MARQUETTE MANOR APARTMENTS

NEW PARKING LOT

1999 SUTTER AVENUE, CINCINNATI, 45225

DRAWING LIST

NUMBER	DESCRIPTION
01 TITLE AND CODE DRAWINGS	
G0.01	COVER SHEET
SURVEY	
AS.00	SITE SURVEY
02 CIVIL DRAWINGS	
C100	DEMOLITION PLAN
C200	GEOMETRIC PLAN
C300	GRADING PLAN
C400	UTILITY PLAN
C500	NOTES
C600	DETAILS
C601	DETAILS
C602	STORMWATER MANAGEMENT DETAILS
C603	STORMWATER MANAGEMENT DETAILS
C604	DETAILS
C700	SWPPP
C701	SWPPP
C702	SWPPP
C703	SWPPP
C704	SWPPP
03 SITE DRAWINGS	
AS.01	SITE DEMOLITION PLAN
AS.02	PROPOSED PARKING LOT PLAN
AS.03	PARKING LOT DETAILS
04 LANDSCAPE DRAWINGS	
L0.01	PROPOSED PARKING LOT LANDSCAPING
L0.02	LANDCAPE DETAILS
05 ELECTRICAL DRAWINGS	
E0.01	ELECTRICAL SPECS AND DETAILS
E1.01	ELECTRICAL SITE PLAN

PROJECT DIRECTORY

1. OWNER:
   CINCINNATI METROPOLITAN HOUSING AUTHORITY
   1627 WESTERN AVENUE
   CINCINNATI, OHIO 45214
   PHONE: (513) 721-4580

2. ARCHITECT:
   LDA ARCHITECTS, INC.
   5000 EUCLID AVENUE
   SUITE 104
   CLEVELAND, OHIO 44103
   PHONE: (216) 932- 1890
   REPRESENTATIVE: STEVEN JENNINGS

3. ELECTRICAL ENGINEER:
   WHS ENGINEERING
   2012 WEST 25TH STREET, SUITE 512
   CLEVELAND, OHIO 44113
   PHONE: (216) 227-8505
   REPRESENTATIVE: JIM BJORNHOLM

4. CIVIL ENGINEER:
   THORSEN BAKER + ASSOCIATES
   3030 W. STREETSBORO
   RICHFIELD, OH 44286
   PHONE: (330) 659-6688
   REPRESENTATIVE: DAVID MYERS

GENERAL NOTES

GENERAL

1. ALL WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL AND STATE BUILDING CODES, FIRE SAFETY CODES AND REGULATIONS, BUT NOT LIMITED TO, THE OHIO BUILDING CODE (OBC),ICC ANSI 117.1 ACCESSIBLE AND USABLE BUILDING AND FACILITIES AND FAIR HOUSING ACT GUIDELINES. ANY CONFLICTS BETWEEN THE WORK INDICATED WITHIN THESE DOCUMENTS AND RELATED CODES OR REGULATIONS NOTED BY THE CONTRACTOR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.

2. PROVIDE MEANS NECESSARY TO PROTECT THE STRUCTURE IN ALL RESPECTS FROM THE WEATHER, BUILDING HAZARDS, UNNECESSARY INTRUSIONS, AND FROM DUST, DIRT AND DEBRIS.

3. MAKE ARRANGEMENTS IN 72 HOURS MINIMUM IN ADVANCE WITH THE OWNER FOR ANY INTERRUPTIONS OF UTILITY SERVICE.

4. EACH CONTRACTOR AND VENDOR SHALL INSPECT THE SITE & BECOME FAMILIAR WITH ALL CONDITIONS AND CLEARANCES PRIOR TO SUBMITTING A PROPOSAL.

5. ARCHITECT TO SUBMIT FOR GENERAL PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS AND INSPECTIONS AS REQUIRED.

6. ALL WORK SHALL BE COMPLETED IN A FIRST CLASS MANNER TO BETTER THAN ACCEPTED INDUSTRY STANDARDS.

7. SHOULD ANY OF THE DETAILED INSTRUCTIONS ON THE DRAWINGS CONFLICT WITH THE NOTES OR SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION SHALL APPLY. ANY SUCH CONFLICT SHALL BE REPORTED TO THE ARCHITECT AS A FORMAL RFI (REQUEST FOR INFORMATION) AS INDICATED IN THE SPECIFICATIONS.

8. ALL SECTIONS AND DETAILS SHALL BE CONSIDERED TYPICAL AND APPLY FOR THE SAME AND SIMILAR SITUATIONS THROUGHOUT THE STRUCTURE UNLESS SPECIFICALLY NOTED OTHERWISE.

9. THE CONTRACTOR SHALL VERIFY ALL RELEVANT DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE AFFECTED WORK AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY.

10. EACH CONTRACTOR SHALL COORDINATE ARCHITECTURAL DRAWINGS WITH THE PLUMBING, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS BEFORE PROCEEDING WITH THE WORK AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY IN A FORMAL RFI (REQUEST FOR INFORMATION) AS INDICATED IN THE SPECIFICATIONS.

11. THE TERM "FURNISH" SHALL MEAN TO OBTAIN AND SUPPLY TO THE JOB SITE. THE TERM "INSTALL" MEANS TO FIX IN POSITION AND CONNECT FOR USE. THE TERM "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL.

12. ALL ARRANGEMENTS FOR CONSTRUCTION PERSONNEL ENTERING THE SITE DURING WORK HOURS, DELIVERY OF MATERIALS, REMOVAL OF DEBRIS, PARKING, ETC. SHOULD BE MADE WITH THE GENERAL CONTRACTOR.

13. ALL CONTRACTORS AND SUBCONTRACTORS FOR THE WORK OF THIS CONTRACT SHALL BE PROPERLY LICENSED AND REGISTERED IN ACCORDANCE WITH THE REGULATIONS OF LOCAL AND STATE CODES.

14. ALL DRAWINGS AND SPECIFICATIONS PREPARED AS PART OF THIS COMMISSION ARE THE PROPERTY OF LDA ARCHITECTS, INC. AND WILL NOT BE TRANSFERRED OR USED ON ANY OTHER PROJECT WITHOUT WRITTEN AGREEMENT.

15. THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE GENERAL CONTRACTOR. ALL AREAS OF THE PROJECT SHALL BE FINISHED AND READY FOR OCCUPANCY AND INCLUDE SUCH ITEMS AS HARDWARE, ACCESSORIES, PAINTING, AND ETC. WHETHER SPECIFIED OR NOT.

16. AT ALL TIMES WHEN WORK IS IN PROGRESS, A REPRESENTATIVE OF THE CONTRACTOR OR SUB-CONTRACTOR SHALL BE ON THE SITE AND AUTHORIZED TO ANSWER QUESTIONS OR RECEIVE INSTRUCTIONS FROM THE OWNER OR ARCHITECT.

17. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL PROVIDE A COPY OF PROOF OF INSURANCE TO THE OWNER PRIOR TO THE COMMENCEMENT OF THE WORK.

18. THE CONTRACTOR SHALL FORWARD TO THE OWNER ALL APPLICABLE WARRANTIES, GUARANTEES, ETC. AS A CONDITION FOR FINAL PAYMENT.

19. THE CONTRACTOR SHALL GUARANTEE THAT ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A MINIMUM PERIOD OF ONE YEAR OR LONGER AS INDICATED IN DRAWINGS AND SPECIFICATIONS FOLLOWING COMPLETION OF
ALL WORK AND THAT ALL DEFECTS ARISING WITHIN THIS PERIOD OF TIME SHALL BE CORRECTED, REPAIRED, OR REPLACED WITHIN 30 DAYS OF NOTIFICATION OF SUCH DEFECTS BY OWNER.

20. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR REVIEWING, COORDINATING, AND COMPLYING WITH THE FULL SET OF DRAWINGS, SPECIFICATIONS, AND ADDENDA.

21. THE APPLICABLE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR THE VERIFICATION AND LOCATION OF UNDERGROUND UTILITIES, FACILITIES, AND EQUIPMENT. THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY PROTECTION SERVICE AS REQUIRED IN ADVANCE OF THE COMMENCEMENT OF UNDERGROUND UTILITIES WORK.

22. ALL PRODUCTS SPECIFIED IN THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS ARE THE BASIS OF DESIGN. OTHER PRODUCTS THAT MEET OR EXCEED THE PERFORMANCE REQUIREMENTS OF THE BASIS OF DESIGN ARE ACCEPTABLE IF DOCUMENTATION IS PROVIDED SHOWING COMPLIANCE.

SITE INFORMATION

BUILDING PARCEL INFORMATION:

LOT SIZE: 4.38 ACRES
PARCEL #: 020600010234

EXISTING PARKING SPACES:
STANDARD PARKING SPACES: 33
ACCESSIBLE PARKING SPACES: 8

TOTAL EXISTING SPACES: 41

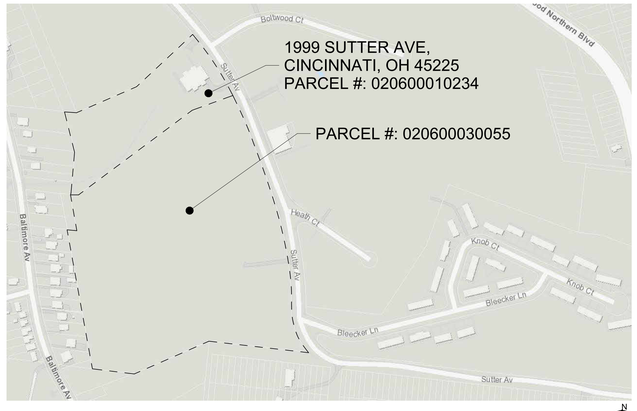
NEW PARKING LOT PARCEL INFORMATION:

LOT SIZE: 18.62 ACRES
PARCEL #: 020600030055

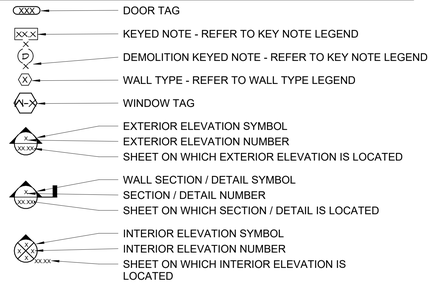
NEW PARKING SPACES:
STANDARD PARKING SPACES: 98
ACCESSIBLE PARKING SPACES: 4

TOTAL PARKING SPACES: 102

PROJECT LOCATION



SYMBOL LEGEND



LDA ARCHITECTS
The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	2024.08.02	ISSUED FOR BIDDING

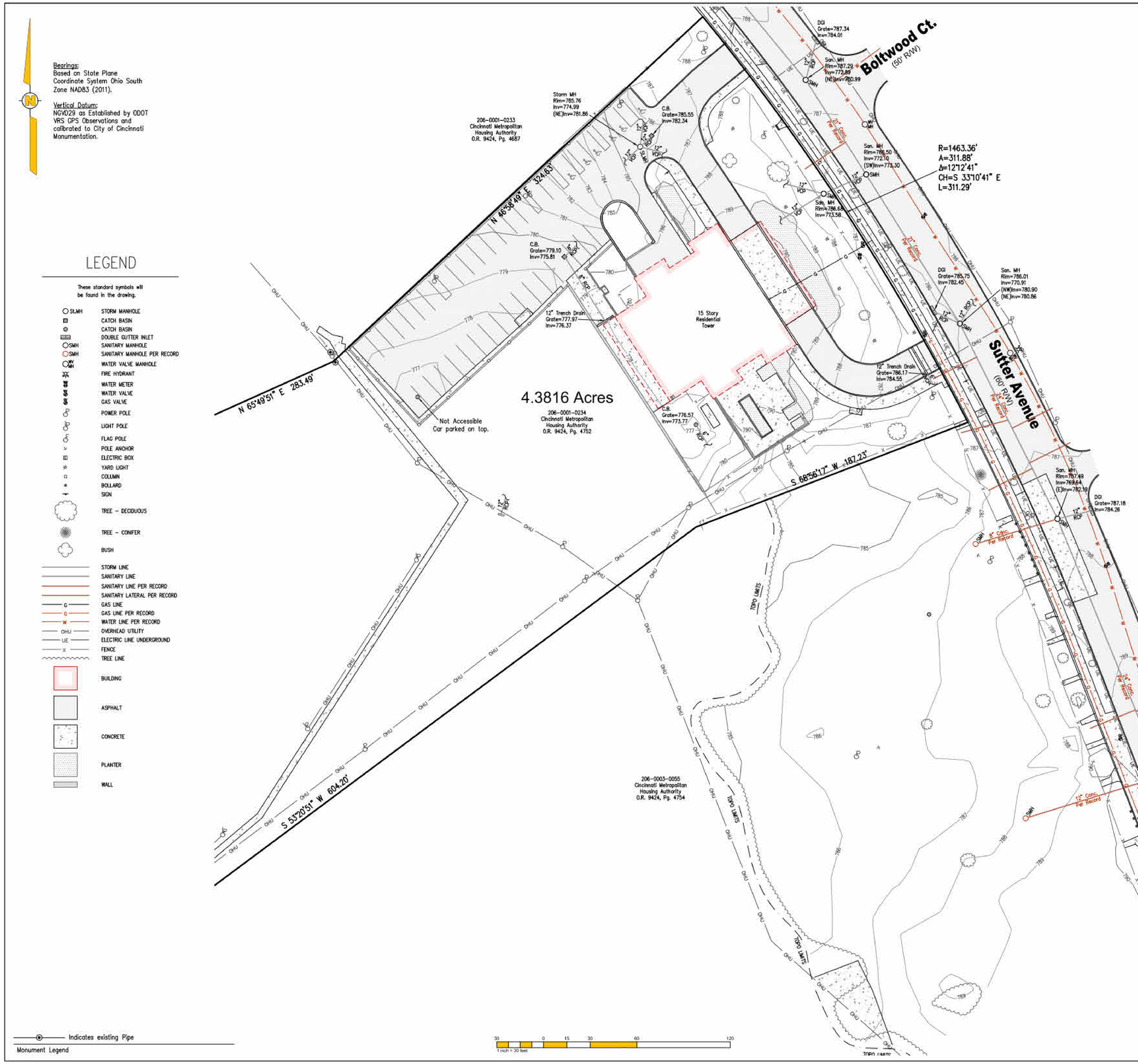
NOT FOR CONSTRUCTION

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

COVER SHEET

G0.01



A design ticket requesting utility records and field markings for this site was placed with the Ohio Utilities Protection Service (OUPS) on 5-29-24. The location of markings which were present at the time of the field survey and provided in response to the OUPS request are denoted as such. Underground utilities noted as being per record are shown based on our interpretation of the records that were provided by the Utility Companies who responded to the OUPS request for records. Berding Surveying cannot verify the accuracy of the records provided.

OHIO811.org Before You Dig

CAUTION
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON RECORDED AND ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED OR RECORDS PROVIDED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
OHIO UTILITIES PROTECTION SERVICES
CALL: 8-1-1 OR TOLL FREE: 1-800-362-2764

Note:
Easements may exist affecting the surveyed property.
The engagement of a title professional may be required to further research and report on matters which affect, encumber or benefit the surveyed premise.

Draft

Topographic Survey
Survey Type

CMHA
1999 Sutter Avenue
Job Name

Section 26, Town 3, F.R. 2
Section 32, Town 3, F.R. 2
City of Cincinnati
Hamilton County, Ohio
Site Location

YTC	GJB	1" = 30'
Drawn By	*Checked By*	*Drawing Scale*

07/11/2024	24071
Issue Date	*Project Number*

Berding Surveying
GPS Surveying • 3D Laser Scanning
741 Main Street | Milford, OH 45150 | www.berdingsurveying.com
513.831.6761 fax | 513.831.5505 tel

206-0003-0055
Cincinnati Metropolitan
Housing Authority
O.R. 9424, Pg. 4754

206-0001-0234
Cincinnati Metropolitan
Housing Authority
O.R. 9424, Pg. 4752
4.3816 Acres

206-0001-0233
Cincinnati Metropolitan
Housing Authority
O.R. 9424, Pg. 4687

283.19'

N 46°56'49" E 324.63'

S 46°56'17" W 187.37'

Not Accessible
Car parked on top.

12" Trench Drain
Grate=777.97
Inv=776.37

C.B.
Grate=776.57
Inv=773.77

C.B.
Grate=779.1
Inv=775.81

15 Story
Residential
Tower

Storm MH
Rim=785.76
Inv=774.99
(NE)Inv=781.86

C.B.
Grate=785.55
Inv=782.34

SW MH
Rim=789.94
Inv=768.54

DEPTHS?
DIR?

8" Cond.
Per Record

20' PARKING SETBACK

12" Trench Drain
Grate=786.17
Inv=784.55

San. MH
Rim=786.68
Inv=773.58

San. MH
Rim=787.49
Inv=769.64
(E)Inv=782.15

24" Conc.
Per Record

DGI
Grate=787.18
Inv=784.26

Sutter Avenue
(60' R/W)

21" Conc.
Per Record

DGI
Grate=785.75
Inv=782.45

San. MH
Rim=786.50
Inv=772.10
(SW)Inv=773.30

San. MH
Rim=787.29
Inv=772.59
(NE)Inv=780.99

DGI
Grate=787.34
Inv=784.01

San. MH
Rim=786.01
Inv=770.91
(NW)Inv=780.90
(NE)Inv=780.86

R=1463.36'
A=311.88'
Δ=12°12'41"
CH=S 33°10'41" E
L=311.29'

Boltwood Ct.
(50' R/W)

LEGEND

- 6' HT CHAIN LINK CONSTRUCTION FENCE CONTRACTOR TO DETERMINE FINAL LOCATION OF FENCE AND GATES
- UTILITY TO BE REMOVED
- REMOVE TREES IN WOODED AREA
- ASPHALT & BASE TO BE REMOVED
- CONCRETE TO BE REMOVED
- TREE PROTECTION 4' HT. ORANGE PVC CONSTRUCTION FENCE
- TREE TO BE REMOVED BY CONTRACTOR

- EXISTING ELECTRIC
- EXISTING GAS
- EXISTING OVERHEAD LINE
- EXISTING SANITARY
- EXISTING STORM
- EXISTING WATER

KEY NOTES

1. REMOVE AND RELOCATE UTILITY POLE PER ODOT ITEM 202. COORDINATE WITH UTILITY COMPANY.
2. REMOVE FENCE PER ODOT ITEM 202.
3. RAISE RIM OF EXISTING STORM STRUCTURE TO PROPOSED GRADE.
4. PROPOSED SAW CUT
5. REMOVE PAVEMENT & CONCRETE CURB FOR UTILITY TRENCH PER ODOT ITEM 202.
6. RAISE RIM OF MANHOLE TO PROPOSED GRADE.
7. REMOVE CONCRETE CURB PER ODOT ITEM 202.

DEMOLITION PLAN

1" = 20'

20 0 20 40

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road
Richfield, Ohio 44286
(330) 659-6688 Ph.
(330) 659-6675 Fax

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Call 811 before you dig

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Cleveland, OH 44103
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216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

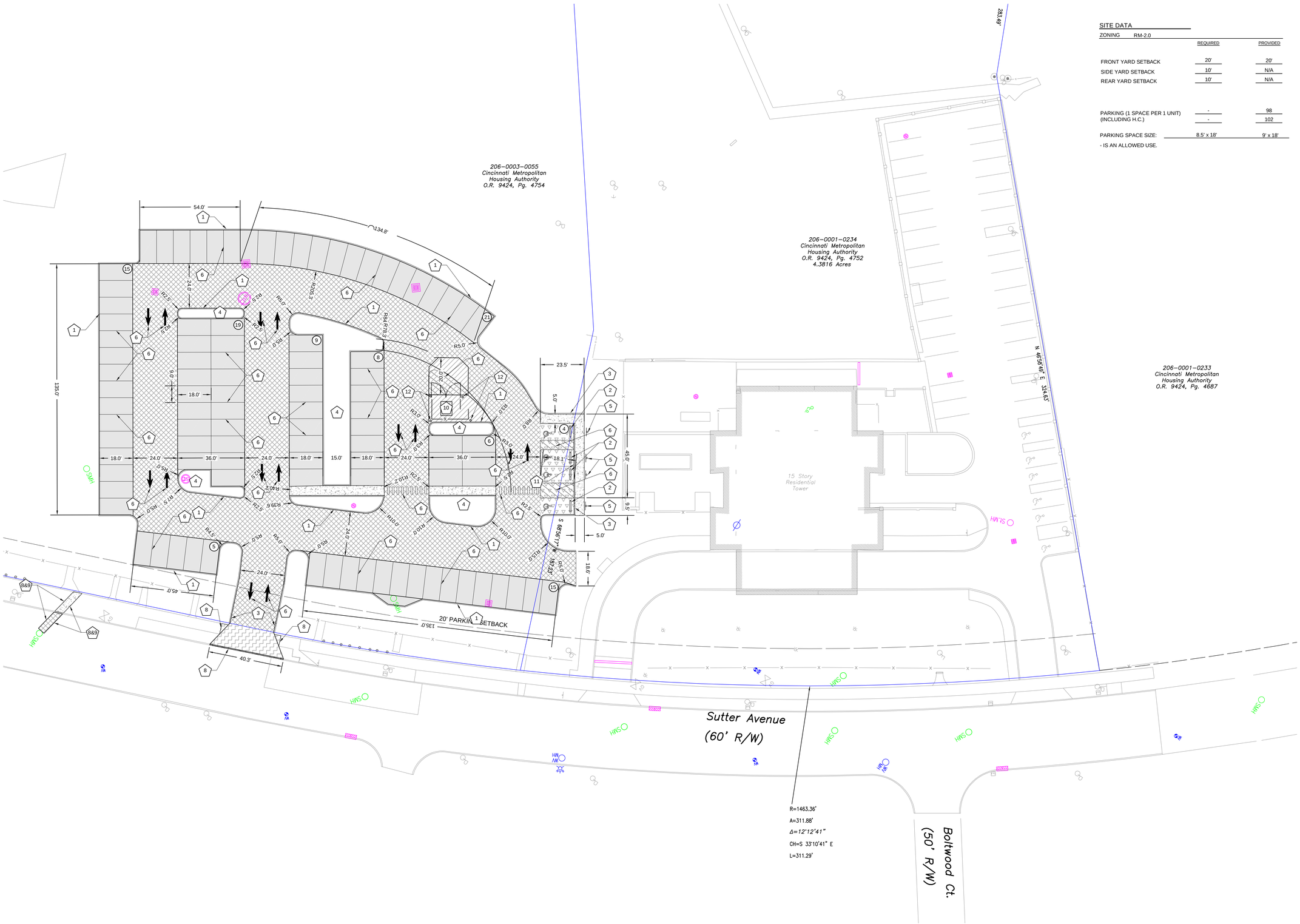
PROGRESS NOT FOR CONSTRUCTION 8/2/2024

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

DEMOLITION PLAN

C100



SITE DATA

ZONING RM-2.0

	REQUIRED	PROVIDED
FRONT YARD SETBACK	20'	20'
SIDE YARD SETBACK	10'	N/A
REAR YARD SETBACK	10'	N/A
PARKING (1 SPACE PER 1 UNIT) (INCLUDING H.C.)	-	98
	-	102
PARKING SPACE SIZE:	8.5' x 18'	9' x 18'

- IS AN ALLOWED USE.

LEGEND

- PROPOSED STANDARD DUTY ASPHALT PAVEMENT SEE DETAIL ON SHEET C600
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT SEE DETAIL ON SHEET C600
- PROPOSED SIDEWALK CONCRETE PAVEMENT SEE DETAIL ON SHEET C600
- PROPOSED STANDARD DUTY CONCRETE PAVEMENT SEE DETAIL ON SHEET C600
- PROPOSED CONCRETE PAVEMENT PER DETAIL ON SHEET C604
- PROPOSED DUMPSTER PAD CONCRETE PAVEMENT SEE DETAIL ON SHEET C600

KEY NOTES

1. FURNISH AND INSTALL ODOT TYPE 6 CONCRETE VERTICAL CURB. SEE DETAIL AND SPECIFICATIONS ON SHEET C600.
2. FURNISH AND INSTALL CONCRETE WHEEL STOP. SEE DETAIL AND SPECIFICATIONS ON SHEET C600.
3. FURNISH AND INSTALL CURB HEIGHT TAPER. SEE DETAIL ON SHEET C600.
4. LANDSCAPE AREA. SEE LANDSCAPE PLAN FOR PLANTING DETAILS AND SPECIFICATIONS.
5. FURNISH AND INSTALL ADA PARKING SIGN PER ODOT ITEM 630 AND THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. SEE DETAILS AND SPECIFICATIONS ON SHEET C600.
6. FURNISH AND INSTALL PAVEMENT MARKING/STRIPING PER ODOT ITEM 642, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES OR SHEET C600.
7. NOT USED
8. MEET AND MATCH EXISTING PAVEMENT
9. PAVEMENT AND CURB REPLACEMENT FOR UTILITY TRENCH; MATCH EXISTING; SEAL EDGES
10. FURNISH AND INSTALL DUMPSTER ENCLOSURE. SEE ARCHITECTURAL PLANS FOR DETAILS AND SPECIFICATIONS.
11. FURNISH AND INSTALL FLUSH CURB.
12. FURNISH AND INSTALL STEEL PIPE BOLLARD. SEE DETAILS AND SPECIFICATIONS ON SHEET C600.

GEOMETRIC PLAN
1" = 20'

20 0 20 40

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road
Richfield, Ohio 44286
(330) 659-6688 Ph.
(330) 659-6675 Fax

Ohio Utilities Protection Service
Call 811 before you dig

LDA ARCHITECTS
The Offices at the Agora
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Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

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Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

GEOMETRIC PLAN

C200

206-0003-0055
Cincinnati Metropolitan
Housing Authority
O.R. 9424, Pg. 4754

206-0001-0234
Cincinnati Metropolitan
Housing Authority
O.R. 9424, Pg. 4752
4.3816 Acres

206-0001-0233
Cincinnati Metropolitan
Housing Authority
O.R. 9424, Pg. 4687

283.19'

N 46°56'49" E 324.63'

15 Story
Residential
Tower

S 46°56'49" W 197.23'

Sutter Avenue
(60' R/W)

Baltwood Ct.
(50' R/W)

R=1463.36'
A=311.88'
Δ=12°12'41"
CH=S 33°10'41" E
L=311.29'

20' PAR
TBACK

LEGEND

1051 / 1050	EXISTING CONTOURS
1051 / 1050	PROPOSED CONTOURS
1050.00 EX.	EXISTING SPOT ELEVATIONS
1050.00	PROPOSED SPOT ELEVATIONS
	DRAINAGE FLOW ARROW
TC	TOP OF CURB
BC	BOTTOM OF CURB (FINISHED GRADE) (SEE DETAIL ON SHEET C600 FOR BC LOCATION)

KEY NOTES

1. MEET & MATCH EXISTING PAVEMENT ELEVATION
2. SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION IN ACCESSIBLE PARKING AREA

GRADING PLAN
1" = 20'

20 0 20 40

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road
Richfield, Ohio 44286
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(330) 659-6675 Fax

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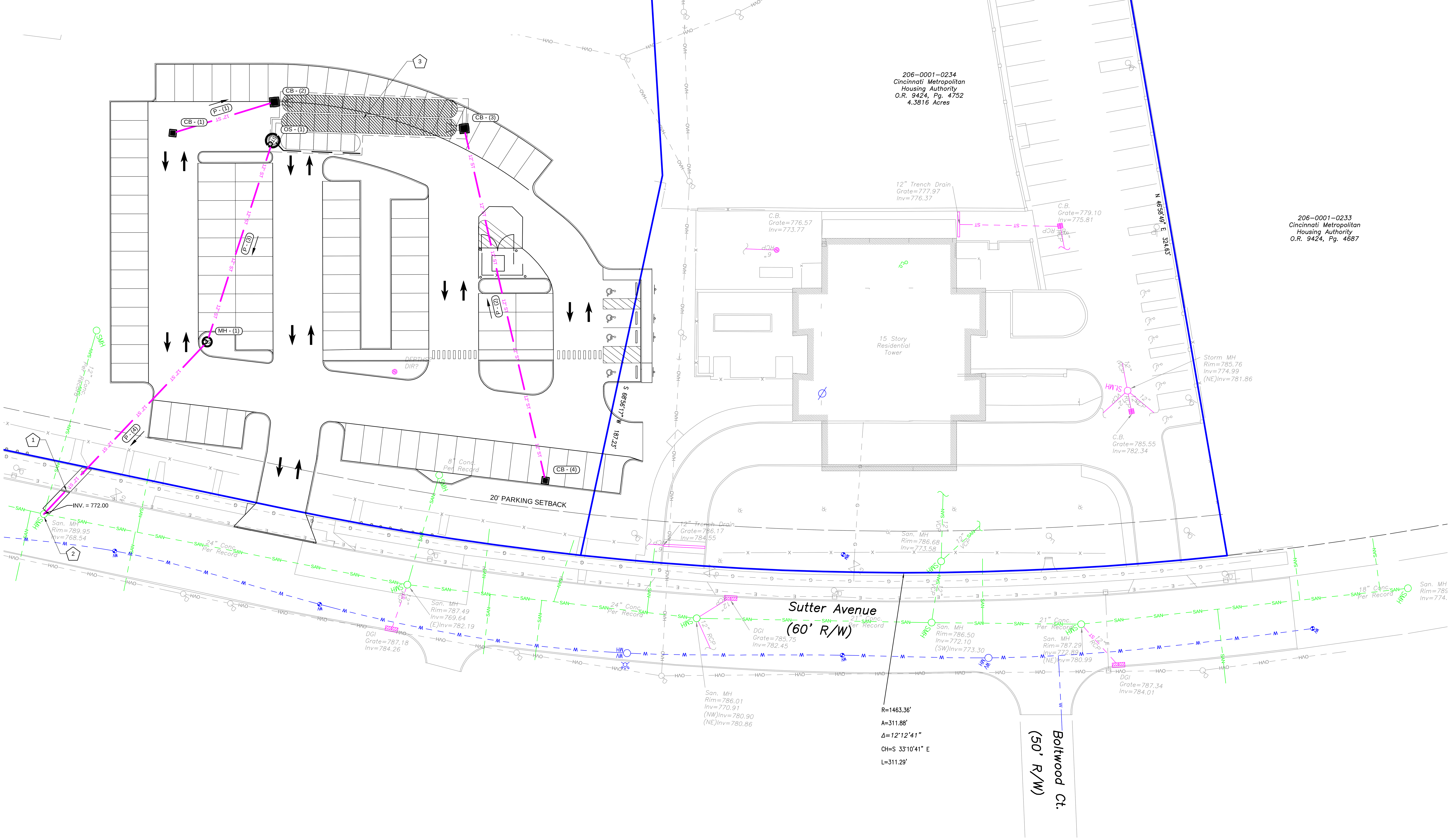
GRADING PLAN

C300

STRUCTURE TABLE (PROPOSED STORM SEWERS)					
STRUCTURE NAME	STRUCTURE TYPE	DETAILS	COORDINATES	FRAME	GRATE
CB - (1)	ODOT 2-2B CATCH BASIN	RIM = 784.57 INV OUT = 780.35 (12.00" NW)	N: 421766.41 E: 1384917.08	EJIW 5110	TYPE M3
CB - (2)	ODOT 2-3 CATCH BASIN	RIM = 784.37 INV IN = 778.54 (12.00" SE) INV OUT = 776.11 (24.00" NW)	N: 421799.17 E: 1384877.72	EJIW 5110	TYPE M3
CB - (3)	ODOT 2-3 CATCH BASIN	RIM = 784.67 INV IN = 780.00 (12.00" NE) INV OUT = 776.11 (24.00" SE) INV OUT = 776.08 (18.00" SW)	N: 421882.65 E: 1384838.43	EJIW 5110	TYPE M3
CB - (4)	ODOT 2-2B CATCH BASIN	RIM = 785.44 INV OUT = 781.27 (12.00" SW)	N: 422008.19 E: 1384958.92	EJIW 5110	TYPE M3
MH - (1)	ODOT NO. 3 FLAT TOP MANHOLE - 48 IN W/ TRAP & 24" SUMP	RIM = 787.37 INV IN = 773.74 (12.00" W) INV OUT = 773.64 (12.00" E)	N: 421835.35 E: 1384992.17	EJIW 1058	SOLID
OS - (1)	ODOT NO. 3 ECCENTRIC MANHOLE - 72 IN W/ 24" SUMP (SEE DETAILS ON SHEET C602)	RIM = 784.78 INV IN = 778.37 (18.00" SW) INV IN = 776.08 (18.00" NW) INV OUT = 775.17 (12.00" E)	N: 421808.62 E: 1384893.74	EJIW 1058	SOLID

PIPE TABLE (PROPOSED STORM SEWERS)				
PIPE NAME	SIZE	LENGTH	SLOPE	MATERIAL
P - (1)	12"	49 FT	3.53%	HDPE
P - (2)	12"	171 FT	0.73%	HDPE
P - (3)	12"	97 FT	1.40%	HDPE
P - (4)	12"	112 FT	1.44%	HDPE



PROGRESS
NOT FOR
CONSTRUCTION
8/2/2024

LEGEND

— E —	EXISTING ELECTRIC
— G —	EXISTING GAS
— OVH —	EXISTING OVERHEAD LINE
— SAN —	EXISTING SANITARY
— ST —	EXISTING STORM
— W —	EXISTING WATER
— ST —	PROPOSED STORM
▤	PROPOSED CATCH BASIN (CB). SEE SHEET C601 FOR DETAILS AND SPECIFICATIONS.

KEY NOTES

1. REMOVE & REPLACE CONCRETE CURBS AND PAVEMENT AS REQUIRED FOR UTILITY TRENCH
2. CORE DRILL EXISTING SANITARY SEWER MANHOLE. INSTALL KOR-N-SEAL WATER TIGHT FLEXIBLE BOOT CONNECTION OR EQUAL.
3. 29 MC-7200 STORMTECH UNDERGROUND DETENTION CHAMBERS. SEE DETAILS AND SPECIFICATIONS ON SHEETS C602 AND C603.

