

0271DEL\_P10c3

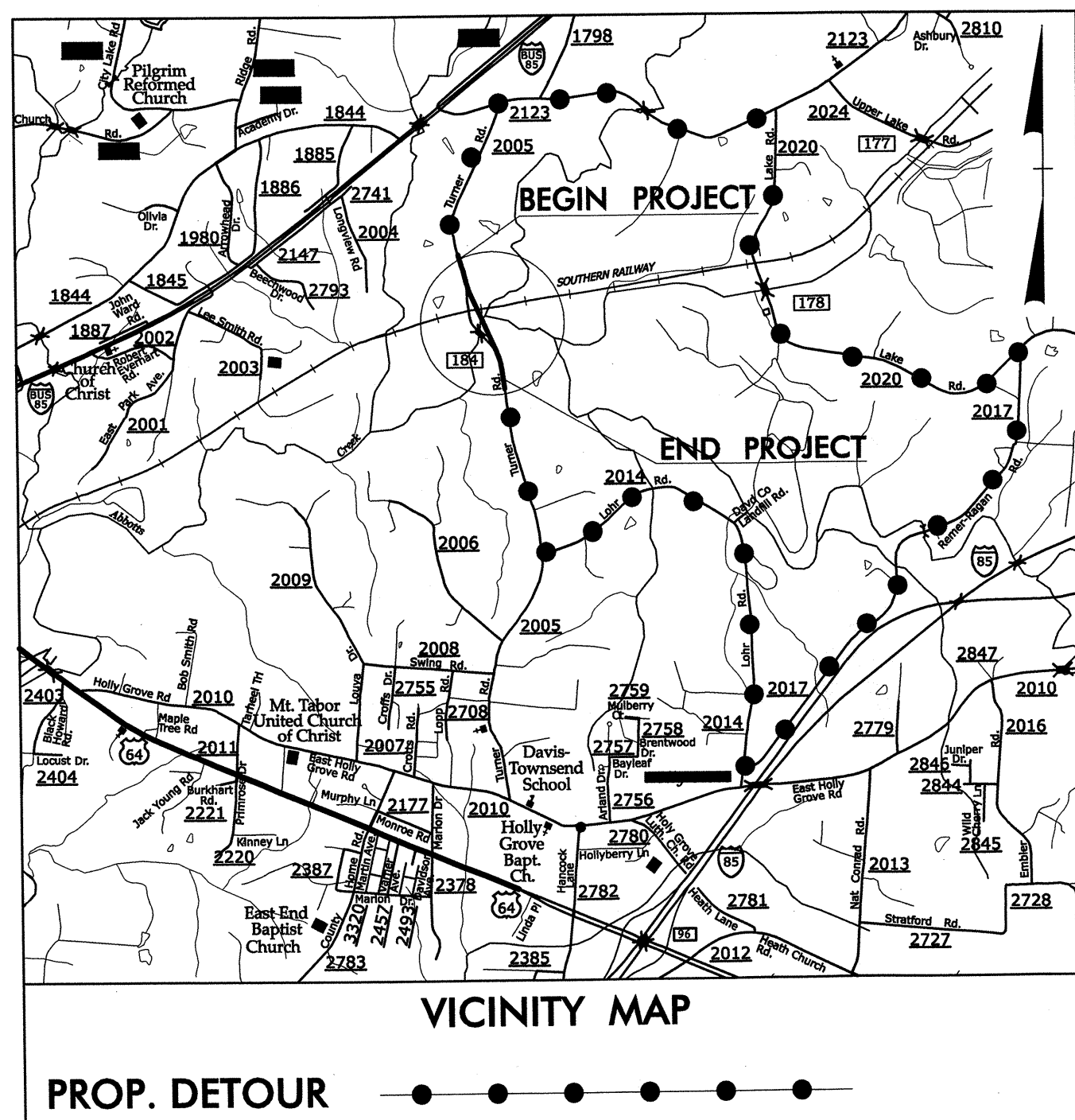
See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA  
NCDOT RAIL DIVISION



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	C-4901C	UC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49010.1.STR07TIB			

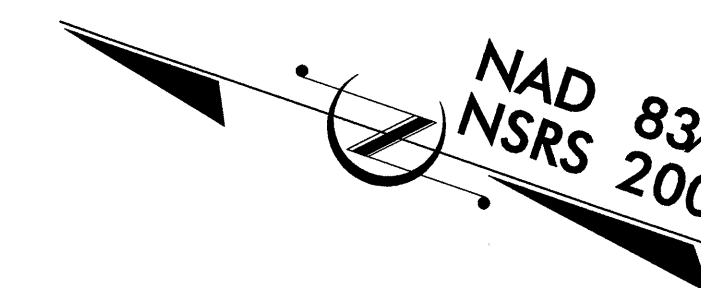
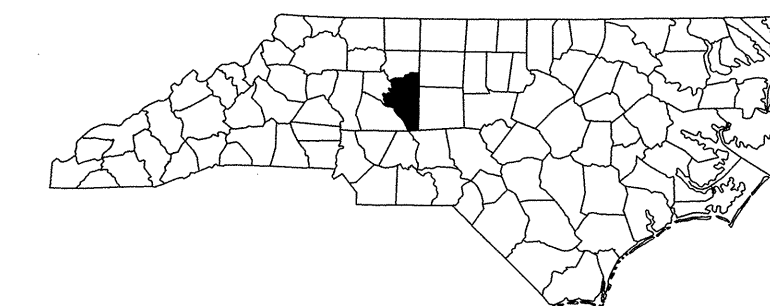
TIP PROJECT: C-4901C



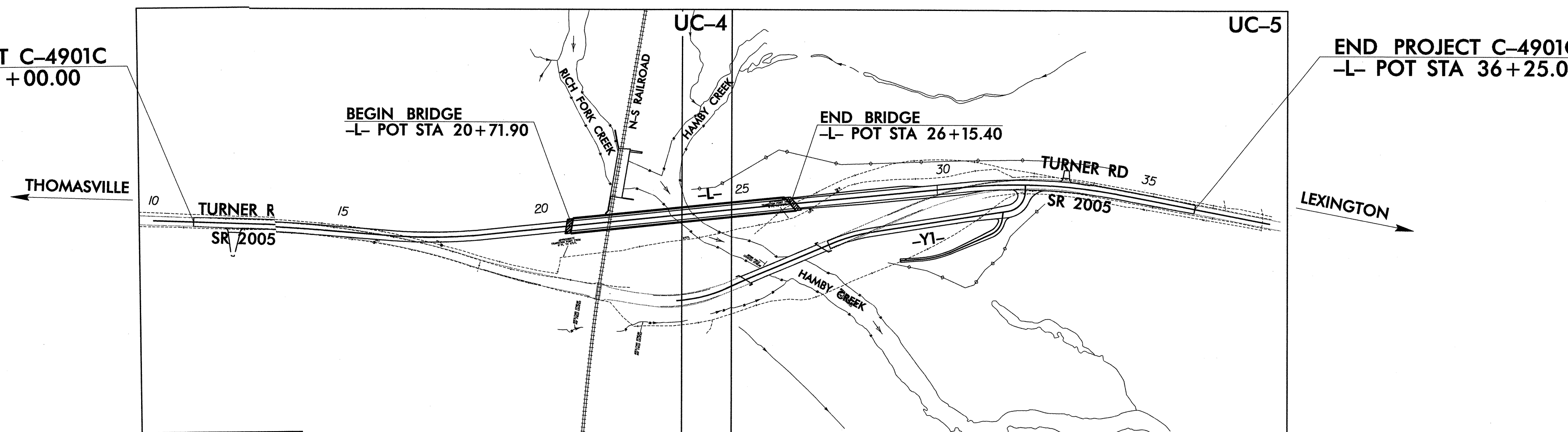
# DAVIDSON COUNTY

**LOCATION: TURNER RD (SR 205) GRADE SEPARATION OVER  
NORFOLK SOUTHERN RAILROAD "BOWERS TO LAKE"**

**TYPE OF WORK: UTILITY CONSTRUCTION**

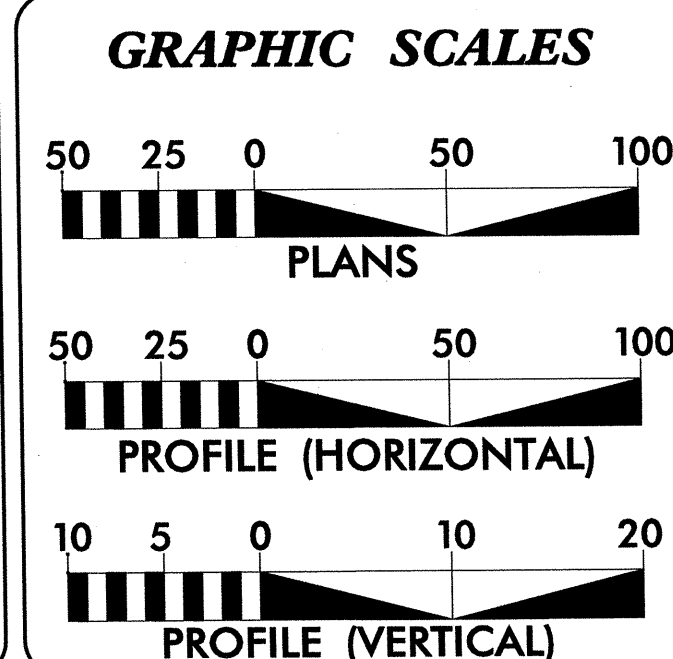


BEGIN PROJECT C-4901C  
-L- POT STA 11+00.00



END PROJECT C-4901C  
-L- POT STA 36+25.00

CONTRACT:

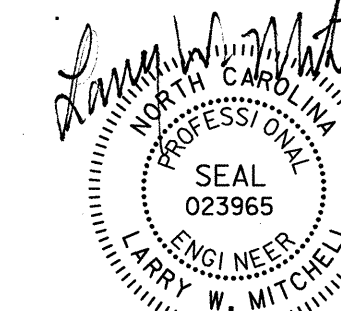


INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	LEGEND OF SYMBOLS SHEET
UC-3	CONSTRUCTION DETAILS SHEET
UC-4 to UC-7	UTILITY CONSTRUCTION PLANS AND PROFILES

**WATER AND SEWER OWNERS ON PROJECT**

- (1) WATER - DAVIDSON WATER, INC.
- (2) SANITARY SEWER - NONE

Prepared in the Office of:



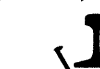
**AECOM**

AECOM TECHNICAL SERVICES OF NORTH CAROLINA, INC.  
701 CORPORATE CENTER DRIVE, SUITE 475, RALEIGH, NC 27607  
919-854-6200 919-854-6259 (fax)  
F-0342



NC DEPARTMENT OF  
TRANSPORTATION  
**RAIL DIVISION**

PLANNING AND DEVELOPMENT  
CAPITAL YARD  
156 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1566



0271DEL\_P10c3

*Note: Not to Scale*

\*S.U.E. = *Subsurface Utility Engineering*

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CONVENTIONAL PLAN SHEET SYMBOLS

**BOUNDARIES AND PROPERTY:**

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ <sub>IP</sub>
Property Corner	⋈
Property Monument	◻ <sub>EDM</sub>
Parcel/Sequence Number	⓪ <sub>23</sub>
Existing Fence Line	-X-X-X-
Proposed Woven Wire Fence	-○-
Proposed Chain Link Fence	-◻-
Proposed Barbed Wire Fence	-◇-
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-
Known Soil Contamination: Boundary or Site	☠-☠
Potential Soil Contamination: Boundary or Site	☠?-☠?

