MANCHESTER COURT PARKING LOT RETAINING WALL AND PAVEMENT IMPROVEMENTS

CITY OF CUYAHOGA FALLS SUMMIT COUNTY, OHIO

APPROVALS BY:

CITY OF CUYAHOGA FALLS

DON WALTERS, MAYOR DATE

Tony V. Demasi 4/27/2020
TONY DEMASI, CITY ENGINEER DATE

ANTHONY ZUMBO, SERVICE DIRECTOR DATE

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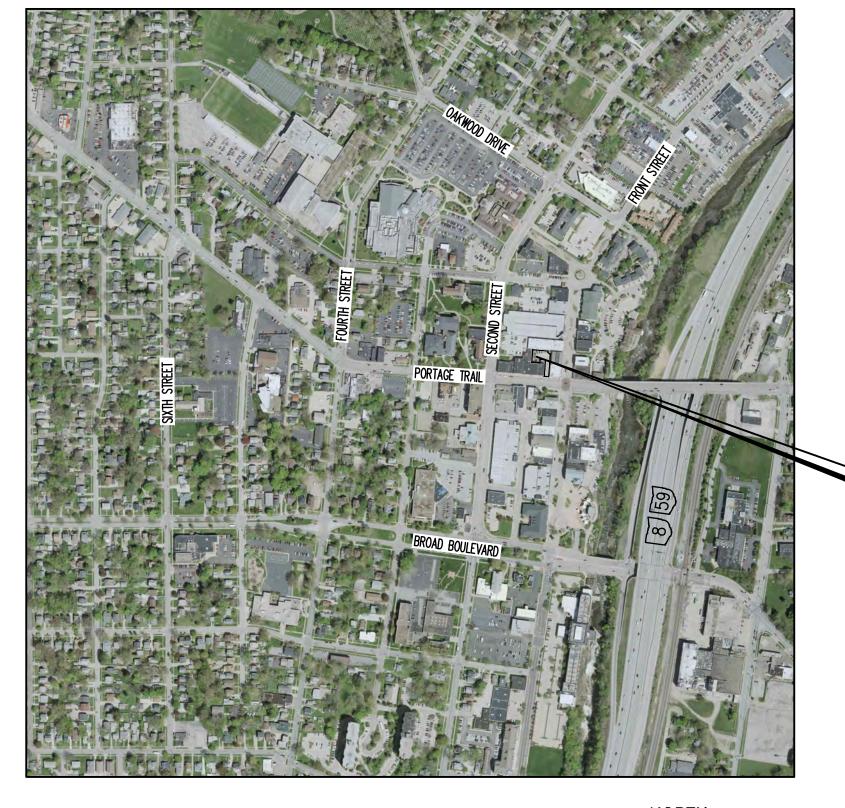
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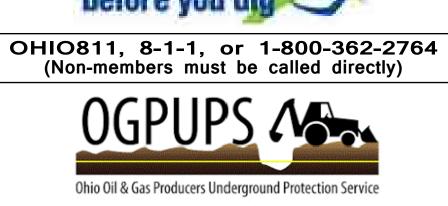


PROJECT

LOCATION

PLANS PREPARED BY:





1-800-925-0998

UNDERGROUND UTILITIES

Ohio Utilities Protection Service

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MANCHESTER

COURT PARKING

LOT RETAINING

WALL AND

PAVEMENT

IMPROVEMENTS

CUYAHOGA FALLS, OHIO 44221

2 4 5

SCOPE OF WORK

- 1. THE CONTRACTOR'S RESPONSIBILITIES INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION PROCEDURES, MATERIALS, INSTALLATION SEQUENCE AND COORDINATION WITH THE OWNER
- 2. THE CONTRACTOR SHALL SECURE AND PAY FOR ANY AND ALL LICENSES, GOVERNMENT FEES, AND PERMITS THAT MAY BE REQUIRED TO PROPERLY EXECUTE AND COMPLETE THE WORK. COMPLY WITH ALL APPLICABLE CODES, RULES, ORDINANCES AND OTHER LEGAL REQUIREMENTS.
- 3. THE CONTRACTOR SHALL IMMEDIATELY LOCATE ALL REFERENCE POINTS, LAYOUT WORK, AND BE RESPONSIBLE FOR ALL MEASUREMENTS AND OTHER WORK TO BE EXECUTED UNDER THE CONTRACT. VERIFY ALL FIGURES SHOWN ON THE PLANS, VERIFY ALL DIMENSIONS OF ANY EXISTING AND NEW WORK, BE RESPONSIBLE FOR THEIR ACCURACY, AND SUBMIT ANY DIFFERENCES FOUND TO THE OWNER BEFORE PROCEEDING WITH THE WORK. NO EXTRA COMPENSATION WILL BE PERMITTED BECAUSE OF DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND MEASUREMENTS INDICATED ON THE DRAWINGS.
- 4. DETAILS AND DIMENSIONS SHOWN ON THIS PLAN PERTAINING TO THE EXISTING UTILITIES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING FACILITIES AND DO NOT NECESSARILY REPRESENT AS BUILT CONDITIONS. THE CONTRACT BID PRICES SHALL BE BASED ON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON AN EXAMINATION OF THE WORK SITE BY THE CONTRACTOR. ALL PROJECT WORK SHALL BE BASED UPON THE ACTUAL DETAILS AND DIMENSIONS PRESENTED ON THIS PLAN AND SPECIFICATIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

MATERIAL TESTING AND PERMITS

- 1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED FOR THIS PROJECT.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ALL MATERIAL TESTING. MATERIAL TESTING IS REQUIRED FOR ALL CONCRETE (INCLUDING PAVEMENT AND RETAINING WALLS) AND AGGREGATE FOR TRENCH BEDDING AND BACKFILL.

STANDARDS & SPECIFICATIONS

1. ALL ITEM NUMBERS REFER TO THE LATEST EDITION OF THE CITY OF CUYAHOGA FALLS CONSTRUCTION SPECIFICATIONS, SUPPLEMENTED BY THE 2019 OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIALS SPECIFICATIONS, THE LATEST EDITION OF THE CITY CONSTRUCTION SPECIFICATIONS ARE AVAILABLE AT THE FOLLOWING WEB PAGE:

https://www.cityofcf.com/departments/engineering/ construction-specifications

- ALL EQUIPMENT, MATERIAL, AND WORKMANSHIP SHALL BE PERFORMED ACCORDING TO THESE SPECIFICATIONS.
- 2. ODOT STANDARD CONSTRUCTION DRAWING CB-2.2 (DATED 7-20-18) SHALL BE CONSIDERED A PART THEREOF FOR THIS PROJECT. THIS SCD IS AVAILABLE ON THE ODOT WEB SITE: www.dot.state.oh.us/drrc/Pages/default.aspx

PLAN DISCREPANCIES

- 1. ANY DISCREPANCIES FROM THE PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND THE ENGINEER SO THAT THE APPROPRIATE ADJUSTMENTS IN ALIGNMENT AND/OR GRADE MAY BE MADE PRIOR TO THE START OF CONSTRUCTION OR THE CONTINUATION OF THE ABOVE.
- 2. FAILURE BY THE CONTRACTOR TO VERIFY AND/OR DETERMINE EXISTING INFORMATION AS INDICATED WILL RESULT IN THE CONTRACTOR BEING RESPONSIBLE FOR ANY CHANGES NECESSARY TO COMPLETE THE WORK SPECIFIED WITHOUT ADDITIONAL COMPENSATION.

PLAN MODIFICATION

1. ANY MODIFICATIONS TO THE NOTES OR CHANGES TO THE WORK AS SHOWN ON THESE PLANS MUST HAVE THE PRIOR WRITTEN APPROVAL OF THE OWNER.

SAFETY

- 1. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF THE PUBLIC (INCLUDING EMPLOYEES), WORKERS, GENERAL PUBLIC AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE. MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS. PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- 2. THE CONTRACTOR SHALL PROPERLY SUPPORT AND/OR MAINTAIN ALL EXCAVATIONS PER APPLICABLE SAFETY REQUIREMENTS AND COMPLY WITH ALL O.S.H.A. REGULATIONS. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER OF THE PROJECT'S ASSIGNED "COMPETENT PERSON" IN OSHA EXCAVATION STANDARDS.
- 3. PUBLIC STREETS SHALL BE KEPT CLEAN AND FREE OF DEBRIS (MUD, STONE, ETC.) AT ALL TIMES.
- 4. THE CONTRACTOR SHALL ALERT ALL LOCAL EMERGENCY AGENCIES (FIRE, POLICE, AMBULANCE, ETC.) OF THE NATURE OF THE PROPOSED PROJECT PRIOR TO BEGINNING AND CONSTRUCTION ACTIVITY. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES IN THE SITE.

INSPECTION

1. ALL WORK REQUIRED FOR THIS IMPROVEMENT SHALL BE SUBJECT TO INSPECTION BY THE CITY OF CUYAHOGA FALLS ENGINEERING DEPARTMENT, ELECTRIC DEPARTMENT, FIRE DEPARTMENT AND THE BUILDING DEPARTMENT OR THEIR DESIGNATED REPRESENTATIVE. THE CONTRACTOR SHALL GIVE A 48 HOUR NOTICE UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS BEFORE STARTING ANY WORK ON THIS PROJECT.

EXISTING CONDITIONS:

1. THE EXISTING CONDITIONS SHOWN ON THESE PLANS ARE TAKEN FROM A TOPOGRAPHIC SURVEY PREPARED BY KAESTROM SURVEY AND MAPPING, LLC, AND DATED OCTOBER 2019. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS WITHIN THE PROJECT LIMITS. ITEMS THAT ARE MISSING OR VARY FROM THE PLANS ARE TO BE REPORTED TO THE OWNER AND OSBORN ENGINEERING COMPANY PRIOR TO COMMENCEMENT OF THIS PROJECT.

