

SHEET INDEX

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PRIVATE STORM SEWER GRADING AND DETENTION PLAN FOR
ARCO - SHOOK ROAD INDUSTRIAL
COLUMBUS, OHIO

ESTIMATE OF QUANTITIES				
THESE QUANTITIES HAVE BEEN PROVIDED ONLY AS AN ESTIMATE TO THE SCOPE OF THE WORK. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO EVALUATE THE COMPLETE PROJECT AS DETAILED IN THE NOTES, PLANS, AND SPECIFICATIONS AND PROCEDURES NECESSARY FOR THE COMPLETION OF THE PLAN IMPROVEMENTS AND SUBMIT HIS TOTAL PROJECT COST ACCORDINGLY.				
ITEM	QUANTITY	UNIT	DESCRIPTION	
201	LUMP	SUM	CLEARING AND GRUBBING	
*202	2	EACH	CATCH BASIN REMOVED	
*202	59	LF	8" STORM PIPE REMOVED	
203	LUMP	SUM	EXCAVATION INCLUDING EMBANKMENT	
207	2516	LF	SILT FENCE	
207	7	EACH	DANDY BAG INLET PROTECTION	
207	2	EACH	SILT FENCE INLET PROTECTION	
207	1	EACH	CONCRETE WASHOUT AREA	
207	4	EACH	ROCK CHECK DAM	
207	1	EACH	TEMPORARY CONTRUCTION ENTRANCE	
207	1	EACH	TEMPORARY RISER PIPE AND 4" SKIMMER (SEE SHEET 5)	
604	4	EACH	COC CATCH BASIN (AA-S133A) W/ GRATE (AA-S139)	
604	4	EACH	COC CATCH BASIN (AA-S133B) W/ GRATE (AA-S139)	
*604	2	EACH	COC MANHOLE (AA-S102) W/ FRAME & LID (AA-S112)	
604	5	EACH	12" COC PRECAST PIPE CULVERT HEADWALL (AA-S168)	
604	2	EACH	15" COC PRECAST PIPE CULVERT HEADWALL (AA-S168)	
604	1	EACH	36" COC PRECAST PIPE CULVERT HEADWALL (AA-S168)	
605	900	LF	8" ROOF DRAIN	
605	400	LF	4" PERFORATED PIPE UNDERDRAIN (INLETS)	
614	LUMP	SUM	MAINTAINING TRAFFIC	
*901	183	LF	12" STORM PIPE W/ TYPE 1 BEDDING	
901	404	LF	15" STORM PIPE W/ TYPE 1 BEDDING	
901	99	LF	24" STORM PIPE W/ TYPE 1 BEDDING	
901	392	LF	30" STORM PIPE W/ TYPE 1 BEDDING	
901	69	LF	36" STORM PIPE W/ TYPE 1 BEDDING	
915	12	EACH	STORM UNDERDRAIN CLEANOUT	
CALCULATED BY: MHS DATE: 07/12/2019 CHECKED BY: BJM DATE: 07/12/2019				
* SOME OF WORK TO BE PREFORMED IN RIGHT-OF-WAY				

BENCHMARKS (NAVD 88)

ELEVATION SHOWN HEREIN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, AS ESTABLISH UTILIZING GPS OPUS SOLUTION

FCGS 9930
FRANKLIN COUNTY SURVEY CONTROL. ALUMINUM DISK IN CONCRETE MONUMENT SET OVER FOUND STONE. AT THE CENTERLINE INTERSECTION OF S.R. 317 AND SHOOK ROAD, ACCESS THROUGH F.C. ROAD MONUMENT BOX. MONUMENT IS THE SOUTH 1/4 CORNER SECTION 36 T4N R22W, AND THE NORHT 1/4 CORNER SECTION 1 T3N R22W CONGRESS LANDS EAST OF THE SCIOTO. DISK IS STAMPED AS PER BLM MANUAL.
NORTHING: 667058.140 EASTING: 1843651.730 ELEVATION = 744.605

TBM 1
"X" ON ARROW CAP BOLT OF FIRE HYDRANT LOCATED ON THE SOUTHEAST CORNER OF JOHN GLENN AVE AND SHOOK ROAD.
ELEVATION = 750.535

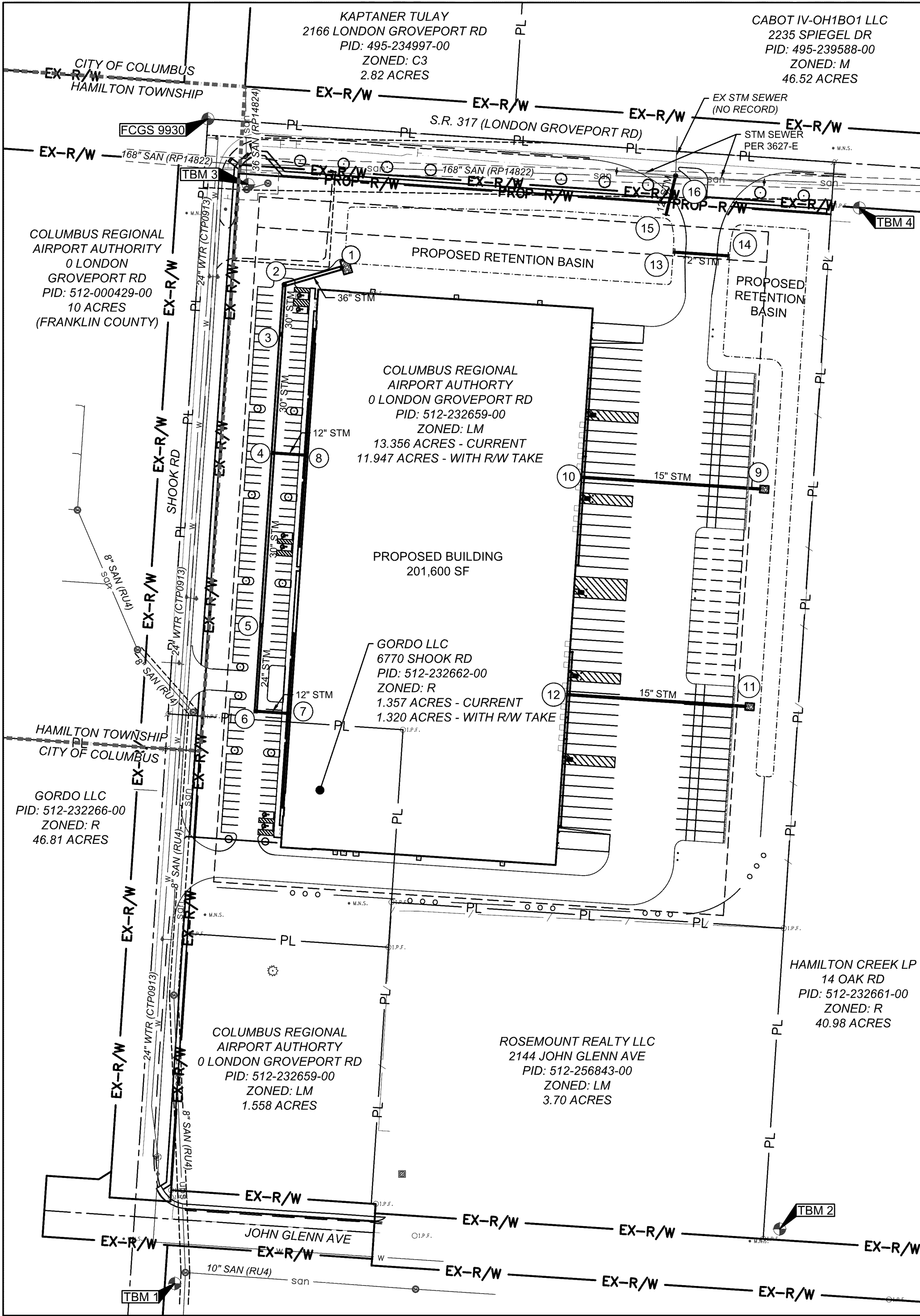
TBM 2
COTTON GIN SPINDLE IN POWER POLE LOCATED ON THE NORTH SIDE OF JOHN GLENN AVE BETWEEN THE PRIVATE DRIVE FOR THE INDUSTRIAL PROPERTY AND MAPLE ROAD.
ELEVATION = 746.325

TBM 3
"C" CHISELED ON THE NORTH EDGE OF CONCRETE AROUND THE WEST FORCE MAIN MANHOLE AT THE SOUTHEAST CORNER OF INTERSECTION OF SHOOK ROAD AND S.R. 317.
ELEVATION = 744.965

TBM 4
MAG NAIL IN NORTH SIDE OF POWER POLE LOCATED ON THE SOUTH SIDE OF LONDON GROVEPORT ROAD JUST EAST OF THE PROJECT SITE.
ELEVATION = 746.045

BASIS FOR BEARINGS

BEARINGS DESCRIBED HEREON ARE BASED ON SOUTH 86 DEGREES 02 MINUTES 52 SECONDS EAST FOR THE CENTERLINE OF SR 317 (LONDON-GROVEPORT ROAD) ESTABLISHED BY FIELD OBSERVATION HOLDING FRANKLIN COUNTY SURVEY CONTROL MONUMENTS 9930 AND 9961. MEASURED FROM GRID SOUTH, REFERENCED TO THE OHIO STATE PLANE COORDINATE SYSTEM (SOUTH ZONE) AND THE NORTH AMERICAN DATUM OF 1983 (2011 ADJUSTMENT), AS ESTABLISHED UTILIZING A GPS SURVEY AND AN NGS OPUS SOLUTION.



INDEX MAP
1" = 100'

RELATED PLANS

PRELIMINARY SITE COMPLIANCE PLANS	19601-00052
PRIVATE WATER SERVICE PLAN	WSP-5716
FINAL SITE COMPLIANCE PLANS	19345-00411
PUBLIC SANITARY SEWER PLAN	N/A
R/W IMPROVEMENTS PLAN	3627-E

STANDARD DRAWINGS

THE STANDARD CONSTRUCTION DRAWINGS LISTED ON THESE PLANS SHALL BE CONSIDERED A PART THEREOF.

AA-S102	AA-S151	2202 (SHEET 13-14)	1500 (SHEET 1-3)
AA-S112	AA-S153	(12/01/2014)	(09/05/2015)
AA-S133A	AA-S161	2300 (SHEET 1)	1550 (SHEET 1)
AA-S133B	AA-S168	(06/01/2014)	(09/15/2015)
AA-S139			

SANITARY NOTE

CONNECTION TO SANITARY SEWER (SHOWN HERE FOR REFERENCE ONLY) CANNOT BE MADE UNTIL PERMIT IS OBTAINED FROM SEWER PERMIT OFFICE AT 111 N FRONT STREET, 1ST FLOOR. PHONE: (614) 645-7490

SANITARY SEWER CAPOFF NOTE

SEWER CAPOFF PERMIT IS REQUIRED PRIOR TO ISSUANCE OF DEMOLITION PERMIT. OBTAIN A CAPOFF PERMIT FROM SEWER PERMIT OFFICE AT 111 N FRONT STREET, 1ST FLOOR. PHONE: (614) 645-7490

SITE DATA TABLE

TOTAL DEVELOPMENT SITE AREA	14.83 ACRES
TOTAL DISTURBED AREA	13.58 ACRES
PRE-DEVELOPED IMPERVIOUS AREA	0.73 ACRES
POST-DEVELOPED IMPERVIOUS AREA	9.04 ACRES
R/W DISTURBED AREA	0.64 ACRES*
FEMA MAP PANEL & ZONE	39049C0429K, ZONE "X"
CRITICAL STORM EVENT	25 YEAR
* R/W ACCOUNTED FOR IN WATER QUALITY CALCULATIONS AND INCLUDES THE DISTURBED AREA OF R/W DEDICATION	

SUMMARY OF POST-CONSTRUCTION STORMWATER CONTROL FACILITIES

CONTROL/ OUTLET STRUCTURE No.	PLAN VIEW & DETAIL PAGE NUMBERS	CONTROL FUNCTION	DRAINAGE AREA TO CONTROL FACILITY (ACRES)	FACILITY TYPE
15	6, 9, 10	WATER QUALITY AND QUANTITY	13.98	WET EXTENDED DETENTION BASIN

100 YEAR STORMWATER STORAGE SUMMARY

LOCATION	VOLUME REQUIRED (CF)	VOLUME PROVIDED (CF)	100-YEAR ELEV (NAVD88)	ELEVATION PROVIDED
WET BASIN & PARKING LOT	151,417	230,634	742.25	742.75

BMP WATER QUALITY STRUCTURE NOTICE

THE WATER QUALITY STRUCTURE "15" AND THE EXTENDED WET DETENTION BASIN ARE STORMWATER QUALITY BMPS AND ARE AN INTEGRAL PART OF THE PRIVATE STORM SEWER SYSTEM DEPICTED IN THESE DRAWINGS. RESPONSIBILITY AND ASSURANCE OF PERIODIC MAINTENANCE AND THE CONTINUOUS FUNCTIONALITY OF THIS STORMWATER QUALITY DEVICE IS PERPETUAL, BEGINNING WITH THE OWNER AT THE TIME OF INSTALLATION AND CONTINUING TO ALL FUTURE OWNERS OF SAID PRIVATE STORM SEWER SYSTEM. SEE SHEET 5 OF 11 FOR POST-CONSTRUCTION MAINTENANCE REQUIREMENTS. THE PROJECT IS COMPLIANT WITH OHIO EPA GENERAL CONSTRUCTION STORM WATER PERMIT NO. OH00005, ISSUED APRIL 23, 2018.

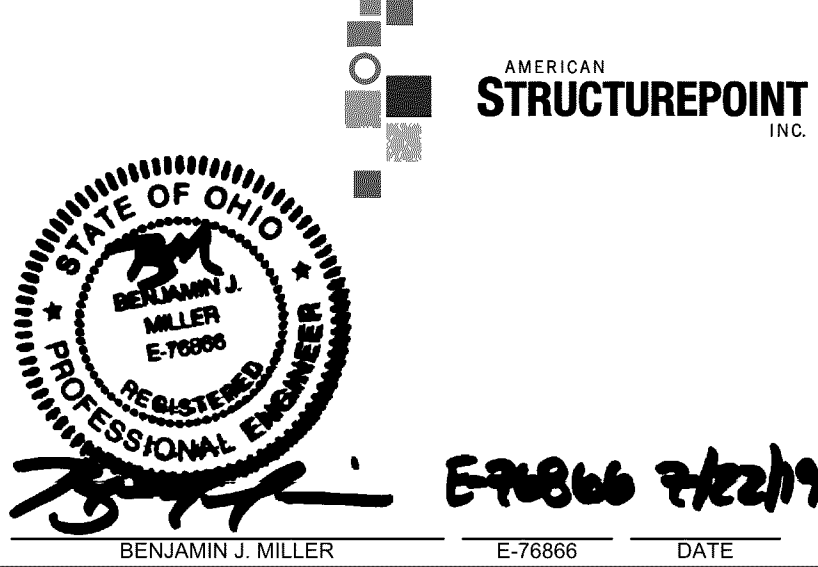
Ohio Utilities Protection Service

Call 811 before you dig

PM-585

EASEMENT REFERENCE			REVISIONS		
CITY NO.	COUNTY RECORDER		NO.	DESCRIPTION	APPROVAL/DATE
	VOL.	PAGE			

PLAN PREPARED BY:



APPROVALS:
SIGNATURES BELOW SIGNIFY ONLY CONCURRENCE WITH THE GENERAL PURPOSE AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER PREPARING THE PLANS.
APPROVAL FOR STORM SEWER ONLY
CITY ENGINEER/ADMINISTRATOR, DIVISION OF DESIGN AND CONSTRUCTION
John G. Newsome Jr. 07/31/19
ADMINISTRATOR, DIVISION OF SEWERAGE & DRAINAGE
Benjamin J. Miller 7/29/19
ADMINISTRATOR, DIVISION OF WATER

PROJECT TITLE:

PRIVATE STORM SEWER, GRADING AND DETENTION AREAS FOR
ARCO - SHOOK ROAD INDUSTRIAL
0 LONDON GROVEPORT RD
COLUMBUS, OHIO

DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
		AGREEMENT	COMPLETED
		RPD	CKD
		CID	CON.DR.
		INDEX DETAIL	RECORD FILE

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF SEWERAGE AND DRAINAGE

DIVISION USE ONLY

TITLE SHEET

SCALE: AS NOTED	SHEET 1/11
CONTRACT DRAWING NO. CC-18509	RECORD PLAN NO.

