STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

HAM-75-8.91

CITY OF CINCINNATI

HAMILTON COUNTY

LOCATION MAP

LATITUDE: N39°11'51" LONGITUDE: W84°28'18"

SCALE IN MILES

0 1/2 1

N

PORTION TO BE IMPROVED

INTERSTATE HIGHWAY

FEDERAL ROUTES

STATE ROUTES

COUNTY & TOWNSHIP ROADS

OTHER ROADS

DESIGN DESIGNATION - I.R. 75

	I.R. 75
CURRENT ADT (2010)	173,800
DESIGN YEAR ADT (2030)	203,000
DESIGN HOURLY VOLUME (2030)	17,050
DIRECTION DISTRIBUTION	53%
TRUCKS (24 HOUR B&C)	14%
DESIGN SPEED	60
LEGAL SPEED	55
DESIGN FUNCTIONAL CLASSIFICATION	01 URBAN INTERSTATE
NHS PROJECT	YES

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES

Contact Two Working Days Before You Dig

OHIO811.org Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764

(Non-members must be called directly)

PLAN PREPARED BY:

EMH&T

Evans, Mechwart, Hambleton & Tilton, Inc.

Engineers • Surveyors • Planners • Scientists

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M C M X X V I

INDEX OF SHEETS:

RIGHT OF WAY PLANS WERE PREPARED AS PART OF PID 77889 HAM-75-7.85 AND ARE NOT INCLUDED IN THIS PLAN SET.

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF INSTALLATION OF A NEW PUMP STATION AND COMBINED SEWER OUTFLOW. WORK ALSO INCLUDES INSTALLATION OF DRAINAGE DETENTION AND STORM SEWER. THE IS PHASE 8B OF THE MILL CREEK EXPRESSWAY PROJECT.

PROJECT EARTH DISTURBED AREA:	6.13 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	1.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	7.13 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

ODOT APPROVALS

Tammy K. Campbell

Tammy K. Campbell, P.E.
District 08 Deputy Director

Jack Marchbanks, PhD
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS

BP-5.1	7/15/22	MGS-1.1	7/16/21	HL-60.21	7/20/18		
		MGS-2.1	1/19/18				
CB-5	7/16/21	MGS-3.1	1/19/18	MT-95.30	7/19/19		
CB-4A,5A,8A	7/16/21	MGS-4.2	7/19/13	MT-95.45	7/21/23		
		MGS-4.3	1/18/13	MT-98.21	7/21/23		
DM-4.3	1/15/16	MGS-5.2	7/15/16	MT-101.70	4/21/23		
DM-4.4	1/15/16	MGS-5.3	7/15/16	MT-101.75	7/21/23		
				MT-101.90	7/17/20		
I-3D	7/15/22	RM-4.1	1/17/20	MT-103.10	1/21/22		
		RM-4.2	4/17/20	MT-105.10	1/17/20		
MH-3	7/16/21	RM-4.5	7/21/17				
		RM-4.6	7/19/13	TC-41.10	7/19/13		
F-1.1	7/19/13			TC-41.20	10/18/13		
F-3.1	7/19/13	HL-20.11	7/21/23	TC-41.30	4/21/23		
F-3.2	7/18/14	HL-20.21	1/15/21	TC-42.10	10/18/13		
F-3.3	7/19/13	HL-30.11	7/21/23	TC-42.20	10/18/13		
F-3.4	7/19/13	HL-30.21	4/17/20	TC-72.20	7/21/23		
		HL-60.11	7/21/17				

MSD STANDARD DRAWINGS

49005
49031
49032
49037
49040
49048
49058A

SUPPLEMENTAL SPECIFICATIONS

800-2023	10/20/23
832	7/21/23

SPECIAL PROVISIONS

WATERWAY PERMIT (11/15/23)

PUMP STATION SPECIFICATIONS (03/26/24)

ENGINEERS SEAL:

FOR ROADWAY:

STATE OF OHIO
HEATH R. BRENDLINGER
E-77786
REGISTERED PROFESSIONAL ENGINEER

ENGINEERS SEAL:

PUMP STATION UNDERGROUND BUILDING: SHEETS 109-129

STATE OF OHIO
CRAIG A. SCHRADER
E-77433
REGISTERED PROFESSIONAL ENGINEER

ENGINEERS SEAL:

TEMPORARY SHORING WALLS:

STATE OF OHIO
TYLER D. ADAMS
E-80227
REGISTERED PROFESSIONAL ENGINEER

ENGINEERS SEAL:

PUMP STATION UNDERGROUND BUILDING: SHEETS 92-108

STATE OF OHIO
RYAN M. ANDREWS
E-70263
REGISTERED PROFESSIONAL ENGINEER

FEDERAL PROJECT NO. E220(584)

PID NO. 117526

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

HAM-75-8.91

1
160

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ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT, VARIES

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULK-HEADS IN EXISTING CONDUITS AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE.

IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE, SUCH AS ROOF DRAINS, FOOTER DRAINS, OR YARD DRAINS, DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE. THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

611, 6" CONDUIT, TYPE B	100 FT.
611, 6" CONDUIT, TYPE C	100 FT.
611, 6" CONDUIT, TYPE E	100 FT.
611, 6" CONDUIT, TYPE F	100 FT.

UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS

FURNISH A CONTINUANCE FOR ALL UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS SUCH AS SANITARY, WASTEWATER, CURTAIN/ GRADIENT DRAINS, AND FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. FURNISH AN UNOBSTRUCTED CONTINUANCE OF THE UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS TO THE SATISFACTION OF THE ENGINEER. ALL SUCH CONTINUANCE REQUIRES A RIGHT OF WAY USE PERMIT. ALL SANITARY AND SANITARY WASTEWATER CONTINUANCE MAY ALSO REQUIRE A NPDES PERMIT FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY. REPORT ALL CONTINUANCE TO THE LOCAL HEALTH DEPARTMENT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.42, 707.43, 707.44, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35, 706.01, 706.02, OR 706.08 WITH JOINTS AS PER 706.11 OR 706.12.

UNRECORDED ACTIVE SANITARY SEWER CONNECTIONS (CONT)

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR THE WORK NOTED ABOVE:

611, 8" CONDUIT, TYPE B	100 FT.
611, 8" CONDUIT, TYPE C	100 FT.

MANHOLES, CATCH BASINS AND INLETS REMOVED OR ABANDONED

ALL CASTINGS SHALL BE CAREFULLY REMOVED AND STORED WITHIN THE RIGHT OF WAY FOR SALVAGE BY STATE FORCES.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 ITEM.

EXISTING UNDERDRAINS

ALL EXISTING UNDERDRAINS NOT REMOVED DURING PROPOSED CONSTRUCTION SHALL BE PROVIDED WITH A POSITIVE OUTLET. ALL MATERIALS, LABOR, AND INCIDENTALS NECESSARY TO PROVIDE AN OUTLET FOR THE EXISTING UNDERDRAIN SHALL BE INCLUDED IN THE FOLLOWING BID ITEMS. CONTINGENCY QUANTITIES HAVE BEEN ESTIMATED BELOW TO BE USED AS DIRECTED BY THE ENGINEER:

611, PRECAST REINFORCED OUTLET	5 EACH
611, 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET	200 FT
601, TIED CONCRETE BLOCK MAT, TYPE 1 UNDERLAYMENT	10 SY

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK CONSISTS OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. DISPOSE OF ALL MATERIAL PER 105.16 AND 105.17. CLEAN OUT TO THE APPROVAL OF THE ENGINEER. CLEANOUT OF THE PIPE IS PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL, PIPE CLEANOUT. THIS PRICE INCLUDES THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM SPECIAL, PIPE CLEANOUT, 24" AND UNDER	100 FT.
ITEM SPECIAL, PIPE CLEANOUT, 27" TO 48"	100 FT.
ITEM SPECIAL, PIPE CLEANOUT, OVER 48"	100 FT.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMPS) FOR POST CONSTRUCTION STORM WATER TREATMENT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

ITEM SPECIAL - OPERATIONS AND MAINTENANCE MANUAL

THE CONTRACTOR SHALL DEVELOP AN OPERATIONS AND MAINTENANCE MANUAL FOLLOWING THE REQUIREMENTS DETAILED IN SPECIAL PROVISIONS: PUMP STATION SPECIFICATIONS DATED 10/13/2023.

ITEM SPECIAL 690E98400 - OPERATIONS MAINTENANCE MANUAL - LUMP SUM HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE

ITEM SPECIAL - OPERATIONS AND MAINTENANCE

THE CONTRACTOR SHALL OPERATE AND MAINTAIN THE PUMP STATION INCLUDING GENERATOR FOR 36 MONTHS. THE PUMP STATION IS AUTOMATICALLY ACTIVATED DURING AN EVENT, SO ON-SITE STAFF ARE NOT REQUIRED FOR OPERATION. ONGOING INSPECTIONS AND ROUTINE MAINTENANCE SHALL BE PER THE OPERATIONS AND MAINTENANCE MANUAL.

ALL ESTIMATED COSTS FOR MAINTENANCE SHALL BE SUBMITTED TO ODOT FOR APPROVAL PRIOR TO WORK BEING PERFRMED. ALL MAINTNEANCE COSTS WILL BE PAID FOR USING FORCE ACCOUNT.

ALL ESTIMATED COSTS FOR GENERAL INSPECTIONS SHALL BE INCLUDED IN THIS PAY ITEM.

ITEM SPECIAL 690E99550 - OPERATIONS AND MAINTENANCE - 36 MONTHS HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 15" LOCATION
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 36" LOCATION
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 42" LOCATION
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 48" LOCATION
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 54" LOCATION

THIS WORK IS THE CONSTRUCTION AND REMOVAL OF THE JACKING AND BORING PITS REQUIRED FOR THE INSTALLATION OF THE PIPES LISTED BELOW.

15" CONDUIT UNDER RAMP D AND PADDOCK ROAD
36" CONDUIT UNDER I.R. 75
42" CONDUIT UNDER RAMP D
48" CONDUIT UNDER EXISTING PEDESTRIAN STRUCTURE
54" CONDUIT UNDER PADDOCK ROAD AND I.R. 75.

THE FOLLOWING ITEMS HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 15" LOCATION - LUMP SUM
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 36" LOCATION - LUMP SUM
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 42" LOCATION - LUMP SUM
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 48" LOCATION - LUMP SUM
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 54" LOCATION - LUMP SUM

ITEM SPECIAL - WATER FOR PUMP STATION TESTING

THIS IS A CONTINGENCY ITEM SHOULD THERE BE INSUFFICIENT STORMWATER AVAILABLE FOR TESTING OF THE PUMP STATION.

THIS WORK CONSISTS OF PROVIDING SUFFICIENT WATER FOR THE TESTING OF THE PUMP STATION SYSTEM CONTROLS FOR EACH PUMP. THE CONTRACTOR SHALL PLUG THE 48" PIPE CONNECTING TO THE UPSTREAM DETENTION SYSTEM. THE WATER WILL BE PLACED INTO THE WETWELL FOR TESTING.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM SPECIAL, WATER FOR PUMP STATION TESTING, 80 MGAL.

ITEM SPECIAL - CONCRETE FOUNDATION REMOVED

THIS WORK CONSISTS OF PROVIDING EQUIPMENT, LABOR AND MATERIALS NECESSARY TO REMOVE THE EXISTING CONCRETE FOUNDATIONS SHOWN IN THE PLANS AND SOIL BORINGS FOR INSTALLATION OF THE TEMPORARY SHORING WALLS FROM STATION 525+00 TO STATION 526+50. A MANHOUR IS DEFINED AS THE NUMBER OF HOURS PER DAY REQUIRED TO REMOVE THE CONCRETE FOUNDATION AND NOT THE TOTAL LABOR HOURS USED.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM SPECIAL, COCNRETE FOUNDATION REMOVED, 40 MNHR.

CALCULATED SEA
CHECKED DLR

GENERAL NOTES

HAM-75-8.91

ITEM 611 - CONDUIT BORED OR JACKED

WHERE IT IS SPECIFIED THAT A CONDUIT BE INSTALLED BY THE METHOD OF BORING OR JACKING, NO TRENCH EXCAVATION SHALL BE CLOSER THAN 6 FEET TO THE (EDGE OF PAVEMENT) (NEAREST RAIL). PROVIDE A 0.50 INCH UNGALVANIZED CASING PIPE CONFORMING TO 748.06 THAT HAS JOINTS WITH A CIRCUMFERENCIAL FULLY PENETRATING B-U4B WELD THAT IS PERFORMED BY AN ODOT APPROVED FIELD WELDER. THE INSTALLED CASING PIPE IS THE STORM WATER CONVEYANCE CARRIER UNLESS OTHERWISE SPECIFIED IN THE PLANS. HYDROSTATIC TESTING IS NOT REQUIRED FOR THE CASING PIPE.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	1,104 CU. YD.
659, SEEDING AND MULCHING	9,939 SQ. YD.
659, REPAIR SEEDING AND MULCHING	497 SQ. YD
659, INTER-SEEDING	497 SQ. YD.
659, COMMERCIAL FERTILIZER	1.39 TON
659, LIME	2.06 ACRES
659, WATER	57 M. GAL.
659, MOWING	23 M. SQ. FT.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

INTERIM COMPLETION REQUIREMENTS

THE PROJECT HAS AN INTERIM COMPLETION DATE OF 6/30/2025. ON OR BEFORE THE INTERIM COMPLETION DATE, THE PUMP STATION, PUMP STATION BUILDING, DETENTION SYSTEM, CSO-490 AND CONNECTING DRAIANGE AND SANITARY SEWER WORK AND SHALL BE PLACED IN THE FINAL CONDITON.

THE CONTRACT WILL BE SUBJECT TO DAILY DISINCENTIVES FOR FAILURE TO COMPLETE ALL THE REQUIRED WORK, AND ASSOCIATED INCIDENTALS RELATED TO THE WORK, AS OUTLINED IN THE TABLE INCLUDED IN THIS NOTE. APPLICATION OF THE DISINCENTIVES WILL BE BASED ON THE OVERALL CONTRACT AMOUNT. DAILY DISINCENTIVES ARE APPLICABLE TO THE WORK REQUIRED TO THE INTERIM COMPLETION DATE ONLY. THE CONTRACT IS STILL SUBJECT TO LIQUIDATED DAMAGES AS OUTLINED IN CMS 108.07 FOR THE REMAINDER OF THE CONTRACT.

DESCRIPTION OR LOCATION OF CRITICAL WORK	COMPLETION DATE	TIME PERIOD	DISINCENTIVE $ PER TIME PERIOD
ALL PHYSICAL WORK EXCEPT FINAL PUMP STATION CONTROLS AND TESTING	6/30/2025	DAY	$5,000

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

SPECIAL - TEMPORARY 600 KW GENERATOR

THIS WORK SHALL CONSIST OF PROVIDING A TEMPORARY 600 KW GENERATOR FOR THE PUMP STATION CONTROL BUILDING FROM THE TIME THE BUILDING IS OPERATIONAL UNTIL THE PERMANENT GENERATOR CAN BE INSTALLED. THE ITEM INCLUDES CONNECTION TO PUMP STATION BUILDING, MAINTENANCE, EQUIPMENT, LABOR AND FUEL NECESSARY FOR OPERATION. THE CONTRACTOR SHALL OPERATE THE GENERATOR 15 MINUTES EACH WEEK TO VERIFY OPERATION IN CASE OF EMERGENCY USE

ELECTRONIC TICKETING

PURPOSE:
PROVIDE ELECTRONIC MATERIAL TICKETS IN AN ELECTRONIC FORMAT DIRECTLY RECORDED FROM THE MATERIAL LOADING SOURCE.

PROVIDE ELECTRONIC MATERIAL TICKETS FOR THE FOLLOWING MATERIALS:

AGGREGATE
ASPHALT CONCRETE
PORTLAND CONCRETE

THIS NOTE IN NO WAY SUPERSEDES ANY OTHER COMMERCIAL REGULATIONS OR ANY OTHER LEGAL REQUIREMENTS REGULATING THE TRANSPORTATION OF COMMERCIAL MATERIALS.

REQUIREMENTS:
AT THE PRE-CONSTRUCTION MEETING, SUBMIT AN ELECTRONIC TICKETING PLAN TO THE ENGINEER DESCRIBING THE PROPOSED ELECTRONIC TICKET DELIVERY METHOD. THE ELECTRONIC MATERIAL TICKET SHALL CONTAIN INFORMATION AS REQUIRED PER THE APPLICABLE MATERIAL SPECIFICATION FOR WEIGHT MEASUREMENT AND OTHER MATERIAL CHARACTERISTICS; PROVIDE AN EXAMPLE(S) OR A MOCK-UP OF THE PROPOSED ELECTRONIC TICKET TO SHOW THE DETAILS ON WHAT IS TO BE TRANSMITTED TO THE DEPARTMENT. NAMING OF THE ELECTRONIC MATERIAL TICKET FILES SHALL BE DISTINCT SUCH THAT THE TICKET S REPRESENTED MATERIAL IS EASILY DETERMINED; INCLUDE THE PROPOSED NAMING CONVENTION. DELIVERY MAY BE THROUGH A PRODUCER WEBSITE UPLOAD ACCESSIBLE TO THE ENGINEER, ODOT PROJECT SPECIFIC SHAREPOINT DOCUMENTATION SITE UPLOAD, OR ANOTHER SECURE ELECTRONIC TRANSMITTAL MEANS. EMAILING OF A TICKET TO AN ODOT CONTACT IS ACCEPTABLE BUT IS NOT PREFERRED. THE ELECTRONIC TICKETING PLAN SHALL IDENTIFY A CONTINGENCY METHOD FOR MANUALLY CAPTURING AND DELIVERING TICKET INFORMATION IF ELECTRONIC TRANSMISSION IS TEMPORARILY UNAVAILABLE. AN ELECTRONIC TICKETING PLAN WHICH INCLUDES SOLELY THE USE OF DIGITAL PHOTOS OF PAPER TICKETS IS NOT ACCEPTABLE.

THE DEPARTMENT RECOGNIZES THAT VARIOUS DIGITAL TICKETING SYSTEMS MAY BE COMMERCIALLY AVAILABLE AND USED TO ACCOMMODATE INDIVIDUAL CONTRACTORS AND MATERIAL SUPPLIER CAPABILITIES. THE CONTRACTOR MAY PROVIDE A DIGITAL TICKETING SYSTEM GIVING SECURE ACCESS TO ORGANIZED DIGITAL DATA. IF UTILIZED, THE DIGITAL TICKETING SYSTEM MAY ALSO BE ACCESSIBLE BY REAL-TIME MONITORING WITH A MOBILE COMMUNICATION DEVICE SUCH AS A TABLET, SMARTPHONE, ETC. THROUGH MOBILE DEVICE APPLICATIONS (MOBILE APP) IF ACCEPTABLE TO THE DEPARTMENT. IF A DIGITAL TICKETING SYSTEM REQUIRES A MOBILE APP, THE MOBILE APP SHALL BE AT NO COST TO THE DEPARTMENT. THE DIGITAL DATA MUST BE ABLE TO BE EXPORTED IN A FORMAT USABLE BY THE ENGINEER UPON REQUEST (I.E. MICROSOFT WORD, MICROSOFT EXCEL, PDF FORMATS).

DELIVER EACH ELECTRONIC MATERIAL TICKET TO THE ENGINEER PRIOR TO THE PLACEMENT OF MATERIAL, BUT NOT PRIOR TO THE LOADING OF MATERIAL AT THE SOURCE.

