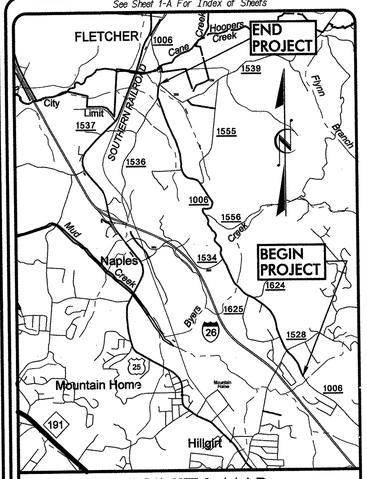
09/08/99

PROJECT: R-5207B

CONTRACT: C202743



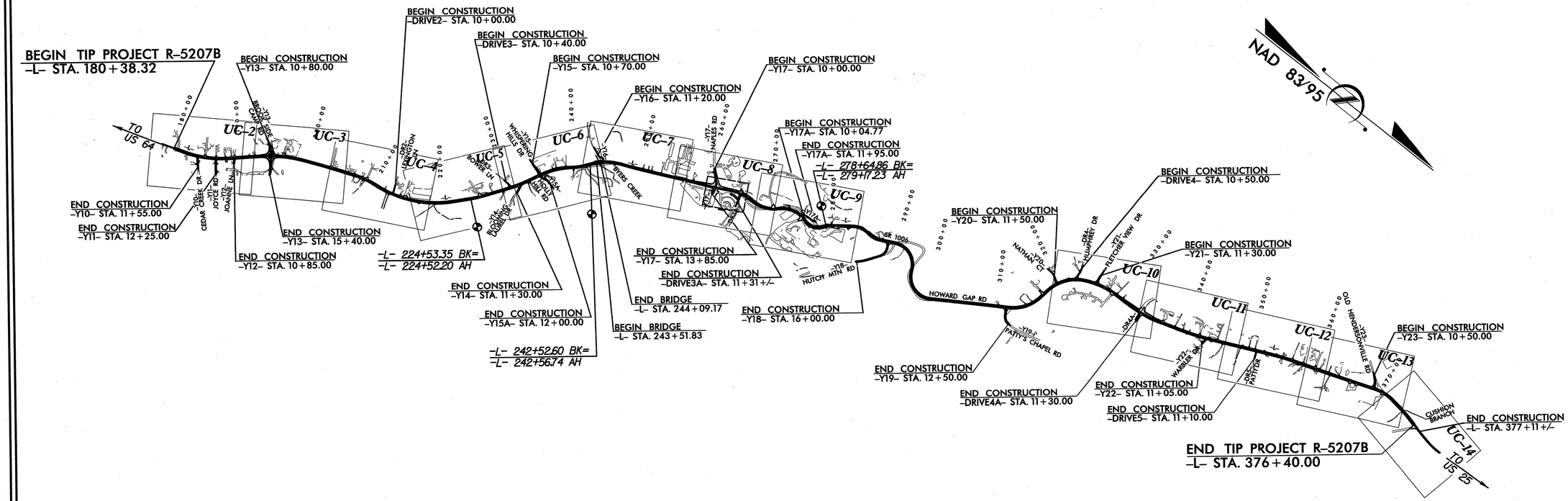
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

T.I.P. NO.	SHEET NO.
R-5207B	UC-1

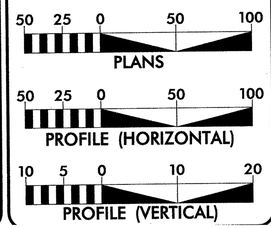
UTILITY CONSTRUCTION PLANS HENDERSON COUNTY

LOCATION: SR 1006 (HOWARD GAP ROAD) FROM BRIDGE 334 TO SR 1539 (JACKSON ROAD)

TYPE OF WORK: UTILITY CONSTRUCTION



GRAPHIC SCALES



INDEX OF SHEETS

SHEET NO.	*DESCRIPTION*
UC-1	*TITLE SHEET*
UC-2 THRU UC-14	*UTILITY CONSTRUCTION PLAN SHEETS*
UC-15 THRU UC-16	*PROFILE SHEETS*

WATER AND SEWER OWNERS ON PROJECT

(1) WATER AND SANITARY SEWER – CITY OF HENDERSONVILLE
(2) WATER AND SANITARY SEWER – FLETCHER ACADEMY

NORTH CAROLINA PROFESSIONAL SEAL 35018 ENGINEER JIMMY L. TERRY
4/20/12

PLANS PREPARED BY:	*PLANS PREPARED FOR:*
TGS ENGINEERS *TGS ENGINEERS* *SUITE 141* *975 WALNUT STREET* *CARY, NC 27511* *PH (919) 319-8850*	*NCDOT DIVISION 14* *NCDOT Contact:* *RALPH CANNADY* *DIVISION CONTRACT OFFICER*
2006 STANDARD SPECIFICATIONS	*JIMMY L. TERRY, PE* *PROJECT ENGINEER*

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGN$$$$

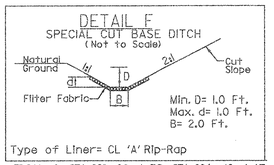
7B_Ut_Title_UC1_psh.dgn 4/11/2012 7:51:48 AM

5/14/99

DATUM DESCRIPTION

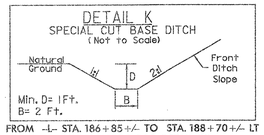
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "1-4400 BL&T" WITH NAD 83/95 STATE PLANE GRID COORDINATES OF NORTHING: 604761.297(FT) EASTING: 968222.384(FT)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99977884
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "1-4400 BL&T" TO -L- STATION 180+38.32 IS N 27° 38' 50.52" E 57.10.99'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

DETAIL F
SPECIAL CUT BASE DITCH
(Not to Scale)



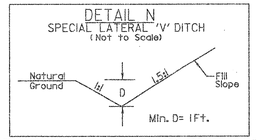
Type of Liner= CL 'A' Rip-Rap
FROM -L- STA. 181+20+/- TO STA. 186+40+/- LT
CL 'A' RIP RAP: EST. 116 TONS
FILTER FABRIC: EST. 460 SY
USE -L- GRADE FOR DETAIL 'F'

DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM -L- STA. 186+85+/- TO STA. 188+70+/- LT
USE -L- GRADE FOR DETAIL 'K'

DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM -L- STA. 183+50+/- TO STA. 189+50+/- RT

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-2
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 35018 ENGINEER JIMMY L. TERRY, JR.
4/20/12
UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

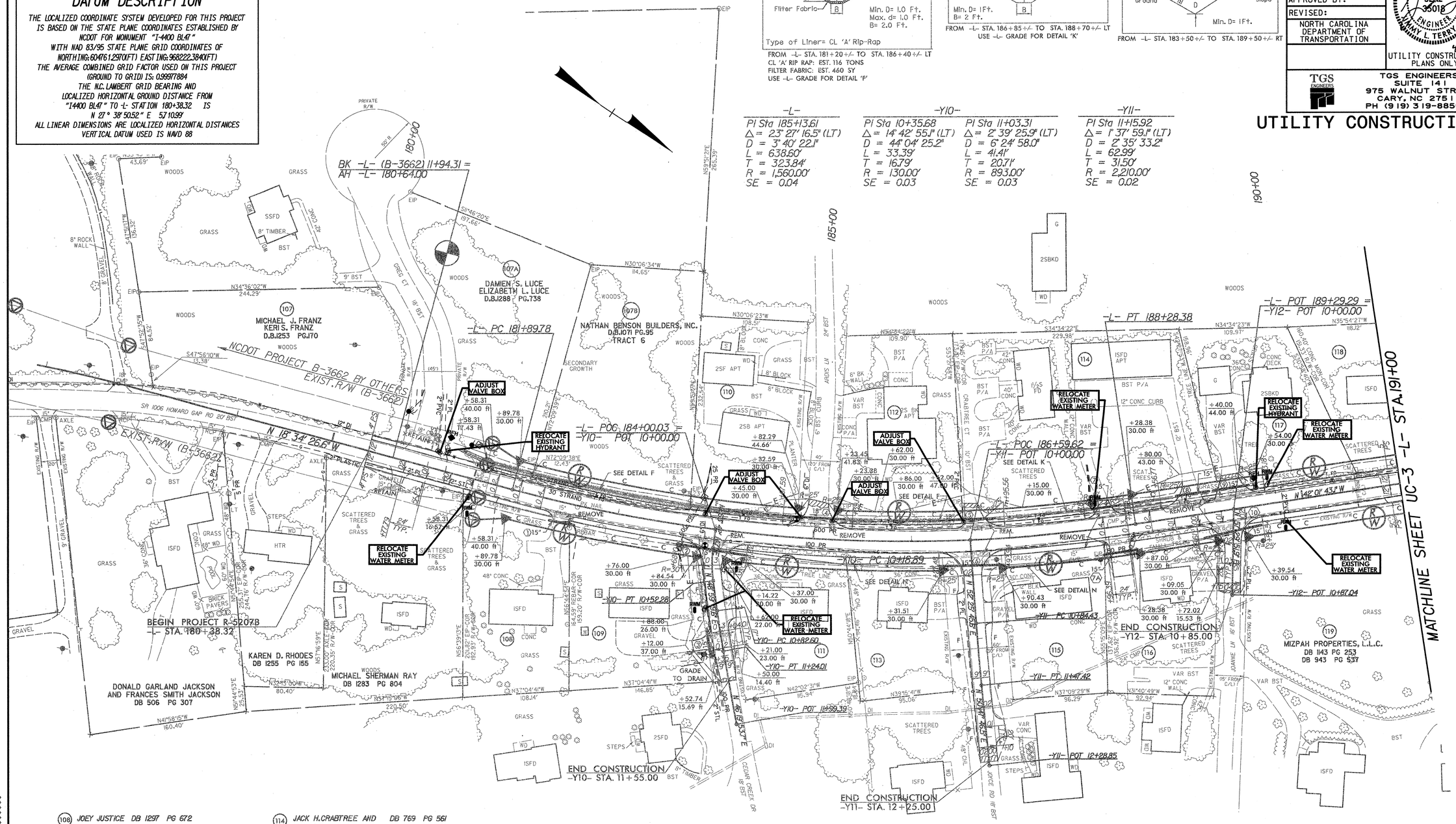
UTILITY CONSTRUCTION

-L-
PI Sta 185+13.61
Δ = 23° 27' 16.5" (LT)
D = 3° 40' 22.1"
L = 638.60'
T = 323.84'
R = 1,560.00'
SE = 0.04

-Y10-
PI Sta 10+35.68
Δ = 14° 42' 55.1" (LT)
D = 44° 04' 25.2"
L = 33.39'
T = 16.79'
R = 130.00'
SE = 0.03

PI Sta 11+03.31
Δ = 2° 39' 25.9" (LT)
D = 6° 24' 58.0"
L = 41.41'
T = 20.71'
R = 893.00'
SE = 0.03

-Y11-
PI Sta 11+15.92
Δ = 1° 37' 59.1" (LT)
D = 2° 35' 33.2"
L = 62.99'
T = 31.50'
R = 2,210.00'
SE = 0.02



Test Hole	Size and Material	Location	Top Elevation
TH-1	6" Ductile Iron	-L- 183+91.63, 17.59'Rt	2098.157'
TH-2	12" Ductile Iron	-L- 184+81.71, 18.70'Lt	2101.208'

(108) JOEY JUSTICE DB 1297 PG 672
(109) KARYN B. SPREEMAN DB 828 PG 397
(110) NATHAN ALVA BENSON DB N/A PG N/A
(111) FRANKLIN E. BROWN AND PHYLLIS A. BROWN DB 577 PG 319
(112) TWIN OAKS CONDOMINIUMS HOMEOWNERS ASSOCIATION DB 656 PG 481
(113) JOHN H. ROSS DB 1183 PG 463
(114) JACK H. CRABTREE AND ROBERTA M. CRABTREE DB 769 PG 561 DB 818 PG 795
(115) STANLEY LYURTH DB 1017 PG 447
(116) DINAH MAE KADUK DB 926 PG 696
(117) ALFRED W. MAYO AND WANDA P. MAYO DB 845 PG 55
(118) SHERI H. AYERS DB 1256 PG 115

NOTES:
EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.
USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)
PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.
PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.
ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

$$$$$SYSTIME$$$$
$$$$$DGN$$$$
$$$$$USERNAME$$$$

R-5207B_UC2.dgn 11/7/2011 4:27:50 PM

5/14/99

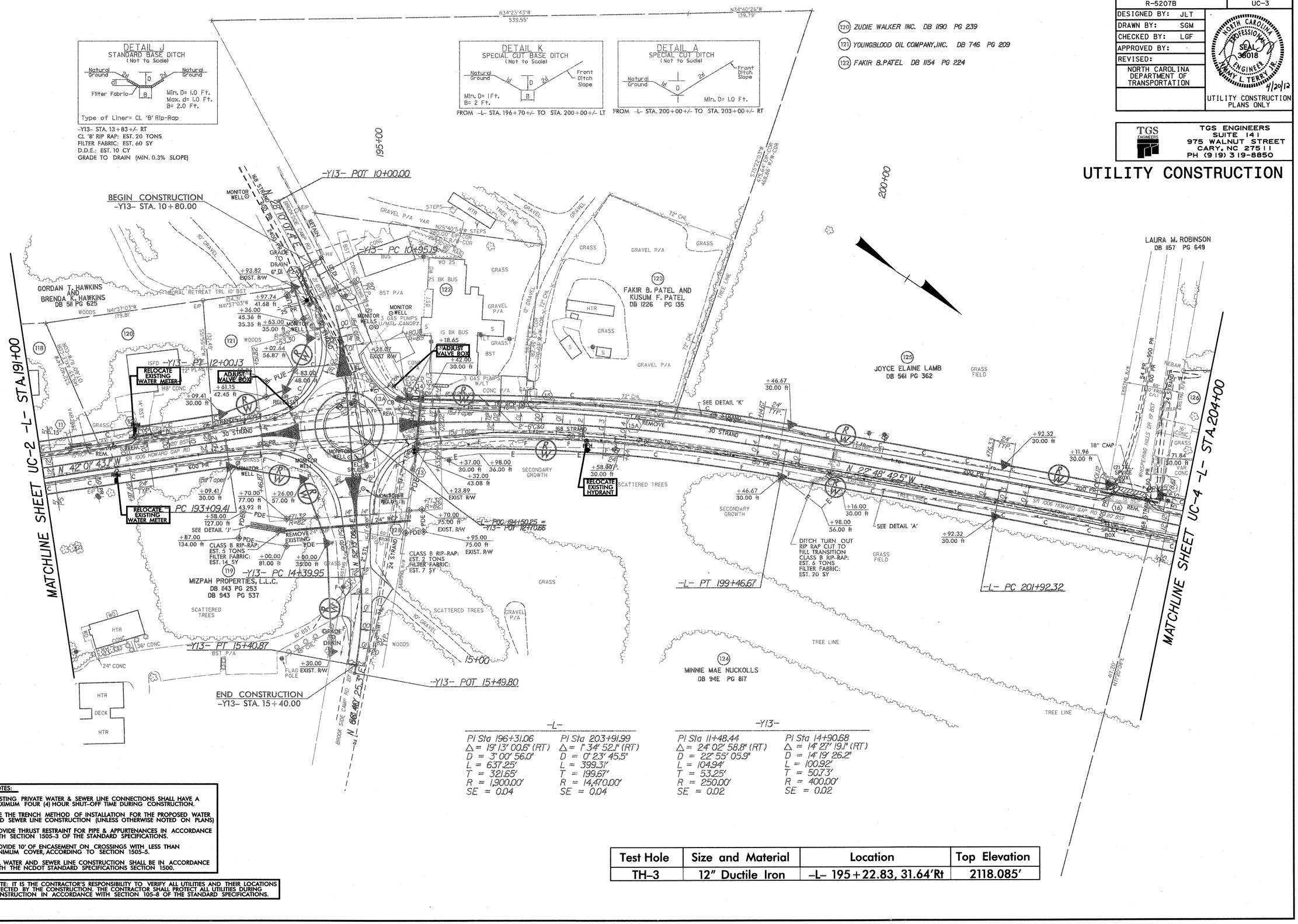
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-3
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 36018 ENGINEER JIMMY L. TERRY JR. 4/20/12

UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION



NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

Test Hole	Size and Material	Location	Top Elevation
TH-3	12" Ductile Iron	-L- 195+22.83, 31.64'Rt	2118.085'

$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$USERNAME$$$$$$$$
$$$$$$$$DGNFILE$$$$$$$$

R-5207B_UC3.dgn 11/7/2011 4:26:36 PM

8/14/99

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-4
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 29018 ENGINEER JIMMY L. TERRY, JR. 4/30/12

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

(126) FRANCES McWHORTER DB 1157 PG 649

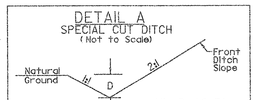
(129) BRIAN W.BYRD AND CHARLENE E.BYRD DB 1145 PG 80

(130) PHYLLIS C.HARRIS DB 1189 PG 043

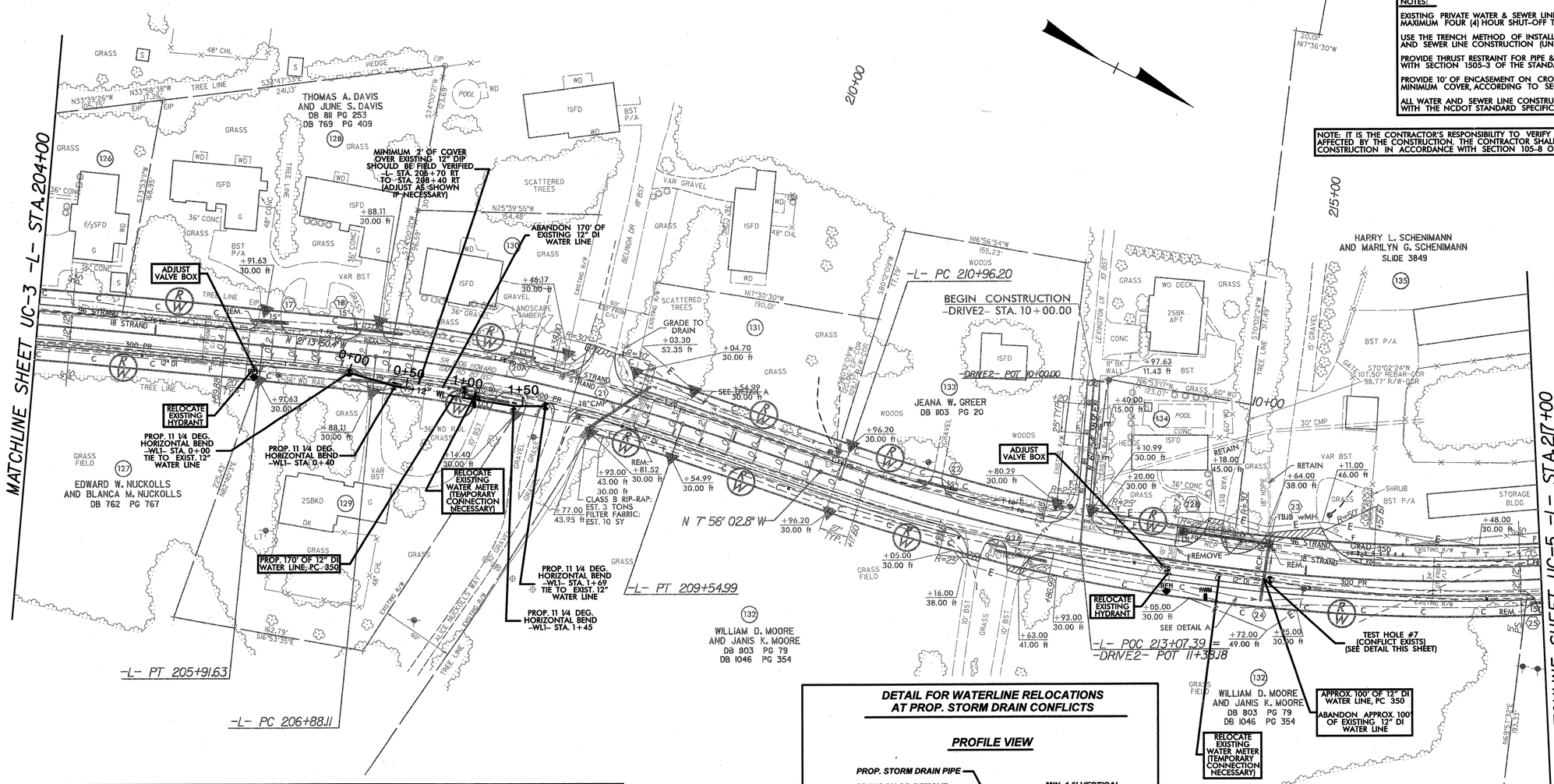
(131) M.HELENA RUDELL DB 1082 PG 155

(134) JULIET NICHOLSON HEATHERLY AND GARLAND SCOTT HEATHERLY DB 1052 PG 52

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



FROM -L- STA. 209+20+/- TO STA. 210+00+/- LT
FROM -L- STA. 214+00+/- TO STA. 215+00+/- RT



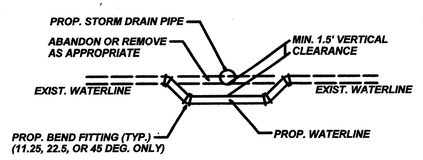
Test Hole	Size and Material	Location	Top Elevation
TH-4	12" Ductile Iron	-L- 206+66.97, 16.02'Rt	2146.535'
TH-5	12" Ductile Iron	-L- 207+66.59, 17.80'Rt	2151.828'
TH-6	12" Ductile Iron	-L- 208+38.30, 17.49'Rt	2151.145'
TH-7	12" Ductile Iron	-L- 214+70.39, 6.20'Rt	2155.530'

-L-

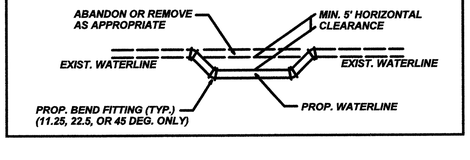
PI Sta 203+91.99	PI Sta 208+22.15	PI Sta 216+70.79
Δ = 1° 34' 52.1" (RT)	Δ = 13° 17' 47.6" (RT)	Δ = 39° 30' 29.3" (LT)
D = 0° 23' 45.5"	D = 4° 58' 56.1"	D = 3° 34' 51.6"
L = 399.31'	L = 266.88'	L = 1,103.28'
T = 199.67'	T = 134.04'	T = 574.59'
R = 14,470.00'	R = 1,150.00'	R = 1,600.00'
SE = 0.04	SE = 0.04	SE = 0.04

DETAIL FOR WATERLINE RELOCATIONS AT PROP. STORM DRAIN CONFLICTS

PROFILE VIEW



PLAN VIEW



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5/14/99

TGS ENGINEERS SUITE 141 975 WALNUT STREET CARY, NC 27511 PH (919) 319-8850	
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-5
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35018 JIMMY L. TERRY JR. 4/20/12

