

20-AUG-2008 09:46
 F:\u0011\p01\proj\U-3334a-ut_title.ucl_psh.dgn
 \$\$\$USERNAME\$\$\$

TIP PROJECT: U-3334A

CONTRACT: C201300

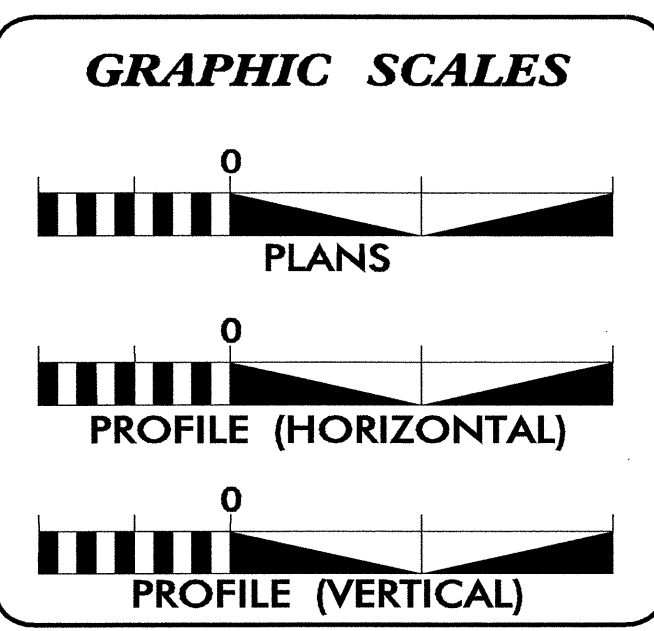
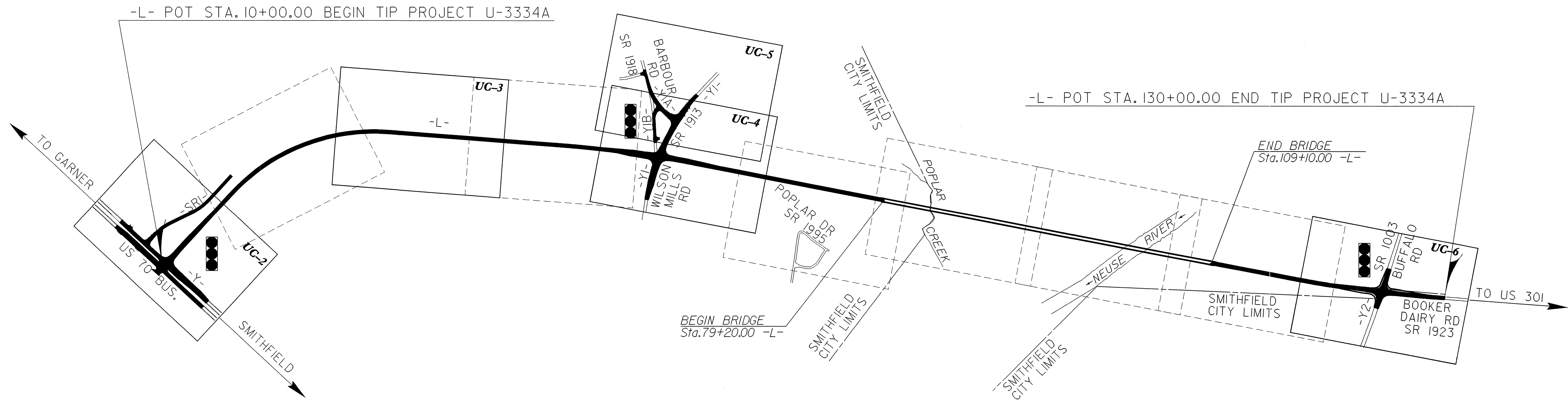
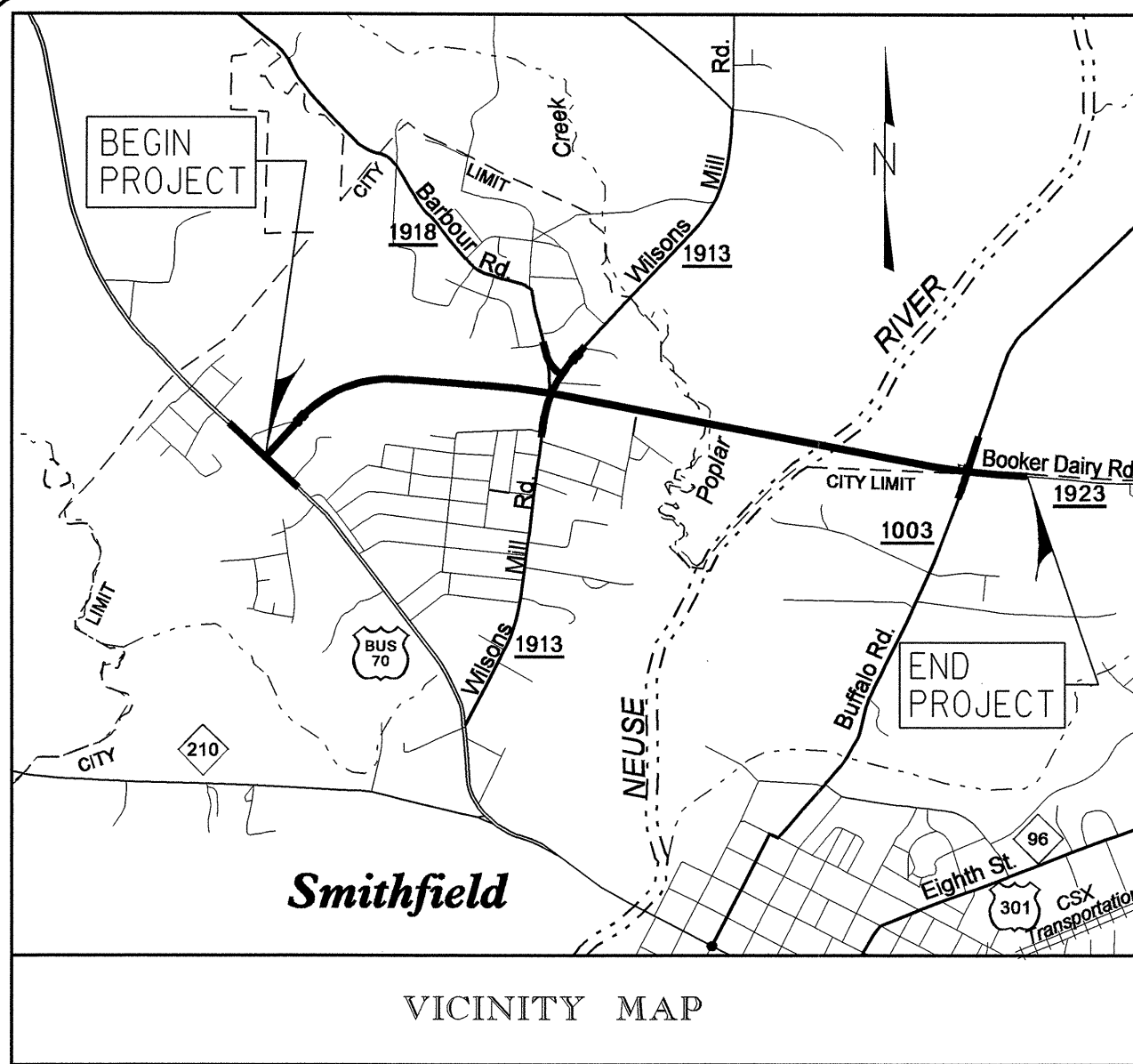
| | |
|----------------|-------------|
| T.I.P. NO. | SHEET NO. |
| U-3334A | UC-1 |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
JOHNSTON COUNTY

LOCATION: SMITHFIELD - SR 1923 (BOOKER DAIRY RD. EXT.)
FROM US 70 BUS. TO SR 1003 (BUFFALO ROAD)

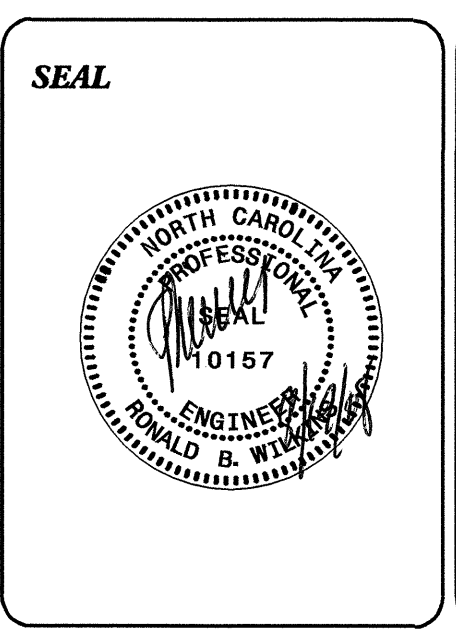
TYPE OF WORK: UTILITY CONSTRUCTION



| INDEX OF SHEETS | |
|-----------------|----------------------------------|
| SHEET NO. | DESCRIPTION |
| UC-1 | TITLE SHEET |
| UC-2 THRU UC-6 | UTILITY CONSTRUCTION PLAN SHEETS |

WATER AND SEWER OWNERS ON PROJECT

(1) WATER - TOWN OF SMITHFIELD
 (2) SANITARY SEWER - TOWN OF SMITHFIELD

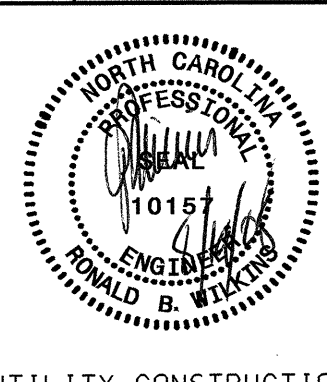


PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
PROJECT SERVICES
UTILITY SECTION

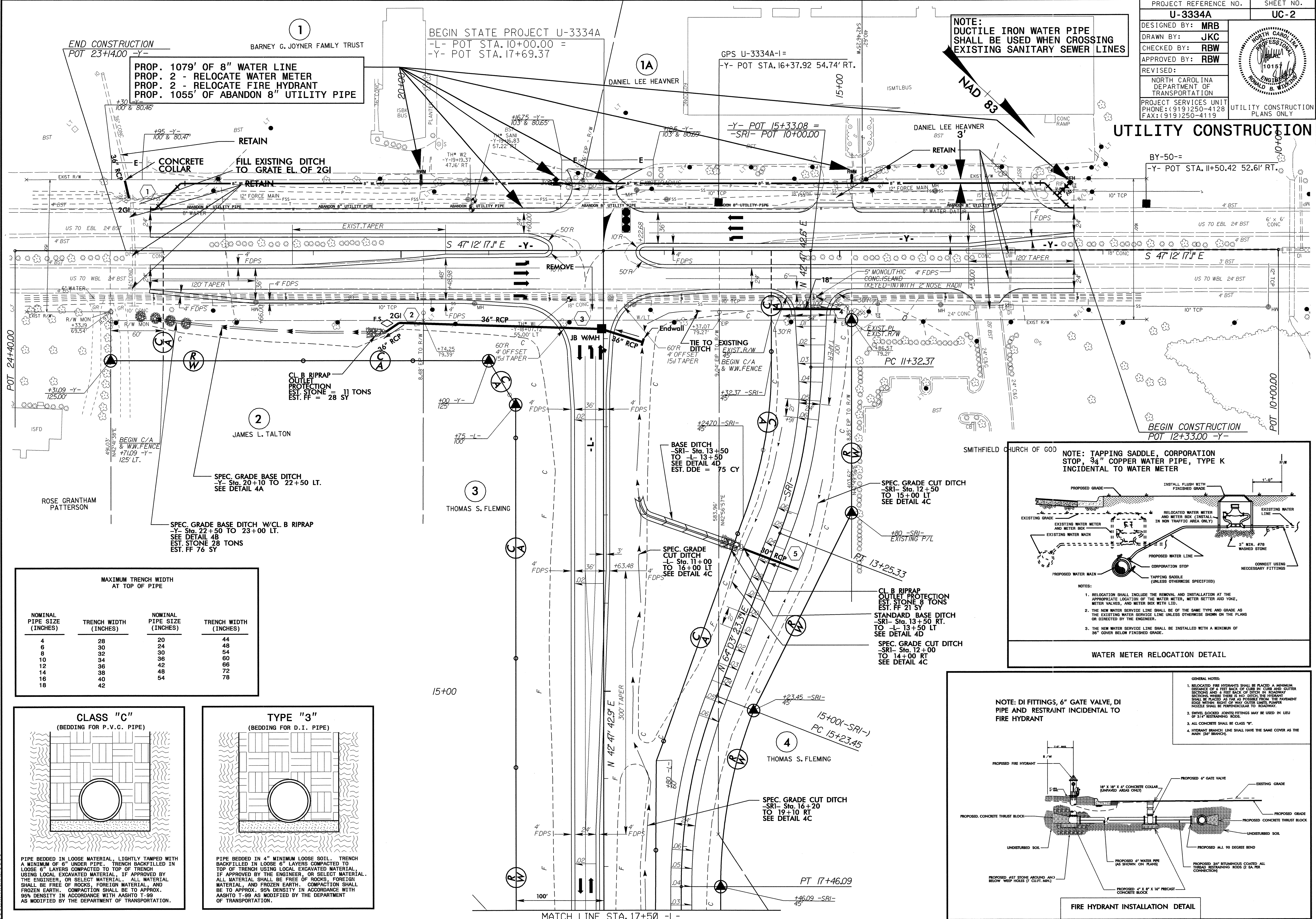
1591 MAIL SERVICES CENTER
 RALEIGH NC 27699-1591
 PHONE (919) 250-4128
 FAX (919) 250-4119

