

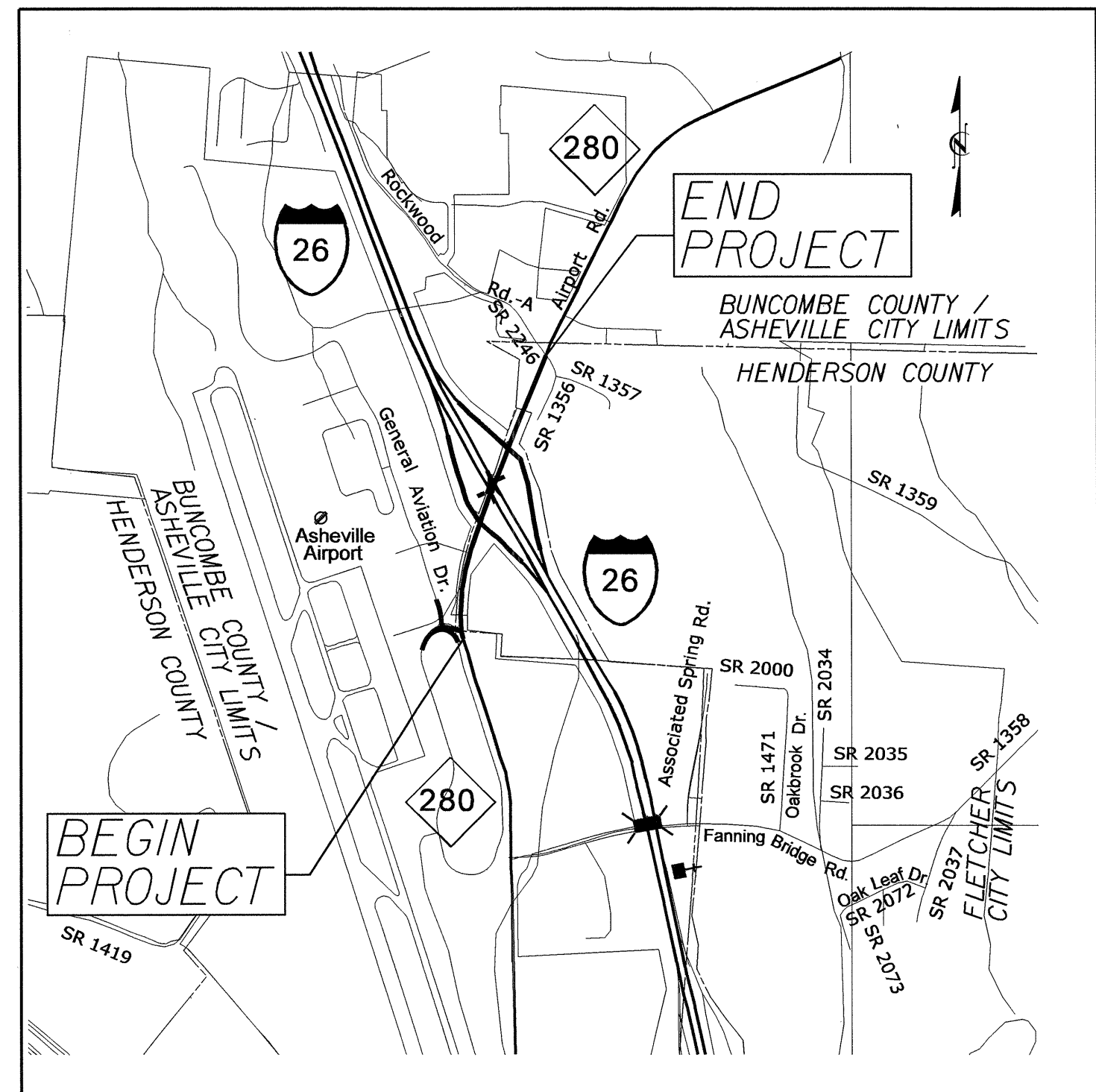
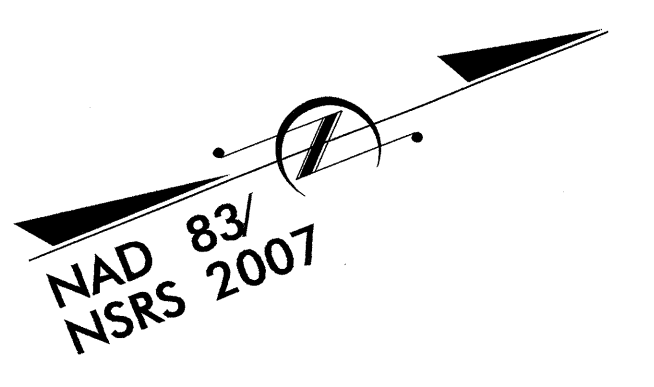
T.I.P. NO.	SHEET NO.
I-5501	UC-1

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

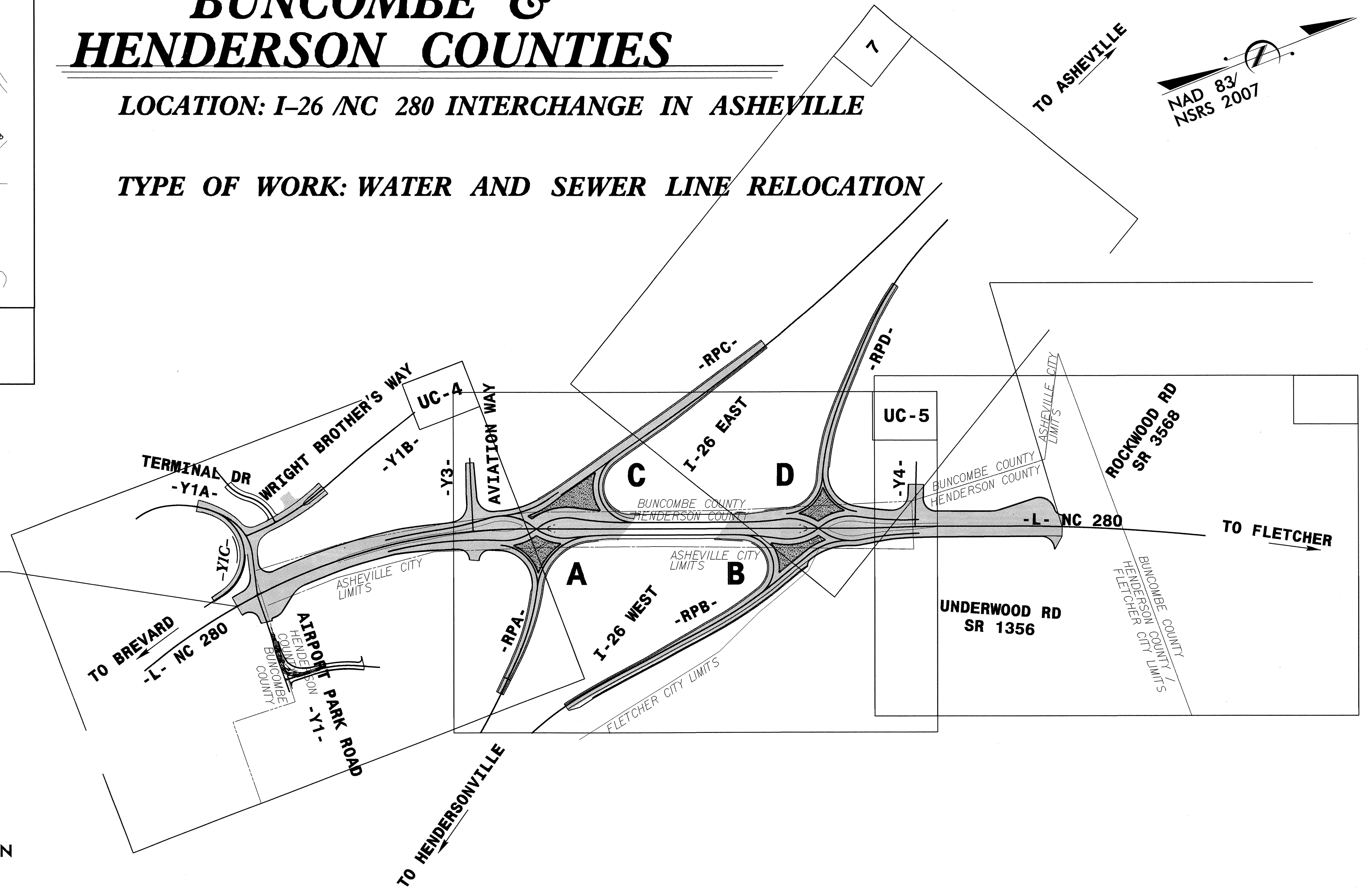
**UTILITY CONSTRUCTION PLANS  
BUNCOMBE &  
HENDERSON COUNTIES**

LOCATION: I-26 / NC 280 INTERCHANGE IN ASHEVILLE

TYPE OF WORK: WATER AND SEWER LINE RELOCATION

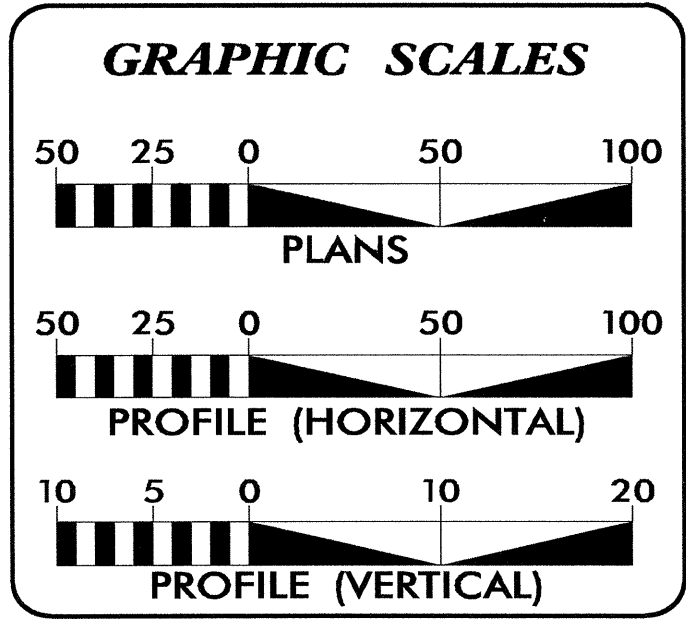


**VICINITY MAP**



**NOTES:**

THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.

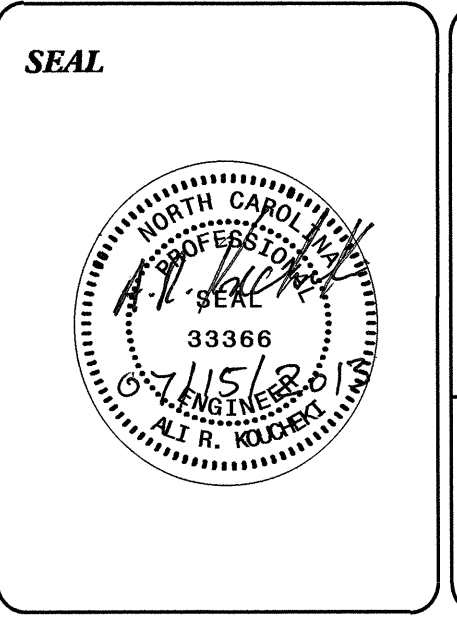


**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOGY
UC-3	NOTES
UC-4 THRU UC-10	WATER AND SEWER LINE RELOCATION

**WATER AND SEWER OWNERS ON PROJECT**

(1) WATER	CITY OF ASHEVILLE
(2) SANITARY	METROPOLITAN SEWERAGE DISTRICT (MSD)



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

1555 MAIL SERVICES CENTER  
RALEIGH NC 27699-1555  
PHONE (919) 707-6690  
FAX (919) 250-4151

**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER  
**Carl Barclay, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER  
**Ali Kouchebi, P.E.** UTILITIES PROJECT DESIGNER

**TIP PROJECT: I-5501**

15-JUL-2013 09:46 R:\JH\114165\114165.dwg USER:NAME\$\$\$\$

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# UTILITIES PLAN SHEET SYMBOLS

## PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	REM FH
Water Meter	
Relocate Water Meter	
Remove Water Meter	REM WM
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

## PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

## PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

NOTE  
PAY ITEM

## EXISTING UTILITIES SYMBOLS

Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

\*For Existing Utilities  
Utility Line Drawn from Record (Type as Shown)  
Designated Utility Line (Type as Shown)

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REV: 2/1/2012



# UTILITY CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
	UC-3
DESIGNED BY: ARK	
DRAWN BY: ARK	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

## GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2012.
2. THE EXISTING UTILITIES BELONG TO CITY OF ASHEVILLE WATER RESOURCES DEPARTMENT AND METROPOLITAN SEWERAGE DISTRICT (MSD)
3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES, DIVISION OF ENVIRONMENTAL HEALTH. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF WATER QUALITY. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.
4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.
5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPROTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.
7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.
8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.
9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

## PROJECT SPECIFIC NOTES:

3. CONTRACTOR'S ATTENTION IS DIRECTED TO SECTIONS 102, 107, AND 1550 OF THE STANDARD SPECIFICATIONS CONCERNING TRENCHLESS INSTALLATION. IT IS CONTRACTOR'S RESPONSIBILITY TO HAVE BORE DESIGNED AND SEALED BY A LICENSED NORTH CAROLINA PROFESSIONAL ENGINEER. NO DAMAGE IS ALLOWED TO RIVER, WETLANDS, OR BUFFER ZONES.

