ITEM 203 - ROAD MISC.: SUPPORTING EXISTING UTILITY POLES

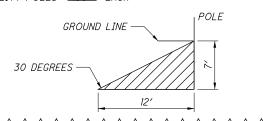
THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A QUALIFIED ELECTRICAL CONTRACTOR TO SUPPORT EXISTING PAINESVILLE POWER UTILITY POLES WHEN EXCAVATION ACTIVITIES FOR ANY CONTRACT ITEM AFFECTS THEIR STABILITY. THE CONTRACTOR SHALL HAVE PREVIOUS EXPERIENCE PERFORMING THIS OPERATION, WITH PAINESVILLE POWER OR OTHER ELECTRICAL UTILITIES AND SHALL SUBMIT A PLAN THAT INCLUDES A DESCRIPTION OF PREVIOUS EXPERIENCE AS WELL AS THE EQUIPMENT, METHODS, AND ASSOCIATED CRITERIA FOR ALL POLE HOLDING OPERATIONS FOR REVIEW BY THE MAINTAINING UTILITY AND APPROVAL BY THE ENGINEER A MINIMUM OF 30 DAYS BEFORE WORK COMMENCES.

ALL EXCAVATION ACTIVITIES THAT ENCROACH ON THE HATCHED AREA BELOW SHALL REQUIRE SUPPORT OF THE POLE PRIOR TO BEGINNING THE EXCAVATION AND UNTIL SUCH TIME AS THE BEGINVING THE EXCAVATION AND ONTE SOCK TIME AS THE HATCHED AREA HAS BEEN BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE ITEM CAUSING THE ENCROACHMENT.

> REGARDLESS OF THE DURATION, FREQUENCY, OR APPROVED METHOD OF SUPPORT, PAYMENT FOR THIS WORK SHALL BE MADE ↓ ► AT THE CONTRACT BID PRICE PER EACH INDIVIDUAL POLE AS DESCRIBED ABOVE.

THE FOLLOWING QUANTITY IS PROVIDED TO SUPPORT EXISTING UTILITY POLES, FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 203E98600 ROADWAY, MISC .: SUPPORTING EXISTING UTILITY POLES -\_130\_\_ EACH



#### **EROSION CONTROL**

659. MOWING

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# SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST	_2_ EACH
659, TOPSOIL	_13,524_ CU. YD.
659, SEEDING AND MULCHING, CLASS 1	<u>121,832</u> SQ. YD
659, REPAIR SEEDING AND MULCHING	_6,092 SQ. YD.
659, INTER-SEEDING	_6,092_ SQ. YD.
659, COMMERCIAL FERTILIZER	<u>16.99</u> TON
659, LIME	_25.17_ ACRES
659, WATER	_691_ M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON LIMITS IDENTIFIED AS NECESSARY IN THE CROSS-SECTIONS. ANY ADDITIONAL AREAS OUTSIDE OF THE AREAS IDENTIFIED IN THE CROSS-SECTIONS THAT ARE DISTURBED BY THE CONTRACTOR TO FACILITATE CONSTRUCTION MUST BE RESTORED IN ACCORDANCE WITH C&MS 107.10 AND CONSIDERED INCIDENTAL TO THE WORK. NO ADDITIONAL COMPENSATION WILL BE MADE FOR THESE AREAS.

15.350 M. SQ. FT.

### ITEM 670 - SLOPE EROSION PROTECTION

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROTECT AND PROMOTE GROWTH OF PERMANENT SEEDED AREAS ON SLOPES STEEPER THAN 3:1 AS DIRECTED BY THE DEPARTMENT:

670. SLOPE EROSION PROTECTION 4.200 SQ. YD.

## ENVIRONMENTAL

# NOTIFICATION OF COMMENCEMENT

THE CONTRACTOR SHALL NOTIFY THE FOLLOWING A MINIMUM OF TWO WEEKS PRIOR TO COMMENCEMENT OF WORK:

### ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER I THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE. DYING, OR DEAD WOODY PLANT. WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