Roger Worthington, P.E. UTILITIES SECTION ENGINEER
R. B. WILKINS, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
MICHAEL R. BRIGHT UTILITIES PROJECT DESIGNER

5/14/99

| | | |
|---|--|------------------------------------|
| PROJECT REFERENCE NO. | SHEET NO. | |
| U-3334A | UC-2 | |
| DESIGNED BY: MRB |  | |
| DRAWN BY: JKC | | |
| CHECKED BY: RBW | | |
| APPROVED BY: RBW | REVISI: | |
| PROJECT SERVICES UNIT PHONE: (919)250-4128 FAX: (919)250-4119 | | UTILITY CONSTRUCTION PLANS ONLY |

UTILITY CONSTRUCTION

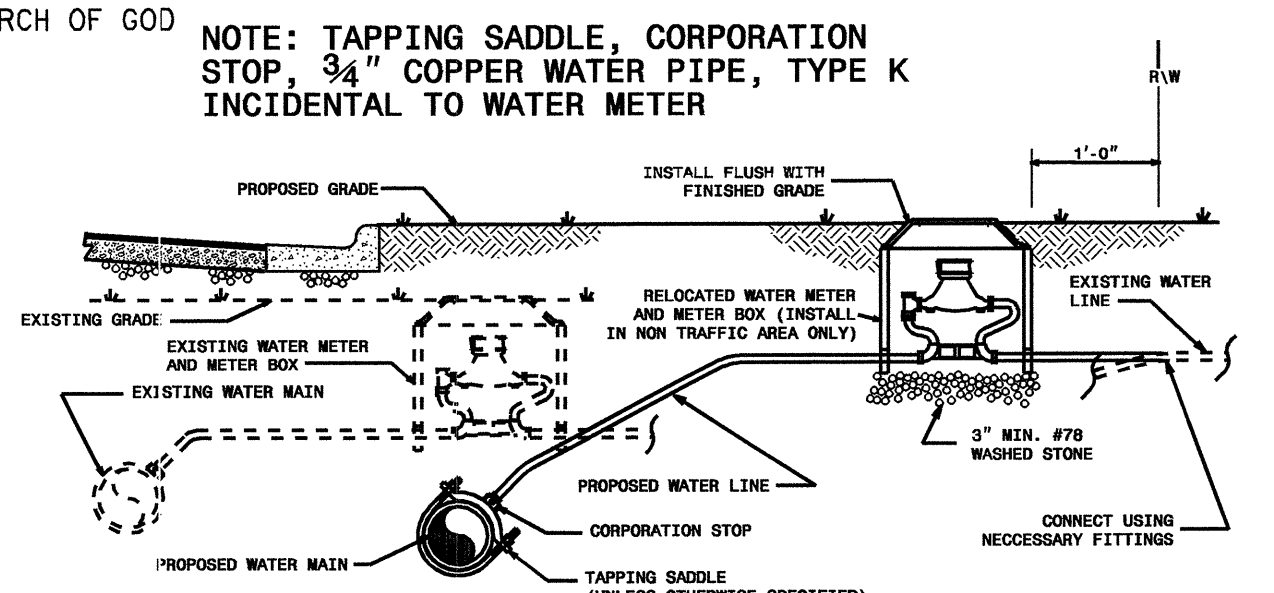


1
 PROP. 1079' OF 8" WATER LINE
 PROP. 2 - RELOCATE WATER METER
 PROP. 2 - RELOCATE FIRE HYDRANT
 PROP. 1055' OF ABANDON 8" UTILITY PIPE

NOTE:
 DUCTILE IRON WATER PIPE
 SHALL BE USED WHEN CROSSING
 EXISTING SANITARY SEWER LINES

BY-50=
 -Y- POT STA. 11+50.42 52.61' RT.

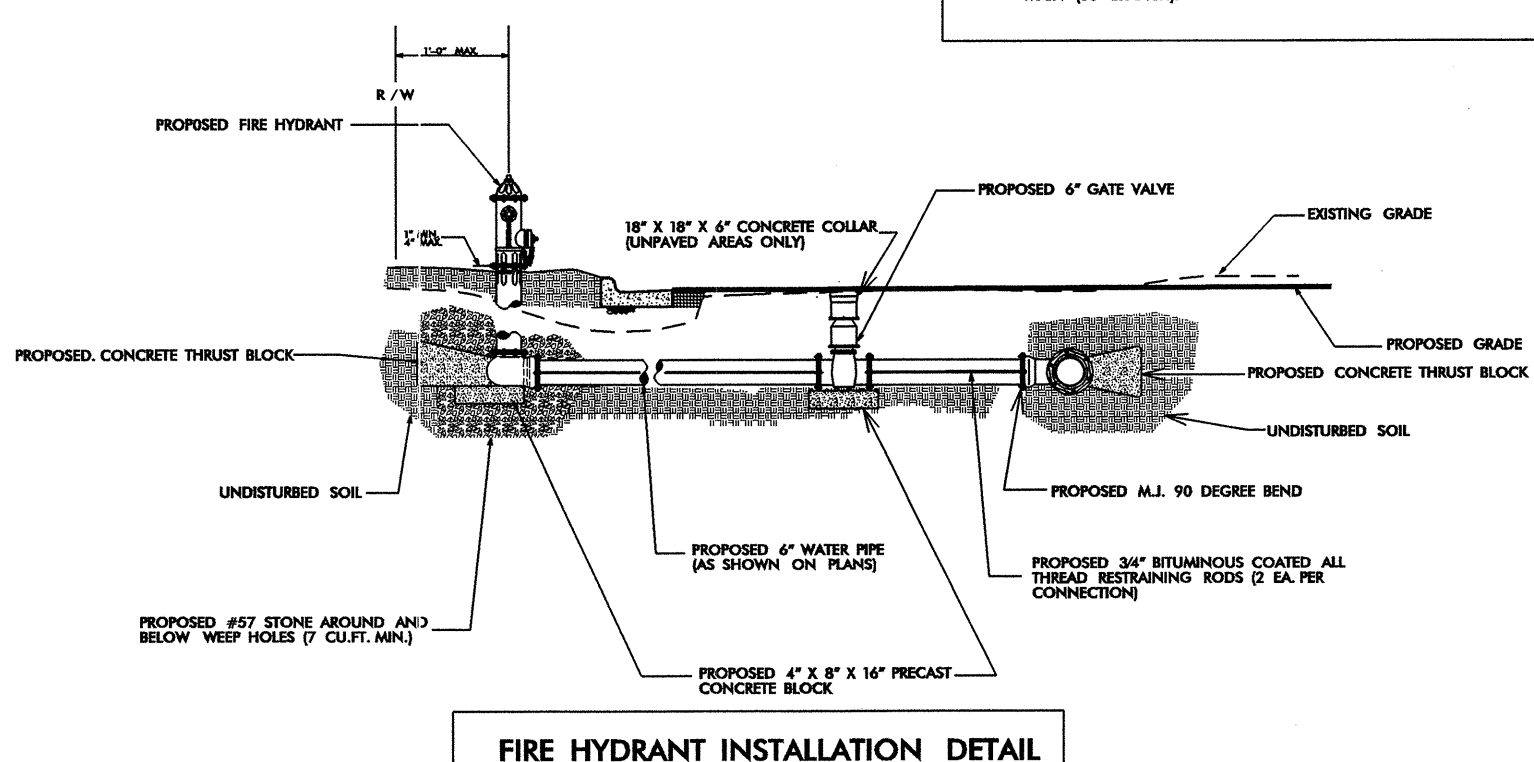
BEGIN CONSTRUCTION
 POT 12+33.00 -Y-



- NOTES:
1. RELOCATION SHALL INCLUDE THE REMOVAL AND INSTALLATION AT THE APPROPRIATE LOCATION OF THE WATER METER, METER SETTER AND YOKE, METER VALVES, AND METER BOX WITH LID.
 2. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
 3. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER BELOW FINISHED GRADE.

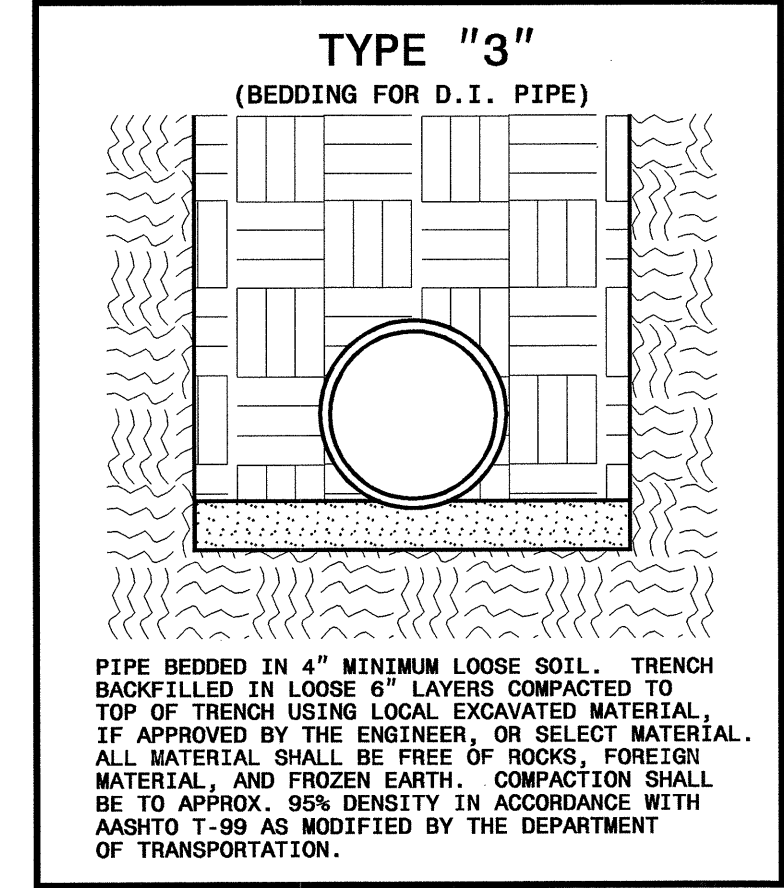
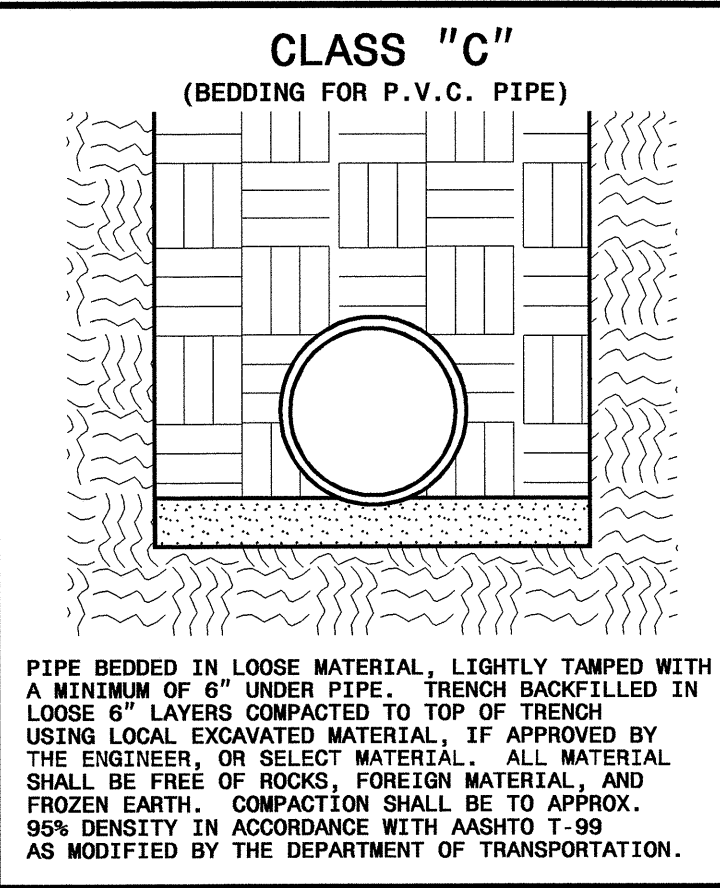
WATER METER RELOCATION DETAIL

NOTE: DI FITTINGS, 6" GATE VALVE, DI PIPE AND RESTRAINT INCIDENTAL TO FIRE HYDRANT



FIRE HYDRANT INSTALLATION DETAIL

| MAXIMUM TRENCH WIDTH AT TOP OF PIPE | | | |
|-------------------------------------|-----------------------|----------------------------|-----------------------|
| NOMINAL PIPE SIZE (INCHES) | TRENCH WIDTH (INCHES) | NOMINAL PIPE SIZE (INCHES) | TRENCH WIDTH (INCHES) |
| 4 | 28 | 20 | 44 |
| 6 | 30 | 24 | 48 |
| 8 | 32 | 30 | 54 |
| 10 | 34 | 36 | 60 |
| 12 | 36 | 42 | 66 |
| 14 | 38 | 48 | 72 |
| 16 | 40 | 54 | 78 |
| 18 | 42 | | |

