





**GENERAL NOTES**

1. A PRE-CONSTRUCTION MEETING SHALL BE HELD AT THE VILLAGE ENGINEER'S OFFICE AT LEAST 15 CALENDAR DAYS BEFORE START OF CONSTRUCTION. REPRESENTATIVES OF THE OWNER, DESIGN ENGINEER, DELAWARE COUNTY ENGINEER'S OFFICE, AND CONTRACTOR SHALL BE IN ATTENDANCE. A SCHEDULE OF SEQUENCE OF EVENTS, DURING CONSTRUCTION MUST BE SUBMITTED FOR REVIEW AT LEAST (7) SEVEN DAYS PRIOR TO THIS MEETING. THE VILLAGE OF SUNBURY COLLECTS AN INCOME TAX AND CONTRACTOR WILL BE REQUIRED TO PROVIDE INFORMATION ABOUT ALL SUBCONTRACTORS AT THE TIME OF PRECONSTRUCTION CONFERENCE. CONTRACTOR TO COORDINATE THE PRECONSTRUCTION MEETING TIME WITH DAN JENNINGS, DCEO CHIEF INSPECTOR AT (740) 833-2441.
2. VILLAGE OF SUNBURY DETAILED SPECIFICATIONS TOGETHER WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) AND CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS), INCLUDING ALL SUPPLEMENTS THERETO, MOST RECENT EDITION, SHALL GOVERN ALL MATERIAL AND WORKMANSHIP INVOLVED IN THE IMPROVEMENTS SHOWN IN THESE PLANS UNLESS OTHERWISE NOTED.
3. ALL WORK TO BE COMPLETELY ACCEPTABLE TO THE VILLAGE OF SUNBURY OFFICIALS. NO WORK TO COMMENCE UNTIL ARRANGEMENTS HAVE BEEN MADE WITH VILLAGE OF SUNBURY ENGINEER FOR INSPECTION. NECESSARY LINE AND GRADE STAKING TO BE PROVIDED BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE VILLAGE OF SUNBURY ENGINEER AT LEAST (7) SEVEN WORKING DAYS PRIOR TO START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL PROVIDE A VIDEO RECORD OF THE SITE TO THE VILLAGE ENGINEER PRIOR TO THE START OF CONSTRUCTION. EMPHASIS OF THE VIDEO SHOULD BE ON EXISTING DEVELOPED AREAS CONTIGUOUS WITH THE PROJECT WORK AREAS.
6. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AN UP TO DATE COPY OF APPROVED PLANS. FOR ACCEPTANCE OF WORK, THE VILLAGE REQUIRES A SIGNED COMPLETE SET OF ALL APPROVED PLANS.
7. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND GOVERNMENT FEES, LICENSES, AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE IMPROVEMENTS SHOWN ON THE PLAN.
8. ALL THE PERTINENT STANDARD CONSTRUCTION DRAWINGS ARE AVAILABLE UPON REQUEST AT THE OFFICE OF THE VILLAGE ENGINEER.
9. APPROVAL OF THESE PLANS SHALL BE IN ACCORDANCE WITH VILLAGE OF SUNBURY.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED PRIOR TO MAKING HIS BID. THIS IS ESPECIALLY TRUE WITH REGARD TO ANY REMOVAL ITEMS.
11. THE CONTRACTOR AND SUBCONTRACTOR SHALL ALSO ABIDE BY ALL ORDINANCES OF THE VILLAGE OF SUNBURY.
12. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.
13. ALL FIELD TILE BROKEN DURING EXCAVATION SHALL BE REPLACED TO ORIGINAL CONDITION OR CONNECTED TO THE CURB SUBDRAIN OR TO THE STORM SEWER SYSTEM AS DIRECTED BY THE ENGINEER.
14. INGRESS AND EGRESS SHALL BE MAINTAINED TO PUBLIC AND PRIVATE PROPERTY.
15. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT AT HIS OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER'S ENGINEER AND VILLAGE OF SUNBURY ENGINEER.
16. ALL SIGNS, FENCES, SHRUBS, DRAINAGE STRUCTURES, OR OTHER PHYSICAL FEATURES THAT ARE TO REMAIN INTACT WHICH ARE DISTURBED OR DAMAGED DURING WORK UNDER THE CONTRACT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR. UNLESS OTHERWISE PROVIDED IN THE CONTRACT. THE COST OF ALL SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS SANITARY SEWER ITEMS.
17. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO ORIGINAL CONDITION AS NEAR AS PRACTICABLE UPON COMPLETION OF THIS WORK. ANY DAMAGE TO OTHER UTILITIES DURING THIS WORK BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE.
18. CARE SHALL BE EXERCISED WHEN WORKING THE AREA AROUND EXISTING TREES AND SHRUBS. TREES MAY BE REMOVED WITHIN PERMANENT AND TEMPORARY EASEMENTS ONLY. EFFORTS SHALL BE MADE TO PRESERVE TREES 24-INCHES CALIPER AND LARGER. NO TREES SHALL BE DAMAGED OR DISTURBED OUTSIDE OF THE EASEMENTS OR WHERE MARKED IN THE PLANS AS "DO NOT DISTURB".
19. THE COST OF ANY DEWATERING OR ROCK EXCAVATION SHALL BE INCLUDED IN THE PRICE BID FOR SANITARY PIPE. THE BIDDER SHALL DETERMINE IF ANY DEWATERING OR ROCK EXCAVATION WILL BE REQUIRED AND ADJUST HIS BIDS ACCORDINGLY.

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20. PAVEMENT CUTS FOR UTILITY LINE INSTALLATIONS SHALL BE SUBJECT TO THE BACKFILL REQUIREMENTS OF COC CMS ITEM 912. PAVEMENT SHALL BE PLACED TO MATCH EXISTING SECTION OR 9 INCHES OF 448 ASPHALT. WHICHEVER IS GREATER. DEEP TRENCHES MAY NOT BE PARTIALLY FILLED WITH LARGE SIZE AGGREGATE.
21. THE FLOW IN ALL SEWERS, DRAINS AND SANITARY SEWER COURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND WHENEVER SUCH SANITARY SEWER COURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE PROSECUTION OF EXPENSE TO A CONDITION SATISFACTORY TO THE VILLAGE OF SUNBURY.
22. ALL EARTHWORK OPERATIONS, ESPECIALLY PAVEMENT SUBGRADE CONSTRUCTION, SHALL BE INSPECTED BY A REGISTERED SOILS ENGINEER EMPLOYED AND PAID FOR BY THE OWNER. ADDITIONALLY ALL FINAL GRADES SHALL BE FIELD CHECKED BY THE CONSTRUCTION MANAGER UPON COMPLETION OF CONTRACTOR'S OPERATIONS TO DETERMINE IF THE SITE HAS BEEN CONSTRUCTED TO THE GRADES INDICATED.
23. ALL ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS PROVIDED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF SAME AND SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS RELATED ITEMS.
24. EROSION CONTROL MEASURES ARE TO BE INSTALLED PER PLAN OR AS DIRECTED BY THE VILLAGE AND ARE TO BE MAINTAINED UNTIL SUCH TIME THAT THEY ARE NO LONGER REQUIRED.
25. ALL AREAS IN THE RIGHT-OF-WAY ARE TO BE GRADED AND SEEDED AS SOON AS WORK IN THAT AREA IS COMPLETE.
26. CONTRACTOR IS RESPONSIBLE FOR THE PROVISION AND MAINTENANCE OF A PORTABLE TOILET ON THE SITE DURING ALL PHASES OF CONSTRUCTION.
27. THE CONTRACTOR AND/OR DEVELOPER IS RESPONSIBLE FOR ALL COMPACTION, ASPHALT AND CONCRETE TESTING. TESTING IS TO BE PERFORMED BY A REGISTERED CONTRACTOR AS SPECIFIED BY THE VILLAGE ENGINEER.
28. THE VILLAGE ENGINEER RESERVES THE RIGHT TO DIRECT PROJECT SPECIFIC CHANGES TO ANY VILLAGE CONSTRUCTION NOTE AND SPECIFICATION.
29. NO CONSTRUCTION TRAFFIC IS PERMITTED ON STREETS ACCESSING NEIGHBORING SUBDIVISIONS.
30. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH THE OCCUPATIONAL SAFETY & HEALTH ACT OF 1970 AND ALL OTHER FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. THE CONTRACTOR AND SUBCONTRACTORS SHALL INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS ASSOCIATED WITH THIS WORK.
31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS NECESSARY TO PERFORM ALL WORK WITHIN AND/OR ADJACENT TO THE RIGHT-OF-WAY OF ALL ROADS AND HIGHWAYS. ALL FEES, BONDS, INSURANCE AND ANY OTHER COSTS REQUIRED BY THE OWNER OF SAID ROADS AND HIGHWAYS SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE PRICE BID FOR THE WORK.
32. THE CONTRACTOR SHALL PROVIDE THE VILLAGE ENGINEER AND DELAWARE COUNTY ENGINEER WITH A 24 HOUR TELEPHONE NUMBER TO READILY CONTACT A RESPONSIBLE PARTY IN THE CASE OF AN EMERGENCY. COST AND/OR DAMAGES INCURRED RELATED TO WORK PERFORMED BY THE CONTRACTOR IN SUCH EMERGENCIES ARE THE CONTRACTORS RESPONSIBILITY AND NOT THE AFFECTED ENTITY.
33. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR BY REASON OF COMPLIANCE WITH ANY OF THE REQUIREMENTS INDICATED IN THE PLANS, BUT PAYMENT SHALL BE DEEMED TO BE INCLUDED AMONG THE SEVERAL ITEMS, AS BID UPON, UNLESS OTHERWISE SPECIFICALLY PROVIDED.
34. IN ADDITION TO THE DIRECT REQUIREMENTS OF THE CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL OBSERVE AND CONFORM TO THE SPECIFIC REQUIREMENTS OF ALL RIGHT-OF-WAYS INCLUDING EASEMENTS, COURT ENTRIES, RIGHTS OF ENTRY OR ACTION FILED IN COURT IN ACCORDANCE WITH THE CODE OF APPLICABLE GOVERNING AGENCY. THE COST OF THE OPERATIONS NECESSARY TO FULFILL SUCH REQUIREMENTS SHALL BE INCLUDED IN THE TOTAL CONTRACT PRICE BID.
35. THE DESIGN SHOWN ON THESE DRAWINGS IS BASED ON A FIELD SURVEY AND EXISTING RECORDS.
36. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL TAKE PHOTOGRAPHS AND A VIDEO OF THE PROJECT SITE PER THE SPECIFICATIONS. A CD OF THE PHOTOGRAPHS AND A DVD OF THE VIDEO SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR PRE-CONSTRUCTION VIDEOTAPING.

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37. ALL CONSTRUCTION STAKING WILL BE PROVIDED BY THE CONTRACTOR. THIS WILL CONSIST OF ALIGNMENT AND GRADE STAKES SET AND MARKED IN THE FIELD. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY REPLACEMENT STAKES NECESSARY, REMOVED OR DESTROYED BY THEIR PERSONNEL OR EQUIPMENT.
38. CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS THROUGHOUT THE PROJECT AND SHALL BRING THE CURRENT SET OF AS-BUILT DRAWINGS TO EACH PROGRESS MEETING FOR REVIEW.
39. THE WORK OF THIS CONTRACT SHALL NOT INTERFERE WITH MAINTAINING CONTINUOUS FLOW IN THE EXISTING SANITARY SEWER, STORM SEWER SYSTEM, WATER LINES, POWER, TELEPHONE, CABLE TV, GAS OR ANY OTHER SYSTEM THAT MAY BE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL POLES AND RELOCATE ANY UTILITY THAT IMPEDES CONSTRUCTION. NOTHING SHALL BE DONE BY ANY OTHER CONTRACTOR FOR THIS PROJECT WHICH WILL IN ANY WAY REDUCE THE QUALITY OR QUANTITY LEVEL OF SUCH OPERATIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER (1) WEEK PRIOR TO MODIFYING ANY FACILITIES. NO PAYMENT WILL BE MADE FOR ANY UTILITY MAINTENANCE UNLESS SPECIFICALLY NOTED AS A BID ITEM IN THE PROPOSAL. FAILURE TO PROPERLY MAINTAIN UTILITIES WILL RESULT IN THE REDUCTION OF THE PROPOSAL ITEM FOR UTILITY MAINTENANCE.
40. AT ALL UTILITY CROSSINGS, THE BACKFILL SHALL CONSIST OF COMPACTED GRANULAR MATERIAL BETWEEN THE DEEPER AND SHALLOWER PIPE UNLESS CONTROLLED DENSITY FILL OR CONCRETE IS SPECIFIED OTHERWISE IN THE DRAWINGS.
41. MANHOLES SHALL BE INSTALLED WITH ADJUSTING RINGS SO THAT THE TOP OF THE CASTING IS AT EXISTING GRADE. THE CASTING SHALL NOT PROTRUDE SO AS TO INTERFERE WITH MOWING.
42. BACKFILL: EARTH WILL NOT BE MOUNDING OVER TRENCH IN ANTICIPATION OF SETTLEMENT. THE CONTRACTOR SHALL COMPACT TRENCH AND ESTABLISH ORIGINAL DITCH GRADE AS WORK PROGRESSES. DRAINAGE MUST BE RESTORED AS QUICKLY AS PRACTICAL. IF EROSION OF DITCH LINE CAUSES SILTING OF EXISTING DRAINAGE LINES, THE CONTRACTOR SHALL CLEAN. BACKFILL AND CLEANUP OPERATIONS SHALL BE KEPT WITHIN 300 FT. OF THE PIPE LAYING OPERATION DAILY. CARE SHALL BE TAKEN TO INSURE THAT NO DITCH LINE ELEVATIONS ARE RAISED DUE TO EXCESS BACKFILL. COMPACTION IS TO BE CARRIED OUT WITH THE NECESSARY EQUIPMENT TO ACHIEVE THE COMPACTION REQUIREMENT OF ODOT CMS ITEM 304.05. THE CONTRACTOR SHALL MAINTAIN DRIVEWAYS ACCESSIBLE AT ALL TIMES USING PLATES OR COMPACTED GRANULAR FILL.
43. ROAD MAINTENANCE AREA: UNLESS PREEXISTING BEFORE CONSTRUCTION OPERATIONS, THE SURFACE WITHIN A MINIMUM OF 5 FT. FROM EDGE OF PAVEMENT SHALL BE MAINTAINED OBSTACLE FREE, BY THE CONTRACTOR, FOR POSITIVE DRAINAGE AND/OR SNOW PLOW/MAINTENANCE OF ROAD PAVEMENT.
44. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
45. DISTURBANCE TO THIS SITE IS COVERED BY OEPA GENERAL PERMIT OH0000004 AND THE NPDES PERMIT.
46. MARKER POLES SHALL BE SET NEAR MANHOLES 4 THROUGH 11, AT THE EDGE OF THE ACCESS DRIVE AND AS SHOWN IN THE PLANS. THE MARKER POLE SHALL BE A 4 INCH BY 4 INCH PRESSURE TREATED OR HARDWOOD POLE SET TO A POINT 3 FT BELOW FINAL GRADE. BRACE POLE IN SUCH A MANNER TO HOLD IT FIRMLY IN POSITION DURING BACKFILL. POLE SHALL EXTEND 4 FEET ABOVE FINAL GRADE AND SHALL BE PAINTED BRIGHT RED. COST FOR MARKER POLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 604-MANHOLES.

**PRESERVATION**

1. ALL DRAIN TILE, FIELD TILE AND STORM SEWERS DAMAGED, DISTURBED OR REMOVED AS A RESULT OF THE CONTRACTORS OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR BETTER, MAINTAINING THE SAME GRADIENT AS EXISTING. REPLACED DRAIN TILE SHALL BE LAID PER THE STORM SEWER DETAIL. COST TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS UNIT PRICE BID ITEMS. ALL NECESSARY REPLACEMENT OF EXISTING PIPES IS TO BE PERFORMED AS SOON AS POSSIBLE, PRIOR TO BACKFILLING THE TRENCH.
2. CULVERTS, END SECTIONS AND HEADWALLS DISTURBED OR DESTROYED DURING THE PERFORMANCE OF THE WORK SHALL BE RESTORED BY THE CONTRACTOR TO THE LOCATIONS AND GRADES EXISTING PRIOR TO CONSTRUCTION. THE COST OF THIS RESTORATION SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RELEVANT ITEMS OF THE WORK.
3. THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, PROPERTY CORNERS AND REFERENCE POINTS AND IN CASE OF WILLFUL OR CARELESS DESTRUCTION, HE WILL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE. THE CONTRACTOR SHALL ALSO RESTORE ALL DISTURBED AREAS, FENCES AND DITCHES TO THEIR ORIGINAL CONDITION.
4. ANY PROPERTY CORNERS, PERMANENT SURVEY MARKERS OR MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE REESTABLISHED BY THE CONTRACTOR USING A SURVEYOR REGISTERED BY THE OHIO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS. CONTRACTOR TO COORDINATE THIS WORK THROUGH THE DELAWARE COUNTY ENGINEER'S OFFICE. COST TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS UNIT PRICE BID ITEMS. ALL CONSTRUCTION STAKING WILL BE PROVIDED BY THE CONTRACTOR. THIS WILL CONSIST OF ALIGNMENT AND GRADE STAKES SET AND MARKED IN THE FIELD. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY REPLACEMENT STAKES NECESSARY, REMOVED OR DESTROYED BY THEIR PERSONNEL OR EQUIPMENT.
5. ALL SIGNS, FENCES, SHRUBS, DRAINAGE STRUCTURES OR OTHER PHYSICAL FEATURES DISTURBED OR DAMAGED DURING WORK UNDER THIS CONTRACT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR, OR REPLACED IN LIKE KIND AND QUALITY UNLESS OTHERWISE NOTED ON THE PLANS. EXISTING GRATES SHALL BE SALVAGED AND EXISTING CATCH BASINS OR INLETS SHALL BE REBUILT WITH IN KIND MATERIAL. ALL EXISTING DRAINAGE DITCHES SHALL BE RESTORED TO EXISTING CONDITIONS AND GRADE. IF GUARDRAIL IS DISTURBED, THE CONTRACTOR SHALL PROVIDE NEW POSTS IN ACCORDANCE WITH THE CURRENT ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS, ITEM 606.02, UNLESS OTHERWISE PROVIDED IN THE CONTRACT. THE COST OF ALL SUCH WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS UNIT PRICE BID ITEMS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING MAIL SERVICE IN THE CONSTRUCTION AREA. PRIOR TO DISTURBING ANY MAILBOXES, THE CONTRACTOR SHALL CONTACT THE POSTAL AUTHORITIES AND SHALL TEMPORARILY RELOCATE MAILBOXES WITH THE REQUIREMENTS THEREOF. THE CONTRACTOR SHALL RESTORE MAILBOXES TO THEIR ORIGINAL CONDITION AND LOCATION SUBSEQUENT TO CONSTRUCTION.
7. THE CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO PUBLIC RIGHT-OF-WAY AND THOSE AREAS DEFINED AS TEMPORARY CONSTRUCTION EASEMENTS, PERMANENT UTILITY EASEMENT AND ACCESS EASEMENTS, PER WORK AGREEMENT. FOLLOWING THE CONSTRUCTION ACTIVITIES IMPACTING ANY OF THE R/W, THE R/W SHALL BE RESTORED BACK TO MATCH THE ORIGINAL CONDITION.
8. THE LENGTH OF TRENCH OPENED, OR THE AREA OF THE SURFACE DISTURBED AT ANY TIME SHALL BE LIMITED WITH REGARD TO BOTH EXPEDITIOUS CONSTRUCTION AND CONVENIENCE OF THE PUBLIC. NEW TRENCHES SHALL NOT BE OPENED WHEN OPEN TRENCHES NEED BACKFILLING OR WHEN LABOR IS NEEDED TO RESTORE THE SURFACE OF THE STREETS TO A SAFE AND PROPER CONDITION. IN NO CASE SHALL MORE THAN 50 FEET OF TRENCH BE OPENED IN ADVANCE OF THE COMPLETED WORK. THE CONTRACTOR SHALL NOT STORE EXCAVATED MATERIALS ALONG THE LINE OF WORK. IF FOR ANY REASON THERE IS A STOPPAGE OF WORK DURING EXCAVATION THAT IS ATTRIBUTABLE TO THE CONTRACTOR AND THE TRENCH WILL REMAIN OPEN FOR AN UNREASONABLE LENGTH OF TIME IN ADVANCE OF INSTALLING THE PIPE OR OTHER ITEMS AS DETERMINED BY THE OWNER, THEN THE CONTRACTOR SHALL REFILL THE EXCAVATION, OR ANY PART THEREOF, UNTIL HE IS READY TO PROCEED WITH THE CONSTRUCTION OF THE WORK. THIS SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
9. ALL EXCAVATED MATERIAL SHALL BE WORKED IN SUCH A MANNER THAT WILL NOT ENDANGER THE WORK NOR OBSTRUCT WALKS AND DRIVEWAYS. MANHOLE COVERS, INLETS, FIRE AND POLICE CALL BOXES OR OTHER UTILITIES SHALL BE UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES. GUTTERS SHALL BE KEPT CLEAR OR OTHER SATISFACTORY PROVISIONS MUST BE MADE TO KEEP THEM UNOBSTRUCTED.
10. OPEN EXCAVATIONS: ALL EXCAVATIONS SHALL BE MAINTAINED AS SAFE AS POSSIBLE BY THE CONTRACTOR AT ALL TIMES AND BACKFILLED AS SOON AS PRACTICAL. OPEN EXCAVATIONS AFTER WORK HOURS REQUIRE TRAFFIC PLATES, TEMPORARY PAVEMENT AND/OR LIGHTED BARRICADES AND CONSTRUCTION FENCE.
11. THE TRACKING OF MUD, DIRT OR DEBRIS, OR SPILLAGE OF SAME, UPON STATE ROUTES, COUNTY ROADS, TOWNSHIP ROADS, RESIDENTIAL AND COMMERCIAL DRIVES, SIDEWALKS OR BIKE PATHS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. FAILURE TO REMOVE SAID MUD, DIRT OR DEBRIS, OR SPILLAGE MAY RESULT IN THE OWNER PROVIDING THAT SERVICE OR WITHHOLDINGS FROM MONEYS WHICH MAY BECOME DUE TO THE CONTRACTOR.
12. INGRESS AND EGRESS SHALL BE MAINTAINED AT ALL TIMES TO PUBLIC AND PRIVATE PROPERTY.
13. ROADWAY STORM DRAINAGE, I.E. DITCHES, PIPES AND CULVERTS SHALL NOT BE OBSTRUCTED DURING SEWER CONSTRUCTION. TEMPORARY EROSION AND SEDIMENTATION MEASURES PER ITEM ODOT CMS 670.02 ARE TO BE INSTALLED AND MAINTAINED BY THE CONTRACTOR TO PREVENT SILTATION OF DRAINAGE DITCHES, SEWERS, CULVERTS ETC.
14. ALL TREES, WHETHER SHOWN OR NOT SHOWN ON PLANS, ARE TO BE PRESERVED UNLESS APPROVAL TO REMOVE IS GIVEN BY THE OWNER OR THEIR REMOVAL HAS BEEN DESIGNATED ON THE PLANS. THE CONTRACTOR SHALL USE SPECIAL PRECAUTIONS TO AVOID DAMAGE TO ALL OTHER TREES. WHEN REQUIRED, LIMBS SHALL BE CAREFULLY AND NEATLY PRUNED AND PAINTED WITH A SEALING COMPOUND.
15. MARHOVER RETAINS OWNERSHIP OF ALL TREES CLEARED UPON HIS PROPERTY. TREES 6" AND LARGER (CALIPER) SHALL BE CUT INTO 8-FOOT LENGTHS AND STOCKPILED ALONG THE EASEMENT AREAS AS DIRECTED BY MARHOVER OR THE VILLAGE. THE BALANCE OF CUT TREES SHALL BE PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.