#### MUSSEL SALVAGE AND RELOCATION

THE DEPARTMENT WILL ENSURE A STATE PERMITTED MALACOLOGIST WILL COMPLETE A MUSSEL SALVAGE AND RELOCATION IN ACCORDANCE WITH THE MOST RECENT VERSION
OF THE OHIO MUSSEL SURVEY PROTOCOL PRIOR TO THE
INITIATION OF CONSTRUCTION ACTIVITIES BELOW THE ORDINARY
HIGH WATER MARK FOR RED MILL CREEK. THE DISTRICT
ENVIRONMENTAL COORDINATOR WILL COORDINATE THE RESULTS OF THE MUSSEL SURVEY, SALVAGE WORK, OR BOTH WITH ODNR. THE DEPARTMENT WILL ENSURE THE MUSSEL SURVEY AND RELOCATION OCCURS, AND APPROVAL HAS BEEN RECEIVED FROM ODNR, PRIOR TO THE CONTRACTOR PERFORMING WORK BELOW THE ORDINARY HIGH WATER MARK OF RED MILL CREEK

THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT ONE MONTH PRIOR TO ANY PLANNED WORK BELOW THE ORDINARY HIGH WATER OF RED MILL CREEK.

# ITEM SPECIAL - PETROLEUM CONTAMINATED SOILS

STUDIES INDICATE THAT PETROLEUM CONTAMINATED SOILS WILL BE ENCOUNTERED DURING EXCAVATIONS FOR CONSTRUCTION **ACTIVITIES AT:** 

STA 119+25 to STA 139+75 2495 NORTH RIDGE ROAD 2481 NORTH RIDGE ROAD 2450 NORTH RIDGE ROAD 2500 NORTH RIDGE ROAD 2510 NORTH RIDGE ROAD 2501 NORTH RIDGE ROAD STA 236+25 to STA 240+00 3497 NORTH RIDGE ROAD STA 340+50 to STA 343+50 4569 NORTH RIDGE ROAD 4571 NORTH RIDGE ROAD STA 393+50 to STA 397+00 5068 NORTH RIDGE ROAD

THE CONTRACTOR SHALL MANAGE THE EXCAVATED MATERIAL AS FOLLOWS. THE ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS WORK. ALL EXCAVATIONS AT THE AFOREMENTIONED LOCATION SHALL BE PAID FOR UNDER THE ORIGINAL PLAN BID ITEMS.

THE ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED MATERIAL INTO TRUCKS FOR TRANSPORT AND DISPOSAL. AS AN ALTERNATE, THE ENGINEER MAY PERMIT THE CONTRACTOR TO TEMPORARILY STOCKPILE THE EXCAVATED MATERIAL ON AN IMPERMEABLE MEMBRANE, IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE MEMBRANE SHALL BE SURROUNDED BY BALES OF STRAW TO PREVENT THE EXCAVATED MATERIAL FROM COMING IN CONTACT WITH THE UNDERLYING SOIL. AN IMPERMEABLE MEMBRANE SHALL BE PLACED OVER THE STOCKPILE TO PREVENT CONTACT WITH PRECIPITATION AND/OR SURFACE RUN-OFF.

THE EXCAVATED MATERIAL SHALL BE PROPERLY TRANSPORTED AND DISPOSED OF AS A SOLID WASTE IN A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY) SOLID WASTE FACILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY TESTING, PERMITS, AND APPROVALS TO TRANSPORT AND DISPOSE OF THE MATERIAL. IF EXCAVATIONS WITHIN THE AFOREMENTIONED LIMITS REQUIRE DEWATERING FOR CONSTRUCTION PURPOSES, THE CONTRACTOR SHALL DEWATER, CONTAINERED TO DISPOSE OF BY METHODS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS AND/OR AUTHORIZATIONS NEEDED TO STORE, TEST, TRANSPORT AND DISPOSE OF THE WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF REGULATED WATER WITH A METHOD APPROVED BY THE ENGINEER. WORK INVOLVED WITH THIS ITEM SPECIAL INCLUDES COMPLYING WITH THE HANDLING, STORAGE, AND DISPOSAL OF REGULATED AND NON-REGULATED WATER.

PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT PRICE BID PER TON AND/OR GALLON. THE BASIS FOR CONVERSION FROM TONS TO CUBIC YARDS IS 1.5 TON/CUBIC YARD. ALL EXCAVATIONS WITHIN THE AFOREMENTIONED LIMITS SHALL BE PAID FOR UNDER THE ORIGINAL PLAN BID ITEMS. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

690E65016 ITEM SPECIAL - WORK INVOLVING PETROLEUM CONTAMINATED SOIL 8200 TON 690E65024 ITEM SPECIAL - WORK INVOLVING REGULATED \_4100\_ GALLON 690E65022 ITEM SPECIAL - WORK INVOLVING NON-REGULATED \_4100\_ GALLON

## ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

DRAINAGE

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE **FNGINFFR** 

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED

THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

#### CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING FLEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

# PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES SHALL BE MADE BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. THE STUB SHALL MEET THE REQUIREMENTS OF 707 AND HAVE A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THE FIELD WELDED JOINT, IF USED, SHALL BE THOROUGHLY CLEANED AND REGALVANIZED OR OTHERWISE SUITABLY REPAIRED. WELDING SHALL MEET THE REQUIREMENTS OF 513.21.

A MASONRY COLLAR, AS PER STANDARD DRAWING DM-1.1, WILL BE REQUIRED TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS PROVIDED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 OR 522.



#### PAVEMENT

### ADDITIONAL DRIVEWAY QUANTITIES

CHANGES IN EXISTING CONDITIONS AND DEVELOPMENT MAY OCCUR WITHIN THE PROJECT LIMITS OVER THE LIFE OF THIS PROJECT. THE FOLLOWING ADDITIONAL DRIVEWAY PAVEMENT QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE DEPARTMENT:

ITEM 202, PAVEMENT REMOVED, AS PER PLAN \_500 SY

ITEM 203, EXCAVATION \_115\_ CY

ITEM 204, SUBGRADE COMPACTION \_500\_ SY

ITEM 452, 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS \_250\_ SY

ITEM 452, 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC MS <u>250</u> SY

#### ITEM 618 - RUMBLESTRIPS, SHOULDER (ASPHALT CONCRETE)

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING RUMBLE STRIPS IN THE SHOULDER AREA.

RAMP A, STA. 887+00 TO 888+12 RT RAMP B, STA. 891+00 TO 892+35 LT

ITEM 618 - RUMBLESTRIPS, SHOULDER (ASPHALT CONCRETE) 250

# WATER WORK

#### WATER WORK GENERAL

ALL WATER WORK SHALL BE PREFORMED IN ACCORDANCE WITH ITEM 638, THE LAKE COUNTY DEPARTMENT OF UTILITIES (LCDU) RULES AND REGULATIONS, LATEST EDITION AND PLAN DETAILS WHERE A CONFLICT BETWEEN THE SPECIFICATIONS ARISES, THE LAKE COUNTY DEPARTMENT OF UTILITIES RULES AND REGULATIONS, LATEST EDITION WILL PREVAIL. THE LAKE COUNTY DEPARTMENT OF UTILITIES RULES AND REGULATIONS CAN BE FOUND AT THE FOLLOWING WEB ADRESS: www.lakecountyohio.gov/utilities/rules-and-regulations/