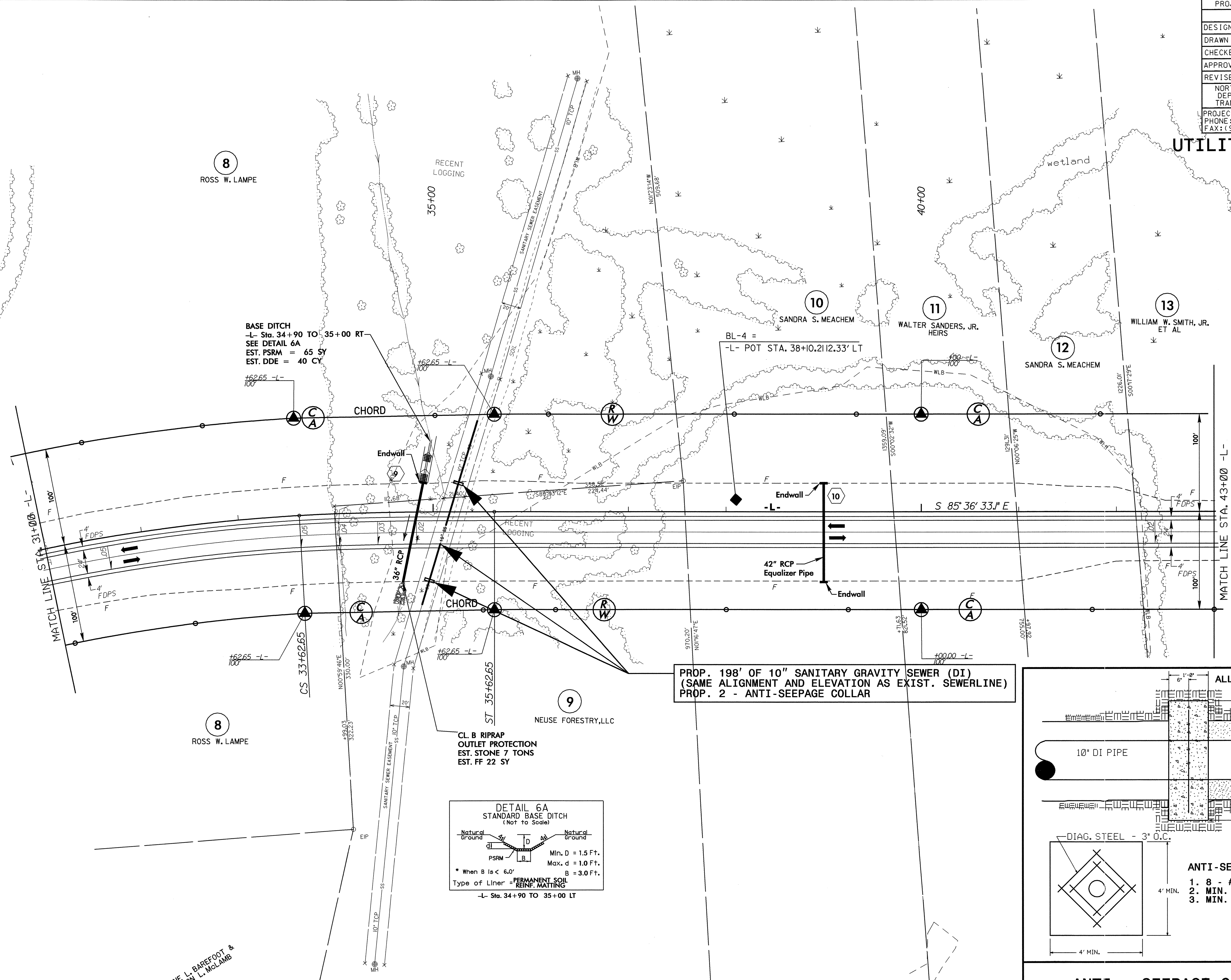
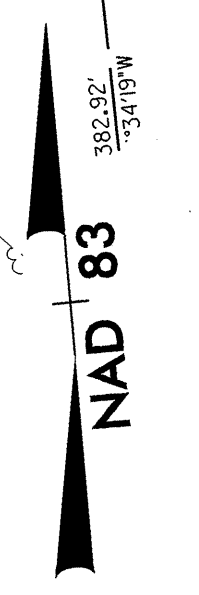


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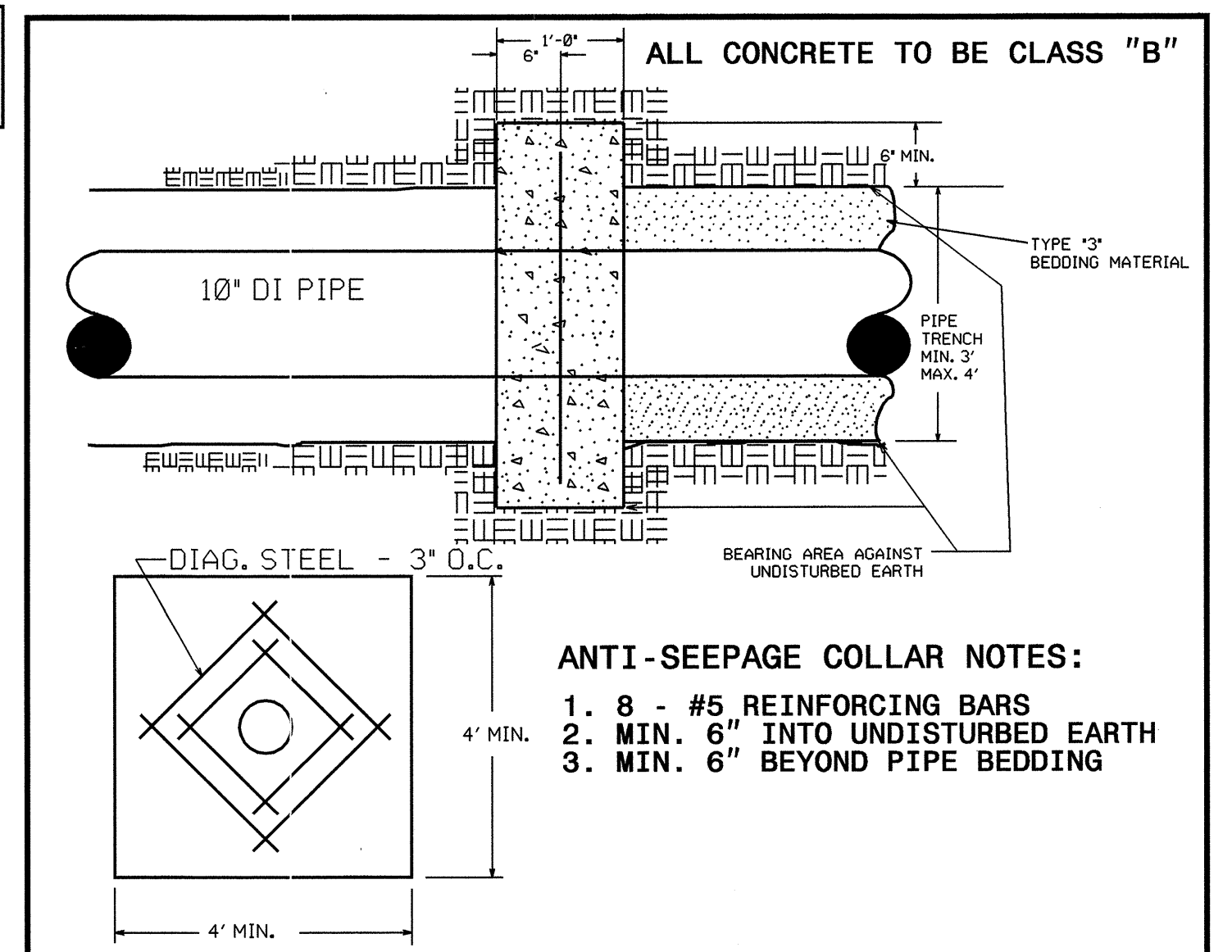
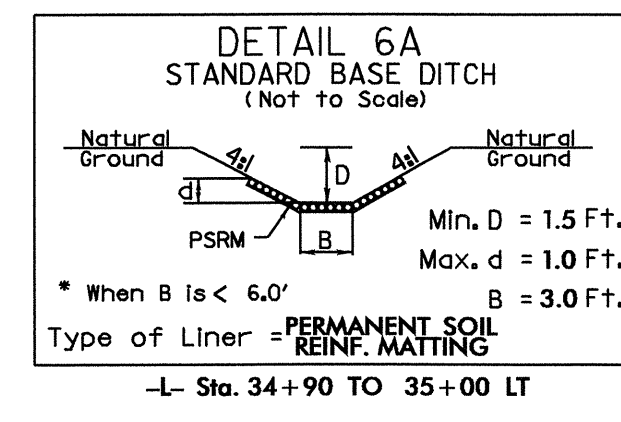
MATCH LINE STA. 17+50 -L-

| | |
|--|-----------|
| PROJECT REFERENCE NO. | SHEET NO. |
| U-3334A | UC-3 |
| DESIGNED BY: MRB | |
| DRAWN BY: JKC | |
| CHECKED BY: RBW | |
| APPROVED BY: RBW | |
| REVISED: | |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119 | |
| UTILITY CONSTRUCTION PLANS ONLY | |

UTILITY CONSTRUCTION



PROP. 198' OF 10" SANITARY GRAVITY SEWER (DI)
 (SAME ALIGNMENT AND ELEVATION AS EXIST. SEWERLINE)
 PROP. 2 - ANTI-SEEPAGE COLLAR

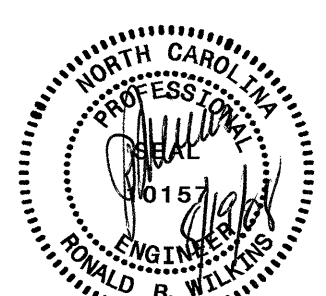


ANTI - SEEPAGE COLLAR DETAIL

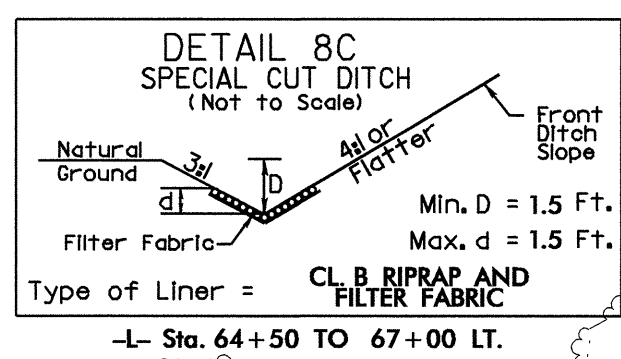
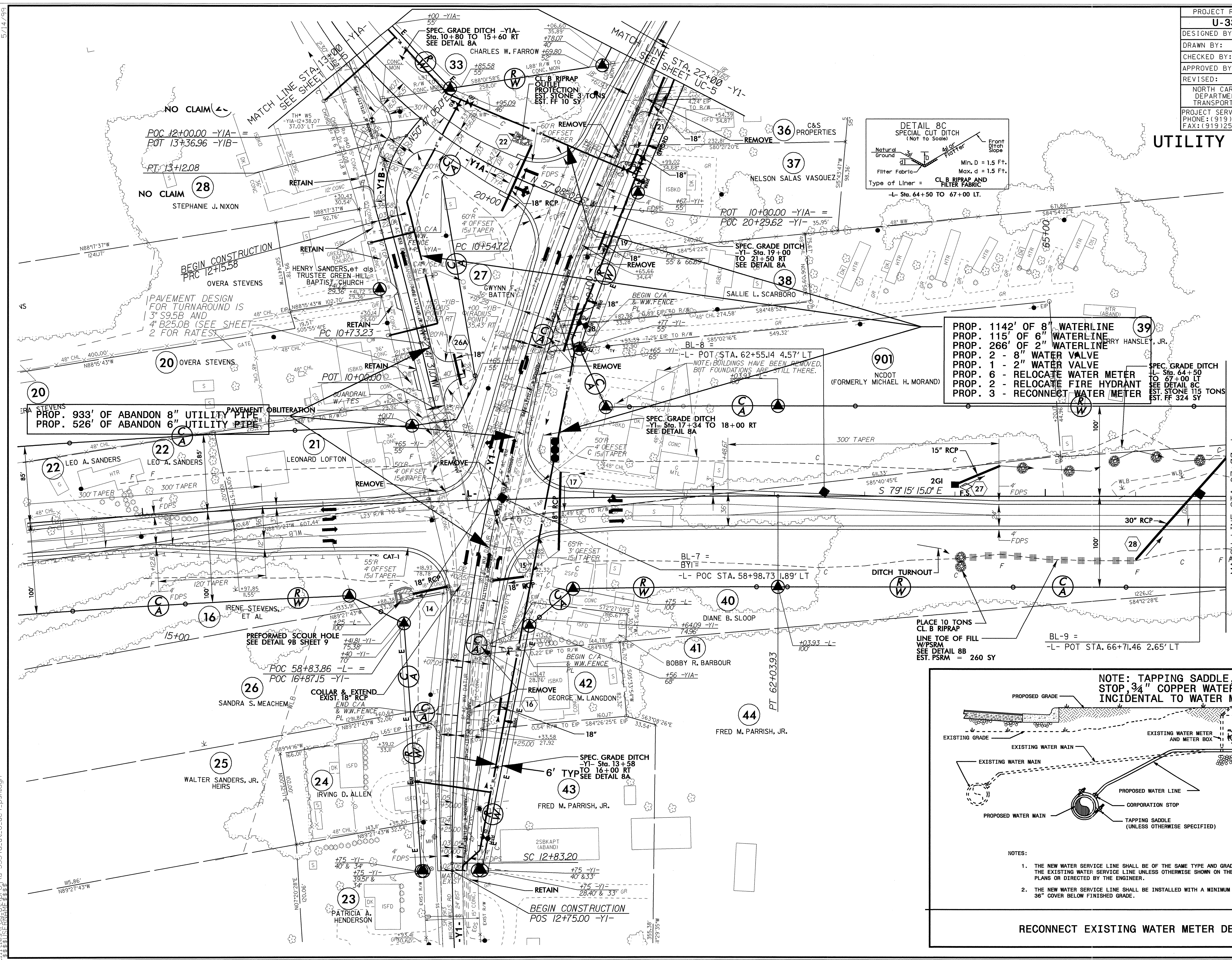
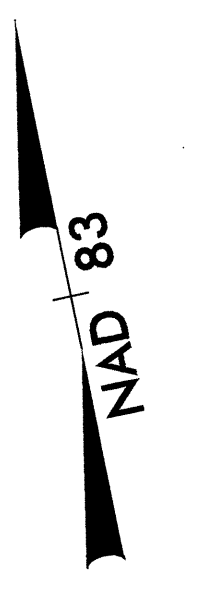
5/14/99

