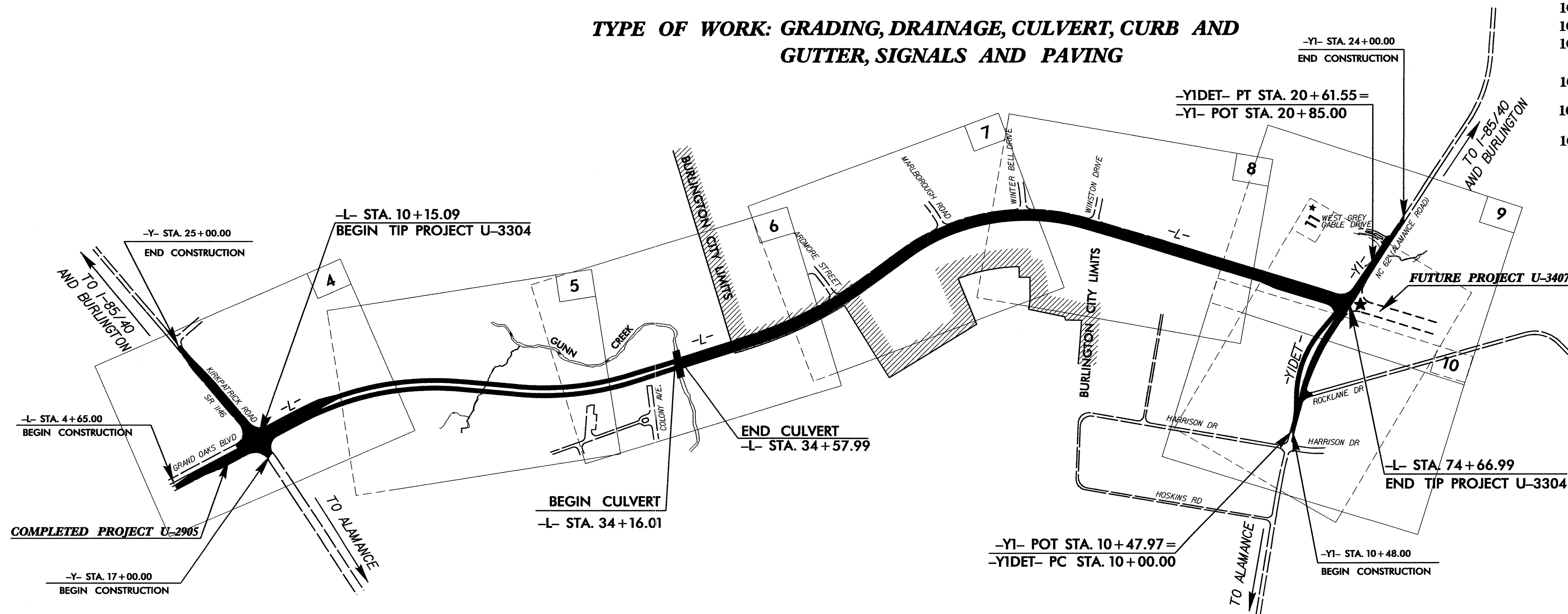


**TIP PROJECT: U-3304**

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
 PLAN FOR PROPOSED  
 HIGHWAY EROSION CONTROL  
**ALAMANCE COUNTY**

**LOCATION: BURLINGTON - GRAND OAKS BLVD EXTENSION  
 FROM SR 1146 (KIRKPATRICK ROAD) TO  
 NC 62 (ALAMANCE ROAD)**

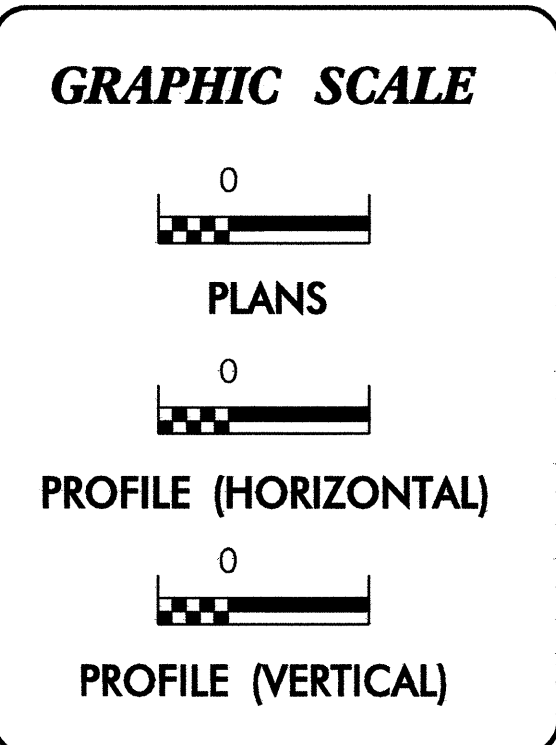
**TYPE OF WORK: GRADING, DRAINAGE, CULVERT, CURB AND  
 GUTTER, SIGNALS AND PAVING**



**EROSION AND SEDIMENT CONTROL MEASURES**

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	TD
1630.01	Riser Basin	⊙
1630.02	Silt Basin Type B	⊙
1633.01	Temporary Rock Silt Check Type-A	⊗
	Temporary Rock Silt Check Type-B	⊗
	Wattle	⊙
1634.01	Temporary Rock Sediment Dam Type-A	⊙
1634.02	Temporary Rock Sediment Dam Type-B	⊙
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⊙
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊙
1630.04	Stilling Basin	⊙
	Rock Inlet Sediment Trap:	⊙
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	⊙
	Tiered Skimmer Basin	⊙
	Infiltration Basin	⊙

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



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

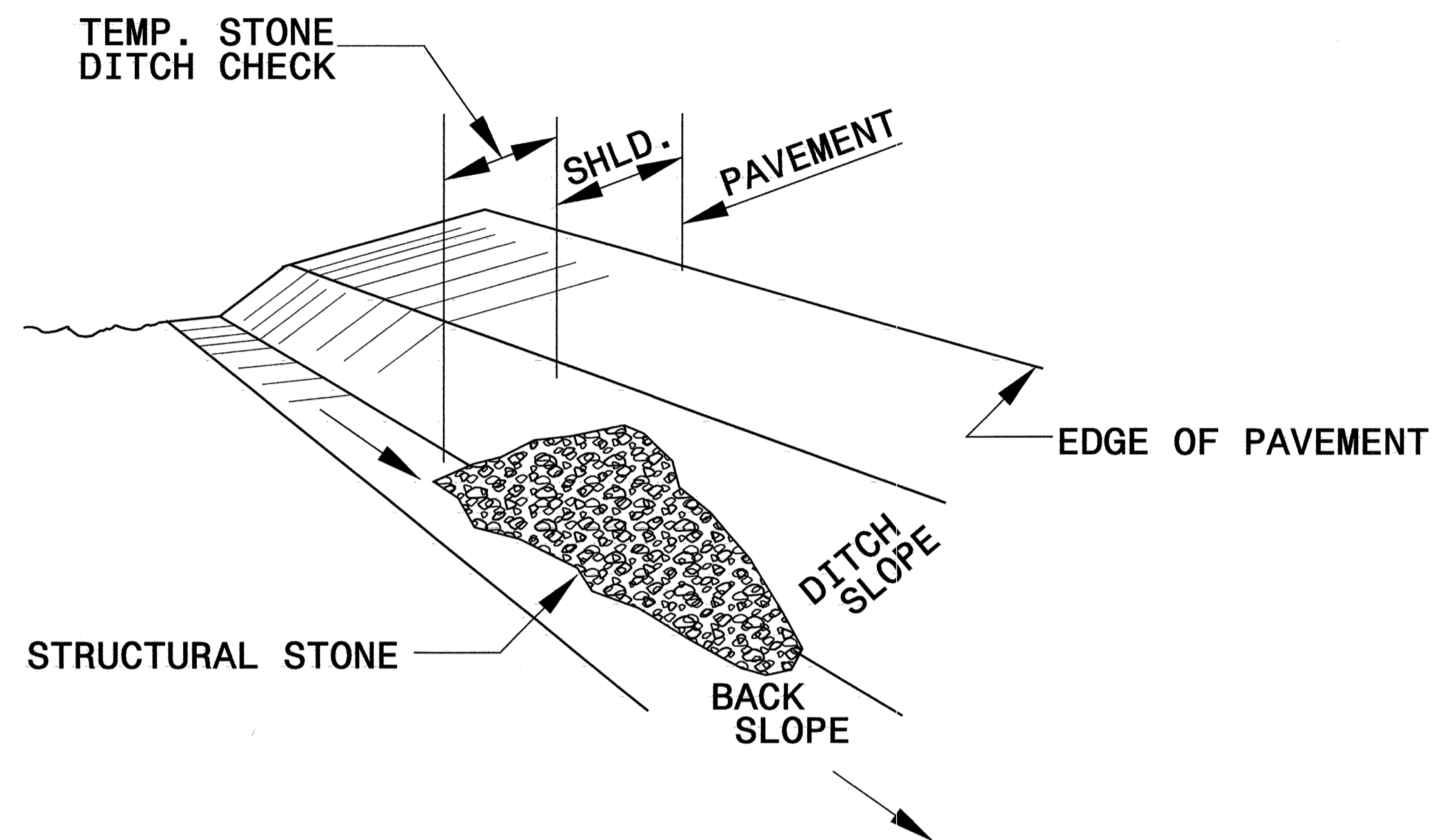
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated July 18, 2006 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1634.02 Temporary Rock Sediment Dam Type B
1630.02 Silt Basin Type B	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.03 Temporary Silt Ditch	
1630.04 Stilling Basin	
1630.05 Temporary Diversion	

17-MAR-2008 09:55  
 p:\66186868\proj\design\3304\_ec\_tsh.dgn

PROJECT REFERENCE NO. U-3304	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

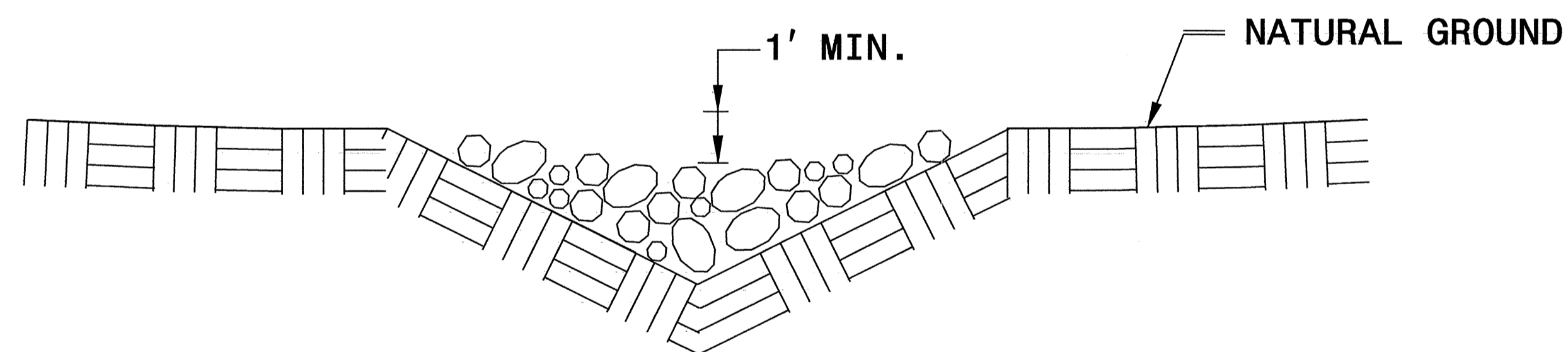


**ISOMETRIC VIEW**

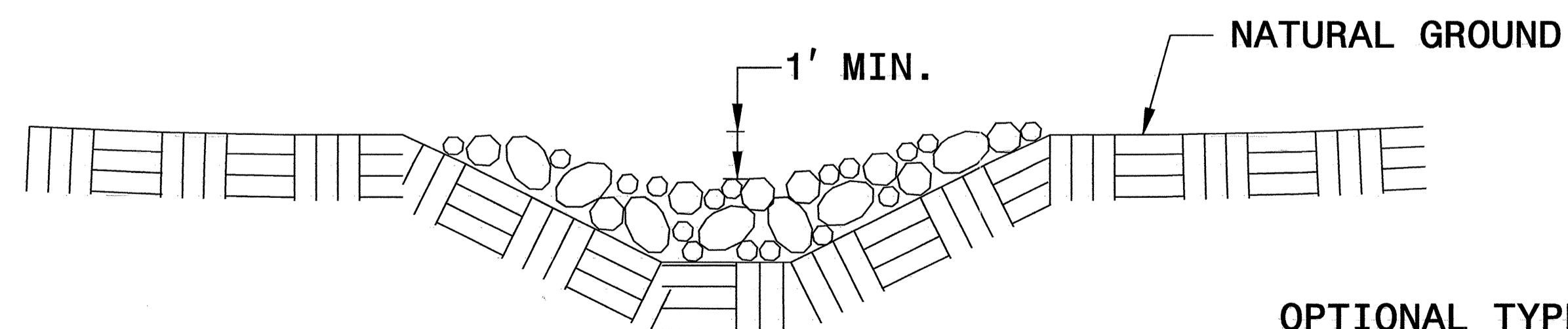
**NOTES:**

USE CLASS 'B' EROSION CONTROL STONE FOR STRUCTURAL STONE.

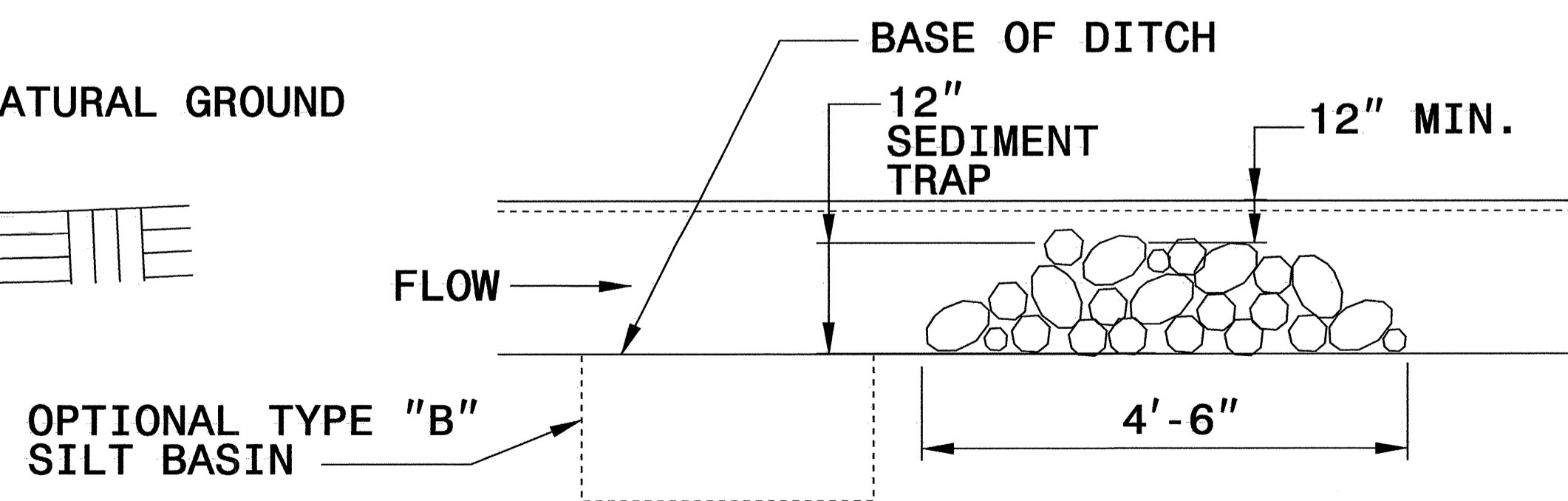
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