UTILITY PLAN
1" = 20'

20 0 20 40

Thorson · Baker + Associates
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LDA Project No.23.48

UTILITY PLAN

C400

GENERAL NOTES

1. THE TERM GENERAL CONTRACTOR (G.C.) OR CONTRACTOR AS USED IN THESE DOCUMENTS REFERS TO THE CONTRACTOR/ CONSTRUCTION MANAGER IN RESPONSIBLE CHARGE OF THE PROJECT IN TERMS OF COORDINATION, SCHEDULING, SUBCONTRACTOR COORDINATION, ETC. THIS TERM REFERS TO, BUT IS NOT LIMITED TO, GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILD CONTRACTOR, PRIME CONTRACTOR, ETC. THE TERM IS REFERENCING THE ENTITY THAT COORDINATES THE WORK OF OTHER TRADES.
2. THE EXISTING CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN TAKEN FROM A SURVEY PREPARED BY BERDING SURVEYING. THORSON BAKER & ASSOCIATES, INC. DOES NOT WARRANT THAT THE INFORMATION SHOWN HEREON IS EITHER ACCURATE OR COMPLETE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS AT THE PROJECT SITE.
3. THE LOCAL JURISDICTION REQUIREMENTS, TOGETHER WITH THE JANUARY 1, 2016 EDITION OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS) SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE PART OF THIS PLAN, UNLESS NOTED OTHERWISE. IF THERE ARE DISCREPANCIES, THE LOCAL JURISDICTION REQUIREMENTS SHALL GOVERN.
4. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.
5. THE LOCAL AUTHORITY AND THORSON BAKER & ASSOCIATES, INC. WILL NOT BE RESPONSIBLE FOR MEANS, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCE OF CONSTRUCTION. THE LOCAL AUTHORITY AND THORSON BAKER & ASSOCIATES, INC. WILL NOT BE RESPONSIBLE FOR SAFETY ON THE JOB SITE, OR FAILURE BY THE GENERAL CONTRACTOR TO PERFORM WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. ANY MODIFICATION TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL FROM THE RECORD ENGINEER AND LOCAL AUTHORITY.
7. THE GENERAL CONTRACTOR SHALL NOTIFY THE LOCAL AUTHORITIES AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING THE WORK.
8. THE GENERAL CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
9. ANY SURVEY MONUMENTS OR PERMANENT MARKERS DISTURBED DURING CONSTRUCTION SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE GENERAL CONTRACTOR'S EXPENSE.
10. ALL SIGNS, LANDSCAPING, STRUCTURES, OR OTHER APPURTENANCES DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE LOCAL AUTHORITY OR THE OWNER AT THE GENERAL CONTRACTOR'S EXPENSE.
11. PERMITS TO CONSTRUCT IN THE PUBLIC RIGHT-OF-WAY OF EXISTING STREETS MUST BE OBTAINED BEFORE COMMENCING WORK.
12. IN THE CASE OF CONFLICT BETWEEN DRAWINGS, NOTES, AND SPECIFICATIONS, OR AMONG DRAWINGS, THE STRICTEST PROVISION OR LARGER QUANTITY SHALL GOVERN.

DEMOLITION NOTES

1. THE GENERAL CONTRACTOR SHALL NOTIFY O.U.P.S. AT 1-800-362-2764 AND O.G.P.U.P.S. AT 1-800-925-0988 A MINIMUM OF TWO DAYS BEFORE THE START OF CONSTRUCTION.
2. REMOVAL OF STRUCTURES AND OBSTRUCTIONS: BUILDINGS, FOUNDATIONS, STRUCTURES, ASPHALT AND CONCRETE PAVEMENT, AND UTILITIES ABOVE AND BELOW GROUND SHALL BE REMOVED AND DISPOSED OF OFF SITE AS OUTLINED WITHIN THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" MANUAL UNDER ITEM 202.
3. TREES AND OTHER SITE FEATURES NOTED TO REMAIN SHALL BE PROTECTED THROUGHOUT CONSTRUCTION WITH CONSTRUCTION FENCING. PLACE 4' HT. ORANGE CONSTRUCTION FENCING AT AND AROUND ALL NOTED SITE FEATURES AND/OR THE DRIP LINE OF ALL TREES NOTED TO BE SAVED. DO NOT STORE VEHICLES, EQUIPMENT, OR MATERIALS WITHIN THE PROTECTED AREA. OBTAIN FIELD APPROVAL FROM THE OWNER AND/OR AUTHORIZED OWNER REPRESENTATIVE PRIOR TO ANY TREE REMOVAL. IF NECESSARY, CONTRACTOR WILL RELOCATE TO PROTECT SITE FEATURES. OTHER MEASURES MAY BE REQUIRED IF ANY DAMAGE TO SUCH ITEMS OR TREES OCCURS. REMOVE FENCING AFTER CONSTRUCTION.
4. ALL EXISTING UTILITY CASTINGS INCLUDING MANHOLES, CATCH BASINS, VALVES, VALVE BOXES, ETC. SHALL REMAIN AND BE ADJUSTED TO PROPOSED GRADES, UNLESS NOTED OTHERWISE. THE GENERAL CONTRACTOR SHALL COORDINATE WORK WITH THE RESPECTIVE UTILITY COMPANIES.
5. ALL EXISTING UTILITY LINES & SERVICES WITHIN THE LIMITS OF CONSTRUCTION SHALL REMAIN AND BE PROTECTED, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL COORDINATE REMOVAL OR RELOCATION WITH THE RESPECTIVE UTILITY COMPANY FOR PROPER CAPPING/SEALING/DISCONNECTING, ETC.
6. THE CONTRACTOR SHALL COORDINATE WORK WITH LOCAL SAFETY DEPARTMENTS TO MAINTAIN TRAFFIC CONTROL.
7. ALL EXISTING UTILITY POLES, LIGHT POLES, ELECTRIC HANDHOLDS, UNDERGROUND WIRING, AND SITE LIGHTING SHALL BE PROTECTED, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL COORDINATE WORK WITH THE LOCAL POWER SUPPLY COMPANY.
8. CONTRACTOR SHALL KEEP ALL EXISTING UTILITIES OPERATING DURING DEMOLITION AND CONSTRUCTION AND UNTIL THE NEW SYSTEMS ARE OPERATING PROPERLY. PROVIDE TEMPORARY CONNECTIONS AS REQUIRED.
9. SAW CUT ALL EDGES FULL DEPTH OF PAVEMENT.
10. ALL SIGNS DESIGNATED TO BE REMOVED SHALL BE REINSTALLED AS DIRECTED, OR TURNED OVER TO OWNER.
11. COORDINATE DEMOLITION OF ALL EXISTING ITEMS WITH OTHER DRAWINGS. REMOVE/ABANDON EXISTING UTILITIES, SERVICES, SITE FEATURES AS REQUIRED.

TRAFFIC CONTROL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (PART 7 CONSTRUCTION AND MAINTENANCE OPERATIONS). COPIES ARE AVAILABLE FROM THE ODOT, BUREAU OF TRAFFIC, 25 SOUTH FRONT STREET, COLUMBUS, OHIO 43215.
2. STEADY-BURNING, TYPE "C," LIGHTS SHALL BE REQUIRED ON ALL BARRICADES, DRUMS AND SIMILAR TRAFFIC DEVICES IN USE AT NIGHT. CONES ARE NOT PERMITTED TO BE USED FOR NIGHT WORK.
3. ACCESS TO ALL ADJOINING PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING MAIL SERVICE IN THE CONSTRUCTION AREA.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY BARRICADE THE STREET IN THE VICINITY OF THE WORK AREAS UNTIL SUCH TIME AS THE STREET IS OPEN TO TRAFFIC.

ROADWAY AND PAVEMENT NOTES

1. WHEN OPEN-CUTTING OF EXISTING PAVEMENT IS PERMITTED, CONTROLLED DENSITY BACKFILL MAY BE USED IN PLACE OF COMPACTED GRANULAR BACKFILL. ASPHALT SURFACES SHALL BE HEAT WELDED.
2. WHERE IT IS NECESSARY TO DISTURB EXISTING PAVEMENTS, THE PAVEMENT SHALL BE SAW CUT IN NEAT, STRAIGHT LINES. THE DEPTH OF THE SAWCUT SHALL BE FULL DEPTH OF PAVEMENT.
3. ALL EARTHWORK CONSTRUCTION METHODS AND MATERIALS FOR EXCAVATION, EMBANKMENT, SUBGRADE COMPACTION, AND PROOF ROLLING SHALL FOLLOW AND MEET THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" MANUAL UNDER ITEMS 203 AND 204.
4. ALL PAVING OPERATIONS AND MATERIALS SHALL CONFORM TO AND MEET THE REQUIREMENTS AS OUTLINED WITHIN THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" MANUAL.
5. WALK REPLACEMENT: APPROXIMATE LOCATIONS FOR THE REQUIRED REMOVAL/REPLACEMENT OF EXISTING WALK ARE AS SHOWN ON THE PLAN. WALK REMOVAL/REPLACEMENT LIMITS SHALL TYPICALLY EXTEND TO THE NEAREST EXISTING WALK JOINT. THE EXACT LOCATIONS AND LIMITS OF EXISTING WALK REMOVAL/REPLACEMENT SHALL BE ESTABLISHED AT THE JOB SITE. THE EXISTING WALK SHALL BE REMOVED IN A MANNER THAT WILL NOT DISTURB, DAMAGE OR UNDERMINE ADJACENT WALK, CURB, DRIVES OR DRIVE APRONS INTENDED TO REMAIN. ANY ADJACENT FACILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE, AS DETERMINED BY THE ENGINEER, AND WHICH ARE NOT OTHERWISE DESIGNATED FOR REPLACEMENT, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. REPLACEMENT WALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS CONTAINED HEREON. CURB RAMPS AS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT TO MINIMIZE CONFLICTS WITH EXISTING CATCH BASINS, MANHOLES, UTILITY POLES, HYDRANTS OR OTHER SUCH APPURTENANCES.
6. CONCRETE WALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DESIGN STANDARDS, DETAILS AND CONSTRUCTION SPECIFICATIONS OF THE JURISDICTIONAL AGENCY.
7. ALL ROAD SURFACES, BERMS, LAWN AREAS OR RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE PRE-CONSTRUCTION CONDITION OR BETTER WHEN ORDERED BY THE LANDSCAPE ARCHITECT AND ALL ITEMS SHALL BE INCLUDED IN THE UNIT PRICES BID.
8. AT LOCATIONS WHERE EMBEDDED STRUCTURES PENETRATE THE DEPTH OF CONCRETE PAVEMENT, CONTROL JOINTS SHALL BE CENTERED ON THE EMBEDDED STRUCTURE AND LOCATED ALONG THE LOCATION OF THE WEAKENED PLANE.

LAYOUT/GEOMETRY NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS FOR LAYOUT.
2. CONTRACTOR IS OBLIGATED TO VERIFY ALL DIMENSIONS ON THE GROUND AND REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.
3. PRECISE LAYOUT SHALL BE DETERMINED ON THE GROUND AND APPROVED BY THE OWNER'S REPRESENTATIVE.
4. BENCHMARK AND CONTROL POINTS ARE SHOWN ON THE DRAWING. LAYOUT FROM THESE REFERENCE POINTS IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ± INDICATES APPROXIMATE DIMENSIONS.
6. DO NOT SCALE FROM THIS DRAWING. ALL WRITTEN DIMENSIONS SHALL GOVERN. ALL ANGLES ARE 90° UNLESS OTHERWISE NOTED. DIMENSIONS ARE TO FACE OF CURB AND/OR TO FACE OF BUILDING.
7. SIGNAGE FOR EACH ACCESSIBLE PARKING SPACE TO BE PER JURISDICTIONAL AGENCY REQUIREMENTS.
8. SEE GRADING PLAN FOR SOIL BORING LOCATIONS.
9. ALL PROPERTY PINS DISTURBED DURING THE COURSE OF CONSTRUCTION SHALL BE RESET AT THE CORRECT LOCATION BY A LICENSED SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

GRADING NOTES

1. ALL SLOPES, SURFACES, SIGNAGE AND PAVEMENT MARKINGS ALONG ACCESSIBLE ROUTES AND WITHIN PARKING AND LOADING/ UNLOADING ZONES SHALL BE CONSTRUCTED TO MEET THE REQUIREMENTS AS OUTLINED IN THE AMERICANS WITH DISABILITY ACT, STANDARDS FOR ACCESSIBLE DESIGN LATEST EDITION.
2. GRADES/SLOPES SHALL BE STRAIGHT LINE BETWEEN POINT ELEVATIONS AND CONTOURS SHOWN.
3. SPOT ELEVATIONS SHOWN ARE BOTTOM OF CURB UNLESS NOTED OTHERWISE. ALL POINTS SHOWN ARE INTENDED TO BE LOCATED AT PC's, PT's, MIDPOINTS OF CURB RADII, INTERSECTIONS, AND CORNER LOCATIONS. TOP OF CURB ELEVATIONS ARE HIGHER THAN SHOWN.
4. ALL EMBANKMENT UNDER PAVEMENTS AND STRUCTURES SHALL BE COMPACTED WITH SELECT SITE MATERIAL PER ODOT SPECIFICATIONS 203 & 204.
5. ALL AREAS AFFECTED BY SITE WORK, EXCLUDING PAVED, LANDSCAPED AND STRUCTURE AREAS, SHALL BE SEEDED AND MULCHED PER ODOT SPECIFICATION 659.
6. CONTRACTOR SHALL STRIP ANY TOPSOIL AND STOCKPILE PRIOR TO SITE GRADING OPERATION. CONTRACTOR SHALL REPLACE STOCKPILED TOPSOIL TO A THICKNESS OF 6 INCHES PER ODOT SPECIFICATION 653 IN ALL LAWN & LANDSCAPED AREAS. HAUL EXCESS SOIL OFF-SITE OR BRING IN TOPSOIL UNLESS NOTED OTHERWISE. TOPSOIL SHALL BE DEFINED IN LAWNS AND GRASSES SPECIFICATIONS. IF LAWNS AND GRASSES SPECIFICATIONS IS NOT PROVIDED, TOPSOIL SHALL BE DEFINED PER ODOT 653 AND CONTAIN NO OBJECTS GREATER THAN 2MM IN DIAMETER.
7. SLOPES INDICATED AS PERCENTAGES ARE APPROXIMATE.
8. ANY SLOPES GREATER THAN 2:1 SHALL BE STABILIZED PER ODOT 670 & 671.
9. SEE UTILITY PLAN FOR ADDITIONAL STORM STRUCTURE DATA.
10. THE CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION.
11. NO NON-RUBBER TIRE VEHICLE SHALL BE MOVED ON STREETS. EXCEPTIONS MAY BE GRANTED WHERE SHORT DISTANCES AND SPECIAL CIRCUMSTANCES ARE INVOLVED. GRANTING OF EXCEPTIONS MUST BE IN WRITING AND ANY RESULTING DAMAGE MUST BE REPAIRED TO THE SATISFACTION OF THE JURISDICTIONAL AUTHORITY.
12. SEE SHEET C700-C704 FOR EROSION CONTROL NOTES & DETAILS.
13. SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION WITHIN HANDICAP PARKING AREA AND LOADING/ UNLOADING ZONES.
14. EXISTING SOILS ON SITE MAY BE USED AS SUBGRADE MATERIAL IF APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER.
15. SLOPE OF SUBGRADE SHALL FOLLOW SAME SLOPE AS PAVEMENT ABOVE AS NOTED ON GRADING PLAN.

GENERAL UTILITY NOTES

1. EXISTING UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS, SURVEYS, DRAWINGS, AND FIELD INVESTIGATION, AND ARE NOT NECESSARILY COMPLETE OR EXACT; THEREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. ALSO, THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED DURING CONSTRUCTION AT NO COST TO THE PROJECT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL LOCATIONS. MAKE SUCH ADJUSTMENTS IN ELEVATIONS AS ARE REQUIRED TO PROVIDE SUFFICIENT CLEARANCE BETWEEN THE EXISTING AND PROPOSED UTILITIES. CALL THE OHIO UTILITIES PROTECTION SERVICE (800) 362-2764 AND THE OIL AND GAS PRODUCERS UNDERGROUND PROTECTION SERVICE (800) 925-0988 AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK.
2. THORSON BAKER + ASSOCIATES EXPRESSLY DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF INFORMATION GIVEN REGARDING THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
3. THORSON BAKER + ASSOCIATES OFFERS THE EXISTING UNDERGROUND UTILITY INFORMATION AS SHOWN ON PROFILE SHEETS AS A GUIDE ONLY, AND DOES NOT GUARANTEE OR ASSUME ANY LIABILITY IMPLIED OR OTHERWISE FOR THE ACCURACY OF INFORMATION GIVEN HEREON. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN FOR HIMSELF/HERSELF THE CONDITIONS THAT MAY BE ENCOUNTERED DURING CONSTRUCTION OF THE PROJECT.
4. A QUALITY LEVEL "B" EXISTING UNDERGROUND UTILITY LOCATION AS DEFINED BY AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) WAS COMPLETED BY OTHERS TO ASSIST WITH THE DESIGN OF THE PROPOSED UNDERGROUND UTILITIES FOR THIS PROJECT. QUALITY LEVEL "B" DOES NOT EXPOSE OR DETERMINE ACTUAL LOCATIONS OR ELEVATIONS OF EXISTING UTILITIES. THIS ALLOWS THE POSSIBILITY THAT CONFLICTS COULD ARISE BETWEEN EXISTING AND PROPOSED UNDERGROUND UTILITIES AS "UNFORESEEN CONDITIONS" DURING THE CONSTRUCTION PHASE OF THE PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXCAVATE AND EXPOSE EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK TO DETERMINE ACTUAL LOCATIONS AND ELEVATIONS AND TO DETERMINE IF REQUIRED CLEARANCE CONFLICTS EXIST BETWEEN EXISTING AND PROPOSED UTILITIES. THIS WORK SHOULD BE PERFORMED IN A TIMELY MANNER SO AS TO PROVIDE ADEQUATE TIME FOR MODIFICATIONS TO THE CONSTRUCTION DOCUMENTS AND/OR RE-DESIGN IF REQUIRED.
5. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED IN THE RIGHT-OF-WAY DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, ENGINEER AND THE MUNICIPAL ENGINEER.
6. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH ALL UTILITY COMPANIES TO AVOID INFRASTRUCTURE CONFLICTS.
7. ALL TRENCHES SHALL BE BACKFILLED OR SECURELY PLATED DURING NONWORKING HOURS.
8. CONTRACTOR SHALL VERIFY AND COORDINATE SIZE AND LOCATION OF GAS LINE WITH MECHANICAL ENGINEER AND UTILITY COMPANY.
9. ALL DISTURBED AND/OR DAMAGED STORM SEWER PIPES, FIELD TILE AND APPURTENANCES, PAVEMENTS, BERMS AND DITCHES SHALL BE REPAIRED AND/OR REPLACED TO PRE-CONSTRUCTION CONDITION OR BETTER.
10. COORDINATE LAYOUT OF ALL SITE UTILITIES WITH SITE GEOMETRIC PLANS.
11. REMOVE EXISTING ASPHALT/CONCRETE TO ALLOW FOR INSTALLATION OF UTILITIES - SAW CUT ALL EDGES.
12. EXCEPT AS MAY BE MODIFIED SPECIFICALLY BY THESE PLANS, OR LOCAL AUTHORITY REQUIREMENTS, ALL UTILITY WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS, RECENT EDITION.
13. UTILITY INSTALLATION PERMITS AND PERMIT FEES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
14. EXCESS EXCAVATION FROM UTILITY INSTALLATION SHALL BE WASTED ON THE PROJECT SITE AS DIRECTED BY THE ENGINEER OF RECORD, OR EXCESS EXCAVATION NOT WASTED ON THE PROJECT SITE SHALL BE HAULED AWAY BY THE CONTRACTOR. MATERIAL DISPOSED OF OFF-SITE MUST BE DISPOSED OF IN AN ENVIRONMENTALLY SAFE FASHION AND IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION AND FINAL CLEARANCE OF ANY REQUIRED NEEDLING, UNDERPINNING, SHORING OR BRACING OF EXISTING STRUCTURES.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING A TRENCH SAFETY PLAN WHICH MEETS ALL LOCAL, STATE AND FEDERAL REGULATION.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE PROPER HORIZONTAL AND VERTICAL DISTANCES BETWEEN ALL UTILITIES AS REQUIRED BY THE UTILITY OWNERS AND JURISDICTIONAL AGENCIES.
18. THE FOLLOWING PROPOSED UTILITIES SHOWN ON THIS PLAN ARE FOR ROUTING AND COORDINATION PURPOSES ONLY. DESIGN, SIZING, CAPACITY, CAPACITY OF EXISTING SYSTEMS ETC., IS THE RESPONSIBILITY OF OTHERS. SIZES AND CONNECTION LOCATIONS SHOWN ON THIS SHEET WERE PROVIDED BY THE UTILITY VENDOR, MECHANICAL, PLUMBING, ELECTRICAL, TECHNOLOGY OR SPECIALTY ENGINEER:
    - NATURAL GAS
    - FIBER OPTICS
    - TELEPHONE
    - CABLE
    - ELECTRICAL

SANITARY SEWER NOTES (LOCAL AUTHORITY SHALL GOVERN)

1. ALL SANITARY SEWERS, MANHOLES AND APPURTENANCES SHALL BE CONSTRUCTED PER THE MATERIAL AND CONSTRUCTION SPECIFICATIONS OF THE LOCAL JURISDICTIONAL AGENCY, OR THE REQUIREMENTS OF ODOT CMS ITEM 611, THE MORE STRINGENT SHALL APPLY.
2. ALL MANHOLES, CASTINGS AND PIPE INVERTS SHALL BE SET TO ELEVATIONS INDICATED IN THESE PLANS. THE FINAL ADJUSTMENT OF THE CASTING ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR IN PAVED AREAS.
3. ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.
4. SEWERS SHALL BE INSTALLED DEEP ENOUGH TO RECEIVE WASTEWATER FROM BASEMENT FIXTURES AND TO PREVENT FREEZING.
5. IF FILL IS TO BE CONSTRUCTED BELOW THE SANITARY SEWERS, MANHOLES OR APPURTENANCES, COMPACTION TESTS WHICH MEET THE REQUIREMENTS OF THE JURISDICTIONAL AGENCY SHALL BE PERFORMED. THE COMPACTION WORK AND COMPACTION TESTING SHALL BE OBSERVED BY THE JURISDICTIONAL AGENCY. COMPACTION REPORTS SHALL BE SUBMITTED TO THE JURISDICTIONAL AGENCY FOR REVIEW AND APPROVAL BEFORE CONSTRUCTION OF ANY SANITARY SEWER WITHIN SAID FILL AREA CAN BEGIN.
6. ALL CONSTRUCTION STANDARDS, TESTING AND INSPECTION SHALL MEET THE REQUIREMENTS OF THE LOCAL JURISDICTIONAL AGENCY, OHIO EPA AND THE "RECOMMENDED STANDARDS FOR WASTERWATER FACILITIES" (10 STATE STANDARDS).
7. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLETE ALL VIDEO, TELEVISION OR PHOTOGRAPHIC INSPECTION AS REQUIRED BY THE JURISDICTIONAL AGENCY.
8. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLETE ALL LEAKAGE TESTING AS REQUIRED BY THE JURISDICTIONAL AGENCY WHICH MAY INCLUDE BUT IS NOT LIMITED TO LOW PRESSURE AIR TESTING, HYDDROSTATIC TESTING OR VACUUM TESTING.
9. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL DEFLECTION TESTING AS REQUIRED BY THE JURISDICTIONAL AGENCY INCLUDING BUT NOT LIMITED TO THE MANDREL TEST.

STORM SEWER NOTES (LOCAL AUTHORITY SHALL GOVERN)

1. ALL STORM SEWERS, MANHOLES, CATCH BASINS AND APPURTENANCES SHALL BE CONSTRUCTED PER THE MATERIAL AND CONSTRUCTION SPECIFICATIONS OF THE LOCAL JURISDICTIONAL AGENCY, OR THE REQUIREMENTS OF ODOT CMS ITEM 611, THE MORE STRINGENT SHALL APPLY.
2. THE MINIMUM REQUIREMENTS FOR STORM DRAIN PIPE, OTHER THAN UNDERDRAINS, SHALL BE HDPE PER ODOT ITEM 707.33, AS SPECIFIED. REINFORCED CONCRETE PIPE (RCP) PER ODOT ITEM 706.02, AS SPECIFIED, SHALL BE AS NOTED.
2. ALL MANHOLES, CASTINGS AND PIPE INVERTS SHALL BE SET TO ELEVATIONS INDICATED IN THESE PLANS. THE FINAL ADJUSTMENT OF THE CASTING ELEVATIONS SHALL BE THE RESPONSIBILITY OF THE PAVING CONTRACTOR IN PAVED AREAS.
3. CURB INLETS, MANHOLES, AND CATCH BASINS SHALL BE CHANNELED AS DIRECTED BY THE JURISDICTIONAL AGENCY.
4. ALL CATCH BASINS WITHIN PAVEMENT AREAS SHALL HAVE UNDERDRAINS AS DETAILED.
5. ARCHITECTURAL DRAWINGS SHOWING DOWNSPOUT LOCATIONS SHALL GOVERN WHEN IN CONFLICT WITH LOCATIONS SHOWN ON UTILITY PLAN. DOWNSPOUT TEE ELEVATIONS SHALL BE FIELD ADJUSTED IF NECESSARY TO PROVIDE 0.5% MINIMUM SLOPE ON ALL ROOF DRAINS. ALL DOWNSPOUT CONNECTION LINES SHALL BE RUN AT A MINIMUM OF 1% SLOPE INTO THE TEE. ELEVATIONS GIVEN FOR TEES ARE FOR THE BRANCH CONNECTIONS, NOT FOR THE ROOF DRAINS. SEE ARCHITECTS DRAWING FOR DOWNSPOUT BOOT DETAIL.

WATER NOTES (LOCAL AUTHORITY SHALL GOVERN)

1. ALL WATER SERVICE AND WATER MAIN MATERIALS AND CONSTRUCTION SPECIFICATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE GOVERNING WATER AUTHORITY.
2. ALL PIPE, FITTINGS, VALVES, HYDRANTS, BACKFLOW PREVENTION, METERS AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE WATER AUTHORITY AND LOCAL FIRE AUTHORITY.
3. ALL HYDRANTS, VALVE BOXES, METER PITS AND VAULTS SHALL BE SET TO FINISH GRADE ELEVATIONS AS INDICATED IN THESE PLANS. IN PAVED AREAS, FINAL ELEVATION ADJUSTMENTS ARE THE RESPONSIBILITY OF THE PAVING CONTRACTOR.
4. ALL PRESSURE TESTING AND CHLORINATION/DISINFECTION SHALL BE COMPLETED BY THE CONTRACTOR IN ACCORDANCE WITH THE GOVERNING WATER AUTHORITY REQUIREMENTS AND SHALL MEET OHIO EPA AND AWWA STANDARDS.
5. ALL BEDDING AND BACKFILLING OF WATERLINE PIPE AND APPURTENANCES SHALL MEET THE REQUIREMENTS OF THE GOVERNING WATER AUTHORITY.
6. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL PLUG ALL OPEN END PIPES WITH A WATER TIGHT PLUG PER AWWA STANDARDS.
7. THE CONTRACTOR SHALL NOTIFY THE LOCAL WATER AUTHORITY AT LEAST TWO WORKING DAYS BEFORE TAPPING THE EXISTING MAIN.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING WATER MAINS AND APPURTENANCES THEREOF WHEN CONSTRUCTING OR CONNECTING THE NEW WATER MAIN OR SERVICE. THIS SHALL INCLUDE LEADED JOINTS IN EXISTING FITTING WHICH MAY REQUIRE REPLACEMENT FITTINGS AT THE DISCRESION OF THE GOVERNING WATER AUTHORITY IF IT IS DETERMINED THEY WERE DISTURBED.
9. CONTRACTOR TO PROVIDE MINIMUM 18" VERTICAL CLEARANCE AND 10' HORIZONTAL CLEARANCE BETWEEN OUTSIDE OF STORM SEWER PIPE AND OUTSIDE OF WATERLINE PIPE AT ALL LOCATIONS. MINIMUM CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES SHALL BE 10' HORIZONTAL OR 18" VERTICAL OUT-TO-OUT OF PIPE. WATERLINE SHALL BE DEFLECTED OR FITTINGS SHALL BE INSTALLED TO MAINTAIN STANDARD CLEARANCE.
10. THE FIRE PROTECTION CONTRACTOR/ DESIGNER MUST VERIFY ACTUAL WATER FLOWS AND PRESSURES AT THE SITE PRIOR TO DESIGNING THE FIRE PROTECTION SYSTEM.
11. ALL REMOTE OR STANDARD FIRE DEPARTMENT CONNECTIONS, FIRE HYDRANTS AND FITTINGS SHALL MEET THE MATERIAL AND CONSTRUCTION SPECIFICATIONS OF THE GOVERNING WATER AUTHORITY AND THE LOCAL FIRE AUTHORITY.
12. TRACER TAPE OR TRACER TAPE WITH WIRE SHALL BE INSTALLED ABOVE THE NEW WATERLINE IN ACCORDANCE WITH THE GOVERNING WATER AUTHORITY.
13. THE REQUIRED COVER OVER WATER MAINS, FIRE SERVICE LINES AND DOMESTIC SERVICE LINES SHALL BE AS REQUIRED BY THE GOVERNING WATER AUTHORITY.

LDA ARCHITECTS
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216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

PROGRESS NOT FOR CONSTRUCTION 8/2/2024

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

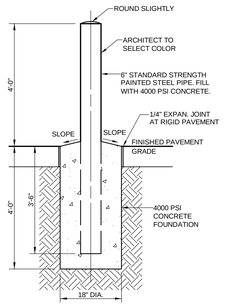
LDA Project No.23.48

NOTES

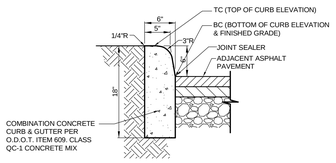
C500

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road (330) 659-6688 Ph.
Richfield, Ohio 44286 (330) 659-6675 Fax

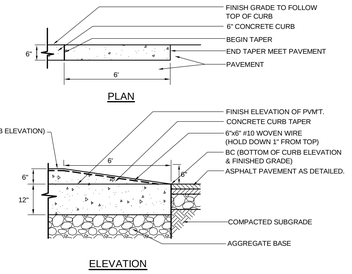
Ohio Utilities Protection Service Call 811 before you dig



6" BOLLARD DETAIL

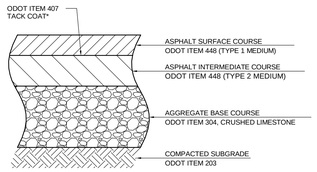


CONCRETE CURB
(ODOT TYPE 6)



CONCRETE CURB TAPER

SECTION	SURFACE	INTERMED.	BASE
STANDARD	1.5"	2"	6"
HEAVY DUTY	1.5"	3"	8"



SLAG IS NOT PERMITTED IN SURFACE OR INTERMEDIATE COURSES

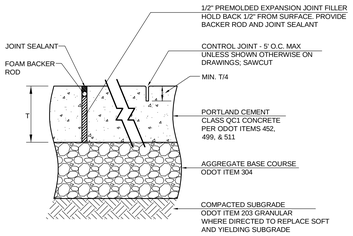
* TACK COAT ONLY REQUIRED WHEN SURFACE COURSE IS INSTALLED 24 HOURS OR MORE AFTER INTERMEDIATE COURSE.

GEOTECHNICAL ENGINEER TO VERIFY DESIGN

NOTE: SLOPE OF SUBGRADE SHALL FOLLOW SAME SLOPE AS PAVEMENT ABOVE AS NOTED ON GRADING PLAN

ASPHALT PAVEMENT DETAIL

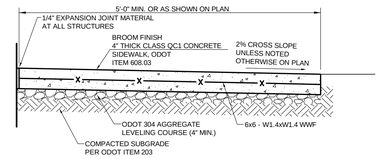
SECTION	SURFACE	BASE
STANDARD	6"	8"
HEAVY DUTY	7"	8"
DUMPSTER PAD	8"	8"



NOTES:

1. 1/2" PREMOLDED EXPANSION JOINT PER O.D.O.T. 705.03 - 40' O.C. MAX. UNLESS SHOWN OTHERWISE ON DRAWINGS AND AT ALL CURBS, WALKS, WALLS AND OTHER FIXED OBJECTS.
2. CONTROL JOINT - 5' O.C. MAX OR AS SHOWN ON DRAWINGS.
3. CROSS SLOPE AT 1/8" PER FOOT MIN. TO DRAIN.
4. USE EDGING TOOL AT PERIMETER.
5. SIDEWALK PER O.D.O.T. 608.03.
6. PROVIDE HEAVY BROOM FINISH ON ALL RAMPS PERPENDICULAR TO RAMP SLOPE.
7. SURFACE TO BE SEALED PER ODOT ITEM 512.

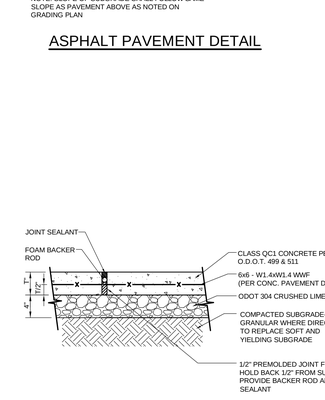
NON-REINFORCED CONCRETE PAVEMENT DETAIL



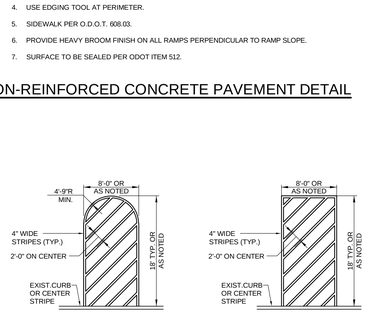
NOTE:
1. SURFACE TO BE SEALED PER ODOT ITEM 512.

