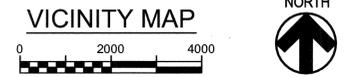
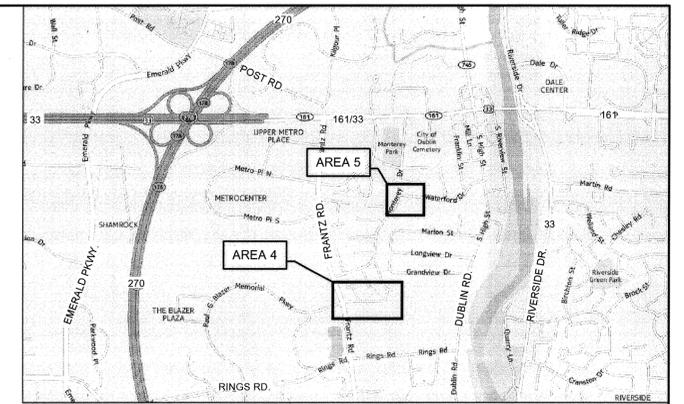




# CITY OF DUBLIN, OHIO WATERFORD VILLAGE STORMWATER IMPROVEMENTS - AREA 4 AND 5

14-017-CIP  
2014



### STANDARD CONSTRUCTION DRAWINGS

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

#### CITY OF DUBLIN (2014):

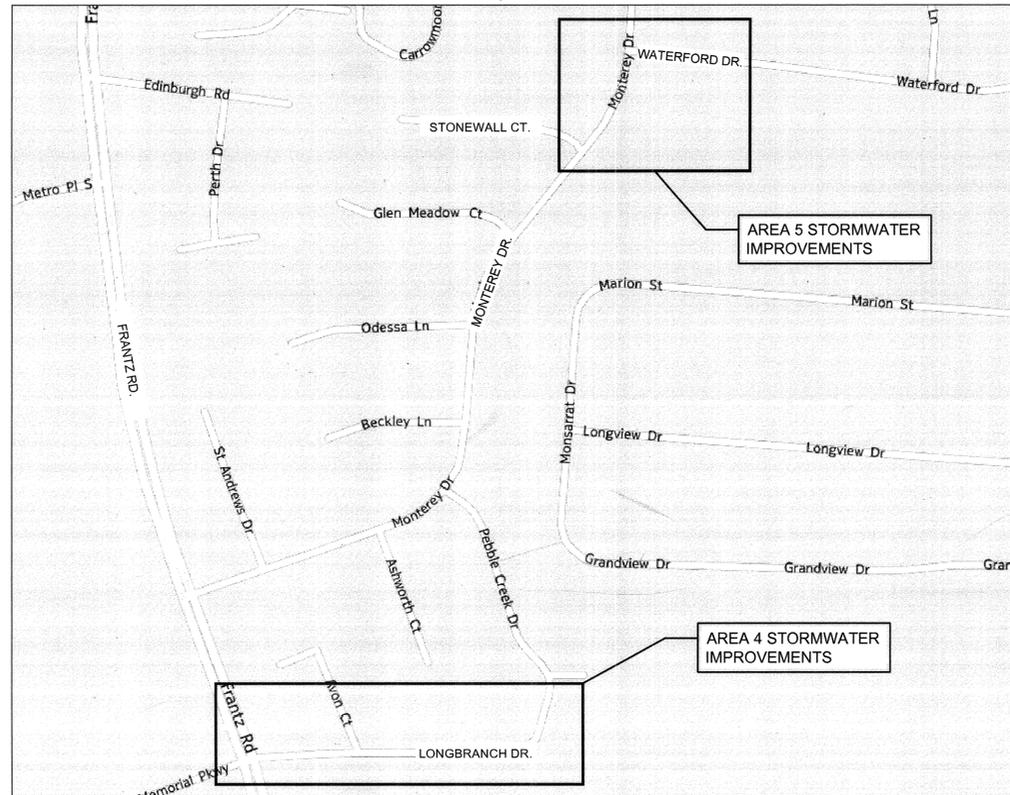
DRAWING NO.	DESCRIPTION
PD-02	CURB RAMP GENERAL NOTES
PD-03	DETECTABLE WARNINGS
PD-04	CURB RAMP TYPE A DIAGONAL IN TREE LAWN
RD-02	COMBINATION CONCRETE CURB & GUTTER
RD-05	CONCRETE SIDEWALK & BIKE PATH
ST-01	STONE VENEER FOR CONCRETE STRUCTURES
ST-02	SAFETY GRATE
ST-03	STORM SEWER MANHOLE
ST-04	DRAINS TO RIVER CURB INLET
ST-05	ROCK CHANNEL PROTECTION DETAIL

#### CITY OF COLUMBUS:

DRAWING NO.	DESCRIPTION
1441	PAVEMENT & UTILITY CUT REPAIR STANDARDS
2160	PAVEMENT REPLACEMENT (DRIVEWAYS)
AA-S102	TYPE "C" MANHOLE
AA-S108	CAST-IN-PLACE CONCRETE TOP SLAB FOR SHALLOW MANHOLES
AA-S112	STANDARD DIMENSIONS FOR MANHOLE FRAME & COVER CASTING (STORM SEWER)
AA-S125A	STANDARD CURB AND GUTTER INLET
AA-S133A	STANDARD CATCH BASIN (21" DIAMETER AND SMALLER PIPE)
AA-S133B	STANDARD CATCH BASIN (24" TO 42" PIPE)
AA-S151	TYPE I BEDDING FOR RIGID SEWER PIPE WITH CONCRETE ENCASEMENT (6" TO 60" DIAMETER)
AA-S168	PRECAST PIPE HEADWALLS 8" TO 36" DIAMETER
L-6309A	TYPICAL TRENCH EXCAVATION & BACKFILL UNDER INFLUENCE OF PAVEMENT (FOR 16" DIAMETER WATER MAIN AND SMALLER)
L-6309B	TYPICAL TRENCH EXCAVATION & BACKFILL OUTSIDE INFLUENCE OF PAVEMENT (FOR 16" DIAMETER WATER MAIN AND SMALLER)
L-6310	BACKING FOR VERTICAL BENDS (OVER BENDS ONLY)
L-6311	BACKING FOR BENDS (HORIZONTAL AND VERTICAL SAG)
L-7102A	WATER SERVICE EXTENSION AND CURB BOX RELOCATION
L-7102C	WATER SERVICE RELOCATION
L-7401	TYPICAL WATER LINE LOWERING
L-9901	CURB BOX INSTALLATION (3/4" THRU 2")

#### OHIO DEPARTMENT OF TRANSPORTATION:

DRAWING NO.	DESCRIPTION
MT-95.30	CLOSING RIGHT OR LEFT LANE OF A MULTI-LANE DIVIDED HIGHWAY WITH DRUMS
TC-82.10	VEHICLE DETECTOR INSTALLATION DETAILS



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### APPROVALS

APPROVAL ON THE PART OF THE CITY OF COLUMBUS IS GIVEN PURSUANT TO THE PROVISIONS OF THE WATER SERVICE AGREEMENT BETWEEN THE CITY OF DUBLIN AND THE CITY OF COLUMBUS, OHIO, ON APRIL 13, 1993 AND ALL SUBSEQUENT AMENDMENTS THEREOF.

*Paul A. Hammersmith*  
PAUL A. HAMMERSMITH, P.E.  
CITY ENGINEER, CITY OF DUBLIN

8.14.2015  
DATE

ADMINISTRATOR, DIVISION OF WATER,  
CITY OF COLUMBUS

DATE

DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES,  
CITY OF COLUMBUS

DATE

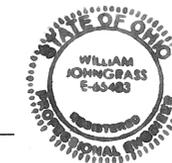
PLANS PREPARED BY:



architects • engineers • planners  
277 west nationwide boulevard  
columbus, ohio 43215-2566  
(614) 464-4500 fax (614) 464-0588  
http://www.urscorp.com

*W. J. Jones*  
REGISTERED ENGINEER

7-27-15  
DATE



800-362-2764 or 8-1-1  
www.oups.org

NO:	REVISIONS	DATE:	BY:	CHK:



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CITY OF DUBLIN, OHIO  
WATERFORD VILLAGE STORMWATER  
IMPROVEMENTS  
14-017-CIP

JOB NO:	14573713
DESIGNED BY:	KTH
DRAWN BY:	KTH
CHECKED BY:	WJ
APPROVED BY:	WJ
DATE:	7/15/2015

TITLE SHEET

SCALE:	
AS SHOWN	
SHEET NAME:	SHEET NO:
C0-0	1 OF 18

**GENERAL NOTES:**

1. CITY OF COLUMBUS AND OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITIONS, AND ANY SUPPLEMENTS THERETO (HEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS), SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED. IF A CONFLICT BETWEEN SPECIFICATIONS IS FOUND, THE MORE STRICT SPECIFICATION WILL APPLY AS DECIDED BY THE CITY ENGINEER. ITEM NUMBERS LISTED REFER TO CITY OF COLUMBUS ITEM NUMBERS UNLESS OTHERWISE NOTED.
2. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION THAT ARE NOT SPECIFIED HEREIN. THE CITY ENGINEER WILL NOT BE RESPONSIBLE FOR SAFETY ON THE WORK SITE, OR FOR FAILURE BY THE CONTRACTOR TO PERFORM WORK ACCORDING TO CONTRACT DOCUMENTS.
3. THE DEVELOPER OR CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS INCLUDING BUT NOT LIMITED TO OHIO EPA PERMITS TO INSTALL (PTI) AND NOTICES OF INTENT (NOI), BUILDING PERMITS, ETC.
4. THE CONTRACTOR SHALL NOTIFY THE CITY OF DUBLIN DIVISION OF ENGINEERING IN WRITING AT LEAST 3 WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.
5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS INCLUDING THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970. THE CONTRACTOR SHALL EXERCISE PRECAUTION ALWAYS FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT SHALL ALSO BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, INCLUDING THE REQUIREMENTS FOR CONFINED SPACES PER 29 CFR 1910.146.
6. FOLLOWING COMPLETION OF CONSTRUCTION OF THE SITE IMPROVEMENTS AND BEFORE REQUESTING OCCUPANCY, A PROOF SURVEY SHALL BE PROVIDED TO THE DIVISION OF ENGINEERING THAT DOCUMENTS "AS-BUILT" ELEVATIONS, DIMENSIONS, SLOPES AND ALIGNMENTS OF ALL ELEMENTS OF THIS PROJECT. THE PROOF SURVEY SHALL BE PREPARED, SIGNED AND SUBMITTED BY THE PROFESSIONAL ENGINEER WHO SEALED THE CONSTRUCTIONS DRAWINGS.
7. THE CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO PUBLIC RIGHT-OF-WAY AND AREAS DEFINED AS PERMANENT AND/OR TEMPORARY CONSTRUCTION EASEMENTS, UNLESS OTHERWISE AUTHORIZED BY THE CITY ENGINEER.
8. THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS. IN CASES OF WILLFUL OR CARELESS DESTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATIONS. RESETING OF MARKERS SHALL BE PERFORMED BY AN OHIO PROFESSIONAL SURVEYOR AS APPROVED BY THE CITY ENGINEER.
9. NON-RUBBER TIRED VEHICLES SHALL NOT BE MOVED ON OR ACROSS PUBLIC STREETS OR HIGHWAYS WITHOUT THE WRITTEN PERMISSION OF THE CITY ENGINEER.
10. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION. DRAINAGE DITCHES OR WATERCOURSES THAT ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THE GRADES AND CROSS-SECTIONS THAT EXISTED BEFORE CONSTRUCTION.
11. TRACKING OR SPILLING MUD, DIRT OR DEBRIS UPON STREETS, RESIDENTIAL OR COMMERCIAL DRIVES, SIDEWALKS OR BIKE PATHS IS PROHIBITED ACCORDING TO SECTION 97.38 OF THE DUBLIN CODE OF ORDINANCES. ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR AT NO COST TO THE CITY. IF THE CONTRACTOR FAILS TO REMOVE SAID MUD, DIRT, DEBRIS, OR SPILLAGE, THE CITY RESERVES THE RIGHT TO REMOVE THESE MATERIALS AND CLEAN AFFECTED AREAS, THE COST OF WHICH SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
12. DISPOSAL OF EXCESS EXCAVATION WITHIN SPECIAL FLOOD HAZARD AREAS (100-YEAR FLOODPLAIN) IS NOT PERMITTED.
13. ALL SIGNS, LANDSCAPING, STRUCTURES OR OTHER APPURTENANCES WITHIN RIGHT-OF-WAY DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. ALL FIELD TILE BROKEN OR ENCOUNTERED DURING EXCAVATION SHALL BE REPLACED OR REPAIRED AND CONNECTED TO THE PUBLIC STORM SEWER SYSTEM AS DIRECTED BY THE CITY ENGINEER. THE COST OF THIS WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
15. ALL PRECAST CONCRETE PRODUCTS SHALL BE INSPECTED AT THE LOCATION OF MANUFACTURE. APPROVED PRECAST CONCRETE PRODUCTS WILL BE STAMPED OR HAVE SUCH IDENTIFICATION NOTING THAT INSPECTION HAS BEEN CONDUCTED BY THE CITY OF COLUMBUS. PRECAST CONCRETE PRODUCTS WITHOUT PROOF OF INSPECTION SHALL NOT BE APPROVED FOR INSTALLATION.
16. BACKFILL WITHIN A 1:1 INFLUENCE LINE OF EXISTING STRUCTURES (HOUSES, GARAGES, ETC.) OR PUBLIC INFRASTRUCTURE (PAVEMENT, CURBS, SIDEWALKS, BIKE PATHS, ETC.) SHALL BE COMPACTED GRANULAR BACKFILL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS OR FLOWABLE CDF, TYPE III ACCORDING TO ITEM 636. ITEM 911 OF THE STANDARD SPECIFICATIONS SHALL BE USED ELSEWHERE.
17. THE CONTRACTOR SHALL SUBMIT A COPY OF THE APPROVED CONSTRUCTION DRAWINGS AND A LIST OF PROPOSED PRECAST CONCRETE PRODUCT MANUFACTURERS TO THE CITY OF COLUMBUS CONSTRUCTION INSPECTION DIVISION BEFORE COMMENCING CONSTRUCTION.  
 SEND THE INFORMATION TO THE FOLLOWING ADDRESS:  
 CONSTRUCTION INSPECTION DIVISION  
 CITY OF COLUMBUS  
 1800 EAST 17TH AVENUE  
 COLUMBUS, OHIO 43219  
  
 SEND A COPY OF THE TRANSMITTAL LETTER TO THE FOLLOWING ADDRESS:  
 DIVISION OF ENGINEERING  
 CITY OF DUBLIN  
 5800 SHIER RINGS ROAD  
 DUBLIN, OHIO 43016
18. ALL TRENCHES WITHIN PUBLIC RIGHT-OF-WAY SHALL BE BACKFILLED ACCORDING TO THE APPROVED CONSTRUCTION DRAWINGS OR SECURELY PLATED DURING NONWORKING HOURS. TRENCHES OUTSIDE THESE AREAS SHALL BE BACKFILLED OR SHALL BE PROTECTED BY APPROVED TEMPORARY FENCING OR BARRICADES DURING NONWORKING HOURS. CLEAN UP SHALL FOLLOW CLOSELY BEHIND THE TRENCHING OPERATION.
19. ALL TREES WITHIN THE CONSTRUCTION AREA NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PRESERVED, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. TREES TO BE PRESERVED SHALL BE PROTECTED WITH HIGH VISIBILITY FENCING PLACED A MINIMUM 15 FEET FROM THE TREE TRUNK. TREES 6 - INCHES OR GREATER AT DBH (DIAMETER BREAST HEIGHT) MUST BE PROTECTED WITH FENCING PLACED AT THE CRITICAL ROOT ZONE OR 15 FEET, WHICHEVER IS GREATER. TREES NOT INDICATED ON THE APPROVED CONSTRUCTION DRAWINGS FOR REMOVAL MAY NOT BE REMOVED WITHOUT PRIOR APPROVAL OF THE DIVISION OF ENGINEERING.

