

**PRECONSTRUCTION MEETING:**

- 1. A PRE-CONSTRUCTION MEETING SHALL BE HELD 14 DAYS PRIOR TO CONSTRUCTION WITH THE LAKE COUNTY DEPARTMENT OF UTILITIES AND THE CITY OF WILLOUGHBY. THE MEETING WILL BE HELD AT THE LAKE COUNTY UTILITIES LEARNING AND BUSINESS CENTER, (ULAB).

**GENERAL NOTES:**

- 1. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING A SITE FOR DISPOSAL OF ALL EXCAVATED MATERIAL THAT IS UNSUITABLE FOR USE AS BACKFILL AND ALL OTHER EXCESS EXCAVATED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH THE LOCATION OF THE DISPOSAL SITE AND WRITTEN PERMISSION FOR USE OF THE SITE FROM THE PROPERTY OWNER. THE COST FOR SECURING AND MAINTAINING THE DISPOSAL SITE WILL BE INCLUDED IN THE UNIT PRICES STIPULATED FOR THE VARIOUS ITEMS IN THE BID PROPOSAL.
- 2. ALL OVER-THE-ROAD VEHICLES USED ON THE PROJECT BY ALL CONTRACTORS AND SUB-CONTRACTORS WILL BE CLEARLY MARKED SHOWING ITS COMPANY AFFILIATION.
- 3. BEFORE LAKE COUNTY WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTY RETAINER, THE CONTRACTOR WILL FURNISH LAKE COUNTY A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PART DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTER HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.
- 4. THE SURVEY AND ROADWAY ALIGNMENT SHOWN ON THESE PLANS WAS OBSERVED IN THE FIELD FOR CONSTRUCTION PURPOSES ONLY, AND MAY NOT BE SUITABLE FOR PROPERTY LINE SURVEYS OR ANY OTHER PURPOSE.
- 5. ALL WORK SHALL BE PERFORMED BETWEEN THE HOURS OF 7:30 A.M. AND 7:30 P.M., WEEKDAYS AND SATURDAYS.

**UNDERGROUND UTILITIES:**

- 1. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

**UTILITIES NOTIFICATION:**

- 1. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT, BUT THE CITY OF WILLOUGHBY AND LCDU DOES NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS.
- 2. BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES, THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE" AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE CITY AND LCDU, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITIES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL COST TO THE CITY OR LCDU, INCLUDING ANY INSPECTION OR MAINTENANCE FEES.
- 3. THE OWNER OF THE UNDERGROUND UTILITY FACILITY SHALL, WITHIN FORTY-EIGHT HOURS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION.
- 4. WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME THAT WORK IS GOING ON ADJACENT TO FACILITY.
- 5. THE COST AND COORDINATION FOR ANY REQUIRED PROTECTION, SUPPORT OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 6. DELAYS TO THE CONTRACTOR AS A RESULT OF TIMING OF POLE RELOCATION, SUPPORT OR PROTECTION SHALL NOT BE CONSIDERED COMPENSABLE DELAYS, AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.
- 7. THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES AFFECTED BY THE PROPOSED CONSTRUCTION.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF THE EXISTING UTILITY OWNERS LISTED BELOW AND THE UTILITY PROTECTION SERVICE IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE AND OUTLINED IN PROJECT SPECIFICATIONS.

**UTILITIES OWNERSHIP:**

- 1. THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT

FRED RANDOLPH  
DESIGN SUPERVISOR  
THE ILLUMINATING COMPANY  
7755 AUBURN ROAD  
PAINESVILLE, OH 44077  
PHONE: (440) 358-4991  
FRANDOLPH@FIRSTENERGYCORP.COM

WILLIAM SNYDER  
DOMINION EAST OHIO  
320 SPRINGSIDE DRIVE, STE. 320  
AKRON, OH 44333  
PHONE: (330) 664-2409  
FAX: (888) 504-0126  
RELOCATION@DOMINIONENERGY.COM

ROGER MADDEN  
INTELLIFIBER NETWORKS  
1111 SUPERIOR AVE, STE. 500  
CLEVELAND, OH 44114  
PHONE: (440) 274-0209  
FAX: (440) 812-0500

