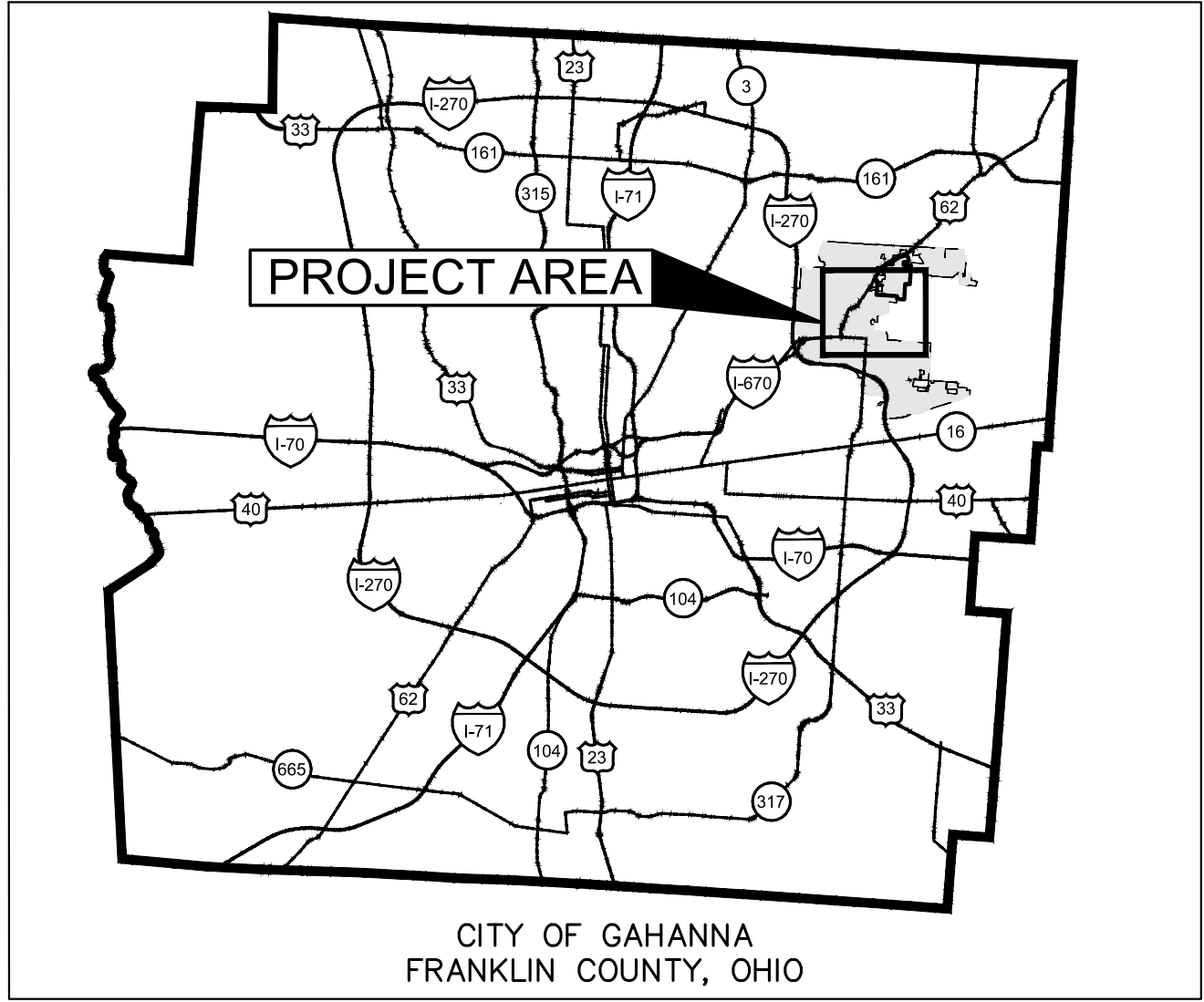


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VICINITY MAP  
SCALE: 1" = 25,000'

INDEX OF SHEETS

- 1..... TITLE SHEET
- 2..... TRIBUTARY BOUNDARY MAP
- 3-4..... GENERAL NOTES
- 5..... QUANTITIES & LEGEND
- 6-7..... PLAN AND PROFILE
- 8-10..... MAINTENANCE OF TRAFFIC

STANDARD DRAWINGS

THE CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS LISTED BELOW SHALL BE CONSIDERED AS PART OF THIS SET:

1441	2161	AA-S107	AA-S117	AA-S150
1500	AA-S102	AA-S110	AA-S119	AA-S154
1550	AA-S106	AA-S111	AA-S149	AA-S160

DATUMS / BASIS OF BEARING

ALL HORIZONTAL COORDINATES AND BEARING AS SHOWN ARE STATE PLANE GRID BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, AND REFERENCE THE NORTH AMERICAN DATUM OF 1983 AND THE 2011 ADJUSTMENT (NAD 83(2011)).

ALL ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

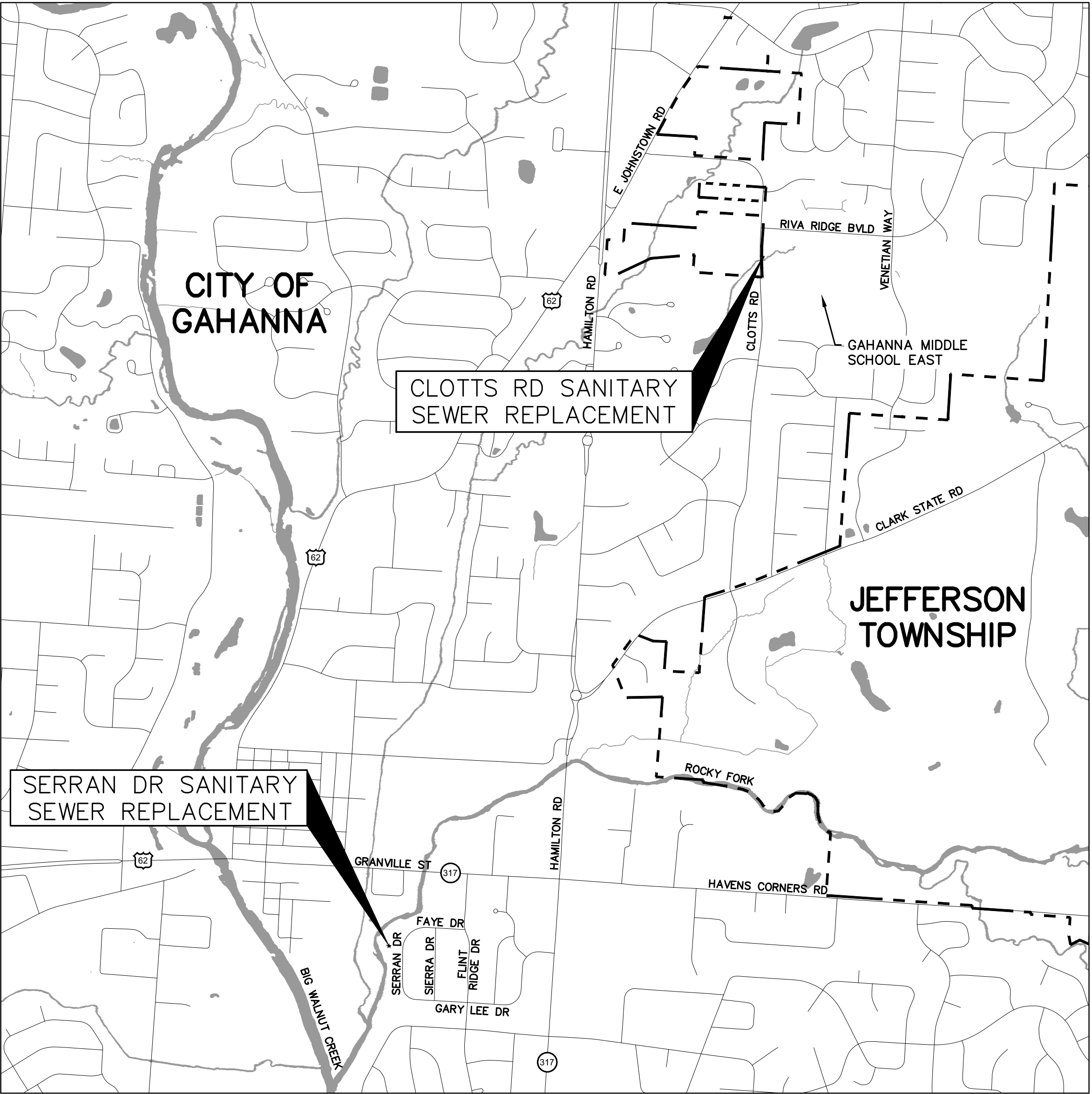
BENCHMARKS

BENCHMARK LOCATIONS ARE SHOWN AND NOTED ON THE PLAN AND PROFILE DRAWINGS.



CALL 1-800-925-0988 OR DIAL 811

CITY OF GAHANNA CLOTTS ROAD & SERRAN DRIVE SANITARY SEWER IMPROVEMENTS



LOCATION MAP  
SCALE: 1" = 1,000'

CITY OF GAHANNA APPROVAL:  
THE "CITY OF GAHANNA" SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE PURPOSE AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

\_\_\_\_\_  
Mayor, City of Gahanna, Ohio  
Date

\_\_\_\_\_  
Director of Engineering, City of Gahanna, Ohio  
Date

\_\_\_\_\_  
Director of Public Service, City of Gahanna, Ohio  
Date

\_\_\_\_\_  
Senior Utilities Engineer, City of Gahanna, Ohio  
Date

\_\_\_\_\_  
Finance Director, City of Gahanna, Ohio  
Date

CITY OF COLUMBUS APPROVAL:  
APPROVAL BY THE CITY OF COLUMBUS IS GIVEN PURSUANT TO THE PROVISIONS OF THE SEWER SERVICE AGREEMENT EXECUTED WITH THE CITY OF GAHANNA, OHIO ON JULY 26, 2004 AND ALL SUBSEQUENT AMENDMENTS THEREOF.

THE "CITY OF COLUMBUS" SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF THIS PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.

\_\_\_\_\_  
Administrator, Division of Sewerage and Drainage, City of Columbus, Ohio  
Date

\_\_\_\_\_  
Director, Department of Public Utilities, City of Columbus, Ohio  
Date

NOTE: THIS SANITARY SEWER MEETS OR EXCEEDS CITY OF COLUMBUS DESIGN STANDARDS (INCLUDING PER CAPITA FLOW, PEAKING FACTOR, AND I/I ALLOWANCE) AND MATERIAL SPECIFICATIONS.

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TITLE SHEET	
	SHEET 1 OF 10
	DATE ISSUED: 09/01/2023 Mo./Dy./Yr.