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SEAL	#	DATE	#	REVISIONS	DATE	PROJECT NUMBER: 62-10550-A6-AA-02-0304			SCALE: (22x34) NONE	 <b>ms consultants, inc.</b> engineers • architects • planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I		SHEET TITLE: GENERAL NOTES	DWG. NO. G-3
						DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11x17) NONE		SHEET 3	OF 23		

## RESTORATION

1. TO INSURE PROPER RESTORATION OF WORK AREAS, THE CONTRACTOR SHALL VIDEO ENTIRE PROJECT WORK AREAS PRIOR TO ANY MATERIAL DELIVERY OR CONSTRUCTION.
2. SEEDING AND MULCHING: UPON SUBSTANTIAL COMPLETION OF THIS PROJECT, ALL AREAS WHERE VEGETATION HAS BEEN DISTURBED AND/OR DESTROYED WILL BE FERTILIZED, SEEDED, AND MULCHED, IN ACCORDANCE WITH ODOT CMS ITEM 659. THE INTENT OF THIS NOTE IS TO PROVIDE SEED A PROPER HABITAT TO GERMINATE AND ENCOURAGE VIGOROUS GROWTH. THEREFORE, THE CONTRACTOR SHALL PROVIDE A SEED BED FREE OF STONES AND OTHER DELETERIOUS MATERIALS, EIGHTY-FIVE PERCENT OF THE SEED BED SHALL CONSIST OF GROWTH SUPPORTING MATERIAL. IF ANY QUESTION ARISES ON THE AMOUNT OF STONES OR OTHER MATERIAL THAT MAY BE CONTAINED IN THE SEED BED, THE ENGINEER MAY ORDER THAT ONE OR MORE TWO SQUARE FOOT BY FIVE INCH DEEP TEST SECTIONS BE EXCAVATED. THIS EXCAVATED MATERIAL SHALL BE PASSED THROUGH A No. 10 SIEVE. IF IT IS FOUND THAT FIFTEEN PERCENT OF THE VOLUME, BY WEIGHT, OF THE TEST SECTION CONSISTS OF STONES OR OTHER DELETERIOUS MATERIAL, THE SEED BED SHALL BE REJECTED. IF THE EQUIPMENT USED TO PREPARE THE SEED BED IS NOT CAPABLE OF REMOVING THE STONES OR DELETERIOUS MATERIALS, THE CONTRACTOR SHALL BE REQUIRED TO SUPPLEMENT THE SEED BED WITH SUITABLE MATERIAL TO PROVIDE THE PROPER SEED BED.
3. DRIVEWAY REQUIREMENTS:
  - BACKFILL AT DRIVEWAY CROSSINGS SHALL CONFORM TO DETAILS SHOWN ON THE DRAWINGS AND TO THE SPECIFICATIONS.
  - ALL DRIVEWAYS CUT BY THE CONTRACTOR SHALL BE PROVIDED WITH TEMPORARY PAVEMENT ON THE SAME DAY THAT THE ORIGINAL PAVEMENT IS CUT. IN GENERAL, DRIVEWAYS SHALL BE TEMPORARILY REPLACED WITH CRUSHED STONE AS PER ODOT CMS ITEM 703.11. ALL OTHER TRENCHES SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS.
  - ALL CONCRETE DRIVEWAYS SHALL BE REPLACED TO THE FIRST JOINT OR AS DIRECTED BY THE ENGINEER. ALL CONCRETE DRIVEWAY APPROACHES TO BE RECONSTRUCTED SHALL BE REMOVED TO THE NEAREST JOINT IN PROXIMITY TO THE RIGHT-OF-WAY. IF THE JOINTS ARE TOO FAR APART AND INAPPROPRIATE TO REMOVE AT THE LOCATION DESIRED, THE APPROACH SLAB SHALL BE SAWCUT AT A LOCATION CHOSEN BY THE ENGINEER, THEN REMOVED. THERE SHALL BE NO ADDITIONAL PAYMENT MADE FOR SAWCUTTING.
  - ALL ASPHALT DRIVEWAYS SHALL BE SAWCUT THE FULL DEPTH OF THE THICKNESS OF THE ASPHALT. THERE SHALL BE NO ADDITIONAL PAYMENT MADE FOR SAWCUTTING.
  - PERMANENT PAVEMENT REPLACEMENT FOR DRIVEWAYS SHALL BE AS NOTED ON THE DRAWINGS AND IN THE SPECIFICATIONS.
  - THE CONTRACTOR SHALL EXERCISE CARE IN THE RECONSTRUCTION OF EXISTING DRIVES. IN AREAS WHERE DRIVES OR PARKING AREAS ARE DISTURBED, THE CONTRACTOR SHALL REPAIR ALL SUCH DAMAGE. PAYMENT FOR ALL WORK NECESSARY TO PERFORM THE ABOVE REPAIRS AND MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RELEVANT ITEMS OF THE WORK.

## DEL-CO WATER NOTE

1. CONTRACTOR SHALL BRACE/SUPPORT THE EXISTING 8-INCH WATER MAIN AS DIRECTED BY THE DEL-CO INSPECTION DEPARTMENT DURING THE EXCAVATION/INSTALLATION OF THE PROPOSED SANITARY SEWER BETWEEN MANHOLES 16 AND 17. CONTACT RUSTY GRIFFITH AT 740-548-7746 EXT. 2403 FOR INSPECTION REQUIREMENTS.

## SANITARY SEWER MANHOLES

1. ALL SANITARY SEWER MANHOLES MUST BE PRECAST CONCRETE AND MEET BOTH CITY OF COLUMBUS SPECIFICATIONS AND VILLAGE OF SUNBURY SPEC NO. 2607. CONTACT VILLAGE ENGINEER FOR COPY OF SPEC 2607.
2. SANITARY MANHOLE LIDS ARE TO BE EAST JORDAN TYPE 1660 AND EMBOSSED "SANITARY SEWER".
3. MANHOLES SHALL BE BUILT OR ADJUSTED SO THE TOPS CONFORM TO THE ELEVATIONS SHOWN ON THESE PLANS. PRIOR TO AND AFTER CONSTRUCTION, THE CONTRACTOR SHALL VERIFY MANHOLE CONSTRUCTION AND TOP OF CASTING ELEVATION. MANHOLE HEIGHT ADJUSTMENTS SHALL BE PRECAST CONCRETE ADJUSTMENT RINGS. PRECAST CONCRETE RISER RINGS ARE TO BE USED FOR ALL FINAL ADJUSTMENT OF MANHOLE CASTINGS.
4. MAXIMUM DISTANCE FROM TOP OF CASTING TO FIRST STEP SHALL BE 18".
5. SANITARY SEWER MANHOLES AND ENDS OF 6" SERVICE LATERALS ARE TO BE MARKED WITH A 4X4 INCH X 10'-0" PRESSURE TREATED WOODEN POST, INSTALLED WITH 4'-0" ABOVE FINISHED GRADE AND WITH THE TOP 1'-0" PAINTED GREEN ON FOUR SIDES. COST TO BE INCLUDED WITH VARIOUS SEWER ITEMS.
6. THE TOP OF CURB SHALL BE MARKED WITH AN "S" TO INDICATE THE LOCATION OF SANITARY SERVICES.
7. MANHOLES SHALL BE SET ON A 6" MINIMUM FOUNDATION OF NO. 57 STONE. BACKFILL SHALL CONSIST OF EXCAVATED EARTH MATERIAL, FINELY DIVIDED AND FREE OF STONES 2 INCHES OR GREATER IN ANY DIMENSION TO AT LEAST 1 FOOT ABOVE PIPE TOP.
8. SANITARY MANHOLES SHALL BE TESTED HYDROSTATICALLY PER COC CMS 901.20.

## SANITARY SEWER LINE CONSTRUCTION SPECIFICATIONS

1. ALL SANITARY SEWER PIPE AND FITTINGS, AND METHODS OF CONSTRUCTION AND WORKMANSHIP FOR SANITARY SEWER LINES AND APPURTENANCES SHOWN ON THESE PLANS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE VILLAGE OF SUNBURY, DIVISION OF WASTEWATER, CURRENT ON THE DATE OF CONTRACT, UNLESS THE REQUIREMENTS OF SUCH RULES AND REGULATIONS ARE UPGRADED BY THE FOLLOWING SPECIFICATIONS OR BY THE CONSTRUCTION DETAILS SET FORTH HEREIN.
2. PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS NECESSARY TO COORDINATE AND PROVIDE FULL-TIME INSPECTION SERVICE BY THE VILLAGE FOR THE PROPOSED WORK. COST OF INSPECTION SHALL BE PAID FOR BY THE DEVELOPER.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
4. IT IS THE POLICY OF THE VILLAGE OF SUNBURY THAT THE DESIGN OF THE SANITARY SEWER COLLECTION SYSTEM BY SUCH THAT INFLOW AND INFILTRATION OF NON-POLLUTED WATERS IS MINIMIZED. ALL SANITARY LINES AND LATERALS ARE TO BE DESIGNED AND INSTALLED SO AS TO PROVIDE BASEMENT SANITARY SEWER SERVICES, UNLESS OTHERWISE NOTED.
5. TRENCHES USING COMPACTED GRANULAR MATERIAL IS TO BE TESTED ON-SITE BY A REGISTERED CONTRACTOR AS APPROVED BY THE VILLAGE ENGINEER. THE VILLAGE RESERVES THE RIGHT TO HAVE COMPACTION TESTED OUTSIDE OF THE INFLUENCE OF THE ROADWAY.
6. MAINTAIN A MINIMUM 10' HORIZONTAL AND 18" VERTICAL SEPARATION BETWEEN WATERLINES AND SANITARY AND STORM SEWERS. PIPES SHALL BE CONCRETE ENCASED WHERE THE REQUIRED SEWER-WATERLINE SEPARATION CANNOT BE MAINTAINED.
7. ALL SEWERS ARE TO BE CCTV'ed AFTER THE MANDREL TEST AND THE LOGS AND VIDEO IS TO BE PROVIDED TO THE VILLAGE.

## SANITARY SEWER PIPE AND FITTINGS

1. THE CONTRACTOR'S SPECIFIC ATTENTION IS DIRECTED TO THE REQUIREMENTS OF EITHER INFILTRATION OR EXFILTRATION TEST AS SPECIFIED BY THE VILLAGE OF SUNBURY, OHIO. LEAKAGE THROUGH THE JOINTS OF THE SEWER SHALL NOT EXCEED THE FOLLOWING ALLOWABLE LIMITS: 100 GALLONS PER INCH OF TRIBUTARY SEWER DIAMETER PER 24 HOURS PER MILE OF LENGTH OR THE COMPUTED EQUIVALENT FOR SHORTER LENGTHS AND SHORTER PERIODS OF TIME. ALL SANITARY SEWERS AND SERVICES SHALL BE TESTED. ALL SANITARY SEWERS SHALL BE SUBJECT TO AND PASS THE INFILTRATION OR EXFILTRATION TEST PRIOR TO ACCEPTANCE. AN AIR TEST IS ACCEPTABLE TO THE VILLAGE OF SUNBURY. THIS AIR TEST SHALL FOLLOW THE COLUMBUS STANDARD 901.20. ALL PIPE TESTING SHALL FOLLOW COLUMBUS STANDARDS 901.20 AND 901.21
2. WHERE THE SANITARY SEWER & STORM SEWER CROSS, THE TRENCH SHALL BE BACKFILLED TO THE BOTTOM OF THE PROPOSED STORM SEWER AND SANITARY SEWER LINE WITH COMPACTED GRANULAR MATERIAL, ITEM 304, 10 L.F. CENTERED ON THE STORM SEWER OR SANITARY SEWER LINE. THE COST OF THIS WORK IS TO BE INCLUDED IN THE BID PRICE FOR THE VARIOUS SEWER ITEMS.
3. TRENCHES USING COMPACTED GRANULAR MATERIAL SHALL BE TESTED ON SITE BY A REGISTERED CONTRACTOR AS APPROVED BY THE VILLAGE ENGINEER. THE VILLAGE RESERVES THE RIGHT TO HAVE COMPACTION TESTED OUTSIDE OF THE INFLUENCE OF THE ROADWAY.
4. PIPE FOR ALL 6" SANITARY SEWER SERVICE LATERALS SHALL BE PVC SEWER PIPE ASTM D-3034, SDR-35. THE SERVICE SHALL NOT BE SUBJECT TO EITHER INFILTRATION OR EXFILTRATION. ALL SERVICE EXTENSIONS SHALL BE LAID AT A MINIMUM GRADE OF 1/4" PER FOOT AND SHALL BE CONSTRUCTED AT THE TIME OF CONSTRUCTION OF THE MAIN SANITARY SEWER, UNLESS OTHERWISE DIRECTED BY THE VILLAGE ENGINEER.
5. WHERE THE COVER ON THE WYE SANITARY SEWER SERVICE LATERAL BRANCH IS IN EXCESS OF 12 FEET BELOW AVERAGE GROUND SURFACE, A 45 DEGREE BEND AND SUFFICIENT RISER PIPE SHALL BE ADDED TO TERMINATE (TO THE NEAREST EVEN LENGTH OF RISER PIPE) AT A DEPTH OF TEN FEET BELOW THE GROUND SURFACE, PROVIDED THE PROPERTY BEING SERVED WILL NOT REQUIRE ADDITIONAL DEPTH. SANITARY SEWER SERVICE LATERAL RISER PIPES SHALL BE PLACED ON WYE CONNECTIONS AS DIRECTED BY THE VILLAGE ENGINEER.
6. SANITARY SEWER SERVICE LATERAL PIPES SHALL BE INSTALLED 2'-0" MINIMUM APART C/C IN A 4'-0" MINIMUM TRENCH. LATERALS SHALL HAVE NO GRAVEL BEDDING. ENDS ARE TO FLARE TO 10'-0" APART OR 5'-0" OFF OF THE PROPERTY LINE.
7. CONTRACTOR SHALL RUN TRACER WIRE ALONG SANITARY LATERAL.
8. 6'-0" LONG CLAY DAMS ARE TO BE INSTALLED ON EVERY 6-INCH SERVICE LATERAL. COST TO BE INCLUDED WITH VARIOUS SEWER ITEMS.
9. ALL SANITARY SERVICE LATERALS ARE TO BE CLAY DAMMED AT ONE POINT ALONG THE SANITARY SEWER SERVICE LATERAL PIPE TO BE PERFORMED BY THE BUILDER.
10. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER SANITARY SEWER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED ON THIS PROJECT.
11. THE PIPE TYPES SHALL CONFORM TO THE CITY OF COLUMBUS CMS SECTION 901. THE APPROVED PIPES FOR THIS PROJECT ARE:
  - 11.1. PVC, PROFILE WALL, ASTM F949, ASTM D2412, ASTM 794, D1784. JOINT ASTM D3212, ASTM F477. BEDDING ASTM D2312.
12. ALL PVC PIPE SHALL BE DEFLECTION TESTED 30 DAYS OR MORE AFTER THE TRENCH HAS BEEN BACKFILLED TO FINISH GRADE. A RIGID MANDREL SHALL BE USED FOR THE TESTING. NO MECHANICAL PULLING DEVICES SHALL BE USED. PIPE DEFLECTION SHALL NOT EXCEED 5%.
13. ALL PIPES SHALL BE LAID WITH STONE OR GRAVEL BACKING AS SHOWN IN THE DETAILS.
14. ALL SANITARY SEWER PIPE TRENCHES IN PAVEMENT SHALL BE IN ACCORDANCE WITH CITY OF COLUMBUS ITEM No. 901. ALL SANITARY SEWER PIPE TRENCHES OUTSIDE OF PAVEMENT SHALL BE IN ACCORDANCE WITH STANDARD DRAWING (SEWER PIPE INSTALLATION).
15. 6'-0" LONG CLAY DAMS ARE TO BE INSTALLED ON SANITARY SEWER PIPES AT MAXIMUM INTERVALS OF 150'-0" AND WITH A MINIMUM OF ONE DAM BETWEEN EACH PAIR OF MANHOLES. COST TO BE INCLUDED WITH VARIOUS SEWER ITEMS.

I:\2016\PROJECTS\62-10550-A6-AA-02\0304 - TRENCH COVER AND SEWER MANHOLES SHEET - RELEASED FOR PUBLIC REVIEW - 03.10.2017 07:08 PM - BRAPP

SEAL

#	DATE	#	REVISIONS	DATE					

PROJECT NUMBER: 62-10550-A6-AA-02-0304			SCALE: (22x34) NONE		
DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11x17) NONE		

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2221 SCHROCK ROAD  
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(614)-898-7100 Fax (614)-898-7570  
www.msconsultants.com

PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE:  GENERAL NOTES
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DWG. NO. G-4	SHEET 4 OF 23
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**MANHOLE STEP**

STANDARD DRAWING AA-S119

REVISED 8/8/14

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

NOTE: 1. STEPS SHALL MEET THE REQUIREMENTS OF ASTM C478 AND SHALL BE INSTALLED WITH A UNIFORM VERTICAL SPACING OF 12" TO 16".  
 2. STEPS INSTALLED IN EXISTING STRUCTURES SHALL BE SET IN A QUICK SETTING NON-SHRINK EPOXY.  
 3. STEPS SHALL CONFORM TO MATERIAL REQUIREMENTS OF CMB 711.3.1. ALL STEPS SHALL HAVE A DEPRESSED TREAD OR 1/2" MINIMUM CLEAR HEIGHT AT THE ENDS.  
 4. THE ENGINEER MAY REQUIRE THE CONTRACTOR TO TEST LOAD A MAXIMUM OF ONE STEP PER STRUCTURE FOR EACH CASE. IF THE INDICATED STEP FAILS THE ASTM TEST, THE REMAINING STEPS IN THAT STRUCTURE SHALL ALSO BE TESTED. ALL STEPS NOT PASSING THE ASTM TEST SHALL BE REMOVED. ALL NEW STEPS SHALL BE TESTED PER ASTM C478. THE COST OF TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR S&D STRUCTURE.

**MISCELLANEOUS ITEMS PRECAST MANHOLES**

STANDARD DRAWING AA-S107

REVISED 7/8/12

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

NOTE: ALL PRE-CAST MANHOLE SECTIONS SHALL BE IN ACCORDANCE WITH ASTM C478.