JAMES JANIS  
AT&T/OHIO  
13630 LORAIN AVENUE, 2ND FLOOR  
CLEVELAND, OH 44111  
PHONE: (216) 476-6142  
FAX: (216) 476-6013

MATHEW HANNAH  
CONSTRUCTION COORDINATOR  
TIME-WARNER CABLE  
7820 DIVISION DRIVE  
MENTOR, OH 44060  
PHONE: (216) 575-8016  
EXT: 216-555-1101  
MATHEW.HANNAH@CHARTER.COM

RANDY ROTHLSBERGER  
LAKE COUNTY DEPARTMENT OF UTILITIES  
105 MAIN STREET  
PHONE: (440) 350-2645  
FAX: (440) 350-2666

LEE BOCK  
DIRECTOR OF PUBLIC SERVICE  
CITY OF WILLOUGHBY  
ONE PUBLIC SQUARE  
WILLOUGHBY, OH 44094  
PHONE: (440) 953-4111  
FAX: (440) 953-4382

**VIDEOTAPING:**

- 1. THE CONTRACTOR SHALL PROVIDE PRE CONSTRUCTION ABOVE-GROUND VIDEOTAPING OF ALL AREAS WITHIN OR ADJACENT TO THE CURRENT WORK LIMITS. THE COSTS FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES STIPULATED FOR THE VARIOUS ITEMS IN THE BID PROPOSAL. THE CONTRACTOR SHALL NOT START ANY WORK UNTIL SUCH TIME AS THE ENGINEER HAS ADVISED THAT THE VIDEOTAPING AND PHOTO WORK IS COMPLETE.

**PROTECTION/REPLACEMENT OF PROPERTY CORNERS:**

- 1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND MARK EXISTING PROPERTY CORNER MONUMENTS SUCH AS IRON PINS AND PIPES PRIOR TO CONSTRUCTION. ALL MONUMENTS SHALL BE CLEARLY MARKED IN THE FIELD AND SHALL BE PROPERLY PROTECTED DURING THE COURSE OF CONSTRUCTION. SHOULD THE CONTRACTOR BE UNABLE TO PROTECT THE EXISTING PROPERTY CORNER MONUMENTS, THE CONTRACTOR SHALL HAVE AN APPROVED REGISTERED SURVEYOR REFERENCE THE LOCATION OF EACH MONUMENT DISTURBED AND REPLACE THEM AT THE CONTRACTOR'S EXPENSE PRIOR TO FINAL PAYMENT.

**MATERIAL SPECIFICATIONS AND TESTING:**

- 1. MATERIAL SPECIFICATIONS CALLED FOR ON THE CONSTRUCTION PLANS AND THE CONTRACT DOCUMENTS REPRESENT THE MINIMUM REQUIRED FOR EACH APPLICATION. THE CONTRACTOR MAY DESIRE TO SUBSTITUTE ALTERNATE MATERIALS AND SUCH SUBSTITUTIONS MUST BE EQUIVALENT IN QUALITY TO THE MATERIAL CALLED FOR AND MUST BE APPROVED IN WRITING BY THE LAKE COUNTY SANITARY ENGINEER OR THE WILLOUGHBY ENGINEER PRIOR TO PLACEMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE MATERIAL TESTING AS CALLED OUT IN THE CONTRACT DOCUMENTS AND SHALL HIRE AN APPROVED INDEPENDENT TESTING FIRM TO PERFORM TESTING UNDER THE DIRECTION OF THE ENGINEER.

**CONNECTION TO EXISTING PIPE:**

- 1. WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING PIPE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE AND ADJUST LINE AND/OR GRADE AS NECESSARY BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT.
- 2. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT CONDUIT ITEM.

**UNDERDRAIN RECONNECTION:**

- 1. EXISTING UNDERDRAINS ENCOUNTERED DURING THE REMOVAL OF EXISTING PAVEMENT SHALL BE RECONNECTED.