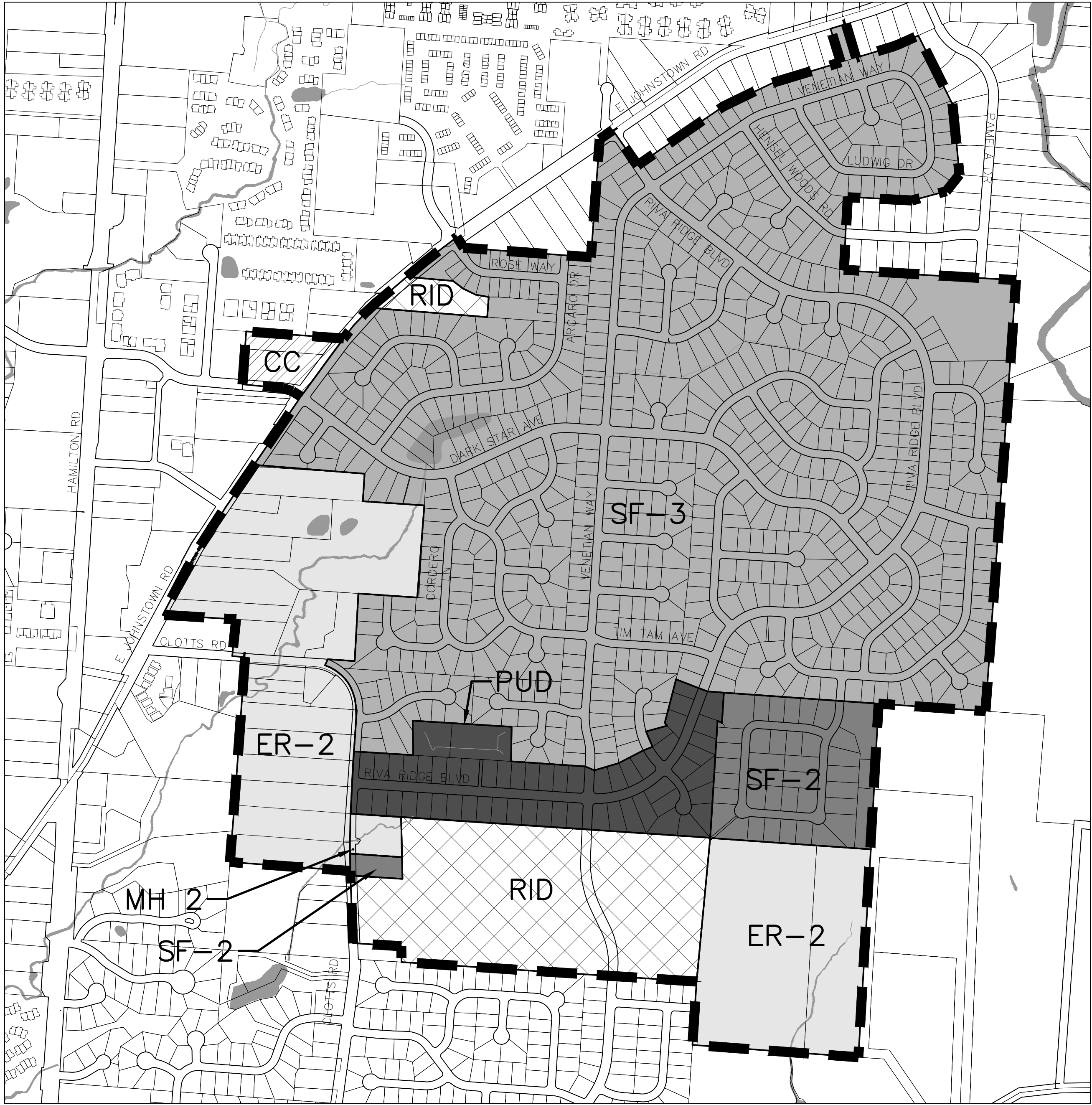


CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

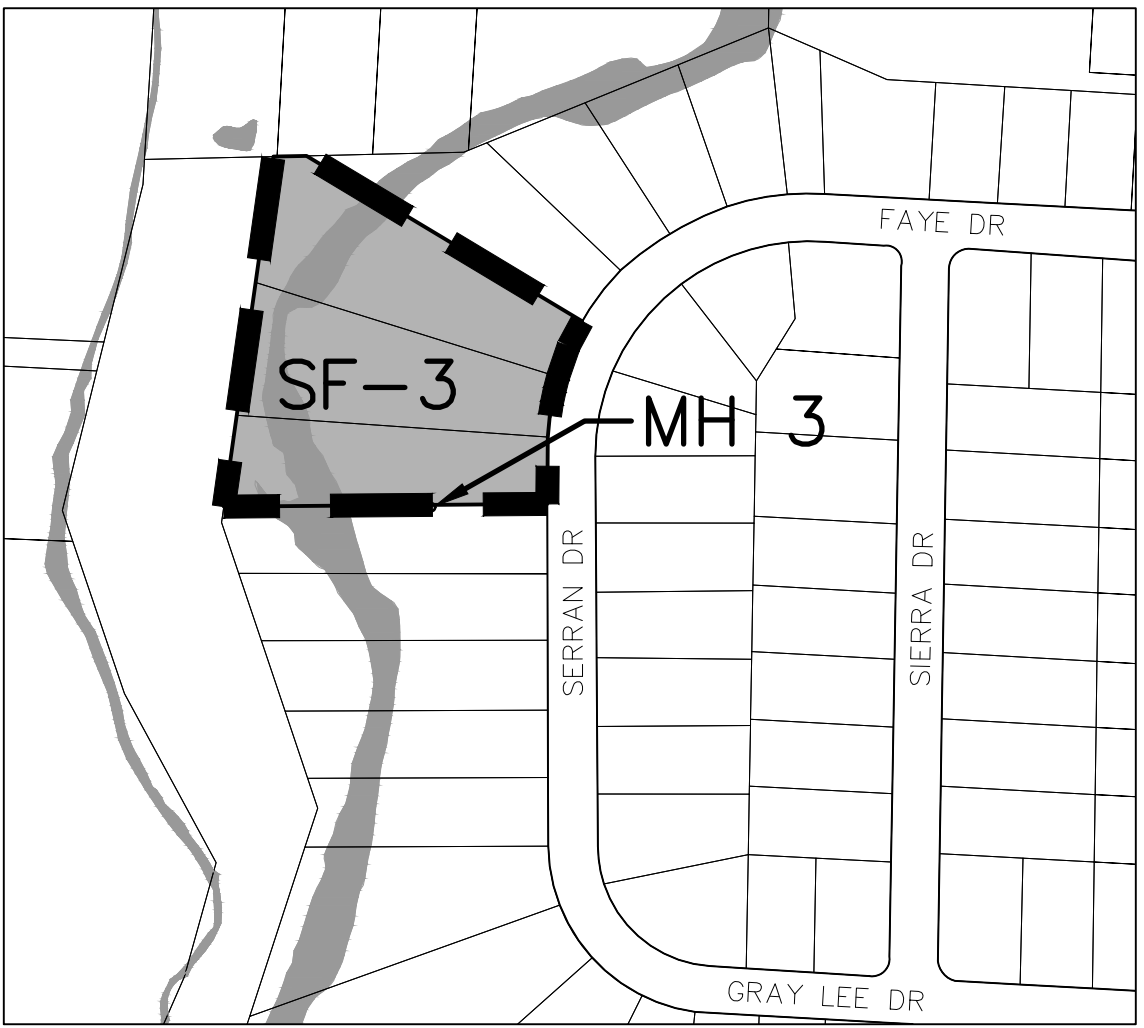
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CLOTTS RD TRIBUTARY BOUNDARY MAP

SCALE: 1" = 500'



SERRAN DR TRIBUTARY BOUNDARY MAP

SCALE: 1" = 200'

LEGEND	
	TRIBUTARY AREA BOUNDARY (489.65 AC)/(2.21 AC)
	ZONING BOUNDARY
	ER-2 ESTATE RESIDENTIAL (83.81 AC CLOTTS RD)
	SF-3 SINGLE FAMILY RESIDENTIAL (310.22 AC CLOTTS RD, 2.21 AC SERRAN DR)
	SF-2 SINGLE FAMILY RESIDENTIAL (21.76 AC CLOTTS RD)
	PUD PLANNED UNIT DEVELOPMENT (28.21 AC CLOTTS RD)
	RID RESTRICTED INSTITUTIONAL DISTRICT (44.74 AC CLOTTS RD)
	CC COMMUNITY COMMERCIAL (3.93 AC CLOTTS RD)

EXISTING SANITARY SEWER DESIGN FLOW CALCULATION FOR SERRAN DR

- TRIBUTARY AREA = 2.21 AC  
CITY OF GAHANNA ZONING CLASSIFICATIONS: SF-3 – SINGLE FAMILY RESIDENTIAL
- ZONING BASED DENSITY = [21 PPL/AC x 2.21 AC] = 46 PEOPLE
- AVERAGE SANITARY SEWER FLOW =  
FLOW= [120 GAL/DAY/PPL x 46 PPL] = 0.0056 MGD  
DESIGN FLOW FOR THE ZONING IS PER OEPA GREEN BOOK (PAGE 81–83).
- PEAK SANITARY SEWER FLOW = 0.0056 x 3.5 PEAKING FACTOR = 0.019 MGD  
3.5 PEAKING FACTOR IS PER COC DOSD SANITARY SEWER DESIGN MANUAL

SERRAN DR SANITARY SEWER FLOW						
ZONING	DESCRIPTION	AREA (AC)	PPL/AC	PEOPLE	GALLON/DAY/PPL	FLOW (MGD)
SF-3	SINGLE FAMILY RESIDENTIAL	2.21	21	46	120	0.0056
TOTAL		2.21		46		0.0056

EXISTING SANITARY SEWER DESIGN FLOW CALCULATION FOR CLOTTS ROAD

- TRIBUTARY AREA = 310.22 AC (SF-3) + 21.76 AC (SF-2) + 83.81 AC (ER-2) + 28.21 AC (PUD) + 3.93 AC (CC) + 44.74 AC (RID) = 489.65 AC  
CITY OF GAHANNA ZONING CLASSIFICATIONS: SF-2 & SF-3 – SINGLE FAMILY RESIDENTIAL; PUD – PLANNED UNIT DEVELOPMENT; RID – RESTRICTED INSTITUTIONAL DISTRICT; ER-2 – ESTATE RESIDENTIAL; CC – COMMUNITY COMMERCIAL.
- ZONING BASED DENSITY = [21 PPL/AC x 310.22 AC] (SF-3) + [21 PPL/AC x 21.76 AC] (SF-2) + [17 x 83.81 AC] (ER-2) + [15 PPL/AC x 28.21 AC] (PUD) + [10 PPL/AC x 3.93 AC] (CC) = 8859 PPL
- AVERAGE SANITARY SEWER FLOW FOR DENSITY- BASED FLOW = [120 GAL/DAY/PERSON x 8859 PEOPLE] = 1.06 MGD  
EXCLUDES GAHANNA MIDDLE SCHOOL EAST, HIGH POINT ELEMENTARY SCHOOL AND FAMILY FELLOWSHIP CHURCH FOR RID ZONING. RID FLOW IS CALCULATED BASED ON OEPA GREENBOOK (PAGE 81–83) AND INCLUDED IN FOLLOWING AVERAGE FLOW CALCULATION. OTHER DENSITIES PER COC DOSD SANITARY SEWER DESIGN MANUAL– EXHIBIT E "ZONING POPULATION DENSITY CHART".
- AVERAGE SANITARY SEWER FLOW FOR USE–BASED FLOW PER OEPA GREEN BOOK (PAGE 81–83) = [526 STUDENTS & STAFF x 15 GAL/DAY.PPL] (HIGH POINT ELEMENTARY SCHOOL) + [520 STUDENTS x 20 GAL/DAY/PPL + 55 STAFF x 15 GAL/DAY/PPL] (GAHANNA MIDDLE SCHOOL EAST) STAFF + [150 3 GAL/DAY/PPL] (FAMILY FELLOWSHIP CHURCH) = 0.020 MGD
- TOTAL AVERAGE SANITARY SEWER FLOW = [1.06 MGD + 0.02 MGD = 1.08 MGD]
- PEAK SANITARY SEWER FLOW= 1.08 x 3.5 PEAKING FACTOR = 3.77 MGD  
3.5 PEAKING FACTOR IS PER COC DOSD SANITARY SEWER DESIGN MANUAL