2. SLOPE OF SUBGRADE SHALL FOLLOW SAME SLOPE AS PAVEMENT ABOVE AS NOTED ON GRADING PLAN.

CONCRETE SIDEWALK

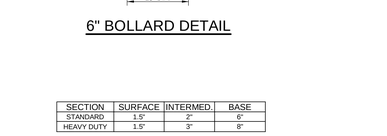


EXPANSION JOINT



NOTES:
1. STRIPE COLOR TO BE WHITE OR MATCH OTHER PARKING SPACE STRIPING
2. IF NO CURB OR CENTER STRIPE, PAINT 4" STRIPE CONNECTING SIDE STRIPES; TERMINATE AT END OF PARKING STALL OR WHEELSTOP
3. PAINT TO BE PER ODOT ITEM 642 TYPE 1 PAINT

STRIPING DETAIL

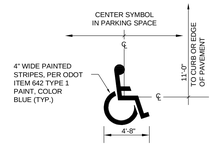


CONTROL JOINT

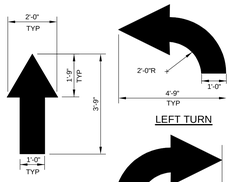
NOTES:

1. 1/2" PREMOLDED EXPANSION JOINT PER O.D.O.T. 705.03 - 40' O.C. MAX. OR AS SHOWN ON DRAWINGS AT ALL CURBS, WALKS, WALLS AND OTHER FIXED OBJECTS.
2. CONTROL JOINT - 5' O.C. MAX. OR AS SHOWN ON DRAWINGS.
3. CROSS SLOPE AT 1/8" PER FOOT MIN. TO DRAIN.
4. USE EDGING TOOL AT PERIMETER.
5. SIDEWALK PER O.D.O.T. 608.03.
6. SURFACE TO BE SEALED PER ODOT ITEM 512.
7. SLOPE OF SUBGRADE SHALL FOLLOW SAME SLOPE AS PAVEMENT ABOVE AS NOTED ON GRADING PLAN.

PAVEMENT JOINTS

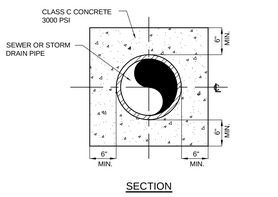


ACCESSIBLE SYMBOL DETAIL

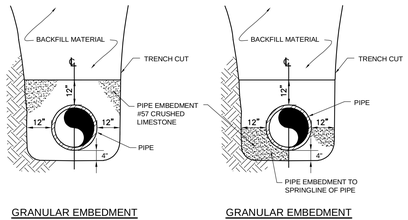


NOTE:
TRAFFIC FLOW ARROWS TO BE SOLID WHITE REFLECTIVE TRAFFIC PAINT PER DIMENSIONS ABOVE AND PER ODOT ITEM 642 TYPE 1 PAINT.

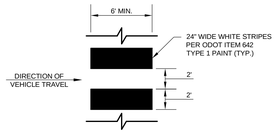
TRAFFIC LANE ARROWS



CONCRETE PIPE ENCASEMENT



BEDDING DETAILS



HORIZONTAL CROSSWALK STRIPING DETAIL

R7-8
12x18

R7-8B
12x6
(SEE NOTE 5)

R7-H8B
12x6

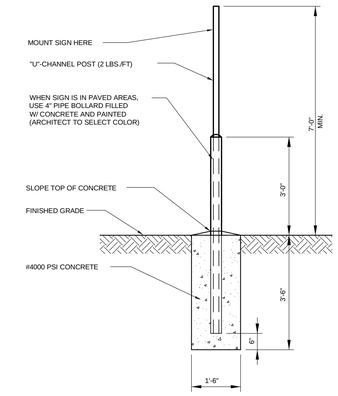
NOTES:
1. SEE SITE LAYOUT PLAN FOR SIGN LOCATIONS. LOCATIONS TO BE FIELD VERIFIED.
2. SIGN SHALL BE SINGLE POST DESIGN.
3. SIGN POST SHALL BE U CHANNEL TYPE PER ODOT SECTION 730.015, DRAWING TC-41.20.
4. FIELD OF SIGNS SHALL BE BLUE RETROREFLECTIVE AND LEGEND SHALL BE WHITE RETRORREFLECTIVE.
5. SEE PLAN FOR LOCATION OF VAN SPACE
6. SIGNS SHALL BE 60 INCHES ABOVE THE GROUND SURFACE MEASURED TO THE BOTTOM OF THE SIGN

ACCESSIBLE PARKING SIGNS

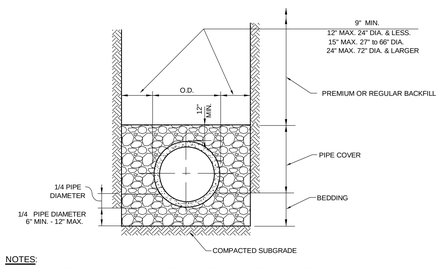
ALL SIGNS SHALL COMPLY WITH OHIO DEPARTMENT OF TRANSPORTATION, "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", LOCAL CODES AND AS SPECIFIED.

THE SIGN SHEETING MATERIAL SHALL BE TYPE "G" REFLECTIVE SHEETING. ALL DIRECTIONAL SIGNAGE SHALL HAVE A 7'-0" CLEARANCE TO THE BASE.

MOUNT SIGN IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.



STANDARD SIGN BASE



NOTES:

LATERAL CONNECTIONS TO HAVE A MINIMUM BEDDING DEPTH OF 3" COARSE AGGREGATE.

PIPE COVER SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE NO. 57, 6, 67, 68, 7, 78, OR 8.

BEDDING SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE NO. 57, 6, 67, 68, 7, 78, OR 8 FOR 60" OR SMALLER DIAMETER PIPE. FOR 66" OR LARGER DIAMETER PIPE NO. 4 AGGREGATE MAY ALSO BE USED.

PREMIUM BACKFILL SHALL CONSIST OF COARSE INTERLOCKING AGGREGATE NO. 57, 6, 67, 68, 7, 78, 8, ODOT ITEM 304, OR LIMESTONE SCREENINGS.

TRENCH WIDTH AND CONCRETE CRADLE WIDTH SHALL BE O.D. OF PIPE PLUS 9" ON EACH SIDE OF PIPE.

FOR CONCRETE AND DUCTILE IRON PIPE, PIPE COVER IS TO THE SPRINGLINE OR GREATER.

IN PAVED AREAS COARSE INTERLOCKING AGGREGATE TO THE TOP OF THE TRENCH ON ALL TYPES OF PIPE.

TYPICAL TRENCH DETAIL
(FLEXIBLE PIPE)

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road (330) 659-6688 Ph.
Richfield, Ohio 44286 (330) 659-6675 Fax

Ohio Utilities Protection Service Call 811 before you dig

LDA ARCHITECTS
The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

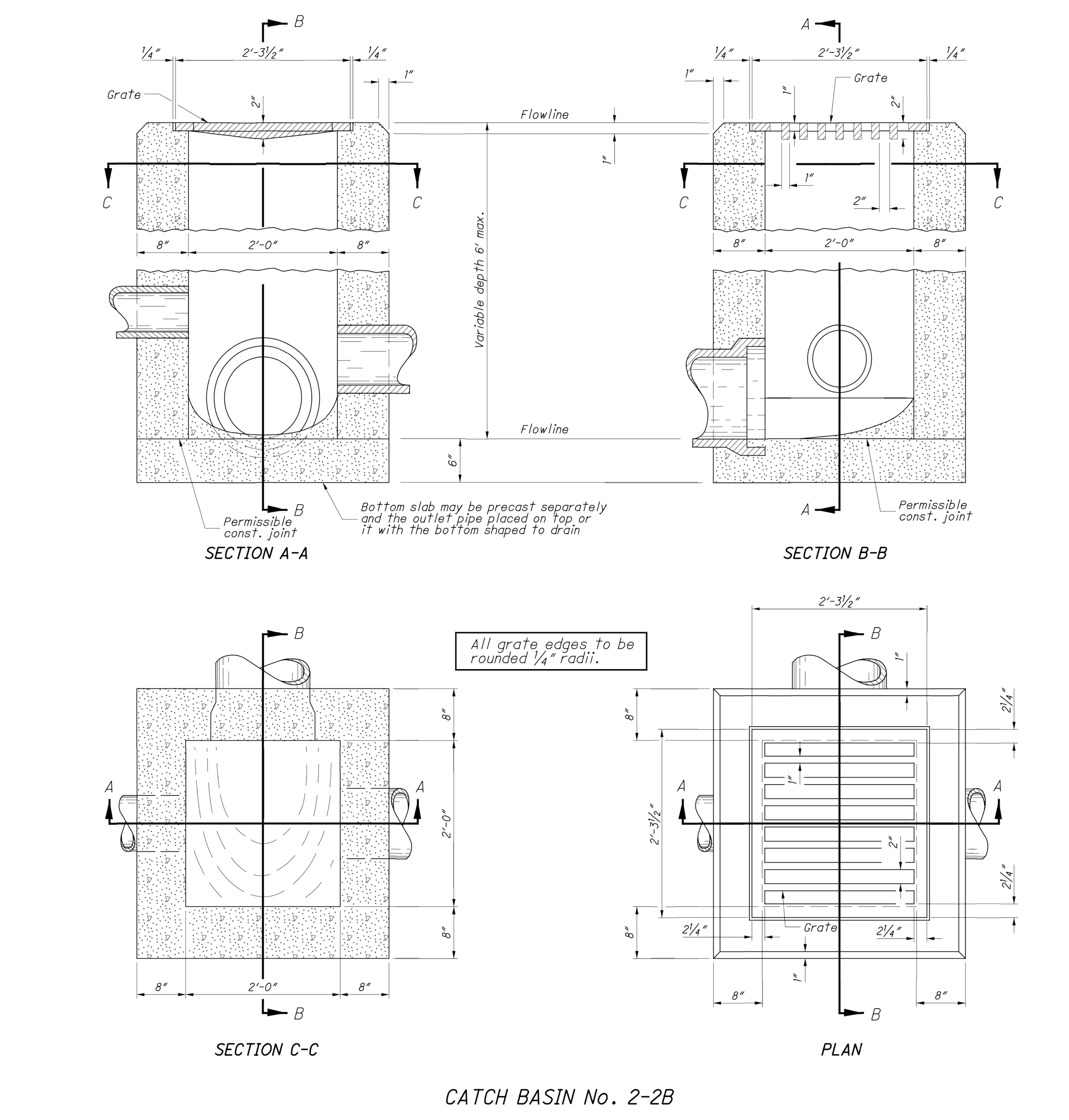
PROGRESS NOT FOR CONSTRUCTION 8/2/2024

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

DETAILS

C600



CATCH BASIN No. 2-2B

CATCH BASIN No. 2-2C

NOTES

CATCH BASINS 2-2A, 2-2B & 2-2C: This sheet depicts Catch Basin 2-2B & 2-2C. See Sheet 1 of 2 for Catch Basin 2-2A.

CB-2-2B GRATE: Furnish a design essentially the same and equally as strong as the one shown (see Construction Information table), or meet the requirements of CMS 711.14. Provide grate openings and dimensions as shown here unless otherwise shown in the plans.

If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-4859-S or EJ No. 5110M3 (00511043) grates or approved equals.

Place grate elevation 4" to 6" below normal ditch and return to normal 10' to 15' each side of inlet.

CB-2-2C FRAME & GRATE: Where the catch basin is specified for use in a parking lot, Furnish Neenah No. R-1878-A5G or EJ No. V-5622 (45622010) frame and V-5622 (45622030) grate or approved equals. If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-3405 grate or EJ No. 5250M (00525031) grate or approved equals.

On cast-in-place and precast units, provide a level surface on the catch basin 4" below the plan grate elevation for setting the frame and grate assembly. Provide a concrete apron to encase and secure the frame of a width not less than the thickness of the catch basin walls that the frame was placed on or as shown in the plans. Slope apron to provide local depression.

GRATE TEXT: Cast the following text into the top of the grate:

"DRAINS TO WATERWAY" and **"DUMP NO WASTE"**

Print text in bold, capital letters at least 1/2" high. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls at least 6" thick with sufficient reinforcing to permit shipping and handling without damage.

CONCRETE: Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of CMS 706.13 for all precast concrete and mark with the catch basin number.

PRECAST BASE: If a precast base is used, set it deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Do not use brick layers to adjust the top elevation.

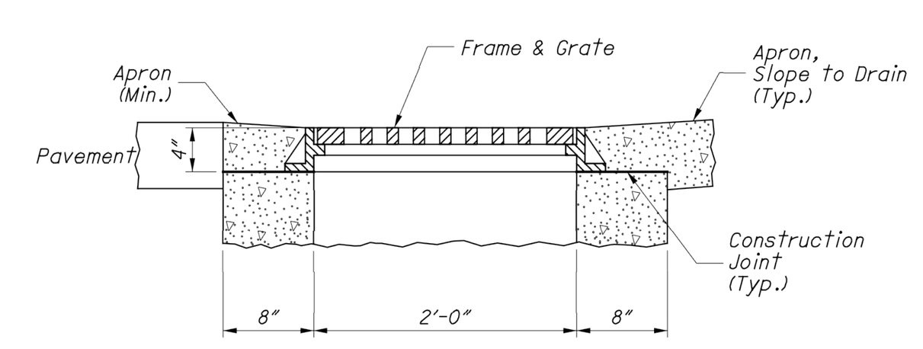
LOCATION AND ELEVATION: When given on the plans, location and elevation are at the top center of the grate.

MINIMUM DEPTH: The minimum depth of CB No. 2-2B is the outside diameter (O.D.) of the outlet pipe plus 4". The minimum depth of CB No. 2-2C is the outside diameter (O.D.) of the outlet pipe plus 8".

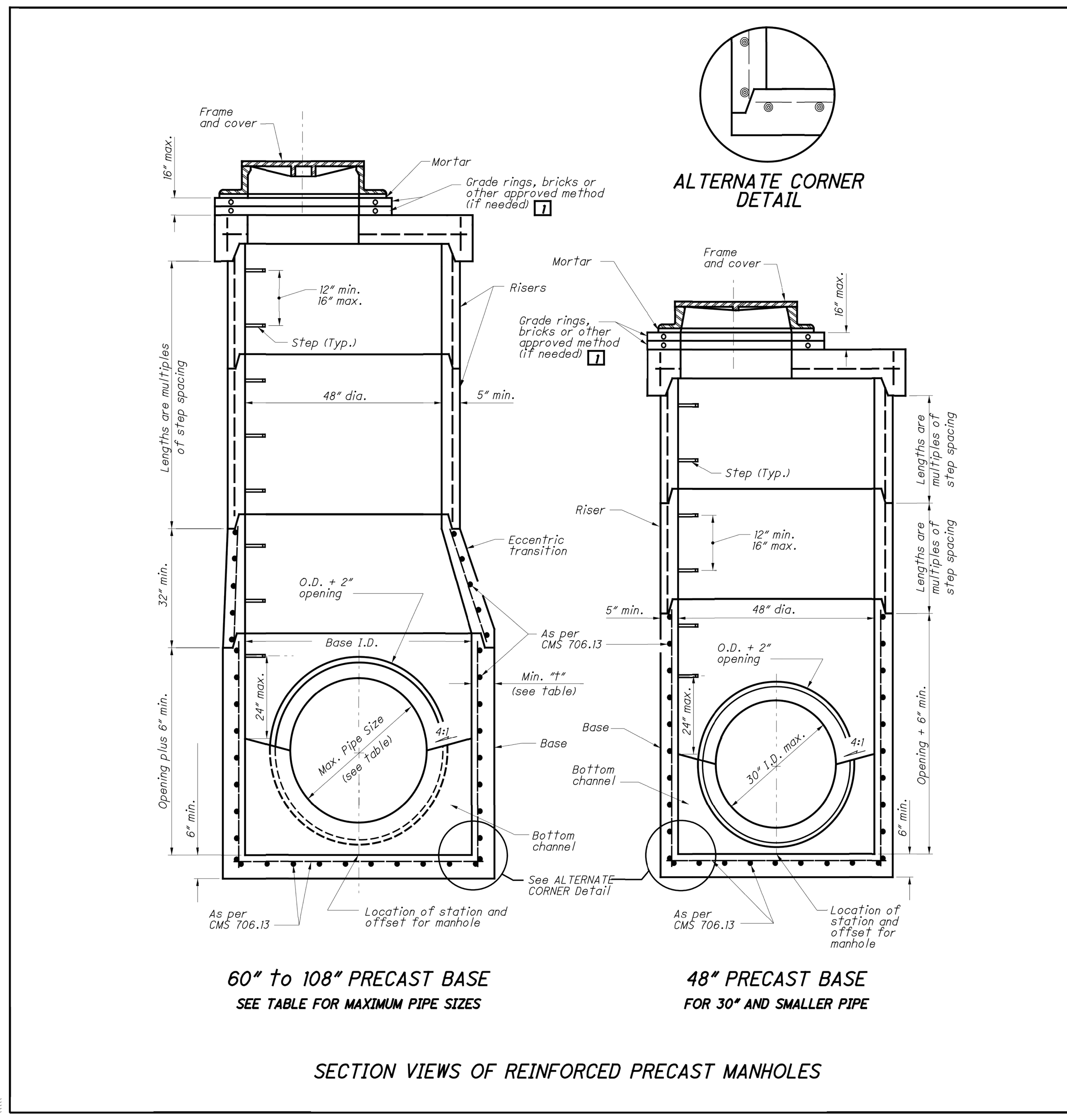
OPENINGS: Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

PAYMENT: All materials and labor, including excavation and backfilling, are paid for under **Item 611 - Catch Basin, No. 2-(2B or 2C).**

CONSTRUCTION INFORMATION
Minimum weight of grate, 120 lbs.



STATE OF OHIO DEPARTMENT OF TRANSPORTATION HYDRAULIC ENGINEER Jeffery E. Syar
REVISIONS 7-15-05 7-20-12 1-18-13 1-15-16 7-20-18 7-19-19 7-16-21
ROADWAY HYDRAULIC ENGINEER M. Cozzoli
OFFICE OF HYDRAULICS ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING CATCH BASIN No's 2-2A, 2-2B, 2-2C
DRAWING CB-2-2A, 2-2B, 2-2C
2 / 2



SECTION VIEWS OF REINFORCED PRECAST MANHOLES

NOTES

GENERAL: With normal soil and site conditions, this standard precast manhole may be used for any required manhole depth.

Cast and assemble sections of the precast manhole with either all tongue or all groove ends up. Lift holes may be provided in each section for handling.

Leave handling device for the flat slab in place.

TOP: Provide a flat slab for this section unless an eccentric cone is specified.

TRANSITION (OR REDUCER): This section can be either eccentric cone or flat slab.

BASE: Manhole No. 3 is shown with a monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Provide openings for inlet and outlet pipes, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete, precast in the base or field constructed as shown on **SCD MH-1 and MH-2.**

RISER SECTIONS: Openings for 18" and smaller inlet pipes may be either prefabricated or cut in the field provided the sides of the pipe at the springline do not project into the manhole.

CONNECTIONS: Connections between precast manhole sections and pipes on sanitary sewers may be sealed with resilient connectors conforming to ASTM C 923.

JOINT SEAL: Furnish resilient seal between precast manhole sections on sanitary sewers and flexible gasket joints per CMS 706.11.

OPENINGS: Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

MATERIALS: Provide materials for bases and other precast sections, including reinforcement not specified here, that meet the requirements of CMS 706.13.

DROP PIPE: When specified on the plans, construct drop pipe as shown on **SCD MH-2.**

STEPS, FRAMES AND COVERS: Meet the requirements shown on **SCD MH-1.**

TOP SLAB REBAR: Use epoxy coated reinforcing steel within the top slab.

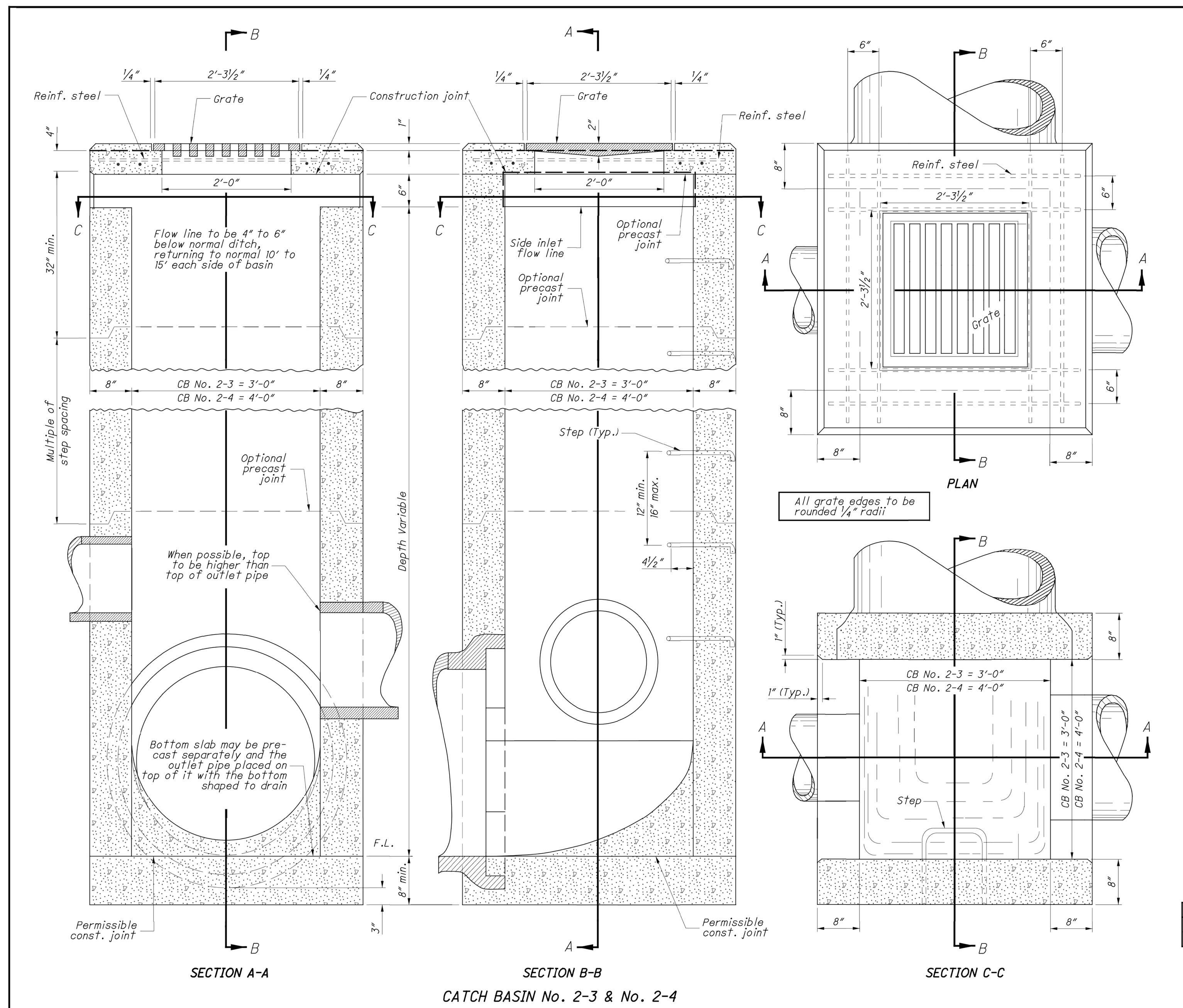
LEGEND

[1] Reconstruction to grade only. Approved materials are kept on file by the Office of Materials Management.

MAXIMUM PIPE SIZES

BASE I.D.	MIN. "t"	MAX. PIPE SIZE
60"	5"	36"
72"	6"	48"
84"	7"	54"
90"	7½"	60"
96"	8"	66"
108"	9"	72"

STATE OF OHIO DEPARTMENT OF TRANSPORTATION HYDRAULIC ENGINEER Jeffery E. Syar
REVISIONS 7-19-02 7-15-05 1-20-06 7-20-12 1-18-13 1-15-16 7-16-21
ROADWAY HYDRAULIC ENGINEER M. Cozzoli
OFFICE OF HYDRAULICS ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING MANHOLE No. 3
DRAWING MH-3
1 / 2



CATCH BASIN No. 2-3 & No. 2-4

NOTES

GENERAL: Catch Basins 2-3 and 2-4 are not intended for traffic bearing applications.

GRATE: See details on **SCD CB-2-2A, 2-2B, 2-2C.**

If necessary, bicycle safe grates will be specified in the plans. Furnish Neenah No. R-4859-C or East Jordan No. 5110 Type M3 bicycle safe grates or approved equals.

Cast the following text into the top of the grate:

"DUMP NO WASTE" and **"DRAINS TO WATERWAY"**

Print text in bold, capital letters at least ½" high. "WATERWAY" may be substituted with "STREAM", "RIVER", "LAKE", etc. Actual placement and logo may vary per manufacturer.

WALLS: Construct brick or cast-in-place walls with a nominal 8" thickness. Provide precast walls at least 6" thick with sufficient reinforcing to permit shipping and handling without damage.

STEPS: Provide steps where the depth exceeds 6'. Meet the requirements of **SCD MH-1.**

CONCRETE: Use 4000 psi compressive strength for cast-in-place concrete. Meet the requirements of CMS 706.13 for all precast concrete and mark with the catch basin number.

REINFORCEMENT: Provide #4 bars spaced at 6" center to center for top reinforcing. For Catch Basin No. 2-3 use eight bars, and for Catch Basin No. 2-4 use twelve bars.

INLETS OVER 12 FEET DEEP: Use precast or cast-in-place concrete; reinforce with #4 bars on 12" centers both vertically and horizontally with 2" clearance from inside wall face.

PRECAST BASE: If a precast base is used, set it deep enough so that the top can be placed on the base to provide the grate elevation specified in the plans. Do not use brick layers to adjust the top elevation.

LOCATION AND ELEVATION: When given on the plans, the location and the elevation are at the top center of the grate. When side openings are provided, the elevation is at the flow line of the side inlet.

MINIMUM DEPTH: The minimum depth of CB No. 2-3 and CB No. 2-4 is the outside diameter (O.D.) of the outlet pipe plus 7".

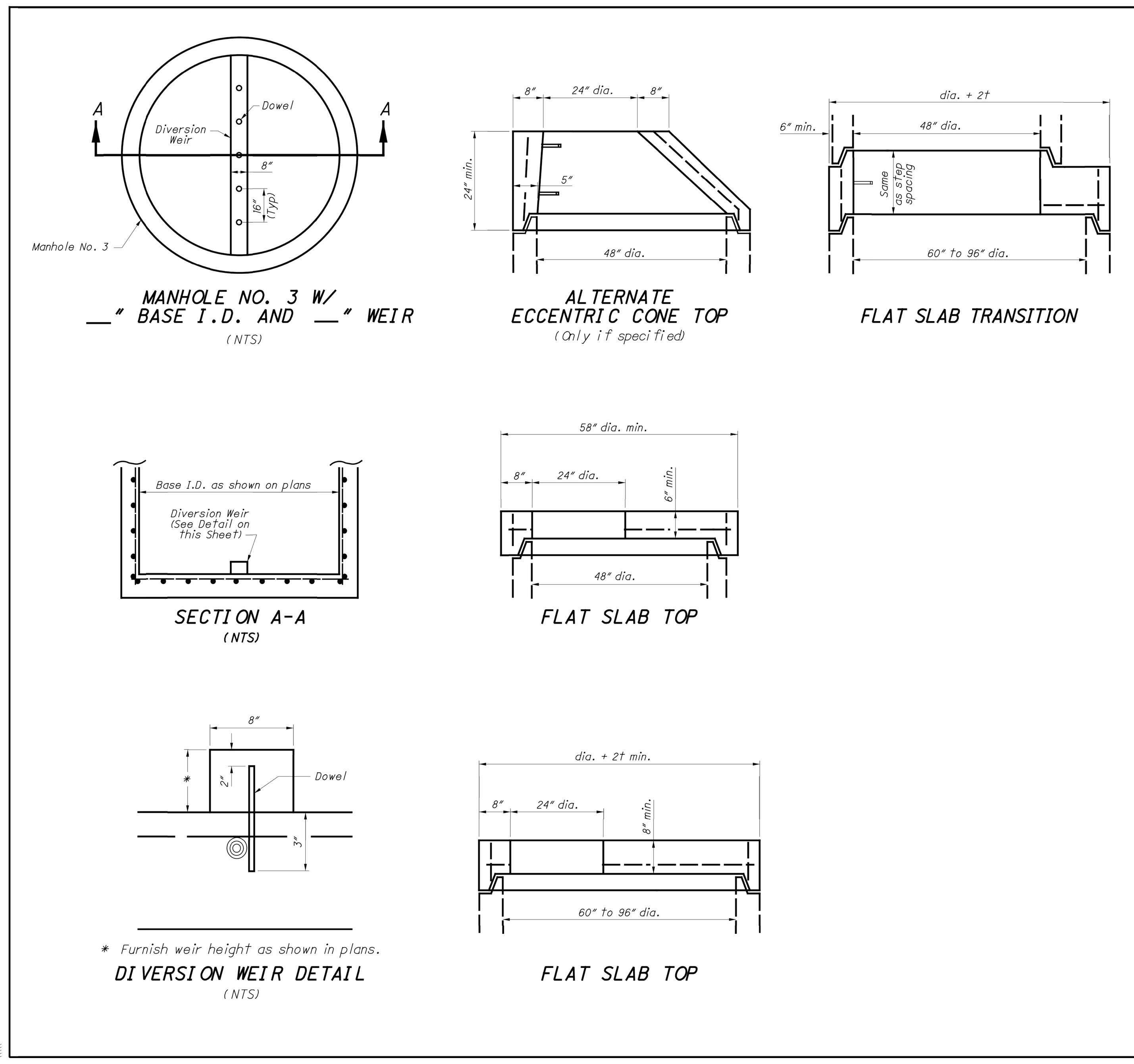
OPENINGS: Ensure pipe openings are the O.D. of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per C&MS 611.

SIDE INLETS: Provide inlets on both sides of the No. 2-3 and 2-4 catch basin in sags and on upstream side only where the ditch has a continuous down grade past the catch basin. Do not use catch basins with side inlets within the Clear Zone.

PAYMENT: All materials and labor, including excavation and backfill, are paid for under **Item 611 - Catch Basin, No. 2-3 or Item 611 - Catch Basin No. 2-4.**

CATCH BASIN	OUTLET PIPE SIZE
2-3	12" to 33"
2-4	36" to 42"

STATE OF OHIO DEPARTMENT OF TRANSPORTATION HYDRAULIC ENGINEER Jeffery E. Syar
REVISIONS 7-20-01 7-19-02 7-15-05 7-20-12 1-18-13 1-15-16 7-16-21
ROADWAY HYDRAULIC ENGINEER M. Cozzoli
OFFICE OF HYDRAULICS ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING CATCH BASIN No's 2-3, 2-4
DRAWING CB-2-3, 2-4
1 / 1



NOTES

MANHOLE NO. 3 W/___" BASE I.D. AND ___" DIVERSION WEIR: Furnish manhole base with precast diversion weir or construct diversion weir from Structural Concrete, 4000 psi compressive strength concrete or Brick and Masonry Units conforming to CMS 611. A bottom channel section for the manhole is not required when a diversion weir is specified on the plans.

Place diversion weir perpendicular to flow of inflowing trunk sewer. Dowel concrete or masonry units into the base of the manhole to a depth of 3" using epoxy coated #4 reinforcing bars. Start dowels at the center of the diversion weir and space 16" on center across the entire weir.