PROVIDE THE ENGINEER A DAILY MATERIAL SUMMARY REPORT BY THE END OF THE DAY S HAULING ACTIVITIES, OR AT A TIME AS APPROVED BY THE ENGINEER. THE DAILY MATERIAL SUMMARY REPORT INCLUDES SUMMARY INFORMATION LISTED FOR EACH MATERIAL AS OUTLINED IN THE RESPECTIVE MATERIAL SPECIFICATION.

PAYMENT:
COSTS FOR THE ELECTRONIC TICKETING SHALL BE INCIDENTAL TO THE PROJECT.

FIELD OFFICE, TYPE C AS PER PLAN

IN ADDITION, TO THE REQUIREMENTS OF ITEM 619, THE CONTRACTOR SHALL CO-LOCATE WITH DEPARTMENT STAFF FOR THE DURATION OF THE PROJECT. THE CONTRACTOR SHALL ALSO PROVIDE/LEASE A SUITABLE FIELD OFFICE WITH A MINIMUM OF 2000 SF OF USABLE OFFICE SPACE. OFFICE TO INCLUDE A SEPARATE MINIMUM 12'X36' CONFERENCE ROOM, AND TEN (10) SEPARATE OFFICES WITH SHELVING UNITS. FURTHER ITEMS ARE AS FOLLOWED:
1) FURNITURE:
- -ELEVEN (11) SETS OF DESKS, OFFICE CHAIRS, AND FOUR DRAWER FILE CABINETS
- -TWO (2) LOCKABLE FILE CABINETS
- -TEN (10) 2'X8' COLLAPSIBLE TABLES
- -TWENTY (20) FOLDING CHAIRS

COPY MACHINE WITH SCAN/PRINT/FAX/INTERNET HOOKUP CAPABILITIES. THE COPIER WILL PRINT 25PPM AND CAPABLE OF PRINTING SHEETS 8.5"X11", 8.5"X14", AND 11"X17". COPIER PAPER SUPPLIES AND MAINTENANCE TO BE INCLUDED.
CONTRACTOR TO PROVIDE INTERNET SERVICES WITH A MINIMUM SPEED OF 100 MBPS. THE CONTRACTOR SHALL SUPPLY THE PROJECT WITH THE IP ADDRESS SO THAT ODOT CAN ATTACH AN ODOT OWNED HUB. ODOT'S OWNED HUB WILL PROVIDE THE STAFF WITH A WIRELESS ROUTER AND ODOT FIREWALL.
ONE (1) SEPARATE WATER COOLER AND SERVICE.
FIELD OFFICE SHALL INCLUDE A SECURE PARKING AREA NOT LESS THAN 4000 SF CAPABLE OF SUPPLYING 20 EA ALL WEATHER PARKING SPOTS. "ALL WEATHER" SHALL BE DEFINED AS A HARD SMOOTH SURFACE THAT WILL ALLOW FOR SNOW REMOVAL. GRAVEL SURFACE IS NOT ACCEPTABLE. PARKING AREA TO BE SURROUNDED BY A 6' HIGH SECURITY FENCE WITH A LOCKABLE GATE INCLUDING KEYS AND ILLUMINATED BY SECURITY LIGHTING.
SNOW REMOVAL SHALL BE REQUIRED FOR PARKING AREA.
BI-WEEKLY CLEANING SERVICE.
DUMPSTER WITH NECESSARY SERVICE.
FIVE (5) EACH TELEPHONES.
THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE PROPOSED FACILITY FROM THE ENGINEER PRIOR TO USE. THE FACILITY SHALL BE AVAILABLE FOR ODOT USE NOT MORE THAN 30 DAYS FROM THE AWARD OF CONTRACT.

CALCULATED SEA CHECKED DLR

GENERAL NOTES

HAM-75-8.91

ENVIRONMENTAL COMMITMENTS

ENDANGERED BAT HABITAT REMOVAL

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

PERMITS

THE CONTRACTOR MUST ENSURE THAT A NOTICE OF INTENT (NOI) IS SUBMITTED TO THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) A MINIMUM OF TWENTY-ONE (21) DAYS PRIOR TO CONSTRUCTION FOR COVERAGE UNDER THE NPDES CONSTRUCTION STORMWATER GENERAL PERMIT. AS REQUIRED BY THE PERMIT, A STORMWATER POLLUTION PREVENTION PLAN MUST BE DEVELOPED AND IMPLEMENTED PRIOR TO PROJECT CONSTRUCTION IN ACCORDANCE WITH ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.

EARTH DISTURBANCE

NO VEGETATION SHALL BE REMOVED/DAMAGED OUTSIDE OF THE PHYSICAL WORK LIMITS. THE CONTRACTOR WILL BE REQUIRED TO NOTIFY THE ENGINEER IF THE VEGETATION OUTSIDE OF THE WORK LIMITS WILL BE IMPACTED PRIOR TO COMMENCING WORK.

ITEM SPECIAL PUMP STATION BUILDING AND CONTROLS

PAYMENT FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT AND PERMITTING NECESSARY FOR CONSTRUCTING THE NEW PUMP STATION BUILDING, PUMP STATION CONTROLS, ELECTRICAL SERVICE AND BACKUP GENERATOR AS DETAILED IN THE PLANS, DETAILS, NOTES AND SPECIFICATIONS.
THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITTING NECESSARY FOR CONSTRUCTION.

ALL WORK SHALL BE INCLUDED IN THE LUMP SUM ITEM SPECIAL PUMP STATION BUILDING AND CONTROLS.

ITEM SPECIAL STORMWATER PUMP STATION STRUCTURE

PAYMENT FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT NECESSARY FOR CONSTRUCTING THE UNDERGROUND PUMP STATION INCLUDING ALL CONCRETE, REINFORCING, PUMPS, PIPING AND APPUTENANCES AS DETAILED IN THE PLANS, DETAILS, NOTES AND SPECIFICATIONS.

ALL WORK SHALL BE INCLUDED IN THE LUMP SUM ITEM SPECIAL STORMWATER PUMP STATION STRUCTURE.

ITEM SPECIAL PRESSURE RELEASE VALVE AND STRUCTURE

PAYMENT FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT NECESSARY FOR CONSTRUCTING THE PRESSURE RELEASE VALVE AND STRUCTURE AS DETAILED IN THE PLANS, DETAILS, NOTES AND SPECIFICATIONS.

ALL WORK SHALL BE INCLUDED IN THE LUMP SUM ITEM SPECIAL PRESSURE RELEASE VALVE AND STRUCTURE

ITEM 611 - 15" CONDUIT, TYPE C
ITEM 611 - 18" CONDUIT, TYPE C
ITEM 611 - 48" CONDUIT, TYPE B, WITH CLASS II BEDDING
ITEM 611 - 48" CONDUIT, TYPE C, WITH CLASS II BEDDING

BACKFILL SHALL BE IN ACCORDANCE WITH MSD STANDARD CONSTRUCTION DRAWING ACC. NO. 49032

PIPE MATERIAL SHALL BE IN ACCORDANCE WITH MSDGC APPROVED PIPE MATERIALS LIST UPDATED APRIL 23, 2015.

https://prod.msdgc.org/sites/default/assets/downloads/doing_business/capital_project_resource_library/Design/MSDGC_approved_pipe_materials.pdf

ITEM 611 - CONDUIT, BORED OR JACKED, 15" TYPE B, 748.01 WITH CASING PIPE

THE SANITARY SEWER PIPE SHALL BE DUCTILE IRON PER THE MSDGC APPROVED PIPE MATERIALS LIST FOR TRENCHLESS INSTALLATION UPDATED APRIL 23, 2015.

A CASING PIPE SHALL BE PROVIDED OF A DIAMETER SUFFICIENT TO ALLOW FOR THE INSTALLATION OF THE DUCTILE IRON PIPE.

THE CASING PIPE IS INCIDENTAL TO THIS ITEM OF WORK.

https://prod.msdgc.org/sites/default/assets/downloads/doing_business/capital_project_resource_library/Design/MSDGC_approved_pipe_materials.pdf

MSD SANITARY SEWER NOTES

1. ALL PLANS AND CONSTRUCTION WITHIN HAMILTON COUNTY SHALL COMPLY WITH THE LATEST EDITION OF THE "RULES AND REGULATIONS" MANUAL GOVERNING THE DESIGN, CONSTRUCTION, MAINTENANCE, OPERATION , AND USE OF SANITARY AND COMBINED SEWERS IN THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI, HAMILTON COUNTY, OHIO, EFFECTIVE MARCH 1, 2001. COPIES MAY BE OBTAINED FROM THE DIVISION OF WASTEWATER ENGINEERING MSD, 1600 GEST STREET, CINCINNATI, OHIO 45204.
2. ALL SANITARY SEWERS SHALL BE CONSTRUCTED UNDER THE INSPECTION OF THE CHIEF ENGINEER, MSD.
3. THE OWNERS OF ALL PROPERTIES SHOWN ON THIS IMPROVEMENT PLAN SHALL BE SUBJECT TO ALL APPLICABLE SEWER SERVICE CHARGES, ASSESSMENTS, TAP-IN CHARGES OR FEES WHICH HAVE BEEN OR MAY BE ESTABLISHED BY THE BOARD OF COUNTY COMMISSIONERS.
4. APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO BREAKING GROUND FOR THE PURPOSE OF VERIFYING BY FIELD INSPECTION THE EXACT LOCATION OF UNDERGROUND UTILITIES.
5. ALL SANITARY SEWER PIPE SHALL BE PVC, SDR35, ASTM D-3034 IN ACCORDANCE WITH MSD RULES AND REGULATIONS, EXCEPT WHERE NOTED.
6. ALL MANHOLES ON SANITARY SEWERS SHALL BE TYPE "S" MSD ACCESSION NO. 49037.
7. SANITARY MANHOLES SHALL BE TEMPORARILY CONSTRUCTED TO AN ELEVATION OF TWO FEET ABOVE THE SURROUNDING GRADE BY MEANS OF AN ADDITIONAL MANHOLE SECTION OR BRICK MASONRY ON TOP OF THE CONE.
8. SANITARY BUILDING SEWERS FOR PUBLIC AND PRIVATE SEWERS SHALL NOT BE EXTENDED MORE THAN TEN (10) FEET BEYOND THE PROPOSED RIGHT-OF-WAY LINE, EASEMENT LINE OR, IN CASES OF PRIVATE SEWERS, NO MORE THAN TEN (10) FEET BEYOND THE MAIN LINE SEWER PRIOR TO ISSUANCE OF TAP PERMITS.
9. TWO-WAY CLEANOUTS SHALL BE INSTALLED AT THE RIGHT-OF-WAY LINE OR SANITARY SEWER EASEMENT, WHERE APPLICABLE, IN ACCORDANCE TO MSD ACCESSION NO. 61979.
10. ALL LOWEST FINISHED FLOOR ELEVATIONS SHALL BE AT LEAST 36 INCHES ABOVE THE CROWN OF THE SEWER AT THE POINT OF TAP CONNECTION TO SAID SEWER, WHETHER PUBLIC OR PRIVATE, AND/OR IN ACCORDANCE WITH CITY OF CINCINNATI SUPPLEMENT CC-51-49. ANY BUILDING TO BE SERVED BY MEANS OTHER THAN GRAVITY MUST BE SO NOTED ON THE PLANS.
11. ALL MANHOLES ON PUBLIC SANITARY SEWERS SHALL HAVE STANDARD LIDS AND FRAMES, MSD ACCESSION. NO 49005, EXCEPT WHERE NOTED. THE FRAME SHALL BE SECURELY FASTENED TO THE TOP MANHOLE SECTION BY FOUR 3/4-INCH STAINLESS STEEL CINCH ANCHORS.
12. CONTRACTOR'S LICENSE - ALL WORK DONE ON SANITARY AND/OR COMBINED SEWERS WITHIN THE JURISDICTION OF THE METROPOLITAN
SEWER DISTRICT MUST BE DONE BY A CONTRACTOR WHO IS AN APPROVED SEWER TAPPER PROPERLY LICENSED BY THE DEPARTMENT AND BONDED.
13. SANITARY BUILDING SEWERS SHALL BE CONNECTED TO THE MAIN LINE WITH WYES. TEE FITTINGS ARE TO BE USED ONLY WHERE SHOWN ON THE APPROVED PLAN.
14. A TAP PERMIT IS REQUIRED FOR EACH BUILDING. BOND OR FINAL APPROVAL OF THE MAIN LINE IS REQUIRED PRIOR TO ISSUANCE OF A TAP PERMIT.
15. SANITARY SEWER CONSTRUCTION MUST COMMENCE WITHIN 12 MONTHS AND BE COMPLETED WITHIN 36 MONTHS OF THE DATE OF APPROVAL SHOWN HEREON OR THESE PLANS BECOME VOID.

MSD SANITARY SEWER NOTES CON'T

16. FOR SANITARY SEWER MANHOLES CONSTRUCTED IN PARKING LOTS, THE RIM ELEVATION SHALL BE 1" HIGHER THAN THE SURROUNDING GRADE AND THE PAVEMENT SHALL BE FEATHERED AWAY FROM THE MANHOLE RIM AT A GRADUAL SLOPE.
17. FOR SANITARY MANHOLES CONSTRUCTED IN GRASS AREAS, THE RIM ELEVATION SHALL BE 3" HIGHER THAN THE SURROUNDING GRADE, AND THE FILL SHALL BE FEATHERED AWAY FROM THE MANHOLE RIM AT A GRADUAL SLOPE.
18. ROOF DRAINS, FOUNDATION DRAINS, COOLING WATER, SWIMMING POOL WATER OR OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
19. TO ASSURE THAT STORMWATER DOES NOT ENTER THE SANITARY SEWER SYSTEM, A SCHEMATIC PLAN OF THE FOOTING AND FOUNDATION DRAINAGE SYSTEM, INCLUDING THE POINT OF DISCHARGE, IS NECESSARY.
20. THE CONTRACTOR SHALL TEST ALL MANHOLES LEAKAGE BY MEANS OF VACUUM TESTING. THE VACUUM TESTING CANNOT BE DONE UNTIL AFTER THE MANHOLES ARE SET TO FINAL GRADE AND THE MANHOLE CASTINGS ARE BOLTED DOWN. ALL LIFT HOLES SHALL BE PLUGGED. ANY OTHER OPENINGS, SUCH AS FOR PRESSURE RELIEF VALVES, SHALL BE TEMPORARILY PLUGGED TO ALLOW THE VACUUM TEST. ALL PIPES ENTERING THE MANHOLE SHALL BE PLUGGED AND CARE SHALL BE TAKEN TO SECURELY BRACE THE PLUGS FROM BEING DRAWN INTO THE MANHOLE. THE VACUUM EQUIPMENT TEST HEAD SHALL BE PLACED IN THE OPENING OF THE CASTING ONLY, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. VACUUM TESTING SHALL BE IN ACCORDANCE WITH ASTM C1244. A VACUUM OF 10 INCHES MERCURY (10" HG) SHALL BE DRAWN AND THE VACUUM PUMP SHUT OFF. WITH THE VALVES CLOSED, THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO NINE INCHES MERCURY (9" HG). THE MANHOLE SHALL PASS IF THE TIME MEETS OR EXCEEDS THE ALLOWABLE TIMES AS CALCULATED FROM ASTIM C1244, OR AS APPROVED BY THE ENGINEER. ALL MANHOLE REPAIR AND RETESTING REQUIRED BECAUSE OF THE FAILURE TO MEET THE TESTING REQUIREMENTS SHALL BE BORNE BY THE CONTRACTOR AT HIS COST.

MSD SANITARY SEWER BY-PASS PUMPING

SANITARY AND COMBINED SEWER FLOWS MUST BE MAINTAINED AT ALL TIMES. CONTRACTOR SHALL SUBMIT A BYPASS PUMPING PLAN TWO (2) WEEKS PRIOR TO WORK. CONTRACTOR WILL BE RESPONSIBLE FOR ANY SEWER BACKUPS THAT OCCUR DURING CONSTRUCTION IF THE CONSTRUCTION WORK IS PROVEN TO BE THE CAUSE.

CALCULATED SEA
CHECKED DLR

GENERAL NOTES

HAM-75-8.91

SHEET NUM.											PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	10	29	30	31	91						01/IMS/03							
																	ROADWAY	
		4,350									4,350		202	23000	4,350	SY	PAVEMENT REMOVED	
					48						48		202	32000	48	FT	CURB REMOVED	
		71									71		202	32500	71	FT	CURB AND GUTTER REMOVED	
		37									37		202	35100	37	FT	PIPE REMOVED, 24" AND UNDER	
		81									81		202	35200	81	FT	PIPE REMOVED, OVER 24"	
		836									836		202	38000	836	FT	GUARDRAIL REMOVED	
		1									1		202	56101	1	EACH	BUILDING DEMOLISHED, AS PER PLAN - PARCEL# 056-0062-0261-00	12
		2			1						3		202	58000	3	EACH	MANHOLE REMOVED	
		122									122		SPECIAL	20270000	122	FT	FILL AND PLUG EXISTING CONDUIT, 12" DIA.	8
100											100		SPECIAL	20270110	100	FT	PIPE CLEANOUT, 24" AND UNDER	
100											100		SPECIAL	20270120	100	FT	PIPE CLEANOUT, 27" TO 48"	
100											100		SPECIAL	20270130	100	FT	PIPE CLEANOUT OVER 48"	
		3,053									3,053		202	75000	3,053	FT	FENCE REMOVED	
		2									2		202	98100	2	EACH	REMOVAL MISC.: BILLBOARD	12
		1									1		202	98100	1	EACH	REMOVAL MISC.: LIGHT POLE	12
40											40		202	98510	40	MNHR	REMOVAL MISC.: CONCRETE FOUNDATION REMOVED	8
											5,442		203	10000	5,442	CY	EXCAVATION	
											570		203	20000	570	CY	EMBANKMENT	
				842							842		204	10000	842	SY	SUBGRADE COMPACTION	
LUMP											LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 15" LOCATION	8
LUMP											LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 36" LOCATION	8
LUMP											LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 42" LOCATION	8
LUMP											LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 48" LOCATION	8
LUMP											LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, JACKING AND RECEIVING PIT FOR 54" LOCATION	8
		688									688		606	15050	688	FT	GUARDRAIL, TYPE MGS	
		2									2		606	26100	2	EACH	ANCHOR ASSEMBLY, TYPE E (MASH 2016)	10
		2									2		606	35002	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
		2,328			130						2,458		607	23000	2,458	FT	FENCE, TYPE CLT	
		2			1						3		607	61200	3	EACH	GATE, TYPE CLT	
				15							15		608	10000	15	SF	4" CONCRETE WALK	
		1									1		622	25000	1	EACH	CONCRETE BARRIER END SECTION, TYPE D	
				32							32		SPECIAL	69050600	32	EACH	BOLLARD	
LUMP											LUMP		SPECIAL	69098400	LS		OPERATIONS AND MAINTENANCE MANUAL	8
80											80		SPECIAL	69099300	80	MGAL	WATER FOR PUMP STATION TESTING	8
36											36		SPECIAL	69099550	36	MNTH	OPERATIONS AND MAINTENANCE	8
				4							4		SPECIAL	69099550	4	MNTH	TEMPORARY 600 KW GENERATOR	10
																	EROSION CONTROL	
10											10		601	21050	10	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
	2										2		659	00100	2	EACH	SOIL ANALYSIS TEST	
	1,104										1,104		659	00300	1,104	CY	TOPSOIL	
	9,939										9,939		659	10000	9,939	SY	SEEDING AND MULCHING	
	497										497		659	14000	497	SY	REPAIR SEEDING AND MULCHING	
	497										497		659	15000	497	SY	INTER-SEEDING	
	1.39										1.39		659	20000	1.39	TON	COMMERCIAL FERTILIZER	
	2.06										2.06		659	31000	2.06	ACRE	LIME	
	57										57		659	35000	57	MGAL	WATER	
	23										23		659	40000	23	MSF	MOWING	
			940								940		670	00700	940	SY	DITCH EROSION PROTECTION	
											LUMP		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
											LUMP		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
											LUMP		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
											50,000		832	30000	50,000	EACH	EROSION CONTROL	
																	DRAINAGE	
200											200		611	00510	200	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
100											100		611	00900	100	FT	6" CONDUIT, TYPE B	
100											100		611	01100	100	FT	6" CONDUIT, TYPE C	
100											100		611	01400	100	FT	6" CONDUIT, TYPE E	

