TIP PROJECT: U-4421

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4421	EC-1	

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

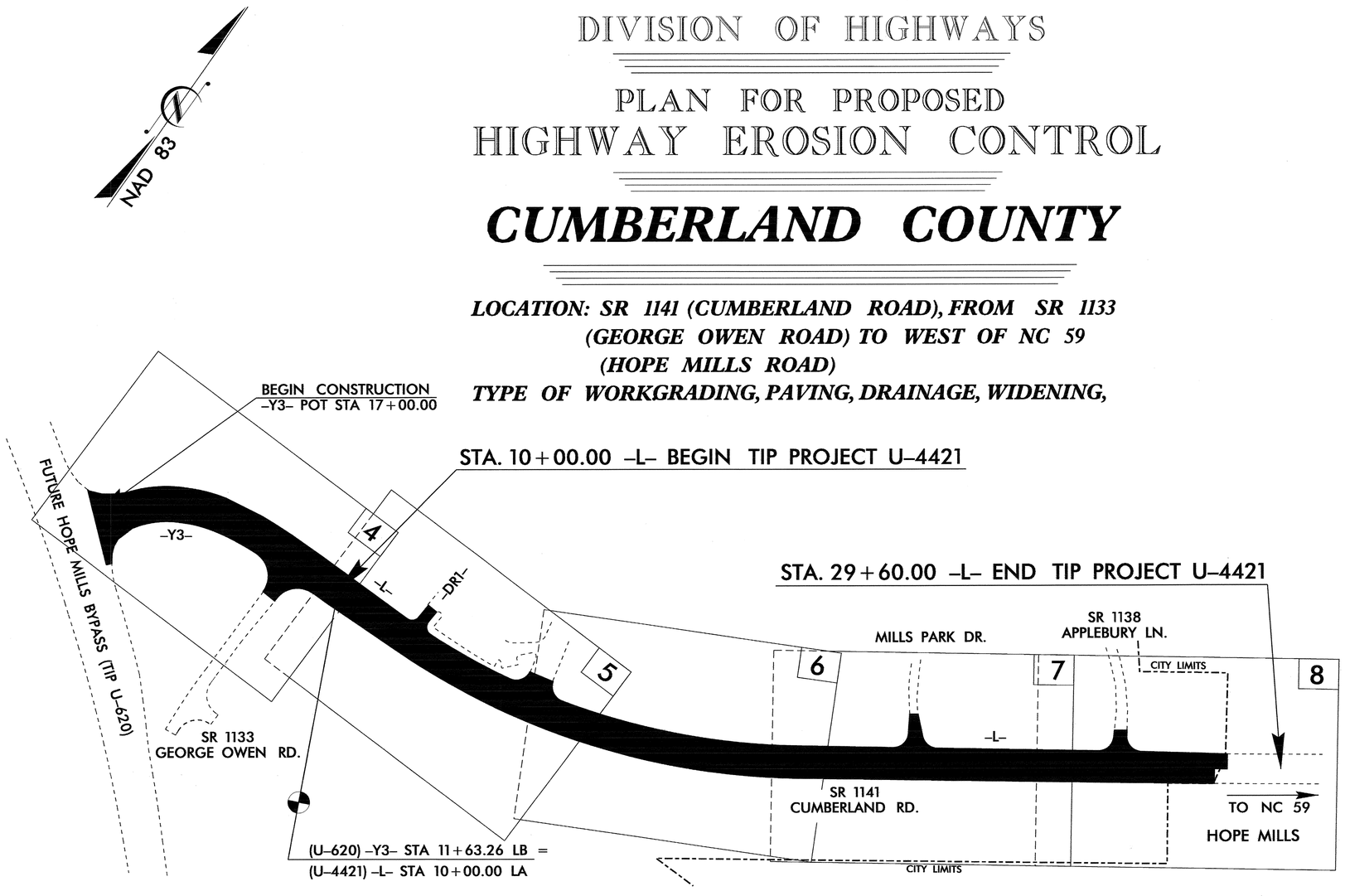
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

CUMBERLAND COUNTY

LOCATION: SR 1141 (CUMBERLAND ROAD), FROM SR 1133 (GEORGE OWEN ROAD) TO WEST OF NC 59 (HOPE MILLS ROAD)