**BUILDINGS AND OTHER CULTURE:**

Gas Pump Vent or U/G Tank Cap	○
Sign	⓪
Well	Ⓞ
Small Mine	⋈
Foundation	◻
Area Outline	◻
Cemetery	⊕
Building	◻
School	Ⓞ
Church	⊕
Dam	⊖

**HYDROLOGY:**

Stream or Body of Water	_____
Hydro, Pool or Reservoir	◻
Jurisdictional Stream	—JS—
Buffer Zone 1	—BZ 1—
Buffer Zone 2	—BZ 2—
Flow Arrow	➔
Disappearing Stream	➤
Spring	⓪
Wetland	⌵
Proposed Lateral, Tail, Head Ditch	——— <sub>L</sub> ———
False Sump	◻

**RAILROADS:**

Standard Gauge	_____
RR Signal Milepost	⓪ <sub>MILEPOST 35</sub>
Switch	⓪ <sub>SWITCH</sub>
RR Abandoned	_____
RR Dismantled	_____

**RIGHT OF WAY:**

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	_____
Proposed Right of Way Line	⓪
Proposed Right of Way Line with Iron Pin and Cap Marker	⓪
Proposed Right of Way Line with Concrete or Granite Marker	⓪
Existing Control of Access	⓪
Proposed Control of Access	⓪
Existing Easement Line	—E—
Proposed Temporary Construction Easement	—E—
Proposed Temporary Drainage Easement	—TDE—
Proposed Permanent Drainage Easement	—PDE—
Proposed Permanent Drainage / Utility Easement	—DUE—
Proposed Permanent Utility Easement	—PUE—
Proposed Temporary Utility Easement	—TUE—
Proposed Aerial Utility Easement	—AUE—
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

**ROADS AND RELATED FEATURES:**

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	—C—
Proposed Slope Stakes Fill	—F—
Proposed Curb Ramp	—CR—
Curb Cut Future Ramp	—CCFR—
Existing Metal Guardrail	———
Proposed Guardrail	———
Existing Cable Guiderail	———
Proposed Cable Guiderail	———
Equality Symbol	⊕
Pavement Removal	⊗

**VEGETATION:**

Single Tree	⊕
Single Shrub	⊗
Hedge	———
Woods Line	———

Orchard	⊕
Vineyard	⓪ <sub>Vineyard</sub>

**EXISTING STRUCTURES:**

MAJOR: Bridge, Tunnel or Box Culvert	—CONC—
Bridge Wing Wall, Head Wall and End Wall	—CONC WW—
MINOR: Head and End Wall	—CONC HW—
Pipe Culvert	—
Footbridge	———
Drainage Box: Catch Basin, DI or JB	◻ <sub>CB</sub>
Paved Ditch Gutter	———
Storm Sewer Manhole	⓪
Storm Sewer	—S—

**UTILITIES:**

POWER: Existing Power Pole	⓪
Proposed Power Pole	⓪
Existing Joint Use Pole	⓪
Proposed Joint Use Pole	⓪
Power Manhole	⓪
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	⓪
H-Frame Pole	⓪
Recorded U/G Power Line	—P—
Designated U/G Power Line (S.U.E.*)	—P—

**TELEPHONE:**

Existing Telephone Pole	⓪
Proposed Telephone Pole	⓪
Telephone Manhole	⓪
Telephone Booth	⓪
Telephone Pedestal	⓪
Telephone Cell Tower	⓪
U/G Telephone Cable Hand Hole	⓪
Recorded U/G Telephone Cable	—T—
Designated U/G Telephone Cable (S.U.E.*)	—T—
Recorded U/G Telephone Conduit	—TC—
Designated U/G Telephone Conduit (S.U.E.*)	—TC—
Recorded U/G Fiber Optics Cable	—T FO—
Designated U/G Fiber Optics Cable (S.U.E.*)	—T FO—

**WATER:**

Water Manhole	⓪
Water Meter	⓪
Water Valve	⓪
Water Hydrant	⓪
Recorded U/G Water Line	—W—
Designated U/G Water Line (S.U.E.*)	—W—
Above Ground Water Line	—A/G Water—

**TV:**

TV Satellite Dish	⓪
TV Pedestal	⓪
TV Tower	⓪
U/G TV Cable Hand Hole	⓪
Recorded U/G TV Cable	—TV—
Designated U/G TV Cable (S.U.E.*)	—TV—
Recorded U/G Fiber Optic Cable	—TV FO—
Designated U/G Fiber Optic Cable (S.U.E.*)	—TV FO—

**GAS:**

Gas Valve	⓪
Gas Meter	⓪
Recorded U/G Gas Line	—G—
Designated U/G Gas Line (S.U.E.*)	—G—
Above Ground Gas Line	—A/G Gas—

**SANITARY SEWER:**

Sanitary Sewer Manhole	⓪
Sanitary Sewer Cleanout	⓪
U/G Sanitary Sewer Line	—SS—
Above Ground Sanitary Sewer	—A/G Sanitary Sewer—
Recorded SS Forced Main Line	—FSS—
Designated SS Forced Main Line (S.U.E.*)	—FSS—

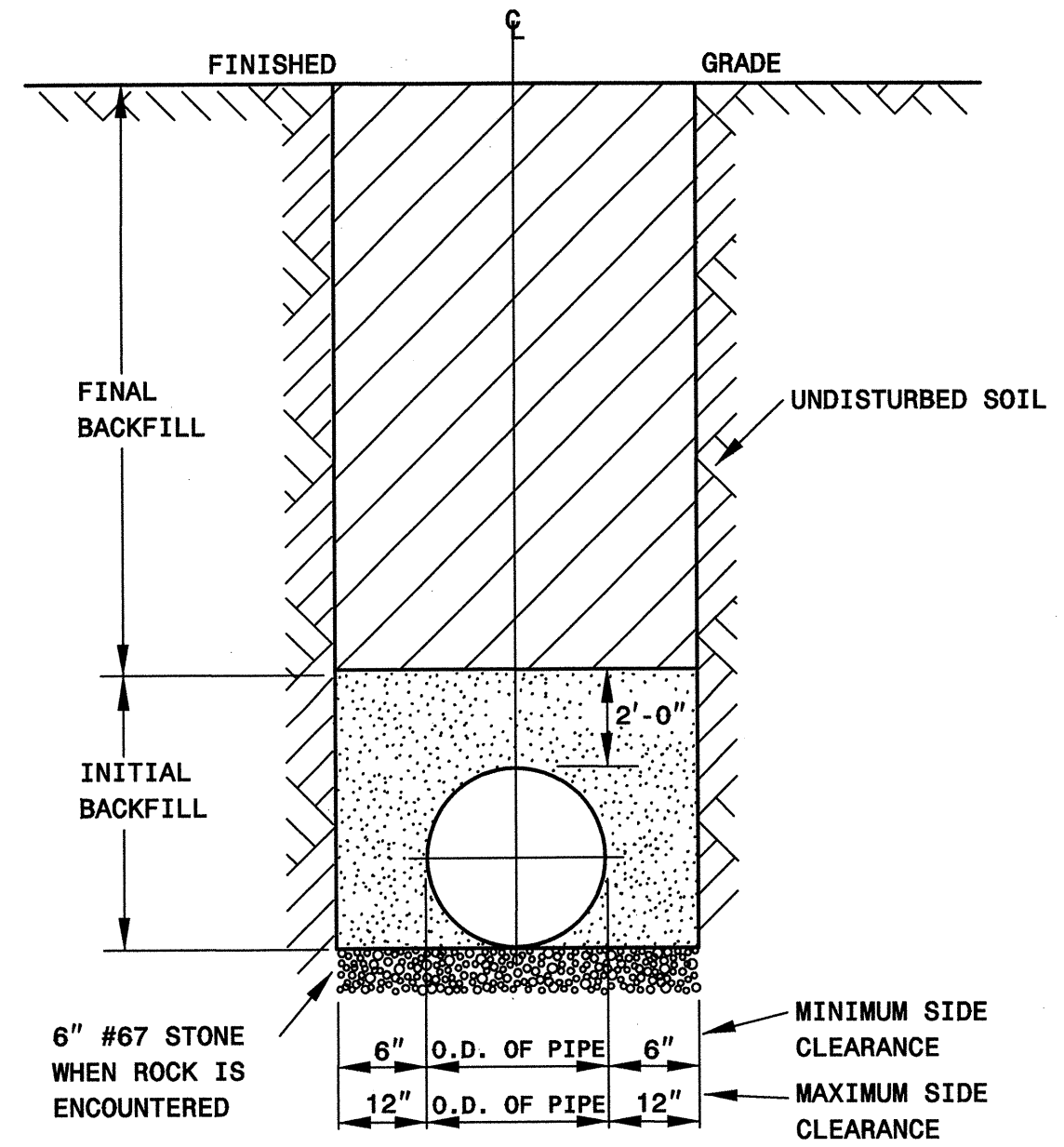
**MISCELLANEOUS:**

Utility Pole	⓪
Utility Pole with Base	⓪
Utility Located Object	⓪
Utility Traffic Signal Box	⓪
Utility Unknown U/G Line	—UTL—
U/G Tank; Water, Gas, Oil	◻
Underground Storage Tank, Approx. Loc.	⓪ <sub>UST</sub>
A/G Tank; Water, Gas, Oil	◻
Geoenvironmental Boring	⓪
U/G Test Hole (S.U.E.*)	⓪
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.



