

09/08/99

TIP PROJECT: U-3100B

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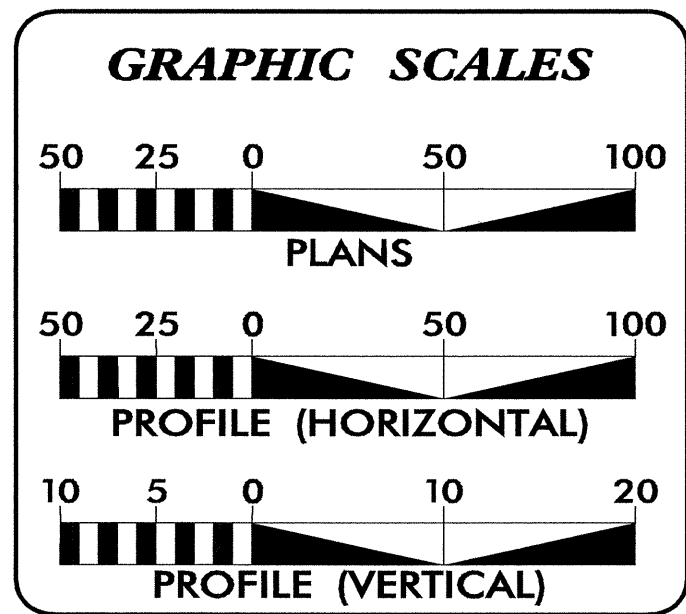
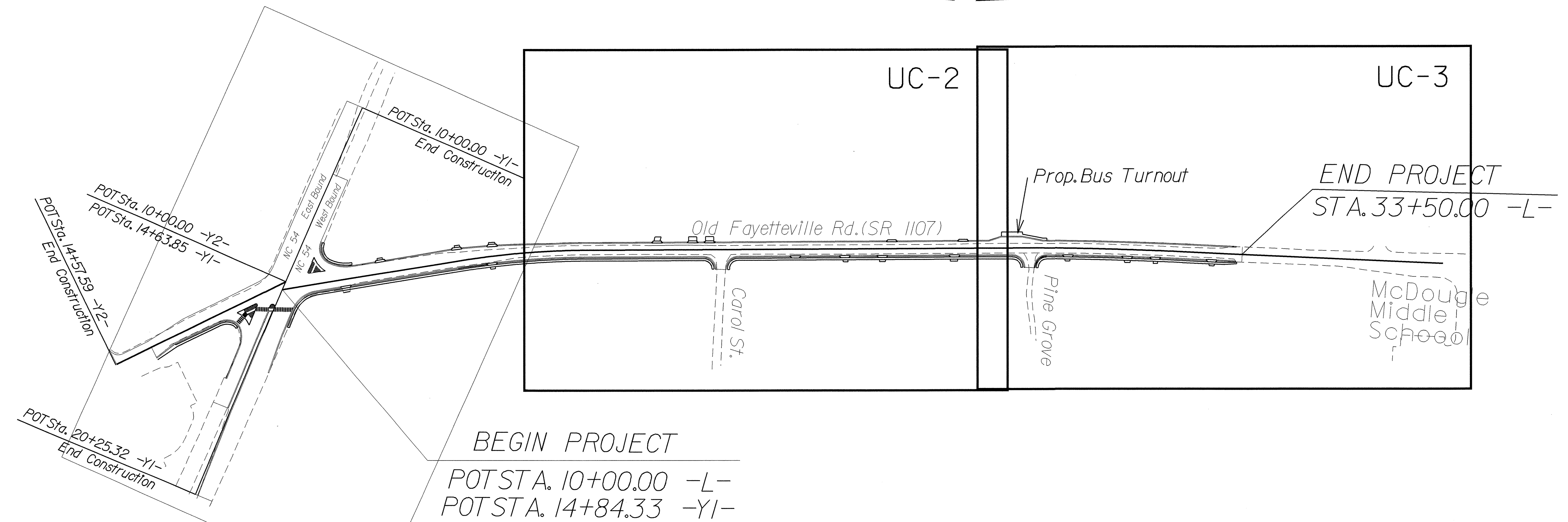
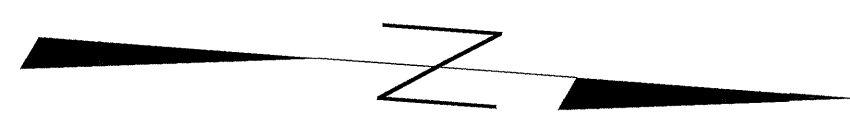
T.I.P. NO.	SHEET NO.
U-3100B	UC-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
ORANGE COUNTY