**CROSS SECTION  
VEE DITCH**



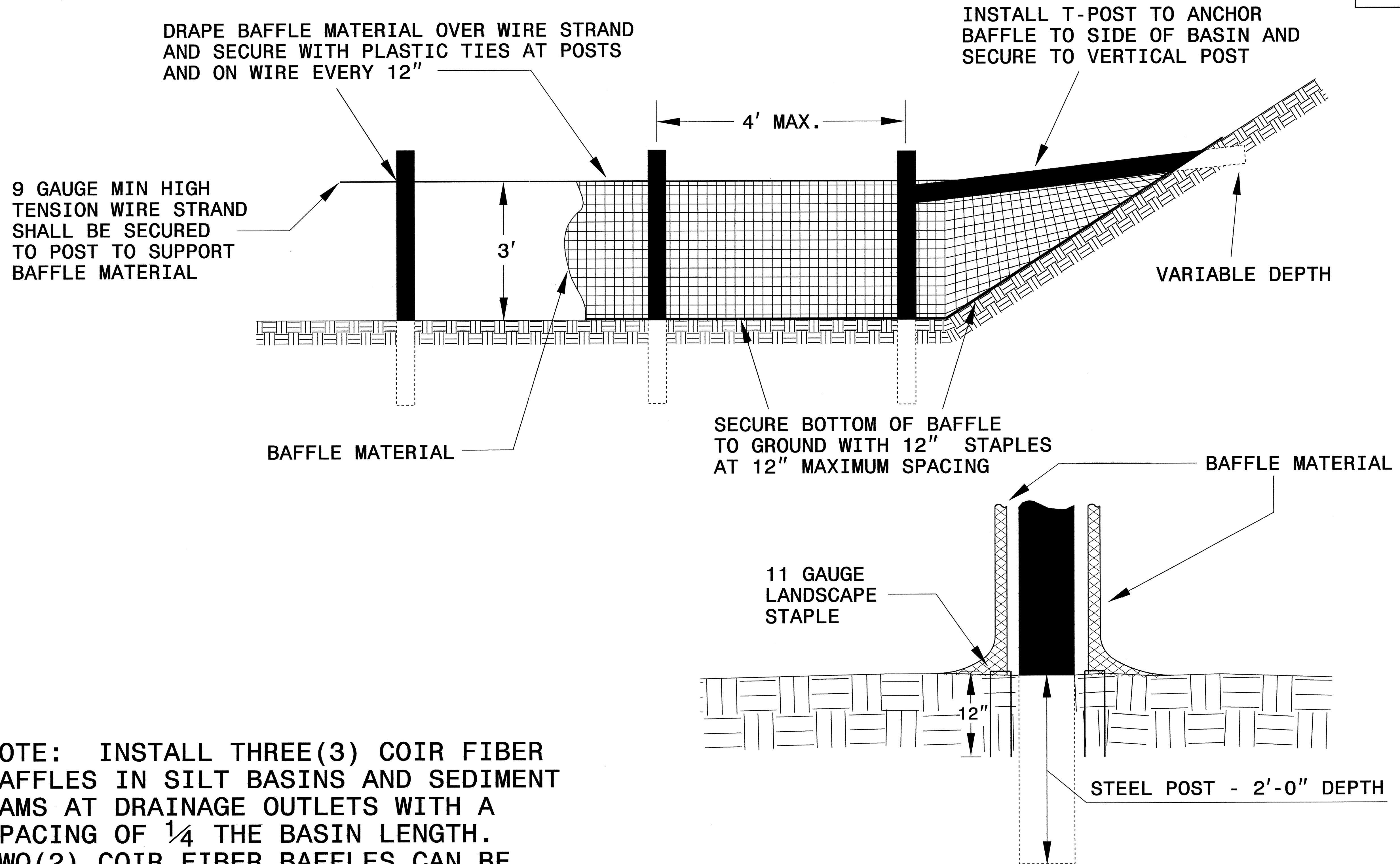
**CROSS SECTION  
TRAPEZOIDAL DITCH**



**ELEVATION VIEW**

PROJECT REFERENCE NO. U-3304	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# COIR FIBER BAFFLE DETAIL

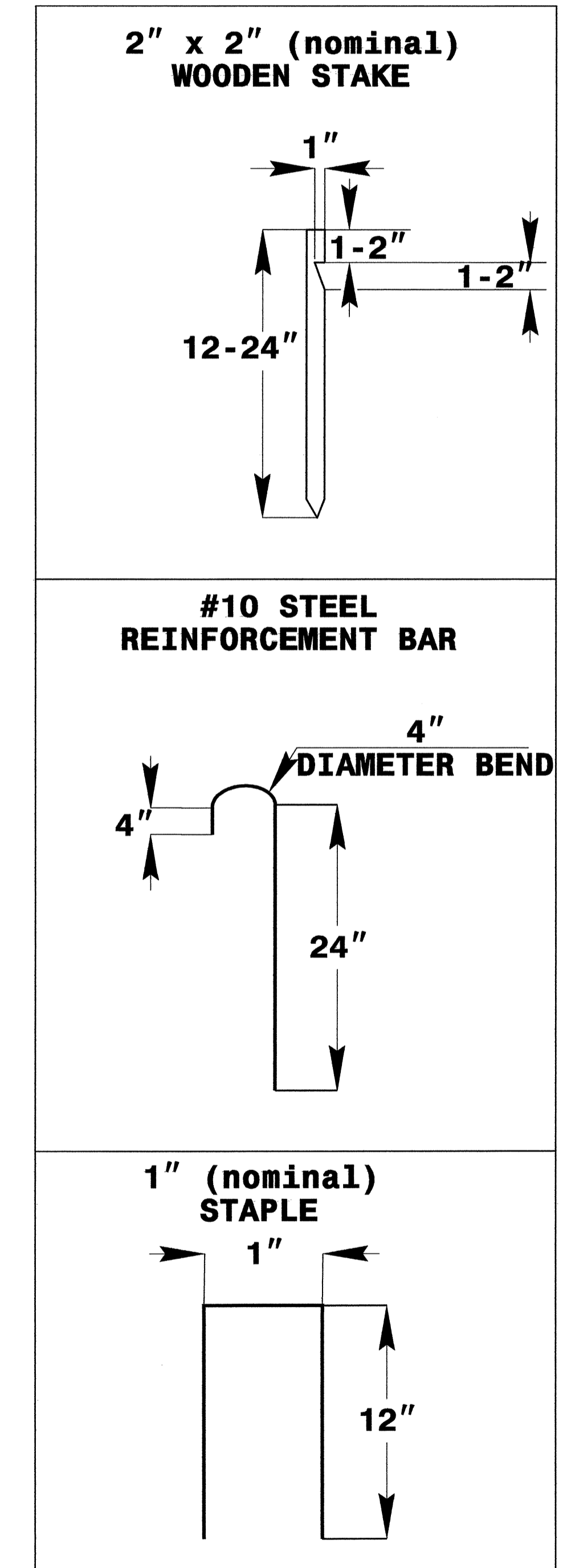
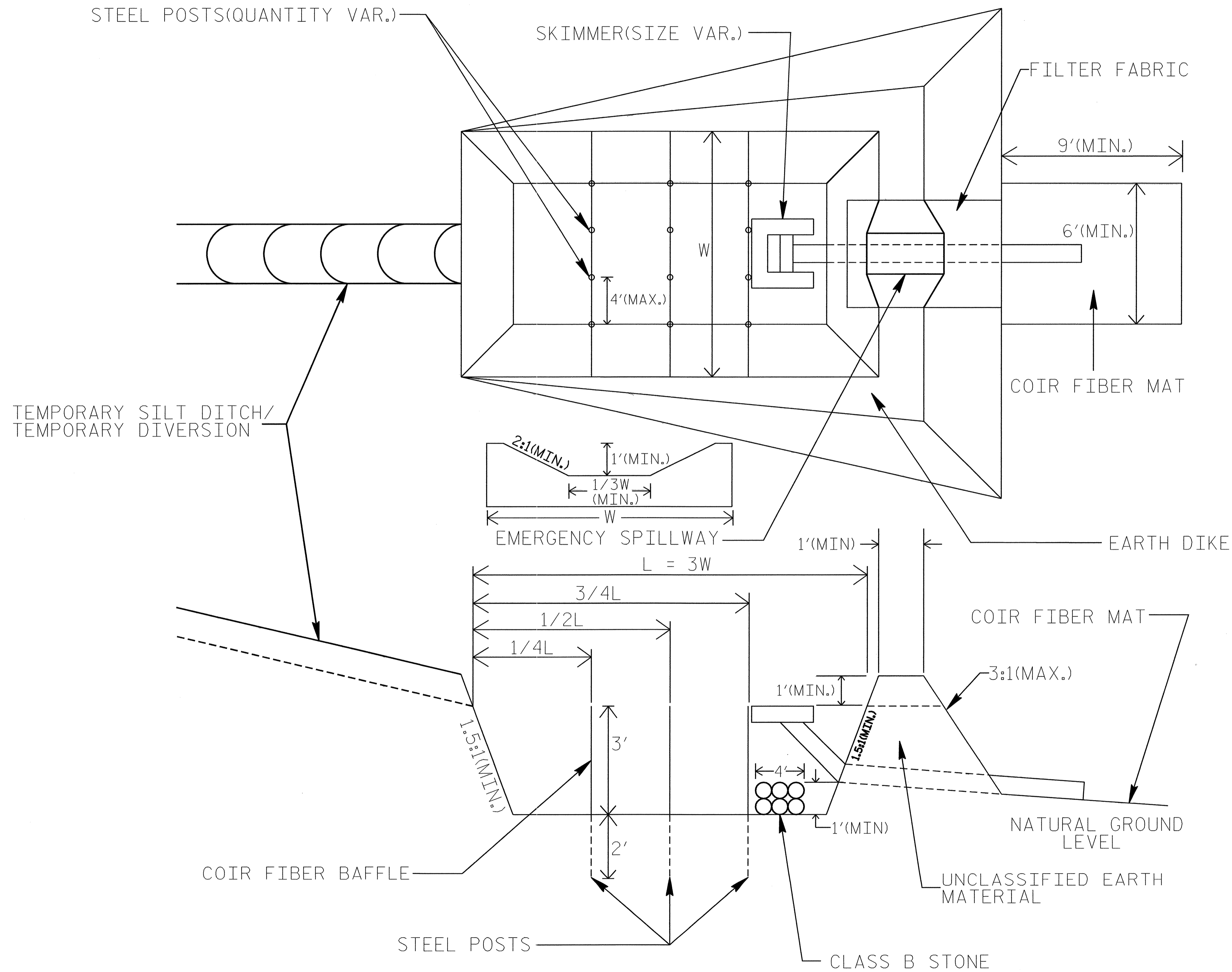


NOTE: INSTALL THREE(3) COIR FIBER BAFFLES IN SILT BASINS AND SEDIMENT DAMS AT DRAINAGE OUTLETS WITH A SPACING OF  $\frac{1}{4}$  THE BASIN LENGTH. TWO(2) COIR FIBER BAFFLES CAN BE INSTALLED IN SILT BASINS AND DAMS LESS THAN 20 FT. IN LENGTH WITH A SPACING OF  $\frac{1}{3}$  THE BASIN LENGTH.

BAFFLE MATERIAL SHALL BE SECURED TO THE BOTTOM AND SIDES OF BASIN USING 12" LANDSCAPE STAPLES

# SKIMMER BASIN WITH BAFFLES DETAIL

PROJECT REFERENCE NO. U-3304	SHEET NO. EC-2B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



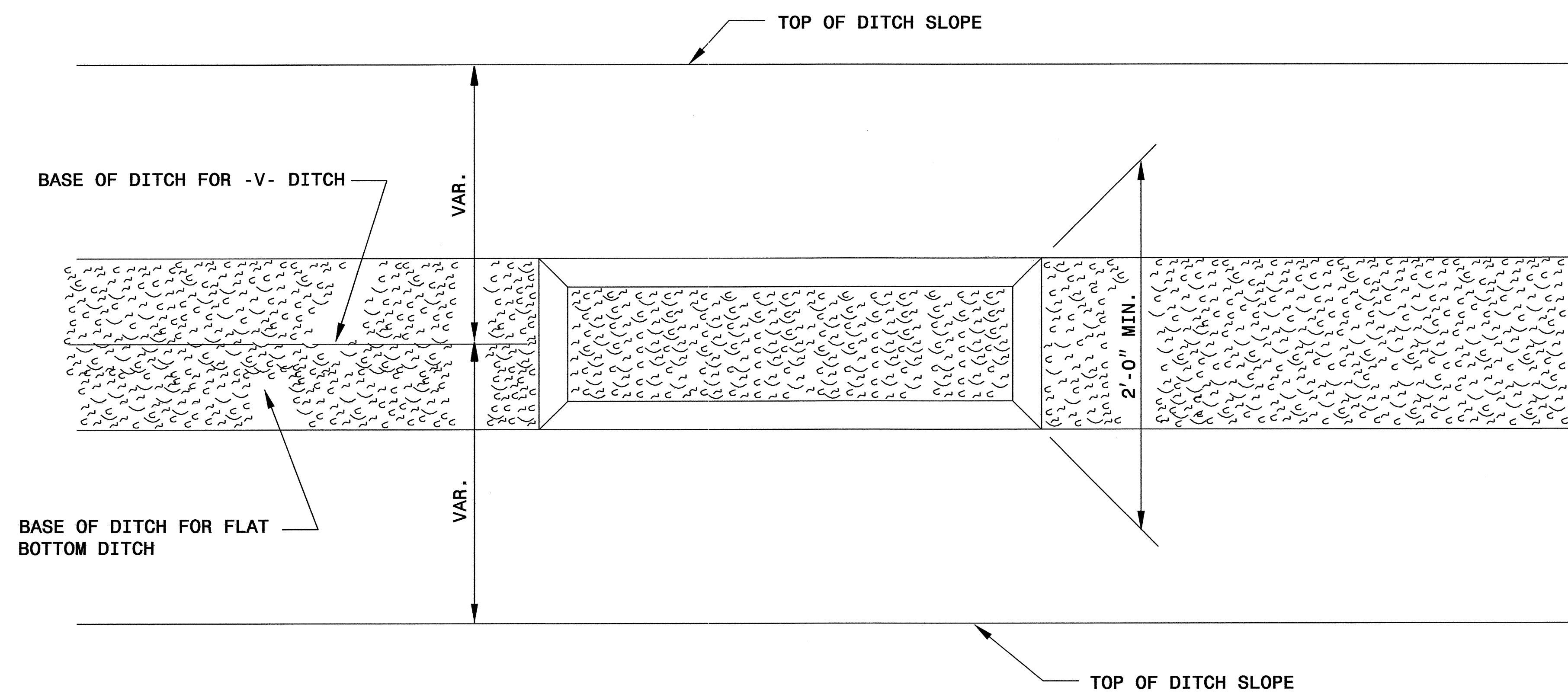
**COIR FIBER MAT ANCHOR OPTIONS**

**NOTES:**

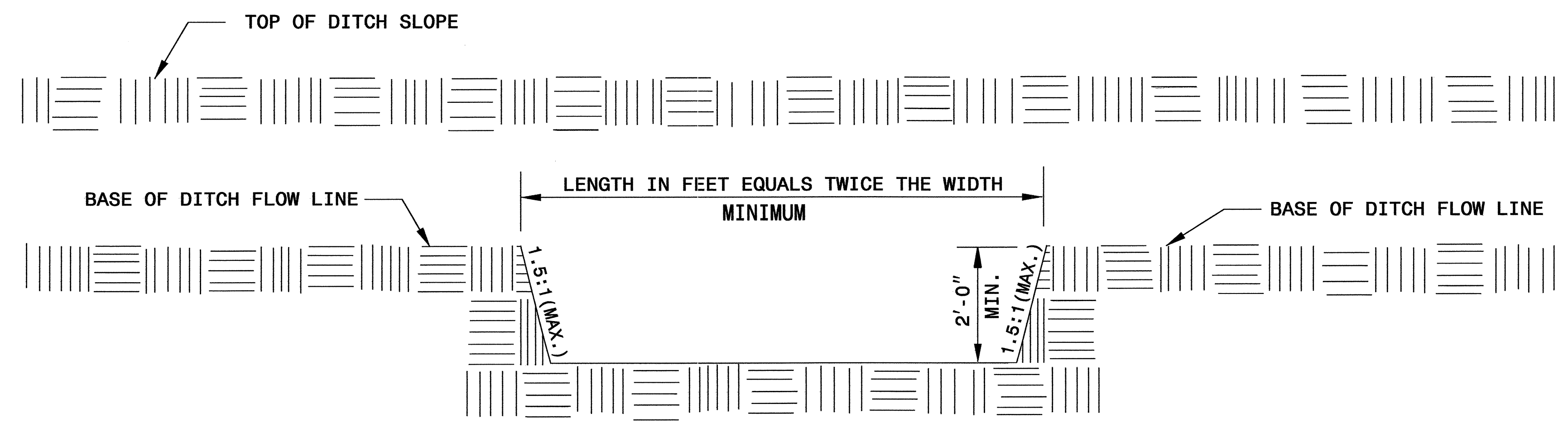
1. SEED AND PLACE MATTING FOR EROSION CONTROL ON SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.

PROJECT REFERENCE NO. U-3304	SHEET NO. EC-2C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# SILT BASIN 'B' DETAIL



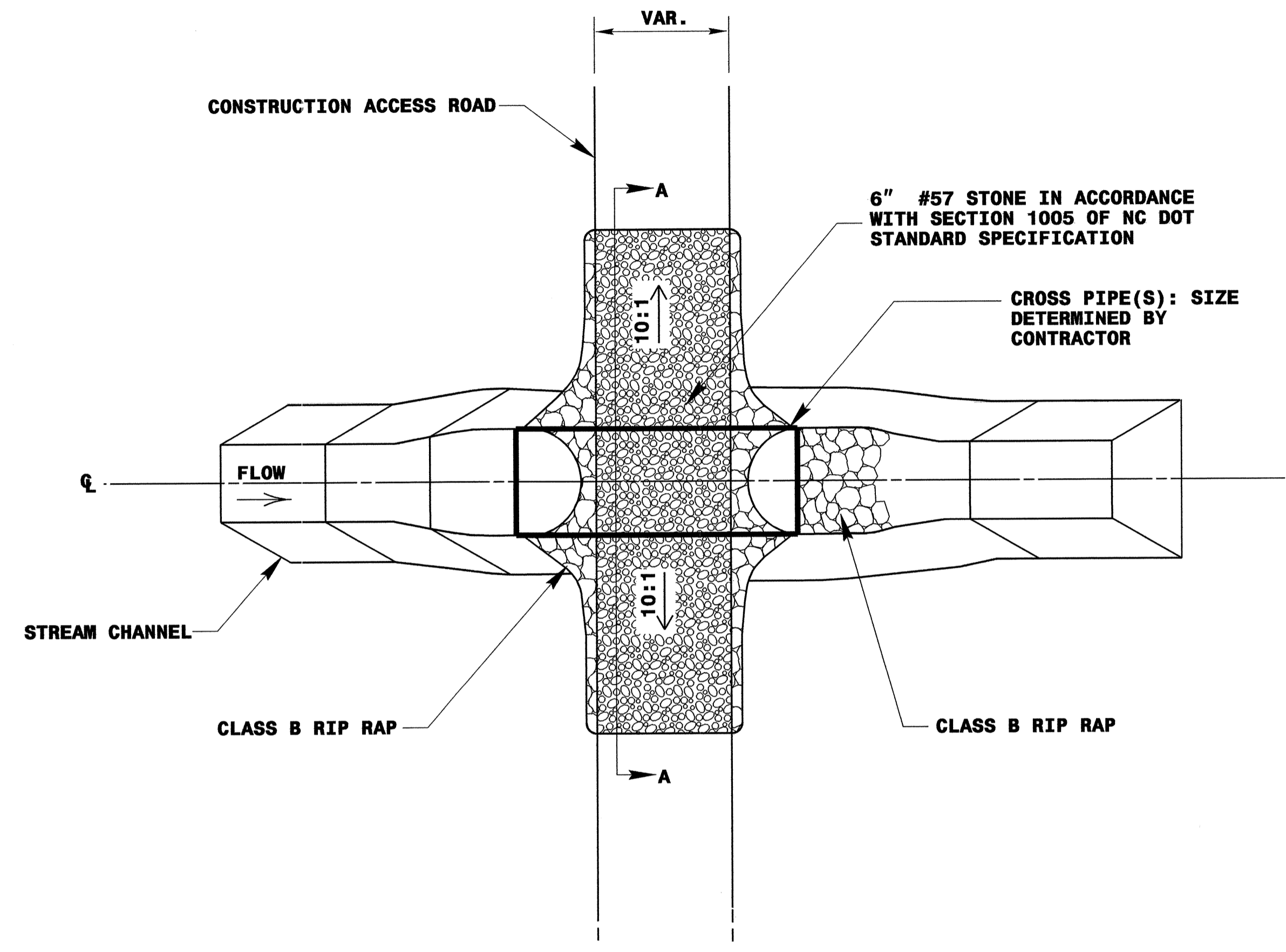
PLAN



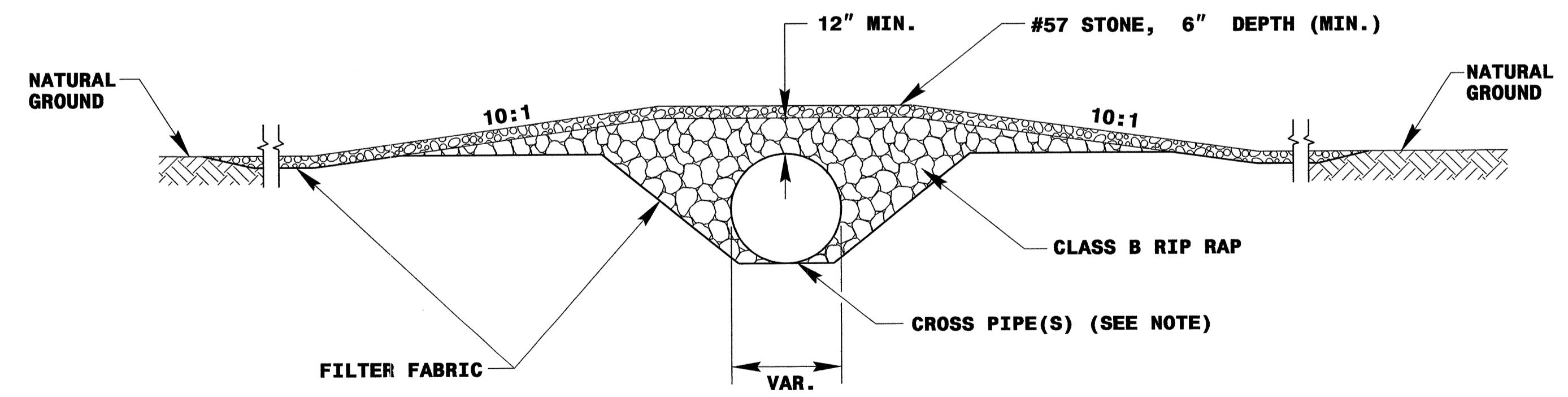
ELEVATION

PROJECT REFERENCE NO. U-3304	SHEET NO. EC-2D
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# TEMPORARY STREAM CROSSING



