



# UTILITY CONSTRUCTION

PROJECT REFERENCE NO.		SHEET NO.	
U-4405		UC-3F	
DESIGNED BY:	AMH		
DRAWN BY:	AMH/AB		
CHECKED BY:	AMH		
APPROVED BY:	MWF		
REVISED:			
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION			
UTILITIES ENGINEERING SEC.		UTILITY CONSTRUCTION PLANS ONLY	
PHONE: (919) 707-6690		FAX: (919) 250-4751	

## UTILITY CONSTRUCTION

### UC-25 UTILITY NOTES:

1.PURSUANT TO TRAFFIC CONTROL REQUIREMENTS, CONTRACTOR MUST BE COMPLETE WITH WORK ON THE SOUTH SIDE OF RAEFORD ROAD BEFORE BEGINNING WORK ON THE NORTH SIDE. CONTRACTOR SHALL NOT BE PERFORMING WATER MAIN INSTALLATION LONGITUDINALLY TO THE ROAD ON BOTH SIDES.

2.CONT. FROM SHEET UC-24 NOTES FOR WL-26: EXISTING IN-LINE VALVE TO FACILITATE SHUTDOWN FOR RECONNECTION OF THE EXISTING 6"WATER MAIN ALONG MARLBOROUGH RD IS APPROXIMATELY 285 LF FROM PROPOSED RECONNECTION POINT. THIS VALVE FALLS IN-LINE AFTER A TEE AND BRANCH VALVE. PLANNED SHUT DOWN SHALL BE COORDINATED WITH THE ENGINEER.

3.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT (WL-26 STA 0+00 TO STA 12+50). CROSS-LINE CONNECTION (CWL-EY38) FOR MARLBOROUGH ROAD SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES.

4.CONTRACTOR SHALL CONNECT TO EXISTING 6"WATER MAIN USING FULL BODY SLEEVE AND RESTRAINING GLANDS. THIS PART OF THE CONNECTION SHALL BE SWABBED PRIOR TO RECONNECTION OF THE EXISTING 6"WATER MAIN. THE EXISTING CROSS LINE AT MARLBOROUGH ROAD SHALL BE KILLED OUT BY PERMANENTLY CLOSING AND ABANDONING EXISTING VALVE EV-85. KILL OUT SHALL BE DONE BETWEEN 9:00 P.M. TO 6:00 A.M. TO COMPLY WITH TRAFFIC CONTROL REQUIREMENTS.

5.SEE UC-26 UTILITY NOTES FOR WL-26 IN-LINE VAVLE AT STATION 12+50 TO IN-LINE VALVE AT STATION 25+43.

6.WL-28 BETWEEN IN-LINE VAVLE AT APPROX. STATION 27+22 TO IN-LINE VALVE AT APPROX. STATION 24+25, INCLUDING RAVEN HILL DRIVE CROSS-LINE CONNECTION, SHALL BE INSTALLED AND FULLY OPERATIONAL AFTER INSTALLATION OF SECTION WL-28 ON SHEET UC-26. SEE UC-6 UTILITY NOTES.

7.NEXT IN-LINE VALVE TO FACILITATE RECONNECTION OF THE 8"WATER IN RAVENHILL DR IS APPROXIMATELY 1,300 FEET (NEAR EXEUTIVE PLACE INTERSECTION) FROM PROPOSED RECONNECTION POINT. PRIOR TO THIS IN-LINE VALVE THERE ARE FOUR SEPARATE FIRE LINE BRANCHES, THIS PLANNED SERVICE INTERRUPTION SHALL BE COORDINATED WITH THE ENGINEER.

8.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT. CROSS-LINE FOR RAVEN HILL DRIVE SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES.

9.CONTRACTOR SHALL CONNECT TO EXISTING 8"WATER MAIN USING FULL BODY SLEEVE AND RESTRAINING GLANDS. THIS PART OF THE CONNECTION SHALL BE SWABBED PRIOR TO RECONNECTION OF THE EXISTING 8"WATER MAIN. THE EXISTING CROSS LINE AT RAVEN HILL DRIVE SHALL BE KILLED OUT BY PERMANENTLY CLOSING AND ABANDONING EXISTING VALVE EV-92. KILL OUT SHALL BE DONE BETWEEN 9:00 P.M. TO 6:00 A.M. TO COMPLY WITH TRAFFIC CONTROL REQUIREMENTS AND MINIMIZE SERVICE INTERRUPTION.