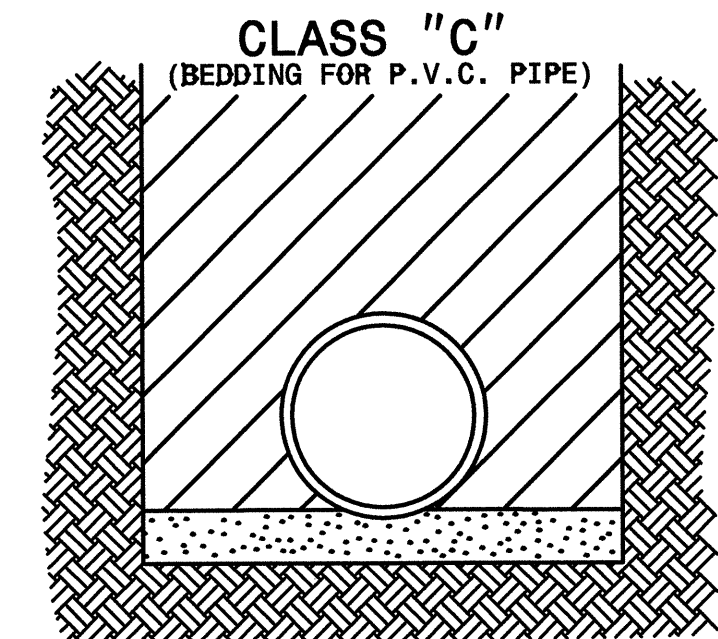
PROJECT REFERENCE NO. <b>C-4901C</b>	SHEET NO. <b>UC-3</b>
RW SHEET NO.	
SCALE: NONE	UTILITIES ENGINEER <i>[Signature]</i> PROFESSIONAL SEAL 023965 LARRY W. MITCHELL
Prepared in the Office of: <b>AECOM</b>	
NC FIRM LICENSE No F-0342 701 Corporation Center Drive, Suite 415 (919) 854-8200 • (919) 854-8289(FAX)	

**UTILITY CONSTRUCTION**

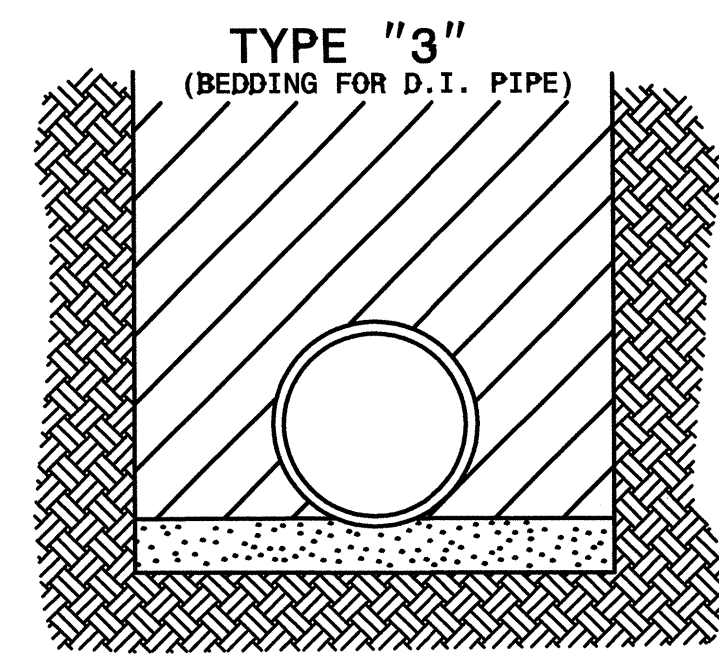


**TRENCH & BACKFILL DETAIL**

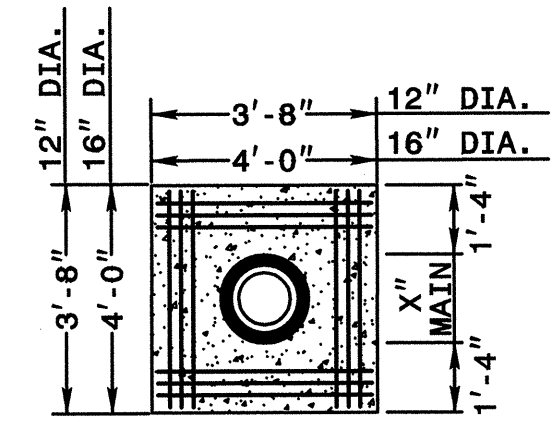
- NOTES:
- TRENCHES REQUIRING SHORING AND BRACING, DIMENSIONS SHALL BE TAKEN FROM THE INSIDE FACE OF THE SHORING AND BRACING.
  - NO ROCKS OR BOULDERS 4" OR LARGER TO BE USED IN INITIAL BACKFILL.
  - ALL BACKFILL MATERIAL SHALL BE SUITABLE NATIVE MATERIAL.
  - BACKFILL SHALL BE TAMPED IN 6" LIFTS IN TRAFFIC AREAS, 12" IN NON-TRAFFIC AREAS.
  - ACHIEVE 80% COMPACTION IN NON-TRAFFIC AREAS, AND 95% COMPACTION IN TRAFFIC AREAS.
  - IF IN EASEMENT 4" TOPSOIL, AND 12" CLEAN SELECT FILL IS REQUIRED.
  - NO BOULDERS 8" IN DIAMETER OR GREATER ALLOWED IN FINAL BACKFILL.



PIPE BEDDED IN LOOSE MATERIAL, LIGHTLY TAMPED WITH A MINIMUM OF 6" UNDER PIPE. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL, IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.

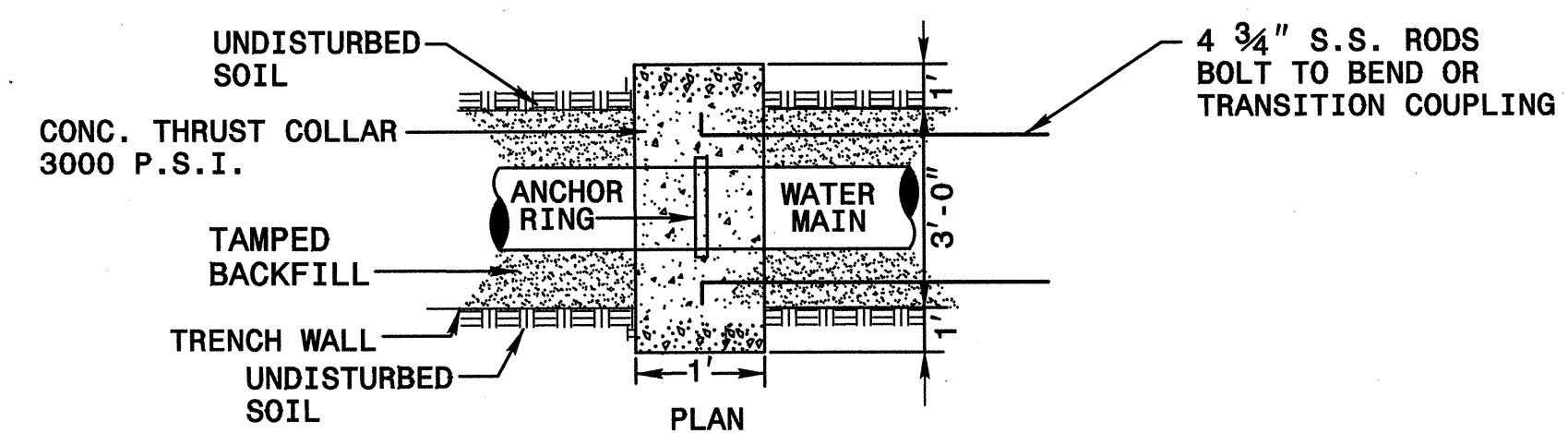


PIPE BEDDED IN 4" MINIMUM LOOSE SOIL. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.



NOTE:  
6" TO 16" MAINS = 12-NO. 7 BARS PLACED AS SHOWN

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		



**THRUST COLLAR DETAIL**

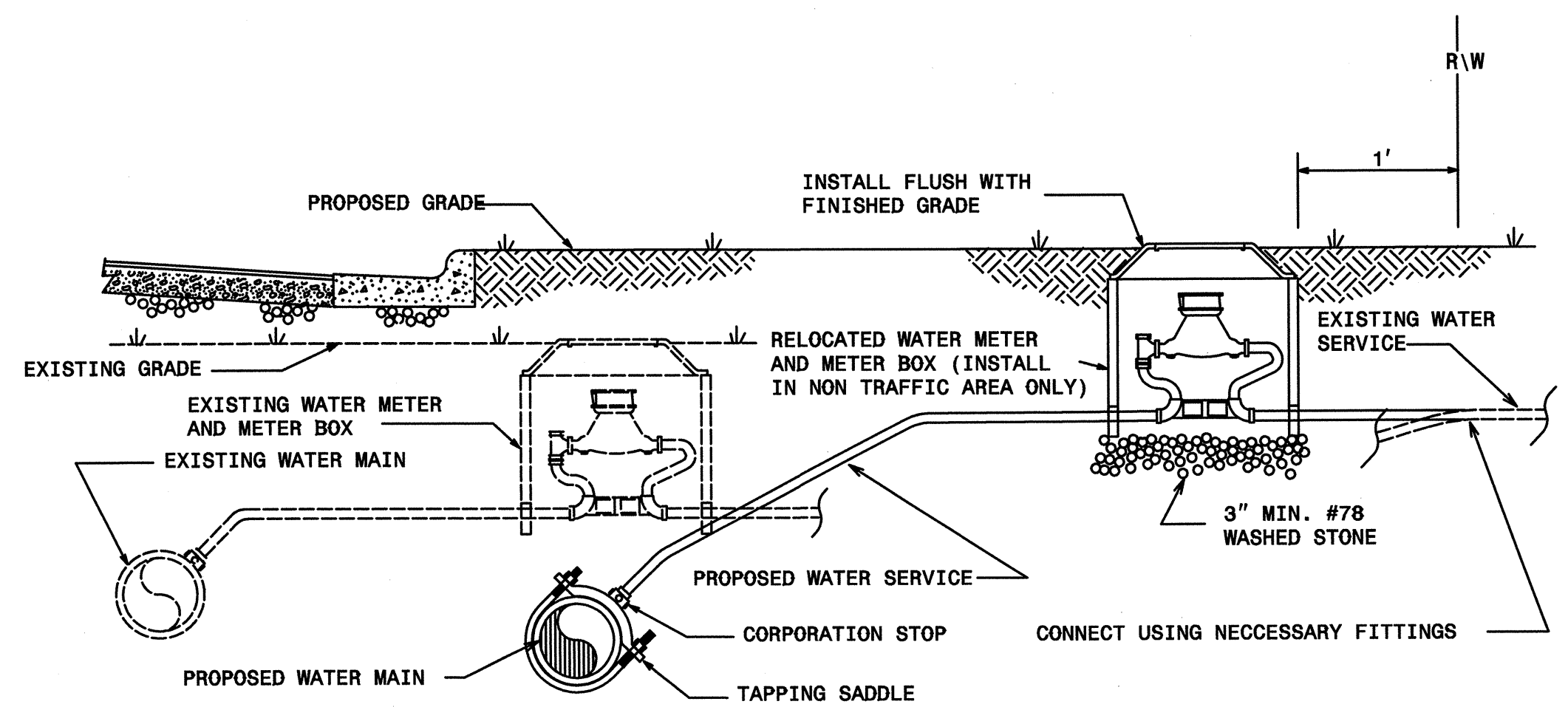
Diagram showing an alternate restraint detail for ductile iron pipe. It includes side view, front view, and section 'A-A' and 'B-B'. Labels include 'POINT OF C900 OR DI PIPE TRANSITION TO DI PIPE (TYP) UNRESTRAINED AT JOINT', 'LR TEE', 'M.J. TEE WITH APPROVED RESTRAINT (TYP)', 'RESTRAIN M.J. JOINTS WITH APPROVED RESTRAINT (TYP)', 'DUCTILE IRON PIPE (TYP)', 'DI PIPE TRANSITION TO C900 OR D.I. PIPE UNRESTRAINED AT JOINT', and 'C900 OR D.I. PIPE'.