CLOTTS RD SANITARY SEWER FLOW							
ZONING	DESCRIPTION	AREA (AC)	PPL/AC	PEOPLE	GALLON/DAY/PPL	FLOW (MGD)	PEAK FLOW (MGD)
SF-3	SINGLE FAMILY RESIDENTIAL	310.22	21	6515	120	0.78	2.74
SF-2	SINGLE FAMILY RESIDENTIAL	21.76	21	457	120	0.055	0.19
ER-2	ESTATE RESIDENTIAL	83.81	17	1425	120	0.17	0.60
PUD	PLANNED UNIT DEVELOPMENT	28.21	15	423	120	0.051	0.18
CC	COMMUNITY COMMERCIAL	3.93	10	39	15	0.00059	0.0021
RID	RESTRICTED INSTITUTIONAL DISTRICT	44.74					
	ELEMENTARY SCHOOL			526	15	0.0079	0.028
	MIDDLE SCHOOL			575	15–20	0.011	0.039
	CHURCH			150	3	0.00045	0.0016
TOTAL		492.67		10110		1.08	3.77



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CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

SCALE

AS SHOWN

TRIBUTARY BOUNDARY MAP

ISSUED STATUS: BID

SHEET 2 OF 10

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GENERAL NOTES:

THE CURRENT CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) TOGETHER WITH THE REQUIREMENTS OF THE CITY OF GAHANNA, OHIO, SHALL GOVERN MATERIALS AND WORKMANSHIP INVOLVED IN IMPROVEMENTS SHOWN ON THESE PLANS, EXCEPT THOSE SPECIFICATIONS MODIFIED BY THE FOLLOWING SPECIFICATIONS OR CONSTRUCTION DETAILS SET FORTH HEREIN.

ALL WORK IS TO BE ACCEPTABLE TO CITY OF GAHANNA OFFICIALS. NO WORK IS TO COMMENCE UNTIL ARRANGEMENTS HAVE BEEN MADE WITH THE CITY OF GAHANNA ENGINEER FOR INSPECTION.

THE CONTRACTOR SHALL NOTIFY THE CITY OF GAHANNA ENGINEER AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

THE CONTRACTOR IS TO SCHEDULE A PRE-CONSTRUCTION MEETING ONE BUSINESS WEEK PRIOR TO CONSTRUCTION. THE MEETING SHALL TAKE PLACE AT LEAST ONE BUSINESS WEEK PRIOR TO THE FOLLOWING: SITE CLEARING, MATERIAL DELIVERED ON-SITE, EQUIPMENT ON-SITE AND FIELD OFFICE ON-SITE.

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. THE CONTRACTOR SHALL EXERCISE PRECAUTION ALWAYS FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING THE REQUIREMENTS FOR CONFINED SPACES PER 29 CFR 1910.146.

THE PRICE(S) QUOTED SHALL INCLUDE ALL ITEMS OF LABOR, MATERIALS, TOOLS, EQUIPMENT, INSURANCE AND OTHER COSTS NECESSARY TO FULLY COMPLETE THE WORK PURSUANT TO THE CONTRACT DOCUMENTS. IT IS THE INTENTION OF THE CONTRACT DOCUMENTS TO PROVIDE AND REQUIRE A COMPLETED WORK PROJECT READY FOR OPERATION. ANY WORK ITEMS OMITTED FROM SUCH CONTRACT DOCUMENTS WHICH ARE CLEARLY NECESSARY FOR THE COMPLETION OF SUCH WORK AND ITS APPURTENANCES SHALL BE CONSIDERED A PART OF SUCH WORK ALTHOUGH NOT DIRECTLY SPECIFIED OR CALLED FOR IN THE CONTRACT DOCUMENTS.

ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED WITH PERFORATED PIPE OR CONNECTED TO THE STORM SEWER SYSTEM. THE COST FOR THIS WORK SHALL BE INCLUDED IN PRICE BID FOR THE VARIOUS RELATED ITEMS.

NO NATURAL DRAINAGE COURSES SHALL BE ALTERED AND NO FILL, MATERIALS OR STRUCTURES SHALL BE PLACED IN IT UNLESS PROVISIONS ARE MADE FOR THE FLOW OF WATER IN A MANNER SATISFACTORY TO THE CITY ENGINEER. AN EASEMENT SHALL BE PROVIDED ON BOTH SIDES OF ANY EXISTING IMPORTANT SURFACE DRAINAGE COURSE ADEQUATE FOR THE PURPOSE OF PROTECTING, WIDENING, DEEPENING, ENCLOSING OR OTHERWISE IMPROVING SUCH STREAM FOR DRAINAGE PURPOSES.

DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE AND PROPER SOIL EROSION CONTROL MEASURES FOR PROTECTION OF ALL ADJACENT ROADS AND LANDS.

THE CONTRACTOR SHALL REPAIR OR REPLACE ANY OR ALL EXISTING SIGNS, SHRUBS, FENCES, OR OTHER PHYSICAL FEATURES DAMAGED DURING THE EXECUTION OF THIS CONTRACT AT THEIR OWN EXPENSE. ALL REPAIRS SHALL BE TO THE SATISFACTION OF THE CITY OF GAHANNA.

THE CONTRACTOR SHALL CONFINE ACTIVITIES TO THE PROJECT SITE, EXISTING RIGHT-OF-WAYS, TEMPORARY EASEMENTS AND PERMANENT EASEMENTS, AND SHALL NOT ENTER UPON OTHER PROPERTIES WITHOUT WRITTEN PERMISSION OF THE PROPERTY OWNER.

DUST CONTROL SHALL BE MAINTAINED THROUGHOUT THE ENTIRE SITE.

THE CONTRACTOR SHALL CLEAN ADJACENT STREETS ON A DAILY BASIS IF MUD IS TRACKED FROM VEHICLES VISITING THE SITE.

SHOULD WATER BE ENCOUNTERED, THE CONTRACTOR SHALL FURNISH AND OPERATE SUITABLE PUMPING EQUIPMENT OF SUCH CAPACITY ADEQUATE TO DEWATER THE TRENCH. THE TRENCH SHALL BE SUFFICIENTLY DEWATERED SO THAT THE PLACEMENT OF BEDDING AND LAYING AND JOINING OF THE PIPE IS MADE IN A TRENCH FREE OF STANDING WATER. THE CONTRACTOR SHALL CONVEY ALL TRENCH WATER TO A NATURAL DRAINAGE CHANNEL OR STORM SEWER WITHOUT CAUSING ANY PROPERTY DAMAGE. THE COST FOR DEWATERING ACTIVITIES SHALL BE INCLUDED IN PRICE BID FOR THE VARIOUS RELATED ITEMS.

THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO ENSURE CONSTRUCTION TO PLAN GRADE. THE CONTRACTOR SHALL ENSURE THERE IS A SURVEYOR'S LEVEL AND ROD ON THE PROJECT FOR USE IN PERFORMING GRADE CHECKS WHENEVER SEWER LINE STRUCTURES OR PIPES ARE BEING INSTALLED. THE CONTRACTOR SHALL MAKE THIS EQUIPMENT AVAILABLE FOR USE AND ASSIST THE CITY INSPECTOR IN PERFORMING GRADE CHECKS WHEN REQUESTED BY THE INSPECTOR. THE INSPECTOR WILL MAKE ALL REASONABLE ATTEMPTS TO CONFINE REQUESTS FOR ASSISTANCE IN PERFORMING GRADE CHECKS TO TIMES CONVENIENT TO THE CONTRACTOR. THESE CHECKS WILL BE PERFORMED TO ENSURE THAT CONSTRUCTION MATCHES PLAN GRADE, AND TO ENSURE THAT ALL EXISTING INVERTS ALONG WITH THE PROPOSED TOP OF CASTING ELEVATIONS ARE VERIFIED DURING CONSTRUCTION OF THE SEWER.

THE CONTRACTOR SHALL REFERENCE ALL IRON PINS OR MONUMENTS. IF ANY PINS OR MONUMENTS ARE DESTROYED OR DAMAGED BY THE CONTRACTOR, THEY SHALL BE ACCURATELY REPLACED BY A REGISTERED SURVEYOR IN THE STATE OF OHIO AT THE COMPLETION OF THE PROJECT.

VERTICAL CONTROL HAS BEEN ESTABLISHED FOR THE PROJECT AS SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED SURVEYS TO COMPLETE THE PROJECT INCLUDING REESTABLISHMENT OF CONTROL POINTS, PROJECT LAYOUT AND STAKING OF EASEMENTS.

ALL CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990, INCLUDING ALL SUPPLEMENTS IN ACCORDANCE WITH THE CITY OF COLUMBUS STANDARD DRAWING 2319, INCLUDING ALL SUPPLEMENTS AND/OR REPLACEMENTS, CURRENT ON THE DATE OF THE START OF PROJECT CONSTRUCTION. SIDEWALKS SHALL BE CONSTRUCTED WITH A 3/16" PER FOOT (1.56%) CROSS SLOPE.

NO NON-RUBBER TIRED VEHICLES SHALL BE MOVED ON CITY STREETS, EXISTING PRIVATE ROADWAYS, OR PARKING LOTS UNLESS WRITTEN APPROVAL IS GRANTED BY THE APPROPRIATE CITY AUTHORITY OR PROPERTY OWNER. ANY DAMAGE MUST BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF GAHANNA AT NO COST TO THE CITY OR PROPERTY OWNER.

ANY MODIFICATION TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY OF GAHANNA.

THE CONTRACTOR SHALL MAKE HIS OWN PROVISIONS TO PROVIDE A SITE STAGING AREA AND JOB TRAILER (IF REQUIRED) FOR THE PROJECT IMPROVEMENTS.

ORANGE CONSTRUCTION FENCING SHALL BE PLACED AROUND THE EXISTING TREES TO BE SAVED AND REMAIN IN PLACE DURING THE DEVELOPMENT CONSTRUCTION. THE LOCATION AND LIMITS OF THE FENCING AND ANY CLEARING NECESSARY SHALL BE AS PER THE APPROVED PLANS.

INCONVENIENCE TO THE ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC SHALL BE KEPT TO AN ABSOLUTE MINIMUM. ALL WORK IS TO CONTINUE ON A UNIFORM BASIS AND ON SCHEDULE, PARTICULARLY THE RESTORATION AND CLEAN UP OF DISTURBED AREAS AFTER CONSTRUCTION.

THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT SOIL TRANSPORT DURING CONSTRUCTION ONTO PUBLIC ROADS. THE CONTRACTOR SHALL CLEAN AND SWEEP STREETS AS DIRECTED BY THE CITY. THE COST FOR STREET SWEEPING AND CLEANING IS TO BE INCLUDED IN THE PRICE BID UNDER VARIOUS ITEMS.

THE COST OF RELOCATING AND/OR SECURING ANY POWER POLES AS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS OF THE CONTRACT.

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, RESTORATION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL OR STREET LIGHTING SYSTEMS IN THE CONSTRUCTION AREA IS TO BE PERFORMED SOLELY BY THE CITY AT THE EXPENSE OF THE PROJECT. THE CITY SHALL BE NOTIFIED PRIOR TO CONSTRUCTION TO ALLOW FOR ENGINEERING AND RELOCATION OF FACILITIES.

IF ANY ELECTRIC FACILITY BELONGING TO THE CITY IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, THE CITY SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE CITY.

UTILITIES:

THE CONTRACTOR SHALL GIVE NOTICE TO THE OHIO UTILITIES PROTECTION SERVICE (PHONE 1-800-362-2764) AND TO THE OWNERS OF THE UTILITY FACILITIES SHOWN ON THE PLAN WHO ARE NOT MEMBERS OF A REGISTERED UTILITY PROTECTION SERVICE. THE ABOVE-MENTIONED NOTICE SHALL BE GIVEN AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECTS ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL GIVE NOTICE TO OUPS AND OTHER UTILITY OWNERS PER THE GENERAL NOTES.

WHERE POTENTIAL GRADE CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE DEPTH OF THE EXISTING UTILITY IN ADVANCE OF THE PROPOSED CONSTRUCTION.

THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AS ACCURATELY AS PROVIDED BY THE UTILITY OWNER. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT AND ARE REGISTERED MEMBERS OF THE UNDERGROUND UTILITY PROTECTION SERVICE:

UTILITY	OWNER	TELEPHONE	FAX
WATER FACILITIES	CITY OF GAHANNA WATER DIVISION 200 S HAMILTON RD GAHANNA, OH 43230	(614) 342-4440	(614) 342-4100
SEWER FACILITIES	CITY OF GAHANNA SEWER DIVISION 200 S HAMILTON RD GAHANNA, OH 43230	(614) 342-4440	(614) 342-4100
ELECTRIC FACILITIES	AMERICAN ELECTRIC POWER 850 TECH CENTER DR GAHANNA, OH 43230	(614) 883-6811	(614) 883-6868
GAS	COLUMBIA GAS OF OHIO (DISTRIBUTION) ATTN: ROB CALDWELL 3550 JOHNNY APPLESEED CT COLUMBUS, OH 43231	P: (614) 818-2104 C: (614) 370-1906 E-MAIL: rcaldwell@nsource.com	(614) 460-4265
TELEPHONE	AT&T 150 E GAY ST COLUMBUS, OH 43212	(800) 660-1000	(614) 223-6296

WATER NOTES:

ALL WATER LINE MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER AND THE DIRECTION OF THE CITY OF GAHANNA.

WATER MAINS AND FIRE HYDRANT LEADS SHALL BE DUCTILE IRON PIPE, CLASS 52 OR GREATER (AWWA C151) WITH CEMENT MORTAR LINING AND SEAL COAT (AWWA C104) OR PVC, CLASS 150 MEETING AWWA C900. JOINTS SHALL BE RUBBER GASKET PUSH-ON MECHANICAL (AWWA C110).

FIRE HYDRANTS SHALL BE SUPPLIED AND INSTALLED IN ACCORDANCE AS SHOWN ON THE CITY OF COLUMBUS L-6409 AND L-6637 STANDARD CONSTRUCTION DRAWINGS. FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 FIRE HYDRANT, AMERICAN DARLING 4-1/2 MK73 - 5, OR APPROVED EQUAL. PUBLIC HYDRANTS SHALL BE PAINTED RED FOR THE BONNET / CAPS AND SILVER FOR THE BARREL, FEATURE ONE (1) FOUR-INCH STEAMER NOZZLE PLUS TWO (2) 2.5-INCH HOSE NOZZLES AND SHALL OPEN TO THE LEFT (COUNTER-CLOCKWISE). DELIVER ANY ABANDONED PUBLIC HYDRANTS TO THE CITY OF GAHANNA AT ITS SERVICE FACILITY (152 OKLAHOMA AVE).

ALL WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE AS SHOWN ON THE CITY OF COLUMBUS L-9901 STANDARD CONSTRUCTION DRAWING. STAINLESS STEEL SERVICE SADDLES SHALL BE PROVIDED FOR ALL WATER SERVICE TAPS.

ALL GATE VALVES SHALL BE RESILIENT SEAT TYPE MANUFACTURED TO MEET OR EXCEED TO REQUIREMENTS OF ANSI/AWWA C509 OR THE LATEST REVISION.

WATERLINES SHALL BE LAID WITH A MINIMUM OF 4'-0" OF COVER FROM THE FINISHED GRADE TO THE TOP OF THE WATER LINE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE HORIZONTAL AND VERTICAL DEFLECTIONS OR BENDS OF THE WATER LINES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECT WATER LINES TO PROVIDE A 1'-6" VERTICAL AND 10'-0" HORIZONTAL CLEARANCE WITH SEWERS.

ALL WATER LINES, INCLUDING MAINS AND SERVICES, SHALL BE TESTED UNDER A MINIMUM HYDROSTATIC TEST OF 150 PSI AND IN ACCORDANCE WITH AWWA C600 AND CITY OF COLUMBUS CMS ITEMS 801.13 AND 801.14. NO PRESSURE TEST SHALL BE PERFORMED IF THE TEMPERATURE IS BELOW FREEZING.

THE CONTRACTOR SHALL SUBMIT TWO (2) COPIES OF THE PLANS, RESULTS OF THE PRESSURE TEST AND A LETTER REQUESTING CHLORINATION TO THE CITY OF GAHANNA. COST OF CHLORINATION SHALL BE INCLUDED IN THE PRICE BID FOR THE WATER LINE ITEMS.

NO PERSON SHALL INSTALL OR MAINTAIN A WATER SERVICE CONNECTION WHERE A BOOSTER PUMP HAS BEEN INSTALLED.

ALL MECHANICAL JOINTS ARE REQUIRED TO BE MEGALUGGED, CONCRETE BACKING IS STILL REQUIRED. ALL MECHANICAL PIPE DEFLECTIONS ARE REQUIRED TO BE MEGALUGGED, CONCRETE BACKED, AND JOINT RESTRAINTS MAY BE REQUIRED BY THE ENGINEER. THE HYDRANT TEE IS TO BE ALL-THREADED TO THE MAINLINE VALVE FOR FUTURE EXPANSION. 1 FULL STICK OF PIPE (20') IS TO BE LAID BEFORE FOR THE PLUG.

ALL FITTINGS ARE TO BE GPS LOCATED PRIOR TO BACKFILL USING X, Y, AND Z COORDINATES.

ANY WATER USAGE FOR FILLING THE WATER MAIN AND CHLORINATION SHALL GO THROUGH A WATER METER. ANY UNMETERED WATER USE WILL BE CHARGED TO THE CONTRACTOR/DEVELOPER BASED ON FLOW RATE CALCULATIONS.

THE WATER LINE AND SEWER LINE TRENCH UNDER THE INFLUENCE OF PAVEMENT ARE TO BE COMPACTION TESTED.

INSTALL COPPERHEAD®OR EQUAL 12-GAUGE HIGH STRENGTH 452LB BREAK STRENGTH 30 MIL HDPE JACKET, COPPER-CLAD, STEEL REINFORCED TRACER WIRE ON ALL WATER MAIN AND SERVICE LINES INSTALLED BY TRENCHING METHODS.

INSTALL COPPERHEAD®OR EQUAL 12-GAUGE EXTRA HIGH STRENGTH 1150LB BREAK STRENGTH 45 MIL HDPE JACKET, COPPER-CLAD, STEEL REINFORCED TRACER WIRE ON ALL WATER MAIN AND SERVICE LINES INSTALLED BY BORING METHODS.

FASTEN WIRE TO PIPE IN TWO PLACES PER PIPE SECTION. EXTEND TRACER WIRE TO GROUND SURFACE AT ALL VALVES AND

HYDRANTS. SPlice WIRES USING BURNDY COPPER SPLIT BOLT KS-15. THOROUGHLY WRAP THE CONNECTOR AND BARE WIRES WITH 3M TEMFLEX 2155 RUBBER SPLICING TAPE, COVER ENTIRE CONNECTION WITH SCOTCH SUPER 88 HEAVY DUTY GRADE ELECTRICAL TAPE.

CONNECT ALL SERVICE LINE WIRES TO MAIN LINE WIRES USING BURNDY COPPER SPLIT BOLT KS-15. THOROUGHLY WRAP THE CONNECTOR AND BARE WIRES WITH 3M TEMFLEX 2155 RUBBER SPLICING TAPE, COVER ENTIRE CONNECTION WITH SCOTCH SUPER 88 HEAVY DUTY GRADE ELECTRICAL TAPE.

ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651.

THE NORMAL WORKING PRESSURE OF THE SYSTEM SHALL NOT DECREASE BELOW 35 PSI. ALL WATER MAIN IMPROVEMENTS HAVE BEEN DESIGNED TO MAINTAIN A MINIMUM PRESSURE OF 20 PSI AT GROUND LEVEL AT ALL POINTS IN THE SYSTEM UNDER ALL CONDITIONS OF FLOW.

SANITARY SEWER NOTES:

SERVICE RISERS, ITEM 914, SHALL BE INSTALLED WHERE DEPTHS FROM THE WYES TO THE EXISTING OR PROPOSED ELEVATIONS EXCEED 10'. THE TOPS OF RISERS SHALL BE NO MORE THAN ±9' BELOW THE EXISTING OR PROPOSED SURFACE ELEVATION, WHICHEVER IS HIGHER.

A MINIMUM VERTICAL CLEARANCE OF 1.5' SHALL BE PROVIDED BETWEEN THE PROPOSED SANITARY SERVICE AND EXISTING UTILITIES OR STRUCTURES UNLESS OTHERWISE NOTED ON THESE PLANS.

ALL PVC SEWER LINES SHALL BE DEFLECTION TESTED AFTER INSTALLATION IN CONFORMANCE WITH THE REQUIREMENTS OF ITEM 901.21 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT VERSION.

ALL SANITARY SEWER AND SANITARY SERVICES ARE TO BE MANDREL TESTED, AIR TESTED, CLEANED AND CAMERA INSPECTED.

ALL SANITARY MANHOLES ARE REQUIRED TO PASS A VACUUM TEST PER CITY OF COLUMBUS ITEM 901.20 AND ASTM-C-1244.

PIPE FOR ALL 6" SANITARY SERVICES SHALL BE PVC SEWER PIPE ASTM D-3034, SDR-35. THE SERVICES SHALL BE FIELD TESTED BY THE INFILTRATION, EXFILTRATION OR AIR TEST.

ALL PIPES SHALL BE LAID WITH TYPE 1 GRANULAR MATERIAL BEDDING AND BACKFILL AS SHOWN ON STANDARD CONSTRUCTION CITY OF COLUMBUS AA-S151. INSTALLATION SHALL CONFORM TO CMS SECTION 900.

