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U-4405	UC-3C
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UTILITY CONSTRUCTION

UTILITY CONSTRUCTION

UC-14 UTILITY NOTES:

12.INSTALLATION OF WL-17 AND INTERRUPTION OF EXISTING 24"ON NORTH SIDE THAT CROSSES OVER EXISTING TWIN 84"CMPS AND PROPOSED 72"TRENCHLESS CROSSING SHALL BE CLOSELY COORDINATED WITH INSTALLATION OF CULVERT IMPROVEMENTS. WL-17 SHALL BE INSTALLED FOLLOWING THE COMPLETION OF THE 84"CMP EXTENSIONS AND THE TRENCHLESS CROSSING OF THE 72"DRAINAGE PIPE SO AS TO NOT CONFLICT WITH THE DRAINAGE WORK. WL-20R1 AND THE 8"AND 2"TEMPORARY WATER LINES SHALL BE OPERATIONAL PRIOR TO INTIATING ANY WORK ON THE EXISTING 84"CMPS AND THE 72"TRENCHLESS CROSSING. THE DRAINAGE WORK MAY REQUIRE THE EXISTING 24"MAIN BETWEEN SKIBO ROAD AND HOPE MILLS ROAD TO BE SHUTDOWN AS A PORTION OF THIS SEGMENT OF THE EXISTING 24"MAIN IS VERY CLOSE TO EXCAVATION LIMITS. EXISTING VALVE SPACING DOES NOT ALLOW ANY SHORTER RUN TO BE ISOLATED THAN THAT BETWEEN SKIBO AND HOPE MILLS ROAD. SEE SEQUENCE ON UC-15 AND UC-17 UTILITY NOTES FOR ADDITIONAL DETAILS. IF ANY PORTION OF THE EXISTING 24"MAIN THAT IS LOCATED ABOVE THE EXISTING CMPS AND POTENTIALLY WITHIN EXCAVATION LIMITS OF THE CONCRETE COLLARS FOR THE EXTENSIONS OF THE 84"CMPS, THEN REMOVE AND REPLACE WITH RESTRAINED JOINT 24"DUCTILE MAIN BETWEEN THE PROPOSED TAPPING SLEEVE FOR WL-17 AND THE EXISTING 24"X24"X24"TEE JUST INSIDE THE RADIUS OF THE INTERSECTION OF SKIBO ROAD AND RAEFORD ROAD; AND INSTALL 24"X24"X24"RJ TEE AND RJ 24"BRANCH VALVE TO FACILITATE WL-17 AS OPPOSED TO THE TAPPING SLEEVE AND VALVE. EXISTING VALVES TO ISOLATE THIS SEGMENT OF THE 24"MAIN ARE EV-31, EV-32, EV-33 AND EV-45 (SEE UC-17).

13.ABANDONMENT OR KILL-OUT OF EXISTING 24" MAIN THAT CROSSES RAEFORD ROAD AND THAT IS LOCATED BETWEEN EV-33 AND CUT IN FOR WL-17 SHALL BE PERFORMED UNDER SERVICE INTERRUPTION AND SEQUENCED ONCE WL-17 IS OPERATIONAL. EV-33, EV-31, PROPOSED VALVE ON WL-14 AT STA. 32+75, PROPOSED VALVE ON WL-20R1 AT STA. 154+51.95 AND PROPOSED VALVE ON WL-17 AT STA. 0+00 SHALL FACILIATE SHUTDOWN. EXISTING 24" WATER MAIN IS FULLY RESTRAINED AT DESIGNATED KILL-OUT LOCATION, BOTH ON THE ACTIVE AND KILL-OUT SIDES OF THIS LOCATION. INSTALL RJ PLUG AND KICKER PER KILLOUT DETAIL. COORDINATE THIS KILL-OUT WITH KILL-OUT OF EXISTING 24"BETWEEN TAPPING SLEEVE AND VALVE ON WL-20R1 AND WL-19 CONNECTION TO EXISTING 24"MAIN ON HOPE MILLS ROAD, UNLESS INSTALLATION OF WL-17 AND DRAINAGE IMPROVEMENTS FOR CULVERT UPGRADES HAS LONGER TIME FRAME OR INSTALLATION SCHEDULES DO NOT OVERLAP.