CALCULATED DLR CHECKED EDK

GENERAL SUMMARY

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SHEET NUM.											PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
8	29	30	31	91	155						01/IMS/03						
																DRAINAGE	
100											100	611	01500	100	FT	6" CONDUIT, TYPE F	
100						TEMS SHIFTED TO THIS PAGE BASE ON ITEMS BEING ADDED TO PG 26.					100	611	01800	100	FT	8" CONDUIT, TYPE B	
100											100	611	02000	100	FT	8" CONDUIT, TYPE C	
		54		59							113	611	07400	113	FT	18" CONDUIT, TYPE B	
		16									16	611	19600	16	FT	42" CONDUIT, TYPE C	
		20									20	611	20900	20	FT	48" CONDUIT, TYPE B	
		1,442	40								1,482	611	21100	1,482	FT	48" CONDUIT, TYPE C	
		657									657	611	26400	657	FT	72" CONDUIT, TYPE C	
		167									167	611	96600	167	FT	CONDUIT, BORED OR JACKED, 36" TYPE B	
		149									149	611	96600	149	FT	CONDUIT, BORED OR JACKED, 42" TYPE B	
		197									197	611	96600	197	FT	CONDUIT, BORED OR JACKED, 48" TYPE C	
		1									1	611	98300	1	EACH	CATCH BASIN, NO. 5	
		5									5	611	98341	5	EACH	CATCH BASIN, NO. 5A	
		1									1	611	98434	1	EACH	CATCH BASIN, NO. 8A	
		3									3	611	99115	3	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN	13
		1									1	611	99115	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN, A	14
		4									4	611	99574	4	EACH	MANHOLE, NO. 3	
			1								1	611	99690	1	EACH	MANHOLE, MISC.: TRASH RACK STRUCTURE	
5											5	611	99710	5	EACH	PRECAST REINFORCED CONCRETE OUTLET	
			528								528	638	07330	528	FT	54" STEEL PIPE ENCASEMENT, BORED OR JACKED	
			1,368								1,368	638	98600	1,368	FT	WATER WORK, MISC.: 36" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, MECHANICAL JOINTS AND FITTINGS	
			LUMP								LUMP	SPECIAL	69098400	LS		PRESSURE RELEASE VALVE AND STRUCTURE	11
		LUMP									LUMP	SPECIAL	69098400	LS		STORMWATER DETENTION SYSTEM 6	9
																PAVEMENT	
				66							66	253	02001	66	CY	PAVEMENT REPAIR, AS PER PLAN	84
			70								70	301	56000	70	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
			140								140	304	20000	140	CY	AGGREGATE BASE	
			84								84	407	20000	84	GAL	NON-TRACKING TACK COAT	
			35								35	441	50000	35	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
	717			39							756	609	26000	756	FT	CURB, TYPE 6	
																SANITARY SEWER	
		466									466	611	06100	466	FT	15" CONDUIT, TYPE C	11
				51							51	611	20900	51	FT	48" CONDUIT, TYPE B, WITH CLASS II BEDDING	11
				171							171	611	21100	171	FT	48" CONDUIT, TYPE C, WITH CLASS II BEDDING	11
		368									368	611	96600	368	FT	CONDUIT, BORED OR JACKED, 15" TYPE B, 748.01, WITH CASING PIPE	11
				LUMP							LUMP	SPECIAL	61197910	LS		SANITARY SEWER MSD SANITARY SEWER PROTECTION	90
		3		1							4	611	99690	4	EACH	MANHOLE, MISC.: SANITARY MANHOLE PER MSD STD ACC. NO. 49037	
		3		1							4	611	99690	4	EACH	MANHOLE, MISC.: SANITARY MANHOLE PER MSD STD ACC. NO. 49040	
				1							1	611	99690	1	EACH	MANHOLE, MISC.: SANITARY MANHOLE PER MSD STD ACC. NO. 49058-A	
																LIGHTING	
					8						8	625	00450	8	EACH	CONNECTION, FUSED PULL APART	
					4						4	625	00460	4	EACH	CONNECTION, UNFUSED PULL APART	
					12						12	625	00480	12	EACH	CONNECTION, UNFUSED PERMANENT	
					4						4	625	10503	4	EACH	LIGHT POLE (INSTALLATION ONLY), AS PER PLAN	153
					4						4	625	14001	4	EACH	LIGHT POLE FOUNDATION, 24" X 6' DEEP, AS PER PLAN	153
					1						1	625	15201	1	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN	153
					3,033						3,033	625	23300	3,033	FT	NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE	
					941						941	625	25500	941	FT	CONDUIT, 3", 725.04	
					941						941	625	29000	941	FT	TRENCH	
					2						2	625	30700	2	EACH	PULL BOX, 725.08, 18"	
					1						1	625	30710	1	EACH	PULL BOX, 725.08, 32"	
					3						3	625	32000	3	EACH	GROUND ROD	
					941						941	625	36010	941	FT	UNDERGROUND WARNING/MARKING TAPE	
					LUMP						LUMP	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	153
					4						4	625	60010	4	EACH	LIGHT POLE REMOVED FOR REERECTION	

CALCULATED DLR CHECKED EDK

GENERAL SUMMARY

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SHEET NUM.								PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
9	12	31	17	91	148	147	155	01/IMS/03							
														LIGHTING	
							1	1		625	75360	1	EACH	LIGHT TOWER REMOVED FOR STORAGE	
							4	4		625	75500	4	EACH	LIGHT POLE FOUNDATION REMOVED	
							1	1		625	75540	1	EACH	LIGHT TOWER FOUNDATION REMOVED	
							3	3		625	75800	3	EACH	DISCONNECT CIRCUIT	
							1	1		625	98000	1	EACH	LIGHTING, MISC.: LIGHT TOWER INSTALLATION ONLY	
														ELECTRICAL	
		620						620		625	25600	620	FT	CONDUIT, 4", 725.04	
		240						240		625	25902	240	FT	CONDUIT, JACKED OR DRILLED, 725.04, 4"	
		2						2		625	25930	2	EACH	CONDUIT, MISC.: CONDUIT RISER, 4" DIAMETER	
	1							1		625	34301	1	EACH	TRANSFORMER PAD, CONCRETE, AS PER PLAN	12
														TRAFFIC CONTROL	
					98			98		630	03100	98	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
					2			2		630	08600	2	EACH	SIGN POST REFLECTOR	
					2			2		630	09000	2	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
					2			2		630	84510	2	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION	
					10			10		630	85100	10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
					6			6		630	86002	6	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
					3			3		630	86250	3	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND REERECTION	
					370			370		644	01510	370	FT	DOTTED LINE, 6"	
														MISCELLANEOUS STRUCTURE	
				LUMP				LUMP		503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	9
						LUMP		LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, WALL 1	147
						LUMP		LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, WALL 2	147
						LUMP		LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, WALL 3	147
LUMP								LUMP		503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN STORMWATER DETENTION SYSTEM 6	9
				LUMP				LUMP		503	21300	LS		UNCLASSIFIED EXCAVATION	
				8,329				8,329		509	10000	8,329	LB	EPOXY COATED STEEL REINFORCEMENT	
				27				27		511	46010	27	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
				47				47		511	46510	47	CY	CLASS QC1 CONCRETE, FOOTING	
				63				63		512	10100	63	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
				44				44		517	73501	44	FT	RAILING, PIPE, AS PER PLAN	86
				28				28		518	21201	28	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC, AS PER PLAN	91
				90				90		601	32004	90	CY	ROCK CHANNEL PROTECTION, TYPE A WITH GEOTEXTILE FABRIC	
				1				1		611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.: FLAP GATE	89
				LUMP				LUMP		611	99920	LS		DRAINAGE STRUCTURE, MISC.: CSO VAULT 25' L X 13' W, AS PER PLAN	85
		LUMP						LUMP		SPECIAL	69098400	LS		PUMP STATION BUILDING AND CONTROLS	11
		LUMP						LUMP		SPECIAL	69098400	LS		STORMWATER PUMP STATION STRUCTURE	11
														MAINTENANCE OF TRAFFIC	
			1					1		606	60022	1	EACH	IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL), 60 MPH, 48 INCH WIDTH	
			50					50		614	11110	50	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			4					4		614	12380	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
			89					89		614	13310	89	EACH	BARRIER REFLECTOR, TYPE 1, ONE WAY	
			3					3		614	13312	3	EACH	BARRIER REFLECTOR, TYPE 2, ONE WAY	
			92					92		614	13350	92	EACH	OBJECT MARKER, ONE WAY	
			370					370		614	23010	370	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12"	
			LUMP					LUMP		615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
			558					558		615	20000	558	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
			18					18		616	10000	18	MGAL	WATER	
			1					1		622	41060	1	EACH	DUAL PORTABLE BARRIER TRANSITION/TERMINATION	
			4,090					4,090		622	41100	4,090	FT	PORTABLE BARRIER, UNANCHORED	
														INCIDENTALS	
								LUMP		614	11000	LS		MAINTAINING TRAFFIC	
								14		619	16021	14	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	10
								LUMP		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
								LUMP		624	10000	LS		MOBILIZATION	

PAGE UPDATED AS ITEMS SHIFTED TO THIS PAGE BASE ON ITEMS BEING ADDED TO PG 26.

ITEM 503E11000 - COFFERDAMS AND EXCAVATION BRACING, JACKING PIT AND ITEM 503E11000 - COFFERDAMS AND EXCAVATION BRACING, RECEIVING PIT WERE DELETED.

CALCULATED DLR CHECKED EDK

GENERAL SUMMARY

HAM-75-8.91

28 160

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REF NO.	SHEET NO.	STATION TO STATION			202 PAVEMENT REMOVED	202 CURB AND GUTTER REMOVED	202 PIPE REMOVED, 24" AND UNDER	202 PIPE REMOVED, OVER 24"	202 BUILDING DEMOLISHED, AS PER PLAN - PARCEL # 056-0062-0261-00	202 MANHOLE REMOVED	202 GUARDRAIL REMOVED	202 FENCE REMOVED	202 REMOVAL MISC.: LIGHT POLE	202 REMOVAL MISC.: BILLBOARD	606 GUARDRAIL, TYPE MGS	606 ANCHOR ASSEMBLY, TYPE E	606 MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	607 FENCE, TYPE CLT	607 GATE, TYPE CLT	609 CURB, TYPE 6	622 CONCRETE BARRIER END SECTION, TYPE D		202 SPECIAL - FILL AND PLUG EXISTING CONDUIT, 12" DIA.
			TO		SY	FT	FT	FT	EACH	EACH	FT	FT	EACH	EACH	FT	EACH	EACH	FT	EACH	FT	EACH		FT
R1	36	499+88.53		500+63.39																			122
R2	36	495+43.31		497+36.31							193												
R1	37	512+37.08		519+50.00								709											
R2	37	513+15.34											1										
R3	37	519+12.00		519+50.00	166																		
R4	37	507+44.25		513+86.76							643												
C1	37	511+98.57		519+19.97																717			
R1	38	519+50.00		523+00.00								402											
R2	38	521+03.06		522+35.42	179																		
R3	38	524+93.28		531+33.60	4005																		
R4	38	526+94.85												1									
R5	38	526+97.40		527+77.79					1														
R6	38	522+91.19		531+36.36								1942											
R7	38	531+19.11		531+34.55		71																	
R8	38	530+82.18												1									
R9	38	531+16.99		531+78.18				81		1													
R10	38	531+16.99		531+24.55			37			1													
F1	158	494+07.41		496+39.76														538	2				
F1	159	512+37.08		519+50.00														708					
G1	143	495+35.15		497+22.60											113	1	1				1		
G1	144	507+44.25		513+94.25											575	1	1						
F1	160	519+50.00		522+67.65														317					
F2	160	522+90.65		523+53.50														63					
F3	160	523+53.50		530+55.03														631					
F4	160	531+20.83		531+36.36														71					
TOTALS CARRIED TO GENERAL SUMMARY					4350	71	37	81	1	2	836	3053	1	2	688	2	2	2328	2	717	1		122

CALCULATED SEA CHECKED DLR

ESTIMATED QUANTITIES

HAM-75-8.91

29
160

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REF NO.	SHEET NO.	STATION TO STATION			611 15" CONDUIT, TYPE C FT	611 18" CONDUIT, TYPE B FT	611 42" CONDUIT, TYPE C FT	611 48" CONDUIT, TYPE B FT	611 48" CONDUIT, TYPE C FT	611 72" CONDUIT, TYPE C FT	611 CATCH BASIN, NO. 5 EACH	611 CATCH BASIN, NO. 5A EACH	611 CATCH BASIN, NO. 8A EACH	611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN EACH	611 INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN, A EACH	611 MANHOLE, NO. 3 EACH	611 CONDUIT, BORED OR JACKED, 15" TYPE B, 748.01, WITH CASING PIPE FT	611 CONDUIT, BORED OR JACKED, 36" TYPE B FT	611 CONDUIT, BORED OR JACKED, 42" TYPE B FT	611 CONDUIT, BORED OR JACKED, 48" TYPE C FT	611 MANHOLE, MISC.: SANITARY MANHOLE PER MSD STD ACC. NO. 49037 EACH	611 MANHOLE, MISC.: SANITARY MANHOLE PER MSD STD ACC. NO. 49040 EACH	690 SPECIAL -STORMWATER DETENTION SYSTEM 6 LS	670 DITCH EROSION PROTECTION SY
D1	69	492+99	TO	493+28									1						149					
D2	69	494+20		494+40				20								1								
D3	69	494+34		494+50												1		167						
D1	70	496+12		496+64		54					1													
D2	70	494+50		495+90																			LUMP	
D1	71	509+00		511+84					284						1									
D2	71	511+84		514+85					300					1										
D3	71	514+85		517+90					303					1										
D4	71	517+90		519+97					207					1										
D1	72	520+00		522+00					204							1								
D2	72	522+00		524+00												1				197				
D3	72	524+00		525+00					97			1												
D4	72	525+00		527+00						198		1												
D5	72	527+00		529+00						194		1												
D6	72	529+00		531+05						201		1												
D7	72	531+05		531+59						64		1												
D8	72	517+90					16																	
D9	72	530+83		530+90					20													2		
D10	72	530+90		531+13					27													1		
S1	69	493+14		493+65													102				1			
S1	70	498+32		500+65	228																			
S2	70	495+66		498+32													266				1			
S3	70	493+30		495+50	238																1			
EC1	69	493+23		494+50																				106
EC1	70	494+50		496+57																				173
EC2	70	496+71		497+00																				24
EC1	72	523+49		526+91																				285
EC2	72	527+00		531+22																				352
TOTALS CARRIED TO GENERAL SUMMARY					466	54	16	20	1442	657	1	5	1	3	1	4	368	167	149	197	3	3	LS	940

CALCULATED SEA CHECKED DLR

ESTIMATED QUANTITIES

HAM-75-8.91

30
160

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REF NO.	SHEET NO.	STATION TO STATION	204 SUBGRADE COMPACTION SY	301 ASPHALT CONCRETE BASE, PG64-22, (449) CY	304 AGGREGATE BASE CY	407 NON-TRACKING TACK COAT GAL	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 CY			608 4" CONCRETE WALK SF	611 48" CONDUIT, TYPE C FT	611 MANHOLE, MISC.:TRASH RACK STRUCTURE EACH	625 CONDUIT, 4", 725.04 FT	625 CONDUIT, JACKED OR DRILLED, 725.04, 4" FT	625 CONDUIT, MISC.:CONDUIT RISER, 4" DIAMETER EACH	638 54" STEEL PIPE ENCASEMENT, BORED OR JACKED FT	638 WATER WORK, MISC.:36" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, MECHANICAL JOINTS AND FITTINGS FT	690 SPECIAL - BOLLARD EACH	690 SPECIAL -STORMWATER PUMP STATION STRUCTURE	690 SPECIAL -PUMP STATION BUILDING AND CONTROLS	690 SPECIAL -PRESSURE RELEASE VALVE AND STRUCTURE	690 SPECIAL -TEMPORARY 600KW GENERATOR MNTH
	92 - 142		842	70	140	84	35			15	40	1	620	240	2	528	1368	32	LUMP	LUMP	LUMP	4
SUBTOTALS			842	70	140	84	35			15	40	1	620	240	2	528	1368					4
TOTALS CARRIED TO GENERAL SUMMARY			842	70	140	84	35			15	40	1	620	240	2	528	1368	LS	LS	LS	LS	4

CALCULATED SEA
CHECKED DLR

ESTIMATED QUANTITIES

HAM-75-8.91

CROSS REFERENCES	
SHEET NO	DESCRIPTION
69 - 72	DRAINAGE PLANS
73 - 75	STORM SEWER PROFILES
29 - 31	ESTIMATED QUANTITIES
-	
-	

[1] ℄ CONST I.R. 75 491+17.27=
℄ CONST SEYMOUR AVE 9+17.97

STRUCTURE NO HAM-561-0701

EX ABANDONED PRIVATE UTILITY TUNNEL TO REMAIN

LONGVIEW ST

I.R. 75 (SB)

I.R. 75 (NB)

℄ CONST I.R. 75

N 43° 59' 00" E

BEGIN PROJECT STA 493+09.24 SLM = 9.43

E220 (584)

MATCHLINE STA 494+50, SEE SHEET 36

S.R. 561 SEYMOUR AVE

CONST LIMITS

MSD 36405019

EX ABANDONED PRIVATE UTILITY TUNNEL TO REMAIN

EX. ABANDONED PRIVATE UTILITY TUNNEL

EX 8" GAS (TO BE RELOCATED)

EX 8-4" FIBER OPTIC DUCT BANK

STA 482+39.99, 1.9' LT
EX CB, GRATE ELEV 542.84
EX 12" RCP SW 535.22

STA 485+97.93, 1.88' LT
EX CB, GRATE ELEV 540.71
EX 12" RCP NE 536.87

STA 486+84.18, 56.86' RT
EX CB, GRATE ELEV 539.87

STA 489+25.43, 2.13' RT
EX CB, GRATE ELEV 538.98
EX 15" RCP N 531.26
EX 15" RCP NE 531.13
EX 12" RCO S 532.03
EX 12" RCP W 532.98

STA 490+09.01, 2.49' LT
EX CB, GRATE ELEV 538.50
EX 12" RCP NW 531.89
EX 24" RCP NE 530.30
EX 24" RCP SW 530.31

STA 490+10.26, 76.13' LT
EX CB, GRATE ELEV 535.18
EX 12" RCP E 532.73

[A] STA 490+88.76, 78.13' LT
EX. CB, GRATE ELEV 538.05
EX. 8" RCP NW 532.81
EX. 12" RCP NE 532.16

[B] STA 491+32.90, 77.63' LT
EX. CB, GRATE ELEV 537.51
EX. 12" RCP SW 531.49
EX. 12" RCP E 531.48
EX. 8" RCP NW 532.54

[C] STA 491+61.72, 63.41' LT
EX. MH-1, GRATE ELEV 536.92
EX. 54" RCP NW 524.81
EX. 54" RCP SE 524.81
EX. 24" RCP SE 527.50
EX. 18" RCP E 527.50