UTILITIES

- 1. NOTICE SHALL BE GIVEN TO THE OHIO UTILITIES PROTECTION SERVICE (OUPS) TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES.
- 2. THERE ARE PRIVATE AND PUBLIC UNDERGROUND UTILITY LINES AND SERVICES THAT ARE LOCATED WITHIN THE PROJECT LIMITS. THESE INCLUDE, BUT ARE NOT LIMITED TO, ELECTRIC, FIRE ALARM, AND TELEPHONE LINES. THE LOCATIONS AS SHOWN ON THE DRAWINGS ARE FROM RECORD PLANS AND FIELD MARKINGS AND ARE APPROXIMATE ONLY, AND THE UTILITY DEPTHS ARE UNKNOWN. THE CONTRACTOR IS RESPONSIBLE TO IDENTIFY THESE LINES AND RELOCATE THEM AS NECESSARY TO AVOID CONFLICT WITH THE PROPOSED WORK. UNLESS OTHERWISE NOTED ON THE PLANS. AND COORDINATE THIS WORK WITH THE RESPECTIVE UTILITY OWNER. IF RELOCATION OF THE UTILITY IS NOT POSSIBLE. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE CITY FOR DIRECTION.
- 3. LISTED BELOW ARE ALL UTILITIES WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

CUYAHOGA FALLS ELECTRIC DEPARTMENT 2550 BAILEY ROAD CUYAHOGA FALLS, OHIO 44221 MICHAEL DOUGHERTY 330-971-8060

CUYAHOGA FALLS WATER DEPRIMENT 2560 BAILEY ROAD CUYAHOGA FALLS, OHIO 44221 330-971-8130

TELEPHONE AT&T

50 EAST BOWERY STREET, 6TH FLOOR AKRON, OHIO 44308 LUCIE HINSHAW 330-384-3048

CONSTRUCTION SEQUENCE:

THE FOLLOWING ANTICIPATED CONSTRUCTION SEQUENCE MAY BE AMENDED BY THE CONTRACTOR, PROVIDED THAT THE INTENT OF THE PROJECT AND ALL REQUIREMENTS OF THESE DRAWINGS AND

- THE CITY OF CUYAHOGA FALLS IS MAINTAINED:
- 1. CLOSE THE PARKING LOT BY PLACING FENCES AND ACCESS GATES WHERE INDICATED ON THE ENTRANCE ACCESS PLAN. SHEET NO. 2.
- 2. CONSTRUCT THE TEMPORARY STAIRS FROM THE MID-LEVEL DOORWAYS TO THE EXISTING PARKING LOT.
- 3. REMOVE THE EXISTING RETAINING WALLS, STEPS, SIDEWALKS, AND OTHER FEATURES ADJACENT TO THE WALLS.
- 4. CONSTRUCT THE NEW RETAINING WALLS, STEPS, SIDEWALKS, HANDRAILS, AND ADJACENT CONCRETE PAVEMENT AS INDICATED ON SHEET NO. 8.
- 5. ONCE THE NEW SIDEWALKS AND HANDRAILS HAVE BEEN INSTALLED, THE TEMPORARY MID-LEVEL ACCESS STAIRS CAN BE REMOVED.
- 6. REMOVE AND REPLACE THE REMAINDER OF THE CONCRETE PAVEMENT, INCLUDING STORM STRUCTURES AND PIPES, AS SHOWN ON SHEET NOS. 5 AND 6.

CONSTRUCTION NOISE

1. ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT WILL BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

CONSTRUCTION ACCESS AND PROTECTION OF PROPERTY

- 1. THE CONTRACTOR WILL BE ALLOWED TO CLOSE THE PARKING LOT TO ALL VEHICULAR TRAFFIC FOR A PERIOD NOT TO EXCEED 60 CONSECUTIVE CALENDAR DAYS. AT LEAST TWO (2) WEEKS BEFORE THE PLANNED CLOSURE, THE CONTRACTOR SHALL NOTIFY ALL BUSINESSES AND RESIDENTS OF THE BUILDING ALONG PORTAGE TRAIL AND THE CONDOMINIUM ALONG FRONT STREET, AS WELL AS THE CITY SERVICE DIRECTOR, FIRE DEPARTMENT, AND POLICE DEPARTMENT. TO PROVIDE INFORMATION AS TO THE EXPECTED DATE AND LENGTH OF THE PARKING LOT CLOSURE.
- 2. DURING THE TIME THAT THE PARKING LOT IS CLOSED, THE CONTRACTOR SHALL RELOCATE THE TWO DUMPSTERS TO LOCATIONS INDICATED ON SHEET NO. 2, OR OTHER LOCATIONS PROPOSED BY THE CONTRACTOR. DURING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE ACCESS FOR THESE DUMPSTERS WITH THE DISPOSAL COMPANY. THE CONTRACTOR SHALL ALSO COORDINATE THE LOCATIONS OF THE DUMPSTERS DURING PHASE 2 WORK WITH THE CITY OF CUYAHOGA FALLS.
- 3. CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE A CONSTRUCTION FENCE TO SECURE THE SITE DURING THE PROJECT. CONSTRUCTION FENCE SHALL BE A MINIMUM 6 FEET HIGH. ACCESS GATES SHALL BE PROVIDED WHERE NEEDED BY THE CONTRACTOR. ALL ACCESS GATES SHALL BE LOCKED DURING ALL TIMES THAT THE CONTRACTOR IS NOT ON SITE. OSHA COMPLIANT "NO TRESPASSING" SIGNS SHALL BE PLACED ON THE FENCE.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE SITE CLEAN AT ALL TIMES, TAKE RESPONSIBILITY FOR FINAL CLEANING, AND REMOVE ALL TOOLS, EQUIPMENT AND SURPLUS MATERIALS FROM THE SITE AT COMPLETION OF THE WORK. DO NOT STOCKPILE ANY EXCESS CUT MATERIAL THAT IS NOT TO BE USED FOR ONSITE FILL. HAUL AWAY AND PROPERLY DISPOSE OF ALL EXCESS CUT MATERIAL AT NO ADDITIONAL EXPENSE TO THE OWNER. RESTORE ALL DISTURBED AREAS TO PRE-CONSTRUCTION CONDITION OR AS DIRECTED BY OWNER.
- 5. ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR CONSTRUCTION ACCESS AND PROTECTION OF PROPERTY. INCLUDING, BUT NOT LIMITED TO, TEMPORARY FENCES, GATES, SIGNS, WALKS, STAIRS, AND DUMPSTER RELOCATION AND COORDINATION, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 624, MOBILIZATION.

PRE-CONSTRUCTION VIDEO DOCUMENTATION

- 1. THE PURPOSE OF THIS DOCUMENTATION SHALL BE TO ACCURATELY DOCUMENT THE PRE-CONSTRUCTION CONDITION OF THE SURFACE FEATURES WITHIN THE PROJECT AREA. INCLUDING PAVEMENTS, WALKS, AND BUILDINGS. ANY IMPROVEMENT VISIBLE SHALL BE INCLUDED IN THE DOCUMENTATION. THE RECORDING SHALL BE COMPLETED PRIOR TO THE DELIVERY OF ANY MATERIALS, SUPPLIES, OR EQUIPMENT TO THE PROJECT SITE.
- 2. THE PRE-CONSTRUCTION VIDEO SHALL BE PERFORMED BY AN INDEPENDENT COMPANY EXPERIENCED IN THE WORK.
- 3. A DVD DISC OR FLASH DRIVE SHALL BE USED TO RECORD THE

TELEVISED INSPECTION IN EITHER APPLE QUICKTIME OR WINDOWS MEDIA FORMAT, UNLESS OTHERWISE DIRECTED BY THE CITY. TWO (2) COPIES OF THE FINAL VIDEO SHALL BE PROVIDED TO THE CITY. AND ONE COPY MAINTAINED BY THE CONTRACTOR.

4. THE COST FOR THIS ITEM SHALL BE INCLUDED IN THE LUMP SUMP PRICE BID FOR ITEM 624, MOBILIZATION.

EROSION CONTROL

1. WORK UNDER THIS ITEM SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ODOT SUPPLEMENTAL SPECIFICATION 832. AN ALLOWANCE OF \$2500 HAS BEEN INCLUDED IN THE BID DOCUMENTS FOR PAYMENT OF THIS ITEM.

SEEDING AND MULCHING

1. ALL DISTURBED GRASSED AREAS SHALL BE SEEDED AND MULCHED AT THE END OF CONSTRUCTION IN ACCORDANCE WITH ITEM 659 OF THE CUYAHOGA FALLS CONSTRUCTION DOCUMENT. PRIOR TO SEEDING, THE CONTRACTOR SHALL FURNISH AND PLACE A MINIMUM FOUR INCH (4") LAYER OF TOPSOIL IN ACCORDANCE WITH ODOT ITEM 653. THE PAYMENT FOR THESE ITEMS, ALONG WITH ANY NECESSARY FERTILIZER AND LIME, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 659, SEEDING AND MULCHING.

FIELD OFFICE

1. A FIELD OFFICE WILL NOT BE REQUIRED AS PART OF THIS PROJECT. IF THE CONTRACTOR ELECTS TO PROVIDE ONE, IT SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.

GEOTECHNICAL INVESTIGATION

- 1. FOR EXISTING GEOTECHNICAL INFORMATION, REFER TO THE "REPORT OF GEOTECHNICAL EXPLORATION MANCHESTER PARKING LOT RETAINING WALL", PREPARED BY SOLAR TESTING LABORATORIES, INC. AND DATED OCTOBER 28, 2019.
- 2. AFTER THE EXISTING CONCRETE AND SUBBASE HAS BEEN REMOVED, THE PROPOSED PAVEMENT AREA SHALL BE PROOF ROLLED AS RECOMMENDED IN THE GEOTECHNICAL REPORT. ALL UNSUITABLE OR UNSTABLE SUBGRADE SHALL BE IDENTIFIED BY THE ENGINEER BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATION. THE UNSUITABLE OR UNSTABLE SUBGRADE SHALL BE EXCAVATED TO THE DEPTH DIRECTED BY THE ENGINEER AND STABILIZED BY REPLACING WITH TYPE B GRANULAR MATERIAL CONFORMING TO ODOT C&MS 703.16.C (FOR ITEM 204).
- 3. THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE BID DOCUMENTS (BASED ON THE ASSUMPTION THAT 50% OF THE SUBGRADE MUST BE STABILIZED FOR A DEPTH OF 18 INCHES) FOR THIS WORK AS DIRECTED BY THE ENGINEER:

PROOF ROLLING 2 HOUR EXCAVATION AND STABILIZATION OF SUBGRADE 175 CU YD SUBGRADE COMPACTION (FOR COMPACTING STABILIZED AREAS) 345 SQ YD

CONTINGENCY QUANTITIES

1. IN ADDITION TO THE QUANTITIES INDICATED ON THE DRAWINGS, THE FOLLOWING CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE BID DOCUMENTS TO BE USED AS DIRECTED BY THE ENGINEER:

WALK REMOVED 4" CONCRETE WALK

CONCRETE TESTING

1. ALL CONCRETE USED ON THIS PROJECT SHALL BE TESTED. THIS INCLUDES CONCRETE FOR PAVEMENT, CURBS, AND RETAINING WALLS. A TICKET FOR EACH LOAD DELIVERED TO THE PROJECT SHALL BE PROVIDED TO THE FIELD REPRESENTATIVE. TICKET SHALL INCLUDE ALL INFORMATION REQUIRED IN ODOT C&MS 499.08. CONCRETE SHALL BE TESTED FOR AIR, SLUMP, AND COMPRESSIVE STRENGTH. EACH LOAD SHALL BE CHECKED FOR AIR AND SLUMP. FOUR (4) TEST SPECIMENS WILL BE MADE FROM EVERY THIRD TRUCK STARTING WITH THE FIRST TRUCK EACH DAY THAT CONCRETE IS DELIVERED TO THE JOBSITE AND/OR EACH TIME THE MIX IS CHANGED. TEST ONE CYLINDER AT 7 DAYS AND ONE AT 28 DAYS: TWO ARE SPARES. SUBMIT A COPY OF EACH REPORT TO THE ENGINEER IMMEDIATELY AFTER THE TEST IS CONDUCTED. ALL TEST REPORTS FOR THE MONTH MUST BE SUBMITTED BY THE TIME OF THE CONTRACTOR'S PAY REQUEST SUBMITTAL, OR THE SUBMITTAL WILL BE CONSIDERED INCOMPLETE AND WILL BE RETURNED TO THE CONTRACTOR.

2. COST FOR TESTING THE CONCRETE SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE PERTINENT CONCRETE ITEM

OSBORN ENGINEERING 201 East Market Street - Suite 200 | Akron, OH 44305



MANCHESTER **COURT PARKING** LOT RETAINING WALL AND **PAVEMENT IMPROVEMENTS**

CITY OF CUYAHOGA FALLS 2310 SECOND STREET CUYAHOGA FALLS, OHIO 44221 (330) 971-8000

DATE ISSUED

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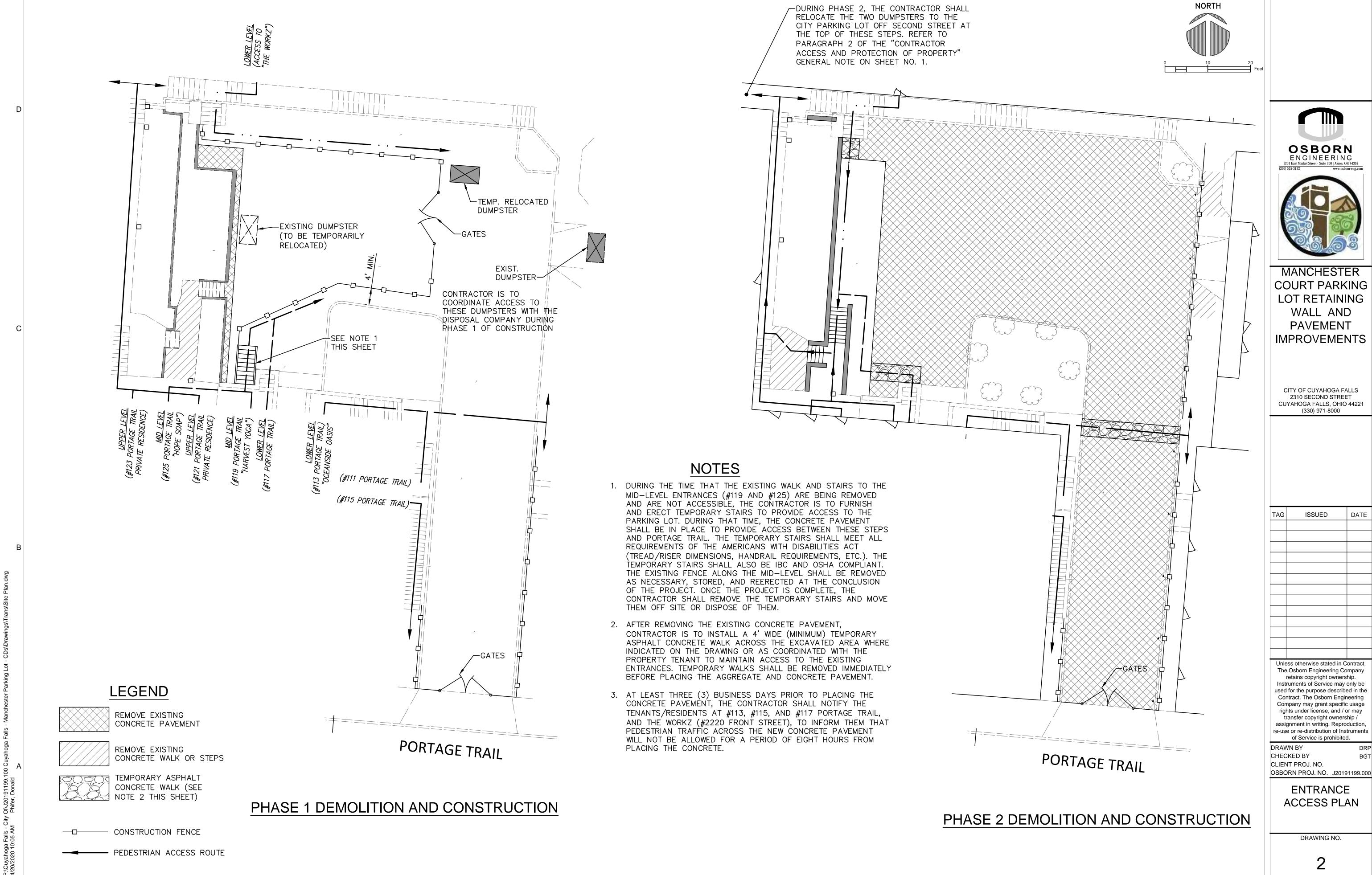
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> **GENERAL** NOTES

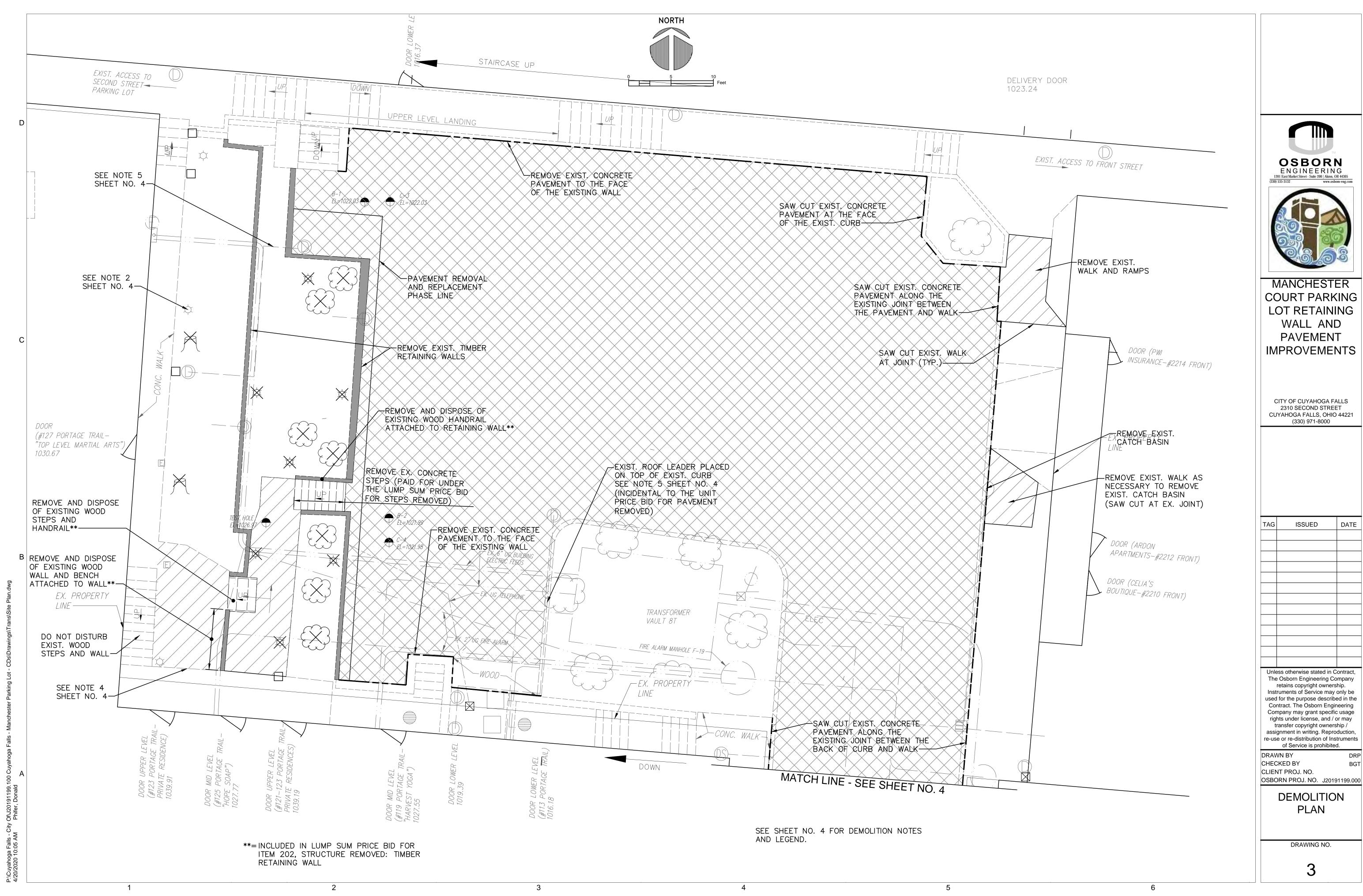
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225 SQ FT