STORM SEWER NOTES:

ANY PLACEMENT OF STORM SEWERS BENEATH EXISTING OR PROPOSED PAVEMENT SHALL BE BACKFILLED IN ACCORDANCE WITH COLUMBUS CMS ITEM 912, COMPACTED GRANULAR BACKFILL.

ALL PIPES SHALL BE LAID WITH TYPE 1 GRANULAR MATERIAL BEDDING AND BACKFILL AS SHOWN ON STANDARD CONSTRUCTION CITY OF COLUMBUS AA-S151. INSTALLATION SHALL CONFORM TO CMS SECTION 901.

ALL CONCRETE PIPE AND STORM SEWER STRUCTURES SHALL BE STAMPED OR HAVE SUCH IDENTIFICATION NOTING THAT SAID PIPE AND/OR STORM STRUCTURES HAVE BEEN INSPECTED BY THE CITY OF COLUMBUS AND MEETS THEIR SPECIFICATIONS. PIPE AND STRUCTURES WITHOUT PROPER IDENTIFICATION WILL NOT BE PERMITTED FOR INSTALLATION.

ALL CURB INLETS AND MANHOLES SHALL BE CHANNELED AS DIRECTED. THE COST FOR THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR VARIOUS STORM SEWER ITEMS.

IN CASE OF CONFLICT IN GRADE BETWEEN WATER LINES AND STORM SEWERS, THE WATER LINES SHALL BE LOWERED DURING CONSTRUCTION.

ALL PLASTIC SEWER LINES SHALL BE DEFLECTION TESTED AFTER INSTALLATION IN CONFORMANCE WITH THE REQUIREMENTS OF COLUMBUS CMS ITEM 901.

ALL STORM SEWER IS TO BE MANDREL TESTED, CLEANED AND CAMERA INSPECTED.

MAINTENANCE OF TRAFFIC:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND AND AWAY FROM THE CONSTRUCTION SITE AS DESIGNATED IN SECTION 60.01 OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).

THE SAFETY OF PEDESTRIAN TRAFFIC SHALL BE CONSIDERED AT ALL TIMES IN THE PROVISION OF TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS AND NOTES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE LIGHTS, SIGNS, BARRICADES AND OTHER WARNINGS TO PHYSICALLY SEPARATE THE PEDESTRIAN FROM HAZARDS INCIDENTAL TO THE CONSTRUCTION OPERATIONS SUCH AS OPEN EXCAVATIONS, ETC.

ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) FOR CONSTRUCTION AND MAINTENANCE OPERATIONS. ALL DEVICES SHALL MEET FP-85 REFLECTANCE STANDARDS AND IN FULL COMPLIANCE WITH "QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES" PUBLISHED BY ATTSSA. ALL TRAFFIC CONTROL DEVICES MUST MEET NCHRP 350.

STEADY BURNING, TYPE "C" LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ALL SIGNS, NINE SQUARE FEET (36" X 36") AND OVER SHALL HAVE YELLOW TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS AND THREE FLAGS. CONES ARE NOT APPROVED FOR USE AT NIGHT.

THE ROADWAY SHALL NOT BE OPENED TO TRAFFIC UNTIL PERMANENT TRAFFIC CONTROLS ARE IN PLACE OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE INSPECTOR ARE INSTALLED. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.


THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING THE CONSTRUCTION. PERMANENT TRAFFIC CONTROLS NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROLS SHALL BE REPLACED IMMEDIATELY.

ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS SHALL BE MAINTAINED THROUGHOUT THE PROJECT BY THE CONTRACTOR. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, AND IMPROPERLY PLACED TRAFFIC CONTROL DEVICES.

ALL TRENCHES WITHIN THE ROAD RIGHT-OF-WAY SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS.

ALL LANES SHALL BE FULLY OPEN TO TRAFFIC ON ALL PUBLIC STREETS AND ALLEYS UNLESS OTHERWISE APPROVED BY THE CITY OF GAHANNA.

ANY WORK DONE BY THE CITY INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF THE NEGLIGENCE OF THE CONTRACTOR SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

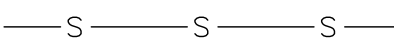

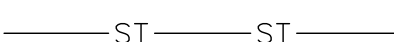
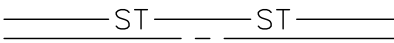












	No.	BY	DATE	REVISIONS	PROJ. PERSONNEL	DATE	SCALE	GENERAL NOTES	ISSUED STATUS: BID
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					DWN. _____				
					CKD. _____				
CITY OF GAHANNA, OHIO  PUBLIC SERVICE & ENGINEERING							CLOTTS ROAD & SERRAN DRIVE SANITARY SEWER IMPROVEMENTS		SHEET <u>3</u> OF <u>10</u>  DATE ISSUED: <u>09/01/2023</u> Mo./Dy./Yr.



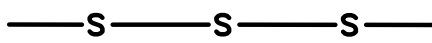


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LEGEND

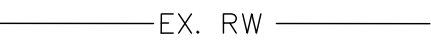



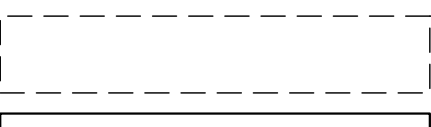


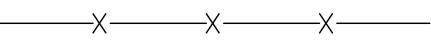
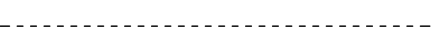



EXISTING UTILITIES AND STRUCTURES

	SANITARY SEWER (LESS THAN 24" DIAMETER)
	SANITARY SERVICE LATERAL
	STORM SEWER (LESS THAN 24" DIAMETER)
	STORM SEWER (24" DIAMETER AND GREATER)
	WATER MAIN (LESS THAN 24" DIAMETER)
	OVERHEAD ELECTRIC
	GAS LINE
	SANITARY SEWER MANHOLE OR STRUCTURE
	STORM SEWER MANHOLE OR STRUCTURE
	STORM SEWER INLET STRUCTURE
	WATER MAIN HYDRANT
	WATER MAIN VALVE
   	POLES – POWER, TELEPHONE, LIGHTING, COMBO

PROPOSED UTILITIES AND STRUCTURES

	PROPOSED SANITARY MAIN
	PROPOSED SANITARY MANHOLE
	LIMITS OF CONSTRUCTION

EXISTING TOPOGRAPHIC FEATURES

	EXISTING RIGHT-OF-WAY
	PROPERTY LINE
	MINOR CONTOURS
	MAJOR CONTOURS
	DRIVEWAYS AND PARKING LOTS
	BUILDING FOUNDATIONS
	ROADWAYS
	FENCE
	SIDEWALK
	TREE STUMP
	TREE
	SIGNAGE

STRUCTURE COORDINATE TABLE				
STRUCTURE	LOCATION	DESCRIPTION	NORTHING	EASTING
1	CLOTTS RD	MH TYPE C, 48"	742208.56	1868093.11
2	CLOTTS RD	MH TYPE C, 48"	742444.06	1868110.96
3	SERRAN DR	MH TYPE C, 48"	734493.38	1863932.58
EX	SERRAN DR	EX MH TO REMAIN	734672.41	1863931.73

ESTIMATE OF QUANTITIES – CLOTTS ROAD			
ITEM	DESCRIPTION	QUANTITY	UNITS
201	CLEARING AND GRUBBING	1	LS
202	MANHOLE REMOVED	2	EA
202	PAVEMENT REMOVED	181	SY
202	PIPE REMOVED	236	LF
204	SUBGRADE COMPACTION	202	SY
207	TEMPORARY EROSION AND SEDIMENT CONTROL	1	LS
304	6" AGGREGATE	34	CY
407	NON-TRACKING TACK COAT	11	GAL
423	CRACK SEALANT	18	LF
448	1-1/4" SURFACE COURSE ASPHALT	6	CY
448	1-3/4" INTERMEDIATE ASPHALT CONCRETE TYPE 2	9	CY
604	48" DIAMETER MANHOLE, TYPE "C"	2	EA
614	MAINTAINING TRAFFIC	1	LS
624	MOBILIZATION	1	LS
659	SEEDING AND MULCHING	343	SY
901	18 INCH SANITARY PS46 PVC PIPE, W/ TYPE 1 BEDDING, 912 BACKFILL	216	LF
901	18 INCH SANITARY PS46 PVC PIPE, W/ TYPE 1 BEDDING, 613 BACKFILL	20	LF
SS-3	BYPASS PUMPING	1	LS

ESTIMATE OF QUANTITIES – SERRAN DRIVE			
202	PIPE REMOVED	179	LF
207	TEMPORARY EROSION AND SEDIMENT CONTROL	1	LS
604	48" DIAMETER MANHOLE, TYPE "C"	1	EA
607	FENCE, CHAIN LINK	32	LF
607	FENCE, 6' WOODEN PRIVACY	16	LF
614	MAINTAINING TRAFFIC	1	LS
624	MOBILIZATION	1	LS
659	SEEDING AND MULCHING	450	SY
901	8 INCH SANITARY SDR 35 PVC PIPE, W/ TYPE 1 BEDDING, 912 BACKFILL	179	LF
918	6" SANITARY LATERAL CONNECTIONS	20	LF
SS-3	BYPASS PUMPING	1	LS



No.	BY	DATE	REVISIONS	PROJ. PERSONNEL	DATE
	Int.	Mo./Dy./Yr.	Remarks	Initials	Mo./Dy./Yr.
				DES. _____	
				DWN. _____	
				CKD. _____	

CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

SCALE

QUANTITIES & LEGEND

ISSUED STATUS: BID

SHEET 5 OF 10

DATE ISSUED: 09/01/2023  
Mo./Dy./Yr.

RESTORATION LEGEND

- SEEDING AND MULCHING PER COC ITEM 659
- SHARED USE PATH REPLACEMENT PER COC STANDARD DWG 2310

NOTES

- BASED ON A MAY 2023 CCTV INSPECTION PERFORMED BY CITY STAFF, THERE ARE NO SANITARY SEWER TAPS ON THE EXISTING CLOTTS RD SEWER MAIN TO BE REPLACED THROUGH THIS PROJECT. CCTV INSPECTION VIDEO AVAILABLE UPON REQUEST.
- EXPPOSE EXISTING UNDERGROUND UTILITY PRIOR TO CONSTRUCTION AND VERIFY ELEVATION TO ENSURE CLEARANCE WITH PROPOSED SANITARY PIPE. SUPPORT UTILITY TO PREVENT DISTURBANCE DURING TRENCHING.
- UTILITY POLE TO BE SUPPORTED OR TEMPORARILY RELOCATED DURING CONSTRUCTION. CONTRACTOR TO COORDINATE METHODS WITH ELECTRIC AND TELECOM OWNERS.