14.CONNECTION OF WL-17 INTO EXISTING 24"MAIN ALONG SKIBO ROAD SHALL BE PERFORMED BY A COMBINATION OF A 24"TEMPORARY LINE STOP AND CLOSURE OF EV-33. INSTALL AND HAVE WL-17 OPERATIONAL TO LAST IN LINE VALVE AT APPROX. STA. 3+65. TEMPORARY LINE STOP IS NECESSITATED BECAUSE OF LONG VALVE SPACING TO NEXT NEAREST IN LINE VALVE ON 24" MAIN UP SKIBO ROAD. ADHERE TO CUT IN CONSTRUCTION REQUIREMENTS AND HAVE LINE STOP OPERATIONAL PRIOR TO INTIATING CUT IN. COORDINATE LINE STOP PLACEMENT WITH UTILITY OWNER'S PROJECT COORDINATOR. LAY BACK INTO EXISTING MAIN A MINIMUM OF 20 LF WITH 24"RESTRAINED JOINT PIPE. WORK INCLUSIVE OF LINE STOP INSTALLATION SHALL BE PERFORMED BETWEEN 9:00 P.M. AND 6:00 A.M. TO AVOID TRAFFIC CONGESTION. PROVIDE TRAFFIC RATED PLATING FOR LINE STOP EXCAVATION AND TIE IN EXCAVATION UNLESS EXCAVATIONS ARE DRIVABLE AT THE END OF EACH WORKING NIGHT.

15.WL-18 INSTALLATION SHALL BEGIN AT STA. 0+00 AND CONTINUE TOWARDS HOPE MILLS ROAD. ADHERE TO CUT IN CONSTRUCTION FOR CONNECTION TO EXISTING MAINS AT STA. 0+00 AND ITS TERMINUS, APPROX. STA. 38+50. CONNECTION TO EXISTING MAIN AT STA. 0+00 SHALL BE UNDER SERVICE INTERRUPTION SCHEDULED BETWEEN 9:00 P.M. AND 6:00 A.M. TO MINIMIZE SERVICE INTERRUPTION TO IMPACTED BUSINESSES. PERFORM EXISTING MAIN ALTERATION ON DUKE STREET DURING THE PLANNED OUTAGE FOR THE CONNECTION OF WL-18 TO EXISTING TERMINUS OF 8"MAIN. ISOLATE EXISTING MAINS BY TEMPORARY CLOSURE OF EV-35, EV-35A AND EV-35B. PARCELS 164, 165 AND 166 ARE SERVED FROM THE REAR AND FROM DAIRY STREET. AFTER COMPLETION OF ALTERATION OF EXISTING MAIN ON DUKE STREET, RE-OPEN EV-35B. MAINTAIN CLOSURE OF EV-35 AND EV-35A UNTIL NEW WATER MAIN LENGTH FOR WL-18 EXCEEDS 125 LF FROM NEW 8" RJ VALVE. AT THAT POINT, RE-OPEN EV-35 AND EV-35A AND KEEP NEW VALVE AT WL-18 STA. 0+00 CLOSED UNTIL PHASING IN OPERATION OF WL-18 AS IT CONTINUES TOWARD HOPE MILLS ROAD.

UC-15 UTILITY NOTES:

1.FULLY GROUT MIN. 60 LF OF 24" EXIST MAIN. PLUG EACH END OF ABANDONED MAIN PER KILLOUT DETAIL W-22.

2.KILL OUT OF LINE SIDE OF TAPPING SLEEVE FOR WL-20R1 SHALL BE COORDINATED WITH 24" MAIN SHUTDOWN FOR DRAINAGE IMPROVEMENTS AS DEFINED IN NOTE 8 ON UC-17 UTILITY NOTES.

3.SEE SEQUENCE NOTES (NOTE 1.C) ON UC-17 UTILITY NOTES FOR WL-20R1.

