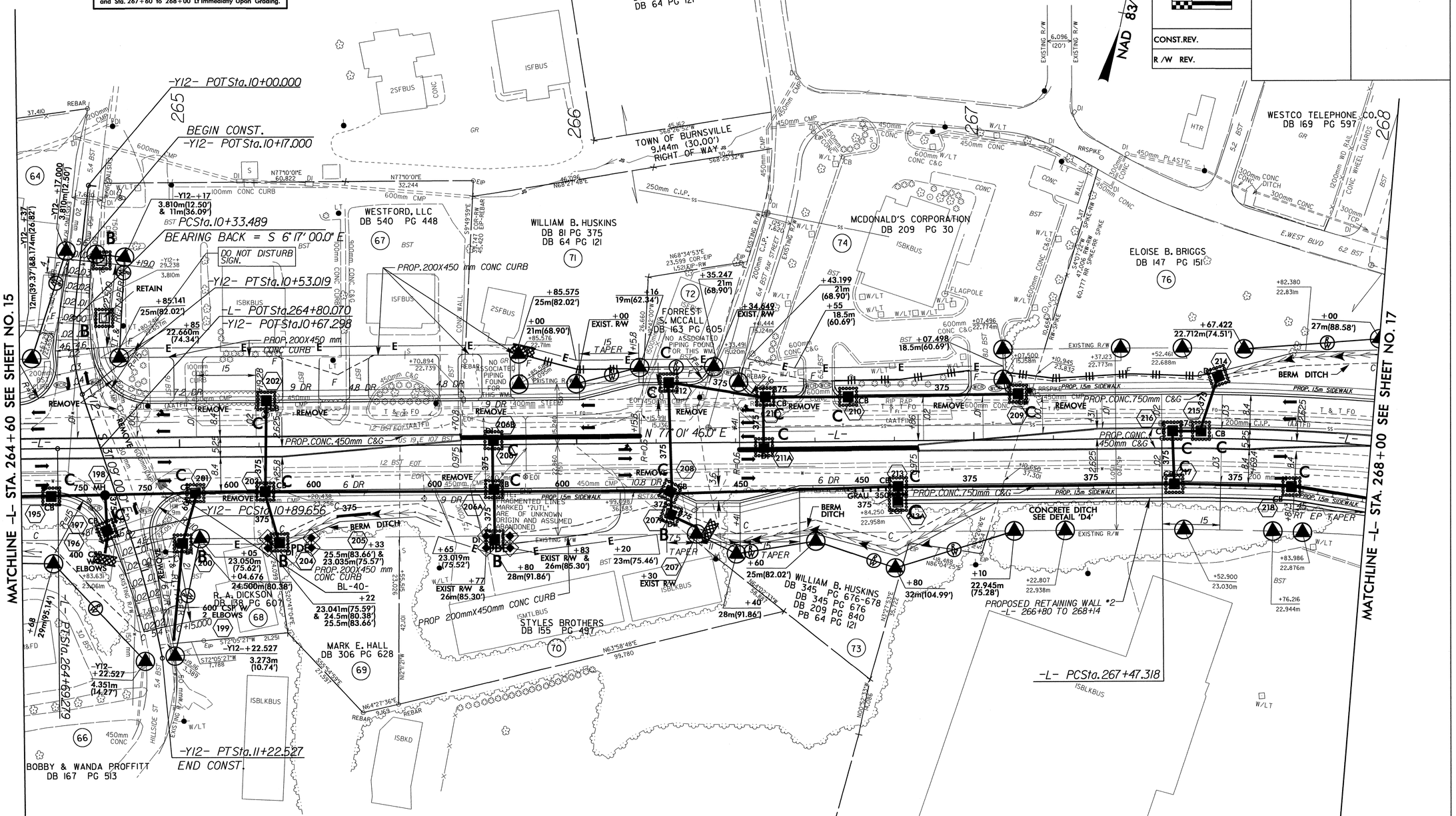
mehancock AT REN1247768

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-77/CONST.16 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC 5 0 10

NAD 83/95

Seed and Mat Berm Ditches Sta. 265+20 to 265+60 Rt, Sta. 266+30 to 267+00 Rt, and Sta. 267+60 to 268+00 Lt Immediatly Upon Grading.




| -Y12- | |
|---|---|
| PI Sta 10+43.410 | PI Sta 11+06.115 |
| Δ = 24° 52' 00.0" (LT) | Δ = 7° 32' 00.0" (RT) |
| L = 19.530 | L = 32.870 |
| T = 9.921 | T = 16.459 |
| R = 45.000 | R = 250.000 |
| SE = SEE PLANS | SE = SEE PLANS |

| -L- | |
|---|---|
| PI Sta 263+94.812 | PI Sta 268+55.992 |
| Δ = 4° 16' 06.9" (RT) | Δ = 20° 52' 23.1" (RT) |
| L = 149.002 | L = 214.939 |
| T = 74.535 | T = 108.674 |
| R = 2,000.000 | R = 590.000 |
| SE = 0.02 | SE = 0.03 |

FOR -L- PROFILE SEE SHEET 50
FOR -Y12- PROFILE SEE SHEET 65
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

8/17/99

02-FEB-2011 11:06
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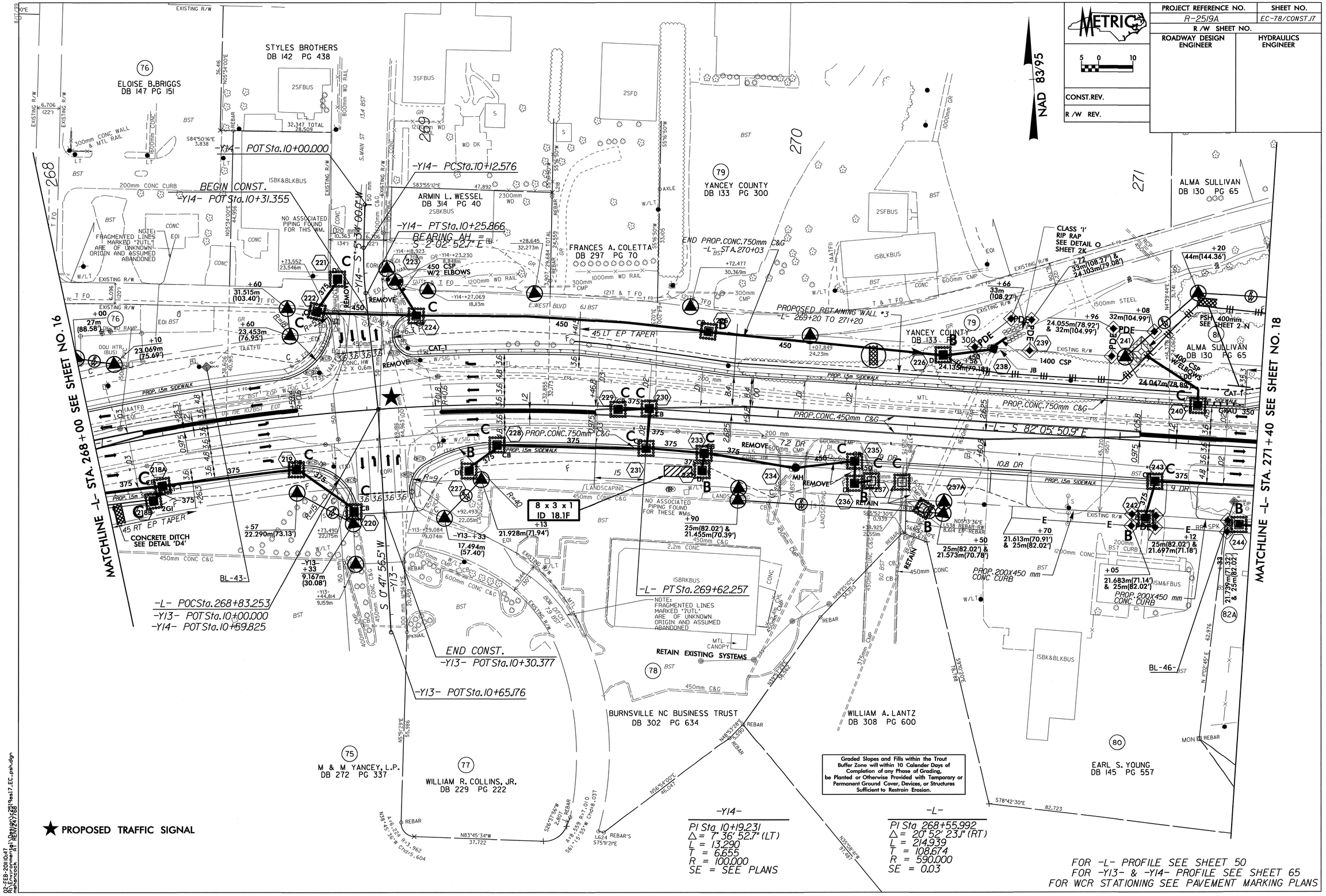
mehorcock



METRIC
PROJECT REFERENCE NO.
R-2519A
SHEET NO.
EC-78/CONST.17
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
NAD 83/95
STYLES BROTHERS
DB 142 PG 438
ELOISE B.BRIGGS
DB 147 PG 151
ARMIN L. WESSEL
DB 314 PG 40
FRANCES A. COLETTA
DB 297 PG 70
YANCEY COUNTY
DB 133 PG 300
ALMA SULLIVAN
DB 130 PG 65
BEGIN CONST.
-Y14- POT Sta.10+31.355
-Y14- POT Sta.10+00.000
-Y14- PC Sta.10+12.576
-Y14- PT Sta.10+25.866
BEARING AH = S 2°02'52.7" E
END PROP.CONC.750mm C&G
-L- STA.270+03
PROPOSED RETAINING WALL #3
-L- 269+20 TO 271+20
CLASS 'I' RIP RAP SEE DETAIL O SHEET 2K
PROP.CONC.750mm C&G
PROP.CONC.450mm C&G
-L- S 82°05'50.9" E
MATCHLINE -L- STA. 268+00 SEE SHEET NO. 16
MATCHLINE -L- STA. 271+40 SEE SHEET NO. 18
8 x 3 x 1
ID 18.1F
CONCRETE DITCH SEE DETAIL 'D4'
-L- POC Sta.268+83.253
-Y13- POT Sta.10+00.000
-Y14- POT Sta.10+59.825
-L- PT Sta.269+62.257
END CONST.
-Y13- POT Sta.10+30.377
-Y13- POT Sta.10+65.176
RETAIN EXISTING SYSTEMS
BURNSVILLE NC BUSINESS TRUST
DB 302 PG 634
WILLIAM A. LANTZ
DB 308 PG 600
M & M YANCEY, L.P.
DB 272 PG 337
WILLIAM R. COLLINS, JR.
DB 229 PG 222
EARL S. YOUNG
DB 145 PG 557
Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.
★ PROPOSED TRAFFIC SIGNAL
-Y14-
PI Sta 10+19.231
Δ = 7° 36' 52.7" (LT)
L = 13.290
T = 6.655
R = 100.000
SE = SEE PLANS
-L-
PI Sta 268+55.992
Δ = 20° 52' 23.1" (RT)
L = 214.939
T = 108.674
R = 590.000
SE = 0.03
FOR -L- PROFILE SEE SHEET 50
FOR -Y13- & -Y14- PROFILE SEE SHEET 65
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-79/CONSTJ8 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.

NAD 83/95

Place Matting for Erosion Control on Slope as Work Allows.

Seed and Mat Berm Ditch Sta. 271+80 to 274+80 Rt Immediatly Upon Grading.

MATCHLINE -L- STA. 271+40 SEE SHEET NO. 17

MATCHLINE -L- STA. 274+80 SEE SHEET NO. 19

E.WEST BLVD

NORMAN HOPSON DB 194 PG 627

JAMES H. JACKSON DB 211 PG 164

JACK E. MCINTOSH DB 162 PG 89

HOWARD PETERSON DB 238 PG 87

CARLYIN CROUCH DB 280 PG 338

HOWARD B. PETERSON DB 254 PG 674

ELOISE B. BRIGGS DB 191 PG 308

MONTEZ P. BLEVINS DB 302 PG 297

BILL RIDDLE DB 135 PG 590

UNITED STATES GOVERNMENT/ UNITED STATES FOREST SERVICE DB 324 PG 740

FOUR JACKS LLC DB 451 PG 86

RETAIN

REMOVE

PLUG AND FILL WITH FLOWABLE FILL

PROP. 200X450 mm CONC CURB

PROP. 15m SIDEWALK

PROP. CONC. 750mm C&G

PROP. CONC. 450mm C&G

S 82°05' 50.9" E -L-

BERM DITCH

NO ASSOCIATED PIPING FOUND FOR THESE WATER STRUCTURES.

+60 44m(144.36')

+80 36m(118.11')

+49.576 36m (118.11')

+60.245 36m (118.11')

+75 23.699m (77.75')

+27.924 24.25m (79.56')

+40 24.25m(79.56') & 26m(85.30')

+80 25m(82.02')

+80 21.832m(71.63') & 27m(88.58')

+20 30m(98.42')

+40 21.952m(72.02')

+60 21.992m (72.15')

+95 42m(137.79')

+20 59m(193.57')

Place Matting for Erosion Control on Slope as Work Allows.

FOR -L- PROFILE SEE SHEET 51

02-FEB-2011 10:49
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mahancock
XFER REVIEW 2/7/08

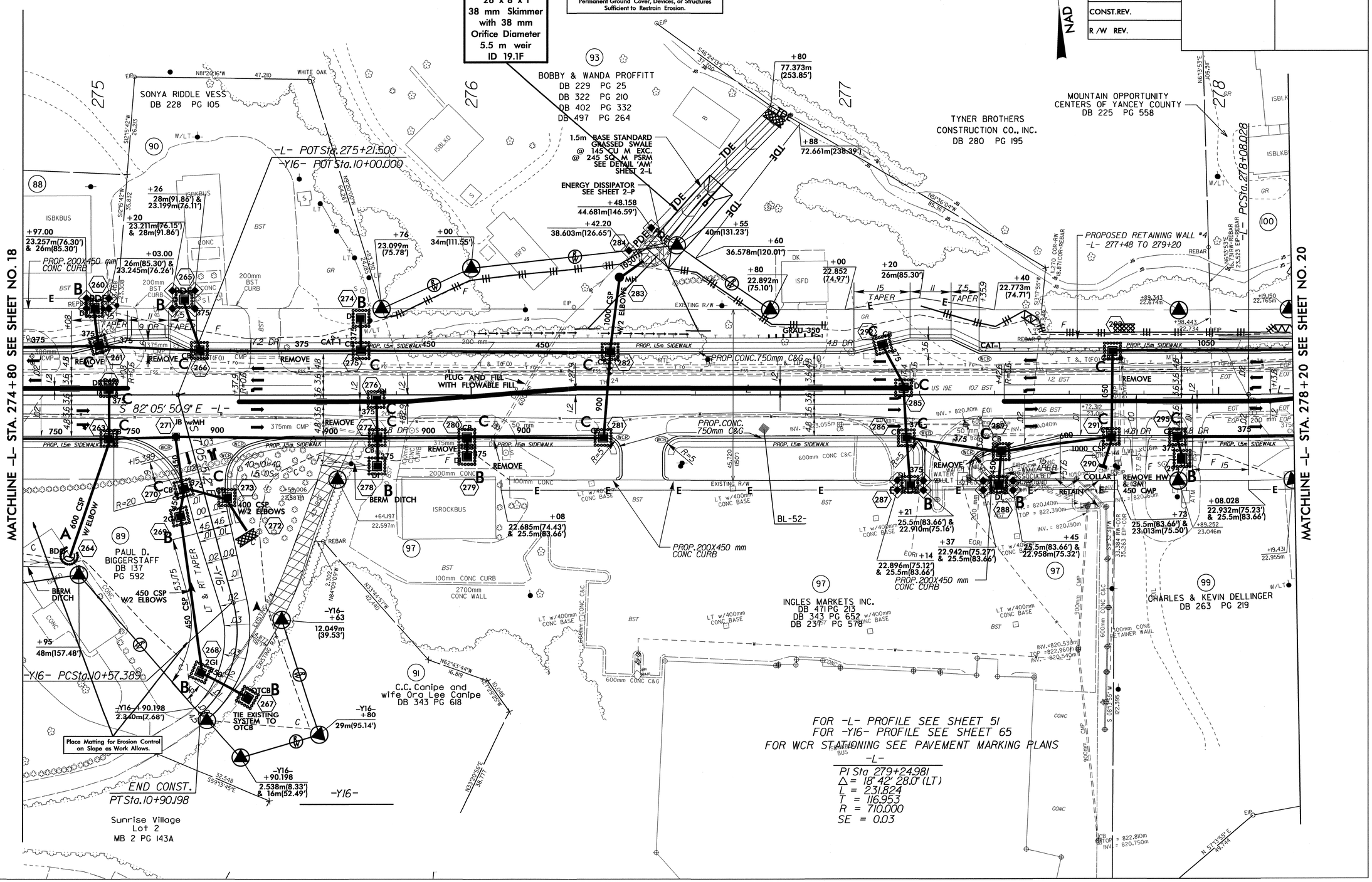
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-80/CONST.19 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.

