

**GENERAL**

**UTILITIES**

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

AT&T - OHIO  
13630 LORAIN AVE. - 2ND FLOOR  
CLEVELAND, OH 44111  
ATTN: JAMES JANIS  
PHONE: 216-476-6142  
EMAIL: pj8191@att.com

CEI FIRST ENERGY  
6896 MILLER RD, SUITE 101  
BRECKSVILLE, OH 44141  
ATTN: JOHN M. ZASSICK  
PHONE: 440-546-8706  
EMAIL: jmzassick@firstenergycorp.com

CHARTER COMMUNICATIONS  
7820 DIVISION DR.  
MENTOR, OH 44060  
ATTN: EMIL SYMISTER  
PHONE: 216-575-8016 OPT 1 EXT 12165551158  
EMAIL: Emil.Symister@charter.com

CITY OF CLEVELAND  
DIVISION OF ENGINEERING AND CONSTRUCTION  
601 LAKESIDE AVE. - ROOM 518  
CLEVELAND, OH 44114  
ATTN: RICK SWITALSKI  
PHONE: 216-664-2379  
EMAIL: EngineeringDesign@clevelandohio.gov

CITY OF CLEVELAND  
DIVISION OF PUBLIC POWER (MELP)  
1300 LAKESIDE AVE., ROOM 152  
CLEVELAND, OH 44114  
ATTN: CHRISTOPHER M. HIRZEL, P.E., P.S.  
PHONE: 216-563-7212  
EMAIL: chirzel@cpp.org

CITY OF CLEVELAND  
DIVISION OF TRAFFIC ENGINEERING  
601 LAKESIDE AVE. - ROOM 25  
CLEVELAND, OH 44114  
ATTN: ROBERT MAVEC  
PHONE: 216-664-3195  
EMAIL: rmavec@clevelandohio.gov

CITY OF CLEVELAND  
DIVISION OF WATER  
1201 LAKESIDE AVE.  
CLEVELAND, OH 44114  
ATTN: FRED ROBERTS  
PHONE: 216-644-2444, X75590  
EMAIL: planreview@clevelandwater.com  
EMERGENCY PHONE: 216-664-3060

CITY OF CLEVELAND  
DIVISION OF WATER POLLUTION CONTROL  
12302 KIRBY RD.  
CLEVELAND, OH 44108  
ATTN: ELIE RAMY  
PHONE: 216-664-2756  
EMAIL: eramy@clevelandwpc.com

ENBRIDGE GAS OHIO (EGO)  
320 SPRINGSIDE DR. - SUITE 320  
AKRON, OH 44333  
ATTN: MICAH RISACHER  
PHONE: 330-664-2638  
EMAIL: relocation@enbridge.com

EVERSTREAM SOLUTIONS  
1228 EUCLID AVE.  
CLEVELAND, OH 44113  
ATTN: TOM TRUSNIK  
PHONE: 216-923-2298  
EMAIL: utilityreview@everstream.net

NORTHEAST OHIO REGIONAL SEWER DISTRICT  
3900 EUCLID AVE.  
CLEVELAND, OH 44115  
ATTN: ROBERT STOERKEL  
PHONE: 216-881-6600, EXT. 6802  
EMAIL: stoerkelr@neorsd.org

ODOT CENTRAL OFFICE  
1980 W. BROAD ST.  
COLUMBUS, OH 43223  
ATTN: RONDA KELLER  
PHONE: 614-965-4463  
EMAIL: Ronda.Keller@dot.ohio.gov

ODOT CO ITS  
1606 W. BROAD ST.  
COLUMBUS, OH 43223  
ATTN: BRYAN COMER  
PHONE: 614-387-1253  
EMAIL: cen.its.lab@odot.ohio.gov

ODOT DISTRICT 12 - ROADWAY SERVICES  
5500 TRANSPORTATION BLVD.  
GARFIELD HEIGHTS, OH 44125  
ATTN: BILL GERBER  
PHONE: 216-584-2260  
EMAIL: william.gerber@dot.ohio.gov

VERIZON (MCI)  
120 RAVINE ST.  
AKRON, OH 44303  
ATTN: DANIEL ARZ  
PHONE: 440-457-4832  
EMAIL: vzfiber-northernohio@verizon.com

ZAYO FIBER SOLUTIONS  
4199 KINROSS LAKES PARKWAY  
RICHFIELD, OH 44286  
ATTN: COLTON WOODRUFF  
PHONE: 419-631-1303  
EMAIL: colton.woodruff@zayo.com

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

**ENBRIDGE GAS OHIO**

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF ENBRIDGE'S PIPELINE(S), IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P, (SAFE EXCAVATION & SHORING). EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY ENBRIDGE FACILITY (PIPELINES, ETC.) OR APPURTENANCE (PIPE COATING, TRACER WIRE, CATHODIC PROTECTION TEST STATION WIRES & DEVICES, VALVE BOXES, ETC.). ENBRIDGE FACILITIES MUST BE PROTECTED WITH A TARP DURING BRIDGE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ENSURING THAT ALL ENBRIDGE EXISTING FACILITIES, ABOVE AND BELOW GROUND, REMAIN UNDAMAGED, ACCESSIBLE AND IN WORKING ORDER. THE CROSSING OF ENBRIDGE'S PIPELINE(S) WITH ANOTHER STEEL FACILITY MAY CREATE A POTENTIAL CORROSION ISSUE FOR THE PROPOSED FACILITY AND THE EXISTING ENBRIDGE FACILITY. PLEASE CONTACT ENBRIDGE'S CORROSION DEPARTMENT AT LEAST TWO WORKING DAYS BEFORE CONSTRUCTION AT: CORROSION@DOMINIONENERGY.COM

