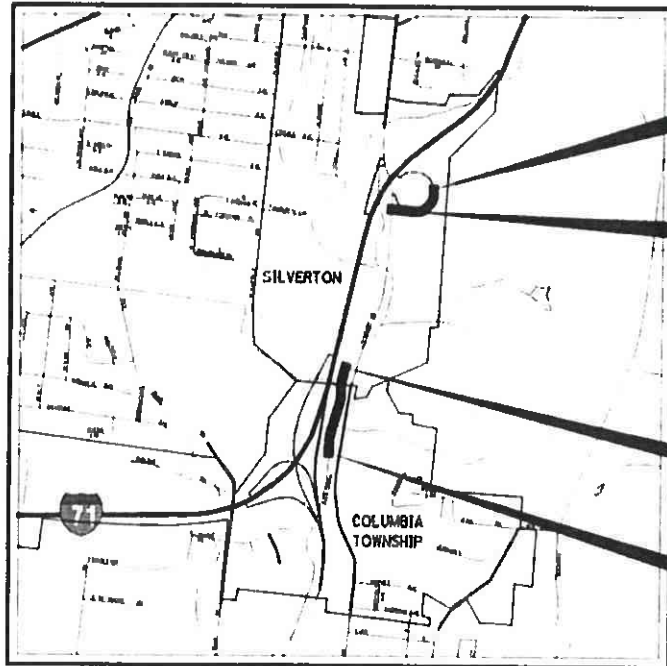


HAM - IR 71-09.92/10.75  
 204002 PID - 99777  
 Dist 8 2/13/2020

Contract Proposal Available @  
 www.contracts.dot.state.oh.us/home



LOCATION MAP

LATITUDE: 39°10'26" LONGITUDE: 84°23'53"



|                         |       |
|-------------------------|-------|
| PORTION TO BE IMPROVED  | _____ |
| INTERSTATE HIGHWAY      | ===== |
| FEDERAL ROUTES          | ===== |
| STATE ROUTES            | ===== |
| COUNTY & TOWNSHIP ROADS | ----- |
| OTHER ROADS             | ----- |

DESIGN EXCEPTIONS

NONE REQUIRED

STATE OF OHIO  
 DEPARTMENT OF TRANSPORTATION

**HAM-71-9.92/ 10.75**

**CITY OF SILVERTON  
 COLUMBIA TOWNSHIP  
 HAMILTON COUNTY**

INDEX OF SHEETS:

|                                    |       |
|------------------------------------|-------|
| TITLE SHEET                        | 1     |
| SCHEMATIC PLAN                     | 2     |
| TYPICAL SECTIONS                   | 3     |
| GENERAL NOTES                      | 4-5   |
| MAINTENANCE OF TRAFFIC             | 6-9   |
| GENERAL SUMMARY                    | 10-11 |
| PROJECT SITE PLAN - DUCK CREEK     | 12    |
| DUCK CREEK PLAN & PROFILE          | 13-16 |
| DUCK CREEK SUBSUMMARY              | 17    |
| RAMP F PLAN & PROFILE              | 18-19 |
| STEWART ROAD PLAN & PROFILE        | 20    |
| RAMP F AND STEWART ROAD SUBSUMMARY | 21    |
| CROSS SECTIONS                     | 22-51 |
| STORM SEWER PROFILE                | 52    |
| RETAINING WALL DETAILS             | 53-59 |
| SANITARY SEWER DETAILS             | 60    |
| MISCELLANEOUS DETAILS              | 61    |
| SOIL PROFILE                       |       |

PROJECT DESCRIPTION

THIS PROJECT INCLUDES STREAM STABILIZATION OF DUCK CREEK ALONG NORTHBOUND I-71 BEGINNING AT THE RED BANK ROAD INTERCHANGE AND DRAINAGE IMPROVEMENTS ALONG THE NORTH BOUND EXIT RAMP TO STEWART ROAD.