BENCHMARKS (NAVD 88)

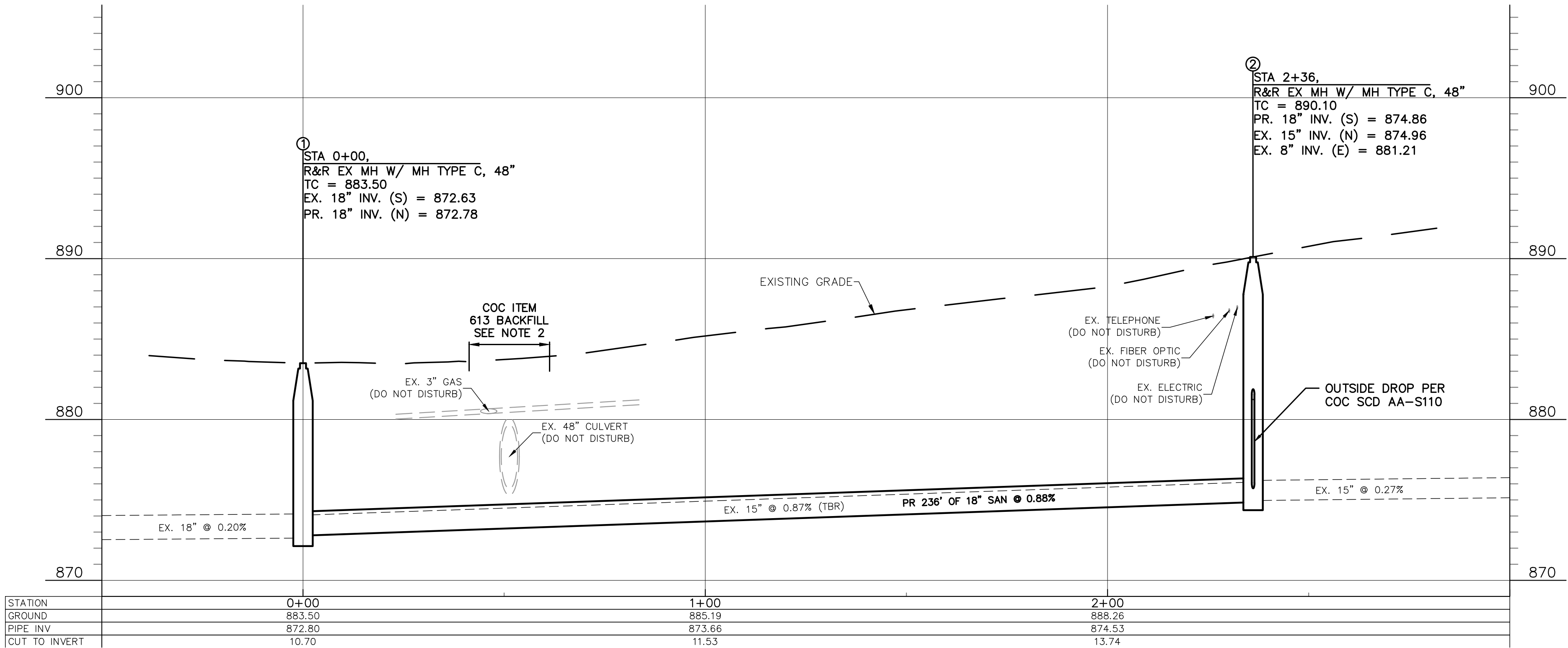
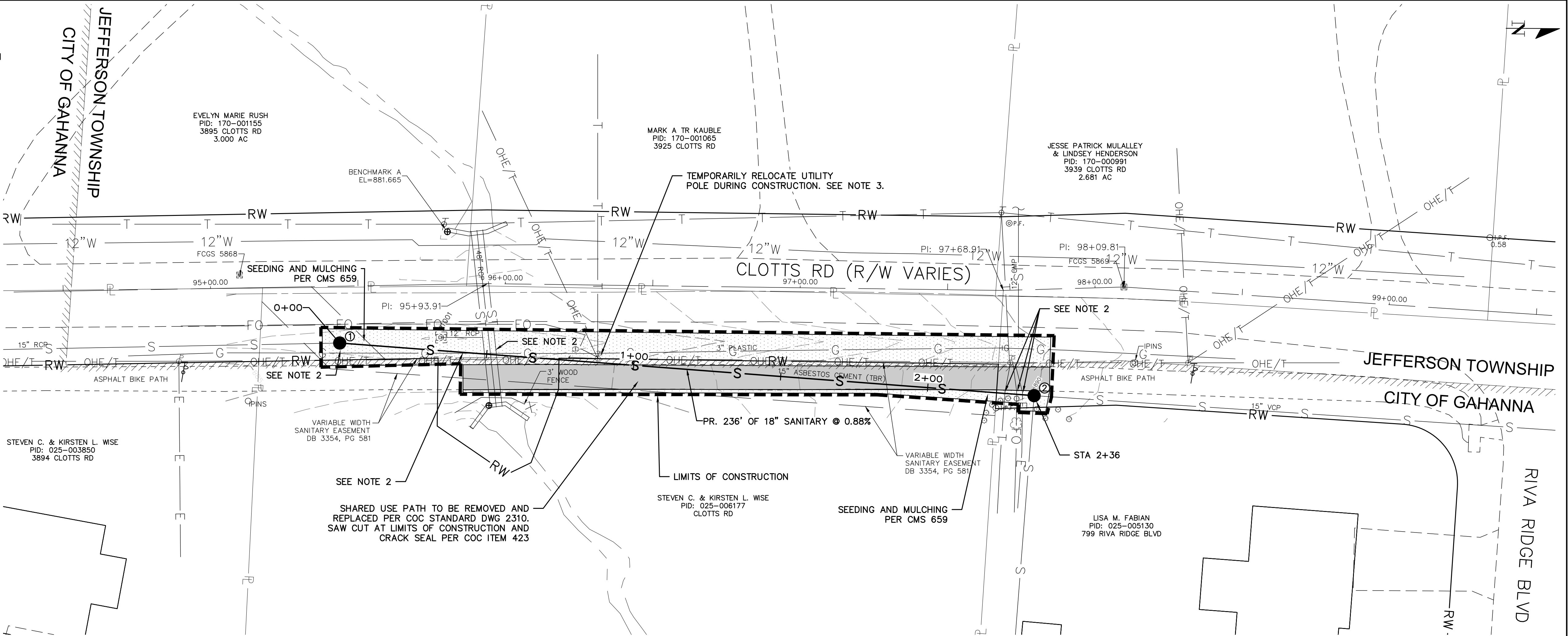
BM "A", EL=881.665  
A CHISELED SQUARE LOCATED ON THE SOUTH EAST CORNER OF THE WING WALL ON THE OUTLET OF THE STREAM RUNNING UNDER CLOTTS ROAD SOUTH OF THE INTERSECTION OF CLOTTS ROAD AND RIVA RIDGE BOULEVARD.

BOUNDARY AND RIGHT-OF-WAY NOTES

THE EXISTING BOUNDARY AND RIGHT-OF-WAY LINES SHOWN ARE BASED ON FOUND FIELD MONUMENTATION, THE CURRENT DEED OF THE PROPERTIES, FRANKLIN COUNTY SURVEY AND PLAT RECORDS, AND RIGHT-OF-WAY PLANS ON FILE WITH THE CITY OF GAHANNA AND JEFFERSON TOWNSHIP, SPECIFICALLY THE FOLLOWING:

PB 48, PG 63,  
INSTRUMENT # 20190827019934  
INSTRUMENT # 201807200096945

ALL BOUNDARY LINES WERE RESOLVED UNDER THE DIRECT SUPERVISION OF SAMUEL STILTNER, OHIO REGISTERED SURVEYOR NUMBER 8364, AND ARE BASED ON A SURVEY CONDUCTED BY DLZ OHIO, INC. IN MAY OF 31, 2023.



No.	BY	DATE	REVISIONS	PROJ. PERSONNEL	DATE
	Int.	Mo./Dy./Yr.		Initials	Mo./Dy./Yr.
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CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

SCALE  
HORIZONTAL: 1" = 20'  
VERTICAL: 1" = 5'

PLAN AND PROFILE  
CLOTTS ROAD

ISSUED STATUS: BID

SHEET 6 OF 10

DATE ISSUED: 09/01/2023  
Mo./Dy./Yr.