[D] STA 493+23.46, 74.48' LT
EX CB, GRATE ELEV 535.78
EX 18" RCP NE 529.64
EX 12" RCP NW 531.66
EX 18" RCP SW 529.61

STA 492+43.09, 1.64' LT
EX CB, GRATE ELEV 537.20
EX 33" RCP N 526.14
EX 12" RCP E 529.10
EX 33" RCP S 526.48

EX PROFILE

EX 12" RCP
EX 12" RCP
EX 15" RCP
EX 24" RCP
EX 12" RCP
EX 24" RCP
EX 18" RCP
EX 16" GAS
EX 24" RCP

482+00 483+00 484+00 485+00 486+00 487+00 488+00 489+00 490+00 491+00 492+00 493+00 494+00

542.88 542.59 542.32 542.04 541.75 541.38 541.15 540.77 540.55 540.36 540.04 539.72 539.43 539.04 539.70 538.64 538.24 537.93 537.67 537.40 537.09 536.87 536.74 536.27 536.01

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CFR
CHECKED JLM

PLAN AND PROFILE - I.R. 75
STA 482+00 TO STA 494+50

HAM-75-8.91

35
160

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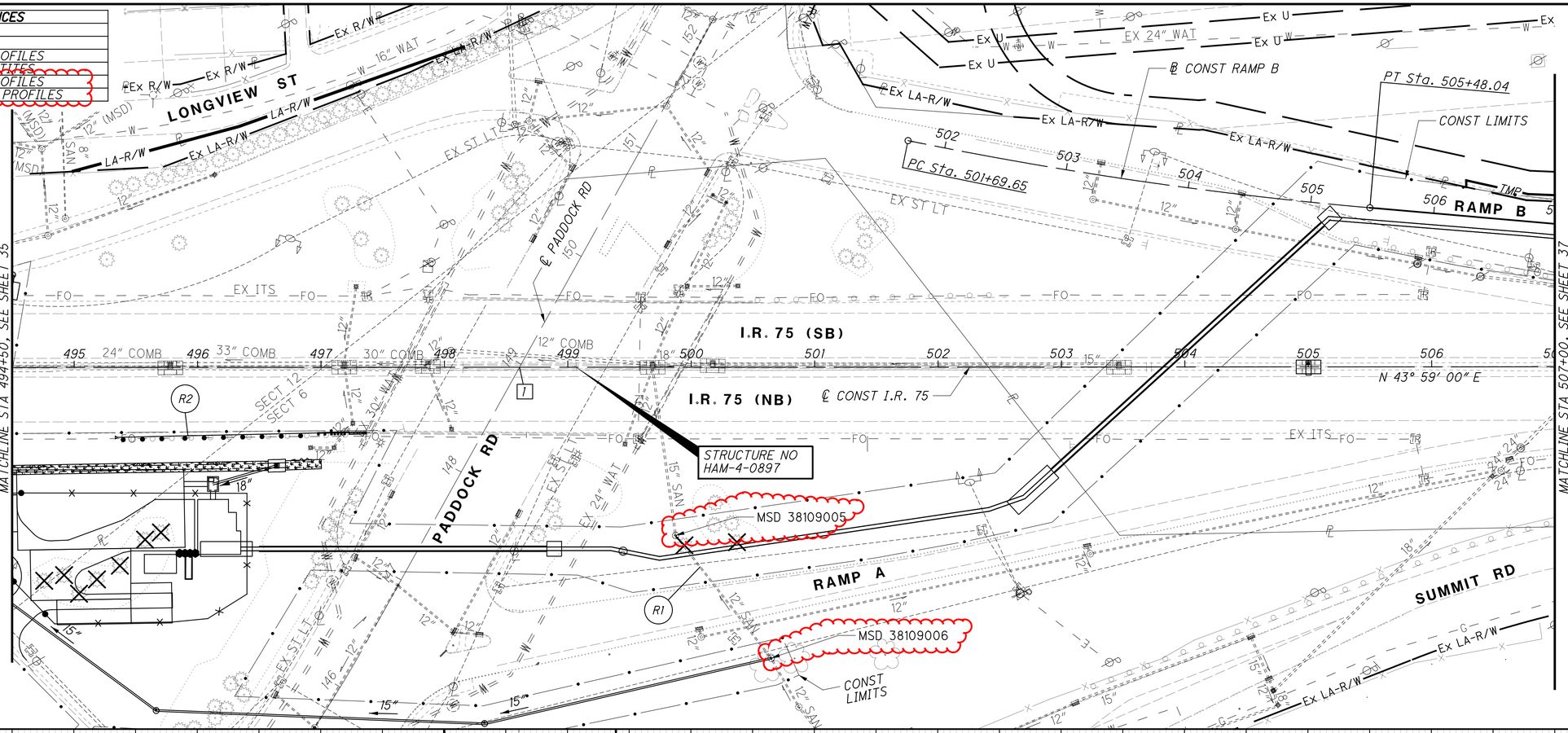
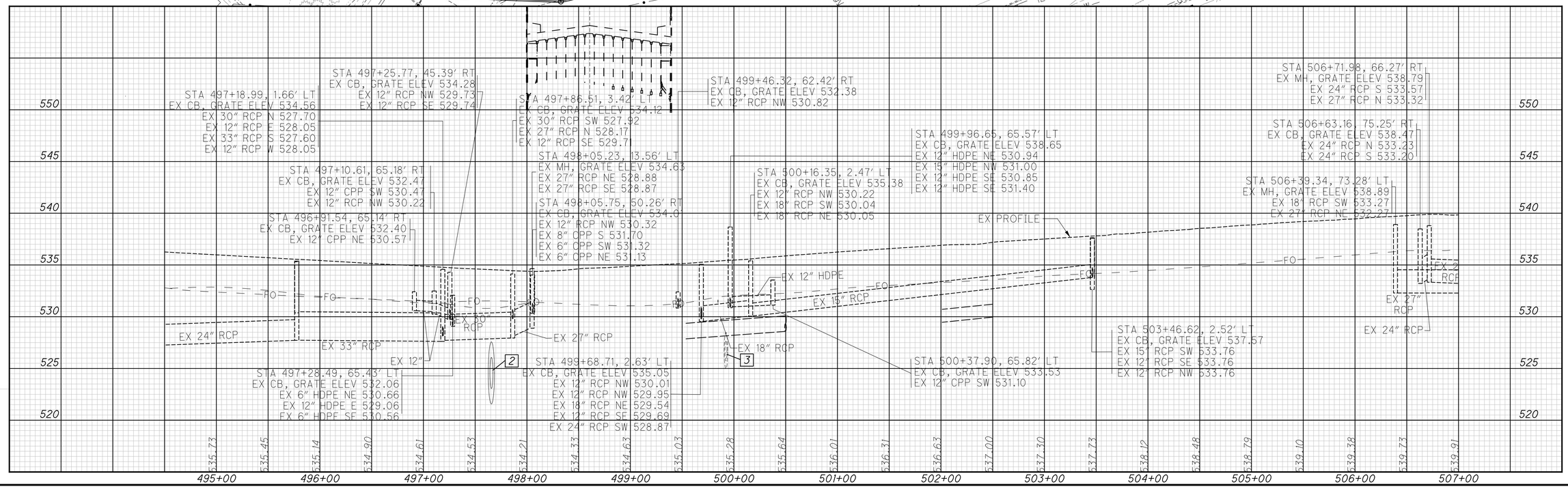
CROSS REFERENCES	
SHEET NO	DESCRIPTION
69 - 72	DRAINAGE PLANS
73 - 75	STORM SEWER PROFILES
29 - 31	ESTIMATED QUANTITIES
73 - 75	STORM SEWER PROFILES
- 76	SANITARY SEWER PROFILES

1 ℄ CONST I.R. 75
498+60.85=
℄ CONST PADDOCK RD
148+97.21

2 EX 30" WATERLINE
IN 60" CASING
℄ = 524.50 ±

3 EX 24" WATERLINE
IN 42" CASING
℄ = 526.71 ±





HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CFR
CHECKED JLM

PLAN AND PROFILE - I.R. 75
STA 494+50 TO STA 507+00

HAM-75-8.91

36
160

CROSS REFERENCES	
SHEET NO	DESCRIPTION
69 -72	DRAINAGE PLANS
73 -75	STORM SEWER PROFILES
73 -75	STORM SEWER PROFILES
-76	SANITARY SEWER PROFILE
-75	TEMP SANITERY SEWER PROFILE

CURVE 75-5
PI STA 523+96.89
Δ = 16°02'37" (LT)
Dc = 1°06'00"
R = 5,208.71'
T = 734.06'
L = 1,458.52'
E = 51.47'
emax = 0.030

MATCHLINE STA 519+50, SEE SHEET 37

STRUCTURE NO HAM-75-0992

EX SECUITY CAMERAS AROUND PERIMETER TO BE REMOVED

CITY OF CINCINNATI
SPRINGFIELD TOWNSHIP

CONST LIMITS

SAWCUT

EX ASPHALT TO REMAIN

REINFORCED CONCRETE FOUNDATION. SEE SOIL PROFILES

VBF #17

48" TYPE B
VBF #18

PT STA 531+21.35

END PROJECT
STA 531+73.91
SLM = 10.16

E220 (584)

MSD 38202005
MSD 38202006
MSD 38202023

N 27° 55' 00" E

PRECAST WITH BOTH 48" OPENINGS, PLUG ENTERANCE TO THE SOUTH FOR FUTURE USE.

I.R. 75 (SB)
I.R. 75 (NB)
℄ CONST I.R. 75

SUMMIT RD
SECTION ST
WOODLAND AVE

STRUCTURE NO HAM-75-1010

HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CFR
CHECKED JLM

PLAN AND PROFILE - I.R. 75
STA 519+50 TO STA 531+72.45

HAM-75-8.91

38
160

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STA 520+08.04, 52.47' LT
EX MH, GRATE ELEV 544.73
EX 30" RCP N 525.45
EX 12" RCP N 529.18
EX 12" RCP E 529.18
EX 36" RCP N & S 525.45

STA 520+07.37, 5.49' LT
EX CB, GRATE ELEV 546.03
EX 12" RCP N 540.38
EX 12" RCP S 540.08
EX 15" RCP W 537.83

STA 520+39.66, 69.16' LT
EX CB, GRATE ELEV 540.76
EX 12" RCP S 538.68

STA 520+98.83, 1.27' RT
EX CB, GRATE ELEV 546.12

STA 523+01.43, 25.83' LT
EX MH, GRATE ELEV 546.5±
EX 36" RCP SW 525.45±
EX 36" RCP NE 525.45±
(PAVED OVER)

STA 526+23.88, 60.76' LT
EX CB, GRATE ELEV 543.01
EX 12" RCP E 539.16
EX 6" CMP S 539.36

STA 526+25.16, 52.75' LT
EX MH, GRATE ELEV 543.42
EX 48" RCP N 520.62
EX 12" CLAY E 538.17
EX 36" RCP SE 521.32
EX 36" RCP S 521.22
EX 12" CLAY W 536.77

STA 526+27.32, 1.18' RT
EX CB, GRATE ELEV 544.30
EX 12" RCP NW 541.58

STA 528+74.92, 53.53' LT
EX MH, GRATE ELEV 540.08
EX 42" RCP N 519.18
EX 12" RCP E 534.93
EX 42" RCP S 519.18
EX 12" RCP W 533.43

STA 528+75.76, 67.03' LT
EX CB, GRATE ELEV 539.49
EX 12" RCP E 535.70
EX 12" RCP W 535.80

STA 528+75.99, 1.57' LT
EX CB, GRATE ELEV 541.20
EX 12" ECP NW 538.28

EX PROFILE
EX ITS
EX TELEPHONE
EX 12" WATERLINE
EX 12" RCP

570 565 560 555 550 545 540 535 530
545.61 545.86 546.09 546.30 546.70 547.05 547.41 547.40 547.65 547.19 546.90 546.41 545.81 545.14 544.40 543.97 543.29 542.64 541.96 541.29 540.66 539.88 539.21 538.56 537.77
520+00 521+00 522+00 523+00 524+00 525+00 526+00 527+00 528+00 529+00 530+00 531+00

PAVEMENT REMOVAL QUANTITIES HAVE BEEN DEDUCTED FROM EXCAVATION QUANTITIES

SEEDING END WIDTH	SEEDING SQ. YDS.
59	325
58	322
117	647

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		216	13
15	1		
		230	11
13	1		
28	2	446	24

CALCULATED CFR
CHECKED SSK

CROSS SECTIONS I.R. 75 SOUTHBOUND
STA. 524+50.00 TO STA. 525+00.00

HAM-75-8.91

61
160

580
570
560
550
540
530

EX PARKING LOT
4A-R/W
PR FENCE
770
EX R/W
EX FENCE
2:1
2:1
28:1
541.8
EX ST LT
16'-42" TYPE B @ 1.3%
525+00.00
546.41
33" RCP

EX PARKING LOT
4A-R/W
PR FENCE
EX R/W
EX FENCE
2:1
2:1
28:1
542.0
EX ST LT
524+50.00
546.90
48" C
33" RCP

220 200 180 160 140 120 100 80 60 40 20 0

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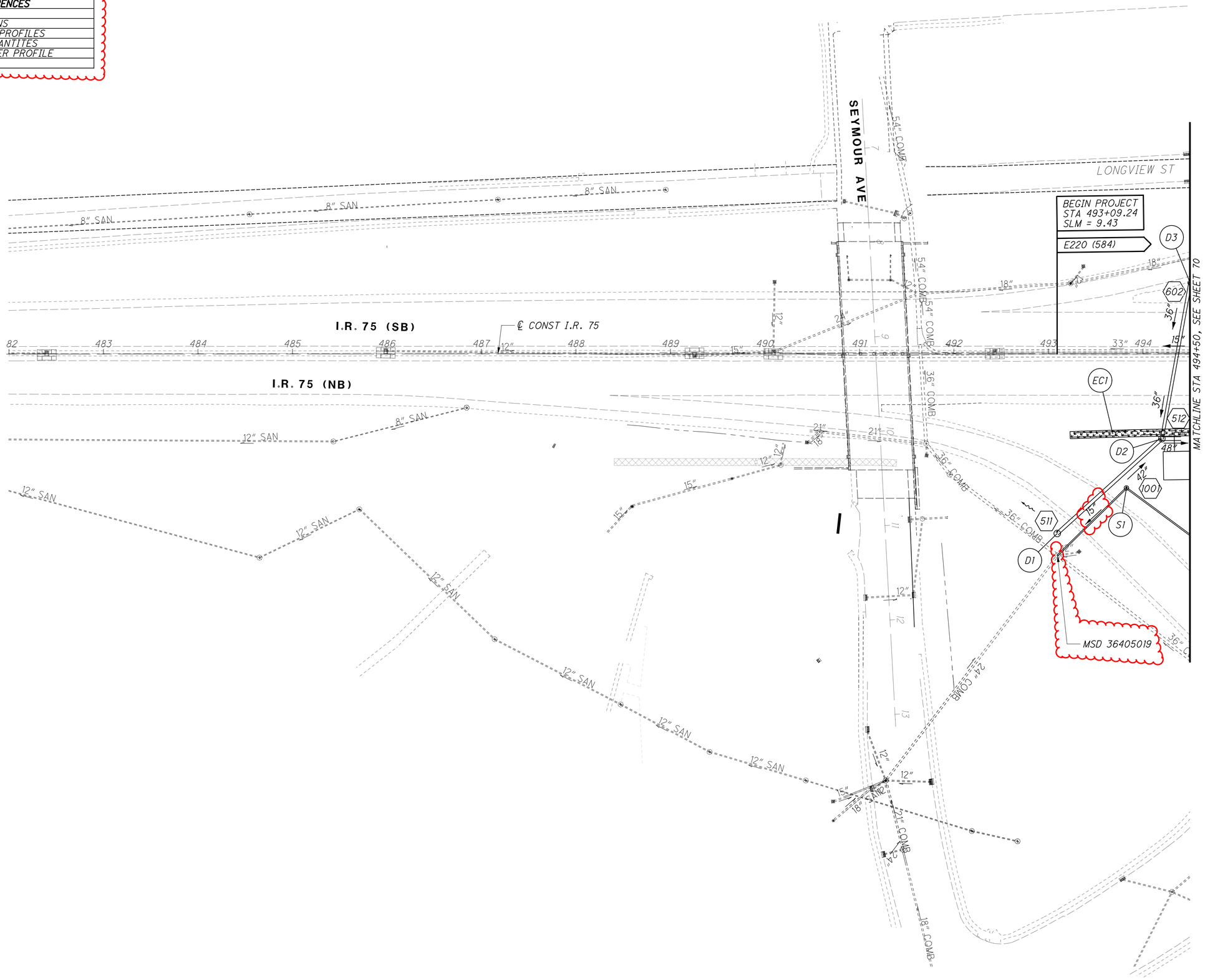
CROSS REFERENCES	
SHEET NO	DESCRIPTION
69 -72	DRAINAGE PLANS
73 -75	STORM SEWER PROFILES
29 -31	ESTIMATED QUANTITES
-76	SANITARY SEWER PROFILE
-	



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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CT
CHECKED SSK

DRAINAGE PLANS - I.R. 75
STA 482+00 TO STA 494+50

HAM-75-8.91

69
160

CROSS REFERENCES	
SHEET NO	DESCRIPTION
69 -72	DRAINAGE PLANS
73 -75	STORM SEWER PROFILES
29 -31	ESTIMATED QUANTITES
-76	SANITARY SEWER PROFILE
-	

E. 72ND ST.

RAMP C

RAMP B

RAMP A

BEGIN ℄ RAMP B
PC STA 501+69.65

℄ CONST RAMP B

PT STA 505+48.04

℄ CONST I.R. 75

I.R. 75 (SB)

I.R. 75 (NB)

PADDOCK RD

MATCHLINE STA 494+50, SEE SHEET 69

MATCHLINE STA 507+00, SEE SHEET 71

495 496 497 498 499 500 501 502 503 504 505 506

602 EC1 D1 EC2 618 D2 1002 1003 1004 S1 S2 S3

MSD 39109005
MSD 39109006
MSD 39109007

12" 15" 18"

J:\2022094\7\ODOT\HAM\117526_HAM-75-8.91\drainage\sheets\77889DM405.dgn 3/27/2024 1:42:05 PM hbrendlinger