- 2. ONLY WATER/SEWER CONTRACTORS LICENSED BY THE LAKE COUNTY BOARD OF COMMISSIONERS MAY INSTALL WATER MAINS.
- 3. THE CONTRACTOR SHALL NOTIFY THE LCDU AT LEAST 48 HOURS IN ADVANCE OF ANY WORK IN THEIR
- 4. THE LCDU SHALL PERFORM INSPECTION SERVICES. THE COST OF INSPECTION SHALL BE INCLUDED AS PART OF THIS CONSTRUCTION PROJECT AT THE CURRENT BASE RATE AS ESTABLISHED BY THE LAKE COUNTY BOARD OF COMMISSIONERS (SEE LAKE COUNTY UTILITIES DEPARTMENT RULES AND REGULATIONS SECTION 7 FEE SCHEDULE). COSTS FOR LAKE COUNTY INSPECTION FEES AND ALL OTHER WATERWORK RELATED FEES SHALL BE INCLUDED IN THE UNIT BID PRICES FOR THE VARIOUS WATERWORK ITEMS. NO SEPARATE PAYMENT WILL BE MADE FOR I CDU FEES.
- 5. WATERLINE WORK SHALL NOT BEGIN UNTIL THE AREAS OF CONSTRUCTION ARE ROUGH GRADED.
- 6. ALL HYDRANTS SHALL BE POSITIONED SO THAT THE STEAMER NOZZLES POINT TOWARD THE ROADWAY PAVEMENT.
- 7. ALL BOLTS SHALL BE STAINLESS STEEL TYPE 304 OR 316. WITH ANTI-GALLING AGENT.
- 8. ALL SHOP DRAWINGS SHALL BE SUBMITTED TO ODOT FOR PRELIMINARY CHECKING. ODOT SHALL FORWARD CHECKED SHOP DRAWINGS TO THE LCDU FOR FINAL CHECKING AND APPROVAL.
- 9. THE LCDU SHALL PROVIDE WATER FOR THE NEW WATER MAIN WITHOUT COST FOR THE INITIAL OPERATION. ALL WATER FOR FLUSHING OPERATIONS SHALL BE PAID FOR BY THE CONTRACTOR CURRENT RATES AS ESTABLISHED BY THE LAKE COUNTY BOARD OF COMMISSIONERS PER 100 CUBIC FEET OF WATER USED. (SEE SECTION 7 FEE SCHEDULE)
- 10. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON PIPE, ANSI A21.51, THICKNESS CLASS 53, UNLESS OTHERWISE SHOWN ON THE PLANS, WITH MECHANICAL JOINTS, CEMENT LINED ANSI A 21.4. FITTINGS TO BE FULL BODY-ONLY.

11. RESTRAINED MECHANICAL JOINTS SHALL BE OF THE PIPE MANUFACUURER'S STANDARD DESIGN OR SHALL BE AS LISTED IN THE LCDU APPROVED MATERIALS LIST.

12. LCDU WILL MAKE THE NECESSARY NEW SERVICE CONNECTION TAPS ON EXISTING LCDU MAINS FOR THE CONTRACTOR AT CURRENT RATES AS ESTABLISHED BY THE LAKE COUNTY BOARD OF COMMISSIONERS PER 8" AND GREATER TAPS WITHIN RIGHT OF WAY. (SEE SECTION 7 FEE SCHEDULE) SERVICE CONNECTIONS TO EXISTING BUILDINGS SHALL BE MADE BY THE CONTRACTOR.

13. LCDU WILL SHUT DOWN LIMITED PORTIONS OF WATER MAINS (BETWEEN 2 ADJACENT VALVES, GENERALLY SPACED AT 1200 FT TO 1500 FT) FOR PERIODS NOT TO EXCEED 8 HOURS WITHIN A 24 HOUR PERIOD. ALL WORK WITHIN ONE SHUT DOWN AREA SHALL BE COMPLETED WITHIN THAT SHUT DOWN PERIOD. COORDINATE WITH LCDU A MINIMUM OF 48 HOURS IN ADVANCE OF SUCH PLANNED WORK. LOCAL BUSINESSES AND RESIDENTS WITHIN THE SHUT DOWN LIMITS SHALL BE NOTIFIED 48 HOURS IN ADVANCE.

14. NOTHING IN THESE NOTES SHALL BE CONSTRUED TO SUPERCEDE THE FEDERAL BUY AMERICAN REQUIREMENTS AS SET FORTH IN PN 133.

### ITEM SPECIAL 1", 1-1/2", AND 2" COPPER WATER SERVICE LINE, LCDU STANDARD

FURNISH AND INSTALL COPPER SERVICE BRANCHES, TUBING AND FITTINGS, AS NECESSARY, OR AS SHOWN IN THE CONTRACT DOCUMENTS INCLUDING THE REMOVAL OF THE EXISTING SERVICE BRANCHES OR SERVICE BOXES, AS REQUIRED ACCORDING TO THE FOLLOWING SITUATIONS.

TAPPING SADDLES, CORPORATION STOPS, SERVICE STOPS, AND SERVICE BOXES, IF REQUIRED, ARE SEPARATE FROM THIS ITEM:

WHERE A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING OR RELOCATION BETWEEN THE WATER MAIN AT THE CORPORATION STOP AND THE SERVICE STOP, REPLACE IT WITH NEW MATERIALS WITHIN THESE LIMITS UNLESS THE CONNECTIONS CAN BE MADE OUTSIDE THE LIMITS OF THE PROPOSED PAVEMENT, PAVED SHOULDER, OR CURB.