NAD 83/95

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mbrooks

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-81/CONST.20 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

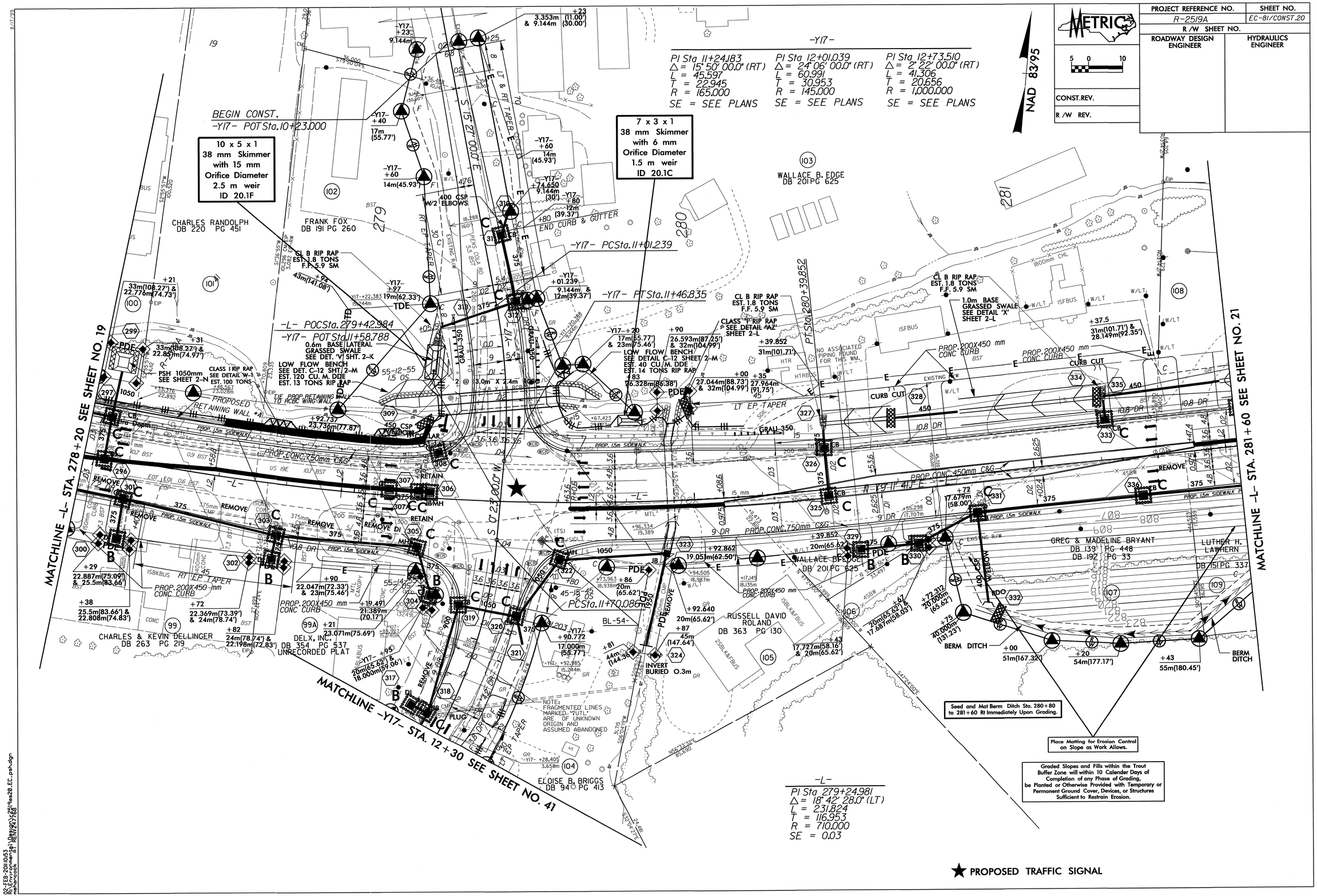
CONST.REV.

R /W REV.

NAD 83/95

-Y17-

| PI Sta 11+24.183 | PI Sta 12+01.039 | PI Sta 12+73.510 |
|---|---|---|
| Δ = 15° 50' 00.0" (RT) | Δ = 24° 06' 00.0" (RT) | Δ = 2° 22' 00.0" (RT) |
| L = 45.597 | L = 60.991 | L = 41.306 |
| T = 22.945 | T = 30.953 | T = 20.656 |
| R = 165.000 | R = 145.000 | R = 1,000.000 |
| SE = SEE PLANS | SE = SEE PLANS | SE = SEE PLANS |




-L-

PI Sta 279+24.981
Δ = 18° 42' 28.0" (LT)
L = 231.824
T = 116.953
R = 710.000
SE = 0.03

★ PROPOSED TRAFFIC SIGNAL

8/17/99

02-FEB-2011 10:53
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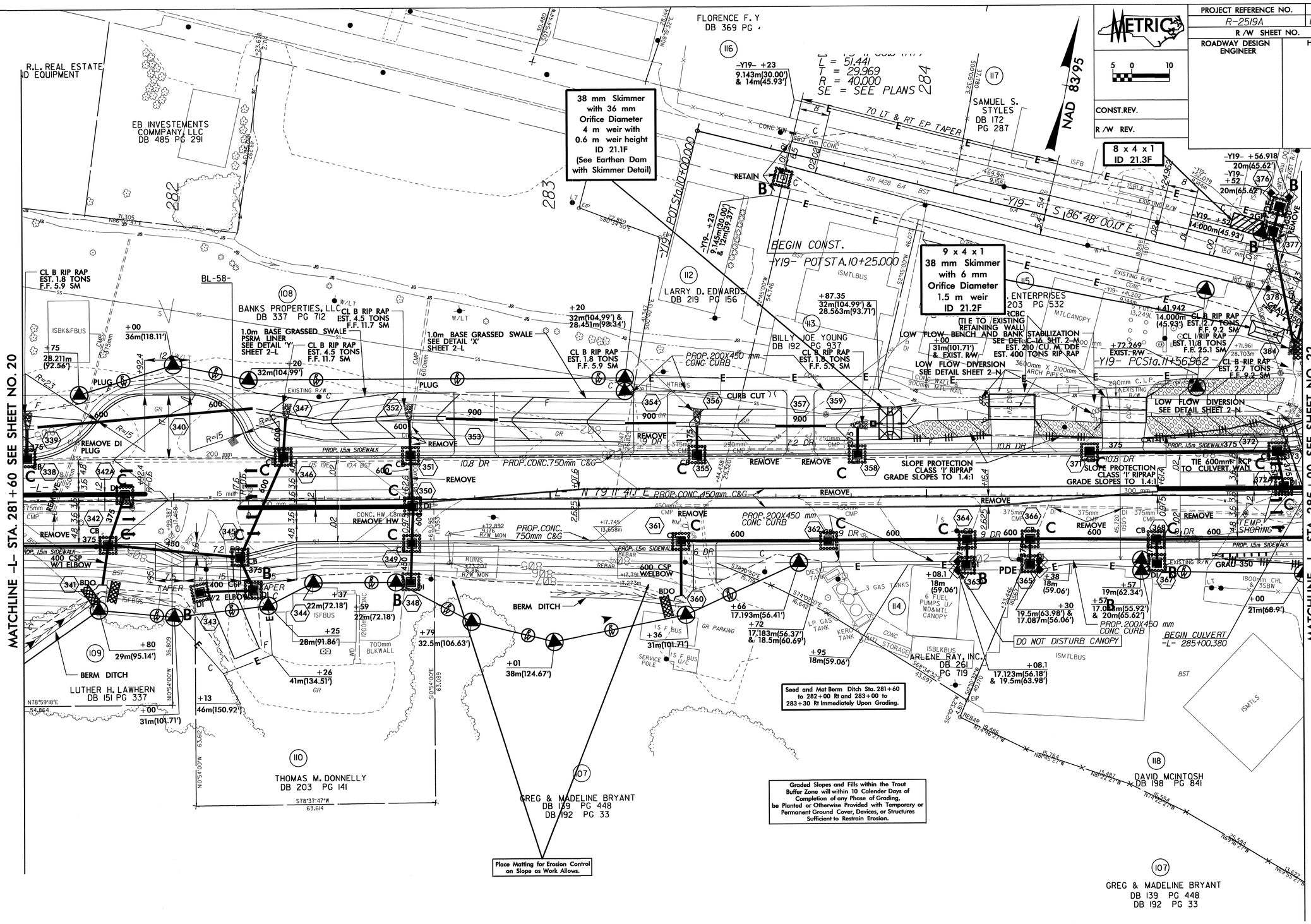
mehancock AT REN2247168

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-82/CONST.21 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

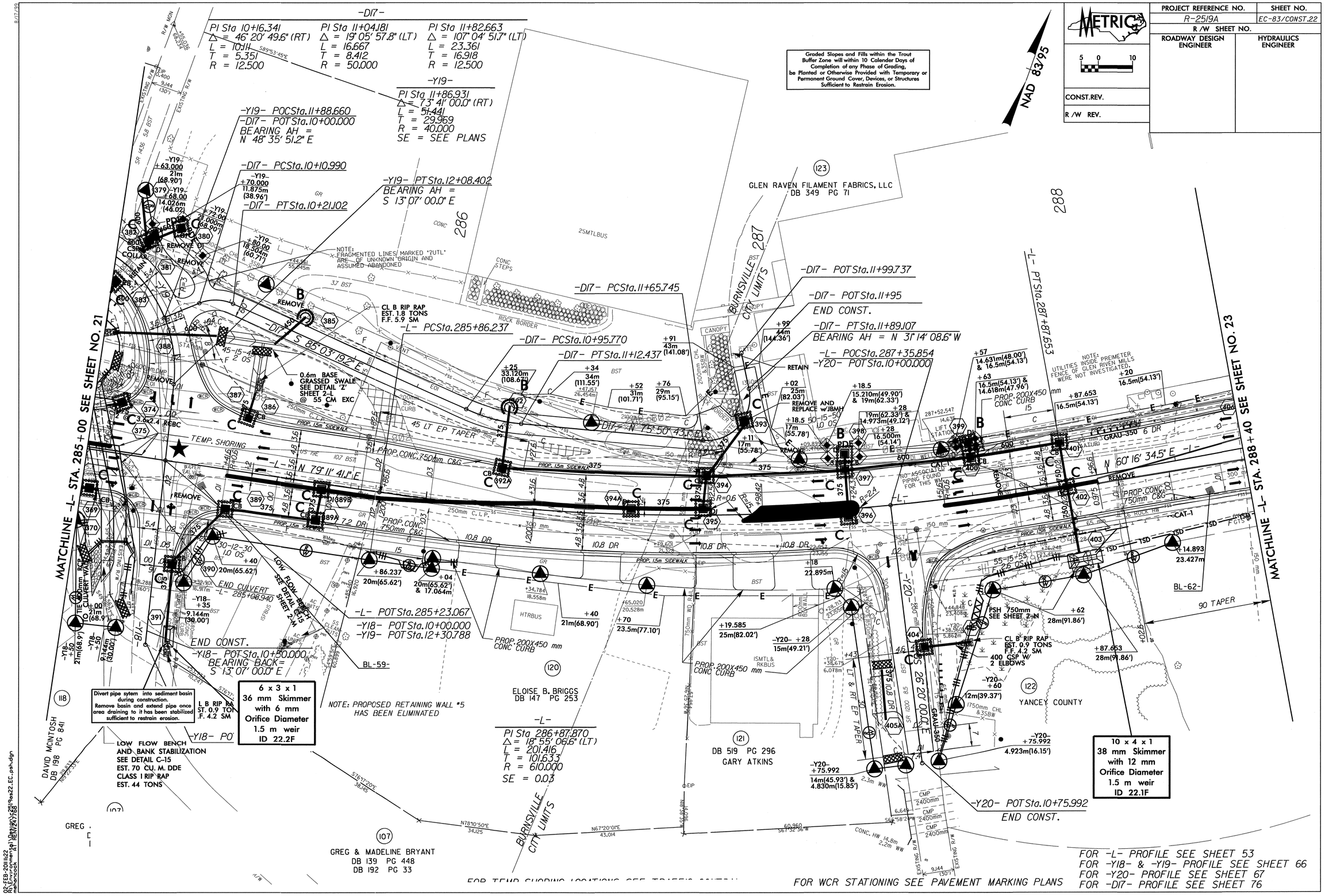
METRIC




FOR TEMP. SHORING LOCATIONS SEE TRAFFIC CONTROL PLANS

FOR -L- PROFILE SEE SHEET 52
FOR -Y19- PROFILE SEE SHEET 66

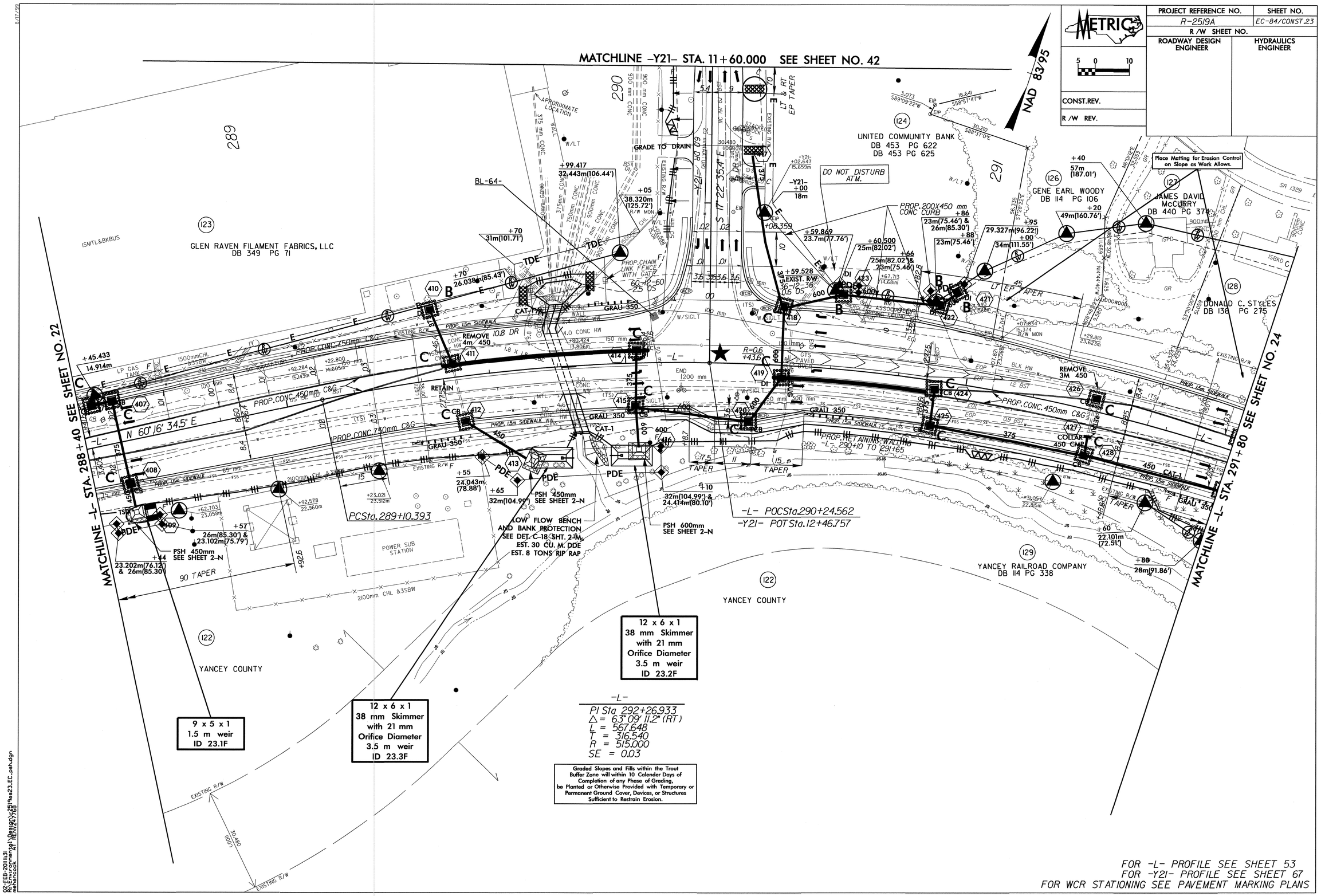
02-FEB-2011 11:17
R:\Environmental\Design\R2519as21.EC.psh.dgn
mehancock AT REN\247768