**PRECAST MANHOLE BASE CHANNEL DETAIL**

STANDARD DRAWING AA-S117

REVISED 7/8/12

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

**TYPE "C" MANHOLE**

STANDARD DRAWING AA-S102

REVISED 12/8/13

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

MANHOLE BASE I.D. (INCHES)	STANDARD PIPE I.D. (INCHES)	RIGHT ANGLE (INCHES)
48	31	25
60	42	32
72	51	38
84	-	44
96	-	50

NOTE: 1. JOINTS AND CONNECTIONS SHALL BE PER 604.06.  
 2. PRECAST MANHOLES SHALL BE IN ACCORDANCE WITH ASTM C-478.  
 3. PRECAST WALLS SHALL HAVE A MIN. THICKNESS OF 5" AND BE SUFFICIENTLY REINFORCED TO PERMIT SHIPPING AND HANDLING WITHOUT DAMAGE.  
 4. FINISH MANHOLE CHANNEL ACCORDING TO STANDARD DRAWING AA-S117.  
 5. SEE TABLE FOR MANHOLE BASE DIAMETER.  
 6. MANHOLES MUST BE SET ON FOUNDATION OF CRUSHED #57 LIMESTONE, 6" MIN. THICKNESS.  
 7. ONLY SANITARY MANHOLES IN IMPERVIOUS AREAS SHALL REQUIRE A CONCRETE COLLAR, UNLESS OTHERWISE SPECIFIED. SANITARY MANHOLES LOCATED WITHIN POROUS AREAS SHALL REQUIRE A FLEXIBLE CHIMNEY SEAL.

**STANDARD DIMENSIONS FOR MANHOLE FRAME & COVER & COVER CASTING (SANITARY SEWERS)**

STANDARD DRAWING AA-S111

REVISED 7/8/12

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

NOTE: DO NOT PROVIDE COLUMBUS LOGO ON STANDARD LID. PROVIDE LID WITH "SANITARY" STAMPED ON IT.

**TYPICAL ASSEMBLY COMBINATIONS FOR PRECAST MANHOLES**

STANDARD DRAWING AA-S106

REVISED 7/8/12

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

**TYPE I BEDDING FOR FLEXIBLE SEWER PIPE 6" TO 60" DIAMETER**

STANDARD DRAWING AA-S149

REVISED 10/15/14

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

DIAMETER	MIN. WIDTH	MIN. LENGTH
6"	30"	12"
8"	30"	12"
10"	30"	12"
12"	30"	12"
15"	36"	12"
18"	40"	12"
21"	44"	12"
24"	48"	12"
27"	52"	12"
30"	56"	12"
36"	64"	12"
42"	72"	12"
48"	80"	24"
60"	96"	30"

NOTE: 1. SECTIONS SYMMETRICAL ABOUT  $\phi$ .  
 2. PIPE DIMENSIONS ON CHART ARE MINIMUM AND EXPRESSED IN INCHES.  
 3. FOR SANITARY SEWER CONSTRUCTION TRENCH DAMS ARE REQUIRED AS SPECIFIED UNDER 901.11.  
 4. PROVIDE EMBEDMENT IN ACCORDANCE WITH THE RECOMMENDATIONS OF ASTM D2321, 7.5.  
 5. ENCASEMENT TO BE CLASS "A" CONCRETE, ITEM 905.  
 6. THE PIPE SHALL BE SUPPORTED BY 12" CONCRETE BLOCKING WHEN CONCRETE ENCASEMENT IS REQUIRED.  
 7. BLOCKING SHALL HAVE THE LENGTH SHOWN IN THE CHART OR OF SUFFICIENT LENGTH SO THAT THE PIPE LOAD ON THE SUBGRADE SHALL NOT EXCEED 3,000 LBS/9". SEE CHART FOR MINIMUM BLOCKING LENGTHS.

**TYPE I BEDDING FOR RIGID SEWER PIPE 6" TO 108" DIAMETER**

STANDARD DRAWING AA-S151

REVISED 7/9/12

DESIGNER: *John H. Newson*

SEES MANAGER: *John H. Newson*

SMALL DIAMETERS b = 4'			MID DIAMETERS b = 6'			LARGE DIAMETERS b = 8'		
D	Wh	Wx	D	Wh	Wx	D	Wh	Wx
6"	24"	48"	30"	57"	67"	72"	118"	134"
8"	27"	48"	33"	61"	71"	78"	123"	141"
10"	30"	48"	36"	64"	74"	84"	130"	148"
12"	33"	48"	39"	67"	77"	90"	138"	155"
15"	36"	50"	48"	78"	88"	96"	143"	162"
18"	40"	53"	54"	87"	95"	102"	151"	169"
21"	44"	57"	60"	96"	102"	108"	158"	176"
24"	48"	60"	66"	102"	112"	-	-	-
27"	52"	64"	-	-	-	-	-	-

NOTE: 1. SECTIONS SYMMETRICAL ABOUT  $\phi$ .  
 2. PIPE DIMENSIONS ON CHART ARE EXPRESSED IN INCHES.  
 3. FOR SANITARY SEWER CONSTRUCTION TRENCH DAMS ARE REQUIRED AS SPECIFIED UNDER 901.11.  
 4. BACKING AND ENCASEMENT TO BE CLASS "A" CONCRETE, ITEM 905.  
 5. PAYMENT FOR CONCRETE BACKING AND ENCASEMENT SHALL BE BASED ON MINIMUM TRENCH WIDTH (Wh).

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SEAL

DATE	#	REVISIONS

PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22x34) NONE
DRAWN: RLR	CHECKED: BIV
DATE: 09/26/2016	SCALE: (11x17) NONE

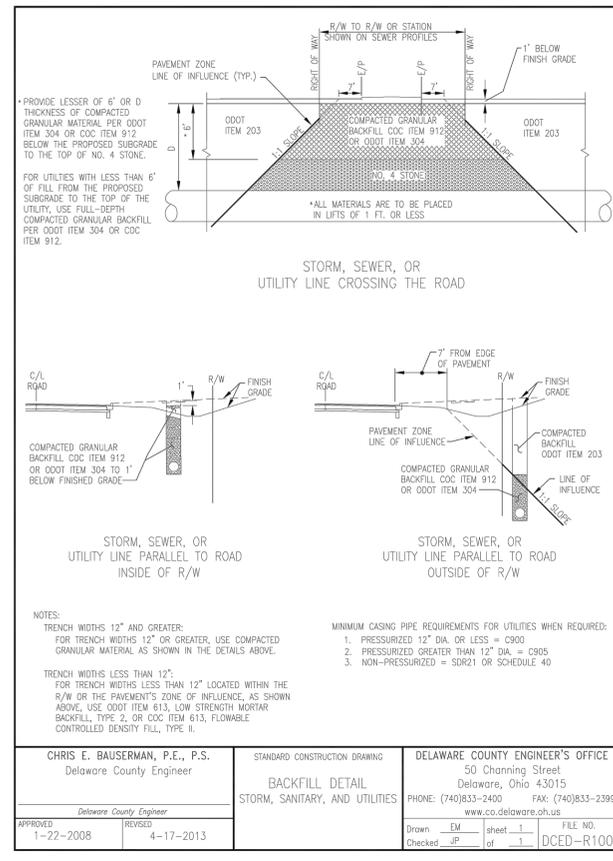
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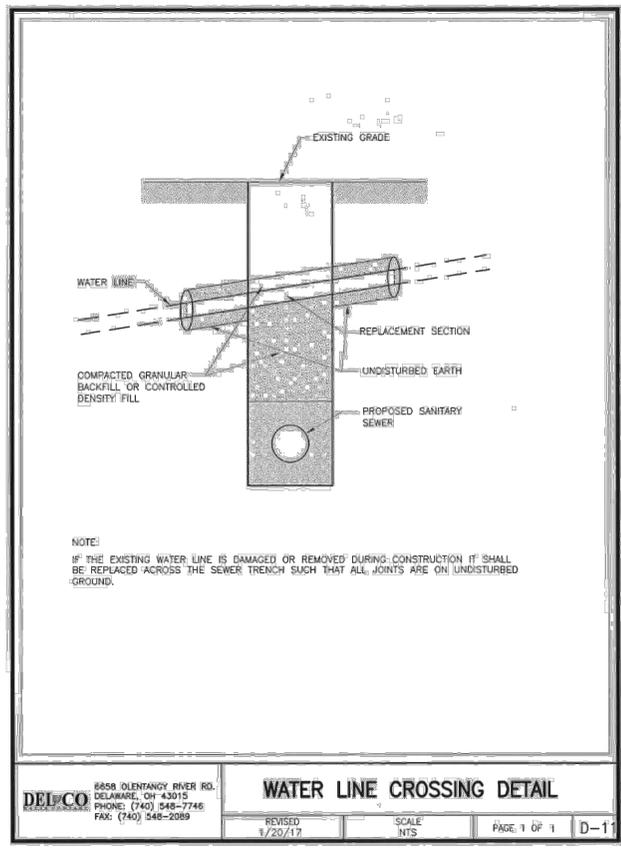
PROJECT TITLE: VILLAGE OF SUNBURY  
 LITTLE WALNUT CREEK INTERCEPTOR  
 SEWER  
 PHASE I

SHEET TITLE: CITY OF COLUMBUS  
 STANDARD DRAWINGS

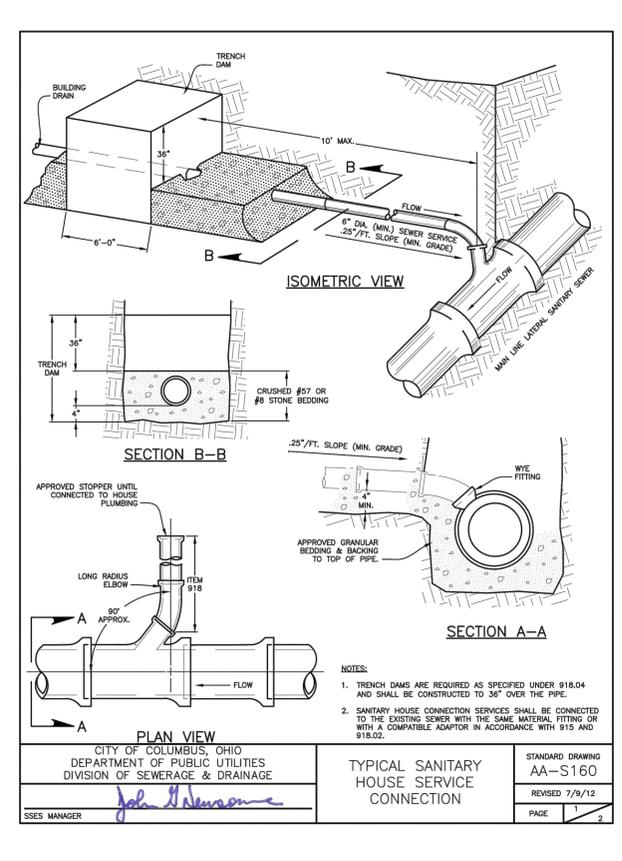
DWG. NO. G-5  
 SHEET 5 OF 23



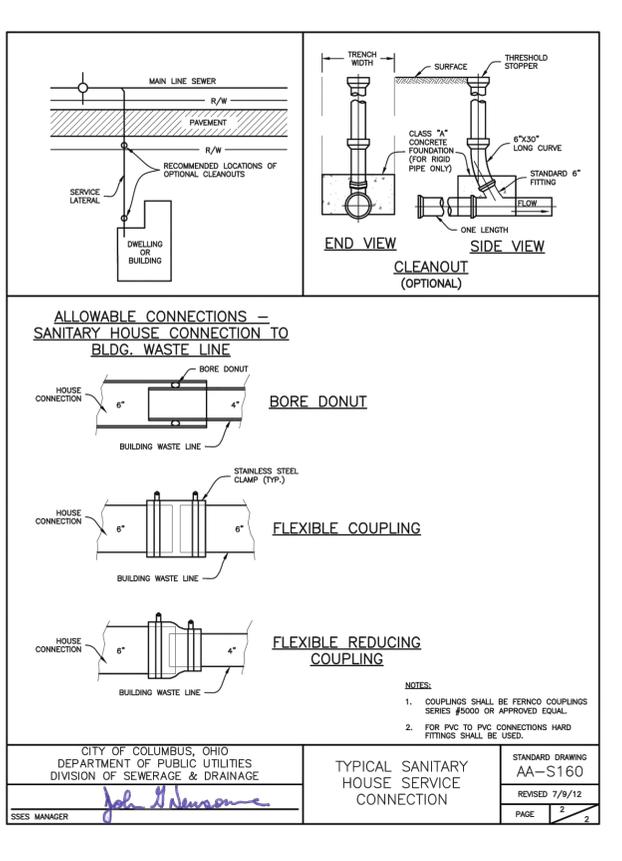
CHRIS E. BAUSERMAN, P.E., P.S. Delaware County Engineer APPROVED 1-22-2008 REVISIONS 4-17-2013	STANDARD CONSTRUCTION DRAWING <b>BACKFILL DETAIL</b> STORM, SANITARY, AND UTILITIES	DELAWARE COUNTY ENGINEER'S OFFICE 50 Channing Street Delaware, Ohio 43015 PHONE: (740)833-2400 www.co.delaware.oh.us Drawn EM sheet 1 FILE NO. DCED-R100 Checked JP of 1
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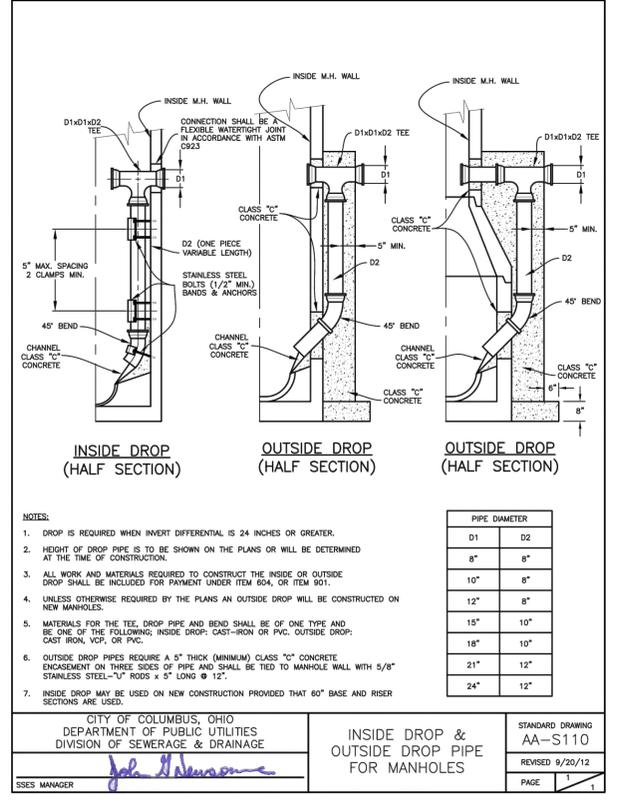
DELCO 6858 OLENTANGY RIVER RD. DELAWARE, OH 43015 PHONE: (740) 548-7746 FAX: (740) 548-2089	<b>WATER LINE CROSSING DETAIL</b> REVISED 8/20/17 SCALE NTS PAGE 1 OF 1 D-1
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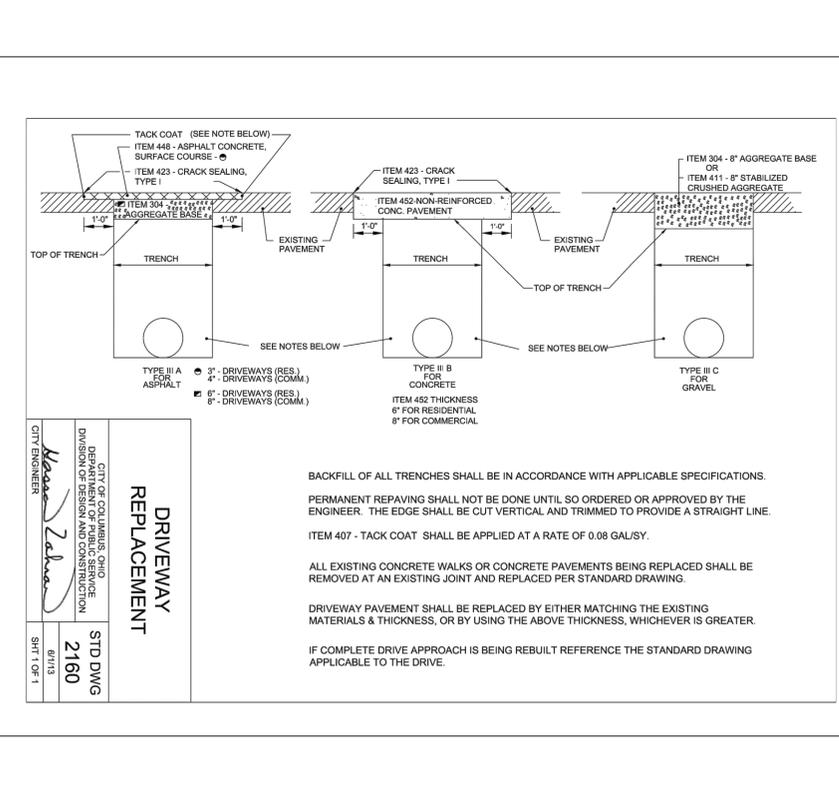
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE & DRAINAGE SSES MANAGER <i>John H. Newsum</i>	<b>STANDARD DRAWING AA-S160</b> REVISED 7/9/12 PAGE 1 2
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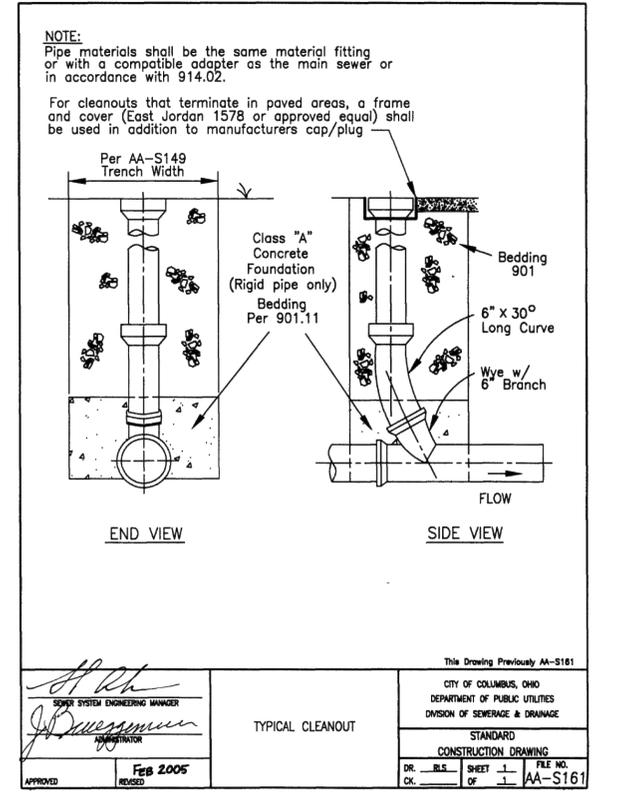
CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE & DRAINAGE SSES MANAGER <i>John H. Newsum</i>	<b>TYPICAL SANITARY HOUSE SERVICE CONNECTION</b> STANDARD DRAWING AA-S160 REVISED 7/9/12 PAGE 2 2
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CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE & DRAINAGE SSES MANAGER <i>John H. Newsum</i>	<b>INSIDE DROP &amp; OUTSIDE DROP PIPE FOR MANHOLES</b> STANDARD DRAWING AA-S110 REVISED 9/20/12 PAGE 1 1
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CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE & DRAINAGE CIVIL ENGINEER <i>Heaven Zahara</i>	<b>STANDARD DRAWING 2160</b> REVISED 9/20/12 PAGE 1 1
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CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE & DRAINAGE SSES SYSTEM ENGINEERING MANAGER <i>John H. Newsum</i>	<b>TYPICAL CLEANOUT</b> STANDARD CONSTRUCTION DRAWING REVISED FEB 2005 APPROVED	This Drawing Previously AA-S161 CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE & DRAINAGE STANDARD CONSTRUCTION DRAWING DR. BLS SHEET 1 OF 1 FILE NO. AA-S161 CK. OF 1
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PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22x34) NONE	ms consultants, inc. engineers • architects • planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: CITY OF COLUMBUS STANDARD DRAWINGS	DWG. NO. G-6
DRAWN: RLR	CHECKED: BIV		DATE: 09/26/2016	SCALE: (11x17) NONE	SHEET 6 OF 23



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#	DATE	#	REVISIONS	DATE

PROJECT NUMBER:  
 62-10550-A6-AA-02-0304  
 SCALE: (22x34)  
 1" = 1000'  
 SCALE: (11x17)  
 1" = 2000'