RESTORATION LEGEND

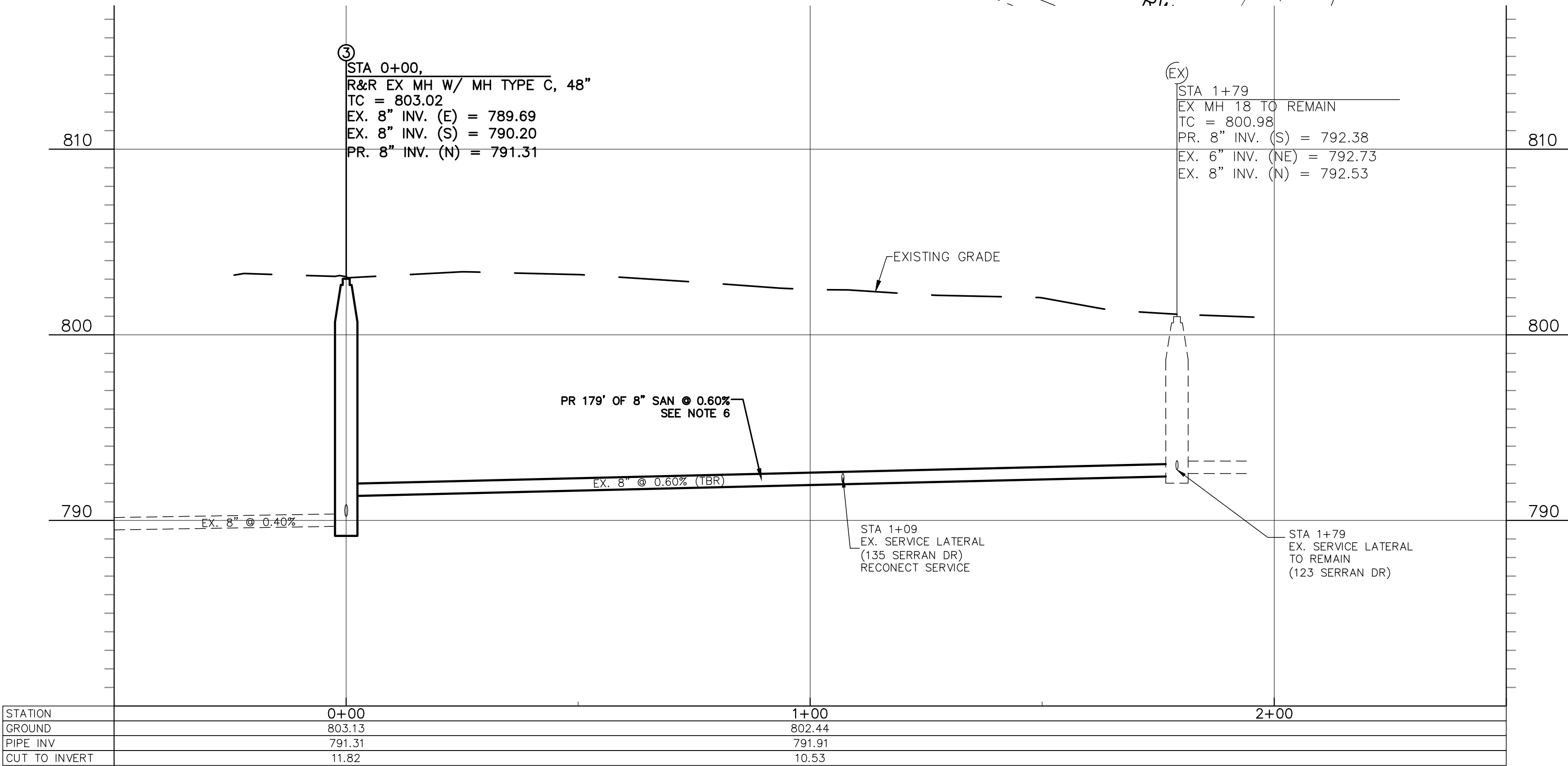
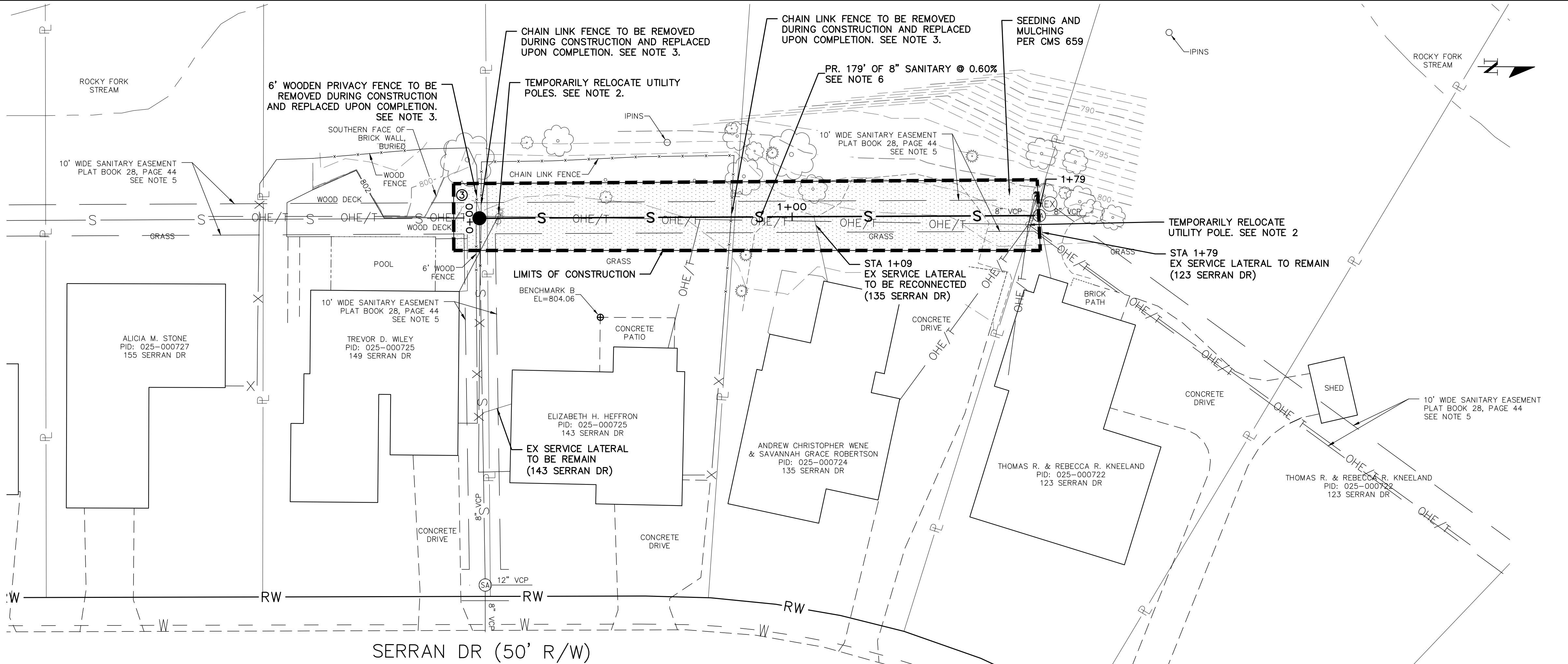
SEEDING AND MULCHING PER COC ITEM 659

NOTES

- 2014 CCTV INSPECTION REPORTS/VIDEOS AND ORIGINAL CONSTRUCTION DRAWINGS FOR SEWERS IN PROJECT AREA AVAILABLE UPON REQUEST.
- UTILITY POLE TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION. CONTRACTOR TO COORDINATE MEANS AND METHODS WITH UTILITY OWNERS.
- REMOVE FENCE DURING CONSTRUCTION AND REPLACE IN KIND AFTER PROPOSED SEWER HAS BEEN TESTED AND APPROVED. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER PRIOR TO REMOVAL AND TO ENSURE RESTORATION IS SATISFACTORY.
- THE CITY HAS OBTAINED TEMPORARY WORK AGREEMENTS FOR PROPOSED CONSTRUCTION AT ALL PROPERTIES IMPACTED BY THIS PROJECT (149 SERRAN DR, 143 SERRAN DR, 135 SERRAN DR, 123 SERRAN DR). CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE TERMS OF THOSE AGREEMENTS.
- THE DEPICTION OF EXISTING SANITARY EASEMENTS IS BASED ON SURVEYED SANITARY STRUCTURES AND THE SANITARY SEWER RECORD PLANS. REFER TO THE ROCKY FORK HEIGHTS PLAT MAP RECORDED IN PLAT BOOK 28, PAGE 44 OF THE FRANKLIN COUNTY RECORDER.
- AS AN ALTERNATIVE TO OPEN-CUT SEWER INSTALLATION, THE CONTRACTOR MAY INSTALL THE SERRAN DRIVE SEWER BY WAY OF PIPE BURSTING ACCORDING TO SUPPLEMENTAL SPECIFICATION SS-2. PIPE BURSTING MAY ONLY BE USED ON THE SERRAN DRIVE PORTION OF THIS PROJECT AND WILL NOT BE PERMITTED FOR THE CLOTTIS ROAD PORTION.

BENCHMARKS (NAVD 88)

BM "B", EL=804.06  
THE SOUTH WEST CORNER ON THE EXISTING CONCRETE PATIO LOCATED IN THE BACKYARD OF 143 SERRAN DR.



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			Remarks		
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CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTIS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

SCALE  
HORIZONTAL: 1" = 20'  
VERTICAL: 1" = 5'

PLAN AND PROFILE  
SERRAN DRIVE

ISSUED STATUS: BID

SHEET 7 OF 10

DATE ISSUED: 09/01/2023  
Mo./Dy./Yr.

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COLMAN, HONEY, P.E. \DLZCORP.COM\PLAN-FILES\PROJECTS\2023\2321\604200\_GAHANNA\_SERRAN-CLOTTS SANITARY\DLZ\_CONSTRUCTOOS\CAD\SHEET FILES\15 MAINTENANCE OF TRAFFIC.DWG 9/1/2023 4:46 PM

TEMPORARY TRAFFIC CONTROL ITEMS

ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (CURRENT EDITION) COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 AND MASH CRASH TESTING GUIDELINES.

CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE CITY. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.

THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE CITY, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANGE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

TYPE OF CHANGE	ADVANCE NOTIFICATION NEEDED
DETOURS/ROAD CLOSURES.....	30-DAY NOTIFICATION PRIOR TO CLOSURE
LANE CLOSURES LASTING 2 WEEKS OR MORE .....	2-WEEKS
LANE CLOSURES OF LESS THAN 2 WEEKS .....	3-DAYS
LANE CLOSURES OF 2 DAYS OR LESS.....	1-DAY

ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS, AND FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN NOT SHOWN ON A SIGNED PLAN, ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR THE TEMPORARY TRAFFIC CONTROL COORDINATOR. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, OR IMPROPERLY PLACED SIGNS.

ANY WORK DONE BY THE CITY, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELD, ONE - WAY, DO NOT ENTER, RESTRICTED TURN SIGNS AND ALL STREET NAME SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

ITEM 614 -- MAINTAINING TRAFFIC

ALL COSTS THAT CONSIST OF MAINTAINING AND PROTECTING VEHICULAR AND PEDESTRIAN TRAFFIC ACCORDING TO THE LATEST EDITION OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (OMUTCD), AND PER THE REQUIREMENTS DESIGNATED IN THE PLAN INCLUDING ALL LAW ENFORCEMENT OFFICER (LEO) AND FLAGGER HOURS SHALL BE INCLUDED IN THE LUMP SUM ITEM 614. IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR X-WALK LINES
- WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
- WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR AS WHEN DIRECTED BY THE PROJECT ENGINEER
- WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS

A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN FLAGGER OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM. FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S WITH OR WITHOUT PATROL CARS FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL MAKE ARRANGEMENT THROUGH THE GAHANNA DIVISION OF POLICE AT (614)-342-4240.

LEO'S SHALL BE CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH EMPLOYED BY THE CONTRACTOR, THE CITY REPRESENTATIVE SHALL HAVE CONTROL OVER THEIR PLACEMENT. LEO'S SHALL NOT HAVE THE AUTHORITY TO CHANGE, EDIT OR MODIFY ANY MAINTENANCE OF TRAFFIC SCHEME WITHOUT THE PERMISSION OF THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR PROJECT ENGINEER UNLESS AN EMERGENCY DEVELOPS.

ALL EXISTING TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC AT ALL TIMES ON: SERRAN DR

TWO-WAY, ONE-LANE TRAFFIC MAY BE MAINTAINED DURING CONSTRUCTION OPERATIONS ON CLOTTS RD, PER THE CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1550 AND FIGURE 6H-10 (TA-10) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

EXISTING PERMANENT TRAFFIC CONTROL

ANY WORK DONE BY THE CITY, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF PERMANENT TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.

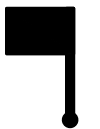
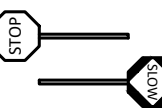
THE CONTRACTOR SHALL BE RESPONSIBLE FOR REINSTALLATION AND/OR REPLACEMENT OF ALL PERMANENT TRAFFIC CONTROL DEVICES DAMAGED OR REMOVED DURING CONSTRUCTION. PERMANENT TRAFFIC CONTROL NO LONGER IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE REPLACED IMMEDIATELY.

THE CONTRACTOR SHALL REPLACE ALL PAVEMENT MARKINGS, INCLUDING RAISED PAVEMENT MARKERS (RPM) SHOWN IN CONFLICT, REMOVED DUE TO CONSTRUCTION OR MAINTENANCE OF TRAFFIC SET UP, DESTROYED, OR RENDERED UNSERVICEABLE BY THE PROJECT ENGINEER OR THE PUBLIC SERVICE PAVEMENT MARKING MANAGER. ALL PAVEMENT MARKING MATERIALS SHALL BE REPLACED IN-LIKE KIND TO THE CURRENT CMSC SPECIFICATION REQUIREMENTS IF NOT SHOWN IN THE PLAN OR PERMIT INCLUDING RAISED PAVEMENT MARKERS. ALL PAVEMENT MARKINGS SHALL BE REPLACED IN FULL, NO PARTIAL LENGTH OR SECTIONS OF PAVEMENT MARKINGS SHALL BE REPLACED WITHOUT REMOVING THE ENTIRE MARKING BY USE OF THE WATER BLAST METHOD. REMOVAL BY ABRASIVE WHEEL GRINDING SHALL ONLY BE APPROVED BY THE PUBLIC SERVICE PAVEMENT MARKING MANAGER.