UTILITY CONSTRUCTION

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

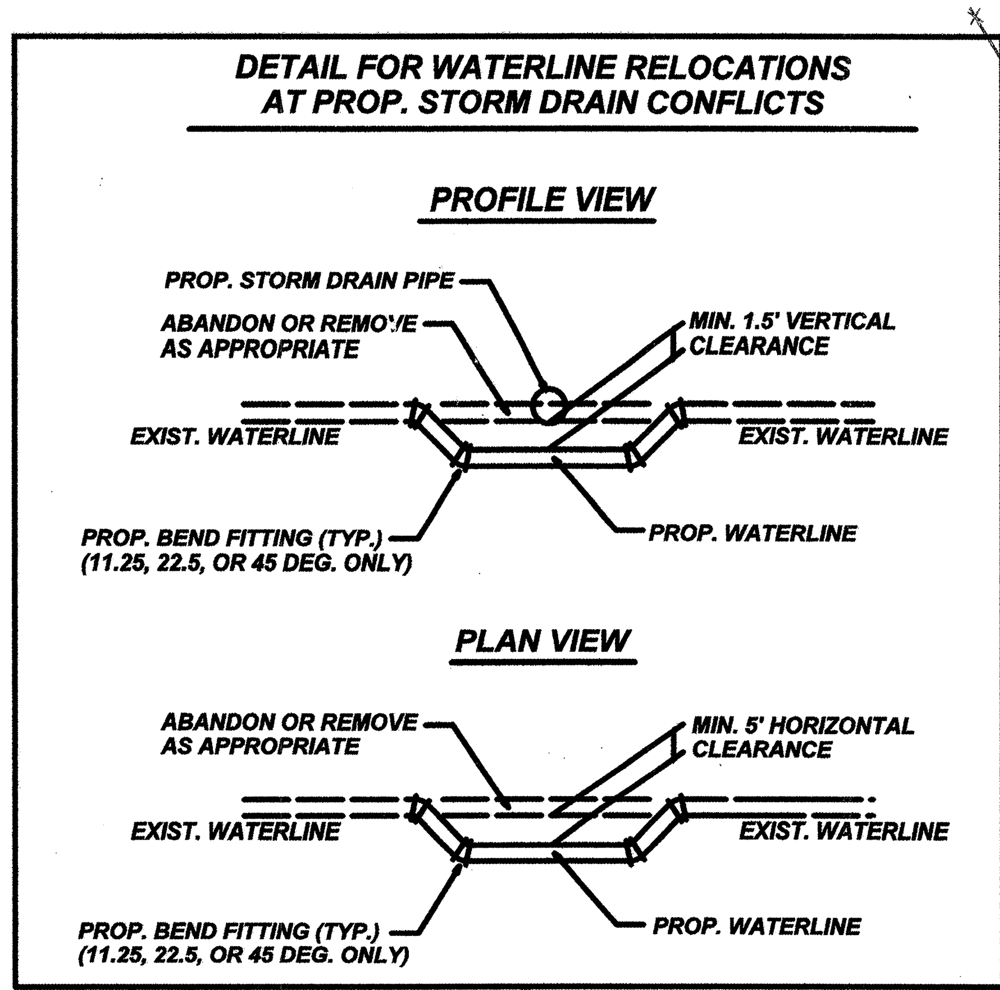
PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

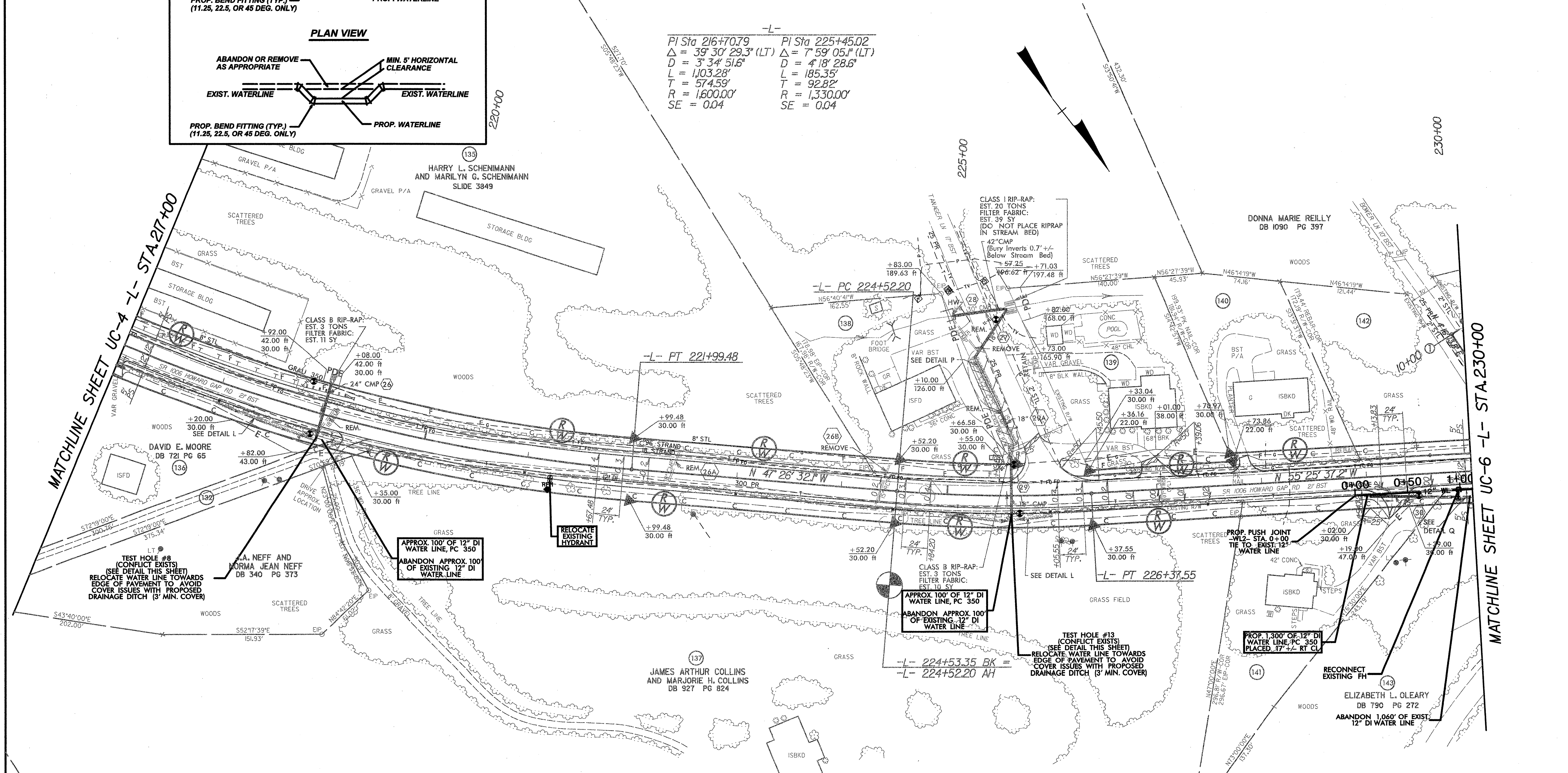
(138) ROBERT H. JOHNSON AND NILDA L. JOHNSON DB 495 PG 157
(139) ROBERT P. POND AND BARBARA L. POND DB 962 PG 174
(140) JOSEPH H. KELLEY DB CT02 PG 541
(141) JOHN L. REESE, JR. DB 818 PG 137
(142) RONALD W. KAROLYI AND JOYCE A. DAVIS DB 842 PG 455

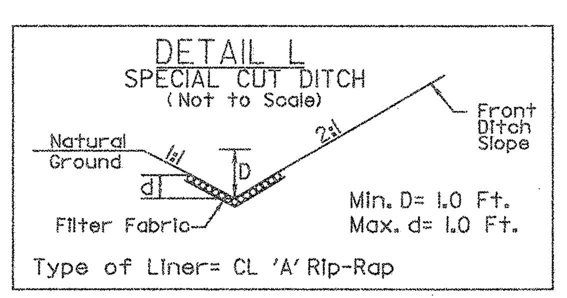
DETAIL FOR WATERLINE RELOCATIONS AT PROP. STORM DRAIN CONFLICTS



-L-

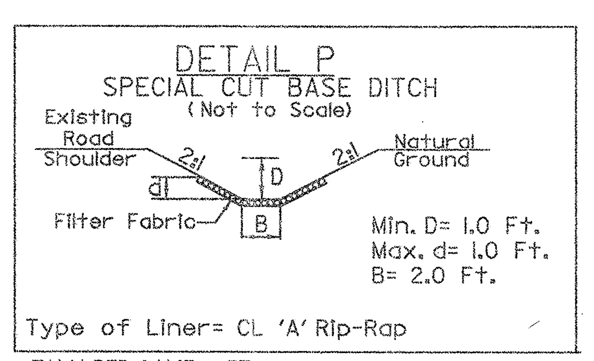
PI Sta 216+70.79	PI Sta 225+45.02
Δ = 39° 30' 29.3" (LT)	Δ = 7° 59' 05.1" (LT)
D = 3° 34' 51.6"	D = 4° 18' 28.6"
L = 1,103.28'	L = 185.35'
T = 574.59'	T = 92.82'
R = 1,600.00'	R = 1,330.00'
SE = 0.04	SE = 0.04



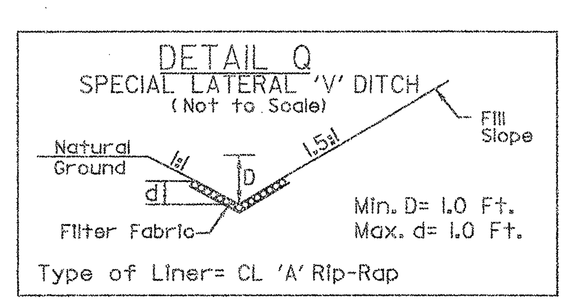


FROM -L- STA. 218+00+/- TO STA.219+00+/- RT
CL 'A' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 78 SY

FROM -L- STA. 225+00+/- TO STA.226+00+/- RT
CL 'A' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 78 SY



TANAGER LANE - RT
CL 'A' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 78 SY
D.D.E. : EST. 12CY



FROM STA. 229+50+/- TO STA. 230+00+/- RT
CL 'A' RIP RAP: EST. 9 TONS
FILTER FABRIC: EST. 36 SY

Test Hole	Size and Material	Location	Top Elevation
TH-8	12" Ductile Iron	-L- 218+93.13, 21.23'Rt	2143.675'
TH-13	12" Ductile Iron	-L- 225+69.15, 16.80'Rt	2126.043'
TH-14	12" Ductile Iron	-L- 229+48.89, 20.46'Rt	2110.857'

SEE SHEET UC-15 FOR -WL2- PROFILE

$$$$$$SYSTIME$$$$$ $$$$$$DGN$$$$$$$$$$$$$$$$$ $$$$$$USERNAME$$$$

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5/14/99

①	-DRIVE3- POT 10+00.00
②	-DRIVE3- PC 10+94.51
③	-DRIVE3- PT 11+39.99
③ to ④	N 34° 34' 21.7" E
④	-L- POT 230+48.24 = -DRIVE3- POT 11+45.76
⑤	-L- PC 230+73.82
⑥	-L- POC 231+86.63 = -Y14- POT 10+00.00
⑥ to ⑦	N 29° 56' 03.2" E
⑦	-Y14- PC 10+08.31
⑧	-Y14- PT 10+46.20
⑨	-Y14- POT 11+30.67
⑩	-Y15- PT 12+31.81

(144) PHILIP M.CHAVEZ AND CAROLYN M.CHAVEZ DB 930 PG 456

(148) COLONIAL VILLAGE HOMEOWNERS ASSOCIATION DB IA PG 1055

(149) GARY AND RUTH BIENVENU DB 1260 PG 257

(150) PINE VILLA HOMEOWNERS ASSOCIATION DB 477 PG 575

(151) RICHARD J.SILTZER AND KELLY M.SILTZER DB 1229 PG 762

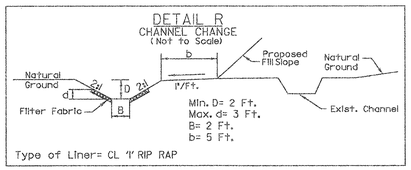
(152) AMELIA ANN HOUCK DB 1079 PG 665

(156) DAVID F.BOONE AND LORENA C.BOONE DB 950 PG 735

(31) 48"CMP – BURY INVERTS 0.8' BELOW STREAM BED

(32) 60"CMP – BURY INVERTS 1.0' BELOW STREAM BED

DETAIL R
CHANNEL CHANGE
(Not to Scale)

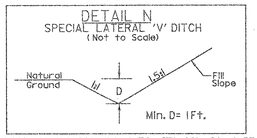


Min. D= 2 Ft.
Max. d= 3 Ft.
B= 2 Ft.
b= 5 Ft.

Type of Liner= CL 'I' RIP RAP

FROM -L- STA. 231+95+/- TO STA. 232+50+/- LT
CL I RIP RAP: EST. 38 TONS
FILTER FABRIC: EST. 135 SY
D.D.E.: EST. 50 CY

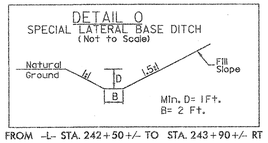
DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1Ft.

FROM -L- STA. 230+00+/- TO STA. 231+30+/- RT

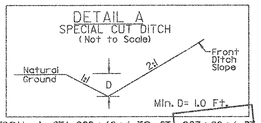
DETAIL O
SPECIAL LATERAL BASE DITCH
(Not to Scale)



Min. D= 1Ft.
B= 2 Ft.

FROM -L- STA. 242+50+/- TO STA. 243+90+/- RT

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



Min. D= 1.0 Ft.

FROM -L- STA. 232+60+/- TO STA. 237+00+/- RT

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-6
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 35018 ENGINEER JAMY L. TERRY, JR. 4/20/12

UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION

NOTES:

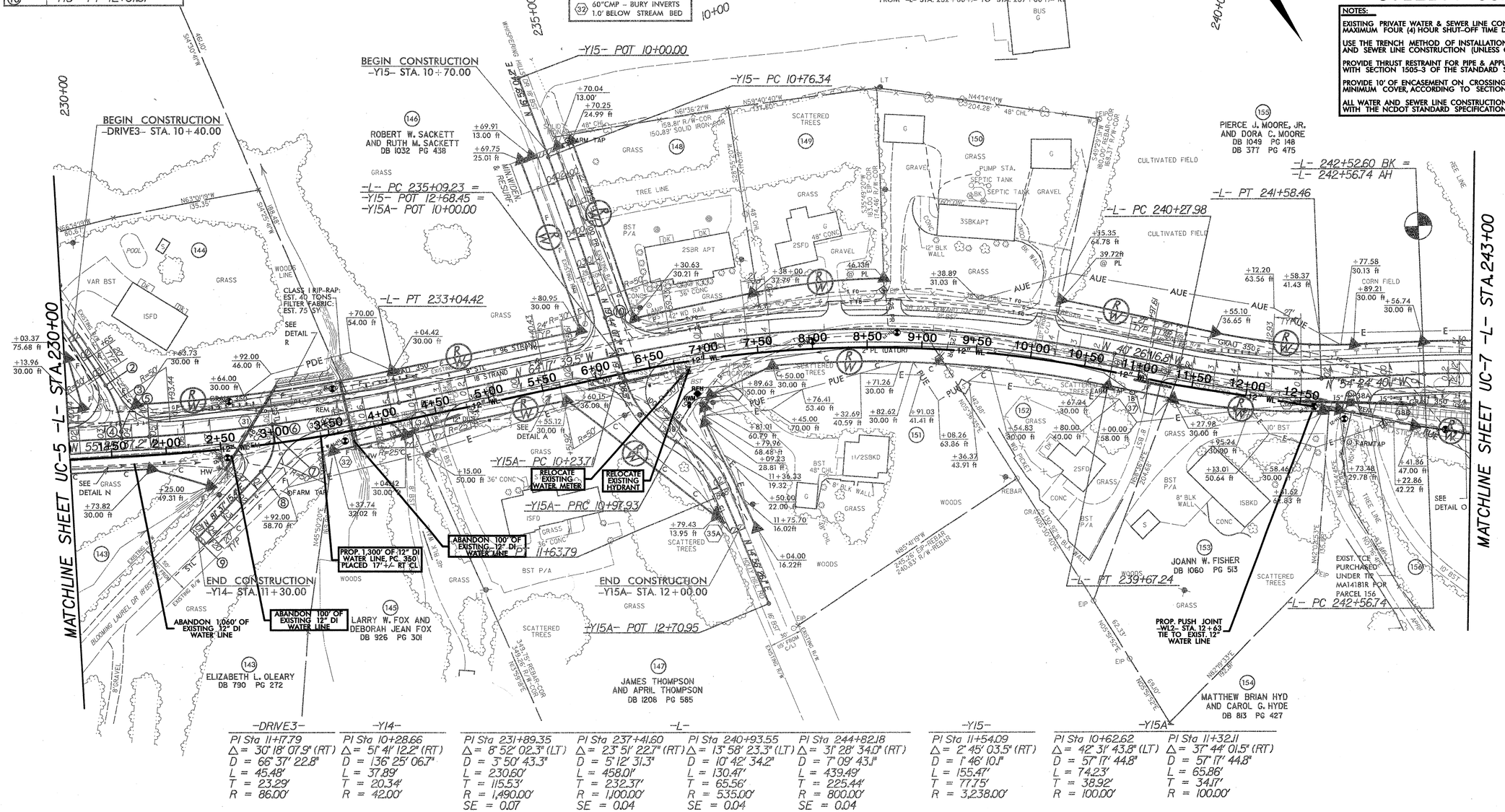
EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.



Test Hole	Size and Material	Location	Top Elevation
TH-12	12" Ductile Iron	-L- 231+42.85, 25.17'Rt	2100.771'
TH-17	12" Ductile Iron	-L- 232+49.70, 24.90'Rt	2096.424'
TH-18	12" Ductile Iron	-L- 236+88.84, 9.95'Rt	2106.824'
TH-19	12" Ductile Iron	-L- 237+66.72, 3.08'Rt	2103.126'
TH-20	12" Ductile Iron	-L- 241+50.93, 25.57'Rt	2090.604'

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

SEE SHEET UC-15 FOR -WL2- PROFILE

$$$$USERNAME$$$$ $$$$SYSTIME$$$$

R-5207B_UC5.dgn 11/7/2011 4:31:59 PM

5/14/99

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

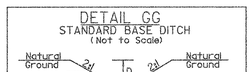
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-7
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 36016 ENGINEER AMY L. TERRY 4/20/12

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION

DETAIL GG
STANDARD BASE DITCH
(Not to Scale)



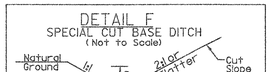
Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
B= 2.0 Ft.

When B is ≥ 6.0'
Std. No. 876.01

Type of Liner= CL 'I' Rip-Rap

FROM -L- STA. 243+90+/- TO STA. 244+15+/- LT
(SEE -L- PROFILE FOR DITCH GRADE)
CL 'I' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 40 SY
D.D.E.: EST. 5 CY

DETAIL F
SPECIAL CUT BASE DITCH
(Not to Scale)



Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
B= 2.0 Ft.

Type of Liner= CL 'A' Rip-Rap

FROM -L- STA. 244+70+/- TO STA. 256+00+/- LT
(USE -L- GRADE FROM STA. 247+50 TO 253+20+/-)
CL 'A' RIP RAP: EST. 260 TONS
FILTER FABRIC: EST. 1025 SY

MATCHLINE SHEET UC-6 -L- STA. 243+00

MATCHLINE SHEET UC-8 -L- STA. 256+00

-Y16- POT 10+00.00

BEGIN CONSTRUCTION
-Y16- STA. 11+20.00

-Y16- PC 11+33.95

-Y16- PRC 11+84.67

-Y16- PT 12+29.10

BEGIN BRIDGE
-L- 243+51.83

-Y16- POT 12+66.81 =
-L- POC 244+50.30

END BRIDGE
-L- STA. 244+09.17

-L- PT 246+96.23

-L- PT 249+35.56

-L- PC 249+12.56

SCATTERED TREES

GRASS

BST

BST P/A

WOODS

ISBKD

ISFD

GRASS FIELD

PLANTER

ARCHED BRIDGE

8' BLK WALL

REMOVE EXISTING BRIDGE AND ABUTMENTS TO NG (SEE DETAIL THIS SHEET)

PROP. 60' OF 8" DI 350 TIE TO EXISTING INVERTS REMOVE APPROX. 60' OF EXISTING 8" PVC

PROPOSED SS MH (NCDOT STD 1525.01)
-L- STA. 252+34+/-
OFFSET = 33' LT
RIM = 2119.1+/-
INV. = EXIST.

REMOVE EXISTING MANHOLE

RETAIN EXISTING MANHOLE

DO NOT DISTURB SIGN

REMOVE SECTION OF OUTLET END OF PIPE AS NEEDED

SR 1006 HOWARD GAP RD 20' BST

N 22°56'06.2" W

N 24°44'23.9" W

N 03°48'52" W 444.46'

N 23°28'44" W 417.12'

N 20°38'56" W 80.00'

N 28°25'22" W 100.00'

N 39°09'29" W 21.01'

S 45°01'47" E 66.11'

S 45°59'27" E 60.15'

N 71°17'58" W 27.49'

S 65°21'56" W 208.50'

S 65°18'37" W 182.64'

S 65°43'51" E 239.97'

N 65°43'51" W 239.97'

S 65°18'37" W 156.63'

N 65°18'37" E 156.63'

N 27°33'52" E 129.15'

N 26°15'19" W 250.93'

N 76°01'50" W 104.59'

-Y16-

PI Sta 12+12.09	PI Sta 11+61.73
Δ = 84° 51' 35.2" (RT)	Δ = 58° 06' 52.0" (LT)
D = 190° 59' 09.4"	D = 114° 35' 29.6"
L = 44.43'	L = 50.71'
T = 27.42'	T = 27.78'
R = 30.00'	R = 50.00'

-L-

PI Sta 244+82.18		PI Sta 249+24.06	
Δ = 31° 28' 34.0" (RT)		Δ = 1° 48' 17.7" (LT)	
D = 7° 09' 43.1"		D = 7° 50' 55.5"	
L = 439.49'		L = 23.00'	
T = 225.44'		T = 11.50'	
R = 800.00'		R = 730.00'	
SE = 0.04		SE = NC	

155A ADVENTIST HEALTH SYSTEM SUNBELT HEALTHCARE CORP.
DB 1245 PG 51
PLAT SLIDE 5564

156 MARK THOMAS AND WIFE CINDY THOMAS
DB 950 PG 735

157 ASHEVILLE AGRICULTURAL SCHOOL AND MOUNTAIN SANITARIUM
DB 107 PG 86

157A PSNC ENERGY
DB 246 PG 588

159 LAYMAN FOUNDATION OF NORTH CAROLINA
DB 733 PG 333
DB 640 PG 681

160 ADVENTIST HEALTH SYSTEM SUNBELT HEALTHCARE CORP.
DB 1245 PG 054

161 LAYMAN FOUNDATION OF NORTH CAROLINA
DB 733 PG 333
DB 640 PG 681

162 RONALD E. KRUM AND RUTH M. KRUM
DB 1149 PG 530

163 FLETCHER HOSPITAL, INC.
DB 742 PG 555

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

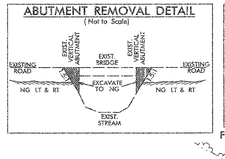
PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

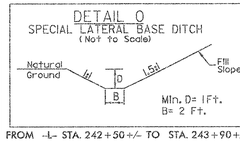
ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

ABUTMENT REMOVAL DETAIL
(Not to Scale)



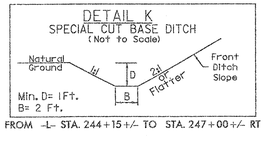
DETAIL O
SPECIAL LATERAL BASE DITCH
(Not to Scale)



Min. D= 1Ft.
B= 2 Ft.

FROM -L- STA. 242+50+/- TO STA. 243+90+/- RT

DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)



Min. D= 1Ft.
B= 2 Ft.

FROM -L- STA. 244+15+/- TO STA. 247+00+/- RT

USER NAME = SYSTIME
PLOT SCALE = 100.000 '/ IN.
PLOT DATE = 11/11/2011

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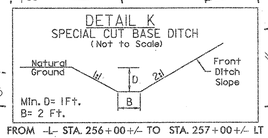
DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)

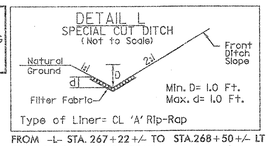


Min. D= 1Ft.
B= 2 Ft.

FROM -L- STA. 256+00+/- TO STA. 257+00+/- LT

NOTE: REMOVE SECTION OF EXISTING 15" PIPE AS NEEDED (APPROX. 30'+/-). TIE EXISTING 15" PIPE INTO CB USING TWO HDPE ELBOWS AND APPROX. 16' NEW HDPE 15" PIPE.

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)

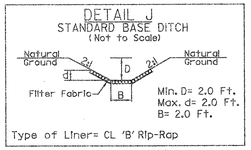


Min. D= 1.0 Ft.
Max. d= 1.0 Ft.

Type of Liner= CL 'A' Rip-Rap

FROM -L- STA. 267+22+/- TO STA.268+50+/- LT
CL 'A' RIP RAP: EST. 24 TONS
FILTER FABRIC: EST. 100 SY

DETAIL J
STANDARD BASE DITCH
(Not to Scale)



Min. D= 2.0 Ft.
Max. d= 2.0 Ft.
B= 2.0 Ft.