All materials and labor, including excavation and backfill, are paid for at the contract price for **ITEM 611 - MANHOLE NO. 3 WITH ___" BASE I.D. AND ___" DIVERSION WEIR.**

STATE OF OHIO DEPARTMENT OF TRANSPORTATION HYDRAULIC ENGINEER Jeffery E. Syar
REVISIONS 7-19-02 7-15-05 1-20-06 7-20-12 1-18-13 1-15-16 7-16-21
ROADWAY HYDRAULIC ENGINEER M. Cozzoli
OFFICE OF HYDRAULICS ENGINEERING
STANDARD HYDRAULIC CONSTRUCTION DRAWING MANHOLE No. 3
DRAWING MH-3
2 / 2

PROGRESS NOT FOR CONSTRUCTION 8/2/2024

LDA ARCHITECTS

The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

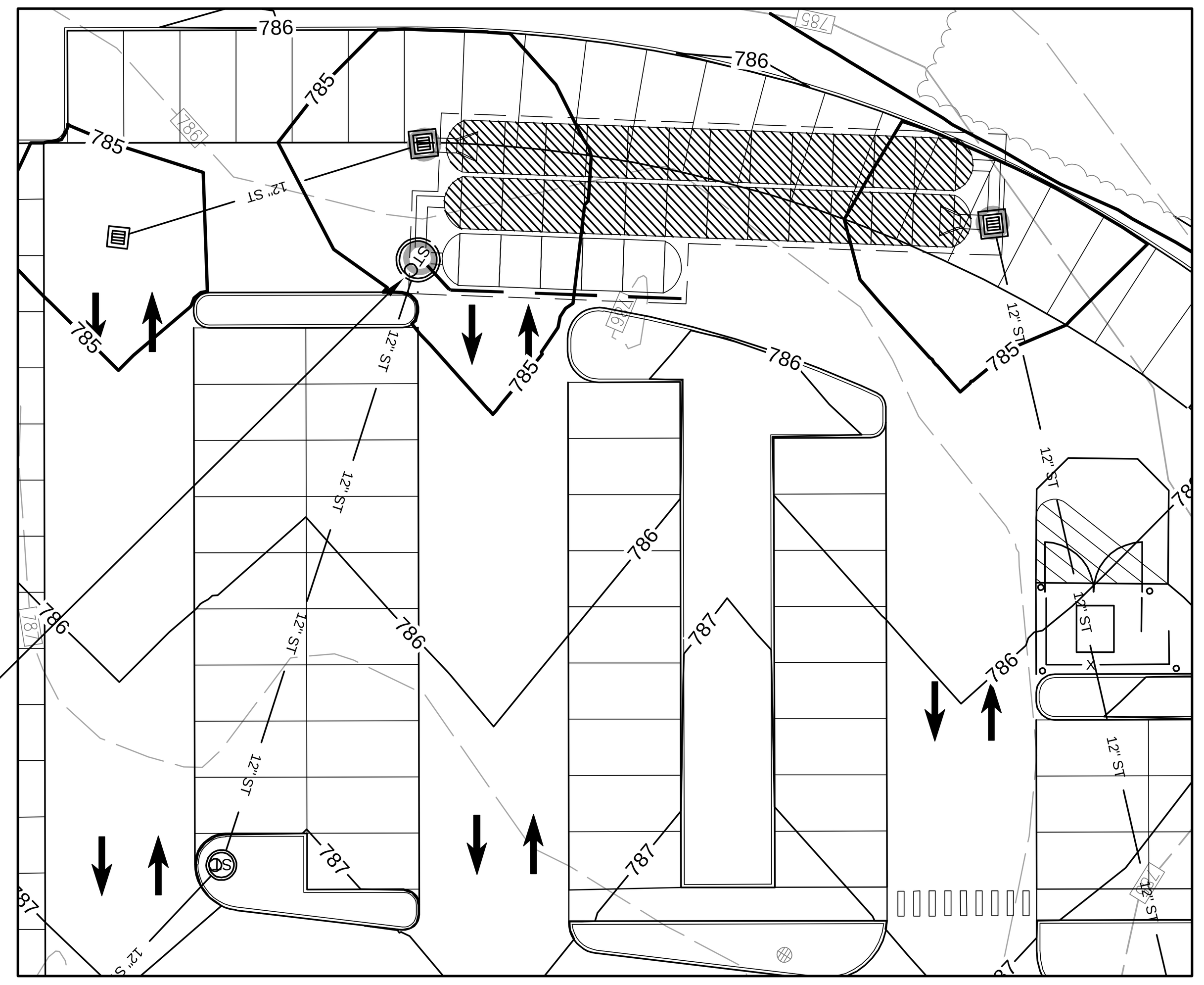
LDA Project No.23.48

DETAILS

Thorson·Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road Richfield, Ohio 44286
(330) 659-6688 Ph. (330) 659-6675 Fax

C601

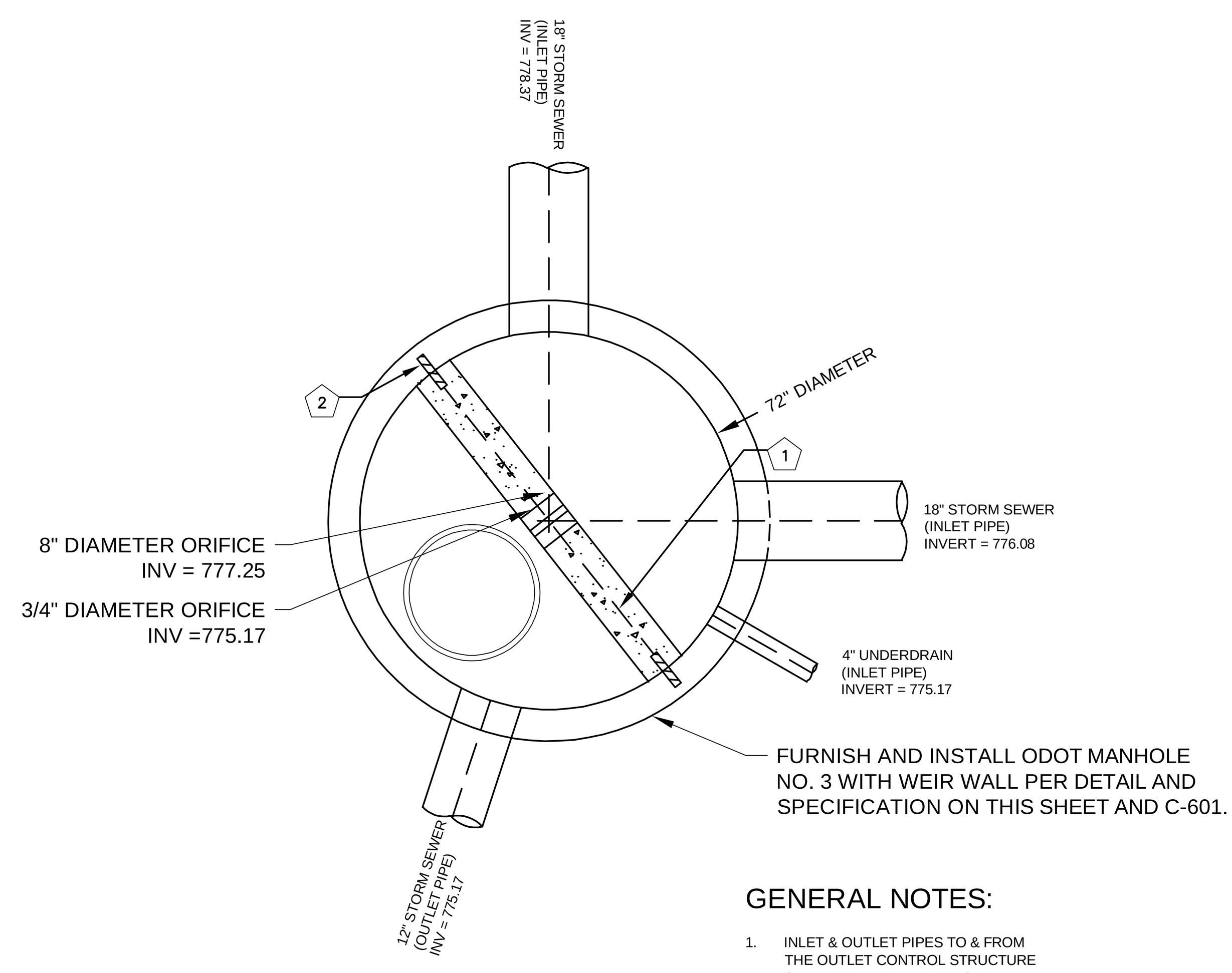
SEE OUTLET OS - (1) DETAIL THIS SHEET



STORMWATER MANAGEMENT DETAILS

1" = 20'

20 0 20 40

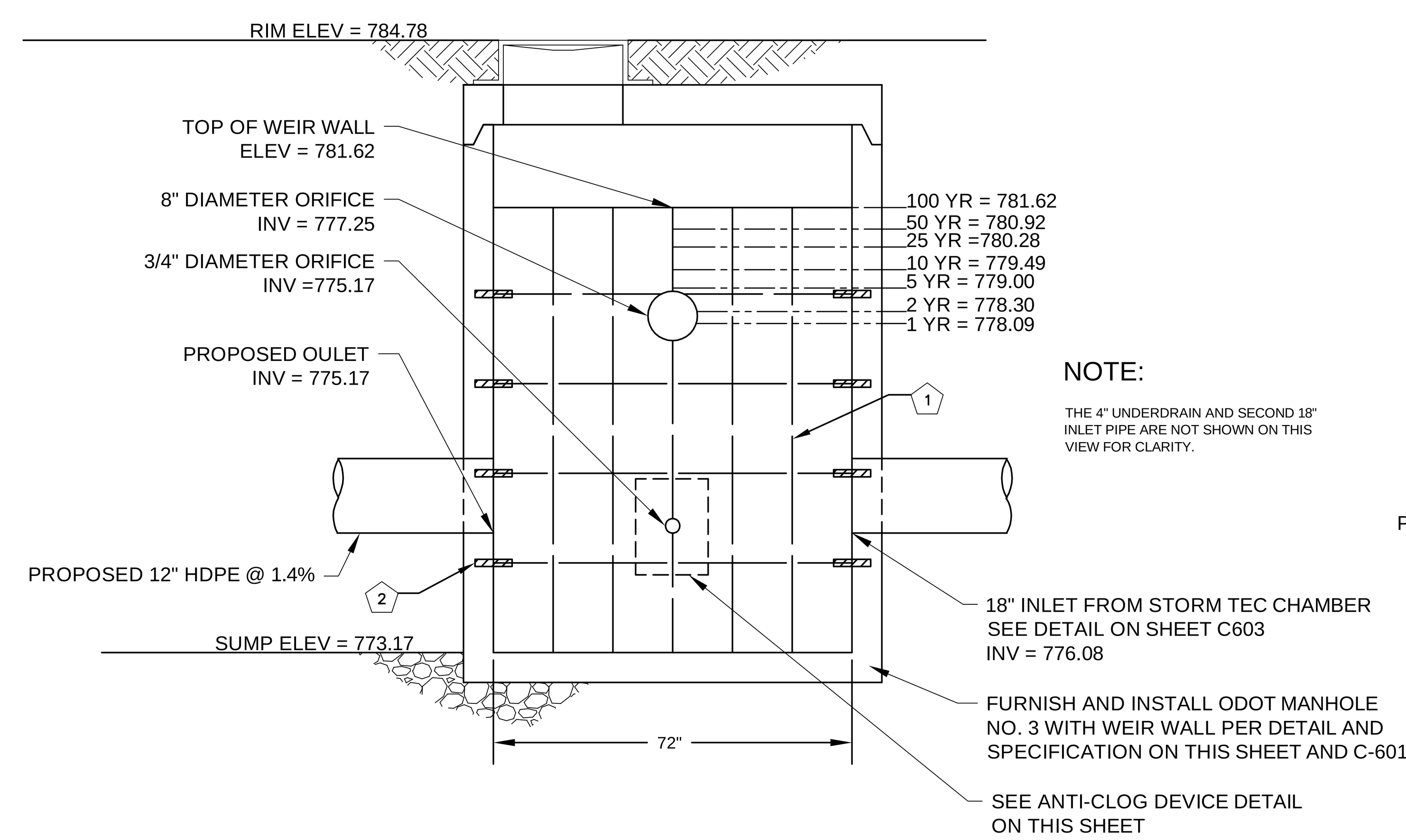


GENERAL NOTES:

1. INLET & OUTLET PIPES TO & FROM THE OUTLET CONTROL STRUCTURE SHALL BE HAVE WATERTIGHT CONNECTIONS WHERE PIPES PENETRATE THE WALL OF THE STRUCTURE.
2. WEIR WALL JOINTS AND WEIR WALL TO STRUCTURE WALL JOINTS SHALL BE WATERTIGHT.

(1) USE #4 BARS AT 12" CENTERS VERTICAL AND HORIZONTAL. MAINTAIN 2" CLEARANCE FROM MANHOLE WALLS (TYP)

(2) ANCHOR WEIR WALL TO WALL OF MANHOLE USING DOW RODS (TYP.)

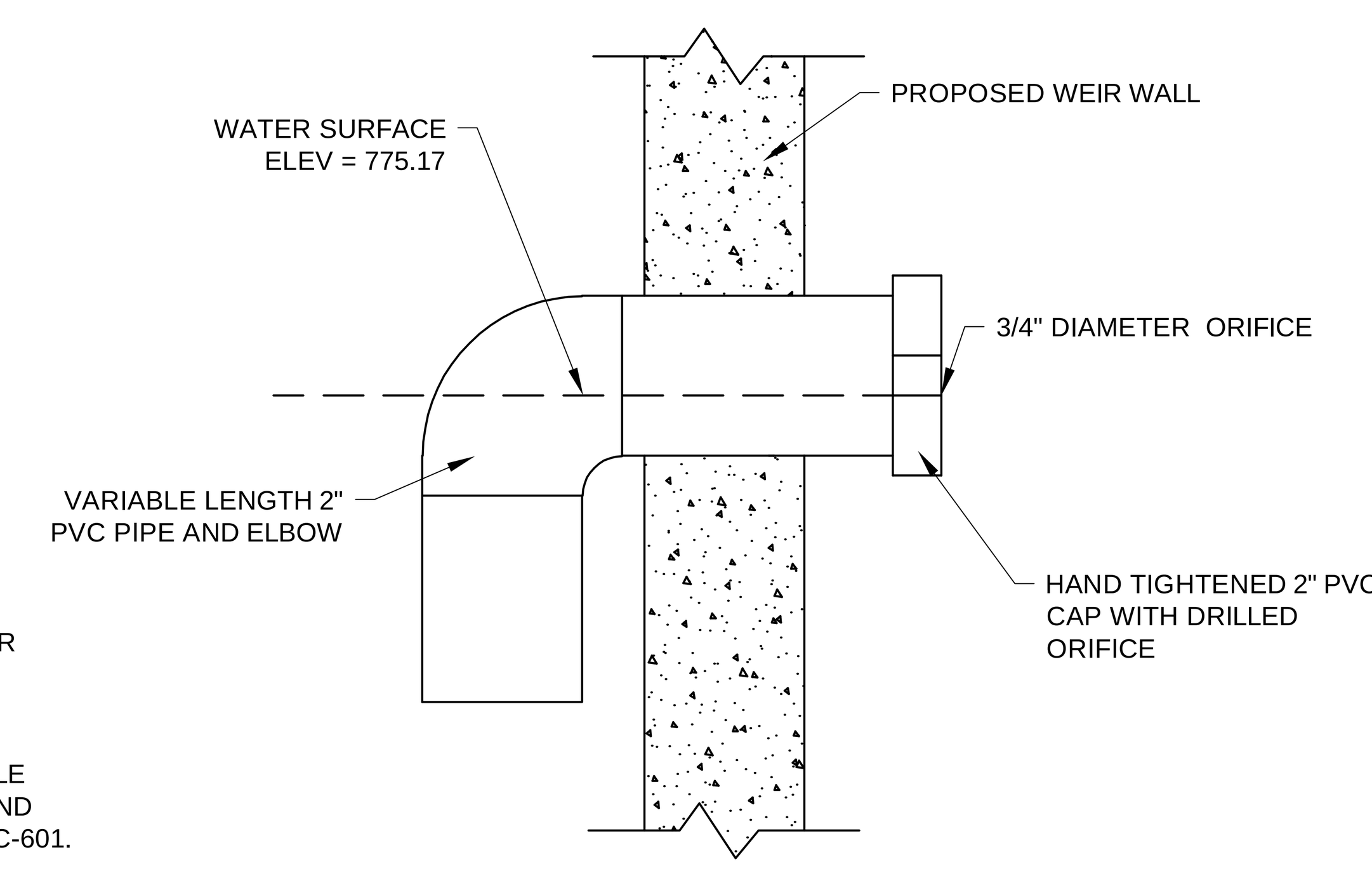


NOTE:

THE 4" UNDERDRAIN AND SECOND 18" INLET PIPE ARE NOT SHOWN ON THIS VIEW FOR CLARITY.

OUTLET OS-1 STRUCTURE DETAIL

N.T.S.



ANTI-CLOG DEVICE DETAIL

N.T.S.

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road
Richfield, Ohio 44286
(330) 659-6688 Ph.
(330) 659-6675 Fax

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Call 811 before you dig

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The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

PROGRESS
NOT FOR
CONSTRUCTION
8/2/2024

Marquette Manor Apartments - New Parking Lot

Cincinnati Metropolitan Housing Authority

1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

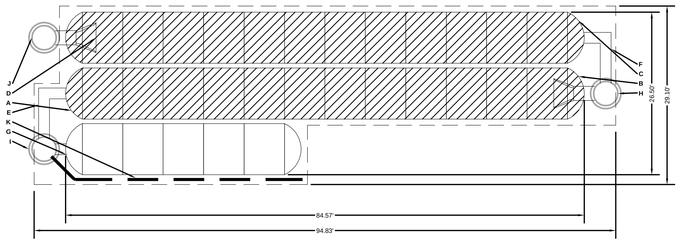
STORMWATER MANAGEMENT DETAILS

C602

PROPOSED LAYOUT		PROPOSED ELEVATIONS:	
20	STORMTECH MC-7200 CHAMBERS:	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	787.92
6	STORMTECH MC-7200 END CAPS:	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	783.42
12	STONE ABOVE (in):	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	782.92
9	STONE BELOW (in):	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	782.92
40	STONE VOID:	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	782.92
9199	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	781.92
		TOP OF MC-7200 CHAMBER:	780.92
		18" x 18" TOP MANIFOLD INVERT:	778.37
		24" ISOLATOR ROW PLUS INVERT:	776.13
2221	SYSTEM AREA (SF):	24" ISOLATOR ROW PLUS INVERT:	776.13
247.9	SYSTEM PERIMETER (ft)	18" x 18" BOTTOM MANIFOLD INVERT:	776.08
		18" BOTTOM CONNECTION INVERT:	776.08
		BOTTOM OF MC-7200 CHAMBER:	775.92
		UNDERDRAIN INVERT:	775.13
		BOTTOM OF STONE:	775.13

*INVERT ABOVE BASE OF CHAMBER

ITEM ON LAYOUT	PART TYPE	DESCRIPTION	INVERT*	MAX FLOW
A	PREFABRICATED END CAP	18" TOP PARTIAL CUT END CAP, PART#: MC7200IEPP18T / TYP OF ALL 18" TOP CONNECTIONS	29.36"	
B	PREFABRICATED END CAP	24" BOTTOM PARTIAL CUT END CAP, PART#: MC7200IEPP24B / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.26"	
C	PREFABRICATED END CAP	18" BOTTOM PARTIAL CUT END CAP, PART#: MC7200IEPP18B / TYP OF ALL 18" BOTTOM CONNECTIONS	1.97"	
D	CLAMP	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MCFLAMP (TYP 2 PLACES)		
E	MANIFOLD	18" x 18" TOP MANIFOLD, ADS N-12	29.36"	
F	MANIFOLD	18" x 18" BOTTOM MANIFOLD, ADS N-12	1.97"	
G	PIPE CONNECTION	18" BOTTOM CONNECTION	1.97"	
H	CONCRETE STRUCTURE	DESIGN BY ENGINEER / PROVIDED BY OTHERS)		5.5 CFS IN
I	CONCRETE STRUCTURE	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		8.0 CFS OUT
J	CONCRETE STRUCTURE	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		
K	UNDERDRAIN	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS (SEE DETAIL)

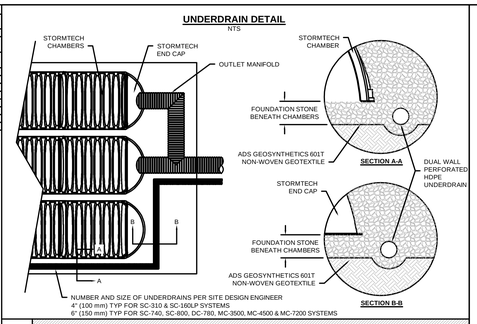
NO WOVEN GEOTEXTILE

BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH NOTE #6.32 FOR MANIFOLD SIZING GUIDANCE.
- REFER TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

UNDERDRAIN DETAIL
NTS



4 UNDERDRAIN DETAIL

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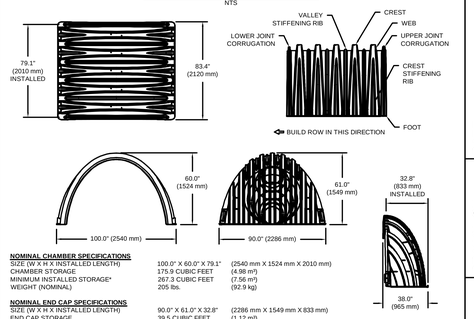
MC-7200 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	100.0" X 60.0" X 79.1"	(2540 mm X 1524 mm X 2010 mm)
CHAMBER STORAGE	175.9 CUBIC FEET	(4.98 m³)
MINIMUM INSTALLED STORAGE*	267.3 CUBIC FEET	(7.56 m³)
WEIGHT (NOMINAL)	205 lbs.	(92.9 kg)

NOMINAL END CAP SPECIFICATIONS

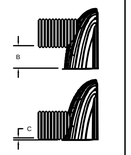
SIZE (W X H X INSTALLED LENGTH)	90.0" X 61.0" X 32.8"	(2286 mm X 1549 mm X 833 mm)
END CAP STORAGE	39.5 CUBIC FEET	(1.12 m³)
MINIMUM INSTALLED STORAGE*	115.3 CUBIC FEET	(3.26 m³)
WEIGHT (NOMINAL)	90 lbs.	(40.8 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION AND BETWEEN CHAMBERS, 12" (305 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY.

PARTIAL CUT HOLES AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PARTIAL CUT HOLES AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC7200IEPP06T	6" (150 mm)	42.54" (1081 mm)	---
MC7200IEPP06B		---	0.86" (22 mm)
MC7200IEPP08T	8" (200 mm)	40.50" (1029 mm)	---
MC7200IEPP08B		---	1.01" (26 mm)
MC7200IEPP10T	10" (250 mm)	38.37" (975 mm)	---
MC7200IEPP10B		---	1.33" (34 mm)
MC7200IEPP12T	12" (300 mm)	35.69" (907 mm)	---
MC7200IEPP12B		---	1.55" (39 mm)
MC7200IEPP15T	15" (375 mm)	32.72" (831 mm)	---
MC7200IEPP15B		---	1.70" (43 mm)
MC7200IEPP18T	18" (450 mm)	29.36" (746 mm)	---
MC7200IEPP18TW			
MC7200IEPP18B		---	1.97" (50 mm)
MC7200IEPP18BW			
MC7200IEPP24T	24" (600 mm)	23.05" (585 mm)	---
MC7200IEPP24TW			
MC7200IEPP24B		---	2.26" (57 mm)
MC7200IEPP24BW			
MC7200IEPP30BW	30" (750 mm)	---	2.95" (75 mm)
MC7200IEPP36BW	36" (900 mm)	---	3.25" (83 mm)
MC7200IEPP42BW	42" (1050 mm)	---	3.55" (90 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



CUSTOM PREFABRICATED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-7200 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

2 MC-7200 TECHNICAL SPECIFICATION

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

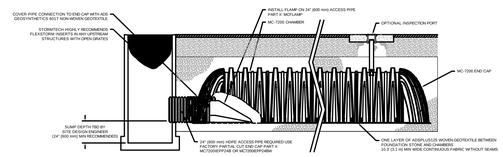
STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



MC-7200 ISOLATOR ROW PLUS DETAIL
NTS

3 MC-7200 ISOLATOR ROW PLUS DETAIL

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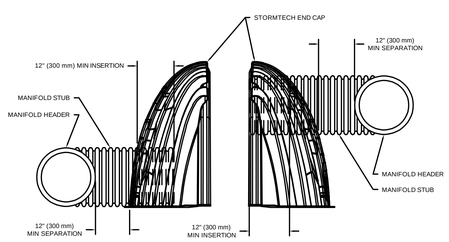
MC-SERIES END CAP INSERTION DETAIL
NTS



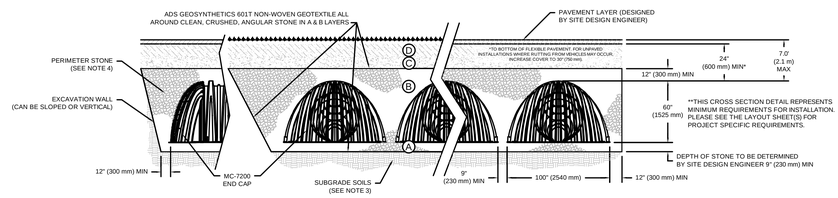
NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

5 MC-SERIES END CAP INSERTION DETAIL

ACCEPTABLE FILL MATERIALS: STORMTECH MC-7200 CHAMBER SYSTEMS

	MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 24" (600 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE[5]	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
5. WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 60x101
2. MC-7200 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/% THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

1 MC-7200 CROSS SECTION DETAIL

LDA ARCHITECTS
The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

PROGRESS NOT FOR CONSTRUCTION 8/2/2024

DRAWN: QH
CHECKED: N/A
DATE:
PROJECT #:
REV:
NOT TO SCALE

MARQUETTE MANOR
CINCINNATI, OH, USA

ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

StormTech® Chamber System
888-892-2694 | WWW.STORMTECH.COM

SHEET 1 OF 1

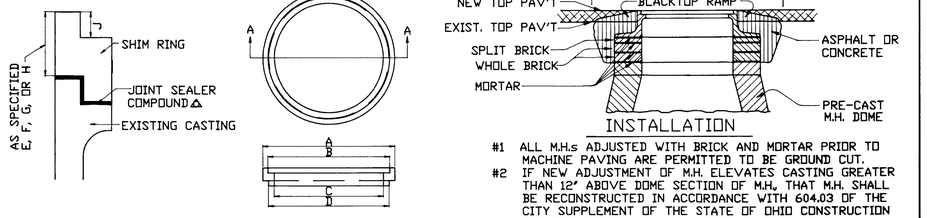
Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

STORMWATER MANAGEMENT DETAILS
C603

TBA Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road (330) 659-6688 Ph.
Richfield, Ohio 44286 (330) 659-6675 Fax

Ohio Utilities Protection Service Call 811 before you dig



CASTINGS	DIMENSIONS IN INCHES								
	A	B	C	D	E	F	G	H	J
MANHOLE	26	24	21 1/2	23 3/4	1 1/2	2	2 1/2	3	1

MATERIAL - ASTM DESIGNATION A-48, CLASS 40 CAST IRON

INSTALLATION

#1 CLEAN CASTING WITH WIRE BRUSH.
#2 INSERT SHIM AND CHECK FIT.
#3 IF SHIM DOES NOT FIT PROPERLY, CASTING SHALL BE ADJUSTED BY USING BRICK AND MORTAR.
#4 REMOVE SHIM AND APPLY JOINT SEALER COMPOUND TO CASTING SEATING SURFACE.
#5 INSERT SHIM ON CASTING. - STACKING OF RINGS SHALL NOT BE PERMITTED.
#6 USE PAVING BREAKER TO CUT OUT AROUND CASTING. - 6"W. X 1 1/2"D.
#7 ADD STORAGE MIX BLACKTOP TO CUT AND FORM RAMP TO LIP OF CASTING. TAMP FIRMLY. - RAMP SHALL BE REMOVED IMMEDIATELY PRIOR TO MACHINE PAVING.
#8 ALL MANHOLE FRAMES AND COVERS OTHER THAN STANDARD SHALL BE REPLACE WITH STANDARD CASTINGS. (ACC. # 49005) IN ACCORDANCE WITH 706.10 OF THE STATE OF OHIO CONSTRUCTION AND MATERIALS SPECIFICATION.

INSTALLATION

#1 ALL M.H.s ADJUSTED WITH BRICK AND MORTAR PRIOR TO MACHINE PAVING ARE PERMITTED TO BE GROUND CUT.
#2 IF NEW ADJUSTMENT OF M.H. ELEVATES CASTING GREATER THAN 12" ABOVE DOME SECTION OF M.H., THAT M.H. SHALL BE RECONSTRUCTED IN ACCORDANCE WITH 604.03 OF THE CITY SUPPLEMENT OF THE STATE OF OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS.
#3 IF NEW ADJUSTMENT OF EXISTING M.H. IS LESS THAN 12" ABOVE DOME THE CASTING SHALL BE CUT OUT TO TOP OF EXISTING MASONRY.
#4 THE CASTING SHALL THEN BE RAISED WITH A COMBINATION OF WHOLE AND/OR HALF BRICKS AND MORTAR TO DESIRED HEIGHT. THESE ADJUSTMENTS SHALL BE IN ACCORDANCE WITH 604.05 OF THE CITY SUPPLEMENT OF OHIO CONSTRUCTION AND MATERIAL SPECIFICATIONS.
#5 DRY MIX CONCRETE SHALL BE USED FROM BOTTOM OF CUT TO EXISTING STREET PAVEMENT.
#6 ADD HOT MIX BLACKTOP TO FORM RAMP TO LIP OF CASTING. TAMP FIRMLY. - RAMP SHALL BE REMOVED IMMEDIATELY PRIOR TO MACHINE PAVING.
#7 ALL MANHOLE FRAMES AND COVERS OTHER THAN STANDARD SHALL BE REPLACED WITH STANDARD CASTINGS. (ACC. # 49005)

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ADJUSTING MANHOLES

SCALE: NONE FEBRUARY , 1991

T.E.Young 4-3-91
CITY ENGINEER

ACC. NO. 21502

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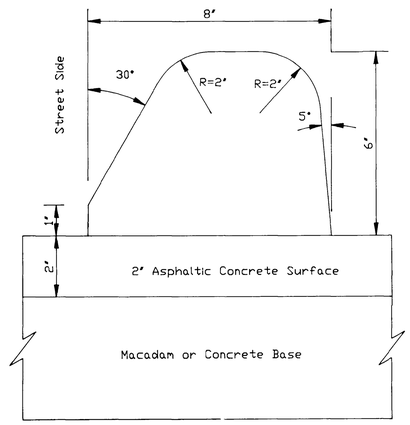


TYPE A-1

Area of Curb Section - 28 sq. in.
Yield - 72 +/- per portion of Asphaltic Concrete.
Quantity - 0.194 cu. ft. per linear foot

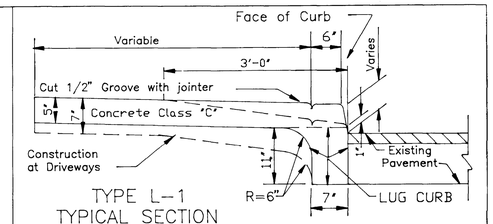
CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

ASPHALTIC CONCRETE CURB

SCALE: 1/2"=1" FEBRUARY , 1991

APPROVED: T.E.Young
CITY ENGINEER

ACC. NO. 21429



TYPE L-1
TYPICAL SECTION

NOTE: Use 2.0% cross slope on walk and 6" gutter depth unless grade details are furnished or local conditions require otherwise.

Concrete used and method of finishing and curing shall conform to that specified for Item 608-Conc. Walk and Steps current Ohio State Spec's.

Payment for Concrete Walks constructed integral with Lug Type Concrete Curbs will be based on measurement from back of walk to face of curb and considered uniformly 5" thick.

Payment for Lug Type Concrete Curbs at the price bid per linear foot shall cover the necessary excavation and furnishing and placing the concrete for the "Lug", which shall be considered to be all of the concrete below a plane passing through the bottom of the walk and intersecting the face of curb.

All Radii are 1" unless otherwise noted

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STANDARD LUG CONCRETE CURB

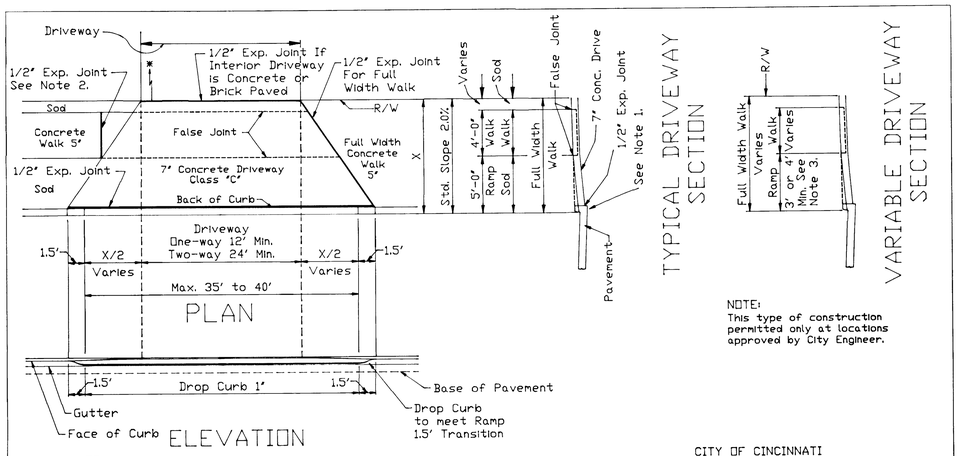
INTEGRAL WITH CONCRETE WALK

SCALE : NONE May , 1995

Approved: T.E.Young
CITY ENGINEER

ACC. NO. 21430

PAGE 006



TYPICAL DRIVEWAY SECTION

VARIABLE DRIVEWAY SECTION

NOTE:
This type of construction permitted only at locations approved by City Engineer.

NOTE:
① For Additional Driveway Drop Curb Details See Standard Drawings Type L-1 , B-1 , P-1 , P-4 and R-2 Concrete Curbs .
② Conc. Walk shall be removed to the nearest joint outside of the Proposed driveway. Install 1/2 inch Exp. joint against undisturbed concrete walk.
③ Dimensions may be modified to accommodate existing conditions at locations approved by , and to the satisfaction of , the City Engineer .
* To be paved 25' behind Property line, as per CMC 721-134.

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

STANDARD COMMERCIAL DRIVEWAY CONSTRUCTION

SCALE: NONE MAY. , 1995

CITY ENGINEER

ACC. NO. 21516

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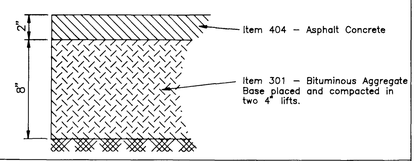
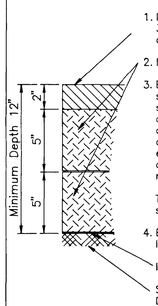
STANDARD RESTORATION
BITUMINOUS AGGREGATE BASE



STANDARD RESTORATION
ASPHALT PAVEMENT ON STONE BASE



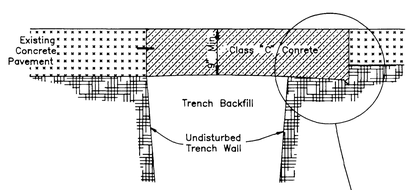
1. Item 404 - Asphalt Concrete compacted with 3 to 5 ton roller, 8 to 10 ton for longitudinal cut or equivalent vibratory compactor.
2. Item 304 - Aggregate Base.
3. Before placing the aggregate, a layer of dry screenings shall be placed on the compacted subgrade to a minimum depth of one (1) inch as an inverted choke. This shall not be rolled or compacted in any manner. The course aggregate shall then be placed in two courses, each course to be five (5) inches in depth and to be individually rolled, choked and re-rolled to thoroughly key the aggregate.

   The choke material shall consist of No. 87 screenings, crushed stone or slag.
4. Edges of restoration to be sealed with Item 702.01.

Inverted Choke

Subgrade to be backfilled in accordance with Department of Public Works Regulations governing street openings.