PLOT SCALE: 1:1 EDIT DATE: 7/22/19 - 7:37 AM EDITED BY: MSCHULZE DRAWING FILE: C:\2019\00069D DRAWINGS\CIVIL\CONSTRUCTION DOCUMENTS\CC-18509 CC-TS & GND.VGW

GENERAL NOTES
THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC) DATED 2018, INCLUDING SUPPLEMENTAL SPECIFICATION 1100 AND ALL OTHER SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THE PLAN UNLESS OTHERWISE NOTED.

ANY MODIFICATIONS TO THE SPECIFICATIONS OR WORK AS SHOWN ON THE DRAWINGS, MUST HAVE PRIOR WRITTEN APPROVAL BY THE ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE.

THE SEWERS SHOWN OUTSIDE EASEMENT AREAS SHALL BE CONSTRUCTED AS A PRIVATE STORM SYSTEM. THEREFORE THE CITY WILL NOT ASSUME MAINTENANCE THEREOF AFTER COMPLETION.

STANDBY INSPECTION BY THE DIVISION OF DESIGN & CONSTRUCTION IS MANDATORY DURING CONSTRUCTION. THE DEVELOPER/OWNER SHALL, PRIOR TO STARTING ANY CONSTRUCTION OPERATION, DEPOSIT WITH THE CITY THE TOTAL ESTIMATED COST FOR INSPECTION AND, WHERE REQUIRED, A REPAVING GUARANTEE.

THE CONTRACTOR SHALL NOTIFY THE DIVISION OF DESIGN & CONSTRUCTION (614) 645-0433 AND THE DIVISION OF SEWERAGE AND DRAINAGE (614) 645-7102, AT LEAST 24 HOURS PRIOR TO CONSTRUCTION.

IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO INSURE THAT THE CITY OF COLUMBUS, CONSTRUCTION SECTION, 1800 EAST 17TH AVENUE, COLUMBUS, OHIO 43219, RECEIVES A SET OF PLANS PRIOR TO START OF CONSTRUCTION.

CONSTRUCTION OF THIS PROJECT MAY NOT BEGIN UNTIL THE EASEMENTS INDICATED HAVE BEEN RECORDED BY THE CITY.

THE CONTRACTOR SHALL ENSURE THERE IS A SURVEYOR'S LEVEL AND ROD ON THE PROJECT FOR USE IN PERFORMING GRADE CHECKS WHENEVER SEWER LINE STRUCTURES OR PIPE ARE BEING INSTALLED. THE CONTRACTOR SHALL MAKE THIS EQUIPMENT AVAILABLE FOR USE AND ASSIST THE CITY INSPECTOR IN PERFORMING GRADE CHECKS WHEN REQUESTED BY THE INSPECTOR. THE INSPECTOR WILL MAKE ALL REASONABLE ATTEMPTS TO CONFINE REQUESTS FOR ASSISTANCE IN PERFORMING GRADE CHECKS TO TIMES CONVENIENT TO THE CONTRACTOR.

THESE CHECKS WILL BE PERFORMED TO ENSURE THE FOLLOWING:
1. PROPER PLACEMENT OF EACH STRUCTURE
2. PROPER INSTALLATION OF PIPE RUNS
3. GRADE, AFTER AN OVERNIGHT OR LONGER SHUTDOWN
4. GRADE, AT ANY OTHER TIME THE INSPECTOR HAS REASON TO QUESTION GRADE OF INSTALLATION

GRADE CHECKS PERFORMED BY THE CITY INSPECTOR IN NO WAY RELIEVES THE CONTRACTOR OF THE ULTIMATE RESPONSIBILITY TO ENSURE CONSTRUCTION TO THE PLAN GRADE.

THE SITE IS NOT LOCATED WITHIN ANY FLOODPLAIN, FLOODWAY OR FLOODWAY FRINGE AS INDICATED ON THE FLOODWAY INSURANCE RATE MAP COMMUNITY PANEL NUMBER 39049C0186K FOR THE COUNTY OF FRANKLIN, OHIO, DATED JUNE 17, 2008.

THE AMOUNT OF FILL WITHIN DESIGNATED FEMA FLOODPLAIN AREAS ONSITE IS 0 C.Y. THE AMOUNT OF FILL COMPENSATED WITHIN DESIGNATED FEMA FLOODPLAIN AREAS ONSITE IS 0 C.Y.

THE OWNER/DEVELOPER SHALL, PRIOR TO ANY CONSTRUCTION OPERATION, DEPOSIT WITH THE CITY THE TOTAL ESTIMATED COSTS FOR INSPECTION AND WHERE A REPAVING GUARANTEE.

ALL TREES WHETHER SHOWN OR NOT SHOWN ON THE PLANS ARE TO BE PRESERVED UNLESS APPROVAL TO REMOVE IS GIVEN IN WRITING BY CITY OF COLUMBUS RECREATION & PARKS/CITY FORESTER OF THEIR REMOVAL HAS BEEN DESIGNATED ON THE PLAN. TREES REMOVED BY EITHER OF THE TWO PRECEDING AUTHORITIES SHALL BE PAID FOR UNDER CMSC ITEM 201. CLEARING AND GRUBBING UNLESS OTHERWISE PROVIDED FOR BY UNIT PRICE BID UNDER ITEM 201. THE CONTRACTOR SHALL USE SPECIAL PRECAUTIONS TO AVOID DAMAGE TO ALL OTHER TREES. ALL TREES REMOVED SHALL INCLUDE STUMP REMOVAL TO SIX (6) INCHES BELOW GRADE.

ALL CLEARING AND GRUBBING DONE ON COLUMBUS RECREATION & PARKS PROPERTY/RIGHT OF WAY SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

CONTRACTOR SHALL REFER TO THE CITY OF COLUMBUS EXECUTIVE ORDER 2015-01 FOR TREE PROTECTION AND REPLACEMENT.

PERMITS
THE CONTRACTOR IS TO OBTAIN ALL ALL NECESSARY PERMITS. AN ORIGINAL PERMIT, WITH RED SIGNATURES, SHALL BE KEPT ONSITE AT ALL TIMES.

WHEN OCCUPYING OR EXCAVATING WITHIN PUBLIC RIGHT OF WAY LIMITS, THE CONTRACTOR SHALL OBTAIN AN EXCAVATION PERMIT FROM THE CITY OF COLUMBUS DEPARTMENT OF PUBLIC SERVICE - PERMIT OFFICE BETWEEN THE HOURS OF 7:30AM AND 4:00PM MONDAY THROUGH FRIDAY.
PHONE: (614) 645-7497
FAX: (614) 645-1876
EMAIL: COLSPERMITS@COLUMUMBUS.GOV

MISCELLANEOUS WORK ITEMS
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 SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR THE PROJECT IMPROVEMENT.

SITE VISIT
THE CONTRACTOR IS REQUIRED TO VISIT THE SITE AND FULLY INFORM HIMSELF CONCERNING ALL CONDITIONS AFFECTING THE SCOPE OF THE WORK. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE HIM FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THIS CONTRACT.

SPECIAL NOTES
THE CONTRACTOR AND SUB-CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.

EXISTING UTILITIES
THE IDENTITY AND LOCATION OF THE EXISTING UNDERGROUND UTILITY FACILITIES KNOWN TO BE LOCATED IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE PLANS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY. THE CITY OF COLUMBUS AND/OR DESIGN ENGINEER ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OF THE LOCATION OR DEPTHS OF THE UNDERGROUND FACILITIES SHOWN ON THE PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST 48 HOURS TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE RELOCATION AND/OR PROTECTION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY. PRIVATE UTILITY MANHOLES WITHIN THE LIMITS OF THE WORK SHALL BE RE-ADJUSTED TO GRADE BY THE RESPECTIVE UTILITY COMPANY.

UTILITY POLES WITHIN INFLUENCE OF THE CONSTRUCTION OPERATIONS SHALL BE REINFORCED BY THE UTILITY COMPANY PRIOR TO THESE CONSTRUCTION ACTIVITIES. NOTIFICATION OF THE UTILITY COMPANY PRIOR TO CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

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

ALL EXISTING INVERTS ALONG WITH THE PROPOSED TOP OF CASTING ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION OF THE SEWER. MANHOLE TOPS SHALL BE ADJUSTED TO FINAL GRADE AS DIRECTED BY THE ENGINEER.

THE FLOW IN ALL SEWERS, DRAINS, FIELD TILE AND WATERCOURSES ENCOUNTERED SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE, AND WHENEVER SUCH WATERCOURSES AND DRAINS ARE DISTURBED OR DESTROYED DURING THE PROSECUTION OF THE WORK, THEY SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE TO A CONDITION SATISFACTORY TO THE ENGINEER.

ALL DRAIN TILE AND STORM SEWERS DAMAGED, DISTURBED OR REMOVED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH THE SAME QUALITY PIPE OR BETTER, MAINTAINING THE SAME GRADIENT AS EXISTING. THE DRAIN TILE AND/OR STORM SEWER SHALL BE CONNECTED TO THE CURB SUBDRAIN, STORM SEWER SYSTEM OR OUTLETTED INTO THE ROADWAY DITCH AS APPLICABLE. REPLACED DRAIN TILE/STORM SEWER SHALL BE LAID ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM. REPLACEMENT SHALL BE DONE AT THE TIME OF THE BACKFILL OPERATION. COST OF THIS WORK TO BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS.

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, ROCK CHANNEL PROTECTION, CONCRETE RIPRAP, SODDING, ETC.

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

PIPE SPECIFICATIONS FOR THE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE FOLLOWING CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS (UNLESS OTHERWISE NOTED IN THE STORM PROFILES):

REINFORCED CONCRETE PIPE ASTM C-76 (CMSC 706.02), CONCRETE CLASSIFICATION SHALL BE IN ACCORDANCE WITH THE FOLLOWING UNLESS OTHERWISE REFERENCED BY THE PROFILES:

-12" TO 15" DIAMETER PIPE, CLASS IV
-18" TO 24" DIAMETER PIPE, CLASS III
-27" TO 48" DIAMETER PIPE, CLASS II
- P.V.C. SEWER PIPE (CMSC 720.08) ASTM D3034 WITH JOINTS PER ASTM D3212. P.V.C. SEWER PIPE PLACEMENT SHALL BE LIMITED TO SEWERS UP TO AND INCLUDING 15" DIAMETER.
- P.V.C. SEWER PIPE (CMSC 720.09) ASTM F-679. P.V.C. SEWER PIPE PLACEMENT SHALL BE LIMITED TO SEWERS UP TO AND INCLUDING 36" DIAMETER.
- P.V.C. CORRUGATED SMOOTH INTERIOR PIPE (CMSC 720.10). P.V.C. SEWER PIPE PLACEMENT SHALL BE LIMITED TO SEWERS UP TO AND INCLUDING 48" DIAMETER.
- SMOOTH LINED CORRUGATED POLYETHYLENE PIPE THROUGH 48" DIAMETER (CMSC 720.12).
ALL BEDDING AND CONCRETE ENCASEMENT SHALL BE IN ACCORDANCE WITH THE CITY OF COLUMBUS STANDARD DRAWING AA-S151 FOR RIGID PIPE SEWER (6" TO 108" DIAMETER) AND CITY OF COLUMBUS STANDARD DRAWING AA-S149 FOR FLEXIBLE PIPE SEWER (6" TO 48" DIAMETER).

UTILITY TRENCH BACKFILL SHALL BE AS NOTED ON THE STORM SEWER PROFILES, SHEET 10.

THE PONDING OR DETENTION AREAS SHOWN ON THE PLANS ARE A PART OF THE STORM SEWER FACILITIES. THE DEVELOPER/OWNER WILL ASSUME THE RESPONSIBILITY TO MAINTAIN THE PONDING OR DETENTION AREAS SO AS NOT TO REDUCE THE WATER STORAGE AREAS. IF THE OWNER DOES NOT MAINTAIN THE PONDING AND DETENTION AREAS, THE PLAN WILL BECOME VOID AND THE CITY WILL PLUG SEWER AT THE OUTLET.

ROOF DRAINS
CONTRACTOR TO USE P.V.C. SEWER PIPE IN ACCORDANCE WITH ASTM D3034 AND CMSC 720 WITH JOINTS PER ASTM D3212 FOR ROOF DRAIN PIPE. REFERENCE MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR SIZES OF ROOF DRAIN TIE INS.

ALL BEDDING FOR ROOF DRAIN PIPE SHALL BE IN ACCORDANCE WITH CITY OF COLUMBUS STANDARD DRAWING AA-S149 FOR FLEXIBLE PIPE AND AA-S151 FOR RIGID PIPE.

ROOF DRAINS SHALL BE INSTALLED PER THE SLOPE DESIGNATED IN THE PLANS.

DEWATERING
THE COST OF ALL DEWATERING REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS.

ANY WELL, WELL POINT, PIT, OR OTHER DEVICE INSTALLED FOR THE PURPOSE OF LOWERING THE GROUND WATER TO FACILITATE CONSTRUCTION OF THIS PROJECT SHALL BE PROPERLY ABANDONED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 3745-9-10 OF THE OHIO ADMINISTRATIVE CODE OR IN ACCORDANCE WITH THE PROVISIONS OF THIS PLAN AS DIRECTED BY THE DIRECTOR OR HIS REPRESENTATIVE.

ANY CONTRACTOR INSTALLING ANY WET WELL, WELL POINT, PIT, OR OTHER DEVICE USED FOR THE PURPOSE OF REMOVING GROUND WATER FROM AN AQUIFER SHALL COMPLETE AND FILE A WELL LOG AND DRILLING REPORT FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), DIVISION OF WATER, WITHIN 30 DAYS OF THE WELL COMPLETION IN ACCORDANCE WITH THE OHIO REVISED CODE SECTION 1521.01 AND 1524.05. IN ADDITION, ANY SUCH FACILITY IS TO BE COMPLETED IN ACCORDANCE WITH SECTION 1521.16 OF THE OHIO REVISED CODE. FOR COPIES OF THE NECESSARY WELL LOG, DRILLING REPORT OR REGISTRATION FORMS, PLEASE CONTACT:

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER
2045 MORSE ROAD, BUILDING B
COLUMBUS, OHIO 43229-6693
(614) 265-6740

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ODNR FOR THE REGISTRY, MAINTENANCE AND ABANDONMENT OF ANY WITHDRAW DEVICE USED IN THE CONSTRUCTION OF THIS PROJECT.

CLEARING AND GRUBBING
CLEARING AND GRUBBING WITHIN THE DESIGNATED WORK LIMITS SHALL BE COMPLETED AS A PART OF THIS CONTRACT. THE CONTRACTOR IS ENCOURAGED TO VISIT THE SITE TO VERIFY EXTENT OF CLEARING AND GRUBBING LIMITS. ADDITIONAL CLEARING AND/OR GRUBBING SHALL BE PERFORMED AT THE DIRECTION OF THE CONSTRUCTION MANAGER IN ACCORDANCE WITH ITEM 201 DURING CONSTRUCTION OPERATIONS. NO BURNING IS PERMITTED UNLESS APPROPRIATE PERMITS ARE OBTAINED BY THE CONTRACTOR.