TYPE OF WORKGRADING, PAVING, DRAINAGE, WIDENING,



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation	
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.01	Riser Basin	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-B	
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	

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

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2006 STANDARD SPECIFICATIONS

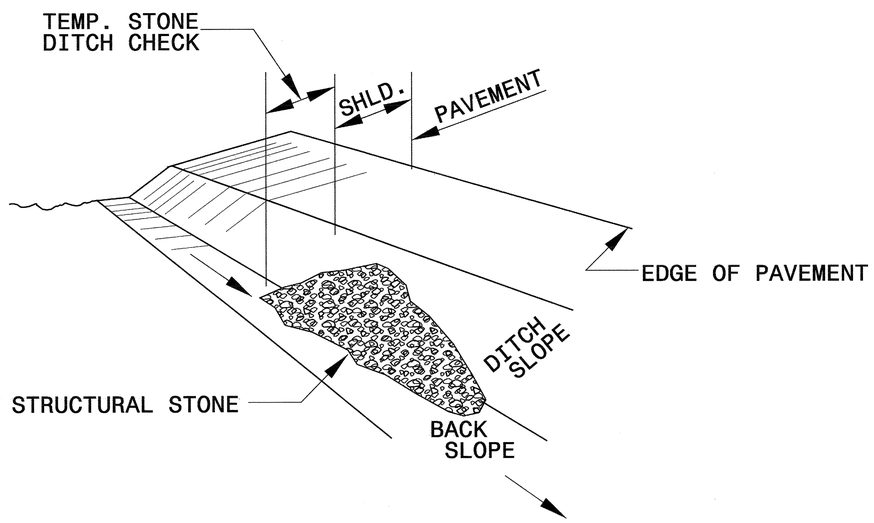
Roadway Standard Drawings

The following roadway 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 revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01 Temporary Silt Fence
1607.01 Gravel Construction Entrance
1622.01 Temporary Berms and Slope Drains
1632.03 Rock Inlet Sediment Trap Type C
1633.01 Temporary Rock Silt Check Type A

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY ROCK SILT CHECK TYPE 'B' DETAIL

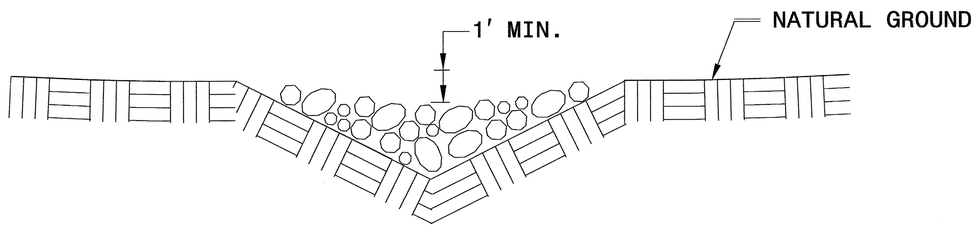


ISOMETRIC VIEW

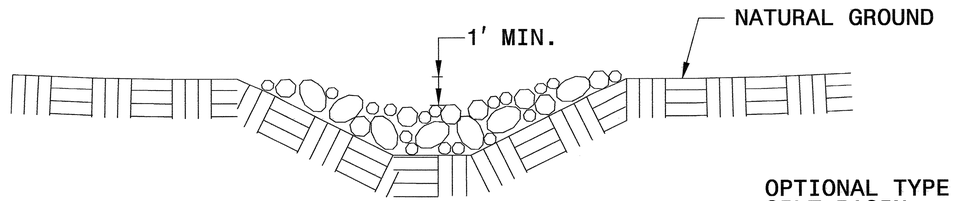
NOTES:

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

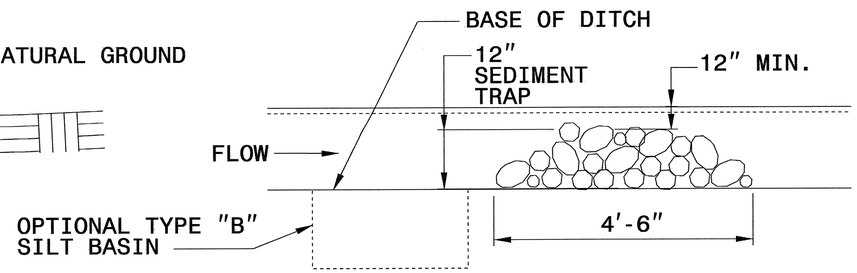
THE ENGINEER MAY DIRECT THE OPTION OF CLASS "A" STONE FOR SITES HAVING LESS THAN ONE (1) ACRE DRAINAGE AREA AND A DITCH GRADE LESS THAN 3%.