NOMINAL PIPE SIZE	WEDGES QUANTITY	BOLTS QUANTITY	PRESS RATING
6"	3	6	350
8"	4	6	350
12"	8	8	350

PIPE SIZE	VALVES DEAD ENDS TEES	90° ELBOWS	45° ELBOW & CROSSES	22-1/2° ELBOWS	REDUCER
6"	55'	31'	13'	7'	8"X6" 30'
8"	72'	40'	17'	8'	12"X8" 54'
12"	102'	57'	24'	12'	16"X8" 157'
16"	195'	101'	42'	20'	

NOTES:

- THRUST RESTRAINT SHALL BE INSTALLED ON DUCTILE IRON WATER DISTRIBUTION LINES 6" THRU 16" DIAMETER IN THE MANNER SHOWN.
- IRON RETAINING GLAND M.J. RESTRAINT OR OTHER FORMS OF IRON RESTRAINT SHALL NOT BE USED ON PVC PIPE.
- PIPE GREATER THAN 16 INCH DIAMETER SHALL REQUIRE RESTRAINED JOINT PIPE FOR THE PROPER LENGTH.
- COMPACT FITTINGS ARE ACCEPTABLE FOR USE WITH IRON RETAINING GLAND M.J. RESTRAINT AND OTHER FORMS OF DI RESTRAINT.
- THE MINIMUM LENGTH OF RESTRAINT INDICATED SHALL REQUIRE ALL JOINTS WITHIN THE LR DISTANCE TO BE RESTRAINED.
- RESTRAINT SYSTEM SHALL BE INSPECTED AND APPROVED PWC PRIOR TO BACKFILLING.
- RESTRAINT SYSTEMS MAY VARY BASED UPON THE ENGINEERS' DESIGN AS SHOWN ON THE PLAN AND PROFILE SHEETS.
- GRIPPER RING AND FIELD LOK GASKETS ARE AN ACCEPTABLE METHOD OF RESTRAINT ON DUCTILE IRON PIPE ONLY.



- NOTES:
- 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.
  - 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.
  - THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 3' COVER BELOW FINISHED GRADE.
  - THE OWNER RESERVES THE RIGHT TO ADD OR DELETE WATER SERVICE TAPS AND TO CHANGE LOCATIONS FROM THOSE SHOWN.

**WATER METER RELOCATION DETAILS**

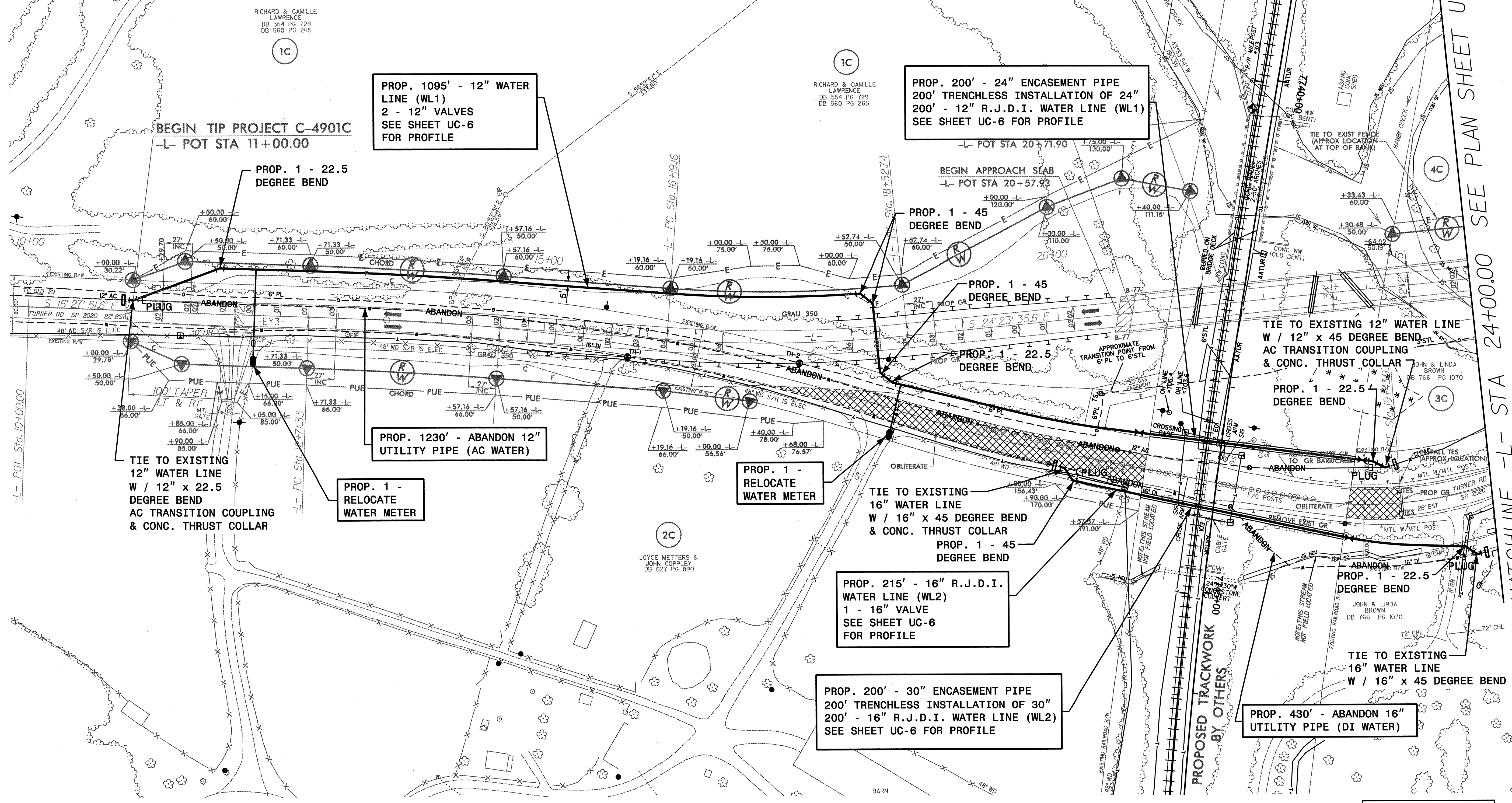
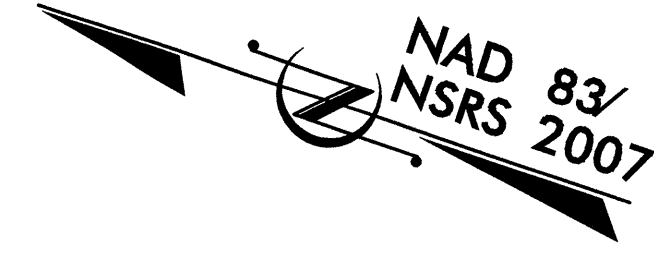


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PROJECT REFERENCE NO. <b>C-4901C</b>	SHEET NO. <b>UC-4</b>
RW SHEET NO.	
Prepared in the Office of: <b>AECOM</b> <small>NC FIRM LICENSE NO. F-0342 701 Corporate Center Drive, Suite 475 Cary, NC 27513 PH: 919-489-2000 - FAX: 919-489-2099</small>	

### UTILITY CONSTRUCTION

- NOTES:
1. ALL PIPE SHALL BE BE D.I. PC 350.
  2. FITTINGS SHALL BE RESTRAINED USING RESTRAINER GLANDS AND INCLUDING PROPER LENGTH OF PIPE BASED ON CONDITIONS IN LIEU OF CONCRETE THRUST BLOCKING.
  3. ALL VALVES SHALL BE RESILIENT WEDGE GATE VALVES.



**PROP. 1095' - 12" WATER LINE (WL1)**  
2 - 12" VALVES  
SEE SHEET UC-6 FOR PROFILE

**PROP. 200' - 24" ENCASEMENT PIPE**  
200' TRENCHLESS INSTALLATION OF 24" 200' - 12" R.J.D.I. WATER LINE (WL1)  
SEE SHEET UC-6 FOR PROFILE

**PROP. 1230' - ABANDON 12" UTILITY PIPE (AC WATER)**

**PROP. 215' - 16" R.J.D.I. WATER LINE (WL2)**  
1 - 16" VALVE  
SEE SHEET UC-6 FOR PROFILE

**PROP. 200' - 30" ENCASEMENT PIPE**  
200' TRENCHLESS INSTALLATION OF 30" 200' - 16" R.J.D.I. WATER LINE (WL2)  
SEE SHEET UC-6 FOR PROFILE