Type of Liner= CL 'B' Rip-Rap

-L- STA. 267+25+/- RT
CL 'B' RIP RAP: EST. 38 TONS
FILTER FABRIC: EST. 98 SY
D.D.E.: EST. 45 CY

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-8
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 25018 ENGINEER JIMMY L. TERRY, JR. 5/25/12

UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

BEGIN CONSTRUCTION
-Y17- STA. 10+00.00

-Y17- POT 10+00.00

-L- PC 258+71.22

-L- PC 266+75.32

-L- PT 265+03.60

-DRIVE3A- POT 11+98.79

MATCHLINE SHEET UC7 -L- STA.256+00

MATCHLINE SHEET UC9 -L- STA.269+00

THE LAYMAN FOUNDATION OF NC
DB 107 PG 86

FLETCHER HOSPITAL, INC.
DB 742 PG 555

ASHEVILLE AGRICULTURAL SCHOOL AND MOUNTAIN SANITARIUM
DB 107 PG 86

FLETCHER SEVENTH-DAY ADVENTIST

ASHEVILLE AGRICULTURAL SCHOOL AND MOUNTAIN SANITARIUM
DB 107 PG 86

FLETCHER ACADEMY

NAPLES RD

TULIP TRAIL

ADJUST EXISTING MANHOLE

ADJUST VALVE BOX SECURE WITH DEADMAN

PROP. 90 DEG. HORIZONTAL BEND -WL5- STA. 0+40

PROP. 90 DEG. HORIZONTAL BEND -WL5- STA. 0+83

PROP. 90' OF 12" DI WATER LINE, PC 350

ABANDON 90' OF EXISTING 12" DI WATER LINE

ABANDON 30' OF EXISTING 12" DI WATER LINE

PROP. PUSH JOINT -WL5- STA. 0+00 TIE TO EXIST. 12" WATER LINE

TIE TO EXIST. 12" WATER LINE

RELOCATE EXISTING HYDRANT

TIE TO EXIST. 12"WATER LINE

EXTEND EXISTING WATER LINE APPROX. 40' TO PROP. HYDRANT

PROP. 22 1/2 DEG. HORIZONTAL BENDS AS FOLLOWS:
-WL4- STA. 0+00
-WL4- STA. 0+08
-WL4- STA. 0+20
-WL4- STA. 0+28

PROP. 30' OF 12" DI WATER LINE, PC 350

ABANDON 215' OF EXISTING 8" VCP

ABANDON EXISTING MANHOLE

REMOVE EXISTING MANHOLE

PROPOSED SS MH #1 (NCDOT STD 1525.01) -GSS2- STA. 0+00 RIM = 2142.6 +/- INV. = 2137.9 +/- REMOVE EXISTING MH

PROP. 175' OF 8" DI 350

PROPOSED SS MH #2 (NCDOT STD 1525.01) -GSS2- STA. 1+79 +/- RIM = 2145.1 +/- INV. = 2139.0 +/- REMOVE EXISTING MH REMOVE 12' +/- EXIST. 8" PVC

USE DROP TYPE CONNECTION FOR EXISTING 8" PVC

ABANDON 65' OF EXIST. 8" PVC

PROPOSED SS MH #3 (NCDOT STD 1525.01) -GSS2- STA. 3+55 +/- RIM = 2153.9 +/- INV. = 2144.0 +/-

PROPOSED SS MH #4 (NCDOT STD 1525.01) -GSS2- STA. 4+82 RIM = 2163.8 +/- INV. = 2158.2 +/-

PROPOSED SS MH #5 (NCDOT STD 1525.01) -GSS2- STA. 4+99 RIM = 2165.3 +/- INV. = 2160.2 +/-

ABANDON 45' +/- OF EXIST. 8" VCP

REMOVE EXISTING MANHOLE

ABANDON 140' OF EXIST. 8" VCP

PROP. 42" OF 8" DI 350

PROP. 15' OF 8" DI 350

TIE TO EXIST. 8" WATER LINE

ABANDON 100' OF EXISTING 8" VCP

PROP. PUSH JOINT -WL5A- STA. 0+99 TIE TO EXIST. 8" WATER LINE

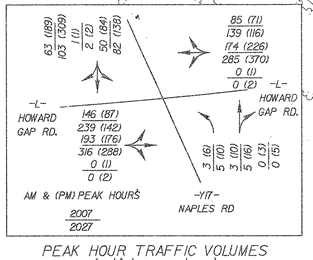
PROP. 70' OF 8" DI WATER LINE, PC 350

EXISTING ROW TO BE ABANDONED AND REVERT BACK TO PRESENT PROPERTY OWNER

DO NOT DISTURB SIGN

195' UNIFORM TRANSITION

PEAK HOUR TRAFFIC VOLUMES
(vehicles per hour)



①	-L- POC 261+11.06 = -Y17- POC 12+76.15
②	-DRIVE3A- POT 10+00.00= -L- POC 264+84.85

-L-

PI Sta 260+35.35
Δ = 2° 04' 40.7" (LT)
D = 0° 37' 59.2"
L = 328.22'
T = 164.13'
R = 9,050.00'
SE = 0.02

PI Sta 264+83.07
Δ = 26° 23' 19.1" (RT)
D = 10° 44' 58.8"
L = 245.48'
T = 124.96'
R = 533.00'
SE = 0.04

PI Sta 268+83.38
Δ = 42° 38' 49.8" (LT)
D = 10° 44' 58.8"
L = 396.73'
T = 208.06'
R = 533.00'
SE = 0.04

-Y17-

PI Sta 12+61.28
Δ = 40° 22' 30.6" (RT)
D = 31° 49' 51.6"
L = 126.84'
T = 66.18'
R = 180.00'

-DRIVE3A-

PI Sta 10+19.97
Δ = 38° 30' 12.9" (RT)
D = 143° 14' 22.0"
L = 26.88'
T = 13.97'
R = 40.00'

Test Hole	Size and Material	Location	Top Elevation
TH-23	12" Ductile Iron	-L- 260+36.63, 25.25'Rt	2133.25'
TH-24	12" Ductile Iron	-L- 260+31.11, 11.17'Lt	2132.838'
TH-27	8" Ductile Iron	-L- 266+33.49, 12.15'Lt	2140.822'
TH-28	8" Ductile Iron in Steel Casing	-L- 266+30.98, 33.70'Rt	2139.265'
TH-76	8" Ductile Iron	-L- 266+34.49, 39.15'Lt	2148.31'

SEE SHEET UC-15 FOR -WL4- PROFILE
SEE SHEET UC-15 FOR -WL5- PROFILE
SEE SHEET UC-15 FOR -WL5A- PROFILE
SEE SHEET UC-16 FOR -GSS2- PROFILE

$$$$USERNAME$$$$
$$$$SYSTIME$$$$
$$$$DGN$$$$

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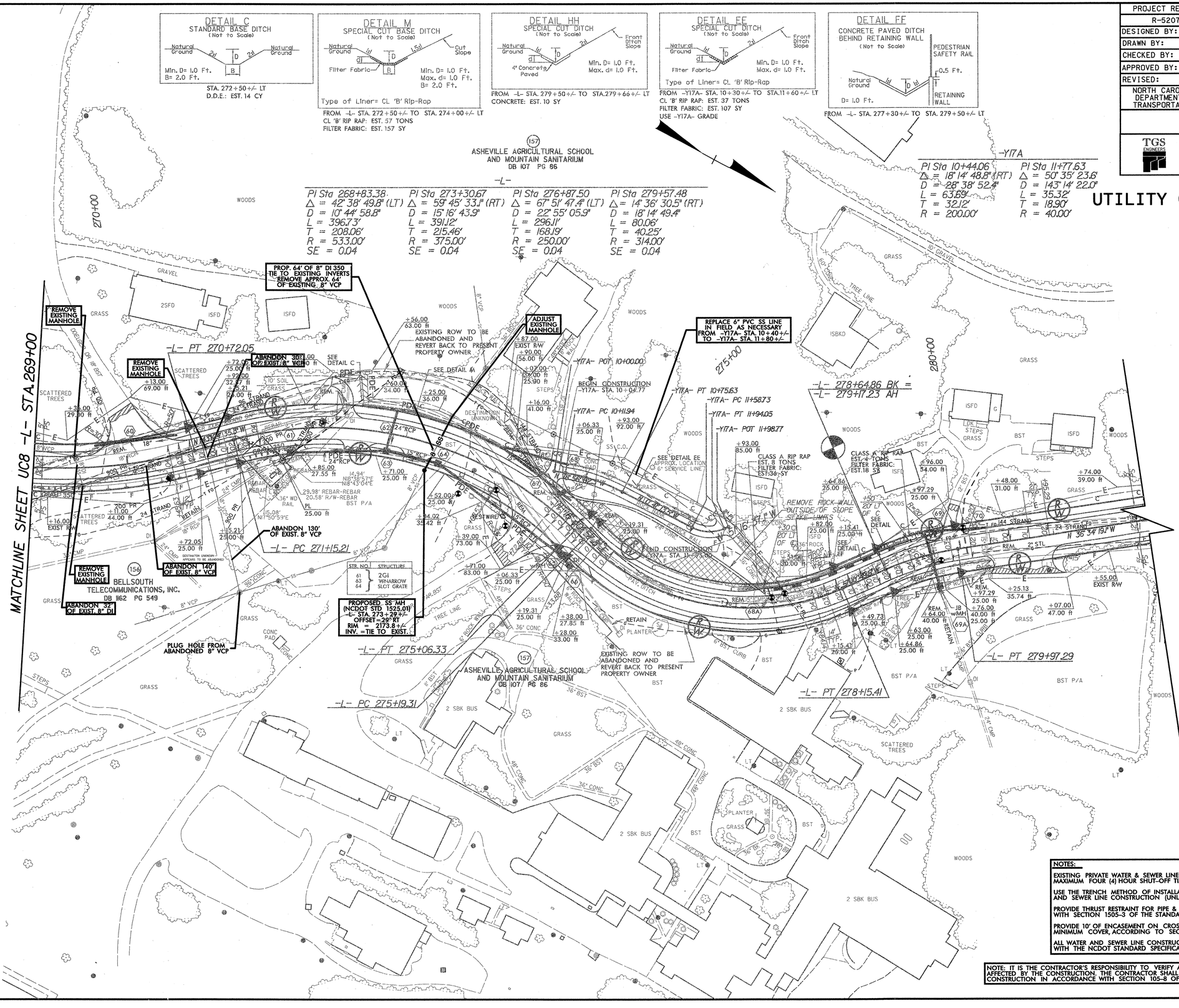


PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-9
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 32018 JIMMY L. TERRY JR. 7/20/12

UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$
$$$$$$DGN$$$$$$
R5207B_UC9.dgn 11/7/2011 4:56:17 PM

5/14/99

-DRIVE4-
PI Sta 11+95.39
Δ = 34° 33' 02.8" (LT)
D = 114° 35' 29.6"
L = 30.15'
T = 15.55'
R = 50.00'

PI Sta 10+76.30
Δ = 21° 45' 34.4" (RT)
D = 24° 54' 40.4"
L = 87.35'
T = 44.21'
R = 230.00'

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
1:1
B
2:1
Front ditch Slope
Min. D= 1.0 Ft.

FROM -L- STA. 327+00+/- TO STA. 328+00+/- LT
FROM -L- STA. 330+72+/- TO STA. 331+50+/- LT

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)
Natural Ground
1:1
D
2:1
Front ditch Slope
3:1
Filter Fabric
Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
Type of Liner= CL 'A' Rip-Rap

FROM -L- STA. 320+10+/- TO STA.321+50+/- LT
CL 'A' RIP RAP: EST. 27 TONS
FILTER FABRIC: EST. 110 SY

FROM -L- STA. 323+50+/- TO STA. 325+30+/- LT
CL 'A' RIP RAP: EST. 34 TONS
FILTER FABRIC: EST. 140 SY

FROM -L- STA. 330+50+/- TO STA. 330+72+/- LT
CL 'A' RIP RAP: EST. 4 TONS
FILTER FABRIC: EST. 17 SY

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-10
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 035018 ENGINEER JIMMY L. TERRY JR.
4/20/12
UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION

DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground
1:1
D
2:1
Front ditch Slope
B
Min. D= 1Ft.
B= 2 Ft.

FROM -L- STA. 326+12+/- TO STA. 328+00+/- RT

-Y21-
PI Sta 11+44.99
Δ = 4° 40' 03.4" (LT)
D = 3° 27' 43.1"
L = 134.83'
T = 67.45'
R = 1,655.00'
SE = EXIST.

-DRIVE4- PI Sta 11+95.39, Δ = 34° 33' 02.8" (LT), D = 114° 35' 29.6", L = 30.15', T = 15.55', R = 50.00'
-DRIVE4- PI Sta 10+76.30, Δ = 21° 45' 34.4" (RT), D = 24° 54' 40.4", L = 87.35', T = 44.21', R = 230.00'
-DRIVE4- POT 10+00.00
-DRIVE4- PC 10+32.10
-DRIVE4- PT 11+19.45
-DRIVE4- PC 11+79.84
-DRIVE4- PT 12+09.99
-DRIVE4- POT 12+23.11
BEGIN CONSTRUCTION -DRIVE4- STA. 10+50.00
BEGIN CONSTRUCTION -Y21- STA. 11+30.00
-Y21- POT 10+00.00
-Y21- PC 10+77.54
-Y21- PT 10+92.37
-L- POC 322+67.66 = -DRIVE4- POT 12+23.11
-L- PT 324+10.26
-L- PC 324+42.12
-L- POC 325+57.26 = -Y21- POT 12+66.76
-L- PT 328+48.05
-L- PC 331+87.01
-L- POC 333+22.56 = -DR4A- POT 10+00.00
-DRIVE4A- POT 11+50.57
END CONSTRUCTION -DRIVE4A- STA. 11+30.00
MATCHLINE SHEET UC11 -L- STA.334+00

IRENE TURNER DB 701 PG 845
COUNTY OF HENDERSON, NORTH CAROLINA DB 1015 PG 359
GLADE LAND FUND, L.L.C. DB 1174 PG 225

-L-
PI Sta 321+46.05
Δ = 56° 42' 33.9" (RT)
D = 9° 45' 38.8"
L = 580.99'
T = 316.79'
R = 587.00'
SE = 0.04

PI Sta 326+47.21
Δ = 20° 13' 27.1" (RT)
D = 4° 58' 56.1"
L = 405.93'
T = 205.10'
R = 1,150.00'
SE = 0.04

PI Sta 334+02.73
Δ = 13° 40' 06.4" (LT)
D = 3° 10' 59.2"
L = 429.41'
T = 215.73'
R = 1,800.00'
SE = 0.04

(172) DI'LAN C.AND NAFASCHA S.GOTESKY DB 1186 PG 648
(174) ALLEN WALKER AND JAMETTA B.WALKER DB 947 PG 529
(176) ANDREW D.AND DAWN M.BOTLE DB 1262 PG 379
(177) JAMES EDWARD BENSON TRUST DB 1190 PG 535
(178) STEVEN M.MCDOWELL AND ANTJE MCDOWELL DB 1221 PG 530
(179) JEFFREY W.KLUTTZ, PAMELA J.KLUTTZ AND MARY E.KLUTTZ DB 1142 PG 85
(180) VANESSA MADDEN DB 1017 PG 161
(181) OTELIA WILSON DB 806 PG 157
(182) WILLIAM WILSON,JR. AND KATHY S.WILSON DB 806 PG 175
(183) ALLEN WALKER AND JAMETTA B.WALKER DB 1082 PG 568
(184) PATRICIA DROZE DB 1272 PG 130
(185) JOHN D.DAVIS AND MYRTLE A.DAVIS DB 716 PG 155

FLETCHER ELEMENTARY SCHOOL DRIVEWAY
90 (0) / 117 (0) / 184 (0) / 301 (0)
193 (0) / 316 (0) / 138 (177) / 226 (290) -L- HOWARD GAP RD.
-L- HOWARD GAP RD.
96 (0) / 157 (0) / 171 (126) / 280 (206)
AM & (PM) PEAK HOURS
2007 / 2027
PEAK HOUR TRAFFIC VOLUMES (vehicles per hour)

NOTES:
EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.
USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)
PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.
PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.
ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

SYSTIME=$$$$ LEVELS=ON $$$$ TOLERANCE=$$$$ SCREEN=$$$$

B_UC10.dgn 11/7/2011 4:55:32 PM

5/14/99

FROM -L- STA. 336+00+/- TO STA. 337+82+/- LT
FROM -L- STA. 340+00+/- TO STA. 345+50+/- RT

FROM -L- STA. 345+17+/- TO STA. 354+00+/- LT

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE:
3" FORCED SEWER MAIN TO BE ABANDONED BY OTHERS (2 LINES)

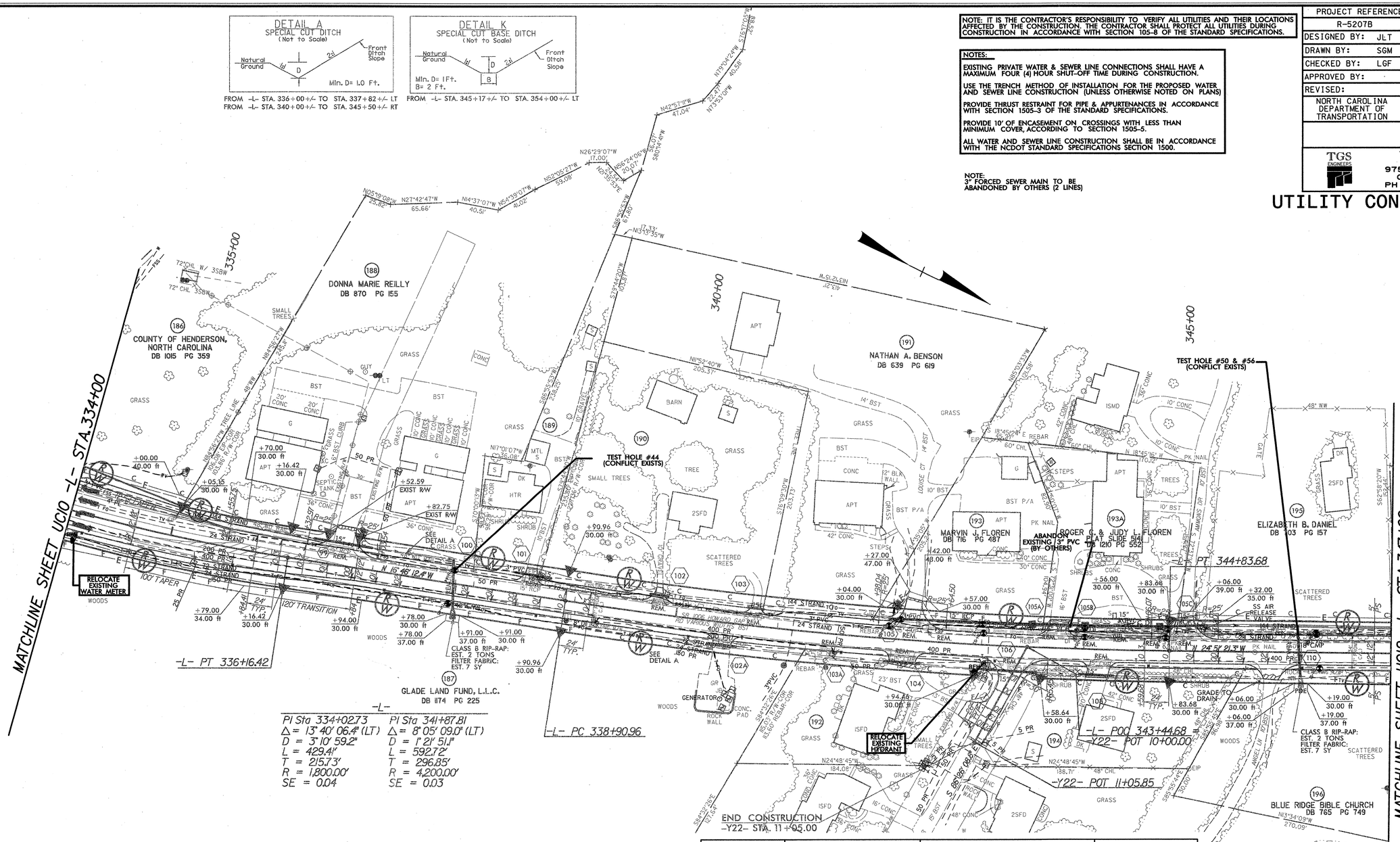
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-11
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 32018 ENGINEER JIMMY L. TERRY, JR. 4/20/12

UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION



Test Hole	Size and Material	Location	Top Elevation
TH-44	3" PVC	-L- 337+79.71, 12.93'Lt	2133.626'
TH-45	8" Ductile Iron	-L- 337+77.82, 20.16'Rt	2130.304'
TH-46	3" PVC	-L- 342+19.73, 19.29'Lt	2121.710'
TH-47	3" PVC	-L- 343+00.04, 19.78'Lt	2120.424'
TH-48	3" PVC	-L- 344+00.53, 20.52'Lt	2119.086'
TH-49	3" PVC	-L- 344+81.99, 21.38'Lt	2118.081'
TH-50	3" PVC	-L- 346+26.86, 19.10'Lt	2117.771'
TH-51	8" Ductile Iron	-L- 346+30.66, 15.37'Rt	2115.866'
TH-52	3" PVC	-L- 342+08.54, 12.25'Lt	2122.041'
TH-53	3" PVC	-L- 343+01.40, 11.47'Lt	2120.267'
TH-54	3" PVC	-L- 344+00.45, 11.67'Lt	2118.935'
TH-55	3" PVC	-L- 344+80.05, 13.11'Lt	2118.39'
TH-56	3" PVC	-L- 346+27.41, 17.78'Lt	2117.429'

(189) JOSEPH C.KUYKENDALL DB 597 PG 511 AND EDITH KUYKENDALL

(190) LARRY WAYNE WALKER DB 533 PG 245

(192) BRUCE A.JONES AND DB 1034 PG 297 DARLENE P.JONES

(194) CARRIE M.WALKER DB 1180 PG 625

$$SYSTIME$$ $$SCON$$ $$SENGAGE$$

3_UC11.dgn 4/3/2012 11:12:22 AM

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-12

DESIGNED BY:	JLT
DRAWN BY:	SGM
CHECKED BY:	LGF
APPROVED BY:	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

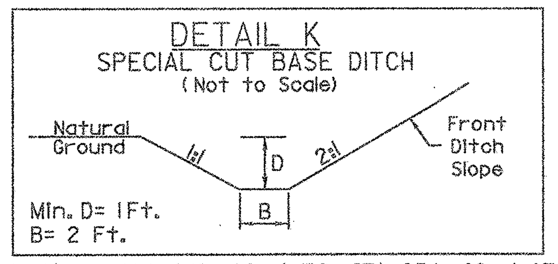
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35018 JIMMY L. TERRY JR. 4/20/12

UTILITY CONSTRUCTION PLANS ONLY

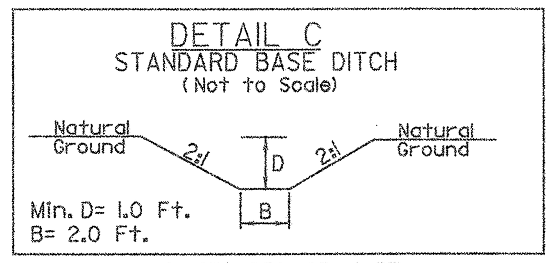
TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION

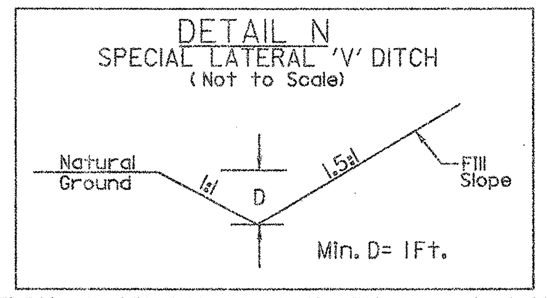
5/14/99



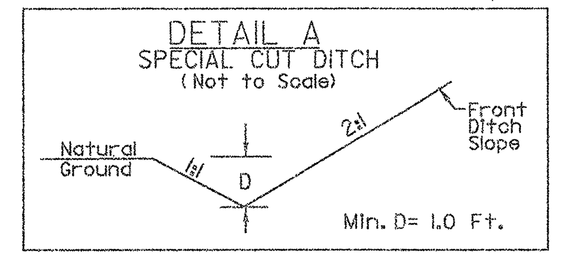
FROM -L- STA. 342+00+/- TO STA. 354+00+/- LT