WHERE A SERVICE BRANCH IS DISTURBED FOR LOWERING, RAISING, EXTENDING, OR SHORTENING ON THE PROPERTY SIDE OF THE SERVICE STOP, REPLACE IT WITH NEW MATERIALS FROM THE EXISTING SERVICE STOP TO THE PROPOSED SERVICE STOP.

IF THE EXISTING SERVICE BRANCH ENCOUNTERED IS FOUND TO BE LEAD OR GALVANIZED PIPE, REPLACE IT FROM THE CORPORATION STOP TO THE SERVICE STOP WITH NEW MATERIAL.

THE DEPARTMENT WILL MEASURE COPPER SERVICE BRANCH BY THE NUMBER OF FEET OF EACH CONSTRUCTED.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE RELOCATION OF SERVICE BRANCHES WHICH MAY BE IN CONFLICT WITH OTHER WORK IN THE CONTRACT:

ITEM SPECIAL, 1" COPPER WATER SERVICE LINE, LCDU STANDARD 3.500 FT

ITEM SPECIAL, 1-1/2" COPPER WATER SERVICE LINE, LCDU STANDARD <u>100</u> FT ITEM SPECIAL, 2" COPPER WATER SERVICE LINE, LCDU STANDARD \_

#### ITEM 638 METER AND CHAMBER REMOVED AND RESET, AS PER PLAN

REMOVE EXISTING CHAMBERS. SET THE CHAMBER ON BRICK BLOCKS. DISCONNECT EXISTING METERS, AND REPLACE THEM WITH SUITABLE CONNECTIONS IF NECESSARY. RECONNECT THE METERS AT NEW LOCATIONS.

THE DEPARTMENT WILL MEASURE METER AND CHAMBER REMOVED AND RESET BY THE NUMBER OF EACH.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 638, METER AND CHAMBER REMOVED AND RESET, AS PER PLAN. \_10\_ EACH

#### ITEM SPECIAL VALVE BOX ADJUSTED TO GRADE, LCDU STANDARD ITEM SPECIAL SERVICE BOX ADJUSTED TO GRADE, LCDU STANDARD

RAISE OR LOWER EXISTING VALVE BOXES AND SERVICE BOXES TO GRADE. THE CONTRACTOR MAY REUSE EXISTING VALVE BOXES AND SERVICE BOXES IF THEY ARE IN GOOD CONDITION, AS DETERMINED BY THE ENGINEER.

EXCAVATE AROUND THE VALVE BOX OR SERVICE BOX TO PERMIT THE RAISING OR LOWERING OF THE VALVE BOX OR SERVICE BOX. THE CONTRACTOR MAY ADJUST ANY SCREW-TYPE BOXES WITHOUT THE USE OF EXTENSIONS PROVIDED THAT AMPLE THREAD REMAINS ON THE BOX TO PROVIDE ADEQUATE RIGIDITY TO THE BOX. PROVIDE EXTENSION SECTIONS FOR BOXES THAT ARE NOT OF THE SCREW-TYPE AND BOXES NOT HAVING AMPLE THREAD FOR RIGIDITY TO ADJUST THE TOP TO GRADE. THE ENGINEER WILL ALLOW INSERTS OR ADAPTERS. ADEQUATELY SECURE NEW SECTIONS OF BOX STEM TO THE EXISTING STEMS, BACKFILL THE HOLE AFTER THE BOX HAS BEEN ADJUSTED TO GRADE.

THE DEPARTMENT WILL MEASURE VALVE BOXES AND SERVICE BOXES ADJUSTED TO GRADE SEPARATELY BY THE NUMBER OF EACH, INCLUDING ANY EXTENSION SECTIONS OF VALVE BOXES OR SERVICE BOXES REQUIRED.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM SPECIAL, VALVE BOX ADJUSTED TO GRADE, LCDU STANDARD 10 FACH ITEM SPECIAL, SERVICE BOX ADJUSTED TO GRADE, LCDU STANDARD \_20\_ EACH

### ITEM SPECIAL FIRE HYDRANT REMOVED FOR STORAGE, LCDU STANDARD

WHERE EXISTING HYDRANTS ARE INDICATED FOR REMOVAL PROVIDE ADEQUATE SUPPORT FOR THE HYDRANT BEFORE DISCONNECTING IT. STORE HYDRANTS AN SINGLE LOCATION ON SITE FOR PICK-UP BY LCDU PERSONELL. NEW HYDRANT INSTALLATION SHALL IMMEDIATELY FOLLOW HYDRANT REMOVAL.