4.PROVIDE TEMPORARY WATER LINE TO MAINTAIN WATER SERVICES BETWEEN RAEFORD ROAD AND GREENLEAF DRIVE DURING 24" SHUTDOWNS. TEMPORARY 8"MAIN SHALL BE CONNECTED TO EXISTING HYDRANT TO MAINTAIN ADEQUATE FIRE FLOW. PROVIDE 2"TEMPORARY WATER MAIN OFF 8"TEMPORARY WATER MAIN TO SERVE ACTIVE METERS (PARCELS 160 AND 162). COORDINATE UTILITY OWNER PROJECT COORDINATOR TO OPEN AND CLOSE EXISTING BRANCH VALVE ON GREENLEAF AS NEEDED DURING 24"MAIN SHUTDOWNS. TEMPORARY WATER SYSTEM SHALL REMAIN IN PLACE UNTIL RELOCATION WATER MAIN BETWEEN SKIBO AND HOPE MILLS ROAD AND KILL OUTS ARE COMPLETED.

5.COMPLETE CROSS-LINE RECONNECTION AT DURANT DRIVE FOR WL-18 AND WL-20R1 CONCURRENT WITH KILLOUT OF EXISTING 24" MAIN BETWEEN TAPPING SLEEVE AND VALVE FOR WL-20R1 AND CONNECTION OF WL-19 TO EXISTING 24"MAIN IN HOPE MILLS ROAD. RECONNECTIONS SHALL ADHERE TO CUT IN CONSTRUCTION REQUIREMENTS TO RETAIN EXISTING AND ENCASED 8"PVC UNDER RAEFORD ROAD.

UC-16 UTILITY NOTES:

1.INSTALL WL-18 AND HAVE IT OPERATIONAL UP TO STA. 19+00 INCLUSIVE OF THE BRANCH FOR THE RECONNECTION OF THE EXISTING MAIN ON DURANT DRIVE. RESTRAIN TEE AND BRANCH VALVE FOR THE RECONNECTION. RECONNECT EXISTING BRANCH MAIN ON DURANT DRIVE UNDER PLANNED SERVICE INTERRUPTION AND ADHERE TO CUT IN CONSTRUCTION REQUIREMENTS. PERFORM RECONNECTION OF DURANT DRIVE CROSS-LINE CONCURRENT WITH RECONNECTION OF THE EXISTING 8" MAIN TO WL-20R1. THIS SEQUENCE WILL MINIMIZE INTERRUPTION OF SERVICE ON DURANT DRIVE AND ALLOW THE EXISTING 8"PVC CROSS-LINE UNDER RAEFORD ROAD TO BE RETAINED.

UC-17 UTILITY NOTES:

1.PRIOR TO BEGINNING WORK ON PORTION OF WL-18 BETWEEN EUCALYPTUS AND HOPE MILLS ROAD, CONTRACTOR SHALL COMPLETE FOLLOWING:

A.WL-18 SHALL BE OPERATIONAL UPTO PROPOSED IN LINE VALVE AT APPROX. STA. 33+75 (EUCALYPTUS ROAD). ALL EXISTING SERVICES SHALL BE TRANSFERRED TO WL-18.

B.WL-19 SHALL BE INSTALLED AND OPERATIONAL BETWEEN THE CONNECTION TO EXISTING 8" MAIN AT FRED ANDERSON AND THE IN-LINE VALVE AT APPROX. STA. 1+60 SHALL BE OPERATIONAL. ALL EXISTING SERVICES AND EXSITING BRANCH MAINS ALONG THIS SEGMENT SHALL BE TRANSFERRED TO THIS PORTION OF WL-19.