-L- STA. 350+15+/- RT
D.D.E.: EST. 4 CY

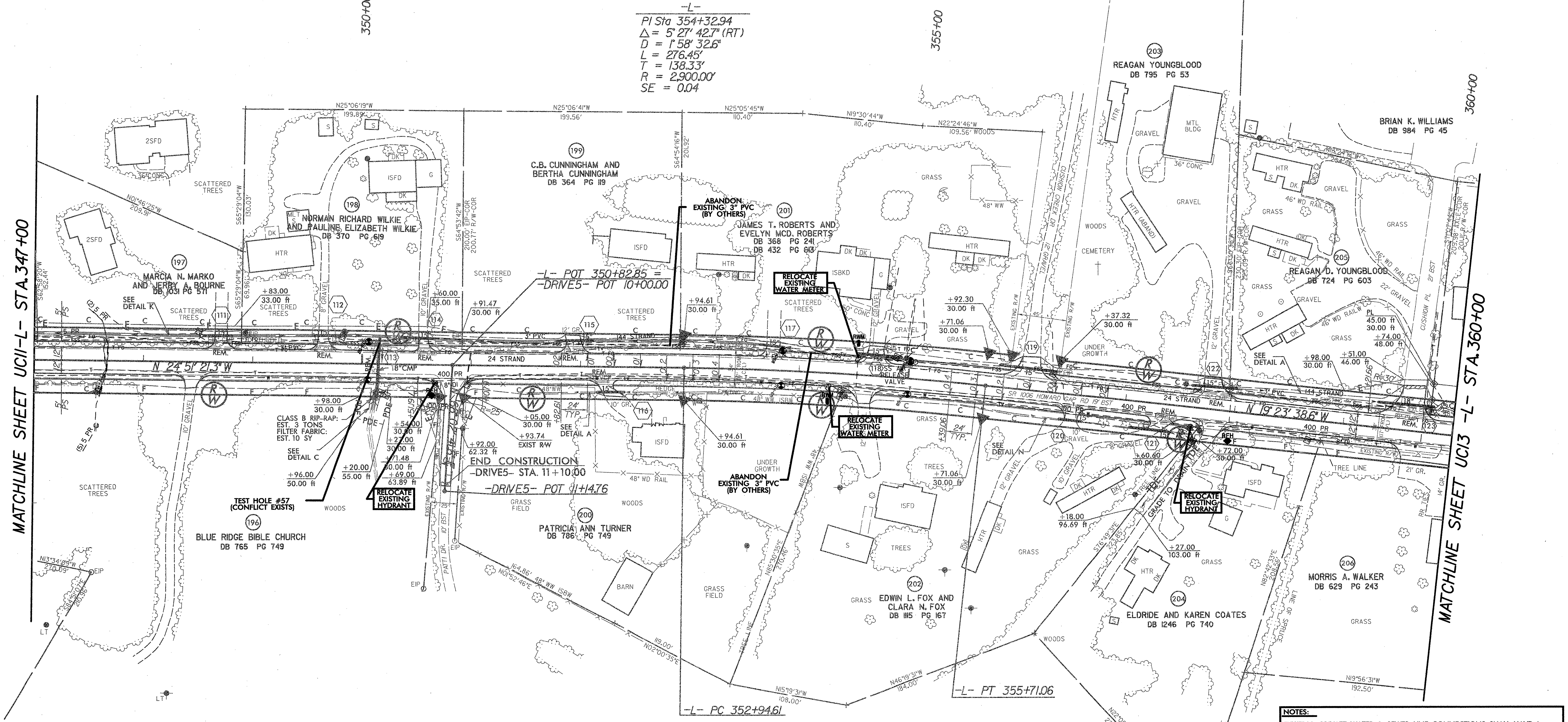


FROM -L- STA. 355+50+/- TO STA. 357+72+/- RT



FROM -L- STA. 351+00+/- TO STA. 353+50+/- RT
FROM -L- STA. 357+50+/- TO STA. 359+30+/- LT

NOTE:
3" FORCED SEWER MAIN TO BE ABANDONED BY OTHERS (2 LINES)



Test Hole	Size and Material	Location	Top Elevation
TH-57	3" PVC	-L- 350+06.03, 19.82'Lt	2116.427'
TH-58	3" PVC	-L- 350+06.04, 20.28'Lt	2117.082'
TH-59	3" PVC	-L- 353+84.27, 17.89'Lt	2130.149'
TH-60	3" PVC	-L- 353+84.37, 17.74'Lt	2129.103'
TH-61	3" PVC	-L- 355+00.60, 16.04'Lt	2127.504'
TH-62	3" PVC	-L- 355+00.68, 15.15'Lt	2128.586'
TH-67	8" Ductile Iron	-L- 350+05.03, 14.27'Rt	2114.435'
TH-68	8" Ductile Iron	-L- 355+00.49, 14.57'Rt	2125.256'
TH-69	8" Ductile Iron	-L- 353+83.97, 13.51'Rt	2127.647'

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

$$$$$$SYSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

5/14/99

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

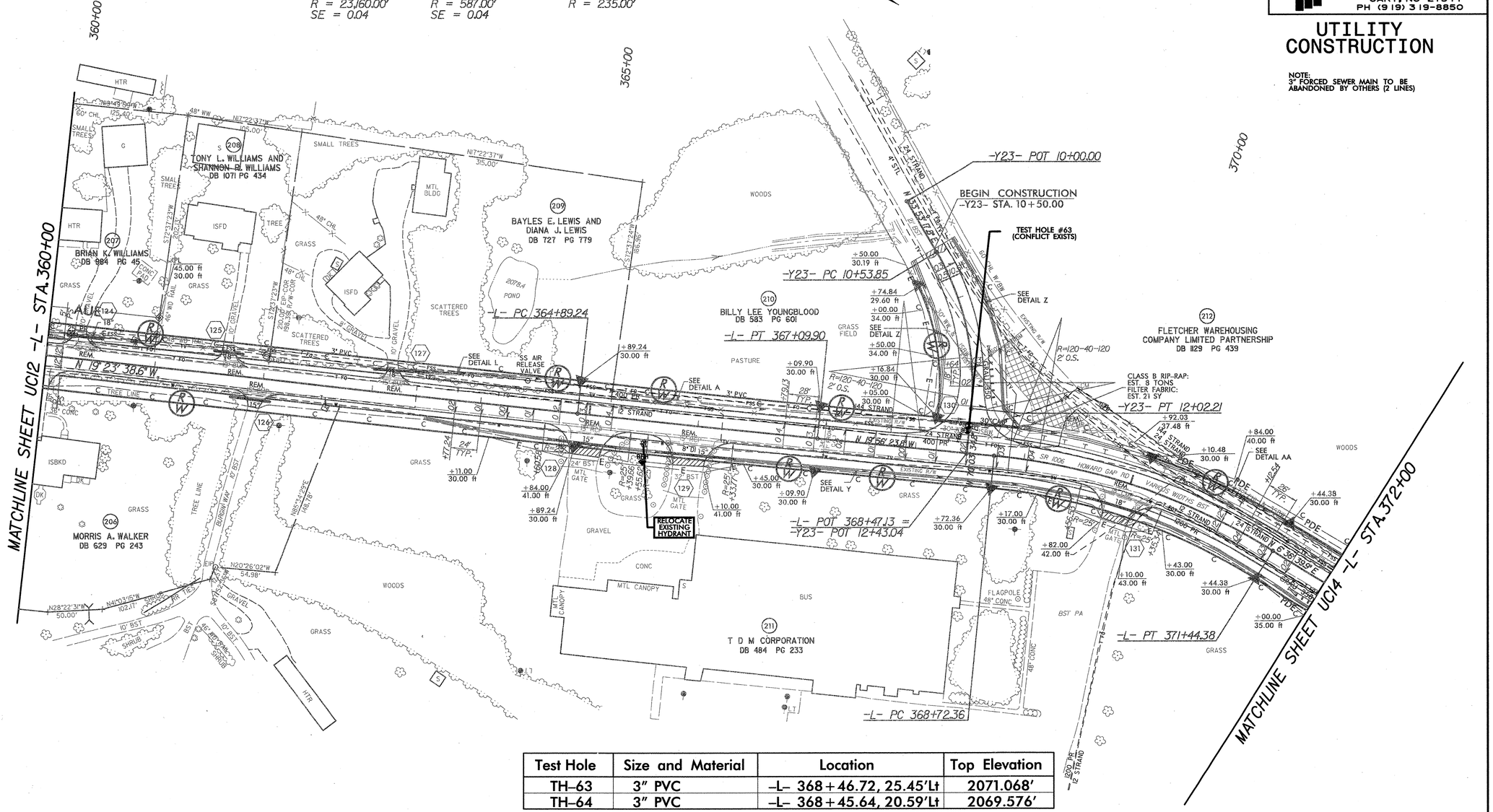
PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

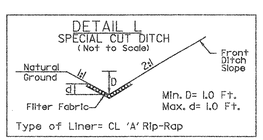
ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

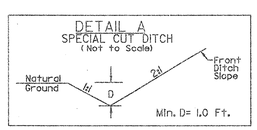
-L-	-L-	-Y23-
PI Sta 365+99.57	PI Sta 370+10.86	PI Sta 11+30.59
Δ = 0° 32' 45.2" (LT)	Δ = 26° 33' 03.7" (RT)	Δ = 36° 10' 17.0" (RT)
D = 0° 14' 50.6"	D = 9° 45' 38.8"	D = 24° 22' 52.3"
L = 220.66'	L = 272.02'	L = 148.36'
T = 110.33'	T = 138.50'	T = 76.74'
R = 23,160.00'	R = 587.00'	R = 235.00'
SE = 0.04	SE = 0.04	



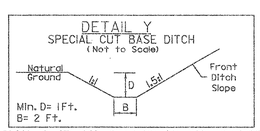
Test Hole	Size and Material	Location	Top Elevation
TH-63	3" PVC	-L- 368+46.72, 25.45'Lt	2071.068'
TH-64	3" PVC	-L- 368+45.64, 20.59'Lt	2069.576'



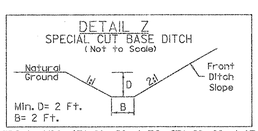
FROM -L- STA. 363+00+/- TO STA.364+30+/- LT
CL 'A' RIP RAP: EST. 25 TONS
FILTER FABRIC: EST. 101 SY



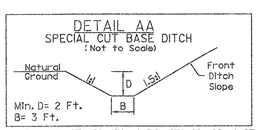
FROM -L- STA. 364+30+/- TO STA. 368+12+/- LT



FROM -L- STA. 363+50+/- TO STA. 373+90+/- RT



FROM -Y23- STA. 10+50+/- TO STA. 12+13+/- LT



FROM -Y23- STA. 10+50+/- TO STA. 12+13+/- RT
FROM -L- STA. 368+90+/- TO STA. 374+04+/- LT

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-13
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

NORTH CAROLINA PROFESSIONAL SEAL 35078 ENGINEER JIMMY L. TERRY JR. 4/20/12

UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION

NOTE:
3" FORCED SEWER MAIN TO BE ABANDONED BY OTHERS (2 LINES)

USER: JLT
TIME: 11:13:20 AM
DGN: UC13.dgn
DATE: 4/3/2012

5/14/99

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

NOTES:

EXISTING PRIVATE WATER & SEWER LINE CONNECTIONS SHALL HAVE A MAXIMUM FOUR (4) HOUR SHUT-OFF TIME DURING CONSTRUCTION.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-14
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	

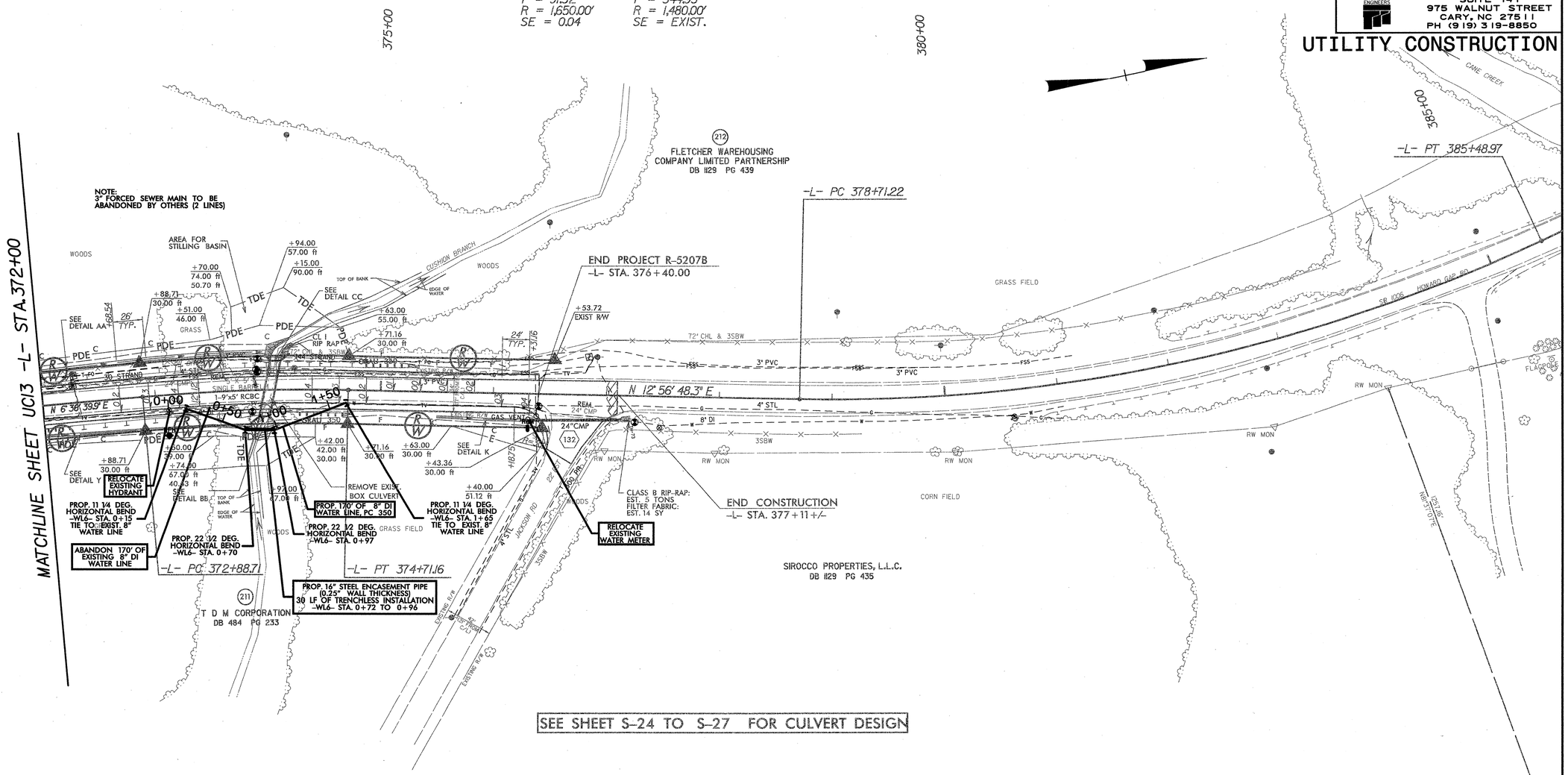
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35018 JOHNNY L. TERRY, JR.
4/20/12

UTILITY CONSTRUCTION PLANS ONLY

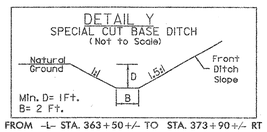
TGS ENGINEERS
SUITE 141
975 WALNUT STREET
CARY, NC 27511
PH (919) 319-8850

UTILITY CONSTRUCTION

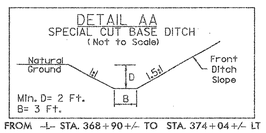
-L-
PI Sta 373+80.03 | PI Sta 382+16.14
Δ = 6° 20' 08.4" (RT) | Δ = 26° 14' 17.0" (LT)
D = 3° 28' 20.9" | D = 3° 52' 16.8"
L = 182.45' | L = 677.75'
T = 91.32' | T = 344.93'
R = 1,650.00' | R = 1,480.00'
SE = 0.04 | SE = EXIST.



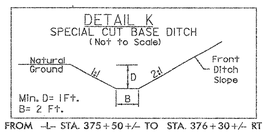
SEE SHEET S-24 TO S-27 FOR CULVERT DESIGN



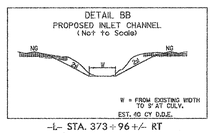
FROM -L- STA. 363+50 +/- TO STA. 373+90 +/- RT



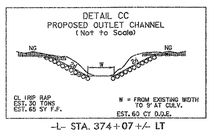
FROM -L- STA. 368+90 +/- TO STA. 374+04 +/- LT



FROM -L- STA. 375+50 +/- TO STA. 376+30 +/- RT



-L- STA. 373+96 +/- RT



-L- STA. 374+07 +/- LT

Test Hole	Size and Material	Location	Top Elevation
TH-65	3" PVC	-L- 373+91.29, 27.63'Lt	2068.644'
TH-66	3" PVC	-L- 373+91.06, 16.06'Lt	2067.796'
TH-71	8" Ductile Iron	-L- 373+85.60, 19.00'Rt	2065.603'
TH-73	8" Ductile Iron	-L- 377+25.40, 23.38'Rt	2064.636'

SEE SHEET UC-15 FOR -WL6- PROFILE

USERNAME=SYSTIME=$$$$$$$$ DGN=$$$$$$$$ DGN_UC14.dgn 4/3/2012 11:13:58 AM

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-15

DESIGNED BY: JLT
DRAWN BY: SGM
CHECKED BY: LGF
APPROVED BY:
REVISED:

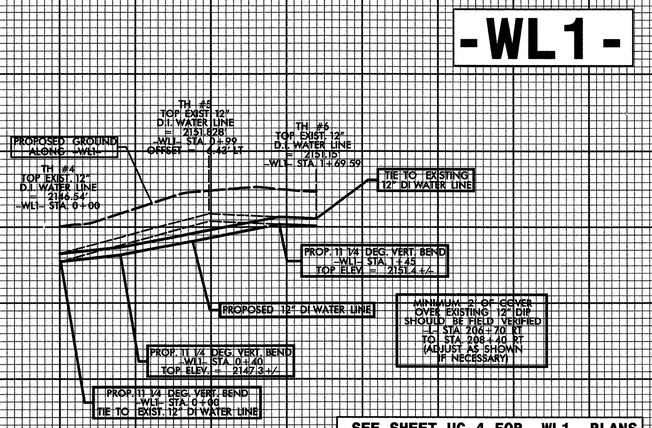
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35088 JAMES L. TERRY, JR. 4/30/12

UTILITY CONSTRUCTION PLANS ONLY

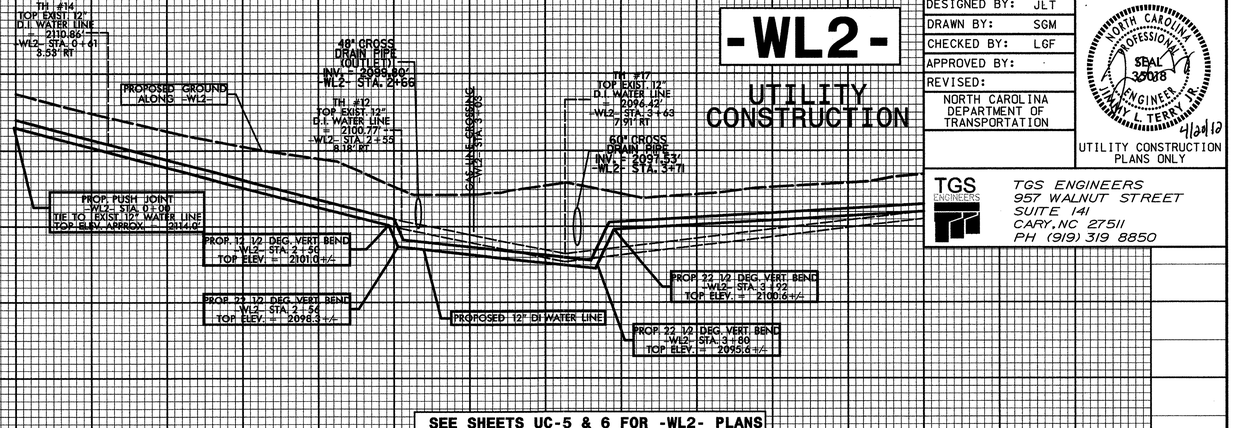
TGS ENGINEERS
957 WALNUT STREET
SUITE 141
CARY, NC 27511
PH (919) 319 8850

-WL1-



SEE SHEET UC-4 FOR -WL1- PLANS

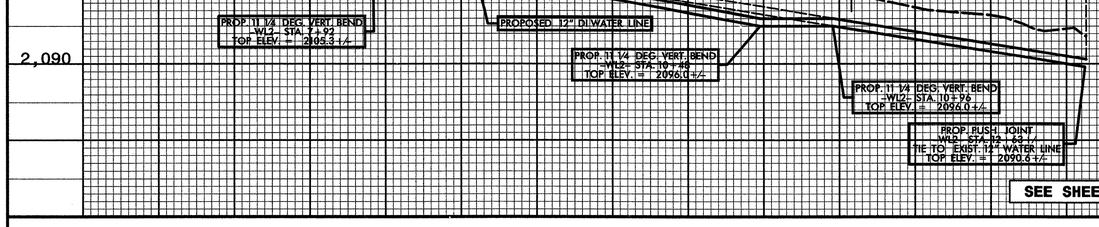
-WL2-



SEE SHEETS UC-5 & 6 FOR -WL2- PLANS

UTILITY CONSTRUCTION

-WL2-



SEE SHEETS UC-5 & 6 FOR -WL2- PLANS

NOTES:

EXISTING GROUND IS CUT ALONG PROPOSED WATER AND/OR SEWER LINES

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

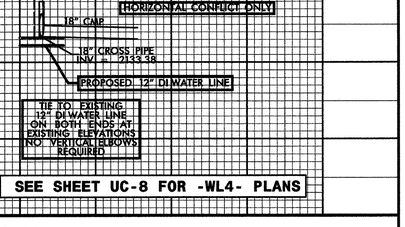
PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

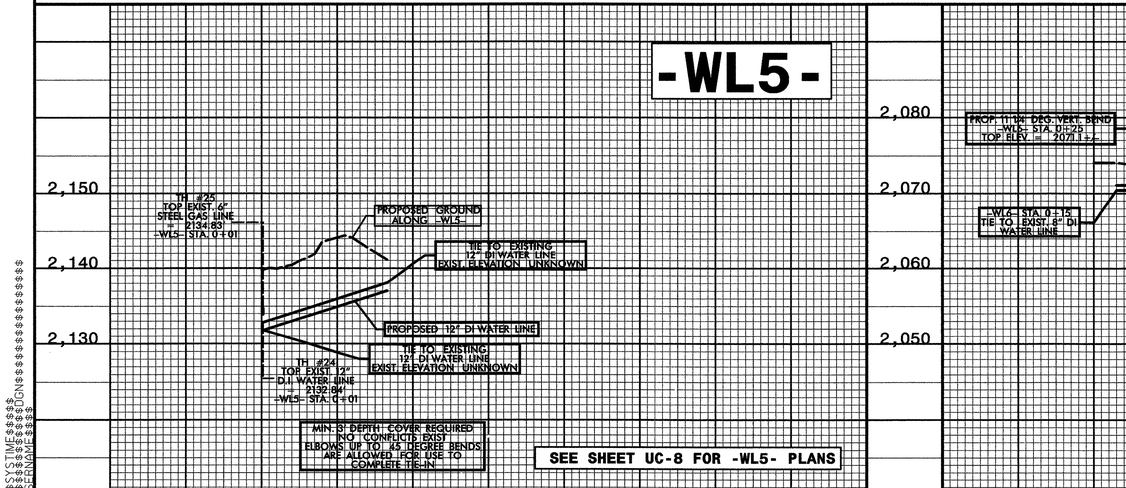
NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