STANDARD RESTORATION
CONCRETE PAVEMENT



Existing pavement shall be removed a minimum of 12 inches beyond the trench restoration. In lieu of the 12 inch cutback, one of the following methods may be used:
A) Installation of dowel bars as shown on detail of drawing No.900-N.
B) Backfill with Controled Low Strength Material (CLSM)

Square edge 2 inch cut by use of concrete saw or other approved method.

Break out concrete below sawcut by use of jackhammer or approved pneumatic tool.

Vertical face of existing pavement shall be cleaned by compressed air.

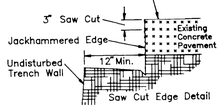
All surfaces shall be wetted prior to placing concrete.

Concrete shall be consolidated with internal type vibrator.

Concrete surface shall be cured as soon after the finishing operation as possible. See item 451.10 O.D.O.T.

Item 702.01 - Edges of restoration shall be sealed with asphalt cement.

The seal shall be a uniform 3 inch wide asphalt cement seal.



CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAY ENGINEERING

STANDARD RESTORATION OF OPENINGS

SCALE: NONE MAY, 1995

CITY ENGINEER

ACC. NO. 21507

PAGE 028

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3030 West Streetsboro Road
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(330) 659-6688 Ph.
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LDA ARCHITECTS
The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

PROGRESS NOT FOR CONSTRUCTION 8/2/2024

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

CITY OF CINCINNATI DETAILS
C604

MARQUETTE MANOR - EXTERIOR IMPROVEMENTS

STORM WATER POLLUTION PREVENTION PLAN

1999 SUTTER AVE

CINCINNATI, OH 45225

AUGUST, 2024

CERTIFICATION STATEMENT:

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

AUTHORIZED REPRESENTATIVE DATE

SWP3 STATEMENT:
THIS SWP3 PLAN WAS DEVELOPED TO CONTROL EROSION AND SEDIMENT PRIOR TO EXITING THE SITE. SEDIMENT WILL BE CONTROLLED WITH INLET PROTECTION AND SILT FENCE. SILT FENCE SHOULD BE PLACED AT THE BOTTOM OF THE SLOPES THAT WILL NOT BE TREATED WITHIN THE BASINS. SEE THE IMPLEMENTATION SCHEDULE & SEQUENCE OF MAJOR CONSTRUCTION OPERATIONS ON SHEET C702. THE SCHEDULE SHOULD BE FOLLOWED TO MAINTAIN PROPER CONTROL OF EROSION AND SEDIMENT ON SITE. ALL DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS MUST BE STABILIZED. SEEDING AND MULCHING SHOULD BE CONSISTENT WITH THE SOIL STABILIZATION REQUIREMENTS SECTION LOCATED ON SHEET C702. SLOPES 3:1 OR GREATER REQUIRE EROSION CONTROL MATTING TO BE INSTALLED TO CONTROL EROSION.

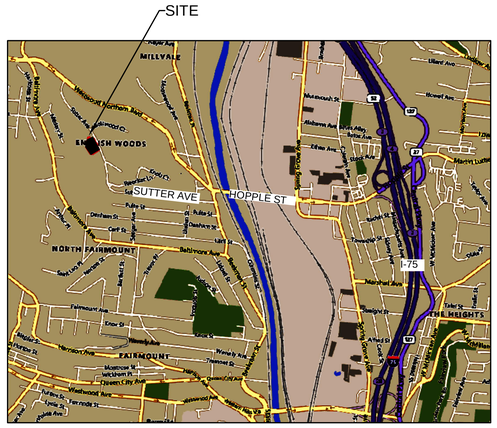
CONSTRUCTION DATES:
START DATE: AUGUST, 2024
COMPLETION DATE: AUGUST, 2025

GENERAL NOTES:
FOR REVISIONS/AMENDMENTS TO THE SWP3, CONTACT DAVID MYERS AT THORSON BAKER & ASSOCIATES AT 330-659-6688.

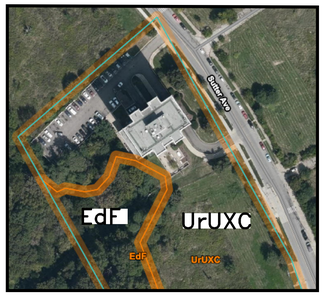
INSPECTION AND MODIFICATION REQUIREMENTS
A LOG DOCUMENTING GRADING AND STABILIZATION ACTIVITIES AS WELL AS AMENDMENTS TO THIS SWP3 SHALL BE MAINTAINED WITH THESE PLANS AND AVAILABLE ON-SITE.

A LOG OF SITE INSPECTION NEEDS TO BE KEPT. INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS AFTER A STORM EVENT GREATER THAN 1/2 INCH OF RAINFALL WITHIN A 24-HOUR DURATION. ALL MEASURES SHALL BE OBSERVED TO ENSURE CORRECT OPERATION, REPAIRS TO ANY DAMAGED DEVICE/STRUCTURE SHALL BE COMPLETEED WITHIN 3 DAYS OF THE INSPECTION. PLANS ARE AVAILABLE ON-SITE.

CONFORMANCE STATEMENT
IMPLEMENTATION OF EROSION AND SEDIMENT CONTROLS WILL CONFORM TO HAMILTON AND THE OHIO EPA CONSTRUCTION GENERAL PERMIT #OHC000006. IF CONFLICT EXISTS REGARDING EROSION AND SEDIMENT CONTROL IMPLEMENTATION, THE MORE RESTRICTIVE SHALL APPLY.



VICINITY MAP (N.T.S.)



SOILS MAP (N.T.S.)
EdF - Eden Flaggy Silty Clay Loam
UrUXC - Urban Land - Udorthents Complex

SOIL MAP
N.T.S.

OWNER

CINCINNATI METROPOLITAN HOUSING AUTHORITY
1627 WESTERN AVE.
CINCINNATI, OH 45214
PHONE: (513) 977-5661

Thorson Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road
Richfield, Ohio 44286
(330) 659-6688 Ph.
(330) 659-6675 Fax

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REV	DATE	DESCRIPTION
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PROGRESS NOT FOR CONSTRUCTION 8/2/2024

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

SWPPP

C700

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- LIMIT OF DISTURBANCE
- SILT FENCE
- INLET PROTECTION
- TEMPORARY CONSTRUCTION ENTRANCE

KEY NOTES

1. TEMPORARY CONCRETE TRUCK WASHOUT PIT (10'X15'X2') MUST NOT BE WITHIN A DRAINAGE AREA WAY
2. HAZARD WASTE, SANITARY FACILITIES AND VEHICLE MAINTENANCE AND FUELING AREA. THIS AREA MUST NOT BE WITHIN A DRAINAGE AREA WAY. SEE DETAILS ON C703.

SWPPP
1" = 20'

20 0 20 40

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SWPPP

C701

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SEDIMENT POLLUTANT CONTROLS (GENERAL NOTES):

1. PERIMETER SEDIMENT CONTROLS (I.E. SEDIMENT TRAPS, SILT FENCE, COMPOST SOCKS, COMPOST BERMS, ETC...) SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPSLOPE AREAS DRAINING TO THEM ARE PERMANENTLY STABILIZED, OR AS DIRECTED BY THE JURISDICTIONAL ENGINEER, OR DESIGNATED REPRESENTATIVE.

2. NO EROSION AND SEDIMENT CONTROL BMP'S SHALL BE REMOVED FROM THE SITE PRIOR TO ADEQUATE PERMANENT STABILIZATION OF THE ASSOCIATED UPLAND DRAINAGE AREAS AND WITHOUT FIRST OBTAINING AUTHORIZATION FROM THE JURISDICTIONAL ENGINEER, OR DESIGNATED REPRESENTATIVE, UNLESS THEIR REMOVAL IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.

3. THERE SHALL BE NO SEDIMENT-LADEN OR TURBID DISCHARGES TO WATER RESOURCES OR WETLANDS RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUNDWATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT TRAP OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR BY DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

4. STREETS DIRECTLY ADJACENT TO CONSTRUCTION ENTRANCES AND RECEIVING TRAFFIC FROM THE DEVELOPMENT AREA, SHALL BE CLEANED DAILY TO REMOVE SEDIMENT TRACKED OFF-SITE. IF APPLICABLE, THE CATCH BASINS ON THESE STREETS NEAREST TO THE CONSTRUCTION ENTRANCES SHALL ALSO BE CLEANED WEEKLY, BASED ON SITE CONDITIONS, THE JURISDICTIONAL ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, MAY REQUIRE ADDITIONAL BEST MANAGEMENT PRACTICES TO CONTROL OFF-SITE TRACKING OF DUST.

5. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER, OR REPRESENTATIVE, TO PROVIDE INSPECTION OF ALL ESC MEASURES IDENTIFIED IN THE SWPPP AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24-HOUR PERIOD BY THE END OF THE NEXT CALENDAR DAY, EXCLUDING WEEKENDS AND HOLIDAYS UNLESS WORK IS SCHEDULED; AND ONCE EVERY SEVEN CALENDAR DAYS. WHEN INSPECTIONS REVEAL THE NEED FOR REPAIR, REPLACEMENT, OR INSTALLATION OF EROSION AND SEDIMENT CONTROL BMP'S, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
   - A. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE: THE BMP SHALL BE REPAIRED WITHIN 3 DAYS OF INSPECTION. EXCEPTION: SEDIMENT PONDS SHALL BE REPAIRED OR MAINTAINED WITH 10 DAYS OF INSPECTION.
   - B. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION: A MORE APPROPRIATE BMP SHALL BE SELECTED AND IMPLEMENTED WITHIN 10 DAYS OF THE INSPECTION.
   - C. WHEN PRACTICES DEPICTED IN THE SWP3 ARE NOT INSTALLED: THE BMP SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE BMP IS NOT NECESSARY, THE RECORD MUST CONTAIN AN EXPLANATION FOR THE DECISION.

INSPECTION MUST BE COMPLETED BY A CERTIFIED PROFESSIONAL EROSION CONTROL (CPESC) OR CERTIFIED EROSION SEDIMENT AND STORMWATER INSPECTOR (CESSWI). SHOULD THE SITE BECOME DORMANT FOR AN EXTENDED PERIOD OF TIME AND IS STABILIZED, A WAIVER MAY BE SENT TO THE OHIO EPA TO REQUEST A REDUCTION TO MONTHLY INSPECTIONS. AFTER EVERY INSPECTION, A SIGNED CHECKLIST SHALL BE PROVIDED BY THE INSPECTOR.

6. THE APPLICANT SHALL MAINTAIN FOR 3 YEARS FOLLOWING FINAL STABILIZATION, THE RESULTS OF THESE INSPECTIONS, THE NAMES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTIONS, THE DATES OF INSPECTIONS, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3, A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3, AND INFORMATION ON ANY INCIDENTS OF NON-COMPLIANCE DETERMINED BY THESE INSPECTIONS.

7. ALL EROSION AND SEDIMENT CONTROL PRACTICES SPECIFIED ON THIS PLAN SHALL CONFORM WITH THE DETAILS AND SPECIFICATIONS OUTLINED IN THE CURRENT VERSION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES, "RAINWATER AND LAND DEVELOPMENT" MANUAL, OR AS SPECIFIED BY THE JURISDICTIONAL ENGINEER, OR DESIGNATED REPRESENTATIVE.

8. EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH-MOVING ACTIVITY. ADDITIONAL PRACTICES SHALL BE IMPLEMENTED AT THE DEVELOPER'S EXPENSE AS DIRECTED BY THE JURISDICTIONAL ENGINEER, OR DESIGNATED REPRESENTATIVE.

9. NO STRUCTURAL SEDIMENT CONTROLS (SILT FENCE, SEDIMENT TRAPS, ETC.) SHALL BE USED IN A WATER RESOURCE OR WETLAND, UNLESS THEIR USE IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.

10. SOIL STOCKPILES, TOPSOIL OR OTHERWISE, SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEEDED AND/OR MULCHED IMMEDIATELY.

11. ON-SITE PERSONNEL SHALL TAKE ALL NECESSARY MEASURES TO COMPLY WITH APPLICABLE REGULATIONS REGARDING FUGITIVE DUST EMISSIONS, INCLUDING OBTAINING NECESSARY PERMITS FOR SUCH EMISSIONS. THE JURISDICTIONAL ENGINEER, OR DESIGNATED REPRESENTATIVE, MAY REQUIRE DUST CONTROLS INCLUDING, BUT NOT LIMITED TO, THE USE OF WATER TRUCKS TO WET DISTURBED AREAS, TAPPING STOCKPILES, TEMPORARY STABILIZATION OF DISTURBED AREAS, AND REGULATION OF THE SPEED OF VEHICLES ON THE SITE.

12. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON SHALL HAVE A MINIMUM OF 80% UNIFORM VEGETATIVE COVER PRIOR TO FINAL INSPECTION AND, IN THE OPINION OF THE JURISDICTIONAL ENGINEER OR DESIGNATED REPRESENTATIVE, WILL BE MATURE ENOUGH TO CONTROL EROSION SATISFACTORILY AND SURVIVE SEVERE WEATHER.

13. THE PROJECT IS SUBJECT TO THE CONDITIONS OF ARMY CORPS OF ENGINEER PERMIT NUMBER 2020-24. SPECIAL CONDITIONS INCLUDE:

   13.1. THE PROJECT SITE LIES WITHIN RANGE OF THE INDIANA BAT, A FEDERALLY LISTED ENDANGERED SPECIES, AND THE NORTHERN LONG-EARED BAT, A FEDERALL-LISTED THREATENED SPECIES. HABITAT INCLUDES FORESTS AND WOODLOTS CONTAINING POTENTIAL ROOSTS (I.E. LIVE TREES AND/OR SNAGS GREATER THAN OR EQUAL TO 3-IN DBH AS WELL AS FENCEROWS, RIPARIAN FORESTS, AND OTHER WOODED CORRIDORS. WOODED AREAS MAY BE DENSE OR LOOSE AGGREGATES OF TREES WITH VARIABLE AMOUNTS OF CANOPY CLOSURE. INDIVIDUAL TREES MAY BE CONSIDERED SUITABLE HABITAT WHEN THEY EXHIBIT CHARACTERISTICS OF A POTENTIAL ROOST TREE AND ARE LOCATED WITHIN 1,000-FT OF OTHER FORESTED / WOODED HABITAT. THE CONTRACTOR IS TO PRESERVE WOODED/FORESTED HABITATS EXHIBITING ANY OF THE CHARACTERISTICS LISTED ABOVE WHEREVER POSSIBLE. SHOULD SUITABLE HABITAT BE PRESENT THAT CANNOT BE SAVED DURING CONSTRUCTION ACTIVITIES, ANY TREES GREATER THAN OR EQUAL TO 3-IN DBH WILL ONLY BE CUT BETWEEN OCTOBER 1 AND MARCH 31.

   13.2. PROTECTIVE FENCING - THE CORPS OF ENGINEERS IS REQUIRING THAT HIGH VISIBILITY PROTECTIVE FENCING BE INSTALLED ALONG THE STUDY AREA BOUNDARY OF WETLAND A PRIOR TO THE START OF CONSTRUCTION TO KEEP THE CONTRACTOR FROM IMPACTING ADDITIONAL AREA OF WETLAND A.

14. CONSULT WITH THE PROJECT ENGINEER PRIOR TO ANY CHANGES TO THE APPROVED PLAN. CHANGES MUST BE CONVEYED TO AND APPROVED BY CITY OF CINCINNATI ZONING AND HAMILTON SWCD PRIOR TO WORK.

15. SPOIL AND BORROW ACTIVITY WILL TRIGGER A REVISION OF THE SWP3 TO BE SUBMITTED TO CITY OF CINCINNATI ZONING AND HAMILTON SWCD. SUCH ACTIVITY WILL NOT BE PERMITTED UNTIL REVISION IS RECEIVED / APPROVED.

NON-SEDIMENT POLLUTANT CONTROLS (GENERAL NOTES):

1. ALL SANITARY WASTE SHALL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF THREE TIMES PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.

2. THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:
   - A. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
   - B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR APPROPRIATE CONTAINERS, AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   - C. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABEL. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
   - D. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   - E. THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
   - F. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE.

3. IN ADDITION TO PREVIOUS NOTES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEAN-UP:
   - A. CONTRACTOR MUST CONTACT OHIO EPA AT 1-800-282-9378, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL 25 GALLONS OR GREATER.
   - B. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN-UP WILL BE POSTED AND SITE PERSONNEL MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEAN-UP SUPPLIES.
   - C. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT LIMITED TO: BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOFFLES, CAT LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY DESIGNATED FOR THIS PURPOSE.
   - D. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
   - E. THE SPILL AREA WILL BE KEPT WELL-VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
   - F. SPILLS OF TOXIC OR HAZARDOUS MATERIALS WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.
   - G. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
   - H. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THEY WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ON SITE.

IMPLEMENTATION SCHEDULE & SEQUENCE OF MAJOR CONSTRUCTION OPERATIONS:

NOTE:
ALL SEDIMENT AND EROSION CONTROLS WILL BE INSTALLED WITHIN 7 DAYS OF ALL CLEARING AND GRUBBING OF THE PROPOSED SITE.

A. BEFORE ANY GRADING ACTIVITIES BEGIN:
   1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE
   2. CONSTRUCT ORANGE CONSTRUCTION FENCING AS NECESSARY TO ENCLOSE SITE
   3. INSTALL PERIMETER FILTER BERMS PER DETAIL
   4. PROVIDE ORANGE CONSTRUCTION FENCING PROTECTION FOR AREAS TO REMAIN UNDISTURBED

B. CLEARING AND GRUBBING:
   1. INSTALL REMAINING FILTER BERMS, PER PLAN REQUIREMENTS
   2. CLEAR AND GRUB REMAINING AREAS DESIGNATED ON THE PLAN
   3. CONSTRUCT CONCRETE WASHOUT AREA, VEHICLE FUELING AREA, CONSTRUCTION DUMPSTER AREA, AND SOLID, SANITARY, AND TOXIC WASTE AREA

C. STRIPPING AND STOCKPILING OF TOPSOIL:
   1. STRIP TOPSOIL WHERE APPLICABLE AND PLACE IN DESIGNATED STOCKPILE AREA
   2. CONSTRUCT FILTER BERM AROUND STOCKPILE
   3. INSTALL SOIL STABILIZATION MEASURES AS NEEDED
   4. DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS WILL BE STABILIZED

D. MASS GRADING OPERATIONS:
   1. BEGIN MASS GRADING OF SITE PER PLAN
   2. INSTALL EROSION CONTROLS MEASURES (ROCK DAMS, EROSION CONTROL MATTING, ETC.), PER PLAN REQUIREMENTS AS NEEDED
   3. DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS WILL BE STABILIZED

E. UTILITY CONSTRUCTION:
   1. ENSURE COMPLETION OF SEDIMENT BASINS PRIOR TO ANY CONSTRUCTION OF STORMWATER SERVICE PER PLAN
   2. CONSTRUCT SANITARY SERVICE AND WATERLINE, PER PLAN
   3. CONSTRUCT STORM SEWER SYSTEM, INCLUDING HEADWALLS, CATCH BASINS, YARD DRAINS, AND ROCK CHANNEL PROTECTION, PER PLAN
   4. INSTALL INLET PROTECTION
   5. INSTALL SOIL STABILIZATION MEASURES AS NEEDED

F. PAVING OPERATIONS:
   1. CONSTRUCT ASPHALT AND CONCRETE PAVING, SIDEWALK, CURB
   2. CLEAN AND RESET ALL UTILITY STRUCTURES TO FINAL GRADE

G. FINAL GRADING OPERATIONS:
   1. CONTACT HAMILTON SOIL AND WATER CONSERVATION DISTRICT PRIOR TO REMOVAL OF TEMPORARY SEDIMENT AND EROSION CONTROLS. HAMILTON SWCD TO EVALUATE SITE PRIOR TO REMOVAL.
   2. REMOVE SEDIMENT FROM ALL DRAINAGE STRUCTURES
   3. REMOVE BMPs FROM STORM INLETS AND FINALIZE PAVEMENT ACTIVITIES
   4. REMOVE TEMPORARY CONCRETE WASHOUT AREA
   5. REMOVE ALL TEMPORARY BMPs AND STABILIZE ANY AREAS DISTURBED BY THERE REMOVAL WITH EROSION CONTROLS
   6. PREPARE FINAL SEEDING AND LANDSCAPING

H. POST-GRADING OPERATIONS:
   1. MONITOR PROGRESS OF SITE STABILIZATION
   2. RE-SEED AND REPAIR DAMAGED AREAS
   3. MAINTAIN AND INSPECT ALL PERMANENT BMPs

I. PROJECT CLOSEOUT
   1. CONTACT CITY OF CINCINNATI ZONING AND NOTIFY THEM WHEN THE PROJECT IS COMPLETE AND BUILT PER THE APPROVED PLAN. CITY OF CINCINNATI ZONING WILL REQUIRE A CONSTRUCTION CERTIFICATION FOR PROJECT TO ASSURE IT WAS BUILT PER APPROVED PLAN PRIOR TO SITE CLOSE-OUT.
   2. ONCE CITY OF CINCINNATI ZONING IS SATISFIED WITH PROJECT, CONTACT HAMILTON SWCD FOR ASSISTANCE IN CLOSING OUT STATE / LOCAL CONSTRUCTION PERMITS ASSOCIATED WITH THE SWP3.

STRUCTURAL BMP LONG-TERM MAINTENANCE (GENERAL NOTES):

1. THE OWNER AGREES TO MAINTAIN IN PERPETUITY THE STORM WATER MANAGEMENT PRACTICES IN ACCORDANCE WITH APPROVED MAINTENANCE PLANS A MANNER THAT WILL PERMIT THE STORM WATER MANAGEMENT PRACTICES TO PERFORM THE PURPOSES FOR WHICH THEY WERE DESIGNED AND CONSTRUCTED. THIS INCLUDES ALL PIPES, STRUCTURES, IMPROVEMENTS, AND VEGETATION PROVIDED TO CONTROL THE QUANTITY AND QUALITY OF THE STORM WATER. COPIES OF THE MAINTENANCE AGREEMENT SHALL BE PROVIDED TO THE DESIGN ENGINEER AND/OR LOCAL AUTHORITIES.

2. NO ALTERATION TO THE WATER QUALITY/DETENTION BASINS WITHOUT APPROVAL FROM THE DESIGN ENGINEER.

3. THE OWNER SHALL PROVIDE A MAINTENANCE PLAN FOR EACH STORM WATER MANAGEMENT PRACTICE. THE MAINTENANCE PLANS SHALL INCLUDE A SCHEDULE FOR MONTHLY AND ANNUAL MAINTENANCE. THE OWNER SHALL MAINTAIN, UPDATE, AND STORE THE MAINTENANCE RECORDS FOR THE STORM WATER MANAGEMENT PRACTICES. THE SPECIFIC MAINTENANCE PLANS FOR EACH STORM WATER MANAGEMENT PRACTICE ARE AS FOLLOWS:

MAINTENANCE TO BE COMPLETED EVERY 3 MONTHS:
- REMOVE TRASH AND/OR ACCUMULATED SEDIMENT FROM POND AREA
- REMOVE OBSTRUCTIONS IN ORIFICES AND/OR OUTLETS WITHIN OUTLET STRUCTURE
- REMOVE DEBRIS AND SEDIMENT FROM INLET PIPES, OUTLET PIPES, AND STRUCTURES
- INSPECT SEDIMENT IN ISOLATOR ROWS AND REMOVE SEDIMENT WHEN IT EXCEEDS 3".

MAINTENANCE TO BE COMPLETED YEARLY:
- REPAIR AND/OR REPLACE DAMAGED STRUCTURES, SUCH AS CATCH BASINS, RISERS, PIPES AND HEADWALLS

YEARLY REPORT REQUIREMENTS:
SKETCH SHOWING GENERAL AREA OF BMP'S, SUMMARY OF ALL MAINTENANCE ACTIVITIES SINCE LAST ANNUAL INSPECTION, PHOTOS AND DESCRIPTION OF ALL BMP DESIGN FEATURES, INDICATION OF ANY DEVIATION FROM APPROVED PLAN FOR BMP, IDENTIFICATION OF IMPROVEMENTS NECESSARY TO RESTORE ORIGINAL DESIGN FUNCTION, MAINTENANCE ACTIVITIES REQUIRED IN THE NEXT 6 MONTHS, IDENTIFICATION AND CONTACT INFORMATION OF ENTITY RESPONSIBLE FOR BMP, AND IDENTIFICATION AND CONTACT INFORMATION FOR ENGINEER PREPARING THE REPORT, INCLUDING SIGNATURE AND SEAL.

Table 1: Permanent Stabilization

Area requiring permanent stabilization	Time frame to apply erosion controls
Any areas that will lie dormant for one year or more	Within seven days of the most recent disturbance
Any areas within 50 feet of a surface water of the state and at final grade	Within two days of reaching final grade
Any other areas at final grade	Within seven days of reaching final grade within that area

Table 2: Temporary Stabilization

Area requiring temporary stabilization	Time frame to apply erosion controls
Any disturbed areas within 50 feet of a surface water of the state and not at final grade	Within two days of the most recent disturbance if the area will remain idle for more than 14 days
For all construction activities, any disturbed areas that will be dormant for more than 14 days but less than one year, and not within 50 feet of a surface water of the state	Within seven days of the most recent disturbance within the area For residential subdivisions, disturbed areas must be stabilized at least seven days prior to transfer of permit coverage for the individual lot(s).
Disturbed areas that will be idle over winter	Prior to the onset of winter weather

Where vegetative stabilization techniques may cause structural instability or are otherwise unobtainable, alternative stabilization techniques must be employed. Permanent and temporary stabilization are defined in Part VII.

GRADING & STABILIZATION ACTIVITIES LOG

DATE GRADING ACTIVITY INITIATED	DESCRIPTION OF THE GRADING ACTIVITY (INCLUDING LOCATION)	DATE GRADING ACTIVITY CEASED	DATE STABILIZATION MEASURES INITIATED	DESCRIPTION OF THE STABILIZATION MEASURE (INCLUDING LOCATION)

SWP3 MODIFICATION & UPDATE LOG

MODIFICATION DATE	DESCRIPTION OF THE MODIFICATION / UPDATE	MODIFICATION PREPARED BY (NAME & TITLE)

SWP3 INSPECTION REPORT LOG

INSPECTION NUMBER	NAME OF INSPECTOR	DATE OF INSPECTION	RAIN EVENT	TYPE OF CORRECTIVE ACTION REQUIRED

CORRECTIVE ACTION LOG

INSPECTION DATE	INSPECTOR NAME	DESCRIPTION OF CORRECTIVE ACTION NEEDED (FROM INSPECTION REPORT)	CORRECTIVE ACTION TAKEN	DATE ACTION TAKEN

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road
Richfield, Ohio 44286
(330) 659-6688 Ph.
(330) 659-6675 Fax

Ohio Utilities Protection Service Call 811 before you dig

LDA ARCHITECTS
The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

PROGRESS NOT FOR CONSTRUCTION 8/2/2024

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

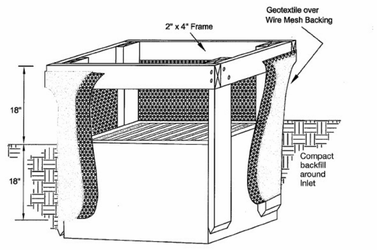
LDA Project No.23.48

SWPPP

C702

Specifications
for

Geotextile Inlet Protection



SECTION

1. Inlet protection shall be constructed either before upslope land disturbance begins or before the inlet becomes functional.
2. The earth around the inlet shall be excavated completely to a depth at least 18 inches.
3. The wooden frame shall be constructed of 2-inch by 4-inch construction grade lumber. The 2-inch by 4-inch posts shall be driven one (1) ft. into the ground at four corners of the inlet and the top portion of 2-inch by 4-inch frame assembled using the overlap joint shown. The top of the frame shall be at least 6 inches below adjacent roads if ponded water will pose a safety hazard to traffic.
4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.
5. Geotextile material shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 inches below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.
6. Backfill shall be placed around the inlet in compacted 6-inch layers until the earth is even with notch elevation on ends and top elevation on sides.
7. A compacted earth dike or check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression. The top of the dike shall be at least 6 inches higher than the top of the frame.

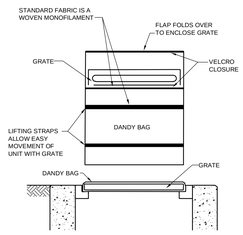
THE PATENTED DANDY BAG IS DESIGNED FOR USE WITH FLAT GRATES (INCLUDING ROUND) AND MOUNTABLE CURBS TO DETAIN SEDIMENT-LADEN STORM WATER. THE SUSPENDED SOLIDS ARE ALLOWED TO SETTLE OUT OF THE SLOWED FLOW PRIOR TO ENTERING THE DANDY BAG.

INSTALLATION

1. STAND THE GRATE ON END
2. PLACE THE DANDY BAG OVER THE GRATE
3. ROLL THE GRATE OVER SO THAT THE OPEN END IS UP
4. PULL UP THE SLACK
5. TUCK THE FLAP IN
6. PRESS THE VELCRO STRIPS TOGETHER
7. BE SURE THAT THE END OF THE GRATE IS COMPLETELY COVERED BY THE FLAP OR THE DANDY BAG WILL NOT WORK PROPERLY
8. HOLDING THE HANDLES, CAREFULLY PLACE THE DANDY BAG WITH THE GRATE INSERTED INTO THE CATCH BASIN FRAME

MAINTENANCE

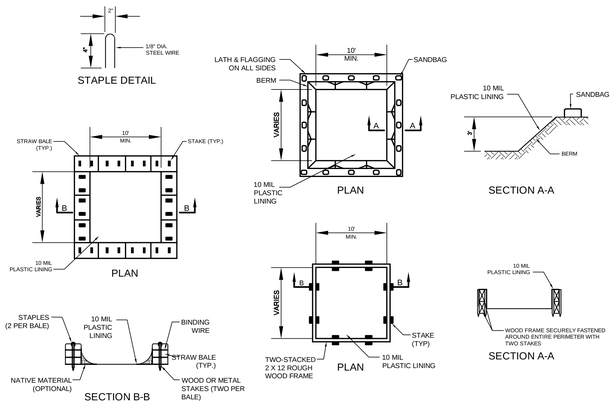
TO INSURE PROPER OPERATION REMOVE SILT, SEDIMENT, AND DEBRIS FROM THE SURFACE AND THE VICINITY OF THE UNIT WITH A SQUARE POINT SHOVEL OR STIFF BRISTLE BROOM AWAY FROM ENVIRONMENTALLY SENSITIVE AREAS AND WATERWAYS IN MANNER SATISFACTORY TO THE ENGINEER/INSPECTOR. REMOVE FINE MATERIAL FROM INSIDE DANDY BAG AS NEEDED. DISPOSE OF DANDY BAG NO LONGER IN USE AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY.



INLET INSPECTION

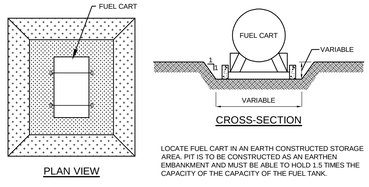
TO INSPECT INLET, REMOVE DANDY BAG WITH GRATE INSIDE, INSPECT CATCH BASIN AND REPLACE DANDY BAG BACK INTO GRATE FRAME.

INLET PROTECTION IN EXISTING PAVEMENT (IP)



CONCRETE WASHOUT PIT DETAIL

N.T.S.

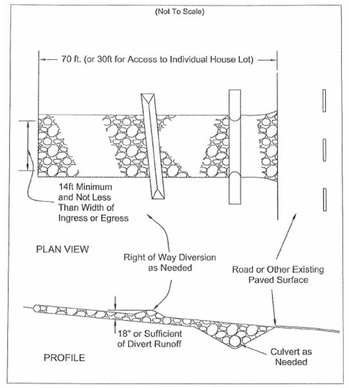


LOCATE FUEL CART IN AN EARTH CONSTRUCTED STORAGE AREA. PIT IS TO BE CONSTRUCTED AS AN EARTHEN EMBANKMENT AND MUST BE ABLE TO HOLD 1.5 TIMES THE CAPACITY OF THE CAPACITY OF THE FUEL TANK.

FUEL STORAGE AREA

Specifications
for

Construction Entrance



Specifications
for

Construction Entrance

1. Stone Size—ODOT # 2 (1.5-2.5 inch) stone shall be used, or recycled concrete equivalent.
2. Length—The Construction entrance shall be as long as required to stabilize high traffic areas but not less than 70 ft. (exception: apply 30 ft. minimum to single residence lots).
3. Thickness -The stone layer shall be at least 6 inches thick for light duty entrances or at least 10 inches for heavy duty use.
4. Width -The entrance shall be at least 14 feet wide, but not less than the full width at points where ingress or egress occurs.
5. Geotextile -A geotextile shall be laid over the entire area prior to placing stone. It shall be composed of strong rot-proof polymeric fibers and meet the following specifications:

Figure 7.4.1

Geotextile Specification for Construction Entrance	
Minimum Tensile Strength	200 lbs.
Minimum Puncture Strength	80 psi.
Minimum Tear Strength	50 lbs.
Minimum Burst Strength	320 psi.
Minimum Elongation	20%
Equivalent Opening Size	EOS < 0.6 mm.
Permittivity	1x10-3 cm/sec.

6. Timing—The construction entrance shall be installed as soon as is practicable before major grading activities.
7. Culvert -A pipe or culvert shall be constructed under the entrance if needed to prevent surface water from flowing across the entrance or to prevent runoff from being directed out onto paved surfaces.
8. Water Bar -A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.
9. Maintenance -Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.
10. Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction-site shall be restricted from muddy areas.
11. Removal—the entrance shall remain in place until the disturbed area is stabilized or replaced with a permanent roadway or entrance.