20. CONDUIT MUST BE DIRECTIONALLY BORED ACROSS STREETS INSTEAD OF OPEN CUT, UNLESS SPECIFICALLY APPROVED BY THE CITY ENGINEER. USE OF PNEUMATIC AIR RAM DEVICES IS NOT PERMITTED. PERMITS TO CONSTRUCT IN THE RIGHT-OF-WAY OF EXISTING STREETS MUST BE OBTAINED FROM THE CITY OF DUBLIN DIVISION OF ENGINEERING BEFORE COMMENCING CONSTRUCTION. SHOULD OPEN CUTTING OF EXISTING PAVEMENT BE PERMITTED, CONTROLLED DENSITY BACKFILL (TYPE III) SHALL BE USED IN PLACE OF COMPACTED GRANULAR BACKFILL, ACCORDING TO ITEM 636 OF THE STANDARD SPECIFICATIONS.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONDITION OF TRENCHES WITHIN THE RIGHT-OF-WAY AND PUBLIC EASEMENTS FOR A PERIOD OF ONE YEAR FROM THE FINAL ACCEPTANCE OF THE WORK, AND SHALL MAKE ANY NECESSARY REPAIRS AT NO COST TO THE CITY.
22. PAVEMENTS SHALL BE CUT IN NEAT, STRAIGHT LINES THE FULL DEPTH OF THE EXISTING PAVEMENT, OR AS REQUIRED BY THE CITY ENGINEER. PAVEMENT REPLACEMENT SHALL BE CONDUCTED ACCORDING TO CITY OF COLUMBUS STANDARD DRAWING 1441 DR. A AND APPLICABLE CITY OF DUBLIN STANDARD DRAWINGS. THE REPLACEMENT OF DRIVEWAYS, HANDICAPPED RAMPS, SIDEWALKS, BIKE PATHS, PARKING LOT PAVEMENT, ETC. SHALL BE PROVIDED ACCORDING TO THE APPROVED CONSTRUCTION DRAWINGS AND CITY OF DUBLIN STANDARD CONSTRUCTION DRAWINGS.
23. TREE TRIMMING WITHIN THE CONSTRUCTION ZONE IS TO BE COMPLETED BY A CERTIFIED ARBORIST. AT THE COMPLETION OF THE PROJECT, THE ARBORIST IS TO RETURN AND TRIM ANY BROKEN BRANCHES AS NEEDED.
24. ANY MODIFICATION TO THE WORK SHOWN ON DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER, CITY OF DUBLIN.
25. ALL INLETS SHALL BE CHANNELIZED.
26. PARK AREAS SHALL BE FINE-GRADED AND SEEDED WITH THE FOLLOWING MIXTURE: IMPROVED KENTUCKY BLUEGRASS: 40% OF WEIGHT (2 VARIETIES IN EQUAL PARTS)
  - IMPROVED PERENNIAL RYE: 60% OF WEIGHT (2 VARIETIES IN EQUAL PARTS)
  - GERMINATION RATE: 85%
  - APPLICATION RATE: 7 LBS PER 1000 SQ FT OR AS DIRECTED BY THE DIVISION OF PARKS AND RECREATION, CITY OF DUBLIN, OHIO.
27. TRAFFIC CONTROL AND OTHER REGULATORY SIGNS SHALL BE TYPE S WITH A SQUARE POST ANCHOR BASE INSTALLATION AND MEET ALL REQUIREMENTS OF ODOT TC-41.20 AND APPLICABLE CITY OF DUBLIN SPECIFICATIONS.
28. STREET SIGNS SHALL MEET ALL CITY OF DUBLIN SPECIFICATIONS WITH LETTERING COLORED IN WHITE DISPLAYED OVER A BROWN BACKGROUND. SIGN TUBING SHALL BE BROWN IN COLOR AND CONFORM WITH THE TYPE S, SQUARE POST ANCHOR BASE INSTALLATION REQUIREMENTS OF ODOT TC-41.20.

**UTILITIES:**

1. THE FOLLOWING UTILITIES ARE KNOWN TO BE LOCATED WITHIN THE LIMITS OF THIS PROJECT:
 

<p><b>SANITARY AND STORM SEWER</b>          CITY OF DUBLIN, DIVISION OF STREETS AND UTILITIES          PH: (614) 410-4750          6555 SHIER RINGS ROAD          DUBLIN, OH 43016</p>	<p><b>ELECTRIC</b>          AMERICAN ELECTRIC POWER (AEP)          ATTN: PAUL PAXTON          PH: (614) 883-6831          EMAIL: ptpaxton@aep.com          850 TECH CENTER DR.          GAHANNA, OH 43230</p>
<p><b>WATER</b>          CITY OF COLUMBUS, DIVISION OF WATER          PH: (614) 645-7788          910 DUBLIN ROAD          COLUMBUS, OH 43215</p>	<p><b>GAS</b>          COLUMBIA GAS          ROB CALDWELL          PH: (614) 481-1057          EMAIL: rcaldwell@nisource.com</p>
2. THE CONTRACTOR SHALL GIVE NOTICE OF INTENT TO CONSTRUCT TO OHIO UTILITIES PROTECTION SERVICE (TELEPHONE NUMBER 800-362-2764), PRODUCER'S UNDERGROUND PROTECTION SERVICE (TELEPHONE NUMBER 614-587-0486), AND TO OWNERS OF UNDERGROUND UTILITIES THAT ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE. NOTICE SHALL BE GIVEN AT LEAST 2 WORKING DAYS BEFORE START OF CONSTRUCTION.
3. THE IDENTITY AND LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA HAVE BEEN SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS AS ACCURATELY AS PROVIDED BY THE OWNER OF THE UNDERGROUND UTILITY. THE CITY OF DUBLIN AND THE CITY ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTHS OF UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE.
4. LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
5. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND THE CITY ENGINEER.
6. PUBLIC STREET LIGHTING MAY BE IN THE VICINITY OF THIS PROJECT. CONTACT THE CITY OF DUBLIN, DIVISION OF ENGINEERING AT 410-4637, TWO DAYS PRIOR TO BEGINNING WORK.

**TRAFFIC CONTROL:**

1. TRAFFIC CONTROL SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR ACCORDING TO OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD), CURRENT EDITION.
2. ALL TRAFFIC LANES OF PUBLIC ROADWAYS SHALL BE FULLY OPEN TO TRAFFIC FROM 7:00 AM TO 9:00 AM AND FROM 4:00 PM TO 6:00 PM UNLESS AUTHORIZED DIFFERENTLY BY THE CITY ENGINEER. AT ALL OTHER HOURS THE CONTRACTOR SHALL MAINTAIN MINIMUM ONE-LANE TWO-WAY TRAFFIC. UNIFORMED, OFF-DUTY POLICE OFFICERS SHALL REPLACE FLAGMEN DESIGNATED BY THE OMUTCD, AND SHALL BE PRESENT WHENEVER ONE-LANE, TWO-WAY TRAFFIC CONTROL IS IN EFFECT. POLICE CRUISERS MAY BE REQUIRED AS DIRECTED BY THE CITY ENGINEER.
3. IF THE CITY ENGINEER DETERMINES THAT THE CONTRACTOR IS NOT PROVIDING PROPER PROVISIONS FOR TRAFFIC CONTROL, THE CITY ENGINEER SHALL ASSIGN UNIFORMED, OFF-DUTY POLICE OFFICERS TO THE PROJECT AT NO COST TO THE CITY.
4. STEADY-BURNING, TYPE "C" LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT.
5. ACCESS FROM PUBLIC ROADWAYS TO ALL ADJOINING PROPERTIES FOR EXISTING RESIDENTS OR BUSINESSES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT FOR ENTRANCE INTO DRIVEWAYS, MAIL, PUBLIC WATER AND SANITARY SEWER SERVICE, AND EMERGENCY VEHICLES.

6. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN DETAILING THE PROPOSED MAINTENANCE OF TRAFFIC PROCEDURES. THE TRAFFIC CONTROL PLAN MUST INCORPORATE ANY TRAFFIC CONTROL DETAILS CONTAINED HEREIN. THE TRAFFIC CONTROL PLAN PROPOSED BY THE CONTRACTOR MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING TRAFFIC CONTROL WITH THE CITY INSPECTORS DURING THE DURATION OF THE PROJECT.

**EROSION AND SEDIMENT CONTROL:**

1. THE CONTRACTOR OR DEVELOPER IS RESPONSIBLE FOR SUBMITTING A NOTICE OF INTENT (NOI) TO BE REVIEWED AND APPROVED BY THE OHIO EPA. THE NOI MUST BE SUBMITTED TO OEPA 45 DAYS PRIOR TO THE START OF CONSTRUCTION AND MAY ENTITLE COVERAGE UNDER THE OHIO EPA GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. A PROJECT LOCATION MAP MUST BE SUBMITTED WITH THE NOI. A SEDIMENT AND EROSION CONTROL PLAN MUST BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL IF A SEDIMENT AND EROSION CONTROL PLAN HAS NOT ALREADY BEEN INCLUDED WITH THE APPROVED CONSTRUCTION DRAWINGS. THIS PLAN MUST BE MADE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE DESIGN OF EROSION CONTROL SYSTEMS SHALL FOLLOW THE REQUIREMENTS OF OHIO EPA, ITEM 207 OF OHIO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AND THE CITY ENGINEER. AN INDIVIDUAL NPDES STORMWATER DISCHARGE PERMIT MAY BE REQUIRED. THE CONTRACTOR SHALL BE CONSIDERED THE PERMITTEE.
2. THE CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL AT ALL POINTS WHERE STORM WATER RUNOFF LEAVES THE PROJECT, INCLUDING WATERWAYS, OVERLAND SHEET FLOW, AND STORM SEWERS.
3. ACCEPTED METHODS OF PROVIDING EROSION/SEDIMENT CONTROL INCLUDE BUT ARE NOT LIMITED TO: SEDIMENT BASINS, SILT FILTER FENCE, AGGREGATE CHECK DAMS, AND TEMPORARY GROUND COVER. HAY OR STRAW BALES ARE NOT PERMITTED.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE OF THE WORK AREA AT ALL TIMES CONSISTENT WITH EROSION CONTROL PRACTICES.
5. DISTURBED AREAS THAT WILL REMAIN UNWORKED FOR 30 DAYS OR MORE SHALL BE SEEDED OR PROTECTED WITHIN SEVEN CALENDAR DAYS OF THE DISTURBANCE. OTHER SEDIMENT CONTROLS THAT ARE INSTALLED SHALL BE MAINTAINED UNTIL VEGETATIVE GROWTH HAS BEEN ESTABLISHED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL TEMPORARY SEDIMENT DEVICES AT THE CONCLUSION OF CONSTRUCTION BUT NOT BEFORE GROWTH OF PERMANENT GROUND COVER.

**BLASTING (IF PERMITTED):**

1. THE CONTRACTOR MUST OBTAIN A BLASTING PERMIT FROM WASHINGTON TOWNSHIP FIRE DEPARTMENT AND THE CITY OF DUBLIN PRIOR TO BLASTING FOR ROCK EXCAVATION. THE CONTRACTOR SHALL SUBMIT BLASTING REPORTS UPON COMPLETION OF BLASTING TO THE CITY ENGINEER, THE OWNER, AND THE OWNER'S ENGINEER. TOP OF ROCK ELEVATIONS SHALL BE SHOWN ON "AS-BUILT" CONSTRUCTION DRAWINGS.

**SANITARY SEWER: NOT USED**

**WATER LINE:**

1. ALL WATER LINE MATERIALS SHALL BE PROVIDED AND INSTALLED ACCORDING TO CURRENT SPECIFICATIONS OF THE CITY OF COLUMBUS DIVISION OF WATER.
2. ONLY FIRE HYDRANTS CONFORMING TO CITY OF COLUMBUS STANDARDS WILL BE APPROVED FOR USE.
3. PUBLIC WATER LINES SHALL BE DISINFECTED BY THE CITY OF COLUMBUS DIVISION OF WATER. REQUESTS FOR WATER LINE CHLORINATION SHALL BE MADE THROUGH THE CITY OF DUBLIN DIVISION OF ENGINEERING. THE COST FOR CHLORINATION SHALL BE PAID FOR BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL PAINT ALL FIRE HYDRANTS ACCORDING TO CITY OF DUBLIN STANDARDS. THE COST OF PAINTING FIRE HYDRANTS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR FIRE HYDRANTS.
5. THE CONTRACTOR SHALL NOTIFY THE CITY OF COLUMBUS DIVISION OF WATER AT 645-7788 AND THE CITY OF DUBLIN DIVISION OF ENGINEERING AT LEAST 24 HOURS BEFORE TAPPING INTO EXISTING WATER LINES.
6. ALL WATER MAIN STATIONING SHALL BE BASED ON STREET CENTERLINE STATIONING.
7. ALL BENDS, JOINT DEFLECTIONS AND FITTINGS SHALL BE BACKED WITH CONCRETE PER CITY OF COLUMBUS STANDARDS.
8. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ALL AFFECTED PROPERTY OWNERS AT LEAST 1 WORKING DAY BUT NOT MORE THAN 3 WORKING DAYS PRIOR TO ANY TEMPORARY INTERRUPTION OF WATER SERVICE. INTERRUPTION OF WATER SERVICE SHALL BE MINIMIZED AND MUST BE APPROVED BY THE CITY ENGINEER.
9. WATER LINES TO BE INSTALLED IN EMBANKMENT AREAS SHALL BE PLACED AFTER THE EMBANKMENT HAS BEEN PLACED AND COMPACTED ACCORDING TO THE STANDARD SPECIFICATIONS.

**USE OF FIRE HYDRANTS:**

1. THE CONTRACTOR SHALL MAKE PROPER ARRANGEMENTS WITH THE DUBLIN SERVICE DEPARTMENT AND THE COLUMBUS DIVISION OF WATER FOR THE USE OF FIRE HYDRANTS WHEN USED FOR WORK PERFORMED UNDER THIS CONTRACT AND PROVIDE THE CITY OF DUBLIN A COPY OF THE HYDRANT USAGE PERMIT OBTAINED FROM THE CITY OF COLUMBUS. THE CONTRACTOR SHALL ALSO SEND COPIES OF PERMITS OBTAINED FROM DUBLIN AND COLUMBUS TO THE WASHINGTON AND/OR PERRY TOWNSHIP FIRE DEPARTMENT. PERMITS SHALL BE KEPT AT THE CONSTRUCTION SITE AT ALL TIMES.
2. BEFORE THE FINAL ESTIMATE IS PAID, THE CONTRACTOR SHALL SUBMIT A LETTER FROM THE CITY OF COLUMBUS DIVISION OF WATER TO THE CITY ENGINEER STATING THAT THE CONTRACTOR HAS RETURNED THE SIAMESE VALVE TO THE CITY OF COLUMBUS AND HAS PAID ALL COSTS ARISING FROM THE USE OF THE FIRE HYDRANTS.

**MAIL DELIVERY:**

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT US MAIL DELIVERY WITHIN THE PROJECT LIMITS IS NOT DISRUPTED BY CONSTRUCTION OPERATIONS. THIS RESPONSIBILITY IS LIMITED TO RELOCATION OF MAILBOXES TO A TEMPORARY LOCATION THAT WILL ALLOW THE COMPLETION OF THE WORK AND SHALL ALSO INCLUDE THE RESTORATION OF MAILBOXES TO THEIR ORIGINAL LOCATION OR APPROVED NEW LOCATION. ANY RELOCATION OF MAILBOX SERVICES MUST BE FIRST COORDINATED WITH THE US POSTAL SERVICE AND THE HOMEOWNER.
2. BEFORE RELOCATING ANY MAILBOXES, THE CONTRACTOR SHALL CONTACT THE U.S. POSTAL SERVICE AND RELOCATE MAILBOXES ACCORDING TO THE REQUIREMENTS OF THE POSTAL SERVICE.

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NO:	REVISIONS	DATE:	BY:	CHK:



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**CITY OF DUBLIN, OHIO  
 WATERFORD VILLAGE STORMWATER  
 IMPROVEMENTS  
 14-017-CIP**

JOB NO:	14573713
DESIGNED BY:	KTH
DRAWN BY:	KTH
CHECKED BY:	WJ
APPROVED BY:	WJ
DATE:	7/15/2015

**GENERAL NOTES AND QUANTITIES**

SCALE: AS SHOWN	
SHEET NAME: C1-0	SHEET NO: 2 OF 18

**STORM SEWER:**

- ALL STORM WATER DETENTION AND RETENTION AREAS AND MAJOR FLOOD ROUTING SWALES SHALL BE CONSTRUCTED TO FINISH GRADE AND HYDRO-SEEDED AND HYDRO-MULCHED ACCORDING TO ITEMS 203 AND 659 OF THE STANDARD SPECIFICATIONS.
- WHERE PRIVATE STORM SEWERS CONNECT TO PUBLIC STORM SEWERS, THE LAST RUN OF PRIVATE STORM SEWER CONNECTING TO THE PUBLIC STORM SEWER SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C76, WALL B, CLASS IV FOR PIPE DIAMETERS 12 INCHES TO 15 INCHES, CLASS III FOR 18 INCHES TO 24 INCH PIPES, AND 27 INCHES AND LARGER PIPE SHALL BE CLASS II, UNLESS OTHERWISE SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. INSPECTION IS REQUIRED BY THE CITY OF DUBLIN'S DIVISION OF ENGINEERING.
- GRANULAR BACKFILL SHALL BE COMPACTED GRANULAR MATERIAL ACCORDING TO ITEM 912 OF THE STANDARD SPECIFICATIONS OR CONTROLLED DENSITY BACKFILL ACCORDING TO ITEM 636, TYPE III OF THE STANDARD SPECIFICATIONS AS DIRECTED BY THE CITY ENGINEER.
- ALL STORM SEWERS SHALL BE REINFORCED CONCRETE PIPE CONFORMING TO ASTM DESIGNATION C76, WALL B, CLASS IV FOR PIPE DIAMETERS 12 INCHES TO 15 INCHES, CLASS III FOR 18 INCHES TO 24 INCH PIPES, AND 27 INCHES AND LARGER PIPE SHALL BE CLASS II, UNLESS OTHERWISE SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS.
- HEADWALLS AND ENDWALLS SHALL BE REQUIRED AT ALL STORM SEWER INLETS OR OUTLETS TO AND FROM STORMWATER MANAGEMENT FACILITIES. NATURAL STONE AND/OR BRICK APPROVED BY THE CITY ENGINEER SHALL BE PROVIDED ON ALL VISIBLE HEADWALLS AND/OR ENDWALLS SURFACES.
- STORM INLETS OR CATCH BASINS SHALL BE CHANNELIZED AND HAVE BICYCLE SAFE GRATES. MANHOLE LIDS SHALL INCLUDE CITY OF DUBLIN LOGO AND ALL CURB INLET AND CATCH BASIN GRATES SHALL INCLUDE ENGRAVED LETTERING: "DUMP NO WASTE; DRAINS TO RIVER."