TREES
NO TREES SHALL BE REMOVED UNLESS APPROVED BY THE OWNER OR OWNER'S REPRESENTATIVE. ALL BRANCHES OR GROWTH FROM TREES THAT ARE TO BE SAVED AND WHICH ARE INTERFERING WITH THE FREE CONSTRUCTION OF THE PROJECT MAY BE REMOVED BY THE USE OF PRUNING TOOLS. ALL PRUNING TOOLS USED AND METHODS EMPLOYED SHALL MEET WITH THE APPROVAL OF THE CONSTRUCTION MANAGER. THE BRANCHES SHALL BE REMOVED WITH A GOOD CLEAN CUT MADE FLUSH WITH THE PARENT TRUNK OR IF HAVING GOOD HEALTHY LATERAL BRANCH, THE CUT SHALL BE A GOOD CLEAN CUT CLOSE TO AND BEYOND THE HEALTHY BRANCH. ALL PRUNING CUTS SHALL BE PAINTED WITH AN ACCEPTED PRUNING PRESERVATIVE. ALL BRANCH REMOVED SHALL BE AT THE DIRECTION OF THE CONSTRUCTION MANAGER. THE COST OF ALL WORK AND EXPENSES CONNECTED WITH THE REMOVAL OF TREES AND/OR BRANCHES SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS. NO EXTRA PAYMENT SHALL BE MADE THEREOF.

CLEARING LIMITS
ALL TREES, BRUSH AND STUMPS WITHIN THE SCOPE OF THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED. APPROVAL MUST BE GRANTED BY THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO REMOVAL OF ANY TREE ON THIS SITE.

DUST CONTROL
THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DUST CONTROL MEASURES IN ACCORDANCE WITH CMSC ITEM 616. DUST CONTROL OPERATIONS SHALL BE PERFORMED ON A PERIODIC BASIS AND/OR AS DIRECTED BY THE CONSTRUCTION MANAGER TO ALLEVIATE OR PREVENT THE DUST NUISANCE ORIGINATING WITHIN THE PROJECT LIMITS. THE COST FOR ALL DUST CONTROL MEASURES SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS.

NON-RUBBER TIRED VEHICLES
NON-RUBBER TIRED VEHICLES SHALL NOT BE MOVED ON PUBLIC STREETS. EXCEPTIONS MAY BE GRANTED BY THE CITY ENGINEER WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING, AND ANY DAMAGES MUST BE REPAIRED TO THE SATISFACTION OF THE CITY OF COLUMBUS.

STORAGE OF EQUIPMENT AND MATERIALS
NO MATERIALS, INCLUDING PIPE, SHALL BE STORED WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN ONE HUNDRED (100) FEET OF ANY INTERSECTING STREET OR DRIVEWAY. DURING NON-WORKING HOURS, STORAGE OF EQUIPMENT SHALL COMPLY WITH THESE SAME REQUIREMENTS. COMPLIANCE WITH THESE REQUIREMENTS ALONG WITH ADDITIONAL PROVISIONS OF THE CONTRACT SPECIFICATIONS SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS LEGAL RESPONSIBILITIES FOR THE SAFETY OF THE PUBLIC.

SANITARY FACILITIES
THE CONTRACTOR SHALL FURNISH AND MAINTAIN SANITARY CONVENIENCE FACILITIES FOR THE WORKMEN AND INSPECTORS FOR THE DURATION OF THE WORK. COST SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS IMPROVEMENT ITEMS.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL
EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS A PART OF THIS PROJECT. EROSION AND SEDIMENT CONTROL MEASURES SPECIFIC TO THIS SITE MAY BE FOUND ON SHEETS 3-5 OF THIS PLAN. LAND-DISTURBING ACTIVITIES MUST COMPLY WITH ALL PROVISIONS OF THE DIVISION OF SEWERAGE AND DRAINAGE EROSION AND SEDIMENT CONTROL REGULATION. ALL LAND-DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE CITY OF COLUMBUS AND/OR THE OHIO EPA.

IT IS THE RESPONSIBILITY OF THE SITE OWNER TO NOTIFY THE CITY OF COLUMBUS TWO WORKING DAYS PRIOR TO COMMENCEMENT OF THE INITIAL SITE LAND DISTURBANCE ON ANY SITE OF ONE OR MORE ACRES. THIS INCLUDES SITE CLEARING, GRUBBING AND ANY EARTH MOVING. PRIMARY EROSION AND SEDIMENT CONTROL PRACTICES ARE MANDATED BY REGULATION TO BE IN PLACE FROM THE BEGINNING OF THE CONSTRUCTION ACTIVITY. PLEASE CONTACT THE STORMWATER MANAGEMENT OFFICE BY PHONE AT (614) 645-6700 OR FAX AT (614) 645-1506. DETAILS OF THIS REQUIREMENT MAY BE FOUND IN THE EROSION AND SEDIMENT POLLUTION CONTROL REGULATION (ADOPTED JUNE 1, 1994). FAILURE TO COMPLY MAY RESULT IN ENFORCEMENT ACTION AS DETAILED IN THE CITY OF COLUMBUS CODES, SECTION 1145.80. MAINTENANCE OF THE EXISTING EROSION AND SEDIMENTATION CONTROL FEATURES SHALL BE THE OBLIGATION OF THE SITE STORMWATER CONTRACTOR.

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

AREA RESTORATION
THE CONTRACTOR SHALL LEAVE THE AREA DISTURBED BY HIS STORM SEWER WORK TO AS GOOD OF CONDITION AS THE AREA WAS PRIOR TO COMMENCEMENT OF HIS WORK. ANY DAMAGES TO OTHER UTILITIES DURING THIS WORK BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE.

FOR THE DIVISION OF POWER
THE DIVISION OF POWER MAY HAVE OVERHEAD AND UNDERGROUND PRIMARY, SECONDARY, AND STREET LIGHTING AT THIS WORK LOCATION. THE CONTRACTOR IS HEREBY REQUIRED TO CONTACT OUPS AT 811 OR 1-800-363-2764 FORTY- EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA.

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL FACILITIES IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER DIRECTION OF DOP PERSONNEL AND AT THE EXPENSE OF THE PROJECT. DOP SHALL MAKE ALL FINAL CONNECTIONS TO DOP'S EXISTING ELECTRICAL SYSTEM AT THE EXPENSE OF THE PROJECT. THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEM BY FOLLOWING DOP'S "MATERIAL AND INSTALLATION SPECIFICATIONS" (MIS) AND THE CITY OF COLUMBUS "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (CMSC). ANY NEW OR RE-INSTALLED UNDERGROUND STREET LIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION 1000.18 OF THE CMSC MANUAL. THE CONTRACTOR SHALL CONFORM TO DOP'S EXISTING STREET LIGHT LOCKOUT/TAGOUT (LOTO) PROCEDURE, MIS-1, COPIES OF WHICH ARE AVAILABLE FROM DOP.

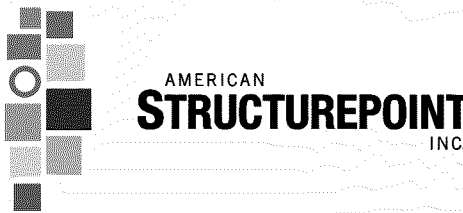
IF ANY ELECTRIC FACILITY BELONGING TO DOP IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, AND REQUIRES EMERGENCY REPAIRS, THE DOP DISPATCH OFFICE SHOULD BE CONTACTED IMMEDIATELY AT (614) 645-7627. DOP SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DIVISION OF POWER, CITY OF COLUMBUS, OHIO.

PAVEMENT CUTTING, SAWING AND EXCAVATION OPERATIONS NOTE:
ALL PUBLIC AGENCIES AND PRIVATE CONTRACTORS PERFORMING PAVEMENT-CUTTING OPERATIONS ON CITY OF COLUMBUS STREETS AND ROADWAYS SHALL PROTECT THE ENVIRONMENT FROM DISCHARGES CREATED BY THEIR PAVEMENT CUTTING OPERATIONS. NOTE THAT COLUMBUS CITY CODE 1145 PROHIBITS NON-STORMWATER DISCHARGE INTO THE CITY OF COLUMBUS SEWER SYSTEM, CURB INLETS AND ANY PART OF ITS MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM).

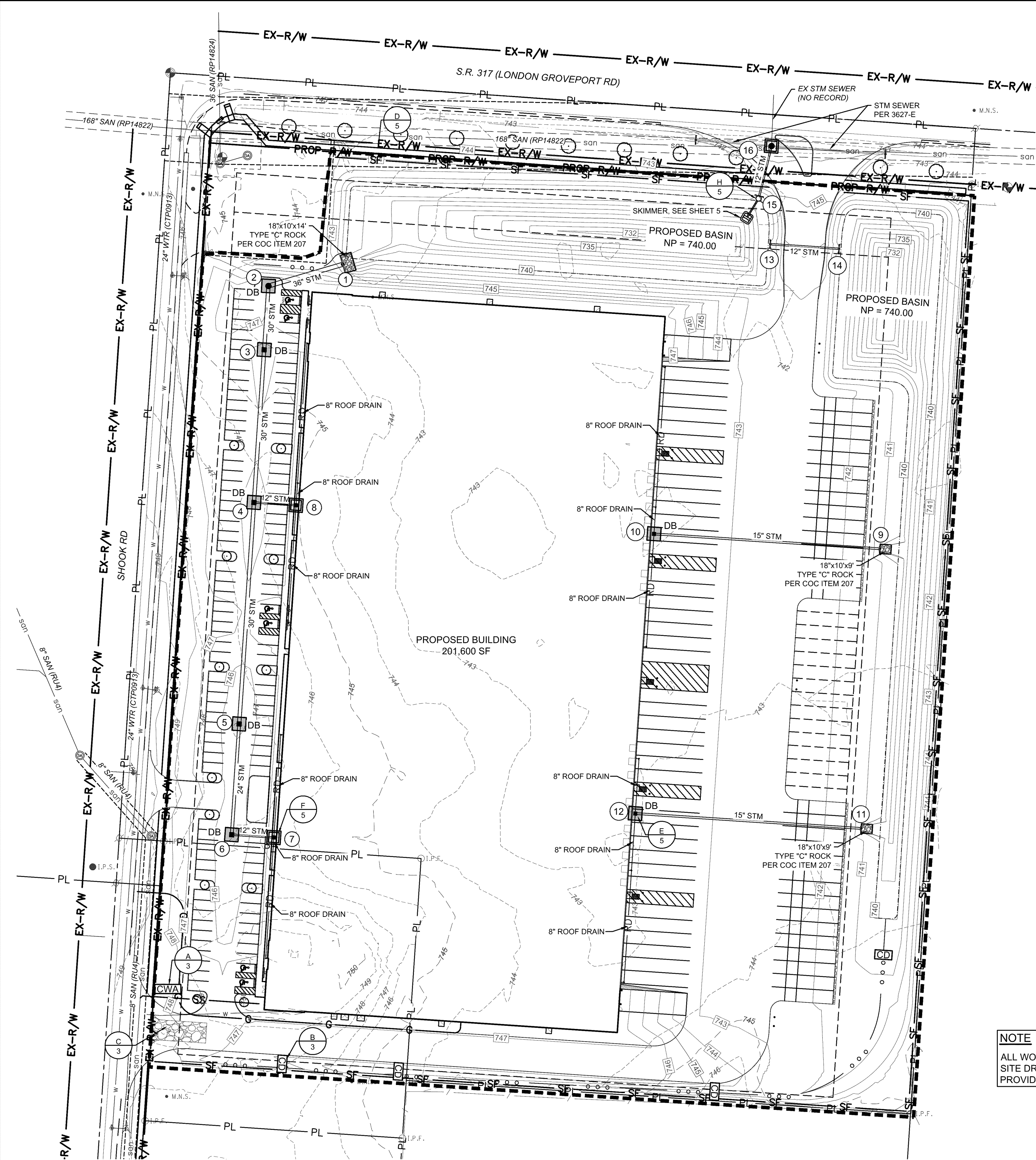
THE REQUIREMENT INCLUDES BUT IS NOT LIMITED TO WET OR DRY SAW-CUTTING, JACK HAMMERING, EXCAVATION EQUIPMENT USE, ETC. THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR WORK CREWS SHALL RECOVER AND DISPOSE OF DETRITUS, POLLUTED WATERS, OR OTHER SUCH DISCHARGES RESULTING FROM THEIR PAVEMENT CUTTING OPERATIONS AND PROTECT ALL STORM SEWER INLETS FROM RECEIVING ANY DISCHARGES FROM THE CONSTRUCTION OPERATIONS. THE AGENCY OR CONTRACTOR RESPONSIBLE FOR EACH PAVEMENT CUTTING ACTIVITY SHALL BE SOLELY LIABLE FOR NOTICE OF VIOLATIONS (NOV/S) AND FINES ISSUED BY CITY OF COLUMBUS AND/OR STATE OF OHIO AUTHORITIES.

EQUIPMENT, MATERIALS AND METHODS SHALL BE PROVIDED BY THE RESPONSIBLE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR TO WORK CREWS PERFORMING THE PAVEMENT CUTTING ACTIVITY AND MADE AVAILABLE TO WORK CREWS FOR USE IN CLEANING UP DISCHARGES RESULTING FROM SUCH CUTTING ACTIVITIES AND PREVENTING RUNOFF. ALL WORK CREWS SHALL BE TRAINED TO EXERCISE AND EMPLOY EQUIPMENT, MATERIALS, AND ENVIRONMENTAL PROTECTIVE MEASURES TO PREVENT POLLUTED DISCHARGES FROM ENTERING THE CITY OF COLUMBUS STORM SEWER SYSTEM AND WATERS OF THE STATE OF OHIO.

THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE INLET PROTECTION IS ADEQUATE. THE MOST STRINGENT PROJECT PLANS, NOTES AND/OR DRAWINGS INCLUDING STORMWATER POLLUTION PREVENTION PLAN (SWP3) OR SPILL PREVENTION/REMEDIATION PLAN SHALL APPLY TO ALL PAVEMENT CUTTING, SAWING OR EXCAVATION OPERATIONS.