**PLAN VIEW**



**SECTION A-A**  
NOT TO SCALE

**NOTE: PIPE(S) FOR TEMPORARY STREAM CROSSING SHALL BE DESIGNED TO PASS THE PEAK OR BANKFULL FLOW, WHICHEVER IS LESS, FROM A 2-YEAR PEAK STORM, WITHOUT OVER TOPPING.**



PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-4/CONST.4
R/W SHEET NO.	4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

**REVISIONS**

DESIGN REVISION 3/5/08: ADD RESURF. AND MILLING -L- STA. 4+65 TO STA. 10+15 AND RESURF. MILLING AND WIDENING -Y- STA. 17+00 TO STA. 25+00

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

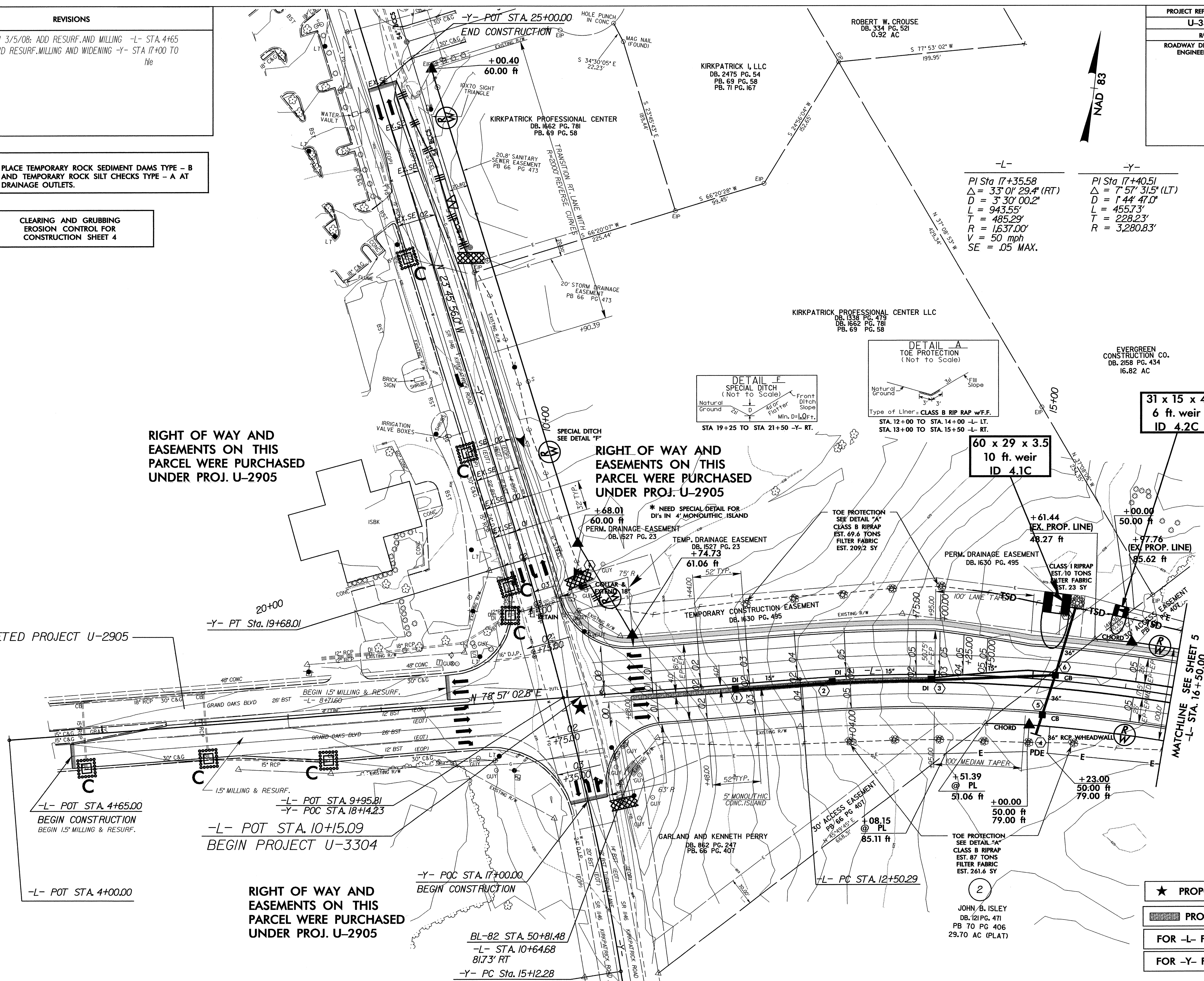
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

RIGHT OF WAY AND EASEMENTS ON THIS PARCEL WERE PURCHASED UNDER PROJ. U-2905

RIGHT OF WAY AND EASEMENTS ON THIS PARCEL WERE PURCHASED UNDER PROJ. U-2905

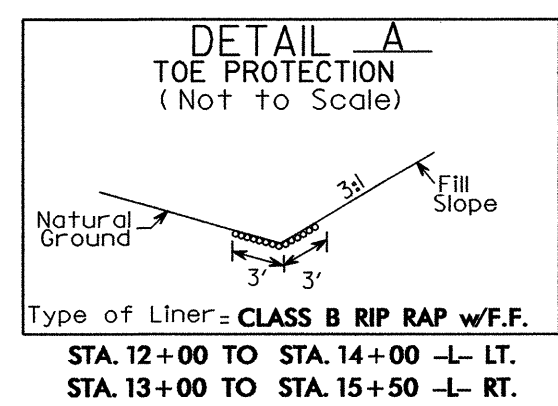
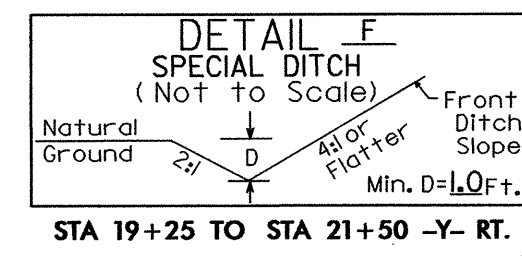
RIGHT OF WAY AND EASEMENTS ON THIS PARCEL WERE PURCHASED UNDER PROJ. U-2905

17-MAR-2008 15:35 g:\tipp\projects\U-3304\enviromental\design\U-3304\_ec\_psh\_4.dgn Bblackburn AT RENV242226



**-L-**  
 PI Sta 17+35.58  
 $\Delta = 33^{\circ} 01' 29.4''$  (RT)  
 $D = 3^{\circ} 30' 00.2''$   
 $L = 943.55'$   
 $T = 485.29'$   
 $R = 1,637.00'$   
 $V = 50$  mph  
 $SE = .05$  MAX.

**-Y-**  
 PI Sta 17+40.51  
 $\Delta = 7^{\circ} 57' 31.5''$  (LT)  
 $D = 1^{\circ} 44' 47.0''$   
 $L = 455.73'$   
 $T = 228.23'$   
 $R = 3,280.83'$



31 x 15 x 4  
 6 ft. weir  
 ID 4.2C

60 x 29 x 3.5  
 10 ft. weir  
 ID 4.1C

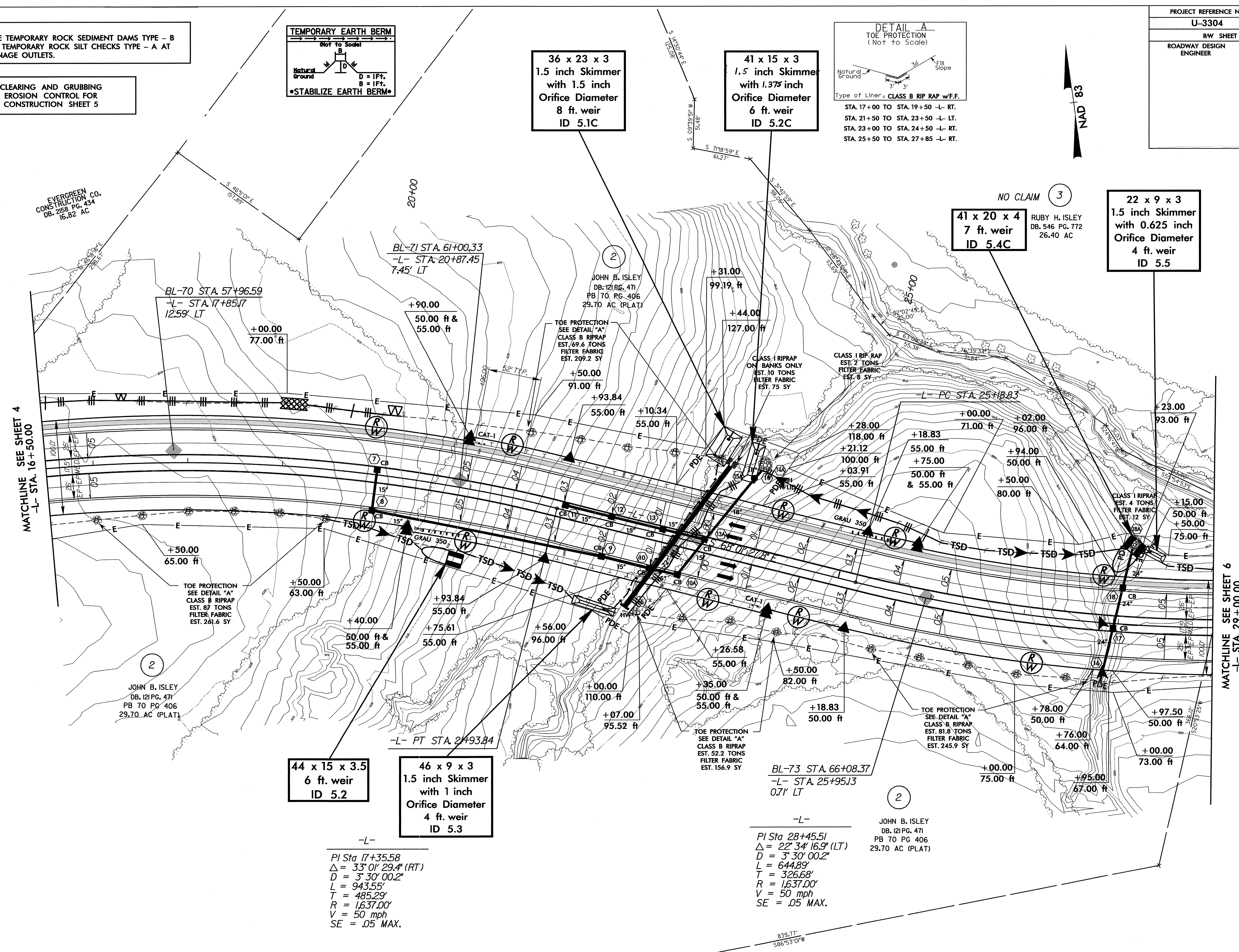
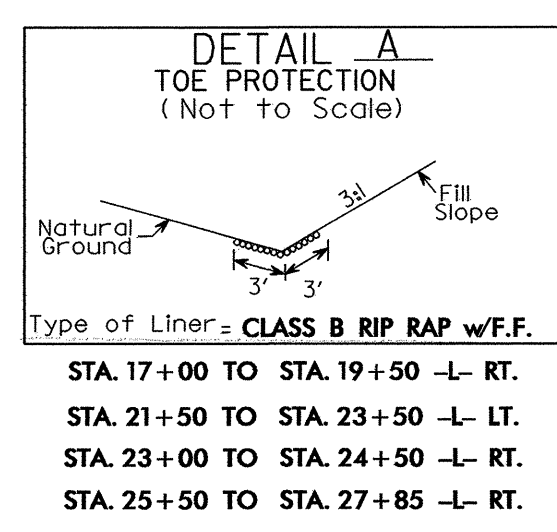
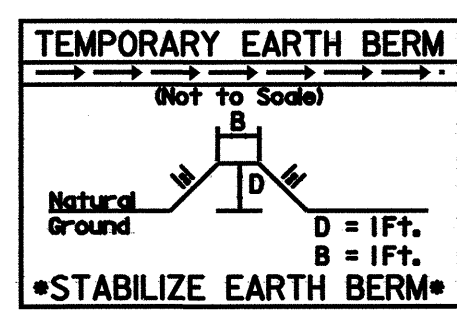
- ★ PROPOSED SIGNAL
- PROPOSED MONO. ISLAND
- FOR -L- PROFILE SEE SHEET 12
- FOR -Y- PROFILE SEE SHEET 15



PROJECT REFERENCE NO.		SHEET NO.	
U-3304		EC-5/CONST.5	
RW SHEET NO.		5	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER		

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 5



MATCHLINE SEE SHEET 4  
-L- STA. 16+50.00

MATCHLINE SEE SHEET 6  
-L- STA. 29+00.00

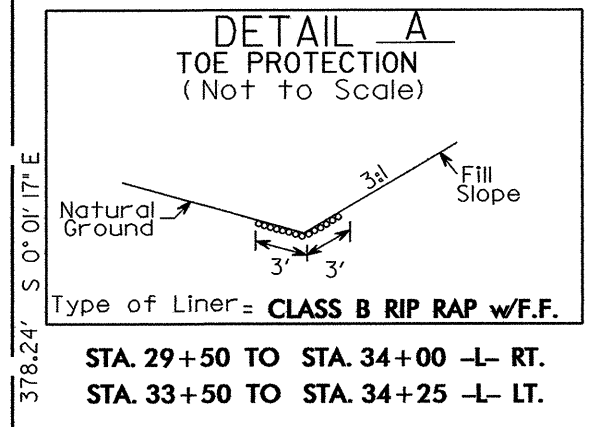
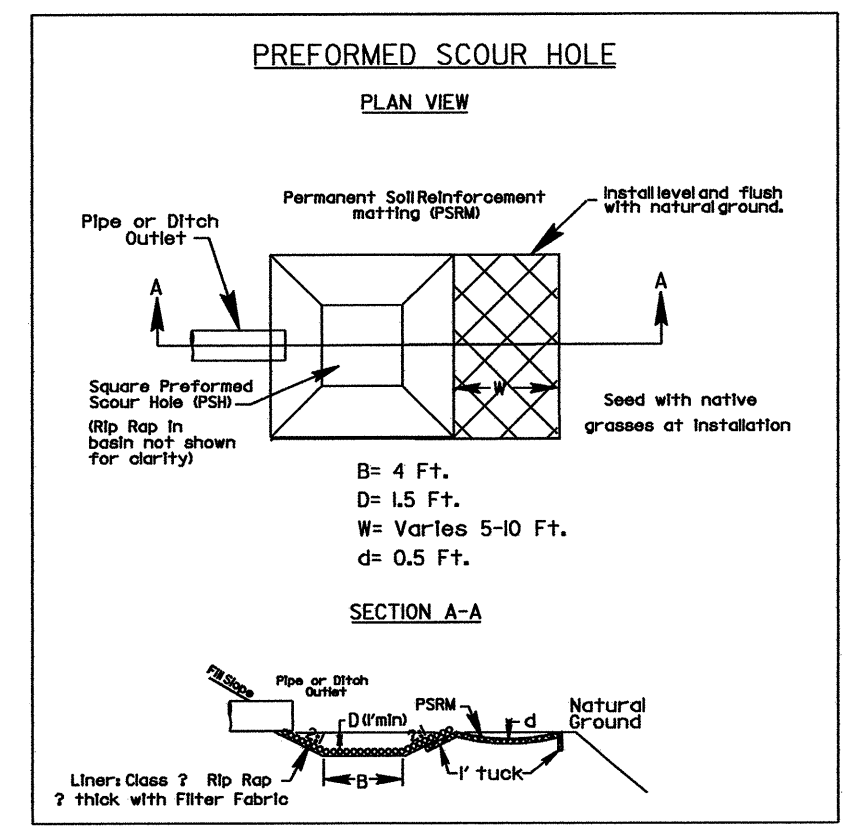
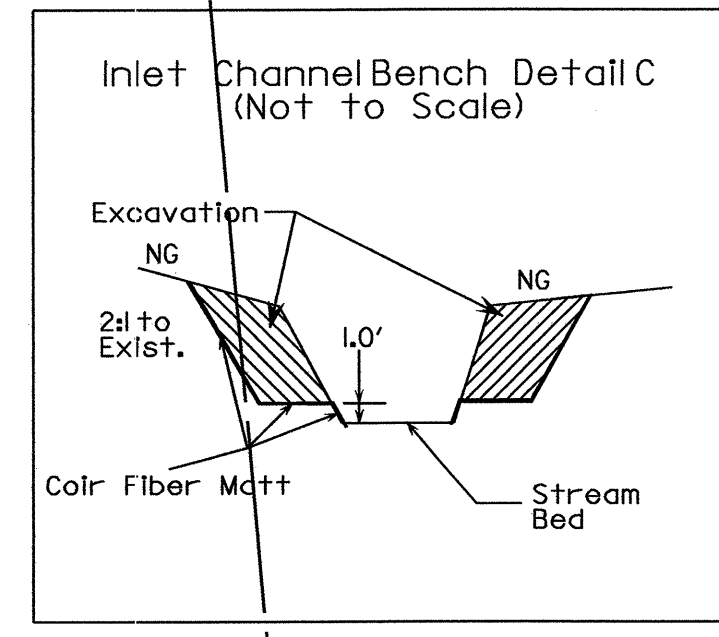
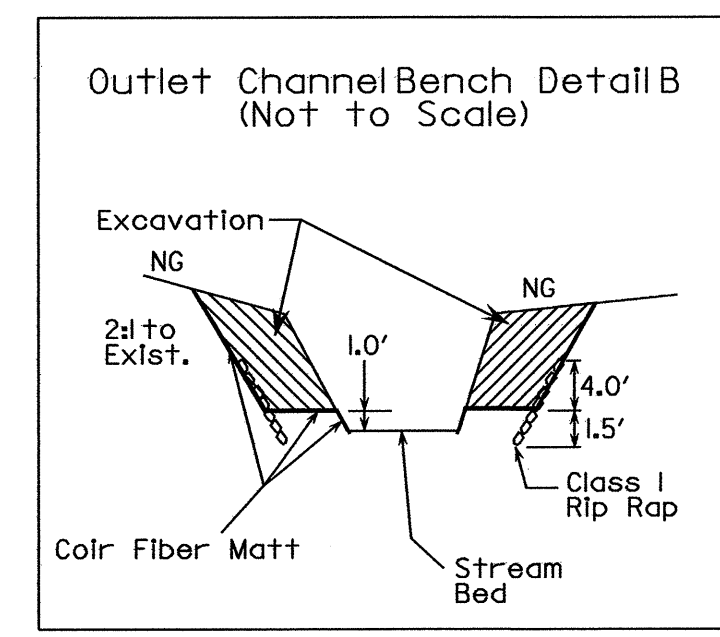
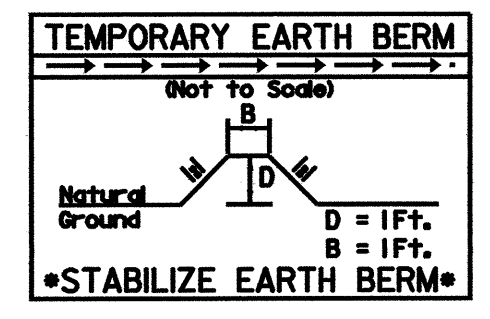
03-MAR-2008 08:10 g:\t\p\ec\3304\env\environmental\design\ur-3304.ec-peh-5.dgn BBlackburn