**CONSTRUCTION NOISE**

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 8:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

**SURVEYING PARAMETERS**

SURVEYING PARAMETERS – OHIO STATE PLANE, NORTH ZONE, 3401

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

**PROJECT CONTROL**

POSITIONING METHOD: ODOT RTN  
MONUMENT TYPE: 5/8" X 30" REBAR W/ RED "GPD CONTROL" CAP

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD88  
GEOID: 18

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD83 (2011)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COMBINED SCALE FACTOR: N/A  
ORIGIN OF COORDINATE SYSTEM: (0,0)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITES ARE IN U.S. SURVEY FEET.

**WORK LIMITS**

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRES BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

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**PERMITS**

IN THE CITY OF CLEVELAND, ALL STREET PERMITS MUST BE OBTAINED FROM THE DIVISION OF ASSESSMENTS AND LICENSES PRIOR TO BEGINNING ANY WORK. STREET PERMITS INCLUDE BUT ARE NOT LIMITED TO STREET OPENING PERMITS, OVERLOAD PERMITS, OBSTRUCTION PERMITS, AND/OR SIDEWALK PERMITS, AND MAY BE OBTAINED THROUGH THE FOLLOWING CONTACT:

CITY OF CLEVELAND  
DEPARTMENT OF FINANCE  
DIVISION OF ASSESSMENTS AND LICENSES  
601 LAKESIDE AVENUE, ROOM 122  
CLEVELAND, OHIO 44114  
PHONE: (216) 664-2260 / (216) 664-2174  
FAX: (216) 664-4592  
E-MAIL: DALPERMITS@CLEVELANDOHIO.GOV

NO PERMIT FEES WILL BE ASSESSED TO ODOT PROJECTS. ANY REFERENCE TO "CONTRACTOR" IN THE PERMIT APPLICATION SHALL INCLUDE "ON BEHALF OF ODOT".

DAL HAS ASSIGNED STP NUMBER STP26-00803 TO THIS PROJECT. THE CONTRACTOR SHALL CONTACT DAL AS DESCRIBED ABOVE USING THE GIVEN STP NUMBER FOR REFERENCE.

THE CONTRACTOR SHALL COMPLY WITH ALL OTHER CITY OF CLEVELAND ORDINANCES INCLUDING BUT NOT LIMITED TO REGISTRATION REQUIREMENTS. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR PERTINENT WORK ITEMS.

**CONTINGENCY QUANTITIES**

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL SUBSIDIARY AGREEMENT GOVERNING COMPLETION OF THIS PROJECT.

**STATIONING AND LOCATIONS**

STATIONING AND LOCATIONS OF MISCELLANEOUS OBJECTS AS INDICATED ON THESE PLANS ARE APPROXIMATE (IE, ENCROACHMENTS WITHIN EXISTING RIGHT-OF-WAY). ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS DIRECTED BY THE ENGINEER.

**EXISTING TYPICAL SECTIONS**

EXISTING TYPICAL SECTIONS HAVE BEEN DEVELOPED FROM SITE MEASUREMENTS AND RECORD PLANS AND ARE BELIEVED TO REPRESENT THE WIDTH AND COMPOSITION OF THE EXISTING PAVEMENT, BUT THE OWNER DOES NOT GUARANTEE THE ACCURACY OF SAME.

DESIGN AGENCY



DESIGNER

ERS

REVIEWER

DEN Date

PROJECT ID

123855

SHEET TOTAL

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**GENERAL (CONT'D)**

**COOPERATION BETWEEN CONTRACTORS**

IT IS ANTICIPATED THAT OTHER CONTRACTORS WILL BE WORKING ON PROJECTS ADJACENT TO OR WITHIN THE LIMITS OF THIS PROJECT, EITHER FOR THE CITY OR FOR OTHER PUBLIC AGENCIES. THE CONTRACTOR SHALL COOPERATE AND COORDINATE CONSTRUCTION OPERATIONS, INCLUDING PROVISIONS FOR THE MAINTENANCE OF TRAFFIC, WITH THE CONTRACTORS OF OTHER PROJECTS THAT MAY BE IN FORCE DURING THE LIFE OF THIS CONTRACT.

