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DESIGN DESIGNATION

CURRENT ADT (2016).....31,040
DESIGN YEAR ADT (2036).....30,330
DESIGN HOURLY VOLUME (2036).....2,460
DIRECTIONAL DISTRIBUTION.....0.74
TRUCKS (24 HOUR B&C).....2%
DESIGN SPEED.....35 MPH
LEGAL SPEED.....35 MPH
DESIGN FUNCTIONAL CLASSIFICATION.....URBAN PRINCIPAL ARTERIAL
NHS PROJECT.....NO

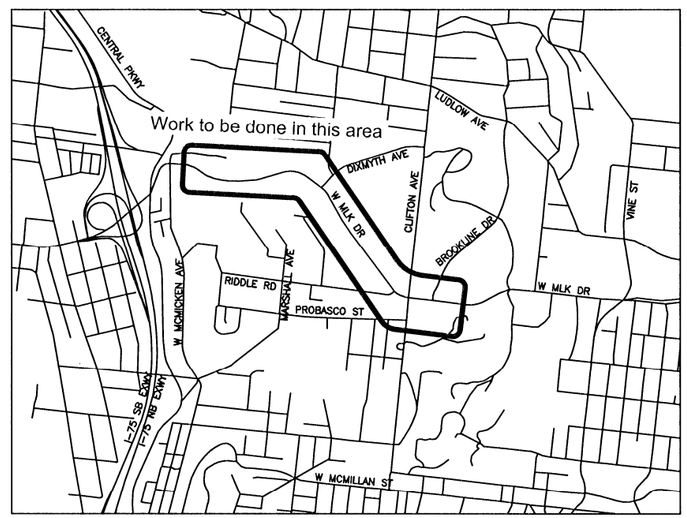
DESIGN EXCEPTION

CURBED SHOULDER WIDTH, LANE WIDTH AND HORIZ. CURVATURE

CITY OF CINCINNATI
DEPARTMENT OF TRANSPORTATION AND ENGINEERING PROPOSED IMPROVEMENT
HAM-CR612-0.20, PID 87036

WEST MLK DRIVE IMPROVEMENTS

WEST MCMICKEN AVENUE TO CLIFTON AVENUE



VICINITY PLAN
Scale: NOT TO SCALE

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF APPROXIMATELY 0.83 MILES OF ROADWAY IMPROVEMENTS TO WEST MARTIN LUTHER KING DRIVE FROM EAST OF WEST MCMICKEN AVENUE TO EAST OF CLIFTON AVENUE. CONSTRUCTION ON WEST MLK INCLUDES FULL DEPTH REPLACEMENT (SHIFT TO NORTH AND WIDEN) FROM START OF PROJECT TO EAST OF DIXMYTH, MILLING AND OVERLAY FROM EAST OF DIXMYTH TO END OF PROJECT. PROJECT INCLUDES INTERSECTION IMPROVEMENTS AT DIXMYTH, CLIFTON AND BROOKLINE, TRAFFIC SIGNAL UPGRADES AT DIXMYTH AND CLIFTON, A 12' MULTI–USE PATH ON THE NORTH SIDE OF WEST MLK AND A RETAINING WALL ON THE NORTH SIDE OF MLK BETWEEN MCMICKEN AND DIXMYTH.

2013 SPECIFICATIONS :

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION AND THE CITY OF CINCINNATI SUPPLEMENT THERETO, INCLUDING THE SPECIAL PROVISIONS LISTED IN THE BID DOCUMENT SHALL GOVERN THIS IMPROVEMENT.

NOTES :

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAS BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS. THE CITY OF CINCINNATI DOES NOT GUARANTEE THE ACCURACY OF THE AFOREMENTIONED LOCATIONS AND ACCEPTS NO RESPONSIBILITY FOR ANY EXPENSE RESULTING FROM ERRORS OR OMISSIONS OF UTILITY LOCATIONS. CONTRACTOR(S) SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF ANY WORK. NOTIFY PROJECT ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO BEGINNING WORK IN AFFECTED AREA.

RECOMMENDED: Robert Vich — PRINCIPAL TRANSPORTATION DESIGN ENGINEER — DATE 10/6/15

RECOMMENDED: — PRINCIPAL CONSTRUCTION ENGINEER — DATE 10-6-15

APPROVED : — CITY TRAFFIC ENGINEER — DATE 10-7-15

APPROVED : — CITY ARCHITECT — DATE 10/8/15

APPROVED : — CITY ENGINEER — DATE 10-7-15

APPROVED : — DIRECTOR OF TRANSPORTATION AND ENGINEERING — DATE 10/8/15

NOTICE OF CONFIDENTIALITY - PUBLIC INFRASTRUCTURE RECORD:

THIS DOCUMENT IS A PUBLIC INFRASTRUCTURE RECORD OF THE CITY OF CINCINNATI AND THE DEPARTMENT OF TRANSPORTATION AND ENGINEERING AND IS NOT SUBJECT TO THE PUBLIC DISCLOSURE REQUIREMENTS OF THE PUBLIC RECORDS LAWS OF THE STATE OF OHIO AND FEDERAL GOVERNMENT. THIS DOCUMENT IS BEING PROVIDED ON THE BASIS OF YOUR REPORTED NEED, AND SHALL BE CONSIDERED CONFIDENTIAL. BY ACCEPTING THIS DOCUMENT, YOU AGREE THAT IT WILL NOT BE SHARED OR OTHERWISE DISCLOSED TO ANYONE OTHER THAN PERSONS WHO HAVE A DIRECT NEED TO KNOW FOR THE SOLE PURPOSE OF CARRYING OUT THE PROJECT FOR WHICH THIS DOCUMENT WAS OBTAINED. ANYONE RECEIVING THIS DOCUMENT IS BOUND BY THE SAME CONFIDENTIALITY REQUIREMENTS AND MUST TAKE PRECAUTIONS TO PROTECT AGAINST ITS DISSEMINATION.

THE FAILURE TO OBSERVE THE CONFIDENTIALITY REQUIREMENTS OF THIS NOTICE SHALL SERVE AS THE BASIS FOR THE CITY OF CINCINNATI TO IMMEDIATELY SEEK LEGAL RECOURSE, INCLUDING THE RECOVERY OF ACTUAL DAMAGES RESULTING FROM UNAUTHORIZED ACCESS OR DISCLOSURE OF THIS DOCUMENT.

FINAL
October 5, 2015

FOR LIST OF STANDARD CONSTRUCTION DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS SEE SHEET 14.

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG

CALL
1-800-362-2764
(TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON–MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE CALL: **1-800-925-0988**

ACC. NUMBERS

SMU/MSD			
49001	49017	49036	120090
49005	49018	49040	120282
49010	49023	49041	120314
49011	49031	49044	
49012	49034	49056	
49016	49035	49057	

PROFESSIONAL STAMP
STATE OF OHIO — JOHN B. HYRE E56703 — REGISTERED PROFESSIONAL ENGINEER
SIGN: John B Hyre
DATE: 10/5/15

CONTRACT DRAWING
PRINTS NOT BEARING THIS STAMP MAY BE PRELIMINARY PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED ONLY FOR CONTRACT PURPOSES.

Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

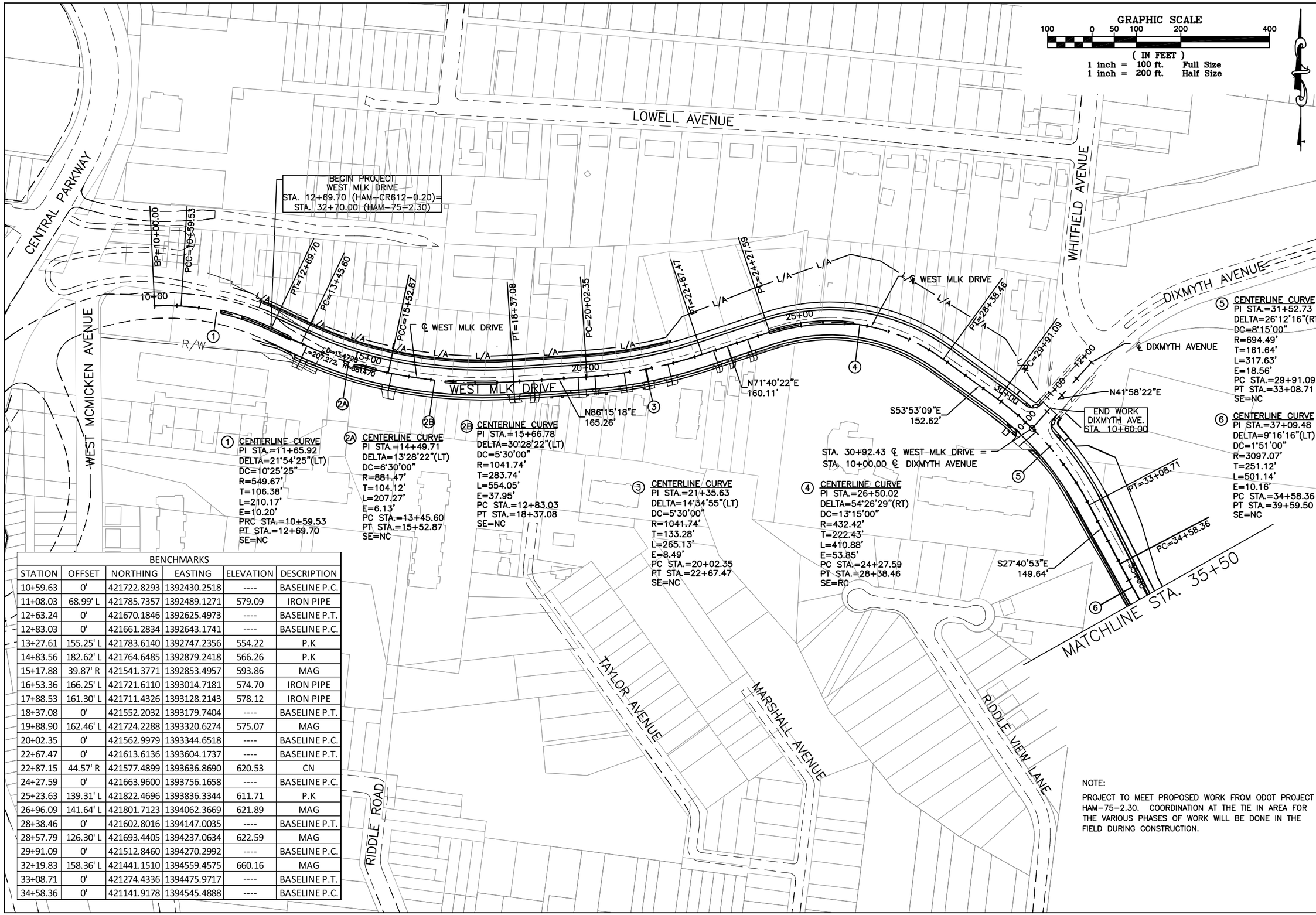
HAM-CR 612-0.20
WEST MLK DRIVE IMPROVEMENTS
PID 87036

Revisions
No.

Drawn by: Date:
Designed by: Date:
Checked by: Date:
Reviewed by: Date:

Consultant
HDR

Structure File Number
ACC No. 23124



① CENTERLINE CURVE
PI STA.=11+65.92
DELTA=21°54'25"(LT)
DC=10°25'25"
R=549.67'
T=106.38'
L=210.17'
E=10.20'
PRC STA.=10+59.53
PT STA.=12+69.70
SE=NC

2A CENTERLINE CURVE
PI STA.=14+49.71
DELTA=13°28'22"(LT)
DC=6°30'00"
R=881.47'
T=104.12'
L=207.27'
E=6.13'
PC STA.=13+45.60
PT STA.=15+52.87
SE=NC

2B CENTERLINE CURVE
PI STA.=15+66.78
DELTA=30°28'22"(LT)
DC=5°30'00"
R=1041.74'
T=283.74'
L=554.05'
E=37.95'
PC STA.=12+83.03
PT STA.=18+37.08
SE=NC

③ CENTERLINE CURVE
PI STA.=21+35.63
DELTA=14°34'55"(LT)
DC=5°30'00"
R=1041.74'
T=133.28'
L=265.13'
E=8.49'
PC STA.=20+02.35
PT STA.=22+67.47
SE=NC

④ CENTERLINE CURVE
PI STA.=26+50.02
DELTA=54°26'29"(RT)
DC=13°15'00"
R=432.42'
T=222.43'
L=410.88'
E=53.85'
PC STA.=24+27.59
PT STA.=28+38.46
SE=RC

⑤ CENTERLINE CURVE
PI STA.=31+52.73
DELTA=26°12'16"(RT)
DC=8°15'00"
R=694.49'
T=161.64'
L=317.63'
E=18.56'
PC STA.=29+91.09
PT STA.=33+08.71
SE=NC

⑥ CENTERLINE CURVE
PI STA.=37+09.48
DELTA=9°16'16"(LT)
DC=1°51'00"
R=3097.07'
T=251.12'
L=501.14'
E=10.16'
PC STA.=34+58.36
PT STA.=39+59.50
SE=NC

BENCHMARKS

STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
10+59.63	0'	421722.8293	1392430.2518	----	BASELINE P.C.
11+08.03	68.99' L	421785.7357	1392489.1271	579.09	IRON PIPE
12+63.24	0'	421670.1846	1392625.4973	----	BASELINE P.T.
12+83.03	0'	421661.2834	1392643.1741	----	BASELINE P.C.
13+27.61	155.25' L	421783.6140	1392747.2356	554.22	P.K
14+83.56	182.62' L	421764.6485	1392879.2418	566.26	P.K
15+17.88	39.87' R	421541.3771	1392853.4957	593.86	MAG
16+53.36	166.25' L	421721.6110	1393014.7181	574.70	IRON PIPE
17+88.53	161.30' L	421711.4326	1393128.2143	578.12	IRON PIPE
18+37.08	0'	421552.2032	1393179.7404	----	BASELINE P.T.
19+88.90	162.46' L	421724.2288	1393320.6274	575.07	MAG
20+02.35	0'	421562.9979	1393344.6518	----	BASELINE P.C.
22+67.47	0'	421613.6136	1393604.1737	----	BASELINE P.T.
22+87.15	44.57' R	421577.4899	1393636.8690	620.53	CN
24+27.59	0'	421663.9600	1393756.1658	----	BASELINE P.C.
25+23.63	139.31' L	421822.4696	1393836.3344	611.71	P.K
26+96.09	141.64' L	421801.7123	1394062.3669	621.89	MAG
28+38.46	0'	421602.8016	1394147.0035	----	BASELINE P.T.
28+57.79	126.30' L	421693.4405	1394237.0634	622.59	MAG
29+91.09	0'	421512.8460	1394270.2992	----	BASELINE P.C.
32+19.83	158.36' L	421441.1510	1394559.4575	660.16	MAG
33+08.71	0'	421274.4336	1394475.9717	----	BASELINE P.T.
34+58.36	0'	421141.9178	1394545.4888	----	BASELINE P.C.

NOTE:

PROJECT TO MEET PROPOSED WORK FROM ODOT PROJECT HAM-75-2.30. COORDINATION AT THE TIE IN AREA FOR THE VARIOUS PHASES OF WORK WILL BE DONE IN THE FIELD DURING CONSTRUCTION.

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHOULD BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
ALIGNMENT SHEET
STA. 10+00 TO STA. 35+50

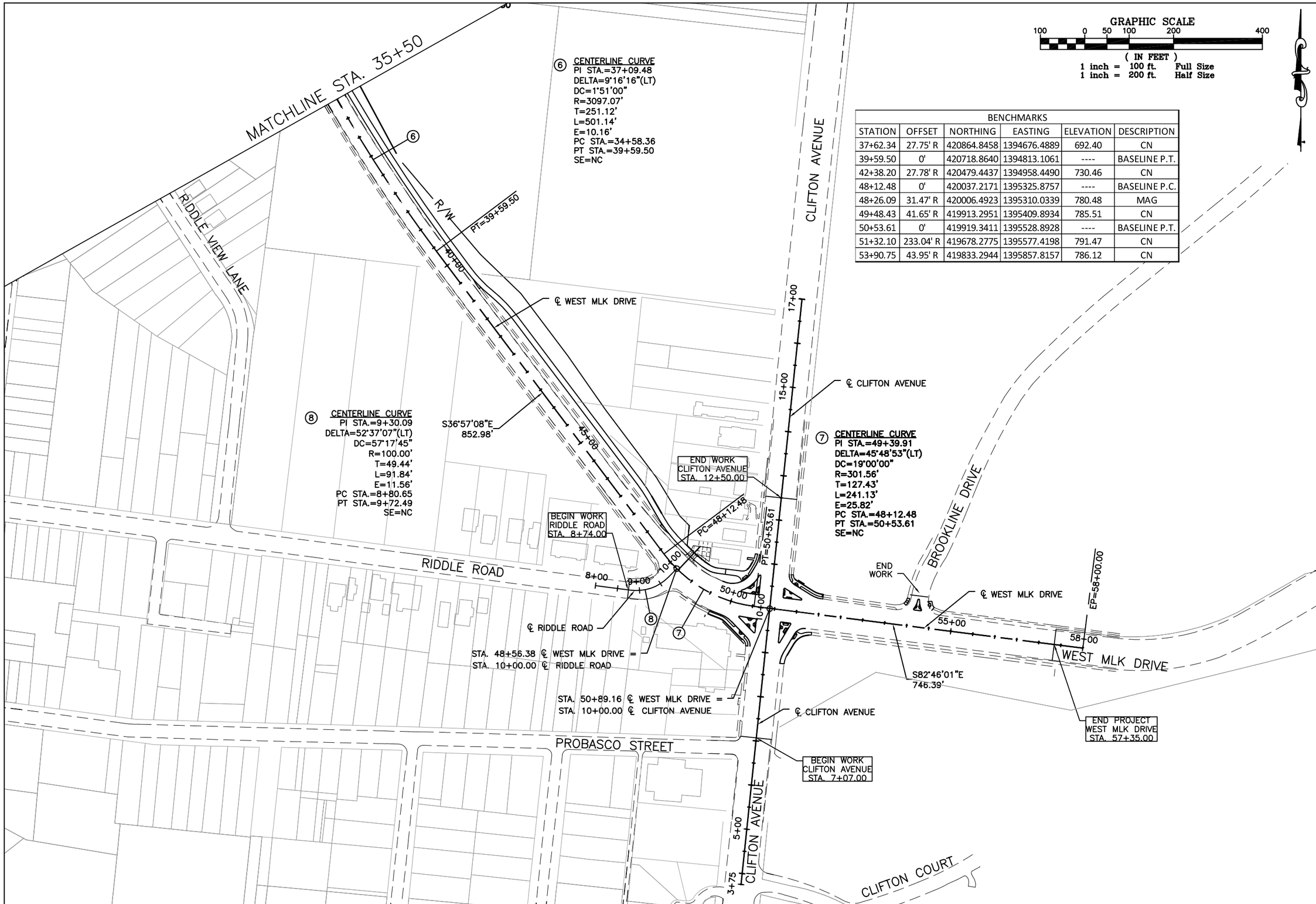
Revisions
No.

Date
Drawn by
Date
Designed by
Date
Checked by
Date
Reviewed by

Consultant

Structure File Number

ACC No.
23124



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft. Full Size

1 inch = 200 ft. Half Size

BENCHMARKS					
STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
37+62.34	27.75' R	420864.8458	1394676.4889	692.40	CN
39+59.50	0'	420718.8640	1394813.1061	----	BASELINE P.T.
42+38.20	27.78' R	420479.4437	1394958.4490	730.46	CN
48+12.48	0'	420037.2171	1395325.8757	----	BASELINE P.C.
48+26.09	31.47' R	420006.4923	1395310.0339	780.48	MAG
49+48.43	41.65' R	419913.2951	1395409.8934	785.51	CN
50+53.61	0'	419919.3411	1395528.8928	----	BASELINE P.T.
51+32.10	233.04' R	419678.2775	1395577.4198	791.47	CN
53+90.75	43.95' R	419833.2944	1395857.8157	786.12	CN

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

ALIGNMENT SHEET

STA. 35+50 TO STA. 58+00

Revisions

No.

Drawn by Date

Designed by Date

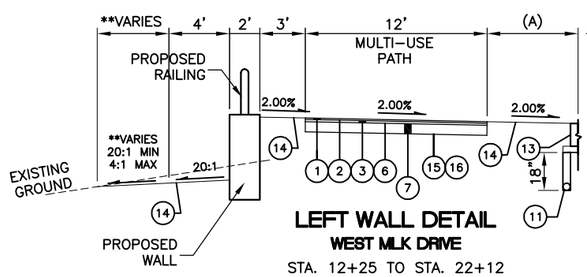
Checked by Date

Reviewed by Date

Consultant

Structure File Number

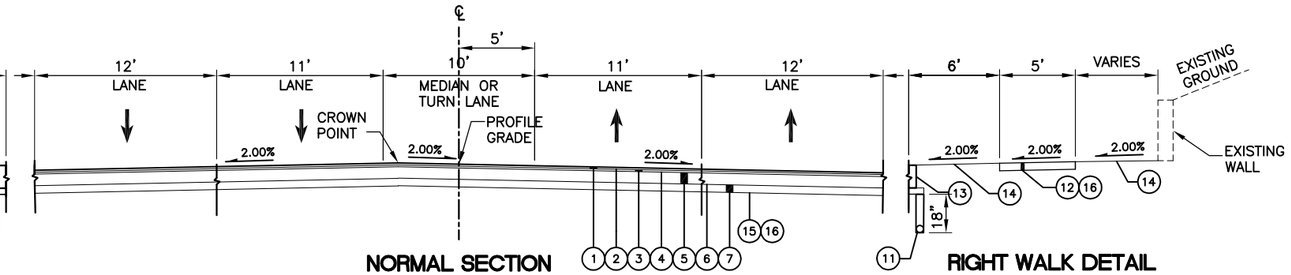
ACC No.
23124



LEFT WALL DETAIL
WEST MLK DRIVE

STA. 12+25 TO STA. 22+12

**SEE CROSS SECTIONS FOR WIDTH AND GRADING



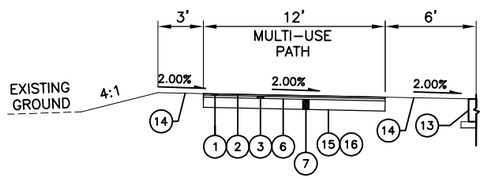
NORMAL SECTION
WEST MLK DRIVE

STA. 12+69.70 TO STA. 24+28
STA. 28+38 TO STA 30+48
STA. 30+48 TO STA. 31+33 (SEE WEST MLK DRIVE / DIXMYTH AVENEUE GRADING SHEET)
STA. 31+33 TO STA. 35+50 (SEE TURN LANE TAPER DETAIL)
(SECTION VALID UNLESS IN RANGE OF THE PROPOSED MEDIAN, SEE MEDIAN NORMAL DETAIL)

RIGHT WALK DETAIL
WEST MLK DRIVE

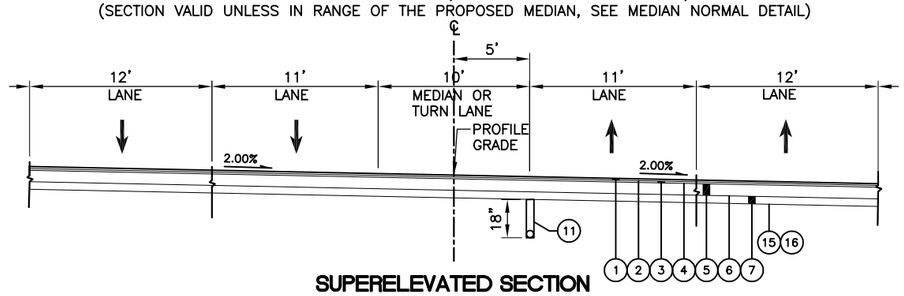
STA. 11+50 TO STA. 30+48

(A) VARIES 9.1' TO 6.0'
STA. 11+50 TO STA. 13+00
6.0' FROM
STA. 13+00 TO STA. 22+12



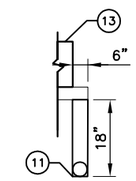
LEFT SLOPE DETAIL
WEST MLK DRIVE

STA. 11+50 TO STA. 12+25
STA. 22+12 TO STA. 35+50

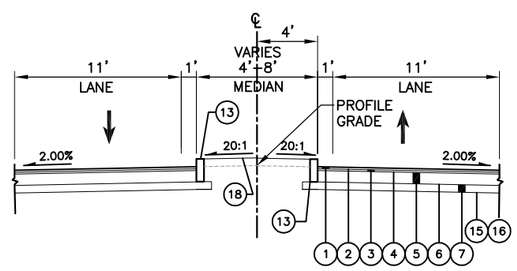


SUPERELEVATED SECTION
WEST MLK DRIVE

STA. 24+28 TO STA. 28+38
(SECTION VALID UNLESS IN RANGE OF THE PROPOSED MEDIAN, SEE MEDIAN SUPERELEVATED DETAIL)



PAVEMENT EDGE DETAIL

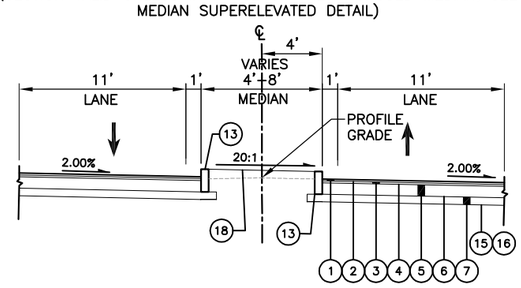


MEDIAN NORMAL DETAIL
WEST MLK DRIVE

SEE NEW TRAFFIC MEDIAN DETAIL, SHEET 5.

MEDIAN TAPER 4'-8'
STA. 14+73 TO STA. 14+92
STA. 16+82 TO STA. 17+00

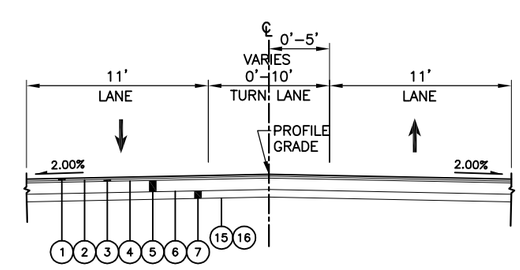
8' MEDIAN
STA. 11+50 TO STA. 13+21
STA. 14+92 TO STA. 15+25
STA. 17+00 TO STA. 18+00
STA. 24+25 TO STA. 24+28



MEDIAN SUPERELEVATED DETAIL
WEST MLK DRIVE

MEDIAN TAPER 8'-4'
STA. 26+00 TO STA. 26+20

8' MEDIAN
STA. 24+28 TO STA. 26+00



TURN LANE TAPER DETAIL
WEST MLK DRIVE

STA. 33+00 TO STA. 35+50

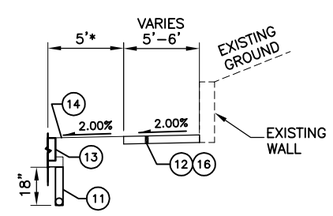
LEGEND

1. ITEM 442 1-1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
2. ITEM 407 TACK COAT (INCIDENTAL TO SURFACE COURSE)
3. ITEM 442 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
4. ITEM 407 TACK COAT (INCIDENTAL TO INTERMEDIATE COURSE)
5. ITEM 302 9" ASPHALT CONCRETE BASE, PG 64-22
6. ITEM 408 PRIME COAT (INCIDENTAL TO AGGREGATE BASE)
7. ITEM 304 6" AGGREGATE BASE
8. NOT USED
9. NOT USED
10. NOT USED
11. ITEM 605 BASE PIPE UNDERDRAIN
12. ITEM 608 5" CONCRETE WALK
13. ITEM 609 CURB TYPE S-1
14. ITEM SPECIAL HYDROSEEDING
15. ITEM 204 PROOF ROLLING
16. ITEM 204 SUBGRADE COMPACTION
17. ITEM 254 PAVEMENT MILLING (1½")
18. ITEM SPECIAL GRANITE PAVERS

EXISTING LEGEND

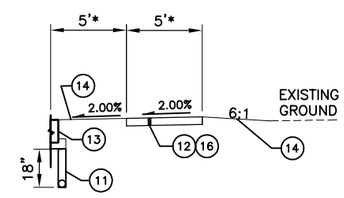
- (A) ASPHALT CONCRETE (4" 13+00 TO 18+25, 3" 18+25 TO 50+00)
- (B) CONCRETE (8" 13+00 TO 18+25, 6" 18+25 TO 50+00)
- (C) GRANULAR BASE (2" 13+00 TO 18+25, 3" 18+25 TO 50+00)
- (D) 5" CONCRETE WALK
- (E) CURB TYPE S-1

NOTE: THE EXISTING CLIFTON AVENUE PAVEMENT SECTION IS ASSUMED TO MATCH WEST MLK DRIVE.



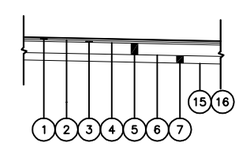
RIGHT WALK DETAIL
WEST MLK DRIVE

STA. 31+33 TO STA. 34+32
*MATCH EXISTING



RIGHT WALK DETAIL
WEST MLK DRIVE

STA. 34+32 TO STA. 35+50
*MATCH EXISTING



PAVEMENT DETAIL
DYXMYTH AVENUE

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TYPICAL SECTIONS

Revisions
No.

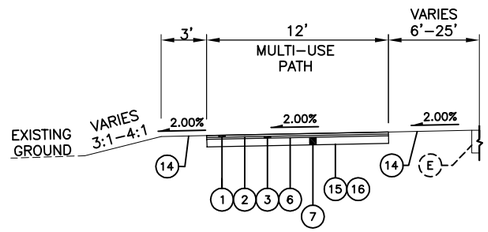
Date | Date | Date | Date

Drawn by | Designed by | Checked by | Reviewed by

Consultant

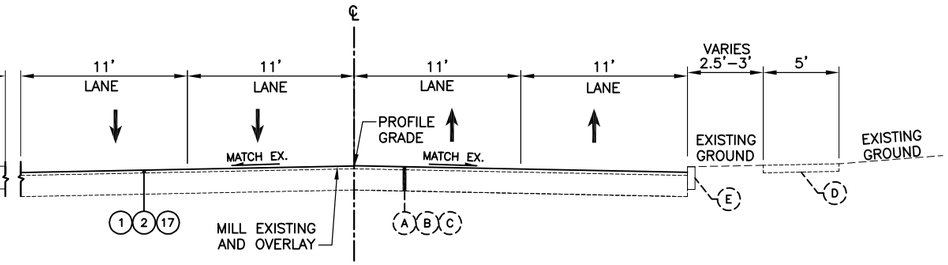
Structure File Number

ACC No.
23124



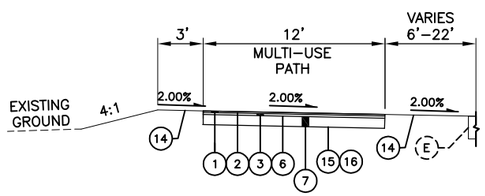
LEFT SIDE DETAIL
WEST MLK DRIVE

STA. 35+50 TO STA. 48+00
PATH CROSS SLOPE TRANSITIONS
FROM STA. 47+50 TO STA. 48+00



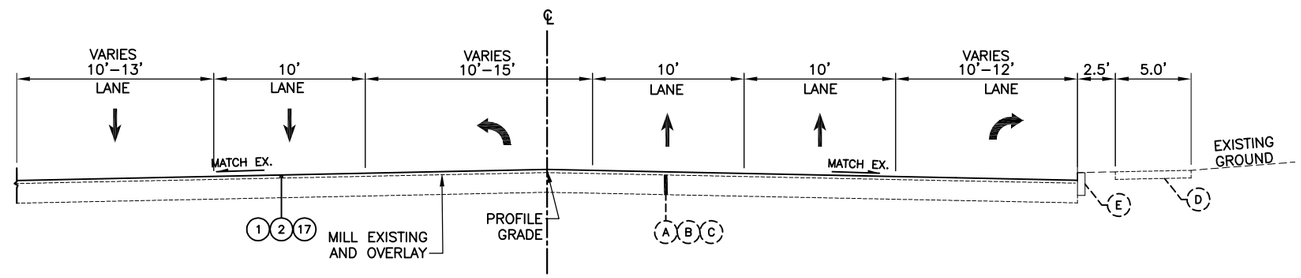
NORMAL SECTION
WEST MLK DRIVE

STA. 35+50 TO STA. 48+25
STA. 48+25 TO STA. 48+75 (SEE WEST MLK DRIVE / RIDDLE ROAD GRADING SHEET)



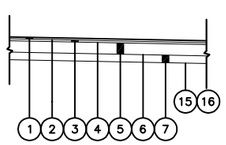
LEFT SIDE DETAIL
WEST MLK DRIVE

STA. 48+00 TO STA. 49+65

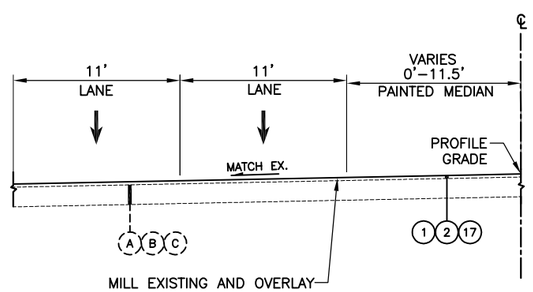


NORMAL SECTION
WEST MLK DRIVE

STA. 48+75 TO STA. 49+65
STA. 49+65 TO STA. 52+02 (SEE WEST MLK DRIVE / CLIFTON AVENUE GRADING SHEET)

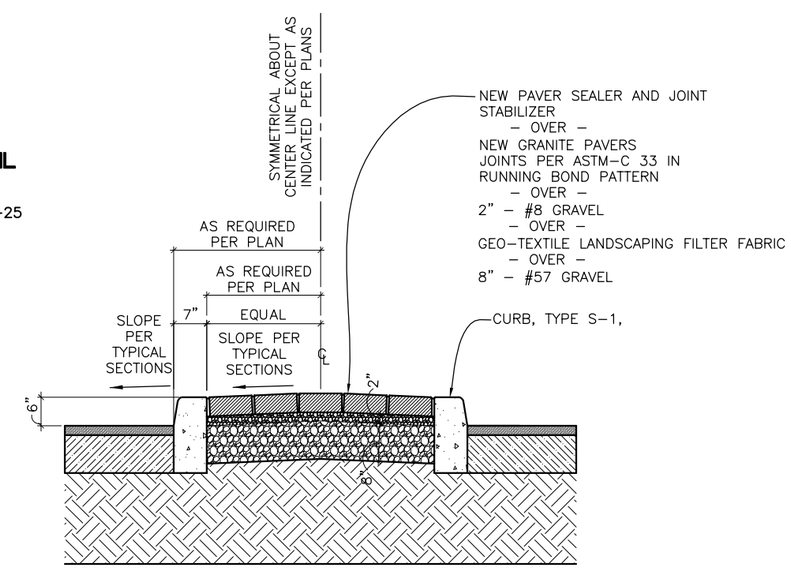


PAVEMENT DETAIL
WEST MLK DRIVE AND CLIFTON AVENUE INTERSECTION



LEFT SIDE DETAIL
WEST MLK DRIVE

STA. 46+80 TO STA. 48+25



CROSS SECTION - NEW TRAFFIC MEDIAN
Scale: 3/4"=1'-0"

LEGEND

1. ITEM 442 1-1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
2. ITEM 407 TACK COAT (INCIDENTAL TO SURFACE COURSE)
3. ITEM 442 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)
4. ITEM 407 TACK COAT (INCIDENTAL TO INTERMEDIATE COURSE)
5. ITEM 302 9" ASPHALT CONCRETE BASE, PG 64-22
6. ITEM 408 PRIME COAT (INCIDENTAL TO AGGREGATE BASE)
7. ITEM 304 6" AGGREGATE BASE
8. NOT USED
9. NOT USED
10. NOT USED
11. ITEM 605 BASE PIPE UNDERDRAIN
12. ITEM 608 5" CONCRETE WALK
13. ITEM 609 CURB TYPE S-1
14. ITEM SPECIAL HYDROSEEDING
15. ITEM 204 PROOF ROLLING
16. ITEM 204 SUBGRADE COMPACTION
17. ITEM 254 PAVEMENT MILLING (1½")
18. ITEM SPECIAL GRANITE PAVERS

EXISTING LEGEND

- (A) ASPHALT CONCRETE (4" 13+00 TO 18+25, 3" 18+25 TO 50+00)
- (B) CONCRETE (8" 13+00 TO 18+25, 6" 18+25 TO 50+00)
- (C) GRANULAR BASE (2" 13+00 TO 18+25, 3" 18+25 TO 50+00)
- (D) 5" CONCRETE WALK
- (E) CURB TYPE S-1

NOTE: THE EXISTING CLIFTON AVENUE PAVEMENT SECTION IS ASSUMED TO MATCH WEST MLK DRIVE.

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TYPICAL SECTIONS

Revisions

No.				

Date | Date | Date | Date

Drawn by | Designed by | Checked by | Reviewed by

Consultant

Structure File Number

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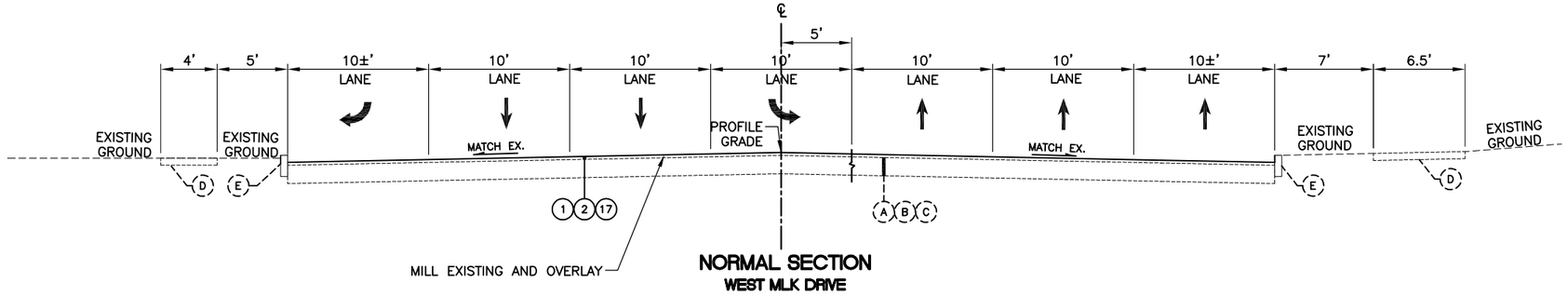
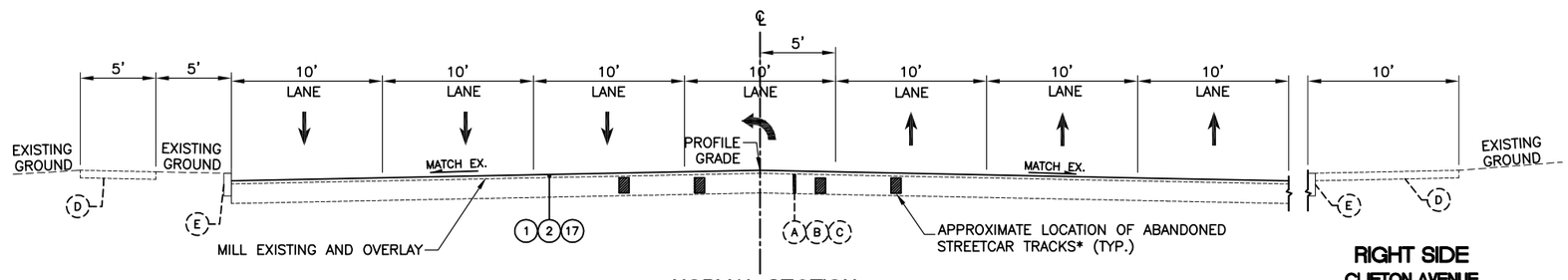
23124



NORMAL SECTION
WEST MLK DRIVE

STA. 52+02 TO STA. 57+35
STA. 53+70 TO STA. 54+70 (SEE WEST MLK DRIVE / BROOKLINE DRIVE GRADING SHEET)

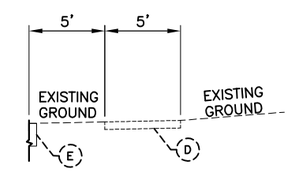


NORMAL SECTION
CLIFTON AVENUE

STA. 07+07 TO STA. 12+50
STA. 09+15 TO STA. 10+94 (SEE WEST MLK DRIVE / CLIFTON AVENUE GRADING SHEET)

*CONTRACTOR SHALL REMOVE EXISTING STREETCAR TRACKS IF ENCOUNTERED WHEN CONSTRUCTING PROPOSED CLIFTON AVENUE IMPROVEMENTS.

RIGHT SIDE
CLIFTON AVENUE
STA. 07+07 TO STA. 09+15



RIGHT SIDE
CLIFTON AVENUE
STA. 10+94 TO STA. 12+50

LEGEND

1. ITEM 442 1-1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
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C. GRANULAR BASE (2" 13+00 TO 18+25, 3" 18+25 TO 50+00)
D. 5" CONCRETE WALK
E. CURB TYPE S-1

NOTE: THE EXISTING CLIFTON AVENUE PAVEMENT SECTION IS ASSUMED TO MATCH WEST MLK DRIVE.

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
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Checked by
Reviewed by

Consultant

Structure File Number

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CONSTRUCTION NOTIFICATION:

THE CONTRACTOR WILL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE CLOSURES, AND ROAD CLOSURES. THE PROJECT ENGINEER WILL FORWARD THIS INFORMATION TO THE CITY OF CINCINNATI CITY ENGINEER AND ANY OTHER LOCAL OFFICIALS RESPONSIBLE FOR PUBLIC NOTIFICATION. THAT OFFICIAL WILL, IN TURN, NOTIFY THE PUBLIC, THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND BUSINESSES, AND ANY OTHER IMPACTED LOCAL PUBLIC AGENCY OF ANY OF THE ABOVE MENTIONED ITEMS, VIA THE APPROPRIATE MEDIA SOURCES.

UTILITIES:

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

ELECTRIC:
DUKE ENERGY
139 EAST FOURTH STREET
ROOM 467A
CINCINNATI, OHIO 45202
513–287–2240 (TAMWA PUGH)

GAS:
DUKE ENERGY
139 EAST FOURTH STREET
ROOM 467A
CINCINNATI, OHIO 45202
513–287–4415 (BRAD SEITER)

WATER:
CINCINNATI WATER WORKS
4747 SPRING GROVE AVENUE
CINCINNATI, OHIO, 45232
513–591–6856 (JON HUNSEDER)

WASTEWATER:
METROPOLITAN SEWER DISTRICT
1600 GEST STREET
CINCINNATI, OHIO 45204
513–557–7188 (ROB FRANKLIN)

METROPOLITAN SEWER DISTRICT
1600 GEST STREET
CINCINNATI, OHIO 45204
513–244–5115 (THOMAS LUDWIG)

STORM SEWER:
STORMWATER MANAGEMENT UTILITY
METROPOLITAN SEWER DISTRICT
1600 GEST STREET
CINCINNATI, OHIO 45204
513–244–3904 (CHERI BUSH)

TELECOM:
TIME WARNER
11252 CORNELL PARK DRIVE
CINCINNATI, OHIO 45242
513–386–5483 (JIM O'REILLY)

TELECOM:
CINCINNATI BELL TELEPHONE
221 EAST 4TH STREET, BLDG 121–900
CINCINNATI, OHIO 45201
513–565–6014 (ROBERT STROCHINSKY)

TELECOM:
CINCINNATI BELL TELEPHONE
221 EAST 4TH STREET, BLDG 121–900
CINCINNATI, OHIO 45201
513–565–7043 (MARK CONNER)

CONSTRUCTION NOTES:

ITEM 204 – SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
2. AFTER OBTAINING APPROVAL FROM THE ENGINEER, EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A–4B, ORGANIC SOIL, A–2–5, A–5, A–7–5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05. IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE FILL AND SHAPING THE SUBGRADE.
3. COMPACT THE SUBGRADE ACCORDING TO 204.03.
4. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.
5. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.
6. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE. THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

ITEM 602 – CONCRETE MASONRY TO INCLUDE WORK FOR ENCASEMENT 49057, ENCASEMENT 49044, CONCRETE COLLAR, AND TRASH RACKS

ITEM 611 – MANHOLE COVER, AS PER PLAN TO INCLUDE THE COST ASSOCIATED WITH REPLACING THE STANDARD COVER WITH A SKID PROOF LID 49065

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS–SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

MSD/SMU NOTES

1. ALL PLANS AND CONSTRUCTION WITHIN THE CITY OF CINCINNATI SHALL COMPLY WITH THE LATEST EDITION OF THE "STORMWATER MANAGEMENT RULES AND REGULATIONS" MANUAL GOVERNING THE HANDLING OF STORMWATER DRAINAGE, AND THE DESIGN, CONSTRUCTION, MAINTENANCE, OPERATION , AND USE STORMWATER SEWERS, DETENTION BASINS, AND OTHER STORMWATER STRUCTURES WITHIN THE CITY OF CINCINNATI, EFFECTIVE JUNE 1989. COPIES MAY BE OBTAINED FROM THE DIVISION OF WASTEWATER ENGINEERING, MSD, OR FROM THE STORMWATER MANAGEMENT UTILITY (SMU), 1600 GEST STREET, CINCINNATI, OHIO 45204.
2. ALL STORM SEWERS SHALL BE CONSTRUCTED UNDER THE INSPECTION OF THE CHIEF ENGINEER, STORMWATER MANAGEMENT UTILITY.
3. ALL PUBLIC STORM DRAINAGE AND CONSTRUCTION AND MATERIAL SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE OHIO

MSD/SMU NOTES

DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND WITH THE LATEST EDITION OF THE CITY OF CINCINNATI SUPPLEMENT TO THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.

4. ALL MANHOLES ON PUBLIC STORM SEWERS SHALL HAVE STANDARD LIDS AND FRAMES, ACCESSION NO. 120282, EXCEPT WHERE NOTED. THE FRAME SHALL BE SECURELY FASTENED TO THE TOP MANHOLE SECTION BY FOUR 3/4–INCH STAINLESS STEEL CINCH ANCHORS.
5. ALL STORM SEWERS PROPOSED FOR ACCEPTANCE BY THE CITY OF CINCINNATI SHALL BE INSPECTED, HAVE AS–BUILT DRAWINGS PREPARED, AND BE VIDEO–TAPED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF CINCINNATI SUPPLEMENT TO THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS, SECTION 603.059 AND WITH SECTION 1007 OF THE GREATER CINCINNATI METROPOLITAN SEWER DISTRICT RULES AND REGULATIONS (EXCEPT THAT PARTS B & C DO NOT APPLY).
6. STORM SEWERS SHALL COMPLY WITH ODOT ITEM 611, AND SHALL BE REINFORCED CONCRETE, TYPE C, CLASS III, UNLESS OTHERWISE NOTED. PVC AND PLASTIC CONDUITS, IF NOTED ON THE PLANS, SHALL CONFORM WITH ODOT ITEM 611. TYPE E CONDUIT SHALL NOT BE USED FOR PUBLIC STORM SEWERS OR FOR STORM SEWERS TO BE LOCATED UNDER PAVED SURFACES. ALL CONDUITS SHALL HAVE TYPE 2 BEDDING PER ODOT ITEM 611.06 UNLESS OTHERWISE NOTED. ALL STORM SEWERS UNDER, OR WITH A TRENCH WALL WITHIN THREE FEET OF A PAVED SURFACE, SHALL BE BACKFILLED WITH CONTROLLED DENSITY FILL (CDF), MEETING THE REQUIREMENTS OF HAM–CIN–CLSM–CDF AND THE MOST RECENT VERSION OF THE CITY OF CINCINNATI STREET RESTORATION BOOK, EXCEPT THAT GRANULAR BACKFILL SHALL BE PLACED TO 1 FOOT ABOVE THE CONDUIT AND IN SPECIFIC LOCATIONS AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR'S LICENSE – ALL WORK DONE ON STORM SEWERS WITHIN THE CITY OF CINCINNATI MUST BE DONE BY A CONTRACTOR WHO IS AN APPROVED SEWER TAPPER PROPERLY LICENSED AND BONDED THROUGH THE METROPOLITAN SEWER DISTRICT.
8. STORM SEWER CONSTRUCTION MUST COMMENCE WITHIN 12 MONTHS AND BE COMPLETED WITHIN 36 MONTHS OF THE DATE OF APPROVAL SHOWN HEREON OR THESE PLANS BECOME VOID.
9. SEDIMENT AND DEBRIS SHALL BE REMOVED FROM THE DRAINAGE CONDUITS SHOWN ON THE PLAN. ALL MATERIAL REMOVED SHALL BE DISPOSED OF AS PER 104.04, 105.16, 105.17, AND 611.05 OF THE CITY OF CINCINNATI SUPPLEMENT TO THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS.
10. NO INLET, CATCH BASIN, OR INTAKE SHALL BE INSTALLED CLOSER THEN 5 FEET TO A DRIVEWAY, DRIVEWAY APRON, UTILITY POLE, GUY WIRE ANCHOR, FIRE HYDRANT OR PEDESTRIAN CURB RAMP UNLESS OTHERWISE APPROVED BY THE CHIEF ENGINEER, STORMWATER MANAGEMENT UTILITY.
11. MANHOLE COVER, AS PER PLAN – EXISTING OR PROPOSED MANHOLES IN THE SIDEWALK SPACE SHALL HAVE A SKID–PROOF, ADA APPROVED LID (REFERENCE: MSDGC ACCESSION NO. 49005).
12. MANHOLES, CATCH BASINS, AND INLETS PROPOSED FOR REMOVAL SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF CINCINNATI SUPPLEMENT TO THE ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS, SECTION 202.11.

TYPE S-1 CURB, AS PER PLAN

TO BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS FOR TYPE S–1 EXCEPT AS MODIFIED BY THE FOLLOWING. TYPE S–1 CURB, AS PER PLAN SHALL HAVE AN EXPOSED HEIGHT OF 4".

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
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HAM-CR 612-0.20
GENERAL NOTES

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Drawn by
Designed by
Checked by
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Consultant

Structure File Number

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23124

ITEM 614 – MAINTAINING TRAFFIC

THE CONTRACTOR MUST PERFORM THE REQUIRED WORK WITH THE MAXIMUM SAFETY OF, AND THE LEAST INCONVENIENCE TO, THE TRAVELING PUBLIC AND THE CONTRACTOR. THE ENGINEER MUST APPROVE ANY PROPOSED VARIANCE FROM THE MAINTENANCE OF TRAFFIC NOTES, IN ADVANCE, IN WRITING. EXCEPT AS MODIFIED HEREIN, THE REQUIREMENTS FOR MAINTAINING TRAFFIC, AS INDICATED IN THE "STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION", ITEM 614; "THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (OMUTCD), PART 6; AND THE CITY OF CINCINNATI "TRAFFIC SAFETY HANDBOOK" (BLUE BOOK) CURRENT EDITIONS, LATEST REVISIONS AND PERTINENT ITEMS OF SPECIFICATIONS AND PROPOSAL SHALL APPLY.

USE DRUMS, SIGNS, SIGN SUPPORTS, BARRICADES, IMPACT ATTENUATORS AND OTHER TRAFFIC CONTROL DEVICES THAT ARE CERTIFIED TO MEET NCHRP350 SAFE–CRASH STANDARDS OR ARE MODIFIED BY CONTRACT DOCUMENTS. DO NOT USE HEAVY, NON–YIELDING DEVICES OR SUPPORTS THAT DO NOT CONFORM TO THE CURRENT STANDARDS OF NCHRP350 UNLESS ALLOWED BY CONTRACT DOCUMENTS.

TRAFFIC CONTROL GENERAL

ALL TRAFFIC CONTROL WILL CONFORM TO THE REQUIREMENTS OF THE PLAN, STANDARD CONSTRUCTION DRAWINGS SHOWN ON THE PLAN, AND THE OMUTCD FOR STREETS AND HIGHWAYS, FOR THE INSTALLATION, MAINTENANCE, AND OPERATION OF ALL TRAFFIC CONTROLS AND TRAFFIC CONTROL DEVICES. WHEN THE PLANS OR STANDARD CONSTRUCTION DRAWINGS DO NOT COVER A SPECIFIC TRAFFIC CONTROL SITUATION, PLACE THE NECESSARY TRAFFIC CONTROL DEVICES ACCORDING TO THE OMUTCD AND USE THE PROCEDURES REQUIRED BY THE OMUTCD.

1. IN ADDITION TO ITEM 614, "MAINTAINING TRAFFIC," AS SET FORTH IN THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING NOTES APPLY TO THE WORK CARRIED OUT WITHIN THE LIMITS OF THIS PROJECT.

A. THE CONTRACTOR WILL BE REQUIRED ON AN INTERIM AND/OR PERMANENT BASIS TO FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL LIGHTS, SIGNS, BARRICADES AND ALL OTHER TRAFFIC CONTROL DEVICES NECESSARY FOR THE SAFETY AND MAINTENANCE OF TRAFFIC. THIS ALSO INCLUDES ALL ADVANCE WARNING SIGNAGE, REGULATORY SIGNS, INFORMATIONAL SIGNS, DETOUR SIGNS AND DIRECTIONAL SIGNS. KEEP ALL EQUIPMENT CLEAN AND IN PROPER WORKING CONDITION. ALL SIGNS ARE TO BE RETROREFLECTORIZED OR ILLUMINATED AND OF THE MOST RECENT COLOR AND TYPE AS SPECIFIED IN THE OMUTCD MANUAL.

B. REPLACE ANY TRAFFIC CONTROL DEVICE THAT BECOMES MOVED OR DAMAGED DURING THE DURATION OF THE PROJECT. ASSIGN A COMPETENT PERSON TO CHECK THE WORK ZONE ON A DAILY BASIS TO CORRECT ANY DEFICIENCIES. MAKE THESE CHECKS BEFORE WORK IS TO START FOR THE DAY TO ASSURE ALL DEVICES ARE IN PLACE OR, IF NOT NEEDED, ARE COVERED OR REMOVED FROM THE SITE. IF THE CONTRACTOR IS NOT WORKING AND NO ROADWAY HAZARDS ARE PRESENT, COVER OR REMOVE FROM THE SITE ANY UNNECESSARY SIGNS.

C. THE STANDARD CHANNELIZING DEVICE FOR CLOSING ANY LANE TO TRAFFIC IS PROPERLY WEIGHTED 36" DRUMS OR 42" CONES. TAPERS FOR LANE CLOSURES HAVE 36" DRUMS OR 42" CONES. 28" CONES MAY BE USED FOR DAYTIME ONLY, SHORT DURATION CLOSURES. ALL CHANNELIZING DEVICES ARE ORANGE IN COLOR WITH A MINIMUM OF TWO RETROREFLECTIVE BANDS (42" CONES HAVE A MINIMUM OF FOUR RETROREFLECTIVE BANDS). THE RETROREFLECTIVE MATERIAL USED ON CHANNELIZING DEVICES HAS A SMOOTH, SEALED SURFACE THAT WILL DISPLAY APPROXIMATELY THE SAME COLOR DAY AND NIGHT. KEEP ALL RETROREFLECTIVE MATERIAL ON DEVICES IN GOOD CONDITION, MAINTAINING THEIR RETROREFLECTIVE PROPERTIES.

D. FLASHING ARROW PANELS SHOULD BE USED FOR ALL LANE CLOSURES AND MAY BE REQUIRED AT ANY TIME DURING THE JOB OR PROJECT BY THE PROJECT ENGINEER, THE INSPECTOR OR A TRAFFIC ENGINEERING OFFICIAL. USE ARROW PANELS IN THE CINCINNATI BUSINESS DISTRICT (CBD) AREA FOR ANY WORK WITHIN A TRAVEL LANE. ARROW PANELS MUST CONFORM TO THE OMUTCD PART 6, SECTION 6F.53, "ARROW PANELS". FOR A STATIONARY LANE CLOSURE THE ARROW PANEL SHOULD BE LOCATED ON THE SHOULDER AT THE BEGINNING OF THE MERGING TAPER. WHERE THE SHOULDER IS NARROW, THE ARROW PANEL SHOULD BE LOCATED IN THE CLOSED LANE. USE THE ARROW PANEL IN COMBINATION WITH APPROPRIATE SIGNS, CHANNELIZING DEVICES AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES.

E. IF FLAGGING IS NECESSARY, THE REQUIRED METHOD OF FLAGGING IS WITH APPROVED STOP/SLOW PADDLES. FLAGS SHOULD BE LIMITED TO EMERGENCY SITUATIONS, INTERSECTIONS AND LOW SPEED, LOW VOLUME LOCATIONS, WHICH CAN BEST BE CONTROLLED BY A SINGLE FLAGGER. THE FLAGGING OPERATION AND FLAGGING STATION WILL CONFORM TO THE OMUTCD PART 6E, "FLAGGER CONTROL".

2. FAILURE TO COMPLY WITH MAINTENANCE OF TRAFFIC REQUIREMENTS WILL RESULT IN WORK PROGRESS BEING SUSPENDED. THE CONTRACTOR WILL BE ORDERED TO REMOVE ALL PERSONNEL AND EQUIPMENT FROM THE CITY OF CINCINNATI RIGHT–OF–WAY UNTIL PROPER TRAFFIC CONTROL IS IN PLACE AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION AND ENGINEERING'S INSPECTOR AND/OR A TRAFFIC ENGINEERING OFFICIAL.

3. BEFORE WORK BEGINS, SUBMIT TO THE ENGINEER THE NAME AND TELEPHONE NUMBER OF A PERSON(S) WHO CAN BE REACHED 24 HOURS A DAY BY THE CITY OF CINCINNATI AND ALL INTERESTED POLICE AGENCIES. THIS PERSON(S) IS RESPONSIBLE FOR REPLACING AND MAINTAINING NECESSARY TRAFFIC CONTROL DEVICES PER THE APPROVED TRAFFIC CONTROL PLAN.

4. PEDESTRIAN PROTECTION AND PEDESTRIAN ACCESS WILL BE MAINTAINED AT ALL TIMES AND WILL CONFORM TO THE OMUTCD PART6D.01, "PEDESTRIAN CONSIDERATION". PEDESTRIANS' SAFETY IS OF UTMOST IMPORTANCE THROUGHOUT THE LIFE OF THE CONTRACT OR JOB. PEDESTRIANS WILL NOT BE LED INTO CONFLICTS WITH WORK SITE VEHICLES, EQUIPMENT OR OPERATIONS. PEDESTRIANS WILL NOT BE LED INTO CONFLICTS WITH VEHICLES MOVING THROUGH OR AROUND THE WORK SITE. PEDESTRIANS WILL BE PROVIDED WITH A SAFE, CONVENIENT AND ACCESSIBLE PATH THAT REPLICATES AS NEARLY AS PRACTICAL THE MOST DESIRED CHARACTERISTICS OF THE EXISTING SIDEWALK(S) OR FOOTPATH(S). IF THE PEDESTRIAN PATHWAY IS TO BE CLOSED, POST SIGNS TO DIRECT PEDESTRIANS TO THE SAFEST CROSSING POINT. IF THE PATHWAY IS TO BE CLOSED BETWEEN SAFE CROSSING POINTS, POST SIGNS IN ADVANCE OF THE CLOSED AREA AT A SAFE CROSSING POINT OR MAKE ARRANGEMENTS FOR SAFE PEDESTRIAN PASSAGE. IF PEDESTRIAN BARRIERS ARE REQUIRED BY TRAFFIC ENGINEERING OR THE PROJECT ENGINEER, THE PROJECT ENGINEER WILL APPROVE THE TYPE USED. THE SAFETY OF PEDESTRIANS IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. NOTIFY THE FOLLOWING GROUPS FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK AND THREE (3) DAYS NOTICE PRIOR TO ANY STREET CLOSURE WITH THE APPROVAL OF THE CITY TRAFFIC ENGINEER OR HIS/HER DESIGNEE AND THE PROJECT ENGINEER.

- LOCAL POLICE DISTRICT
- LOCAL FIREHOUSES
- QUEEN CITY METRO
- TANK (FOR WORK IN CBD)
- LOCAL SCHOOLS
- LOCAL HOSPITALS
- ABUTTING PROPERTY OWNERS

THE ENGINEER MAY REQUIRE ADDITIONAL CONTACTS.

6. IF TEMPORARY SIGNS TO RESTRICT PARKING ARE INSTALLED, NOTIFY THE LOCAL POLICE DISTRICT 24 HOURS PRIOR TO INSTALLATION AND POST THE SIGNS AT LEAST 14 HOURS BEFORE THE PARKING RESTRICTION LISTED ON THE SIGN. DATES AND TIMES ON TEMPORARY SIGNS MUST BE PROPERLY WORDED AND LEGIBLE.

7. THE CONTRACTOR WILL MAKE ARRANGEMENTS AND PAY FOR THE SERVICES OF AN OFF–DUTY POLICE OFFICER AND CRUISER, AS NEEDED. THE CINCINNATI POLICE DEPARTMENT (PHONE: 352–2583) AND HAMILTON COUNTY SHERIFF'S DEPARTMENT (PHONE: 595–8513) REQUIRES ADVANCE NOTICE FOR THESE SERVICES. THE USE OF A POLICE OFFICER(S) WITH A MARKED POLICE VEHICLE IS ENCOURAGED AND MAY BE REQUIRED BY TRAFFIC ENGINEERING, THE PROJECT ENGINEER, OR THE ROW INSPECTOR WHEN WORK IS DONE WITHIN A SIGNALIZED INTERSECTION. LOCATIONS THAT WILL REQUIRE A POLICE OFFICER(S) WILL APPEAR IN ITEM #14. THE HIRING OF A POLICE OFFICER(S) IS FOR ASSISTANCE WITH TRAFFIC AND PEDESTRIAN CONTROL, FOR THE SAFETY OF THE TRAVELING PUBLIC AND FOR THE SAFETY OF THE CONTRACTOR'S EMPLOYEES. THE POLICE OFFICER(S) IS CONSIDERED TO BE EMPLOYED BY THE CONTRACTOR AND THE CONTRACTOR IS RESPONSIBLE FOR THEIR ACTIONS. ALTHOUGH THEY ARE EMPLOYED BY THE CONTRACTOR, THE POLICE OFFICER'S PLACEMENT AND DUTIES WILL BE DETERMINED BY TRAFFIC ENGINEERING, THE PROJECT ENGINEER, OR THE ROW INSPECTOR. THE CLOSING OF A ROAD FOR THE PURPOSE OF THE PROPOSED WORK WILL ONLY BE DONE WITH ADVANCED NOTIFICATION AND THE APPROVAL OF TRAFFIC ENGINEERING.

8. THE CONTRACTOR, THROUGH THE ENGINEER OR INSPECTOR, IS REQUIRED TO CONTACT JIM JAUCH OF THE TRAFFIC ENGINEERING DIVISION AT 352–5272, OR TRAFFIC SERVICE BUREAU CONTROLLER SERVICE SECTION AT 352–4391 ONE WEEK PRIOR TO ANY GRINDING OR CURB REPAIR OPERATIONS NEAR VEHICLE LOOP DETECTORS. THEY WILL COORDINATE WITH THE CONTRACTOR TO SAVE THE EXISTING LOOPS OR TO ARRANGE FOR PROPER SIGNAL OPERATION IF THE LOOP(S) MUST BE DESTROYED.

9. ALL SUB–CONTRACTORS MUST ADHERE TO THE SAME MAINTENANCE OF TRAFFIC REQUIREMENTS AS THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL SUB–CONTRACTORS.

10. ONE WEEK PRIOR TO ANY GRINDING OR PAVING, NOTIFY THE TRAFFIC ENGINEERING REPRESENTATIVE. THE TRAFFIC ENGINEERING REPRESENTATIVE WILL APPROVE OR NOT APPROVE THE DATE AND TIME WITH RESPECT TO AREA EVENTS AND/OR PLANNED LANE CLOSURES.

11. NO OBSTRUCTIONS TO TRAFFIC ARE TO BE PLACED IN THAT PORTION OF THE ROADWAY OR SIDEWALK AREA WHERE THE MAIN DIRECTIONAL FLOW OF TRAFFIC IS CONCENTRATED DURING THE HOURS OF 6:00–9:00 AM AND 3:00–6:00 PM IN THE CBD, OR ANY OTHER THROUGH STREET, AS DEFINED IN THE CITY OF CINCINNATI'S TRAFFIC CODE.

12. IF, IN THE OPINION OF THE CITY ENGINEER, THE CITY TRAFFIC ENGINEER, OR HIS/HER DESIGNEE, PROPER PROVISIONS AND MAINTENANCE OF TRAFFIC OR TRAFFIC CONTROLS ARE NOT PROVIDED BY THE CONTRACTOR, THE CITY WILL PROVIDE APPROPRIATE PROVISIONS TO MAINTAIN SAFE TRAFFIC CONTROLS. THE COST OF THESE SERVICES WILL BE CHARGED TO THE CONTRACTOR.

13. FAILURE TO FOLLOW ESTABLISHED TRAFFIC SAFETY REQUIREMENTS MAY CONSTITUTE A VIOLATION OF THE CONTRACT AND SUBJECTS THE CONTRACTOR TO ALL SANCTIONS AND PENALTIES AUTHORIZED BY THE CINCINNATI MUNICIPAL CODE.

14. POLICE, FIRE AND LOCAL RESIDENT TRAFFIC IS TO BE MAINTAINED AT ALL TIMES. THE FOLLOWING RESTRICTIONS ON LOCAL ROADWAYS SHALL APPLY TO THE CONSTRUCTION INVOLVED IN THIS PROJECT. THESE RESTRICTIONS ARE SUBJECT TO BE CHANGED BY THE CITY OF CINCINNATI TRAFFIC ENGINEER OR HIS/HER DESIGNEE DUE TO UNFORESEEN CIRCUMSTANCES OR TRAFFIC CONDITIONS.

NO TRAFFIC WILL BE DETOURED OR ROADWAY CLOSED WITHOUT PRIOR APPROVAL OF THE DEPARTMENT OF TRANSPORTATION AND ENGINEERING, DIVISION OF TRAFFIC ENGINEERING. NO OPEN TRENCH WILL BE LEFT UNATTENDED. KEEP ALL AREAS IN THE ROADWAY AND SIDEWALK IN SAFE, PASSABLE CONDITION AND MEET ALL REQUIREMENTS SET BY THE DEPARTMENT OF TRANSPORTATION AND ENGINEERING'S CITY ENGINEER AND CITY TRAFFIC ENGINEER OR HIS/HER DESIGNEE.

A. FOLLOW CONSTRUCTION SEQUENCING AS OUTLINED IN THE PLANS. THE CONTRACTOR WILL SUBMIT MOT PLANS, AT LEAST 2 WEEKS IN ADVANCE OF EACH SEQUENCE CHANGE, FOR APPROVAL. SEQUENCE CHANGES WILL NOT BE PERMITTED WITHOUT APPROVAL OF MOT PLAN SUBMITTAL BY THE DEPARTMENT OF TRANSPORTATION AND ENGINEERING'S CITY ENGINEER AND CITY TRAFFIC ENGINEER OR HIS/HER DESIGNEE.

WORK ZONE TRAFFIC SIGNALS

1. REFER TO SECTION 1314 OF THE CITY OF CINCINNATI SUPPLEMENT TO STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS FOR THE REQUIREMENTS OF MAINTENANCE OF EXISTING TRAFFIC SIGNALS AND STREET LIGHTING CIRCUITS.

WORK ZONE PAVEMENT MARKINGS

1. REPLACE ALL PAVEMENT MARKINGS, WHICH ARE REMOVED OR DAMAGED DURING THE PROJECT OR JOB TO THE SAME OR BETTER, CONDITION AND TYPE AS BEFORE THE WORK BEGAN.

2. MAINTAIN VISIBLE MARKINGS AFTER EACH WORKDAY.

3. FOLLOWING THE GRINDING OPERATIONS, USE PAINTED TEMPORARY PAVEMENT MARKINGS. DO NOT APPLY CONSTRUCTION TAPE IN THE WET OR COLD WEATHER PERIODS, AS IT SHOULD NOT BE EXPECTED TO WITHSTAND SNOWPLOWING OPERATIONS.

4. FOLLOWING THE PLACEMENT OF THE LEVELING COURSE, APPLY PAINT OR CONSTRUCTION TAPE PER THE FINAL STRIPING PLAN TO SERVE AS TEMPORARY PAVEMENT MARKINGS. IF CONSTRUCTION TAPE IS USED FOR TEMPORARY PAVEMENT MARKINGS ON THE LEVELING COURSE, REMOVE IT BEFORE PLACEMENT OF THE SURFACE COURSE.

5. PLACE ALL TEMPORARY PAVEMENT MARKINGS TO RETAIN LANE ASSIGNMENTS AND SHY AWAY FROM AREAS NEAR CURBS, ISLANDS, ETC., UNLESS OTHERWISE DIRECTED BY THE ENGINEER. INSTALL THESE TEMPORARY PAVEMENT MARKINGS WITH THE SAME PROFESSIONAL ALIGNMENT AND GENERAL POSITIVE GUIDANCE THAT IS UTILIZED WITH THE PERMANENT PAVEMENT MARKINGS.

6. AFTER THE PLACEMENT OF THE SURFACE COURSE, USE PAINT FOR LAYOUT OF THE FINAL STRIPING PLAN. DO NOT USE CONSTRUCTION TAPES ON THE SURFACE COURSE. AFTER THE ENGINEER HAS APPROVED THE LAYOUT OF THE TEMPORARY PAVEMENT MARKINGS, APPLY PERMANENT PAVEMENT MARKINGS IN THERMOPLASTIC ON ASPHALT SURFACE COURSES.

7. THE CITY WILL PROVIDE DOCUMENTATION SO THAT THE TEMPORARY PAVEMENT MARKINGS CAN BE PROPERLY ALIGNED. THE ENGINEER WILL PROVIDE INSPECTION AND APPROVE THE LAYOUT. THE CONTRACTOR WILL PERFORM THE LAYOUT.

8. ON ANY STREET WHICH HAS THE SURFACE COURSE PLACED AFTER NOVEMBER 1, THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN VISIBLE PAVEMENT MARKINGS UNTIL MARCH 15 OF THE FOLLOWING YEAR OR UNTIL THE PERMANENT PAVEMENT MARKINGS ARE PLACED.

CONTRACT DRAWING
PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHOULD BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
MAINTENANCE OF TRAFFIC NOTES

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124

STAGE 1

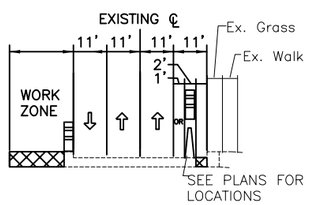
PLAN NOTES:

1. THIS PLAN SHOWS ONLY A PROPOSED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT AND GET CITY APPROVAL ON A DETAILED MAINTENANCE OF TRAFFIC PLAN DETAILING WORK TO BE COMPLETED IN EACH STAGE PRIOR TO BEGINNING ANY CONSTRUCTION.
2. CONTRACTOR TO MAINTAIN STORM AND SEWER FLOWS THROUGHOUT CONSTRUCTION.
3. IF FINAL SURFACE COURSE IS NOT IMMEDIATELY APPLIED, CASTINGS CONSTRUCTED ONE–HALF INCH OR MORE ABOVE THE ELEVATION OF THE TEMPORARY ROADWAY SURFACE SHALL BE WEDGED WITH ASPHALT CONCRETE TO A DIAMETER OF EIGHT FEET. THE ASPHALT WEDGE SHALL BE REMOVED IMMEDIATELY PRIOR TO FINAL PAVING.
4. CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKERS AND SIGNS AT THE DIRECTION OF THE CITY ENGINEER.

SEQUENCE NOTES (FOR SHEET 9):

PRE–STAGE 1

1. PRIOR TO THE START OF STAGE 1A CONSTRUCTION, ERECT THE TEMPORARY TRAFFIC BARRIER, IMPACT ATTENUATORS, AND DRUMS PRIOR TO THE INSTALLATION OF THE PROPOSED DUKE UTILITY POLES SO AS TO PROTECT THE NEW POLES FROM ERRANT DRIVERS. KEEP TRAFFIC BARRIER IN PLACE UNTIL TRAFFIC IS MAINTAINED IN THE STAGE 2 CONFIGURATION.
2. ADDITIONALLY, TO PROTECT THE PROPOSED DUKE POLES NEAR DRIVEWAYS, THE CONTRACTOR IS TO INSTALL OBJECT MARKERS OR REFLECTIVE TAPE ON EACH POLE AND PROPOSE A METHOD TO BE APPROVED BY THE CITY TO PROTECT THE POLES, SUCH AS PROVIDE TEMPORARY WATER OR SAND FILLED DRUM ARRAYS OR TEMPORARY CONCRETE BARRIER SECTIONS WITH IMPACT ATTENUATORS OR FLARED END SECTIONS.
3. DRUMS SHALL BE INSTALLED AT DRIVEWAYS TO MAINTAIN DRIVEWAY ACCESS AT ALL TIMES.
4. CONTRACTOR IS TO PERFORM AS MUCH WORK AS POSSIBLE ON THE NORTH SIDE OF WEST MLK DRIVE DURING THIS STAGE, INCLUDING WALLS/SLAB REMOVALS, CONSTRUCT RETAINING WALL, EMBANKMENTS, ETC. IT IS THE INTENT THAT THIS STAGE WILL BE OPERATIONAL UNTIL SPRING 2017. TEMPORARY RESTRICTIONS TO ONE LANE IN EACH DIRECTION DURING NON–PEAK PERIODS IS ALLOWABLE, AS PER THE ENGINEER.



PRE–STAGE 1 CROSS SECTION

STAGE 1A

1. SHIFT TRAFFIC TO THE SOUTH SIDE OF WEST MLK DRIVE, AS SHOWN AND MAINTAIN A MINIMUM OF 11' THRU LANES, EXCEPT BETWEEN STA 34+85 TO STA 57+50.
2. CONSTRUCT THE NORTH SIDE OF WEST MLK DRIVE TO THE TOP OF THE INTERMEDIATE COURSE.
3. CONSTRUCT NORTH WALK AND GRASS STRIP, EXCEPT BETWEEN STA 27+75 TO STA 30+50. CONSTRUCT A 5' TEMPORARY WALK WITH 2' PAVED SHOULDER FOR A CONCRETE TRAFFIC BARRIER BETWEEN STA 27+75 TO 30+50.
4. CONSTRUCT TEMPORARY PAVEMENT WEST OF DIXMYTH MATCHING THE TOP OF PROPOSED INTERMEDIATE COURSE.
5. CONSTRUCT TEMPORARY PAVEMENT AT PROPOSED MEDIAN LOCATIONS TO TOP OF INTERMEDIATE COURSE OF PROPOSED PERMANENT PAVEMENT ELEVATION TO MAINTAIN TRAFFIC IN STAGE 2.
6. DIXMYTH IS TO REMAIN OPEN DURING THIS STAGE. MAINTAIN ACCESS FOR AMBULANCE TRAFFIC AND TO DRIVES AT ALL TIMES. MAINTAIN PEDESTRIAN TRAFFIC ON THE SOUTH SIDE OF WEST MLK DRIVE AT ALL TIMES.

STAGE 1B

1. AFTER COMPLETION OF STAGE 1A CONSTRUCTION, CLOSE DIXMYTH AVENUE TO THRU TRAFFIC AND ERECT THE DETOUR TO THE CLIFTON AVENUE/DIXMYTH AVENUE INTERSECTION. MAINTAIN ALL AMBULANCE TRAFFIC TO GOOD SAMARITAN HOSPITAL AT THE WEST MLK DRIVE/DIXMYTH AVENUE INTERSECTION. THIS DETOUR WILL NOT BE PERMITTED CONCURRENTLY WITH CONSTRUCTION AT THE WEST MLK DRIVE/CLIFTON AVENUE INTERSECTION.
2. CONSTRUCT WEST MLK DRIVE/DIXMYTH INTERSECTION IN HALVES TO THE TOP OF INTERMEDIATE COURSE.

LEGEND

—x—x— DRUMS	PCB W/ ATTENUATOR
WORK ZONE	DRUMS
TEMPORARY PAVEMENT	PCB

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND SHOULD BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
SEQUENCE OF CONST. NOTES
STAGE 1

Revisions

No.				

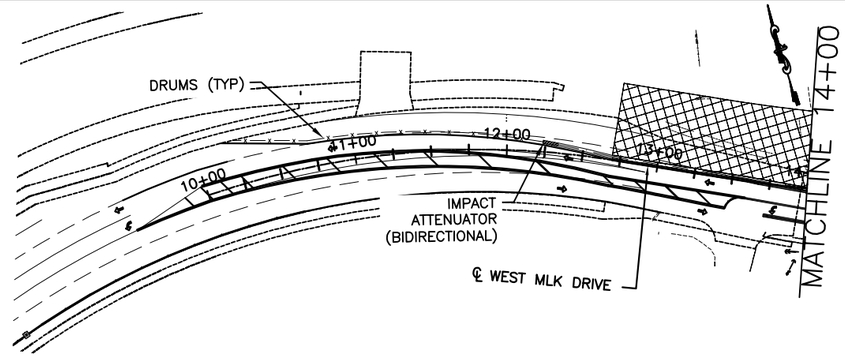
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

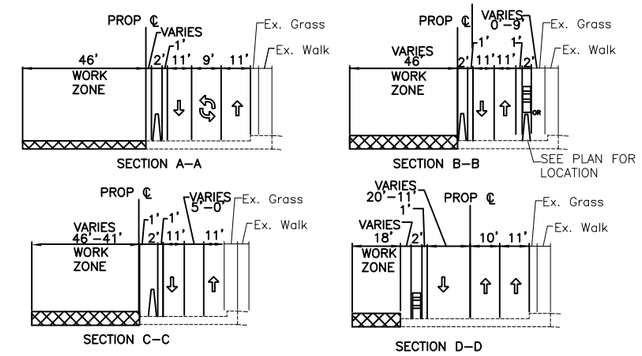
Consultant

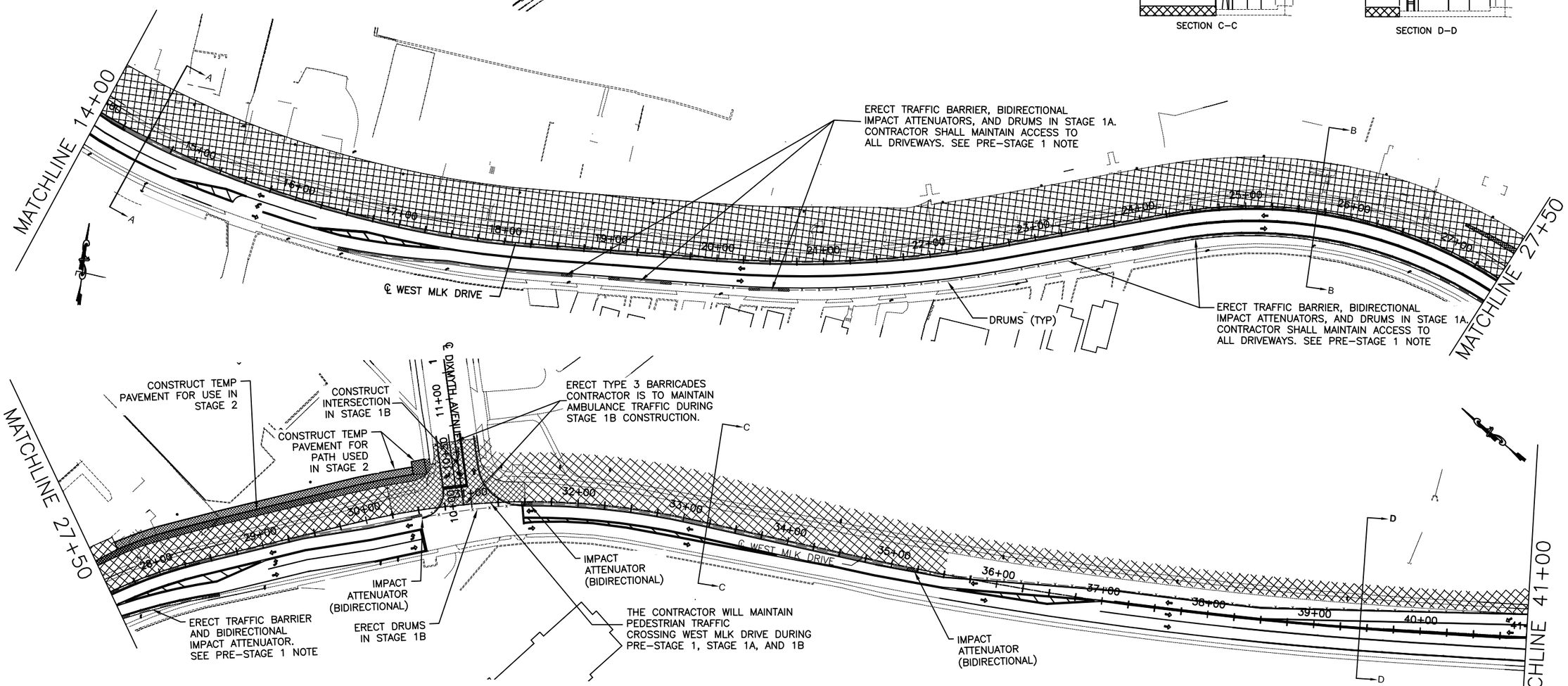
Structure File Number

ACC No.
23124

STAGE 1







LEGEND

- DRUMS
- WORK ZONE (PRE–STAGE 1 /1A)
- WORK ZONE (STAGE 1B)
- TEMPORARY PAVEMENT
- PCB W/ ATTENUATOR
- DRUMS
- PCB

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft. Full Size
1 inch = 100 ft. Half Size

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND MAY BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
SEQUENCE OF CONSTRUCTION
STA. 13+00 TO STA. 41+00

Revisions
No.

Drawn by Date
Designed by Date
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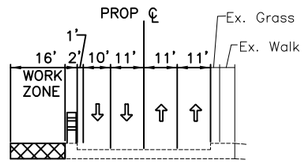
Consultant

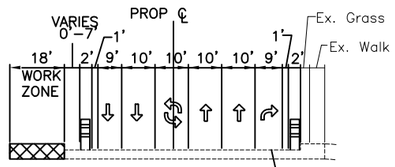
Structure File Number

ACC No.
23124

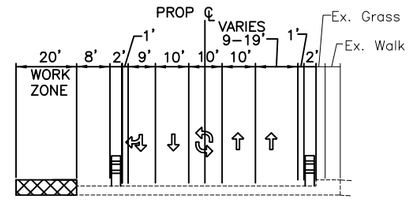
STAGE 1 AND WEST MLK DRIVE/CLIFTON AVENUE INTERSECTION



SECTION E–E



SECTION F–F



SECTION G–G

RIGHT TURN LANE CAN BE CLOSED WITH DRUMS DURING CONSTRUCTION OF THE SOUTHWEST QUADRANT

LEGEND

- DRUMS
- PCB W/ ATTENUATOR
- WORK ZONE
- DRUMS
- TEMPORARY PAVEMENT
- PCB

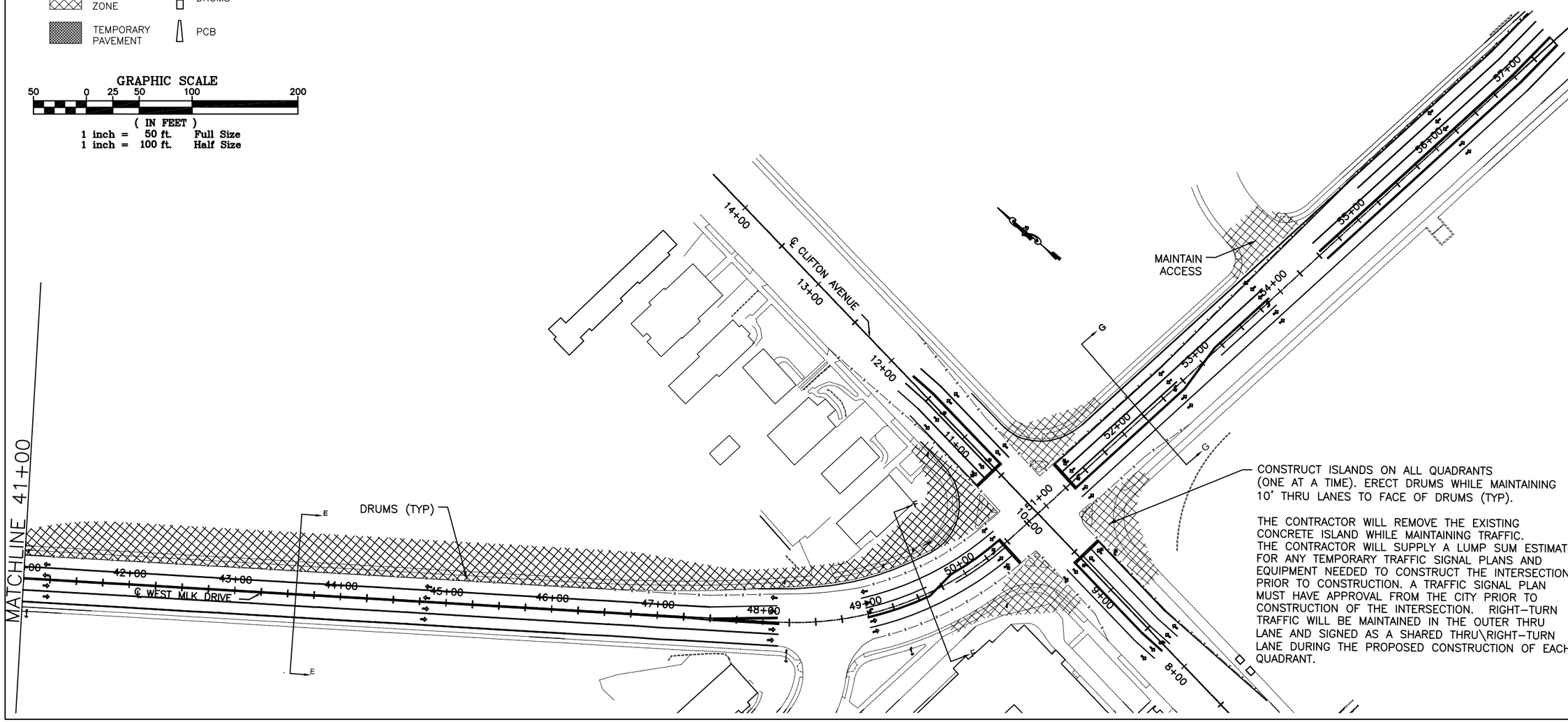
GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft. Full Size
1 inch = 100 ft. Half Size

SEQUENCE NOTES:

1. CONSTRUCT THE NORTH SIDE OF WEST MLK DRIVE WEST OF CLIFTON AVENUE WHILE MAINTAINING MINIMUM 11' THRU LANES (EXCEPT BETWEEN STA 29+00 TO STA 57+50) AND MAINTAIN PEDESTRIAN TRAFFIC ON THE SOUTH SIDE OF WEST MLK DRIVE.
2. CONSTRUCT THE REMAINING QUADRANTS OF THE WEST MLK DRIVE/CLIFTON AVENUE INTERSECTION ONE QUADRANT AT A TIME WHILE DETOURING PEDESTRIANS TO THE REMAINING 3 QUADRANTS AND MAINTAINING RIGHT–TURN TRAFFIC. PROPOSED WORK AT THE WEST MLK DRIVE/CLIFTON AVENUE INTERSECTION IS TO BE STARTED AND COMPLETED BETWEEN THE END OF SPRING 2016 SEMESTER AND START OF FALL 2016 SEMESTER AT THE UNIVERSITY OF CINCINNATI (OR EQUIVALENT 2017 DATES IF SIGNAL POLES ARE NOT YET AVAILABLE IN 2016). THE INTERSECTION WORK IS SHOWN ON THIS SHEET CONCURRENT WITH STAGE 1 BUT CAN BE COMPLETED IN ANY STAGE OF CONSTRUCTION ON WEST MLK DRIVE EXCEPT STAGE 1B (DIXMYTH CLOSURE).
3. AFTER COMPLETION OF WEST MLK DRIVE/CLIFTON AVENUE INTERSECTION CONSTRUCTION, INSTALL RAISED CONCRETE ISLANDS ON EACH CORNER ONE QUADRANT AT A TIME.
4. MAINTAIN PEDESTRIAN TRAFFIC AT ALL TIMES.
5. MAINTAIN ACCESS TO ALL DRIVES.
6. CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKERS AND SIGNS AT THE DIRECTION OF THE CITY ENGINEER.



CONSTRUCT ISLANDS ON ALL QUADRANTS (ONE AT A TIME). ERECT DRUMS WHILE MAINTAINING 10' THRU LANES TO FACE OF DRUMS (TYP).

THE CONTRACTOR WILL REMOVE THE EXISTING CONCRETE ISLAND WHILE MAINTAINING TRAFFIC. THE CONTRACTOR WILL SUPPLY A LUMP SUM ESTIMATE FOR ANY TEMPORARY TRAFFIC SIGNAL PLANS AND EQUIPMENT NEEDED TO CONSTRUCT THE INTERSECTION PRIOR TO CONSTRUCTION. A TRAFFIC SIGNAL PLAN MUST HAVE APPROVAL FROM THE CITY PRIOR TO CONSTRUCTION OF THE INTERSECTION. RIGHT–TURN TRAFFIC WILL BE MAINTAINED IN THE OUTER THRU LANE AND SIGNED AS A SHARED THRU\RIGHT–TURN LANE DURING THE PROPOSED CONSTRUCTION OF EACH QUADRANT.

CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND MAY BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
SEQUENCE OF CONSTRUCTION
STA. 41+00 TO STA. 57+35

Revisions
No.

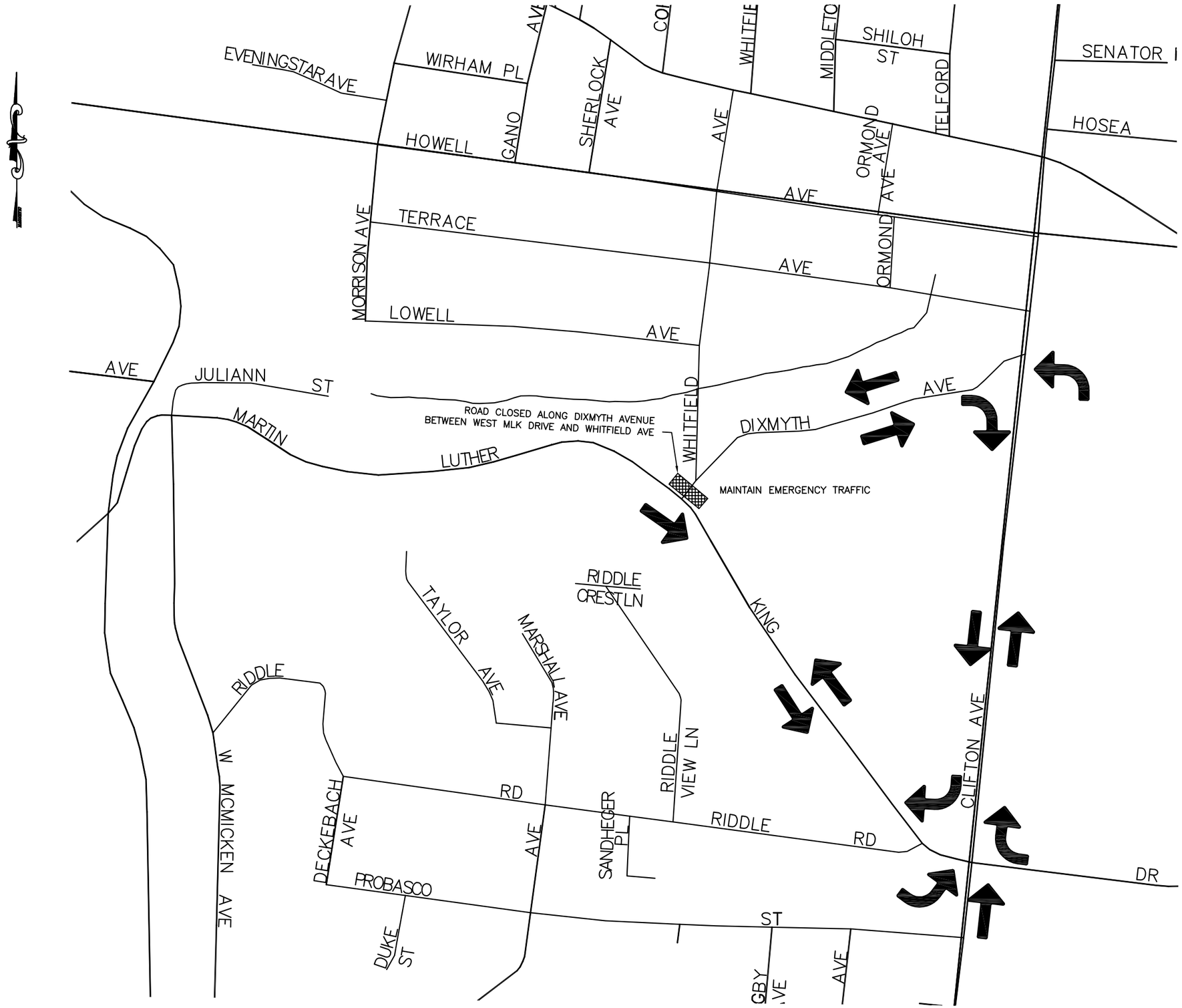
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124

STAGE 1B



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND SHALL BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
SEQUENCE OF CONSTRUCTION
DIXMYTH DETOUR

Revisions

No.			

Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

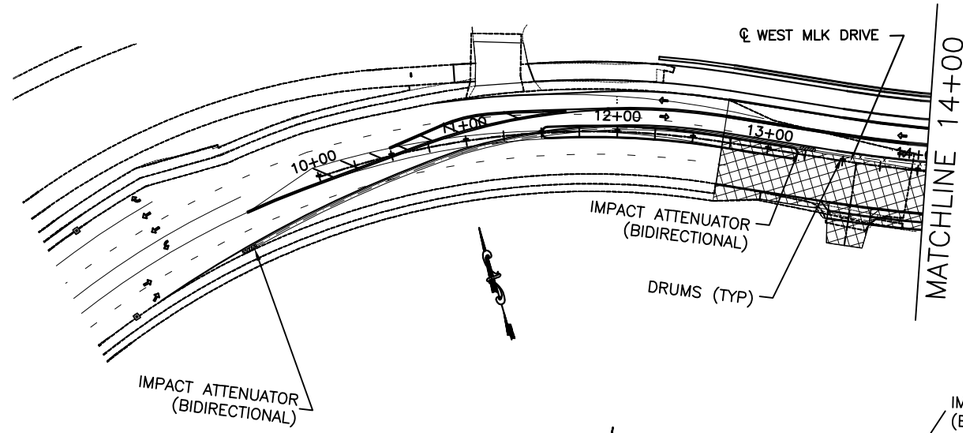
Structure File Number

ACC No.
23124

STAGE 2

PLAN NOTES:

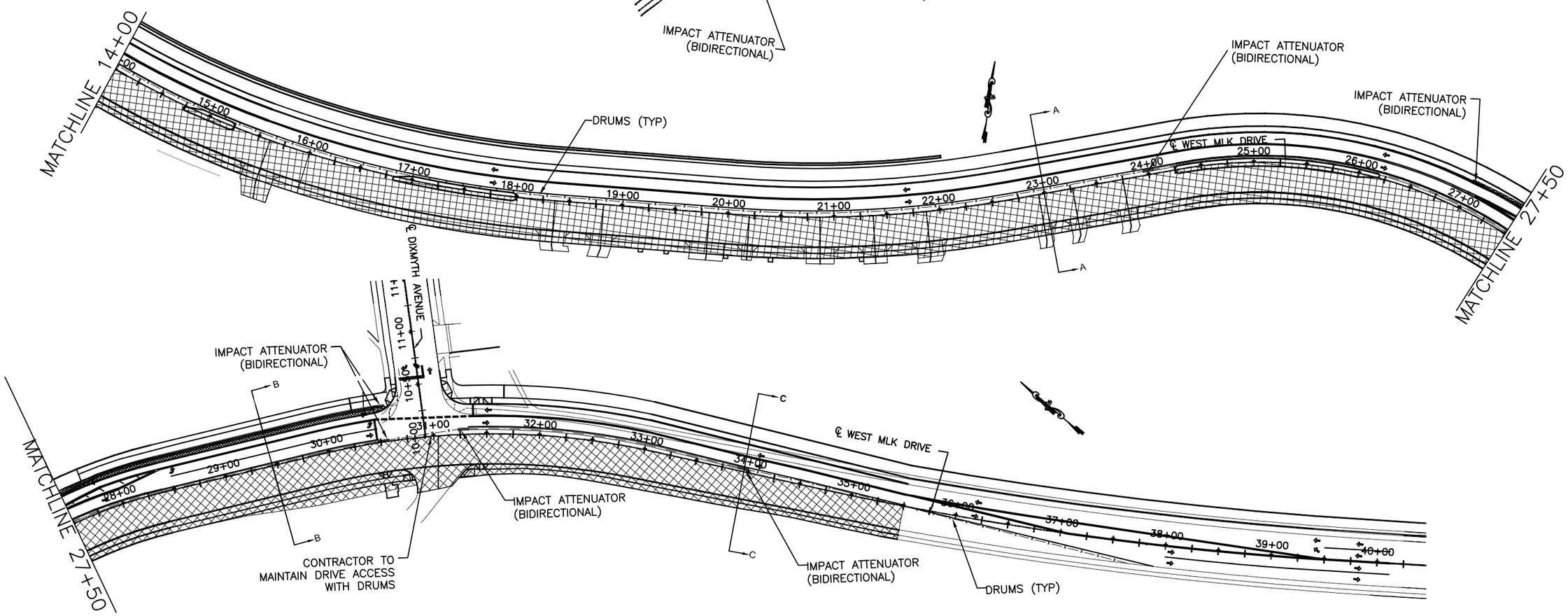
1. THIS PLAN SHOWS ONLY A PROPOSED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT AND GET CITY APPROVAL ON A DETAILED MAINTENANCE OF TRAFFIC PLAN DETAILING WORK TO BE COMPLETED IN EACH STAGE PRIOR TO BEGINNING ANY CONSTRUCTION.
2. CONTRACTOR TO MAINTAIN STORM AND SEWER FLOWS THROUGHOUT CONSTRUCTION.
3. IF FINAL SURFACE COURSE IS NOT IMMEDIATELY APPLIED, CASTINGS CONSTRUCTED ONE–HALF INCH OR MORE ABOVE THE ELEVATION OF THE TEMPORARY ROADWAY SURFACE SHALL BE WEDGED WITH ASPHALT CONCRETE TO A DIAMETER OF EIGHT FEET. THE ASPHALT WEDGE SHALL BE REMOVED IMMEDIATELY PRIOR TO FINAL PAVING
4. CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKERS AND SIGNS AT THE DIRECTION OF THE CITY ENGINEER.



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft. Full Size
1 inch = 100 ft. Half Size

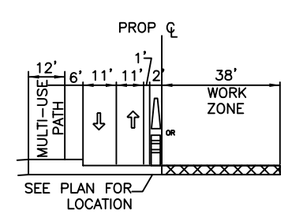


SEQUENCE NOTES:

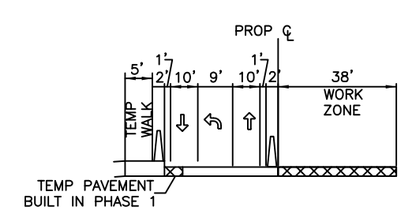
1. SHIFT TRAFFIC TO THE NORTH SIDE OF WEST MLK DRIVE, AS SHOWN ON PLANS AND MAINTAIN 11' THRU LANES, EXCEPT BETWEEN STA 29+00 TO STA 35+50.
2. CONSTRUCT THE SOUTH SIDE OF WEST MLK DRIVE TO THE TOP OF THE INTERMEDIATE COURSE.
3. MAINTAIN TRAFFIC ON PROPOSED AND TEMPORARY PAVEMENT WEST OF DIXMYTH CONSTRUCTED IN STAGE 1A.
4. MAINTAIN AMBULANCE TRAFFIC AT ALL TIMES.
5. MAINTAIN ACCESS TO ALL DRIVES.
6. MAINTAIN PEDESTRIAN TRAFFIC ON THE NORTH SIDE OF WEST MLK DRIVE AND PROVIDE TEMPORARY PEDESTRIAN CROSSINGS AS NEEDED TO SERVICE PROPERTIES REMAINING TO THE SOUTH.

LEGEND

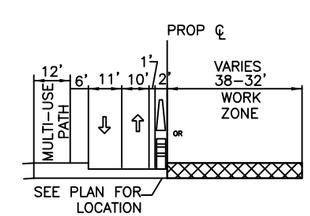
- DRUMS
- WORK ZONE
- TEMPORARY PAVEMENT
- PCB W/ ATTENUATOR
- DRUMS
- PCB



SECTION A–A



SECTION B–B



SECTION C–C

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
SEQUENCE OF CONSTRUCTION
STA. 13+00 TO STA. 40+15

Revisions

No.				

Date Date Date Date

Drawn by Designed by Checked by Reviewed by

Consultant

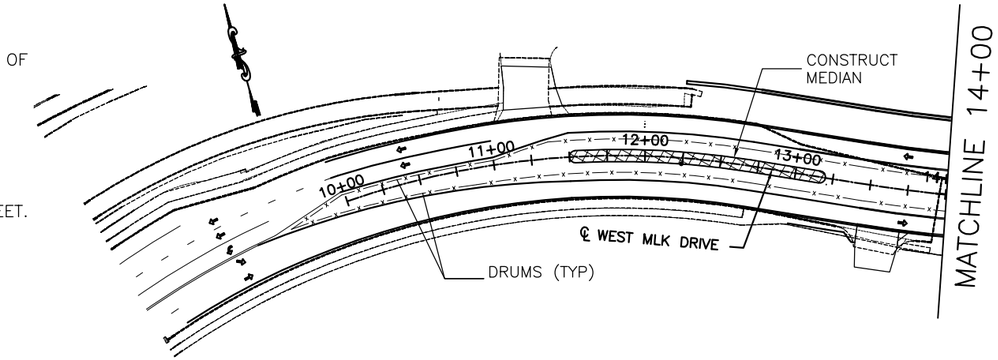
Structure File Number

ACC No.
23124

STAGE 3

PLAN NOTES:

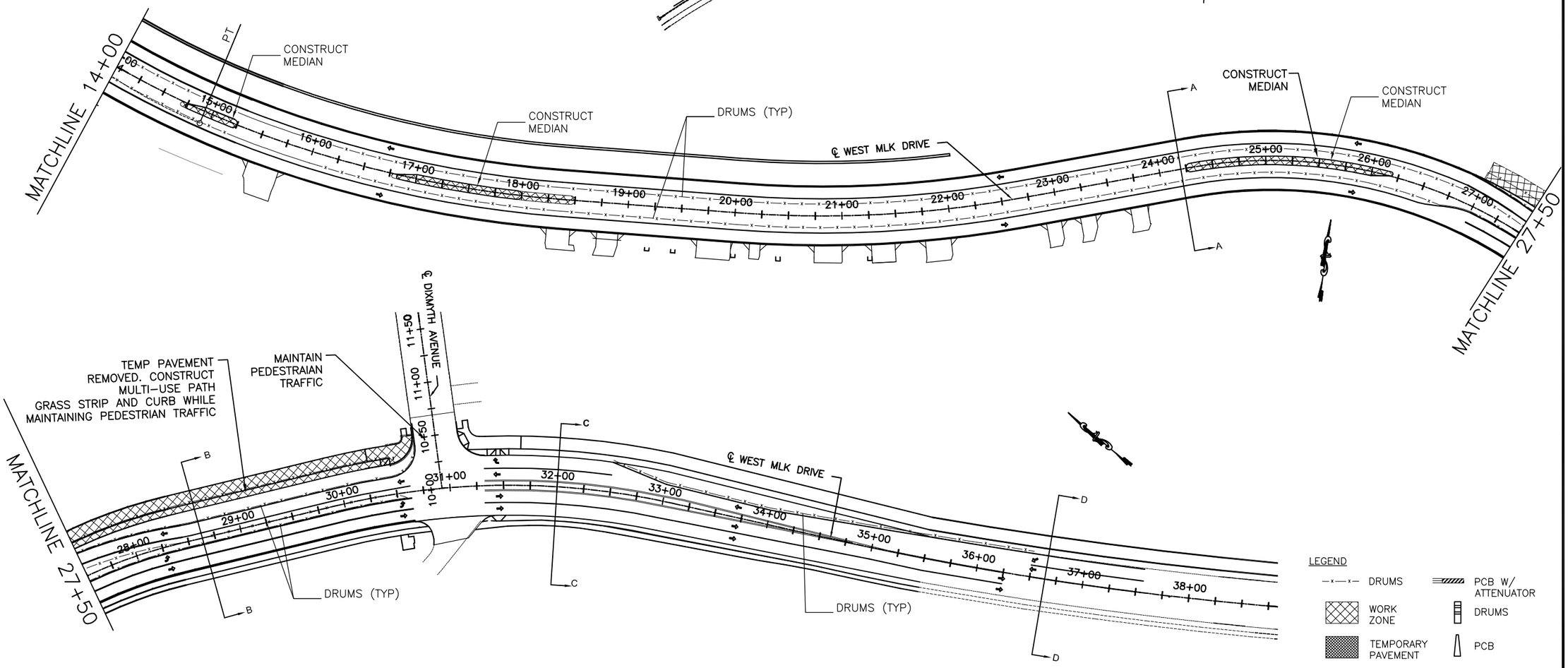
1. THIS PLAN SHOWS ONLY A PROPOSED SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT AND GET CITY APPROVAL ON A DETAILED MAINTENANCE OF TRAFFIC PLAN DETAILING WORK TO BE COMPLETED IN EACH STAGE PRIOR TO BEGINNING ANY CONSTRUCTION.
2. CONTRACTOR TO MAINTAIN STORM AND SEWER FLOWS THROUGHOUT CONSTRUCTION.
3. IF FINAL SURFACE COURSE IS NOT IMMEDIATELY APPLIED, CASTINGS CONSTRUCTED ONE–HALF INCH OR MORE ABOVE THE ELEVATION OF THE TEMPORARY ROADWAY SURFACE SHALL BE WEDGED WITH ASPHALT CONCRETE TO A DIAMETER OF EIGHT FEET. THE ASPHALT WEDGE SHALL BE REMOVED IMMEDIATELY PRIOR TO FINAL PAVING.
4. CONTRACTOR SHALL REMOVE CONFLICTING PAVEMENT MARKERS AND SIGNS AT THE DIRECTION OF THE CITY ENGINEER.



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft. Full Size
1 inch = 100 ft. Half Size

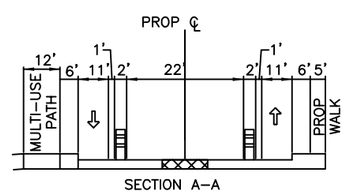


LEGEND

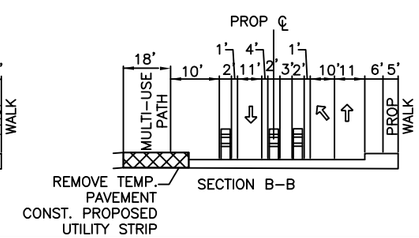
—x—x— DRUMS	PCB W/ ATTENUATOR
WORK ZONE	DRUMS
TEMPORARY PAVEMENT	PCB

SEQUENCE NOTES:

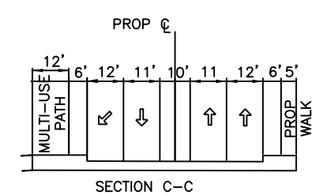
1. REMOVE TEMPORARY PAVEMENT, CONSTRUCT PROPOSED CURB, GRASS STRIP, AND PROPOSED MEDIAN ISLANDS.
2. MAINTAIN PEDESTRIANS ON THE NORTH SIDE AND SOUTH SIDE OF WEST MLK DRIVE.
3. AT THE END OF ALL STAGE 3 CONSTRUCTION, MILL ALL DESIGNATED ROADWAYS IN PROJECT LIMITS TO TOP OF INTERMEDIATE COURSE AND OVERLAY ENTIRE PROJECT TO TOP OF SURFACE COURSE ELEVATIONS WHILE MAINTAINING TWO–WAY TRAFFIC AND DRIVEWAY ACCESS AT ALL TIMES.



SECTION A–A



SECTION B–B



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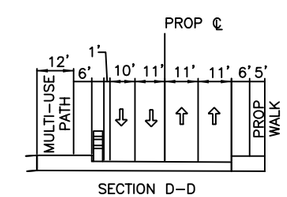


SECTION D–D

CITY OF CINCINNATI — DEPARTMENT OF TRANSPORTATION & ENGINEERING — OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND MAY BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
SEQUENCE OF CONSTRUCTION
STA. 13+00 TO STA. 36+90

Revisions

No.				

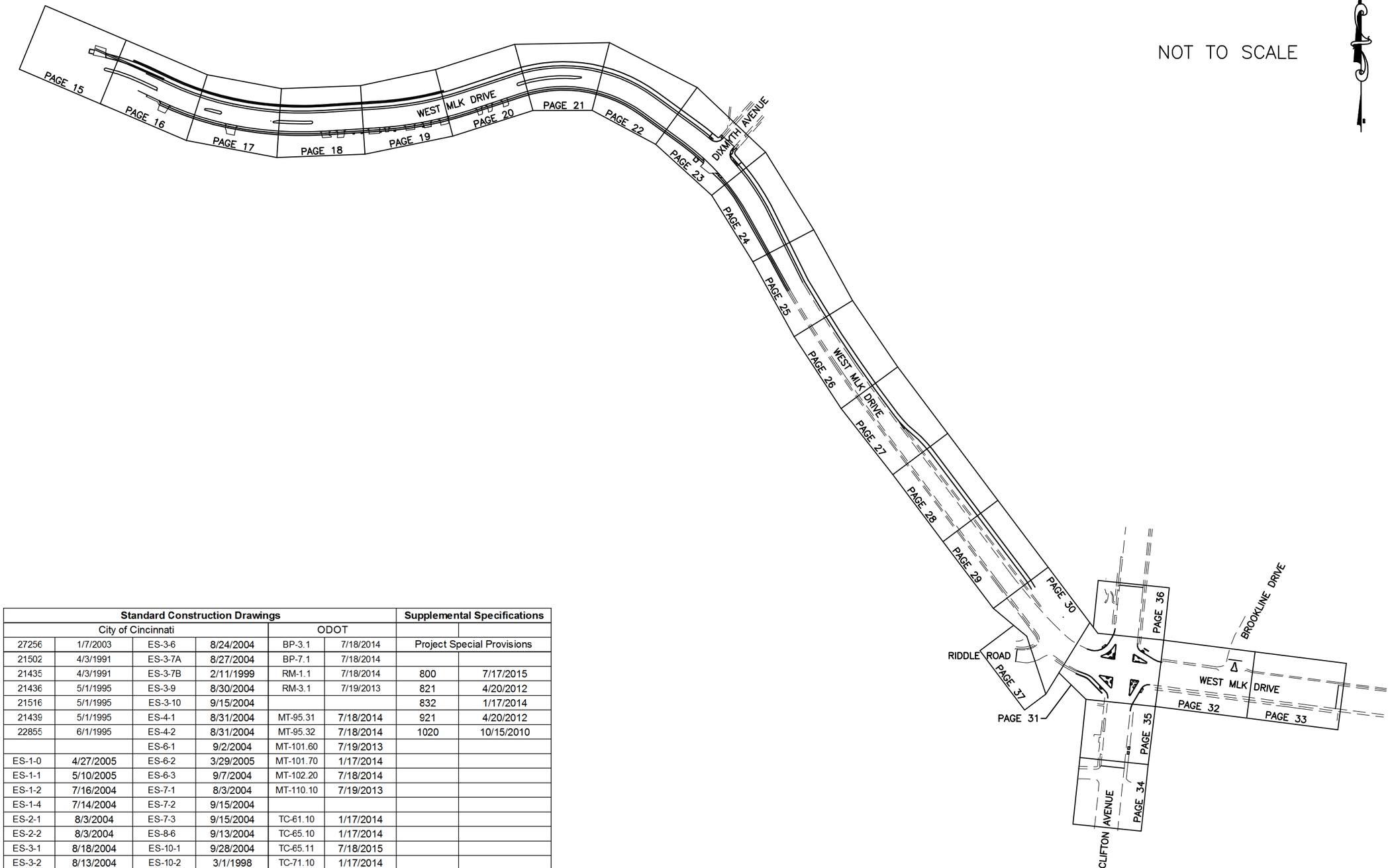
Date Date Date Date

Drawn by Designed by Checked by Reviewed by

Consultant

Structure File Number

ACC No.
23124



Standard Construction Drawings						Supplemental Specifications	
City of Cincinnati				ODOT			
27256	1/7/2003	ES-3-6	8/24/2004	BP-3.1	7/18/2014	Project Special Provisions	
21502	4/3/1991	ES-3-7A	8/27/2004	BP-7.1	7/18/2014		
21435	4/3/1991	ES-3-7B	2/11/1999	RM-1.1	7/18/2014	800	7/17/2015
21436	5/1/1995	ES-3-9	8/30/2004	RM-3.1	7/19/2013	821	4/20/2012
21516	5/1/1995	ES-3-10	9/15/2004			832	1/17/2014
21439	5/1/1995	ES-4-1	8/31/2004	MT-95.31	7/18/2014	921	4/20/2012
22855	6/1/1995	ES-4-2	8/31/2004	MT-95.32	7/18/2014	1020	10/15/2010
		ES-6-1	9/2/2004	MT-101.60	7/19/2013		
ES-1-0	4/27/2005	ES-6-2	3/29/2005	MT-101.70	1/17/2014		
ES-1-1	5/10/2005	ES-6-3	9/7/2004	MT-102.20	7/18/2014		
ES-1-2	7/16/2004	ES-7-1	8/3/2004	MT-110.10	7/19/2013		
ES-1-4	7/14/2004	ES-7-2	9/15/2004				
ES-2-1	8/3/2004	ES-7-3	9/15/2004	TC-61.10	1/17/2014		
ES-2-2	8/3/2004	ES-8-6	9/13/2004	TC-65.10	1/17/2014		
ES-3-1	8/18/2004	ES-10-1	9/28/2004	TC-65.11	7/18/2015		
ES-3-2	8/13/2004	ES-10-2	3/1/1998	TC-71.10	1/17/2014		
ES-3-3	8/13/2004	ES-10-3	3/1/1998				
ES-3-4	8/18/2004	ES-10-4	3/1/1998				
ES-3-5	8/20/2004						

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
PLAN SHEET INDEX

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

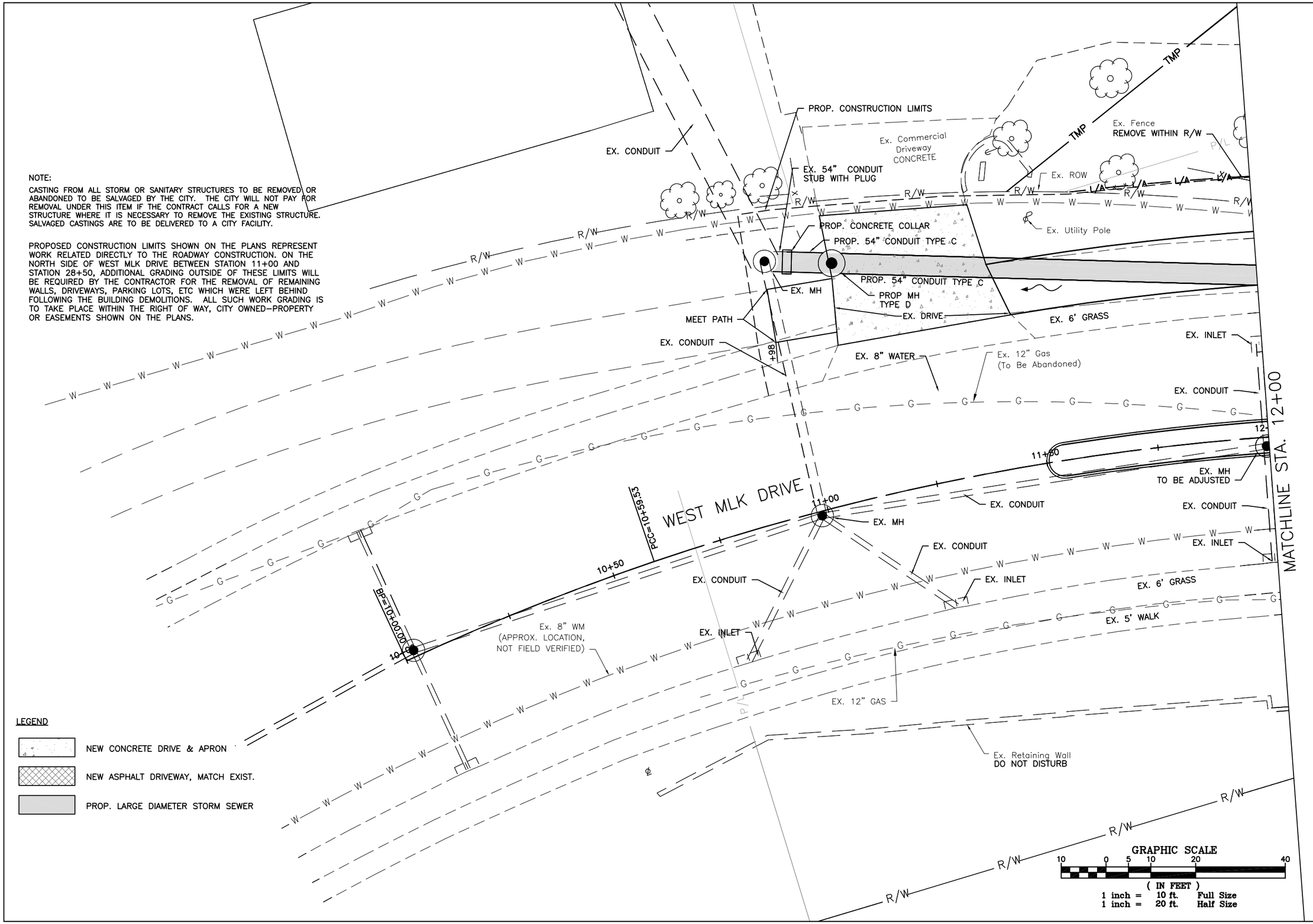
Structure File Number

ACC No.
23124

NOTE:

CASTING FROM ALL STORM OR SANITARY STRUCTURES TO BE REMOVED OR ABANDONED TO BE SALVAGED BY THE CITY. THE CITY WILL NOT PAY FOR REMOVAL UNDER THIS ITEM IF THE CONTRACT CALLS FOR A NEW STRUCTURE WHERE IT IS NECESSARY TO REMOVE THE EXISTING STRUCTURE. SALVAGED CASTINGS ARE TO BE DELIVERED TO A CITY FACILITY.

PROPOSED CONSTRUCTION LIMITS SHOWN ON THE PLANS REPRESENT WORK RELATED DIRECTLY TO THE ROADWAY CONSTRUCTION. ON THE NORTH SIDE OF WEST MLK DRIVE BETWEEN STATION 11+00 AND STATION 28+50, ADDITIONAL GRADING OUTSIDE OF THESE LIMITS WILL BE REQUIRED BY THE CONTRACTOR FOR THE REMOVAL OF REMAINING WALLS, DRIVEWAYS, PARKING LOTS, ETC WHICH WERE LEFT BEHIND FOLLOWING THE BUILDING DEMOLITIONS. ALL SUCH WORK GRADING IS TO TAKE PLACE WITHIN THE RIGHT OF WAY, CITY OWNED-PROPERTY OR EASEMENTS SHOWN ON THE PLANS.



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 13+00 TO STA. 14+50

Revisions

No.				

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Structure File Number

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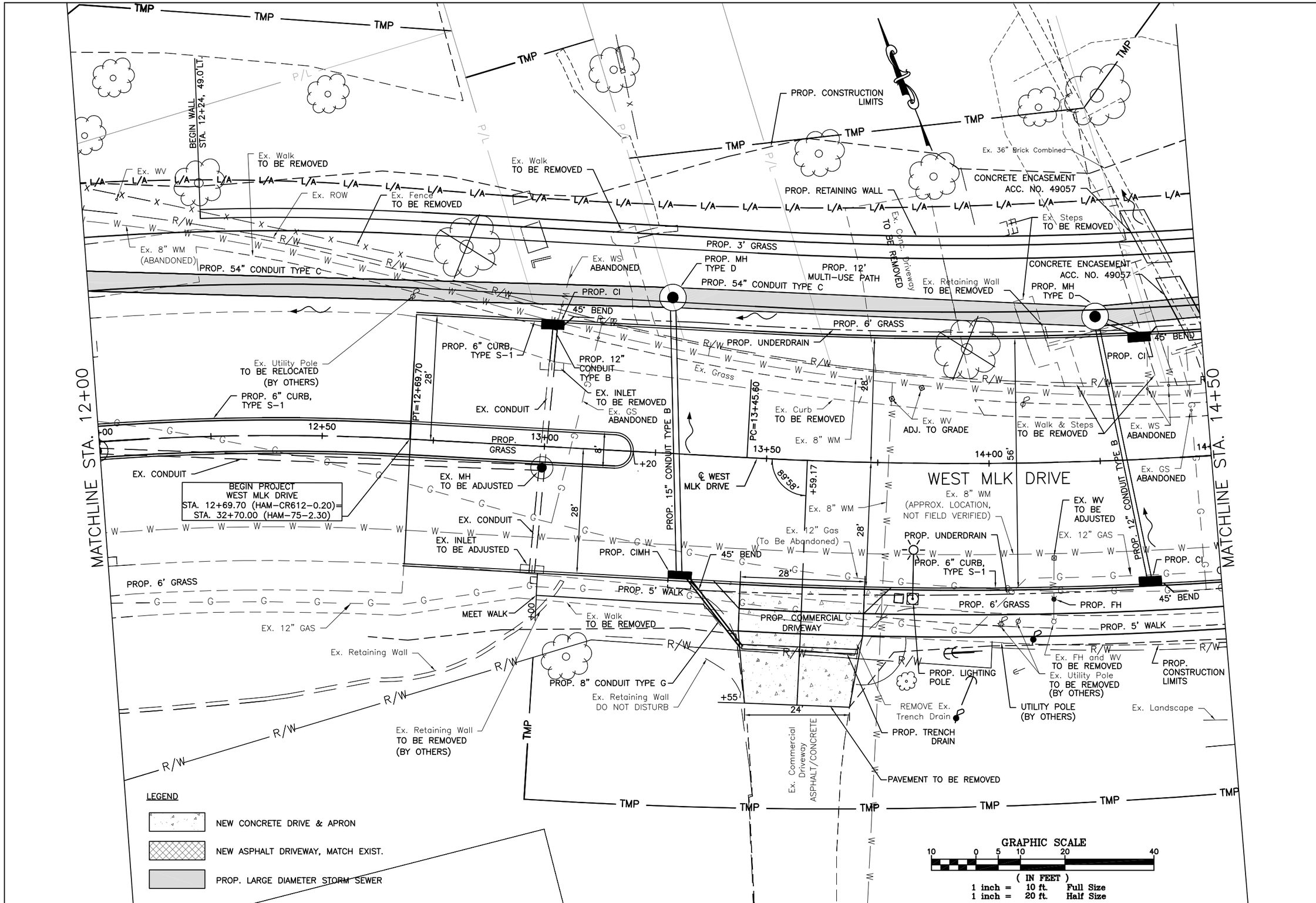
23124



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 13+00 TO STA. 14+50

Revisions

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Consultant

Structure File Number

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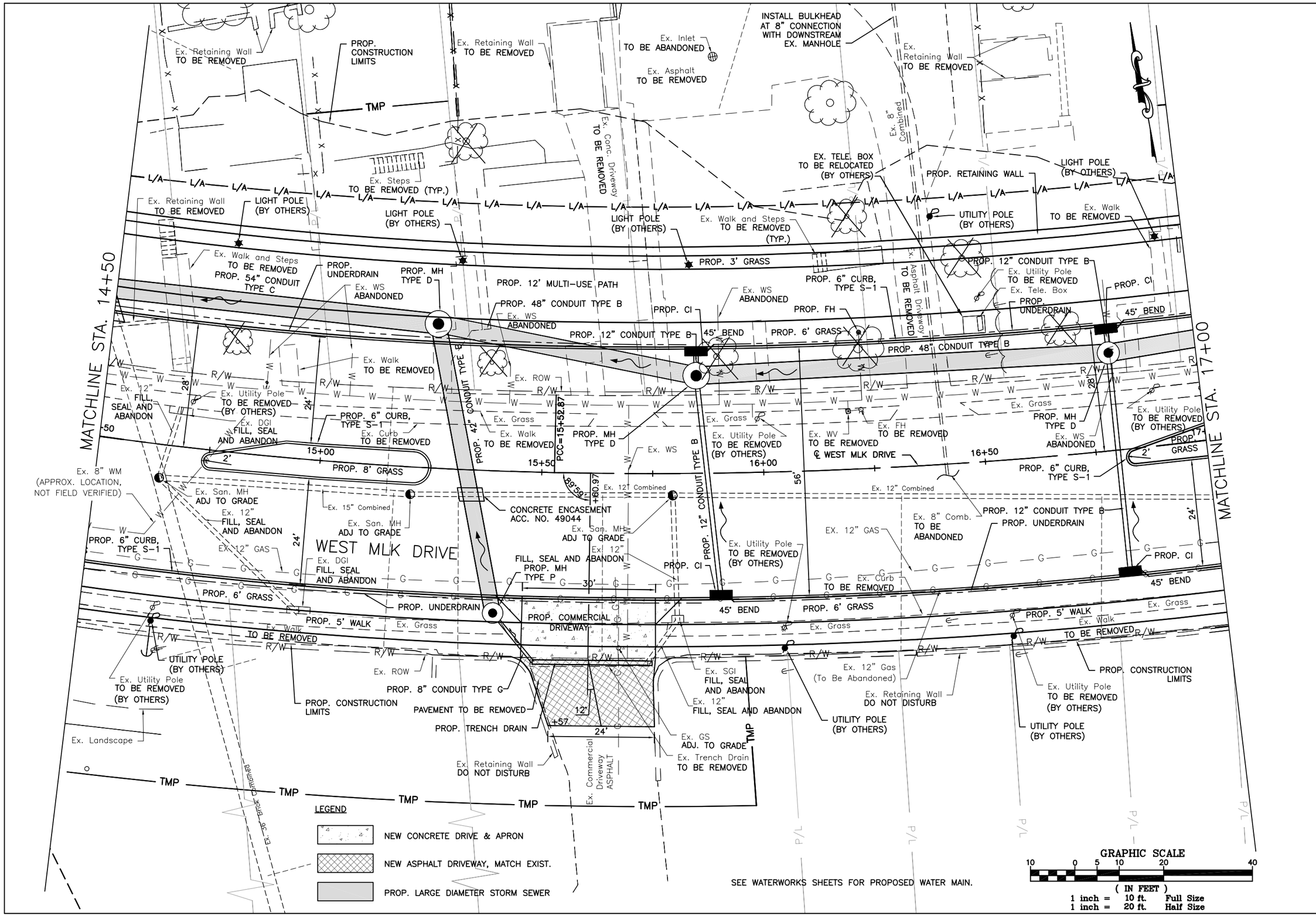
23124



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
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Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 14+50 TO STA. 17+00

Revisions

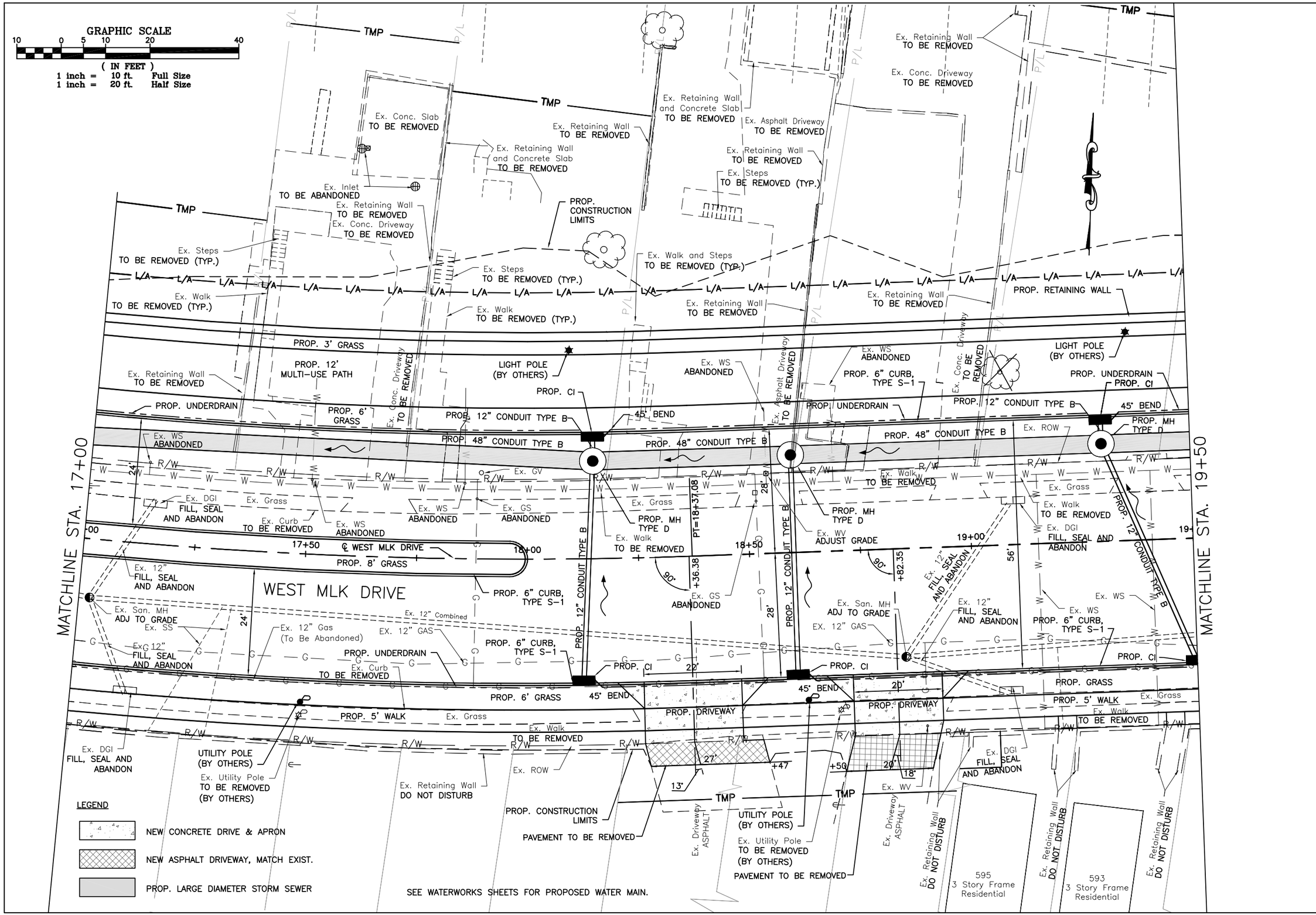
No.	Date

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
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Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 17+00 TO STA.19+50

Revisions
No.

Drawn by Date
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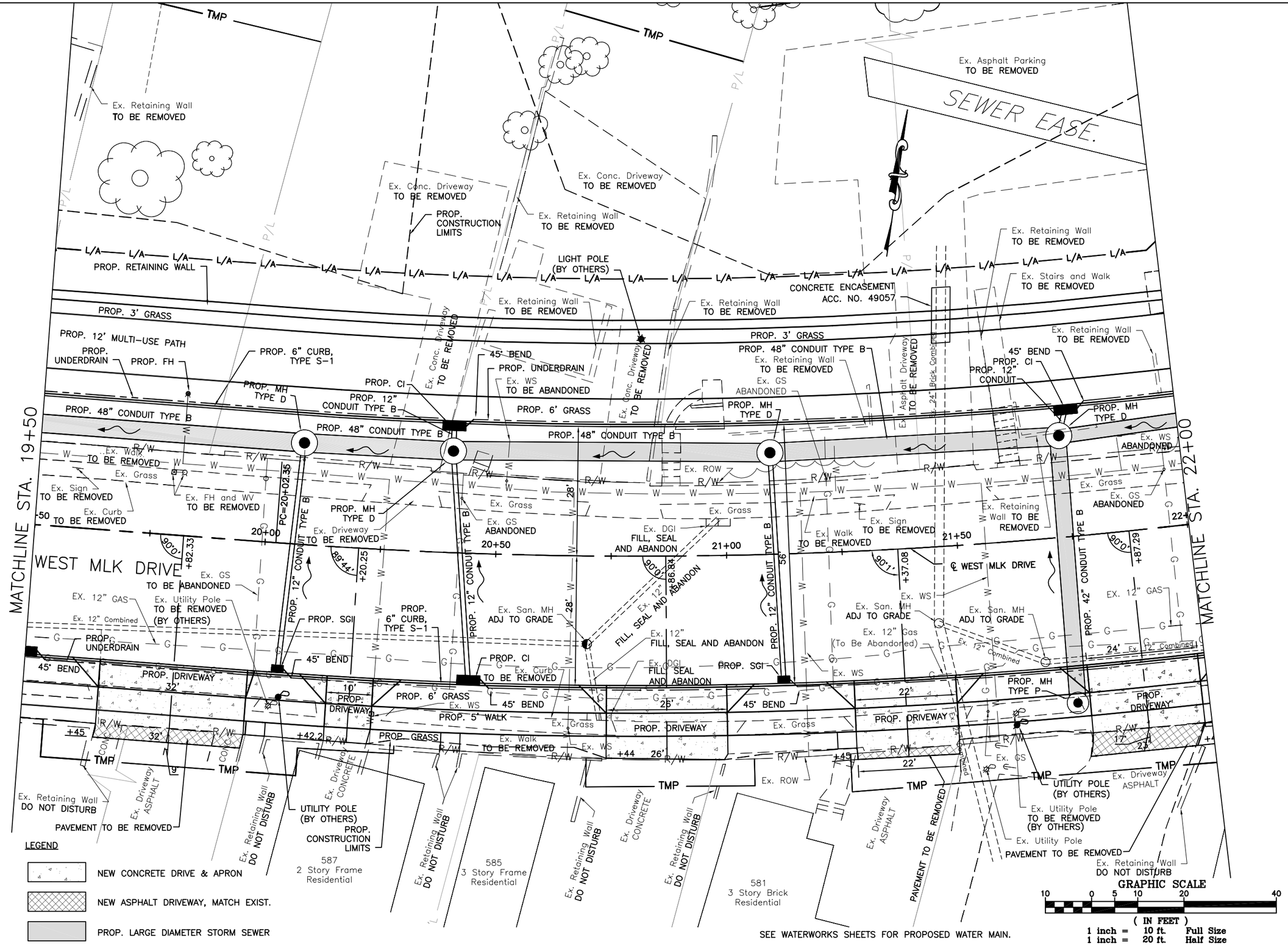
Consultant

Structure File Number

ACC No.
23124

18
155



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
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HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 19+50 TO STA. 22+00

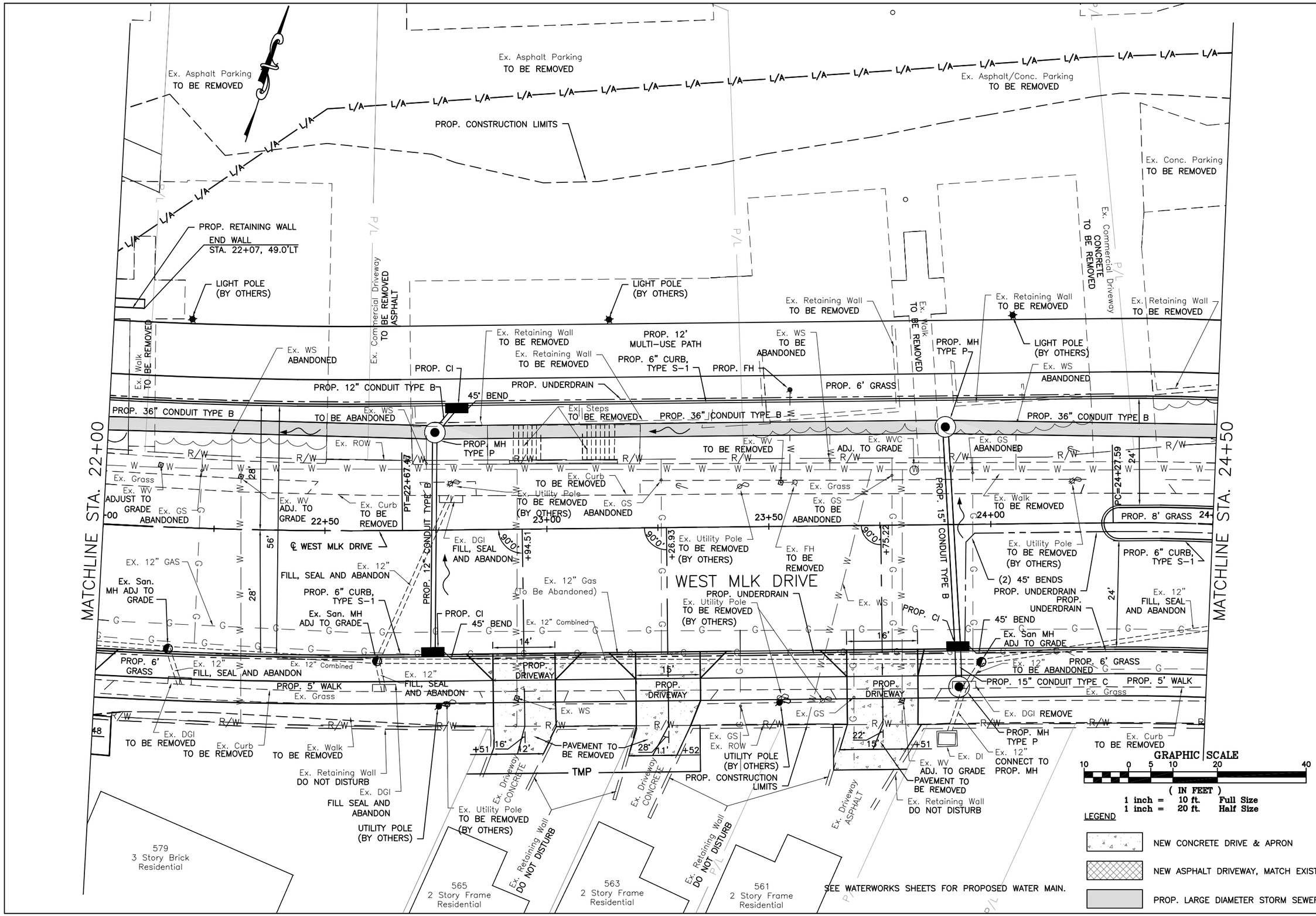
Revisions

No.	Date	Drawn by	Designed by	Checked by	Reviewed by

Consultant

Structure File Number

ACC No. 23124



CONTRACT DRAWING

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HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 22+00 TO STA. 24+50

Revisions

No.	Date	Drawn by	Date	Designed by	Date	Checked by	Date	Reviewed by	Date

Consultant

Structure File Number

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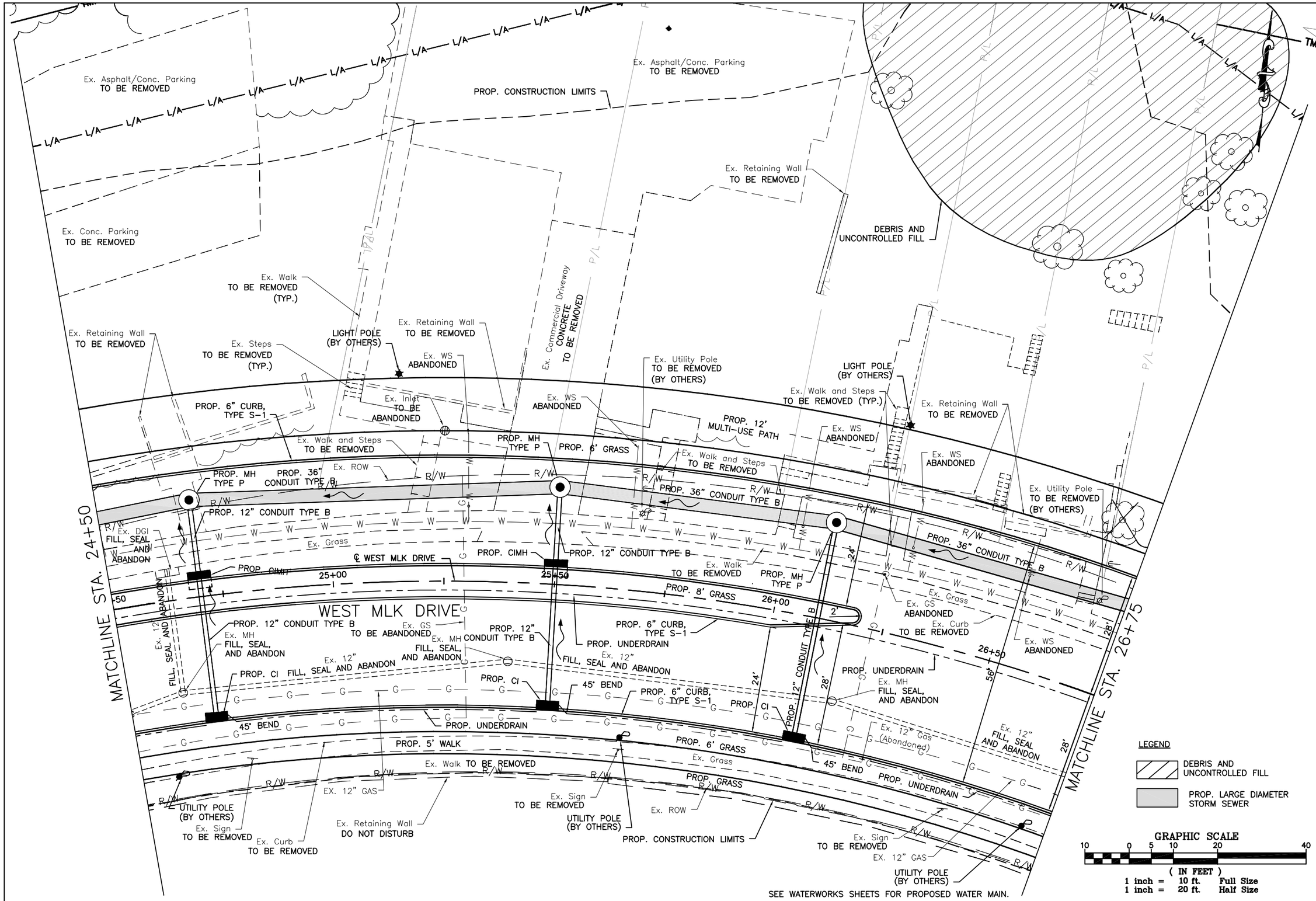
23124



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 24+50 TO STA. 26+75

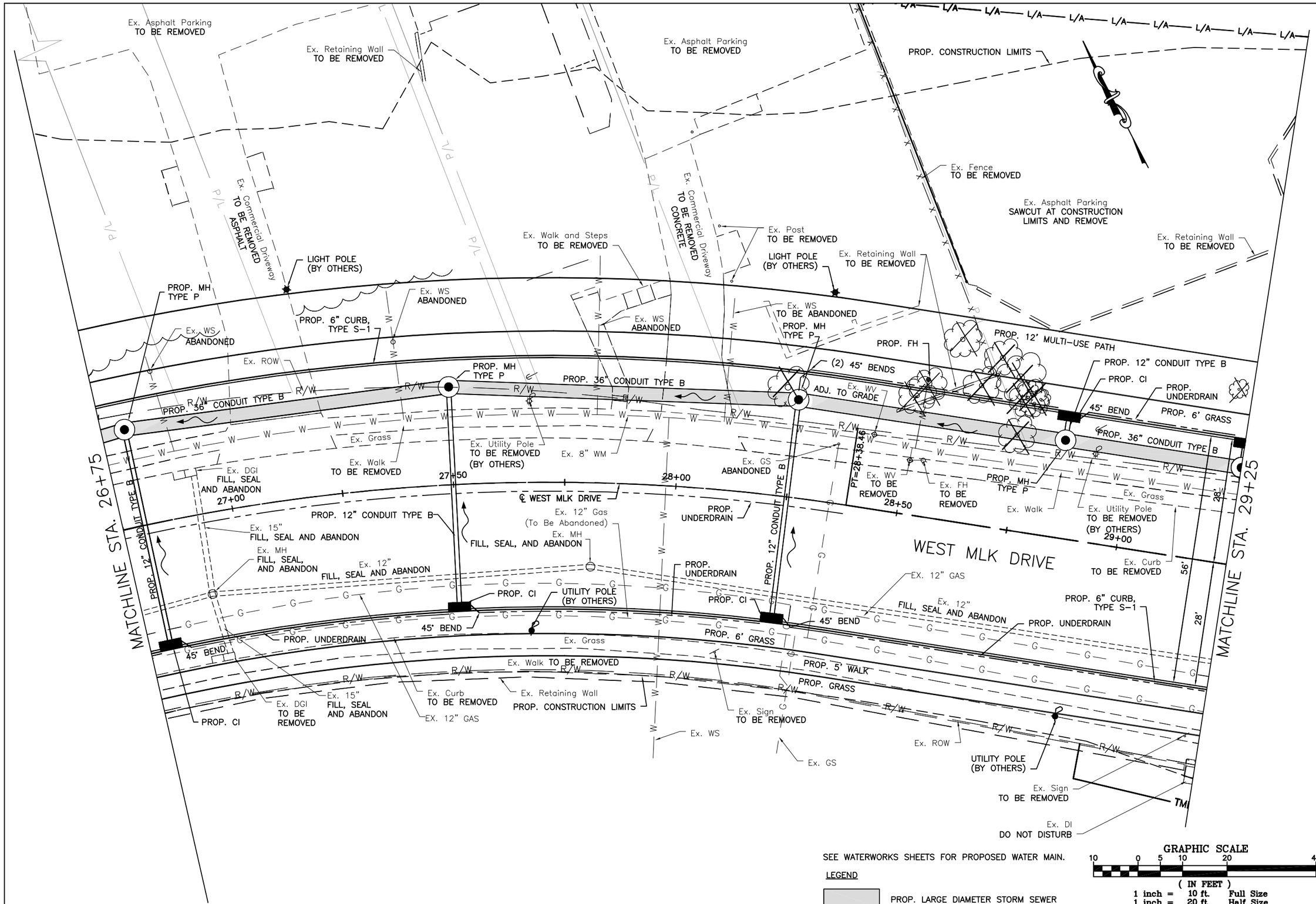
Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



SEE WATERWORKS SHEETS FOR PROPOSED WATER MAIN.