EASEMENT REFERENCE				REVISIONS			PLAN PREPARED BY: <div></div>		PROJECT TITLE: PRIVATE STORM SEWER, GRADING AND DETENTION AREAS FOR ARCO - SHOOK ROAD INDUSTRIAL 0 LONDON GROVEPORT RD COLUMBUS, OHIO								CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE			
CITY NO.	COUNTY RECORDER		GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE			DIVISION USE ONLY				OWNER							
	VOL.	PAGE																		
								CONTRACTOR				GENERAL NOTES								
								INSPECTOR												
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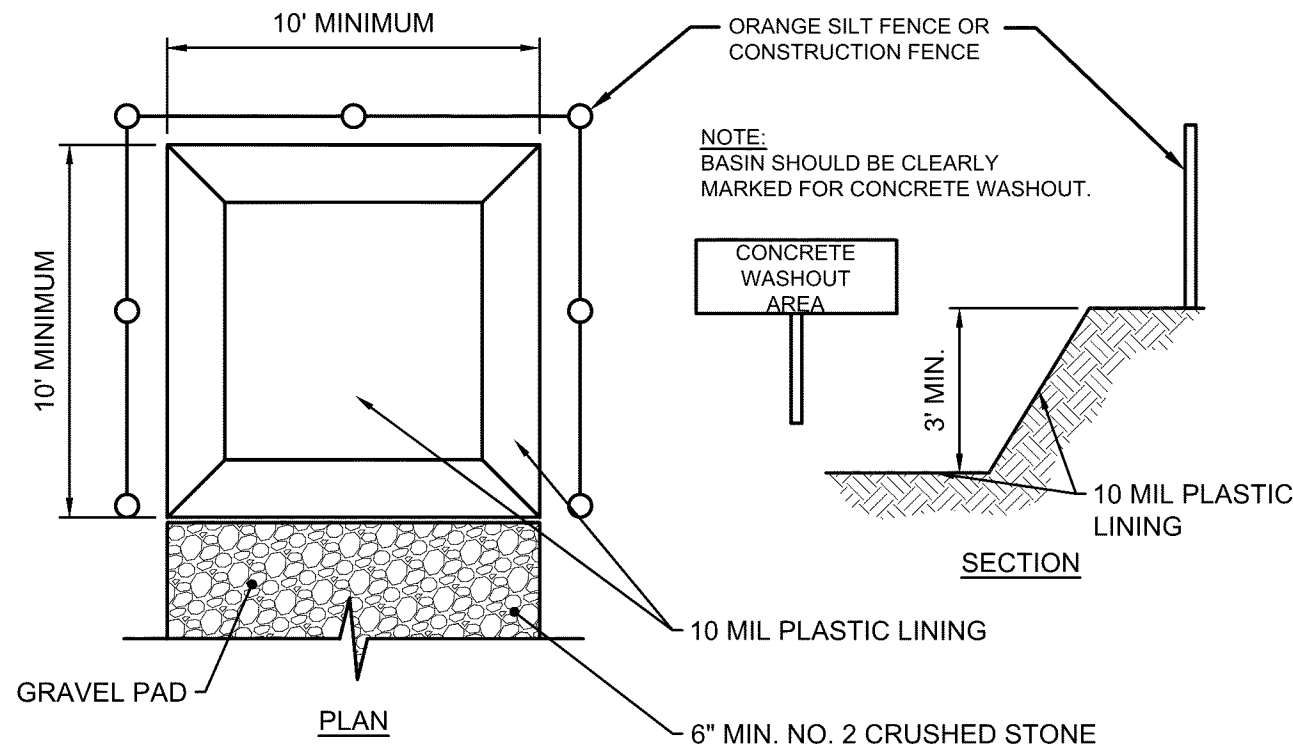
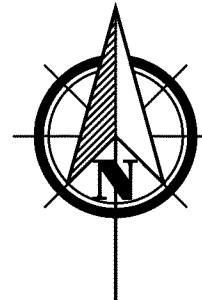


EROSION CONTROL LEGEND

- XXX--- PROPOSED MAJOR CONTOUR
- xxx--- PROPOSED MINOR CONTOUR
- XXX--- EXISTING MAJOR CONTOUR
- xxx--- EXISTING MINOR CONTOUR
- XXX--- LIMITS OF DISTURBANCE
- SF--- SILT FENCE
- SW--- SWALE
- [CWA] CONCRETE WASHOUT AREA
- [CD] CHECK DAM
- [DB] DANDY BAG INLET PROTECTION
- [SIF] SILT FENCE INLET PROTECTION
- [RCP] ROCK CHANNEL PROTECTION
- [TSK] TEMPORARY SKIMMER, SEE SHEET 5

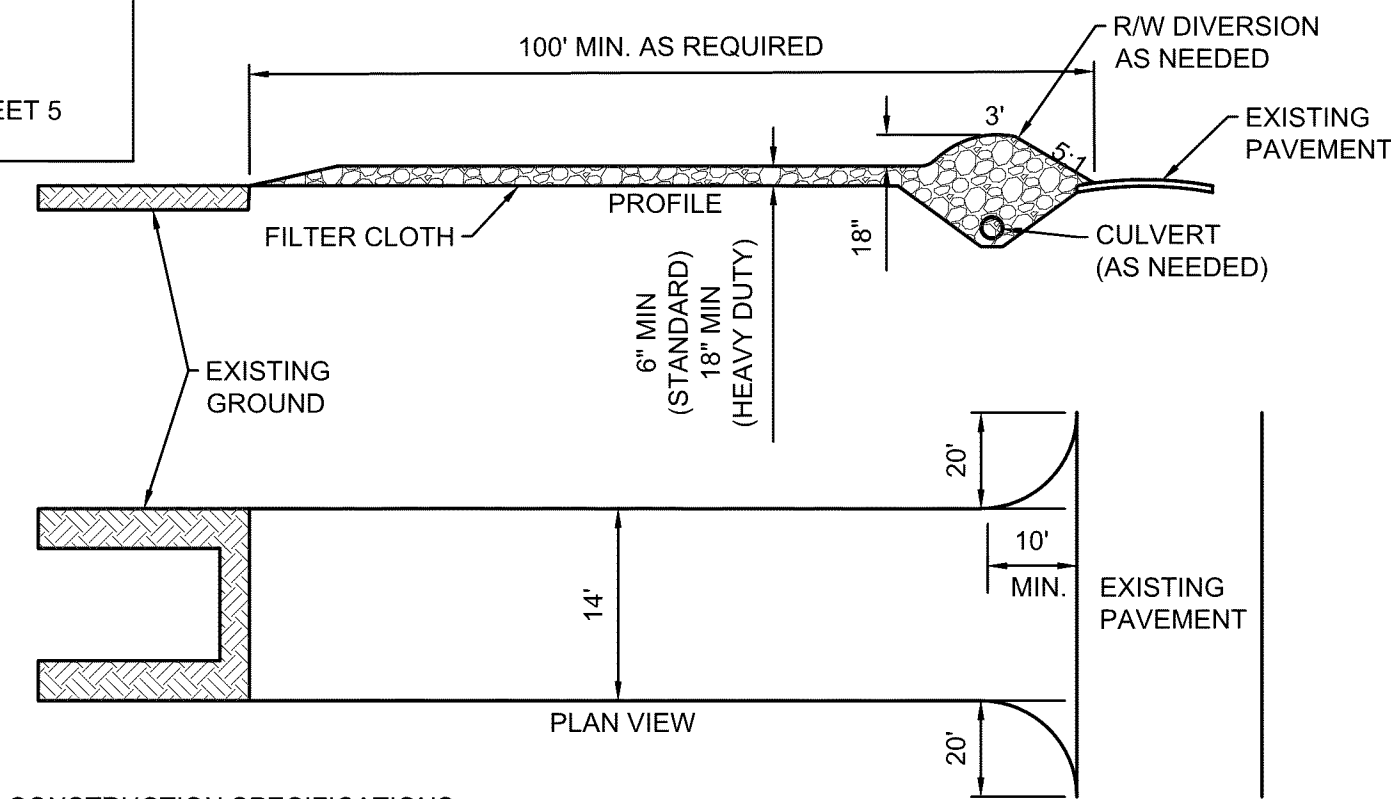
NOTE
UPPER BANK ABOVE NORMAL WATER ELEVATION SHOULD BE STABILIZED QUICKLY WITH STRAW BLANKETS, JUTTE MATTING, OR SIMILAR GEO-TEXTILE.

NOTE
ALL WORK IN RIGHT-OF-WAY, INCLUDING SITE DRIVE APPROACHES, ARE TO BE PROVIDED AND DETAILED PER 3627-E.



- NOTE:**
- ACTUAL LAYOUT DETERMINED IN THE FIELD, BY CONTRACTOR.
 - THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
 - THE USE OF PORTABLE CONCRETE WASHOUT UNITS IS APPROVED (AND ENCOURAGED) FOR ALL CONSTRUCTION AREAS IN THE CITY OF COLUMBUS

A CONCRETE WASHOUT AREA
NOT TO SCALE

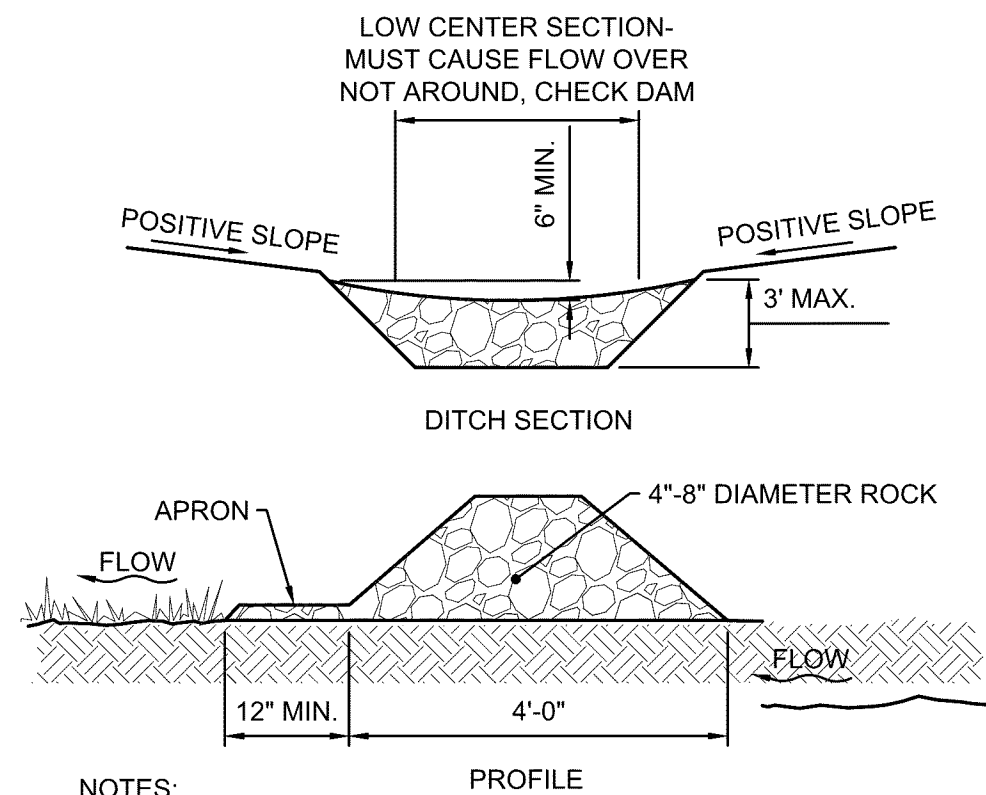


CONSTRUCTION SPECIFICATIONS:

- STONE SIZE—ODOT # 2 (1.5-2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH—THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
- THICKNESS -THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.
- WIDTH -THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS
- GEOTEXTILE -A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	
MINIMUM TENSILE STRENGTH	200 lbs
MINIMUM PUNCTURE STRENGTH	80 psi
MINIMUM TEAR STRENGTH	50 lbs
MINIMUM BURST STRENGTH	320 psi
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS<0.6 mm
PERMITIVITY	1x10 ⁻³ cm/sec

C CONSTRUCTION ENTRANCE
NOT TO SCALE

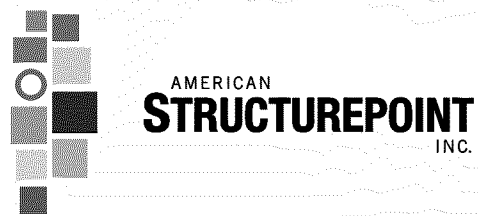


- NOTES:**
- CONSTRUCT CHECK DAM SUCH THAT THE CENTER IS 6" LOWER THAN THE OUTER EDGES.
 - SPACE CHECK DAMS SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
 - SIDE SLOPES SHALL BE A MINIMUM OF 2:1

B ROCK CHECK DAM
NOT TO SCALE

- TIMING—THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
- CULVERT -A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
- 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.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR PREVENT FLOWING SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE 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. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
- 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. WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- REMOVAL—THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

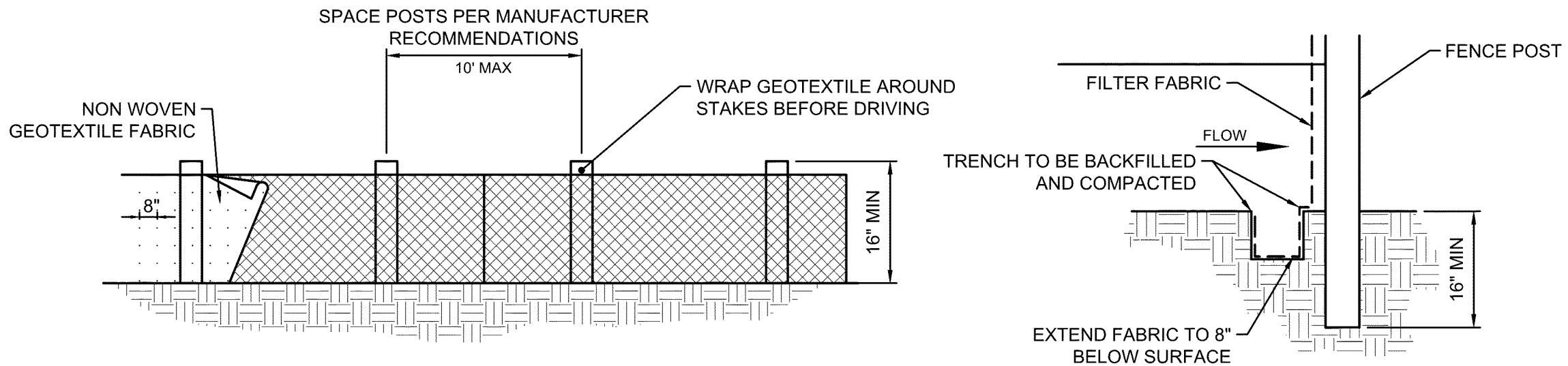
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PROJECT TITLE:	
PRIVATE STORM SEWER, GRADING AND DETENTION AREAS FOR	
ARCO - SHOOK ROAD INDUSTRIAL	
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COLUMBUS, OHIO	
DIVISION USE ONLY	
OWNER	
CONTRACTOR	
INSPECTOR	
AGREEMENT	
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CITY OF COLUMBUS, OHIO	
DEPARTMENT OF PUBLIC UTILITIES	
DIVISION OF SEWERAGE AND DRAINAGE	
DIVISION USE ONLY	
EROSION & SEDIMENT CONTROL PLAN	
SCALE: 1" = 60'	
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RECORD PLAN NO.	