**PROTECTION OF TREES:**

- 1. THE CONTRACTOR IS TO TAKE CARE DURING EXCAVATION, PIPE INSTALLATION AND BACKFILLING, IN AREAS IMMEDIATELY ADJACENT TO TREES, TO MINIMIZE THE DISTURBANCE OF ROOT SYSTEM AND TREE LIMBS. THE COST OF ANY EXTRA EFFORT SUCH AS HAND EXCAVATION IS TO BE INCLUDED IN THE UNIT PRICE BID FOR PIPE INSTALLATION.

**PROTECTION AND RESTORATION OF PROPERTY:**

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL PUBLIC AND PRIVATE PROPERTY.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE OR INJURY TO PROPERTY AND/OR PERSONS DURING THE PROSECUTION OF THE WORK, RESULTING FROM ANY ACT, OMISSION, NEGLIGENCE OR MISCONDUCT IN HIS MANNER OR METHOD OF EXECUTING THE WORK, OR AT ANY TIME DUE TO DEFECTIVE WORK OR MATERIALS, AND SAID RESPONSIBILITY WILL NOT BE RELEASED UNTIL THE DAMAGE OF INJURY ARE REMEDIATED AND THE PROJECT SHALL HAVE BEEN COMPLETED AND ACCEPTED.
- 3. WHEN OR WHERE ANY DIRECT OR INDIRECT DAMAGE OR INJURY IS DONE TO PUBLIC OR PRIVATE PROPERTY BY OR ON ACCOUNT OF ANY ACT, OMISSION, NEGLIGENCE OR MISCONDUCT IN THE EXECUTION OF THE WORK, OR IN CONSEQUENCE OF THE NON-EXECUTION THEREOF BY THE CONTRACTOR, HE SHALL RESTORE, AT HIS OWN EXPENSE, SUCH PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DAMAGE OR INJURY WAS DONE BY REPAIRING, REBUILDING OR OTHERWISE RESTORING AS MAY BE DIRECTED, OR SHALL MAKE GOOD SUCH DAMAGE OR INJURY IN AN ACCEPTABLE MANNER.
- 4. WHEN ROAD SIGNS AND SUPPORTS INTERFERE WITH CONSTRUCTION, THEY SHALL BE REMOVED AND ERECTED IN A TEMPORARY LOCATION IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR CLEARING AND GRUBBING.

**MAIL BOXES, FENCES, OR NEWSPAPER BOXES**

**AND SITE FURNISHINGS:**

- 1. WHEN MAIL BOXES, FENCES, OR NEWSPAPER BOXES INTERFERE WITH CONSTRUCTION, THE CONTRACTOR SHALL REMOVE AND ERECT THEM IN A TEMPORARY LOCATION DURING CONSTRUCTION (EXCEPT FENCES) IN A MANNER SATISFACTORY TO AND AS DIRECTED BY THE ENGINEER. AFTER COMPLETION OF THE CONSTRUCTION BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL ERECT THE MAIL BOXES, FENCES, OR NEWSPAPER BOXES IN A PERMANENT LOCATION IN ACCORDANCE WITH THE PLANS AND POSTAL SERVICE REGULATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES BID FOR CLEARING AND GRUBBING. TEMPORARY LOCATION FOR MAIL BOXES SHALL BE COORDINATED WITH THE LOCAL POST MASTER.
- 2. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF WILLOUGHBY TO HAVE THE CITY REMOVE CITY OWNED SITE FURNISHINGS, INCLUDING TRASH RECEPTACLES, FLOWER BOXES, ETC. TO BE STORED OFF-SITE DURING CONSTRUCTION BY THE CITY.
- 3. THE CONTRACTOR SHALL COORDINATE WITH PRIVATE PROPERTY OWNERS/LESSEES TO HAVE THEM REMOVE TABLES/CHAIRS/BENCHES/TEMPORARY SIGNS, ETC. TO BE STORED OFF-SITE DURING CONSTRUCTION, BY THE OWNERS/LESSEES.

**SUBSURFACE INVESTIGATIONS:**

- 1. IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. SUBSURFACE SOIL INVESTIGATIONS WERE NOT PERFORMED FOR THIS PROJECT.