LEGEND

PROP. LARGE DIAMETER STORM SEWER

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft. Full Size

1 inch = 20 ft. Half Size

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
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Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 26+75 TO STA. 29+25

Revisions

No.

Drawn by Date

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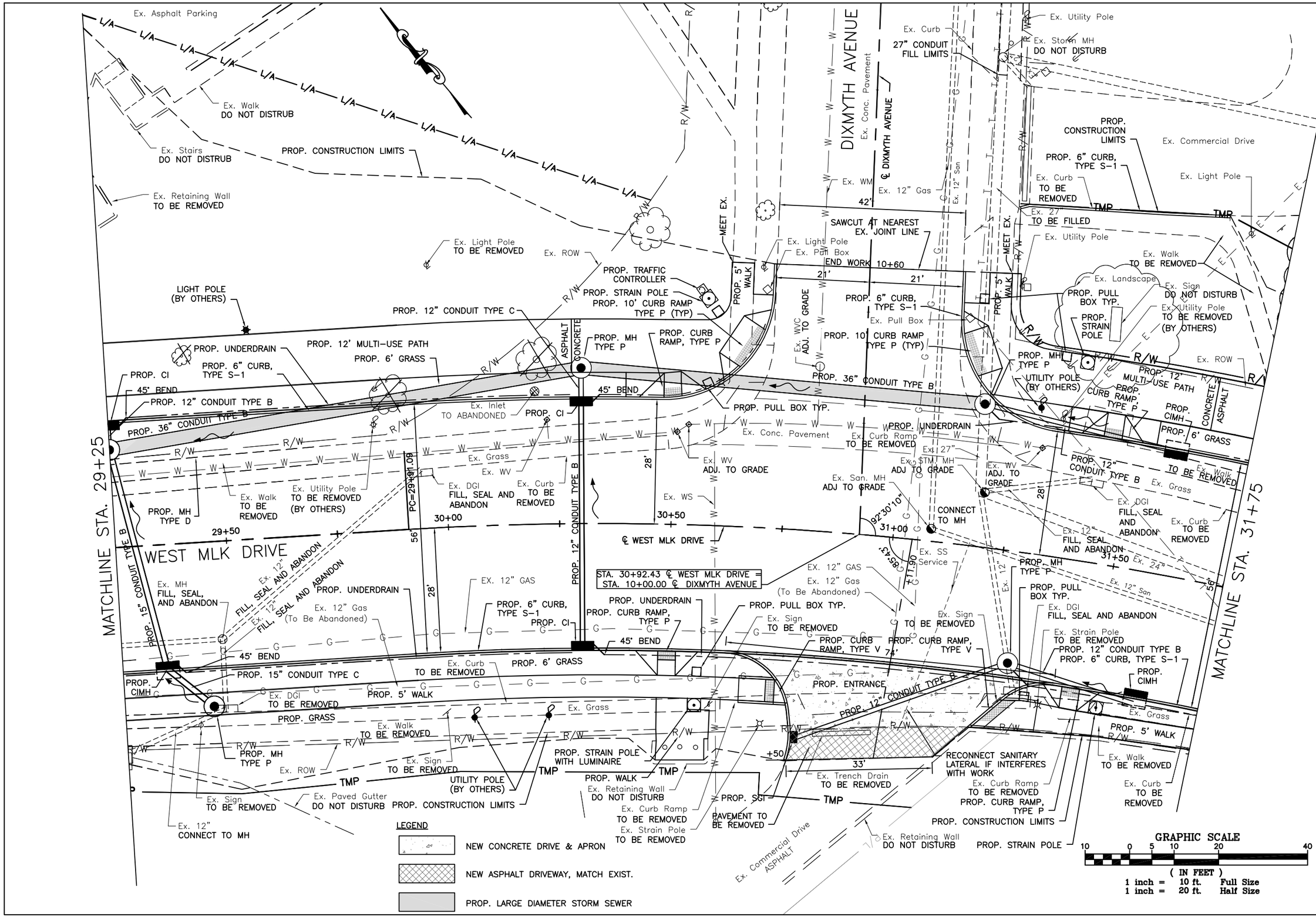
Checked by Date

Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

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Department of Transportation and Engineering

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HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 29+25 TO STA. 31+75

Revisions

No.	Date	Drawn by	Date	Designed by	Date	Checked by	Date	Reviewed by

Consultant

Structure File Number

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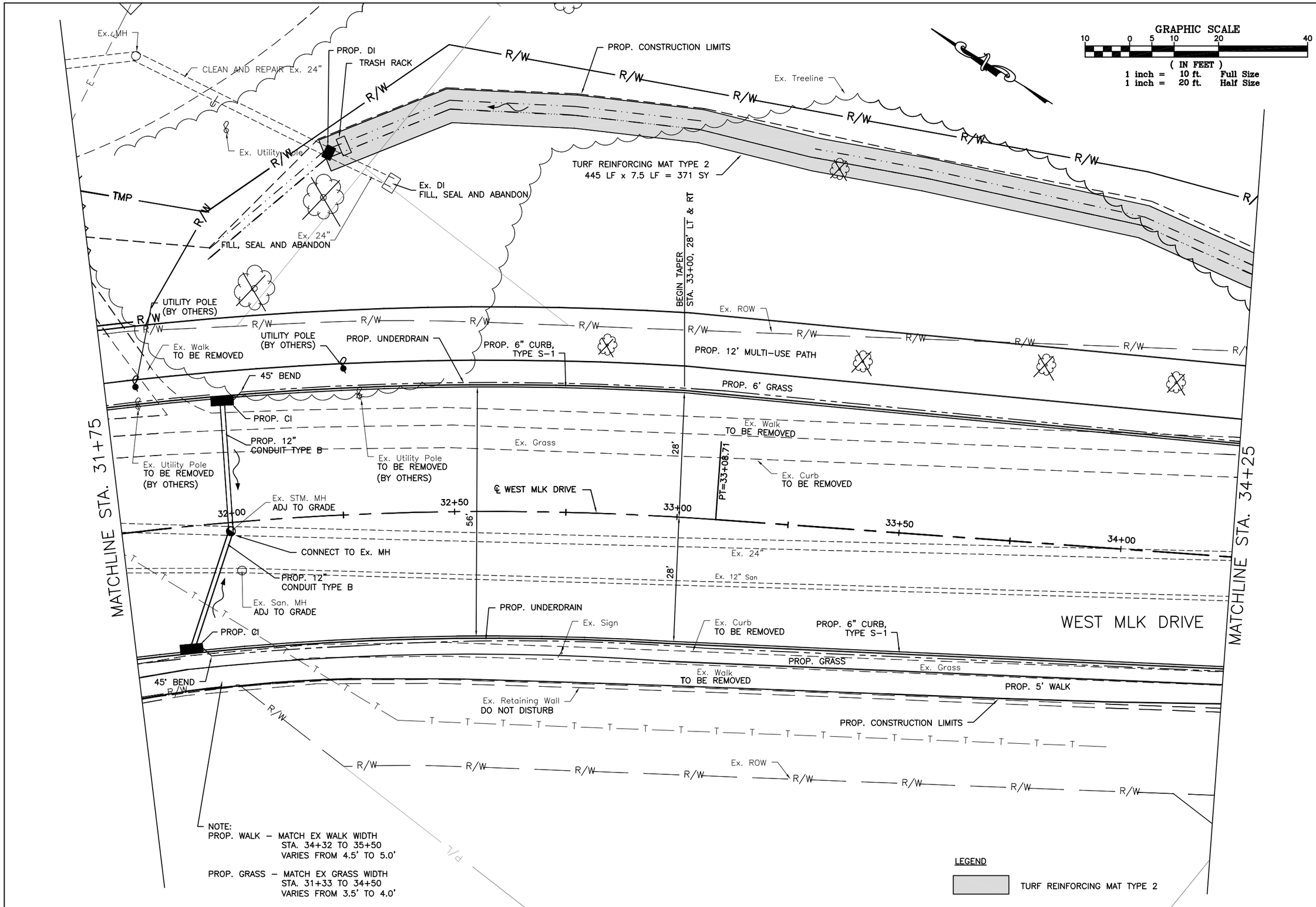
23124



CONTRACT DRAWING

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City of Cincinnati
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Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 31+75 TO STA. 34+25

Revisions

No.			

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

Ex. Utility Pole

TURF REINFORCING MAT TYPE 2

PROP. CONSTRUCTION LIMITS

PROP. DITCH

PROP. DI

TRASH RACK

Ex. ROW

R/W

PROP. CI

Ex. Utility Pole TO BE REMOVED (BY OTHERS)

UTILITY POLE (BY OTHERS)

PROP. 12' MULTI-USE PATH

PROP. UNDERDRAIN

END TAPER STA. 35+50, 22' LT

UTILITY POLE (BY OTHERS)

PROP. 12" CONDUIT TYPE C

Ex. DI TO BE REMOVED

Ex. 12"

MEET EX. CURB

Ex. Grass

Ex. DGI REMOVE

Ex. Curb TO BE REMOVED

PROP. 6" CURB, TYPE S-1

Ex. Walk TO BE REMOVED

Ex. Curb

Ex. Utility Pole TO BE REMOVED (BY OTHERS)

Ex. Walk TO BE REMOVED

Ex. DGI

Ex. STM. MH

MATCHLINE STA. 34+25

MATCHLINE STA. 36+75

PROP. 12" CONDUIT TYPE B

Ex. 12" TO BE REMOVED

PC=34+58.36

21'

22'

34+50

35+00

Ex. 24"

35+50

℄ WEST MLK DRIVE

36+00

36+50

Ex. San. MH

Ex. STM. MH ADJ TO GRADE

Ex. 12" San

END FULL DEPTH PAVEMENT BEGIN RESURFACING

44'

23'

Ex. San. MH ADJ TO GRADE

WEST MLK DRIVE

Ex. DGI TO BE RESET TO PROPOSED CURB

PROP. UNDERDRAIN

PROP. 6" CURB, TYPE S-1

Ex. Curb TO BE REMOVED

Ex. Curb

Ex. DGI

45° BEND

PROP. 4' GRASS

MEET EX. CURB

Ex. Grass

Ex. Walk TO BE REMOVED

PROP. 5' WALK

Ex. Walk

25'

MEET EX.

TRANSITION TO MEET EXISTING

Ex. DI ADJUST RIM

Ex. Treeline

PROP. CONSTRUCTION LIMITS

Ex. ROW

LEGEND

TURF REINFORCING MAT TYPE 2

CONTRACT DRAWING

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HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 34+25 TO STA. 36+75

Revisions

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Consultant

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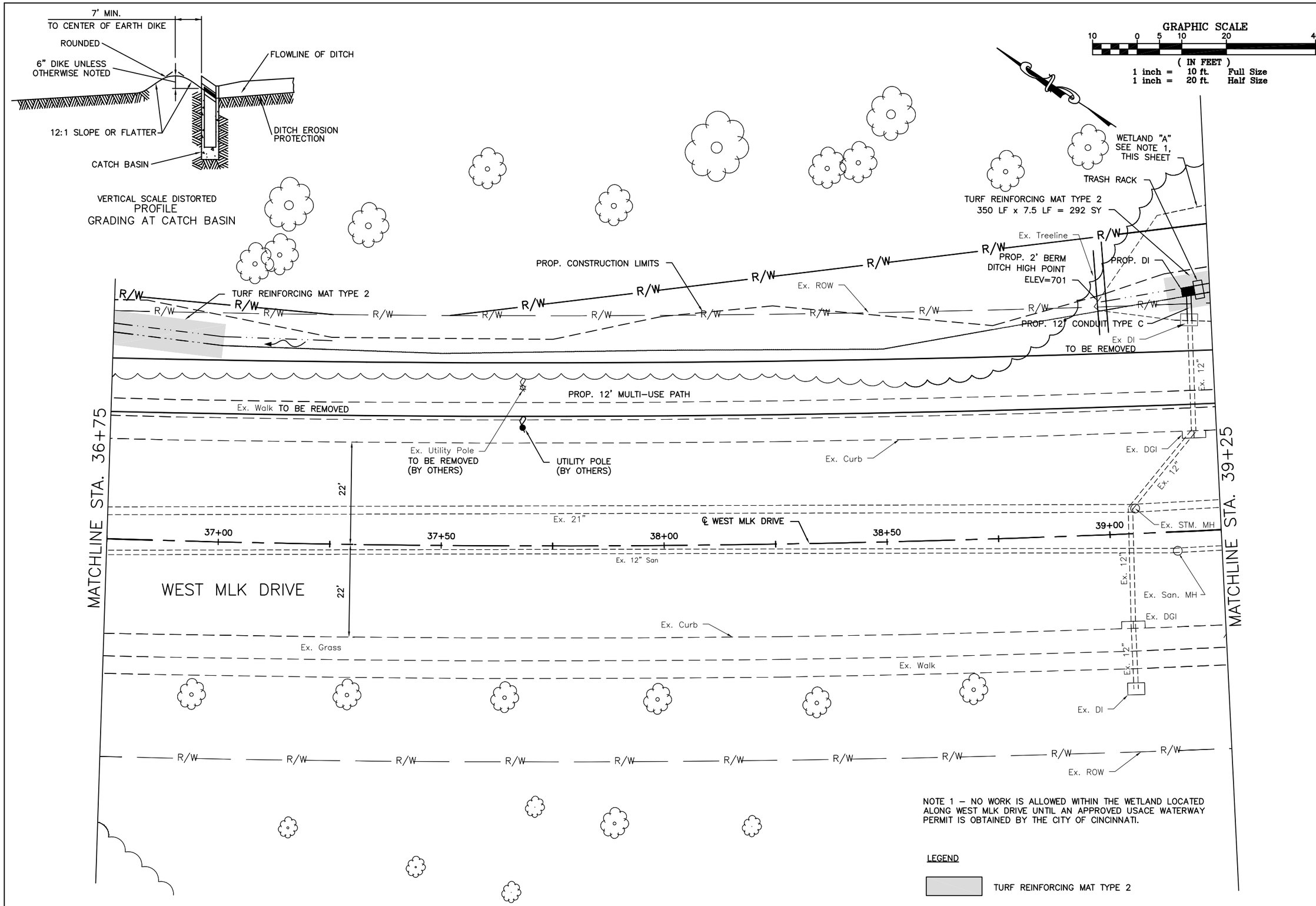

NOTE 1 – NO WORK IS ALLOWED WITHIN THE WETLAND LOCATED ALONG WEST MLK DRIVE UNTIL AN APPROVED USACE WATERWAY PERMIT IS OBTAINED BY THE CITY OF CINCINNATI.

LEGEND

TURF REINFORCING MAT TYPE 2

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 36+75 TO STA. 39+25

Revisions
No.

Date
Date
Date
Date

Drawn by
Designed by
Checked by
Reviewed by

Consultant

Structure File Number

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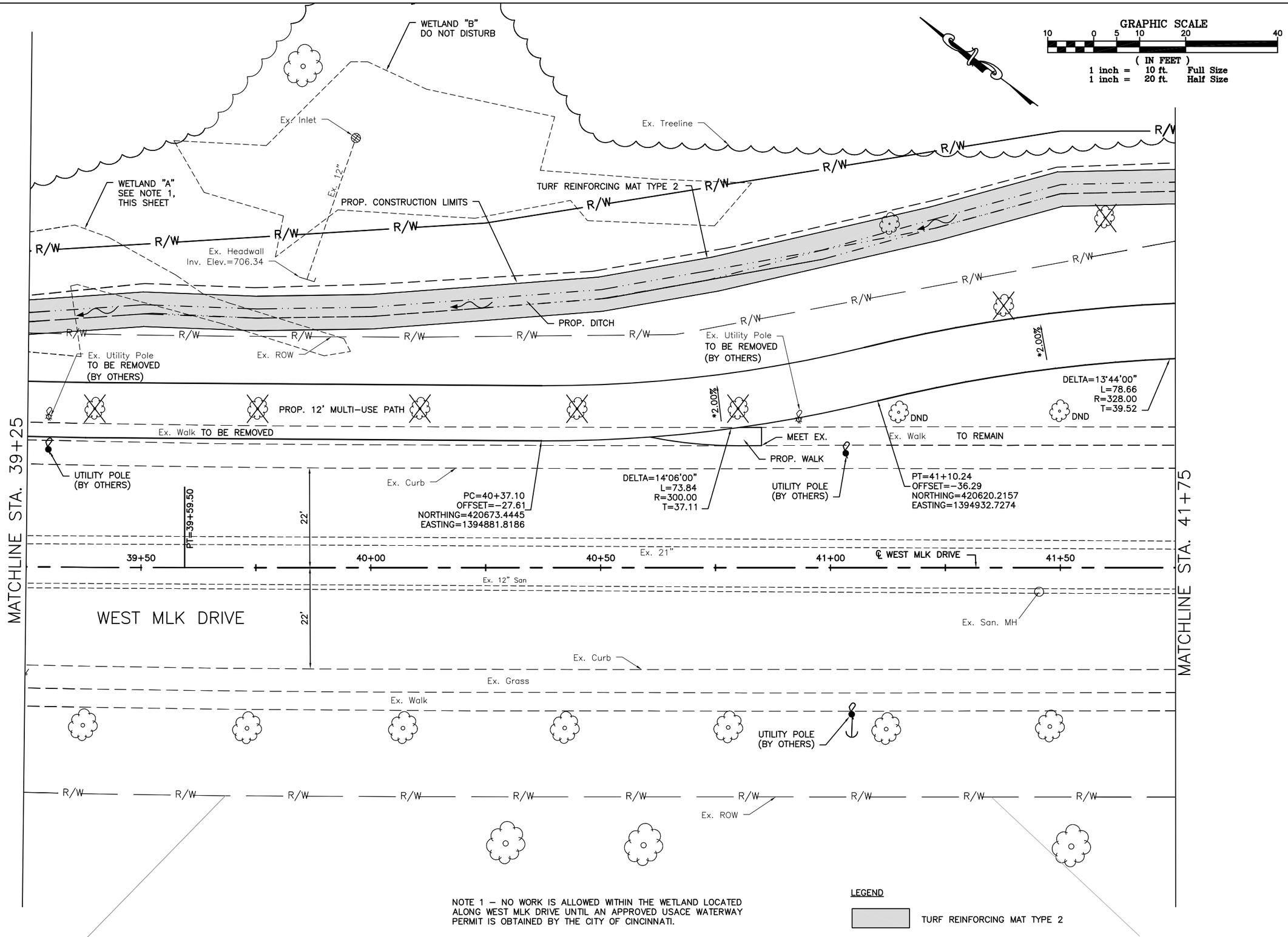

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Department of Transportation and Engineering

City of Cincinnati
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801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 39+25 TO STA. 41+75

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
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Structure File Number

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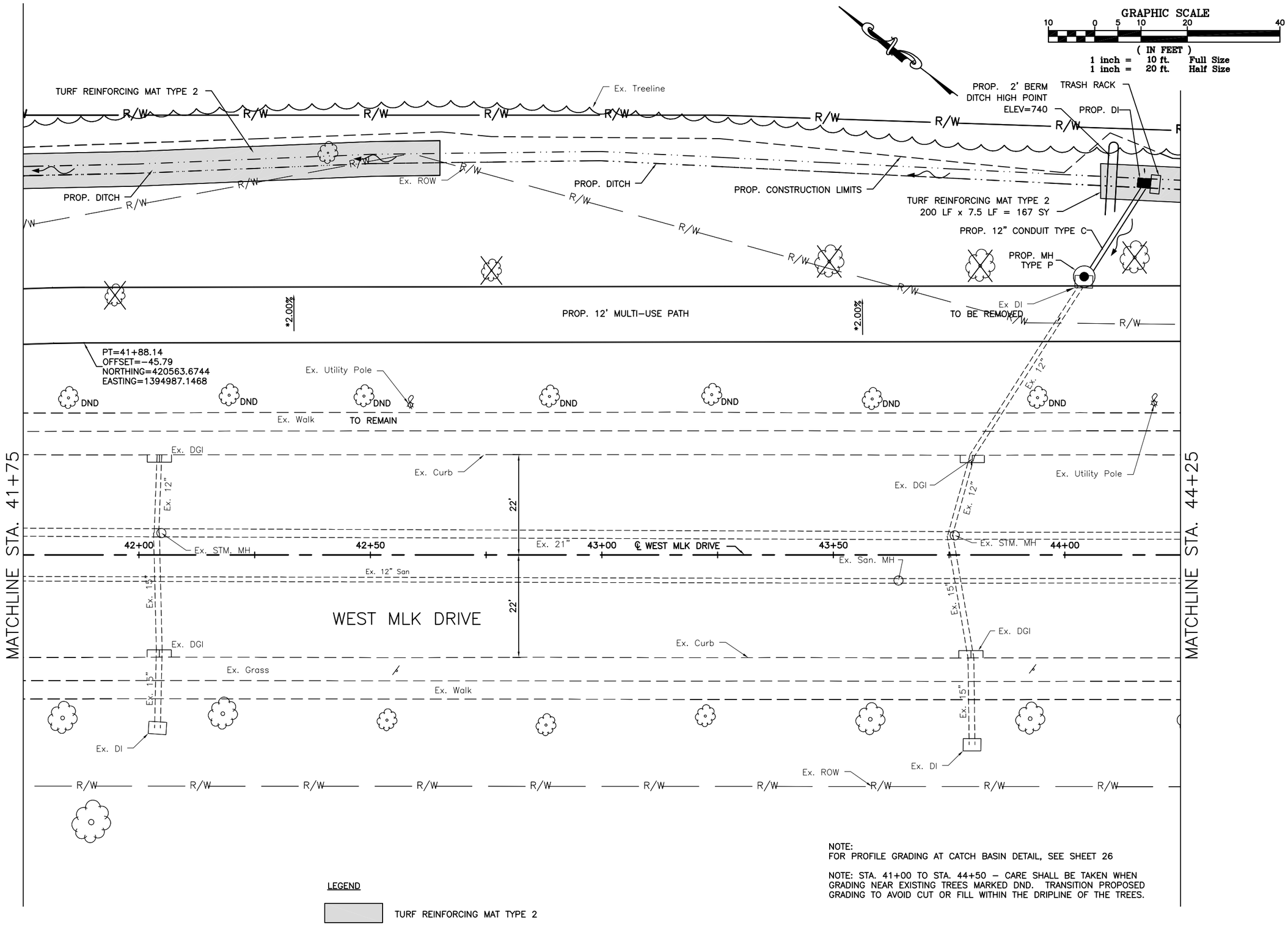

NOTE:
FOR PROFILE GRADING AT CATCH BASIN DETAIL, SEE SHEET 26

NOTE: STA. 41+00 TO STA. 44+50 – CARE SHALL BE TAKEN WHEN GRADING NEAR EXISTING TREES MARKED DND. TRANSITION PROPOSED GRADING TO AVOID CUT OR FILL WITHIN THE DRIPLINE OF THE TREES.

LEGEND

TURF REINFORCING MAT TYPE 2

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

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HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA.41+75 TO STA. 44+25

Revisions
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Drawn by Date
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Consultant

Structure File Number

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23124

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

Ex. Treeline

Ex. Treeline

R/W

TURF REINFORCING MAT TYPE 2

PROP. CONSTRUCTION LIMITS

PROP. DITCH

PROP. DITCH

Ex. ROW

2.00%

PROP. 12' MULTI-USE PATH

2.00%

PC=46+51.17
OFFSET=-46.45
NORTHING=420194.0431
EASTING=1395266.0266

DELTA=6°56'00"
L=39.66
R=328.00
T=19.86

Ex. Utility Pole

DND

Ex. Walk

TO REMAIN

Ex. DGI

Ex. Curb

MATCHLINE STA. 44+25

MATCHLINE STA. 46+75

WEST MLK DRIVE

22'

22'

Ex. STM. MH

Ex. 12"

44+50

Ex. 18"

45+00

℄ WEST MLK DRIVE

45+50

46+00

46+50

Ex. 12" San

Ex. San. MH

Ex. 15"

Ex. Curb

Ex. DGI

Ex. Sign

Ex. Grass

Ex. 18" San

Ex. Walk

Ex. 15"

Ex. DI

Ex. ROW

NOTE: STA. 41+00 TO STA. 44+50 – CARE SHALL BE TAKEN WHEN GRADING NEAR EXISTING TREES MARKED DND. TRANSITION PROPOSED GRADING TO AVOID CUT OR FILL WITHIN THE DRIPLINE OF THE TREES.

LEGEND

TURF REINFORCING MAT TYPE 2

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

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City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRIVE PLAN SHEETS

STA. 44+25 TO STA. 46+75

Revisions

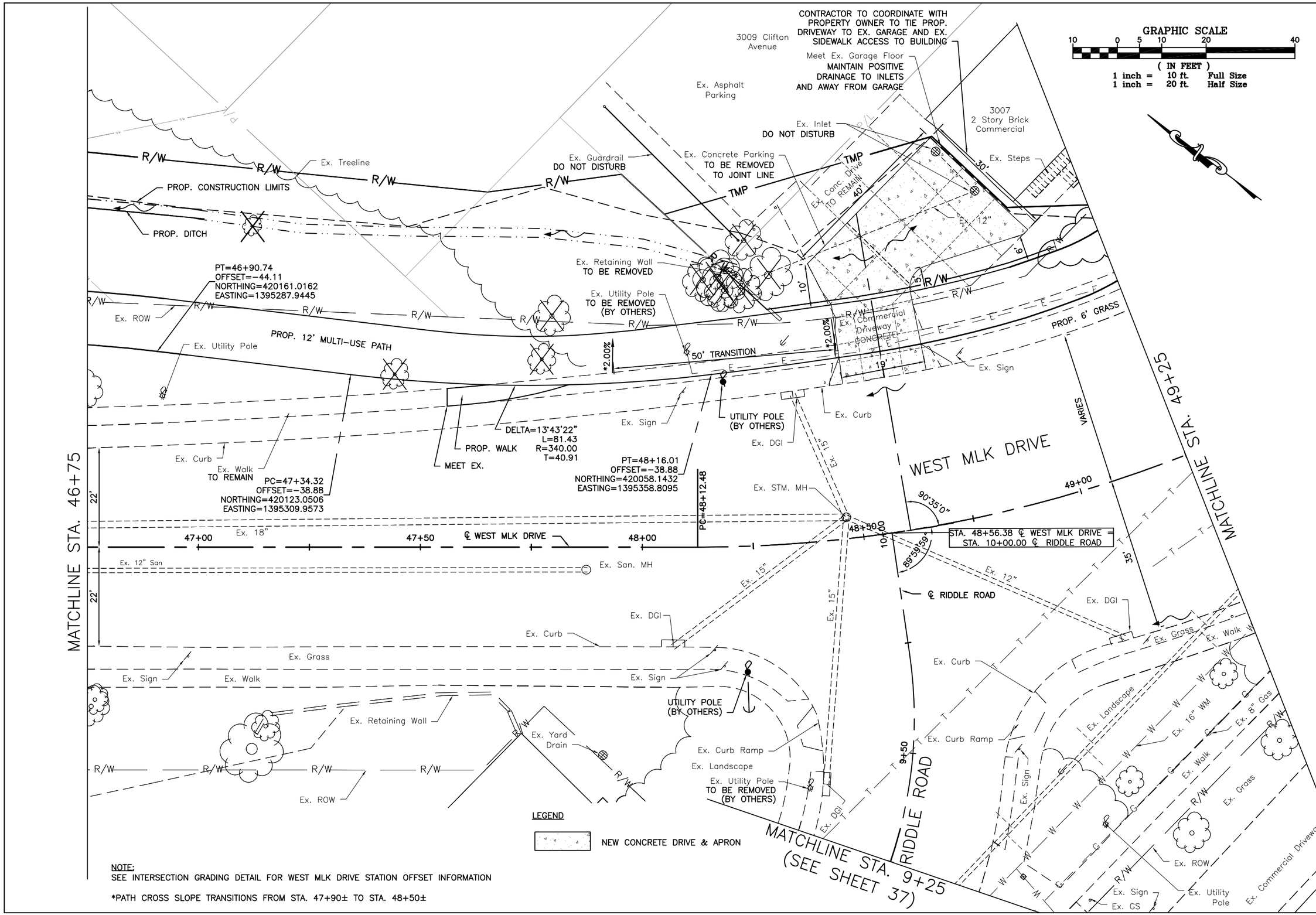
No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



NOTE:
SEE INTERSECTION GRADING DETAIL FOR WEST MLK DRIVE STATION OFFSET INFORMATION

*PATH CROSS SLOPE TRANSITIONS FROM STA. 47+90± TO STA. 48+50±

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
801 Plum Street
Room 138
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 46+75 TO STA. 49+25

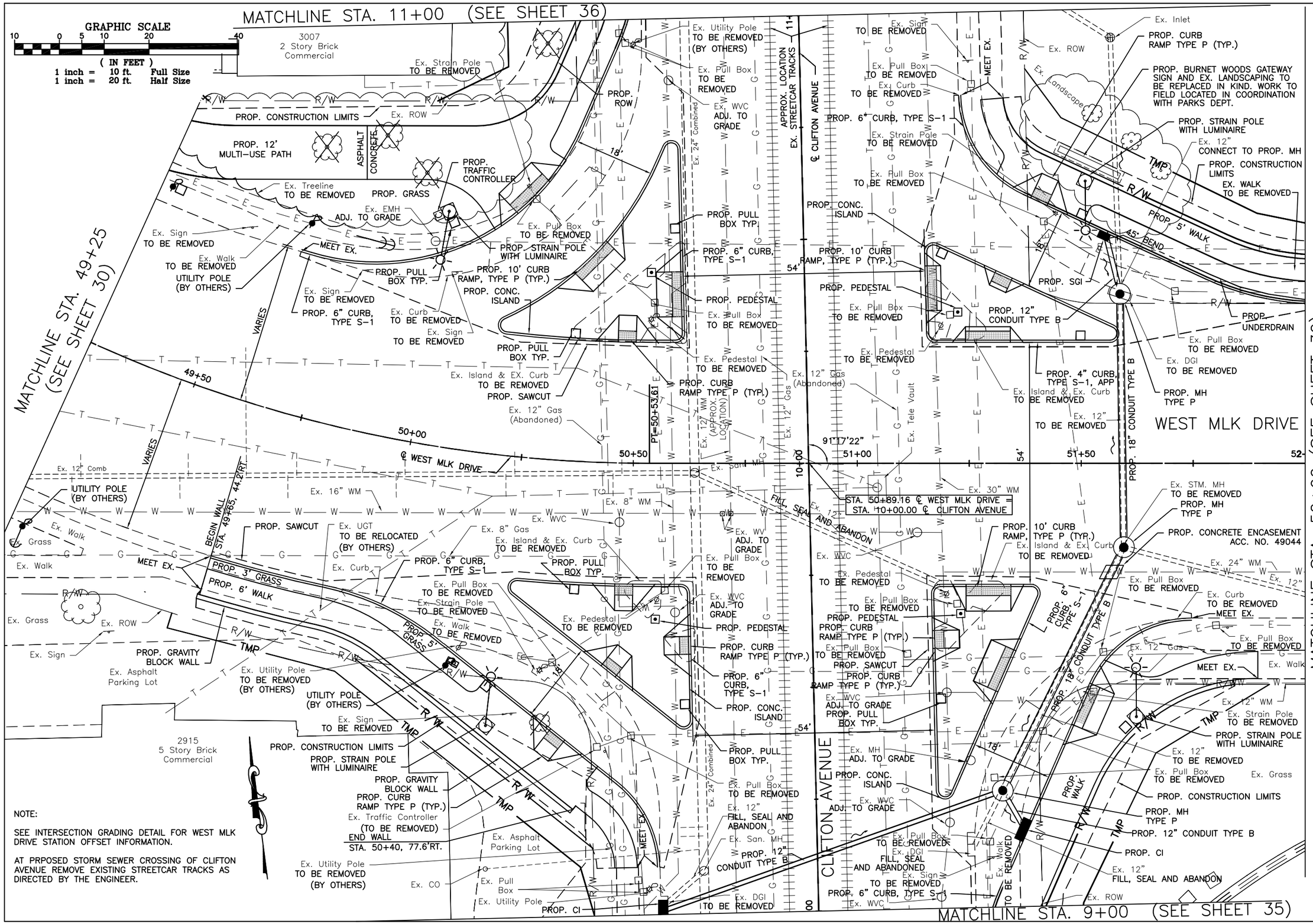
Revisions
No.

Date | Date | Date | Date
Drawn by | Designed by | Checked by | Reviewed by

Consultant

Structure File Number

ACC No.
23124



NOTE:

SEE INTERSECTION GRADING DETAIL FOR WEST MLK DRIVE STATION OFFSET INFORMATION.

AT PRPOSED STORM SEWER CROSSING OF CLIFTON AVENUE REMOVE EXISTING STREETCAR TRACKS AS DIRECTED BY THE ENGINEER.

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE NOW CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRIVE PLAN SHEETS
STA. 49+25 TO STA. 52+00

Revisions

No.	Date	Drawn by	Designed by	Checked by	Reviewed by

Consultant

Structure File Number

ACC No.
23124

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

Ex. Grass

BROOKLINE DRIVE

Ex. Walk

TMP

TMP

END WORK

PROP. CURB RAMP, TYPE T

PAVEMENT TO BE REMOVED

PAVEMENT TO BE REMOVED

PROP. CONC. ISLAND

PROP. CURB RAMP, TYPE P

PAVEMENT TO BE REMOVED

Ex. MH

Ex. EMH

TMP

TMP

MEET EX.

Ex. Light Pole

Ex. Walk

Ex. Sign

Ex. Pull Box

Ex. Sign

Ex. Curb

Ex. Curb Ramp TO BE REMOVED

PROP. 4" CURB, TYPE S-1

Ex. ROW

Ex. Curb Ramp TO BE REMOVED

Ex. Light Pole

Ex. Walk

PROP. CURB RAMPS, TYPE P

PROP. SAWCUT

PROP. SAWCUT

36'

WEST MLK DRIVE

MATCHLINE STA. 52+00

MATCHLINE STA. 54+75

℄ WEST MLK DRIVE

52+00 52+50 53+00 53+50 54+00 54+50

35'

Ex. WVC

Ex. 24" WM

Ex. WVC

Ex. DGI

Ex. Curb

Ex. Pull Box

Ex. Parking Meter (Typ) TO BE REMOVED

Ex. Pull Box

Ex. Grass

Ex. 12" Gas

Ex. Walk

Ex. 12" WM

Ex. Light Pole

Ex. WVC

Ex. ROW

Ex. Pull Box

Ex. Retaining Wall

Ex. Grass

Ex. Grass

LEGEND

PROP. LARGE DIAMETER STORM SEWER

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 52+00 TO STA. 54+75

Revisions

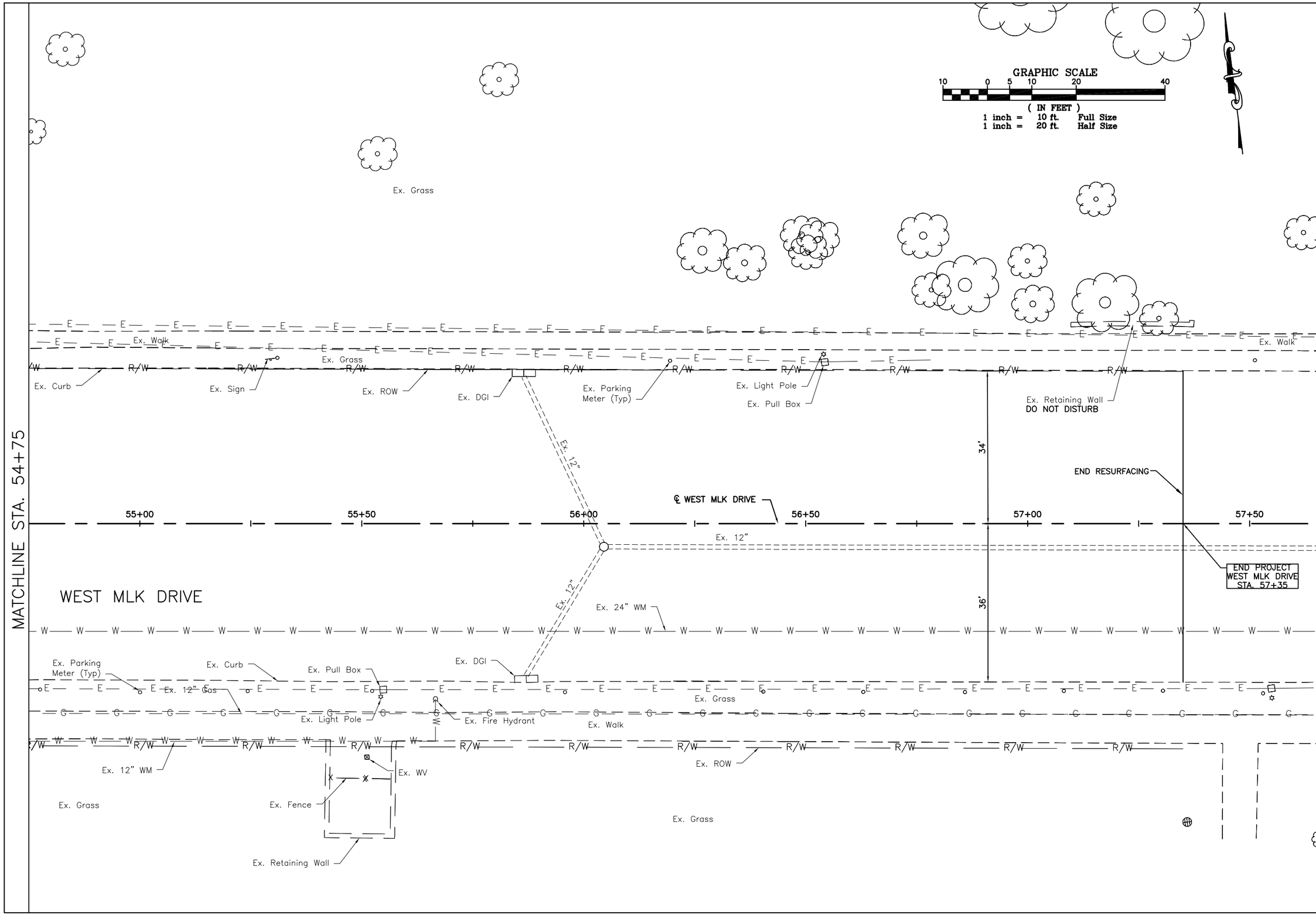
No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PLAN SHEETS
STA. 54+75 TO STA. 57+35

Revisions

No.				

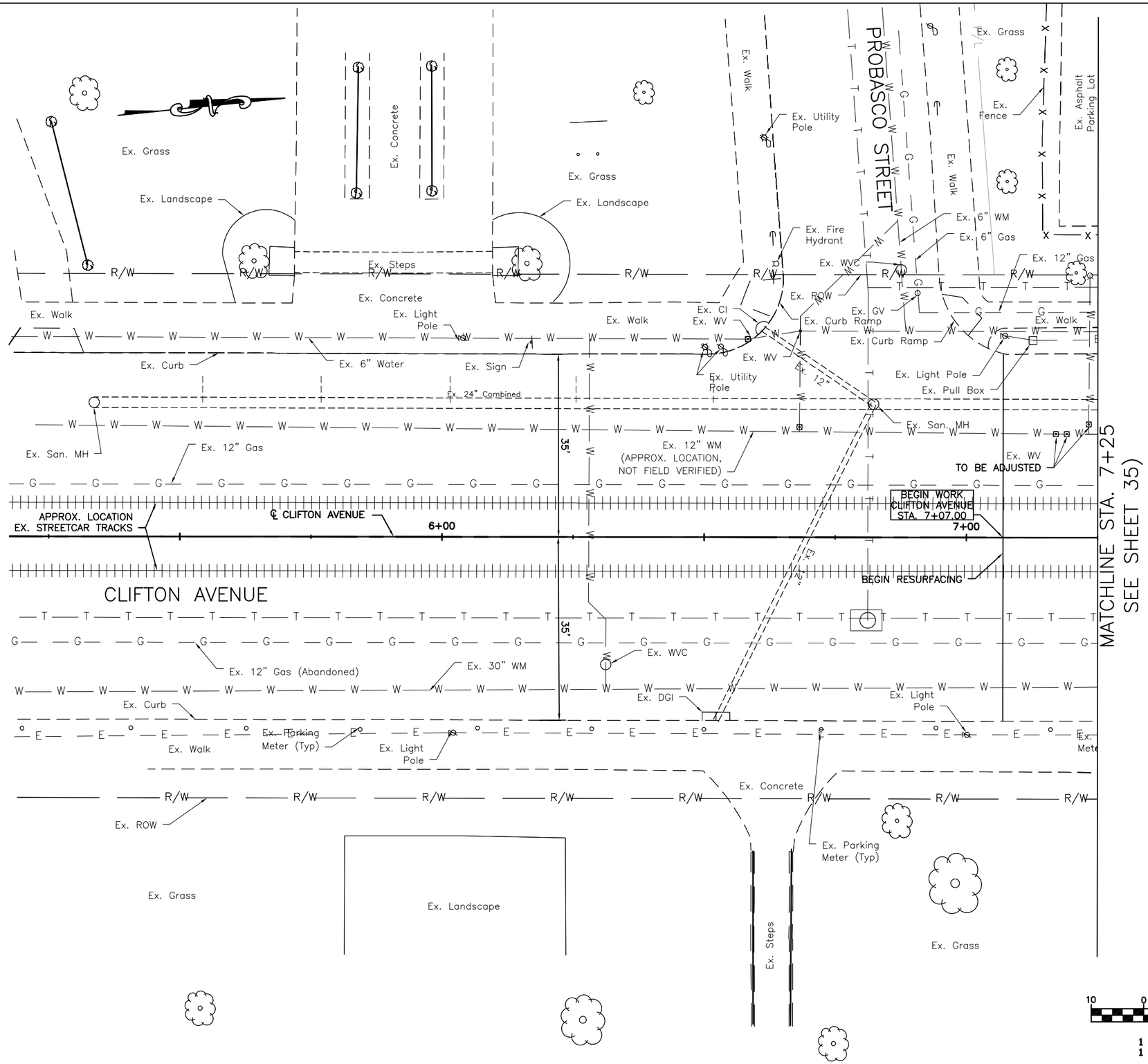
Date Date Date Date

Drawn by Designed by Checked by Reviewed by

Consultant

Structure File Number

ACC No.
23124



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft. Full Size

1 inch = 20 ft. Half Size

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

CLIFTON AVENUE PLAN SHEETS STA. 6+25 TO STA. 7+25

Revisions

No.				

Drawn by Date

Designed by Date

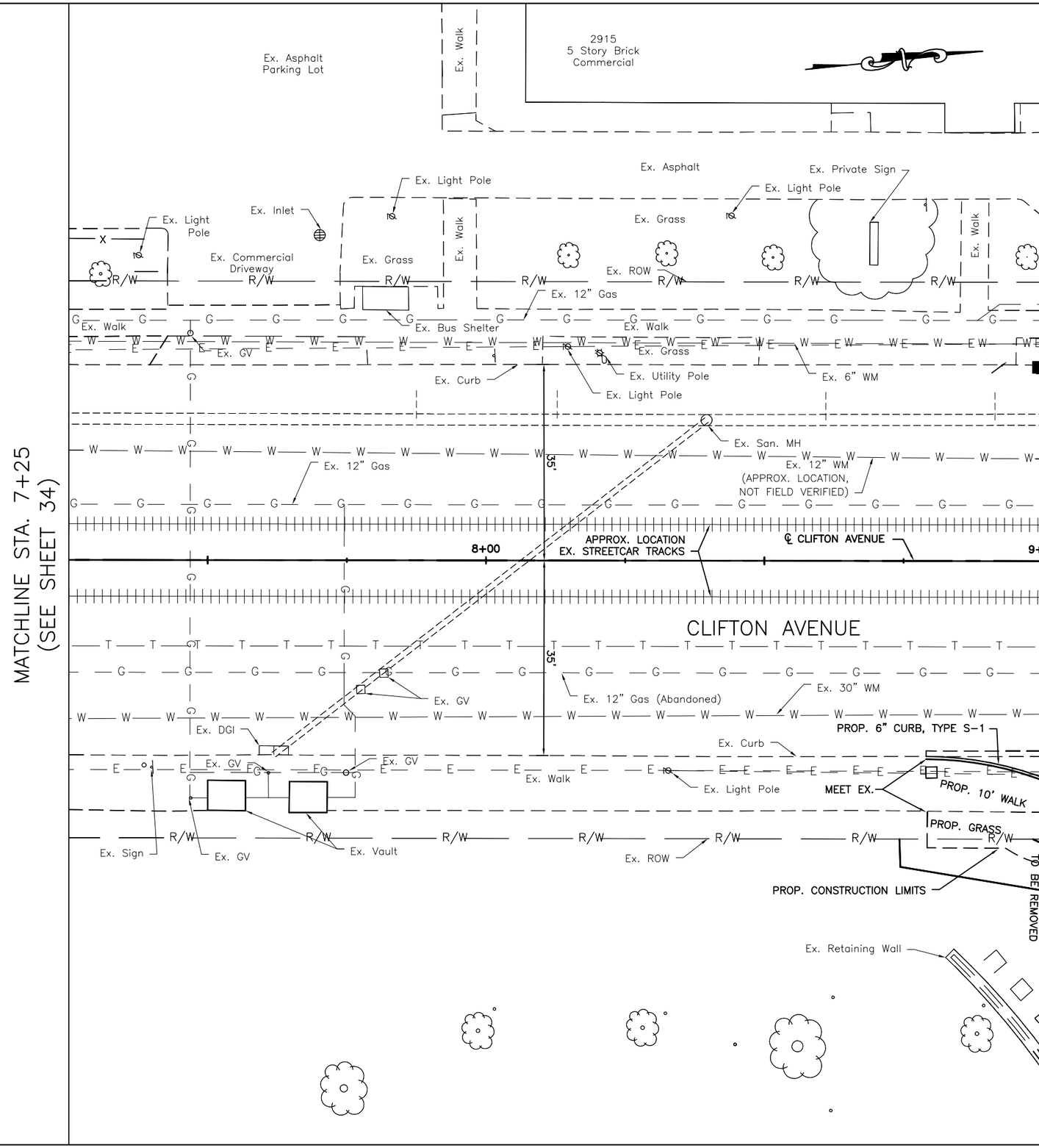
Checked by Date

Reviewed by Date

Consultant

Structure File Number

ACC No. 23124



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft. Full Size

1 inch = 20 ft. Half Size

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

CLIFTON AVENUE PLAN SHEETS STA.7+25 TO STA. 9+00

Revisions

No.

Date

Date

Date

Date

Drawn by

Designed by

Checked by

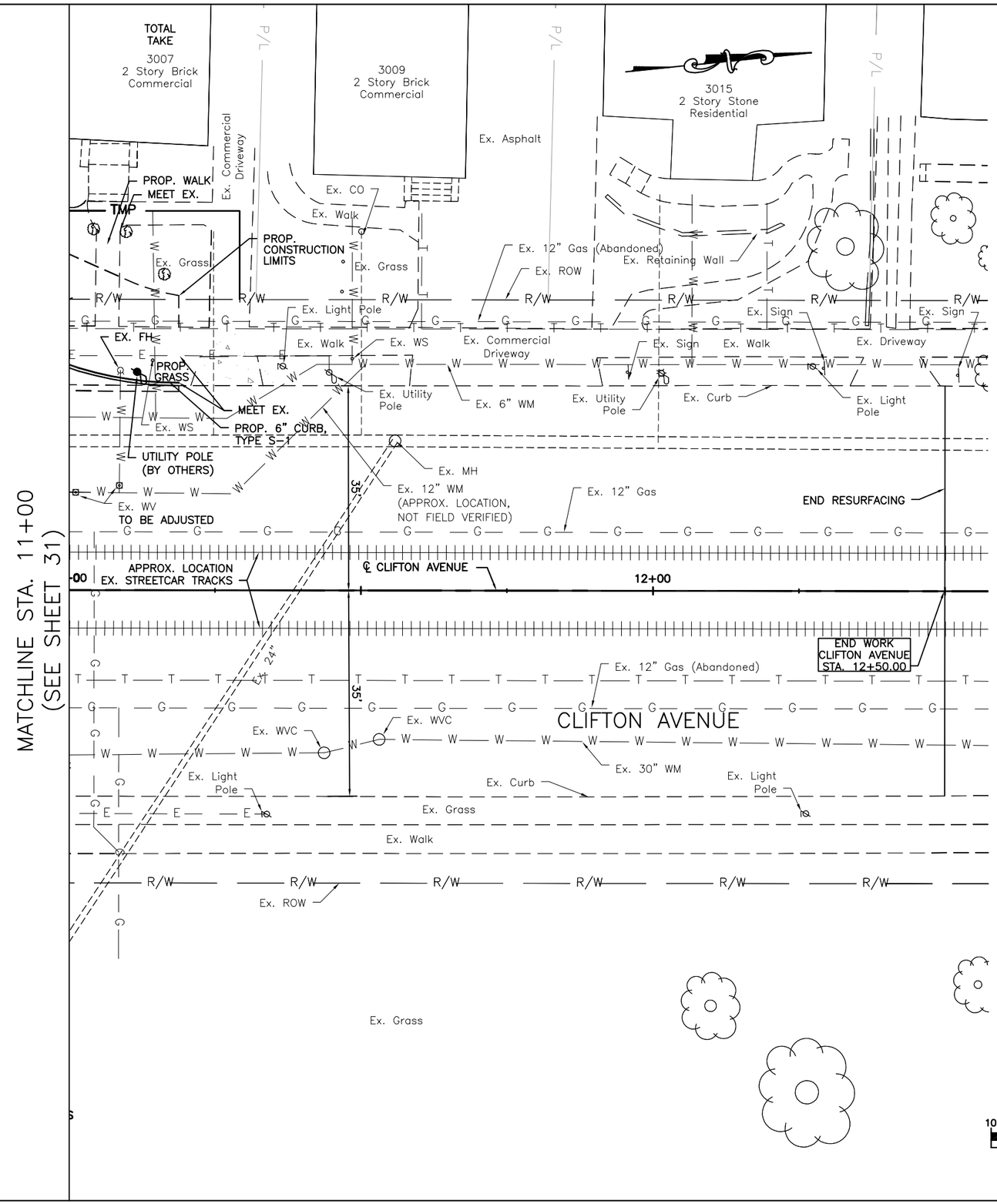
Reviewed by

Consultant

Structure File Number

ACC No.
23124

35
155



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
CLIFTON AVENUE PLAN SHEETS
STA. 11+00 TO STA. 12+50

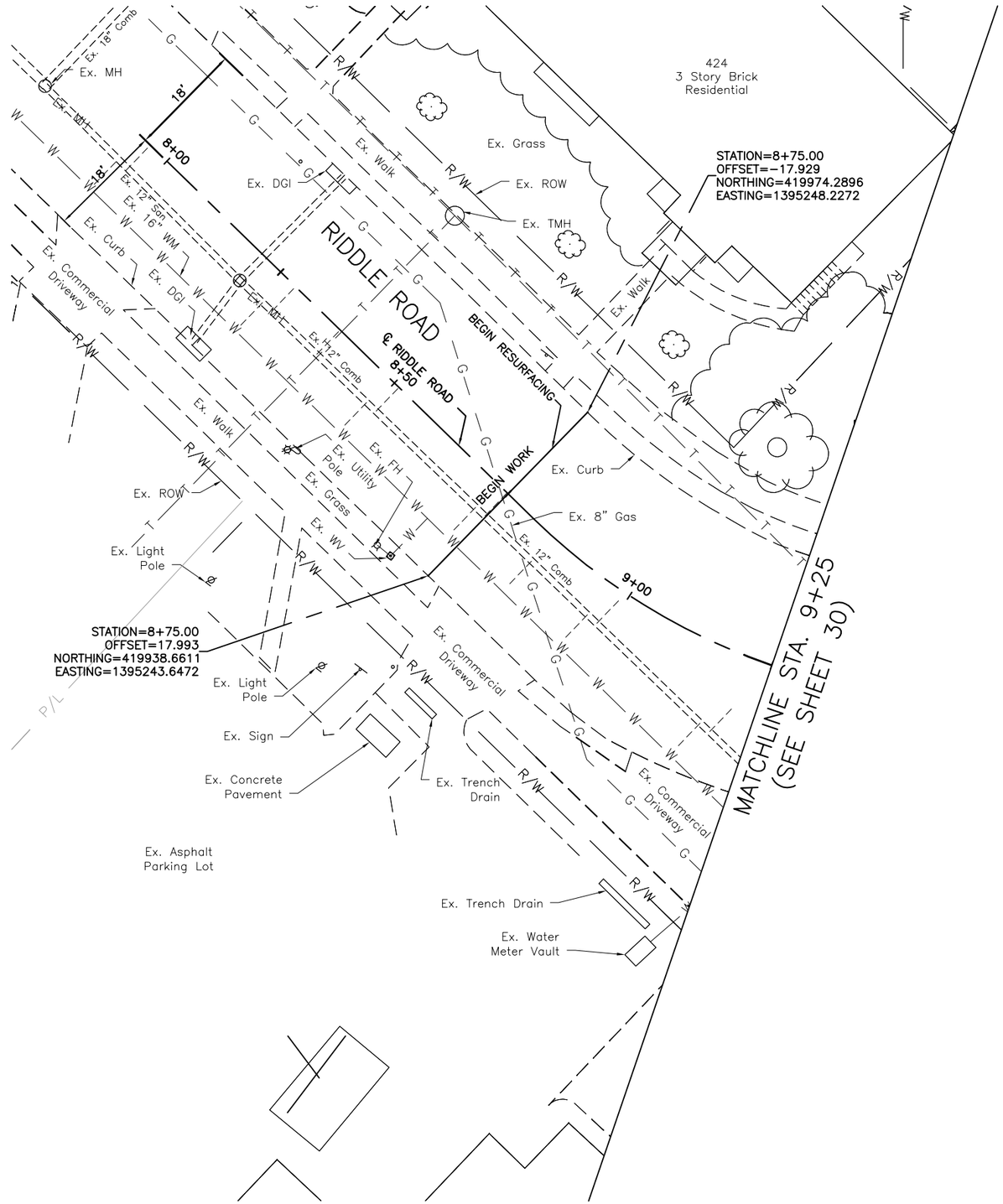
Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
RIDDLE ROAD PLAN SHEET
STA. 8+00 TO STA. 9+25

Revisions

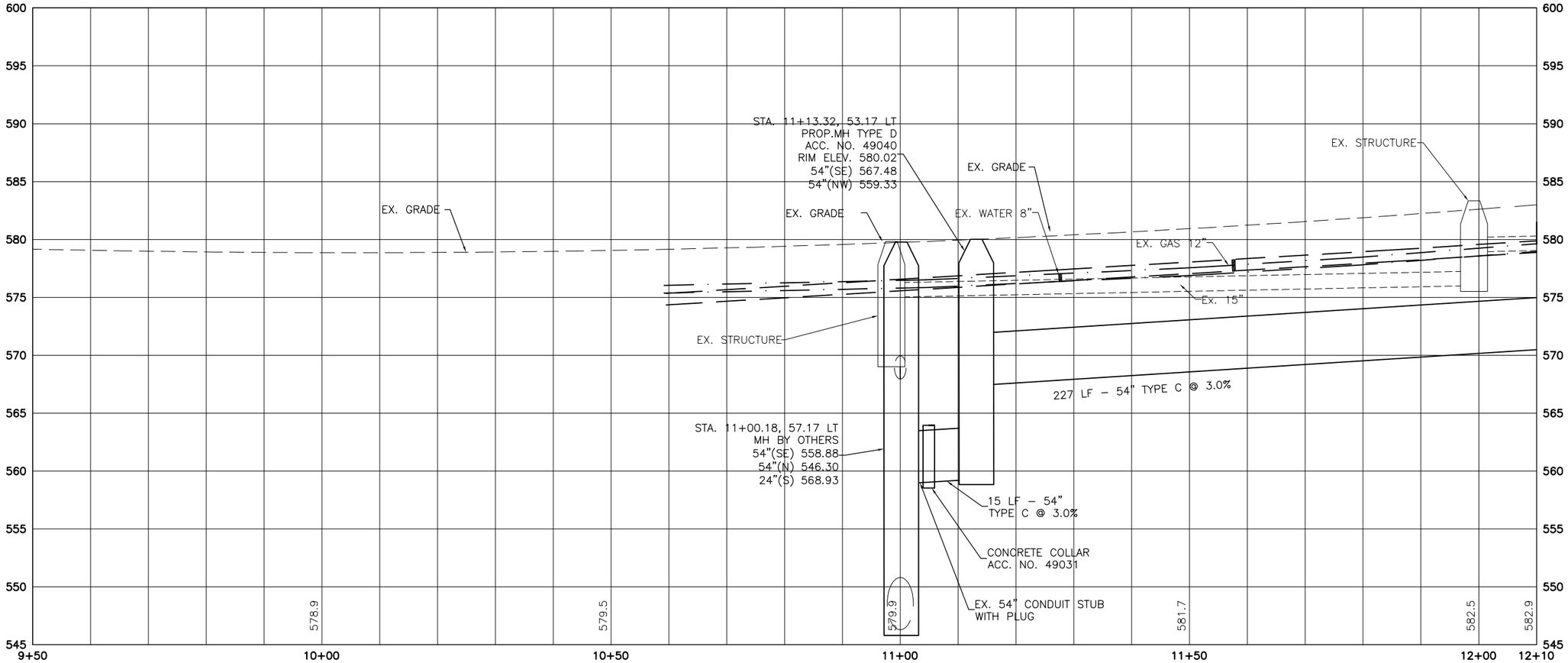
No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHALL BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 9+50 TO STA. 12+10

Revisions

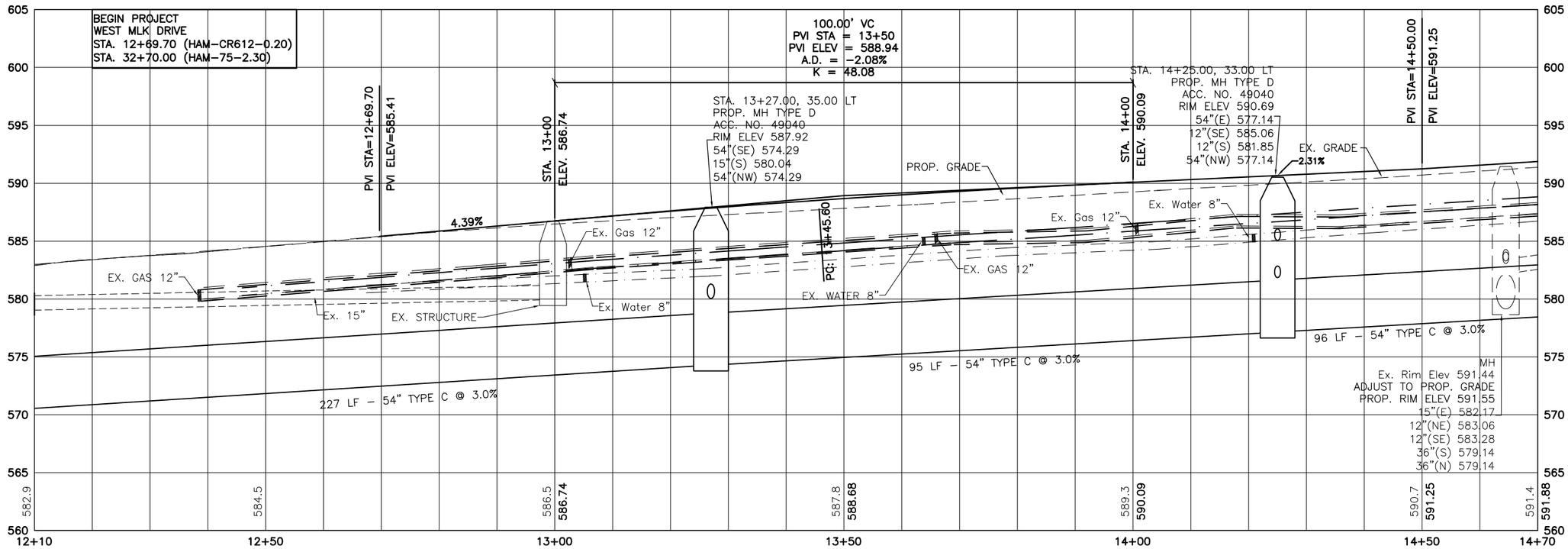
No.				

Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

ACC No.
23124



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 12+10 TO STA. 17+40

Revisions
No.

Date
Date
Date
Date

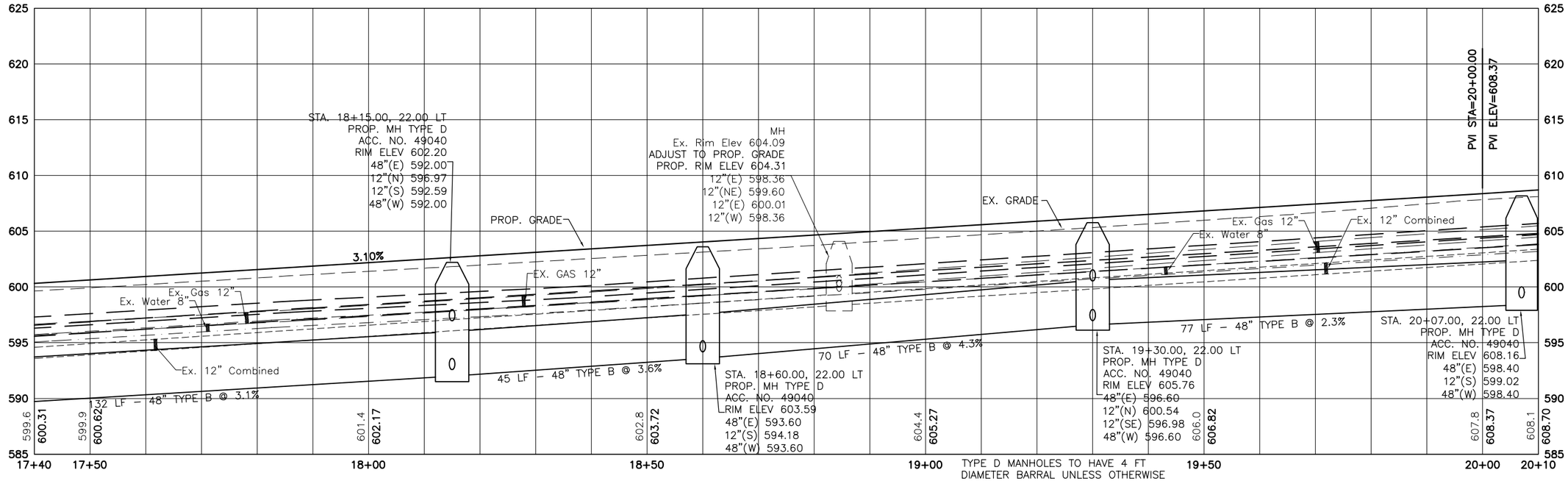
Drawn by
Designed by
Checked by
Reviewed by

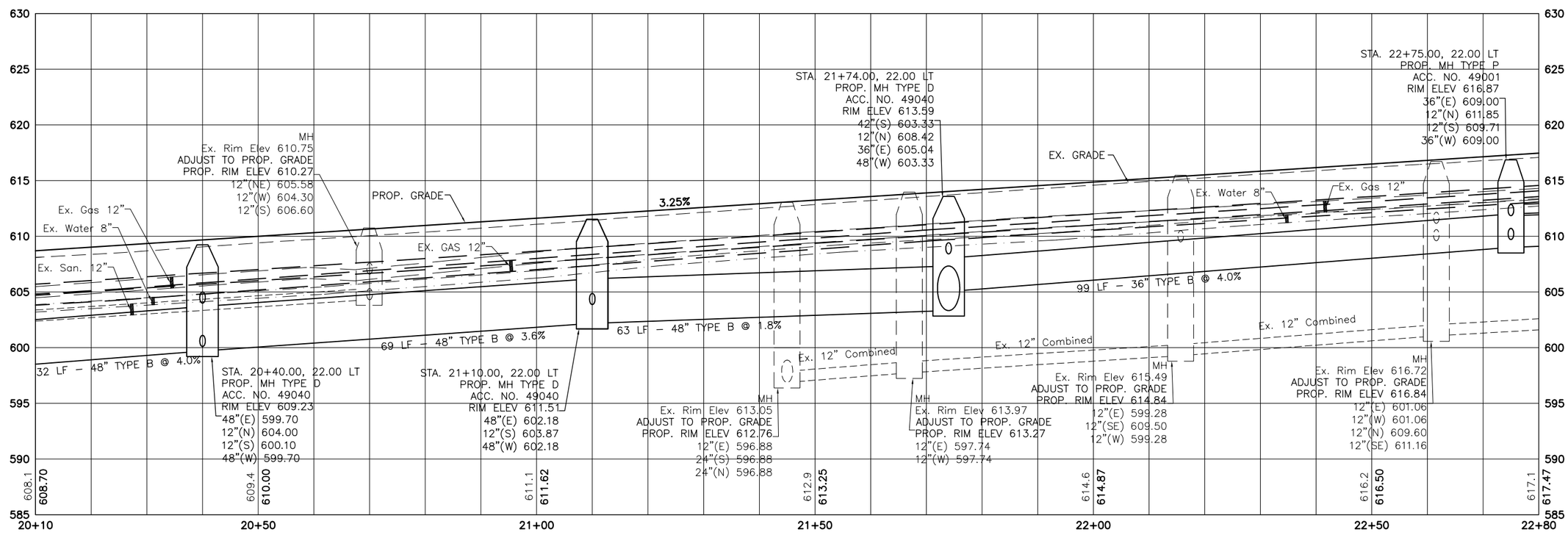
Consultant

Structure File Number

ACC No.
23124

38A
155





DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 17+40 TO STA. 22+80

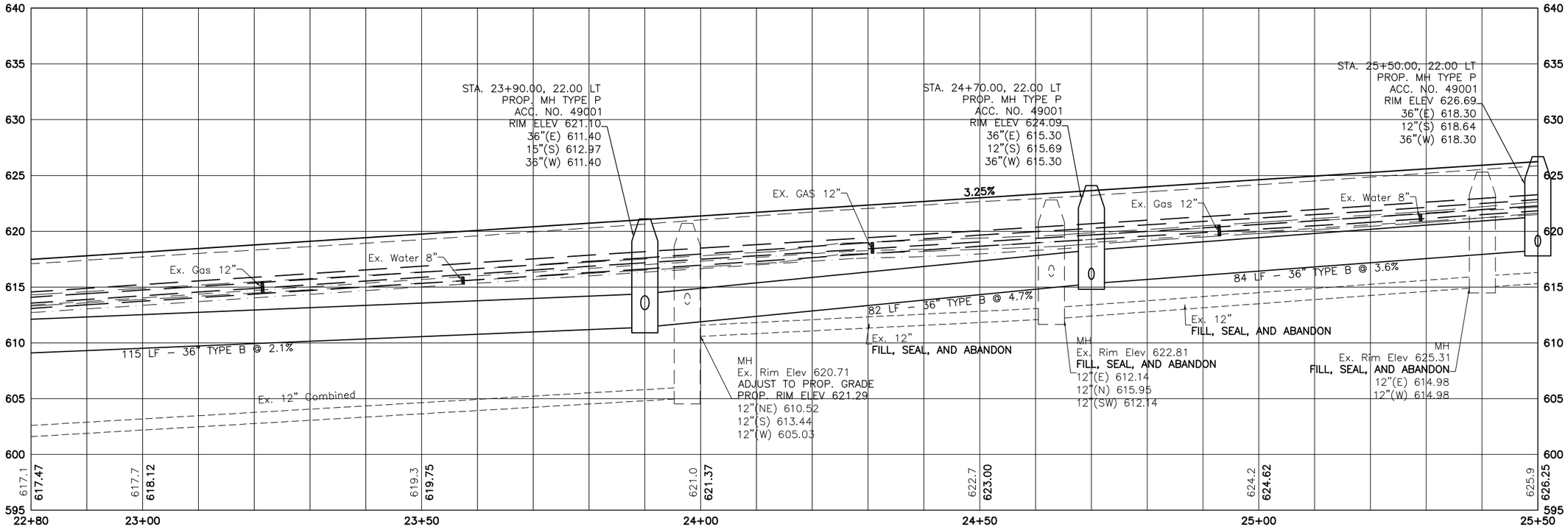
Revisions
No.

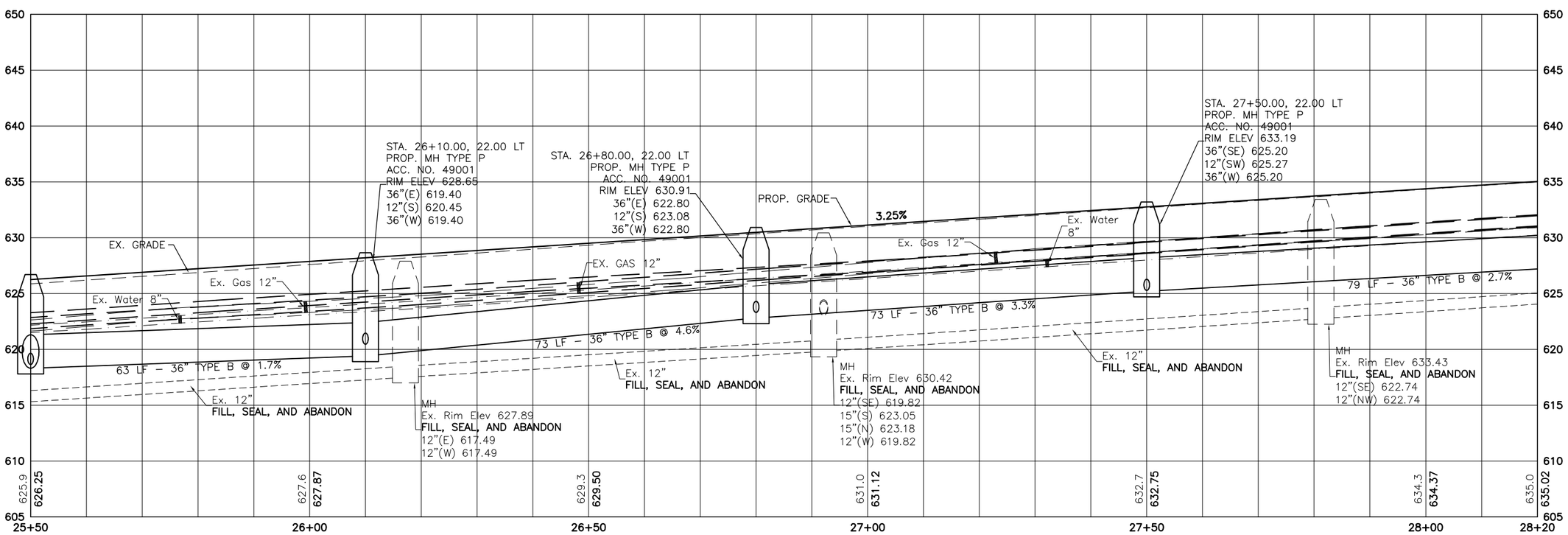
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124





CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE NOT TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRIVE PROFILE

STA. 22+80 TO STA. 28+20

Revisions

No.				

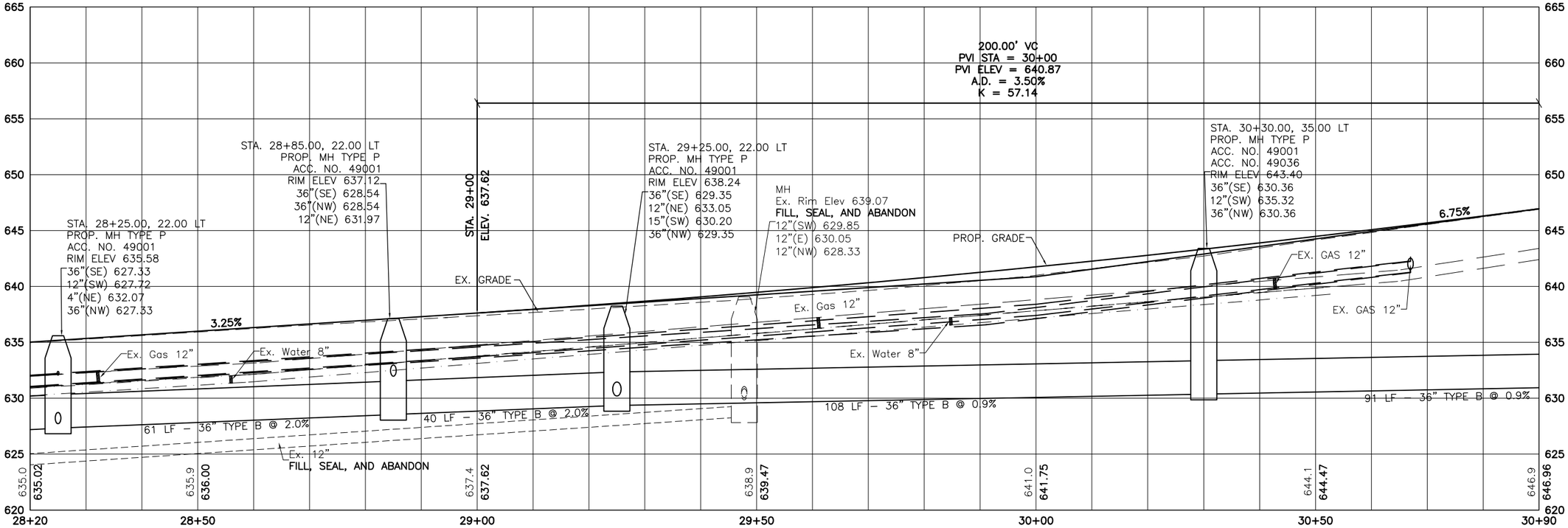
Date | Date | Date | Date

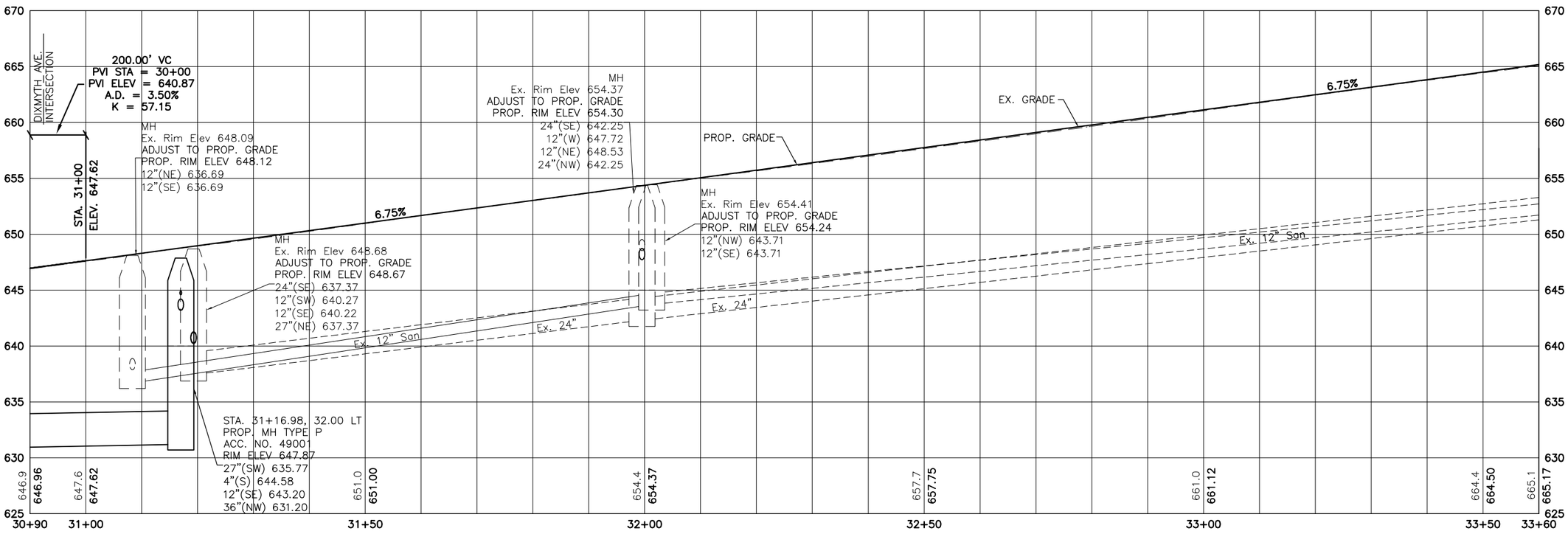
Drawn by | Designed by | Checked by | Reviewed by

Consultant

Structure File Number

ACC No.
23124





CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND SHALL BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 28+20 TO STA. 33+60

Revisions

No.				

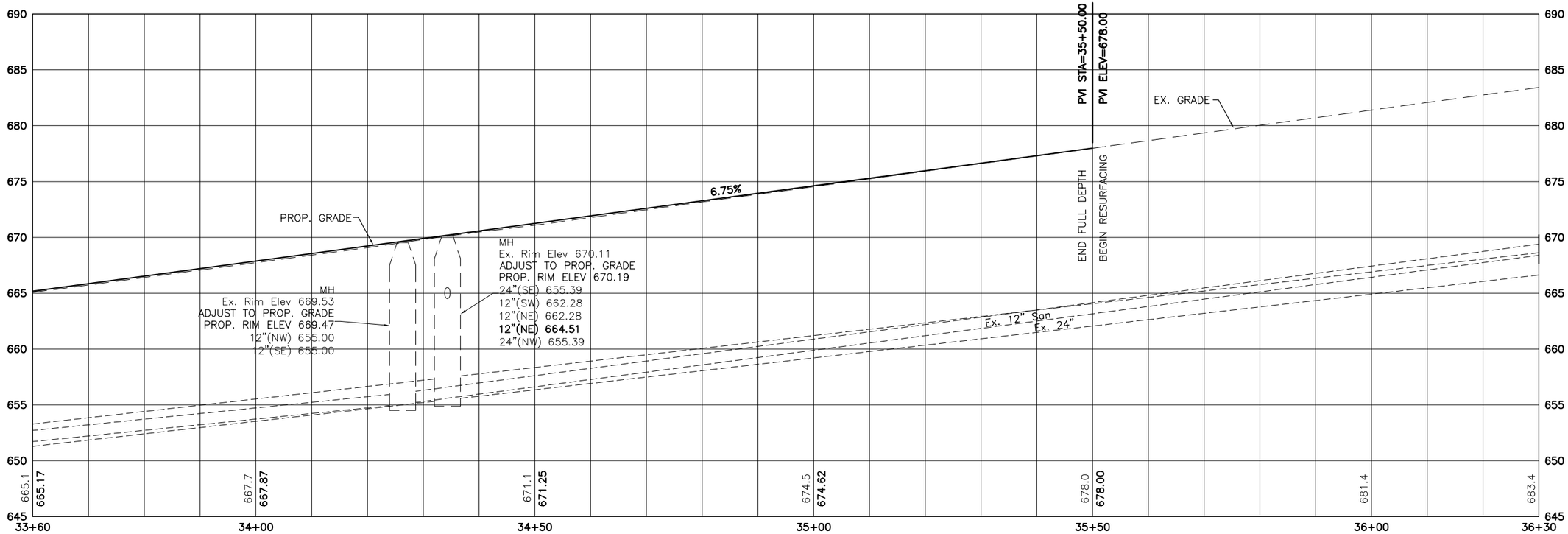
Date | Date | Date | Date

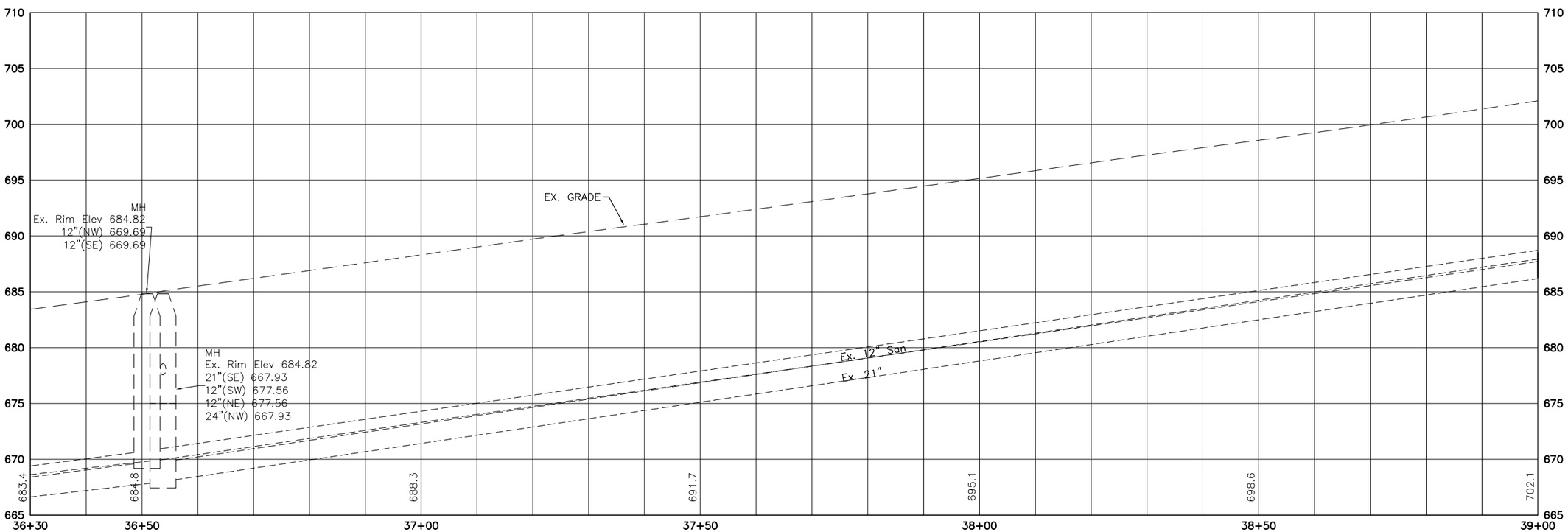
Drawn by | Designed by | Checked by | Reviewed by

Consultant

Structure File Number

ACC No.
23124





DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 33+60 TO STA. 39+00

Revisions

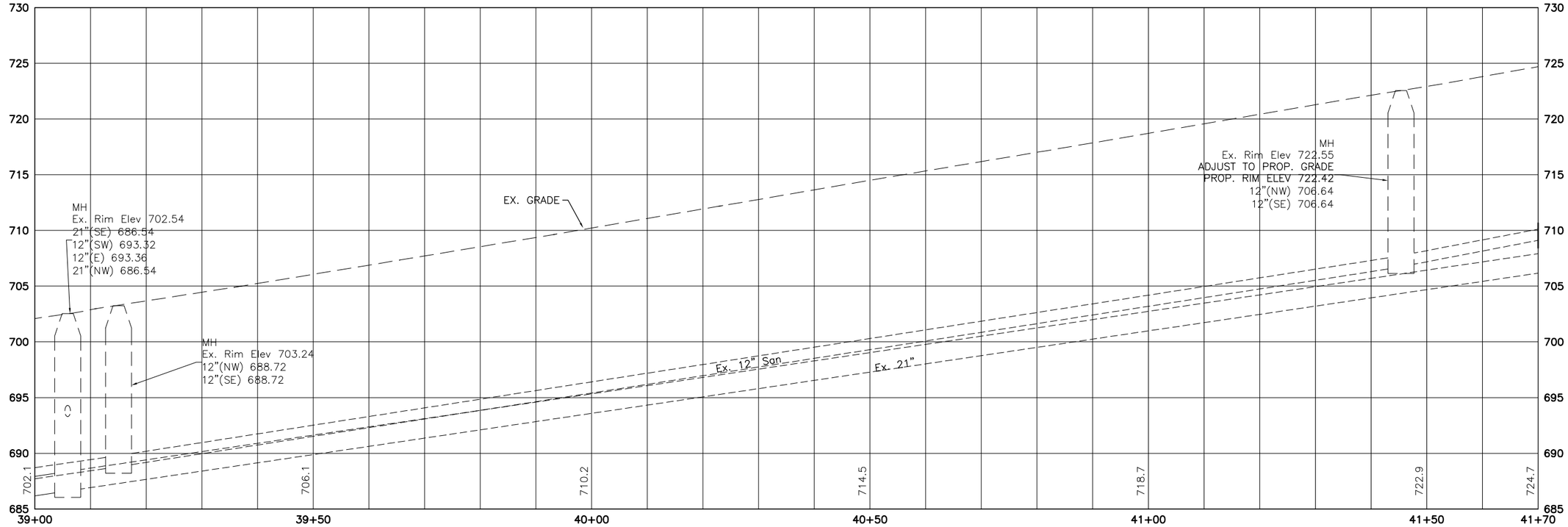
No.				

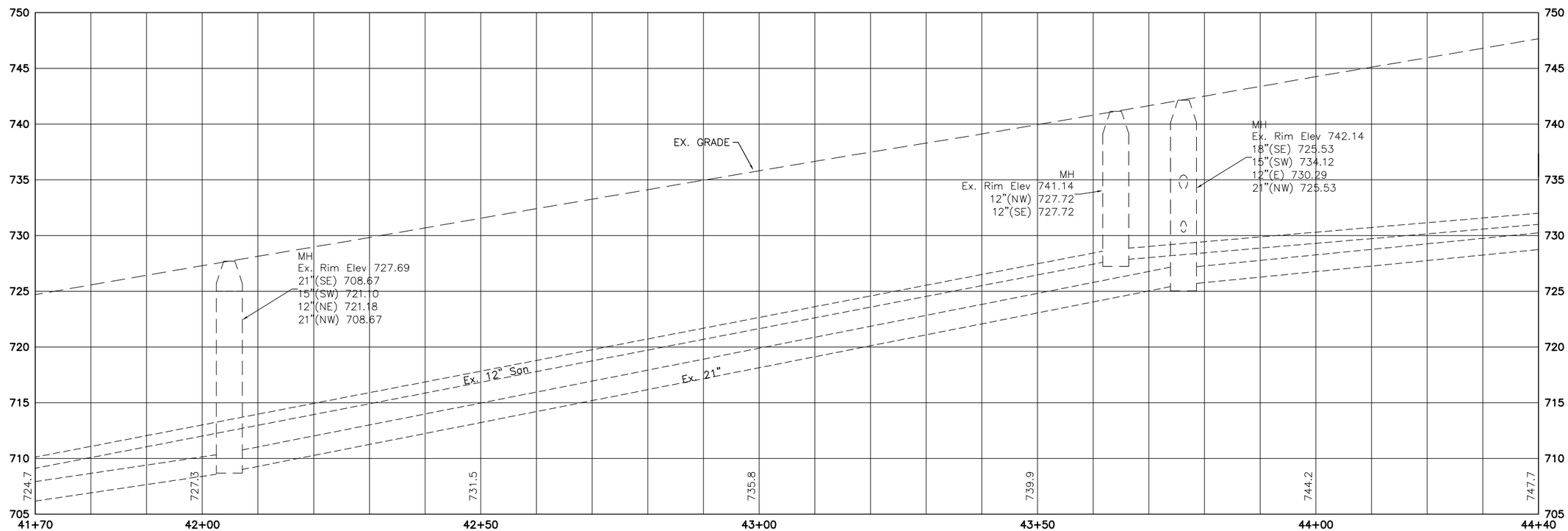
Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

ACC No.
23124





CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE NOT TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 39+00 TO STA. 44+40

Revisions

No.				

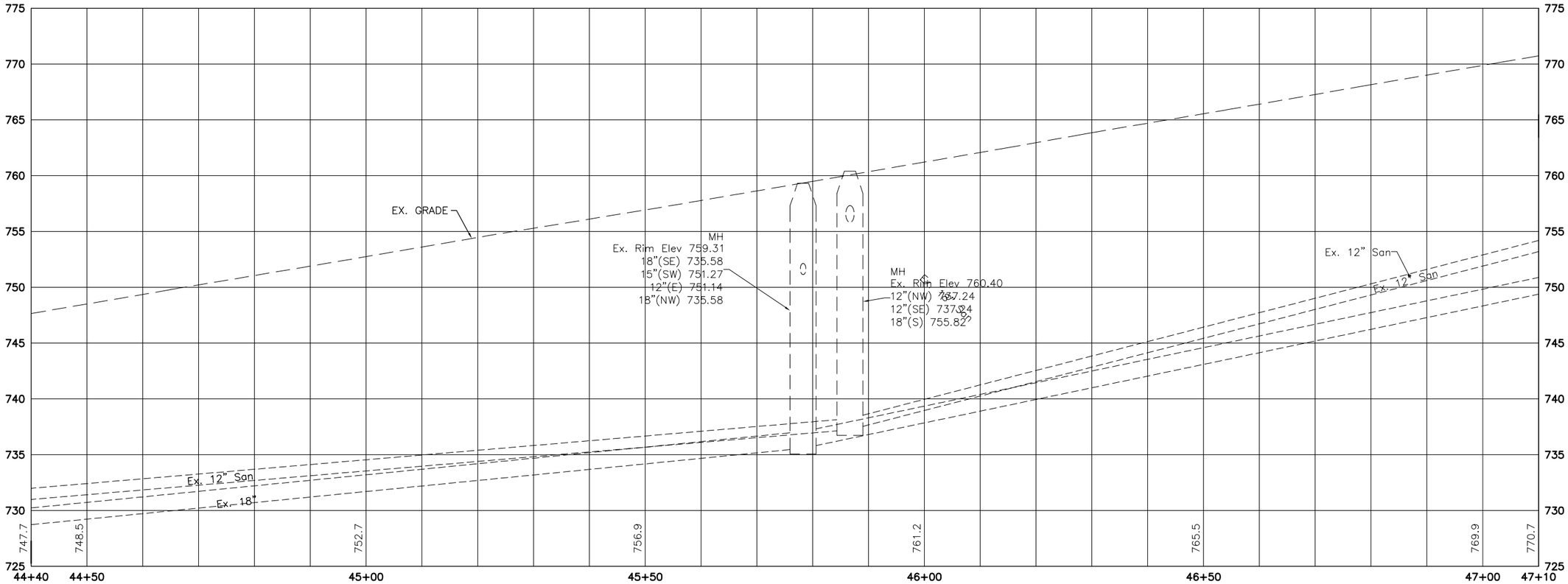
Date Date Date Date

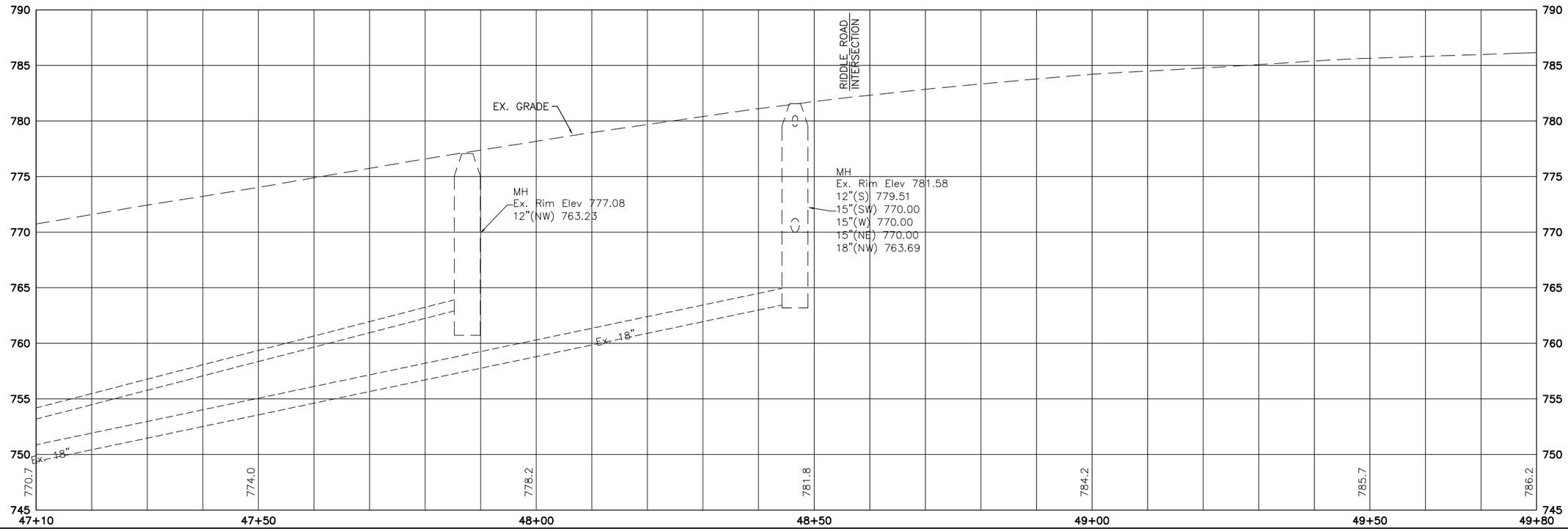
Drawn by Designed by Checked by Reviewed by

Consultant

Structure File Number

ACC No.
23124





CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 44+40 TO STA. 49+80

Revisions

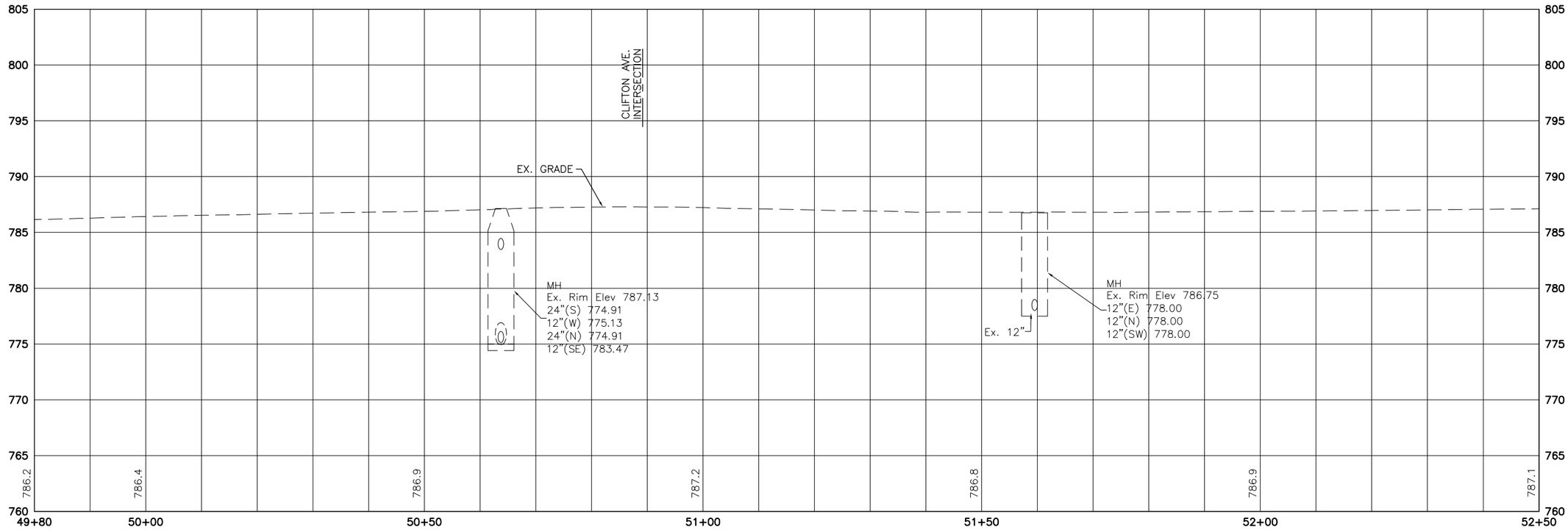
No.				

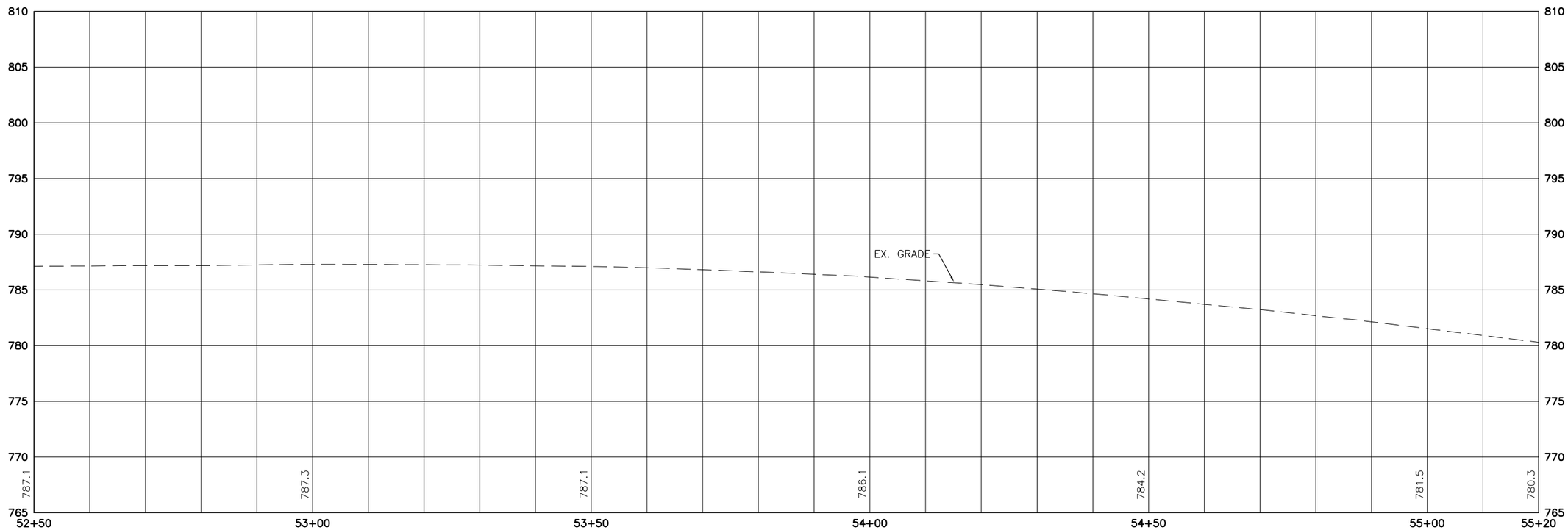
Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

ACC No.
23124





CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHALL BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 49+80 TO STA. 55+20

Revisions

No.			

Drawn by Date
Designed by Date
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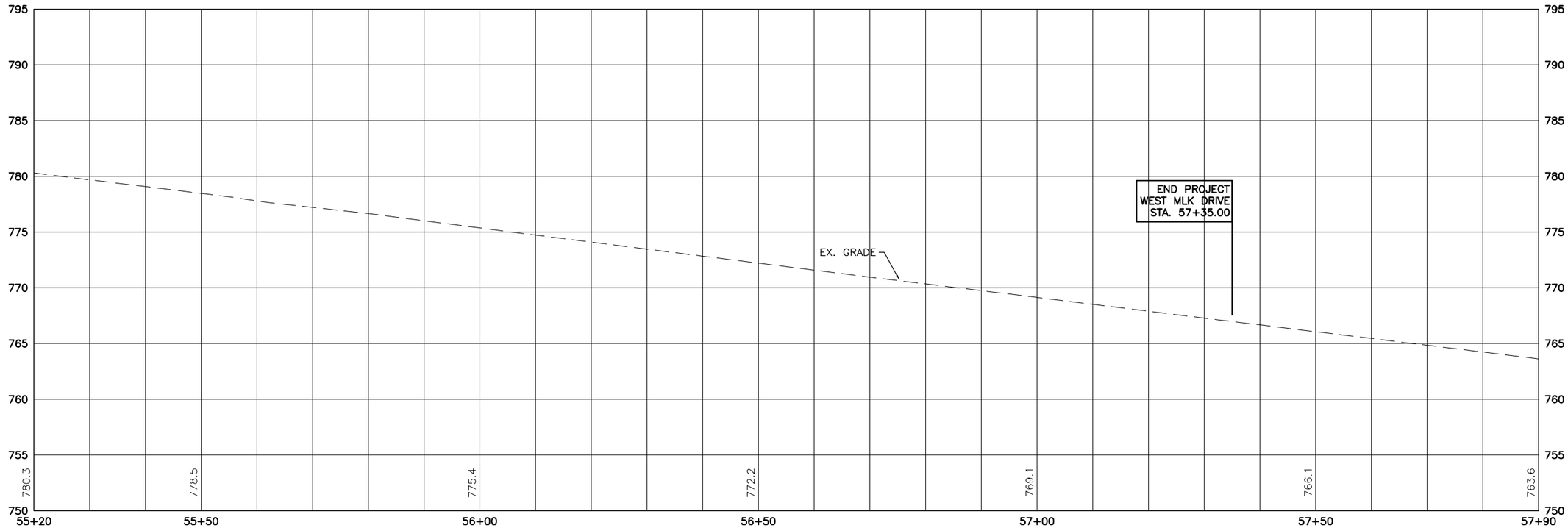
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE PROFILE
STA. 55+20 TO STA. 57+90

Revisions

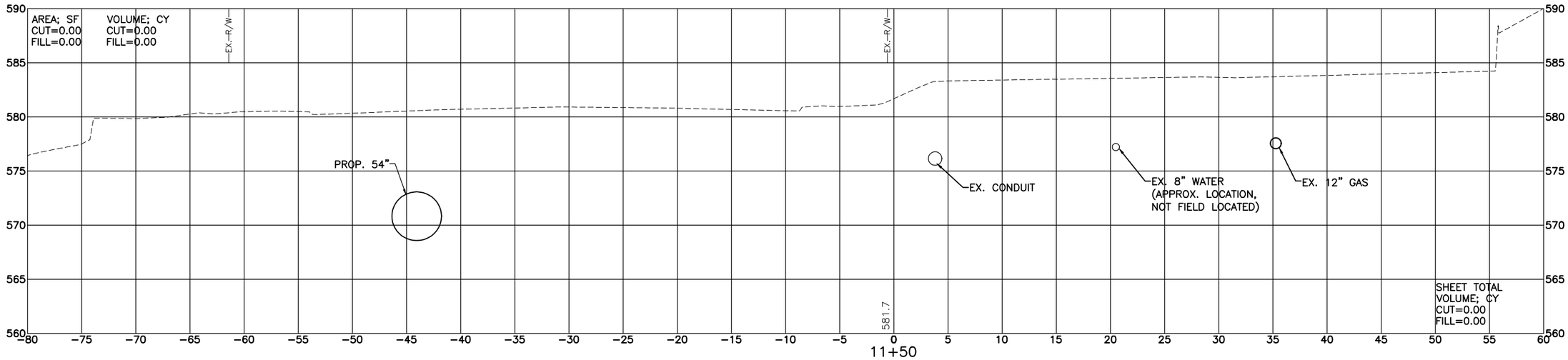
No.			

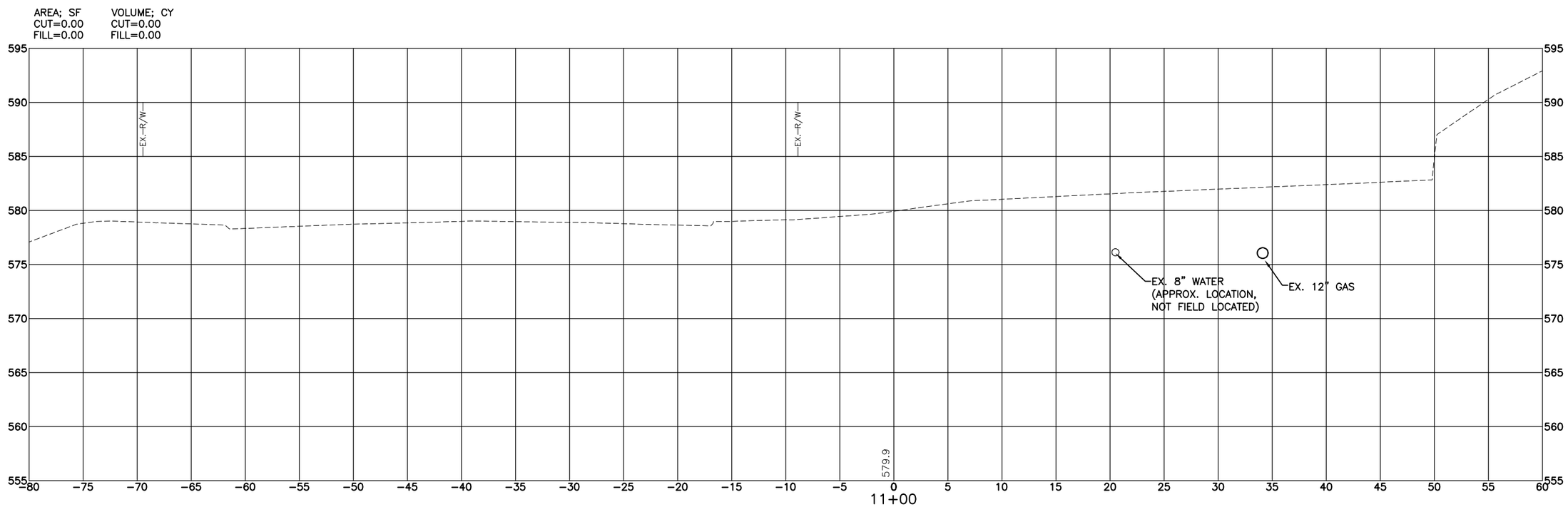
Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

ACC No.
23124





SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 11+00 TO STA. 11+50

Revisions

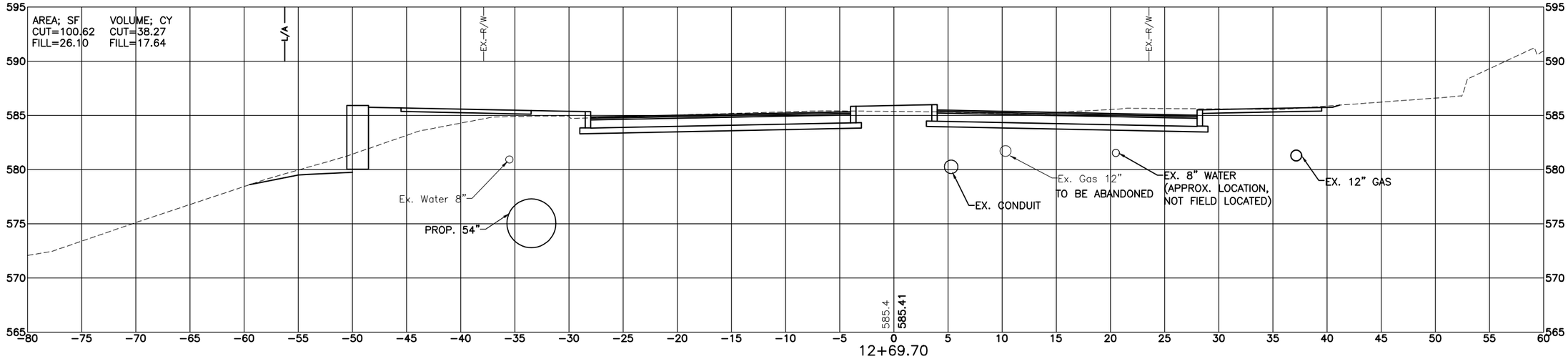
No.				

Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

ACC No.
23124



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 12+00 TO STA. 12+69

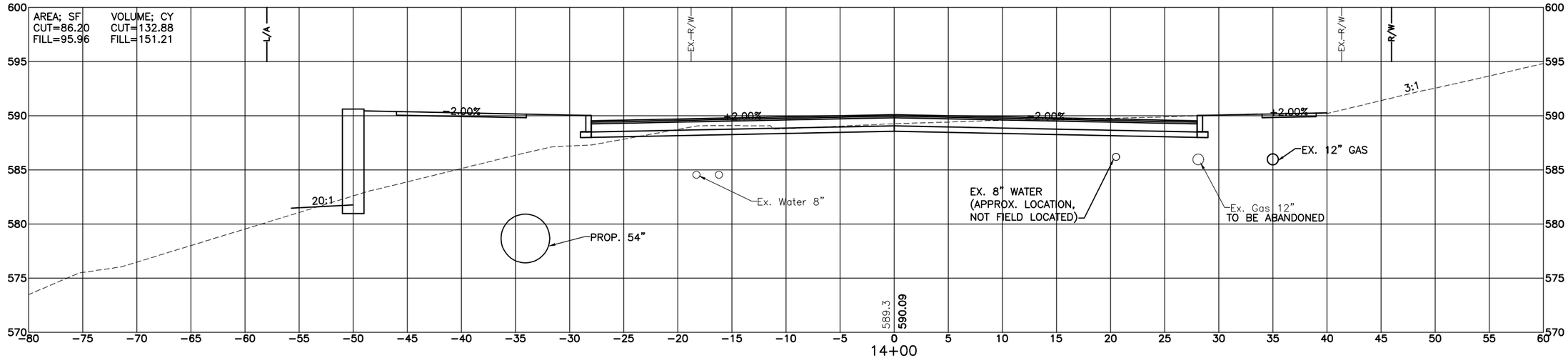
Revisions
No.

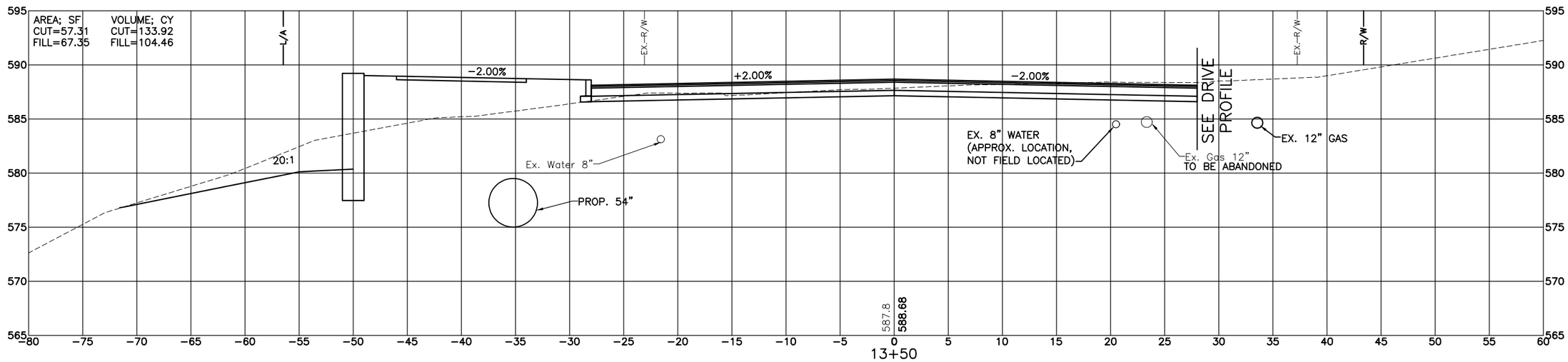
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

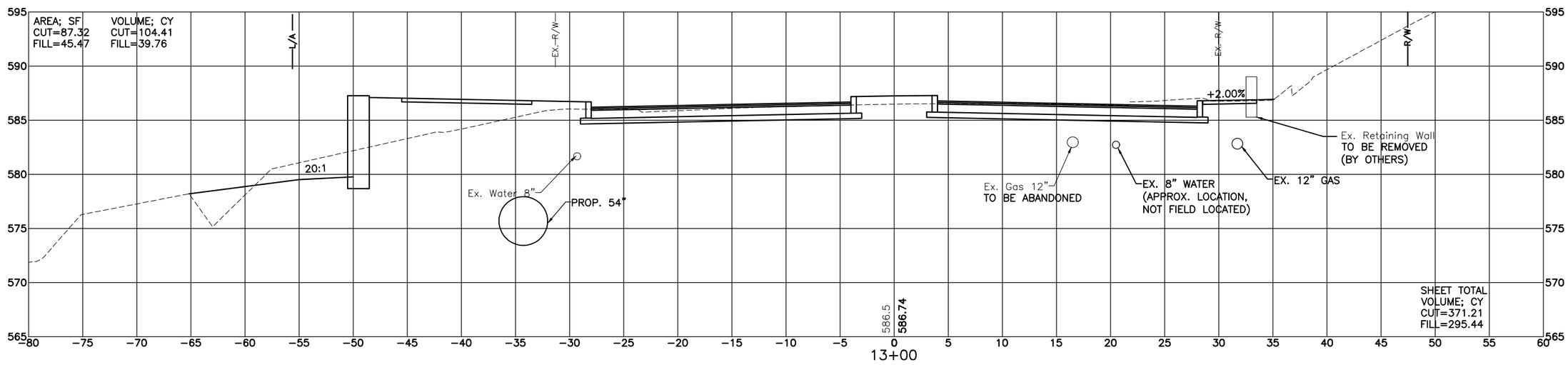
Consultant

Structure File Number

ACC No.
23124







DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 13+00 TO STA. 14+00

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

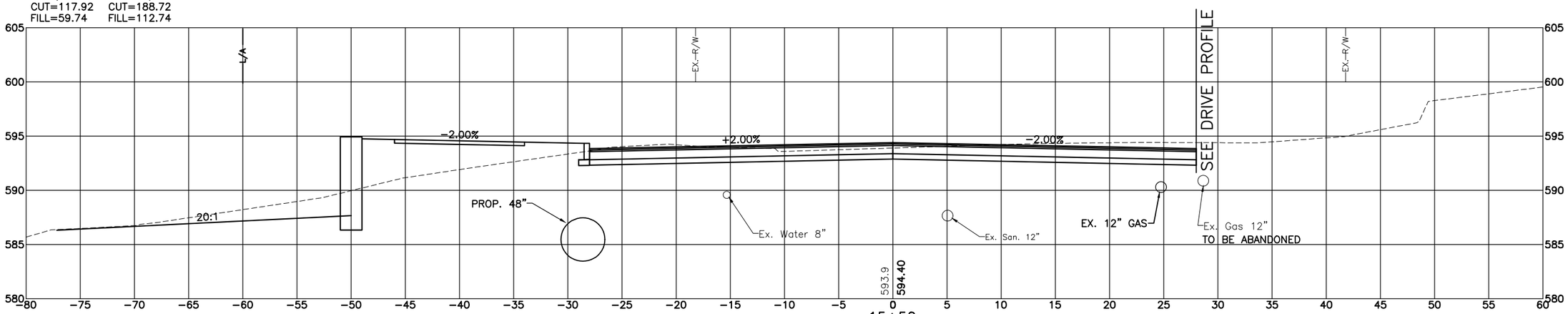
Consultant

Structure File Number

ACC No.
23124

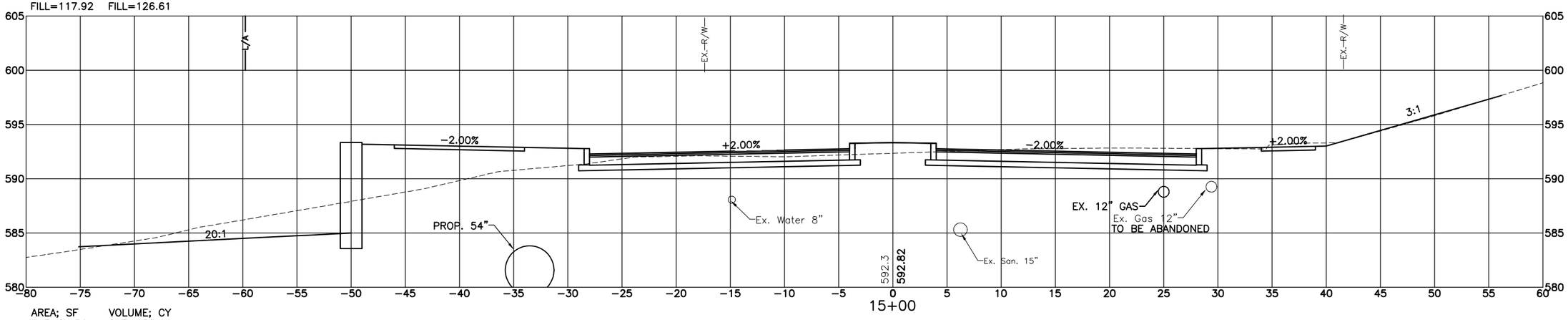
AREA; SF
CUT=117.92
FILL=59.74

VOLUME; CY
CUT=188.72
FILL=112.74



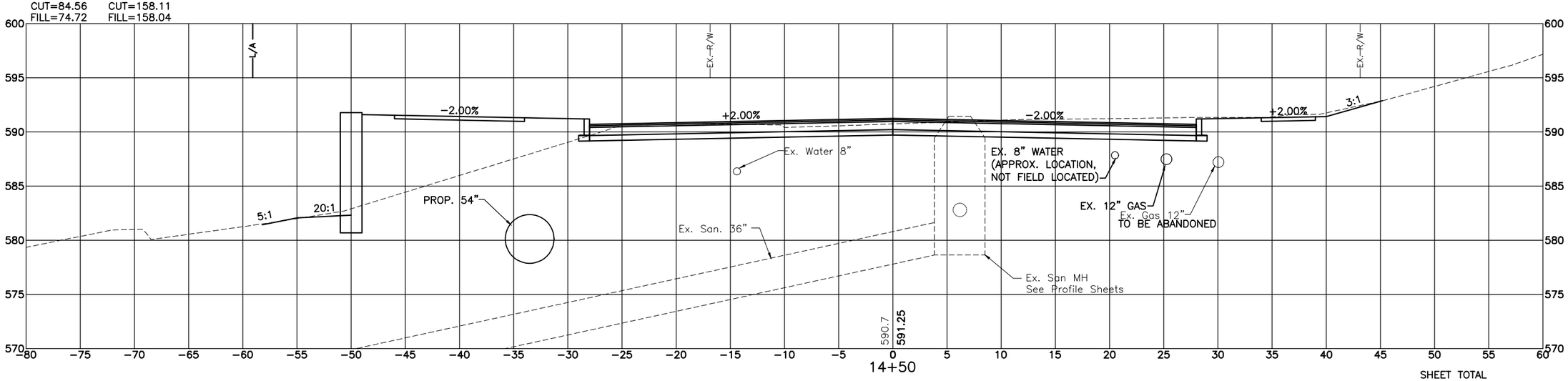
AREA; SF
CUT=85.90
FILL=117.92

VOLUME; CY
CUT=157.83
FILL=126.61



AREA; SF
CUT=84.56
FILL=74.72

VOLUME; CY
CUT=158.11
FILL=158.04



SHEET TOTAL
VOLUME; CY
CUT=504.67
FILL=397.39

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 14 + 50 TO STA. 15 + 50

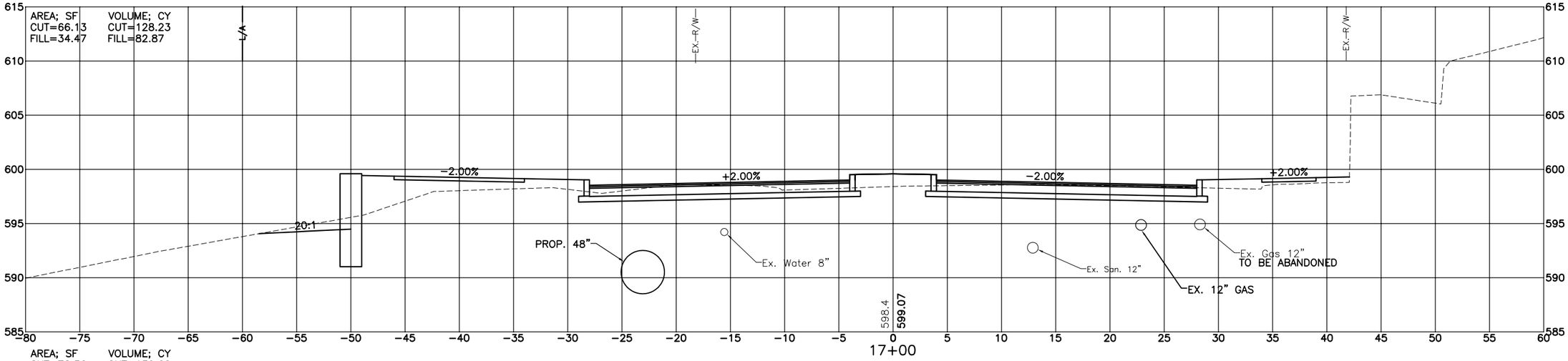
Revisions
No.

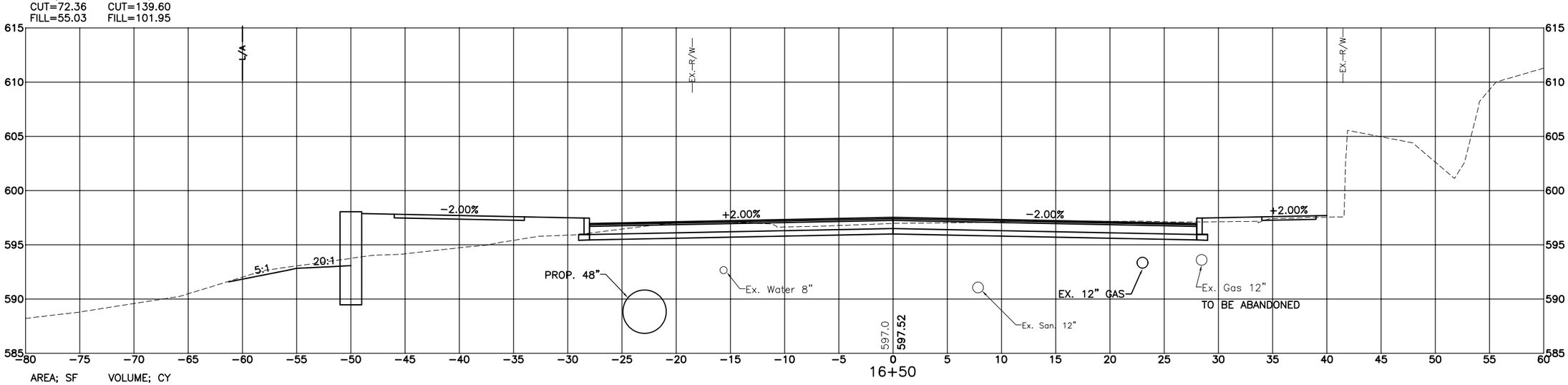
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

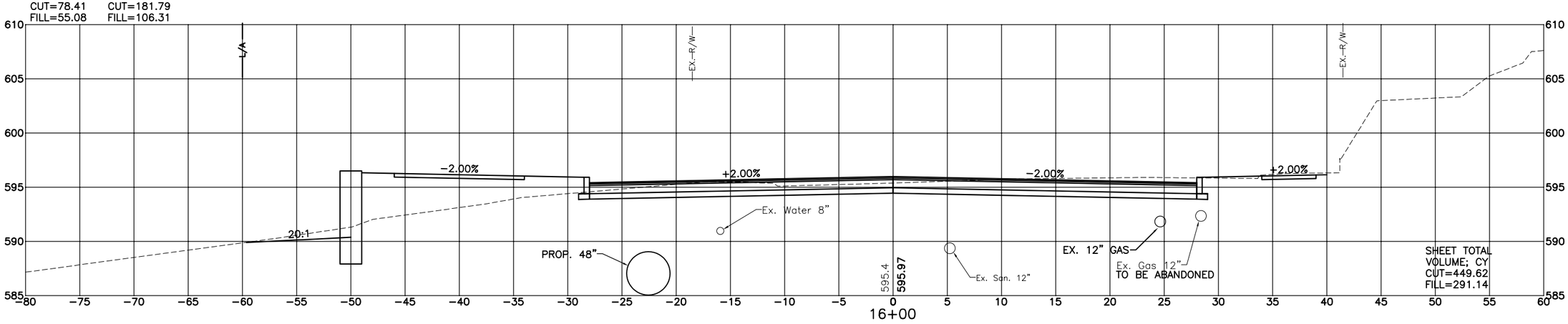
Consultant

Structure File Number

ACC No.
23124







CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 16+00 TO STA. 17+00

Revisions

No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

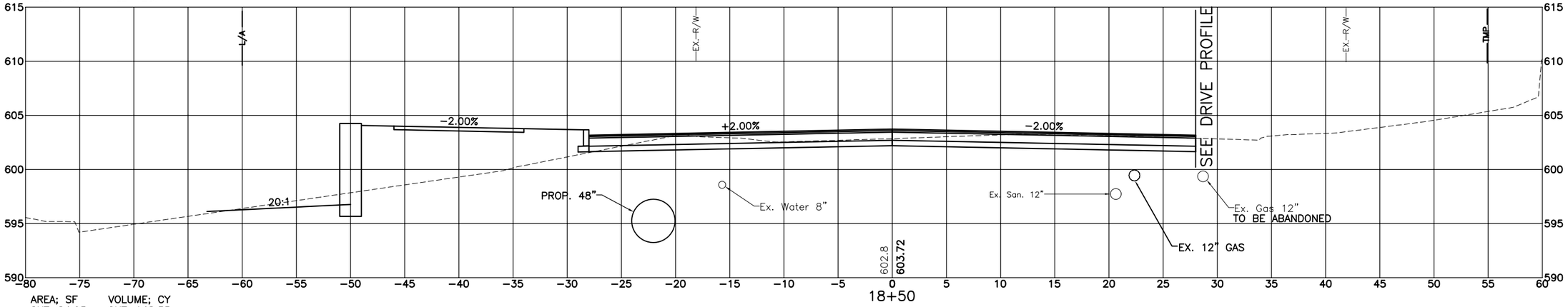
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=58.66
FILL=84.57

VOLUME; CY
CUT=132.97
FILL=123.44



18+50

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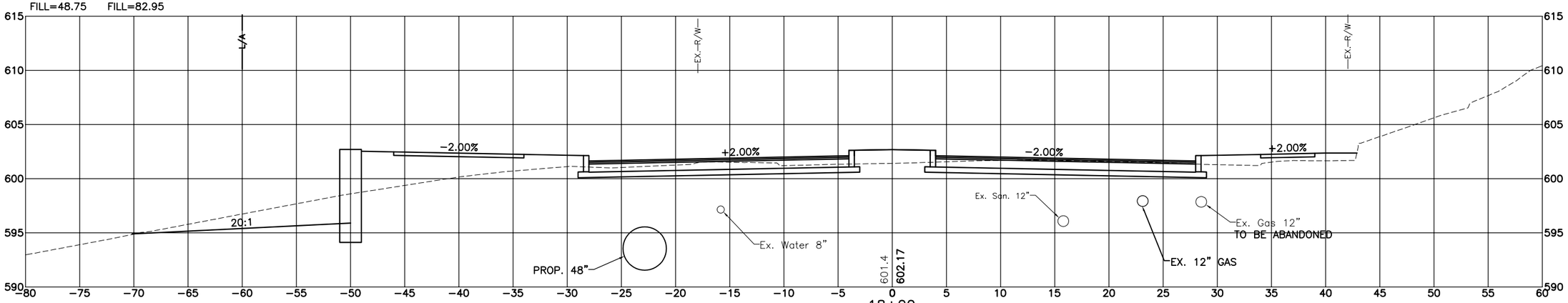
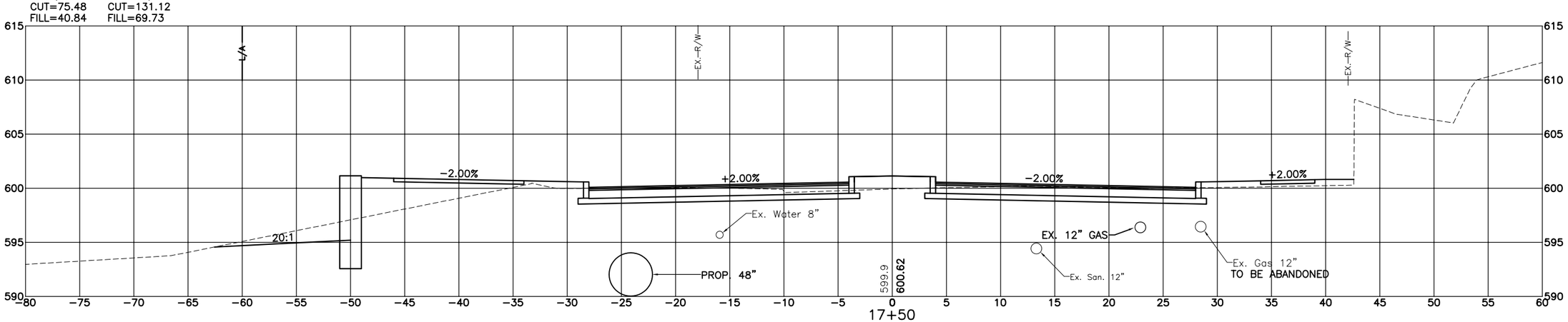
VOLUME; CY
CUT=148.55
FILL=82.95



18+00

AREA; SF
CUT=75.48
FILL=40.84

VOLUME; CY
CUT=131.12
FILL=69.73



17+50

SHEET TOTAL
VOLUME; CY
CUT=412.64
FILL=276.13

CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 17+50 TO STA. 18+50

Revisions

No.				