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH



ELEVATION VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-03/CONST.04

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 04

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

–Y3–	
PI Sta 15+66.64	PIs Sta 14+50.86
Δ = 22° 27' 03.6" (LT)	θs = 27° 00' 00.0"
D = 25° 00' 00.0"	Ls = 216.00'
L = 89.80	LT = 145.71'
T = 45.49'	ST = 73.56'
R = 229.18'	

NAD 83

HAYNE HENS FARMS INC.

DO NOT DISTURB WATER TANK

WATER TANK

FLAGPOLE

MTL CANOPY

BLK WALL W/60' CHL

ISBLKBUS

Tie to Exist. Conc. Island –Y3– Sta. 15+21.15

216' LANE SHIFT

–Y3– SC Sta. 15+21.15

BEGIN RESURFACE

BEGIN CONSTRUCTION

–Y3– STA 17+00.00

convert JB to DI

3.25' OFFSET

2' R

Prop. 5" Conc. Mono Island

4.0' ISLAND

N 89° 50' 33.5" W

–Y3–

EXIST. OFFSET

–Y3– PT Sta. 16+10.96

–Y3– PI Sta. 15+66.64

–Y3– POT Sta. 11+63.26

+75 –Y3– "EX. R/W" & 60'

RETAIN

EXIST. WIDTH

MATCH TO SHEET 5 STA. 10+00 –L– (U-4421) LA

+00.75

50.5K

JOSEPH E. IVEY

"EX. R/W"

R 65'

–Y3– TS Sta. 13+05.15

JOHN MAXIE TEW

END RESURFACE AT RADIUS POINT

BL-6 (U-0620)

BL-PINC 1403.34 (63.66' RT) = Y3 STA. 13+00.62

S 40° 42' 23.0" W

–Y3– POT Sta. 17+69.55

N 10° 55' 12" E 68.00'

N 79° 04' 48" W 68.00'

174.82' S87°27'34"E

NO ASSOCIATED PIPING FOUND FOR WATER METERS IN THIS AREA.

SR 1133 GEORGE OWEN RD

22' BST

EXISTING R/W

76.00' N88°57'5"W

332.00' N01°11'

HTR

SOIL

POOL

ISFD

B

EIP

W/LT

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-04/CONST.05

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 05

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

–L–
PI Sta 15+75.61
△= 34° 29' 09.7" (LT)
D = 5° 12' 31.3"
L = 662.08'
T = 341.41'
R = 1,100.00'
SE = .04
INC = .42'
RO = 168'

HAYNE NENS FARMS INC. (1)

F.K.S., INCORPORATED (2)

CUMBERLAND TOWERS DEVELOPMENT

BEGIN CONSTRUCTION
–DR1– STA. 10+15.00

BEGIN TIP PROJECT U-4421
–L– POT STA. 10+00.00

–L– POT Sta. 11+69.00 =
–DR1– POT Sta. 11+00.00

–DR1– POT Sta. 10+00.00

–L– PC Sta. 12+34.20

END 2'-6" C&G CHANNELIZATION
TIE TO EXIST. C&G

TIE TO EXIST. C&G

TAPER FROM EXIST. WIDTH TO 68' F-F

PROP. 2'-6" C&G

REMOVE

* SEE NOTE

FLAGPOLE

EXISTING R/W

100' R/W

MATCH TO SHEET 6 STA 15+00 –L–

MATCH TO SHEET 4 STA. 11+ EX. SE

(U-620) –Y3– POT STA. 11+63.26 LB =
(U-4421) –L– POT STA. 10+00.00 LA

S 89° 50' 33.5" E

S 4° 00' 15" W

SR 1141 CUMBERLAND RD 25' BST

20' DR.