METRIC
PROJECT REFERENCE NO.
R-2519A
SHEET NO.
EC-83/CONST.22
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
CONST.REV.
R/W REV.
NAD 83/95
Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.
-D17-
PI Sta 10+16.341
Δ = 46° 20' 49.6" (RT)
L = 10.111
T = 5.351
R = 12.500
PI Sta 11+04.181
Δ = 19° 05' 57.8" (LT)
L = 16.667
T = 8.412
R = 50.000
PI Sta 11+82.663
Δ = 107° 04' 51.7" (LT)
L = 23.361
T = 16.918
R = 12.500
-Y19-
PI Sta 11+86.931
Δ = 73° 41' 00.0" (RT)
L = 51.441
T = 29.969
R = 40.000
SE = SEE PLANS
-Y19- POCSta.11+88.660
-D17- POTSta.10+00.000
BEARING AH = N 48° 35' 51.2" E
-D17- PCSta.10+10.990
-Y19- PTSta.12+08.402
BEARING AH = S 13° 07' 00.0" E
-D17- PTSta.10+21.102
NOTE: FRAGMENTED LINES MARKED "?UTL" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED
GLEN RAVEN FILAMENT FABRICS, LLC
DB 349 PG 71
-D17- PCSta.11+65.745
-D17- POTSta.11+99.737
-D17- POTSta.11+95
END CONST.
-D17- PTSta.11+89.107
BEARING AH = N 31° 14' 08.6" W
-L- POCSta.287+35.854
-Y20- POTSta.10+00.000
-L- PTSta.287+87.653
CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM
-L- PCSta.285+86.237
-D17- PCSta.10+95.770
-D17- PTSta.11+12.437
-D17- S 85° 03' 19.2" E
0.6m BASE GRASSED SWALE SEE DETAIL 'Z' SHEET 2-L @ 55 CM EXC
45 LT EP TAPER
-D17- N 75° 50' 43.1" E
-L- N 79° 11' 41.1" E
TEMP. SHORING
PROP. CONC. 750mm C&G
PROP. 15m SIDEWALK
REMOVE
MATCHLINE -L- STA. 285+00 SEE SHEET NO. 21
MATCHLINE -L- STA. 288+40 SEE SHEET NO. 23
NOTE: UTILITIES INSIDE PREIMETER FENCE OF GLEN RIVEN MILLS WERE NOT INVESTIGATED.
PROP. 200X450 mm CONC CURB
-L- POTSta.285+23.067
-Y18- POTSta.10+00.000
-Y19- POTSta.12+30.788
END CONST.
-Y18- POTSta.10+50.000
BEARING BACK = S 13° 07' 00.0" E
END CULVERT -L- 285+08.940
LOW FLOW BENCH SEE DETAIL C-15 SHEET 2-M
PROP. 200X450 mm CONC CURB
BL-59-
BL-62-
90 TAPER
PSH 750mm SEE SHEET 2-N
CL B RIP RAP
EST. 0.9 TONS
F.F. 4.2 SM
400 CSP W/ 2 ELBOWS
YANCEY COUNTY
ELOISE B. BRIGGS
DB 147 PG 253
NOTE: PROPOSED RETAINING WALL #5 HAS BEEN ELIMINATED
-L-
PI Sta 286+87.870
Δ = 18° 55' 06.6" (LT)
L = 201.416
T = 101.633
R = 610.000
SE = 0.03
DB 519 PG 296
GARY ATKINS
-Y20- POTSta.10+75.992
END CONST.
Divert pipe sytem into sediment basin during construction. Remove basin and extend pipe once area draining to it has been stabilized sufficient to restrain erosion.
6 x 3 x 1
36 mm Skimmer with 6 mm Orifice Diameter
1.5 m weir
ID 22.2F
10 x 4 x 1
38 mm Skimmer with 12 mm Orifice Diameter
1.5 m weir
ID 22.1F
LOW FLOW BENCH AND BANK STABILIZATION SEE DETAIL C-15
EST. 70 CU. M. DDE
CLASS I RIP RAP
EST. 44 TONS
DAVID MCINTOSH
DB 198 PG 841
GREG & MADELINE BRYANT
DB 139 PG 448
DB 192 PG 33
BURNSVILLE CITY LIMITS
FOR -L- PROFILE SEE SHEET 53
FOR -Y18- & -Y19- PROFILE SEE SHEET 66
FOR -Y20- PROFILE SEE SHEET 67
FOR -D17- PROFILE SEE SHEET 76
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-84/CONST.23 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC




FOR -L- PROFILE SEE SHEET 53
FOR -Y21- PROFILE SEE SHEET 67
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

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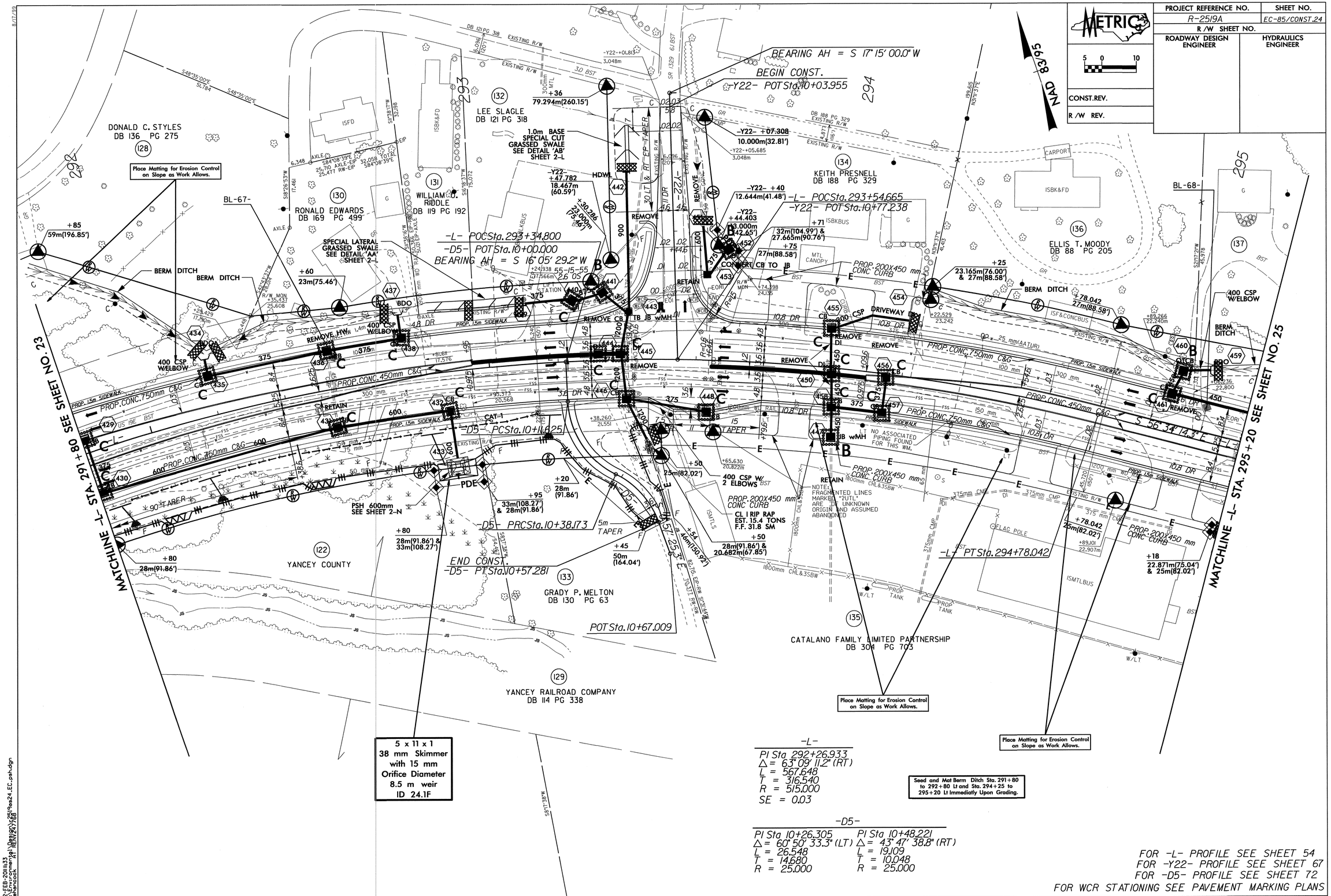
R:\Environmental\Design\r2519as23.EC_psh.dgn
mehancock AT RENV247768

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-85/CONST.24 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-86/CONST.25 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

-Y23-
PI Sta 10+21.672
Δ = 2° 26' 30.5" (LT)
L = 17.047
T = 8.525
R = 400.000
SE = SEE PLANS

10 x 5 x 0.6
38 mm Skimmer
with 9 mm
Orifice Diameter
2.5 m weir
ID 25.1C

Seed and Mat Berm Ditches Sta. 295+20 to 296+90 Lt and Sta. 298+40 to 298+60 Lt Immediatly Upon Grading.

-Y23- POT Sta.10+00.000
BRG AH = S 16° 04' 30.5" W

-Y23- PCSta.10+13.147

-Y23- +30.194
3.353m(11.00') & 12m(39.37')

-Y23- PT Sta.10+30.194
BRG AH = S 13° 38' 00.0" W
BEGIN CONST.

-Y23- +30.194
6m(19.69') & 3.353m(11.00')

-L- POCSta.297+71.045
-Y23- POT Sta.10+88.792

Place Matting for Erosion Control on Slope as Work Allows.

Divert pipe sytem into sediment basin during construction.
Remove basin and extend pipe once area draining to it has been stabilized sufficient to restrain erosion.

-L- PCSta.296+25.645

-L- S 56° 34' 14.3" E

MATCHLINE -L- STA. 295+20 SEE SHEET NO. 24

MATCHLINE -L- STA. 298+60 SEE SHEET NO. 26

PHILLIP R. BANKS
DB 129 PG 29

TINA MARIE SINK
DB 302 PG 264

JOE WILLIAMS
DB 142 PG 327

LES JUNIOR ETERSON
53 PG 406

BANKS HOLDING COMPANY, L.P.
DB 418 PG 121

KNARLD EDWARD CARROLL
DB 253 PG 56

KEITH PRESNELL
DB 248 PG 715

ROBERT J. YOUNG
DB 296 PG 627

KENNETH ALDEN PRICE
DB 109 PG 306

JAY (HANNAH) STYLES
DB 78 PG 285

CATALANO FAMILY LIMITED PARTNERSHIP
DB 304 PG 703

CLYDE RUSSELL HUGHES
DB 266 PG 366

HARRISON BENNETT
DB 255 PG 721

ANN-MARGARET MASTROPAOLO & GERRARD L. PAGELS
DB 538 PG 619

KEITH W. PRESNELL
DB 277 PG 507

NOTE: FRAGMENTED LINES MARKED "2UTL" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED

RETAIN

RIP RAP EST. 1.8 TONS F.F. 5.9 SM

CL B RIP RAP EST. 2.7 TONS F.F. 9.2 SM

CLASS 'I' RIP RAP SEE DETAIL 'O' SHEET 2-K

EXIST. R/W & 16.150m(52.99')

INVERTS BURIED 0.3m

PROP. 200X450 mm CONC CURB

PROP. 1.5m SIDEWALK

PROP. CONC. 450mm C&G

PROP. CONC. 750mm C&G

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

-L-
PI Sta 297+71.472
Δ = 11° 06' 19.7" (LT)
L = 290.740
T = 145.827
R = 1,500.000
SE = 0.02

FOR -L- PROFILE SEE SHEET 54
FOR -Y23- PROFILE SEE SHEET 67
FOR WCR STATIONING SEE PAVEMENT MARKING PLANS

8/17/99

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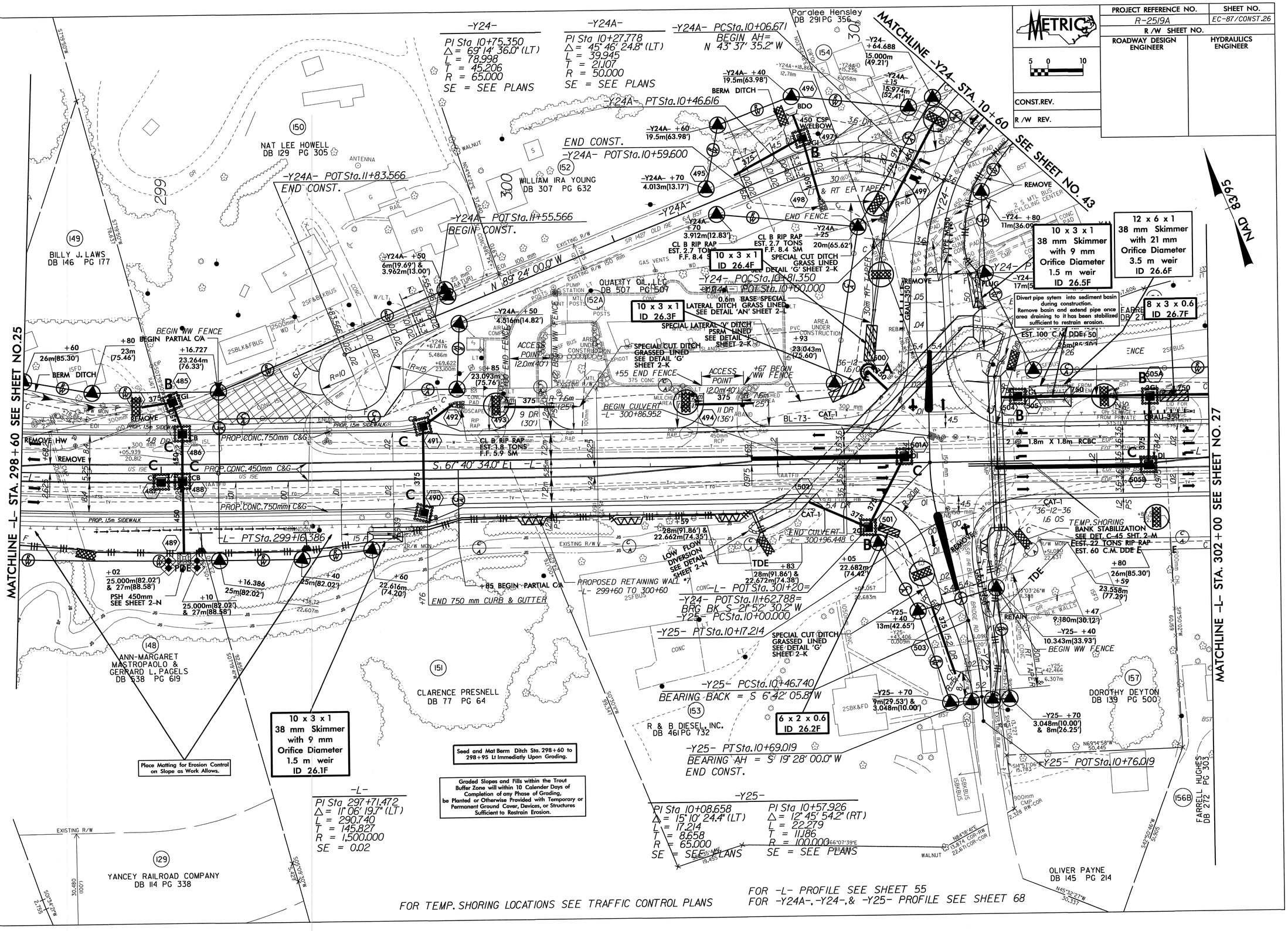
mbancock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-87/CONST.26 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R/W REV.

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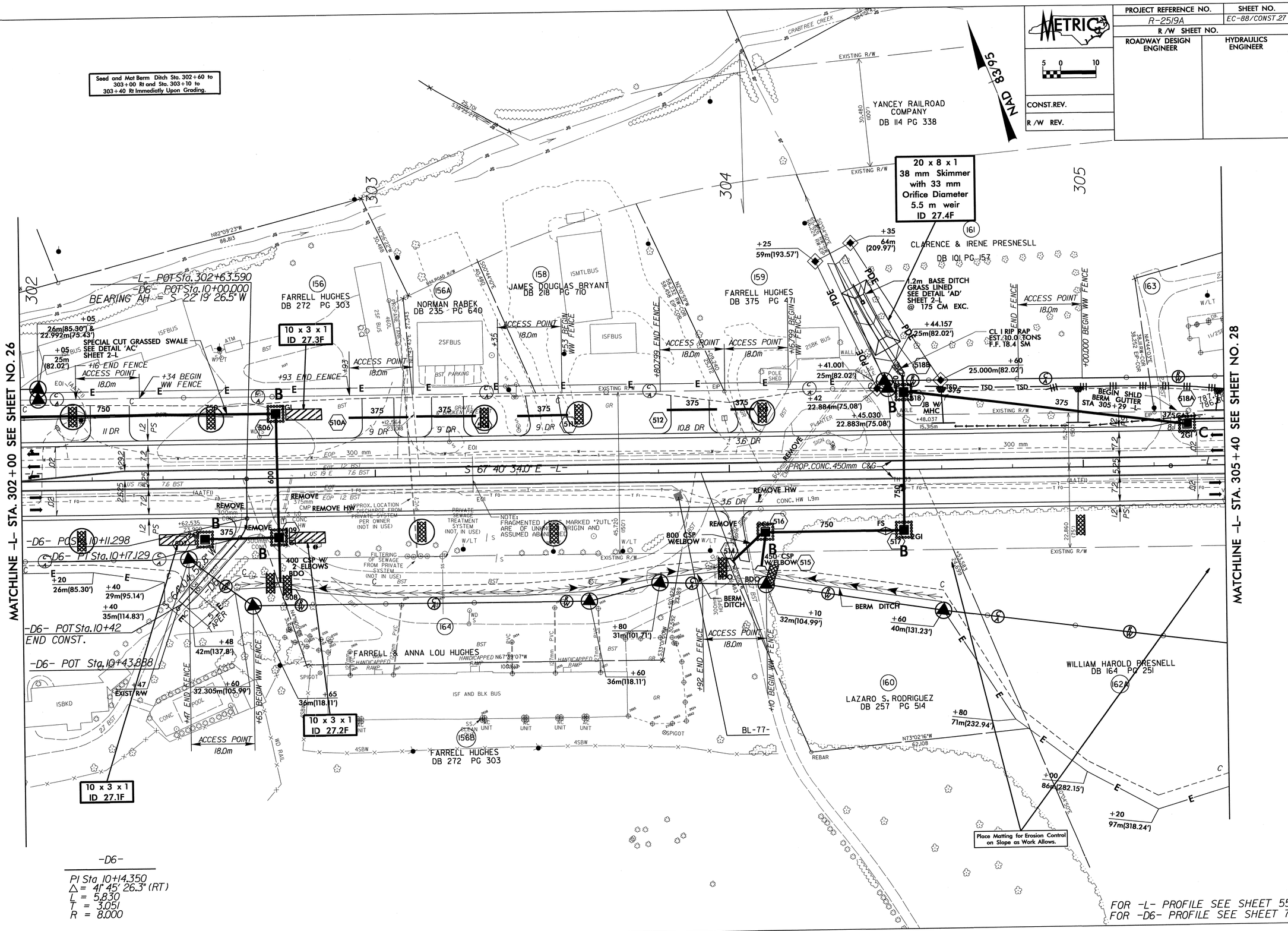
mehercock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-88/CONST.27 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC




-D6-

PI Sta 10+14.350
Δ = 41° 45' 26.3" (RT)
L = 5.830
T = 3.051
R = 8.000

FOR -L- PROFILE SEE SHEET 55
FOR -D6- PROFILE SEE SHEET 72

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mehancock AT REN\247768

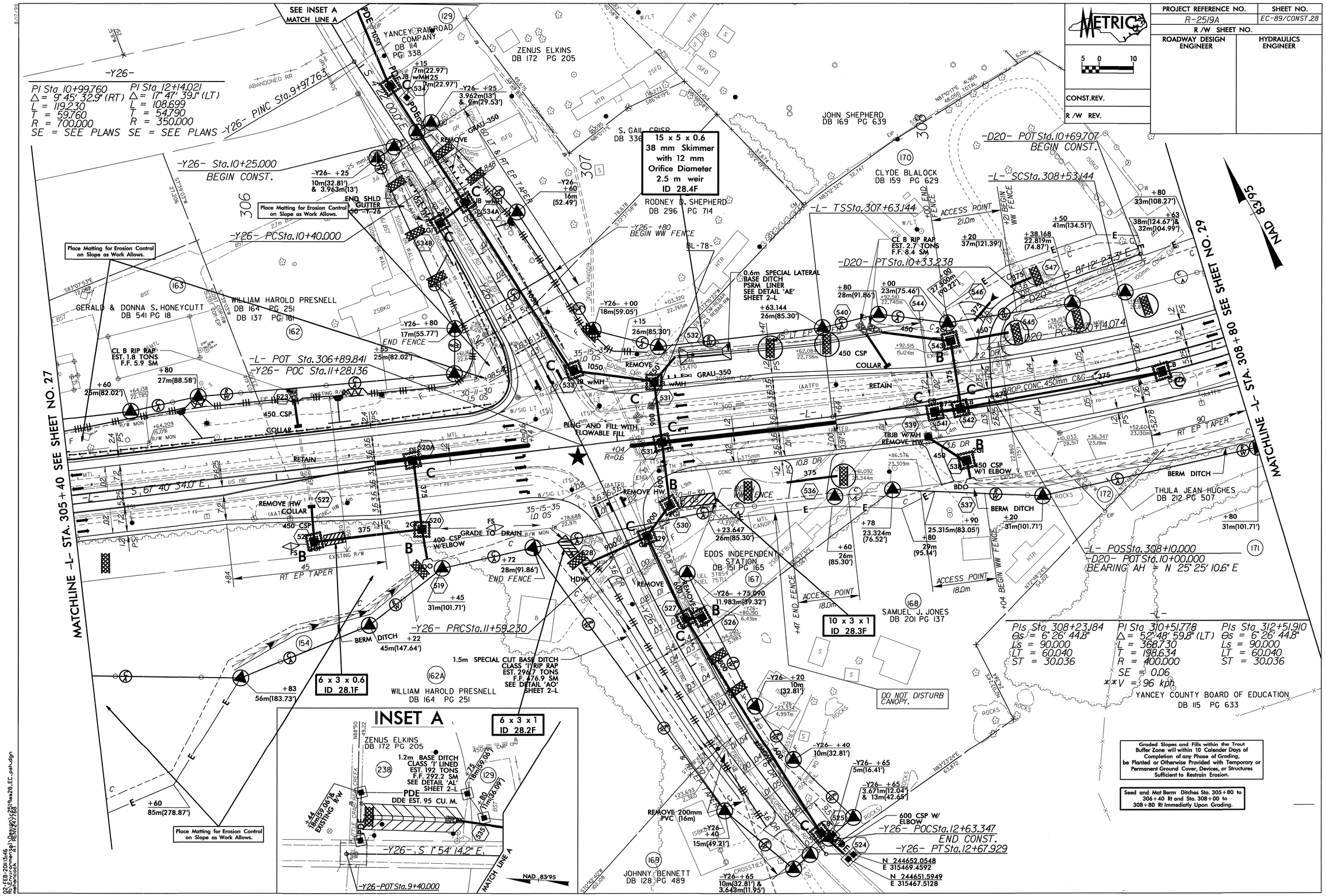
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-89/CONST.28 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

CONST.REV.

R /W REV.




| PIs Sta 308+23.184 | PI Sta 310+51.778 | PIs Sta 312+51.910 |
|---|---|---|
| Θs = 6° 26' 44.8" | Δ = 52° 48' 59.8" (LT) | Θs = 6° 26' 44.8" |
| Ls = 90.000 | L = 368.730 | Ls = 90.000 |
| LT = 60.040 | T = 198.634 | LT = 60.040 |
| ST = 30.036 | R = 400.000 | ST = 30.036 |
| | SE = 0.06 | |
| | **V = 96 kph | |

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mbellmcpherson
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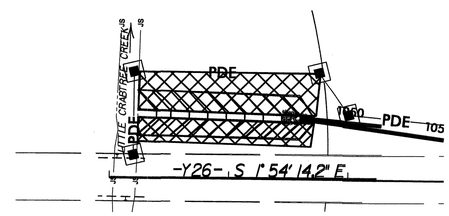
| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-89A/CONST.28 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 0.03 HECTARE STREAMBANK REFORESTATION

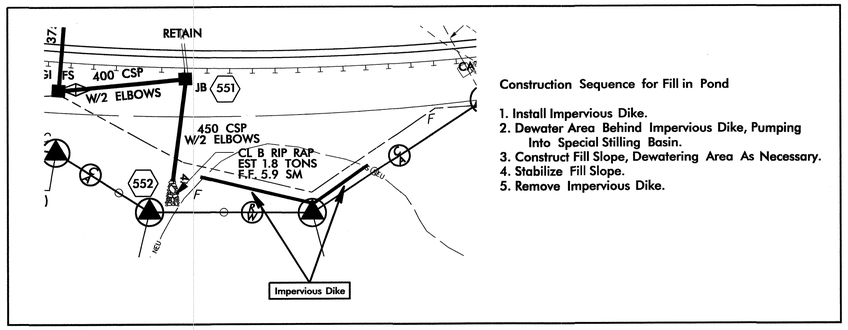



SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-90/CONST.29 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95




Construction Sequence for Fill in Pond

1. Install Impervious Dike.
2. Dewater Area Behind Impervious Dike, Pumping Into Special Stilling Basin.
3. Construct Fill Slope, Dewatering Area As Necessary.
4. Stabilize Fill Slope.
5. Remove Impervious Dike.

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

FOR -L- PROFILE SEE SHEET 56
FOR -Y27- PROFILE SEE SHEET 69
FOR -DI8- PROFILE SEE SHEET 76

Place Matting for Erosion Control on Slope as Work Allows.

MATCHLINE -L- STA. 308+80 SEE SHEET NO. 28

MATCHLINE -L- STA. 312+20 SEE SHEET NO. 30

CLYDE BLALOCK
DB 159 PG 629

NOTE: PROPOSED RETAINING WALL #8 HAS BEEN ELIMINATED PROPOSED CONC EXPRESSWAY GUTTER -L- 309+40 TO 309+85

J. V. JONES CEMETERY

DEAN WILSON
DB 264 PG 182

EUGENE STYLES
DB 199 PG 685

SHOAL CREEK BAPTIST CHURCH
DB 415 PG 71

10 x 3 x 1
ID 29.2F

6 x 3 x 0.6
ID 29.6F

8 x 3 x 1
ID 29.5F

7 x 3 x 1
ID 29.4F

8 x 4 x 1
ID 29.1F

6 x 2 x 0.6
ID 29.3F

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

400 CSP
W/2 ELBOWS

450 CSP
W/2 ELBOWS

CL B RIP RAP
EST 1.8 TONS
F.F. 5.9 SM

COLLAR
REMOVE HW

END CONST.
-DI8- POT Sta.10+24.14

-DI8- POT Sta.10+38.289
BRG BK S 12°22' 03.3" E

-Y27- POT Sta.11+21.982

-Y27- POT Sta.11+00
END CONST.

-Y27- POT Sta.10+76.135

NORMAN EVANS
DB 138 PG 477

JOHN DOUGLAS BENNETT, ET AL
DB 310 PG 492

RICHARD D. DEJESUS
DB 280 PG 174

ROY C. HARRIS
DB 160 PG 29

YANCEY COUNTY BOARD OF EDUCATION
DB 115 PG 633

EUGENE STYLES
DB 258 PG 70

Place Matting for Erosion Control on Slope as Work Allows.

Place Matting for Erosion Control on Slope as Work Allows.

RICHARD D. DEJESUS
DB 280 PG 174

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| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-91/CONST.30 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC

5 0 10

-Y27-

PI Sta 10+16.706
Δ = 57° 53' 38.7" (RT)
L = 25.261
T = 13.828
R = 25.000
SE = SEE PLANS

PI Sta 10+52.266
Δ = 14° 28' 23.7" (RT)
L = 47.995
T = 24.126
R = 190.000
SE = SEE PLANS

-L-

PIs Sta 308+23.184
θs = 6° 26' 44.8"
Ls = 90.000
LT = 60.040
ST = 30.036

PI Sta 310+.
Δ = 52° 48'
L = 368.73
T = 198.63
R = 400.00
SE = 0.06
** V = 96 kph

PIs Sta 314+01.908
θs = 4° 28' 06.5"
Ls = 90.000
LT = 60.019
ST = 30.017

PI Sta 316+01.330
Δ = 32° 43' 50.7" (LT)
L = 329.617
T = 169.442
R = 577.000
SE = 0.06

PIs Sta 317+91.523
θs = 4° 28' 06.5"
Ls = 90.000
LT = 60.019
ST = 30.017

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

FOR -L- PROFILE SEE SHEET 57

FOR -DI6- PROFILE SEE SHEET 75

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

NAD 83/95

10 x 5 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
2.5 m weir
ID 30.3F

Place Matting for Erosion Control on Slope as Work Allows.

-L- POSSta.312+61.529
-Y27- POTSta.10+00.000

-L- STSta.313+11.874

-Y27- PCSta.10+02.879
BEARING BACK = S 41° 22' 02.4" E

-L- POSSta.313+02.930
-D8- POTSta.10+00.000
BEARING AH=
S 43° 17' 55.4" E

-L- POTSta.313+12.000
-D9- POTSta.10+00.000
BEARING AH = S 43° 23' 03.4" E

-Y28-

PI Sta 10+12.569
Δ = 43° 00' 00.0" (RT)
L = 18.762
T = 9.848
R = 25.000
SE = SEE PLANS

PI Sta 10+69.835
Δ = 23° 26' 00.0" (LT)
L = 53.169
T = 26.961
R = 130.000
SE = SEE PLANS

PI Sta 11+36.930
Δ = 5° 42' 00.0" (LT)
L = 59.690
T = 29.870
R = 600.000

-D8-

PI Sta 10+26.115
Δ = 46° 33' 12.8" (RT)
L = 12.188
T = 6.453
R = 15.000

PI Sta 10+45.515
Δ = 49° 30' 17.7" (LT)
L = 12.960
T = 6.916
R = 15.000

-D9-

PI Sta 10+36.059
Δ = 10° 35' 38.7" (LT)
L = 9.245
T = 4.636
R = 50.000

-DI0-

PI Sta 10+27.157
Δ = 41° 37' 50.3" (LT)
L = 21.798
T = 11.405
R = 30.000

Divert pipe sytem into sediment basin during construction.
Remove basin and extend pipe once area draining to it has been stabilized sufficient to restrain erosion.

6 x 2 x 0.6
ID 30.1F

BEGIN CULVERT
-L- 312+50.053

END CULVERT
-L- 312+58.547

600 CSP W/
2 ELBOWS

SHOAL CREEK BAPTIST CHURCH
DB 415 PG 71

-L- TSSta.313+41.889

-DI6- POTSta.10+00
-L- POSSta.314+30
BRG AH=S 39° 06' 05.0" E

-L- SCSta.314+31.889

Begin Stream Relocation
-GFS2- 10+00.000

RCV SEE SHEET 2-O

STREAM PLUG
SEE SHEET 2-P

GEORGES FORK
STREAM RELOCATION
SEE SHEET 2-Q

CL B RIP RAP
SEE DETAIL 'W'
SHEET 2-K

INLET AND
OUTLET
BURIED 0.3m

PLUG AND FILL
WITH FLOWABLE FILL

PROP. CONC. 450mm C&G

CONC. HW 2.4m

END CONST.

-DI6- PCSta.10+17.979

-DI6- PT Sta.10+32.546

0.6m BASE DITCH
GRASSED LINED
SEE DETAIL 'E' CL B RIP RAP
SHEET 2-K EST 1.8 TONS
F.F. 5.9 SM

1.0m BASE DITCH
GRASS LINED
SEE DETAIL 'AF'
SHEET 2-L
EST. 26 C.M. DDE

-DI0- POTSta.10+10.000
BEGIN CONST.

-DI0- PCSta.10+15.752

-DI6- POTSta.10+45

-DI6- POTSta.10+57.734

-DI0- PT Sta.10+37.549

-DI0- POTSta.10+42.519
END CONST.

-Y28- PCSta.11+07.061

-Y28- POCSta.11+27.106

-DI0- POTSta.10+45.413

-Y28- PT Sta.11+66.751

NOTE: PROPOSED RETAINING WALL #9 HAS BEEN ELIMINATED

END CONST. -Y28-
POCSta.10+67.662
-Y28- PTSta.10+96.043

MATCHLINE -L- STA. 312+20 SEE SHEET NO. 29

MATCHLINE -L- STA. 315+60 SEE SHEET NO. 31

PCSta.10+38.599

-Y27-PCCSta.10+28.140

-D9- PCSta.10+31.423

-D9- PTSta.10+40.668
BEARING AH= S 53° 58' 42.1" E

-D9- POTSta.10+45
END CONST.

PCSta.10+19.662

-D8- PTSta.10+31.850
BEARING AH = S 3° 15' 17.4" W

-D8- PTSta.10+51.559
BEARING AH =
S 46° 15' 00.3" E

-D8- POTSta.10+58
END CONST.

-D8- POT Sta.10+60.107

-D9- POT Sta.10+52.722

ACCESS POINT
18.0m

ACCESS POINT
25.0m

END CONST.

Place Matting for Erosion Control on Slope as Work Allows.

14 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 30.2F

-DI6-
PI Sta 10+25.880
Δ = 55° 47' 36.8" (RT)
L = 14.607
T = 7.941
R = 15.000

BARBARA FORD
DB 216 PG 36

ROY C. HARRIS
DB 160 PG 29

JAMES G. MARSH, JR.
DB 297 PG 447

JETER BISS BUCHANAN
DB 156 PG 547

DANNY HUGHES
DB 196 PG 820

HERMAN HUGHES
DB 158 PG 229

NORMA P. EVANS
DB 142 PG 568

ROGER F. PENLAND
DB 254 PG 405

ELIZABETH YOUNG
HUSKINS
DB 264 PG 231

DANNY HIGGINS
DB 201 PG 179

WINDOM METHODIST CHURCH
DB 128 PG 24

ISBK CHURCH

BEAR WALLOW RD
SR 1144

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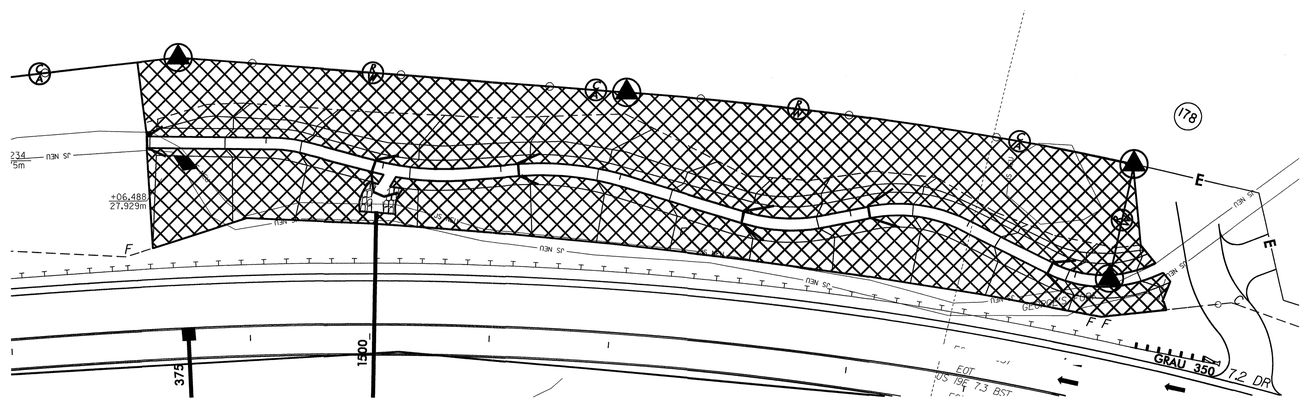
mhood (mer41) NEW(1024x768)

| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-92/CONST.30 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 0.40 HECTARE STREAMBANK REFORESTATION




SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-93/CONST.31 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC 5 0 10

CONST.REV.

R /W REV.