-WL4-



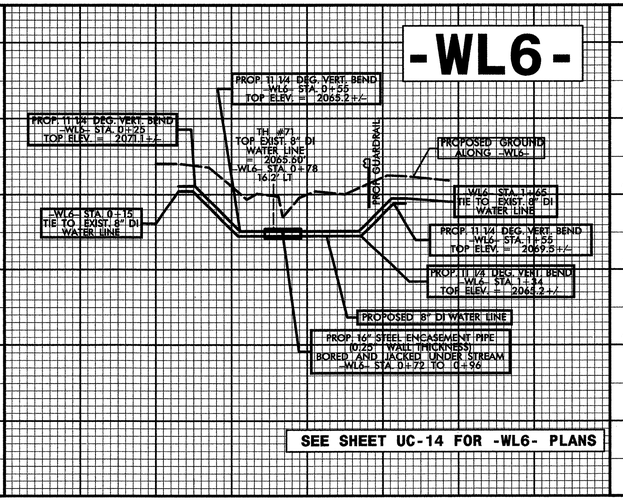
SEE SHEET UC-8 FOR -WL4- PLANS

-WL5-



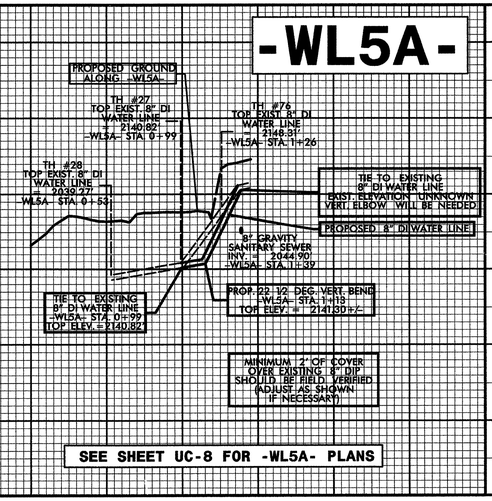
SEE SHEET UC-8 FOR -WL5- PLANS

-WL6-



SEE SHEET UC-14 FOR -WL6- PLANS

-WL5A-



SEE SHEET UC-8 FOR -WL5A- PLANS

$$$$USERNAME$$$$ $$$$SYSTIME$$$$

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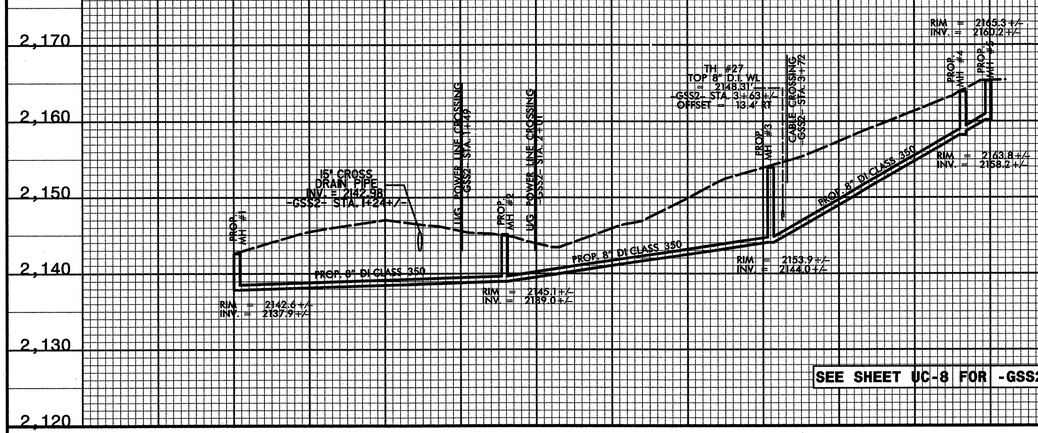
-GSS2-



SEE SHEET UC-8 FOR -GSS2- PLANS

NOTES:

EXISTING GROUND IS CUT ALONG PROPOSED WATER AND/OR SEWER LINES.

USE THE TRENCH METHOD OF INSTALLATION FOR THE PROPOSED WATER AND SEWER LINE CONSTRUCTION (UNLESS OTHERWISE NOTED ON PLANS)

PROVIDE THRUST RESTRAINT FOR PIPE & APPURTENANCES IN ACCORDANCE WITH SECTION 1505-3 OF THE STANDARD SPECIFICATIONS.

PROVIDE 10' OF ENCASEMENT ON CROSSINGS WITH LESS THAN MINIMUM COVER, ACCORDING TO SECTION 1505-5.

ALL WATER AND SEWER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NCDOT STANDARD SPECIFICATIONS SECTION 1500.

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UC-16
DESIGNED BY: JLT	
DRAWN BY: SGM	
CHECKED BY: LGF	
APPROVED BY:	
REVISED:	

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

NORTH CAROLINA PROFESSIONAL SEAL 35018 ENGINEER JAMES L. TERRY, III 4/20/12

UTILITY CONSTRUCTION PLANS ONLY

TGS ENGINEERS
957 WALNUT STREET
SUITE 141
CARY, NC 27511
PH (919) 319 8850

UTILITY CONSTRUCTION

NOTE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES AND THEIR LOCATIONS AFFECTED BY THE CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL UTILITIES DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 105-8 OF THE STANDARD SPECIFICATIONS.

$$$$SYSTIME$$$$ $$$$DGN$$$$ $$$$ENV$$$$

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09/08/99

TIP PROJECT: R-5207B

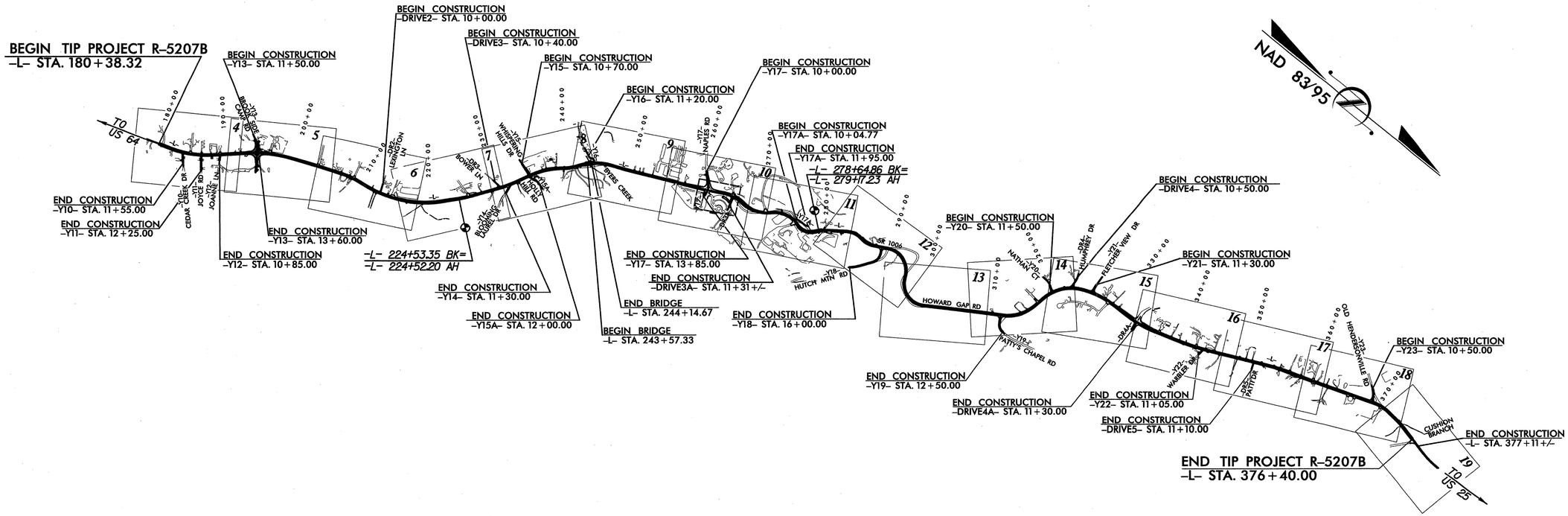
T.I.P. NO.	SHEET NO.
R-5207B	UO-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITIES BY OTHERS PLANS
HENDERSON COUNTY

LOCATION: SR 1006 (HOWARD GAP ROAD) FROM BRIDGE 334 TO SR 1539 (JACKSON ROAD)

TYPE OF WORK: TELEPHONE, POWER, GAS, SANITARY SEWER, AND CABLE UNDERGROUND AND OVERHEAD



GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 10 5 0 10 20

INDEX OF SHEETS

SHEET NO.	*DESCRIPTION*
UO-1	*TITLE SHEET*
UO-2 THRU UO-17	*UTILITY BY OTHERS PLAN SHEETS*

UTILITY OWNERS ON PROJECT

(1) POWER - DUKE ENERGY
(2) POWER - PROGRESS ENERGY
(3) GAS - PSNC
(4) CABLE - MEDIACOM
(5) TELEPHONE - AT&T
(6) SEWER - CANE CREEK WATER AND SEWER AUTHORITY
(7) SEWER - FOX GLEN HOMEOWNERS ASSOCIATION

PLANS PREPARED BY:	*PLANS PREPARED FOR:*
TGS ENGINEERS *TGS ENGINEERS* *SUITE 141* *975 WALNUT STREET* *CARY, NC 27511* *PH (919) 319-8850*	*NCDOT DIVISION 14* *NCDOT Contact:* *RALPH CANNADY* *DIVISION CONTRACT OFFICER*
2006 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: OCTOBER 2006	JIMMY L. TERRY, PE *PROJECT ENGINEER*
LETTING DATE: JULY 17, 2012	GARY MCLAMB *NCDOT UTILITY COORDINATOR*

$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$USERNAME$$$$

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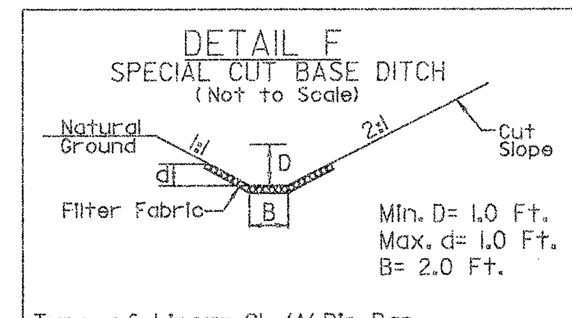
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-2

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

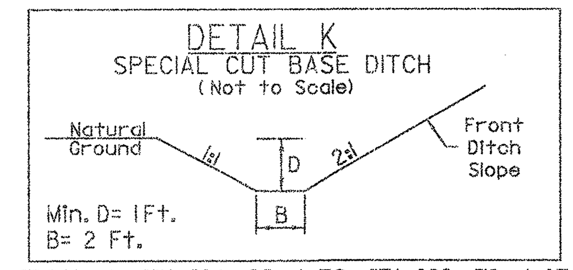
DETAIL F
SPECIAL CUT BASE DITCH
(Not to Scale)



Type of Liner= CL 'A' Rip-Rap

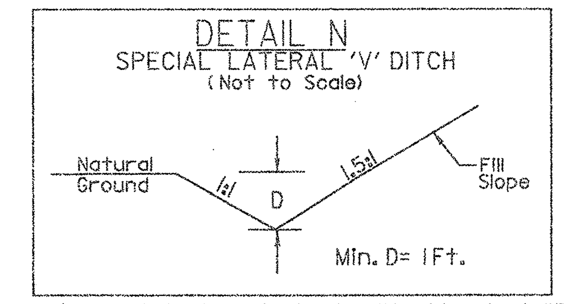
FROM -L- STA. 181+20+/- TO STA. 186+40+/- LT
CL 'A' RIP RAP: EST. 116 TONS
FILTER FABRIC: EST. 460 SY
USE -L- GRADE FOR DETAIL 'F'

DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)



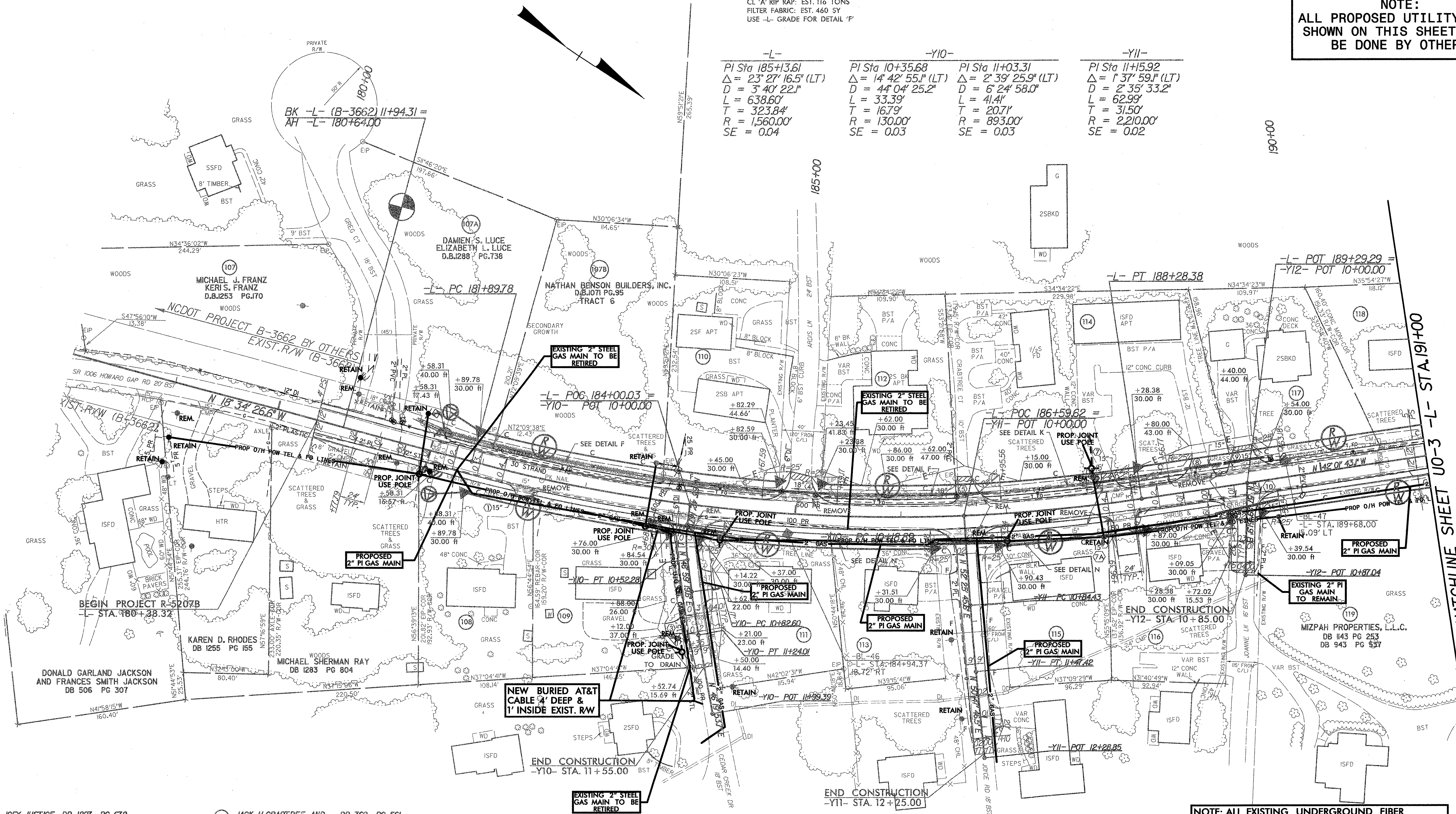
FROM -L- STA. 186+85+/- TO STA. 188+70+/- LT
USE -L- GRADE FOR DETAIL 'K'

DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM -L- STA. 183+50+/- TO STA. 189+50+/- RT

-L-	-Y10-		-Y11-
PI Sta 185+13.61	PI Sta 10+35.68	PI Sta 11+03.31	PI Sta 11+15.92
Δ = 23° 27′ 16.5″ (LT)	Δ = 14° 42′ 55.1″ (LT)	Δ = 2° 39′ 25.9″ (LT)	Δ = 1° 37′ 59.1″ (LT)
D = 3° 40′ 22.1″	D = 44° 04′ 25.2″	D = 6° 24′ 58.0″	D = 2° 35′ 33.2″
L = 638.60′	L = 33.39′	L = 41.41′	L = 62.99′
T = 323.84′	T = 16.79′	T = 20.71′	T = 31.50′
R = 1,560.00′	R = 130.00′	R = 893.00′	R = 2,210.00′
SE = 0.04	SE = 0.03	SE = 0.03	SE = 0.02



NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

- (108) JOEY JUSTICE DB 1297 PG 672
- (109) KARYN B. SPREEMAN DB 828 PG 397
- (110) NATHAN ALVA BENSON DB N/A PG N/A
- (111) FRANKLIN E. BROWN AND DB 577 PG 319 PHYLLIS A. BROWN
- (112) TWIN OAKS CONDOMINIUMS DB 656 PG 481 HOMEOWNERS ASSOCIATION
- (113) JOHN H. ROSS DB 1183 PG 463
- (114) JACK H. CRABTREE AND DB 769 PG 561 ROBERTA M. CRABTREE DB 818 PG 795
- (115) STANLEY L. YURTH DB 1017 PG 447
- (116) DINAH MAE KADUK DB 926 PG 696
- (117) ALFRED W. MAYO AND DB 845 PG 55 WANDA P. MAYO
- (118) SHERI H. AYERS DB 1256 PG 115

$$$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$$$$$USERNAME$$$$$

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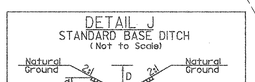
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-3

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

(120) ZUDIE WALKER INC. DB 1190 PG 239
(121) YOUNGBLOOD OIL COMPANY, INC. DB 746 PG 209
(122) FAKIR B.PATEL DB 1154 PG 224

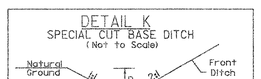
DETAIL J
STANDARD BASE DITCH
(Not to Scale)



Type of Liner= CL 'B' Rip-Rap

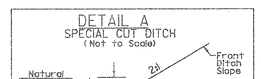
-Y13- STA. 13+83+/- RT
CL 'B' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 60 SY
D.D.E.: EST. 10 CY
GRADE TO DRAIN (MIN. 0.3% SLOPE)

DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)



Min. D= 1Ft.
B= 2 Ft.
FROM -L- STA. 196+70+/- TO STA. 200+00+/- LT

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



Min. D= 1.0 Ft.
FROM -L- STA. 200+00+/- TO STA. 203+00+/- RT

N34°23'43"W 539.55'
N34°40'26"W 139.79'
N25°40'54"W 280.00'
S75°22'03"W 476.64' BFP-COR 468.86' FPP-COR
N41°37'03"W 179.8'
N41°37'03"W 104.3'
N 42° 01' 43" W 602.28'
N 27° 48' 42.5" W 1,170.08'
288.83' N38°50'45"W
N 66° 40' 25.31" E

REM. PROP. JOINT USE POLE
PROP. O/H POW TEL & FO LINES
-Y13- POT 10+00.00
BEGIN CONSTRUCTION -Y13- STA. 10+80.00
-Y13- PC 10+95.19
-Y13- PT 12+00.13
-Y13- PC 14+39.95
-Y13- PT 15+40.87
-Y13- POT 15+49.80
END CONSTRUCTION -Y13- STA. 15+40.00
-L- PC 193+09.41
-L- PT 199+46.67
-L- PC 201+92.32
-L- STA. 191+00
-L- STA. 204+00
-BL- GPS MAI418IR-7 -Y13- STA. 13+20.16 19.53' LT
-BL- GPS MAI418IR-7 -L- STA. 199+97.58 28.12 LT
-BL- GPS MAI418IR-7 -L- STA. 203+62.86 18.17' LT
-BL- 48
-BL- 49
PROPOSED 2" PI GAS MAIN
Excavate & Expose Fiber & Move HH
EXISTING 2" STEEL GAS MAIN TO BE RETIRED
New Buried Fiber 5' Deep across Cut.
Exist Buried Fiber to Remain across Brookside Camp
Exist Buried Fiber to Remain across Howard Gap
New Buried Cable 3' Deep & 3' Inside R/W.
New Buried Cable 3' Deep & 2' Inside R/W.
PROPOSED TELEPHONE POLE
CLASS B RIP-RAP: EST. 2 TONS
FILTER FABRIC: EST. 7 SY
DITCH TURN OUT RIP RAP CUT TO FILL TRANSITION CLASS B RIP-RAP: EST. 6 TONS
FILTER FABRIC: EST. 20 SY
SEE DETAIL 'K'
SEE DETAIL 'A'
SEE DETAIL 'J'
REMOVE EXISTING PDE
RETAIN
REMOVE
MONITOR WELL
GAS PUMPS W/ CANOPY
BROOKSIDE CAMP RD
SR 1006 HOWARD GAP RD
SR 1326 HOWARD GAP RD
MATCHLINE SHEET U0-2 -L- STA. 191+00
MATCHLINE SHEET U0-4 -L- STA. 204+00

(118) GORDAN T. HAWKINS AND BRENDA K. HAWKINS DB 511 PG 625
(119) MIZPAH PROPERTIES, L.L.C. DB 1143 PG 253 DB 943 PG 537
(123) FAKIR B. PATEL AND KUSUM F. PATEL DB 1226 PG 135
(124) MINNIE MAE NUCKOLLS DB 94E PG 817
(125) JOYCE ELAINE LAMB DB 561 PG 362
(126) LAURA M. ROBINSON DB 1157 PG 649

-L-

PI Sta 196+31.06	PI Sta 203+91.99
△ = 19° 13' 00.6" (RT)	△ = 1° 34' 52.1" (RT)
D = 3° 00' 56.0"	D = 0° 23' 45.5"
L = 637.25'	L = 399.31'
T = 321.65'	T = 199.67'
R = 1,900.00'	R = 14,470.00'
SE = 0.04	SE = 0.04

-Y13-

PI Sta 11+48.44	PI Sta 14+90.68
△ = 24° 02' 58.8" (RT)	△ = 14° 27' 19.1" (RT)
D = 22° 55' 05.9"	D = 14° 19' 26.2"
L = 104.94'	L = 100.92'
T = 53.25'	T = 50.73'
R = 250.00'	R = 400.00'
SE = 0.02	SE = 0.02

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

$$$$USERNAME$$$$ $$$$SYSTIME$$$$ $$$$DGN$$$$

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PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-4

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

(126) FRANCES McWHORTER DB 1157 PG 649

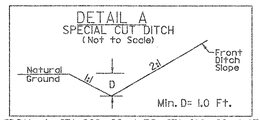
(129) BRIAN W.BYRD AND DB 1145 PG 80
CHARLENE E.BYRD

(130) PHYLLIS C.HARRIS DB 1189 PG 043

(131) M.HELENA RUDELL DB 1082 PG 155

(134) JULIET NICHOLSON HEATHERLY AND DB 1052 PG 52
GARLAND SCOTT HEATHERLY

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



FROM -L- STA. 209+20+/- TO STA. 210+00+/- LT
FROM -L- STA. 214+00+/- TO STA. 215+00+/- RT

MATCHLINE SHEET U0-3 -L- STA.204+00

MATCHLINE SHEET U0-5 -L- STA.217+00

205+00

210+00

215+00

THOMAS A. DAVIS
AND JUNE S. DAVIS
DB 811 PG 253
DB 769 PG 409

EDWARD W. NUCKOLLS
AND BLANCA M. NUCKOLLS
DB 762 PG 767

WILLIAM D. MOORE
AND JANIS K. MOORE
DB 803 PG 79
DB 1046 PG 354

JEANA W. GREER
DB 1103 PG 20

HARRY L. SCHENIMANN
AND MARILYN G. SCHENIMANN
SLIDE 3849

-L- PT 205+91.63

-L- PC 206+88.11

-L- PT 209+54.99

-L- PC 210+96.20
BEGIN CONSTRUCTION
-DRIVE2- STA. 10+00.00

-L- POC 213+07.39 = -DRIVE2- POT 11+38.18

-BL-50
-L- STA. 208+63.58
13.98' RT

-BL-51
-L- STA. 215+06.73
15.66' RT

BM#10
ELEV= 2150.30
-L- STA. 214+76.86
100.22' LT

EXISTING 8" STEEL GAS MAIN TO REMAIN

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

-L-

PI Sta 203+91.99	PI Sta 208+22.15	PI Sta 216+70.79
Δ = 1° 34' 52.1" (RT)	Δ = 13° 17' 47.6" (RT)	Δ = 39° 30' 29.3" (LT)
D = 0° 23' 45.5"	D = 4° 58' 56.1"	D = 3° 34' 51.6"
L = 399.31'	L = 266.88'	L = 1,103.28'
T = 199.67'	T = 134.04'	T = 574.59'
R = 14,470.00'	R = 1,150.00'	R = 1,600.00'
SE = 0.04	SE = 0.04	SE = 0.04

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGN$$$$

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PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-5

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

(138) ROBERT H.JOHNSON AND NILDA L.JOHNSON DB 495 PG 157

(139) ROBERT P.POND AND BARBARA L.POND DB 962 PG 174

(140) JOSEPH H.KELLEY DB CT02 PG 541

(141) JOHN L.REESE,JR. DB 818 PG 137

(142) RONALD W.KAROLYI AND JOYCE A.DAVIS DB 842 PG 455

-L-
PI Sta 216+70.79
Δ = 39° 30' 29.3" (LT)
D = 3° 34' 51.6"
L = 1,103.28'
T = 574.59'
R = 1,600.00'
SE = 0.04

PI Sta 225+45.02
Δ = 7° 59' 05.1" (LT)
D = 4° 18' 28.6"
L = 185.35'
T = 92.82'
R = 1,330.00'
SE = 0.04

MATCHLINE SHEET U0-4 -L- STA.217+00

MATCHLINE SHEET U0-6 -L- STA.230+00

220+00

225+00

230+00

(135) HARRY L. SCHENIMANN AND MARILYN G. SCHENIMANN SLIDE 3849

STORAGE BLDG

GRAVEL P/A

SCATTERED TREES

GRASS

BST

WOODS

EXISTING 8" STEEL GAS MAIN TO REMAIN

CLASS B RIP-RAP: EST. 3 TONS
FILTER FABRIC: EST. 11 SY

+92.00 42.00 ft 30.00 ft

+08.00 42.00 ft 30.00 ft

24" CMP (26)

PDE

SR 1006 HOWARD GAP RD 21' BST

8" STL

GRAU 350

+20.00 30.00 ft SEE DETAIL L

DAVID E. MOORE DB 721 PG 205

(136)

+82.00 43.00 ft

RETAIN

REM.