10.WL-28 BETWEEN IN-LINE VAVLE AT APPROX. STATION 24+25 TO IN-LINE VALVE AT APPROX. STATION 19+62, INCLUDING WILLBOROUGH AVE CROSS-LINE CONNECTION, SHALL BE INSTALLED AND FULLY OPERATIONAL AFTER INSTALLATION OF SECTION WL-28 (SEE NOTE 6).

11.NEXT IN-LINE VALVE TO FACILITATE RECONNECTION OF THE 6"WATER MAIN IN WILLBOROUGH AVE IS APPROXIMATELY 700 FEET FROM PROPOSED RECONNECTION POINT. PRIOR TO THIS IN-LINE VALVE THERE ARE SEVERAL SEPARATE FIRE LINE AND BRANCH VALVES. THIS PLANNED SERVICE INTERRUPTION SHALL BE COORDINATED WITH THE ENGINEER.

12.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT. CROSS-LINE FOR WILLBOROUGH AVE SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES.

13.CONTRACTOR SHALL CONNECT TO EXISTING 6"WATER MAIN USING FULL BODY SLEEVE AND RESTRAINING GLANDS. THIS PART OF THE CONNECTION SHALL BE SWABBED PRIOR TO RECONNECTION OF THE EXISTING 6"WATER MAIN. THE EXISTING CROSS LINE AT WILLBOROUGH AVE SHALL BE KILLED OUT BY PERMANENTLY CLOSING AND ABANDONING EXISTING VALVE EV-88. KILL OUT SHALL BE DONE BETWEEN 9:00 P.M. TO 6:00 A.M. TO COMPLY WITH TRAFFIC CONTROL REQUIREMENTS AND MINIMIZE SERVICE INTERRUPTION.

14.WL-28 BETWEEN IN-LINE VAVLE AT APPROX. STATION 19+62 TO IN-LINE VALVE AT APPROX. STATION 16+64, INCLUDING STARHILL AVE CROSS-LINE CONNECTION, SHALL BE INSTALLED AND FULLY OPERATIONAL AFTER INSTALLATION OF SECTION WL-28 (SEE NOTE 10).

15.NEXT IN-LINE VALVE TO FACILITATE RECONNECTION OF THE 6" WATER MAIN IN STARHILL AVE IS APPROXIMATELY 620 FEET (NEAR INTERSECTION OF MICHAEL ST) FROM PROPOSED RECONNECTION POINT. THIS PLANNED SERVICE INTERRUPTION SHALL BE COORDINATED WITH THE ENGINEER.

16.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT. CROSS-LINE FOR STARHILL AVE SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES.

17.CONTRACTOR SHALL CONNECT TO EXISTING 6" WATER MAIN USING FULL BODY SLEEVE AND RESTRAINING GLANDS. THIS PART OF THE CONNECTION SHALL BE SWABBED PRIOR TO RECONNECTION OF THE EXISTING 6"WATER MAIN. THE EXISTING CROSS LINE AT STARHILL AVE SHALL BE KILLED OUT BY PERMANENTLY CLOSING AND ABANDONING EXISTING VALVE EV-86. KILL OUT SHALL BE DONE BETWEEN 9:00 P.M. TO 6:00 A.M. TO COMPLY WITH TRAFFIC CONTROL REQUIREMENTS AND MINIMIZE SERVICE INTERRUPTION.

### UC-25 UTILITY NOTES

18.WL-28 BETWEEN IN-LINE VAVLE AT APPROX. STATION 16+64 TO IN-LINE VALVE AT APPROX. STATION 13+71, INCLUDING EMELINE ST CROSS-LINE CONNECTION, SHALL BE INSTALLED AND FULLY OPERATIONAL AFTER INSTALLATION OF SECTION WL-28 (SEE NOTE 14).

19.NEXT IN-LINE VALVE TO FACILITATE RECONNECTION OF THE 6" WATER MAIN IN EMELINE ST IS APPROXIMATELY 608 FEET (NEAR INTERSECTION OF MICHAEL ST) FROM PROPOSED RECONNECTION POINT. THIS PLANNED SERVICE INTERRUPTION SHALL BE COORDINATED WITH THE ENGINEER.

20.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT. CROSS-LINE FOR EMELINE ST SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES.

21.CONTRACTOR SHALL CONNECT TO EXISTING 6"WATER MAIN USING FULL BODY SLEEVE AND RESTRAINING GLANDS. THIS PART OF THE CONNECTION SHALL BE SWABBED PRIOR TO RECONNECTION OF THE EXISTING 6" WATER MAIN. THE EXISTING CROSS LINE AT EMELINE ST SHALL BE KILLED OUT BY PERMANENTLY CLOSING AND ABANDONING EXISTING VALVE EV-84. KILL OUT SHALL BE DONE BETWEEN 9:00 P.M. TO 6:00 A.M. TO COMPLY WITH TRAFFIC CONTROL REQUIREMENTS AND MINIMIZE SERVICE INTERRUPTION.