Date
Drawn by
Date
Designed by
Date
Checked by
Date
Reviewed by

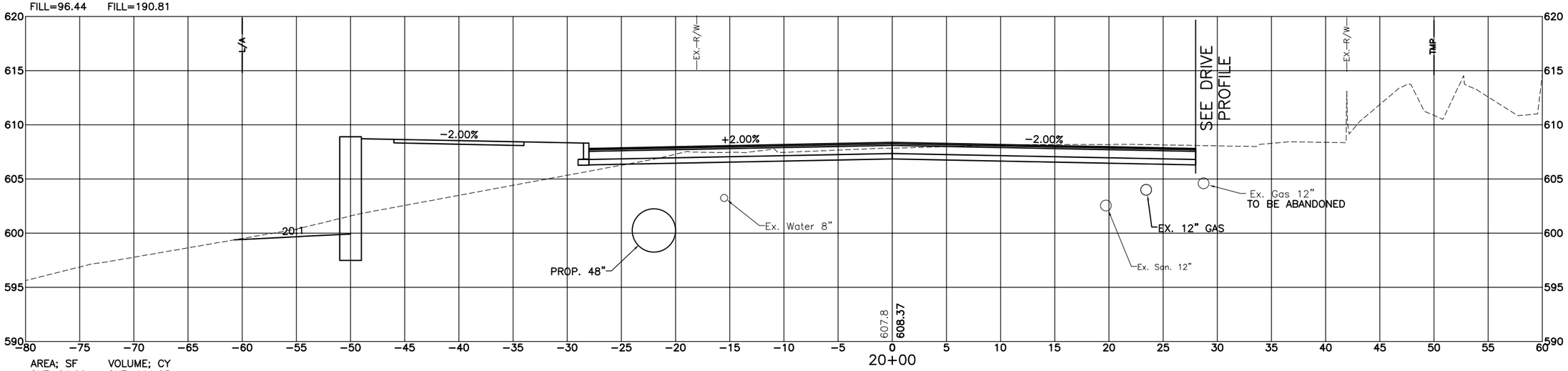
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=68.92
FILL=96.44

VOLUME; CY
CUT=121.21
FILL=190.81



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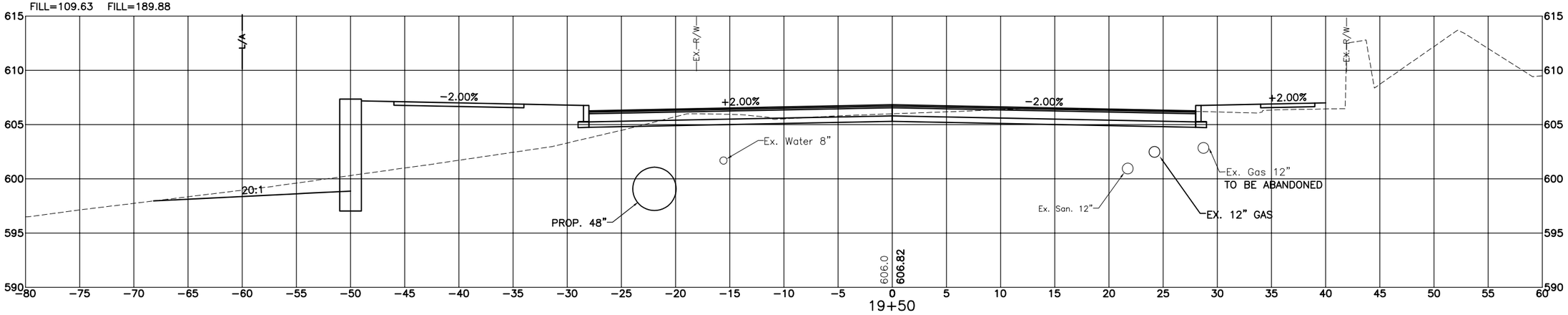
VOLUME; CY
CUT=111.05
FILL=189.88



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VOLUME; CY
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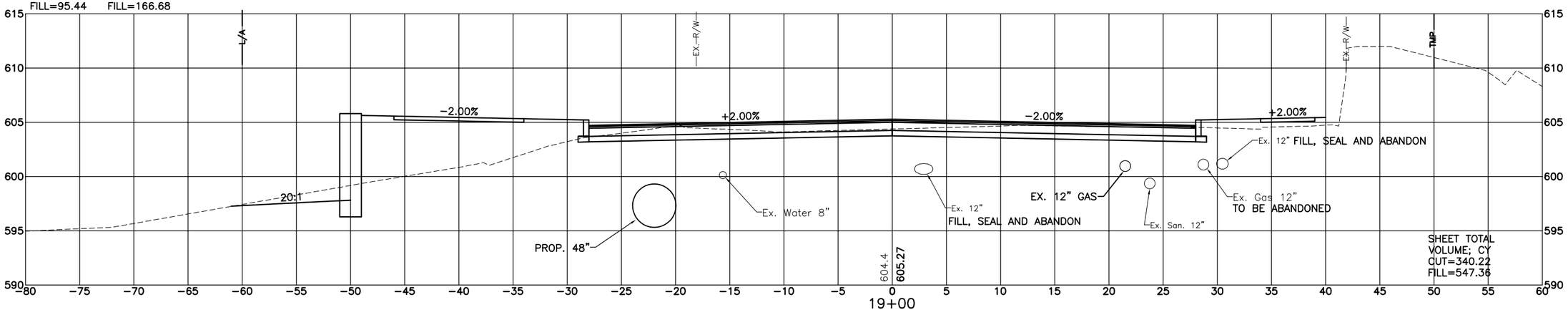


SHEET TOTAL
VOLUME; CY
CUT=340.22
FILL=547.36

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 19+00 TO STA. 20+00

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

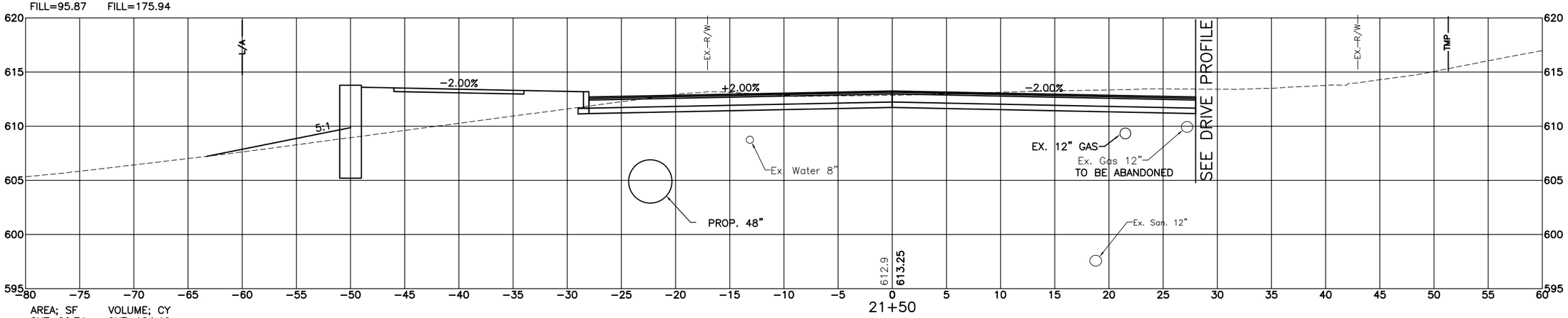
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=81.22
FILL=95.87

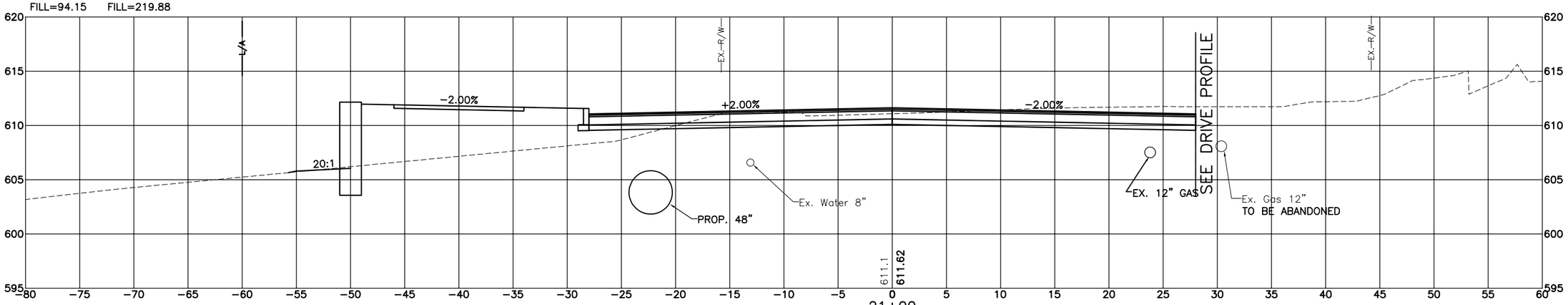
VOLUME; CY
CUT=136.97
FILL=175.94



21+50

AREA; SF
CUT=66.71
FILL=94.15

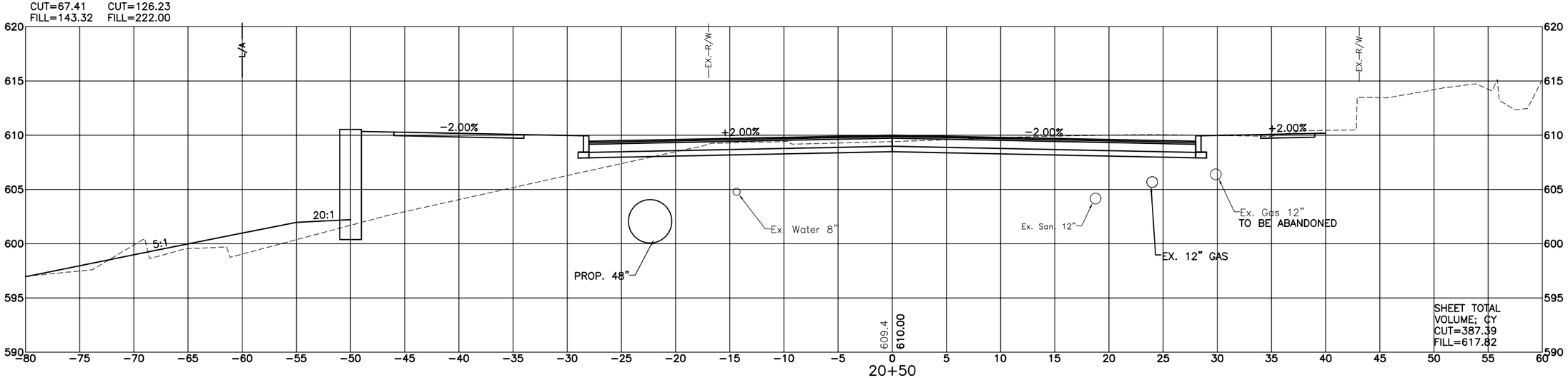
VOLUME; CY
CUT=124.19
FILL=219.88



21+00

AREA; SF
CUT=67.41
FILL=143.32

VOLUME; CY
CUT=126.23
FILL=222.00



SHEET TOTAL
VOLUME; CY
CUT=387.39
FILL=617.82

20+50

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHOULD BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 20+50 TO STA. 21+50

Revisions

No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

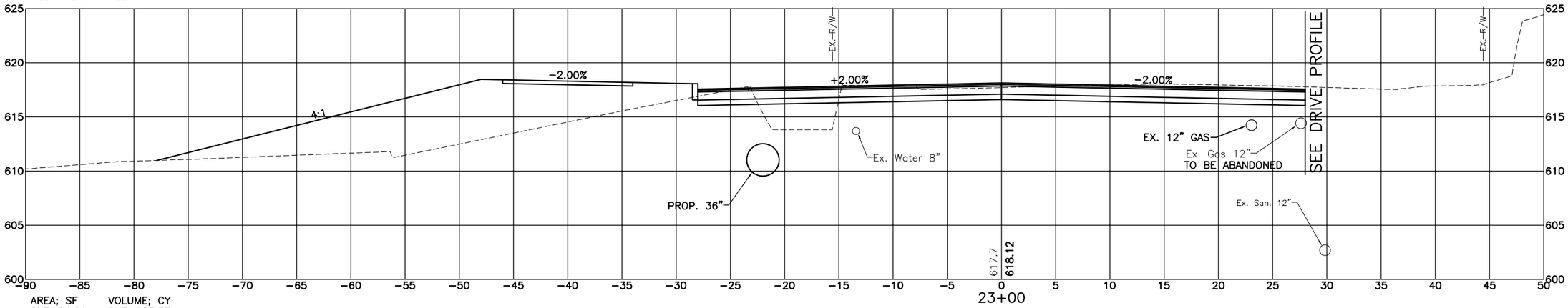
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=68.32
FILL=172.89

VOLUME; CY
CUT=141.88
FILL=316.90



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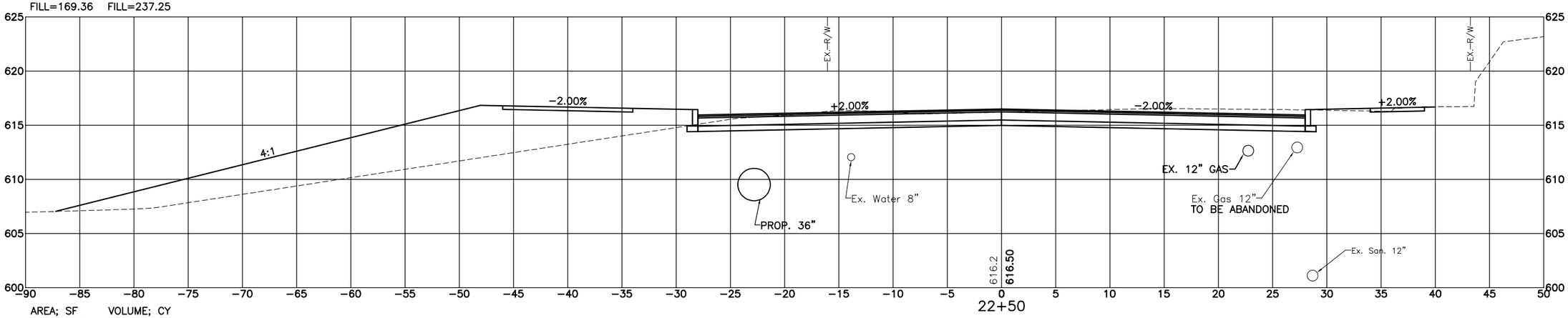
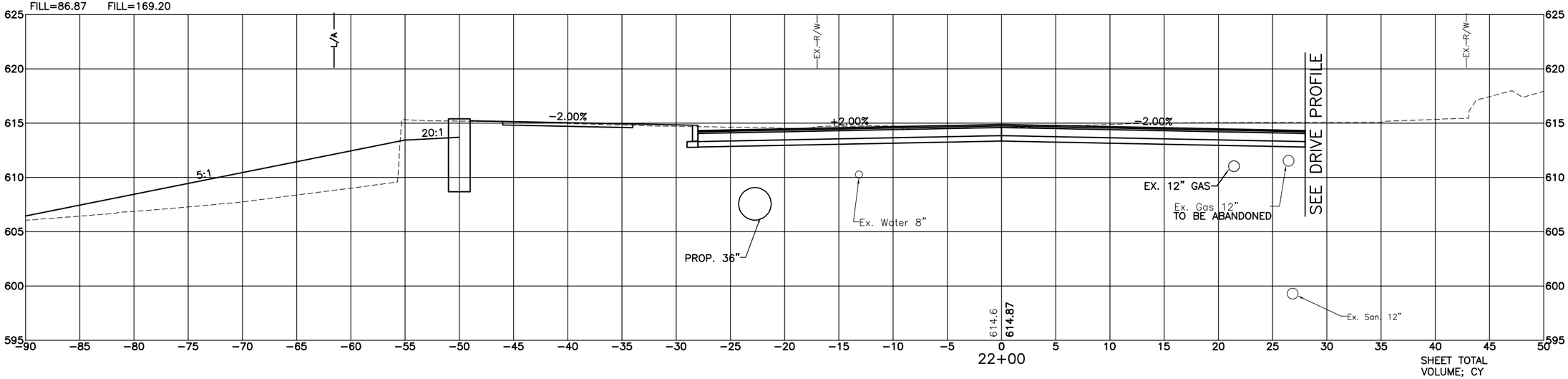
FILL=169.36

VOLUME; CY
CUT=167.57
FILL=237.25



AREA; SF
CUT=96.07
FILL=86.87

VOLUME; CY
CUT=164.16
FILL=169.20



SHEET TOTAL
VOLUME; CY
CUT=473.61
FILL=723.35

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND MAY BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 22+00 TO STA. 23+00

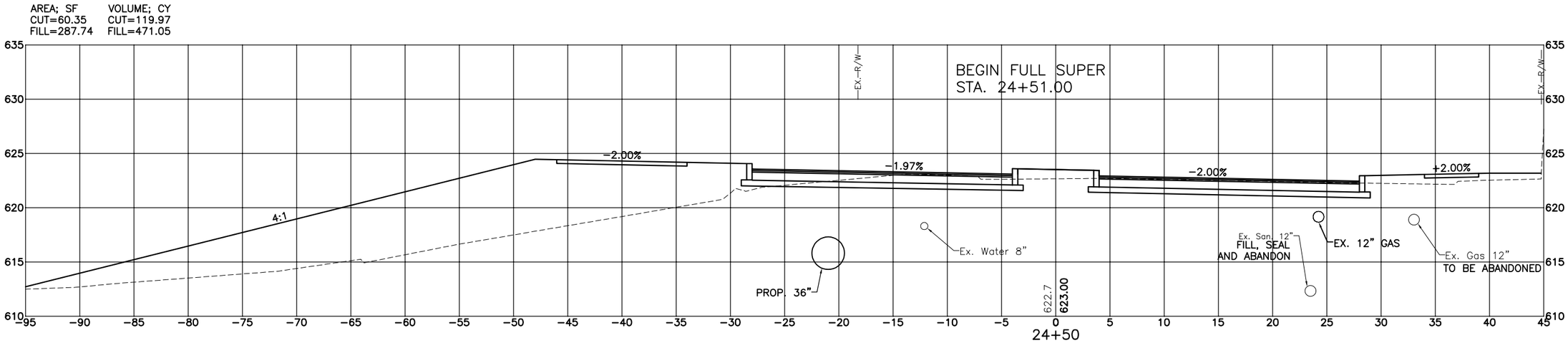
Revisions
No.

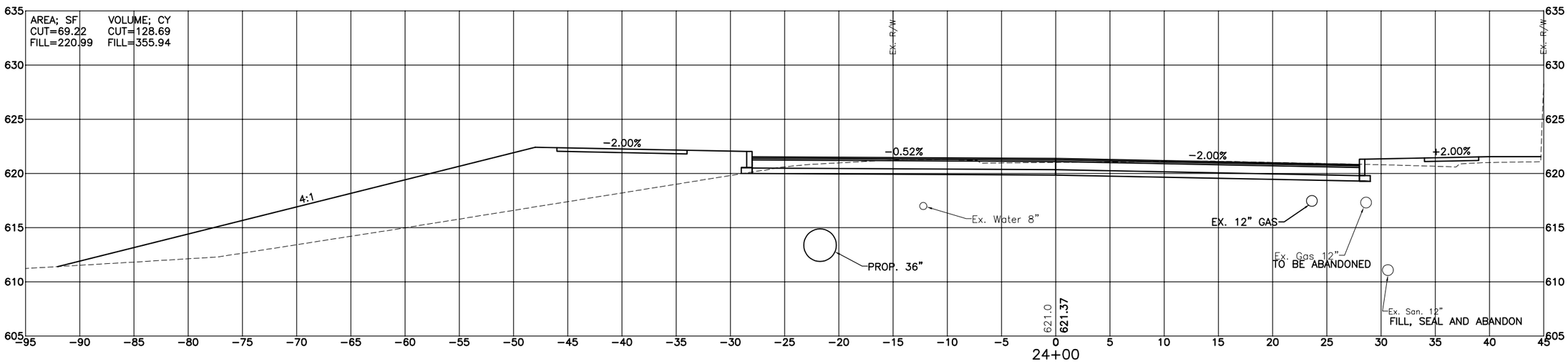
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

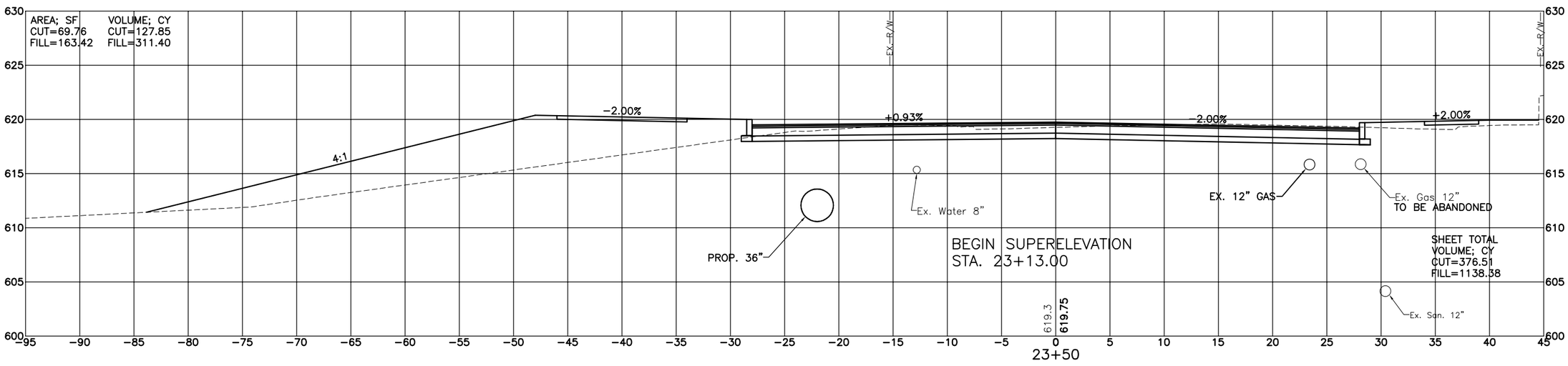
Consultant

Structure File Number

ACC No.
23124







CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 23+50 TO STA. 24+50

Revisions

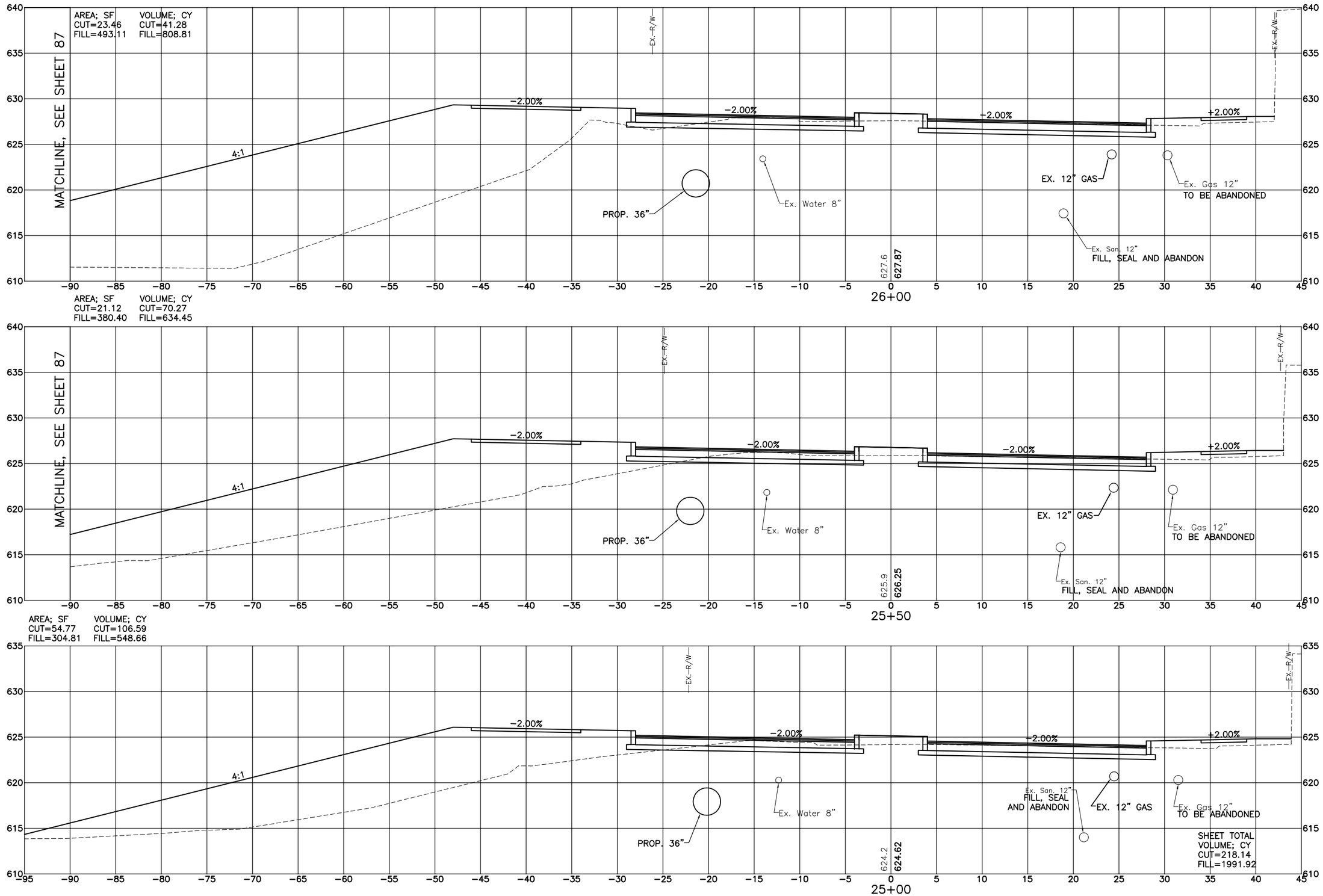
No.				

Date
Drawn by
Date
Designed by
Date
Checked by
Date
Reviewed by

Consultant

Structure File Number

ACC No.
23124



HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 25+00 TO STA. 26+00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

Revisions

No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

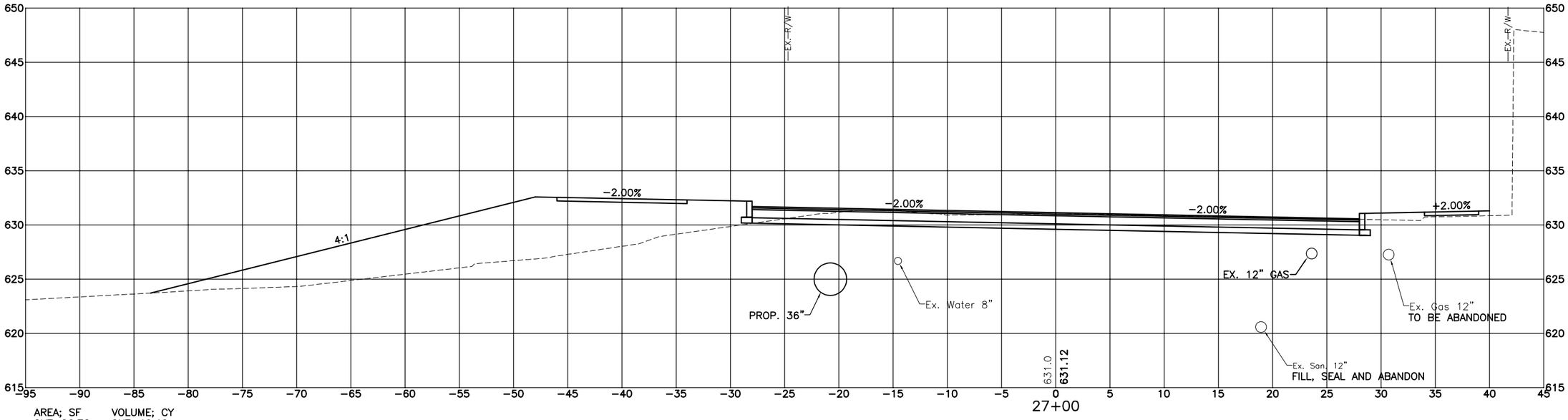
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=69.76
FILL=190.25

VOLUME; CY
CUT=89.33
FILL=811.70



AREA; SF
CUT=26.72
FILL=686.39

VOLUME; CY
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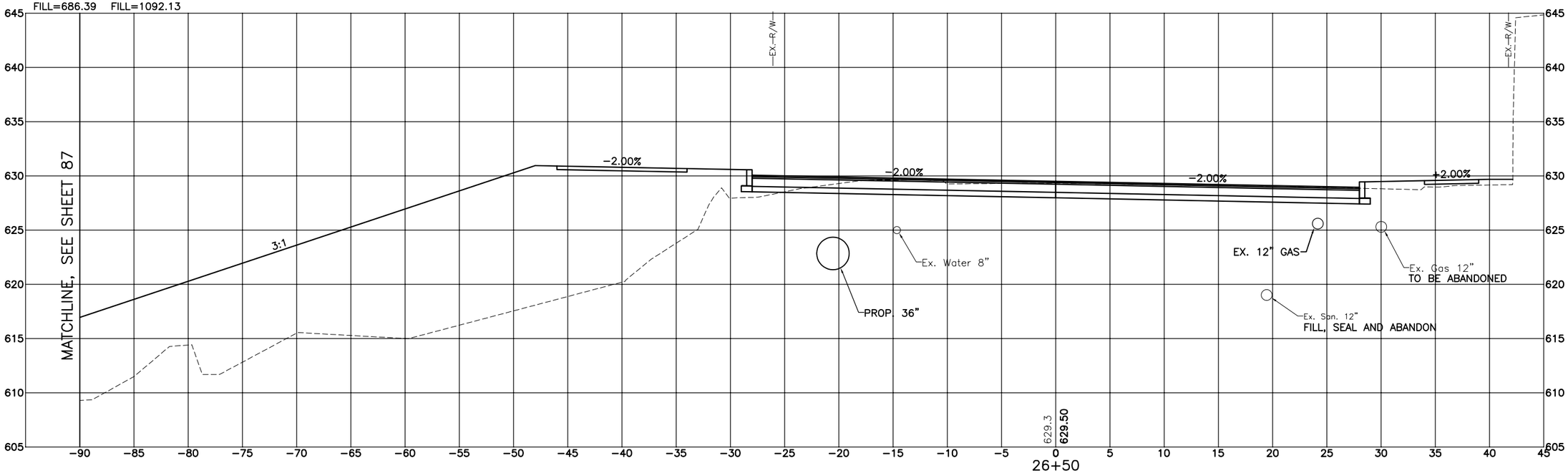
FILL=1092.13



SHEET TOTAL
VOLUME; CY
CUT=135.80
FILL=1903.83

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 26+50 TO STA. 27+00

Revisions

No.				

Date Date Date Date

Drawn by Designed by Checked by Reviewed by

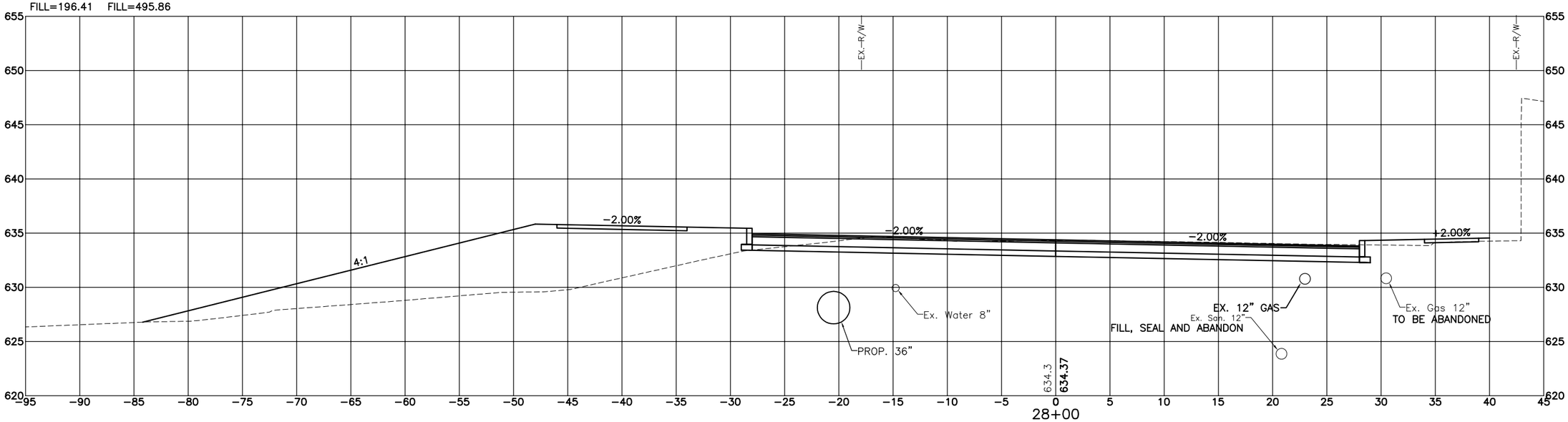
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=73.63
FILL=196.41

VOLUME; CY
CUT=98.09
FILL=495.86



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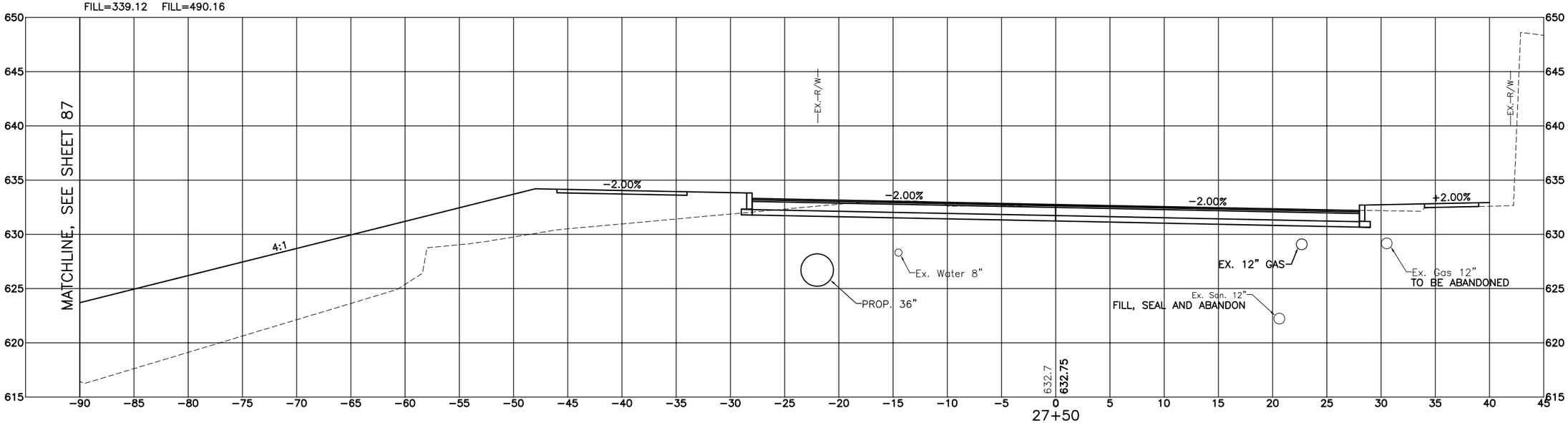
FILL=339.12

VOLUME; CY
CUT=94.51
FILL=490.16



SHEET TOTAL
VOLUME; CY
CUT=192.60
FILL=986.02

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 27+50 TO STA. 28+00

Revisions

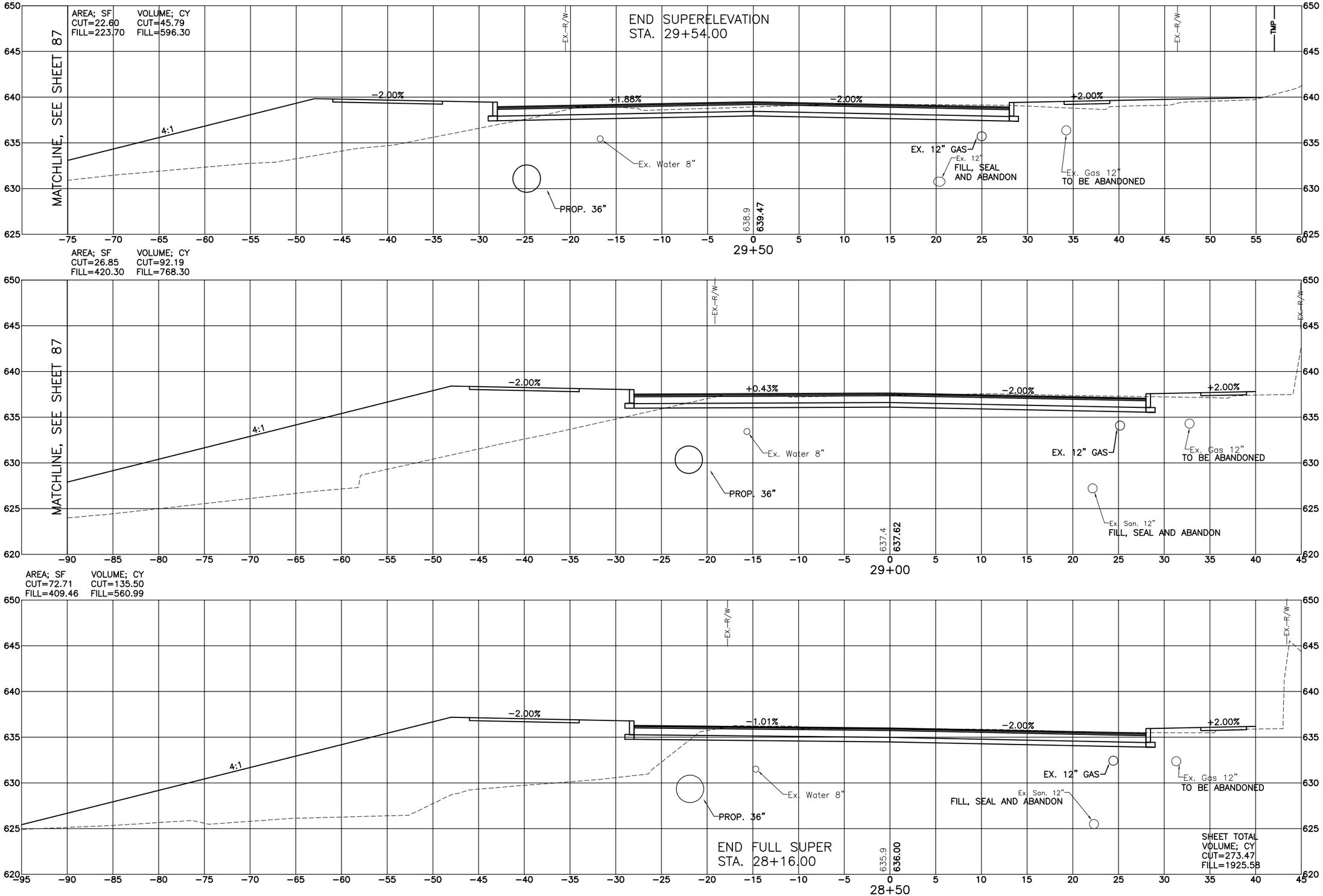
No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND MAY NOT BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 28+50 TO STA. 29+50

Revisions

No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

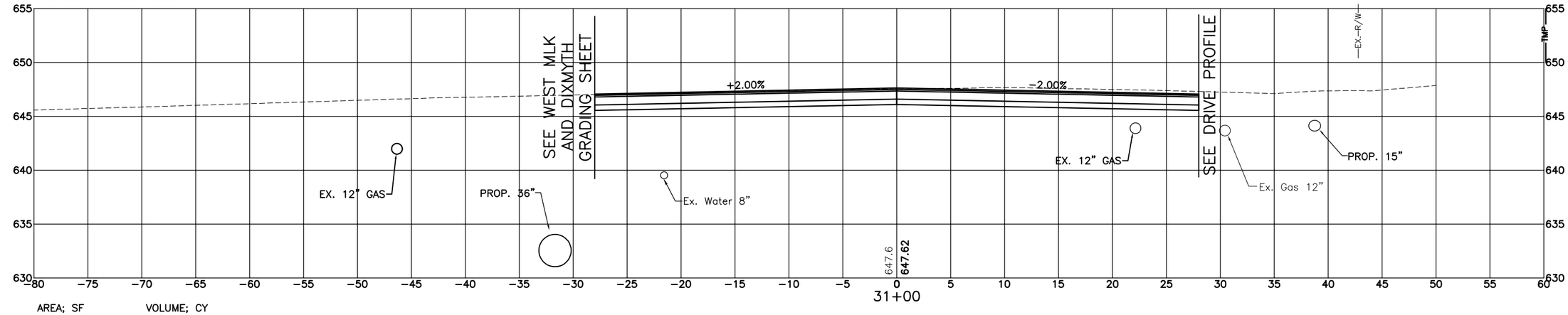
Consultant

Structure File Number

ACC No.
23124

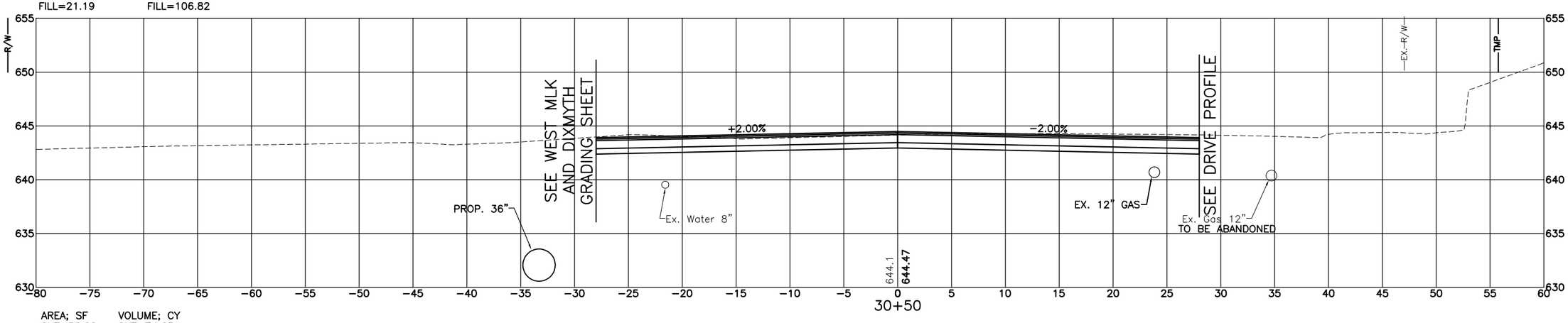
AREA; SF
CUT=141.66
FILL=0.00

VOLUME; CY
CUT=211.98
FILL=19.62



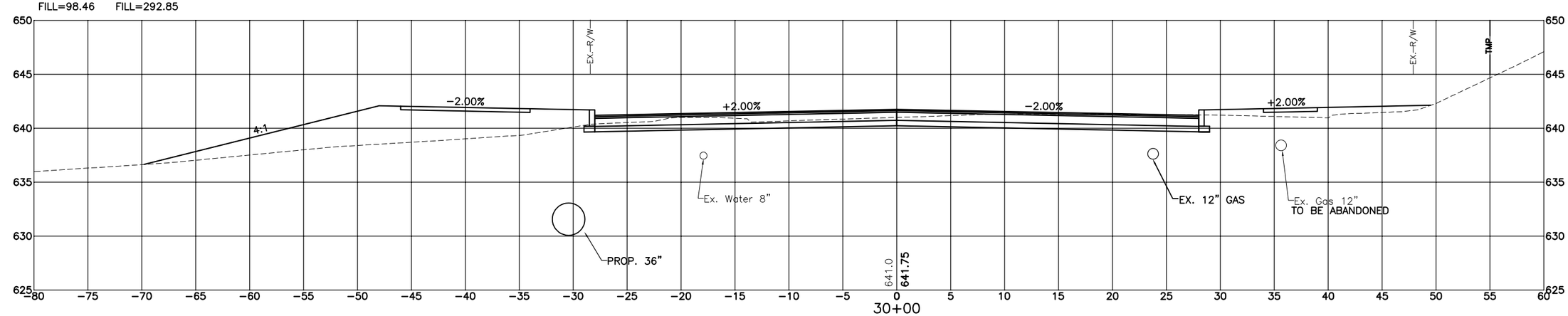
AREA; SF
CUT=87.28
FILL=21.19

VOLUME; CY
CUT=134.54
FILL=106.82



AREA; SF
CUT=58.02
FILL=98.46

VOLUME; CY
CUT=74.65
FILL=292.85



SHEET TOTAL
VOLUME; CY
CUT=421.17
FILL=423.26

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 30+00 TO STA. 31+00

Revisions

No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

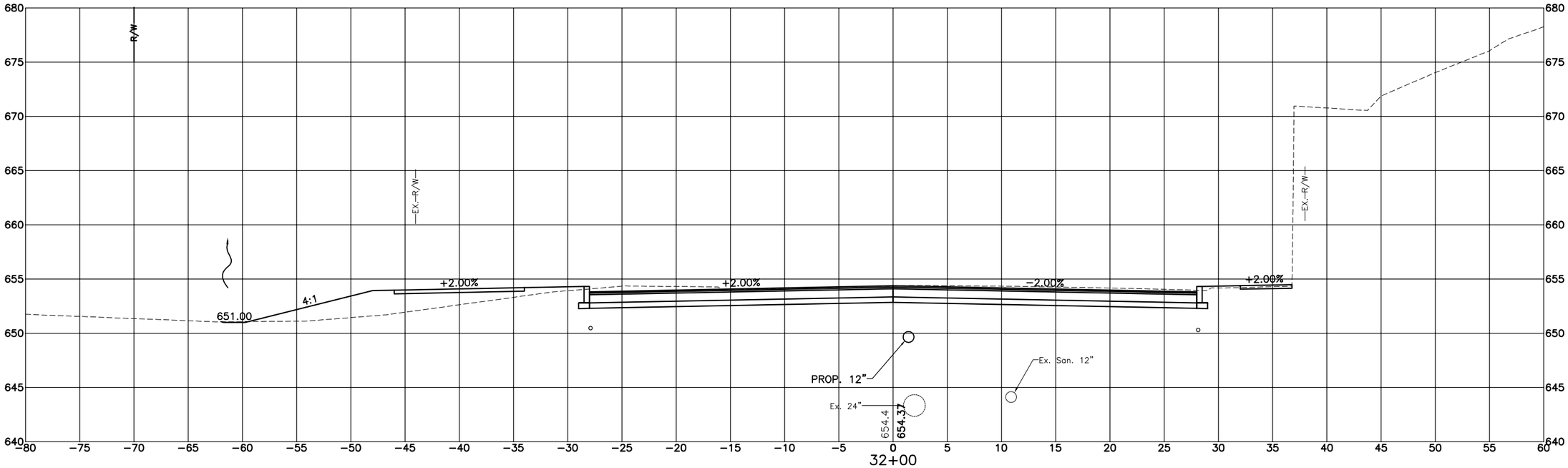
Consultant

Structure File Number

ACC No.
23124

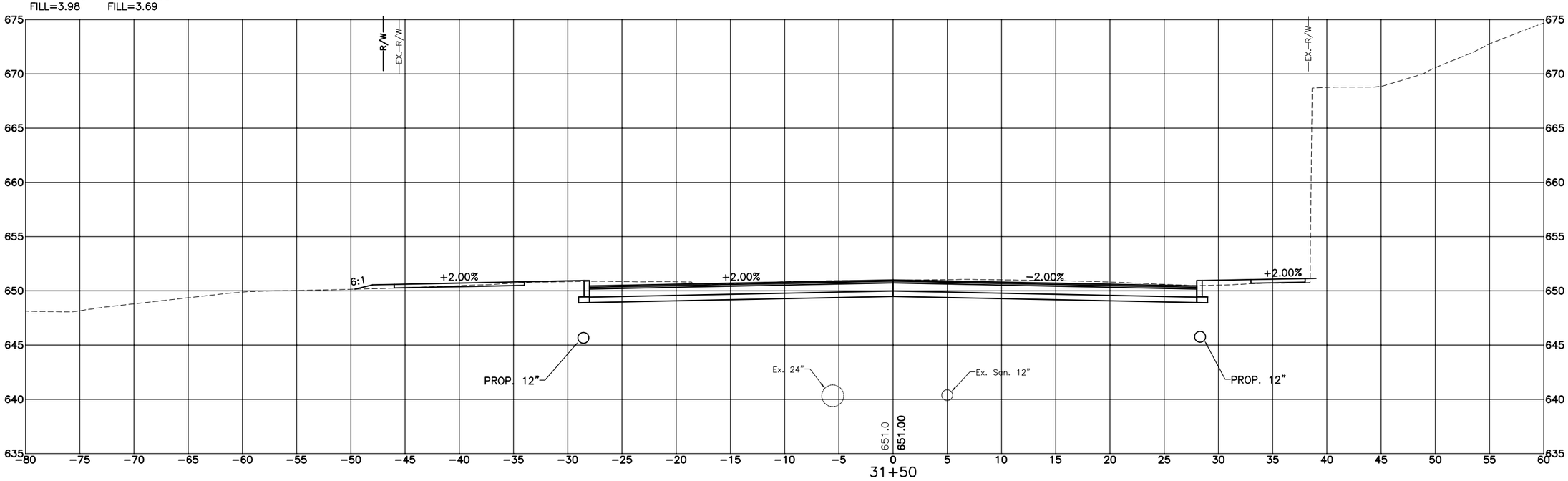
AREA; SF
CUT=93.34
FILL=36.28

VOLUME; CY
CUT=172.25
FILL=37.28



AREA; SF
CUT=92.69
FILL=3.98

VOLUME; CY
CUT=216.99
FILL=3.69



SHEET TOTAL
VOLUME; CY
CUT=389.24
FILL=40.96

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 31+50 TO STA. 32+00

Revisions
No.

Drawn by Date
Designed by Date
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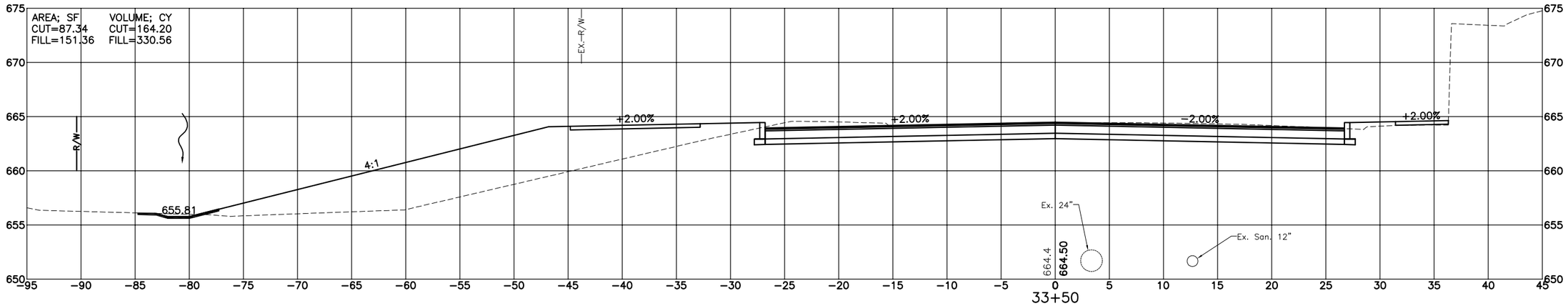
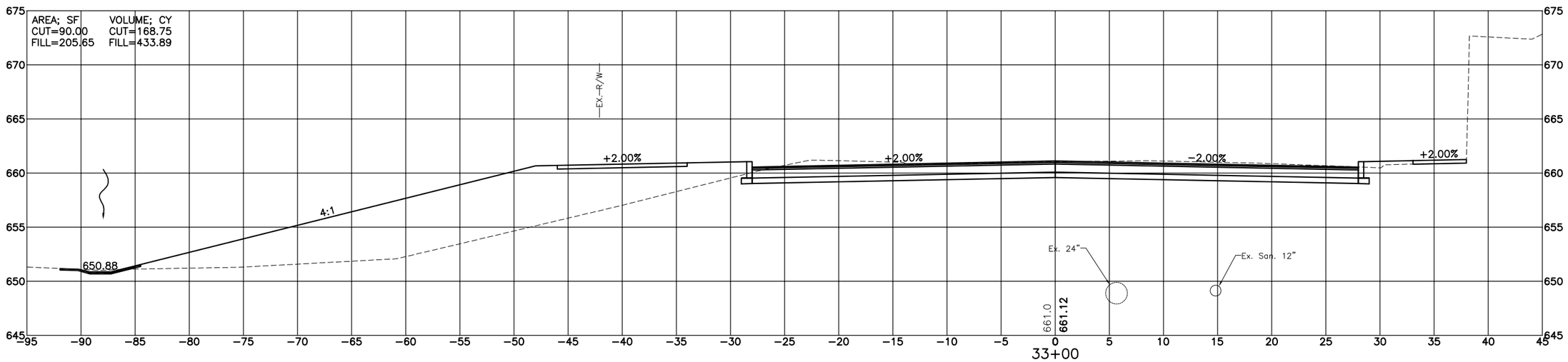
Reviewed by Date

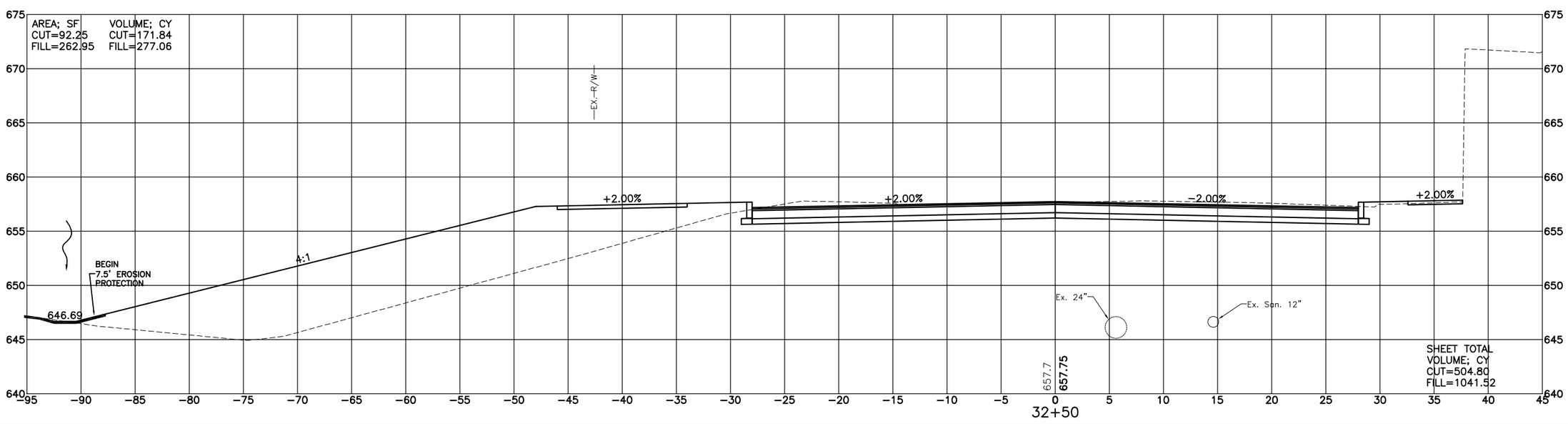
Consultant

Structure File Number

ACC No.
23124







CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 32+50 TO STA. 33+50

Revisions

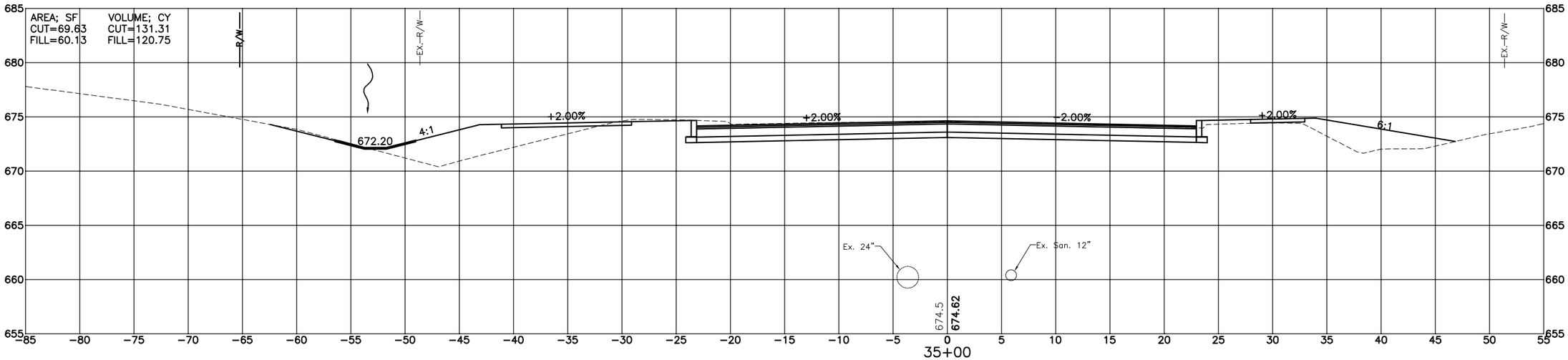
No.				

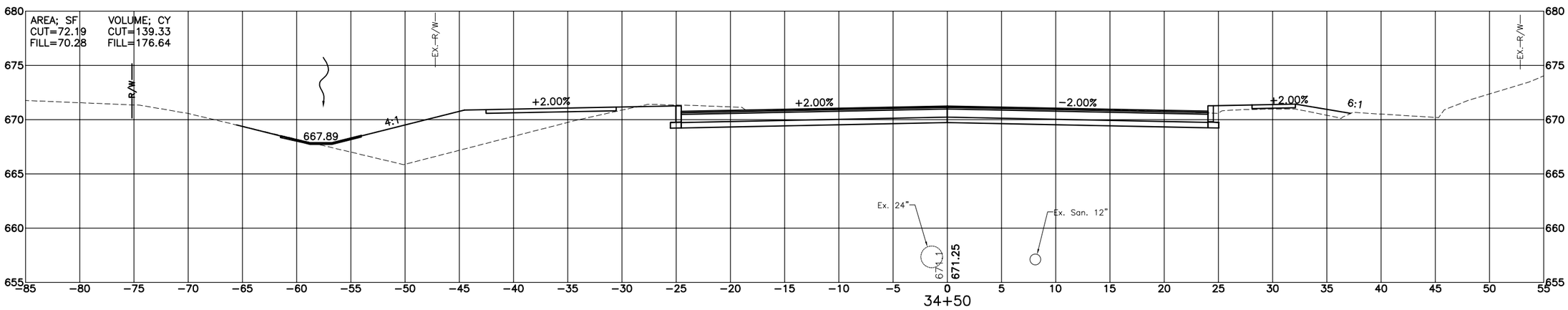
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

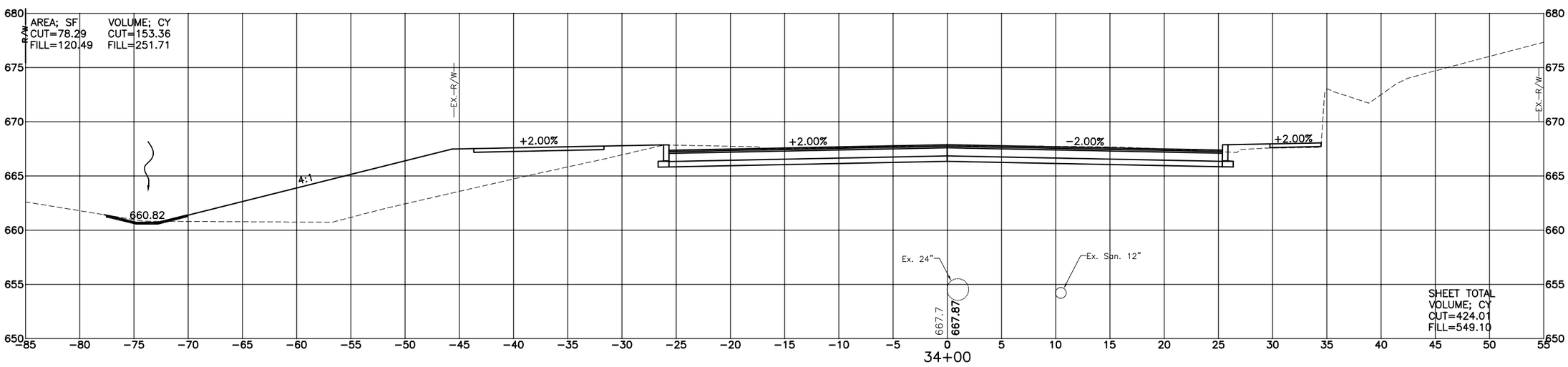
Consultant

Structure File Number

ACC No.
23124







CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 34+00 TO STA. 35+00

Revisions

No.				

Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
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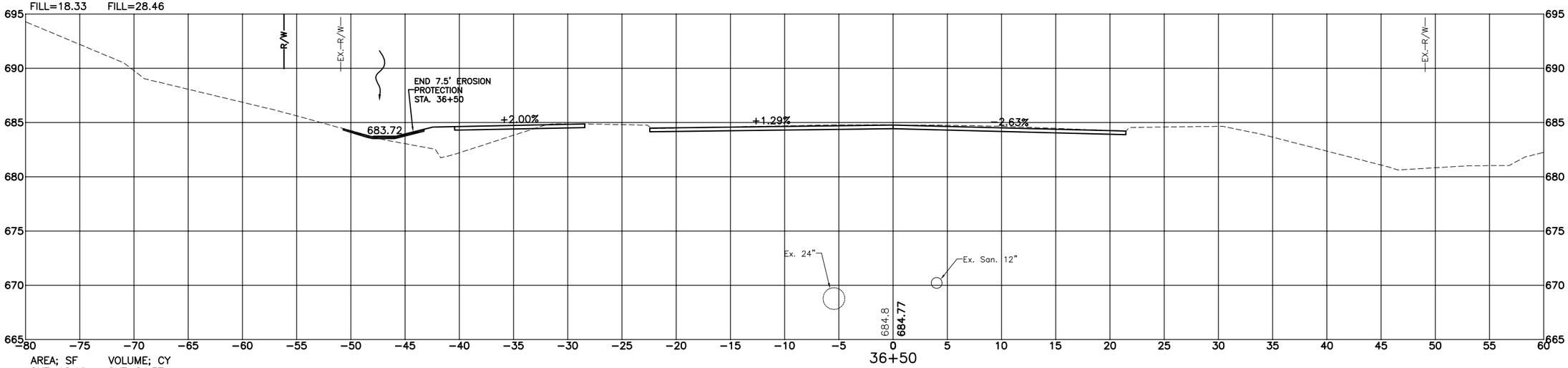
Consultant

Structure File Number

ACC No.
23124

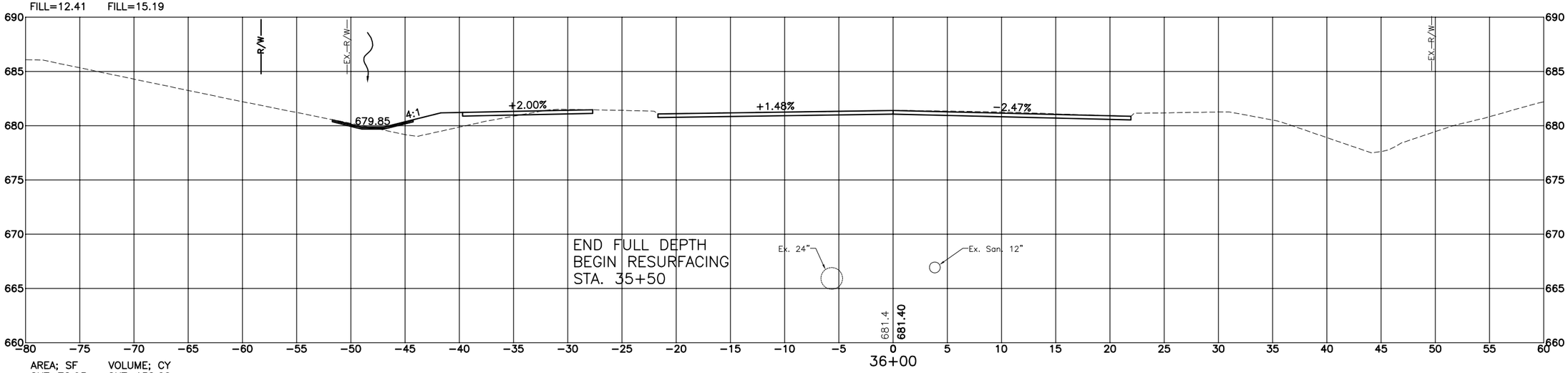
AREA; SF
CUT=18.45
FILL=18.33

VOLUME; CY
CUT=33.93
FILL=28.46



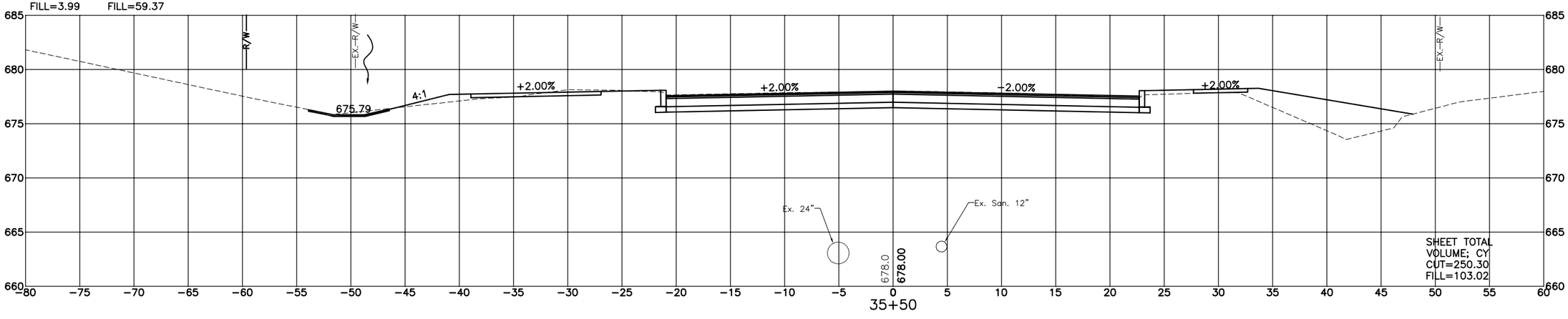
AREA; SF
CUT=18.19
FILL=12.41

VOLUME; CY
CUT=84.37
FILL=15.19



AREA; SF
CUT=72.93
FILL=3.99

VOLUME; CY
CUT=132.00
FILL=59.37



SHEET TOTAL
VOLUME; CY
CUT=250.30
FILL=103.02

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 35+50 TO STA. 36+50

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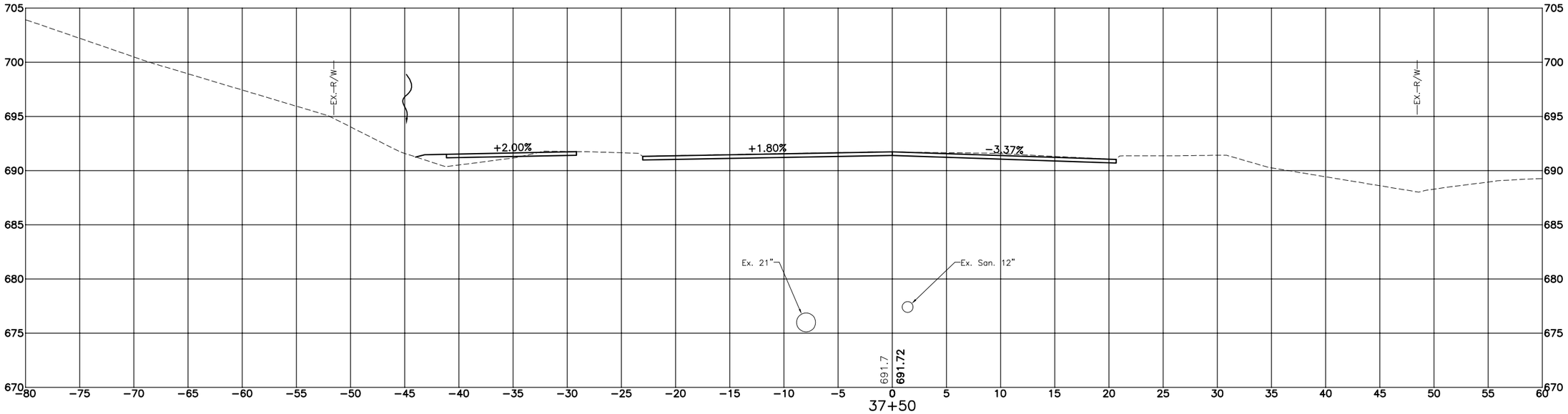
Consultant

Structure File Number

ACC No.
23124

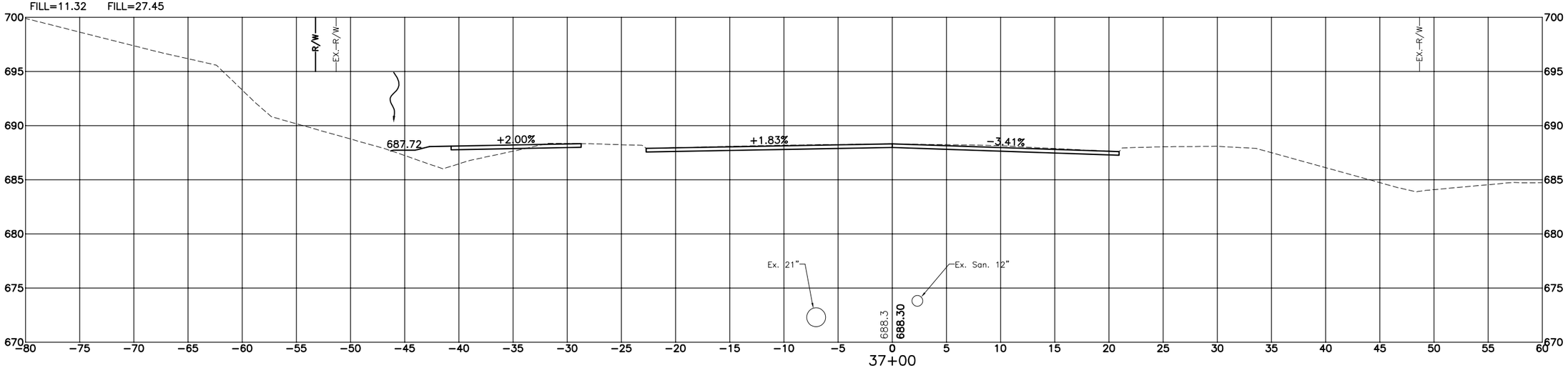
AREA; SF
CUT=18.55
FILL=4.87

VOLUME; CY
CUT=34.67
FILL=14.99



AREA; SF
CUT=18.89
FILL=11.32

VOLUME; CY
CUT=34.57
FILL=27.45



SHEET TOTAL
VOLUME; CY
CUT=69.24
FILL=42.44

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 37+00 TO STA. 37+50

Revisions
No.

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Date
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Date
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Date
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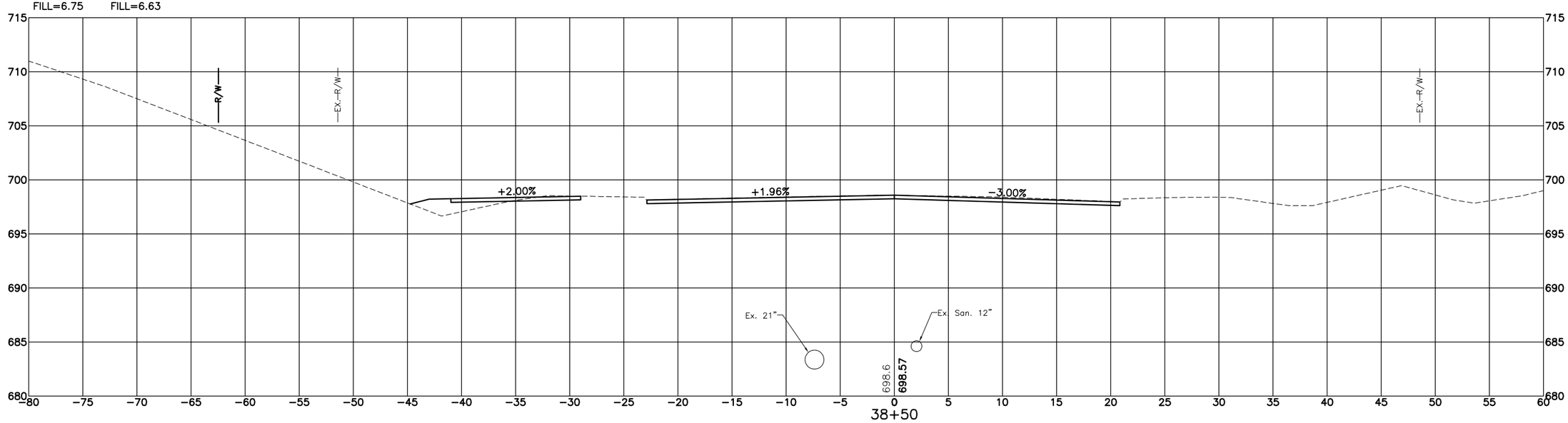
Consultant

Structure File Number

ACC No.
23124

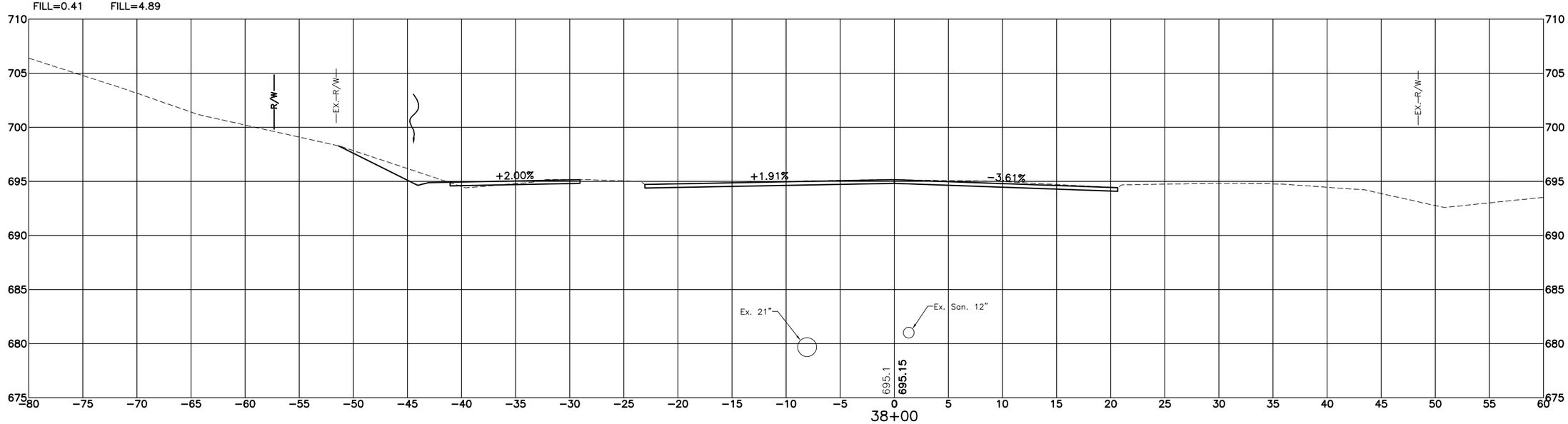
AREA; SF
CUT=18.65
FILL=6.75

VOLUME; CY
CUT=40.61
FILL=6.63



AREA; SF
CUT=25.21
FILL=0.41

VOLUME; CY
CUT=40.52
FILL=4.89



SHEET TOTAL
VOLUME; CY
CUT=81.13
FILL=11.52

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 38+00 TO STA. 38+50

Revisions
No.

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Designed by Date
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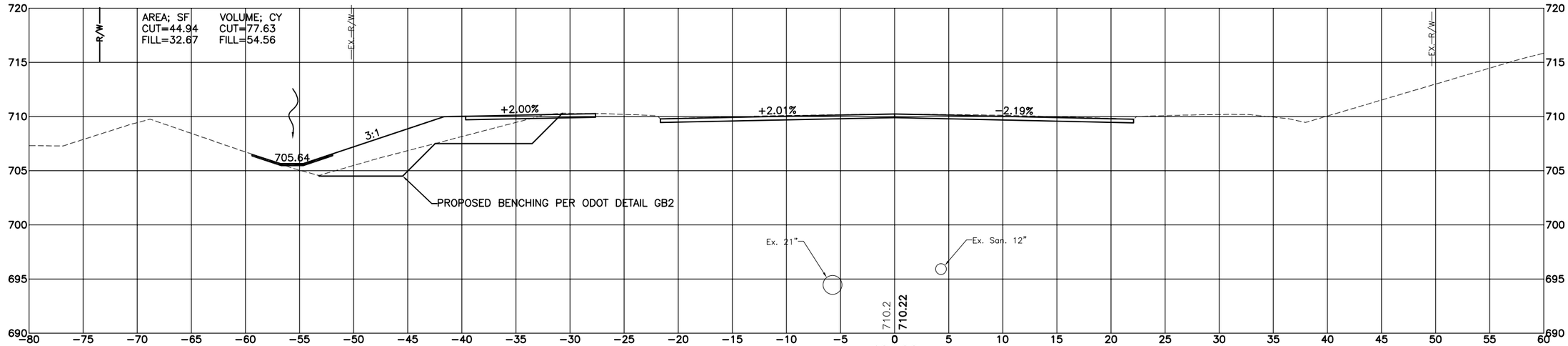
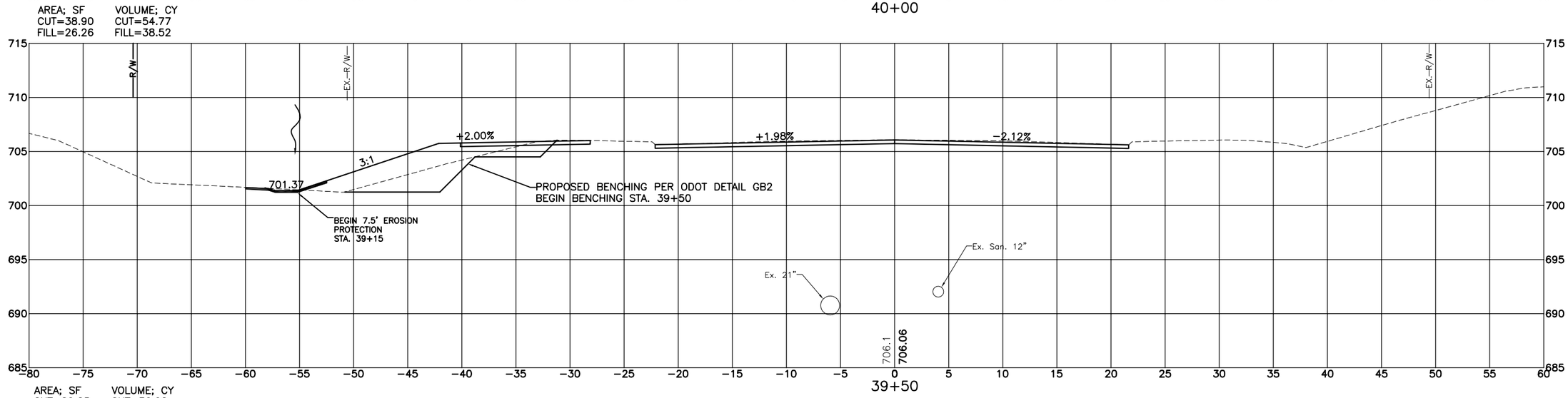
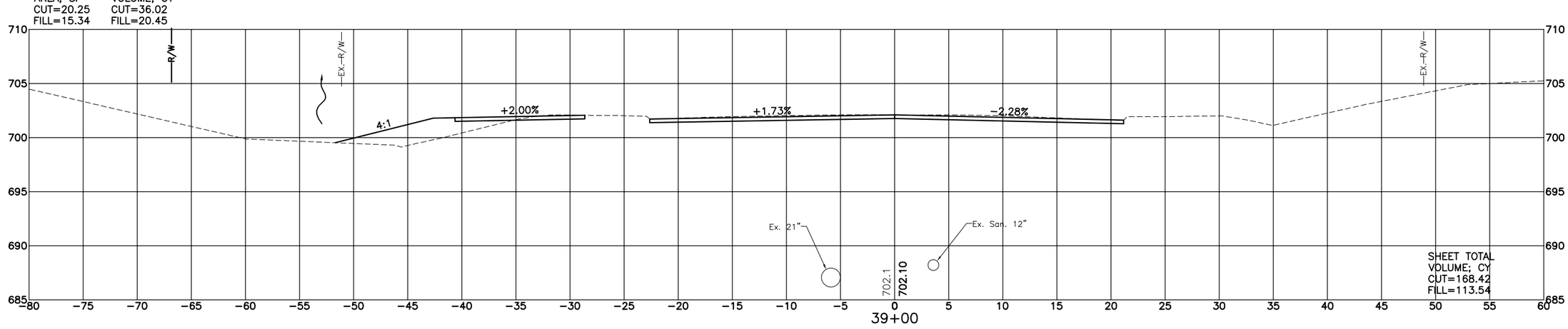
Structure File Number

ACC No.
23124







CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND MUST BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 39+00 TO STA. 40+00

Revisions

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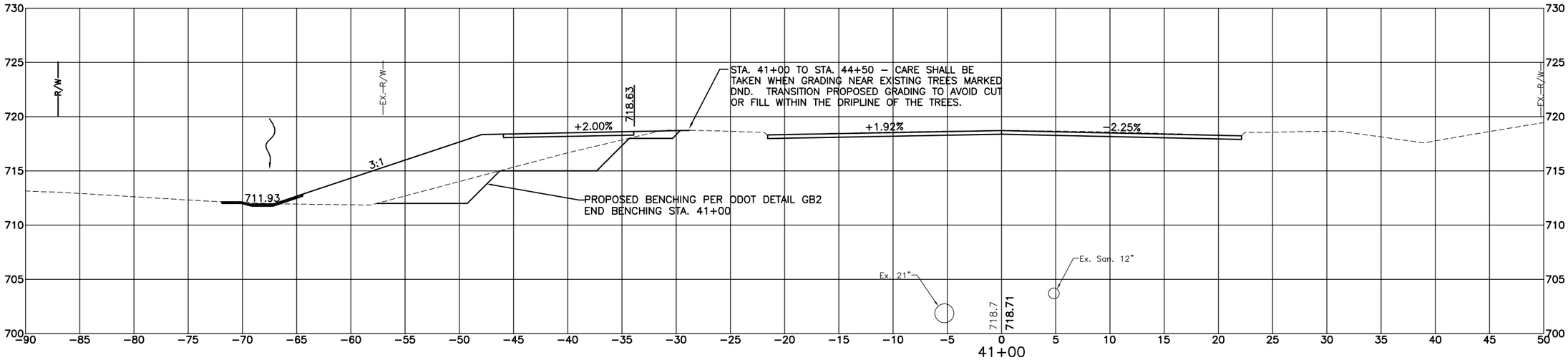
Consultant

Structure File Number

ACC No.
23124

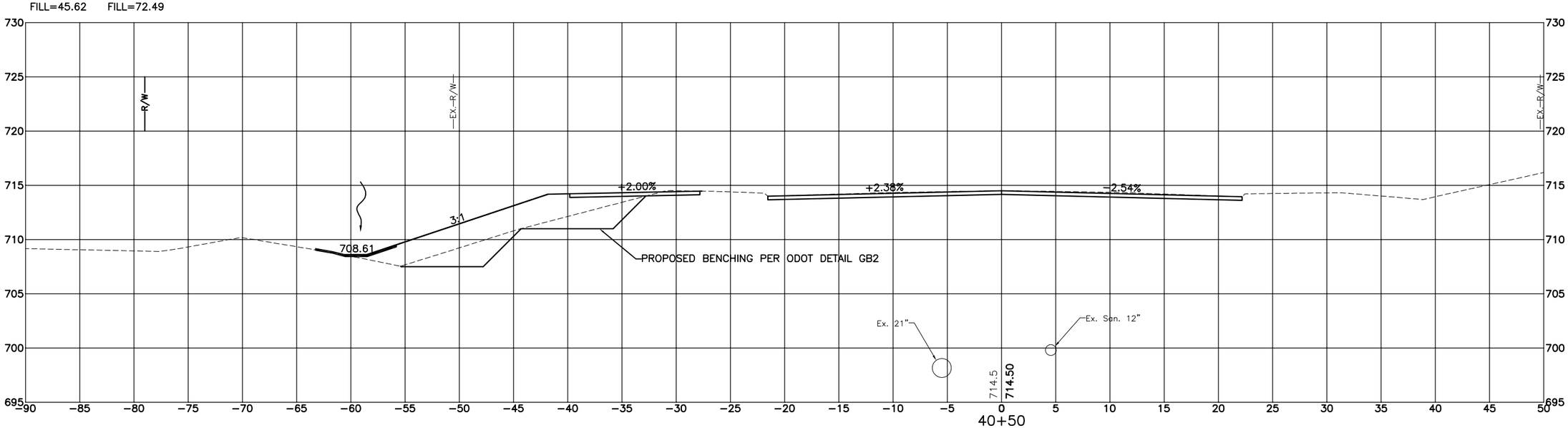
AREA; SF
CUT=44.79
FILL=80.33

VOLUME; CY
CUT=82.80
FILL=116.62



AREA; SF
CUT=44.63
FILL=45.62

VOLUME; CY
CUT=82.94
FILL=72.49



SHEET TOTAL
VOLUME; CY
CUT=165.73
FILL=189.11

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

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City of Cincinnati
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801 Plum Street
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HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 40+50 TO STA. 41+00

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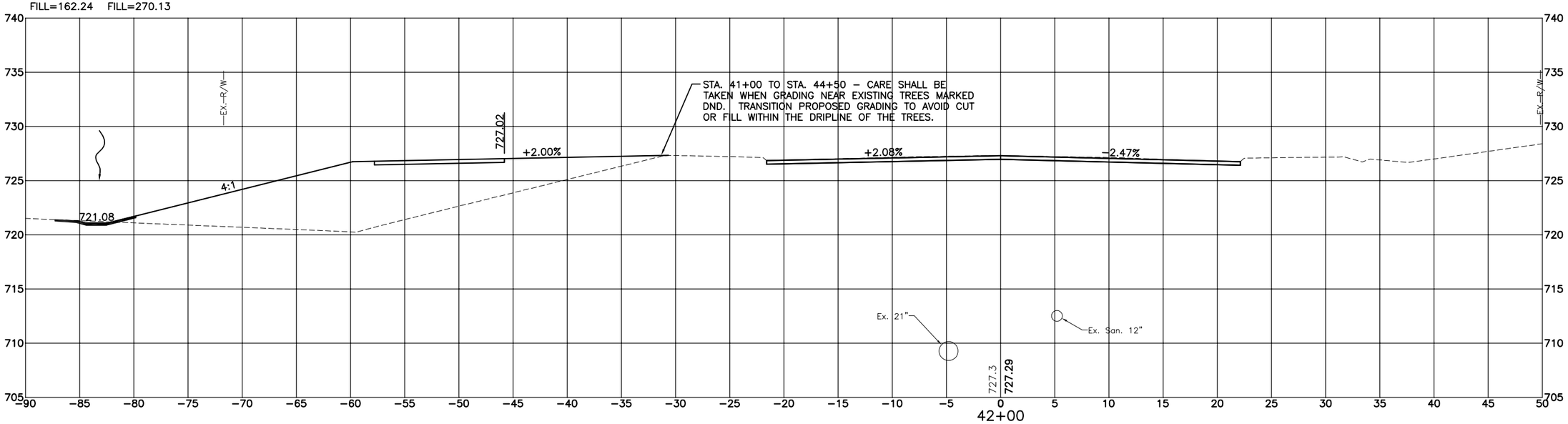
Consultant

Structure File Number

ACC No.
23124

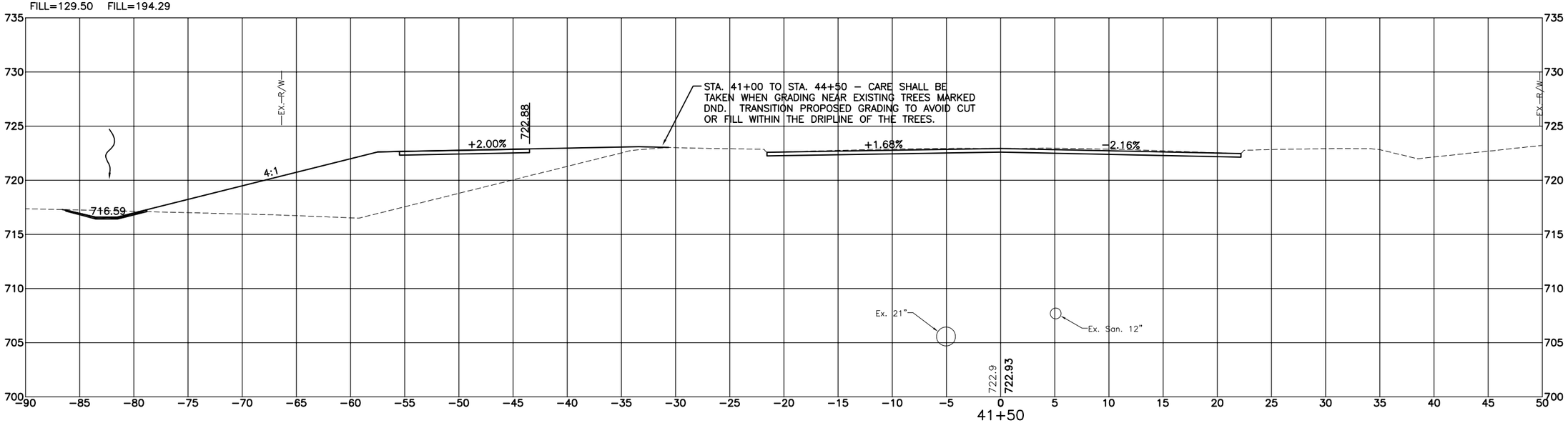
AREA; SF
CUT=16.69
FILL=162.24

VOLUME; CY
CUT=34.63
FILL=270.13



AREA; SF
CUT=20.71
FILL=129.50

VOLUME; CY
CUT=62.98
FILL=194.29



SHEET TOTAL
VOLUME; CY
CUT=97.61
FILL=464.42

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 41+50 TO STA. 42+00

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Designed by Date
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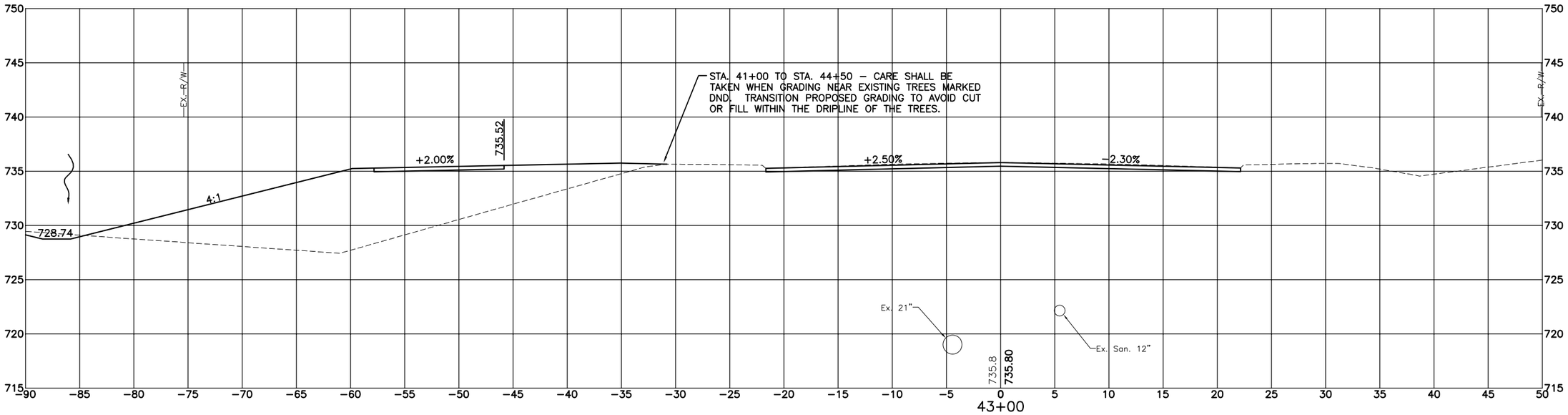
Consultant

Structure File Number

ACC No.
23124

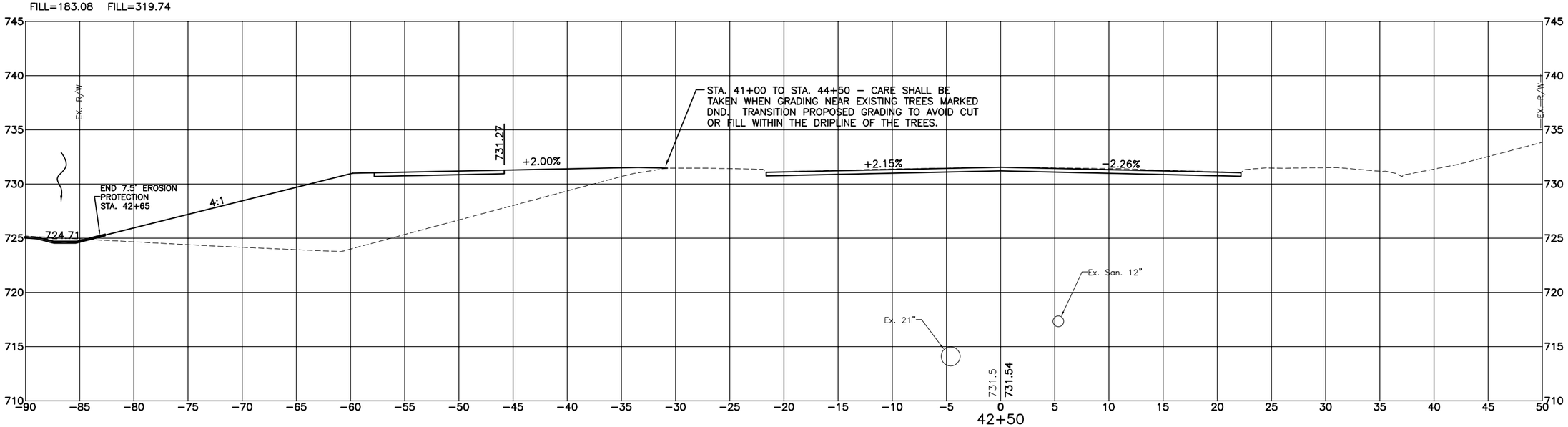
AREA; SF
CUT=18.37
FILL=199.86

VOLUME; CY
CUT=32.94
FILL=354.57



AREA; SF
CUT=17.21
FILL=183.08

VOLUME; CY
CUT=31.39
FILL=319.74



SHEET TOTAL
VOLUME; CY
CUT=64.33
FILL=674.31

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

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City of Cincinnati
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801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 42+50 TO STA. 43+00

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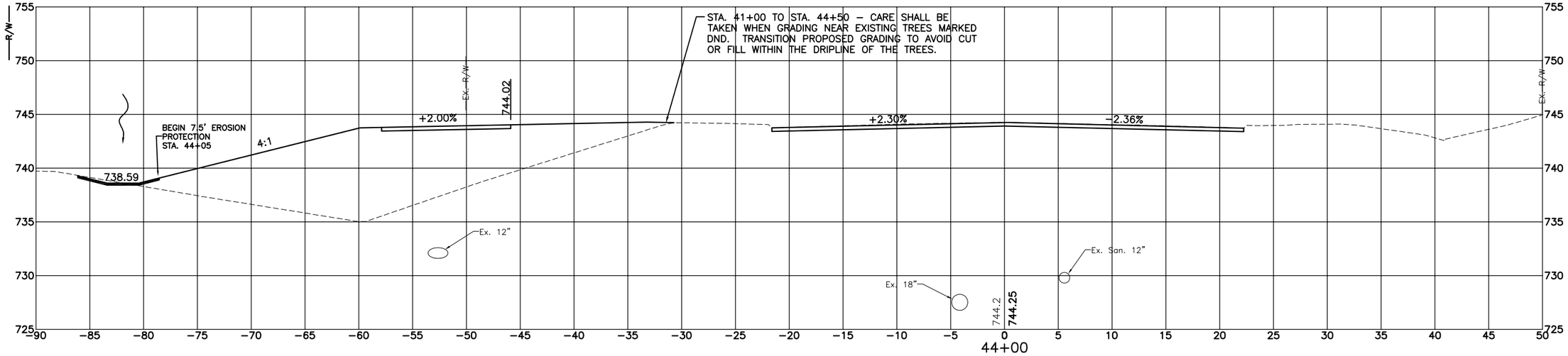
Structure File Number

ACC No.
23124

AREA; SF
CUT=15.77
FILL=215.37

VOLUME; CY
CUT=31.93
FILL=393.37



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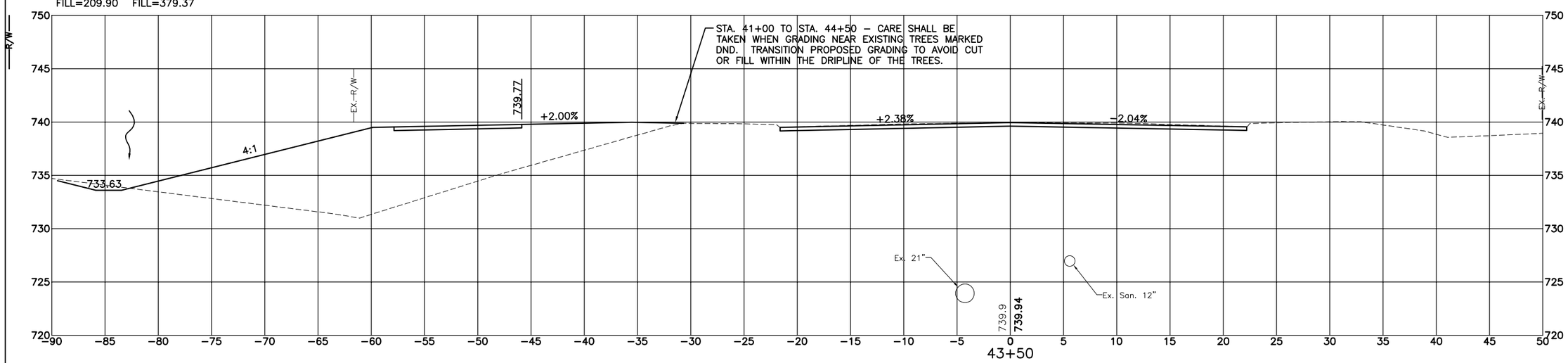
FILL=209.90

VOLUME; CY
CUT=34.33
FILL=379.37



SHEET TOTAL
VOLUME; CY
CUT=66.26
FILL=743.10

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 43+50 TO STA. 44+00

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No.

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Designed by Date
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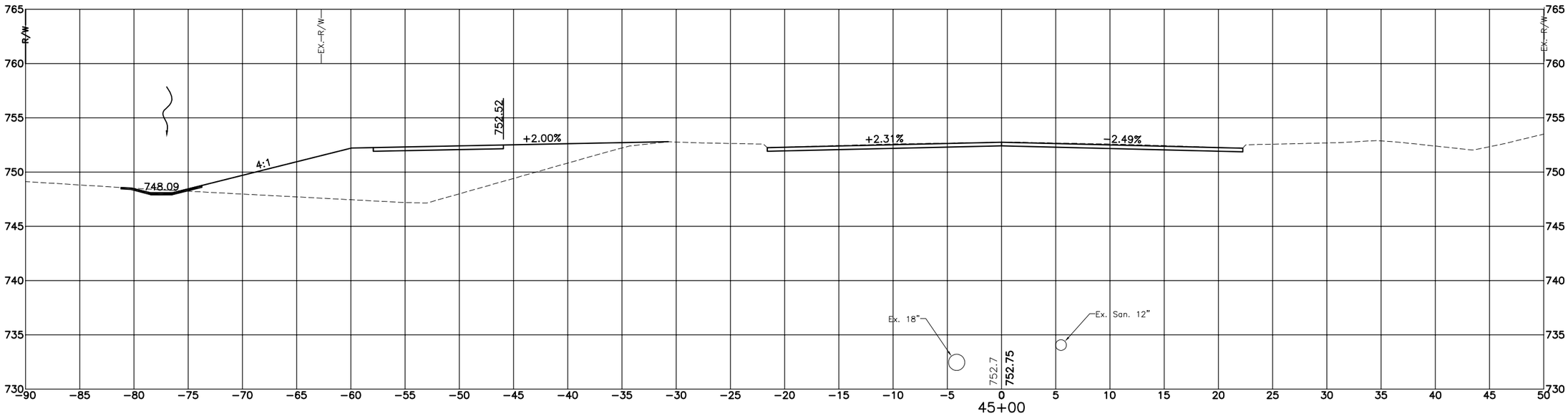
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=17.35
FILL=120.03

VOLUME; CY
CUT=33.00
FILL=252.22



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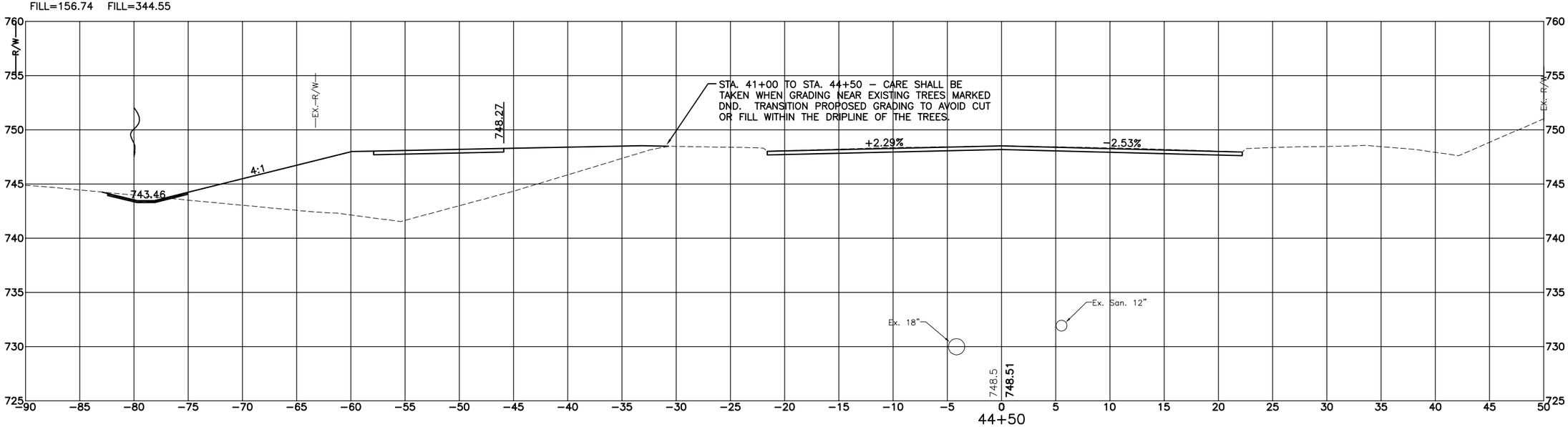
CUT=18.29
FILL=156.74

VOLUME; CY
CUT=31.54
FILL=344.55



SHEET TOTAL
VOLUME; CY
CUT=64.54
FILL=600.81

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 44+50 TO STA. 45+00

Revisions
No.

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Designed by Date
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Reviewed by Date

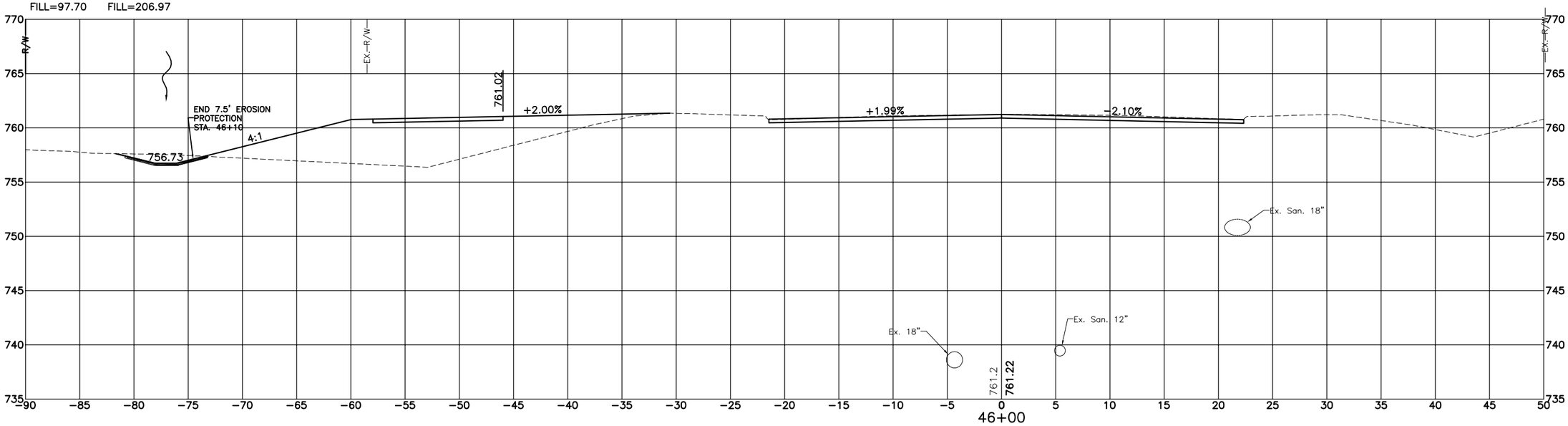
Consultant

Structure File Number

ACC No.
23124

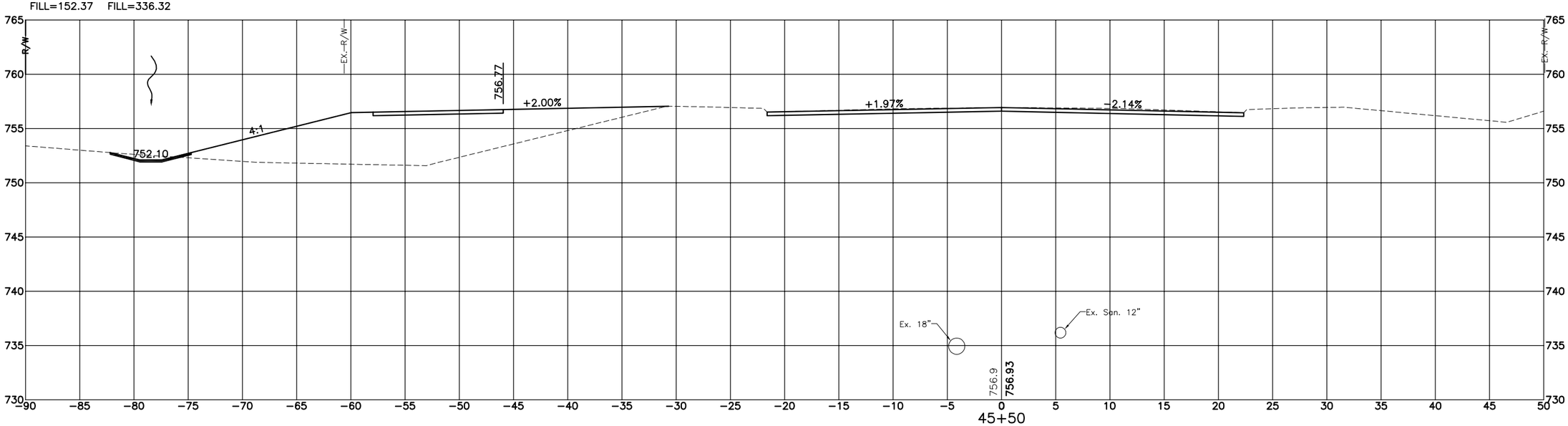
AREA; SF
CUT=21.17
FILL=97.70

VOLUME; CY
CUT=37.15
FILL=206.97



AREA; SF
CUT=18.29
FILL=152.37

VOLUME; CY
CUT=31.54
FILL=336.32



SHEET TOTAL
VOLUME; CY
CUT=64.54
FILL=588.55

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 45+50 TO STA. 46+00

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Designed by Date
Checked by Date
Reviewed by Date

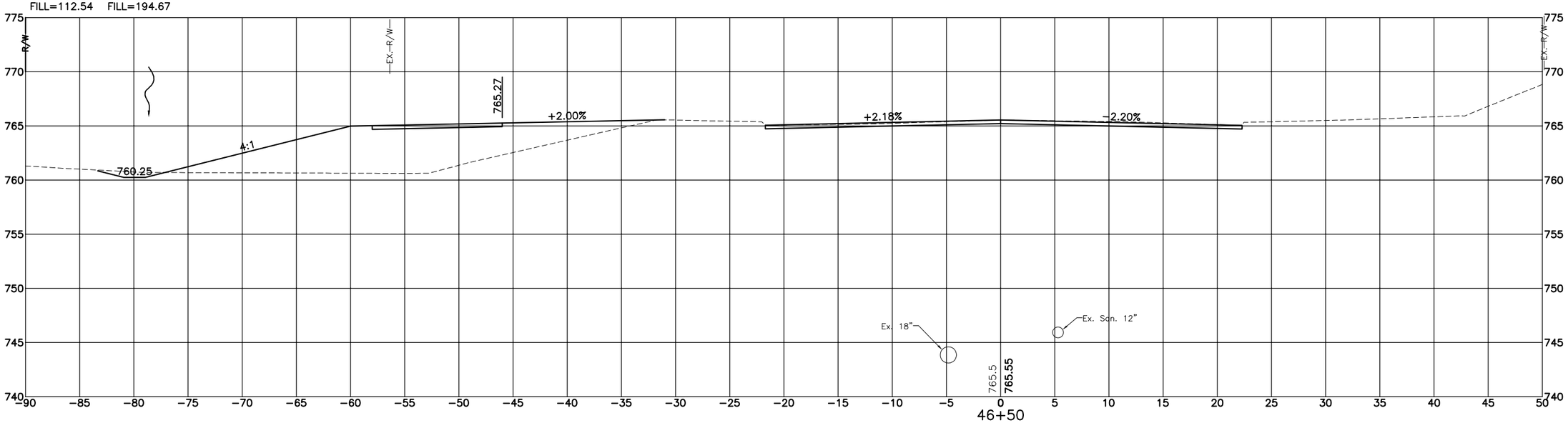
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=16.38
FILL=112.54

VOLUME; CY
CUT=34.77
FILL=194.67



SHEET TOTAL
VOLUME; CY
CUT=34.77
FILL=194.67

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

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WEST MLK CROSS SECTIONS
STA. 46+50 TO STA. 47+00

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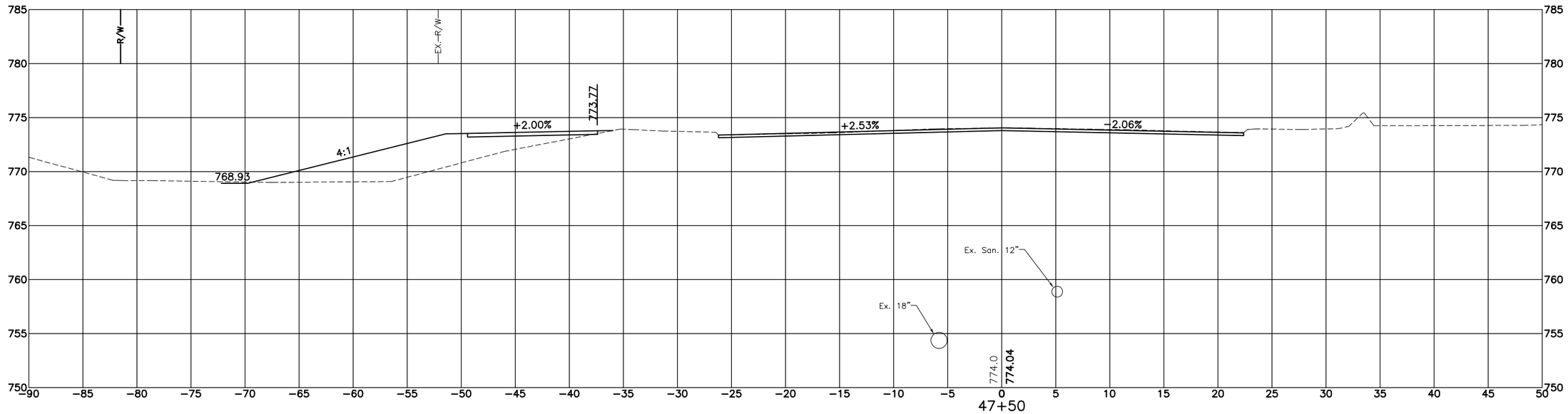
Structure File Number

ACC No.
23124

AREA; SF
CUT=0.19
FILL=53.96

VOLUME; CY
CUT=14.11
FILL=132.27



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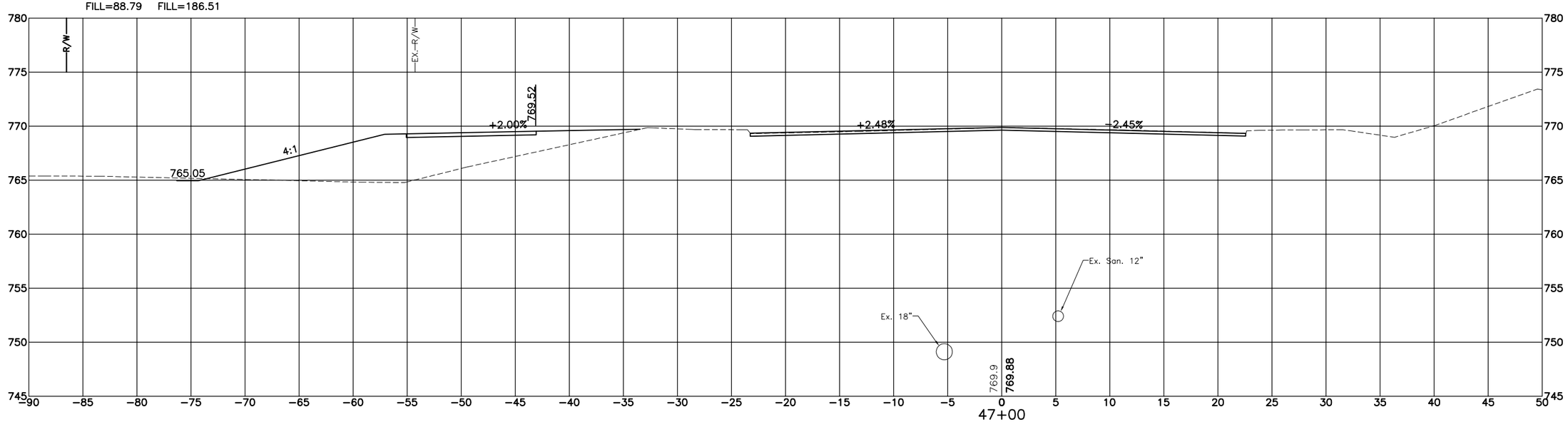
CUT=15.05
FILL=88.79

VOLUME; CY
CUT=29.10
FILL=186.51



SHEET TOTAL
VOLUME; CY
CUT=43.21
FILL=318.78

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHOULD BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

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City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 47+00 TO STA. 47+50

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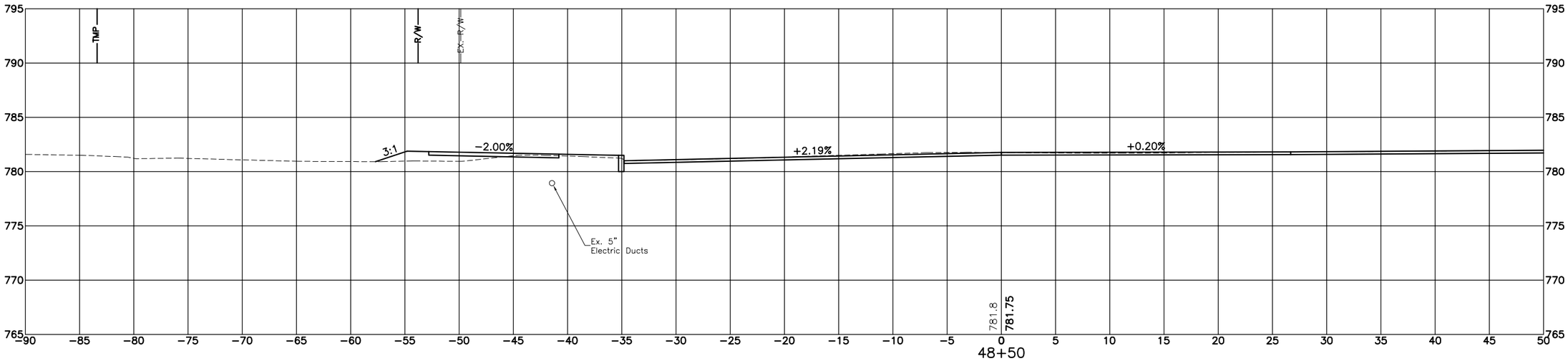
Structure File Number

ACC No.
23124

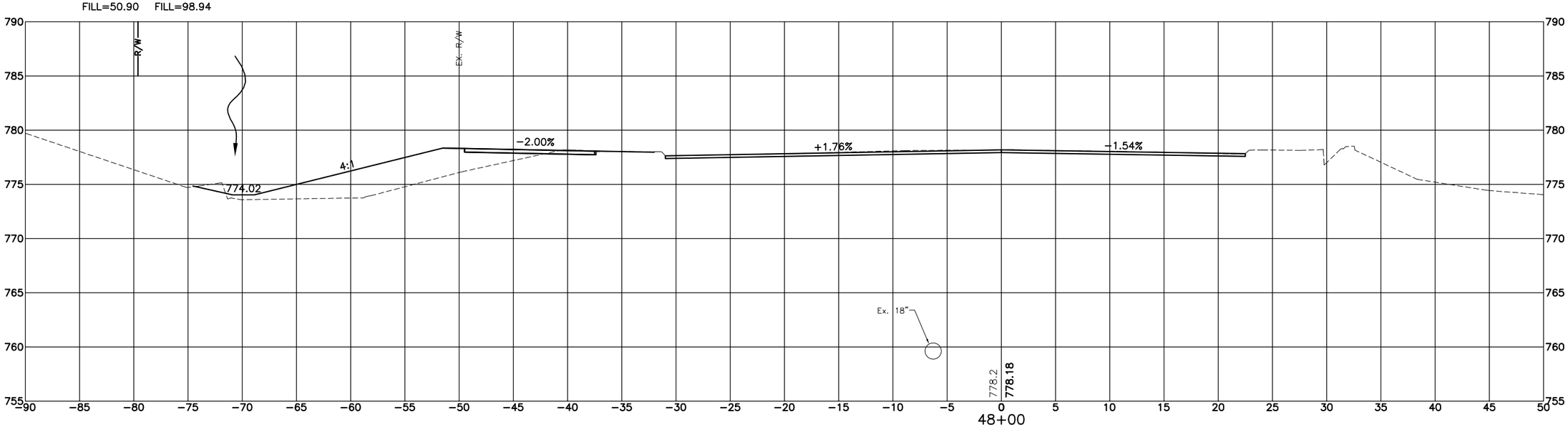
AREA; SF
CUT=1.43
FILL=6.81

VOLUME; CY
CUT=2.71
FILL=53.44



AREA; SF
CUT=1.50
FILL=50.90

VOLUME; CY
CUT=1.56
FILL=98.94



SHEET TOTAL
VOLUME; CY
CUT=4.28
FILL=152.38

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHOULD BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
801 Plum Street
Room 1018
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 48+00 TO STA. 48+50

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

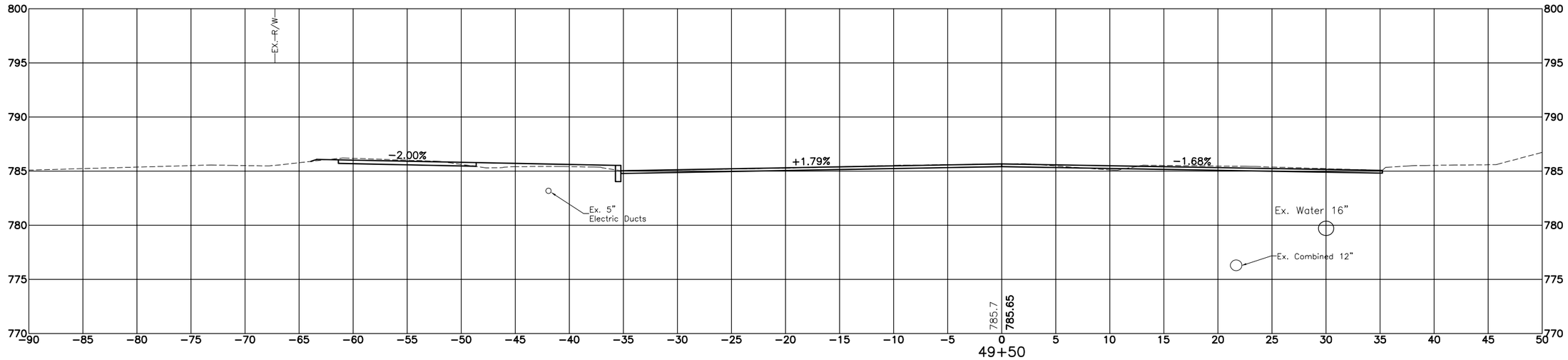
Consultant

Structure File Number

ACC No.
23124

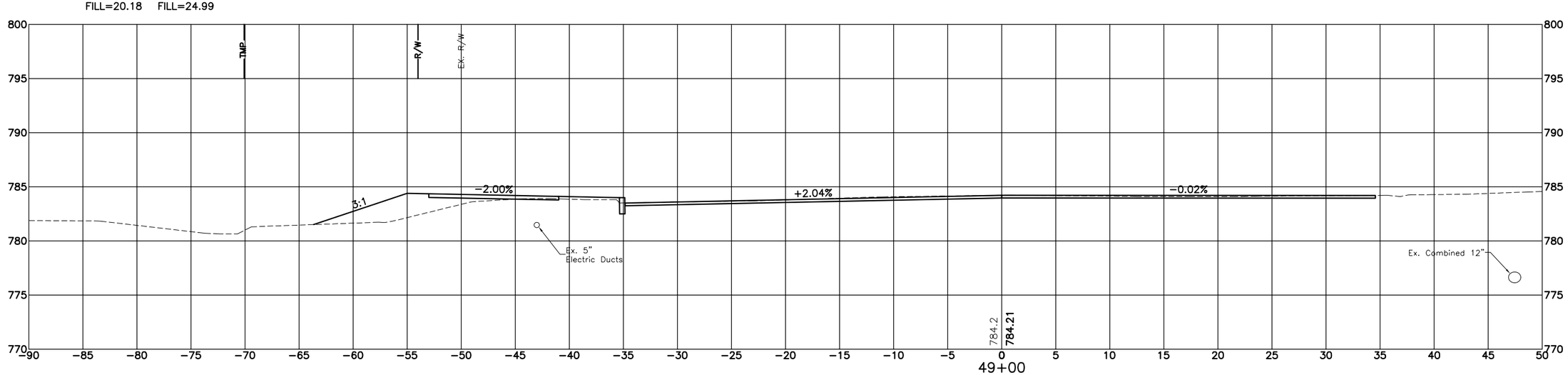
AREA; SF
CUT=5.40
FILL=3.75

VOLUME; CY
CUT=5.77
FILL=22.16



AREA; SF
CUT=0.83
FILL=20.18

VOLUME; CY
CUT=2.09
FILL=24.99



SHEET TOTAL
VOLUME; CY
CUT=7.86
FILL=47.15

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 49+00 TO STA. 49+50

Revisions
No.

Date
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Date
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Date
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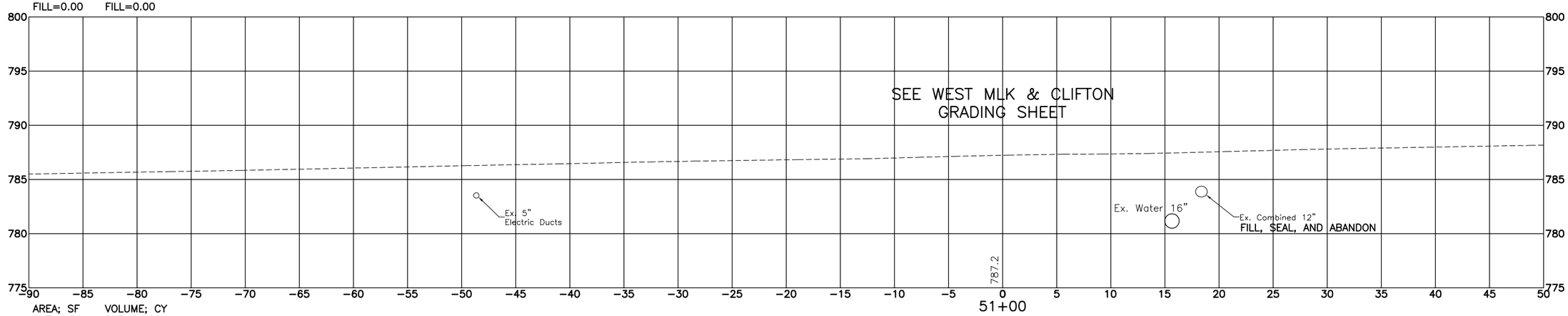
Date
Reviewed by

Consultant

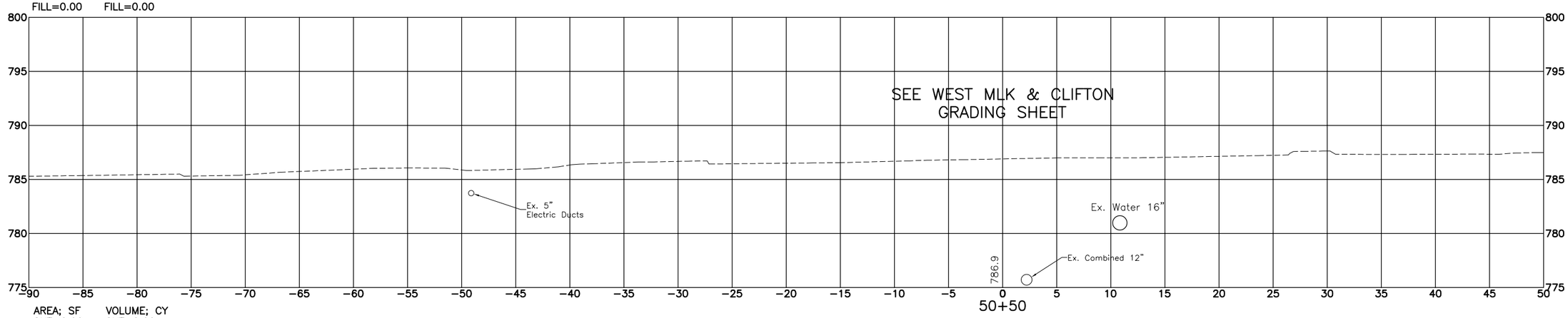
Structure File Number

ACC No.
23124

AREA; SF CUT=0.00 FILL=0.00 VOLUME; CY CUT=0.00 FILL=0.00



AREA; SF CUT=0.00 FILL=0.00 VOLUME; CY CUT=0.00 FILL=0.00



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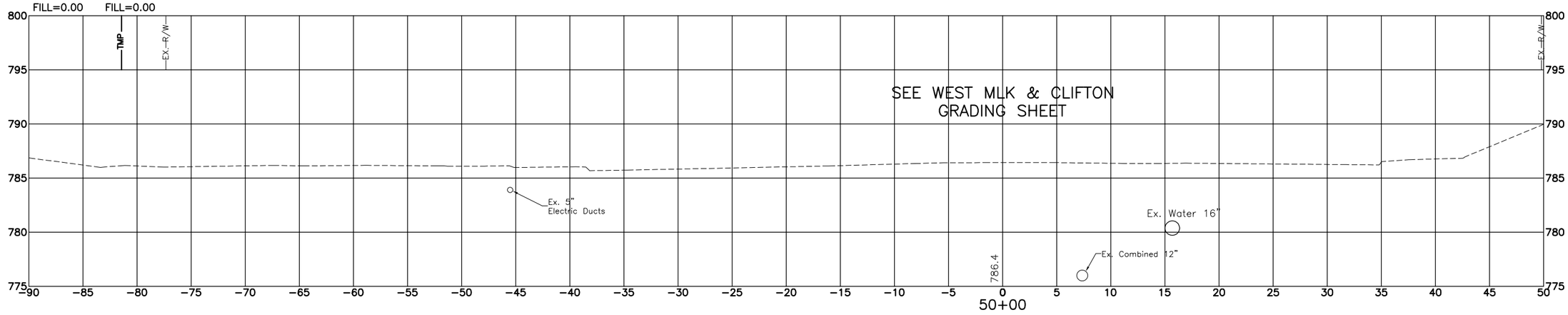


SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDDING AND TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 50+00 TO STA. 51+00

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

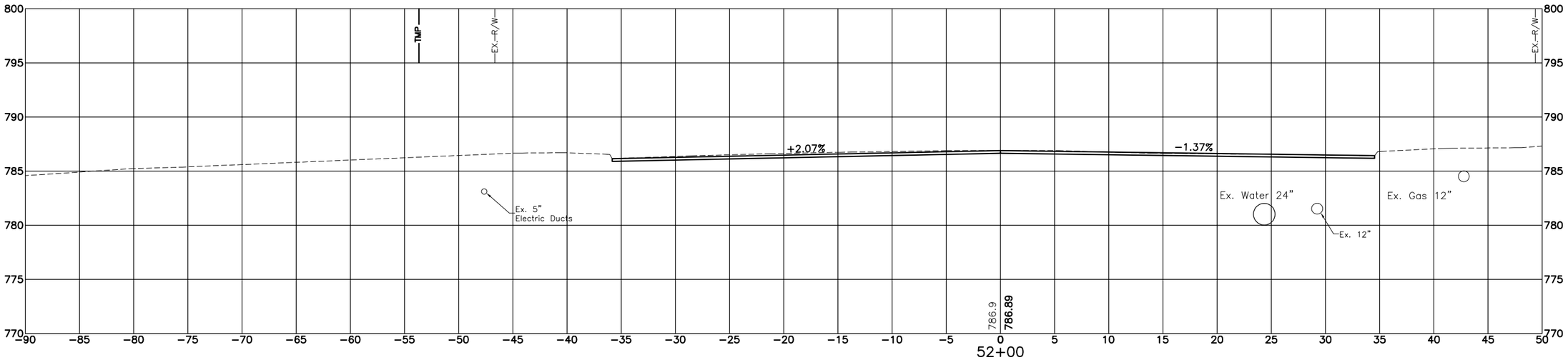
Consultant

Structure File Number

ACC No.
23124

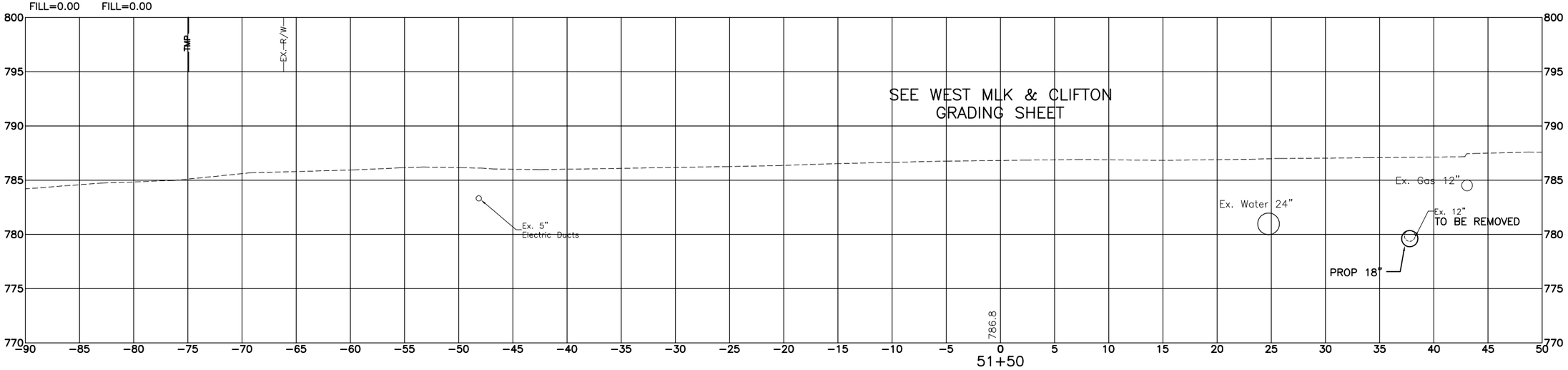
AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 51+50 TO STA. 52+00

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

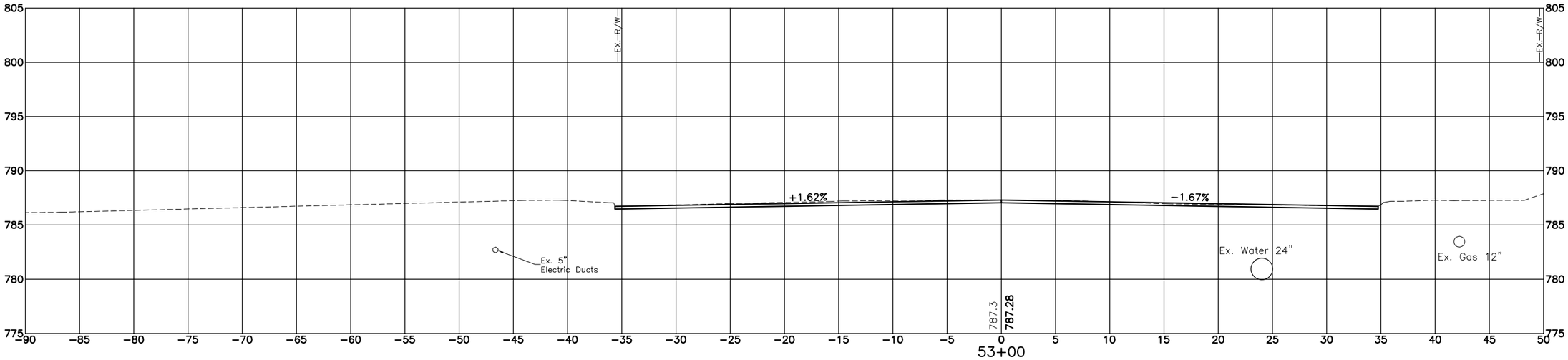
Consultant

Structure File Number

ACC No.
23124

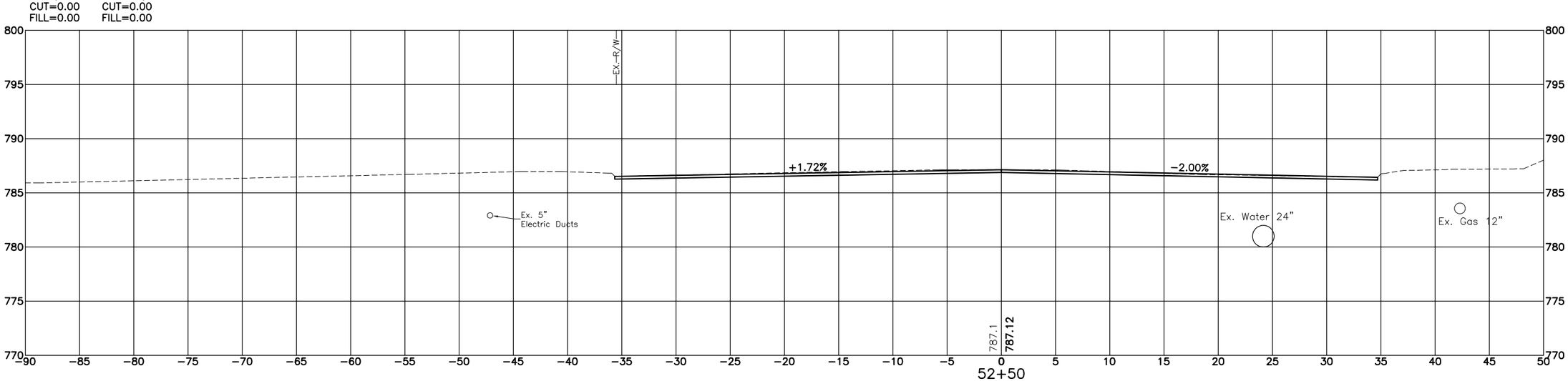
AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 52+50 TO STA. 53+00

Revisions
No.

Date
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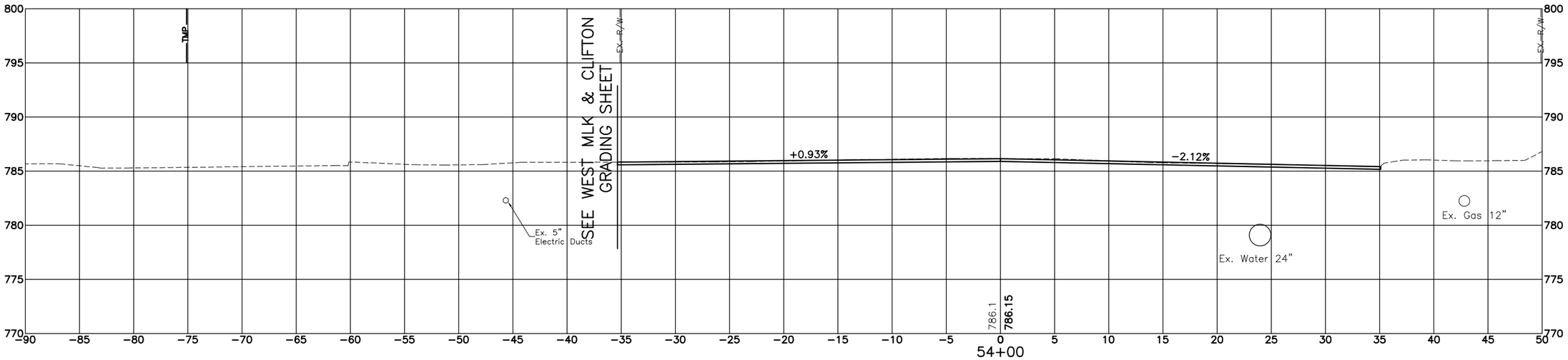
Consultant

Structure File Number

ACC No.
23124

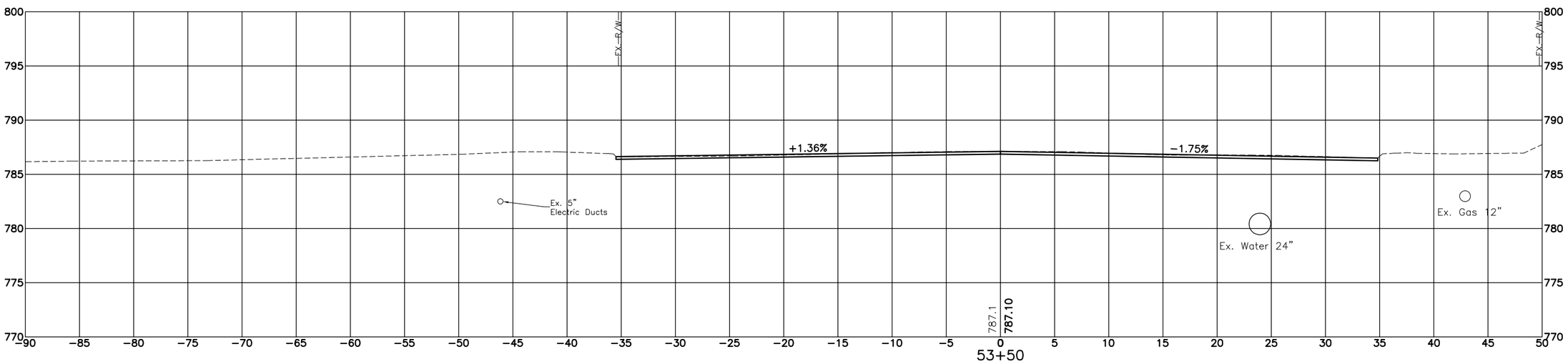
AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 53+50 TO STA. 54+00

Revisions
No.

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Drawn by
Designed by
Checked by
Reviewed by

Consultant

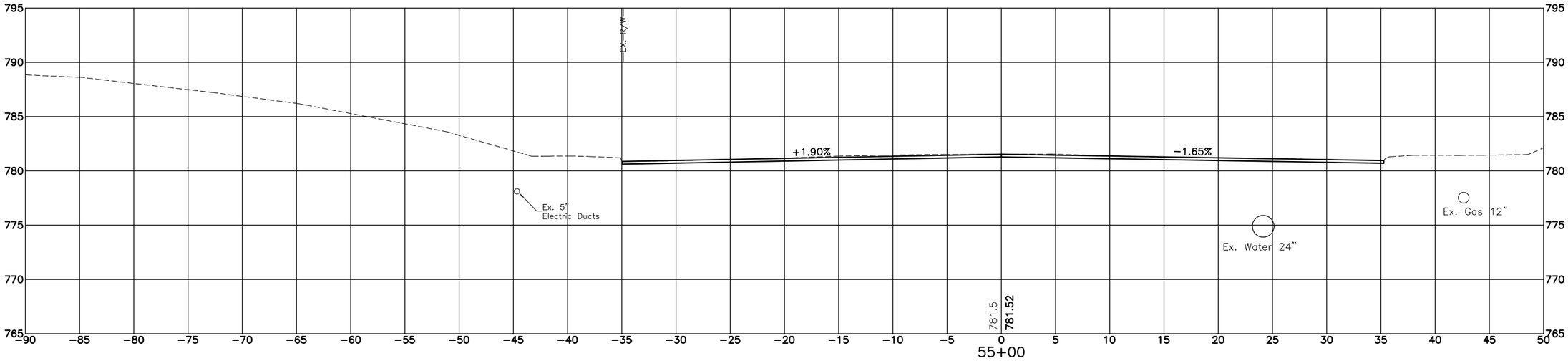
Structure File Number

ACC No.
23124

82
155

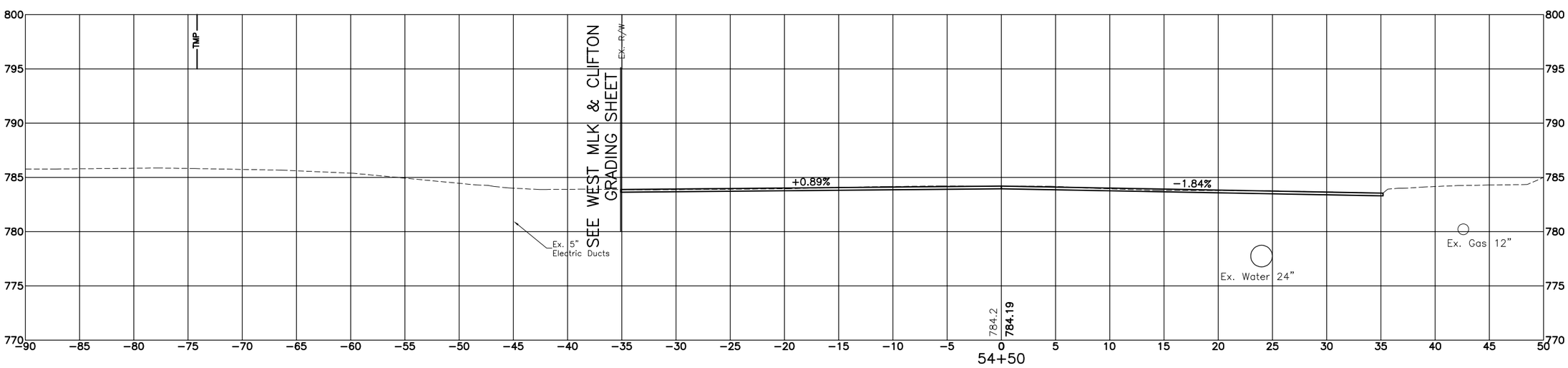
AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 54+50 TO STA. 55+00

Revisions
No.