225 SQ FT

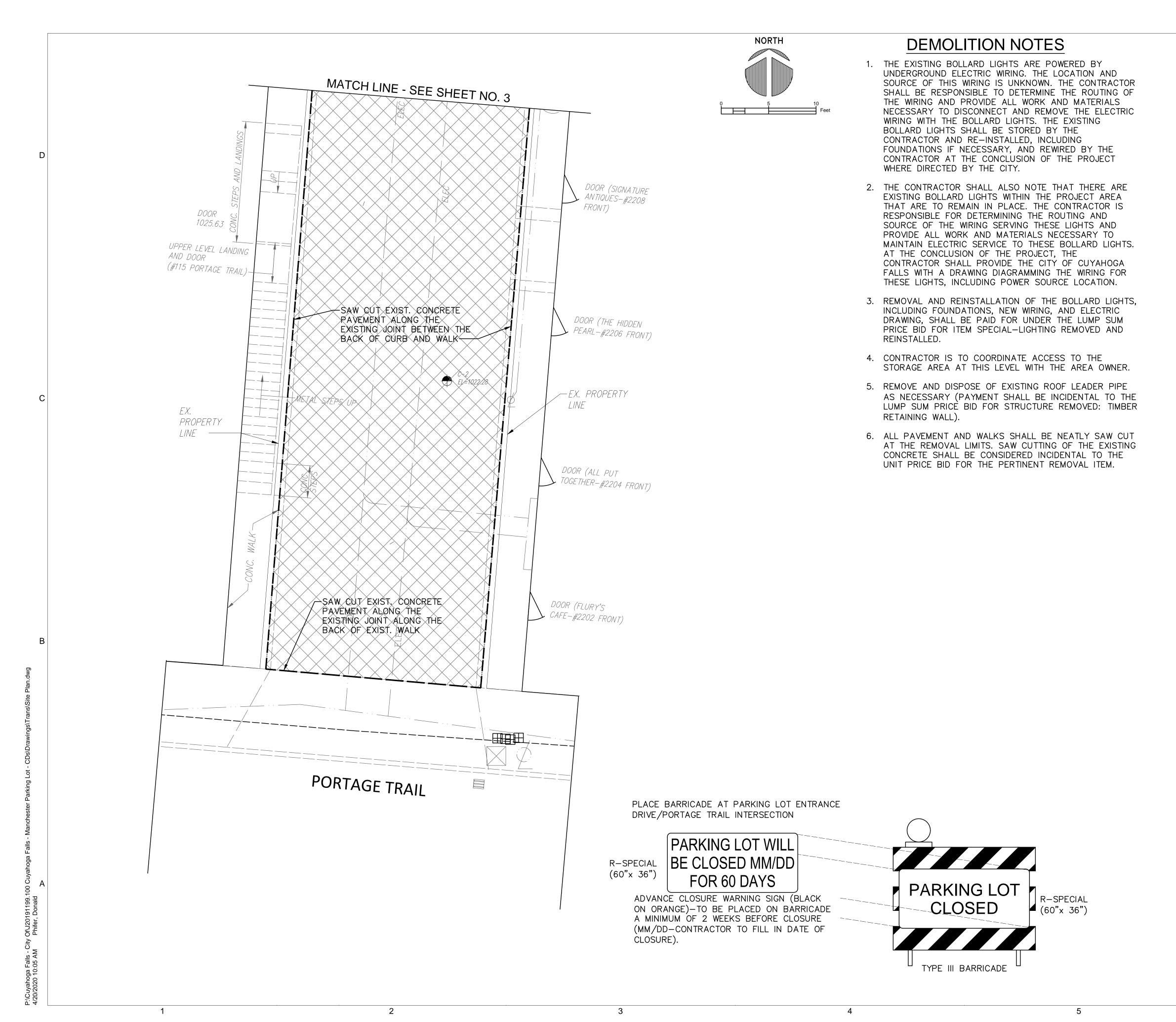


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LEGEND

REMOVE EXISTING CONCRETE
PAVEMENT AND ADJACENT CURB
(WHERE APPLICABLE)
REMOVAL OF CURB INCIDENTAL
TO UNIT PRICE BID FOR
PAVEMENT REMOVED



REMOVE EXISTING CONCRETE WALK OR STEPS



REMOVE AND DISPOSE OF EXISTING SHRUB



REMOVE EXISTING BOLLARD LIGHT AND FOUNDATION (SEE NOTE 1 THIS SHEET)



REMOVE AND DISPOSE OF EXISTING 12" DIAMETER (±) STUMP





MANCHESTER
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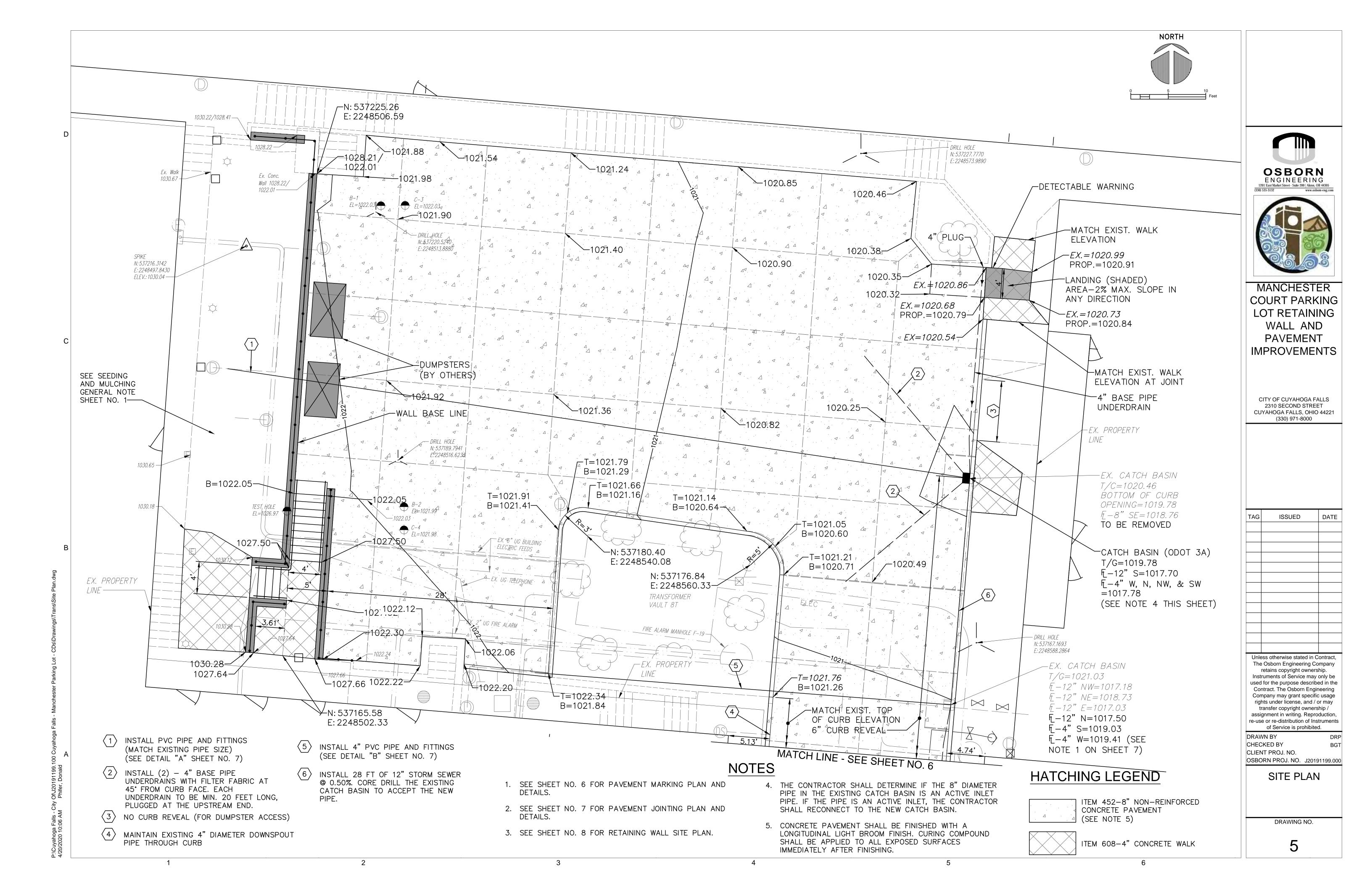
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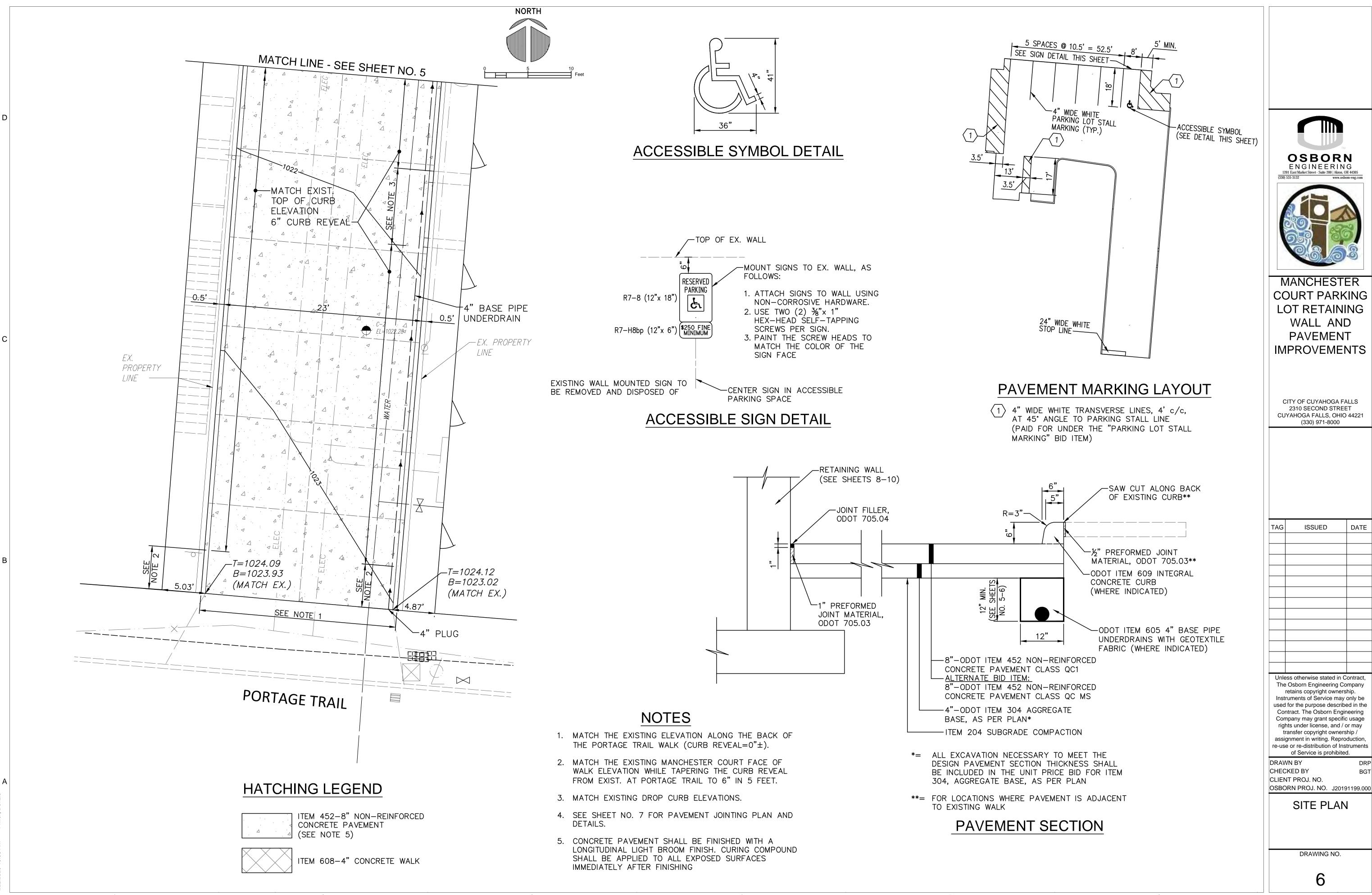
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DEMOLITION PLAN

DRAWING NO.