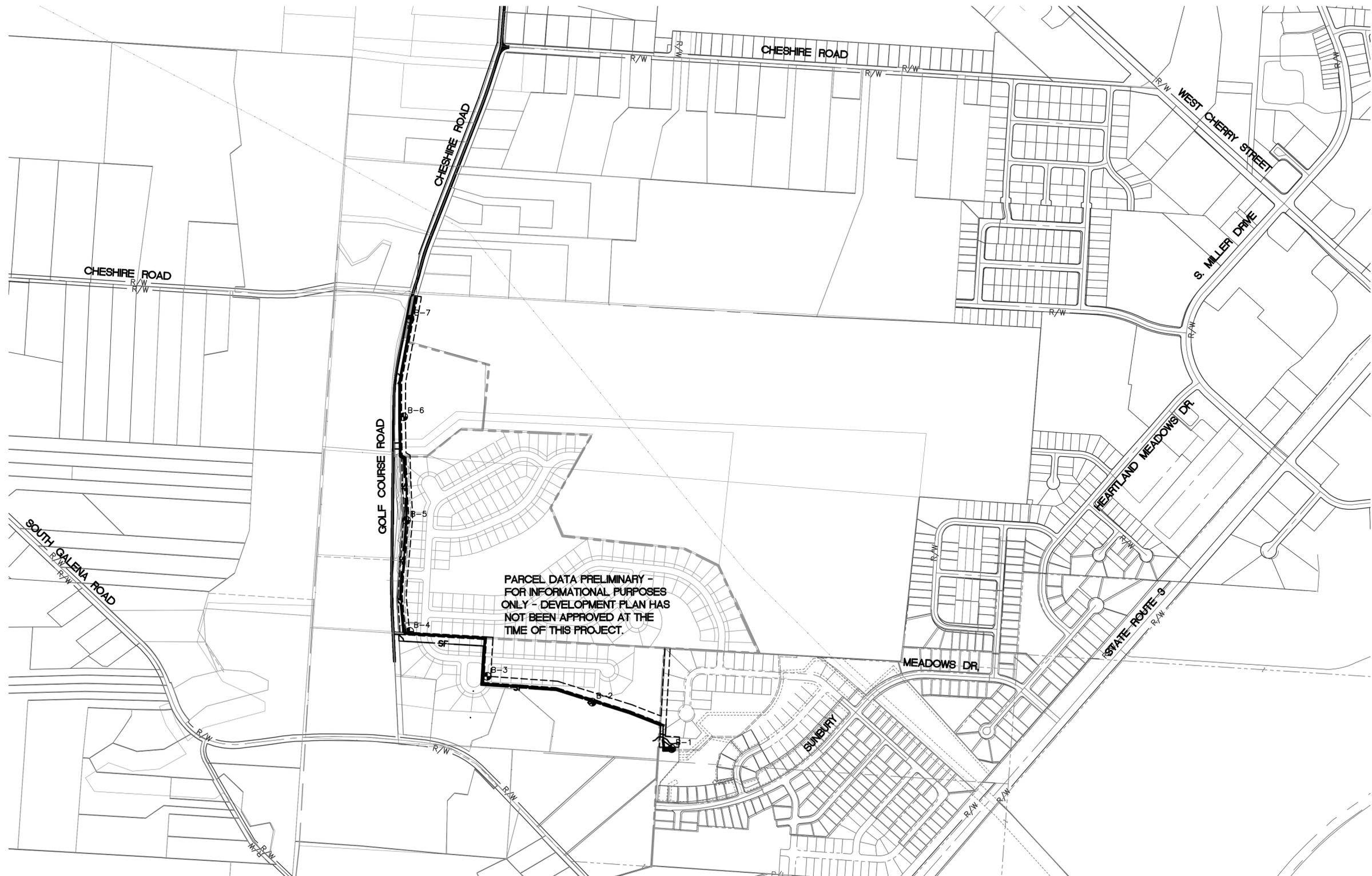
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 COLUMBUS, OHIO 43229-1547  
 (614)-898-7100 Fax (614)-898-7570  
 www.msconsultants.com

PROJECT TITLE:  
 VILLAGE OF SUNBURY  
 LITTLE WALNUT CREEK INTERCEPTOR  
 SEWER  
 PHASE I

SHEET TITLE:  
 TRIBUTARY MAP

DWG. NO. G-6  
 SHEET 7 OF 23

SEAL



PARCEL DATA PRELIMINARY -  
FOR INFORMATIONAL PURPOSES  
ONLY - DEVELOPMENT PLAN HAS  
NOT BEEN APPROVED AT THE  
TIME OF THIS PROJECT.

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#	DATE	#	REVISIONS	DATE

PROJECT NUMBER: 62-10550-A6-AA-02-0304				SCALE: (22x34) 1" = 1000'
DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11x17) 1" = 2000'	



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PROJECT TITLE:  
VILLAGE OF SUNBURY  
LITTLE WALNUT CREEK INTERCEPTOR  
SEWER  
PHASE I

SHEET TITLE:  
SOIL BORINGS PLAN

DWG. NO. C-1  
SHEET 8 OF 23

SEAL

VERTICAL DATUM: NAVD 88

SOURCE BENCHMARK: MIVR. THE VERTICAL CONTROL WAS ESTABLISHED FROM A VRS/GPS SURVEY UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION CORS NETWORK. THE VERTICAL COMPONENT OF THE VRS NETWORK IS BASED ON NAVD88 AS DETERMINED BY THE NGS (NATIONAL GEODETIC SURVEY).

ELEVATION = 1050.885'

HORIZONTAL CONTROL IS BASED ON A GPS/GNSS POSITIONING SURVEY UTILIZING THE OHIO DEPARTMENT OF TRANSPORTATION VRS RTK NETWORK. THE COORDINATES ARE BASED ON THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE AND THE NORTH AMERICAN DATUM OF 1983(2011).

CNPT #112: 5/8" REBAR SET WITH A RED 'MS CONS INC. TRAVERSE' IDENTIFYING CAP (LOCATED AT THE NORTHWESTERLY CORNER OF THE INTERSECTION OF CHESHIRE ROAD AND GOLF COURSE ROAD, +/- 17.7' NORTH OF E/P AND +/- 11.2' SSE OF TELEPHONE POLE)

NORTHING 211326.5700  
EASTING 1859071.3500  
ELEVATION 910.915

CNPT #113: 5/8" REBAR SET WITH A RED 'MS CONS INC. TRAVERSE' IDENTIFYING CAP (LOCATED ON THE SOUTH SIDE OF CHESHIRE ROAD, +/- 767' WEST OF CNPT #112, +/- 3.5' S OF E/P AND +/- 28' WEST OF ABUTMENT FOR BRIDGE OVER ALUM CREEK)

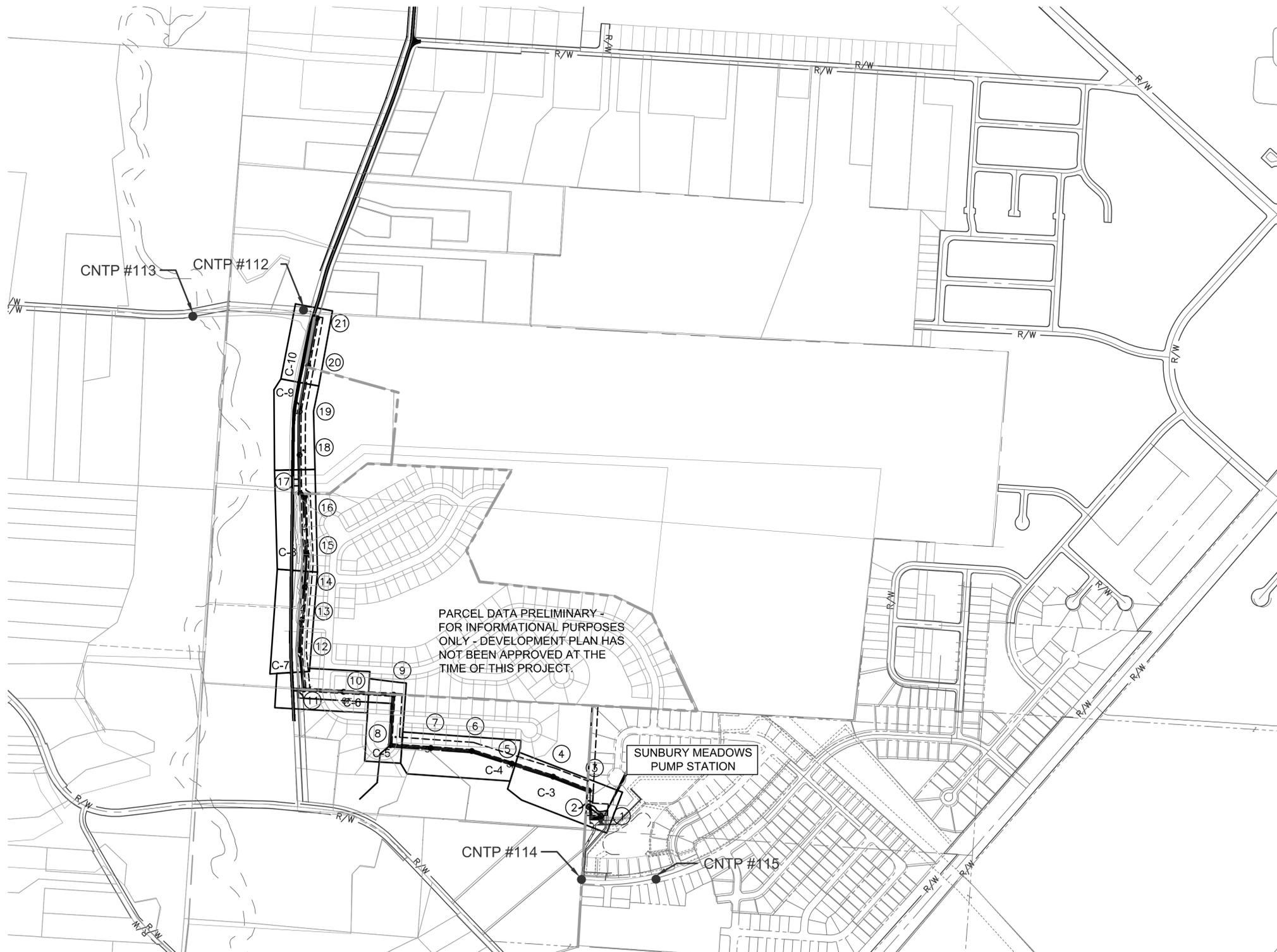
NORTHING 211283.9590  
EASTING 1858305.4330  
ELEVATION 909.413

CNPT #114: 5/8" REBAR SET WITH A RED 'MS CONS INC. TRAVERSE' IDENTIFYING CAP (LOCATED AT THE CENTERLINE TERMINUS OF SUNBURY MEADOWS DRIVE)

NORTHING 207394.4980  
EASTING 1860995.7840  
ELEVATION 929.028

CNPT #115: 5/8" REBAR SET WITH A RED 'MS CONS INC. TRAVERSE' IDENTIFYING CAP (LOCATED ON THE SOUTHERLY SIDE OF SUNBURY MEADOWS DRIVE, +/- 516' EAST OF CNPT #114)

NORTHING 207396.7280  
EASTING 1861512.0860  
ELEVATION 933.112



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DATE	#	REVISIONS	DATE

PROJECT NUMBER: 62-10550-AA-02-0304				SCALE: (22x34) 1" = 400'	
DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016		SCALE: (11x17) 1" = 800'	

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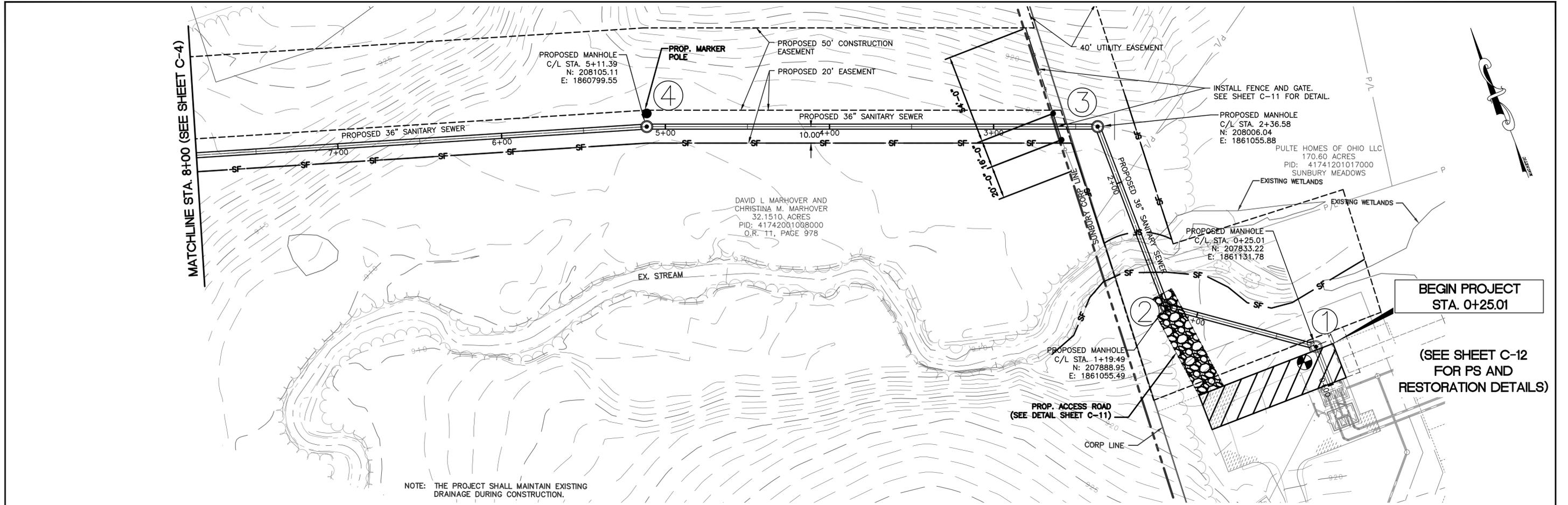
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www.msconsultants.com

PROJECT TITLE: VILLAGE OF SUNBURY  
LITTLE WALNUT CREEK INTERCEPTOR  
SEWER  
PHASE I

SHEET TITLE: OVERALL PLAN  
AND  
SHEET INDEX

DWG. NO. C-2  
SHEET 9 OF 23

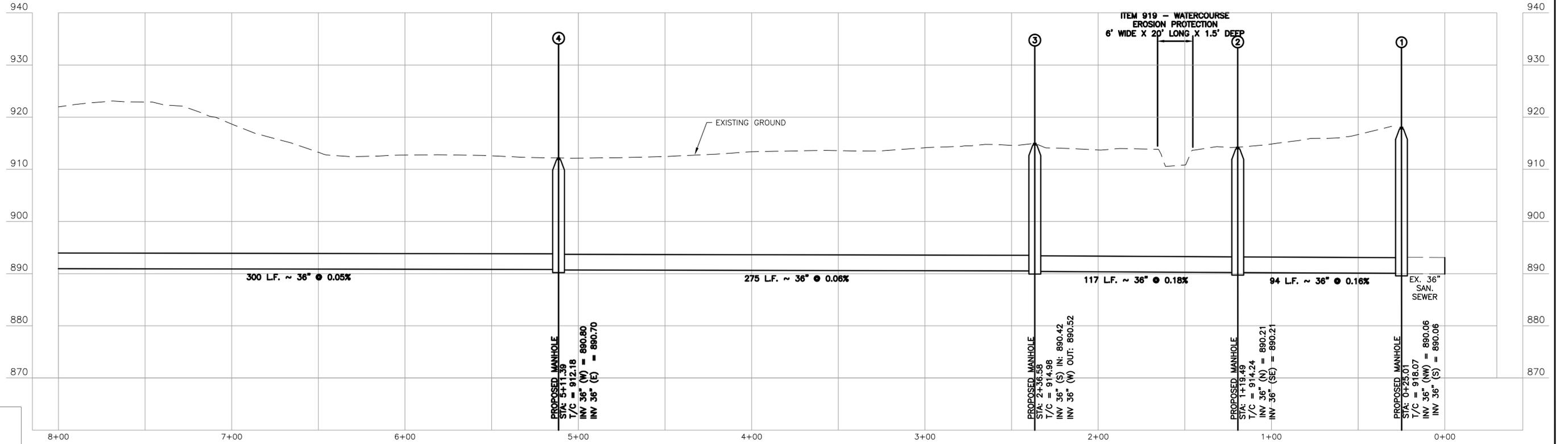
SEAL



NOTE: THE PROJECT SHALL MAINTAIN EXISTING DRAINAGE DURING CONSTRUCTION.

BEGIN PROJECT  
STA. 0+25.01

(SEE SHEET C-12  
FOR PS AND  
RESTORATION DETAILS)



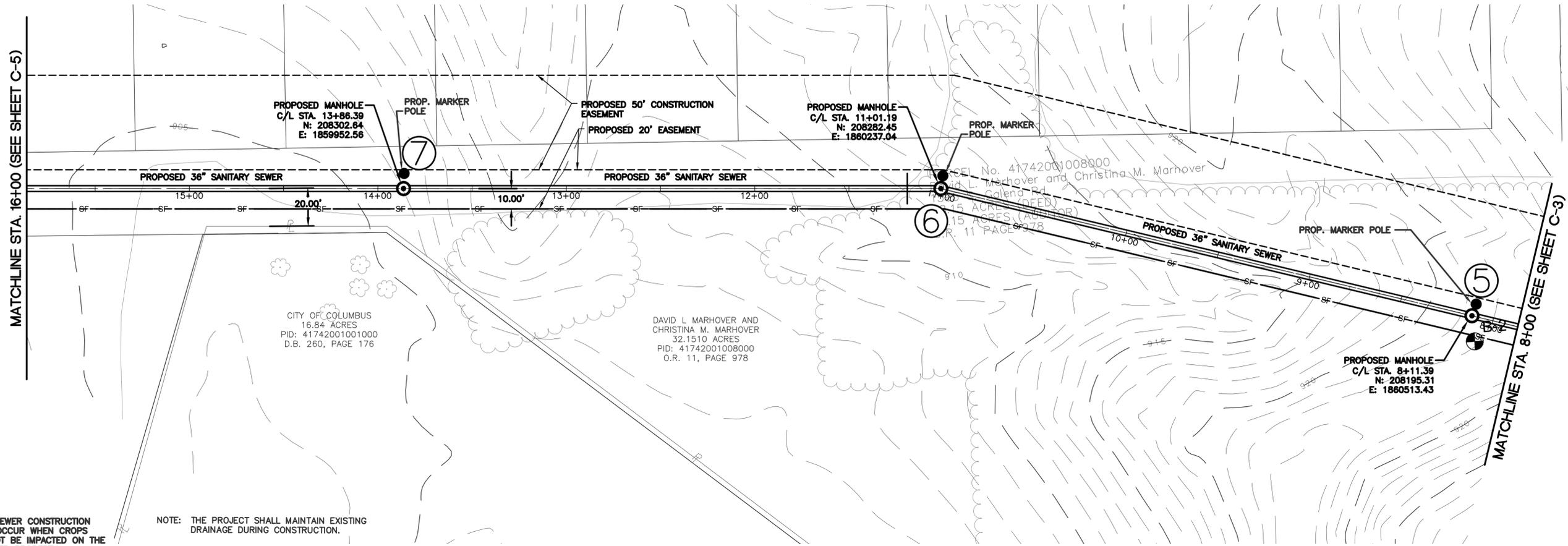
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SEAL

PROJECT NUMBER: 62-10550-AA-02-0304		SCALE: (22/34) 1" = 30' HORIZ. 1" = 10' VERT.		ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I		SHEET TITLE: 36" SANITARY SEWER PLAN AND PROFILE STA. 0+00 TO STA. 8+00		DWG. NO. C-3	
DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11/17) 1" = 60' HORIZ. 1" = 20' VERT.						SHEET 10 OF 23	

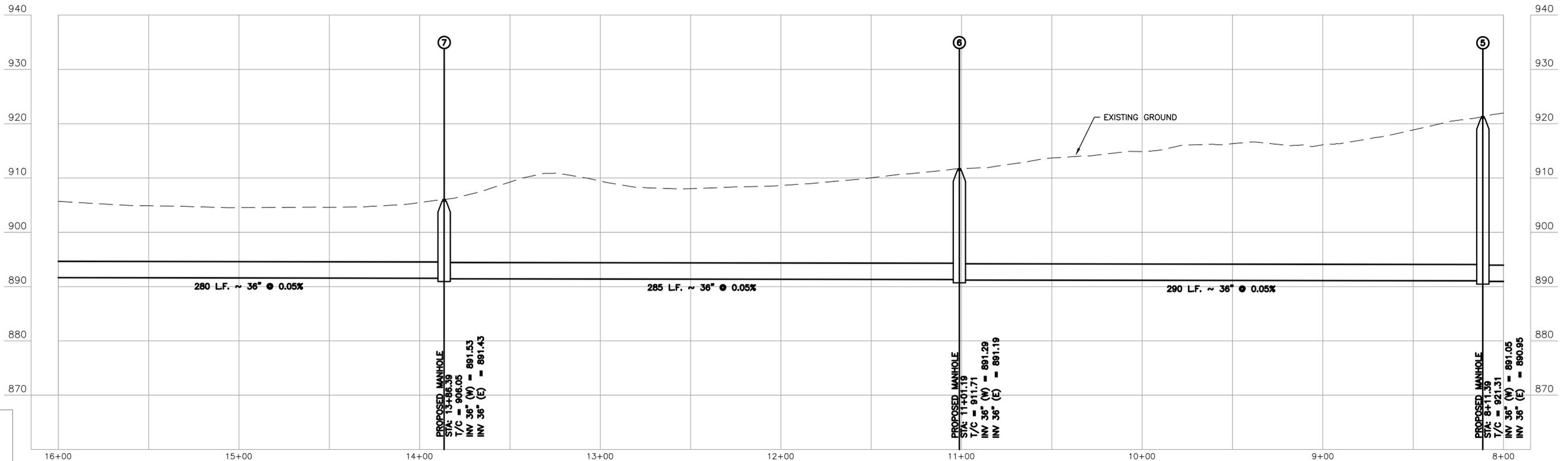
MATCHLINE STA. 16+00 (SEE SHEET C-5)

MATCHLINE STA. 8+00 (SEE SHEET C-3)



NOTE: SEWER CONSTRUCTION SHALL OCCUR WHEN CROPS WILL NOT BE IMPACTED ON THE MARHOVER PROPERTY.