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Drawn by
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Date
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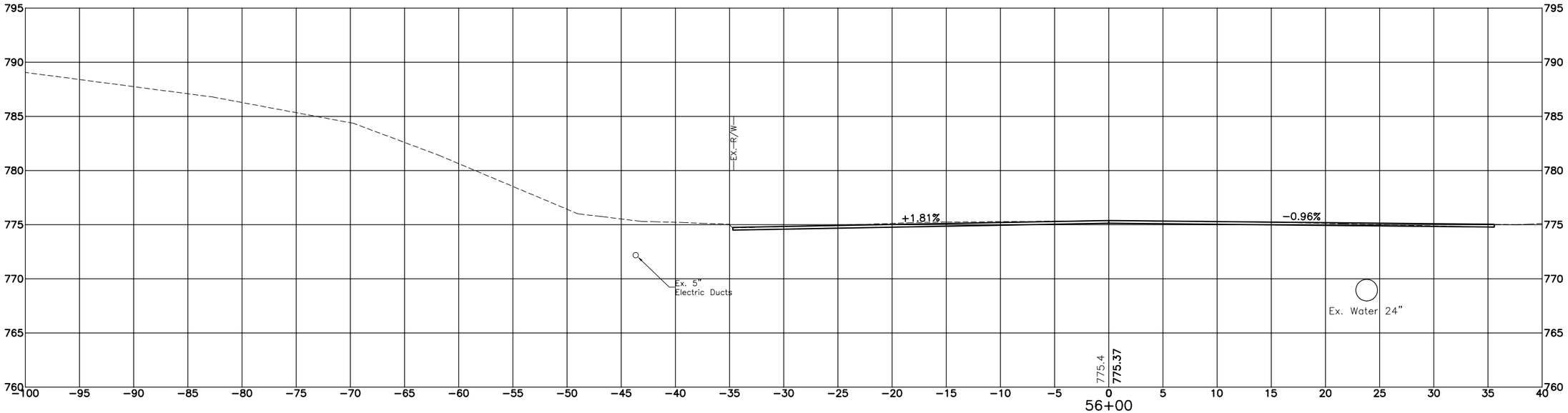
Consultant

Structure File Number

ACC No.
23124

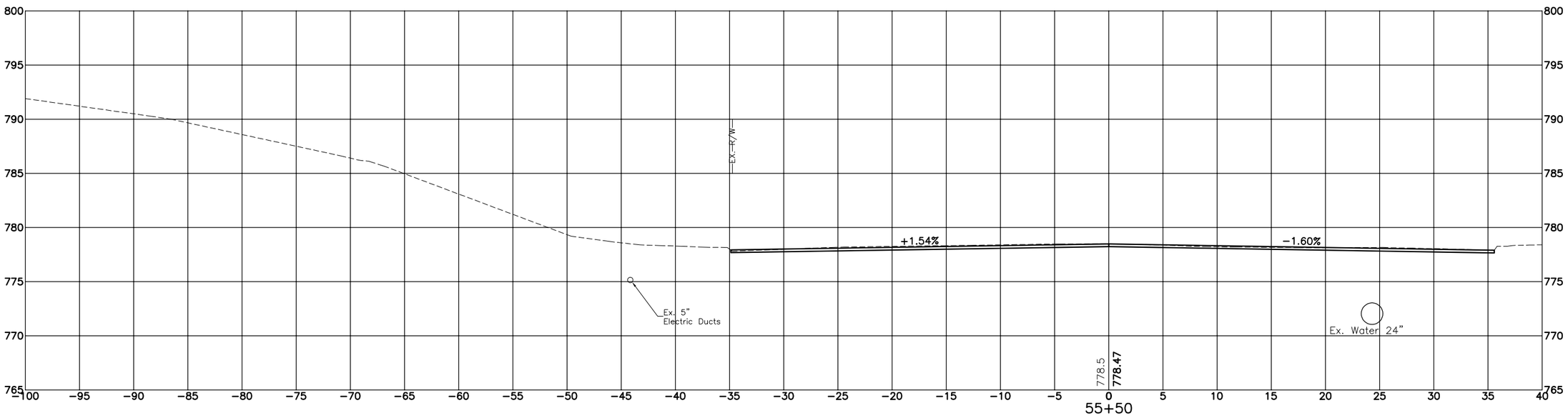
AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND SHOULD BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 55+50 TO STA. 56+00

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

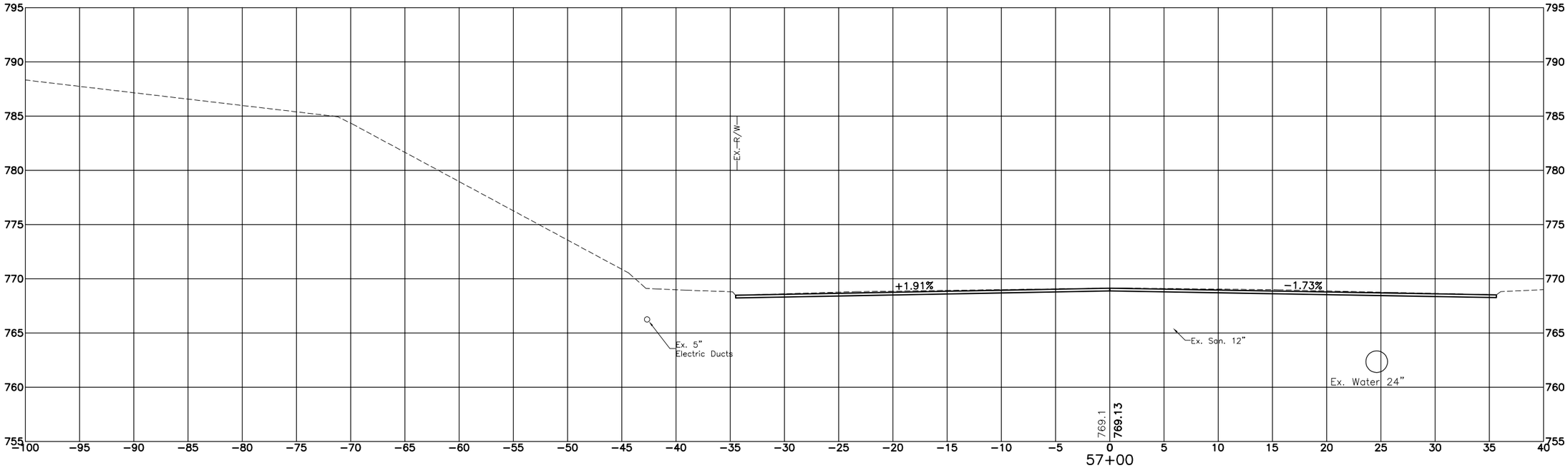
Consultant

Structure File Number

ACC No.
23124

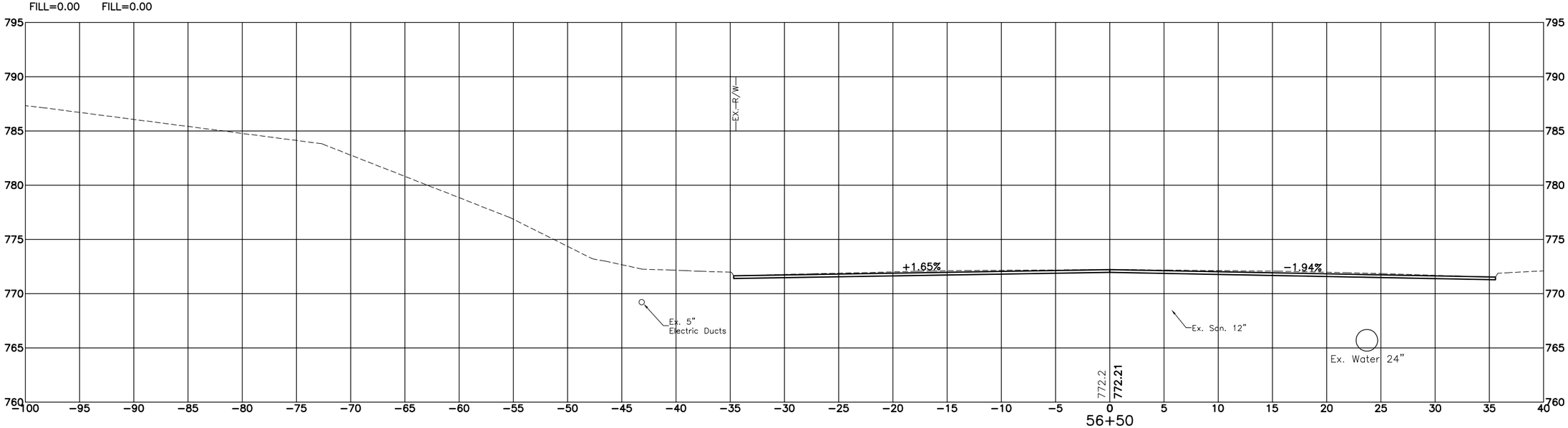
AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND SHALL BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 56+50 TO STA. 57+00

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

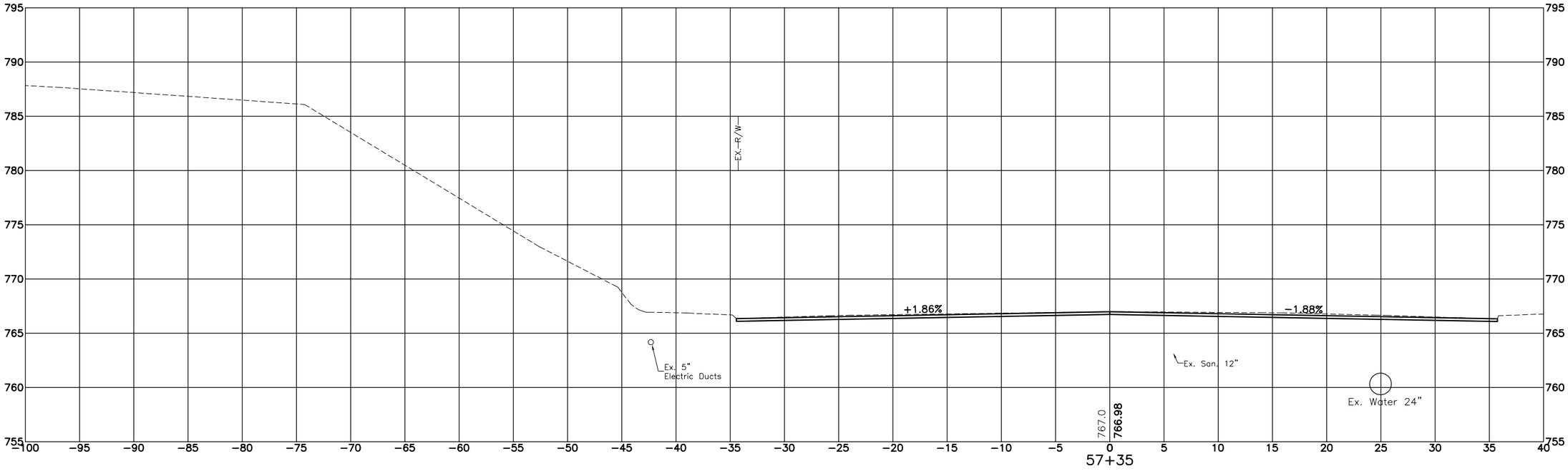
Consultant

Structure File Number

ACC No.
23124

AREA; SF
CUT=0.00
FILL=0.00

VOLUME; CY
CUT=0.00
FILL=0.00



SHEET TOTAL
VOLUME; CY
CUT=0.00
FILL=0.00

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
STA. 57+35

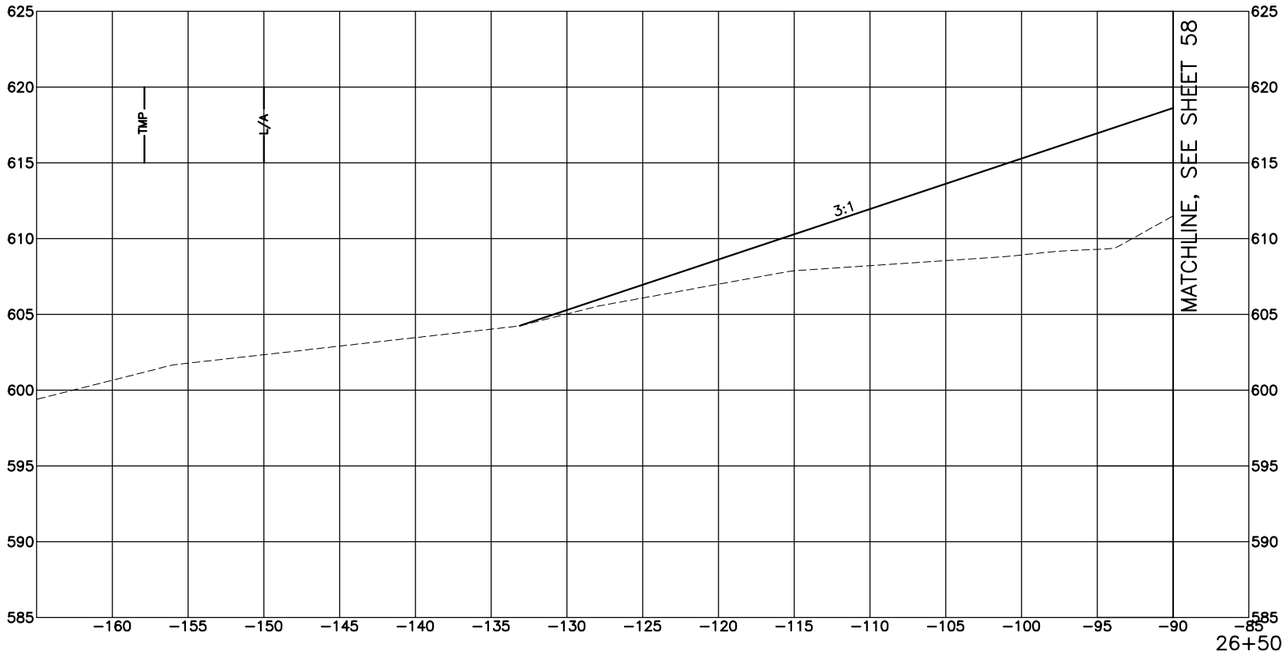
Revisions
No.

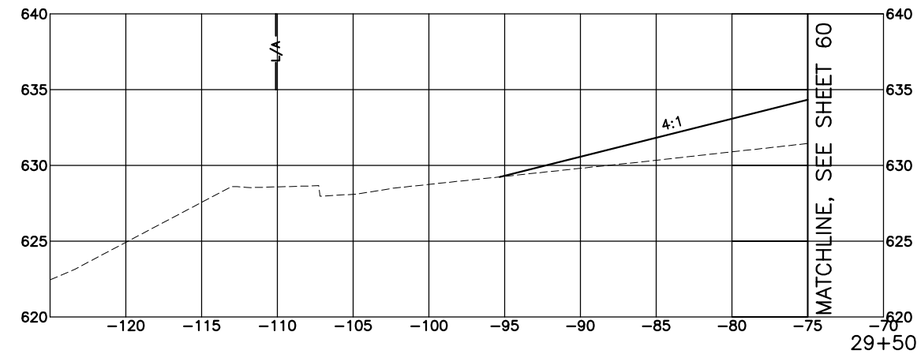
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

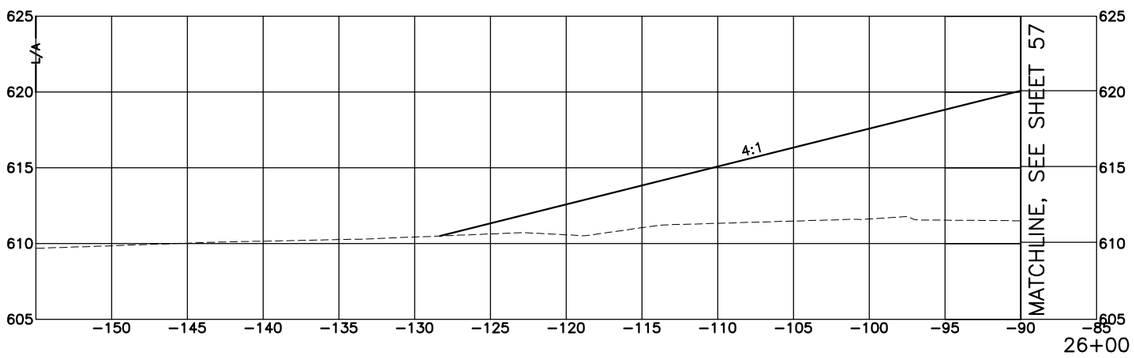
Consultant

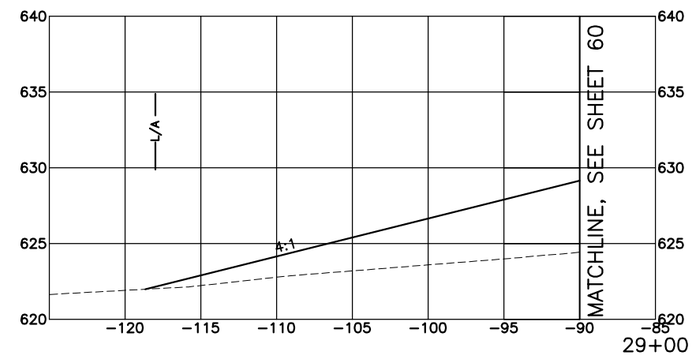
Structure File Number

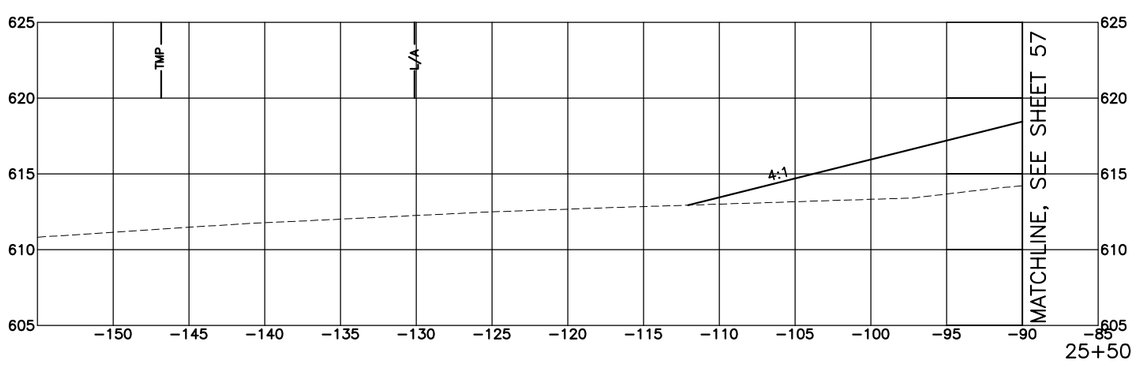
ACC No.
23124

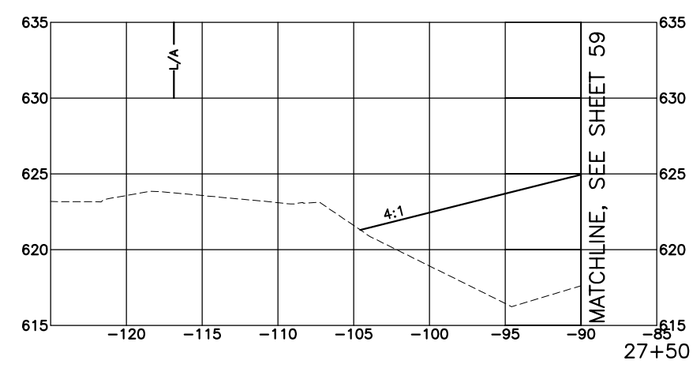












CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK CROSS SECTIONS
MATCHLINE SECTIONS

Revisions

No.				

Drawn by ____ Date ____
Designed by ____ Date ____
Checked by ____ Date ____
Reviewed by ____ Date ____

Consultant

Structure File Number

ACC No.
23124

SUPERELEVATION TABLE

P.I. STATION 26+50.02 | Dc = 13°15'0"

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					REMARKS
					CONTROL							
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	
618.00	164:1	−0.56	−2.00%	28.00	23+13.00	618.56	28.00	−2.00%	−0.56		618.00	Normal Crown
618.48		−0.46	−1.65%	28.00	23+25.00	618.95	28.00	−2.00%	−0.56		618.39	
619.50		−0.26	−0.93%	28.00	23+50.00	619.76	28.00	−2.00%	−0.56		619.20	
620.51		−0.06	−0.20%	28.00	23+75.00	620.57	28.00	−2.00%	−0.56		620.01	
620.80		0.00	0.00%	28.00	23+82.00	620.80	28.00	−2.00%	−0.56		620.24	
621.53		0.15	0.52%	28.00	24+00.00	621.38	28.00	−2.00%	−0.56		620.82	
622.54		0.35	1.25%	28.00	24+25.00	622.20	28.00	−2.00%	−0.56		621.64	
622.65		0.37	1.32%	28.00	24+27.59	622.28	28.00	−2.00%	−0.56		621.72	PC Station
623.56		0.55	1.97%	28.00	24+50.00	623.01	28.00	−2.00%	−0.56		622.45	
623.60		0.56	2.00%	28.00	24+51.00	623.04	28.00	−2.00%	−0.56		622.48	Full Super
					FULL SUPER							
635.47	164:1	0.56	2.00%	28.00	28+16.00	634.91	28.00	−2.00%	−0.56		634.35	Full Super
635.68		0.49	1.74%	28.00	28+25.00	635.20	28.00	−2.00%	−0.56		634.64	
636.01		0.38	1.35%	28.00	28+38.46	635.63	28.00	−2.00%	−0.56		635.07	
636.29		0.28	1.01%	28.00	28+50.00	636.01	28.00	−2.00%	−0.56		635.45	PT Station
636.90		0.08	0.29%	28.00	28+75.00	636.82	28.00	−2.00%	−0.56		636.26	
637.15		0.00	0.00%	28.00	28+85.00	637.15	28.00	−2.00%	−0.56		636.59	
637.51		−0.12	−0.43%	28.00	29+00.00	637.63	28.00	−2.00%	−0.56		637.07	
638.18		−0.32	−1.16%	28.00	29+25.00	638.50	28.00	−2.00%	−0.56		637.94	
638.95		−0.53	−1.88%	28.00	29+50.00	639.48	28.00	−2.00%	−0.56		638.92	
639.09		−0.56	−2.00%	28.00	29+54.00	639.65	28.00	−2.00%	−0.56		639.09	Normal Crown

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
SUPERELEVATION TABLE

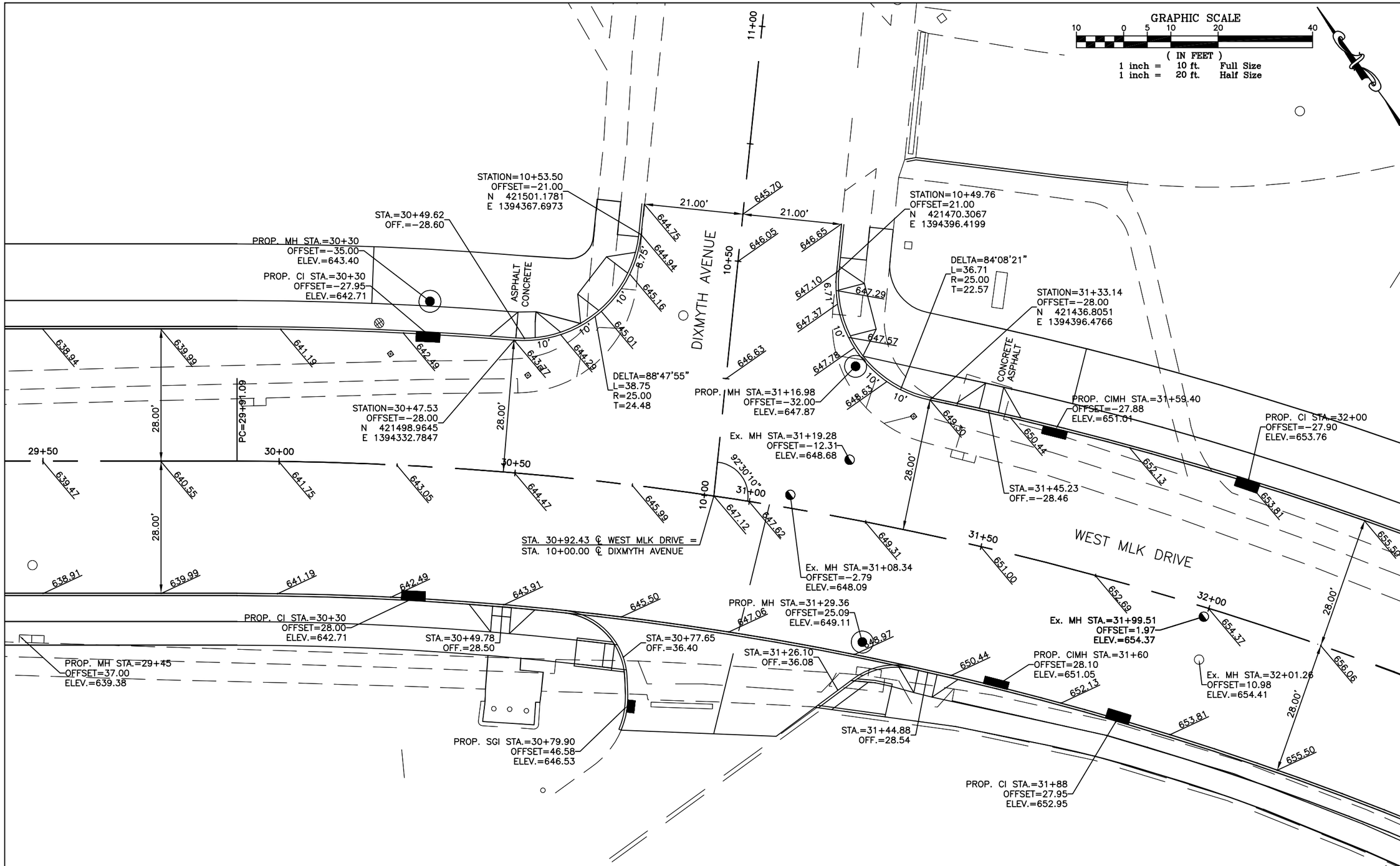
Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



NOTES:

1. ALL ELEVATIONS LISTED ARE PAVEMENT SURFACE ELEVATIONS. FOR TOP OF CURB ELEVATIONS, ADD CURB HEIGHT.
2. ALL CURB DIMENSIONS LISTED ARE TO FACE OF CURB.

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
GRADING SHEET
WEST MLK AND DIXMYTH

Revisions

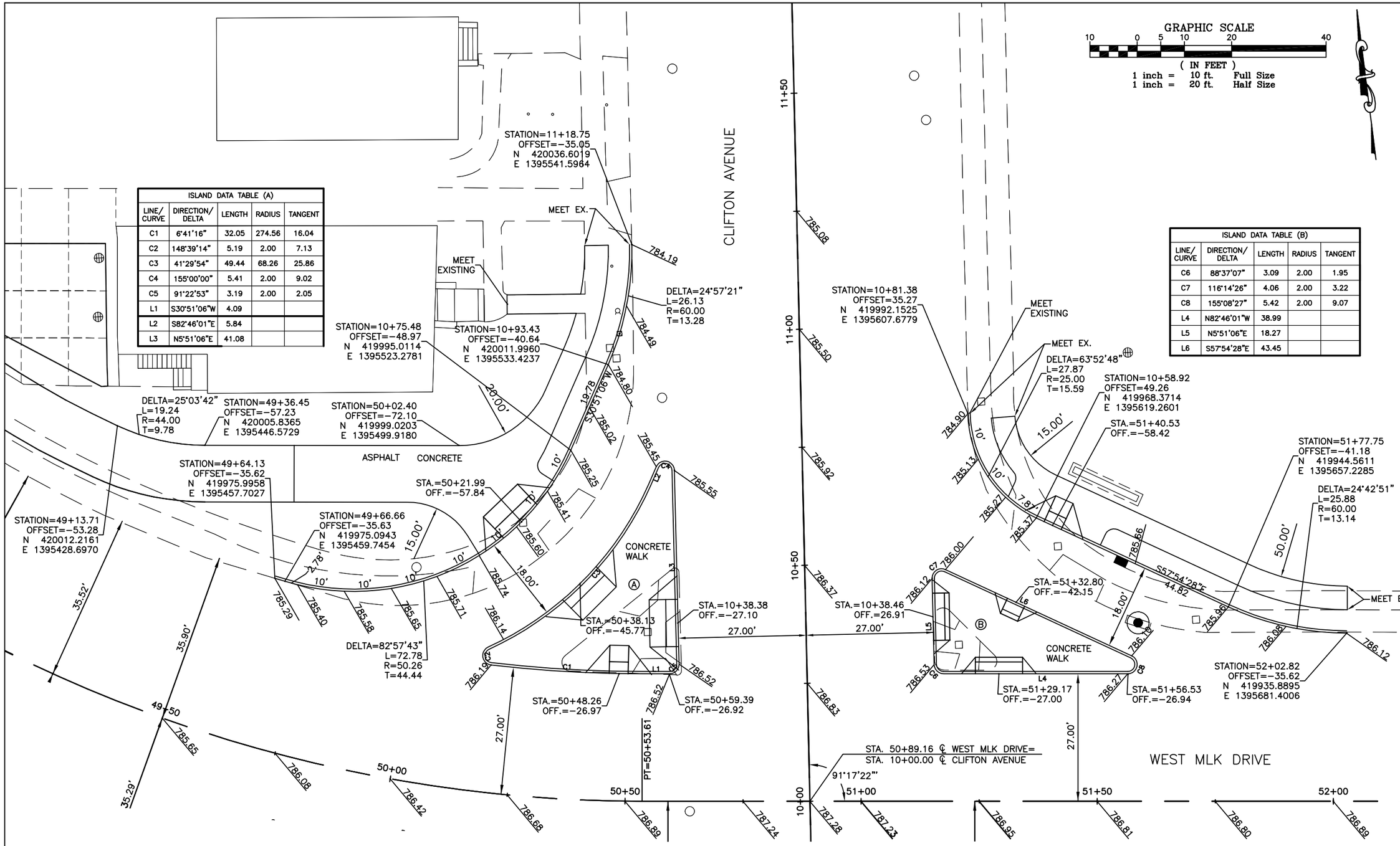
No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



ISLAND DATA TABLE (A)				
LINE/ CURVE	DIRECTION/ DELTA	LENGTH	RADIUS	TANGENT
C1	6°41'16"	32.05	274.56	16.04
C2	148°39'14"	5.19	2.00	7.13
C3	41°29'54"	49.44	68.26	25.86
C4	155°00'00"	5.41	2.00	9.02
C5	91°22'53"	3.19	2.00	2.05
L1	S30°51'06"W	4.09		
L2	S82°46'01"E	5.84		
L3	N5°51'06"E	41.08		

ISLAND DATA TABLE (B)				
LINE/ CURVE	DIRECTION/ DELTA	LENGTH	RADIUS	TANGENT
C6	88°37'07"	3.09	2.00	1.95
C7	116°14'26"	4.06	2.00	3.22
C8	155°08'27"	5.42	2.00	9.07
L4	N82°46'01"W	38.99		
L5	N5°51'06"E	18.27		
L6	S57°54'28"E	43.45		

NOTES:

1. ALL ELEVATIONS LISTED ARE PAVEMENT SURFACE ELEVATIONS. FOR TOP OF CURB ELEVATIONS, ADD CURB HEIGHT.
2. ALL CURB DIMENSIONS LISTED ARE TO FACE OF CURB.

CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
GRADING SHEET
WEST MLK AND CLIFTON

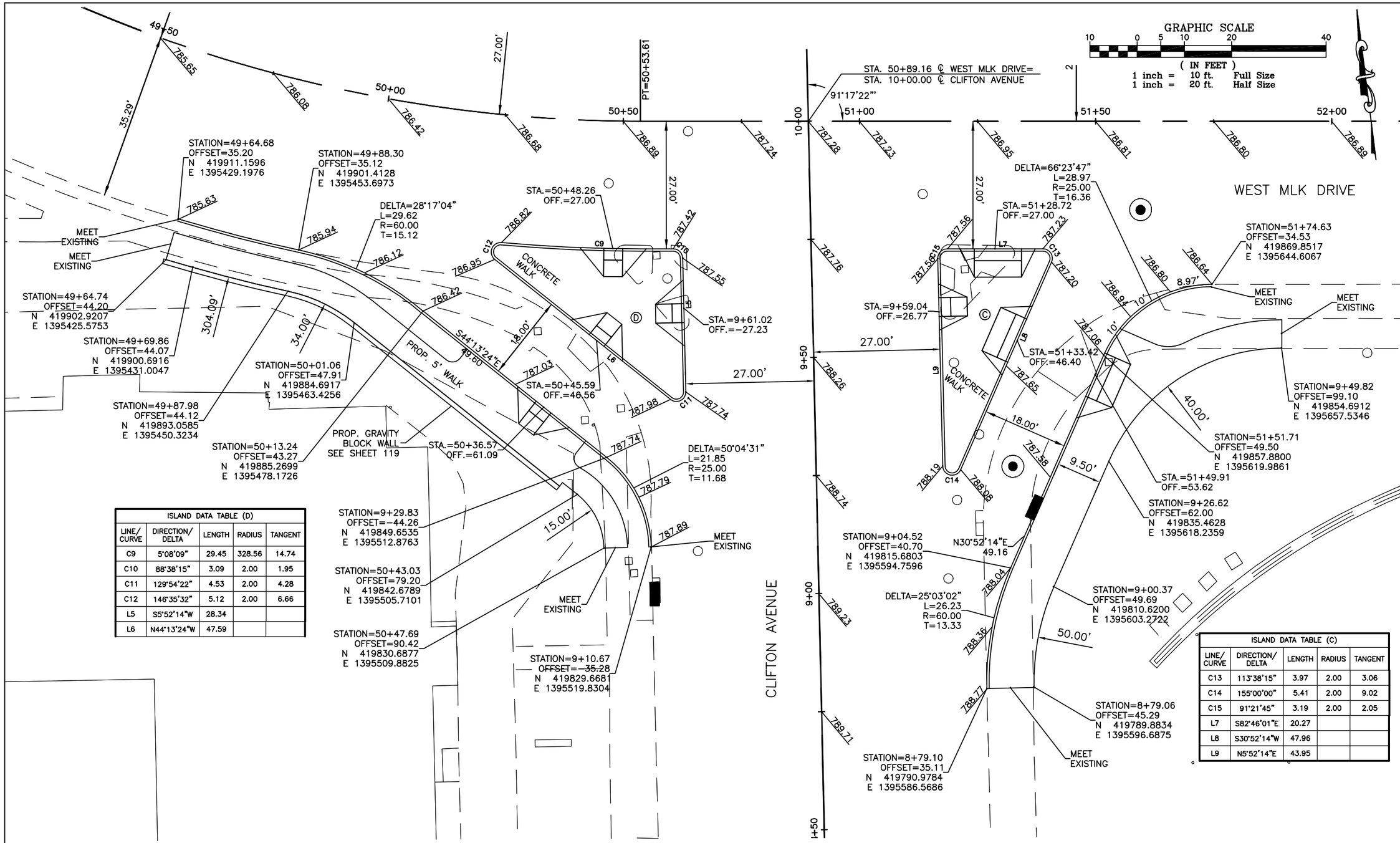
Revisions

No.	Date	Date	Date	Date
	Drawn by	Designed by	Checked by	Reviewed by

Consultant

Structure File Number

ACC No.
23124



ISLAND DATA TABLE (D)				
LINE/ CURVE	DIRECTION/ DELTA	LENGTH	RADIUS	TANGENT
C9	5°08'09"	29.45	328.56	14.74
C10	88°38'15"	3.09	2.00	1.95
C11	129°54'22"	4.53	2.00	4.28
C12	146°35'32"	5.12	2.00	6.66
L5	S5°52'14"W	28.34		
L6	N44°13'24"W	47.59		

ISLAND DATA TABLE (C)				
LINE/ CURVE	DIRECTION/ DELTA	LENGTH	RADIUS	TANGENT
C13	113°38'15"	3.97	2.00	3.06
C14	155°00'00"	5.41	2.00	9.02
C15	91°21'45"	3.19	2.00	2.05
L7	S82°46'01"E	20.27		
L8	S30°52'14"W	47.96		
L9	N5°52'14"E	43.95		

NOTES:

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CONTRACT DRAWING

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Department of Transportation and Engineering

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City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
GRADING SHEET
WEST MLK AND CLIFTON

Revisions

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Consultant

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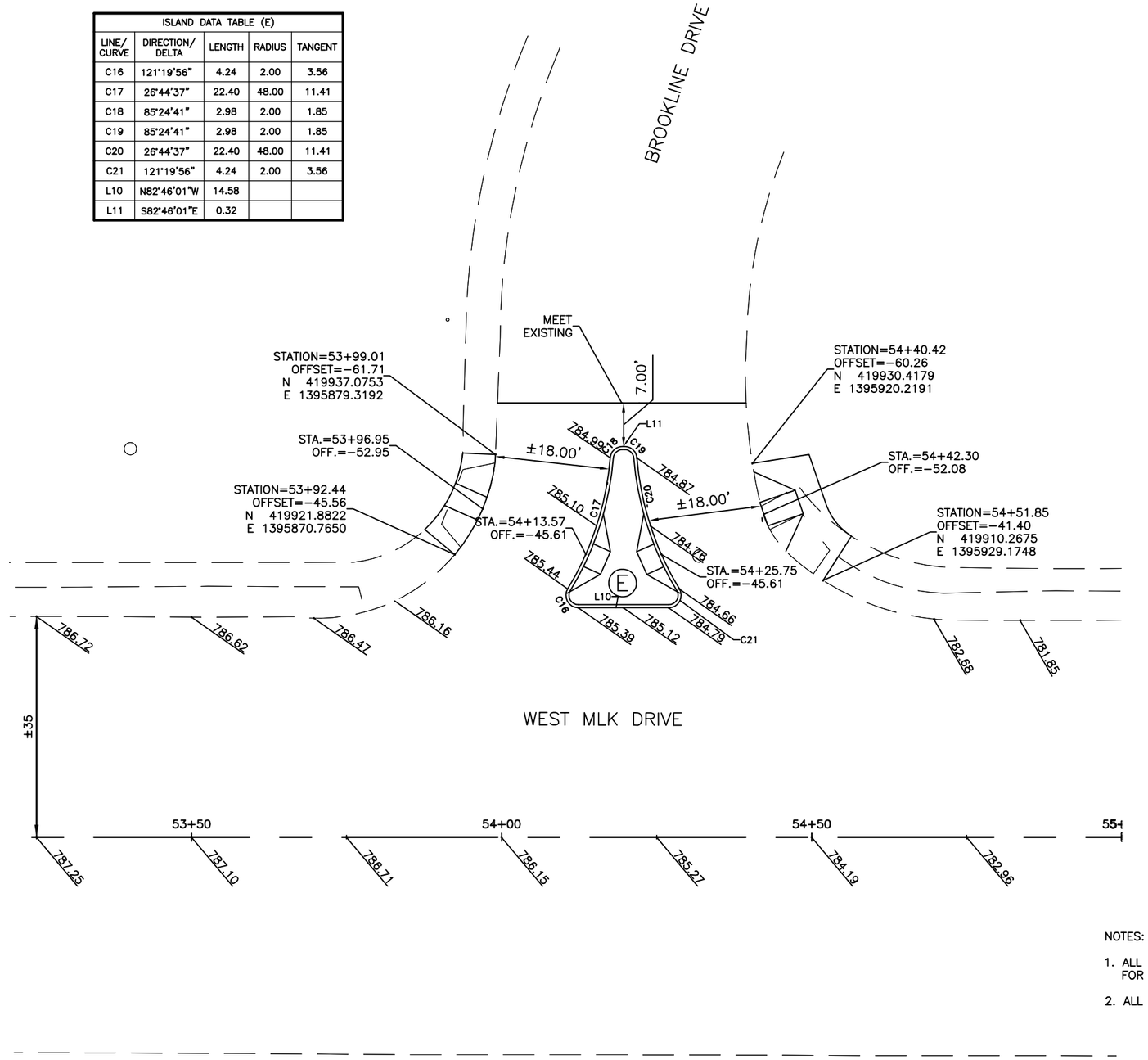
ACC No.
23124

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

ISLAND DATA TABLE (E)				
LINE/ CURVE	DIRECTION/ DELTA	LENGTH	RADIUS	TANGENT
C16	121°19'56"	4.24	2.00	3.56
C17	26°44'37"	22.40	48.00	11.41
C18	85°24'41"	2.98	2.00	1.85
C19	85°24'41"	2.98	2.00	1.85
C20	26°44'37"	22.40	48.00	11.41
C21	121°19'56"	4.24	2.00	3.56
L10	N82°46'01"W	14.58		
L11	S82°46'01"E	0.32		



NOTES:

1. ALL ELEVATIONS LISTED ARE PAVEMENT SURFACE ELEVATIONS. FOR TOP OF CURB ELEVATIONS, ADD CURB HEIGHT.
2. ALL CURB DIMENSIONS LISTED ARE TO FACE OF CURB.

CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
GRADING SHEET
WEST MLK AND BROOKLINE

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Designed by Date
Checked by Date
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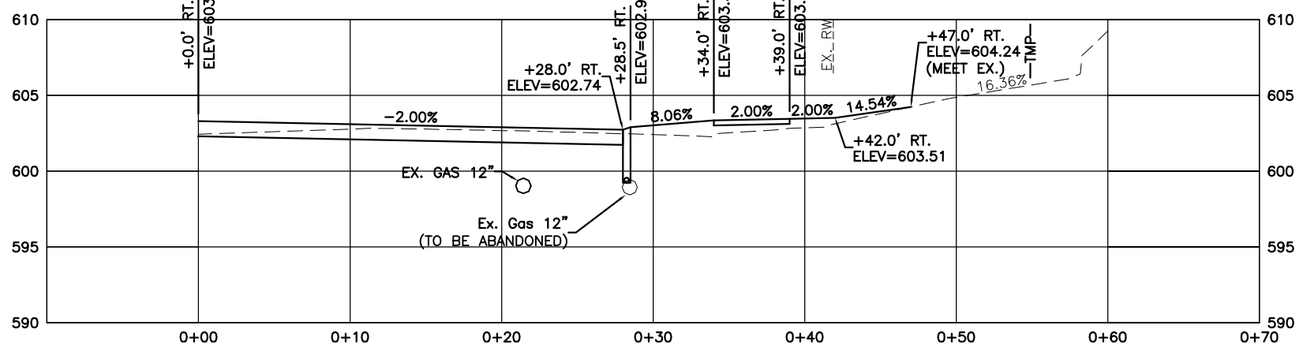
Consultant

Structure File Number

ACC No.
23124

DRIVE 18+36 RT

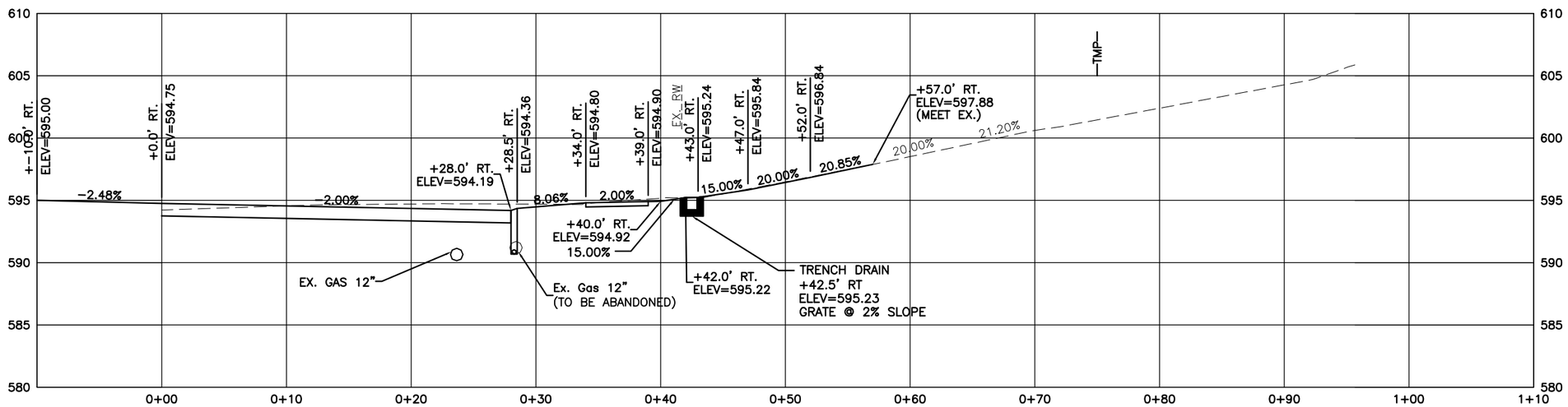


GRAPHIC SCALE

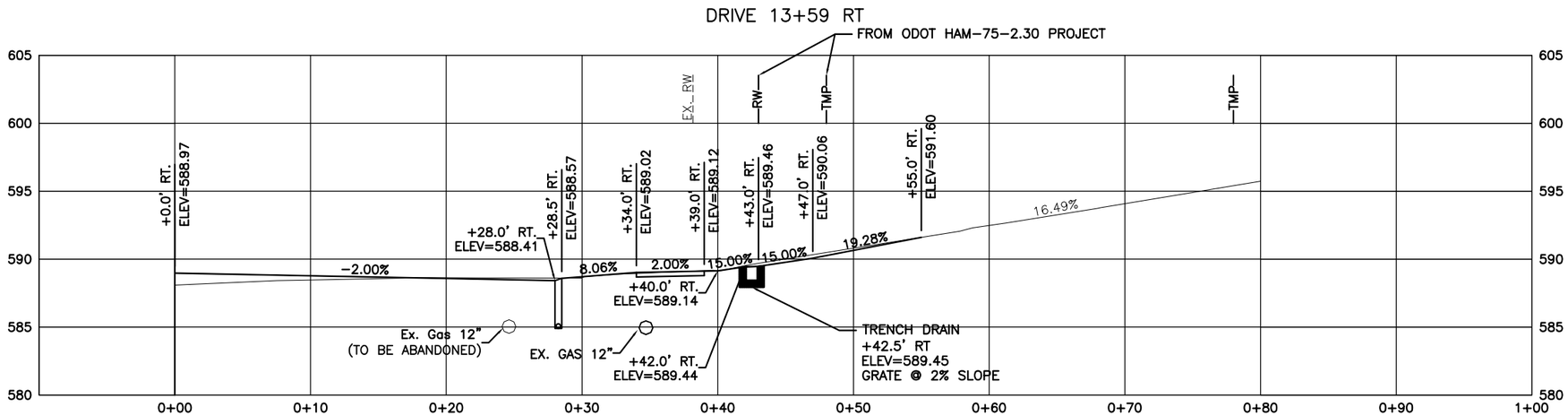
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

DRIVE 15+61 RT



DRIVE 13+59 RT



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
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HAM-CR 612-0.20
DRIVE PROFILES

Revisions

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Date Date Date Date

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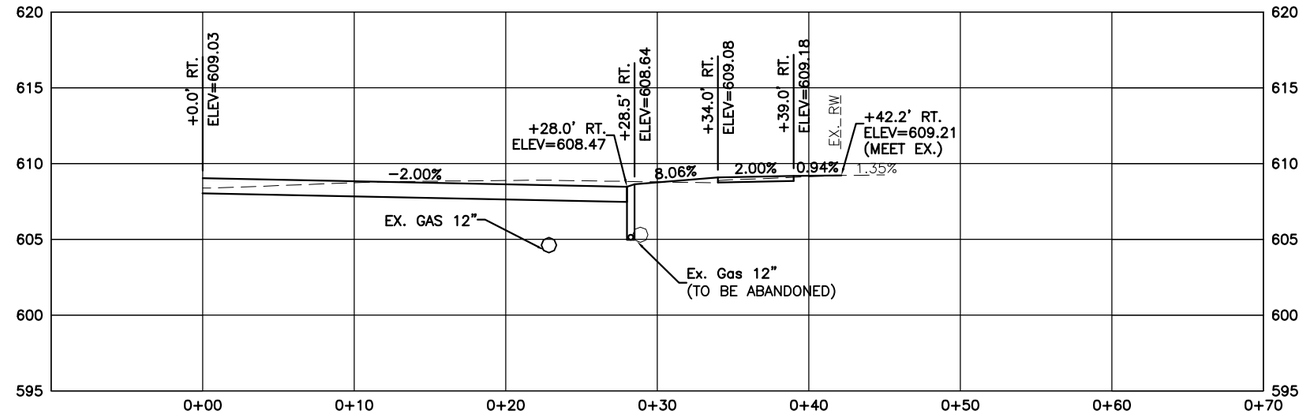
Consultant

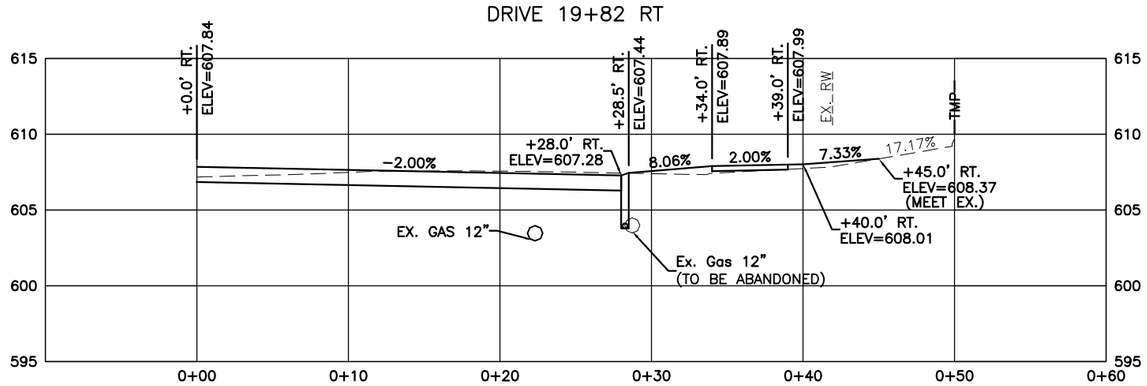
Structure File Number

ACC No.
23124

DRIVE 20+20 RT



DRIVE 19+82 RT



GRAPHIC SCALE

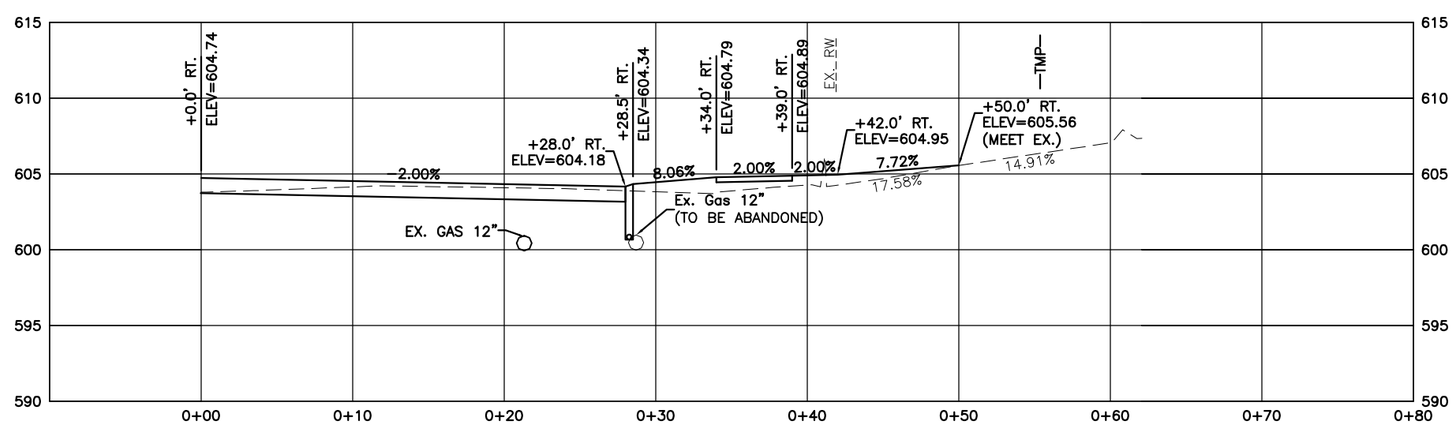
5 0 2.5 5 10 20

(IN FEET)

1 inch = 5 ft. Full Size

1 inch = 10 ft. Half Size

DRIVE 18+82 RT



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRIVE PROFILES

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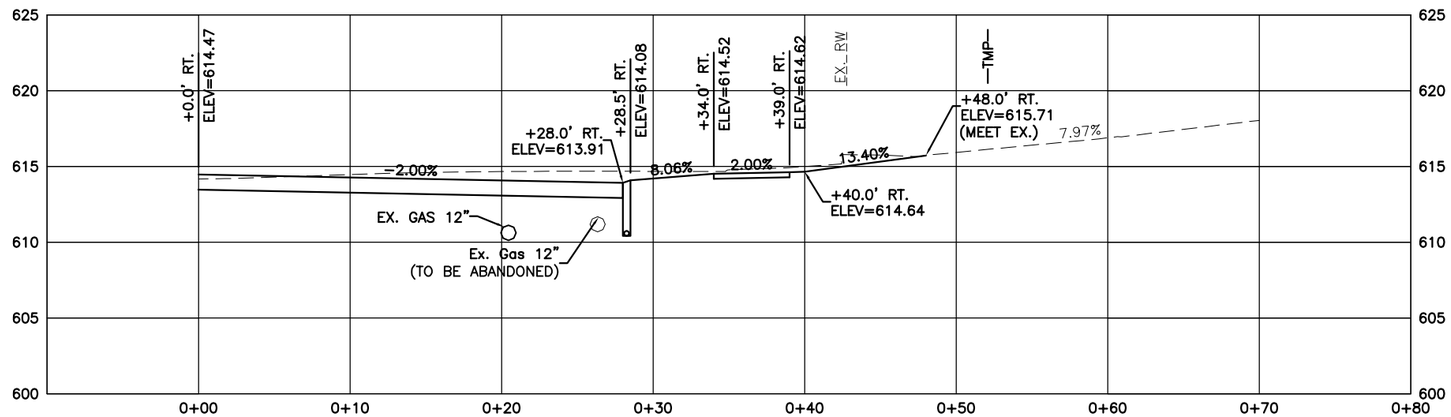
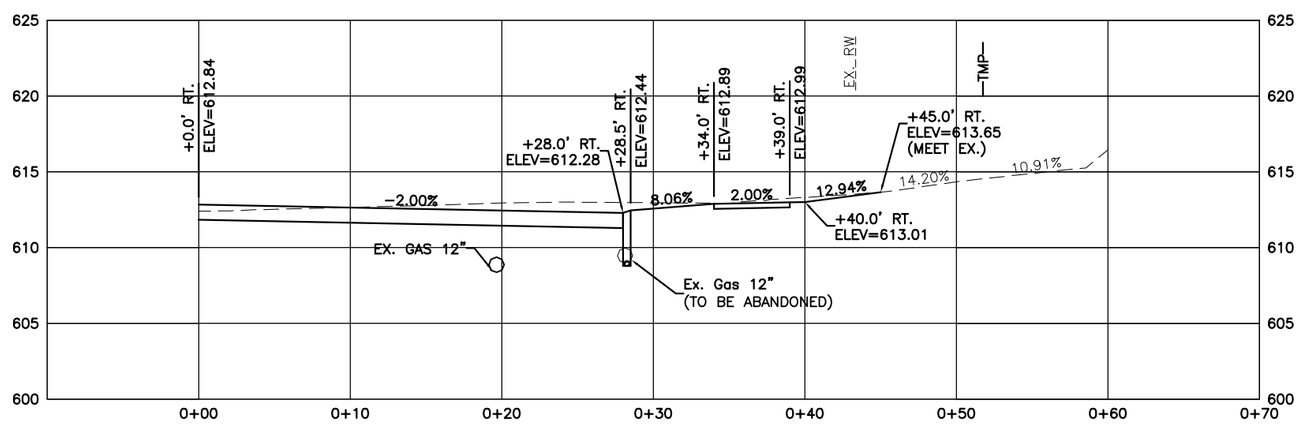
Structure File Number

ACC No.
23124

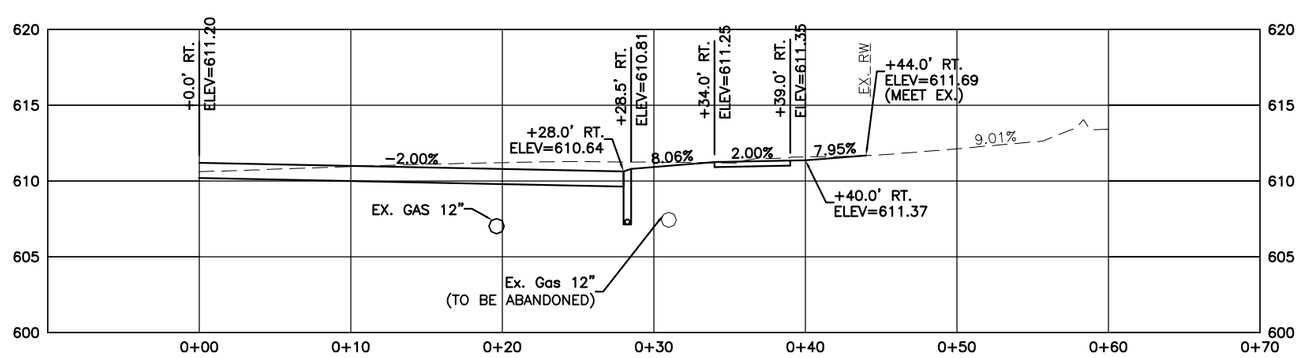
DRIVE 21+87 RT



DRIVE 21+37 RT



DRIVE 20+87 RT



GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)

1 inch = 5 ft. Full Size

1 inch = 10 ft. Half Size

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

DRIVE PROFILES

Revisions

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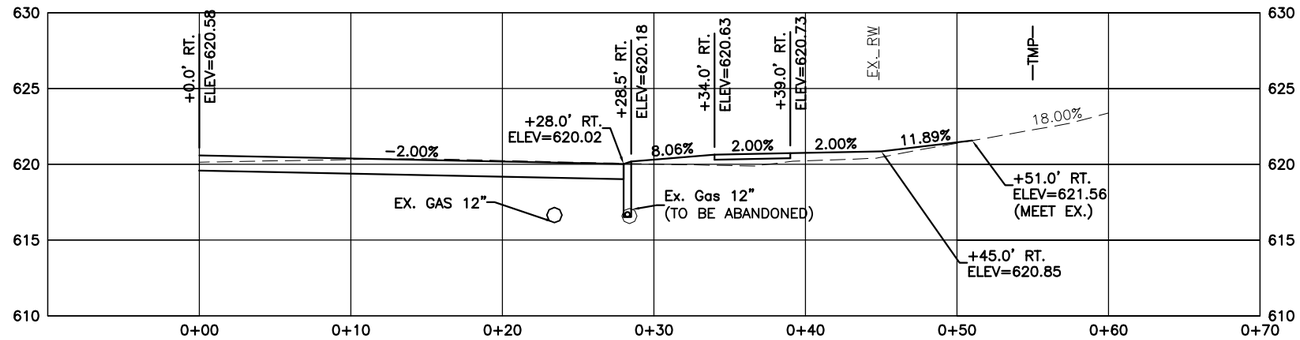
Structure File Number

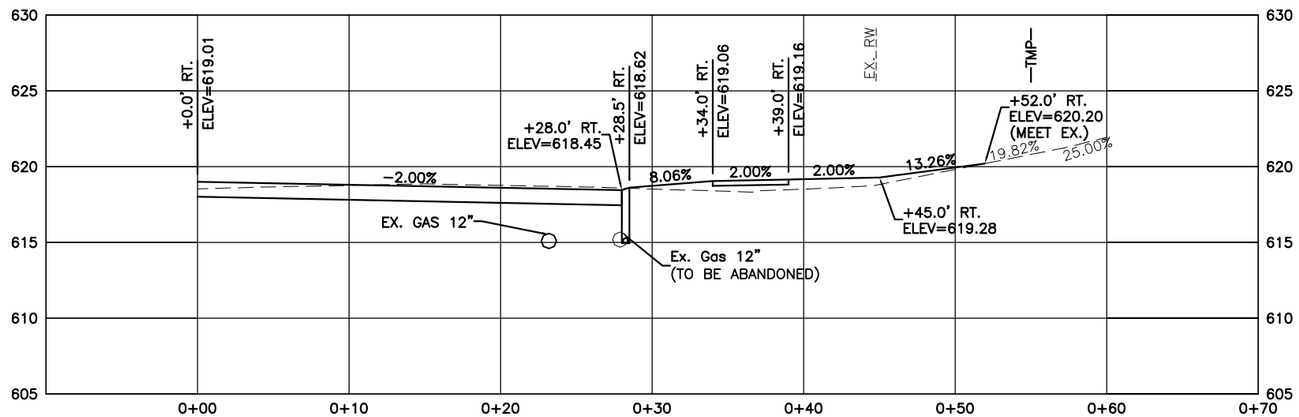
ACC No.
23124

95
155

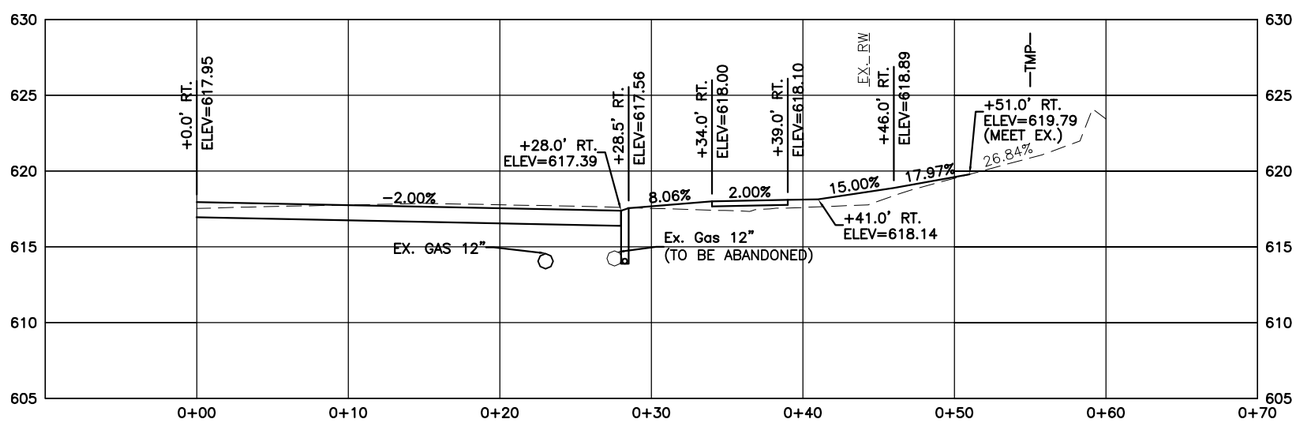
DRIVE 23+75 RT



DRIVE 23+27 RT



DRIVE 22+94 RT



GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
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801 Plum Street
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HAM-CR 612-0.20
DRIVE PROFILES

Revisions

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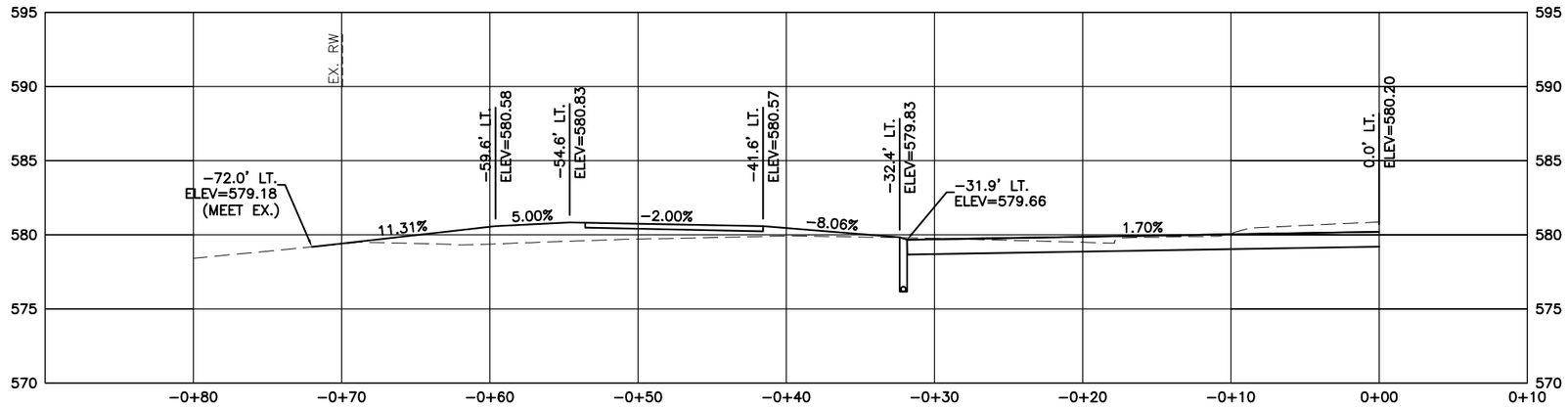
Consultant

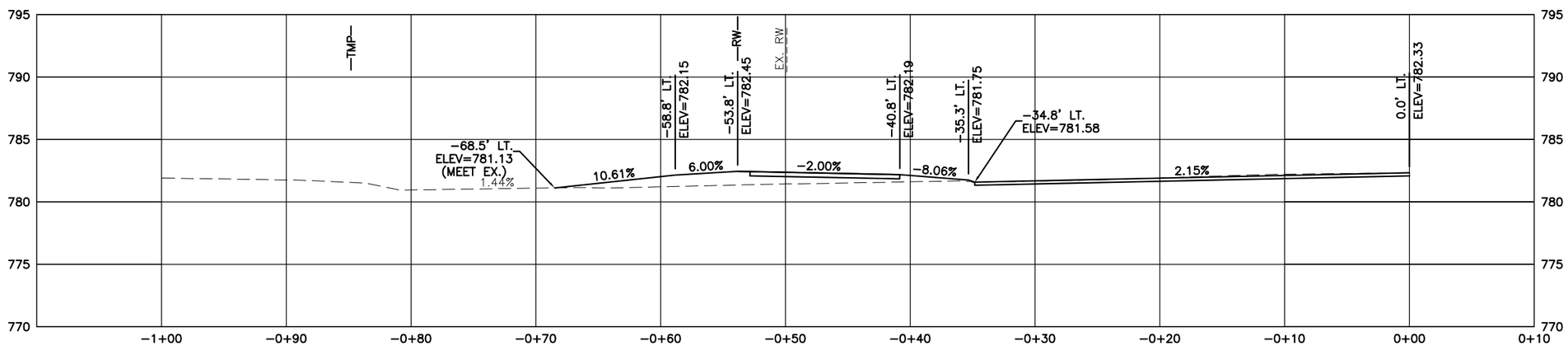
Structure File Number

ACC No.
23124

DRIVE 11+19 LT



DRIVE 48+60 LT

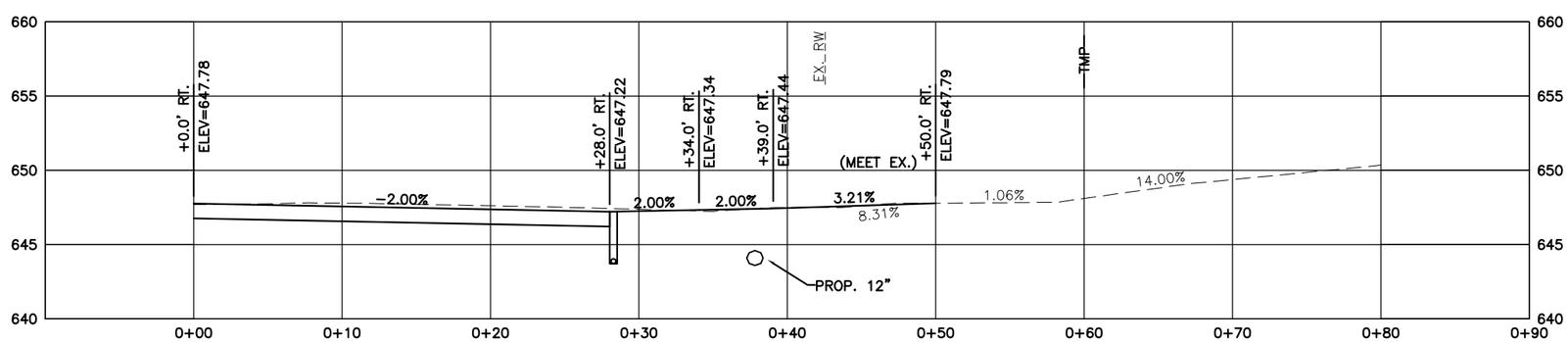


GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

DRIVE 31+02 RT



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRIVE PROFILES

Revisions

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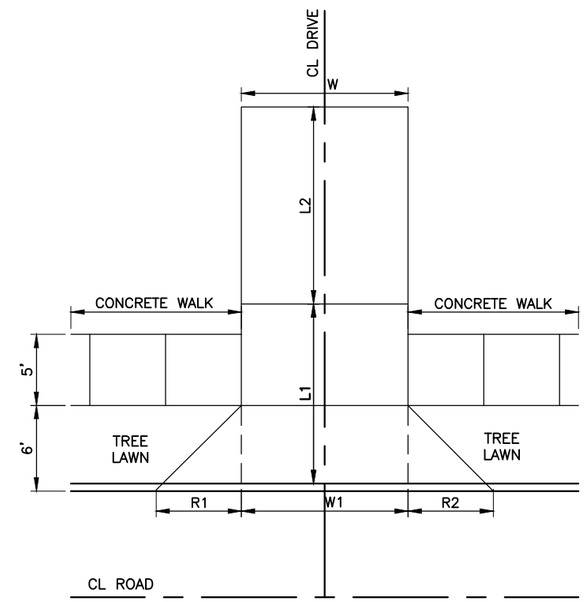
Consultant

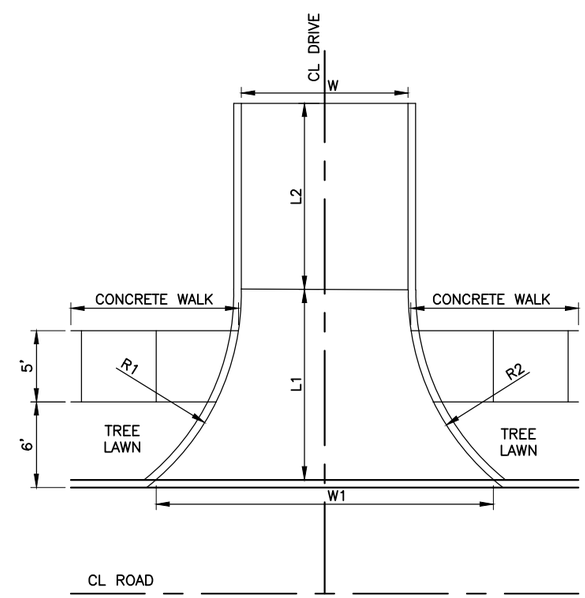
Structure File Number

ACC No.
23124

SHEET NO.	STATION	SIDE	DRIVE TYPE	MATERIAL	DRIVE ANGLE	APRON LENGTH "L1"	DRIVEWAY LENGTH "L2"	DRIVEWAY WIDTH "W"	APRON WIDTH "W1"	R1	R2
					DEG.	FT.	FT.	FT.	FT.	FT.	FT.
16	13+59.17	RT	1	CONCRETE	90	10.5	16	23.62	28	6	6
17	15+60.97	RT	1	ASPHALT	90	13.19	15.57	24	30	6	6
18	18+36.38	RT	1	ASPHALT	90	13.37	5.25	26.71	22	6	6
18	18+82.35	RT	1	ASPHALT	90	13.4	8.19	19.54	20	6	6
19	19+82.33	RT	1	ASPHALT	90	13.44	3.03	31.93	32	1.5	6
19	20+20.25	RT	1	CONCRETE	90	13.61	0	9.3	10	6	6
19	20+86.84	RT	1	CONCRETE	90	15.4	0	25.65	26	6	6
19	21+37.08	RT	1	ASPHALT	90	16.5	0	22.12	22	6	6
19	21+87.29	RT	1	ASPHALT	90	14.26	5.18	23.21	24	6	6
20	22+94.51	RT	1	CONCRETE	90	15.89	6.46	11.74	14	6	6
20	23+26.93	RT	1	CONCRETE	90	16.07	7.64	10.81	14.54	6	6
20	23+75.22	RT	1	ASPHALT	90	16.34	6.03	15.06	16	6	1.5
23	31+04.33	RT	2	ASPHALT	86	21.38	0	32.85	74.47	15	15
30	48+60.65	LT	1	ASPHALT	91	18	22.13	39.6	19	3	6



DRIVEWAY 1



DRIVEWAY 2

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TYPICAL SECTIONS

Revisions

No.			

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Designed by Date
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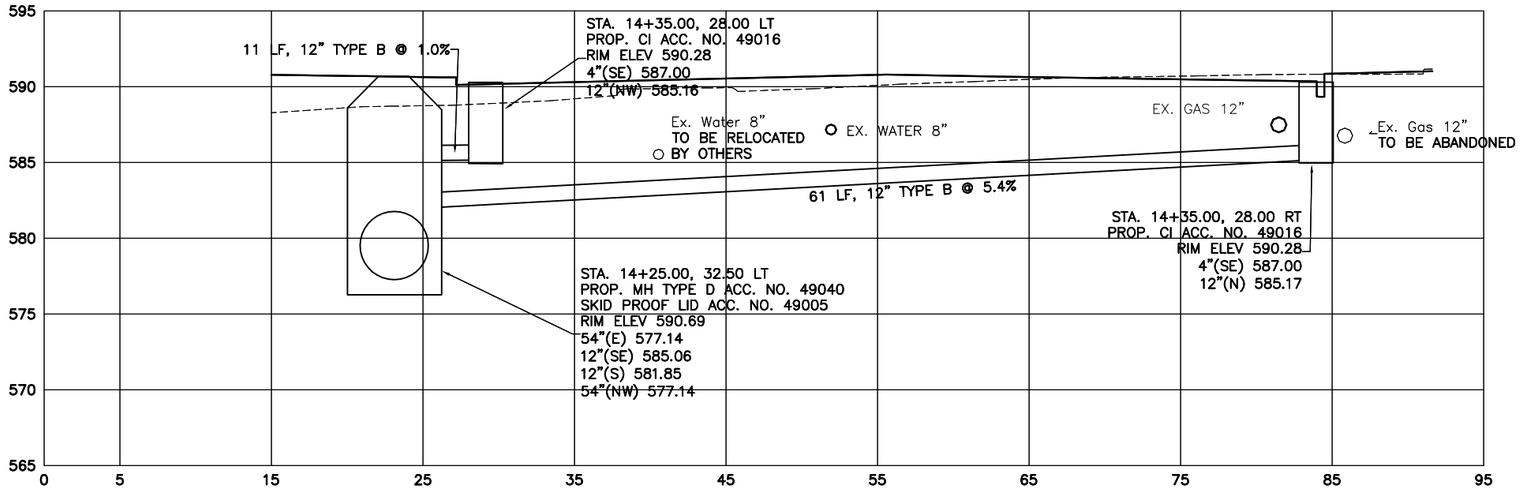
Consultant

Structure File Number

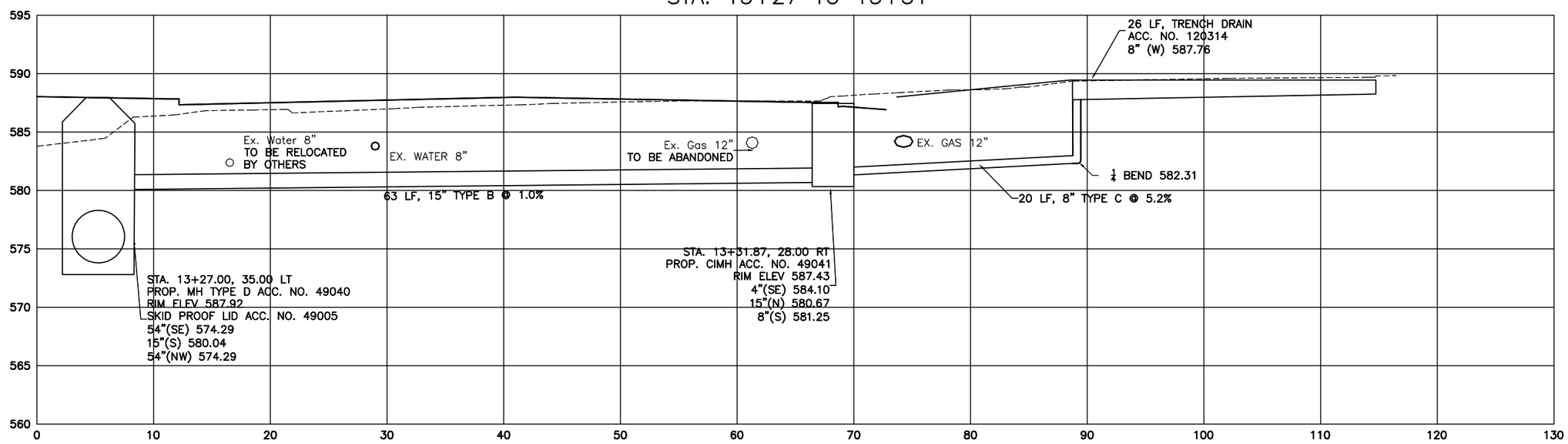
ACC No.
23124

97A
155

STA. 14+25 TO 14+35



STA. 13+27 TO 13+31



GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRAINAGE PROFILES

Revisions

No.				

Drawn by ____ Date ____
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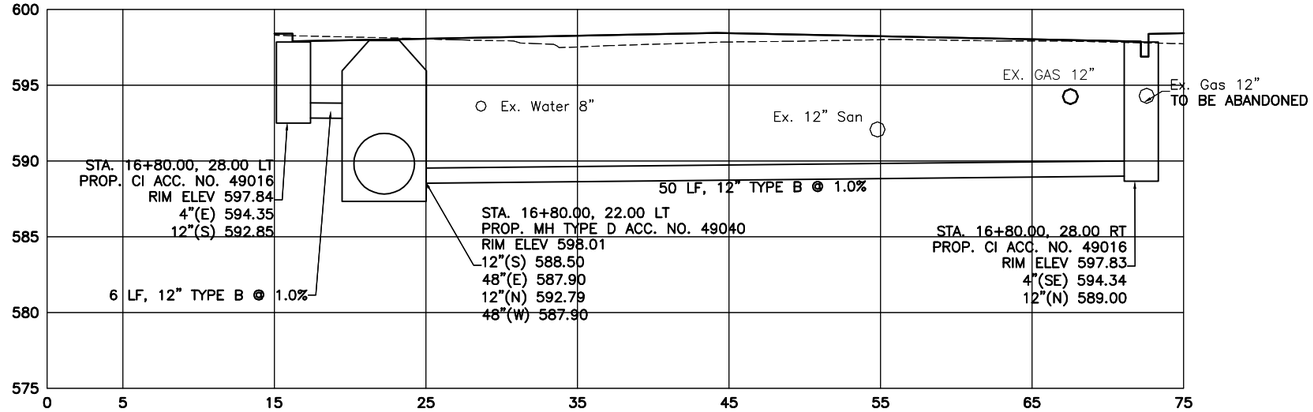
Reviewed by ____ Date ____

Consultant

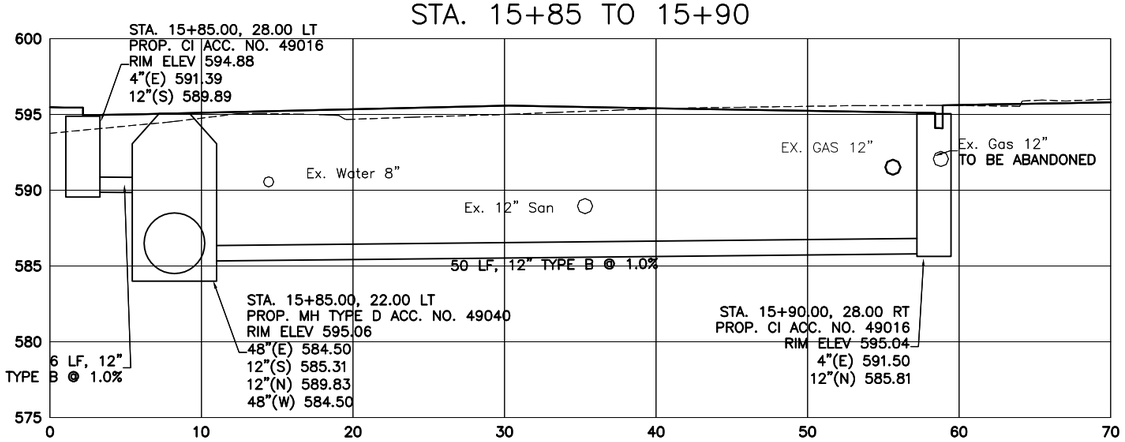
Structure File Number

ACC No.
23124

STA. 16+80



STA. 15+85 TO 15+90



GRAPHIC SCALE

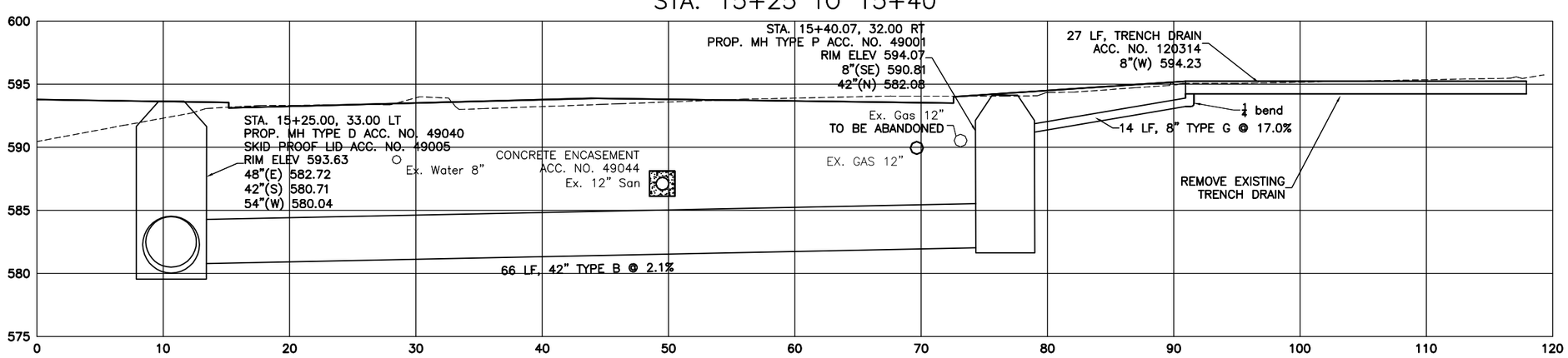
5 0 2.5 5 10 20

(IN FEET)

1 inch = 5 ft. Full Size

1 inch = 10 ft. Half Size

STA. 15+25 TO 15+40



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
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DRAINAGE PROFILES

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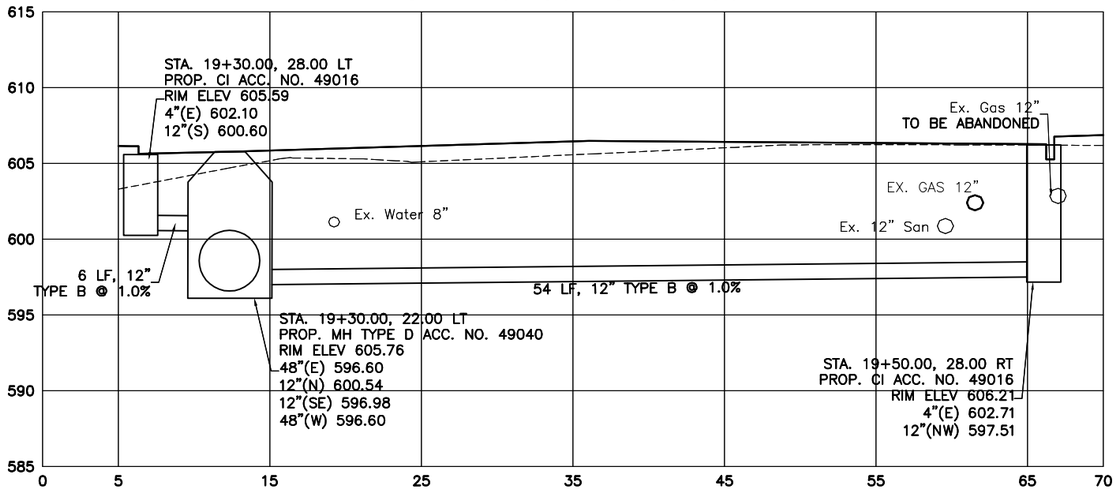
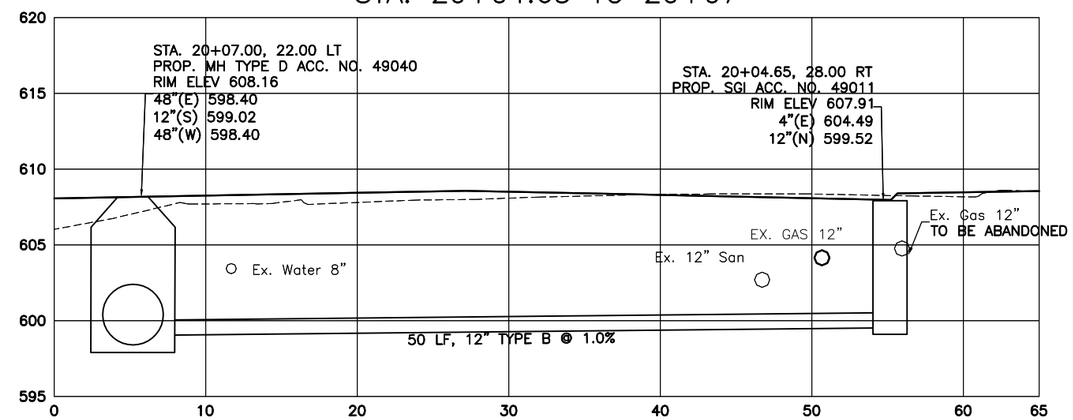
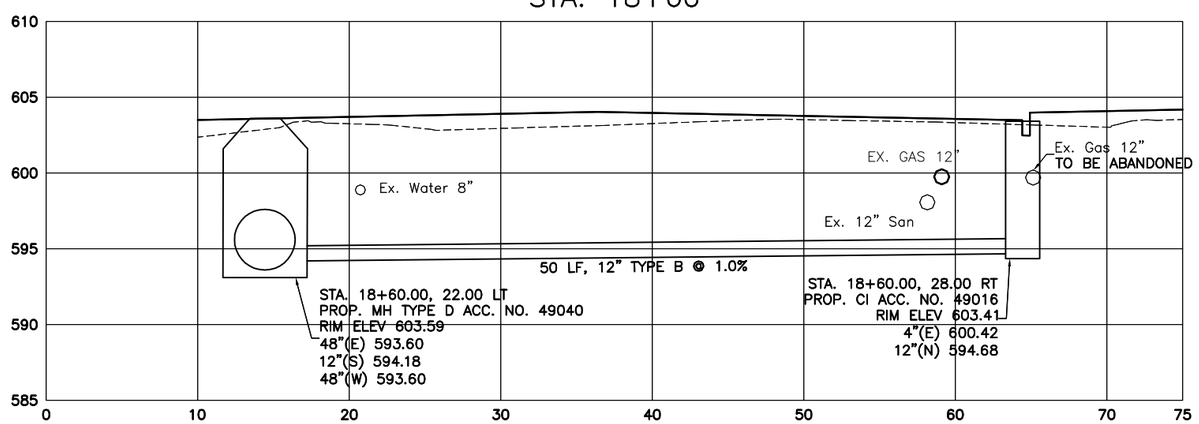
STA. 19+30 TO 19+50



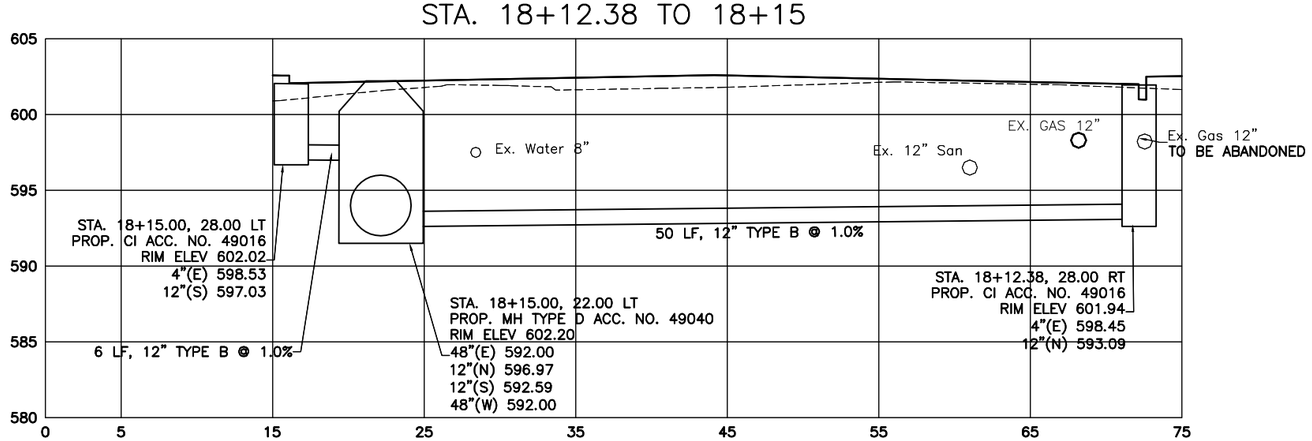
STA. 20+04.65 TO 20+07



STA. 18+60



STA. 18+12.38 TO 18+15



GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)

1 inch = 5 ft. Full Size

1 inch = 10 ft. Half Size

CONTRACT DRAWING

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Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRAINAGE PROFILES

Revisions

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Drawn by ____ Date ____

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Checked by ____ Date ____

Reviewed by ____ Date ____

Consultant

Structure File Number

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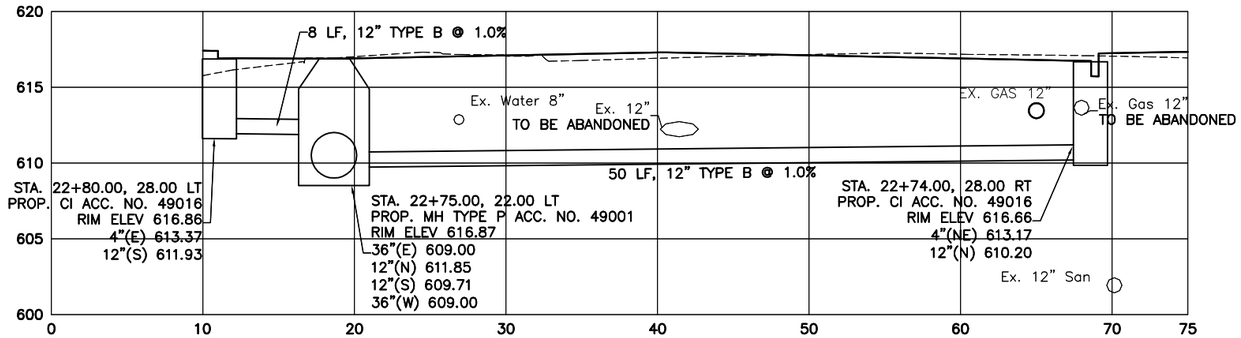
GRAPHIC SCALE

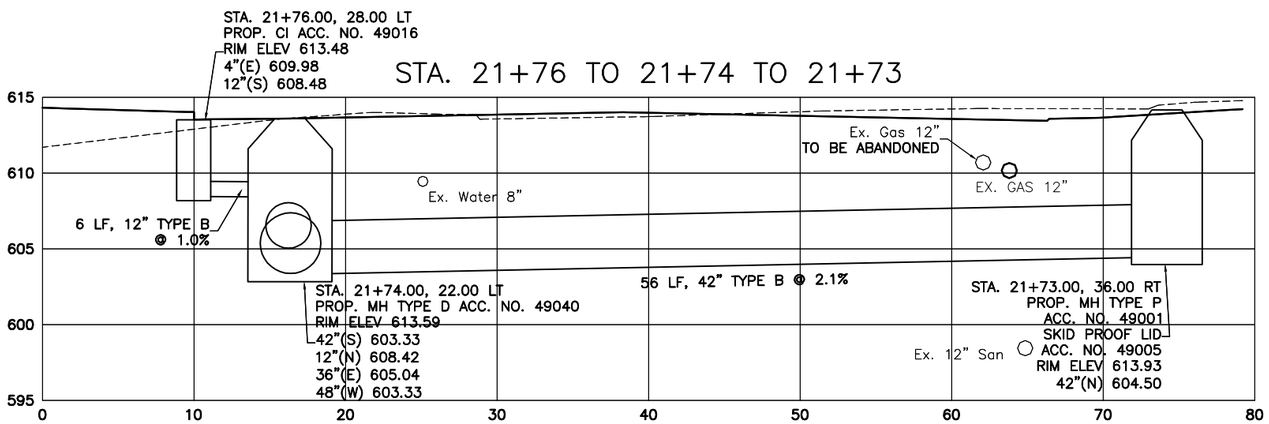
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

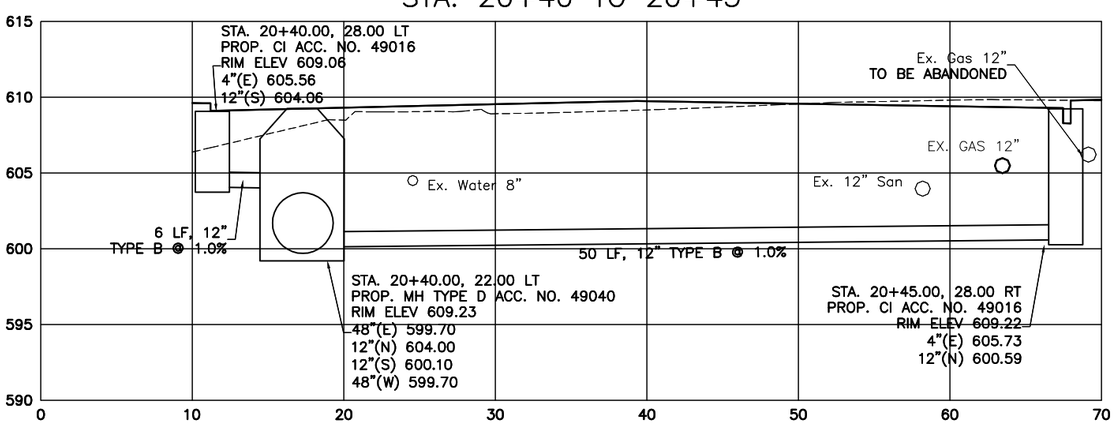
STA. 22+74 TO 22+75 TO 22+80



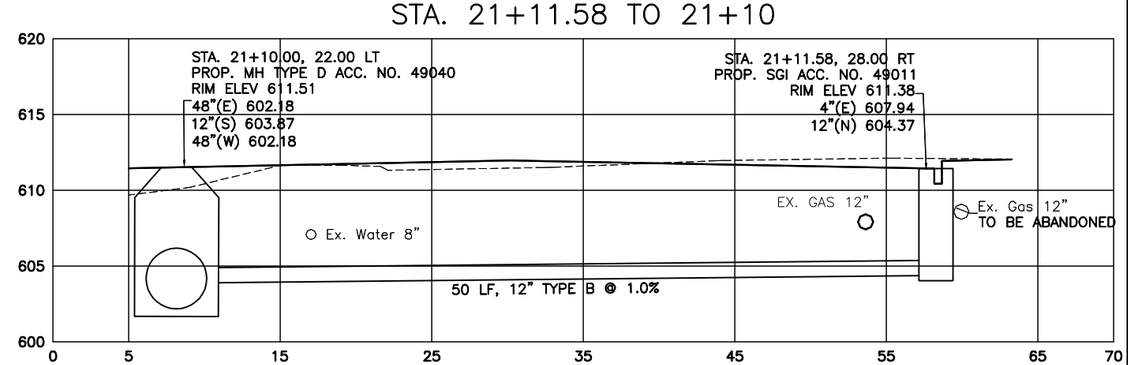
STA. 21+76 TO 21+74 TO 21+73



STA. 20+40 TO 20+45



STA. 21+11.58 TO 21+10



CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRAINAGE PROFILES

Revisions

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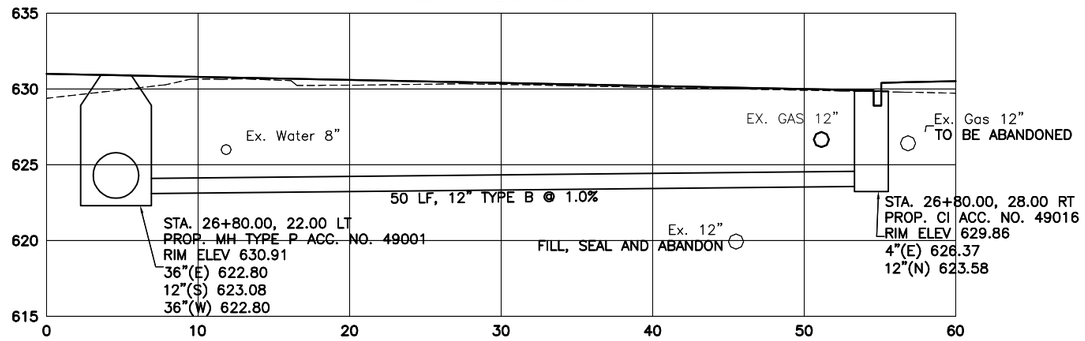
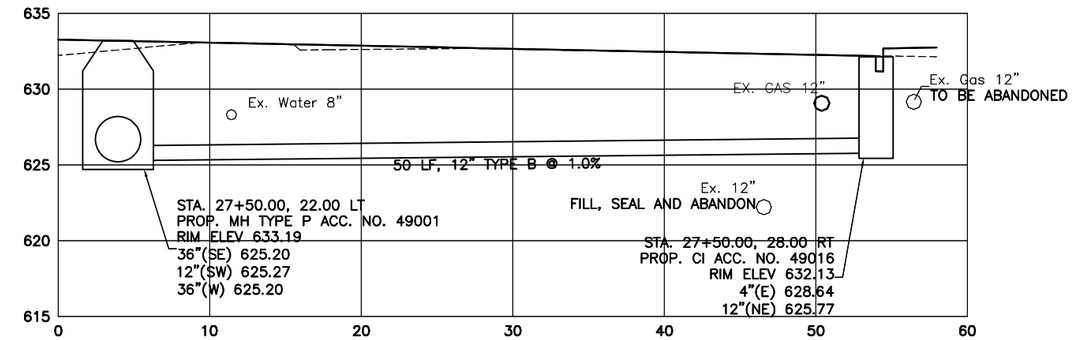
ACC No.
23124

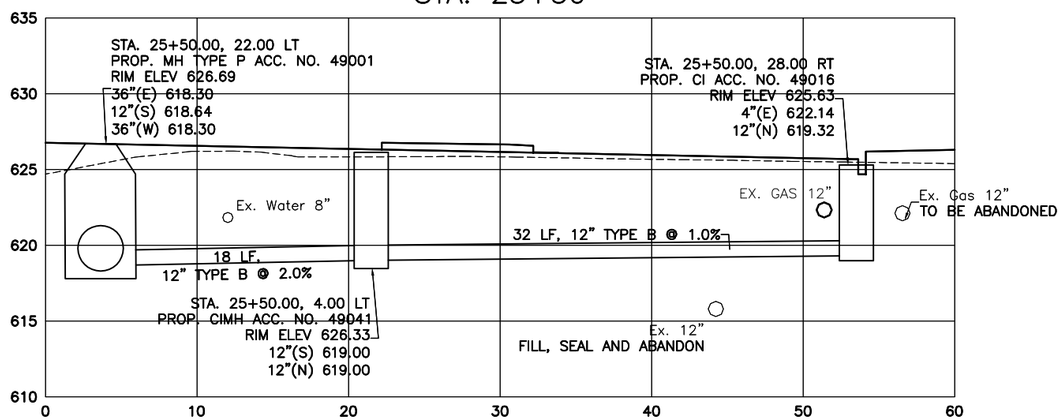
STA. 26+80



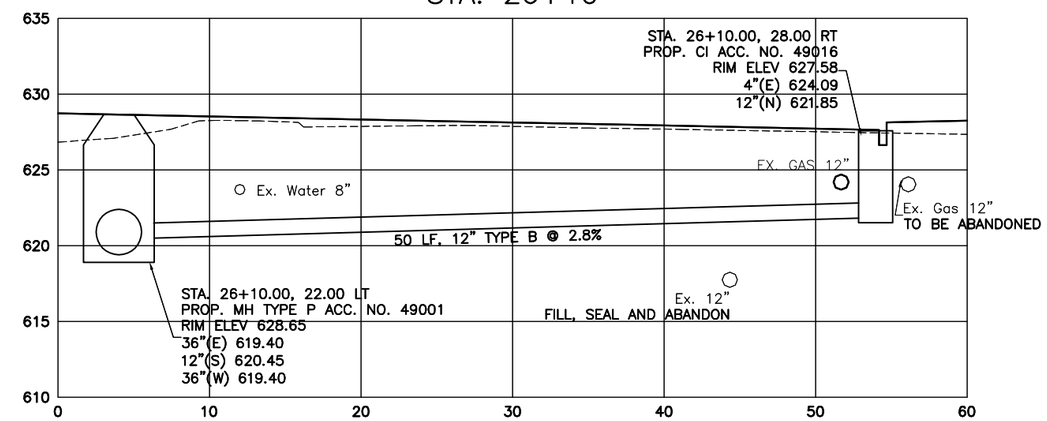
STA. 27+50



STA. 25+50



STA. 26+10



GRAPHIC SCALE

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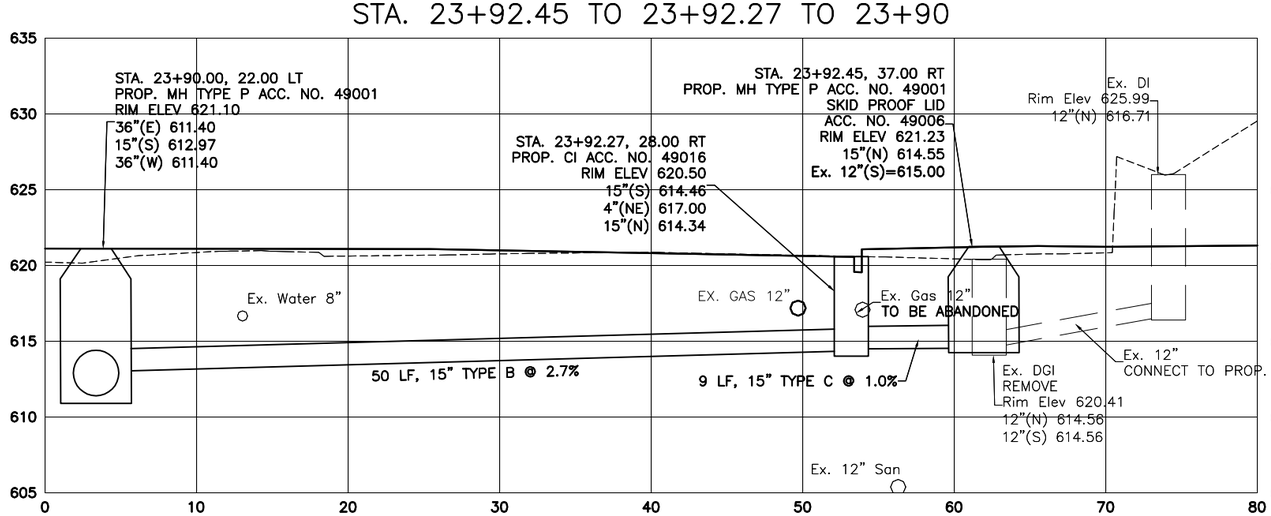
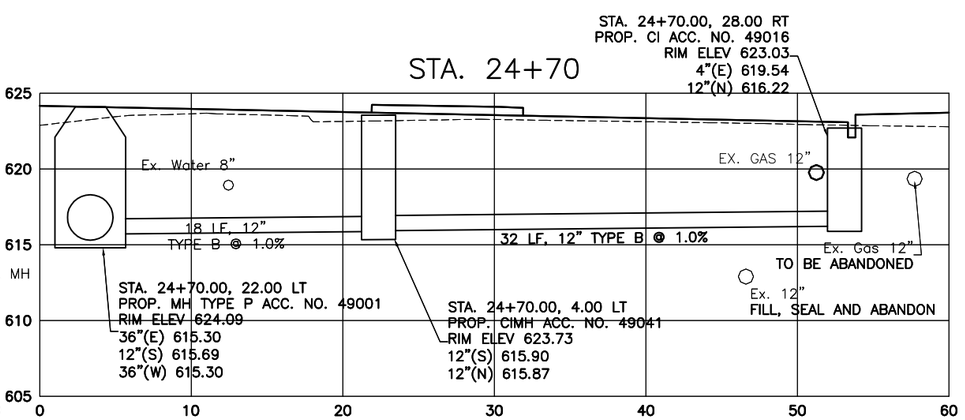
(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

STA. 23+92.45 TO 23+92.27 TO 23+90



STA. 24+70



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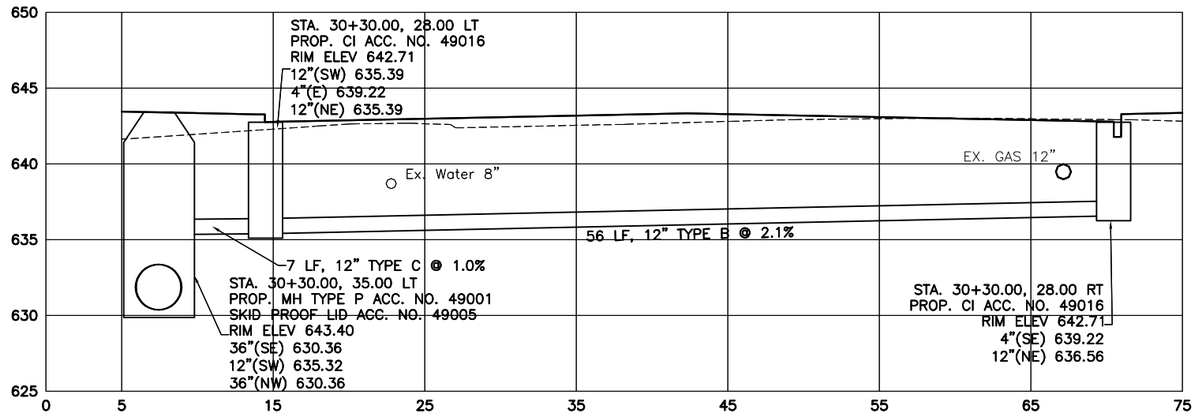
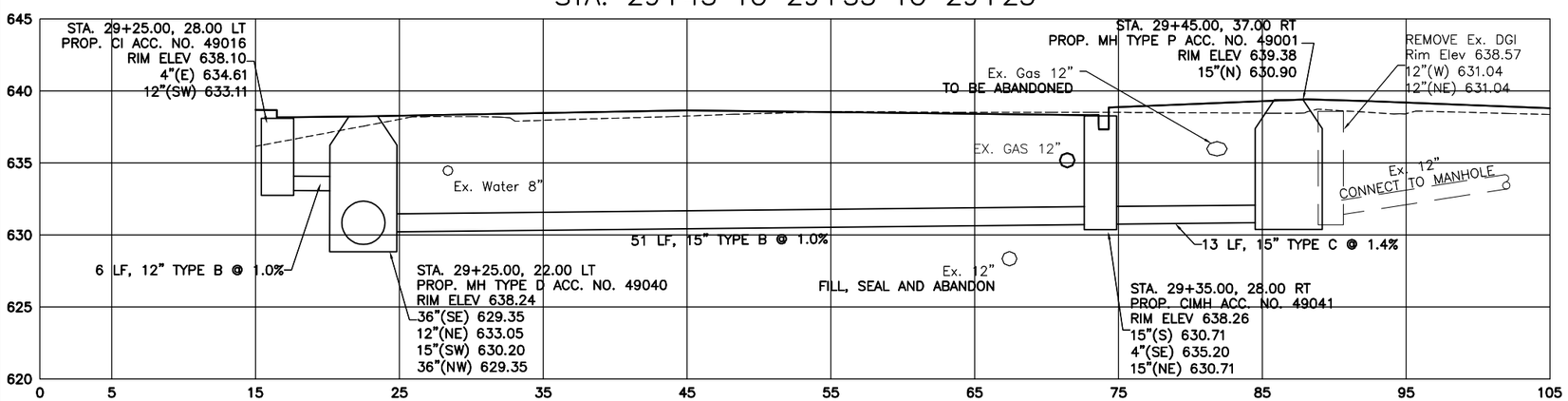
STA. 30+30



STA. 29+45 TO 29+35 TO 29+25



GRAPHIC SCALE

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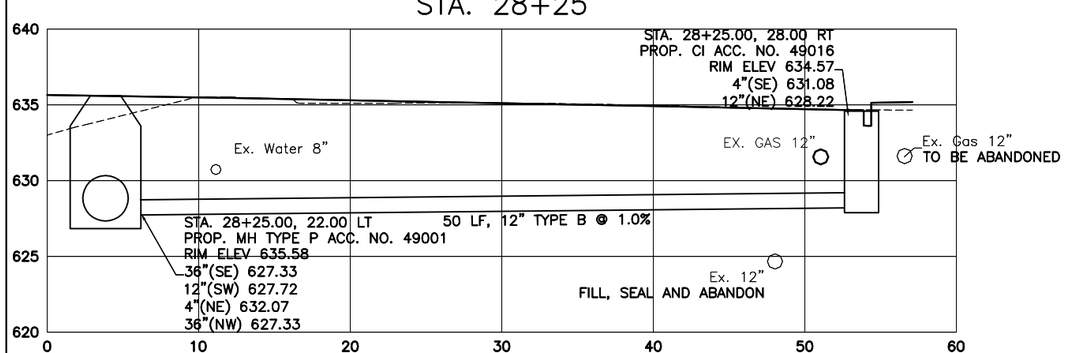
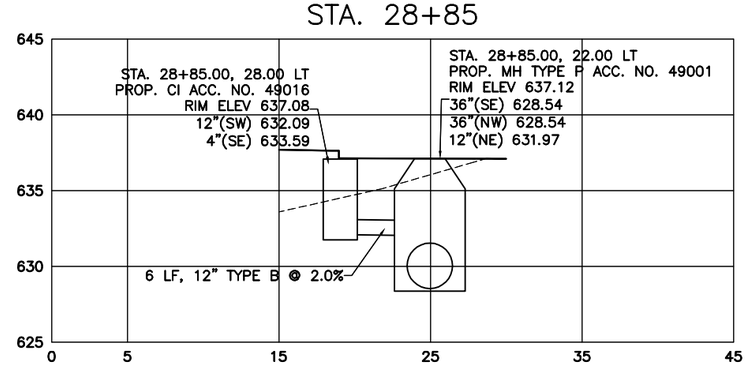
(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

STA. 28+25



STA. 28+85



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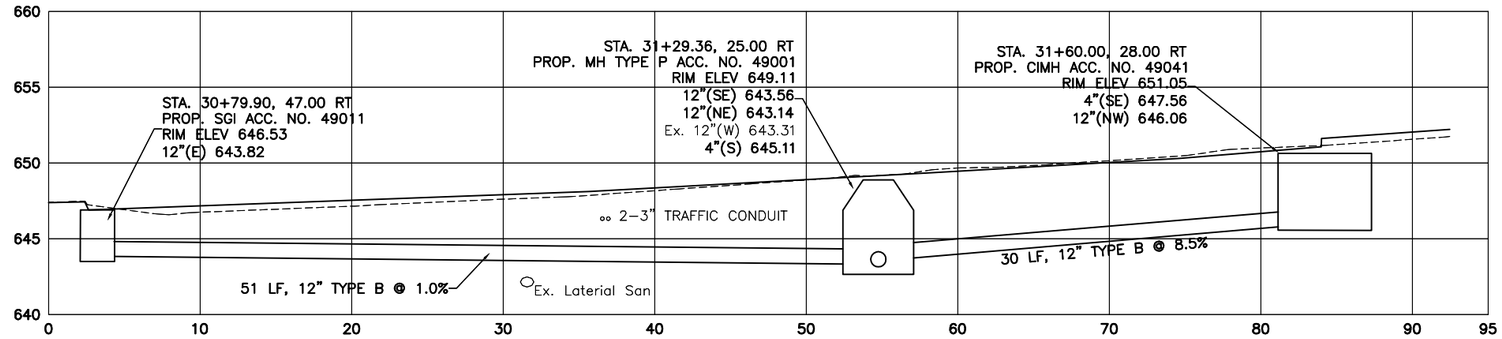
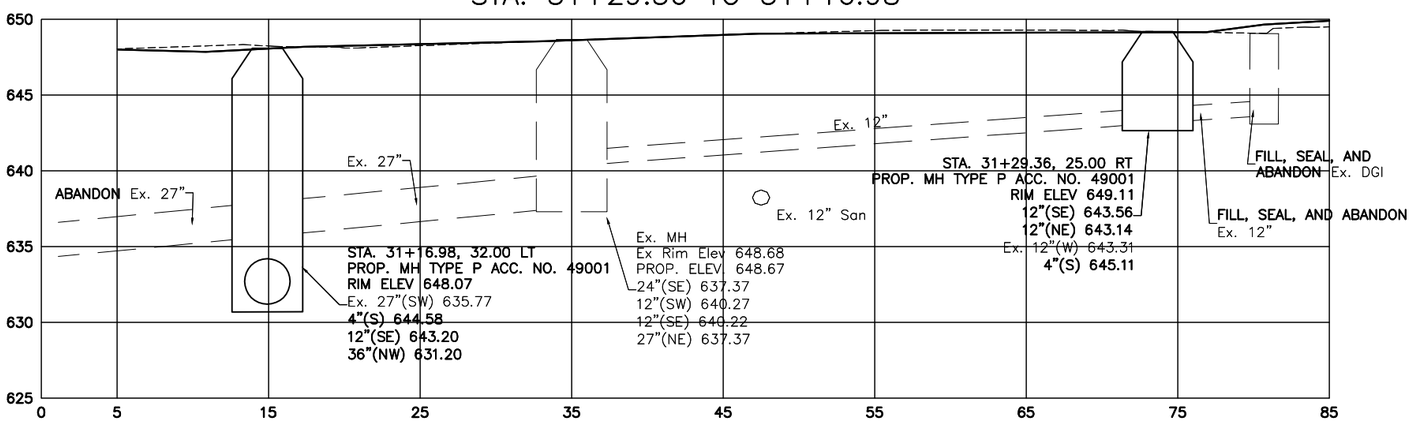
STA. 30+79.90 TO 31+29.36 TO 31+60.00



STA. 31+29.36 TO 31+16.98



GRAPHIC SCALE

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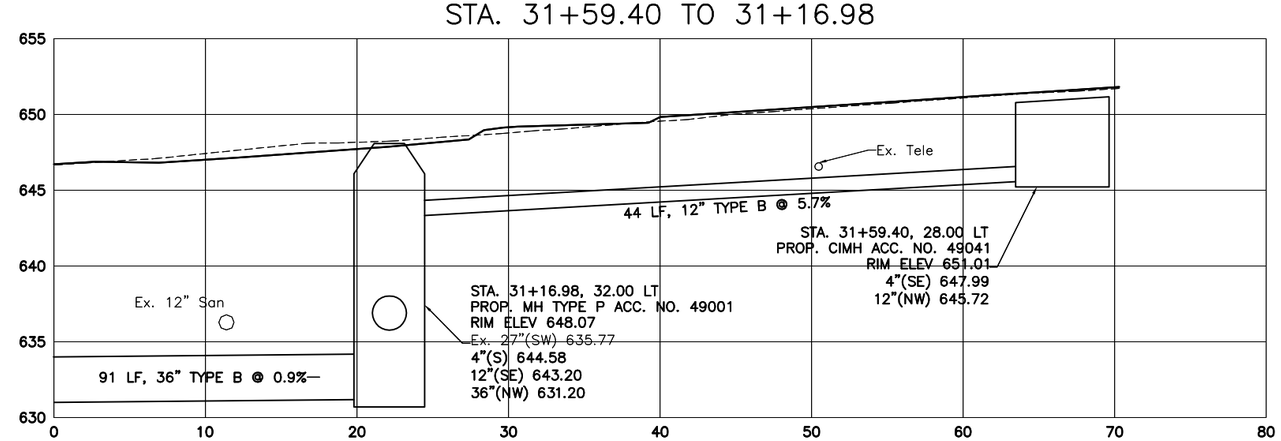
(IN FEET)

1 inch = 5 ft. Full Size

1 inch = 10 ft. Half Size

STA. 31+59.40 TO 31+16.98



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI OHIO

CONTRACT DRAWING

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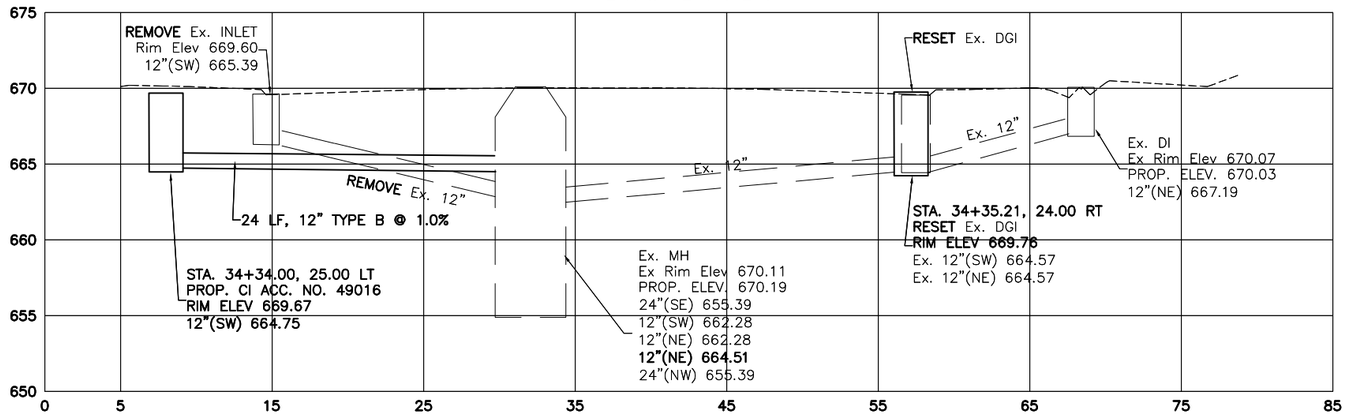
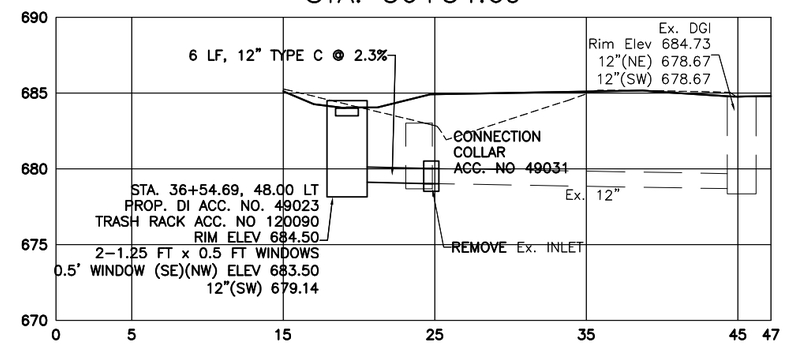
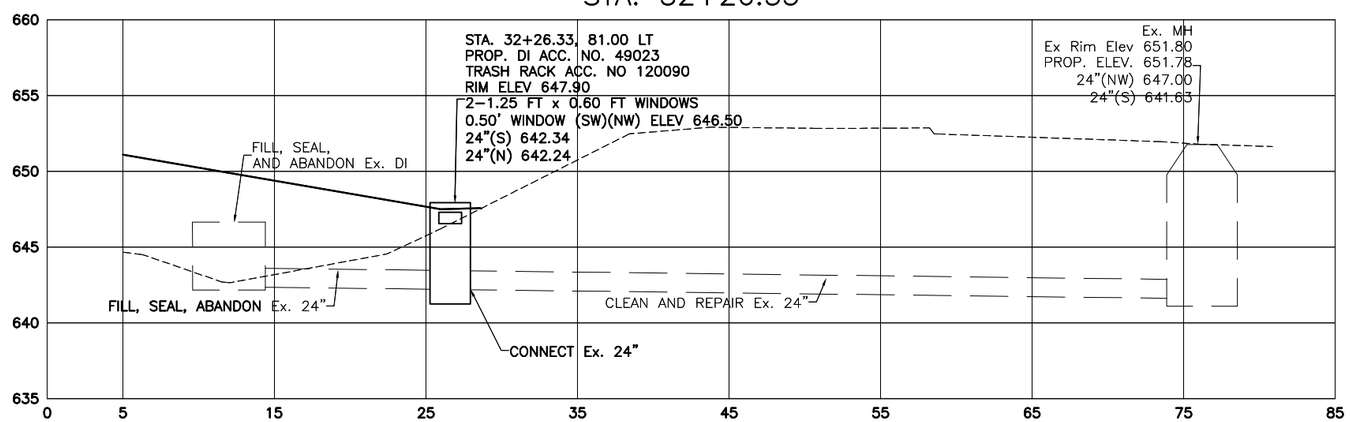
STA. 34+34



STA. 36+54.69



STA. 32+26.33

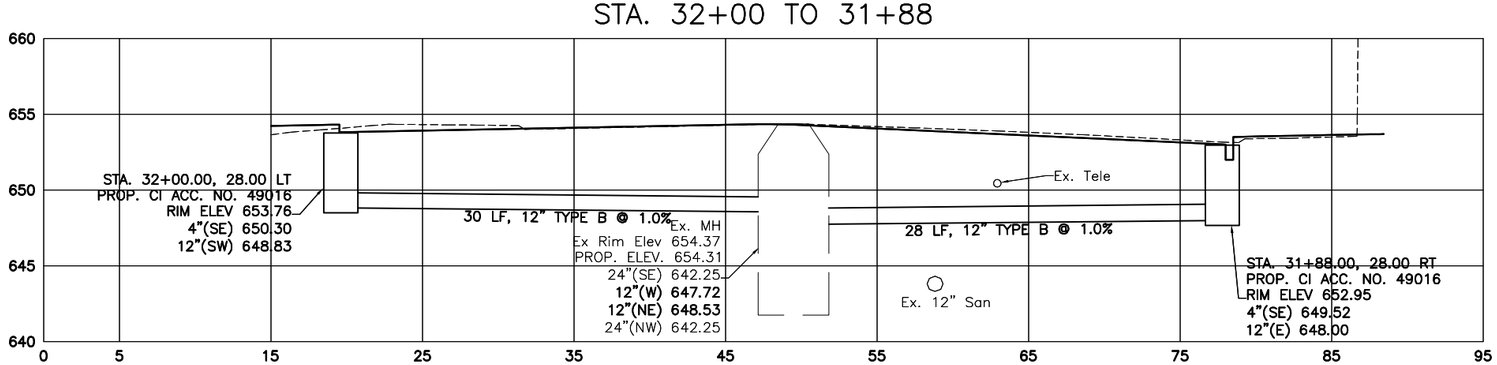


GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

STA. 32+00 TO 31+88



CONTRACT DRAWING

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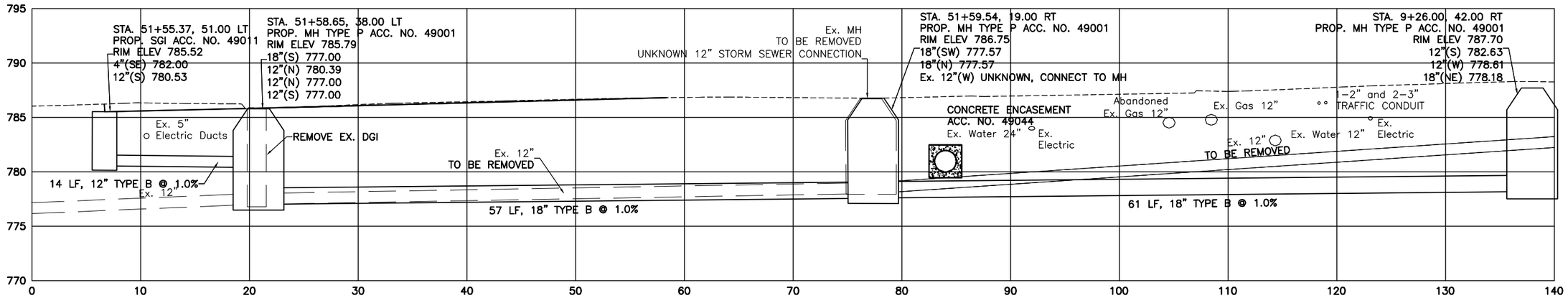
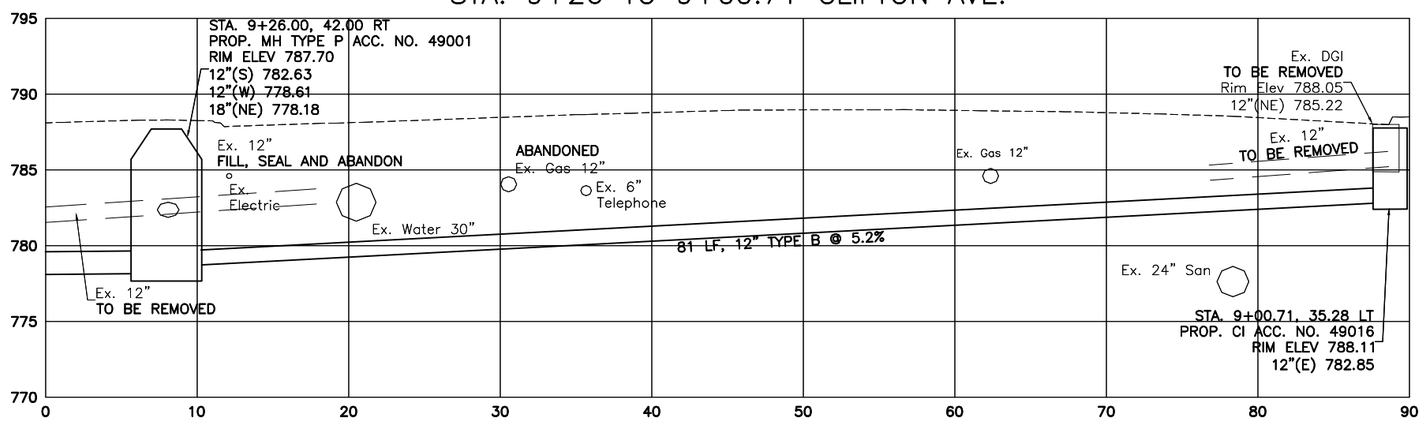
23124

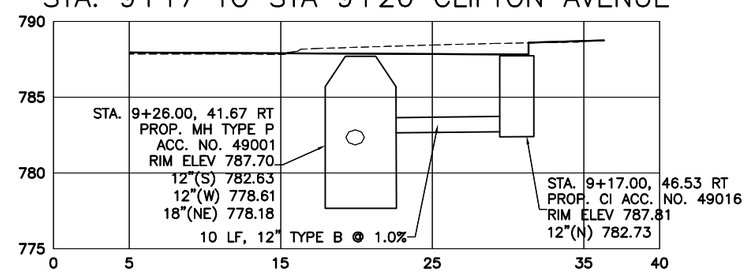
STA. 51+55.37 TO 51+58.65 TO 51+59.54 TO CLIFTON AVE 9+26



STA. 9+26 TO 9+00.71 CLIFTON AVE.



STA. 9+17 TO STA 9+26 CLIFTON AVENUE

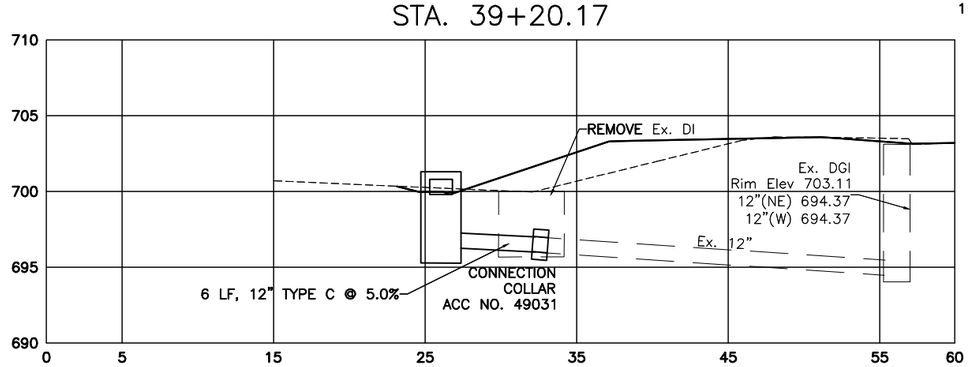


GRAPHIC SCALE

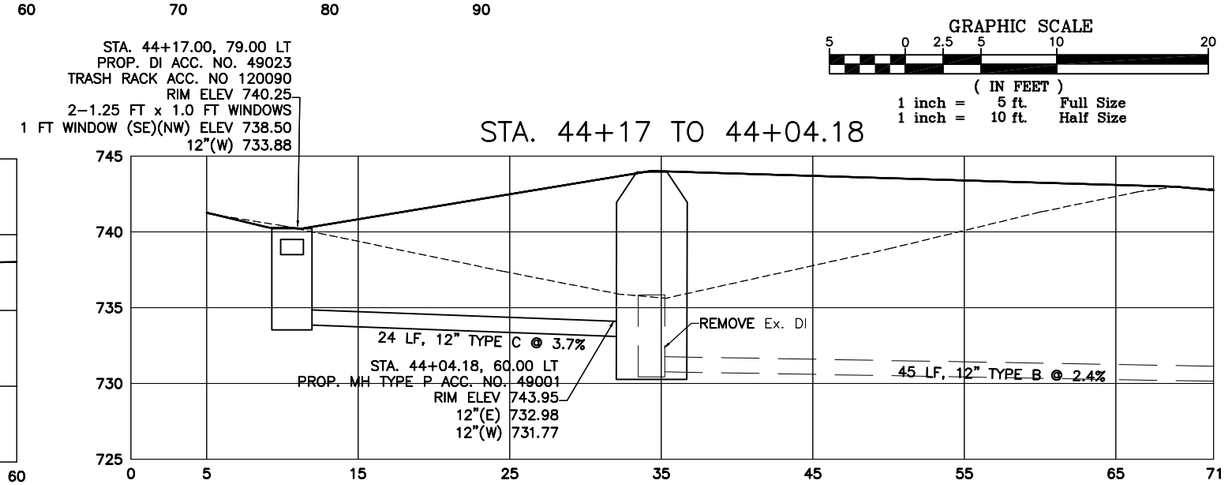
5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

STA. 39+20.17



STA. 44+17 TO 44+04.18



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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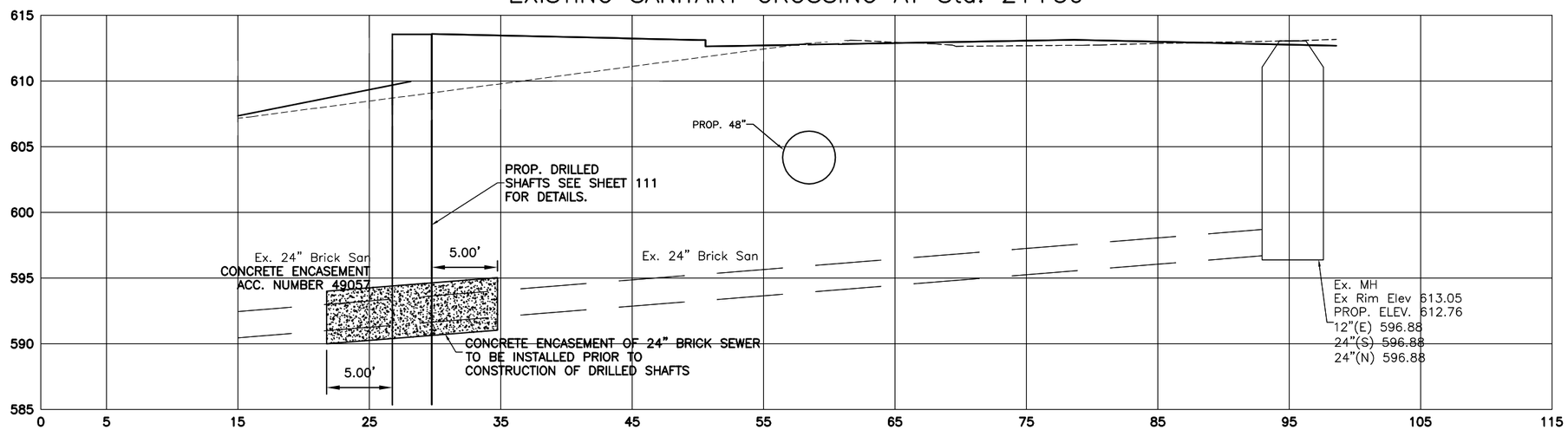
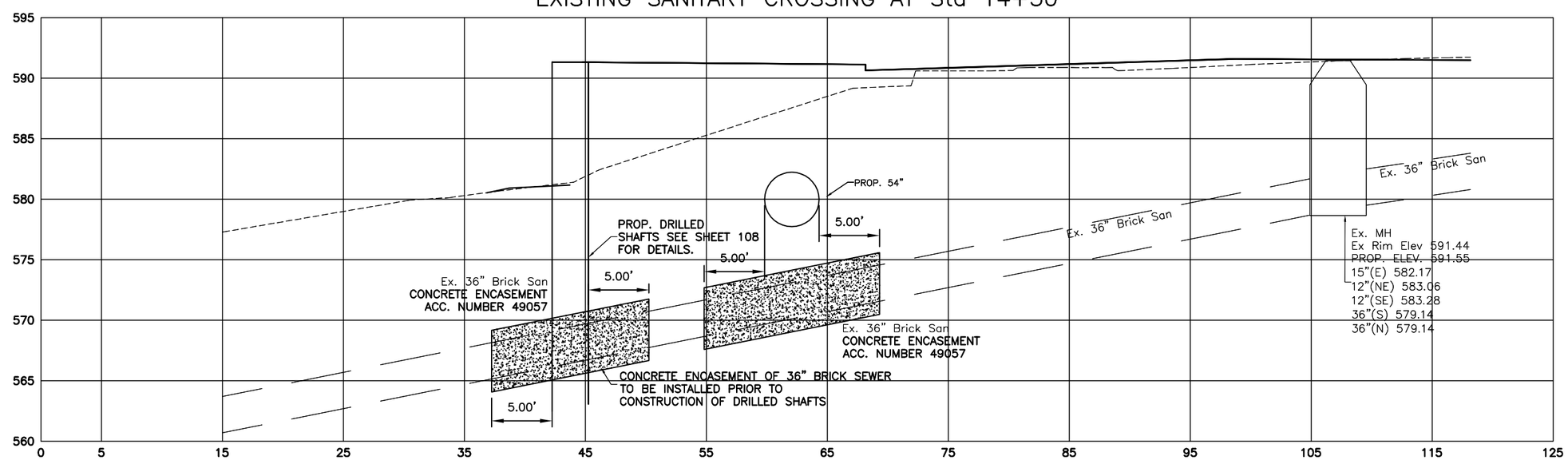
23124

EXISTING SANITARY CROSSING AT Sta. 21+50



EXISTING SANITARY CROSSING AT Sta 14+50



GRAPHIC SCALE

5 0 2.5 5 10 20

(IN FEET)
1 inch = 5 ft. Full Size
1 inch = 10 ft. Half Size

CONTRACT DRAWING

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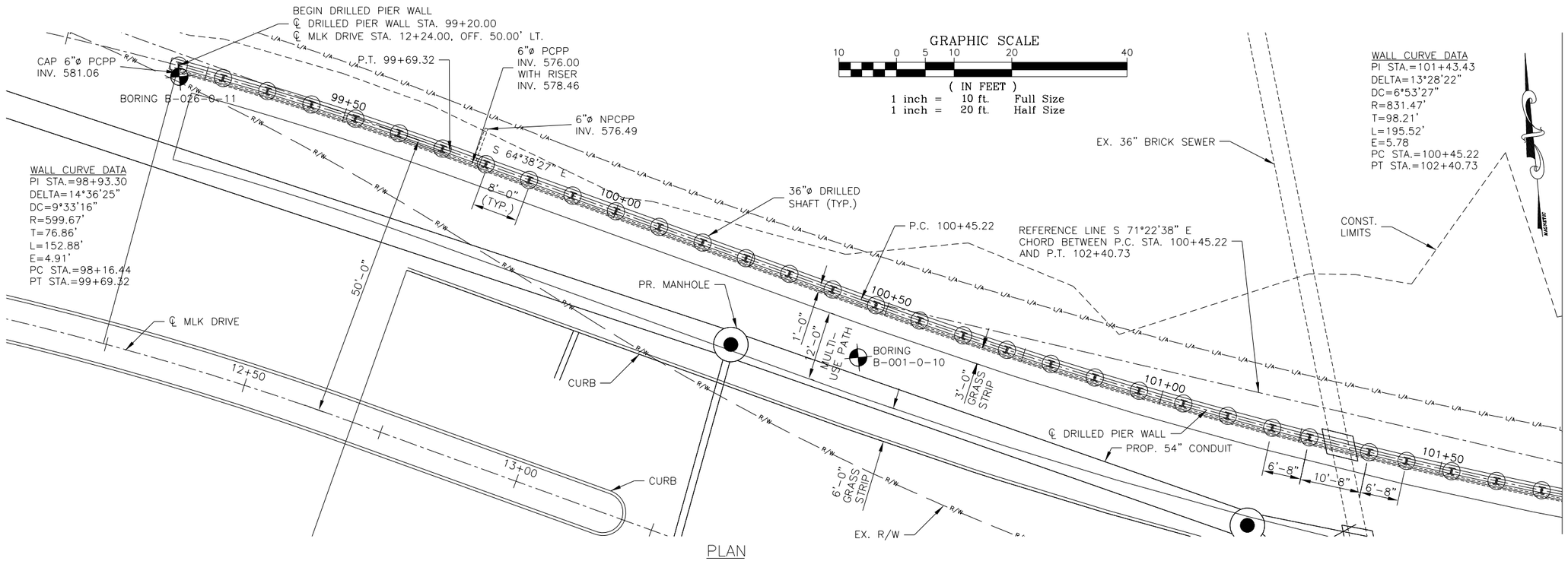
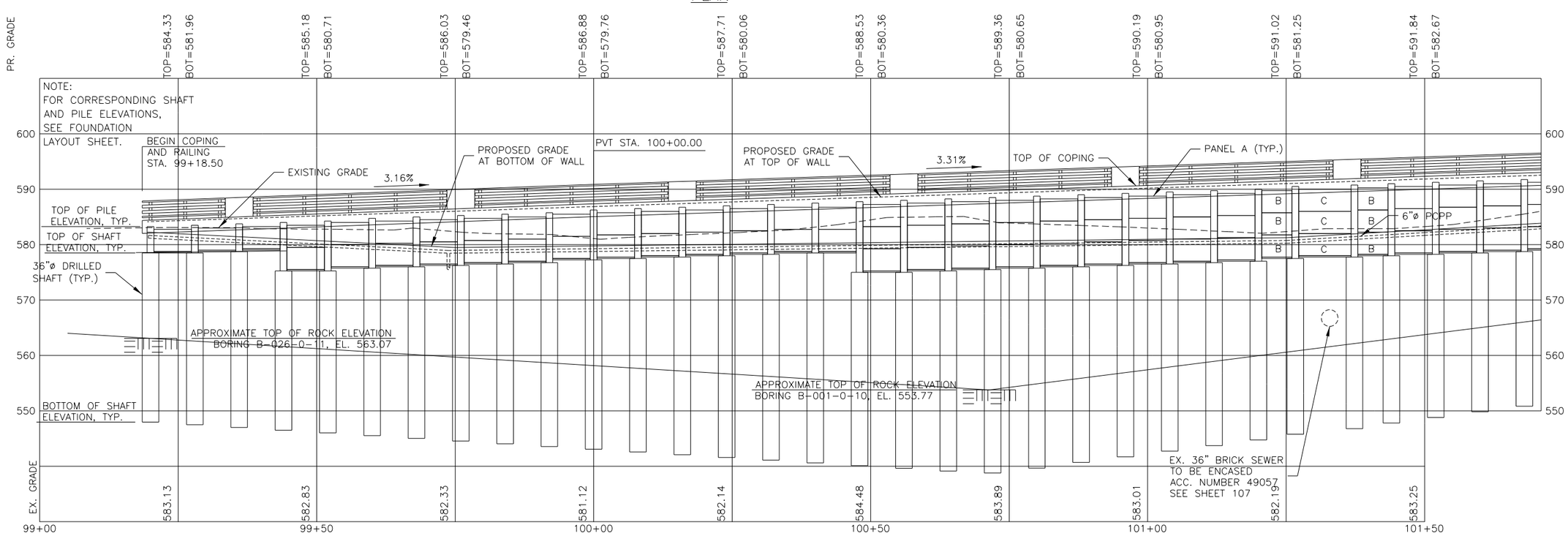


PLAN



ELEVATION

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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City of Cincinnati
City Hall
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HAM-CR 612-0.20
DRILLED PIER WALL
SITE PLAN STA 99+20 TO 101+75

Revisions

No.			

Drawn by RBK	Date 10/28/11	Designed by EJM	Date 10/28/11
Checked by DAT	Date 10/28/11	Reviewed by REM	Date 10/13/11

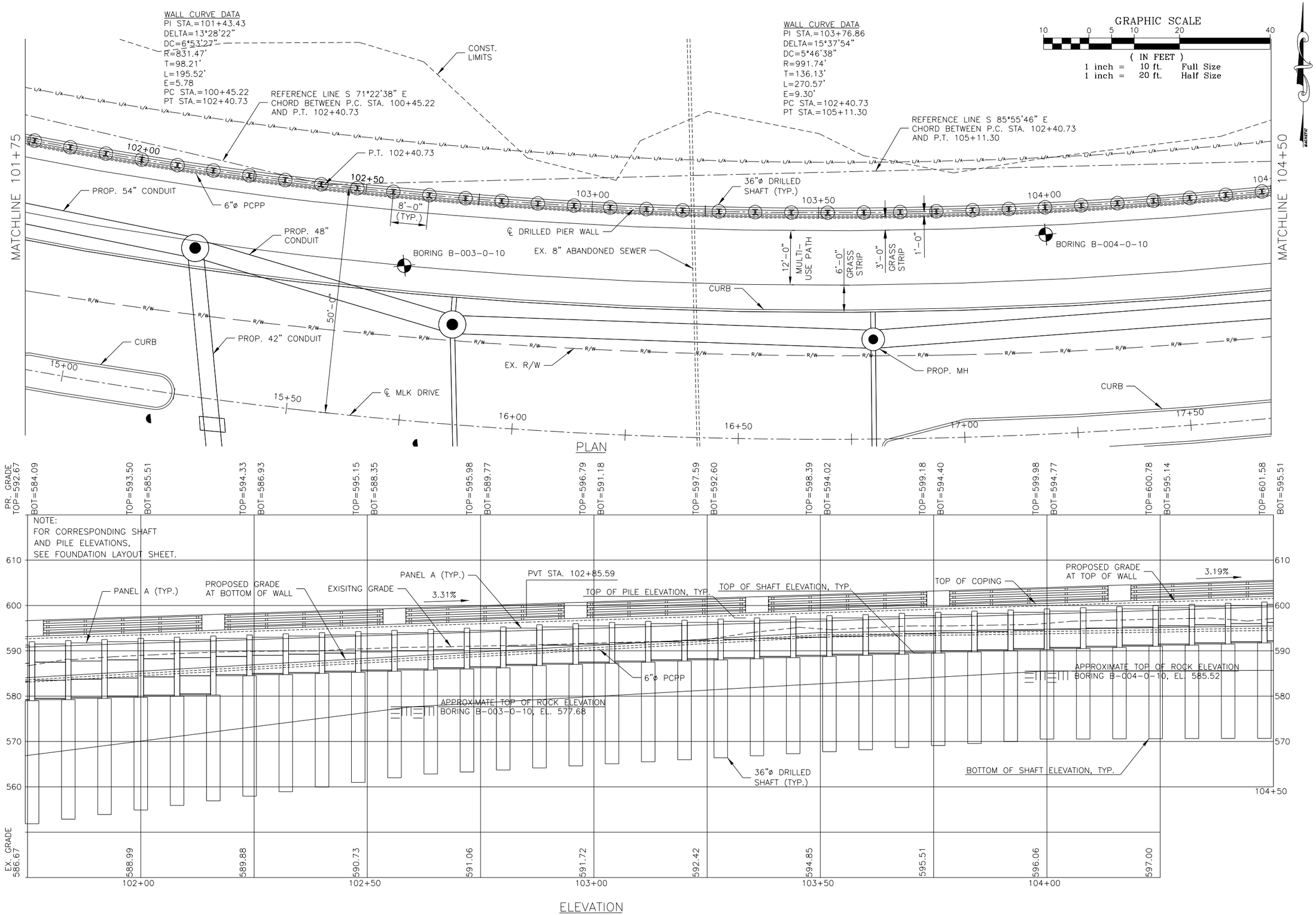
Consultant

Structure File Number

ACC No. 23124

1 / 11

108 / 155



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

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City Hall
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HAM-CR 612-0.20
DRILLED PIER WALL
SITE PLAN STA 101+75 TO 104+50

Revisions

No.		