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

-L-
PIs Sta 314+01.908, Θs = 4° 28' 06.5", Ls = 90.000, LT = 60.019, ST = 30.017
PI Sta 316+01.330, Δ = 32° 43' 50.7" (LT), L = 329.617, T = 169.442, R = 577.000, SE = SEE PLANS
PIs Sta 317+91.523, Θs = 4° 28' 06.5", Ls = 90.000, LT = 60.019, ST = 30.017

-Y29-
PI Sta 10+64.697, Δ = 44° 06' 00.0" (LT), L = 36.560, T = 19.239, R = 47.500, SE = SEE PLANS

-D2I-
PI Sta 10+16.049, Δ = 47° 53', L = 16.717, T = 8.882, R = 20.000

-Y29- POT Sta.10+00.000
-Y29- PCSta.10+45.457
-Y29- PT Sta.10+82.018
BEARING AH = S 57° 16' 00.0" E
-L- POCSta.316+07.953
-Y28- POT Sta.10+00.000
-Y29- POT Sta.10+96
BEGIN CONST.
-D2I- PT Sta.10+23.884
-L- POCSta.316+89.132
-Y29- POT Sta.11+44.929
-D2I- POT Sta.10+60.420
BEARING BACK = N 80° 37' 24.8" E
-D2I- PCSta.10+07.168
-Y30- POT Sta.10+25
BEGIN CONST.
-Y30- POT Sta.10+00.000
-L- POSSta.318+38.908
-Y30- POT Sta.11+17.027
-L- CSSta.317+61.505
-L- STSta.318+51.505
-Y28- PCSta.10+02.721
BEARING BACK = S 2° 36' 00.0" E
-Y28- PT Sta.10+21.483
BEARING AH = S 40° 24' 00.0" W
BEGIN WW FENCE PCSta.10+42.874
PI Sta 10+12.569, Δ = 43° 00' 00.0" (RT), L = 18.762, T = 9.845, R = 25.000, SE = SEE PLANS
PI Sta 10+69.835, Δ = 23° 26' 00.0" (LT), L = 53.169, T = 26.961, R = 130.000, SE = SEE PLANS
PI Sta 11+36.930, Δ = 5° 42' 00.0" (LT), L = 59.690, T = 29.870, R = 600.000

MATCHLINE -L- STA. 315+60 SEE SHEET NO. 30
MATCHLINE -L- STA. 319+00 SEE SHEET NO. 32

HAROLD E. WOOMER DB 187 PG 73
NORMAN EVANS DB 396 PG 678 DB 362 PG 230
YOUNGS CHAPEL FREEWILL BAPTIST CHURCH DB 142 PG 279
CHARLES EDWARD DULANEY DB 291 PG 527
NORMAN ROBEK and JOY BOOTHE
BETTY REVIS DB 136 PG 557
DEBORAH J. HUSKINS DB 249 PG 632
BARBARA FORD DB 216 PG 30
WINDOM METHODIST CHURCH DB 128 PG 24

NAD 83/95

SHOAL CREEK STREAM RELOCATION SEE SHEET 2-S
Place Matting for Erosion Control on Slope as Work Allows.
STREAM PLUG SEE SHEET 2-P
RCV SEE SHEET 2-O
CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM
LOW FLOW DIVERSION SEE DETAIL SHEET 2-N
End Stream Relocation Sta. 1+74.455
LOW FLOW DIVERSION SEE DETAIL SHEET 2-N
LOW FLOW BENCH AND BANK PROTECTION SEE DET. C-28 SHT. 2-M1 EST. 208 CU. M. DDE EST. 220 TONS RIP RAP
PLUG AND FILL
FRAGMENTED LINES MARKED "FUTL" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED
0.6m BASE SPECIAL CUT BASE DITCH PSRM LINER SEE DETAIL 'AG' SHEET 2-L
0.6m BASE DITCH GRASS LINED SEE DETAIL 'C' SHEET 2-K @ 35 CM EXCAVATION
PROP. RETAINING WALL #10 -L- 318+30 TO 318+50
NOTE: PROPOSED RETAINING WALL #9 HAS BEEN ELIMINATED
BEGIN WW FENCE -L- +00
END CULVERT 316+70.518
BEGIN CULVERT -L- 315+52.282
REMOVE HW CONC. HW 1.4m
N 88° 17' 00.4" E

6 x 3 x 1 ID 31.4F
6 x 2 x 0.6 ID 31.6
6 x 2 x 0.6 ID 31.7
6 x 3 x 0.6 ID 31.2F
6 x 2 x 1 ID 31.3F
10 x 5 x 1 38 mm Skimmer with 15 mm Orifice Diameter 2.5 m weir ID 31.8F
8 x 7 x 1 38 mm Skimmer with 18 mm Orifice Diameter 4.5 m weir ID 31.5F
10 x 2 x 0.6 ID 31.1F

Divert pipe sytem into sediment basin during construction. Remove basin and extend pipe once area draining to it has been stabilized sufficient to restrain erosion.

FOR -L- PROFILE SEE SHEET 57
FOR -Y28- PROFILE SEE SHEET 69
FOR -Y29- & -Y30- PROFILE SEE SHEET 70
FOR -D2I- PROFILE SEE SHEET 77
FOR TEMP. SHORING LOCATIONS SEE TRAFFIC CONTROL PLANS

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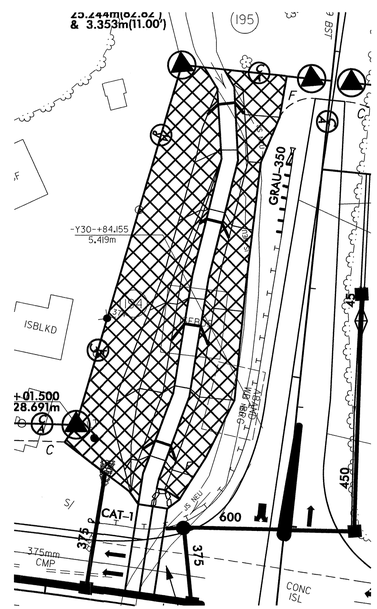
| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-94/CONST.31 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 0.13 HECTARE STREAMBANK REFORESTATION




SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-95/CONST.32 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

-DII- POTSta.10+00.000
BEARING AH = S 10° 59' 55.1" W
-DII- POCSta.10+03.000
BEGIN CONST.

PCSta.10+09.684

+03 END FENCE

ACCESS POINT 18.0m

+21 BEGIN W/L FENCE

BERM DITCH

Place Matting for Erosion Control on Slope as Work Allows.

BERM DITCH

-DII-
PI Sta 10+18.525
Δ = 10° 06' 16.4" (LT)
L = 17.636
T = 8.841
R = 100.000

PI Sta 10+67.813
Δ = 8° 48' 12.6" (RT)
L = 15.365
T = 7.698
R = 100.000

-DI2-
PI Sta 10+16.314
Δ = 43° 38' 54.2" (RT)
L = 19.045
T = 10.012
R = 25.000

PI Sta 10+44.515
Δ = 40° 49' 36.0" (LT)
L = 21.377
T = 11.165
R = 30.000

-DII- PTSta.10+27.320
BRG AH = S 0° 53' 38.7" W

-DII- PCSta.10+60.115

-DII- PTSta.10+75.480
BRG AH = S 9° 41' 51.3" W

-L- POCSta.320+14.000

-DII- POTSta.10+84.097

-L- TSSta.321+54.622

BEGIN CONST.
-DI2- PCSta.10+06.303
BRG BK=S 32° 29' 38.1" W
-DI2- PTSta.10+25.348
BRG AH=S 76° 08' 32.3" W
-DI2- PCSta.10+33.350
-DI2- PTSta.10+54.727
BEARING AH =
S 35° 18' 56.3" W

POTSta.10+00.000

END FENCE +14

ACCESS POINT 18.0m

BETTY REVIS
DB 136 PG 557

LILLIAN ROBINSON
DB 136 PG 566

PATSY B. MURPHY
DB 136 PG 601

10 x 3 x 1
ID 32.2F

10 x 3 x 0.6
ID 32.3F

10 x 3 x 0.6
ID 32.4F

CUT DITCH
PSRM LINED
SEE DETAIL 'AH'
SHEET 2-L

CUT DITCH
PSRM LINED
SEE DETAIL 'AH'
SHEET 2-L

SPECIAL CUT DITCH
GRASS LINED
SEE DETAIL 'G'
SHEET 2-K

NOTE:
FRAGMENTED LINES MARKED "?UTL" ARE OF UNKNOWN ORIGIN AND ASSUMED ABANDONED

REMOVE HW AND PORTION OF PIPE

RETAIN

REMOVE

REMOVE

REMOVE

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

CL I RIP RAP
EST. 6.4 TONS
F.F. 14.2 SM

+24 END FENCE

+35 BEGIN W/L FENCE

MATCHLINE -L- STA. 319+00 SEE SHEET NO. 31

MATCHLINE -L- STA. 322+40 SEE SHEET NO. 33

NAD 83/95

-L- CSSta.320+61.732

-L- SCSta.319+99.235

-L- TSSta.319+09.235

-L- POSSta.321+95.000
-DI2- POTSta.10+71.206

-L- STSta.321+51.732

BL-95-

ED GOUGE
DB 108 PG 45

YANCEY RAILROAD COMPANY
DB 114 PG 338

MILTON WEISS
DB 136 PG 569

DEWEY PATE, JR.
DB 268 PG 355

Seed and Mat Berm Ditch Sta. 320+20 to 322+00 Lt Immediatly Upon Grading.

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

9 x 4 x 1
1.5 m weir
ID 32.1F

9 x 9 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
6.5 m weir
ID 32.5F

-L-

PIs Sta 319+69.306
Θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 320+30.597
Δ = 11° 56' 09.8" (RT)
L = 62.497
T = 31.362
R = 300.000
SE = SEE PLANS
**V = 85 kph

PIs Sta 320+91.797
Θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PIs Sta 322+14.685
Θs = 8° 03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

PI Sta 322+73.821
Δ = 10° 25' 37.7" (LT)
L = 58.236
T = 29.199
R = 320.000
SE = 0.06
**V = 88 kph

PIs Sta 323+32.915
Θs = 8° 03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

FOR -L- PROFILE SEE SHEET 58
FOR -DII- & -DI2- PROFILE SEE SHEET 73

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mhancock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-96/CONST.33 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

-DI4REV-
PI Sta 11+00.718 △ = 20° 57' 01.9" (LT) L = 73.131 T = 36.979 R = 200.000
PI Sta 11+46.038 △ = 10° 28' 31.0" (RT) L = 18.283 T = 9.167 R = 100.000

-DI4-
PI Sta 11+91.285 △ = 52° 57' 00.5" (LT) L = 27.725 T = 14.941 R = 30.000

-DI4DET-
PI Sta 10+11.933 △ = 100° 04' 26.0" (LT) L = 17.466 T = 11.933 R = 10.000

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

Seed and Mat Berm Ditch Sta. 322+60 to 322+90 Lt Immediately Upon Grading.

-L-
PIs Sta 322+14.685 Θs = 8° 03' 26.0" Ls = 90.000 LT = 60.062 ST = 30.057
PI Sta 322+73.821 △ = 10° 25' 37.7" (LT) L = 58.236 T = 29.199 R = 320.000 SE = SEE PLANS **V = 88 kph
PIs Sta 323+32.915 Θs = 8° 03' 26.0" Ls = 90.000 LT = 60.062 ST = 30.057

-DI3REV-
PI Sta 10+35.160 △ = 69° 48' 22.3" (RT) L = 24.367 T = 13.954 R = 20.000
PI Sta 10+69.802 △ = 7° 53' 33.3" (LT) L = 6.888 T = 3.449 R = 50.000
PI Sta 11+30.698 △ = 66° 31' 34.6" (LT) L = 23.222 T = 13.119 R = 20.000

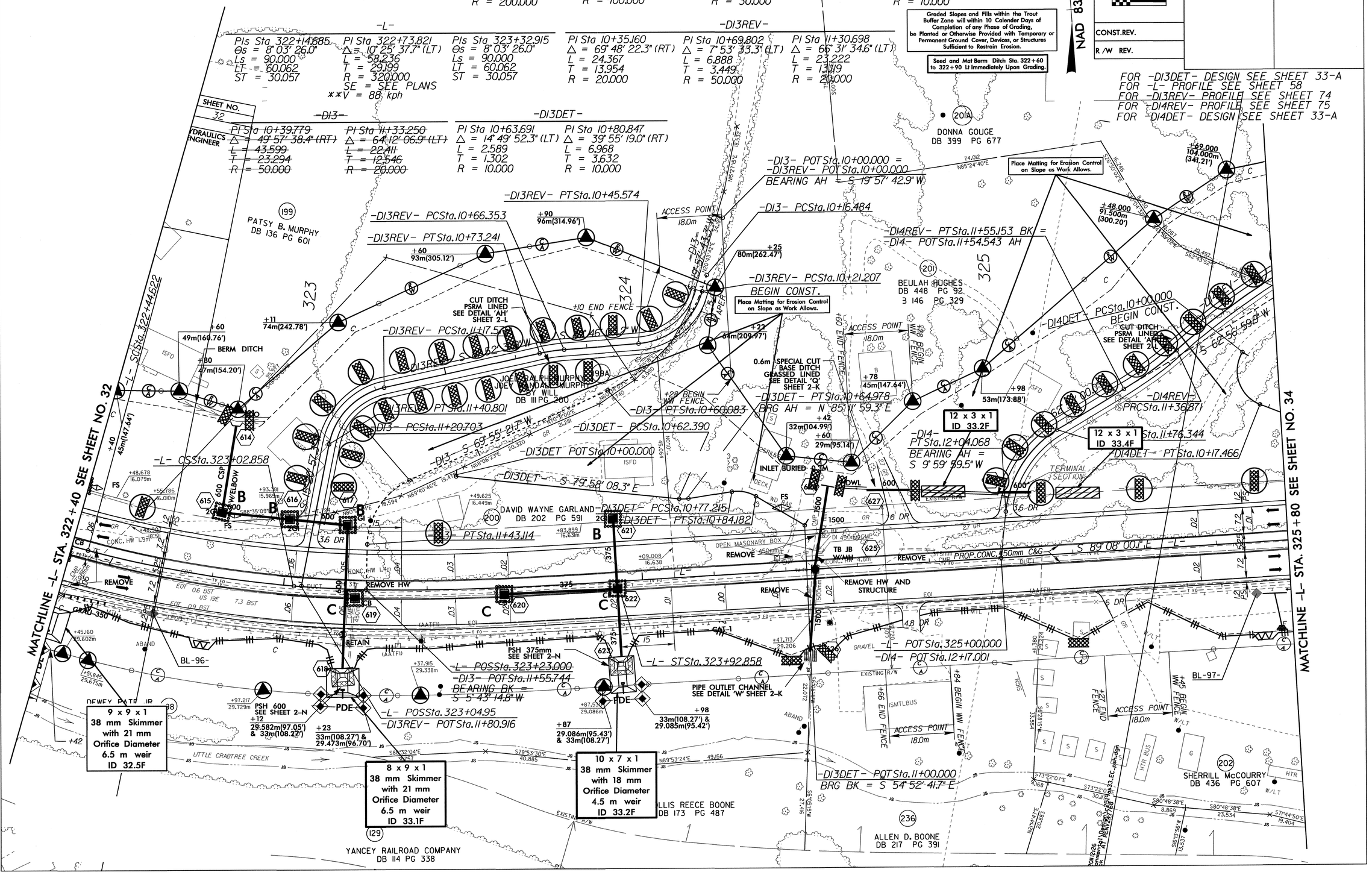
SHEET NO. 32

HYDRAULICS ENGINEER

-DI3-
~~PI Sta 10+39.779 △ = 49° 57' 38.4" (RT) L = 43.599 T = 23.294 R = 50.000~~
~~PI Sta 11+33.250 △ = 64° 12' 06.9" (LT) L = 22.411 T = 12.546 R = 20.000~~

-DI3DET-
PI Sta 10+63.691 △ = 14° 49' 52.3" (LT) L = 2.589 T = 1.302 R = 10.000
PI Sta 10+80.847 △ = 39° 55' 19.0" (RT) L = 6.968 T = 3.632 R = 10.000

FOR -DI3DET- DESIGN SEE SHEET 33-A
FOR -L- PROFILE SEE SHEET 58
FOR -DI3REV- PROFILE SEE SHEET 74
FOR -DI4REV- PROFILE SEE SHEET 75
FOR -DI4DET- DESIGN SEE SHEET 33-A



| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-97/CONST.33A |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R/W REV. | |

METRIC 5 0 10

NAD 83/95

-DI4REV-
PI Sta 11+00.718
Δ = 20° 57' 01.9" (LT)
L = 73.131
T = 36.979
R = 200.000

PI Sta 11+46.038
Δ = 10° 28' 31.0" (RT)
L = 18.283
T = 9.167
R = 100.000

-DI4-
PI Sta 11+91.285
Δ = 52° 57' 00.5" (LT)
L = 27.725
T = 14.941
R = 30.000

-DI4DET-
PI Sta 10+11.933
Δ = 100° 04' 26.0" (LT)
L = 17.466
T = 11.933
R = 10.000

-L-
PIs Sta 322+14.685
θs = 8° 03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

PI Sta 322+73.821
Δ = 10° 25' 37.7" (LT)
L = 58.236
T = 29.199
R = 320.000
SE = SEE PLANS
**V = 88 kph

PIs Sta 323+32.915
θs = 8° 03' 26.0"
Ls = 90.000
LT = 60.062
ST = 30.057

-DI3REV-
PI Sta 10+35.160
Δ = 69° 48' 22.3" (RT)
L = 24.367
T = 13.954
R = 20.000

PI Sta 10+69.802
Δ = 7° 53' 33.3" (LT)
L = 6.888
T = 3.449
R = 50.000

PI Sta 11+30.698
Δ = 66° 31' 34.6" (LT)
L = 23.222
T = 13.119
R = 20.000

~~-DI3-~~
~~PI Sta 10+39.779~~
~~Δ = 49° 57' 38.4" (RT)~~
~~L = 43.599~~
~~T = 23.294~~
~~R = 50.000~~

~~PI Sta 11+33.250~~
~~Δ = 64° 12' 06.9" (LT)~~
~~L = 22.411~~
~~T = 12.546~~
~~R = 20.000~~

-DI3DET-
PI Sta 10+63.691
Δ = 14° 49' 52.3" (LT)
L = 2.589
T = 1.302
R = 10.000

PI Sta 10+80.847
Δ = 39° 55' 19.0" (RT)
L = 6.968
T = 3.632
R = 10.000

FOR -L- DESIGN SEE SHEET 33
FOR -DI3DET- PROFILE SEE SHEET 78
FOR -DI4DET- PROFILE SEE SHEET 78

Place Matting for Erosion Control on Slope as Work Allows.

-DI3- POT Sta.10+00.000 =
-DI3REV- POT Sta.10+00.000
BEARING AH = S 19° 57' 42.9" W

-DI3REV- PT Sta.10+45.574

-DI3REV- PC Sta.10+66.353

-DI3REV- PT Sta.10+73.241

-DI3- PC Sta.10+16.484

-DI4REV- PT Sta.11+55.153 BK =
-DI4- POT Sta.11+54.543 AH

-DI3REV- PC Sta.10+21.207
BEGIN CONST.