**PROP. 430' - ABANDON 16" UTILITY PIPE (DI WATER)**

MATCHLINE -L- STA 24+00.00 SEE PLAN SHEET UC-5

REVISIONS

DATE 10/27/10  
DESIGNER: CAC/UC/uc\_per0404gn

PAVEMENT REMOVAL  
FOR -L- PROFILE, SEE SHEET NO. 6



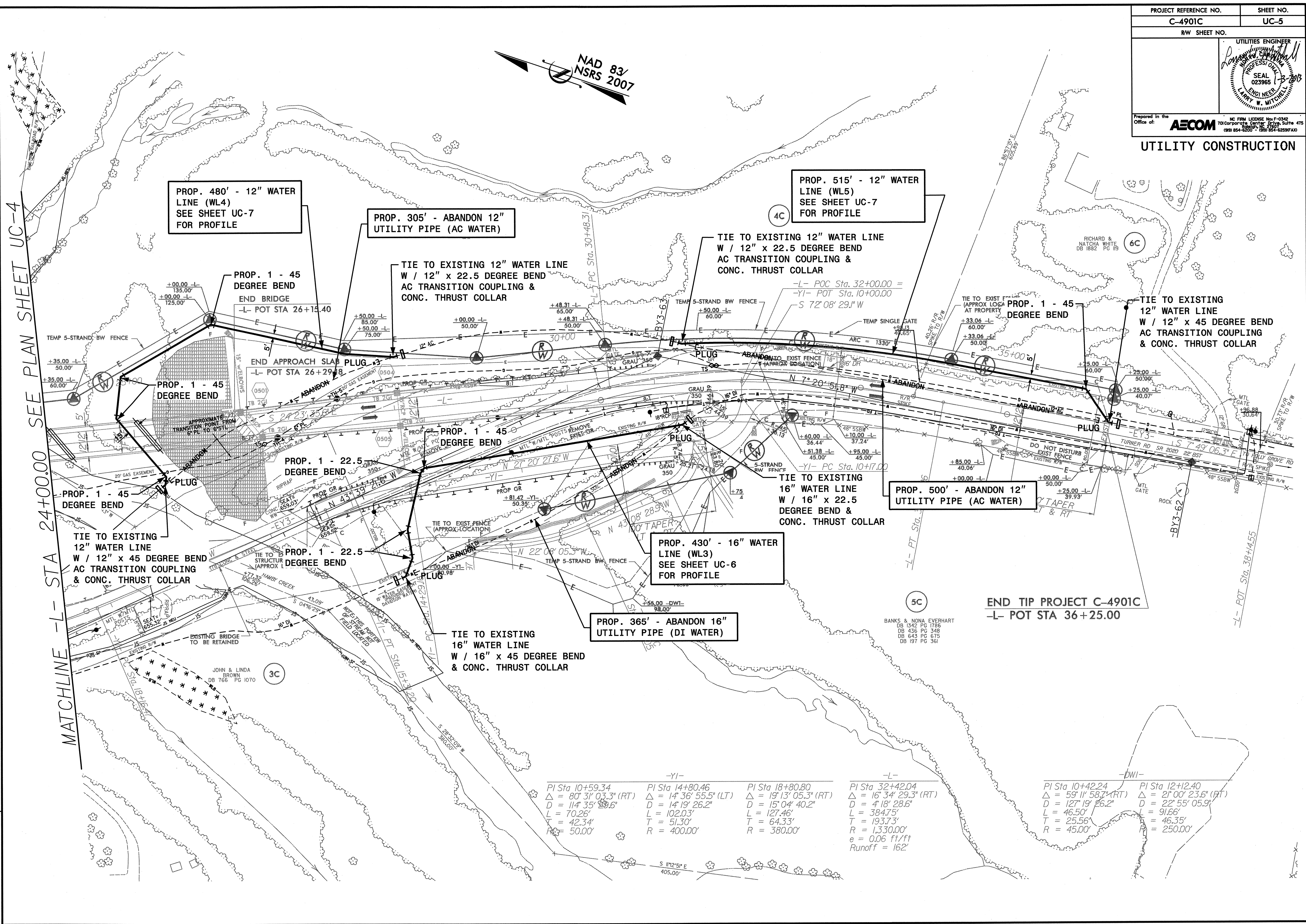
**UTILITY CONSTRUCTION**



MATCHLINE -L- STA 24+00.00 SEE PLAN SHEET UC-4

0271DEL\_P10c3

REVISIONS



**PROP. 480' - 12" WATER LINE (WL4)**  
SEE SHEET UC-7 FOR PROFILE

**PROP. 305' - ABANDON 12" UTILITY PIPE (AC WATER)**

**PROP. 515' - 12" WATER LINE (WL5)**  
SEE SHEET UC-7 FOR PROFILE

TIE TO EXISTING 12" WATER LINE  
W / 12" x 22.5 DEGREE BEND  
AC TRANSITION COUPLING &  
CONC. THRUST COLLAR

TIE TO EXISTING 12" WATER LINE  
W / 12" x 22.5 DEGREE BEND  
AC TRANSITION COUPLING &  
CONC. THRUST COLLAR

TIE TO EXISTING 12" WATER LINE  
W / 12" x 45 DEGREE BEND  
AC TRANSITION COUPLING &  
CONC. THRUST COLLAR

TIE TO EXISTING 12" WATER LINE  
W / 12" x 45 DEGREE BEND  
AC TRANSITION COUPLING &  
CONC. THRUST COLLAR

**PROP. 500' - ABANDON 12" UTILITY PIPE (AC WATER)**

**PROP. 430' - 16" WATER LINE (WL3)**  
SEE SHEET UC-6 FOR PROFILE

**PROP. 365' - ABANDON 16" UTILITY PIPE (DI WATER)**

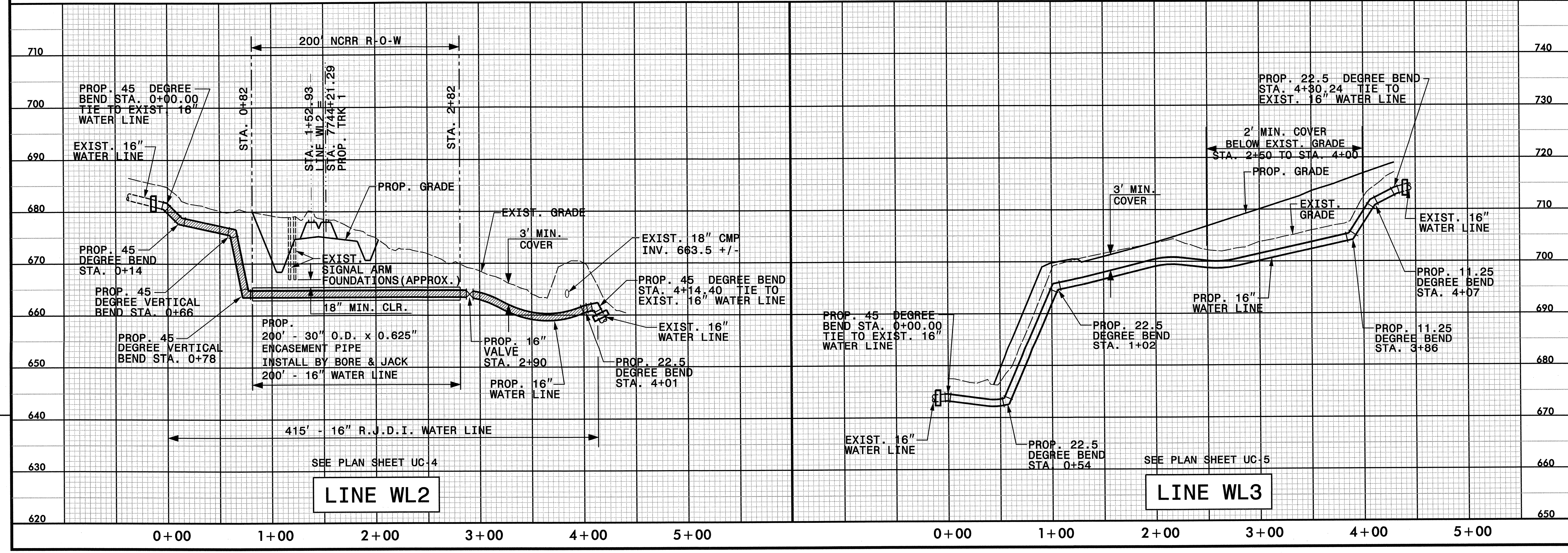
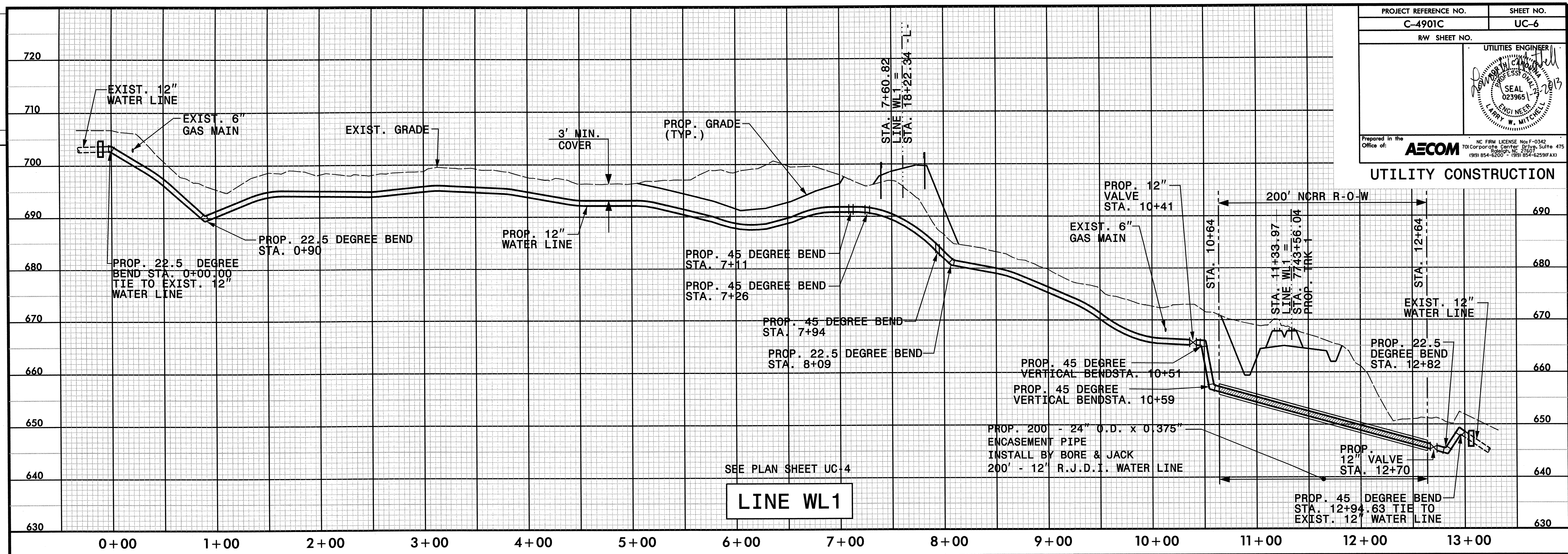
TIE TO EXISTING 16" WATER LINE  
W / 16" x 45 DEGREE BEND  
& CONC. THRUST COLLAR

-YI- PI Sta 10+59.34 $\Delta = 80' 31" 03.3" (RT)$ $D = 114' 35" 29.6"$ $L = 70.26'$ $T = 42.34'$ $R = 50.00'$	-YI- PI Sta 14+80.46 $\Delta = 14' 36' 55.5" (LT)$ $D = 14' 19' 26.2"$ $L = 102.03'$ $T = 51.30'$ $R = 400.00'$	-L- PI Sta 18+80.80 $\Delta = 19' 13' 05.3" (RT)$ $D = 15' 04' 40.2"$ $L = 127.46'$ $T = 64.33'$ $R = 380.00'$	-L- PI Sta 32+42.04 $\Delta = 16' 34' 29.3" (RT)$ $D = 4' 18' 28.6"$ $L = 384.75'$ $T = 193.73'$ $R = 1,330.00'$ $e = 0.06 \text{ ft/ft}$ $\text{Runoff} = 162'$	-DWI- PI Sta 10+42.24 $\Delta = 59' 11' 58.7" (RT)$ $D = 127' 19' 26.2"$ $L = 46.50'$ $T = 25.56'$ $R = 45.00'$	-DWI- PI Sta 12+42.40 $\Delta = 21' 00' 23.6" (RT)$ $D = 22' 55' 05.9"$ $L = 91.66'$ $T = 46.35'$ $R = 250.00'$
----------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------



PROJECT REFERENCE NO. C-4901C	SHEET NO. UC-6
RW SHEET NO.	
Prepared in the Office of: <b>AECOM</b> <small>NC FIRM LICENSE No. F-0342 700 Corporate Center Drive, Suite 475 Raleigh, NC 27603-1200 (919) 854-8200 • (919) 854-6250 FAX</small>	

**UTILITY CONSTRUCTION**



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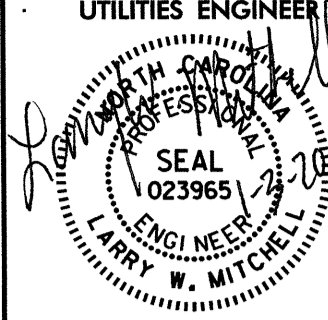
REVISIONS