Drawn by RBK	Date 10/28/11
Designed by EJM	Date 10/28/11
Checked by DAT	Date 10/28/11
Reviewed by REM	Date 10/13/11

Consultant

Structure File Number

ACC No. 23124

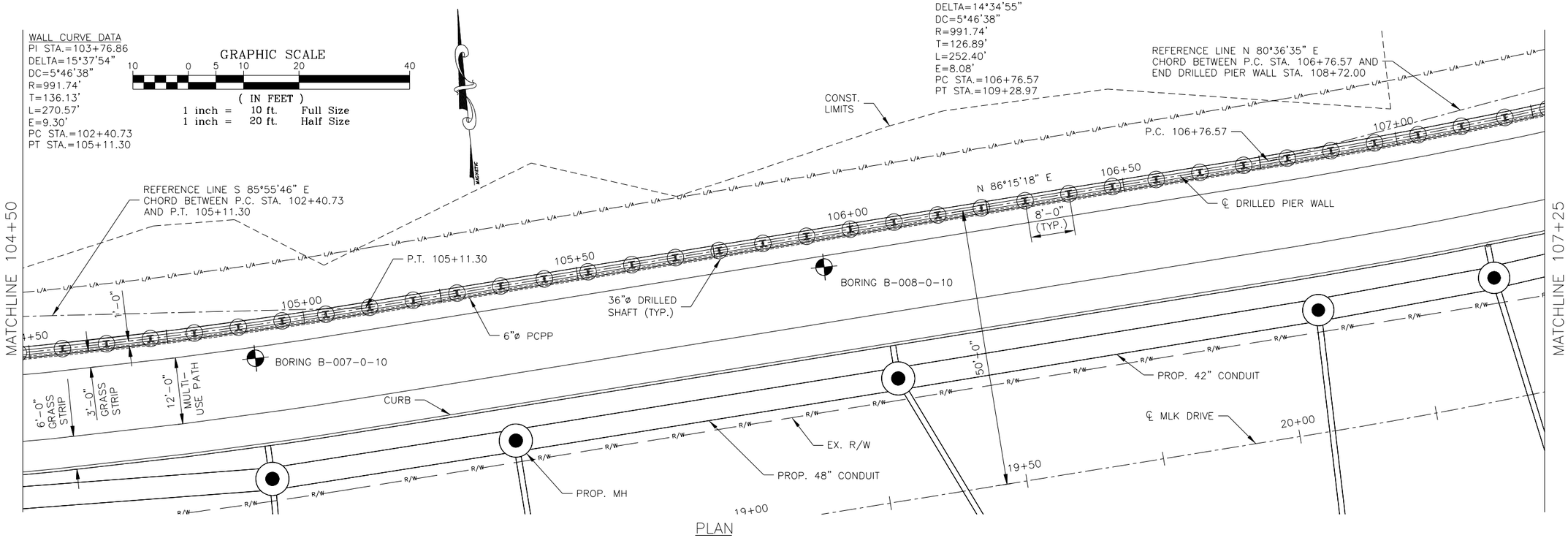
2 / 11

109 / 155

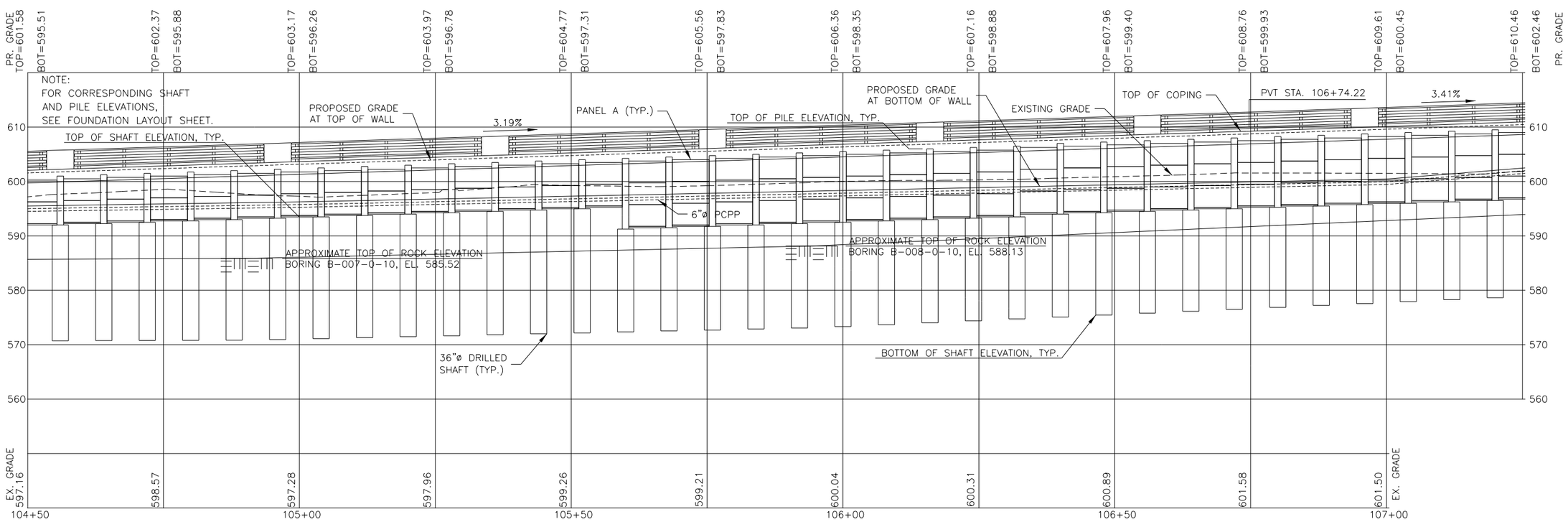
WALL CURVE DATA
PI STA.=103+76.86
DELTA=15°37'54"
DC=5°46'38"
R=991.74'
T=136.13'
L=270.57'
E=9.30'
PC STA.=102+40.73
PT STA.=105+11.30

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

WALL CURVE DATA
PI STA.=108+03.45
DELTA=14°34'55"
DC=5°46'38"
R=991.74'
T=126.89'
L=252.40'
E=8.08'
PC STA.=106+76.57
PT STA.=109+28.97



PLAN



ELEVATION

CONTRACT DRAWING

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DRILLED PIER WALL
SITE PLAN STA 104+50 TO 107+25

Revisions
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Drawn by RBK	Date 10/28/11
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Checked by DAT	Date 10/28/11
Reviewed by REM	Date 10/13/11

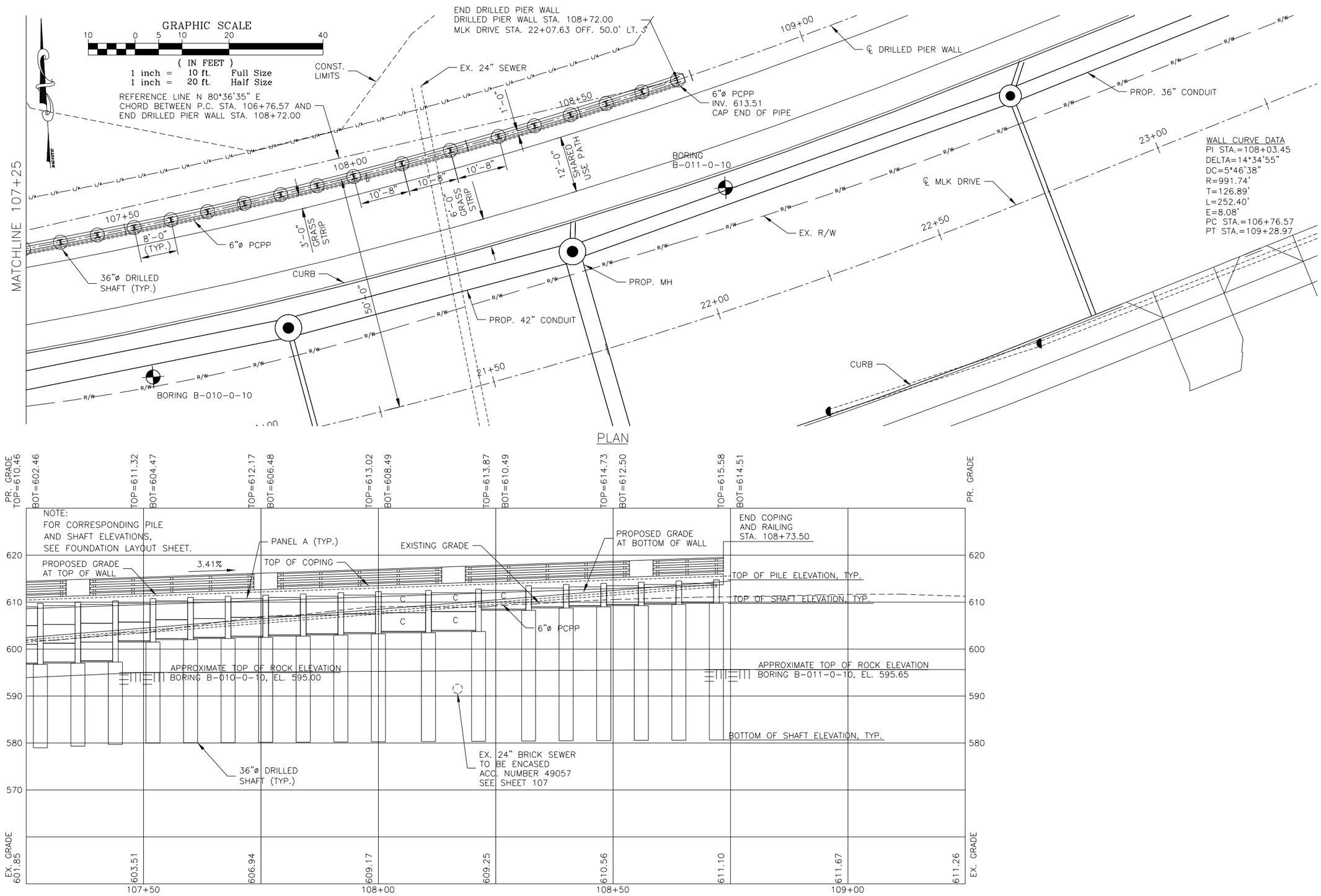
Consultant

Structure File Number

ACC No.
23124

3 / 11

110
155



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CONTRACT DRAWING

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DRILLED PIER WALL
SITE PLAN STA 107+25 TO 108+72

Revisions

No.		

Drawn by RBK	Date 10/28/11
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Reviewed by REM	Date 10/13/11

Consultant

Structure File Number

ACC No. 23124

4 / 11

111 / 155

GENERAL NOTES

DESIGN SPECIFICATIONS:
THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2010 AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN ASSUMPTIONS:
UNIT WEIGHT OF BACKFILL = 120 PSF
ANGLE OF INTERNAL FRICTION OF RETAINED SOIL = 32°
LIVE LOAD SURCHARGE = 2 FT.
RANKINE EARTH PRESSURE USED TO CALCULATE SOIL PRESSURE;
LATERAL ACTIVE EARTH PRESSURE COEFFICIENT, Ka = 0.307 (NEW FILL)
LATERAL ACTIVE EARTH PRESSURE COEFFICIENT, Ka = 0.589 (TOP OF DRILLED SHAFT)
LATERAL PASSIVE EARTH PRESSURE COEFFICIENT, Kp = 1.698
RETAINED SOIL MATERIAL IS NON-COHESIVE AND DRAINED.

DESIGN DATA:
CONCRETE CLASS QC1 – COMPRESSIVE STRENGTH 4.0 KSI (COPING AND PILASTERS)
CONCRETE CLASS QC1 – COMPRESSIVE STRENGTH 4.0 KSI (PANELS)
CONCRETE CLASS QC1 – COMPRESSIVE STRENGTH 4.0 KSI (DRILLED SHAFT)
REINFORCING STEEL – MINIMUM YIELD STRENGTH 60 KSI
STRUCTURAL STEEL – ASTM A709 GRADE 50 – YIELD STRENGTH 50 KSI
STEEL H-PILES – ASTM A572 – YIELD STRENGTH 50 KSI

ITEM 507 – STEEL PILES, MISC.: SOLDIER PILES:
THIS WORK CONSISTS OF FURNISHING AND PLACING STEEL SOLDIER PILES INTO DRILLED HOLES. FURNISH SOLDIER PILES CONSISTING OF STRUCTURAL STEEL MEMBERS THAT MEET THE PLAN REQUIREMENTS AND CONFORM TO ASTM A572, GRADE 50. GALVANIZE SOLDIER PILES AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH CMS 711.02. DO NOT FIELD WELD OR SPLICE STEEL SOLDIER PILES.

MEASUREMENT FOR PAYMENT WILL BE LIMITED TO THE DISTANCE BETWEEN THE TOP OF WALL ELEVATION AND THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER. THE DEPARTMENT WILL PAY FOR SOLDIER PILES AT THE CONTRACT UNIT PRICE PER FOOT FOR ITEM 507, STEEL PILES, MISC.: SOLDIER PILES.

ITEM SPECIAL – RETAINING WALL, MISC.: PRECAST LAGGING:
THIS WORK CONSISTS OF FURNISHING AND PLACING PRECAST REINFORCED CONCRETE PANELS BETWEEN THE SOLDIER PILES TO FUNCTION AS LAGGING FOR THE RETAINING WALL. PROVIDE PRECAST CONCRETE LAGGING FROM A PRECAST CONCRETE MANUFACTURER CERTIFIED UNDER SUPPLEMENT 1073. PROVIDE CONCRETE ACCORDING TO CMS 499 EXCEPT WITH A 28-DAY DESIGN STRENGTH OF AT LEAST 4000 PSI AND AIR ENTRAINMENT OF 4 TO 8 PERCENT. PROVIDE EPOXY COATED REINFORCING STEEL ACCORDING TO CMS 709.00. PERMANENTLY MARK EACH PANEL TO INDICATE WHICH FACE WILL BE PLACED AGAINST THE SOIL. PLACE THE PANEL BETWEEN THE FLANGES OF THE SOLDIER PILES AND BEARING AGAINST THE FLANGES ON THE EXPOSED SIDE OF THE WALL. PAYMENT INCLUDES MATERIAL SUPPLY AND INSTALLATION.

THE DEPARTMENT WILL PAY FOR PRECAST LAGGING AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM SPECIAL, RETAINING WALL, MISC.: PRECAST LAGGING.

ITEM 524, DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK, AS PER PLAN;
ITEM 524, DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK, AS PER PLAN:
THIS WORK CONSISTS OF FURNISHING AND INSTALLING DRILLED SHAFTS FOR SOLDIER PILE AND LAGGING WALLS. THE DRILLED SHAFTS ARE REINFORCED WITH SOLDIER PILES INSTEAD OF REINFORCING STEEL CAGES. THE SOLDIER PILES EXTEND ABOVE THE TOP OF THE DRILLED SHAFT. FURNISH AND INSTALL THE DRILLED SHAFTS IN ACCORDANCE WITH CMS 524 EXCEPT AS MODIFIED AND SUPPLEMENTED BELOW.

EXCAVATE THE HOLE FOR THE DRILLED SHAFT WITHIN 3 INCHES OF THE PLAN LOCATION. THE DESIGN IS BASED ON A MAXIMUM DEPTH FROM GROUND SURFACE TO BEDROCK OF 35 FEET. IF FIELD CONDITIONS INDICATE GREATER DEPTHS, NOTIFY THE ENGINEER FOR FURTHER EVALUATION.

PLACE THE SOLDIER PILE VERTICALLY WITHIN THE HOLE. PLACE THE SOLDIER PILE SO THAT THE FLANGES ARE PARALLEL TO THE CENTERLINE OF THE ROW OF DRILLED SHAFTS. SUPPORT THE SOLDIER PILE SO THAT IT DOES NOT MOVE DURING CONCRETE PLACEMENT. DO NOT ALLOW THE VERTICAL ALIGNMENT OF THE SOLDIER PILE TO VARY BY MORE THAN ¼ INCH PER FOOT OF DEPTH. DO NOT ALLOW THE ORIENTATION OF THE FLANGES TO VARY BY MORE THAN 10 DEGREES.

USE CLASS C CONCRETE ACCORDING TO CMS 511. PLACE CONCRETE TO THE ELEVATION FOR THE BOTTOM OF THE PRECAST LAGGING. THE CONTRACTOR MAY PLACE CONCRETE USING THE FREE FALL METHOD PROVIDED THE DEPTH OF WATER IS LESS THAN 6 INCHES AND THE CONCRETE FALLS WITHOUT STRIKING THE SIDES OF THE HOLE. POURING CONCRETE ALONG THE WEB OF THE SOLDIER PILE IS ACCEPTABLE.

CHECK THE POSITION, THE VERTICAL ALIGNMENT AND ORIENTATION OF THE SOLDIER PILE IMMEDIATELY AFTER CONCRETE PLACEMENT. MAKE CORRECTIONS AS NECESSARY TO MEET THE ABOVE TOLERANCES.

FILL THE HOLE ABOVE THE BOTTOM OF THE PRECAST LAGGING TO THE EXISTING GROUND SURFACE WITH ITEM 613 LOW STRENGTH MORTAR BACKFILL (LSM). REMOVE CONCRETE AND LSM AS NECESSARY FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE THE PRECAST LAGGING.

MEASUREMENT FOR PAYMENT FOR DRILLED SHAFTS ABOVE BEDROCK, AS PER PLAN, WILL BE LIMITED TO THE DISTANCE BETWEEN THE EXISTING GROUND SURFACE AND THE TOP OF BEDROCK (OR MINIMUM TIP), AS DETERMINED BY THE ENGINEER. MEASUREMENT FOR PAYMENT FOR DRILLED SHAFTS INTO BEDROCK, AS PER PLAN, WILL BE LIMITED TO THE DISTANCE BETWEEN THE TOP OF BEDROCK AND THE BOTTOM OF THE DRILLED SHAFT, AS DETERMINED BY THE ENGINEER.

PAYMENT IS FULL COMPENSATION FOR CONSTRUCTING THE DRILLED SHAFTS, INCLUDING FURNISHING AND PLACING CONCRETE AND LSM, AND REMOVAL OF CONCRETE OR LSM FROM AROUND THE SOLDIER PILE IN ORDER TO PLACE PRECAST LAGGING.

ITEM 524 – DRILLED SHAFT, 36" DIAMETER, ABOVE BEDROCK, AS PER PLAN:
QUANTITY OF THIS ITEM IS BASED ON THE TOP OF SHAFT ELEVATION OF DRILLED SHAFTS AS SHOWN IN THE PLANS AND THE TOP OF ROCK ELEVATION. THE TOP OF ROCK ELEVATION WAS ASSUMED TO BE A STRAIGHT LINE BETWEEN BORINGS. THIS QUANTITY MAY DIFFER IF THE CONTRACTOR ENCOUNTERS ROCK AT A DIFFERENT ELEVATION THAN SHOWN IN THE PLANS.

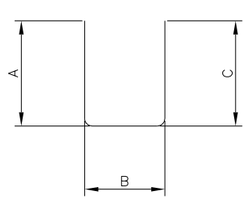
BORING LOCATIONS

BORING	MLK DRIVE STATION	MLK DRIVE OFFSET	TOP OF ROCK ELEVATION	BOTTOM OF BORING ELEVATION
B-001-0-10	13+49	40.40' LT.	553.77	526.8
B-003-0-10	14+10	34.0' LT.	577.68	549.1
B-004-0-10	17+20	44.0' LT.	585.52	554.5
B-007-0-10	18+15	44.0' LT.	585.85	555.8
B-008-0-10	19+20	44.0' LT.	588.13	556.6
B-010-0-10	20+79	18.0' LT.	595.00	561.5
B-011-0-10	22+10	25.0' LT.	595.65	565.1
B-026-0-11	12+67	48.18' LT.	563.07	548.1

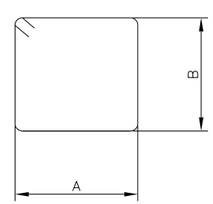
REINFORCING STEEL LIST

COMPUTED BY: RBK DATE: 10/17/11
CHECKED BY: EJM DATE: 10/18/11

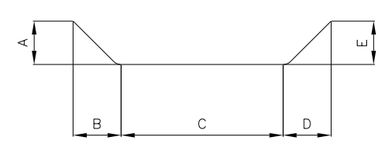
MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
					A	B	C	D	E	R	INC.
C401	350	30'-0"	7014	STR.							
C501	956	6'-9"	6730	3	1'-8"	1'-7"					
C502	956	2'-5"	2410	2	0'-6"	1'-8"	0'-6"				
P501	96	10'-11"	1093	3	0'-8"	4'-8"					
P502	96	10'-10"	1085	3	0'-7¼"	4'-8"					
P503	96	4'-8"	467	STR.							
P504	96	4'-5"	442	STR.							
P505	96	4'-6"	451	20	0'-3"	0'-10"	2'-9"	0'-10"	0'-3"		
		TOTAL	19692								



TYPE 2



TYPE 3



TYPE 20

ESTIMATED QUANTITIES

COMPUTED BY: RBK DATE: 10/17/11
CHECKED BY: EJM DATE: 10/18/11

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
503	21300	1	LUMP	UNCLASSIFIED EXCAVATION
507	00400	4194	FT	STEEL PILES, MISC.: SOLDIER PILES
509	10000	19692	POUND	EPOXY COATED REINFORCING STEEL
511	53010	180	CU YD	CLASS QC1 CONCRETE, MISC.: COPING AND PILASTERS
512	10000	1118	SQ YD	SEALING OF CONCRETE SURFACES
516	13200	112	SQ FT	1/2" PREFORMED EXPANSION JOINT FILLER
517	76300	831	FT	RAILING, MISC.: STEEL BRIDGE RAILING FOUR-RAIL
518	21200	472	CU YD	POROUS BACKFILL WITH FILTER FABRIC
518	40000	955	FT	6" PERFORATED CORRUGATED PLASTIC PIPE
518	40012	15	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE
524	94703	1147	FT	DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK, AS PER PLAN
524	94705	1785	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK, AS PER PLAN
SPECIAL	61050000	257	EACH	SPECIAL – RETAINING WALL, MISC.: PRECAST LAGGING PANEL A
SPECIAL	61050000	6	EACH	SPECIAL – RETAINING WALL, MISC.: PRECAST LAGGING PANEL B
SPECIAL	61050000	8	EACH	SPECIAL – RETAINING WALL, MISC.: PRECAST LAGGING PANEL C

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRILLED PIER WALL
GENERAL NOTES

Revisions
No.

Drawn by RBK Date 10/26/11
Designed by EJM Date 10/28/11
Checked by DAT Date 10/28/11
Reviewed by REM Date 10/13/11

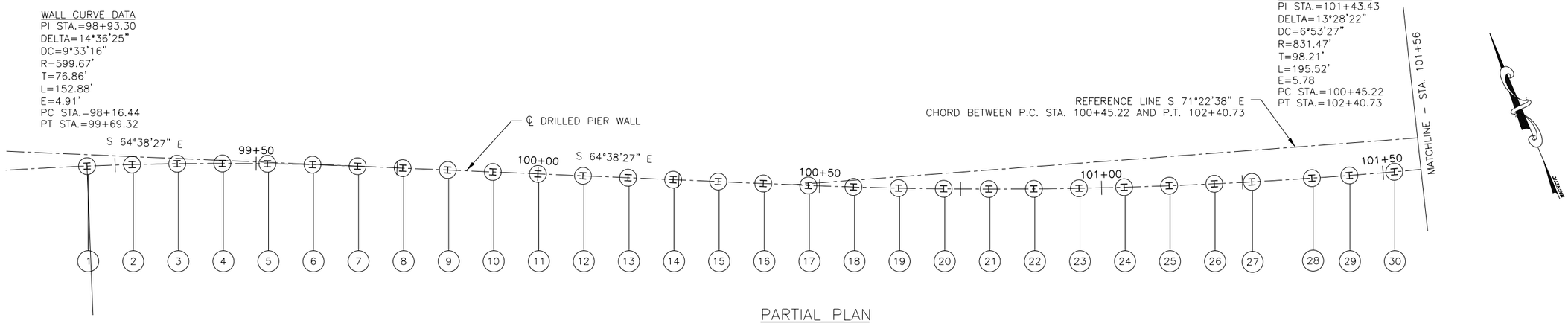
Consultant

Structure File Number

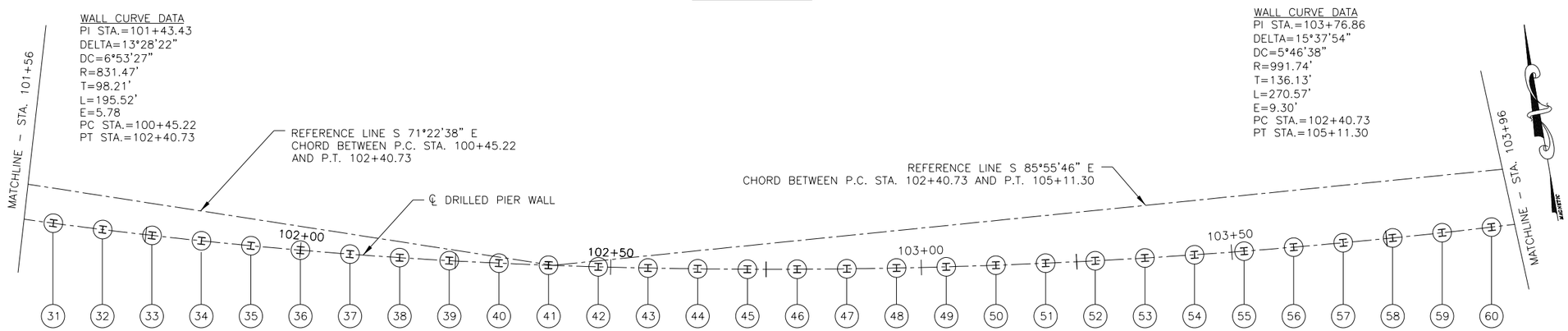
ACC No.
23124

5 / 11

112
155



PARTIAL PLAN



PARTIAL PLAN

FOUNDATION PILE/DRILLED SHAFT LOCATIONS

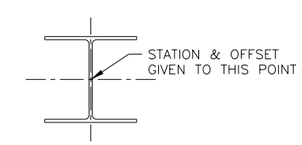
PILE NO.	STATION	OFFSET FROM REF. LINE	TOP OF PILE ELEV.	TOP OF SHAFT ELEV.	BOTTOM OF SHAFT ELEV.	APPROX. TOP OF ROCK ELEV.
1	99+20	2.03 RT.	583.58	578.50	548.07	563.07
2	99+28	1.42 RT.	583.83	578.50	547.58	562.58
3	99+36	0.93 RT.	584.08	578.75	547.09	562.09
4	99+44	0.53 RT.	584.33	575.00	546.60	561.60
5	99+52	0.25 RT.	584.58	575.25	546.10	561.10
6	99+60	0.07 RT.	585.08	575.75	545.61	560.61
7	99+68	0.00	585.33	576.00	545.12	560.12
8	99+76	0.00	585.58	576.25	544.63	559.63
9	99+84	0.00	585.83	576.50	544.14	559.14
10	99+92	0.00	586.08	576.75	543.65	558.65
11	100+00	0.00	586.58	577.25	543.16	558.16
12	100+08	0.00	586.83	577.50	542.66	557.66
13	100+16	0.00	587.08	577.75	542.17	557.17
14	100+24	0.00	587.33	578.00	541.68	556.68
15	100+32	0.00	587.33	578.00	541.19	556.19
16	100+40	0.00	587.33	578.00	540.70	555.70
17	100+48	0.32 RT.	588.33	575.00	540.21	555.21
18	100+56	1.20 RT.	588.33	575.00	539.72	554.72
19	100+64	1.99 RT.	588.58	575.25	539.22	554.22
20	100+72	2.71 RT.	588.83	575.50	538.85	553.85
21	100+80	3.36 RT.	589.08	575.75	539.86	554.86
22	100+88	3.92 RT.	589.33	576.00	540.88	555.88
23	100+96	4.41 RT.	589.58	576.25	541.89	556.89
24	101+04	4.83 RT.	589.83	576.50	542.91	557.91
25	101+12	5.16 RT.	590.08	576.75	543.92	558.92
26	101+20	5.42 RT.	590.33	577.00	544.93	559.93
27	101+27	5.58 RT.	590.83	577.50	545.78	560.78
28	101+37	5.72 RT.	591.08	577.75	547.13	562.13
29	101+44	5.74 RT.	591.33	578.00	547.98	562.98
30	101+52	5.69 RT.	591.58	578.25	548.99	563.99
31	101+60	5.57 RT.	591.83	578.50	550.01	565.01
32	101+68	5.36 RT.	592.08	578.75	551.02	566.02
33	101+76	5.08 RT.	592.33	579.00	552.04	567.04
34	101+84	4.73 RT.	592.58	579.25	553.05	568.05
35	101+92	4.30 RT.	592.83	579.50	554.07	569.07
36	102+00	3.79 RT.	593.08	579.75	555.08	570.08

FOUNDATION PILE/DRILLED SHAFT LOCATIONS

PILE NO.	STATION	OFFSET FROM REF. LINE	TOP OF PILE ELEV.	TOP OF SHAFT ELEV.	BOTTOM OF SHAFT ELEV.	APPROX. TOP OF ROCK ELEV.
37	102+08	3.20 RT.	593.33	580.00	556.10	571.10
38	102+16	2.54 RT.	593.58	580.25	557.11	572.11
39	102+24	1.80 RT.	593.83	584.50	558.13	573.13
40	102+32	0.98 RT.	594.08	584.75	559.14	574.14
41	102+40	0.09 RT.	594.33	585.00	560.16	575.16
42	102+48	0.96 RT.	594.58	585.25	561.17	576.17
43	102+56	1.96 RT.	594.83	585.50	562.19	577.19
44	102+64	2.89 RT.	595.08	585.75	562.91	577.91
45	102+72	3.76 RT.	595.33	586.00	563.36	578.36
46	102+80	4.57 RT.	595.58	586.25	563.81	578.81
47	102+88	5.31 RT.	596.08	586.75	564.25	579.25
48	102+96	5.99 RT.	596.33	587.00	564.70	579.70
49	103+04	6.60 RT.	596.58	587.25	565.15	580.15
50	103+12	7.15 RT.	596.83	587.50	565.60	580.60
51	103+20	7.63 RT.	597.08	587.75	566.05	581.05
52	103+28	8.05 RT.	597.33	588.00	566.50	581.50
53	103+36	8.41 RT.	597.58	588.25	566.94	581.94
54	103+44	8.70 RT.	597.83	588.50	567.39	582.39
55	103+52	8.92 RT.	598.08	588.75	567.84	582.84
56	103+60	9.08 RT.	598.33	589.00	568.29	583.29
57	103+68	9.18 RT.	598.58	589.25	568.74	583.74
58	103+76	9.21 RT.	598.83	589.50	569.18	584.18
59	103+84	9.18 RT.	599.08	589.75	569.63	584.63
60	103+92	9.08 RT.	599.33	590.00	570.08	585.08

PILE SIZE

PILE NO.	PILE SIZE
1–119	HP 14X89



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRILLED PIER WALL FOUNDATION PLAN (1 OF 2)

Revisions
No.

Drawn by RBK Date 10/28/11
Designed by EJM Date 10/28/11
Checked by DAT Date 10/28/11
Reviewed by REM Date 10/13/11

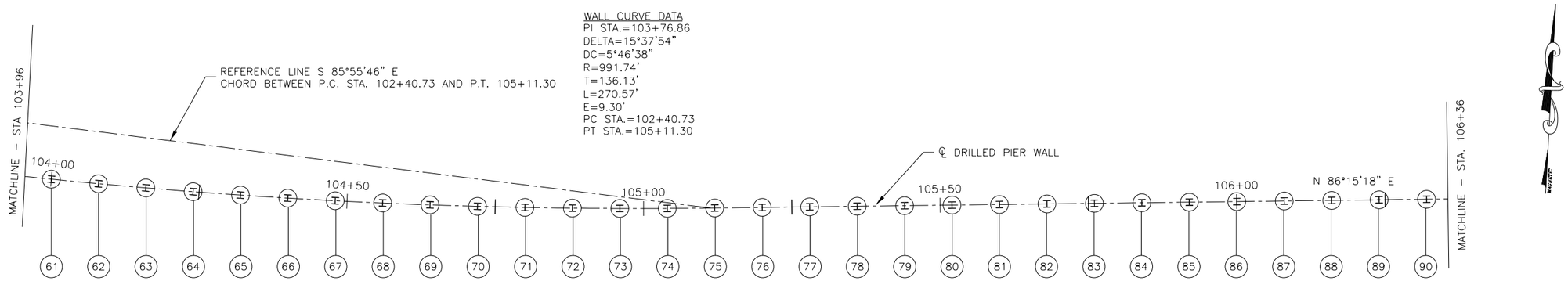
Consultant

Structure File Number

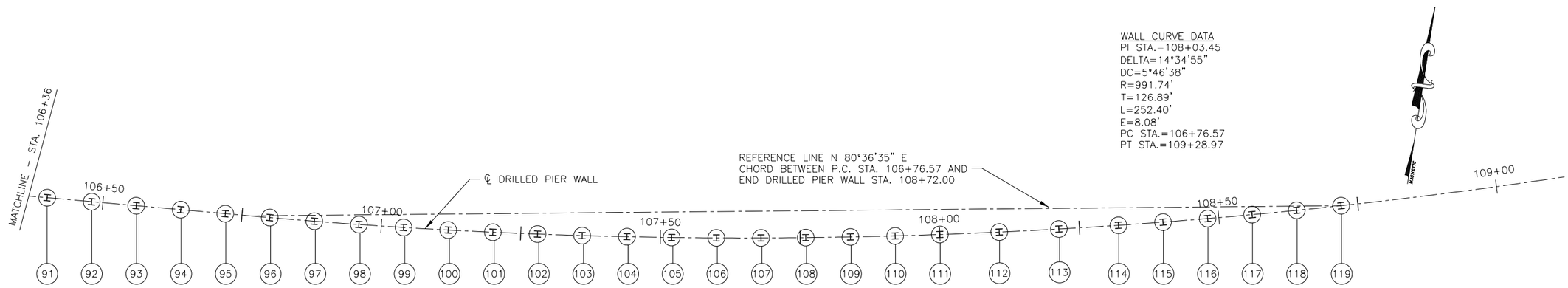
ACC No. 23124

6 / 11

113 / 155



PARTIAL PLAN



PARTIAL PLAN

FOUNDATION PILE/DRILLED SHAFT LOCATIONS

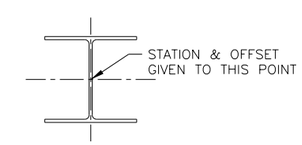
PILE NO.	STATION	OFFSET FROM REF. LINE	TOP OF PILE ELEV.	TOP OF SHAFT ELEV.	BOTTOM OF SHAFT ELEV.	APPROX. TOP OF ROCK ELEV.
61	104+00	8.92 RT.	599.58	590.25	570.52	585.52
62	104+08	8.70 RT.	599.83	590.50	570.55	585.55
63	104+16	8.41 RT.	600.08	590.75	570.58	585.58
64	104+24	8.05 RT.	600.33	591.00	570.61	585.61
65	104+32	7.63 RT.	600.58	591.25	570.64	585.64
66	104+40	7.15 RT.	600.83	591.50	570.67	585.67
67	104+48	6.60 RT.	601.08	591.75	570.70	585.70
68	104+56	5.99 RT.	601.33	592.00	570.72	585.72
69	104+64	5.31 RT.	601.58	592.25	570.75	585.75
70	104+72	4.57 RT.	601.83	592.50	570.78	585.78
71	104+80	3.77 RT.	602.08	592.75	570.81	585.81
72	104+88	2.90 RT.	602.33	593.00	570.84	585.84
73	104+96	1.96 RT.	602.58	593.25	570.98	585.98
74	105+04	0.97 RT.	602.83	593.50	571.15	586.15
75	105+12	0.00	603.08	593.75	571.33	586.33
76	105+20	0.00	603.33	594.00	571.50	586.50
77	105+28	0.00	603.58	594.25	571.68	586.68
78	105+36	0.00	603.83	594.50	571.85	586.85
79	105+44	0.00	604.08	594.75	572.03	587.03
80	105+52	0.00	604.33	595.00	572.20	587.20
81	105+60	0.00	604.58	591.25	572.38	587.38
82	105+68	0.00	604.83	591.50	572.55	587.55
83	105+76	0.00	605.08	591.75	572.73	587.73
84	105+84	0.00	605.33	592.00	572.91	587.91
85	105+92	0.00	605.58	592.25	573.08	588.08
86	106+00	0.00	605.83	592.50	573.39	588.39
87	106+08	0.00	606.08	592.75	573.74	588.74
88	106+16	0.00	606.33	593.00	574.09	589.09
89	106+24	0.00	606.58	593.25	574.45	589.45
90	106+32	0.00	606.83	593.50	574.80	589.80
91	106+40	0.00	607.33	594.00	575.15	590.15
92	106+48	0.00	607.58	594.25	575.51	590.51
93	106+56	0.00	607.83	594.50	575.86	590.86
94	106+64	0.00	608.08	594.75	576.22	591.22
95	106+72	0.00	608.33	595.00	576.57	591.57
96	106+80	0.33 RT.	608.58	595.25	576.92	591.92

FOUNDATION PILE/DRILLED SHAFT LOCATIONS

PILE NO.	STATION	OFFSET FROM REF. LINE	TOP OF PILE ELEV.	TOP OF SHAFT ELEV.	BOTTOM OF SHAFT ELEV.	APPROX. TOP OF ROCK ELEV.
97	106+88	1.06 RT.	608.83	595.50	577.28	592.28
98	106+96	1.72 RT.	609.08	595.75	577.63	592.63
99	107+04	2.32 RT.	609.33	596.00	577.99	592.99
100	107+12	2.85 RT.	609.58	596.25	578.34	593.34
101	107+20	3.32 RT.	609.83	596.50	578.69	593.69
102	107+28	3.73 RT.	610.08	596.75	579.05	594.05
103	107+36	4.07 RT.	610.33	597.00	579.40	594.40
104	107+44	4.35 RT.	610.58	597.25	579.75	594.75
105	107+50	4.56 RT.	610.83	601.50	580.01	595.01
106	107+60	4.71 RT.	611.33	602.00	580.05	595.05
107	107+68	4.79 RT.	611.58	602.25	580.10	595.10
108	107+76	4.81 RT.	611.83	602.50	580.14	595.14
109	107+84	4.76 RT.	612.08	602.75	580.18	595.18
110	107+92	4.65 RT.	612.33	603.00	580.22	595.22
111	108+02.7	4.48 RT.	612.58	603.25	580.28	595.28
112	108+13.3	4.14 RT.	612.83	603.50	580.33	595.33
113	108+24	3.69 RT.	613.08	603.75	580.39	595.39
114	108+32	3.13 RT.	613.33	608.25	580.43	595.43
115	108+40	2.63 RT.	613.58	608.75	580.47	595.47
116	108+48	2.07 RT.	614.08	609.00	580.51	595.51
117	108+56	1.45 RT.	614.33	609.25	580.55	595.55
118	108+64	0.75 RT.	614.58	609.50	580.60	595.60
119	108+72	0.00	614.83	609.75	580.64	595.64

PILE SIZE

PILE NO.	PILE SIZE
1–119	HP 14X89



CONTRACT DRAWING

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Department of Transportation and Engineering

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HAM-CR 612-0.20
DRILLED PIER WALL FOUNDATION PLAN (2 OF 2)

Revisions
No.

Drawn by RBK Date 10/28/11
Designed by EJM Date 10/28/11
Checked by DAT Date 10/28/11
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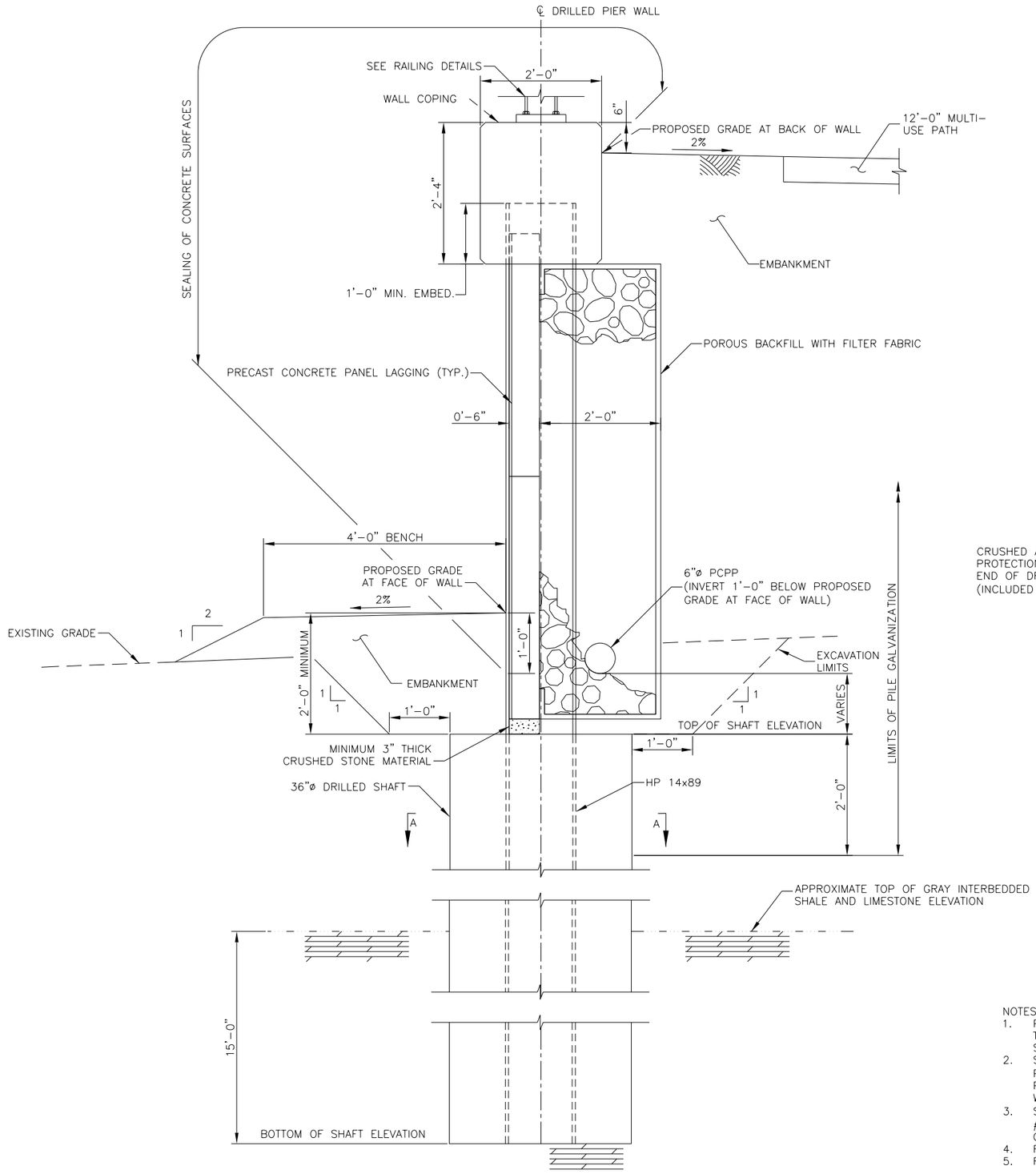
Consultant

Structure File Number

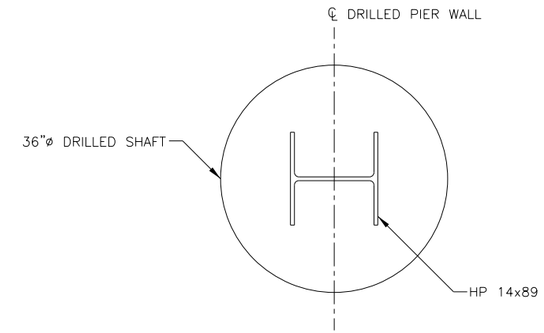
ACC No. 23124

7 / 11

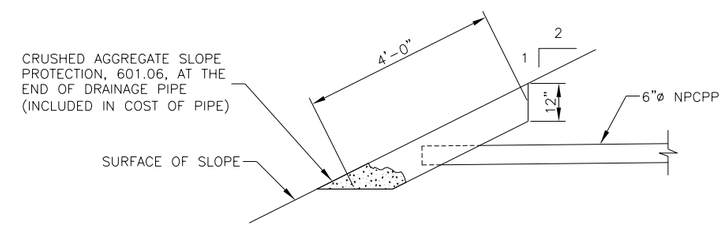
114 / 155



TYPICAL PIER WALL SECTION



SECTION A–A



DRAINAGE PIPE OUTLET DETAIL

LEGEND:

- PROPOSED GRADE
- GRAY INTERBEDDED SHALE AND LIMESTONE
- CRUSHED AGGREGATE/STONE
- POROUS BACKFILL

NOTES:

1. POROUS BACKFILL WITH FILTER FABRIC, 2 FEET THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, TO 1 FOOT BELOW THE EMBANKMENT SURFACE, AND LATERALLY TO THE ENDS OF THE RETAINING WALL.
2. SEAL ALL EXPOSED SURFACES OF THE COPING AND PRECAST CONCRETE PANEL LAGGING WITH THOROCOAT PER MANUFACTURER'S SPECIFICATIONS, PEARL GRAY, FINE – 2 COATS. THIS SHALL BE INCLUDED IN PAYMENT WITH ITEM 512 – SEALING OF CONCRETE SURFACES.
3. SET PRECAST PANEL LAGGING ON A 3" THICK (MIN.) BED OF COMPACTED #57 CRUSHED STONE. STONE BEDDING SHALL BE INCLUDED IN ITEM 511 – CONCRETE, MISC.: PRECAST CONCRETE PANEL LAGGING.
4. FOR ADDITIONAL DETAILS ON COPING, SEE MISCELLANEOUS DETAILS SHEET.
5. FOR ADDITIONAL DETAILS ON RAILING, SEE RAILING DETAIL SHEETS.

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRILLED PIER WALL
PIER WALL DETAILS

Revisions

No.				

Drawn by RBK	Date 10/26/11	Designed by EJM	Date 10/28/11
Checked by DAT	Date 10/28/11	Reviewed by REM	Date 10/13/11

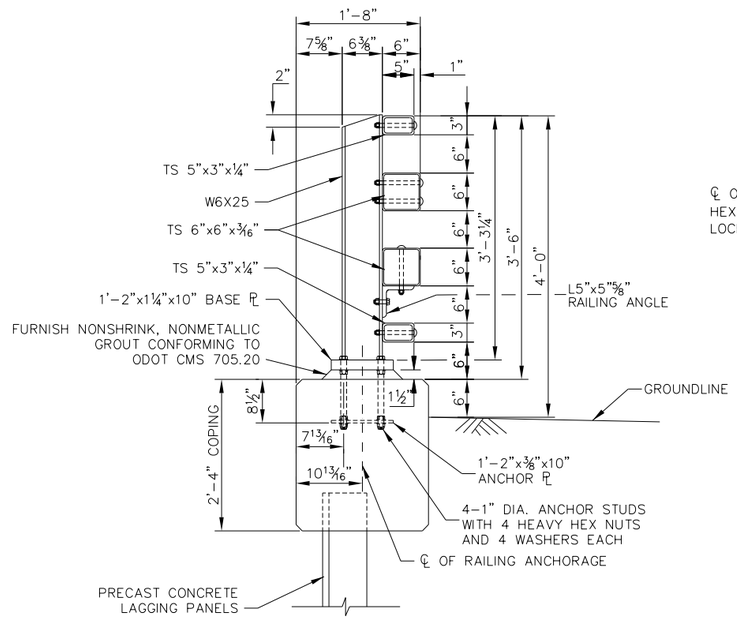
Consultant

Structure File Number

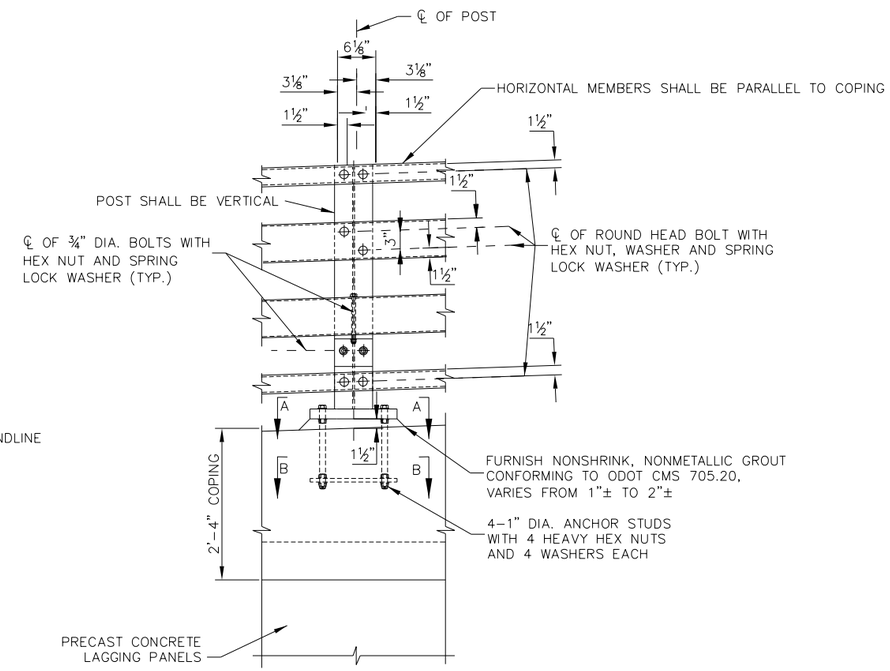
ACC No. 23124

8 / 11

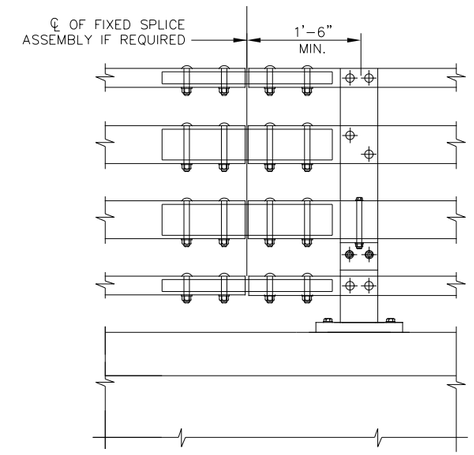
115 / 155



SECTION



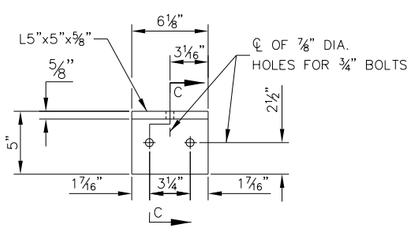
ELEVATION



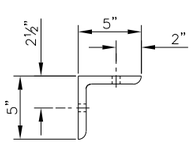
ELEVATION SPLICE DETAILS

NOTES:

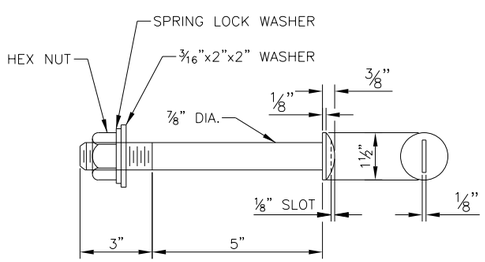
1. THESE DETAILS WERE PREPARED USING THE STATE OF NEW YORK STANDARD DRAWING BD-RS2E. THIS DRAWING SHALL SUPERCEDE ANY CONFLICT THAT ARISES BETWEEN THIS DRAWING AND DRAWING BD-RS2E.
2. SHOP DRAWINGS FOR RAILING SHALL BE SUBMITTED FOR REVIEW AND APPROVED PRIOR TO FABRICATION.
3. INSTALL ALL POSTS PLUMB AND RAILING ELEMENTS PARALLEL TO THE PROPOSED GRADE ELEVATION AND ALIGNMENT.
4. STEEL RAILING SHALL BE GALVANIZED IN ACCORDANCE WITH ODOT CMS SECTION 711.02.
5. THIS RAILING IS ADEQUATE FOR A TL-4 (PL-2) SERVICE LEVEL.
6. BOLTS SHALL BE TORQUED SNUG TIGHT (APPROXIMATELY 100 FT. LB.).



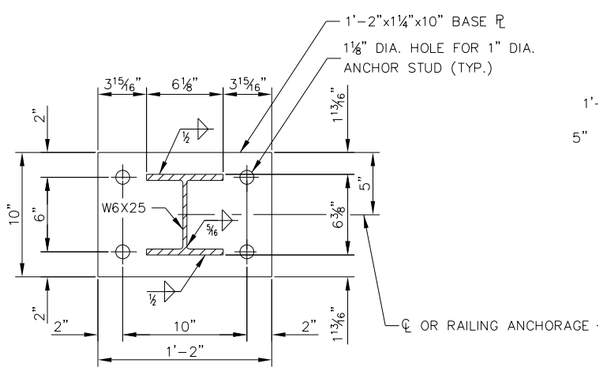
RAILING ANGLE PLAN



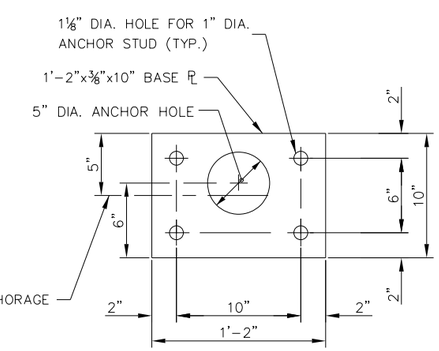
SECTION C-C



ROUND HEAD BOLT



SECTION A-A



SECTION B-B

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRILLED PIER WALL RAILING DETAILS (1 OF 3)

Revisions

No.				

Drawn by RBK	Date 10/28/11	Designed by EIM	Date 10/28/11
Checked by DAT	Date 10/28/11	Reviewed by REM	Date 10/13/11

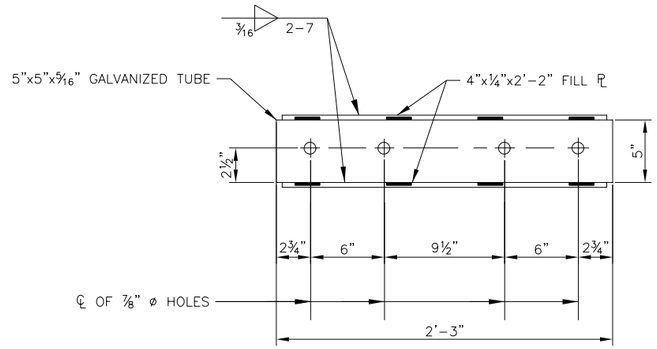
Consultant

Structure File Number

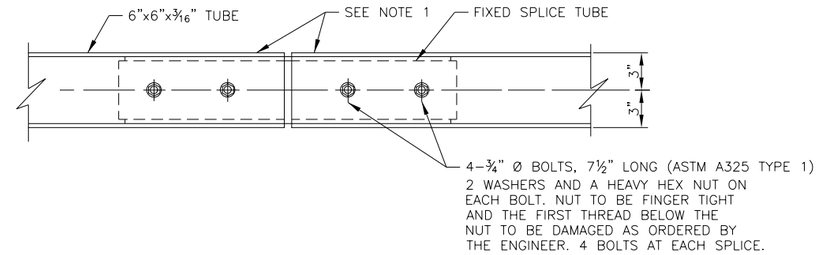
ACC No. 23124

9 / 11

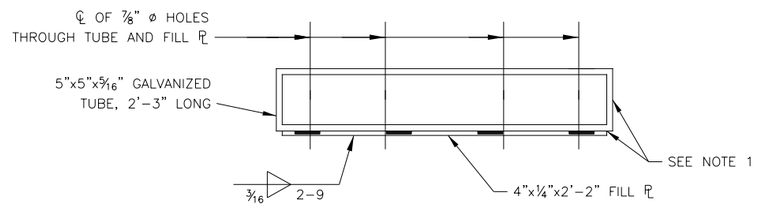
116 / 155



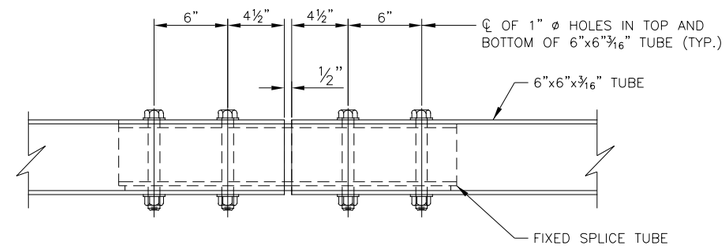
PLAN



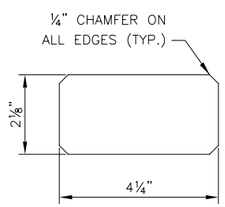
PLAN



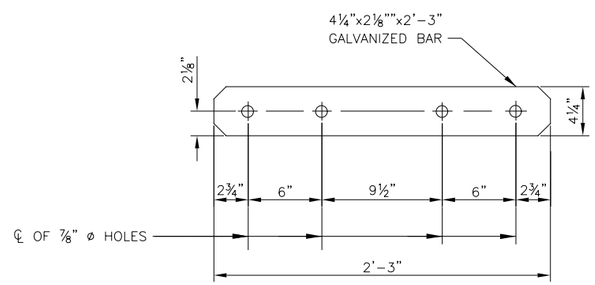
ELEVATION FIXED SPLICE TUBE



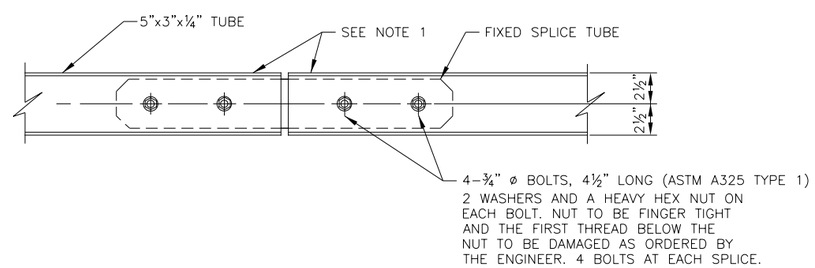
ELEVATION FIXED SPLICE TUBE ASSEMBLY



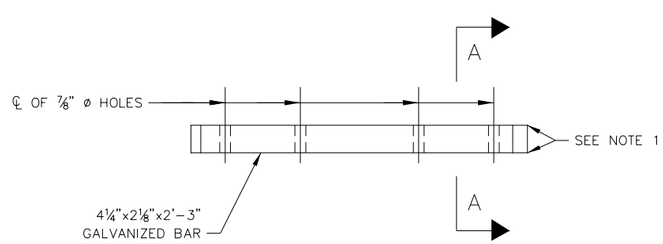
SECTION A-A



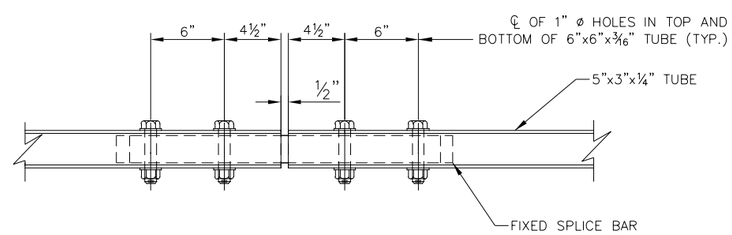
PLAN



PLAN



ELEVATION FIXED SPLICE BAR



ELEVATION FIXED SPLICE BAR ASSEMBLY

NOTES:

1. PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE RAILS, SPLICE TUBES AND FILL PLATES.

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRILLED PIER WALL RAILING DETAILS (2 OF 3)

Revisions

No.		

Drawn by RBK	Date 10/28/11
Designed by EJM	Date 10/28/11
Checked by DAT	Date 10/28/11
Reviewed by REM	Date 10/13/11

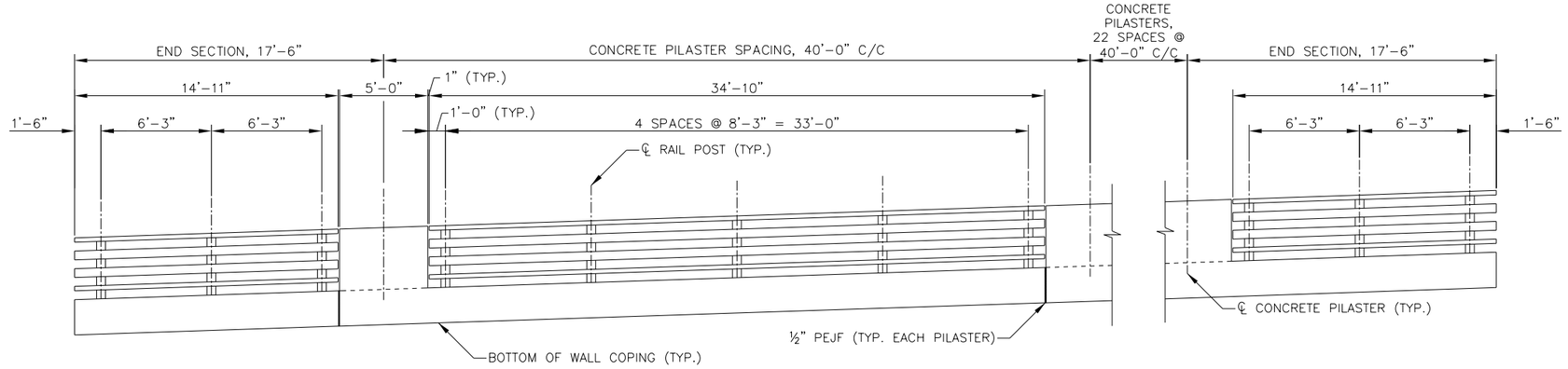
Consultant

Structure File Number

ACC No. 23124

9A / 11

116A / 155



RAILING ELEVATION

℄ CONCRETE PILASTER LOCATIONS

STATION
99+36.00
99+76.00
100+16.00
100+56.00
100+96.00
101+36.00
101+76.00
102+16.00
102+56.00
102+96.00
103+36.00
103+76.00
104+16.00
104+56.00
104+96.00
105+36.00
105+76.00
106+16.00
106+56.00
106+96.00
107+36.00
107+76.00
108+16.00
108+56.00

EXPANSION JOINT LOCATIONS

STATION
99+33.50
99+73.50
100+13.50
100+53.50
100+93.50
101+33.50
101+73.50
102+13.50
102+53.50
102+93.50
103+33.50
103+73.50
104+13.50
104+53.50
104+93.50
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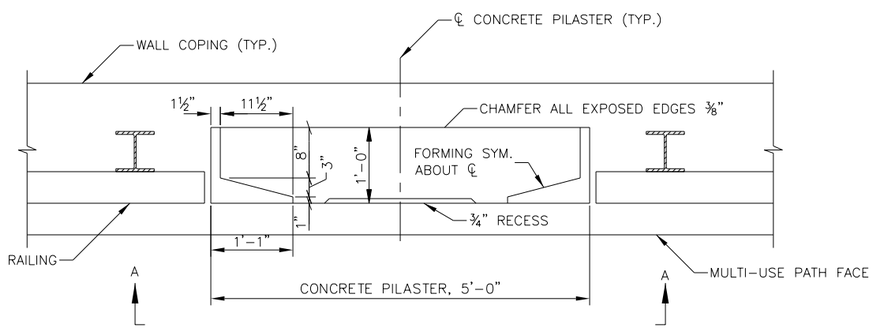
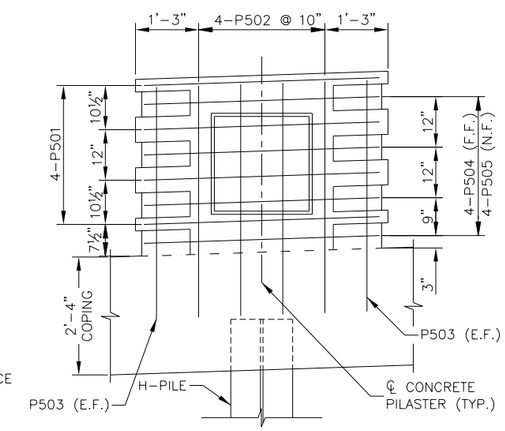
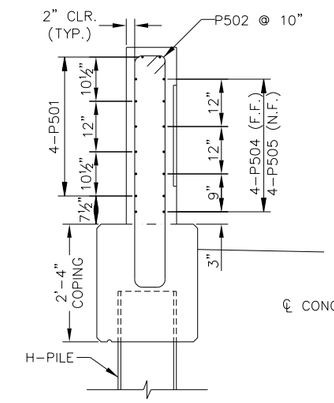
108+13.50
108+53.50



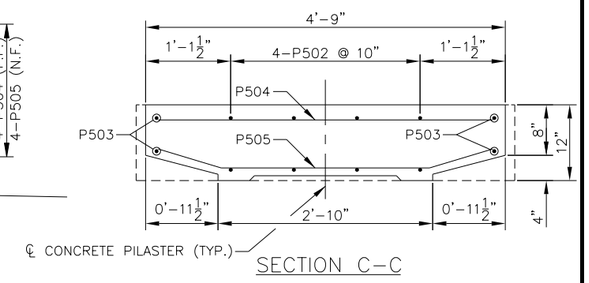
CONCRETE PILASTER PLAN VIEW



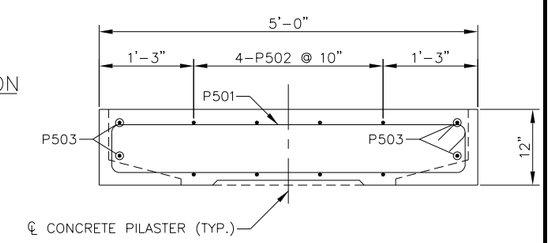
REINFORCING PILASTER ELEVATION



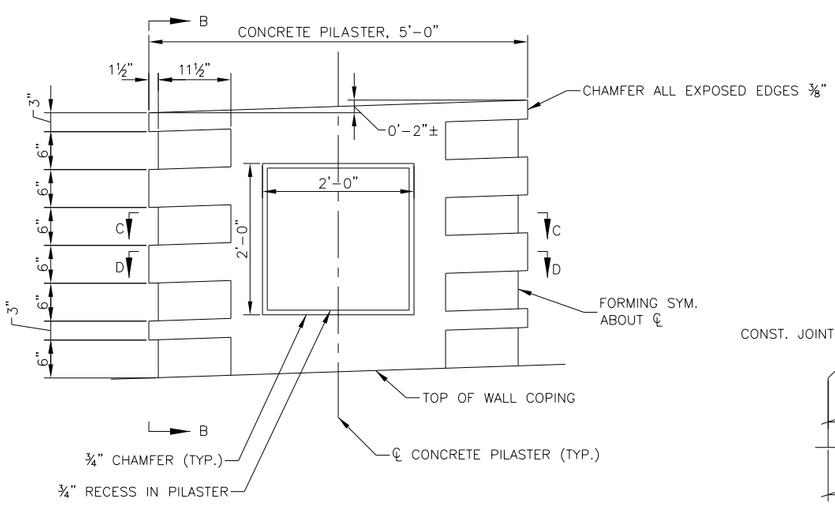
REINFORCING PILASTER SECTION



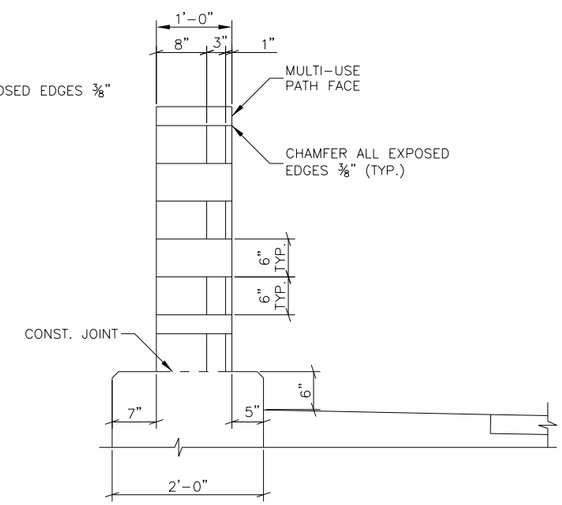
SECTION C–C



SECTION D–D



SECTION A–A



SECTION B–B

LEGEND:

E.F. EACH FACE
N.F. NEAR FACE
F.F. FAR FACE

NOTES:

1. USE PHENOLIC COATED BOARD FOR ALL FORM WORK. AFTER REMOVING THE FORM WORK, RUBBER FLOAT THE FINISHED CONCRETE TO FILL ANY IMPERFECTIONS. A SMOOTH FINISH IS REQUIRED. INCLUDE IN THE COST FOR ITEM 511 – CLASS QC1 CONCRETE, MISC.: COPING AND PILASTERS.
2. SEAL ALL EXPOSED SURFACES OF THE CONCRETE PILASTER WITH THOROCOAT PER MANUFACTURER'S SPECIFICATIONS, PEARL GRAY, FINE – 2 COATS. INCLUDE COSTS IN ITEM 512 – SEALING OF CONCRETE SURFACES.
3. PLACE EXPANSION JOINTS AT LOCATIONS SHOWN.
4. FOR ADDITIONAL NOTES, SEE SHEET 9/11.

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRILLED PIER WALL
RAILING DETAILS (3 OF 3)

Revisions

No.	Date

Drawn by RBK	Date 10/28/11
Designed by EIM	Date 10/28/11
Checked by DAT	Date 10/28/11
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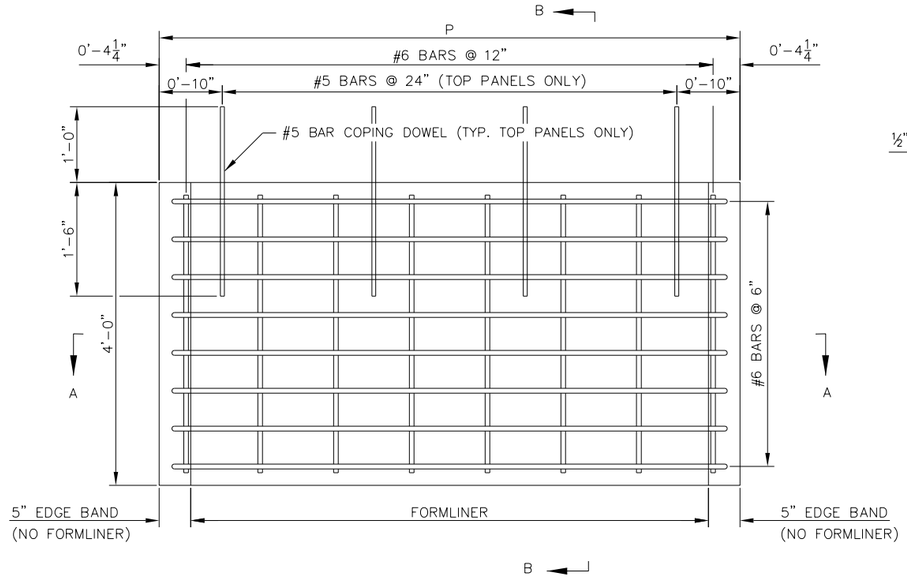
Consultant

Structure File Number

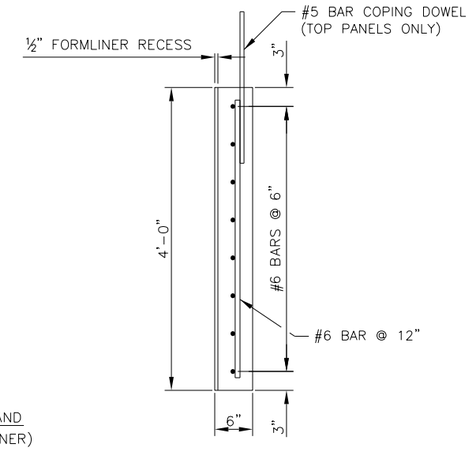
ACC No. 23124

10 / 11

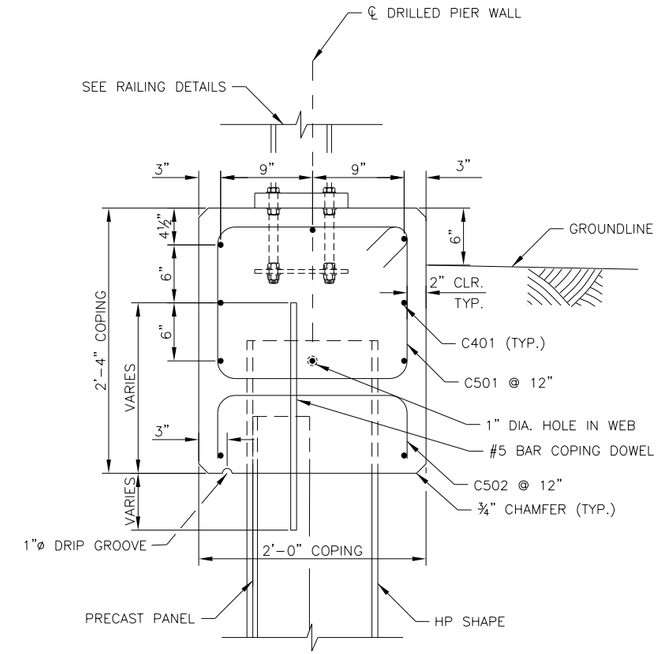
117 / 155



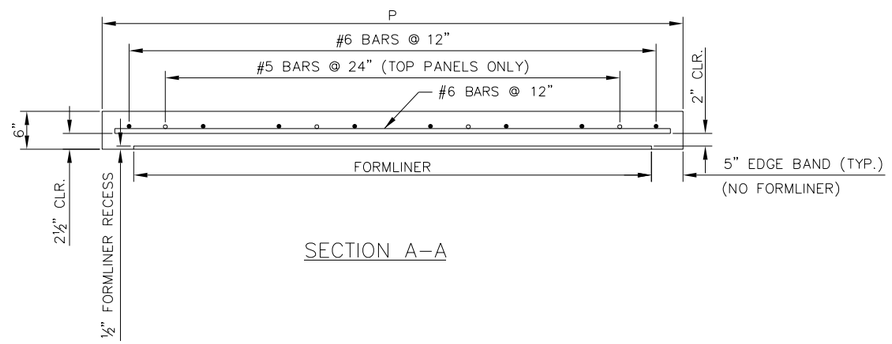
PRECAST PANEL ELEVATION



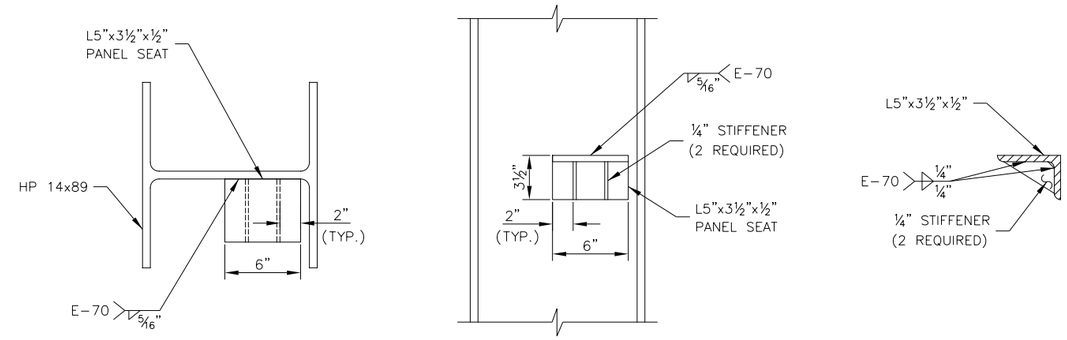
SECTION B–B



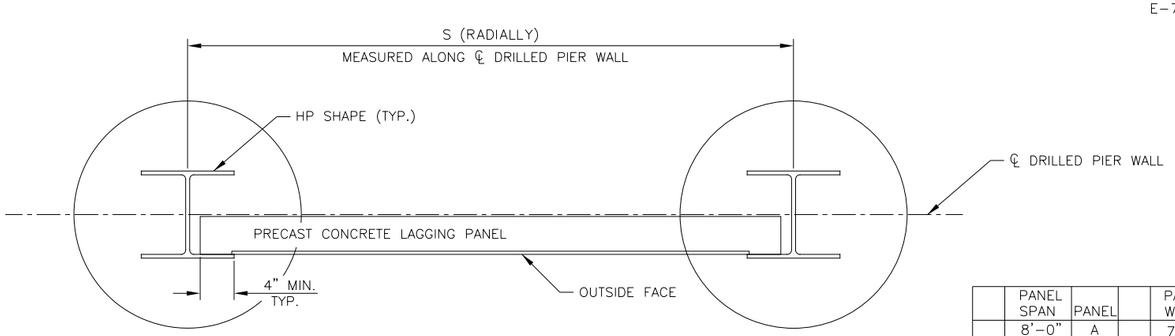
WALL COPING DETAILS



SECTION A–A



PANEL SEAT DETAILS



PILE AND PANEL PLAN

	PANEL SPAN	PANEL		PANEL WIDTH	PANEL
S	8'-0"	A	P	7'-8"	A
	6'-8"	B		6'-4"	B
	10'-8"	C		10'-4"	C

NOTES:

1. SEE GENERAL NOTES FOR WALL PANEL NOTES.
2. FORMLINER SHALL BE A HEAVY PEBBLE-Y FINISH.
3. SHOP DRAWINGS FOR PRECAST CONCRETE LAGGING PANELS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
4. PANEL SEAT AND STIFFENERS ARE INCLUDED IN PAYMENT FOR ITEM 507-STEEL PILES, MISC.

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
DRILLED PIER WALL MISCELLANEOUS DETAILS

Revisions

No.		

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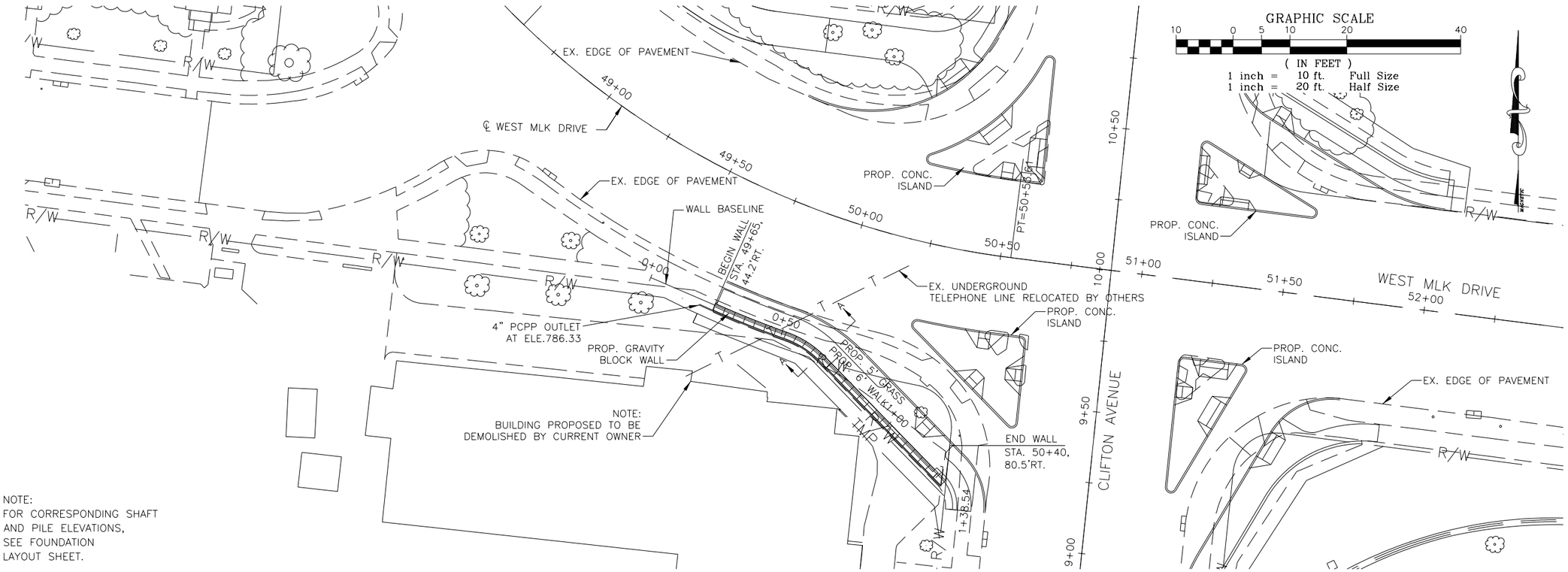
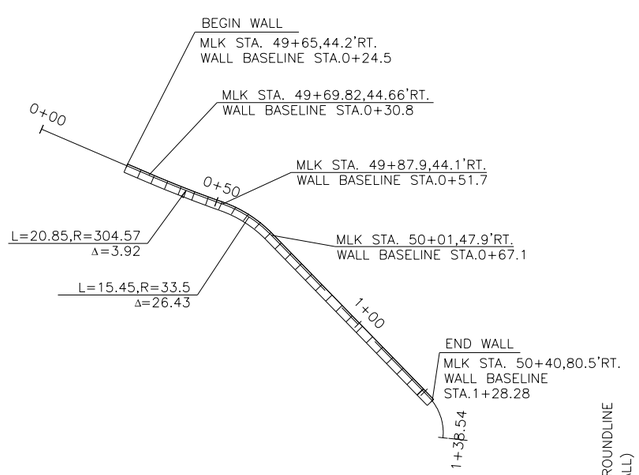
118
155



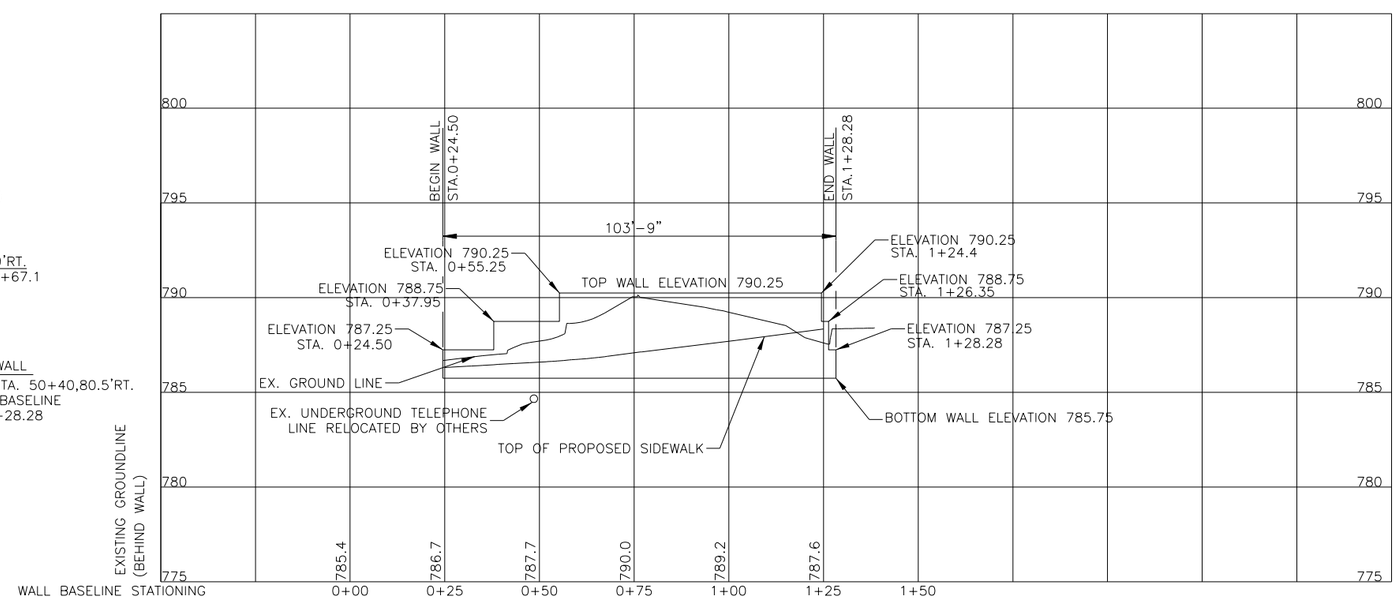
PLAN

NOTE:
FOR CORRESPONDING SHAFT AND PILE ELEVATIONS, SEE FOUNDATION LAYOUT SHEET.

NOTE:
SEE SHEET 2 OF 3 FOR SECTION A–A



WALL BASELINE LAYOUT



ELEVATION

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
GRAVITY BLOCK WALL
PLAN & ELEV. STA 49+65 TO 50+40

Revisions
No.

Drawn by SRD	Date 10/28/11	Designed by EJM	Date 10/28/11
Checked by DAT	Date 10/28/11	Reviewed by REM	Date 10/13/11

Consultant

Structure File Number

ACC No.
23124

1 / 3

119
155

GENERAL NOTES

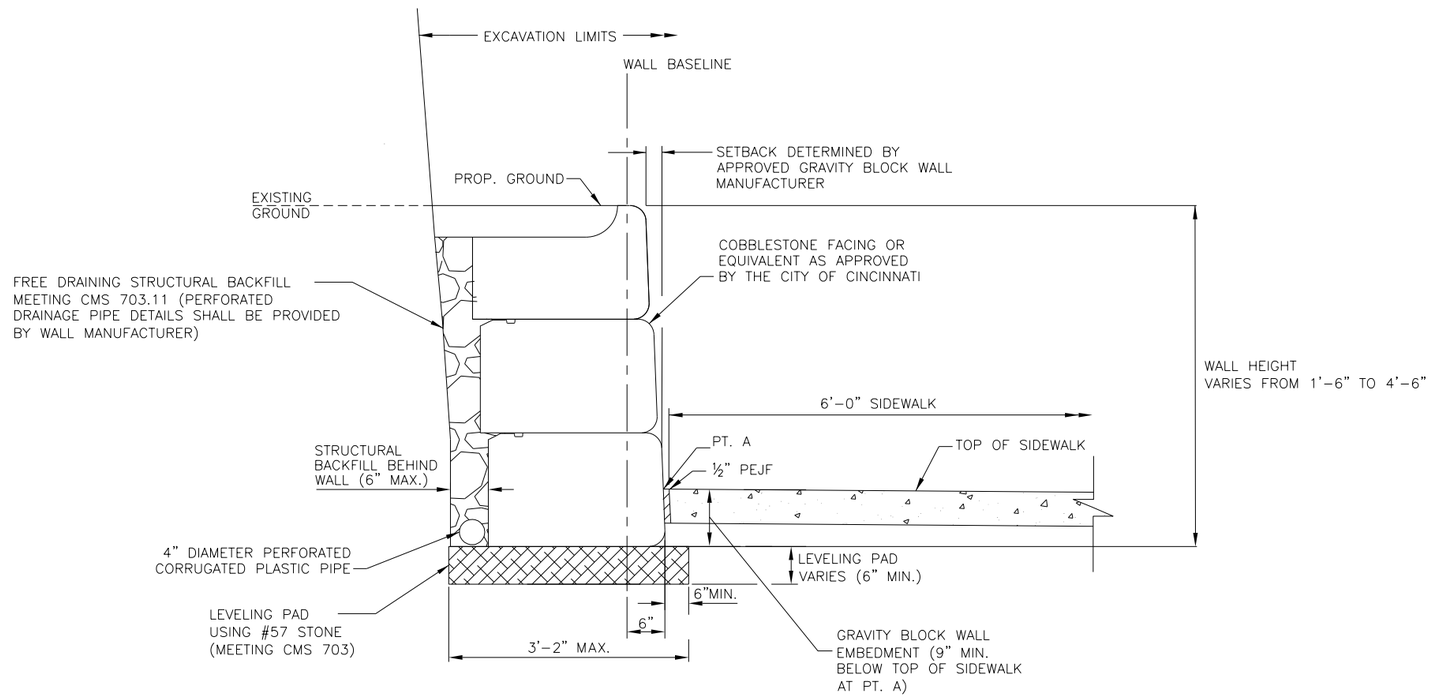
DESIGN SPECIFICATIONS
THIS STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2010 5TH EDITION AND THE ODOT BRIDGE DESIGN MANUAL,2007.

DESIGN DATA
THIS STRUCTURE SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH ITEM 530 STRUCTURE MISC,: GRAVITY BLOCK WALL NOTES ON SHEETS 2/3 AND THE FOLLOWING:

MINIMUM REQUIRED FACTORS OF SAFETY:
SLIDING, PER AASHTO LRFD 10.6.3.4
OVERTURNING (E<B/4), PER AASHTO LRFD 11.6.3.3
BEARING CAPACITY, PER AASHTO LRFD 10.6.3.1

SOIL UNIT WEIGHT 120 LB. PER CUBIC FOOT
INTERNAL ANGLE OF FRICTION (DEGREES)
RETAINED SOIL – 28°
LEVEL BACKFILL BEHIND WALL

PRESUMED FACTORED BEARING RESISTANCE 2.7 KIPS PER SQUARE FOOT ON STIFF SOIL. IF MEDIUM STIFF OR SOFT SOILS ARE ENCOUNTERED AT THE FOUNDATION LEVEL THEY SHALL BE UNDERCUT TO STIFF SOILS AND REPLACED WITH NEW CONTROLLED EMBANKMENT OR GRANULAR MATERIAL AS DETERMINED BY THE ENGINEER.



SECTION A–A
FROM MLK STATION 49+65 TO 50+40

COMPUTED BY: JLTL DATE: 10/7/11
CHECKED BY: EJM DATE: 10/7/11

ITEM	EXTENSION	QUANTITY	UNIT	DESCRIPTION
530	00600	425.5	SF	SPECIAL – STRUCTURE, MISC.: GRAVITY BLOCK WALL
503	21300	1	LS	UNCLASSIFIED EXCAVATION
518	21220	1	LS	POROUS BACKFILL

BILL OF INCIDENTAL MATERIALS INCLUDED WITH ITEM 530 FOR PAYMENT
LEVELING PAD
4" PERFORATED CORRUGATED PLASTIC PIPE

ESTIMATED QUANTITIES

CONTRACT DRAWING
PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

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Cincinnati, Ohio 45202

HAM-CR 612-0.20
GRAVITY BLOCK WALL DETAILS AND NOTES

Revisions
No.

	Date
Drawn by SRD	10/28/11
Designed by EJM	10/28/11
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Reviewed by REM	10/13/11

Consultant

Structure File Number

ACC No.
23124

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120
155

ITEM 530 SPECIAL STRUCTURE MISC.: GRAVITY BLOCK WALL GENERAL NOTES

ITEM 530 SPECIAL STRUCTURE MISC.: GRAVITY BLOCK WALL
DESCRIPTION
THIS WORK CONSISTS OF WALLS CONSTRUCTED OF MODULAR WET CAST CONCRETE BLOCKS IN ACCORDANCE WITH THIS SPECIFICATION AND IN REASONABLY CLOSE CONFORMITY WITH THE LINES, GRADES, DESIGN AND DIMENSIONS SHOWN ON THE PLANS OR ESTABLISHED BY THE ENGINEER. WALLS SHALL BE GRAVITY TYPE. WALL MANUFACTURER SHALL BE RESPONSIBLE FOR INTERNAL STABILITY OF EACH WALL DESIGN IN ACCORDANCE WITH THESE SPECIFICATIONS. WALL UNITS SHALL HAVE A MINIMUM BATTER AND BLOCK SPACING, TO PROHIBIT GROWTH OF VEGETATION THROUGH THE FACE OF THE WALL. WALL SHALL HAVE A MAXIMUM SETBACK OF 2".

MATERIALS
THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO ACQUIRE, THE SEGMENTAL CONCRETE UNITS AND NECESSARY INCIDENTALS FROM AN APPROVED RETAINING WALL MANUFACTURER BY THE CITY OF CINCINNATI DOTE. COBBLESTONE FACING OR EQUIVALENT AS PROVIDED BY THE CITY OF CINCINNATI SHALL BE USED.

SEGMENTAL CONCRETE UNITS
MATERIAL USED IN THE MANUFACTURE OF THE SEGMENTAL UNITS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
ASTM C94 READY MIXED CONCRETE

TESTING AND INSPECTION
ACCEPTABILITY OF THE CONCRETE FOR THE SEGMENTAL UNITS WILL BE DETERMINED ON THE BASIS OF COMPRESSION TESTS, CERTIFICATION AND VISUAL INSPECTION. THE CONCRETE STRENGTH FOR THE SEGMENTAL UNITS SHALL BE CONSIDERED ATTAINED REGARDLESS OF THE CURING AGE WHEN THE COMPRESSION TEST RESULTS INDICATE THAT THE STRENGTH WILL CONFORM TO THE 28-DAY SPECIFICATIONS. THE SUPPLIER SHALL FURNISH FACILITIES AND PERFORM ALL NECESSARY SAMPLING AND TESTING IN A EXPEDITIOUS AND SATISFACTORY MANNER. UNITS UTILIZING TYPE I OR II CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT WHEN THE INITIAL STRENGTH EXCEEDS 85% OF THE 28 DAY REQUIREMENTS. UNITS UTILIZING TYPE III CEMENT SHALL BE CONSIDERED ACCEPTABLE FOR PLACEMENT ONLY WHEN THEY ATTAIN THE MINIMUM 28 DAY STRENGTH.

CURING
THE SEGMENTAL CONCRETE UNITS SHALL BE CURED A SUFFICIENT LENGTH OF TIME SO THAT THE CONCRETE WILL DEVELOP THE SPECIFIED COMPRESSIVE STRENGTH.

TOLERANCES
THE CONCRETE SEGMENTAL UNITS SHALL BE MANUFACTURED SUCH THAT THE UNIT'S DIMENSIONS DO NOT DIFFER MORE THAN ±1/8 INCH FROM THE MANUFACTURER'S PUBLISHED DIMENSIONS.

COMPRESSIVE STRENGTH
CONCRETE PROVIDED SHALL BE FROM A ODOT PRE-QUALIFIED PRECAST CONCRETE MANUFACTURER CERTIFIED UNDER SUPPLEMENTAL SPECIFICATION 1073. CONCRETE FOR THE SEGMENTAL UNITS SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 28 DAYS. ACCEPTANCE OF THE SEGMENTAL CONCRETE UNITS WITH RESPECT TO COMPRESSIVE STRENGTH AND ABSORPTION WILL BE DETERMINED ON THE BASIS OF PRODUCTION LOTS IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF ASTM METHOD C 140. COMPRESSIVE STRENGTH TEST SPECIMENS SHALL CONFORM TO THE SAW-CUT COUPON PROVISIONS OF SECTION 5.2.4 OF ASTM C 140 WITH THE FOLLOWING EXCEPTIONS:
A. COUPONS SHALL HAVE A MINIMUM THICKNESS OF 1-1/2 INCHES.
B. FULL SAMPLES MAY BE USED IF THE TESTING LAB HAS THE FACILITIES.

REJECTION
UNITS MAY BE REJECTED FOR FAILURE TO MEET ANY OF THE REQUIREMENTS SPECIFIED ABOVE. IN ADDITION, ANY OR ALL OF THE FOLLOWING DEFECTS MAY BE SUFFICIENT CAUSE FOR REJECTION:
A. DEFECTS THAT INDICATE IMPERFECT MOLDING
B. DEFECTS IN THE SPLITTING OPERATION, WHICH RESULT IN INCOMPLETE FRACTURE OF THE UNIT?S FACE.
C. CRACKS OR DEFECTS THAT WILL IMPAIR THE PLACEMENT OF THE UNIT.
D. DEFECTS IN THE PHYSICAL CHARACTERISTICS OF THE CONCRETE, SUCH AS BROKEN OR CHIPPED CONCRETE.
E. STAINED FORM FACE, DUE TO EXCESS FORM OIL OR OTHER CONTAMINATIONS
F. SIGNS OF AGGREGATE SEGREGATION
G. BROKEN OR CRACKED CORNERS
H. INSUFFICIENT CONCRETE COMPRESSIVE STRENGTH
THE ENGINEER WILL DETERMINE IF AN ATTEMPT CAN BE MADE TO REPAIR THE DEFECTIVE UNIT. THE CONTRACTOR OR THE SUPPLIER SHALL MAKE THE REPAIR TO THE SATISFACTION OF THE ENGINEER.

HANDLING, STORAGE AND SHIPPING
ALL UNITS SHALL BE HANDLED, STORED, AND SHIPPED IN SUCH A MANNER AS TO AVOID CRACKING AND CHIPPING.

UNIT FILL
FOR UNITS WITH VOIDS, THE WALL MANUFACTURER SHALL SPECIFY UNIT FILL. UNIT FILL SHALL BE PLACED WITHIN THE UNIT VOIDS AND BETWEEN THE TAILS OF THE UNITS TO THE BACK END OF THE TAILS.

LEVELING PAD
THE LEVELING PAD SHALL BE CONSTRUCTED OF ⅜" TO ¾" CRUSHED STONE, AND CONFORM TO ODOT 304. NO PEA GRAVEL OR ROUNDED AGGREGATE SHALL BE USED.

CONSTRUCTION REQUIREMENTS

WALL EXCAVATION
UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH CMS 503 EXCEPT THAT THE LIMITS OF EXCAVATION SHALL BE AS SHOWN IN THE PLANS.

FOUNDATION PREPARATION
A. NATIVE FOUNDATION SOIL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR PRIOR TO PLACEMENT OF LEVELING PAD MATERIAL.
B. IN-SITE FOUNDATION SOIL SHALL BE EXAMINED BY THE ENGINEER TO ENSURE THAT THE SOIL MEETS OR EXCEEDS DESIGN STRENGTH. SOIL NOT MEETING DESIGN STRENGTH SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE COMPACTED MATERIAL: AND INCLUDED WITH PAYMENT FOR ITEM 503-UNCLASSIFIED EXCAVATION.

A SIX (6) INCH MINIMUM THICKNESS COMPACTED GRANULAR MATERIAL OR CONCRETE LEVELING PAD SHALL BE PROVIDED AS SHOWN ON THE PLANS.

INSPECTION
WALL MANUFACTURER SHALL PROVIDE SUFFICIENT ON-SITE TECHNICAL ASSISTANCE BY A COMPANY REPRESENTATIVE TO ASSURE THAT THE CONTRACTOR AND THE ENGINEER FULLY UNDERSTAND THE CONSTRUCTION PROCEDURES. THE ENGINEER WILL MONITOR THE ERECTION OF THE STRUCTURE AND PLACEMENT OF SELECT GRANULAR EMBANKMENT MATERIAL WITH TECHNICAL ASSISTANCE FROM THE WALL MANUFACTURER.
ANY WORK NOT SATISFYING THESE REQUIREMENTS ARE SUBJECT TO REJECTION BY THE ENGINEER.

DESIGN REQUIREMENTS
THE DESIGN OF THE WALL SHALL BE IN STRICT CONFORMANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION EXCEPT AS STATED IN THIS DOCUMENT, THE LATEST EDITION OF THE OHIO DOT BRIDGE DESIGN MANUAL, EXCEPT AS STATED IN THIS DOCUMENT, AND THE DESIGN REQUIREMENTS LISTED BELOW:
1. THE DESIGN SHALL MEET ALL PLAN REQUIREMENTS.
2. THE COEFFICIENT OF LATERAL EARTH PRESSURE K AND THE APPLICATION OF THE LATERAL FORCES TO THE REINFORCED SOIL MASS FOR EXTERNAL STABILITY ANALYSIS SHALL BE COMPUTED USING THE COULOMB METHOD.
3. THE MINIMUM DEPTH OF EMBEDMENT, MEASURED FROM THE FINISHED GROUND LINE TO THE TOP OF THE LEVELING PAD SHALL BE AT LEAST 9 INCHES.
4. THE MINIMUM THICKNESS OF THE LEVELING PAD SHALL BE 6 INCHES.
5. THE WALL SYSTEM SHALL ACCOMMODATE UP TO ONE PERCENT DIFFERENTIAL SETTLEMENT IN THE LONGITUDINAL DIRECTION.

METHOD OF MEASUREMENT
THE WALL QUANTITY TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF SQUARE FEET OF FACIAL AREA OF APPROVED GRAVITY BLOCK WALL UNITS IN PLACE.

BASIS OF PAYMENT
ITEM 530 SPECIAL STRUCTURE MISC.: GRAVITY BLACK WALL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT. THIS WORK SHALL INCLUDE THE MANUFACTURING, FURNISHING, AND THE INSTALLATION OF THE MODULAR BLOCK WALLS, INCLUDING THE SEGMENTAL CONCRETE FACING UNITS, THE CORRUGATED PLASTIC PIPES, ½"PEJF, LEVELING PAD, AND ALL INCIDENTALS, LABOR, AND EQUIPMENT NECESSARY TO COMPLETE THIS ITEM. THE WALL PAYMENT SHALL ALSO INCLUDE SHOP DRAWING PREPARATION AND SUBMISSION.

SUBMITTALS SHOP DRAWING
THE CONTRACTOR SHALL SUBMIT TWO SETS OF SHOP DRAWINGS AND TWO SETS OF DESIGN COMPUTATIONS STAMPED AND SIGNED BY TWO PROFESSIONAL ENGINEERS REGISTERED IN THE STATE OF OHIO TO THE ENGINEER FOR APPROVAL. IF THE COMPUTATIONS ARE COMPUTER GENERATED, ONE SAMPLE HAND CALCULATION, SHALL ALSO BE SUBMITTED. THE SUBMISSION SHALL ALSO INCLUDE A PDF OF ALL DESIGN CALCULATIONS AND SHOP DRAWINGS. THE CONTRACTOR SHALL ALLOW 30 DAYS FOR REVIEW. THE SUBMITTAL MUST BE APPROVED BEFORE THE WALLS MAY BE CONSTRUCTED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE WALL COMPANY COMPLIES WITH ANY CORRECTIONS OF THE SUBMITTAL AND THAT THE CONSTRUCTION DRAWINGS AND DESIGN COMPUTATIONS MEET ALL DESIGN REQUIREMENTS LISTED IN THIS DOCUMENT.

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
GRAVITY BLOCK WALL
GENERAL NOTES

Revisions
No.

Drawn by SRD	Date 10/28/11
Designed by EJM	Date 10/28/11
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Consultant

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SIGNING NOTES:

1. ALL CURB CONTROL (PARKING) SIGNS SHALL BE MOUNTED AT A 45 DEGREE ANGLE FROM THE CURB. ALL OTHER SIGNS SHALL BE MOUNTED AT A 90 DEGREE ANGLE FROM THE CURB (PERPENDICULAR). SEE CITY STANDARD DRAWINGS ES–6–1 AND ES–6–2 FOR SIGN MOUNTING AND POST INSTALLATION DETAILS. FOR HANGING SIGNS, SEE CITY STANDARD DRAWING ES–3–10A.

2. THE CONTRACTOR SHALL SUBMIT TO THE CITY TRAFFIC ENGINEER FOR REVIEW AND APPROVAL SEVEN (7) SETS OF DRAWINGS, CATALOG CUTS AND SPECIFICATIONS FOR ALL TRAFFIC CONTROL SIGNS. NO SIGNS MAY BE PURCHASED OR INSTALLED WITHOUT WRITTEN APPROVAL.

3. THE CONTRACTOR SHALL MAINTAIN AND KEEP ERECT ALL EXISTING STREET NAME SIGNS DURING CONSTRUCTION. WHEN NECESSARY DUE TO CONSTRUCTION CONFLICTS OR ACTIVITIES, THE CONTRACTOR SHALL RELOCATE THE EXISTING IF POSSIBLE OR REMOVE THE EXISTING FOR STORAGE AND PICK–UP BY CITY FORCES. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF SEVEN (7) DAYS NOTICE TO THE DIVISION OF TRAFFIC ENGINEERING AT 352–6229 PRIOR TO THE FINAL TRAFFIC SIGN INSTALLATIONS TO ARRANGE FOR CITY FORCES TO ERECT THE FINAL STREET NAME SIGNS AS NOTED ON THE PLANS. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 614 MAINTENANCE OF TRAFFIC.

4. IN ADDITION TO THE REQUIREMENTS OF ITEM 630, ALL FLAT SHEET SIGNS AND GROUND MOUNTED EXTRUDED SHEET SIGNS SHALL USE TYPE G, H OR J REFLECTIVE SHEETING FOR BACKGROUND AND REFLECTIVE LEGENDS. FLUORESCENT YELLOW GREEN REFLECTIVE SHEETING SHALL BE USED FOR THE FOLLOWING SIGNS: SCHOOL (CITY #63PL AND #63P), ADVANCE SCHOOL WARNING (CITY #63 AND #63L), ADVANCE SCHOOL WARNING (CITY #66 AND #66I), AND THE YELLOW PORTIONS OF SCHOOL SPEED LIMIT SIGNS (CITY #159, #169I AND #169R). FABRICATE SUPPLEMENTAL SIGNS (SUCH AS "AHEAD", DISTANCE PLATE, ARROW PLATE) FROM FLUORESCENT YELLOW GREEN SHEETING WHEN USED WITH A SIGN ABOVE.

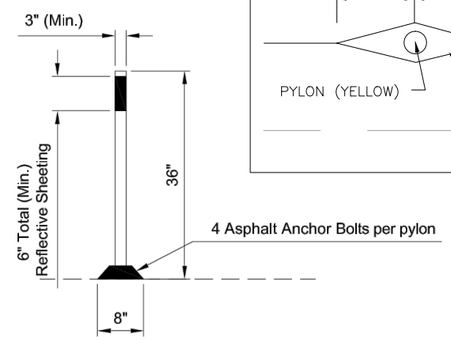
ITEM 620 – REBOUNDABLE TUBULAR PYLON, TYPE C, SURFACE MOUNT, 36" HIGH

DESCRIPTION
FURNISH AND INSTALL NEW REBOUNDABLE TUBULAR PYLONS WITH REFLECTIVE SHEETING AS REQUIRED, IN ACCORDANCE WITH OHIO DEPARTMENT STANDARD DRAWING TC–61.10 AND OHIO MANUAL OF TRAFFIC CONTROL DEVICES FIGURE 3D–02.D. INSTALL PYLONS, AS MODIFIED ON THE PLANS, AT LOCATIONS SPECIFIED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. FOUR ASPHALT ANCHOR BOLTS SHALL BE USED FOR ATTACHING EACH PYLON TO THE PAVEMENT.

MATERIAL
FLEXIBLE POSTS SHALL CONFORM TO 720.03 AND SUPPLEMENTAL SPECIFICATIONS 1020. REFLECTIVE SHEETING SHALL CONFORM WITH 730.191. ASPHALT ANCHORS SHALL BE LARGE DIAMETER TAPCON 3/8"X3" AS MANUFACTURED BY REDHEAD, OR APPROVED EQUAL.

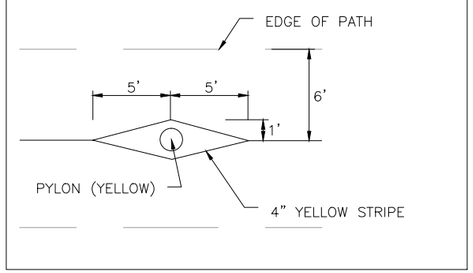
SUBMITTALS
SUBMIT TWO (2) COPIES OF THE MANUFACTURER'S TECHNICAL DATA, SHOP DRAWINGS, AND SPECIFICATIONS FOR EACH MANUFACTURED PRODUCT, INCLUDING CERTIFICATION THAT EACH PRODUCT CONFORMS WITH THE SPECIFIED REQUIREMENTS. SUBMIT COLOR SAMPLES FOR ALL FINISHES.

METHOD OF PAYMENT
PAYMENT FOR FURNISHING, PAINTING, HAULING, AND INSTALLING REBOUNDABLE TUBULAR PYLONS INCLUDING BASE PLATES, CONNECTING PINS, REFLECTIVE SHEETING AND ASPHALT ANCHORS SHALL BE INCLUDED IN THE UNIT PRICE PER EACH REBOUNDABLE TUBULAR PYLON INSTALLED FOR THIS ITEM AND SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIAL AS REQUIRED.

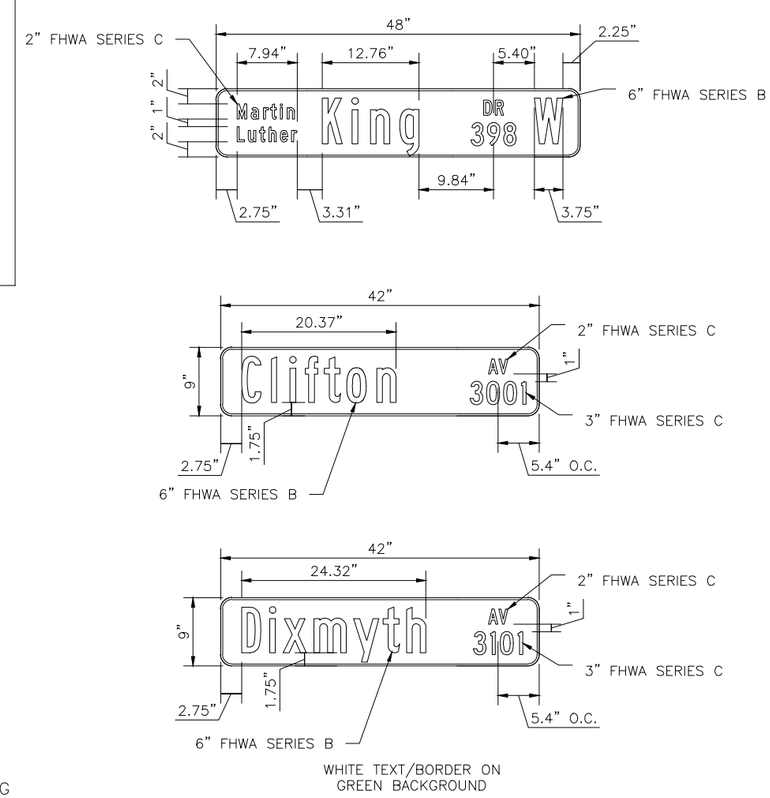


Elevation
Reboundable Tubular
Pylon, Type C,
Surface Mount, 36" High

REBOUNDABLE TUBULAR PYLON/MARKING DETAIL



TYPICAL 9" STREET NAME SIGN DOUBLE–SIDED DETAILS



LEGEND:

1	CENTERLINE, YELLOW:	4"–4"–4", DOUBLE SOLID
2	LANE LINE, WHITE:	4", (10'–30'–10')
3	CENTERLINE, YELLOW:	4"–4"–4", SOLID/BROKEN (10'–30'–10')
4	EDGE LINE, WHITE:	4"
5	EDGE LINE, YELLOW:	4"
6	CHANNELIZING LINE, WHITE:	8"
7	STOP LINE, WHITE:	12"
8	STOP LINE, WHITE:	24"
9	TURNING GUIDE LINE, WHITE:	8"
10	CROSSWALK LINE, WHITE:	6"
11	CROSSWALK LINE, WHITE:	12", SEE ZEBRA WALK DETAIL (CMS 647)
12	TRANSVERSE LINE, WHITE:	12" (12' ALONG CENTERLINE)
13	TRANSVERSE LINE, YELLOW:	12" (12' ALONG CENTERLINE)
14	ARROW:	(SEE OMUTCD)
15	SHARED LANE MARKING:	(SEE OMUTCD, CMS 647)
16	YIELD LINE:	24"
17	TUBULAR PYLON/MARKINGS	SEE TUBULAR PYLON/MARKINGS DETAIL

PAVEMENT MARKING NOTES:

1. THE CONTRACTOR SHALL LAYOUT THE LOCATION OF ALL PAVEMENT MARKINGS TO ASSURE THEIR PROPER PLACEMENT.

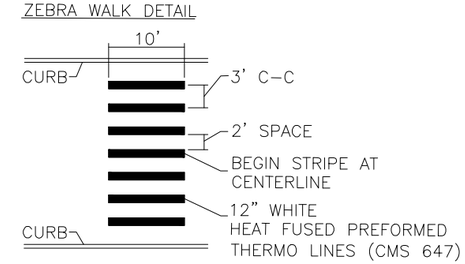
   THE CONTRACTOR SHALL CALL THE DIVISION OF TRAFFIC ENGINEERING (513–352–6229) FIVE WORKING DAYS IN ADVANCE FOR APPROVAL OF THE LAYOUT AND PREMARKING LINES BEFORE MARKING OPERATIONS ARE STARTED.

2. ALL EXISTING PAVEMENT MARKING WHICH CONFLICT WITH THE FINAL PAVEMENT MARKINGS SHALL BE REMOVED BY SANDBLASTING OR OTHER METHODS WITH THE APPROVAL OF THE ENGINEER. COST FOR THE WORK IS INCIDENTAL TO THE COST OF THE NEW PAVEMENT MARKING.

3. ALL MARKINGS SHALL BE THERMOPLASTIC MATERIAL AND MEET THE REQUIREMENT OF ITEM 644, UNLESS OTHERWISE NOTED.

4. TWO WAY RAISED PAVEMENT MARKERS (RPM) SHALL BE INSTALLED ON WEST MLK DRIVE WITHIN PROJECT LIMITS. REFER TO SPECIAL PROVISIONS FOR DETAILS. RPM LOCATIONS SHOWN IN THE PLANS ARE FOR INFORMATION ONLY AND ACTUAL LOCATIONS SHALL BE DETERMINED IN THE FIELD BASED ON DASHED LINE LAYOUTS AND EXISTING MARKINGS AT PROJECT LIMITS.

ZEBRA WALK DETAIL



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRIVE TRAFFIC CONTROL
STA. 11+50 TO STA. 12+50

Revisions
No.

Date | Date | Date | Date
Drawn by | Designed by | Checked by | Reviewed by

Consultant

Structure File Number

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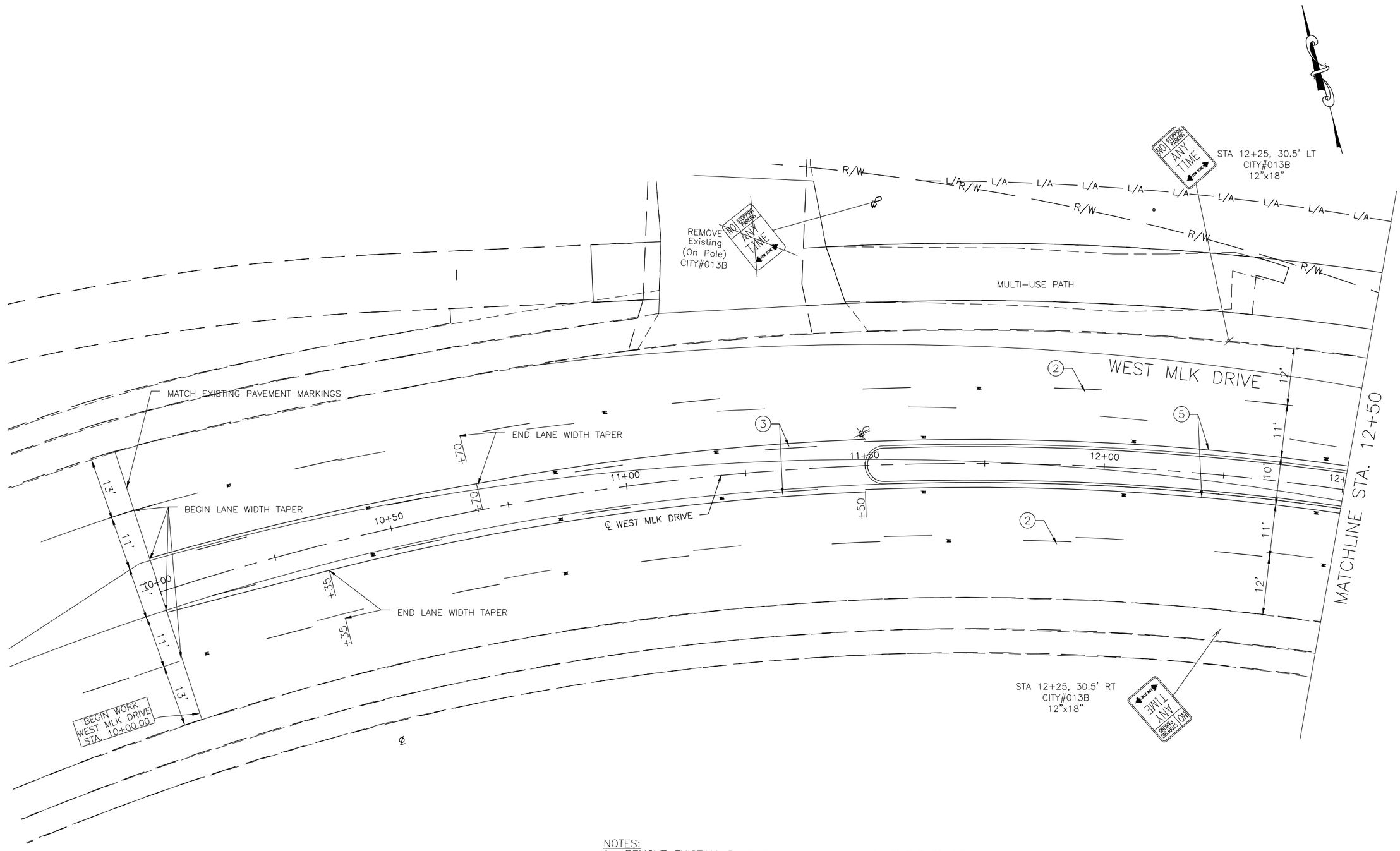
23124



NOTES:
1. REMOVE EXISTING PAVEMENT MARKINGS ON PAVEMENT TO REMAIN BETWEEN AT LEAST STA. 10+00 AND PAVING LIMITS AT STA. 12+70.

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

SEE NOTES ON SHEEET 122

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 11+50 TO STA. 12+50

Revisions
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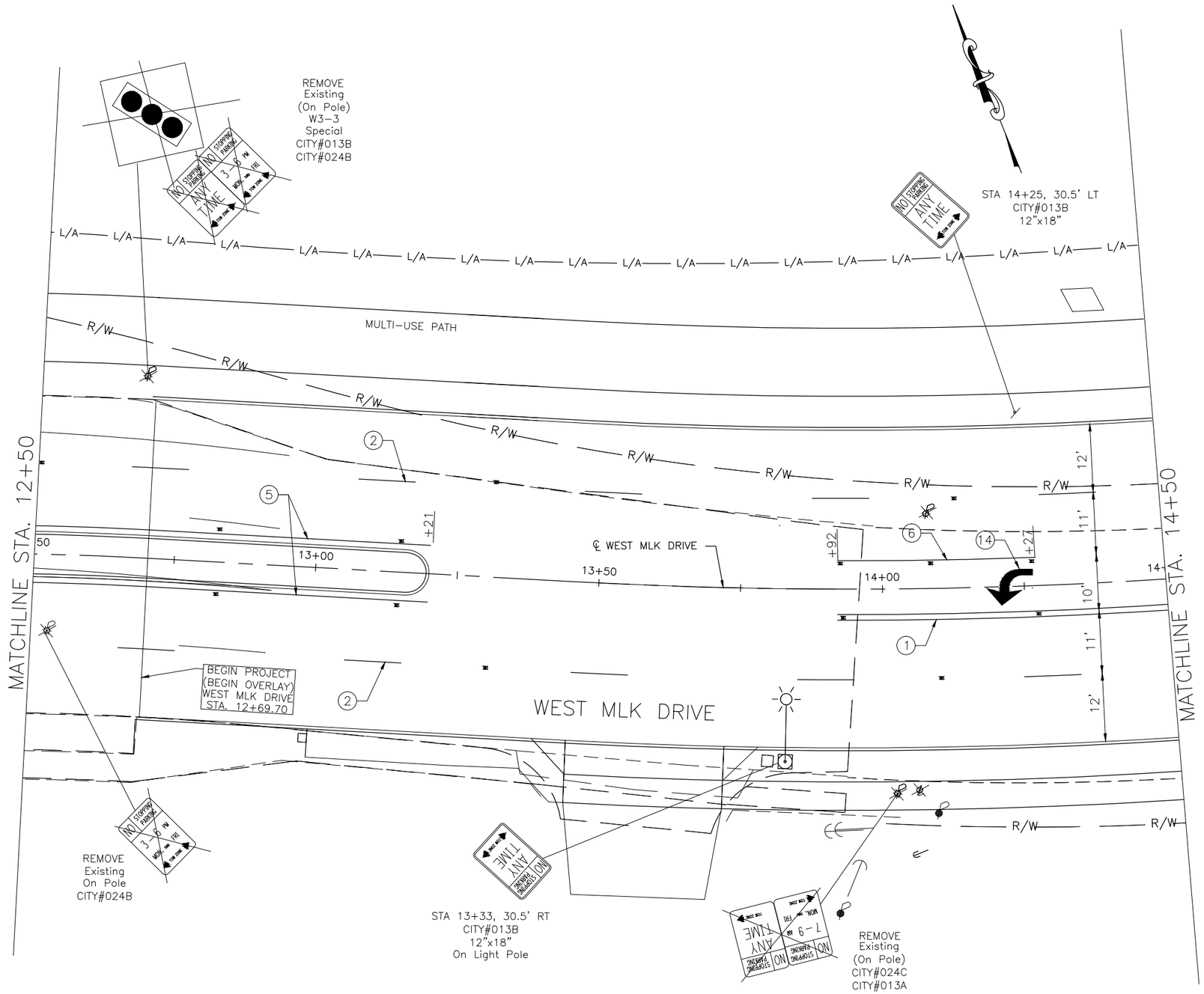

NOTES:

1. REMOVE EXISTING PAVEMENT MARKINGS ON PAVEMENT TO REMAIN BETWEEN AT LEAST STA. 10+00 AND PAVING LIMITS AT STA. 12+69.70.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

SEE NOTES ON SHEEET 122

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRVIE TRAFFIC CONTROL

STA. 12+50 TO STA. 14+50

Revisions

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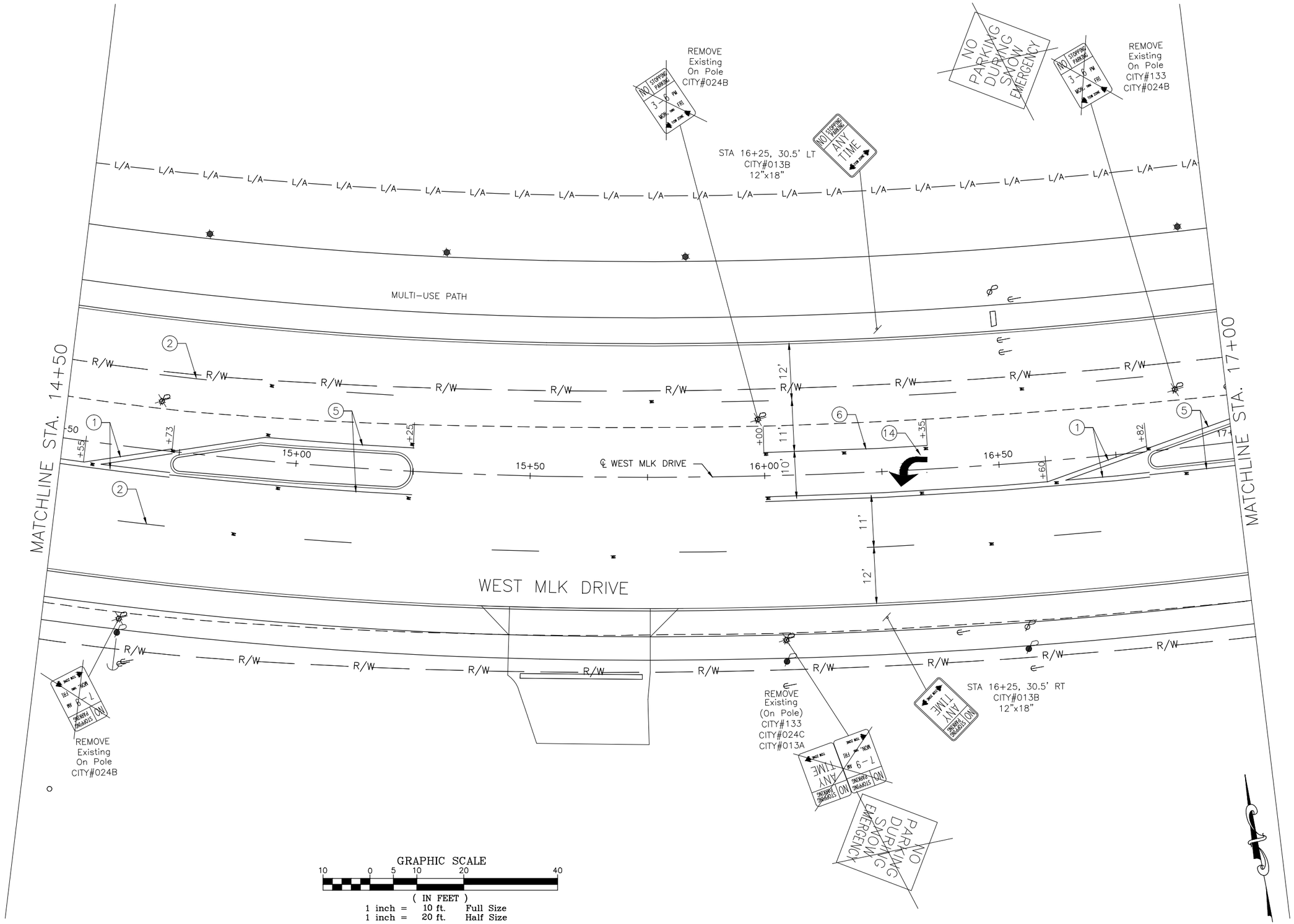

SEE NOTES ON SHEEET 122

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRVIE TRAFFIC CONTROL

STA. 14+50 TO STA. 17+00

Revisions

No.			

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Checked by Date
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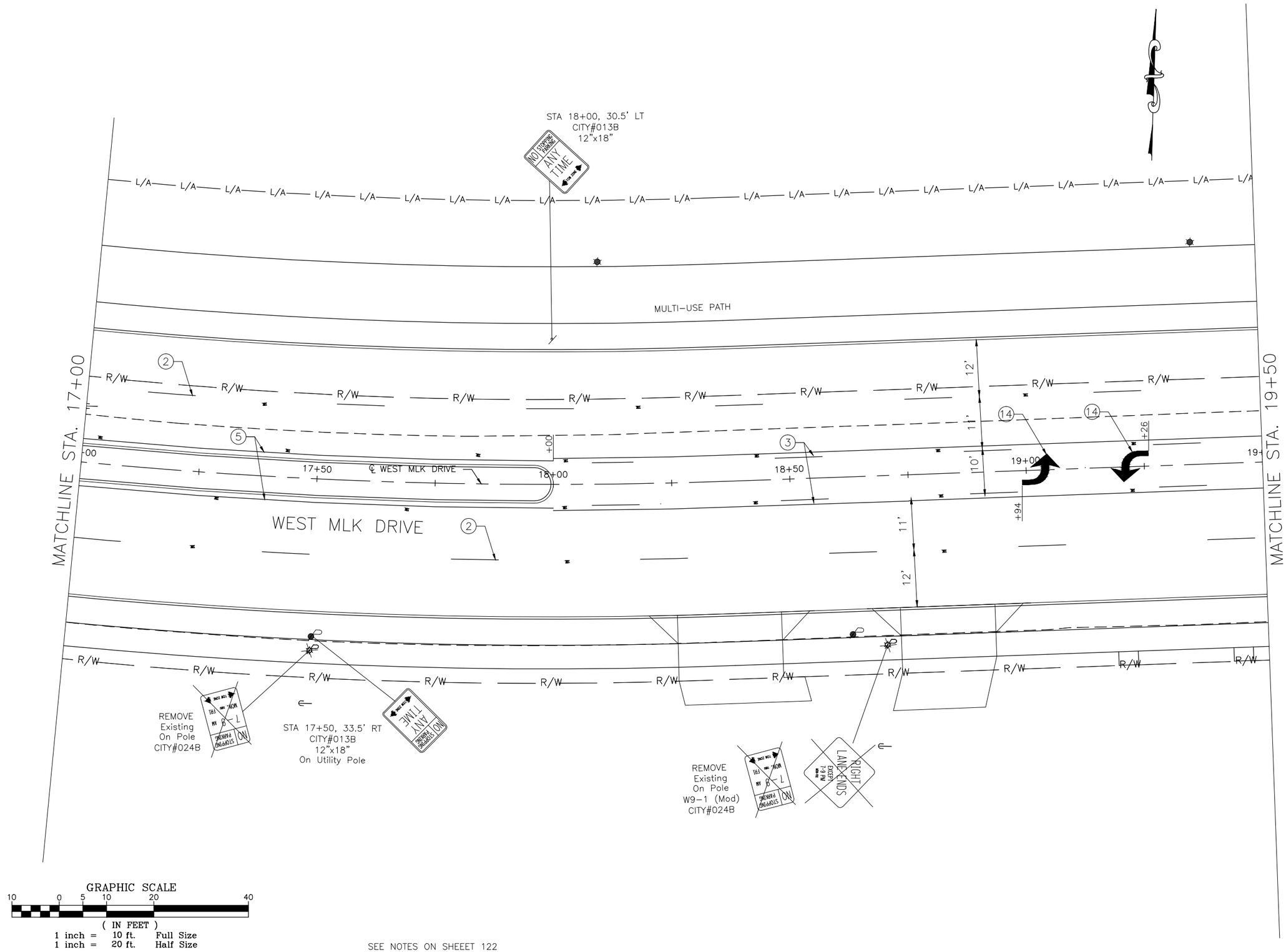

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City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 17+00 TO STA.19+50

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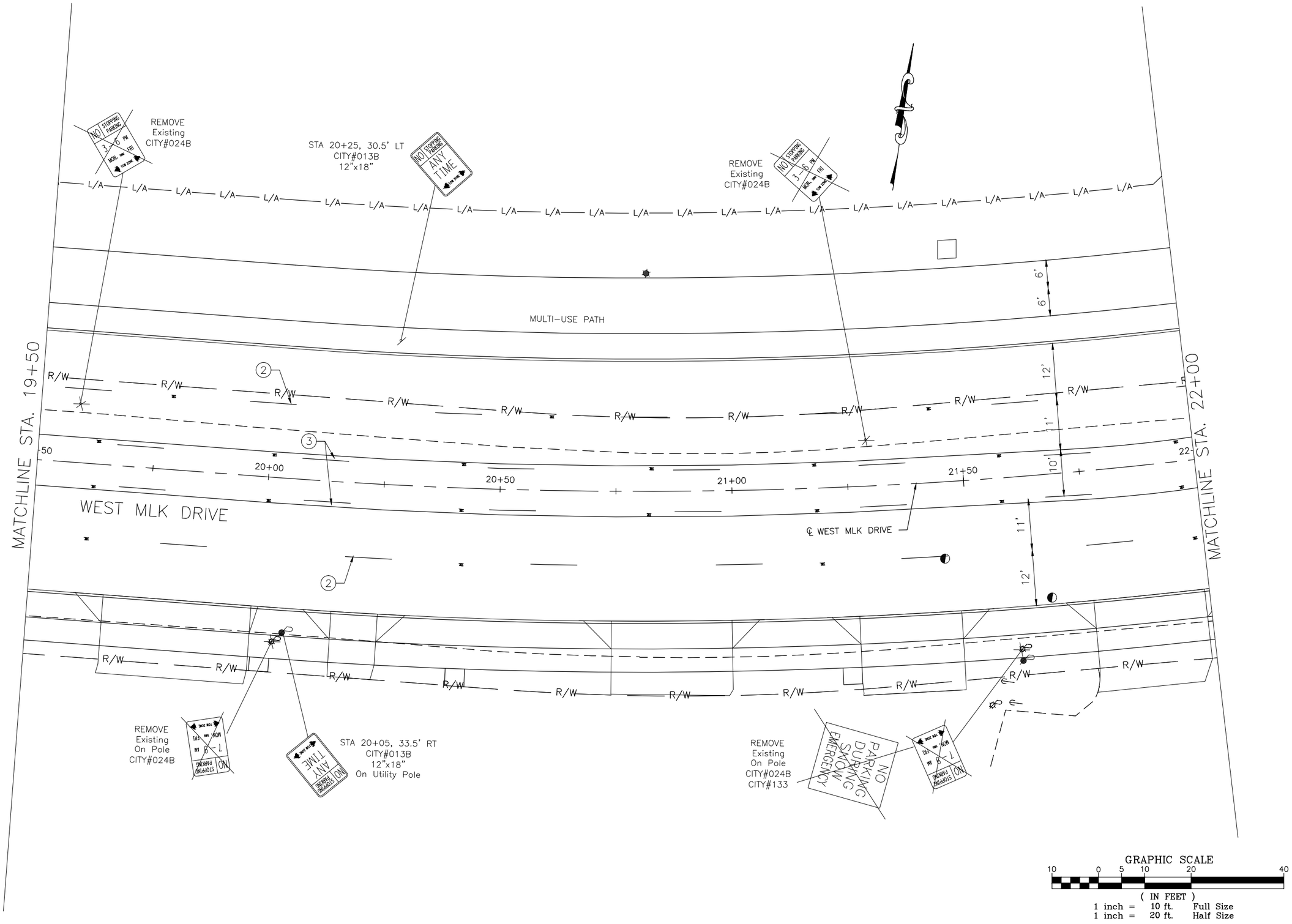

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Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 19+50 TO STA. 22+00

Revisions
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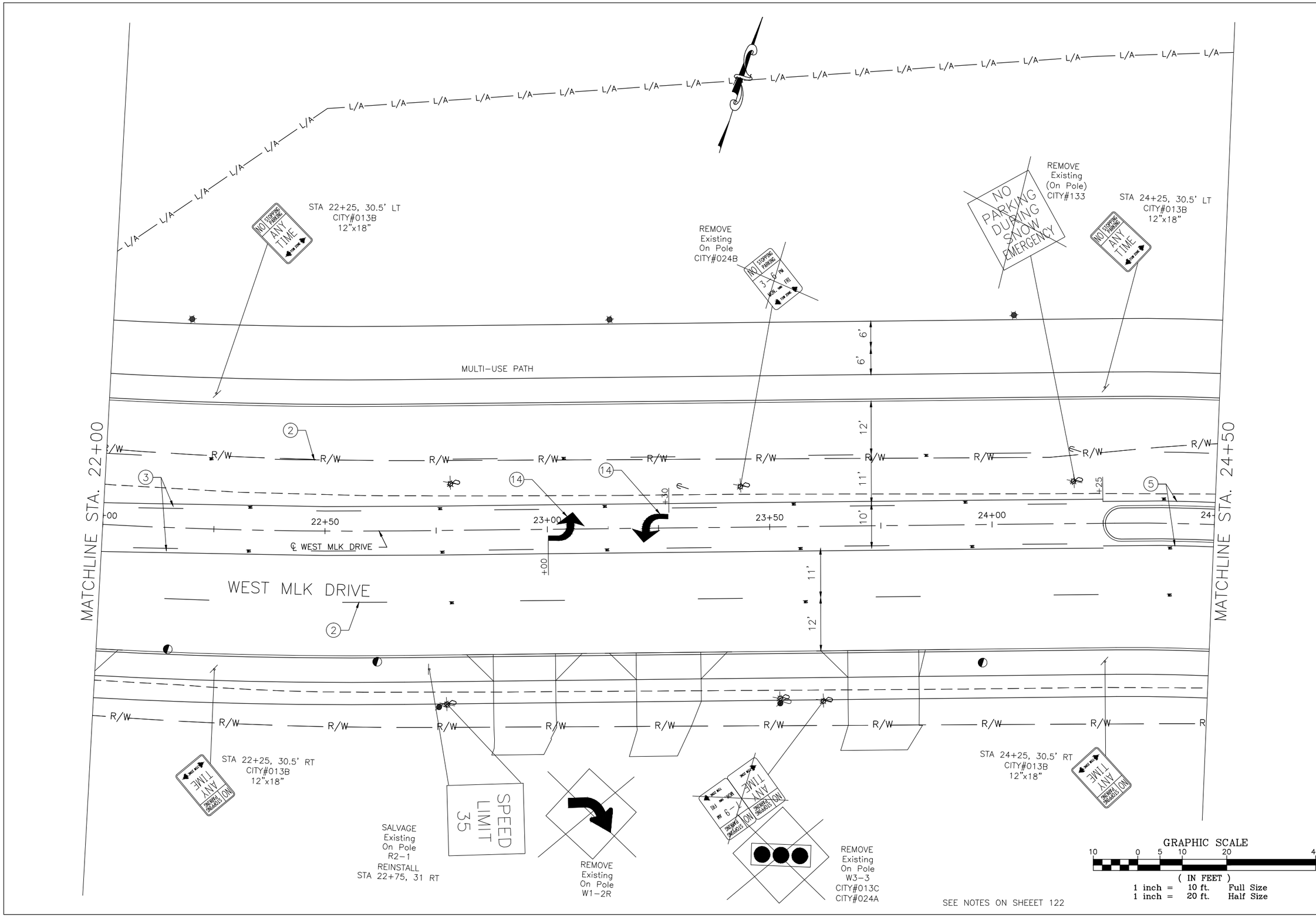

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HAM-CR 612-0.20

WEST MLK DRVIE TRAFFIC CONTROL

STA. 22+00 TO STA. 24+50

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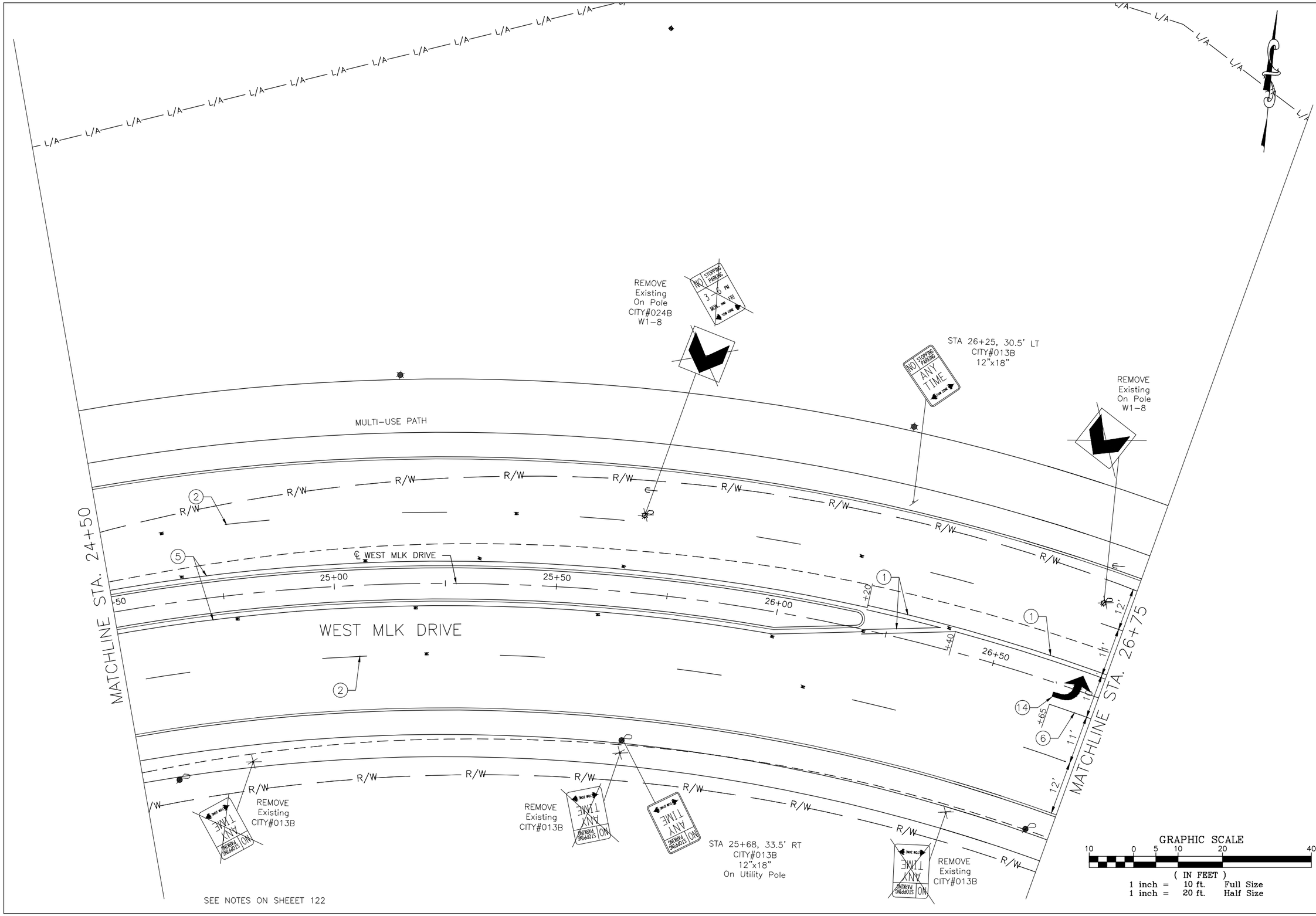

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DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI OHIO

CONTRACT DRAWING

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HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 24+50 TO STA. 26+75

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GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

REMOVE
Existing
(On Pole)
CITY#024C
CITY#013A
W1-8

STA 28+25, 30.5' LT
CITY#013B
12"x18"

REMOVE
Existing
(On Pole)
W4-2
CITY#036P
W1-8

STA 28+75, 30.5'
LT
R2-1
(24"X30")

MULTI-USE PATH

R/W

℄ WEST MLK DRIVE

27+50

27+00

28+00

28+50

29+00

±84

±02

WEST MLK DRIVE

MATCHLINE STA. 26+75

MATCHLINE STA. 29+25

12'

11'

10'

11'

12'

STA 27+67, 33.5' RT
CITY#013B
12"x18"
On Utility Pole

REMOVE
Existing
CITY#013B

SALVAGE
Existing Sign
(Special) and
Pole

REINSTALL
STA 28+44, 32.0' RT
ON NEW FOUNDATION
DESIGN FND-1 WITH NEW
1"x40" ANCHOR BOLTS

Good Samaritan Hospitals

Burnet Woods

Hospitals

UPTOWN

REMOVE
Existing
CITY#013B

SEE NOTES ON SHEEET 122

CITY OF CINCINNATI
DEPARTMENT OF TRANSPORTATION & ENGINEERING
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRVIE TRAFFIC CONTROL

STA. 26+75 TO STA. 29+25

Revisions

No.			

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

MATCH EXISTING PAVEMENT MARKINGS

STA 10+95, 24' LT
R3-2
(36"x36")

SALVAGE
Existing
(On Signal Pole)
Special
REINSTALL
STA 30+57, 51' LT
(On Signal Pole)

REMOVE
Existing
(On Pole)
W1-2L
W13-1
CITY#013B
W1-8

STA 30+22, 30.5' LT
CITY#013B
12"x18"

STA 30+28, 50' LT
R5-3
(24"x24")

REMOVE
Existing
(On Signal Pole)
R9-3A

DIXMYTH AVENUE

Existing
W16-9P
W11-2

STA 11+05, 23' RT
CITY#76A
(24"x30")

Existing
R1-1
(Private Sign)

REMOVE
Existing
(On Pole)
Special
Special

STA 31+37, 44' LT
9" STREET NAME SIGNS
OM3-R (12"x36")
On Signal Pole

STA 31+61, 30' LT
R5-3 (24"x24")
CITY#013B (12"x18")

MULTI-USE PATH

MATCHLINE STA. 29+25

WEST MLK DRIVE

℄ WEST MLK DRIVE

MATCHLINE STA. 31+75

STA 30+25, 30.5' RT
CITY#013B
12"x18"

REMOVE
Existing
R9-3A

REMOVE
Existing
CITY#013B

REMOVE
Existing
(On Signal Pole)
CITY#013B

SALVAGE
Existing
(On Signal Pole)
Special
Special
REINSTALL
STA 30+25, 30.5 RT

REMOVE
Existing
CITY#013B

REMOVE
Existing
Special

STA 31+51, 32.0' RT
9" STREET NAME SIGN
On Signal Pole

SALVAGE
Existing
(On Signal Pole)
Special
REINSTALL
STA 31+51, 32.0' RT
On Signal Pole

STA 31+51, 32.0' RT
CITY#013B
12"x18"
On Signal Pole

SEE NOTES ON SHEEET 122

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 29+25 TO STA. 31+75

Revisions
No.