**LOCATION: CARRBORO - OLD FAYETTEVILLE ROAD FROM
NC 54 TO MCDOUGLE MIDDLE SCHOOL**

TYPE OF WORK: UTILITY CONSTRUCTION

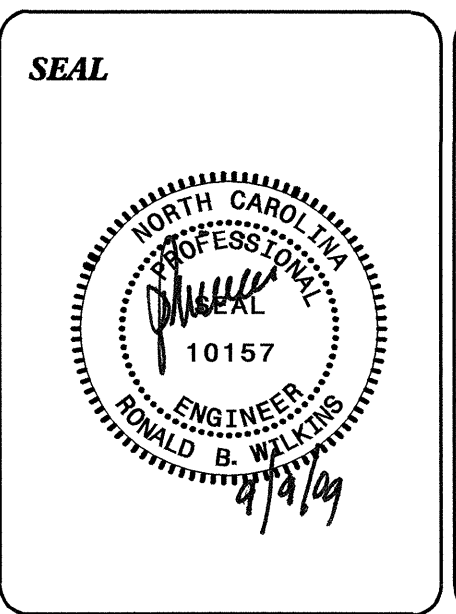


INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2 THRU UC-3	UTILITY CONSTRUCTION PLAN SHEETS

WATER AND SEWER OWNERS ON PROJECT

(1) WATER - OWASA (ORANGE WATER AND SEWER AUTHORITY)
(2) GRAVITY SEWER - OWASA
(3) FORCE MAIN SEWER - TOWN OF CARRBORO



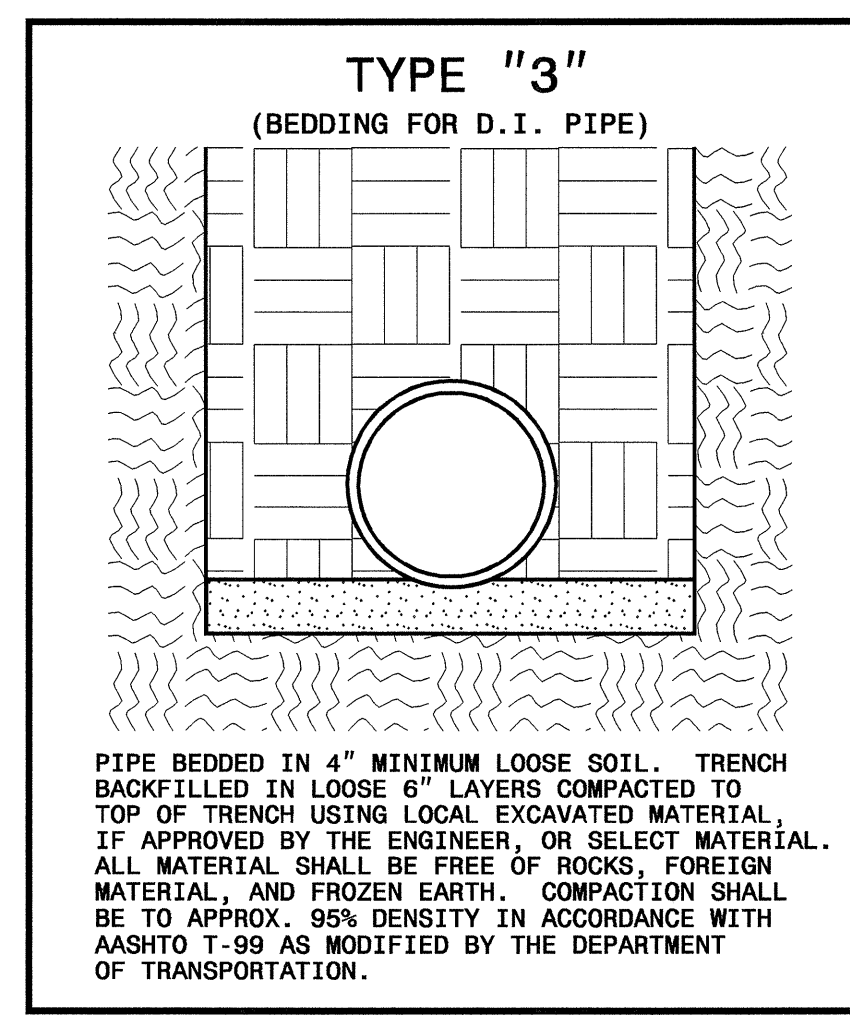
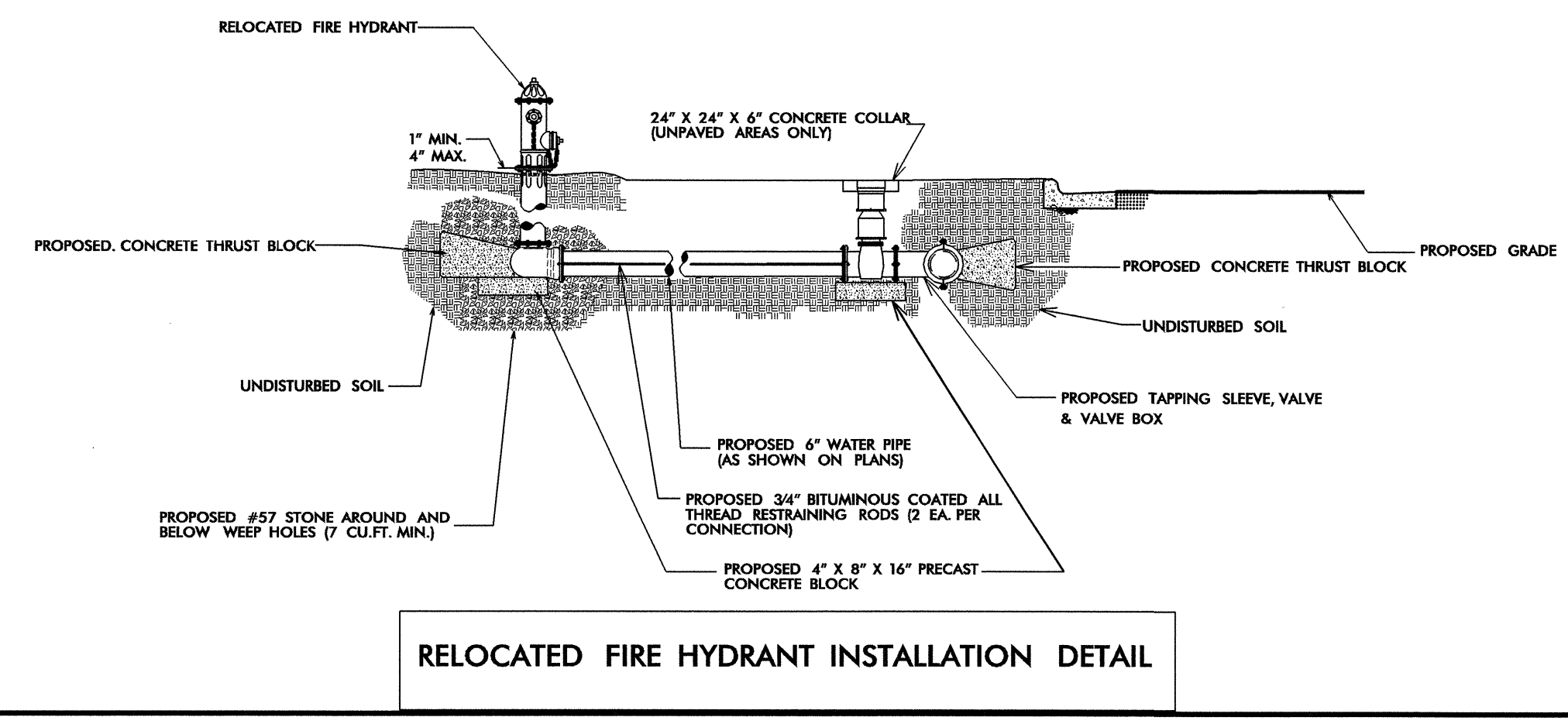
PREPARED IN THE OFFICE OF:
**DIVISION OF HIGHWAYS
UTILITIES ENGINEERING
SECTION**

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

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

- GENERAL NOTES:**
1. RELOCATED 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. PUMPER 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 (50' MIN).