RAMP F

PROJECT EARTH DISTURBED AREA: 0.50 ACRES  
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES  
 NOTICE OF INTENT: NOT REQUIRED

STREAM STABILIZATION

PROJECT EARTH DISTURBED AREA: 6.22 ACRES  
 ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.25 ACRES  
 NOTICE OF INTENT: 6.47 ACRES

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES 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.

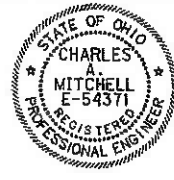
**UNDERGROUND UTILITIES**  
 CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG

**Before You Dig**  
 OIL & GAS PRODUCERS  
 UNDERGROUND PROTECTION SERVICE  
 1-800-925-0988

PLAN PREPARED BY:



ENGINEERS SEAL:



SIGNED: *Charles A. Mitchell*  
 DATE: 18-NOV-2019

| STANDARD CONSTRUCTION DRAWINGS |         |           |          | SUPPLEMENTAL SPECIFICATIONS | SPECIAL PROVISIONS                    |
|--------------------------------|---------|-----------|----------|-----------------------------|---------------------------------------|
| CB-2.1                         | 7/20/18 | MT-95.30  | 7/19/19  | SS-800 10/18/19             | WATERWAY PERMIT CONDITIONS 11/14/2019 |
| CB-3.1                         | 1/15/16 | MT-95.31  | 7/19/19  | SS-821 4/20/12              |                                       |
|                                |         | MT-95.32  | 4/19/19  | SS-832 10/19/18             |                                       |
| HW-2.1                         | 7/20/18 | MT-95.45  | 4/19/19  | SS-878 4/19/05              | ENVIRONMENTAL COMMITMENTS 11/15/2019  |
| HW-2.2                         | 7/20/18 | MT-97.10  | 4/19/19  | SS-862 10/16/15             |                                       |
| MH-1.1                         | 1/15/16 | MT-98.29  | 7/19/19  | SS-878 1/18/19              |                                       |
| MH-1.2                         | 1/15/16 | MT-101.70 | 7/20/18  | SS-902 7/19/19              |                                       |
|                                |         | MT-101.75 | 7/15/16  | SS-921 4/20/12              |                                       |
| DM-1.1                         | 7/21/17 | MT-103.10 | 1/19/18  |                             |                                       |
| DM-4.3                         | 1/15/16 |           |          |                             |                                       |
| DM-4.4                         | 1/15/16 | TC-41.20  | 10/18/13 |                             |                                       |
|                                |         | TC-42.20  | 10/18/13 |                             |                                       |
| RM-4.1                         | 7/21/17 |           |          |                             |                                       |
| RM-4.5                         | 7/21/17 |           |          |                             |                                       |

APPROVED: *Tammy K Campbell*  
 DATE: 11/18/19 DISTRICT DEPUTY DIRECTOR

APPROVED: *Julie M. Woodhams*  
 DATE: 11/20/19 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E170 (065)

PID NO. 99777

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT NONE

HAM-71-9.92/ 10.75

**ROUNDING**

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

**UTILITIES**

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

**STORM:**  
MOHAMMED M. ISLAM  
PROJECT ENGINEERING MANAGER  
HAMILTON COUNTY PLANNING & DEVELOPMENT  
STORM WATER & INFRASTRUCTURE  
138 EAST COURT STREET ROOM 801  
CINCINNATI, OHIO 45202  
PHONE: (513) 946-4757  
EMAIL: MOHAMMAD.ISLAM@HAMILTON-CO.ORG

**SANITARY:**  
ROB FRANKLIN  
UTILITY REVIEWER  
METROPOLITAN SEWER DISTRICT OF GREATER CINCINNATI (MSD)  
1600 GEST STREET  
CINCINNATI, OHIO 45204  
PHONE: (513) 557-7188  
EMAIL: ROB.FRANKLIN@CINCINNATI-OH.GOV  
EMAIL: MSDUTILITYREVIEW@CINCINNATI-OH.GOV