RETAIN

convert DI to JB

16" STEEL ENCASEMENT

FLOW

NAD 83

ALTON D. REGISTER (4)

LILLIAN J. SWAIN (5)

ROBERT H. HIGGINS (6)

ELLIS EMPIE EHLE, JR. (7)

(NO CLAIM)
BOBBY RAY TYNER (8)

(NO CLAIM)
EARL CEDRIC TEW (9)

* NOTE: A GEOGRID REINFORCED SLOPE SHALL BE PLACED BETWEEN –L– LT. 11+95± TO 13+50± PROJECT SPECIAL PROVISION – GEOGRID REINFORCED SLOPE (SEE DETAIL SHT 2-C)

SEE SHEET 9 FOR –L– PROFILE
SEE SHEET 10 FOR –DR1– PROFILE

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-05/CONST.06

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 06

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

–L–
PI Sta 15+75.61
Δ = 34° 29' 09.7" (LT)
D = 5° 12' 31.3"
L = 662.08'
T = 341.41'
R = 1,100.00'
SE = .04
INC = 42'
RO = 168'

MATCH TO SHEET 5 STA. 15+00 –L–

MATCH TO SHEET 7 STA. 20+00 –L–

–L– PT Sta. 18+96.28

NAD 83

3 HTM INVESTMENTS

10 HOLLIS L. LUDLUM

11 MARGIE WOODS

12 TIMOTHY HOLZER

13 EDWARD GABRISH

14 TIMOTHY HOLZER

15 HTM INVESTMENTS, INC.

16 CUMBERLAND BAPTIST CHURCH, INC.

* NOTE: DO NOT DISTURB CANOPY DURING CONSTRUCTION

* SEE NOTE

PROP. 2'–6" C&G

PROP. 2'–6" C&G

20' DR.

24' DR

PROP. 8"X18" CURB R=5' (TYP.)

PROP. 8"X18" CURB

BEGIN 8"x18" CURB CHANNELIZATION

"EX. R/W" 63'

"EX. R/W" 58'

"EX. R/W" 66'

"EX. R/W" 70'