FOR -L- PROFILE SEE SHEET 12

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-6/CONST.6
RW SHEET NO.	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

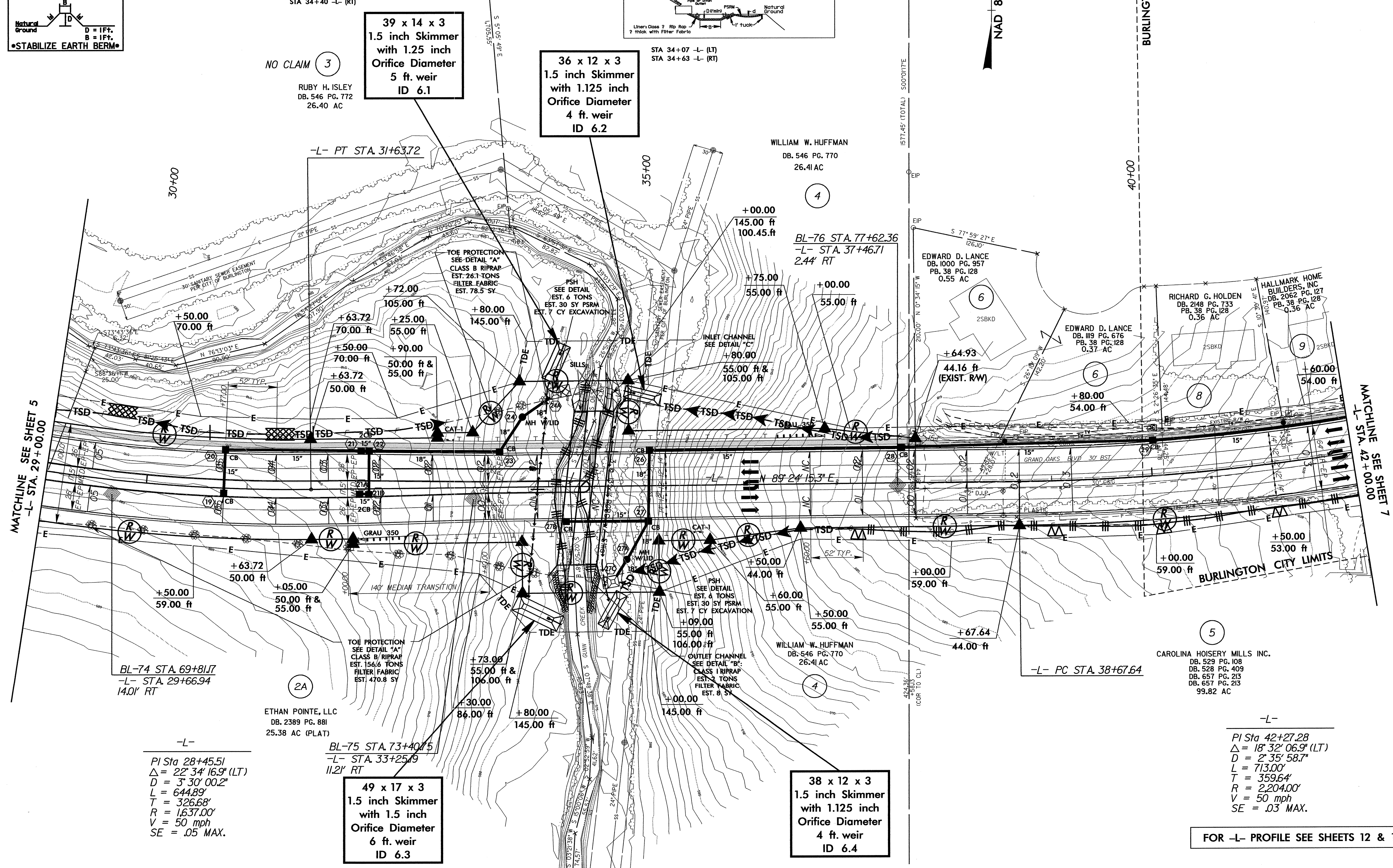
**NOTE:**  
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

**CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6**



NAD 83

BURLINGTON CITY LIMITS



03-MAR-2008 09:04  
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B:\backburn AT RENY214547

-L-  
PI Sta 28+45.51  
Δ = 22° 34' 16.9" (LT)  
D = 3' 30" 00.2"  
L = 644.89'  
T = 326.68'  
R = 1,637.00'  
V = 50 mph  
SE = .05 MAX.

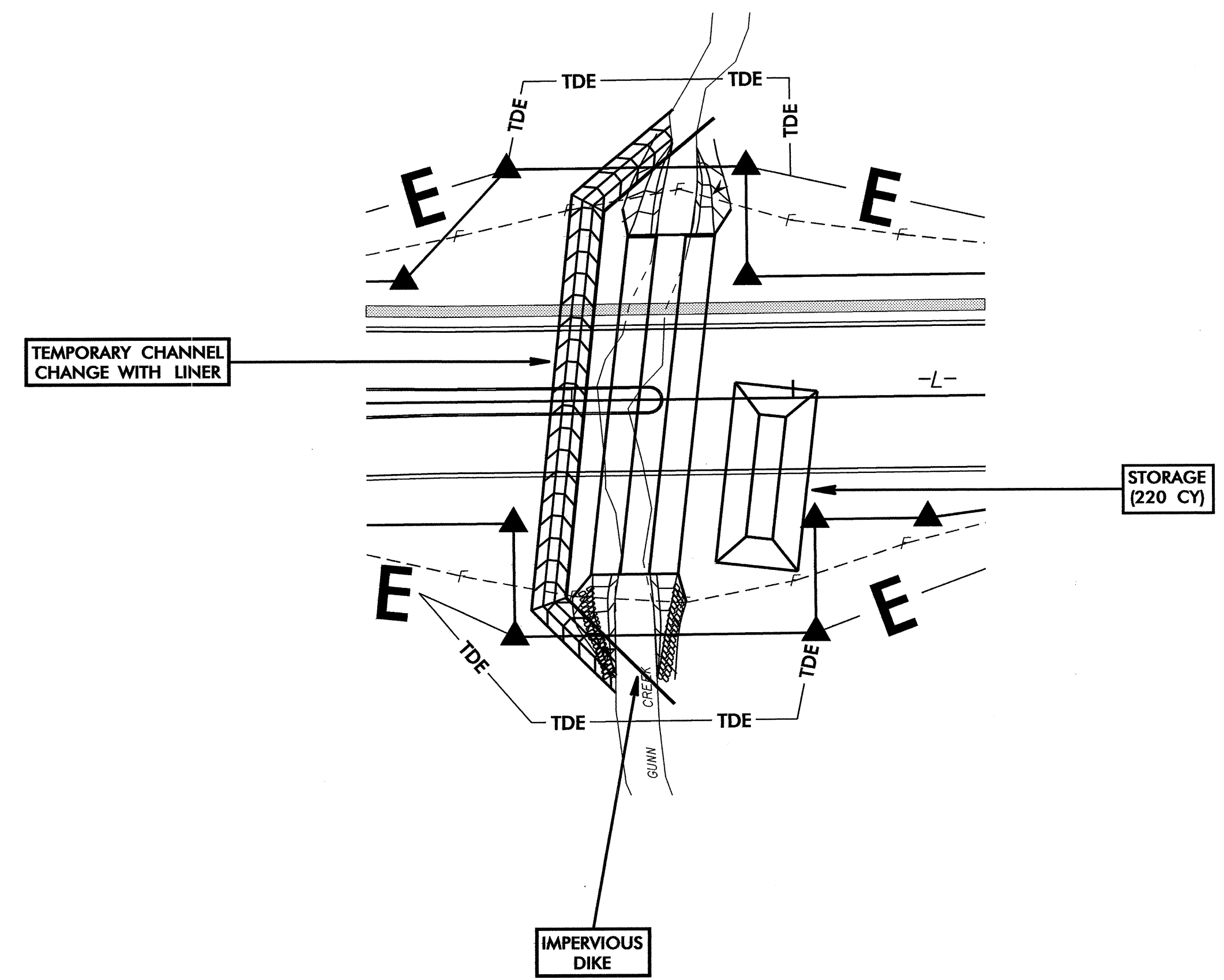
-L-  
PI Sta 42+27.28  
Δ = 18° 32' 06.9" (LT)  
D = 2' 35" 58.7"  
L = 713.00'  
T = 359.64'  
R = 2,204.00'  
V = 50 mph  
SE = .03 MAX.

FOR -L- PROFILE SEE SHEETS 12 & 13

PROJECT REFERENCE NO. U-3304	SHEET NO. EC-7/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# CULVERT CONSTRUCTION SEQUENCE STA. 34+37 -L-

1. CONSTRUCT STILLING BASIN (220 CY).
2. CONSTRUCT TEMPORARY CHANNEL CHANGE WITH LINER (5 FT. BASE, 2.5 FT. DEEP, 2:1 SIDE SLOPES), UTILIZING AN IMPERVIOUS DIKE FOR ONE SIDE OF CHANNEL, DIVERTING FLOW.
3. CONSTRUCT PROPOSED CULVERT AND PORTION OF INLET/OUTLET CHANNEL IMPROVEMENTS.
4. REMOVE IMPERVIOUS DIKE AND TEMPORARY CHANNEL CHANGE, DIVERTING FLOW THROUGH CULVERT.
5. CONSTRUCT REMAINDER OF INLET/OUTLET CHANNEL IMPROVEMENTS.
6. REMOVE STILLING BASIN AND COMPLETE ROADWAY.

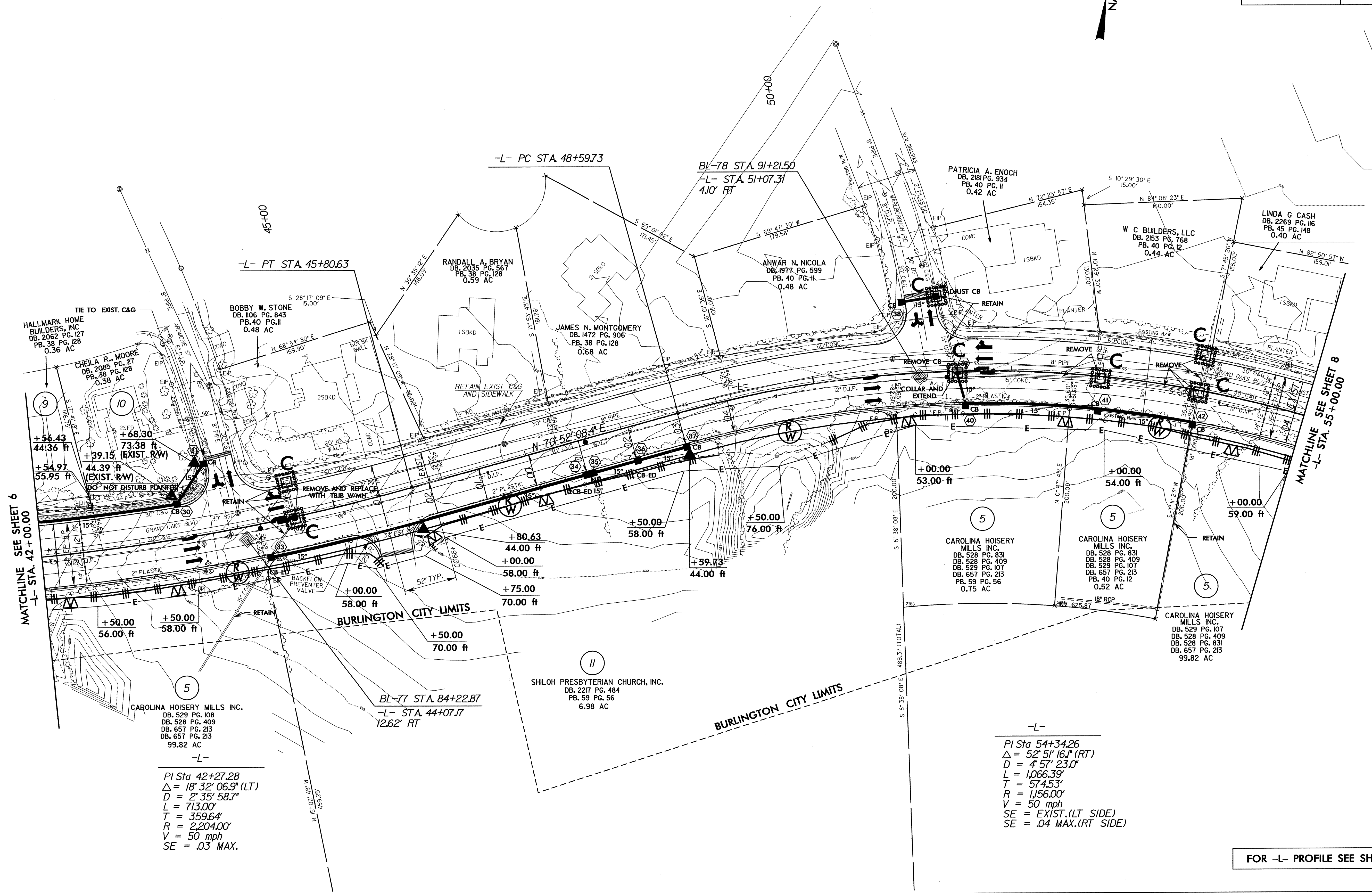
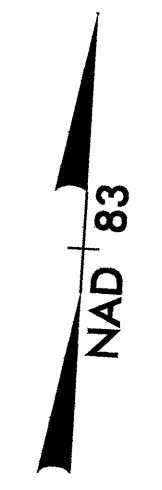


PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-8/CONST.7
R/W SHEET NO.	7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

AVERAGE DAILY TRAFFIC		2008	2030
ADMORE ST.	525	800	
MARLBOROUGH RD.	1,158	1,800	
GRAND OAK BLVD	10,175 23,100	317 500	208 300
-L-			
SR 1213	10,067 22,900	633 1,000	525 800
			9,958 22,700

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



MATCHLINE SEE SHEET 6  
-L- STA. 42+00.00

MATCHLINE SEE SHEET 8  
-L- STA. 55+00.00

-L-  
PI Sta 42+27.28  
Δ = 18° 32' 06.9" (LT)  
D = 2' 35" 58.7"  
L = 713.00'  
T = 359.64'  
R = 2,204.00'  
V = 50 mph  
SE = .03 MAX.