PROP O/H POW TEL & FO LINES

APPROX. LOCATION

WD RAIL

S72°19'00"E 300.36'

S72°19'00"E 315.54'

RETAIN

LT

J.A. NEFF AND NORMA JEAN NEFF DB 340 PG 373

S43°40'00"E 202.00'

S52°17'39"E 151.93'

N84°42'00"E

EIP

TREE LINE

-L- PT 221+99.48

+99.48 30.00 ft

8" STL

96 STRAND 18 STRAND

(26A) REM.

300 PR

(268) REMOVE

-BL-52
-L- STA. 221+18.68
18.86' RT

+99.48 30.00 ft

PROP. JOINT USE POLE

-L- PC 224+52.20

N56°40'41"W 162.55'

RETAIN

(138)

GRASS

FOOT BRIDGE

6' ROCK WALL

VAR BST SEE DETAIL P

+10.00 126.00 ft

ISFD

S56°40'41"E 162.55'

S00°57'08"W

REM.

REMOVE

(27)

(28)

+83.00 189.63 ft

TANAGER LN 17' BST

25' R/W

CLASS I RIP-RAP: EST. 20 TONS
FILTER FABRIC: EST. 39 SY
(DO NOT PLACE RIPRAP IN STREAM BED)

42"CMP (Bury Inverts 0.7' Below Stream Bed)

+57.25 196.62 ft

+71.03 197.48 ft

Directional Bore under Creek & Prop Pipe.

New Buried Cable 3' Deep & 15' Exist EOP.

New Buried Cable 3' Deep & 2' Inside R/W.

DONNA MARIE REILLY DB 1090 PG 397

SCATTERED TREES

N56°27'39"W 140.00'

N56°27'39"W 45.93'

N46°14'19"W 74.16'

N46°14'19"W 121.44'

WOODS

(140)

(142)

PROPOSED 2" PI GAS MAIN

EXISTING 8" STEEL GAS MAIN TO REMAIN

+82.80 58.00 ft

CONC POOL

48" CHL

+78.00 16.90 ft

8" GRAVEL

(139)

8" BLK WALL

WD

+33.04 30.00 ft

+36.16 22.00 ft

+01.00 38.00 ft

+78.92 30.00 ft

ISBKD

73.86 22.00 ft

SCATTERED TREES

VAR BST

GRASS

18" CMP

(29)

+66.58 30.00 ft

+52.20 30.00 ft

+55.00 30.00 ft

SR 1006 HOWARD GAP RD 21' BST

N 41° 26' 32" W

N 55° 25' 37" W

REMOVE

EXISTING R/W

TREE LINE

24" TYP.

+64.20

+52.20 30.00 ft

CLASS B RIP-RAP: EST. 3 TONS
FILTER FABRIC: EST. 10 SY

PROP O/H POW TEL & FO LINES

42" CONC

+37.55 30.00 ft

+02.00 30.00 ft

+19.00 17.88 ft

+39.00 30.00 ft

SEE DETAIL Q

STEPS

REM.

RETAIN

SEE DETAIL L

-L- PT 226+37.55

-BL-53
-L- STA. 225+58.77
14.99' LT

GRASS FIELD

-L- 224+53.35 BK =
-L- 224+52.20 AH

New Buried Cable 6' Deep from R/W to EOP under Prop ditch.

EXISTING 2" STEEL GAS MAIN TO BE RETIRED

(137) JAMES ARTHUR COLLINS AND MARJORIE H. COLLINS DB 927 PG 824

ISBKD

G

(141)

(143) ELIZABETH L. O'LEARY DB 790 PG 272

WOODS

N17°00'00"E 87.30'

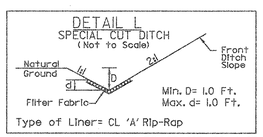
N17°00'00"E 236.81' P/K CUT

236.81' P/K CUT

PROP O/H POW TEL & FO LINES

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)



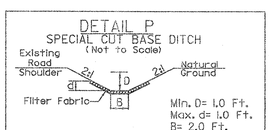
Min. D= 1.0 Ft.
Max. d= 1.0 Ft.

Type of Liner= CL 'A' Rip-Rap

FROM -L- STA. 218+00+/- TO STA.219+00+/- RT
CL 'A' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 78 SY

FROM -L- STA. 225+00+/- TO STA.226+00+/- RT
CL 'A' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 78 SY

DETAIL P
SPECIAL CUT BASE DITCH
(Not to Scale)

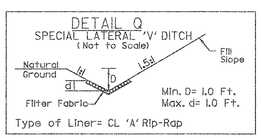


Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
B= 2.0 Ft.

Type of Liner= CL 'A' Rip-Rap

TANAGER LANE - RT
CL 'A' RIP RAP: EST. 20 TONS
FILTER FABRIC: EST. 78 SY
D.D.E. : EST. 12CY

DETAIL Q
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Min. D= 1.0 Ft.
Max. d= 1.0 Ft.

Type of Liner= CL 'A' Rip-Rap

FROM STA. 229+50+/- TO STA. 230+00+/- RT
CL 'A' RIP RAP: EST. 9 TONS
FILTER FABRIC: EST. 36 SY

$USERNAME$ $SYSTIME$ DGN

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PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-6

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

①	-DRIVE3- POT 10+00.00
②	-DRIVE3- PC 10+94.51
③	-DRIVE3- PT 11+39.99
③ to ④	N 34° 34' 21.7" E
④	-L- POT 230+48.24 = -DRIVE3- POT 11+45.76
⑤	-L- PC 230+73.82
⑥	-L- POC 231+86.63 = -Y14- POT 10+00.00
⑥ to ⑦	N 29° 56' 03.2" E
⑦	-Y14- PC 10+08.31
⑧	-Y14- PT 10+46.20
⑨	-Y14- POT 11+30.67
⑩	-Y15- PT 12+31.81

(144) PHILIP M.CHAVEZ AND CAROLYN M.CHAVEZ DB 930 PG 456

(148) COLONIAL VILLAGE HOMEOWNERS ASSOCIATION DB IA PG 1055

(149) GARY AND RUTH BIENVENU DB 1260 PG 257

(150) PINE VILLA HOMEOWNERS ASSOCIATION DB 477 PG 575

(151) RICHARD J.SILTZER AND KELLY M.SILTZER DB 1229 PG 762

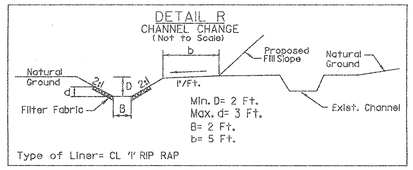
(152) AMELIA ANN HOUCK DB 1079 PG 665

(156) DAVID F.BOONE AND LORENA C.BOONE DB 950 PG 735

(31) 48"CMP - BURY INVERTS 0.8' BELOW STREAM BED

(32) 60"CMP - BURY INVERTS 1.0' BELOW STREAM BED

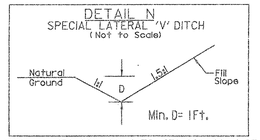
DETAIL R
CHANNEL CHANGE
(Not to Scale)



Type of Liner= CL 'I' RIP RAP

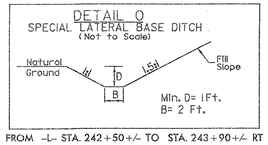
FROM -L- STA. 231+95+/- TO STA. 232+50+/- LT
CL I RIP RAP: EST. 38 TONS
FILTER FABRIC: EST. 135 SY
D.D.E.: EST. 50 CY

DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



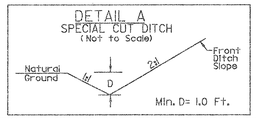
FROM -L- STA. 230+00+/- TO STA. 231+30+/- RT

DETAIL O
SPECIAL LATERAL BASE DITCH
(Not to Scale)



FROM -L- STA. 242+50+/- TO STA. 243+90+/- RT

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



FROM -L- STA. 232+60+/- TO STA. 237+00+/- RT

MATCHLINE SHEET U0-5 -L- STA.230+00

MATCHLINE SHEET U0-7 -L- STA.243+00

BEGIN CONSTRUCTION
-DRIVE3- STA. 10+40.00

BEGIN CONSTRUCTION
-Y15- STA. 10+70.00

-Y15- POT 10+00.00

-Y15- PC 10+76.34

-L- PC 235+09.23 = -Y15- POT 12+68.45 = -Y15A- POT 10+00.00

-L- PT 233+04.42

-L- PC 240+27.98

-L- PT 241+58.46

-L- 242+52.60 BK = -L- 242+56.74 AH

-BL-56 -L- STA. 237+89.65 15.45' LT

-BL-55 -Y15- STA. 12+41.88 17.31' RT

-BL-54 -L- STA. 232+11.20 13.47' LT

-BL-57 -L- STA. 241+58.20 34.70' RT

EXISTING 2" STEEL GAS MAIN TO REMAIN

EXISTING 2" STEEL GAS MAIN TO REMAIN

PROPOSED 8" STEEL & 2" PI GAS MAIN IN JOINT TRENCH

PROPOSED 2" PI GAS MAIN

PROPOSED 2" PI GAS MAIN

PROPOSED 2" PI GAS MAIN

New Buried Cable 3' Deep & 2' Inside R/W.

New Buried Cable 3' Deep & 1' Inside R/W.

New Buried Cable 3' Deep & 2' Inside R/W.

New Buried Svc Wire 2' Deep & 2' Inside R/W.

EXISTING REGULATOR TO BE RETIRED

EXISTING REGULATOR TO BE RETIRED

EXISTING 2" STEEL GAS MAIN TO BE RETIRED

EXISTING 8" STEEL GAS MAIN TO BE RETIRED

EXISTING 8" STEEL GAS MAIN TO BE RETIRED

PROPOSED TELEPHONE POLE

PROPOSED TELEPHONE POLE

PROP. JOINT USE POLE

PROP. JOINT USE POLE

PROP. JOINT USE POLE

PROP. JOINT USE POLE

PROP. JOINT USE POLE

PROP. JOINT USE POLE

PROP O/H POW TEL & FO LINES

PROP U/G POW TEL & FO LINES

PROP U/G TEL CABLES

CLASS I RIP-RAP: EST. 40 TONS
FILTER FABRIC: EST. 75 SY
SEE DETAIL R

SEE DETAIL N

SEE DETAIL O

SEE DETAIL A

RETAIN

ROBERT W. SACKETT AND RUTH M. SACKETT DB 1032 PG 438 (146)

LARRY W. FOX AND DEBORAH JEAN FOX DB 926 PG 301 (145)

ELIZABETH L. OLEARY DB 790 PG 272 (143)

JAMES THOMPSON AND APRIL THOMPSON DB 1208 PG 585 (147)

JOANN W. FISHER DB 1060 PG 513 (153)

MATTHEW BRIAN HYDER AND CAROL G. HYDER DB 813 PG 427 (154)

PIERCE J. MOORE, JR. AND DORA C. MOORE DB 1049 PG 148 DB 377 PG 475 (155)

EXIST. TCE PURCHASED UNDER TR MA14181R FOR PARCEL 156 (156)

BM#1 ELEV= 2999.92 -Y15- STA. 11+43.66 47.50' LT

BM#2 ELEV= 2999.92 -Y15- STA. 12+41.88 17.31' RT

END CONSTRUCTION -Y14- STA. 11+30.00

END CONSTRUCTION -Y15A- STA. 12+00.00

-Y15A- POT 12+70.95

-Y15A- PC 10+23.71

-Y15A- PRC 10+97.93

-Y15A- PT 11+63.79

-Y15A- PC 10+62.62

-Y15A- PT 11+32.11

-L- PC 242+56.74

-L- PT 239+67.24

-DRIVE3-	-Y14-	-L-			-Y15-	-Y15A-	
PI Sta 11+17.79	PI Sta 10+28.66	PI Sta 231+89.35	PI Sta 237+41.60	PI Sta 240+93.55	PI Sta 244+82.18	PI Sta 11+54.09	PI Sta 10+62.62	PI Sta 11+32.11
Δ = 30° 18' 07.9" (RT)	Δ = 51° 41' 12.2" (RT)	Δ = 8° 52' 02.3" (LT)	Δ = 23° 51' 22.7" (RT)	Δ = 13° 58' 23.3" (LT)	Δ = 31° 28' 34.0" (RT)	Δ = 2° 45' 03.5" (RT)	Δ = 42° 31' 43.8" (LT)	Δ = 37° 44' 01.5" (RT)
D = 66° 37' 22.8"	D = 136° 25' 06.7"	D = 3° 50' 43.3"	D = 5° 12' 31.3"	D = 10° 42' 34.2"	D = 7° 09' 43.1"	D = 1° 46' 10.1"	D = 57° 17' 44.8"	D = 57° 17' 44.8"
L = 45.48'	L = 37.89'	L = 230.60'	L = 458.01'	L = 130.47'	L = 439.49'	L = 155.47'	L = 74.23'	L = 65.86'
T = 23.29'	T = 20.34'	T = 115.53'	T = 232.37'	T = 65.56'	T = 225.44'	T = 77.75'	T = 38.92'	T = 34.17'
R = 86.00'	R = 42.00'	R = 1,490.00'	R = 1,100.00'	R = 535.00'	R = 800.00'	R = 3,238.00'	R = 100.00'	R = 100.00'
		SE = 0.07	SE = 0.04	SE = 0.04	SE = 0.04			

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

\$\$SYSTIME\$\$ \$\$SDON\$\$ \$\$SLENAME\$\$

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$$$$$$SYSTIME$$$$$
$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

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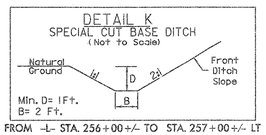
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-8

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

NOTE: REMOVE SECTION OF EXISTING 15" PIPE AS NEEDED (APPROX. 30'+/-). TIE EXISTING 15" PIPE INTO CB USING TWO HDPE ELBOWS AND APPROX. 16' NEW HDPE 15" PIPE.

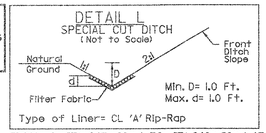
DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)



Min. D= 1Ft.
B= 2 Ft.

FROM -L- STA. 256+00+/- TO STA. 257+00+/- LT

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)

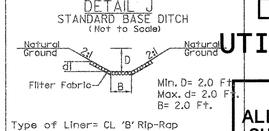


Min. D= 1.0 Ft.
Max. d= 1.0 Ft.

Type of Liner= CL 'A' Rip-Rap

FROM -L- STA. 267+22+/- TO STA.268+50+/- LT
CL 'A' RIP RAP: EST. 24 TONS
FILTER FABRIC: EST. 100 SY

DETAIL J
STANDARD BASE DITCH
(Not to Scale)



Min. D= 2.0 Ft.
Max. d= 2.0 Ft.
B= 2.0 Ft.

Type of Liner= CL 'B' Rip-Rap

-L- STA. 267+25+/- RT
CL 'B' RIP RAP: EST. 38 TONS
FILTER FABRIC: EST. 98 SY
D.D.E.: EST. 45 CY

MATCHLINE SHEET U0-7 -L- STA.256+00

MATCHLINE SHEET U0-9 -L- STA.269+00

BEGIN CONSTRUCTION
-Y17- STA. 10+00.00

-Y17- POT 10+00.00

-L- PC 258+71.22

-L- PC 266+75.32

-L- PT 266+03.60

-DRIVE3A- POT 11+98.79

-BL-59
-L- STA. 258+75.95
18.07' RT

-BL-60
-L- STA. 261+62.55
29.11' LT

-BL-61
-L- STA. 268+35.88
53.92' RT

N 24° 44' 23.9" W

N 25° 19' 55.5" W

THE LAYMAN FOUNDATION OF NC
DB 107 PG 86

FLETCHER HOSPITAL, INC.
DB 742 PG 555

ASHEVILLE AGRICULTURAL SCHOOL AND MOUNTAIN SANITARIUM
DB 107 PG 86

FLETCHER SEVENTH-DAY ADVENTIST

ISBKD

ISBK BUS

ISFD

BST P/A

SCATTERED TREES

TREES

GRASS

GRAVEL

WOODS

SEE DETAIL K

SEE NOTE 14

SEE DETAIL L

SEE SHEET 2-C FOR INTERSECTION DETAILS AND GRADING PLANS

FLETCHER ACADEMY

EXISTING 6" STEEL GAS MAIN TO BE RETIRED

PROPOSED 4" PI GAS MAIN

PROPOSED POWER POLE

PROP. JOINT USE POLE

EXISTING 4" PI GAS MAIN TO BE RETIRED

PROPOSED 2" PI GAS MAIN

PROPOSED 4" PI GAS MAIN

New Buried Cable 3' Deep & 2' Inside R/W

Proposed Cable Location Pending AT&T Easement Acquisition

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

EXISTING ROW TO BE ABANDONED AND REVERT BACK TO PRESENT PROPERTY OWNER

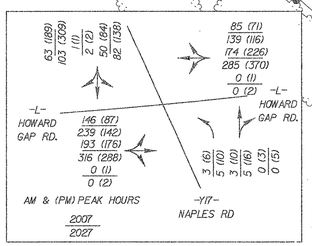
DO NOT DISTURB SIGN

PROP. ESMT. FOLLOWS EXIST. R/W

PROP. ESMT. FOLLOWS EXIST. R/W

PROP. R/W

PEAK HOUR TRAFFIC VOLUMES
(vehicles per hour)



①	-L- POC 261+11.06 = -Y17- POC 12+76.15
②	-DRIVE3A- POT 10+00.00= -L- POC 264+84.85

-L-

PI Sta 260+35.35
Δ = 2° 04' 40.7" (LT)
D = 0° 37' 59.2"
L = 328.22'
T = 164.13'
R = 9,050.00'
SE = 0.02

PI Sta 264+83.07
Δ = 26° 23' 19.1" (RT)
D = 10° 44' 58.8"
L = 245.48'
T = 124.96'
R = 533.00'
SE = 0.04

PI Sta 268+83.38
Δ = 42° 38' 49.8" (LT)
D = 10° 44' 58.8"
L = 396.73'
T = 208.06'
R = 533.00'
SE = 0.04

-Y17-

PI Sta 12+61.28
Δ = 40° 22' 30.6" (RT)
D = 31° 49' 51.6"
L = 126.84'
T = 66.18'
R = 180.00'

-DRIVE3A-

PI Sta 10+19.97
Δ = 38° 30' 12.9" (RT)
D = 143° 14' 22.0"
L = 26.88'
T = 13.97'
R = 40.00'

$$$$$$USERNAME$$$$
$$$$$$SYSTIME$$$$$$

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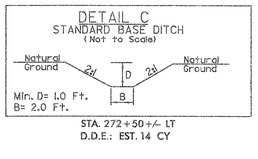
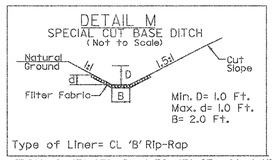
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-9

UTILITIES BY OTHERS

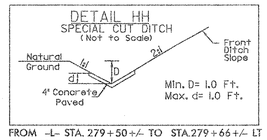
NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



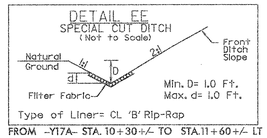
STA. 272+50+/- LT
D.D.E.: EST. 14 CY



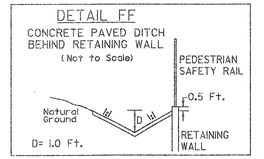
FROM -L- STA. 272+50+/- TO STA. 274+00+/- LT
CL 'B' RIP RAP: EST. 57 TONS
FILTER FABRIC: EST. 157 SY



FROM -L- STA. 279+50+/- TO STA.279+66+/- LT
CONCRETE: EST. 10 SY



FROM -Y17A- STA. 10+30+/- TO STA.11+60+/- LT
CL 'B' RIP RAP: EST. 37 TONS
FILTER FABRIC: EST. 107 SY
USE -Y17A- GRADE



FROM -L- STA. 277+30+/- TO STA. 279+50+/- LT

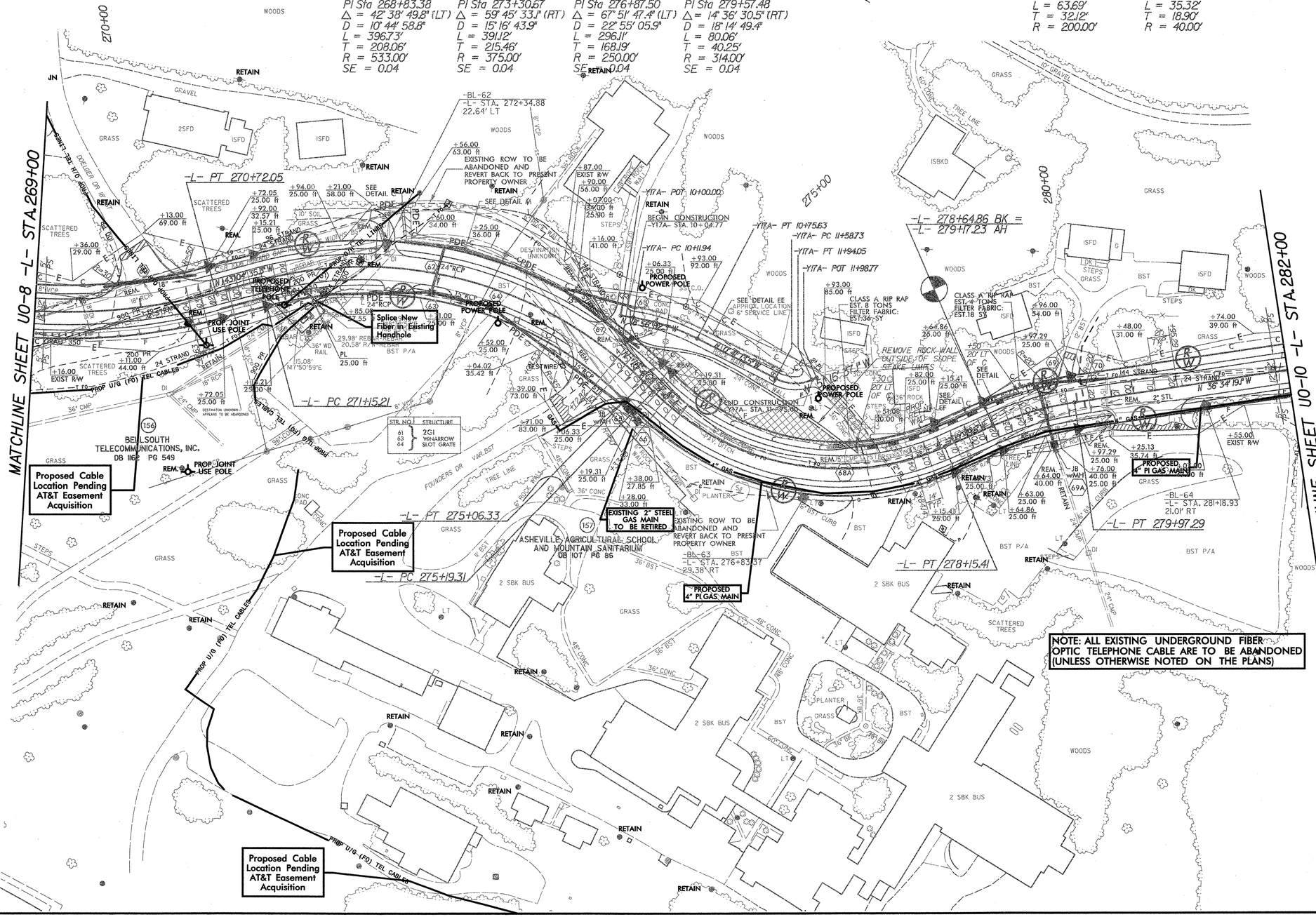
(157)
ASHEVILLE AGRICULTURAL SCHOOL
AND MOUNTAIN SANITARIUM
DB 107 PG 86

-L-

PI Sta 268+83.38	PI Sta 273+30.67	PI Sta 276+87.50	PI Sta 279+57.48
Δ = 42° 38' 49.8" (LT)	Δ = 59° 45' 33.1" (RT)	Δ = 67° 51' 47.4" (LT)	Δ = 14° 36' 30.5" (RT)
D = 10° 44' 58.8"	D = 15° 16' 43.9"	D = 22° 55' 05.9"	D = 18° 14' 49.4"
L = 396.73'	L = 391.12'	L = 296.11'	L = 80.06'
T = 208.06'	T = 215.46'	T = 168.19'	T = 40.25'
R = 533.00'	R = 375.00'	R = 250.00'	R = 314.00'
SE = 0.04	SE = 0.04	SE = 0.04	SE = 0.04