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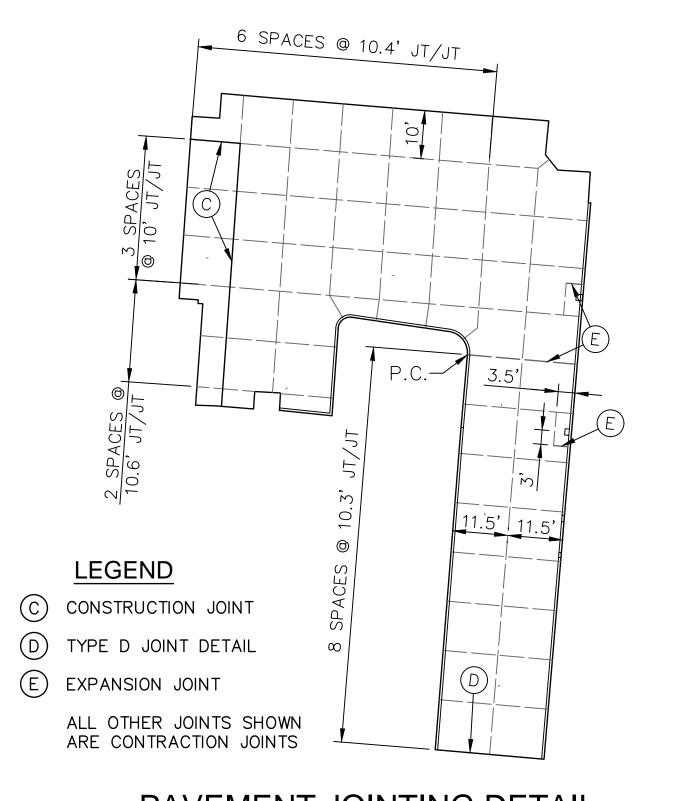
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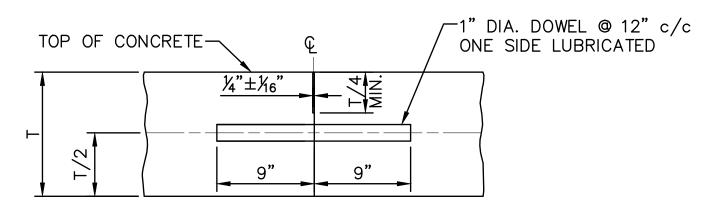
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SITE PLAN

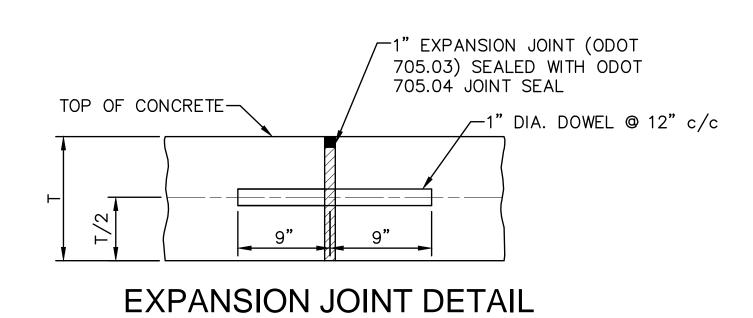
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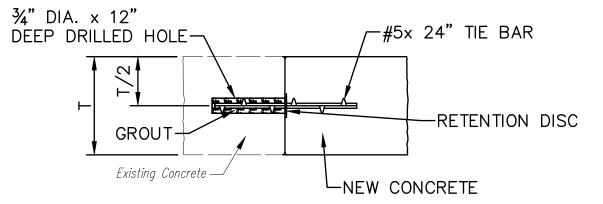




TO BE USED BETWEEN AREAS OF CONCRETE PLACED AT DIFFERENT TIMES DURING THE COURSE OF THE PROJECT.

CONSTRUCTION JOINT DETAIL

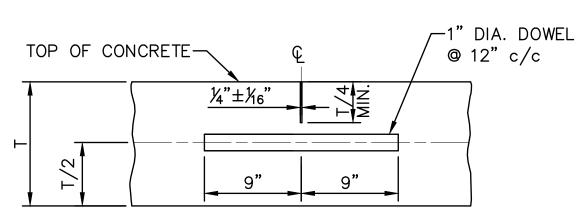




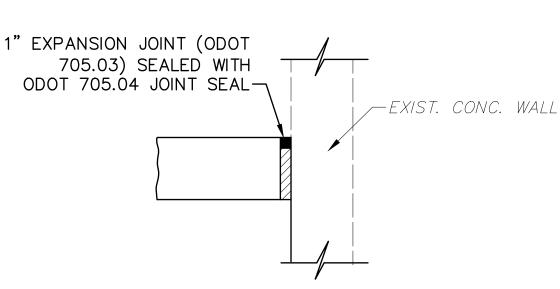
TYPE D JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ODOT CMS 255.05. THE NYLON OR PLASTIC RETENTION DISC SHALL BE CLEAR OR OPAQUE WHITE IN COLOR. GROUT SHALL MEET THE REQUIREMENTS OF CMS 255.02. %" EXPANSION ANCHORS, CMS 712.01.A MAY BE USED IN LIEU OF THE #5x 24" DEFORMED BAR AND SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

THE USE OF SELF DRILLING EXPANSION SHIELD ANCHORS, CMS 712.01.B, SHALL NOT BE PERMITTED.

TYPE D JOINT DETAIL



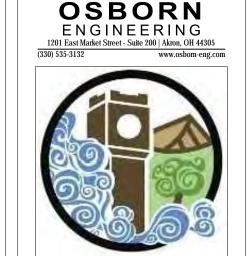
CONTRACTION JOINT DETAIL



CONCRETE PAVEMENT AT EXIST. WALL DETAIL

-DETECTABLE WARNING

PLATE (ODOT ITEM 712.14)



MANCHESTER
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MISCELLANEOUS
PAVEMENT

PAVEMENT DETAILS

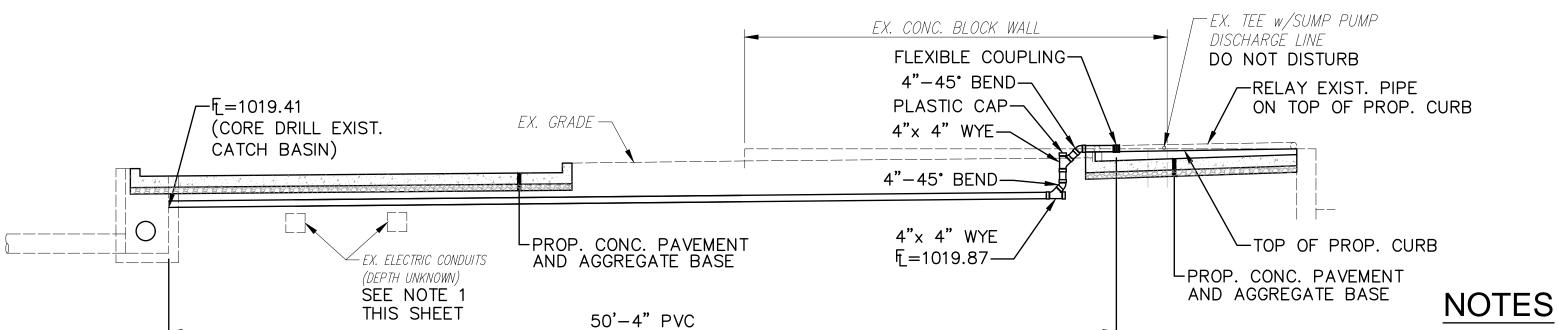
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USE MANUFACTURER'S WRITTEN ½" EXPANSION JOINT INSTRUCTIONS FOR INSTALLING (ODOT 705.03) PAVEMENT JOINTING DETAIL WEEP HOLES, SETTING BED, AND SEALED WITH ODOT GROUTING METHOD. 705.04 JOINT SEAL ─ \ -REMOVE EXIST. PIPE AND FITTINGS AS NECESSARY (INCIDENTAL TO THE LUMP SUM PRICE BID FOR TIMBER RETAINING WALL REMOVED) -PLASTIC CAP WITH MAGNETIC 1'-6" 2'-0"

__ EX. DOWNSPOUT ELEMENT IMBEDDED (6" BELOW PROP. GRADE) **FLEXIBLE** COUPLING-CATCH BASIN (ODOT 3A) T/G=1019.78 22 ½° BEND f-12" S=1017.82 ∠4"x 4" CROSS Ē_-4" W, N, NW, & SW 4"-45° WYE-=1017.91 4"-45° BEND-4"-45° WYE— 4" PLUG-└PROP. CONC. PAVEMENT AND AGGREGATE BASE 84'-4" PVC 10**'**±

EXISTING STORM DRAIN OUTLET - DETAIL "A"



EXISTING STORM DRAIN OUTLET - DETAIL "B"

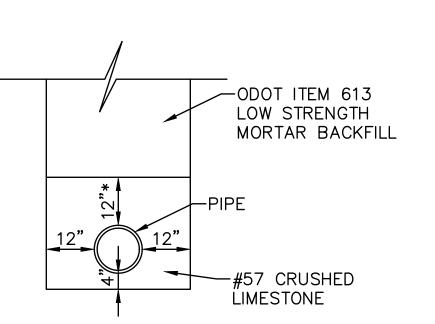
(SECTION LOOKING SOUTH)

1. PRIOR TO CORE DRILLING THE EXISTING CATCH BASIN OR INSTALLING THE NEW PVC PIPE, THE CONTRACTOR SHALL EXCAVATE AND EXPOSE THE EXISTING ELECTRICAL CONDUITS. IF THE CONDUITS ARE BELOW THE FLOW LINE OF THE NEW PVC PIPE, THE CONTRACTOR SHALL INSTALL THE PIPE AS INDICATED ON DETAIL "B". IF THE LOCATION OF THE EXISTING CONDUITS INTERFERES WITH THE NEW PVC PIPE, THE CONTRACTOR SHALL IDENTIFY THE ELEVATION OF THE TOP AND BOTTOM OF THE CONDUITS AND CONTACT THE CITY WITH THE INFORMATION TO DETERMINE THE NECESSARY CHANGES TO THE PVC PIPE.