Specifications
for

Temporary Seeding

Table 7.8.1 Temporary Seeding Species Selection

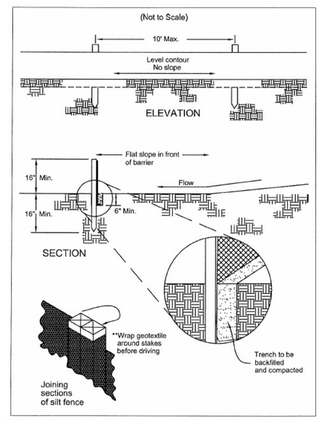
Seeding Dates	Species	Lb./1000 ft2	Lb/Acre
March 1 to August 15	Oats Tall Fescue Annual Ryegrass	3 1 1	128 (4 Bushel) 40 40
	Perennial Ryegrass Tall Fescue Annual Ryegrass	1 1 1	40 40 40
	Annual Ryegrass Perennial Ryegrass Creeping Red Fescue Kentucky Bluegrass	1.25 3.25 0.4 0.4	55 142 17 17
	Oats Tall Fescue Annual Ryegrass	3 1 1	126 (3 bushel) 40 40
August 16th to November	Rye Tall Fescue Annual Ryegrass	3 1 1	112 (2 bushel) 40 40
	Wheat Tall Fescue Annual Ryegrass	3 1 1	120 (2 bushel) 40 40
	Perennial Rye Tall Fescue Annual Ryegrass	1 1 1	40 40 40
	Annual Ryegrass Perennial Ryegrass Creeping Red Fescue Kentucky Bluegrass	1.25 3.25 0.4 0.4	40 40 40
November 1 to Feb. 29	Use mulch only or dormant seeding		

Note: Other approved species may be substituted.

1. Structural erosion and sediment control practices such as diversions and sediment traps shall be installed and stabilized with temporary seeding prior to grading the rest of the construction site.
2. Temporary seed shall be applied between construction operations on soil that will not be graded or reworked for 14 days or greater. These idle areas shall be seeded within 7 days after grading.
3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. Temporary seeding should not be postponed if ideal seedbed preparation is not possible.
4. Soil Amendments—Temporary vegetation seeding rates shall establish adequate stands of vegetation, which may require the use of soil amendments. Base rates for lime and fertilizer shall be used.
5. Seeding Method—Seed shall be applied uniformly with a cyclone spreader, drill, cultipacker seeder, or hydroseeder. When feasible, seed that has been broadcast shall be covered by raking or dragging and then lightly tamped into place using a roller or cultipacker. If hydroseeding is used, the seed and fertilizer will be mixed on-site and the seeding shall be done immediately and without interruption.

Specifications
for

Silt Fence



Specifications
for

Silt Fence

1. Silt fence shall be constructed before upslope land disturbance begins.
2. All silt fence shall be placed as close to the contour as possible so that water will not concentrate at low points in the fence and so that small swales or depressions that may carry small concentrated flows to the silt fence are dissipated along its length.
3. Ends of the silt fences shall be brought upslope slightly so that water ponded by the silt fence will be prevented from flowing around the ends.
4. Silt fence shall be placed on the flattest area available.
5. Where possible, vegetation shall be preserved for 5 feet (or as much as possible) upslope from the silt fence. If vegetation is removed, it shall be reestablished within 7 days from the installation of the silt fence.
6. The height of the silt fence shall be a minimum of 16 inches above the original ground surface.
7. The silt fence shall be placed in an excavated or sliced trench cut a minimum of 6 inches deep. The trench shall be made with a trencher, cable laying machine, slicing machine, or other suitable device that will ensure an adequately uniform trench depth.
8. The silt fence shall be placed with the stakes on the downslope side of the geotextile. A minimum of 8 inches of geotextile must be below the ground surface. Excess material shall lay on the bottom of the 6-inch deep trench. The trench shall be backfilled and compacted on both sides of the fabric.
9. Seams between sections of silt fence shall be spliced together only at a support post with a minimum 6-in. overlap prior to driving into the ground, (see details).
10. Maintenance—Silt fence shall allow runoff to pass only as diffuse flow through the geotextile. If runoff overtops the silt fence, flows under the fabric or around the fence ends, or in any other way allows a concentrated flow discharge, one of the following shall be performed, as appropriate: 1) the layout of the silt fence shall be changed, 2) accumulated sediment shall be removed, or 3) other practices shall be installed.

Sediment deposits shall be routinely removed when the deposit reaches approximately one-half of the height of the silt fence.

Silt fences shall be inspected after each rainfall and at least daily during a prolonged rainfall. The location of existing silt fence shall be reviewed daily to ensure its proper location and effectiveness. If damaged, the silt fence shall be repaired immediately.

Criteria for silt fence materials

1. Fence post – The length shall be a minimum of 32 inches. Wood posts will be 2-by-2-in. nominal dimensioned hardwood of sound quality. They shall be free of knots, splits and other visible imperfections, that will weaken the posts. The maximum spacing between posts shall be 10 ft. Posts shall be driven a minimum 16 inches into the ground, where possible. If not possible, the posts shall be adequately secured to prevent overturning of the fence due to sediment/water loading.
2. Silt fence fabric – See chart below.

Table 6.3.2 Minimum criteria for Silt Fence Fabric (ODOT, 2002)

FABRIC PROPERTIES	VALUES	TEST METHOD
Minimum Tensile Strength	120 lbs. (535 N)	ASTM D 4632
Maximum Elongation at 60 lbs	50%	ASTM D 4632
Minimum Puncture Strength	50 lbs (220 N)	ASTM D 4833
Minimum Tear Strength	40 lbs (180 N)	ASTM D 4533
Apparent Opening Size	< 0.84 mm	ASTM D 4751
Minimum Permittivity	1X10-2 sec.-1	ASTM D 4491
UV Exposure Strength Retention	70%	ASTM G 4355

Specifications
for

Temporary Seeding

Mulching Temporary Seeding

1. Applications of temporary seeding shall include mulch, which shall be applied during or immediately after seeding. Seedings made during optimum seeding dates on favorable, very flat soil conditions may not need mulch to achieve adequate stabilization.
2. Materials:
   - Straw—If straw is used, it shall be unrotted small-grain straw applied at a rate of 2 tons per acre or 90 lbs./ 1,000 sq. ft. (2-3 bales)
   - Hydroseeders—If wood cellulose fiber is used, it shall be used at 2000 lbs./ ac. or 46 lb./ 1,000-sq.-ft.
   - Other—Other acceptable mulches include mulch mattings applied according to manufacturer's recommendations or wood chips applied at 6 ton/ ac.
3. Straw Mulch shall be anchored immediately to minimize loss by wind or water. Anchoring methods:
   - Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but left to a length of approximately 6 inches.
   - Mulch Netting—Netting shall be used according to the manufacturers recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
   - Synthetic Binders—Synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equivalent may be used at rates recommended by the manufacturer.
   - Wood-Cellulose Fiber—Wood-cellulose fiber binder shall be applied at a net dry wt. of 750 lb./ac. The wood-cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./ 100 gal.

Specifications
for

Permanent Seeding

Site Preparation

1. Subsoiler, plow, or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control both runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.
2. The site shall be graded as needed to permit the use of conventional equipment for seedbed preparation and seeding.
3. Topsoil shall be applied where needed to establish vegetation.

Seedbed Preparation

1. Lime—Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 pounds per 1,000-sq. ft. or 2 tons per acre.
2. Fertilizer—Fertilizer shall be applied as recommended by a soil test. In place of a soil test, fertilizer shall be applied at a rate of 25 pounds per 1,000-sq. ft. or 1000 pounds per acre of a 10-10-10 or 12-12-12 analyses.
3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 inches. On sloping land, the soil shall be worked on the contour.

Seeding Dates and Soil Conditions

Seeding should be done March 1 to May 31 or August 1 to September 30. If seeding occurs outside of the above-specified dates, additional mulch and irrigation may be required to ensure a minimum of 80% germination. Tillage for seedbed preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.

Dormant Seedings

1. Seedings should not be made from October 1 through November 20. During this period, the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":

3. Straw and Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical—A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 inches.
- Mulch Netting—Netting shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
- Asphalt Emulsion—Asphalt shall be applied as recommended by the manufacture or at the rate of 160 gallons per acre.
- From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
- From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.
- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.
- Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

Mulching

1. Mulch material shall be applied immediately after seeding. Dormant seeding shall be mulched. 100% of the ground surface shall be covered with an approved material.
2. Materials
   - Straw—If straw is used it shall be unrotted small-grain straw applied at the rate of 2 tons per acre or 90 pounds (two to three bales) per 1,000-sq. ft. The mulch shall be spread uniformly by hand or mechanically applied so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000-sq.-ft. sections and spread two 45-lb. bales of straw in each section.
   - Hydroseeders—If wood cellulose fiber is used, it shall be applied at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
   - Other—Other acceptable mulches include rolled erosion control mattings or blankets applied according to manufacturer's recommendations or wood chips applied at 6 tons per acre.

Irrigation

Permanent seeding shall include irrigation to establish vegetation during dry weather or on adverse site conditions, which require adequate moisture for seed germination and plant growth.

Irrigation rates shall be monitored to prevent erosion and damage to seeded areas from excessive runoff.

Table 7.10.2 Permanent Seeding

Seed Mix	Seeding Rate		Notes:
	Lbs./acre	Lbs./1,000 Sq. Feet	
General Use			
Creeping Red Fescue Domestic Ryegrass Kentucky Bluegrass	20-40 10-20 20-40	1/2-1 1/4-1/2 1/2-1	For close mowing & for waterways with <2.0 ft/sec velocity
Tall Fescue	40-50	1-1 1/4	
Turf-type (dwarf) Fescue	90	2 1/4	
Steep Banks or Cut Slopes			
Tall Fescue	40-50	1-1 1/4	
Crown Vetch Tall Fescue	10-20 20-30	1/4-1/2 1/2-3/4	Do not seed later than August
Flat Pea Tall Fescue	20-25 20-30	1/2-3/4 1/2-3/4	Do not seed later than August
Road Ditches and Swales			
Tall Fescue	40-50	1-1 1/4	
Turf-type (Dwarf) Fescue Kentucky Bluegrass	90 5	2 1/4 0.1	
Lawns			
Kentucky Bluegrass Perennial Ryegrass	100-120	2 2	
Kentucky Bluegrass Creeping Red Fescue	100-120	2 1-1/2	For shaded areas

Note: Other approved seed species may be substituted.

PROGRESS NOT FOR CONSTRUCTION 8/2/2024

LDA ARCHITECTS
The Offices at the Agora
5000 Euclid Avenue, Suite 104
Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

SWPPP

C703

Thorson · Baker + Associates
CONSULTING ENGINEERS
3030 West Streetsboro Road
Richfield, Ohio 44286
(330) 659-6688 Ph.
(330) 659-6675 Fax

Specifications
for

Additional Construction Site Pollution Controls

1. Construction personnel, including subcontractors who may use or handle hazardous or toxic materials, shall be made aware of the following general guidelines regarding disposal and handling of hazardous and construction wastes:
   - Prevent spills
   - Use products up
   - Follow label directions for disposal
   - Remove lids from empty bottles and cans when disposing in trash
   - Recycle wastes whenever possible
   - Don't pour into waterways, storm drains or onto the ground
   - Don't pour down the sink, floor drain or septic tanks
   - Don't bury chemicals or containers
   - Don't burn chemicals or containers
   - Don't mix chemicals together
2. **Containers shall be provided for the proper collection of all waste material including construction debris, trash, petroleum products and any hazardous materials used on-site.** Containers shall be covered and not leaking. All waste material shall be disposed of at facilities approved for that material. Construction Demolition and Debris (CD&D) waste must be disposed of at an Ohio EPA approved CD&D landfill.
3. **No construction related waste materials are to be buried on-site.** By exception, clean fill (bricks, hardened concrete, soil) may be utilized in a way which does not encroach upon natural wetlands, streams or floodplains or result in the contamination of waters of the state.
4. **Handling Construction Chemicals.** Mixing, pumping, transferring or other handling of construction chemicals such as fertilizer, lime, asphalt, concrete drying compounds, and all other potentially hazardous materials shall be performed in an area away from any watercourse, ditch or storm drain.
5. **Equipment Fueling and Maintenance,** oil changing, etc., shall be performed away from watercourses, ditches or storm drains, in an area designated for that purpose. The designated area shall be equipped for recycling oil and catching spills. Secondary containment shall be provided for all fuel oil storage tanks. These areas must be inspected every seven days and within 24 hrs. of a 0.5 inch or greater rain event to ensure there are no exposed materials which would contaminate storm water. Site operators must be aware that Spill Prevention Control and Countermeasures (SPCC) requirements may apply. An SPCC plan is required for sites with one single above ground tank of 660 gallons or more, accumulative above ground storage of 1330 gallons or more, or 42,000 gallons of underground storage. Contaminated soils must be disposed of in accordance with Item 8.
6. **Concrete Wash Water** shall not be allowed to flow to streams, ditches, storm drains, or any other water conveyance. A sump or pit with no potential for discharge shall be constructed if needed to contain concrete wash water. Field tile or other subsurface drainage structures within 10 ft. of the sump shall be cut and plugged. For small projects, truck chutes may be rinsed away from any water conveyances.
7. **Spill Reporting Requirements:** Spills on pavement shall be absorbed with sawdust or kitty litter and disposed of with the trash at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil-based paints, and cement curing compounds require special handling. Spills shall be reported to Ohio EPA (1-800-282-9378). Spills of 25 gallons or more of petroleum products shall be reported to Ohio EPA, the local fire department, and the Local Emergency Planning Committee within 30 min. of the discovery of the release. All spills which contact waters of the state must be reported to Ohio EPA.
8. **Contaminated Soils.** If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto the soil, the soil should be dug up and disposed of at licensed sanitary landfill or other approved petroleum contaminated soil remediation facility. (not a construction/demolition debris landfill). Note that storm water run off associated with contaminated soils are not be authorized under Ohio EPA's General Storm Water Permit associated with Construction Activities.
9. **Open Burning.** No materials containing rubber, grease, asphalt, or petroleum products, such as tires, autoparts, plastics or plastic coated wire may be burned (OAC 3745-19). Open burning is not allowed in restricted areas, which are defined as: 1) within corporation limits; 2) within 1000 feet outside a municipal corporation having a population of 1000 to 10,000; and 3) a one mile zone outside of a corporation of 10, 000 or more. Outside of restricted areas, no open burning is allowed within a 1000 feet of an inhabited building on another property. Open burning is permissible in a restricted area for: heating tar, welding, smudge pots and similar occupational needs, and heating for warmth or outdoor barbeques. Outside of restricted areas, open burning is permissible for landscape or land-clearing wastes (plant material, with prior written permission from Ohio EPA), and agricultural wastes, excluding buildings.
10. **Dust Control or dust suppressants** shall be used to prevent nuisance conditions, in accordance with the manufacturer's specifications and in a manner, which prevent a discharge to waters of the state. Sufficient distance must be provided between applications and nearby bridges, catch basins, and other waterways. Application (excluding water) may not occur when rain is imminent as noted in the short term forecast. Used oil may not be applied for dust control.
11. **Other Air Permitting Requirements:** Certain activities associated with construction will require air permits including but not limited to: mobile concrete batch plants, mobile asphalt plants, concrete crushers, large generators, etc. These activities will require specific Ohio EPA Air Permits for installation and operation. Operators must seek authorization from the corresponding district of Ohio EPA. For demolition of all commercial sites, a Notification for Restoration and Demolition must be submitted to Ohio EPA to determine if asbestos corrective actions are required.
12. **Process Waste Water/Leachate Management.** Ohio EPA's Construction General Permit only allows the discharge of storm water and does not include other waste streams/discharges such as vehicle and/or equipment washing, on-site septic leachate concrete wash outs, which are considered process wastewaters. All process wastewaters must be collected and properly disposed at an approved disposal facility. In the event, leachate or septage is discharged; it must be isolated for collection and proper disposal and corrective actions taken to eliminate the source of waste water.
13. **A Permit To Install (PTI)** is required prior to the construction of all centralized sanitary systems, including sewer extensions, and sewerage systems (except those serving one, two, and three family dwellings) and potable water lines. Plans must be submitted and approved by Ohio EPA. Issuance of an Ohio EPA Construction General Storm Water Permit does not authorize the installation of any sewerage system where Ohio EPA has not approved a PTI.

Specifications
for

Dust Control

1. Vegetative Cover and/mulch – Apply temporary or permanent seeding and mulch to areas that will remain idle for over 21 days. Saving existing trees and large shrubs will also reduce soil and air movement across disturbed areas. See Temporary Seeding; Permanent Seeding; Mulching Practices; and Tree and Natural Area Protection practices.
2. Watering – Spray site with water until the surface is wet before and during grading and repeat as needed, especially on haul roads and other heavy traffic routes. Watering shall be done at a rate that prevents dust but does not cause soil erosion. Wetting agents shall be utilized according to manufacturers instructions.
3. Spray-On Adhesives – Apply adhesive according to the following table or manufacturers' instructions.

Table 7.5.1 Adhesives for Dust Control

Adhesive	Water Dilution (Adhesive: Water)	Nozzle Type	Application Rate Gal./Ac.
Latex Emulsion	12.5:1	Fine	235
Resin in Water Acrylic Emulsion (No-traffic)	4:1	Fine	300
Acrylic Emulsion (No-traffic)	7:1	Coarse	450
Acrylic Emulsion (Traffic)	3.5:1	Coarse	350

4. Stone – Graded roadways and other suitable areas will be stabilized using crushed stone or coarse gravel as soon as practicable after reaching an interim or final grade. Crushed stone or coarse gravel can be used as a permanent cover to provide control of soil emissions.
5. Barriers – Existing windbreak vegetation shall be marked and preserved. Snow fencing or other suitable barrier may be placed perpendicular to prevailing air currents at intervals of about 15 times the barrier height to control air currents and blowing soil.
6. Calcium Chloride - This chemical may be applied by mechanical spreader as loose, dry granules or flakes at a rate that keeps the surface moist but not so high as to cause water pollution or plant damage. Application rates should be strictly in accordance with suppliers' specified rates.
7. Operation and Maintenance - When Temporary Dust Control measures are used; repetitive treatment should be applied as needed to accomplish control.

   Street Cleaning - Paved areas that have accumulated sediment from construction should be cleaned daily, or as needed, utilizing a street sweeper or bucket -type endloader or scraper.

Specifications
for

Mulching

1. Mulch and other appropriate vegetative practices shall be applied to disturbed areas within 7 days of grading if the area is to remain dormant (undisturbed) for more than 21 days or on areas and portions of the site which can be brought to final grade.
2. Mulch shall consist of one of the following:
   - Straw - Straw shall be unrotted small grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The straw mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq.ft. sections and place two 45-lb. bales of straw in each section.
   - Hydroseeders - Wood cellulose fiber should be used at 2,000 lb./ac. or 46 lb./1,000 sq. ft.
   - Other - Acceptable mulches include mulch mattings and rolled erosion control products applied according to manufacturer's recommendations or wood mulch/chips applied at 10-20 tons/ac.
3. Mulch Anchoring - Mulch shall be anchored immediately to minimize loss by wind or runoff. The following are acceptable methods for anchoring mulch.
   - Mechanical - Use a disk, crimper, or similar type tool set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but be left generally longer than 6 inches.
   - Mulch Nettings - Use according to the manufacturer's recommendations, following all placement and anchoring requirements. Use in areas of water concentration and steep slopes to hold mulch in place.
   - Synthetic Binders - For straw mulch, synthetic binders such as Acrylic DLR (Agri-Tac), DCA-70, Petroset, Terra Tack or equal may be used at rates recommended by the manufacturer. All applications of Sythetic Binders must be conducted in such a manner where there is no contact with waters of the state.
   - Wood Cellulose Fiber - Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lb./100 gal. of wood cellulose fiber.

Specifications
for

De-Watering

1. A de-watering plan shall be developed prior to the commencement of any pumping activities.
2. The de-watering plan shall include all pumps and related equipment necessary for the dewatering activities and designate areas for placement of practices. Outlets for practices shall be protected from scour either by riprap protection, fabric liner, or other acceptable method of outlet protection.
3. Water that is not discharged into a settling/treatment basin but directly into waters of the state shall be monitored hourly. Discharged water shall be within +/- 5° F of the receiving waters.
4. Settling basins shall not be greater than four (4) feet in depth. The basin shall be constructed for sediment storage as outlined in Chapter 6, SEDIMENT BASIN OR SEDIMENT TRAP. The inlet and outlet for the basin shall be located at the furthest points of the storage. A floating outlet shall be used to ensure that settled solids do not re-suspend during the discharge process. The settling basin shall be cleaned out when the storage has been reduced by 50% of its original capacity.
5. All necessary National, State and Local permits shall be secured prior to discharging into waters of the state

Specifications
for

Topsoiling

Salvaging and Stockpiling

1. Determine the depth and suitability of topsoil at the site. (For help, contact your local SWCD office to obtain a county soil survey report).
2. Prior to stripping topsoil, install appropriate downslope erosion and sedimentation controls such as sediment traps and basins.
3. Remove the soil material no deeper than what the county soil survey describes as "surface soil" (ie. A or Ap horizon).
4. Construct stockpiles in accessible locations that do not interfere with natural drainage. Install appropriate sediment controls to trap sediment such as silt fence immediately adjacent to the stockpile or sediment traps or basins downstream of the stockpile. Stockpile side slopes shall not exceed a ratio of 2:1.
5. If topsoil is stored for more than 21 days, it should be temporary seeded, or covered with a tarp.

Spreading the Topsoil

1. Prior to applying topsoil, the topsoil should be pulverized.
2. To ensure bonding, grade the subsoil and roughen the top 3-4 in. by disking.
3. Do not apply when site is wet, muddy, or frozen, because it makes spreading difficult, causes compaction problems, and inhibits bonding with subsoil.
4. Apply topsoil evenly to a depth of at least 4 inches and compact slightly to improve contact with subsoil.
5. After speading, grade and stabilize with seeding or appropriate vegetation.

Specifications
for

Grade Treatment

Cut Slopes-Greater than 3:1 Slopes

1. Stair-step grading may be carried out on any material soft enough to be ripped with a bulldozer. The ratio of the horizontal distance to the vertical cut distance shall be flatter than 1:1 and the horizontal portion of the "step" shall slope toward the vertical wall. Individual vertical cuts shall not be more than 24 inches on soft soil materials and not more than 36 inches in rocky materials.
2. Grooving may be made with any appropriate implement which can be safely operated on the slope and which will not cause undue compaction. Suggested implements include disca, tillers, spring harrows, and the teeth on a front-end loader bucket. Such grooves shall not be less than 3 inches deep nor further than 15 inches apart.

Fill Slopes-Greater than 3:1 Slopes

Fill slopes steeper than 3:1 shall be grooved or allowed to remain rough as they are constructed utilizing method (1) or (2) below.

1. Grooving may be made with any appropriate implement which can be safely operated on the slope and which will not cause undue compaction such as disca, tillers, spring harrows, and the teeth on a front-end loader bucket. Grooves left shall not be less than 3 inches deep nor further than 15 inches apart.
2. As lifts of the fill are constructed, soil and rock materials may be allowed to fall naturally onto the slope surface. At no time shall slopes be bladed or scraped to produce a smooth, hard surface.

Cuts, Fills, and Graded Areas Which Will Be Mowed

1. Mowed slopes should not be steeper than 3:1 and shall avoid excessive roughness. These areas may be roughened with shallow grooves such as those, which remain after tilling, discing, harrowing, raking, or use of a cultipacker-seeder. The final pass of any such tillage implement shall be on the contour (perpendicular to the slope).
2. Grooves formed by implements shall be not less than 1 inch deep and not further than 12 inches apart. Fill slopes that are left rough during construction may be smoothed with a chain harrow or similar implement to facilitate mowing.

Roughening With Tracked Machinery

1. Avoid tracking clayey soils if possible, due to their potential for compaction. Conversely sandy soils will have low potential for compaction.
2. Operate tracked machinery up and down the slope to leave horizontal depressions in the soil. As few passes of the machinery should be made as possible to minimize compaction.

Thorson-Baker + Associates
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3030 West Streetsboro Road
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REV	DATE	DESCRIPTION
	8/2/2024	ISSUED FOR BIDDING

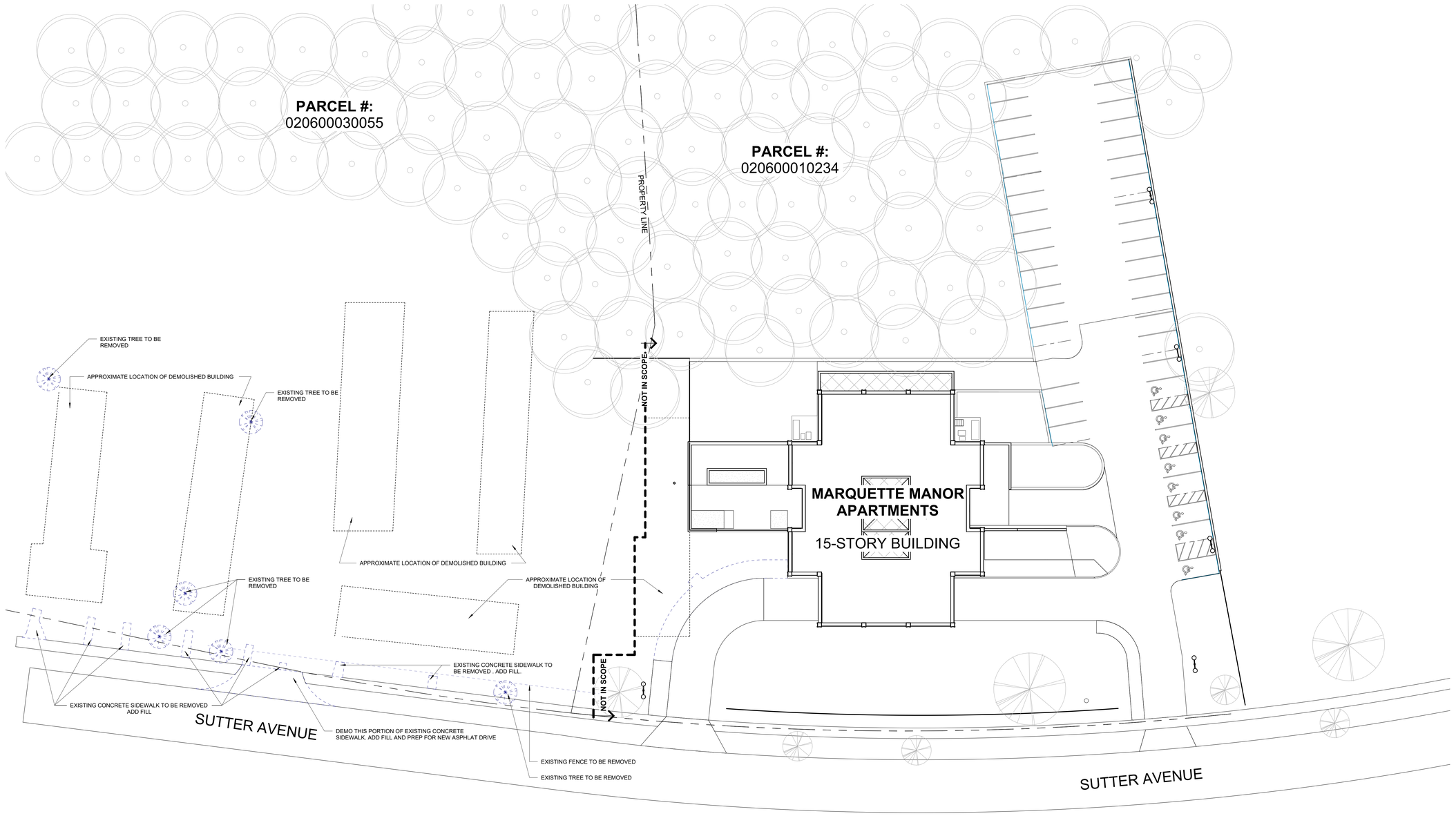
PROGRESS NOT FOR CONSTRUCTION 8/2/2024

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

SWPPP

C704



1 AS.01 DEMOLITION SITE PLAN - PHASE 2
SCALE: 1" = 20'-0"

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GENERAL NOTES - DEMOLITION

1. THE EXTENT OF DEMOLITION IS GENERALLY DESCRIBED. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION WORK REQUIRED TO ACCOMMODATE THE INSTALLATION OF THE PROPOSED WORK.

2. PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED TO REMAIN, INCLUDING IMPROVEMENTS ON AND OFF THE SITE. PROTECT EXISTING TREES INDICATED TO REMAIN. DO NOT STOCKPILE MATERIALS AND RESTRICT TRAFFIC WITHIN DRIPLINE OF EXISTING TREES TO REMAIN.

3. REFER TO CIVIL NARRATIVE FOR EXTENT OF UTILITY WORK. COORDINATE WORK WITH CIVIL DRAWINGS, INCLUDING BUT NOT LIMITED TO UTILITY RELOCATION OR REMOVAL.

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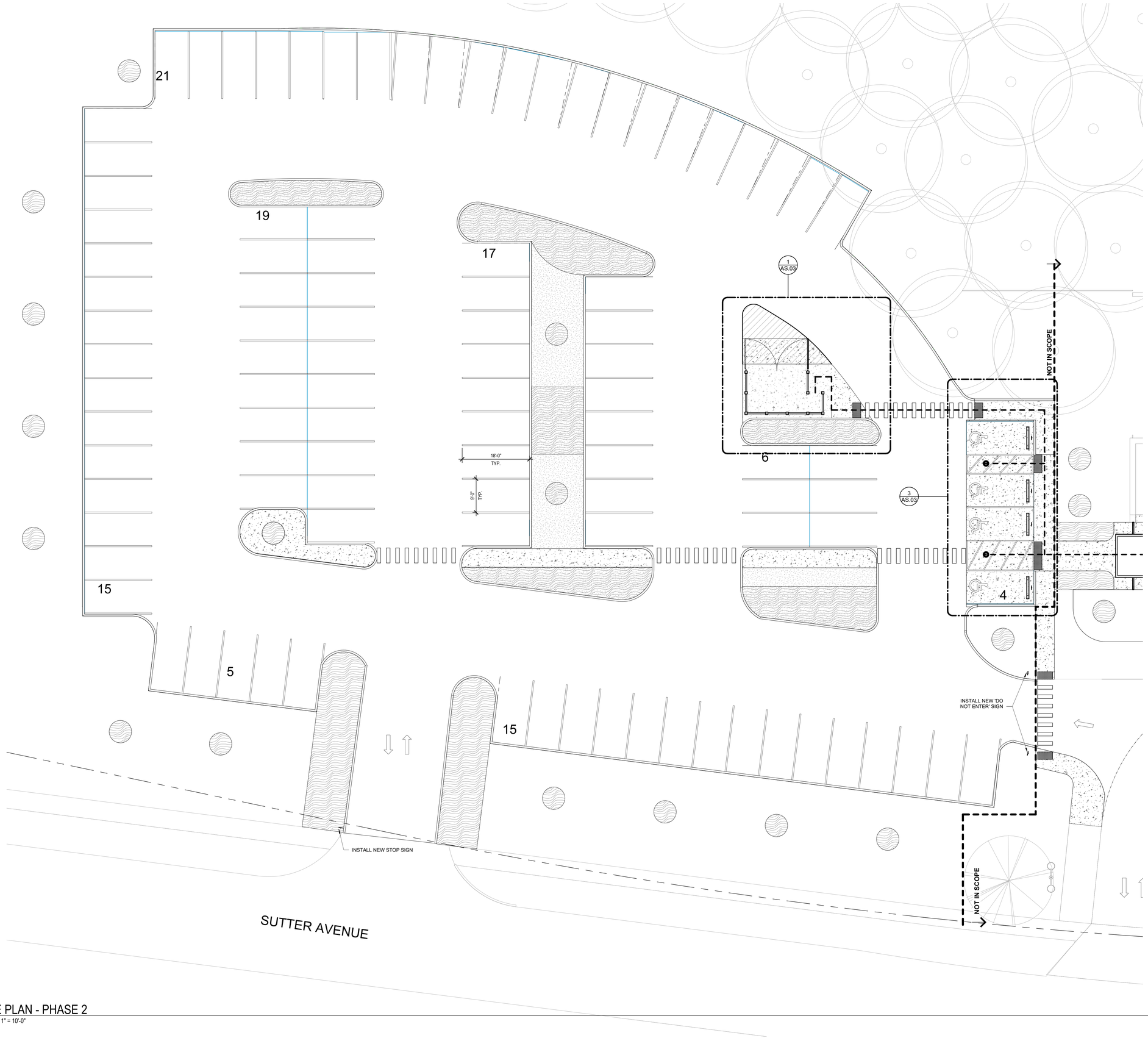
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

SITE DEMOLITION PLAN

AS.01



1 AS.02 SITE PLAN - PHASE 2
SCALE: 1" = 10'-0"

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REV	DATE	DESCRIPTION
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SITE PLAN LEGEND

- REGRADING/FILL SOIL & LANDSCAPE
- LANDSCAPE AREA
- EXISTING PLANTS TO REMAIN
- NEW PLANTINGS
- ACCESSIBLE ROUTE. SLOPE NOT TO EXCEED 5%. CROSS-SLOPE NOT TO EXCEED 2%.

SCOPE OF WORK & GENERAL NOTES - SITE PLANS

1. ALL SITE WORK DESCRIBED IN THIS SECTION IS TO BE COORDINATED WITH LANDSCAPE AND CIVIL DRAWINGS.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL EXISTING UTILITIES ON PROPERTY AND SHALL RREPORT ALL POTENTIAL CONFLICTS WITH THE PROPOSED UTILITIES, UTILITY RIGHT OF WAYS, ETC. TO THE ARCHITECT.

LANDSCAPING
A. NEW LANDSCAPING IS TO BE PROVIDED IN ALL AREAS INDICATED ON THE LANDSCAPE DRAWINGS. REFER TO LANDSCAPE PLANS AND SPECIFICATIONS. ANY EXISTING TREES ON PROPERTY LOCATED OUTSIDE OF NEWLY LANDSCAPED AREAS ARE TO REMAIN AND BE PROTECTED DURING CONSTRUCTION IF NEEDED UNLESS BEING DEMOLISHED.

CONCRETE SIDEWALKS
A. NEW CONCRETE SIDEWALKS ARE TO BE PROVIDED IN NEW PARKING LOT. REFER TO RESPECTIVE SCOPES OF WORK BELOW FOR ADDITIONAL INFORMATION.
B. EXISTING CONCRETE SIDEWALKS ARE TO BE REMOVED AS INDICATED ON THE DEMOLITION PLAN.