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WAYNE L. BAREFOOT &
 THERON L. McLAMB

| | |
|--|--|
| PROJECT REFERENCE NO. | SHEET NO. |
| U-3334A | UC-4 |
| DESIGNED BY: MRB |  |
| DRAWN BY: JKC | |
| CHECKED BY: RBW | |
| APPROVED BY: RBW | |
| REVISED: | |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION PROJECT SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119 | |
| UTILITY CONSTRUCTION PLANS ONLY | |

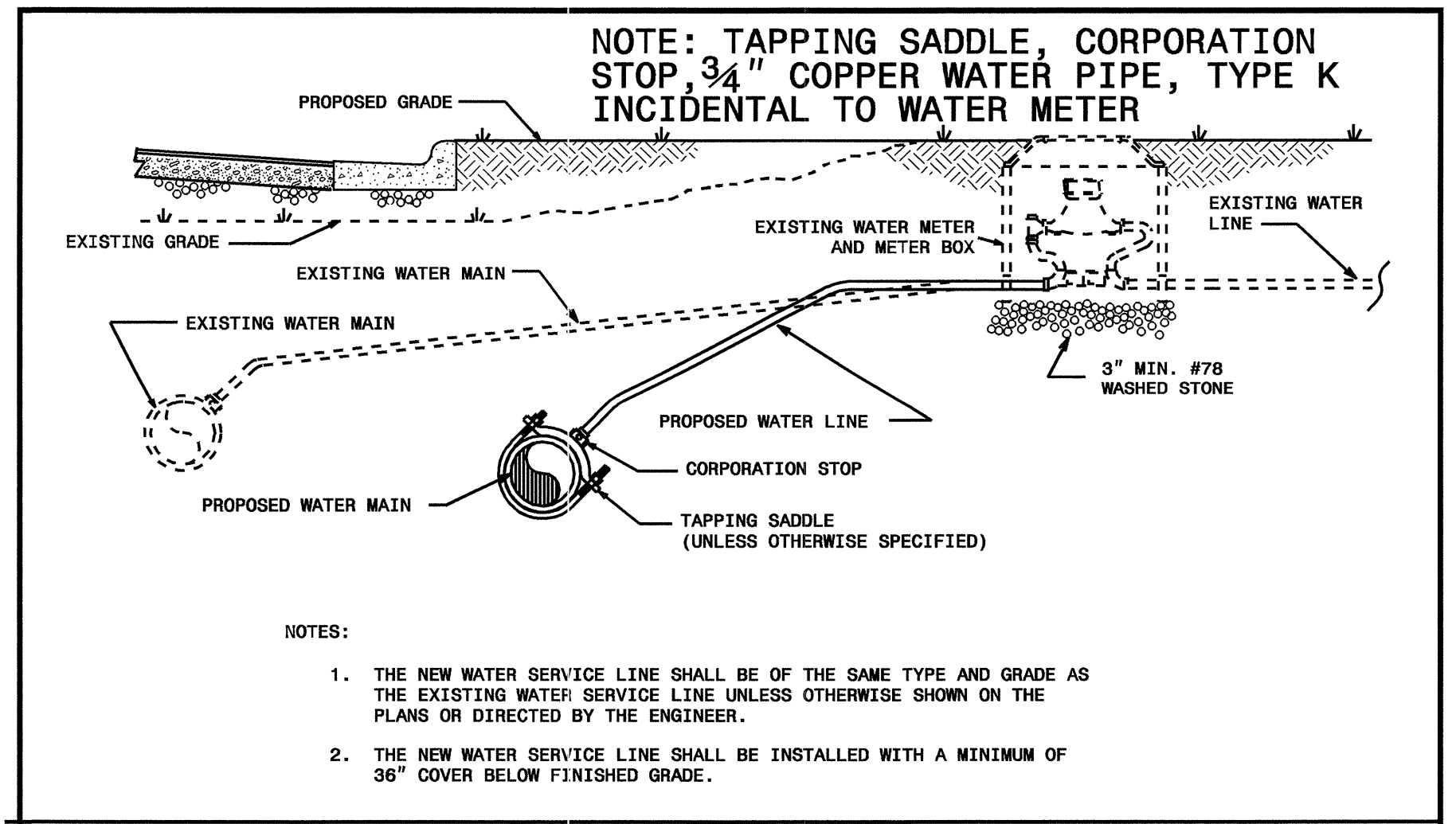
UTILITY CONSTRUCTION



- PROP. 1142' OF 8" WATERLINE
- PROP. 115' OF 6" WATERLINE
- PROP. 266' OF 2" WATERLINE
- PROP. 2 - 8" WATER VALVE
- PROP. 1 - 2" WATER VALVE
- PROP. 6 - RELOCATE WATER METER
- PROP. 2 - RELOCATE FIRE HYDRANT
- PROP. 3 - RECONNECT WATER METER

PROP. 933' OF ABANDON 8" UTILITY PIPE
 PROP. 526' OF ABANDON 6" UTILITY PIPE

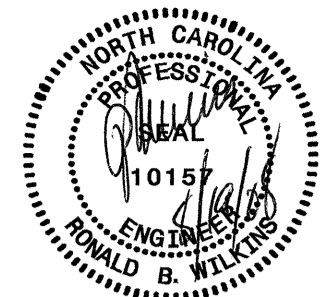
PLACE 10 TONS CL. B RIPRAP LINE TOE OF FILL W/PSRM SEE DETAIL 8B EST. PSRM = 260 SY



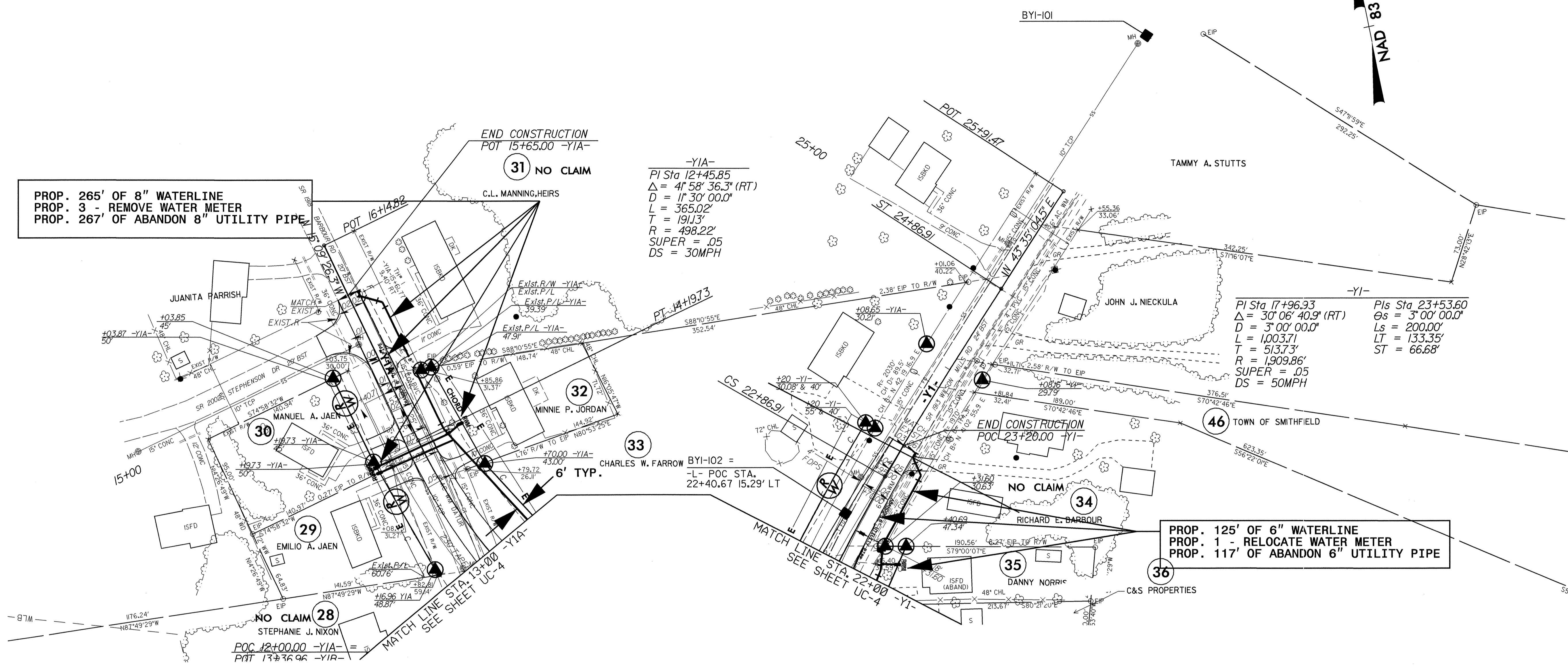
- NOTES:
1. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
 2. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER BELOW FINISHED GRADE.

RECONNECT EXISTING WATER METER DETAIL

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 5/14/99

| | |
|---|---|
| PROJECT REFERENCE NO. | SHEET NO. |
| U-3334A | UC-5 |
| DESIGNED BY: MRB |  |
| DRAWN BY: JKC | |
| CHECKED BY: RBW | |
| APPROVED BY: RBW | |
| REVISED: | |
| NORTH CAROLINA DEPARTMENT OF TRANSPORTATION | |
| PROJECT SERVICES UNIT PHONE: (919) 250-4128 FAX: (919) 250-4119 | UTILITY CONSTRUCTION PLANS ONLY |

UTILITY CONSTRUCTION



PROP. 265' OF 8" WATERLINE
 PROP. 3 - REMOVE WATER METER
 PROP. 267' OF ABANDON 8" UTILITY PIPE

PROP. 125' OF 6" WATERLINE
 PROP. 1 - RELOCATE WATER METER
 PROP. 117' OF ABANDON 6" UTILITY PIPE

-YIA-
 PI Sta 12+45.85
 $\Delta = 41^{\circ} 58' 36.3" (RT)$
 $D = 11^{\circ} 30' 00.0"$
 $L = 365.02'$
 $T = 191.13'$
 $R = 498.22'$
 SUPER = .05
 DS = 30MPH

-YI-
 PI Sta 17+96.93
 $\Delta = 30^{\circ} 06' 40.9" (RT)$
 $D = 3^{\circ} 00' 00.0"$
 $L = 1,003.71'$
 $T = 513.73'$
 $R = 1,909.86'$
 SUPER = .05
 DS = 50MPH