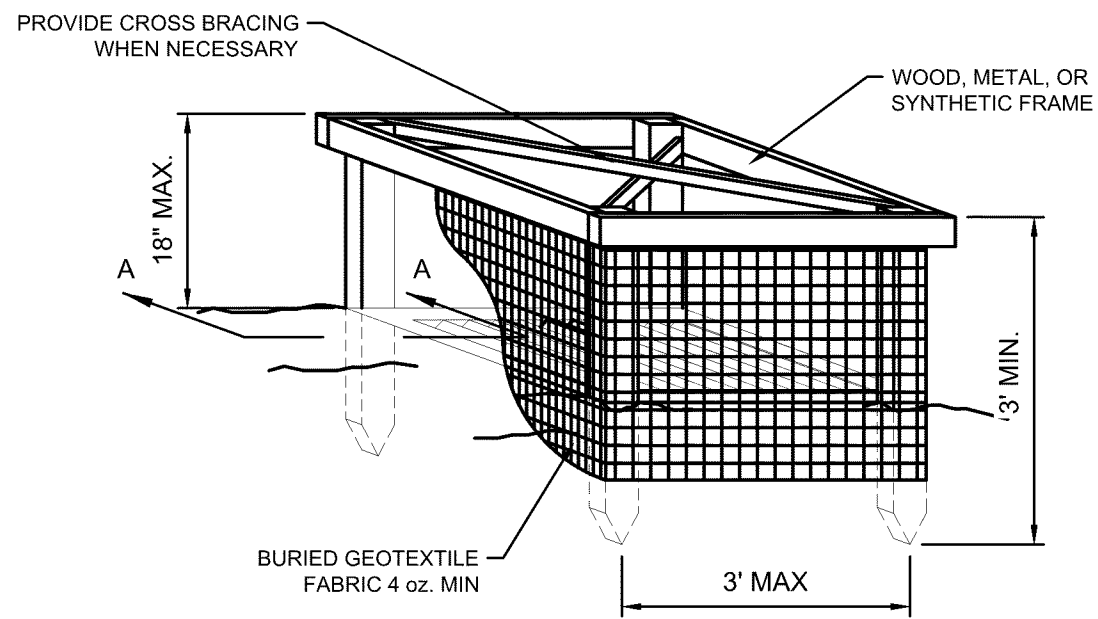
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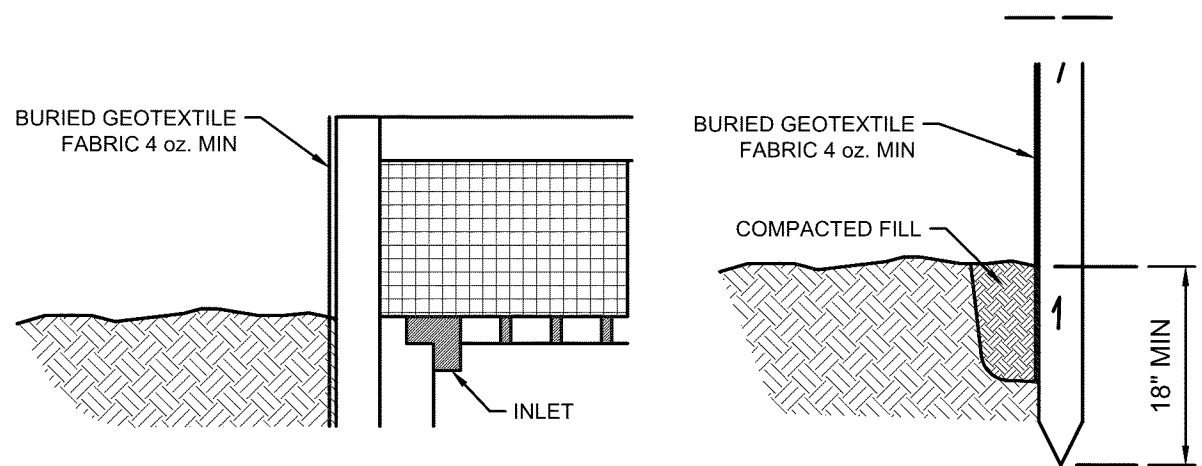
NOTES:

- FENCE POST SHALL BE A MINIMUM LENGTH OF 32 INCHES LONG PLUS BURIAL DEPTH, COMPOSED OF NOMINAL DIMENSIONED 2x2 INCH HARDWOOD OF SOUND QUALITY. ALTERNATELY POST MATERIAL SHALL BE STEEL OR SYNTHETIC AND SHALL BE OF SUFFICIENT STRENGTH TO RESIST DAMAGE DURING INSTALLATION, TO SUPPORT APPLIED LOADS, AND SO THE GEOTEXTILE CAN BE ADEQUATELY SECURED TO POST
- FABRIC SHALL BE A NEEDLE PUNCHED NON-WOVEN GEOTEXTILE FABRIC CONSISTING OF STRONG, ROT RESISTANT, MATERIALS RESISTANT TO DETERIORATION FROM ULTRAVIOLET AND HEAT EXPOSURE.
- MINIMUM 8" FABRIC BURY REQUIRED.
- ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
- THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.

D SILT FENCE
NOT TO SCALE



FRAME DETAIL



SECTION A-A

TRENCH DETAIL

NOTE:

PROVIDE FOR INLETS **NOT** LOCATED IN PAVEMENT

F SILT FENCE INLET PROTECTION
NOT TO SCALE

- SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
- SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY HALF THE HEIGHT OF THE SILT FENCE.

MINIMUM CRITERIA FOR SILT FENCE FABRIC (ODOT, 2002)		
MINIMUM TENSILE STRENGTH	120 lbs (535 N)	ASTM D 4632
MAXIMUM ELONGATION AT 60 LBS	50%	ASTM D 4632
MINIMUM PUNCTURE STRENGTH	50 lbs (220 N)	ASTM D 4833
MINIMUM TEAR STRENGTH	40 lbs (180 N)	ASTM D 4533
APPARENT OPENING SIZE	≤ 0.84 mm	ASTM D 4751
MINIMUM PERMITIVITY	1x10 ⁻² sec. ⁻¹	ASTM D 4491
UV EXPOSURE STRENGTH RETENTION	70%	ASTM D 4355

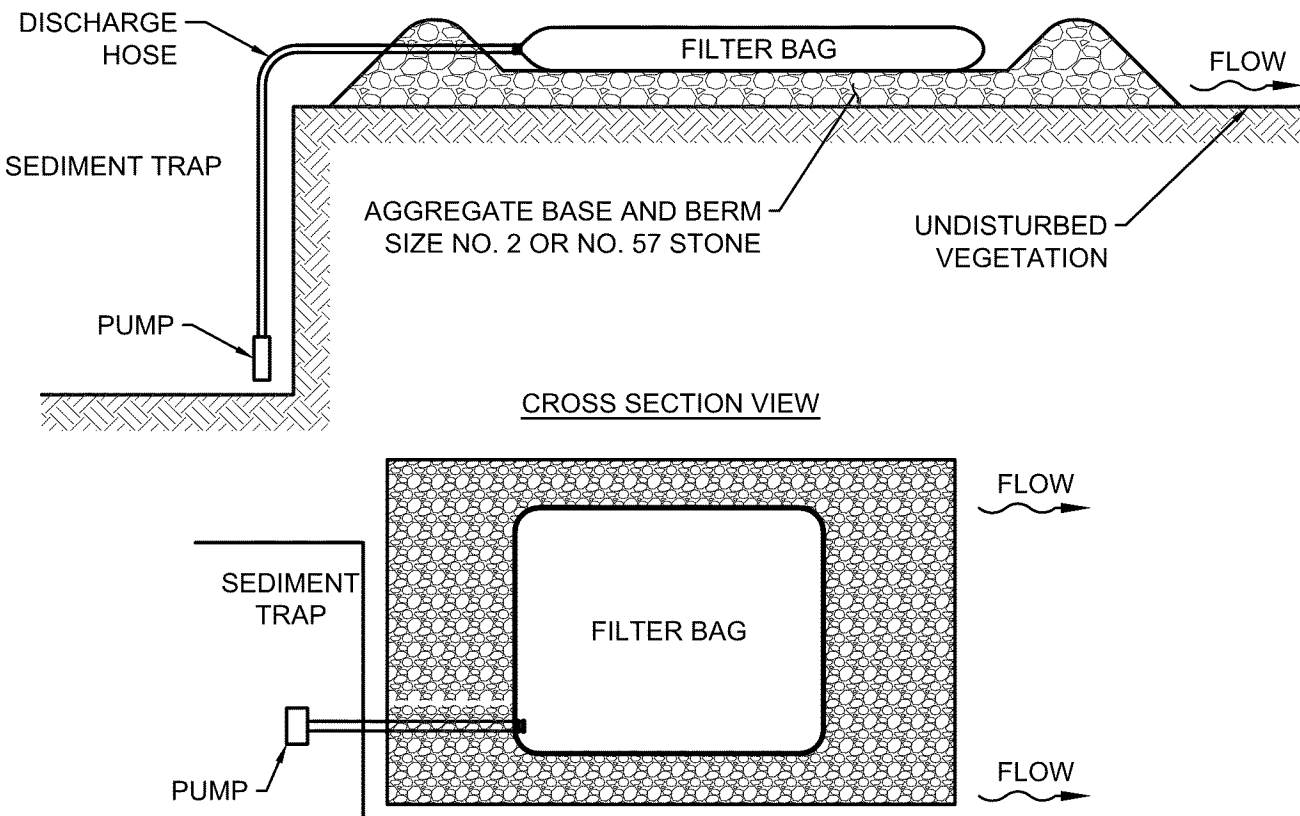
INSTALLATION:

- STAND GRATE ON END, PLACE DANDY BAG OVER GRATE.
- FLIP GRATE OVER SO THAT OPEN END IS UP. PULL UP SLACK, TUCK FLAP IN. BE SURE END OF GRATE IS COMPLETELY COVERED BY FLAP OR DANDY BAG WILL NOT FIT PROPERLY.
- HOLDING HANDLES, CAREFULLY PLACE DANDY BAG WITH THE GRATE INSERTED INTO CATCH BASIN FRAME SO THAT RED DOT ON THE TOP OF THE DANDY BAG IS VISIBLE.

MAINTENANCE:

AFTER EACH STORM EVENT AND SILT HAS DRIED, REMOVE ACCUMULATED DEBRIS FROM THE SURFACE OF DANDY BAG WITH BROOM.

E DANDY BAG INLET PROTECTION
NOT TO SCALE



NOTES:

- THE CONTRACTOR SHALL PUMP MUDDY WATER DETAINED WITHIN THE SEDIMENT TRAP INTO A FILTER FABRIC BAG. THE BAG SHALL BE PLACED WITHIN A LEVEL UNDISTURBED AREA AS FAR AWAY FROM THE STORMWATER OUTFALL AS POSSIBLE. PLACE BAG ON TOP OF A AGGREGATE PAD.
- A PERIMETER AGGREGATE BERM SHALL BE CONSTRUCTED AROUND THE BAG.
- PERIMETER SILT FENCE CONTROLS SHALL BE UTILIZED ALONG THE DOWNSTREAM SIDE OF THE BAG. INSTALL PERIMETER CONTROLS TO ENSURE THAT THE WATER FLOWING OUT OF THE BAG DOES NOT FLOW AROUND THE ENDS OF THE CONTROLS.
- UPON COMPLETION OF DRILLING ACTIVITIES, THE BAG SHALL BE REMOVED TO AN AREA AWAY FROM THE STORMWATER OUTFALL AND OPENED. REMOVE ACCUMULATED SEDIMENT AND PROPERLY DISPOSE OF THE MATERIAL. FILTER BAG SHALL BE JMD ENVIRO-PROTECTION FILTER BAG OR APPROVED EQUAL.

G DEWATERING FILTER BAG
NOT TO SCALE

FILTER BAG SIZING**	
FILTER SIZE	MAX PUMPING RATE
5' x 15'	750 GPM
15' x 15'	1500 GPM
15' x 30'	3000 GPM

**THE AMOUNT OF DISCHARGE WATER A BAG CAN EFFECTIVELY HANDLE DEPENDS ON THE PUMP FLOW RATE, THE AMOUNT OF SEDIMENT IN THE WATER, THE SOIL CONDITIONS UNDER THE BAG, AND THE DEGREE OF THE SLOPE. BAG SHOULD BE CONTINUALLY MONITORED.



AMERICAN
STRUCTUREPOINT
INC.

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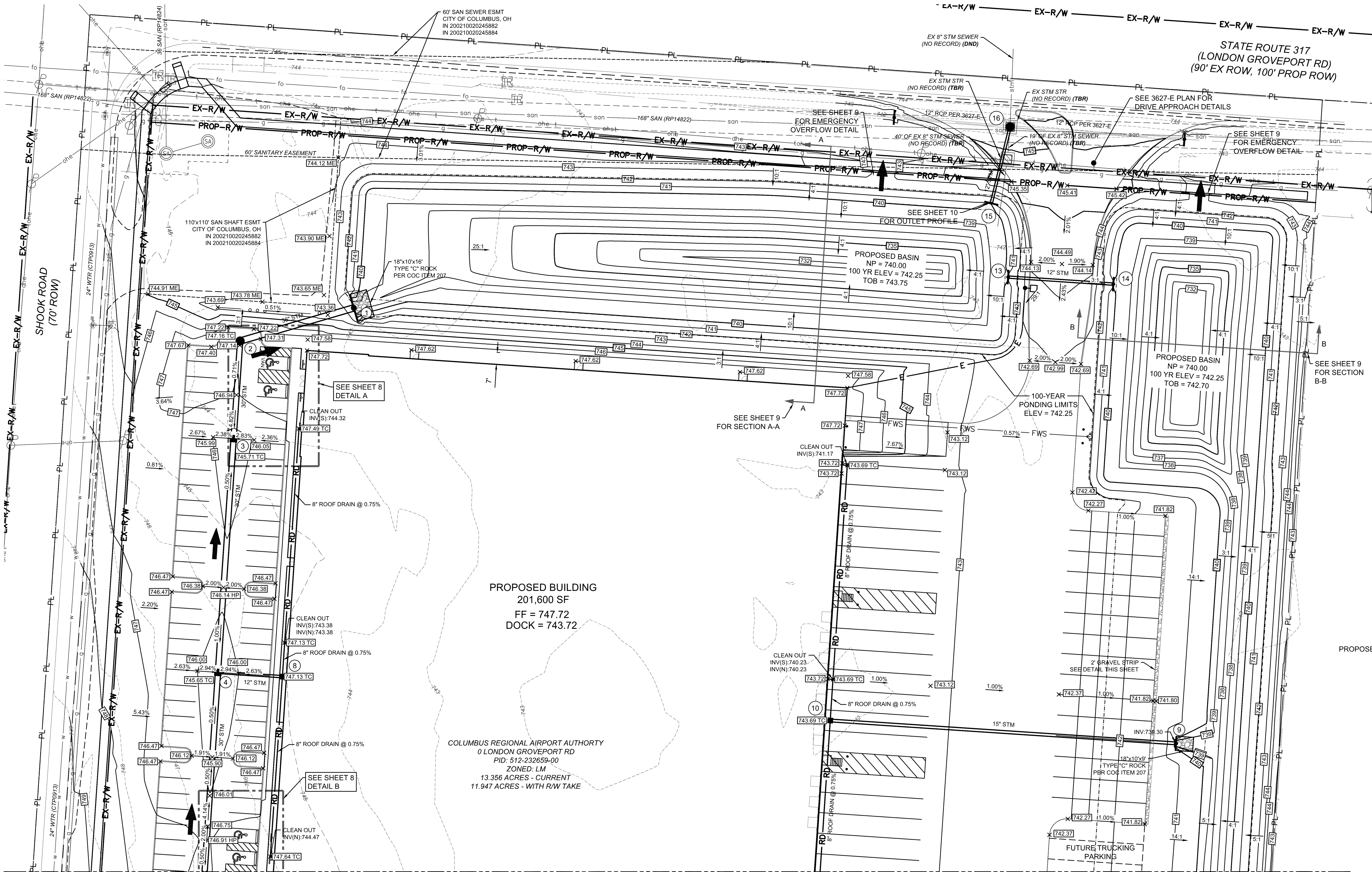
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GRADING LEGEND

- XXX— PROPOSED MAJOR CONTOUR
- xxx— PROPOSED MINOR CONTOUR
- XXX--- EXISTING MAJOR CONTOUR
- xxx--- EXISTING MINOR CONTOUR
- FF=XXXX.XX FINISHED FLOOR ELEVATION
- X XXX.XX SPOT ELEVATION
- X XXX.XX TC TOP OF CASTING ELEVATION
- X XXX.XX HP HIGH POINT ELEVATION
- X XXX.XX ME MATCH EXISTING ELEVATION
- X XXX.XX XB TOP OF CURB ELEVATION
- X XXX.XX XB BOTTOM OF CURB ELEVATION
- X XXX% SLOPE ARROWS
- ~ FLOW ARROW
- ← FLOOD ROUTE
- NORMAL POOL
- SWALE
- 100-YEAR PONDING LIMITS

PROPOSED PAVEMENT

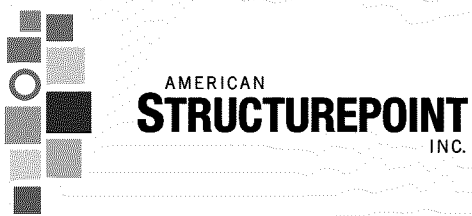
NOTE:

- ODOT #3 STONE SHALL BE CLEAN, DOUBLE WASHED, BANK RUN GRAVEL OR CRUSHED AGGREGATE, FREE OF ROCK DUST, FINES, OR SOIL PARTICLES.