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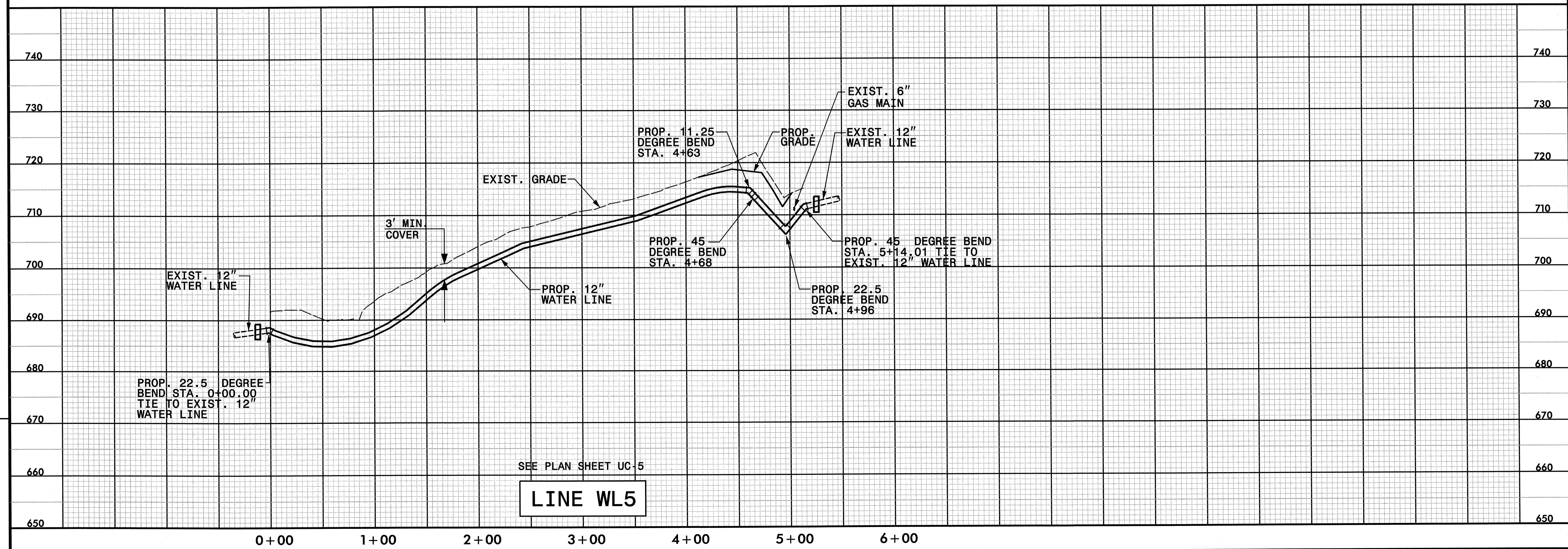
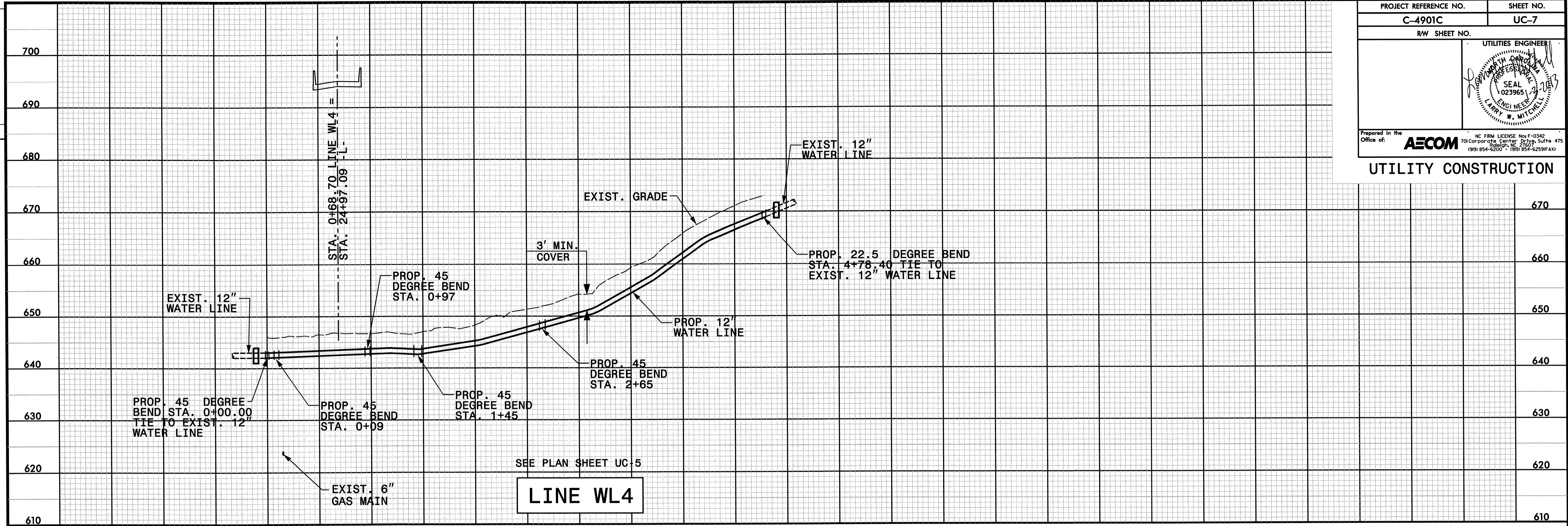


0271DEL\_P10c3

REVISIONS

PROJECT REFERENCE NO. C-4901C	SHEET NO. UC-7
RW SHEET NO.	
UTILITIES ENGINEER  SEAL 023965 W. MITCHELL	
Prepared in the Office of: <b>AECOM</b> <small>NC FIRM LICENSE No F-0342 701 Corporate Center Building, Suite 4175 1991 854-6200 • (919) 854-6299 FAX</small>	

UTILITY CONSTRUCTION



DATE: 1/11/2013  
DWG: C4901C\_UC\_UC507.dgn

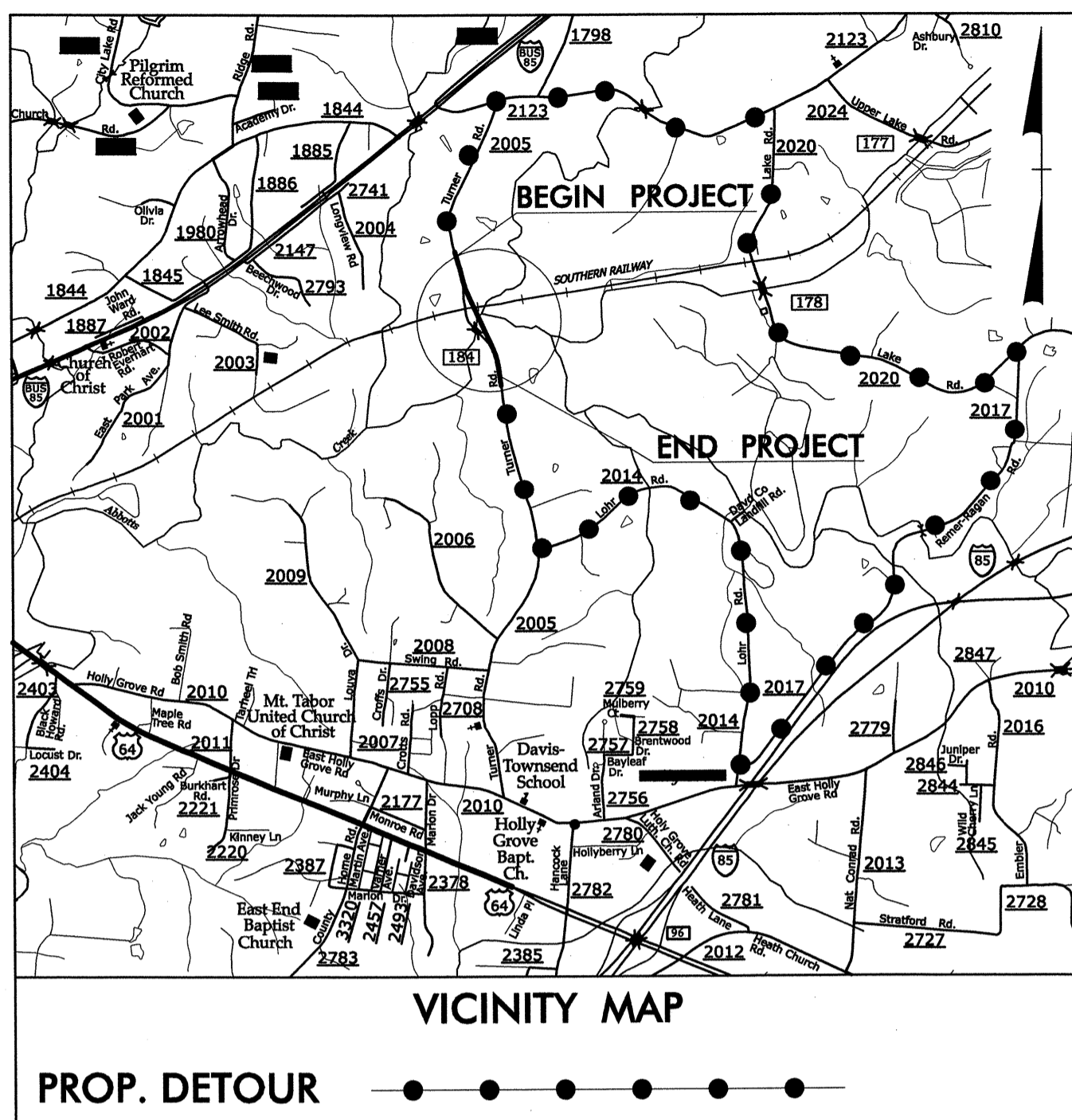


0271DEL\_P10c3

**TIP PROJECT: C-4901C**

**CONTRACT:**

See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols



STATE OF NORTH CAROLINA  
NCDOT RAIL DIVISION

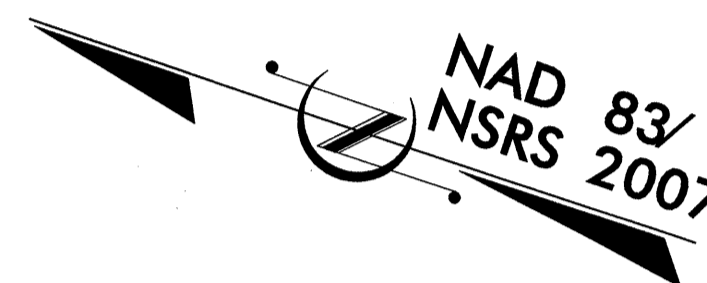
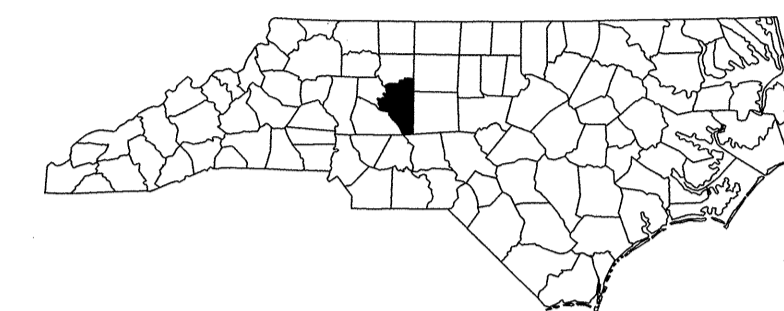
**DAVIDSON COUNTY**