**CITY OF COLUMBUS DIVISION OF WATER, GENERAL NOTES:**

- THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2012 EDITION AND ALL REVISIONS, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN, UNLESS OTHERWISE NOTED.
- ALL WATER MAIN MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER. ALL CITY OF COLUMBUS, DIVISION OF WATER STANDARD DRAWINGS SHALL APPLY TO THE PROJECT, UNLESS OTHERWISE NOTED.
- FOR ANY EMERGENCIES INVOLVING THE WATER DISTRIBUTION SYSTEM, PLEASE CONTACT THE DIVISION OF WATER DISTRIBUTION MAINTENANCE OFFICE AT 614-645-7788.
- ALL BRASS FITTINGS ASSOCIATED WITH WATER WORK, INCLUDING REPAIRS TO THE EXISTING SYSTEM, SHALL CONFORM TO THE **REVISED ALLOWABLE LEAD EXTRACTION LIMIT PER THE UPDATED NSF/ANSI 61 STANDARD**. THE DIVISION OF WATER'S APPROVED MATERIALS LIST HAS BEEN UPDATED TO REFLECT THIS REQUIREMENT.
- IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER LINE SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.
- NO PERSON SHALL BEGIN CONSTRUCTION OR INSTALLATION OF A PUBLIC WATER MAIN UNTIL PLANS HAVE BEEN APPROVED BY THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA).
- APPROVAL ON THE PART OF THE CITY OF COLUMBUS IS GIVEN PURSUANT TO THE PROVISIONS OF THE WATER SERVICE AGREEMENT BETWEEN THE CITY OF DUBLIN AND THE CITY OF COLUMBUS, OHIO, ON APRIL 13, 1993 AND ALL SUBSEQUENT AMENDMENTS THEREOF.
- THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND PAY ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES & REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. COST TO BE INCLUDED IN THE VARIOUS BID ITEMS.
- ALL WATER MAINS SHALL BE CLEANED AND FLUSHED, AND ANY WATER MAIN 12-INCH AND LARGER MUST BE PROPERLY PIGGED, IN ACCORDANCE WITH SECTION 801.13 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS.
- ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 801.14 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS, WITH THE FOLLOWING EXCEPTION: **150 PSI OF PRESSURE SHALL BE MAINTAINED FOR AT LEAST TWO HOURS IN ANY TESTED SECTION. THE CITY MAY NOT APPROVE ANY TEST LASTING LESS THAN TWO HOURS REGARDLESS OF THE AMOUNT OF LEAKAGE.**
- ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 801.15 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF A.W.W.A. C-651. WHEN THE WATER MAINS ARE READY FOR DISINFECTION, THE CITY OF DUBLIN SHALL SUBMIT A WRITTEN REQUEST FOR CHLORINATION OF THE MAINS THAT NEED DISINFECTED, THREE (3) SETS OF "AS-BUILT" PLANS (FULL SIZE SHEETS ONLY), THE AS-BUILT SURVEY COORDINATES, WATER SERVICE REPORTS AND A PRESSURE TEST TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER MAINS CONSTRUCTED UNDER THIS PLAN.
- ONLY ONE CONNECTION TO AN EXISTING WATER LINE IS PERMITTED BEFORE DISINFECTION OF A NEW WATER LINE HAS BEEN COMPLETED. ALL OTHER CONNECTIONS MUST BE MADE AFTER THE LINE HAS BEEN DISINFECTED.
- WHERE INDICATED ON THE PLANS, THE EXISTING WATER MAIN SHALL BE ABANDONED; AND ANY EXISTING WATER SERVICES OFF THIS MAIN SHALL BE TRANSFERRED TO THE NEW WATER MAIN. PRIOR TO ABANDONMENT OF THE EXISTING WATER MAIN, THE PROPOSED WATER MAIN SHALL BE PIGGED (IF REQUIRED), TESTED, CHLORINATED AND PUT IN SERVICE AND THEN THE EXISTING WATER SERVICES SHALL BE TRANSFERRED. THE CONTRACTOR SHALL MAINTAIN WATER SERVICES TO ALL PROPERTIES DURING CONSTRUCTION OF THE NEW WATER MAIN AND SHALL NOTIFY ALL CUSTOMERS AFFECTED BY THE TRANSFER OF SERVICES. TO ENSURE THAT ALL EXISTING SERVICES ARE TRANSFERRED TO THE NEW MAIN, NO WATER MAIN SHALL BE ABANDONED UNTIL THE NEW WATER MAIN HAS BEEN PUT IN SERVICE; ALL AFFECTED WATER SERVICES HAVE BEEN TRANSFERRED; AND THE EXISTING WATER MAIN TO BE ABANDONED HAS BEEN SHUT DOWN FOR 24 HOURS. ALL VISIBLE VALVE BOXES, FIRE HYDRANTS, AND SERVICE BOXES ON THE WATER MAIN TO BE ABANDONED, WHICH WILL NO LONGER BE IN SERVICE, SHALL BE REMOVED. ALL WATER MAINS TO BE ABANDONED SHALL BE MADE WATER TIGHT. THE REQUIRED SURFACE RESTORATION SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM(S).
- NO SERVICE CONNECTION PERMITS SHALL BE ISSUED OR CONNECTIONS MADE TO ANY SERVICE TAPS UNTIL WATER MAINS HAVE BEEN DISINFECTED BY THE CITY OF COLUMBUS, DIVISION OF WATER.
- WATER SERVICE BOXES SHALL BE PLACED 1' FROM THE EDGE OF THE PROPOSED OR EXISTING SIDEWALK BETWEEN THE SIDEWALK AND THE CURB, OR 2 FEET INSIDE THE RIGHT-OF-WAY OR EASEMENT LINE WHEN NO SIDEWALK IS PRESENT OR PROPOSED. REFER TO STANDARD DRAWING L-9901 FOR ADDITIONAL INFORMATION.

- MAINTAIN EIGHTEEN (18) INCHES VERTICAL AND TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ANY SANITARY OR STORM SEWER PIPING AND ALL PROPOSED WATER MAINS.
- WHEN CONTROLLED DENSITY FILL (ITEM 613) IS TO BE USED AS BACKFILL, THE CONTRACTOR SHALL PROVIDE SIZE NO. 57 CRUSHED CARBONATE STONE (CCS) 1 FOOT BELOW TO 1 FOOT ABOVE THE EXISTING WATER LINE.
- NO WATER SERVICE CONSTRUCTION, **BEFORE OR AFTER METER(S)**, SHALL BEGIN PRIOR TO THE WATER SERVICE PERMIT(S) BEING ISSUED AND FEE PAYMENT(S) TO THE COLUMBUS DIVISION OF WATER.
- WATER SERVICES SHALL BE FLUSHED BY THE SITE UTILITY CONTRACTOR PRIOR TO METER INSTALLATION. INSPECTION OF THIS FLUSHING SHALL BE DONE BY CALLING (614) 645-5781. A 24 HOUR ADVANCE NOTICE IS REQUIRED. ANY METER DAMAGE CAUSED BY NON-FLUSHING SHALL BE PAID BY THE SITE UTILITY CONTRACTOR.
- "SURVEY COORDINATES" SHALL INCLUDE ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY TO OBTAIN HORIZONTAL AND VERTICAL (NORTHING, EASTING, AND ELEVATION) SURVEY COORDINATES FOR THE WATER MAIN IMPROVEMENTS. THE SURVEY COORDINATES SHALL BE OBTAINED FOR THE COMPLETED WATER MAIN CONSTRUCTION AND SHALL INCLUDE ALL VALVES, TEES, CROSSES, BENDS, DEFLECTIONS, PLUGS, REDUCERS, TAPPING SLEEVES, FIRE HYDRANTS, AIR RELEASES, CURB STOPS, CASING PIPE TERMINI, AND OTHER FITTINGS. ADDITIONAL SURVEY COORDINATES ARE REQUIRED ON THE WATER MAIN EVERY 500' WHERE NO FITTING OR OTHER WATER MAIN STRUCTURE IS BEING INSTALLED WITHIN THAT LENGTH OF THE IMPROVEMENT.

ALL SURVEY COORDINATES SHALL BE REFERENCED TO THE APPLICABLE COUNTY ENGINEER'S MONUMENTS, AND SHALL BE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83) WITH THE (NSRS2007) ADJUSTMENT, WITH FURTHER REFERENCE MADE TO THE OHIO STATE PLANE SOUTH COORDINATE SYSTEM, SOUTH ZONE, WITH ELEVATIONS BASED ON NAVD 88 DATUM. ALL COORDINATES (NORTHING, EASTING, ELEVATION) SHALL BE REFERENCED TO THE NEAREST HUNDRETH (N XXXXXX.XX, E XXXXXX.XX, ELEV. XXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT HORIZONTAL AND A TENTH OF A FOOT (0.10) OR LESS VERTICAL.

THE COORDINATES SHALL BE DOCUMENTED TO THE MUNICIPALITY ENGINEER OR DESIGNATED REPRESENTATIVE IN DIGITAL SPREADSHEET FORM AND SHALL INCLUDE THE APPLICABLE ITEM, STATION, NORTHING, EASTING, AND ELEVATION. COORDINATES SHALL BE SUBMITTED TO THE MUNICIPALITY ENGINEER OR DESIGNATED REPRESENTATIVE ON A BI-WEEKLY BASIS. COORDINATES SHALL ALSO BE REQUIRED TO BE SUBMITTED TO THE DIVISION OF WATER AS PART OF THE REQUEST FOR CHLORINATION.

LUMP SUM PAYMENT IS FULL COMPENSATION FOR ALL WORK INVOLVED IN OBTAINING AND DOCUMENTING THE SURVEY COORDINATES AS DESCRIBED IN THIS SPECIFICATION.

NOTE TO CONSULTANT: PROVIDE THE X, Y, Z COORDINATE TABLE FOR PROPOSED WORK AND BLANK SPACES FOR AS-BUILTS ON THE SHEETS AS REQUIRED BY THE C.O.C. WATER DISTRIBUTION ENGINEERING SECTION.

- THE CONTRACTOR SHALL COORDINATE HIS WORK SUCH THAT NO WATER CUSTOMER WILL HAVE THEIR SERVICE DISRUPTED MORE THAN TWO (2) TIMES THROUGHOUT THE DURATION OF THIS PROJECT.

**ROCK RIFFLE SPECIFICATIONS:**

- ONLY EMBEDDED (NOT VISIBLE) BASE STONE MAY BE QUARRIED LIMESTONE MATERIAL. NO CONSTRUCTION RUBBLE IS PERMISSIBLE. ALL FILL STONE USED TO FINISH THE ROCK RIFFLE (ALL VISIBLE ROCK) SHALL BE RIVER ROCK, CONSISTING OF ROUNDED STONE WITH NATURAL HUES. THE CONTRACTOR SHALL REVIEW SAMPLES OF THIS MATERIAL WITH THE CITY OF DUBLIN FOR APPROVAL PRIOR TO DELIVERY OF MATERIAL. SEE RIFFLE MATERIALS TABLE FOR DESCRIPTIONS AND SIZES OF MATERIALS.
- BASE STONE**
  - INSTALLATION: BASE STONE MUST BE PLACED TIGHTLY. FINISHED ELEVATIONS OF THE BASE STONE MUST CONCENTRATE FLOWS ACROSS THE CENTER OF THE RIFFLE AND CREATE NON-LAMINAR (TURBULENT) FLOW.
- FILL STONE**
  - INSTALLATION: AFTER INSTALLATION OF THE BASE STONE, FILL ALL VOIDS WITH FILL STONE. THE FILL STONE SHALL HIDE ALL OF LARGER SUPPORT STONE TO CREATE A NATURAL STREAM LOOK.
- PAYMENT**
  - THE COST OF ALL LABOR AND MATERIALS ASSOCIATED WITH THE CONSTRUCTION OF ROCK RIFFLES AS SHOWN ON THIS PLAN, INCLUDING SUPPORT AND FILL STONES, SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 601, ROCK CHANNEL PROTECTION (ROCK RIFLE).

RIFFLE MATERIAL TABLE	
BASE STONE	ROCK CHANNEL PROTECTION, TYPE C TYPE C MATERIAL HAS AT LEAST 85 PERCENT OF THE TOTAL MATERIAL BY WEIGHT LARGER THAN 6-INCH BUT LESS THAN AN 18-INCH SQUARE OPENING AND AT LEAST 50 PERCENT OF THE TOTAL MATERIAL BY WEIGHT LARGER THAN A 12-INCH SQUARE OPENING. FURNISH MATERIAL SMALLER THAN A 6-INCH SQUARE OPENING THAT CONSISTS OF FILL ROCKS. SEE DESCRIPTION BELOW.
FILL STONE	FILL STONE SHALL HAVE A GRADATION OF SIZES SUCH THAT A T LEAST 85% OF THE MATERIAL BY WEIGHT SHALL BE BETWEEN 1" AND 6" IN DIAMETER, 50% OF WHICH SHALL BE LARGER THAN 3" IN DIAMETER.

WATER SERVICE COORDINATE TABLE					
WATER SERVICE IMPROVEMENT	SIZE	STATION	AS-BUILT LOCATION		
			NORTHING	EASTING	© ELEVATION
348 LONGBRANCH DRIVE - NEW CURB STOP/CURB BOX	3/4"	9+01			
340 LONGBRANCH DRIVE - NEW CURB STOP/CURB BOX	3/4"	8+28			
365 AVON COURT - NEW CURB STOP/CURB BOX	3/4"	7+56			
302 LONGBRANCH DRIVE - NEW CURB STOP/CURB BOX	3/4"	5+28			
294 LONGBRANCH DRIVE - NEW CURB STOP/CURB BOX	3/4"	4+52			
286 LONGBRANCH DRIVE - NEW CURB STOP/CURB BOX	3/4"	3+69			
278 LONGBRANCH DRIVE - NEW CURB STOP/CURB BOX	3/4"	2+90			
260 LONGBRANCH DRIVE - NEW CURB STOP/CURB BOX	3/4"	1+15			
279 WATERFORD DRIVE - NEW CURB STOP/CURB BOX	3/4"	1+08			

\* WATER SERVICE CURB STOP ELEVATIONS SHALL COMPLY WITH STANDARD DRAWING L-7102C AND L-9901 (MINIMUM COVER IS 42 INCHES, MAXIMUM COVER IS 60 INCHES)

ESTIMATE OF QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
201	1	LS	CLEARING AND GRUBBING
202	100	LF	PIPE REMOVED (12' RCP STORM)
202	58	LF	PIPE REMOVED (18" RCP STORM)
202	70	LF	PIPE REMOVED (24" RCP STORM)
202	1	EACH	CONCRETE HEADWALL REMOVED
202	650	SF	WALK REMOVED
202	275	LF	CURB AND GUTTER REMOVED
202	1	EACH	CURB RAMP REMOVED
207	16	EACH	INLET PROTECTION
207	100	LF	TREE PROTECTION FENCE
254	4,300	SY	PAVEMENT PLANNING, ASPHALT CONCRETE
259	330	CY	PERMANENT PAVEMENT REPLACEMENT, TYPE I (CoC STD. DWG. 1441)
407	490	GAL.	TACK COAT, NTSS-1HM TRACKLESS TACK, APPLIED AT 0.075 GAL/SY
448	150	CY.	ASPHALT CONCRETE, SURFACE COURSE (MEDIUM TRAFFIC), PG64-22
601	20	CY	ROCK CHANNEL PROTECTION (ROCK RIFFLE)
604	8	EACH	MANHOLES
604	3	EACH	CATCH BASINS
604	2	EACH	INLETS
604	7	EACH	MANHOLE, CATCH BASIN OR INLET MODIFICATION
604	1	EACH	PRECAST REINFORCED CONCRETE OUTLET (36" PIPE CULVERT HEADWALL)
608	650	SF	CONCRETE WALK, AS PER PLAN
608	1	EACH	CURB RAMP
609	275	LF	COMBINATION CURB AND GUTTER
614	1	LS	MAINTAINING TRAFFIC
623	1	LS	CONSTRUCTION LAYOUT STAKES
624	1	LS	MOBILIZATION
644	94	LF	STOP LINE
644	75	LF	CROSSWALK LINE
644	25	LF	LANE LINE
644	44	LF	CHANNELIZING LINE
647	2	EACH	SPEED HUMP MARKING
651	40	CY	TOPSOIL STOCKPILED
652	40	CY	PLACING STOCKPILED TOPSOIL
659	240	SY	SEEDING AND MULCHING, AS PER PLAN
808	1	EACH	RELOCATE 12 INCH WATER LINE PER PLAN
808	1	EACH	RELOCATE 8 INCH WATER LINE PER PLAN
808	1	EACH	RELOCATE 6 INCH WATER LINE PER PLAN
816	9	EACH	3/4 INCH WATER SERVICE TAP RELOCATED
901	472	LF	12" CLASS IV, RCP STORM SEWER, W/ CONCRETE ENCASEMENT, W/ TYPE 1 BEDDING, WITH ITEM 912 BACKFILL
901	1,049	LF	30" CLASS III, RCP STORM SEWER, W/ CONCRETE ENCASEMENT, W/ TYPE 1 BEDDING, WITH ITEM 912 BACKFILL
901	50	LF	36" CLASS III, RCP STORM SEWER, W/ CONCRETE ENCASEMENT, W/ TYPE 1 BEDDING, WITH ITEM 911 BACKFILL
SPEC	1	EACH	DETECTABLE WARNING MAT BY ADA SOLUTIONS, 2'X4', BRICK RED
SPEC	1	LS	SURVEY COORDINATES
SPEC	1	LS	TRAFFIC LOOP REPAIR, AS PER PLAN
SPEC	1	LS	SPEED HUMP, MONTEREY DRIVE, AS PER PLAN

STORM STRUCTURE COORDINATE TABLE			
AREA 4 - WATERFORD VILLAGE	PROPOSED LOCATION		
	STATION	NORTHING	EASTING
STM STRUCTURE #1 ( 36" PRECAST PIPE CULVERT HEADWALL)	0+00	N 761556.16	E 1795039.70
STM STRUCTURE #2 (MANHOLE)	0+50	N 761565.36	E 1794990.13
STM STRUCTURE #3 (MANHOLE)	1+56	N 761464.77	E 1794956.87
STM STRUCTURE #4 (MANHOLE)	2+24	N 761436.53	E 1794895.77
STM STRUCTURE #5 (MANHOLE)	2+82	N 761434.95	E 1794837.57
STM STRUCTURE #6 (MANHOLE)	5+14	N 761432.35	E 1794605.91
STM STRUCTURE #7 (MANHOLE)	7+45	N 761429.75	E 1794374.26
STM STRUCTURE #8 (MANHOLE)	9+86	N 761427.04	E 1794133.03
STM STRUCTURE #9 (MANHOLE)	10+41	N 761462.50	E 1794091.00
STM STRUCTURE #10 (CURB AND GUTTER INLET)	10+89	N 761447.28	E 1794045.91
STM STRUCTURE #11 (CATCH BASIN)	10+99	N 761444.74	E 1794035.58
AREA 5 - WATERFORD VILLAGE	STATION	NORTHING	EASTING
STM STRUCTURE #12 (MANHOLE)	0+00	N 763553.19	E 1795483.61
STM STRUCTURE #13 (MANHOLE)	2+14	N 763580.80	E 1795271.76
STM STRUCTURE #14 (MANHOLE)	3+90	N 763413.65	E 1795216.58
STM STRUCTURE #15 (CURB AND GUTTER INLET)	2+19	N 763583.08	E 1795247.05

ALL STORM STRUCTURES SHALL COMPLY WITH THE CITY OF COLUMBUS AND CITY OF DUBLIN STANDARD CONSTRUCTION DRAWINGS.