HORIZONTAL SCALE IN FEET
0 25 50 100

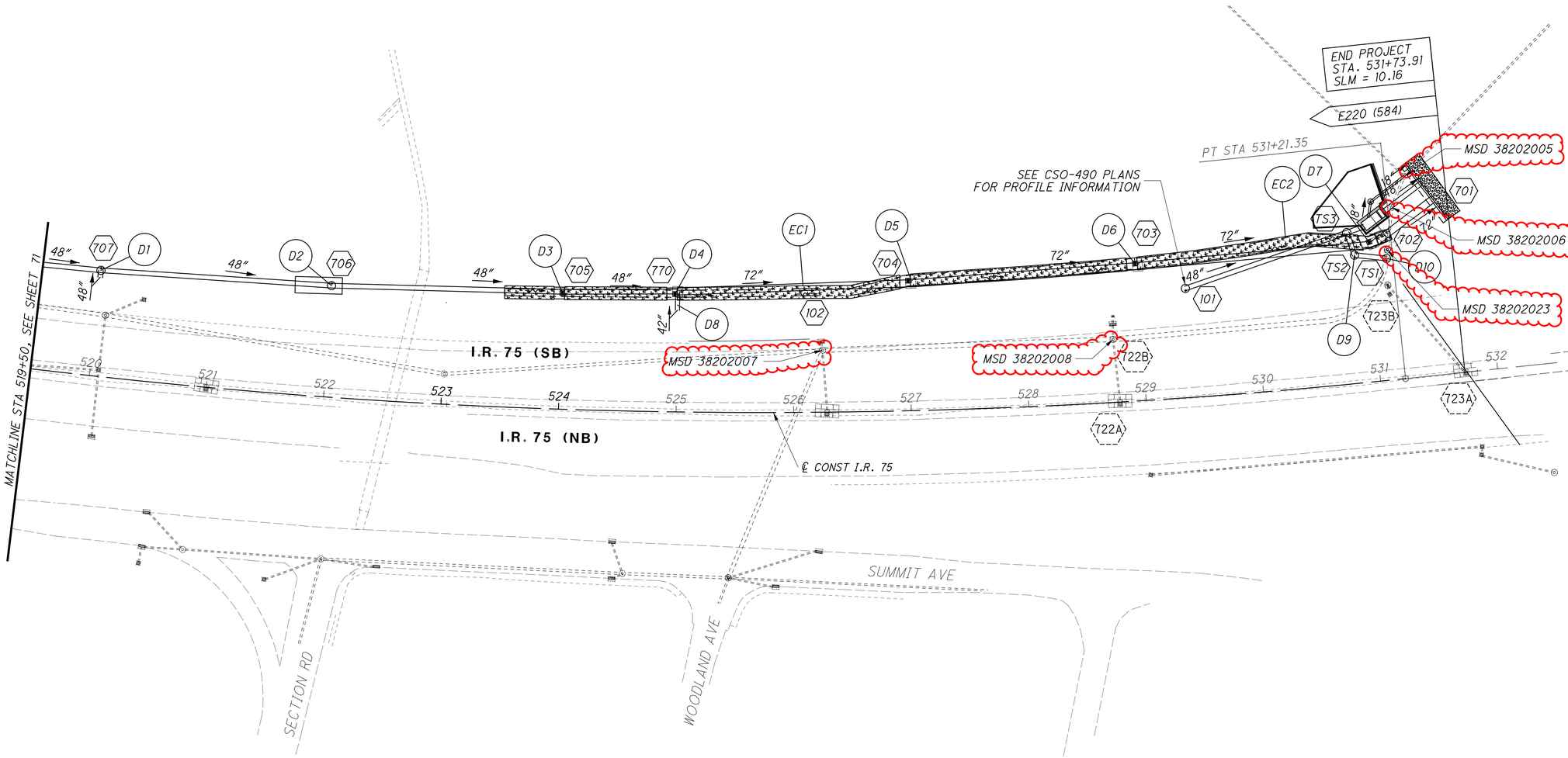
CALCULATED CT
CHECKED SSK

DRAINAGE PLANS - I.R. 75
STA 494+50 TO STA 507+00

HAM-75-8.91

70
160

CROSS REFERENCES	
SHEET NO	DESCRIPTION
69 - 72	DRAINAGE PLANS
73 - 75	STORM SEWER PROFILES
29 - 31	ESTIMATED QUANTITES
- 76	SANITARY SEWER PROFILE
-	



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HORIZONTAL SCALE IN FEET
0 25 50 100

CALCULATED CT
CHECKED SSK

DRAINAGE PLANS - I.R. 75
STA 519+50 TO STA 531+73.91

HAM-75-8.91

SEE SHEET 72 FOR PLAN VIEW

TS1
STA 531+12.57, 92.81' LT
MH-3, RIM ELEV 536.81
EX. 48" RCP SE 517.01
48" (SW) 517.01

TS2
STA 530+90.25, 101.80' LT
MH-3, RIM ELEV 535.86
48" (W) 515.48
48" (NE) 515.48

TS3
STA 530+83.70, 128.62' LT
MH-3, RIM ELEV 535.14
48" (E) 514.35
48" (N) 514.35

EX GROUND
PROP GROUND
5342
4.21'
PROP. 72" STM
ELEV INVERT = 521.40'
20'-48" TYPE C @ 5.58%
27'-48" TYPE C @ 5.58%

512
STA 493+28.17, 114.18' LT
MH-3, RIM ELEV 533.00
48" (SE) 520.50
42" (S) 521.00
36" (NW) 522.00

EX ITS
PROP GROUND
20'-48" TYPE B @ 1%

602
STA 494+50.00, 75.00' LT
MH-3, RIM ELEV 533.87
36" (SE) 523.75

EX. GROUND
EX ST LT
EX ITS
EX. 24" RCP
167'-36" TYPE B @ 1.04%
(BORED OR JACKED)
EX. 18" RCP
EX. 12" RCP

711
STA 509+01.44, 109.16' LT
I-3-D, APP A
GRATE ELEV 538.10
36" (SE) (FORCE MAIN) 531.99
48" (NE) 530.74

MATCHLINE T

PROP GROUND

512
STA 493+28.17, 114.18' LT
MH-3, RIM ELEV 533
42" (S) 521.00
36" (NW) 522.00
48" (SE) 520.50

EX ST LT
20'-48" TYPE B @ 1%

PROP GROUND
511
STA 493+00.00, 33.13' RT
CB-8A, GRATE ELEV 543.30
42" (SW) 522.00
18" (W) 535.00
42" (N) 522.00

EX 16" GAS
EX. 40" RCP
149'-42" TYPE B @ 0.67%

CALCULATED ECH
CHECKED SSK

STORM SEWER PROFILES

HAM-75-8.91

75
160

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SANITARY SEWER PROFILES

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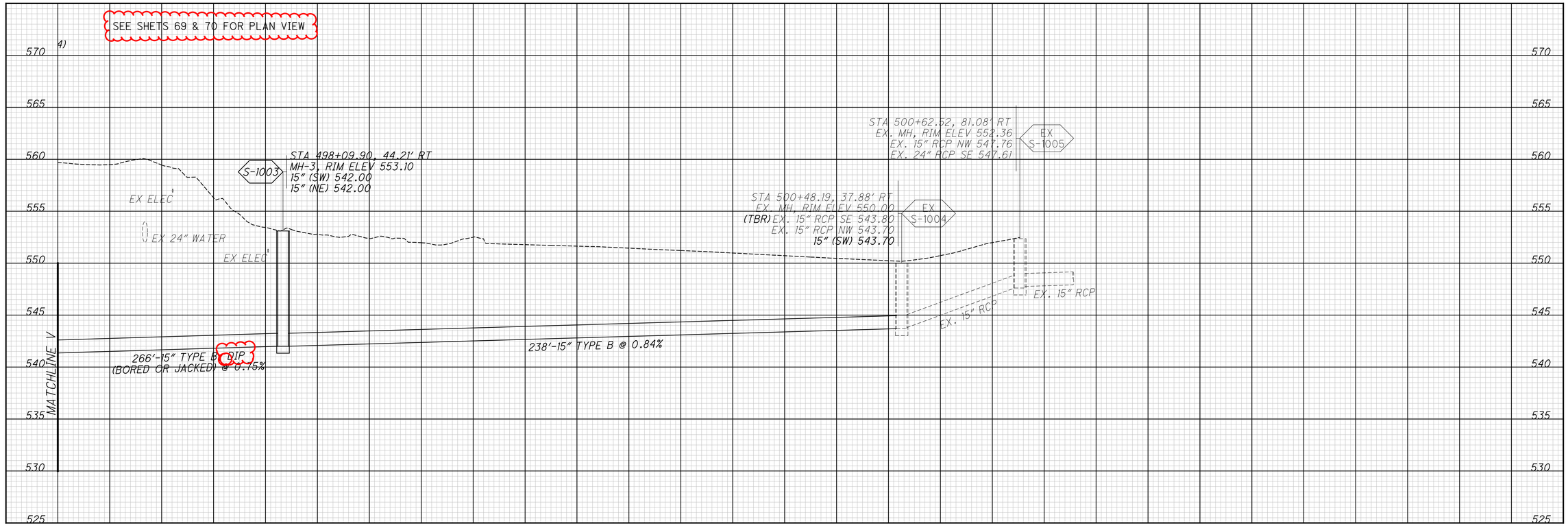
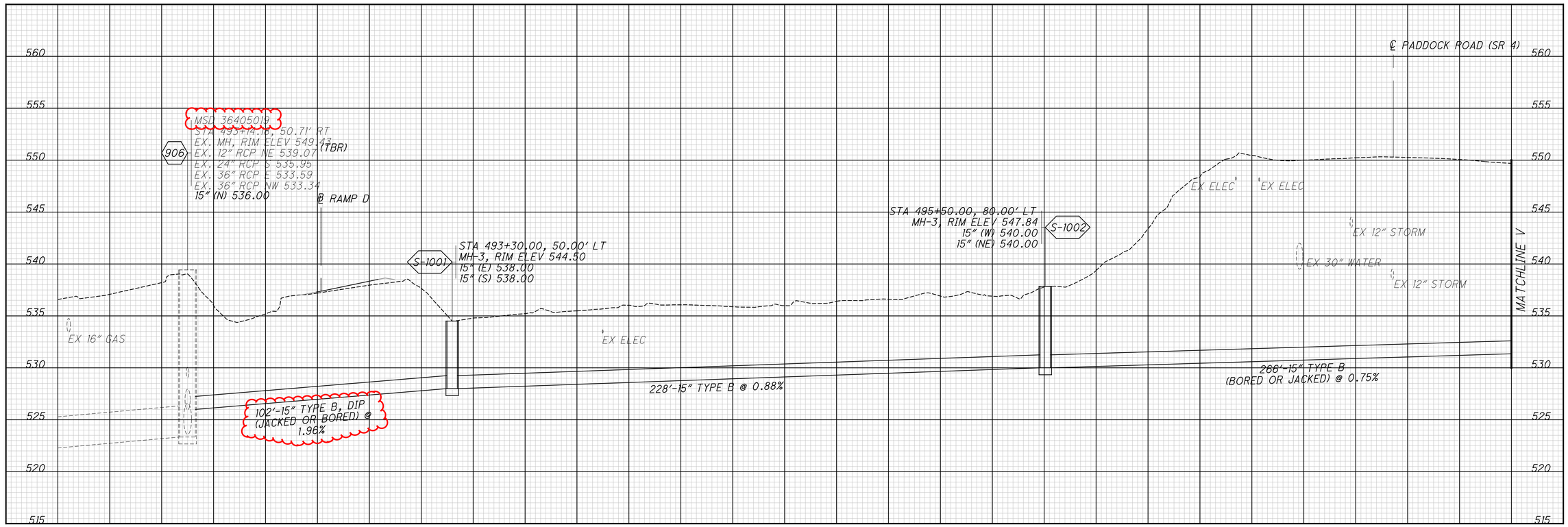
SEE SHEETS 69 & 70 FOR PLAN VIEW



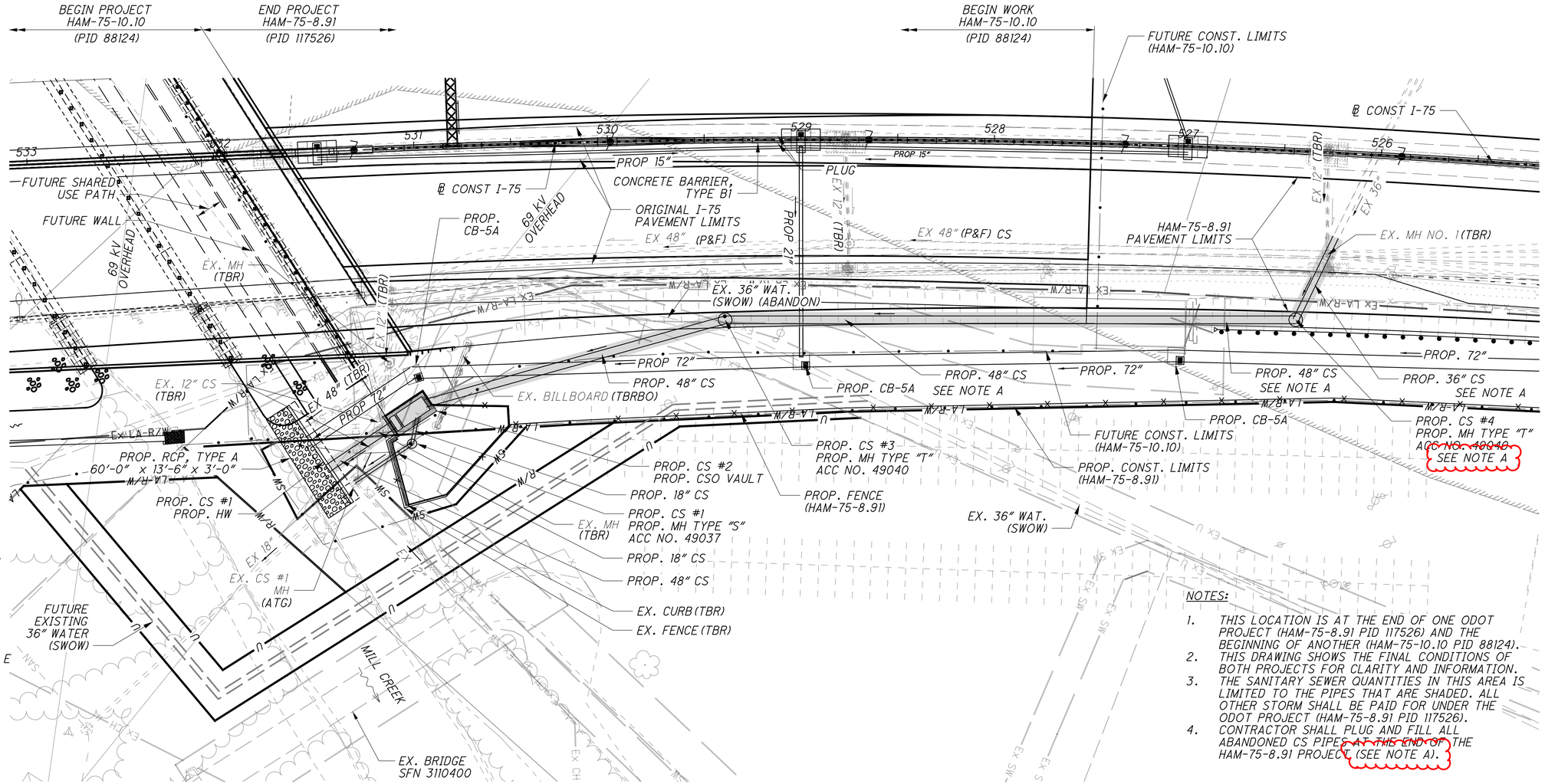


NOTE:

THE PURPOSE OF THIS SHEET IS TO SHOW THE FINAL CONSTRUCTION CONDITIONS OF THE MSD CSO 490, HAM-75-8.91, AND HAM-75-10.10. ALL SHEETS FROM HERE FORTH WILL JUST SHOW THE CONSTRUCTION OF THE MSD CSO 490 AND HAM-75-8.91.

NOTE A:

THIS PORTION OF THE SYSTEM WILL BE INSTALLED WITH PID 117525.



I-75 CURVE DATA
P.I. Sta. 523+96.89
Δ = 16° 02' 37" (LT)
Dc = 1° 06' 00"
R = 5,208.71'
T = 734.06'
L = 1,458.52'
E = 51.47'
C = 1,453.75'
C.B. = N 35° 56' 18" E
e_{max} = 0.029

NOTES:

1. THIS LOCATION IS AT THE END OF ONE ODOT PROJECT (HAM-75-8.91 PID 117526) AND THE BEGINNING OF ANOTHER (HAM-75-10.10 PID 88124).
2. THIS DRAWING SHOWS THE FINAL CONDITIONS OF BOTH PROJECTS FOR CLARITY AND INFORMATION.
3. THE SANITARY SEWER QUANTITIES IN THIS AREA IS LIMITED TO THE PIPES THAT ARE SHADED. ALL OTHER STORM SHALL BE PAID FOR UNDER THE ODOT PROJECT (HAM-75-8.91 PID 117526).
4. CONTRACTOR SHALL PLUG AND FILL ALL ABANDONED CS PIPES AT THE END OF THE HAM-75-8.91 PROJECT (SEE NOTE A).

ABBREVIATIONS:

THESE FOLLOWING ABBREVIATIONS ARE USED THROUGHOUT THESE PLANS:

℄ = BASELINE
℄ = CENTERLINE
℄ = FLOW LINE
℄ = PLATE
EL. = ELEVATION
EX. = EXISTING
PROP. = PROPOSED
BOTT. = BOTTOM
E.F. = EACH FACE
B.F. = BACK FACE
F.F. = FRONT FACE
FTG. = FOOTING
PEJF = PREFORMED EXPANSION JOINT FILLER
SPA. = SPACES
ATG = ADJUST TO GRADE
DND = DO NOT DISTURB
TBR = TO BE REMOVED
TBRO = TO BE REMOVED BY OTHERS
TBRR = TO BE REMOVED AND REPLACED
TYP. = TYPICAL
P&F = PLUG & FILL

PATH: J:\PRE-INT\TSV\06\06-386-HAM-75\HAM\88124\UTILITIES\-MSD\SHEETS\88124_MSDUB001.DGN
DATE: MONDAY, AUGUST 14, 2023 11:31:59 AM
PLOTTED BY: sean.buchanon

DESIGNED BY: JBK
DRAWN BY: TW

REVISIONS		
BY:	DATE:	DESCRIPTION:

THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO

M S D
WASTEWATER ENGINEERING

HAM-75-8.91 (PID 117526)
NORTH OF PADDOCK ROAD INTERCHANGE ALONG I-75 SOUTHBOUND
SOUTH OF STRUCTURE OVER MILL CREEK AND RONALD REAGAN CROSS COUNTY HIGHWAY
CITY OF CINCINNATI SEC.1 E.R.1 T.3
SCALE: HORIZ. 1"=30'

COMBINED SEWER RELOCATION
SOUTHBOUND I-75 AT MILL CREEK
HAM-75-8.91 (PID 117526)
SCHEMATIC PLAN

ACAD DRAWING NAME: 88124_MSDUB001.DGN

ACC. NO. _____

SHEET 2 OF 14 SS# _____

PROP. 48" CONDUIT, TYPE B, CLASS I BEDDING

PROP. 48" CONDUIT, TYPE C, CLASS II BEDDING

PROP. 36" CONDUIT, TYPE C, CLASS II BEDDING

50.87' @ 0.33%

170.47' @ 0.33%

294.78' @ 0.33% SEE NOTE A

47.33' @ 14.13% SEE NOTE A

EX. GROUND

PROP. GRADE

2.95:1 TO 1.8

MILL CREEK

OHWM = 513.32

3.05'± CLR

PROP. 72" STM.

EX. 36" WATER (TBRBO)

STA. 2+79.71

FUTURE 21" STM.

FUTURE UNDERDRAIN

PROP. RCP, TYPE A 60'-0" X 13'-6" X 3'-0"

PROP. CS #1
PROP. HW
STA. 0+73.82
PROP. 48" INV = 514.03
W/FLAP GATE
CHECK VALVE

PROP. CS #2
PROP. CSO VAULT
STA. 1+24.27
T.C. = 538.81
PROP. 48" INV = 514.30
PROP. 48" INV = 514.20
PROP. 18" INV = 514.20

PROP. CS #3
PROP. MH TYPE "T"
ACC. NO. 49040
STA. 2+95.11
T.C. = 539.10
PROP. 48" INV = 514.97
PROP. 48" INV = 514.87

PROP. CS #4
PROP. MH TYPE "T"
ACC. NO. 49040
STA. 5+89.89
T.C. = 545.04
PROP. 36" INV = 516.05
PROP. 48" INV = 515.95
(TBR) EX. CS #2
EX. MH
STA. 6+27.22
EX. 12" INV = 538.17±
EX. 12" INV = 536.77±
EX. 36" INV = 521.32±
EX. 36" INV = 521.22±
EX. 48" INV = 520.62±
PROP. CONCRETE COLLAR ON CONDUITS
ACC. NO. 49031
STA. 6+37.22
PROP. 36" INV = 522.74±

NOTE A:

THIS PORTION OF THE SYSTEM WILL BE INSTALLED WITH PID 117525.