-L-  
PI Sta 54+34.26  
Δ = 52° 51' 16.1" (RT)  
D = 4' 57" 23.0"  
L = 1,066.39'  
T = 574.53'  
R = 1,156.00'  
V = 50 mph  
SE = EXIST. (LT SIDE)  
SE = .04 MAX. (RT SIDE)

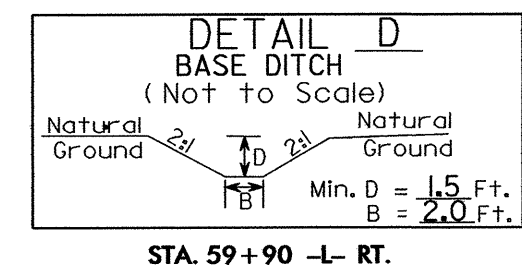
FOR -L- PROFILE SEE SHEET 13

03-MAR-2008 12:59  
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Bblackburn AT REN214547

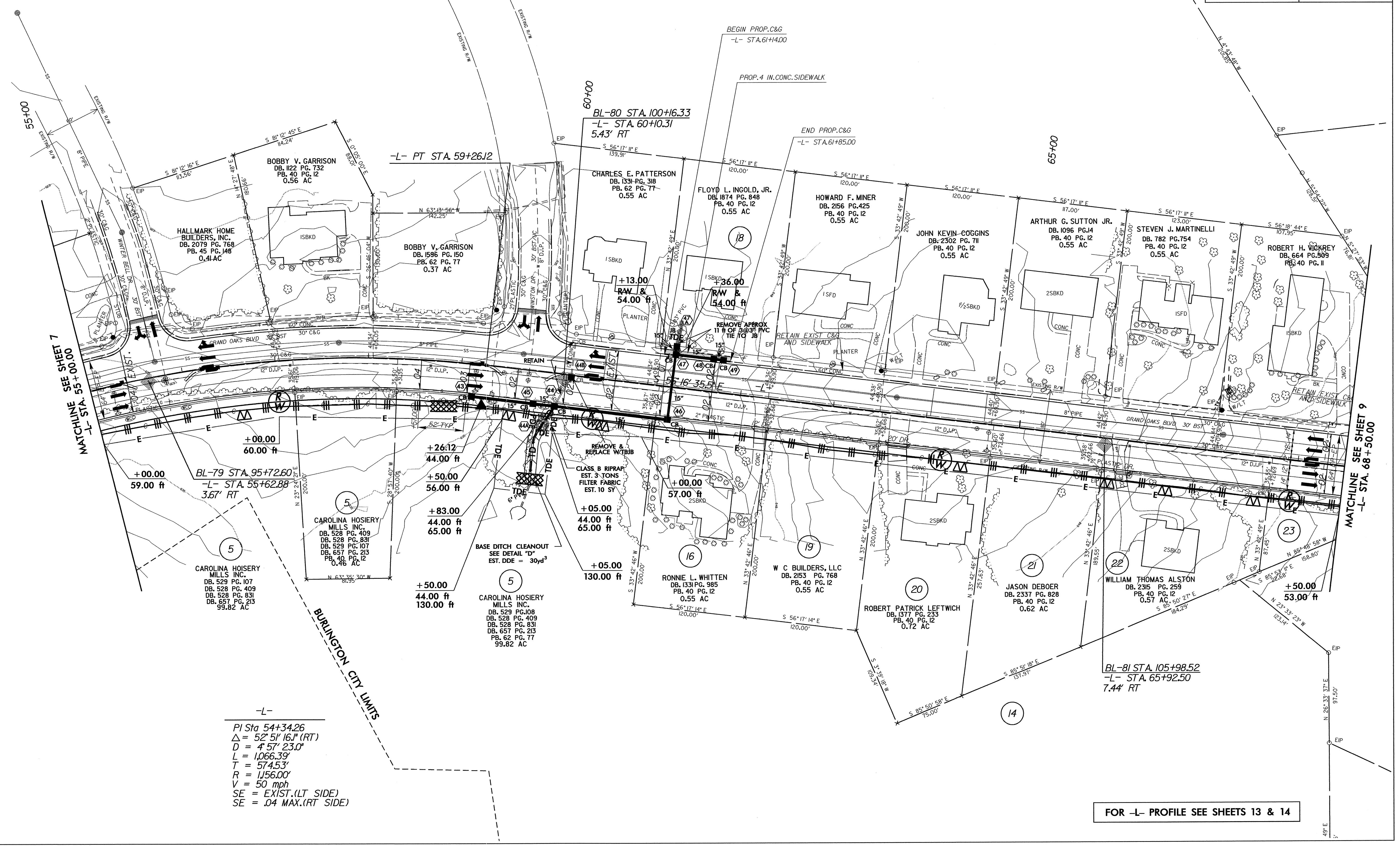
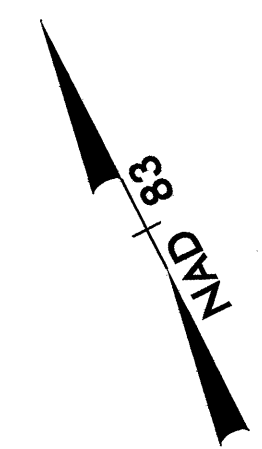
PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-9/CONST.8
RAW SHEET NO.	8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



AVERAGE DAILY TRAFFIC		2008		2030	
WINTER BELL DR.	450	1,000	WINSTON DR.	683	1,600
GRAND OAK BLVD	125	400	SR 1213	550	1,000
				10,575	23,500



MATCHLINE SEE SHEET 7  
-L- STA. 55+00.00

MATCHLINE SEE SHEET 9  
-L- STA. 68+50.00

-L-  
 PI Sta 54+34.26  
 $\Delta = 52' 51" 16.1" (RT)$   
 $D = 4' 57" 23.0"$   
 $L = 1,066.39'$   
 $T = 574.53'$   
 $R = 1,156.00'$   
 $V = 50 \text{ mph}$   
 $SE = \text{EXIST. (LT SIDE)}$   
 $SE = .04 \text{ MAX. (RT SIDE)}$

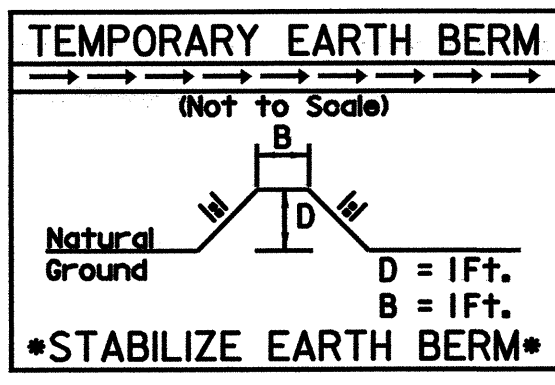
FOR -L- PROFILE SEE SHEETS 13 & 14

03-MAR-2008 13:41  
 g:\tippro\ec\design\3304\ec\ps-h\_8.dgn  
 Bblackburn AT RENV214547

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-10/CONST.9
RW SHEET NO.	9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

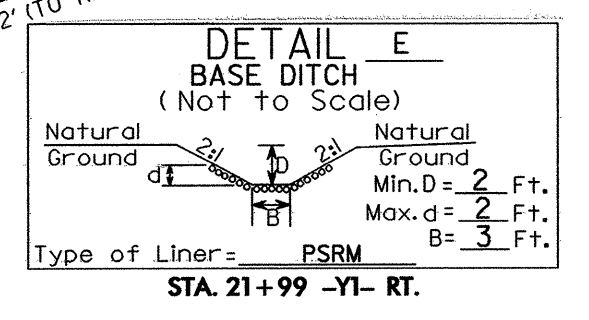
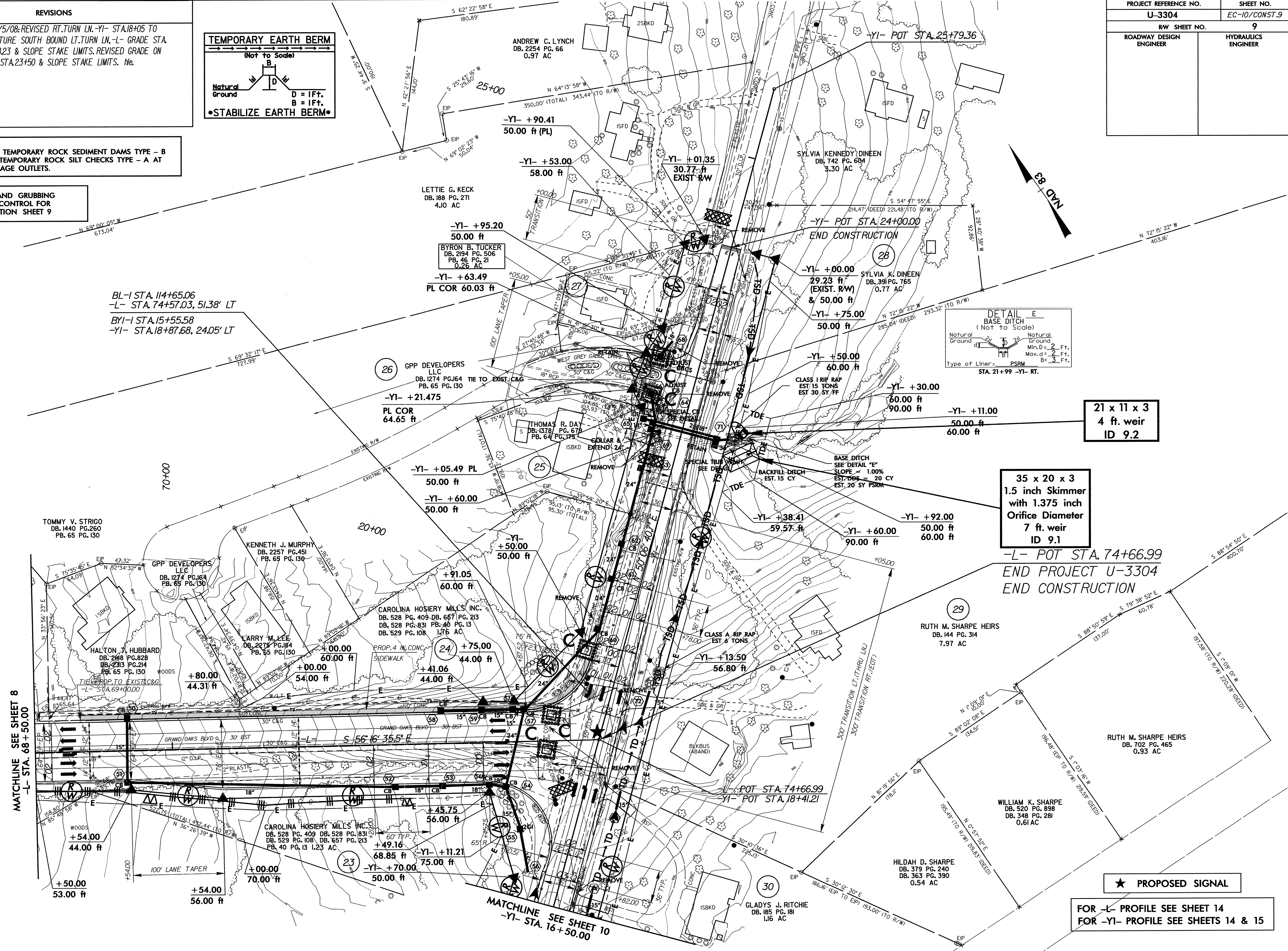
**REVISIONS**

DESIGN REVISION 3/5/08: REVISED RT. TURN LN. -YI- STA.18+05 TO STA.22+25 FOR FUTURE SOUTH BOUND LT. TURN LN. -L- GRADE STA. 70+5 TO STA.74+48.23 & SLOPE STAKE LIMITS. REVISED GRADE ON -YI- STA.10+48 TO STA.23+50 & SLOPE STAKE LIMITS. Nc.



**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**



**21 x 11 x 3  
4 ft. weir  
ID 9.2**

**35 x 20 x 3  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
7 ft. weir  
ID 9.1**

**-L- POT STA. 74+66.99  
END PROJECT U-3304  
END CONSTRUCTION**

**★ PROPOSED SIGNAL**

**FOR -L- PROFILE SEE SHEET 14  
FOR -YI- PROFILE SEE SHEETS 14 & 15**

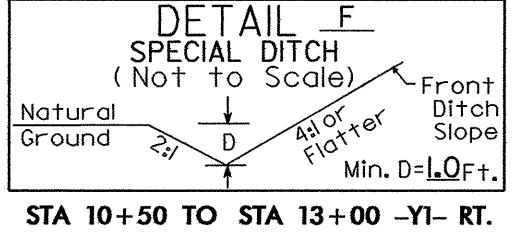
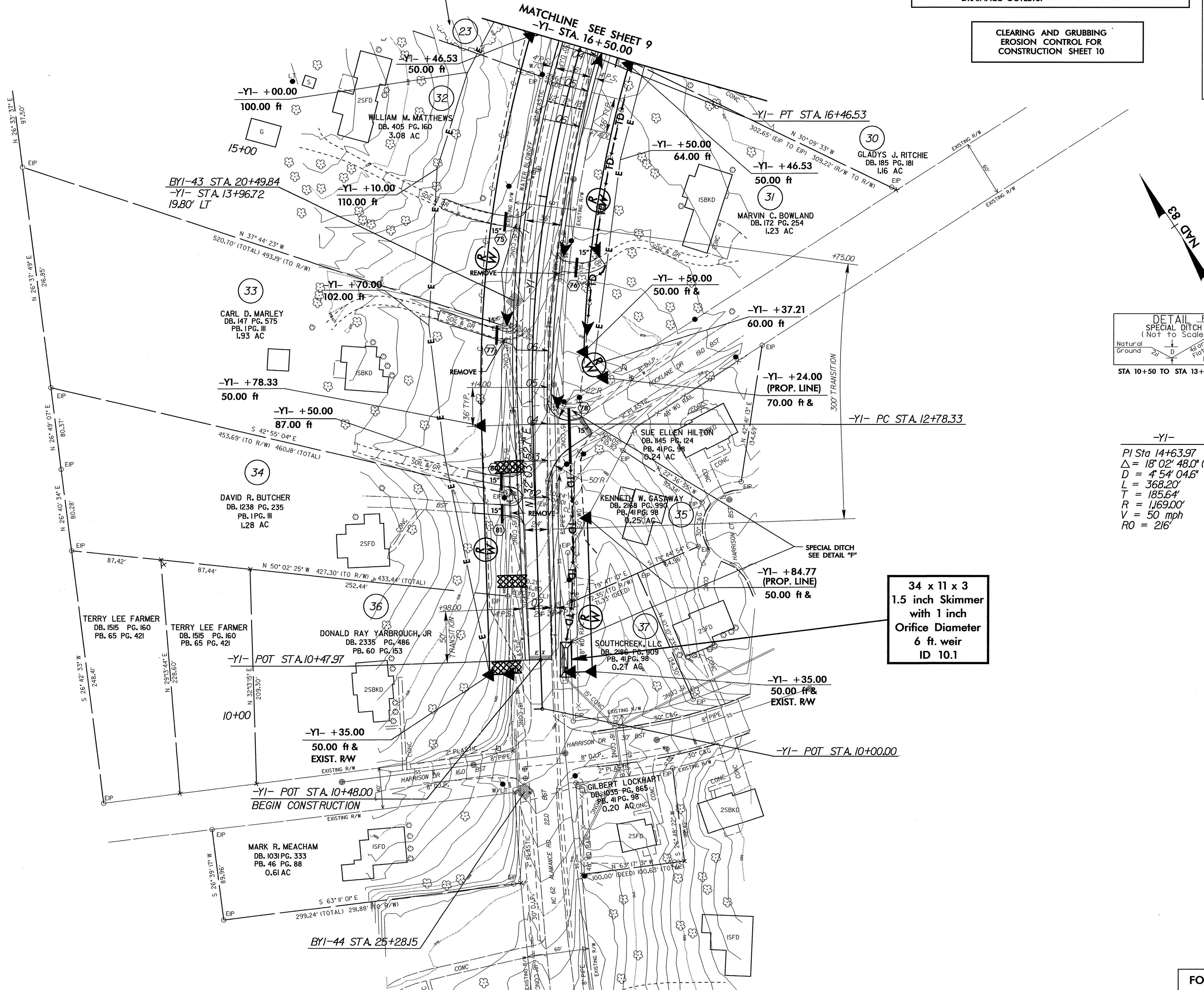
17-MAR-2008 16:03  
st:\projects\U-3304\environmental\design\U-3304\_ec\_psh\_9.dgn  
Bblackburn

CAROLINA HOSIERY MILLS INC.  
DB. 528 PG. 409 DB. 528 PG. 831  
DB. 529 PG. 108 DB. 657 PG. 213  
PB. 40 PG. 13 1.23 AC

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

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-II/CONST-10
R/W SHEET NO.	10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



-YI-  
PI Sta 14+63.97  
 $\Delta = 18' 02'' 48.0'' (RT)$   
 $D = 4' 54'' 04.6''$   
 $L = 368.20$   
 $T = 185.64'$   
 $R = 1,169.00'$   
 $V = 50 \text{ mph}$   
 $RO = 216'$

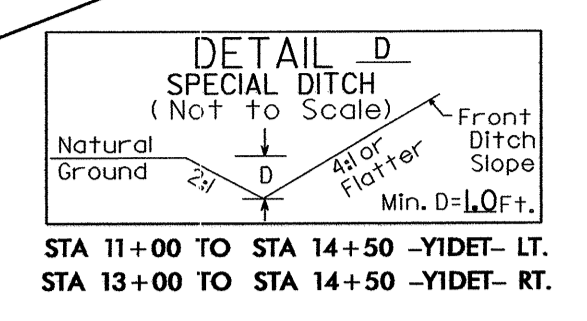
34 x 11 x 3  
1.5 inch Skimmer  
with 1 inch  
Orifice Diameter  
6 ft. weir  
ID 10.1