PARKING LOT:
A. ACCESSIBLE PARKING TO BE PROVIDED NEAR BUILDING ENTRANCE WITH ACCESSIBLE PARKING SIGNAGE.
B. ACCESSIBLE STRIPING AND LOGOS TO BE WHITE IN COLOR. STRIPING TO BE 4" THICK AND 12" APART. CROSSWALK STRIPING TO BE PROVIDED AS INDICATED ON SITE PLAN.
C. ACCESSIBLE ROUTE FROM PARKING TO BUILDING ENTRANCE AND NEW DUMPSTER ENCLOSURE SHALL BE PROVIDED WITH A SLOPE NOT TO EXCEED 5% AND CROSS-SLOPE NOT TO EXCEED 2%.
D. NEW LOT TO TIE INTO EXSITING BUILDING DRIVEWAY.
E. NEW STOP SIGNAGE AND "DO NOT ENTER" SIGNAGE TO BE PROVIDED AS INDICATED ON SITE PLAN.

SITE LIGHTING
A. NEW POLES AND BOLLARDS TO BE INSTALLED. REFER TO ELECTRICAL DRAWINGS. .

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LDA Project No.23.48

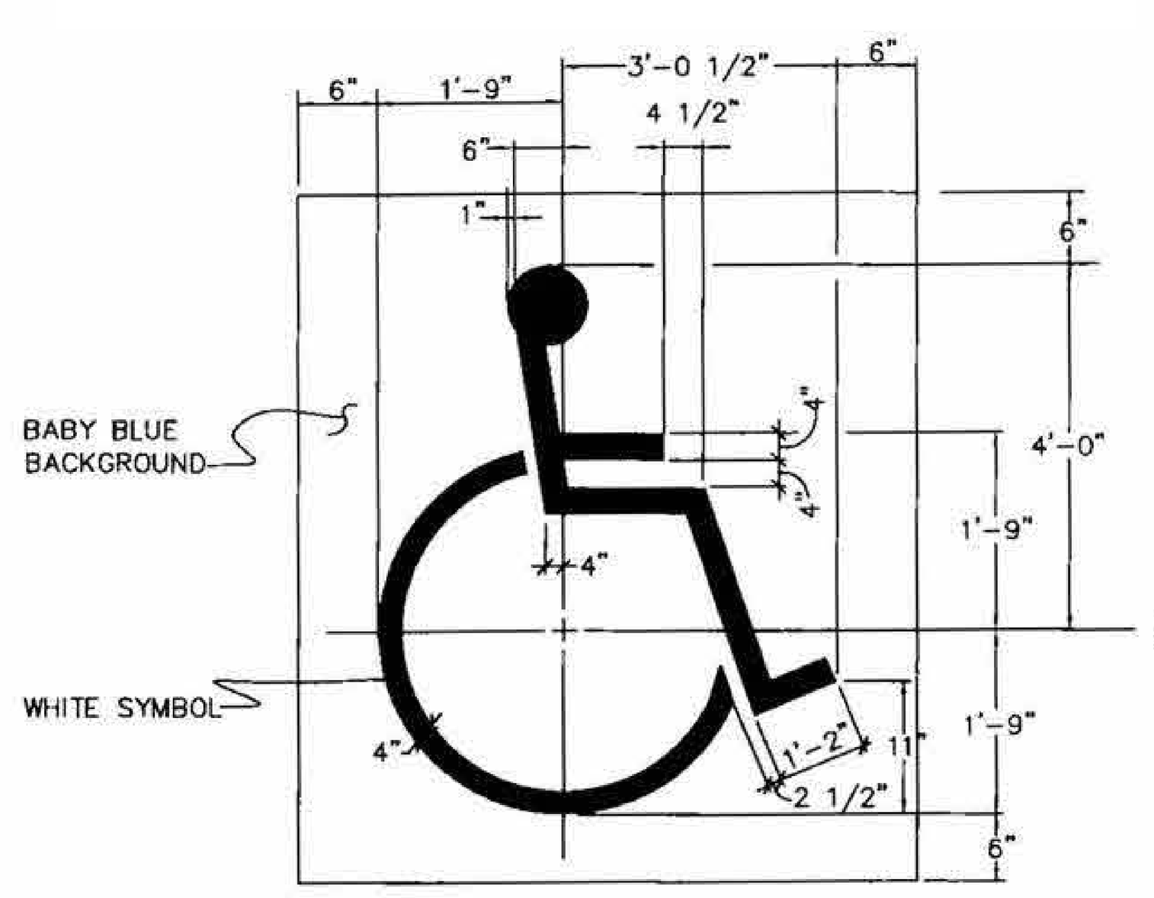
PROPOSED PARKING LOT PLAN

AS.02

COLORS
LEGEND AND BORDER – GREEN
WHITE SYMBOL ON BLUE BACKGROUND
BACKGROUND – WHITE

NOTE: FOR ADDITIONAL INFORMATION, REFER TO SIGN MOUNTING DETAIL, THIS SHEET.

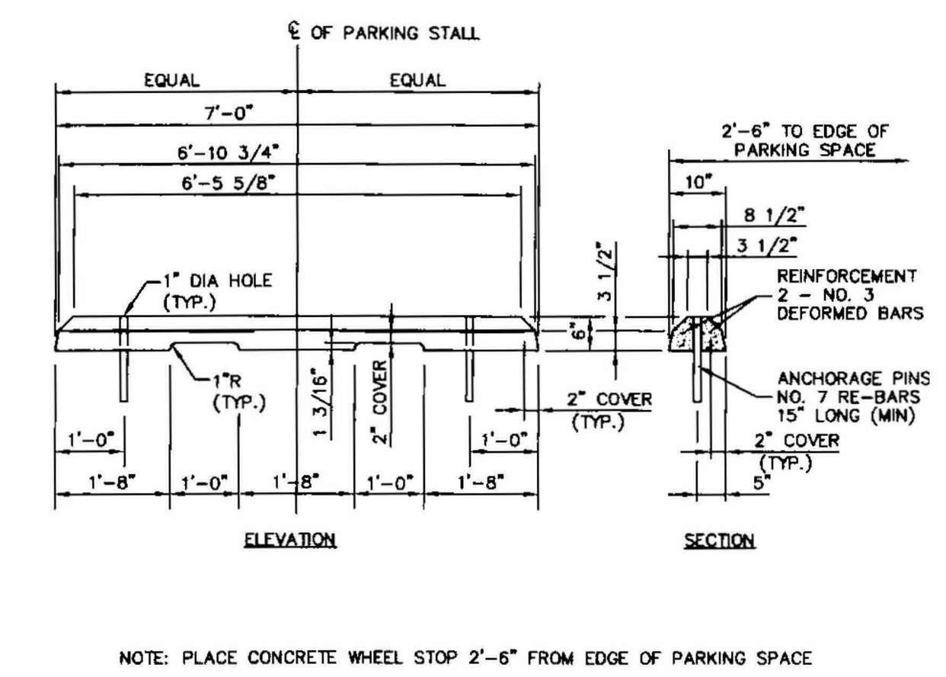
J. Section 4.6.4 Signage. Each accessible parking space shall be identified by an approved sign with the bottom edge at least 7 feet above the ground, unless the sign is placed flush against a building, structure, or other location that does not obstruct vehicle or pedestrian traffic, in which case the sign shall be at least 6 feet and no more than 10 feet above the ground. Signs shall bear the international symbol of access and the words "Reserved Parking" and shall be in conformance with the requirements of the Maryland District of Columbia.



PLACE SYMBOL @ CENTERLINE OF STALL, REFER TO PARKING STRIPING DETAIL THIS SHEET FOR DIMENSIONS.

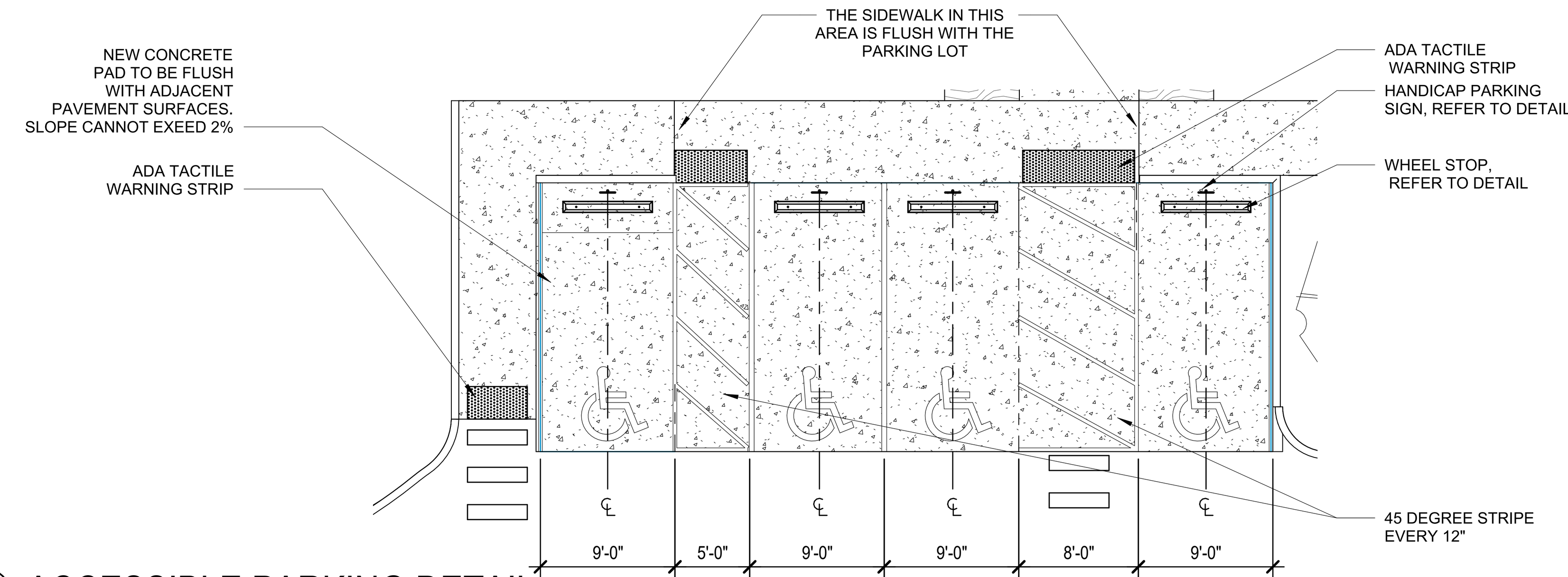
NOTE: THIS DETAIL PROVIDED FOR REFERENCE ONLY! ALL DIMENSIONS, LAYOUT, BACKGROUNDS AND COLOR MUST CONFORM TO MOST CURRENT ADA GUIDELINES.

8 AS.03 HANDICAP DETAILS
SCALE: 1/4" = 1'-0"



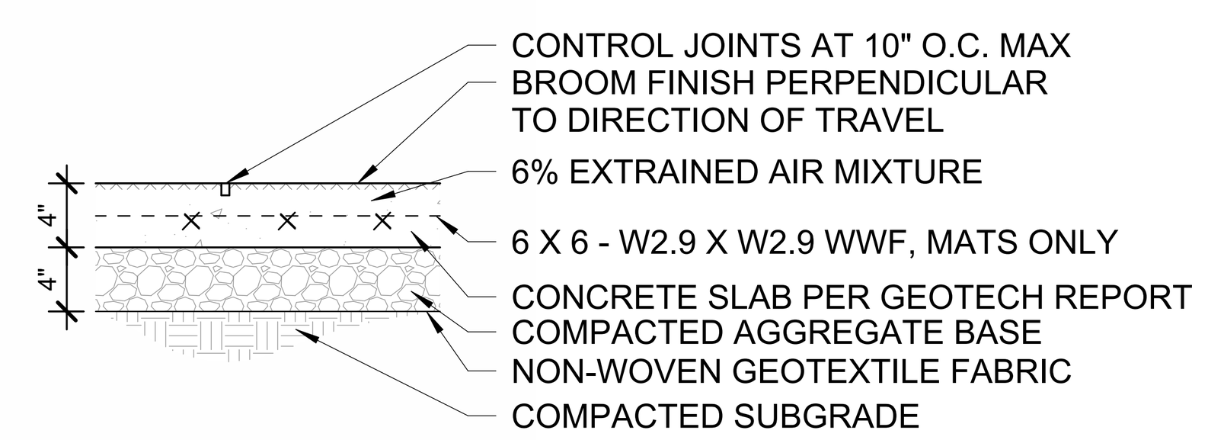
NOTE: PLACE CONCRETE WHEEL STOP 2'-6" FROM EDGE OF PARKING SPACE

6 AS.03 WHEELSTOP DETAIL
SCALE: 1" = 20'-0"

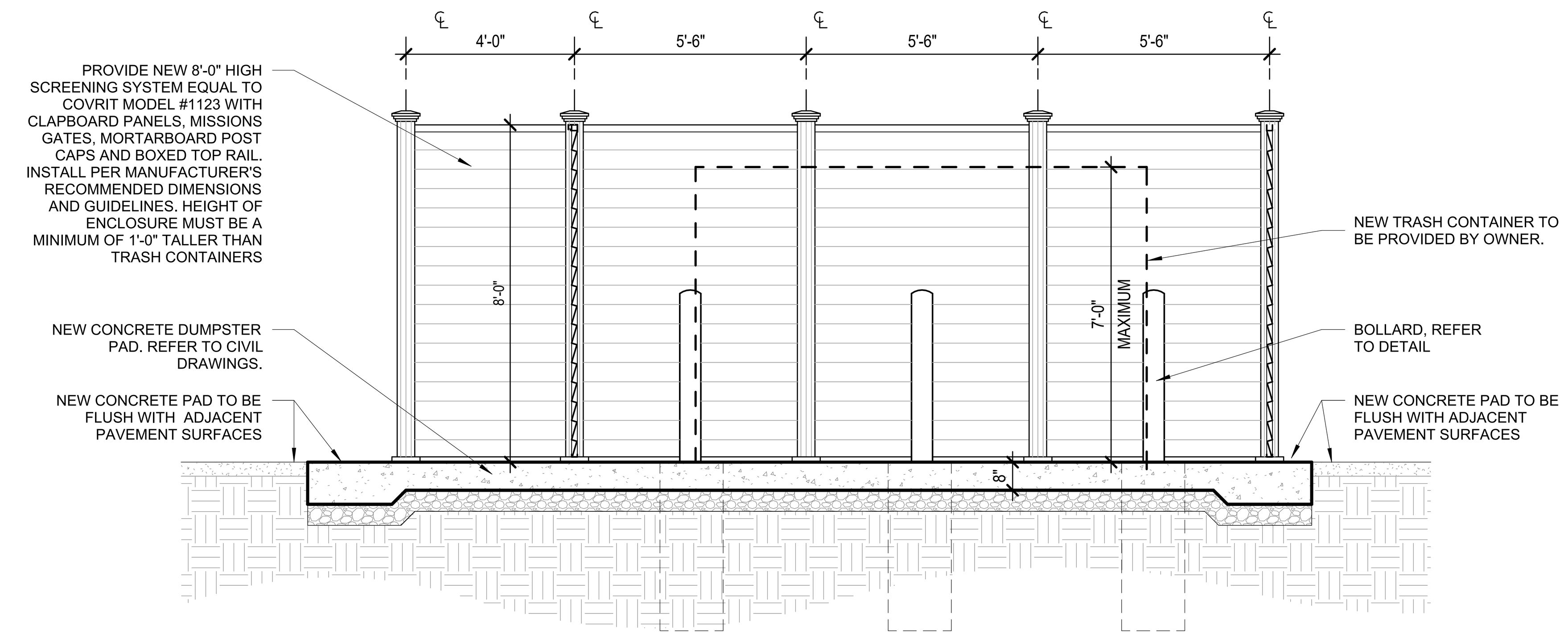


3 AS.03 ACCESSIBLE PARKING DETAIL
SCALE: 1/8" = 1'-0"

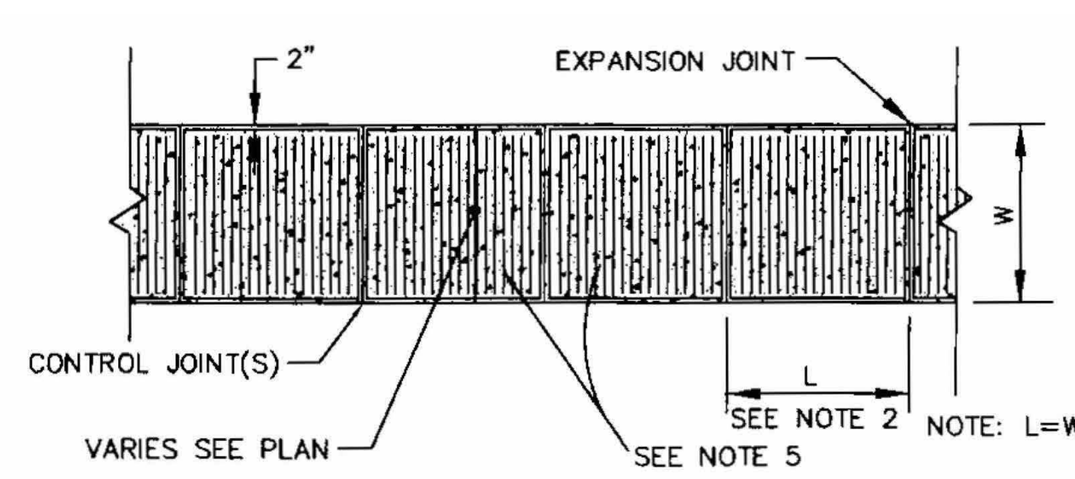
NOTE:
SEE CIVIL DRAWINGS FOR ELEVATIONS
4000 PSI CONCRETE



5 AS.03 TYP. CONCRETE PAVING DETAIL
SCALE: 1" = 1'-0"



2 AS.03 SECTION THRU DUMPSTER ENCLOSURE
SCALE: 3/8" = 1'-0"

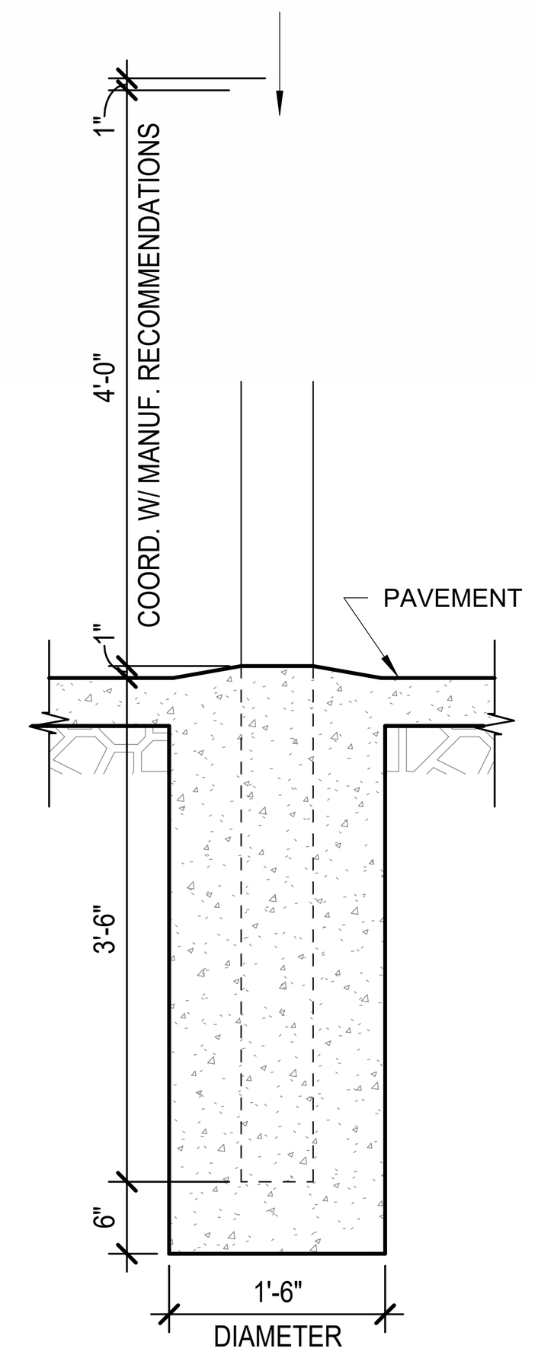


NOTES:

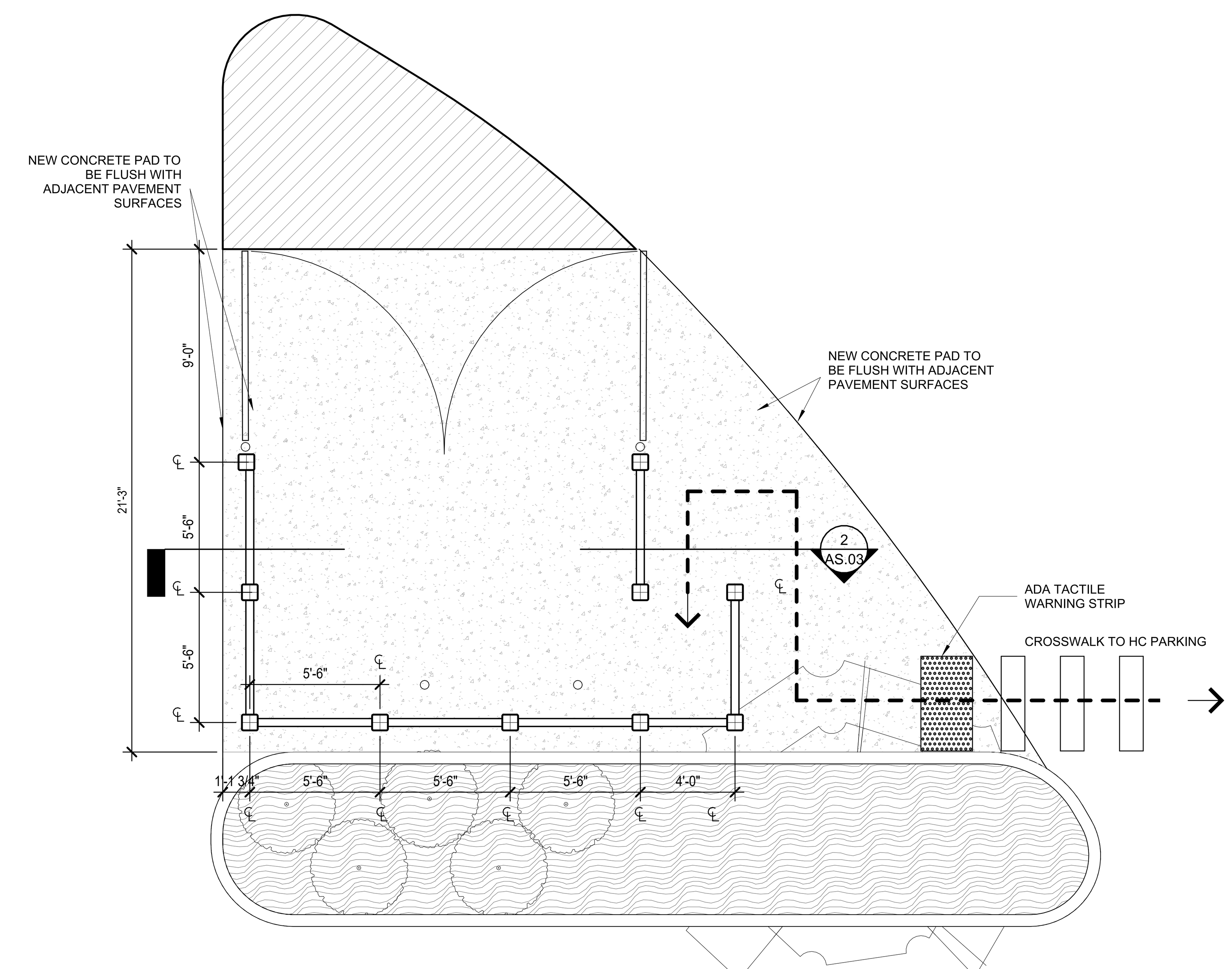
1. MATERIALS AND CONSTRUCTION METHODS SHALL MATCH DOOT STANDARDS. CONCRETE SHALL BE MIN. 3500 PSI CLASS F CONCRETE. 3500 PSI CLASS E CONCRETE SHALL BE USED WHERE SUBJECTED TO VEHICLE TRAFFIC.
2. CONTROL JOINTS, SPACED TO MATCH SIDEWALK WIDTH (6' MAX), SHALL BE INSTALLED IN THE SIDEWALK CONCRETE TO FORM SQUARE PANELS. CONTROL JOINTS SHALL BE SAW-CUT OR FORMED, 1 1/4" DEEP.
3. EXPANSION JOINTS FOR SIDEWALK SHALL BE 1/4" WIDTH PREFORMED CORK MATERIAL INSTALLED EVERY 15' MAX.
4. EXPANSION JOINTS FOR MEDIUM & HEAVY DUTY SIDEWALK/CONCRETE PAVING SHALL BE 1/2" WIDTH PREFORMED CORK INSTALLED EVERY 30' MAX. WITH DOWELS AT 12" SPACING. 1/2" EXPANSION JOINTS SHALL ALSO BE PLACED WHERE SIDEWALKS ABUT CURBS AND OTHER RIGID STRUCTURES.
5. FINISH SURFACES WITH A LIGHT BROOM FINISH.
6. INSTALL REINFORCING MIN. 2" FROM SURFACES AND EDGES, TYP.

7 AS.03 SIDEWALK DETAIL
SCALE: 1/16" = 1'-0"

CONCRETE FILLED 6" DIA. SCH. 40 STEEL PIPE. COORDINATE WITH MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION. FINISH TO BE PAINTED EXTERIOR GRADE EPOXY. COLOR TO BE SELECTED BY ARCHITECT.



4 AS.03 BOLLARD DETAIL
SCALE: 3/4" = 1'-0"



1 AS.03 DUMPSTER ENCLOSURE PLAN
SCALE: 1/4" = 1'-0"

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PARKING LOT DETAILS

AS.03

PLANTING SCHEDULE					
KEY	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE
CA CA	7	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	B&B	6-8'
MA RR	12	MALUS ROYAL RAINDROPS	ROYAL RAINDROPS CRABAPPLE	B&B	6-8'
TH OC	5	THUJA OCCIDENTALIS 'EMERALD GREEN'	EMERLAD ARBORVITAE	B&B	4'
CA AC	4	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	CONT.	NO.3
HE HR	95	HEMEROCALLIS 'HAPPY RETURNS'	HAPPY RETURN DAYLILY	CONT.	NO.1
JU CH	53	JUNIPERUS CHINENSIS 'PARSONII'	PARSON'S JUNIPER	<varies>	NO.7
GL TR	9	GLEDITSIA TRIACANTHOS V. INERMIS	THORNLESS HONEYLOCUST	B&B	6-8'

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CA CA
4 GL TR
MULCH
MULCH
MULCH
MULCH
21
5 JU CH
2 MA RR
MULCH
19
GL TR
7 JU CH
MULCH
5 JU CH
17
2 MA RR
MULCH
4 CA AC
12 HE HR
4 JU CH
18'-0" TYP.
MULCH
9'-0" TYP.
MULCH
GL TR
13 JU CH
7 JU CH
GL TR
15
6
MULCH
MA RR
5 TH OC
16 HE HR
7 JU CH
2 GL TR
26 HE HR
MA RR
MULCH
NOT IN SCOPE
4
5
6 MA RR
MULCH
18 JU CH
2 CA CA
MULCH
30 HE HR
15
4 CA AC
MULCH
MULCH
PROPERTY LINE
NOT IN SCOPE
SUTTER AVENUE

1 L0.01 PHASE 2 LANDSCAPE PLAN
SCALE: 1" = 10'-0"

N

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Cincinnati Metropolitan Housing Authority
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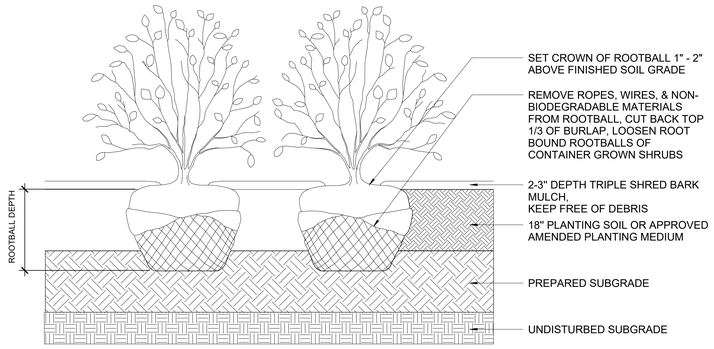
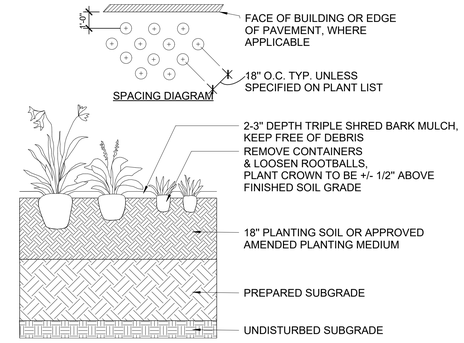
PROPOSED PARKING LOT LANDSCAPING

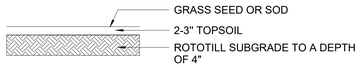
L0.01



4 L0.02 TYP. SHRUB DETAIL
SCALE: 1" = 1'-0"

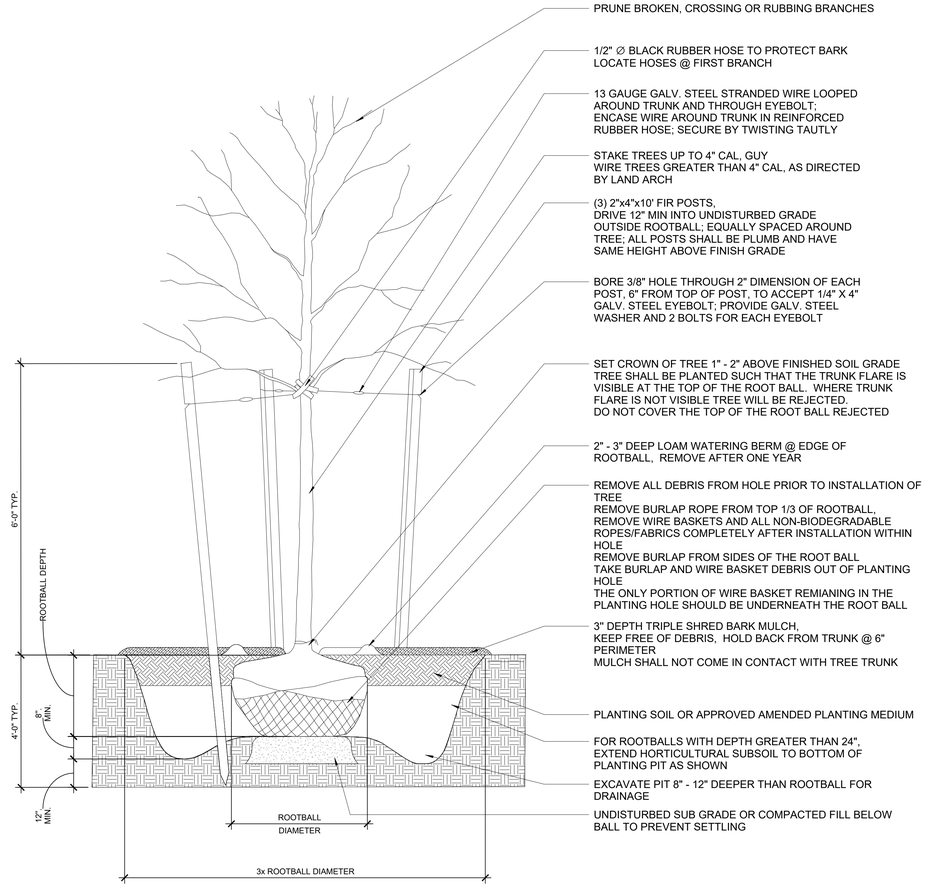


3 L0.02 TYP. PERENNIAL DETAIL
SCALE: 1" = 1'-0"



5 L0.02 TYP. GRASS DETAIL
SCALE: 1" = 1'-0"

2 L0.02 TYP. TREE ON SLOPE DETAIL
SCALE: 3/4" = 1'-0"



NOTE:

DO NOT HEAVILY PRUNE THE TREE AT PLANTING; PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CANOPY

1 L0.02 TYP. TREE DETAIL
SCALE: 1/2" = 1'-0"

LDA ARCHITECTS
The Offices at the Agora
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Cleveland, OH 44103
LDAarchitecture.com
216.932.1890

REV	DATE	DESCRIPTION
	2024.08.02	ISSUED FOR BIDDING

NOT FOR CONSTRUCTION

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

LANDCAPE DETAILS

L0.02

CIRCUIT BREAKER PANEL SCHEDULE

NAME:	LPG-1	VOLTAGE:	208/120V-3@-4W	BUSS:	225A	KAIC:	10
MOUNTING:	SURFACE	LOCATION:	UTILITY	MCB:	200/3	ENCLOSURE:	NEMA 1

NOTE	CKT	DESCRIPTION	LTG	REC	FSEQ	HVAC	MISC	C/B	PH	C/B	MISC	HVAC	FSEQ	REC	LTG	DESCRIPTION	CKT	NOTE
	1	NORTHWEST OFFICE REC.		0.90				20/1	A	20/1				0.90		OFFICE AREA/VEST./UTIL. LIGHTING	2	
	3	SOUTHWEST OFFICE REC.		0.90				20/1	B	20/1				0.90		SOUTHEAST INNER OFFICE REC.	4	
	5	I.T./BATH/GENERAL REC.		0.90				20/1	C	20/1				0.90		SOUTHEAST OUTER OFFICE REC.	6	
	7	OPEN OFFICE REC.		0.72				20/1	A	20/1	0.50					I.T. REC.	8	
	9	OPEN OFFICE REC.						20/1	B	20/1	0.50					I.T. REC.	10	
	11	NEW CANOPY NON EM LIGHTING	0.70					20/1	C	20/1	0.50					I.T. REC.	12	
	13	NEW BOLLARD LIGHTING	0.30					20/1	A	20/1	0.50					I.T. REC.	14	
	15	NEW MONUMENT SIGN LIGHTING	0.20					15/1	B	-						SPACE	16	
	17	SPARE						20/1	C	-						SPACE	18	
	19	SPARE						20/1	A	-						SPACE	20	
	21	SPARE						20/1	B	-						SPACE	22	
	23	SPARE						20/1	C	-						SPACE	24	
	25	EXISTING BASE BOARD HEATING				1.44		15/1	A	-						SPACE	26	
	27	EXISTING BASE BOARD HEATING				1.25		15/2	B	-						SPACE	28	
	29					1.25			C	20/2					0.50	SITE POLE LIGHTING	30	
	31	EXISTING BASE BOARD HEATING				1.25		15/2	A						0.50		32	
	33					1.25			B	20/2					0.33	SITE POLE LIGHTING	34	
	35	EXISTING BASE BOARD HEATING				1.25		15/2	C						0.33		36	
	37					1.25			A					1.26	1.00	LPG-3 SUBFEED	38	
	39	EXISTING BASE BOARD HEATING				1.25		15/2	B	100/3	2.90			0.90			40	
	41					1.25			C		1.50			0.36			42	
	TOTALS (KW)		1.20	3.42	0.00	11.42	0.00		PH		6.40	0.00	0.00	4.32	3.46	TOTALS (KW)		

PROVIDE TWO NEW 20A-2P CIRCUIT BREAKERS IN PANEL LPG-1.