File: L:\Projects\14573713\CIVIL\SHEETS\C1-1.dwg - Layout: C1-1 - Plot Date: Aug 21, 2015 - 7:59am Plotted By: fonda\_welker

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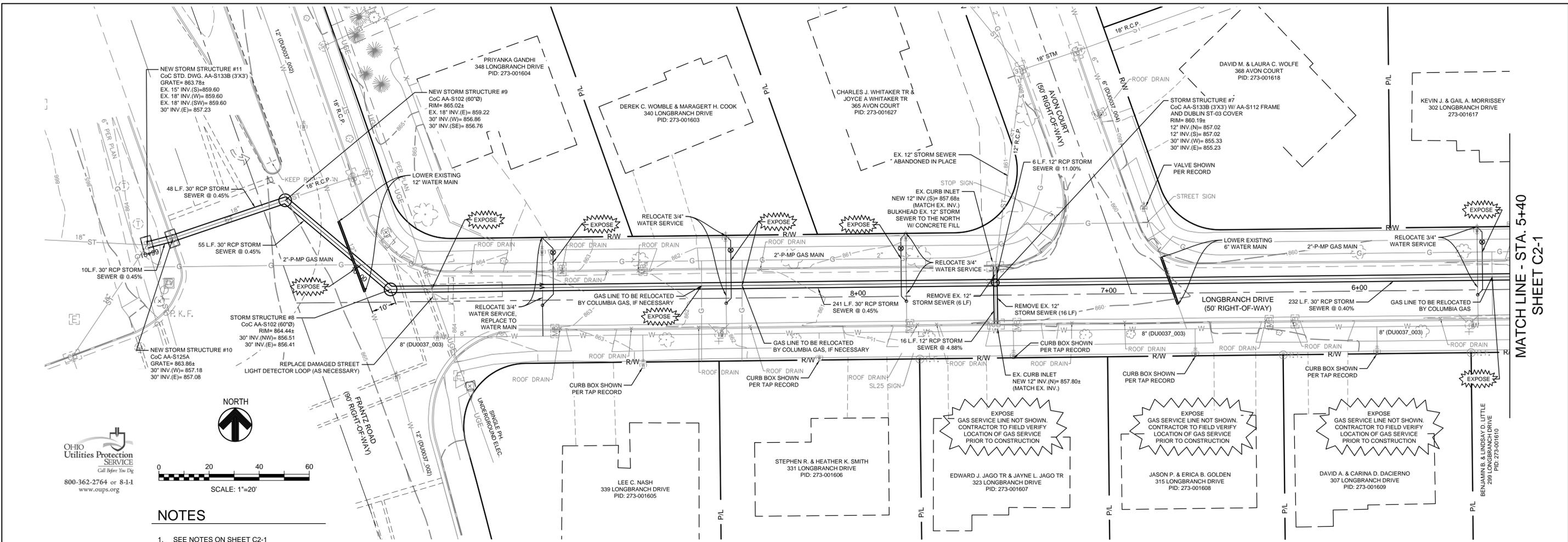
**CITY OF DUBLIN, OHIO  
WATERFORD VILLAGE STORMWATER  
IMPROVEMENTS  
14-017-CIP**

JOB NO:	14573713
DESIGNED BY:	KTH
DRAWN BY:	KTH
CHECKED BY:	WJ
APPROVED BY:	WJ
DATE:	7/15/2015

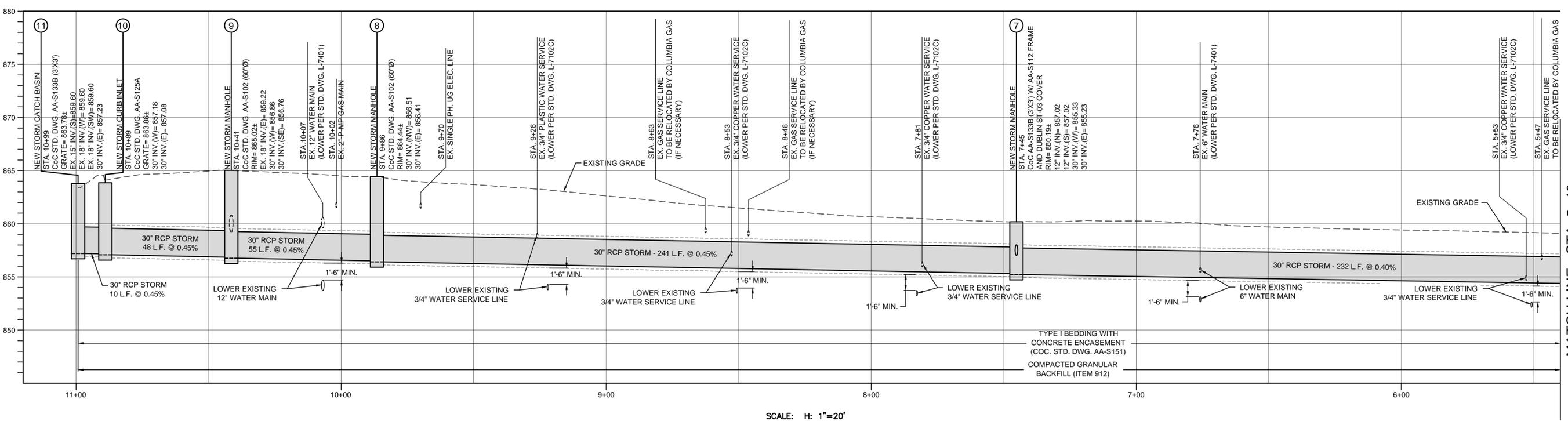
**CITY OF COLUMBUS  
GENERAL NOTES**

SCALE: AS SHOWN	
SHEET NAME: C1-1	SHEET NO: 3 OF 18

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**NOTES**  
 1. SEE NOTES ON SHEET C2-1



SCALE: H: 1"=20'  
 V: 1"=5'

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**CITY OF DUBLIN, OHIO  
 WATERFORD VILLAGE STORMWATER  
 IMPROVEMENTS  
 14-017-CIP**

JOB NO:	14573713
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**AREA 4  
 STORMWATER PLAN AND PROFILE  
 STA. 5+40 TO 10+99**

SCALE:	AS SHOWN
SHEET NAME:	C2-0
SHEET NO:	4 OF 18

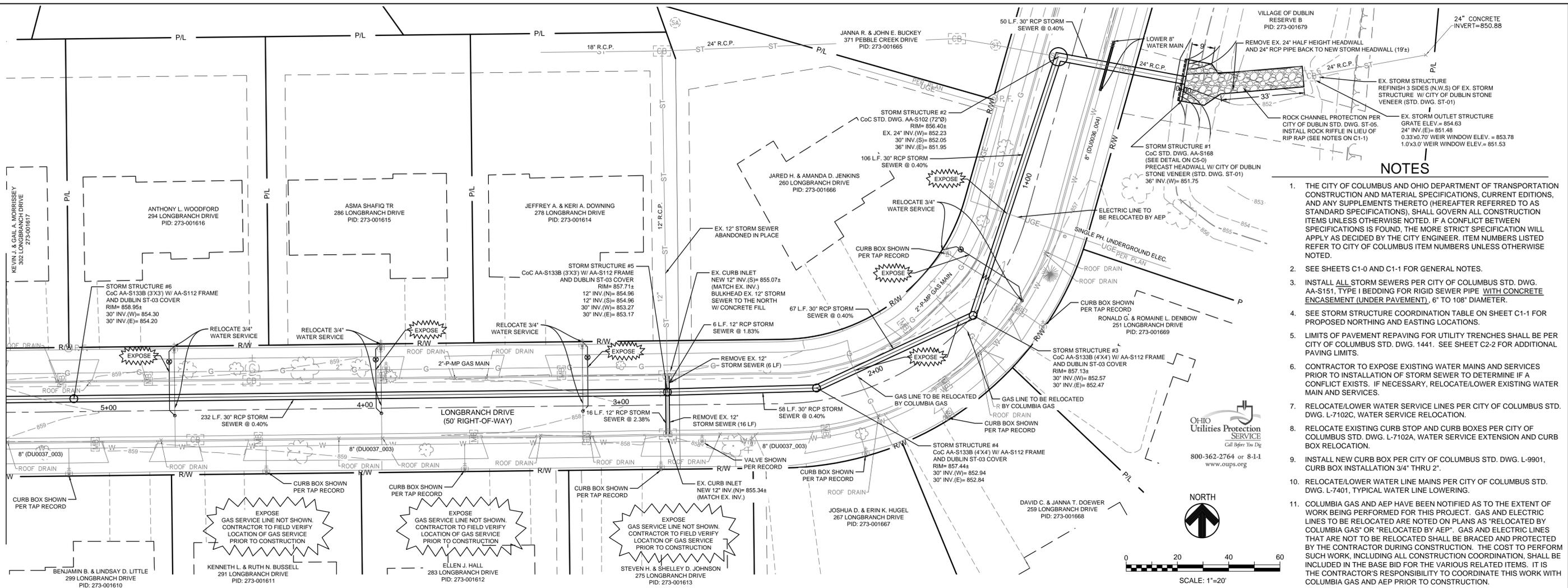
MATCH LINE - STA. 5+40  
 SHEET C2-1

MATCH LINE - STA. 5+40  
 SHEET C2-1

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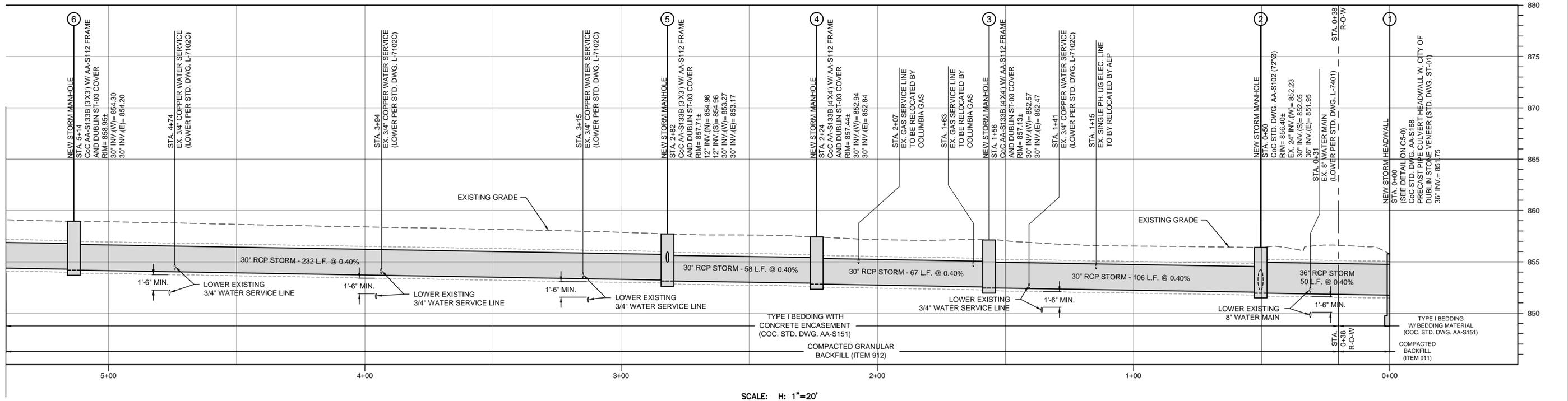
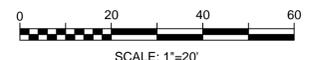
SHEET C2-0  
MATCH LINE - STA. 5+40

SHEET C2-0  
MATCH LINE - STA. 5+40



**NOTES**

1. THE CITY OF COLUMBUS AND OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITIONS, AND ANY SUPPLEMENTS THERETO (HEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS), SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED. IF A CONFLICT BETWEEN SPECIFICATIONS IS FOUND, THE MORE STRICT SPECIFICATION WILL APPLY AS DECIDED BY THE CITY ENGINEER. ITEM NUMBERS LISTED REFER TO CITY OF COLUMBUS ITEM NUMBERS UNLESS OTHERWISE NOTED.
2. SEE SHEETS C1-0 AND C1-1 FOR GENERAL NOTES.
3. INSTALL ALL STORM SEWERS PER CITY OF COLUMBUS STD. DWG. AA-S151, TYPE I BEDDING FOR RIGID SEWER PIPE WITH CONCRETE ENCASEMENT (UNDER PAVEMENT), 6" TO 108" DIAMETER.
4. SEE STORM STRUCTURE COORDINATION TABLE ON SHEET C1-1 FOR PROPOSED NORTHING AND EASTING LOCATIONS.
5. LIMITS OF PAVEMENT REPAVING FOR UTILITY TRENCHES SHALL BE PER CITY OF COLUMBUS STD. DWG. 1441. SEE SHEET C2-2 FOR ADDITIONAL PAVING LIMITS.
6. CONTRACTOR TO EXPOSE EXISTING WATER MAINS AND SERVICES PRIOR TO INSTALLATION OF STORM SEWER TO DETERMINE IF A CONFLICT EXISTS. IF NECESSARY, RELOCATE/LOWER EXISTING WATER MAIN AND SERVICES.
7. RELOCATE/LOWER WATER SERVICE LINES PER CITY OF COLUMBUS STD. DWG. L-7102C, WATER SERVICE RELOCATION.
8. RELOCATE EXISTING CURB STOP AND CURB BOXES PER CITY OF COLUMBUS STD. DWG. L-7102A, WATER SERVICE EXTENSION AND CURB BOX RELOCATION.
9. INSTALL NEW CURB BOX PER CITY OF COLUMBUS STD. DWG. L-9901, CURB BOX INSTALLATION 3/4" THRU 2".
10. RELOCATE/LOWER WATER LINE MAINS PER CITY OF COLUMBUS STD. DWG. L-7401, TYPICAL WATER LINE LOWERING.
11. COLUMBIA GAS AND AEP HAVE BEEN NOTIFIED AS TO THE EXTENT OF WORK BEING PERFORMED FOR THIS PROJECT. GAS AND ELECTRIC LINES TO BE RELOCATED ARE NOTED ON PLANS AS "RELOCATED BY COLUMBIA GAS" OR "RELOCATED BY AEP". GAS AND ELECTRIC LINES THAT ARE NOT TO BE RELOCATED SHALL BE BRACED AND PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION. THE COST TO PERFORM SUCH WORK, INCLUDING ALL CONSTRUCTION COORDINATION, SHALL BE INCLUDED IN THE BASE BID FOR THE VARIOUS RELATED ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WORK WITH COLUMBIA GAS AND AEP PRIOR TO CONSTRUCTION.