FOR -YI- PROFILE SEE SHEET 14

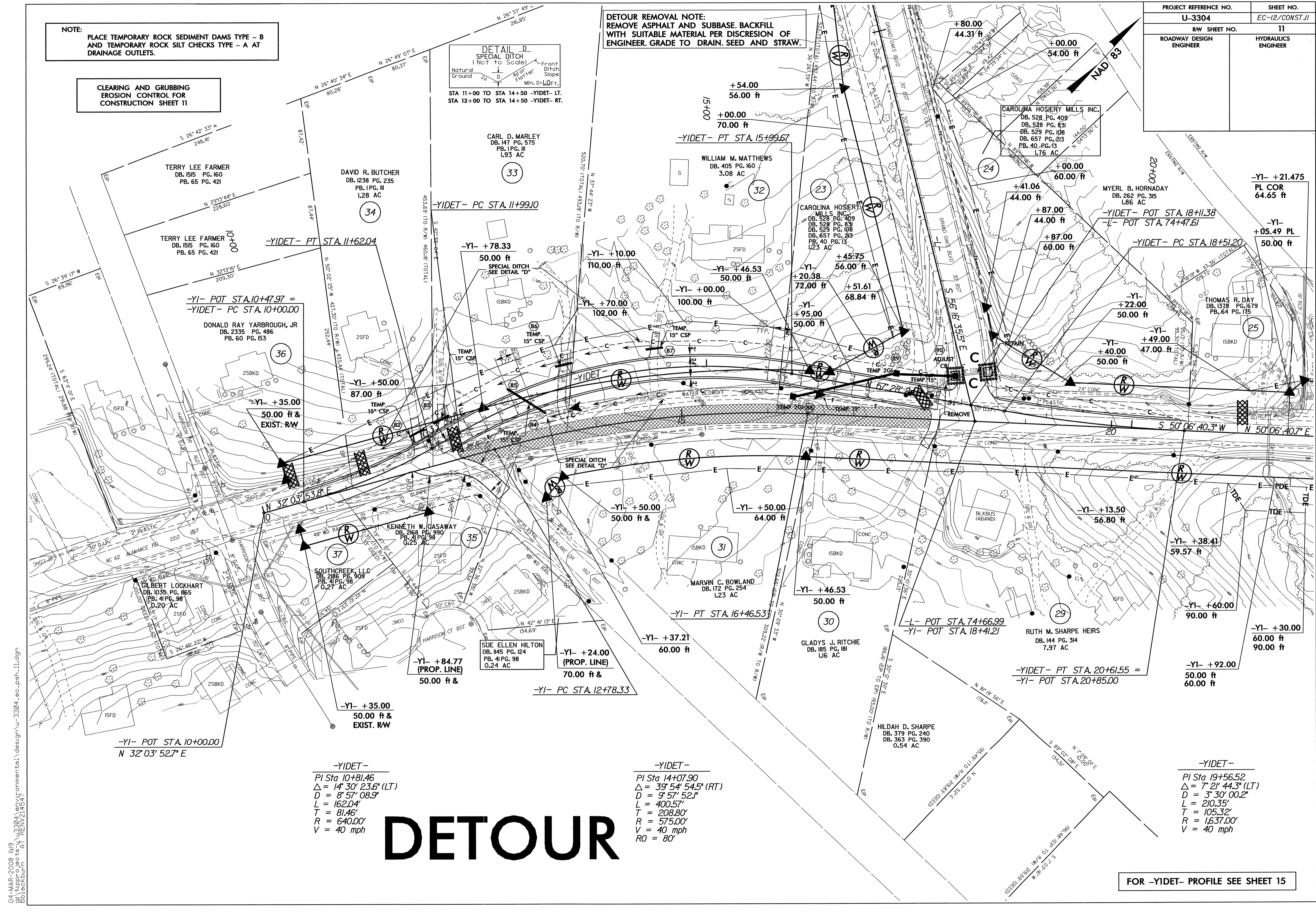
PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-12/CONST.II
RW SHEET NO.	11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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



DETOUR REMOVAL NOTE:  
REMOVE ASPHALT AND SUBBASE BACKFILL  
WITH SUITABLE MATERIAL PER DISCRETION OF  
ENGINEER. GRADE TO DRAIN. SEED AND STRAW.



-YI- POT STA. 10+00.00  
N 32° 03' 52.7" E

-YIDET-  
PI Sta 10+81.46  
Δ = 14° 30' 23.6" (LT)  
D = 8° 57' 08.9"  
L = 162.04'  
T = 81.46'  
R = 640.00'  
V = 40 mph

-YIDET-  
PI Sta 14+07.90  
Δ = 39° 54' 54.5" (RT)  
D = 9° 57' 52.1"  
L = 400.57'  
T = 208.80'  
R = 575.00'  
V = 40 mph  
RO = 80'

-YIDET-  
PI Sta 19+56.52  
Δ = 7° 21' 44.3" (LT)  
D = 3° 30' 00.2"  
L = 210.35'  
T = 105.32'  
R = 1,637.00'  
V = 40 mph

# DETOUR

FOR -YIDET- PROFILE SEE SHEET 15

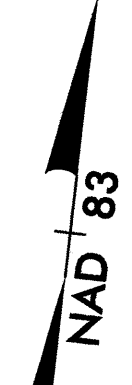
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Bblackburn AT RENV214547



**REVISIONS**

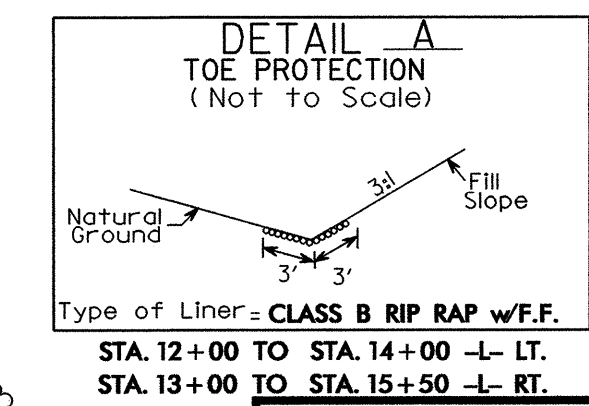
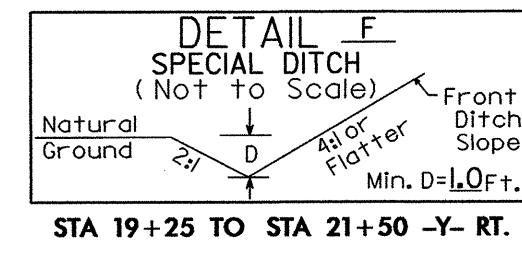
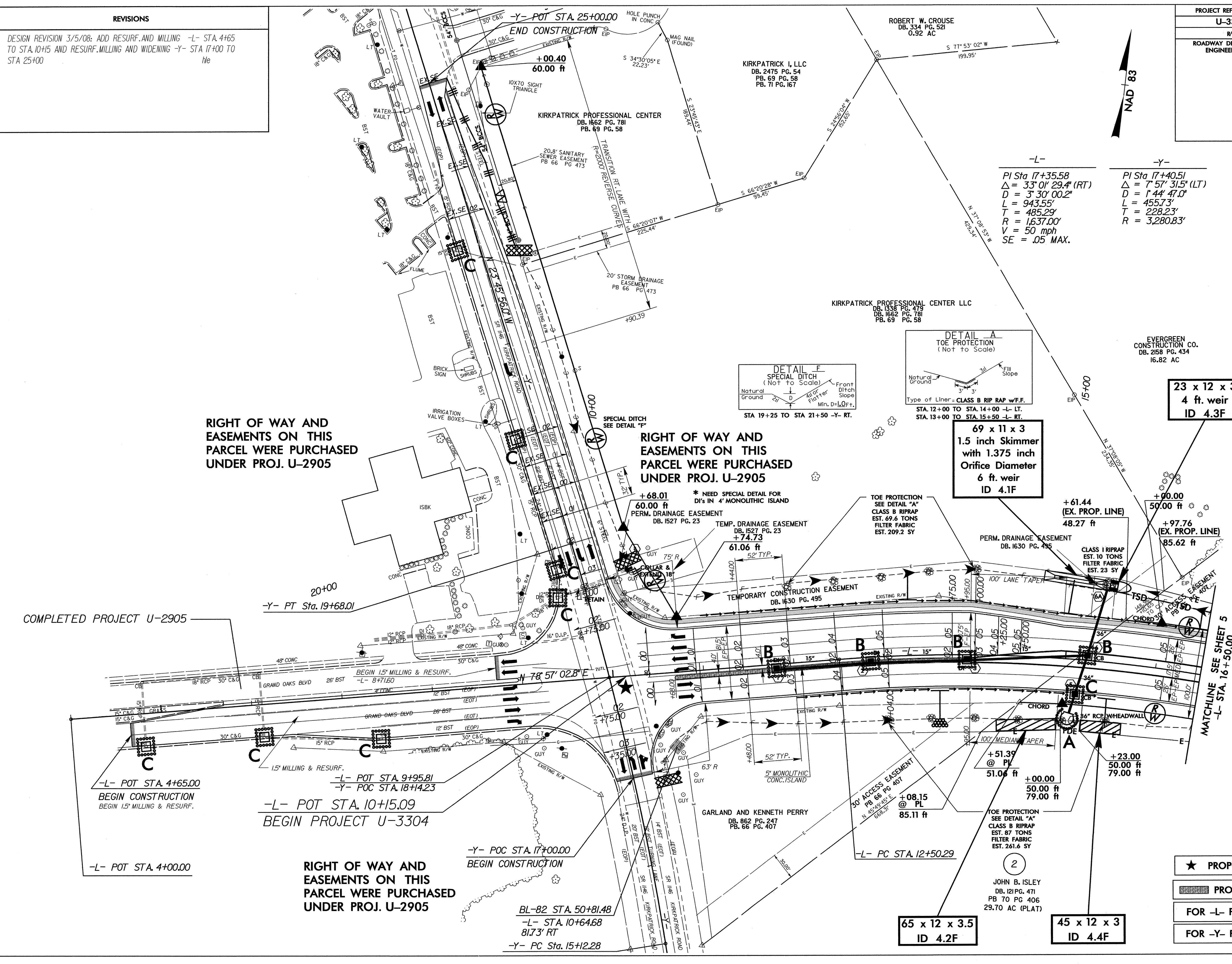
DESIGN REVISION 3/5/08: ADD RESURF. AND MILLING -L- STA. 4+65 TO STA. 10+15 AND RESURF. MILLING AND WIDENING -Y- STA. 17+00 TO STA. 25+00

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-13/CONST. 4
RW SHEET NO.	4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



**-L-**  
 PI Sta 17+35.58  
 $\Delta = 33^{\circ} 01' 29.4''$  (RT)  
 $D = 3^{\circ} 30' 00.2''$   
 $L = 943.55'$   
 $T = 485.29'$   
 $R = 1,637.00'$   
 $V = 50$  mph  
 $SE = .05$  MAX.

**-Y-**  
 PI Sta 17+40.51  
 $\Delta = 7^{\circ} 57' 31.5''$  (LT)  
 $D = 1^{\circ} 44' 47.0''$   
 $L = 455.73'$   
 $T = 228.23'$   
 $R = 3,280.83'$



**RIGHT OF WAY AND EASEMENTS ON THIS PARCEL WERE PURCHASED UNDER PROJ. U-2905**

**RIGHT OF WAY AND EASEMENTS ON THIS PARCEL WERE PURCHASED UNDER PROJ. U-2905**

**RIGHT OF WAY AND EASEMENTS ON THIS PARCEL WERE PURCHASED UNDER PROJ. U-2905**

COMPLETED PROJECT U-2905

23 x 12 x 3  
4 ft. weir  
ID 4.3F

69 x 11 x 3  
1.5 inch Skimmer  
with 1.375 inch  
Orifice Diameter  
6 ft. weir  
ID 4.1F

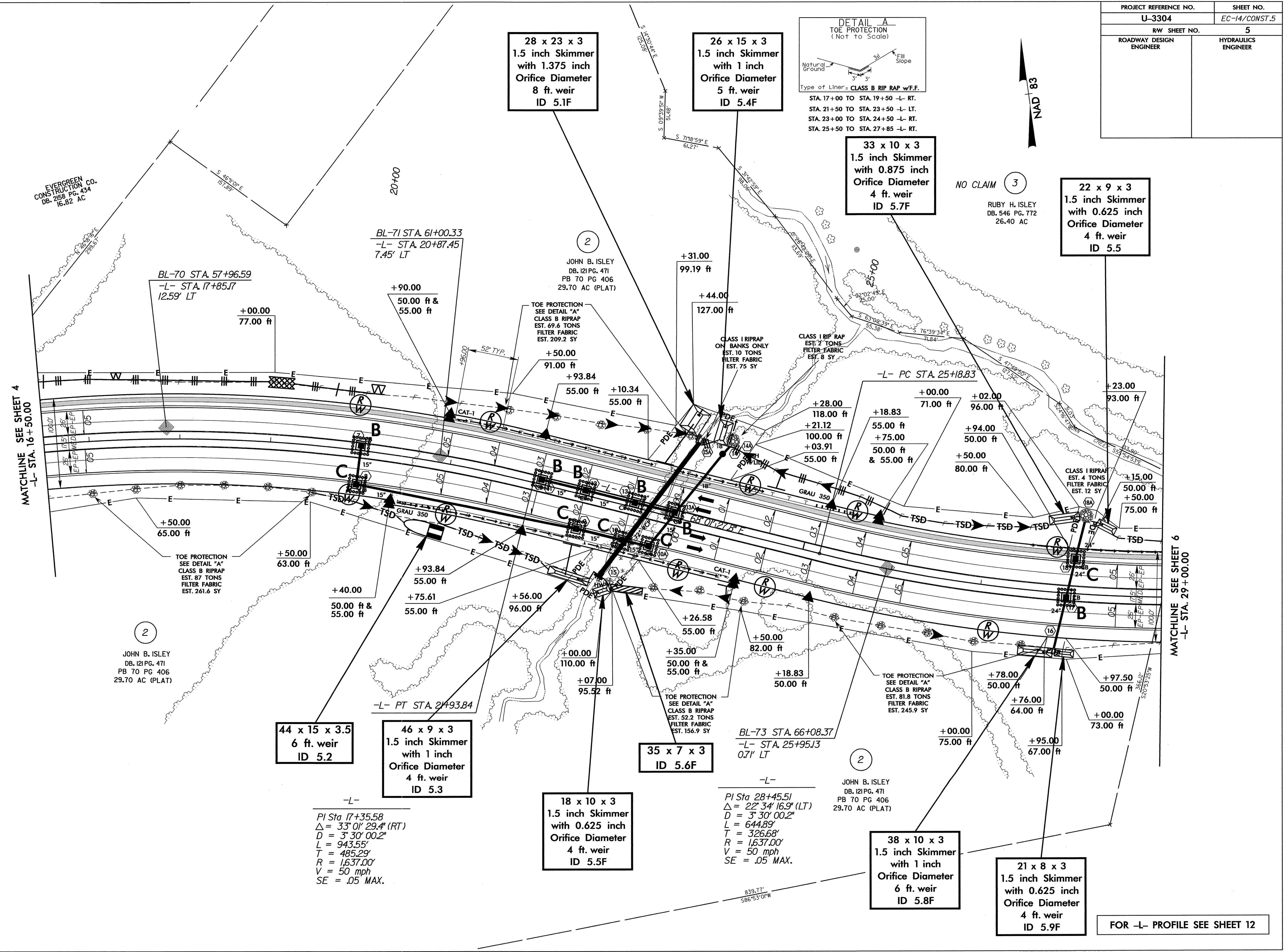
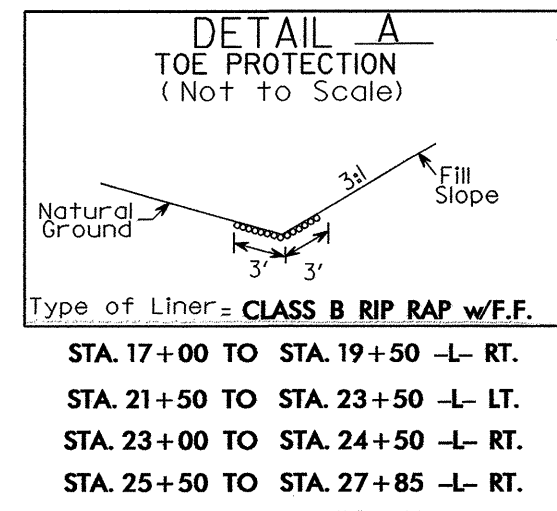
65 x 12 x 3.5  
ID 4.2F

45 x 12 x 3  
ID 4.4F

- ★ PROPOSED SIGNAL
- PROPOSED MONO. ISLAND
- FOR -L- PROFILE SEE SHEET 12
- FOR -Y- PROFILE SEE SHEET 15

17-MAR-2008 15:43  
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 Bblackburn AT REN242226

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-14/CONST.5
R/W SHEET NO.	5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE SEE SHEET 4  
-L- STA. 16+50.00

MATCHLINE SEE SHEET 6  
-L- STA. 29+00.00

FOR -L- PROFILE SEE SHEET 12

03-MAR-2008 08:16  
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 B:\blackburn AT RENV214547