## UTILITY CONSTRUCTION

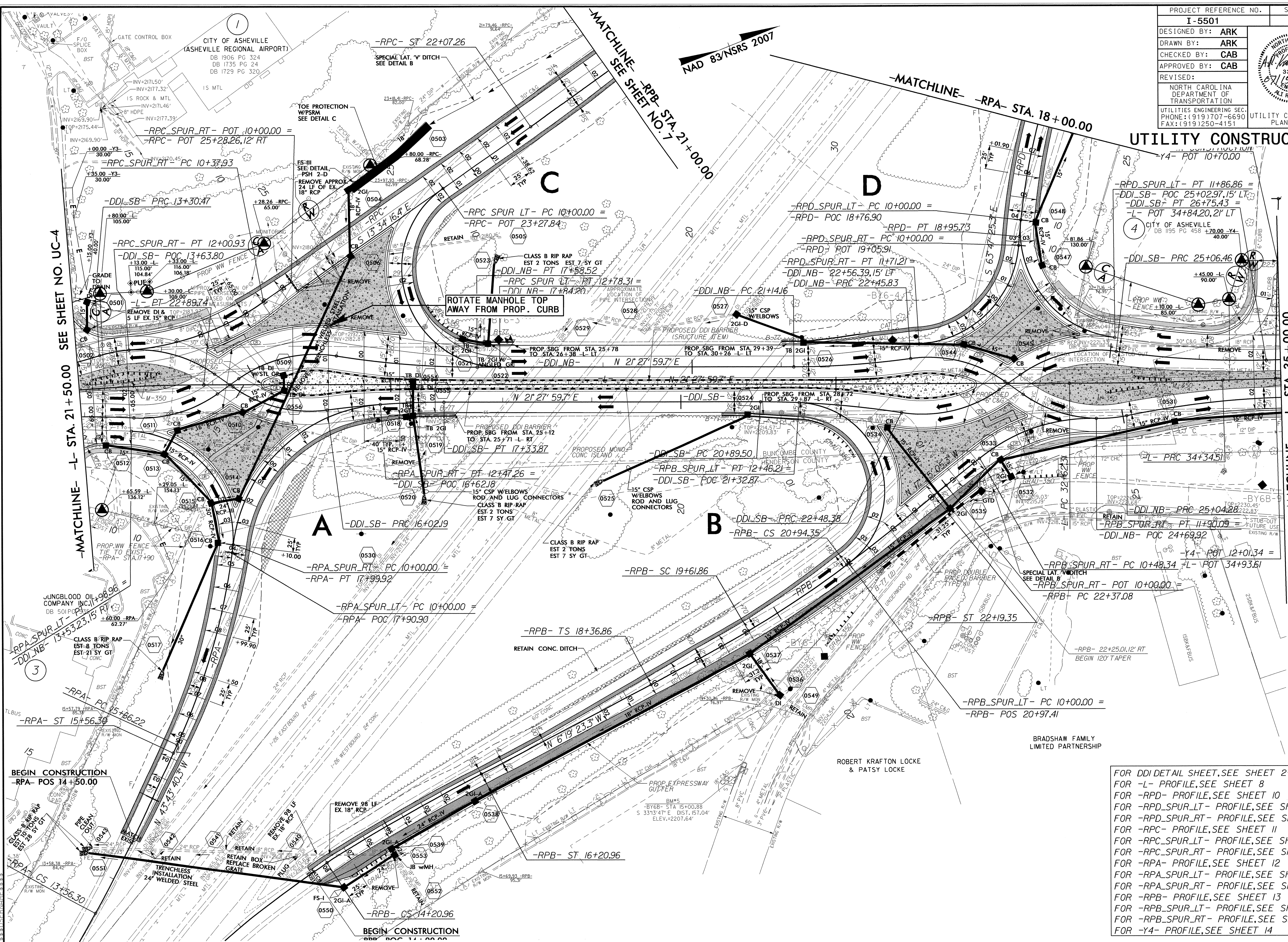






PROJECT REFERENCE NO.	I-5501	SHEET NO.	UC-5
DESIGNED BY:	ARK		
DRAWN BY:	ARK		
CHECKED BY:	CAB		
APPROVED BY:	CAB		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION		UTILITY CONSTRUCTION PLANS ONLY	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151			

**UTILITY CONSTRUCTION**



FOR DDI DETAIL SHEET, SEE SHEET 2-A  
 FOR -L- PROFILE, SEE SHEET 8  
 FOR -RPD- PROFILE, SEE SHEET 10  
 FOR -RPD\_SPUR\_LT- PROFILE, SEE SHEET 10  
 FOR -RPD\_SPUR\_RT- PROFILE, SEE SHEET 10  
 FOR -RPC- PROFILE, SEE SHEET 11  
 FOR -RPC\_SPUR\_LT- PROFILE, SEE SHEET 11  
 FOR -RPC\_SPUR\_RT- PROFILE, SEE SHEET 11  
 FOR -RPA- PROFILE, SEE SHEET 12  
 FOR -RPA\_SPUR\_LT- PROFILE, SEE SHEET 12  
 FOR -RPA\_SPUR\_RT- PROFILE, SEE SHEET 12  
 FOR -RPB- PROFILE, SEE SHEET 13  
 FOR -RPB\_SPUR\_LT- PROFILE, SEE SHEET 13  
 FOR -RPB\_SPUR\_RT- PROFILE, SEE SHEET 13  
 FOR -Y4- PROFILE, SEE SHEET 14

BEGIN CONSTRUCTION  
 -RPA- POS 14+50.00

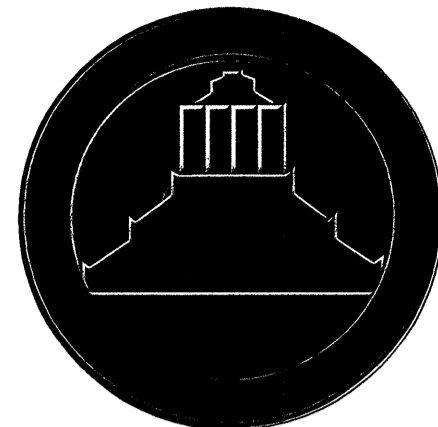
BEGIN CONSTRUCTION  
 -RPB- POS 34+00.00

ROBERT KRAFTON LOCKE & PATSY LOCKE

BRADSHAW FAMILY LIMITED PARTNERSHIP

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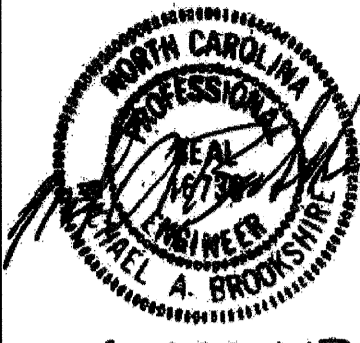




City of Asheville, NC

Water Resources Department

P.O. Box 7148 • Asheville, N.C. 28802 • 828-259-5403

PROJECT REFERENCE NO. I-5501	SHEET NO. UC-6
DESIGNED BY: MCL	
DRAWN BY: MCL	
CHECKED BY: MCL	
APPROVED BY: MB	
REVISED: 7/10/13	
CITY OF ASHEVILLE WATER RESOURCES DEPARTMENT PO BOX 7148 ASHEVILLE, NC 28802 PHONE: 828-259-5403	

UTILITY CONSTRUCTION

PROJECT NUMBER: I-5501

# AIRPORT ROAD NCDOT I-5501 PROJECT

## CITY OF ASHEVILLE, NORTH CAROLINA WATERLINE RELOCATION

### INDEX TO DRAWINGS

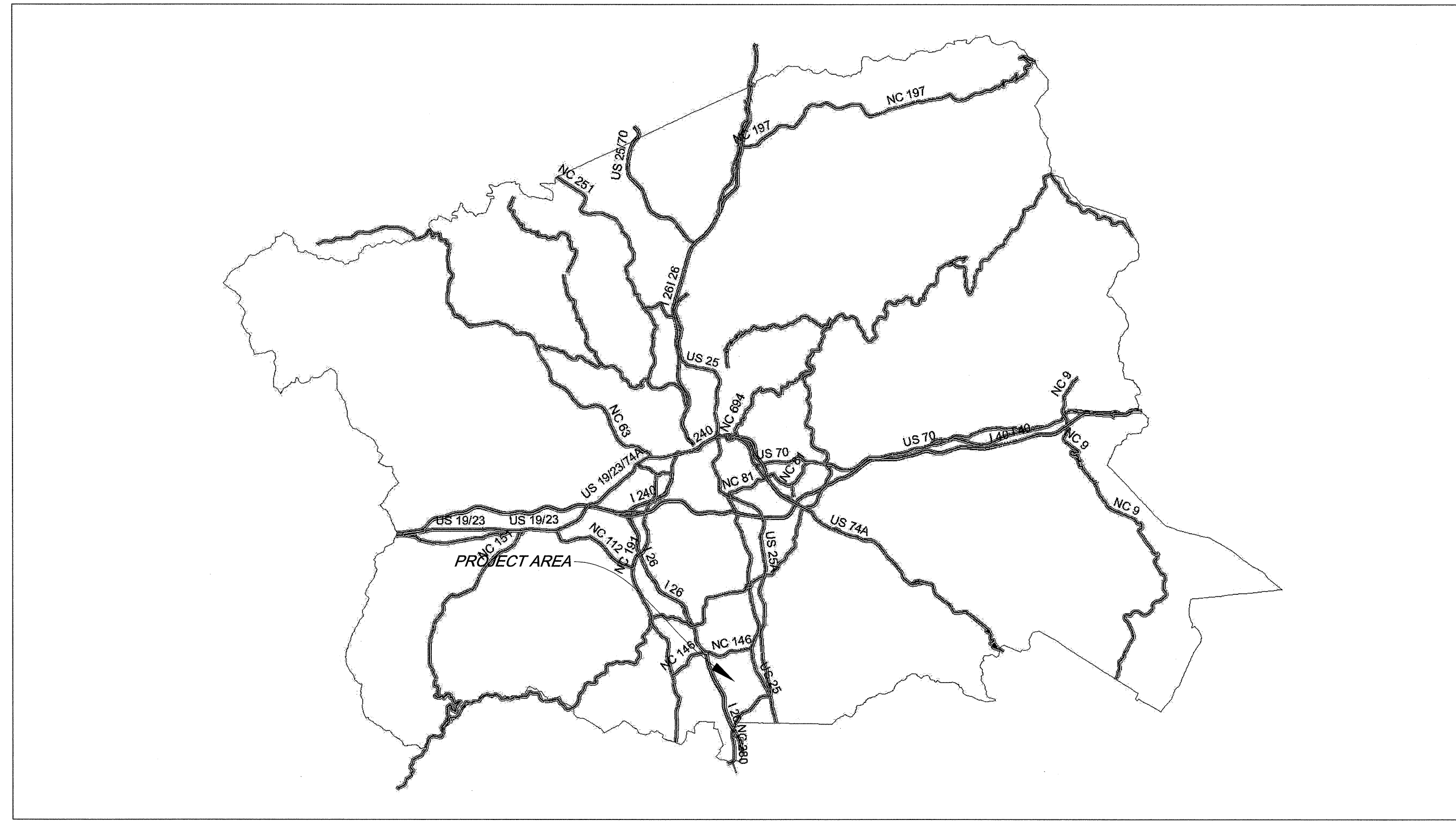
SHEET	DESCRIPTION
UC-6	COVERSHEET
UC-7	LOCATION MAPS, CONSTRUCTION & GENERAL NOTES AND TRAFFIC CONTROL
UC-8	AIRPORT ROAD (I-5501) WEST SIDE OF I-26
UC-9	AIRPORT ROAD (I-5501) EAST SIDE OF I-26
UC-10	DETAILS & EROSION CONTROL NOTES

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LOCATION MAP  
N.T.S.



VICINITY MAP  
N.T.S.



LEGEND

	EXISTING SEWER LINE		EXISTING BOUNDARY MONUMENT
	RIGHT OF WAY LINE		SEWER MANHOLE
	CHAIN LINK FENCE LINE		CLEAN OUT
	PROPERTY LINE SURVEYED		EXISTING WATER METER
	LINE NOT SURVEYED		EXISTING WATER VALVE
	PERMANENT EASEMENT		EXISTING FIRE HYDRANT
	TEMP. CONSTRUCTION ESMT.		PROPOSED WATER LINE SIZE AS SHOWN
	UNDER GROUND TELEPHONE		PROPOSED AIR RELEASE VALVE SIZE AS SHOWN
	EXISTING WATER LINE SIZE AS SHOWN		PROPOSED DIMJ BEND SIZE AS SHOWN
	UNDER GROUND GAS LINE		PROPOSED FIRE HYDRANT ASSEMBLY
	EXISTING UTILITY POLE		
	EXISTING GUY WIRE		
	EXISTING MAIL BOX		

CONSTRUCTION NOTES

- DISRUPTION OF NATURAL CONDITIONS ALONG THE WATER LINE CONSTRUCTION SHALL BE KEPT TO A MINIMUM. RESTORATION OF THESE AREAS SHALL BE DONE AS SOON AS THE WATER LINE INSTALLATION ALLOWS IT.
- DUE TO THE NARROW CORRIDOR AVAILABLE, IN SOME AREAS, TO INSTALL THE PROPOSED WATER LINES, THE CONTRACTOR SHALL, AT ALL TIMES, CONDUCT THE WORK IN SUCH A MANNER AS TO INSURE THE LEAST PRACTICABLE OBSTRUCTION TO PUBLIC TRAVEL. THE CONVENIENCE OF THE GENERAL PUBLIC AND OF THE RESIDENTS ALONG AND ADJACENT TO THE AREA OF THE WORK SHALL BE PROVIDED FOR IN A SATISFACTORY MANNER, CONSISTENT WITH THE OPERATION AND LOCAL CONDITIONS. UPON APPROVAL OF NCDOT OR THE DIRECTOR OF ENGINEERING, "STREET CLOSED" SIGNS SHALL BE PLACED IMMEDIATELY ADJACENT TO THE WORK, AS PER TRAFFIC CONTROL PLAN. AT ANY TIME THAT STREETS ARE REQUIRED TO BE CLOSED, THE CONTRACTOR SHALL NOTIFY LAW ENFORCEMENT AGENCIES, FIRE DEPARTMENTS, PARTIES OPERATING EMERGENCY VEHICLES AND RESIDENTS BEFORE THE STREET IS CLOSED AND AGAIN AS SOON AS IT IS OPENED.
- STORAGE OF MATERIALS AND EQUIPMENT SHALL BE AT A LOCATION WHERE IT MINIMIZES TRAFFIC CONFLICT AND PUBLIC INCONVENIENCE. CONTRACTOR IS RESPONSIBLE FOR SECURING PERMISSION OF THE STORAGE SITE FROM THE RESPECTIVE OWNER OR GOVERNMENT AGENCY.
- CONTRACTOR SHALL BE RESPONSIBLE TO ADHERE AND COMPLY WITH ALL THE SPECIAL REQUIREMENTS OUTLINED BY THE DIFFERENT PERMITTING AGENCIES IN CONJUNCTION WITH THE PROPOSED WATER LINE CONSTRUCTION.
- CONTRACTOR WILL BE RESPONSIBLE TO RE-STRIPE ALL ROADS WHICH ARE SCHEDULED TO BE OVERLAYS OR WHERE CONSTRUCTION OPERATIONS DISTURB OR DAMAGE EXISTING PAVEMENT MARKINGS. RE-STRIPPING SHALL BE DONE IN ACCORDANCE TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
- BUNCOMBE COUNTY PROPERTY TAX DATA SHOWN WAS OBTAINED FROM GIS RECORDS.
- IN AREAS WHERE NEW WATER LINE IS INSTALLED WITHIN THE IMPROVED PAVED SURFACE, TRENCH SHALL BE REPAIRED IN ACCORDANCE WITH TRENCH REPAIR DETAILS, OR AS OTHERWISE REQUIRED BY NCDOT FOR STATE MAINTAINED ROADWAYS OR CITY OF ASHEVILLE'S PUBLIC WORK DEPT FOR CITY MAINTAINED STREETS. SURFACE OVERLAY SHALL MATCH EXISTING PAVEMENT GRADE.
- REPAIR EXISTING DRIVEWAYS/WALKWAYS WITH SAME MATERIAL. SAW-CUT TRENCH EDGES TO PROVIDE SMOOTH TRANSITION. CONTRACTOR MUST REGRADE AND REPAIR ALL DISTURBED SHOULDER AREAS TO PRE-EXISTING CONDITIONS.
- IN AREAS WHERE NEW WATER LINE CROSSES OTHER UNDERGROUND UTILITIES, COVER ADJUSTMENTS CAN BE MADE TO ALLOW INSTALLATION OF WATER LINE ABOVE THE OTHER EXISTING UTILITY. IN ALL CASES, ADEQUATE VERTICAL SEPARATION AND A MINIMUM OF 24" OF COVER MUST BE PROVIDED.
- THE CONTRACTOR SHALL GIVE FIVE (5) DAYS WRITTEN NOTICE TO NCDOT AND THE CITY OF ASHEVILLE'S WATER RESOURCES DEPARTMENT PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITY WITHIN NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY.