GRAVEL STRIP DETAIL

NOT TO SCALE

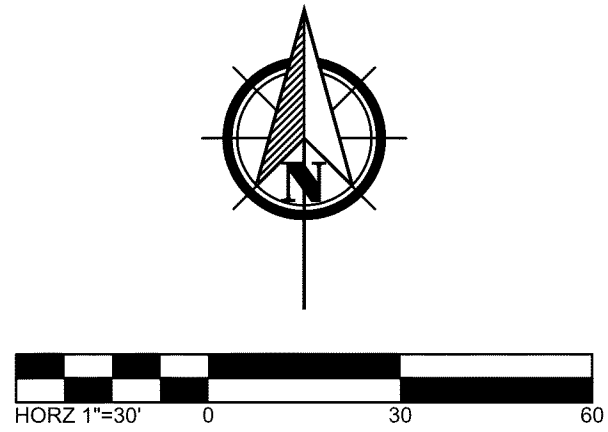
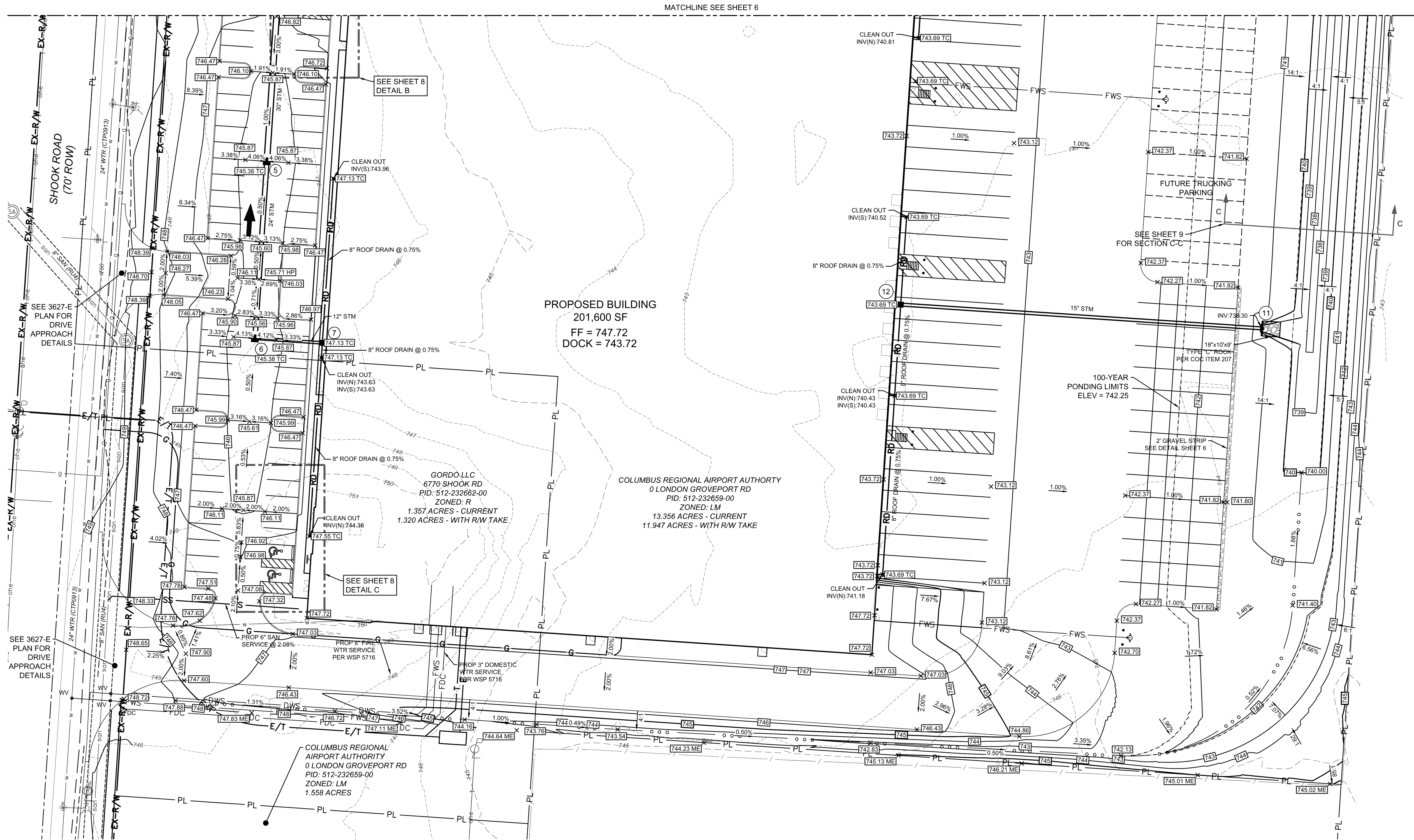
EASEMENT REFERENCE				REVISIONS		
CITY NO.	COUNTY RECORDER		GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE
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PROJECT TITLE: PRIVATE STORM SEWER, GRADING AND DETENTION AREAS FOR ARCO - SHOOK ROAD INDUSTRIAL 0 LONDON GROVEPORT RD COLUMBUS, OHIO			
DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
		AGREEMENT	COMPLETED
		RPD	CKD
		CID	CON.DR.
		INDEX DETAIL	RECORD FILE

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY GRADING PLAN	
SCALE: 1" = 30'	SHEET 6/11
CONTRACT DRAWING NO. CC-18509	RECORD PLAN NO.

PLOT SCALE: 1" = 30' DATE: 7/22/19 7:40 AM EDITED BY: MSCHULZE DRAWING FILE: O:\2019\0069D.DRAWINGSCIVIL\CONSTRUCTION DOCUMENTS\CC STORM\2019 0069D CC GRADING OVERALL.DWG



GRADING LEGEND	
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	FINISHED FLOOR ELEVATION
	SPOT ELEVATION
	TOP OF CASTING ELEVATION
	HIGH POINT ELEVATION
	MATCH EXISTING ELEVATION
	TOP OF CURB ELEVATION BOTTOM OF CURB ELEVATION
	SLOPE ARROWS
	FLOW ARROW
	FLOOD ROUTE
	NORMAL POOL
	SWALE
	100-YEAR PONDING LIMITS

EASEMENT REFERENCE			REVISIONS		
CITY NO.	COUNTY RECORDER		NO.	DESCRIPTION	APPROVAL/DATE
	VOL.	PAGE			

PLAN PREPARED BY:

PROJECT TITLE:

PRIVATE STORM SEWER, GRADING AND DETENTION AREAS FOR

ARCO - SHOOK ROAD INDUSTRIAL

0 LONDON GROVEPORT RD
COLUMBUS, OHIO

DIVISION USE ONLY		OWNER	
		CONTRACTOR	
		INSPECTOR	
		AGREEMENT	COMPLETED
		RPD	CKD CID CON.DR.
		INDEX DETAIL	RECORD FILE

CITY OF COLUMBUS, OHIO
DEPARTMENT OF PUBLIC UTILITIES
DIVISION OF SEWERAGE AND DRAINAGE

DIVISION USE ONLY

GRADING PLAN

SCALE: 1" = 30'	SHEET 7/11
CONTRACT DRAWING NO. CC-18509	RECORD PLAN NO.

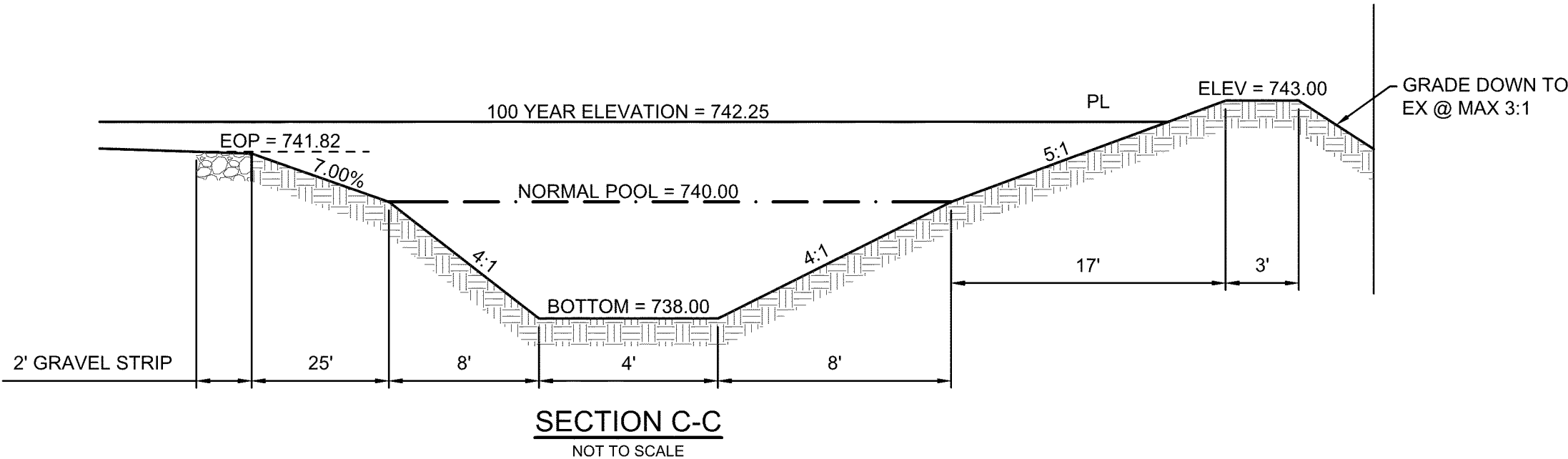
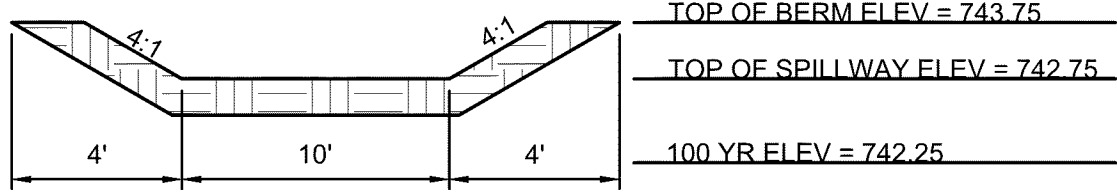