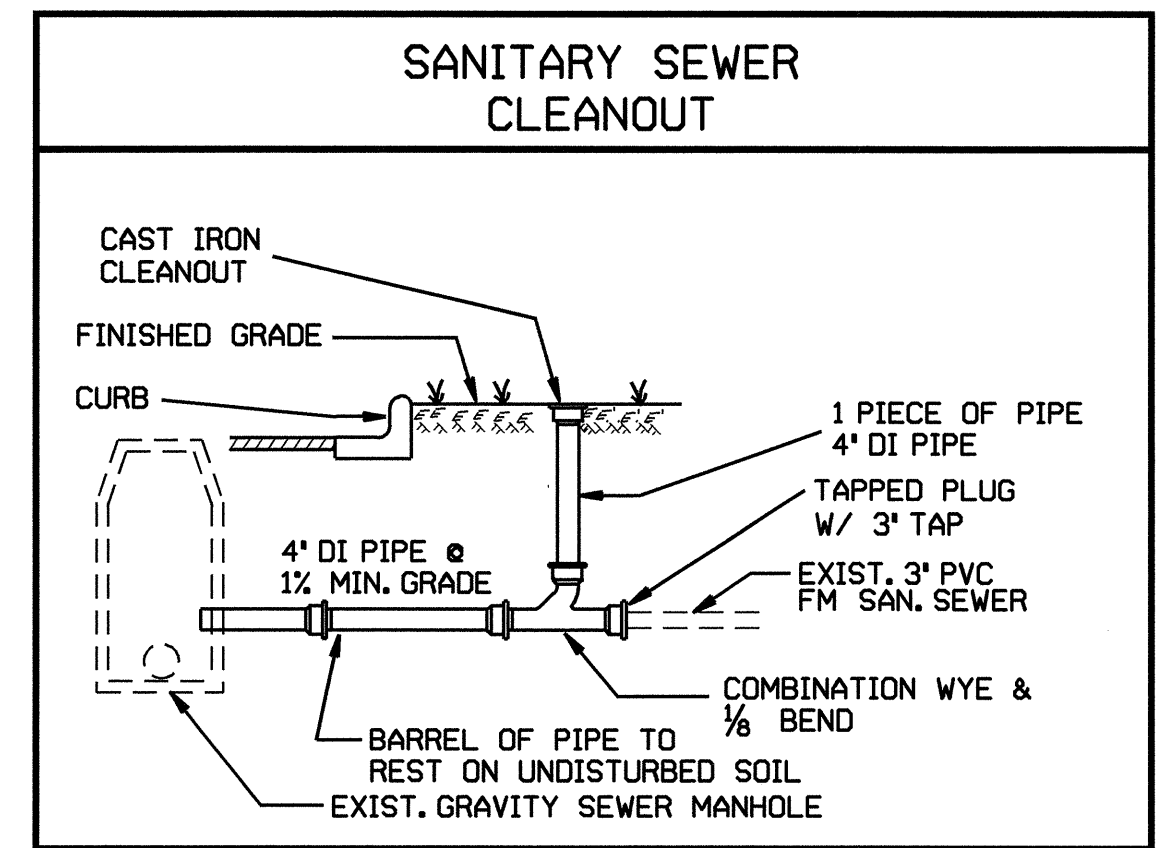
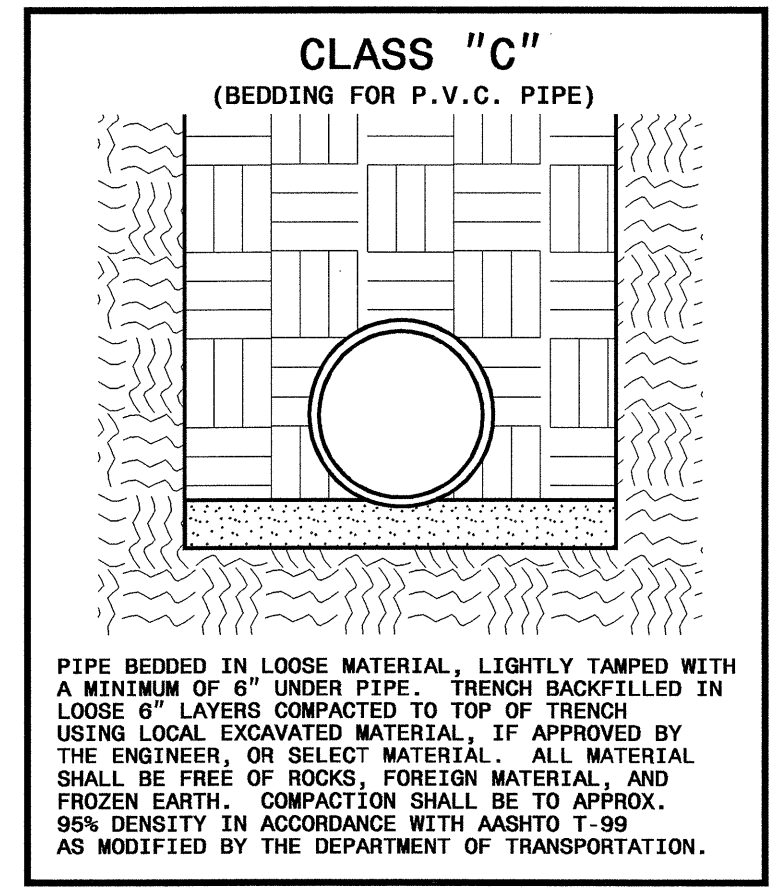