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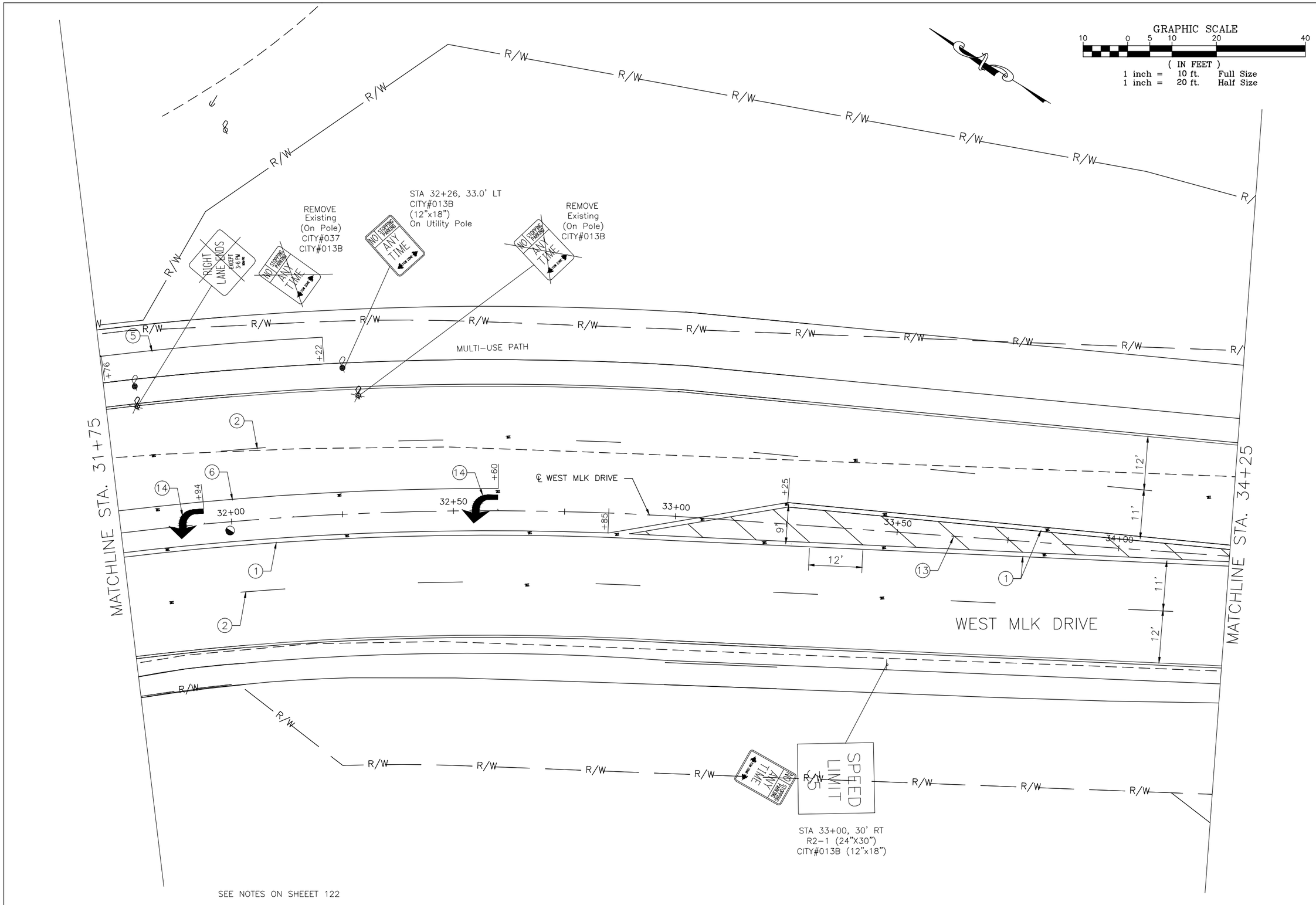
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 31+75 TO STA. 34+25

Revisions

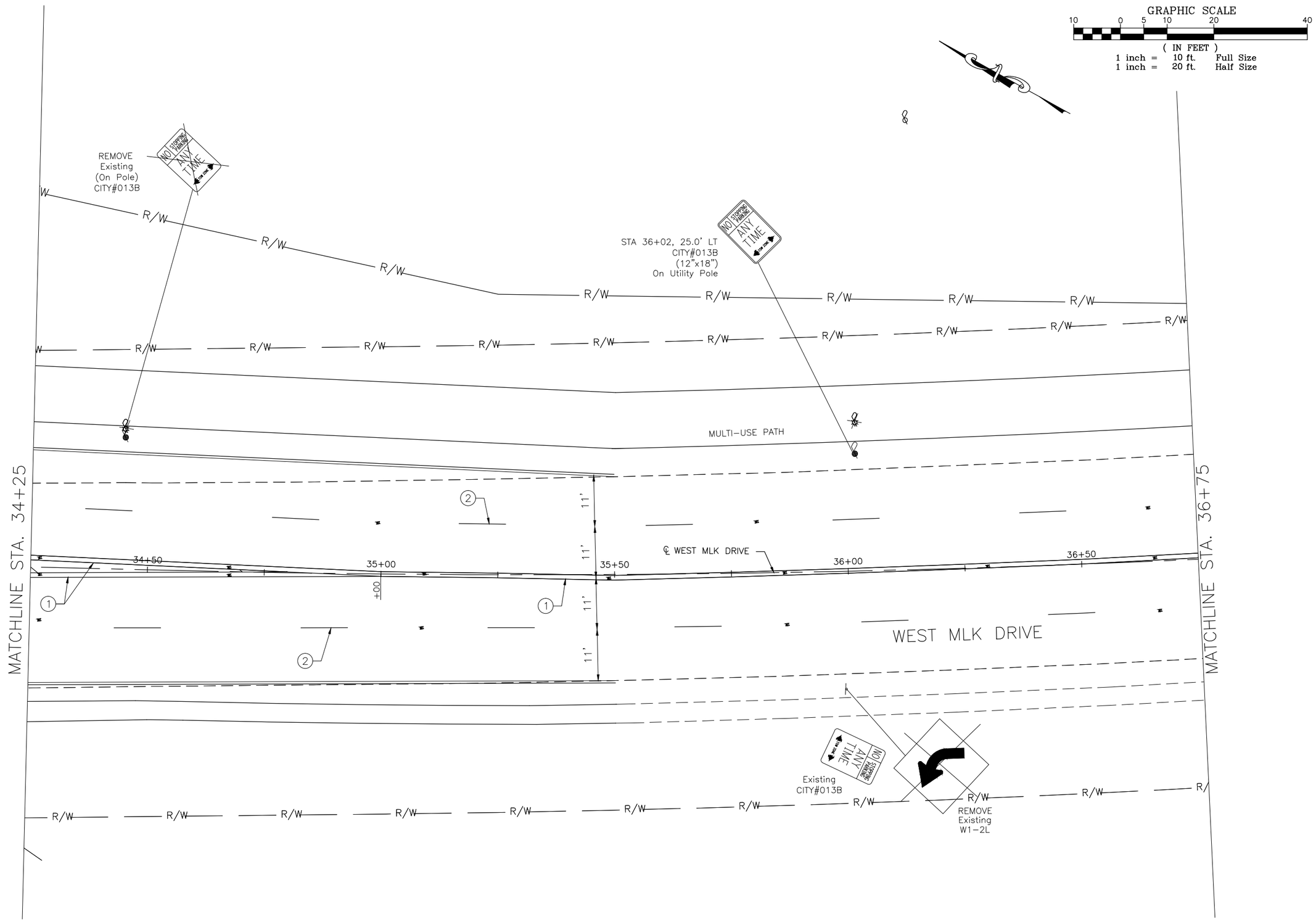
No.			

Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

ACC No. 23124



SEE NOTES ON SHEEET 122

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRIVE TRAFFIC CONTROL

STA. 34+25 TO STA. 36+75

Revisions

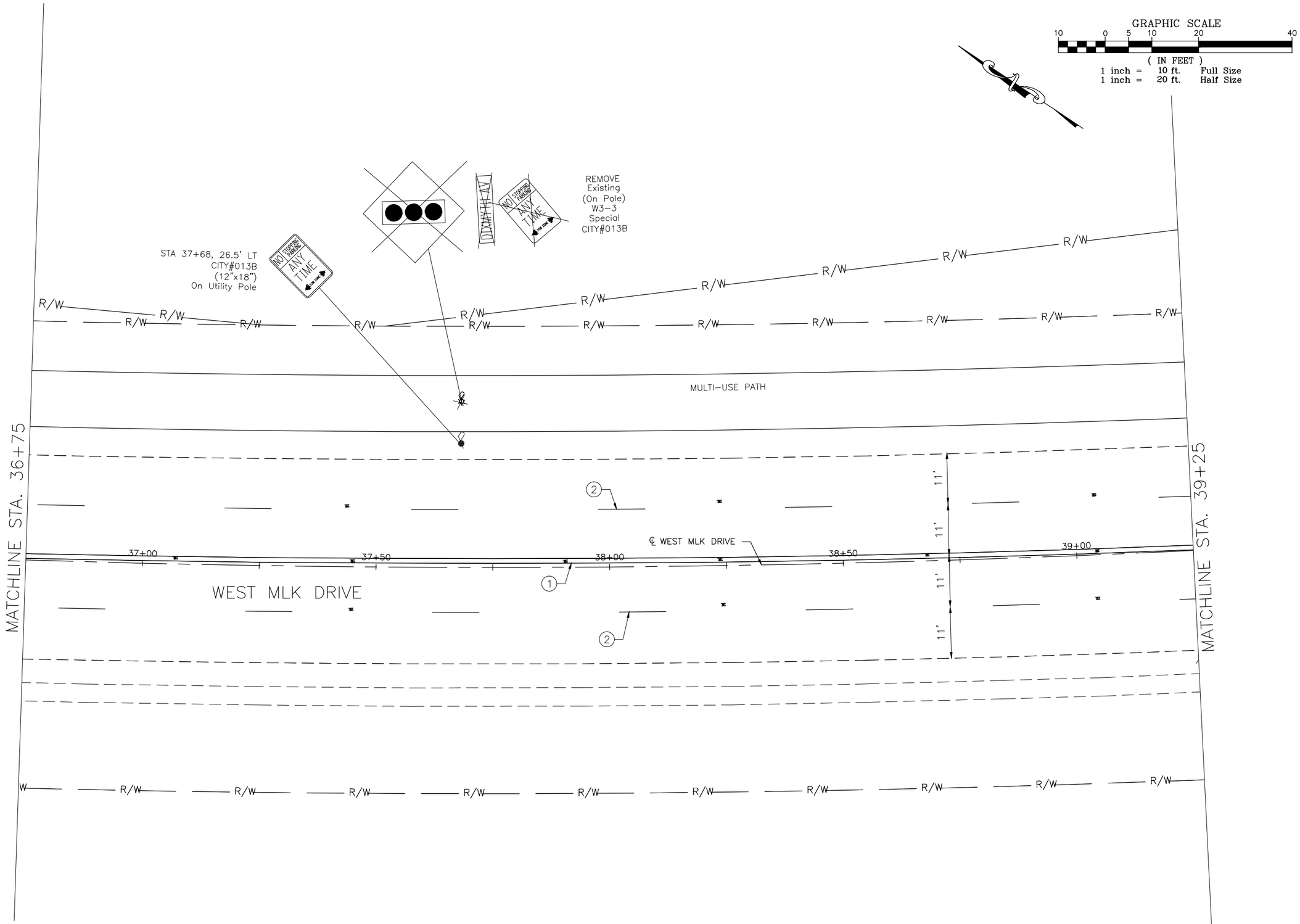
No.			

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRVIE TRAFFIC CONTROL

STA. 36+75 TO STA. 39+25

Revisions

No.			

Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

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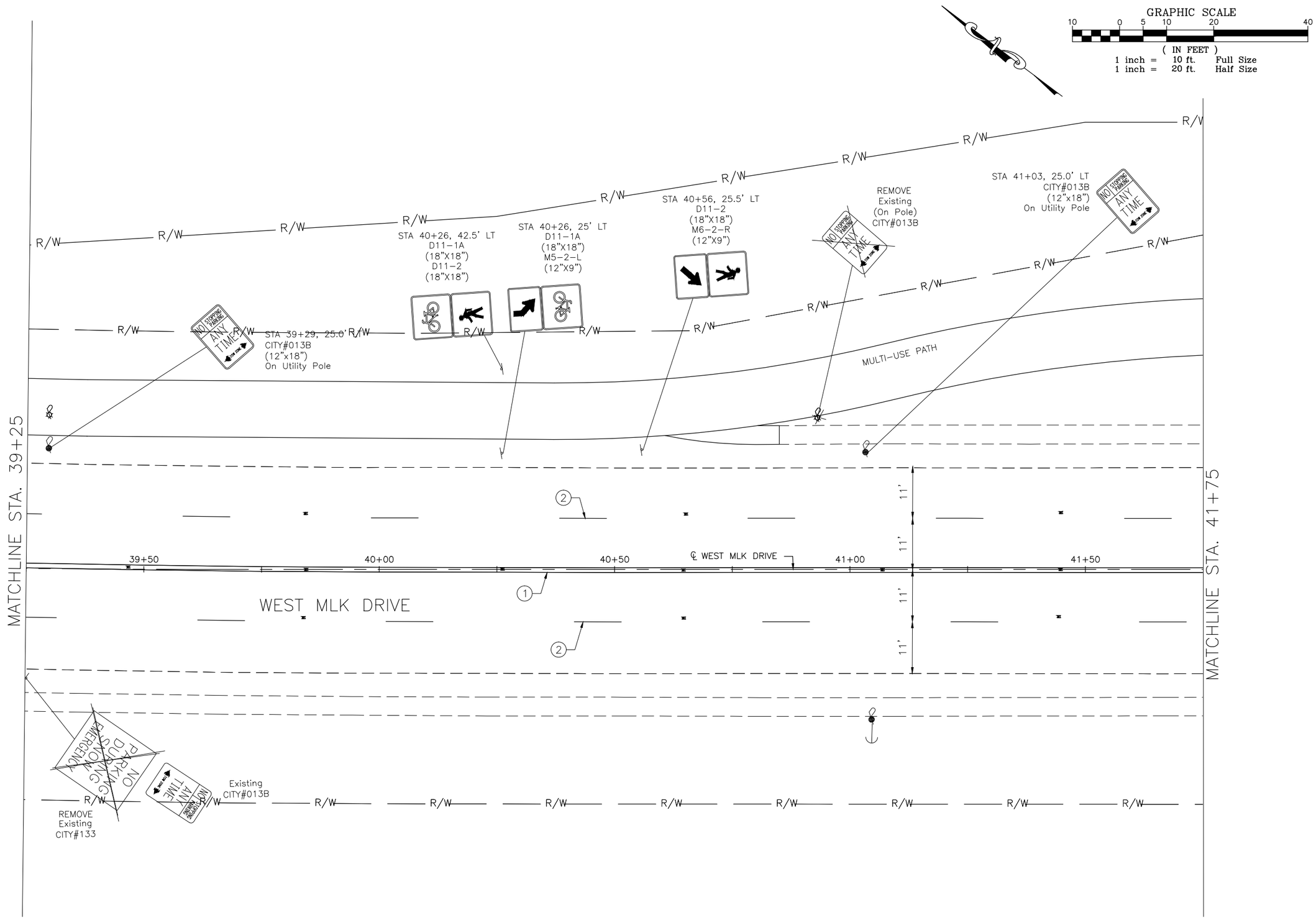
23124



SEE NOTES ON SHEEET 122

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRVIE TRAFFIC CONTROL

STA. 39+25 TO STA. 41+75

Revisions

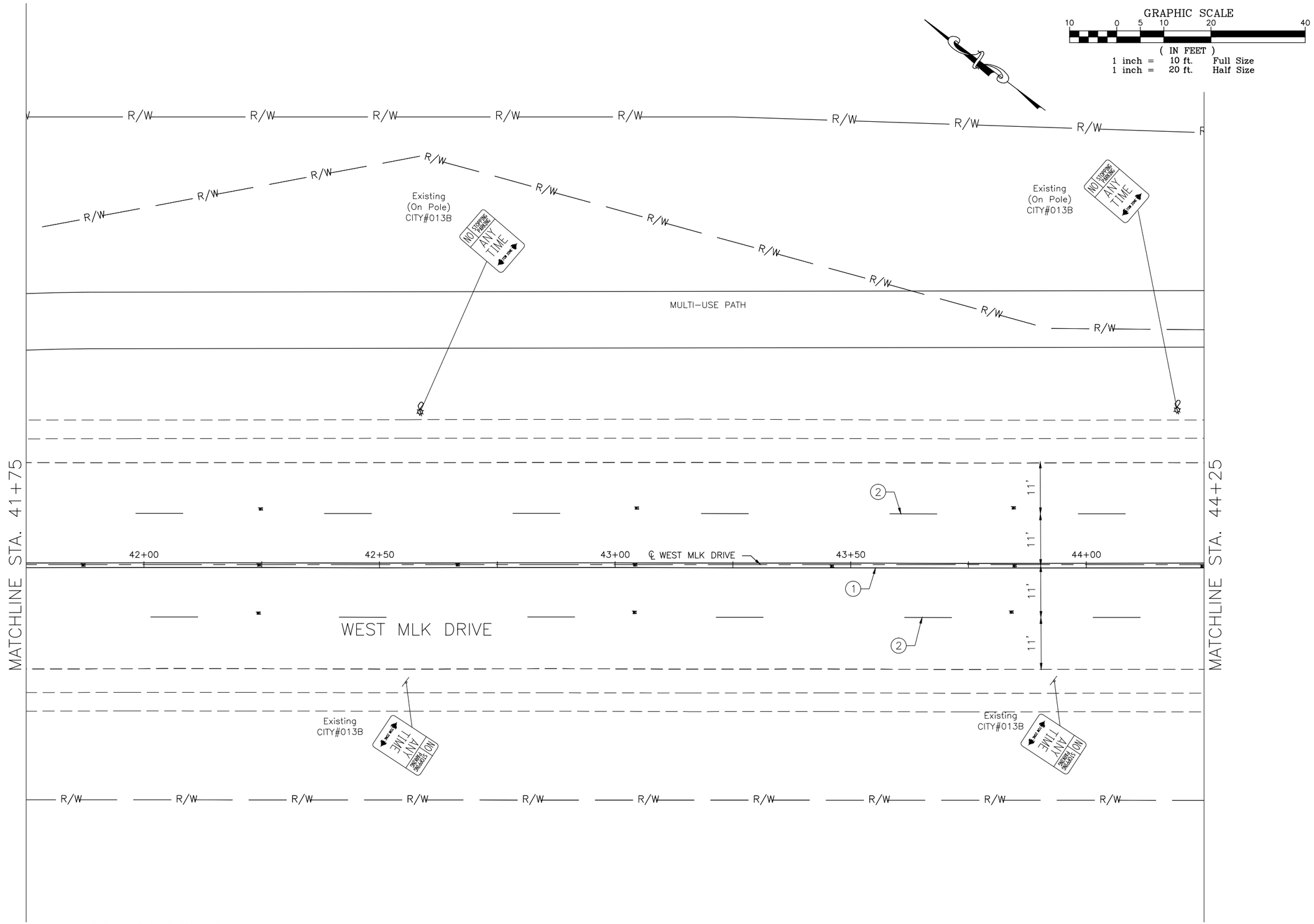
No.			

Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

Consultant

Structure File Number

ACC No.
23124



SEE NOTES ON SHEEET 122

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRIVE TRAFFIC CONTROL

STA. 41+75 TO STA. 44+25

Revisions

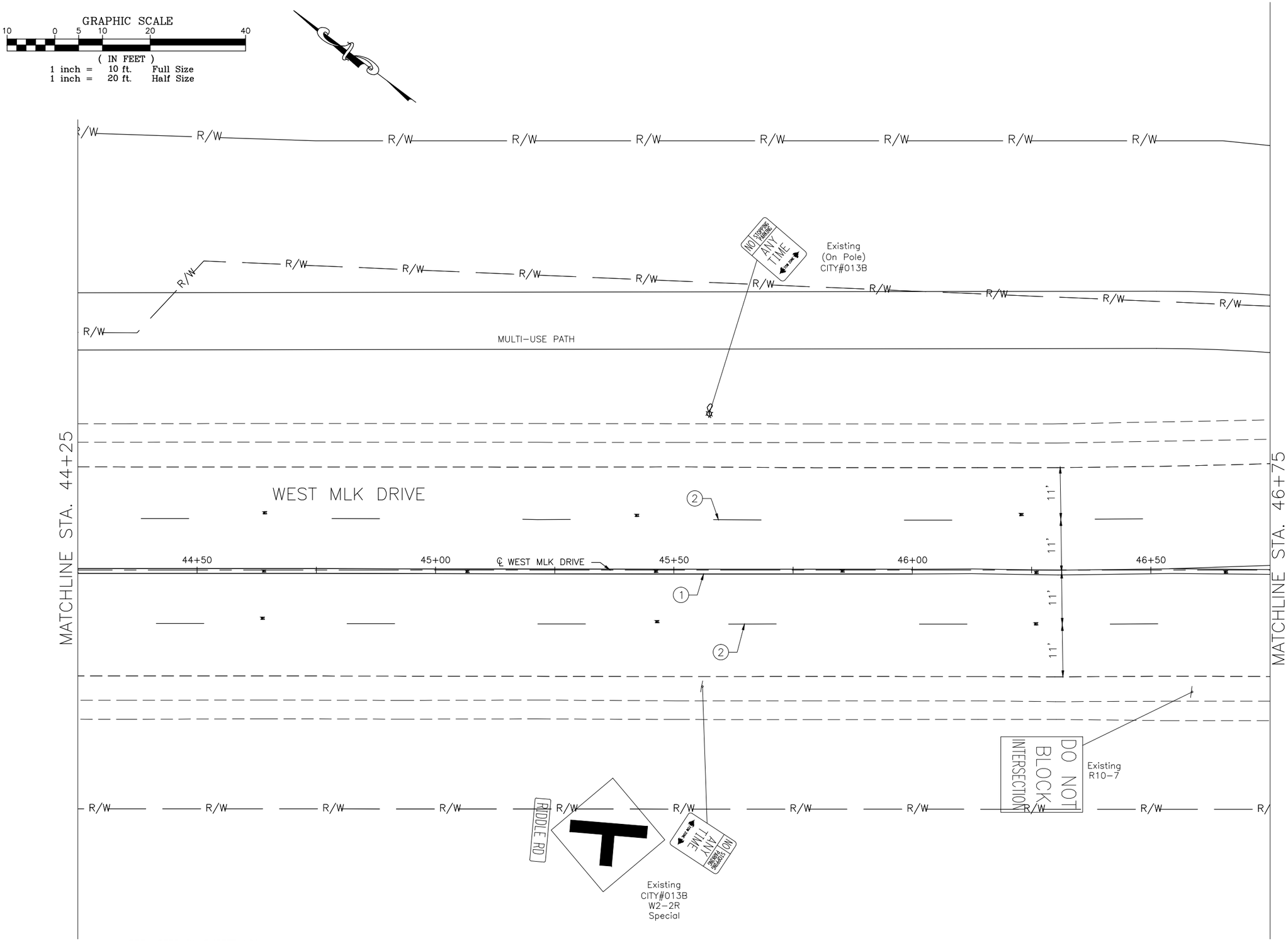
No.			

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRIVE TRAFFIC CONTROL

STA. 44+25 TO STA. 46+75

Revisions

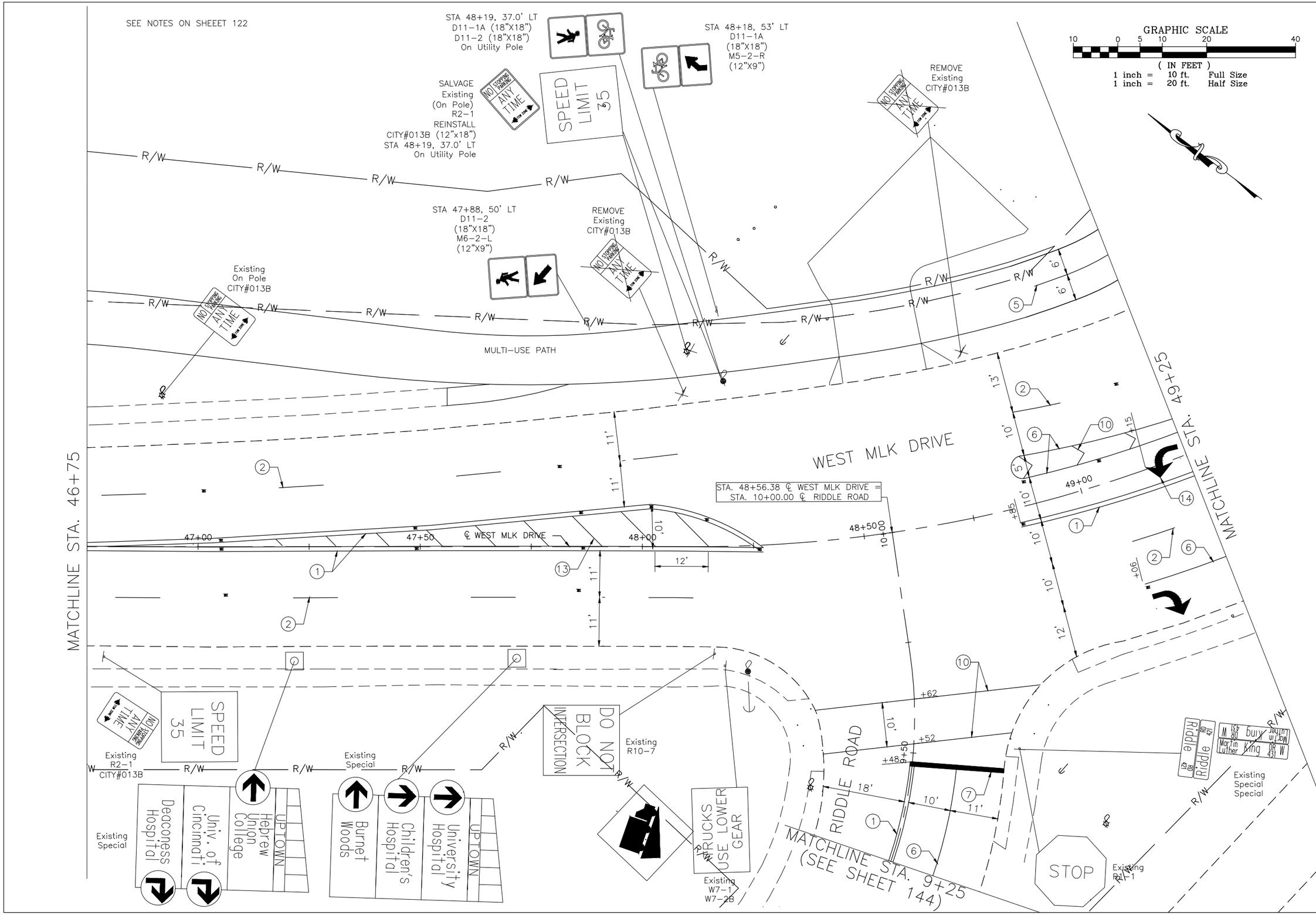
No.			

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20

WEST MLK DRVIE TRAFFIC CONTROL

STA. 46+75 TO STA. 49+25

Revisions

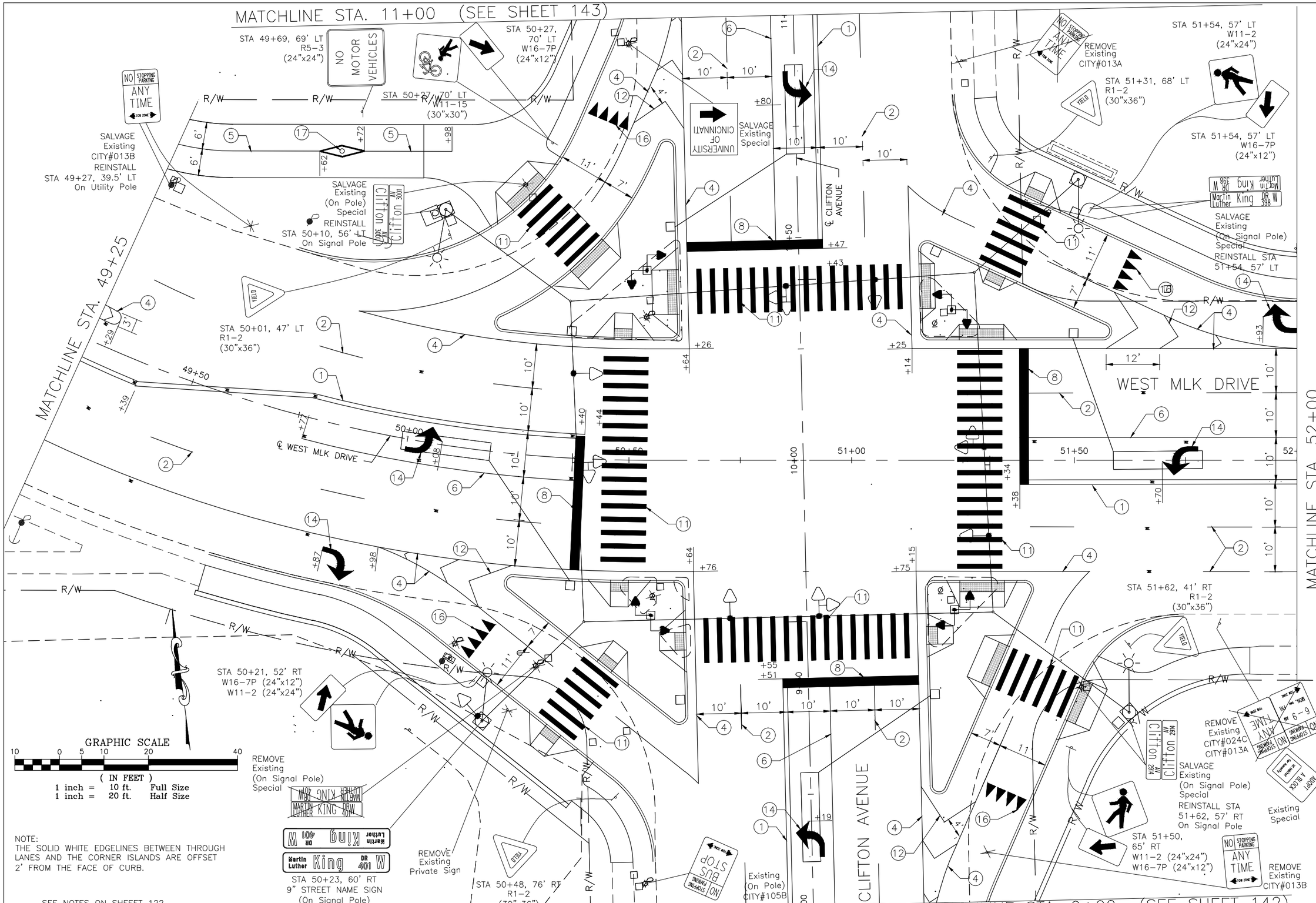
No.				

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



NOTE:
THE SOLID WHITE EDGELINES BETWEEN THROUGH LANES AND THE CORNER ISLANDS ARE OFFSET 2' FROM THE FACE OF CURB.

SEE NOTES ON SHEEET 122

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BID AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 49+25 TO STA. 52+00

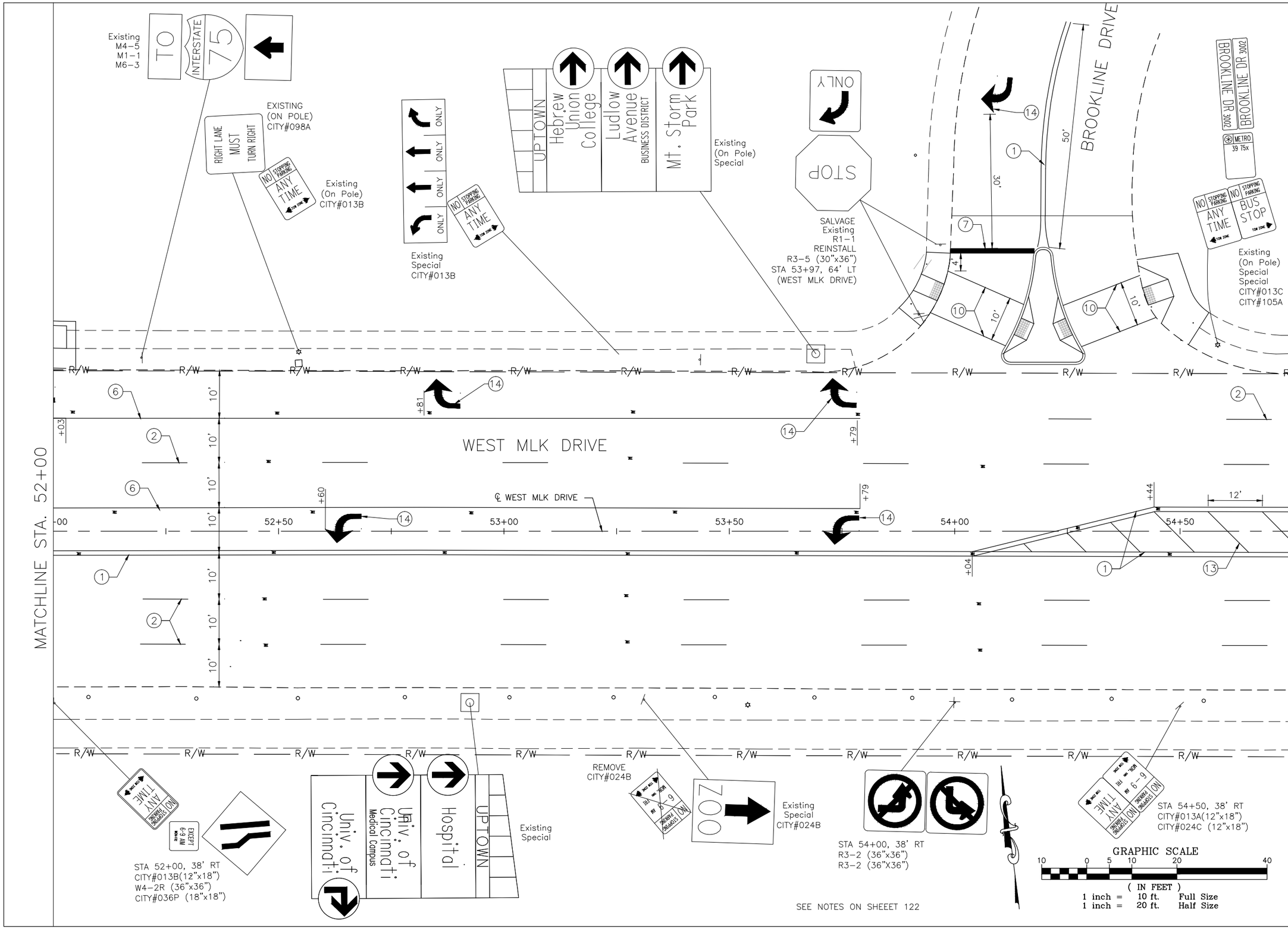
Revisions
No.

Date
Drawn by
Date
Designed by
Date
Checked by
Date
Reviewed by

Consultant

Structure File Number

ACC No.
23124



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 52+00 TO STA. 54+75

Revisions
No.

Drawn by Date
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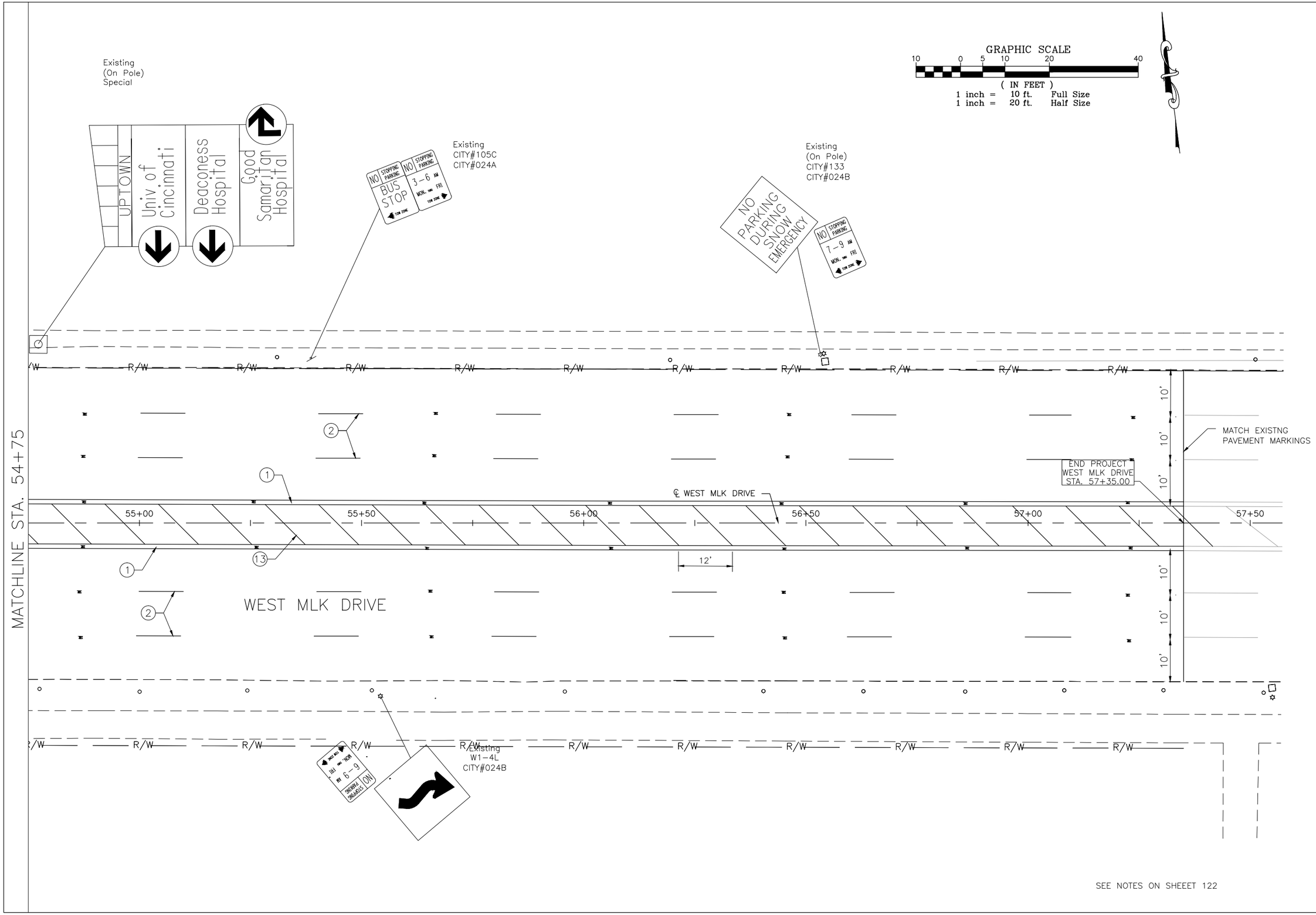
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



SEE NOTES ON SHEEET 122

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK DRVIE TRAFFIC CONTROL
STA. 54+75 TO STA. 57+35

Revisions
No.

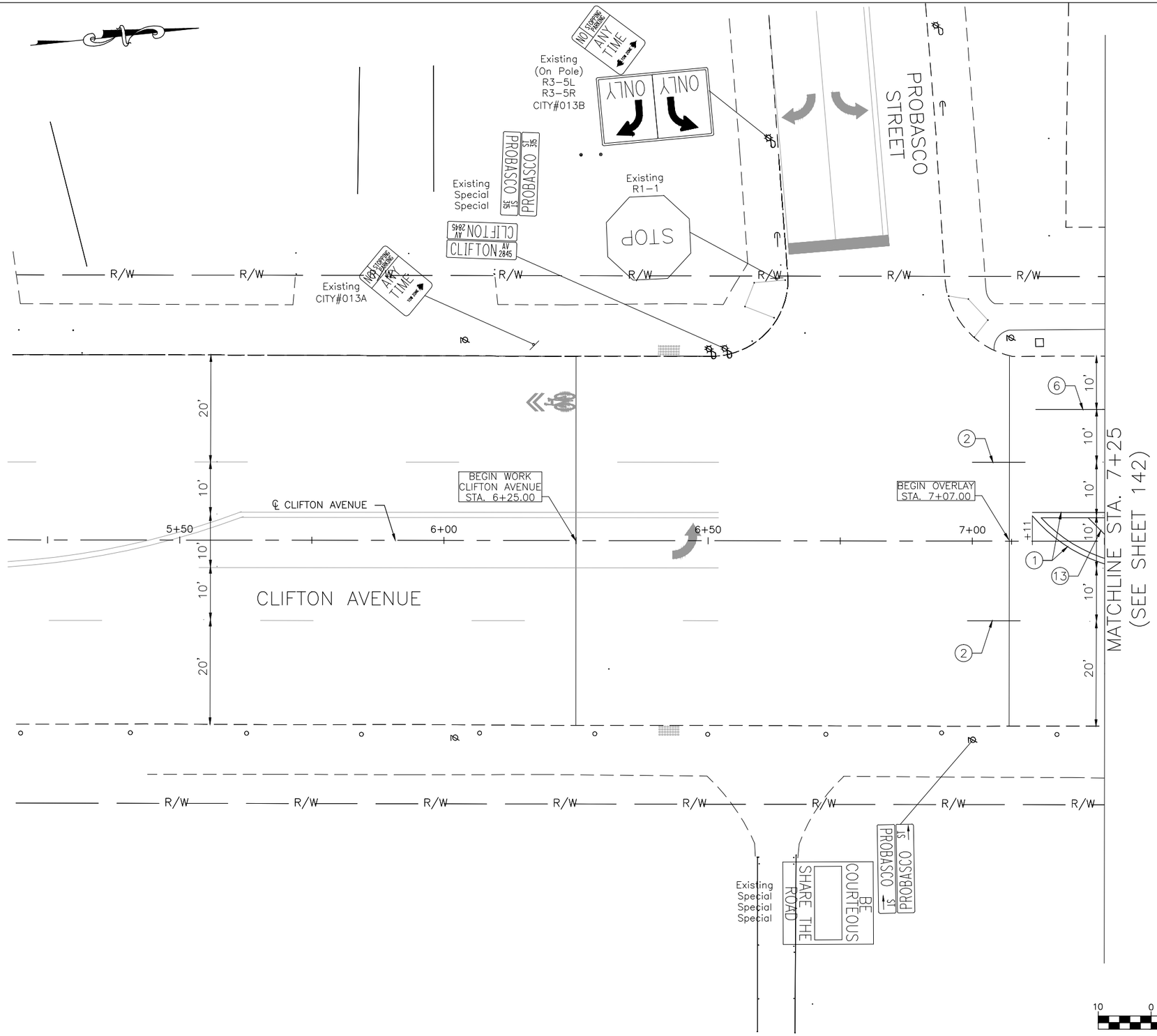
Date
Date
Date
Date

Drawn by
Designed by
Checked by
Reviewed by

Consultant

Structure File Number

ACC No.
23124



SEE NOTES ON SHEEET 122

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
CLIFTON AVENUE TRAFFIC CONTROL
STA. 6+25 TO STA. 7+25

Revisions
No.

Drawn by Date
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Consultant

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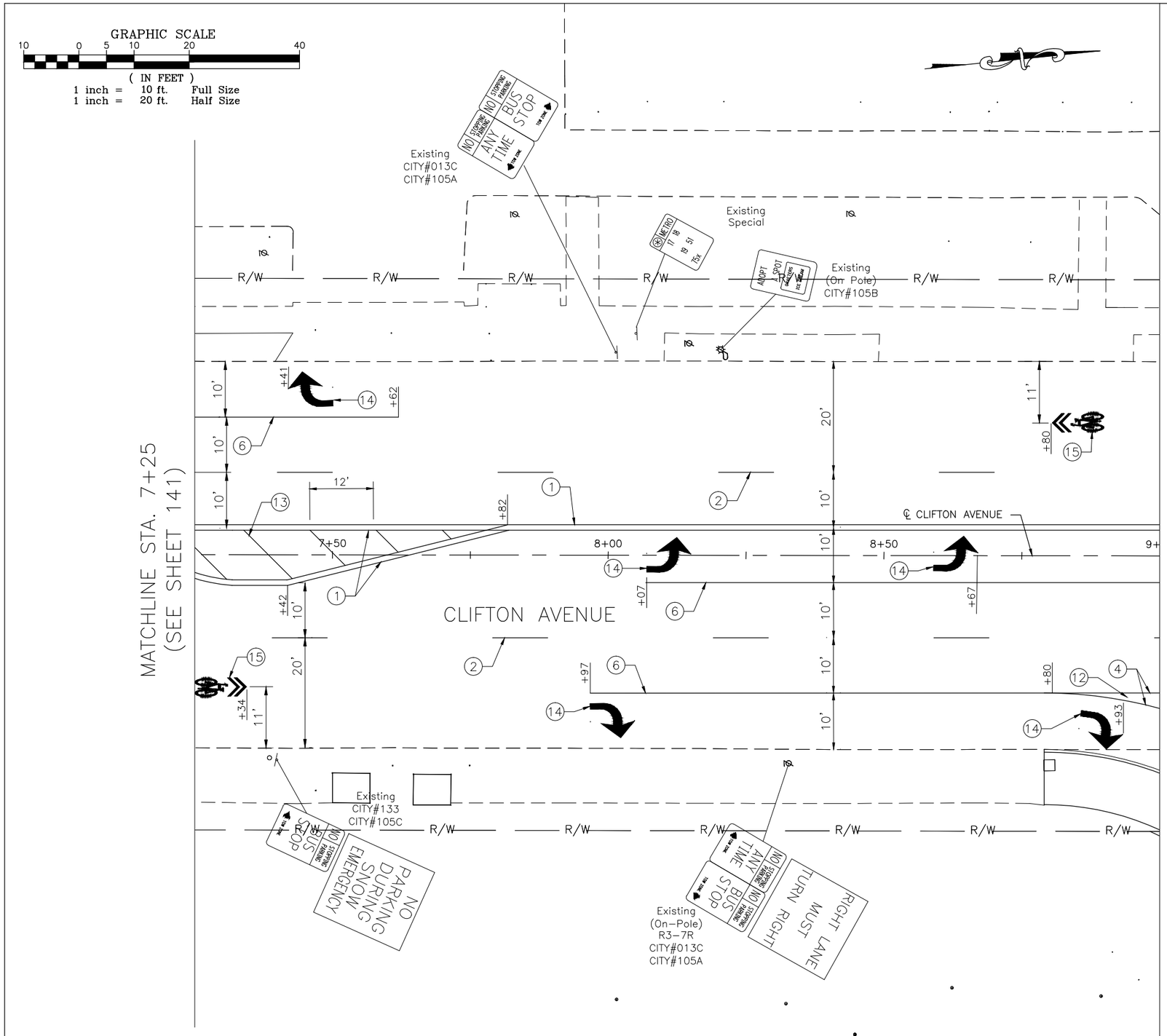
ACC No.
23124



SEE NOTES ON SHEEET 122

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
CLIFTON AVENUE TRAFFIC CONTROL
STA.7+25 TO STA. 9+00

Revisions

No.				

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Designed by Date
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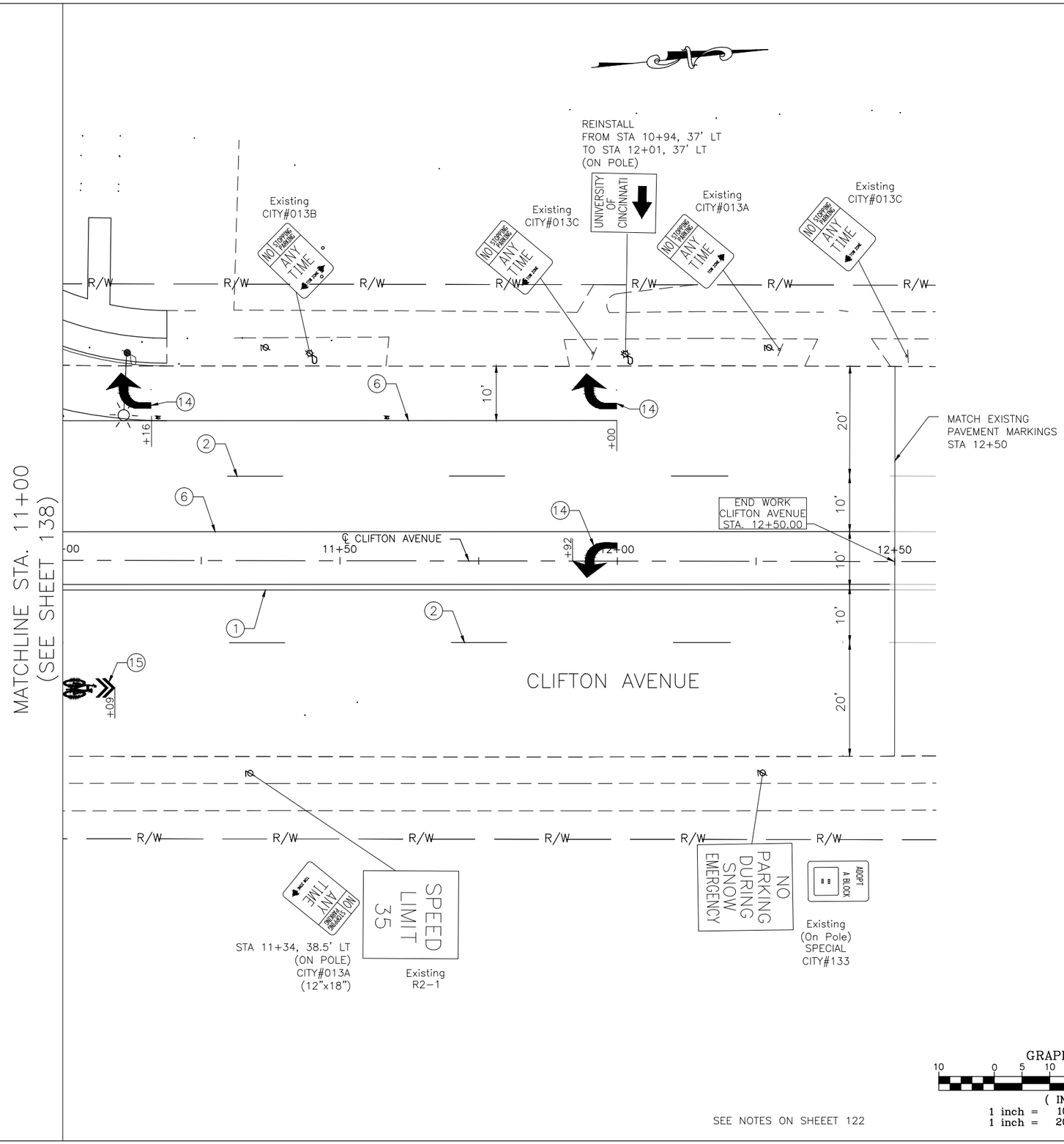
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124



SEE NOTES ON SHEEET 122

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
CLIFTON AVENUE TRAFFIC CONTROL
STA. 11+00 TO STA. 12+50

Revisions

No.				

Drawn by _____ Date _____
Designed by _____ Date _____
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Structure File Number

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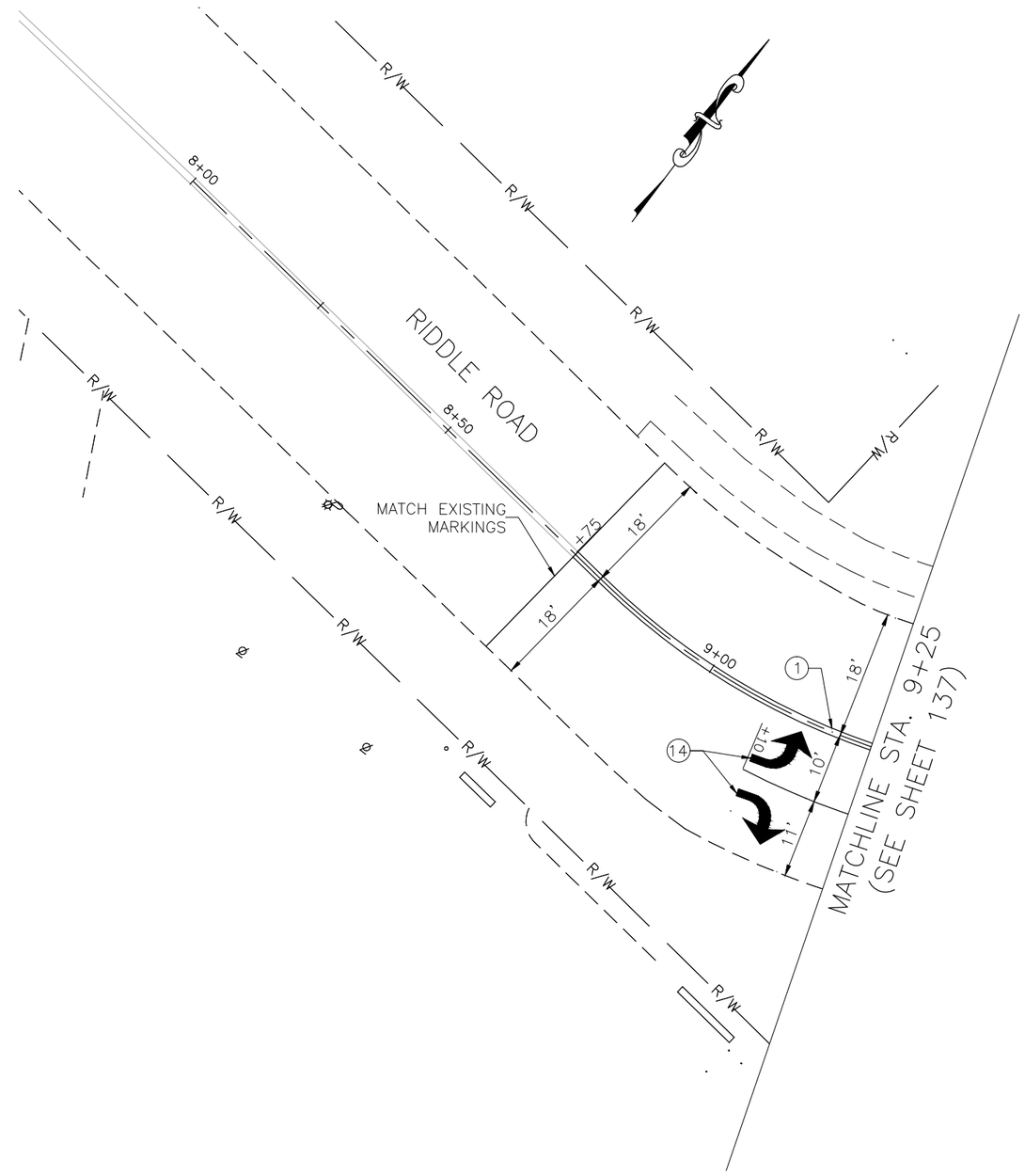
23124



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

SEE NOTES ON SHEEET 122

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
RIDDLE ROAD TRAFFIC CONTROL
STA. 8+00 TO STA. 9+25

Revisions
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Consultant

Structure File Number

ACC No.
23124

TRAFFIC SIGNAL/LIGHTING GENERAL NOTES

614 MAINTENANCE OF TRAFFIC

1. IT IS THE INTENTION TO PERFORM THE REQUIRED WORK WITH THE LEAST INCONVENIENCE TO, AND MAXIMUM SAFETY OF, THE CONTRACTOR AND THE TRAVELING PUBLIC, ANY VARIANCE FROM THESE MAINTENANCE OF TRAFFIC NOTES MUST BE APPROVED IN ADVANCE IN WRITING BY THE ENGINEER. EXCEPT AS MODIFIED BELOW, THE REQUIREMENTS FOR MAINTAINING TRAFFIC AS INDICATED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," CURRENT EDITION, LATEST REVISION, AND PERTINENT ITEMS OF SPECIFICATION AND PROPOSAL SHALL APPLY. THE "CITY OF CINCINNATI TRAFFIC SAFETY HANDBOOK" MAY BE REFERRED TO AS A SUPPLEMENT TO THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
2. IN ADDITION TO ITEM 614, "MAINTAINING TRAFFIC," AS SET FORTH IN THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, THE FOLLOWING NOTES SHALL ALSO APPLY TO THE WORK CARRIED OUT WITHIN THE LIMITS OF THIS PROJECT.
   A. THROUGHOUT THE PROJECT, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE, ERECT, MAINTAIN, AND REMOVE ALL LIGHTS, SIGNS, BARRICADES, AND ANY OTHER TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTAINANCE OF TRAFFIC, INCLUDING ADVANCE WARNING AND REGULATORY SIGNS. (MAINTAINING THE TRAFFIC INVOLVES ENSURING THAT THE EQUIPMENT IS IN THE PROPER POSITION, IS CLEAN, LEGIBLE, AND IN OVERALL GOOD WORKING CONDITION). ALL SIGNS SHALL BE REFLECTORIZED OR ILLUMINATED. TYPE "B" FLASHING BARRICADE WARNING LIGHT SHALL BE INSTALLED WITH EVERY ADVANCE WARNING TRAFFIC CONTROL DEVICE.
   B. THE STANDARD DEVICE FOR CLOSING ANY LANES TO TRAFFIC SHALL BE 30 OR 55 GALLON DRUMS THAT ARE PROPERLY WEIGHTED AND REFLECTORIZED. TAPERS FOR LANE CLOSURES SHALL HAVE REFLECTORIZED DRUMS SPACED 50 FEET APART WITH CONSTRUCTION ARROWS (OW 138) MOUNTED ON THE FIRST, FIFTH AND LAST DRUMS.
   C. AN ELECTRIC FLASHING ARROW BOARD OF TYPE A SHOWN ON STANDARD CONSTRUCTION DRAWING TC-35.10 SHALL BE INSTALLED IN EACH TAPER CLOSING A LANE TO TRAFFIC, CENTERED IN THE CLOSED LANE.
   D. TYPE "C" STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE INSTALLED EVERY 150 FEET IN THE TAPERS FOR NIGHTTIME LANE CLOSURES.
3. BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE CITY OF CINCINNATI AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR THE PLACING OR REPLACING OF NECESSARY TRAFFIC CONTROL DEVICES IN ORDER TO ENSURE SAFETY ON THE TRAVELED PAVEMENT.

   A DRAWING FOR EACH LOCATION OF WORK INDICATING ALL TRAFFIC CONTROL DEVICES TO BE USED, SHALL BE SUBMITTED TO THE CITY TRAFFIC ENGINEER FOR APPROVAL AT LEAST TEN DAYS PRIOR TO START OF WORK. IN ADDITION, A CONSTRUCTION SCHEDULE SHALL BE SUBMITTED FOR EACH LOCATION.
4. THE CONTRACTOR WILL BE REQUIRED TO GIVE AT LEAST SEVEN (7) DAYS NOTICE TO THE ENGINEER PRIOR TO THE CLOSURE OF ANY LANE.

   NO EXCAVATION SHALL BE ALLOWED UNATTENDED WITHOUT ADEQUATE COVERINGS. IN ADDITION, ORANGE FLASHERS SHALL BE PROVIDED FOR OVERNIGHT PROTECTION.
5. ALL VEHICLES, EQUIPMENT, WORKERS AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEER. VEHICLES AND EQUIPMENT SHALL MOVE WITH (NOT ACROSS OR AGAINST) THE FLOW OF TRAFFIC. VEHICLES AND EQUIPMENT SHALL NOT PARK OR STOP EXCEPT WITHIN DESIGNATED AREAS, AND SHALL ENTER AND LEAVE WORK AREAS IN A MANNER IN WHICH WILL NOT BE HAZARDOUS TO, OR INTERFERE WITH, THE NORMAL FLOW OF TRAFFIC. PERSONAL VEHICLES WILL NOT BE PERMITTED TO PARK WITHIN THE RIGHT-OF-WAY, EXCEPT IN SPECIFIC AREAS DESIGNATED BY THE ENGINEER.
6. PEDESTRIAN PROTECTION AND PEDESTRIAN ACCESS MUST BE MAINTAINED AT ALL TIMES. PEDESTRIAN SAFETY IS OF UTMOST IMPORTANCE THROUGHOUT THE LIFE OF THE CONTRACT. PEDESTRIAN MUST BE DIRECTED TO THE SAFEST CROSSING POINT AT ALL TIMES, AND THEIR SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. TO ASSURE THAT MAINTENANCE OF ADEQUATE TRAFFIC CONTROL AT ALL TIMES, NO SIGNS ARE TO BE INSTALLED OR REMOVED WITHOUT THE APPROVAL OF THE CITY TRAFFIC ENGINEER, OR HIS DESIGNEE.
8. IF TEMPORARY SIGNS WHICH RESTRICT PARKING ARE INSTALLED, THE LOCAL POLICE DISTRICT MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO INSTALLATION.
9. POLICE AND FIRE ACCESS MUST BE MAINTAINED AT ALL TIMES.
10. ACCESS TO ABUTTING PROPERTIES MUST BE MAINTAINED AT ALL TIMES.

THE CONTRACTOR MAY CONTACT MR. MARK MAHONEY AT 352-6229 FOR FURTHER QUESTIONS ON MAINTENANCE OF TRAFFIC.

THE FOLLOWING RESTRICTIONS ON LOCAL STREETS SHALL APPLY TO THE CONSTRUCTION INVOLVED WITH THIS PROJECT:

A. BETWEEN THE HOURS OF 7-9:00 A.M. AND 4-6:00 P.M., MONDAY THROUGH FRIDAY, AND DURING ALL NON-WORKING HOURS, THE ENTIRE INTERSECTION SHALL BE OPEN AND AVAILABLE FOR THE MOVEMENT OF TRAFFIC. IN ADDITION, THE TRAFFIC SIGNALS SHALL BE IN NORMAL OPERATION.

   DURING ALL OTHER HOURS, ONE TWELVE FOOT LANE IN EACH DIRECTION SHALL BE OPEN AND AVAILABLE FOR THE MOVEMENT OF TRAFFIC. ON ONE-WAY STREETS, TWO TEN FOOT LANES IN THE DIRECTION OF TRAFFIC SHALL BE OPEN AND AVAILABLE FOR THE MOVEMENT OF TRAFFIC.

B. IF TRAFFIC SIGNALS AT ANY INTERSECTIONS ARE TO BE PUT OUT OF SERVICE, OFF-DUTY CITY OF CINCINNATI POLICE OFFICERS MUST BE FURNISHED BY THE CONTRACTOR UNTIL THE SIGNALS ARE PLACED BACK IN SERVICE.

1303 EQUIPMENT QUALITY

ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND OF FIRST QUALITY AS PER SPECIFICATION 1303.

1304 UTILITIES PERMITS AND REGULATIONS

THE CONTRACT DRAWINGS SHOW ALL UTILITIES, WATER, GAS, AND SEWER LINES KNOWN TO EXIST, HOWEVER, THIS DOES NOT GUARANTEE THAT ALL EXISTING LINES AND APPURTENANCES HAVE BEEN SHOWN ON THE CONTRACT DRAWINGS, AND THE CITY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY THEREOF AND DOES NOT FREE THE CONTRACTOR FROM NECESSARY PRECAUTIONS FOR THE PROTECTION OF ANY UTILITY ENCOUNTERED ON THE PROJECT OR THE RESTORATION OF ANY UTILITY DAMAGED DURING THE WORK. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS, AND COMPLY WITH ALL LOCAL AND NATIONAL SAFETY CODES. THE CONTRACTOR SHALL NOTIFY AT LEAST 48 HOURS BEFORE BREAKING GROUND, ALL PUBLIC AND/OR PRIVATE SERVICE CORPORATIONS HAVING WIRE, POLES, PIPES, CONDUIT, MANHOLES OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS. OWNERS OF UNDERGROUND UTILITIES WHICH ARE MEMBERS OF THE OHIO UTILITIES PROTECTION SERVICE CAN BE NOTIFIED BY CALLING 800-362-2784 (TOLL FREE). NON-MEMBER UNDERGROUND UTILITY OWNERS MUST BE CALLED DIRECTLY.

SUPPORTING AND/OR PROTECTING EXISTING WATER LINES, GAS MAINS, TELEPHONE CONDUIT, STORM SEWERS, ETC. SHALL BE INCLUDED IN PAYMENT FOR THE VARIOUS CONTRACT ITEMS OF WORK.

ALL WORK REQUIRED FOR THE MAINTAINANCE OF SERVICE OF EXISTING UTILITIES SHALL BE DONE BY, AND AT THE EXPENSE OF, THE CONTRACTOR.

ALL MAINTAINANCE, REPAIR, AND/OR REPLACEMENT OF EXISTING UTILITIES SHALL BE IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE VARIOUS UTILITY COMPANIES HAVING JURISDICTION.

ALL EXISTING STORM SEWERS, DRIVEWAY DRAINS, AND OTHER SURFACE DRAIN PIPES, WHETHER SHOWN ON CONTRACT DRAWINGS OR NOT, REMOVED OR DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND RECONNECTED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO COST TO THE CITY. REPLACED DRAIN PIPES SHALL BE LAID ON COMPACTED BEDDING EQUAL IN DENSITY TO SURROUNDING STRATUM. ALL UTILITIES OTHER THAN WATER AND SEWER LINES ARE TO BE RELOCATED, AS DIRECTED BY THE ENGINEER, AT NO COST TO THE CITY.

IT IS ASSUMED THAT THERE ARE WATER AND GAS BRANCH LINES, ETC. SERVING EACH RESIDENCE. THE CONTRACTOR SHALL REPAIR OR REPLACE THESE UTILITIES, IF DAMAGED, AT NO COST TO THE CITY.

1306 CONTRACTOR FURNISHED EQUIPMENT

THE CONTRACTOR SHALL SUBMIT TO THE CITY TRAFFIC ENGINEER FOR REVIEW AND APPROVAL SEVEN (7) SETS OF DRAWINGS, CATALOG CUTS, SPECIFICATIONS, DATA SHEETS, WIRING DIAGRAMS, ETC., FOR ALL APPARATUS AND EQUIPMENT THAT THE CONTRACTOR PROPOSES TO FURNISH. NO EQUIPMENT MAY BE PURCHASED OR INSTALLED WITHOUT WRITTEN APPROVAL.

1308 EQUIPMENT FURNISHED BY THE CITY

THE FOLLOWING EQUIPMENT WILL BE FURNISHED TO THE CONTRACTOR BY THE CITY:

1. CTCS SECTIONALIZERS (NOT STANDARD SECTIONALIZERS), AS NOTED.
2. LIGHTING POLE (REFER TO ITEM 1318 LIGHTING POLE, DESIGN 0A12B35, INSTALLATION ONLY).
3. OVERHEAD SIGNS, FLAT SHEET TYPE, AS NOTED.

THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS FOR A COMPLETE INSTALLATION OF THIS EQUIPMENT. THE CONTRACTOR SHALL COMPLY WITH SPEC. 1324.04 FOR THE INSTALLATION OF TRAFFIC SIGNAL CONTROLLERS AND SHALL FURNISH ALL NECESSARY MOUNTING HARDWARE.

1309 INSTALLATION PRACTICES

MINOR REPOSITIONING OF SIGNS OR SIGNALS MAY BE NECESSARY AND THE CONTRACTOR SHALL MAKE THE ADJUSTMENTS AS DIRECTED BY THE ENGINEER. WORK SHALL BE INCIDENTAL TO THE COST OF THE ITEM BEING REPOSITIONED.

1311 INSPECTION

IN ADDITION TO THE PROVISIONS OF ITEM 105.10, THE CONTRACTOR SHALL OBSERVE THE FOLLOWING:

1. ALL CONDUIT IN TRENCH SHALL BE APPROVED BEFORE BACKFIRE AND/OR CONCRETE ENCASEMENT IS COMPLETED.
2. ALL FOUNDATIONS FOR ANCHOR BASE POLES, COMPLETE WITH ANCHOR BOLTS, CONDUIT ELLS, AND REBAR CAGES INTACT SHALL BE APPROVED PRIOR TO CONCRETE POUR.

1312 ELECTRIC POWER SERVICE

COORDINATE WITH DUKE ENERGY FOR POWER SERVICE. CONTACT DAVE DALESSANDRO, ELECTRICAL INSPECTOR, AT 513-325-5701 FOR ACTUAL REQUEST FOR SERVICE CONNECTION TO DUKE ENERGY SECONDARIES. CONTRACTOR SHALL NOT MAKE CONNECTIONS TO DUKE ENERGY LINES AT ANY TIME.

ELECTRIC SERVICE REQUIREMENTS:

FOR TRAFFIC SIGNALS, 120 VOLT/60 AMPERE 2-WIRE.

FOR STREET LIGHTING, 120-240 3-WIRE.

THE CONTRACTOR SHALL PROVIDE ALL SERVICE EQUIPMENT NECESSARY TO CONNECT THE TRAFFIC SIGNALS AND STREET LIGHTING TO THE POWER SOURCE AS PER CONTRACT PLANS, DETAILS AND STANDARD DRAWING ES-2-3.

1313 TESTING

TRAFFIC SIGNAL TESTING SHALL MEET THE REQUIREMENTS OF ODOT 632.28 AND 633.06. THE CONTRACTOR SHALL OPERATE ALL NEW TRAFFIC SIGNALS FOR FIVE (5) CONTINUOUS DAYS IN FLASHING OPERATION, UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER. REBUILT OR REPLACED TRAFFIC SIGNALS ARE TO BE OPERATED IN COLOR MODE MORE DIRECTLY. PRIOR TO ACCEPTANCE OF ANY NEW, REBUILT OR REPLACED TRAFFIC SIGNAL, THE TRAFFIC SIGNAL SHALL HAVE A FINAL TEST CONSISTING OF 30 MINUTES OF COLOR OPERATION WITHOUT FAILURE OR MALFUNCTIONS.

LIGHTING SYSTEM TESTING SHALL MEET THE REQUIREMENTS OF ODOT 325.19. PRIOR TO ACCEPTANCE THE CONTRACTOR SHALL CONDUCT A TEN (10) DAY BURN TEST OF THE COMPLETED AND OPERATIONAL STREET LIGHTING SYSTEM. THE LIGHTING SYSTEM SHALL OPERATE FOR TEN CONSECUTIVE DAYS WITHOUT INTERRUPTION AND BE FREE OF ANY MALFUNCTIONS.

ALL GROUND RODS SHALL BE TESTED BY THE CONTRACTOR AND HAVE A RESISTANCE TO GROUND OF 25 OHMS OR LESS.

CTCS TYPE INTERCONNECT CABLE SHALL BE TESTED BY THE CONTRACTOR TO VERIFY THE CAPABILITY OF VOICE TRANSMISSION AND THE ABSENCE OF EXCESSIVE INDUCED NOISE. MEASUREMENTS SHALL BE PERFORMED BY THE CONTRACTOR ON ALL DATA CIRCUITS TO INSURE THAT THE TRANSMISSION BANDWIDTH IS REASONABLE FOR DATA TRANSMISSION AT 1200 BAUD USING FREQUENCY SHIFT KEYED MODULATION OF 1200 AND 2200 HERTZ. THE TESTS SHALL ALSO VERIFY THAT THERE ARE NO SHORTS OR OPEN CIRCUITS TO ANY TERMINATION POINT, AND THAT EACH PAIR IS CAPACITIVELY BALANCED TO GROUND. ANY DISCREPANCIES OR TEST FAILURES SHALL BE CORRECTED BY THE CONTRACTOR.

COST SHALL BE INCIDENTAL TO THE ITEM TESTED.

1314 MAINTENANCE OF EXISTING TRAFFIC SIGNAL

THE CONTRACTOR SHALL MAINTAIN AND KEEP OPERATIONAL THE EXISTING TRAFFIC SIGNAL UNTIL ALL OTHER NEW EQUIPMENT HAS BEEN INSTALLED AND IS FUNCTIONAL. WORK WILL INCLUDE ANY MODIFICATIONS TO EXISTING OR TEMPORARY TRAFFIC SIGNAL INSTALLATIONS AS REQUIRED BY CHANGES IN CONSTRUCTION OR OPERATIONAL CONDITIONS IN THE PROJECT AREA THROUGHOUT THE ENTIRE CONTRACT PERIOD. THIS WILL INCLUDE RELOCATIONS, REMOVALS, COVERING OR UNCOVERING OF TRAFFIC/PEDESTRIAN SIGNALS AND ILLUMINATED/REFLECTORIZED SIGNS AND OTHER TRAFFIC SIGNAL EQUIPMENT, AND THE INSTALLATION OF TEMPORARY POLES OR TEMPORARY POLE GUYS TO SATISFY SAFETY AND OPERATIONAL CONDITIONS THROUGHOUT THE PROJECT. THIS WORK WILL BE PERFORMED AS DIRECTED BY THE ENGINEER.

WHERE PROPOSED NEW EQUIPMENT BLOCKS OR OBSCURES THE LINES OF SIGHT OF EXISTING EQUIPMENT, OR WHERE NEW EQUIPMENT IS PROPOSED IN THE SAME LOCATION AS EXISTING EQUIPMENT, THE CONTRACTOR SHALL TEMPORARILY ADJUST EXISTING OR NEW SIGNALS AND SIGNS. NEW TRAFFIC SIGNALS AND SIGNS WHICH WERE TEMPORARILY ADJUSTED, SHALL BE REPOSITIONED IN THE PROPOSED LOCATIONS AS INDICATED IN THE PLANS AFTER EXISTING EQUIPMENT IS REMOVED.

ALL ADJUSTMENTS SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER.

SCHEDULE CONSTRUCTION THROUGHOUT THE PROJECT TO MAINTAIN THE INTERCONNECTION SYSTEM DURING THE CONTRACT PERIOD. USE EXISTING, TEMPORARY CABLE OR NEWLY INSTALLED INTERCONNECT CABLE TO MAINTAIN THE INTERCONNECT SYSTEM.

AT INSTALLATIONS WHERE INTERCONNECT CABLE DOES NOT EXIST, INSTALL THE SPECIFIED NEW INTERCONNECT CABLE SYSTEM PRIOR TO COMPLETING AND OPERATING THE NEW OR RECONSTRUCTED TRAFFIC SIGNAL SYSTEMS OR PROVIDE AN EQUIVALENT MEANS, SUBJECT TO THE ENGINEERS APPROVAL, OF MAINTAINING SIGNAL COORDINATION AT ALL TIMES.

1314 MAINTENANCE OF EXISTING STREET LIGHTING CIRCUITS

THE CONTRACTOR SHALL MAINTAIN EXISTING LIGHTING CIRCUITS PER 1314.02 AND AS INDICATED IN THE PLANS. IF THE CONTRACTOR SHOULD INADVERTENTLY DAMAGE EXISTING STREET LIGHT CABLE, REPAIRS SHALL BE MADE AS DIRECTED BY THE ENGINEER OR INSPECTOR. THIS MAY INCLUDE, BUT NOT LIMITED TO: SPLICING IN A SECTION OF NEW CABLE, RUNNING A COMPLETE NEW SECTION OF CABLE FROM POLE TO POLE OR PULL BOX, OR RUNNING A SECTION OF TEMPORARY OVERHEAD CABLE. THIS ALSO WILL INCLUDE ANY TEMPORARY CONDUIT RISERS IF REQUIRED. THE CONTRACTOR SHALL MAKE ANY NECESSARY SPLICES USING APPROPRIATE CONNECTORS FITTING TAPE, SCOTCHCOAT, CABLE OF PROPER SIZE AND TYPE TO FUNCTION IN THE CIRCUIT AS PER 1323.01 AND APPROVED SPLICING METHODS. ALL SPLICES OF EXISTING STREET LIGHT CABLE TO BE MADE UNDER THE DIRECT SUPERVISION OF THE ENGINEER OR TRAFFIC SERVICES BUREAU PERSONNEL.

1316 REMOVAL OF TRAFFIC SIGNAL BY LOCATION

THE CONTRACTOR SHALL REMOVE ALL OLD EQUIPMENT AND MAKE THE NECESSARY RESTORATIONS. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO RETURN TO THE CITY OF CINCINNATI ALL OLD EQUIPMENT EXCEPT CUT OFF STEEL EMBEDDED BASE POLES, OLD SIGNAL CABLE, AND OLD SPAN WIRE. THE CONTRACTOR SHALL CONTACT THE TRAFFIC SERVICES BUREAU SUPERVISOR AT 513-591-6097 TO ARRANGE RETURN OF THE OLD EQUIPMENT UNDAMAGED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF THE UNWANTED EQUIPMENT.

1316 REMOVAL OF EXISTING EQUIPMENT, AS PER PLAN

THE EXISTING PTZ CAMERA AND ASSOCIATED EQUIPMENT, LOCATED ON THE SOUTHEAST CORNER OF MARTIN LUTHER KING DRIVE AND CLIFTON AVENUE, SHALL BE REMOVED AND BE MADE AVAILABLE FOR PICK UP BY THE CITY'S DEPARTMENT OF PUBLIC SERVICES. THE CONTRACTOR SHALL CONTACT THE TRAFFIC SUPERVISOR AT 513-591-6097 WHEN THE EQUIPMENT IS READY TO BE COLLECTED.

DEPARTMENT OF TRANSPORTATION & ENGINEERING — CITY OF CINCINNATI — OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

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TRAFFIC SIGNALS/LIGHTING
GENERAL NOTES

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TRAFFIC SIGNAL GENERAL NOTES

1316 REMOVAL OF EXISTING LIGHTING EQUIPMENT, AS PER PLAN

THIS ITEM SHALL INCLUDE REMOVAL OF WIRING, CONDUIT, FOUNDATIONS, AND POLES AS INDICATED ON THE PLANS.

COORDINATE THE REMOVAL OF THE EXISTING STREET LIGHTING POLES AND FIXTURES WITH TERRY DUKES (513-352-4391) OF THE TRAFFIC SERVICES BUREAU, TO DETERMINE IF ANY OF THE EQUIPMENT TO BE REMOVED WILL BE RETAINED BY THE CITY. ALL OTHER REMOVED EQUIPMENT SHALL BE DISPOSED OF BY THE CONTRACTOR.

1317 PAINTING

WHEREVER REFERENCES IN THE CITY SPECIFICATIONS ARE MADE CONCERNING "RED LEAD", THE CONTRACTOR SHALL SUBSTITUTE THE MORE ENVIRONMENTALLY ACCEPTED SOYA-ALKYD PRIMER. REFER TO ITEM 1317. COST SHALL BE INCIDENTAL TO ITEMS SPOT PRIMED.

1318 STEEL POLES AND PEDESTALS

ALL STEEL POLES SHALL MEET ALL SPECIFICATIONS IN ITEM 1318 AND STANDARD DRAWING ES-10-1. ALL GALVANIZED EXTERIOR POLE SURFACES SHALL HAVE AN ELECTROSTATICALLY APPLIED POWDER COATING AND ONE COAT OF ZINC DUST PRIMER (LIGHT GRAY). THE FINISH SHALL BE PROTECTED DURING TRANSPORTATION BY A SUITABLE PLASTIC OR RUBBER WRAPPING.

ALL POLES, AND ANY MATERIALS ATTACHED TO THEM, SHALL BE LOCATED A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE FACE OF THE POLE. THIS MAY REQUIRE ATTACHMENT HARDWARE IN EXCESS OF ONE FOOT FOR THE ATTACHMENT OF PEDESTRIAN SIGNALS TO POLES.

WHERE STREET LIGHTING BRACKET ARMS ARE SPECIFIED, POLE PLATES AND 1 ½" HALF COUPLING SHALL BE WELDED TO THE POLE AS SHOWN IN ES-10-1 AND ES-10-3. BRACKET ARMS SHALL BE SIZE AND TYPE AS PER PLAN. CONTRACTOR TO INSTALL DEAD END CLEVIS TO SERVE STREET LIGHT.

CONTRACTOR SHALL NOTE THAT NEW 4 INCH PEDESTRIAN SIGNAL PEDESTALS TO BE INSTALLED ARE NOW 10 FEET LONG AND DESIGNATED CITY DESIGN NO. 1045. FOUNDATION FDN-25 REMAINS THE SAME.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE POLES WHILE IN HIS POSSESSION. MINOR DEFECTS OR SCRATCHES ARE TO BE REPAIRED AS DIRECTED BY THE ENGINEER. IF ANY MAJOR DAMAGE OR SCRATCHES OCCUR, THE CITY SHALL REPLACE THE POLE WITH A DUPLICATE, AND THE CONTRACTOR SHALL REIMBURSE THE CITY THE COST OF THE DAMAGED POLE, OR THE COST SHALL BE DEDUCTED FROM PAYMENT TO THE CONTRACTOR.

PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH ITEM AS SPECIFIED, AND SHALL BE FULL COMPENSATION FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY FOR EACH ITEM INSTALLED, COMPLETE IN PLACE AND ACCEPTED. (THE WELDING OF NIPPLES FOR CABLE ENTRANCE AND WEATHERHEADS SHALL BE INCIDENTAL TO THE INSTALLATION BY THE CONTRACTOR).

1319 FOUNDATIONS

ALL CONCRETE FOUNDATIONS SHALL BE CONSTRUCTED AS PER SPECIFICATION 1319 AND PER STANDARD DRAWINGS ES-1-1. ALL FOUNDATIONS SHALL INCLUDE ALL REINFORCING RODS, ANCHOR BOLTS AND CONDUIT ELLS.

FOUNDATIONS SHALL BE CURED FOR A MINIMUM OF SEVEN (7) DAYS BEFORE ERECTION OF POLES, POSTS AND CABINETS.

FOUNDATIONS SHALL BE CURED FOR A MINIMUM OF FOURTEEN (14) DAYS BEFORE LOADING IS APPLIED. SEE ODOT ITEM 632.14. CURING ITEMS CAN BE ACCELERATED USING FAST SET CONCRETE WITH THE SUBMITTAL OF PROPER MATERIAL DOCUMENTATION AND PRIOR APPROVAL FROM THE ENGINEER.

WHERE EXCAVATION CAUSES CAVING DUE TO SOIL CONDITIONS, THE USE OF THE CORRUGATED PIPE IS AUTHORIZED, AS DIRECTED BY THE ENGINEER. THE EXCAVATION IS TO BE BACKFILLED WITH CONTROL DENSITY FILL AFTER THE FOUNDATION HAS BEEN POURED. THE USE OF SONO-TUBE OR SIMILAR TUBING MATERIAL IS NOT PERMITTED.

THE COST OF THE PIPE, BACKFILL AND LABOR TO INSTALL IT SHALL BE INCIDENTAL TO THE COST OF THE FOUNDATION.

1320 GROUND RODS

A 1" X 10' COPPER CLAD STEEL GROUND ROD SHALL BE DRIVEN INTO THE BOTTOM OF PULLBOXES WHICH ARE ADJACENT TO POLE FOUNDATIONS SO THAT ONE (1) FOOT OF THE ROD IS EXPOSED IN THE PULLBOX. WHERE PULLBOXES ARE NOT ADJACENT TO POLES OR POSTS, DRIVE GROUND RODS ADJACENT TO THE POLE FOUNDATIONS AS PER STANDARD DRAWING ES-1-1. PAYMENTS FOR THE GROUND RODS SHALL BE MADE AT THE CONTRACT UNIT PRICE BID FOR EACH ITEM INSTALLED COMPLETE WITH #4 AWG GROUND WIRE, EXOTHERMIC WELD, TESTED AND ACCEPTED. IF MORE THAN ONE GROUND ROD IS REQUIRED AT A LOCATION TO OBTAIN THE REQUIRED GROUND RESISTANCE, THE ADDITIONAL GROUND RODS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH AND SHALL INCLUDE ALL WIRE, CONNECTIONS, AND OTHER MATERIALS AND LABOR TO INSTALL THE COMPLETE TESTED SYSTEM. TESTS SHALL COMPLY WITH ODOR SPEC. "625.19 TESTING OF INSTALLATIONS".

ALL GROUND RODS SHALL BE TESTED AND HAVE A RESISTANCE TO GROUND OF 25 OHMS OR LESS.

1321 TRENCH, IN SOD AREA, BLACKTOP PATHS & SIDEWALK

ALL TRENCH FOR INSTALLATION OF CONDUIT IN SOD AREAS, UNDER WALKWAYS OR SIDEWALKS SHALL BE 24" DEEP. TRENCH IN THE SOD AREAS SHALL INCLUDE BACKFILL AND RESTORATION IN ACCORDANCE WITH ITEM 625.13. THE BACKFILL UNDER SIDEWALKS OR WALKWAYS SHALL BE COMPACTED AS PER ITEM 603.12, AND AGGREGATE BASE SHALL BE RESTORED WITH ITEM 404 OR 608.

1321 TRENCH, IN PAVED AREA

IN ACCORDANCE WITH ITEM 625.13, TRENCH UNDER ROADWAYS OR DRIVEWAYS SHALL BE 30" DEEP, AND SHALL INCLUDE PREMARKING THE AREA TO BE TRENCHED, SAW CUTTING, REMOVING THE MATERIAL, BACKFILLING, COMPACTING AND RESTORING THE SURFACE IN ACCORDANCE WITH ITEM 603.12 AND AS DIRECTED BY THE ENGINEER.

1321 CONDUIT

ELECTRICAL CONDUIT UNDER SIDEWALKS OR SOD AREAS SHALL BE POLYVINYL CHLORIDE (PVC) SCHEDULE 40, TYPE II, WITH CONCRETE ENCASEMENT, SIZE AS SPECIFIED IN PLANS.

CONDUIT UNDER STREETS SHALL BE GALVANIZED RIGID METAL CONDUIT (RMC) MEETING THE REQUIREMENTS OF ITEM 725.04 SIZE AS SPECIFIED IN PLANS.

CONDUIT IN SOD AREAS AND UNDER WALKWAYS OR SIDEWALKS SHALL HAVE A MINIMUM COVER OF 18". GALVANIZED STEEL CONDUIT UNDER ROADWAYS SHALL HAVE A MINIMUM COVER OF 24". GROUND BUSHINGS SHALL BE PROVIDED TO GROUND RIGID METALLIC CONDUIT TO THE GROUND ROD IN THE PULLBOX.

WHERE CONDUITS PASS THROUGH TREE WELLS, THEY SHOULD BE TIGHTLY GROUPED TO MINIMIZE THE SPACE TAKEN IN THE WELL.

1321 WEATHERHEAD AND RISER

THE CONTRACTOR SHALL PROVIDE WEATHERHEADS, CONDUIT RISERS, AND AN OTHER SIGNAL EQUIPMENT ON WOOD UTILITY POLES AS NECESSARY TO SERVE THE TRAFFIC SIGNAL EQUIPMENT AND THE ELECTRIC SERVICE. ALUMINUM CONDUIT FOR RISERS SHALL BE RIGID ALUMINUM CONDUIT PER ANSI C80.5, AND SHALL BE USED IN THE LOWER SECTION OF RISERS, IN LIEU OF STEEL (RMC) REFER TO STANDARD DRAWING ES-2-3 FOR MORE INFORMATION.

1322 ELECTRICAL BOXES

PULLBOXES MAY BE CAST-IN-PLACE OR PRECAST. PRECAST PULLBOXES SHALL HAVE REINFORCING INCLUDED. REFER TO THE STANDARD DRAWING ES-2-1. ALL PULLBOXES IN SIDEWALK OR STREET AREAS SHALL HAVE THE FRAME AND LID CAST INTEGRAL WITH FINAL SIDEWALK OR PAVING. PRECAST PULLBOXES WITH INTEGRAL FRAMES AND LIDS SHALL NOT BE PERMITTED IN THESE AREAS. SUBMIT SEPARATE SUBMITTALS FOR ELECTRICAL BOXES IN SIDEWALK/PAVEMENT AND ELECTRICAL BOXES IN GRASS/SOD.

1322 RE-USE EXISTING PULL BOX

THE WORK OF THIS ITEM SHALL INCLUDE CLEARING THE PULL BOX OF DEBRIS, CUTTING INTO THE SIDES OF THE PULL BOX FOR NEW CONDUIT ENTRIES AND CEMENT PATCHING AND REPAIRING THE BOX TO SATISFACTORY CONDITION APPROVED BY THE ENGINEER.

PAYMENT FOR 1322 "RE-USE EXISTING PULL BOX" WILL BE MADE AT THE CONTRACT UNIT PRICE BID AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL, TOOLS, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

1322 INSTALLATION OF PULLBOXES OVER EXISTING CONDUITS

THIS WORK SHALL INCLUDE EXCAVATING FOR THE INSTALLATION OF THE NEW PULLBOX, REMOVING PORTIONS OF EXISTING CONDUIT, MAINTAINING AND PROTECTING EXISTING TRAFFIC AND LIGHTING CABLES OR TEMPORARY REMOVAL AND REINSTALLATION OF THESE CABLES, AS APPROVED BY THE ENGINEER.

THIS WORK SHALL ALSO INCLUDE BACKFILLING PER ITEM 603.08 AND DISPOSAL OF REMOVED CONDUIT SECTIONS AND OTHER UNUSABLE EXCAVATED MATERIAL. TYPE A OR B PULLBOXES AS INDICATED MEETING SPEC. 1322.01 (CAST-IN-PLACE OR PRECAST AS APPROVED) SHALL BE INCLUDED IN THIS BID ITEM.

PAYMENT FOR 1322 "INSTALLATION OF PULLBOXES OVER EXISTING CONDUITS" SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR EACH PULLBOX SPECIFIED AND SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL, TOOLS, EQUIPMENT, AND INCIDENTALS REQUIRED TO COMPLETE THIS WORK.

1322 SECTIONALIZERS, BY TYPE

SECTIONALIZERS SHALL BE FURNISHED BY THE CITY, WHERE SPECIFIED, AND INSTALLED BY CONTRACTOR IN ACCORDANCE WITH ITEM 1322.04 AND STANDARDS DRAWINGS ES-3-7A AND ES-3-7B.

CITY FORCES TO DRILL HOLES FOR CABLE ENTRANCE CONNECTORS AS PART OF CABLE INSTALLATION. CONTRACTOR IS NOT TO DRILL OR CUT INTO SECTIONALIZER.

1323 MESSENGER CABLE, BY SIZE, WITH ACCESSORIES

MESSENGER CABLES SHALL MEET THE REQUIREMENTS OF ITEM 1323.02 AND SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR.

1323 CABLES, CONNECTORS AND ACCESSORIES

TRAFFIC SIGNAL CABLE SHALL BE STRANDED COPPER CONDUCTOR AND MEET THE REQUIREMENTS OF IMSA SPECIFICATION 19-1 OR 20-1. ANY OTHER CABLE AND WIRE SHALL BE THE TYPE AND SIZE SPECIFIED IN ACCORDANCE WITH THE PLANS AND STANDARD DRAWINGS. ALL ACCESSORIES, SPLICES AND HARDWARE WILL BE INCLUDED WITH THE CABLE AND WIRE. THE CITY SHALL APPROVE ALL CONNECTIONS AND SPLICES.

CONNECTION TO THE ENERGIZED TRAFFIC SIGNAL, INTERCONNECT CABLE, OR DISCONNECTION, SHALL BE MADE BY THE CITY OF CINCINNATI FORCES. THE CONTRACTOR SHALL CONTACT THE TRAFFIC SERVERS BUREAU FIVE (5) DAYS IN ADVANCE AT 513-591-6097 TO ARRANGE THIS WORK.

CITY FORCES SHALL MAKE THE SECTIONALIZER CONNECTIONS AND DISCONNECTIONS TO NEW OR EXISTING ENERGIZED INTERCONNECT CABLE. THE CONTRACTOR SHALL DO ALL OTHER WORK INVOLVED IN COMPLETING THE INSTALLATION OF THE CABLE SYSTEM. ALL THIS WORK SHALL BE INCIDENTAL TO THE COST OF ITEM 1323 "INTERCONNECT CABLE".

CTCS CABLE (TRAFFIC CONTROL COMMUNICATION SYSTEM CABLE) WILL BE INSTALLED BY THE CONTRACTOR. PREVIOUS NOTES RELATING TO CONNECTIONS BY CITY FORCES ALSO APPLY TO THIS CABLE.

CABLE TAGS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR PER PLANS AND DETAILS CONTAINED HEREIN. PAYMENT FOR CABLE TAGS AND THEIR INSTALLATION IS INCIDENTAL TO THE ITEM "CABLE SUPPLIED AND INSTALLED".

ALL POWER, FEEDER, AND POLE AND BRACKET CABLE SHALL BE RHH/RHW/USE INSULATION RATED FOR 600 VOLTS. STRANDED COPPER WIRE SHALL MEET THE REQUIREMENTS OF ITEM 1323.01. CONDUCTOR OUTER JACKET COLOR SHALL BE AS INDICATED ON PLAN SHEETS AND BE PROVIDED BY COLOR IMPREGNATING THE CONDUCTORS' OUTER JACKET ALONG ITS ENTIRE LENGTH DURING THE MANUFACTURING PROCESS.

CONNECTOR KITS AND SPLICE KITS SHALL MEET THE REQUIREMENTS OF ODOT SPEC. ITEM 725.15.

CONNECTION OF ELECTRIC SERVICES TO THE DUKE ENERGY SECONDARY (120/240 VOLT) SYSTEM SHALL BE MADE BY DUKE ENERGY CREWS ONLY.

FEEDER AND POLE BRACKET CABLES SHALL BE COLOR CODED RED, BLACK, AND GREEN PER CITY STANDARD DRAWING ES-7-3.

1324 TRAFFIC SIGNAL CONTROLLER, FURNISH & INSTALLATION

THIS ITEM INCLUDES HAULING AND INSTALLING THE SIGNAL CONTROL EQUIPMENT INCLUDING SIGNAL CONTROLLER, DETECTOR AMPS AND CONTROL CABINET PER ITEM 1324.

CONTROLLER, CABINET AND EQUIPMENT SHALL MEET SPECIFICATIONS OF CURRENT CITY OF CINCINNATI CONTRACT FOR PROGRAMMABLE TRAFFIC SIGNAL CONTROLLERS. CONTRACTOR TO SUPPLY NEW 170 TYPE CONTROLLER UNIT, 330 CIN CABINET. LOOP DETECTOR AMPLIFIERS AND ALL ASSOCIATED EQUIPMENT TO MAKE SIGNAL INSTALLATION OPERATIONAL AND COMPLETE. CONTRACTOR TO NOTIFY ENGINEER AND ARRANGE DELIVERY OF THE NEW CONTROLLER UNIT TO THE DEPARTMENT OF PUBLIC SERVICES 60 DAYS PRIOR TO THE DATE THE UNIT IS NEEDED FOR INSTALLATION.

INSTALL POLE MOUNTED TRAFFIC SIGNAL CONTROLLER ON POLE AT LOCATION AND REFERENCE ANGLE IDENTIFIED ON PLAN SHEETS.

1324 SAFETY SWITCHES (BY AMPERE SIZE)

TRAFFIC CONTROL DISCONNECT DEVICES (SAFETY SWITCHES) SHALL MEET THE REQUIREMENTS OF ITEM 1324.03. FUSING SHALL BE FURNISHED AND SHALL BE UL CLASS RK-1 RATED FOR 120 VOLTS.

1324 STREET LIGHTING CONTROLLER

IN ADDITION TO THE REQUIREMENTS OF ITEM 1324.03, THE CONTRACTOR SHALL FURNISH COMPLETE AND INSTALLED IN A NEMA4X STAINLESS STEEL ENCLOSURE, WITH DOOR INTERLOCKING MECHANISM AS PER SPEC. OF ADEQUATE SIZE AS INDICATED:

LIGHTING CONTROLLER, AMPS PER PLAN, 120/240V HIGH MAGNETIC TRIP SIZE (SIZE AS PER PLAN) FOR PANEL MOUNTING WITH THE ATMOSPHERE TEMPERATURE RANGE OF -20 DEG. F, TO +120 DEG. F. BREAKERS SHALL HAVE A MANUAL SWITCH FOR ON/OFF AND RESET OPERATION

1324 PHOTO ELECTRIC CELL

MOUNTED ON TOP OF DESIGNATED POLE, 25 FEET OR MORE ABOVE ANY ARTIFICIAL LIGHT OR STREET LIGHTING, ORIENT UNIT WITH SENSING ELEMENT FACING NORTH.

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND WERE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

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TRAFFIC SIGNALS/LIGHTING
GENERAL NOTES

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TRAFFIC SIGNAL/LIGHTING GENERAL NOTES

1326 LAMPS

IN ADDITION TO ITEM 1326 THE FOLLOWING SHALL APPLY:

LAMP: 250 WATT HIGH PRESSURE SODIUM. LAMPS SHALL PERFORM ACCORDING TO THE MANUFACTURER'S LITERATURE IN EFFECT AT THE DATE OF THIS CONTRACT. ALL STREET LIGHTING LUMINAIRES AND LAMPS WILL BE ORDERED BY THE CONTRACTOR. TRANSPORT, STORE, ASSEMBLE AND INSTALL THEM AS PER PLANS AND DETAILS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE LUMINAIRES OR LAMPS IN HIS POSSESSION AND REPAIRS OR REPLACEMENT SHALL BE DETERMINED BY THE ENGINEER.

1327 TRAFFIC SIGNALS

ALL TRAFFIC SIGNAL INDICATIONS SHALL BE OF THE LED TYPE AND ALL TRAFFIC SIGNAL HEADS SHALL BE OF POLYCARBONATE CONSTRUCTION AND BE PROVIDED WITH A 3/8" DRAIN HOLE IN THE BOTTOM AND TUNNEL VISOR. ALL TRAFFIC SIGNALS SHALL BE CONNECTED TO THE DROP PIPE WITH LOCK NUTS ON THE TOP, AND UNDERNEATH THE TOP SECTION PER ES-3-5. THE LED OPTICAL UNIT AND MOUNTING HARDWARE INCLUDING REFLECTORIZED SIGN ATTACHMENT WHERE SPECIFIED SHALL BE INCLUDED IN THE UNIT PRICE OF THE TRAFFIC SIGNAL. SEE STANDARD DRAWINGS ES-3-2, ES-3-4, AND ES-3-5 FOR MORE INFORMATION. ENTRANCE HEADS FOR TRAFFIC SIGNALS SHALL BE UNPAINTED CAST ALUMINUM, CONTINUOUS SLOT TYPE (TRAFFIC PARTS NO. 7092 OR APPROVED EQUAL). BALANCE ADJUSTERS SHALL BE UNPAINTED GALVANIZED, CAST IRON (TRAFFIC PARTS NO. 1010 OR APPROVED EQUAL). SPAN WIRE CLAMPS SHALL BE UNPAINTED CAST ALUMINUM, U-BOLT TYPE (TRAFFIC PARTS NO. 1504 OR APPROVED EQUAL).

WHERE LOUVERS ARE SPECIFIED FOR TRAFFIC SIGNALS, THE CIRCULAR GREEN AND ARROW LENSES SHALL BE FURNISHED WITH LOUVERS IN LIEU OF STANDARD VISORS. THE LOUVERS SHALL BE POLYCARBONATE, FLAT BLACK IN COLOR, 5 VANE AND 12" LONG. THE COST OF THE LOUVERS SHALL BE INCIDENTAL TO THE TRAFFIC SIGNAL HEADS FURNISHED AND INSTALLED.

ALL TRAFFIC SIGNAL INDICATIONS SHALL BE OF THE LED TYPE (LEOTEK, GELCORE GE, OR APPROVED EQUAL) AND BE ON THE CURRENT ODOT PREQUALIFIED LIST (QPL).

NEW SIGNAL WILL NOT BE ENERGIZED UNTIL ALL OVERHEAD SIGNS ARE INSTALLED AND FINAL PAVEMENT MARKINGS HAVE BEEN LAID.

1327 PEDESTRIAN SIGNALS

PEDESTRIAN SIGNALS SHALL BE OF ALUMINUM CONSTRUCTION WITH A BLACK FINISH AND SHALL BE THE TYPE D2 (16 INCH, 1 SECTION, LED, COUNTDOWN TYPE, INCANDESCENT LOOK). THE PEDESTRIAN SIGNAL SHALL HAVE AN INTEGRAL HAND/WALKING PERSON ON THE LEFT SIDE OF THE SIGNAL SECTION (PORTLAND ORANGE HAND AND LUNAR WHITE WALKING MAN) AND THE RIGHT SIDE OF THE SECTION HEAD SHALL CONTAIN A COUNTDOWN DISPLAY. SIGNALS SHALL BE PROVIDED WITH A 3/8" DRAIN HOLE IN THE BOTTOM. SIGNALS SHALL BE PROVIDED WITH 1 INCH DEEP EGGCRATE TYPE VISORS. ALL MOUNTING HARDWARE (CLAMSHELL TYPE FOR STEEL POLES, PIPE MOUNT FOR WOOD POLE) SHALL BE INCLUDED IN THE PRICE OF THE SIGNAL. SEE STANDARD DRAWINGS ES-3-2 AND ES-3-6 FOR MORE INFORMATION. ALL MOUNTING HARDWARE (FITTINGS AND PIPE) SHALL BE UNPAINTED. THE COUNTDOWN DISPLAY WILL NOT BE OPERATIONAL FOR THE REBUILT TRAFFIC SIGNALS AS PART OF THIS CONTRACT. THE COUNTDOWN DISPLAYS ARE FOR FUTURE USE. THE COUNTDOWN DISPLAY MUST HAVE A SWITCH TO DISABLE THE COUNTDOWN PORTION OF THE DISPLAY AND MUST BE IN THE "OFF" POSITION WHEN INSTALLED.

AL PEDESTRIAN SIGNAL INDICATION SHALL BE OF THE LED TYPE AND BE ON THE CURRENT ODOT PREQUALIFIED LIST (QPL).

1328 LOOP DETECTORS

LOOP DETECTORS SHALL BE CONSTRUCTED AS PER ITEM 1328 AND PER STANDARD DRAWING ES-4-1.

1329 REFLECTORIZED SIGNS

SIGNS SHALL BE PAID FOR BY SIZE AND LEGEND ON A PER UNIT PRICE AND SHALL INCLUDE THE COST OF SPAN WIRE MOUNTING ATTACHMENTS. THE SIGNS COMPLETE WITH MOUNTING ATTACHMENTS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

1335 CABLE AND POLE IDENTIFICATION

IN ADDITION TO ITEM 1335, ALL AERIAL INTERCONNECT CABLE INSTALLATIONS SHALL INCLUDE THE INSTALLATION OF WEATHERPROOF PLASTIC CABLE TAGS WITH INDELIBLE, IMPRINTED TEXT "COC 591-6000", ZIP TIED TO THE CABLE AT EVERY POLE ATTACHMENT POINT.

CTCS UNDERGROUND INSTALLATION NOTES:

CABLES SHALL BE PULLED IN THE CONDUIT WITH A SPLIT MESH CABLE GRIP DESIGNED TO PROVIDE A FIRM HOLD ON THE EXTERIOR COVERING OF THE CABLE. CABLE SHALL BE PULLED WITH A MINIMUM OF DRAGGING ON THE GROUND OR PAVEMENT. THE CONTRACTOR SHALL ENSURE THAT THE TENSILE LOAD ON THE CABLE DOES NOT EXCEED THE ALLOWED MAXIMUM BY USING A PULLEY SYSTEM WHICH INCLUDES A MEANS OF ALERTING THE INSTALLER WHEN THE PULLING TENSION APPROACHES THE LIMIT.

WHEN THE CABLE IS PULLED THROUGH AN INTERMEDIATE PULL BOX, THE CONTRACTOR SHALL ENSURE THAT THE CABLE IS PROTECTED FROM SHARP EDGES AND EXCESSIVE BENDS. THE CONTRACTOR SHALL NOT CAUSE THE CABLE TO VIOLATE THE MINIMUM BENDING RADIUS FOR WHICH THE CABLE WAS DESIGNED. A PULL LINE SHALL BE LEFT IN ALL CONDUITS TO FACILITATE FUTURE INSTALLATION.

IF THE CONTRACTOR ELECTS TO PULL THE CABLE IN BOTH DIRECTIONS FROM THE MIDPOINT OF THE RUN, HE SHALL FIRST PULL ONE HALF OF THE CABLE FROM THE REEL AT THE MIDPOINT THROUGH THE CONDUIT TO ONE END OF THE RUN. HE SHALL NEXT REMOVE THE OTHER HALF OF THE CABLE FROM THE REEL AND CAREFULLY COIL IT ON THE GROUND. THE CABLE SHALL BE COILED IN A FIGURE EIGHT WITH A MINIMUM LOOP DIAMETER OF FIVE FEET. THE CONTRACTOR SHALL THEN PULL THE COILED CABLE THROUGH THE CONDUIT TO THE OTHER END OF THE RUN. THE CONTRACTOR SHALL NOT KINK, TWIST, OR BEND THE CABLE DURING THE INSTALLATION, COILING AND UNCOILING.

DURING PULLING, THE CABLE SHALL BE CONTINUOUSLY LUBRICATED AS IT ENTERS THE CONDUIT. THE LUBRICANT USED SHALL BE COMPATIBLE WITH THE CABLE JACKET AS RECOMMENDED BY THE CABLE MANUFACTURER. LIQUID DETERGENT SHALL NOT BE USED. THE CABLE MANUFACTURER'S RECOMMENDED PULLING SPEED AND PULLING TENSION SHALL NOT BE EXCEEDED.

WHERE CABLES ARE TO BE INSTALLED IN CONDUIT WITH EXISTING CABLES OR WIRE WHICH SHALL REMAIN, THE CONTRACTOR SHALL NOT DAMAGE THE EXISTING CABLES OR WIRE. THE CONTRACTOR MAY, WITH PRIOR APPROVAL FROM THE ENGINEER, DISCONNECT, REMOVE, REINSTALL, AND RECONNECT THE EXISTING CABLES OR WIRES AS NECESSARY TO FACILITATE THE INSTALLATION OF THE NEW CABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING CABLES OR WIRES CAUSED BY THIS OPERATION.

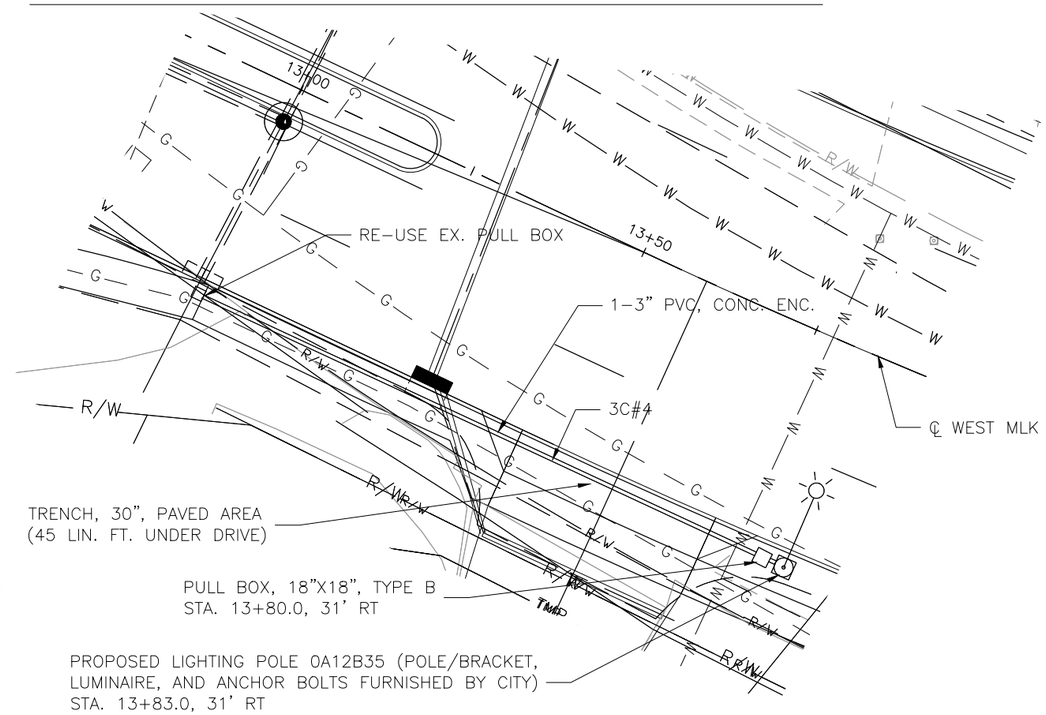
CTCS NOTES:

1. WHEN THE CTCS CABLE IN INSTALLED, A CITY INSPECTOR MUST BE PRESENT TO OBSERVE THE PULLING OF THE CABLE.
2. BEFORE ANY SPAN WORK CAN START, YOU MUST CONTACT MR. TERRY DUKES OF THE CITY OF CINCINNATI, CONTROLLER SHOP AT 513-378-8200, TO ARRANGE TO HAVE THE EXISTING CABLE DISCONNECTED BEFORE THE EXISTING CABLE CAN BE REMOVED.
3. CONTACT TERRY DUKES OF THE CITY OF CINCINNATI, CONTROLLER SHOP, TO ARRANGE FOR THE PICKUP OF THE NEW SECTIONALIZER AND CONNECTION OF THE NEW CABLE IN THE SECTIONALIZERS AND CONTROLLER.
4. THE CTCS CABLE IS TO BE COVERED BY A 1" FLEXIBLE INNERDUCT WHEN PASSING THRU THE FOLLOWING PULLBOXES. ELECTRI-FLEX CORRLOK TYPE CLL-12, OR APPROVED EQUIVALENT, SHALL BE INSTALLED. THE INNERDUCT SHALL COVER THE CABLE IN THE PULLBOX AND EXTEND A MINIMUM OF ONE FOOT INTO THE CONDUIT BEYOND THE PULLBOX. CTCS CABLE SHALL BE TESTED WHILE STILL ON THE SPOOL AND AFTER INSTALLATION.
5. REMOVE EXISTING CTCS CABLE FROM WOOD POLES ON THE WEST SIDE OF CLIFTON AVENUE AT WEST MLK DRIVE AND ALONG WEST MLK DRIVE BETWEEN DIXMYTH AVENUE AND CLIFTON AVENUE. ALL REMOVED SECTIONALIZERS ALONG WITH CTCS CABLE ARE TO BE RETURNED TO THE CITY. EXISTING CTCS CABLE IS TO BE UNCUT AND ON A SPOOL. THIS WORK SHALL BE INCIDENTAL TO THE INSTALLATION OF NEW CABLE PER 1316.03.
6. RELOCATE EXISTING 12-PAIR CTCS CABLE ALONG CLIFTON AVENUE BETWEEN STA. 9+10 (E1) AND STA. 11+44 (E3), AFTER NEW MESSENGER IS INSTALLED AS SHOWN IN THE PLANS. IF TEMPORARY DISCONNECTION IS NECESSARY TO COMPLETE RELOCATION, PLAN WORK TO LIMIT DOWNTIME TO 24 HOURS. COORDINATE WITH MR. TERRY DUKES, CITY OF CINCINNATI CONTROLLER SHOP AT 513-378-8200 FOR SCHEDULE DISCONNECTION, RELOCATION, AND RECONNECTION ACTIVITIES. REMOVE EXISTING MESSENGER CABLE AFTER RELOCATION. RELOCATION OF EXISTING CTCS CABLE WILL BE PAID UNDER ITEM 1332 RELOCATION OF EXISTING CTCS CABLE. THE LENGTH OF CTCS CABLE TO BE RELOCATED IS APPROXIMATELY 210 FEET.

1318 LIGHTING POLE, DESIGN NO. 0A12B35, INSTALLATION ONLY

CITY TO FURNISH LIGHTING POLE/BRACKET, LUMINAIRE, AND ANCHOR BOLTS AS PER 1318.01 FOR INSTALLATION AT STA. 13+80.0, 31' RT AS DETAILED ON THIS SHEET.

LIGHTING DETAIL



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

DEPARTMENT OF TRANSPORTATION & ENGINEERING — CITY OF CINCINNATI — OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TRAFFIC SIGNALS/LIGHTING
GENERAL NOTES

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ACC No.
23124

TRAFFIC SIGNALS/LIGHTING SUB SUMMARY

STA. 13+00 TO 14+00 (LIGHTING)	WEST MLK DRIVE AT DIXMYTH AVENUE	WEST MLK DRIVE AT CLIFTON AVENUE (SIGNAL)	INTERCONNECT/CTCS CABLE	WEST MLK DRIVE AT CLIFTON AVENUE (LIGHTING)	UNIT	ITEM NO.		TOTAL QUANTITY		ITEM DESCRIPTION
	1	1			EACH	1312		2		POWER SERVICE
	1	1			EACH	1314		2		MAINTENANCE OF EXISTING TRAFFIC SIGNALS
				1	EACH	1316		1		REMOVAL OF EXISTING STREET LIGHTING EQUIPMENT, AS PER PLAN
	1	1			EACH	1316		2		REMOVAL OF EXISTING TRAFFIC SIGNAL INSTALLATION, BY LOCATION
	1	4			EACH	1318		5		BRACKET ARM, 15 FT.
	3				EACH	1318		3		STEEL POLE, ANCHOR BASE, 10"X28', CITY #33048
	1				EACH	1318		1		STEEL POLE, ANCHOR BASE, 11"X30', CITY #38045LT
		4			EACH	1318		4		STEEL POLE, ANCHOR BASE, 12"X30', CITY #52028LT
		4			EACH	1318		4		STEEL POLE, ANCHOR BASE, 4"X10", CITY #1045
1					EACH	1318		1		LIGHTING POLE, DESIGN 0A12B35, AS PER PLAN (INSTALLATION ONLY)
	3				EACH	1319		3		CONCRETE ANCHOR BASE POLE FOUNDATION, 3 FT. DIA. X 10 FT. DEEP, FDN-09
1	1				EACH	1319		2		CONCRETE ANCHOR BASE POLE FOUNDATION, 3 FT. DIA. X 11 FT. DEEP, FDN-10
		4			EACH	1319		4		CONCRETE ANCHOR BASE POLE FOUNDATION, 3 FT. DIA. X 12 FT. DEEP, FDN-12
		4			EACH	1319		4		CONCRETE ANCHOR BASE PEDESTAL POST FOUNDATION, 2 FT. DIA. X 4 FT. DEEP, FDN-25
	1	1			EACH	1319		2		CONCRETE CLASS C, CONTROLLER WORK PAD
1	6	11		1	EACH	1320		19		GROUND ROD
		20			FT	1321		20		CONDUIT, 1" PVC
	30	80			FT	1321		110		CONDUIT, 3/4" PVC, CONCRETE ENCASED
		305			FT	1321		305		CONDUIT, 2" PVC, CONCRETE ENCASED
90	95	155		290	FT	1321		630		CONDUIT, 3" PVC, CONCRETE ENCASED
	5	5			FT	1321		10		CONDUIT, 4" PVC, CONCRETE ENCASED
	25	340			FT	1321		365		CONDUIT, 2" RMC
	525	875			FT	1321		1400		CONDUIT, 3" RMC
45	65	215		290	FT	1321		615		TRENCH, 24" DEEP
45	215	330			FT	1321		590		TRENCH, 30" DEEP
1					EACH	1322		1		PULL BOX, CONCRETE, 18"X18", TYPE B
	6	12			EACH	1322		18		PULL BOX, CONCRETE, 24"X24", TYPE C
1				2	EACH	1322		3		REUSE EXISTING PULL BOX, 18"X18"
				1	EACH	1322		1		INSTALLATION OF PULLBOXES OVER EXISTING CONDUITS
	410	485			FT	1323		895		MESSENGER WIRE, 7 STRAND NO. 10 AWG, (5/16" DIA.) WITH ACCESSORIES
		180	2110		FT	1323		2290		MESSENGER WIRE, 7 STRAND NO. 12 AWG, (1/4" DIA.) WITH ACCESSORIES
	220	85			FT	1323		305		POWER CABLE, 2 EACH #6, 600 VOLT, TYPE RHH/RHW/USE
	30	30		30	FT	1323		90		SERVICE CABLE, DUPLEX, #4 AWG
	170			480	FT	1323		650		POLE AND BRACKET CABLE, #10 AWG, RHH/RHW/USE STRANDED COPPER - RED
	170			480	FT	1323		650		POLE AND BRACKET CABLE, #10 AWG, RHH/RHW/USE STRANDED COPPER - BLACK
10				100	FT	1323		110		FEEDER CABLE, #4 AWG RHH/RHW/USE STRANDED COPPER - GREEN
100				1180	FT	1323		1280		STREET LIGHTING CABLE, #4 AWG RHH/RHW/USE STRANDED COPPER - BLACK
100				1180	FT	1323		1280		STREET LIGHTING CABLE, #4 AWG RHH/RHW/USE STRANDED COPPER - RED
100				1180	FT	1323		1280		STREET LIGHTING CABLE, #4 AWG RHH/RHW/USE STRANDED COPPER - GREEN
	135	270			FT	1323		405		TRAFFIC SIGNAL INTERCONNECT, CTCS CABLE, 6 PAIRS
			2205		FT	1323		2205		TRAFFIC SIGNAL INTERCONNECT, CTCS CABLE, 12 PAIRS
			2110		FT	1323		2110		REMOVAL OF EXISTING INTERCONNECTING CABLE (FOR INFORMATION ONLY)
	2040	3105			FT	1323		5145		TRAFFIC SIGNAL CABLE, 7 CONDUCTOR, #14 AWG
		745			FT	1323		745		LOOP DETECTOR LEAD-IN CABLE, 2 CONDUCTOR, NO. 14 AWG
		780			FT	1323		780		LOOP DETECTOR WIRE, 1 CONDUCTOR, NO. 14 AWG
				14	FT	1323		14		CONNECTION, FUSED PULL APART (QUICK DISCONNECT, FUSED "Y" TYPE II, WITH 5 AMP FUSE)
1				7	EACH	1323		8		CONNECTION, UNFUSED PULL APART (QUICK DISCONNECT, UNFUSED "Y" TYPE IV)
2					EACH	1323		2		CONNECTION, FUSED PULL APART (QUICK DISCONNECT, FUSED IN LINE TYPE VI, WITH 5 AMP FUSE)
3				9	EACH	1323		12		CONNECTION, UNFUSED PERMANENT (SPLICE KIT, "Y" TYPE VIIB)
				1	EACH	1324		1		PHOTO-ELECTRIC CELL, RECEPTACLE, MOUNTING BRACKET & 3#10 AWG CABLE
				1	EACH	1324		1		STREET LIGHTING CONTROLLER, 60 AMP, 240 VOLT, SINGLE PHASE, AS PER PLAN
	1	1			EACH	1324		2		TRAFFIC SIGNAL CONTROLLER, POLE MOUNT, FURNISH & INSTALLATION
	1				EACH	1325		1		LUMINAIRE, 250W, 120 VOLT, HPS, WITH PHOTOCELL
		4			EACH	1325		4		LUMINAIRE, 250W, 240 VOLT, HPS, TYPE III DISTRIBUTION
	8	8			EACH	1327		16		PEDESTRIAN SIGNAL HEAD ASSEMBLY, 1 SECT., 16" LED
	6	5			EACH	1327		11		VEHICULAR SIGNAL HEAD ASSEMBLY, 3 SECT., VERT., 12" LENS, RYG, 1 WAY, LED
	3	4			EACH	1327		7		VEHICULAR SIGNAL HEAD ASSEMBLY, 5 SECT., CLUSTER, 12" LENS, RYG, Y ARROW, G ARROW, 1 WAY, LED
		325			FT	1327		325		LOOP DETECTOR PAVEMENT CUTTING
	4	4			EACH	1329		8		REFLECTORIZED SIGN, FLAT SHEET TYPE, INSTALLATION ONLY, INCLUDING HARDWARE
			1		EACH	1332		1		RELOCATION OF EXISTING CTCS CABLE

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
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801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TRAFFIC SIGNALS/LIGHTING
SUB SUMMARY

Revisions
No.

Date Date Date Date

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Structure File Number

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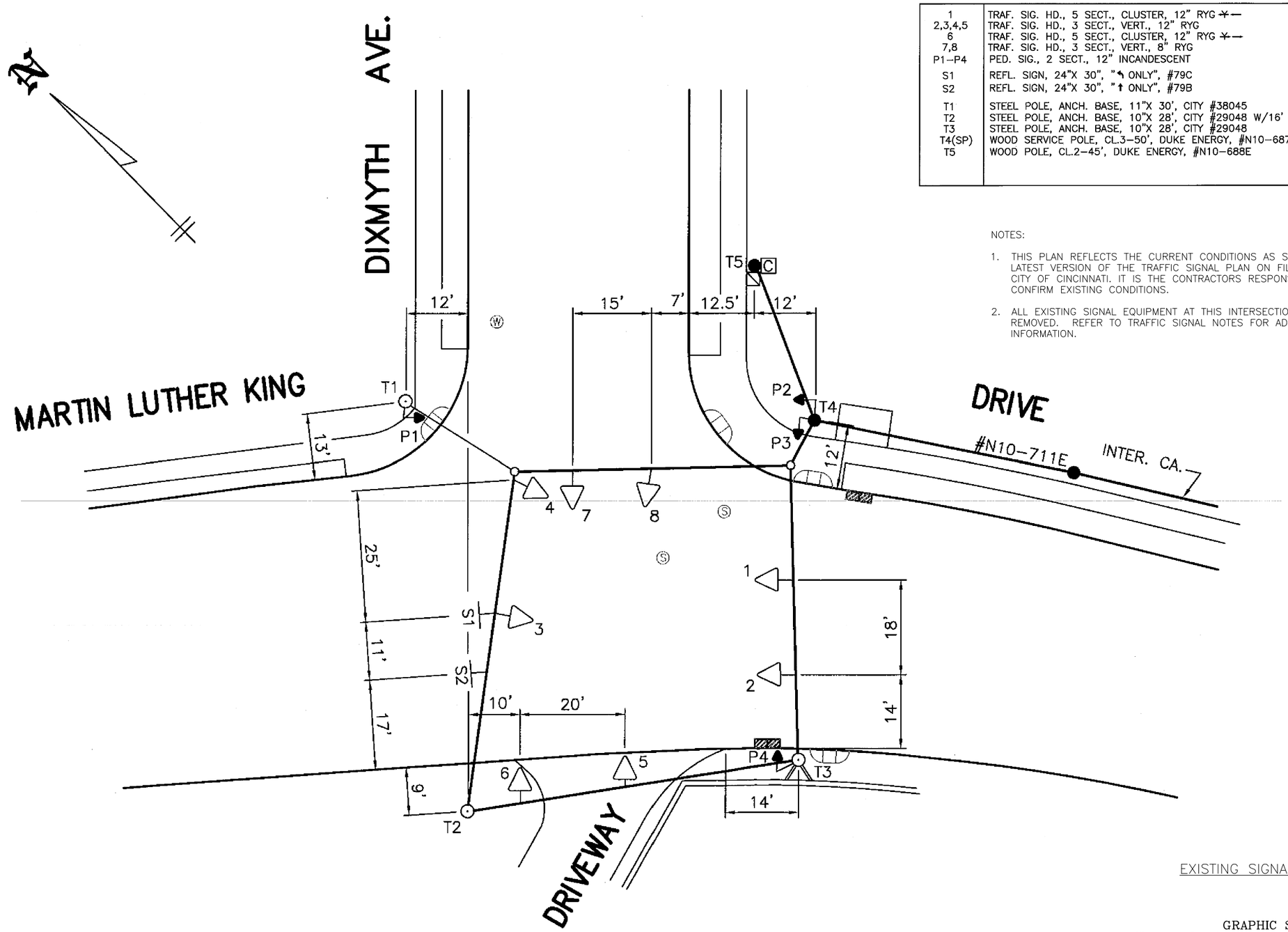
23124

1	TRAF. SIG. HD., 5 SECT., CLUSTER, 12" RYG ⚹—
2,3,4,5	TRAF. SIG. HD., 3 SECT., VERT., 12" RYG
6	TRAF. SIG. HD., 5 SECT., CLUSTER, 12" RYG ⚹—
7,8	TRAF. SIG. HD., 3 SECT., VERT., 8" RYG
P1–P4	PED. SIG., 2 SECT., 12" INCANDESCENT
S1	REFL. SIGN, 24"X 30", "↰ ONLY", #79C
S2	REFL. SIGN, 24"X 30", "↑ ONLY", #79B
T1	STEEL POLE, ANCH. BASE, 11"X 30', CITY #38045
T2	STEEL POLE, ANCH. BASE, 10"X 28', CITY #29048 W/16' MA.
T3	STEEL POLE, ANCH. BASE, 10"X 28', CITY #29048
T4(SP)	WOOD SERVICE POLE, CL.3–50', DUKE ENERGY, #N10–687E
T5	WOOD POLE, CL.2–45', DUKE ENERGY, #N10–688E

NOTES:

1. THIS PLAN REFLECTS THE CURRENT CONDITIONS AS SHOWN ON THE LATEST VERSION OF THE TRAFFIC SIGNAL PLAN ON FILE WITH THE CITY OF CINCINNATI. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM EXISTING CONDITIONS.
2. ALL EXISTING SIGNAL EQUIPMENT AT THIS INTERSECTION SHALL BE REMOVED. REFER TO TRAFFIC SIGNAL NOTES FOR ADDITIONAL INFORMATION.



EXISTING SIGNAL LAYOUT PLAN

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

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TRAFFIC SIGNALS
DIXMYTH AVENUE

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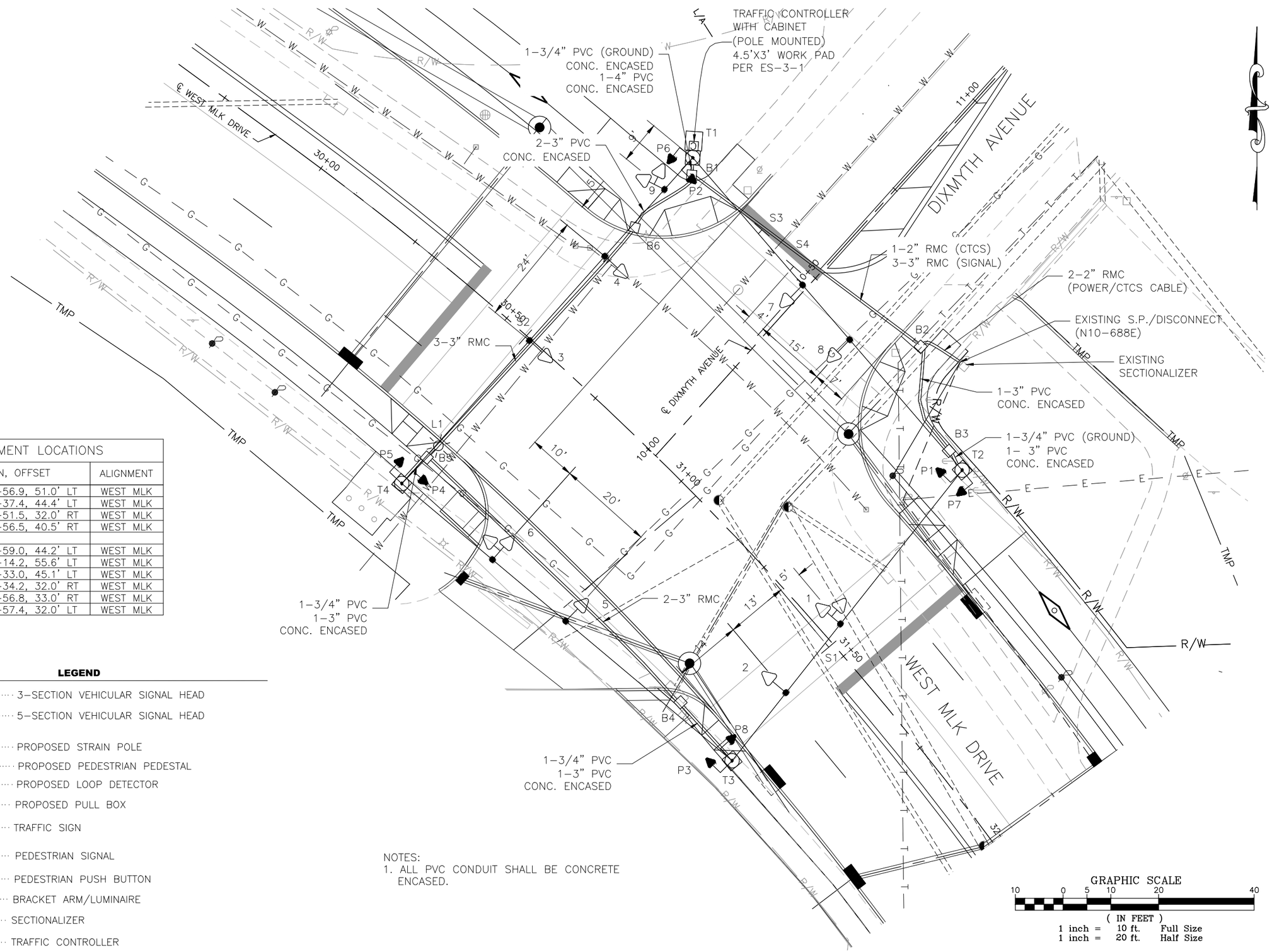

EQUIPMENT LOCATIONS		
ITEM	STATION, OFFSET	ALIGNMENT
T1	STA 30+56.9, 51.0' LT	WEST MLK
T2	STA 31+37.4, 44.4' LT	WEST MLK
T3	STA 31+51.5, 32.0' RT	WEST MLK
T4	STA 30+56.5, 40.5' RT	WEST MLK
B1	STA 30+59.0, 44.2' LT	WEST MLK
B2	STA 31+14.2, 55.6' LT	WEST MLK
B3	STA 31+33.0, 45.1' LT	WEST MLK
B4	STA 31+34.2, 32.0' RT	WEST MLK
B5	STA 30+56.8, 33.0' RT	WEST MLK
B6	STA 30+57.4, 32.0' LT	WEST MLK

LEGEND

- 1 ..... 3-SECTION VEHICULAR SIGNAL HEAD
- 1 ..... 5-SECTION VEHICULAR SIGNAL HEAD
- T1 ..... PROPOSED STRAIN POLE
- T1 ..... PROPOSED PEDESTRIAN PEDESTAL
- D1 ..... PROPOSED LOOP DETECTOR
- PB B1 ..... PROPOSED PULL BOX
- S1 ..... TRAFFIC SIGN
- P1 ..... PEDESTRIAN SIGNAL
- PB1 ..... PEDESTRIAN PUSH BUTTON
- L1 ..... BRACKET ARM/LUMINAIRE
- S ..... SECTIONALIZER
- C ..... TRAFFIC CONTROLLER
- ..... SAFETY SWITCH

NOTES:
1. ALL PVC CONDUIT SHALL BE CONCRETE ENCASED.

GRAPHIC SCALE
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CABLE SCHEDULE

CABLE NO.	CONNECTING DEVICES	CABLE TYPE	CABLE ROUTING	LIN FT
1	TRAFFIC SIGNAL 1	7C#14	TS1–T2–B3–B2–B1–T1–CONTROLLER	185'
2	TRAFFIC SIGNAL 2	7C#14	TS2–T2–B3–B2–B1–T1–CONTROLLER	200'
3	TRAFFIC SIGNAL 3,4	7C#14	TS3–TS4–T1–CONTROLLER	115'
4	TRAFFIC SIGNAL 5	7C#14	TS5–T4–B5–B6–B1–T1–CONTROLLER	200'
5	TRAFFIC SIGNAL 6	7C#14	TS6–T4–B5–B6–B1–T1–CONTROLLER	180'
6	TRAFFIC SIGNAL 7,8	7C#14	TS8–TS7–T1–CONTROLLER	120'
7	TRAFFIC SIGNAL 9	7C#14	TS9–T1–CONTROLLER	50'
8	PEDESTRIAN SIGNAL P1	7C#14	P1–T2–B3–B2–B1–T1–CONTROLLER	130'
9	PEDESTRIAN SIGNAL P2	7C#14	P2–T1–CONTROLLER	30'
10	PEDESTRIAN SIGNAL P3	7C#14	P3–T3–B4–B5–B6–B1–T1–CONTROLLER	210'
11	PEDESTRIAN SIGNAL P4	7C#14	P4–T4–B5–B6–B1–T1–CONTROLLER	125'
12	PEDESTRIAN SIGNAL P5	7C#14	P5–T4–B5–B6–B1–T1–CONTROLLER	125'
13	PEDESTRIAN SIGNAL P6	7C#14	P6–T1–CONTROLLER	30'
14	PEDESTRIAN SIGNAL P7	7C#14	P7–T2–B3–B2–B1–T1–CONTROLLER	130'
15	PEDESTRIAN SIGNAL P8	7C#14	P8–T3–B4–B5–B6–B1–T1–CONTROLLER	210'
16	STREET LIGHT L1	2–1C#10	L1–T4–B5–B6–B1–T1–CONTROLLER	340'
17	POWER SERVICE	2–1C#6	DISCONNECT–SP–B2–B1–T1–CONTROLLER	220'
18	SERVICE CABLE	#4 DPL	SP–DISCONNECT	30'
19	MESSENGER CABLE	5/16"	T1–T2	100'
20	MESSENGER CABLE	5/16"	T2–T3	95'
21	MESSENGER CABLE	5/16"	T3–T4	105'
22	MESSENGER CABLE	5/16"	T4–T1	110'
23	CTCS CABLE	6 PAIR	SECTIONALIZER–SP–B2–B1–T1–CONTROLLER	120'
24				
25				
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32				

EQUIPMENT INVENTORY

ITEM	DESCRIPTION	
2,3,4,5,7,8	TRAF. SIG., 3 SECT., LED, VERT, 12" RYG	NEW
1,9	TRAF. SIG., 5 SECT., LED, CLUSTER, 12" RYG	NEW
6	TRAF. SIG., 5 SECT., LED, CLUSTER, 12" RYG	NEW
P1–P8	PED. SIGNAL, 1 SECT.–16" LED (HAND/MAN W/ COUNTDOWN TIMER)	NEW
S3	REFLECTORIZED SIGN, 24"x30", "ONLY", (ON SPAN WIRE) CITY #079A	NEW
S1,S2	REFLECTORIZED SIGN, 24"X30", "ONLY", (ON SPAN WIRE) CITY #079C	NEW
S4	REFLECTORIZED SIGN, 24"X30", "", (ON SPAN WIRE) CITY #079BC	NEW
B1–B6	CONCRETE PULL BOX, 24"x24", TYPE "C"	NEW
T1,T2,T3	STEEL POLE, ANCH. BASE, 10"x28', CITY#33048	NEW
T4	STEEL LT POLE, ANCH. BASE, 11"x30', CITY #38045LT W/ 15' MAST ARM	NEW
L1	250 WATT COBRAHEAD FIXTURE WITH PHOTOCELL	NEW
SP	NEW DUKE ENERGY POLE (INSTALLED BY OTHERS PRIOR TO PROJECT)	NEW
C	CONTROLLER WITH CABINET, POLE MOUNTED WITH PAD	EXISTING
		NEW

NOTES:

1. ALL POLE FOUNDATIONS, PULL BOXES, AND CONDUIT WILL BE INSTALLED AS PART OF THE CITY OF CINCINNATI WEST MLK IMPROVEMENT PROJECT. THE CONTRACTOR IS TO MAINTAIN THE EXISTING TRAFFIC DURING CONSTRUCTION USING TEMPORARY TRAFFIC SIGNALS. FINAL TRAFFIC SIGNAL AND SIGNS WILL BE INSTALLED AFTER THE STAGE 1 INTERSECTION CONSTRUCTION IS COMPLETE.

MATERIAL SCHEDULE

VEHICLE SIGNAL HEADS

NO	1	2	3	4	5	6	7	8	9	10	11	12
8 IN.												
12 IN.	R	R	R	R	R	R	R	R	R			
	Y	Y	Y	Y	Y	Y	Y	Y	Y			
	G	G	G	G	G	G	G	G	G			

1 SECTION–16 IN. LED–COUNTDOWN

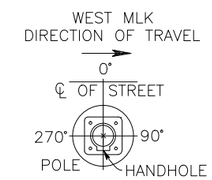
USE LENS W/ SYMBOL LEGENDS IN THE LEFT SECTION OF THE SIGNAL:
PORTLAND ORANGE: HAND (DONT WALK)
LUNAR WHITE: WALKING MAN (WALK)

CLAMSHELL MOUNT ON STELL POLES
PIPE MOUNT ON WOOD POLES

POLE DATA / PUSH BUTTONS / PEDESTRIAN SIGNALS / ANGLE OF ORIENTATION (0°)* OR MOUNTING HEIGHT (FT.)

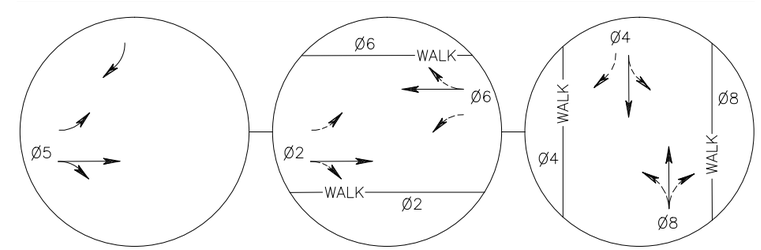
NO.	DESCRIPTION	GAUGE	SHAFT SIZE (INxFT)	FOUND. TYPE	LOOP DETECTORS	PUSH BUTTONS	P1 DW W	P2 DW W	P3 DW W	P4 DW W	P5 DW W	P6 DW W	P7 DW W	P8 DW W	CABLE ENTRANCE	SPAN WIRE HEIGHT (FT.)	STREET LIGHT BRACKET ARM	SECTIONALIZER	HANDHOLE	SAFETY SWITCH	CONTROLLER	PHOTOCELL	ISLAND LIGHT BRACKET ARM
T1	33048		10x28	FDN–09				0°				90°			315°	24.0			0°		135°		
T2	33048		10x28	FDN–09			0°						270°		45°	24.2			180°				
T3	33048		10x28	FDN–09					180°					270°	315°	22.9			0°				
T4	38045LT		11x30	FDN–10						0°	270°				45°	26.9	0°		315°				
SP	EX. DUKE POLE																			90°			

* 0° REFERENCE ANGLE IS PERPENDICULAR TO ℄ OF WEST MLK DRIVE UNLESS OTHERWISE INDICATED.



TYP. POLE ORIENTATION

PHASE DIAGRAM



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING BID PRINTS WERE MADE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TRAFFIC SIGNALS
DIXMYTH AVENUE

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

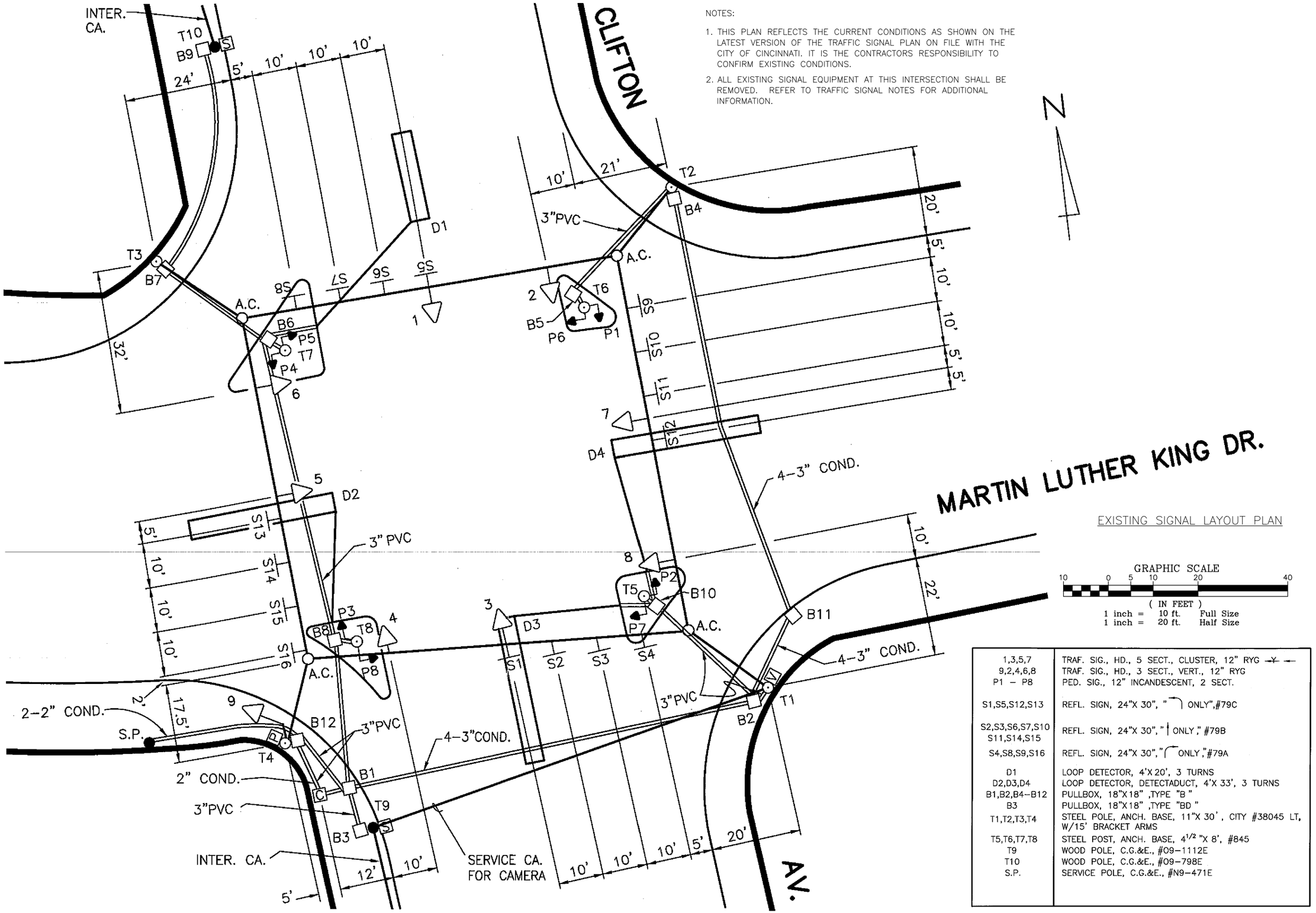
Consultant

Structure File Number

ACC No.
23124

NOTES:

1. THIS PLAN REFLECTS THE CURRENT CONDITIONS AS SHOWN ON THE LATEST VERSION OF THE TRAFFIC SIGNAL PLAN ON FILE WITH THE CITY OF CINCINNATI. IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM EXISTING CONDITIONS.
2. ALL EXISTING SIGNAL EQUIPMENT AT THIS INTERSECTION SHALL BE REMOVED. REFER TO TRAFFIC SIGNAL NOTES FOR ADDITIONAL INFORMATION.