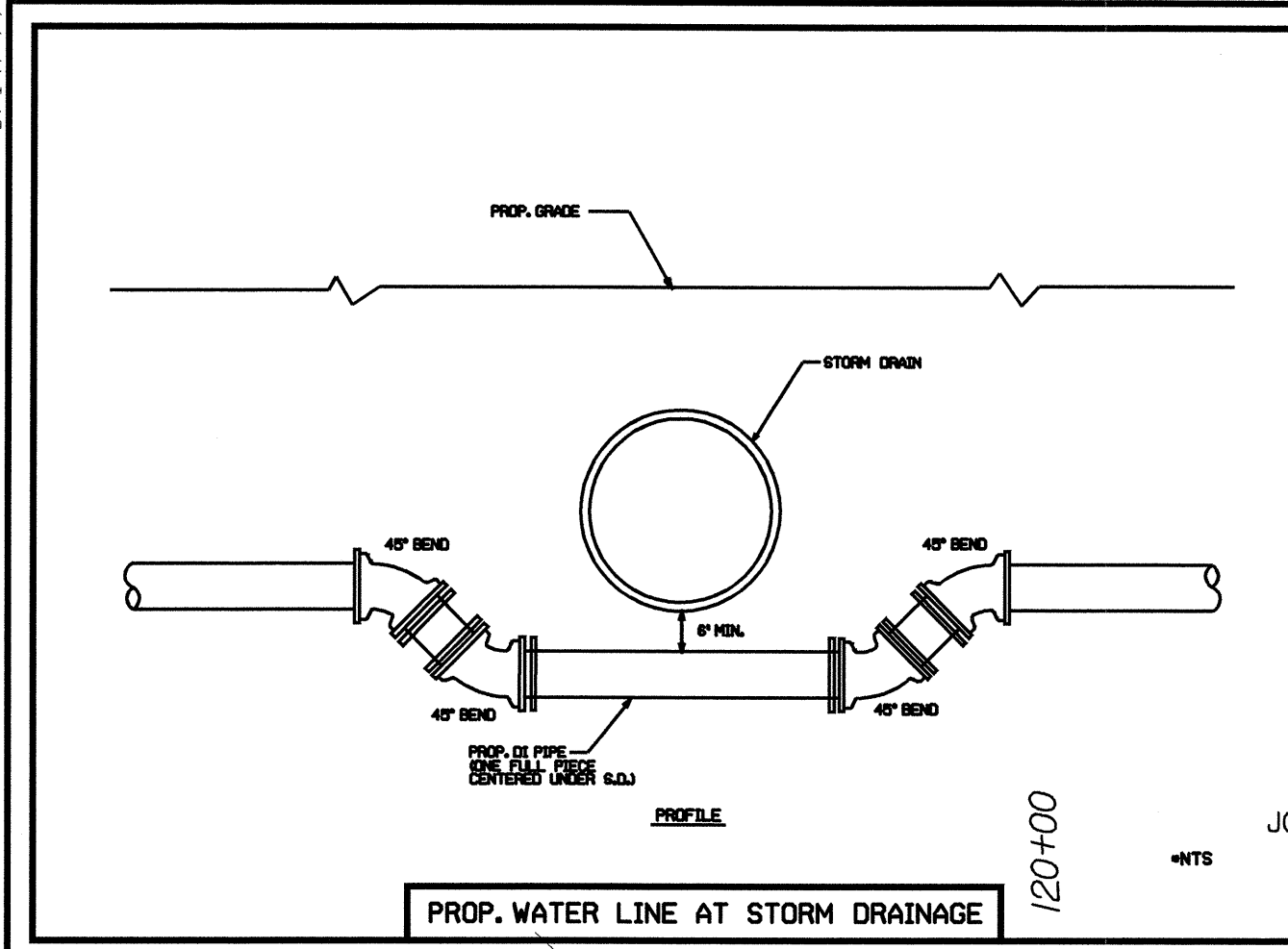
NO CLAIM 28
 STEPHANIE J. NIXON
 POC 12+00.00 -YIA-
 POT 13+36.96 -YIR-

BYI-102 =
 -L- POC STA.
 22+40.67 15.29' LT

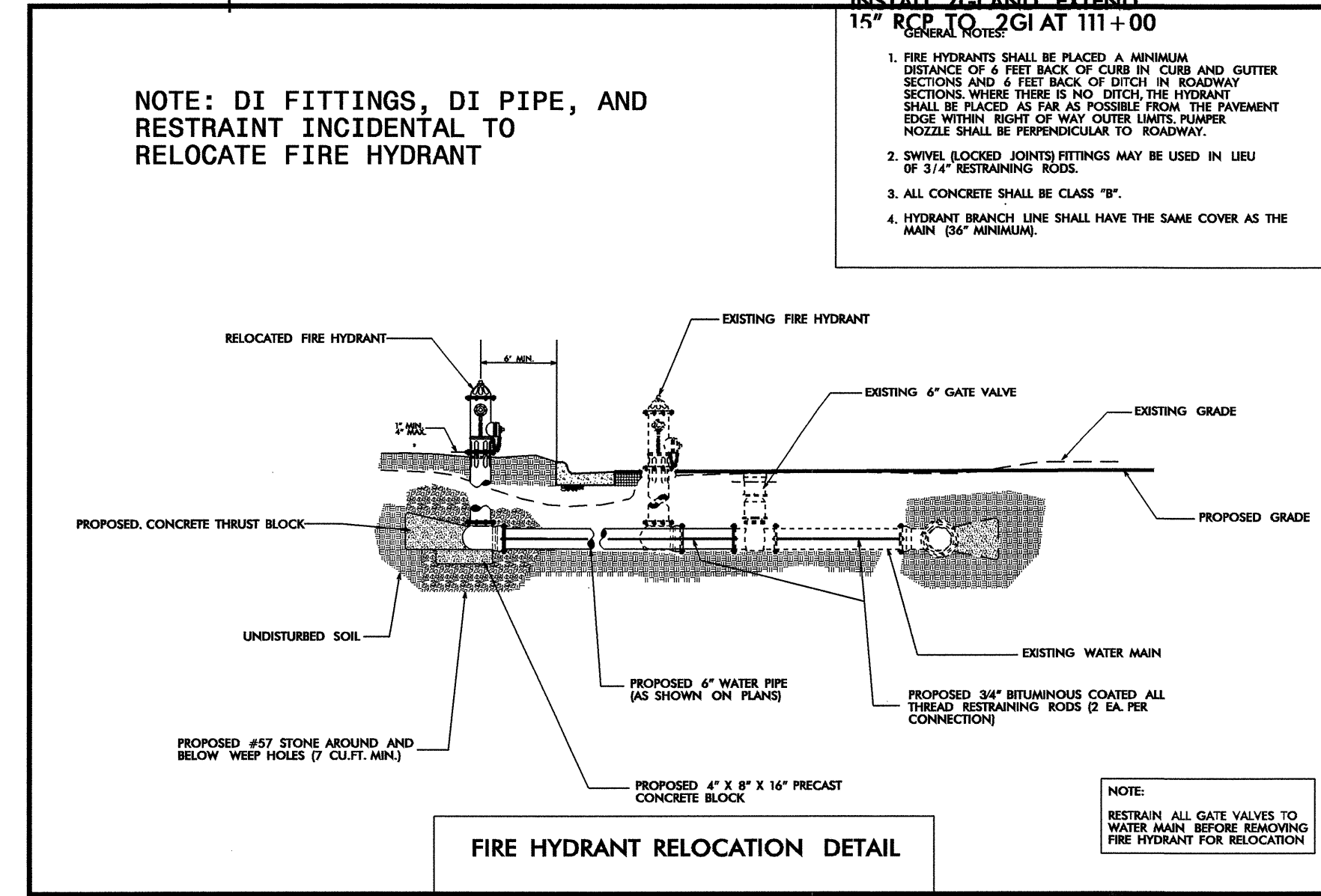
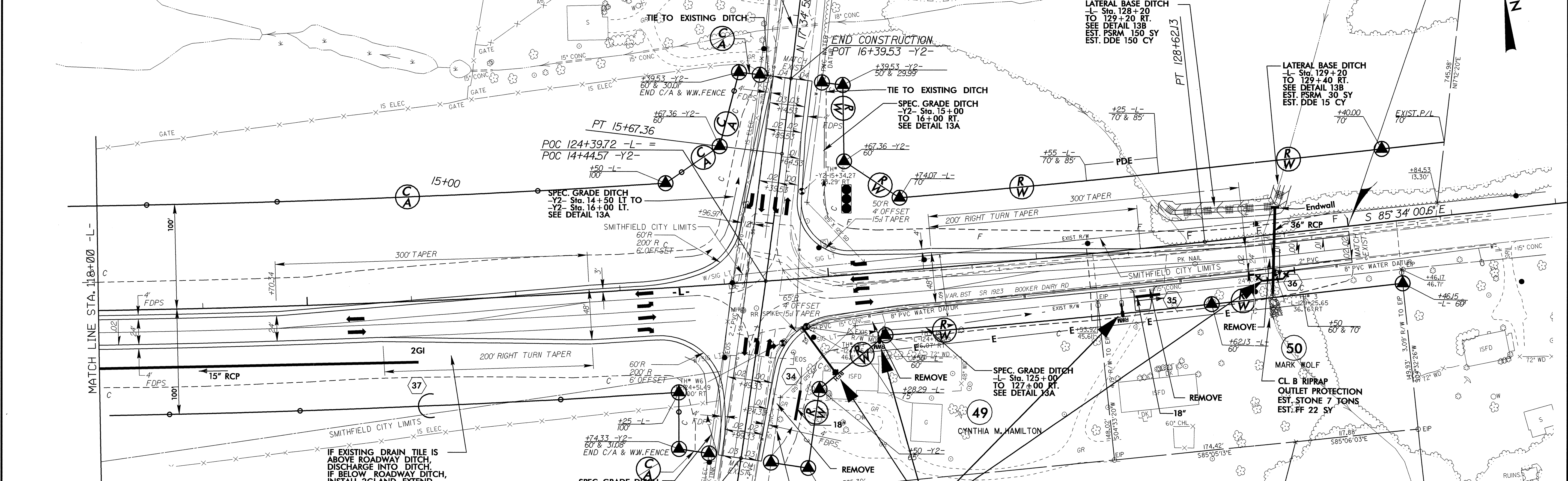
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 USER: jwilson

UTILITY CONSTRUCTION

END STATE PROJECT U-3334A
-L- POT STA. 130+00.00



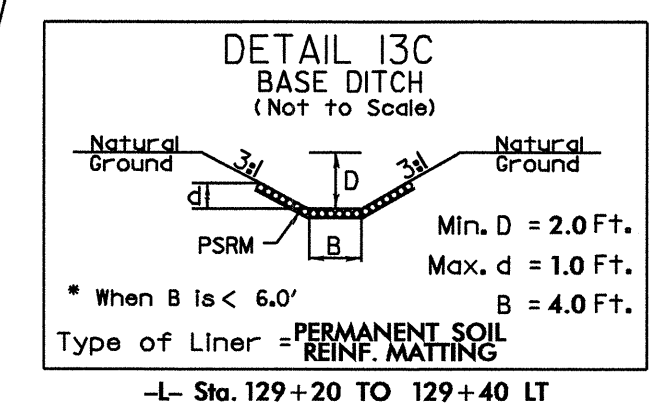
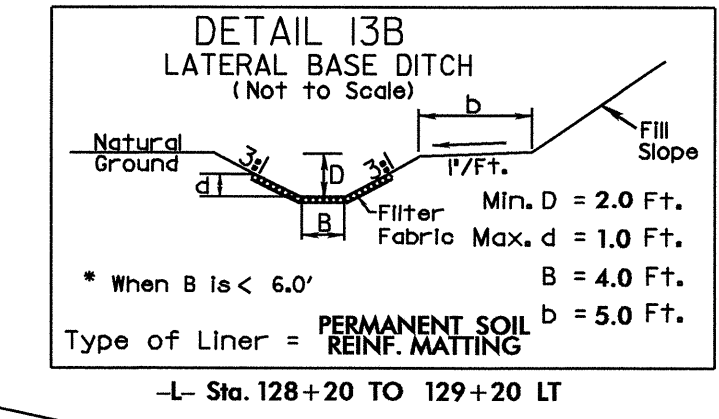
48
JOHN W. TWISDALE



NOTE: DI FITTINGS, DI PIPE, AND RESTRAINT INCIDENTAL TO RELOCATE FIRE HYDRANT

- IF EXISTING DRAIN TILE IS ABOVE ROADWAY DITCH, DISCHARGE INTO DITCH. IF BELOW ROADWAY DITCH, INSTALL 24" LAND EXTEND.
- 15" RCP TO 2GI AT 111+00
1. FIRE HYDRANTS SHALL BE PLACED A MINIMUM DISTANCE OF 6 FEET BACK OF CURB IN CURB AND GUTTER SECTIONS AND 6 FEET BACK OF DITCH IN ROADWAY SECTIONS. WHERE THERE IS NO DITCH, THE HYDRANT SHALL BE PLACED AS FAR AS POSSIBLE FROM THE PAVEMENT EDGE WITHIN RIGHT OF WAY OUTER LIMITS. RUBBER NOZZLE SHALL BE PERPENDICULAR TO ROADWAY.
 2. SWIVEL LOCKED JOINTS FITTINGS MAY BE USED IN LIEU OF 3/4" RESTRAINING RODS.
 3. ALL CONCRETE SHALL BE CLASS "B".
 4. HYDRANT BRANCH LINE SHALL HAVE THE SAME COVER AS THE MAIN (36" MINIMUM).

- PROP. 40' OF 8" WATERLINE
- PROP. 2 - RELOCATE WATER METER
- PROP. 1 - RELOCATE FIRE HYDRANT
- PROP. 34' OF ABANDON 8" UTILITY PIPE



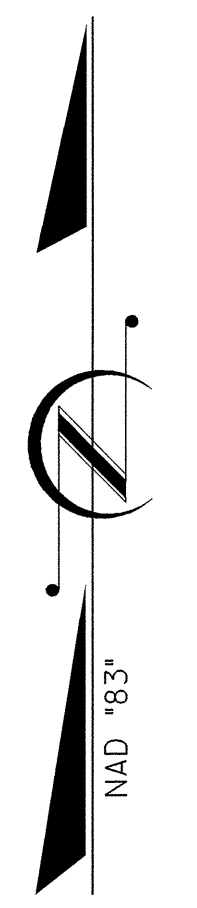
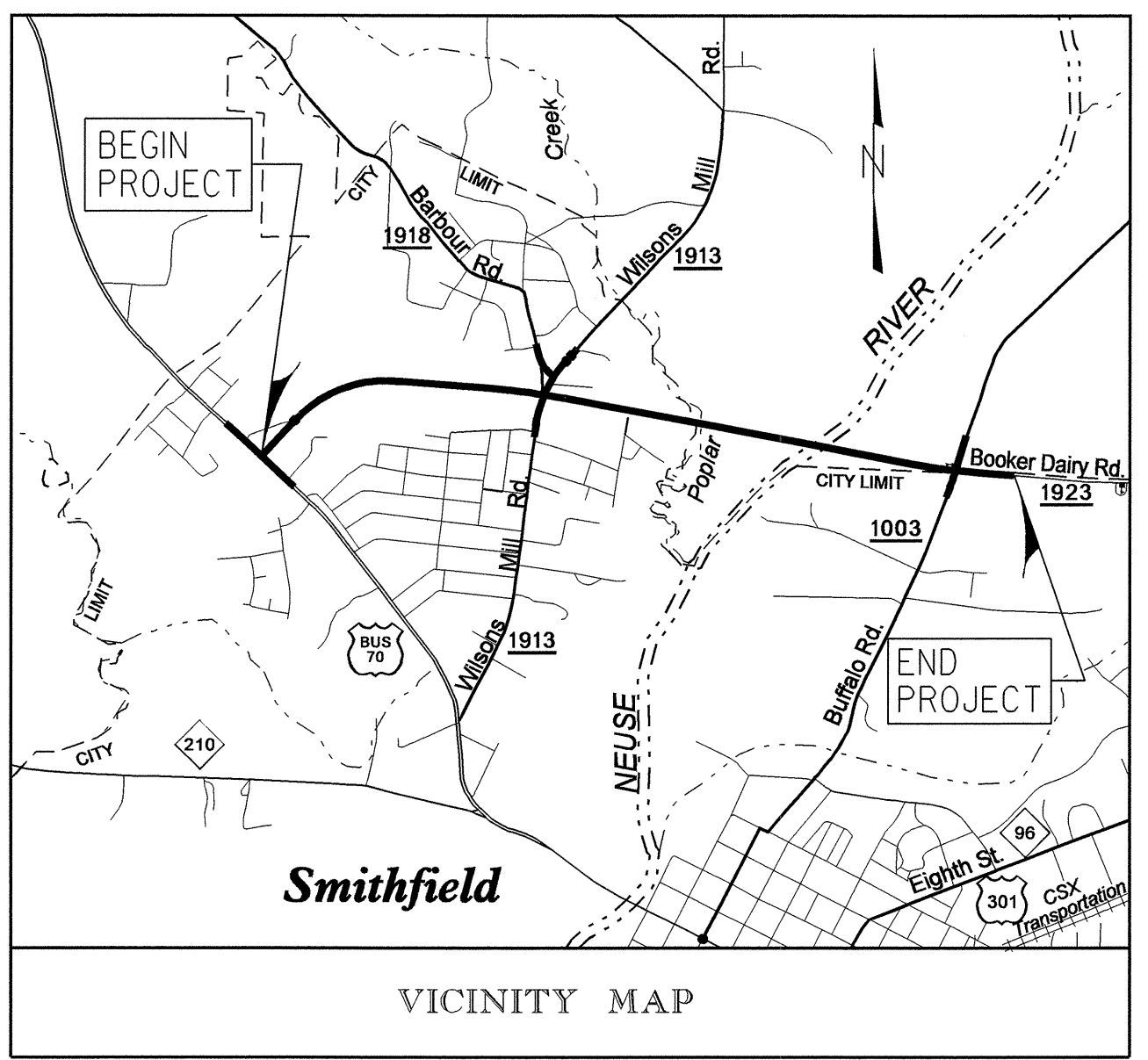
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY BY OTHERS PLANS JOHNSTON COUNTY