NOTE: ALL PROP. WATER LINES ON THIS PROJECT SHALL BE DIRJ PIPE

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		

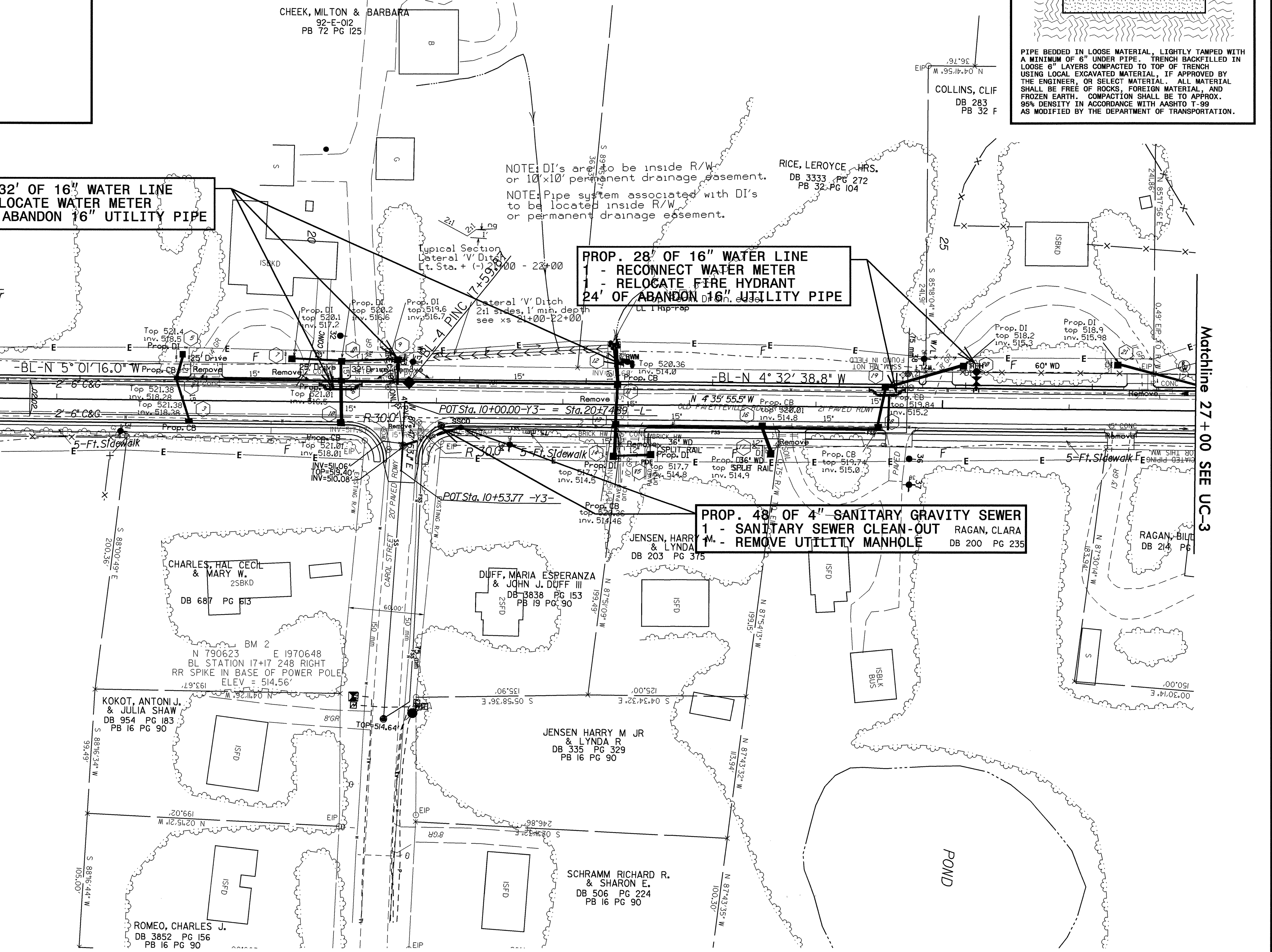
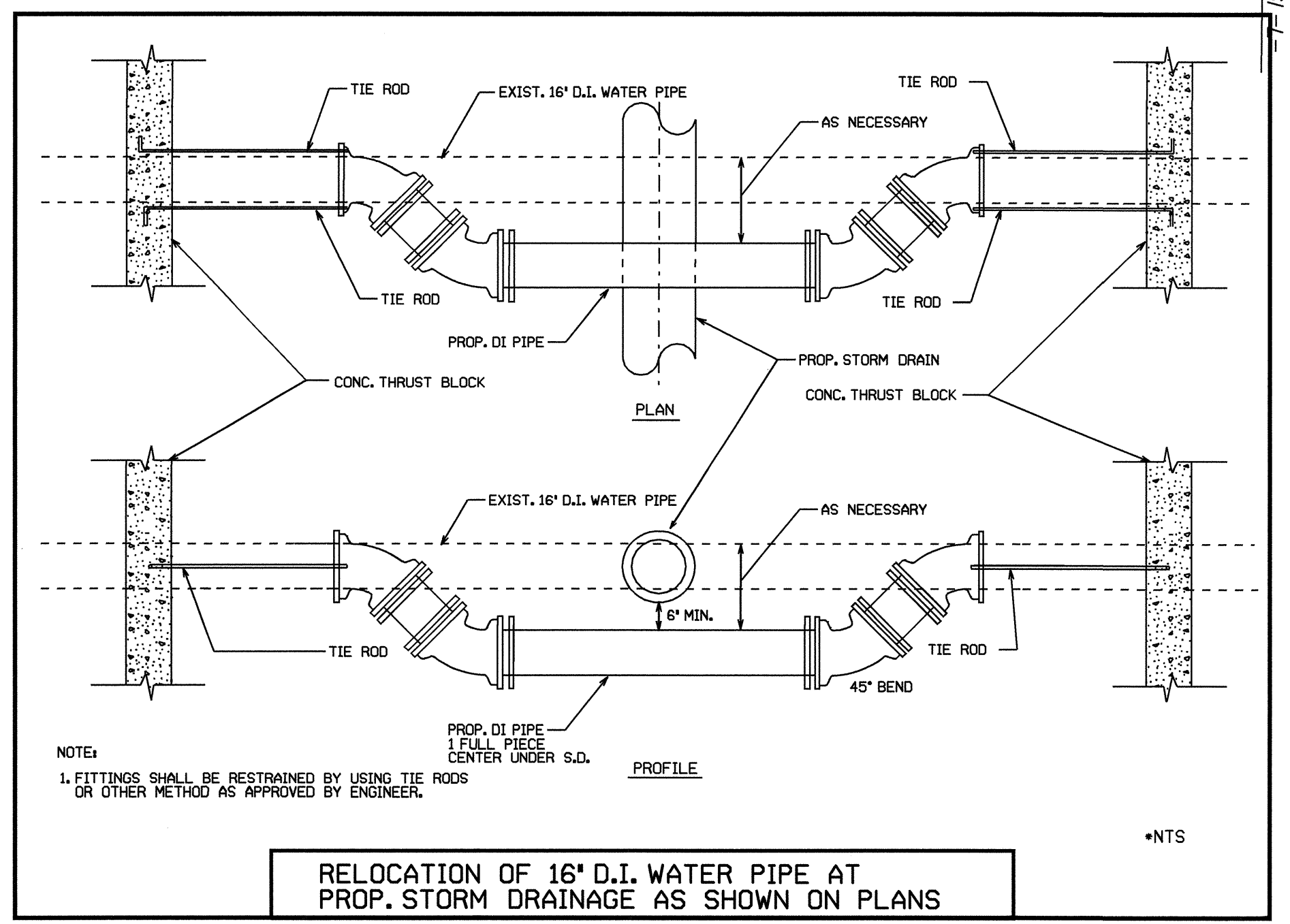
UTILITY CONSTRUCTION