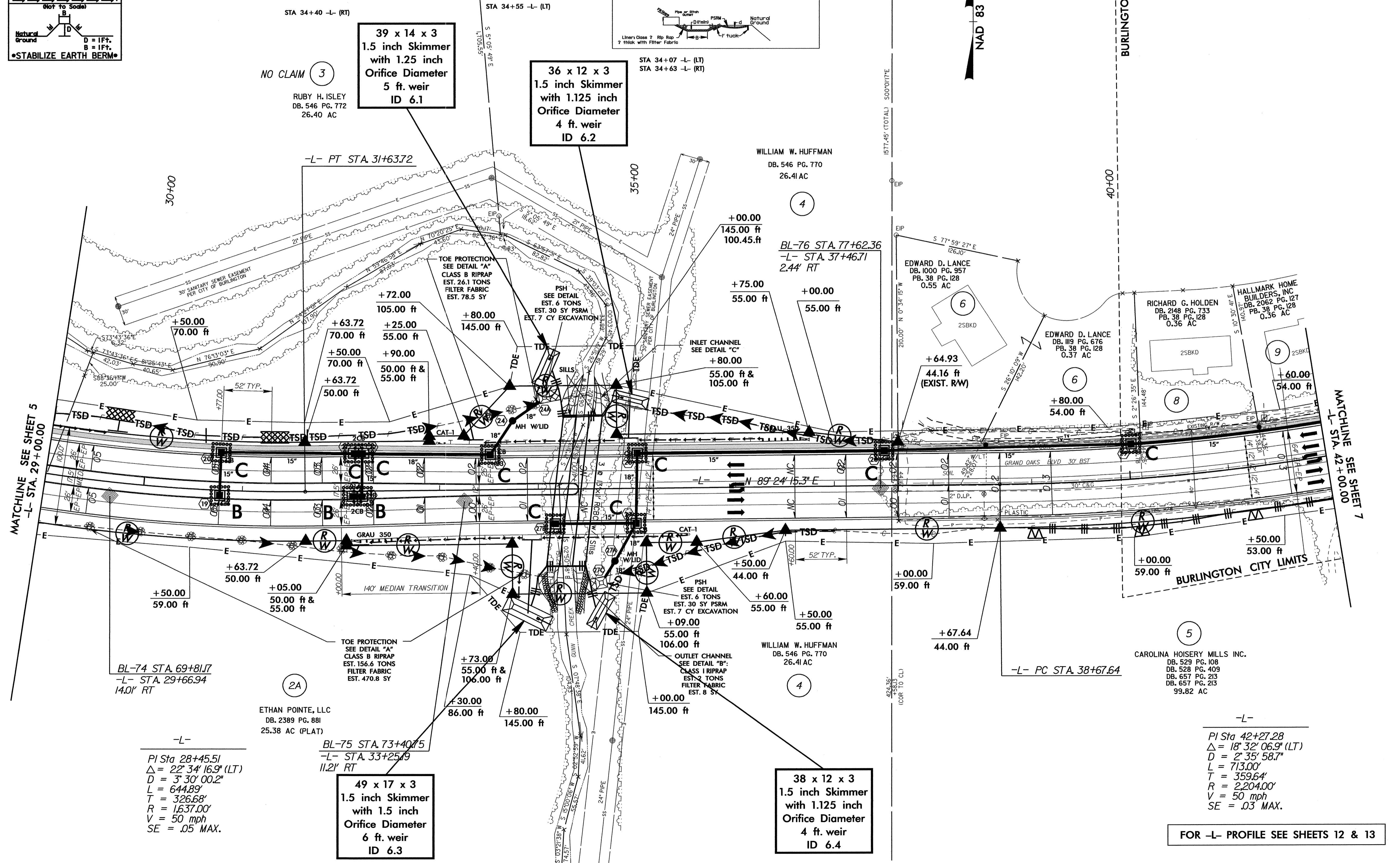
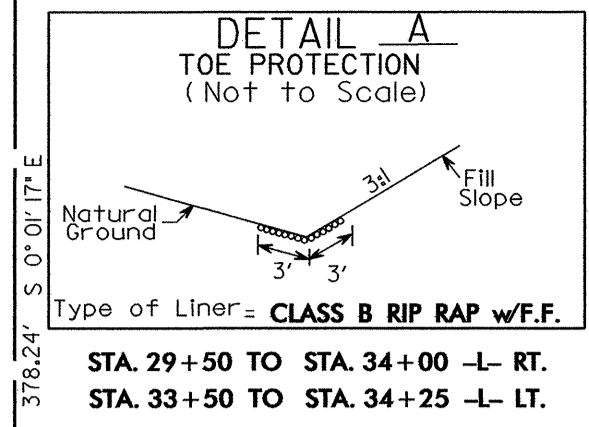
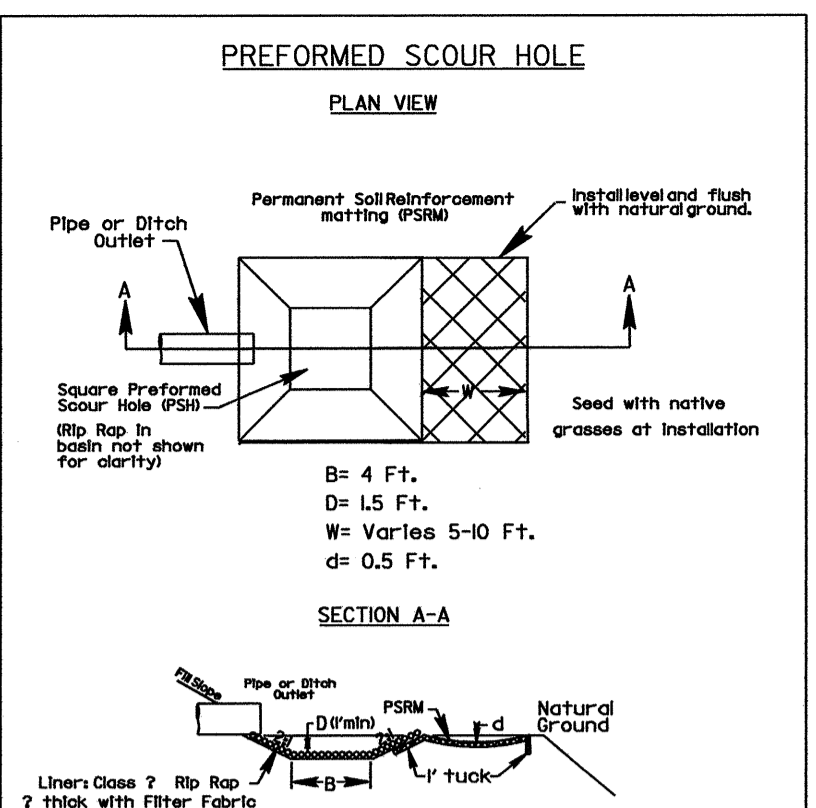
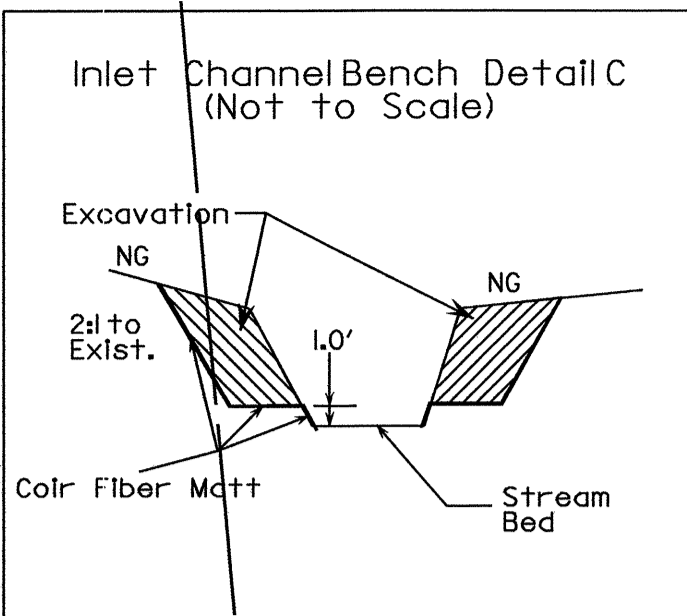
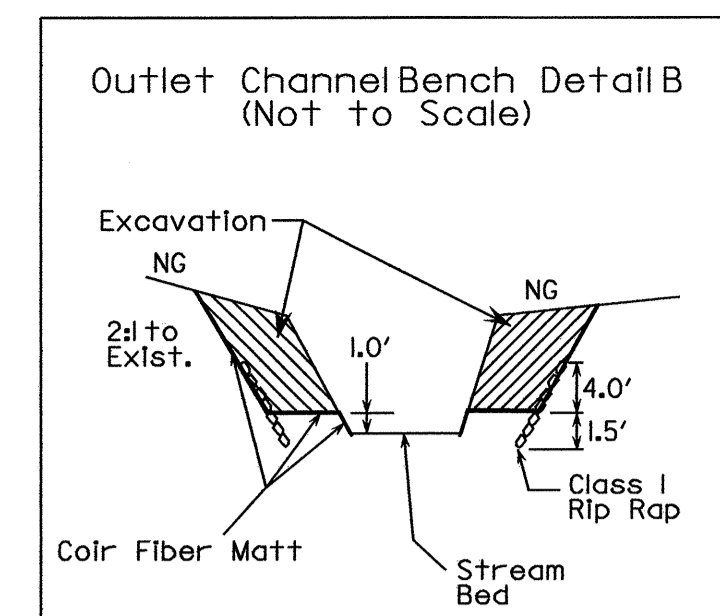
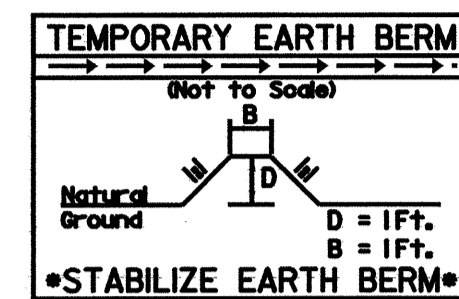
2  
JOHN B. ISLEY  
DB. 121 PG. 471  
PB 70 PG 406  
29.70 AC (PLAT)

2  
JOHN B. ISLEY  
DB. 121 PG. 471  
PB 70 PG 406  
29.70 AC (PLAT)

-L-  
PI Sta 17+35.58  
 $\Delta = 33^{\circ} 01' 29.4''$  (RT)  
 $D = 3' 30'' 00.2''$   
 $L = 943.55'$   
 $T = 485.29'$   
 $R = 1,637.00'$   
 $V = 50$  mph  
 $SE = .05$  MAX.

-L-  
PI Sta 28+45.51  
 $\Delta = 22^{\circ} 34' 16.9''$  (LT)  
 $D = 3' 30'' 00.2''$   
 $L = 644.89'$   
 $T = 326.68'$   
 $R = 1,637.00'$   
 $V = 50$  mph  
 $SE = .05$  MAX.

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-15/CONST.6
RW SHEET NO.	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



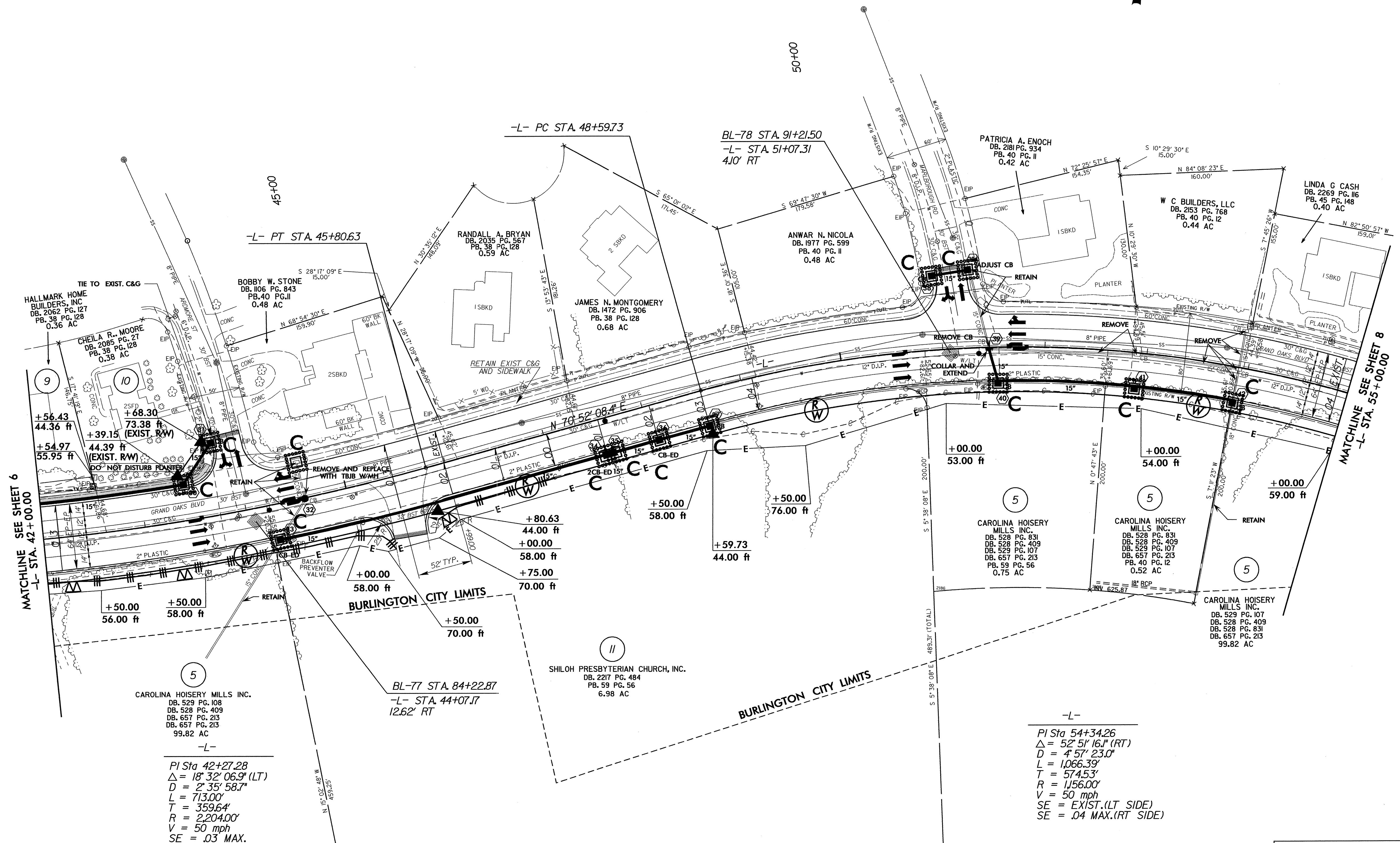
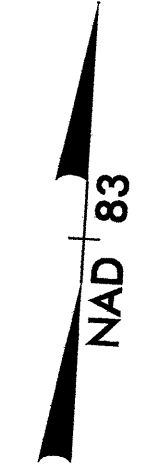
03-MAR-2008 09:01  
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 B:\lockburn AT RENV214547

-L-  
 PI Sta 42+27.28  
 $\Delta = 18' 32'' 06.9''$  (LT)  
 $D = 2' 35'' 58.7''$   
 $L = 713.00'$   
 $T = 359.64'$   
 $R = 2,204.00'$   
 $V = 50$  mph  
 $SE = .03$  MAX.

FOR -L- PROFILE SEE SHEETS 12 & 13

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-16/CONST.7
R/W SHEET NO.	7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

AVERAGE DAILY TRAFFIC		2008		2030	
	ADMORE ST.	525	800		MARLBOROUGH RD.
		317	500		1,158
		208	300		1,800
10,175				10,067	
23,100				22,900	
	GRAND OAK BLVD				SR 1213



MATCHLINE SEE SHEET 6  
-L- STA. 42+00.00

MATCHLINE SEE SHEET 8  
-L- STA. 55+00.00

5  
CAROLINA HOISERY MILLS INC.  
DB. 529 PG. 108  
DB. 528 PG. 409  
DB. 657 PG. 213  
DB. 657 PG. 213  
99.82 AC  
-L-  
PI Sta 42+27.28  
Δ = 18° 32' 06.9" (LT)  
D = 2° 35' 58.7"  
L = 713.00'  
T = 359.64'  
R = 2,204.00'  
V = 50 mph  
SE = .03 MAX.

BL-77 STA. 84+22.87  
-L- STA. 44+07.17  
12.62' RT

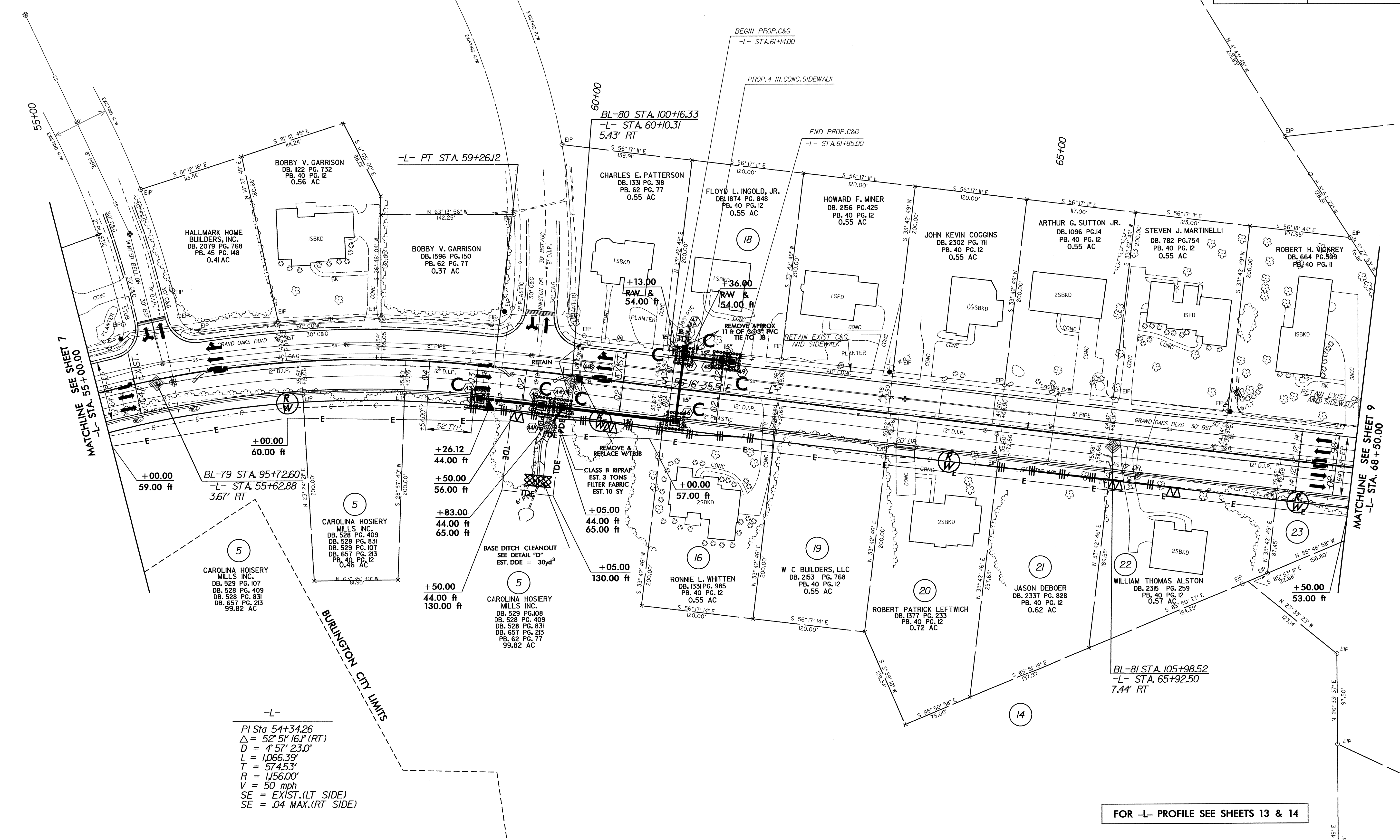
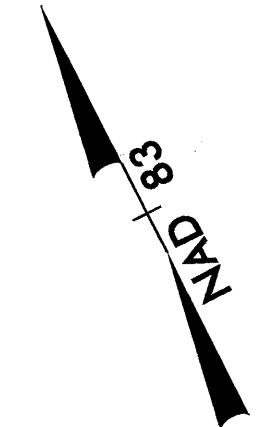
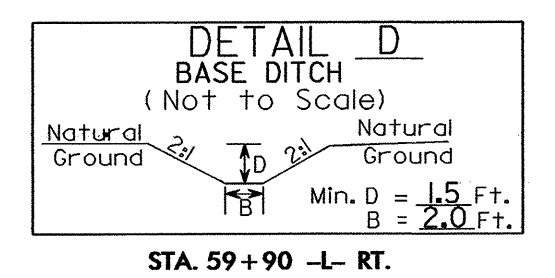
-L-  
PI Sta 54+34.26  
Δ = 52° 51' 16.1" (RT)  
D = 4° 57' 23.0"  
L = 1,066.39'  
T = 574.53'  
R = 1,156.00'  
V = 50 mph  
SE = EXIST. (LT. SIDE)  
SE = .04 MAX. (RT. SIDE)