ASSISTANT DISTRICT ENGINEER  
STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
POST OFFICE BOX 3279  
ASHEVILLE, NORTH CAROLINA 28802


PROJECT REFERENCE NO. I-5501	SHEET NO. UC-7
DESIGNED BY: MCL	
DRAWN BY: MCL	
CHECKED BY: MCL	
APPROVED BY: MB	
REVISED: 7/10/13	
CITY OF ASHEVILLE WATER RESOURCES DEPARTMENT PO BOX 7148 ASHEVILLE, NC 28802 PHONE: 828-259-5403	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

GENERAL NOTES

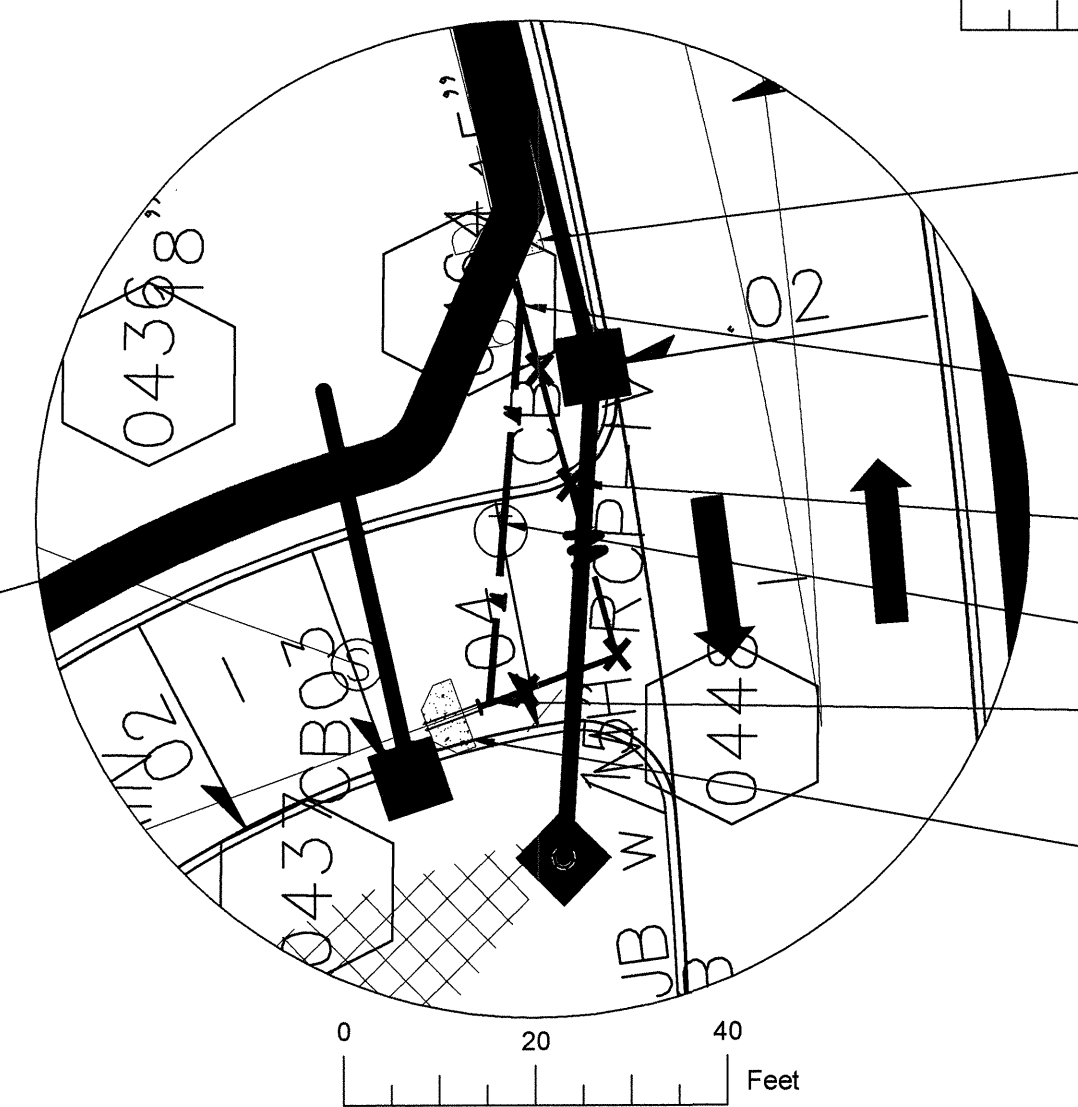
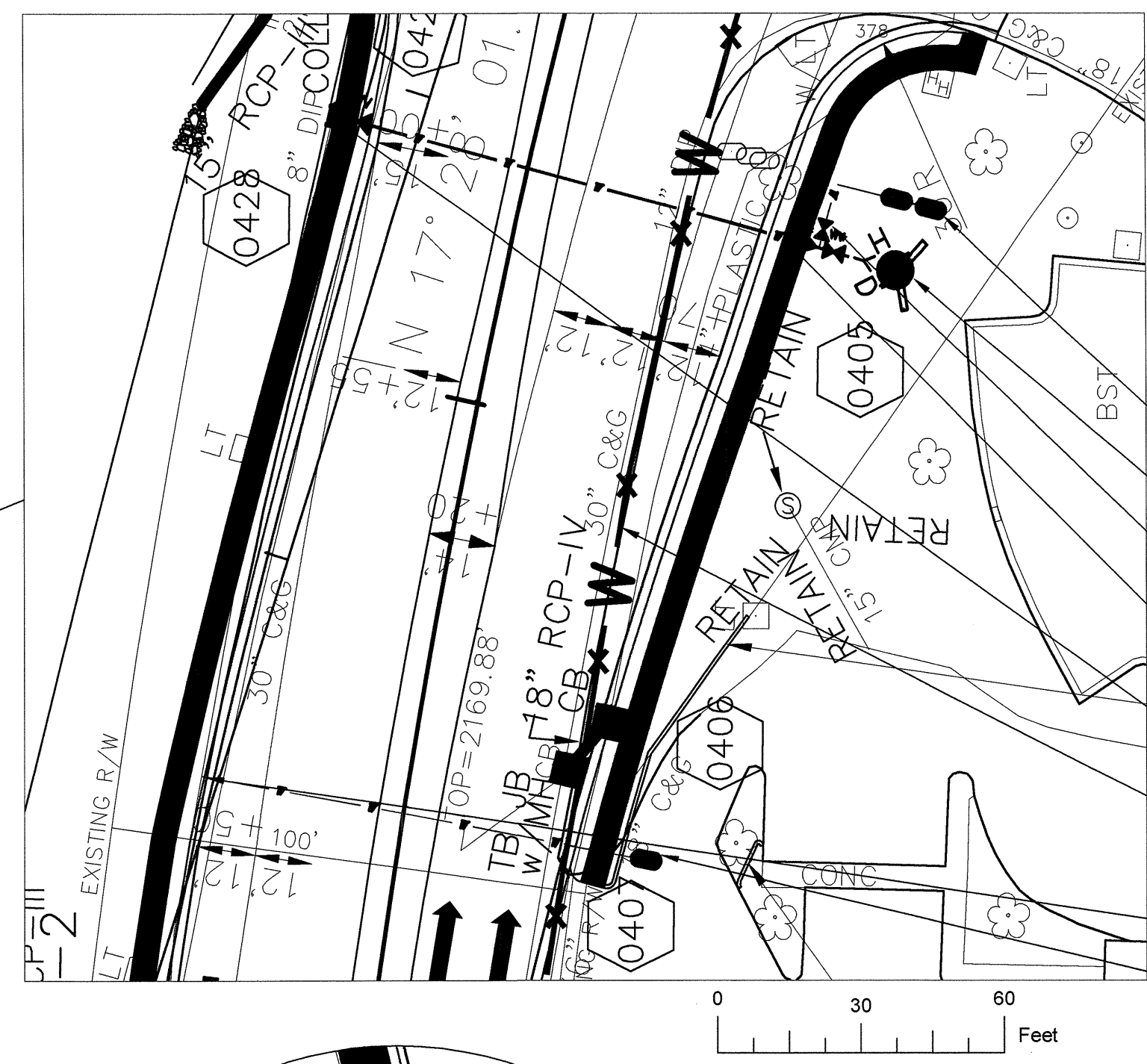
- \* A MINIMUM OF 10' HORIZONTAL OR 3' MINIMUM HORIZONTAL AND 18" VERTICAL SEPARATION BETWEEN WATER AND SANITARY SEWER LINES MUST BE MAINTAINED. WHERE THE WATER LINE INSTALLATION DOES NOT CONFORM TO THIS REQUIREMENT OR WHERE SEWER LINE CROSSES OVER WATER LINE, SEWER PIPE MUST BE OF A FERROUS MATERIAL FOR A DISTANCE OF 10FT ON BOTH SIDES OF CROSSING.
- \* WATER LINE SHALL HAVE A MINIMUM OF 5' HORIZONTAL OR 3' MINIMUM HORIZONTAL AND 12" VERTICAL SEPARATION FROM ALL OTHER UTILITIES.
- \* A MINIMUM OF 36" OF GROUND COVER SHALL BE MAINTAINED FOR ALL WATER LINES
- \* ALL WATER DISTRIBUTION SYSTEM COMPONENTS ARE TO BE CONSTRUCTED STRICTLY IN ACCORDANCE WITH THE STANDARDS OF THE CITY OF ASHEVILLE
- \* LOCATION AND DEPTH OF EXISTING UTILITIES IS APPROXIMATE ONLY. CONTRACTOR TO VERIFY EXACT LOCATION IN THE FIELD PRIOR TO STARTING CONSTRUCTION.
- \* TYPE AND SIZE OF EXISTING WATER LINE IS BASED UPON BEST AVAILABLE INFORMATION.
- \* CONTRACTOR TO COORDINATE ALL PROPOSED CROSS CONNECTIONS WITH THE CITY OF ASHEVILLE WATER RESOURCES DEPARTMENT, WATER MAINTENANCE DIVISION IN ORDER TO MINIMIZE WATER SERVICE INTERRUPTIONS.
- \* THE LOCATION OF EXISTING UTILITIES ACROSS OR ALONG THE LINE OF THE PROPOSED WORK IS NOT NECESSARILY SHOWN ON THE DRAWINGS.
- \* THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND RESTORATION OF ALL BUILDINGS, STRUCTURES, AND UTILITIES, PUBLIC OR PRIVATE, INCLUDING POLES, SIGNS, SERVICES TO BUILDING, UTILITIES IN THE STREET, GAS PIPES, WATER PIPES, HYDRANTS, SEWERS, DRAINS AND ELECTRIC AND TELEPHONE CABLES, WHETHER OR NOT THEY ARE SHOWN ON THE DRAWINGS. CONTRACTOR SHALL CAREFULLY SUPPORT AND PROTECT ALL SUCH STRUCTURES AND UTILITIES FROM INJURY. DAMAGE RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY CONTRACTOR.
- \* THE CONTRACTOR SHALL FULLY COOPERATE AT ALL TIMES WITH THE UTILITY OWNERS TO MAINTAIN THE OPERATION OF EXISTING UTILITIES WITH THE LEAST AMOUNT OF INTERFERENCE AND INTERRUPTION POSSIBLE. CONTINUOUS SERVICE, PUBLIC HEALTH AND SAFETY CONSIDERATIONS SHALL EXCEED ALL OTHERS AND CONTRACTOR'S SCHEDULE, PLANS AND WORK SHALL AT ALL TIMES BE SUBJECT TO ALTERATION AND REVISION IF NECESSARY FOR THESE CONSIDERATIONS.
- \* THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE TEMPORARY OR PERMANENT RELOCATION OF STRUCTURES AND UTILITIES, INCLUDING BUT NOT LIMITED TO POLES, SIGNS, FENCES, HYDRANTS, VALVES PIPING, CONDUITS AND DRAINS THAT INTERFERE WITH THE POSITIONING OF THE WORK AS SHOWN ON THE DRAWINGS.



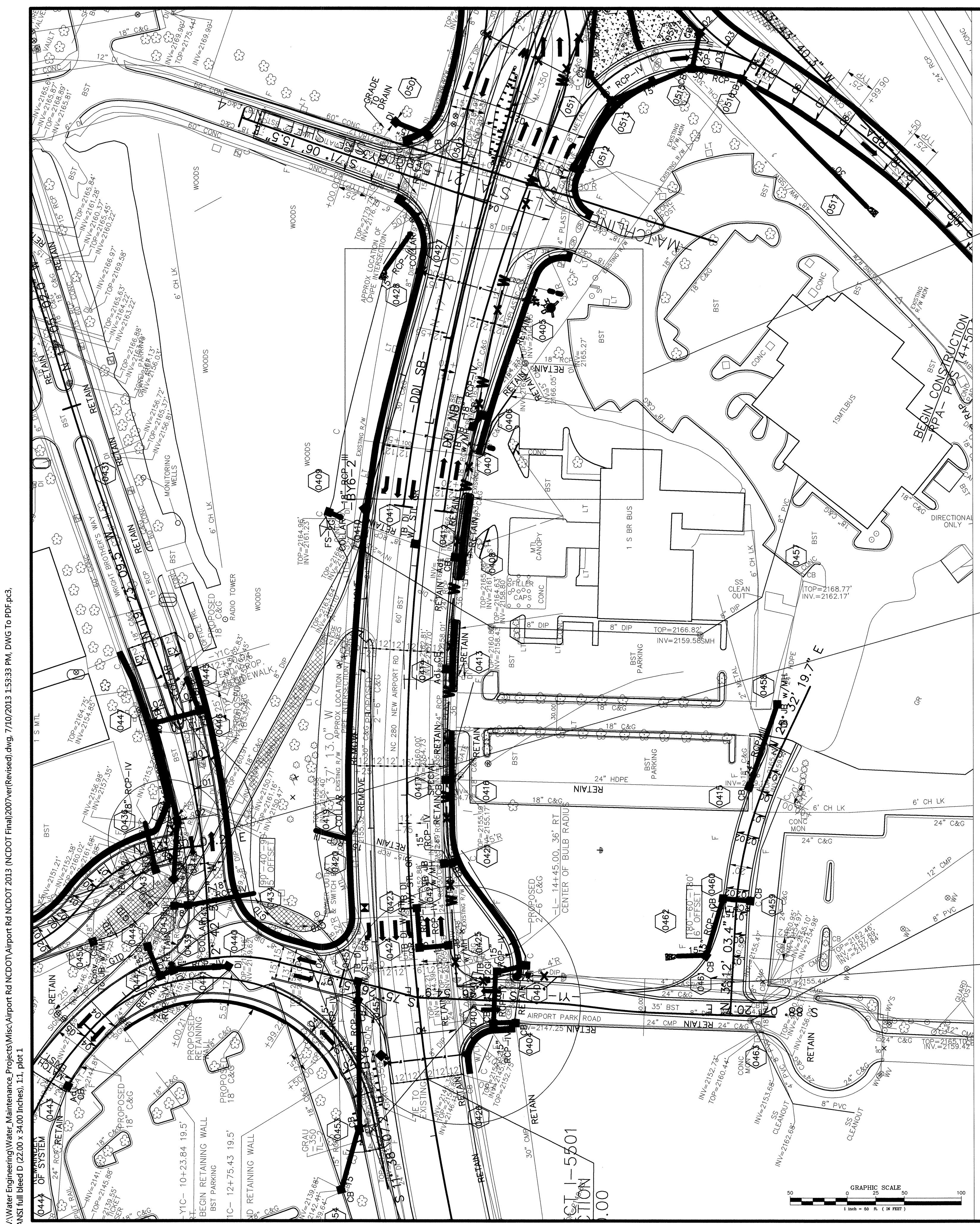
PROJECT REFERENCE NO.	SHEET NO.
I-5501	UC-8
DESIGNED BY: MCL	
DRAWN BY: MCL	
CHECKED BY: MCL	
APPROVED BY: MB	
REVISED: 7/10/13	UTILITY CONSTRUCTION PLANS ONLY
CITY OF ASHEVILLE WATER RESOURCES DEPARTMENT PO BOX 7148 ASHEVILLE, NC 28802 PHONE: 828-259-5403	