SCALE: H: 1"=20'  
V: 1"=5'

NO.	REVISIONS	DATE:	BY:	CHK:



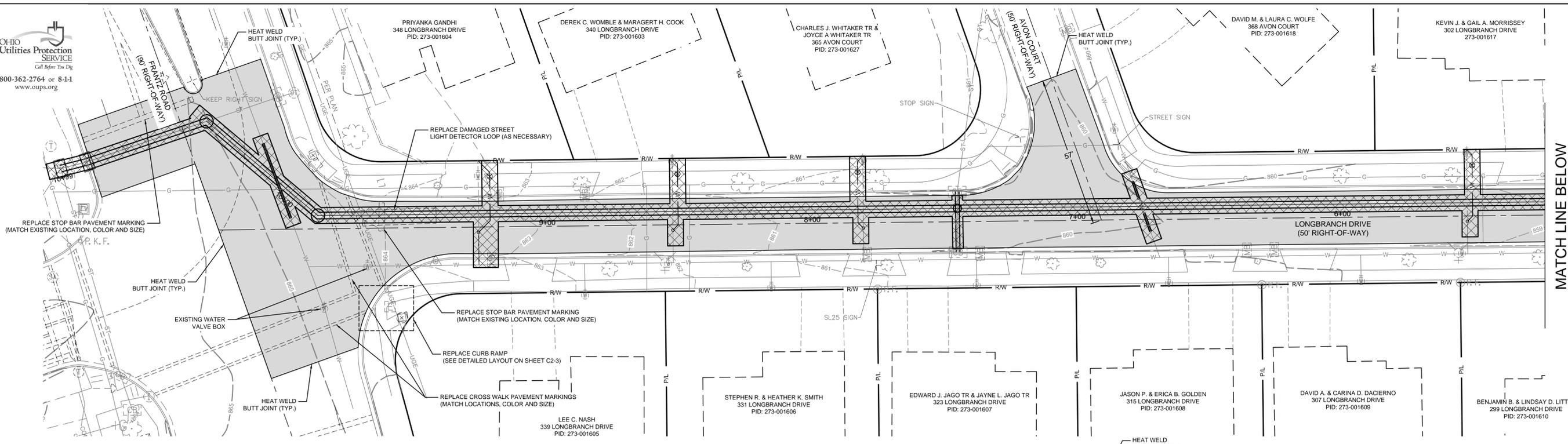
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CITY OF DUBLIN, OHIO  
WATERFORD VILLAGE STORMWATER  
IMPROVEMENTS  
14-017-CIP

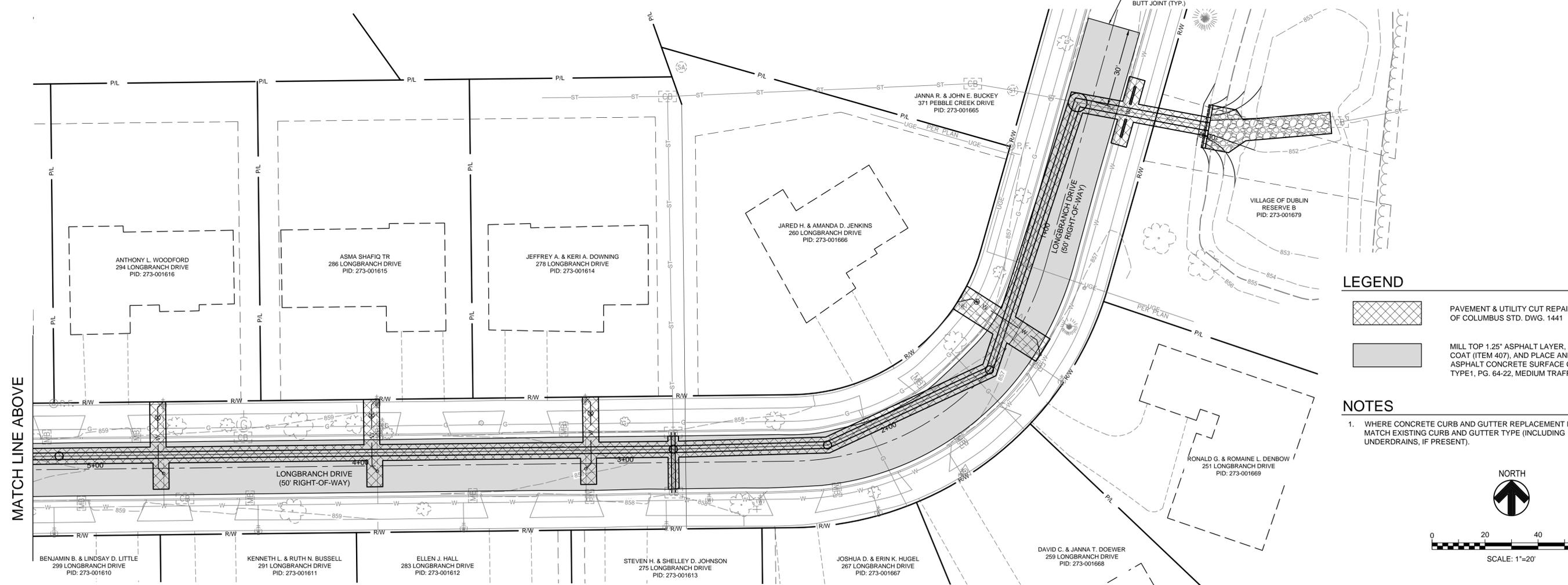
JOB NO:	14573713
DESIGNED BY:	KTH
DRAWN BY:	KTH
CHECKED BY:	WJ
APPROVED BY:	WJ
DATE:	7/15/2015

AREA 4  
STORMWATER PLAN AND PROFILE  
STA. 0+00 TO 5+40

SCALE:	AS SHOWN
SHEET NAME:	C2-1
SHEET NO:	5 OF 18



MATCH LINE BELOW



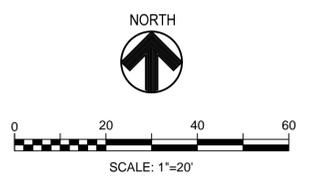
MATCH LINE ABOVE

**LEGEND**

-  PAVEMENT & UTILITY CUT REPAIR PER CITY OF COLUMBUS STD. DWG. 1441
-  MILL TOP 1.25" ASPHALT LAYER, APPLY TACK COAT (ITEM 407), AND PLACE AND COMPACT ASPHALT CONCRETE SURFACE COURSE TYPE1, PG. 64-22, MEDIUM TRAFFIC (ITEM 448)

**NOTES**

1. WHERE CONCRETE CURBS AND GUTTER REPLACEMENT IS REQUIRED, MATCH EXISTING CURB AND GUTTER TYPE (INCLUDING UNDERDRAINS, IF PRESENT).



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WATERFORD VILLAGE STORMWATER  
IMPROVEMENTS  
14-017-CIP

JOB NO:	14573713
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APPROVED BY:	WJ
DATE:	7/15/2015

AREA 4  
PAVEMENT RESTORATION PLAN

SCALE:	AS SHOWN
SHEET NAME:	C2-2
SHEET NO:	6 OF 18

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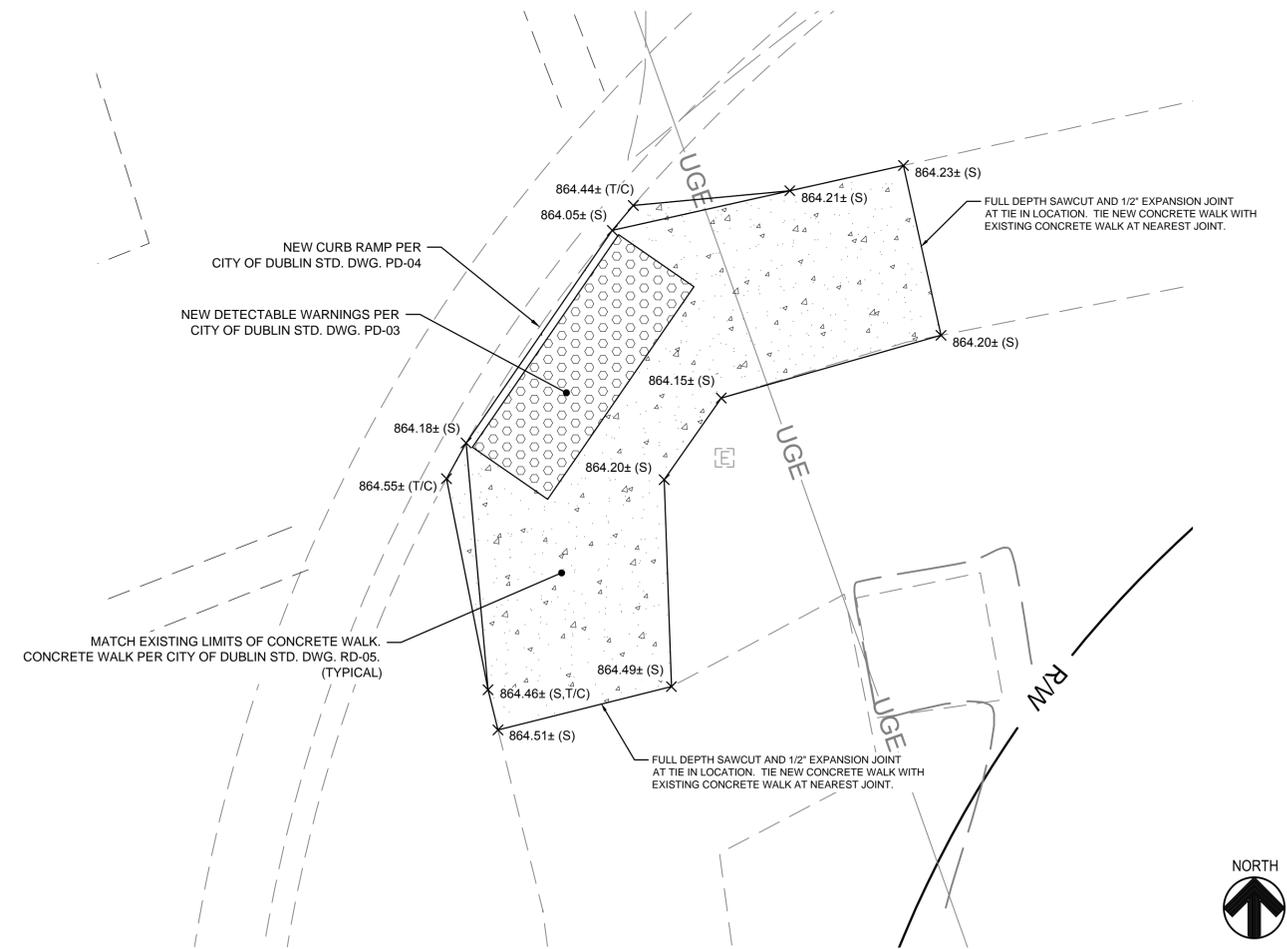
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**LEGEND**

	CONCRETE SIDEWALK & BIKE PATH
	DETECTABLE WARNINGS
XXX.XX	SPOT ELEVATION
XXX.XX±	MATCH EX. SPOT ELEVATION
XXX.XX (S)	SPOT ELEVATION (SIDEWALK)
XXX.XX (T/C)	SPOT ELEVATION (TOP OF CURB)
XXX.XX (S,T/C)	SPOT ELEVATION (COMBINED SIDEWALK & TOP OF CURB)
MATCH EX. (S)	MATCH EXISTING SIDEWALK ELEVATION

**NOTES**

1. THE CITY OF COLUMBUS AND OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITIONS, AND ANY SUPPLEMENTS THERETO (HEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS), SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED. IF A CONFLICT BETWEEN SPECIFICATIONS IS FOUND, THE MORE STRICT SPECIFICATION WILL APPLY AS DECIDED BY THE CITY ENGINEER. ITEM NUMBERS LISTED REFER TO CITY OF COLUMBUS ITEM NUMBERS UNLESS OTHERWISE NOTED.
2. SEE CITY OF DUBLIN STANDARD DRAWINGS FOR CURB RAMP GENERAL NOTES (PD-02), DETECTABLE WARNINGS (PD-03), CURB RAMP TYPE A (PD-04) AND CONCRETE SIDEWALK & BIKE PATH (RD-05).



1 CURB RAMP DETAILED LAYOUT  
SCALE: N.T.S.



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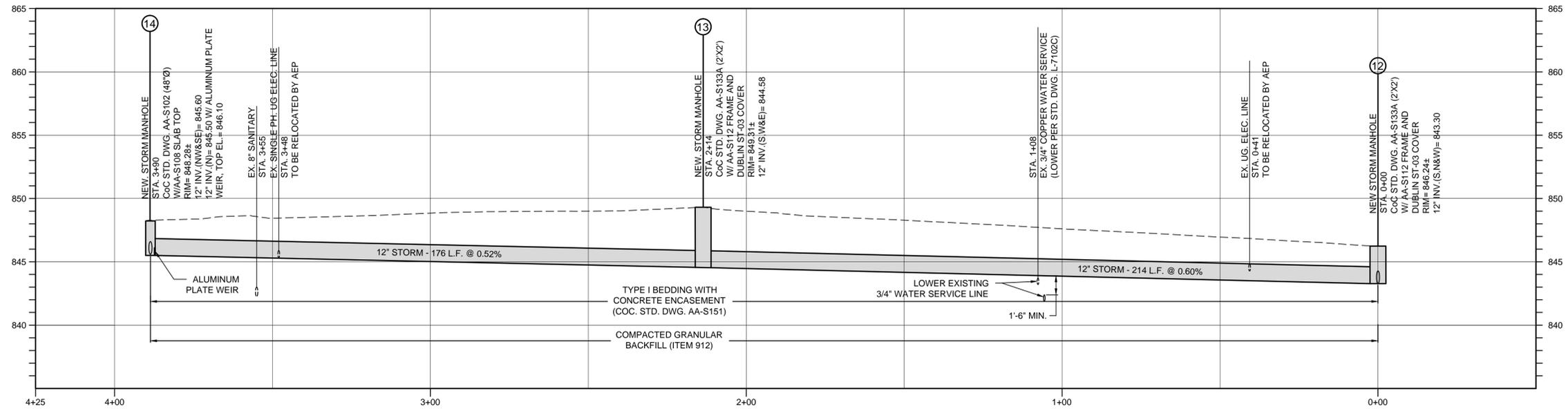
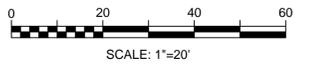
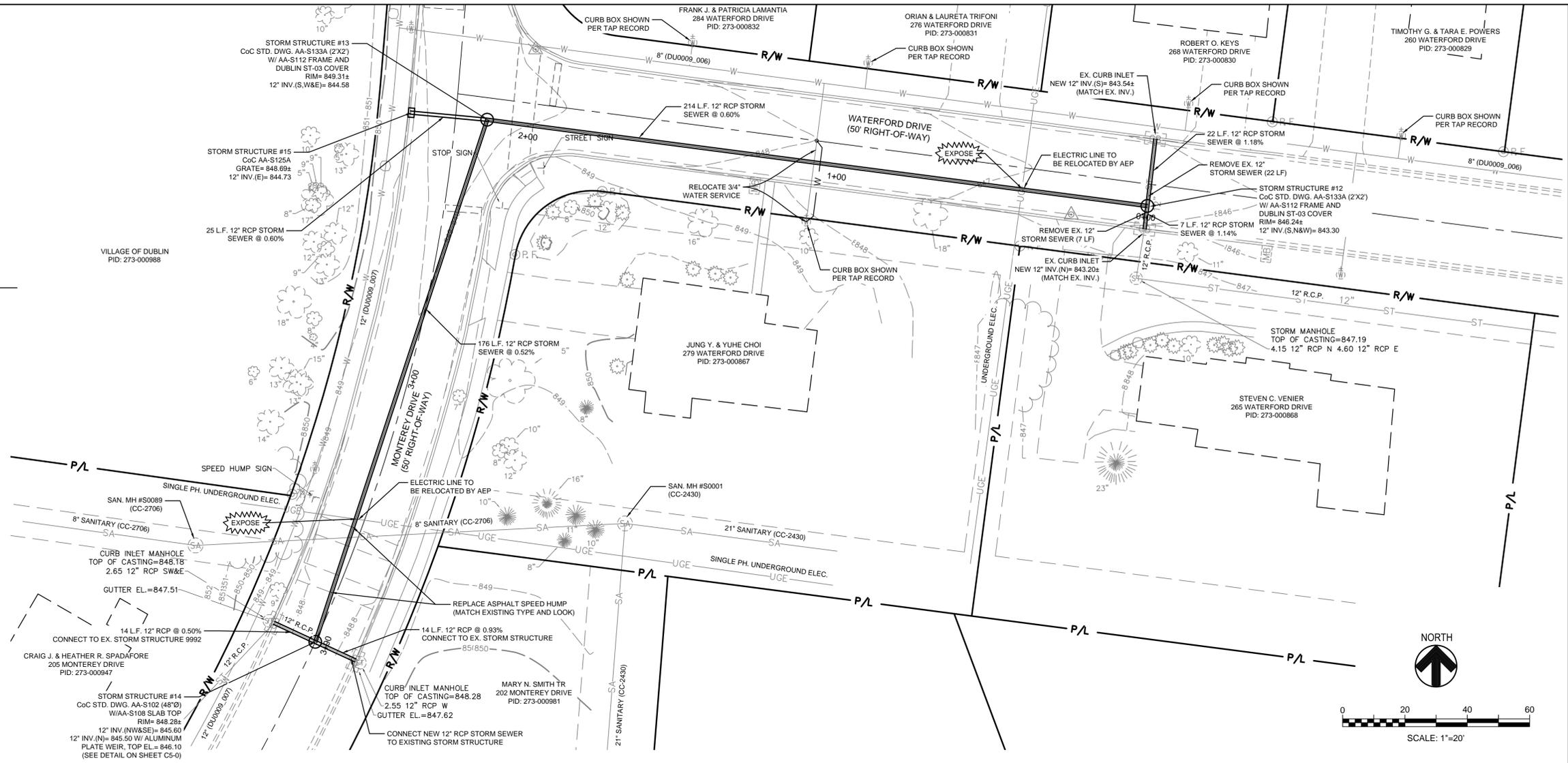
JOB NO:	14573713
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DATE:	7/15/2015

AREA 4  
CURB RAMP IMPROVEMENTS

SCALE:	AS SHOWN
SHEET NAME:	C2-3
SHEET NO:	7 OF 18

**NOTES**

1. THE CITY OF COLUMBUS AND OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITIONS, AND ANY SUPPLEMENTS THERETO (HEREAFTER REFERRED TO AS STANDARD SPECIFICATIONS), SHALL GOVERN ALL CONSTRUCTION ITEMS UNLESS OTHERWISE NOTED. IF A CONFLICT BETWEEN SPECIFICATIONS IS FOUND, THE MORE STRICT SPECIFICATION WILL APPLY AS DECIDED BY THE CITY ENGINEER. ITEM NUMBERS LISTED REFER TO CITY OF COLUMBUS ITEM NUMBERS UNLESS OTHERWISE NOTED.
2. SEE SHEETS C1-0 AND C1-1 FOR GENERAL NOTES.
3. INSTALL ALL STORM SEWERS PER CITY OF COLUMBUS STD. DWG. AA-S151, TYPE I BEDDING FOR RIGID SEWER PIPE WITH CONCRETE ENCASEMENT (UNDER PAVEMENT), 6" TO 108" DIAMETER.
4. SEE STORM STRUCTURE COORDINATION TABLE ON SHEET C1-1 FOR PROPOSED NORTHING AND EASTING LOCATIONS.
5. LIMITS OF PAVEMENT REPAVING FOR UTILITY TRENCHES SHALL BE PER CITY OF COLUMBUS STD. DWG. 1441. SEE SHEET C2-2 FOR ADDITIONAL PAVING LIMITS.
6. CONTRACTOR TO EXPOSE EXISTING WATER MAINS AND SERVICES PRIOR TO INSTALLATION OF STORM SEWER TO DETERMINE IF A CONFLICT EXISTS. IF NECESSARY, RELOCATE/LOWER EXISTING WATER MAIN AND SERVICES.
7. RELOCATE/LOWER WATER SERVICE LINES PER CITY OF COLUMBUS STD. DWG. L-7102C, WATER SERVICE RELOCATION.
8. RELOCATE EXISTING CURB STOP AND CURB BOXES PER CITY OF COLUMBUS STD. DWG. L-7102A, WATER SERVICE EXTENSION AND CURB BOX RELOCATION.
9. INSTALL NEW CURB BOX PER CITY OF COLUMBUS STD. DWG. L-9901, CURB BOX INSTALLATION 3/4" THRU 2".
10. RELOCATE/LOWER WATER LINE MAINS PER CITY OF COLUMBUS STD. DWG. L-7401, TYPICAL WATER LINE LOWERING.
11. COLUMBIA GAS AND AEP HAVE BEEN NOTIFIED AS TO THE EXTENT OF WORK BEING PERFORMED FOR THIS PROJECT. GAS AND ELECTRIC LINES TO BE RELOCATED ARE NOTED ON PLANS AS "RELOCATED BY COLUMBIA GAS" OR "RELOCATED BY AEP". GAS AND ELECTRIC LINES THAT ARE NOT TO BE RELOCATED SHALL BE BRACED AND PROTECTED BY THE CONTRACTOR DURING CONSTRUCTION. THE COST TO PERFORM SUCH WORK, INCLUDING ALL CONSTRUCTION COORDINATION, SHALL BE INCLUDED IN THE BASE BID FOR THE VARIOUS RELATED ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WORK WITH COLUMBIA GAS AND AEP PRIOR TO CONSTRUCTION.