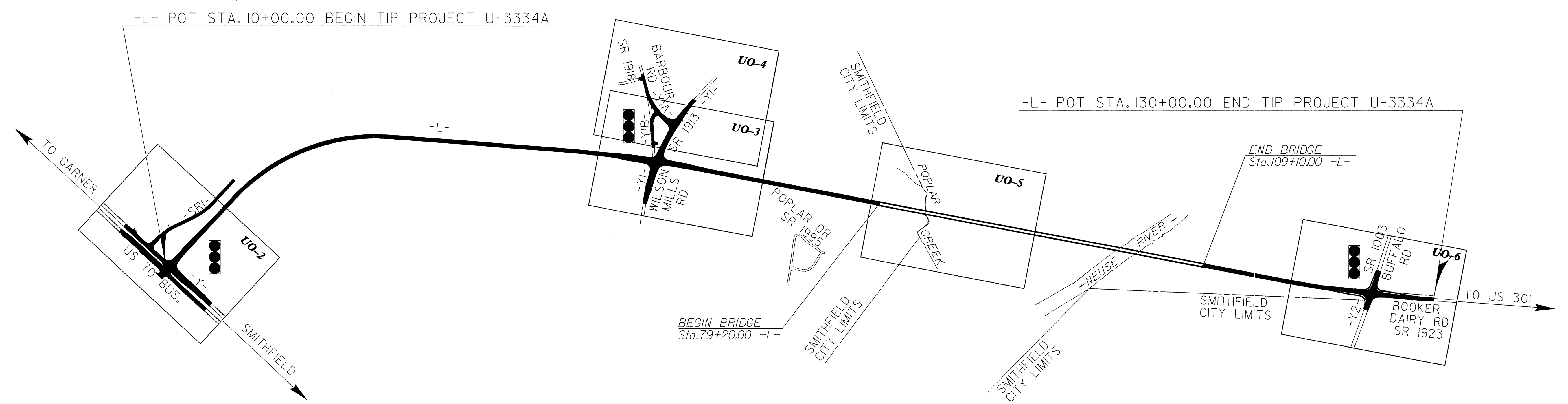
**LOCATION: SMITHFIELD - SR 1923 (BOOKER DAIRY RD. EXT.)
FROM US 70 BUS. TO SR 1003 (BUFFALO ROAD)**

TYPE OF WORK: UTILITIES BY OTHERS



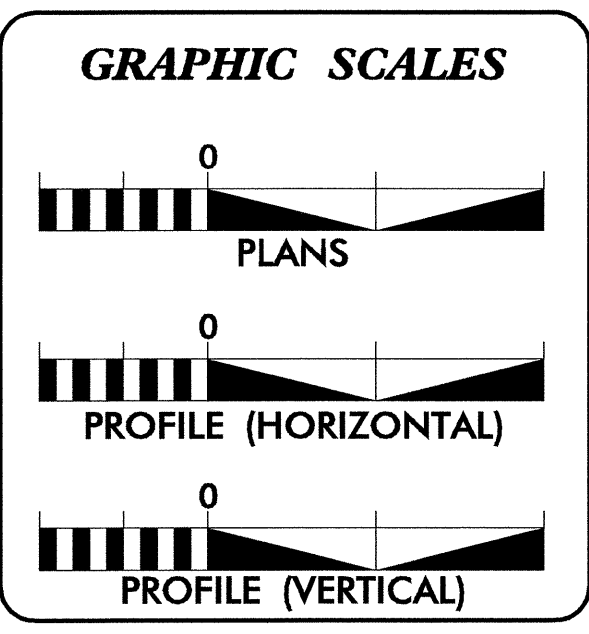
TIP PROJECT: U-3334A

CONTRACT: C201300



INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

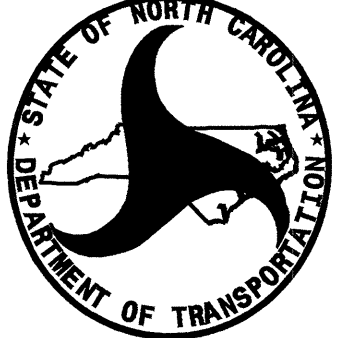
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



INDEX OF SHEETS

| SHEET NO. | DESCRIPTION |
|----------------|-------------------------------|
| UO-1 | TITLE SHEET |
| UO-2 THRU UO-6 | UTILITY BY OTHERS PLAN SHEETS |

- UTILITY OWNERS ON PROJECT**
- (1) PROGRESS ENERGY - DISTRIBUTION
 - (2) PROGRESS ENERGY - TRANSMISSION
 - (3) TOWN OF SMITHFIELD POWER - DISTRIBUTION
 - (4) EMBARQ - TELEPHONE
 - (5) TIME WARNER CABLE - CATV
 - (6) PIEDMONT NATURAL GAS



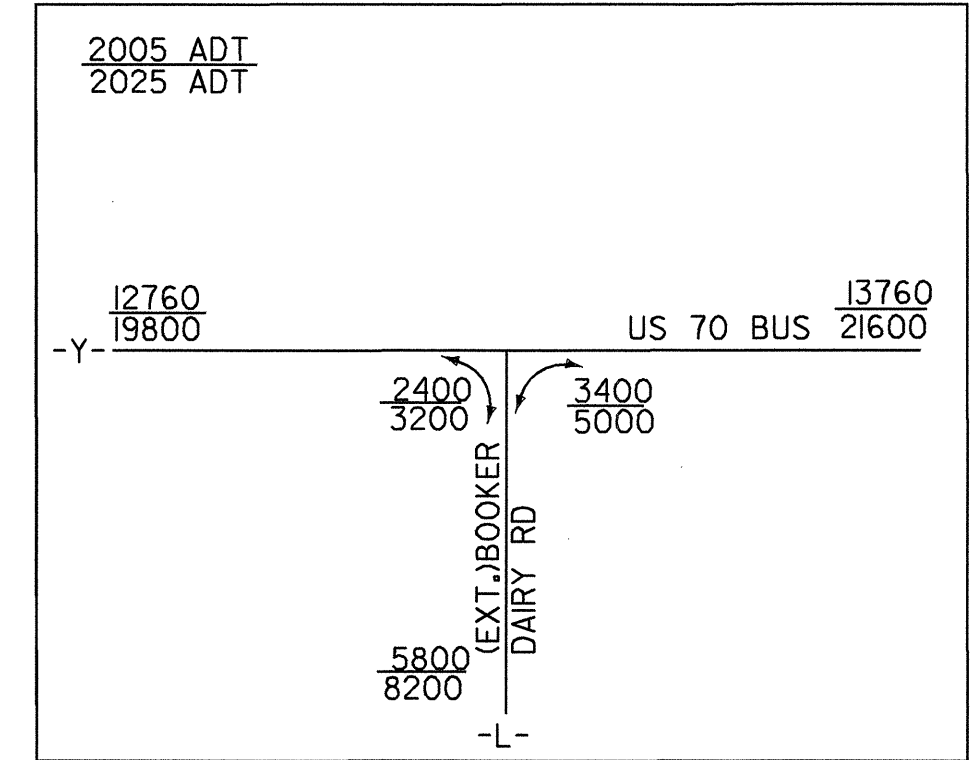
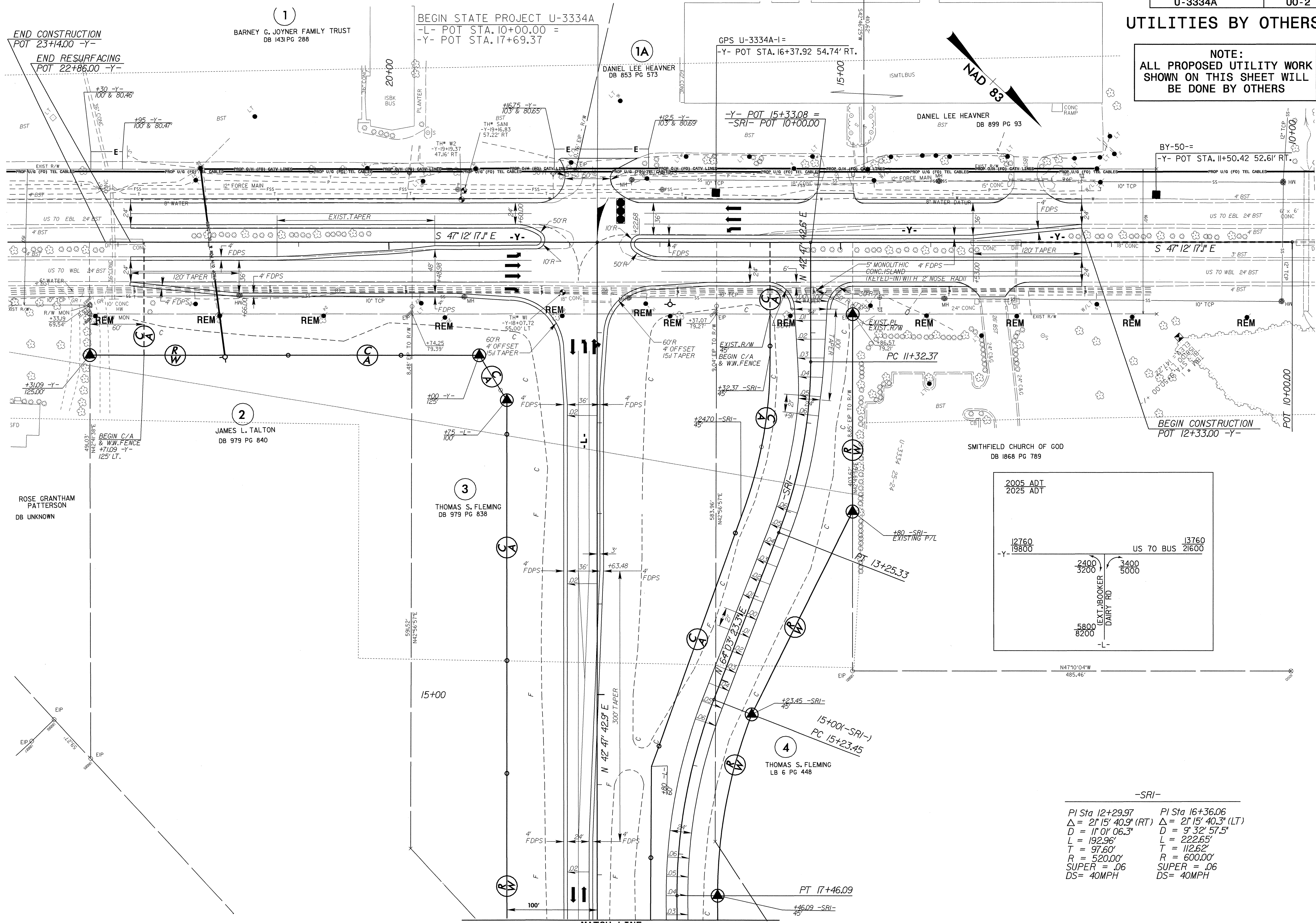
PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
DESIGN SERVICES
UTILITY SECTION

1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

Roger Worthington, P.E. UTILITIES SECTION ENGINEER
R. B. WILKINS, P.E. UTILITIES SQUAD LEADER PROJECT ENGINEER
MICHAEL R. BRIGHT UTILITIES PROJECT DESIGNER

UTILITIES BY OTHERS

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



| -SRI- | |
|-------------------------------|-------------------------------|
| PI Sta 12+29.97 | PI Sta 16+36.06 |
| $\Delta = 21' 15" 40.9" (RT)$ | $\Delta = 21' 15" 40.3" (LT)$ |
| $D = 11' 01" 06.3"$ | $D = 9' 32" 57.5"$ |
| $L = 192.96'$ | $L = 222.65'$ |
| $T = 97.60'$ | $T = 112.62'$ |
| $R = 520.00'$ | $R = 600.00'$ |
| $SUPER = .06$ | $SUPER = .06$ |
| $DS = 40MPH$ | $DS = 40MPH$ |