**LOCATION: TURNER RD (SR 2005) GRADE SEPARATION OVER  
NORFOLK SOUTHERN RAILROAD "BOWERS TO LAKE"**

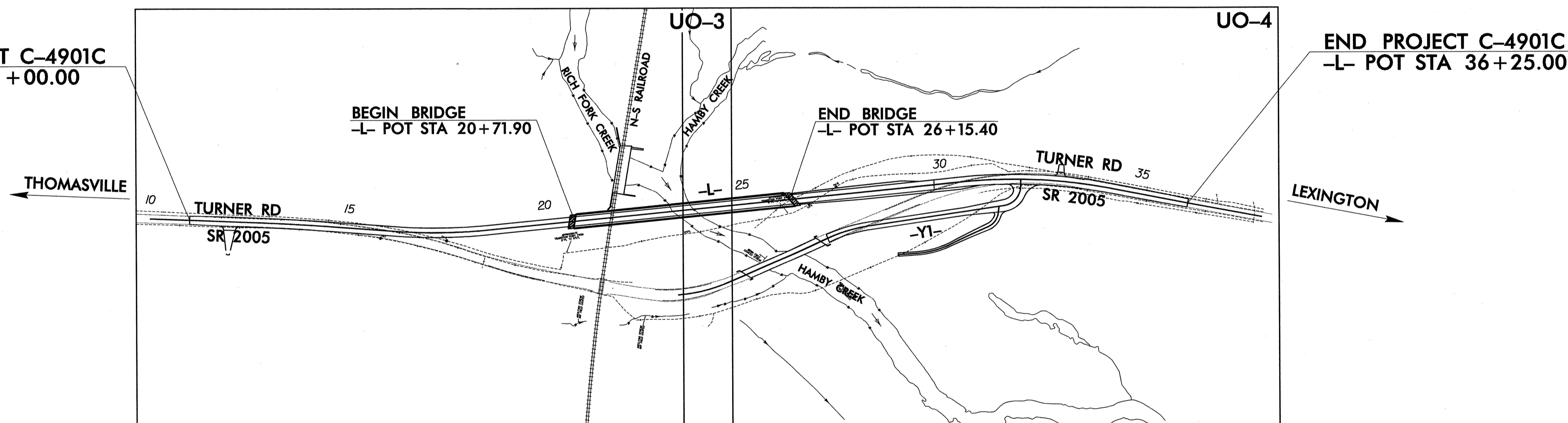
**TYPE OF WORK: UTILITIES BY OTHERS CONSTRUCTION**



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	C-4901C	UO-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49010.1.STR07TIB			

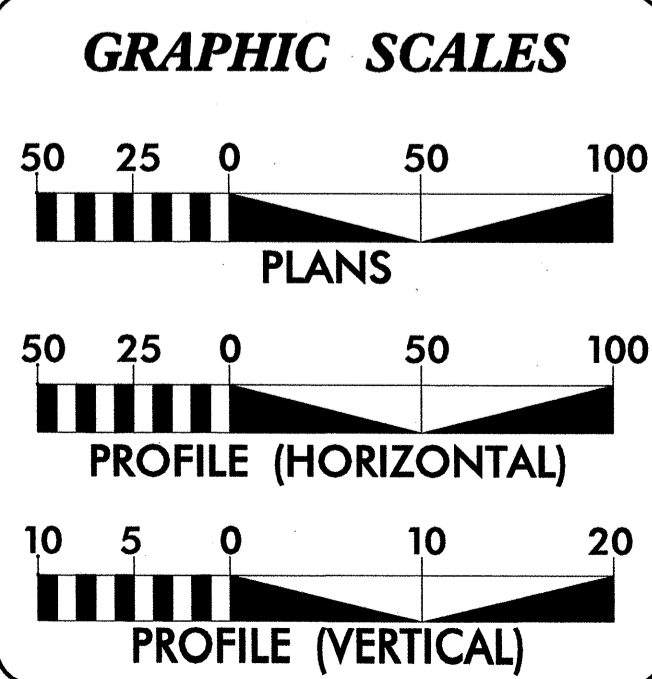


BEGIN PROJECT C-4901C  
-L- POT STA 11+00.00



END PROJECT C-4901C  
-L- POT STA 36+25.00

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III  
THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES



**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	LEGEND OF SYMBOLS SHEET
UO-3 to UO-4	UTILITIES BY OTHERS PLANS

- UTILITY OWNERS ON PROJECT**
- (1) POWER DISTRIBUTION - ENERGY UNITED
  - (2) TELECOMMUNICATIONS - WINDSTREAM LEXICOM
  - (3) NATURAL GAS - CITY OF LEXINGTON

Prepared in the Office of:

**AECOM**  
AECOM TECHNICAL SERVICES OF NORTH CAROLINA, INC.  
701 CORPORATE CENTER DRIVE, SUITE 475, RALEIGH, NC 27607  
919-854-6200 919-854-6259 (fax)  
F-0342

NC DEPARTMENT OF  
TRANSPORTATION  
**RAIL DIVISION**

PLANNING AND DEVELOPMENT  
CAPITAL YARD  
1556 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1556

8-4-09 8:42:09 AM R:\NH\files\UBOX\C4901C\_uo\_1\_tsh.dgn swinsong



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

\*S.U.E. = Subsurface Utility Engineering

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**BOUNDARIES AND PROPERTY:**

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	⊙
Property Corner	⊗
Property Monument	⊠
Parcel/Sequence Number	Ⓜ
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	-o-o-o-
Proposed Chain Link Fence	-□-□-□-
Proposed Barbed Wire Fence	-◇-◇-◇-
Existing Wetland Boundary	-w.l.b.-
Proposed Wetland Boundary	-w.l.b.-
Existing Endangered Animal Boundary	-e.a.b.-
Existing Endangered Plant Boundary	-e.p.b.-
Known Soil Contamination: Boundary or Site	-☠-☠-
Potential Soil Contamination: Boundary or Site	-?/?-

**BUILDINGS AND OTHER CULTURE:**

Gas Pump Vent or UG Tank Cap	○
Sign	⊙
Well	⊙
Small Mine	⊗
Foundation	⊠
Area Outline	⊠
Cemetery	⊠
Building	⊠
School	⊠
Church	⊠
Dam	⊠

**HYDROLOGY:**

Stream or Body of Water	_____
Hydro, Pool or Reservoir	⊠
Jurisdictional Stream	-j.s.-
Buffer Zone 1	-b.z.1-
Buffer Zone 2	-b.z.2-
Flow Arrow	→
Disappearing Stream	→
Spring	⊙
Wetland	⊠
Proposed Lateral, Tail, Head Ditch	→
False Sump	⊠

**RAILROADS:**

Standard Gauge	_____
RR Signal Milepost	⊙
Switch	⊠
RR Abandoned	_____
RR Dismantled	_____

**RIGHT OF WAY:**

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	_____
Proposed Right of Way Line	_____
Proposed Right of Way Line with Iron Pin and Cap Marker	_____
Proposed Right of Way Line with Concrete or Granite Marker	_____
Existing Control of Access	⊙
Proposed Control of Access	⊙
Existing Easement Line	-E-
Proposed Temporary Construction Easement	-E-
Proposed Temporary Drainage Easement	-TDE-
Proposed Permanent Drainage Easement	-PDE-
Proposed Permanent Drainage / Utility Easement	-DUE-
Proposed Permanent Utility Easement	-PUE-
Proposed Temporary Utility Easement	-TUE-
Proposed Aerial Utility Easement	-AUE-
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

**ROADS AND RELATED FEATURES:**

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	-C-
Proposed Slope Stakes Fill	-F-
Proposed Curb Ramp	⊠
Curb Cut Future Ramp	⊠
Existing Metal Guardrail	_____
Proposed Guardrail	_____
Existing Cable Guiderail	_____
Proposed Cable Guiderail	_____
Equality Symbol	⊙
Pavement Removal	⊠

**VEGETATION:**

Single Tree	⊙
Single Shrub	⊙
Hedge	_____
Woods Line	_____

Orchard	_____
Vineyard	_____

**EXISTING STRUCTURES:**

MAJOR:	
Bridge, Tunnel or Box Culvert	_____
Bridge Wing Wall, Head Wall and End Wall	_____
MINOR:	
Head and End Wall	_____
Pipe Culvert	_____
Footbridge	_____
Drainage Box: Catch Basin, DI or JB	_____
Paved Ditch Gutter	_____
Storm Sewer Manhole	⊙
Storm Sewer	_____

**UTILITIES:**

POWER:	
Existing Power Pole	⊙
Proposed Power Pole	⊙
Existing Joint Use Pole	⊙
Proposed Joint Use Pole	⊙
Power Manhole	⊙
Power Line Tower	⊠
Power Transformer	⊠
UG Power Cable Hand Hole	⊙
H-Frame Pole	⊙
Recorded UG Power Line	_____
Designated UG Power Line (S.U.E.*)	_____

**TELEPHONE:**

Existing Telephone Pole	⊙
Proposed Telephone Pole	⊙
Telephone Manhole	⊙
Telephone Booth	⊠
Telephone Pedestal	⊠
Telephone Cell Tower	⊙
UG Telephone Cable Hand Hole	⊙
Recorded UG Telephone Cable	_____
Designated UG Telephone Cable (S.U.E.*)	_____
Recorded UG Telephone Conduit	_____
Designated UG Telephone Conduit (S.U.E.*)	_____
Recorded UG Fiber Optics Cable	_____
Designated UG Fiber Optics Cable (S.U.E.*)	_____

**WATER:**

Water Manhole	⊙
Water Meter	⊙
Water Valve	⊙
Water Hydrant	⊙
Recorded UG Water Line	_____
Designated UG Water Line (S.U.E.*)	_____
Above Ground Water Line	_____

**TV:**

TV Satellite Dish	⊙
TV Pedestal	⊙
TV Tower	⊙
UG TV Cable Hand Hole	⊙
Recorded UG TV Cable	_____
Designated UG TV Cable (S.U.E.*)	_____
Recorded UG Fiber Optic Cable	_____
Designated UG Fiber Optic Cable (S.U.E.*)	_____

**GAS:**

Gas Valve	⊙
Gas Meter	⊙
Recorded UG Gas Line	_____
Designated UG Gas Line (S.U.E.*)	_____
Above Ground Gas Line	_____

**SANITARY SEWER:**

Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊙
UG Sanitary Sewer Line	_____
Above Ground Sanitary Sewer	_____
Recorded SS Forced Main Line	_____
Designated SS Forced Main Line (S.U.E.*)	_____