**WATER LINE PROFILE**  
SCALE: H: 1"=20'  
V: 1"=5'

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AREA 5  
STORMWATER PLAN AND PROFILE

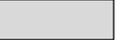
SCALE:	AS SHOWN
SHEET NAME:	C3-0
SHEET NO:	8 OF 18

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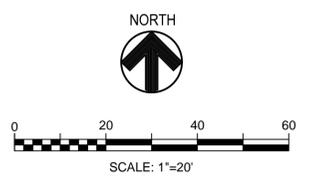


**LEGEND**

-  PAVEMENT & UTILITY CUT REPAIR PER CITY OF COLUMBUS STD. DWG. 1441
-  MILL TOP 1.25" ASPHALT LAYER, APPLY TACK COAT (ITEM 407), AND PLACE AND COMPACT ASPHALT CONCRETE SURFACE COURSE TYPE1, PG. 64-22, MEDIUM TRAFFIC (ITEM 448)

**NOTES**

- WHERE CONCRETE CURB AND GUTTER REPLACEMENT IS REQUIRED, MATCH EXISTING CURB AND GUTTER TYPE (INCLUDING UNDERDRAINS, IF PRESENT).



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AREA 5  
PAVEMENT RESTORATION PLAN

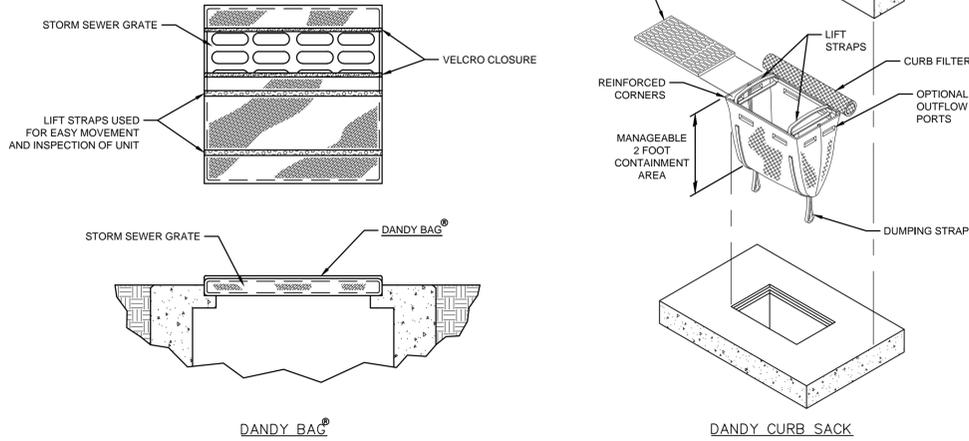
SCALE:	AS SHOWN
SHEET NAME:	C3-1
SHEET NO:	9 OF 18



AREA 5

LEGEND

- DANDY CURB SACK, DANDY BAG®, OR EQUAL
- DANDY CURB, OR EQUAL

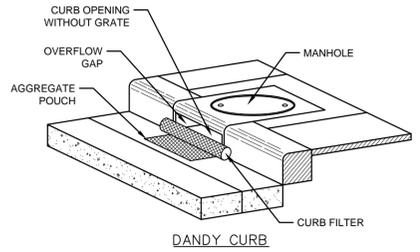


1 INLET SEDIMENT CONTROL DEVICE WITH CURB FILTER (DANDY CURB SACK AND DANDY CURB)  
SCALE: N.T.S.

NOTE: THE INLET SEDIMENT CONTROL DEVICE W/ CURB FILTER SHALL BE MANUFACTURED IN THE U.S.A. FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

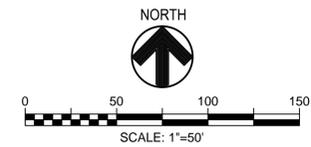
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistance	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m <sup>2</sup> (gal/min/ft <sup>2</sup> )	5907 (145)
Permittivity	ASTM D 4491	Sec <sup>-1</sup>	2.1

- DANDY CURB SACK INSTRUCTIONS**
- INSTALLATION:**
- REMOVE THE GRATE FROM THE CATCH BASIN AND STAND ON END.
  - MOVE THE TOP BY LIFTING STRAP OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY CURB SACK SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS.
  - NOW POSITION THE TOP STRAPS BACK IN PLACE SO THAT THEY ARE ON TOP OF THE GRATE.
  - GRAB TOP STRAPS AND CAREFULLY INSERT THE DANDY CURB SACK INTO GRATE FRAME.
  - MAKE SURE CYLINDRICAL PORTION IS UP AGAINST THE CURB TO PREVENT SILT, SEDIMENT, AND DEBRIS FROM ENTERING INLET HERE.
- MAINTENANCE:**
- REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF THE UNIT AFTER EACH STORM EVENT.
  - AFTER STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY CURB SACK. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED.
  - TO EMPTY UNIT, SIMPLY LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE.
  - IF USING OPTIONAL ABSORBENTS, REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.
- DANDY CURB INSTRUCTIONS**
- INSTALLATION:**
- PLACE THE DANDY CURB ON THE GROUND WITH AGGREGATE POUCH ON STREET SIDE NEAR THE INLET ON WHICH IT WILL BE INSTALLED.
  - OPEN VELCRO ACCESS POUCH LOCATED ON THE STREET SIDE OF THE UNIT.
  - IF USING OPTIONAL OIL ABSORBENTS, PLACE SOCK IN POUCH AND PUSH BACK IN POUCH.
  - FILL POUCH WITH AGGREGATE TO A LEVEL THAT WILL KEEP THE UNIT IN PLACE DURING AN EVENT AND CREATE A SEAL BETWEEN THE DANDY CURB AND THE SURFACE OF THE STREET.
  - RESEAL VELCRO ACCESS. CENTER THE UNIT AGAINST A CURB OR MEDIAN INLET OPENING SO THAT THERE IS AN EQUAL LENGTH OF THE DANDY CURB OVERHANGING ON EACH SIDE OF THE OPENING.
- MAINTENANCE:**
- REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM THE SURFACE AND VICINITY OF THE UNIT AFTER EACH STORM EVENT.
  - IF USING OPTIONAL OIL ABSORBENTS, REMOVE AND REPLACE ABSORBENTS WHEN THEY NEAR SATURATION.



LEGEND

- TREE PROTECTION FENCE
- DANDY CURB SACK, DANDY BAG®, OR EQUAL
- DANDY CURB, OR EQUAL



AREA 4

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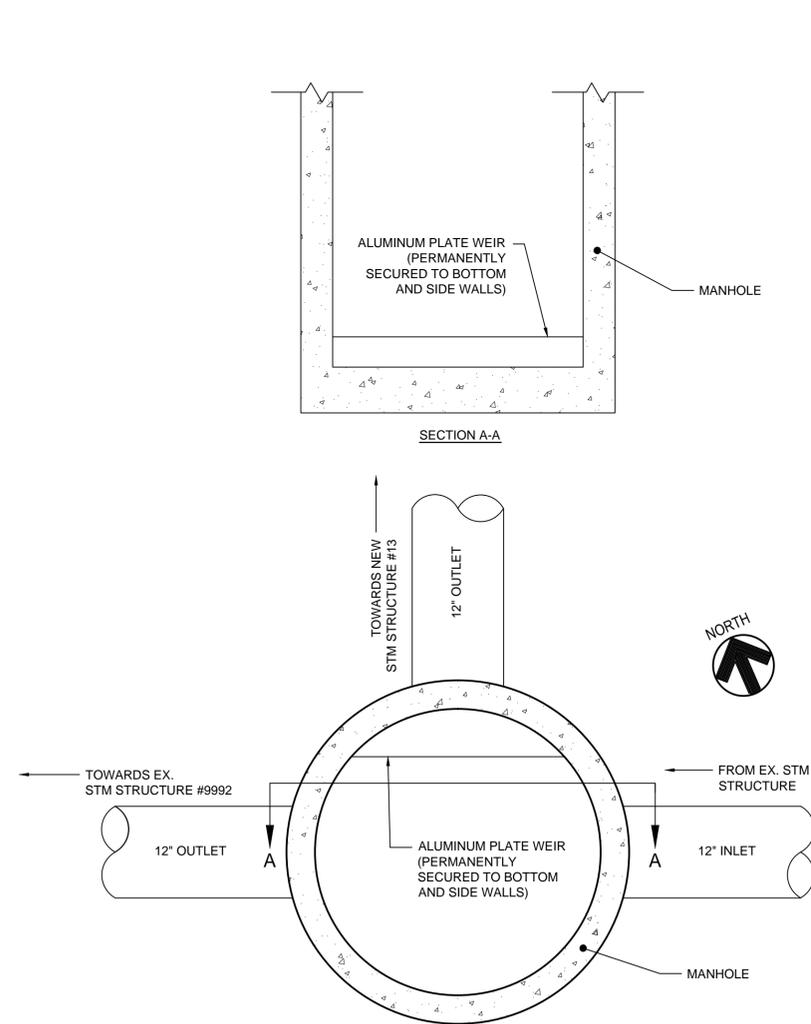
CITY OF DUBLIN, OHIO  
WATERFORD VILLAGE STORMWATER  
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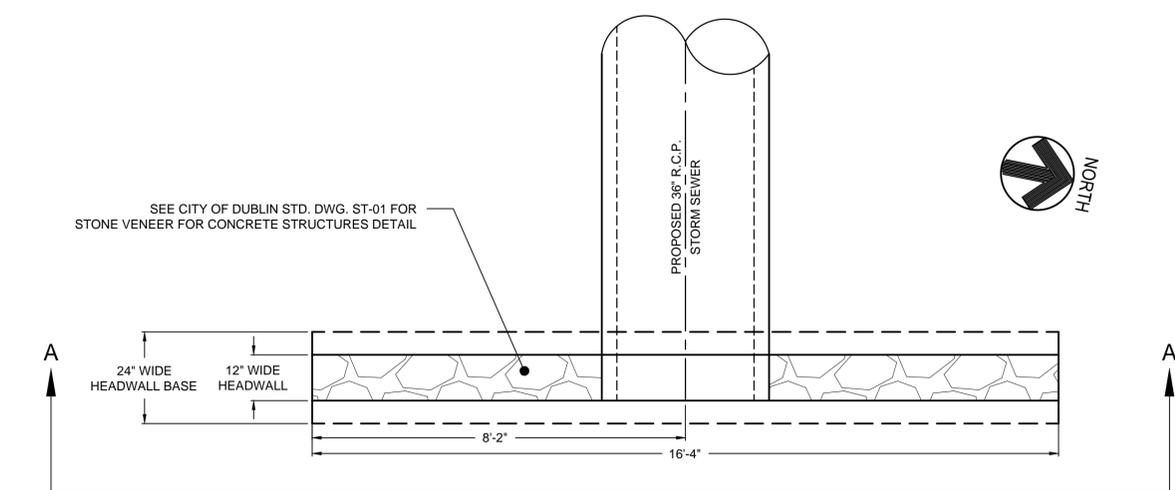
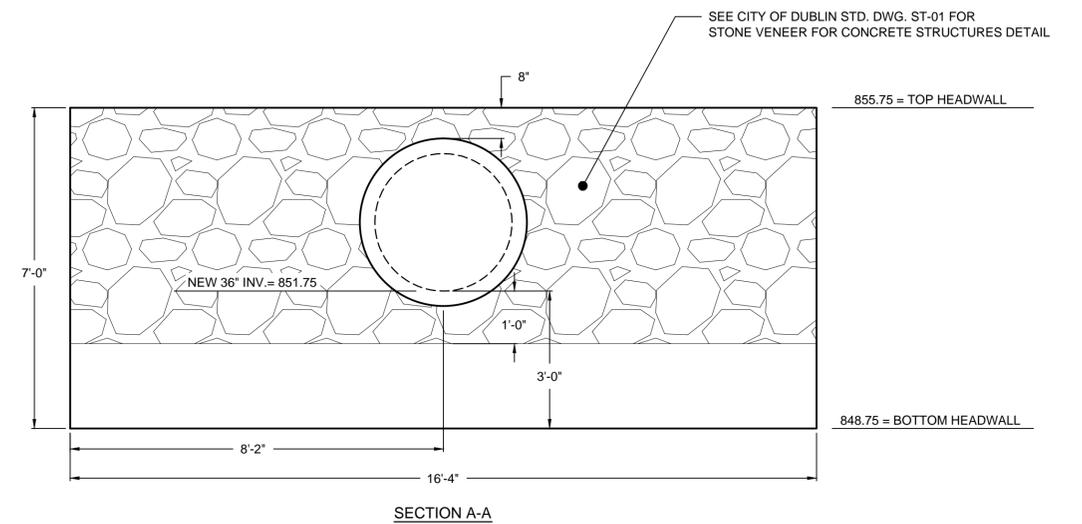
AREA 4 AND 5  
EROSION AND SEDIMENT CONTROL  
PLAN AND DETAILS

SCALE:	AS SHOWN
SHEET NAME:	C4-0
SHEET NO:	10 OF 18

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2 STORM STRUCTURE #14 DETAIL (NEW MAHNOLE W/ ALUMINUM PLATE WEIR)  
SCALE: N.T.S.