# UTILITY CONSTRUCTION

- Relocated New 1 1/2" BMW of Asheville Water Meter & Backflow
- New 6" GV & fire hydrant assembly
- Provide 2" tap with 2" brass ball valve connect to meter with 2" type K Copper
- New 8" DIP WL with 8"x6" reducer just before 2" tap
- 24"x8" tapping saddle and 8" GV
- 12" DIP WL to be abandoned from just before Underwood Rd to Airport Park Rd
- 24"x1" Tapping Saddle & New 1" type K copper WL to meter
- Relocate & Renew Youngblood Oil Company Meter 1"



- Existing 12" WL to be abandoned
- Cap or plug 12" WL out of Tee
- 6" WL to be abandoned
- Concrete dead man, rod to bend
- Connect to existing 8" WL
- 45° Bend (Restrained Joint)
- 45° Bend (Restrained Joint)
- New 8" DIP WL (Restrained Joint)
- Connect to existing 8" WV (Restrained Joint)
- Existing 12" WL to remain
- Connect to existing 12" DIP WL with 12"x12" Tee
- New 12" DIP Waterline cross connection
- New 24"x12" Tapping saddle & Valve

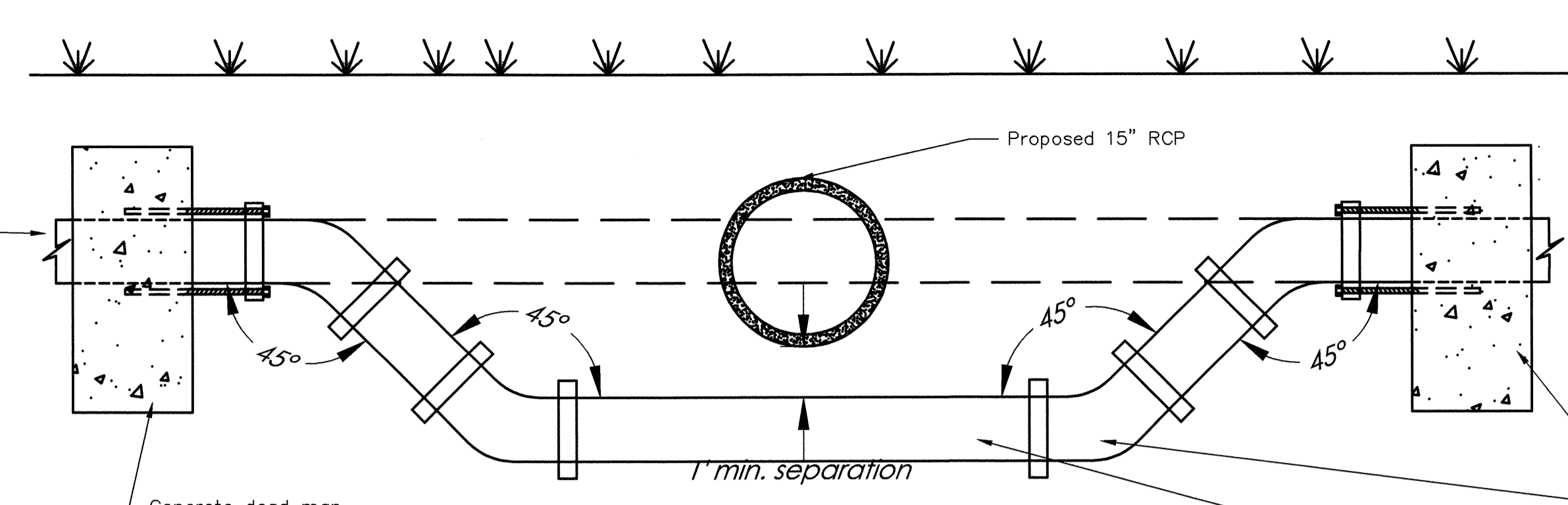


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PROJECT REFERENCE NO.	SHEET NO.
I-5501	UC-9
DESIGNED BY: MCL	
DRAWN BY: MCL	
CHECKED BY: MCL	
APPROVED BY: MB	
REVISED: 7/10/13	
CITY OF ASHEVILLE WATER RESOURCES DEPARTMENT PO BOX 7148 ASHEVILLE, NC 28802 PHONE: 828-259-5403	
UTILITY CONSTRUCTION PLANS ONLY	

# UTILITY CONSTRUCTION



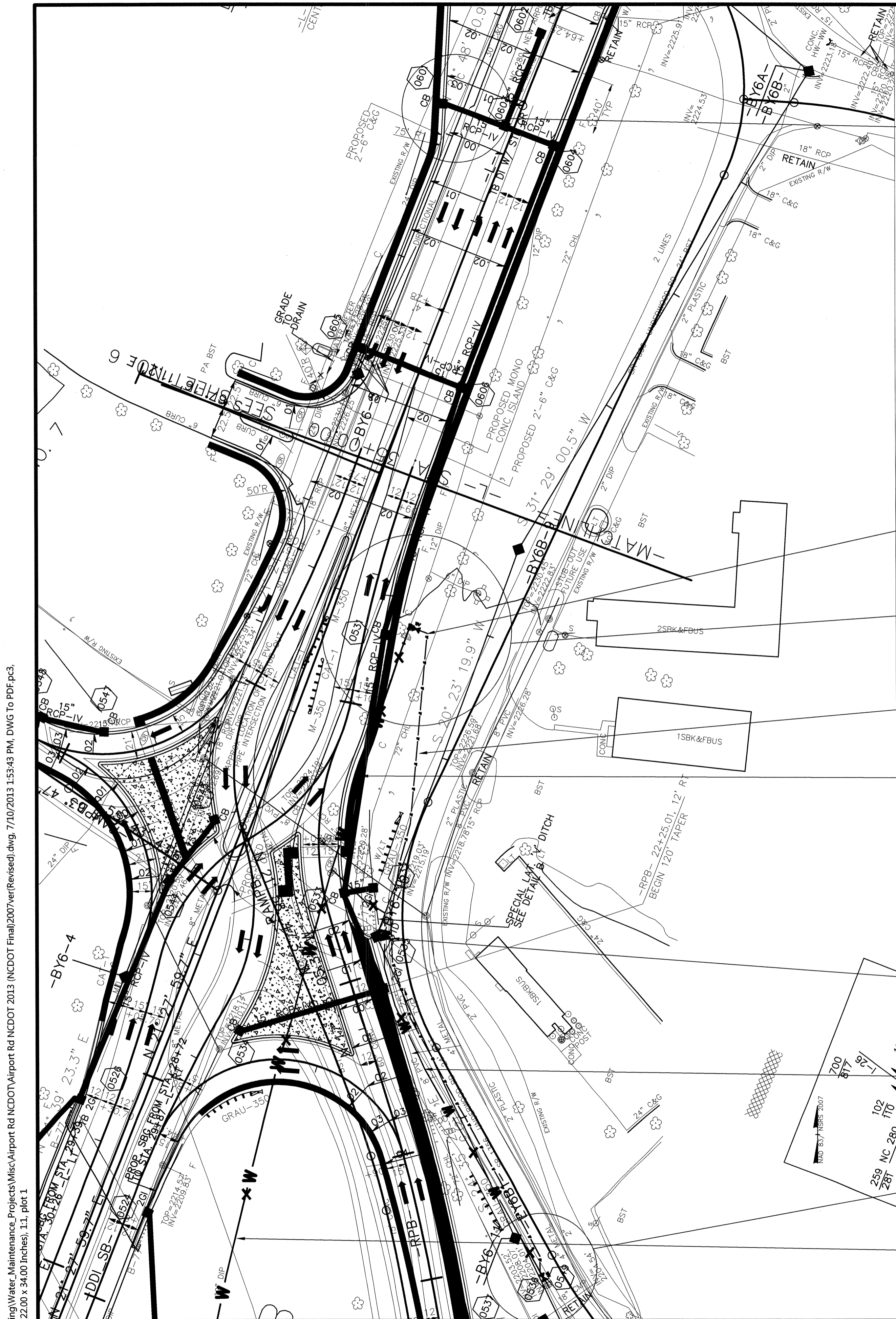
## N.T.S Notes

- 12" WL shall remain in service until 24" WL relocation is done.
- Expose top of existing 24" WL if 6" min. clearance can not be provided from invert of new 15" RCP then 24" WL to be relocated vertically as shown above.

Concrete dead man  
See Detail W.23 for dimensions

24" restrained Joint bends

24" Class 200 DIP WL



Install new 8" DIP WL with appropriate fittings.  
(90° bends are not to be used)