**PROP. 32' OF 16" WATER LINE
2 - RELOCATE WATER METER
30' OF ABANDON 16" UTILITY PIPE**

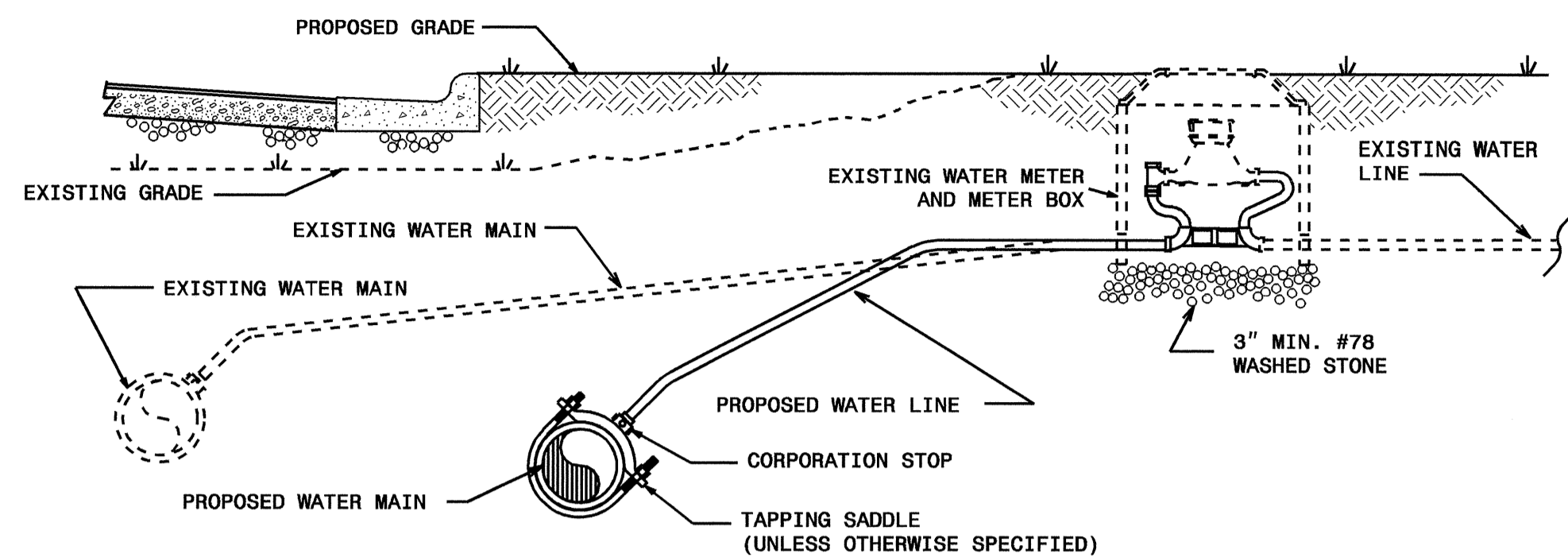
**PROP. 28' OF 16" WATER LINE
1 - RECONNECT WATER METER
1 - RELOCATE FIRE HYDRANT
24' OF ABANDON 16" UTILITY PIPE**

**PROP. 48' OF 4" SANITARY GRAVITY SEWER
1 - SANITARY SEWER CLEAN-OUT
M. - REMOVE UTILITY MANHOLE**



5/14/99

NOTE: TAPPING SADDLES, CORPORATION STOPS, COPPER WATER PIPE (TYPE K) INCIDENTAL TO WATER METER

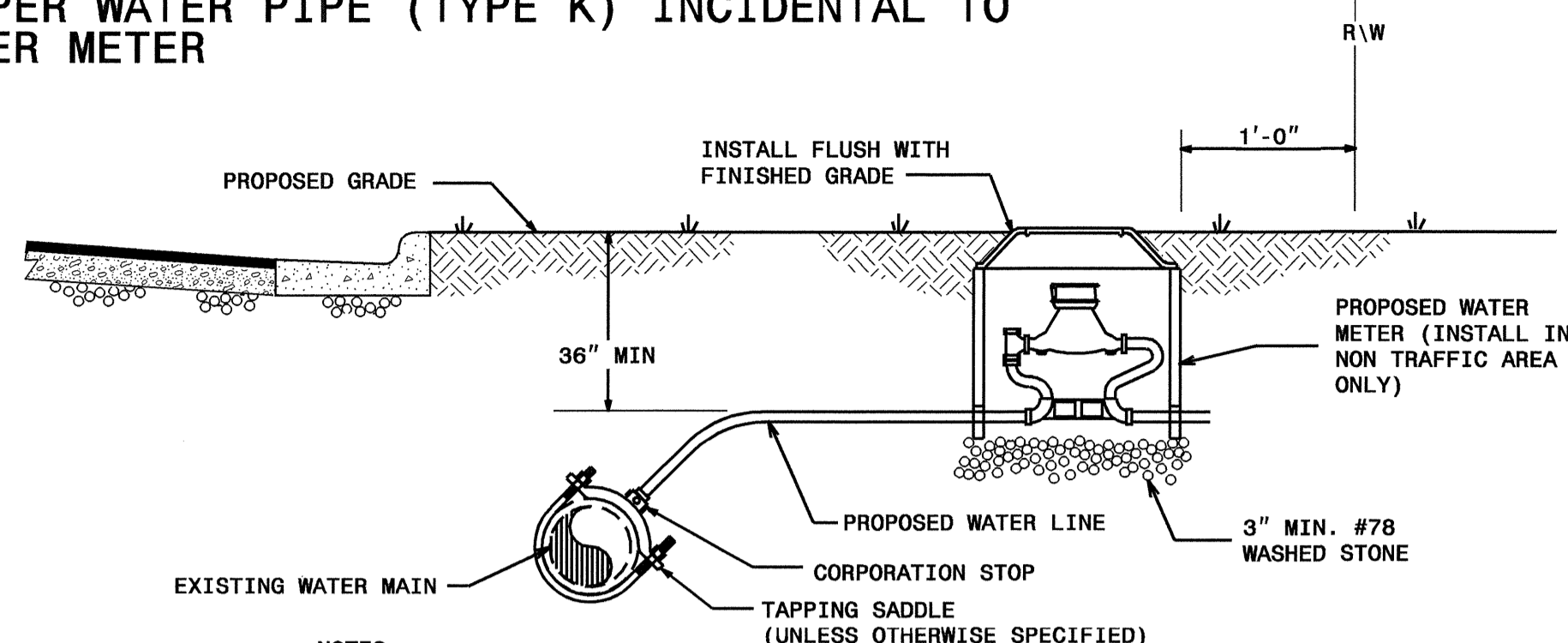


NOTES:

1. INSTALLATION SHALL INCLUDE 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 INSTALLED WITH A MINIMUM OF 36" COVER BELOW FINISHED GRADE.
3. THE WATER SERVICES TO BE PRESSURE TESTED WITH THE MAIN.
4. NEW METER SETTERS WILL BE PROVIDED BY OWASA FOR EACH RECONNECT METER.

RECONNECT EXISTING WATER METER DETAIL

NOTE: TAPPING SADDLES, CORPORATION STOPS, COPPER WATER PIPE (TYPE K) INCIDENTAL TO WATER METER



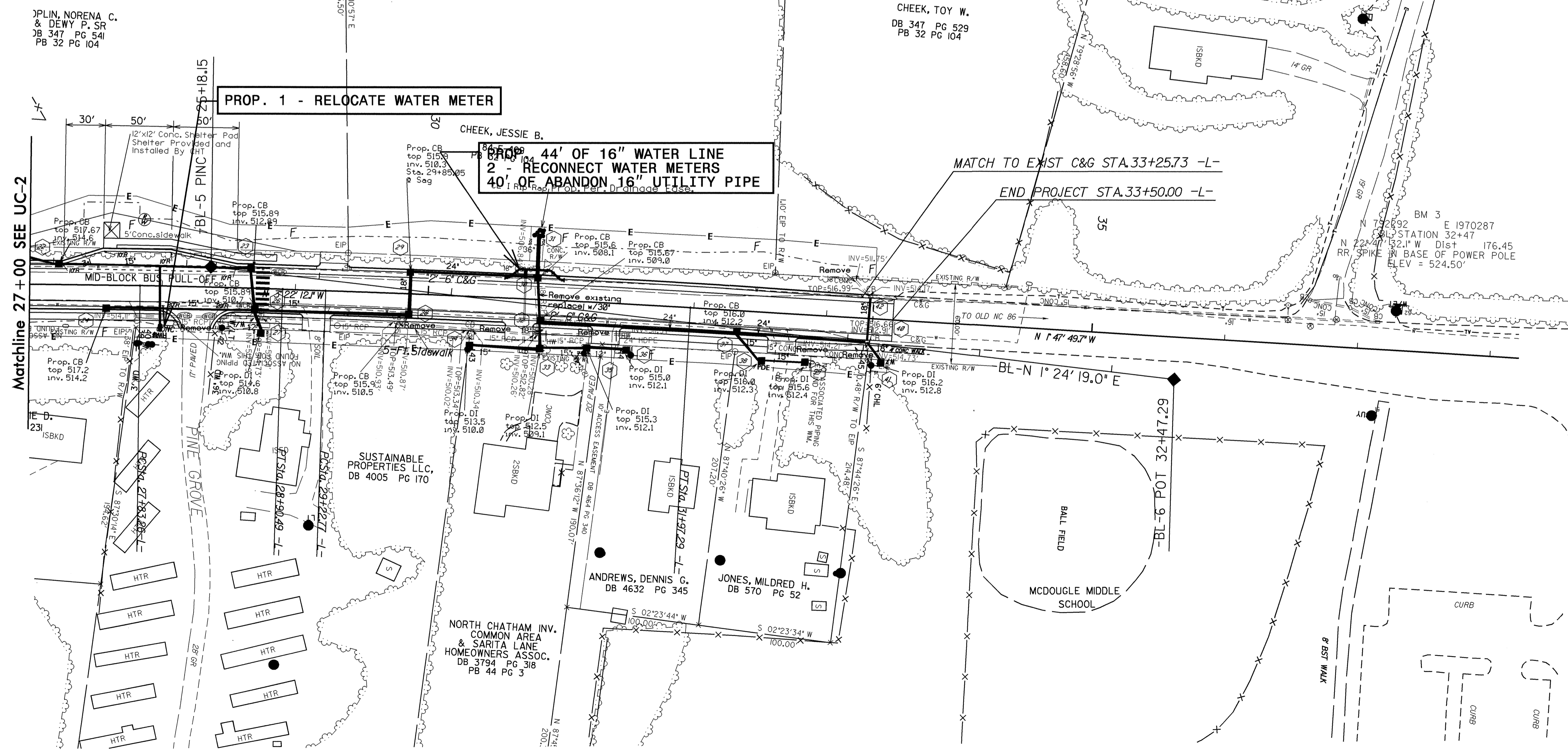
NOTES:

1. INSTALLATION SHALL INCLUDE 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 INSTALLED WITH A MINIMUM OF 36" COVER BELOW FINISHED GRADE.
3. THE WATER SERVICES TO BE PRESSURE TESTED WITH THE MAIN.
4. NEW METER SETTERS WILL BE PROVIDED BY OWASA FOR EACH RELOCATED METER.