BY2-44 (U-620)
BL-PINC 17+89.55 (38.62' RT)
= -L- 15+38.72

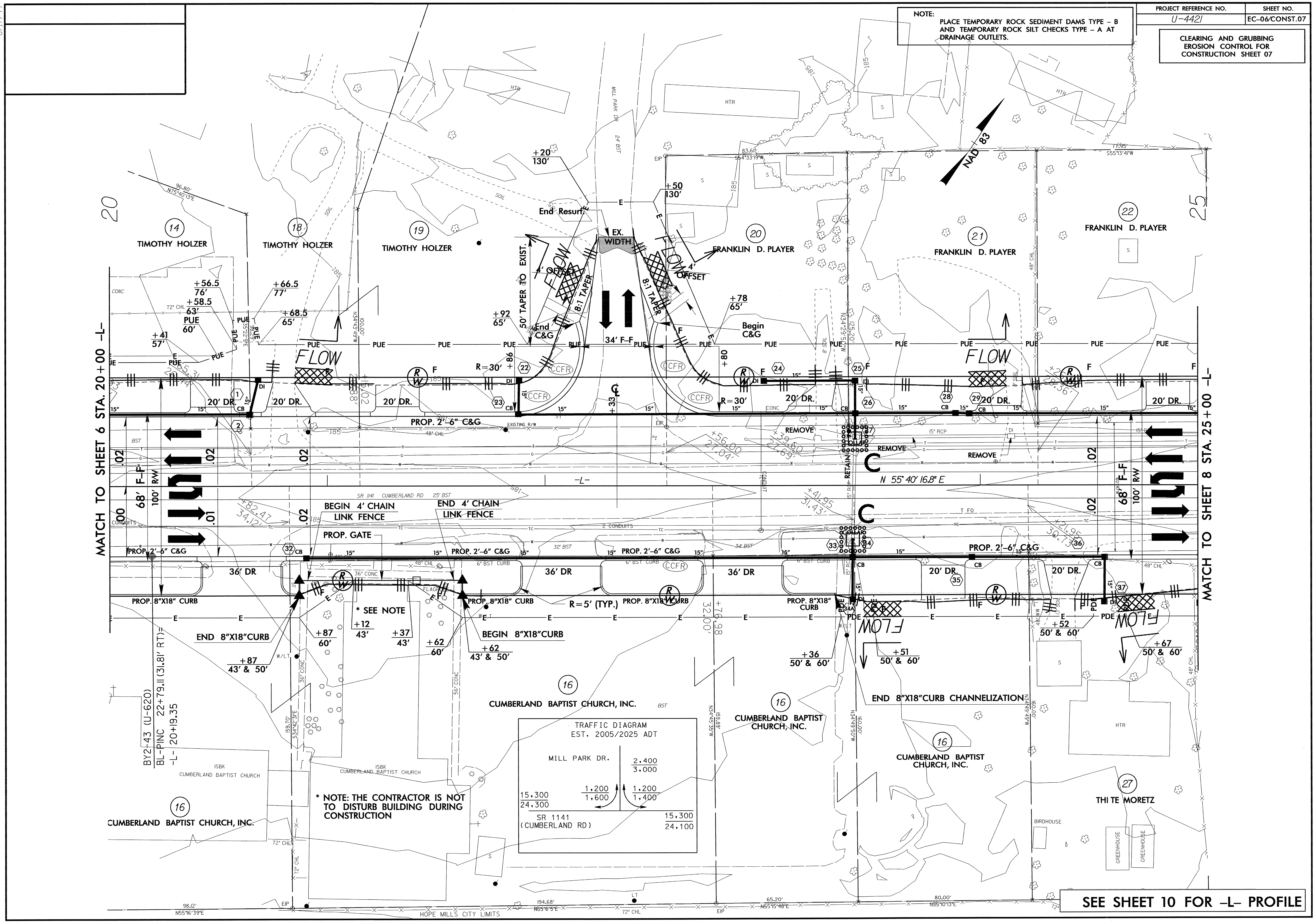
RETAIN

SEE SHEET 9 FOR –L– PROFILE

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-06/CONST.07

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 07

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



SEE SHEET 10 FOR -L- PROFILE

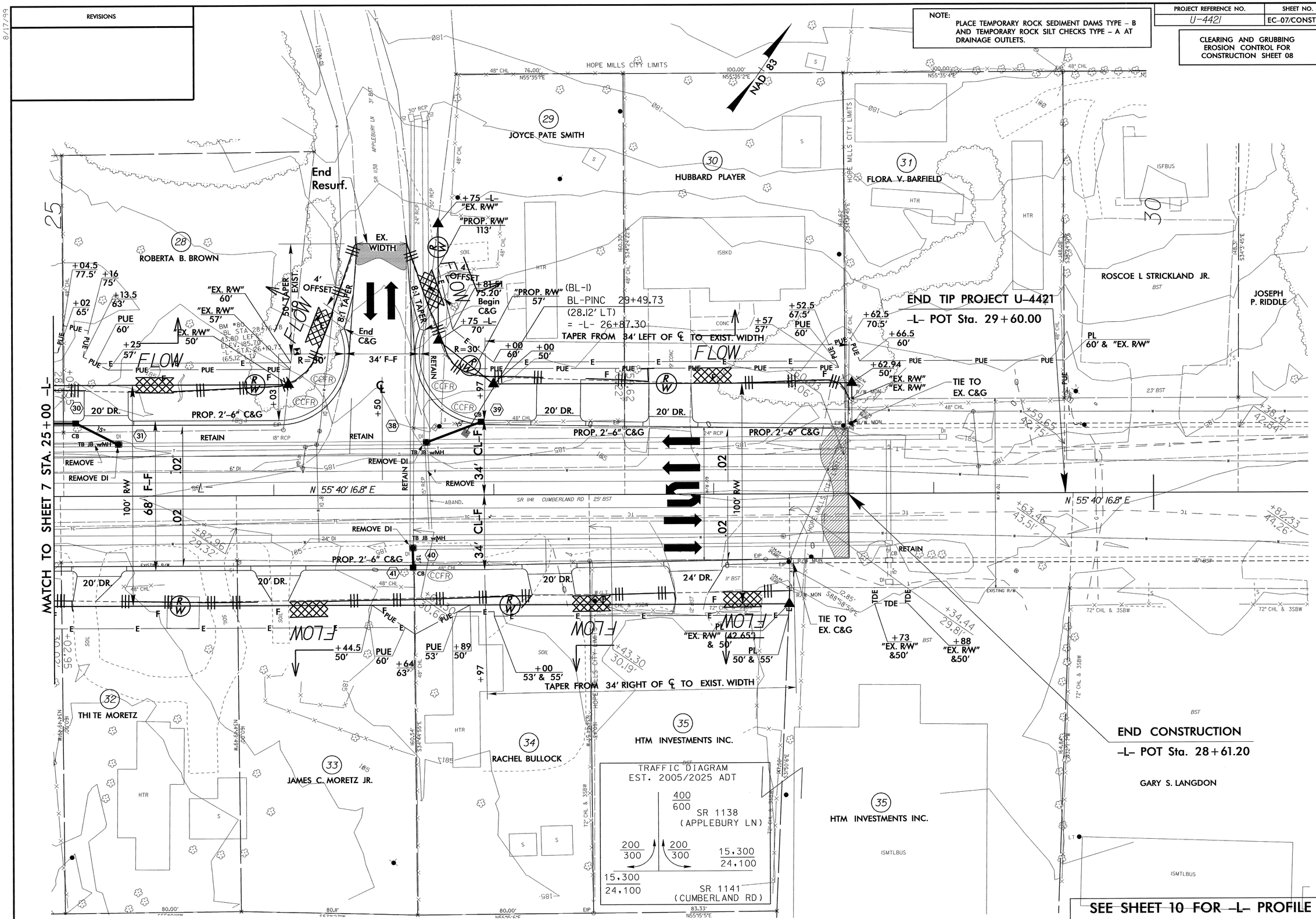
8/17/99

REVISIONS

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

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-07/CONST.08

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 08



PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-08/CONST.04

-Y3-	
PI Sta 15+66.64	PIs Sta 14+50.86
△ = 22° 27' 03.6" (LT)	Θ s = 27° 00' 00.0"
D = 25° 00' 00.0"	Ls = 216.00'
L = 89.80	LT = 145.71'
T = 45.49'	ST = 73.56'
R = 229.18'	

NAD 83

1
HAYNE HENS FARMS INC.

DO NOT DISTURB
WATER TANK

WATER TANK

FLAGPOLE

MTL CANOPY

BLK WALL W/60° CHL

CONC

ISBLKBUS

BST

Tie to Exist.
Conc. Island
-Y3- Sta. 15+21.15

216' LANE SHIFT

-Y3- SC Sta. 15+21.15