THE DEPARTMENT WILL MEASURE FIRE HYDRANTS REMOVED FOR STORAGE BY THE NUMBER OF EACH, INCLUDING ANY EXTENSION SECTIONS OF VALVE OR SERVICE BOXES REQUIRED.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICES AS FOLLOWS:

ITEM SPECIAL FIRE HYDRANT REMOVED FOR STORAGE, LCDU STANDARD, EACH

# ITEM SPECIAL 6" FIRE HYDRANT, LCDU STANDARD

THIS ITEM INCLUDES EXCAVATION AND FURNISHING AND INSTALLING A NEW FIRE HYDRANT COMPLETE WITH PROPER JOINTING, BLOCKING, AND BACKFILLING AS OUTLINED BELOW, AS SHOWN IN THE PLAN DETAILS, AND ALL OTHER INCIDENTAL WORK NECESSARY TO COMPLETE THIS ITEM OF WORK. THE WORK WILL INCLUDE ALL HYDRANT BRANCHES, GATE VALVES, AND VALVE BOXES REQUIRED TO PERFORM THE WORK.

EXCAVATE ACCORDING TO 638.04. EXCAVATE A DRAINAGE PIT 2 FEET IN DIAMETER AND 3 FEET DEEP BELOW THE HYDRANT AND FILL IT WITH GRANULAR MATERIAL. PROVIDE A 3 FOOT MINIMUM RADIUS UNOBSTRUCTED AREA AROUND ALL HYDRANTS. SET THE SIDEWALK FLANGE 2 INCHES ABOVE FINISHED GRADE, SET HYDRANTS ON SOLID CONCRETE BLOCKS ACCORDING TO 638.06.K PROVIDE THRUST BLOCKING ACCORDING TO 638.06.L. COVER ANY HYDRANT NOT IN SERVICE WITH A BURLAP OR STURDY OPAQUE PLASTIC BAG.

CONSTRUCT HYDRANT BRANCHES USING A SECTION OF DUCTILE IRON PIPE FROM THE MAIN TO THE HYDRANT, AND INCLUDE A GATE VALVE AND VALVE BOX SET VERTICALLY AND PLACED IN THE LINE AS INDICATED. LOCATE THE VALVE ADJACENT TO THE ANCHORING TEE ON THE MAIN. PROVIDE GATE VALVE AND VALVE BOXES FOR HYDRANT BRANCHES CONFORMING TO 638.13.

AFTER HYDRANTS HAVE BEEN SET, OPEN BRANCH AND HYDRANT VALVES UNTIL WATER FLOW EXPÉLS ALL AIR AND DIRT.

THE DEPARTMENT WILL MEASURE 6" FIRE HYDRANT ASSEMBLIES COMPLETE BY THE NUMBER OF EACH.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICES AS FOLLOWS:

ITEM SPECIAL 6" FIRE HYDRANT, LCDU STANDARD, EACH

ITEM SPECIAL - 4" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD

ITEM SPECIAL - 6" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD

ITEM SPECIAL - 8" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD

THIS ITEM SHALL INCLUDE INSTALLATION OF WATERLINES IN ACCORDANCE WITH ITEM 638 AND THE LCDU RULES AND REGULATIONS.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT UNIT PRICES AS FOLLOWS: ITEM SPECIAL 4" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD, FEET, ITEM SPECIAL 6" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD, FEET, AND ITEM SPECIAL 8" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD, FEET

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE RELOCATION OF FIRE AND SERVICE LINES WHICH MAY BE IN CONFLICT WITH OTHER WORK IN THE CONTRACT:

ITEM SPECIAL, 4" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD \_50\_ FT ITEM SPECIAL, 6" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND TINGS, LCDU STANDARD <u>50</u> FT ITEM SPÉCIAL, 8" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS, LCDU STANDARD 50