RELOCATED WATER METER INSTALLATION DETAIL

PROJECT REFERENCE NO.	SHEET NO.
U-3100B	UC-3
DESIGNED BY: MRB	
DRAWN BY: MRB	
CHECKED BY: RBW	
APPROVED BY: RBW	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 250-4128 FAX: (919) 250-4119	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION



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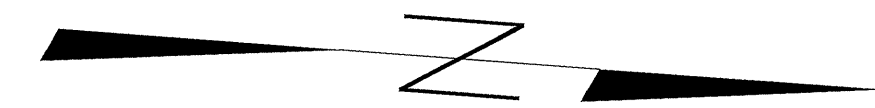
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T.I.P. NO.	SHEET NO.
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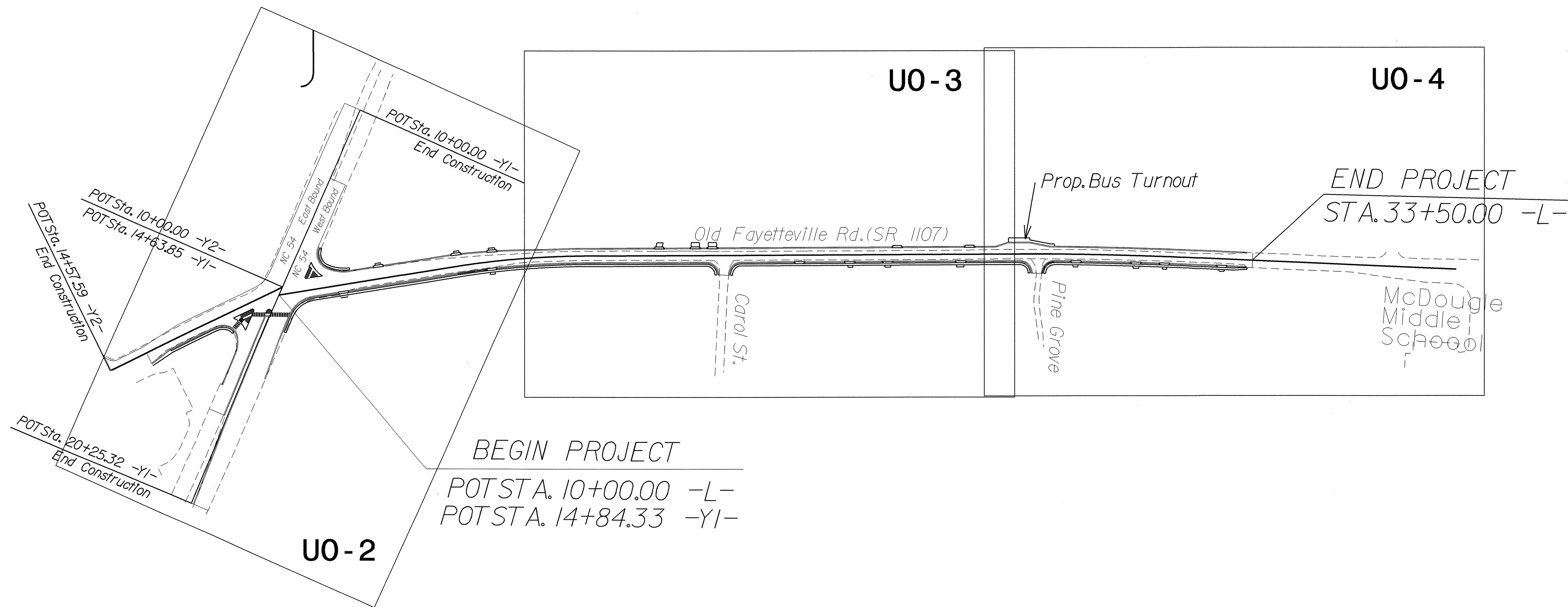
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**UTILITIES BY OTHERS PLANS
ORANGE COUNTY**

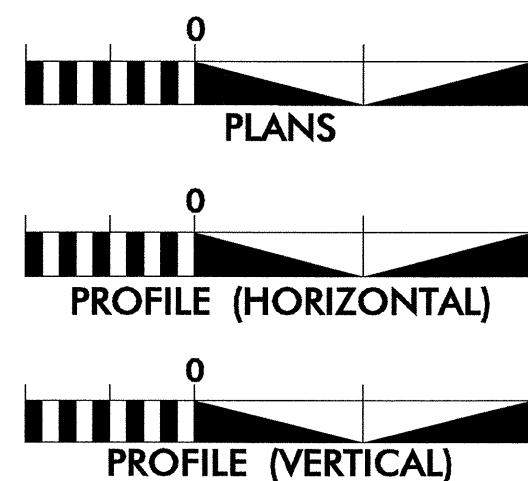
LOCATION: Carrboro- Old Fayetteville Road from
NC 54 to McDougale Middle School