<u>NOTES</u>

- COLOR OF THE DETECTABLE WARNINGS SHOULD CONTRAST WITH SURROUNDING CONCRETE WALK AND RAMP. BLACK IS NOT AN ACCEPTABLE COLOR. APPROVED PRODUCTS AND GUIDANCE ON COLOR MAY BE FOUND ON THE ODOT OFFICE OF ROADWAY ENGINEERING SERVICE'S DETECTABLE WARNINGS APPROVED LIST.
- INSTALL PRODUCTS AS PER MANUFACTURER'S PRINTED INSTRUCTIONS.

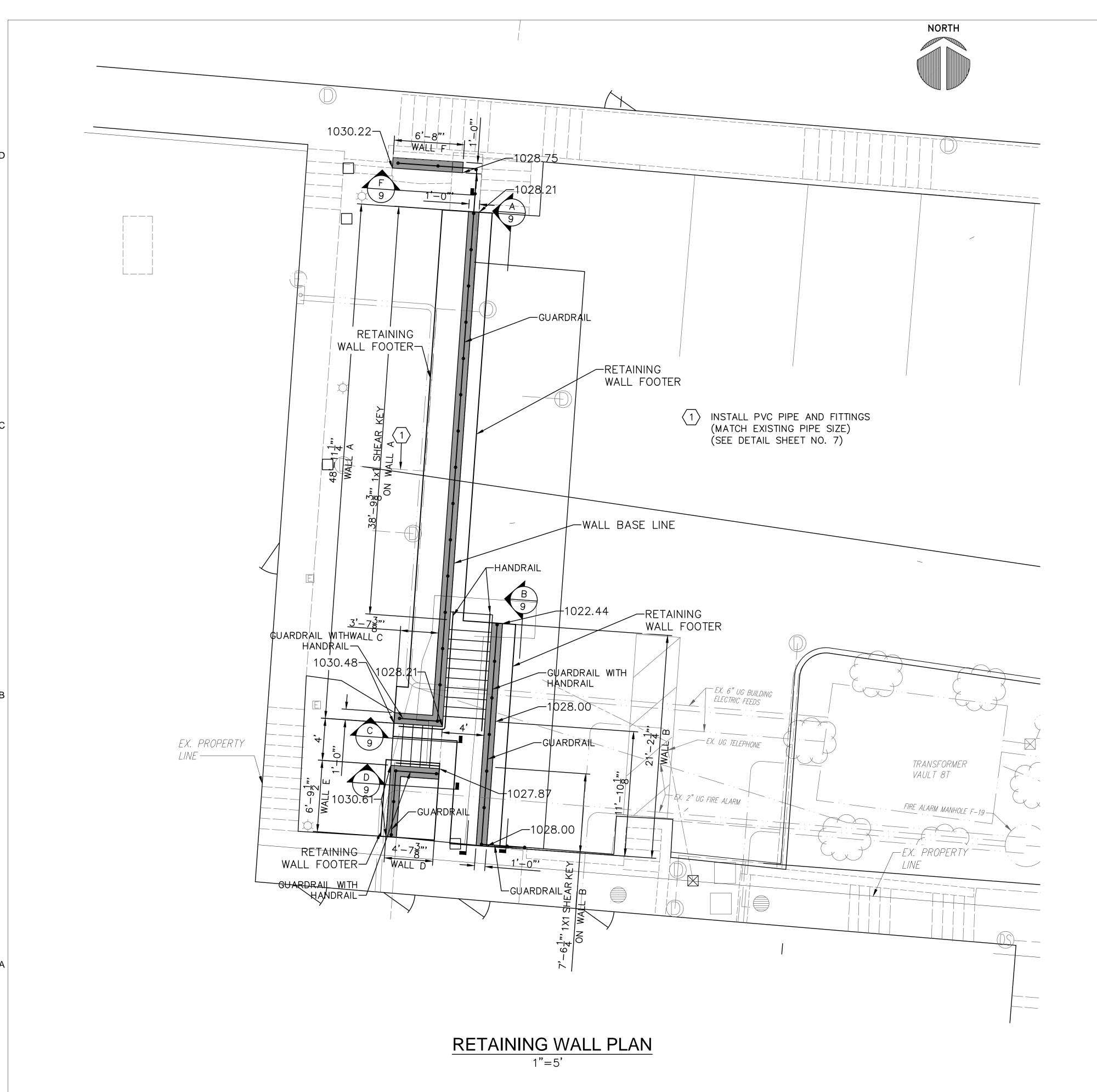
DETECTABLE WARNING DETAIL



*= PLACE #57 CRUSHED LIMESTONE
WHERE THE DISTANCE BETWEEN
THE PAVEMENT SUBGRADE AND
TOP OF PIPE IS LESS THAN 12".

SEWER TRENCH DETAIL

PLASTIC PIPE



DESIGN DATA
CONCRETE CLASS C: COMPRESSIVE STRENGTH 4.0 KSI

REINFORCING STEEL: MINIMUM YIELD STRENGTH 60 KSI

DESIGN ASSUMPTIONS:

COEFFICIENT OF FRICTION, F = 0.32

RETAINED SOIL WITH POROUS BACKFILL EQUIVALENT FLUID PRESSURE (ACTIVE), EQUIVALENT FLUID PRESSURE (PASSIVE), UNIT WEIGHT SOIL, ANGLE OF INTERNAL FRICTION,

Wa = 34 PCF Wp = 358 PCF W = 100 PCF

 $\phi = 28^{\circ}$

FOUNDATION BEARING PRESSURE: RETAINING WALL FOOTING, AS DESIGNED, PRODUCES A MAXIMUM BEARING PRESSURE OF 1.6 KSF. ALLOWABLE BEARING PRESSURE IS 2.0 KSF.

CONTRACTOR SHALL PREPARE SHOP DRAWINGS IN ACCORDANCE WITH C&MS 501.04 FOR REINFORCING STEEL, AND SUBMIT TO THE CITY FOR APPROVAL BEFORE FABRICATION OF THESE ITEMS.

ITEM 511, CONCRETE MISC.: AESTHETIC FORMLINER:

- 1. ALL RETAINING WALL EXPOSED FRONT FACES SHALL HAVE A TEXTURED AND FORMED SURFACE USING A SIMULATED STONE MASONRY LINER AND COLOR STAIN SYSTEM, IN CONFORMANCE WITH THE FOLLOWING:
- a. THE WALL PATTERN SHALL BE #1103 (RUSTIC ASHLAR) BY CUSTOM ROCK FORMLINER, ST. PAUL, MN (651) 699-1345, https://customrock.com, OR EQUAL AS APPROVED BY THE CITY.
- . RELEASE AGENT TO BE COMPATIBLE WITH THE FORM LINER.
- c. JOINTS SHALL BE COLORED TO SIMULATE REAL MORTAR.
 d. COLOR STAIN MIX AS PROVIDED BY MANUFACTURER, ACHIEVING COLOR VARIATIONS IN THE NATURAL STONE BEING SIMULATED FOR THIS PROJECT.
- e. WITHIN 30 DAYS OF RECEIVING THE NOTICE OF AWARD, THE CONTRACTOR SHALL SUBMIT TO THE CITY A 24"x 24" SAMPLE OF THE SIMULATED STONE MASONRY FINISH, INCLUDING FINAL COLORATION, FOR APPROVAL.
- f. FORMING OF THE CONCRETE AND APPLICATION OF THE COLOR STAIN SYSTEM SHALL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS.
- g. ALL MATERIALS AND LABOR NECESSARY TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 511, CONCRETE MISC.: AESTHETIC FORMLINER.

ITEM 511, CONCRETE MISC.: RETAINING WALL F:

THE LUMP SUM PRICE FOR THIS ITEM SHALL INCLUDE ALL OF, BUT NOT BE LIMITED TO, THE FOLLOWING:

- 1. DRILLING HOLES INTO THE TOP OF THE EXISTING CONCRETE WALL AND FURNISHING AND PLACING NONSHRINK, NONMETALLIC GROUT IN CONFORMANCE WITH ODOT ITEM 510 AND 705.20.
- 2. FURNISHING AND PLACING DOWELS AND EPOXY COATED REINFORCING STEEL IN CONFORMANCE WITH ODOT ITEM 509.
- 3. FURNISHING AND PLACING CLASS QC1 CONCRETE IN CONFORMANCE WITH ODOT ITEM 511.