**CONDOMINIUMS AT STONEBRIDGE**

THE CONDOMINIUM AT STONEBRIDGE AND THEIR CONTRACTOR, A-STAR, REQUIRES 30-DAY ADVANCED NOTICE TO COORDINATE CLIMBER RELOCATIONS:

ARCHITECTURAL SIDING, TRIM AND ROOFING, INC.  
5667 E. SCHAAF RD.  
INDEPENDENCE, OH 44131  
ATTN: NATE RAKOCZY, PROJECT MANAGER  
PHONE: 216-769-5246

**COORDINATION WITH CLEVELAND METROPARKS**

THE CONTRACTOR SHALL OBTAIN AN ACCESS PERMIT INCLUDING INSURANCE FROM CLEVELAND METROPARKS FOR WORK WITHIN CLEVELAND METROPARKS PROPERTY PRIOR TO ANY WORK PERFORMED WITHIN THE PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FULL COMPLIANCE WITH THE ACCESS PERMIT AS PROVIDED BY THE CLEVELAND METROPARKS. A COPY OF THE ACCESS PERMIT SHALL BE PROVIDED TO ODOT AND PRESENT AT THE CONSTRUCTION SITE DURING ANY WORK.

ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS TO COMPLETE THIS PERMITTING SHALL BE INCIDENTAL TO THE PROJECT WORK ITEMS.

THE CONTRACTOR SHALL RESTORE THE PARK DISTRICT PROPERTY TO A CONDITION SATISFACTORY TO THE PARK DISTRICT AND AT A MINIMUM AS GOOD AS EXISTED PRIOR TO THE PROJECT.

THE CONTRACTOR SHALL PROVIDE CLEVELAND METROPARKS WITH AN OPPORTUNITY TO INSPECT THE EFFECTED PARK DISTRICT PROPERTY PRIOR TO COMPLETION OF CONSTRUCTION.

THE CONTRACTOR SHALL COORDINATE THE PROJECT SCHEDULE WITH CLEVELAND METROPARKS:

CLEVELAND METROPARKS  
4101 FULTON PARKWAY  
CLEVELAND, OH 44144  
ATTN.: CHRIS PAPP, P.E.  
PHONE: 216-635-3258  
EMAIL: cjp2@clevelandmetroparks.com

**ROADWAY**

**CLEARING AND GRUBBING, AS PER PLAN**

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

**ITEMS 202, 255, 452, 608, 608, 609, ETC. REMOVAL ITEMS, AS PER PLAN**

THE COST OF REMOVING AND DISPOSING OF ITEMS PURSUANT TO ITEM 202.05 INCLUDING BUT NOT LIMITED TO PAVEMENT, CONCRETE, AGGREGATE BASE COURSE, WEARING COURSE, SIDEWALKS, CURBS, AND DRIVEWAYS SHALL INCLUDE THE COST OF FULL DEPTH SAW CUTTING. NO SEPARATE PAYMENT SHALL BE MADE FOR FULL DEPTH SAW CUTTING FOR THE REMOVAL OF THESE ITEMS.

**ITEM 203 - ROADWAY, MISC.: EXCAVATION**

**ITEM 203 - ROADWAY, MISC.: EMBANKMENT**

ALL REQUIREMENTS OF ODOT CMS 203 SHALL APPLY EXCEPT AS MODIFIED HEREIN:

USE OF SLAG, IN ANY FORM, IS NOT PERMITTED.

THE WORK SPECIFIED FOR THIS PAY ITEM CONSISTS OF THE EXCAVATION AND EMBANKMENT REQUIRED FOR THE PROPOSED WORK, INCLUDING BUT NOT LIMITED TO: CURB RAMPS, DITCHES, DRIVEWAYS, ROADS, SIDEWALKS, SWALES, AND ALL OTHER ITEMS OF WORK SPECIFIED IN THE PLANS. ALL EXCAVATION, EMBANKMENT, EARTHWORK, AND SHAPING NECESSARY FOR THE PREPARATION, CONSTRUCTION, AND COMPLETION OF ALL SUBGRADES AND SLOPES SHALL BE IN ACCORDANCE WITH THE REQUIRED ALIGNMENTS, GRADES, AND ELEVATIONS SHOWN IN THE PLANS, OR AS DIRECTED BY THE ENGINEER.

EXCAVATION AND EMBANKMENT QUANTITIES ARE PROVIDED HEREIN FOR INFORMATIONAL PURPOSES, ONLY:

EXCAVATION	55 CY
EMBANKMENT	75 CY

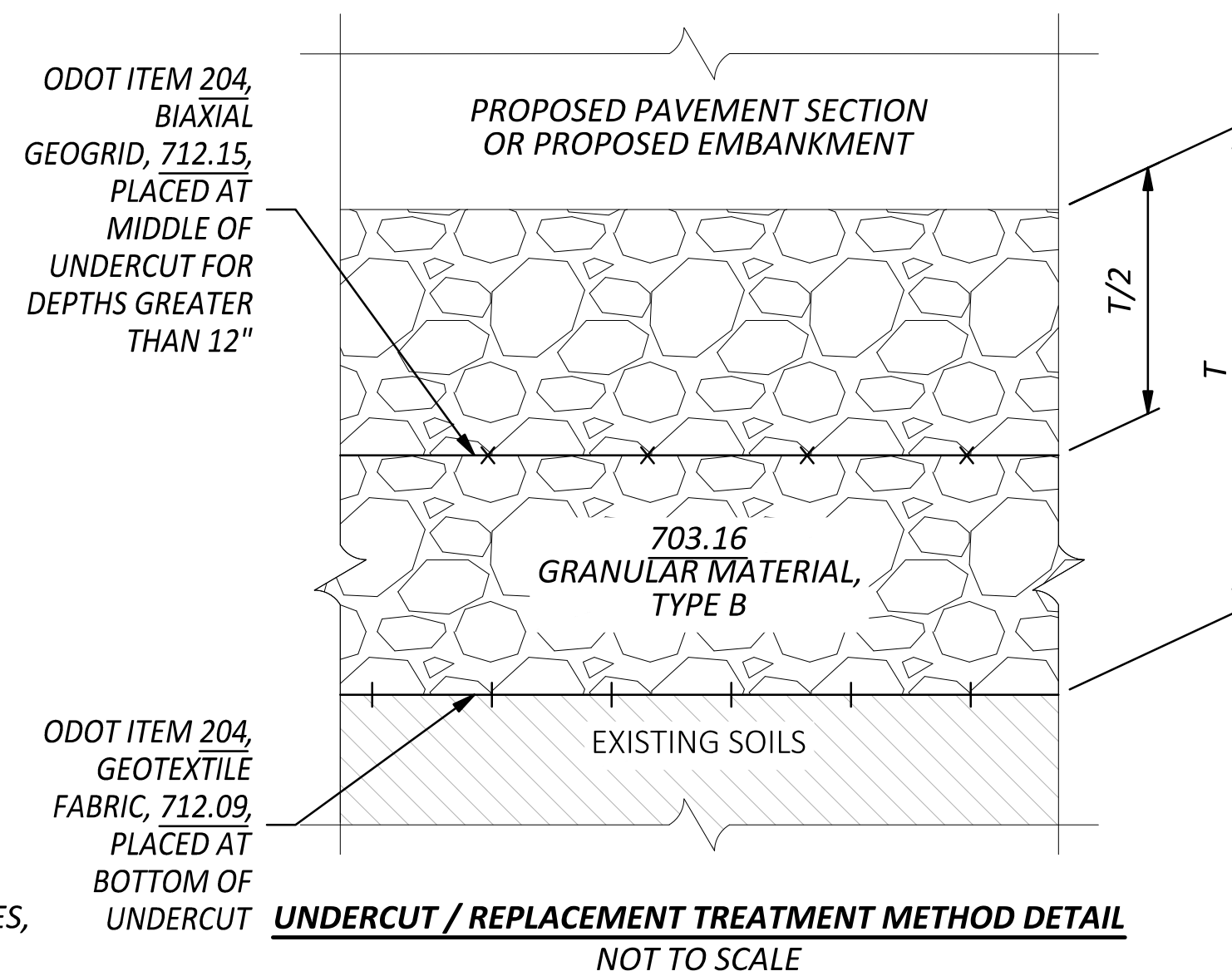
PAYMENT FOR ITEM 203 - ROADWAY, MISC.: EXCAVATION AND ITEM 203 - ROADWAY, MISC.: EMBANKMENT SHALL BE PAID FOR AS A LUMP SUM QUANTITY AND SHALL INCLUDE ALL EXCAVATION, EMBANKMENT, FILL, BORROW, GRADING, AND ALL OTHER LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 203 - ROADWAY, MISC.: EXCAVATION	<u>LS</u>
ITEM 203 - ROADWAY, MISC.: EMBANKMENT	<u>LS</u>

**UNSUITABLE OR UNSTABLE SOILS FOR PAVEMENT STABILIZATION**  
GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH ODOT 712.09.  
GEOGRID SHALL BE IN ACCORDANCE WITH ODOT 712.15. ALL MATERIALS MUST BE CONTAINED ON THE ODOT OFFICE OF MATERIALS QUALIFIED PRODUCTS LIST.

THE FOLLOWING ITEMS AND QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO ADDRESS UNSTABLE OR UNSUITABLE SOILS ENCOUNTERED IN THE AREAS OF PAVEMENT CONSTRUCTION:

ITEM 204 - EXCAVATION OF SUBGRADE	50 CY
ITEM 204 - GRANULAR MATERIAL, TYPE B	50 CY
ITEM 204 - GEOTEXTILE FABRIC	100 SY
ITEM 204 - GEOGRID	100 SY



**ITEM 606 - GUARDRAIL, MISC.: TIMBER GUARDRAIL (TYPE B)**  
ALL REQUIREMENTS OF ODOT CMS ITEM 606 SHALL APPLY EXCEPT AS MODIFIED HEREIN.

GUARDRAIL SHALL BE STEEL-BACKED TIMBER GUARDRAIL, TYPE B, IN ACCORDANCE WITH U.S. DEPARTMENT OF TRANSPORTATION, FLH STANDARD 617-60, SPECIFICATION FP-14, FP-24.

**FENCE LENGTHS**

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.