ALL PERMANENT PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS AS SHOWN ON THIS PLAN SHALL BE INSTALLED BY THE CONTRACTOR AT THE PROJECTS EXPENSE. THE PROJECT ENGINEER SHALL BE NOTIFIED TO DIRECT APPROPRIATE PERSONNEL A MINIMUM OF FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE INSTALLATION OF PERMANENT MARKINGS TO INSPECT AND APPROVE THE PAVEMENT MARKING LAYOUT PRIOR TO PLACING THE PERMANENT MARKINGS.

PERMANENT STRIPING OR CLASS I TEMPORARY STRIPING SHALL BE INSTALLED NO LATER THAN FOURTEEN (14) CALENDAR DAYS AFTER THE FINAL PAVING COURSE IS COMPLETED. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE STRIPING CONTRACTOR TO INSURE THE PERMANENT STRIPING IS INSTALLED WITHIN THE FOURTEEN (14) CALENDAR DAY LIMIT.

MAINTENANCE OF TRAFFIC LEGEND

• • •	DRUM
I	BARRICADE
K	TEMPORARY POST OR STAND
	TEMPORARY POST OR STAND
	HAND SIGNALLING DEVICE (STOP/SLOW PADDLE)
➔	TRAFFIC DIRECTION
-----	LIMITS OF CONSTRUCTION



No.	BY	DATE	REVISIONS	PROJ. PERSONNEL	DATE
	Int.	Mo./Dy./Yr.	Remarks	Initials	Mo./Dy./Yr.

CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

SCALE

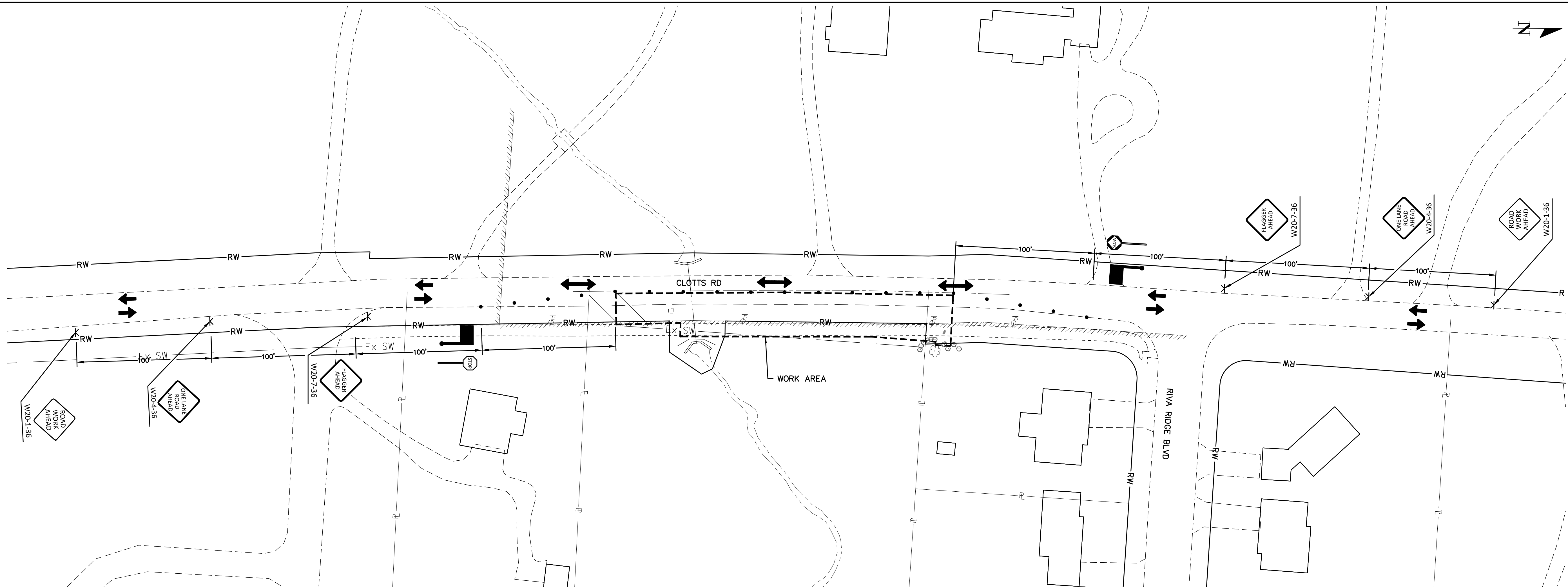
MAINTENANCE OF TRAFFIC  
NOTES

ISSUED STATUS: BID

SHEET 8 OF 10

DATE ISSUED: 09/01/2023  
Mo./Dy./Yr.

C:\MAN-HONEY\_P\DLZ\CORP\CON\PLAN-FILES\PROJECTS\2023\2121\B04300\_GAHANNA\_SERRAN-CLOTTS\_SANITARY\DL\_CONSTRUCT\CAD\SHEET FILES\15\_MAINTENANCE OF TRAFFIC PLANNING 9/1/2023 4:48 PM



CLOTTS ROAD FLAGGING OPERATION

SCALE: 1" = 40'

NOTES

LANE CLOSURES AND FLAGGING OPERATIONS ON CLOTTS ROAD SHALL ONLY BE PERMITTED WHILE THE GAHANNA-JEFFERSON PUBLIC SCHOOL SYSTEM IS ON SUMMER BREAK. SUMMER BREAK WILL BEGIN ON 5/27/2024 AND END ON 8/14/2024.



No.	BY	DATE	REVISIONS	PROJ. PERSONNEL	DATE
	Int.	Mo./Dy./Yr.		Initials	Mo./Dy./Yr.
				DES. _____	
				DWN. _____	
				CKD. _____	

CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

SCALE  
HORIZONTAL: 1" = 40'

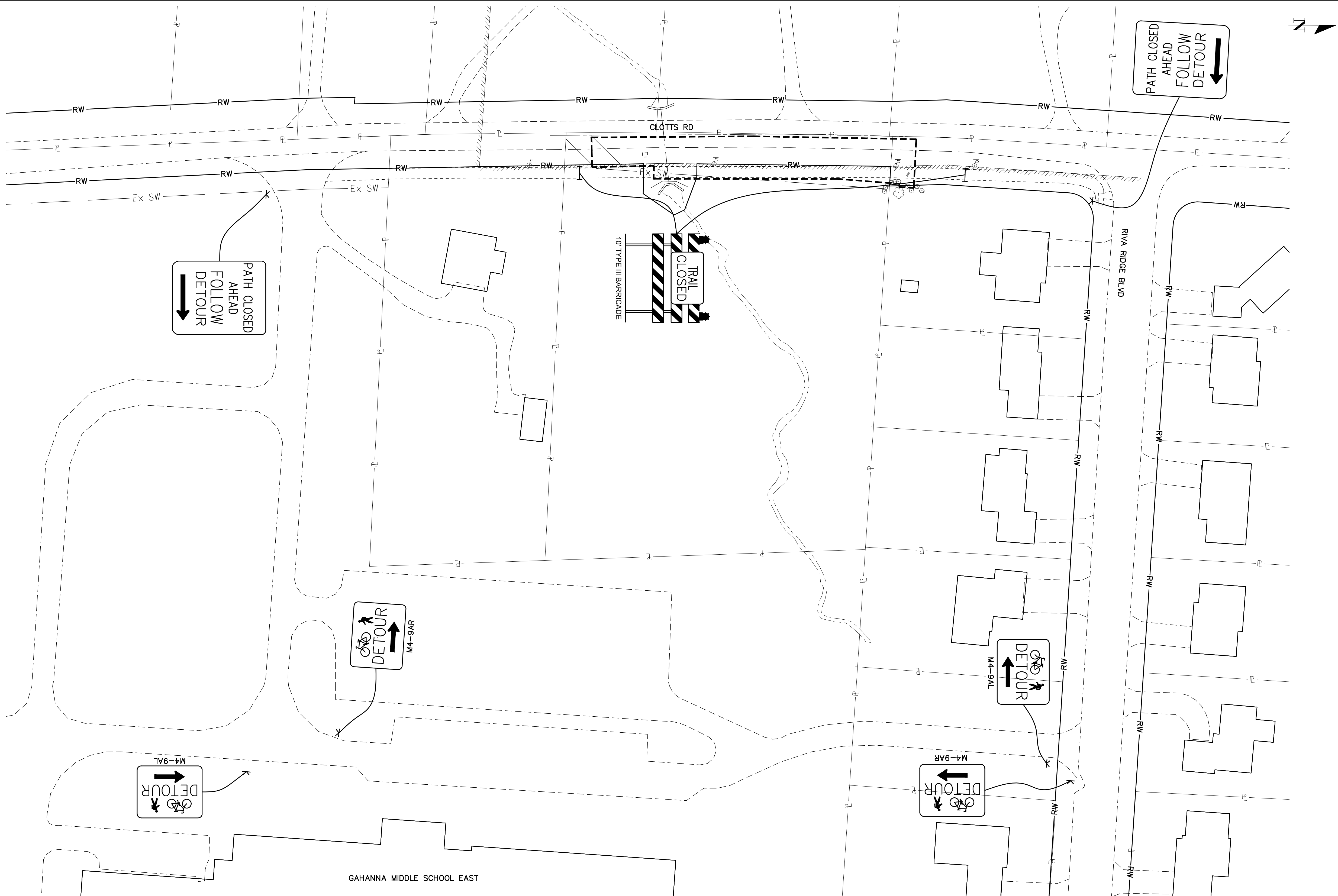
MAINTENANCE OF TRAFFIC  
PLAN

ISSUED STATUS: BID

SHEET 9 OF 10

DATE ISSUED: 09/01/2023  
Mo./Dy./Yr.

C:\MAN-HONEY\_P.E.\DLZ\CORP\CON-PAN-FILES\PROJECTS\2023\2121\B04300-GAHANNA-SERRAN-CLOTTS-SANITARY\DL\_CONSTDOS\CAD\SHEET FILES\15 MAINTENANCE OF TRAFFIC PLAN.DWG 9/7/2023 4:47 PM



NOTES

LANE CLOSURES AND FLAGGING OPERATIONS ON CLOTTS ROAD SHALL ONLY BE PERMITTED WHILE THE GAHANNA-JEFFERSON PUBLIC SCHOOL SYSTEM IS ON SUMMER BREAK. SUMMER BREAK WILL BEGIN ON 5/27/2024 AND END ON 8/14/2024.

CLOTTS ROAD SHARED USE PATH DETOUR

SCALE: 1" = 40'



No.	BY	DATE	REVISIONS	PROJ. PERSONNEL	DATE
	Int.	Mo./Dy./Yr.		Initials	Mo./Dy./Yr.
				DES. _____	
				DWN. _____	
				CKD. _____	

CITY OF GAHANNA, OHIO  
PUBLIC SERVICE & ENGINEERING

CLOTTS ROAD & SERRAN DRIVE  
SANITARY SEWER IMPROVEMENTS

SCALE  
HORIZONTAL: 1" = 40'

MAINTENANCE OF TRAFFIC  
PLAN

ISSUED STATUS: BID

SHEET 10 OF 10

DATE ISSUED: 09/01/2023  
Mo./Dy./Yr.