ITEM 512, SEALING OF CONCRETE SURFACES (NON-EPOXY):

ALL EXPOSED CONCRETE WALLS SHALL BE SEALED PER ODOT ITEM 512

- SEALING OF CONCRETE SURFACES (NON-EPOXY) USING AN APPROVED MATERIAL FROM ODOT'S QUALIFIED PRODUCTS LIST (QPL).

http://www.dot.state.oh.us/Divisions/ConstructionMgt/Materials/Pages/QPL.aspx





MANCHESTER
COURT PARKING
LOT RETAINING
WALL AND
PAVEMENT
IMPROVEMENTS

CITY OF CUYAHOGA FALLS 2310 SECOND STREET CUYAHOGA FALLS, OHIO 44221 (330) 971-8000

ISSUED

Unless otherwise stated in Contract, The Osborn Engineering Company		

DATE

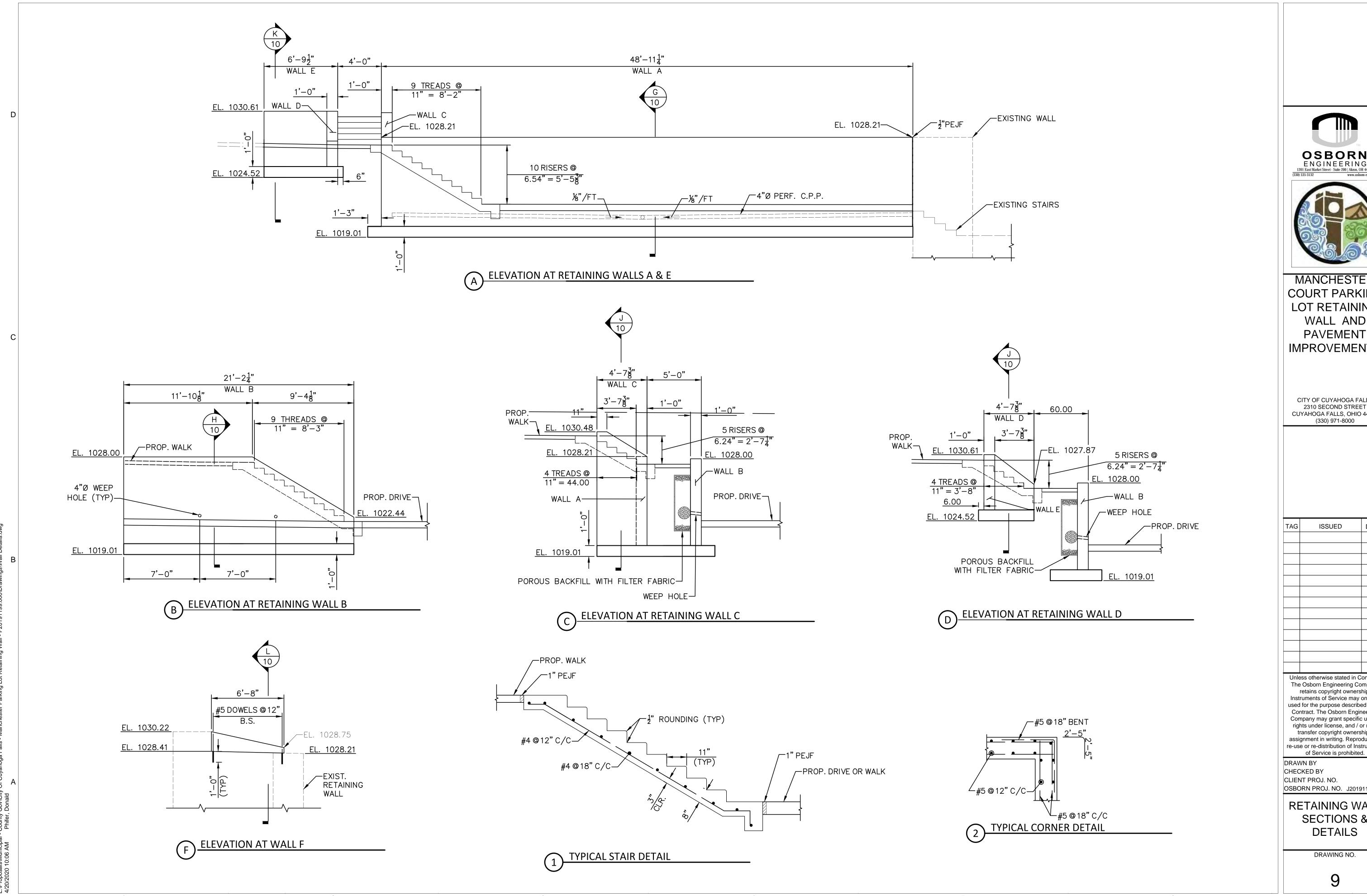
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RETAINING WALL SITE PLAN

DRAWING NO.







MANCHESTER COURT PARKING LOT RETAINING WALL AND **PAVEMENT IMPROVEMENTS**

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Unless otherwise stated in Contract The Osborn Engineering Company		

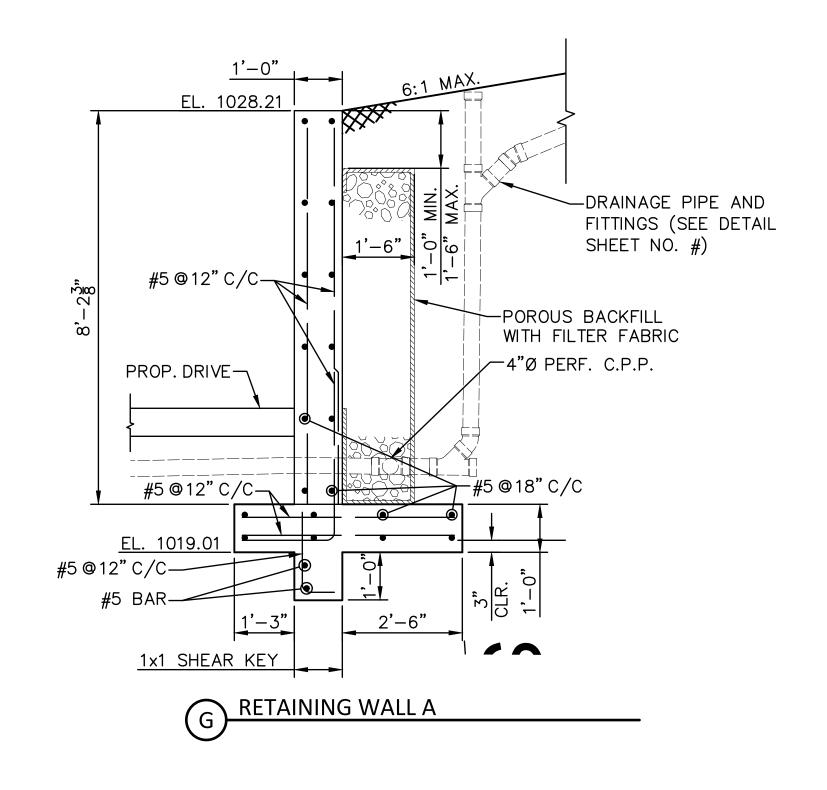
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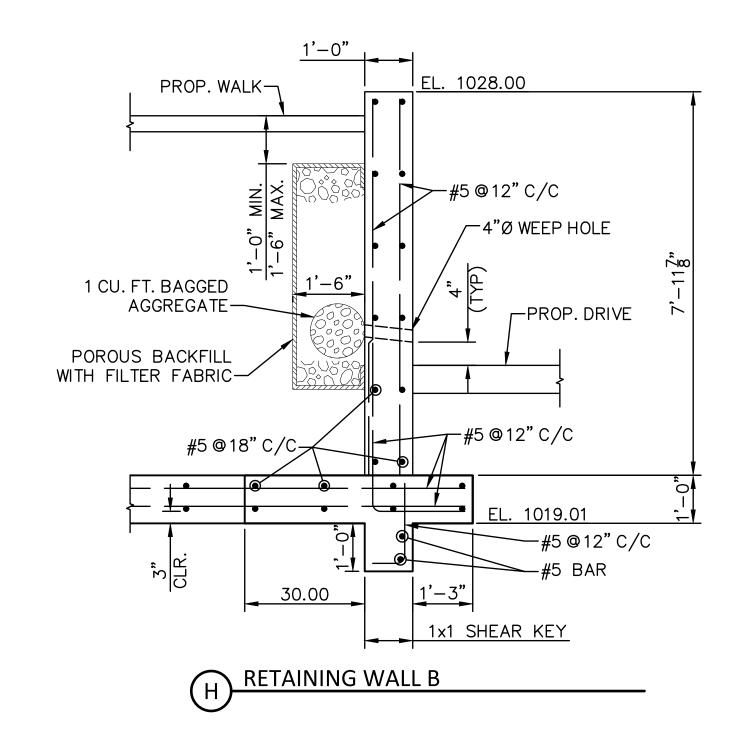
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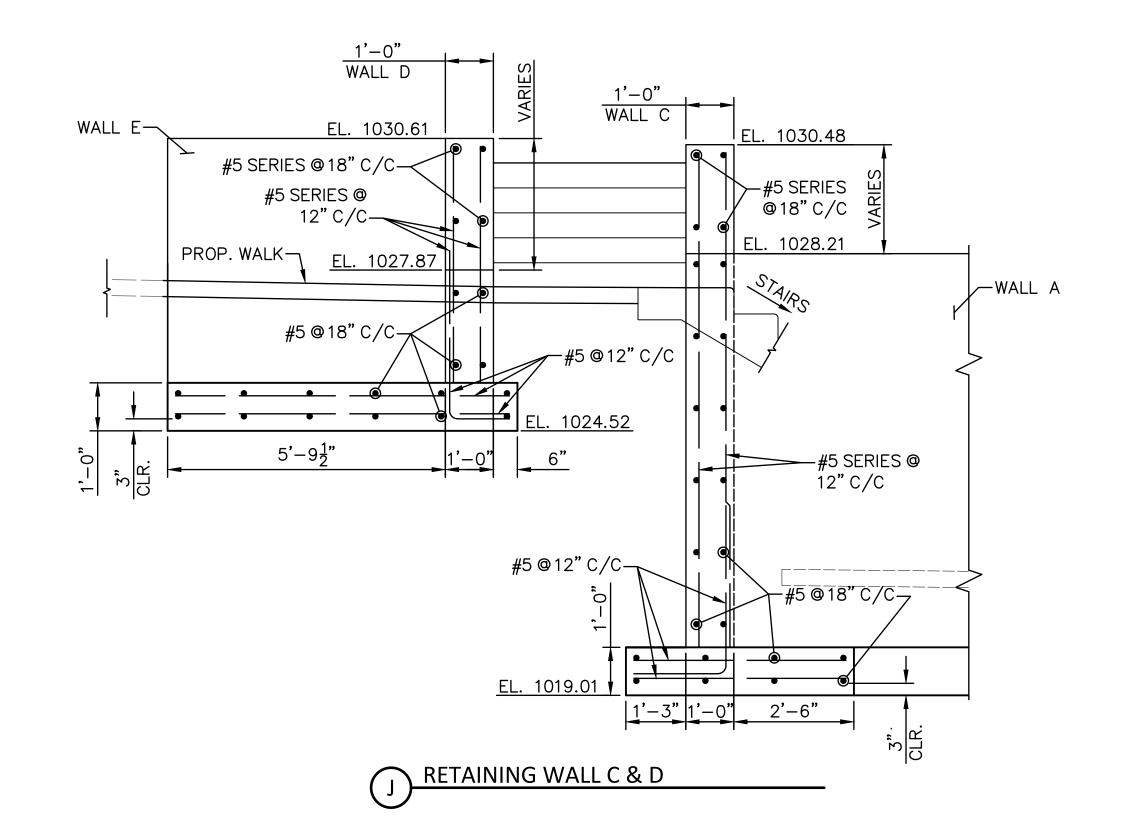
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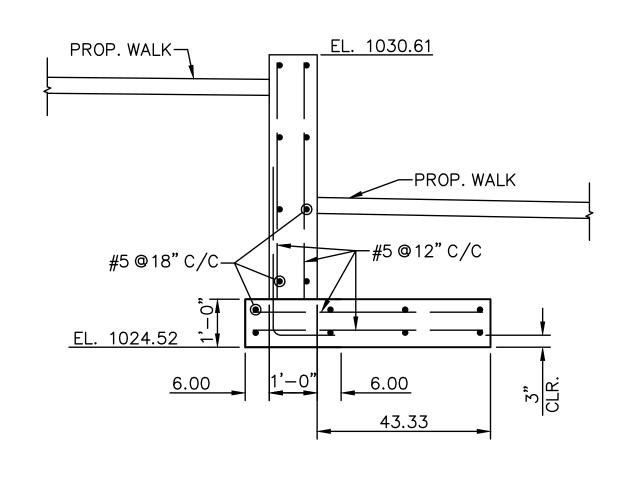
RETAINING WALL SECTIONS &