**ITEM 608 - 6" CONCRETE WALK, AS PER PLAN**  
IN ADDITION TO THE REQUIREMENTS OF ITEM 608 AND THE CONCRETE SPECIFICATIONS IN THESE PLANS, THE FOLLOWING SHALL APPLY:

THIS ITEM IS INTENDED FOR USE AS DIRECTED BY THE ENGINEER, TO REPLACE STRUCTURALLY DEFICIENT SIDEWALK AND TO CORRECT TRIPPING HAZARDS. AREAS WHERE THIS APPLIES WILL INCLUDE ANY NECESSARY CONCRETE SIDEWALK ADJACENT TO INTERSECTION CORNERS WHERE NEW ADA CURB RAMPS ARE BEING INSTALLED. SPECIFIC LOCATIONS ARE SHOWN IN THE PLANS.

ALL CONCRETE SHALL BE A MINIMUM OF 6" AS SPECIFIED AND HAVE A 2" COMPACTED SCREENING BED WHICH MEETS THE REQUIREMENTS 703.10 (LIMITED TO CRUSHED STONE). THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO SAWCUT, EXCAVATE, PLACE, AND COMPACT SCREENINGS BED, LAYOUT, FORM WORK, AND PLACEMENT OF NEW CONCRETE WALK, SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 608 - 6" CONCRETE WALK, AS PER PLAN.

PER 608.03(C), IT IS REQUIRED THAT 1/2 INCH THICK EXPANSION JOINT MATERIAL (705.03) BE INSTALLED BETWEEN THE WALK AND THE BACK OF CURB, OR ANY OTHER FIXED OBJECT, IN ADDITION TO THE LOCATIONS SPECIFIED UNDER 608.03(C). TRANSVERSE EXPANSION JOINTS SHALL BE CONSTRUCTED AT INTERVALS OF NOT MORE THAN 25 TO 30 FEET UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE EXPANSION JOINT FILLER (705.03) SHALL BE PLACED AT THE TRANSVERSE EXPANSION JOINTS FOR THE FULL DEPTH/WIDTH OF THE CONCRETE WALK AND SHALL BE TRULY NORMAL TO GRADE. THE TOP 1/2 INCH OF THE EXPANSION JOINT PLACED BETWEEN THE WALK AND BACK OF CURB SHALL BE SEALED WITH 705.04 JOINT SEALER.

UNLESS OTHERWISE REQUIRED BY MUNICIPAL STANDARDS/ORDINANCES, THE FINAL SURFACE SHALL BE TEXTURED BY USE OF AN ACCEPTED BROOM SO AS TO PRODUCE A UNIFORM, GRITTY, TRANSVERSE TEXTURE, AFTER WHICH, THE CONTRACTOR IS REQUIRED TO RETRACE THE PREVIOUSLY FORMED JOINTS AND OUTSIDE EDGES OF THE WALK. (I.E. PICTURE FRAME).

THE COST OF THE MATERIAL AND LABOR ASSOCIATED WITH THE ABOVE WORK IS INCLUDED IN THE CONTRACT UNIT PRICE BID FOR ITEM 608 - 6" CONCRETE WALK, AS PER PLAN.

DESIGN AGENCY



DESIGNER

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REVIEWER

DEN Date

PROJECT ID

123855

SHEET TOTAL

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**ITEM SPECIAL - STRUCTURES: TUCK POINTING SANDSTONE BLOCK MASONRY**  
 THIS ITEM SHALL CONSIST OF RE-POINTING MORTAR JOINTS WITHIN THE LARGE BLOCK SANDSTONE MASONRY SPANDREL WALL, LARGE BLOCK SANDSTONE WINGWALLS AND THOSE PORTIONS OF THE LARGE BLOCK SANDSTONE PEDESTAL WALLS WITHIN THE TUNNELS THAT WILL REMAIN PERMANENTLY EXPOSED. PLAN QUANTITY ACCOUNTS FOR THE ENTIRE SURFACE AREA TO REMAIN EXPOSED. THE FINAL QUANTITY MAY BE ADJUSTED/REDUCED IF THE ENGINEER DESIGNATES CERTAIN AREAS AS SATISFACTORY AND NOT REQUIRING TUCK POINTING.

ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AS PER ACCEPTED MASONRY STANDARDS. ALL LOOSE AND DISINTEGRATED MORTAR, VEGETATIVE MATTER AND ALL FOREIGN MATERIALS WITHIN THE EXISTING JOINTS SHALL BE REMOVED. THE DEPTH OF REMOVAL SHALL BE AT LEAST THAT TO ACCOMMODATE A NEW MORTAR PLACEMENT DEPTH OF AT LEAST 2.0 TIMES THE MORTAR JOINT THICKNESS. MORTAR REMOVAL OPERATIONS SHALL BE PERFORMED IN A MANNER THAT DOES NOT DAMAGE THE ADJACENT STONE MASONRY. PNEUMATIC CHIPPING HAMMERS WILL NOT BE PERMITTED. USE ONLY LIGHTWEIGHT HANDHELD POWER CHISELS, ANGLE GRINDERS, MORTAR SAWS, ETC.