**WATER:**  
JON HUNSEDER  
GREATER CINCINNATI WATER WORKS  
4747 SPRING GROVE AVE  
CINCINNATI, OHIO 45232  
PHONE: (513) 591-5056  
EMAIL: JON.HUNSEDER@GCWW.CINCINNATI-OH.GOV

**RICK LEHMKUHL**  
PUBLIC WORKS SUPERINTENDENT  
VILLAGE OF SILVERTON  
3869 ALTA AVENUE  
SILVERTON, OHIO 45236  
PHONE: (513) 936-6230  
EMAIL: RLEHMKUHL@SILVERTONOHIO.US

**ELECTRIC:**  
AARON WRIGHT  
DUKE ENERGY  
2010 DANA AVENUE  
CINCINNATI, OHIO 45207  
PHONE: (513) 458-3856  
EMAIL: AARON.WRIGHT@DUKE-ENERGY.COM

**GAS:**  
DUKE ENERGY  
139 EAST FOURTH STREET, ROOM 460A  
CINCINNATI, OHIO 45202  
EMAIL: OH/KYHOUSEBILL@DUKE-ENERGY.COM

**TELEPHONE:**  
ROB STROCHINSKY  
CINCINNATI BELL - AERIAL & PLACING  
221 EAST FOURTH STREET, BLDG. 121-900  
CINCINNATI, OHIO 45201  
PHONE: (513) 565-6014  
EMAIL: ROBERT.STROCHINSKY@CINBELL.COM  
ROADPROJECTS@CINBELL.COM

**EXISTING PLANS**

EXISTING PLANS ENTITLED HAM-71-1.30/9.00 MAY BE INSPECTED IN THE ODOT DISTRICT 8 OFFICE IN LEBANON.

**SURVEYING PARAMETERS**

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

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

**PROJECT CONTROL**

POSITIONING METHOD: VRS  
MONUMENT TYPE: B

**VERTICAL POSITIONING**

ORTHOMETRIC HEIGHT DATUM: NAVD88  
GEOID: GEOID12A/B

**HORIZONTAL POSITIONING**

REFERENCE FRAME: NAD83 (2011)  
ELLIPSOID: GRS80  
MAP PROJECTION: LAMBERT CONFORMAL CONIC  
COORDINATE SYSTEM: OHIO STATE PLANE, SOUTH ZONE  
COMBINED SCALE FACTOR: 0.99991875  
ORIGIN OF COORDINATE SYSTEM: 0,0

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

UNITS ARE IN U.S. SURVEY FEET. USE THE FOLLOWING CONVERSION FACTOR: 1 METER = 3.280833333 U.S. SURVEY FEET.

**WORK LIMITS**

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

**CLEARING AND GRUBBING**

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

**ITEM 203 - EMBANKMENT, AS PER PLAN**

FILL AND SLOPE PORTIONS OF THE EXISTING CHANNEL TO DRAIN AS SHOWN IN THESE PLANS. IN CHANNEL EMBANKMENT AREAS WHICH WILL NOT SUPPORT ANY PORTION OF THE NEW ROAD BED OR STRUCTURAL EMBANKMENTS, THE CONTRACTOR MAY UTILIZE EMBANKMENT METHODS MEETING THE FOLLOWING REQUIREMENTS:

CLEAR ALL WEEDS AND BRUSH IN AREAS WHERE CHANNEL EMBANKMENTS ARE TO BE PLACED. THE REQUIREMENTS FOR MOISTURE, DENSITY CONTROL, BENCHING AND SUITABLE MATERIALS IS WAIVED. PLACE THE MATERIAL IN 8-INCH LOOSE LIFTS. THE ENGINEER MAY INCREASE THE LIFT THICKNESS IN ORDER TO BRIDGE THE SOFT OR WET FOUNDATIONS DEPENDING ON THE STABILITY OF THE FOUNDATION. THE ENGINEER MAY INCREASE THE LIFT THICKNESS UP TO 24-INCHES TO OBTAIN STABILITY AT THE TOP OF THE LIFT.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 203, EMBANKMENT, AS PER PLAN.

**PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS**

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES.

ITEM 441 - 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG64-22 3 CU. YDS.  
ITEM 441 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) 4 CU. YDS.  
ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22 14 CU. YDS.  
ITEM 304 - 6" AGGREGATE BASE 14 CU. YDS.

ITEM 609 - CURB, TYPE 2-B 11 FT.  
ITEM 609 - CURB, TYPE 3-B 97 FT.

ITEM 202 - PAVEMENT REMOVED, ASPHALT 84 SQ. YDS.  
ITEM 202 - CURB REMOVED 108 FT.

THE ABOVE QUANTITIES ARE BASED ON THE THICKNESS SHOWN ABOVE AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH. PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

**PAVEMENT RESTORATION FOR DRAINAGE STRUCTURE INSTALLATIONS**

THE FOLLOWING QUANTITIES ARE PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF ITEM 611 DRAINAGE STRUCTURES.

ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5mm, TYPE A (448) 1 CU. YDS.  
ITEM 301 - 10 1/2" ASPHALT CONCRETE BASE, PG64-22 5 CU. YDS.  
ITEM 304 - 6" AGGREGATE BASE 3 CU. YDS.

ITEM 609 - CURB, TYPE 3-B 8 FT.

ITEM 202 - PAVEMENT REMOVED, ASPHALT 17 SQ. YDS.  
ITEM 202 - CURB REMOVED 20 FT.

THE ABOVE QUANTITIES ARE BASED THE THICKNESS SHOWN ABOVE AND A WIDTH OF TWO FEET AROUND THE PERIMETER OF THE DRAINAGE STRUCTURE.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

**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.

**REVIEW OF DRAINAGE FACILITIES**

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

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

**INTERIM COMPLETION DATE**  
ALL WORK FOR HAM-71-10.75, RAMP F1 AND RAMP F SHALL BE COMPLETED BY JUNE 30, 2020.

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CALCULATED  
AJS  
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BJA