℄ CONST I-75

PROP. 15"

PROP. CB-5A

PROP. CS #2
PROP. CSO VAULT
PROP. 48" INV = 514.30
PROP. 48" INV = 514.20
PROP. 18" INV = 514.20

69 KV OVERHEAD

CONCRETE BARRIER, TYPE B1

ORIGINAL I-75 PAVEMENT LIMITS

PLUG

PROP. 21"

EX 12"x12" (TBR)*

PROP. CONCRETE COLLAR ON CONDUITS
ACC. NO. 49031
PROP. 36" INV = 522.74±

(TBR) EX. CS #2
EX. MH
EX. 12" INV = 538.17±
EX. 12" INV = 536.77±
EX. 36" INV = 521.32±
EX. 36" INV = 521.22±
EX. 48" INV = 520.62±
END FILL AND PLUG (SEE NOTE 4)

SEE NOTE A

PROP. 48" CS

EX 48" (P&G) CS

PROP. 36" CS
SEE NOTE A

PT Sta. 531+21.35

VARIES

BEGIN FILL AND PLUG (SEE NOTE 4)

EX. MH
EX. 48" INV = 518.29±
EX. 48" INV = 516.94±
EX. 36" INV = 516.94±
(TBR)

EX. 36" WAT. (SWOW) (ABANDON)

PROP. 48" CS

EX. BILLBOARD (TBRBO)

PROP. 72"

FUTURE EXISTING 36" WATER (SWOW)

PROP. CS #3
PROP. MH TYPE "T"
ACC. NO. 49040
PROP. 48" INV = 514.97
PROP. 48" INV = 514.87

PROP. CB-5A

EX. 36" WAT. (SWOW)

PROP. FENCE (HAM-75-8.91)

PROP. 72"

PROP. CB-5A

PROP. CS #4
PROP. MH TYPE "T"
ACC. NO. 49040
PROP. 36" INV = 516.05
PROP. 48" INV = 515.95

SEE NOTE A

EX. 12" CSO (TBR)

(TBR) EX 48"

PROP 72"

PROP. RCP, TYPE A 60'-0" X 13'-6" X 3'-0"

PROP. CS #1
PROP. HW
PROP. 48" INV = 514.03
W/FLAP GATE
CHECK VALVE

EX. FENCE (TBR)

EX. CURB (TBR)

EX. MH (TBR)
EX. 8" INV = 522.73±
EX. 24" INV = 513.73±
EX. 36" INV = 513.23±

NOTES:

1. SEE SHEET 5 OF 14 FOR DETAILS OF PROP. COMBINED SEWER CONNECTION TO EXISTING COMBINED SEWER SYSTEM.
2. SEE SHEET 6 OF 14 FOR DETAILS OF PROP. STORM SEWER SYSTEM.
3. SEE SHEET 7 OF 14 FOR ADDITIONAL DETAILS FOR THE COMBINED SEWER OUTLET STRUCTURE.
4. CONTRACTOR SHALL PLUG AND FILL ALL ABANDONED CS PIPES AT THE END OF THE HAM-75-8.91 PROJECT. THIS ITEM IS PAID FOR WITH ITEM 202, SPECIAL - FILL AND PLUG EXISTING CONDUIT. SEE NOTE A

81
160

REVISIONS

BY:	DATE:	DESCRIPTION:

DESIGNED BY: JBK

DRAWN BY: TW

THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO

M S D
WASTEWATER ENGINEERING

HAM-75-8.91 (PID 117526)

NORTH OF PADDOCK ROAD INTERCHANGE ALONG I-75 SOUTHBOUND
SOUTH OF STRUCTURE OVER MILL CREEK AND RONALD REAGAN CROSS COUNTY HIGHWAY
CITY OF CINCINNATI SEC.1 E.R.1 T.3

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

0 20 40

COMBINED SEWER RELOCATION SOUTHBOUND I-75 AT MILL CREEK HAM-75-8.91 (PID 117526)

COMBINED SEWER PLAN AND PROFILE

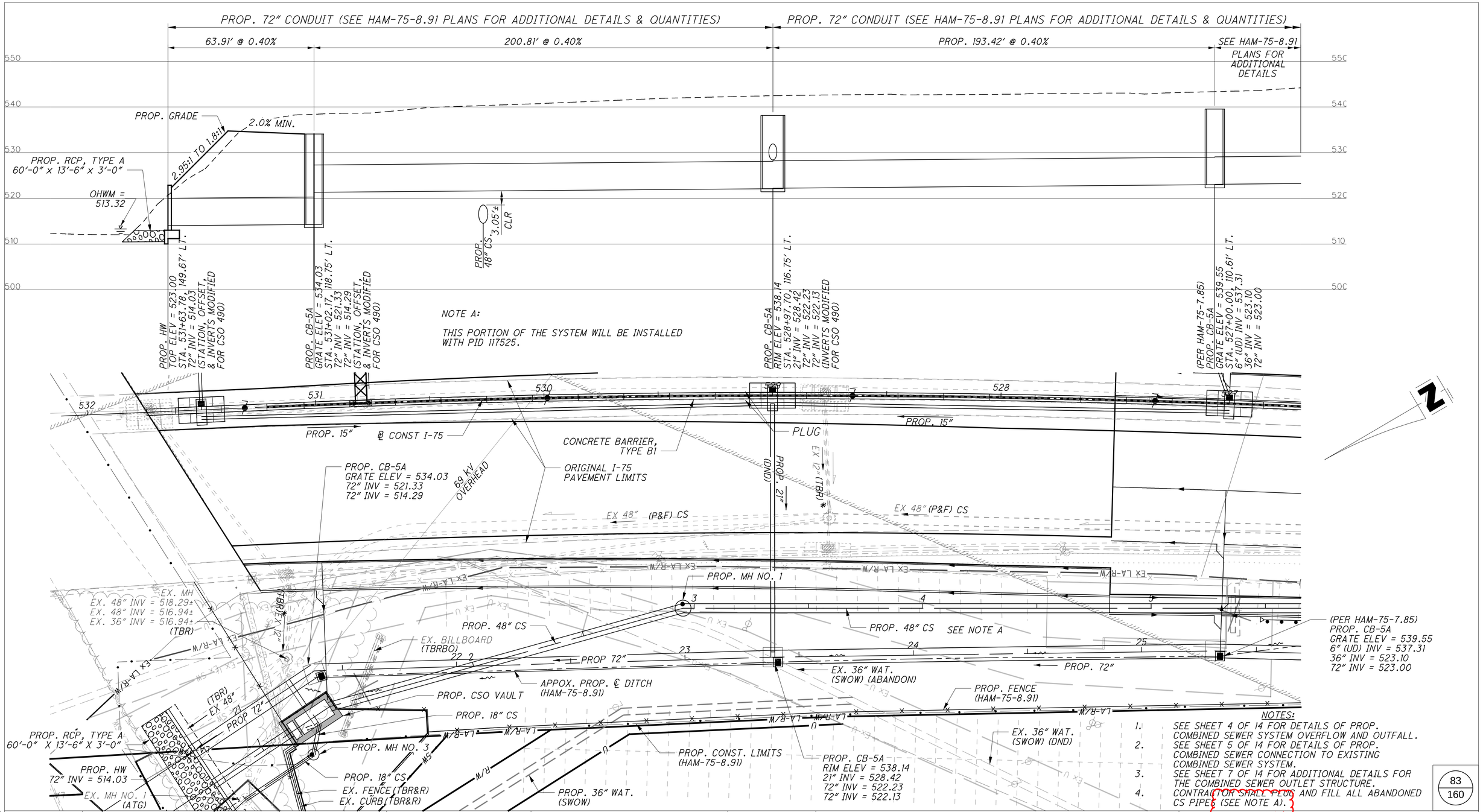
PATH: J:\PRE-INT\TS\06\06-386-HAM-75\HAM\88124\UTILITIES_MSD\SHEETS\88124_MSDUP001.DGN
DATE: TUESDAY, SEPTEMBER 28, 2021 2:40:36 PM
PLOTTED BY: TIM WILLIAMS

ACAD DRAWING NAME: 88124_MSDUP001.DGN

ACC. NO. _____

SHEET 4 OF 14

SS# _____



NOTES:

1. SEE SHEET 4 OF 14 FOR DETAILS OF PROP. COMBINED SEWER SYSTEM OVERFLOW AND OUTFALL.
2. SEE SHEET 5 OF 14 FOR DETAILS OF PROP. COMBINED SEWER CONNECTION TO EXISTING COMBINED SEWER SYSTEM.
3. SEE SHEET 7 OF 14 FOR ADDITIONAL DETAILS FOR THE COMBINED SEWER OUTLET STRUCTURE.
4. CONTRACTOR SHALL PLUG AND FILL ALL ABANDONED CS PIPES (SEE NOTE A).

83
160

DESIGNED BY: JBK
DRAWN BY: TW

REVISIONS

BY:	DATE:	DESCRIPTION:

THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO

M S D
WASTEWATER ENGINEERING

HAM-75-8.91 (PID 117526)

NORTH OF PADDOCK ROAD INTERCHANGE ALONG I-75 SOUTHBOUND
SOUTH OF STRUCTURE OVER MILL CREEK AND RONALD REAGAN CROSS COUNTY HIGHWAY
CITY OF CINCINNATI SEC.1 E.R.1 T.3

SCALE: HORIZ. 1"=20'
VERT. 1"=10'

0 20 40

COMBINED SEWER RELOCATION SOUTHBOUND I-75 AT MILL CREEK HAM-75-8.91 (PID 117526)

STORM SEWER PLAN AND PROFILE

ACAD DRAWING NAME: 88124_MSDUP003.DGN

ACC. NO. _____

SHEET 6 OF 14 SS# _____

PATH: J:\PRE-INT\TS\06\06-386-HAM-75\HAM\88124\UTILITIES_MSD\SHEETS\88124_MSDUP003.DGN
DATE: TUESDAY, SEPTEMBER 28, 2021 2:26:44 PM
PLOTTED BY: TIM.WILLIAMS

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC.
HEADWALL REINFORCING STEEL											
F501	44	26′ - 9″	1,228	STR.							
F502	22	4′ - 8″	108	STR.							
F503	88	7′ - 8″	704	STR.							
F504	48	5′ - 10″	293	1	10″	5′ - 1″					
F505	9	11′ - 1″	105	3	2′ - 8″	2′ - 7″					
F601	85	13′ - 8″	1,745	33	1′ - 8″	4′ - 7″					
F602	85	7′ - 8″	979	STR.							
F603	69	6′ - 10″	709	1	1′ - 0″	6′ - 0″					
W501	12	31′ - 5″	394	STR.							
W502	14	17′ - 8″	258	STR.							
W503	10	10′ - 5″	109	STR.							
W504	10	18′ - 11″	198	STR.							
W505	4	34′ - 6″	144	STR.							
W506	127	8′ - 9″	1,160	STR.							
W507	12	3′ - 3″	41	STR.							
W508	8	6′ - 0″	51	STR.							
W509	8	4′ - 6″	38	STR.							
W510	2 SER. OF 6	3′ - 0″ TO 7′ - 4″	65	2	1′ - 0 5/8″ TO 3′ - 2 5/8″	1′ - 2″	1′ - 0 5/8″ TO 3′ - 2 5/8″				5 1/4″
		SUB-TOTAL	8,329								

ESTIMATED QUANTITIES

COMPUTED BY: SS/TDW DATED: 10-23-19
CHECKED BY: AIS/JAG DATED: 10-25-19

ITEM	ITEM EXTENSION	TOTAL	UNIT	DESCRIPTION	REF. SHEET
CSO 490 & INCIDENTALS					
202	32000	48	FT	CURB REMOVED	
~~202~~	~~58000~~	~~1~~	~~EACH~~	~~MANHOLE REMOVED~~	
253	02001	66	CY	PAVEMENT REPAIR, AS PER PLAN	7 / 14
~~503~~	~~11100~~	~~LS~~		~~COFFERDAMS AND EXCAVATION BRACING~~	
517	73501	44	FT	RAILING, PIPE, AS PER PLAN	8-9 / 14
607	23000	130.00	FT	FENCE, TYPE CLT	
607	61200	1	EACH	GATE, TYPE CLT	
609	26000	39	FT	CURB, TYPE 6	
611	07400	59	FT	18″ CONDUIT, TYPE B	
611	20900	51	FT	48″ CONDUIT, TYPE B, WITH CLASS I BEDDING	
611	21100	171	FT	48″ CONDUIT, TYPE C, WITH CLASS II BEDDING	
611	99690	1	EACH	MANHOLE, MISC.: SANITARY MANHOLE PER MSD STD ACC. NO. 49037	
611	99690	1	EACH	MANHOLE, MISC.: SANITARY MANHOLE PER MSD STD ACC. NO. 49040	
611	99690	1	EACH	MANHOLE, MISC.: SANITARY MANHOLE ADJUST TO GRADE PER MSD STD ACC. NO. 49058-A	
611	99900	1	EACH	DRAINAGE STRUCTURE, MISC.: FLAP GATE	10-13 / 14
611	99920	LS		DRAINAGE STRUCTURE, MISC.: CSO VAULT 25′ L x13′ W, AS PER PLAN	8 / 14
SPECIAL	61197910	LS		SANITARY SEWER, MSD SANITARY SEWER PROTECTION	13A / 14
HEADWALL					
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
503	21300	LS		UNCLASSIFIED EXCAVATION	
509	10000	8,329	LB	EPOXY COATED REINFORCING STEEL	
511	46010	27	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING	
511	46510	47	CY	CLASS QC1 CONCRETE, FOOTING	
512	10100	63	SY	SEALING OF CONCRETE SUFACES (EPOXY-URETHANE)	
518	21201	28	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC, AS PER PLAN	
601	32004	90	CY	ROCK CHANNEL PROTECTION, TYPE A WITH GEOTEXTILE FABRIC	

DESIGN SPECIFICATIONS:

THESE STRUCTURES CONFORM TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 7TH EDITION, AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN DATA:

THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION OF BACKFILL SOIL = 30°
TOTAL UNIT WEIGHT OF BACKFILL SOIL = 120 PCF
INTERNAL ANGLE OF FRICTION (DRAINED),
FOUNDATION SOIL = 30°
UNIT WEIGHT OF CONCRETE = 150 PCF
SLOPE BACKFILL = 1.8:1
HEIGHT OF LIVE LOAD SURCHARGE = 2 FT

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4000 PSI (FOOTING, WINGWALL AND FORESLOPE WALL)

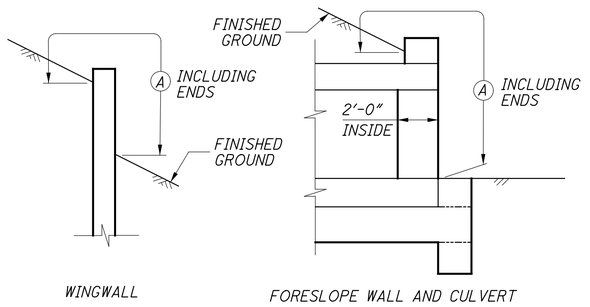
REINFORCING STEEL - ASTM A615 OR A996 GRADE 60 MINIMUM YIELD STRENGTH 60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

POROUS BACKFILL WITH FILTER FABRIC:

2′-0″ THICK SHALL BE PLACED BEHIND THE HEADWALL AND SHALL EXTEND TO 12″ BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6″ ABOVE THE TOP ELEVATION OF THE WEEPHOLE. WEEPHOLES SHALL BE PLACED 6″ TO 12″ ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10′-0″. A MINIMUM OF TWO WEEPHOLES SHALL BE PROVIDED PER WINGWALL.

SEALING OF FORESLOPE WALL AND WINGWALLS:

ALL EXPOSED FORESLOPE WALL AND WINGWALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512, SEALING OF CONCRETE SURFACES (EPOXY-URETHANE).



LIMITS OF ITEM 512 - SEALING CONCRETE SURFACES

(A) - SEAL ENTIRE CONCRETE SURFACE AREA

FOUNDATION BEARING RESISTANCE:

THE HEADWALL FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LOAD PRESSURE OF 2.98 KIPS PER SQUARE FOOT AND MAXIMUM STRENGTH LOAD PRESSURE OF 2.76 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 3.7 KIPS PER SQUARE FOOT.

ABBREVIATIONS:

THE FOLLOWING ABBREVIATIONS ARE USED THROUGHOUT THESE PLANS:

℄ = BASELINE
B.F. = BACK FACE
CIP = CAST IN PLACE
CLR. = CLEARANCE
BOTT. = BOTTOM
℄ = CENTERLINE
C.J. = CONSTRUCTION JOINT

CMP = CORRUGATED METAL PIPE
CMS = CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONST. JT. = CONSTRUCTION JOINT

CU YD = CUBIC YARD
E.F. = EACH FACE
EL. = ELEVATION
FTG. = FOOTING
MAX. = MAXIMUM
N.F. = NEAR FACE
DWG. = DRAWING
E.J. = EXPANSION JOINT
EX. = EXISTING
F.F. = FRONT FACE
MIN. = MINIMUM

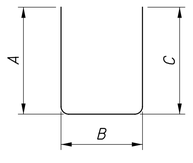
PEJF = PREFORMED EXPANSION JOINT FILLER

PROP. = PROPOSED
SPA. = SPACES
STD. = STANDARD
SER. = SERIES
STR. = STRAIGHT
TYP. = TYPICAL

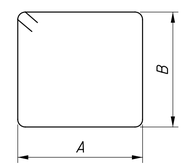
RETAINING WALL AND FOOTING:

RETAINING WALL AND FOOTING SHALL BE CAST-IN-PLACE AND CONFORM TO CMS 511. THE USE OF PRECAST RETAINING WALL AND/OR PRECAST FOOTING SHALL NOT BE ALLOWED

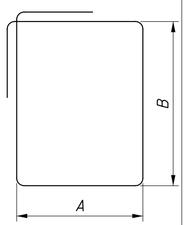
TYPE-1



TYPE-2



TYPE-3



TYPE-33

REINFORCING STEEL NOTES:

1. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, S501 IS A NO. 5 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE NOTED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.
3. "STR" IN THE TYPE COLUMN INDICATES STRAIGHT BARS.
4. "SER" DENOTES SERIES.
5. REFER TO C.M.S. SECTION 509.05 FOR STANDARD BEND DIMENSIONS.
6. ALL REINFORCING STEEL CLEARANCES ARE 2" UNLESS OTHERWISE NOTED.