22.SEE UC-24 UTILITY NOTES FOR WL-28 IN-LINE VAVLE AT APPROX. STATION 13+71 TO IN-LINE VALVE AT APPROX. STATION 9+81.

### UC-25A UTILITY NOTES

1.TEMPORARY SHORING IF REQUIRED FOR BUILDING FOUNDATION PROTECTION OR MAINTENANCE OF TRAFFIC WILL BE PAID AS TEMPORARY SHORING IN SQUARE FEET BELOW GROUND SURFACE.

2.CONTRACTOR SHALL SUBMIT A DETAILED SEWAGE BYPASS PLAN FOR MAINTAINING ALL SEWAGE FLOWS THAT WILL BE IMPACTED BY THE SEWER RELOCATION AND ADHERE TO ALL REQUIREMENTS IN OWNER'S WASTE WATER CONTROL SPECIFICATIONS.

3.CONTRACTOR SHALL VERIFY SEWER SERVICE DEPTH AND LOCATION PRIOR TO ORDERING MATERIALS.

4.CONTRACTOR SHALL REPLACE EXISTING CLEAN OUT AND SEWER SEVICE LINE AT SAME DEPTH AND SLOPE.

5.CONTRACTOR SHALL REMOVE EXISTING CLEAN OUT AND EXISTING SEWER SERVICE TO PROPOSED CLEAN OUT LOCATION. CONTRACTOR SHALL GROUT FILL EXISTING SERVICE CORE IN MANHOLE WITH NON-SHRINK GROUT.

### UC-26 UTILITY NOTES:

1.PURSUANT TO TRAFFIC CONTROL REQUIRMENTS, CONTRACTOR MUST BE COMPLETE WITH WORK ON THE SOUTH SIDE OF RAEFORD ROAD BEFORE BEGINNING WORK ON THE NORTH SIDE. CONTRACTOR SHALL NOT BE PERFORMING WATER MAIN INSTALLATION LONGITUDINALLY TO THE ROAD ON BOTH SIDES.

2.WL-26 BETWEEN THE IN-LINE VALVE AT MARLBOROUGH ROAD (APPROX. STA. 12+50 SHEET UC-25) AND IN-LINE VALVE AT APPROX. STA. 25+43 SHALL BE INSTALLED AND FULLY OPERATIONAL PRIOR TO CONNECTION TO PREVIOUSLY INSTALLED WL-26 SEGMENT. ANCESTRY DRIVE WILL BE THE SOURCE WATER FOR WL-26 TO THIS SEGMENT SEE UTILITY NOTES UC-24.

3.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT.

### RIGHT OF ENTRY NOTE:

4.CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING RIGHT OF ENTRY TO RECONNECT NEW MAIN TO THE EXISTING 8" FIRE LINE FOR PARCEL 308 AT WL-26 APPROX. STA. 23+75.

5.SEE UTILITY NOTES FOR WL-26 AND WL-25 ON UC-27 AND UC-32. SEGMENT OF WL-26 BETWEEN 12" IN-LINE VALVE AT STA. 25+43 AND 12" IN-LINE VALVE AT STA. 30+64 SHALL BE INSTALLED AFTER WL-26 (BETWEEN 12" IN-LINE VALVE AT STA. 30+64 TO 12" IN-LINE VALVE AT STA. 40+15) AND ALL OF WL-25 (SEE SHEET UC-27 AND UC-32) IS BUILT OUT AND OPERATIONAL.

6.INSTALLATION FOR SEGMENT OF WL-26 BETWEEN 12" IN-LINE VALVE AT STA. 25+43 AND 12" IN-LINE VALVE AT STA. 30+64 AND CROSS-LINE CONNECTION FOR PURDUE DRIVE SHALL BE PERFORMED BETWEEN 9:00 P.M. AND 6:00 A.M. ALL OPEN EXCAVATIONS SHALL BE PLATED AND READY FOR TRAFFIC BY 6:00 A.M. UNLESS EXCAVATIONS ARE BACKFILLED/COMPACTED AND PATCHED BY 6:00 A.M.

7.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT. CROSS-LINE FOR PURDUE RD SHALL BE FULLY RESTRAINED THROUGH BRANCH VALVES.

8.THE EXISTING 6"WATER LINE LOCATED IN PURDUE DRIVE HAS A LOOPED SYSTEM AND THREE EXISTING VALVES AT THE INTERSECTION OF BREEZEWOOD AVE. CONTRACTOR TO COORDINATE WITH THE ENGINEER TO FACILITATE TEMPORARY SHUTDOWN.