NOTE: THE PROJECT SHALL MAINTAIN EXISTING DRAINAGE DURING CONSTRUCTION.



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SEAL

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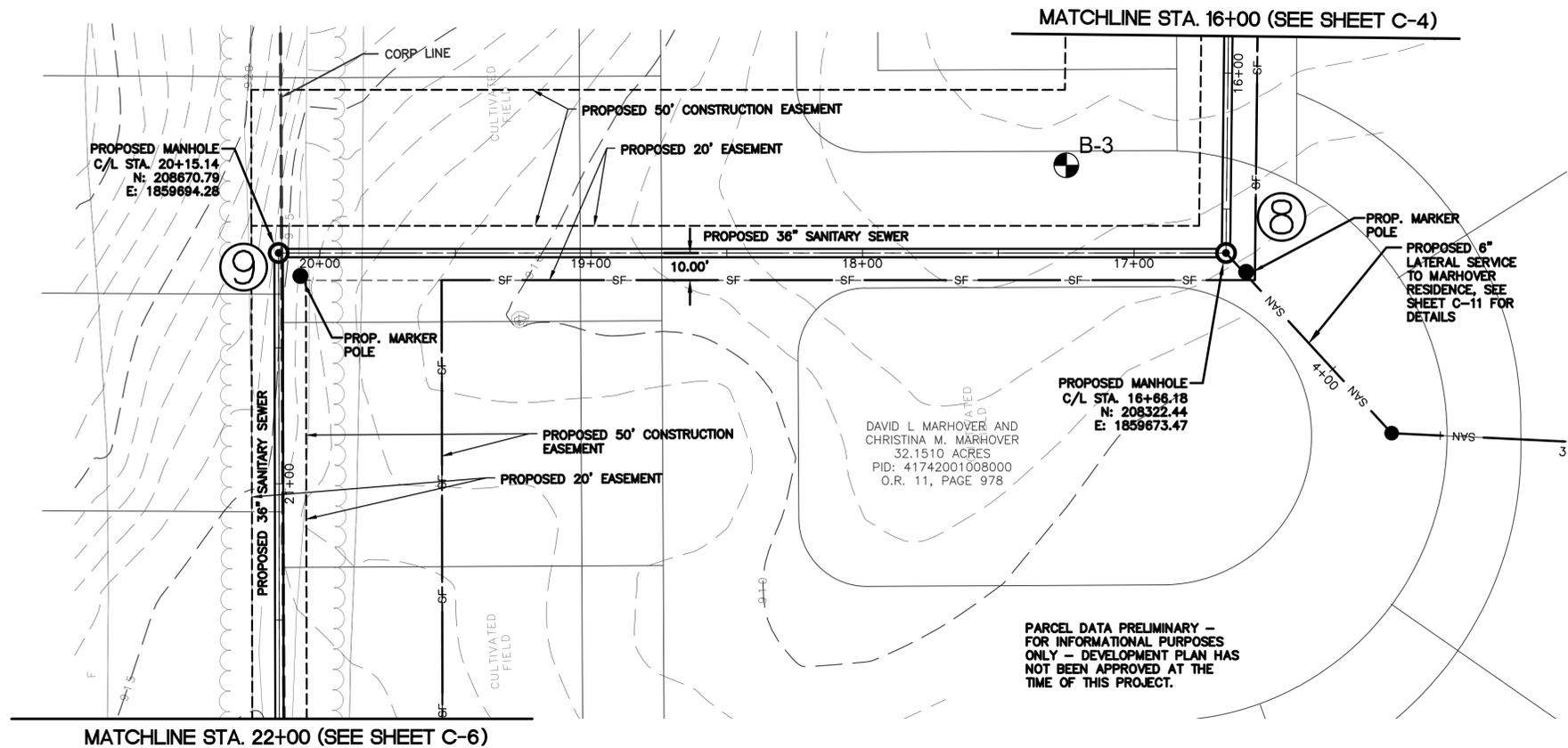
PROJECT NUMBER: 62-10550-A6-AA-02-0304				SCALE: (22/34) 1" = 30' HORIZ. 1" = 10' VERT.	
DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11/17) 1" = 60' HORIZ. 1" = 20' VERT.		


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 engineers \* architects \* planners  
 2221 SCHROCK ROAD  
 COLUMBUS, OHIO 43229-1547  
 (614)-898-7100 Fax (614)-898-7570  
 www.msconsultants.com

PROJECT TITLE: VILLAGE OF SUNBURY  
 LITTLE WALNUT CREEK INTERCEPTOR  
 SEWER  
 PHASE I

SHEET TITLE: 36" SANITARY SEWER  
 PLAN AND PROFILE  
 STA. 8+00 TO STA. 16+00

DWG. NO. C-4  
 SHEET 11 OF 23

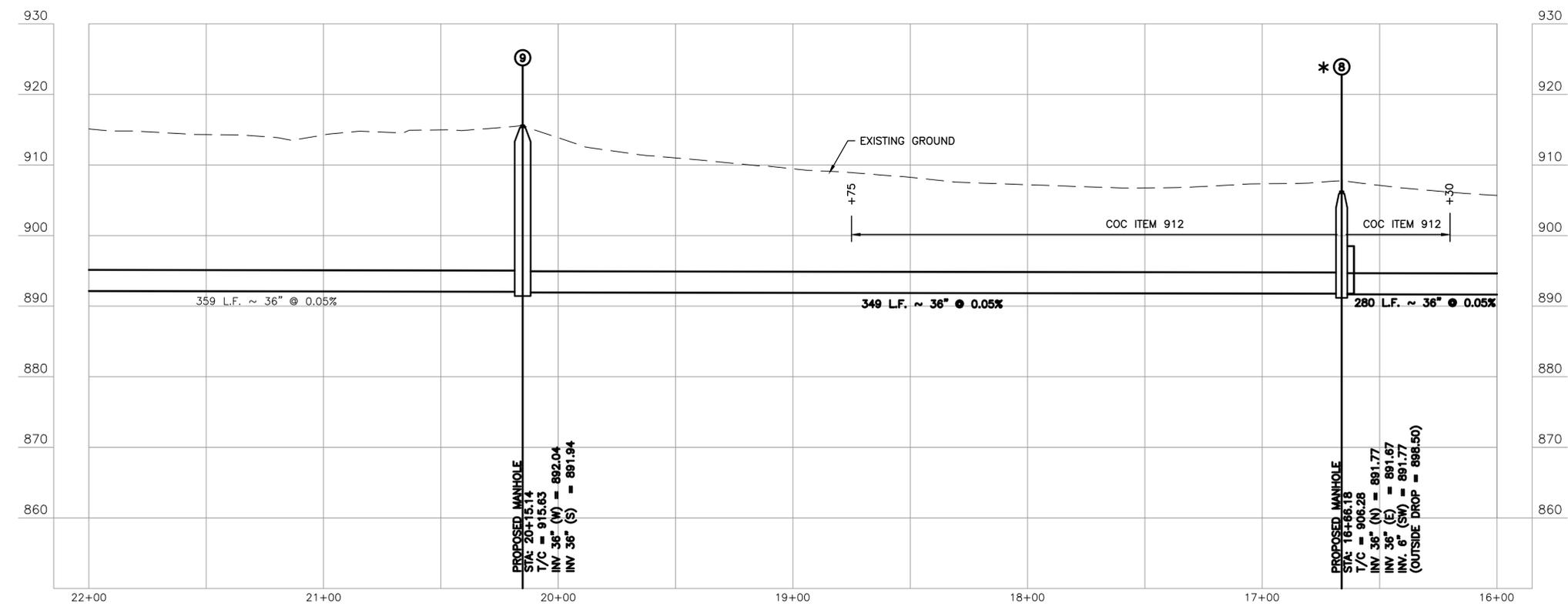


NOTE: SEWER CONSTRUCTION SHALL OCCUR WHEN CROPS WILL NOT BE IMPACTED ON THE MARHOVER PROPERTY.

NOTE: ALL TREES AND STUMPS WITHIN PERMANENT EASEMENT TO BE REMOVED FROM MH9 TO MH11. CONTRACTOR SHALL STAKE PROPERTY LINE. ANY TREES WHOSE TRUNKS STRADDLE THE PROPERTY LINE SHALL NOT BE REMOVED UNTIL SO DIRECTED BY THE VILLAGE.

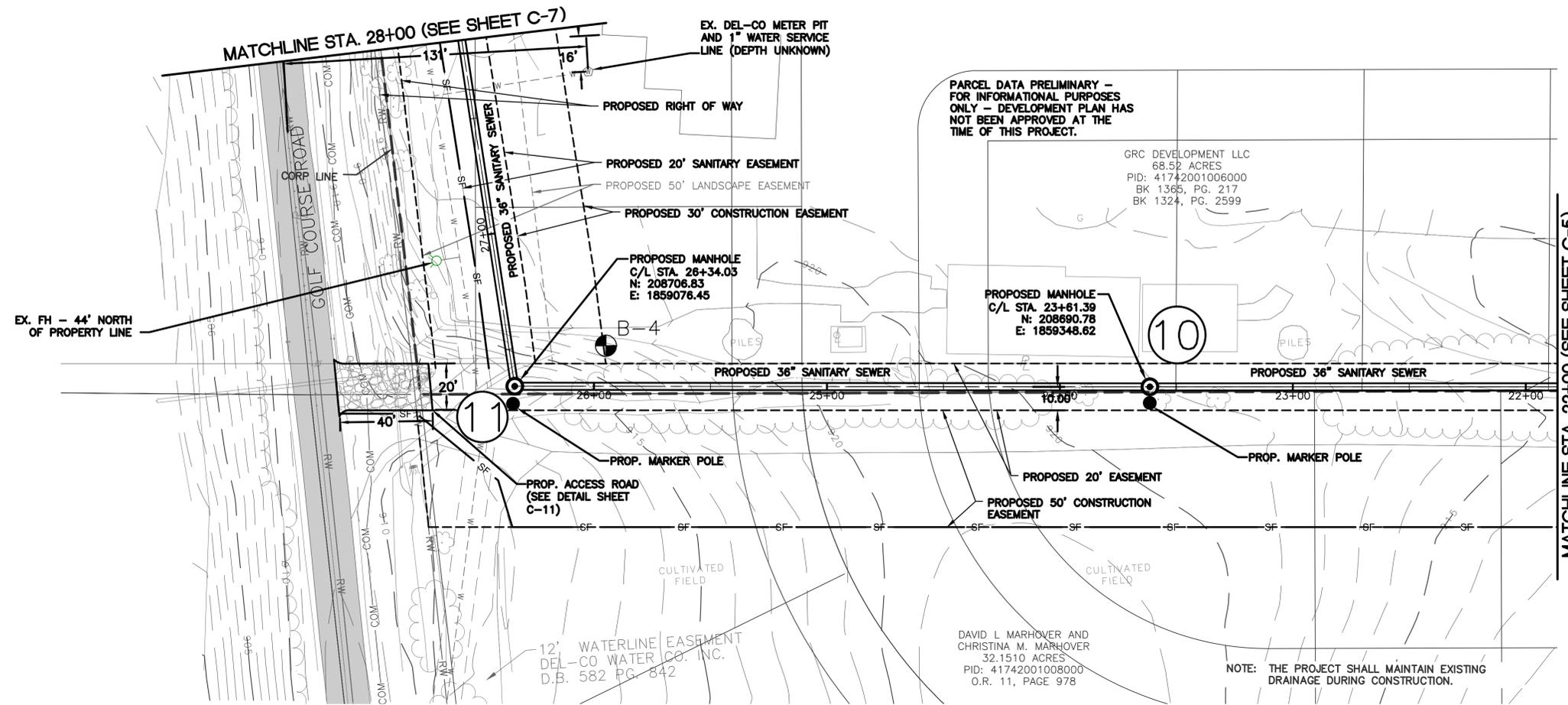
\* TOP OF RIM FOR MANHOLE 8 IS TO BE BURIED APPROXIMATELY 18-INCHES BELOW FINISHED GRADE. MANHOLE COVER IS TO BE SEALED WITH A WATER TIGHT GASKET AND MARKED WITH AN ABOVE GROUND MARKER. SEE SHEET C-11 FOR SANITARY SERVICE MARKER DETAIL.

NOTE: THE PROJECT SHALL MAINTAIN EXISTING DRAINAGE DURING CONSTRUCTION.

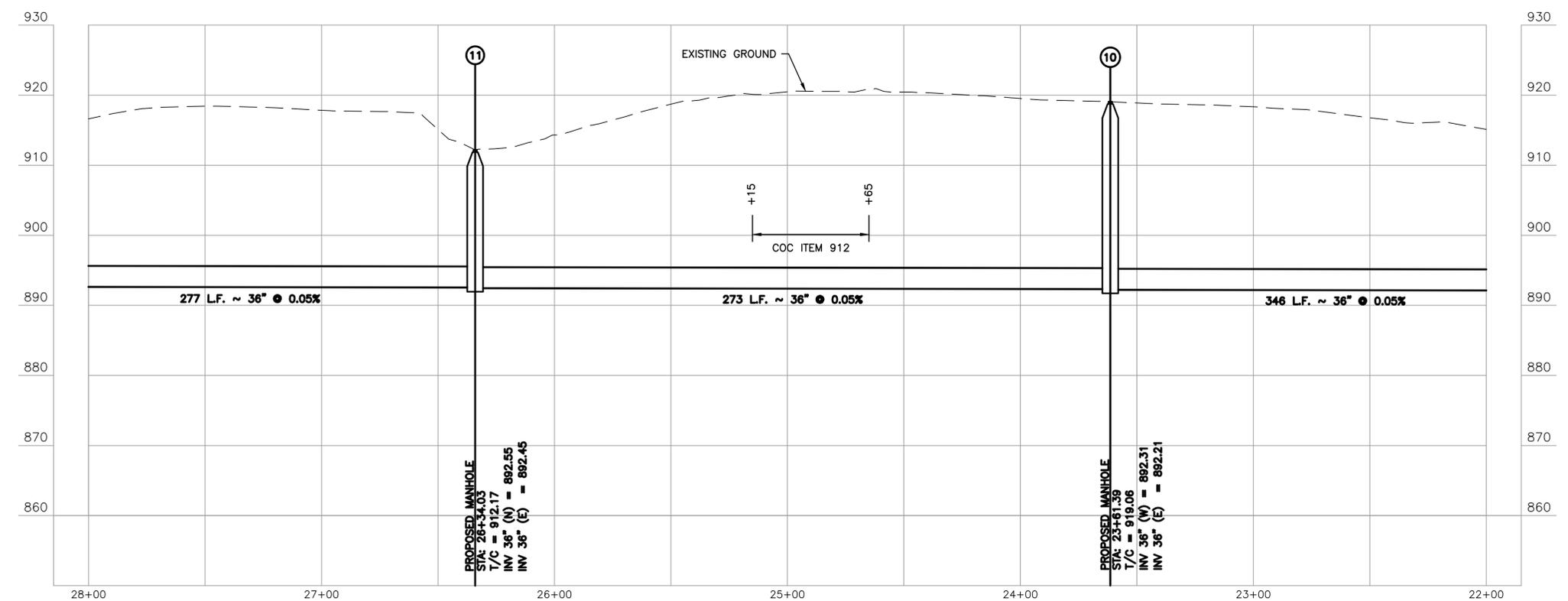


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SEAL		DATE #		REVISIONS		DATE		PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22/34) 1" = 30' HORIZ. 1" = 10' VERT.	 ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.mscconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: 36" SANITARY SEWER PLAN AND PROFILE STA. 16+00 TO STA. 22+00	DWG. NO. C-5
DATE	#	REVISIONS	DATE	DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11x17) 1" = 60' HORIZ. 1" = 20' VERT.	SHEET 12 OF 23					

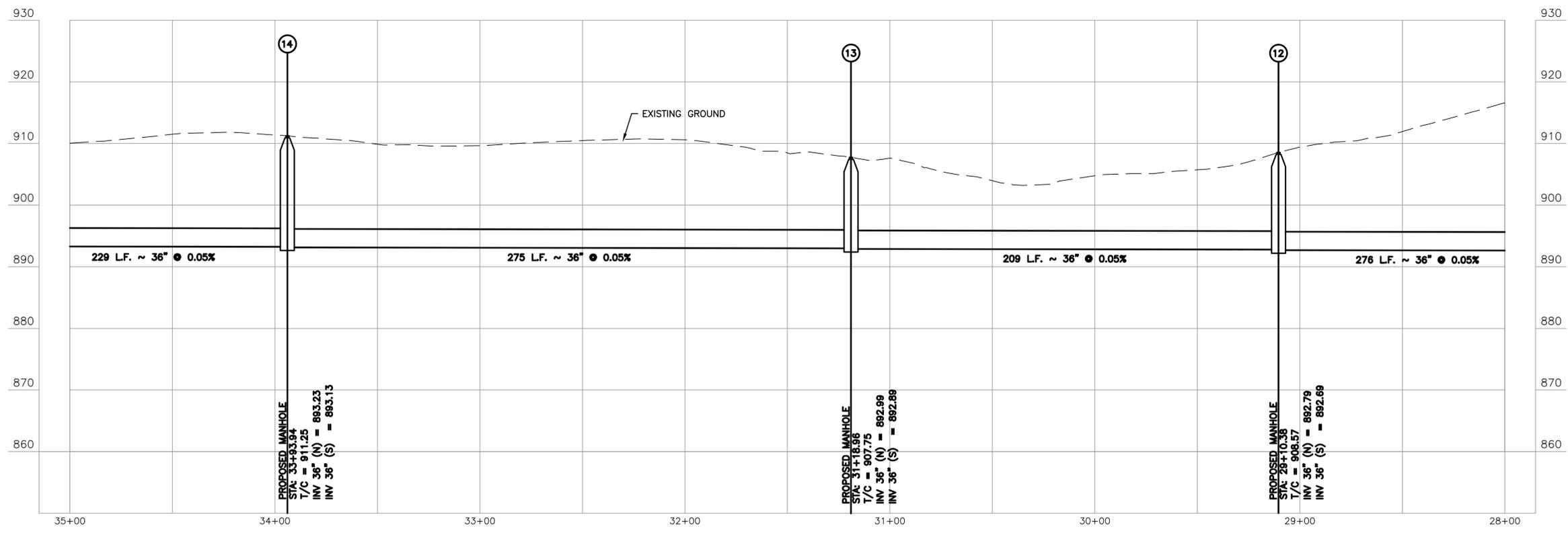
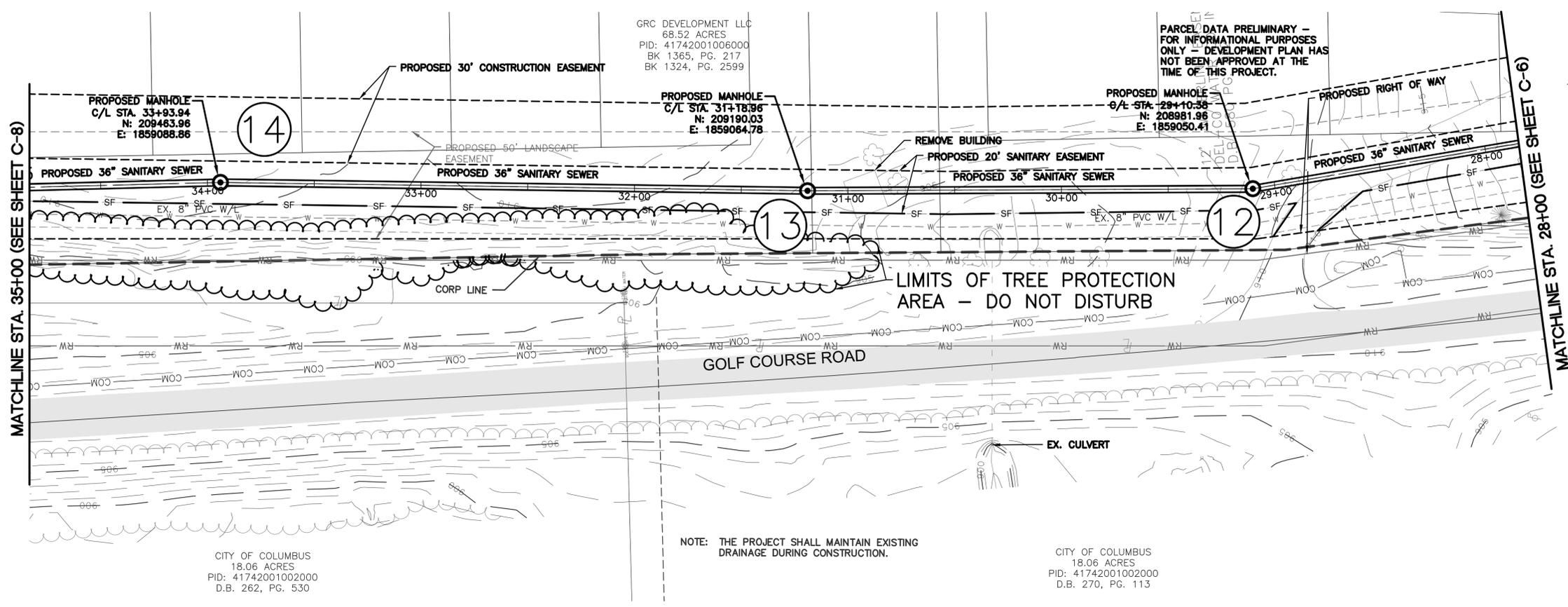


NOTE: ALL TREES AND STUMPS WITHIN PERMANENT EASEMENT TO BE REMOVED FROM MH9 TO MH11. CONTRACTOR SHALL STAKE PROPERTY LINE. ANY TREES WHOSE TRUNKS STRADDLE THE PROPERTY LINE SHALL NOT BE REMOVED UNTIL SO DIRECTED BY THE VILLAGE.