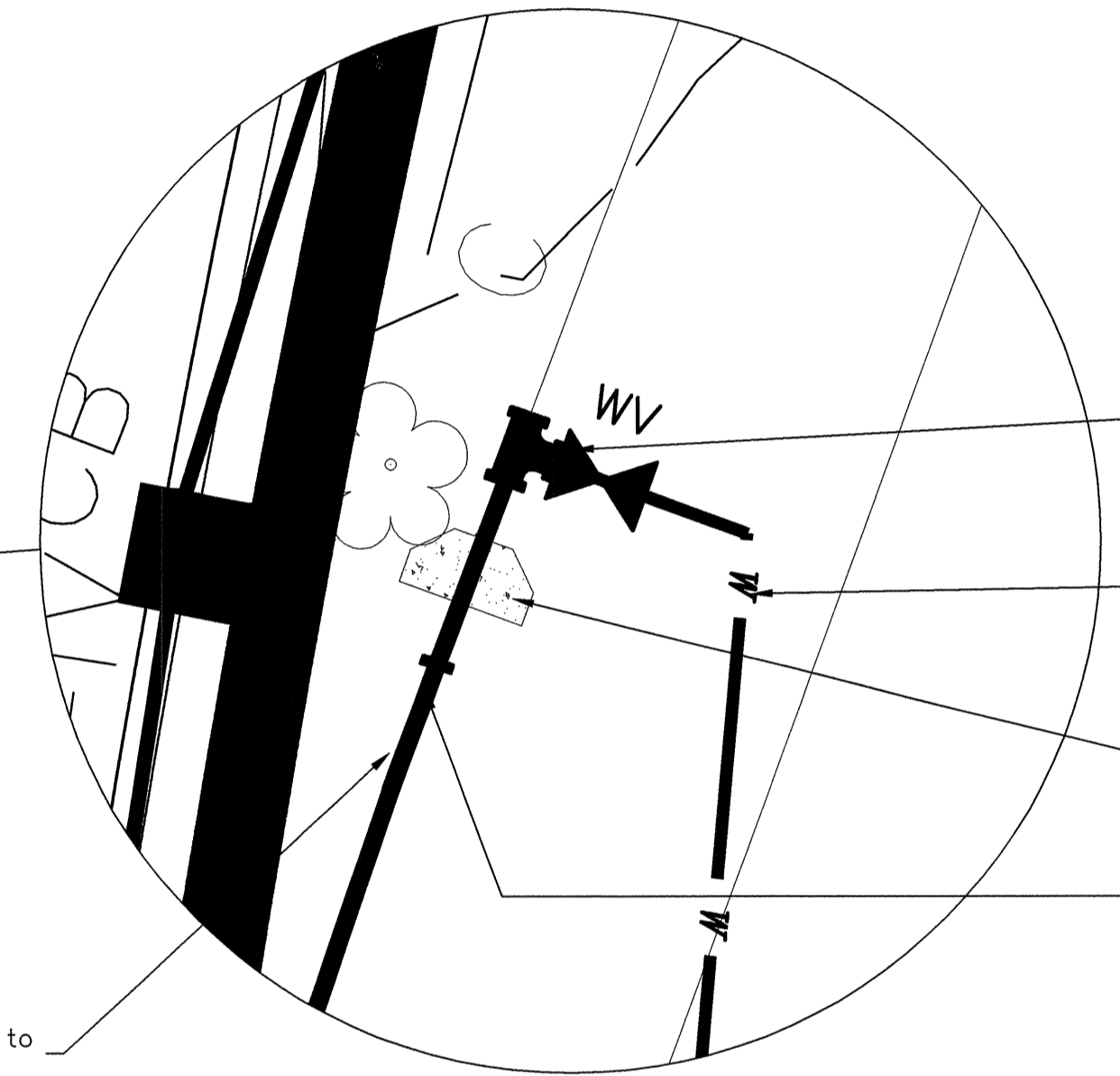
New 8" DIP WL

12" DIP WL to be abandoned from just before Underwood Rd to Airport Park Road

Provide appropriate clearances per COA Details

8" PVC WL to be abandoned

12" DIP WL to be abandoned from just before Underwood Rd to Airport Park Road

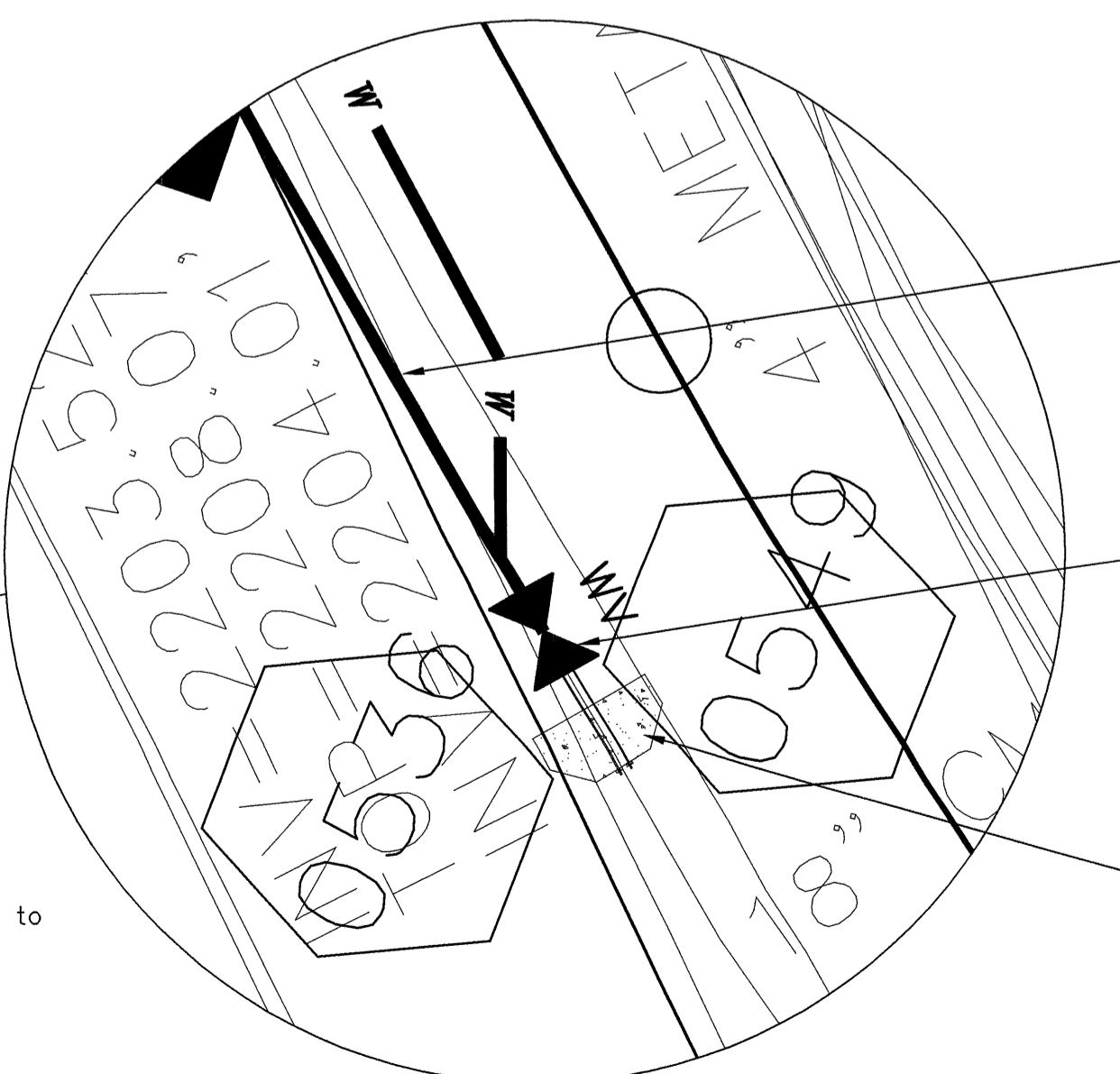


Cut in 12"x8" Tee & install 8" GV

New 8" DIP WL

Concrete dead man rod to tee

Cap or plug 12" WL out of Tee

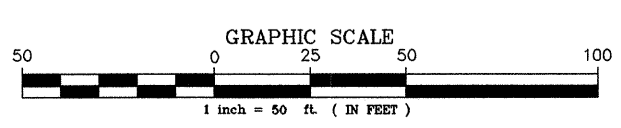


cap abandoned line

Cut in new 8" GV on existing PVC WL & connect new line

Concrete dead man rod to tee

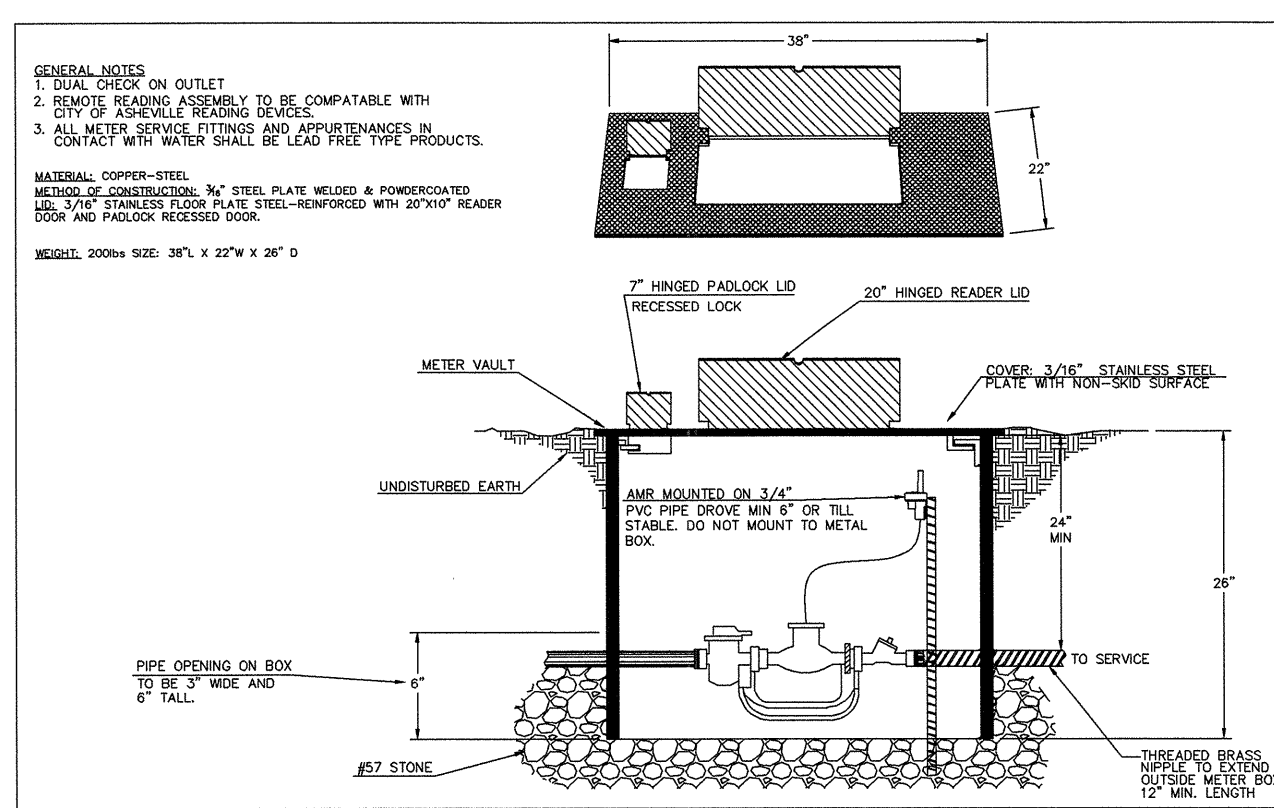
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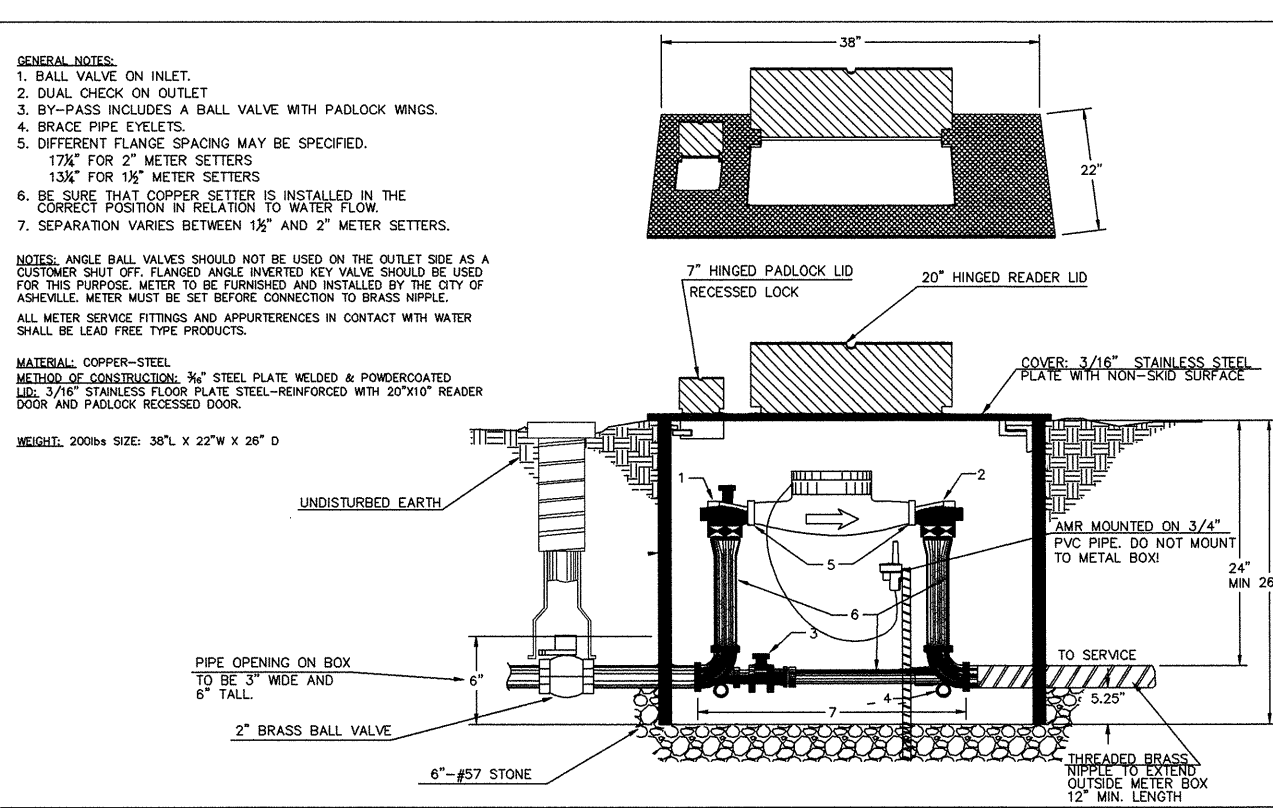




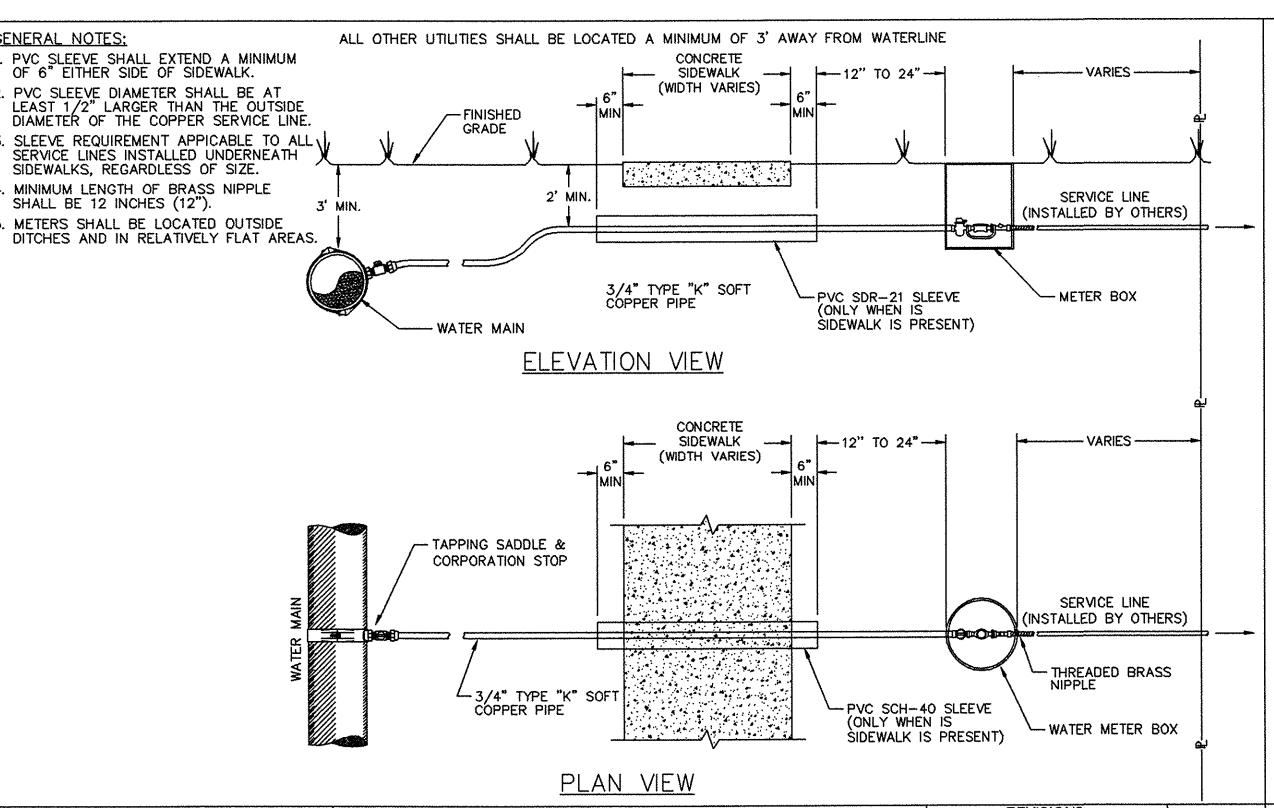
UTILITY CONSTRUCTION



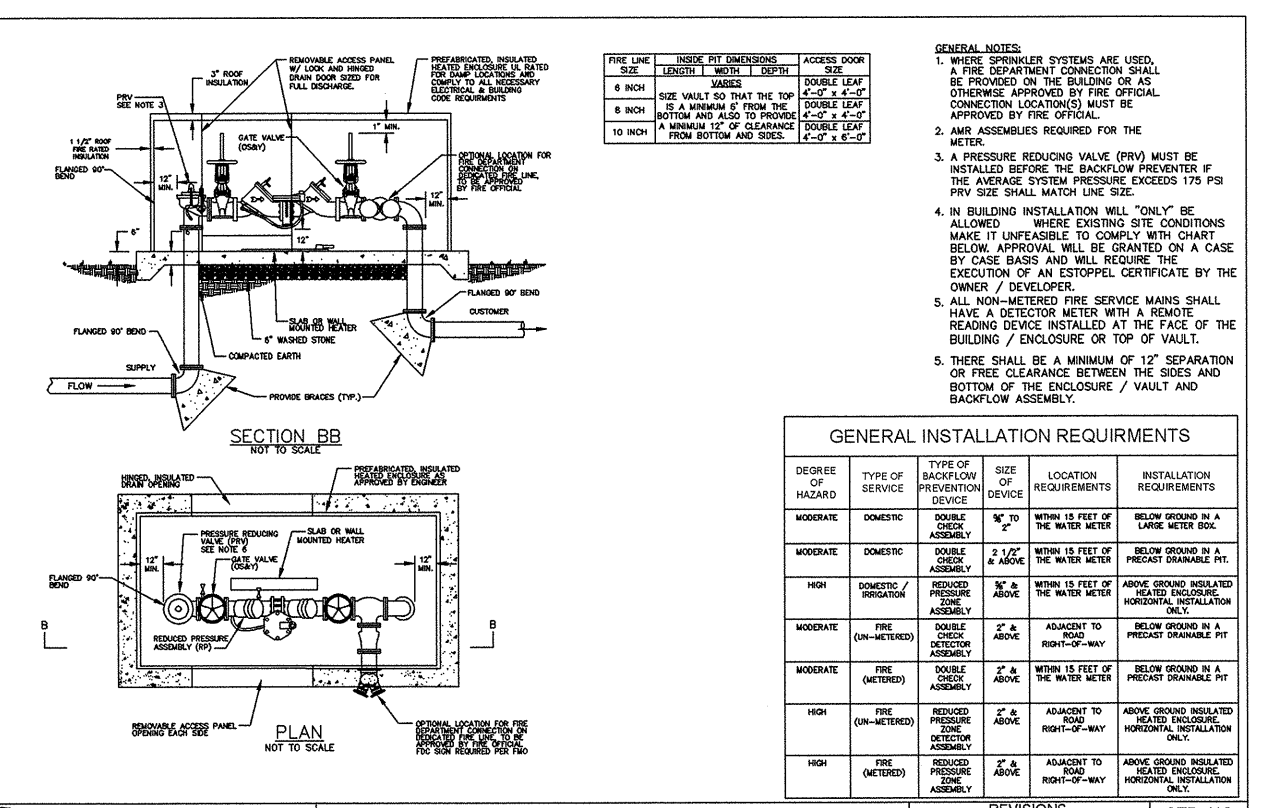
City of Asheville, NC WATER ENGINEERING DIVISION 1" WATER METER BOX DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.02