1 STORM STRUCTURE #1 DETAIL (NEW PRECAST PIPE CULVERT HEADWALL, COC STD. DWG. AA-S168)  
SCALE: N.T.S.

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SITE DETAILS

SCALE: AS SHOWN	
SHEET NAME: C5-0	SHEET NO: 11 OF 18

**GENERAL NOTES:**

**ITEM 614 - MAINTAINING TRAFFIC**

1. ALL TEMPORARY TRAFFIC CONTROL (TTC) DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (CURRENT EDITION). COPIES ARE AVAILABLE FROM THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF CONTRACTS, 1980 WEST BROAD STREET, COLUMBUS, OHIO 43216. NOTE: ALL DEVICES SHALL COMPLY, FOR CONDITION AND LOCATION, WITH THE CURRENT EDITION OF THE NCHRP 350 CRASH TESTING GUIDELINES.
2. CONSTRUCTION OPERATIONS SHALL NOT BEGIN UNTIL ALL TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE CITY. IF THE CONTRACTOR DOES NOT COMPLY WITH THE STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY PAVEMENT MARKINGS AND THE REMOVAL OF CONFLICTING TRAFFIC CONTROLS, ALL WORK SHALL BE TERMINATED. TEMPORARY PAVEMENT MARKINGS TO INCLUDE, BUT NOT LIMITED TO, CHANNELIZING LINES, EDGE LINES, AND CENTERLINES SHALL BE INSTALLED AND MAINTAINED ON ALL CONSTRUCTION OPERATIONS LASTING A MINIMUM OF 14 CALENDAR DAYS OR AS DIRECTED BY THE CITY ENGINEER.
3. TYPE C STEADY-BURN OR TYPE D 360-DEGREE STEADY-BURN WARNING LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS, AND SIMILAR TRAFFIC CONTROL DEVICES IN USE AT NIGHT. ONLY 42" REFLECTORIZED CHANNELIZING DEVICES (CONES) SHALL BE PERMITTED FOR NIGHTTIME WORK WITH THE APPROVAL OF THE CITY ENGINEER, PER O.D.O.T. STANDARDS.
4. A FLASHING ARROW PANEL (48" X 96"-TYPE C) SHALL BE USED FOR LANE CLOSURES ON FRANTZ ROAD AS PER THE OHIO MANUAL.
5. ALL TRENCHES WITHIN THE ROAD RIGHT-OF-WAY SHALL BE BACKFILLED OR SECURELY PLATED DURING NON-WORKING HOURS.
6. ACCESS FROM PUBLIC ROADWAYS TO ALL ADJOINING PROPERTIES FOR EXISTING RESIDENTS OR BUSINESSES SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT FOR MAIL, PUBLIC WATER AND SANITARY SEWER SERVICE, AND EMERGENCY VEHICLES. THE CONTRACTOR SHALL PROVIDE A PLAN DETAILING HIS PROCEDURES FOR TRENCHING IN FRONT OF EXISTING DRIVEWAYS AND ACROSS AVON COURT. THE TRAFFIC CONTROL PLAN MUST BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL NOTIFY THE RESIDENTS OF EACH PROPERTY A MINIMUM OF 48 HOURS BEFORE ANY OPERATION THAT WILL INVOLVE TRENCHING IN FRONT OF THEIR DRIVEWAY. THE NOTIFICATION SHALL CONSIST OF THE ANTICIPATED DATE AND TIME WORK WILL BEGIN, THE ANTICIPATED TIME WORK WILL MOVE AWAY FROM THE DRIVEWAY, AND A SUGGESTION ON WHERE TO PARK ANY VEHICLES THE RESIDENTS MAY WANT TO BE AVAILABLE DURING THE PERIOD.
8. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE CITY OF DUBLIN FOR THE PLACEMENT OF TEMPORARY NO PARKING SIGNS WITHIN THE WORK AREA.
9. THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE CITY INSPECTOR. THE COST SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.
10. TRAFFIC SHALL BE MAINTAINED AS FOLLOWS:
  - a. ALL LANES OF FRANTZ ROAD SHALL BE OPEN BETWEEN THE HOURS OF 6:00 AM AND 9:00 AM AND BETWEEN THE HOURS OF 3:00 PM AND 6:00 PM MONDAY THRU FRIDAY.
  - b. THE WORK REQUIRED TO CROSS FRANTZ ROAD SHALL TAKE PLACE DURING TWO CONSTRUCTION PHASES THIS WORK SHALL TAKE PLACE OVER TWO WEEKENDS, BETWEEN 6:00 PM FRIDAY AND 6:00 AM MONDAY. DURING THE FIRST PHASE, BETWEEN MH 8 AND MH 9, THE NORTHBOUND AND SOUTHBOUND RIGHT LANES MAY BE CLOSED IN ACCORDANCE WITH MT-95.30. THE NORTHBOUND LANE SHALL BE CROSSED OVER TO THE OTHER SIDE OF THE MEDIAN OF FRANTZ ROAD BETWEEN STATIONS STA. 104+00 AND STA. 109+50. DURING THE SECOND PHASE, BETWEEN MH 9 AND MH 9A, THE NORTHBOUND AND SOUTHBOUND LEFT LANES MAY BE CLOSED IN ACCORDANCE WITH MT-95.30. THE SOUTHBOUND LANE SHALL BE CROSSED OVER TO THE OTHER SIDE OF THE MEDIAN OF FRANTZ ROAD BETWEEN STA. 104+00 AND STA. 109+50. A UNIFORMED OFF-DUTY POLICE OFFICER SHALL BE STATIONED AT EACH END OF THE CROSSOVER TO CONTROL TRAFFIC WITHIN EACH INTERSECTION. THIS WORK SHALL NOT TAKE PLACE DURING A MAJOR EVENT WEEKEND, AS DETERMINED BY THE CITY.
  - c. LONGBRANCH DRIVE SHALL BE CLOSED TO THRU TRAFFIC WITHIN THE LIMITS OF THE PROJECT, AS SHOWN ON THE PLANS. ONE LANE, TWO WAY TRAFFIC SHALL BE MAINTAINED DURING WORKING HOURS AS PER MT-97.10. UNIFORMED OFF-DUTY POLICE OFFICERS SHALL REPLACE THE FLAGGERS DESIGNATED IN THE STANDARD DRAWING. POLICE CRUISERS MAY BE REQUIRED AS DIRECTED BY THE CITY ENGINEER.  
  
THE APPROACH TO THE FRANTZ ROAD SIGNAL, BETWEEN THE FRANTZ ROAD CURB LINE AND STATION 2+00 SHALL BE KEPT CLEAR OF EQUIPMENT AND DEBRIS AT ALL TIMES, EXCEPT WHEN ACTUAL WORK IS IN PROGRESS IN THE AREA. WHEN WORK IN THIS AREA IS NECESSARY, A UNIFORMED OFF-DUTY POLICE OFFICER SHALL BE PRESENT TO ASSIST TRAFFIC AT THE INTERSECTION.
  - d. ALL LANES OF MONTEREY DRIVE AND WATERFORD DRIVE SHALL BE OPEN TO TRAFFIC BETWEEN THE HOURS OF 7:00 AM AND 9:00 AM AND BETWEEN 4:00 PM AND 6:00 PM MONDAY THRU FRIDAY. A FULL CLOSURE OF MONTEREY DRIVE (BETWEEN STONEWALL COURT AND OLD SPRING LANE) AND WATERFORD DRIVE (BETWEEN MONTEREY DRIVE AND STONEFENCE LANE) SHALL BE MAINTAINED DURING WORKING HOURS (9:00 AM - 4:00 PM) AS PER MT-101.60. POLICE CRUISERS MAY BE REQUIRED AS DIRECTED BY THE CITY ENGINEER. THE ROAD CLOSURE SIGNS AND "NO THRU TRAFFIC" PCMS MESSAGE (SHEET 14) SHALL BE DISPLAYED DURING THE CLOSURE PERIOD. THESE SIGNS SHALL BE COVERED OR REMOVED AND THE PCMS MESSAGES CHANGED TO "M-F 9A-4P" WHEN THE STREET IS OPEN TO TRAFFIC.
11. CONSTRUCTION OPERATIONS SHALL NOT TAKE PLACE IN RESIDENTIAL AREAS BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM.
12. UNDERGROUND TRAFFIC CONTROL CABLES SHALL BE LOCATED AND MARKED BY OHIO UTILITIES PROTECTION SERVICE. THE CITY ENGINEER SHALL BE CONTACTED AT LEAST FORTY-EIGHT (48) HOURS (EXCLUDING SAT. & SUN.) PRIOR TO THE BEGINNING OF ANY WORK WITHIN 450 FEET OF ANY SIGNALIZED INTERSECTION(S) OR WITHIN ANY POSTED AREA WHERE THE CITY HAS UNDERGROUND CABLE.

THE CONTRACTOR SHALL AVOID CUTTING OR OTHERWISE DAMAGING ANY SIGNAL CABLE. IF ANY SIGNAL CABLE AND CONDUIT MUST BE RELOCATED, THE CONTRACTOR SHALL CONTACT THE CITY ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO BEGINNING EXCAVATION IN THE AREA TO WORK OUT A PLAN FOR MAINTAINING THE FUNCTION OF THE TRAFFIC SIGNAL.

IF THE CONTRACTOR CAUSES ANY TRAFFIC SIGNAL DISPLAYS OR FUNCTIONS TO GO OUT OF SERVICE, THE CITY WILL ASSIGN A UNIFORMED POLICE OFFICER TO CONTROL TRAFFIC UNTIL SUCH TIME AS SERVICE IS RESTORED. THE COST OF THE POLICE OFFICER AND EMERGENCY REPAIRS WILL BE BILLED TO THE CONTRACTOR.

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

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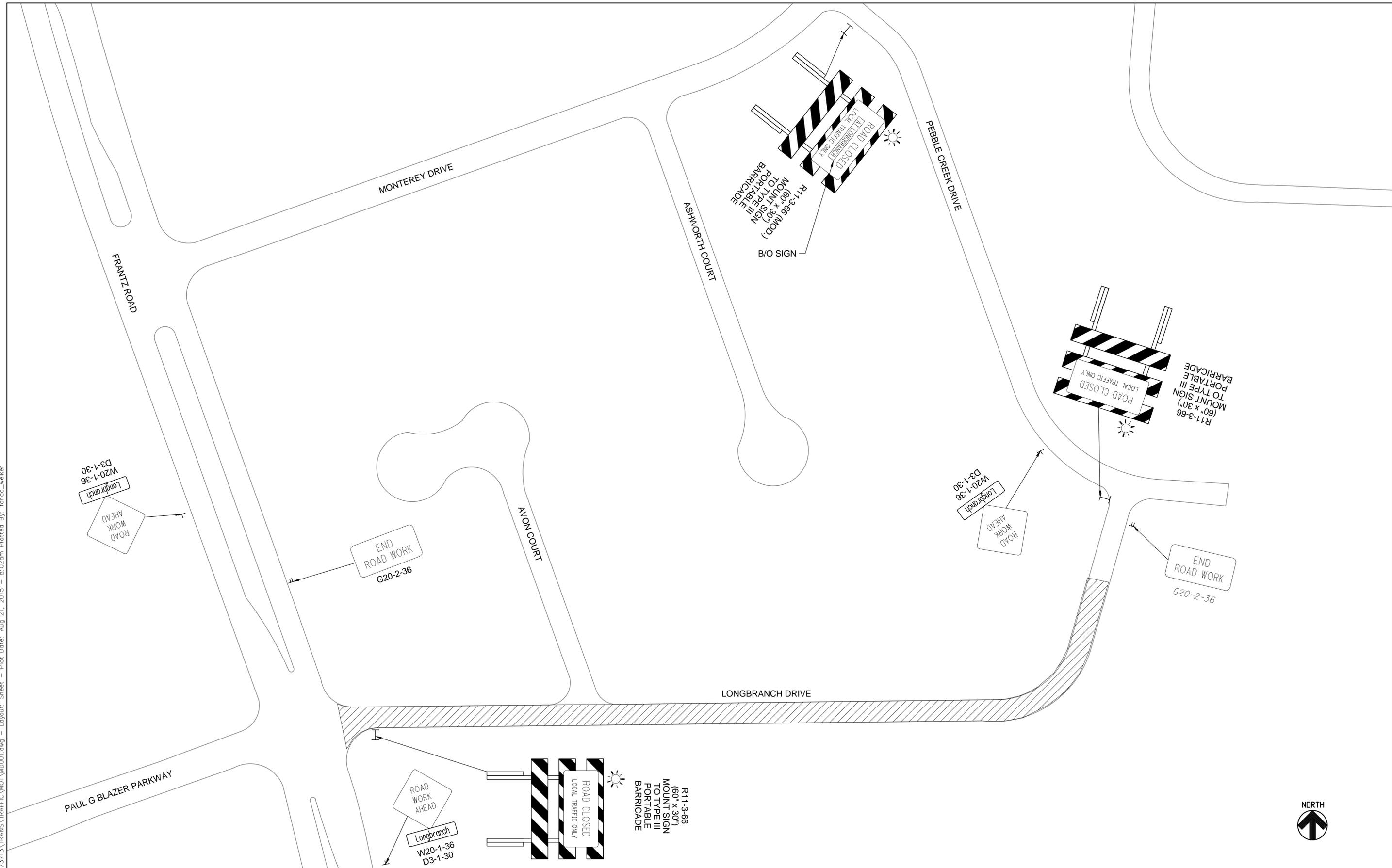
CITY OF DUBLIN, OHIO  
WATERFORD VILLAGE STORMWATER  
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APPROVED BY:	WJ
DATE:	7/15/2015

MOT GENERAL NOTES AND QUANTITIES

SCALE: AS SHOWN	
SHEET NAME: C6-0	SHEET NO: 12 OF 18

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 WATERFORD VILLAGE STORMWATER  
 IMPROVEMENTS  
 14-017-CIP

JOB NO:	14573713
DESIGNED BY:	KTH
DRAWN BY:	KTH
CHECKED BY:	WJ
APPROVED BY:	WJ
DATE:	7/15/2015

MOT AREA 4 APPROACH SIGNS

SCALE: 1" = 50'	
SHEET NAME: C6-1	SHEET NO: 13 OF 18

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 650 FEET AND 475 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE SHOWN ON SHEET(S) OF THE PLAN. PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN ARE SHOWN ON THE PLAN. THEY MAY BE REVISED BY THE CITY ENGINEER AS NEEDED. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

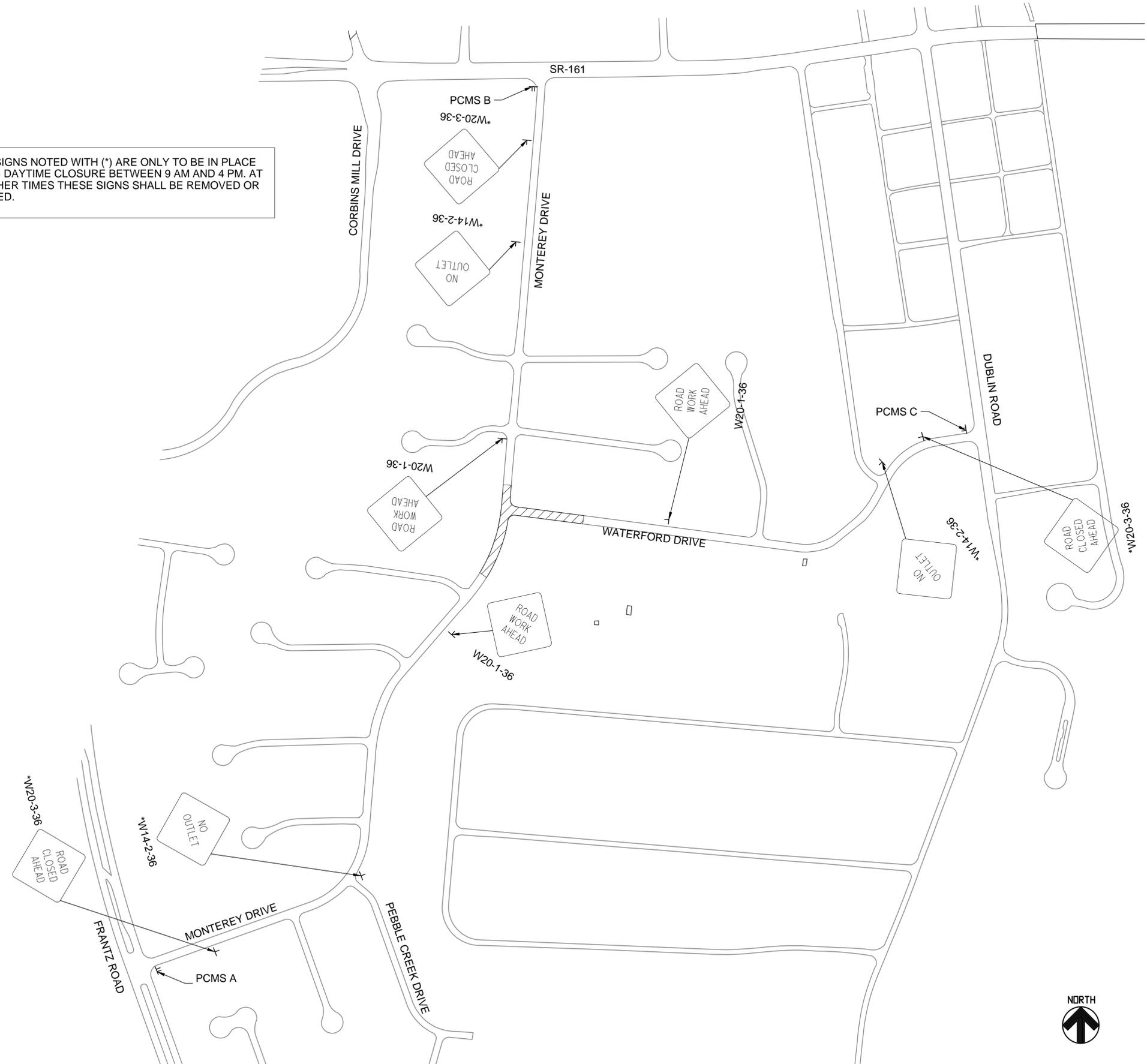
THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE CITY TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE CITY DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTENANCE OF TRAFFIC. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

NOTE: SIGNS NOTED WITH (\*) ARE ONLY TO BE IN PLACE DURING DAYTIME CLOSURE BETWEEN 9 AM AND 4 PM. AT ALL OTHER TIMES THESE SIGNS SHALL BE REMOVED OR COVERED.