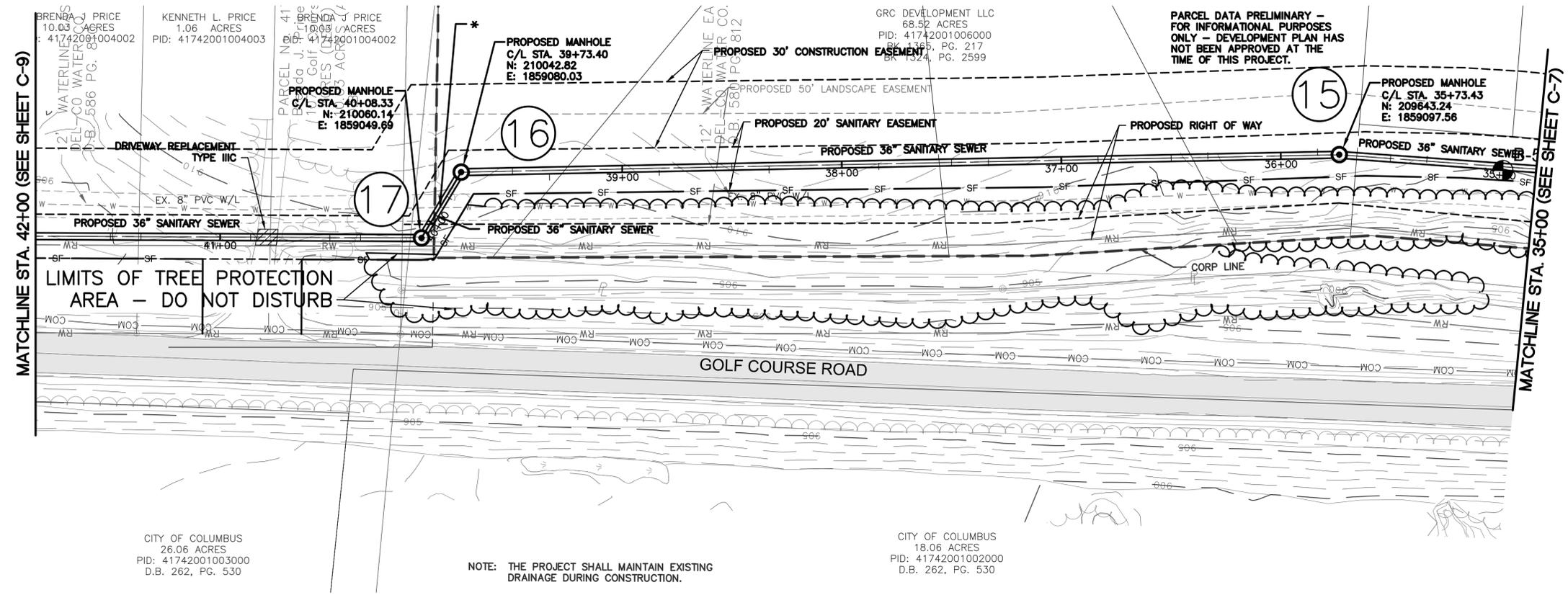
SEAL	#	DATE	#	REVISIONS	DATE	PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22/34) 1" = 30' HORIZ. 1" = 10' VERT.	 ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: 36" SANITARY SEWER PLAN AND PROFILE STA. 22+00 TO STA. 28+00	DWG. NO. C-6
						DRAWN: JCD	CHECKED: BIV		DATE: 09/26/2016	SCALE: (11/17) 1" = 60' HORIZ. 1" = 20' VERT.	SHEET 13 OF 23

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PROJECT NUMBER: 62-10550-A6-AA-02-0304		SCALE: (22/34) 1" = 30' HORIZ. 1" = 10' VERT.		 ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I		SHEET TITLE: 36" SANITARY SEWER PLAN AND PROFILE STA. 28+00 TO STA. 35+00		DWG. NO. C-7
DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11/17) 1" = 60' HORIZ. 1" = 20' VERT.						SHEET 14 OF 23

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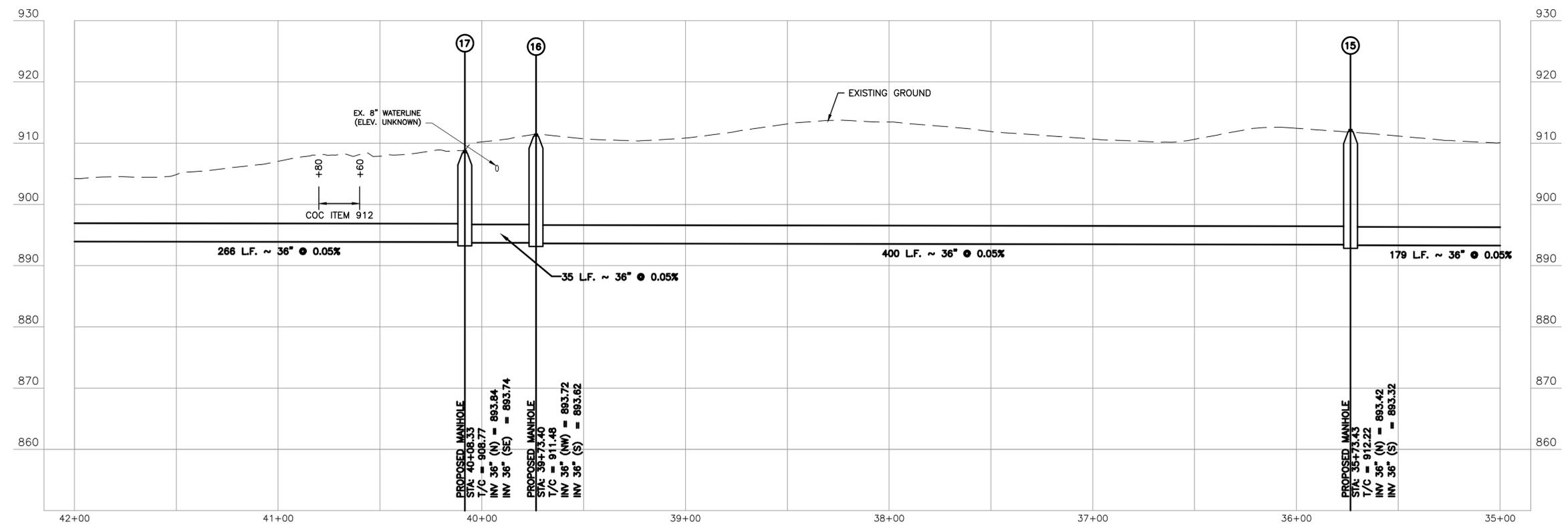


NOTE:  
 \* CONTRACTOR SHALL BRACE/SUPPORT THE EXISTING 8-INCH WATER MAIN AS DIRECTED BY THE DEL-CO INSPECTION DEPARTMENT DURING THE EXCAVATION/INSTALLATION OF THE PROPOSED SANITARY SEWER BETWEEN MANHOLES 16 AND 17. CONTACT RUSTY GRIFFITH AT 740-548-7746 EXT. 2403 FOR INSPECTION REQUIREMENTS. SEE SHEET G-6 FOR WATER LINE CROSSING DETAIL

CITY OF COLUMBUS  
 26.06 ACRES  
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 D.B. 262, PG. 530

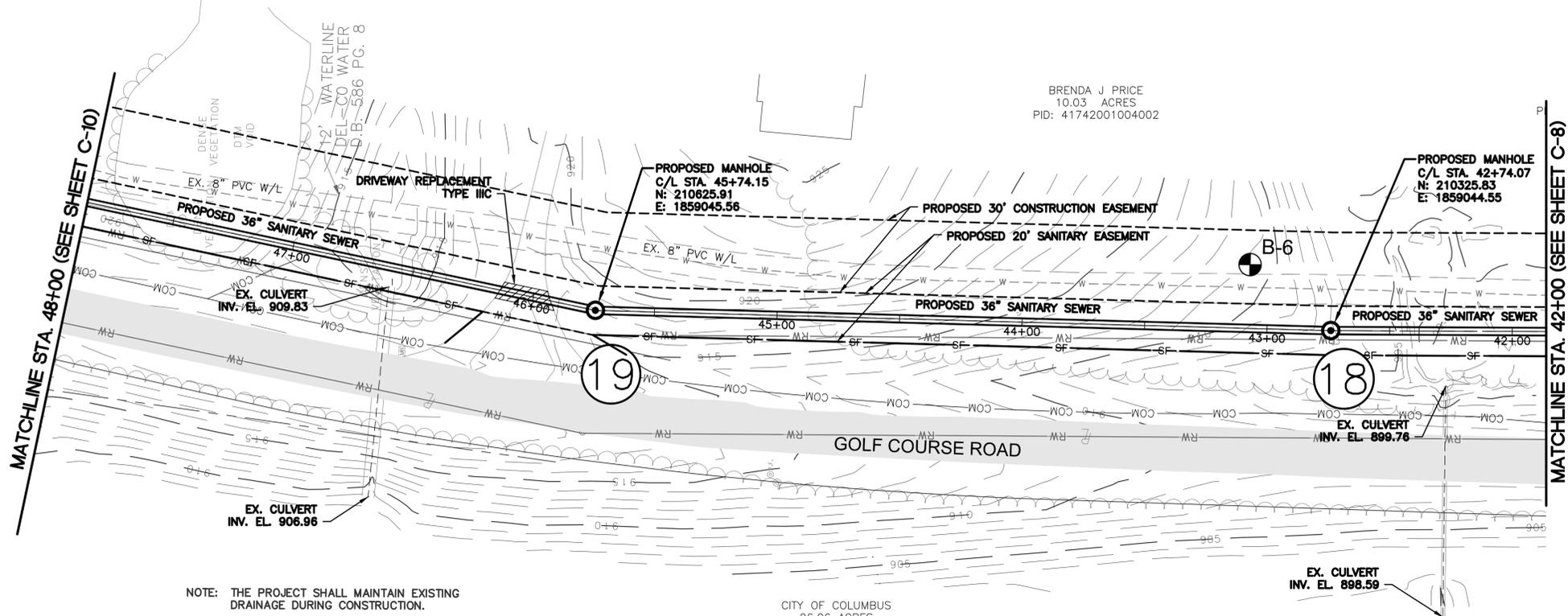
NOTE: THE PROJECT SHALL MAINTAIN EXISTING DRAINAGE DURING CONSTRUCTION.

CITY OF COLUMBUS  
 18.06 ACRES  
 PID: 41742001002000  
 D.B. 262, PG. 530



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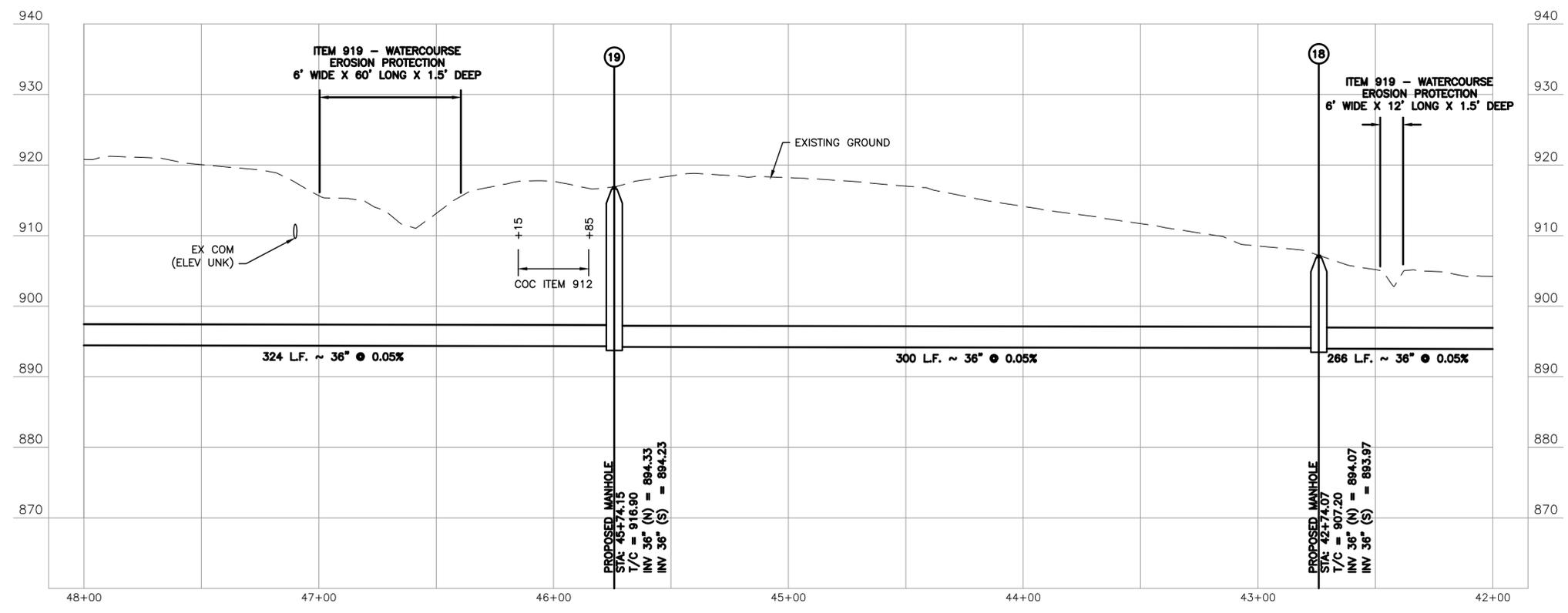
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DRAWN: JCD		CHECKED: BIV		DATE: 09/26/2016		SCALE: (11x17) 1" = 60' HORIZ. 1" = 20' VERT.		ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.msconsultants.com		SHEET 15 OF 23	
#	DATE	#	REVISIONS	DATE							



BRENDA J PRICE  
10.03 ACRES  
PID: 41742001004002

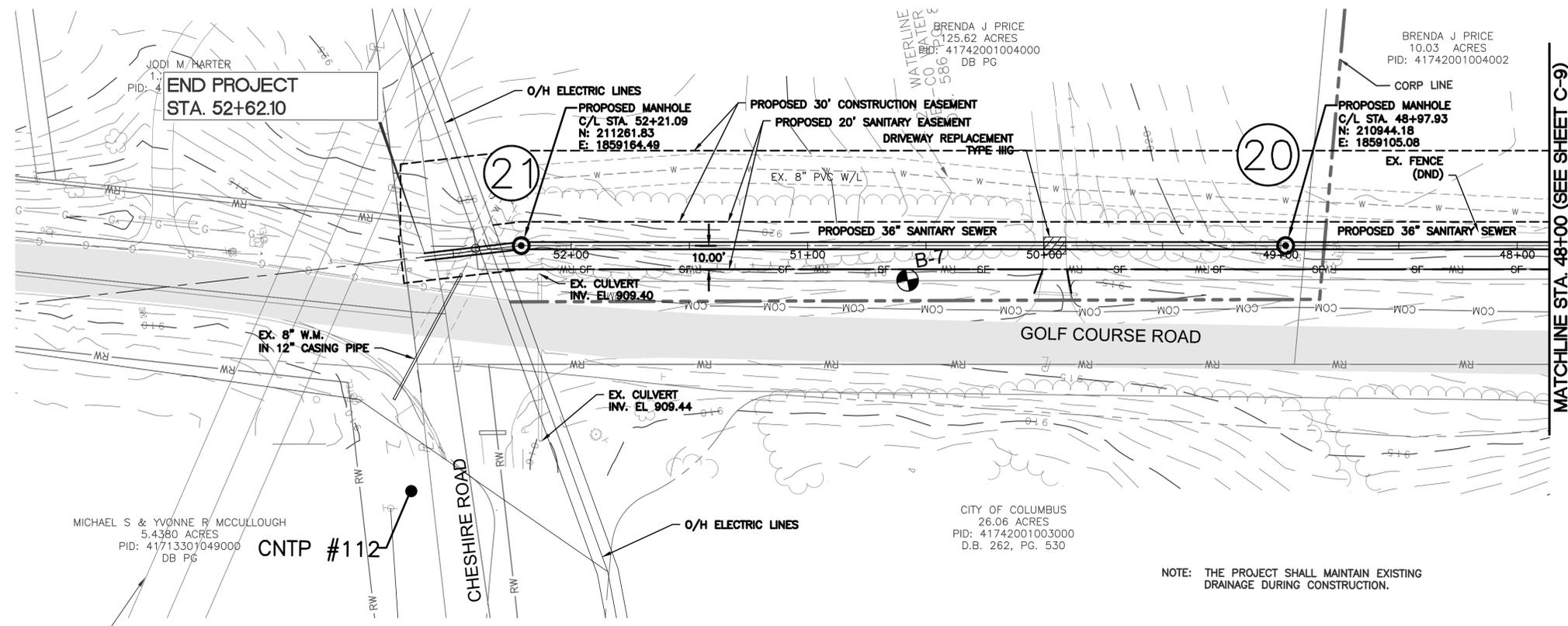
CITY OF COLUMBUS  
26.06 ACRES  
PID: 41742001003000  
D.B. 262, PG. 530

NOTE: THE PROJECT SHALL MAINTAIN EXISTING DRAINAGE DURING CONSTRUCTION.



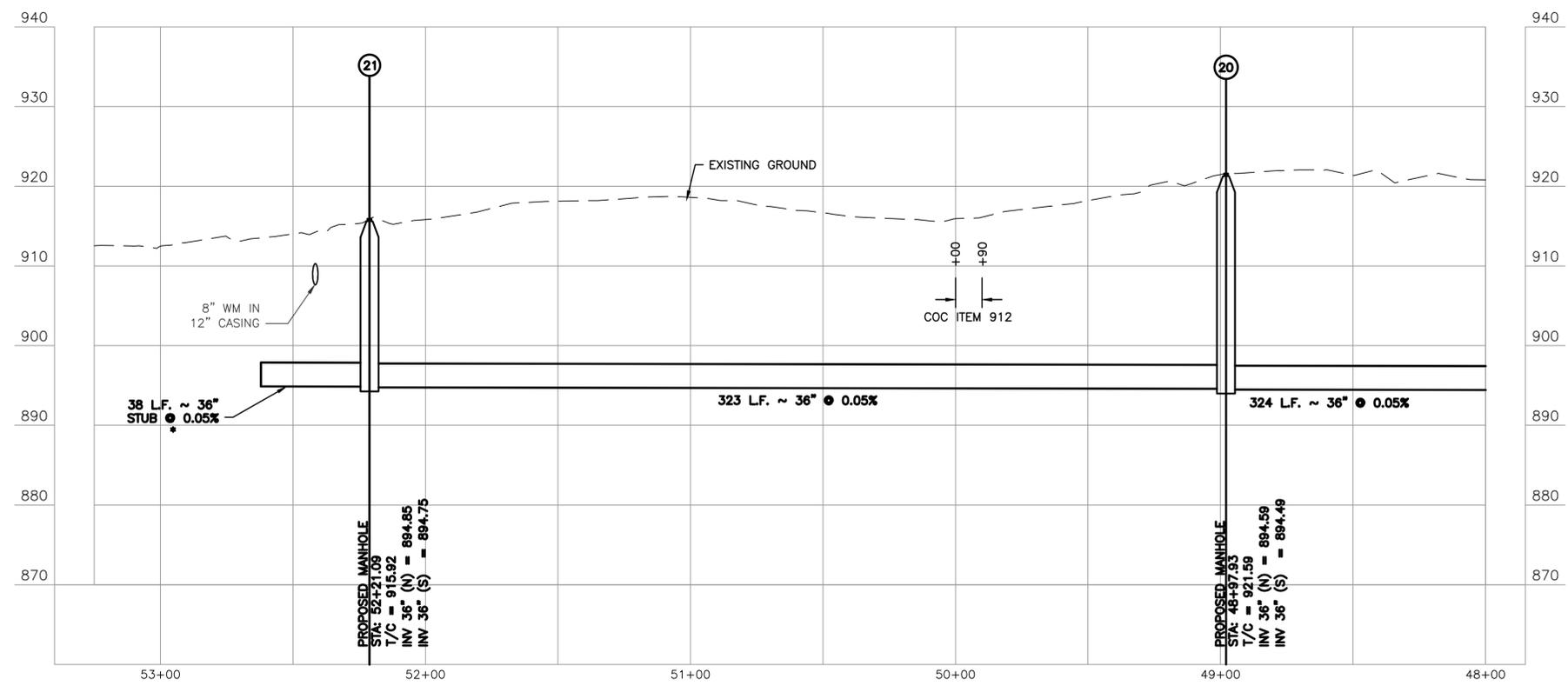
SEAL		DATE		REVISIONS		DATE		PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22/34) 1" = 30' HORIZ. 1" = 10' VERT.	<p>ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.msconsultants.com</p>	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: 36" SANITARY SEWER PLAN AND PROFILE STA. 42+00 TO STA. 48+00	DWG. NO. C-9
#	DATE	#	REVISIONS	DATE	DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016	SCALE: (11/17) 1" = 60' HORIZ. 1" = 20' VERT.	SHEET 16 OF 23				

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NOTE:  
 \* CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS AND ENSURE END OF PIPE EXTENDS 20 FEET BEYOND WATER MAIN CROSSING.