-DI3REV- PC Sta.11+17.579

-DI3REV- S 81° 52' 31.9" W

S 89° 46' 05.2" W

-DI3REV- PT Sta.11+40.801

-DI3- PC Sta.11+20.703

-DI3- PT Sta.10+60.083

-DI3DET- PC Sta.10+62.390

-DI3DET- POT Sta.10+00.000

-DI3DET- PT Sta.10+64.978
BRG AH = N 85° 11' 59.3" E

-DI3- PT Sta.11+43.114

-DI3DET- PT Sta.10+80.842

-DI3DET- PC Sta.10+77.219

-DI3DET- PT Sta.10+80.842

-DI3DET- S 79° 18' 06.0" W

-DI3- S 69° 55' 21.7" W

-DI3- S 15° 20' 57.3" W

-DI4DET- PC Sta.10+00.000
BEGIN CONST.

-DI4REV- PRC Sta.11+36.871

-DI4- PC Sta.11+76.344

-DI4DET- PT Sta.10+17.466

-DI4- PT Sta.12+04.068
BEARING AH =
S 9° 59' 59.5" W

S 62° 56' 59.9" W

S 62° 57' 00.0" W

-L- CS Sta.323+02.858

-L- SC Sta.322+44.622

-L- POS Sta.323+23.000

-DI3- POT Sta.11+55.744
BEARING BK =
S 5° 43' 14.8" W

-L- POS Sta.323+04.95

-DI3REV- POT Sta.11+80.916

-L- ST Sta.323+92.858

-L- POT Sta.325+00.000

-DI4- POT Sta.12+17.001

-DI3DET- POT Sta.11+00.000
BRG BK = S 54° 52' 41.7" E

S 89° 08' 00.1" E

MATCHLINE -L- STA. 322+40 SEE SHEET NO. 32

MATCHLINE -L- STA. 325+80 SEE SHEET NO. 34-A

DONNA GOUGE
DB 399 PG 677

PATSY B. MURPHY
DB 136 PG 601

BEULAH HUGHES
DB 448 PG 92
DB 146 PG 329

JOEL RALPH MURPHY
JOEY RANDALL MURPHY
BY WILL
DB 111 PG 200

DAVID WAYNE GARLAND
DB 202 PG 651

DEWEY PATE, JR.
DB 268 PG 355

OLLIS REECE BOONE
DB 173 PG 487

YANCEY RAILROAD COMPANY
DB 114 PG 338

ALLEN D. BOONE
DB 217 PG 391

SHERRILL McCOURRY
DB 436 PG 607

LITTLE CRABTREE CREEK

ISMTLBUS

EXISTING R/W

Place Matting for Erosion Control on Slope as Work Allows.

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mhilton

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-98/CONST.34 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

CONST.REV.

R/W REV.

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

-DI4- POT Sta. 10+00.000
BEARING AH = S 25° 00' 03.7" E
-DI4- PC Sta. 10+11.224

-DI4- PT Sta. 10+35.784
BEARING AH = S 62° 56' 59.9" W

Place Matting for Erosion Control on Slope as Work Allows.

CUT DITCH PERM LINED SEE DETAIL 'AH' SHEET 2-L

-DI4DET-
PI Sta 10+98.243
Δ = 53° 17' 55.5" (RT)
L = 11.163
T = 6.022
R = 12.000

-DI4-
PI Sta 10+26.662
Δ = 87° 57' 03.6" (RT)
L = 24.561
T = 15.438
R = 16.000

-DI4- POC Sta. 10+28.000
BEGIN CONST.

-DI4REV-
PI Sta 10+54.624
Δ = 10° 28' 31.0" (RT)
L = 18.283
T = 9.167
R = 100.000

PI Sta 11+91.285
Δ = 52° 57' 00.5" (LT)
L = 27.725
T = 14.941
R = 30.000

-DI4REV PC Sta. 10+45.457 AH=
-DI4- POT Sta 10+45.457 BK

-DI4REV- PRC Sta. 10+63.739

-Y33-
PI Sta 10+06.847
Δ = 7° 50' 00.0" (LT)
L = 13.672
T = 6.847
R = 100.000
SE = SEE PLANS

PI Sta 10+28.921
Δ = 34° 03' 11.1" (LT)
L = 23.774
T = 12.249
R = 40.000
SE = SEE PLANS

PI Sta 10+53.630
Δ = 36° 29' 11.1" (RT)
L = 25.472
T = 13.185
R = 40.000
SE = SEE PLANS

-Y33DET-
PI Sta 10+19.374
Δ = 42° 21' 39.8" (RT)
L = 36.967
T = 19.374
R = 50.000
SE = SEE PLANS

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

Place Matting for Erosion Control on Slope as Work Allows.

FOR -Y32DET- DESIGN SEE SHEET 34-A
FOR -Y33DET- DESIGN SEE SHEET 34-A

-Y32-
PI Sta 9+80.775
Δ = 38° 11' 49.9" (RT)
L = 40.000
T = 20.775
R = 60.000

PI Sta 10+56.071
Δ = 46° 32' 00.0" (LT)
L = 24.365
T = 12.899
R = 30.000
SE = SEE PLANS

-Y32DET- PC Sta. 9+60.000
BRG BK = S 30° 54' 10.1" W

-Y33- POT Sta. 10+15.000
BEGIN CONST.

-Y33- PC Sta. 10+00.000
-Y33DET- PC Sta. 10+00.000
-Y33- PT Sta. 10+13.672
BRG AH S 23° 20' 00.0" E

-Y33- PC Sta. 10+16.672
-Y33- PRC Sta. 10+40.445

-Y32- POT Sta. 10+00.000
BEGIN CONST.

-Y32DET- PRC Sta. 9+99.011
BEGIN WW FENCE
-Y32DET- PT Sta. 10+10.777

-Y32DET- PC Sta. 10+
BEGIN CONST.
-Y32DET- POT Sta. 10+12.493

-Y32- PI Sta. 10+67.536
-Y32DET- POT Sta. 10+63.842
BRG BK = S 51° 18' 06.2" W

-Y33DET- PT Sta. 10+36.
BRG AH = S 26° 50' 59.4" W

-L- TS Sta. 325+85.327

-L- POS Sta. 326+22.085
-Y31- POT Sta. 10+00.000
BRG AH=S 5° 32' 00.0" W

-DI4DET-
PC Sta. 10+92.221

-DI4DET- S 64° 18' 13.5" E

-L- POC Sta. 326+49.022
-DI4DET- PT Sta. 11+03.384

PROP. CONC. 450mm C&G

12 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 34.1F

6 x 2 x 0.6
ID 34.2F

6 x 12 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
9.5 m weir
ID 34.3F

6 x 8 x 1
38 mm Skimmer
with 15 mm
Orifice Diameter
5.5 m weir
ID 34.4F

-Y31- PC Sta. 10+15.998

-L- POC Sta. 327+66.375
-Y33DET- POT Sta. 10+62.999
-L- SC Sta. 326+75.327

-Y31- PT Sta. 10+42.911

END CONST.
-Y31- POT Sta. 10+58.994

-Y32DET-
PI Sta 9+80.223
Δ = 37° 15' 08.5" (RT)
L = 39.011
T = 20.223
R = 60.000
SE = SEE PLANS

PI Sta 10+04.936
Δ = 16° 51' 12.9" (LT)
L = 11.766
T = 5.926
R = 40.000
SE = SEE PLANS

-Y31-
PI Sta 10+29.556
Δ = 17° 08' 00.0" (RT)

-L- POC Sta. 328+07.257
-Y32- POT Sta. 10+69.223
BRG BK = S 22° 34' 00.0" W

-L- POC Sta. 328+97.741

Pls Sta. 326+45.398
θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 327+91.925
Δ = 42° 28' 40.7" (RT)
L = 222.414
T = 116.597
R = 300.000
SE = 0.06
**V = 85 kph

Pls Sta
θs =
Ls =
LT =
ST =

MATCHLINE -L- STA. 325+80 SEE SHEET NO. 33

MATCHLINE -L- STA. 329+20 SEE SHEET NO. 35

DANIEL KEITH HUGHES DB 285 PG 14 (203)
CARRIE BLEVINS DB 106 PG 189 (206)
CARRIE DB 106
DONNA GOUGE DB 399 PG 677 (201A)
BEULAH HUGHES DB 448 PG 96 DB 146 PG 329 (201)
SHERRILL McCOURRY DB 436 PG 607 (202)
BERDELLA PETERSON DB 98 PG 208 (204)
FRED PETERSON DB 185 PG 407 (205)
SADIE FORTNER DB 214 PG 299 (208)
ARNOLD ZEB PHILLIPS DB 206 PG 788
TROY G. BOONE DB 119 PG 605 (207)

PLUM BRANCH STREAM RELOCATION SEE SHEET 2-R

PLUM BRANCH TRIBUTARY STREAM RELOCATION SEE SHEET 2-R

RCV SEE SHEET 2-O

SPECIAL CUT DITCH PSRM LINED SEE DETAIL 'I' SHEET 2-K

ROCK CROSS VANE BACKFILLED w/ CLASS 'I' RIP RAP (45 TONS) SEE SHEET 2-O

PSH 400mm SEE SHEET 2-N

CL B RIP RAP EST. 4.5 TONS F.F. 11.7 SM

STREAM PLUG SEE SHEET 2-P

SPECIAL CUT DITCH GRASS LINED SEE DETAIL 'G' SHEET 2-K

BERM DITCH

BEGIN WW FENCE

END FENCE

ACCESS POINT

REMOVE

NAD 83/95

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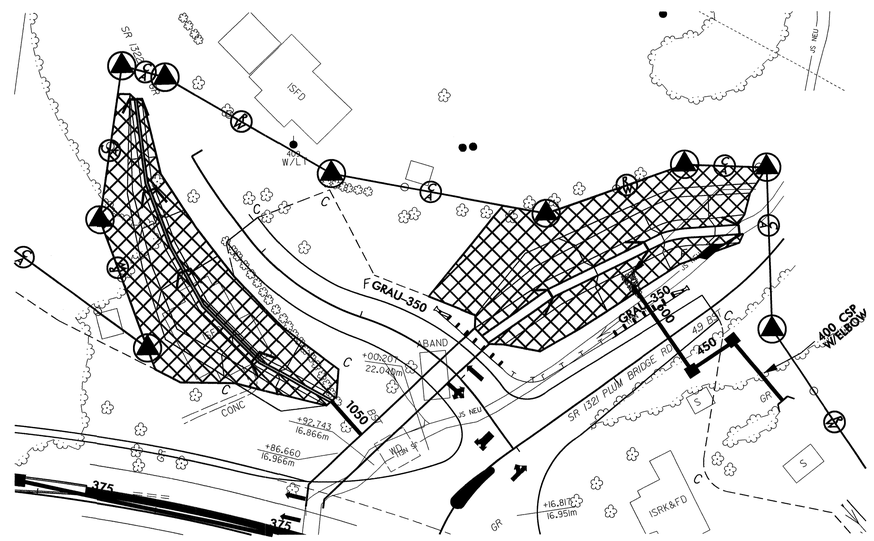
| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-99/CONST.34 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

# 0.16 HECTARE STREAMBANK REFORESTATION




SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-100/CONST.34A |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

8/17/99

-DI4- POT Sta.10+00.000
BEARING AH =
S 25° 00' 03.7" E
-DI4- PCSta.10+11.224

-DI4- PT Sta.10+35.784
BEARING AH =
S 62° 56' 59.9" W

+36.000
115.000m
(377.30')

-DI4DET-
PI Sta 10+98.243
Δ = 53° 17' 55.5" (RT)
L = 11.163
T = 6.022
R = 12.000

-DI4-
PI Sta 10+26.662
Δ = 87° 57' 03.6" (RT)
L = 24.561
T = 15.438
R = 16.000

-DI4- POCSta.10+28.000
BEGIN CONST.

DANIEL KEITH HUGHES
DB 285 PG 14
203

-DI4REV-
PI Sta 10+54.624
Δ = 10° 28' 31.0" (RT)
L = 18.283
T = 9.167
R = 100.000

PI Sta 11+91.285
Δ = 52° 57' 00.5" (LT)
L = 27.725
T = 14.941
R = 30.000

+54
97m(318.24')

-DI4REV- PCSta.10+45.457 AH=
-DI4- POT Sta 10+45.457 BK

-DI4REV- PRCSta.10+63.739

+80
82m(269.03')

+00
65m(213.25')

-Y33-
PI Sta 10+06.847
Δ = 7° 50' 00.0" (LT)
L = 13.672
T = 6.847
R = 100.000
SE = SEE PLANS

PI Sta 10+28.921
Δ = 34° 03' 11.1" (LT)
L = 23.774
T = 12.249
R = 40.000
SE = SEE PLANS

PI Sta 10+53.630
Δ = 36° 29' 11.1" (RT)
L = 25.472
T = 13.185
R = 40.000
SE = SEE PLANS

DONNA GOUGE
DB 399 PG 677
201A

-L- TSSta.325+85.327

-L- POSSta.326+22.085
-Y31- POT Sta.10+00.000
BRG AH=S 5° 32' 00.0" W

-DI4DET-
PCSta.10+92.221

-L- POCSta.326+49.022
-DI4DET- PT Sta.11+03.384

-Y33DET-
PI Sta 10+19.374
Δ = 42° 21' 39.8" (RT)
L = 36.967
T = 19.374
R = 50.000
SE = SEE PLANS

CARRIE BLEVINS
DB 106 PG 189
206

+44
73.142m(239.97')

-Y33- PCSta.10+00.000
-Y33DET- PCSta.10+00.000
-Y33- PT Sta.10+13.672
BRG AH S 23° 20' 00.0" E

+44
47m(154.20')

-Y33- PCSta.10+16.672
-Y33- PRCSta.10+40.445

SEE DETAIL D-1
SPECIAL CUT DITCH
+54
27m(88.58')

-Y33DET- PT Sta.10+36.967
BRG AH = S 26° 50' 59.4" W

SEE DETAIL D-2
TEMP. STANDARD 'V' DITCH
DDE = 34 CU. M.

7 x 3 x 1
38 mm Skimmer
with 6 mm
Orifice Diameter
1.5 m weir
ID 34.5C

CARRIE BLEVINS
DB 106 PG 189
206

-Y32- POT Sta.10+40.600
-Y33- POT Sta.10+74.680
-Y33- PT Sta.10+65.918
BEARING AH=S 20° 54' 00.0" E

+50
72.310m(237.24')

-Y33- POT Sta.10+15.000
BEGIN CONST.

+75
62m(203.41')

JB w/Slab Lid

TEMP. 600
629A

SEE DETAIL D-3
TEMP. 0.6m BASE DITCH
S = +/- 0.003 m/m
DDE = 75 CU. M.

629B

TEMP. 450

-Y32DET- PCSta.9+60.000
BRG BK = S 30° 54' 10.1" W

+30
87.038m
(285.56')

+20
82m(269.03')

+05
66m(216.53')

-Y32-
PI Sta 9+80.775
Δ = 38° 11' 49.9" (RT)
L = 40.000
T = 20.775
R = 60.000

PI Sta 10+56.071
Δ = 46° 32' 00.0" (LT)
L = 24.365
T = 12.899
R = 30.000
SE = SEE PLANS

207
TROY G. BOONE
DB 119 PG 605

BEGIN CONST.
-Y32- POT Sta.10+00.000

+40
62.852m
(206.25')

6 x 2 x 0.6
ID 34.6C

-Y32DET- PRCSta.9+99.011
-Y32DET- PT Sta.10+10.777

ARNOLD ZEB PHILLIPS
DB 206 PG 788
209

BEGIN CONST.
-Y32DET- POT Sta.10+12.493

GRADE TO DRAIN

-Y32- PCSta.10+43.171

CONSTRUCT STRUCTURE 638 (2GI)
AND PORTION OF PROPOSED
600 RCP DURING Y32 DETOUR
PHASE

-Y32- PT Sta.10+67.536

-Y32DET- POT Sta.10+63.842
BRG BK = S 51° 18' 06.2" W

6 x 2 x 0.6
ID 34.4C

+00
32m
(104.99')

6 x 2 x 0.6
ID 34.3C

+17
30m(98.42') &
21.190m(69.52')

+30
21.236m
(69.67')

+60
21.396m
(70.20')

+75
25.510m
(83.69')

-L- POCSta.328+07.257
-Y32- POT Sta.10+69.223
BRG BK = S 22° 34' 00.0" W

-L- CSSta.328+97.741

MATCHLINE -L- STA. 325+80 SEE SHEET NO.33-A

MATCHLINE -L- STA. 329+20 SEE SHEET NO. 35

US 19E BST

-Y31- PCSta.10+15.998

-Y31- +30
16.254m(53.33')

-Y31+38.158
9.144m

-Y31- +40
16m(52.49')

-Y31- PT Sta.10+42.911

-Y31- +55
9.144m (30.00')

END CONST.
-Y31- POT Sta.10+58.994

SHERRILL
McCOURRY
DB 436
PG 607
202

S 22° 40' 00.0" W

-Y31-
PI Sta 10+29.556
Δ = 17° 08' 00.0" (RT)
L = 26.913
T = 13.558
R = 90.000
SE = SEE PLANS

-Y31- POT Sta.11+04.518

-L- POCSta.327+66.375
-Y33DET- POT Sta.10+62.999
-L- SCSta.326+75.327

-Y32DET-
PI Sta 9+80.223
Δ = 37° 15' 08.5" (RT)
L = 39.011
T = 20.223
R = 60.000
SE = SEE PLANS

PI Sta 10+04.936
Δ = 16° 51' 12.9" (LT)
L = 11.766
T = 5.926
R = 40.000
SE = SEE PLANS

+85
21.134m(69.34')
& 30m(98.42')

BERDELLA PETERSON
DB 98 PG 208
204

FRED PETERSON
DB 185 PG 407
205

SADIE FORTNER
DB 214 PG 299
208

-L-
PIs Sta 326+45.398
Θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 327+91.925
Δ = 42° 28' 40.7" (RT)
L = 222.414
T = 116.597
R = 300.000
SE = 0.06
** V = 85 kph

PIs Sta 329+27.806
Θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

FOR -L- DESIGN SEE SHEET 34
FOR -Y32DET- PROFILE SEE SHEET 78
FOR -Y33DET- PROFILE SEE SHEET 78

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mwoodcock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-101/CONST.35 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

-L-

| | | |
|---|---|---|
| PIs Sta 326+45.398<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 | PI Sta 327+91.925<br>Δ = 42° 28' 40.7" (RT)<br>L = 222.414<br>T = 116.597<br>R = 300.000<br>SE = 0.06<br>**V = 85 kph | PIs Sta 329+27.806<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 |
| PIs Sta 330+67.086<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 | PI Sta 331+55.524<br>Δ = 22° 04' 18.3" (LT)<br>L = 115.567<br>T = 58.509<br>R = 300.000<br>SE = SEE PLANS<br>**V = 85 kph | PIs Sta 332+42.647<br>Θs = 8° 35' 39.7"<br>Ls = 90.000<br>LT = 60.071<br>ST = 30.064 |

NAD 83/95

Seed and Mat Berm Ditch Sta. 330+00 to 330+85 Lt Immediately Upon Grading.