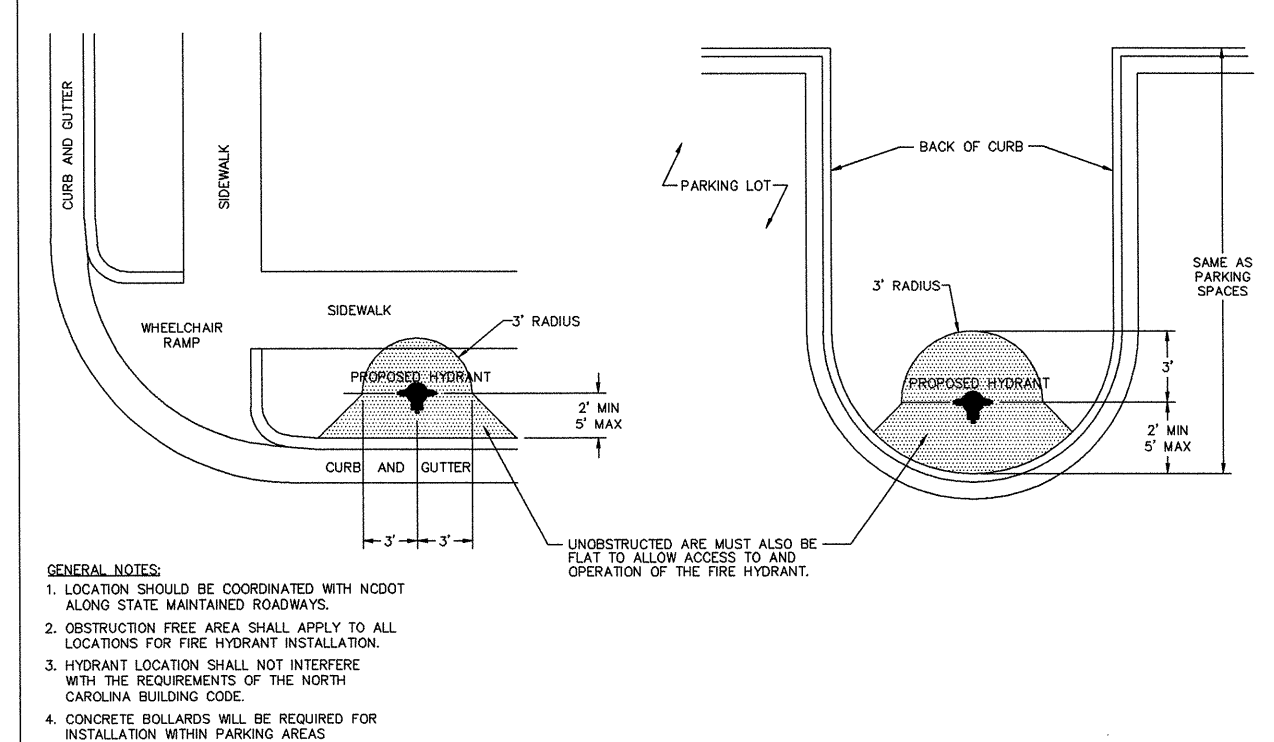
City of Asheville, NC WATER ENGINEERING DIVISION POSITIVE DISPLACEMENT 1/2" - 2" METER & METER VAULT DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.03



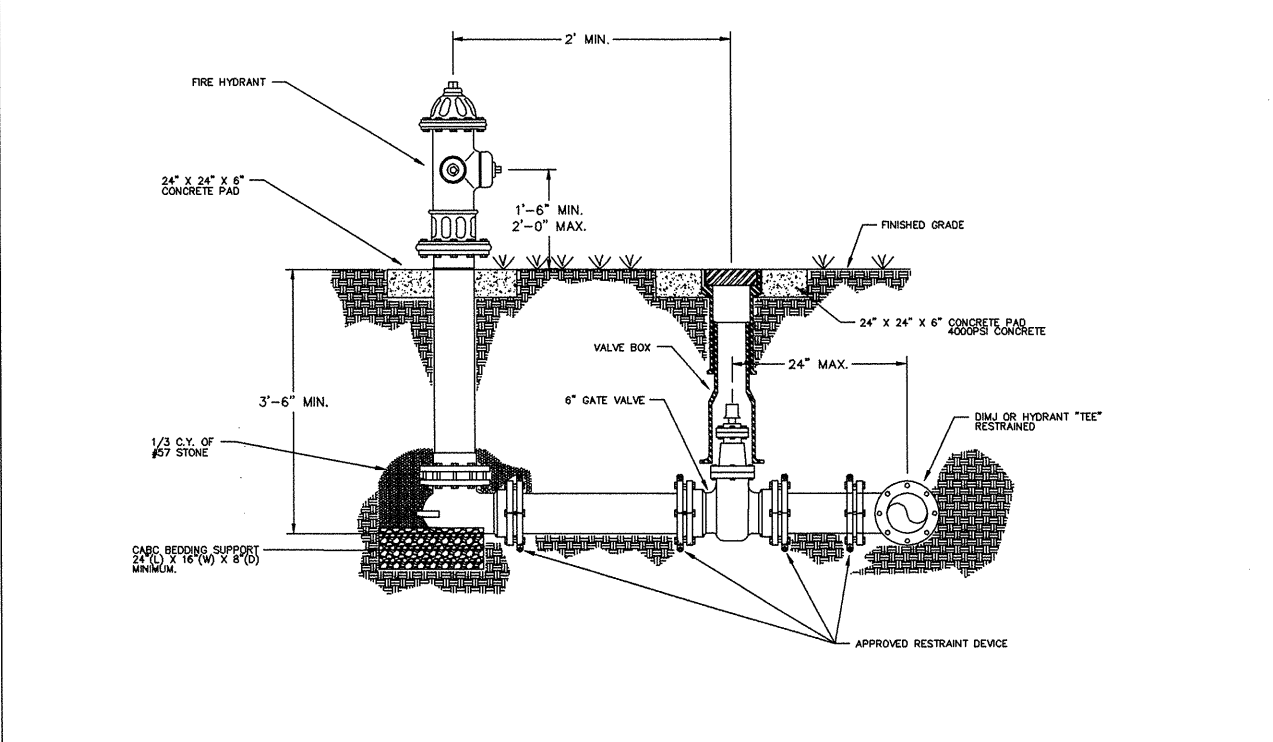
City of Asheville, NC WATER ENGINEERING DIVISION TYPICAL WATER SERVICE INSTALLATION WITH SIDEWALK DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.06



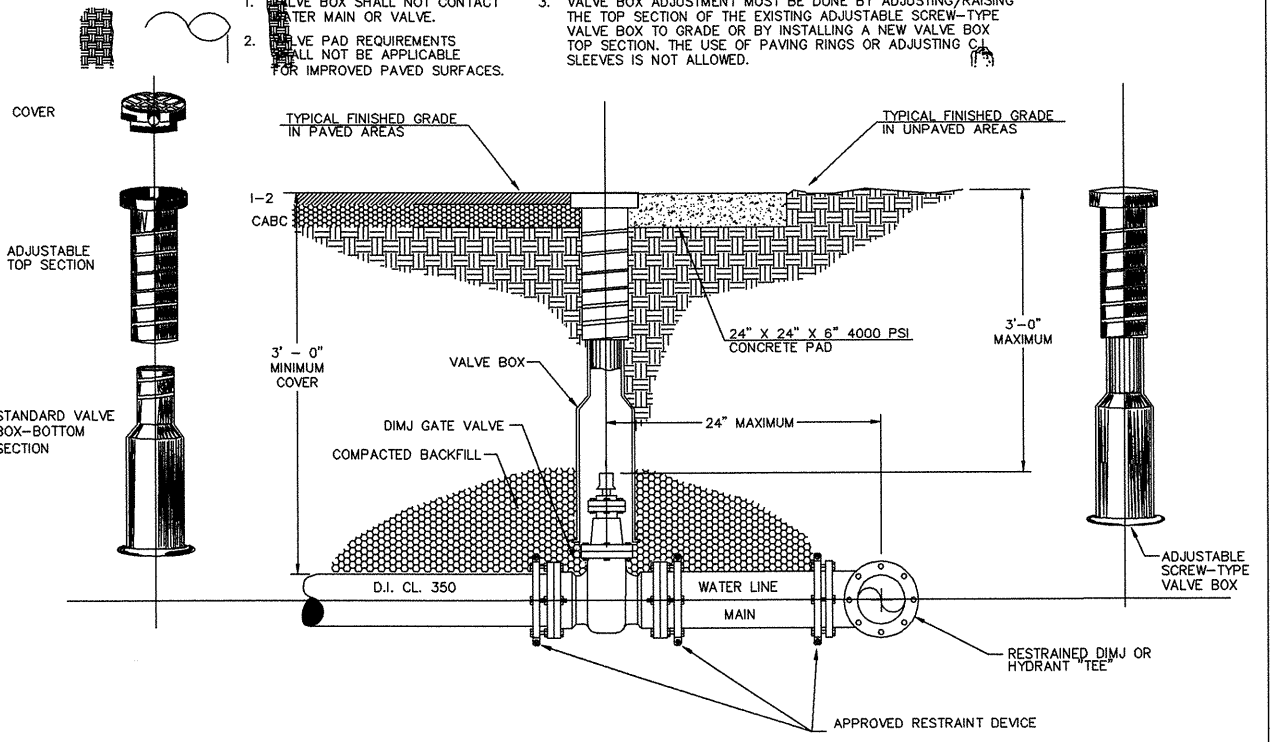
City of Asheville, NC Transportation & Engineering Department ABOVE GROUND BACKFLOW / ENCLOSURE DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.08



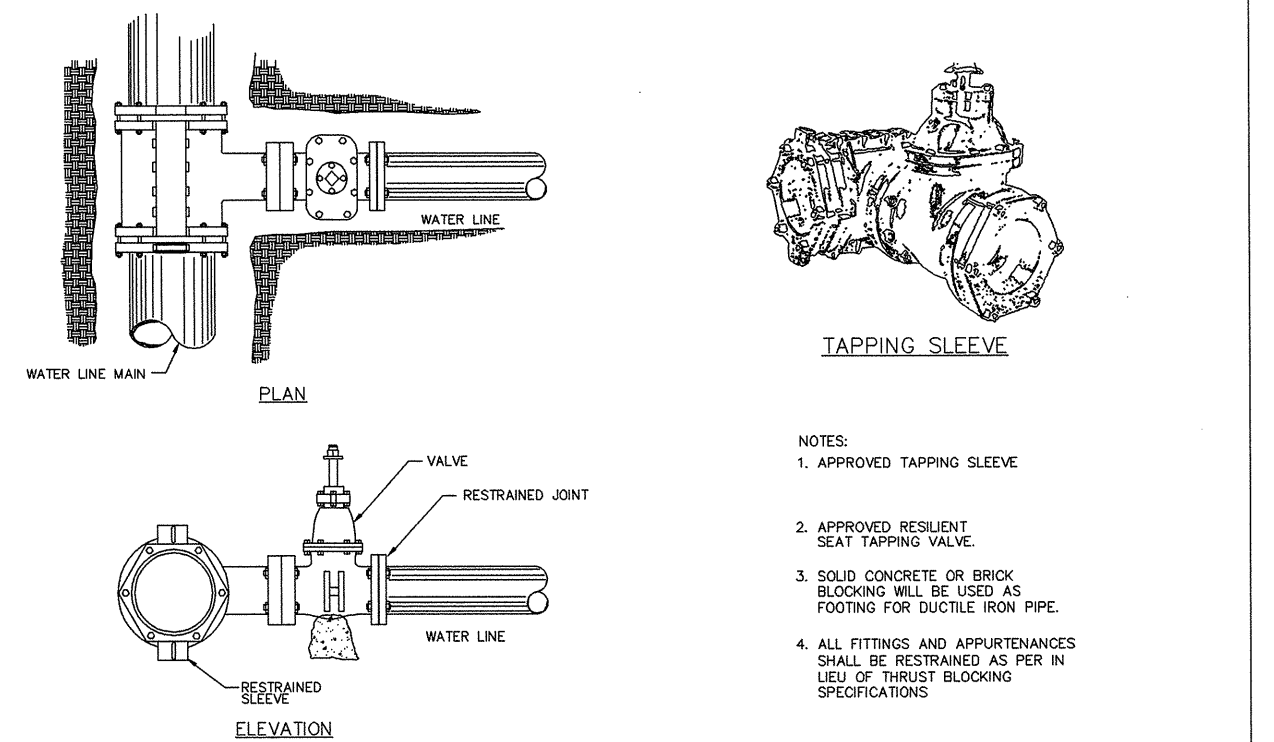
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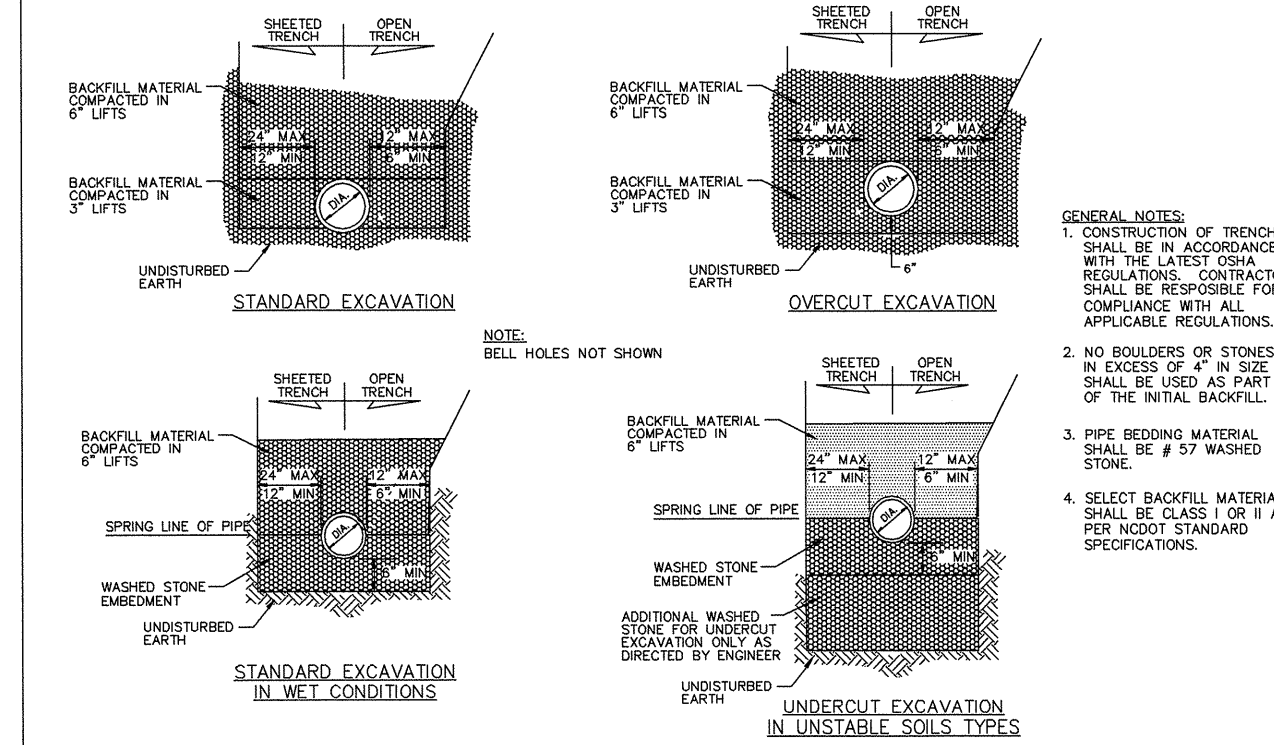
City of Asheville, NC WATER ENGINEERING DIVISION FIRE HYDRANT INSTALLATION DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.16