HORZ 1"=10' 0 10 20



GRADING DETAIL C

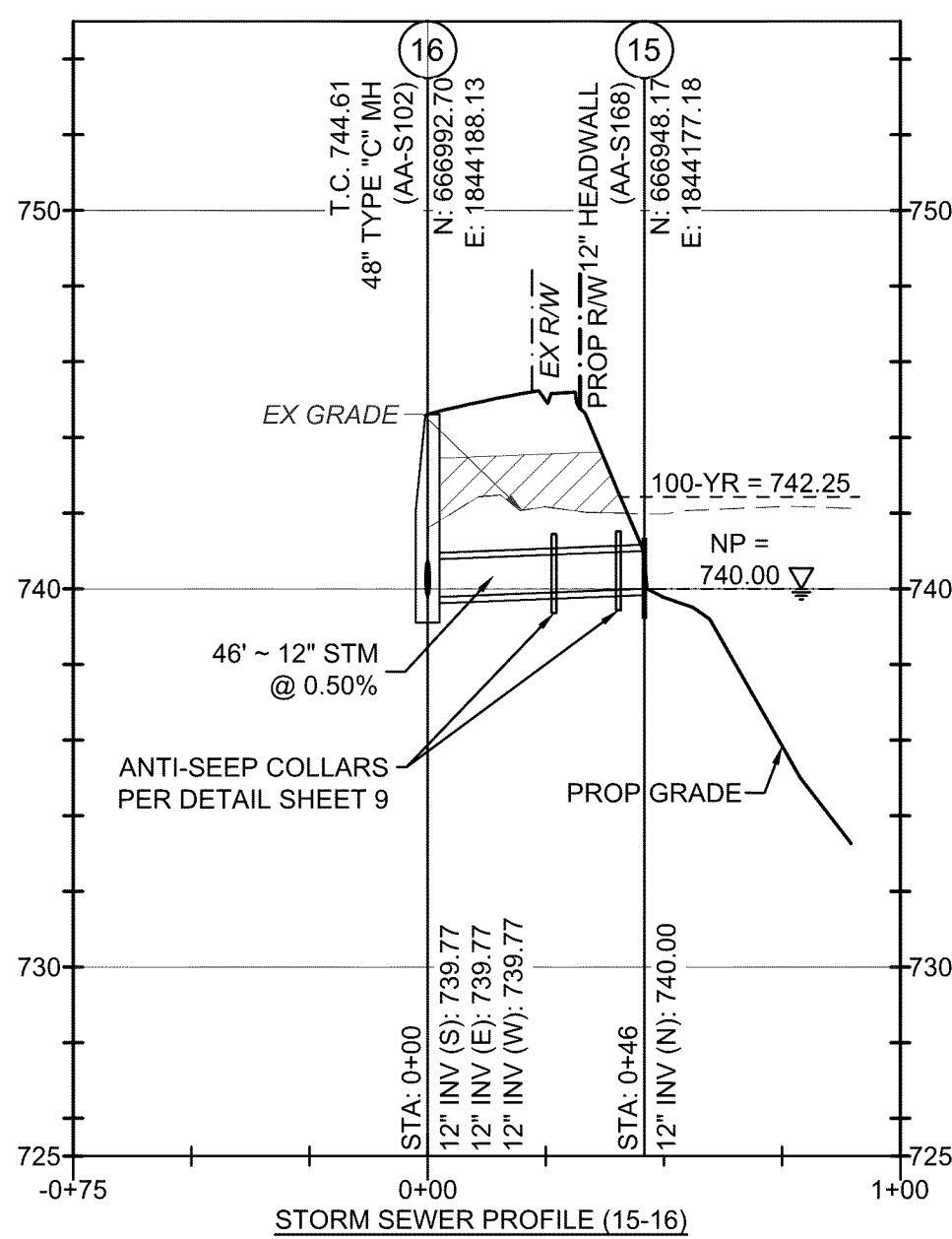
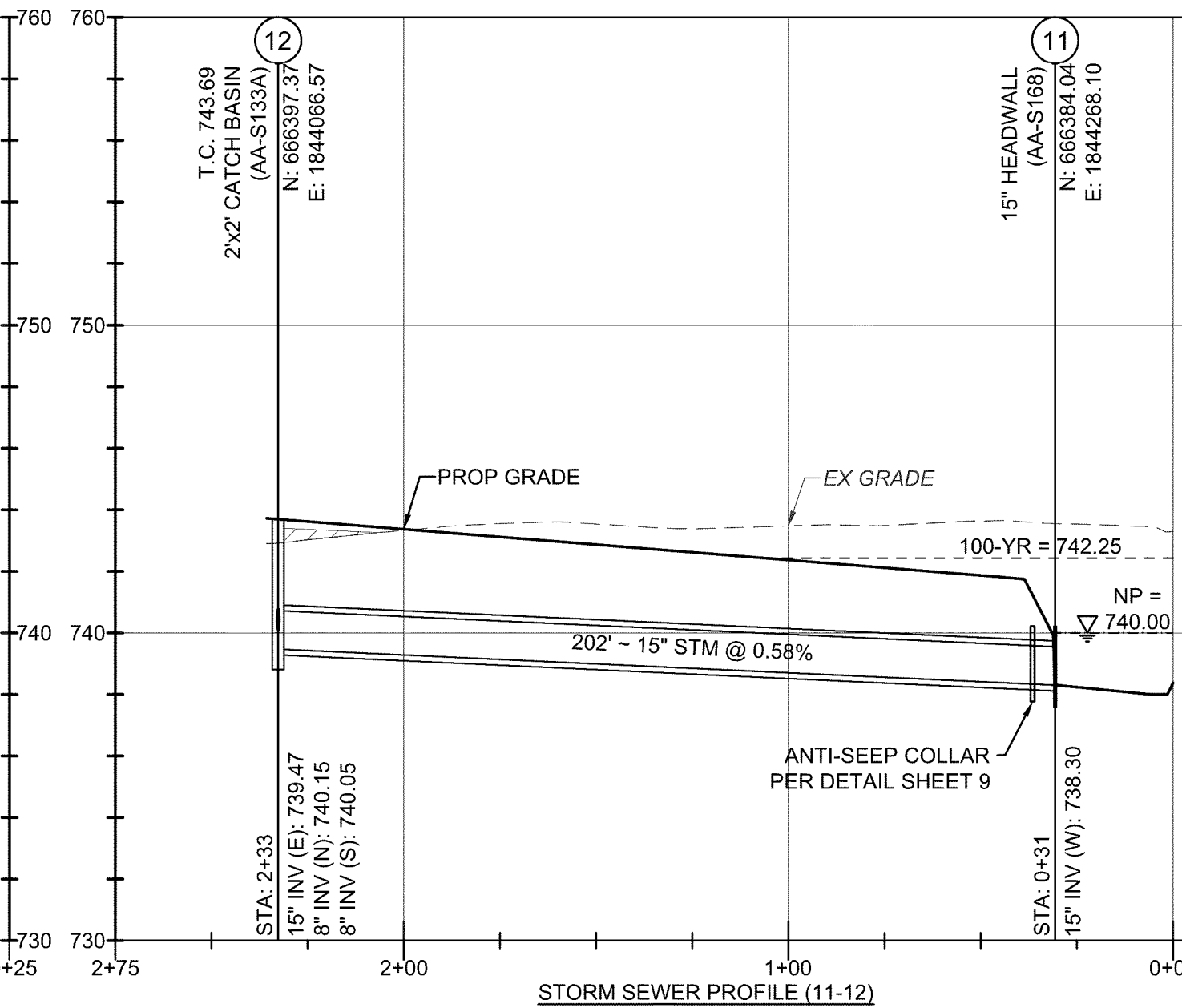
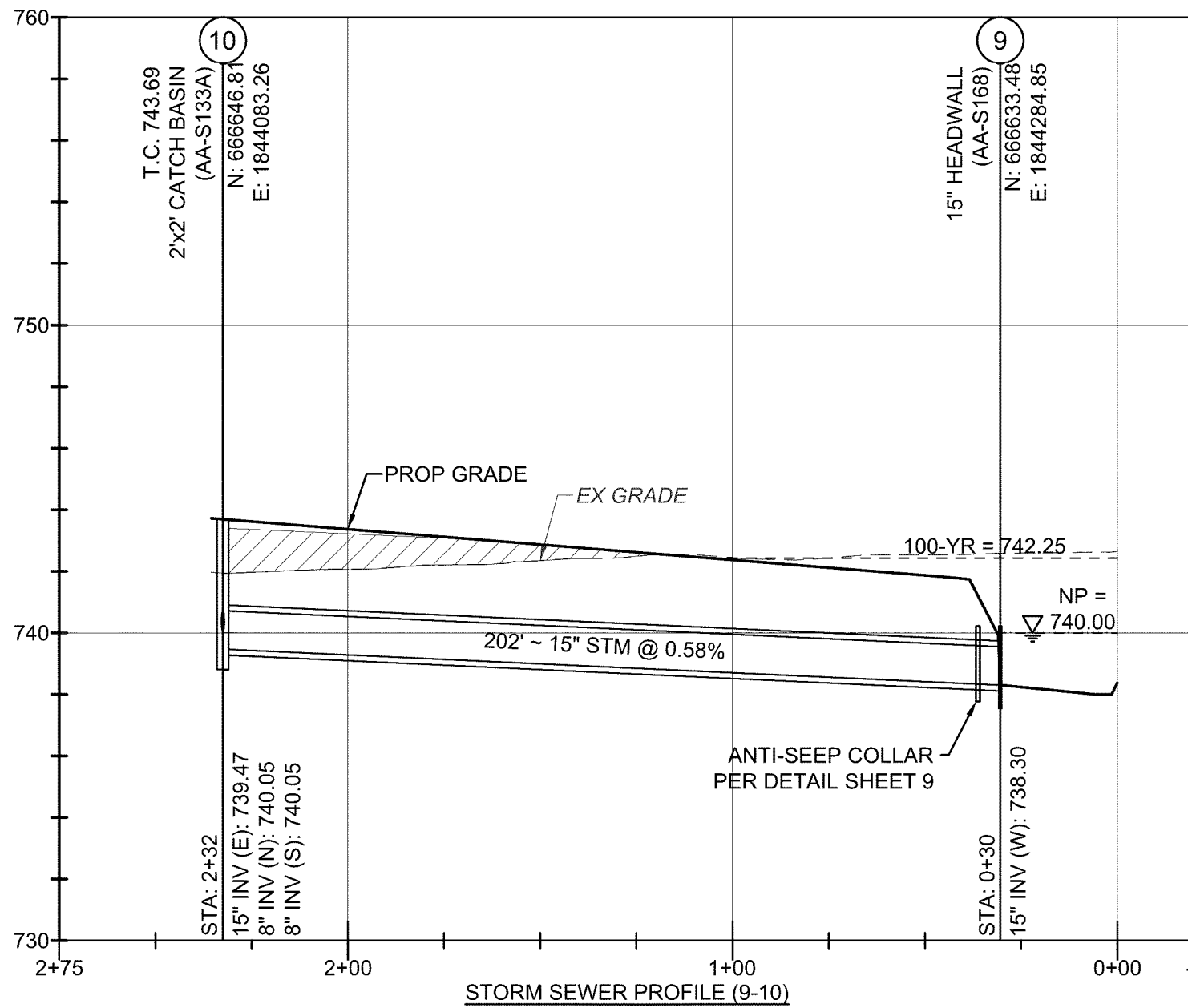
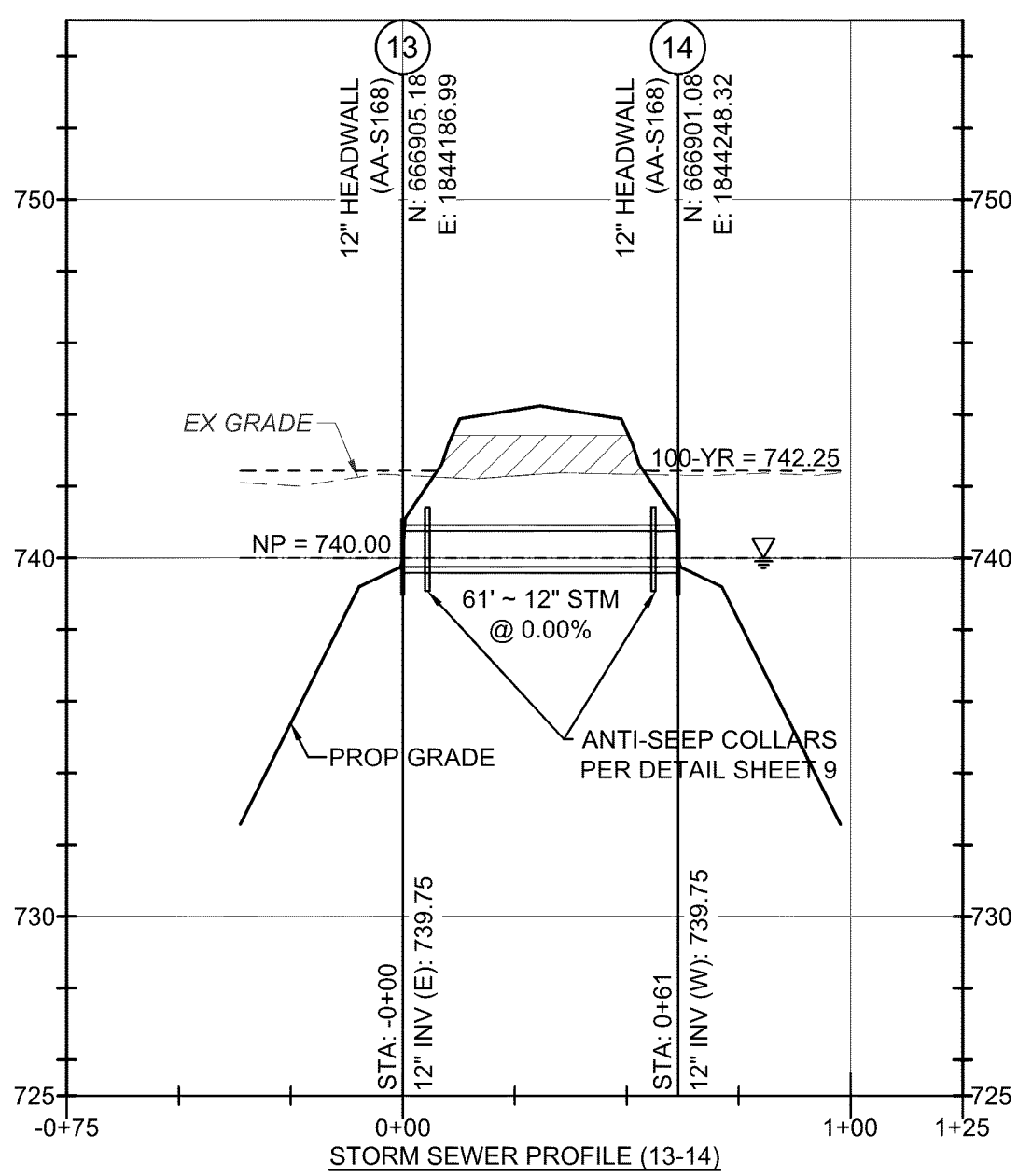
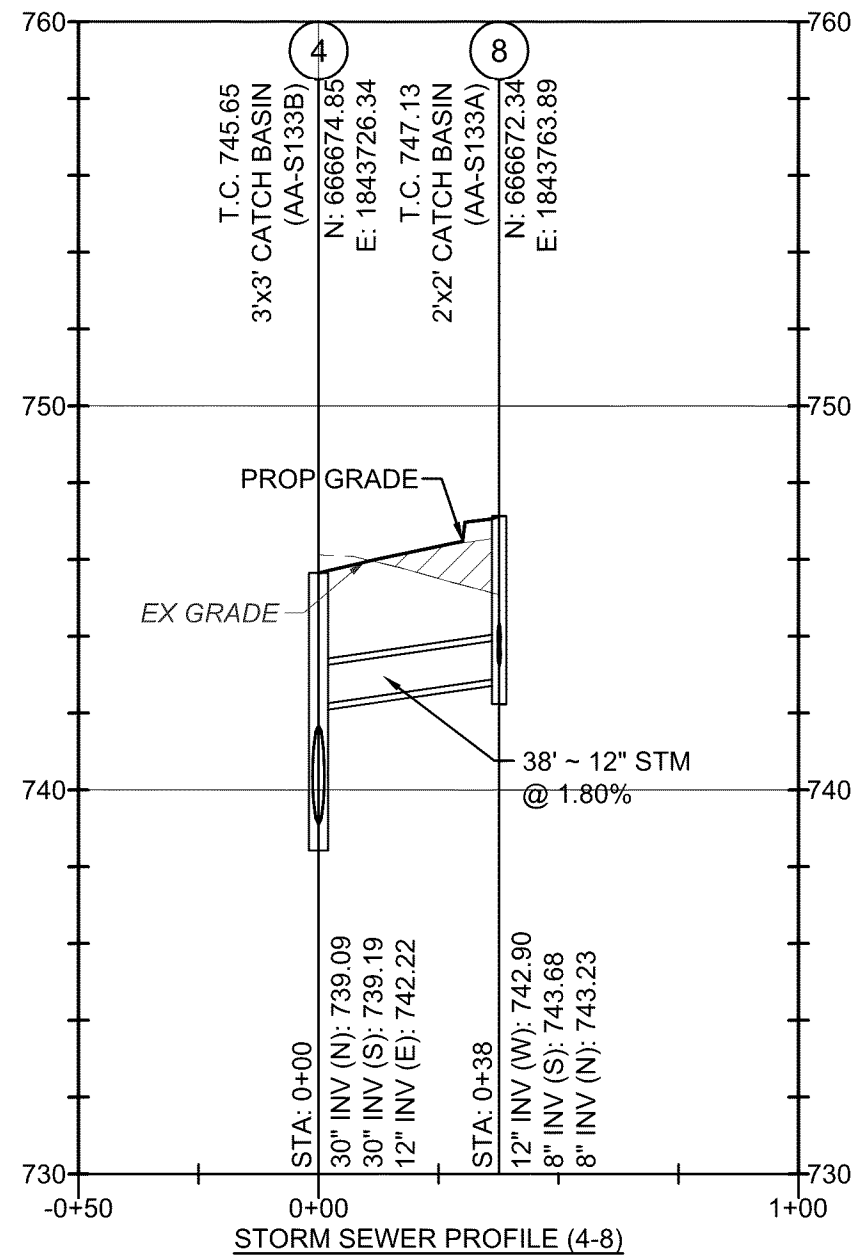
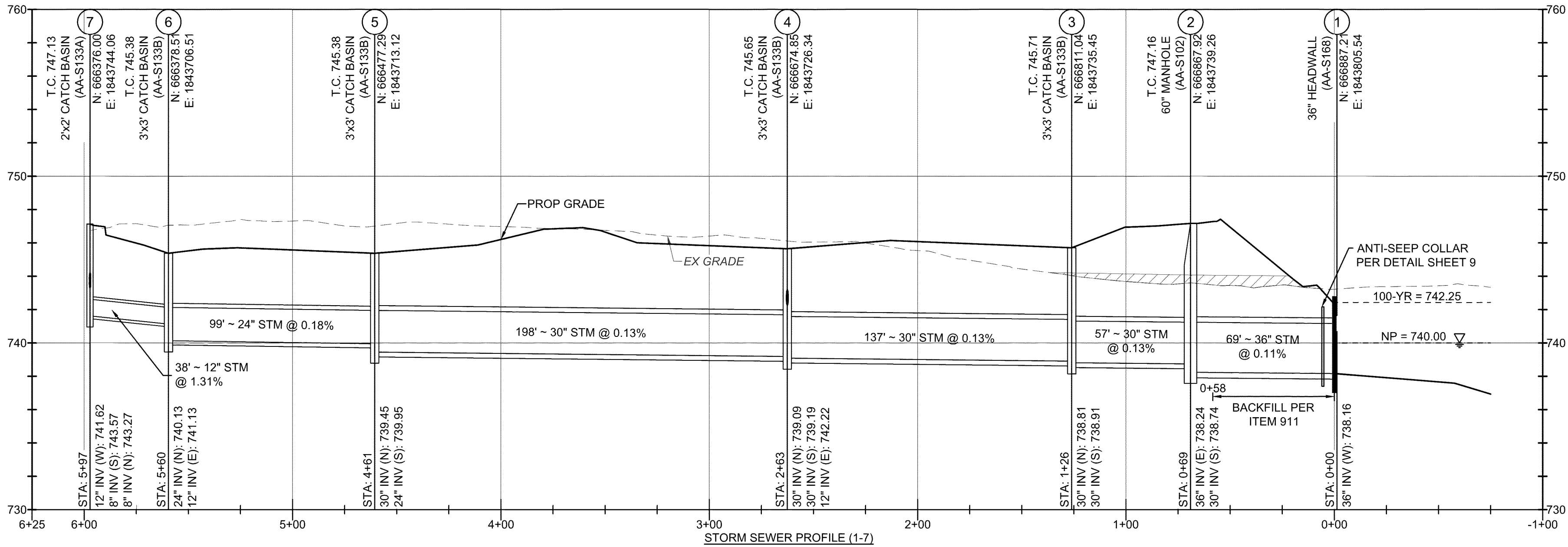
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CITY NO.	COUNTY RECORDER		GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE				DIVISION USE ONLY		OWNER		GRADING DETAILS		SCALE: 1" = 10' SHEET 8/11	
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CITY NO.	COUNTY RECORDER		GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE				DIVISION USE ONLY		OWNER		BASIN DETAILS		SCALE: N/A		SHEET 9/11	
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PLOT SCALE: 1:1 EDIT DATE: 5/16/19 - 8:55 AM EDITED BY: MSCHULZE DRAWING FILE: Q:\2019\00069D DRAWINGSS\CIVIL\CONSTRUCTION DOCUMENTS\CC STORM\2019.00069D.CC BASIN DETAIL S.DWG

PLOT SCALE: 1"=10' EDIT DATE: 7/19/19 - 3:10 PM EDITED BY: MSCHULZE DRAWING FILE: O:\2019\00069D.DRAWINGSCIVILCONSTRUCTION DOCUMENT\2019_00069D.CC.STORM SEWER PROFS.DWG



STORM SEWER NOTES:

PROFILE DATUM NAVD '88

MAINTAIN A MINIMUM OF 18" VERTICAL AND 10' HORIZONTAL CLEARANCE FROM WATER MAINS.