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

Place Matting for Erosion Control on Slope as Work Allows.

FOR -L- PROFILE SEE SHEET 59

MATCHLINE -L- STA. 329+20 SEE SHEET NO. 34

MATCHLINE -L- STA. 332+60 SEE SHEET NO. 36

JACK HAROLD HUGHES DB 192 PG 199

ARNOLD ZEB PHILLIPS DB 206 PG 788

OLLIE EDITH STYLES ESTATE DB 91 PG 312

BRETT HUGHES DB 341 PG 1 DB 287 PG 115

CHARLES R. DELLINGER DB 300 PG 612

JOHN GRIFFITH HEIRS DB 12 PG 41

SADIE FORTNER DB 214 PG 299

ALTON RAY DB 224 PG 715

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

LITTLE CRABTREE CREEK

-L- TS Sta. 330+07.015

-L- SC Sta. 330+97.015

-L- CS Sta. 332+12.582

-L- ST Sta. 329+87.741

BERM DITCH

ACCESS POINT

BEGIN WW FENCE

END FENCE

REMOVE

PROP. CONC. 450mm CSC

TSD

CL I RIP RAP EST. 6.4 TONS F.F. 14.2 SM

CL B RIP RAP EST. 1.8 TONS F.F. 5.9 SM

PSH 400mm SEE SHEET 2-N

10 x 4 x 1 ID 35.2F

8 x 12 x 1 38 mm Skimmer with 24 mm Orifice Diameter 9.5 m weir ID 35.1F

BL-103-

BL-104-

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| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-102/CONST.36 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC

5 0 10

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

PIs Sta 330+6.
Θs = 8° 35' 39."
Ls = 90.000
LT = 60.071
ST = 30.064

L = 115.567
T = 58.509
R = 300.000
SE = SEE PLANS
**V = 85 kph

Ls = 90.000
LT = 60.071
ST = 30.064

PIs Sta 334+41.527
Θs = 1° 13' 40.0"
Ls = 60.000
LT = 40.001
ST = 20.001

PI Sta 337+35.985
Δ = 22° 11' 00.2" (LT)
L = 542.042
T = 274.458
R = 1,400.000
SE = SEE PLANS

PIs Sta 340+23.570
Θs = 1° 13' 40.0"
Ls = 60.000
LT = 40.001
ST = 20.001

-Y34-

PI Sta 10+75.879
Δ = 9° 54' 00.0" (RT)
L = 20.735
T = 10.393
R = 120.000
SE = SEE PLANS

NAD 83/95

13 x 6 x 1
38 mm Skimmer
with 21 mm
Orifice Diameter
3.5 m weir
ID 36.1F

0.6m BASE SPECIAL LATERAL GRASSED SWALE SEE DETAIL 'AA' SHEET 2-L

-L- ST Sta. 333+02.582

CHARLES R. DELLINGER
DB 300 PG 612

INVERT BURIED 0.3m

1.2m BASE STREAM RELOCATION CLASS 'B' RIP RAP SEE DETAIL 'AP' SHEET 2-L

ACCESS POINT 18.0m

ACCESS POINT 26.0m

+70 BEGIN WW FENCE

+70 END FENCE

REMOVE HW

REMOVE

REMOVE

400 CSP W/ 2 ELBOWS

PSH 400mm SEE SHEET 2-N

BL-124-

CL B RIP RAP EST. 0.9 TONS F.F. 4.2 SM

CL B RIP RAP EST. 0.9 TONS F.F. 4.2 SM

400 CSP W/2 ELBOWS

400 CSP W/2 ELBOWS

PROP. CONC. 450mm C&G

CAT-1

-L- TSSta. 334+01.526

Place Matting for Erosion Control on Slope as Work Allows.

-L- SCSta. 334+61.526

10 x 3 x 0.6
ID 36.5F

10 x 3 x 0.6
ID 36.4F

BERM DITCH

Place Matting for Erosion Control on Slope as Work Allows.

10 x 3 x 0.6
ID 36.6F

NOTE:
A PRIVATE PLASTIC WATER LINE CROSSES HWY 19 E. IN THIS VICINITY. NO OTHER INFORMATION WAS OBTAINED FOR THIS UTILITY.

-L- POCSta. 335+77.506
-Y34- POTSta. 10+00.000

BL-105-

BEGIN CULVERT
-Y34- 10+45.416

BST END FENCE

GAS PUMPS
LT FUEL 30283L
RT FUEL 15142L

BANK PROTECTION SEE DETAIL C-35 SHEET 2-M
CLASS I RIP RAP EST. 45 TONS

LOW FLOW DIVERSION SEE DETAIL SHEET 2-N

-Y34- PCSta. 10+65.485

-Y34- PTSta. 10+86.220

-Y34- POTSta. 10+89.563

-Y34- POTSta. 11+01.188
END CONST.

END CULVERT
-Y34- 10+57.584

MATCHLINE -L- STA. 332+60 SEE SHEET NO. 35

MATCHLINE -L- STA. 336+00 SEE SHEET NO. 37

7 x 6 x 1
38 mm Skimmer
with 12 mm
Orifice Diameter
3.5 m weir
ID 36.2F

6 x 5 x 1
38 mm Skimmer
with 9 mm
Orifice Diameter
2.5 m weir
ID 36.3F

Seed and Mat Berm Ditch Sta. 336+10 to 336+30 Lt Immediatly Upon Grading.

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

MARK A. RAY
DB 243 PG 626

ALTON RAY
DB 224 PG 715

MARK RAY
DB 280 PG 227

JAMES LUTHER THOMAS
DB 112 PG 484

YANCEY COUNTY RAILROAD
DB 114 PG 338
DB 41 PG 413
DB 40 PG 80

CRABTREE BAPTIST CHURCH
DB 201 PG 505

FOR -L- PROFILE SEE SHEET 60
FOR -Y34- PROFILE SEE SHEET 71

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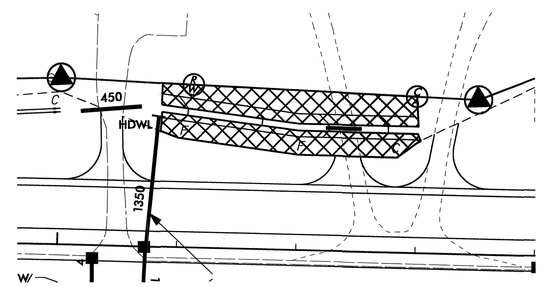
| PROJECT REFERENCE NO. | SHEET NO. |
| --- | --- |
| R-2519A | EC-102A/CONST.36 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

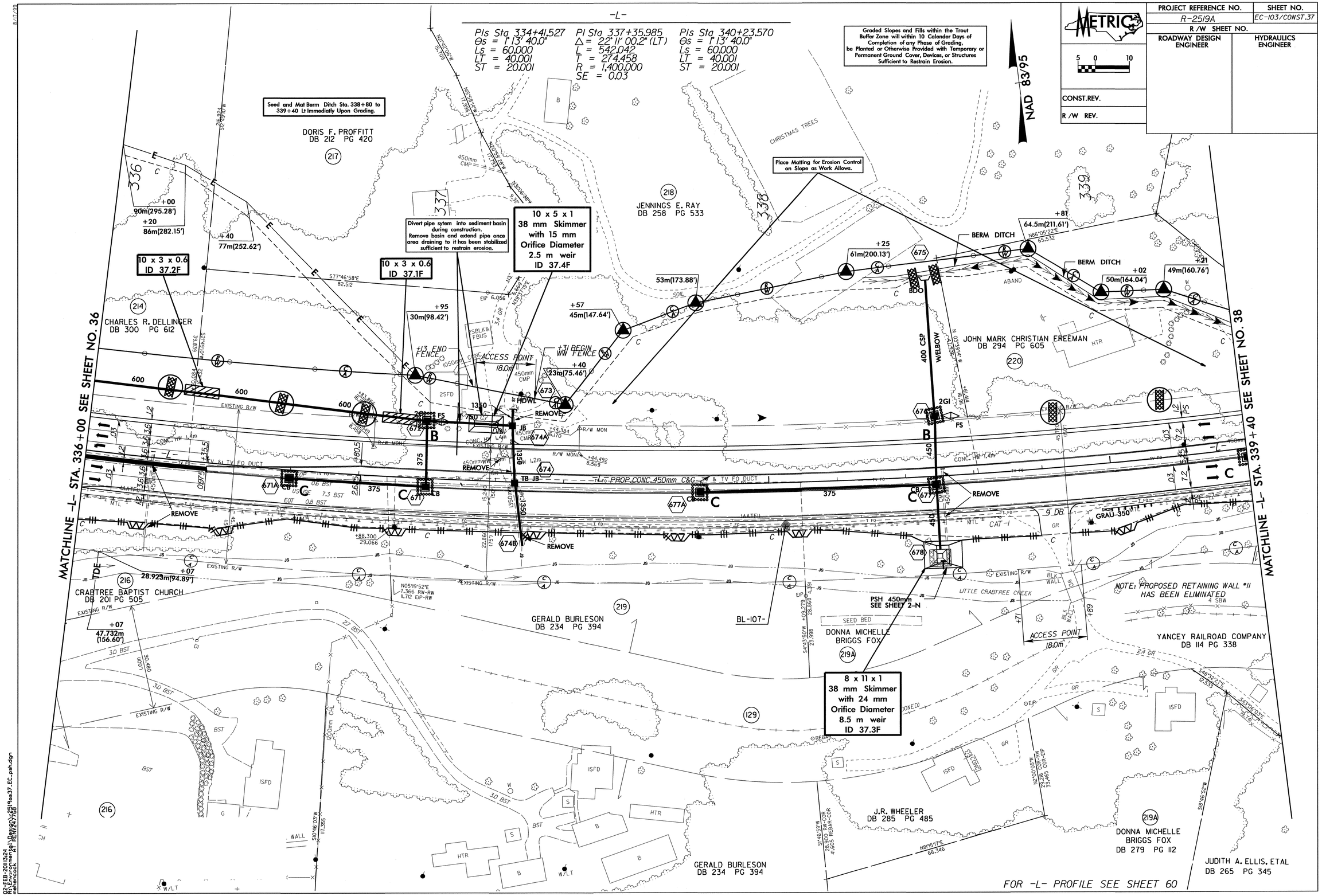
# 0.04 HECTARE STREAMBANK REFORESTATION




SEE RF-2, RF-3 AND PROJECT SPECIAL PROVISIONS

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-103/CONST.37 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

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| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-104/CONST.38 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

-Y35-
PI Sta 10+55.129
Δ = 38° 14' 00.0" (RT)
L = 33.365
T = 17.330
R = 50.000
SE = SEE PLANS

PI Sta 11+08.820
Δ = 23° 50' 00.0" (LT)
L = 24.958
T = 12.662
R = 60.000
SE = SEE PLANS

-Y35- POT Sta. 10+00.000

-Y35- PC Sta. 10+37.798

-Y35- PT Sta. 10+71.163
BRG AH = S 34° 17' 00.0" W

-Y35- PC Sta. 10+96.158

-Y35- PT Sta. 11+21.116
BRG AH = S 10° 27' 00.0" W

-L- C Sta. 340+03.569

PIs Sta 334
θs = 1° 13' 4
Ls = 60.000
LT = 40.001
ST = 20.001

L = 542.042
T = 274.458
R = 1,400.000
SE = 0.03

Ls = 60.000
LT = 40.001
ST = 20.001

PIs Sta 342+86.635
θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

PI Sta 343+89.679
Δ = 27° 23' 38.4" (RT)
L = 143.435
T = 73.115
R = 300.000
SE = SEE PLANS
**V = 85 kph

PIs Sta 344+90.063
θs = 8° 35' 39.7"
Ls = 90.000
LT = 60.071
ST = 30.064

BEGIN CONST.
-Y35- POC Sta. 10+60.000

-L- TS Sta. 342+26.564

-L- POS Sta. 342+75.338
-Y36- POT Sta. 10+00.000

-L- POS Sta. 340+40.112
-Y35- POT Sta. 11+26.151

-L- ST Sta. 340+63.569

-Y36- PC Sta. 10+12.480
BRG BK = S 1° 28' 00.0" E

-Y36-
PI Sta 10+28.891
Δ = 66° 34' 00.0" (LT)
L = 29.045
T = 16.412
R = 25.000
SE = SEE PLANS

MATCHLINE -L- STA. 339+40 SEE SHEET NO. 37

MATCHLINE -L- STA. 342+80 SEE SHEET NO. 39

G. E. FREEMAN
DB 258 PG 108

JOHN ERIC GARLAND
DB 280 PG 536

OVEL TOMBERLIN
DB 118 PG 371

RALPH R. TOMBERLIN
DB 130 PG 603

HUEY HARDING
DB 115 PG 36

YANCEY RAILROAD COMPANY
DB 114 PG 338

R. C. FOX, JR.
DB 125 PG 627

12 x 3 x 1
ID 38.1F

8 x 3 x 1
ID 38.2F

10 x 3 x 1
ID 38.3F

10 x 3 x 0.6
ID 38.4F

8 x 8 x 1
36 mm Skimmer
with 18 mm
Orifice Diameter
5.5 m weir
ID 38.5F

1.2m BASE STREAM RELOCATION
CLASS 'B' RIP RAP
SEE DETAIL 'AQ'
SHEET 2-L

CL B RIP RAP
EST. 0.9 TONS
F.F. 4.2 SM

CL B RIP RAP
EST. 1.8 TONS
F.F. 5.9 SM

CL B RIP RAP
EST. 2.7 TONS
F.F. 9.2 SM

CL B RIP RAP
EST. 0.9 TONS
F.F. 4.2 SM

PROPOSED RETAINING WALL #2
-L- 341+22 TO 341+80

NOTE: PROPOSED RETAINING WALL #1
HAS BEEN ELIMINATED

Divert pipe sytem into sediment basin during construction.
Remove basin and extend pipe once area draining to it has been stabilized sufficient to restrain erosion.

Seed and Mat Berm Ditches Sta. 339+40 to 340+20 Lt and Sta. 342+60 to 342+80 Lt Immediatly Upon Grading.

Place Matting for Erosion Control on Slope as Work Allows.

PLUG AND FILL WITH FLOWABLE FILL

PSH 800mm
SEE SHEET 2L-110

★ PROPOSED TRAFFIC SIGNAL
FOR -L- PROFILE SEE SHEET 61
FOR -Y35- & -Y36- PROFILE SEE SHEET 71

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mhancock

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-105/CONST.39 |
| R /W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | |
| R /W REV. | |

METRIC 5 0 10

NAD 83/95

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 100kph (60mph) TO 80kph (50mph)

-L-
PIs Sta 342+86.635 Θs = 8° 35' 39.7" Ls = 90.000 LT = 60.071 ST = 30.064
PI Sta 343+89.679 Δ = 27° 23' 38.4" (RT) L = 143.435 T = 73.115 R = 300.000 SE = SEE PLANS **V = 85 kph
PIs Sta 344+90 Θs = 8° 35' 39.1 Ls = 90.000 LT = 60.071 ST = 30.064

-DI5-
~~PI Sta 10+22.059 Δ = 28° 59' 29.0" (LT) L = 20.240 T = 10.341 R = 40.000~~

-DI5REV-
PI Sta 10+32.850 Δ = 32° 02' 58.8" (LT) L = 11.187 T = 5.744 R = 20.000
PI Sta 10+92.562 Δ = 41° 14' 23.7" (LT) L = 7.198 T = 3.763 R = 10.000

Seed and Mat Berm Ditches Sta. 342+80 to 343+60 Lt and Sta. 344+25 to 344+77 Lt Immediatly Upon Grading.

Place Matting for Erosion Control on Slope as Work Allows.