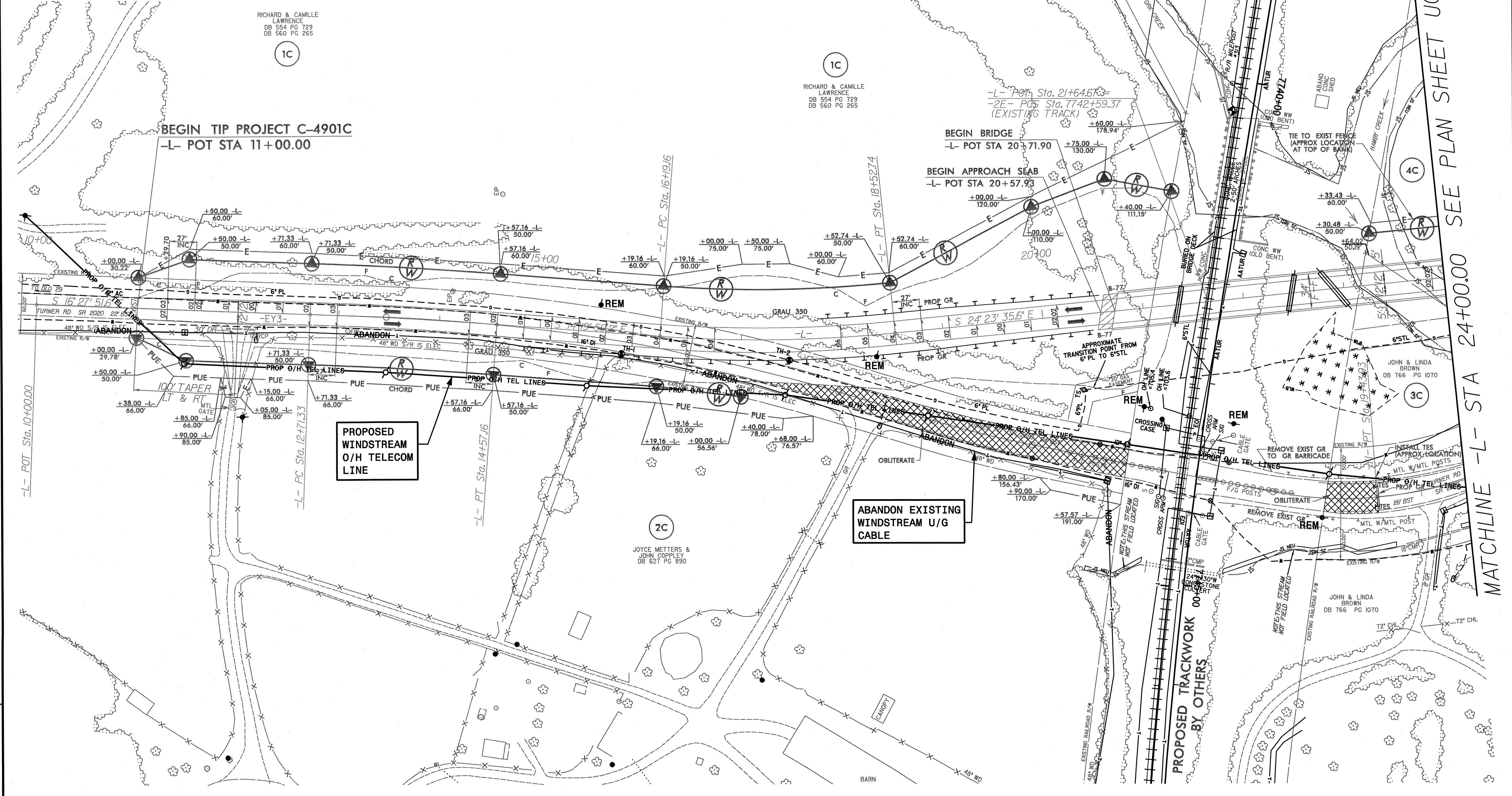
**MISCELLANEOUS:**

Utility Pole	⊙
Utility Pole with Base	⊙
Utility Located Object	⊙
Utility Traffic Signal Box	⊙
Utility Unknown UG Line	_____
UG Tank; Water, Gas, Oil	⊠
Underground Storage Tank, Approx. Loc.	⊠
A/G Tank; Water, Gas, Oil	⊠
Geoenvironmental Boring	⊙
UG Test Hole (S.U.E.*)	⊙
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

**UTILITIES BY OTHERS**

- NOTES:**
- ENERGY UNITED POWER SUPPLY TO GATED RAILROAD CROSSING TO REMAIN IN SERVICE UNTIL PHASE I IS COMPLETE AND TURNER ROAD IS CLOSED TO THRU TRAFFIC VIA DETOUR ROUTE.
  - WINDSTREAM TELECOM RELOCATIONS TO BEGIN AFTER PHASE I IS COMPLETE AND TURNER ROAD IS CLOSED TO THRU TRAFFIC VIA DETOUR ROUTE.

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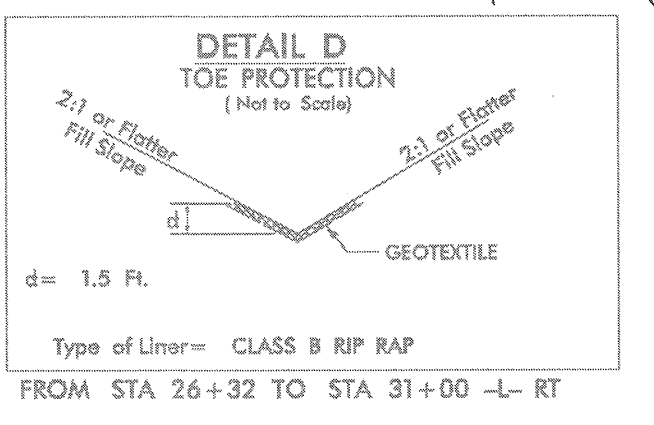
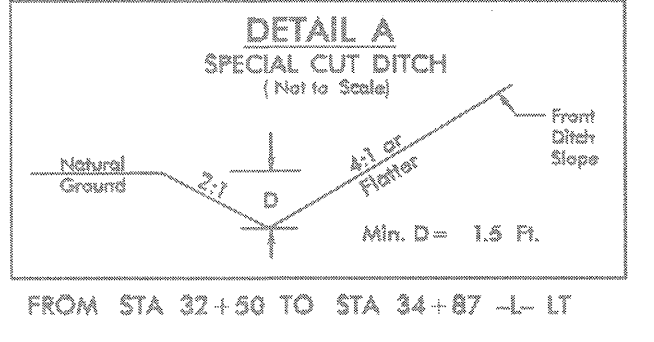
MATCHLINE -L- STA 24+00.00 SEE PLAN SHEET UO-4

REVISIONS

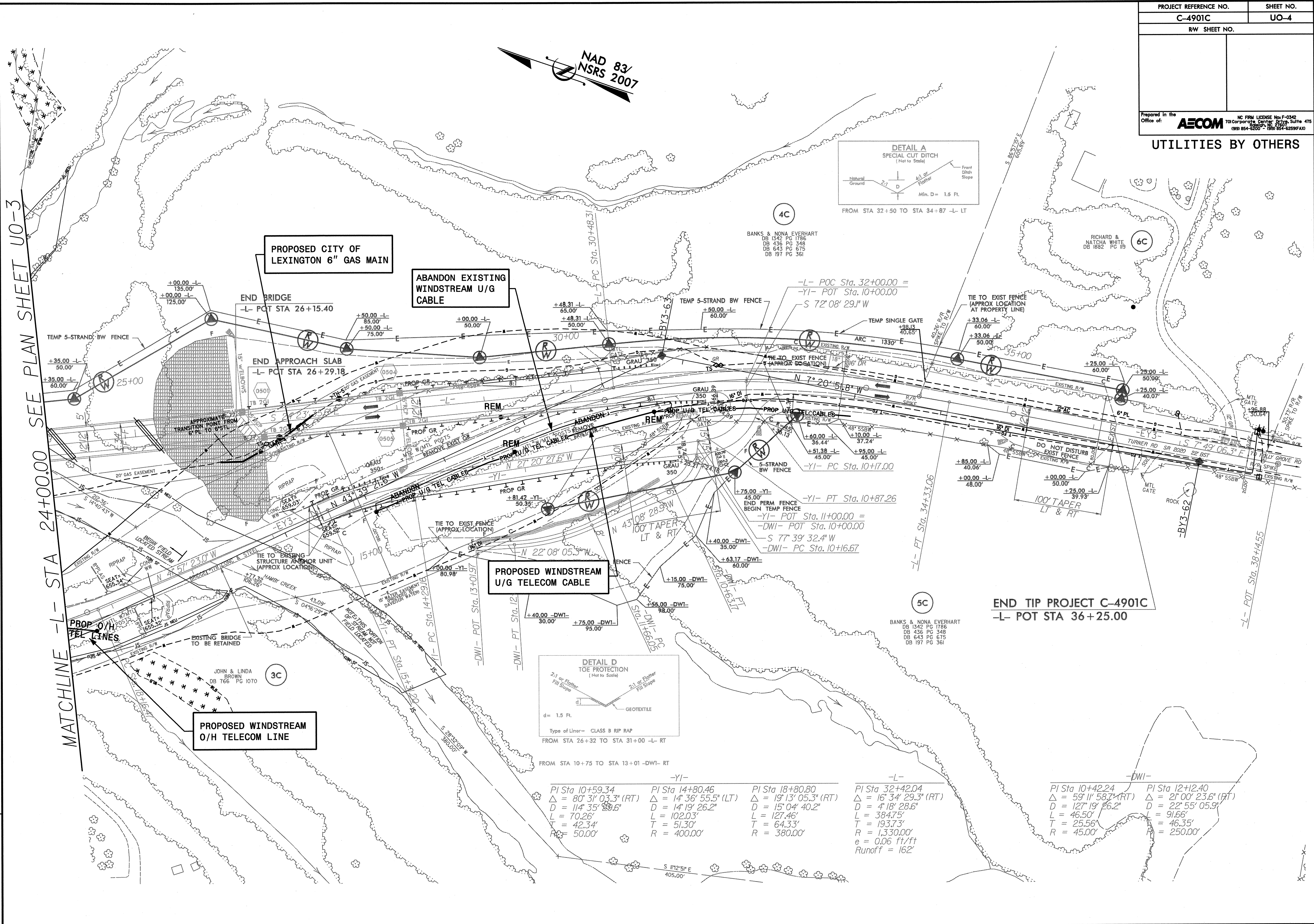
DATE: 11/29/2012  
 DES: CASH/CAL/ant/04/ep



**UTILITIES BY OTHERS**



-YI-	-L-	-DWI-
PI Sta 10+59.34 Δ = 80° 31' 03.3" (RT) D = 114' 35" 29.6" L = 70.26' T = 42.34' R = 50.00'	PI Sta 14+80.46 Δ = 14° 36' 55.5" (LT) D = 14' 19" 26.2" L = 102.03' T = 51.30' R = 400.00'	PI Sta 18+80.80 Δ = 19° 13' 05.3" (RT) D = 15' 04" 40.2" L = 127.46' T = 64.33' R = 380.00'
	PI Sta 32+42.04 Δ = 16° 34' 29.3" (RT) D = 4' 18" 28.6" L = 384.75' T = 193.73' R = 1,330.00' e = 0.06 ft/ft Runoff = 162'	
		PI Sta 10+42.24 Δ = 59° 11' 58.7" (RT) D = 127' 19" 26.2" L = 46.50' T = 25.56' R = 45.00'
		PI Sta 12+12.40 Δ = 21° 00' 23.6" (RT) D = 22' 55" 05.9" L = 91.66' T = 46.35' R = 250.00'



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REVISIONS

MATCHLINE -L- STA 24+00.00 SEE PLAN SHEET UO-3

DATE: 11/28/2013  
DRAWN: C680C/MLP/MS/SGP