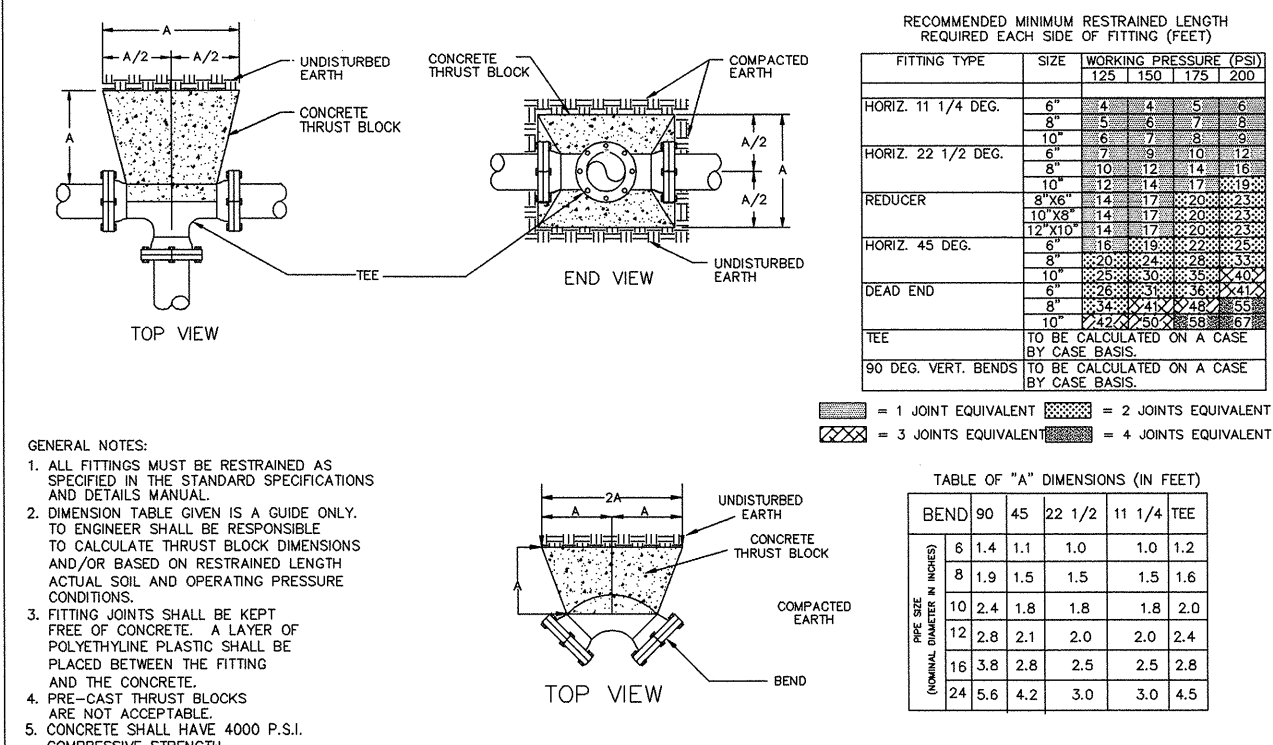
City of Asheville, NC WATER ENGINEERING DIVISION TYPICAL VALVE & VALVE BOX INSTALLATION / ADJUSTMENT DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.18



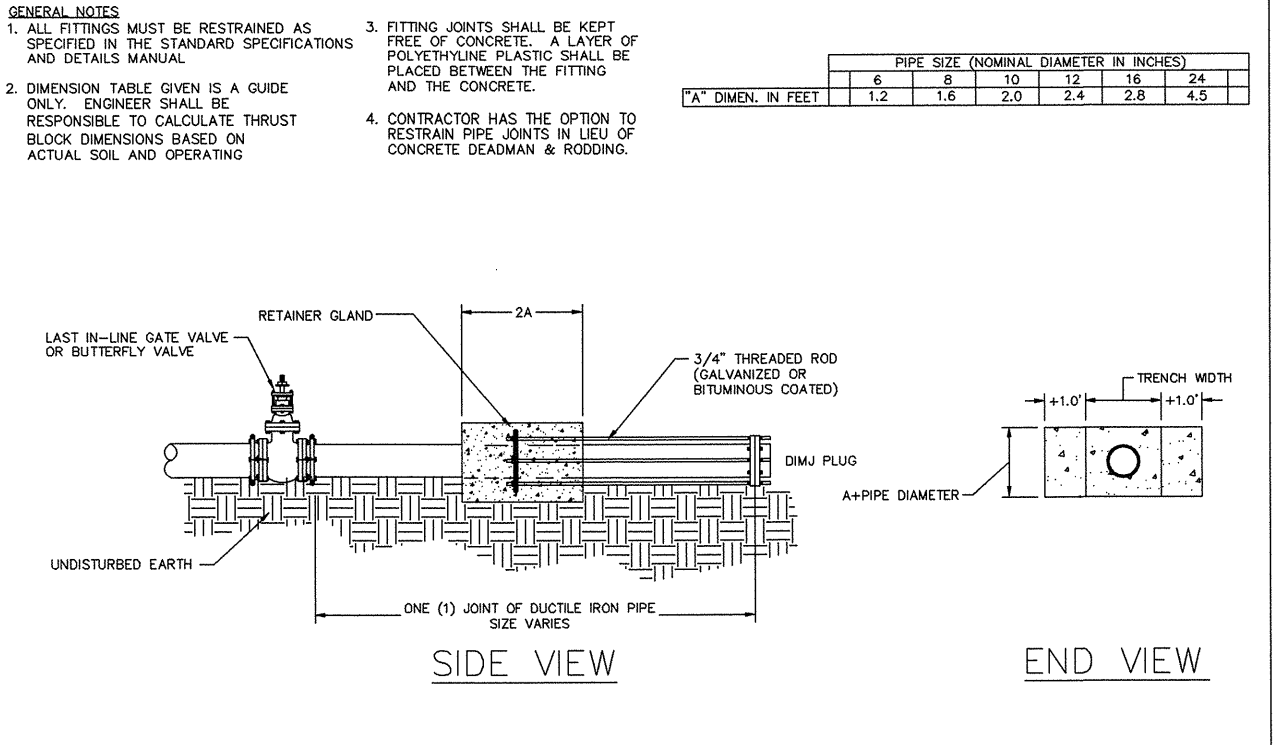
City of Asheville, NC WATER ENGINEERING DIVISION TAPPING SLEEVE AND VALVE ASSEMBLY DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.20



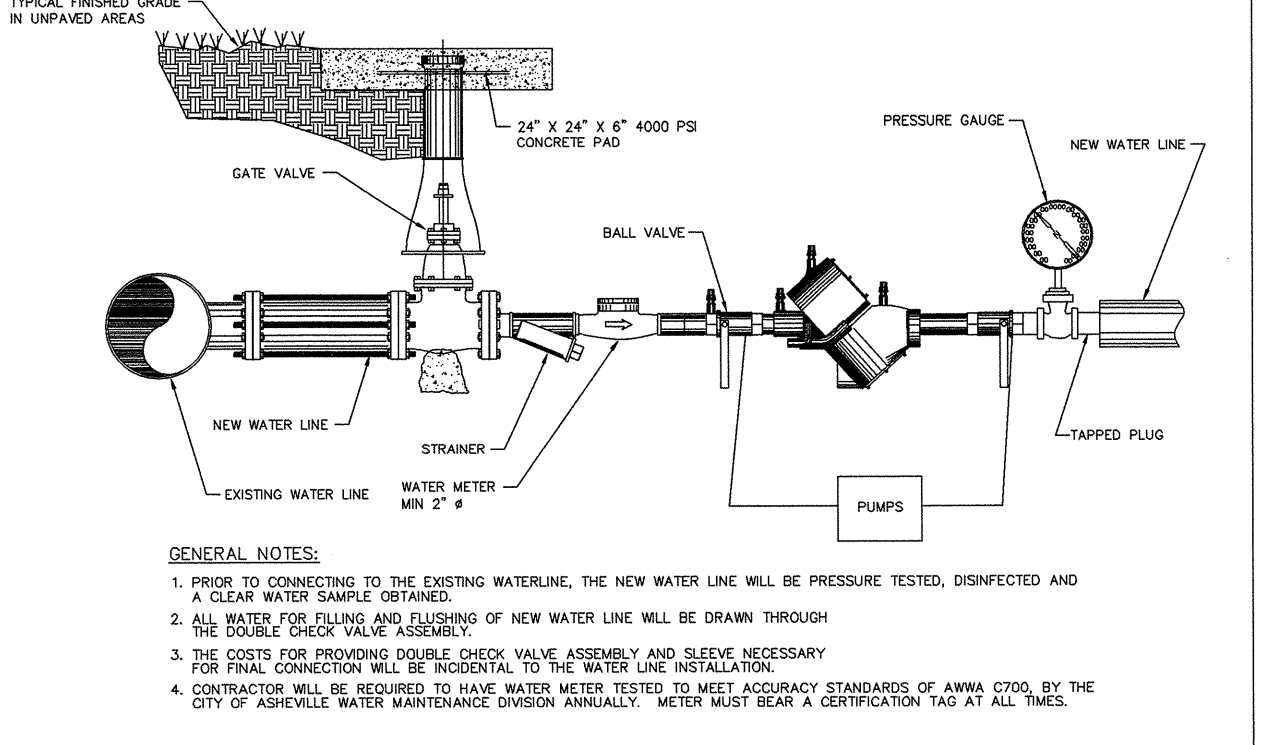
City of Asheville, NC WATER ENGINEERING DIVISION TYPICAL TRENCH DETAIL DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.21



City of Asheville, NC WATER ENGINEERING DIVISION THRUST BLOCK FOR FITTINGS & RESTRAINING REQUIREMENTS DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.22



City of Asheville, NC WATER ENGINEERING DIVISION END OF LINE PLUG DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.23



City of Asheville, NC WATER ENGINEERING DIVISION NEW WATER LINE PRESSURE TEST BACKFLOW PREVENTION ASSEMBLY DATE: 2/20/08 REVISIONS: 1. REVISED DETAIL FROM 1/11/08 STD. NO. W.28

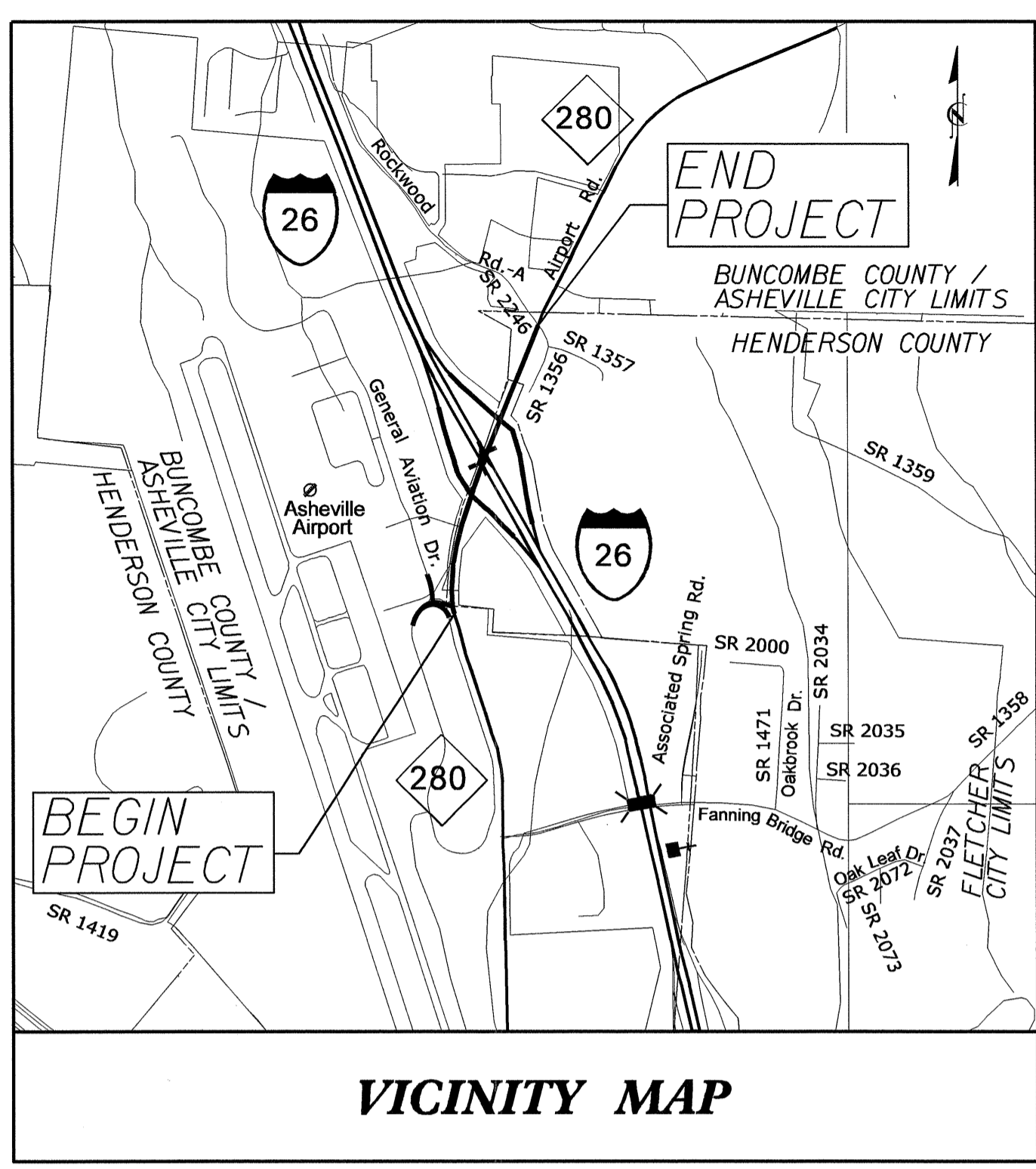
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See Sheet 1-A For Index of Sheets  
See Sheet 1-B For Conventional Symbols