C.WL-20R1 SHALL BE INSTALLED AND OPERATIONAL UP TO STA. 38+81. ALL EXISTING BRANCH MAINS AND EXISTING SERVICES THAT ARE ON THE SAME SIDE OF RAEFORD ROAD AS THE EXISTING 24"MAIN AND THAT ARE CONNECTED TO EXISTING 6"/8"ON SOUTH SIDE OF RAEFORD ROAD SHALL BE TRANSFERRED AND CONNECTED TO WL-20R1. ALTERNATIVELY, CONTRACTOR CAN TEMPORARILY TRANSFER THESE EXISTING SERVICES TO THE EXISTING 24" MAIN TO PROVIDE FLEXIBILITY IN SEQUENCING THE INSTALLATION OF WL-20R1 WITH RELOCATION AND STORM DRAINAGE WORK ON THE NORTH SIDE. NO SEPARATE PAYMENT FOR THE "TEMPORARY"TRANSFER OF THESE SERVICES SHALL BE PROVIDED.

D.TEMPORARY 2" MAIN TO MAINTAIN WATER SERVICES FOR PARCEL 21 SHALL BE OPERATIONAL. DURING INSTALLATION OF TEMPORARY 2"MAIN, INSTALL NEW METERS FOR BUSINESSES AT DESIGNATED LOCATION.

2.COORDINATE WITH UTILITY OWNER'S PROJECT COORDINATOR TO INTERRUPT SERVICE OF EXISTING 6"AC/EXISTING 8"CONNECTION POINT FOR WL-18 SINCE WL-18 WILL BE PLACED IN SAME TRENCH AS EXISTING 8"MAIN. ADHERE TO PWC'S POLICIES FOR WATER MAIN OUTAGE. WORK SHALL BE PERFORMED BETWEEN 9:00 P.M. AND 6:00 A.M. TO COMPLY WITH TRAFFIC CONTROL REQUIREMENTS. EXISTING VALVES TO FACILITATE OUTAGE INCLUDE EV-47A AND EV-48A (SEE SHEET UC-18). REMOVE AND REPLACE EV-47 WITH NEW RESTRAINED VALVE AS SHOWN TO FACILITATE PRESSURE TEST. AFTER PROPOSED SEGMENT BETWEEN NEW EV-47 AND EUCALYPTUS ROAD IS OPERATIONAL AND IS READY FOR WATER SERVICES, REMOVE TEMPORARY LATERALS AND TEMPORARY MAIN FOR PARCEL 21 AND PROVIDE NEW LATERALS FROM METER TO MAIN. NO PORTION OF THE TEMPORARY LATERAL SHALL BE UTILIZED. CLOSE LOOP BETWEEN THE GANG METERS USING 2"MAIN. NO PORTION OF THE TEMPORARY 2"MAIN SHALL BE UTILIZED TO PROVIDE A LOOPED 2"SERVICE LINE. MAINTAIN VALVE CLOSURE OF EV-47A, NEW VALVE-47 AND EV-48 TO FACILITATE WATER MAIN INSTALLATION BETWEEN THE HOPE MILLS ROAD (EAST SIDE) AND THE INSTALLED PORTION OF WL-19 AS DEFINED IN ITEM 1.A.

3.ADHERE TO NCDOT TRAFFIC CONTROL PROVISIONS. WL-20R1 INSTALLATION SHALL BE COORDINATED SO THAT IT IS PERFORMED WHEN LONGITUDINAL WORK ON THE SOUTH SIDE OF RAEFORD ROAD IS NOT OCCURRING. IF CONTRACTOR ELECTS TO INSTALL WI-20R1 INSTALLATION AS DEFIND IN NOTE 1.C ABOVE, NO RELOCATION WORK ON THE SOUTH SIDE CAN PERFORMED UNTIL ALL WORK ON WL-20R1 IS COMPLETED. COORDINATE WITH THE DEPARTMENT TO IMPLEMENT ANY ADDITIONAL TRAFFIC CONTROL MEASURES THAT MAY BE REQUIRED FOR INSTALLATION OF WL-20R1 DURING THE SOUTHSIDE PHASING.