GENERAL NOTES

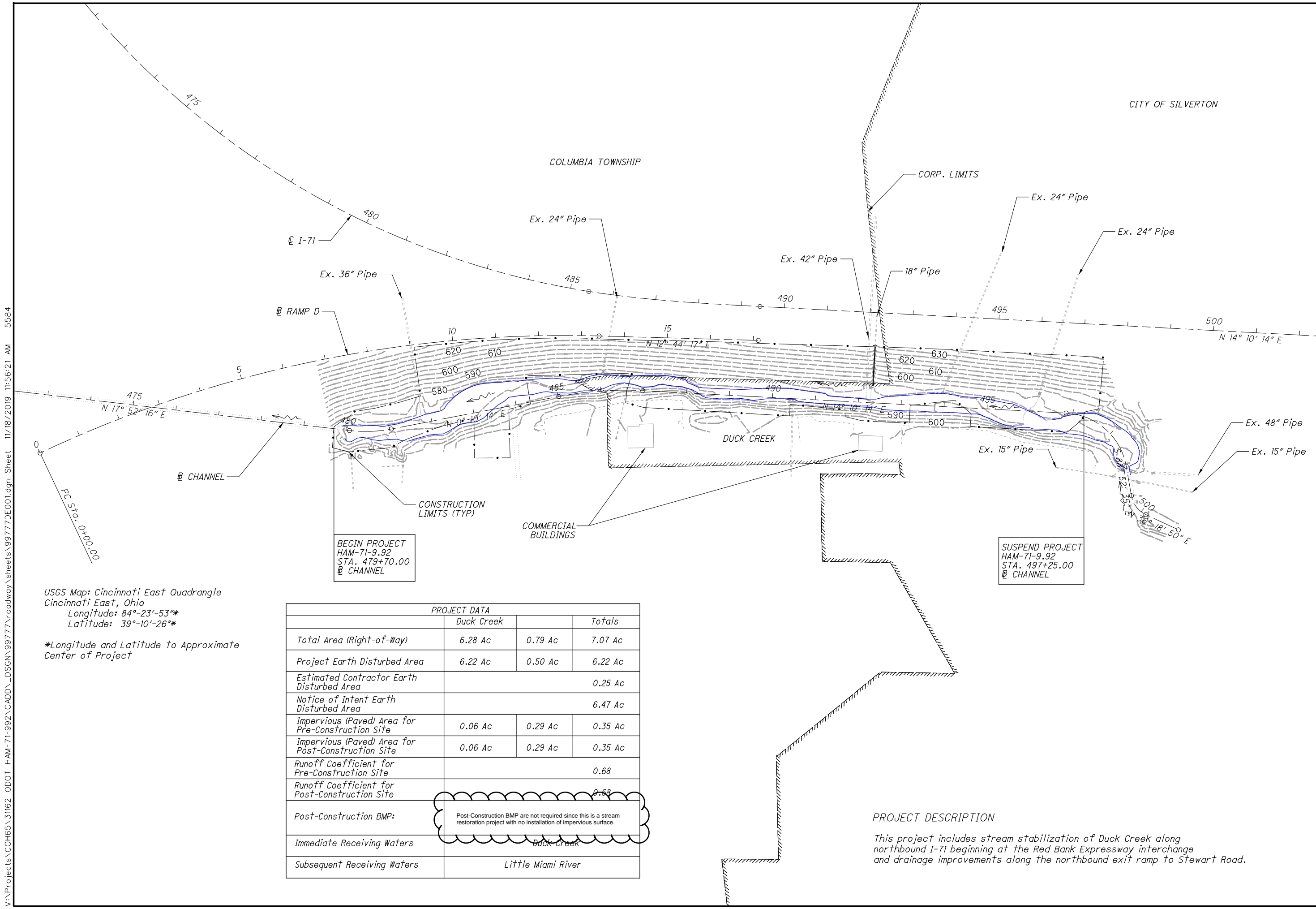
HAM-71-9.92/10.75



CALCULATED  
NMG  
CHECKED  
BJA

**SITE PLAN - DUCK CREEK**

**HAM-71-9.92/10.75**



USGS Map: Cincinnati East Quadrangle  
Cincinnati East, Ohio  
Longitude: 84°-23'-53"\*  
Latitude: 39°-10'-26"\*

\*Longitude and Latitude to Approximate  
Center of Project

BEGIN PROJECT  
HAM-71-9.92  
STA. 479+70.00  
CHANNEL

SUSPEND PROJECT  
HAM-71-9.92  
STA. 497+25.00  
CHANNEL

|  | PROJECT DATA  |         |         |
|--|---|---------|---------|
|  | Duck Creek  |         | Totals  |
| Total Area (Right-of-Way)                          | 6.28 Ac   | 0.79 Ac | 7.07 Ac |
| Project Earth Disturbed Area                       | 6.22 Ac   | 0.50 Ac | 6.22 Ac |
| Estimated Contractor Earth Disturbed Area          |   |         | 0.25 Ac |
| Notice of Intent Earth Disturbed Area              |   |         | 6.47 Ac |
| Impervious (Paved) Area for Pre-Construction Site  | 0.06 Ac   | 0.29 Ac | 0.35 Ac |
| Impervious (Paved) Area for Post-Construction Site | 0.06 Ac   | 0.29 Ac | 0.35 Ac |
| Runoff Coefficient for Pre-Construction Site       |   |         | 0.68    |
| Runoff Coefficient for Post-Construction Site      |   |         | 0.68    |
| Post-Construction BMP:                             | Post-Construction BMP are not required since this is a stream restoration project with no installation of impervious surface. |         |         |
| Immediate Receiving Waters                         | Duck Creek  |         |         |
| Subsequent Receiving Waters                        | Little Miami River  |         |         |

**PROJECT DESCRIPTION**

This project includes stream stabilization of Duck Creek along northbound I-71 beginning at the Red Bank Expressway interchange and drainage improvements along the northbound exit ramp to Stewart Road.

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