**DRAINAGE OF ROADWAY AREA DURING CONSTRUCTION:**

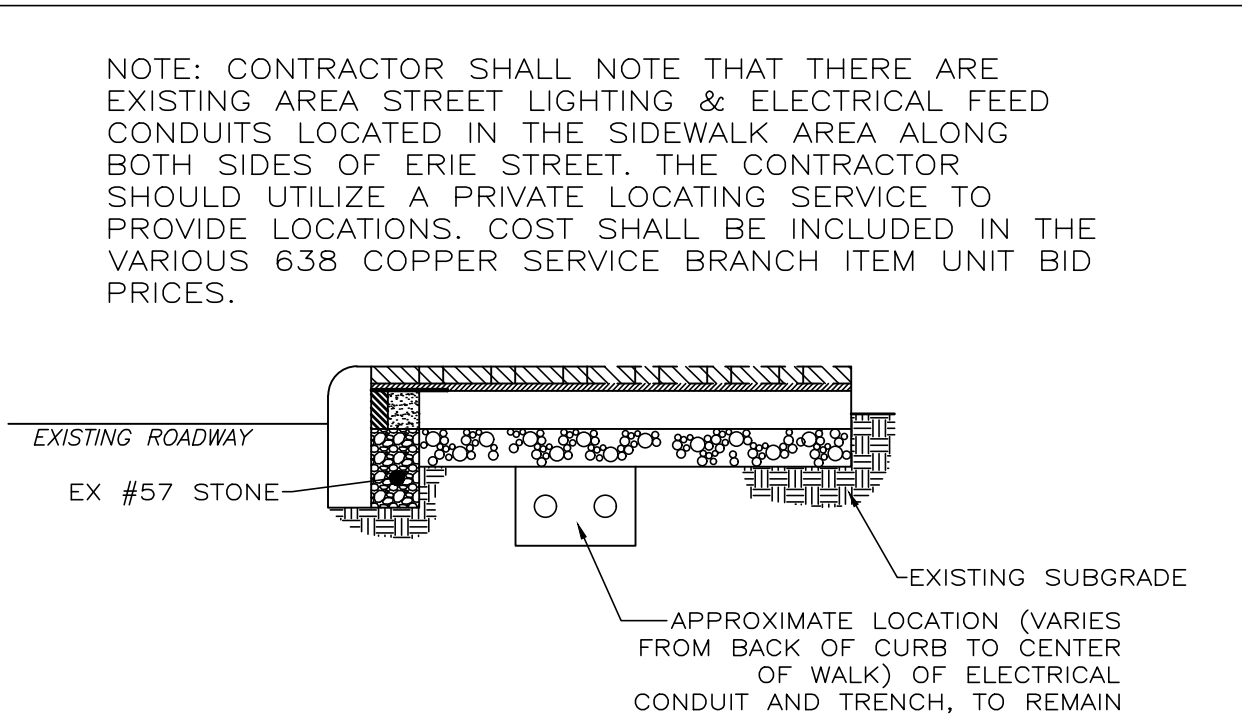
- 1. THE CONTRACTOR SHALL BE REQUIRED DURING THE COURSE OF HIS WORK WITHIN AND ADJACENT TO THE EXISTING AND PROPOSED PAVEMENT AREAS TO MAINTAIN THE ROADWAY AREA IN SUCH CONDITION THAT IT WILL BE WELL DRAINED AT ALL TIMES. THE SURFACE OF THE PAVEMENT SUBGRADE AND THE GROUND SURFACE ABOVE THE FINAL PAVEMENT SUBGRADE PRIOR TO TRIMMING SHALL BE MAINTAINED IN A SMOOTH CONDITION TO PREVENT PONDING OF WATER AFTER RAINS. DITCHES OF ADEQUATE DEPTH SHALL BE CONSTRUCTED AND MAINTAINED PARALLEL TO EACH SIDE OF THE PROPOSED EDGE OF PAVEMENT TO INSURE THE THOROUGH DRAINAGE OF THE SUBGRADE SURFACE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ADDITIONAL COSTS REQUIRED TO CORRECT POOR SUBGRADE CONDITIONS DUE TO HIS NEGLIGENCE IN PROPERLY MAINTAINING SUBGRADE DRAINAGE.