MORTAR SHALL MEET THE REQUIREMENTS OF ASTM C270 TYPE S AND BE SUPPLIED IN A FACTORY PRE-BLENDED MIX CONFORMING TO ASTM C1714. MORTAR SHALL HAVE CURED COLOR CLOSELY MATCHING THE EXISTING SANDSTONE WALL MORTAR COLOR AFTER BEING CLEANED. ENSURE PROPER ADHESION OF THE NEW MORTAR. HAVE SURFACES IN SATURATED SURFACE DRY CONDITION FOR MORTARING OPERATIONS. MORTAR SHALL BE PLACED TO COMPLETELY FILL THE MORTAR JOINT BETWEEN ADJACENT STONES. ALL EXCESS DEPOSITS OVER THE EXPOSED MASONRY SURFACE SHALL BE CLEANED OFF. PERFORM ALL WORK IN ACCORDANCE WITH THE PREMIX MORTAR MANUFACTURER'S RECOMMENDATIONS. MAINTAIN THE MORTAR IN A DAMP CONDITION FOR AT LEAST 72 HOURS, PROTECTING IT FROM SUN, RAIN, AND DRYING WINDS.

PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

**ITEM SPECIAL - STRUCTURES: CLEANING EXPOSED MASONRY SURFACES**  
 THIS ITEM SHALL CONSIST OF SURFACE CLEANING THE UNDERSIDE OF THE BRICK MASONRY ARCHES AND LARGE BLOCK SANDSTONE PEDESTAL WALLS AT PORTIONS OF THE TUNNELS TO REMAIN PERMANENTLY EXPOSED IN FRONT OF THE NEW BULKHEAD WALLS, PLUS ALL EXPOSED SURFACES OF THE LARGE BLOCK SANDSTONE SPANDREL WALL AND LARGE BLOCK SANDSTONE WINGWALLS. THE INTENT OF THIS ITEM IS TO REMOVE POLLUTION BUILDUP/STAINING, BIOLOGICAL BUILDUP/STAINING, EFFLORESCENCE, DIRT, GRAFFITI, ETC. IN BEST EFFORT TO RESTORE THE STONE TO A NATURAL COLOR. A GOAL OF AT LEAST 85% CLEAN STAIN REMOVAL AND 100% GRAFFITI REMOVAL IS THE EXPECTATION. AVOID OVER-CLEANING WHICH MAY CAUSE DAMAGE TO THE EXISTING SURFACES. THIS WORK SHALL BE PERFORMED BY A CONTRACTOR HAVING AT LEAST FIVE (5) YEARS EXPERIENCE IN CLEANING SIMILAR BRICK AND SANDSTONE MASONRY STRUCTURES. PROVIDE EVIDENCE OF EXPERIENCE AND PAST PROJECTS.

USE COMMERCIALY AVAILABLE RESTORATION CLEANING PRODUCT(S) IN STRICT ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS. ENSURE THE CLEANING PRODUCT IS SUITABLE AND RECOMMENDED FOR THE SPECIFIC SURFACES BEING CLEANED ON THIS PROJECT. SMALL INCONSPICUOUS TEST AREAS SHALL BE PERFORMED TO ENSURE RESULTS, CONFIRM NO ADVERSE AFFECTS, AND CONFIRM THE STRUCTURE IS NOT BEING DAMAGED BY THE CLEANING PROCESS. TEST AREAS SHALL BE ALLOWED TO COMPLETELY DRY TO ASSESS THE RESULTS. ADJUST THE METHODS, MATERIALS, EQUIPMENT, PRESSURES AS NECESSARY.

PROVIDE PLASTIC SHEETING AS REQUIRED TO PROTECT AREAS NOT INTENDED FOR CLEANING. PRESSURE WATER RINSING EQUIPMENT IS EXPECTED WITH 100 TO 400 PSI FOR LOW-PRESSURE AND 400 TO 800 PSI FOR MEDIUM PRESSURE. AVOID HIGH PRESSURES WATER WHICH COULD DAMAGE THE STRUCTURE UNLESS REQUIRED AT CERTAIN LOCATIONS FOR DESIRED CLEANING RESULT AND IT IS DEMONSTRATED THAT NO DAMAGE TO THE STRUCTURE WILL RESULT. UTILIZE OTHER NYLON BRISTLE BRUSHES, PLASTIC SCRAPERS AND OTHER TOOLS AS REQUIRED TO COMPLETE THE WORK. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CLEANING PRODUCT MANUFACTURER'S REQUIREMENTS. SUBMIT ALL PRODUCT DATA AND MATERIAL SAFETY DATA SHEETS FOR REVIEW BY THE ENGINEER.

PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER. FINAL SEALING OF ALL EXPOSED MASONRY SURFACES THAT HAVE BEEN CLEANED, REPAIRED AND TUCK POINTED SHALL BE PERFORMED SEPARATELY UNDER ITEM 512 USING A PENETRATING, CLEAR, NON-EPOXY SEALER.

**ITEM SPECIAL - STRUCTURES: CELLULAR GROUT FILL**  
 THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING LIGHTWEIGHT CELLULAR GROUT TO COMPLETELY FILL EACH EXISTING ABANDONED RAILROAD TUNNEL BETWEEN THE EXISTING CLOSED END AND THE PROPOSED CONCRETE BULKHEAD WALL, AND FOR PORTIONS OF BACKFILL WITHIN THE EXCAVATION MADE ALONG THE BURIED SIDE OF THE SPANDREL WALL OF THE EXISTING STRUCTURE.