PCMS A & B PCMS CLASS A OR B	MONTEREY CLOSED AT WATERFORD	M - F 9AM - 4PM	NO THRU TRAFFIC
		DURING NON CLOSURE TIMES	DURING CLOSURE TIMES
PCMS C PCMS CLASS A OR B	WATERFORD CLOSED AT MONTEREY	M - F 9AM - 4PM	NO THRU TRAFFIC
		DURING NON CLOSURE TIMES	DURING CLOSURE TIMES

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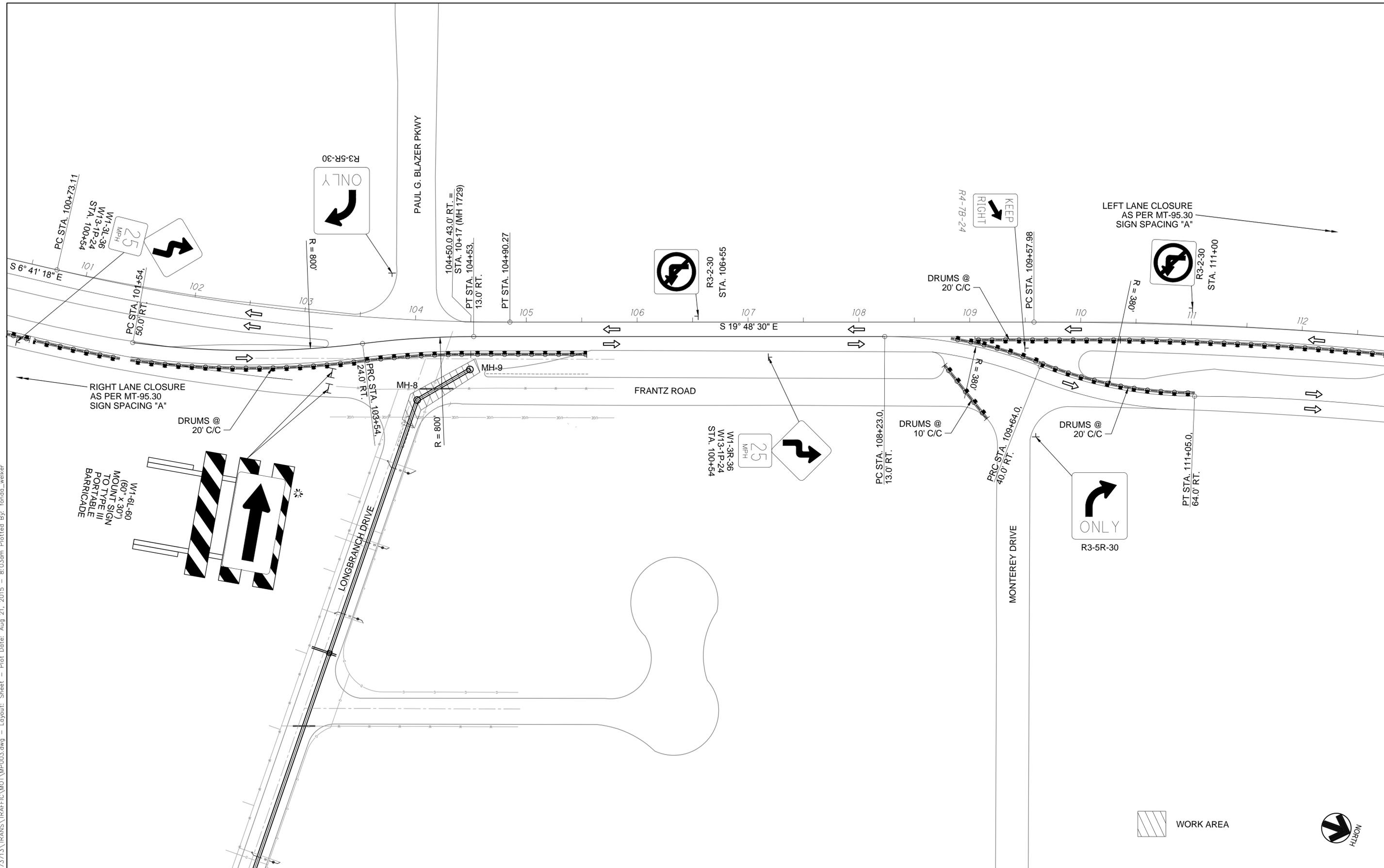
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MOT AREA 5 APPROACH SIGNS

SCALE:	1" = 200'
SHEET NAME:	C6-2
SHEET NO:	14 OF 18

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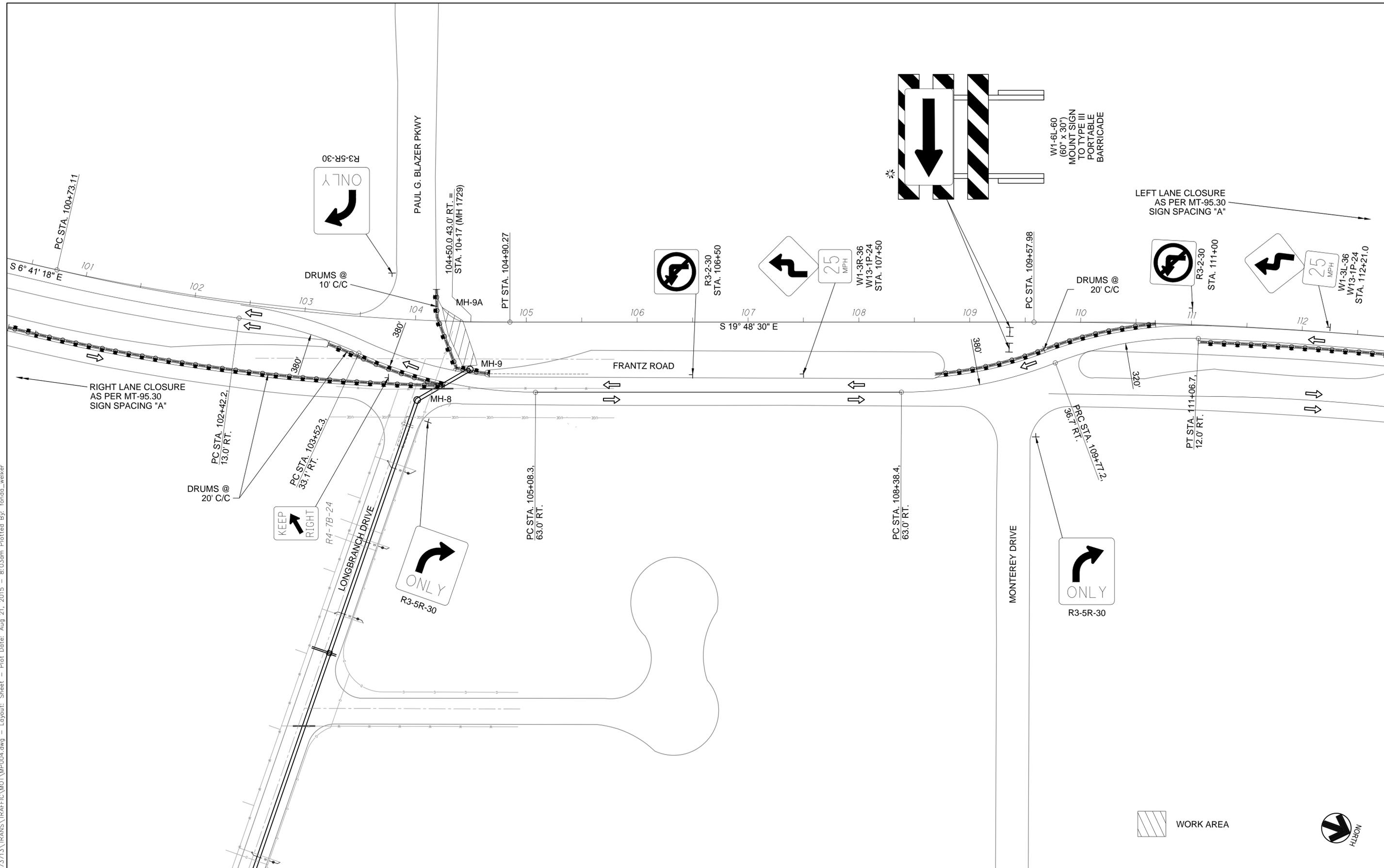
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MOT PLAN AREA 4 - PHASE 1 - FRANTZ ROAD

SCALE:	1" = 40'
SHEET NAME:	C6-3
SHEET NO:	15 OF 18

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 IMPROVEMENTS – AREA 4 AND 5  
 14-017-CIP

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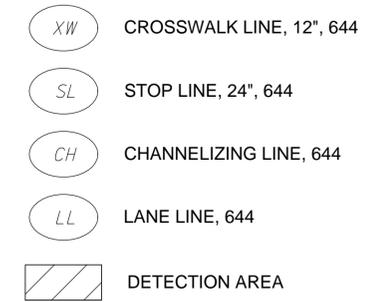
MOT PLAN AREA 4 – PHASE 2 – FRANTZ ROAD

SCALE:	1" = 40'
SHEET NAME:	C6-4
SHEET NO:	15 OF 17



REPLACEMENT DETECTION AT LONGBRANCH

1. THE EXISTING LOOP DETECTOR ON THE EAST APPROACH TO FRANTZ ROAD WILL BE REMOVED BY THIS PROJECT. TEMPORARY VIDEO DETECTION SHALL BE PROVIDED AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL REPLACE THE LOOP DETECTOR IN THE ORIGINAL LOCATION. THE WORK TO INSTALL THE DETECTION SHALL CONFORM TO O.D.O.T. STANDARD CONSTRUCTION DRAWING TC-82.10 (DATED 10/18/13 OR LATER) AND TO THE CURRENT STATE OF OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS WITH THE FOLLOWING PROVISIONS:
  - a) THE CONTRACTOR SHALL PROVIDE THE CITY, PRIOR TO THE COMMENCEMENT OF WORK, THE IMSA (INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION) CERTIFICATION PAPERS FOR ALL SIGNAL TECHNICIANS WORKING ON THIS PROJECT.
  - b) THE SAW SLOT DEPTH FOR LOOP WIRE INSTALLATION SHALL BE FOUR (4) INCHES WITH SIX (6) INCHES AT THE CONDUIT ENTRANCE. IF ADVERSE PAVEMENT CONDITIONS WARRANT, DEPTH MAY BE INCREASED TO SIX (6) INCHES THROUGHOUT AND SHALL BE DETERMINED BY THE CITY ENGINEER.
  - c) EACH LOOP SHALL HAVE ITS OWN CONDUIT FROM EDGE OF PAVEMENT TO PULL BOX UNLESS SPECIFIED OTHERWISE BY THE CITY ENGINEER.
  - d) THE SOLDERED SPLICE SHALL BE MADE IN THE EXISTING PULLBOX.
  - e) THE CONTRACTOR SHALL NOT MAKE ANY WIRING CONNECTIONS OR ADJUSTMENTS INSIDE THE CONTROL CABINET. WHEN SUCH CONNECTIONS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER TO SCHEDULE CITY FORCES FOR MAKING THE ACTUAL CONNECTIONS. THE CONTRACTOR SHALL BE AVAILABLE AT THE AGREED TIME. THE CONTRACTOR WILL BE BILLED FOR ANY TIME THAT CITY FORCES ARE REQUIRED TO WAIT FOR THE CONTRACTORS' WORK TO BE COMPLETED.
  - f) THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER AFTER ALL LOOPS HAVE BEEN INSTALLED AT EACH INTERSECTION. THE CITY SHALL INSPECT ALL SENSORS AND TEST AS NECESSARY. THE CONTRACTOR SHALL REPLACE ALL LOOPS NOT MEETING SPECIFICATIONS.



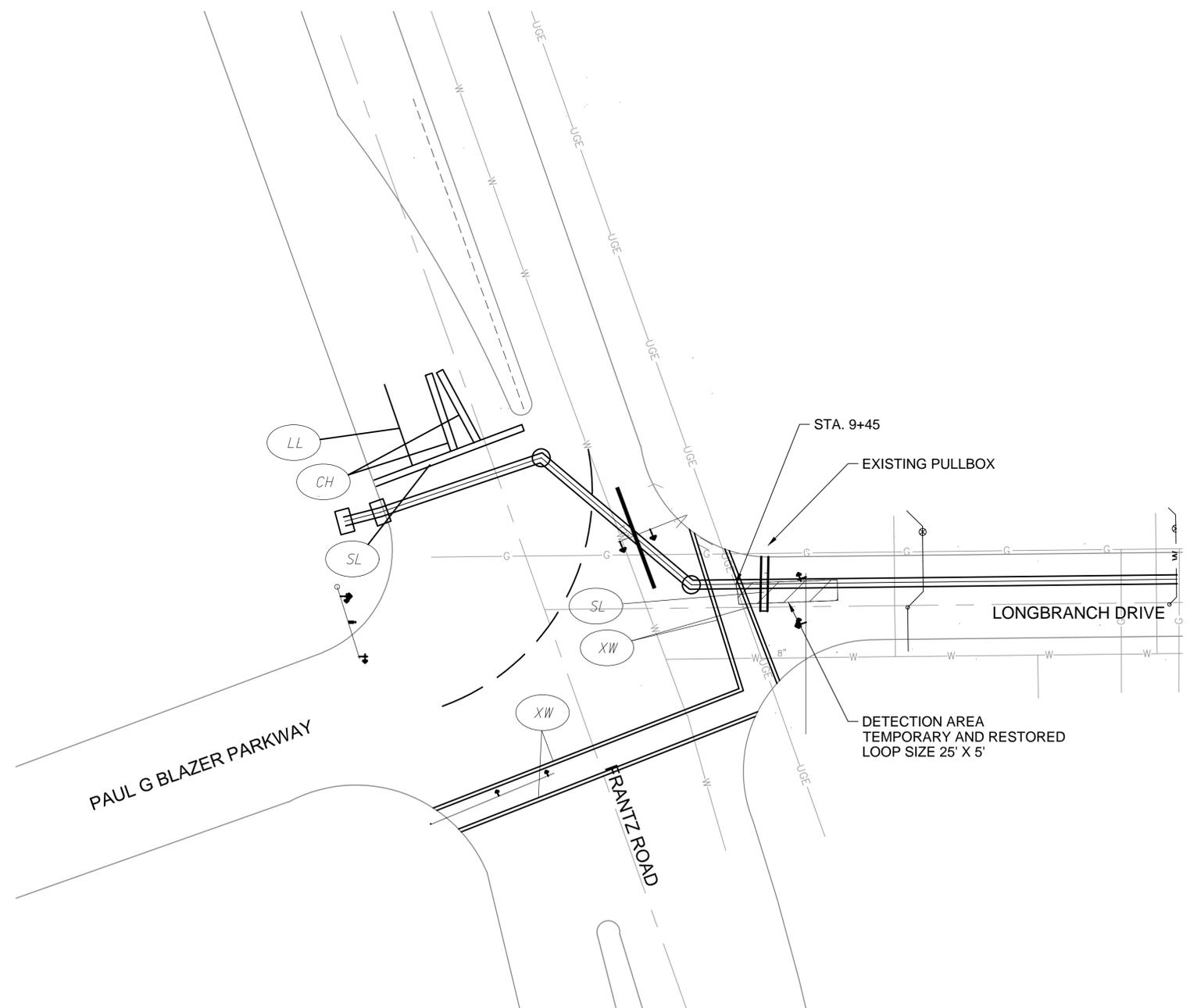
ITEM 632 VIDEO DETECTION SYSTEM, AS PER PLAN

THE CONTRACTOR SHALL SUPPLY AND INSTALL A TEMPORARY VIDEO DETECTION SYSTEM FOR THE PURPOSE OF VEHICULAR DETECTION AND THE EXTENSION OF A LOCAL PHASE GREEN INTERVAL. THE VIDEO DETECTION SYSTEM SHALL CONSIST OF THE ITERIS VERSICAM FLEX RACK-MOUNT SYSTEM, ITERIS MODEL NO. VCFLEXSM-PAK, INCLUDING THE VERSICAM FLEX INTEGRATED CAMERA PROCESSOR, SHELF-MOUNT INTERFACE COMMUNICATION CONTROLLER, POWER CABLE, MONITOR CABLE, MATING CONNECTOR, AND MOUSE; MOUNTING BRACKET ASSEMBLY, ITERIS MODEL NO. CAMBRKT4; EDCO SURGE PROTECTOR, EDCO PART NO. HVCP-48; AND IMSA 39-2, 3-PAIR, 19AWG, STRANDED COMMUNICATION CABLE OF AN APPROPRIATE LENGTH TO RUN FROM THE CAMERA AND CONNECT TO THE INTERFACE COMMUNICATION CONTROLLER IN THE CONTROLLER CABINET.

THIS SYSTEM SHALL BE USED THROUGHOUT THE PROJECT DURATION UNTIL ALL PROPOSED SENSORS (SIDE STREET, ALL MAINLINE NEAR THROUGH FOR NON-COORDINATED SIGNALS AND, IF PRESENT, DUAL MAINLINE LEFT TURNS) ARE FUNCTIONING FOR THAT GIVEN APPROACH. THE CONTRACTOR SHALL HAVE THIS SYSTEM OPERATING WHEN ANY APPROACH SENSOR THAT THE UNIT IS REPLACING HAS BEEN DESTROYED OR RENDERED INOPERABLE FOR THE CURRENT TRAFFIC FLOW PATTERN. THE SYSTEM NEED NOT OPERATE IF THE EXISTING OR PROPOSED SENSORS ARE OPERATING AND DETECTING VEHICLES. THE CAMERA SHALL BE BRACKET MOUNTED AND BANDED TO A FAR-SIDE MAST ARM AS SHOWN ON THE PLANS. THE "U" BRACKET OF THE MOUNTING BRACKET ASSEMBLY SHALL BE REMOVED. ALTERNATE POSITIONING OF THE CAMERA SHALL BE PERMITTED ONLY WITH APPROVAL BY THE CITY. THE CAMERA SHALL BE MOUNTED AS HIGH AS POSSIBLE AND AIMED SO THE SYSTEM DETECTS INCOMING VEHICLES AT A DISTANCE FROM THE STOP LINE BACK 100 TO 200 FEET FOR THE MAINLINE AND 30 TO 50 FEET FOR THE SIDE STREET. PERSONNEL FROM THE CITY SHALL APPROVE THE FINAL POSITIONING OF THIS CAMERA. THE COMMUNICATION CABLE SHALL BE TEMPORARILY ROUTED OVER EXISTING OR PROPOSED SPAN AND ATTACHED BY USING PLASTIC TIE WRAPS. IN CASES WHERE NO SPAN EXISTS, THE CONTRACTOR SHALL INSTALL 1/4" MESSENGER WIRE. THE INSTALLATION AND REMOVAL OF MESSENGER WIRE SHALL BE INCIDENTAL TO THIS ITEM.

WHEN THE USE OF THE VIDEO DETECTION SYSTEM IS NO LONGER REQUIRED, THE CONTRACTOR SHALL REMOVE ALL COMPONENTS OF THE SYSTEM, INCLUDING COMMUNICATION CABLE, AND DELIVER THEM TO THE CITY OF DUBLIN, DIVISION ENGINEERING, AT 5800 SHIER-RINGS ROAD. THE CONTRACTOR SHALL CONTACT THE CITY TWENTY-FOUR (24) HOURS, NOT INCLUDING SATURDAY AND SUNDAY, IN ADVANCE TO SCHEDULE DELIVERY.

REMOVAL, REPAIR, AND DELIVERY OF THE VIDEO DETECTION SYSTEM COMPONENTS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.



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TRAFFIC CONTROL PLAN AREA 4

SCALE: 1" = 20'	
SHEET NAME: C6-5	SHEET NO: 16 OF 18