**PIPE CROSSING:**

- 1. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE A PROPOSED PIPE CROSSES WITHIN 18 INCHES OF ANOTHER PROPOSED OR EXISTING PIPE, A CONCRETE PAD AND CRADLE SEPARATOR SHALL BE PLACED BETWEEN THEM AS DETAILED. WHERE PERMISSION IS GRANTED TO OMIT THE CONCRETE PADS, GRANULAR BACKFILL SHALL BE TAMPED IN 6 INCH LAYERS AROUND BOTH PIPES. SUCH TAMPED BACKFILL SHALL BE CONTINUOUS FROM THE GRADE OF THE LOWER PIPE TO THE TOP OF THE UPPER PIPE AND AT THE BOTTOM, SHALL EXTEND IN BOTH DIRECTIONS FOR THE FULL WIDTH OF THE TRENCH.
- 2. PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR PERTINENT CONDUIT ITEMS.

**CONTINGENCY ITEMS FOR DRAINAGE:**

- 1. AS A RESULT OF THE PROPOSED CONSTRUCTION, STORM DRAINAGE MAY POND WITHIN THE PROJECT WORK LIMITS. SUITABLE PROVISIONS FOR COLLECTING, CONVEYING AND DISCHARGING ANY SUCH LOCALIZED PONDING SHALL BE AS DIRECTED BY THE ENGINEER. UNRECORDED STORM WATER CONNECTIONS MAY ALSO BE ENCOUNTERED DURING THE EXECUTION OF THIS CONTRACT. UNRECORDED STORM WATER CONNECTIONS SHALL BE CONNECTED TO THE EXISTING STORM SEWER, CATCH BASINS OR MANHOLES AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN UNRECORDED CONNECTIONS ARE ENCOUNTERED.



**EX. ELECTRICAL CONDUIT  
LOCATION SCHEMATIC**

NOT TO SCALE

**REMOVAL ITEMS:**

- 1. ALL ITEMS NOTED ON THE PLANS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF IN AN APPROPRIATE MANNER BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

**DOMINION EAST OHIO (DEO) NOTES:**

- 1. ONE-FOOT MINIMUM VERTICAL AND HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN DEO'S EXISTING PIPELINE(S) AND ALL OTHER IMPROVEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF DEO'S PIPELINE(S), IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P. (SAFE EXCAVATION & SHORING). EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY DEO FACILITY OR APPURTENANCES. NOTIFY DEO IMMEDIATELY IF ANY HARM HAS BEEN INFLICTED UPON DEO'S FACILITIES (PIPELINES, ETC.) OR APPURTENANCES THERETO (PIPE COATING, TRACER WIRE, CATHODIC PROTECTION WIRES & DEVICES, TEST SITES, VALVE BOXES, ETC.).

**PROPERTY OWNER NOTIFICATIONS:**

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL OF THE HOMES AND BUSINESSES THAT WILL BE AFFECTED BY THE INTERRUPTION OF WATER SERVICE WHEN THE NEW WATERLINE IS CONNECTED TO THE EXISTING WATERLINE ON ERIE STREET, EUCLID AVE., RIVER STREET, EAST & WEST SPAULDING, 2ND STREET, GLENN AVE, 3RD STREET, VINE STREET AND MENTOR AVE..
- 2. LAKE COUNTY WILL SUPPLY THE CONTRACTOR WITH A COMPLETE LIST OF HOMES AND BUSINESSES THAT WILL BE IMPACTED BY SHUTDOWN OF WATER SERVICES. IN GENERAL, THE INTERRUPTION OF WATER SERVICE WILL AFFECT OF THE RESIDENTIAL, COMMERCIAL AND BUSINESSES ABUTTING: ERIE STREET BETWEEN RIVER STREET AND VINE STREET.
- 3. THE CONTRACTOR WILL BE GIVEN A MAXIMUM OF 4 HOURS TO MAKE THE CONNECTION BETWEEN THE HOURS OF 12 MIDNIGHT AND 6 AM IN THE MORNING. NO NIGHT WORK WHERE RESIDENTIAL APARTMENTS/HOMES EXIST WITHIN WORK AREA.