PROVIDE CELLULAR GROUT WITH MIX PROPORTION AS SPECIFIED IN SUPPLEMENTAL SPECIFICATION 837 TABLE 837.03-3 AND MEETING THE PRE-PUMPING TEST REQUIREMENTS SHOWN IN TABLE 837.03-4. ADD FOAM MEETING THE REQUIREMENTS OF ASTM C869. COMPRESSIVE STRENGTH SHALL BE MINIMUM OF 200 PSI.

PROVIDE AN INSTALLATION PLAN TO THE ENGINEER AT LEAST 21 DAYS PRIOR TO INSTALLATION DETAILING THE GROUT INSTALLATION PROCEDURES. INCLUDE CERTIFIED TEST DATA FOR THE GROUT MIX, THE METHOD AND EQUIPMENT TO BE USED TO MIX THE GROUT, PROVIDE MIXING METHODS AND EQUIPMENT PER THE MANUFACTURER'S RECOMMENDATIONS TO ENSURE UNIFORM GROUT MIX PROPERTIES. INCLUDE A DESCRIPTION OF ELEVATIONS OF ALL BULKHEAD PORTS, VENT AND VISUAL GROUT RETURN PIPES. VISUAL GROUT RETURN PIPES WILL BE USED TO DETERMINE THE ENTIRE TUNNEL VOID SPACE HAS BEEN FILLED WITH THE APPROVED GROUT MIX. BULKHEAD PORTS AND VENT PIPES SHALL SEALED OFF AND NOT BE DETRIMENTAL TO THE FINISHED LOOK OF THE BULKHEAD

**1** WALL. SUBJECT TO ANY FURTHER RESTRICTIONS AND REQUIREMENTS BY THE CELLULAR GROUT SUPPLIER AND PRODUCER AS PART OF THE CONTRACTOR'S INSTALLATION PLAN, A MAXIMUM CELLULAR GROUT LIFT THICKNESS OF 4 FEET WITH A MINIMUM OF 12 HOURS BETWEEN LIFT PLACEMENTS SHALL BE USED FOR THIS PROJECT. **2**

PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

**ITEM SPECIAL - STRUCTURES: SANDSTONE BLOCK FURNISHED AND SET**  
 THIS ITEM SHALL CONSIST OF FURNISHING LARGE BLOCK SANDSTONE FROM OUTSIDE SOURCES TO FILL GAPS OF MISSING WALL STONE AT THE SPANDREL WALL COPING COURSE AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. STONE SHALL BE CUT TO THE SIZE REQUIRED FOR THE SPECIFIC LOCATION ON THE PROJECT. THE COLOR AND SURFACE FINISH OF ALL VISIBLE AND NON-VISIBLE EDGES SHALL BE CLOSELY MATCH THE EXISTING STONEMWORK. STONE SHALL BE TOUGH, DENSE, SOUND, DURABLE AND FREE OF SEAMS, CRACKS, INCLUSIONS, OR OTHER STRUCTURAL DEFECTS. PRIOR TO SHIPMENT TO THE JOB SITE FOR FINAL USE, THE CONTRACTOR SHALL SUBMIT A REPRESENTATIVE SAMPLE OF STONE TO THE ENGINEER FOR REVIEW. THE SAMPLE SHALL BE DRESSED AND FINISHED MATCH THE FINAL PRODUCT TO BE SUPPLIED AND DIMENSION IN ANY DIRECTION NOT LESS THAN 6 INCHES.

ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AS PER ACCEPTED MASONRY STANDARDS. MORTAR SHALL MEET THE REQUIREMENTS OF ASTM C270 TYPE S AND BE SUPPLIED IN A FACTORY PRE-BLENDED MIX CONFORMING TO ASTM C1714. MORTAR SHALL HAVE CURED COLOR CLOSELY MATCHING THE EXISTING SANDSTONE WALL MORTAR COLOR AFTER BEING CLEANED. HAVE SURFACES IN SATURATED SURFACE DRY CONDITION FOR MORTARING OPERATIONS. MORTAR SHALL BE PLACED TO COMPLETELY FILL ALL MORTAR JOINTS BETWEEN ADJACENT STONES. ALL EXCESS DEPOSITS OVER THE EXPOSED MASONRY SURFACE SHALL BE CLEANED OFF. PERFORM ALL WORK IN ACCORDANCE WITH THE PREMIX MORTAR MANUFACTURER'S RECOMMENDATIONS. MAINTAIN THE MORTAR IN A DAMP CONDITION FOR AT LEAST 72 HOURS, PROTECTING IT FROM SUN, RAIN, AND DRYING WINDS.

PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

**ITEM SPECIAL - STRUCTURES: EXISTING SANDSTONE BLOCK RESET**  
 THIS ITEM SHALL CONSIST OF RESETTNG EXISTING SANDSTONE BLOCKS AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THIS MAY INCLUDE RECONSTRUCTION OF PORTIONS OF THE WALL IN PLACE, AND SALVAGING STONES THAT ARE LAYING AT VARIOUS LOCATIONS ON THE SITE AND RESETTNG THEM BACK INTO POSITION ON THE WALLS.

ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER AS PER ACCEPTED MASONRY STANDARDS. ALL EXISTING MORTAR AND DEBRIS SHALL BE REMOVED FROM THE STONE SURFACE WITHOUT CAUSING DAMAGE TO THE STONE. NEW MORTAR SHALL MEET THE REQUIREMENTS OF ASTM C270 TYPE S AND BE SUPPLIED IN A FACTORY PRE-BLENDED MIX CONFORMING TO ASTM C1714. MORTAR SHALL HAVE CURED COLOR CLOSELY MATCHING THE EXISTING SANDSTONE WALL MORTAR COLOR AFTER BEING CLEANED. HAVE SURFACES IN SATURATED SURFACE DRY CONDITION FOR MORTARING OPERATIONS. MORTAR SHALL BE PLACED TO COMPLETELY FILL ALL MORTAR JOINTS BETWEEN ADJACENT STONES. ALL EXCESS DEPOSITS OVER THE EXPOSED MASONRY SURFACE SHALL BE CLEANED OFF. PERFORM ALL WORK IN ACCORDANCE WITH THE PREMIX MORTAR MANUFACTURER'S RECOMMENDATIONS. MAINTAIN THE MORTAR IN A DAMP CONDITION FOR AT LEAST 72 HOURS, PROTECTING IT FROM SUN, RAIN, AND DRYING WINDS.

PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

**ITEM SPECIAL - STRUCTURES: ARCH RING CRACK REPAIR**  
 THIS ITEM SHALL CONSIST OF REPAIR TO THE EXISTING DISTINCT CIRCUMFERENTIAL CRACK WITHIN THE BRICK MASONRY ARCH PORTION OF THE WEST TUNNEL. THE INTENT OF THIS WORK IS TO FILL AND SOLIDIFY THE CRACK IN PLACE. IF DIRECTED BY THE ENGINEER, LOOSE OR DETERIORATED BRICK ALONG THE CRACK WITHIN THE LOWEST BRICK COURSE SHALL BE REPLACED PRIOR TO THE CRACK REPAIR. BRICK REPLACEMENT IS PAID UNDER A SEPARATE ITEM.

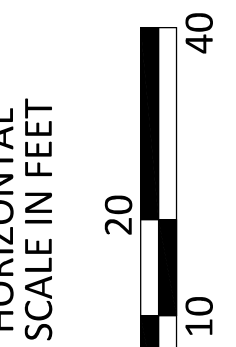
THE CONTRACTOR SHALL CLEAN THE ARCH CRACK OF ALL DIRT AND DEBRIS AND CONSTRUCT FORMWORK ALONG THE CRACK AROUND THE INTERIOR CIRCUMFERENCE OF THE ARCH. FORMWORK SHALL BE CONSTRUCTED IN A MANNER THAT WILL RESULT IN A CLEAN AND FLUSH REPAIR WITHOUT MORTAR FINS EXTENDING ONTO ADJACENT BRICKWORK. FORMWORK SHALL BE SUPPORTED FROM THE GROUND AND NOT BE ANCHORED INTO THE EXISTING ADJACENT BRICK MASONRY. THE EXISTING CRACK AND ANY ASSOCIATED VOIDS ALONG THE CRACK SHALL BE COMPLETELY FILLED UNDER PRESSURE USING NON-SHRINK MORTAR CONFORMING TO CMS 705.22. PLACEMENT METHODS SHALL ENSURE THAT ALL AIR IS RELEASED AND THE CRACK IS FILLED SOLID WITHOUT VOIDS OR AIR POCKETS. ALL WORK SHALL BE PERFORMED IN A MANNER THAT DOES NOT DAMAGE THE EXISTING STRUCTURE.

PAYMENT FOR THIS WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK TO THE SATISFACTION OF THE ENGINEER.

**ABBREVIATIONS:**

B.S.	BOTH SIDES
BOT.	BOTTOM
CONST.	CONSTRUCTION
DIA.	DIAMETER
DWG.	DRAWING
EL.	ELEVATION
EXIST.	EXISTING
F.S.	FAR SIDE
GA.	GAUGE
MISC.	MISCELLANEOUS
NOM.	NOMINAL
N.P.C.P.P.	NON-PERFORATED CORRUGATED PLASTIC PIPE
N.S.	NEAR SIDE
P.C.P.P.	PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F.	PREFORMED EXPANSION JOINT FILLER
PERF.	PERFORATED
PROP.	PROPOSED
SER.	SERIES
SPA.	SPACED OR SPACES
STA.	STATION
TYP.	TYPICAL

STRUCTURE GENERAL NOTES 2  
 BRIDGE NO. CUY-03442-0031  
 OLD DETROIT AVENUE OVER ABANDONED RAILROAD TUNNELS



SFN	1867644
DESIGN AGENCY	
DESIGNER	CHECKER
JKM	TJW
REVIEWER	
DGN	12/19/25
PROJECT ID	123855
SUBSET	TOTAL
3	11
SHEET	TOTAL
P.74	82