-Y17A

PI Sta 10+44.06	PI Sta 11+77.63
Δ = 18° 14' 48.8" (RT)	Δ = 50° 35' 23.6'
D = 28° 38' 52.4"	D = 143° 14' 22.0"
L = 63.69'	L = 35.32'
T = 32.12'	T = 18.90'
R = 200.00'	R = 40.00'



STR. NO.	STRUCTURE
61, 63, 64	2GI W=NARROW SLOT GRATE

$$$$SYSTIME$$$$
$$$$USERNAME$$$$
$$$$DGN$$$$

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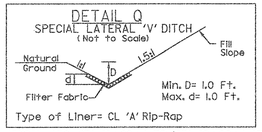
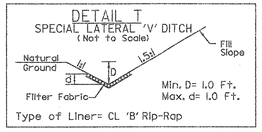
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-10

UTILITIES BY OTHERS

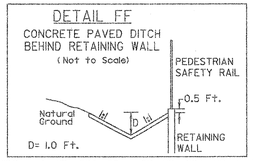
NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



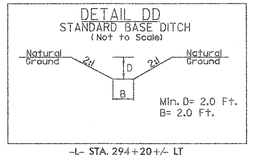
FROM -Y18- STA. 11+30+/- TO STA. 12+20+/- LT
CL 'A' RIP RAP: EST. 15 TONS
FILTER FABRIC: EST. 65 SY



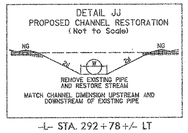
FROM STA. 291+75+/- TO STA. 292+10+/- RT
CL 'B' RIP RAP: EST. 12 TONS
FILTER FABRIC: EST. 34 SY



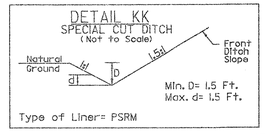
FROM -L- STA. 285+50+/- TO STA. 287+00+/- LT



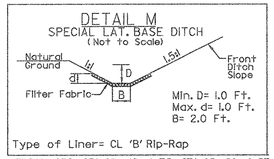
-L- STA. 294+20+/- LT
D.D.E.: EST. 16 CY



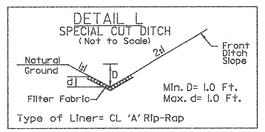
-L- STA. 292+78+/- LT



FROM -L- STA. 294+20+/- TO STA. 300+00+/- LT
EST. PSRM = 250 SY



FROM -Y18- STA. 10+43+/- TO STA. 15+50+/- RT
CL 'B' RIP RAP: EST. 194 TONS
FILTER FABRIC: EST. 530 SY



FROM -L- STA. 287+50+/- TO STA. 289+00+/- LT
CL 'A' RIP RAP: EST. 23 TONS
FILTER FABRIC: EST. 117 SY

FROM -L- STA. 294+20+/- TO STA. 296+50+/- LT
CL 'A' RIP RAP: EST. 45 TONS
FILTER FABRIC: EST. 180 SY

-L-

PI Sta 284+37.44	PI Sta 286+62.38	PI Sta 293+15.46	PI Sta 298+69.84
Δ = 46° 15' 36.1" (RT)	Δ = 37° 09' 32.1" (LT)	Δ = 95° 33' 38.5" (RT)	Δ = 100° 22' 40.7" (LT)
D = 18° 14' 49.4"	D = 18° 14' 49.4"	D = 18° 14' 49.4"	D = 18° 14' 49.4"
L = 253.52'	L = 203.64'	L = 523.70'	L = 550.10'
T = 134.13'	T = 105.55'	T = 346.06'	T = 376.73'
R = 314.00'	R = 314.00'	R = 314.00'	R = 314.00'
SE = 0.04	SE = 0.04	SE = 0.06	SE = 0.06

(76)	30"CMP – BURY INVERTS 0.5' BELOW STREAM BED
(77)	18"CMP – BURY INVERTS 0.3' BELOW STREAM BED 0.064" WALL THICKNESS CLASS III SELECT BACKFILL MATERIAL REQUIRED
(80)	30"CMP – BURY INVERTS 0.5' BELOW STREAM BED 0.138 WALL THICKNESS CLASS III SELECT BACKFILL MATERIAL REQUIRED

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

285+00

290+00

-L- PT 287+60.48

-L- POT 288+76.14 =
-Y18- POT 10+00.00

-BL-71
-L- STA. 292+75.52
227.19' LT

REMOVE EXIST. PIPE AND RESTORE STREAM SEE DETAIL 'JJ'

EXISTING ROW TO BE ABANDONED AND REVERT BACK TO PRESENT PROPERTY OWNER

-BL-70
-L- STA. 291+13.50
100.90' LT

157 ASHEVILLE AGRICULTURAL SCHOOL AND MOUNTAIN SANITARIUM DB 107 PG 86

WOODS

TEMPORARY TELEPHONE POLE

PROPOSED TELEPHONE POLE

PROP O/H TEL LINES

PROP JOINT USE POLE

TB - 2GI wNarrow Slot Flat Grate (74)

SPRING BOX (78)

CL B RIP-RAP: EST. 8 TONS FILTER FABRIC: EST. 21 SY (RIP RAP BANKS ONLY)

15"CMP W/2 ELBOWS ROD & LUG SLEEVE CONNECTIONS

CL B RIP-RAP: EST. 2 TONS FILTER FABRIC: EST. 7 SY

RIP RAP CUT TO FILL TRANSITION CLASS B RIP-RAP: EST. 6 TONS FILTER FABRIC: EST. 20 SY

-L- PC 289+69.41

BEGIN SHLDR.BERM GUTTER
-L- STA.289+30+/- RT

END SHLDR.BERM GUTTER
-L- STA.294+80+/- RT

-L- PRC 294+93.11

-BL-67
-BY14-94
-L- STA. 289+24.21
18.25' RT

SEE DETAIL Q

EXISTING ROW TO BE ABANDONED AND REVERT BACK TO PRESENT PROPERTY OWNER

Proposed Cable Location Pending AT&T Easement Acquisition

MATCHLINE SHEET U0-11 -L- STA.295+00

CLASS A RIP RAP EST. 4 TONS FILTER FABRIC: EST.18 SY

SEE DETAIL I

SEE DETAIL FF

PROPOSED RETAINING WALL

ISBLKD STEPS

GRASS FIELD

CL B RIP-RAP: EST. 5 TONS FILTER FABRIC: EST. 14 SY

CL B RIP-RAP: EST. 2 TONS FILTER FABRIC: EST. 7 SY

-BL-66
-L- STA. 286+70.46
21.21' RT

-Y18- PC 10+91.23

-Y18- PT 12+55.63

-L- PRC 285+56.83

157 ASHEVILLE AGRICULTURAL SCHOOL AND MOUNTAIN SANITARIUM DB 107 PG 86

SEE DETAIL M

TREE

BM#14
ELEV= 2170.53'
-Y18- STA. 12+77.17
65.28' RT

Proposed Cable Location Pending AT&T Easement Acquisition

-Y18- PC 14+50.77

-BY14-68
-Y18- STA. 13+59.63
17.36' LT

-Y18-

PI Sta 11+82.78	PI Sta 15+66.98
Δ = 62° 47' 38.6" (RT)	Δ = 21° 55' 19.8" (RT)
D = 38° 11' 49.9"	D = 9° 32' 57.5"
L = 164.39'	L = 229.57'
T = 91.55'	T = 116.21'
R = 150.00'	R = 600.00'
SE = 0.04	SE = 0.02

-Y18- PRC 16+80.34

END CONSTRUCTION
-Y18- STA. 16+00.00

EXISTING 2" STEEL GAS MAIN TO BE RETIRED

PROPOSED 4" PI GAS MAIN

MATCHLINE SHEET U0-9 -L- STA.282+00

SR 1006 HOWARD GAP RD. 20' BST

HITCH VEN RD. 20' BST

PROP U/G (PROP. TEL CABLES)

ISFD

DK

G

H

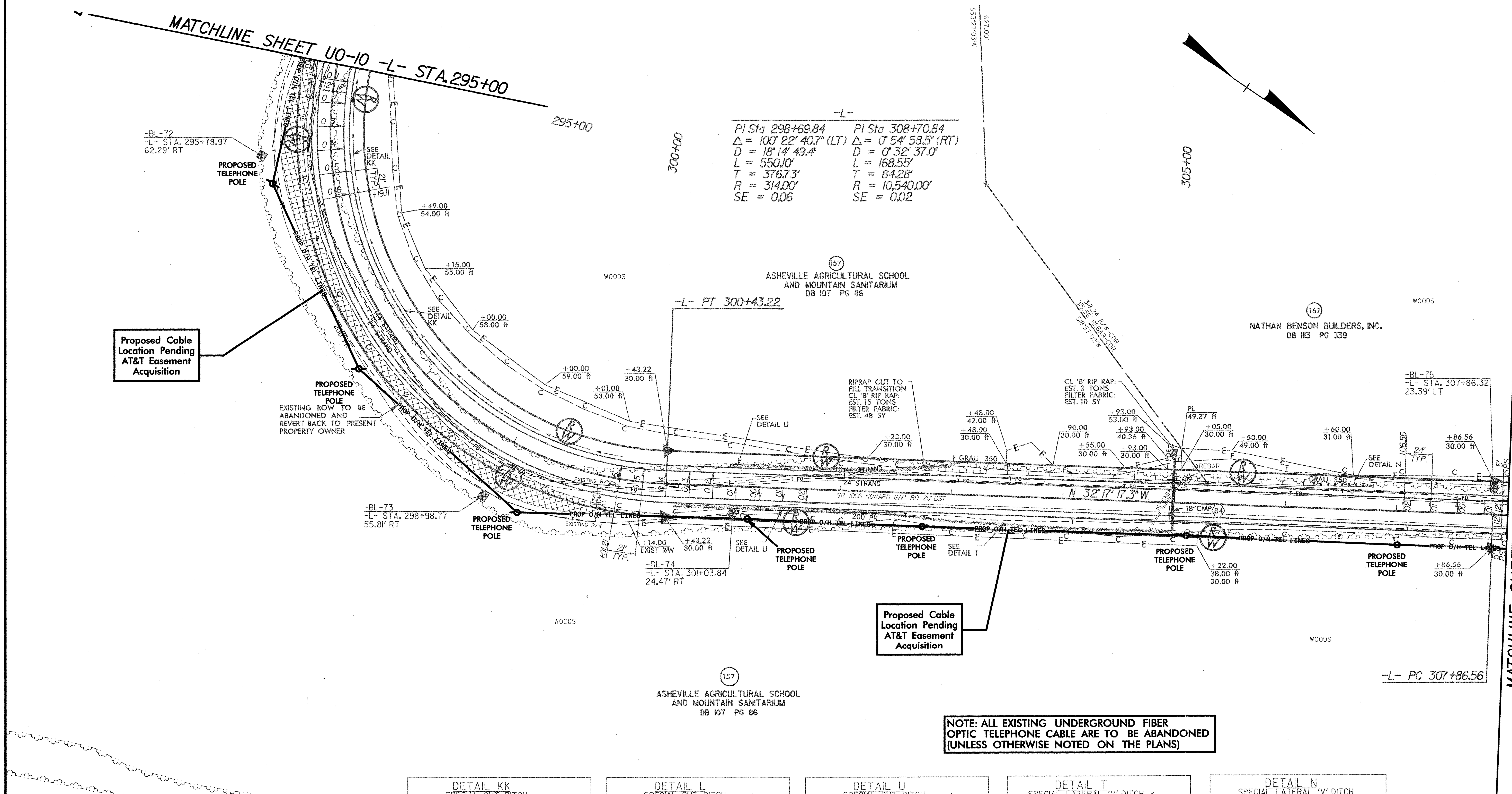
$$$$$$$$SYSTIME$$$$$$
$$$$$$$$

5/14/99

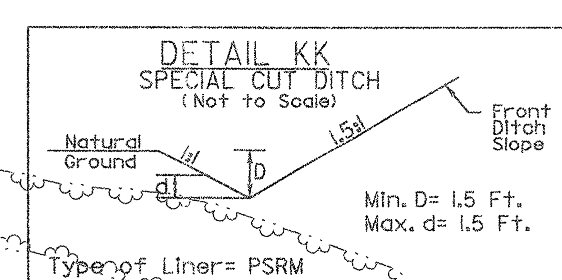
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UO-11

UTILITIES BY OTHERS

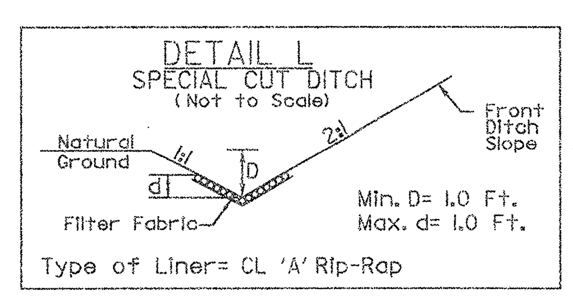
NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

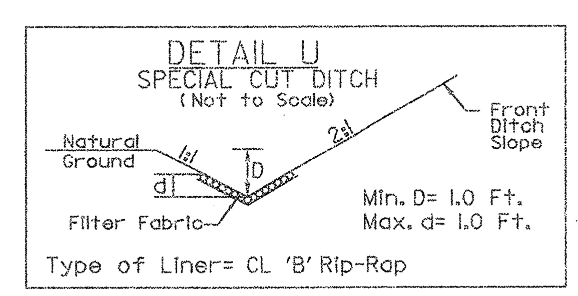


FROM -L- STA. 294+20+/- TO STA. 300+00+/- LT
EST. PSRM = 250 SY



FROM -L- STA. 294+20+/- TO STA.296+50+/- LT
CL 'A' RIP RAP: EST. 45 TONS
FILTER FABRIC: EST. 180 SY

USE -L- GRADE FOR DETAIL 'L'

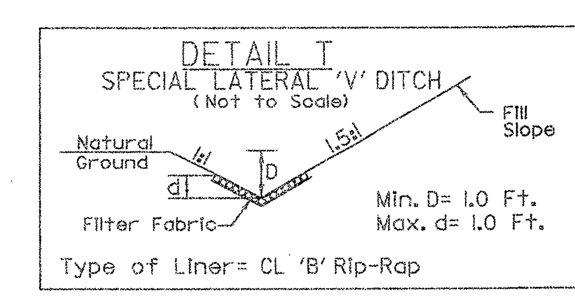


FROM -L- STA. 296+50+/- TO STA.298+00+/- LT
CL 'B' RIP RAP: EST. 71 TONS
FILTER FABRIC: EST. 205 SY

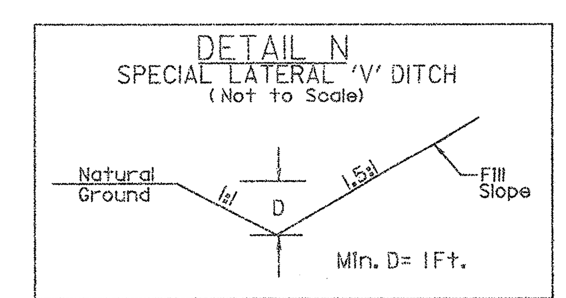
FROM -L- STA. 300+50+/- TO STA.302+50+/- RT
CL 'B' RIP RAP: EST. 57 TONS
FILTER FABRIC: EST. 164 SY

FROM -L- STA. 301+00+/- TO STA.302+50+/- LT
CL 'B' RIP RAP: EST. 43 TONS
FILTER FABRIC: EST. 123 SY

USE -L- GRADE FOR DETAIL 'U'



FROM -L- STA. 302+50+/- TO STA. 305+00+/- RT
CL 'B' RIP RAP: EST. 72 TONS
FILTER FABRIC: EST. 206 SY



FROM -L- STA. 306+50+/- TO STA. 310+00+/- LT

$$$$SYSTIME$$$$
$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$

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PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UO-12

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

5/14/99

DETAIL N
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 1:1 — D — 1.5:1 — Fill Slope
Min. D= 1 Ft.

FROM -L- STA. 306+50+/- TO STA. 310+00+/- LT

DETAIL Q
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 1:1 — D — d — 1.5:1 — Fill Slope — Filter Fabric
Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
Type of Liner= CL 'A' Rip-Rap

FROM STA. 308+50+/- TO STA. 310+50+/- RT
CL 'A' RIP RAP: EST. 34 TONS
FILTER FABRIC: EST. 144 SY

FROM STA. 314+00+/- TO STA. 315+80+/- LT
CL 'A' RIP RAP: EST. 31 TONS
FILTER FABRIC: EST. 130 SY

FROM STA. 317+85+/- TO STA. 319+50+/- LT
CL 'A' RIP RAP: EST. 30 TONS
FILTER FABRIC: EST. 120 SY

DETAIL T
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

Natural Ground — 1:1 — D — d — 1.5:1 — Fill Slope — Filter Fabric
Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
Type of Liner= CL 'B' Rip-Rap

FROM STA. 316+75+/- TO STA. 318+00+/- LT
CL 'B' RIP RAP: EST. 7 TONS
FILTER FABRIC: EST. 21 SY

DETAIL V
CHANNEL CHANGE
(Not to Scale)

Natural Ground — 2:1 — D — 2:1 — d — B — b — .04m/m — Proposed Fill Slope — Natural Ground — Exist. Channel — Filter Fabric
Min. D = 1.5 Ft
Max. d = 2.0 Ft
B = 3.0 Ft
b = 5.0 Ft
Type of Liner = CL I RIP RAP

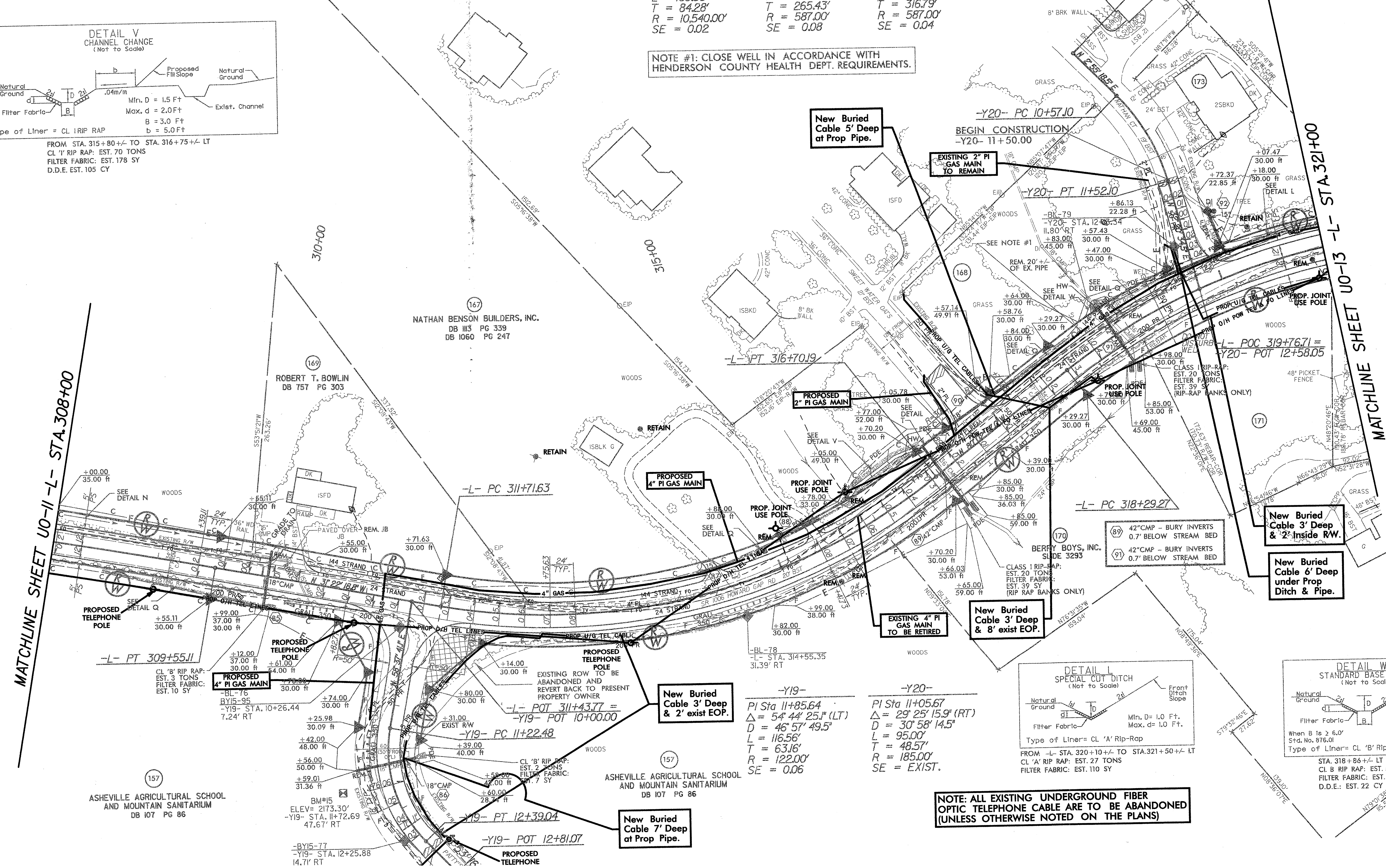
FROM STA. 315+80+/- TO STA. 316+75+/- LT
CL 'I' RIP RAP: EST. 70 TONS
FILTER FABRIC: EST. 178 SY
D.D.E. EST. 105 CY

(168) NATHAN BENSON BUILDERS, INC. DB 1113 PG 339, DB 1060 PG 247
(171) REBECCA S. CHRISTENSEN DB 1260 PG 94
(173) LESLIE L. MILLAR DB 1065 PG 430

-L-

PI Sta 308+70.84	PI Sta 314+37.06	PI Sta 321+46.05
Δ = 0° 54' 58.5" (RT)	Δ = 48° 39' 48.2" (LT)	Δ = 56° 42' 33.9" (RT)
D = 0° 32' 37.0"	D = 9° 45' 38.8"	D = 9° 45' 38.8"
L = 168.55'	L = 498.56'	L = 580.99'
T = 84.28'	T = 265.43'	T = 316.79'
R = 10,540.00'	R = 587.00'	R = 587.00'
SE = 0.02	SE = 0.08	SE = 0.04

NOTE #1: CLOSE WELL IN ACCORDANCE WITH HENDERSON COUNTY HEALTH DEPT. REQUIREMENTS.