FOR -L- PROFILE SEE SHEET 13

03-MAR-2008 13:02  
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Bblackburn AT RENV214547

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-17/CONST.8
RAW SHEET NO.	8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

AVERAGE DAILY TRAFFIC		2008		2030	
WINTER BELL DR.	450	1,000	WINSTON DR.	683	1,600
GRAND OAK BLVD	9,958 22,700	125 400	325 600	10,158 22,900	133 500
				550 1,100	10,575 23,500
					SR 1213



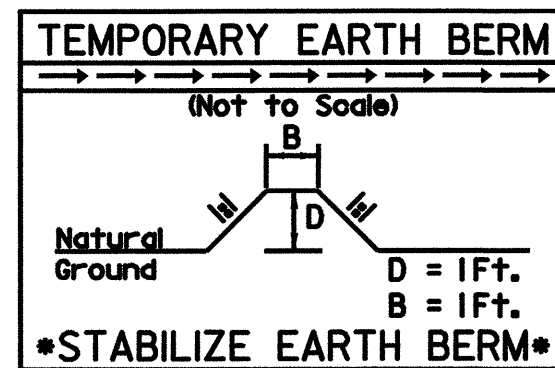
03-MAR-2008 14:40  
 g:\tiprojects\3304\environmental\design\3304.ec.psh.8.dgn  
 B:\lockburn AT RENV214547

-L-  
 PI Sta 54+34.26  
 Δ = 52' 51" 16.1" (RT)  
 D = 4' 57" 23.0"  
 L = 1,066.39'  
 T = 574.53'  
 R = 1,156.00'  
 V = 50 mph  
 SE = EXIST.(LT SIDE)  
 SE = .04 MAX.(RT SIDE)

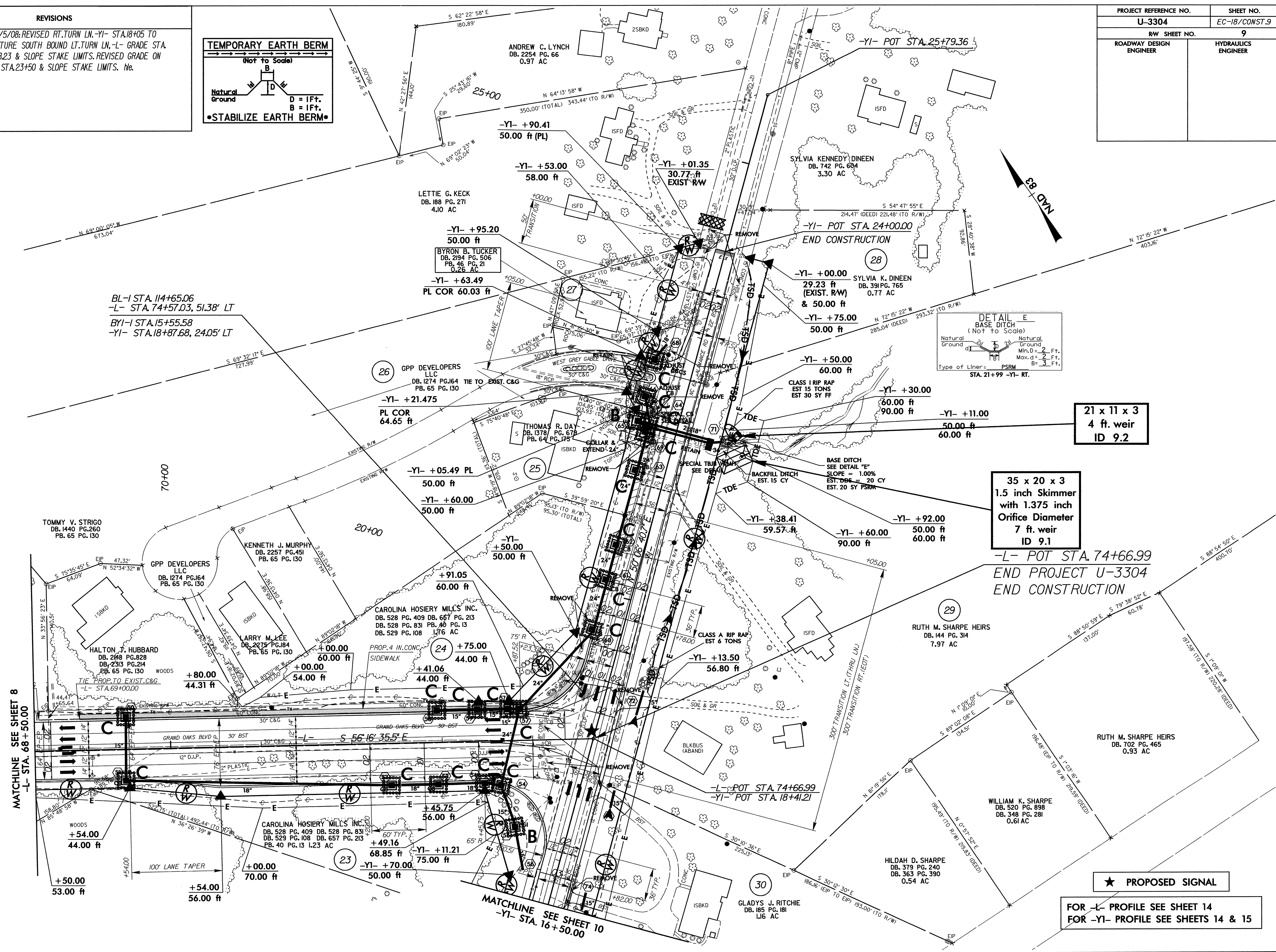
FOR -L- PROFILE SEE SHEETS 13 & 14

REVISIONS

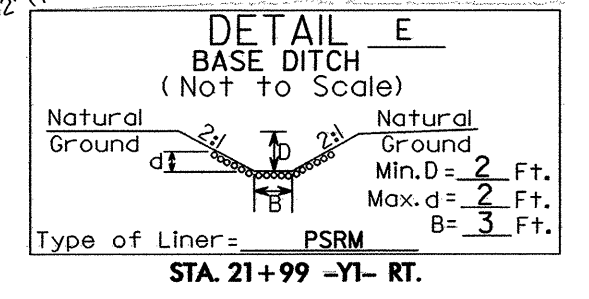
DESIGN REVISION 3/5/08: REVISED RT. TURN LN. -YI- STA.18+05 TO STA.22+25 FOR FUTURE SOUTH BOUND LT. TURN LN. -L- GRADE STA. 70+15 TO STA.74+48.23 & SLOPE STAKE LIMITS. REVISED GRADE ON -YI- STA.10+48 TO STA.23+50 & SLOPE STAKE LIMITS. Nc.



PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-18/CONST.9
R/W SHEET NO.	9
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BL-1 STA. 114+65.06  
 -L- STA. 74+57.03, 51.38' LT  
 BY-1 STA. 15+55.58  
 -YI- STA. 18+87.68, 24.05' LT



21 x 11 x 3  
 4 ft. weir  
 ID 9.2

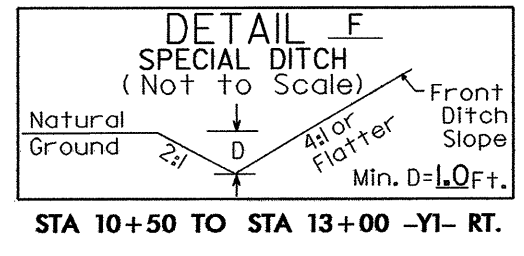
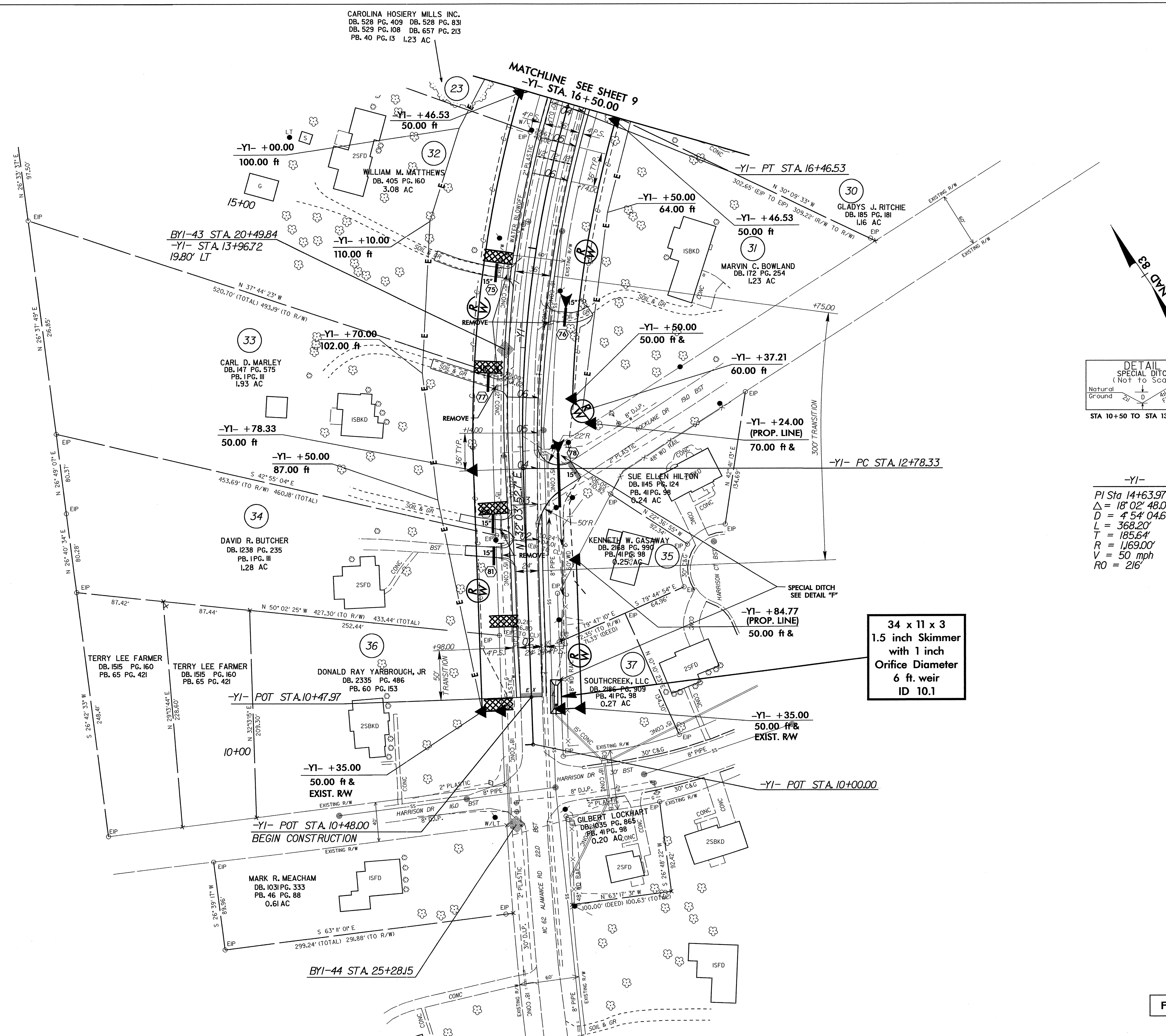
35 x 20 x 3  
 1.5 inch Skimmer  
 with 1.375 inch  
 Orifice Diameter  
 7 ft. weir  
 ID 9.1

-L- POT STA. 74+66.99  
 END PROJECT U-3304  
 END CONSTRUCTION

FOR -L- PROFILE SEE SHEET 14  
 FOR -YI- PROFILE SEE SHEETS 14 & 15

17-MAR-2008 16:08  
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 S:\backburn AT REN242226

PROJECT REFERENCE NO.	SHEET NO.
U-3304	EC-19/CONST.10
R/W SHEET NO.	10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



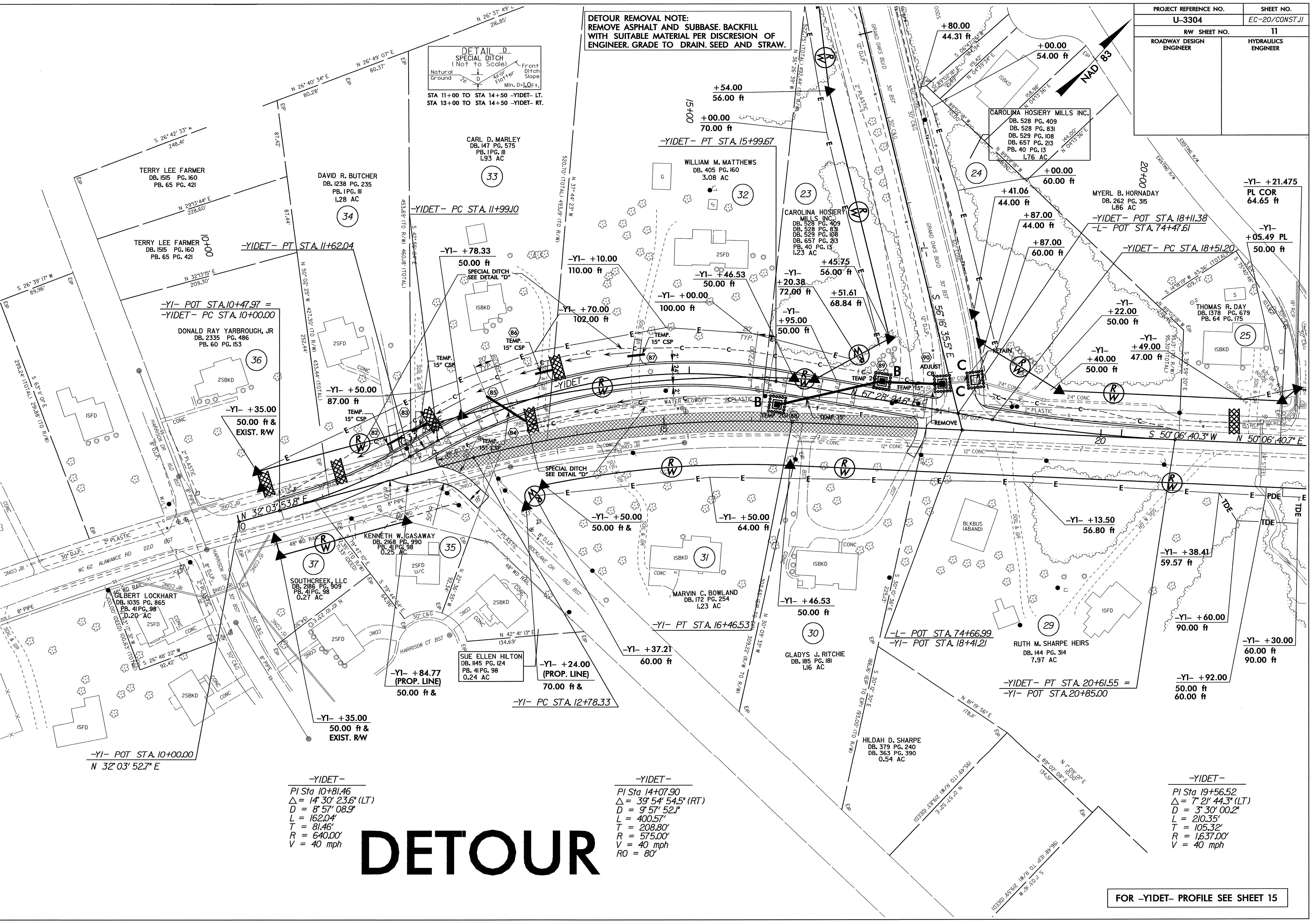
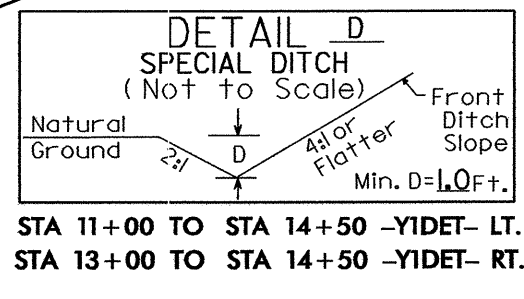
-YI-  
 PI Sta 14+63.97  
 $\Delta = 18^{\circ} 02' 48.0''$  (RT)  
 $D = 4^{\circ} 54' 04.6''$   
 $L = 368.20'$   
 $T = 185.64'$   
 $R = 1169.00'$   
 $V = 50$  mph  
 $RO = 216'$

34 x 11 x 3  
 1.5 inch Skimmer  
 with 1 inch  
 Orifice Diameter  
 6 ft. weir  
 ID 10.1

FOR -YI- PROFILE SEE SHEET 14

03-MAR-2008 15:04  
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 B:\lockburn AT RENV214547

DETOUR REMOVAL NOTE:  
REMOVE ASPHALT AND SUBBASE BACKFILL  
WITH SUITABLE MATERIAL PER DISCRETION OF  
ENGINEER. GRADE TO DRAIN. SEED AND STRAW.



-YIDET-  
PI Sta 10+81.46  
Δ = 14° 30' 23.6" (LT)  
D = 8° 57' 08.9"  
L = 162.04'  
T = 81.46'  
R = 640.00'  
V = 40 mph

-YIDET-  
PI Sta 14+07.90  
Δ = 39° 54' 54.5" (RT)  
D = 9° 57' 52.1"  
L = 400.57'  
T = 208.80'  
R = 575.00'  
V = 40 mph  
RO = 80'

-YIDET-  
PI Sta 19+56.52  
Δ = 7° 21' 44.3" (LT)  
D = 3° 30' 00.2"  
L = 210.35'  
T = 105.32'  
R = 1,637.00'  
V = 40 mph

# DETOUR

FOR -YIDET- PROFILE SEE SHEET 15

04-MAR-2008 14:20 u3304\environmental\design\ur-3304-ec-psh-11.dgn  
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 BF:\lockburn