T.I.P. NO.	SHEET NO.
I-5501	UO-1

**TIP PROJECT: I-5501**



**VICINITY MAP**

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## UTILITIES BY OTHERS PLANS BUNCOMBE & HENDERSON COUNTIES

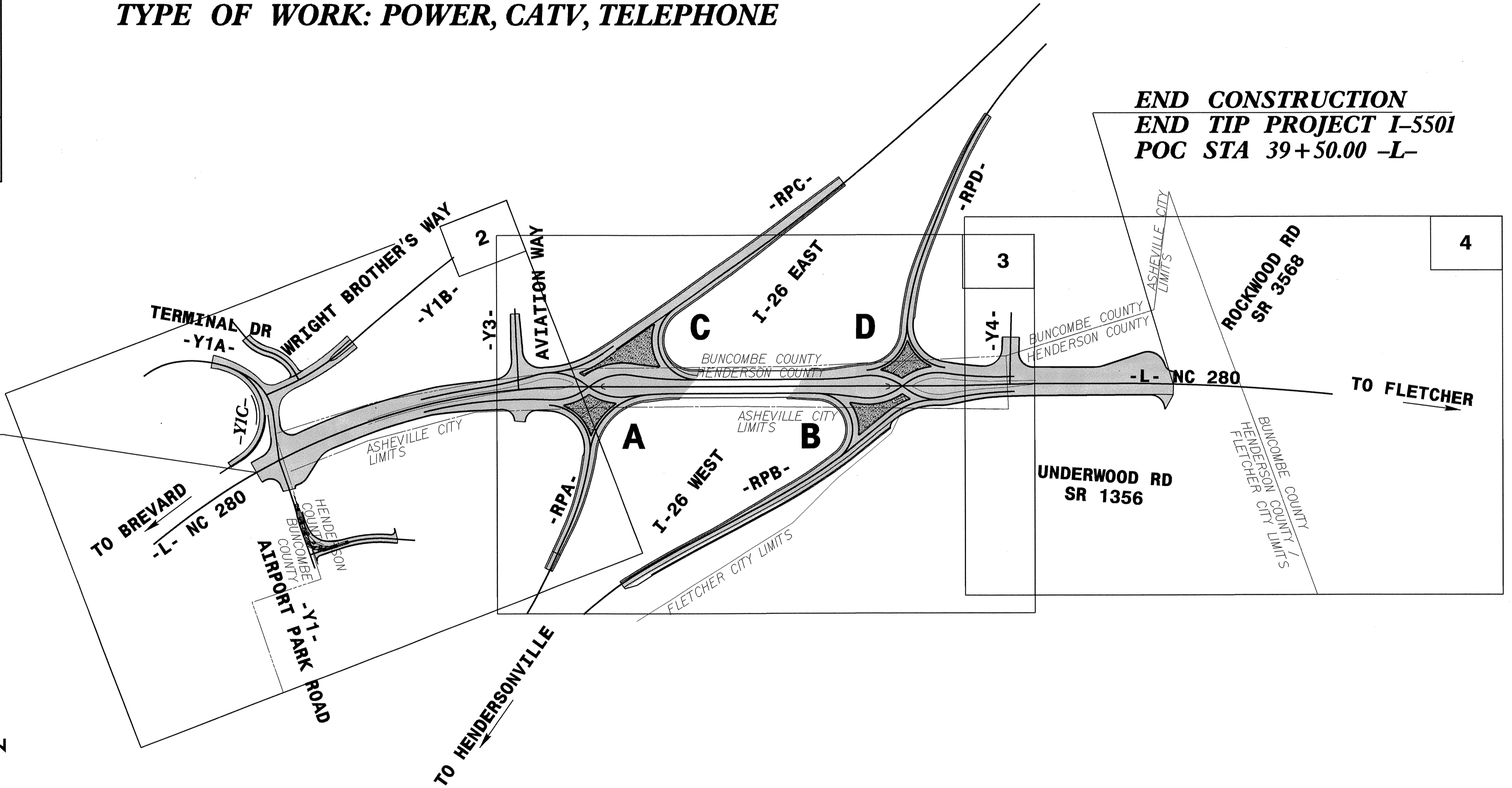
**LOCATION: I-26 / NC 280 INTERCHANGE IN ASHEVILLE**

**TYPE OF WORK: POWER, CATV, TELEPHONE**



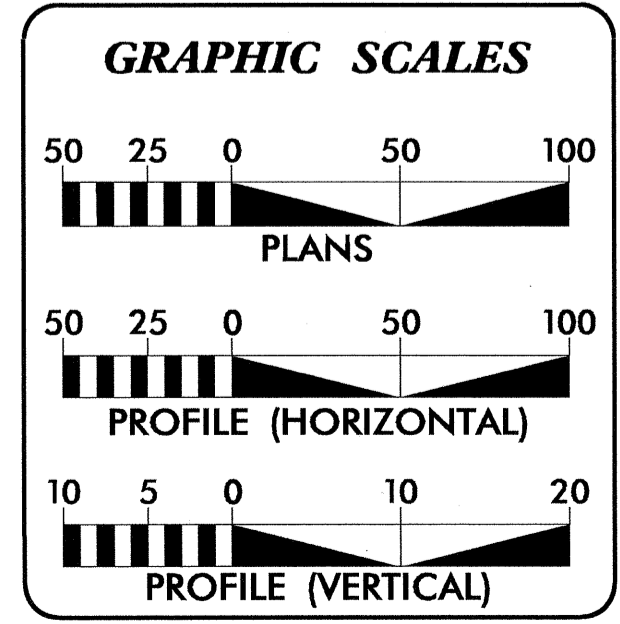
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POC STA 39+50.00 -L-**

**BEGIN CONSTRUCTION  
BEGIN TIP PROJECT I-5501  
POT STA 13+50.00 -L-**



**NOTES:**

THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.



INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-4	UTILITY BY OTHERS PLAN SHEETS

UTILITY OWNERS ON PROJECT
(A) Progress Energy
(B) AT&T
(C) PSNC Energy
(D) Charter Communications

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

1555 MAIL SERVICES CENTER  
RALEIGH NC 27699-1555  
PHONE (919) 707-6690  
FAX (919) 250-4151

**Roger Worthington, P.E.** UTILITIES SECTION ENGINEER

**Carl Barclay, P.E.** UTILITIES SQUAD LEADER PROJECT ENGINEER

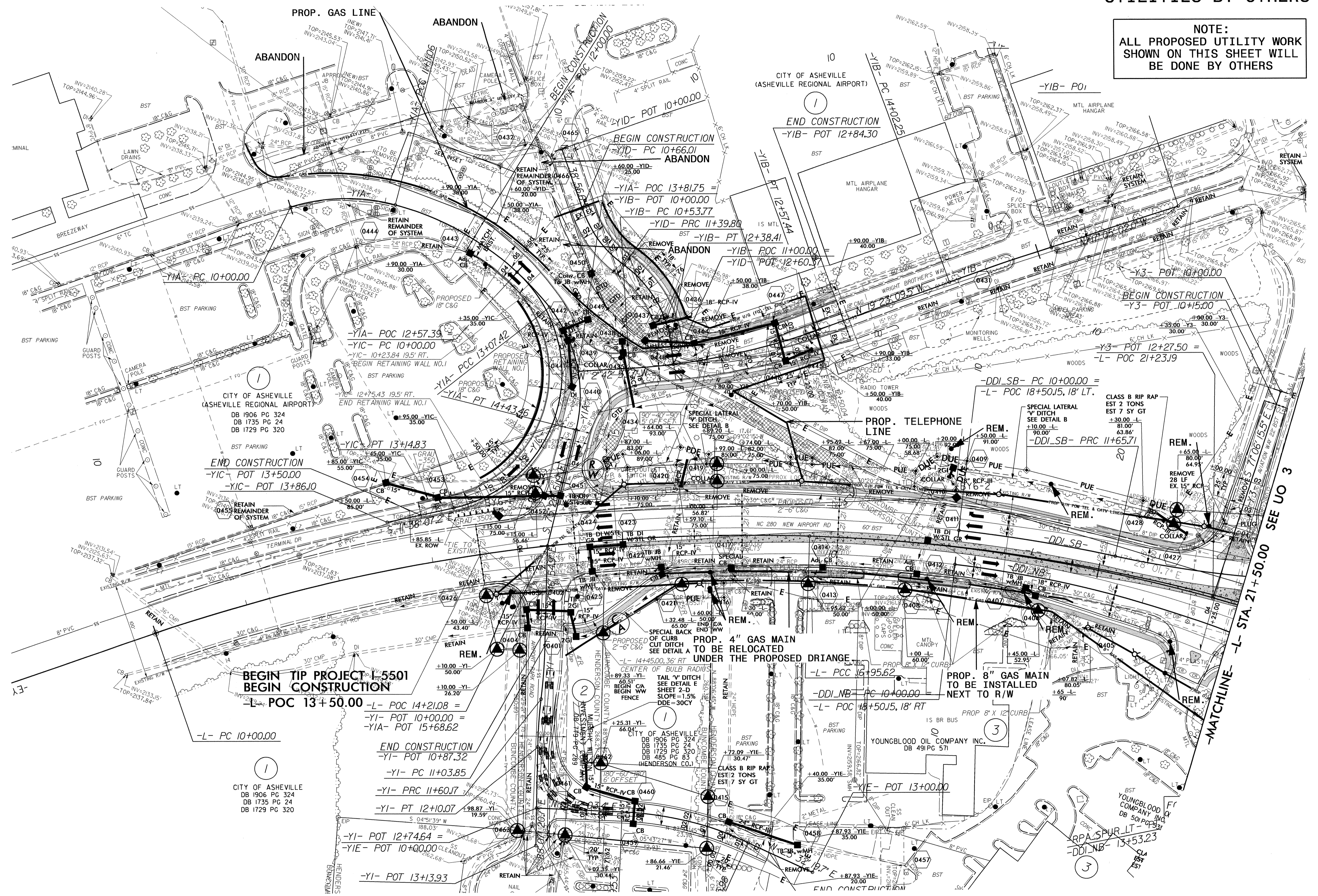
**Ali Kouchehi, P.E.** UTILITIES PROJECT DESIGNER

04-JUN-2013 15:16  
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UTILITIES BY OTHERS

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



CITY OF ASHEVILLE  
DB 1906 PG 324  
DB 1735 PG 24  
DB 1729 PG 320

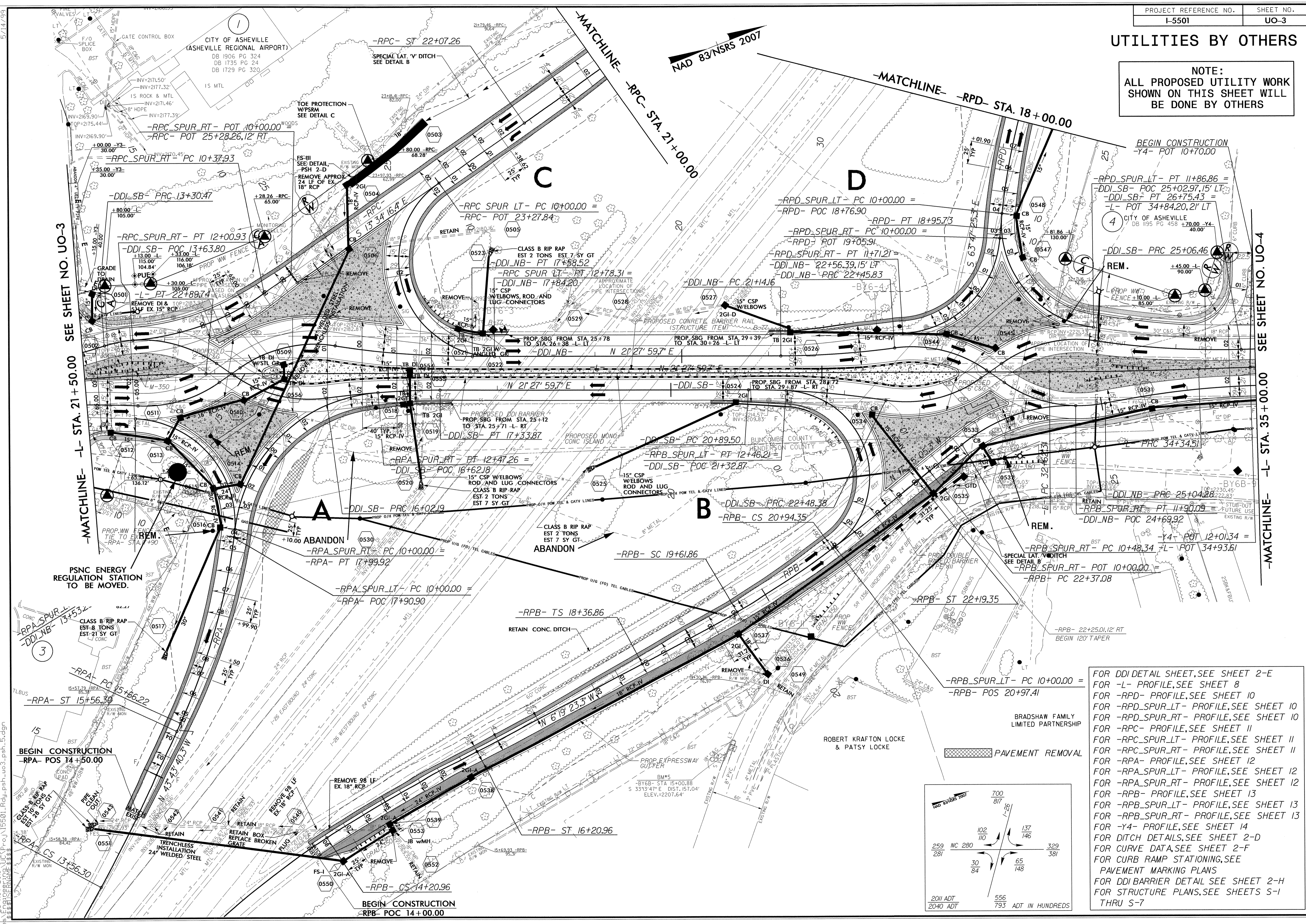
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### UTILITIES BY OTHERS

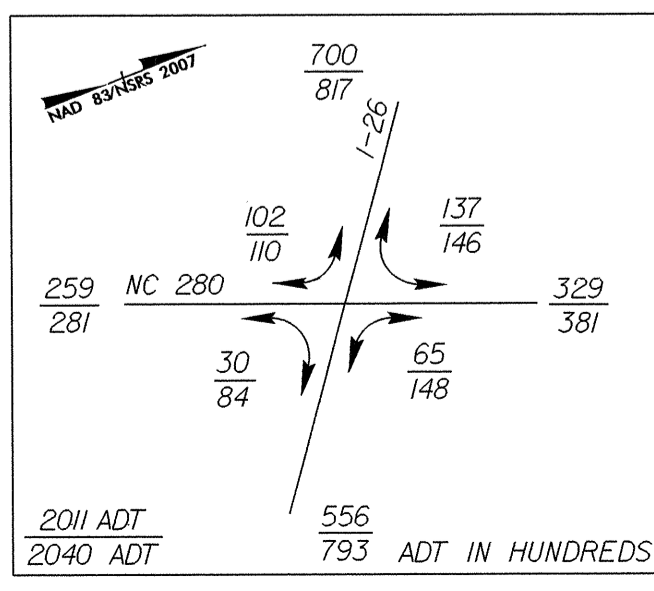
NOTE:  
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



SEE SHEET NO. UO-3  
-L- STA. 21+50.00

SEE SHEET NO. UO-4  
-L- STA. 35+00.00

FOR DDI DETAIL SHEET, SEE SHEET 2-E  
 FOR -L- PROFILE, SEE SHEET 8  
 FOR -RPD- PROFILE, SEE SHEET 10  
 FOR -RPD\_SPUR\_LT- PROFILE, SEE SHEET 10  
 FOR -RPD\_SPUR\_RT- PROFILE, SEE SHEET 10  
 FOR -RPC- PROFILE, SEE SHEET 11  
 FOR -RPC\_SPUR\_LT- PROFILE, SEE SHEET 11  
 FOR -RPC\_SPUR\_RT- PROFILE, SEE SHEET 11  
 FOR -RPA- PROFILE, SEE SHEET 12  
 FOR -RPA\_SPUR\_LT- PROFILE, SEE SHEET 12  
 FOR -RPA\_SPUR\_RT- PROFILE, SEE SHEET 12  
 FOR -RPB- PROFILE, SEE SHEET 13  
 FOR -RPB\_SPUR\_LT- PROFILE, SEE SHEET 13  
 FOR -RPB\_SPUR\_RT- PROFILE, SEE SHEET 13  
 FOR -Y4- PROFILE, SEE SHEET 14  
 FOR DITCH DETAILS, SEE SHEET 2-D  
 FOR CURVE DATA, SEE SHEET 2-F  
 FOR CURB RAMP STATIONING, SEE PAVEMENT MARKING PLANS  
 FOR DDI BARRIER DETAIL, SEE SHEET 2-H  
 FOR STRUCTURE PLANS, SEE SHEETS S-1 THRU S-7



5/14/99  
25 NOV 2013 07:31  
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