BEGIN RESURFACE
BEGIN CONSTRUCTION
-Y3- STA 17+00.00

convert JB to DI

3.25'
OFFSET

N 89° 50' 33.5" W

-Y3-

2' R

Prop. 5" Conc. Mono. Island

4.0'
ISLAND

+00.75
50.51'

-Y3- PT Sta. 16+10.96

-Y3-

EXIST.
OFFSET

EXIST. CONC. ISLAND

S 40° 42' 23.0" W

-Y3- POT Sta. 17+69.55

-Y3- TS Sta. 13+05.15

JOHN MAXIE TEW

HTR

BL-6 (U-0620)
BL-PINC 11+03.34 (63.66' RT)
= Y3 STA. 13+00.62

W/LT

EIP

SOIL

HTR

NO ASSIGNED PIPING FOUND FOR WATER METERS IN THIS AREA.

N00°30'E 89.89'

N00°52'12"E 86.00'

174.82'
S87°27'34"E

EXISTING R/W

SR 1133 GEORGE OWEN RD 22' BST

-Y3- POT Sta. 11+63.26

+75 -Y3-
"EX. R/W" &
60'

RETAIN

18"

EXIST. WIDTH

MATCH TO SHEET 5 STA. 10+00 -L- (U-4421) LA

JOSEPH E. IVEY

"EX. R/W"

R
65'

ISFD

POOL

SOIL

B

48" CHL

76.00'
N88°57'5"W

END RESURFACE
AT RADIUS POINT

95.0N
N87°11'

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-09/CONST.05

-L-
PI Sta 15+75.61
Δ = 34° 29' 09.7" (LT)
D = 5° 12' 31.3"
L = 662.08'
T = 341.41'
R = 1,100.00'
SE = .04
INC = .42'
RO = 168'

(1) HAYNE NENS FARMS INC.