**PIPE SPECIFICATIONS:**

MATERIAL SPECIFICATIONS			
ITEM	SIZE	MATERIAL	WALL THICKNESS
<b>OPEN-CUT TRENCH INSTALLATION</b>			
DIP WATERLINE	12,8,6,4 INCH	DUCTILE IRON PIPE WITH PUSH ON & RESTRAINED JOINTS PER REQUIREMENTS	CLASS 53 DIP
FIRE HYDRANTS SHALL BE EQUIPPED WITH A 5" STORZ PUMPER CONNECTION			

**ADDITIONAL REQUIREMENTS:**

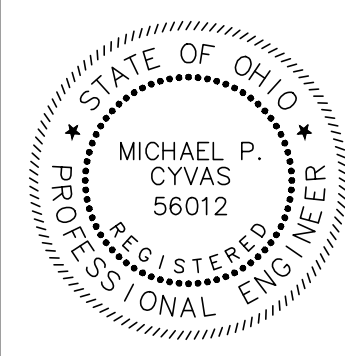
- 1. THE CONTRACTOR SHALL FIELD EXCAVATE ALL CONNECTION POINTS AND LOCATE ALL NECESSARY UTILITIES 5 DAYS IN ADVANCE OF MAKING CONNECTIONS, IN ORDER TO VERIFY LOCATIONS AND CLEARANCES.
- 2. ALTHOUGH SPECIFIC VERTICAL BEND SIZES ARE IDENTIFIED IN THE PLAN, THE CONTRACTOR SHALL UTILIZE THE MOST EFFICIENT MEANS TO ACCOMPLISH THE WATER LINE CONSTRUCTION. OVERPASSES ARE NOT PREFERRED AND IF THE POSSIBILITY EXISTS DUE TO ACTUAL FIELD LOCATIONS, CLEARANCES AND PHASED CONSTRUCTION, THE BENDS SHOULD BE OMITTED.
- 3. ALL HYDRANT ASSEMBLIES SHALL UTILIZE BOLTLESS RESTRAINTS.
- 4. ALL OVERPASSES THAT ARE CONSTRUCTED AND ARE LESS THAN 5' IN DEPTH SHALL BE INSULATED PER THE PLAN DETAIL.
- 5. ALL REFERENCES TO CUT & CAP SHALL BE PAID FOR UNDER THE WATER LINE ABANDONED PAY ITEM. MECHANICAL PLUG OR CAPS SHALL BE PROVIDED FOR LIVE WATER MAINS, CAP OR BULKHEADS SHALL BE PROVIDED FOR ABANDONED LINES. UNDER THIS ITEM, SOLID CONCRETE BLOCKS W/ HARDWOOD WEDGES ARE AS NEEDED.
- 6. CONSTRUCTION SEQUENCE SHOULD ALLOW FOR THE STARTING OF MAIN AT THE SOUTH END OF PROJECT WITH A SAMPLE TAP PLACED NO FARTHER THAN 5 FEET FROM END OF NEW MAIN.