4.RECONNECTION OF THE GLENSFORD DRIVE CROSS-LINE SHALL BE BY SERVICE INTERRUPTION AND COMPLY WITH CUT IN CONSTRUCTION REQUIREMENTS. WL-20R1 SHALL BE OPERATIONAL PRIOR TO RECONNECTING THE CROSS-LINE. ITS BRANCH FOR THE RECONNECTION OF THIS EXISTING CROSS-LINE SHALL BE RESTRAINED. RECONNECT THE EXISTING CROSS-LINE BY ISOLATING THE SEGMENT BETWEEN RAEFORD ROAD AND BELFORD ROAD TRAFFIC CIRCLE USING EV-46 AND OR EV-46A AND THE EXISTING IN LINE VALVE AT THE TRAFFIC CIRCLE. OUTAGE SHALL BE PLANNED BETWEEN 9:00 P.M. AND 6:00 A.M. TO MINIMIMZE IMPACT TO EXISTING SERVICES ALONG THIS SEGMENT IN NOTE 1.B AS NOTED ABOVE. RECONNECTION OF GLENSFORD DRIVE TO WL-20R1 SHALL BE PERFORMED JUST PRIOR TO 30"CUT IN CONNNECTION OF WL-19 TO EXISTING 24"IN HOPE MILLS ROAD. CLOSE AND KILLOUT OF EV-46.

UC-17 UTILITY NOTES:

5.ADHERE TO FOLLOWING CONSTRUCTION SEQUENCE FOR CUT IN CONNECTION TO EXISTING 24"WITHIN HOPE MILLS ROAD:

A.INSTALL WL-18A, WL-19 BETWEEN INSTALLED PORTION AS DEFINED IN NOTE 1.A (STA. 1+60) AND 24" VALVE (APPROX. STA. 0+50) AND PROPOSED 24"CROSSING UNDER RAEFORD ROAD (WL BETWEEN WL-20R1 AND WL-19) AND HAVE THESE MAINS OPERATIONAL.

B.INSTALL WL-20R2 BETWEEN STA. 0+00 AND IN LINE VALVE NEAR STA. 8+75, HAVE IT OPERATIONAL AND ALL CROSS-LINE CONNECTIONS AND METERS TRANSFERRED. WORK ON THIS SEGMENT SHALL ADHERE TO TRAFFIC CONTROL PROVISIONS AND BE PERFORMED WHEN NO OTHER WORK LONGITUDINAL TO THE SOUTH SIDE IS OCCURRING. ALTERNATIVELY, A 12"TEMPORARY LINE STOP CAN BE INSTALLED ON EXISTING 12"MAIN TO PROVIDE FLEXIBILITY IN SEQUENCING THE INSTALLATION OF WL-20R2 WITH RELOCATION AND STORM DRAINAGE WORK ON THE NORTH SIDE. NO SEPARATE PAYMENT FOR THIS TEMPORARY LINE STOP SHALL BE PROVIDED. INSTALLATION OF WL-20R2 AS NOTED OR 12"TEMPORARY LINE STOP SHALL BE NECESSARY TO MAINTAIN EXISTING SERVICES FOR ALDI AND OTHER BUSINESSES SINCE EXISTING 12" BETWEEN EV-50A (SHEET UC-18) AND INTERSECTION OF GLENSFORD DRIVE AND RAEFORD ROAD WILL HAVE TO BE ISOLATED.

C.EV-47A AND NEW VALVE-27 SHALL BE RE-OPENED TO ALLOW BACKFEEDING OF THE EXISTING 24" MAIN THAT SERVES PORTIONS OUT TO HOPE MILLS WHILE ITS CONNECTION TO THE 24"MAIN ON THE NORTH SIDE IS ISOLATED TO FACILITATE RECONNECTION.

6.EXISTING MAIN BETWEEN NEW VALVE-47 AND APPROX. STA. 0+22 ON WL-18 SHALL BE INSTALLED UNDER SERVICE INTERRUPTION THROUGH VALVE CLOSURE CONSISTING OF EV-47A, NEW VALVE-47 AND EV-48.