LOAD SUMMARY			
	KWC	DF	KWD
LTG	4.7	1.25	5.8
REC	7.7	NEC	7.7
FSEQ	0.0	0.65	0.0
HVAC	11.4	1.00	11.4
MISC	6.4	1.00	6.4
TOTAL	30.2		**31.4KW**
AMPS	83.9A		**87.1A**

PANEL DATA	KWD	KWC	LTG	REC	FSEQ	HVAC	MISC
KW Phase A:	**11.1**	10.4	2.6	2.9	0.0	3.9	1.0
KW Phase B:	**10.5**	10.4	0.5	2.7	0.0	3.7	3.4
KW Phase C:	**9.8**	9.4	1.5	2.2	0.0	3.7	2.0

SYMBOL LEGEND

SYMBOL	DESCRIPTION
A-o/EM	LUMINAIRE. "A" INDICATES TYPE; "o" INDICATES SWITCH CONTROL. "/EM" INDICATES LUMINAIRE HAS INTEGRAL 90-MINUTE EMERGENCY BATTERY DRIVER.
	UNDERGROUND ROUTING OF CIRCUITING AND CONDUIT.
	CONDUIT HOME RUN TO PANEL/CIRCUIT BREAKER AS INDICATED. ALL UNMARKED HOMERUNS TO CONTAIN 2-12 AWG & 1-12 AWG GND IN 3/4" CONDUIT (MINIMUM), UNLESS NOTED OTHERWISE. SIZE CONDUIT AND PROVIDE JUNCTION BOXES PER CODE UNLESS OTHERWISE NOTED.
	BRANCH CIRCUIT PANELBOARD.

SECTION 16010 ELECTRICAL GENERAL PROVISIONS

1. THE PROVISIONS OF THE INSTRUCTION TO BIDDERS, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, ALTERNATES, ADDENDA, AND DIVISION 1 ARE A PART OF THIS SPECIFICATION. A REQUIREMENT OCCURRING IN ONE IS AS BINDING AS THOUGH OCCURRING IN ALL. THEY ARE INTENDED TO BE COMPLEMENTARY AND TO DESCRIBE AND PROVIDE FOR A COMPLETE WORK. CONTRACTORS AND SUB-CONTRACTORS SHALL EXAMINE SAME AS WELL AS OTHER DIVISIONS OF THE SPECIFICATIONS WHICH AFFECT WORK UNDER THIS DIVISION.

2. MATERIAL OR LABOR WHICH IS NOT INDICATED ON THE DRAWINGS OR SPECIFICATION BUT WHICH IS OBVIOUSLY NECESSARY TO COMPLETE THE WORK (AND IS USUALLY INCLUDED IN SIMILAR WORK) SHALL BE PROVIDED. DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED AS SUPPLEMENTING EACH OTHER. WORK SPECIFIED BUT NOT INDICATED, OR INDICATED BUT NOT SPECIFIED, SHALL BE PROVIDED AS THOUGH MENTIONED IN BOTH SPECIFICATIONS AND DRAWINGS.

3. WORK SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, THE FOLLOWING:

   A. BRANCH CIRCUIT WIRING.
   B. SAFETY DISCONNECT SWITCHES (FUSED OR UNFUSED).
   C. LIGHTING FIXTURES, INCLUDING LAMPS AND BALLASTS.
   D. CONDUIT AND RACEWAYS.
   E. WIRE AND CABLE.
   F. WIRING DEVICES AND COVER PLATES.
   G. FIRE SEAL (AND) FIRE-PROOF FOAM.
   H. PULL BOXES AND CABLE TROUGHS.
   I. NAMEPLATES, LABELS AND TAGS.

4. IN THE EVENT OF DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS), THE CONTRACTOR SHALL ADHERE TO THE MORE STRINGENT REQUIREMENT.

5. ELECTRICAL, ARCHITECTURAL, MECHANICAL, STRUCTURAL AND ALL OTHER DRAWINGS AS WELL AS THE SPECIFICATIONS ARE A PART OF THE CONTRACT DOCUMENTS.

6. VISIT THE SITE OF THE WORK AND BECOME FAMILIAR WITH CONDITIONS AFFECTING THE INSTALLATION. SUBMISSION OF A PROPOSAL SHALL PRESUPPOSE KNOWLEDGE OF SUCH CONDITIONS AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED WHERE EXTRA LABOR OR MATERIALS ARE REQUIRED BECAUSE OF IGNORANCE OF THESE CONDITIONS.

7. DEFINITIONS

   A. **"CONTRACTOR"** AS USED WITHIN THE ELECTRICAL SPECIFICATIONS SHALL REFER TO THE ELECTRICAL CONTRACTOR.

   B. **"EQUAL"** OR **"EQUIVALENT"** SHALL BE UNDERSTOOD TO MEAN OF THE SAME QUANTITY, SIZE, NUMBER, VALUE, DEGREE, INTENSITY AND THE ITEMS ARE SIMILAR IN ALL RESPECTS. THE ENGINEER AND/OR ARCHITECT WILL MAKE THE FINAL DECISION OF ACCEPTANCE OF THESE ITEMS.

   C. **"CONTRACT DOCUMENTS"** SHALL BE UNDERSTOOD TO ENCOMPASS DRAWINGS AND SPECIFICATIONS FOR ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL AND ALL OTHER PERTINENT DISCIPLINES.

   D. **"PROVIDE"** SHALL BE INTERPRETED TO MEAN THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SUPPLIES INCLUDING TESTS AND INSPECTIONS NECESSARY TO INSTALL, CONNECT, APPLY, ERECT, CONSTRUCT, AND PLACE IN OPERATING CONDITION.

   E. **"FURNISH"** SHALL BE INTERPRETED TO MEAN THE CONTRACTOR SHALL SUPPLY AND DELIVER TO THE JOB SITE SPECIFIED MATERIAL, EQUIPMENT, AND SUPPLIES.

   F. **"INSTALL"** SHALL BE INTERPRETED TO MEAN ASSEMBLING, PLACING, ERECTING, WIRING AND TO MAKE FULLY OPERATIONAL.

8. INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, TOOLS, TRANSPORTATION, INSURANCE, TEMPORARY PROTECTION, SUPERVISION, SERVICES FOR THE PROPER COMPLETION OF ALL ELECTRICAL WORK. ITEMS OMITTED, BUT NECESSARY TO MAKE THE ELECTRICAL SYSTEM COMPLETE AND WORKABLE, SHALL BE UNDERSTOOD TO FORM PART OF THE WORK. SECURE AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED AND TURN OVER ALL CERTIFICATES OF APPROVAL TO THE OWNER.

9. WORK SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF LOCAL AND STATE CODES AS WELL AS THE NATIONAL ELECTRICAL CODE (NEC), AS INTERPRETED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

10. RESOLVE CODE VIOLATIONS OCCURRING IN CONTRACT DOCUMENTS WITH THE ARCHITECT/ENGINEER PRIOR TO AWARD OF CONTRACT.

11. PROVIDE ALL EXCAVATION, CONCRETE AND BACKFILL REQUIRED FOR ELECTRICAL WORK EXCLUSIVELY. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STATE OF OHIO.

12. WIRE ITEMS NORMALLY ASSOCIATED WITH EQUIPMENT SUPPLIED BY OTHERS SUCH AS LIMIT SWITCHES FOR DOOR OPERATOR MOTORS AND MOTOR OPERATED DAMPERS.

13. AFTER INSTALLATION BUT PRIOR TO ENERGIZATION, PERFORM TESTS FOR GROUNDS, SHORT CIRCUITS AND PROPER FUNCTION. FAULTS IN THE INSTALLATION SHALL BE CORRECTED.

14. PROVIDE NAMEPLATES ON NEW OR EXISTING SAFETY SWITCHES, CONTROL PANELS, CONTROL DEVICES, JUNCTION AND PULL BOXES. LETTERING SHALL INCLUDE NAME OF EQUIPMENT, HORSEPOWER, VOLTAGE RATING AND SERVICE DESIGNATION. NAMEPLATES SHALL BE LAMINATED PHENOLIC WITH A BLACK SURFACE AND WHITE CORE. NAMEPLATES MAY BE ATTACHED TO WALL ADJACENT TO EQUIPMENT IF AREA FOR ATTACHMENT IS TOO SMALL. IDENTIFICATION WITH A DYMO TYPE INSTRUMENT IS NOT PERMISSIBLE.

15. BEFORE FINAL PAYMENT, DEMONSTRATE TO THE OWNER'S SATISFACTION THE PROPER OPERATION OF EACH OF THE SYSTEMS COMPRISING THIS CONTRACT. INSTRUCT THE OWNER'S MAINTENANCE PERSONNEL IN THE OPERATION AND MAINTENANCE OF ALL ELECTRICAL EQUIPMENT AND CONTROLS.

16. AFTER ALL TESTS HAVE BEEN COMPLETED, CLEAN ALL EQUIPMENT LEAVING EVERYTHING IN WORKING ORDER AT THE COMPLETION OF THIS WORK. ALL ELECTRICAL EQUIPMENT SHALL BE COMPLETELY CLEANED INSIDE AND OUT PRIOR TO INITIAL ENERGIZING.

17. GUARANTEE ALL WORKMANSHIP AND MATERIALS PROVIDED UNDER THE CONTRACT FOR ONE YEAR AFTER ACCEPTANCE BY THE OWNER AND COMPLETION OF ALL PUNCH LIST ITEMS. REPAIR OR REPLACE ANY DEFECT WITHOUT COST TO THE OWNER.

18. PROVIDE TEMPORARY ELECTRIC SERVICE OF SUFFICIENT CAPACITY TO SUPPLY THE ELECTRIC LIGHT AND POWER REQUIREMENTS OF CONSTRUCTION SITE.

19. **"MATERIAL SUBSTITUTIONS"** THESE SPECIFICATIONS ESTABLISH QUALITY STANDARDS OF MATERIALS AND EQUIPMENT TO BE PROVIDED. SPECIFIC ITEMS ARE IDENTIFIED BY MANUFACTURER, TRADE NAME OR CATALOG DESIGNATION. THIS CONTRACTOR SHALL SUBMIT HIS BASE BID PRICE BASED UPON STANDARD SPECIFIED EQUIPMENT DESCRIBED HEREIN AND AS DETAILED ON DRAWINGS AND ASSOCIATED CONTRACT DOCUMENTS. SUBSTITUTION EQUIPMENT ACCEPTED AS DETAILED BELOW SHALL BE SHOWN AS A SEPARATE ADD OR DEDUCT PRICE TO BE FACTORED INTO THE BASE BID PRICE BY THE ARCHITECT AND OWNER IF ACCEPTED. SUBSTITUTIONS SHALL ALSO PROVIDE FOR THE FOLLOWING:

   A. THESE SPECIFICATIONS ARE NOT TO BE CONSIDERED PROPRIETY AND THE CONTRACTOR MAY SUBMIT MATERIALS OR MANUFACTURERS (OTHER THAN THOSE LISTED) FOR REVIEW BY THE ARCHITECT AND ENGINEER NO LATER THAN SEVEN (7) WORKING DAYS BEFORE BIDS ARE SUBMITTED. MANUFACTURERS OF PRODUCTS ACCEPTED BY THE ARCHITECT AND ENGINEER WILL BE LISTED IN AN ADDENDUM TO THE SPECIFICATIONS AS AN ACCEPTABLE EQUIVALENT. SHOULD THE CONTRACTOR PROPOSE TO FURNISH MATERIALS AND EQUIPMENT OTHER THAN THOSE SPECIFIED, OR APPROVED BY ADDENDUM, SUBMIT A WRITTEN REQUEST FOR SUBSTITUTIONS TO THE ARCHITECT AT THE BID OPENING AND SUBMIT (AT HIS COST) INSPECTION SAMPLES OF BOTH THE SPECIFIED AND PROPOSED SUBSTITUTE ITEMS. THE REQUEST SHALL BE AN ALTERNATE TO THE ORIGINAL BID; BE ACCOMPANIED WITH COMPLETE DESCRIPTIVE (MANUFACTURER, BRAND NAME, CATALOG NUMBER, ETC.) AND TECHNICAL DATA FOR ALL ITEMS. FAILURE BY THIS CONTRACTOR TO SUBMIT THE REQUISITE DOCUMENTATION DETAILED ABOVE SHALL BE UNDERSTOOD BY THE ARCHITECT AND ENGINEER TO INDICATE THAT SUBSTITUTE EQUIPMENT WILL NOT BE PRESENTED BY THE CONTRACTOR FOR CONSIDERATION. SUCH SUBSTITUTIONS WILL NOT BE CONSIDERED AFTER THE BID OPENING DATE AND DELAY OF PROJECT WILL NOT BE PERMITTED FOR FURTHER INSPECTION AND EVALUATION AFTER THIS DATE.

   B. WHERE MATERIAL SUBSTITUTIONS ALTER THE DESIGN OR SPACE REQUIREMENTS INDICATED ON THE DRAWINGS, THE ELECTRICAL CONTRACTOR SHALL BEAR ALL COSTS RELATED TO THE REVISED DESIGN AND CONSTRUCTION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONSTRUCTION COSTS ASSOCIATED OF OTHER TRADES, THE COST OF EVALUATING THE EQUALITY OF THE MATERIAL AND EQUIPMENT TO BE PROVIDED BY ARCHITECT/ENGINEER, ETC.

20. CONSULT THE DRAWINGS COVERING THE WORK OF ALL OTHER TRADES, AS WELL AS THE RESPECTIVE CONTRACTORS FIELD LAYOUTS, AND TICK TRACE ALL CONCRETE SLABS BEING REMOVED TO IDENTIFY THE EXACT LOCATION OF CONCEALED ELECTRICAL CONDUITS. ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO THE BEGINNING OF SLAB REMOVAL. REWORK OR REROUTE EXISTING CONDUITS AND FEEDERS AS DIRECTED BY THE ENGINEER.

SECTION 16050 BASIC MATERIALS AND METHODS

1. EQUIPMENT AND MATERIAL USED ON THIS PROJECT SHALL BE NEW AND U.L. LABELED FOR THE APPLICATION.

2. ALL FEEDERS AND BRANCH CIRCUITS SHALL BE INSTALLED IN CONDUIT. CONDUIT SHALL BE RIGID GALVANIZED, INTERMEDIATE OR EMT. CONDUITS SHALL BE 3/4" TRADE SIZE MINIMUM, UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THESE SPECIFICATIONS.

3. ALL RACEWAYS SHALL BE CONCEALED. THE ROUTING OF ANY/ALL SURFACE MOUNTED RACEWAYS MUST BE APPROVED BY THE ARCHITECT, OWNER, AND/OR INTERIOR DESIGNER PRIOR TO ROUGH-IN. PROVIDE SUBMITTAL INDICATING ROUTING, MOUNTING HEIGHTS, ETC.

4. WIRE AND CABLE FOR POWER AND LIGHTING FEEDERS LARGER THAN #6AWG SHALL BE COPPER STRANDED 600 VOLT TYPE THHN/THWN OR XHHW COPPER. WIRE AND CABLE FOR POWER AND LIGHTING BRANCH CIRCUITS SHALL BE THHN/THWN COPPER FOR #10 AND SMALLER AND THHW OR XHHW COPPER FOR #8 AND LARGER. MINIMUM WIRE SIZE FOR POWER AND LIGHTING CIRCUITS SHALL BE #12.

5. ARMORED (TYPE AC) CABLE, METAL CLAD (TYPE MC) CABLE MAY BE USED IN LIEU OF BRANCH CIRCUIT CONDUIT. NONMETALLIC (TYPE NM/NMC) CABLE MAY BE UTILIZED IN ALL APARTMENTS. THE INSTALLATION OF THESE CABLE ASSEMBLIES SHALL COMPLY WITH ARTICLE 320, 330 AND 334 OF THE NATIONAL ELECTRICAL CODE RESPECTIVELY. THE USE OF AC, MC OR NM/NMC CABLE SHALL NOT BE USED IN EXPOSED LOCATIONS. TYPE OF WIRING SHALL BE AS SPECIFIED ELSEWHERE IN THIS SECTION. A GREEN EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED IN ALL MC CABLE, AC CABLE AND NM/NMC CABLES ASSEMBLIES.

6. COLOR CODE WIRE AND CABLE FOR CIRCUITS AS CALLED FOR IN THE NATIONAL ELECTRICAL CODE.

7. ALL LOW VOLTAGE WIRING SHALL BE U.L. "PLENUM" RATED AND INSTALLED IN COMPLIANCE WITH N.E.C. SECTIONS #300.22 AND #760.30(B)(1).

8. ALL BOXES SHALL BE RIGIDLY SUPPORTED FROM BUILDING STRUCTURE INDEPENDENT OF THE CONDUIT SYSTEM. ALL BOXES SHALL BE 4" SQUARE BOXES MINIMUM WITH RAISED COVERPLATE SUITABLE FOR WALL MATERIAL TO ALLOW BOX TO BE FLUSH.

9. DUPLEX RECEPTACLES IN FIRST FLOOR PUBLIC, COMMON/"HOUSE" AREAS SHALL BE "COMMERCIAL GRADE" 15 AMPERES, 125 VOLT, 3 WIRE, GROUNDING TYPE WITH BLACK FINISH. DUPLEX RECEPTACLES IN ALL OTHER AREAS ("HOUSE") SHALL BE "COMMERCIAL GRADE" 15 AMPERES, 125 VOLT, 3 WIRE, GROUNDING TYPE WITH WHITE FINISH. PASS & SEYMOUR #5362 SERIES.

10. INDOOR AND RECEPTACLES, WHERE REQUIRED BY LOCAL CODE, SHALL HAVE INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER OR GROUND FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER PROTECTION. GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLES, WHERE REQUIRED, SHALL BE TAPER RESISTANT TYPE PASS & SEYMOUR. FEED-THRU TYPE G.F.C.I. RECEPTACLES MAY NOT BE USED. ALL EXTERIOR G.F.C.I. RECEPTACLES SHALL BE INSTALLED IN A NEMA 3R SAFETY ENCLOSURE (AT OUTDOOR LOCATIONS) IN COMPLIANCE WITH NEC 406.8(B).

11. ALL COVER PLATES IN FIRST FLOOR PUBLIC, COMMON/"HOUSE" AREAS SHALL BE SMOOTH, COMMERICAL GRADE, FINISHED STAINLESS STEEL. ALL COVER PLATES SHALL BE SMOOTH HIGH IMPACT COMMERCIAL GRADE THERMOPLASTIC OR SMOOTH NYLON FINISH WITH WHITE FINISH. IN UNFINISHED AREAS, USE CADMIUM PLATED, ROUND CORNER, STEEL COVER PLATES FOR SURFACE MOUNTED OUTLET BOXES. BOTH THE WIRING DEVICES AND THE COVER PLATES SHALL BE BY THE SAME MANUFACTURER.

12. SAFETY SWITCHES SHALL BE HEAVY-DUTY UNFUSED OR FUSED AND SHALL BE INSTALLED WHERE INDICATED ON THE DRAWINGS AND/OR WHERE REQUIRED BY CODE AND SHALL BE SUITABLE FOR VOLTAGE AND CURRENT RATING AS SHOWN ON THE DRAWINGS. ACCEPTABLE MANUFACTURERS SHALL BE: SQUARE D, GENERAL ELECTRIC, CUTLER-HAMMER, OR SIEMENS.

13. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A COMPLETE SET OF FUSES FOR ALL FUSIBLE EQUIPMENT ON THE JOB. UNLESS OTHERWISE INDICATED, ALL FUSES SHALL BE U.L. LISTED, CURRENT-LIMITING AND HAVE AN INTERRUPTING RATING OF 200,000 RMS AMPERES SYMMETRICAL. ALL FUSES RATED 600 AMPERES OR LESS SHALL BE DUAL ELEMENT TIME-DELAY CURRENT-LIMITING U.L. CLASS J (OR RK-1), UNLESS INDICATED OTHERWISE.

14. ALL RACEWAYS PASSING FROM INTERIOR TO THE EXTERIOR OF THE BUILDING SHALL BE FILLED WITH AN APPROVED MATERIAL TO PREVENT THE CIRCULATION OF WARM AIR TO THE COLDER SECTION OF THE RACEWAY. NEC 300.7(A).

15. ALL HARDWARE, SUPPORTS, HANGERS, ANGLE IRON, CHANNELS, RODS, CLAMPS NECESSARY TO INSTALL ELECTRICAL EQUIPMENT AND LIGHTING FIXTURES SHALL BE SUPPLIED TO SUIT CONDITIONS AND APPLICATION. CONDUIT SUPPORTING SYSTEMS SHALL BE ATTACHED TO THE DECK, SLAB, OR STRUCTURAL FRAMING ONLY AND NOT TO ANY OTHER APPURTENANCES AT THE CEILING SUCH AS MECHANICAL DUCTS, PIPES AND SUSPENDED CEILING HANGER WIRES OR FRAMING MEMBERS. PROVIDE ALL SUPPORTS, MATERIALS, ETC. N ACCORDANCE WITH N.E.C. ARTICLE #300.11 AND #314.23.

SECTION 16060 GROUNDING AND BONDING

1. GROUND ALL CONDUITS, CABINETS, MOTORS, PANELS, FIXTURES, AND OTHER EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ALL PROVISIONS OF THE NATIONAL ELECTRIC CODE AND LOCAL CODES.

2. GROUNDING OF THE ELECTRICAL SYSTEM SHALL BE BY MEANS OF AN INSULATED GROUNDING CONDUCTOR INSTALLED WITH CIRCUIT CONDUCTORS IN ALL CONDUITS. GROUNDING CONDUCTORS SHALL BE SIZED IN ACCORDANCE WITH N.E.C. 250.122 AND SHALL RUN FROM GROUNDING BUS OF SERVING PANEL TO GROUND BUS OF SERVED PANEL, GROUNDING TERMINAL OF RECEPTACLES, LIGHTING FIXTURE HOUSINGS, GROUNDING TERMINAL OF LIGHT SWITCHES OR METAL ENCLOSURES OF SERVED EQUIPMENT.

3. INSTALL BONDING JUMPERS ACROSS ALL BUILDINGS, EXPANSION JOINTS, AND ACROSS CONDUIT EXPANSION FITTINGS.

SITE LUMINAIRE SCHEDULE

TYPE	LAMP	WATTAGE	VOLTAGE	DESCRIPTION	CATALOG NUMBER	REMARKS
SL-B	LED 4000K 1276 LM.	32	208	LED 42" BOLLARD.	COOPER LIGHTING ABB-B2-7040-LED-42-D1-S-BZ	-
SL-2H	LED 4000K 17177 LM.	160	208	LED POLE MOUNTED FIXTURE WITH TYPE II LIGHT DISTRIBUTION AND A HOUSE SIDE SHIELD, MOUNTED ON A 25'-0" POLE WITH A 30" CONCRETE BASE.	COOPER LIGHTING GLAN-SA3C-740-2-SL2-BZ-HSS	REFER TO POLE BASE DETAIL.
SL-4-L	LED 4000K 5852 LM.	57	208	LED POLE MOUNTED FIXTURE WITH TYPE IV LIGHT DISTRIBUTION MOUNTED ON A 12'-0" POLE WITH A 30" CONCRETE BASE.	COOPER LIGHTING GLAN-SA1C-740-2-SL4-BZ	REFER TO POLE BASE DETAIL.
SL-4H-L	LED 4000K 5852 LM.	57	208	LED POLE MOUNTED FIXTURE WITH TYPE IV LIGHT DISTRIBUTION AND A HOUSE SIDE SHIELD, MOUNTED ON A 12'-0" POLE WITH A 30" CONCRETE BASE.	COOPER LIGHTING GLAN-SA1C-740-2-SL4-BZ-HSS	REFER TO POLE BASE DETAIL.
SL-4H-H	LED 4000K 17264 LM.	160	208	LED POLE MOUNTED FIXTURE WITH TYPE IV LIGHT DISTRIBUTION AND A HOUSE SIDE SHIELD, MOUNTED ON A 25'-0" POLE WITH A 30" CONCRETE BASE.	COOPER LIGHTING GLAN-SA3C-740-2-SL4-BZ-HSS	REFER TO POLE BASE DETAIL.

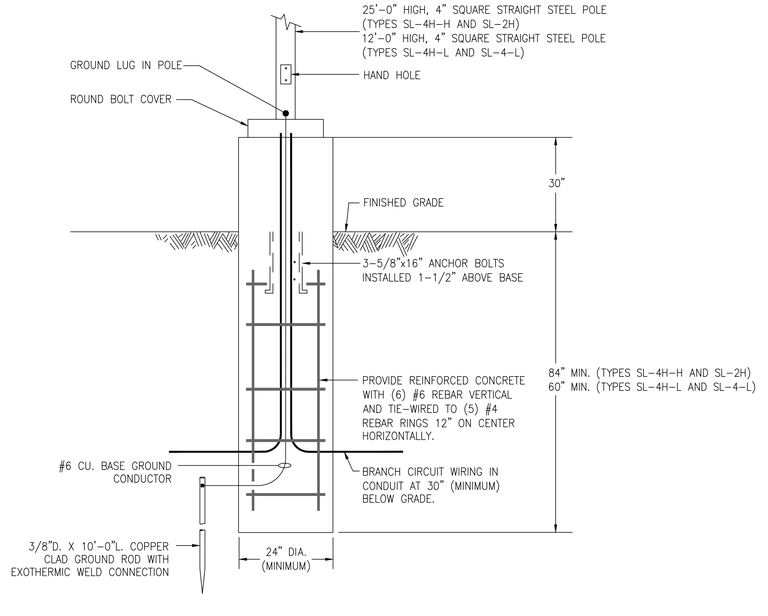
LUMINAIRE SCHEDULE GENERAL NOTES:

1. VERIFY ALL LUMINAIRE COLORS, TRIMS, LENGTHS, ETC. WITH THE **ARCHITECT/OWNER** PRIOR TO PLACING FINAL PURCHASE ORDERS. SUBMISSION OF SHOP DRAWINGS WILL BE INTERPRETED AS HAVING BEEN COORDINATED WITH THE AFOREMENTIONED PARTIES.

2. PROVIDE ALL LENGTHS, FEEDS, ACCESSORIES, CONNECTORS, WIRING, POWER SUPPLIES, DRIVERS, ETC. FOR A COMPLETE INSTALLATION. VERIFY THE COMPLETE BILL OF MATERIAL WITH MANUFACTURER'S REPRESENTATIVE AND ENSURE ALL EQUIPMENT IS INCLUDED IN BID PRICE. COORDINATE INSTALLATION WITH ARCHITECTURAL DETAILS.

3. ANY PROPOSED ALTERNATE LUMINAIRES SHALL BE APPROVED BY THE **ARCHITECT/OWNER/ENGINEER** PRIOR TO FINAL BID PRICING.

4. SHOULD THE CONTRACTOR PROPOSE TO FURNISH MATERIALS, EQUIPMENT, AND DEVICES, OTHER THAN THOSE SPECIFIED AND LISTED, THE CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST FOR SUBSTITUTIONS, TO THE ENGINEER AT LEAST TEN (10) BUSINESS DAYS PRIOR TO BID OPENING. THE REQUEST SHALL BE AN ALTERNATE TO THE ORIGINAL BID AND SHALL INCLUDE A COMPLETE SPECIFICATIONS CUT SHEET SUBMITTAL AS OUTLINED IN THE SPECIFICATIONS, COMPLETE WITH DESCRIPTIVE (MANUFACTURER, BRAND NAME, CATALOG NUMBER, ETC.) AND TECHNICAL DATA FOR ALL ITEMS. INDICATE ANY ADDITIONS OR DEDUCTIONS TO THE CONTRACT PRICE WITH THE SUBSTITUTION SUBMITTAL AND ON THE BID FORM.



POLE BASE DETAIL

NO SCALE

LDA ARCHITECTS
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REV	DATE	DESCRIPTION
	08.02.2024	ISSUED FOR BIDDING

whs engineering
2012 West 25th Street, Suite 900
Cleveland, OH 44113
Phone: 216 227 8505

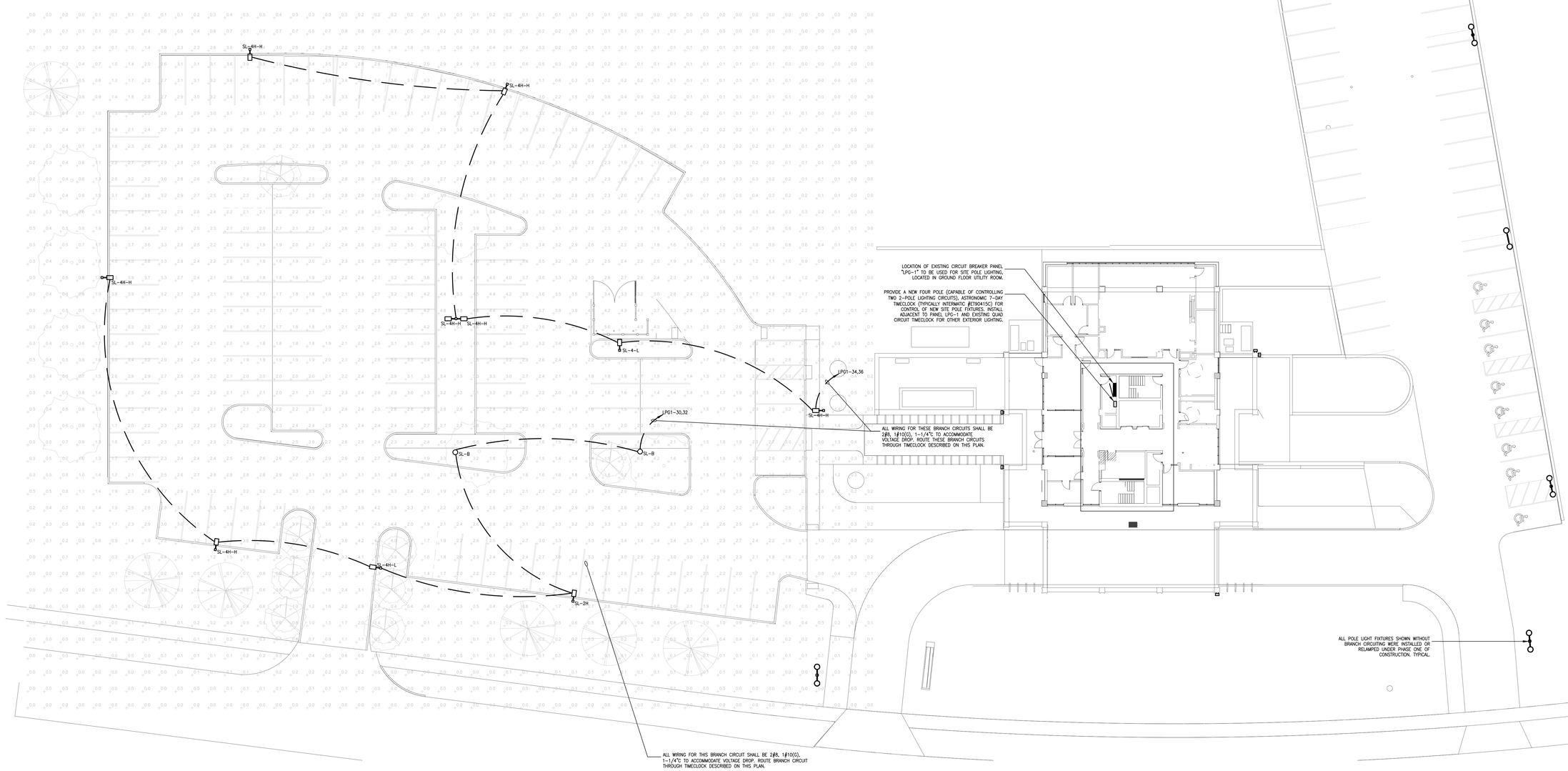
STATE OF OHIO
GREGORY S. SUTYAR
66250
REGISTERED PROFESSIONAL ENGINEER

Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

ELECTRICAL SPECS. AND DETAILS

E0.01



1 / E1.01 PHASE TWO PARKING LOT ELECTRICAL SITE PLAN
SCALE: 3/32" = 1'-0"

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whs engineering
2012 West 25th Street, Suite 900
Cleveland, OH 44113
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STATE OF OHIO
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Marquette Manor Apartments - New Parking Lot
Cincinnati Metropolitan Housing Authority
1999 Sutter Avenue, Cincinnati, OH 45225

LDA Project No.23.48

NEW PARKING LOT ELECTRICAL SITE PLAN

E1.01