(2) F.K.S., INCORPORATED

CUMBERLAND TOWERS DEVELOPMENT

BEGIN CONSTRUCTION -DR1- STA. 10+15.00

BEGIN TIP PROJECT U-4421 -L- POT STA. 10+00.00

-L- POT Sta. 11+69.00 = -DR1- POT Sta. 11+00.00

-DR1- POT Sta. 10+00.00

-DR1- -L- PC Sta. 12+34.20

END 2'-6" C&G CHANNELIZATION TIE TO EXIST. C&G

TAPER FROM EXIST. WIDTH TO 68' F-F

PROP. 2'-6" C&G

TIE TO EXIST. C&G

REMOVE

* SEE NOTE

FLAGPOLE

MTL CANOPY

ISMTL.BUS

SAND

CONC

48" CHL

60" CHL

24" C&G

-L- S 89° 50' 33.5" E

EX. SE

SR 1141 CUMBERLAND RD 25' BST

EXISTING R/W

50' R/W

100' R/W

68' F-F

MATCH TO SHEET 4 STA. 11+63.26 -Y3- (U-620) LB =

MATCH TO SHEET 6 STA 15+00 -L-

RETAIN

20' DR.

convert DI to JB

30" CONC

2" PVC

8" PVC

16" STEEL ENCASEMENT

"EX. R/W" 50'

POSTS

SOIL

LANDSCAPE TIMBERS

POOL

(4) ALTON D. REGISTER

(5) LILLIAN J. SWAIN

(6) ROBERT H. HIGGINS

(7) ELLIS EMPIE EHLE, JR.

(8) (NO CLAIM) BOBBY RAY TYNER

(9) (NO CLAIM) EARL CEDRIC TEW

* NOTE: A GEOGRID REINFORCED SLOPE SHALL BE PLACED BETWEEN -L- LT. 11+95 ± TO 13+50 ± PROJECT SPECIAL PROVISION – GEOGRID REINFORCED SLOPE (SEE DETAIL SHT 2-C)

(U-620) -Y3- POT STA. 11+63.26 LB = (U-4421) -L- POT STA. 10+00.00 LA

NAD 83

SEE SHEET 9 FOR -L- PROFILE
SEE SHEET 10 FOR -DR1- PROFILE

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-10/CONST.06

-L-
PI Sta 15+75.61
Δ = 34° 29' 09.7" (LT)
D = 5° 12' 31.3"
L = 662.08'
T = 341.41'
R = 1,100.00'
SE = .04
INS = 42'
RO = 168'

MATCH TO SHEET 5 STA. 15+00 -L-

MATCH TO SHEET 7 STA. 20+00 -L-

3 HTM INVESTMENTS

10 HOLLIS L. LUDLUM

11 MARGIE WOODS

12 TIMOTHY HOLZER

13 EDWARD GABRISH

14 TIMOTHY HOLZER

15 HTM INVESTMENTS, INC.

16 CUMBERLAND BAPTIST CHURCH, INC.

* NOTE: DO NOT DISTURB CANOPY DURING CONSTRUCTION

* SEE NOTE

-L- PT Sta. 18+96.28

NAD 83

SR 1141 CUMBERLAND RD

PROP. 2'-6" C&G

PROP. 8"X18" CURB

R=5' (TYP.)

20' DR.

24' DR

"EX. R/W" 63'

"EX. R/W" 58'

"EX. R/W" 66'

"EX. R/W" 70'

BY2-44 (U-620)
BL-PINC 17+89.55 (38.62' RT)
= -L- 15+38.72

BEGIN 8"x18" CURB CHANNELIZATION

RETAIN

ISFD

ISFBUS

ISBK CUMBERLAND BAPTIST CHURCH

CUMBERLAN

SEE SHEET 9 FOR -L- PROFILE

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-11/CONST.07

MATCH TO SHEET 6 STA. 20+00 –L–

MATCH TO SHEET 8 STA. 25+00 –L–

NAD 83

20

25

14 TIMOTHY HOLZER

18 TIMOTHY HOLZER

19 TIMOTHY HOLZER

20 FRANKLIN D. PLAYER

21 FRANKLIN D. PLAYER

22 FRANKLIN D. PLAYER

96.80' N75°40'13"E

83.61' S54°33'19"W

77.95' S55°13'41"W

+20 130'

+50 130'

End Resurf.