EXISTING SIGNAL LAYOUT PLAN

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft. Full Size
1 inch = 20 ft. Half Size

1,3,5,7	TRAF. SIG., HD., 5 SECT., CLUSTER, 12" RYG
9,2,4,6,8	TRAF. SIG., HD., 3 SECT., VERT., 12" RYG
P1 – P8	PED. SIG., 12" INCANDESCENT, 2 SECT.
S1,S5,S12,S13	REFL. SIGN, 24"X 30", " ONLY",#79C
S2,S3,S6,S7,S10 S11,S14,S15	REFL. SIGN, 24"X 30", " ONLY ", #79B
S4,S8,S9,S16	REFL. SIGN, 24"X 30", " ONLY ",#79A
D1	LOOP DETECTOR, 4'X 20', 3 TURNS
D2,D3,D4	LOOP DETECTOR, DETECTADUCT, 4'X 33', 3 TURNS
B1,B2,B4–B12	PULLBOX, 18"X18" ,TYPE "B "
B3	PULLBOX, 18"X18" ,TYPE "BD "
T1,T2,T3,T4	STEEL POLE, ANCH. BASE, 11"X 30' , CITY #38045 LT, W/15' BRACKET ARMS
T5,T6,T7,T8	STEEL POST, ANCH. BASE, $4^{1/2}$ "X 8', #845
T9	WOOD POLE, C.G.&E., #09–1112E
T10	WOOD POLE, C.G.&E., #09–798E
S.P.	SERVICE POLE, C.G.&E., #N9–471E

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TRAFFIC SIGNALS
CLIFTON AVENUE

Revisions

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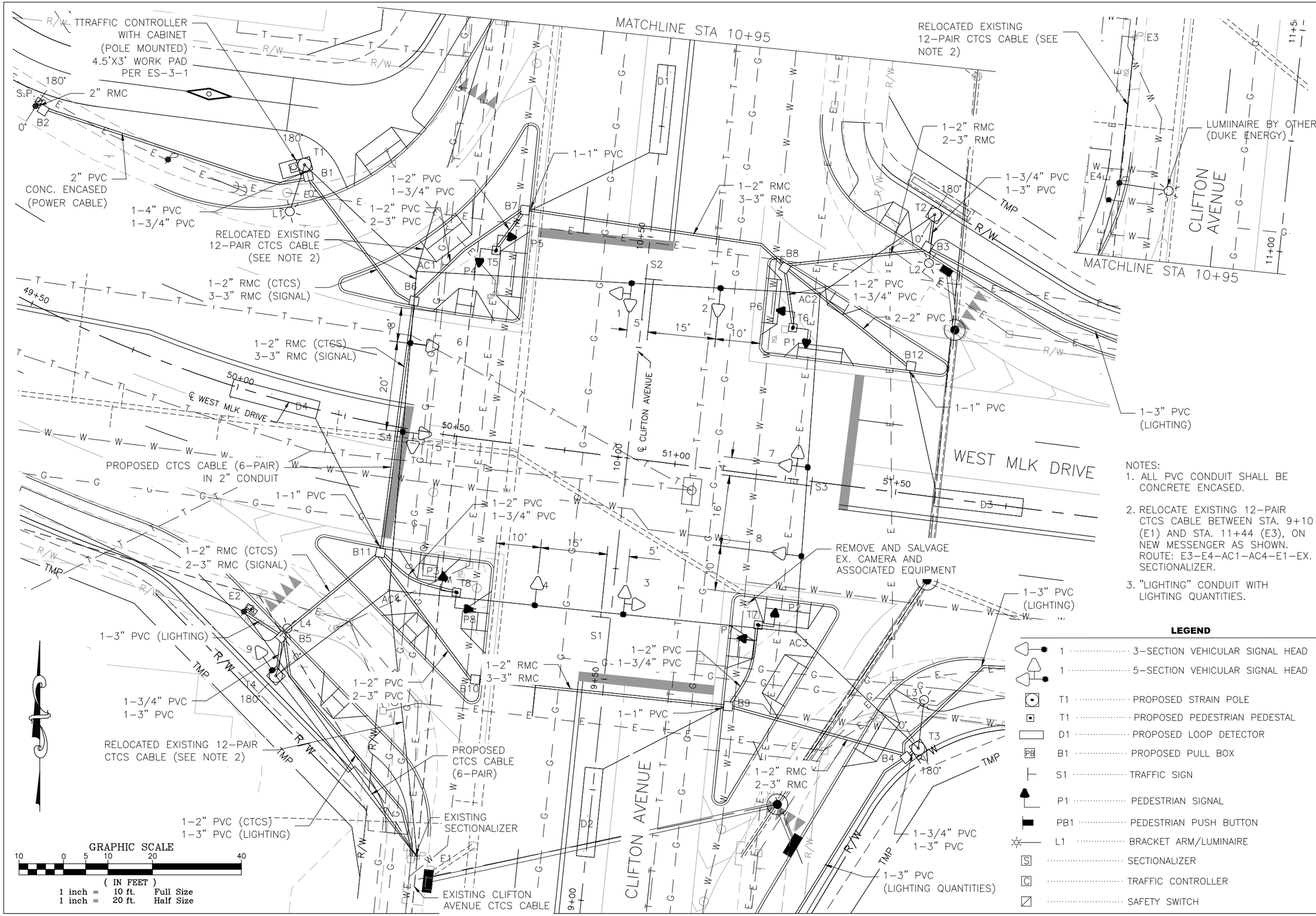

NOTES:
1. ALL PVC CONDUIT SHALL BE CONCRETE ENCASED.
2. RELOCATE EXISTING 12-PAIR CTCS CABLE BETWEEN STA. 9+10 (E1) AND STA. 11+44 (E3), ON NEW MESSENGER AS SHOWN. ROUTE: E3-E4-AC1-AC4-E1-EX. SECTIONALIZER.
3. "LIGHTING" CONDUIT WITH LIGHTING QUANTITIES.

LEGEND

1	3-SECTION VEHICULAR SIGNAL HEAD
1	5-SECTION VEHICULAR SIGNAL HEAD
T1	PROPOSED STRAIN POLE
T1	PROPOSED PEDESTRIAN PEDESTAL
D1	PROPOSED LOOP DETECTOR
PB B1	PROPOSED PULL BOX
S1	TRAFFIC SIGN
P1	PEDESTRIAN SIGNAL
PB1	PEDESTRIAN PUSH BUTTON
L1	BRACKET ARM/LUMINAIRE
S	SECTIONALIZER
C	TRAFFIC CONTROLLER
	SAFETY SWITCH

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

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TRAFFIC SIGNALS
CLIFTON AVENUE

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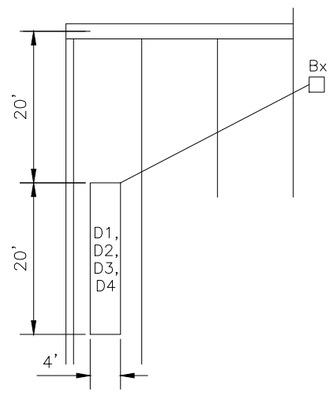
EQUIPMENT LOCATIONS

ITEM	STATION, OFFSET	ALIGNMENT
T1	STA 49+99.2, 52.2' LT	WEST MLK
T2	STA 51+50.9, 63.0' LT	WEST MLK
T3	STA 51+62.3, 56.6' RT	WEST MLK
T4	STA 50+23.0, 60.4' RT	WEST MLK
T5	STA 50+54.0, 42.6' LT	WEST MLK
T6	STA 51+22.6, 33.8' LT	WEST MLK
T7	STA 51+23.2, 33.5' RT	WEST MLK
T8	STA 50+55.0, 34.8' RT	WEST MLK
B1	STA 50+01.1, 50.0' LT	WEST MLK
B2	STA 49+30.0, 39.0' LT	WEST MLK
B3	STA 51+50.3, 55.6' LT	WEST MLK
B4	STA 51+59.9, 58.9' RT	WEST MLK
B5	STA 50+22.4, 51.6' RT	WEST MLK
B6	STA 50+35.6, 28.5' LT	WEST MLK
B7	STA 10+53.0, 28.6' LT	CLIFTON
B8	STA 10+46.3, 30.8' RT	CLIFTON
B9	STA 9+46.8, 28.4' RT	CLIFTON
B10	STA 9+46.8, 28.8' LT	CLIFTON
B11	STA 50+38.4, 28.5' RT	CLIFTON
B12	STA 51+50.0, 28.7' LT	WEST MLK
E1	STA 9+05.8, 37.7' LT	CLIFTON
E2	STA 50+14.0, 48.0' RT	CLIFTON
E3	STA 11+44.0, 37.0' LT	CLIFTON
E4	STA 11+11.0, 37.5' LT	CLIFTON
S.P.	STA 49+28.0, 39.0' LT	WEST MLK

LOOP DETECTION DETAILS–D1,D2,D3,D4



EQUIPMENT INVENTORY

ITEM	DESCRIPTION	
2,4,6,8,9	TRAF. SIG., 3 SECT., LED, VERT, 12" RYG	NEW
1,3,5,7	TRAF. SIG., 5 SECT., LED, CLUSTER, 12" RYG ←Y ←G	NEW
P1–P8	PED. SIGNAL, 1 SECT., 16" LED (HAND/MAN W/ COUNTDOWN TIMER)	NEW
S1–S4	REFLECTORIZED SIGN, 24"x30", "↰ ONLY", (ON SPAN WIRE) CITY #079C	NEW
B1–B12	CONCRETE PULL BOX, 24"x24", TYPE C	NEW
D1–D4	LOOP DETECTOR, 4'x20', 4 TURNS	NEW
T1,T2,T3,T4	STEEL LT POLE, ANCH. BASE, 12"x30', CITY #52028LT W/ 15' MAST ARM	NEW
T5,T6,T7,T8	STEEL POST, ANCH. BASE, 4"x10', CITY #1045	NEW
L1,L2,L3,L4	250 WATT COBRAHEAD FIXTURE	NEW
SP	NEW DUKE ENERGY POLE (INSTALLED BY OTHERS PRIOR TO PROJECT)	EXISTING
C	CONTROLLER WITH CABINET, POLE MOUNTED WITH PAD	NEW

CABLE SCHEDULE

CABLE NO.	CONNECTING DEVICES	CABLE TYPE	CABLE ROUTING	LIN FT
1	TRAFFIC SIGNAL 1	7C#14	TS1–AC1–T1–CONT.	125'
2	TRAFFIC SIGNAL 2	7C#14	TS2–AC1–T1–CONT.	145'
3	TRAFFIC SIGNAL 3	7C#14	TS3–AC4–T4–B5–B11–B6–B1–T1–CONT.	265'
4	TRAFFIC SIGNAL 4	7C#14	TS4–AC4–T4–B5–B11–B6–B1–T1–CONT.	245'
5	TRAFFIC SIGNAL 5	7C#14	TS5–AC1–T1–CONT.	110'
6	TRAFFIC SIGNAL 6	7C#14	TS6–AC1–T1–CONT.	90'
7	TRAFFIC SIGNAL 7	7C#14	TS7–AC2–T2–B3–B8–B7–B6–B1–T1–CONT.	290'
8	TRAFFIC SIGNAL 8	7C#14	TS8–AC2–T2–B3–B8–B7–B6–B1–T1–CONT.	310'
9	TRAFFIC SIGNAL 9	7C#14	TS9–T4–B5–B11–B6–B1–T1–CONT.	175'
10	PEDESTRIAN SIGNAL P1	7C#14	P1–T6–B8–B7–B6–B1–T1–CONT.	175'
11	PEDESTRIAN SIGNAL P2	7C#14	P2–T7–B9–B10–B11–B6–B1–T1–CONT.	240'
12	PEDESTRIAN SIGNAL P3	7C#14	P3–T8–B11–B6–B1–T1–CONT.	150'
13	PEDESTRIAN SIGNAL P4	7C#14	P4–T5–B7–B6–B1–T1–CONT.	110'
14	PEDESTRIAN SIGNAL P5	7C#14	P5–T5–B7–B6–B1–T1–CONT.	110'
15	PEDESTRIAN SIGNAL P6	7C#14	P6–T6–B8–B7–B6–B1–T1–CONT.	175'
16	PEDESTRIAN SIGNAL P7	7C#14	P7–T7–B9–B10–B11–B6–B1–T1–CONT.	240'
17	PEDESTRIAN SIGNAL P8	7C#14	P8–T8–B11–B6–B1–T1–CONT.	150'
18	LOOP DETECTOR D1	1C#14	B7–D1–B7	195'
19	LOOP DETECTOR D2	1C#14	B9–D2–B9	195'
20	LOOP DETECTOR D3	1C#14	B12–D3–B12	195'
20	LOOP DETECTOR D4	1C#14	B11–D4–B11	195'
22	POWER SERVICE	2C#6	DISCONNECT–SP–B2–B1–CONTROLLER	85'
23	SERVICE CABLE	#4 DPL	SP–DISCONNECT	35'
24	MESSENGER CABLE	5/16"	T1–AC1	35'
25	MESSENGER CABLE	5/16"	T2–AC2	35'
26	MESSENGER CABLE	5/16"	T3–AC3	40'
27	MESSENGER CABLE	5/16"	T4–AC4	35'
28	MESSENGER CABLE	5/16"	AC1–AC2	95'
29	MESSENGER CABLE	5/16"	AC2–AC3	75'
30	MESSENGER CABLE	5/16"	AC3–AC4	95'
31	MESSENGER CABLE	5/16"	AC1–AC4	75'
32	MESSENGER CABLE	1/4"	E3–SP–AC1	115'
33	MESSENGER CABLE	1/4"	AC4–E1	65'
34	CTCS CABLE	6 PAIR	SECTIONALIZER–E1–B5–B11–B6–B1–T1–CONTROLLER	120'
35	DETECTOR D1 LEAD–IN	2C#14	B7–B6–B1–T1–CONTROLLER	115'
36	DETECTOR D2 LEAD–IN	2C#14	B9–B10–B11–B6–B1–T1–CONTROLLER	260'
37	DETECTOR D3 LEAD–IN	2C#14	B12–B8–B7–B6–B1–T1–CONTROLLER	225'
38	DETECTOR D4 LEAD–IN	2C#14	B11–B6–B1–T1–CONTROLLER	145'

MATERIAL SCHEDULE

VEHICLE SIGNAL HEADS

NO	1	2	3	4	5	6	7	8	9
8 IN.									
12 IN.	R	R	R	R	R	R	R	R	R
	Y	Y	Y	Y	Y	Y	Y	Y	Y
	G	G	G	G	G	G	G	G	G
	←Y		←Y		←Y		←Y		
	←G		←G		←G		←G		

LOOP DETECTOR: D1, D2, D3, D4 — 4' x 20', 4 TURNS

1 SECTION, 16 IN. LED, COUNTDOWN

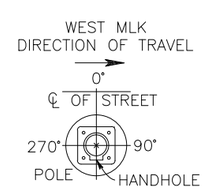
USE LENS W/ SYMBOL LEGENDS IN THE LEFT SECTION OF THE SIGNAL:
PORTLAND ORANGE: HAND (DONT WALK)
LUNAR WHITE: WALKING MAN (WALK)

CLAMSHELL MOUNT ON STELL POLES
PIPE MOUNT ON WOOD POLES

PEDESTRIAN SIGNALS

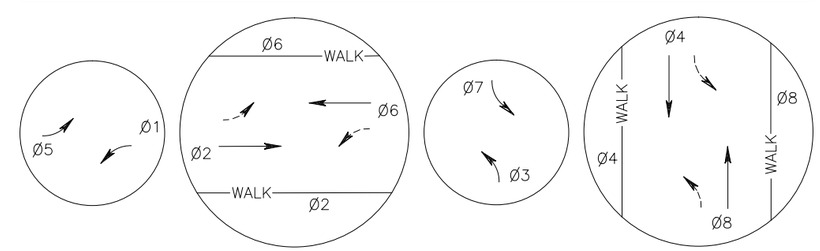
NO.	DESCRIPTION	GAUGE	SHAFT SIZE (INxFT)	FOUND. TYPE	PUSH BUTTONS P1 DW W	P2 DW W	P3 DW W	P4 DW W	P5 DW W	P6 DW W	P7 DW W	P8 DW W	CABLE ENTRANCE	SPAN WIRE HEIGHT (FT.)	STREET LIGHT BRACKET ARM	SECTIONALIZER	HANDHOLE	SAFETY SWITCH	CONTROLLER	PHOTOCELL	LIGHTING CONTROLLER
					ANGLE OF ORIENTATION (0°)* OR MOUNTING HEIGHT (FT.)																
T1	52028LT		12"x30'	FDN–12									0°	27.8	33°		90°		90°		
T2	52028LT		12"x30'	FDN–12									0°	27.6	335°		90°				
T3	52028LT		12"x30'	FDN–12									0°	26.9	38°		90°				
T4	52028LT		12"x30'	FDN–12									0°	26.2	328°		90°				
T5	1045		4"x10'	FDN–25					90°	180°											
T6	1045		4"x10'	FDN–25				270°			180°										
T7	1045		4"x10'	FDN–25								180°									
T8	1045		4"x10'	FDN–25			270°						180°								
SP	EX. DUKE POLE																	270°			
E1	EX. DUKE POLE																				
E2	EX. DUKE POLE																			0°	120°
E3	EX. DUKE POLE																				
E4	EX. DUKE POLE																				

* 0° REFERENCE ANGLE IS PERPENDICULAR TO ℄ OF WEST MLK DRIVE UNLESS OTHERWISE INDICATED. REFER TO 0° ORIENTATION ANGLES ON THE PLAN FOR SP.



TYP. POLE ORIENTATION

PHASE DIAGRAM



NOTES:

1. ALL POLE FOUNDATIONS, PULL BOXES, AND CONDUIT WILL BE INSTALLED AS PART OF THE CITY OF CINCINNATI WEST MLK IMPROVEMENT PROJECT. THE CONTRACTOR IS TO MAINTAIN THE EXISTING TRAFFIC DURING CONSTRUCTION USING TEMPORARY TRAFFIC SIGNALS. FINAL TRAFFIC SIGNAL AND SIGNS WILL BE INSTALLED AFTER THE STAGE 1 INTERSECTION CONSTRUCTION IS COMPLETE.

DEPARTMENT OF TRANSPORTATION & ENGINEERING — CITY OF CINCINNATI — OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING BID DATE AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
TRAFFIC SIGNALS
CLIFTON AVENUE

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SEE WEST MLK DRIVE/DIXMYTH AVENUE TRAFFIC SIGNAL PLANS FOR ROUTING OF THE 6-PAIR DROP CABLE TO THE CONTROLLER

N10-688E

N10-687E

N10-717E

N10-696E

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON PR. DUKE UTILITY POLES

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON PR. DUKE UTILITY POLES

REMOVE Existing 12-Pair CTCS Cable/Messenger

REMOVE Existing 12-Pair CTCS Cable/Messenger

N10-694E

N10-695E

32+00 33+00 34+00 35+00 36+00

REMOVE Existing 12-Pair CTCS Cable/Messenger

℄ WEST MLK DRIVE

WEST MLK DRIVE

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON PR. DUKE UTILITY POLES

MATCHLINE STA 36+75

REMOVE Existing 12-Pair CTCS Cable/Messenger

REMOVE Existing 12-Pair CTCS Cable/Messenger

MATCHLINE STA 36+75

N9-1162E

N9-1161E

N9-1160E

37+00 38+00 39+00 40+00 41+00 42+00

℄ WEST MLK DRIVE

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON PR. DUKE UTILITY POLES

WEST MLK DRIVE

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON PR. DUKE UTILITY POLES

MATCHLINE STA 42+25

MATCHLINE STA 42+25

N9-1159E

N9-1158E

N9-1157E

N9-1156E

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON EX. UTILITY POLES

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON EX. UTILITY POLES

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON EX. UTILITY POLES

REMOVE Existing 12-Pair CTCS Cable/Messenger

REMOVE Existing 12-Pair CTCS Cable/Messenger

43+00 44+00 45+00 46+00 47+00 48

℄ WEST MLK DRIVE

WEST MLK DRIVE

PR. 12-PAIR CTCS CABLE ON NEW MESSENGER WIRE ON PR. DUKE UTILITY POLES

MATCHLINE STA 48+00

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft. Full Size

1 inch = 40 ft. Half Size

CONTRACT DRAWING

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Cincinnati, Ohio 45202

HAM-CR 612-0.20

TRAFFIC SIGNALS INTERCONNECT PLAN

Revisions

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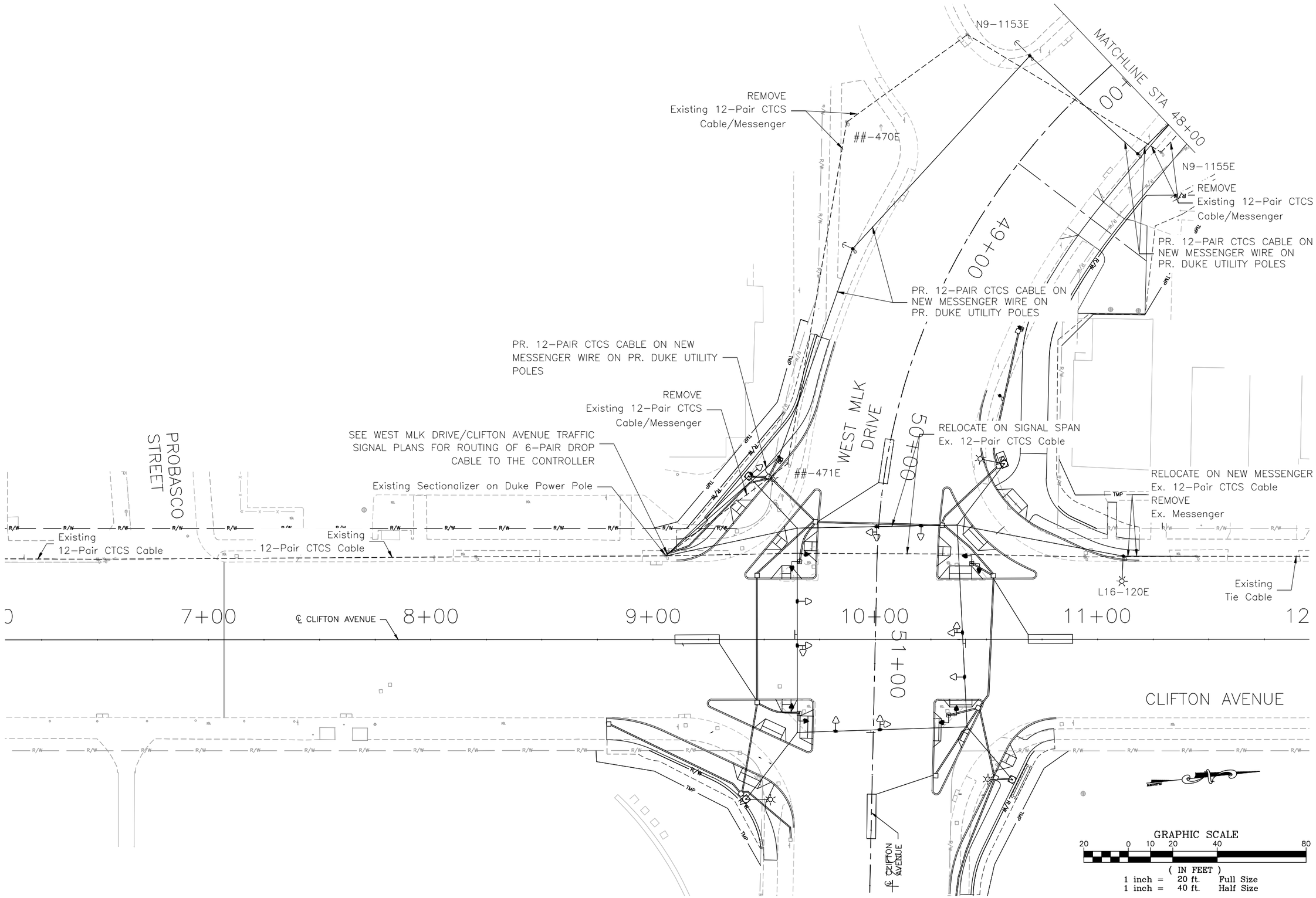

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TRAFFIC SIGNALS INTERCONNECT PLAN

Revisions

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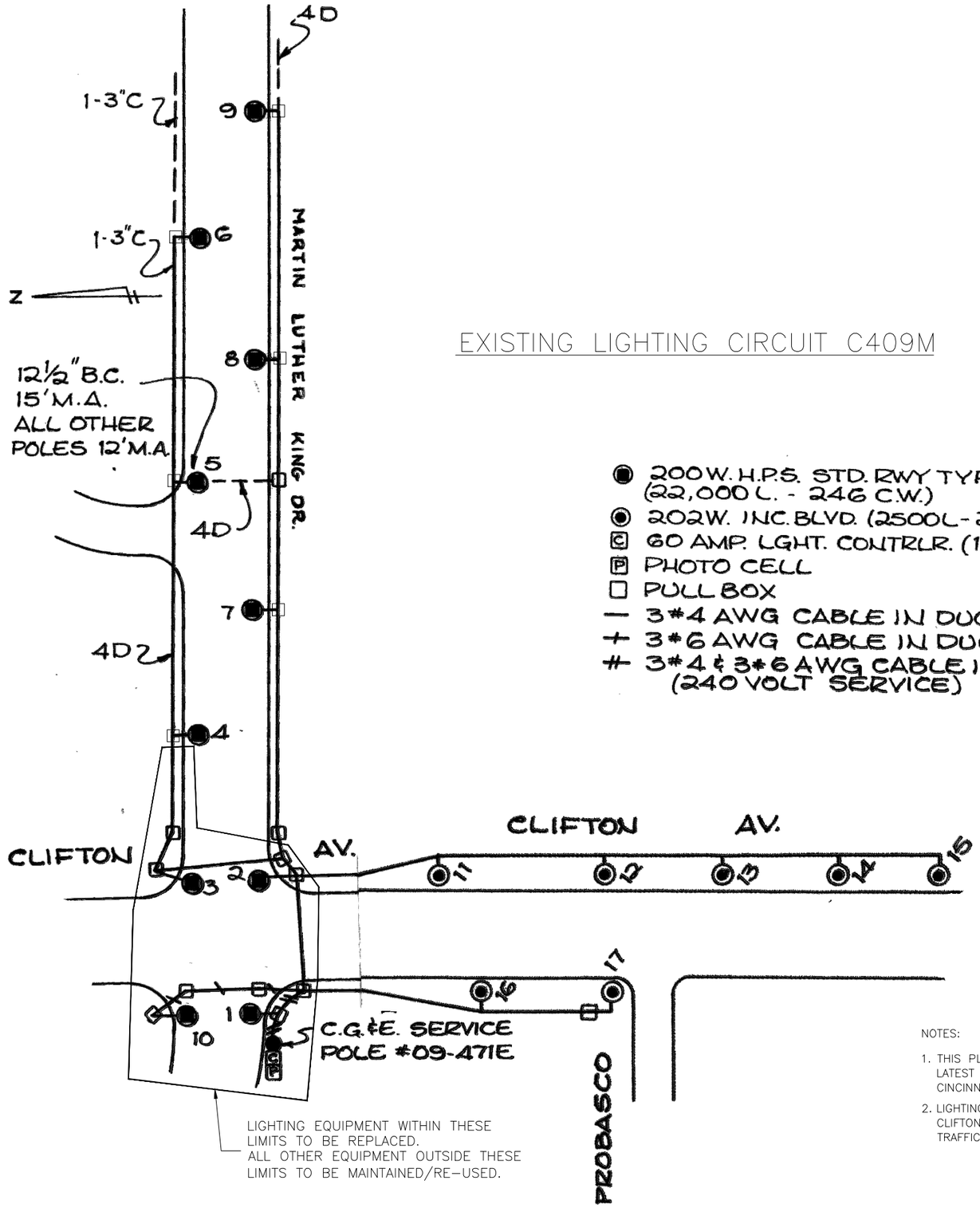
154B
155



EXISTING LIGHTING CIRCUIT C409M

- ● 200W. H.P.S. STD. RWY TYPE LUM. (22,000 L. - 246 C.W.)
- ◉ 202W. INC. BLVD. (2500L - 202 CW)
- [C] 60 AMP. LGHT. CONTRLR. (120/240V.)
- [P] PHOTO CELL
- □ PULL BOX
- — 3#4 AWG CABLE IN DUCT
- + 3#6 AWG CABLE IN DUCT
- # 3#4 & 3#6 AWG CABLE IN DUCT (240 VOLT SERVICE)

LIGHTING EQUIPMENT WITHIN THESE LIMITS TO BE REPLACED.
ALL OTHER EQUIPMENT OUTSIDE THESE LIMITS TO BE MAINTAINED/RE-USED.

NOTES:

1. THIS PLAN REFLECTS THE CURRENT CONDITIONS AS SHOWN ON THE LATEST VERSION OF THE LIGHTING PLAN ON FILE WITH THE CITY OF CINCINNATI.
2. LIGHTING EQUIPMENT AT THE INTERSECTION OF WEST MLK AND CLIFTON AVENUE SHALL BE REMOVED AS INDICATED. REFER TO TRAFFIC SIGNAL NOTES FOR ADDITIONAL INFORMATION.

DEPARTMENT OF TRANSPORTATION & ENGINEERING — CITY OF CINCINNATI — OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
STREET LIGHTING
EXISTING CIRCUIT C409M

Revisions
No.

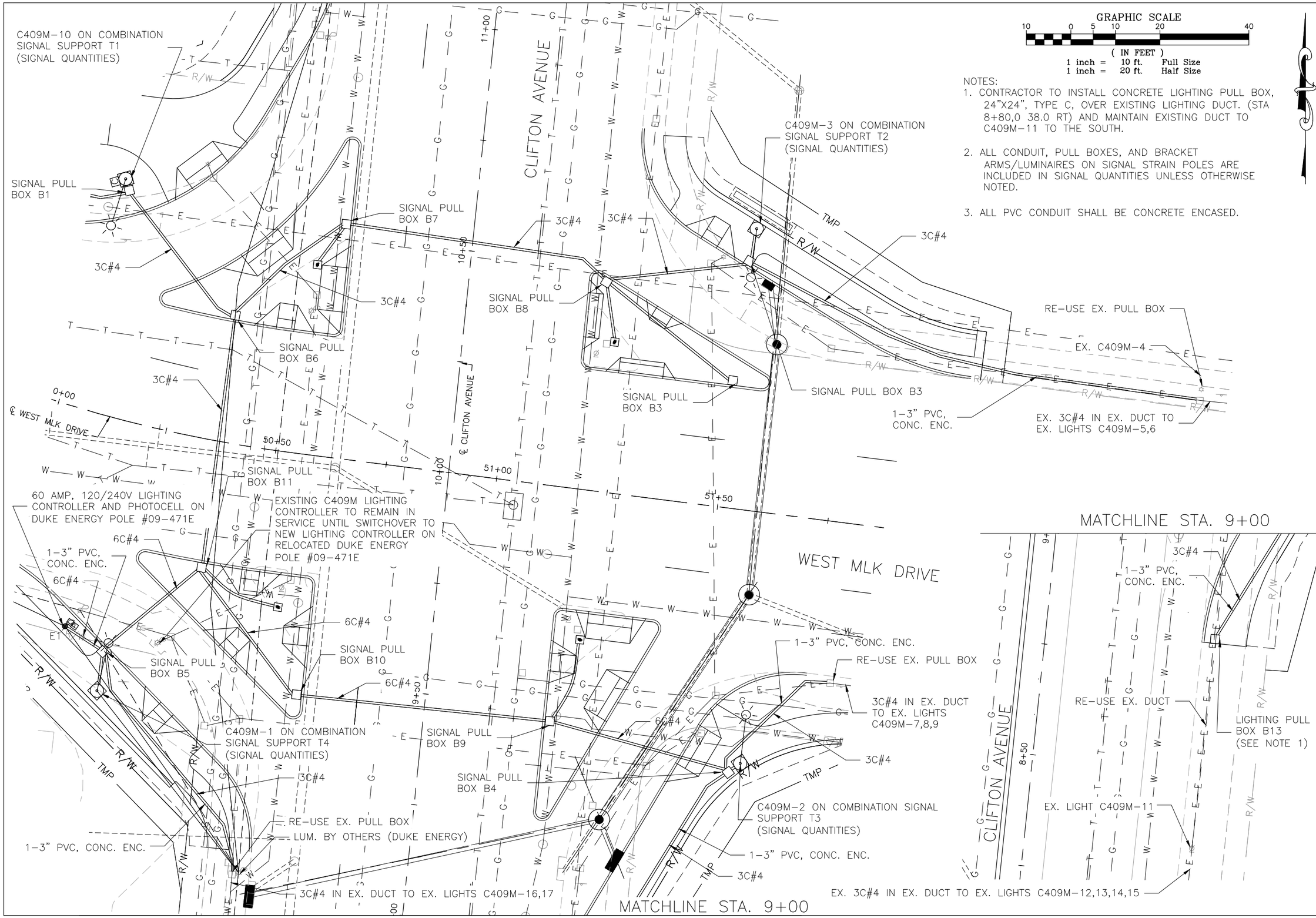
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.
23124

154C
155



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft. Full Size

1 inch = 20 ft. Half Size

NOTES:

1. CONTRACTOR TO INSTALL CONCRETE LIGHTING PULL BOX, 24"X24", TYPE C, OVER EXISTING LIGHTING DUCT. (STA 8+80,0 38.0 RT) AND MAINTAIN EXISTING DUCT TO C409M-11 TO THE SOUTH.
2. ALL CONDUIT, PULL BOXES, AND BRACKET ARMS/LUMINAIRES ON SIGNAL STRAIN POLES ARE INCLUDED IN SIGNAL QUANTITIES UNLESS OTHERWISE NOTED.
3. ALL PVC CONDUIT SHALL BE CONCRETE ENCASED.

DEPARTMENT OF TRANSPORTATION & ENGINEERING — CITY OF CINCINNATI — OHIO

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
STREET LIGHTING
CIRCUIT C409M MODIFICATIONS

Revisions

No.

Drawn by — Date

Designed by — Date

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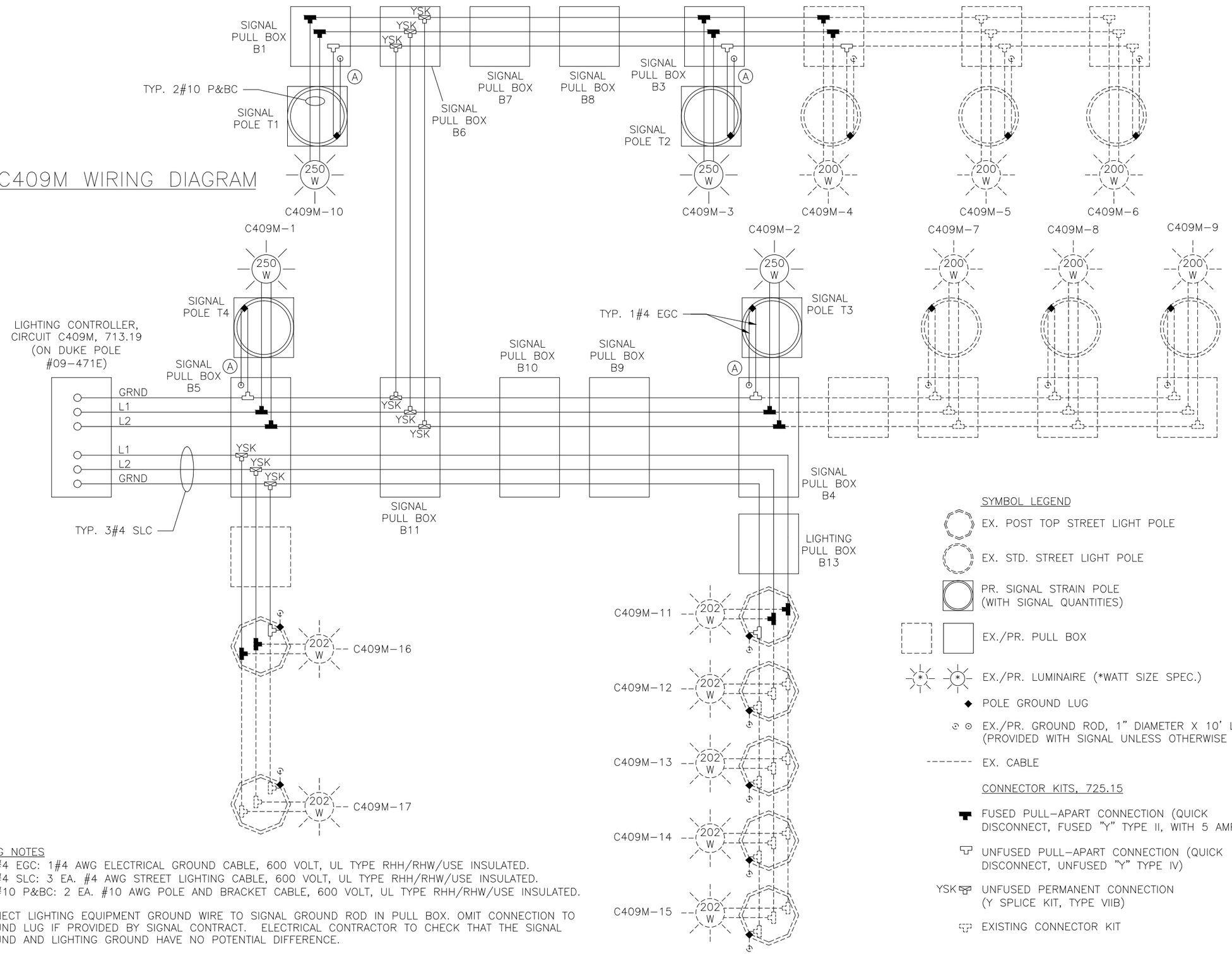
ACC No.
23124

154D
155

CIRCUIT C409M WIRING DIAGRAM



SYMBOL LEGEND

- EX. POST TOP STREET LIGHT POLE
- EX. STD. STREET LIGHT POLE
- PR. SIGNAL STRAIN POLE (WITH SIGNAL QUANTITIES)
- EX./PR. PULL BOX
- EX./PR. LUMINAIRE (*WATT SIZE SPEC.)
- POLE GROUND LUG
- EX./PR. GROUND ROD, 1" DIAMETER X 10' LONG (PROVIDED WITH SIGNAL UNLESS OTHERWISE NOTED)
- EX. CABLE

CONNECTOR KITS, 725.15

- FUSED PULL-APART CONNECTION (QUICK DISCONNECT, FUSED "Y" TYPE II, WITH 5 AMP FUSE)
- UNFUSED PULL-APART CONNECTION (QUICK DISCONNECT, UNFUSED "Y" TYPE IV)
- YSK UNFUSED PERMANENT CONNECTION (Y SPLICE KIT, TYPE VIIB)
- EXISTING CONNECTOR KIT

DRAWING NOTES

TYP. 1#4 EGC: 1#4 AWG ELECTRICAL GROUND CABLE, 600 VOLT, UL TYPE RHH/RHW/USE INSULATED.
TYP. 3#4 SLC: 3 EA. #4 AWG STREET LIGHTING CABLE, 600 VOLT, UL TYPE RHH/RHW/USE INSULATED.
TYP. 2#10 P&BC: 2 EA. #10 AWG POLE AND BRACKET CABLE, 600 VOLT, UL TYPE RHH/RHW/USE INSULATED.

(A) CONNECT LIGHTING EQUIPMENT GROUND WIRE TO SIGNAL GROUND ROD IN PULL BOX. OMIT CONNECTION TO GROUND LUG IF PROVIDED BY SIGNAL CONTRACT. ELECTRICAL CONTRACTOR TO CHECK THAT THE SIGNAL GROUND AND LIGHTING GROUND HAVE NO POTENTIAL DIFFERENCE.

CONTRACT DRAWING

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155
155

PROJECT DESCRIPTION

A GEOTECHNICAL STUDY WAS PERFORMED IN SUPPORT OF THE PLANNING AND DESIGN OF THE PROPOSED IMPROVEMENTS TO WEST MARTIN LUTHER KING DRIVE (WEST MLK) BETWEEN WEST MCMICKEN AVENUE AND CLIFTON AVENUE, A DISTANCE OF APPROXIMATELY 4466 FEET (DESIGNATED BY BEGINNING STATION 12+69 TO ENDING STATION 57+35). THE PROPOSED IMPROVEMENTS INCLUDE THE REALIGNING AND WIDENING OF WEST MLK, AS WELL AS MODIFICATIONS TO THE INTERSECTION OF CLIFTON AVENUE AND WEST MLK TO ADDRESS SAFETY, ROADWAY/GEOMETRIC AND TRAFFIC OPERATION DEFICENCIES.

HISTORIC RECORDS

NO RECORDS OF ANY STUDIES OR BORING INFORMATION WITHIN THE PROJECT AREA WERE AVAILABLE THROUGH ODOT'S GEOTECHNICAL DOCUMENT MANAGEMENT SYSTEM.

GEOLOGY

THE PROJECT SITE LIES WITHIN THE ILLINOIAN TILL PLAIN OF THE CENTRAL LOWLAND PHYSIOGRAPHIC PROVINCE, WHICH IS CHARACTERIZED BY ROLLING GLACIAL UPLANDS AND STEEP HILLSIDES ALONG MAJOR STREAMS AND VALLEYS. THE SITE GEOLOGY IS HEAVY INFLUENCED BY ITS LOCATION WITHIN A RAVINE LOCATED ON THE VALLEY WALL OF THE MILL CREEK VALLEY. THE UNDERLYING BEDROCK AT THE SITE IS COMPOSED OF INTERBEDDED SHALE AND LIMESTONE OF LATE ORDOVICIAN AGE, AND IS COVERED BY A RELATIVELY THIN MANTLE OF FILL MATERIAL AND FINE GRAINED SOILS. LOCAL ROCK FORMATION WITHIN THE PROJECT AREA INCLUDE THE KOPE FORMATION AND THE MIAMITOWN–SHALE–AND–FAIRVIEW FORMATION, UNDIVIDED.

RECONNAISSANCE

A SITE RECONNAISSANCE WAS PERFORMED ON DECEMBER 8, 2009. LAND USAGE IS PREDOMINANTLY RESIDENTIAL, WITH A MIXTURE OF SINGLE FAMILY HOMES AND MULTI–TENANT STRUCTURES WEST OF DIXMYTH AVENUE, AND UNDEVELOPED, WOODED SLOPES TO THE EAST OF DIXMYTH. NEAR THE INTERSECTION OF CLIFTON AVENUE AND WEST MLK, THERE IS MIXED DEVELOPMENT INCLUDING SINGLE FAMILY HOMES, MULTI–TENANT STRUCTURES, AND OFFICE BUILDINGS TO THE EAST OF CLIFTON AVENUE, AND BURNET WOODS AND THE UNIVERSITY OF CINCINNATI CAMPUS TO THE WEST.

OBSERVED STRUCTURAL DISTRESS IN SEVERAL RESIDENTIAL STRUCTURES INDICATE SLOPE MOVEMENT OCCURING BETWEEN APPROXIMATE STA. 16+35 TO STA. 21+45, LEFT, AN APPROXIMATE 2–FOOT TALL HEAD SCARP AND HUMMOCKY TERRAIN WAS OBSERVED ON THE HILLSIDE ABOVE THE PROJECT NEAR STA. 17+50 TO STA. 19+00, RIGHT, AND PAST REPAIR TO AN APPROXIMATELY 5–FOOT TALL STONE MASONRY RETAINING WALL USING CONCRETE BUTTRESSES WAS OBSERVED DOWNSLOPE OF THE PROJECT FROM STA. 19+00 TO STA. 20+00 LEFT. IN ADDITION, EVIDENCE OF UNCONTROLLED, DEBRIS FILL AND DUMPING AREAS WERE OBSERVED NEAR STA. 22+00 TO STA. 26+75, LEFT.

SUBSURFACE EXPLORATION

TWENTY–FIVE TEST BORINGS LOCATIONS WERE DRILLED BY CTL ENGINEERING BETWEEN SEPTEMBER 21, 2010 AND OCTOBER 13, 2010. TWO SUPPLEMENTAL TEST BORINGS WERE DRILLED BEGINNING ON AUGUST 31, 2011 COMPLETED ON SEPTEMBER 1, 2011. A TRUCK MOUNTED CME–75 RIG AND AN ATV MOUNTED CME–550 TRACK RIG, BOTH UTILIZING A 3.25"–INTERNAL DIAMETER HOLLOW STEM AUGERS, WERE USED TO ADVANCE THE BORINGS. THE AUTOMATIC HAMMERS FOR THESE RIGS WERE CALIBRATED ON NOVEMBER 11, 2009 AND OCTOBER 13, 2009, RESPECTIVELY. THE CME–75 RIG HAS A DRILL ROD ENERGY RATIO OF 83%. THE CME–550 TRACK RIG HAS A DRILL ROD ENERGY RATIO OF 86%.

SAMPLING OF THE SOILS WAS ACCOMPLISHED IN ACCORDANCE WITH THE "STANDARD TEST METHOD FOR PENETRATION TEST AND SPLIT–BARREL SAMPLING OF SOILS", ASTM D 1586. THE SOILS WERE SAMPLED USING ODOT'S PREFERRED SAMPLING INTERVALS, WITH MODIFICATIONS AS NECESSARY TO OBTAIN THE NECESSARY SUBSURFACE INFORMATION. BEDROCK WAS CORED IN ELEVEN BORINGS, B–001–0–10, B–003–0–10, B–004–0–10, B–007–0–10, B–008–0–10, B–010–0–10, B–011–0–10, B–016–0–10, B–018–0–10, B–026–0–11 AND B–027–0–11 IN GENERAL ACCORDANCE WITH THE "STANDARD PRACTICE FOR ROCK CORE DRILLING AND SAMPLING OF ROCK FOR SITE INVESTIGATION", ASTM D 2113, USING AN NX–SIZE DOUBLE TUBE CORE BARREL WITH A DIAMOND BIT.

EXPLORATION FINDINGS

TEST BORINGS B–002–0–10, B–006–0–10, B–014–0–10, B–017–0–10, B–019–0–10, B–021–0–10, B–022–0–10, AND B–023–0–10 ENCOUNTERED A COMPOSITE PAVEMENT SECTION CONSISTING OF 3 TO 4 INCHES OF ASPHALT CONCRETE OVERLYING 6 TO 8 INCHES OF CONCRETE AND 2 TO 3 INCHES OF GRANULAR BASE MATERIAL.

FILL RANGING FROM 3 TO 12.5 FEET IN THICKNESS WAS NOTED AT BORINGS B–011–0–10, B–013–0–10, B–015–0–10, B–017–0–10, B–018–0–10, B–019–0–10, B–020–0–10, B–021–0–10, B–022–0–10, B–023–0–10 AND B–025–0–10. THE FILL MATERIAL CONSISTED OF COARSE AND FINE SAND (A–3A), SANDY SILT (A–4A), SILT AND CLAY (A–6A), SILTY CLAY (A–6B), AND CLAY (A–7–6) WITH VARIOUS AMOUNTS OF COBBLES, GRAVEL, SAND, AND SILT NOTED. BRICK, ASPHALT AND CONCRETE FRAGMENTS WERE ALSO ENCOUNTERED IN BORINGS B–011–0–10, B–020–0–10, B–022–0–10, B–023–0–10, AND B–025–0–10, AND SUBSTANTIAL AMOUNTS OF BRICK FRAGMENTS NOTED IN BORINGS B–013–0–10 AND B–015–0–10. THESE TWO BORINGS WERE LOCATED WITHIN THE RAVINE TO THE NORTH OF WEST MLK WHERE FILL MATERIAL WAS APPARENTLY USED TO CREATE PARKING AREAS FOR SEVERAL MULTI–TENANT BUILDINGS.

THE NATURAL SOILS AT THE SITE CONSISTED PREDOMINATELY OF FINE–GRAINED SOILS CONSISTING OF CLAYS (A–7–6), AND TO A LESSER EXTENT SILTY CLAYS (A–6B), SILT AND CLAY (A–6A), SANDY SILT (A–4A), SILT (A–4B), AND GRAVEL AND/OR STONE FRAGMENTS WITH SAND (A–1–B), GRAVEL AND/OR STONE FRAGMENTS (A–1–A), AND GRAVEL AND/OR STONE FRAGMENTS WITH SAND, SILT, AND CLAY (A–2–4). IN ADDITION, ELASTIC SILT (A–7–5) WAS ENCOUNTERED AT B–017–0–10.

LEGEND

	DESCRIPTION	ODOT CLASS	CLASSIFIED MECH.	CLASSIFIED VISUAL
	GRAVEL AND/OR STONE FRAGMENTS	A–1–a	1	1
	GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A–1–b	1	4
	COARSE AND FINE SAND	A–3a	0	5
	GRAVEL AND/OR ST. FRAGS. WITH SAND AND SILT	A–2–4	1	1
	SANDY SILT	A–4a	2	6
	SILT AND CLAY	A–6a	3	2
	SILTY CLAY	A–6b	7	8
	ELASTIC CLAY	A–7–5	2	2
	CLAY	A–7–6	50	51
		TOTAL	67	80
	SEVERELY WEATHERED SHALE	VISUAL		
	INTERBEDDED SHALE AND LIMESTONE	VISUAL		
	LIMESTONE WEATHERED	VISUAL		
	SHALE	VISUAL		
	SOD AND TOPSOIL = 2" = APPROXIMATE THICKNESS	VISUAL		
	PAVEMENT OR BASE = 4" = APPROXIMATE THICKNESS	VISUAL		

	SOIL BORING – PLAN VIEW
W—	INDICATES FREE WATER ELEVATION.
▼—	INDICATES STATIC WATER ELEVATION.
N_{60}	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.
WC	INDICATES WATER CONTENT IN PERCENT.
*	INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.
SS	INDICATES A SPLIT–SPOON SAMPLE.
ST	INDICATES A SHELBY TUBE SAMPLE.
NP	INDICATES A NON–PLASTIC SAMPLE.
TR	INDICATES THE TOP OF ROCK.

THE SOIL BEDROCK INTERFACE WAS GENERALLY TRANSISTIONAL FROM RESIDUAL SOIL TO WEATHERED BEDROCK. THE BEDROCK CONSISTED OF PREDOMINANTLY SHALE WITH INTERBEDDED LIMESTONE. THE BEDROCK WAS DESCRIBED AS LIGHT GRAY TO GRAY, SEVERELY TO MODERATELY WEATHERED, VERY WEAK TO WEAK, THIN TO VERY THICK BEDDED. THE LIMESTONE WAS DESCRIBED AS LIGHT GRAY TO GRAY, MODERATELY TO SLIGHTLY WEATHERED, STRONG, VERY THIN TO THIN BEDDED. THE COMPOSITION OF BEDROCK MATERIAL RANGED FROM 81 TO 100 PERCENT SHALE BEDROCK.

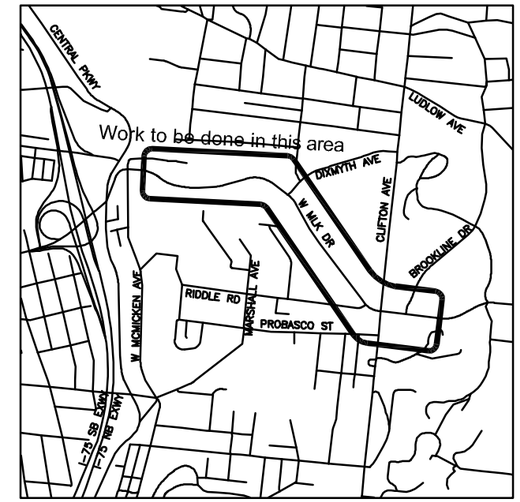
GROUNDWATER WAS ENCOUNTERED IN BORINGS B–005–0–10, B–007–0–10, B–025–0–10 AND B–26–0–11 AT DEPTHS OF 18.5 FT., 11.5 FT, 22.5 FT. AND 10.0 FT. RESPECTIVELY. THIS GROUNDWATER WAS ENCOUNTERED NEAR THE CONTACT BETWEEN THE OVERLYING SOIL MATERIAL AND THE UPPER, MOST WEATHERED PORTION OF THE UNDERLYING BEDROCK.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED APRIL 2010.

AVAILABLE INFORMATION

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION AND ENGINEERING OFFICE LOCATED AT 801 PLUM STREET.



VICINITY PLAN

Scale: NOT TO SCALE

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE	

INDEX OF SHEETS

LOCATION FROM STA.	TO STA.	PLAN SHEET	PROFILE SHEET	CROSS SECTION SHEET
WEST MLK				
10+00	23+00	4	4	–
23+00	34+00	6	6	–
34+00	45+00	8	8	–
45+00	58+00	9	9	–
WEST MLK				
17+00 &	18+00	–	–	10
19+50 &	24+00	–	–	11
26+00 &	29+50	–	–	12
33+00		–	–	13

RECON. – DMV 12/08/09

DRILLING – CTL ENGINEERING 09/21/10–10/12/10
08/31/11–09/01/11

DRAWN – SRD 11/10/10–12/07/10
CLW 10/12/11–10/25/11

REVIEWED – DMV 12/08/10
DMV 10/26/11

CITY OF CINCINNATI
DIVISION OF ENGINEERING
PRELIMINARY
SUBJECT TO REVISION

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

PROFESSIONAL STAMP

SIGN:

DATE:

CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
PID 87036

Revisions
No.

Date | Date | Date | Date

Drawn by | Designed by | Checked by | Reviewed by

Consultant

Structure File Number

ACC No.

1 / 27

SUMMARY OF SOIL TEST DATA
W MARTIN LUTHER KING DR

EXPLORATION NO / STATION & OFFSET	FROM TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
B-001-0-10	01.00-02.50	SS-1	67	24	8	20	23	25	27	19	8	9	A-4a (3)
STA. 13+49, 40.40 LT	03.50-05.00	SS-2	83				SAME AS SS-1					16	A-4a (VISUAL)
NORTHING = 421673.60	06.00-07.50	SS-3	56	9	1	4	18	68	52	27	25	22	A-7-6 (16)
EASTING = 1392721.14	08.50-10.00	SS-4	83				SAME AS SS-3					22	A-7-6 (VISUAL)
	11.00-12.50	SS-5	83		BROWN, CLAY, TRACE GRAVEL, TRACE SAND, SOME SILT							23	A-7-6 (VISUAL)
	13.50-15.00	SS-6	72				SAME AS SS-5					26	A-7-6 (VISUAL)
	16.00-17.50	SS-7	50	12	1	6	26	55	43	25	18	20	A-7-6 (12)
	18.50-20.00	SS-8	56			BROWN AND GRAY, CLAY LITTLE GRAVEL						17	A-7-6 (VISUAL)
	23.50-25.00	SS-9	56	1	0	1	40	58	47	26	21	26	A-7-6 (14)
	28.50-29.83	SS-10	94	0	1	1	37	61	45	24	21	17	A-7-6 (13)
	33.50-33.83	SS-11	100		SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK							7	Rock (VISUAL)
B-002-0-10	01.00-02.50	SS-1	56	–	–	–	–	–	–	–	–	10	A-4a (VISUAL)*
STA. 14+10, 3.22 LT	02.50-04.00	SS-2	39	10	7	8	15	60	43	23	20	19	A-7-6 (13)*
NORTHING = 421615.93	04.00-05.50	SS-3	22	–	–	–	–	–	44	26	18	12	A-7-6 (VISUAL)
EASTING = 1392761.46	05.50-07.00	SS-4	44	2	2	3	31	62	49	25	24	22	A-7-6 (15)
B-003-0-10	01.00-02.50	SS-1	89	–	–	–	–	–	43	24	19	14	A-7-6 (VISUAL)
STA. 15+73, 34.0 LT	03.50-05.00	SS-2	83	1	1	2	22	74	47	23	24	14	A-7-6 (15)
NORTHING = 421602.04	06.00-07.50	SS-3	39	–	–	–	–	–	42	22	20	7	A-7-6 (VISUAL)
EASTING = 1392923.18	08.50-10.00	SS-4	72	7	3	3	28	59	44	23	21	17	A-7-6 (13)
	11.00-12.50	SS-5	94	0	0	2	18	80	49	27	22	18	A-7-6 (15)
	13.50-15.00	SS-6	72				BROWN SANDY SILT, "AND" GRAVEL					6	A-4a (VISUAL)
	16.00-17.00	SS-7	88		SHALE, BROWN, SEVERELY WEATHERED, VERY WEAK							9	Rock (VISUAL)
	17.00-17.42	SS-7			SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK							9	Rock (VISUAL)
	18.50-19.00	SS-8	100		SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK							7	Rock (VISUAL)
B-004-0-10	01.00-02.50	SS-1	6		BROWN GRAVEL AND STONE FRAGMENTS WITH SAND							10	A-1-b (VISUAL)
STA. 17+20, 44.0 LT	03.50-04.50	SS-2A	72		BROWN AND GRAY, GRAVEL AND STONE FRAGMENTS WITH SAND							13	A-2-4 (VISUAL)
NORTHING = 421595.08					CLAY								
EASTING = 1393064.79	04.50-05.00	SS-2B			BROWN, SANDY SILT, TRACE GRAVEL							18	A-4a (VISUAL)
	06.00-08.00	ST-1	0	–	–	–	–	–	–	–	–	–	
	08.00-09.50	SS-3	56	–	–	–	–	–	42	26	16	4	A-7-6 (VISUAL)
	09.50-11.50	ST-2	0	–	–	–	–	–	–	–	–	–	
	11.50-13.00	SS-4	78	3	3	6	27	61	43	24	19	9	Rock (VISUAL)
	13.50-14.92	SS-5	76				SAME AS SS-4					14	Rock (VISUAL)
	16.00-16.83	SS-6	80		SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK							10	Rock (VISUAL)
B-005-0-10	01.00-02.50	SS-1	83	1	0	2	29	68	50	25	25	17	A-7-6 (16)
STA. 17+25, 115.0 LT	03.50-05.00	SS-2	89	–	–	–	–	–	45	23	22	16	A-7-6 (VISUAL)
NORTHING = 421665.8	06.00-07.50	SS-3	72	7	2	3	25	63	40	22	18	18	A-6b (11)
EASTING = 1393072.58	08.50-10.00	SS-4	94	–	–	–	–	–	44	24	20	21	A-7-6 (VISUAL)
	11.00-12.50	SS-5	83	1	1	1	32	65	46	25	21	16	A-7-6 (14)
	13.50-14.50	SS-6A	94	6	3	7	29	55	43	24	19	11	A-7-6 (12)
	14.50-14.83	SS-6B			SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK							11	Rock (VISUAL)
	16.00-16.50	SS-7	83				SAME AS SS-6					9	Rock (VISUAL)
	18.50-18.75	SS-8	56				SAME AS SS-6					54	Rock (VISUAL)
	23.50-23.75	SS-9	100				SAME AS SS-6					9	Rock (VISUAL)
B-006-0-10	01.00-02.50	SS-1	56	0	1	2	46	51	51	24	27	22	A-7-6 (17)*
STA. 18+10, 5.0 LT	02.50-04.00	SS-2	56				SAME AS SS-3					21	A-7-6 (VISUAL)*
NORTHING = 421555.78	04.00-05.50	SS-3	56	9	1	2	29	59	47	22	25	18	A-7-6 (15)
EASTING = 1393152.5	05.50-07.00	SS-4	0	–	–	–	–	–	–	–	–	–	–
	08.50-10.00	SS-5	56				GRAY, SILTY CLAY					10	A-6b (VISUAL)
	11.00-11.67	SS-6	88		SHALE, GRAY, SEVERELY WEATHERED SHALE, VERY WEAK							6	Rock (VISUAL)
	13.50-13.83	SS-7	100				SAME AS SS-6					7	Rock (VISUAL)
	16.00-16.42	SS-8	80				SAME AS SS-6					5	Rock (VISUAL)
	18.50-19.50	SS-9	83				SAME AS SS-6					7	Rock (VISUAL)
B-007-0-10	01.00-02.50	SS-1	67		BROWN SILT AND CLAY, TRACE GRAVEL, TRACE SAND							19	A-6a (VISUAL)
STA. 18+15, 44.0 LT	03.50-05.00	SS-2	72	0	0	2	35	63	60	26	34	18	A-7-6 (20)
NORTHING = 421594.95	06.00-07.50	SS-3	78				SAME AS SS-4					16	A-7-6 (VISUAL)
EASTING = 1393155.75	08.50-10.00	SS-4	67	16	7	5	31	41	41	21	20	17	A-7-6 (12)
	11.00-12.50	SS-5	78	49	7	6	16	22	39	19	20	9	A-6b (3)
	13.50-14.50	SS-6A	83		SHALE, BROWN AND GRAY, SEVERELY WEATHERED, VERY WEAK							9	Rock (VISUAL)
	14.50-15.00	SS-6B			SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK							14	Rock (VISUAL)
	16.00-17.50	SS-7	17		SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK							7	Rock (VISUAL)
	18.00-18.42	SS-8	100				SAME AS SS-8					8	Rock (VISUAL)

SUMMARY OF SOIL TEST DATA
W MARTIN LUTHER KING DR

EXPLORATION NO / STATION & OFFSET	FROM TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
B-008-0-10	01.00-02.50	SS-1	89	BROWN AND GRAY GRAVEL AND STONE FRAGMENTS WITH SAND,								3	A-1-b (VISUAL)
STA. 19+20, 44.0 LT	03.50-05.00	SS-2	44	55	20	8	10	7	NP	NP	NP	9	A-1-b (0)
NORTHING = 421601.53	06.00-07.50	SS-3	28	BROWN CLAY, LITTLE GRAVEL, TRACE SAND, "AND" SILT WITH								13	A-7-6 (VISUAL)
EASTING = 1393259.61	08.50-10.00	SS-4	83	0	2	2	37	59	44	21	23	18	A-7-6 (14)
	11.00-12.50	SS-5	56	BROWN CLAY, TRACE GRAVEL, TRACE SAND, "AND" SILT								18	A-7-6 (VISUAL)
	13.50-15.00	SS-6	–	SHALE, GRAY SEVERELY WEATHERED, VERY WEAK								3	Rock (VISUAL)
	16.00-16.83	SS-7	80	SAME AS SS-6								10	Rock (VISUAL)
	18.50-18.92	SS-8	100	SAME AS SS-6								12	Rock (VISUAL)
B-009-0-10	01.00-02.50	SS-1	56	BROWN CLAY, TRACE SAND, "AND" SILT								13	A-7-6 (VISUAL)
STA. 19+51, 120.0 LT	03.50-05.00	SS-2	61	18	1	1	38	42	52	24	28	17	A-7-6 (18)
NORTHING = 421679.39	06.00-07.50	SS-3	50	SAME AS SS-4								15	A-7-6 (VISUAL)
EASTING = 1393285.84	08.50-10.00	SS-4	28	10	6	6	36	42	44	20	24	11	A-7-6 (14)
	11.00-12.50	SS-5	33	4	3	2	38	53	46	22	24	18	A-7-6 (15)
	13.50-14.42	SS-6	82	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								11	Rock (VISUAL)
	16.00-16.75	SS-7	100	SAME AS SS-6								11	Rock (VISUAL)
	18.50-19.33	SS-8	90	SAME AS SS-6								8	Rock (VISUAL)
B-010-0-10	01.00-02.50	SS-1	56	SAME AS SS-2								3	A-1-a (VISUAL)*
STA. 20+79, 18.0 LT	02.50-04.00	SS-2	56	50	25	16	7	2	NP	NP	NP	4	A-1-a (0)*
NORTHING = 421588.30	04.00-05.50	SS-3	67	SAME AS SS-4								23	A-7-6 (VISUAL)
EASTING = 1393418.05	05.50-07.00	SS-4	83	0	1	1	34	64	57	29	28	24	A-7-6 (19)
	08.50-10.00	SS-5	83	SAME AS SS-4								–	A-7-6 (VISUAL)
	11.00-12.50	SS-6	78	SAME AS SS-7								19	A-7-6 (VISUAL)
	13.50-15.00	SS-7	83	0	1	1	46	52	46	23	23	20	A-7-6 (14)
	16.00-17.50	SS-8	83	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								10	Rock (VISUAL)
	18.50-18.67	SS-9	100	SAME AS SS-8								17	Rock (VISUAL)
	23.50-24.00	SS-10	83	SAME AS SS-8								7	Rock (VISUAL)
B-011-0-10	01.00-02.50	SS-1	39	BROWN SANDY SILT, SOME CLAY WITH RED BRICK FRAGMENTS								14	A-4a (VISUAL)*
STA. 22+10, 25.0 LT	03.50-05.00	SS-2	61	BROWN AND BLACK SITLY CLAY, LITTLE GRAVEL, LITTLE SAND,								21	A-6b (VISUAL)
NORTHING = 421621.19				WITH ASPHALT FRAGMENTS									
EASTING = 1393542.61	06.00-07.17	SS-3	29	GRAY SILTY CLAY, LITTLE GRAVEL, LITTLE SAND								14	A-6b (VISUAL)
	08.50-10.00	SS-4	61	10	1	2	39	48	57	27	30	24	A-7-6 (19)
	11.00-12.50	SS-5	56	SAME AS SS-6								13	A-7-6 (VISUAL)
	13.50-15.00	SS-6	61	3	2	2	40	53	42	22	20	18	A-7-6 (12)
	16.00-17.50	SS-7	56	37	1	2	26	34	46	21	25	16	A-7-6 (12)
	18.50-19.41	SS-8	36	SHALE, BROWN, SEVERELY WEATHERED, VERY WEAK								15	Rock (VISUAL)
	23.50-23.83	SS-9	100	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								8	Rock (VISUAL)
B-011A-0-10	00.00-01.50	SS-1	72	33	18	17	22	10	23	16	7	12	A-2-4 (0)*
STA. 22+10, 25.0 LT	01.50-03.00	SS-2	39	BROWN, COARSE AND FINE SAND, "AND" SILT, TRACE GRAVEL								14	A-3a (VISUAL)*
NORTHING = 421621.19	03.00-04.50	SS-3	83	1	2	3	36	58	49	26	23	21	A-7-6 (15)
EASTING = 1393542.61	04.50-06.00	SS-4	67	SAME AS SS-3								23	A-7-6 (VISUAL)
B-012-0-10	01.00-02.50	SS-1	78	33	7	8	27	25	33	20	13	6	A-6a (5)*
STA. 24+41, 22.0 LT	03.50-05.00	SS-2	6	–	–	–	–	–	–	–	–	–	–
NORTHING = 421689.03	06.00-07.50	SS-3	72	1	1	2	37	59	50	25	25	25	A-7-6 (16)
EASTING = 1393763.24	07.50-09.50	ST-1	–	–	–	–	–	–	–	–	–	–	–
	09.50-11.00	SS-4	83	BROWN CLAY, TRACE GRAVEL, TRACE SAND, "AND" SILT,								20	A-7-6 (VISUAL)
				WITH COBBLES									
	11.00-12.08	SS-5	77	BROWN CLAY, TRACE GRAVEL, TRACE SAND, "AND" SILT								18	A-7-6 (VISUAL)
	13.50-15.00	SS-6	89	0	3	3	44	50	46	25	21	18	A-7-6 (14)
	16.00-17.50	SS-7	94	SAME AS SS-6								15	A-7-6 (VISUAL)
	18.50-20.00	SS-8	61	13	4	1	4	78	NP	30	NP	31	A-7-6 (VISUAL)
	23.50-24.92	SS-9	100	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								10	Rock (VISUAL)
	28.50-29.25	SS-10	78	SAME AS SS-9								8	Rock (VISUAL)
B-013-0-10	01.00-02.50	SS-1	83	BROWN AND RED GRAVEL AND STONE FRAGEMENTS WITH SAND,								4	A-1-b (VISUAL)
STA. 24+02, 140.0 LT				WITH RED BRICK FRAGMENTS									
NORTHING = 421788.96	03.50-05.00	SS-2	89	19	11	20	29	21	31	18	13	10	A-6a (4)
EASTING = 1393687.67	06.00-07.50	SS-3	56	BROWN AND RED GRAVEL AND STONE FRAGEMENTS WITH SAND,								7	A-1-b (VISUAL)
				WITH RED BRICK FRAGMENTS									
	08.50-10.00	SS-4	61	6	11	20	39	24	31	19	12	12	A-6a (6)
	11.00-12.50	SS-5	6	–	–	–	–	–	–	–	–	–	–
	13.50-15.00	SS-6	–	10	3	24	43	20	NP	19	NP	15	A-6b (VISUAL)
	16.00-16.08	SS-7	100	–	–	–	–	–	–	–	–	–	–
	18.50-20.00	SS-8	33	BROWN SANDY SILT, LITTLE GRAVEL, SOME CLAY WITH COBBLES								17	A-4a (VISUAL)
	23.50-25.00	SS-9	39	BROWN SILTY CLAY, TRACE GRAVEL, TRACE SAND, WITH COBBLES								24	A-6b (VISUAL)
	28.50-30.00	SS-10	61	3	1	2	31	63	49	24	25	16	A-7-6 (VISUAL)
	33.50-33.92	SS-11	100	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								11	Rock (VISUAL)
	38.50-39.25	SS-12	89	SAME AS SS-11								7	Rock (VISUAL)

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED INVALID FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
SUMMARY OF SOIL TEST DATA

Revisions

No.			

Date | Date | Date | Date

Drawn by | Designed by | Checked by | Reviewed by

Consultant

Structure File Number

ACC No.

SUMMARY OF SOIL TEST DATA
W MARTIN LUTHER KING DR

EXPLORATION NO / STATION & OFFSET	FROM – TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
B-014-0-10	01.00-02.50	SS-1	61	1	2	2	37	58	51	25	26	20	A-7-6 (17)*
STA. 26+29, 5.0 LT	02.50-04.00	SS-2	6	SAME AS SS-1								14	A-7-6 (VISUAL)*
NORTHING = 421686.16	04.00-05.50	SS-3	39	0	1	2	50	47	48	24	24	18	A-7-6 (15)
EASTING = 1393955.24	05.50-06.33	SS-4	50	BROWN AND GRAY CLAY, LITTLE GRAVEL, LITTLE SAND , "AND" SILT WITH COBBLES								11	A-7-6 (VISUAL)
B-014A-0-10	01.00-03.00	BS-1	100	–	–	–	–	–	–	–	–	–	–
STA. 26+39, 5.0 LT	03.00-05.00	ST-1	0	–	–	–	–	–	–	–	–	–	–
NORTHING = 421686.16	08.50-10.00	SS-1	67	SHALE AND INTERBEDDED LIMESTONE, BROWN, SEVERELY WEATHERED, VERY WEAK								14	Rock (VISUAL)
EASTING = 1393955.24													
	11.00-11.92	SS-2	9	SAME AS SS-1								6	Rock (VISUAL)
	13.50-15.00	SS-3	67	SAME AS SS-1								–	Rock (VISUAL)
	16.00-17.42	SS-4	59	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								10	Rock (VISUAL)
	18.50-19.00	SS-5	100	SAME AS SS-4								9	Rock (VISUAL)
B-015-0-10	01.00-02.50	SS-1	50	SAME AS SS-2								15	A-6b (VISUAL)
STA. 25+97, 143.0 LT	03.50-05.00	SS-2	50	36	4	9	35	16	35	19	16	14	A-6b (5)
NORTHING = 421827.55	06.00-07.50	SS-3	44	35	12	14	21	18	NP	NP	NP	5	A-4a (1)
EASTING = 1393934.12	08.50-10.00	SS-4	67	BROWN COARSE SAND AND FINE SAND, TRACE GRAVEL, LITTLE SILT, WITH RED BRICK FRAGMENTS (FILL)								5	A-3a (VISUAL)
	11.00-12.50	SS-5	61	SAME AS SS-4								20	A-3a (VISUAL)
	13.50-15.00	SS-6	56	SAME AS SS-4								11	A-3a (VISUAL)
	16.00-17.50	SS-7	56	SAME AS SS-4								5	A-3a (VISUAL)
	18.50-20.00	SS-8	39	46	5	8	28	13	35	19	16	15	A-6b (3)
	23.50-25.00	SS-9	0	BROWN AND GRAY, CLAY, TRACE SAND "AND" SILT								27	A-7-6 (VISUAL)
	28.50-30.00	SS-10	67	2	1	2	43	52	54	26	28	–	A-7-6 (18)
	33.50-34.67	SS-11	50	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								8	Rock (VISUAL)
	38.50-38.83	SS-12	100	SAME AS SS-11								7	Rock (VISUAL)
B-016-0-10	01.00-02.50	SS-1	44	0	3	4	36	57	54	27	27	19	A-7-6 (18)
STA. 28+50, 44.0 LT	03.50-05.00	SS-2	--	SAME AS SS-3								15	A-7-6 (VISUAL)
NORTHING = 421631.55	06.00-07.50	SS-3	61	8	5	11	40	36	41	21	20	18	A-7-6 (12)
EASTING = 1394182.26	08.50-10.00	SS-4	67	1	0	1	36	62	64	30	34	23	A-7-5 (20)
	11.00-11.08	SS-5	100	–	–	–	–	–	–	–	–	–	–
	13.50-14.42	SS-6	64	SHALE AND INTERBEDDED LIMESTONE, GRAY, SEVERELY WEATHERED, VERY WEAK								17	Rock (VISUAL)
	16.00-17.50	SS-7	50	SAME AS SS-6								12	Rock (VISUAL)
	18.50-18.75	SS-8	33	SAME AS SS-6								–	Rock (VISUAL)
	23.50-23.92	SS-9	100	SAME AS SS-6								9	Rock (VISUAL)
B-017-0-10	01.00-02.50	SS-1	44	32	12	13	23	20	37	19	18	15	A-6b (4)*
STA. 29+75, 5.0 LT	02.50-04.00	SS-2	33	SAME AS SS-3								22	A-7-5 (VISUAL)*
NORTHING = 421526.37	04.00-05.50	SS-3	72	0	3	6	45	46	54	30	24	29	A-7-5 (16)
EASTING = 1394260.25	05.50-07.00	SS-4	67	SAME AS SS-3								23	A-7-5 (VISUAL)
B-018-0-10	01.00-02.50	SS-1	56	BROWN CLAY, TRACE GRAVEL, TRACE SAND, "AND" SILT								14	A-7-6 (VISUAL)
STA. 29+75, 44.0 LT	03.50-05.00	SS-2	72	1	2	4	51	42	46	25	21	25	A-7-6 (14)
NORTHING = 421557.87	06.00-08.00	ST-1	–	–	–	–	–	–	–	–	–	–	–
EASTING = 1394283.24	08.50-10.00	SS-3	56	1	0	1	49	49	53	27	26	21	A-7-6 (17)
	11.00-13.00	ST-2	–	–	–	–	–	–	–	–	–	–	
	13.50-15.00	SS-4	67	21	5	11	29	34	45	24	21	30	A-7-6 (11)
	16.00-17.33	SS-5	81	SHALE, BROWN AND GRAY, SEVERELY WEATHERED, VERY WEAK								12	Rock (VISUAL)
	18.50-19.00	SS-6	100	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								9	Rock (VISUAL)
B-019-0-10	01.00-02.50	SS-1	56	SAME AS SS-2								13	A-7-6 (VISUAL)*
STA. 32+99, 9.0 LT	02.50-04.00	SS-2	56	17	3	4	41	35	48	24	24	20	A-7-6 (15)*
NORTHING = 421287.10	04.00-05.50	SS-3	67	1	2	3	37	57	51	25	26	17	A-7-6 (17)
EASTING = 1394479.97	05.50-07.00	SS-4	89	BROWN CLAY, TRACE GRAVEL, TRACE SAND, "AND" SILT, WITH COBBLES								10	A-7-6 (VISUAL)
	08.50-10.00	SS-5	67	SHALE AND INTERBEDDED LIMESTONE, BROWN, SEVERELY								15	Rock (VISUAL)
	11.00-12.50	SS-6	28	SAME AS SS-5								15	Rock (VISUAL)
	13.50-14.00	SS-7	100	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								9	Rock (VISUAL)
	16.00-16.42	SS-8	100	SAME AS SS-7								10	Rock (VISUAL)
B-020-0-10	01.00-02.50	SS-1	33	BROWN AND GRAY SILTY AND CLAY, LITTLE GRAVEL, TRACE SAND, WITH ASPHALT AND CONCRETE FRAGMENTS (FILL)								2	A-6a (VISUAL)
STA. 33+00, 85.0 LT													
NORTHING = 421322.55	03.50-05.00	SS-2	50	13	3	5	45	34	44	24	20	25	A-7-6 (13)
EASTING = 1394546.65	06.00-07.50	SS-3	28	SAME AS SS-4								25	A-7-6 (VISUAL)
	08.50-10.00	SS-4	67	7	10	9	34	40	57	28	29	24	A-7-6 (19)
	11.00-12.50	SS-5	11	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								9	Rock (VISUAL)
	13.50-14.17	SS-6	50	SAME AS SS-6								7	Rock (VISUAL)
B-021-0-10	01.00-02.50	SS-1	33	16	11	10	23	40	41	21	20	16	A-7-6 (10)*
STA. 37+00, 18.0 LT	02.50-04.00	SS-2	0	SAME AS SS-1								14	A-7-6 (VISUAL)*
NORTHING = 420942.29	04.00-05.50	SS-3	72	1	3	4	38	54	57	28	29	14	A-7-6 (19)
EASTING = 1394580.93	05.50-07.00	SS-4	78	SAME AS SS-3								22	A-7-6 (VISUAL)

SUMMARY OF SOIL TEST DATA
W MARTIN LUTHER KING DR

EXPLORATION NO / STATION & OFFSET	FROM – TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
B-022-0-10	01.00-02.50	SS-1	61	11	8	12	33	36	39	20	19	16	A-6b (10)*
STA. 40+85, 17.0 LT	02.50-04.00	SS-2	72	SAME AS SS-1								17	A-6b (VISUAL)*
NORTHING = 420629.28	04.00-05.50	SS-3	72	21	6	11	39	23	41	20	21	18	A-7-6 (10)
EASTING = 1394902.25	05.50-07.00	SS-4	56	SAME AS SS-3								17	A-7-6 (VISUAL)
B-023-0-10	01.00-02.50	SS-1	33	SAME AS SS-2								11	A-7-6 (VISUAL)*
STA. 44+98, 17.0 LT	02.50-04.00	SS-2	83	7	6	8	48	31	43	23	20	16	A-7-6 (13)*
NORTHING = 420299.07	04.00-05.50	SS-3	83	SAME AS SS-4								16	A-7-6 (VISUAL)
EASTING = 1395150.70	05.50-07.00	SS-4	67	17	16	14	36	17	37	21	16	24	A-6b (6)
B-024-0-10	00.00-01.50	SS-1	50	SAME AS SS-2								14	A-7-6 (VISUAL)*
STA. 52+00, 50.0 LT	01.50-03.00	SS-2	50	0	2	11	44	43	49	23	26	15	A-7-6 (16)
NORTHING = 419950.51	03.00-04.50	SS-3	11	SAME AS SS-2								13	A-7-6 (VISUAL)
EASTING = 1395680.42	04.50-06.00	SS-4	61	0	1	3	64	32	45	23	22	23	A-7-6 (14)
B-025-0-10	01.00-02.50	SS-1	67	GRAY CLAY, TRACE SAND, TRACE SILT, WITH BRICK FRAGMENTS								26	A-7-6 (VISUAL)
STA. 17+35, 210.0 LT	03.50-05.00	SS-2	0	SAME AS SS-1								–	A-7-6 (VISUAL)
NORTHING = 421760.42	06.00-07.50	SS-3	44	9	2	4	42	43	49	23	26	20	A-7-6 (16)
EASTING = 1393084.56	08.50-10.00	SS-4	61	SAME AS SS-5								20	A-7-6 (VISUAL)
	11.00-12.50	SS-5	50	3	3	2	41	51	43	22	21	18	A-7-6 (13)
	13.50-15.00	SS-6	50	BROWN AND GRAY CLAY, TRACE SAND WITH COBBLES								16	A-7-6 (VISUAL)
	16.00-16.67	SS-7	63	SHALE, BROWN AND GRAY, SEVERELY WEATHERED, VERY WEAK								5	Rock (VISUAL)
	18.50-19.17	SS-8	63	SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK								8	Rock (VISUAL)
	23.00-23.75	SS-9	56	SAME AS SS-8								13	Rock (VISUAL)
B-026-0-11	01.00-02.50	SS-1	89	2	3	2	37	56	55	25	30	14	A-7-6 (19)
STA. 12+25, 48.18 LT	03.50-05.00	SS-2	33	SAME AS SS-1								13	A-7-6 (VISUAL)
NORTHING = 421733.40	06.00-07.50	SS-3	44	SAME AS SS-4								15	A-7-6 (VISUAL)
EASTING = 1392608.52	08.50-10.00	SS-4	83	1	1	1	49	48	46	23	23	18	A-7-6 (14)
	11.00-12.50	SS-5	83	SAME AS SS-4								15	A-7-6 (VISUAL)
	13.50-15.00	SS-6	78	SHALE,GRAY,WEAK TO SLIGHTLY STRONG								12	Rock (VISUAL)
	16.00-17.50	SS-7	94	SAME AS SS-6								11	Rock (VISUAL)
	18.50-19.90	SS-8	100	SAME AS SS-6								9	Rock (VISUAL)
B-027-0-11	01.00-02.50	SS-1	94	0	2	4	47	47	54	27	27	26	A-7-6 (VISUAL)
STA. 12+67, 86.45 LT	03.50-05.00	SS-2	89	SAME AS SS-1								24	A-7-6 (VISUAL)
NORTHING = 421750.44	07.00-08.50	SS-3	56	1	1	2	41	55	50	23	27	21	A-7-6 (VISUAL)
EASTING = 1392666.50	08.50-10.00	SS-4	94	SAME AS SS-3								23	A-7-6 (VISUAL)
	11.00-12.50	SS-5	94	SHALE, BROWN TO GRAY, MODERATE TO HIGHLY WEATHERED, WEAK TO SLIGHTLY STRONG								11	Rock (VISUAL)
	13.50-14.50	SS-6	83									7	Rock (VISUAL)

DEPARTMENT OF TRANSPORTATION & ENGINEERING, CITY OF CINCINNATI, OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
SUMMARY OF SOIL TEST DATA

Revisions
No.

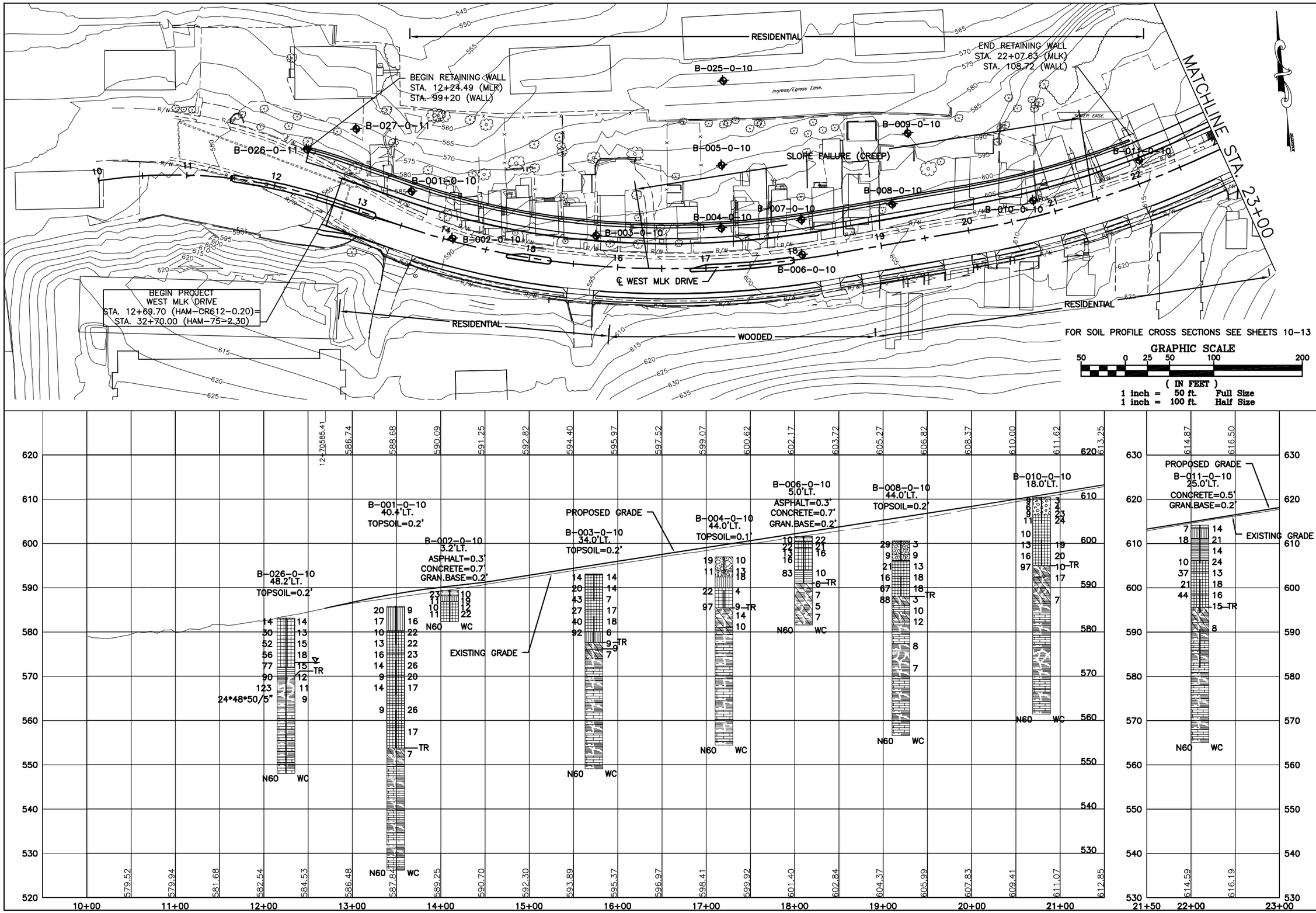
Drawn by | Date
Designed by | Date
Checked by | Date
Reviewed by | Date

Consultant

Structure File Number

ACC No.

3 / 27



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

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Department of Transportation and Engineering

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City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
STA. 10+00 TO STA. 23+00

Revisions
No.

Date 11/11/10
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Date
Date

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B-001-0-10

NX-1 (EL. 551.8-546.8, 34'-39')
INTERBEDDED SHALE (83%) AND LIMESTONE (17%),
RQD 32%, CORE RECOVERY. 99%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED.

NX-2 (EL. 546.8-541.8, 39'-44')
INTERBEDDED SHALE (86%) AND LIMESTONE (14%),
RQD 58%, CORE RECOVERY. 96%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, VERY WEAK TO WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-3 (EL. 541.8-536.8, 44'-49')
INTERBEDDED SHALE (82%) AND LIMESTONE (18%),
RQD 27%, CORE RECOVERY 98%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-4 (EL. 536.8-531.8, 49'-54')
INTERBEDDED SHALE (91%) AND LIMESTONE (9%),
RQD 60%, CORE RECOVERY 98%
SHALE, GRAY, MODERATELY WEATHERED, WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-5 (EL. 531.8-526.8, 54'-59')
INTERBEDDED SHALE (83%) AND LIMESTONE (17%),
RQD 70%, CORE RECOVERY 100%
SHALE, GRAY, MODERATELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

B-007-0-10

NX-1 (EL. 580.8-575.8, 18'-23')
RQD 75%, CORE RECOVERY 93%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, VERY THICK BEDDED;
POINT LOAD STRENGTH (ASTM D 5731-08) = 138PSI
ESTIMATED COMPRESSIVE STRENGTH = 3518PSI

NX-2 (EL. 575.8-570.8, 23'-28')
INTERBEDDED SHALE (88%) AND LIMESTONE (12%),
RQD 27%, CORE RECOVERY 85%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-3 (EL. 570.8-565.8, 28'-33')
INTERBEDDED SHALE (86%) AND LIMESTONE (14%),
RQD 47%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY TO MODERATELY WEATHERED, STRONG, THIN BEDDED.

NX-4 (EL. 565.8-560.8, 33'-38')
INTERBEDDED SHALE (89%) AND LIMESTONE (11%),
RQD 57%, CORE RECOVERY 93%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, VERY WEAK TO WEAK, MEDIUM TO THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-5 (EL. 560.8-555.8, 38'-43')
INTERBEDDED SHALE (96%) AND LIMESTONE (4%),
RQD 63%, CORE RECOVERY 98%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

B-011-0-10

NX-1 (EL. 590.1-585.1, 24'-29')
INTERBEDDED SHALE (92%) AND LIMESTONE (8%),
RQD 57%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY TO MODERATELY WEATHERED, STRONG, THIN BEDDED.

NX-2 (EL. 585.1-580.1, 29'-34')
INTERBEDDED SHALE (92%) AND LIMESTONE (8%),
RQD 52%, CORE RECOVERY 98%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-3 (EL. 580.1-575.1, 34'-39')
INTERBEDDED SHALE (95%) AND LIMESTONE (5%),
RQD 80%, CORE RECOVERY 98%
SHALE, GRAY, HIGHLY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, VERY THIN BEDDED.

NX-4 (EL. 575.1-570.1, 39'-44')
INTERBEDDED SHALE (97%) AND LIMESTONE (3%),
RQD 21%, CORE RECOVERY 98%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, VERY THICK BEDDED;
LIMESTONE, GRAY, MODERATELY WEATHERED, STRONG, VERY THIN BEDDED.

NX-5 (EL. 570.1-565.1, 44'-49')
INTERBEDDED SHALE (90%) AND LIMESTONE (10%),
RQD 35%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, VERY THIN BEDDED.

B-003-0-10

NX-1 (EL. 574.1-569.1, 19'-24')
INTERBEDDED SHALE (88%) AND LIMESTONE (12%),
RQD 53%, CORE RECOVERY 90%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-2 (EL. 569.1-564.1, 24'-29')
INTERBEDDED SHALE (95%) AND LIMESTONE (5%),
RQD 38%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.
POINT LOAD STRENGTH (ASTM D 5731-08) = 75PSI
ESTIMATED COMPRESSIVE STRENGTH = 1898PSI

NX-3 (EL. 564.1-559.1, 29'-34')
INTERBEDDED SHALE (94%) AND LIMESTONE (6%),
RQD 8%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY WEATHERED, WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED. (continued)
POINT LOAD STRENGTH (ASTM D 5731-08) = 52PSI
ESTIMATED COMPRESSIVE STRENGTH = 1333PSI

NX-4 (EL. 559.1-554.1, 34'-39')
INTERBEDDED SHALE (97%) AND LIMESTONE (3%),
RQD 25%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY WEATHERED, VERY WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, VERY THIN BEDDED.
COMPRESSIVE STRENGTH (ASTM D 2938) = 4917PSI

NX-5 (EL. 554.1-549.1, 39'-44')
INTERBEDDED SHALE (88%) AND LIMESTONE (12%),
RQD 83%, CORE RECOVERY 98%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, VERY THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

B-008-0-10

NX-1 (EL. 581.6-576.6, 19'-24')
INTERBEDDED SHALE (87%) AND LIMESTONE (13%),
RQD 53%, CORE RECOVERY 93%
SHALE, GRAY, HIGHLY WEATHERED, VERY WEAK TO WEAK, THIN BEDDED;
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED

NX-2 (EL. 576.6-571.6, 24'-29')
RQD 20%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, VERY THICK BEDDED

NX-3 (EL. 571.6-566.6, 29'-34')
INTERBEDDED SHALE (89%) AND LIMESTONE (11%),
RQD 52%, CORE RECOVERY 100%
SHALE, GRAY, HIGHLY WEATHERED, VERY WEAK TO WEAK, THIN TO MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-4 (EL. 566.6-561.6, 34'-39')
INTERBEDDED SHALE (81%) AND LIMESTONE (19%),
RQD 38%, CORE RECOVERY 97%
SHALE, GRAY, HIGHLY WEATHERED, VERY WEAK TO WEAK, THIN BEDDED;
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, VERY THIN TO THIN BEDDED.

NX-5 (EL. 561.6-556.6, 39'-44')
INTERBEDDED SHALE (94%) AND LIMESTONE (6%),
RQD 52%, CORE RECOVERY 99%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

B-026-0-11

NX-1 (EL. 563.1-558.1, 20'-25')
INTERBEDDED SHALE (94%) AND LIMESTONE (6%),
RQD 24%, CORE RECOVERY 78%
SHALE, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-2 (EL. 558.1-553.1, 25'-30')
INTERBEDDED SHALE (91%) AND LIMESTONE (9%),
RQD 45%, CORE RECOVERY 95%
SHALE, GRAY, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-3 (EL. 553.1-548.1, 30'-35')
INTERBEDDED SHALE (88%) AND LIMESTONE (12%),
RQD 40%, CORE RECOVERY 98%
SHALE, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

B-004-0-10

NX-1 (EL. 579.5-574.5, 17.5'-22.5')
INTERBEDDED SHALE (91%) AND LIMESTONE (9%),
RQD 20%, CORE RECOVERY 98%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-2 (EL. 574.5-569.5, 22.5'-27.5')
INTERBEDDED SHALE (91%) AND LIMESTONE (9%),
RQD 42%, CORE RECOVERY 91%
SHALE, GRAY, MODERATELY WEATHERED, WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.
COMPRESSIVE STRENGTH (PER ASTM D 2938) = 4858PSI

NX-3 (EL. 569.5-564.5, 27.5'-32.5')
INTERBEDDED SHALE (88%) AND LIMESTONE (12%),
RQD 40%, CORE RECOVERY 100%
SHALE, GRAY, MODERATELY WEATHERED, WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-4 (EL. 564.5-559.5, 32.5'-37.5')
INTERBEDDED SHALE (94%) AND LIMESTONE (6%),
RQD 63%, CORE RECOVERY 100%
SHALE, GRAY, MODERATELY WEATHERED, WEAK, MEDIUM TO THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-5 (EL. 559.5-554.5, 37.5'-42.5')
INTERBEDDED SHALE (94%) AND LIMESTONE (6%),
RQD 60%, CORE RECOVERY 88%
SHALE, GRAY, SLIGHTLY TO MODERATELY WEATHERED, WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

B-010-0-10

NX-1 (EL. 586.5-581.5, 24'-29')
INTERBEDDED SHALE (97%) AND LIMESTONE (3%),
RQD 57%, CORE RECOVERY 100%
SHALE, GRAY, HIGHLY WEATHERED, VERY WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, VERY THIN BEDDED.
POINT LOAD STRENGTH (ASTM D 5731-08) = 57PSI
ESTIMATED COMPRESSIVE STRENGTH = 1419PSI

NX-2 (EL. 581.5-576.5, 29'-34')
INTERBEDDED SHALE (95%) AND LIMESTONE (5%),
RQD 27%, CORE RECOVERY 97%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, VERY THIN TO THIN BEDDED.

NX-3 (EL. 576.5-571.5, 34'-39')
RQD 43%, CORE RECOVERY 100%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, VERY THICK BEDDED

NX-4 (EL. 571.5-566.5, 39'-44')
INTERBEDDED SHALE (88%) AND LIMESTONE (12%),
RQD 34%, CORE RECOVERY 97%
SHALE, GRAY, MODERATELY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-5 (EL. 566.5-561.5, 44'-49')
INTERBEDDED SHALE (86%) AND LIMESTONE (14%),
RQD 8%, CORE RECOVERY 98%
SHALE, GRAY, HIGHLY WEATHERED, VERY WEAK TO WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
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801 Plum Street
Cincinnati, OHIO 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
STA. 10+00 TO STA. 23+00

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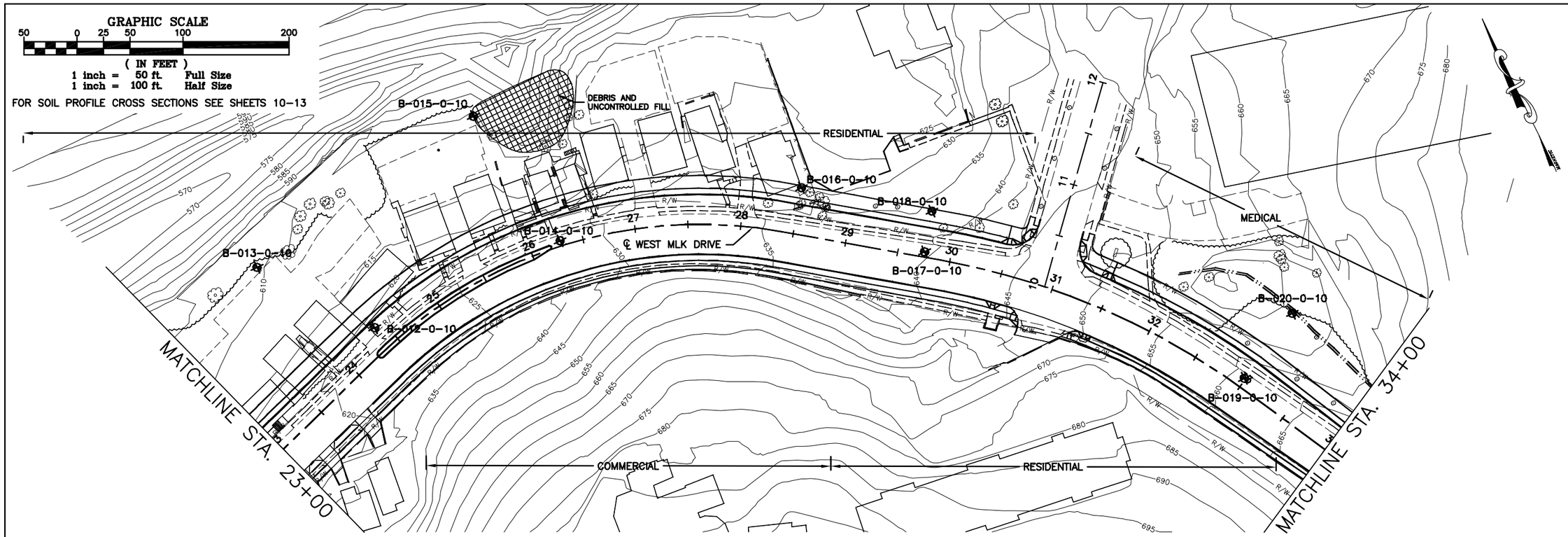

DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
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WEST MLK SOIL PROFILE
STA. 23+00 TO STA. 34+00

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ACC No.

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B-016-0-10

NX-1 (EL. 605.7–600.7, 24'–29')
INTERBEDDED SHALE (86%) AND LIMESTONE (14%),
RQD 65%, CORE RECOVERY 92%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK, THIN TO MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY AND GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-2 (EL. 600.7–595.7, 29'–34')
INTERBEDDED SHALE (87%) AND LIMESTONE (13%),
RQD 82%, CORE RECOVERY 100%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY AND GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-3 (EL. 595.7–590.7, 34'–39')
INTERBEDDED SHALE (89%) AND LIMESTONE (11%),
RQD 55%, CORE RECOVERY 88%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

B-018-0-10

NX-1 (EL. 616.2–611.8, 20'–24.4')
INTERBEDDED SHALE (85%) AND LIMESTONE (15%),
RQD 48%, CORE RECOVERY 88%
SHALE, GRAY, SEVERELY TO HIGHLY WEATHERED, VERY WEAK TO WEAK, MEDIUM BEDDED;
LIMESTONE, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED.

NX-2 (EL. 611.8–606.8, 24.4'–29.4')
INTERBEDDED SHALE (92%) AND LIMESTONE (8%),
RQD 68%, CORE RECOVERY 100%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY AND GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED.

NX-3 (EL. 606.8–601.8, 29.4'–34.4')
INTERBEDDED SHALE (82%) AND LIMESTONE (18%),
RQD 67%, CORE RECOVERY 100%
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK, THICK BEDDED;
LIMESTONE, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.

NX-4 (EL. 601.8–601.2, 34.4'–35')
RQD 63%, CORE RECOVERY 100%
SHALE, GRAY, MODERATELY WEATHERED, WEAK, THIN BEDDED.

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STA. 23+00 TO STA. 34+00

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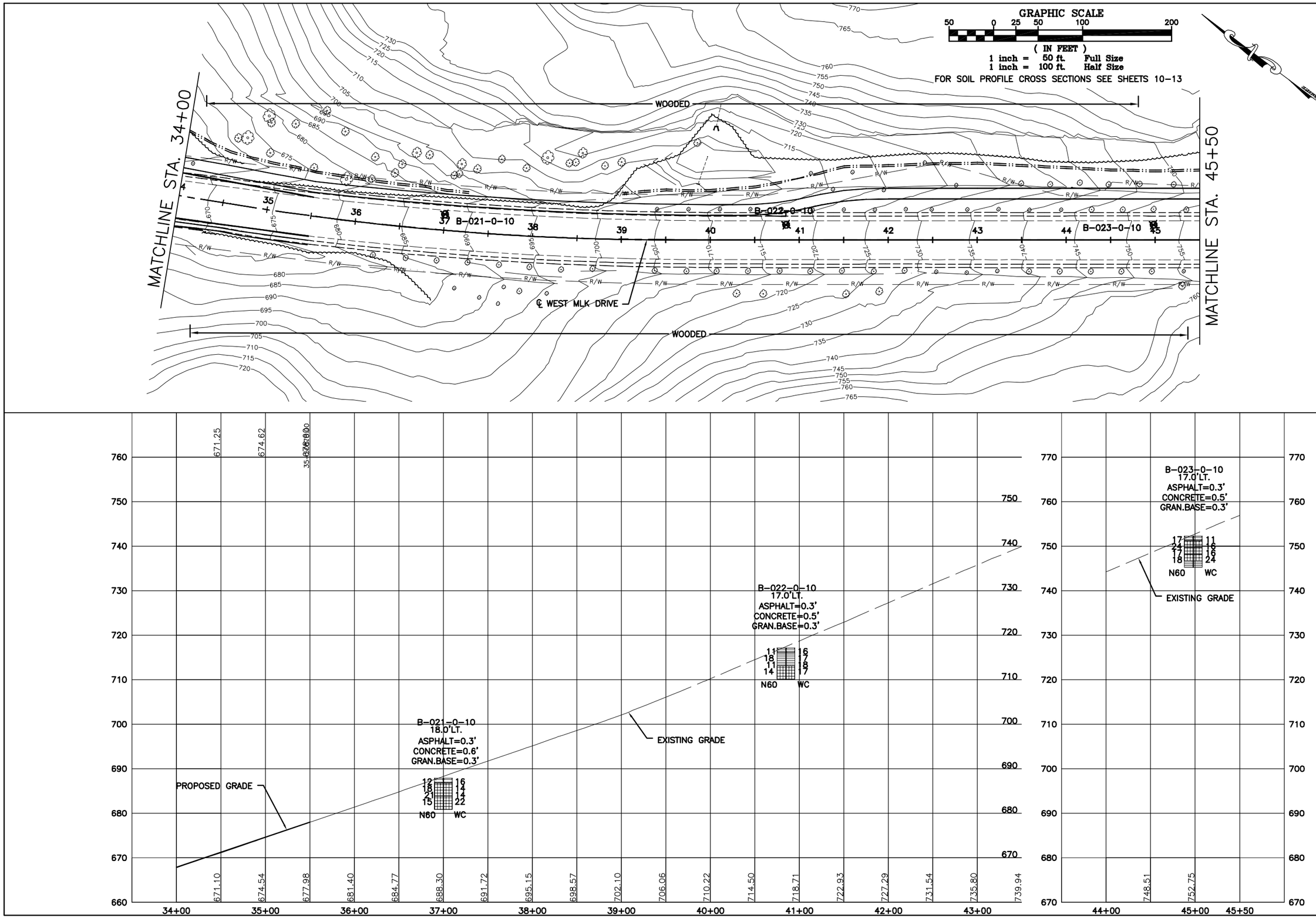

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CITY OF CINCINNATI
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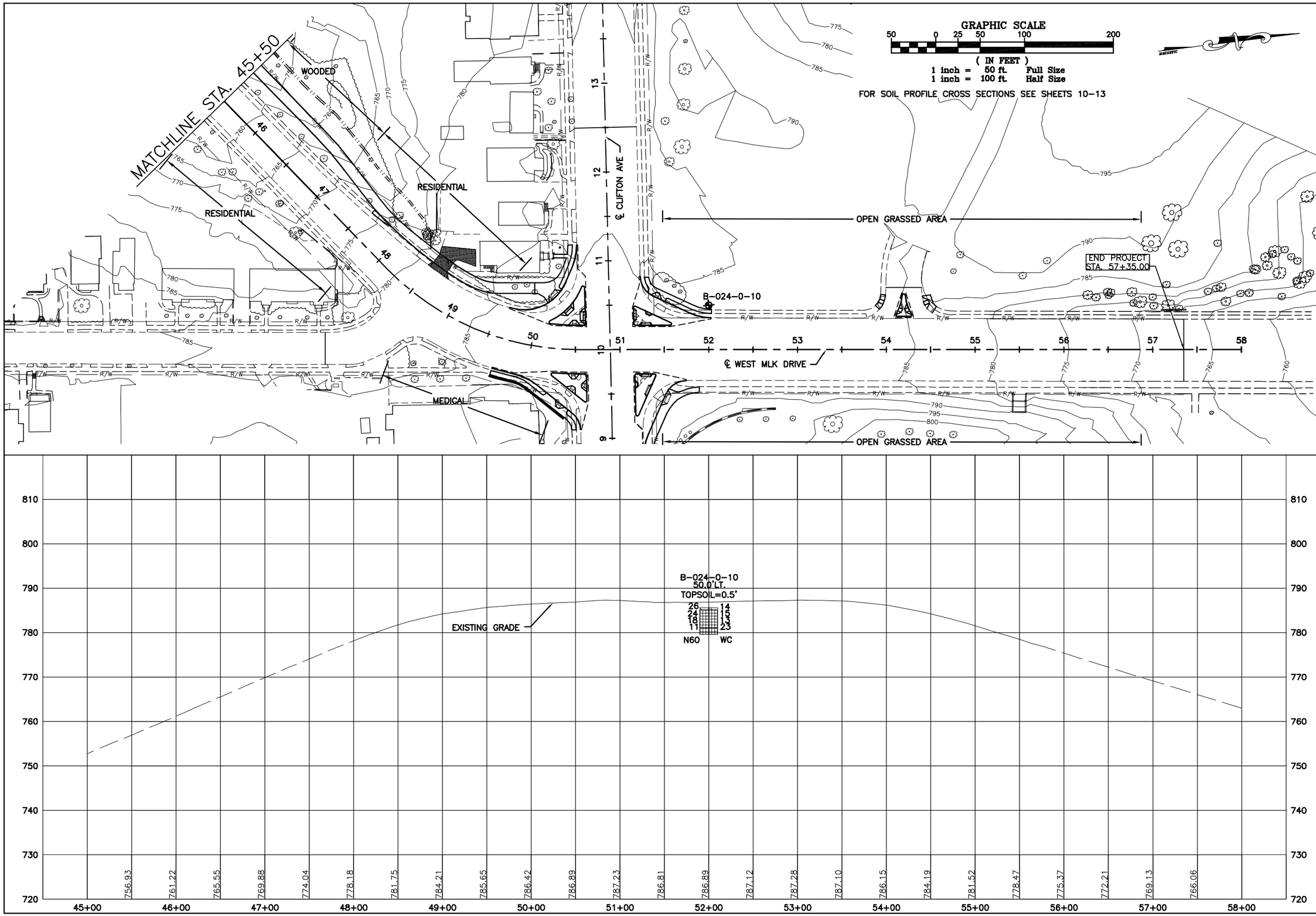

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WEST MLK SOIL PROFILE
STA. 45+50 TO STA. 58+00

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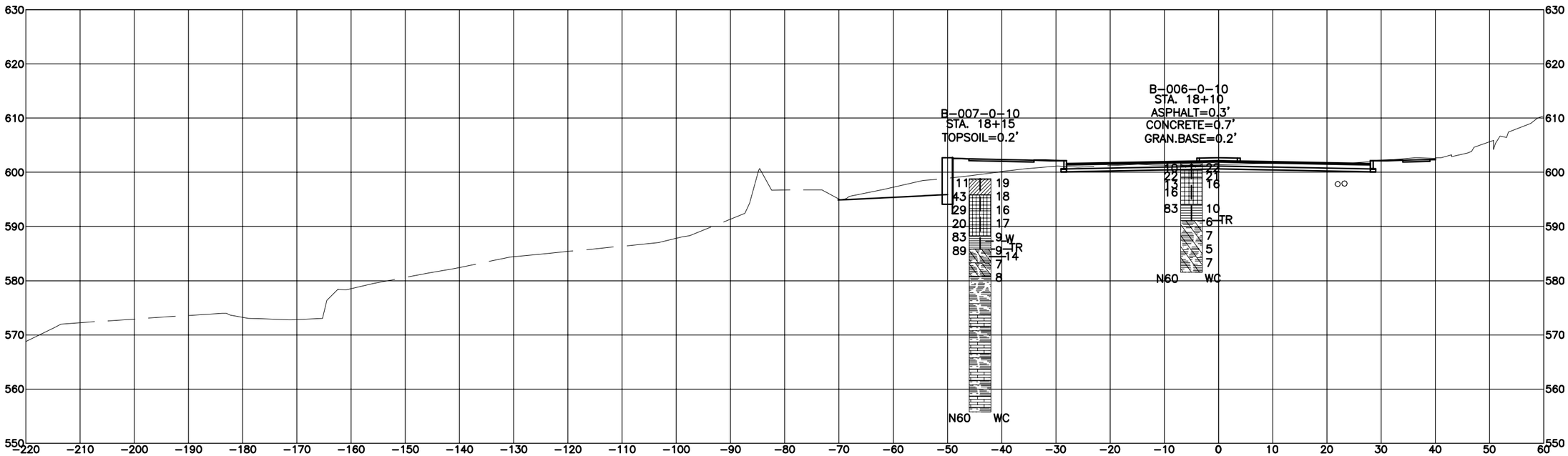

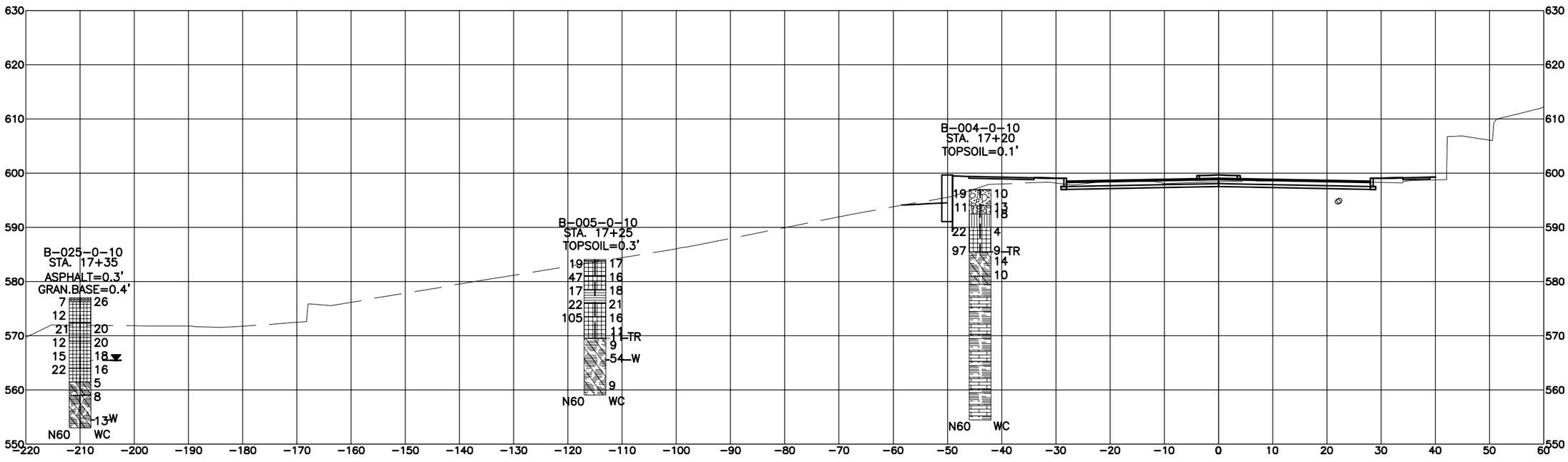

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CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL CROSS SECTIONS
STA. 17+00 & STA. 18+00

Revisions

No.			

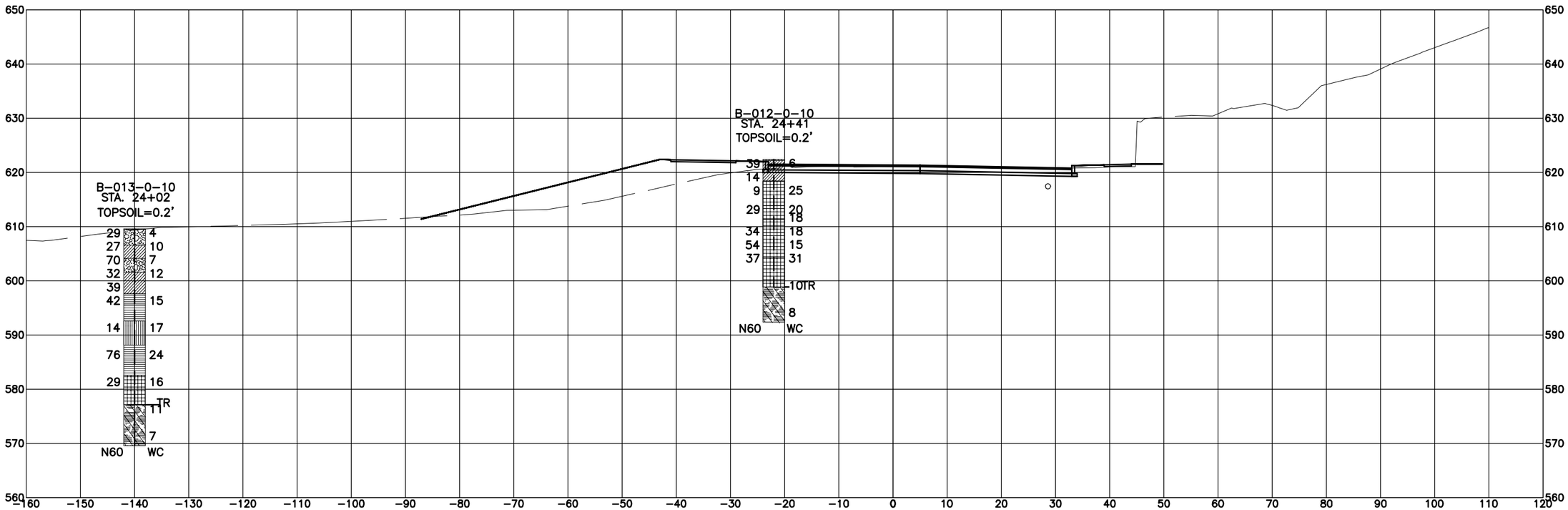
Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

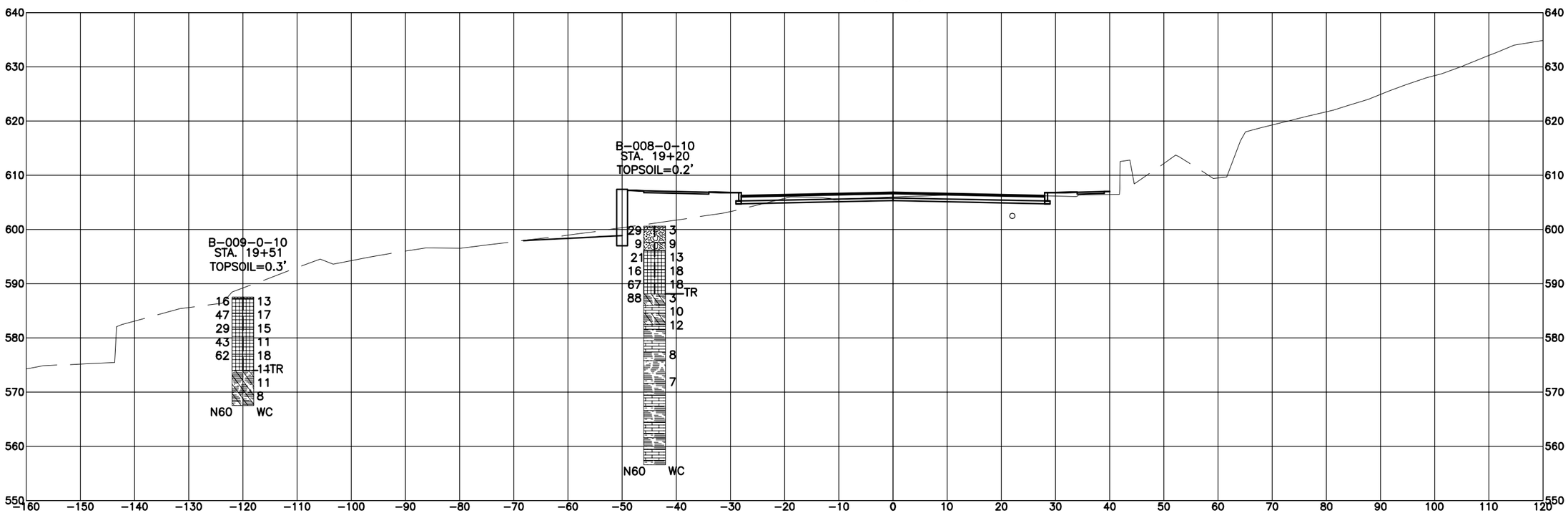
Consultant

Structure File Number

ACC No.

10 / 27





DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL CROSS SECTIONS
STA. 19+50 & STA. 24+00

Revisions
No.

Date
Date
Date
Date

Drawn by
Designed by
Checked by
Reviewed by

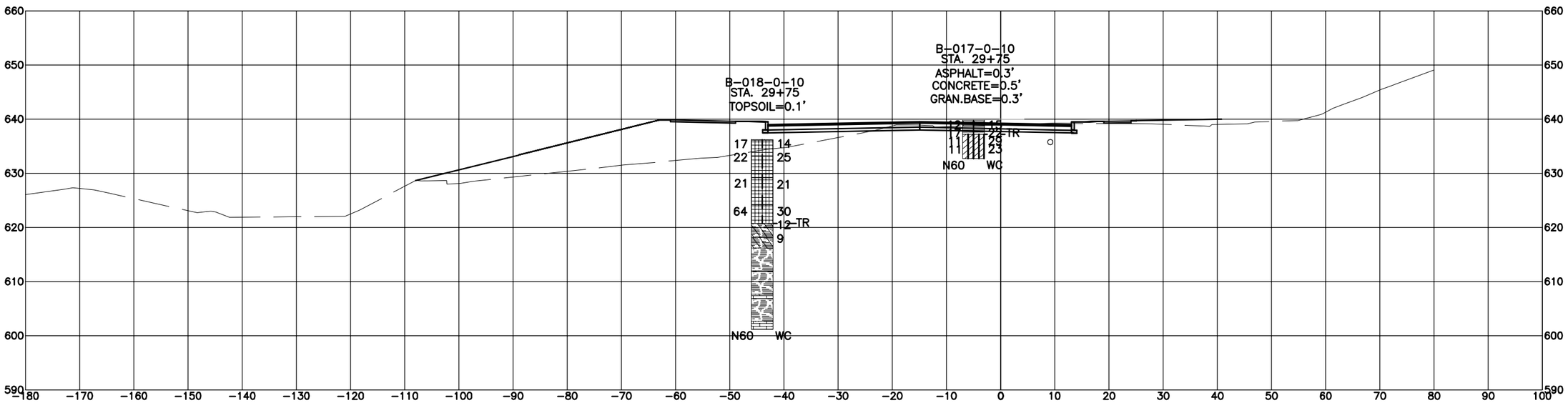
Consultant

Structure File Number

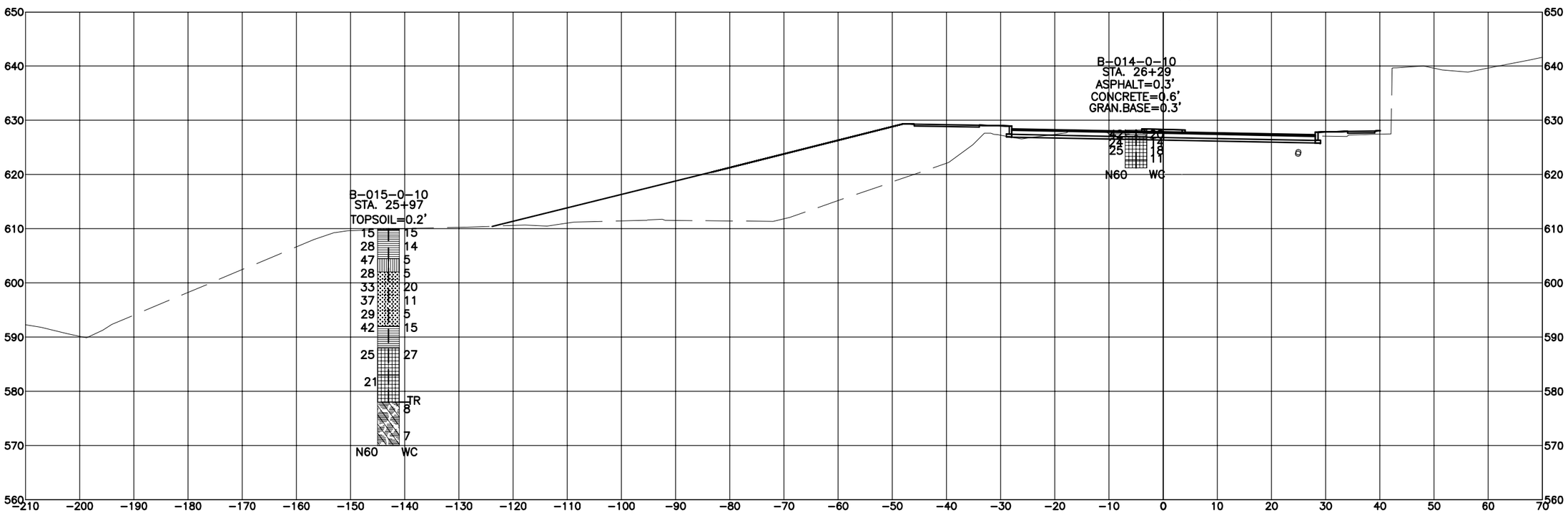
ACC No.

11 / 27

29+50



26+00



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO AWARD OF CONTRACT AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, OHio 45202

HAM-CR 612-0.20
WEST MLK SOIL CROSS SECTIONS
STA. 26+00 & 29+50

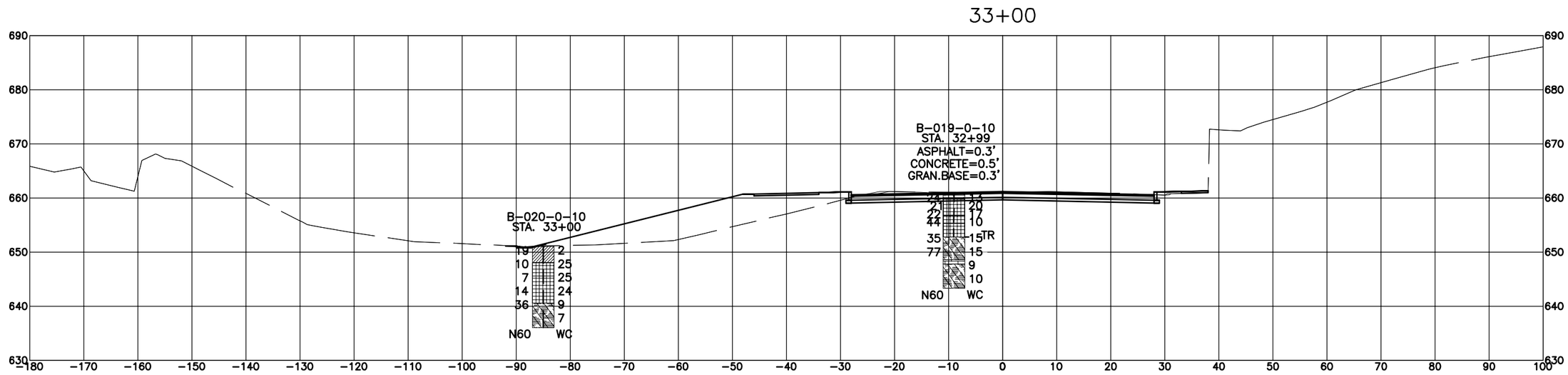
Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.



CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, OHio 45202

HAM-CR 612-0.20
WEST MLK SOIL CROSS SECTIONS
STA. 33+00

Revisions

No.			

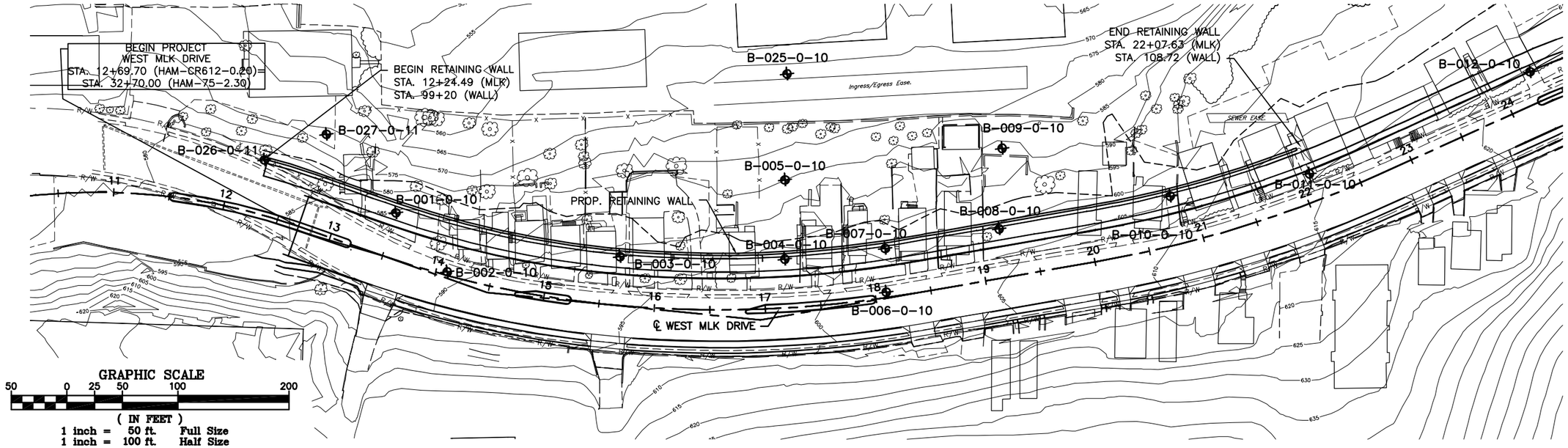
Drawn by _____ Date _____
Designed by _____ Date _____
Checked by _____ Date _____
Reviewed by _____ Date _____

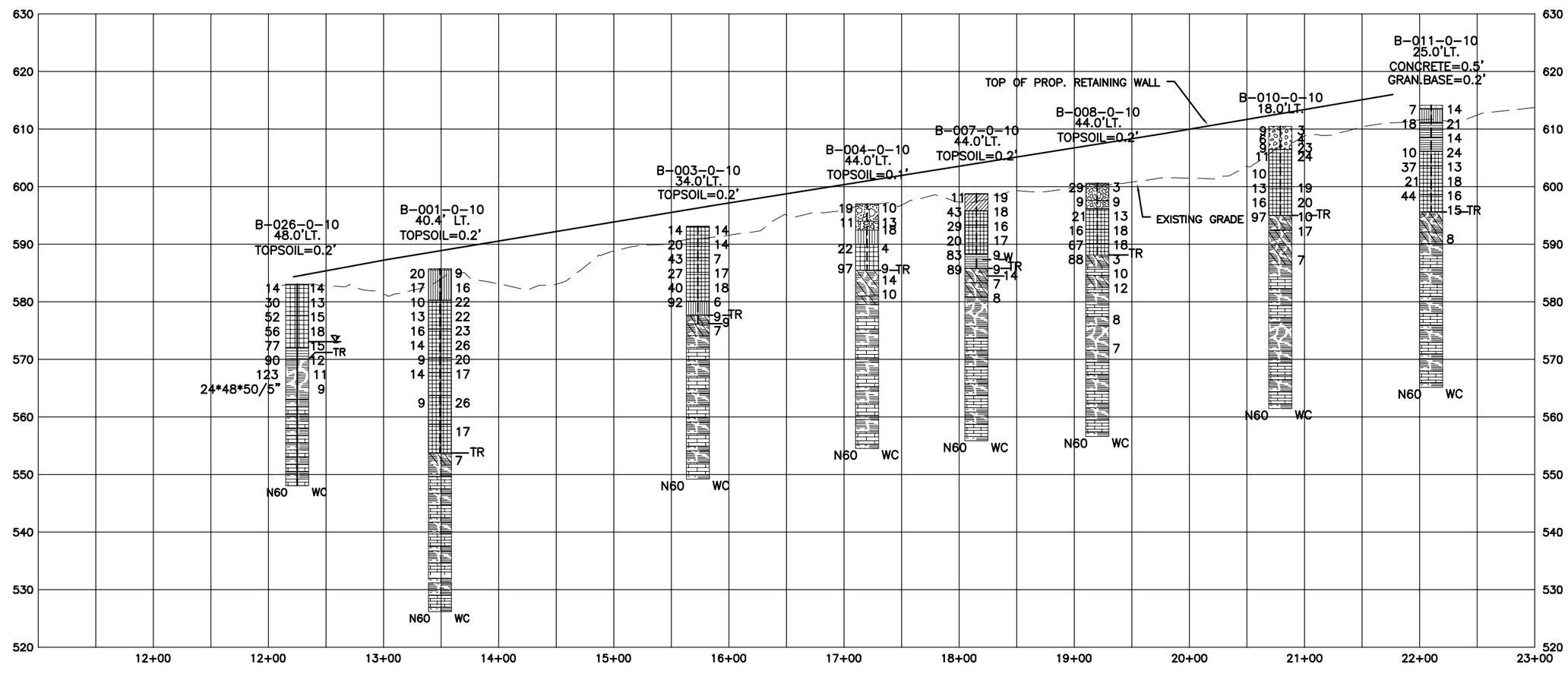
Consultant

Structure File Number

ACC No.

13 / 27





CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, OHIO 45202

HAM-CR 612-0.20
STRUCTURE FOUNDATION EXPLORATION
RETAINING WALL

Revisions
No.

Date
Drawn by
Date
Designed by
Date
Checked by
Date
Reviewed by

Consultant

Structure File Number

ACC No.

14 / 27

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 10/10/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PROJECT: W. MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / MF	DRILL RIG: CTL CME-550 TRACK	STATION / OFFSET: 13+49, 40 LT	EXPLORATION ID B-001-0-10
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / MF	HAMMER: CME AUTOMATIC	ALIGNMENT: W. MLK DR.	
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 10/13/09	ELEVATION: 585.8 (MSL) EOB: 59.0 ft.	PAGE 1 OF 2
START: 9/30/10 END: 9/30/10	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 86	COORD: 10.000 N, 10.000 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 585.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	INST.
TOPSOIL (2")	585.6																	
VERY STIFF, BROWN, **SANDY SILT**, LITTLE GRAVEL, SOME SAND, DAMP	580.3	1, 2	4 5 9	20	67	SS-1	>4.5	24	8	20	23	25	27	19	8	9	A-4a (3)	
		3, 4, 5	6 5 7	17	83	SS-2	>4.5	-	-	-	-	-	-	-	-	16	A-4a (V)	
STIFF, BROWN, **CLAY**, TRACE GRAVEL, LITTLE SAND, DAMP	575.3	6, 7	3 3 4	10	56	SS-3	3.00	9	1	4	18	68	52	27	25	22	A-7-6 (16)	
		8, 9, 10	2 4 5	13	83	SS-4	2.00	-	-	-	-	-	-	-	-	22	A-7-6 (V)	
STIFF TO VERY STIFF, BROWN, **CLAY**, TRACE GRAVEL, TRACE SAND, SOME SILT, DAMP	570.3	11, 12	3 5 6	16	83	SS-5	3.50	-	-	-	-	-	-	-	-	23	A-7-6 (V)	
		13, 14, 15	2 4 6	14	72	SS-6	3.00	-	-	-	-	-	-	-	-	26	A-7-6 (V)	
STIFF, BROWN, **CLAY**, TRACE GRAVEL, DAMP	567.8	16, 17	3 3 3	9	50	SS-7	3.00	12	1	6	26	55	43	25	18	20	A-7-6 (12)	
STIFF, BROWN AND GRAY, **CLAY**, LITTLE GRAVEL, DAMP	563.8	18, 19, 20	2 4 6	14	56	SS-8	2.00	-	-	-	-	-	-	-	-	17	A-7-6 (V)	
STIFF, GRAY, **CLAY**, SOME SILT, DAMP	558.8	21, 22, 23, 24, 25	6 3 3	9	56	SS-9	2.50	1	0	1	40	58	47	26	21	26	A-7-6 (14)	
HARD, BROWN, **CLAY**, TRACE SAND, "AND" SILT, DAMP		26, 27, 28, 29	11 17 50/4"	-	94	SS-10	>4.5	0	1	1	37	61	45	24	21	17	A-7-6 (13)	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 10/10/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PID: 87036	BR ID: N/A	PROJECT:W. MLK DR. IMPROVEMENTS	STATION / OFFSET: 13+49, 40 LT	START: 9/30/10	END: 9/30/10	PG 2 OF 2 B-001-0-10

MATERIAL DESCRIPTION AND NOTES	ELEV. 555.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	INST.
HARD, BROWN, **CLAY**, TRACE SAND, "AND" SILT, DAMP *(continued)*	553.8																	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG	551.8	31, 32, 33, 34	50/4"	-	100	SS-11	--	-	-	-	-	-	-	-	-	7	Rock (V)	
INTERBEDDED SHALE (83%) AND LIMESTONE (17%), RQD 32%, REC. 99%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED.	546.8	35, 36, 37, 38	32		99	NX-1											CORE	
INTERBEDDED SHALE (86%) AND LIMESTONE (14%), RQD 58%, REC. 96%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	541.8	39, 40, 41, 42, 43	58		96	NX-2											CORE	
INTERBEDDED SHALE (82%) AND LIMESTONE (18%), RQD 27%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	536.8	44, 45, 46, 47, 48	27		98	NX-3											CORE	
INTERBEDDED SHALE (91%) AND LIMESTONE (9%), RQD 60%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	531.8	49, 50, 51, 52, 53	60		98	NX-4											CORE	
INTERBEDDED SHALE (83%) AND LIMESTONE (17%), RQD 70%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	526.8	54, 55, 56, 57, 58, 59	70		100	NX-5											CORE	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
TEST BORING LOGS

Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

CONTRACT DRAWING
PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PROJECT: W. MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / MF	DRILL RIG: CTL CME-550 TRACK	STATION / OFFSET: 15+73, 34 LT	EXPLORATION ID B-003-0-10
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / MF	HAMMER: CME AUTOMATIC	ALIGNMENT: W. MLK DR.	
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 10/13/09	ELEVATION: 593.1 (MSL) EOB: 44.0 ft.	PAGE 1 OF 2
START: 9/29/10 END: 9/30/10	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 86	COORD: 30.000 N, 30.000 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	INST.
	593.1																	
TOPSOIL (2")	593.0																	
STIFF TO VERY STIFF, BROWN, **CLAY**, TRACE SAND, DAMP		1 2 3 4 5	5 5 5	14	89	SS-1	>4.5	-	-	-	-	-	43	24	19	14	A-7-6 (V)	
			6 6 8	20	83	SS-2	>4.5	1	1	2	22	74	47	23	24	14	A-7-6 (15)	
	587.6																	
HARD, BROWN, **CLAY**, LITTLE GRAVEL, TRACE SAND, WITH COBBLES, DAMP		6 7	24 19 11	43	39	SS-3	>4.5	-	-	-	-	-	42	22	20	7	A-7-6 (V)	
	585.1																	
VERY STIFF TO HARD, BROWN AND GRAY, **CLAY**, TRACE GRAVEL, TRACE SAND, SOME SILT, DAMP		8 9 10	7 8 11	27	72	SS-4	>4.5	7	3	3	28	59	44	23	21	17	A-7-6 (13)	
		11 12	7 12 16	40	94	SS-5	>4.5	0	0	2	18	80	49	27	22	18	A-7-6 (15)	
	580.1																	
HARD, BROWN, **SANDY SILT**, "AND" GRAVEL, DAMP		13 14	10 20 44	92	72	SS-6	--	-	-	-	-	-	-	-	-	6	A-4a (V)	
	577.6	15																
WEAK, BROWN, **SEVERELY WEATHERED SHALE**		16	18 41 50/5"	-	88	SS-7	--	-	-	-	-	-	-	-	-	9	Rock (V)	
	576.1	17					--	-	-	-	-	-	-	-	-	9	Rock (V)	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG		18																
	574.1	TR 19	50	-	100	SS-8	--	-	-	-	-	-	-	-	-	7	Rock (V)	
INTERBEDDED SHALE (88%) AND LIMESTONE (12%), RQD 53%, REC. 90%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.		20 21 22 23	53		90	NX-1											CORE	
	569.1	24																
INTERBEDDED SHALE (95%) AND LIMESTONE (5%), RQD 38%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED. @24.0' - 29.0'; Sc = 1,899 psi (FROM POINT LOAD STRENGTH INDEX TESTING)		25 26 27 28 29	38		100	NX-2											CORE	
	564.1																	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PID: 87036	BR ID: N/A	PROJECT:W. MLK DR. IMPROVEMENTS	STATION / OFFSET: 15+73, 34 LT	START: 9/29/10	END: 9/30/10	PG 2 OF 2	B-003-0-10

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	INST.
	563.1																	
INTERBEDDED SHALE (94%) AND LIMESTONE (6%), RQD 8%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED. *(continued)* @29.0' - 34.0'; Sc = 1,344 psi (FROM POINT LOAD STRENGTH INDEX TESTING)		31 32 33 34	8		100	NX-3											CORE	
	559.1																	
INTERBEDDED SHALE (97%) AND LIMESTONE (3%), RQD 25%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, VERY THIN BEDDED.		35 36 37 38	25		100	NX-4											CORE	
@38.2' - 38.8'; Qu = 4,917 psi	554.1						-	-	-	-	-	-	-	-	-	-		
INTERBEDDED SHALE (88%) AND LIMESTONE (12%), RQD 83%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.		39 40 41 42 43	83		98	NX-5											CORE	
	549.1	EOB 44																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

16 / 27

AC No.

Structure File Number

Consultant

Drawn by	Date
Designed by	Date
Checked by	Date
Reviewed by	Date

Revisions

No.		

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
TEST BORING LOGS

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 52\210 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PROJECT: W. MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / ZF	DRILL RIG: CTL CME-75 TRUCK	STATION / OFFSET: 17+20, 44 LT	EXPLORATION ID B-004-0-10
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / ZF	HAMMER: CME AUTOMATIC	ALIGNMENT: W. MLK DR.	
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 11/3/09	ELEVATION: 597.0 (MSL) EOB: 42.5 ft.	PAGE 1 OF 2
START: 9/21/10 END: 9/22/10	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 83	COORD: 40.000 N, 40.000 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 597.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INCL.
TOPSOIL (1")	596.9																	
MEDIUM DENSE, BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, DAMP	594.0	1 2 3	6 7 7	19	6	SS-1	--	-	-	-	-	-	-	-	-	10	A-1-b (V)	
MEDIUM DENSE, BROWN AND GRAY, **GRAVEL AND STONE FRAGMENTS WITH SAND AND SILT**, TRACE CLAY, DAMP	592.5	4 5	13 5 3	11	72	SS-2	3.00 --	- -	- -	- -	- -	- -	- -	- -	- -	13 18	A-2-4 (V) A-4a (V)	
STIFF, BROWN, **SANDY SILT**, TRACE GRAVEL, DAMP	590.0	6 7			-	ST-1	-	-	-	-	-	-	-	-	-	-		
VERY STIFF, BROWN, **SILTY CLAY**, "AND" GRAVEL, TRACE SAND, DAMP	585.5	8 9 10 11	19 9 7	22	56	SS-3	--	-	-	-	-	-	42	26	16	4	A-7-6 (V)	
					0	ST-2	-	-	-	-	-	-	-	-	-	-		
WEAK, BROWN, **SEVERELY WEATHERED SHALE**	581.0	12 13	41 20 50	97	78	SS-4	--	3	3	6	27	61	43	24	19	9	Rock (V)	
		14 15	20 30 50/5"	-	76	SS-5	--	-	-	-	-	-	-	-	-	14	Rock (V)	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG	579.5	16 17	25 50/4"	-	80	SS-6	--	-	-	-	-	-	-	-	-	10	Rock (V)	
INTERBEDDED SHALE (91%) AND LIMESTONE (9%), RQD 20%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	574.5	TR 18 19 20 21 22	20		98	NX-1											CORE	
INTERBEDDED SHALE (91%) AND LIMESTONE (9%), RQD 42%, REC. 91%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED. @25.8' - 26.3'; Qu = 4,858 psi	569.5	23 24 25 26 27	42		91	NX-2											CORE	
		28 29																

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 52\210 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PID: 87036	BR ID: N/A	PROJECT:W. MLK DR. IMPROVEMENTS	STATION / OFFSET: 17+20, 44 LT	START: 9/21/10	END: 9/22/10	PG 2 OF 2	B-004-0-10

MATERIAL DESCRIPTION AND NOTES	ELEV. 567.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INCL.
INTERBEDDED SHALE (88%) AND LIMESTONE (12%), RQD 40%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED. *(continued)*	564.5	31 32	40		100	NX-3											CORE	
INTERBEDDED SHALE (94%) AND LIMESTONE (6%), RQD 63%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM TO THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	559.5	33 34 35 36 37	63		100	NX-4											CORE	
INTERBEDDED SHALE (94%) AND LIMESTONE (6%), RQD 60%, REC. 88%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	554.5	38 39 40 41 42 EOB	60		88	NX-5											CORE	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

17 / 27

AC No.

Structure File Number

Consultant

Drawn by Date

Designed by Date

Checked by Date

Reviewed by Date

Revisions

No.