7.WL-19 CONNECTION TO EXISTING 24"MAIN WITHIN HOPE MILLS ROAD SHALL BE PERFORMED BY A COMBINATION OF A 24"TEMPORARY LINE STOP AND CLOSURE OF EV-45 AND EV-50A (SHEET UC-18). TEMPORARY 24"LINE STOP IS NECESSITATED BECAUSE OF LONG VALVE SPACING TO NEAREST IN LINE VALVE ON 24"MAIN DOWN HOPE MILLS ROAD. ADHERE TO CUT IN CONSTRUCTION REQUIREMENTS AND HAVE LINE STOP OPERATIONAL PRIOR TO INTIATING CUT IN. COORDINATE LINE STOP PLACEMENT WITH UTILITY OWNER'S PROJECT COORDINATOR. REMOVE EXISTING 24"VALVE AND SLEEVE INTO EXISTING MAIN. LAYING BACK A MINIMUM OF 20 LF WITH 24"RESTRAINED JOINT PIPE IS NOT REQUIRED AS RECORDS INDICATE EXISTING MAIN IS RESTRAINED, UNLESS ACTUAL CONDITIONS DIFFER. WORK INCLUSIVE OF LINE STOP INSTALLATION SHALL BE PERFORMED BETWEEN 9:00 P.M. AND 6:00 A.M. TO AVOID TRAFFIC CONGESTION. PROVIDE TRAFFIC RATED PLATING FOR LINE STOP EXCAVATION AND TIE IN EXCAVATION UNLESS ROAD IS RETURNED TO DRIVABLE CONDITIONS AT END OF EACH WORK PERIOD.

8.COORDINATE KILLOUT OF EXISTING 24"WATER MAIN BETWEEN WL-20R1 TAPPING SLEEVE AND VALVE AND WL-19 CONNECTION TO EXISTING 24"MAIN CONCURRENTLY.

9.PARCEL 25A (CVS PHARMACY) HAS 2-1" METERS AND 6" FIRELINE THAT WILL NEED TO BE REPLACED AND RECONNECTED TO WL-19.

10.REMOVE AND REPLACE EXISTING SEWER IN KARR DRIVE AS SHOWN WITH DUCTILE IRON PRIOR TO INSTALLATION OF WL-20R1.

UC-18 UTILITY NOTES:

1.SEE UC-17 UTILITY NOTE 1 FOR SEQUENCE OF WL-19 AND WL-20R2 BETWEEN STA. 0+00 AND STA. 8+75.

2.BUILDOUT WL-20R2 FROM STA. 8+75 TO PROP. IN LINE VALVE NEAR STA. 24+35 (SEE SHEET UC-19). INSTALL, HAVE OPERATIONAL AND CONNECT ALL CROSS-LINES WITHIN THIS SEGMENT. TRANSFER ALL IMPACTED METERS TO THIS SEGMENT OF WL-20R2.

3.BUILD OUT WL-19 FROM TAPPING SLEEVE TO IN LINE VALVE NEAR STA. 9+60 (SEE SHEET UC-17). PERFORM KILL-OUT ON THE LINE SIDE OF TAPPING SLEEVE FOR WL-19 AT STA. 9+60 ONCE EXISTING 12"ON THE NORTH SIDE BETWEEN EV-50 AND EV-50A (NEAR INTERSECTION OF MONTCLAIR AND RAEFORD, SEE SHEET UC-19) IS READY TO BE ABANDONDED. KILL OUT OF THIS EXISTING 6" WATER MAIN BETWEEN WL-19 TAPPING SLEEVE AND EXISTING 12"MAIN ON NORTH SIDE WILL INVOLVE PERMANENTLY CLOSING EV-50, EV-50A AND EV-50C AND TEMPORARILY CLOSING EV-50D TO AVOID BACKFEEDING FROM FRED ANDERSON DURING KILL-OUT PROCEDURE.

4.BUILD OUT WL-19B FROM STA. 2+06.32 (SEE SHEET UC-19) TO END OF LINE. SEE ADDITIONAL SEQUENCE NOTES ON UC-19 UTILITY NOTES.

REVISIONS

UTILITY REV. - JULY 23,2018 - REVISED ALL CONSTRUCTION NOTES

02-AUG-2018 16:40
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