TIP PROJECT: U-3100B



GRAPHIC SCALES

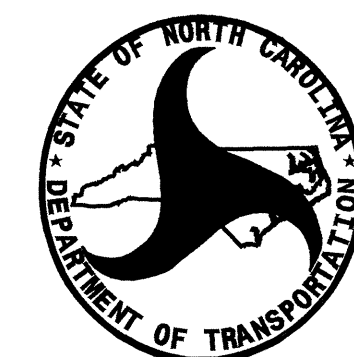


INDEX OF SHEETS

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UO-1	TITLE SHEET
UO-2 THRU UO-4	UTILITY BY OTHERS PLAN SHEETS

UTILITY OWNERS ON PROJECT

- (1) POWER : PIEDMONT EMC
- (2) TELEPHONE : AT&T NC
- (3) CABLE TV : TIME WARNER CABLE



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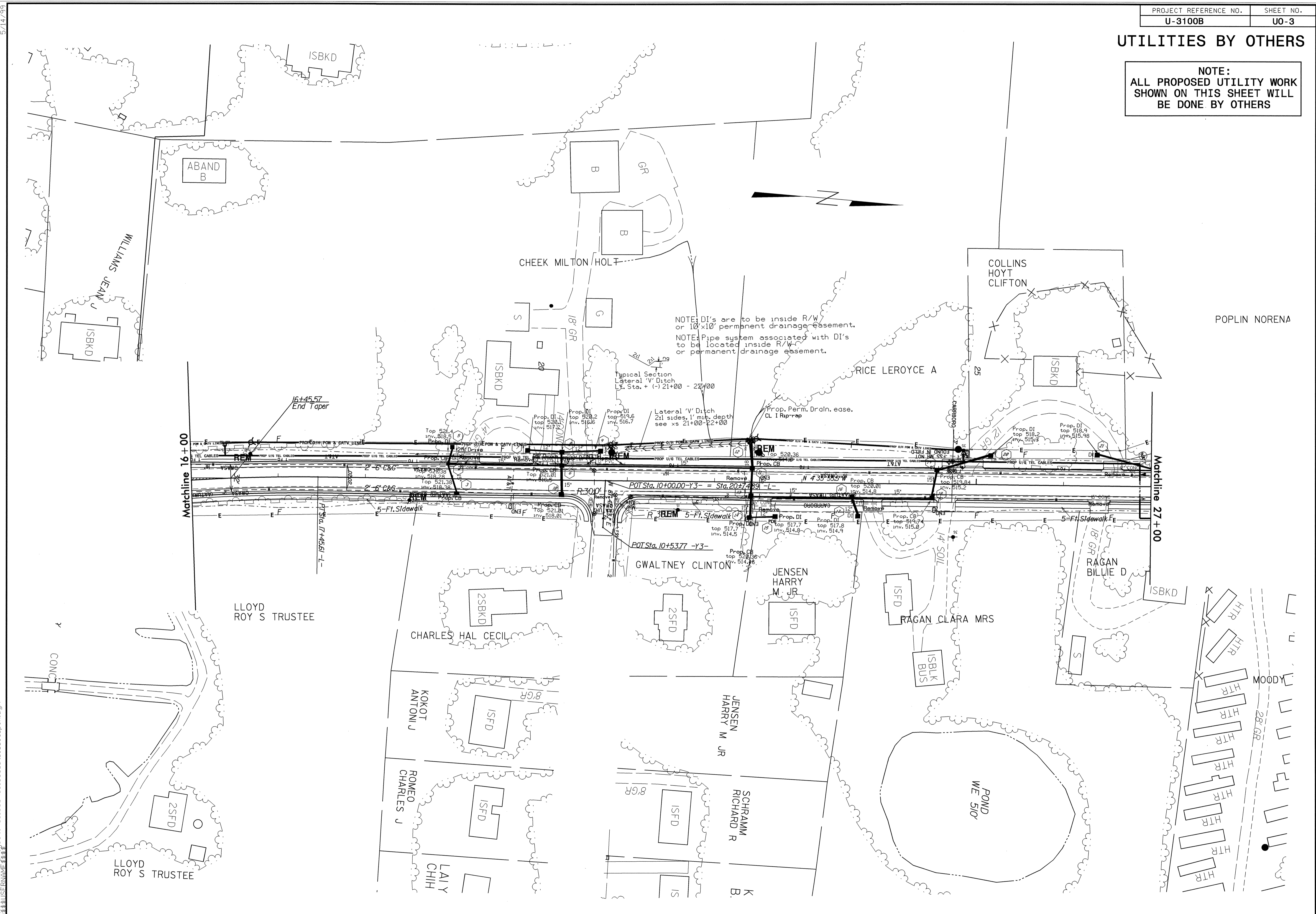
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JONG-TAE YOON UTILITIES PROJECT DESIGNER

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UTILITIES BY OTHERS

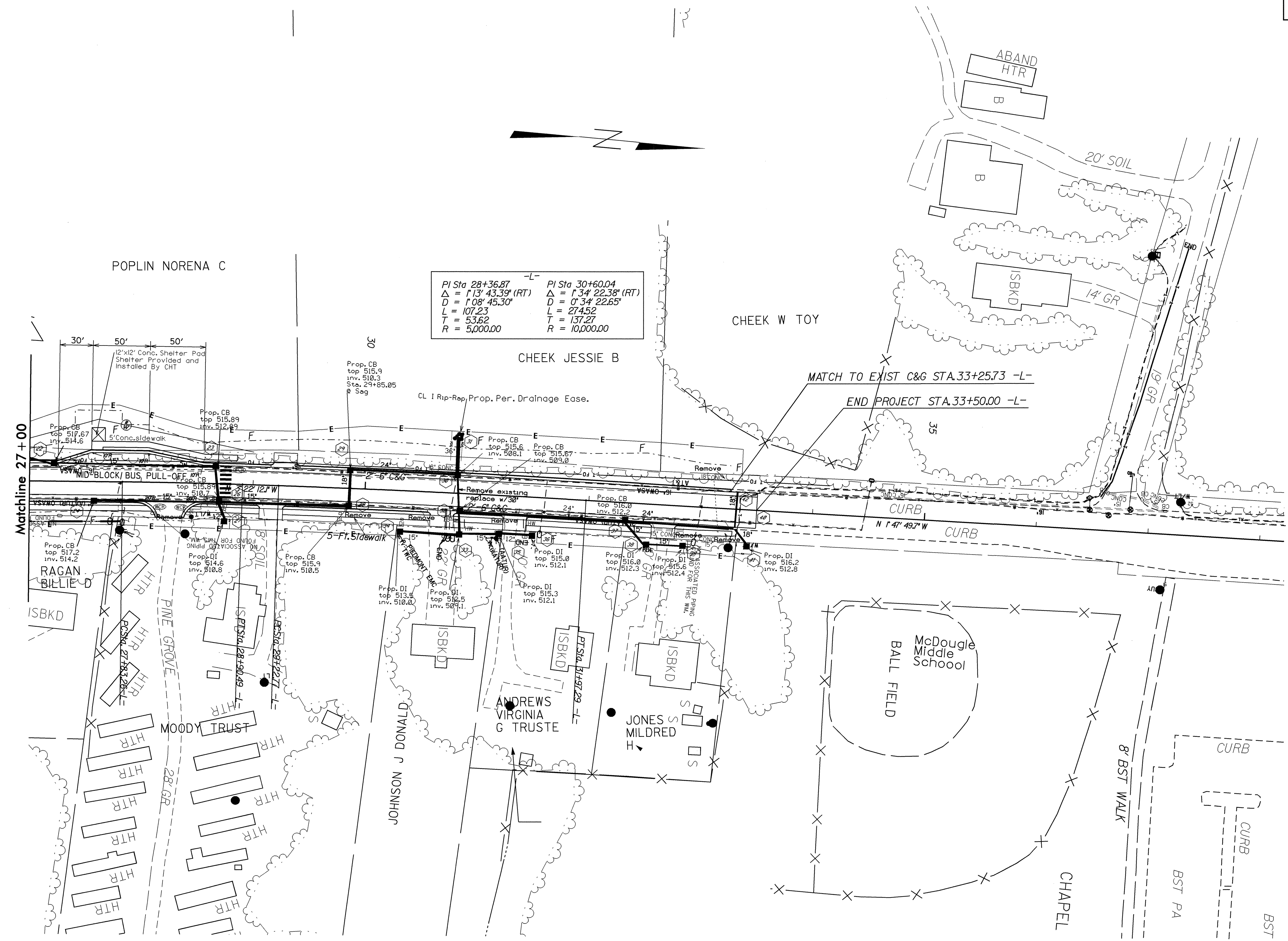
NOTE:
ALL PROPOSED UTILITY WORK
SHOWN ON THIS SHEET WILL
BE DONE BY OTHERS



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UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK
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