**EXCAVATION AND BACKFILL**

- 1. NO SLAG PRODUCTS WILL BE PERMITTED FOR BEDDING OR BACKFILL MATERIAL. BACKFILL FOR ALL UNDERGROUND UTILITIES INSTALLED UNDER PAVEMENT, SIDEWALK, AND STRUCTURES OR WITHIN A 1:1 ZONE OF INFLUENCE PARALLEL OR TRANSVERSE TO PAVEMENT, SIDEWALK OR STRUCTURES SHALL BE "COMPACTED GRANULAR BACKFILL" AS DESCRIBED IN SPECIFICATION SECTION 02235 AND IN ACCORDANCE WITH THE PLANS. BACKFILL IN OTHER AREAS SHALL BE AS DESCRIBED IN SPECIFICATION SECTION 02234 - "COMPACTED BACKFILL" OR SECTION 02235 - "COMPACTED GRANULAR BACKFILL".
- 2. BACKFILL SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 9" IN DEPTH. BACKFILL MATERIAL SHALL BE PLACED WITH 2% OF THE OPTIMUM MOISTURE. THE ENGINEER MAY ORDER THE REMOVAL, REFLILLING, RE-COMPACTION AND RETESTING OF ALL BACKFILL NOT MEETING THE REQUIREMENTS OF THE CONTRACT.
- 3. BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED USING MACHINE MOUNTED COMPACTION EQUIPMENT IN LAYERS SUFFICIENT TO MEET THE COMPACTION REQUIREMENT ODOT 203.
- 4. NO BACKFILLING OF ANY TRENCHES OR EXCAVATIONS WILL BE PERMITTED WITHOUT TAMPING EQUIPMENT BEING 5 ALL EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ROCK OR SHALE EXCAVATION.
- 5. THE OWNER AND THE ENGINEER DO NOT GUARANTEE THE SUITABILITY OR SUGGEST THAT THE EXISTING EXCAVATED MATERIAL IN ITS PRESENT STATE WILL CONSIST OF THE PROPER MOISTURE CONTENT TO ACHIEVE THE REQUIRED COMPACTION WITHOUT DRYING OR ADDING WATER TO THE MATERIAL. UPON REQUEST, THE OWNER WILL PROVIDE ACCESS TO THE SITE FOR THE CONTRACTOR TO CONDUCT SUCH INVESTIGATIONS AND TESTS DEEMED NECESSARY TO MAKE HIS DETERMINATION.

**SERVICE CONNECTIONS:**

- 1. ALL WATER SERVICE CONNECTIONS SHOWN ON THE PLAN WERE DERIVED FROM LCDU RECORDS. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL CONNECTIONS. ALL ACTIVE CONNECTIONS ENCOUNTERED SHALL BE RECONNECTED TO EXISTING FACILITIES OR CONNECTED TO THE NEW FACILITIES, EVEN IF NOT SHOWN ON THE PLANS.
- 2. THE CONTRACTOR SHALL EXPECT AT LEAST ONE SERVICE CONNECTION FOR ADDRESS NUMBER ON BOTH SIDES OF THE STREET FOR THE ENTIRE PROJECT LENGTH.
- 3. ALL EXISTING UTILITY SERVICE CONNECTIONS (SANITARY, STORM, WATER, GAS, ELECTRIC, TELEPHONE, ETC.) WHICH ARE DAMAGED DURING THE INSTALLATION OF PIPE SHALL BE REPAIRED WITH LIKE MATERIALS OR REPLACED, AS REQUIRED. THE COST OF UTILITY SERVICE CONNECTION REPAIR/REPLACEMENT SHALL BE INCLUDED IN THE UNIT PRICES FOR ALL ITEMS IN THE PROPOSAL.
- 4. ALL UTILITY LINES CROSSING THE NEW TRENCH SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS; OR REMOVED, REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED IN-KIND.
- 5. THE CONTRACTOR SHALL BE REQUIRED TO BYPASS AND MAINTAIN THE FLOW TO/FROM ALL HOUSE UTILITY CONNECTIONS DURING CONSTRUCTION.
- 6. THE CONTRACTOR SHALL SUPPLY ALL PIPE AND ADAPTERS TO CONNECT TO EXISTING PIPING. THE ADAPTERS MUST BE SUBMITTED TO AND APPROVED BY LCDU PRIOR TO CONSTRUCTION.
- 7. THE COST OF UTILITY RELOCATION, REPLACEMENT, AND/OR SUPPORT SHALL BE INCLUDED IN THE COST PER LINEAL FOOT OF PROPOSED WATERLINE.
- 8. THE LCDU REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY WHEN LEAD SERVICE LINES ARE ENCOUNTERED.



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DATE	NO	REVISION	ISSUED FOR: UTILITY COORD.	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
			08/28/18	AS SHOWN	MFC	MFC/JPL		XXX

**ERIE STREET WATER LINE  
REPLACEMENT  
LAKE COUNTY DEPARTMENT OF UTILITIES  
- WILLOUGHBY -  
GENERAL NOTES**

PROJECT NO.	<b>180608</b>
DISCIPLINE	<b>CIVIL</b>
SHEET NAME	<b>GN-02</b>
SHEET	OF
<b>3</b>	<b>20</b>