### ITÉM 638 - WATER WORK MISC. STEEL PLATE WATER MAIN PROTECTION

THIS ITEM SHALL CONSIST OF PLACING A 1-1/4 INCH THICK STEEL ROAD PLATE OVER THE WATER MAIN AT LOCATIONS AS IDENTIFIED HEREIN OR AS DIRECTED BY THE DEPARTMENT. THE PLATE SHALL BE 54 INCHES WIDE AND SHALL BE CENTERED A MINIMUM OF 6 INCHES ABOVE THE EXISTING MAIN AS SHOWN IN THE DETAIL ON SHEET 869 OF 1088. PLATES SHALL EXTEND LATERALLY ALONG THE AXIS OF THE MAIN APPROXIMATELY ONE FOOT BEYOND THE EDGE OF THE DRAINAGE STRUCTURE TO BE PLACED OVER THE MAIN. A LENGTH OF 5.5 FEET SHALL BE PROVIDED FOR EACH CB-3A AND A LENGTH OF 8 FEET SHALL BE PROVIDED FOR EACH CB-3. THE PLATES SHALL BE PROVIDED FOR CATCH BASINS AT THE FOLLOWING STATION LOCATIONS:

140+00 17 193+30 I T 208+75 I T 142+55 LT 196+85 LT 216+70 LT 236+25 IT 154+50 LT 199+40 LT 221+80 LT 240+00 LT 156+02 LT 200+13 LT 223+75 LT 285+15 LT 162+25 LT 200+85 LT 225+58 LT 261+00 LT 188+00 LT 203+40 LT 226+15 LT 264+50 LT ,189+02 LT 205+00 LT 228+20 LT 267+75 L1

EXCAVATE THE AREA OVER THE WATER MAIN IN ACCORDANCE WITH ITEM 611. PLACE THE PLATE OVER THE WATER MAIN AND FURNISH COMPACTED BACKFILL MATERIAL PER 611,06 AS DESCRIBED IN THE INSTALLATION PLAN

THE DEPARTMENT WILL MEASURE THE QUANTITY OF PLATE BY THE NUMBER OF FEET CONSTRUCTED ALONG THE AXIS OF THE WATER MATER MAIN.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AT THE SPECIFIED LOCATIONS OR AS DIRECTED BY THE

ITEM 638 - WATER WORK, MISC.: STEEL PLATE WATER MAIN PROTECTION \_200\_ FT

### ITEM 638 - WATER WORK MISC. TEMPORARY STEEL PLATE WATER MAIN PROTECTION

THIS ITEM SHALL CONSIST OF PLACING A 1-1/4 INCH THICK STEEL ROAD PLATE OVER THE WATER MAIN AT LOCATIONS AS IDENTIFIED HEREIN OR AS DIRECTED BY THE DEPARTMENT. THE PLATE SHALL BE 54 INCHES WIDE AND SHALL BE CENTERED ON THE MAIN AT THE SUBGRADE OF THE TEMPORARY PAVEMENT IF FLEXIBLE TEMPORARY PAVEMENT IS USED. THE STATION LIMITS ARE AS FOLLOWS:

288+50 LT TO 289+50 LT 321+00 LT TO 322+00 LT

THIS ITEM WILL INCLUDE THE COST TO EXCAVATE THE TEMPORARY
PAVEMENT SUBGRADE AREA FOR THE PLATE PER ITEM 203. PLACING THE PLATE PRIOR TO PLACEMENT OF TEMPORARY PAVEMENT, REMOVAL OF THE PLATE AFTER REMOVAL OF TEMPORARY PAVEMENT AND PLACEMENT OF COMPACTED EMBANKMENT MATERIAL TO FILL THE VOID PER 203.

THE DEPARTMENT WILL MEASURE THE QUANTITY OF TEMPORARY PLATE BY THE NUMBER OF FEET CONSTRUCTED ALONG THE AXIS OF THE WATER MATER MAIN.

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AT THE SPECIFIED LOCATIONS OR AS DIRECTED BY THE

ITEM 638 - WATER WORK, MISC.: TEMPORARY STEEL PLATE WATER MAIN (PROTECTION \_200\_ FT