(89)	42"CMP - BURY INVERTS 0.7' BELOW STREAM BED
(91)	42"CMP - BURY INVERTS 0.7' BELOW STREAM BED

-Y19-

PI Sta 11+85.64
Δ = 54° 44' 25.1" (LT)
D = 46° 57' 49.5"
L = 116.56'
T = 63.16'
R = 122.00'
SE = 0.06

-Y20-

PI Sta 11+05.67
Δ = 29° 25' 15.9" (RT)
D = 30° 58' 14.5"
L = 95.00'
T = 48.57'
R = 185.00'
SE = EXIST.

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground — 1:1 — D — d — 2:1 — Front Ditch Slope — Filter Fabric
Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
Type of Liner= CL 'A' Rip-Rap

FROM -L- STA. 320+10+/- TO STA. 321+50+/- LT
CL 'A' RIP RAP: EST. 27 TONS
FILTER FABRIC: EST. 110 SY

DETAIL W
STANDARD BASE DITCH
(Not to Scale)

Natural Ground — 2:1 — D — d — B — 2:1 — Natural Ground — Filter Fabric
When B is ≥ 6.0' Std. No. 876.01
Min. D= 4 Ft.
Max. d= 2 Ft.
B= 3 Ft.
Type of Liner= CL 'B' Rip-Rap

STA. 318+86+/- LT
CL B RIP RAP: EST. 5 TONS
FILTER FABRIC: EST. 130 SY
D.D.E.: EST. 22 CY

$$$$TIME$$$$ $$$$DGN$$$$ $$$$NAME$$$$

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5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-13

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

-DRIVE4-

PI Sta 11+95.39
Δ = 34° 33' 02.8" (LT)
D = 114° 35' 29.6"
L = 30.15'
T = 15.55'
R = 50.00'

PI Sta 10+76.30
Δ = 21° 45' 34.4" (RT)
D = 24° 54' 40.4"
L = 87.35'
T = 44.21'
R = 230.00'

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, W, D, 2H, Front Ditch Slope
Min. D= 1.0 Ft.

FROM -L- STA. 327+00+/- TO STA. 328+00+/- LT
FROM -L- STA. 330+72+/- TO STA. 331+50+/- LT

DETAIL L
SPECIAL CUT DITCH
(Not to Scale)

Natural Ground, W, d1, D, 2H, Front Ditch Slope, Filter Fabric
Min. D= 1.0 Ft.
Max. d= 1.0 Ft.
Type of Liner= CL 'A' Rip-Rap

FROM -L- STA. 320+10+/- TO STA. 321+50+/- LT
CL 'A' RIP RAP: EST. 27 TONS
FILTER FABRIC: EST. 110 SY

FROM -L- STA. 323+50+/- TO STA. 325+30+/- LT
CL 'A' RIP RAP: EST. 34 TONS
FILTER FABRIC: EST. 140 SY

FROM -L- STA. 330+50+/- TO STA. 330+72+/- LT
CL 'A' RIP RAP: EST. 4 TONS
FILTER FABRIC: EST. 17 SY

DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)

Natural Ground, W, D, 2H, Front Ditch Slope, B
Min. D= 1Ft.
B= 2 Ft.

FROM -L- STA. 326+12+/- TO STA. 328+00+/- RT

-Y21-
PI Sta 11+44.99
Δ = 4° 40' 03.4" (LT)
D = 3° 27' 43.1"
L = 134.83'
T = 67.45'
R = 1,655.00'
SE = EXIST.

-L-
PI Sta 321+46.05
Δ = 56° 42' 33.9" (RT)
D = 9° 45' 38.8"
L = 580.99'
T = 316.79'
R = 587.00'
SE = 0.04

PI Sta 326+47.21
Δ = 20° 13' 27.1" (RT)
D = 4° 58' 56.1"
L = 405.93'
T = 205.10'
R = 1,150.00'
SE = 0.04

PI Sta 334+02.73
Δ = 13° 40' 06.4" (LT)
D = 3° 10' 59.2"
L = 429.41'
T = 215.73'
R = 1,800.00'
SE = 0.04

(172) DYLAN C.AND NATASCHA S.GOTESKY DB 1186 PG 648
(174) ALLEN WALKER AND JAMETTA B.WALKER DB 947 PG 529
(176) ANDREW D.AND DAWN M.BOYLE DB 1262 PG 379
(177) JAMES EDWARD BENSON TRUST DB 1190 PG 535
(178) STEVEN W.MCDOWELL AND ANTJE MCDOWELL DB 1221 PG 530
(179) JEFFREY W.KLUTTZ, PAMELA J.KLUTTZ AND MARY E.KLUTTZ DB 1142 PG 85
(180) VANESSA MADDEN DB 1017 PG 161
(181) OTELIA WILSON DB 806 PG 157
(182) WILLIAM WILSON,JR. AND KATHY S.WILSON DB 806 PG 175
(183) ALLEN WALKER AND JAMETTA B.WALKER DB 1082 PG 568
(184) PATRICIA DROZE DB 1272 PG 130
(185) JOHN D.DAVIS AND MYRTLE A.DAVIS
(186) COUNTY OF HENDERSON, NORTH CAROLINA DB 1015 PG 359
(187) GLADE LAND FUND, L.L.C. DB 1174 PG 225

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

FLETCHER ELEMENTARY SCHOOL DRIVEWAY
-L- HOWARD GAP RD.
90 (0) / 147 (0) / 184 (0) / 301 (0)
193 (0) / 316 (0) / 138 (177) / 226 (290)
96 (0) / 157 (0) / 171 (126) / 280 (206)
AM & (PM) PEAK HOURS
2007 / 2027

PEAK HOUR TRAFFIC VOLUMES
(vehicles per hour)

MATCHLINE SHEET U0-12 -L- STA 321+00

MATCHLINE SHEET U0-14 -L- STA 334+00

SYSTEM TIME=$$$$$$$$ USER=$$$$$$$$ DESIGN=$$$$$$$$ DRAWN=$$$$$$$$ CHECKED=$$$$$$$$

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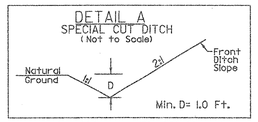
5/14/99

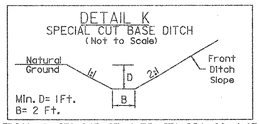
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-14

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



FROM -L- STA. 336+00+/- TO STA. 337+82+/- LT
FROM -L- STA. 340+00+/- TO STA. 345+50+/- RT



FROM -L- STA. 345+17+/- TO STA. 354+00+/- LT

MATCHLINE SHEET U0-13 -L- STA.334+00

MATCHLINE SHEET U0-15 -L- STA.347+00

BM#16
ELEV= 2141.31'
-L- STA. 334+17.00
283.56' LT

TOP VALVE 20Ox's 2198.35
TOP 4" DI PIPE=2234.95'

335+00

340+00

345+00

72' CHL W/ 3SBW

72' CHL 3SBW

(188) DONNA MARIE REILLY
DB 870 PG 155

(186) COUNTY OF HENDERSON, NORTH CAROLINA
DB 1015 PG 359

(191) NATHAN A. BENSON
DB 639 PG 619

NOTE:
3" FORCED SEWER MAIN TO BE ABANDONED BY OTHERS (2 LINES)

EXISTING 4" PI GAS MAIN TO REMAIN

EXISTING 4" PI GAS MAIN ENDS 280' NORTH OF SCHOOL DR.

PROP. JOINT USE POLE

(187) GLADE LAND FUND, L.L.C.
DB 1174 PG 225

(189) JOSEPH C.KUYKENDALL DB 597 PG 511
AND EDITH KUYKENDALL

(190) LARRY WAYNE WALKER DB 533 PG 245

(192) BRUCE A.JONES AND DB 1034 PG 297
DARLENE P.JONES

(194) CARRIE M.WALKER DB 1180 PG 625

(193) MARVIN J. FLOREN
DB 716 PG 487

(193A) ROGER C. & JUDY L. FLOREN
PLAT SLIDE 5141
DB 1210 PG 552

(195) ELIZABETH B. DANIEL
DB 703 PG 157

(196) BLUE RIDGE BIBLE CHURCH
DB 765 PG 749

-L- PT 336+16.42

-L- PT 338+90.96

-L- PT 344+83.68

-BL-83
-L- STA. 336+63.77
18.02' RT

-BL-84
-L- 345+60.32
26.12' RT

Existing buried fiber to remain.

New Buried Fiber 3' Deep 3' Inside R/W.

New Buried Cable 5' Deep from R/W to Y22 Sta. 10+90.

PI Sta 334+02.73
Δ = 13° 40' 06.4" (LT)
D = 3° 10' 59.2"
L = 429.41'
T = 215.73'
R = 1,800.00'
SE = 0.04

PI Sta 341+87.81
Δ = 8° 05' 09.0" (LT)
D = 1° 21' 51.1"
L = 592.72'
T = 296.85'
R = 4,200.00'
SE = 0.03

-Y22- POT 10+00.00

-Y22- POT 11+05.85

-L- POO 343+44.68

END CONSTRUCTION
-Y22- STA. 11+05.00

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

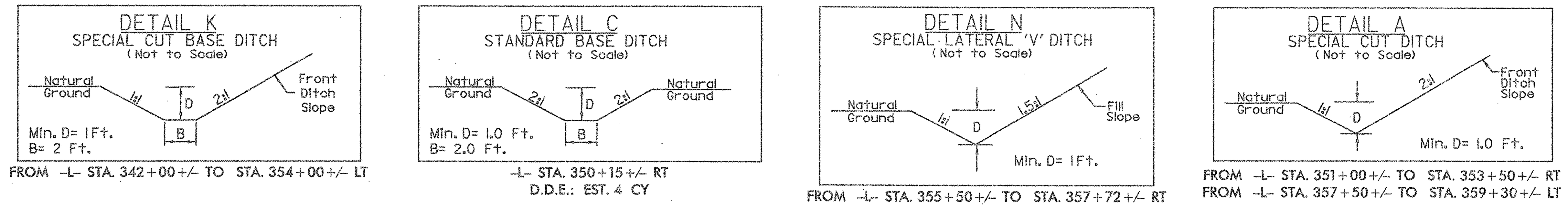
\$\$\$\$USERNAME\$\$\$\$ \$\$\$\$SYSTIME\$\$\$\$ \$\$\$\$DGNFILE\$\$\$\$

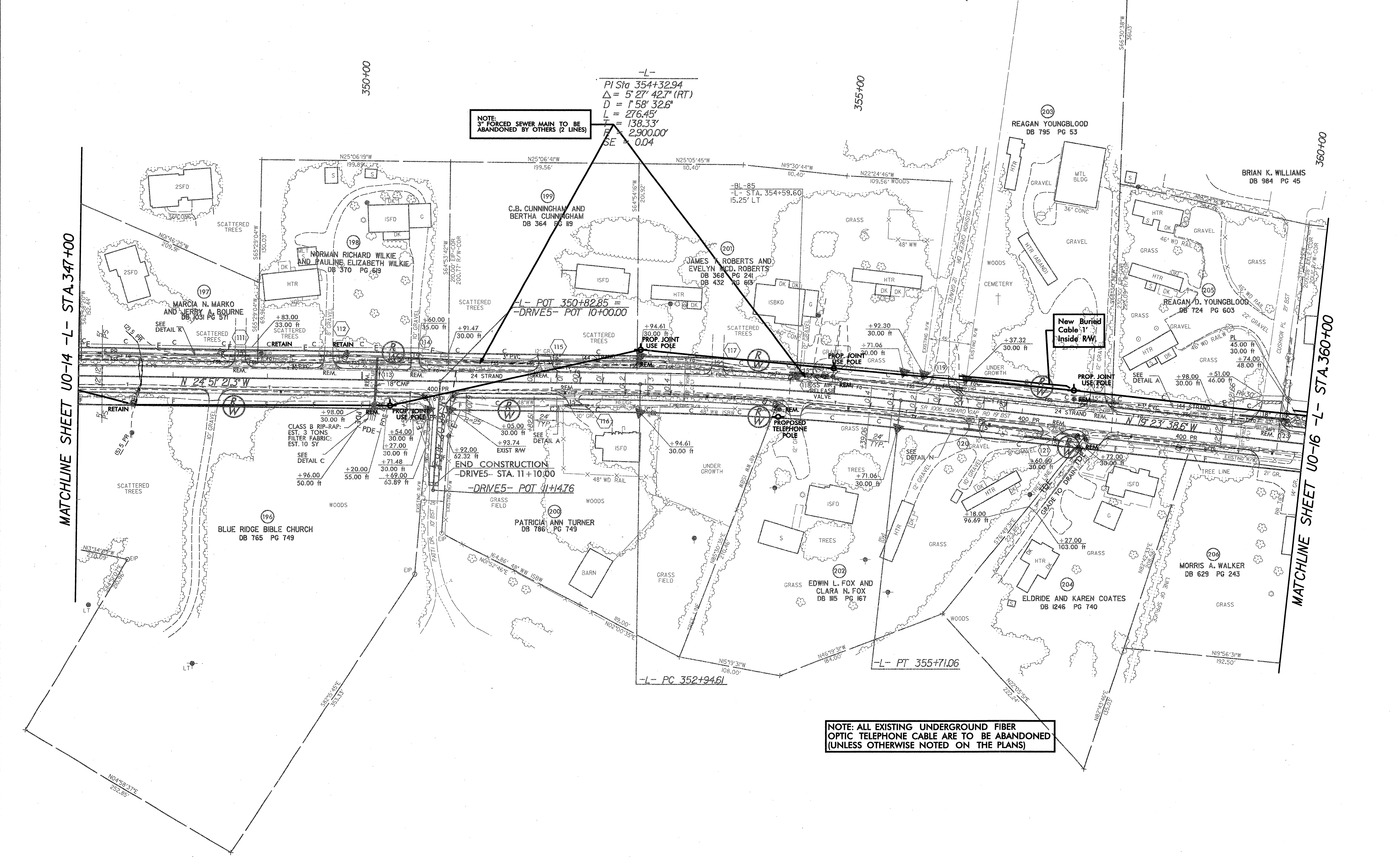
R-5207B_UB0_Sheet_14.dgn 4/3/2012 11:15:50 AM

PROJECT REFERENCE NO.	SHEET NO.
R-5207B	UO-15

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS





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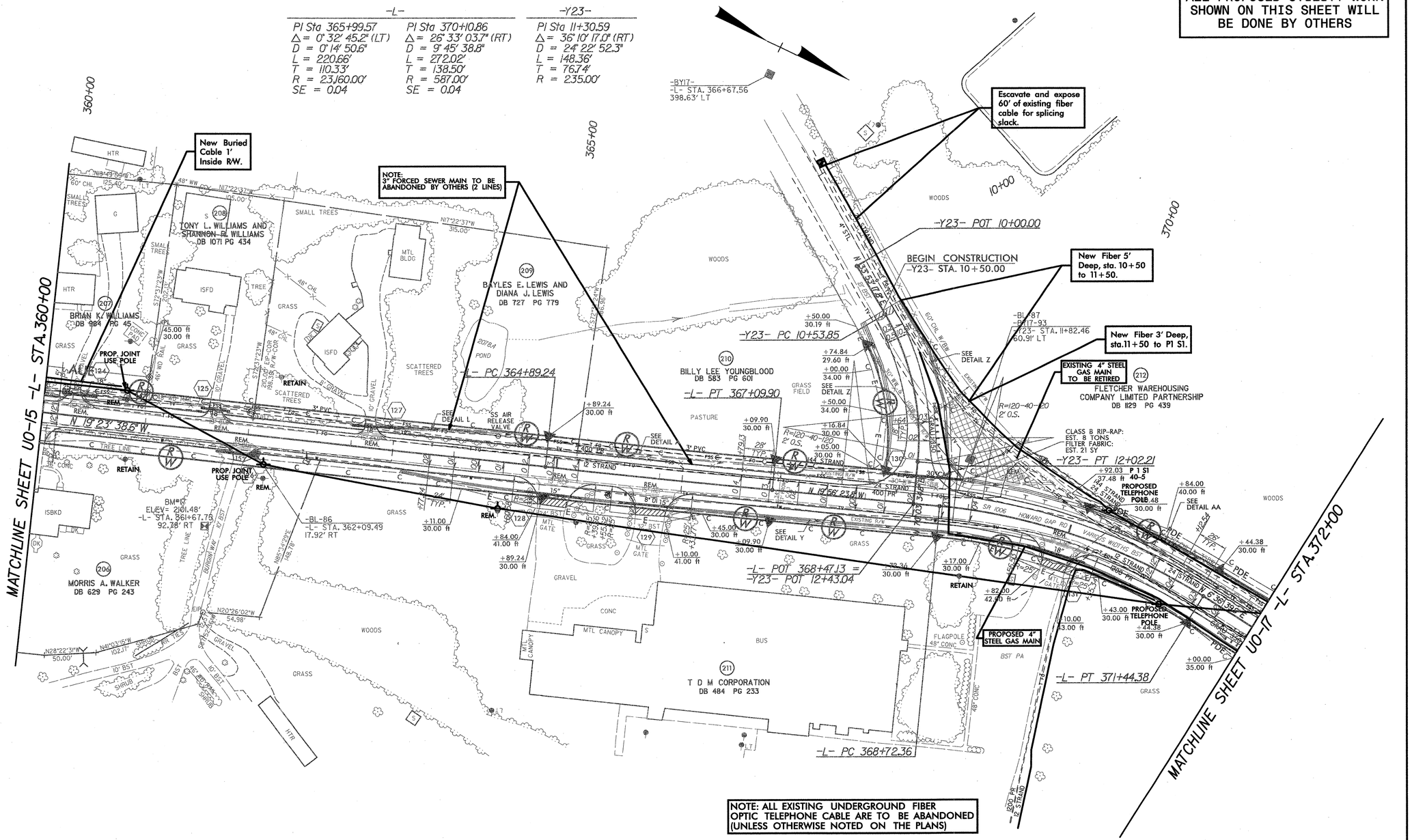
PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-16

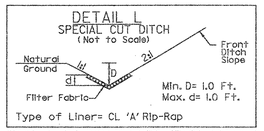
UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

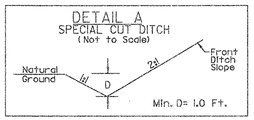
DETAIL L
SPECIAL CUT DITCH
(Not to Scale)



Type of Liner= CL 'A' Rip-Rap

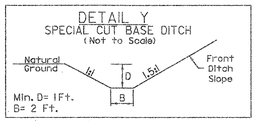
FROM -L- STA. 363+00+/- TO STA.364+30+/- LT
CL 'A' RIP RAP: EST. 25 TONS
FILTER FABRIC: EST. 101 SY

DETAIL A
SPECIAL CUT DITCH
(Not to Scale)



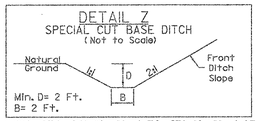
FROM -L- STA. 364+30+/- TO STA. 368+12+/- LT

DETAIL Y
SPECIAL CUT BASE DITCH
(Not to Scale)



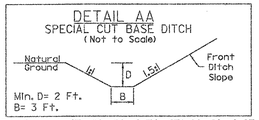
FROM -L- STA. 363+50+/- TO STA. 373+90+/- RT

DETAIL Z
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM -Y23- STA. 10+50+/- TO STA. 12+13+/- LT

DETAIL AA
SPECIAL CUT BASE DITCH
(Not to Scale)



FROM -Y23- STA. 10+50+/- TO STA. 12+13+/- RT
FROM -L- STA. 368+90+/- TO STA. 374+04+/- LT

$$$$$SYSTIME$$$$$
$$$$$USERNAME$$$$$
$$$$$DGN$$$$$

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PROJECT REFERENCE NO.	SHEET NO.
R-5207B	U0-17

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

-L-
PI Sta 373+80.03
Δ = 6° 20' 08.4" (RT)
D = 3° 28' 20.9"
L = 182.45'
T = 91.32'
R = 1,650.00'
SE = 0.04

PI Sta 382+16.14
Δ = 26° 14' 17.0" (LT)
D = 3° 52' 16.8"
L = 677.75'
T = 344.93'
R = 1,480.00'
SE = EXIST.

375+00

380+00

385+00

-L- PT 385+48.97

CANE CREEK

FLETCHER WAREHOUSING COMPANY LIMITED PARTNERSHIP
DB 1129 PG 439

-L- PC 378+71.22

NOTE: 3" FORCED SEWER MAIN TO BE ABANDONED BY OTHERS (2 LINES)

EXISTING 4" STEEL GAS MAIN TO BE RETIRED

END PROJECT R-5207B
-L- STA. 376+40.00

-BL-89
-L- STA. 377+02.33
22.97' LT

-BL-90
-L- STA. 383+57.12
22.08' RT

MATCHLINE SHEET U0-16 -L- STA.372+00

WOODS

AREA FOR STILLING BASIN

+94.00 57.00 ft
+15.00 90.00 ft
+70.00 74.00 ft 50.70 ft
+88.71 30.00 ft
+51.00 46.00 ft
+63.00 55.00 ft
+71.16 30.00 ft
+53.72 EXIST R/W

SEE DETAIL AA
SEE DETAIL CC
SEE DETAIL Y
SEE DETAIL BB
SEE DETAIL K

TOP OF BANK
EDGE OF WATER
CUSHION BRANCH

68.54'
26' TYP.
24' TYP.
5.16

GRASS
GRASS FIELD
CORN FIELD

PROP. JOINT USE POLE
REM.
CL I RIP RAP
72" CHL & 3SBW
3" PVC
4" STL
4" CMP
8" DI
SINGLE BARREL 1-9'x5' RCBC
EXISTING R/W GAS VENT
REMOVE EXIST. BOX CULVERT
PROPOSED 4" STEEL GAS MAIN
CLASS B RIP-RAP: EST. 5 TONS
FILTER FABRIC: EST. 14 SY

RETAIN

SR 1005 HOWARD GAP RD

FLAGPOLE

RW MON

N 6° 38' 39.9" E
N 12° 56' 48.3" E

END CONSTRUCTION
-L- STA. 377+11 +/-

-L- PC 372+88.71
-L- PT 374+71.16

T D M CORPORATION
DB 484 PG 233

SIROCCO PROPERTIES, L.L.C.
DB 1129 PG 435

JACKSON RD
SR 1005
150' R/W
22' EOP
EXISTING R/W

SEE SHEET S-24 TO S-27 FOR CULVERT DESIGN

DETAIL Y
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground
W
D
1.5H
Front Ditch Slope
B
Min. D= 1Ft.
B= 2 Ft.
FROM -L- STA. 363+50+/- TO STA. 373+90+/- RT

DETAIL AA
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground
W
D
1.5H
Front Ditch Slope
B
Min. D= 2 Ft.
B= 3 Ft.
FROM -L- STA. 368+90+/- TO STA. 374+04+/- LT

DETAIL K
SPECIAL CUT BASE DITCH
(Not to Scale)
Natural Ground
W
D
2H
Front Ditch Slope
B
Min. D= 1Ft.
B= 2 Ft.
FROM -L- STA. 375+50+/- TO STA. 376+30+/- RT

DETAIL BB
PROPOSED INLET CHANNEL
(Not to Scale)
NG
2%
W
2%
NG
W = FROM EXISTING WIDTH TO 9' AT CULV.
EST. 40 CY D.G.E.
-L- STA. 373+96+/- RT

DETAIL CC
PROPOSED OUTLET CHANNEL
(Not to Scale)
NG
2%
W
2%
NG
CL I RIP RAP
EST. 35 TONS
EST. 65 SY F.F.
W = FROM EXISTING WIDTH TO 9' AT CULV.
EST. 60 CY D.G.E.
-L- STA. 374+07+/- LT

NOTE: ALL EXISTING UNDERGROUND FIBER OPTIC TELEPHONE CABLE ARE TO BE ABANDONED (UNLESS OTHERWISE NOTED ON THE PLANS)

$$$$SYSTIME$$$$
$$$$DGN$$$$
$$$$CELLNAME$$$$

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