HAM-CR 612-0.20

WEST MLK SOIL PROFILE

TEST BORING LOGS

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 52\210 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PROJECT: W. MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / MF	DRILL RIG: CTL CME-550 TRACK	STATION / OFFSET: 18+15, 44 LT	EXPLORATION ID B-007-0-10
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / MF	HAMMER: CME AUTOMATIC	ALIGNMENT: W. MLK DR.	
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 10/13/09	ELEVATION: 598.8 (MSL) EOB: 43.0 ft.	PAGE 1 OF 2
START: 9/27/10 END: 9/28/10	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 86	COORD: 70.000 N, 70.000 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INST.
TOPSOIL (2")	598.8																	
STIFF, BROWN, **SILT AND CLAY**, TRACE GRAVEL, TRACE SAND, DAMP	598.6	1–2	4 3 5	11	67	SS-1	>4.5	-	-	-	-	-	-	-	-	19	A-6a (V)	
HARD, BROWN, **CLAY**, TRACE SAND, SOME SILT, DAMP	595.8	3–4	8 14 16	43	72	SS-2	>4.5	0	0	2	35	63	60	26	34	18	A-7-6 (20)	
VERY STIFF, BROWN, **CLAY**, LITTLE GRAVEL, LITTLE SAND, SOME SILT, DAMP	593.3	5–6	5 7 13	29	78	SS-3	3.25	-	-	-	-	-	-	-	-	16	A-7-6 (V)	
HARD, BROWN, **SILTY CLAY**, "AND" GRAVEL, LITTLE SAND, WET	588.3	8–9	5 6 8	20	67	SS-4	--	16	7	5	31	41	41	21	20	17	A-7-6 (12)	
WEAK TO SLIGHTLY STRONG, BROWN AND GRAY, **WEATHERED SHALE**	585.8	W 11–12	41 45 13	83	78	SS-5	--	49	7	6	16	22	39	19	20	9	A-6b (3)	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG	583.3	13–14	33 22 40	89	83	SS-6	-- / --	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 14	Rock (V) / Rock (V)	
SHALE, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; RQD 75%, REC 93%.	580.8	TR 16–17	50	-	17	SS-7	--	-	-	-	-	-	-	-	-	7	Rock (V)	
@18.0' - 23.0'; Sc = 3,518 psi (FROM POINT LOAD STRENGTH INDEX TESTING)	575.8	18–19	50/5"	-	100	SS-8	--	-	-	-	-	-	-	-	-	8	Rock (V)	
INTERBEDDED SHALE (88%) AND LIMESTONE (12%), RQD 27%, REC. 85%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	570.8	20–23	75		93	NX-1											CORE	
		24–28	27		85	NX-2											CORE	
		29																

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 52\210 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PID: 87036	BR ID: N/A	PROJECT:W. MLK DR. IMPROVEMENTS	STATION / OFFSET: 18+15, 44 LT	START: 9/27/10	END: 9/28/10	PG 2 OF 2	B-007-0-10

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INST.
INTERBEDDED SHALE (86%) AND LIMESTONE (14%), RQD 47%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY TO MODERATELY WEATHERED, STRONG, THIN BEDDED. *(continued)*	565.8	31–33	47		100	NX-3											CORE	
INTERBEDDED SHALE (89%) AND LIMESTONE (11%), RQD 57%, REC. 93%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM TO THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	560.8	34–38	57		93	NX-4											CORE	
INTERBEDDED SHALE (96%) AND LIMESTONE (4%), RQD 63%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	555.8	39–43 EOB	63		98	NX-5											CORE	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

18 / 27

AC No.

Structure File Number

Consultant

Drawn by Date

Designed by Date

Checked by Date

Reviewed by Date

Revisions

No.

HAM-CR 612-0.20

WEST MLK SOIL PROFILE

TEST BORING LOGS

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

PROJECT: W. MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / JH	DRILL RIG: CTL IND CME-75	STATION / OFFSET: 19+20, 44 LT
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / JH	HAMMER: CME AUTOMATIC	ALIGNMENT: W. MLK DR.
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 3/5/09	ELEVATION: 600.6 (MSL) EOB: 44.0 ft.
START: 9/21/10 END: 9/24/10	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 80	COORD: 80.000 N, 80.000 E

EXPLORATION ID B-008-0-10

PAGE 1 OF 2

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INCL.
TOPSOIL (2")	600.6																	
MEDIUM DENSE, BROWN AND GRAY, **GRAVEL AND STONE FRAGMENTS WITH SAND**, WITH COBBLES, DAMP	600.4	1 2	6 13 9	29	89	SS-1	--	-	-	-	-	-	-	-	-	3	A-1-b (V)	
LOOSE, BROWN AND BLACK, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SAND, TRACE CLAY, DAMP	597.6	3 4	9 4 3	9	44	SS-2	--	55	20	8	10	7	NP	NP	NP	9	A-1-b (0)	
VERY STIFF, BROWN, **CLAY**, LITTLE GRAVEL, TRACE SAND, "AND" SILT, WITH COBBLES, DAMP	596.1	5 6 7	3 8 8	21	28	SS-3	>4.5	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
VERY STIFF, BROWN, **CLAY**, TRACE SAND, "AND" SILT, DAMP	592.6	8 9 10	7 5 7	16	83	SS-4	3.75	0	2	2	37	59	44	21	23	18	A-7-6 (14)	
HARD, BROWN, **CLAY**, TRACE GRAVEL, TRACE SAND, "AND" SILT, DAMP	590.1	11 12	18 24 26	67	56	SS-5	>4.5	-	-	-	-	-	-	-	-	18	A-7-6 (V)	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG	588.1	13 14 15	26 25 41	88	-	SS-6	--	-	-	-	-	-	-	-	-	3	Rock (V)	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG	584.6	16 17 18	48 50/4"	-	80	SS-7	--	-	-	-	-	-	-	-	-	10	Rock (V)	
INTERBEDDED SHALE (87%) AND LIMESTONE (13%), RQD 53%, REC. 93%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THIN BEDDED; **LIMESTONE**, LIGHT GRAY, MODERATELY WEATHERED, STRONG, THIN BEDDED.	581.6	TR 19 20 21 22 23	50/5"	-	100	SS-8	--	-	-	-	-	-	-	-	-	12	Rock (V)	
			53		93	NX-1											CORE	
SHALE, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; RQD 20%, REC 100%.	576.6	24 25 26 27 28					--	-	-	-	-	-	-	-	-	8	Rock (V)	
			20		100	NX-2											CORE	
	571.6	29					--	-	-	-	-	-	-	-	-	7	Rock (V)	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PID: 87036	BR ID: N/A	PROJECT:W. MLK DR. IMPROVEMENTS	STATION / OFFSET: 19+20, 44 LT	START: 9/21/10	END: 9/24/10	PG 2 OF 2	B-008-0-10

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INCL.
INTERBEDDED SHALE (89%) AND LIMESTONE (11%), RQD 52%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THIN TO MEDIUM BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED. *(continued)*	570.6	31 32 33	52		100	NX-3											CORE	
INTERBEDDED SHALE (81%) AND LIMESTONE (19%), RQD 38%, REC. 97%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THIN BEDDED; **LIMESTONE**, LIGHT GRAY, MODERATELY WEATHERED, STRONG, VERY THIN TO THIN BEDDED.	566.6	34 35 36 37 38	38		97	NX-4											CORE	
INTERBEDDED SHALE (94%) AND LIMESTONE (6%), RQD 52%, REC. 99%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.	561.6	39 40 41 42 43	52		99	NX-5											CORE	
	556.6	EOB 44																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/19/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

19 / 27

ACN No.

Structure File Number

Consultant

Drawn by	Date
Designed by	Date
Checked by	Date
Reviewed by	Date

Revisions

No.

HAM-CR 612-0.20

WEST MLK SOIL PROFILE

TEST BORING LOGS

Department of Transportation and Engineering

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801 Plum Street
Cincinnati, Ohio 45202

CONTRACT DRAWING

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DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/10/11 18:03 - K:\DEPT. 52\210 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PROJECT: W. MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / MF	DRILL RIG: CTL CME-550 TRACK	STATION / OFFSET: 20+79, 18 LT	EXPLORATION ID B-010-0-10
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / MF	HAMMER: CME AUTOMATIC	ALIGNMENT: W. MLK DR.	
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 10/13/09	ELEVATION: 610.5 (MSL) EOB: 49.0 ft.	PAGE 1 OF 2
START: 10/11/10 END: 10/12/10	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 86	COORD: 100.000 N, 100.000 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 610.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INST.
LOOSE, BROWN, **GRAVEL AND STONE FRAGMENTS**, "AND" SAND, TRACE SILT, TRACE CLAY, DAMP		1–3	3 3 3	9	56	SS-1	--	-	-	-	-	-	-	-	-	3	A-1-a (V)	
	606.5	3–5	2 2 2	6	56	SS-2	--	50	25	16	7	2	NP	NP	NP	4	A-1-a (0)	
STIFF, BROWN, **CLAY**, TRACE SAND, SOME SILT, DAMP		5–7	5 3 3	9	67	SS-3	2.50	-	-	-	-	-	-	-	-	23	A-7-6 (V)	
		6–8	2 3 5	11	83	SS-4	2.50	0	1	1	34	64	57	29	28	24	A-7-6 (19)	
		9–10	2 3 4	10	83	SS-5	1.75	-	-	-	-	-	-	-	-	-	A-7-6 (V)	
	600.0																	
STIFF TO VERY STIFF, BROWN, **CLAY**, TRACE SAND, "AND" SILT, DAMP		11–12	3 4 5	13	78	SS-6	4.00	-	-	-	-	-	-	-	-	19	A-7-6 (V)	
		14–15	4 5 6	16	83	SS-7	>4.5	0	1	1	46	52	46	23	23	20	A-7-6 (14)	
	595.0																	
WEAK, BROWN, **SEVERELY WEATHERED SHALE**		16–17	18 28 40	97	83	SS-8	--	-	-	-	-	-	-	-	-	10	Rock (V)	
	592.5																	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG		19	50/2"	-	100	SS-9	--	-	-	-	-	-	-	-	-	17	Rock (V)	
	586.5	24	50	-	83	SS-10	--	-	-	-	-	-	-	-	-	7	Rock (V)	
INTERBEDDED SHALE (97%) AND LIMESTONE (3%), RQD 57%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM BEDDED; **LIMESTONE**, LIGHT GRAY, MODERATELY WEATHERED, STRONG, VERY THIN BEDDED. @24.0' - 29.0'; Sc = 1,419 psi (FROM POINT LOAD STRENGTH INDEX TESTING)		TR	57		100	NX-1											CORE	
	581.5																	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/10/11 18:03 - K:\DEPT. 52\210 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PID: 87036	BR ID: N/A	PROJECT:W. MLK DR. IMPROVEMENTS	STATION / OFFSET: 20+79, 18 LT	START: 10/11/10	END: 10/12/10	PG 2 OF 2	B-010-0-10

MATERIAL DESCRIPTION AND NOTES	ELEV. 580.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INST.
INTERBEDDED SHALE (95%) AND LIMESTONE (5%), RQD 27%, REC. 97%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, MEDIUM BEDDED; **LIMESTONE**, LIGHT GRAY, MODERATELY WEATHERED, STRONG, VERY THIN TO THIN BEDDED. *(continued)*		31–34	27		97	NX-2											CORE	
	576.5																	
SHALE, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; RQD 43%, REC 100%.		35–38	43		100	NX-3											CORE	
	571.5																	
INTERBEDDED SHALE (88%) AND LIMESTONE (12%), RQD 34%, REC. 97%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.		39–43	34		97	NX-4											CORE	
	566.5																	
INTERBEDDED SHALE (86%) AND LIMESTONE (14%), RQD 8%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.		45–48	8		98	NX-5											CORE	
	561.5	EOB 49																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

20 / 27

AC No.

Structure File Number

Consultant

Drawn by Date

Designed by Date

Checked by Date

Reviewed by Date

Revisions

No.

HAM-CR 612-0.20

WEST MLK SOIL PROFILE

TEST BORING LOGS

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DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/1/0/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PROJECT: W. MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / ZF	DRILL RIG: CTL CME-75 TRUCK	STATION / OFFSET: 22+10, 25 LT	EXPLORATION ID B-011-0-10
TYPE: ROADWAY	SAMPLING FIRM / LOGGER: CTL / ZF	HAMMER: CME AUTOMATIC	ALIGNMENT: W. MLK DR.	
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 11/3/09	ELEVATION: 614.1 (MSL) EOB: 49.0 ft.	PAGE 1 OF 2
START: 9/27/10 END: 10/5/10	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 83	COORD: 110.000 N, 110.000 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INST.
CONCRETE (6")	613.6																	
GRANULAR BASE (2")	613.4																	
MEDIUM STIFF, BROWN, **SANDY SILT**, SOME CLAY, WITH RED BRICK FRAGMENTS, DAMP (FILL)	611.1	1–2	3 3 2	7	39	SS-1	--	-	-	-	-	-	-	-	-	14	A-4a (V)	
VERY STIFF, BROWN AND BLACK, **SILTY CLAY**, LITLLE GRAVEL, LITTLE SAND, WITH ASPHALT FRAGMENTS, MOIST (FILL)	608.6	3–5	2 2 11	18	61	SS-2	0.50	-	-	-	-	-	-	-	-	21	A-6b (V)	
HARD, GRAY, **SILTY CLAY**, LITTLE GRAVEL, LITTLE SAND, MOIST (FILL)	606.1	6–7	3 2 50/2"	-	29	SS-3	0.50	-	-	-	-	-	-	-	-	14	A-6b (V)	
STIFF, BROWN, **CLAY**, LITTLE GRAVEL, TRACE SAND, "AND" SILT, DAMP	603.6	8–10	2 2 5	10	61	SS-4	2.00	10	1	2	39	48	57	27	30	24	A-7-6 (19)	
VERY STIFF TO HARD, BROWN, **CLAY**, TRACE GRAVEL, TRACE SAND, "AND" SILT, DAMP	598.6	11–13	11 17 10	37	56	SS-5	>4.5	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
		14–15	9 8 7	21	61	SS-6	>4.5	3	2	2	40	53	42	22	20	18	A-7-6 (12)	
HARD, BROWN, **CLAY**, "AND" GRAVEL, TRACE SAND, SOME SILT, DAMP	595.6	16–18	16 15 17	44	56	SS-7	>4.5	37	1	2	26	34	46	21	25	16	A-7-6 (12)	
VERY WEAK, BROWN, **SEVERELY WEATHERED SHALE**	592.1	19	18 50/5"	-	36	SS-8	>4.5	-	-	-	-	-	-	-	-	15	Rock (V)	
SHALE, GRAY, WEAK TO SLIGHTLY STRONG	590.1	23–TR	50/4"	-	100	SS-9	--	-	-	-	-	-	-	-	-	8	Rock (V)	
INTERBEDDED SHALE (92%) AND LIMESTONE (8%), RQD 57%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY TO MODERATELY WEATHERED, STRONG, THIN BEDDED.	585.1	24–29	57		100	NX-1											CORE	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT GDT - 10/1/0/11 18:03 - K:\DEPT. 5\2010 PROJECTS\10050024C\N_HDR_WEST MLK IMPROVEMENTS\REPORTS\LOGS AND GINT\10050024C

PID: 87036	BR ID: N/A	PROJECT:W. MLK DR. IMPROVEMENTS	STATION / OFFSET: 22+10, 25 LT	START: 9/27/10	END: 10/5/10	PG 2 OF 2	B-011-0-10

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	INST.
INTERBEDDED SHALE (92%) AND LIMESTONE (8%), RQD 52%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED. *(continued)*	580.1	31–34	52		98	NX-2											CORE	
INTERBEDDED SHALE (95%) AND LIMESTONE (5%), RQD 80%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, VERY THIN BEDDED.	575.1	35–38	80		98	NX-3											CORE	
INTERBEDDED SHALE (97%) AND LIMESTONE (3%), RQD 21%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, GRAY, MODERATELY WEATHERED, STRONG, VERY THIN BEDDED.	570.1	39–44	21		98	NX-4											CORE	
INTERBEDDED SHALE (90%) AND LIMESTONE (10%), RQD 35%, REC. 100%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, VERY THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, VERY THIN BEDDED.	565.1	45–EOB–49	35		100	NX-5											CORE	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: NOT RECORDED

HAM-CR 612-0.20

WEST MLK SOIL PROFILE

TEST BORING LOGS

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CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 10/5/11 11:00 - K:\DEPT_5\2010 PROJECTS\10050024CIN-B_HDR_WEST MLK RETAINING WALLS\REPORTS\LOGS AND GINT\11105002

PROJECT: W.MLK DR. IMPROVEMENTS	DRILLING FIRM / OPERATOR: CTL / MF	DRILL RIG: CTL CME-550 TRACK	STATION / OFFSET: 12+25, 48 LT	EXPLORATION ID B-026-0-11
TYPE: RETAINING WALL	SAMPLING FIRM / LOGGER: CTL / MF	HAMMER: CME AUTOMATIC	ALIGNMENT: PROPOSED MLK	
PID: 87036 BR ID: N/A	DRILLING METHOD: 3.25" HSA / NX	CALIBRATION DATE: 10/13/09	ELEVATION: 583.1 (MSL) EOB: 35.0 ft.	PAGE 1 OF 2
START: 9/1/11 END: 9/1/11	SAMPLING METHOD: SPT / NX	ENERGY RATIO (%): 86	COORD: 421733.398 N, 1392608.524 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
583.1																		
TOPSOIL (2")	582.9																	
STIFF TO VERY STIFF, BROWN, **CLAY**, TRACE GRAVEL, TRACE SAND, "AND" SILT, DAMP		1–2	3 4 6	14	89	SS-1	4.50	2	3	2	37	56	55	25	30	14	A-7-6 (19)	
		3–5	11 10 11	30	33	SS-2	4.00	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
	577.6																	
HARD, BROWN, **CLAY**, TRACE GRAVEL, TRACE SAND, "AND" SILT, DAMP		6–7	11 16 20	52	44	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-7-6 (V)	
		8–10	10 17 22	56	83	SS-4	4.50	1	1	1	49	48	46	23	23	18	A-7-6 (14)	
		11–12	14 20 34	77	83	SS-5	4.50	-	-	-	-	-	-	-	-	15	A-6b (V)	
	570.1	TR																
SHALE, GRAY, WEAK TO SLIGHTLY STRONG.		13–14	17 30 33	90	78	SS-6	>4.5	-	-	-	-	-	-	-	-	12	Rock (V)	
		15–17	17 37 49	123	94	SS-7	>4.5	-	-	-	-	-	-	-	-	11	Rock (V)	
		18–19	24 48 50/5"	-	100	SS-8	>4.5	-	-	-	-	-	-	-	-	9	Rock (V)	
	563.1																	
INTERBEDDED SHALE (94%) AND LIMESTONE (6%), RQD 24%, REC. 78%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.		20–24	24		78	NX-1											CORE	
@20.0' - 30.0'; Sc = 1,352 psi (FROM POINT LOAD STRENGTH INDEX TESTS)	558.1																	
INTERBEDDED SHALE (91%) AND LIMESTONE (9%), RQD 45%, REC. 95%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.		25–29	45		95	NX-2											CORE	
	553.1																	

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 10/5/11 11:00 - K:\DEPT_5\2010 PROJECTS\10050024CIN-B_HDR_WEST MLK RETAINING WALLS\REPORTS\LOGS AND GINT\11105002

PID: 87036	BR ID: N/A	PROJECT:W.MLK DR. IMPROVEMENTS	STATION / OFFSET: 12+25, 48 LT	START: 9/1/11	END: 9/1/11	PG 2 OF 2	B-026-0-11

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
553.1																		
INTERBEDDED SHALE (88%) AND LIMESTONE (12%), RQD 40%, REC. 98%; **SHALE**, GRAY, SLIGHTLY TO MODERATELY STRONG, THICK BEDDED; **LIMESTONE**, LIGHT GRAY, SLIGHTLY WEATHERED, STRONG, THIN BEDDED.		31–35	40		98	NX-3											CORE	
	548.1	EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: 57 LB. BENTONITE GROUT

22 / 27

ACN No.

Structure File Number

Consultant

Drawn by Date

Designed by Date

Checked by Date

Reviewed by Date

Revisions

No.

HAM-CR 612-0.20

WEST MLK SOIL PROFILE

TEST BORING LOGS

Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES

DEPARTMENT OF TRANSPORTATION & ENGINEERING CITY OF CINCINNATI OHIO

LAB NO:	9187
DATE:	11/8/2010

COMPRESSIVE STRENGTH OF ROCK
ASTM D 2938

CTL ENGINEERING INC

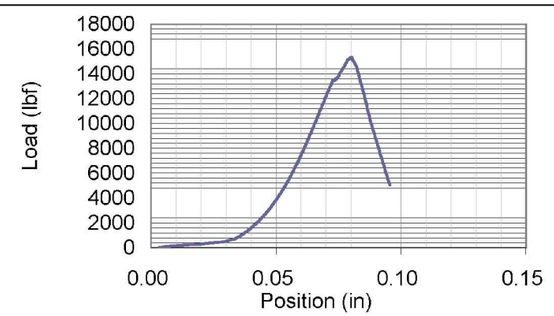
BORING NUMBER	B-003-0-10	TOP DEPTH(FT)	38.2	BOTTOM DEPTH(FT)	38.75
SAMPLE NUMBER	RC-4	DISTRICT		PID	87036
COUNTY	HAMILTON	ROUTE	CR 612	SECTION	0.20
STATION	15+65	OFFSET	44 ft	OFFSET DIRECTION	LEFT

FORMATION	KOPE
DESCRIPTION	SHALE

MEASUREMENT	LENGTH(INCHES)	DIAMETER(INCHES)
1	3.47	1.97
2	3.47	1.97
3	3.47	1.97
AVERAGE	3.47	1.97

LENGTH/DIAMETER	1.76
CORRECTION FACTOR	0.99
AREA(IN^2)	3.05
MASS (GRAMS)	440.2
UNIT WEIGHT(LBS/FT^2)	158.6

MAXIMUM LOAD (LBS)	15,340
COMPRESSIVE STRENGTH (PSI)	4,917
TIME OF TEST (MINUTES)	2
LOADING DIRECTION	PERP. TO BEDDING
TECHNICIAN	DBT



LAB NO:	9187
DATE:	11/8/2010

COMPRESSIVE STRENGTH OF ROCK
ASTM D 2938

CTL ENGINEERING INC

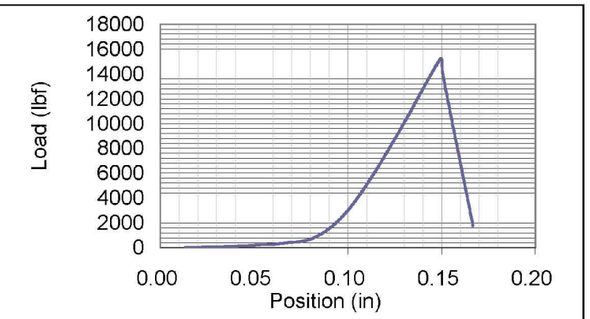
BORING NUMBER	B-004-0-10	TOP DEPTH(FT)	25.8	BOTTOM DEPTH(FT)	26.25
SAMPLE NUMBER	RC-2	DISTRICT		PID	87036
COUNTY	HAMILTON	ROUTE	CR 612	SECTION	0.20
STATION	17+20	OFFSET	44 ft	OFFSET DIRECTION	LEFT

FORMATION	KOPE
DESCRIPTION	SHALE

MEASUREMENT	LENGTH(INCHES)	DIAMETER(INCHES)
1	4.73	1.97
2	4.73	1.97
3	4.73	1.97
AVERAGE	4.73	1.97

LENGTH/DIAMETER	2.40
CORRECTION FACTOR	1.00
AREA(IN^2)	3.05
MASS (GRAMS)	584.3
UNIT WEIGHT(LBS/FT^2)	154.4

MAXIMUM LOAD (LBS)	15,255
COMPRESSIVE STRENGTH (PSI)	4,858
TIME OF TEST (MINUTES)	3
LOADING DIRECTION	PERP. TO BEDDING
TECHNICIAN	DBT



CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
COMPRESSIVE TEST GRAPHS

Revisions
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Consultant

Structure File Number

ACC No.

COMPRESSIVE STRENGTH AND ELASTIC MODULI OF ROCK - ASTM D 7012

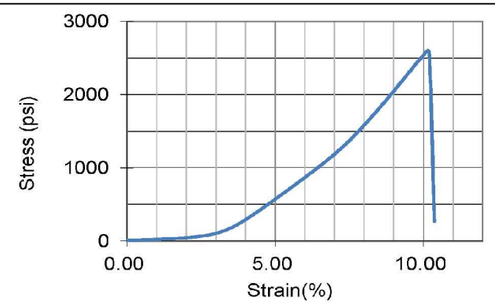
PROJECT NAME	MLK North Wall	BORING NUMBER	B-027-0-11
LOCATION	Cincinnati, OH	SAMPLE NUMBER	RC-1
PROJECT NUMBER	10050024CIN-B	TOP DEPTH(FT)	17.5
DATE	9/16/2011	BOTTOM DEPTH(FT)	17.8

FORMATION	UPPER ORDOVICIAN
DESCRIPTION	GRAY SILTSTONE
MOISTURE CONDITION	AS RECEIVED

MEASUREMENT	LENGTH(INCHES)	DIAMETER(INCHES)
1	4.076	1.869
2	4.096	1.879
3	4.074	1.944
AVERAGE	4.082	1.897

LENGTH/DIAMETER	2.15
CORRECTION FACTOR	1
AREA(IN^2)	2.83
MASS (GRAMS)	452.82
UNIT WEIGHT(LBS/FT^3)	149.5

RATE OF LOADING (in/min)	0.12
COMPRESSIVE STRENGTH (PSI)	2,606
TIME OF TEST (MINUTES)	3
LOADING DIRECTION	PERP. TO BEDDING
TECHNICIAN	DBT



BEFORE TESTING

AFTER TESTING

COMPRESSIVE STRENGTH AND ELASTIC MODULI OF ROCK - ASTM D 7012

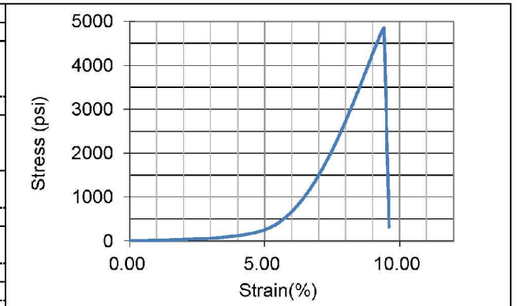
PROJECT NAME	MLK North Wall	BORING NUMBER	B-027-0-11
LOCATION	Cincinnati, OH	SAMPLE NUMBER	RC-2
PROJECT NUMBER	10050024CIN-B	TOP DEPTH(FT)	20.0
DATE	9/16/2011	BOTTOM DEPTH(FT)	20.3

FORMATION	UPPER ORDOVICIAN
DESCRIPTION	GRAY SILTSTONE
MOISTURE CONDITION	AS RECEIVED

MEASUREMENT	LENGTH(INCHES)	DIAMETER(INCHES)
1	4.395	1.952
2	4.352	1.956
3	4.378	1.961
AVERAGE	4.375	1.956

LENGTH/DIAMETER	2.24
CORRECTION FACTOR	1
AREA(IN^2)	3.01
MASS (GRAMS)	515.7
UNIT WEIGHT(LBS/FT^3)	149.4

RATE OF LOADING (in/min)	2.54
COMPRESSIVE STRENGTH (PSI)	4,854
TIME OF TEST (MINUTES)	3
LOADING DIRECTION	PERP. TO BEDDING
TECHNICIAN	DBT



BEFORE TESTING

AFTER TESTING

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Department of Transportation and Engineering

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Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
COMPRESSIVE TEST GRAPHS

Revisions
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Consultant

Structure File Number

ACC No.

Point Load Strength Index of Rock
ASTM D 5731 - 08

CTL ENGINEERING, INC.
2860 Fisher Road Columbus, Ohio 43204

Sample Description:
Gray Shale, Highly Weathered, Horizontal
Planes of Weakness, All Samples Tested in Laboratory

Moisture Conditioning: As Received

Avg Uncorrected Point Load Strength Index (psi):79.12
Avg Corrected Point Load Strength Index(psi): 75.7
Estimated Uniaxial Compresive Strength § (psi): 1898.83
Point Load Strenth Anisotropy Index: $I_{(50)}$: 2.7

Client: HDR Inc.
Project: West MLK Drive Improvements
Sample ID: B-003-0-10, RC-2: 24 to 29'
Project No. 10050024CIN
Lab Code No. 10050794COL
Date Tested: 11/4/10
Tested by: DM/SM
Reviewed By: RE

Specimen Number	Test Type	Width (W), (in)	Diameter D (in)	Eff. Diameter (in)	Load (lbs)	Is (psi)	F	Is_50 (psi)
1	Axial	1.86	1.40	1.83	320	96.02	0.94	89.81
2	Axial	1.96	1.24	1.76	410	132.34	0.92	121.31
3	Axial	1.96	1.21	1.73	190	63.33	0.91	57.54
4	Axial	1.95	2.07	2.27	244	47.41	1.05	50.00
5	Axial	1.86	1.82	2.07	400	93.14	1.00	93.45
6	Axial	1.97	1.90	2.18	277	58.19	1.03	60.07
7	Axial	1.96	1.37	1.85	364	106.85	0.94	100.55
8	Axial	1.95	1.95	2.20	324	67.05	1.04	69.50
9	Axial	1.84	1.34	1.77	235	74.93	0.92	68.91
10	Axial	1.97	1.05	1.62	137	51.93	0.88	45.54

Point Load Strength Index of Rock
ASTM D 5731 - 08

CTL ENGINEERING, INC.
2860 Fisher Road Columbus, Ohio 43204

Sample Description:
Gray Shale, Highly Weathered, Horizontal
Planes of Weakness, All Samples Tested in Laboratory

Moisture Conditioning:As Received

Avg Uncorrected Point Load Strength Index (psi):55.57
Avg Corrected Point Load Strength Index (psi):52.1
Estimated Uniaxial Compresive Strength § (psi): 1333.64
Point Load Strenth Anisotropy Index: $I_{(50)}$: 8.4

Client: HDR Inc.
Project: West MLK Drive Improvements
Sample ID: B-003-0-10, RC-3: 29 to 34'
Project No. 10050024CIN
Lab Code No. 10050794COL
Date Tested: 11/5/10
Tested by: DM/SM
Reviewed By: RE

Specimen Number	Test Type	Width (W), (in)	Diameter D (in)	Eff Diameter (in)	Load (lbs)	Is (psi)	F	Is_50 (psi)
1	Axial	1.96	1.34	1.83	195	58.40	0.94	54.85
2	Axial	1.93	1.44	1.88	173	48.85	0.95	46.47
3	Axial	1.98	1.32	1.82	158	47.80	0.93	44.47
4	Axial	1.97	1.29	1.80	170	52.58	0.93	48.77
5	Axial	1.97	1.39	1.86	53	15.28	0.95	14.45
6	Axial	1.97	1.89	2.18	99	20.89	1.03	21.54
7	Axial	1.98	1.20	1.74	215	71.28	0.91	64.86
8	Axial	2.00	1.32	1.83	434	129.85	0.94	121.41

CONTRACT DRAWING

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Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
POINT LOAD STRENGTH INDEX

Revisions
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Consultant

Structure File Number

ACC No.

Point Load Strength Index of Rock
ASTM D 5731 - 08

CTL ENGINEERING, INC.
2860 Fisher Road Columbus, Ohio 43204

Sample Description:
Gray Shale/Siltstone, Moderately Weathered,
Slightly Fizzle, All Samples Tested in Laboratory

Moisture Conditioning:As Received

Avg Uncorreced Point Load Strength Index (psi):146.58
Avg Corrected Point Load Strength Index (psi):138.1
Estimated Uniaxial Compresive Strength S_c(psi): 3518.02
Point Load Strenth Anisotropy Index: $I_{a(50)}$: 2.3

Client: HDR Inc.
Project: West MLK Drive Improvements
Sample ID: B-007-0-10, RC-1: 18 to 23'
Project No. 10050024CIN
Lab Code No. 10050794COL
Date Tested: 11/5/10
Tested by: DM/SM
Reviewed By: RE

Specimen Number	Test Type	Width (W), (in)	Diameter D (in)	Eff Diameter (in)	Load (lbs)	Is (psi)	F	Is_50 (psi)
1	Axial	1.79	1.61	1.91	463	126.33	0.96	121.31
2	Axial	1.92	1.50	1.91	600	164.35	0.96	157.65
3	Axial	1.92	1.30	1.78	618	194.93	0.92	179.82
4	Axial	1.91	1.22	1.72	256	86.47	0.91	78.28
5	Axial	1.94	1.67	2.03	754	182.80	0.99	181.37
6	Axial	1.94	1.24	1.75	480	158.99	0.91	143.38
7	Axial	1.92	1.45	1.88	442	124.68	0.95	118.63
8	Axial	1.92	1.29	1.77	474	150.62	0.92	138.66
9	Axial	1.91	1.37	1.83	490	148.49	0.94	137.18
10	Axial	1.93	1.40	1.85	454	132.19	0.94	124.68

Point Load Strength Index of Rock
ASTM D 5731 - 08

CTL ENGINEERING, INC.
2860 Fisher Road Columbus, Ohio 43204

Sample Description:
Gray Shale, Moderately Weathered, Horizontal Planes
of Weakness, All Samples Tested in Laboratory

Moisture Conditioning: As Received

Avg Uncorrected Point Load Strength Index (psi): 59.13
Avg Corrected Point Load Strength Index (psi): 57.1
Estimated Uniaxial Compresive Strength S_c (psi): 1419.00
Point Load Strenth Anisotropy Index: $I_{a(50)}$: 6.2

Client: HDR Inc.
Project: West MLK Drive Improvements
Sample ID: B-010-0-10, RC-1: 24 to 29'
Project No. 10050024CIN
Lab Code No. 10050794COL
Date Tested: 11/5/10
Tested by: DM/SM
Reviewed By: RE

Specimen Number	Test Type	Width (W), (in)	Diameter D (in)	Eff Diameter (in)	Load (lbs)	Is (psi)	F	Is_50 (psi)
1	Axial	1.87	1.67	1.99	500	125.68	0.98	123.46
2	Axial	1.89	1.40	1.83	171	50.93	0.94	47.74
3	Axial	1.87	1.55	1.92	147	39.85	0.96	38.33
4	Axial	1.86	1.72	2.02	134	32.86	0.99	32.50
5	Axial	1.93	1.45	1.88	419	117.94	0.95	112.29
6	Axial	1.94	1.87	2.15	236	51.04	1.02	52.26
7	Axial	1.95	1.46	1.91	76	20.93	0.96	20.04
8	Axial	1.96	1.68	2.05	236	56.24	1.00	56.07
9	Axial	1.95	1.19	1.72	161	54.59	0.90	49.36
10	Axial	1.96	1.33	1.82	137	41.19	0.93	38.51

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
POINT LOAD STRENGTH INDEX

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Structure File Number

ACC No.

Point Load Strength Index of Rock
ASTM D 5731 - 08

CTL ENGINEERING, INC.
2105 Schappelle Lane, Cincinnati, OH

Sample Description:
Shale & Siltstone, Gray
All Samples Tested in Laboratory
NX sized core samples

Client: HDR, Inc
Project: West Martin Luther King Drive Roadway Widening
Sample ID: B-026-0-11: RC 1 & 2
Project No. 10050024CINB
Lab Code No. 11050768COL
Date Tested: 9/19/11
Tested by: DM
Reviewed By: DB

Moisture Conditioning: Air Dried

Avg Uncorreced Point Load Strength Index (psi): 73.23
Avg Corrected Point Load Strength Index (psi): 64.4
Point Load to Uniaxial Compression Conversion Factor: 21
Estimated Uniaxial Compressive Strength S_c (psi): 1,352
Point Load Strenth Anisotropy Index: $I_{a(50)}$: 13.5

Note: All Results Reported Regardless of Validity of Mode of Failure

Specimen Number	Test Type	Width, W (in)	Height, D (in)	Equiv. Core Diameter (in)	Load (lbs)	Is (psi)	F	Is_{50} (psi)
1	Axial	1.89	1.09	1.87	241	66.07	0.86	56.98
2	Axial	1.89	1.04	1.86	184	57.75	0.86	56.03
3	Axial	1.95	0.99	1.57	211	87.85	0.86	73.98
4	Axial	1.89	1.06	1.62	109	41.71	0.87	36.48
5	Axial	1.93	1.03	1.60	378	147.83	0.87	128.54
6	Diametrical	-------	-------	1.97	158	43.42	0.97	42.33
7	Diametrical	-------	-------	-------	-------	-------	-------	-------
8	Diametrical	-------	-------	1.75	32	10.42	0.91	9.53
9	Diametrical	-------	-------	1.73	168	56.20	0.91	51.01
10	Diametrical	-------	-------	1.944	63	16.67	0.97	16.14

Post Test Samples

Post Test Samples

Point Load Strength Index of Rock
ASTM D 5731 - 08

CTL ENGINEERING, INC.
2105 Schappelle Lane, Cincinnati, OH

Sample Description:
Shale & Siltstone, Gray
All Samples Tested in Laboratory
NX sized core samples

Client: HDR, Inc
Project: West Martin Luther King Drive Roadway Widening
Sample ID: B-027-0-11: RC 1 & 2
Project No. 10050024CINB
Lab Code No. 11050768COL
Date Tested: 9/19/11
Tested by: DM
Reviewed By: DB

Moisture Conditioning: Air Dried

Avg Uncorreced Point Load Strength Index (psi): 48.70
Avg Corrected Point Load Strength Index (psi): 43.2
Point Load to Uniaxial Compression Conversion Factor: 21
Estimated Uniaxial Compressive Strength S_c (psi): 908
Point Load Strenth Anisotropy Index: $I_{a(50)}$: 5.5

Note: All Results Reported Regardless of Validity of Mode of Failure

Specimen Number	Test Type	Width, W (in)	Height, D (in)	Equiv. Core Diameter (in)	Load (lbs)	Is (psi)	F	Is_{50} (psi)
1	Axial	1.96	1.04	1.61	188	64.52	0.87	56.38
2	Axial	1.96	1.06	1.63	192	72.34	0.88	63.54
3	Axial	1.97	0.99	1.57	50	20.26	0.86	17.44
4	Axial	1.96	1.08	1.64	245	90.76	0.88	80.09
5	Axial	1.97	0.77	1.39	135	70.13	0.80	56.45
6	Diametrical	-------	-------	1.90	184	50.92	0.96	48.70
7	Diametrical	-------	-------	1.93	56	15.06	0.96	14.52
8	Diametrical	-------	-------	1.97	74	19.14	0.97	18.65
9	Diametrical	-------	-------	1.88	124	35.20	0.95	33.43
10	Diametrical	-------	-------	1.96	180	46.65	0.97	45.44

Post Test Samples

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

HAM-CR 612-0.20
WEST MLK SOIL PROFILE
POINT LOAD STRENGTH INDEX

Revisions
No.

Drawn by Date
Designed by Date
Checked by Date
Reviewed by Date

Consultant

Structure File Number

ACC No.

27 / 27

The Contractor is advised that there are several changes to the most recent edition of the City of Cincinnati Supplement dated January 1, 2013. These General Provisions include these changes. The Supplement and a Summary of Changes can be purchased or downloaded from the City's website: http://www.cincinnati-oh.gov/date/assets/File/2013%20CITY%20SUPPLEMENT-FINAL.pdf

Water main items are to be constructed in accordance with the provisions of the State of Ohio, Department of Transportation, Construction and Material Specifications, dated January 1, 2013, and modified by the City of Cincinnati Supplement to said State of Ohio Specifications, effective January 1, 2013, and any supplements or changes thereto. Copies of the State specifications are on file at the Office of Contract Sales of the State of Ohio, Department of Transportation, 25 South Front Street, Columbus, Ohio, and at the offices of the City Engineer of Cincinnati, Ohio. Submittal of a bid for this project implies that the Contractor has taken all provisions of the Supplement into account.

The Greater Cincinnati Water Works (GCWW) understands that differing site conditions results in extra work/change orders to the project. Change orders on GCWW contracts will be done in strict accordance with Item 109.05 C of the State of Ohio Department of Transportation Construction and Material Specifications dated January 1, 2013 or most recent edition and as modified in this City of Cincinnati Supplement. GCWW limits the mark up on wages and fringe benefits as described in 109.05 C. 2. "Labor" to 30%. It is expressly understood that regardless of the nature of the claim, or change in scope of work, the Contractor is not entitled to compensation for loss of anticipated profit or production.

As defined in the City of Cincinnati Supplement, sections 107.07 and 107.071, the Contractor is required to submit, at the time of the pre-construction meeting, a Site Safety Plan. Furthermore, the Contractor shall have an authorized and competent safety representative assigned to the project site.

The Contractor is advised that he has certain responsibilities under Section 153.64 of The Ohio Revised Code. For all underground utilities, contact the Ohio Utilities Protection Service at 1-800-362-2764 (toll free) 48 hours in advance of work. The Contractor is advised that all utility information has been shown on the contract plans from information provided by the owner of each utility in compliance with Sec. 153.64 of the Ohio Revised Code. In cases where utility information is incorrect and it results in a change in the contract plans the Contractor shall first notify the owner of the utility to determine the necessary course of action. The Contractor shall submit any subsequent claims as a result of downtime or additional work to the owner of the conflicting utility. The GCWW will not accept claims for any utility other than those as a result of incorrect water main and related appurtenance information.

The Contractor must locate or "pot hole" all utilities within the alignment of the proposed main a minimum of 50 feet ahead of pipe laying. Test holes must be dug, or trench excavated, a minimum of 50 feet (15.2 m) in advance of pipe laying, to assure proper clearance between the water main and any utility crossing, or underground structure. All utilities and structures shall be suitably braced and supported. The Contractor shall understand that any obstructions encountered in the installation of the main, due to the failure of having 50 feet (15.2m) of trench excavated ahead of laying operations, may require removal and relaying of the pipe at the contractors expense. The GCWW will not accept a claim for different utility conditions encountered when test holes are not performed as required.

Item 1120, "Exploratory Excavation", shall not include excavations within the limits of the proposed trench as defined in 1101.04 and 1101.05. Test holes are required on all utilities within 50 feet of the last laid pipe. Test holes within the alignment of the proposed trench are included in the Contractor's unit bid for Item 1101. Locations to be explored will vary from areas within the roadway to areas outside of the roadway.

It is the nature of construction that unmarked utilities or utilities not shown on the plans may be encountered within the excavation for the proposed work. The Contractor is responsible to identify and remove any abandoned utilities encountered in the excavation. No extra payment will be made to the Contractor for the identification and removal of the abandoned utility. All costs shall be included in the contractor's unit price bid for the appropriate Item 1101-Furnishing & Laying Pipe and Fittings."

Street pavement or sidewalk should not be disturbed for a distance of more than 200 Feet (61.0 m) ahead of the last laid pipe. Backfill shall be completed within 50 feet (15.2 m) of the last laid pipe. Temporary or permanent surface restoration must be installed within a distance of 200 feet (61.0 m) of the laid pipe, including those areas where main installations occur within a closed lane or closed street condition. Roadway plates may be used as a temporary measure for a period not to exceed 24 hours without the approval of the GCWW.

Any undermined pavement of more than 6 inches horizontal must be removed prior to starting trench backfill. If undermining of pavement occurs more than 1 foot, then pavement must be shored to protect traffic, or arrangements made for additional lane closures must be made. If problems continue to occur regarding trenching integrity, sheeting and bracing can be required by the City Engineer or the City Engineer's representative, at the contractor's expense. If any tunneling is necessary, adequate information shown in both plan and profile and tunneling procedures must be submitted to the City Engineer's Office prior to commencement of work.

The GCWW has made every effort to depict the pipe sewers and lateral information on the plans. The Contractor is advised that sewer laterals are shown in plan view only. The Contractor shall determine the elevation of the sewer laterals in advance of laying the water main at these crossings. If the sewer laterals require changing in order to avoid conflict with the water main, or if the Contractor encounters a pipe sewer or lateral in the excavation that was not shown on the plans and requires a change of grade or alignment due to the installation of the water main, the Contractor shall furnish all necessary labor, material, tools, and equipment required to change the grade or alignment of pipe sewers and laterals of various sizes, allowing installation of water mains and appurtenances as shown on the plans, or as directed by the GCWW Inspector. This work shall include all necessary excavation, backfill, and restoration. The Contractor will be compensated under Item 1123, "Changing Pipe Sewers 8 Inch and Under". When crossing sanitary and combination sewers, a vertical clearance of 18" must be maintained.

The Contractor is responsible for all pipe sewers disturbed in the completion of this project. In the event it becomes necessary to repair or replace existing pipe sewers, the Contractor must notify Sewer Maintenance, (513)244-1369, before proceeding with the work.

The Contractor is advised that his unit bid prices for the appropriate Item 1101, "Furnish & Install Pipe and Fittings", includes final restoration of all disturbed surfaces. The GCWW will not make full compensation under Item 1101 until final restoration is complete.

Notice of Confidentiality - Public Infrastructure Record

This Document is a Public Infrastructure Record of the City of Cincinnati and its Greater Cincinnati Water Works, and is not subject to the public disclosure requirements of the public records laws of the State of Ohio and federal government. This Document is being provided on the basis of your reported need, and shall be considered confidential. By accepting this Document, you agree that it will not be shared or otherwise disclosed to anyone other than persons who have a direct need to know for the sole purpose of carrying out the project for which this Document was obtained. Anyone receiving this Document is bound by the same confidentiality requirements and must take precautions to protect against its dissemination.

The failure to observe the confidentiality requirements of this Notice shall serve as the basis for the City of Cincinnati to immediately seek legal recourse, including the recovery of actual damages resulting from unauthorized access or disclosure of this Document.

Final restoration shall be done in accordance with the restoration detail drawing as shown on Sheet 1.

The Contractor is advised that due to the alignment of the proposed water main, it may be necessary to install a temporary valve box over an existing chambered valve that must remain in service during the water main installation as directed by the GCWW Inspector. The chamber shall be abandoned, a valve box (furnished by the contractor) placed over the valve, and upon project completion, the valve box must be removed. The contractor will not receive additional compensation for this work, but should include the cost of this work in his unit bid price for Item 1101, "Furnishing & Laying Ductile Iron Pipe and Fittings".

It is the Contractor's responsibility to provide adequate water supply for domestic and fire fighting purposes. In order to accomplish the water main connections with a minimum amount of inconvenience to the consumers, it may be necessary to do the work at other than normal working hours or as may be scheduled by the GCWW.

The Contractor is advised that the operating pressure of the existing water main within the limits of the subject project is approximately

In order to minimize the inconvenience of the consumers, the number of shutdowns required to do the proposed water main work shall be limited. Only one shutdown, limited to 8 hours, will be allowed during a 24 hour period.

All water service branches have a minimum cover of 3.0 feet.

The Contractor is advised that it shall be necessary to install temporary Plug/caps on the existing and proposed water mains in order to maintain service during testing and water main and branch connections. These temporary Plug shall be furnished by the contractor. He is responsible for their proper installation. The cost for this work shall be included in the Contractor's unit bid price for the appropriate Item 1101,"Furnishing & Laying Ductile Iron Pipe and Fittings".

The Contractor is required to excavate and expose the existing utilities and existing water mains along the line of the proposed water main and all proposed connection points to verify location, diameter, line and grade. Also, if the removal of the bulkhead or plug is required all excavation and temporary/permanent restoration shall be compensated under the Contractor's unit bid price for Item 1101, "Furnishing & Laying Ductile Iron Pipe and Fittings".

The Contractor is advised that all C.J. Plug are to be restrained with a Field Lok Gasket and all M.J. caps are to be restrained using a Megalug Assembly. This includes temporary Plug and caps for testing purposes. When a temporary plug is used, the contractor is permitted to remove the plug by cutting the section of pipe containing the plug and using a solid sleeve at that point to complete the tie-in. In the event that a cap is used, the contractor shall remove the Megalug Assembly and cap before completing the tie-in.

The Contractor is advised that on any fire hydrant required to be relocated with this project, all bolt assemblies shall be replaced. The cost for this work shall be included in the unit bid price for Item 1113 "Relocating Existing Fire Hydrants".

No part of any fire hydrant setting shall be installed closer than five feet to any driveway, inlet, utility pole or guy wire anchor.

Item 1111, "Water Works Valve Chambers", shall also cover the furnishing and installing of Precast Reinforced Concrete Chambers in accordance with O.D.O.T. Specification 706.13. All pertinent provisions of this item and GCWW Standard Drawing No. 104-1A shall apply. Precast chambers shall be used in all locations where space permits and as directed by the GCWW.

Air cocks may be necessary for the proper operation of the water system. The Air Release Assembly, which may not be shown on the drawing, will be furnished and installed by the Contractor per the detail on these plans, if required by the GCWW.

It shall be the Contractor's responsibility to arrange for the removal and replacement of any poles and guys necessary for the installation of the proposed water mains, and any cost connected thereto shall be at his expense.

All pipe and specials shall be in accordance with City of Cincinnati Specification 40-110-12.

All procured water main and appurtenance materials, other than those furnished through the GCWW must be properly certified; certified for GCWW Inspection: or already inspected by the GCWW. Pipe, fittings, valves and fire hydrants must be GCWW inspected and stamped materials.

The Contractor should be advised that all Fittings (Bends, Offset Bends, Tees, Crosses, Sleeves, Caps and Plug) supplied for this job may be either ANSI/AWWA C-110 Full-body Ductile Iron, Cement Lined Fittings or ANSI/AWWA C-153 Compact Ductile Iron, Fusion Bonded Epoxy Coated Fittings in accordance with City of Cincinnati, Department of Purchasing, Standard Specification No. 40-110-12 for Pipe and Fittings Water, Ductile Iron 3" to 60". All fittings are subject to inspection and approval by appropriate GCWW Inspection personnel. Minor pinholes and abrasions to epoxy coated valves and fittings are to be repaired using 3M Hot Melt Patch Compounds (H.M.P.C.) in the stick form. Repair procedures shall be in accordance with the General Application Steps identified for the H.M.P.C. All repairs to epoxy coated fittings are subject to inspection and approval by appropriate GCWW Inspection personnel.

All rejected material, including pipe and fittings, shall be removed from the project site immediately.

The Contractor must maintain access to sidewalks at all times. Storage of any materials within the public Right of Way, including sidewalks, is not permitted unless approved by GCWW, the Project Engineer, or as indicated on the approved plans.

All copper tubing shall be type "K" of a standard nominal size: 3/4", 1", 1-1/2" and 2". All fittings will have copper flare type connections and shall be in accordance with City of Cincinnati Specification No. 40-113-05.

The contractor shall furnish the necessary certifications for branch material.

All proposed water mains will be hydrostatically tested for leakage in accordance with 1101.054,'Hydrostatic Test for Leakage', of the appropriate Item 1101, "Furnishing & Laying Ductile Iron Pipe and Fittings".

The Contractor will be responsible for filling, flushing, and pressure testing new water mains, 20" or smaller. The contractor will provide all labor, material and equipment (including the necessary pumps to apply the pressure test). The Water Works will provide the necessary meter and gauge. All costs for this work shall be included in the contractor's unit bid price for Item 1101, "Furnishing & Laying Ductile Iron Pipe and Fittings". Once the filling and pressure testing are completed, the Contractor will be responsible for flushing the proposed water main and the CGWW will be responsible for bacteria sampling. The GCWW will be responsible for filling, pressure testing and flushing new water mains greater than 20".

The Contractor is advised that the proposed fire hydrants that are being furnished by Hamilton County must be picked up at the Hamilton County Maintenance Headquarters, 10480 Burlington Road, Cincinnati, Ohio 45231, 513-946-8955. The Contractor shall give Hamilton County at least 24 hours notice prior to picking up the fire hydrants. All existing fire hydrants being removed from the project shall be returned to the same address. All costs for this work shall be included in the Contractor's unit bid price for item 1114 "Removing Existing Fire Hydrants".

1-800-362-2764
OHIO Utilities Protection SERVICE
Call Before You Dig

OhioEPA
Ohio Environmental Protection Agency
"Self-Certification" letter required prior to the start of construction.
[X] OEPA CERTIFICATION EXEMPT
Supervising Engineer - Design

SUGGESTED BILL OF MATERIAL
(Furnished By Contractor)

4	EACH	- 6" Ductile Iron Pipe, C.J., Th. Cl. 55, 18' Length
2	EACH	- 8" Ductile Iron Pipe, C.J., Th. Cl. 55, 18' Length
4	EACH	- Poly Tube, 16" Wide x 20' Long, 4 Mil. Thick, Cross-Laminate
2	EACH	- Poly Tube, 20" Wide x 20' Long, 4 Mil. Thick, Cross-Laminate
1	ROLLS	- Poly Tape, 2" Wide x 100' Long
1	EACH	- 8" Solid Sleeve, M.J.
6	EACH	- 8" Solid Sleeve, D.P.
4	EACH	- 8" x 6" Tee, 2 M.J. x Flg.
4	EACH	- 6" Valve, Flg. x M.J. (Note 1)
4	EACH	- Valve Box Complete, (Iron)
4	EACH	- Valve Box Frost Plug
4	EACH	- 6" Flange Tyte Rubber Gasket
4	EACH	- 6" Fire Hydrant Extension, 6" Long
4	EACH	- 6" Fire Hydrant
8	EACH	- 6" Megalug Assembly
10	EACH	- 8" Megalug Assembly

The materials listed are only suggested for use during the water main and branch relocation work as proposed on the drawings. The contractor shall furnish additional material where needed. No allowance will be made for unused material nor will any extra payment be made for additional specials required to complete the water main work. The contractor is responsible for making his own field measurements before ordering. Before ordering material the contractor is responsible for making his own field measurements and for field verifying the O.D. of existing water mains where sleeves and pipe couplings are involved.

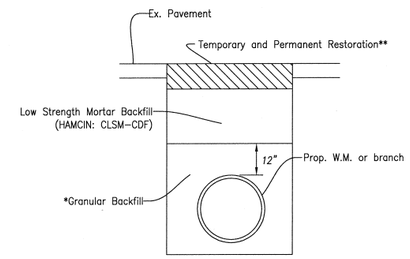
Note 1:
Valves furnished by the contractor shall be; American Resilient Wedge Gate Valve Series 2500, U.S. Pipe Metroseal Gate Valve, Kennedy Valve Ken Seal II Resilient Gate Valve, Clow F-6100 Series Resilient Wedge Gate Valve, Mueller 2360 Resilient Wedge Gate Valve.

Note 2:
Low-Lead Brass Material Requirements:
All components in contact with water shall be fabricated from Sebiloy II or Federalloy I-836 alloys or a material approved by the Engineer. All components that do not come in contact with water shall comply with the requirements of ASTM B 62 Copper Alloy Number. Coated or washed metals are not acceptable if their lead levels exceed .25% by weight prior to the coating or washing process. All service fittings and materials shall be certified as suitable for contact with drinking water by an accredited certification organization in accordance with ANSI/NSF Standard 61, Drinking Water Systems Components - Health Effects. All service fittings shall either be stamped or embossed with the letter "NL", to indicate "No-Lead", or marked to indicate that the product is manufactured from the low-lead alloys.

Certification of compliance is required to be submitted to the Cincinnati Water Works prior to use.

"All valve boxes shall be domestically manufactured. All valve boxes for 1-inch air release assemblies and gate valves 12-inch and smaller shall be Tyler Union Series 6850, East Jordan Iron Works Series 8550, or a domestically manufactured approved equal. The approved equal will be determined by the City of Cincinnati Greater Cincinnati Water Works. A valve box frost plug shall also be included. All valve boxes for gate valves 12-inch and smaller shall include the BOXLOK valve box alignment device from EMMA Sales, LLC. All costs associated with adherence to this requirement shall be included in the Contractor's unit bid price for Item 1116 - Furnishing and Installing Valve Box Complete"

RESTORATION DETAIL



**Temporary and Permanent Restoration shall be done in accordance with the Contract specifications and/or project plan typical sections.

In areas where the pavement; base and/or sub-base is to be replaced as part of the roadway contract, the cost for permanent pavement restoration shall be included under the appropriate pavement bid items. Cost for temporary pavement restoration in these areas shall be included in the Contractor's appropriate Unit Bid Price for Item 1101 or Item 1126.

Unless otherwise noted on the plans, areas where the existing pavement, base and/or sub-base are not to be disturbed, the cost for temporary and permanent pavement restoration shall be included in the Contractor's appropriate Unit Bid Price for Item 1101 or Item 1126.

*Backfill of the water main and branch trench shall be done in accordance with G.C.W.W. specifications. All water mains and branches installed outside of the pavement area shall utilize Granular Backfill in lieu of the Control Density Fill. All costs for backfill shall be included under Item 1101, "Furnishing and Installing Ductile Iron Pipe and Fittings".

Controlled Density Fill must meet both HAMCIN: CLSM-CDF performance specification and O.D.O.T. specification. All flowable fill products shall meet the requirements of the current G.C.W.W. Materials Testing and Specifications for Flowable Fill Products (dated 2/8/99).

Please note that the G.C.W.W. requirement is in addition to HAMCIN specifications for flowable fill products. A copy of the G.C.W.W. requirement is available at the G.C.W.W. Engineering Office located at 4747 Spring Grove Avenue. Contact the Supervisor of Inspection at 591-7870.

Prior to the start of construction, the Contractor shall submit the necessary Controlled Density Fill compliance documentation for review and approval by the G.C.W.W.

GCWW Note:
All field layout of water main pipe and specials shall be the responsibility of the Contractor and shall be performed by a licensed surveyor.

INDEX

General Provisions 1
Suggested Bill of Materials 1
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Restoration Details 1

APPROVED:

STATE OF OHIO
ANDREW P. ORTH
E-66151
REGISTERED PROFESSIONAL ENGINEER

SUPERVISING ENGINEER - DESIGN — DATE 4/4/14

PRINCIPAL ENGINEER - SYSTEM FACILITIES — DATE 4/4/14

CHIEF ENGINEER — DATE

GREATER CINCINNATI WATER WORKS
ENGINEERING DIVISION
SEPTEMBER 2015

0 10 20 40
HORIZONTAL & VERTICAL SCALE IN FEET

CALCULATED MJC
CHECKED APO

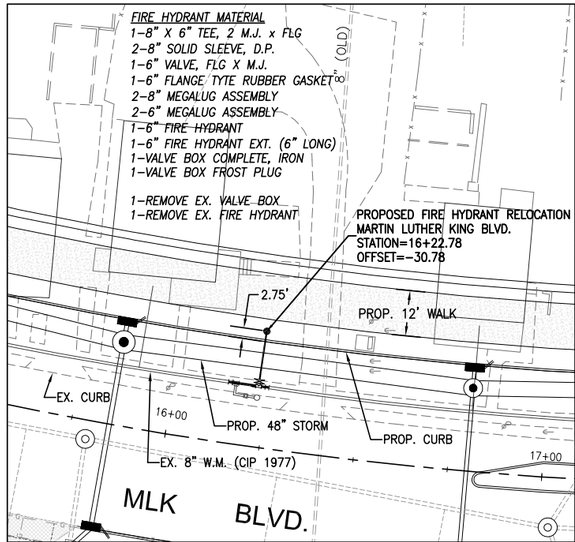
WEST MLK DRIVE - HAM-CR612-0.20; PID 87036
GENERAL PROVISIONS - PLAN AND PROFILE

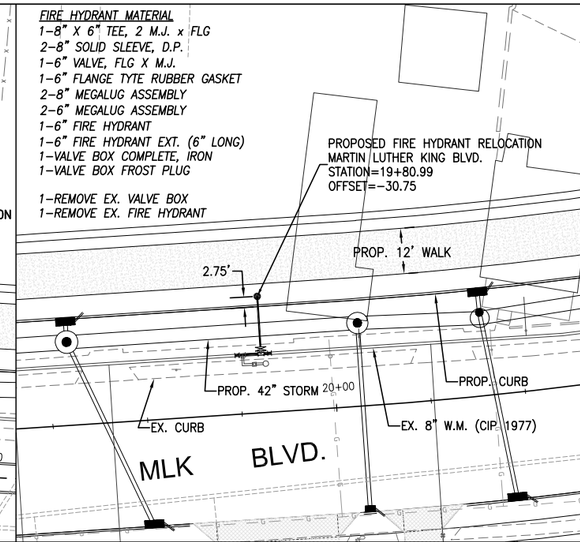
GCWW PLANS

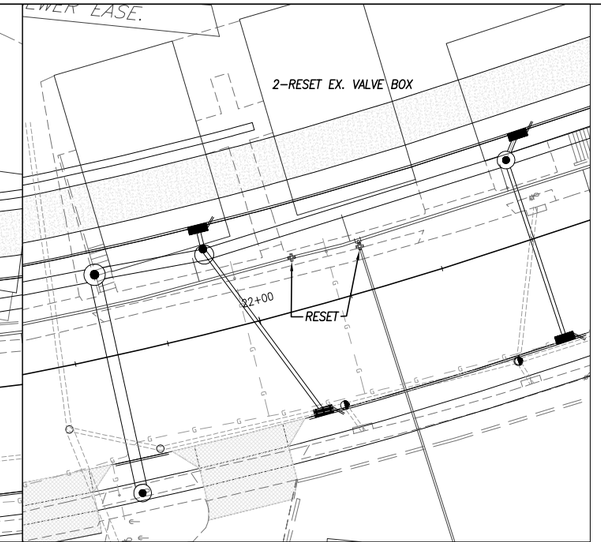
1/2

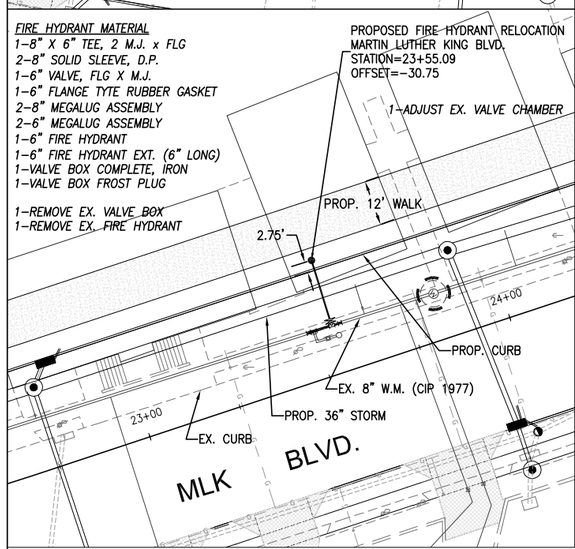
WEST MLK DRIVE-HAM-CR612-0.20; PID 87036 (CIP#143373 WW002731 4-3721 MF#16163)

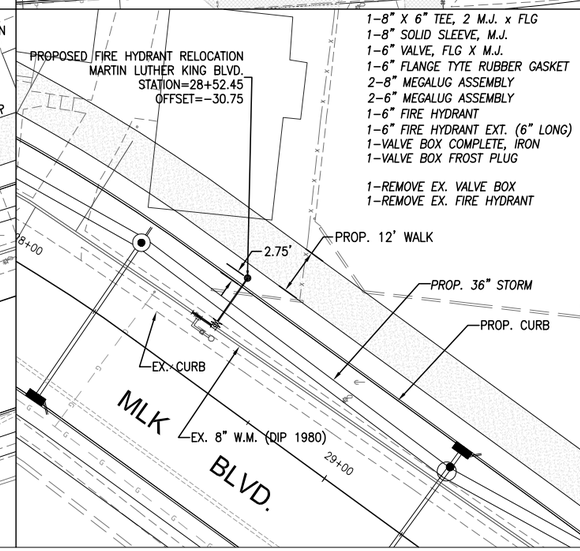
WEST MLK DRIVE-HAM-CR612-0.20; PID 87036 (CIP#143373 WW002731 4-3721 MF#16163)

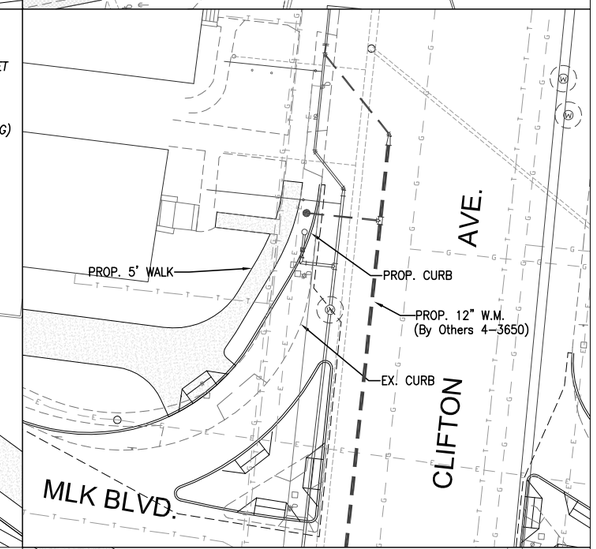


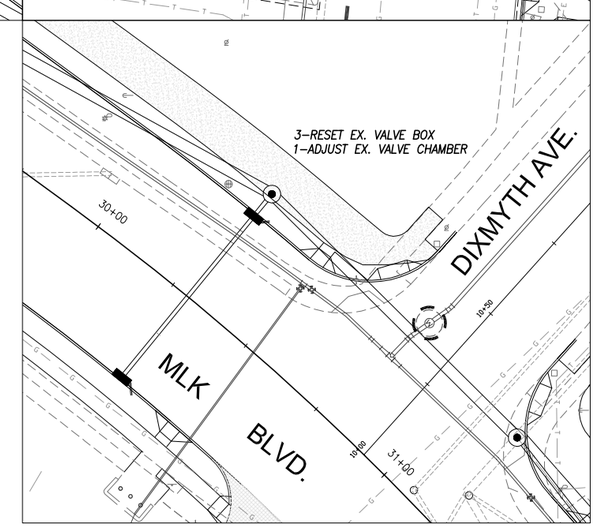












NOTES:
PROPOSED WATER MAINS TO BE INSTALLED WITH A MINIMUM OF 3'-6" COVER.

VERTICAL CLEARANCE BETWEEN PROPOSED WATER MAINS AND EXISTING UTILITIES SHALL BE A MINIMUM OF 1'-6".

NOTICE OF CONFIDENTIALITY – PUBLIC INFRASTRUCTURE RECORD

THIS DOCUMENT IS A PUBLIC INFRASTRUCTURE RECORD OF THE CITY OF CINCINNATI AND ITS GREATER CINCINNATI WATER WORKS, AND IS NOT SUBJECT TO THE PUBLIC DISCLOSURE REQUIREMENTS OF THE PUBLIC RECORDS LAWS OF THE STATE OF OHIO AND FEDERAL GOVERNMENT. THIS DOCUMENT IS BEING PROVIDED ON THE BASIS OF YOUR REPORTED NEED, AND SHALL BE CONSIDERED CONFIDENTIAL. BY ACCEPTING THIS DOCUMENT, YOU AGREE THAT IT WILL NOT BE SHARED OR OTHERWISE DISCLOSED TO ANYONE OTHER THAN PERSONS WHO HAVE A DIRECT NEED TO KNOW FOR THE SOLE PURPOSE OF CARRYING OUT THE PROJECT FOR WHICH THIS DOCUMENT WAS OBTAINED. ANYONE RECEIVING THIS DOCUMENT IS BOUND BY THE SAME CONFIDENTIALITY REQUIREMENTS AND MUST TAKE PRECAUTIONS TO PROTECT AGAINST ITS DISSEMINATION.
THE FAILURE TO OBSERVE THE CONFIDENTIALITY REQUIREMENTS OF THIS NOTICE SHALL SERVE AS THE BASIS FOR THE CITY OF CINCINNATI TO IMMEDIATELY SEEK LEGAL RECOURSE, INCLUDING THE RECOVERY OF ACTUAL DAMAGES RESULTING FROM UNAUTHORIZED ACCESS OR DISCLOSURE OF THIS DOCUMENT.

**MARTIN LUTHER KING BLVD. BRANCH F.O.D. LIST (ITEM 1130)

ADDRESS	BRANCH NUMBER	SIZE (IN)
506	201283	3/4
520	215073	1-1/2
524	48411	3/4
526	217558	1-1/2
530	2175589	1-1/2
532	53743	3/4
536	48371	3/4
540	187982	1-1/2
544	186321	1-1/2
550	196324	1-1/2
558	201251	1-1/2
562	201280	1-1/2
568	191927	1
572	200240	1-1/2
576	200241	1-1/2
580	201131	1-1/2
584	67929	3/4
588	48853	3/4
608	96482	3/4
612	93849	3/4
616	93850	3/4
620	60742	3/4
624	60743	3/4
628	60744	3/4
632	60745	3/4
700	189413	1
704	65367	3/4
706	65366	3/4
708	65365	3/4
710	67939	3/4
712	67940	3/4
716	93215	3/4
718	93216	3/4

MARTIN LUTHER KING BLVD. BRANCH LIST*

ADDRESS	BRANCH NUMBER	SIZE (IN)
595	48907	3/4
593	47863	3/4
587	82575	3/4
585	51122	3/4
581	60193	3/4
573	242609	6
565	100754	3/4
563	100439	3/4
561	100670	3/4
525	167659	1-1/2
521	265679	4

NOTES:
ADDITIONAL BID ITEMS WILL BE ADDED FOR THE FOLLOWING ITEMS NOT SHOWN ON THESE PLANS:

ITEM 638 – ADJUST VALVE CHAMBER TO GRADE
ITEM 1125 – RESETTING EXISTING VALVE BOXES COMPLETE
ITEM 1132 – RESETTING EXISTING CURB/ROADWAY BOXES
ITEM 1130 – DISCONNECTING SERVICE BRANCHES 5/8"-2" (**AS SHOWN IN TABLE, THIS SHEET)

CONTINGENCY ITEMS TO BE ADDED FOR POTENTIAL BRANCH RELOCATIONS (*AS SHOWN IN TABLE, THIS SHEET)

ITEM 1101 – FURNISHING AND INSTALLING 4" DUCTILE IRON PIPE AND FITTINGS
ITEM 1101 – FURNISHING AND INSTALLING 6" DUCTILE IRON PIPE AND FITTINGS
ITEM 1126 – FURNISHING, INSTALLING AND CONNECTING 3/4" COPPER SERVICE PIPE
ITEM 1126 – FURNISHING, INSTALLING AND CONNECTING 1-1/2" COPPER SERVICE PIPE

N

0 10 20 40
HORIZONTAL SCALE IN FEET

CALCULATED JDH
CHECKED APO

WEST MLK DRIVE - HAM-CR612-0.20; PID 87036
PLAN AND BRANCH SHEET

GCWW PLANS

2
2

WEST MLK DRIVE – HAM-CR612-0.20; PID 87036 (CIP#XXXXX WWOOXXXX 4-XXXX MF#XXXXX)

WEST MLK DRIVE – HAM-CR612-0.20; PID 87036 (CIP#XXXXX WWOOXXXX 4-XXXX MF#XXXXX)

Burnet Woods Gateway Signage

(56"h x 178.75" w x 16"d)
Various sign structures to be manufactured out of .25" thick (or .125 where specified) (5052-H32) aluminum sheeting. Sign panels to be welded, cleaned and sanded to create angled sign structure. Burnet Woods typography to be .25"thick laser-cut high density PVC - spray painted and gloss clear coat finished to match Metallic Catalyzed Acrylic Polyurethane Paint system (Akzo Nobel, Matthews or appproved equal). PARK typography to be masked and sprayed onto panel; stud mounted letters to be mounted w/ tamper-proof fasteners as well as silicone/epoxy adhesives. All aluminum components to be primed, spray painted and graffiti resistant gloss clear coat finished on all sides to match Metallic Catalyzed Acrylic Polyurethane Paint system (Akzo Nobel, Matthews or appproved equal).

Aluminum panels to be welded to (5052-H32) aluminum baseplate and fastened with anchors to wall below. Baseplate thickness or angles to be approved by Transportation and Engineering; **provide shop drawings to T&E for approval.** Any fastening of sign panels to be mechanically fastened with hidden fasteners.

2010 SPECIFICATIONS
The referenced standard specifications of the State of Ohio Department of Transportation and the City of Cincinnati Supplement thereto, including the special provisions listed in the bid document shall govern the improvement.

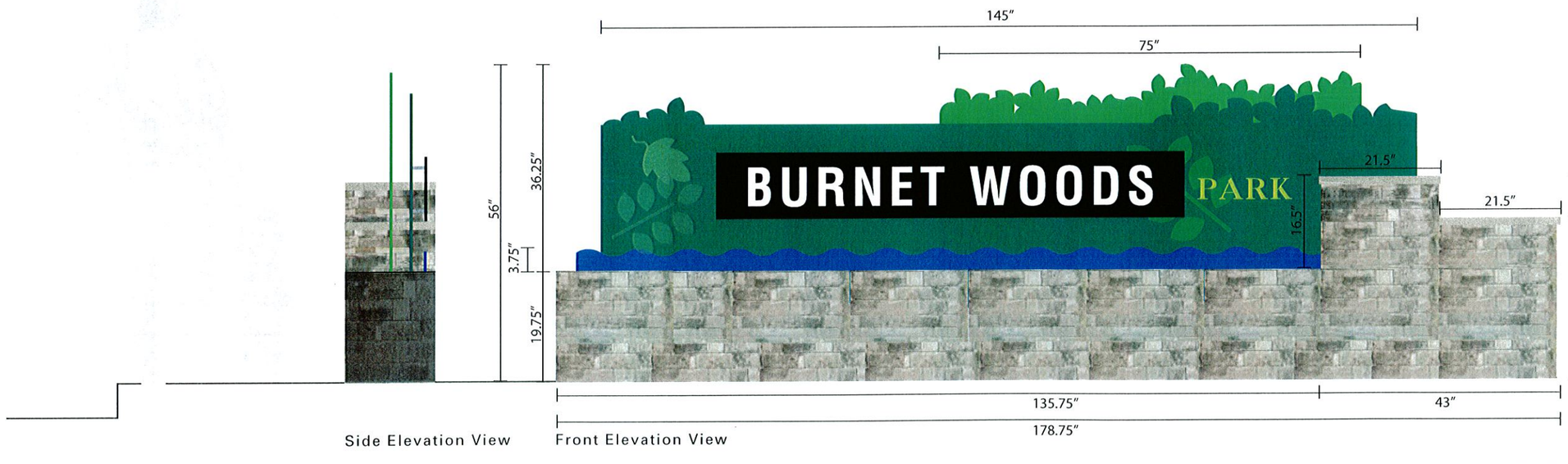
Calculations for all sign members and connections provide sufficient structural capacity as defined in the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, latest revision.

NOTE: UNDERGROUND UTILITIES
The locations of all underground utilities have been obtained by diligent field checks and the investigation of available records. The City of Cincinnati does not guarantee the accuracy of the aforementioned locations and accepts no responsibility for any expense resulting from errors or omissions of utility locations. Contractor(s) shall be responsible for verifying the locations of all utilities in the field prior to the start of any work. Notify the project engineer of any discrepancies or conflicts prior to beginning work in the affected area.

PROFESSIONAL STAMP

STATE OF OHIO
JAMES MATTHEW ANDREWS
10383
REGISTERED ARCHITECT

James Matthew Andrews #10383
Expiration Date: 12/31/2013
SIGN: JMatthewAndrews
DATE: 2/13/2014



DEPARTMENT OF TRANSPORTATION & ENGINEERING
CITY OF CINCINNATI
OHIO

CONTRACT DRAWING
PRINTS NOT BEARING THE CITY'S WATERMARK ARE FOR BIDS AND ARE TO BE CONSIDERED CONTRACT DOCUMENTS FOR CONTRACT PURPOSES.

Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE
GATEWAY ELEVATIONS

Revisions

No.	REV.DATE	DESCRIPTION
1	REV.DATE	DESCRIPTION
2	REV.DATE	DESCRIPTION
3	REV.DATE	DESCRIPTION
4	REV.DATE	DESCRIPTION

Drawn by LZM Date 5/1/2012
Designed by LZM Date 5/1/2012
Checked by Date
Reviewed by Date
Consultant

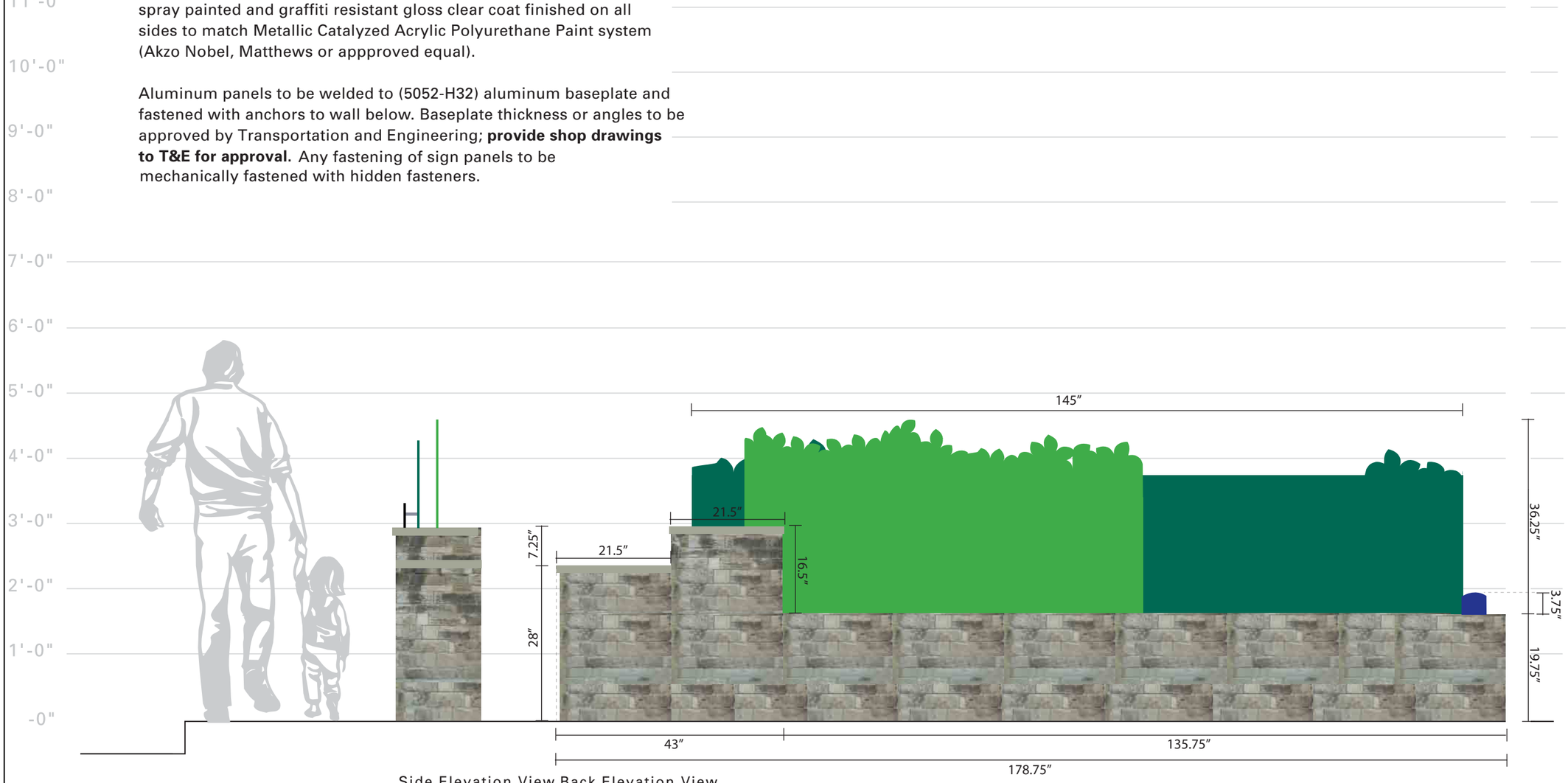
Structure File Number
STR.FILE.NUM
ACC No.
ACC.NUMBER
SH# 1 /OF# 8

1
8

Burnet Woods Gateway Signage

(56"h x 178.75" w x 16"d)
Various sign structures to be manufactured out of .25" thick (or .125 where specified) (5052-H32) aluminum sheeting. Sign panels to be welded, cleaned and sanded to create angled sign structure. Burnet Woods typography to be .25"thick laser-cut high density PVC - spray painted and gloss clear coat finished to match Metallic Catalyzed Acrylic Polyurethane Paint system (Akzo Nobel, Matthews or appproved equal). Cincinnati Parks typography to be masked and sprayed onto panel; stud mounted letters to be mounted w/ tamper-proof fasteners as well as silicone/epoxy adhesives. All aluminum components to be primed, spray painted and graffiti resistant gloss clear coat finished on all sides to match Metallic Catalyzed Acrylic Polyurethane Paint system (Akzo Nobel, Matthews or appproved equal).

Aluminum panels to be welded to (5052-H32) aluminum baseplate and fastened with anchors to wall below. Baseplate thickness or angles to be approved by Transportation and Engineering; **provide shop drawings to T&E for approval.** Any fastening of sign panels to be mechanically fastened with hidden fasteners.



Side Elevation View Back Elevation View

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE PRIOR TO ADVERTISING FOR BIDS AND ARE TO BE CONSIDERED OBSOLETE FOR CONTRACT PURPOSES.

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City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE
GATEWAY ELEVATIONS

Revisions

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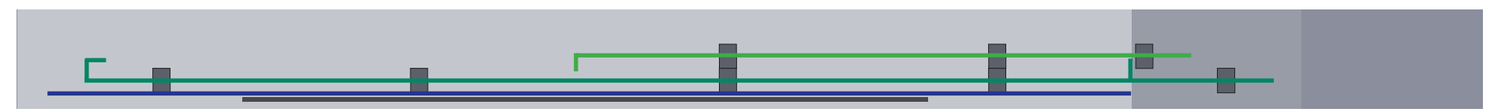
1		
2		
3		
4		

Drawn by LZM Date 5/1/2012
Designed by LZM Date 5/1/2012
Checked by Date
Reviewed by Date

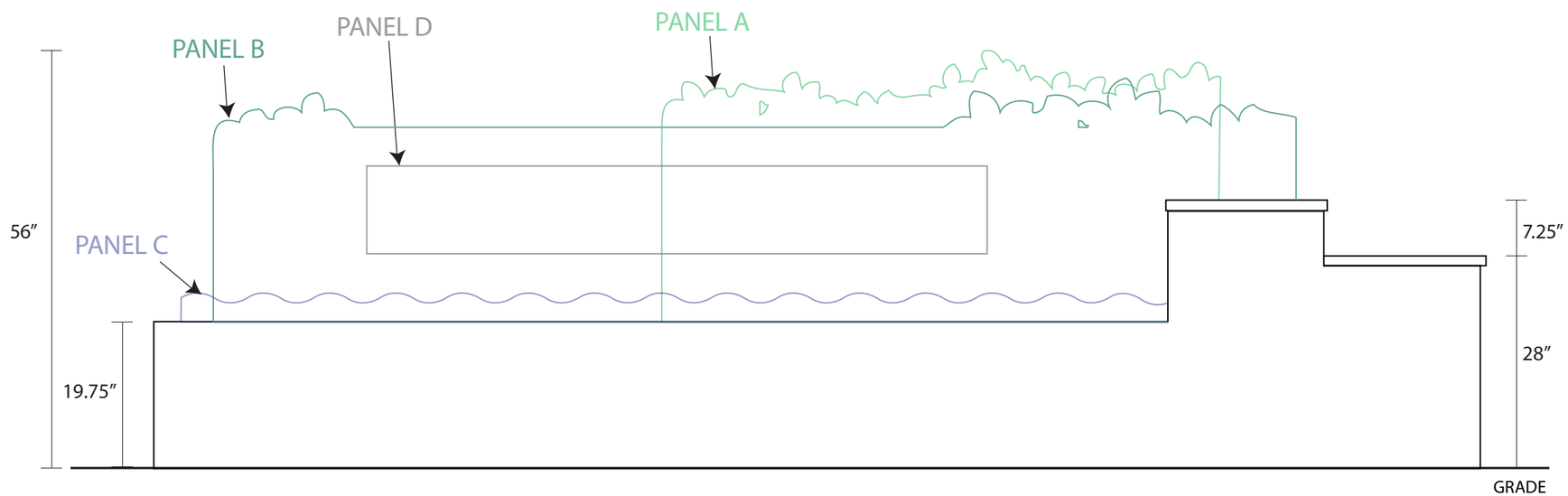
Consultant

Structure File Number STR.FILE.NUM
ACC No. ACC.NUMBER
SH# 2 OF# 8

2
8



Top Elevation



Front Elevation

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE FOR PLANNING PURPOSES FOR BIDS AND ARE TO BE CONSTRUED AS CONTRACT FOR CONTRACT PURPOSES

Department of Transportation and Engineering

City of Cincinnati
Civic Hall A
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE

GATEWAY ELEVATIONS

Revisions

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1	REV.DATE	DESCRIPTION
2	REV.DATE	DESCRIPTION
3	REV.DATE	DESCRIPTION
4	REV.DATE	DESCRIPTION

Drawn by: LZM Date: 5/1/2012
Designed by: LZM Date: 5/1/2012
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Reviewed by: Date:

Consultant

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STR.FILE.NUM

ACC No.
ACC.NUMBER

SH# 3 OF# 8

3
8

Identification Sign

Laser-cut panels to be fabricated from .25" thick aluminum. Panels to be mounted to 178.75" x 29.25" tiered stone wall. All panels to be masked and sprayed on all sides with Akzo Nobel, Matthews or equal catalyzed acrylic polyurethane, finished with a HP (High Performance) Clear Coat. Catalyzed acrylic polyurethane paint to match pms# specified below. Lettering to be fabricated from high density PVC to thickness specified and adhered to panels with hidden studs and silicone/epoxy.

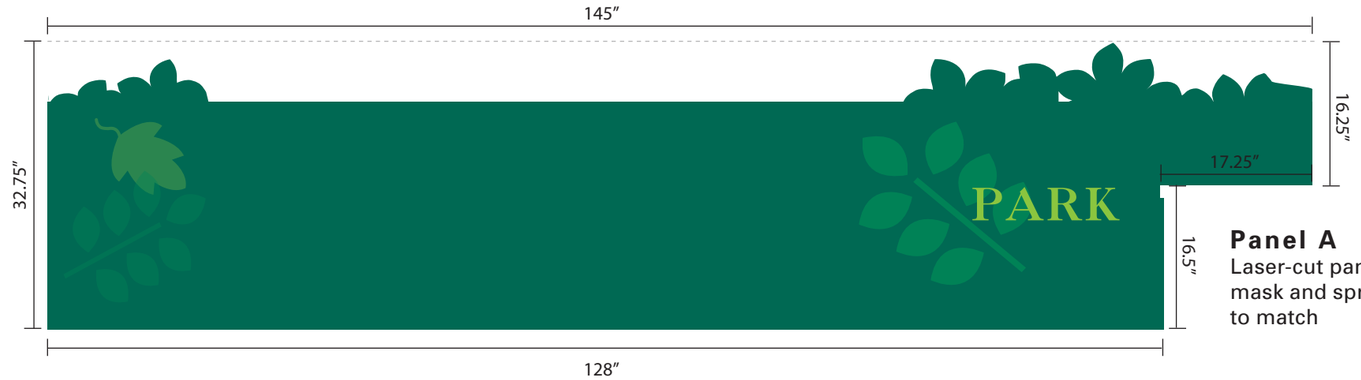
Aluminum sheeting to be painted with black catalyzed acrylic polyurethane (matte coated finish).

PANEL A:
To be laser-cut and masked and sprayed to match Akzo Nobel Green (TBD). Panel to be .25" aluminum, ebent to create a 1" edge.

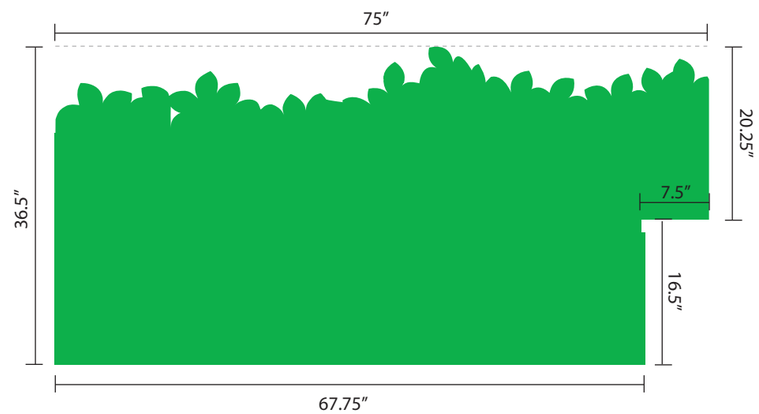
PANEL B:
To be laser-cut and masked and sprayed to match Akzo Nobel Green (TBD). Panel to be .25" aluminum, ebent to create a 1" edge.

PANEL C:
.125" aluminum panel spaced out slightly (.75") from panel below. edge. To be laser-cut and masked and sprayed Black (Akzo Nobel). "Burnet Woods" lettering to be .5" thick high density PVC applied directly to panel face with hidden studs and silicone/epoxy.

PANEL D:
To be laser-cut and masked and sprayed to match Akzo Nobel Blue (TBD). Panel to be .25" aluminum.



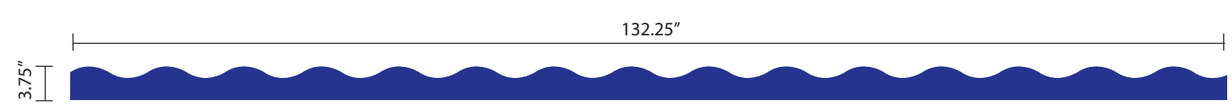
Panel A
Laser-cut panel mask and sprayed to match



Panel B
Laser-cut panel mask and sprayed to match

Panel C
Laser-cut panel mask and sprayed to match

7.25" applied letters



Panel D
Laser-cut panel mask and sprayed to match

CONTRACT DRAWING

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Department of Transportation and Engineering
City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE
GATEWAY ELEVATIONS

Revisions

No.	REV.DATE	DESCRIPTION
1		
2		
3		
4		

Date 5/1/2012
Date 5/1/2012
Date
Date

Drawn by LZM
Designed by LZM
Checked by
Reviewed by

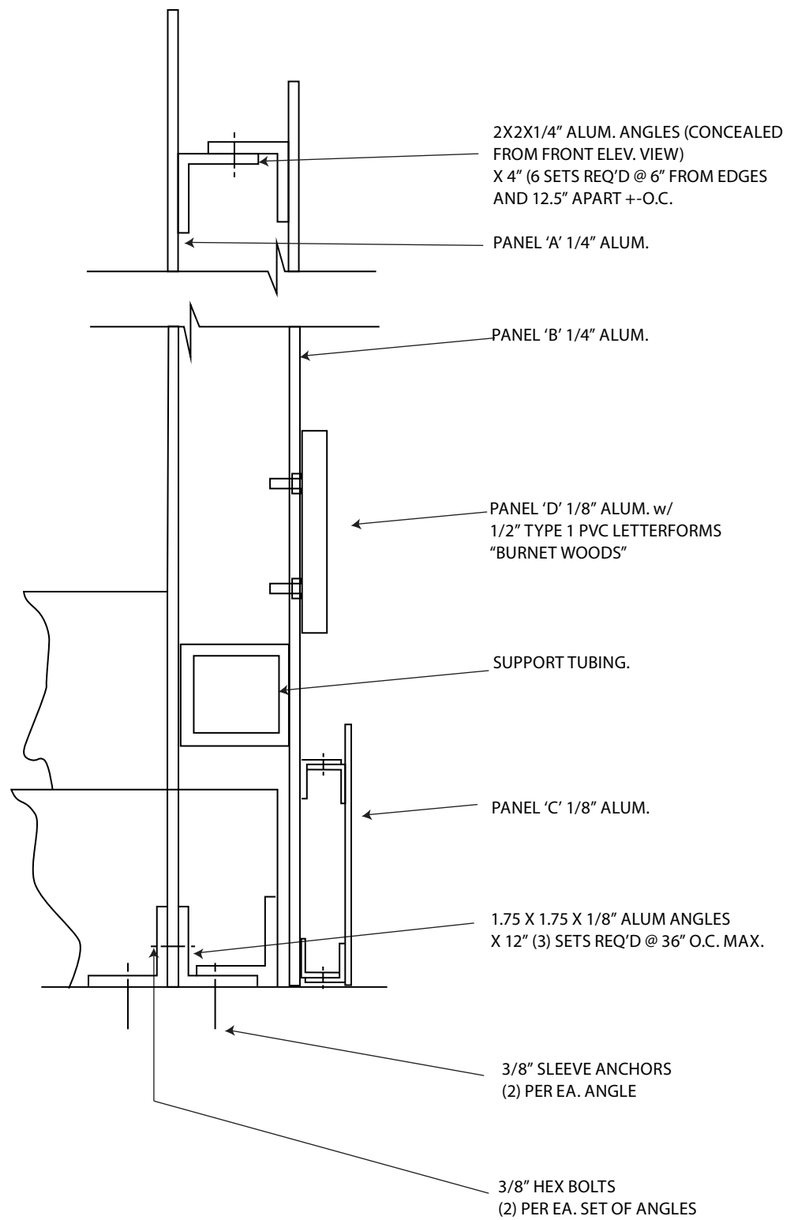
Consultant

Structure File Number
STR.FILE.NUM

ACC No.
ACC.NUMBER

SH# 4 OF# 8

4
8



VERTICAL SECTION

FABRICATOR TO REVIEW THIS DETAIL AND
MAKE RECOMMENDATIONS ON SIGNAGE
FABRICATION; TO BE APPROVED
BY CITY OF CINCINNATI, PRIOR TO FABRICATION.

CITY OF CINCINNATI DEPARTMENT OF TRANSPORTATION & ENGINEERING OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE FROM DOCUMENTS NOT FOR BIDS AND ARE TO BE CONSIDERED INCOMPLETE FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
Civic Hall
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE

GATEWAY ELEVATIONS

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ACC No.
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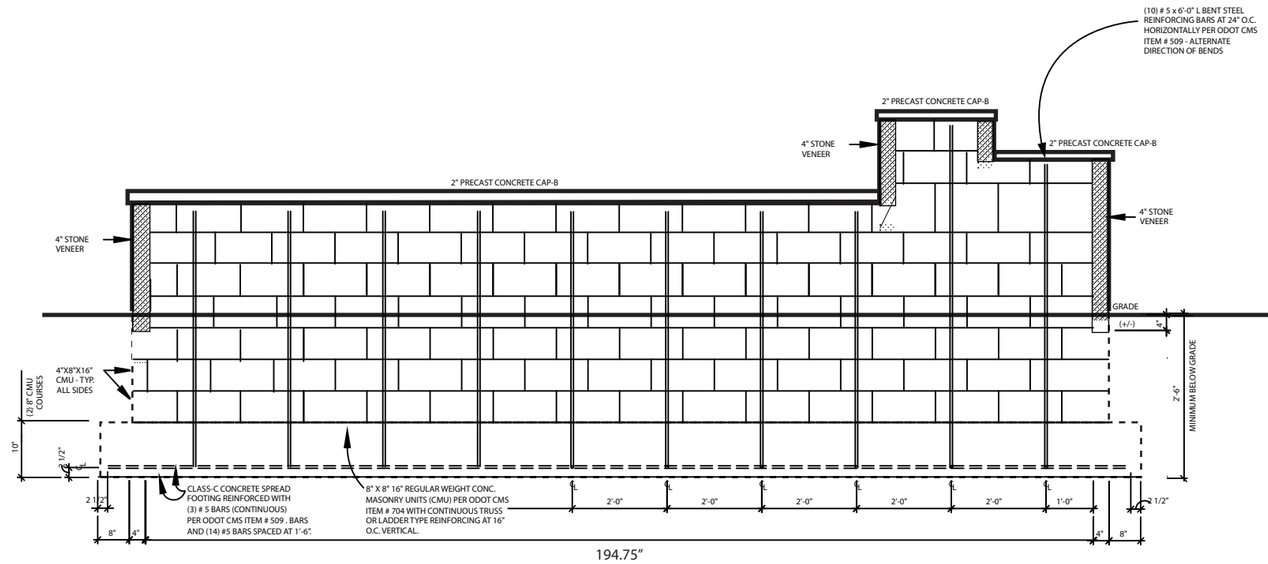
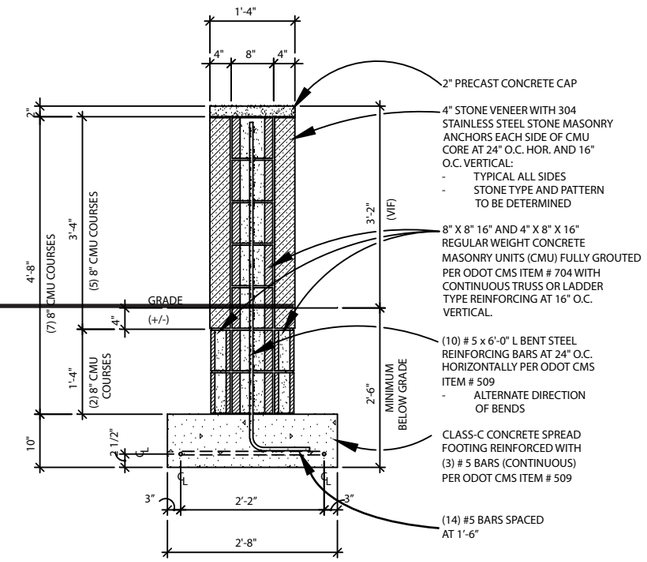
SH# 5 OF# 8

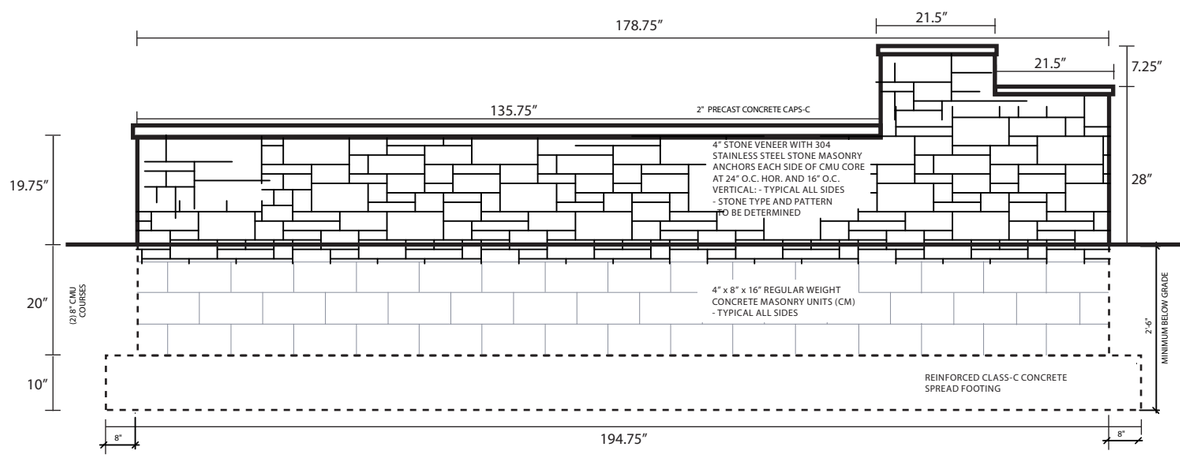
5
8



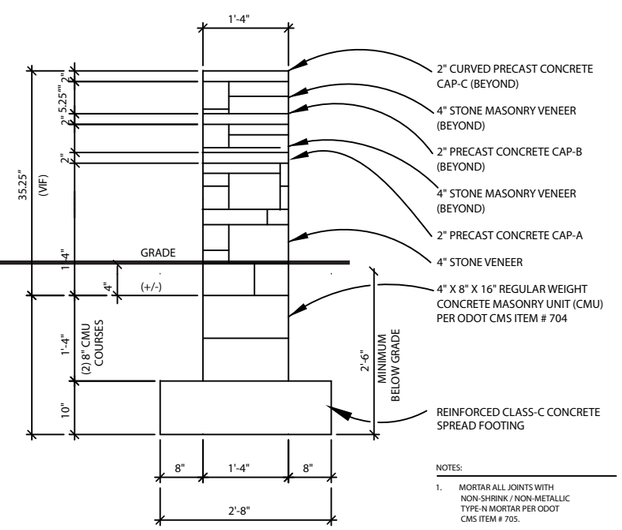
LONGITUDINAL SECTION (DIAGRAMATIC)



CROSS SECTION



SOUTH ELEVATION (DIAGRAMATIC)



WEST ELEVATION

NOTES:

1. MORTAR ALL JOINTS WITH NON-SHRINK / NON-METALLIC TYPE-N MORTAR PER ODOT CMS ITEM # 705.
2. FILL ALL CMU CORES SOLID WITH NON-SHRINK / NON-METALLIC GROUT PER ODOT ASTM C90
3. EXISTING SOIL LOCATED BENEATH ALL NEW ITEMS SHALL BE EXCAVATED, INSPECTED, RE-WORKED, BACKFILLED, AND COMPACTED AS REQUIRED TO INSURE PROPER BEARING CAPACITY.

* SEE SPECIFICATIONS FOR CMU WALL IN END SPECIFICATIONS

DEPARTMENT OF TRANSPORTATION & ENGINEERING — CITY OF CINCINNATI — OHIO

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE FROM UNAPPROVED DRAFT FOR BIDS AND ARE TO BE CONSTRUED AS DRAFT FOR CONTRACT PURPOSES

Department of Transportation and Engineering
City of Cincinnati
Civic Hall
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE
SIGNAGE WALL PLAN

Revisions

No.	REV.DATE	DESCRIPTION
1	REV.DATE	DESCRIPTION
2	REV.DATE	DESCRIPTION
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4	REV.DATE	DESCRIPTION

Drawn by LZM — Date 5/1/2012
Designed by LZM — Date 5/1/2012
Checked by — Date
Reviewed by — Date

Consultant

Structure File Number STR.FILE.NUM

ACC No. ACC.NUMBER

SH# 6 / OF# 8

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GENERAL NOTES

Quality Assurance

A. Labeling — There shall be no visible labels, manufacturer's or otherwise, code permitting, on the completed signs. If labels are required, a sample label and intended location must be submitted for City of Cincinnati, Office of Architecture and Urban Design review, prior to application.

B: Stock — All materials, hardware, finishes, etc. used to fabricate any and all sign components shall be new (not previously used or operated in any other application) and from the most recent original manufacturer's production run/supply and appropriately matched to the service conditions required of the site.

B: Artwork — electronic artwork and design intent drawings for all symbols and other custom designed graphic components, such as logos, logotype and arrows used for all sign types shall be furnished or specified by the City of Cincinnati, Office of Architecture and Urban Design as Illustrator 9.0 files for reproduction. All enlarging and reducing is the responsibility of the Sign Contractor. No alterations in artwork will be permitted without approval.

D: Discrepancies — Problems such as messages being too long to fit into the required formats, must be brought to the attention of the City of Cincinnati designer, prior to execution. It is required that the Sign Contractor not resolve these kinds of discrepancies on his own. Modifications or corrections by the sign contractor must be approved by the City of Cincinnati Office of Architecture and Urban Design in writing prior to execution.

E: Ownership — All graphic designs created by the City of Cincinnati Office of Architecture and Urban Design for this project are to be used exclusively for this project. The Sign Contractor must receive express written permission from both the City of Cincinnati Office of Architecture and Urban Design for any use other than for the completion of this project including self-promotion and publication. It is required that all original artwork furnished by the City of Cincinnati Office of Architecture and Urban Design be returned upon completion of this project.

F: Regulatory Requirements — Comply with applicable requirements of the laws, code, ordinances, and regulations of Federal, State, and Municipal authorities having jurisdiction. Obtain necessary approvals and permits from all such authorities.

G: Quality Workmanship — The Sign Contractor shall be responsible for the quality of all materials and workmanship for the execution of this Contract including materials and workmanship of any firm or individual who act as Sign Contractor's Sub-contractor. Sign Contractor shall be responsible for providing current and correct drawings, specifications, graphic schedules, to all Subcontractors.

H: Contractor Qualifications — Work shall be performed by a firm having not less than 5 years successful experience in the production and installation of similar signage programs, and whose employees are thoroughly experienced with the production and installation of the materials and methods specified. Samples must be provided of similar work that was completed per the specifications on the attached drawings. No more than 20% of the work can be subcontracted unless approved by the City. All subcontractors must be listed on bid form.

Submittals

A: Shop Drawings — Two sets ofshop drawings (plans, elevations and scale drawings) are to be submitted to the City of Cincinnati designer for review prior to production. These drawings are to show/indicate all materials, finishes, construction details, anchorages, and installation detail-ing of artwork and signage structure. Additional drawing(s) may be requested by the City of Cincinnati designer, at the sign contactor's expense to further indicate items in question.

B: Supplemental Product Literature — Submit manufacturer's technical data and installation instructions for each type of sign, materials and/or fixture required, as will be provided in the completed, installed sign unit.

C: Specific Samples — B: Specific Samples — Submit the following to the City of Cincinnati, Office of Architecture and Urban Design for approval: two 3"x 5" samples of each color and finish (including the pole color) to match the proper color texture and finish as for each indicated, to show the quality of fabrication, application sheeting and each pms color.

Completed and installed components will be evaluated based on these submittals. Items sampled would include those materials and components specified, as well as those materials proposed for substitution of specified materials, or suggested materials for those that are unspecified.

D: Maintenance — Sign Contractor to provide City of Cincinnati Office of Architecture and Urban Design with complete finish/component care instructions and operating instructions as specified by manufacturers for on-going cosmetic sign cleaning, use, and maintenance.

Materials

A. Aluminum Sheet — Provide aluminum sheet of alloy and temper recommended by the aluminum producer or finisher for the type of use and finish indicated, and with not less than the strength and durability properties specified for 5052-H32. Surface finish shall be smooth, free of extrusion marks or imperfections.

B. Stainless Steel— Surface finish shall be smooth, free of extrusion marks or imperfections. Alloy shall be selected to meet the structural requirements of the specific applications.

C. Aluminum Extrusions — Provide aluminum extrusions of alloy and temper recommended by the aluminum producer or finisher for the type of use and finish indicated, and with not less than the strength and durability properties specified for 5052-H32.

D. Fasteners — Unless otherwise indicated, use concealed fasteners fabricated from the same basic metal or alloy as the metal fastened so as to be non-corrosive to either the signage materials or the mounting surface. Finish to match sign surface in color and texture. Provide stainless steel 3000 series alloy where used to join dissimilar materials.

E. Lettering, Graphics — The Sign Contractor shall be responsible for the quality control of all typography. All letter-forms shall be crisp, sharp, free of nicks, ragged edges, and discontinuous curves. All typography shall conform to approved typeface, weight and letterspacing. The typography is subject to review and approval by City of Cincinnati, Office of Architecture and Urban Design and re-submitted by Sign Contractor for final approval prior to fabrications. No substitutions of typeface foundry, brand, or version or implementation technique will be accepted by City of Cincinnati, Office of Architecture and Urban Design without prior approval.

Finishes/Coatings:

A. Manufacturers: The following paint manufacturers are permitted for use. Provide manufacturer's standard pigmented finish system consisting of prime coat(s) and finish coat(s), to a chemically cleaned and inhibited non-directional mechanical finish.

1. SIGN COMPONENTS:
- Akzo Nobel Paint System or equal
- Matthews Paint System or equal
- 3M inks appropriate for specified sheeting series

Warrant all coatings for a minimum of five years.

B. Color and Surface Textures — For exposed signage materials with applied colors, or other characteristics related to appearance, provide color matches indicated, or if not indicated, as selected and reviewed by the City of Cincinnati, Office of Architecture and Urban Design.

C. Pigmented Finish (Paint) — Provide manufacturer's standard pigmented finish system consisting of prime coat(s) and finish coat(s), to a chemically cleaned and inhibited non-directional mechanical finish.

D. Application — All applications of color/coatings are to be equal and of consistent covering with no streaking, spotting, gradation or other variations within and from each similar application.

E. Ultra-Violet, Fading Protection — Contractor shall utilize materials, coatings and processes to minimize as much as possible any noticeable fading of pigmented coatings.

Design Intent Drawings

A. These drawings/specifications are for the sole purpose of conveying **design intent** only and not intended for construction purposes. Final fabrication must be from approved shop drawings supplied by the fabricator.

B. Contract documents are the sole property of the City of Cincinnati, Department of Transportation and Engineering, Office of Architecture and Urban in every respect.

C. Final approval of shop drawings is the responsibility of City of Cincinnati, Department of Transportation and Engineering.

D. Dimensions — Written dimensions on drawings shall have precedence over scaled dimensions. Contractor shall not scale drawings. Sign Contractor shall verify and be responsible for all dimensions and conditions shown in the Design Intent Drawings. Shop details must be accepted by City of Cincinnati, Office of Architecture and Urban Design prior to fabrication.

Installation

A. Signage Contractor shall be responsible for determining the erection and dismantling of all barricade or protective coverings necessary to safeguard the public and property during the performance and duration of his work.

B. Install sign units where specified, level and plumb with sign surfaces flush and free from distortion or other defects in appearance. Signage units shall be anchored permanently to existing pole as appropriate.

C. Sign Contractor shall be responsible for matching sign service available on site to the requirements of the sign.

D. Sign Contractor shall touch up any knicks, scratches, or blemishes with the specified paint color.

E. Final Location of Signs — The exact final locations of signs shall be provided by City of Cincinnati, Office of Architecture and Urban Design. Sign Contractor shall install signs in accordance with applicable codes and laws. Remove any banner arms or fixturing related to the banners on any pole that has a directional sign. Once removed Contractor to provide cleaning, prep and painting to match adjacent pole color. The specific poles are indicated on the sign schedule. This is essential to meeting the design windload limits of the poles.

F. Install hours — See Maintenace of Traffice requirements.

Restoration

Pavement, curb, driveways and sidewalks that are damaged during installation of foundations, poles, or signs shall be restored in accordance with the "Referenced Standards" see sheet #10. Entire block of concrete driveways and walk shall be restored from joint to joint. Special surfaces such as pavers, stamped concrete or colored concrete shall be restored in kind or as directed by the Engineer.

DEPARTMENT OF TRANSPORTATION & ENGINEERING, CITY OF CINCINNATI, OHIO

CONTRACT DRAWING

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Department of Transportation and Engineering

City of Cincinnati
City Hall
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE
GENERAL NOTES

Revisions

No.		
1	REV. DATE	DESCRIPTION
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3	REV. DATE	DESCRIPTION
4	REV. DATE	DESCRIPTION

Drawn by	LZM	Date 5/1/2012
Designed by	LZM	Date 5/1/2012
Checked by		Date
Reviewed by		Date

Consultant

Structure File Number
STR.FILE.NUM

ACC No.
ACC.NUMBER

SH# 7 / OF# 8

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Cleaning/Protection and Warranties

A. Upon completion of the installation of each sign structure, clean all soiled sign surfaces in accordance with the manufacturer's instructions and touch up as required. Remove any excess debris created by signage installation. Protect units from damage until acceptance by the City of Cincinnati, Office of Architecture and Urban Design.

B. FINISH SURFACES: Each and all sign units shall be warranted in writing by the Signage Contractor for a period of not less than three years from the date of finished installation, against any cracking, pitting, chipping, chalking, peeling or visible fading of all finishes as well as corrosion, rusting, rattling, warping and/or excessive non-uniformity (adjacent panels have differences greater than the original acceptable range of color). Accepted condition shall be determined by the City of Cincinnati, Office of Architecture and Urban Design.

C. Construction Components —Signage Contractor shall provide City of Cincinnati, Office of Architecture and Urban Design with written warranty prior to installation guaranteeing to correct, to City of Cincinnati, Office of Architecture and Urban Design's satisfaction, at sign Contractor's sole expense, all defects in fabrication and installation of signage work for a period of five years after completed installation of signage work, including but not limited to loosening of installation and overall construction of entire unit(s), etc. Acceptable condition shall be determined by City of Cincinnati, Office of Architecture and Urban Design.

D. Sign Contractor shall have total and complete responsibility for the security of all equipment, materials and sign components until reviewed and accepted by the City of Cincinnati, Office of Architecture and Urban Design.

Contractor shall not reveal or disseminate any information to any person(s), private or public, other than the City of Cincinnati, Office of Architecture and Urban Design or Contractors personnel necessary to execute the contract without first contacting the City of Cincinnati Office of Architecture and Urban Design for permission.

CMU Wall SPeciofications:

Item Special: Concrete Block Masonry Units

A. Referenced Standards:
1. ASTM C-90: Load Bearing Masonry Units:
   – Hollow & Solid / Normal Weight; (125 lbs. per cubic foot dry weight).
2. ASTM C-129: Non- Load Bearing Masonry Units.
3. ASTM C-140 Testing Concrete Masonry Units.

B. Size: Concrete Block Masonry Units sized as required per plans.
C. Weight Classification: Normal Weight.
D. Minimum Net Compressive Strength: 900 PSI.
E. Color: Standard.
F. Mortar Joints: Refer to Item Special – Masonry Mortar & Grout.
G. Cores: Fill all cores solid with Grout; (refer to Item Special – Masonry Mortar & Grout).
H. Furnish and install as required per plans.

Item Special: Masonry Mortar & Grout

A. Mortar Type: Type-S Masonry Mortar
B. Referenced Standards:
1. ANSI A118.4: Specification for Latex-Portland Cement Mortar.
2. ASTM C 144: Standard Specification for Aggregate for Masonry Mortar.
3. ASTM C 150 Standard Specification for Portland Cement
4. ASTM C 207 Standard Specification for Hydrated Lime,
5. ASTM C 270: Standard Specification for Mortar for Unit Masonry.
6. ASTM C 387: Standard Specification for Packaged, Dry, Combined Materials for Mortar and Concrete.
7. ASTM C 404: Standard Specification for Aggregate for Masonry Grouts.
8. ASTM C 476: Standard Specification for Grouts for Masonry.
9. ASTM C 780: Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.
10. ASTM C 1357: Standard Test Methods for Evaluating Masonry Bond Strength.
11. ASTM C 1586: Standard Guide for Quality Assurance for Mortars.

C. Portland Cement:
1. Type I, except use Type III for construction below 40°.
2. Color: Standard / Natural except as noted on plans.

D. Hydrated Lime: Type S.
E. Mortar Aggregate:
1. Per ASTM C-144, except for joints less that 1/4 inch use aggregate graded with 100% passing the No. 16 sieve.
2. Color: White – natural white sand or ground white stone.

F. Mortar Color: To be selected by Project Architect / Engineer.
G. Grout: Per ASTM C-476.
H. Grout Mix: Provide 28-day minimum compressive strength of 3000 PSI.
I. Grout Aggregate: Per ASTM C-404.
I. Grout Color: Standard / Natural.
K. NOTE: Do Not use calcium chloride in mortar or grout.
L. Joint Finish Type: Tooled – Concave or Rodded
M. Water: Clean, potable.
N. Accelerators: Subject to submission, review, and approval by Project Architect / Engineer.
O. Furnish and install as required per plans and per manufacturer specifications, instructions, and recommendations.

Maintenance of Traffic requirements:

The Contractor shall perform the required work with the least inconvenience to, and the maximum safety of, the Contractor and the traveling public. Any proposed variance from these Maintenance of Traffic Notes must be submitted in writing by the Contractor and approved in advance by the Engineer. Except as modified below, the requirements for maintaining traffic shall apply as indicated in the "Ohio Manual of Uniform Traffic Control Devices for Streets and Highways", and the City of Cincinnati "Traffic Safety Handbook" (Blue Book) current editions, latest revisions, and pertinent items of specifications and proposal.

In addition to Item 614 "Maintaining Traffic", as set forth in the State of Ohio Department of Transportation Construction and Material Specifications, the following notes shall apply to the work carried out within the limits of this contract:

The Contractor shall make arrangements and pay for the services of an off-duty police officer, as needed. The Cincinnati Police Division, phone 564-1880, requires advance notice for these services.

The following restrictions on local roadways shall apply:
No work may occur and no street space may be blocked during the hours of 6AM & 9AM or 4PM & 6PM, Monday through Friday.

Maintenance of traffic will not be paid for separately, but will be included in the various items of work.

Terminology

A. City of Cincinnati,
Department of Transportation and Engineering
Division of Transportation, Planning and Urban Design
Office of Architecture and Urban Design
801 Plum St., Room 405 City Hall
Cincinnati, OH 45202
(513) 352-3285

B. Contractor / Fabricator —The persons and/or company receiving compensation and bound by agreement with the City of Cincinnati to have responsibility to provide goods and services as described within the design intent drawings and as amended in writing by the City of Cincinnati.

Permits

A. Contractor shall pay for and secure all required permits, inspections and tests necessary for the construction and placement of all work required by the applicable governing authorities.

Referenced Standards—

1. State of Ohio Department of Transportation (ODOT) Construction and Material Specifications (CMS) – (2010)
2. City of Cincinnati Supplement to ODOT Construction and Material Specifications (ODOT CMS) - (latest edition)
3. City of Cincinnati Sidewalk Standards and Street Restoration Book (latest edition)
4. City of Cincinnati, Department of Transportation and Engineering, Standard Drawings (latest edition)
5. City of Cincinnati, Department of Transportation and Engineering, Traffic Engineering Division, Standard Traffic Signals / Street Lighting Construction Drawings (latest edition)
6. City of Cincinnati, Department of Transportation and Engineering, CURB RAMPS Design Guidelines and Policy, Standard Drawings and Specifications (latest edition)
7. AAMA – American Architectural Manufacturer's Association
8. NAAMM – National Association of Architectural Metal Manufacturers
9. 3M — Vinyl and Ink Specifications/ Warranties
10. Matthews, Akzo Nobel, Sherwin Williams (or equal) Paint Specifications
11. ASTM 6386 —Standard practice for preparation of zinc (hot-dip galvanized) coated iron and steel product hardware surfaces for painting
12. AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, latest revision.

Copies of Items 2 – 6 listed above are available for purchase or or online at www.cincinnati-oh.gov (click departments, Transportation Engineering, Manuals & Supplements).

City of Cincinnati
Department of Transportation and Engineering
Division of Engineering
Right-Of-Way Management Section
City Hall, Room 428
801 Plum Street
Cincinnati, Ohio 45202

CONTRACT DRAWING

PRINTS NOT BEARING THIS STAMP WERE MADE FOR REVIEW AND COMMENT, FOR BIDS AND ARE TO BE CONSTRUED AS INFORMATIVE ONLY. NOT FOR CONTRACT PURPOSES.

Department of Transportation and Engineering

City of Cincinnati
Civic Center
801 Plum Street
Cincinnati, Ohio 45202

BURNET WOODS GATEWAY SIGNAGE
GENERAL NOTES

Revisions

No.	REV.DATE	DESCRIPTION
1	REV.DATE	DESCRIPTION
2	REV.DATE	DESCRIPTION
3	REV.DATE	DESCRIPTION
4	REV.DATE	DESCRIPTION

Drawn by LZM Date 5/1/2012
Designed by LZM Date 5/1/2012
Checked by Date
Reviewed by Date

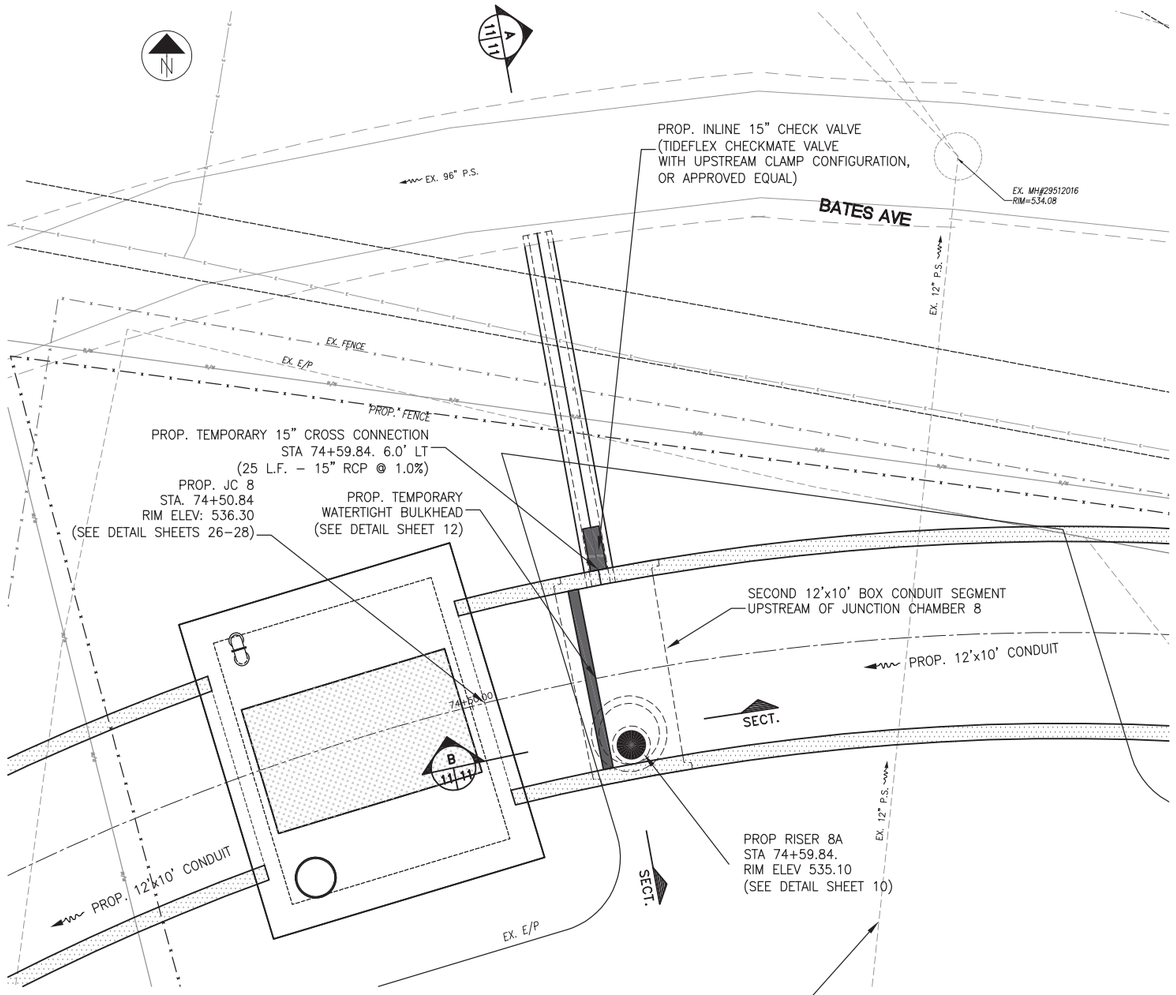
Consultant

Structure File Number
STR.FILE.NUM

ACC No.
ACC.NUMBER

SH# 8 /OF# 8

8
8

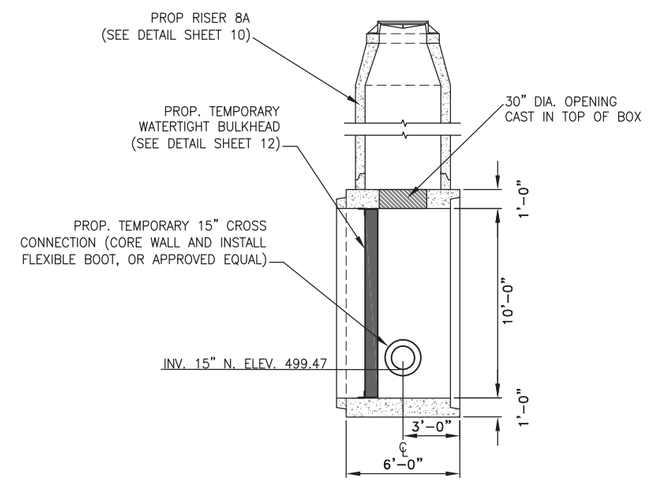


PROPOSED CROSS CONNECTION PLAN

SCALE: 1"=5'

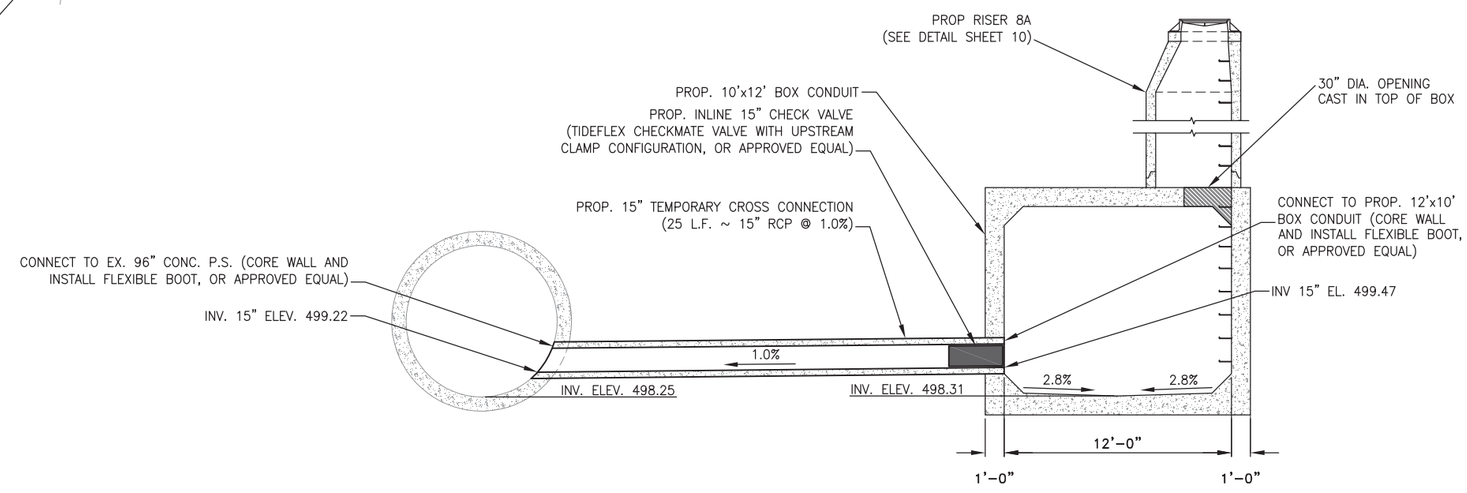
TEMPORARY CROSS CONNECTION NOTES

1. TIDEFLEX CHECKMATE VALVE WITH UPSTREAM CLAMP CONFIGURATION OR APPROVED EQUAL TO BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS
2. FLEXIBLE BOOT OR APPROVED EQUAL TO BE INSTALLED ACCORDING TO MANUFACTURER SPECIFICATIONS.
3. TEMPORARY WATERTIGHT BULKHEAD SHALL BE CONSTRUCTED OF REINFORCED CONCRETE BULKHEAD WALL (SEE DETAIL SHEET 12). TEMPORARY WATERTIGHT BULKHEAD SHALL BE INSTALLED PRIOR TO THE CONSTRUCTION OF THE 15" TEMPORARY CROSS CONNECTION, AS PART OF THE STAGE 2 OF THE SEQUENCE OF CONSTRUCTION.
4. THE CONTRACTOR SHALL VISUALLY INSPECT THE CONDITION OF THE 15" TEMPORARY CROSS CONNECTION ON NOT LESS THAN A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. ANY BLOCKAGE PREVENTING USE OF THE CROSS CONNECTION SHALL BE IMMEDIATELY CLEARED TO ENSURE CONTINUOUS USE OF THE CONNECTION FOR THE DURATION OF THE PROJECT.
5. AT THE COMPLETION OF STAGE 5 OF THE SEQUENCE OF CONSTRUCTION, THE TIDEFLEX (OR EQUAL) CHECK VALVE DEVICE SHALL BE COMPLETELY REMOVED AND PROVIDED TO MSDGC. IN ADDITION, THE 15" TEMPORARY CROSS CONNECTION SHALL BE FILLED, SEALED AND ABANDONED AND THE TEMPORARY WATERTIGHT BULKHEAD COMPLETELY REMOVED AND DISPOSED OF IN ACCORDANCE WITH CITY OF CINCINNATI 2010 SUPPLEMENT TO ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS ITEM 202. ALL ANCHORS AND DOWELS EMBEDDED INTO THE BOX CONDUIT SECTION SHALL BE REMOVED OR CUT FLUSH WITH THE WALLS OF THE BOX CONDUIT AND ALL VOIDS FILLED WITH EPOXY GROUT. ANY EXPOSED STEEL SHALL BE COATED WITH EPOXY MATERIAL IN ACCORDANCE WITH ITEM 509 TO PREVENT FUTURE DETERIORATION.
6. PAYMENT FOR THE VARIOUS ITEMS ASSOCIATED WITH THE 15" TEMPORARY CROSS CONNECTION SHALL BE PAID AS FOLLOWS:
   - PROP 15" TEMPORARY CROSS CONNECTION: ITEM 603, 15" CONDUIT, TYPE B.
   - TIDEFLEX CHEKMATE VALVE (OR APPROVED EQUAL) INSTALLATION AND REMOVAL: ITEM 603, MISC: 15" BACKFLOW DEVICE.
   - CORING AND INSTALLING FLEXIBLE BOOT (OR APPROVED EQUAL) ASSEMBLIES FOR EX. 96" CONC. PIPE AND BOX CONDUIT: ITEM 603, CONDUIT MISC.: CORE & SEAL EXISTING CONDUIT
7. PAYMENT FOR THE TEMPORARY WATERTIGHT BULKHEAD, INCLUDING CONCRETE WALL, REINFORCING, BRACKETS, ANCHORS, LABOR AND EQUIPMENT FOR INSTALLATION AND REMOVAL OF THE COMPLETE BULKHEAD ASSEMBLY, AND LABOR AND EQUIPMENT FOR VISUAL INSPECTION AND REMOVAL OF DEBRIS AS REQUIRED SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 604, DRAINAGE STRUCTURE MISC.: TEMPORARY BULKHEAD ASSEMBLY.



TEMPORARY CROSS CONNECTION SECTION B

N.T.S.



TEMPORARY CROSS CONNECTION SECTION A

N.T.S.

0 2.5' 5' 10'
FEET
HORIZONTAL
SCALE IN FEET

CALCULATED	CHECKED
DEH	BSC

TEMPORARY CROSS CONNECTION DETAILS

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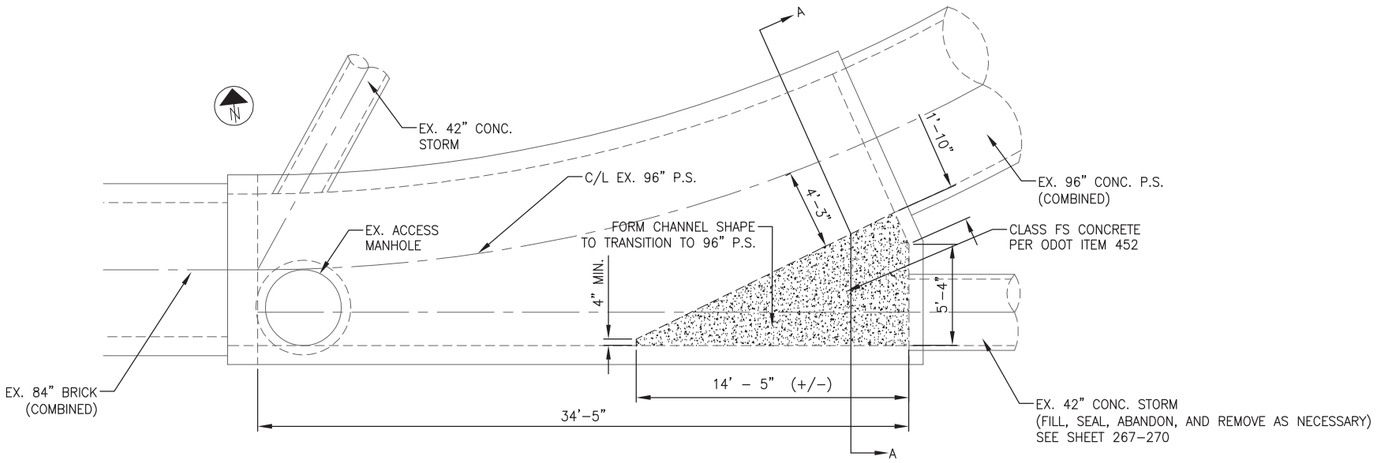
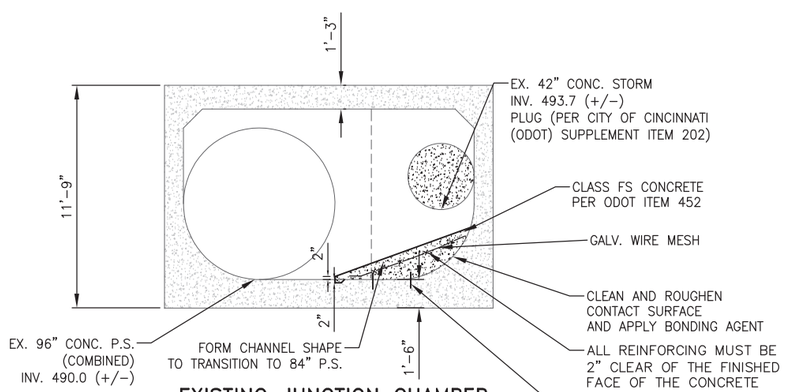


EXISTING JUNCTION CHAMBER PLAN VIEW

N.T.S.



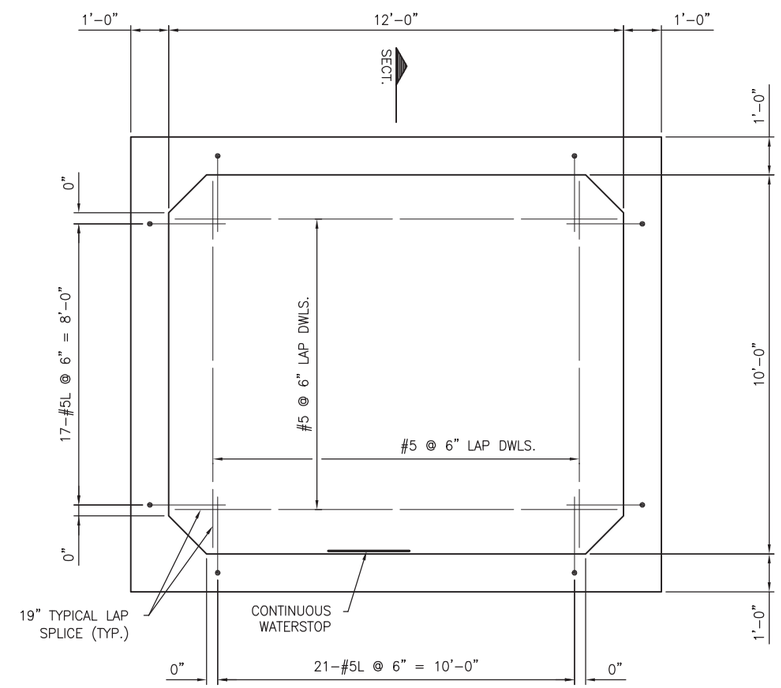
EXISTING JUNCTION CHAMBER SECTION A-A

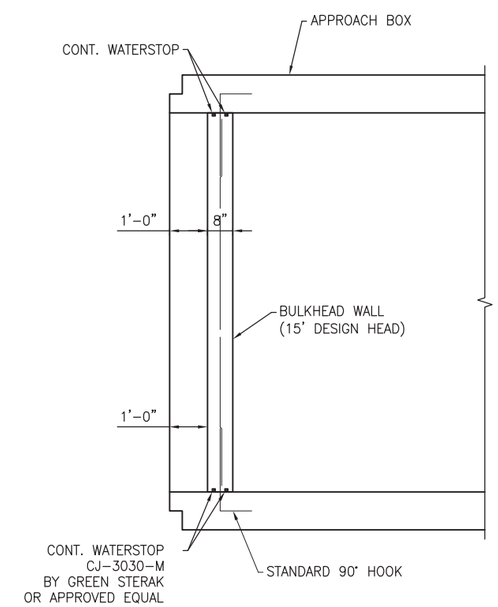
N.T.S.

NOTES:

1) CONTRACTOR RESPONSIBLE TO MAINTAIN FLOW DURING CONSTRUCTION.

2) PAYMENT FOR THIS ITEM, INCLUDING FORMING AND FALSEWORK, REINFORCING STEEL AND CONNECTIONS, CLASS FS CONCRETE, LABOR, AND EQUIPMENT REQUIRED TO COMPLETE THIS LINE OF WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 518 – STRUCTURE DRAINAGE, MISC.: REMODEL EXISTING JUNCTION CHAMBER.





SECTION B

B 12/12

TEMPORARY WATERTIGHT BULKHEAD DETAIL

NOTE:
IF 8" BULKHEAD WALL IS CAST AFTER THE BOX IS CAST, EPOXY ADHESIVE #5 DWLS W/5" EMBED ARE ACCEPTABLE. ROUGHEN CONTACT AREA 1/4" AMPLITUDE. PROVIDE CONTINUOUS MODIFIED RUBBER SWELLABLE WATERSTOPS (2) AS SHOWN. COST FOR TEMPORARY WATERTIGHT BULKHEAD TO BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 604, DRAINAGE STRUCTURE, MISC: TEMPORARY BULKHEAD ASSEMBLY.

NOT TO SCALE
HORIZONTAL SCALE IN FEET

CALCULATED GMF
CHECKED JWE

EXISTING JUNCTION CHAMBER MODIFICATIONS
PROPOSED WATERTIGHT BULKHEAD DETAIL

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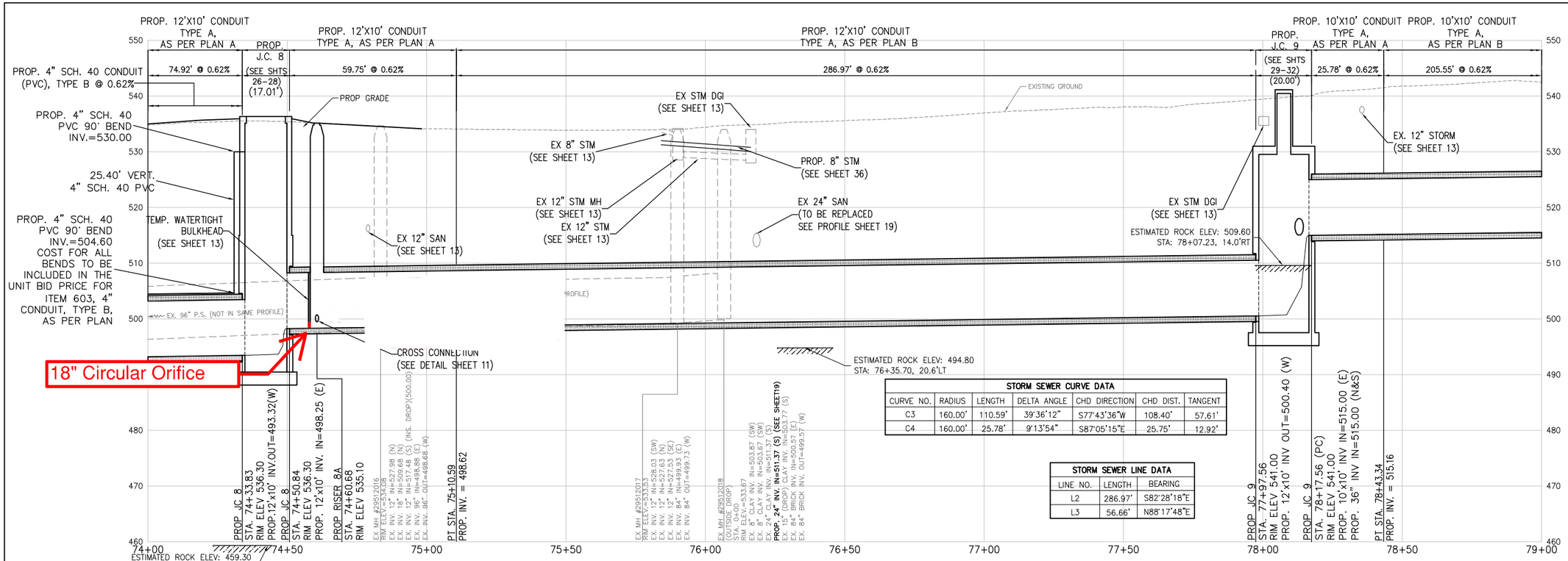
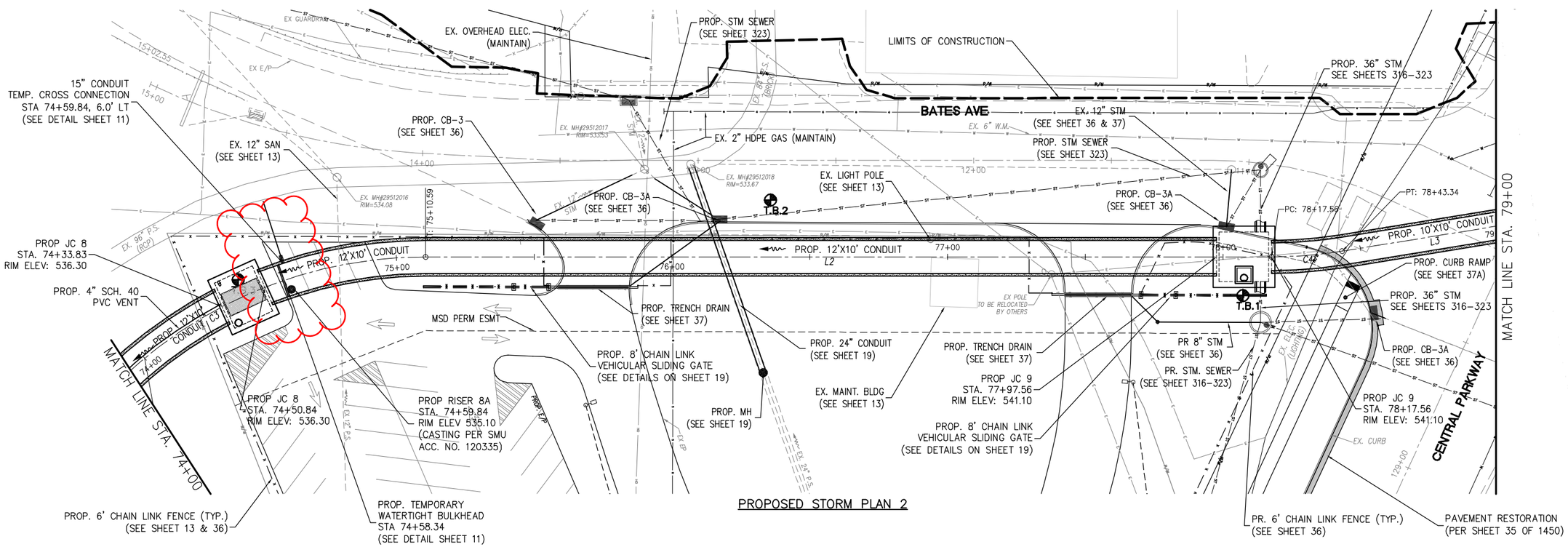


STORM SEWER CURVE DATA

CURVE NO.	RADIUS	LENGTH	DELTA ANGLE	CHD DIRECTION	CHD DIST.	TANGENT
C3	160.00'	110.59'	39°36'12"	S77°43'36"W	108.40'	57.61'
C4	160.00'	25.78'	9°13'54"	S87°05'15"E	25.75'	12.92'

STORM SEWER LINE DATA

LINE NO.	LENGTH	BEARING
L2	286.97'	S82°28'18"E
L3	56.66'	N88°17'48"E



CALCULATED GMF
CHECKED BSC

PLAN AND PROFILE – SEWER NO. 6181 STA. 74+00 TO STA. 79+00

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