### UC-26 UTILITY NOTES

9.CONTRACTOR SHALL CONNECT TO EXISTING 6"WATER MAIN USING FULLBODY SLEEVE AND RESTRAINING GLANDS. THIS PART OF THE CONNECTION SHALL BE SWABBED PRIOR TO RECONNECTION OF THE EXISTING 6"WATER MAIN. THE EXISTING CROSS LINE AT PURDUE DRIVE SHALL BE KILLED OUT BY PERMANENTLY CLOSING AND ABANDONING EXISTING VALVE EV-97. KILL OUT SHALL BE DONE BETWEEN 9:00 P.M. TO 6:00 A.M. TO COMPLY WITH TRAFFIC CONTROL REQUIREMENTS.

10.SEE UC-27 UTILITY NOTES FOR WL-26 IN-LINE VAVLE AT STATION 30+64 TO IN-LINE VALVE AT STATION 40+15.

11.WL-28 BETWEEN THE IN-LINE VALVE (APPROX. STA. 27+22) TO THE IN-LINE VALVE (APPROX. STA. 37+58) SHALL BE INSTALLED AND FULLY OPERATIONAL PRIOR AFTER INTALLATION OF WL-28 ON SHEET UC-27. SEE UC-27 UTILITY NOTES.

### RIGHT OF ENTRY NOTE:

12.CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING RIGHT OF ENTRY TO RECONNECT NEW MAIN TO THE EXISTING 8" FIRE LINE FOR PARCEL 313 AT WL-28 APPROX. STA. 31+50.

13.ALL EXISTING METERS THAT OVERLAP THIS RELOCATION SEGMENT SHALL BE SWITCHED OVER TO THIS NEW SEGMENT.

14.SEE UC-25 UTILITY NOTES FOR WL-28 IN-LINE VAVLE AT APPROX. STATION 27+22 TO IN-LINE VALVE AT APPROX. STATION 24+25.

### UC-26A UTILITY NOTES:

1.TEMPORARY SHORING IF REQUIRED FOR BUILDING FOUNDATION PROTECTION OR MAINTENANCE OF TRAFFIC WILL BE PAID AS TEMPORARY SHORING IN SQUARE FEET BELOW GROUND SURFACE.

2.CONTRACTOR SHALL SUBMIT A DETAILED SEWAGE BYPASS PLAN FOR MAINTAINING ALL SEWAGE FLOWS THAT WILL BE IMPACTED BY THE SEWER RELOCATION AND ADHERE TO ALL REQUIREMENTS IN OWNER'S WASTE WATER CONTROL SPECIFICATIONS.

3.CONTRACTOR SHALL VERIFY SEWER SERVICE DEPTH AND LOCATION PRIOR TO ORDERING MATERIALS.

4.CONTRACTOR SHALL REPLACE EXISTING CLEAN OUT AND SEWER SEVICE LINE AT SAME DEPTH AND SLOPE.

5.CONTRACTOR SHALL REMOVE EXISTING CLEAN OUT AND EXISTING SEWER SERVICE TO PROPOSED CLEAN OUT LOCATION. CONTRACTOR SHALL GROUT FILL EXISTING SERVICE CORE IN MANHOLE WITH NON-SHRINK GROUT.

6.CONTRACTOR SHALL COORDINATE WITH DRAINAGE INSTALLATION OF 30" SMOOTH STEEL STORM PIPE BETWEEN DRAINAGE STRUCTURE 2624 AND 2625 TO REPLACE 20 FEET OF EXISTING 12" VCP PIPE WITH DIP CENTERED UNDER STORM PIPE BETWEEN EXIST MH-3 AND EXIST. MH-2.

7.CONTRACTOR SHALL COORDINATE WITH DRAINAGE INSTALLATION OF 36" SMOOTH STEEL STORM PIPE BETWEEN DRAINAGE STRUCTURE 2635 AND 2636 TO REPLACE 120 FEET OF EXISTING 12" VCP PIPE WITH DIP UNDER STORM PIPE BETWEEN EXIST MH-2 AND EXIST. MH-1 (SHEET UC-27A).

### RIGHT OF ENTRY NOTE:

8.CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING PROPERTY OWNER (NCDOT PARCEL 314) AND OBTAINING RIGHT OF ENTRY OR TEMPORARY CONSTRUCTION EASEMENT TO RECONNECT LATERAL TO EXISTING PLUMBING.

REVISIONS

UTILITY REV.- JULY 23,2008 - REVISED ALL CONSTRUCTION NOTES

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