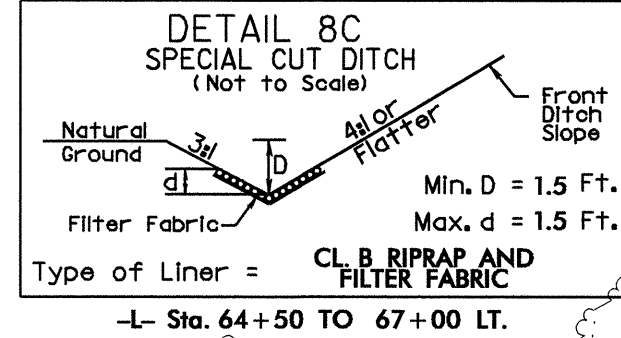
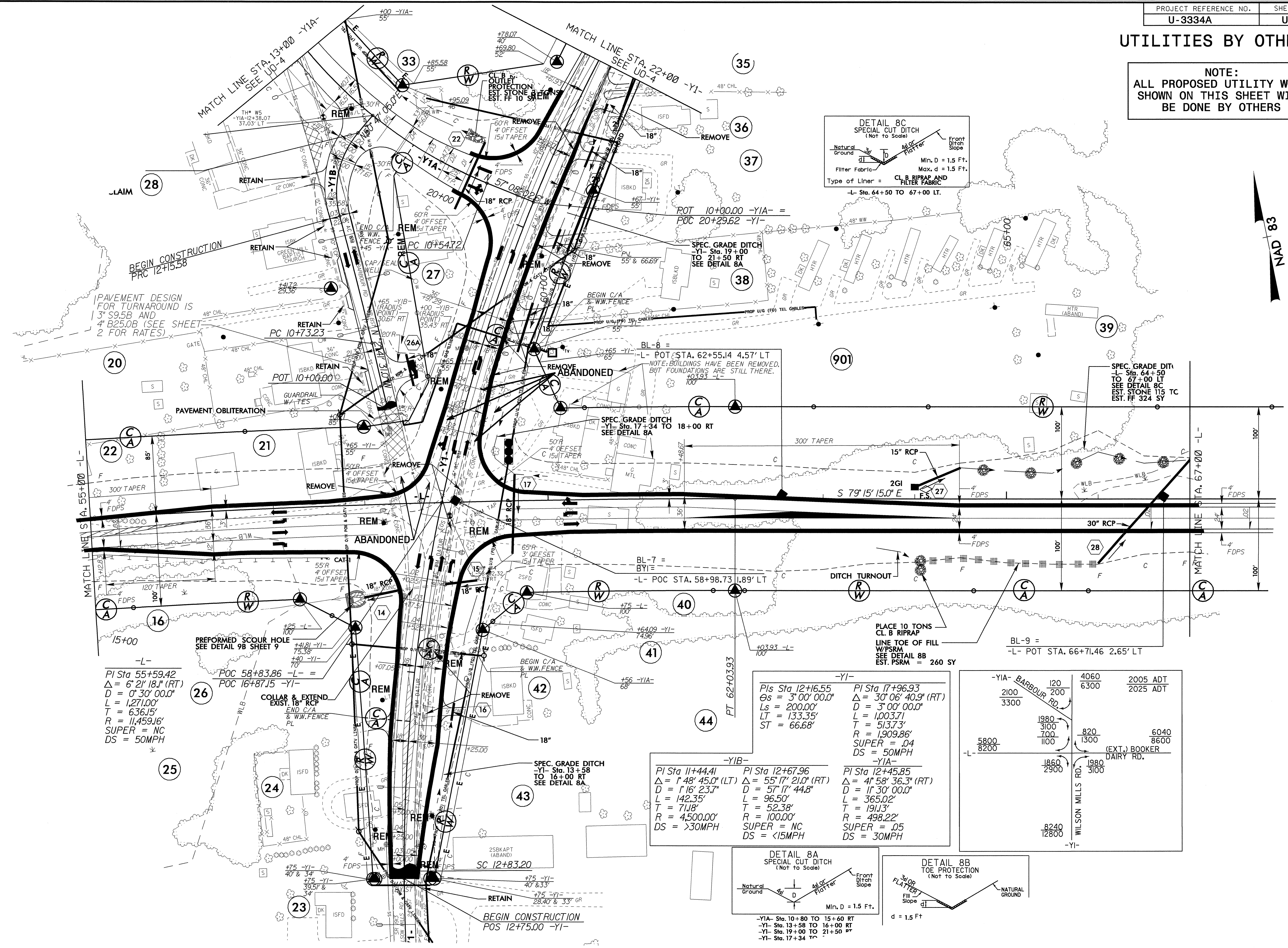
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 PROJECT REFERENCE NO. U-3334A SHEET NO. U0-2

UTILITIES BY OTHERS

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

NAD 83

06-NOV-2008 10:42 r:\utility\utilities\3334A_Ut_8_UO3_psh.dgn U-3334A_Ut_8_UO3_psh.dgn



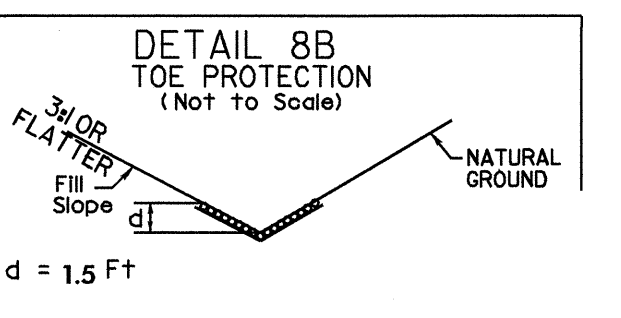
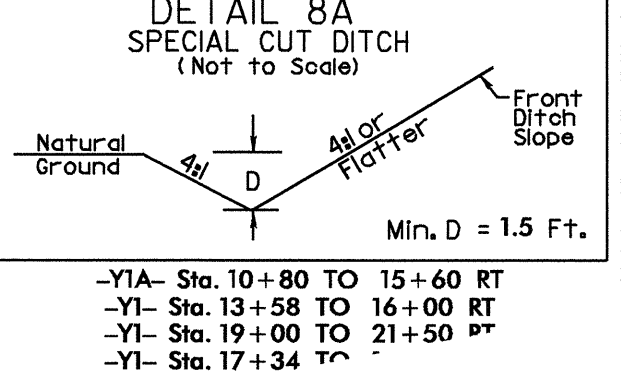
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|------------------------|------|------|----------|
| -YIA- BARBOUR RD. | | 4060 | 2005 ADT |
| 120 | 200 | 6300 | 2025 ADT |
| 2100 | 3300 | | |
| -YIA- DAIRY RD. | | 820 | 6040 |
| 1980 | 3100 | 1300 | 8600 |
| 5800 | 700 | | |
| 8200 | 1100 | | |
| -YIA- WILSON MILLS RD. | | 1860 | 1980 |
| | 2900 | 3100 | |
| | | | |
| | | 8240 | 12800 |
| | | | |

-YI-

| | |
|-----------------------------|---------------------------------|
| PI Sta 12+16.55 | PI Sta 17+96.93 |
| $\Delta s = 3' 00'' 00.0''$ | $\Delta = 30' 06'' 40.9''$ (RT) |
| $L_s = 200.00'$ | $D = 3' 00'' 00.0''$ |
| $LT = 133.35'$ | $L = 1,003.71'$ |
| $ST = 66.68'$ | $T = 513.73'$ |
| | $R = 1,909.86'$ |
| | $SUPER = .04$ |
| | $DS = 50MPH$ |

-YIB-

| | | |
|--------------------------------|---------------------------------|--------------------------------|
| PI Sta 11+44.41 | PI Sta 12+67.96 | PI Sta 12+45.85 |
| $\Delta = 1' 48'' 45.0''$ (LT) | $\Delta = 55' 17'' 21.0''$ (RT) | $\Delta = 4' 58'' 36.3''$ (RT) |
| $D = 1' 16'' 23.7''$ | $D = 57' 17'' 44.8''$ | $D = 1' 30'' 00.0''$ |
| $L = 142.35'$ | $L = 96.50'$ | $L = 365.02'$ |
| $T = 71.18'$ | $T = 52.38'$ | $T = 191.13'$ |
| $R = 4,500.00'$ | $R = 100.00'$ | $R = 498.22'$ |
| $DS = >30MPH$ | $SUPER = NC$ | $SUPER = .05$ |
| | $DS = <15MPH$ | $DS = 30MPH$ |



-L-

PI Sta 55+59.42
 $\Delta = 6' 21'' 18.1''$ (RT)
 $D = 0' 30'' 00.0''$
 $L = 1,271.00'$
 $T = 636.15'$
 $R = 11,459.16'$
 $SUPER = NC$
 $DS = 50MPH$

-L-

POC 58+83.86
POC 16+87.15 -YI-

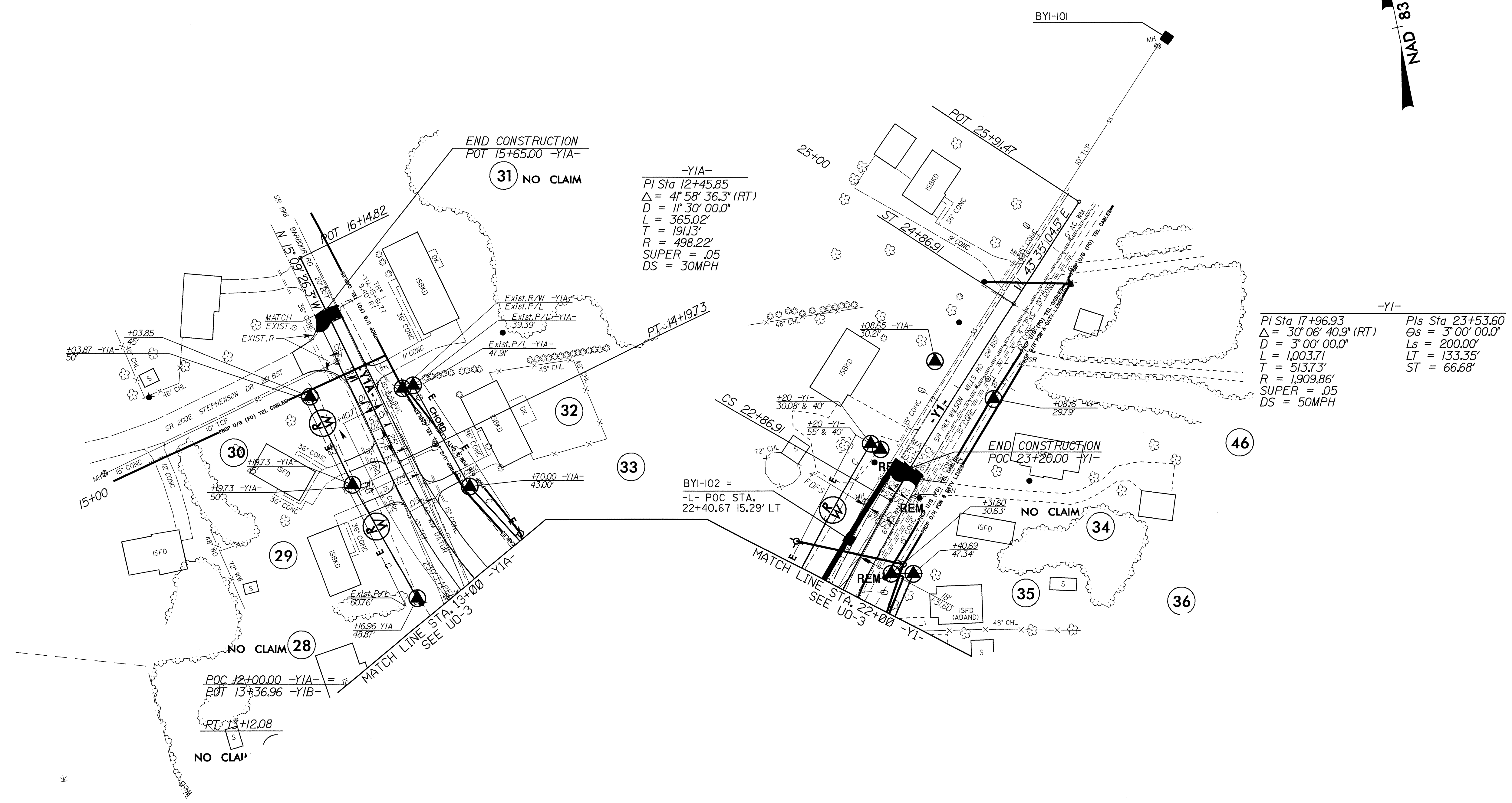
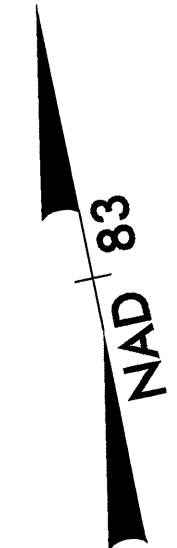
-YI-

SPEC. GRADE DITCH
-YI- Sta. 13+58 TO 16+00 RT
SEE DETAIL 8A

BEGIN CONSTRUCTION
POS 12+75.00 -YI-

UTILITIES BY OTHERS

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



-YIA-
PI Sta 12+45.85
 $\Delta = 41^\circ 58' 36.3"$ (RT)
D = 11' 30" 00.0"
L = 365.02'
T = 191.13'
R = 498.22'
SUPER = .05
DS = 30MPH

-YI-
PI Sta 17+96.93
 $\Delta = 30^\circ 06' 40.9"$ (RT)
D = 3' 00" 00.0"
L = 1,003.71'
T = 513.73'
R = 1,909.86'
SUPER = .05
DS = 50MPH