PATH: \\USAEAST.IBIGROUP.COM\JV\WS\PRE-INT\TS\06-386_HAM-75\HAM-8812A\UTILITIES_MSD\SHEETS\88124_MSDUL001.DGN
DATE: WEDNESDAY, MARCH 27, 2024 12:39:32 PM
PLOTTED BY: TIM.WILLIAMS

DESIGNED BY: JBK
DRAWN BY: TW

REVISIONS BY:	DATE:	DESCRIPTION:

IBI GROUP
23 Triangle Park Drive
Cincinnati OH 45246
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THE METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI
HAMILTON COUNTY, OHIO

M S D WASTEWATER ENGINEERING

HAM-75-8.91 (PID 117526)
NORTH OF PADDOCK ROAD INTERCHANGE ALONG I-75 SOUTHBOUND
SOUTH OF STRUCTURE OVER MILL CREEK AND RONALD REAGAN CROSS COUNTY HIGHWAY
CITY OF CINCINNATI SEC.1 E.R.1 T.3

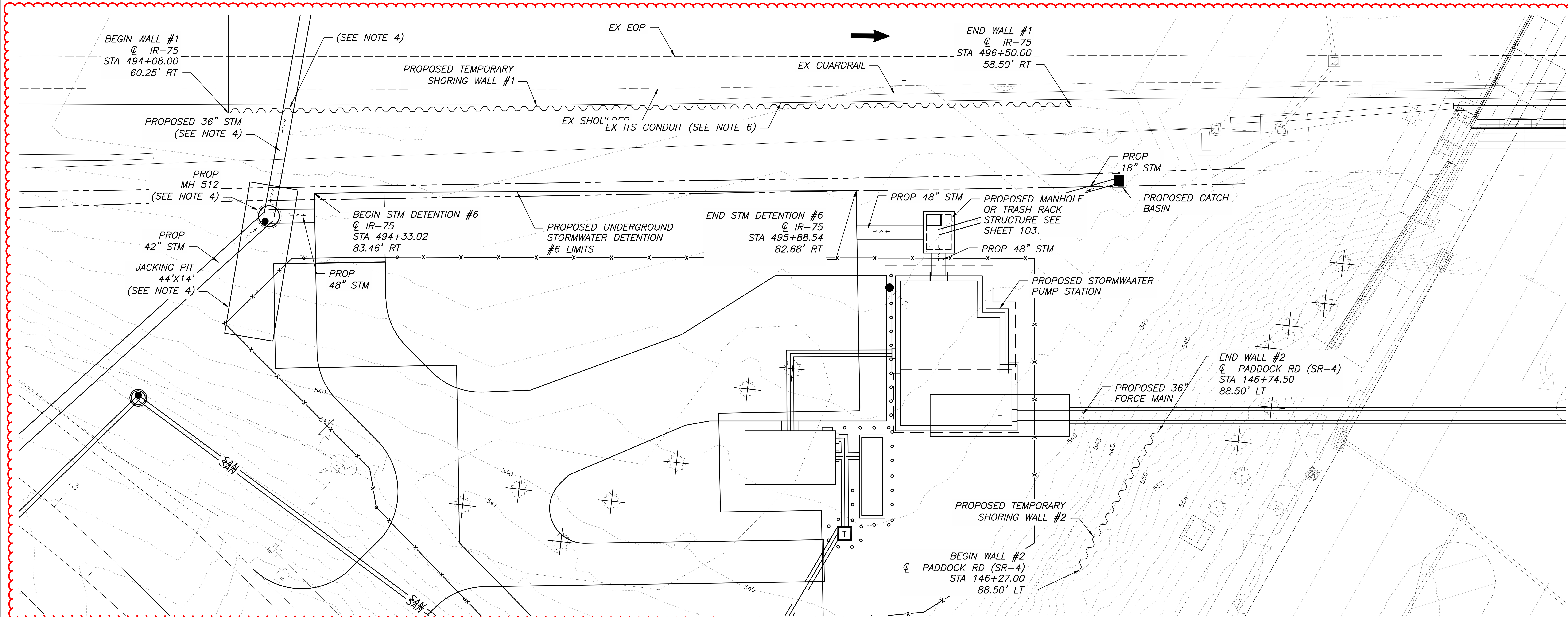
COMBINED SEWER RELOCATION SOUTHBOUND I-75 AT MILL CREEK HAM-75-8.91 (PID 117526)

REINFORCING STEEL LIST

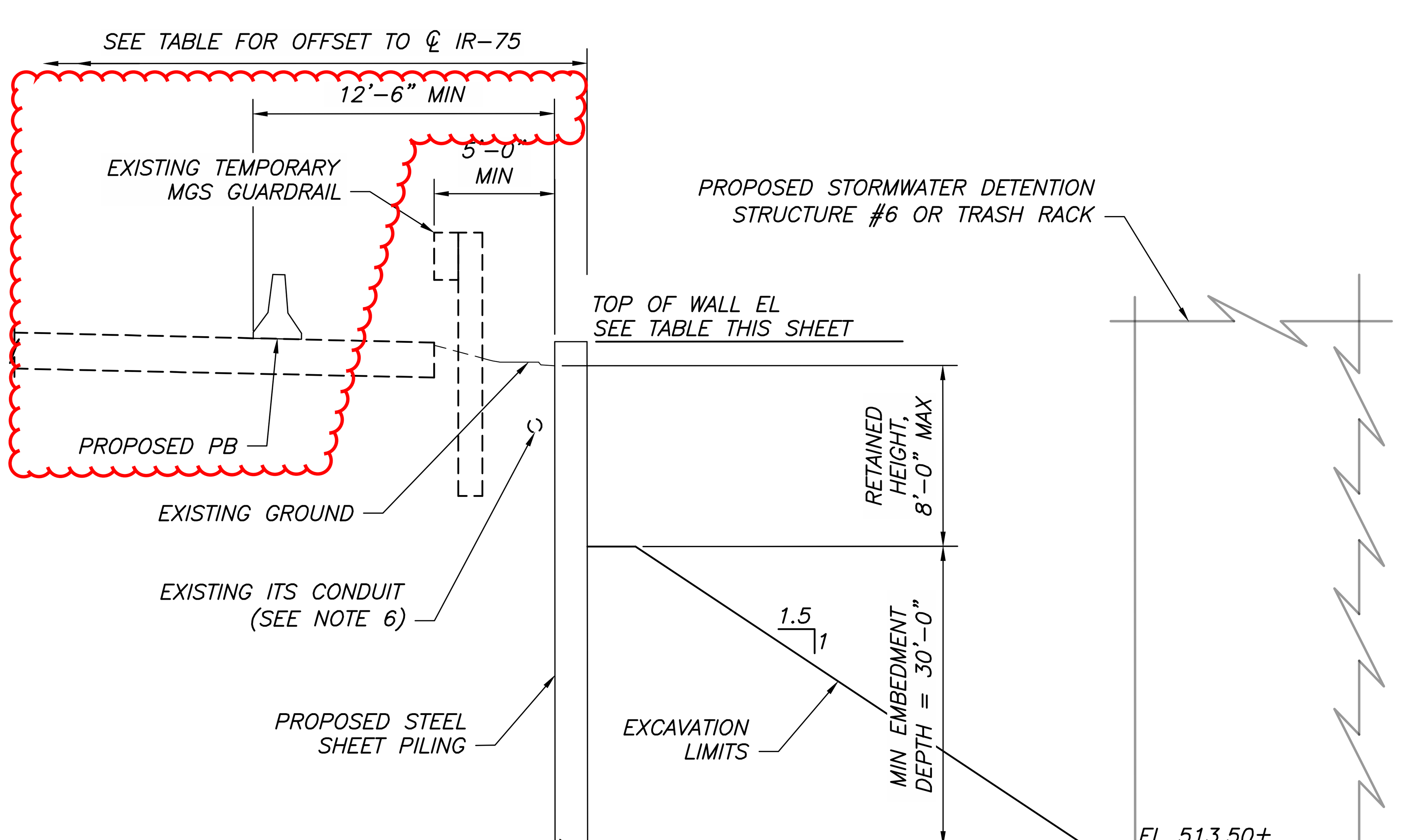
ACAD DRAWING NAME: 88124_MSDUL001.DGN

ACC. NO._____

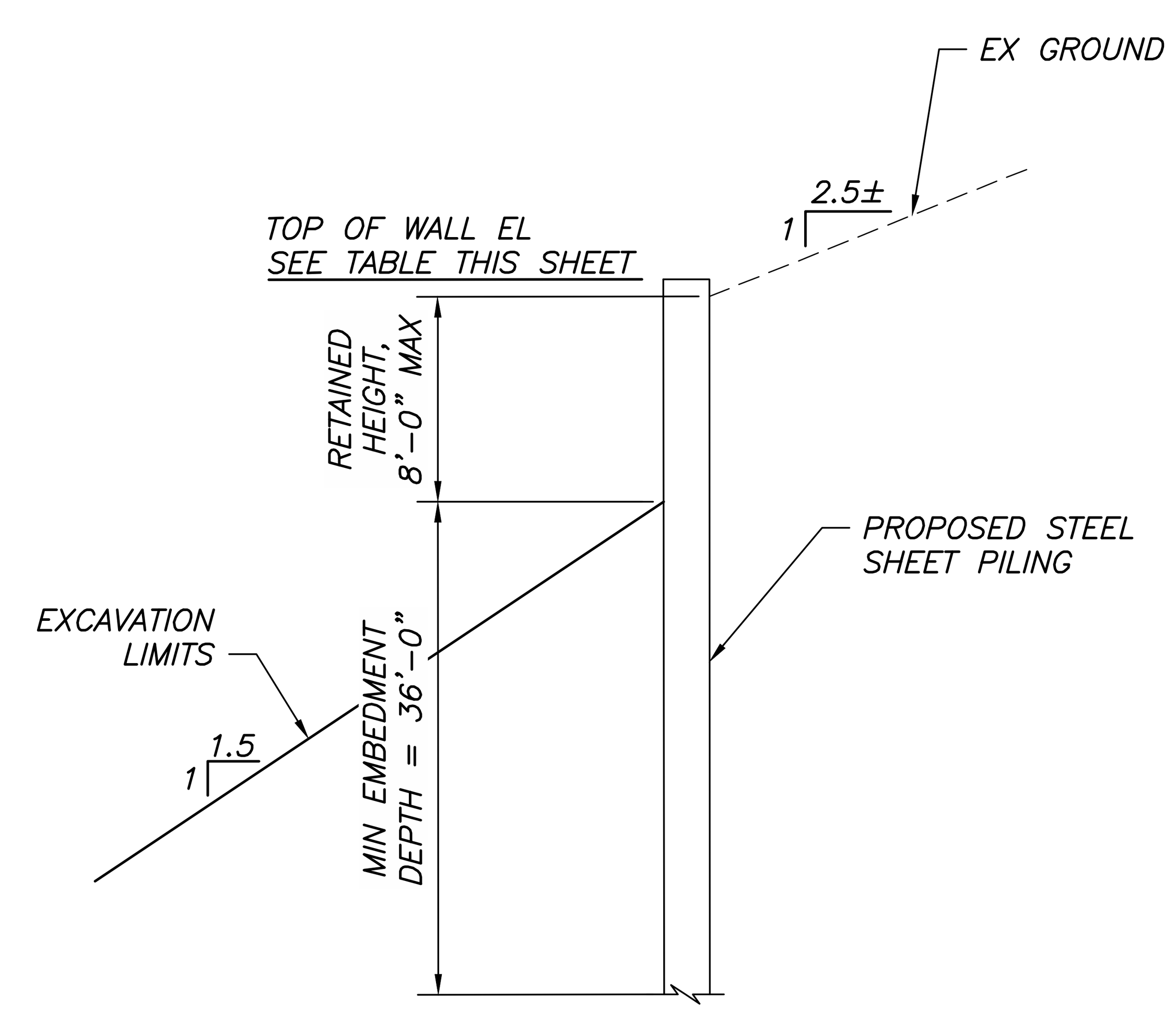
SHEET 14 OF 14 SS#_____



SITE PLAN



TYPICAL SECTION – WALL #1



TYPICAL SECTION – WALL #2

DESIGN DATA:

MAX DEFLECTION LIMIT WALL 1 AND 2:
1" AT SERVICE LIMIT STATE
2" AT STRENGTH LIMIT STATE

LIVE LOAD SURCHARGE = NONE

WALL NUMBER	REFERENCE ALIGNMENT	BEGIN STATION	BEGIN OFFSET (FT)	BEGIN TOP OF WALL EL	END STATION	END OFFSET (FT)	END TOP OF WALL EL	LENGTH (FT)	SECTION MODULUS (IN^3/FT)	MOMENT OF INERTIA (IN^4/FT)
1	℄ IR–75	494+05.00	60.25 RT	536.00	496+50.00	58.50 RT	535.00	245.00	30.20	184.20
2	℄ SR–4	146+27.00	88.50 LT	551.00	146+74.50	88.50 LT	549.00	47.50	70.84	697.30

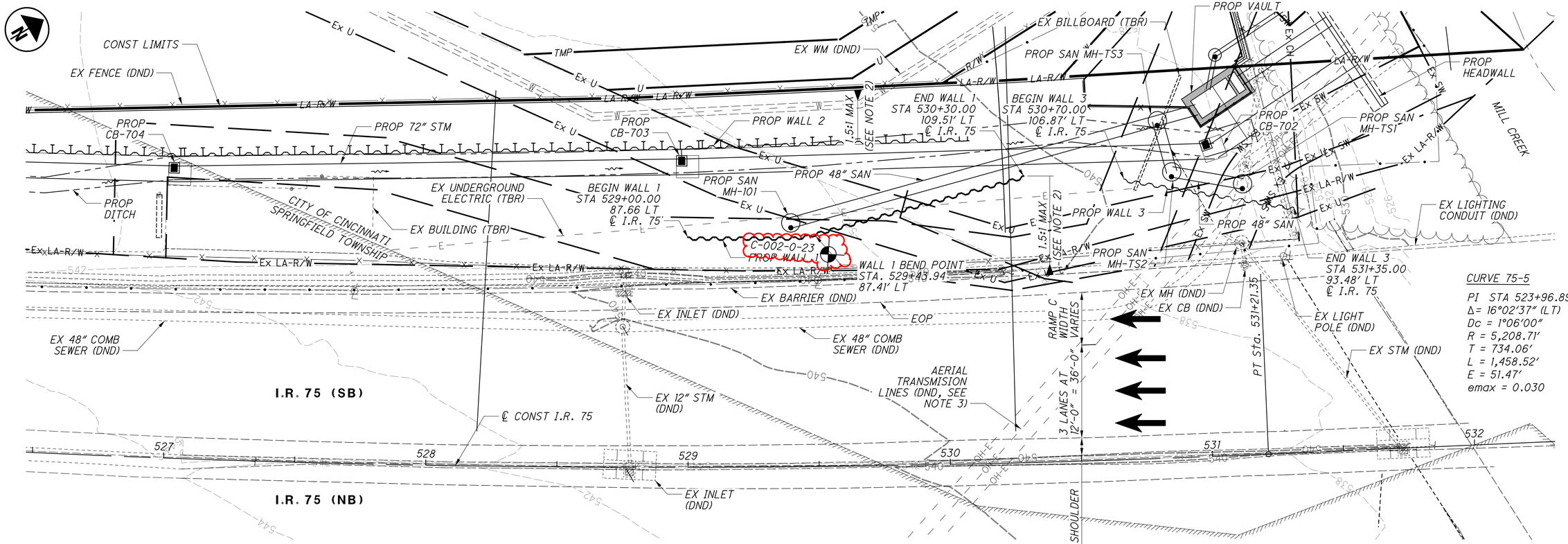
NOTES

1. LIMITS OF UNDERGROUND STORMWATER DETENTION SHOWN ARE FOR ILLUSTRATION ONLY. ACTUAL LOCATION TO BE DETERMINED BY CONTRACTOR/MANUFACTURER OF STORMWATER DETENTION SYSTEM.
2. TEMPORARY SHORING REQUIRED AT THE LOCATIONS SHOWN. TEMPORARY SHORING LIMITS AND LOCATIONS (E.G. STATION, OFFSET, TOP OF WALL ELEVATIONS) SHOWN SHALL BE CONSIDERED APPROXIMATE. ACTUAL LOCATIONS AND LIMITS WILL DEPEND ON THE CONTRACTOR'S MEANS AND METHODS AND STEEL SHEET PILING SUPPLIED. THE MAXIMUM EXPOSED HEIGHT FOR INTERLOCKING SHEETING SHORING SYSTEMS IS 8 FEET. ONE REPRESENTATIVE LAYOUT THAT MAY BE USED TO CONSTRUCT THE PROJECT IS SHOWN. PLANS FOR AN ALTERNATE DESIGN SHALL BE PREPARED AND PROVIDED PER C&MS 501.05.
3. STEEL SHEET PILING SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI.
4. PROPOSED 36" STORM TO BE JACK AND BORED AS SHOWN. MANHOLE NO. 512 TO BE PLACED WITHIN JACKING PIT PRIOR TO BACKFILLING. CONTRACTOR TO COORDINATE PLACEMENT OF MANHOLE NO. 12 AND 36" STORM WITH CONSTRUCTION OF TEMPORARY WALL #1.
5. SEE SHEET 110 FOR ADDITIONAL NOTES AND ABBREVIATION LEGEND.
6. CONTRACTOR SHALL CONFIRM THE ITS CONDUIT IS EMPTY PRIOR TO INSTALLING THE PROPOSED SHEET PILING. IF THE ITS IS NOT IN THE CONDUIT IT SHALL BE REMOVED. IF THE ITS IS IN THE CONDUIT, RELOCATE THE ITS PRIOR TO INSTALLING THE WALL.

CALCULATED MJR
CHECKED RMW

TEMPORARY SHORING

HAM-75-8.91



PLAN

NOTES:

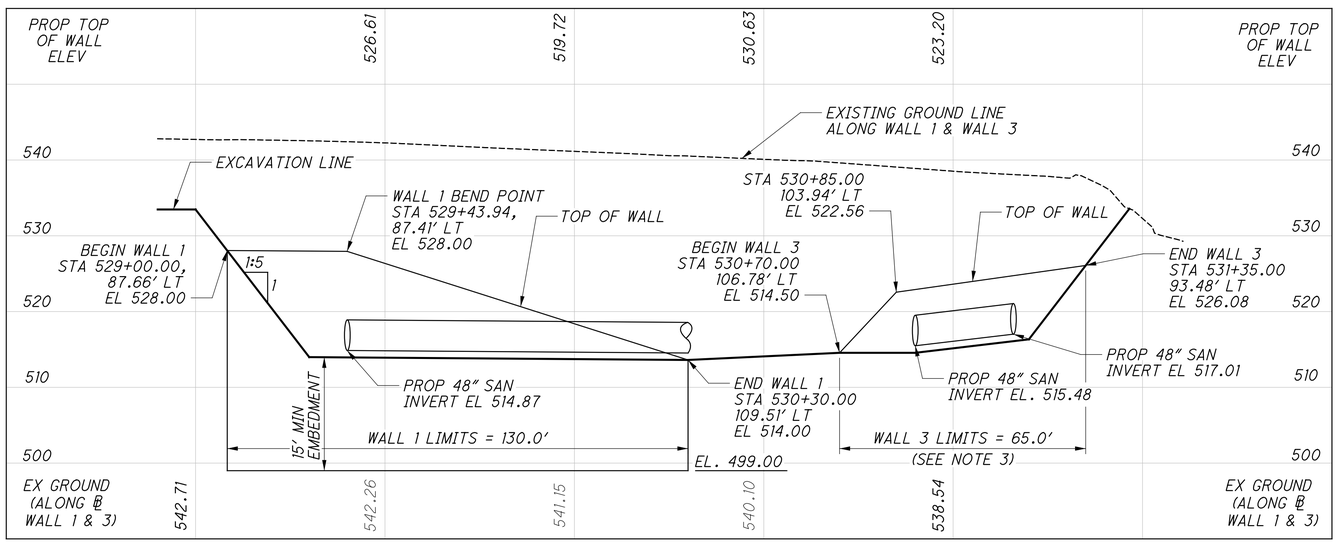
1. ALL STATIONS AND OFFSETS SHOWN ARE BASED ON THE ℄ I.R. 75 UNLESS NOTED OTHERWISE.