NOTE: THE PROJECT SHALL MAINTAIN EXISTING DRAINAGE DURING CONSTRUCTION.



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SEAL

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PROJECT NUMBER: 62-10550-A6-AA-02-0304				SCALE: (22/34) 1" = 30' HORIZ. 1" = 10' VERT.	
DRAWN: JCD	CHECKED: BIV	DATE: 09/26/2016		SCALE: (11x17) 1" = 60' HORIZ. 1" = 20' VERT.	


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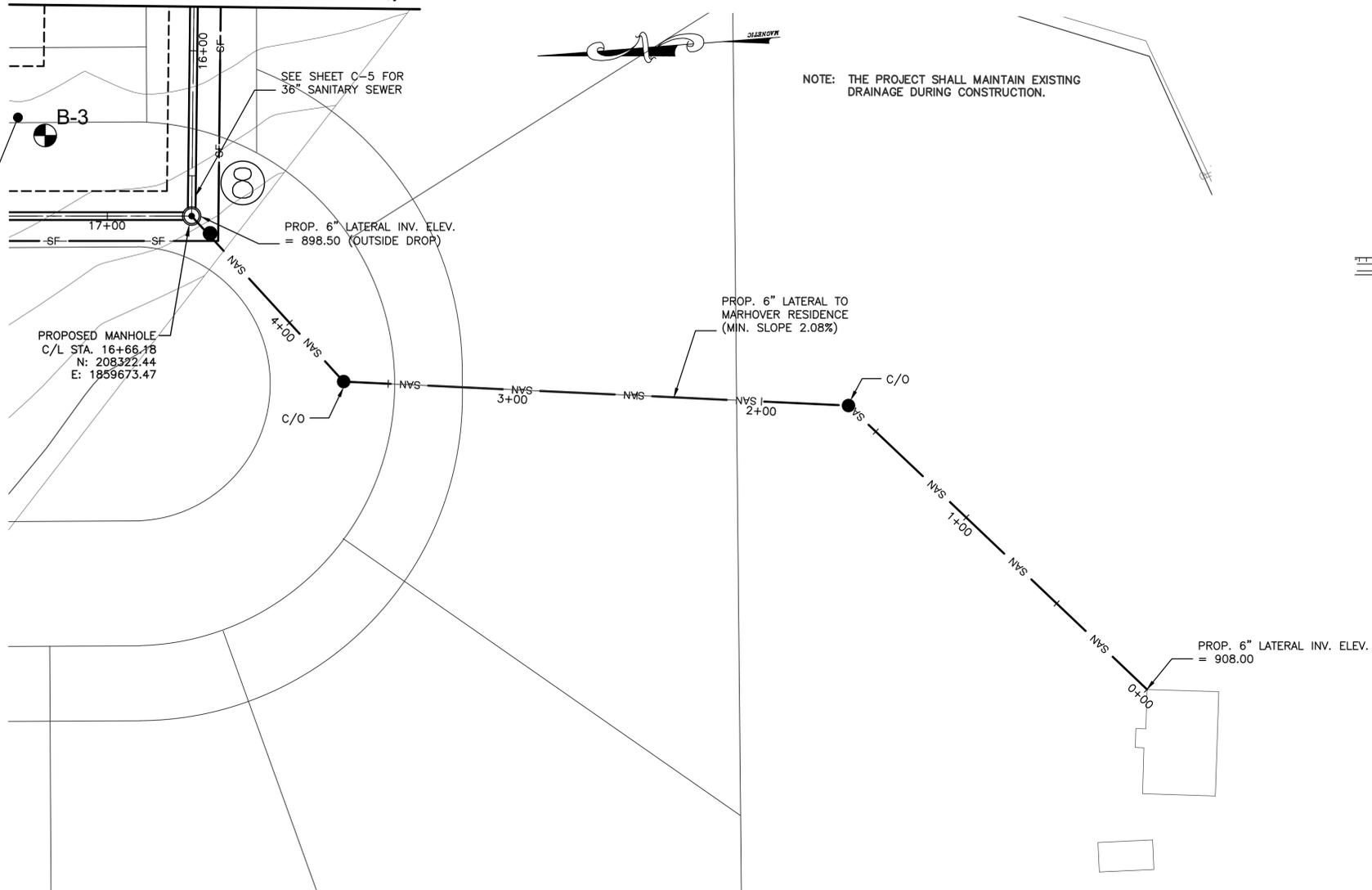
PROJECT TITLE:  
 VILLAGE OF SUNBURY  
 LITTLE WALNUT CREEK INTERCEPTOR  
 SEWER  
 PHASE I

SHEET TITLE:  
 36" SANITARY SEWER  
 PLAN AND PROFILE  
 STA. 48+00 TO CHESHIRE ROAD

DWG. NO.	C-10
SHEET	17 OF 23

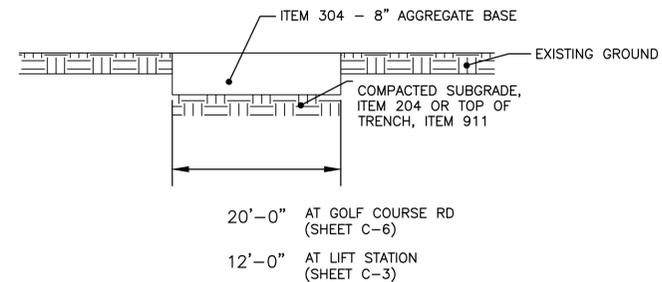
MATCHLINE STA. 16+00 (SEE SHEET C-4)

EASEMENT AGREEMENT STATES THAT SEWER CONSTRUCTION SHALL OCCUR WHEN CROPS WILL NOT BE IMPACTED



NOTES

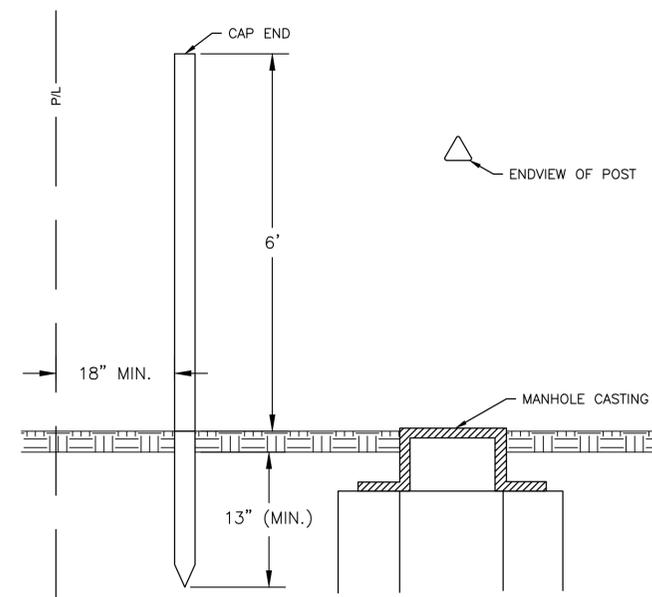
- ① A PLUMBER IS REQUIRED TO CONNECT THE SANITARY SEWER LATERAL TO THE BASEMENT.
- ② THE SEPTIC SYSTEM IS REQUIRED TO BE ABANDONED FOLLOWING FEDERAL, STATE AND LOCAL REQUIREMENTS.



**ACCESS ROAD DETAIL**  
NOT TO SCALE

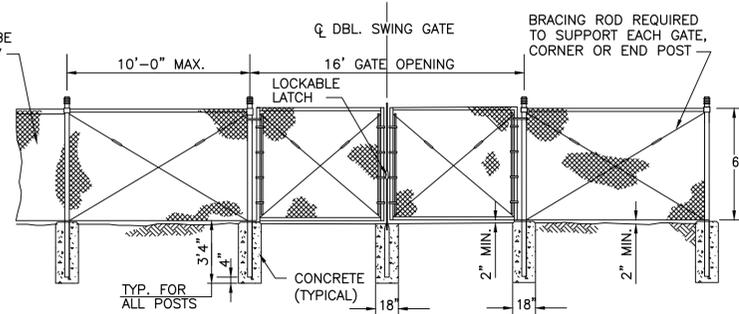
**SANITARY MANHOLE MARKER POST**

**EXTERIOR DESIGN:** THE MARKER POST MUST BE TRIANGULAR IN SHAPE WITH EACH SIDE AT LEAST 3" WIDE. A 2-7/8" WIDE DECAL SHALL FIT ON EACH SIDE OF THE MARKER. DECALS SHALL BE PLACED ON ALL THREE FLAT SIDES TO ENSURE THAT A WARNING MESSAGE CAN BE SEEN FROM ANY DIRECTION.  
**FLEXIBLE STYLE:** THE MARKER SHALL BE FLEXIBLE AND REBOUND IF HIT BY AN AUTOMOBILE. THE MARKER SHALL WITHSTAND A MINIMUM OF FIVE VEHICLE IMPACT AT 45 MPH.  
**WEATHERING STABILITY:** THE MARKER POST SHALL NOT SIGNIFICANTLY FADE OR BECOME BRITTLE WHEN EXPOSED TO ULTRAVIOLET LIGHT FOR A MINIMUM OF TEN YEARS. THE MARKING POST SHALL BE TEMPERATURE STABLE FROM -40° TO +150°.  
**SOIL ANCHOR:** SOIL ANCHORS SHALL BE GALVANIZED STEEL, 13" LONG (MIN.) AND HAVE PUNCH TABS WHICH LOCK INTO THE TRIANGULAR POST WHEN INSERTED IN THE ANCHOR. ANCHORS ARE TO BE INSTALLED FLUSH WITH THE GROUND SURFACE.  
**ACCEPTABLE MANUFACTURERS:** REPNET TRIVIEW™ WITH SOIL ANCHOR OR APPROVED EQUAL.  
**DECALS:** DETAILS SHALL BE APPROVED BY THE VILLAGE ENGINEER PRIOR TO INSTALLATION.  
 COST TO BE INCLUDED IN THE BID PRICE FOR ITEM 604 MANHOLE TYPE C.



CHAIN LINK FENCING SHALL BE TYPE CL PER ODOT ITEM 607

ALL FENCING, POSTS, GATES, AND ACCESSORIES WILL BE GALVANIZED AND PVC COATED BLACK, FEDERAL COLOR NO. 27038, FROM THE FEDERAL STANDARD 595B. PAINTING PROCEDURES AND SURFACE PREPARATION SHALL CONFORM WITH QUALITY REQUIREMENTS IN ODOT 514. COST TO BE INCLUDED IN THE BID PRICE FOR ITEMS 607 FENCE AND GATE.  
 ALL PVC FABRIC AND POST SHALL BE HANDLED WITH CARE. IF THE PVC COATING IS DAMAGED, THE CONTRACTOR SHALL REPLACE THE DAMAGED ITEM OR REPAIR THE PVC COATING AS DIRECTED BY THE ENGINEER AT NO COST TO THE PROJECT.



**CHAIN LINK FENCING DETAIL**  
NOT TO SCALE

SEAL	#	DATE	#	REVISIONS	DATE	PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22x34) 1" = 30' HORIZ. 1" = 10' VERT.	ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.mscconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: 6" SANITARY SEWER LATERAL SITE PLAN ACCESS ROAD DETAILS	DWG. NO. C-11
						DRAWN: JCD	CHECKED: BIV		DATE: 09/26/2016	SCALE: (11x17) 1" = 60' HORIZ. 1" = 20' VERT.	SHEET 18 OF 23

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**SITE DESCRIPTION**

**PLAN DESIGNER:** MS CONSULTANTS, INC.  
2221 SCHROCK ROAD  
COLUMBUS, OHIO  
43229 614-898-7100  
FAX: 614-898-7570

**OWNER NAME AND ADDRESS:** GUARANTEED COMPANIES/NORTHGATE COMPANIES  
150 E. MOUND ST., STE 103  
COLUMBUS, OHIO 43215  
PHONE: 614-341-9800 EXT. 101

**ON SITE CONTACT:** TBD. AN ON-SITE CONTACT WILL BE NAMED AT THE PRE-CONSTRUCTION MEETING.

**DESCRIPTION:** (PURPOSE AND TYPES OF SOIL DISTURBING ACTIVITIES)

THIS PROJECT WILL CONSIST OF INSTALLATION OF 5246 L.F. OF SANITARY SEWER + ASSOCIATED ACTIVITIES.

SOIL DISTURBING ACTIVITIES WILL INCLUDE: CLEARING AND GRUBBING; INSTALLING PERIMETER AND OTHER EROSION AND SEDIMENT CONTROLS; INSTALLATION OF SANITARY SEWER PIPES, INLETS AND SITE RESTORATION.

**SITE AREA:**

**ESTIMATE OF IMPERVIOUS AREA AND PERCENT IMPERVIOUSNESS CREATED BY CONSTRUCTION**

**LITTLE WALNUT CREEK WATERSHED**  
IMPERVIOUS AREA = INCREASE OF 0.0 ACRES  
% IMPERVIOUS = INCREASE OF 0%

**SEQUENCE OF MAJOR ACTIVITIES:**

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL SILT FENCE AND INLET PROTECTION.
2. CONTINUE CLEARING AND GRADING.
3. CONTINUE SITE IMPROVEMENTS.
4. STABILIZE DENUDED AREAS & STOCKPILES WITHIN 7 DAYS OF LAST CONSTRUCTION ACTIVITY IN THAT AREA.
5. COMPLETE GRADING AND STABILIZE THE SITE.
6. RESEED ANY DISTURBED AREAS.

**NAME OF RECEIVING WATERS:** THE SITE WILL DRAIN INTO VILLAGE OF SUNBURY/DELAWARE COUNTY STORM SYSTEM THAT DRAINS TO LITTLE WALNUT CREEK.

ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DISCRETION OF THE VILLAGE OF SUNBURY AND/OR THE OHIO EPA.

**GENERAL NOTES:**

ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL LOCAL EROSION AND SEDIMENT CONTROL REGULATIONS.

DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO THE CITY'S SEWER SYSTEM OR A RECEIVING STREAM IS A VIOLATION OF OHIO EPA REGULATIONS. THE CONTRACTOR WILL BE HELD LIABLE FOR THE VIOLATION AND SUBSEQUENT FINES.

ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST MEET THE STANDARDS AND SPECIFICATIONS OF THE OHIO RAINWATER AND LAND DEVELOPMENT MANUAL. OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS.

REGULAR INSPECTION AND MAINTENANCE WILL BE PROVIDED FOR ALL EROSION AND SEDIMENT CONTROL PRACTICES. PERMANENT RECORDS OF MAINTENANCE AND INSPECTIONS MUST BE KEPT THROUGHOUT THE CONSTRUCTION PERIOD. INSPECTIONS MUST BE MADE A MINIMUM OF ONCE EVERY 7 DAYS AND IMMEDIATELY AFTER STORM EVENTS GREATER THAN 0.5 INCHES OF RAIN IN A 24 HOUR PERIOD. PROVIDE NAME OF INSPECTOR, MAJOR OBSERVATIONS, DATE OF INSPECTION AND CORRECTIVE MEASURES TAKEN.

SILT FENCE SHALL BE IMPLEMENTED WITHIN 7 DAYS OF THE START OF CONSTRUCTION AND SHALL CONTINUE TO FUNCTION UNTIL UPLAND AREAS ARE STABILIZED.

THE CONTRACTOR SHALL USE EROSION CONTROL MEASURES AS NECESSARY TO PREVENT SEDIMENT MOVEMENT INTO AREAS DESIGNATED AS WETLANDS OR STREAMS.

NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.

**CONTROLS**

**EROSION AND SEDIMENT CONTROLS:**

STABILIZATION PRACTICES

**TEMPORARY STABILIZATION:**

TOP SOIL STOCK PILES AND DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21 DAYS WILL BE STABILIZED WITH TEMPORARY SEED AND MULCH NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA. THE TEMPORARY SEED SHALL BE APPLIED AS PER THE TEMPORARY SEEDING SPECIFICATIONS. AREAS OF THE SITE WHICH ARE TO BE PAVED WILL BE TEMPORARILY STABILIZED BY APPLYING STONE SUB-BASE UNTIL PAVEMENT CAN BE APPLIED.

**PERMANENT STABILIZATION:**

DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASES SHALL BE STABILIZED WITH PERMANENT SEED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY. THE PERMANENT SEED MIX PER THE PERMANENT SEEDING SPECIFICATIONS.

**OTHER CONTROLS**

**WASTE DISPOSAL:**

WASTE MATERIALS

ALL WASTE MATERIALS WILL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER RENTED FROM A LICENSED SOLID WASTE MANAGEMENT COMPANY. THE DUMPSTER WILL MEET ALL LOCAL, CITY AND STATE SOLID WASTE MANAGEMENT REGULATIONS. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE WILL BE DEPOSITED IN THE DUMPSTER. THE DUMPSTER WILL BE EMPTIED A MINIMUM OF ONCE PER WEEK OR MORE OFTEN IF NECESSARY, AND THE TRASH WILL BE HAULED OFF-SITE TO AN APPROVED DISPOSAL SITE. NO CONSTRUCTION WASTE MATERIALS WILL BE BURIED ON-SITE. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED IN THE OFFICE TRAILER. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

**HAZARDOUS WASTE:**

ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES. THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

**SANITARY WASTE:**

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.

**OFFSITE VEHICLE TRACKING:**

A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ALL PAVED STREETS ADJACENT TO THE SITE WILL BE SWEEPED DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

**SOIL PROTECTION CHART**

STABILIZATION TYPE	J	F	M	A	M	J	J	A	S	O	N	D
PERMANENT SEEDING			●	●	●	*	*	*	●	●		
DORMANT SEEDING	●	●	●								●	●
TEMPORARY SEEDING			●	●	●	*	*	*	●	●		
SODDING			**	**	**	**	**	**	**	**		
MULCHING	●	●	●	●	●	●	●	●	●	●	●	●

\* - IRRIGATION NEEDED

\*\* - IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SOD IS APPLIED

**EROSION CONTROL PLAN**

1. THE PERMITTEE SHALL TAKE ANY AND ALL APPROPRIATE MEASURES TO LIMIT SOIL EROSION PRIOR TO, DURING AND AFTER CONSTRUCTION. AS SUCH, THE PERMITTEE SHALL BE FULLY ACCOUNTABLE TO THE OHIO EPA, THE SOIL CONSERVATION SERVICE AND ANY OTHER APPROPRIATE AGENCIES FOR ANY VIOLATION OR DISREGARD OF THE APPLICABLE GOVERNING STANDARDS AND REGULATIONS RELATED TO THE PROTECTION AND CONSERVATION OF SOILS THAT ARE AFFECTED BY THIS PERMITTED WORK.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING AN EROSION CONTROL PLAN TO THE VILLAGE FOR ALL WORK PRIOR TO THE INITIATION OF ANY CONSTRUCTION WORK. THE PLAN SHALL BE SUBMITTED WITHIN TWO (2) WEEKS FOLLOWING THE NOTICE OF AWARD OF THE CONTRACT. ONCE APPROVED, THE PLAN SHALL BE USED BY THE CONTRACTOR THROUGHOUT THE PROJECT. ANY DEVIATIONS FROM THE APPROVED PLAN WILL NEED TO BE SUBMITTED TO THE VILLAGE THREE (3) WEEKS PRIOR TO THE CHANGE FOR THE VILLAGE'S CONSIDERATION.
3. THE EROSION CONTROL PLAN SHALL INCLUDE, AT A MINIMUM, THE LOCATION OF THE STAGING AND STOCKPILE SITES, AND THE TYPE AND LOCATION OF THE EROSION CONTROL DEVICES.
4. THE FOLLOWING SHALL BE USED AS A GUIDE TO DEVELOP THE EROSION CONTROL PLAN.
  - 4.1. STAGING SITE - IDENTIFY THE LOCATION OF POTENTIAL SITES. MAINTAIN A MINIMUM SEPARATION FROM ANY STREAMS, CREEKS OR OTHER OPEN BODIES OF WATER.
  - 4.2. EROSION CONTROL DEVICES - IDENTIFY THE TYPES OF EROSION CONTROL DEVICES TO BE USED, AND INDICATE TIMING AND METHOD OF PERMANENT STABILIZATION AND REVEGETATION. EROSION CONTROL DEVICES MAY INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCE, ROCK CHECK DAMS, INLET PROTECTION, CONSTRUCTION FENCE, ETC.
5. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS AND INFORMATION.