ALL BACKFILL SHALL BE COMPACTED BACKFILL PER ITEM 912, UNLESS OTHERWISE INDICATED.

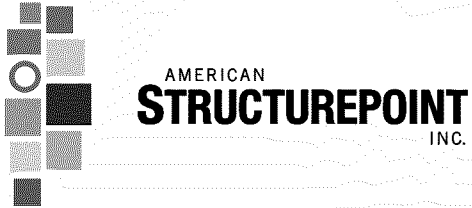
ALL FILLS ARE TO BE PLACED A MINIMUM OF 2.5' ABOVE THE PROPOSED STORM SEWER PER ITEM 203 PRIOR TO THE START OF STORM SEWER CONSTRUCTION.

DENOTED THUS:

SEE TITLE SHEET FOR HORIZONTAL REFERENCE DATUM FOR STATE PLANE COORDINATES IN THE PROFILE



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				RPD	CKD	CID	CON.DR.
				INDEX DETAIL	RECORD FILE		

CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE	
DIVISION USE ONLY	
STORM SEWER PROFILES	
SCALE: N/A	SHEET 10/11
CONTRACT DRAWING NO. CC-18509	RECORD PLAN NO.

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TEMPORARY TRAFFIC CONTROL

1. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43223. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 AND MASH CRASH TESTING GUIDELINES.
2. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE DEPARTMENT OF PUBLIC SERVICE INSPECTOR. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, THEIR PERMIT SHALL BE REVOKED AND ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR THE PROJECT ENGINEER.
3. THE CONTRACTOR SHALL GIVE ADVANCE NOTIFICATION (WRITTEN AND VERBALLY) TO THE TEMPORARY TRAFFIC CONTROL COORDINATOR AT 614-645-0355 OR 614-645-5845, WRITTEN NOTIFICATION TO PAVING THE WAY AT PAVINGTHEWAY@MORPC.ORG OR VERBAL TO (614)233-4200 , PROJECT ENGINEER, AND THE SENIOR SERVICE PLANNER OF COTA AT 614-308-4373 OR FAX 614-275-5933, INFORMING THEM OF ALL UPCOMING MAINTENANCE OF TRAFFIC CHANGES ON A WEEKLY BASIS. NOTIFICATION SHALL INCLUDE, BUT NOT BE LIMITED TO, WHAT, WHERE, WHEN, AND HOW PEDESTRIAN AND VEHICULAR TRAFFIC WILL BE AFFECTED, AND THE TEMPORARY TRAFFIC CONTROL PROCEDURES THE CONTRACTOR IS PLANNING TO USE. THE TYPE OF TRAFFIC CHANGE SHALL DETERMINE THE LENGTH OF ADVANCE NOTIFICATION REQUIRED:

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

THE COTA SENIOR SERVICE PLANNER SHALL BE CONTACTED 30 DAYS PRIOR TO ANY PLANNED CLOSURE ON ASSIGNED COTA ROUTES. ANY OTHER UNFORESEEN IMPACTS TO TRAFFIC SHALL BE IMMEDIATELY REPORTED AS THEY OCCUR.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND SAFE MOVEMENT OF PEDESTRIANS THROUGH, AROUND, OR DETOURED AWAY FROM THE CONSTRUCTION SITE. TRAFFIC CONTROL FOR PEDESTRIAN MOVEMENT SHALL BE AS PER CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, CITY OF COLUMBUS STANDARD CONSTRUCTION DRAWINGS, AND FIGURES 6H-28 (TA-28) AND 6H-29 (TA-29) OF PART VI OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. WHEN NOT SHOWN ON A SIGNED PLAN, ALL SIDEWALK DIVERSIONS AND TEMPORARY MID-BLOCK CROSSINGS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER OR THE TEMPORARY TRAFFIC CONTROL COORDINATOR. ACCESS FOR PEDESTRIAN AND VEHICULAR TRAFFIC TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
5. **MAINTAINING TRAFFIC DURING HOLIDAYS AND SPECIAL EVENTS**
NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING DESIGNATED HOLIDAYS OR SPECIAL EVENTS INCLUDING THE OHIO STATE FOOTBALL HOME GAMES. THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. CONTACT THE CITY OF COLUMBUS TEMPORARY TRAFFIC CONTROL COORDINATOR, 614-645-5845 OR CELL, 614-332-7472 FOR EVENT DATES, LOCATIONS, AND SCHEDULE. HOLIDAYS WILL CONSIST OF CHRISTMAS, NEW YEARS, FOURTH OF JULY-RED, WHITE AND BOOM FIREWORKS NIGHT (6:00AM-12MIDNIGHT), MEMORIAL DAY, LABOR DAY, AND THANKSGIVING. RED, WHITE AND BOOM, FIREWORKS CELEBRATION AND A MINIMUM OF ONE DAY PRIOR TO FIREWORKS NIGHT SHALL REQUIRE ALL TEMPORARY TRAFFIC CONTROL DEVICES TO BE REMOVED FROM THE PROJECT AREA AND PLACE EITHER IN A PRE-DETERMINED LOCATION APPROVED BY THE TEMPORARY TRAFFIC CONTROL COORDINATOR OR COMPLETELY REMOVED FROM THE SITE.
6. THE CONTRACTOR SHALL CONTACT THE CITY OF COLUMBUS TEMPORARY TRAFFIC CONTROL COORDINATOR FOR ANY ADDITIONAL MOT REQUIREMENTS FOR SPECIAL EVENTS, INCLUDING OSU FOOTBAL HOME GAMES.
7. THE CONTRACTOR SHALL MAINTAIN ALL PERMANENT TRAFFIC CONTROLS NOT IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROLS THROUGHOUT THIS PROJECT. PERMANENT TRAFFIC CONTROLS MAY BE TEMPORARILY RELOCATED OR COVERED, AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL ASSUME ALL LIABILITY FOR MISSING, DAMAGED, OR IMPROPERLY PLACED SIGNS.
8. ANY WORK DONE BY THE DEPARTMENT OF PUBLIC SERVICE, INCLUDING INSTALLATION, RELOCATION, REMOVAL AND/OR REPLACEMENT OF TEMPORARY TRAFFIC CONTROL DEVICES AS A RESULT OF WORK DONE BY THE CONTRACTOR OR AS A RESULT OF NEGLIGENCE OF THE CONTRACTOR, SHALL BE AT THE CONTRACTORS' EXPENSE.
9. THE ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE IN PLACE, OR UNTIL TEMPORARY TRAFFIC CONTROLS APPROVED BY THE ENGINEER, ARE INSTALLED. THE CRITICAL PERMANENT TRAFFIC CONTROLS ARE STOP, YIELD, ONE WAY, DO NOT ENTER, RESTRICTED TURN SIGNS AND ALL STREET NAME SIGNS. OTHER CRITICAL SIGNS MAY BE NOTED ON THE PLANS AS WELL. THE CONTRACTOR ASSUMES ALL LIABILITY FOR THE PREMATURE REMOVAL OF TEMPORARY TRAFFIC CONTROLS.

10. ITEM 614 - MAINTAINING TRAFFIC

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

IN ADDITION TO THE REQUIREMENTS HEREIN, AND THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, A UNIFORMED LAW ENFORCEMENT OFFICER (LEO) SHALL BE PROVIDED FOR CONTROLLING TRAFFIC UNDER THE FOLLOWING CONDITIONS:

- WORK WITHIN A SIGNALIZED INTERSECTION, DEFINED AS THE AREA BOUNDED BY THE REAR X-WALK LINES
 - WHEN FLAGGING WITHIN THE INTERSECTION OF TWO ARTERIAL ROADWAYS
 - WHEN SPECIFIED IN THE MAINTENANCE OF TRAFFIC PLAN OR AS WHEN DIRECTED BY THE PROJECT ENGINEER
 - WHEN SHIFTING TRAFFIC LEFT OF CENTER, THROUGH A SIGNALIZED INTERSECTION, WITHOUT SHIFTING SIGNAL HEADS
- A FLAGGER SHALL BE UTILIZED TO ASSIST IN CONTROLLING TRAFFIC WHILE EQUIPMENT IS ENTERING OR EXITING AN INTERSECTION OR WORK ZONE. THE CONTRACTOR MAY UTILIZE HIS OWN FLAGGER OR LEO UNDER PAY ITEM 614 MAINTAINING TRAFFIC, LUMP SUM.
- FLAGGERS AND LEO'S SHALL BE EQUIPPED ACCORDING TO THE STANDARDS FOR FLAGGING TRAFFIC CONTAINED IN THE OMUTCD. FLAGGING OPERATIONS PERFORMED BY LEO'S OR DESIGNATED FLAGGERS SHALL ONLY BE PERMITTED AS LONG AS ALL TRAFFIC CONTROL IS IN PLACE ACCORDING TO FIGURE 6H-10 (TA-10) IN THE OHIO MANUAL. PATROL CARS SHALL NOT BE USED IN FLAGGING OPERATIONS.

IF THE CONTRACTOR WISHES TO UTILIZE LEO'S WITH OR WITHOUT PATROL CARS FOR TRAFFIC CONTROL OTHER THAN FOR THAT REQUIRED IN THE PLANS, THEY MAY DO SO AT THEIR OWN EXPENSE. THE CONTRACTOR SHALL MAKE ARRANGEMENT THROUGH THE COLUMBUS POLICE DIVISION AT (614) 645-4795.

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

IF A SAFETY HAZARD DEVELOPS, A LEO MAY BE ASSIGNED BY THE COLUMBUS PUBLIC SAFETY AND/OR THE PUBLIC SERVICE DIRECTOR AT THE CONTRACTOR'S EXPENSE.

11. TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY-BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE TTC COORDINATOR AT 614-645-0355 OR 614-645-5845 PER O.D.O.T. STANDARDS.
12. A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED IN LANE CLOSURES AS PER THE OHIO MANUAL.
13. ALL TRENCHES WITHIN THE ROAD RIGHT OF WAY SHALL BE BACKFILLED OR SECURELY PLATED PER (CITY OF COLUMBUS GENERAL POLICY ON STEEL PLATE USAGE DATED 11/15/2006 AND STD. DWG. 1441, LATEST EDITION) DURING NON-WORKING HOURS.
14. ALL TRAFFIC LANES SHALL BE FULLY OPEN TO TRAFFIC FROM 6:00A.M. TO 9:00 A.M. AND 4:00P.M. TO 6:00 P.M., OR 6:00 TO 9:00 A.M. AND 3:00 TO 6:00 P.M. IN THE COLUMBUS BUSINESS DISTRICT (CBD) PARKING AREA, MONDAY THROUGH FRIDAY ON SHOOK ROAD AND STATE ROUTE 317. ONE LANE MAY BE CLOSED TO TRAFFIC DURING WORKING HOURS.
15. TWO-WAY, TWO-LANE (ONE-LANE EACH DIRECTION) TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF EXISTING, PROPOSED, OR TEMPORARY PAVEMENT PER CITY OF COLUMBUS MAINTENANCE OF TRAFFIC, STANDARD CONSTRUCTION DRAWING 1510 AND FIGURE 6H-32 TYPICAL APPLICATION 32 (TA-32) OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
16. THE CONTRACTOR SHALL CONTACT OHIO UTILITY PROTECTION SERVICE (OUPS) TO LOCATE AND MARK ALL UNDERGROUND TRAFFIC CONTROL CABLES PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTION(S) OR WITHIN ANY POSTED AREA WHERE THE DEPARTMENT HAS UNDERGROUND CABLE. THE SIGNAL OPERATION ENGINEER (614-645-6418) SHALL BE NOTIFIED SIX (6) WEEKS IN ADVANCE FOR SIGNAL REVISIONS OR POLE RELOCATIONS.
17. NO EXCAVATION SHALL BE MADE WITHIN FIVE (5) FEET OF ANY FOUNDATION THAT SUPPORTS SIGNAL POLES, TRAFFIC SIGNAL DISPLAYS OR SIGNS BY MAST ARM OR SIGNAL SPAN. EXCAVATION WITHIN EIGHT (8) FEET, BUT MORE THAN FIVE (5) FEET SHALL REQUIRE ADDITIONAL SUPPORT (DOWN GUY, HEAD GUY, BASE GUY, ETC.). THE CONTRACTOR SHALL CONTACT SIGNAL OPERATION PERSONNEL AT 614-645-0423(CELL 614-419-4501) AT LEAST FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE BEGINNING OF SUCH EXCAVATION SO THAT THE CITY CAN APPROVE THE STABILIZATION SETUP BY THE CONTRACTOR. IF UNABLE TO MAKE CONTACT THROUGH ABOVE NUMBERS, CALL 614-645-7393. STABILIZATION WILL BE DONE BY THE CONTRACTOR AT THE OWNERS'/CONTRACTING AGENCY'S EXPENSE.
18. SIGNAL CONDUIT CLEARANCE 3' HORIZONTAL AND 1' VERTICAL FROM ADJACENT UTILITIES SHALL BE MAINTAINED AT ALL TIMES.
19. WHEN ANY TRAFFIC CONTROL DEVICE, CONDUIT, OR CABLE IS DAMAGED, THE CONTRACTOR SHALL NOTIFY SIGNAL OPERATION PERSONNEL AT 614-645-0423 (CELL 614-419-4501) BETWEEN 7:00 AM AND 4:00 PM, MONDAY THROUGH FRIDAY. IF UNABLE TO MAKE CONTACT THROUGH THE OTHER NUMBERS, CALL 614-645-7393.
20. THE ROADWAY OR ANY SECTION OF ROADWAY SHALL NOT BE OPENED TO NON-CONSTRUCTION TRAFFIC UNTIL ALL TEMPORARY, NON-REFLECTIVE, BLACKOUT TAPE HAS BEEN COMPLETELY REMOVED FROM NON-CONFLICTING PERMANENT PAVEMENT MARKINGS FOR THAT AREA OF THE ROADWAY, OR UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. THIS IS SUPPLEMENTAL TO CITY OF COLUMBUS, CMS-614.11- G, AND SHALL BE PAID FOR THROUGH THE 614-LUMP SUM.
21. THE DURATION OF THE PHASE OF WORK TO CONSTRUCT IMPROVEMENTS TO THE RIGHT-OF-WAY, WHICH MAY AFFECT VEHICULAR OR PEDESTRIAN TRAFFIC AS SHOWN IN THE PLANS, IS 30 DAYS. THE PERMIT ASSOCIATED WITH THIS WORK I NOT TO BE VALID FOR OTHER PROJECT WORK ITEMS AND PHASES.

EASEMENT REFERENCE				REVISIONS			PLAN PREPARED BY:	PROJECT TITLE:				CITY OF COLUMBUS, OHIO DEPARTMENT OF PUBLIC UTILITIES DIVISION OF SEWERAGE AND DRAINAGE DIVISION USE ONLY MAINTAINENCE OF TRAFFIC NOTES			
CITY NO.	COUNTY RECORDER		GRANTOR	NO.	DESCRIPTION	APPROVAL/DATE	AMERICAN STRUCTUREPOINT INC.	PRIVATE STORM SEWER, GRADING AND DETENTION AREAS FOR ARCO - SHOOK ROAD INDUSTRIAL 0 LONDON GROVEPORT RD COLUMBUS, OHIO							
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