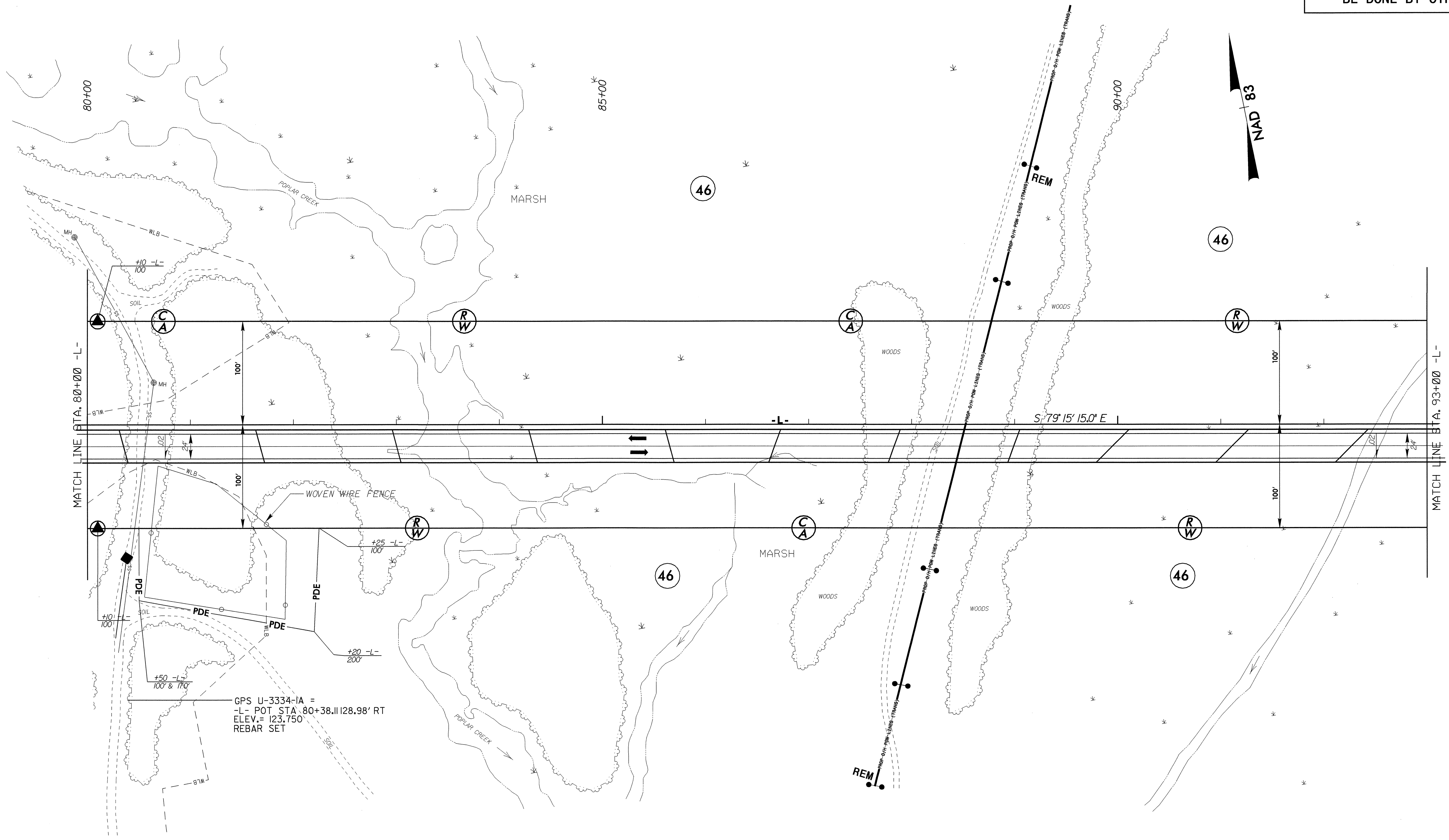
POC 12+00.00 -YIA-
POT 13+36.96 -YIB-
RT 13+12.08
NO CLAIM

5/14/99

06-NOV-2008 10:14
\\ut\utilities\cd\ut\prgs\U-3334A_Ut_14_U04_psh.dgn

UTILITIES BY OTHERS

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



GPS U-3334-1A =
-L- POT STA. 80+38.11 128.98' RT
ELEV. = 123.750
REBAR SET

5/14/99

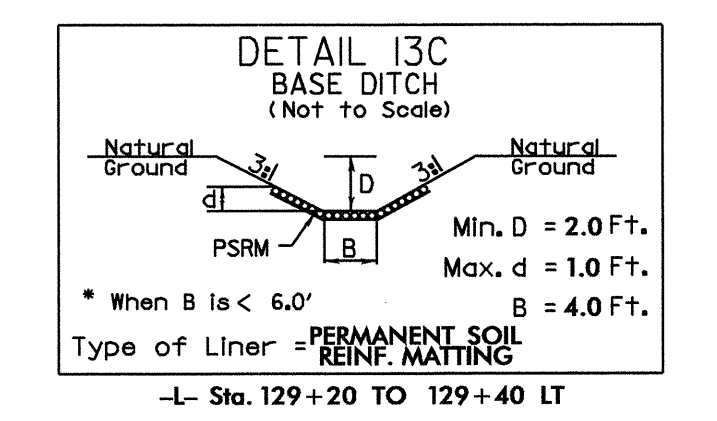
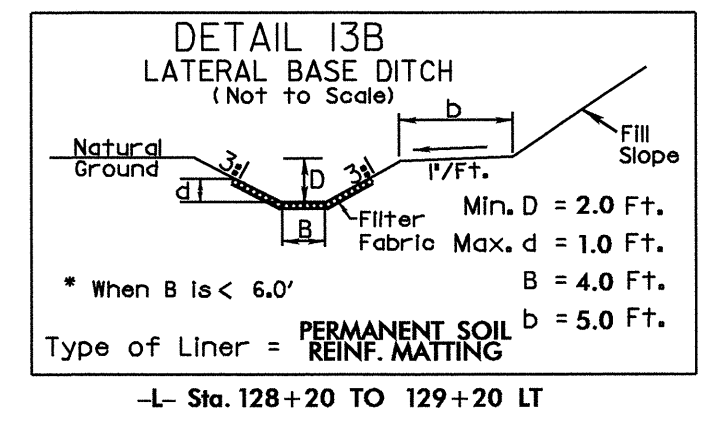
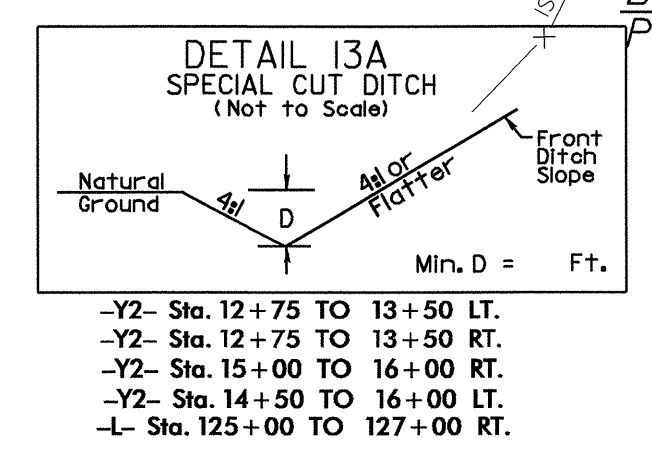
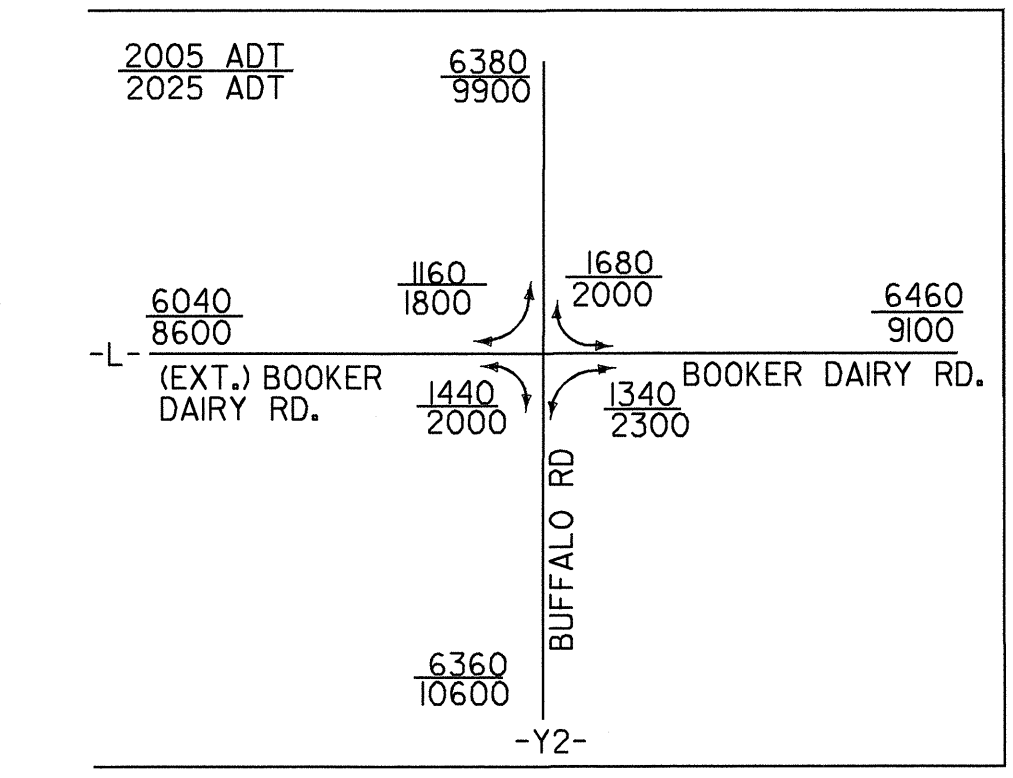
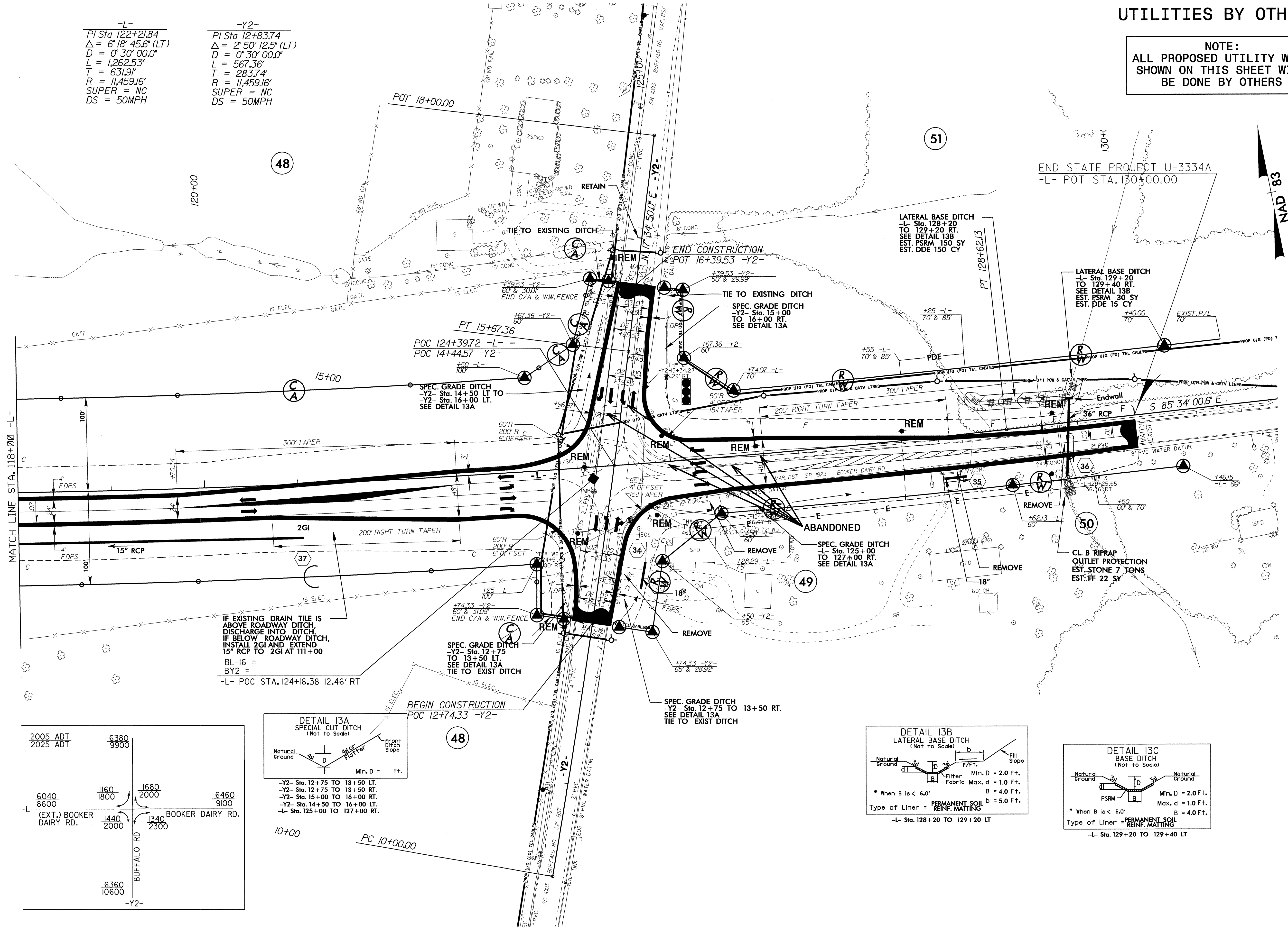
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UTILITIES BY OTHERS

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

-L-
PI Sta 122+21.84
Δ = 6' 18" 45.6" (LT)
D = 0' 30' 00.0"
L = 1,262.53'
T = 631.91'
R = 11,459.16'
SUPER = NC
DS = 50MPH

-Y2-
PI Sta 12+83.74
Δ = 2' 50' 12.5" (LT)
D = 0' 30' 00.0"
L = 567.36'
T = 283.74'
R = 11,459.16'
SUPER = NC
DS = 50MPH



5/14/09
06-NOV-2008 10:42
I:\Utilities\Drawings\proj\U-3334A_U-13_U06_psh.dgn