DRAWING NO.

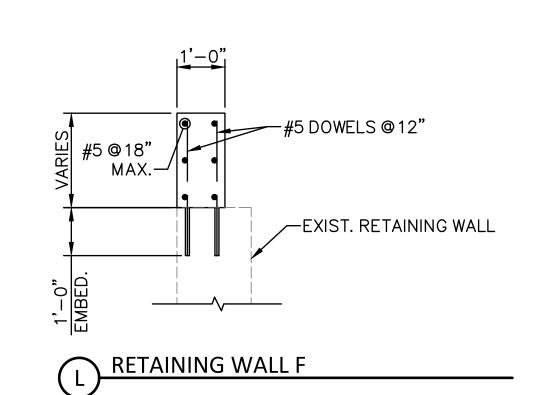
















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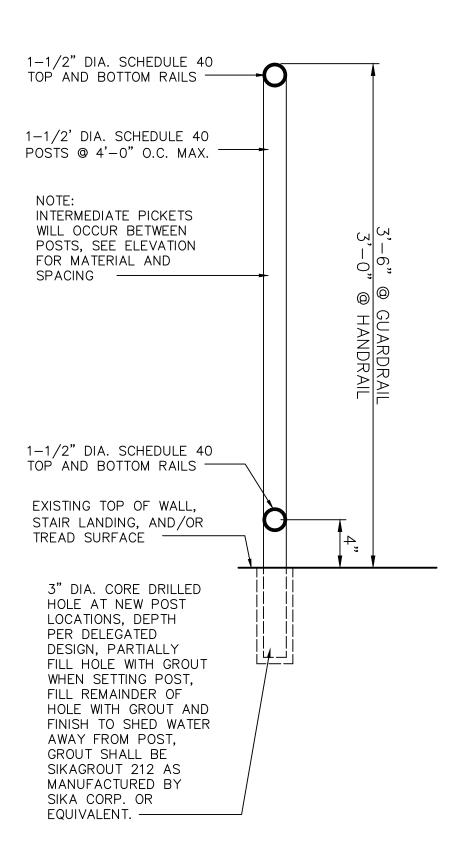
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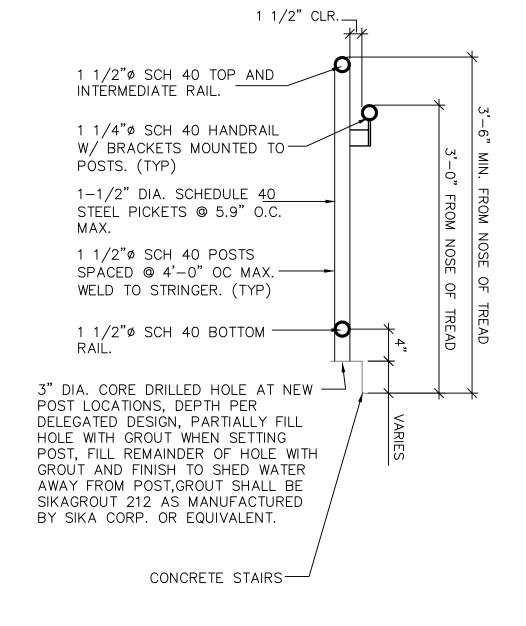
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RETAINING WALL SECTIONS & DETAILS

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10



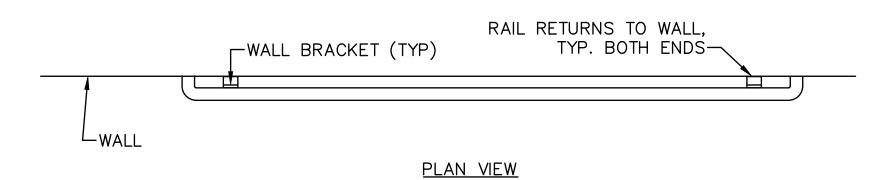


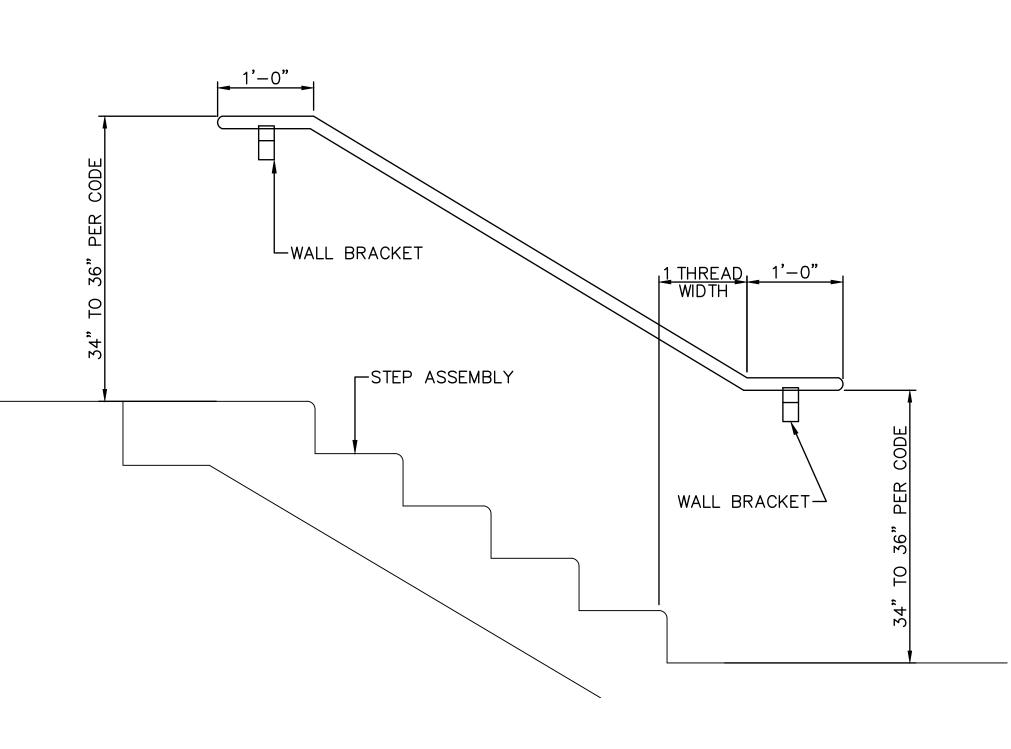
GUARDRAIL WITH HANDRAIL

DRAWINGS ARE INTENDED TO CONVEY THE DESIGN INTENT AN

ITEM 517, RAILING MISC.: DECORATIVE RAILING:

- 1. DRAWINGS ARE INTENDED TO CONVEY THE DESIGN INTENT AND PROVIDE GENERAL GUIDANCE ON THE OVERALL LAYOUT AND GEOMETRY OF THE NEW GUARD RAILS AND HANDRAILS SHOWN. DELEGATED DESIGN IS REQUIRED. AS PART OF THE DELEGATED DESIGN REQUIREMENTS CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL DESIGN, MEMBER SIZING, AND GEOMETRY.
- 2. CONTRACTOR SHALL PREPARE SHOP DRAWINGS FOR THE COMPLETE GUARD RAIL AND HANDRAIL DESIGN IN ACCORDANCE WITH ODOT C&MS 501.04. SUBMITTAL SHALL INCLUDE SHOP DRAWINGS SHOWING PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENT TO ADJACENT WORK. SHOP DRAWINGS SHALL BE SUBMITTED TO THE CITY FOR APPROVAL BEFORE FABRICATION OF THESE ITEMS.
- 3. SHOP DRAWING SUBMITTAL SHALL INCLUDE ENGINEERING ANALYSIS STAMPED, SIGNED, AND DATED BY THE REGISTERED ENGINEER RESPONSIBLE FOR THEIR PREPARATION.
- 4. STRUCTURAL PERFORMANCE OF RAILINGS: GUARDRAILS AND HANDRAILS SHALL WITHSTAND THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED:
 - UNIFORM LOAD OF 50 LBF/FT. APPLIED IN ANY DIRECTION.
 - CONCENTRATED LOAD OF 200 LBF APPLIED IN ANY DIRECTION.
 UNIFORM AND CONCENTRATED LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.
- 5. STRUCTURAL PERFORMANCE FOR THE INFILL OF GUARDRAILS: INFILL COMPONENTS SHALL WITHSTAND THE FOLLOWING LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED:
 - CONCENTRATED LOAD OF 50 LBF APPLIED HORIZONTALLY ON AN AREA OF 1 SQ. FT.
 - INFILL LOADS AND OTHER LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.
- 6. ALL EXTERIOR STEEL TO BE GALVANIZED.
- 7. ALL EXTERIOR STEEL TO BE PAINTED. PAINT COLOR TO BE CHOSEN BY THE CITY. CONTRACTOR IS TO PROVIDE SAMPLES OF AVAILABLE COLORS.







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