**MAINTENANCE/INSPECTION PROCEDURES**

**EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:**

THESE ARE THE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

LESS THAN 50% OF THE SITE WILL BE DENUDED AT ONE TIME.

ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE EACH WEEK AND FOLLOWING ANY STORM EVENT OF 0.5 INCHES OR GREATER.

SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION.

THE SITE SUPERINTENDENT WILL SELECT INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

**NON-STORMWATER DISCHARGES:**

IT IS EXPECTED THAT THE FOLLOWING NON-STORMWATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

- WATER FROM WATER LINE FLUSHINGS.
- PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).
- UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

**VILLAGE OF SUNBURY**

**GENERAL EROSION & SEDIMENT CONTROL NOTES**

1. EROSION CONTROL SHALL CONSIST OF TEMPORARY CONTROL MEASURES AS DETAILED ON THE PLANS OR ORDERED BY THE VILLAGE ENGINEER DURING THE LIFE OF THE CONTRACT TO CONTROL SOIL, EROSION, AND SEDIMENTATION THROUGH USE OF EROSION CONTROL BEST MANAGEMENT PRACTICE (BMP'S).
2. TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS, THE LOCATION AND SIZE OF WHICH ARE DETAILED ON THE PLANS, SHALL BE INSTALLED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CLEARING OR EARTHWORK OPERATIONS. CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT WERE NOT FORESEEN DURING DESIGN STAGE; THAT REQUIRE ADDITIONAL OR MODIFIED TEMPORARY OR PERMANENT BMP'S SHALL BE DESIGNED BY THE DEVELOPER'S ENGINEER AND APPROVED BY THE VILLAGE ENGINEER AND THEN REFLECTED ON THE EROSION AND SEDIMENT CONTROL PLAN.
3. SEDIMENT PONDS, SEDIMENT TRAPS, AND PERIMETER SEDIMENT CONTROLS, SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN (7) DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL DISTURBED AREAS ARE RE-ESTABLISHED WITH TEMPORARY VEGETATION. NO SEDIMENT CONTROLS SHALL BE PLACED IN A STREAM.

4. TRENCH DEWATERING OR DEWATERING GROUND WATER, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO SUMP PUT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATER SHALL NOT BE DISCHARGED TO STREAMS OR THE STORM SEWER SYSTEM.
5. CEMENT WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. ALL WASH WATER SHALL BE COLLECTED IN AN APPROVED, DESIGNATED LOCATION.
6. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS TO BE USED ON SITE. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL.
7. THESE NOTES AND DRAWINGS ARE INTENDED TO SERVE AS BASIC GUIDELINES. ALL EROSION CONTROL PRACTICES SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.
8. ADDITIONAL EROSION CONTROL BMP'S MAY BE MANDATED BY THE VILLAGE AT ANY TIME DURING THIS PROJECT AS UNFORESEEN SITUATIONS MAY ARISE THAT WARRANT FURTHER EROSION AND SEDIMENT CONTROL PRACTICES.
9. LIMITS OF CLEARING AND GRADING SHALL BE CLEARLY MARKED ON SITE WITH SIGNAGE, FLAGGING, AND/OR CONSTRUCTION FENCING. THE SUBCONTRACTOR SHALL LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY EXCAVATION, BORROW, AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, WETLANDS OR OTHER AREAS OF WATER IMPOUNDMENT.

10. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL INGRESS AND EGRESS LOCATIONS TO ELIMINATE OFF-SITE VEHICLE TRACKING OF SEDIMENTS. SEDIMENTS SHALL BE REMOVED FROM ROADWAYS AT LEAST DAILY, OR MORE OFTEN IF REQUESTED BY THE VILLAGE ENGINEER.

11. TEMPORARY SEEDING
  - 11.1 SEDIMENT CONTROL SHALL BE ACCOMPLISHED BY SEEDING AND STRAW MULCHING ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF EXCAVATION OR FILL AND FINISH GRADING IN ACCORDANCE WITH SPECIFICATIONS OF THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL.
  - 11.2 ALL DETENTION PONDS, RETENTION PONDS, WATER QUALITY STRUCTURES, SEDIMENT PONDS, SEDIMENT TRAPS, EARTHEN DIVERSIONS OR EMBANKMENTS SHALL BE SEEDED AND STRAW MULCHED WITHIN SEVEN (7) DAYS OF COMPLETED CONSTRUCTION
  - 11.3 DISTRIBUTED AREAS THAT WILL REMAIN INACTIVE FOR A PERIOD OF TWENTY ONE (21) DAYS OR LONGER SHALL BE STABILIZED WITH SEEDING AND STRAW MULCHING, OR OTHER APPROPRIATE MEANS, WITHIN SEVEN (7) DAYS AFTER EARTH-MOVING CEASES. PERMANENT SOILS STABILIZATION SHALL BE INSTALLED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
  - 11.4 STABILIZE AREAS WITHIN FIFTY (50) FEET OF ANY STREAM OR WETLAND WITHIN TWO (2) DAYS ON ALL INACTIVE DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR FOURTEEN (14) DAYS OR LONGER.
  - 11.5 SEEDED AREAS SHALL BE INSPECTED AND WHERE THE SEED HAS NOT PRODUCED 80% COVER SHALL BE RE-SEEDED AS NECESSARY BY THE CONTRACTOR AREAS. AREAS SHALL BE STABILIZED WITH STRAW MULCH WHEN SUB-CONDITIONS PROHIBIT SEEDING.
  - 11.6 TEMPORARY SEEDING SHALL BE DONE IN ACCORDANCE WITH CITY OF COLUMBUS SPECIFICATION ITEM 207.

12. MAINTENANCE
  - 12.1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION CONTROL MAINTENANCE AND INSPECTIONS ON A WEEKLY BASIS AND AFTER ALL RAIN EVENTS PRODUCING 1/2" OF RAIN PER 24 HOURS. A WRITTEN RECORD DOCUMENTING THE RESULTS OF THESE INSPECTIONS MUST BE CREATED AND MAINTAINED.
  - 12.2 THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL SUBCONTRACTORS COMPLY WITH THE EROSION AND SEDIMENT CONTROL PLAN.

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SEAL	#	DATE	#	REVISIONS	DATE	PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22x34) NONE	 ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax (614)-898-7570 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: SEDIMENTATION AND EROSION CONTROL NOTES	DWG. NO. C-13
						DRAWN: JCD	CHECKED: BIV		DATE: 09/26/2016	SCALE: (11x17) NONE	SHEET 20 OF 23

**SPILL PREVENTION**

MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.

GOOD HOUSEKEEPING:

1. THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.
2. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
3. ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
4. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
5. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
6. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
7. MANUFACTURERS' RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
8. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

HAZARDOUS PRODUCTS:

1. THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.
2. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
3. ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
4. IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURERS' OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES:

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS:

ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS:

FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS:

ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

SPILL CONTROL PRACTICES:

CONTRACTOR TO NOTIFY DIVISION OF WATER IMMEDIATELY OF ALL SPILLS.

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

**DUST CONTROL**

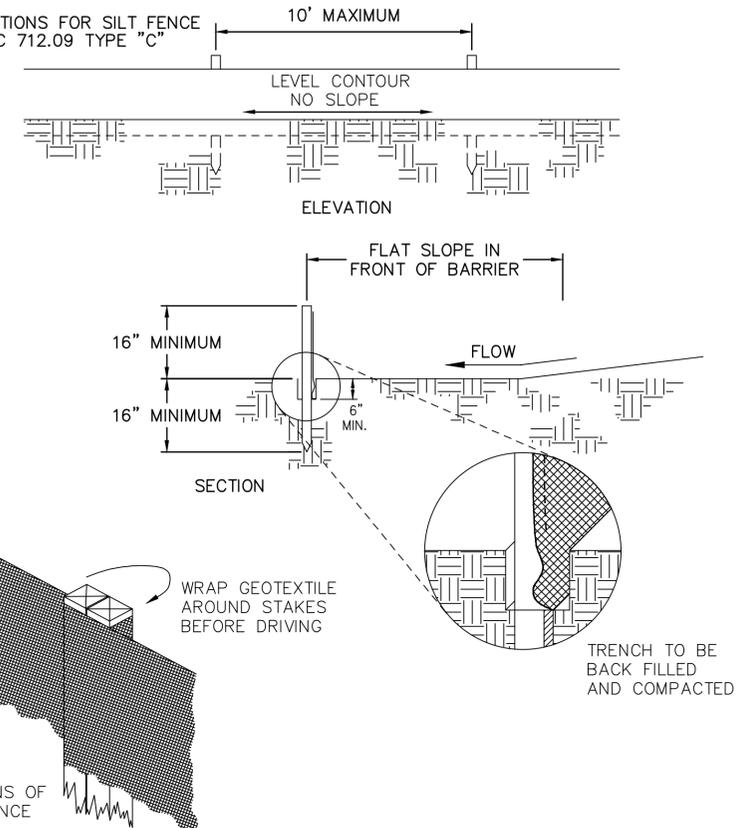
STANDARDS AND SPECIFICATIONS FOR DUST CONTROL:

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE SO AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL, AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES SHALL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES:
  - A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE.
  - B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING, AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER.
  - C. DISPERSE WATER THROUGH NOZZLE ON SPRAY BAR AT 20 PSI, MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
6. FOR WATER APPLICATIONS TO SOIL SURFACES DURING DEMOLITION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
  - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND MIST NOZZLES.
  - B. LOCATE TANK AND SPRAYING EQUIPMENT SO THE ENTIRE EXCAVATION AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR CREATING NUISANCE CONDITION SUCH AS PONDING.
  - C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND THE SITE BOUNDARIES.

**SILT FENCE**

DESCRIPTION:  
SILT FENCE IS A SEDIMENT-TRAPPING PRACTICE UTILIZING A GEOTEXTILE FENCE, TOPOGRAPHY AND VEGETATION TO CAUSE SEDIMENT DEPOSITION. SILT FENCE REDUCES RUNOFF'S ABILITY TO TRANSPORT SEDIMENT BY PONDING RUNOFF AND DISSIPATING SMALL RILLS OF CONCENTRATED FLOW INTO UNIFORM SHEET FLOW.

SPECIFICATIONS FOR SILT FENCE PER CMSC 712.09 TYPE "C"

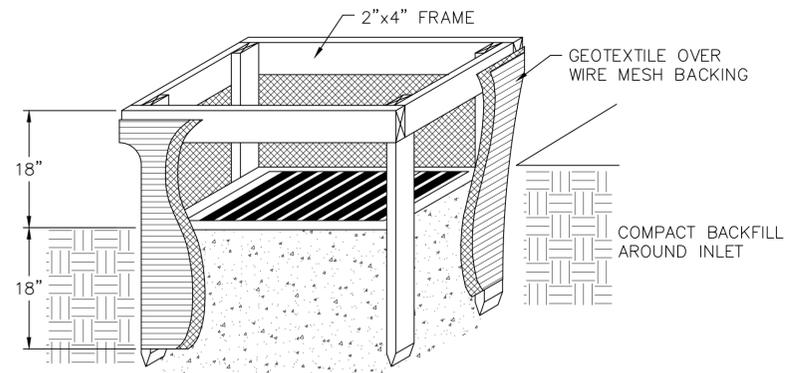


NOTES:

1. THE USE OF STRAW WATTLES HAS PROVEN TO BE A VERSATILE AND EFFECTIVE ESC BMP, ESPECIALLY IN RESIDENTIAL SETTINGS. STRAW WATTLES MAY BE SUBSTITUTED FOR SILT FENCE.
2. THE USE OF COMPOST FILTER SOCKS AND COMPOST BLANKETS ARE GAINING WIDER ACCEPTANCE NATIONWIDE. THEY ARE NOW APPROVED FOR USE ON ALL COLUMBUS SWP3 PLANS AND CONSTRUCTION SITES

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SEAL	#	DATE	#	REVISIONS	DATE	PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22x34) NONE	ms consultants, inc. engineers * architects * planners 2221 SCHROCK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax: (614)-898-7570 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: SEDIMENTATION AND EROSION CONTROL DETAILS 1	DWG. NO. C-14
						DRAWN: JCD	CHECKED: BIV		DATE: 09/26/2016	SCALE: (11x17) NONE	SHEET 21 OF 23



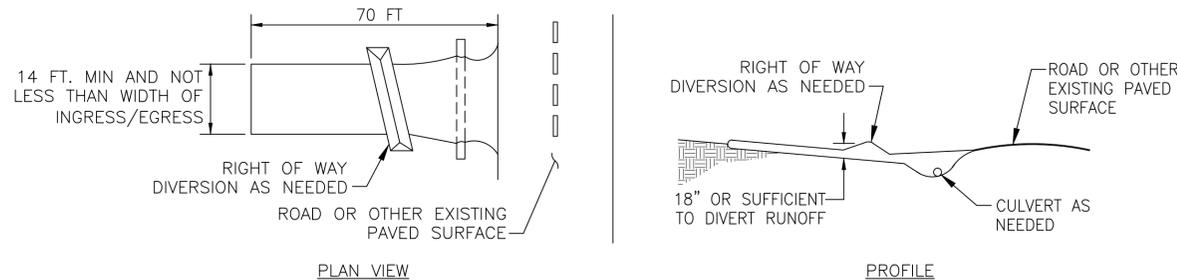
1. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.
2. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH AT LEAST 18 INCHES.
3. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2-BY-4-INCH CONSTRUCTION-GRADE LUMBER. THE 2-BY-4-INCH POSTS SHALL BE DRIVEN 18" INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2-BY-4-INCH FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6 INCHES BELOW ADJACENT ROADS IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.
4. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.
5. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18-INCHES BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAP ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.
6. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6-INCH LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.
7. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION AND IF RUNOFF BYPASSING THE INLET WILL NOT FLOW TO A SETTLING POND. THE TOP OF EARTH DIKES SHALL BE AT LEAST 6 INCHES HIGHER THAN THE TOP OF THE FRAME.

FOR INLET PROTECTION ON IMPERVIOUS SURFACES, USE DANDY POP OR DANDY BEAVER DAM OR APPROVED EQUAL.

### SPECIFICATIONS FOR INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS

#### DESCRIPTION:

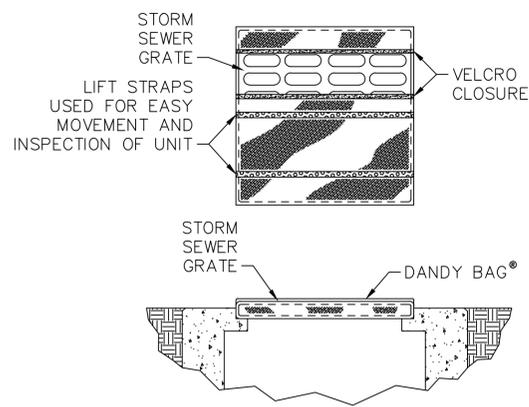
A CONSTRUCTION ENTRANCE IS A STABILIZED PAD OF AGGREGATE OVER A GEOTEXTILE BASE AND IS USED TO REDUCE THE AMOUNT OF MUD TRACKED OFF-SITE WITH CONSTRUCTION TRAFFIC.



#### SPECIFICATIONS FOR CONSTRUCTION ENTRANCE

1. STONE SIZE--TWO-INCH STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH--THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 50 FEET. (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30-FOOT MINIMUM LENGTH APPLIES).
3. THICKNESS--THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK.
4. WIDTH--THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. BEDDING--A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LB. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LB.
6. CULVERT--A PIPE OR CULVERT (12" MINIMUM) SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
7. WATER BAR--A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
8. MAINTENANCE--TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
9. CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.

### CONSTRUCTION ENTRANCE



DANDY BAG® SPECIFICATIONS

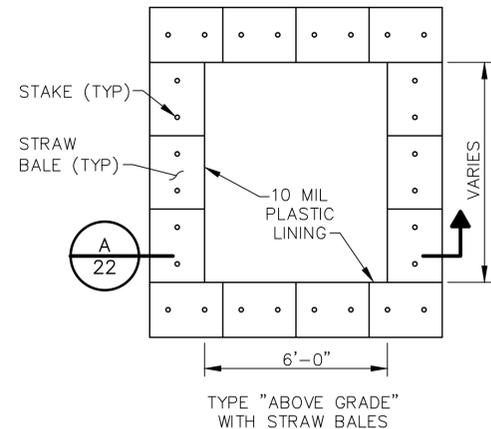
NOTE: THE DANDY BAG WILL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

#### HI-FLOW DANDY BAG® (SAFETY ORANGE)

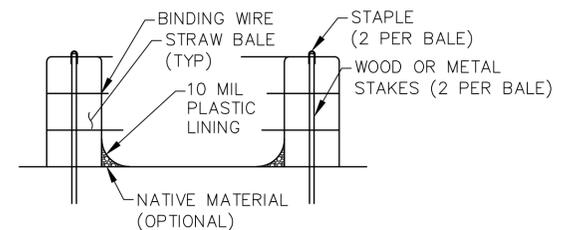
MECHANICAL PROPERTIES	TEST METHOD	UNITS	MARV
GRAB TENSILE STRENGTH	ASTM D 4632	LBS	450 X 300
GRAB TENSILE ELONGATION	ASTM D 4632	%	40% X 25%
PUNCTURE STRENGTH	ASTM D 4833	LBS	130
MULLEN BURST STRENGTH	ASTM D 3786	PSI	600
TRAPEZOID TEAR STRENGTH	ASTM D 4533	LBS	165 X 150
% OPEN AREA (POA)	COE-22125-86	%	28
APPARENT OPENING SIZE	ASTM D 4751	US STD SIEVE	30
PERMITTIVITY	ASTM D 4491	SEC <sup>-1</sup>	3.5
PERMEABILITY	ASTM D 4491	CM/SEC	0.25
WATER FLOW RATE	ASTM D 4491	GAL/MIN/FT <sup>2</sup>	250
ULTRAVIOLET RESISTANCE	ASTM D 4355	%	70
COLOR			ORANGE

\*NOTE: ALL DANDY BAGS® CAN BE ORDERED WITH OUR OPTIONAL OIL ABSORBENT PILLOWS

### DANDY BAG®

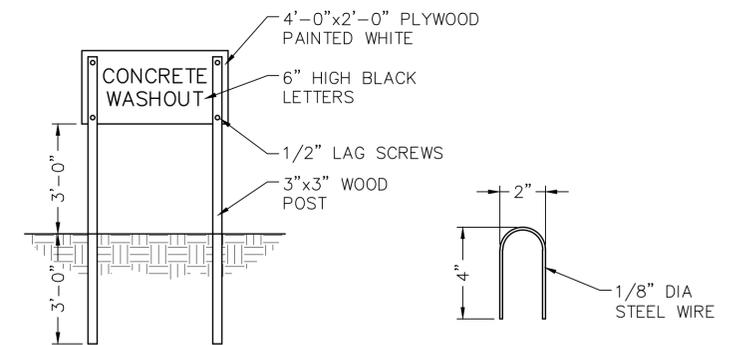


PLAN



SECTION

NOT TO SCALE



CONCRETE WASHOUT SIGN -- DETAIL (OR EQUIVALENT)

STAPLE -- DETAIL

#### NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

### CONCRETE WASHOUT PROTECTION DETAIL

SEAL	#	DATE	#	REVISIONS	DATE	PROJECT NUMBER: 62-10550-A6-AA-02-0304	SCALE: (22x34) NONE	ms consultants, inc. engineers * architects * planners 2221 SCHRACK ROAD COLUMBUS, OHIO 43229-1547 (614)-898-7100 Fax: (614)-898-7570 www.msconsultants.com	PROJECT TITLE: VILLAGE OF SUNBURY LITTLE WALNUT CREEK INTERCEPTOR SEWER PHASE I	SHEET TITLE: SEDIMENTATION AND EROSION CONTROL DETAILS 2	DWG. NO. C-15
						DRAWN: JCD	CHECKED: BIV		DATE: 09/26/2016	SCALE: (11x17) NONE	SHEET 22 OF 23

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