-DI5REV- PCSta.10+88.799
-DI5REV- PTSta.10+38.293 BEARING AH = S 73° 00' 39.1" W
-DI5REV- PTSta.10+95.997 BEARING AH = S 31° 46' 15.4" W
~~-DI5- PTSta.10+31.957 BEARING AH = S 24° 18' 08.6" W~~
-L- SCSta.343+16.564
-L- POCSta.343+77.00
-DI5REV- POTSta.11+08.886
-DI5REV- PCSta.10+27.105
BEGIN CONST.
-DI5REV- POTSTA.10+02.00
-DI5REV- POTSta.10+00.000 BEARING AH = N 74° 56' 22.1" W
~~BEGIN CONST.~~
~~-DI5- POT Sta.10+00.000 BEARING AH = S 53° 17' 37.6" W~~
~~-DI5- PCSta.10+11.717~~
-L- POCSta.344+16.440
~~-DI5- POTSta.10+45.781~~
-L- CSSta.344+59.998
END CONST.
-Y36- POCSta.11+40 BEGIN WW FENCE
-Y36- PTSta.10+41.525
-Y36- PCSta.10+95.473
-Y36- PTSta.11+65.924
-Y36- POTSta.11+96.960
-L- POTSta.346+17.171
-L- STSta.345+49.998

**STA. 345+60.000 -L- END TIP PROJECT R-2519A**

-Y36-
PI Sta 10+28.891 Δ = 66° 34' 00.0" (LT) L = 29.045 T = 16.412 R = 25.000 SE = SEE PLANS
PI Sta 11+34.607 Δ = 62° 06' 00.0" (RT) L = 70.450 T = 39.133 R = 65.000 SE = SE PLANS

WATCHLINE -L- STA. 342+80 SEE SHEET NO. 38

GERALD T. BLALOCK DB 198 PG 359
OVEL TOMBERLIN DB 118 PG 371
MICAVILLE PRESBYTERIAN CHURCH DB 249 PG 376
GEORGE BUCHANAN DB 138 PG 156
JERALYNE J. RAY DB 248 PG 9
S. G. HALL DB 58 PG 161
MICHAEL ANTHONY GILLEY DB 295 PG 455
RABON ROBINSON DB 202 PG 112
HERMAN BEAVER DB 237 PG 225
HALL CEMETERY

FOR -L- PROFILE SEE SHEET 61
FOR -Y36- PROFILE SEE SHEET 71
FOR -DI5REV- PROFILE SEE SHEET 73

02-FEB-2011 5:29 PM
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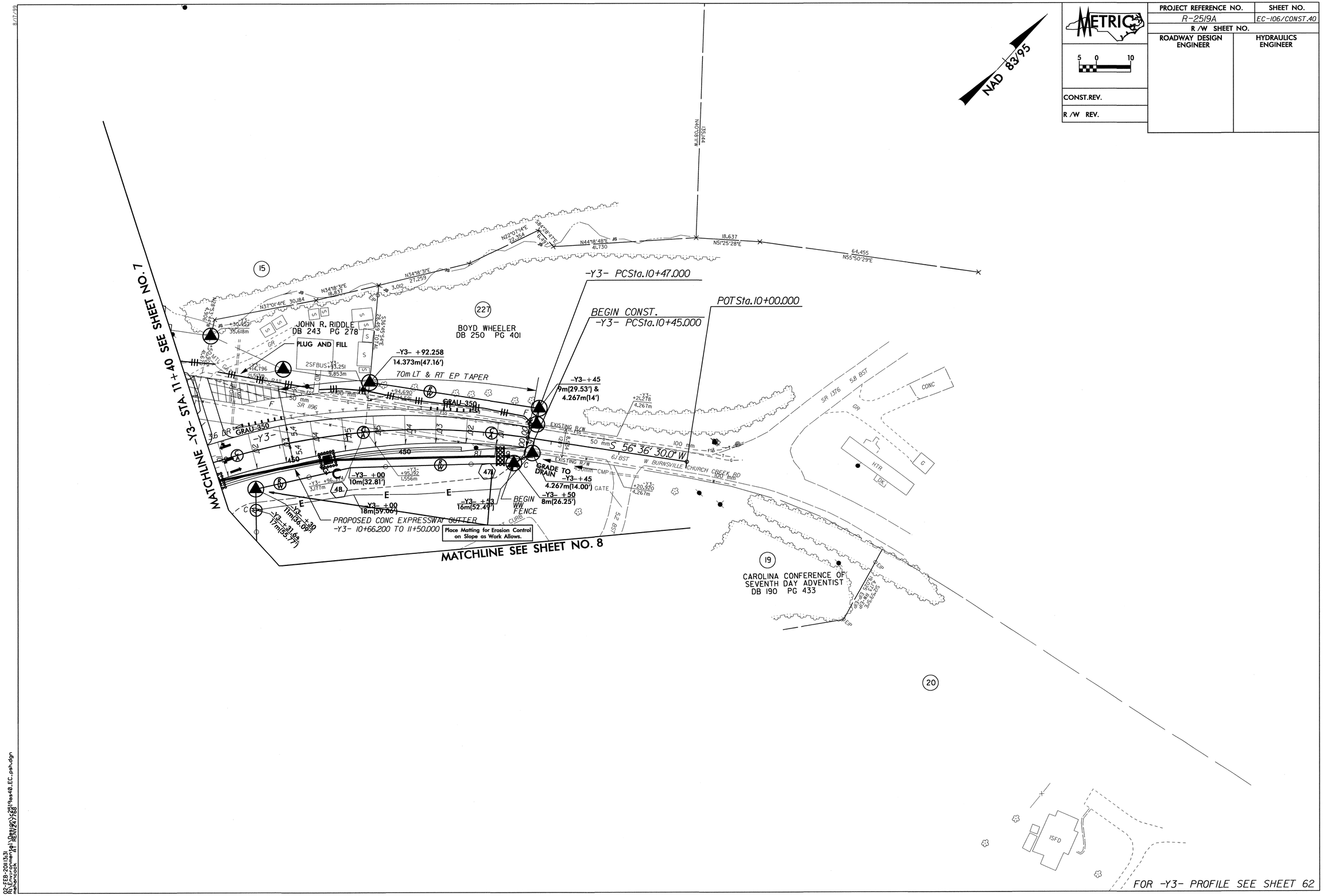
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-106/CONST.40 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

CONST.REV.

R/W REV.




8/17/99

02-FEB-2011 13:31
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mehancock AT RENT247768

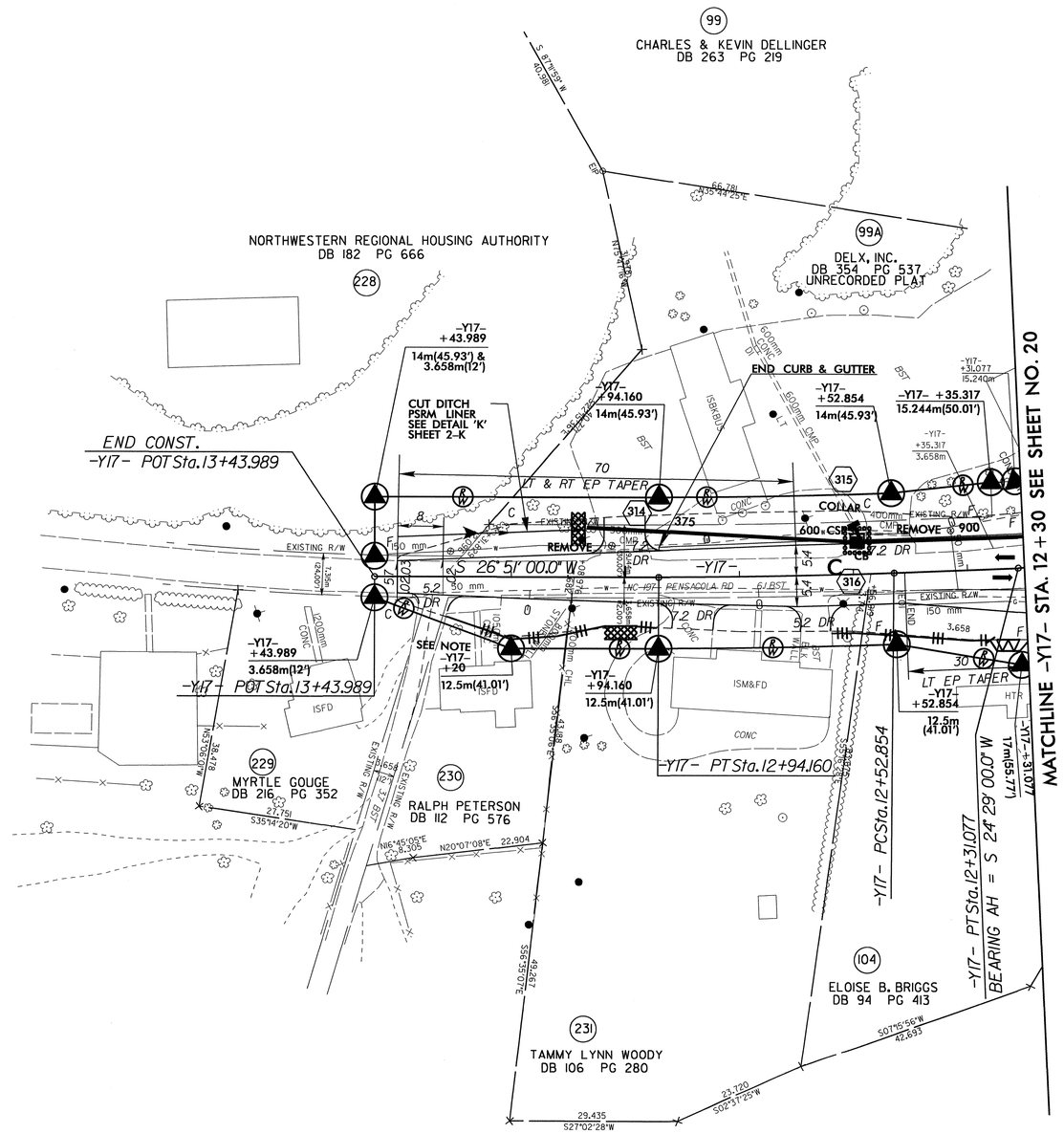
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-107/CONST.41 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

CONST.REV.

R/W REV.




FOR -Y17- PROFILE SEE SHEET 66

02-FEB-2011 13:57
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mehancock AT RENT247768

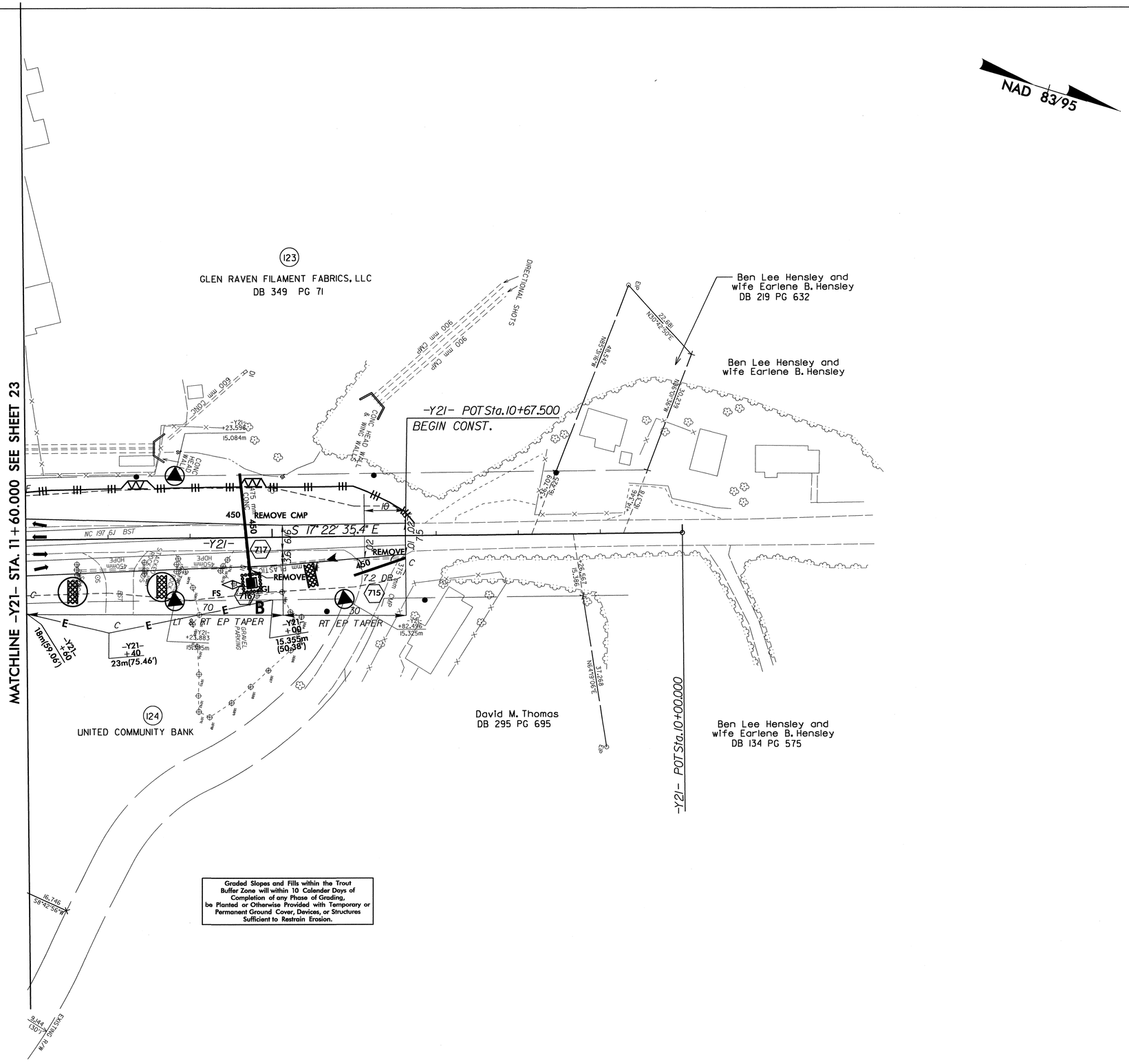
| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| R-2519A | EC-108/CONST.42 |
| R/W SHEET NO. | |
| ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |

METRIC

5 0 10

CONST.REV.

R/W REV.




Graded Slopes and Fills within the Trout Buffer Zone will within 10 Calender Days of Completion of any Phase of Grading, be Planted or Otherwise Provided with Temporary or Permanent Ground Cover, Devices, or Structures Sufficient to Restrain Erosion.

FOR -Y21- PROFILE SEE SHEET 67

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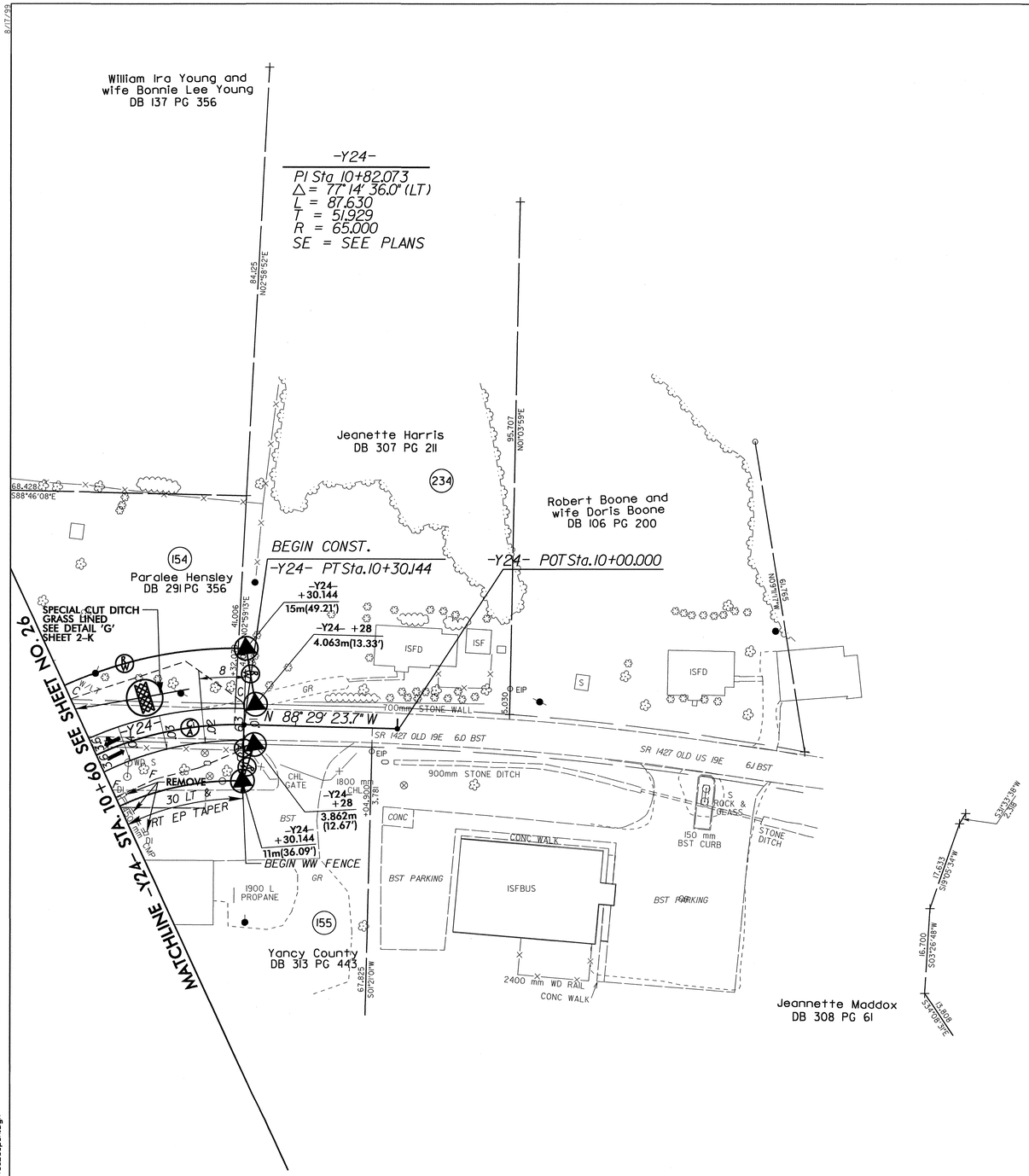
mehancock AT REN\247768

| METRIC | PROJECT REFERENCE NO. | SHEET NO. |
|---|---|---|
| | R-2519A | EC-109/CONST.43 |
| | R /W SHEET NO. | |
| 5 0 10 | ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER |
| CONST.REV. | | |
| R /W REV. | | |

NAD 83/95




FOR -Y24- PROFILE SEE SHEET 68

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