EX. WIDTH

4' OFFSET

8:1 TAPER

50' TAPER TO EXIST.

+92 65'

End C&G

+78 65'

Begin C&G

34' F–F

+80

+56.5 76'

+58.5 63'

PUE 60'

+66.5 77'

+68.5 65'

+41 57'

PUE

R=30'

CCFR

20' DR.

PROP. 2'–6" C&G

48" CHL

+33

+56.00 27.04'

+39.80 31.69'

REMOVE

COLLAR

RETAIN

N 55° 40' 16.8" E

+82.47 34.12'

+41.95 31.43'

+21.95 30.73'

SR 1141 CUMBERLAND RD 25' BST

BEGIN 4' CHAIN LINK FENCE

END 4' CHAIN LINK FENCE

PROP. GATE

2 CONDUITS

32' BST

34' BST

6" BST CURB

36' DR

36" CONC

PROP. 8"X18" CURB

R=5' (TYP.)

+76.98 32.00'

END 8"X18"CURB

BEGIN 8"X18"CURB

* SEE NOTE

+87 60'

+87 43' & 50'

+12 43'

+37 43'

+62 60'

+62 43' & 50'

+36 50' & 60'

+51 50' & 60'

+52 50' & 60'

+67 50' & 60'

END 8"X18"CURB CHANNELIZATION

BY2-43 (U-620)
BL-PINC 22+79.11 (31.81' RT)=
–L– 20+19.35

16 CUMBERLAND BAPTIST CHURCH, INC.

ISBK CUMBERLAND BAPTIST CHURCH

* NOTE: THE CONTRACTOR IS NOT TO DISTURB BUILDING DURING CONSTRUCTION

TRAFFIC DIAGRAM
EST. 2005/2025 ADT

MILL PARK DR. 2,400 / 3,000

15,300 / 24,300

1,200 / 1,600

1,200 / 1,400

SR 1141 (CUMBERLAND RD) 15,300 / 24,100

27 THI TE MORETZ

BIRDHOUSE

GREENHOUSE

GREENHOUSE

HTR

HOPE MILLS CITY LIMITS

98.12' N55°16'39"E

194.68' N55°6'5"E

65.20' N55°15'48"E

80.00' N55°10'13"E

SEE SHEET 10 FOR –L– PROFILE

8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
U-4421	EC-12/CONST.08

NAD 83

HOPE MILLS CITY LIMITS

29 JOYCE PATE SMITH

30 HUBBARD PLAYER

31 FLORA V. BARFIELD

28 ROBERTA B. BROWN

32 THI TE MORETZ

33 JAMES C. MORETZ JR.

34 RACHEL BULLOCK

35 HTM INVESTMENTS INC.

ROSCOE L STRICKLAND JR.

JOSEPH P. RIDDLE

GARY S. LANGDON

APPLEBURY LN SR 1138

SR 1141 CUMBERLAND RD

HOPE MILLS CITY LIMITS

MATCH TO SHEET 7 STA. 25+00 -L-

END TIP PROJECT U-4421

-L- POT Sta. 29+60.00

END CONSTRUCTION

-L- POT Sta. 28+61.20

BM #80 -BL STA. 28+76.78 43.80 LEFT ELEV. 185.70 -L- STA. 26+10.71 (65.12 LT)

(BL-1) BL-PINC 29+49.73 (28.12' LT) = -L- 26+87.30

TAPER FROM 34' LEFT OF ℄ TO EXIST. WIDTH

TAPER FROM 34' RIGHT OF ℄ TO EXIST. WIDTH

TRAFFIC DIAGRAM
EST. 2005/2025 ADT

400/600 SR 1138 (APPLEBURY LN)

200/300 | 200/300 | 15,300/24,100

15,300/24,100 SR 1141 (CUMBERLAND RD)

SEE SHEET 10 FOR -L- PROFILE