2. SEE SHEET 3/3 FOR ADDITIONAL NOTES, TYPICAL SECTION, CUT SLOPE DETAILS AND ABBREVIATION LEGEND.

3. THE CONTRACTOR SHALL EXERCISE CAUTION WHILE WORKING AROUND AERIAL TRANSMISSION LINES TO BE LEFT IN PLACE. WALL TYPE UTILIZED BY CONTRACTOR AND PROPOSED INSTALLATION/CONSTRUCTION EQUIPMENT SHALL PERMIT CONSTRUCTION BELOW TRANSMISSION LINES AND PROVIDE OSHA REQUIRED MINIMUM CLEARANCE.

4. ALL WALL STATION AND OFFSET ARE PROVIDED AT THE FRONT FACE (EXPOSED FACE) OF WALL.

5. THE CONTRACTOR SHALL EXERCISE CAUTION WHILE WORKING ABOVE PORTIONS OF THE EXISTING 48" COMBINED SEWER TO BE LEFT IN PLACE. WALL TYPE UTILIZED BY CONTRACTOR AND PROPOSED INSTALLATION/CONSTRUCTION EQUIPMENT SHALL PERMIT CONSTRUCTION WITHOUT DAMAGING PIPE.



PROFILE ALONG WALL 1 & 3

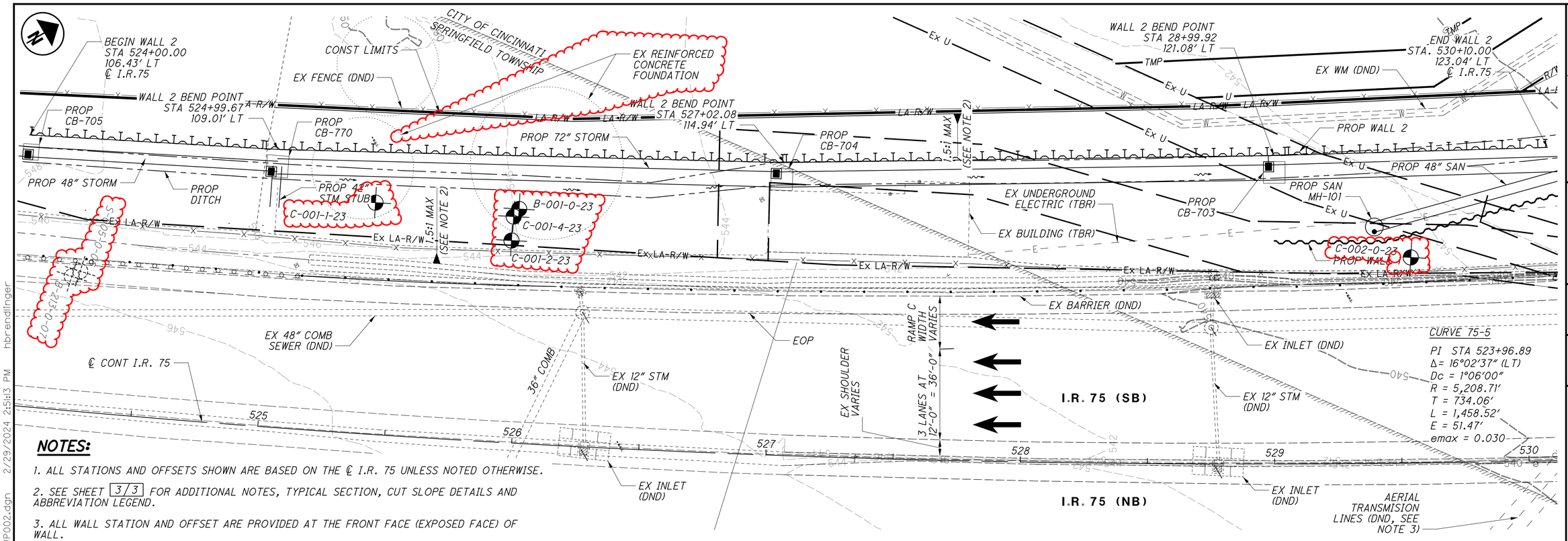
DESIGN AGENCY: EMH&T
DESIGNED: AI | DRAWN: AI | REVIEWED: CAS | DATE: 09/29/23
CHECKED: RMW | REVISED: - | STRUCTURE FILE NUMBER: N/A

SITE PLAN
WALL 1 AND WALL 3
TEMPORARY SHORING WALL

HAM-75-8.91
PID No. 117526

1 / 3

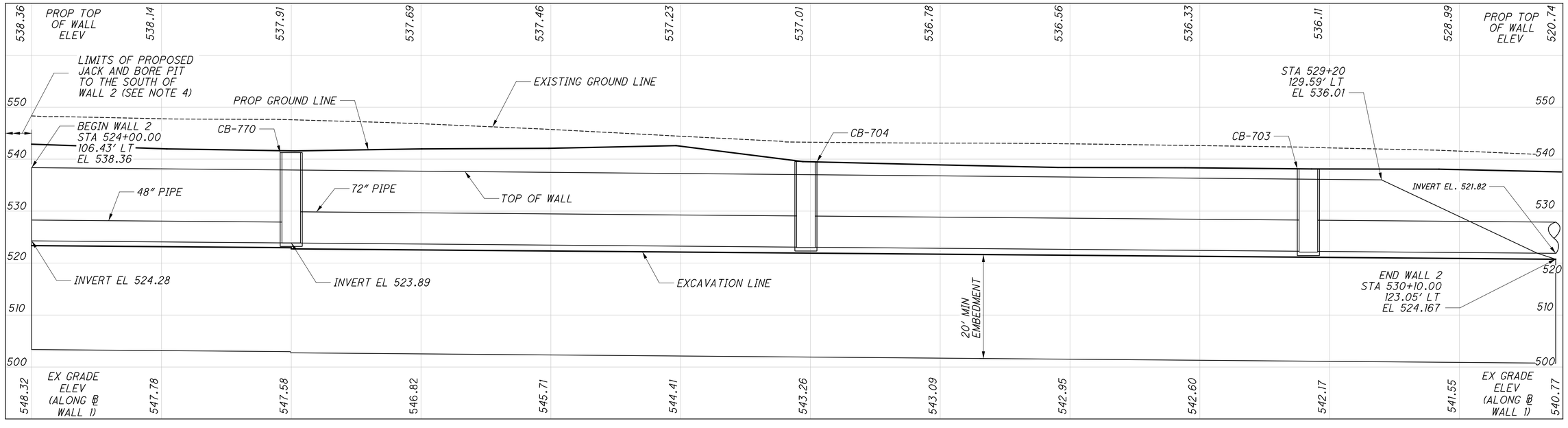
145
160



NOTES:

1. ALL STATIONS AND OFFSETS SHOWN ARE BASED ON THE ℄ I.R. 75 UNLESS NOTED OTHERWISE.
2. SEE SHEET 3/3 FOR ADDITIONAL NOTES, TYPICAL SECTION, CUT SLOPE DETAILS AND ABBREVIATION LEGEND.
3. ALL WALL STATION AND OFFSET ARE PROVIDED AT THE FRONT FACE (EXPOSED FACE) OF WALL.
4. EXTEND TEMPORARY WALL AS NEEDED TO TIE INTO CONTRACTOR DESIGNED JACK AND BORE PIT. INCLUDE COST TO TIE WALL 2 INTO JACK AND BORE PIT IN LUMP SUMM PRICE FOR TEMPORARY SHORING WALL 2.

PLAN



PROFILE ALONG WALL 2

\\cmhdata01\project01\20220947\ODOT\HAM\117526_HAM-75-8.91\structures\WALL_00\sheets\117526_WP002.dgn 2/29/2024 2:51:3 PM hbrendlinger

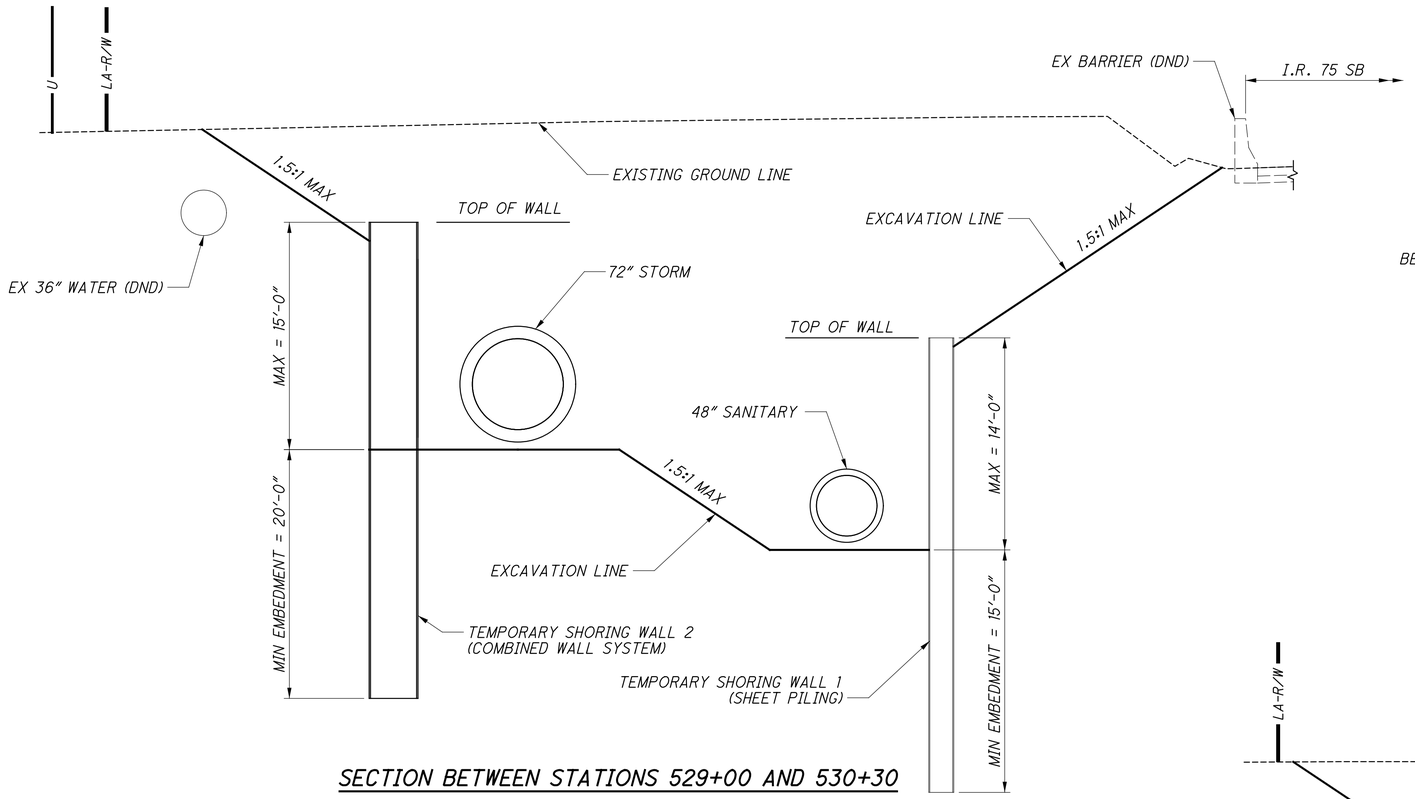
DESIGN AGENCY EMH&T
DATE 09/29/23
REVIEWED CAS
STRUCTURE FILE NUMBER N/A
DRAWN AI
REVISED -
DESIGNED AI
CHECKED RMW

SITE PLAN
WALL 2
TEMPORARY SHORING WALL

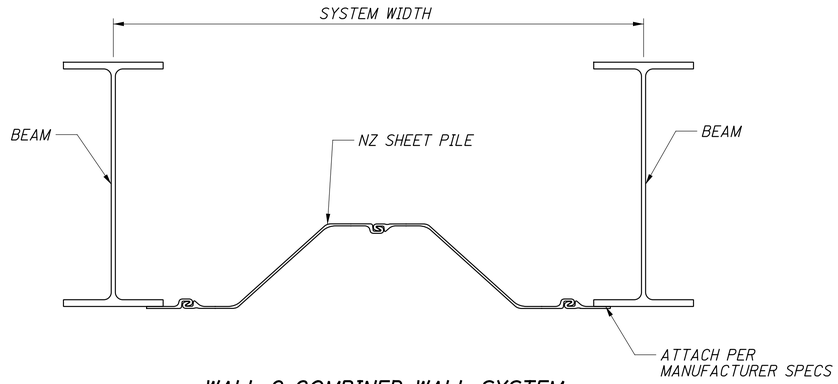
HAM-75-8.91
PID No. 117526

2 / 3

146
160



SECTION BETWEEN STATIONS 529+00 AND 530+30



WALL 2 COMBINED WALL SYSTEM
BEAM & NZ

DESIGN DATA:

ANGLE OF INTERNAL FRICTION OF RETAINED SOIL AND UNIT WEIGHT :

ELEV 539 TO 550: 32°, 120 PCF
ELEV 518 AND 539: 34°, 125 PCF
BELOW ELEV 518: 36°, 130 PCF

MAX DEFLECTION LIMIT WALLS 1 AND 3:
1" AT SERVICE LIMIT STATE
2" AT STRENGTH LIMIT STATE

MAX DEFLECTION LIMIT WALL 2:
1% AT SERVICE LIMIT STATE

LIVE LOAD SURCHARGE = NONE

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, WALL 1
ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, WALL 2

THE DESIGN SHOWN ON THE PLANS FOR TEMPORARY SUPPORT OF EXCAVATION IS ONE REPRESENTATIVE DESIGN THAT MAY BE USED TO CONSTRUCT THE PROJECT. THE CONTRACTOR MAY CONSTRUCT THE DESIGN SHOWN ON THE PLANS OR PREPARE AN ALTERNATE DESIGN TO SUPPORT THE EXCAVATION. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH ODOT C&M 501.05. THE ALTERNATE SHORING DESIGN SHALL MEET THE DEFLECTION REQUIREMENTS STATED IN THE DESIGN DATA. THE OWNER WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION BRACING AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING. THE OWNER WILL NOT MAKE ADDITIONAL PAYMENT FOR PROVIDING AN ALTERNATE DESIGN. ALL TEMPORARY SHORING FOR WALLS 1 AND 2 MAY BE LEFT IN PLACE.

ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN, WALL 3

TEMPORARY SHORING WILL BE REQUIRED AT THE LOCATION DEPICTED IN THE PLANS FOR WALL 3. THE APPROXIMATE LENGTH AND EXPOSED HEIGHT OF THE TEMPORARY SHORING HAVE BEEN PROVIDED IN THE PLANS TO AID IN THE BIDDING OF THESE WALLS. THE ANTICIPATED EXPOSED HEIGHT IS LESS THAN 8'-0", AS SUCH THE CONTRACTOR IS RESPONSIBLE FOR THEIR CHOSEN METHOD OF SHORING. THE CONTRACTOR SHALL EXERCISE CAUTION WHILE WORKING AROUND AERIAL TRANSMISSION LINES TO BE LEFT IN PLACE. PLANS, INCLUDING DESIGN, FOR THE TEMPORARY SHORING SHALL BE PREPARED AND PROVIDED PER CMS 501.05. THE SHORING DESIGN SHALL MEET THE DEFLECTION REQUIREMENTS STATED IN THE DESIGN DATA. NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS ITEM. ALL COSTS ASSOCIATED WITH TEMPORARY SHORING SHALL BE INCIDENTAL TO THE LUMP SUM FOR ITEM 503, COFFERDAMS AND EXCAVATION BRACING, FOR WALL 3. ALL TEMPORARY SHORING FOR WALL 2 MAY BE LEFT IN PLACE EXCEPT AS FOLLOWS. FROM STATION 524+00 TO 524+15, THE SHORING SHALL BE REMOVED TO AN ELEVATION OF 530.00.

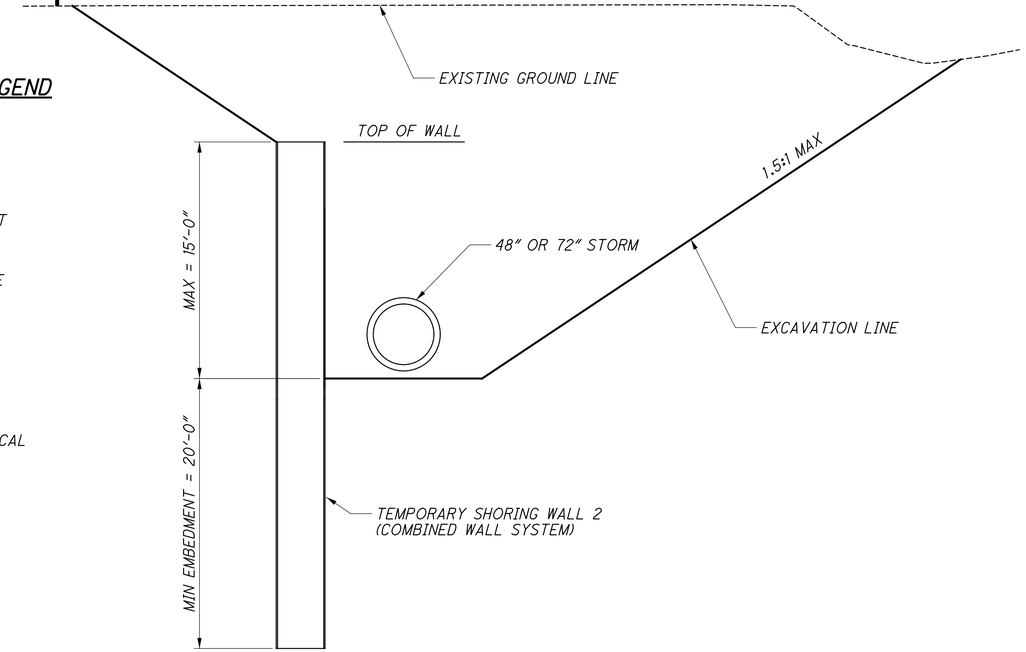
DESIGN PARAMETERS:

WALL #	MAX RETAINED HEIGHT , H (FT)	STEEL GRADE (KSI)	MIN SECTION MODULUS (IN3/FT)	MIN MOMENT OF INERTIA (IN4/ FT)	MIN EMBEDMENT DEPTH, D (FT)	EXPOSED WALL AREA (SF)
1	14	50	11	420	15	921
2	15	50	38.5	850	20	8,333

WALL #	EXPOSED WALL AREA (SF)
3	422

ABBREVIATION LEGEND

CB - CATCH BASIN
℄ - CENTERLINE
CONST - CONSTRUCTION
DND - DO NOT DISTURB
ELEV - ELEVATION
EOP - EDGE OF PAVEMENT
EX - EXISTING
GR - GUARD RAIL
I.R. - INTERSTATE ROUTE
LT - LEFT
MAX - MAXIMUM
MIN - MINIMUM
N/A - NOT APPLICABLE
NB - NORTHBOUND
PC - POINT OF CURVE
PT - POINT OF TANGENT
P.V.I. - POINT OF VERTICAL INTERSECTION
PROP - PROPOSED
SB - SOUTH BOUND
STA - STATION
TYP - TYPICAL



SECTION BETWEEN STATIONS 524+00 AND 529+00

DESIGN AGENCY
EMH&T
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500

DESIGNED	DRAWN	REVIEWED	DATE
AI	AI	CAS	09/29/23
CHECKED	REVISED	STRUCTURE FILE NUMBER	
RMW	-	N/A	

TEMPORARY SHORING NOTES AND DETAILS
WALLS 1, 2, AND 3
TEMPORARY SHORING

HAM-75-8.91
PID No. 117526

3 / 3

147
160

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